PROPOSED

BEDFORD FIRE HEADQUARTERS

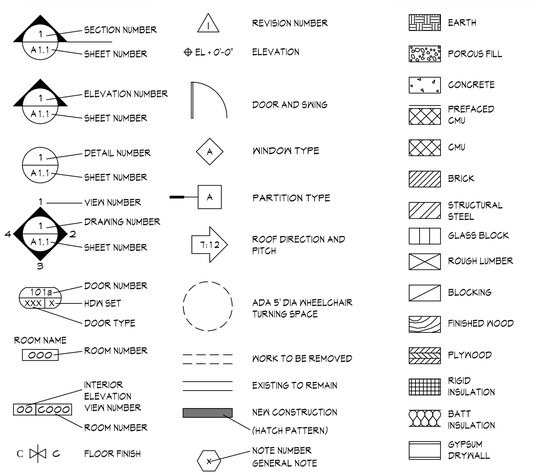
550 OLD POST ROAD, BEDFORD, NEW YORK 10506

ABBREVIATIONS

ABV	ABOVE
A.C.T.	ACOUSTICAL CEILING TILE
ADJ	ADJACENT
ADA	AMERICANS DISABILITY ACT
AFF	ABOVE FINISH FLOOR
ALT	ALTERNATE/ALTERNATIVE
ALUM.	ALUMINUM
APPD	APPROVED
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
AUTO	AUTOMATIC
AVG	AVERAGE
BLKG	BLOCKING
BD	BOARD
BC	BRICK COURSE
BLDG	BUILDING
CB	CATCH BASIN
CL	CENTERLINE
CER	CERAMIC
CT	CERAMIC TILE
CLO	CLOSET
COL	COLUMN
COMM	COMMUNICATION
CONC	CONCRETE
CMU	CONCRETE MASONRY UNIT
CONST	CONSTRUCTION
CONT	CONTINUOUS
COORD	COORDINATE
CORR	CORRIDOR
DEMO	DEMOLITION
D	DEPTH
DETL	DETAIL
DIA	DIAMETER
DR	DOOR
DN	DOWN
DWG	DRAWING
DF	DRINKING FOUNTAIN
EA	EACH
ELEC	ELECTRICAL
EC	ELECTRICAL CONTRACTOR
EL/ELEV	ELEVATION
ENGR	ENGINEER
EQ	EQUAL
EQUIP	EQUIPMENT
EF	EXHAUST FAN
EX	EXISTING
ETR	EXISTING TO REMAIN
E.J	EXPANSION JOINT
EXT	EXTERIOR
FIN.	FINISH
FF	FINISH FLOOR
FE	FIRE EXTINGUISHER
FL	FLOOR
FT	FOOT/FEET
FTG	FOOTING
FDN	FOUNDATION
FR	FRAME
GALV	GALVANIZED
GA	GAUGE
GC	GENERAL CONTRACTOR
GNB	GYPSUM WALL BOARD
HDW	HARDWARE
H/HT	HEIGHT
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HR	HOUR
IN	INCH
INCL	INCLUDE
INS	INSULATION
INT	INTERIOR
JC	JANITOR'S CLOSET
JT	JOINT
LAV	LAVATORY
LH	LEFT HAND
L	LENGTH
MFGR	MANUFACTURER
MATL	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MEP	MECH, ELEC, PLUMB
MTL	METAL
MIN	MINIMUM
MISC	MISCELLANEOUS
MNTG	MOUNTING
N	NORTH
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
OPNG	OPENING
OPP	OPPOSITE
OVHD	OVERHEAD
PR	PAIR
PART.	PARTIAL
PH	PHASE
PLUMB	PLUMBING
PC	PLUMBING CONTRACTOR
PLYWD	PLYWOOD
POLY	POLYETHYLENE
PROJ	PROJECT
RD	ROUND
RE	REFER
REINF	REINFORCEMENT
REQD	REQUIRED
RH	RIGHT HAND
RM	ROOM
R.O.B.	RUN OF BANK
SCH	SCHEDULE
SECT	SECTION
SHT	SHEET
SIM	SIMILAR
SK	SKETCH
SC	SOLID CORE
SPEC	SPECIFICATION
SQ	SQUARE
SF	SQUARE FOOT/FEET
SSMR	STANDING SEAM METAL ROOF
STL	STEEL
STG	STORAGE
STRUCT	STRUCTURAL
SYMB	SYMBOLS
TEMP	TEMPORARY
TK	THICK
TOIL	TOILET
T&G	TONGUE & GROOVE
T.O.	TOP OF
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VB	VAPOR BARRIER
VIF	VERIFY IN FIELD
VERT	VERTICAL
VEST	VESTIBULE
VCT	VINYL COMPOSITION TILE
WWF	WELDED WIRE FABRIC
W	WIDTH
W/	WITH
W/O	WITHOUT
WD	WOOD

SYMBOLS & MAT'LS.

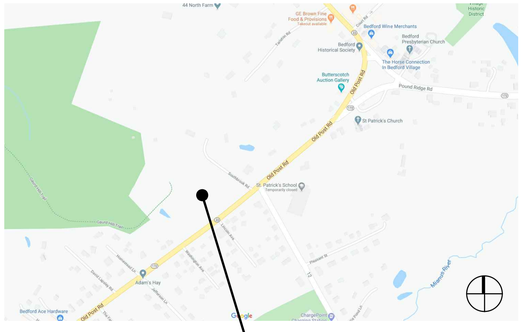
SYMBOLS LEGEND:



MATERIALS LEGEND:

EARTH
POROUS FILL
CONCRETE
PREFACED CMU
CMU
BRICK
STRUCTURAL STEEL
GLASS BLOCK
ROUGH LUMBER
BLOCKING
FINISHED WOOD
PLYWOOD
RIGID INSULATION
BATT INSULATION
GYPSUM DRYWALL

LOCATION MAP



BUILDING LOCATION:
550 OLD POST ROAD
BEDFORD, NY 10506

GENERAL NOTES

1. THE INTENT OF THE CONSTRUCTION DOCUMENTS IS TO ACCOMPLISH A COMPLETE PROJECT. ANYTHING REASONABLY IMPLIED OR INTENDED SHALL BE INCLUDED. THE WORK INCLUDED CONSISTS OF ALL LABOR, MATERIALS, TRANSPORTATION, TOOLS AND EQUIPMENT NECESSARY FOR THE CONSTRUCTION OF THE PROJECT LEAVING ALL WORK CLEAN AND READY FOR USE. IF ANY DISCREPANCIES, CONFLICTS OR OMISSIONS ARE FOUND IN THE CONSTRUCTION DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY, ASSUME THE HIGHER QUALITY WORK AND REFRAIN FROM STARTING / COMPLETING SUCH WORK, OR DEPENDENT WORK, UNTIL CLARIFIED BY THE ARCHITECT AND TOLD TO PROCEED.
2. EACH CONTRACTOR SHALL REVIEW THE CONSTRUCTION DOCUMENTS FOR COMPLETE UNDERSTANDING AND KNOWLEDGE OF THE WORK. ALL WORK SHALL BE DONE BY REQUIRED LICENSED CONTRACTORS IN COMPLIANCE WITH INDUSTRY STANDARDS AND ALL CODE REQUIREMENTS. ALL WORK SHALL BE INSTALLED TRUE, PLUMB, SQUARE, LEVEL, AND IN PROPER ALIGNMENT. JOB SITE SAFETY IS THE RESPONSIBILITY OF EACH CONTRACTOR.
3. VERIFY ALL DIMENSIONS AND CONDITIONS AT THE BUILDING AND SITE PRIOR TO COMMENCING WORK. VERIFY CLEARANCES FOR FLUES, VENTS, CHASES, SOFFITS, FIXTURES, ETC. BEFORE ANY CONSTRUCTION, ORDERING, OR INSTALLATION OF ANY ITEMS OF WORK. NOTIFY ARCHITECT SHOULD DISCREPANCIES OCCUR PRIOR TO PERFORMING WORK.
4. DIMENSIONS ARE TO EDGE OF SLAB, FACE OF STUD, DOOR/WINDOW OPENING, CENTER OF PLUMBING FIXTURE, UNLESS OTHERWISE NOTED. WRITTEN DIMENSIONS TAKE PRECEDENCE. DO NOT SCALE DRAWINGS.
5. DETAILS AND NOTES ARE TYPICAL. SIMILAR DETAILS AND NOTES APPLY IN SIMILAR CONDITIONS.
6. UNTIL PERMANENT FIRE PROTECTION NEEDS ARE MET, INSTALL FIRE EXTINGUISHERS PER CODE TO PROVIDE TEMPORARY FIRE PROTECTION. OBTAIN APPROVAL OF THE BUILDING AND FIRE DEPARTMENTS AND THE ARCHITECT PRIOR TO INSTALLATION.
7. INSTALL ALL FIXTURES, EQUIPMENT AND MATERIAL PER MANUFACTURER'S RECOMMENDATIONS.

PROJECT TEAM

ARCHITECT:

SULLIVAN ARCHITECTURE P.C.
31 MAMARONECK AVENUE
WHITE PLAINS, NY 10601
(914) 761-6006

CIVIL ENGINEER:

KELLARD - SESSIONS
500 MAIN STREET
ARMONK, NY 10549
(914) 273-2323

LANDSCAPE ARCHITECT:

IQ LANDSCAPE ARCHITECTS, P.C.
31 MAMARONECK AVENUE
WHITE PLAINS, NY 10601
(914) 232-0200

STRUCTURAL ENGINEER:

CONLON ENGINEERING, LLC
246 FEDERAL ROAD, SUITE B23
BROOKFIELD, CT 06804
(203) 740-0990

MEP ENGINEER:

OLA CONSULTING ENGINEERS
50 BROADWAY, HAWTHORNE NY 10532
8 WEST 38TH ST. SUITE 501, NY, NY
(914) 747-2800

DRAWINGS LIST

Sullivan Architecture, P.C.
31 Mamaroneck Avenue
White Plains, New York 10601
914-761-6006 (F) 914-761-4919

Owner: Bedford Village Fire District
34 Village Green
Bedford, NY 10506

Date	Issue
01.15.21	ISSUED FOR BID

Project Title

Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

Drawing Title

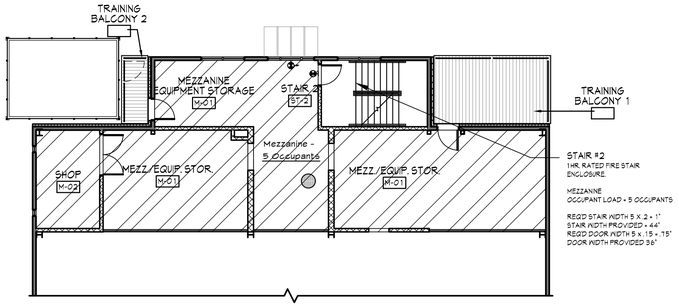
COVER SHEET

Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	c.jp
Checked by	

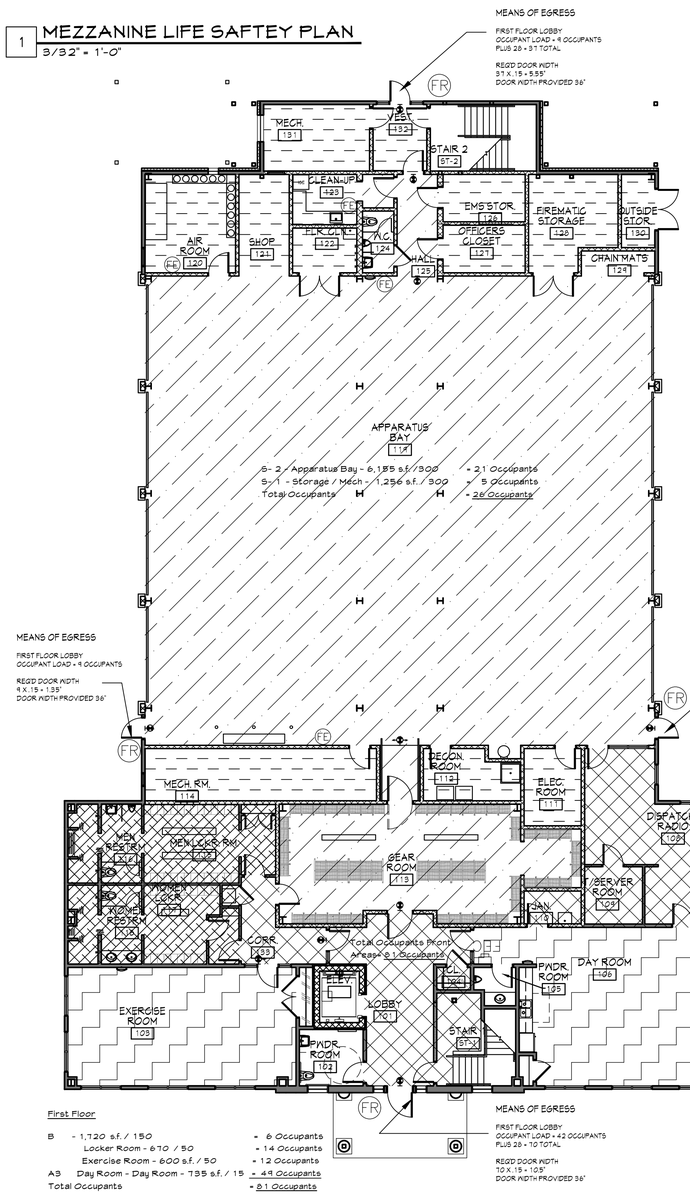
REGISTERED ARCHITECT JOHN P. SULLIVAN No. 017160 STATE OF NEW YORK

Drawing No.

A0.1



1 MEZZANINE LIFE SAFTEY PLAN
3/32" = 1'-0"



First Floor

B	- 1,720 s.f. / 150	= 6 Occupants
	Locker Room - 670 / 50	= 14 Occupants
	Exercise Room - 600 s.f. / 50	= 12 Occupants
A3	Day Room - Day Room - 735 s.f. / 15	= 49 Occupants
Total Occupants		= 81 Occupants

1 FIRST FLOOR LIFE SAFTEY PLAN
3/32" = 1'-0"

LEGEND

STAIRWAY / ELEVATOR LOBBY MECHANICAL SHAFTS AREA

FEC — RECESSED FIRE EXTINGUISHER CABINET SEE SPECIFICATIONS

FE — WALL MOUNTED PORTABLE FIRE EXTINGUISHER -SEE SPECIFICATIONS

FR — NYS TRUSS ID SIGNAGE FOR FLOOR & ROOF TRUSSES

II FR
NYS TRUSS ID SIGNAGE

OCCUPANCY AREAS

BUSNIESS AREA

ASSEMBLY (OCCUPANCY A-3)

ACCESSORY STORAGE / MECH & ELECTRICAL AREAS

S-2

S-1

LOCKER ROOMS

1 SECOND FLOOR LIFE SAFTEY PLAN
3/32" = 1'-0"

Code Analysis:
Bedford Fire Headquaters - Bedford New York

PROJECT SCOPE:

The project is mixed use building, but occupancies are seperated as a mixed use building as per NYS Building Code. The first floor gross s.f. is 11,950 s.f. and the mezzanine s.f. is 5,035 s.f. and the second floor is 5,035 s.f. which does not include the attic areas which total 4,175 s.f.

List of applicable State Codes, Reference Codes and Standards:

2020 Building Code of New York State
2020 Fire Code of New York State
2020 Property Maintenance Code of New York State
2020 Mechanical Code of New York State
2020 Plumbing Code of New York State
2020 Fuel Gas Code of New York State
2020 Energy Conservation Construction Code
2020 New York State Supplement
NFPA 70 (National Electrical Code)
National Fire Underwriter Code
ICC/ANSI A117.1-2009 Accessible and Usable Buildings and Facilities

CHAPTER 3 - OCCUPANCY CLASSIFICATION AND USE
Comply with applicable sections of this Chapter including;

302.1Occupancy classification.
Comply with applicable sections of this Chapter including;

Occupancy classification is the formal designation of the primary purpose of the building, structure or portion thereof. Structures shall be classified into one or more of the occupancy groups listed in this section based on the nature of the hazards and risks to building occupants generally associated with the intended purpose of the building or structure. An area, room or space that is intended to be occupied at different times for different purposes shall comply with all applicable requirements associated with such potential multipurpose. Structures containing multiple occupancy groups shall comply with Section 508. Where a structure is proposed for a purpose that is not specifically listed in this section, such structure shall be classified in the occupancy it most nearly resembles based on the fire safety and relative hazard.

Assembly (see Section 303): Groups A-3
Business (see Section 304): Group B.
Storage (see Section 311): Groups S-2.

CHAPTER 5 - GENERAL BUILDING HEIGHTS AND AREAS
Comply with applicable sections of this Chapter including;

504.1General.
The height, in feet, and the number of stories of a building shall be determined based on the type of construction, occupancy classification and whether there is an automatic sprinkler system installed throughout the building.

504.2Mixed occupancy.
In a building containing mixed occupancies in accordance with Section 508, no individual occupancy shall exceed the height and number of story limits specified in this section for the applicable occupancies.

504.3Height in feet.
The maximum height, in feet, of a building shall not exceed the limits specified in Table 504.3. Table 504.3 - Occupancy B - Sprinklered - Type IIB - 75'-0"

504.4Number of stories.
The maximum number of stories of a building shall not exceed the limits specified in Table 504.4.
Table 504.4 - Occupancy B - Sprinklered - Type IIB - 4 stories

505.2Mezzanines.
A mezzanine or mezzanines in compliance with Section 505.2 shall be considered a portion of the story below. Such mezzanines shall not contribute to either the building area or number of stories as regulated by Section 503.1. The area of the mezzanine shall be included in determining the fire area. The clear height above and below the mezzanine floor construction shall be not less than 7 feet (2134 mm).

505.2.2Means of egress.
The means of egress for mezzanines shall comply with the applicable provisions of Chapter 10.

Sullivan Architecture, P.C.
31 Mamaroneck Avenue
White Plains, New York 10601
914-761-6006 (F) 914-761-4919

Owner: Bedford Village Fire District
34 Village Green
Bedford, NY 10506

Date	Issue
01.15.21	ISSUED FOR BID

Project Title

Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

Drawing Title: LIFE SAFETY CODE REVIEW (BASE CONTRACT)

Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	cjp
Checked by	

Drawing No. A0.2

NOTE: THE SECOND FLOOR PLAN BUILD-OUT SHOWN ON A0.2a SHALL BE PRICED AS AN ADD-ALTERNATE. REFER TO A0.2 FOR ELEMENTS OF THE SECOND FLOOR THAT ARE INCLUDED IN THE BASE CONTRACT.

LEGEND

- STAIRWAY / ELEVATOR LOBBY MECHANICAL SHAFTS AREA
- FEC — RECESSED FIRE EXTINGUISHER CABINET SEE SPECIFICATIONS
- FE — WALL MOUNTED PORTABLE FIRE EXTINGUISHER -SEE SPECIFICATIONS
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II FR
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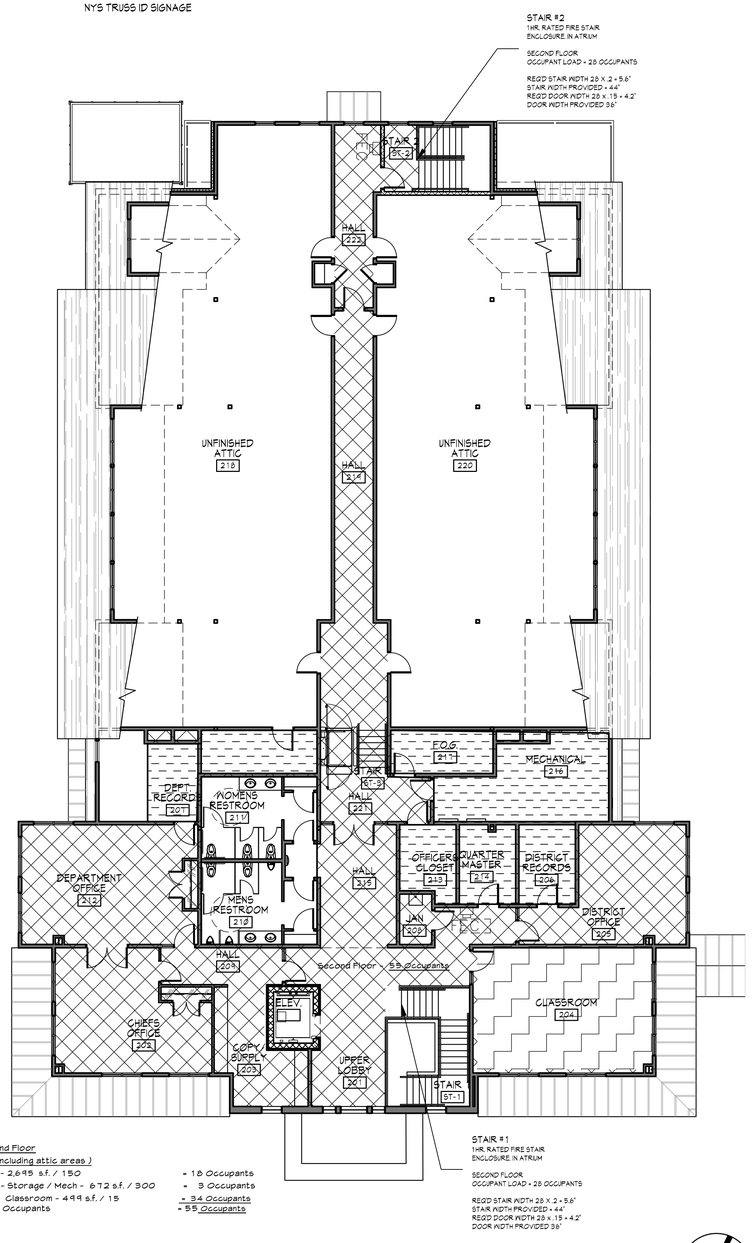
OCCUPANCY AREAS

- BUSNIESS AREA
- ASSEMBLY (OCCUPANCY A-3)
- ACCESSORY STORAGE / MECH & ELECTRICAL AREAS
- S-2
- S-1
- LOCKER ROOMS



Second Floor
(not including attic areas.)

B - 2,695 s.f. / 150	= 18 Occupants	
S-1 - Storage / Mech - 672 s.f. / 300	= 3 Occupants	
A3 Classroom - 499 s.f. / 15	= 34 Occupants	
Total Occupants	= 55 Occupants	

1 SECOND FLOOR LIFE SAFTEY PLAN - ALTERNATE BUILD-OUT
3/32" = 1'-0"

Code Analysis:

Bedford Fire Headquaters - Bedford New York

PROJECT SCOPE:

The project is mixed use building, but occupancies are seperated as a mixed use building as per NYS Building Code. The first floor gross s.f. is 11,950 s.f. and the mezzanine s.f. is 5,035 s.f. and the second floor is 5,035 s.f. which does not include the attic areas which total 4,175 s.f.

List of applicable State Codes, Reference Codes and Standards:

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2020 Fuel Gas Code of New York State
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NFPA 70 (National Electrical Code)
National Fire Underwriter Code
ICC/ANSI A117.1-2009 Accessible and Usable Buildings and Facilities

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Comply with applicable sections of this Chapter including;

302.1Occupancy classification.
Comply with applicable sections of this Chapter including;

Occupancy classification is the formal designation of the primary purpose of the building, structure or portion thereof. Structures shall be classified into one or more of the occupancy groups listed in this section based on the nature of the hazards and risks to building occupants generally associated with the intended purpose of the building or structure. An area, room or space that is intended to be occupied at different times for different purposes shall comply with all applicable requirements associated with such potential multipurpose. Structures containing multiple occupancy groups shall comply with Section 508. Where a structure is proposed for a purpose that is not specifically listed in this section, such structure shall be classified in the occupancy it most nearly resembles based on the fire safety and relative hazard.

Assembly (see Section 303): Groups A-3
Business (see Section 304): Group B.
Storage (see Section 311): Groups S-2.

CHAPTER 4 - SPECIAL DETAILED REQUIREMENTS BASED ON OCCUPANCY AND USE
Comply with applicable sections of this Chapter including;

404.1General.
In other than Group H occupancies, and where permitted by Section 712.1.7, the provisions of Sections 404.1 through 404.10 shall apply to buildings or structures containing vertical openings defined as "Atriums."

404.3Automatic sprinkler protection.
An approved automatic sprinkler system shall be installed throughout the entire building.

404.5Smoke control.
A smoke control system shall be installed in accordance with Section 909.
Exception: In other than Group I-2, and Group I-1, Condition 2, smoke control is not required for atriums that connect only two stories.

404.6Enclosure of atriums.
Atrium spaces shall be separated from adjacent spaces by a 1-hour fire barrier constructed in accordance with Section 707 or a horizontal assembly constructed in accordance with Section 711, or both.

Exceptions:
4. A fire barrier is not required between the atrium and the adjoining spaces where the atrium is not required to be provided with a smoke control system.

CHAPTER 5 - GENERAL BUILDING HEIGHTS AND AREAS
Comply with applicable sections of this Chapter including;

504.1General.
The height, in feet, and the number of stories of a building shall be determined based on the type of construction, occupancy classification and whether there is an automatic sprinkler system installed throughout the building.

504.2Mixed occupancy.
In a building containing mixed occupancies in accordance with Section 508, no individual occupancy shall exceed the height and number of story limits specified in this section for the applicable occupancies.

504.3Height in feet.
The maximum height, in feet, of a building shall not exceed the limits specified in Table 504.3. Table 504.3 - Occupancy B - Sprinklered - Type IIB - 75'-0"

504.4Number of stories.
The maximum number of stories of a building shall not exceed the limits specified in Table 504.4.
Table 504.4 - Occupancy B - Sprinklered - Type IIB - 4 stories

505.2Mezzanines.
A mezzanine or mezzanines in compliance with Section 505.2 shall be considered a portion of the story below. Such mezzanines shall not contribute to either the building area or number of stories as regulated by Section 503.1. The area of the mezzanine shall be included in determining the fire area. The clear height above and below the mezzanine floor construction shall be not less than 7 feet (2134 mm).

505.2.2Means of egress.
The means of egress for mezzanines shall comply with the applicable provisions of Chapter 10.

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914-761-6006 (F) 914-761-4919

Owner: Bedford Village Fire District
34 Village Green
Bedford, NY 10506

Date	Issue
01.15.21	ISSUED FOR BID

Project Title

Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

Drawing Title: LIFE SAFETY CODE REVIEW (ALTERNATE BUILD-OUT)

Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	cjp
Checked by	

REGISTERED ARCHITECT JOHN F. SULLIVAN No. 017139 STATE OF NEW YORK

Drawing No. A0.2a

505.3.2Automatic sprinkler system.

Where located in a building that is required to be protected by an automatic sprinkler system, equipment platforms shall be fully protected by sprinklers above and below the platform, where required by the standards referenced in Section 903.3.

505.3.3Guards.

Equipment platforms shall have guards where required by Section 1015.2.

506.1General.

The floor area of a building shall be determined based on the type of construction, occupancy classification, whether there is an automatic sprinkler system installed throughout the building and the amount of building frontage on public way or open space.

506.2Allowable area determination.

The allowable area of a building shall be determined in accordance with the applicable provisions of Sections 506.2.1 through 506.2.4 and Section 506.3. Table 506.2 - (SM) Sprinklered - Type IIB - 4 stories - 57,000 s.f.

508.4Separated occupancies.

Buildings or portions of buildings that comply with the provisions of this section shall be considered as separated occupancies.

TABLE 508.4 REQUIRED SEPARATION OF OCCUPANCIES

B to S-2 - 1 hour required with sprinklers throughout.

CHAPTER 6 - TYPES OF CONSTRUCTION

Comply with applicable sections of this Chapter including;

Group B (table 601) - Type IIB Construction w/ Sprinklers

Type IIB - with added sprinklers

Primary Structural frame - 0 hr.

Bearing Walls - 0 hr. (Exterior)

Bearing Walls - 0 hr. (Interior)

Non-bearing Walls - 0 hr. (Interior)

Floor Construction - 0 hr.

Roof Construction - 0 hr.

Doors in walls noted above to be rated as per code and have rated labels accordingly.

602.2Types I and II.

Types I and II construction are those types of construction in which the building elements listed in Table 601 are of noncombustible materials, except as permitted in Section 603 and elsewhere in this code.

CHAPTER 7 - FIRE AND SMOKE PROTECTION FEATURES

Comply with applicable sections of this Chapter including;

SECTION 707 - FIRE BARRIERS

707.1General.

Fire barriers installed as required elsewhere in this code or the Fire Code of New York State shall comply with this section.

707.3.1Shaft enclosures.

The fire-resistance rating of the fire barrier separating building areas from a shaft shall comply with Section 713.4.

707.3.5Horizontal exit.

The fire-resistance rating of the separation between building areas connected by a horizontal exit shall comply with Section 1026.1.

707.3.6Atriums.

The fire-resistance rating of the fire barrier separating atriums shall comply with Section 404.6.

707.3.7Incidental uses.

The fire barrier separating incidental uses from other spaces in the building shall have a fire-resistance rating of not less than that indicated in Table 509.

707.3.9Separated occupancies.

Where the provisions of Section 508.4 are applicable, the fire barrier separating mixed occupancies shall have a fire-resistance rating of not less than that indicated in Table 508.4 based on the occupancies being separated.

SECTION709 - SMOKE BARRIERS

709.2Materials.

Smoke barriers shall be of materials permitted by the building type of construction.

709.3Fire-resistance rating.

A 1-hour fire-resistance rating is required for smoke barriers.

709.4.2Smoke-barrier walls enclosing areas of refuge or elevator lobbies.

Smoke-barrier walls used to enclose areas of refuge in accordance with Section 1009.6.4, or to enclose elevator lobbies in accordance with Section 405.4.3, 3007.6.2, or 3008.6.2, shall form an effective membrane enclosure that terminates at a fire barrier wall having a level of fire protection rating not less than 1 hour, another smoke barrier wall or an outside wall. A smoke and draft control door assembly as specified in Section 716.2.2.1.1 shall not be required at each elevator hoistway door opening or at each exit doorway between an area of refuge and the exit enclosure.

SECTION 712 - VERTICAL OPENINGS

712.1General.

Each vertical opening shall comply in accordance with one of the protection methods in Sections 712.1.1 through 712.1.16.

712.1.1Shaft enclosures.

Vertical openings contained entirely within a shaft enclosure complying with Section 713 shall be permitted.

712.1.9Two-story openings.

In other than Groups I-2 and I-3, a vertical opening that is not used as one of the applications listed in this section shall be permitted if the opening complies with all of the following items:

1.Does not connect more than two stories.

2.Does not penetrate a horizontal assembly that separates fire areas or smoke barriers that separate smoke compartments.

3.Is not concealed within the construction of a wall or a floor/ceiling assembly.

4.Is not open to a corridor in Group I and R occupancies.

5.Is not open to a corridor on nonsprinklered floors.

6.Is separated from floor openings and air transfer openings serving other floors by construction conforming to required shaft enclosures.

713.4Fire-resistance rating.

Shaft enclosures shall have a fire-resistance rating of not less than 2 hours where connecting four stories or more, and not less than 1 hour where connecting less than four stories. The number of stories connected by the shaft enclosure shall include any basements but not any mezzanines. Shaft enclosures shall have a fire-resistance rating not less than the floor assembly penetrated, but need not exceed 2 hours. Shaft enclosures shall meet the requirements of Section 703.2.1.

CHAPTER 8 - INTERIOR FINISHES

Comply with applicable sections of this Chapter including;

802.1Interior wall and ceiling finish.

The provisions of Section 803 shall limit the allowable fire performance and smoke development of interior wall and ceiling finish materials based on occupancy classification.

SECTION803-WALL AND CEILING FINISHES

802.5Application.

Combustible materials shall be permitted to be used as finish for walls, ceilings, floors and other interior surfaces of buildings.

803.1General.

Interior wall and ceiling finish materials shall be classified for fire performance and smoke development in accordance with Section 803.1.1 or 803.1.2, except as shown in Sections 803.1.3 through 803.15. Materials tested in accordance with Section 803.1.1 shall not be required to be tested in accordance with Section 803.1.2.

803.1.1Interior wall and ceiling finish materials tested in accordance with NFPA 286.

Interior wall and ceiling finish materials shall be classified in accordance with NFPA 286 and comply with Section 803.1.1.1. Materials complying with Section 803.1.1.1 shall be considered to also comply with the requirements of Class A.

Interior and Ceiling Finish Requirements by Occupancy - (table 803.13)

Class B - Interior exit stairways

Class C - Corridors

Class C - Rooms and Enclosed spaces

SECTION804 - INTERIOR FLOOR FINISH

804.1General.

Interior floor finish and floor covering materials shall comply with Sections 804.2 through 804.4.2.

Exception: Floor finishes and coverings of a traditional type, such as wood, vinyl, linoleum or terrazzo, and resilient floor covering materials that are not comprised of fibers.

804.2Classification.

Interior floor finish and floor covering materials required by Section 804.4.2 to be of Class I or II materials shall be classified in accordance with ASTM E648 or NFPA 253. The classification referred to herein corresponds to the classifications determined by ASTM E648 or NFPA 253 as follows: Class I, 0.45 watts/cm2 or greater; Class II, 0.22 watts/cm2 or greater.

804.3Testing and identification.

Interior floor finish and floor covering materials shall be tested by an agency in accordance with ASTM E648 or NFPA 253 and identified by a hang tag or other suitable method so as to identify the manufacturer or supplier and style, and shall indicate the interior floor finish or floor covering classification in accordance with Section 804.2. Carpet-type floor coverings shall be tested as proposed for use, including underlayment. Test reports confirming the information provided in the manufacturer's product identification shall be furnished to the building official upon request.

804.4Interior floor finish requirements.

Interior floor covering materials shall comply with Sections 804.4.1 and 804.4.2 and interior floor finish materials shall comply with Section 804.4.2.

804.4.1Test requirement.

In all occupancies, interior floor covering materials shall comply with the requirements of the DOC FF-1 "pill test" (CPSC 16 CFR Part 1630) or with ASTM D2859.

804.4.2Minimum critical radiant flux.

In all occupancies, interior floor finish and floor covering materials in enclosures for stairways and ramps, exit passageways, corridors and rooms or spaces not separated from corridors by partitions extending from the floor to the underside of the ceiling shall withstand a minimum critical radiant flux. The minimum critical radiant flux shall be not less than Class I in Groups I-1, I-2 and I-3 and not less than Class II in Groups A, B, E, H, I-4, M, R-1, R-2 and S.

Exception: Where a building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2, Class II materials are permitted in any area where Class I materials are required, and materials complying with DOC FF-1 "pill test" (CPSC 16 CFR Part 1630) or with ASTM D2859 are permitted in any area where Class II materials are required.

SECTION 808 - ACOUSTICAL CEILING SYSTEMS

808.1Acoustical ceiling systems.

The quality, design, fabrication and erection of metal suspension systems for acoustical tile and lay-in panel ceilings in buildings or structures shall conform to generally accepted engineering practice, the provisions of this chapter and other applicable requirements of this code.

808.1.1.1Suspended acoustical ceilings.

Suspended acoustical ceiling systems shall be installed in accordance with the provisions of ASTM C635 and ASTM C636.

CHAPTER 9 - FIRE PROTECTION AND LIFE SAFETY SYSTEMS

Comply with applicable sections of this Chapter including;

See Consulting engineering documents

CHAPTER 10 - MEANS OF EGRESS

Comply with applicable sections of this Chapter including;

1003.2Ceiling height.

The means of egress shall have a ceiling height of not less than 7 feet 6 inches (2286 mm) above the finished floor.

1003.4Slip-resistant surface.

Circulation paths of the means of egress shall have a slip-resistant surface and be securely attached.

1003.6Means of egress continuity.

The path of egress travel along a means of egress shall not be interrupted by a building element other than a means of egress component as specified in this chapter. Obstructions shall not be placed in the minimum width or required capacity of a means of egress component except projections permitted by this chapter. The minimum width or required capacity of a means of egress system shall not be diminished along the path of egress travel.

1003.7Elevators, escalators and moving walks.

Elevators, escalators and moving walks shall not be used as a component of a required means of egress from any other part of the building.

Exception: Elevators used as an accessible means of egress in accordance with Section 1009.4.

SECTION 1004 - OCCUPANT LOAD

1004.1Design occupant load.

In determining means of egress requirements, the number of occupants for whom means of egress facilities are provided shall be determined in accordance with this section.

Max. Floor Area Allowances per Occupant per Table 1004.5

Business Areas	150 gross
Assembly:	15 net - if over 750 s.f. of not 150 gross
Accessory Stor. / Mech.	300 gross
Garages	200 gross
Exercise Room	50 gross
Locker Rooms	50 gross

Area / Occupant - Summary

First Floor - Gross s.f. = 11,950 s.f.

B - 1,720 s.f. / 150	= 6 Occupants
S- 2 - Apparatus Bay - 6,155 s.f. /300	= 21 Occupants
S- 1 - Storage / Mech - 1,256 s.f. / 300	= 5 Occupants
Locker Room - 670 / 50	= 14 Occupants
Exercise Room - 600 s.f. / 50	= 12 Occupants
Toilets - stairs 150 s.f.	= 0 occupants
Rear Stair - 150 s.f.	= 0 Occupants
Elevator - 67 s.f.	= 0 Occupants
Incidental Uses under 750 s.f.	
A3 Day Room - Day Room - 735 s.f. / 15	= 49 Occupants
First Floor - Total Occupants	= 107 Occupants

Mezzanine - Gross s.f. = 5,035 s.f.

S- 1 - Storage / Mech - 1,412 s.f. / 300	= 5 Occupants

Second Floor - Gross s.f. = 5,035 s.f.
(not including attic areas - 4,175 s.f.)

B - 2,695 s.f. / 150	= 18 Occupants
S- 1 - Storage / Mech - 672 s.f. / 300	= 3 Occupants
Toilets - 432 s.f.	= 0 occupants
Elevator - 67 s.f.	= 0 Occupants
Incidental Uses under 750 s.f.	
A3 Classroom - 499 s.f. / 15	= 34 Occupants
Second Floor - Total Occupants	= 55 Occupants

NOTE: INCLUDED ONLY FOR FULL SECOND STORY BUILD-OUT ALTERNATE

PLUMBING CODE

Comply with all applicable sections of this Chapter including;

SECTION 403 - Minimum Plumbing Fixtures Required

Comply with applicable sections of this Chapter including;

Business Occupancy total occupancy 167 / 2 = 84 Male & Female

Fixture Requirments

1 per 25 Water Closets for first 50 and
1 per 50 for the remainder exceeding 50
3 water closets Male & 3 water closets Female required - 6 total
1 per 40 Lavatories for first 80 and
1 per 80 for the remainder exceeding 80
3 Lavatory Male & 3 Lavatory Female required - 6 total
1 Service sink
1 Drinking Fountain per 100

PLUMBING CODE (Con')

Fixture Provided

First Floor

Lockers - 1 Water Closet Male, 1 Lavatory and 1 urinal and 2 showers
- 1 Water Closet Female, 2 Lavatory, 2 showers

- 1 Unisex ADA / Family - 1 Water Closet , 1 Lavatory
- 1 unisex - 1 Water Closet , 1 Lavatory
- 1 Male Powder - 1 Urinal, 1 Lavatory

- Service sinks 1
- 1 Decon Deep Tub and 1 counter service sink

Second Floor

Toilets - 1 ADA Water Closet, 1 Water Closet Male, 2 Lavatory and 3 urinals
- 1 ADA Water Closet, 2 Water Closet Female, 2 Lavatory

- Service sinks 1

NOTE: INCLUDED ONLY FOR FULL SECOND STORY BUILD-OUT ALTERNATE

SECTION 1005 - MEANS OF EGRESS SIZING

1005.3Required capacity based on occupant load.

The required capacity, in inches (mm), of the means of egress for any room, area, space or story shall be not less than that determined in accordance with Sections 1005.3.1 and 1005.3.2.

1005.3.1Stairways.

The capacity, in inches, of means of egress stairways shall be calculated by multiplying the occupant load served by such stairways by a means of egress capacity factor of 0.3 inch (7.6 mm) per occupant. Where stairways serve more than one story, only the occupant load of each story considered individually shall be used in calculating the required capacity of the stairways serving that story.

Exceptions:

1.For other than Group H and I-2 occupancies, the capacity, in inches, of means of egress stairways shall be calculated by multiplying the occupant load served by such stairways by a means of egress capacity factor of 0.2 inch (5.1 mm) per occupant in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.

1005.3.2Other egress components.

The capacity, in inches, of means of egress components other than stairways shall be calculated by multiplying the occupant load served by such component by a means of egress capacity factor of 0.2 inch (5.1 mm) per occupant.

Exceptions:

1.For other than Group H and I-2 occupancies, the capacity, in inches, of means of egress components other than stairways shall be calculated by multiplying the occupant load served by such component by a means of egress capacity factor of 0.15 inch (3.8 mm) per occupant in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.

1005.4Continuity.

The minimum width or required capacity of the means of egress required from any story of a building shall not be reduced along the path of egress travel until arrival at the public way.

SECTION 1006 -NUMBER OF EXITS AND EXIT ACCESS DOORWAYS

1006.1General.

The number of exits or exit access doorways required within the means of egress system shall comply with the provisions of Section 1006.2 for spaces, including mezzanines,

1006.2Egress from spaces.

Rooms, areas or spaces, including mezzanines, within a story or basement shall be provided with the number of exits or access to exits in accordance with this section.

1006.2.1Egress based on occupant load and common path of egress travel distance.

Two exits or exit access doorways from any space shall be provided where the design occupant load or the common path of egress travel distance exceeds the values listed in Table 1006.2.1. The cumulative occupant load from adjacent rooms, areas or spaces shall be determined in accordance with Section 1004.2.

1006.3.2Egress based on occupant load.

Each story and occupied roof shall have the minimum number of separate and distinct exits, or access to exits, as specified in Table 1006.3.2. A single exit or access to a single exit shall be permitted in accordance with Section 1006.3.3. The required number of exits, or exit access stairways or ramps providing access to exits, from any story or occupied roof shall be maintained until arrival at the exit discharge or a public way.

TABLE 1006.3.2

MINIMUM NUMBER OF EXITS OR ACCESS TO EXITS PER STORY

1-500 - 2 Exits

MEANS OF EGRESS ILLUMINATION

1008.2Illumination required.

The means of egress serving a room or space shall be illuminated at all times that the room or space is occupied.

1008.2.1Illumination level under normal power.

The means of egress illumination level shall be not less than 1 footcandle (11 lux) at the walking surface.

1008.3Emergency power for illumination.

The power supply for means of egress illumination shall normally be provided by the premises' electrical supply.

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Drawing by	cjp
Checked by	

REGISTERED ARCHITECT JOHN P. SULLIVAN JR. No. 017186 STATE OF NEW YORK

Drawing No.

A0.3

1008.3.1 General.

In the event of power supply failure in rooms and spaces that require two or more means of egress, an emergency electrical system shall automatically illuminate all of the following areas:

1.Aisles.

2.Corridors.

3.Exit access stairways and ramps.

1008.3.2 Buildings.

In the event of power supply failure in buildings that require two or more means of egress, an emergency electrical system shall automatically illuminate all of the following areas:

1.Interior exit access stairways and ramps.

2.Interior and exterior exit stairways and ramps.

3.Exit passageways.

4.Vestibules and areas on the level of discharge used for exit discharge in accordance with Section 1028.1.

5.Exterior landings as required by Section 1010.1.6 for exit doorways that lead directly to the exit discharge.

1008.3.3Rooms and spaces.

In the event of power supply failure, an emergency electrical system shall automatically illuminate all of the following areas:

1.Electrical equipment rooms.

2.Fire command centers.

3.Fire pump rooms.

4.Generator rooms.

5.Public restrooms with an area greater than 300 square feet (27.87 m2).

1009.4Elevators.

In order to be considered part of an accessible means of egress, an elevator shall comply with Sections 1009.4.1 and 1009.4.2.

1009.4.1Standby power.

The elevator shall meet the emergency operation and signaling device requirements of Section 2.27 of ASME A17.1/CSA B44. Standby power shall be provided in accordance with Chapter 27 and Section 3003.

1009.4.2Area of refuge.

The elevator shall be accessed from an area of refuge complying with Section 1009.6.

Exceptions:

1.Areas of refuge are not required at the elevator in open parking garages.

2.Areas of refuge are not required in buildings and facilities equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.

3.Areas of refuge are not required at elevators not required to be located in a shaft in accordance with Section 712.

4.Areas of refuge are not required at elevators serving smoke-protected or open-air assembly seating areas complying with Sections 1029.6.2 and 1029.6.3.

5.Areas of refuge are not required for elevators accessed from a refuge area in conjunction with a horizontal exit.

1009.6Areas of refuge.

Every required area of refuge shall be accessible from the space it serves by an accessible means of egress.

1009.6.1Travel distance.

The maximum travel distance from any accessible space to an area of refuge shall not exceed the exit access travel distance permitted for the occupancy in accordance with Section 1017.1.

1009.6.2Stairway or elevator access.

Every required area of refuge shall have direct access to a stairway complying with Sections 1009.3 and 1023 or an elevator complying with Section 1009.4.

1009.6.3Size.

Each area of refuge shall be sized to accommodate one wheelchair space of 30 inches by 48 inches (762 mm by 1,219 mm) for each 200 occupants or portion thereof, based on the occupant load of the area of refuge and areas served by the area of refuge. Such wheelchair spaces shall not reduce the means of egress minimum width or required capacity. Access to any of the required wheelchair spaces in an area of refuge shall not be obstructed by more than one adjoining wheelchair space.

1009.6.4Separation.

Each area of refuge shall be separated from the remainder of the story by a smoke barrier complying with Section 709 or a horizontal exit complying with Section 1026. Each area of refuge shall be designed to minimize the intrusion of smoke.

Exceptions:

1.Areas of refuge located within an enclosure for interior exit stairways complying with Section 1023.

2.Areas of refuge in outdoor facilities where exit access is essentially open to the outside.

1009.6.5Two-way communication. Areas of refuge shall be provided with a two-way communication system complying with Sections 1009.8.1 and 1009.8.2.

1009.7.4Stairways.

Stairways that are part of the means of egress for the exterior area for assisted rescue shall provide a minimum clear width of 48 inches (1220 mm) between handrails.

Exception: The minimum clear width of 48 inches (1220 mm) between handrails is not required at stairways serving buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.

CHAPTER 11 - ACCESSIBILITY

Comply with applicable sections of this Chapter including;

SECTION1104 ACCESSIBLE ROUTE

1104.1Site arrival points.

At least one accessible route within the site shall be provided from public transportation stops, accessible parking, accessible passenger loading zones, and public streets or sidewalks to the accessible building entrance served.

1104.2Within a site.

At least one accessible route shall connect accessible buildings, accessible facilities, accessible elements and accessible spaces that are on the same site.

1104.3Connected spaces.

Where a building or portion of a building is required to be accessible, at least one accessible route shall be provided to each portion of the building, to accessible building entrances connecting accessible pedestrian walkways and to the public way.

1104.3.1Employee work areas.

Common use circulation paths within employee work areas shall be accessible routes.

SECTION1105 ACCESSIBLE ENTRANCES

1105.1Public entrances.

In addition to accessible entrances required by Sections 1105.1.1 through 1105.1.7, at least 60 percent of all public entrances shall be accessible.

SECTION1106 PARKING AND PASSENGER LOADING FACILITIES

1106.1Required.

Where parking is provided, accessible parking spaces shall be provided in compliance with Table 1106.1, except as required by Sections 1106.2 through 1106.4. Where more than one parking facility is provided on a site, the number of parking spaces required to be accessible shall be calculated separately for each parking facility.

1106.5Van spaces.

For every six or fraction of six accessible parking spaces, at least one shall be a van-accessible parking space.

SECTION 1109 - OTHER FEATURES AND FACILITIES

1109.1General.

Accessible building features and facilities shall be provided in accordance with Sections 1109.2 through 1109.15.

1109.2Toilet and bathing facilities.

Each toilet room and bathing room shall be accessible. Where a floor level is not required to be connected by an accessible route, the only toilet rooms or bathing rooms provided within the facility shall not be located on the inaccessible floor. Except as provided for in Sections 1109.2.2 and 1109.2.3, at least one of each type of fixture, element, control or dispenser in each accessible toilet room and bathing room shall be accessible.

1109.2.2Water closet compartment.

Where water closet compartments are provided in a toilet room or bathing room, at least 5 percent of the total number of compartments shall be wheelchair accessible. Where the combined total water closet compartments and urinals provided in a toilet room or bathing room is six or more, at least 5 percent of the total number of compartments shall be ambulatory accessible, provided in addition to the wheelchair-accessible compartment.

1109.2.3Lavatories.

Where lavatories are provided, at least 5 percent, but not less than one, shall be accessible. Where an accessible lavatory is located within the accessible water closet compartment at least one additional accessible lavatory shall be provided in the multicompartment toilet room outside the water closet compartment. Where the total lavatories provided in a toilet room or bathing facility is six or more, at least one lavatory with enhanced reach ranges shall be provided.

1109.3Sinks.

Where sinks are provided, at least 5 percent but not less than one provided in accessible spaces shall be accessible.

1109.4 Kitchens and kitchenettes.

Where kitchens and kitchenettes are provided in accessible spaces or rooms, they shall be accessible.

1109.5.1 Minimum number.

Not fewer than two drinking fountains shall be provided. One drinking fountain shall comply with the requirements for people who use a wheelchair and one drinking fountain shall comply with the requirements for standing persons.

1109.7 Elevators.

Passenger elevators on an accessible route shall be accessible and comply with Chapter 30.

1109.8 Lifts. installed as per ASME A18.1.

1109.9Storage.

Where fixed or built-in storage elements such as cabinets, coat hooks, shelves, medicine cabinets, lockers, closets and drawers are provided in required accessible spaces, at least 5 percent, but not less than one of each type shall be accessible.

CHAPTER 12 INTERIOR ENVIRONMENT:

Comply with applicable sections of this Chapter including;

See MEP Documents

CHAPTER 13 ENERGY EFFICIENCY:

Comply with applicable sections of this Chapter including;

See Com Check and MEP Documents.

CHAPTER 14 EXTERIOR WALLS:

Comply with applicable sections of this Chapter including;

CHAPTER 15 ROOF ASSEMBLIES AND ROOF TOP STRUCTURES:

Comply with applicable sections of this Chapter including;

504.1Wind resistance of roofs.

Roof decks and roof coverings shall be designed for wind loads in accordance with Chapter 16 and Sections 1504.2, 1504.3 and 1504.4.

1504.1.1Wind resistance of asphalt shingles.

Asphalt shingles shall be tested in accordance with ASTM D7158.

Asphalt shingles shall meet the classification requirements of Table 1504.1.1 for the appropriate maximum basic wind speed. Asphalt shingle packaging shall bear a label to indicate compliance with ASTM D7158 and the required classification in Table 1504.1.1.

Exception: Asphalt shingles not included in the scope of ASTM D7158 shall be tested and labeled in accordance with ASTM D3161. Asphalt shingle packaging shall bear a label to indicate compliance with ASTM D3161 and the required classification in Table 1504.1.1.

TABLE 1504.1.1

CLASSIFICATION OF STEEP SLOPE ROOF SHINGLES TESTED IN ACCORDANCE WITH ASTM D3161 OR D7158

MAXIMUM BASIC WIND SPEED, V, FROM FIGURES 1609.3(1) - 116 MPH
MAXIMUM ALLOWABLE STRESS DESIGN WIND SPEED, Vasd,
FROM TABLE 1609.3.1 (mph) - 90 mph

ASTM D7158a CLASSIFICATION - D, G or H
ASTM D3161CLASSIFICATION - A, D or F

1505.3Class B roof assemblies.

Class B roof assemblies are those that are effective against moderate fire-test exposure. Class B roof assemblies and roof coverings shall be listed and identified as Class B by an approved testing agency. Note: roof is above a metal deck.

CHAPTER 16 STRUCTURAL DESIGN:

Comply with applicable sections of this Chapter including;

See Consulting Structural Engineers Documents.

CHAPTER 17 SPECIAL INSPECTIONS:

Comply with applicable sections of this Chapter including;

SEE STATEMENT OF SPECIAL INSPECTIONS AND STRUCTURAL DOCUMENTS

CHAPTER 18 SOILS AND FOUNDATIONS:

Comply with applicable sections of this Chapter including;

See Consulting Civil Engineers Documents and See Geotechnical Report and Boring Logs.

CHAPTER 19 CONCRETE:

Comply with applicable sections of this Chapter including;

See Consulting Structural Engineers Documents.

CHAPTER 20 ALUMINUM:

Comply with applicable sections of this Chapter including;

CHAPTER 21 MASONRY:

Comply with applicable sections of this Chapter including;

CHAPTER 22 STEEL:

Comply with applicable sections of this Chapter including;

See Consulting Structural Engineers Documents.

CHAPTER 23 WOOD: (AS APPLICABLE)

Comply with applicable sections of this Chapter including;

See Consulting Structural Engineers Documents.

CHAPTER 24 GLASS AND GLAZING:

Comply with applicable sections of this Chapter including;

CHAPTER 25 GYPSUM BOARD, GYPSUM PANEL PRODUCTS AND PLASTER:

Comply with applicable sections of this Chapter including;

CHAPTER 26 PLASTIC:

Comply with applicable sections of this Chapter including;

CHAPTER 27 ELECTRICAL:

Comply with applicable sections of this Chapter including;

See Consulting MEP Engineering Documents

CHAPTER 28 MECHANICAL SYSTEMS:

Comply with applicable sections of this Chapter including;

See Consulting MEP Engineering Documents

CHAPTER 29 PLUMBING SYSTEMS:

Comply with applicable sections of this Chapter including;

See Consulting MEP Engineering Documents

CHAPTER 30 ELEVATORS AND CONVEYING SYSTEMS:

Comply with applicable sections of this Chapter including;

See Consulting Structural and MEP Engineering Documents

SECTION3001-GENERAL

3001.1Scope.

This chapter governs the design, construction, installation, alteration and repair of elevators and conveying systems and their components.

NY]3001.2Emergency elevator communication systems for the deaf, hard of hearing and speech impaired.

An emergency two-way communication system shall be provided. The system shall provide visible text and audible modes that:

1.When operating in each mode, includes a live interactive system that allows back and forth conversation between the elevator occupants and emergency personnel.

2.Is operational when the elevator is operational.

3.Allows elevator occupants to select the text-based or audible mode depending on their communication needs to interact with emergency personnel.

3001.3Referenced standards.

Except as otherwise provided for in this code, the design, construction, installation, alteration, repair and maintenance of elevators and conveying systems and their components shall conform to the applicable standard specified in Table 3001.3 and ASCE 24 for construction in flood hazard areas established in Section 1612.3.

3001.4Accessibility.

Passenger elevators required to be accessible or to serve as part of an accessible means of egress shall comply with Sections 1009 and 1109.7.

3002.1Hoistway enclosure protection.

Elevator, dumbwaiter and other hoistway enclosures shall be shaft enclosures complying with Sections 712 and 713.

3002.1.1Opening protectives.

Openings in hoistway enclosures shall be protected as required in Chapter 7.

Exception: The elevator car doors and the associated hoistway enclosure doors at the floor level designated for recall in accordance with Section 3003.2 shall be permitted to remain open during Phase I Emergency Recall Operation.

Exception: The elevator car doors and the associated hoistway enclosure doors at the floor level designated for recall in accordance with Section 3003.2 shall be permitted to remain open during Phase I Emergency Recall Operation.

3002.4Elevator car to accommodate ambulance stretcher.

Where elevators are provided in buildings four or more stories above, or four or more stories below, grade plane, not fewer than one elevator shall be provided for fire department emergency access to all floors. The elevator car shall be of such a size and arrangement to accommodate an ambulance stretcher 24 inches by 84 inches (610 mm by 2134 mm) with not less than 5-inch (127 mm) radius corners, in the horizontal, open position and shall be identified by the international symbol for emergency medical services (star of life). The symbol shall be not less than 3 inches (76 mm) in height and shall be placed inside on both sides of the hoistway door frame.

SECTION3003- EMERGENCY OPERATIONS

[F]3003.1Standby power.

In buildings and structures where standby power is required or furnished to operate an elevator, the operation shall be in accordance with Sections 3003.1.1 through 3003.1.4.

[F]3003.1.2One elevator.

Where only one elevator is installed, the elevator shall automatically transfer to standby power within 60 seconds after failure of normal power.

[F]3003.1.4Venting.

Where standby power is connected to elevators, the machine room ventilation or air conditioning shall be connected to the standby power source.

[F]3003.2Fire fighters' emergency operation.

Elevators shall be provided with Phase I emergency recall operation and Phase II emergency in-car operation in accordance with ASME A17.1/CSA B44.

[F]3003.3Standardized fire service elevator keys.

All elevators shall be equipped to operate with a standardized fire service elevator key in accordance with the Fire Code of New York State.

SECTION3006 ELEVATOR LOBBIES AND HOISTWAY OPENING PROTECTION

3006.1General.

Elevator hoistway openings and enclosed elevator lobbies shall be provided in accordance with the following:

1.Where hoistway opening protection is required by Section 3006.2, such protection shall be in accordance with Section 3006.3.

2.Where an area of refuge is required and an enclosed elevator lobby is provided to serve as an area of refuge, the enclosed elevator lobby shall comply with Section 1009.6.

3006.2.1Rated corridors.

Where corridors are required to be fire-resistance rated in accordance with Section 1020.1, elevator hoistway openings shall be protected in accordance with Section 3006.3.

3006.4Means of egress.

Elevator lobbies shall be provided with not less than one means of egress complying with Chapter 10 and other provisions in this code. Egress through an enclosed elevator lobby shall be permitted in accordance with Item 1 of Section 1016.2.

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Checked by	

REGISTERED ARCHITECT JOHN P. SULLIVAN No. 017785 STATE OF NEW YORK

Drawing No.

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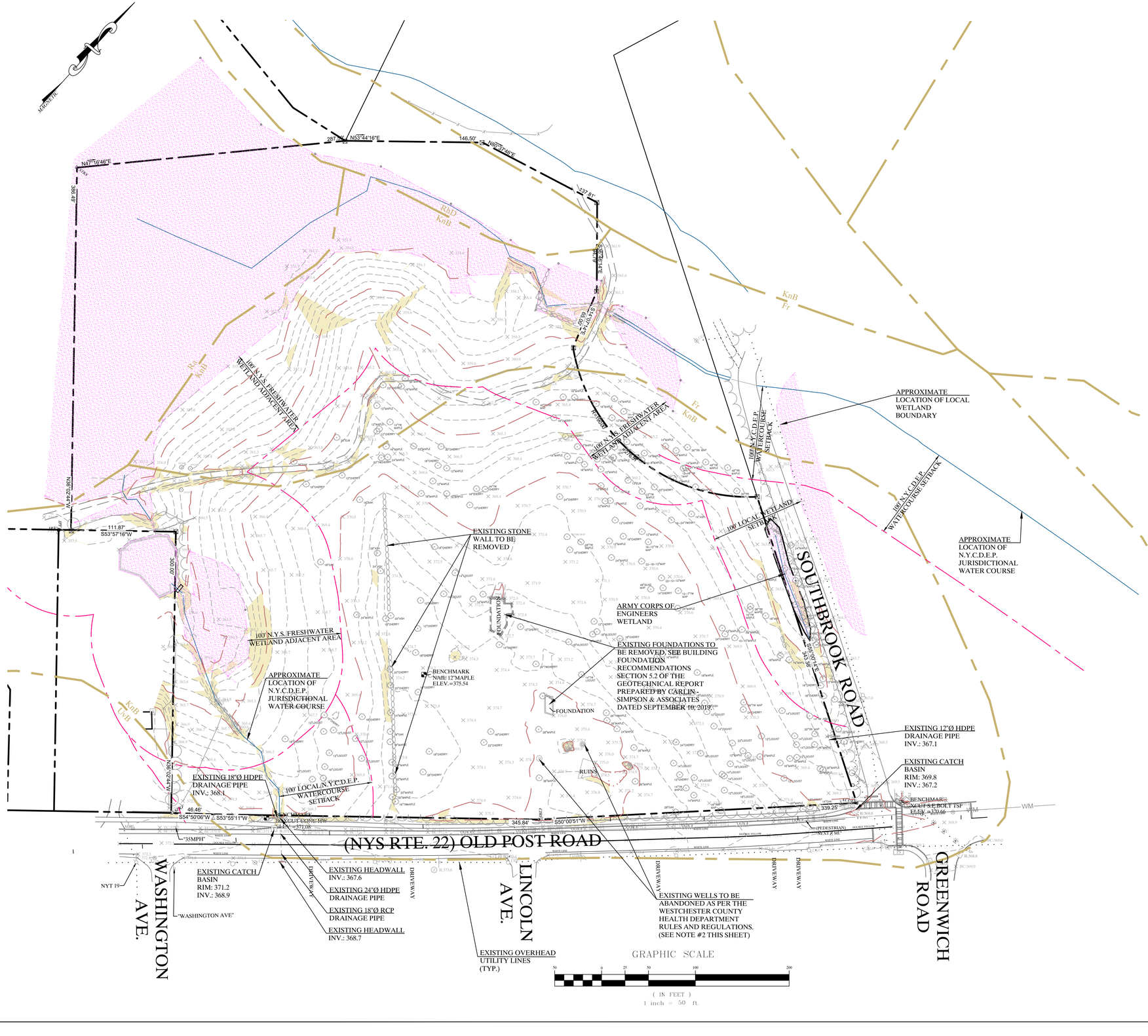

LEGEND

- EXISTING PROPERTY LINE
- EXISTING 1' CONTOUR (528)
- EXISTING 5' CONTOUR (530)
- SLOPES GREATER THAN 15%
- EXISTING OVERHEAD UTILITY LINES
- EXISTING TREE (14"CHERRY)
- WETLAND BOUNDARY
- WATER COURSE
- WETLAND AREA
- 100' WETLAND SETBACK
- SOIL BOUNDARY WITH LABEL (KnB)

NOTES:

1. SURVEY INFORMATION OBTAINED FROM A MAP ENTITLED " MAP OF TOPOGRAPHIC SURVEY PREPARED FOR BEDFORD VILLAGE FIRE DISTRICT" PREPARED BY CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE, CO., D.P.C. DATED LAST REVISED MAY 1, 2018.

2. ALL WELLS THAT ARE TO BE ABANDONED MUST BE COMPLETELY FILLED WITH PUDDLED CLAY, CONCRETE, OR OTHER SUITABLE IMPERVIOUS MATERIAL. A PERMIT IS REQUIRED TO ABANDON A WELL. SEE THE NEW YORK STATE DEPARTMENT OF HEALTH INDIVIDUAL WATER SUPPLY WELLS-FACT SHEET #4 DECOMMISSIONING ABANDONED WELLS FOR MORE INFORMATION.

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OVERALL EXISTING CONDITIONS PLAN

BEDFORD VILLAGE FIRE DISTRICT

TOWN OF BEDFORD — WESTCHESTER COUNTY, NEW YORK

STATE OF NEW YORK — LICENSED PROFESSIONAL ENGINEER — 058736

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1.	JANUARY 15, 2021 - ISSUED FOR BID
REVISIONS	

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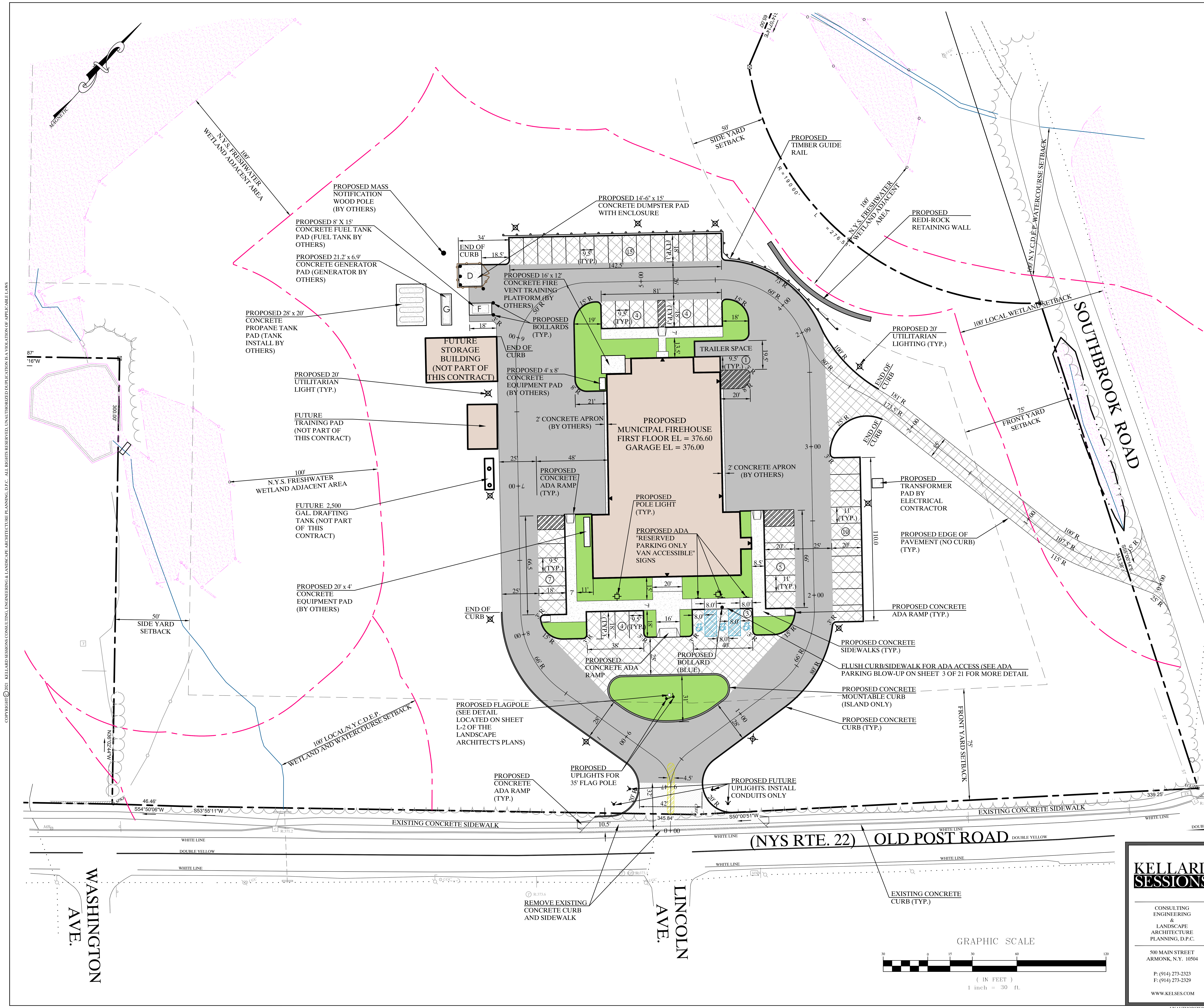
PROJECT I.D.: BDBEDFORDFIRE200

DATE: DECEMBER 1, 2020



MAGNETIC
100' N.Y.S. FRESHWATER WETLAND ADJACENT AREA
PROPOSED MASS NOTIFICATION WOOD POLE (BY OTHERS)
PROPOSED 8' X 15' CONCRETE FUEL TANK PAD (FUEL TANK BY OTHERS)
PROPOSED 21.2' x 6.9' CONCRETE GENERATOR PAD (GENERATOR BY OTHERS)
PROPOSED 28' x 20' CONCRETE PROPANE TANK PAD (TANK INSTALL BY OTHERS)
PROPOSED 14'-6" x 15' CONCRETE DUMPSTER PAD WITH ENCLOSURE
PROPOSED 16' x 12' CONCRETE FIRE VENT TRAINING PLATFORM (BY OTHERS)
PROPOSED BOLLARDS (TYP.)
END OF CURB
FUTURE STORAGE BUILDING (NOT PART OF THIS CONTRACT)
PROPOSED 20' UTILITARIAN LIGHT (TYP.)
PROPOSED 4' x 8' CONCRETE EQUIPMENT PAD (BY OTHERS)
FUTURE TRAINING PAD (NOT PART OF THIS CONTRACT)
2' CONCRETE APRON (BY OTHERS)
PROPOSED MUNICIPAL FIREHOUSE FIRST FLOOR EL = 376.60 GARAGE EL = 376.00
TRAILER SPACE
PROPOSED CONCRETE ADA RAMP (TYP.)
100' N.Y.S. FRESHWATER WETLAND ADJACENT AREA
FUTURE 2,500 GAL. DRAFTING TANK (NOT PART OF THIS CONTRACT)
PROPOSED POLE LIGHT (TYP.)
PROPOSED ADA "RESERVED PARKING ONLY VAN ACCESSIBLE" SIGNS
PROPOSED 20' x 4' CONCRETE EQUIPMENT PAD (BY OTHERS)
50' SIDE YARD SETBACK
PROPOSED CONCRETE ADA RAMP
PROPOSED BOLLARD (BLUE)
PROPOSED FLAGPOLE (SEE DETAIL LOCATED ON SHEET L-2 OF THE LANDSCAPE ARCHITECT'S PLANS)
PROPOSED UPLIGHTS FOR 35' FLAG POLE
PROPOSED CONCRETE ADA RAMP (TYP.)
PROPOSED FUTURE UPLIGHTS. INSTALL CONDUITS ONLY
100' LOCAL/N.Y.C.D.E.P. WETLAND AND WATERCOURSE SETBACK
50' SIDE YARD SETBACK
PROPOSED TIMBER GUIDE RAIL
100' N.Y.S. FRESHWATER WETLAND ADJACENT AREA
PROPOSED REDI-ROCK RETAINING WALL
PROPOSED 20' UTILITARIAN LIGHTING (TYP.)
100' LOCAL WETLAND SETBACK
100' N.Y.C.D.E.P. WATERCOURSE SETBACK
SOUTHBROOK ROAD
75' FRONT YARD SETBACK
PROPOSED TRANSFORMER PAD BY ELECTRICAL CONTRACTOR
PROPOSED EDGE OF PAVEMENT (NO CURB) (TYP.)
PROPOSED CONCRETE ADA RAMP (TYP.)
PROPOSED CONCRETE SIDEWALKS (TYP.)
FLUSH CURB/SIDEWALK FOR ADA ACCESS (SEE ADA PARKING BLOW-UP ON SHEET 3 OF 21 FOR MORE DETAIL
PROPOSED CONCRETE MOUNTABLE CURB (ISLAND ONLY)
PROPOSED CONCRETE CURB (TYP.)
75' FRONT YARD SETBACK
EXISTING CONCRETE SIDEWALK
(NYS RTE. 22) OLD POST ROAD
WASHINGTON AVE.
LINCOLN AVE.
REMOVE EXISTING CONCRETE CURB AND SIDEWALK
EXISTING CONCRETE CURB (TYP.)
WHITE LINE
DOUBLE YELLOW
GRAPHIC SCALE
(IN FEET)
1 inch = 30 ft.

LEGEND

- EXISTING PROPERTY LINE
- EXISTING 1' CONTOUR
- EXISTING 5' CONTOUR
- WETLAND BOUNDARY
- WATER COURSE
- WETLAND AREA
- 100' WETLAND (WATER COURSE) SETBACK
- PROPERTY LINE ADJACENT
- PROPOSED STRUCTURES
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE PAD
- PROPOSED HEAVY DUTY ASPHALT PAVEMENT
- PROPOSED STANDARD DUTY ASPHALT PAVEMENT
- PROPOSED NYSDOT ASPHALT PAVEMENT (SUPERPAVE)
- PROPOSED EDGE OF PAVEMENT
- PROPOSED CONCRETE CURB
- PROPOSED CONCRETE MOUNTABLE CURB
- PROPOSED SETBACK
- PROPOSED LAWN/LANDSCAPED AREA
- PROPOSED REDI-ROCK RETAINING WALL
- PROPOSED EXTERIOR STRUCTURE DOOR LOCATION
- PROPOSED UPLIGHT
- PROPOSED POLE LIGHT
- PROPOSED 20' UTILITARIAN LIGHT
- PROPOSED 4" PAVEMENT STIPING WHITE
- PROPOSED 4" PAVEMENT STIPING BLUE
- PROPOSED 4" PAVEMENT STIPING YELLOW

NOTES:

1. SURVEY INFORMATION OBTAINED FROM A MAP ENTITLED " MAP OF TOPOGRAPHIC SURVEY PREPARED FOR BEDFORD VILLAGE FIRE DISTRICT" PREPARED BY CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE, CO., D.P.C. DATED LAST REVISED MAY 1, 2018.

SITE PLAN

BEDFORD VILLAGE FIRE DISTRICT

TOWN OF BEDFORD — WESTCHESTER COUNTY, NEW YORK

KELLARD SESSIONS
CONSULTING ENGINEERING & LANDSCAPE ARCHITECTURE PLANNING, D.P.C.
500 MAIN STREET
ARMONK, N.Y. 10504
P: (914) 273-2323
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WWW.KELSES.COM

REVISIONS	
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1.	JANUARY 15, 2021 - ISSUED FOR BID

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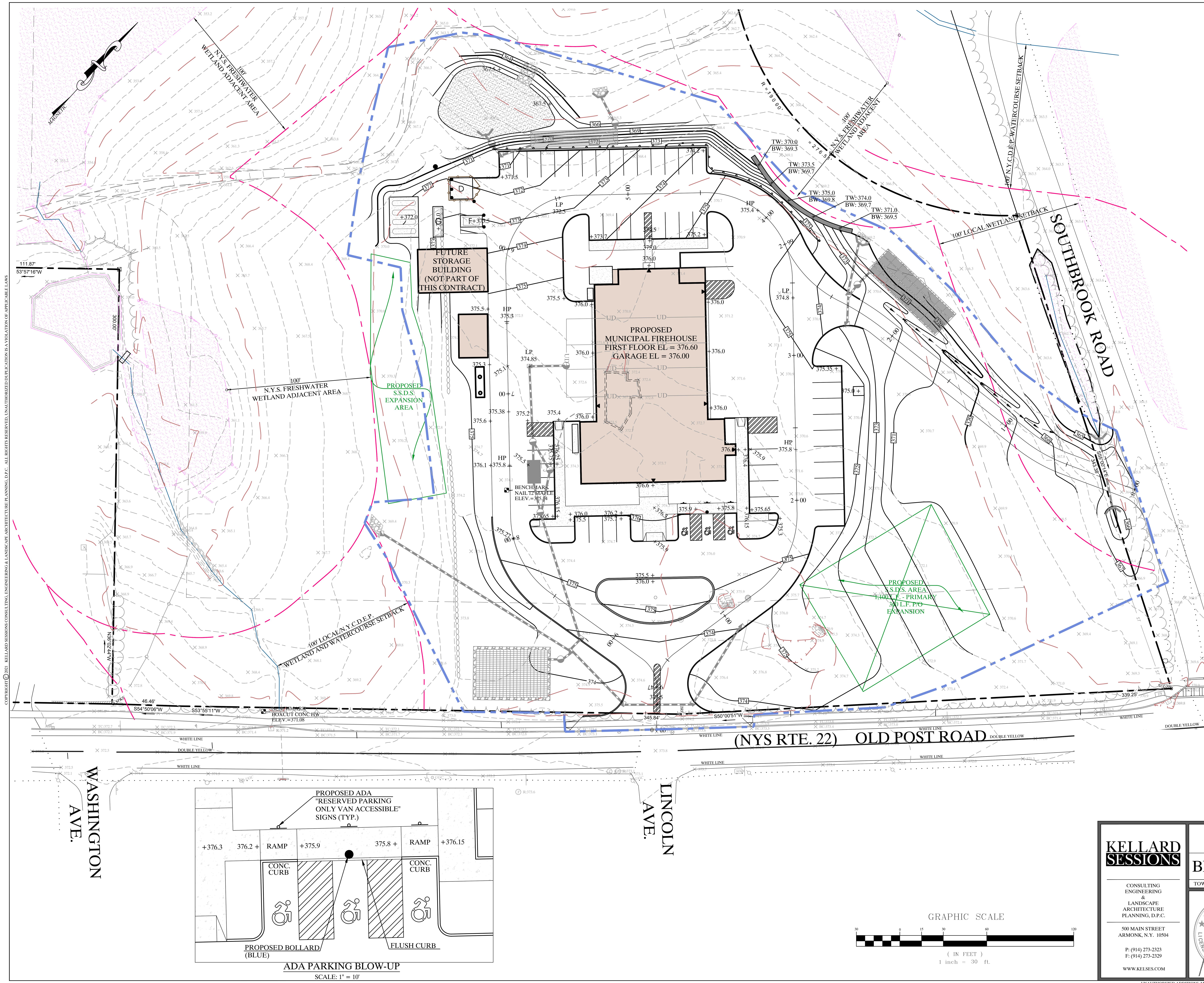
PROJECT I.D.: BDBEDFORDFIRE200

DATE: DECEMBER 1, 2020



LEGEND

- EXISTING PROPERTY LINE
- EXISTING 1' CONTOUR
- EXISTING 5' CONTOUR
- WETLAND BOUNDARY
- WATER COURSE
- WETLAND AREA
- 100' WETLAND (WATER COURSE) SETBACK
- PROPERTY LINE ADJACENT
- PROPOSED STRUCTURES
- PROPOSED EDGE OF PAVEMENT
- PROPOSED CONCRETE CURB
- PROPOSED CONCRETE MOUNTABLE CURB
- PROPOSED REDI-ROCK RETAINING WALL
- PROPOSED PRE-CAST CONCRETE HEADWALL
- PROPOSED DRAINAGE CATCH BASIN
- PROPOSED DRAINAGE MANHOLE
- PROPOSED DRAINAGE PIPE
- PROPOSED 10' CONTOUR
- PROPOSED 1' CONTOUR
- PROPOSED LIMIT OF DISTURBANCE

CUT AND FILL CALCULATIONS	
CUT:	608 CY
FILL:	10,933 CY
NET VOLUME	10,325 CY FILL

NOTES:

1. SURVEY INFORMATION OBTAINED FROM A MAP ENTITLED " MAP OF TOPOGRAPHIC SURVEY PREPARED FOR BEDFORD VILLAGE FIRE DISTRICT" PREPARED BY CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE, CO., D.P.C. DATED LAST REVISED MAY 1, 2018.

2. REFER TO REPORT ON SUBSURFACE SOIL AND FOUNDATION INVESTIGATION PREPARED BY CARLIN • SIMPSON & ASSOCIATES DATED SEPTEMBER 10 2019.

3. SEEDING CAN EXTEND BEYOND THE LIMITS OF DISTURBANCE.

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GRADING PLAN

BEDFORD VILLAGE FIRE DISTRICT

TOWN OF BEDFORD — WESTCHESTER COUNTY, NEW YORK

STATE OF NEW YORK · LICENSED PROFESSIONAL ENGINEER · 058736

REVISIONS	
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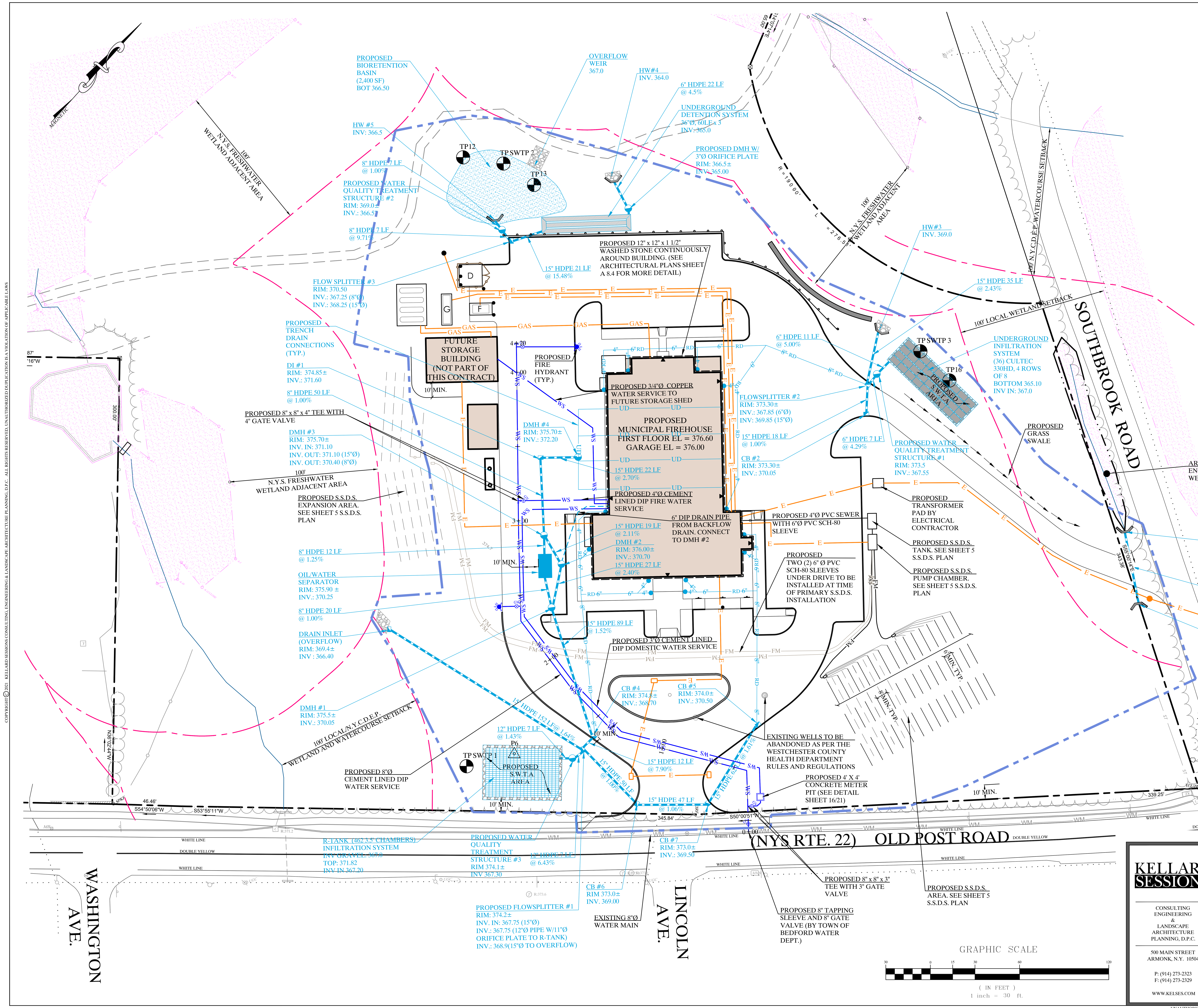
PROJECT I.D.: BDBEDFORDFIRE200

DATE: DECEMBER 1, 2020

Jan 19, 2021 - 1:14pm G:\BDBEDFORDFIRE100\CAD Dwgs\BDBEDFORDFIRE100.dwg - agrau


PROPOSED BIORETENTION BASIN (2,400 SF) BOT 366.50
OVERFLOW WEIR 367.0
HW#4 INV. 364.0
6" HDPE 22 LF @ 4.5%
UNDERGROUND DETENTION SYSTEM 36"Ø, 60LF x 3 INV.: 365.0
PROPOSED DMH W/ 3"Ø ORIFICE PLATE RIM: 366.5± INV.: 365.00
HW #5 INV: 366.5
8" HDPE 7 LF @ 1.00%
PROPOSED WATER QUALITY TREATMENT STRUCTURE #2 RIM: 369.0± INV.: 366.5
8" HDPE 7 LF @ 9.71%
TP12
TP SWTP 2
TP13
N.Y.S. FRESHWATER WETLAND ADJACENT AREA
100' N.Y.S. FRESHWATER WETLAND ADJACENT AREA
PROPOSED 12" x 12" x 1 1/2" WASHED STONE CONTINUOUSLY AROUND BUILDING. (SEE ARCHITECTURAL PLANS SHEET A 8.4 FOR MORE DETAIL)
15" HDPE 21 LF @ 15.48%
FLOW SPLITTER #3 RIM: 370.50 INV.: 367.25 (8"Ø) INV.: 368.25 (15"Ø)
PROPOSED TRENCH DRAIN CONNECTIONS (TYP.)
FUTURE STORAGE BUILDING (NOT PART OF THIS CONTRACT)
PROPOSED FIRE HYDRANT (TYP.)
DI #1 RIM: 374.85± INV.: 371.60
8" HDPE 50 LF @ 1.00%
PROPOSED 8" x 8" x 4" TEE WITH 4" GATE VALVE
DMH #3 RIM: 375.70± INV. IN: 371.10 INV. OUT: 371.10 (15"Ø) INV. OUT: 370.40 (8"Ø)
DMH #4 RIM: 375.70± INV.: 372.20
PROPOSED 3/4"Ø COPPER WATER SERVICE TO FUTURE STORAGE SHED
PROPOSED MUNICIPAL FIREHOUSE FIRST FLOOR EL = 376.60 GARAGE EL = 376.00
15" HDPE 22 LF @ 2.70%
PROPOSED 4"Ø CEMENT LINED DIP FIRE WATER SERVICE
6" DIP DRAIN PIPE FROM BACKFLOW DRAIN. CONNECT TO DMH #2
15" HDPE 19 LF @ 2.11%
DMH #2 RIM: 376.00± INV.: 370.70
15" HDPE 27 LF @ 2.40%
100' N.Y.S. FRESHWATER WETLAND ADJACENT AREA
PROPOSED S.S.D.S. EXPANSION AREA. SEE SHEET 5 S.S.D.S. PLAN
8" HDPE 12 LF @ 1.25%
OIL/WATER SEPARATOR RIM: 375.90 ± INV.: 370.25
8" HDPE 20 LF @ 1.00%
DRAIN INLET (OVERFLOW) RIM: 369.4± INV : 366.40
15" HDPE 89 LF @ 1.52%
PROPOSED 3"Ø CEMENT LINED DIP DOMESTIC WATER SERVICE
DMH #1 RIM: 375.5± INV.: 370.05
100' LOCAL/N.Y.C.D.E.P. WETLAND AND WATERCOURSE SETBACK
15" HDPE 152 LF @ 1.64%
12" HDPE 7 LF @ 1.43%
TP SWTP 1
PROPOSED S.W.T.A. AREA
PROPOSED 8"Ø CEMENT LINED DIP WATER SERVICE
CB #4 RIM: 374.6± INV.: 368.70
CB #5 RIM: 374.0± INV.: 370.50
15" HDPE 12 LF @ 7.90%
15" HDPE 47 LF @ 1.06%
EXISTING WELLS TO BE ABANDONED AS PER THE WESTCHESTER COUNTY HEALTH DEPARTMENT RULES AND REGULATIONS
PROPOSED 4' X 4' CONCRETE METER PIT (SEE DETAIL SHEET 16/21)
6" HDPE 11 LF @ 5.00%
FLOWSPLITTER #2 RIM: 373.30± INV.: 367.85 (6"Ø) INV.: 369.85 (15"Ø)
15" HDPE 18 LF @ 1.00%
CB #2 RIM: 373.30± INV.: 370.05
6" HDPE 7 LF @ 4.29%
PROPOSED WATER QUALITY TREATMENT STRUCTURE #1 RIM: 373.5 INV.: 367.55
PROPOSED 4"Ø PVC SEWER WITH 6"Ø PVC SCH-80 SLEEVE
PROPOSED TWO (2) 6" Ø PVC SCH-80 SLEEVES UNDER DRIVE TO BE INSTALLED AT TIME OF PRIMARY S.S.D.S. INSTALLATION
PROPOSED TRANSFORMER PAD BY ELECTRICAL CONTRACTOR
PROPOSED S.S.D.S. TANK. SEE SHEET 5 S.S.D.S. PLAN
PROPOSED S.S.D.S. PUMP CHAMBER. SEE SHEET 5 S.S.D.S. PLAN
HW#3 INV. 369.0
15" HDPE 35 LF @ 2.43%
UNDERGROUND INFILTRATION SYSTEM (36) CULTEC 330HD, 4 ROWS OF 8 BOTTOM 365.10 INV IN: 367.0
TP SWTP 3
TP16
PROPOSED S.W.T.A. AREA
PROPOSED GRASS SWALE
100' LOCAL WETLAND SETBACK
100' N.Y.S. FRESHWATER WETLAND ADJACENT AREA
100' N.Y.C.D.E.P. WATERCOURSE SETBACK
SOUTHBROOK ROAD
ARMY CORPS OF ENGINEERS WETLAND
HW #2 INV.: 363.80
PROPOSED CULVERT 12" HDPE 50 LF @ 0.50%
HW #1 INV.: 364.05
R-TANK (462 3.5" CHAMBERS) INFILTRATION SYSTEM TOP: 371.82 INV IN 367.20
PROPOSED WATER QUALITY TREATMENT STRUCTURE #3 RIM 374.1± INV 367.50
12" HDPE 7 LF @ 6.43%
CB #7 RIM: 373.0± INV.: 369.50
CB #6 RIM 373.0± INV. 369.00
PROPOSED FLOWSPLITTER #1 RIM: 374.2± INV. IN: 367.75 (15"Ø) INV.: 367.75 (12"Ø PIPE W/11"Ø ORIFICE PLATE TO R-TANK) INV.: 368.9(15"Ø TO OVERFLOW)
EXISTING 8"Ø WATER MAIN
PROPOSED 8" x 8" x 3" TEE WITH 3" GATE VALVE
PROPOSED 8" TAPPING SLEEVE AND 8" GATE VALVE (BY TOWN OF BEDFORD WATER DEPT.)
PROPOSED S.S.D.S. AREA. SEE SHEET 5 S.S.D.S. PLAN
(NYS RTE. 22) OLD POST ROAD
WASHINGTON AVE.
LINCOLN AVE.
10' MIN.
WHITE LINE
DOUBLE YELLOW
GRAPHIC SCALE
(IN FEET)
1 inch = 30 ft.

LEGEND

EXISTING PROPERTY LINE	
WETLAND BOUNDARY	
WATER COURSE	
WETLAND AREA	
100' WETLAND (WATER COURSE) SETBACK	
PROPERTY LINE ADJACENT	
PROPOSED STRUCTURES	
PROPOSED EDGE OF PAVEMENT	
PROPOSED CONCRETE CURB	
PROPOSED CONCRETE MOUNTABLE CURB	
PROPOSED REDI-ROCK RETAINING WALL	
PROPOSED PRE-CAST CONCRETE HEADWALL	
WS	PROPOSED WATER MAIN
PROPOSED FIRE HYDRANT	
PROPOSED WATER VALVE	
PROPOSED DRAINAGE CATCH BASIN	
PROPOSED DRAINAGE MANHOLE	
PROPOSED DRAINAGE PIPE	
RD	PROPOSED ROOF LEADER PIPE (SEE PLAN FOR SIZE)
P1	LOCATION OF PERCOLATION TEST
TP1	LOCATION OF DEEP PIT TEST
PROPOSED LIMIT OF DISTURBANCE	
PROPOSED 12" x 12" x 1 1/2" WASHED STONE CONTINUOUSLY AROUND BUILDING. (SEE ARCHITECTURAL PLANS SHEET A 8.4 FOR MORE DETAIL)	

NOTES:

1. SURVEY INFORMATION OBTAINED FROM A MAP ENTITLED " MAP OF TOPOGRAPHIC SURVEY PREPARED FOR BEDFORD VILLAGE FIRE DISTRICT" PREPARED BY CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE, CO., D.P.C. DATED LAST REVISED MAY 1, 2018.

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DRAINAGE AND UTILITY PLAN

BEDFORD VILLAGE FIRE DISTRICT

TOWN OF BEDFORD — WESTCHESTER COUNTY, NEW YORK

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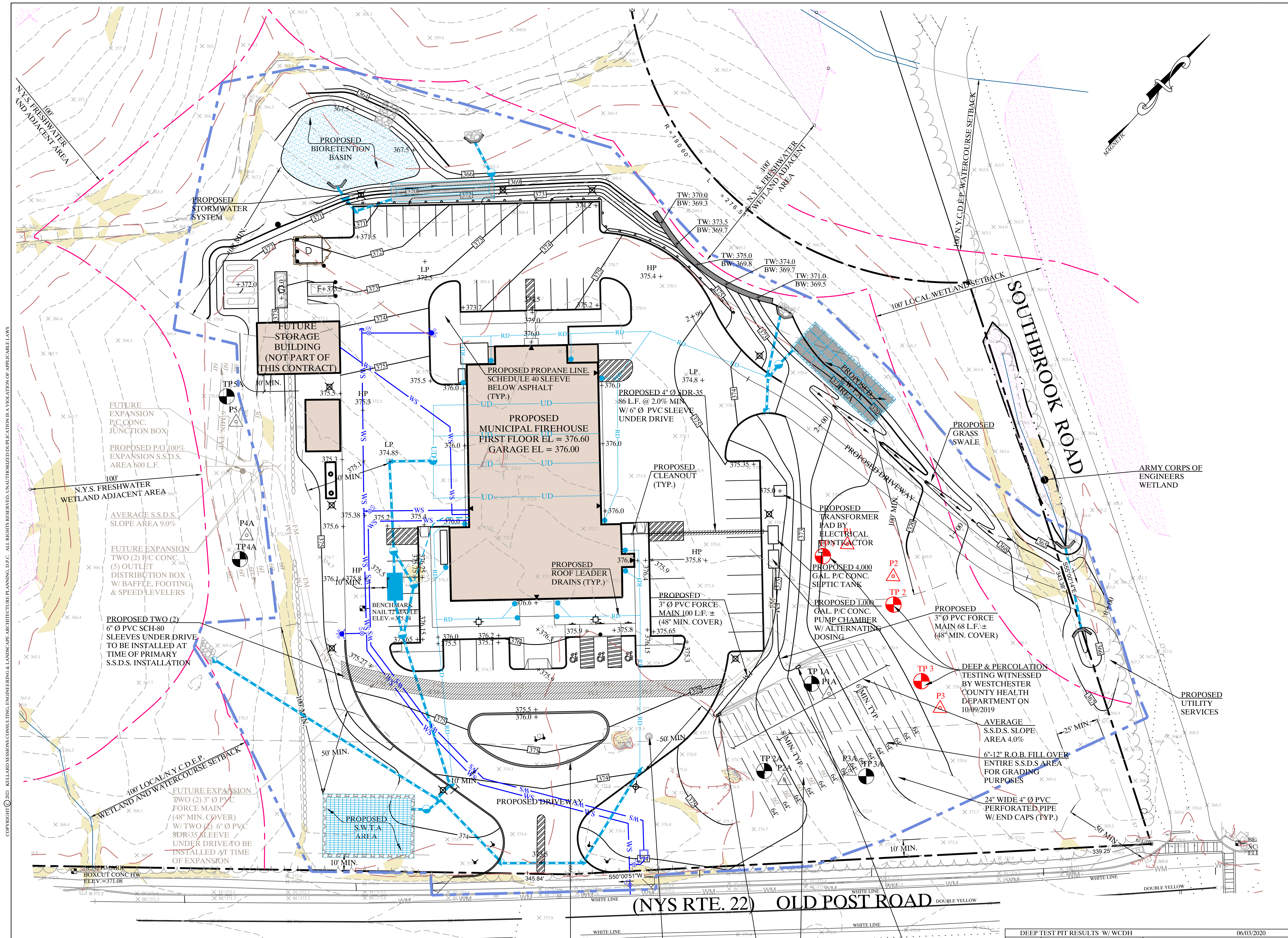

LEGEND

- EXISTING PROPERTY LINE
- WETLAND BOUNDARY
- WATER COURSE
- WETLAND AREA
- 100' WETLAND (WATER COURSE) SETBACK
- PROPERTY LINE ADJACENT
- PROPOSED STRUCTURES
- PROPOSED EDGE OF PAVEMENT
- PROPOSED CONCRETE CURB
- PROPOSED CONCRETE MOUNTABLE CURB
- PROPOSED CONCRETE RETAINING WALL
- PROPOSED STONE HEADWALL
- PROPOSED WATER MAIN
- PROPOSED FIRE HYDRANT
- PROPOSED WATER VALVE
- PROPOSED DRAINAGE CATCH BASIN
- PROPOSED DRAINAGE MANHOLE
- PROPOSED DRAINAGE PIPE
- TP 2 / P2 — WITNESSED TESTING BY WESTCHESTER COUNTY HEALTH DEPARTMENT ON 06/03/2020 & 06/10/2020
- TP 2 / P2 — WITNESSED TESTING BY WESTCHESTER COUNTY HEALTH DEPARTMENT ON 10/9/2019

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

PERCOLATION TEST RESULTS W/ WCDH 06/10/20	
PERC HOLE #	PERC RATE
P1A	4.30 MIN/INCH
P2A	3.60 MIN/INCH
P3A	3.60 MIN/INCH
P4A	3.60 MIN/INCH
P5A	3.60 MIN/INCH

DEEP TEST PIT RESULTS W/ WCDH 06/03/2020

TEST PIT	DEPTH FROM SURFACE(INCH)	SOIL DESCRIPTION
TP-1A	0-12" 12"-30" 30"-90"	TOPSOIL MODERATE COMPACTED MEDIUM SANDS MODERATE TO LOOSE COMPACTED MEDIUM COARSE SANDS
TP-2A	0-12" 12"-30" 30"-84"	TOPSOIL MODERATE COMPACTED MEDIUM SANDS MODERATE TO LOOSE COMPACTED MEDIUM COARSE SANDS
TP-3A	0-12" 12"-30" 30"-84"	TOPSOIL MODERATE COMPACTED MEDIUM SANDS MODERATE TO LOOSE COMPACTED MEDIUM COARSE SANDS
TP-4A	0-12" 12"-30" 30"-96"	TOPSOIL MODERATE COMPACTED MEDIUM SANDS MODERATE TO LOOSE COMPACTED MEDIUM COARSE GRAY SANDS
TP-5A	0-12" 12"-30" 30"-84"	TOPSOIL MODERATE COMPACTED MEDIUM SANDS MODERATE TO LOOSE COMPACTED MEDIUM COARSE GRAY SANDS

S.S.D.S. NOTES

1.) PROPERTY OWNER: BEDFORD VILLAGE FIRE DISTRICT
36 VILLAGE GREEN
BEDFORD, N.Y. 10506

SITE LOCATION: 550 BEDFORD ROAD,(ROUTE 22)

TAX MAP DESIGNATION SHEET: SECTION 71.12 BLK. 2 LOT 1

TOTAL AREA: ± 8.0 ACRES (350,409 S.F.) LOT 1

2.) CONSTRUCTION OF THE SUBSURFACE SEWAGE DISPOSAL SYSTEM SHALL BE IN ACCORDANCE WITH THESE PLANS. ADDITIONS AND/OR MODIFICATIONS TO THE SYSTEM SHALL BE IN ACCORDANCE WITH NYSDOH 10NYCRR APPENDIX 75-A, "WCDOH RULES AND REGULATIONS" AND NEW YORK STATE DESIGN STANDARDS FOR INTERMEDIATE SIZED WASTE WATER TREATMENT SYSTEMS, MARCH 5, 2014. ALL ADDITIONS AND/OR MODIFICATIONS SHALL BE ENDORSED BY THE ENGINEER, AND WESTCHESTER COUNTY HEALTH DEPARTMENT PRIOR TO CONSTRUCTION OF THE SYSTEM.

3.) ELEVATIONS OF THE SUBSURFACE SEWAGE DISPOSAL SYSTEM HAVE BEEN ESTABLISHED BASED ON THE SEWER INVERT EXITING THE BUILDING AND GROUND ELEVATIONS WITHIN THE ABSORPTION AREA. SHOULD THE SEWER INVERT BE CHANGED, ADJUSTMENTS OF ELEVATIONS AND LOCATION TO THE REMAINING PORTIONS OF THE SYSTEM MAY BE REQUIRED. ALL CHANGES SHALL BE ENDORSED BY THE ENGINEER PRIOR TO CONSTRUCTION.

4.) THE PROPOSED (OWTS) ONSITE WASTEWATER TREATMENT SYSTEM AREA SHALL BE ISOLATED AND PROTECTED AGAINST DAMAGE BY EROSION, STORAGE OF EARTH OR MATERIALS, DISPLACEMENT, COMPACTION OR OTHER ADVERSE PHYSICAL CHANGE IN THE CHARACTERISTICS OF THE SOIL OR IN THE DRAINAGE OF THE AREA.

5.) THE DESIGN OF THE SUBSURFACE SEWAGE DISPOSAL AREA IS BASED ON A SOIL PERCOLATION RATE OF 3-5 MIN./INCH.

PROPOSED FIRE HOUSE ANTICIPATED DAILY USAGE BASED ON EQUIPMENT:

CHIEF'S CAR =	4	MAX. SEATING
CHIEF'S CAR =	4	MAX. SEATING
CHIEF'S CAR =	4	MAX. SEATING
UTILITY VEHICLE =	4	MAX. SEATING
E.M.S. RESPONSE VEHICLE =	4	MAX. SEATING
HOSE TRUCK =	2	MAX. SEATING
FIRE ENGINE =	6	MAX. SEATING
FIRE ENGINE =	6	MAX. SEATING
RESCUE TRUCK =	6	MAX. SEATING
AMBULANCE =	4	MAX. SEATING
AMBULANCE =	4	MAX. SEATING
TOTAL OF MEMBERS =	48	MAX. SEATING

DESIGN FLOW: 48 MEMBERS @ 15 GALLONS PER DAY = 720 GALS./DAY
720 GALS./DAY x 0.80 (20% REDUCTION) FOR LOW FLOW PLUMBING FIXTURES = 576 GALS./DAY
14 BEDROOM @ 110 GALLON PER DAY = 1,540 GALS./DAY
TOTAL DESIGN FLOW = 2,116 GALS./DAY

SEPTIC TANK SIZE = 2,116 GPD X 1.5) = 3,175 GALLONS (USE ONE 4,000 GALLON SEPTIC TANK)

REQUIRED LENGTH OF FIELD SYSTEM: ABSORPTION TRENCH LENGTH (MIN.) 2,116 GAL./DAY / 1.2 GAL./S.F./DAY x 2 S.F./L.F.= 882 L.F.

6.) THE SUBSURFACE SEWAGE DISPOSAL SYSTEM SHALL CONSIST OF THE FOLLOWING IMPROVEMENTS:

896	L.F. TOTAL OF ABSORPTION TRENCH FOR S.S.D.S. AREA
4,000	GAL. PRECAST CONCRETE SEPTIC TANK
1	EA. 1,000 GAL. MIN. P/C CONC. PUMP TANK W/ AUDIO/VISUAL ALARM (BUILDING WILL HAVE GENERATOR WHICH WILL POWER SEWER PUMPS AND ALARM PANEL)
1	EA. JUNCTION BOX W/ BAFFLE (FUTURE EXPANSION)
6"-12"	R.O.B. FILL OVER ENTIRE S.S.D.S. AREA
4.0%	AVERAGE SLOPE OVER PRIMARY S.S.D.S. & P/O EXPANSION AREA
9.0%	AVERAGE SLOPE OVER P/O EXPANSION AREA
2	EA. P/C CONC. DISTRIBUTION BOX W/ BAFFLE, FOOTING, & SPEED LEVELERS (PRIMARY & EXPANSION S.S.D.S. AREA)
260	GAL. DOSE PER PUMP/CYCLE (PRIMARY)

7.) SHOULD FILL BE REQUIRED WITHIN THE SUBSURFACE SEWAGE DISPOSAL AND EXPANSION AREAS, ALL FILL PLACED SHALL BE "BANK RUN" FILL CONFORMING TO WESTCHESTER COUNTY HEALTH DEPARTMENT "WCDOH RULES AND REGULATIONS". BANK RUN FILL SHALL BE PLACED TO THE DEPTHS SPECIFIED ON THE DRAWINGS. PRIOR TO PLACING FILL THE ENGINEER SHALL INSPECT AND APPROVE THE MATERIAL.

8.) THE CONTRACTOR SHALL CONSTRUCT DRAINS AND SWALES AS SPECIFIED ON THE PLAN, IN ORDER TO DIVERT GROUND AND SURFACE WATER AROUND ABSORPTION AREA. ALL ROOF, FOUNDATION AND SURFACE WATER SHALL BE DISCHARGED TO PROPOSED DRAINS AND NOT BE DISCHARGED TOWARDS PRIMARY S.S.D.S. AND EXPANSION S.S.D.S AREA.

9.) THE CONTRACTOR SHALL REMOVE AND STOCKPILE TOPSOIL FROM ABSORPTION AREA. UPON COMPLETION OF CONSTRUCTION OF THE SYSTEM TOPSOIL SHALL BE REPLACED WITHIN THE AREA TO A MINIMUM DEPTH OF FOUR (4) INCHES.

10.) THERE SHALL BE NO TREES WITHIN TEN (10) FEET OF THE ABSORPTION AREA.

11.) THE CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED AREAS IMMEDIATELY UPON COMPLETION OF CONSTRUCTION. IN ADDITION THE CONTRACTOR SHALL EMPLOY EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH WESTCHESTER COUNTY'S BEST MANAGEMENT PRACTICES MANUAL FOR CONSTRUCTION RELATED ACTIVITIES IN AN EFFORT TO REDUCE EROSION AND PREVENT SEDIMENTATION OF DOWNSTREAM WATER COURSES.

12.) THE DESIGN PROFESSIONAL SHALL SUPERVISE THE CONSTRUCTION OF THE OWTS AND MAKE AN OPEN WORKS INSPECTION.

13.) THE DESIGN ENGINEER SHALL NOTIFY WESTCHESTER COUNTY HEALTH DEPARTMENT FOR INSPECTION OF THE SYSTEM WITHIN 24 HOURS OF COMPLETION OF CONSTRUCTION.

14.) THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY WITHIN COMPLETION OF CONSTRUCTION.

15.) THE CONTRACTOR SHALL NOT BACKFILL THE SYSTEM UNTIL IT HAS BEEN INSPECTED AND APPROVED BY THE ENGINEER AND WESTCHESTER COUNTY HEALTH DEPARTMENT AND NYCDEP HAS BEEN PROVIDED THE OPPORTUNITY TO INSPECT.

16.) SOILS IN THE VICINITY OF THE SUBSURFACE SEWAGE DISPOSAL SYSTEM ARE *KnB* (KNICKERBOCKER) PER UNITED STATES DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE.

17.) NO NYSDEC WETLANDS OR SURFACE WATER COURSES ARE WITHIN 200' OF THE PROPOSED SUBSURFACE SEWAGE DISPOSAL SYSTEM UNLESS INDICATED ON THE PLAN. AN ON-SITE WATER COURSE AND LOCAL WETLANDS DOES EXIST 100+ FEET FROM THE PROPOSED SUBSURFACE SEWAGE DISPOSAL SYSTEM, AS DEPICTED ON THIS PLAN.

18.) NO RESERVOIRS, RESERVOIR STEMS OR CONTROLLED LAKE WITHIN 500' OF THE SUBSURFACE SEWAGE DISPOSAL SYSTEM UNLESS OTHERWISE INDICATED ON THE PLAN.

19.) THERE ARE NO WELLS WITHIN 200' OF OWTS UNLESS OTHERWISE SHOWN ON PLAN.

20.) ANTICIPATED CONSTRUCTION START: APRIL 01, 2021
ANTICIPATED CONSTRUCTION COMPLETION: OCTOBER 31, 2022

21.) APPROXIMATE AREA OF DISTURBANCE = 161,100 S.F. +/-

22.) PROPERTY IS WITHIN THE CROTON RIVER BASIN.

23.) PROPOSED SUBSURFACE SEWAGE DISPOSAL SYSTEM SHALL BE INSTALLED BY A WESTCHESTER COUNTY LICENSED SEPTIC CONTRACTOR.

24.) PRIOR TO EXCAVATING, ALL UNDERGROUND UTILITIES MUST BE LOCATED, CALL 1-800-962-7962

25.) THE INSTALLATION OF THE SUBSURFACE SEWAGE DISPOSAL SYSTEM SHALL BE IN ACCORDANCE WITH THE RULES & REGULATIONS OF THE WESTCHESTER COUNTY DEPARTMENT OF HEALTH AND THE NEW YORK STATE DESIGN STANDARDS FOR INTERMEDIATE SIZED WASTEWATER TREATMENT SYSTEMS DATED MARCH 5, 2014.

26.) ALL PIPES CONNECTING TO TANK AND BOXES SHALL BE CUT FLUSH WITH THE INSIDE WALL OF BOX.

27.) IF FOR ANY REASON THE APPROVED CONSTRUCTION PLAN CAN NOT BE FOLLOWED, A REVISED PLAN MUST BE PREPARED, SUBMITTED, AND APPROVED BY WCDH.

28.) THE WESTCHESTER COUNTY HEALTH DEPARTMENT APPROVAL EXPIRES ONE YEAR FROM THE DATE ON THE APPROVAL STAMP AND IS REQUIRED TO BE RENEWED ON OR BEFORE THE EXPIRATION DATE. THE APPROVAL IS REVOCABLE FOR CAUSE OR MAY BE AMENDED OR MODIFIED WHEN CONSIDERED NECESSARY BY THE DEPARTMENT.

29.) NYCDEP MUST BE CONTACTED AT LEAST TWO DAYS PRIOR TO START OF CONSTRUCTION. NYCDEP SHALL HAVE THE OPPORTUNITY TO INSPECT AND MONITOR THE SYSTEM INSTALLATION.

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S.S.D.S. PLAN

BEDFORD VILLAGE FIRE DISTRICT

TOWN OF BEDFORD — WESTCHESTER COUNTY, NEW YORK

STATE OF NEW YORK LICENSED PROFESSIONAL ENGINEER 058736

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PROJECT I.D.: BDBEDFORDFIRE200

DATE: SEPTEMBER 18, 2020

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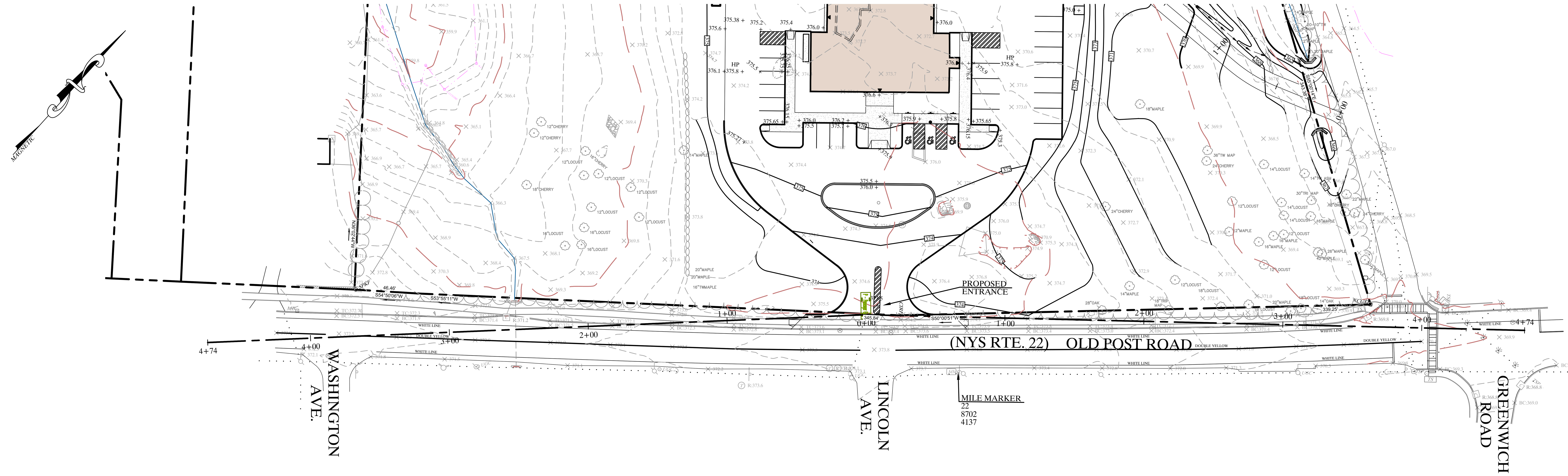
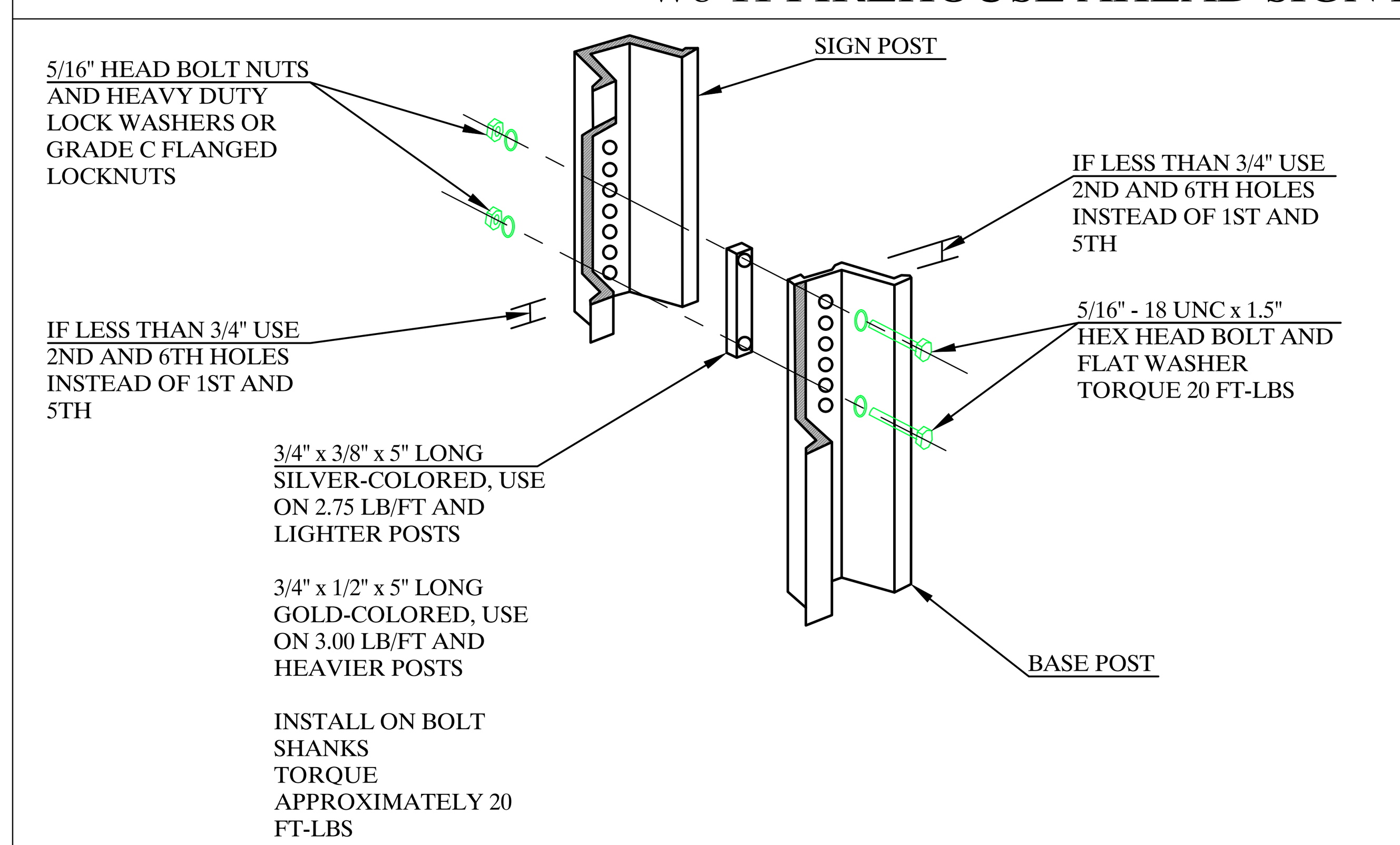


TRAFFIC SIGN BREAKAWAY BASE INSTALLATION AND W8-11 FIREHOUSE AHEAD SIGN DETAIL (N.T.S.)



24" x 24" W8-11 FIREHOUSE AHEAD SIGN

NOTE:
SIGNS WILL BE INSTALLED 250 FEET AHEAD OF THE SITE DRIVEWAY ON THE EAST AND WEST BOUND APPROACHES

SIGHT DISTANCE SUMMARY TABLE

		AASHTO SIGHT DISTANCES(1)		AVAILABLE SIGHT DISTANCE	
ROADWAY DESIGN SPEED	43 MPH	STOPPING SIGHT DISTANCE (FT)	INTERSECTION SIGHT DISTANCE (FT)	DIRECTION	EXISTING
LEFT TURN FROM SITE ACCESS		335	474	LOOKING LEFT	500+
				LOOKING RIGHT	500+
RIGHT TURN FROM SITE ACCESS		335	411	LOOKING LEFT	500+
LEFT TURN FROM MAJOR ROAD		335	348	LEFT TURN ENTRY	500+

NOTES:

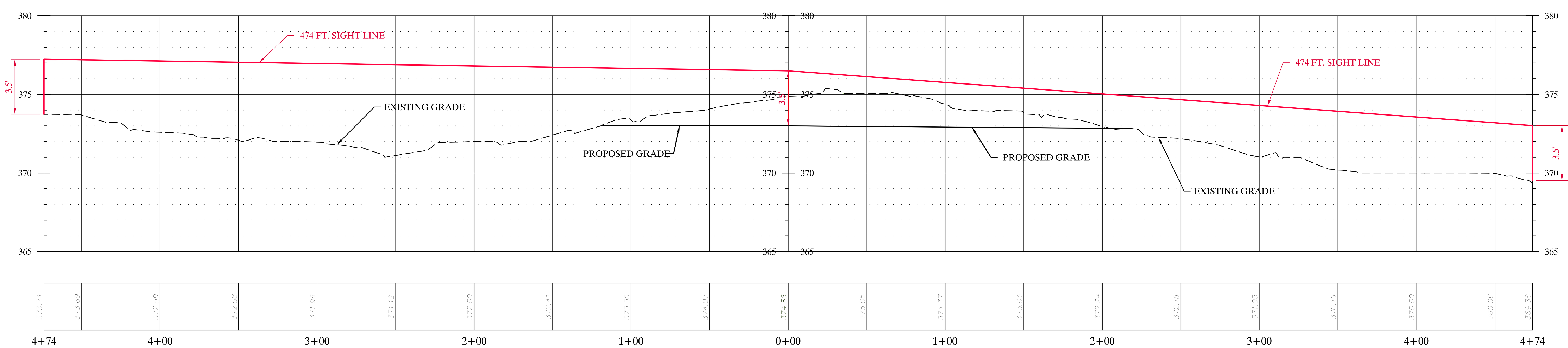
(1) BASED ON THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO), 7TH EDITION 2018 FOR THE OBSERVED 85TH PERCENTILE SPEED.

NOTES:

1. SURVEY INFORMATION OBTAINED FROM A MAP ENTITLED " MAP OF TOPOGRAPHIC SURVEY PREPARED FOR BEDFORD VILLAGE FIRE DISTRICT" PREPARED BY CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE, CO., D.P.C. DATED LAST REVISED MAY 1, 2018.

2 SITE LINE INFORMATION TAKEN FROM A PLAN ENTITLED "SITE LINE PROFILES PLAN" PREPARED BY MASER CONSULTANTS, P.A. LAST DATED JUNE 23, 2020.

GRAPHIC SCALE
(IN FEET)
1 inch = 40 ft.



PROFILE OF SIGHT LINE LOOKING SOUTH WEST
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

PROFILE OF SIGHT LINE LOOKING NORTH EAST
HORIZONTAL : 1" = 40'
VERTICAL : 1" = 4'

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NYSDOT SITE LINE PROFILES PLAN

BEDFORD VILLAGE FIRE DISTRICT

TOWN OF BEDFORD — WESTCHESTER COUNTY, NEW YORK

STATE OF NEW YORK — LICENSED PROFESSIONAL ENGINEER — 058736

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PROJECT I.D.: BDBEDFORDFIRE200

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GENERAL NOTES:

1. SURVEY INFORMATION OBTAINED FROM A MAP ENTITLED " MAP OF TOPOGRAPHIC SURVEY PREPARED FOR BEDFORD VILLAGE FIRE DISTRICT" PREPARED BY CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE, CO., D.P.C. DATED LAST REVISED MAY 1, 2018.

2 TRAFFIC CONTROL INFORMATION OBTAINED FROM A PLAN ENTITLED "WORK ZONE TRAFFIC CONTROL PLAN" PREPARED BY MASER CONSULTANTS, P.A. LAST DATED JUNE 25, 2020.

NOTES:

1. WHEN A SIDE ROAD OR DRIVEWAY INTERSECTS THE ROADWAY WITHIN A WORK ZONE TRAFFIC CONTROL AREA, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES AND/OR FLAGGERS SHALL BE PLACED AS NEEDED. ADDITIONAL FLAGGERS SHALL BE LOCATED AT ALL INTERSECTIONS AND COMMERCIAL DRIVEWAYS LOCATED WITHIN OR NEAR THE ACTIVE WORK SPACE.
2. NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
4. THE END ROAD WORK SIGN (G20-2) SHALL BE PLACED A MAXIMUM OF 500' PAST THE END OF THE WORK SPACE.
5. WHERE DIRECTED BY THE ENGINEER, A BUFFER SPACE SHALL BE PROVIDED IN ORDER TO LOCATE THE ONE-LANE, TWO-WAY TRAFFIC TAPER PRIOR TO ANY HORIZONTAL OR VERTICAL CURVE, IN ORDER TO PROVIDE ADEQUATE SIGHT DISTANCE FOR THE FLAGGERS AND/OR A QUEUE OF STOPPED VEHICLES.
6. THE FLAG TREE SHALL BE LOCATED ON THE SHOULDER, AT APPROXIMATELY ½ THE DISTANCE BETWEEN THE FLAGGER SIGN (W20-7a) AND THE FLAGGER.
7. FLAGGER SIGN (W20-7a) AND ONE LANE ROAD AHEAD SIGN (W20-4) SHALL BE REMOVED, COVERED OR TURNED AWAY FROM ROAD USERS WHEN FLAGGING OPERATIONS ARE NOT OCCURRING.
8. FLAGGER AND FLAG TREE SHALL BE ILLUMINATED TO LEVEL II ILLUMINATION DURING NIGHT TIME OPERATIONS.
9. ALL FLAGGERS SHALL USE 24" (MIN.) OCTAGON SHAPED STOP/SLOW PADDLES HAVING 6' STAFF.

LEGEND

ITEMS	DESCRIPTION
619.01	CHANNELIZING DEVICES
	WORK ZONE
619.02	CONSTRUCTION SIGNS
	DIRECTION AND NUMBER OF TRAFFIC LANES
	FLAG TREE
	FLAGGER

WORK ZONE TRAFFIC CONTROL NOTES:

1. SOME SIGNS/DRUMS TO REMAIN IN PLACE FOR THE DURATION OF THE PROJECT.
2. REMOVE OR COMPLETELY COVER SIGNS WHERE NOT APPLICABLE.
3. ADJUST SIGNS/DRUMS AS NECESSARY TO ADDRESS TRAFFIC LANES/CONDITIONS.
4. ROAD WORK CAN ONLY TAKE PLACE ON ONE SIDE OF THE ROADWAY AT A TIME & MPT CONTROL.
5. ALL WORK TO BE COMPLETED IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATIONS USING THE FOLLOWING:
   - A. ITEM 619.01 - BASIC MAINTENANCE AND PROTECTION OF TRAFFIC
   - B. ITEM 619.02 - CONSTRUCTION SIGNS
   - C. ITEM 619.2101 - CONSTRUCTION ZONE PAVEMENT MARKINGS AND STRIPES
6. CONTRACTOR SHALL REFER TO NYSDOT STANDARD SHEETS 619.11 AND 619.60 FOR ADDITIONAL INFORMATION.

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NYSDOT WORK ZONE TRAFFIC CONTROL PLAN

BEDFORD VILLAGE FIRE DISTRICT

TOWN OF BEDFORD — WESTCHESTER COUNTY, NEW YORK

STATE OF NEW YORK · LICENSED PROFESSIONAL ENGINEER · 058736

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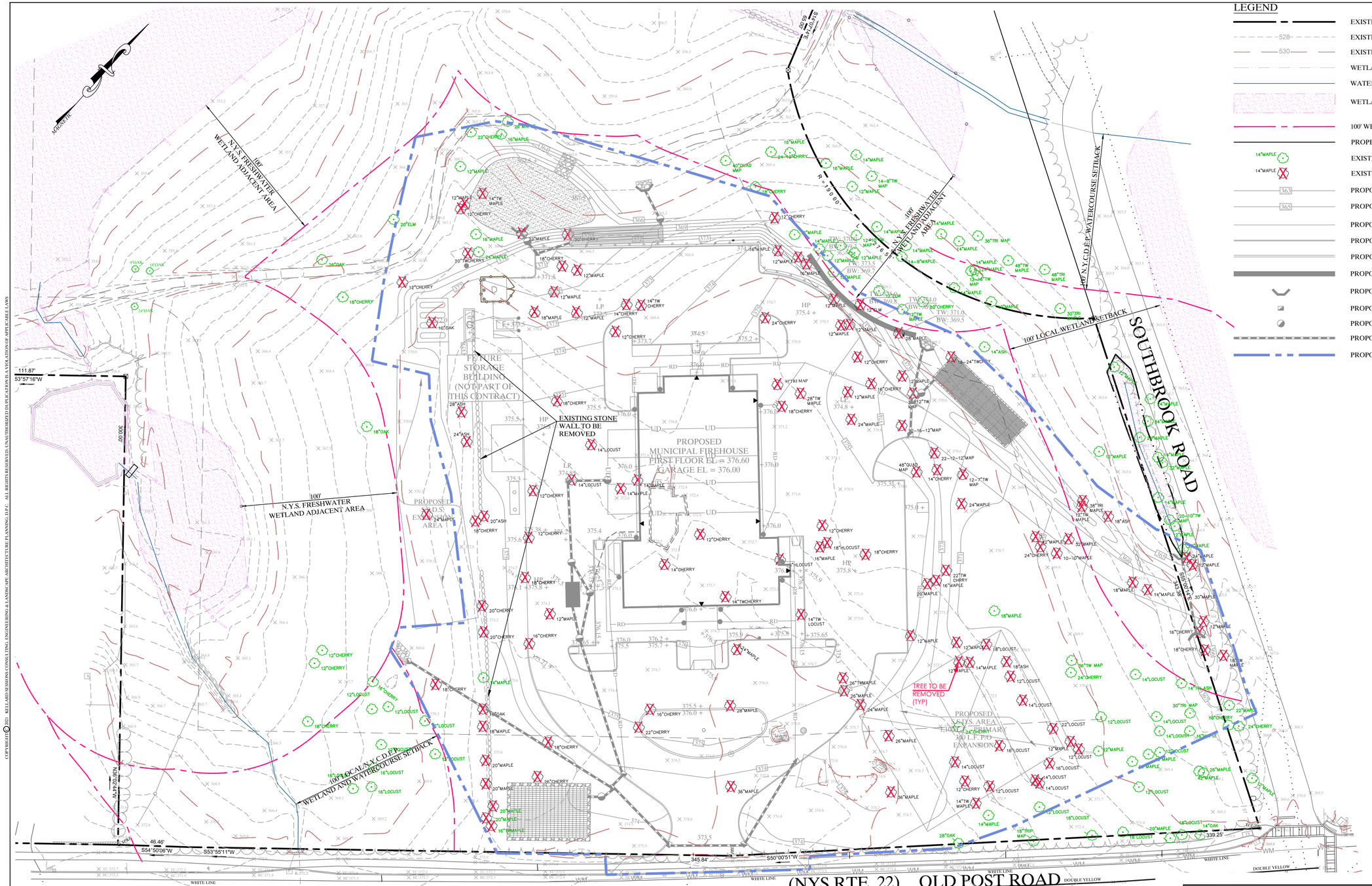

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)

1 inch = 30 ft.

LEGEND

- EXISTING PROPERTY LINE
- EXISTING 1' CONTOUR
- EXISTING 5' CONTOUR
- WETLAND BOUNDARY
- WATER COURSE
- WETLAND AREA
- 100' WETLAND (WATER COURSE) SETBACK
- PROPERTY LINE ADJACENT
- EXISTING TREE TO REMAIN
- EXISTING TREE TO BE REMOVED
- PROPOSED 1' CONTOUR
- PROPOSED 10' CONTOUR
- PROPOSED EDGE OF PAVEMENT
- PROPOSED CONCRETE CURB
- PROPOSED CONCRETE MOUNTABLE CURB
- PROPOSED CONCRETE RETAINING WALL
- PROPOSED STONE HEADWALL
- PROPOSED DRAINAGE CATCH BASIN
- PROPOSED DRAINAGE MANHOLE
- PROPOSED DRAINAGE PIPE
- PROPOSED LIMIT OF DISTURBANCE

Tree Removals

Size (in.)	Tree Type	Count
12	Maple	19
12	Cherry	10
18	Cherry	9
24	Maple	6
16	Cherry	4
14	Maple	4
14	Locust	6
14	Cherry	3
16	Maple	4
14	Twin Maple	3
28	Maple	2
26	Maple	2
18	Maple	3
18	Ash	2
16	Locust	2
12	Locust	3
14	Twin Cherry	2
18	Oak	1
18	H Locust	2
24	Cherry	1
28	Ash	1
16	Oak	1
24	Ash	1
22	Cherry	1
36	Maple	2
22	Maple	1
30	Cherry	1
30	Maple	1
26	Cherry	1
20	Ash	1
32	Maple	1
20	Cherry	2
20	Maple	5
22	Locust	1
18	Locust	1
14	Twin Locust	1
12	Twin Maple	1
26	Twin Maple	1
22	Twin Cherry	1
38	Tri Maple	1
28	Twin Maple	1
40	Tri Maple	1
22-16-12	Tri Maple	1
12-7	Twin Maple	1
22-12-12	Tri Maple	1
16-12	Twin Maple	1
10-10	Twin Maple	1
16-24	Twin Cherry	1
20	Twin Cherry	1
48	Quad Maple	1

NOTES:

1. SURVEY INFORMATION OBTAINED FROM A MAP ENTITLED " MAP OF TOPOGRAPHIC SURVEY PREPARED FOR BEDFORD VILLAGE FIRE DISTRICT" PREPARED BY CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE, CO., D.P.C. DATED LAST REVISED MAY 1, 2018.

2. THE MINIMUM TREE SIZE SURVEYED AND SHOWN IS 8 INCHES.

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TREE REMOVAL PLAN

BEDFORD VILLAGE FIRE DISTRICT

TOWN OF BEDFORD — WESTCHESTER COUNTY, NEW YORK

STATE OF NEW YORK — 058736 — LICENSED PROFESSIONAL ENGINEER

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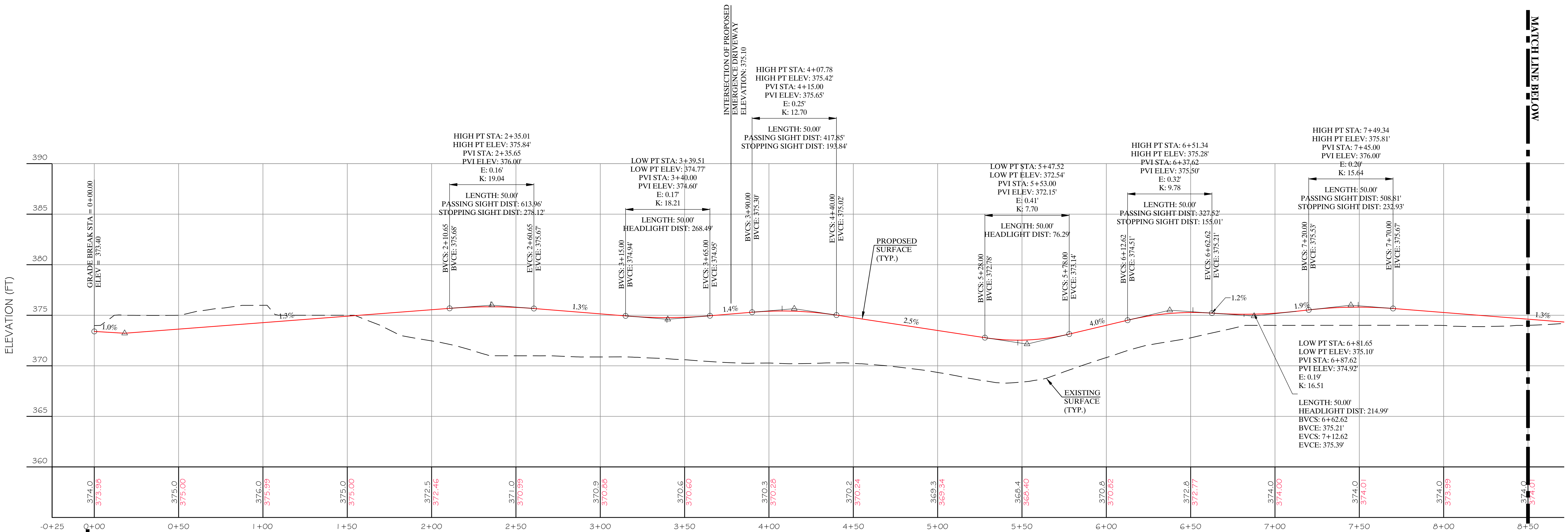
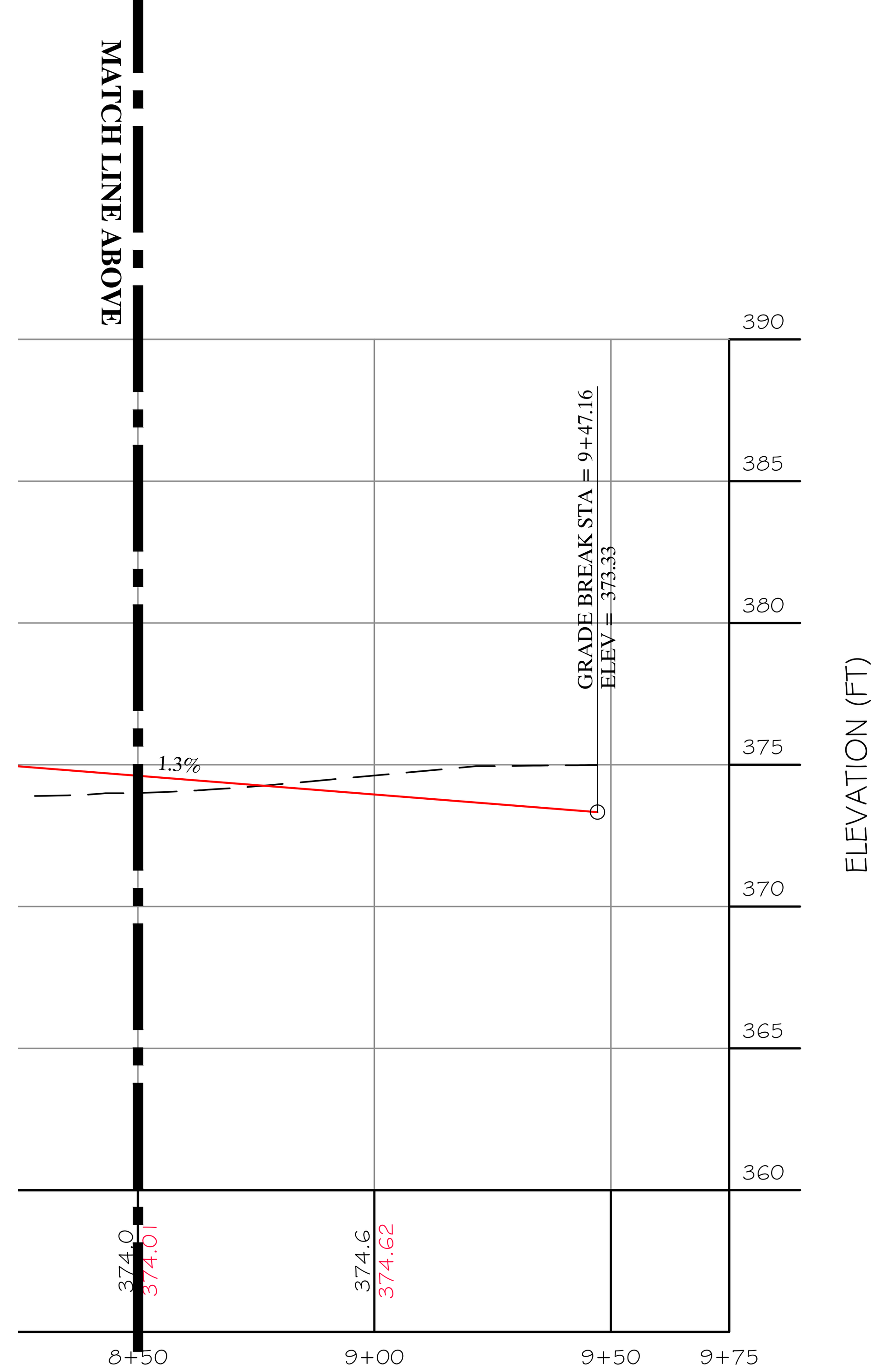
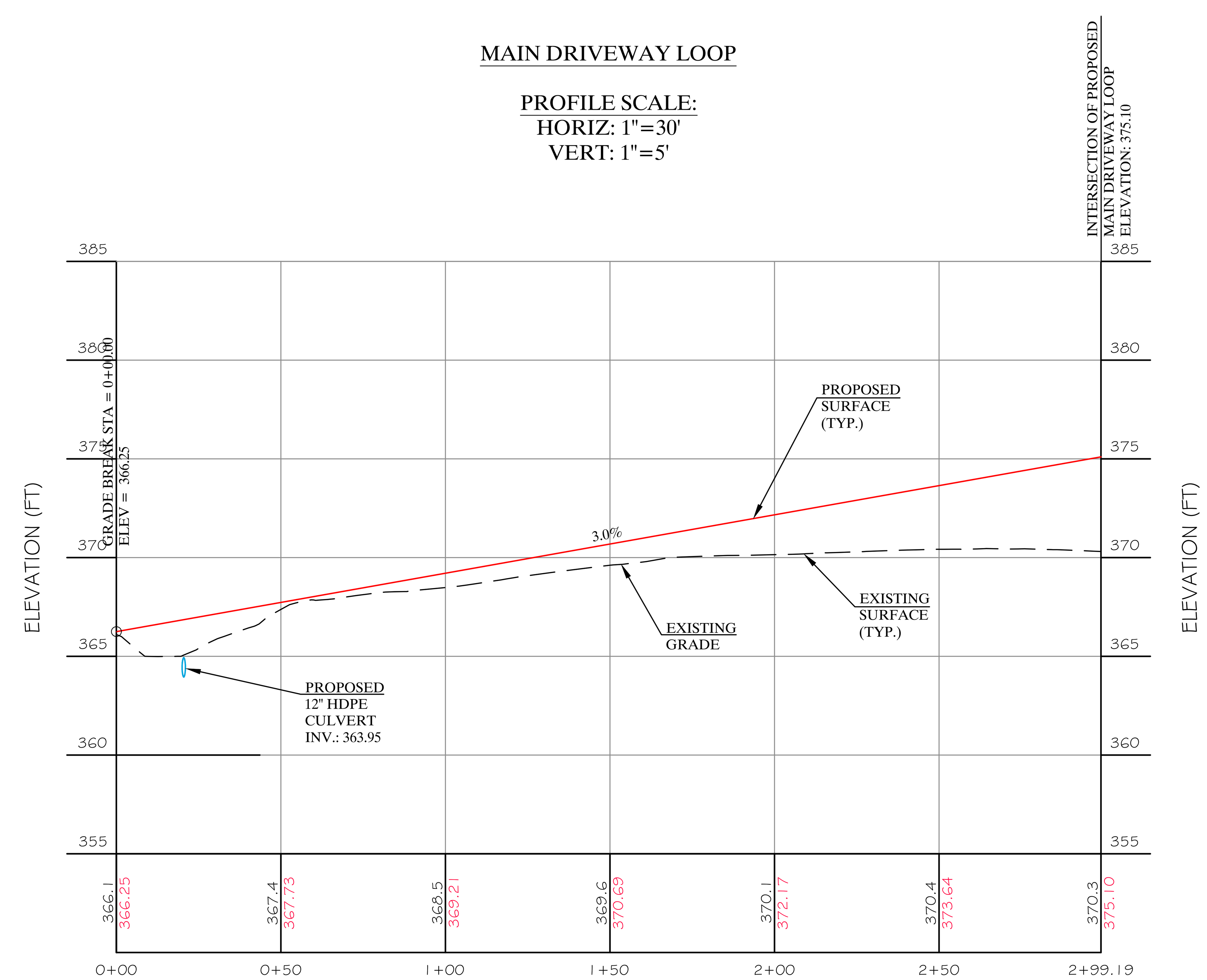


MAIN DRIVEWAY LOOP

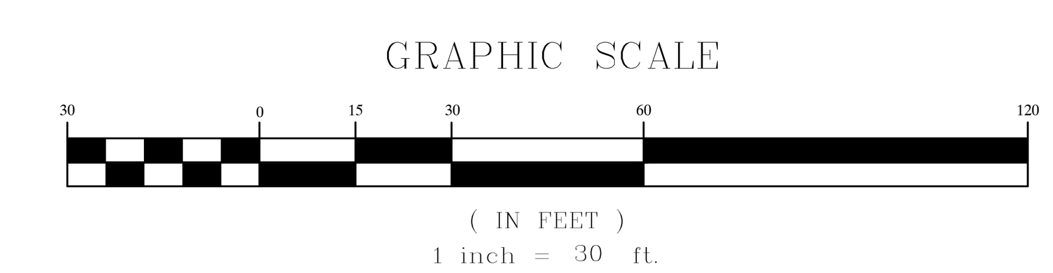
PROFILE SCALE:
HORIZ: 1"=30'
VERT: 1"=5'





SECONDARY ACCESS DRIVEWAY

PROFILE SCALE:
HORIZ: 1"=30'
VERT: 1"=5'



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DRIVEWAY PROFILES

BEDFORD VILLAGE FIRE DISTRICT

TOWN OF BEDFORD — WESTCHESTER COUNTY, NEW YORK

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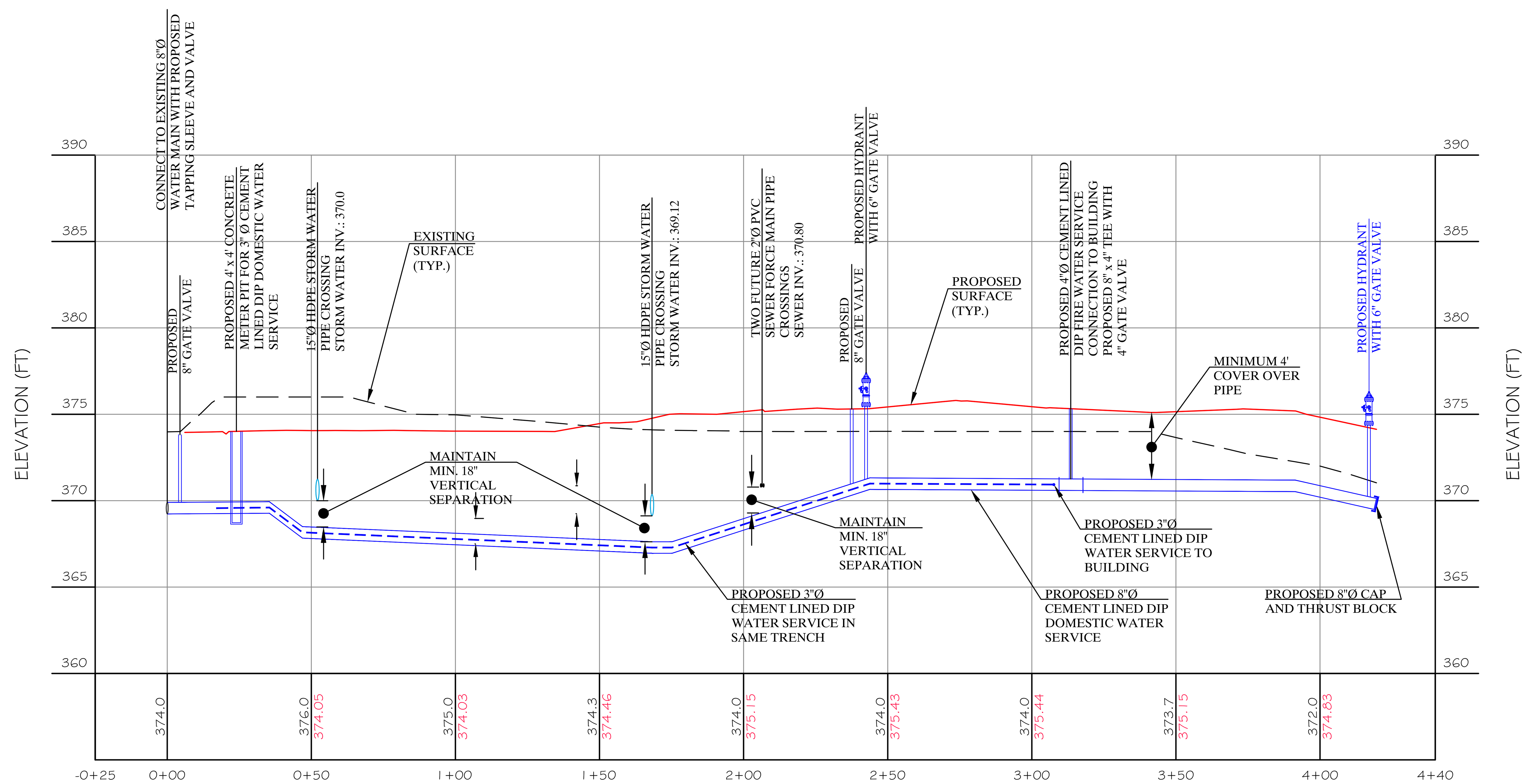

WATER SERVICE PROFILE

PROFILE SCALE:
HORIZ: 1"=30'
VERT: 1"=5'

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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WATER SERVICE PROFILE PLAN

BEDFORD VILLAGE FIRE DISTRICT

TOWN OF BEDFORD — WESTCHESTER COUNTY, NEW YORK

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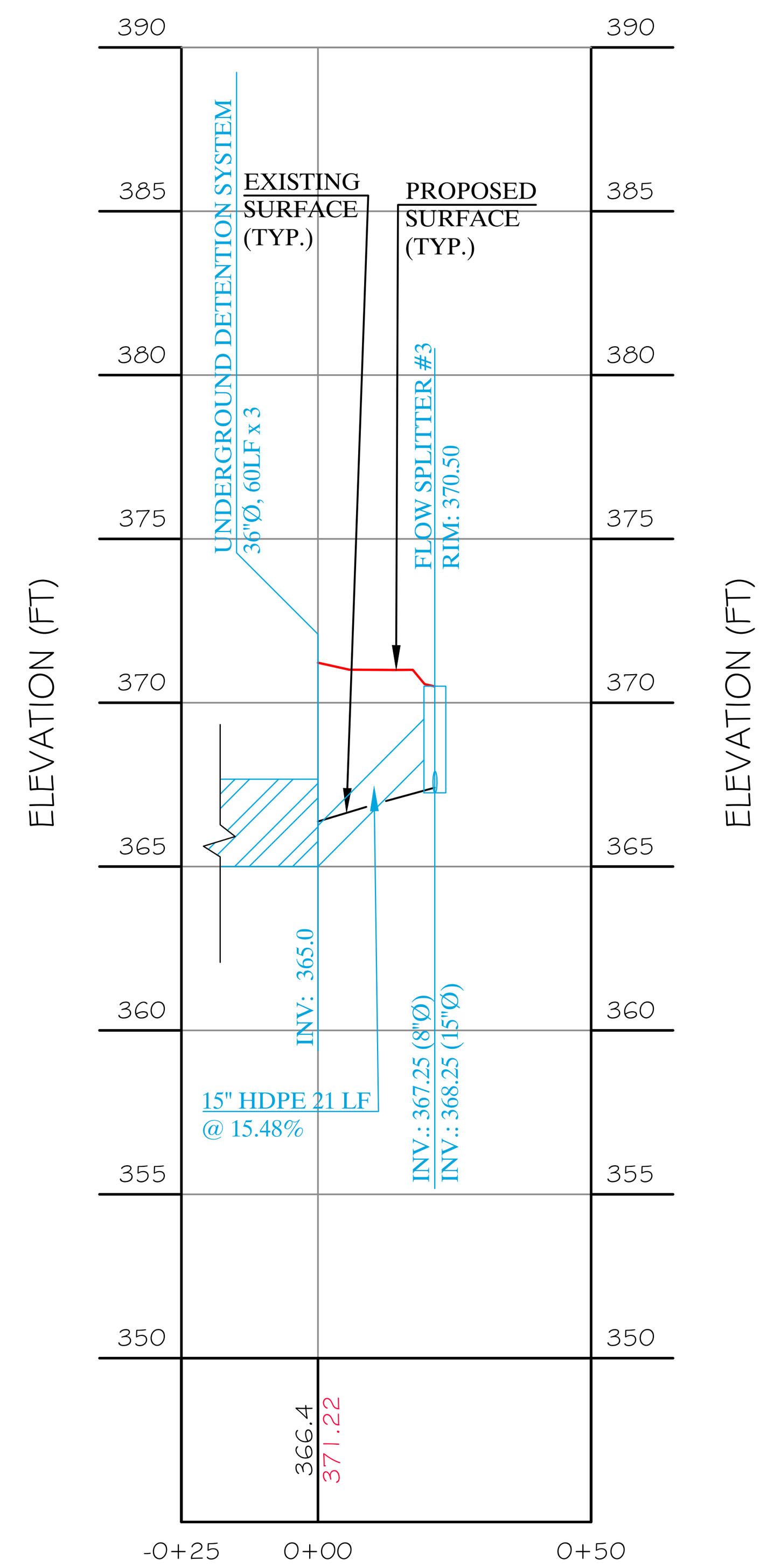
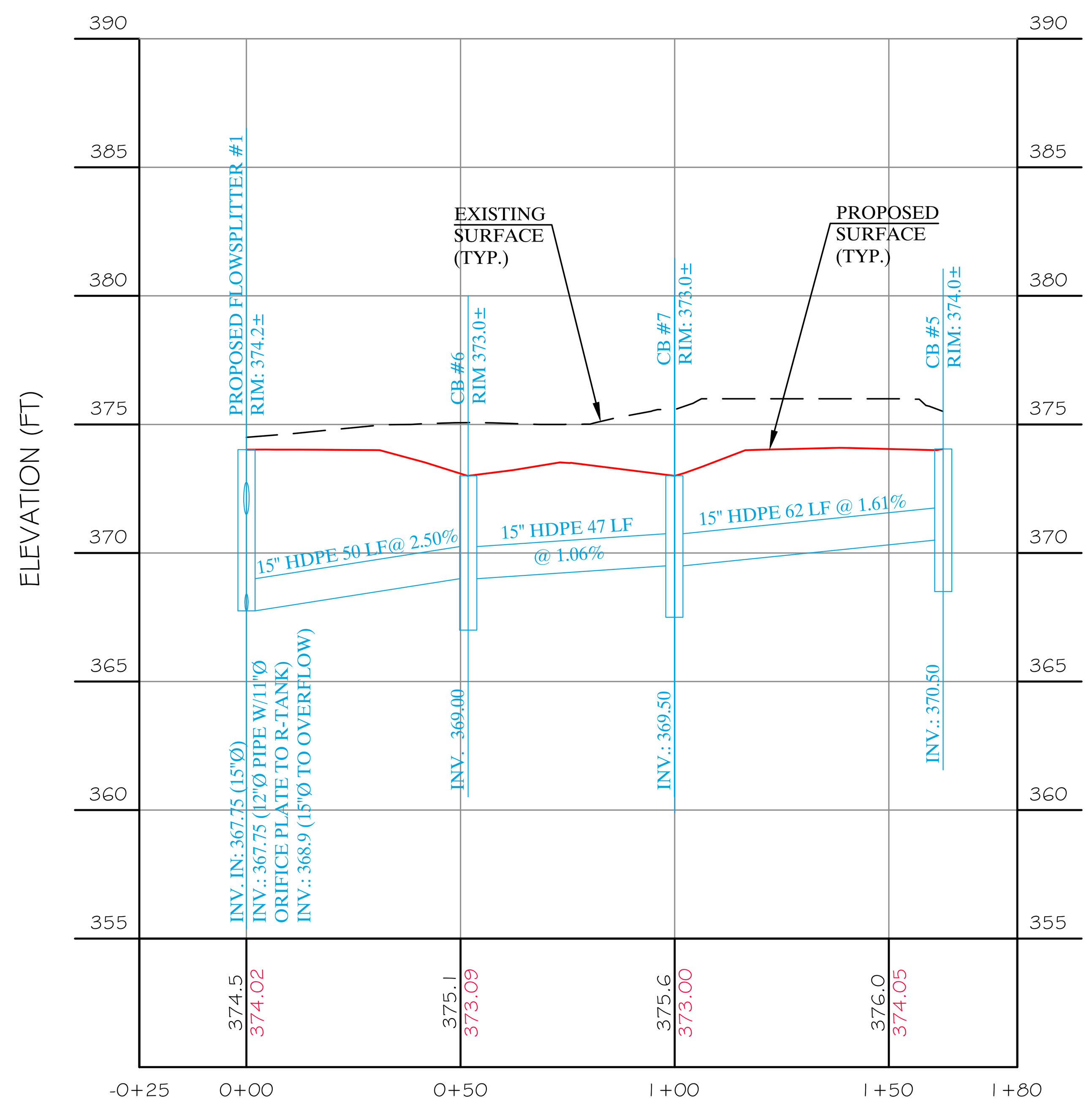


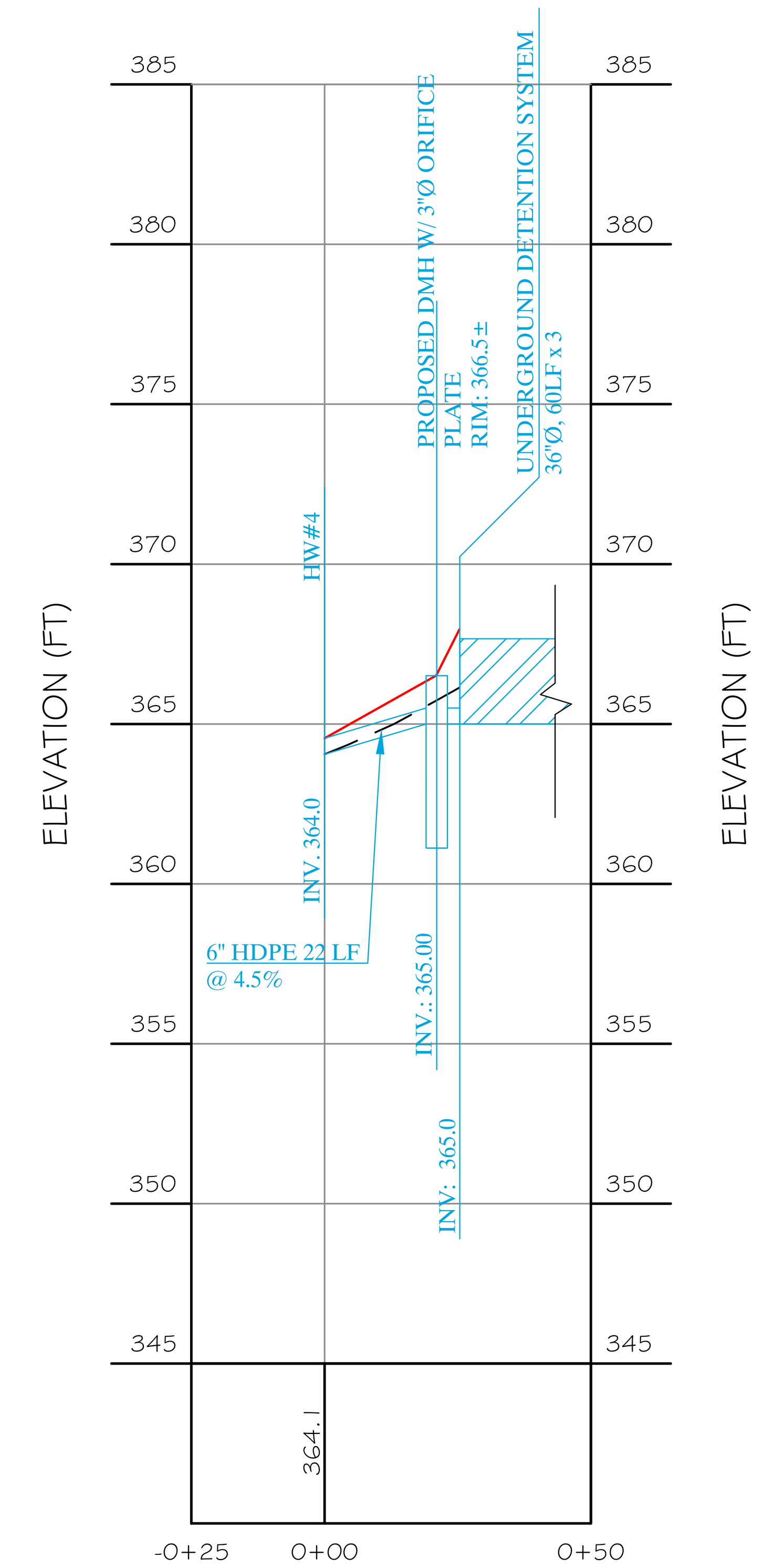
FLOW SPLITTER #3 TO UNDERGROUND DETENTION SYSTEM

PROFILE SCALE:
HORIZ: 1"=30'
VERT: 1"=5'



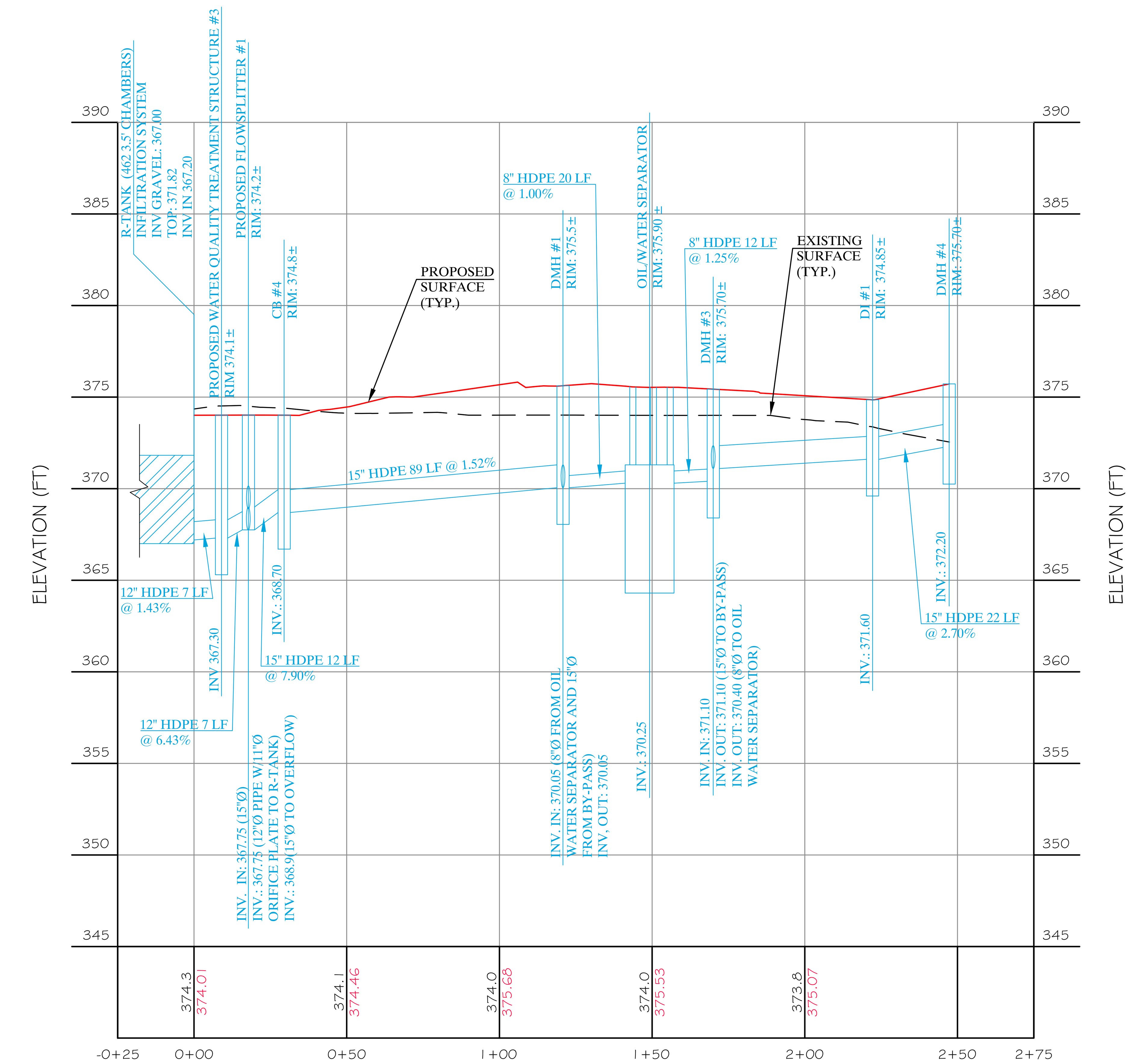
FLOWSPLITTER #1 TO CB#5

PROFILE SCALE:
HORIZ: 1"=30'
VERT: 1"=5'



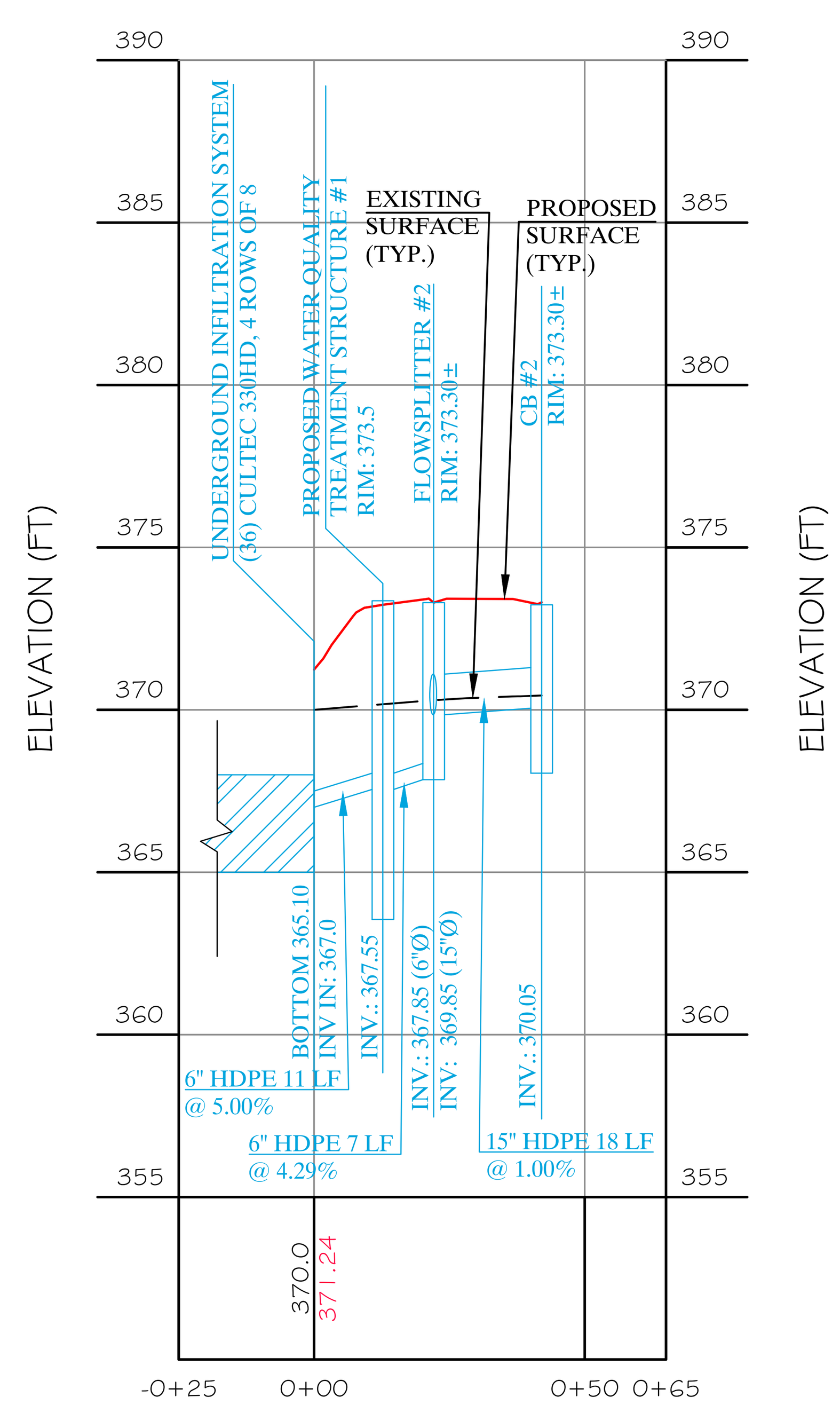
HW #4 TO UNDERGROUND DETENTION SYSTEM

PROFILE SCALE:
HORIZ: 1"=30'
VERT: 1"=5'



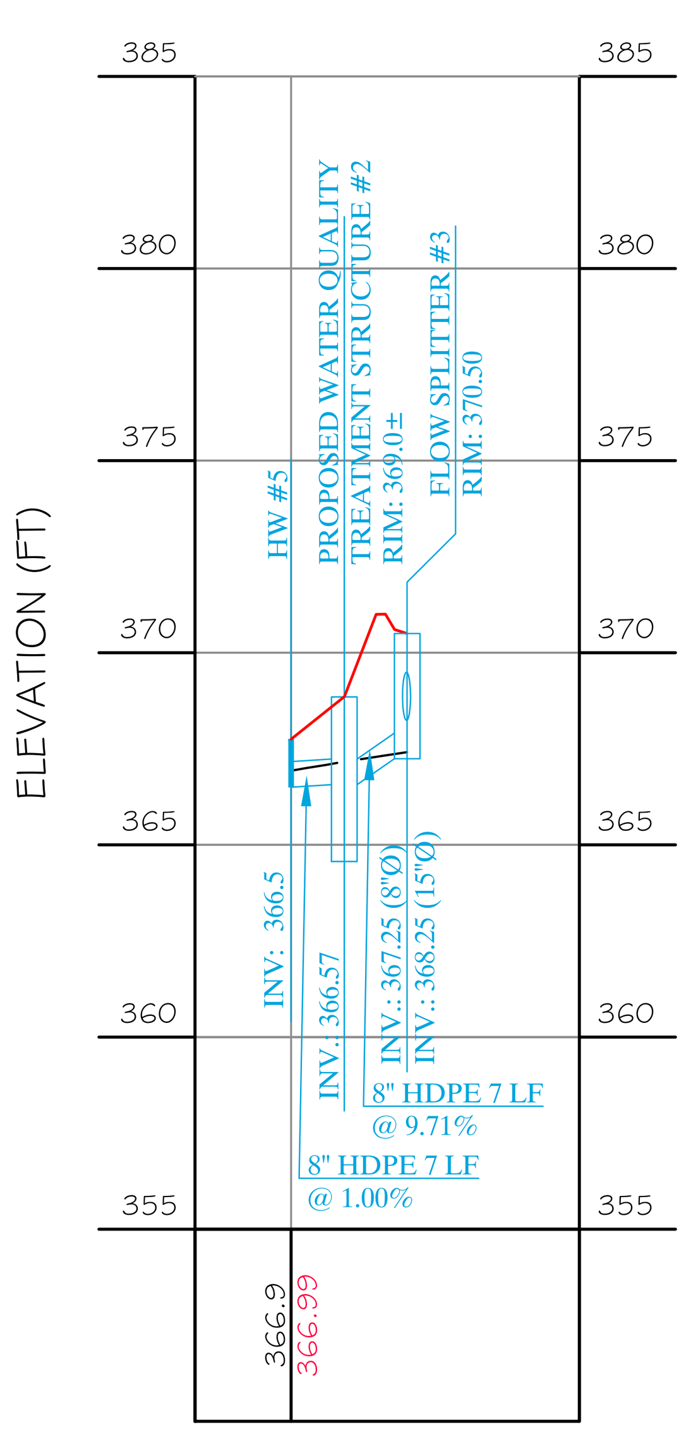
R-TANK SYSTEM TO UNDERDRAIN CONNECTION

PROFILE SCALE:
HORIZ: 1"=30'
VERT: 1"=5'



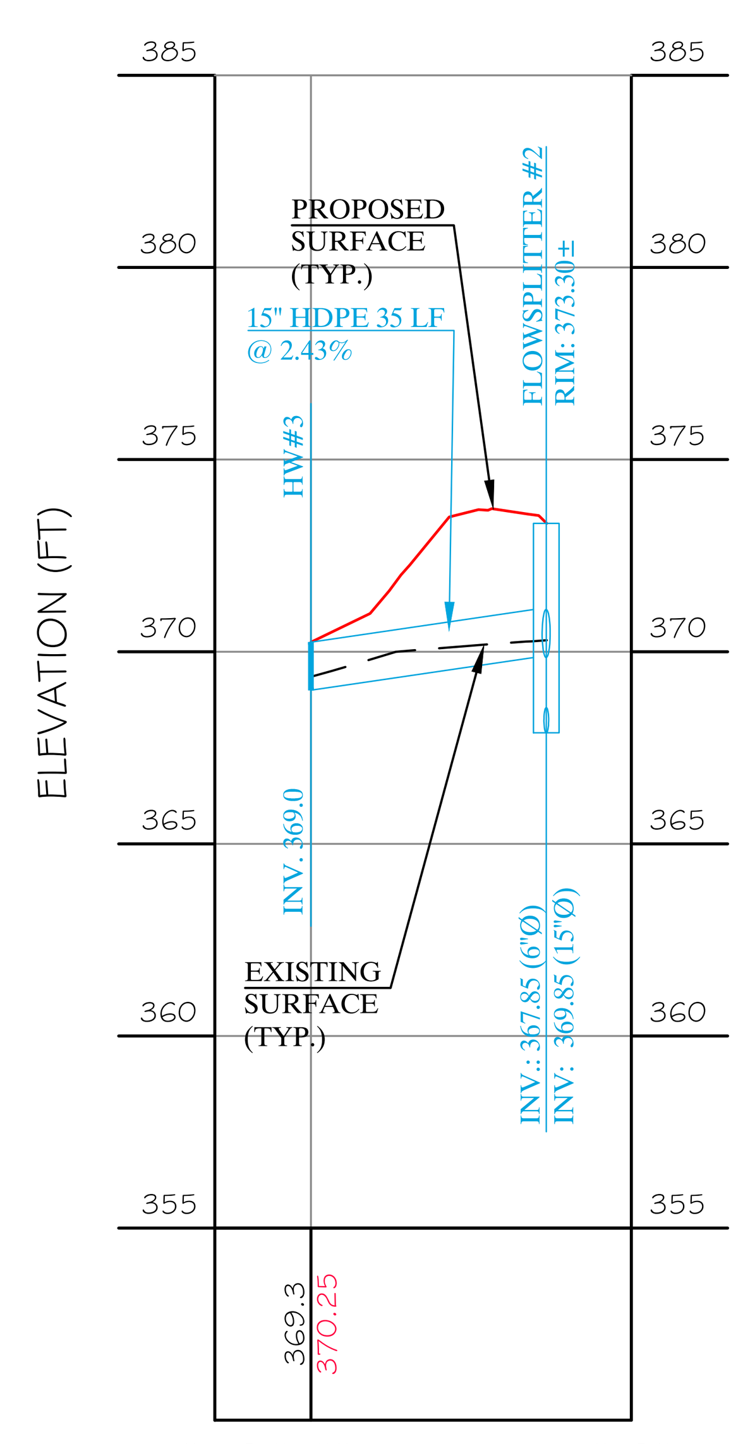
UNDERGROUND INFILTRATION SYSTEM TO CB #2

PROFILE SCALE:
HORIZ: 1"=30'
VERT: 1"=5'



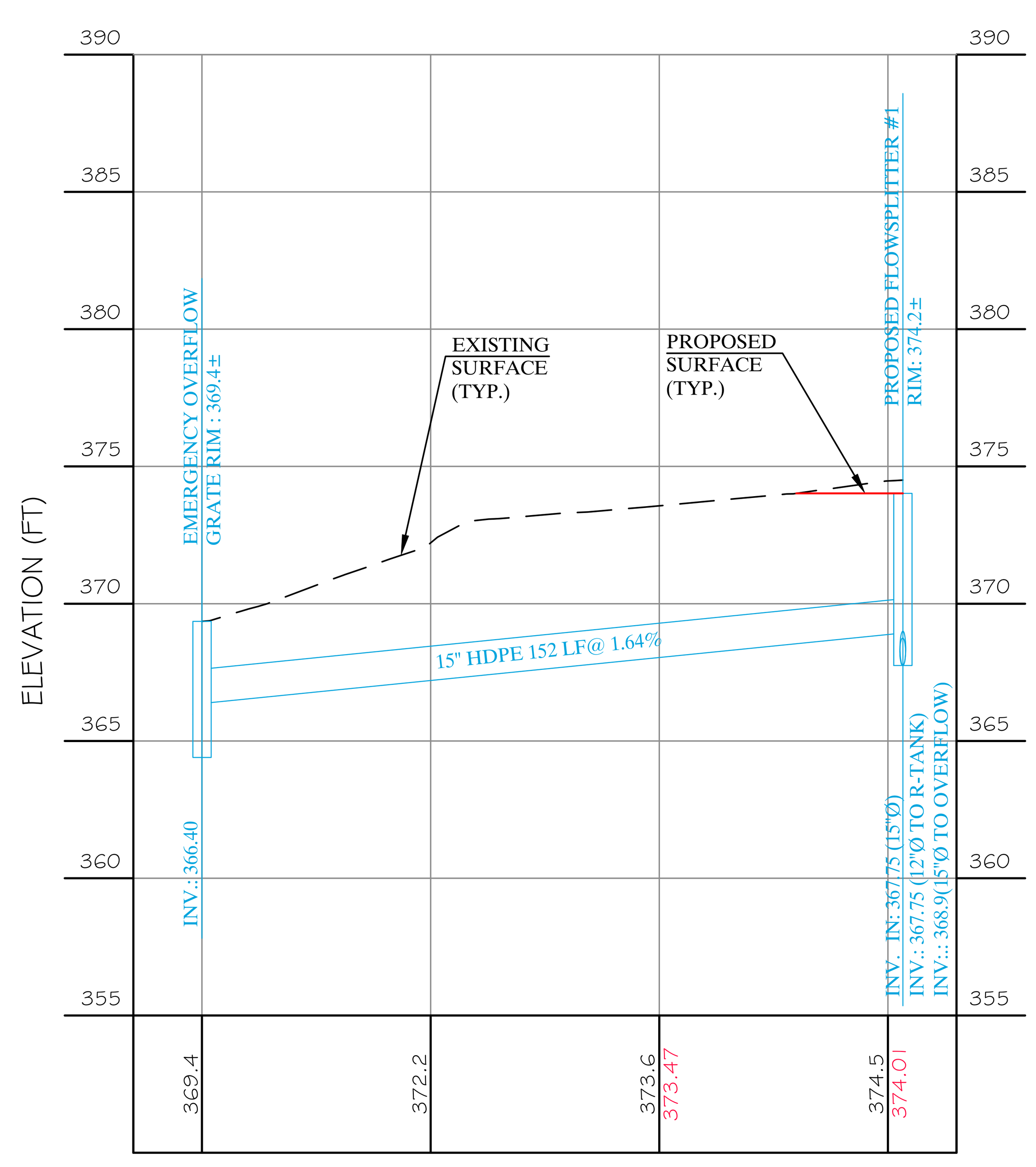
HW#5 TO FLOW SPLITTER #3

PROFILE SCALE:
HORIZ: 1"=30'
VERT: 1"=5'



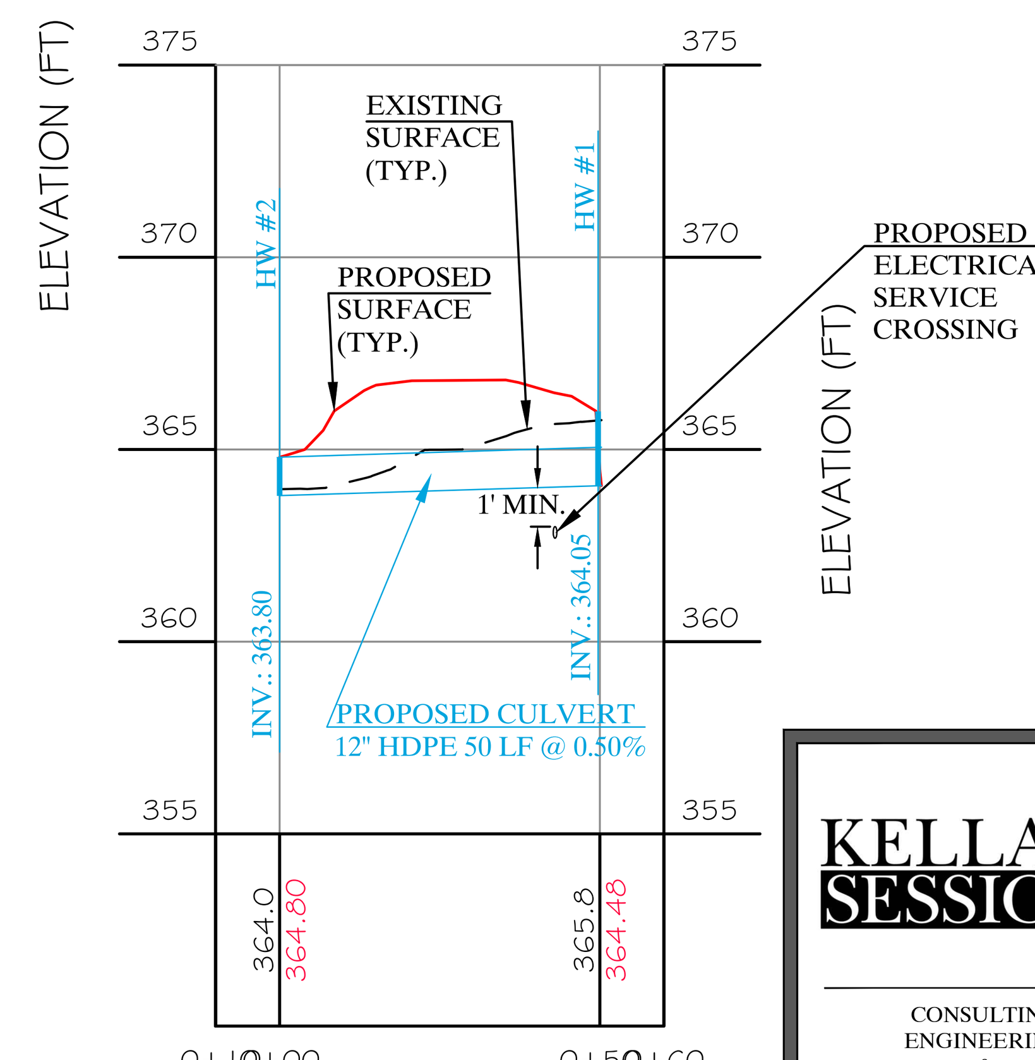
HW #3 TO FLOW SPLITTER #2

PROFILE SCALE:
HORIZ: 1"=30'
VERT: 1"=5'



EMERGENCY OVERFLOW TO FLOW SPLITTER #1

PROFILE SCALE:
HORIZ: 1"=30'
VERT: 1"=5'



HW#1 TO HW#2 (CULVERT)

PROFILE SCALE:
HORIZ: 1"=30'
VERT: 1"=5'

GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.

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DRAINAGE PROFILES PLAN

BEDFORD VILLAGE FIRE DISTRICT

TOWN OF BEDFORD — WESTCHESTER COUNTY, NEW YORK

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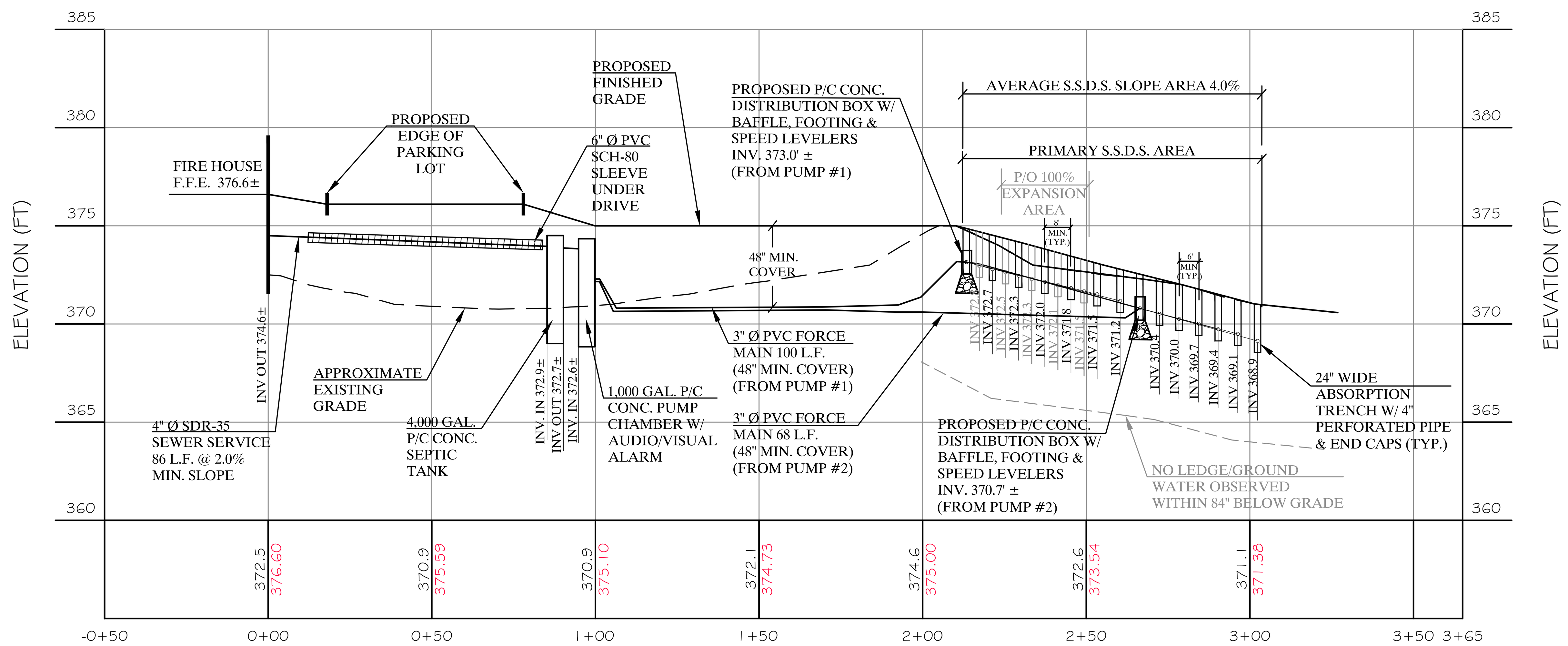
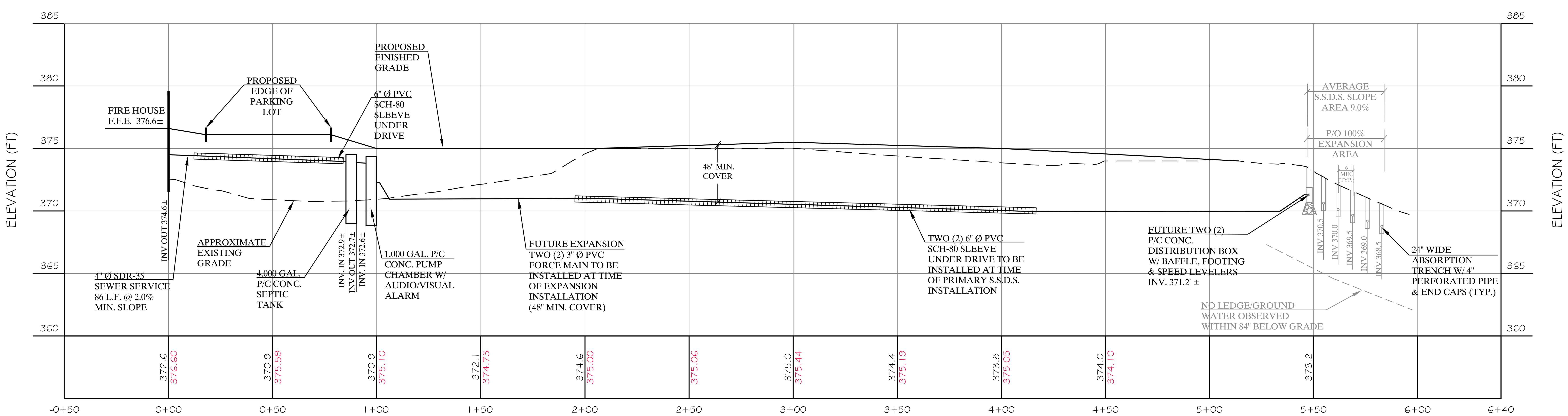


PROPOSED PRIMARY S.S.D.S. PROFILE

PROFILE SCALE:
HORIZ: 1"=30'
VERT: 1"=5'



PROPOSED EXPANSION S.S.D.S. PROFILE

PROFILE SCALE:
HORIZ: 1"=30'
VERT: 1"=5'

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S.S.D.S. PROFILE PLAN

BEDFORD VILLAGE FIRE DISTRICT

TOWN OF BEDFORD — WESTCHESTER COUNTY, NEW YORK

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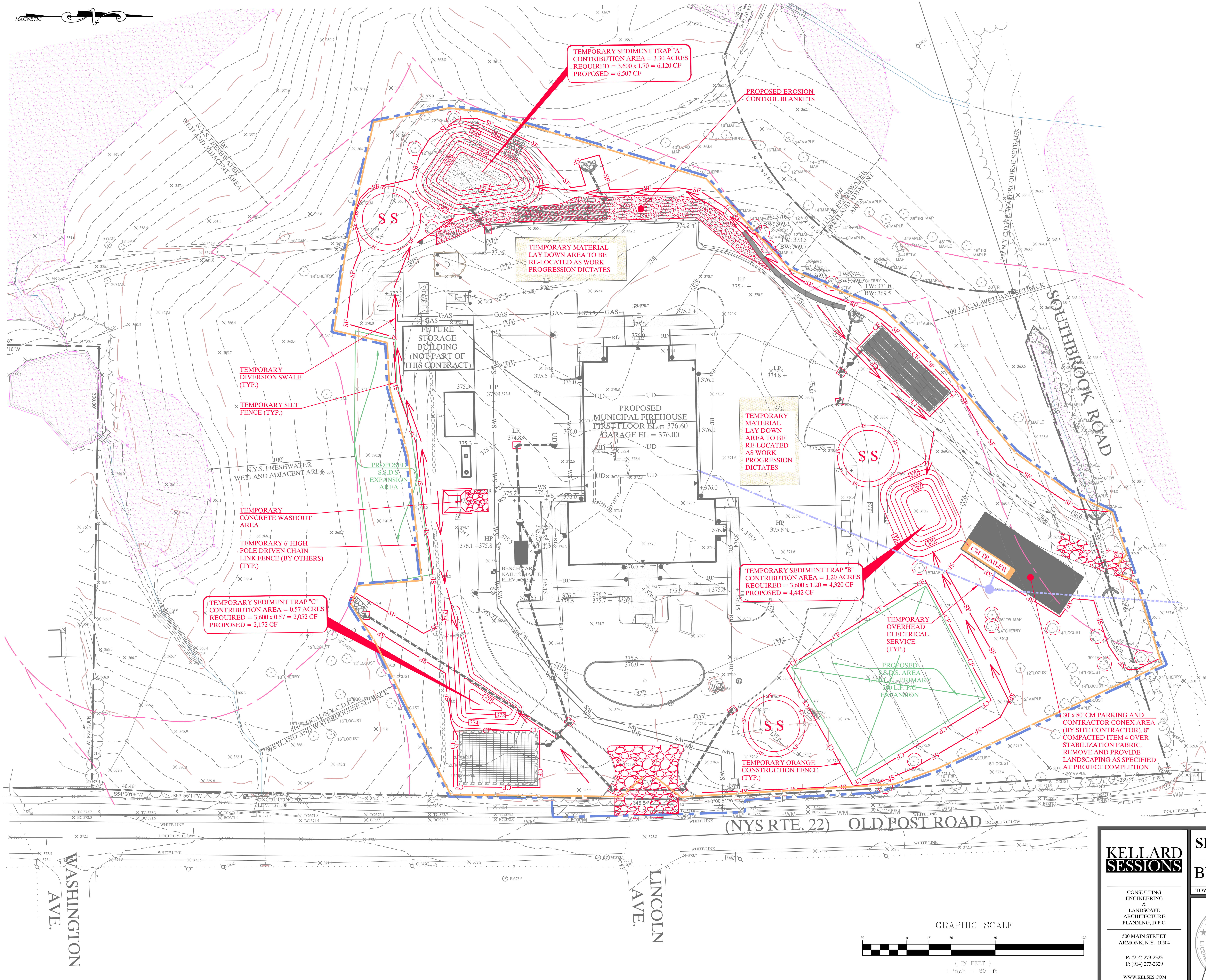
PROJECT I.D.: BDBEDFORDFIRE200

DATE: SEPTEMBER 18, 2020



LEGEND

- EXISTING PROPERTY LINE
- EXISTING 1' CONTOUR
- EXISTING 5' CONTOUR
- WETLAND BOUNDARY
- WATER COURSE
- WETLAND AREA
- 100' WETLAND (WATER COURSE) SETBACK
- PROPERTY LINE ADJACENT
- PROPOSED STRUCTURES
- PROPOSED EDGE OF PAVEMENT
- PROPOSED CONCRETE CURB
- PROPOSED CONCRETE MOUNTABLE CURB
- PROPOSED CONCRETE RETAINING WALL
- PROPOSED 10' CONTOUR
- PROPOSED 1' CONTOUR
- PROPOSED DRAINAGE CATCH BASIN WITH INLET PROTECTION
- PROPOSED DRAINAGE MANHOLE
- PROPOSED DRAINAGE PIPE
- PROPOSED ROOF DRAIN
- PROPOSED WATER SERVICE
- PROPOSED WATERMAIN HYDRANT
- PROPOSED WATERMAIN VALVE
- TEMPORARY SILT FENCE
- TEMPORARY DIVERSION SWALE
- TEMPORARY TOPSOIL STOCKPILE
- TEMPORARY SEDIMENT TRAP
- TEMPORARY STABILIZED CONSTRUCTION ENTRANCE
- TEMPORARY TREE PROTECTION
- PROPOSED LIMIT OF DISTURBANCE
- TEMPORARY 6' HIGH POST DRIVEN CHAIN LINK FENCE (BY OTHERS)
- TEMPORARY ORANGE CONSTRUCTION FENCE

NOTES:

1. SURVEY INFORMATION OBTAINED FROM A MAP ENTITLED " MAP OF TOPOGRAPHIC SURVEY PREPARED FOR BEDFORD VILLAGE FIRE DISTRICT" PREPARED BY CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE, CO., D.P.C. DATED LAST REVISED MAY 1, 2018.
2. REFER TO STORMWATER POLLUTION PREVENTION PLAN FOR BEDFORD VILLAGE FIRE DISTRICT DATED SEPTEMBER 2020.
3. FOR SEDIMENT AND EROSION CONTROL NOTES SEE SHEET 19 "NOTES".
4. SEEDING CAN EXTEND BEYOND THE LIMITS OF DISTURBANCE.

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SEDIMENT & EROSION CONTROL PLAN

BEDFORD VILLAGE FIRE DISTRICT

TOWN OF BEDFORD — WESTCHESTER COUNTY, NEW YORK

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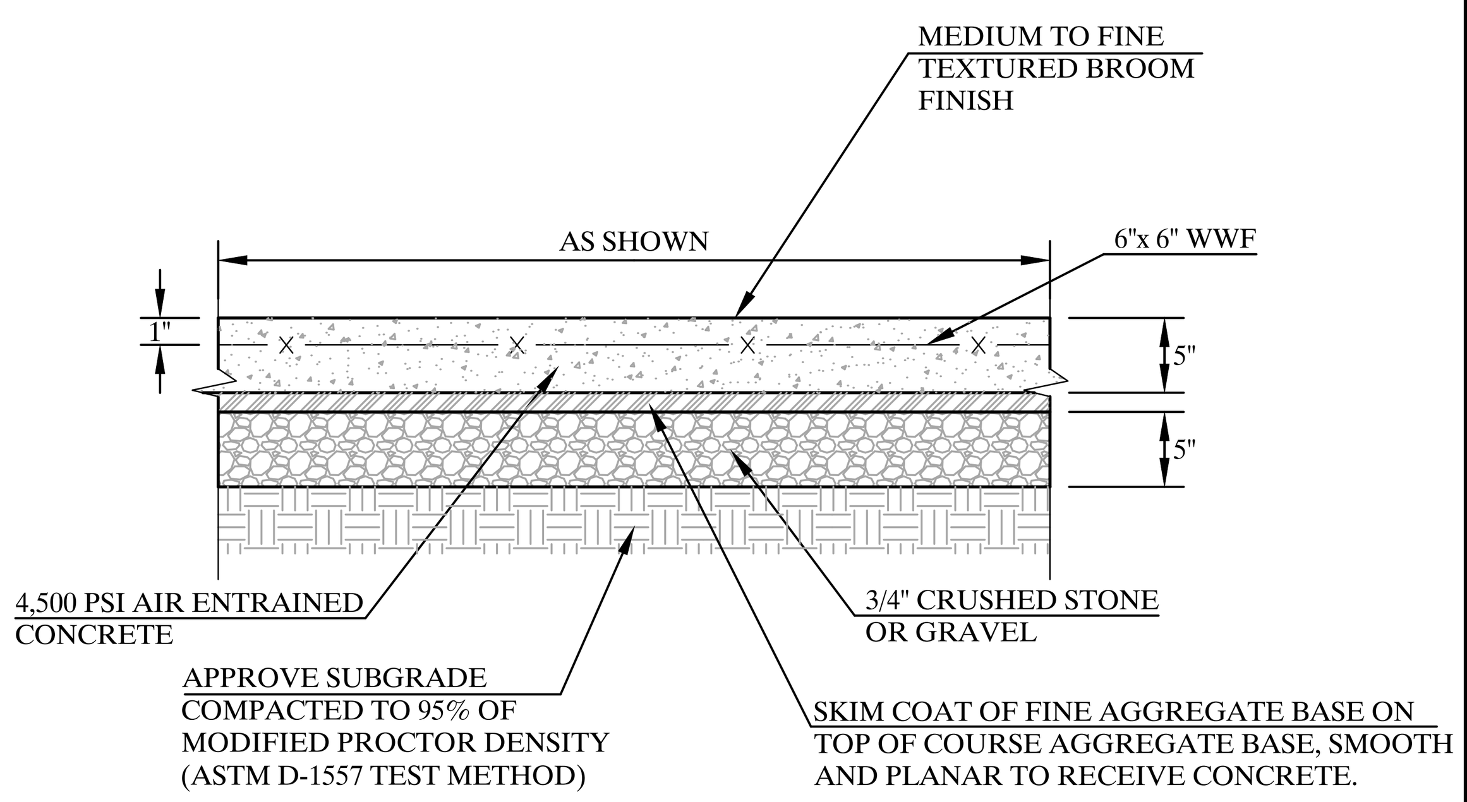
PROJECT I.D.: BDBEDFORDFIRE200

DATE: DECEMBER 1, 2020

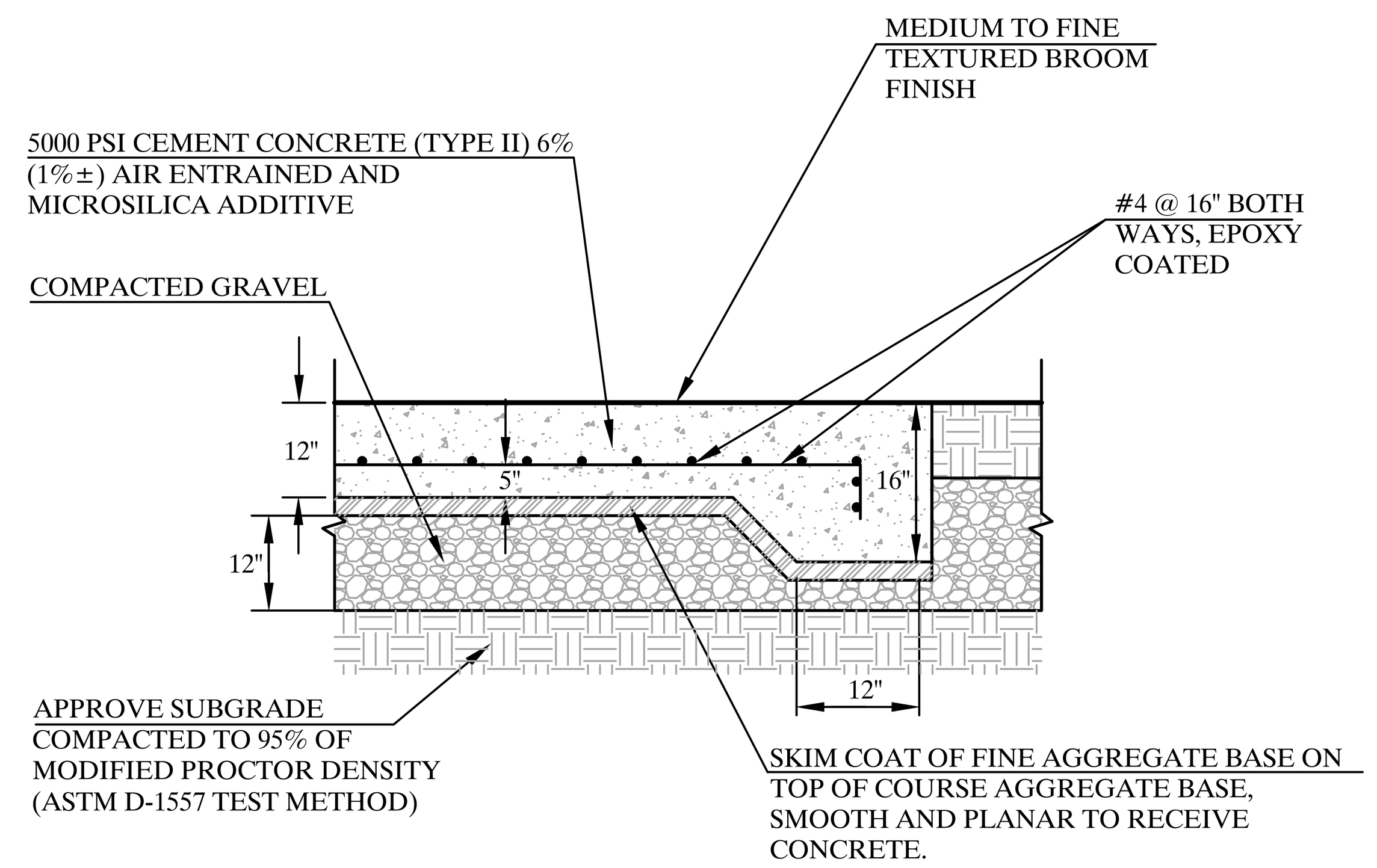
CONCRETE SIDEWALK DETAIL (N.T.S.)



NOTES:

1. SIDEWALK TO BE CONSTRUCTED WITH SLOPE OF 1/4" PER FOOT AND PITCHED TOWARDS DRIVEWAY (UNLESS OTHERWISE NOTED).
2. BITUMINOUS EXPANSION JOINTS @ 40' O.C.
3. CONTRACTION JOINTS @ 5" O.C.

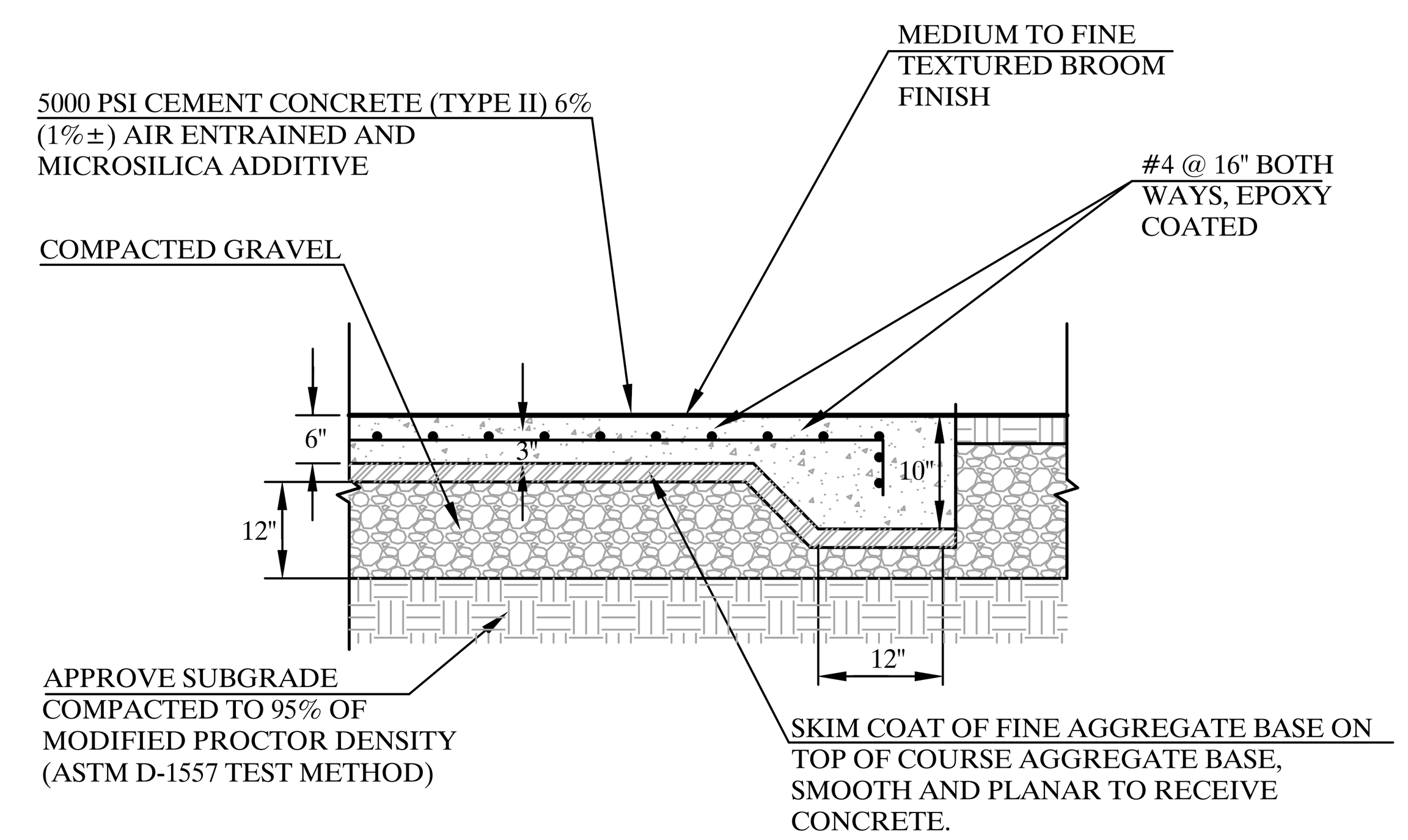
CONCRETE PROPANE TANKS PAD DETAIL (N.T.S.)



NOTES:

1. SIZE OF PAD TO BE AS INDICATED ON PLANS.
2. CONSTRUCTION JOINTS SHALL BE SPACED NO MORE THAN 50 FEET ON CENTER AND SHALL BE EQUALLY SPACED OVER THE LENGTH AND WIDTH OF THE PAD.
3. THE CONTRACTOR IS TO COORDINATE WITH TRADES FOR SERVICE LINES INTO THE PAD.
4. ANCHOR BOLTS TO BE INSTALLED PER MANUFACTURERS SPECIFICATIONS.

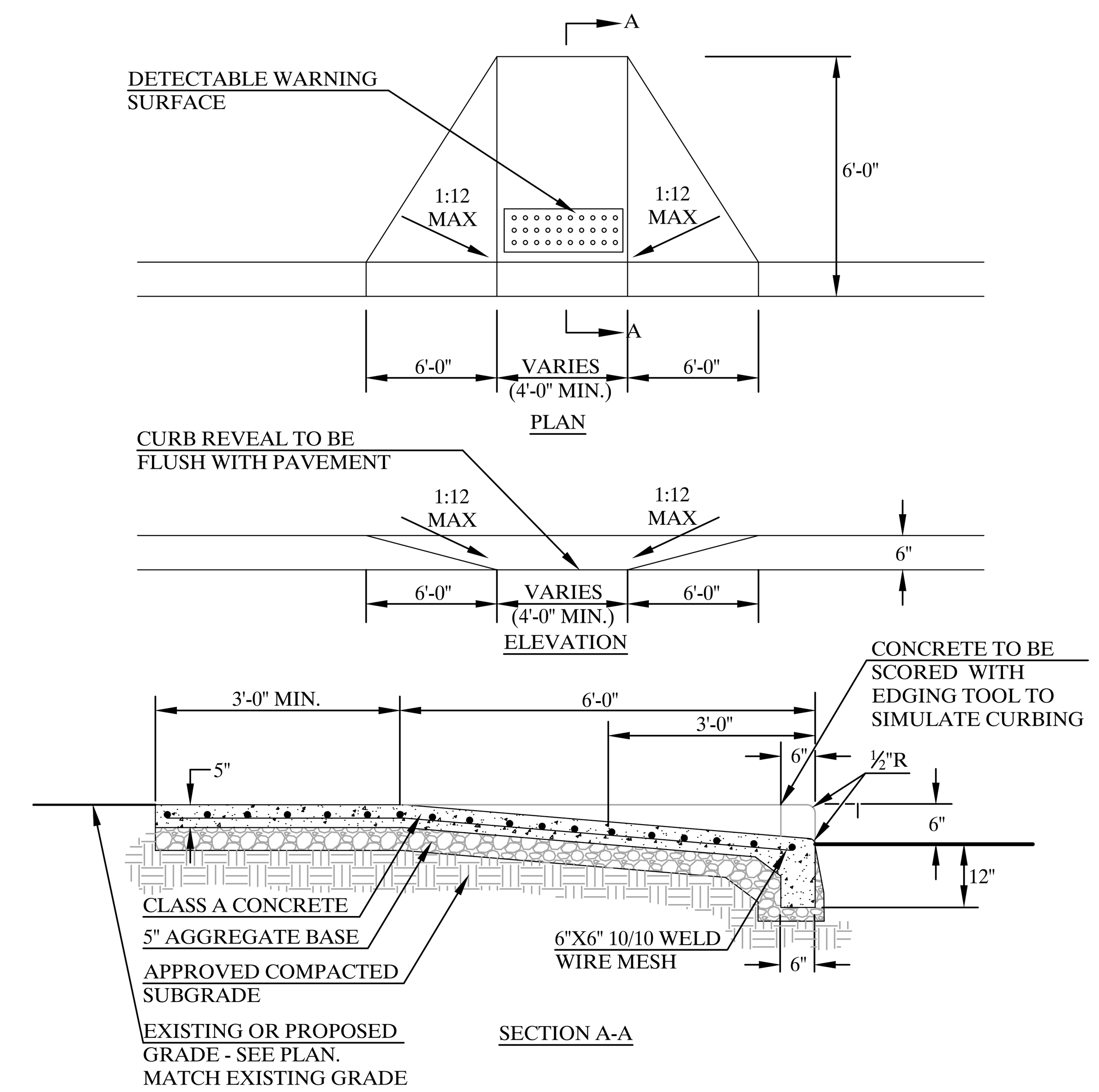
GENERATOR/FUEL TANK PAD DETAIL (N.T.S.)



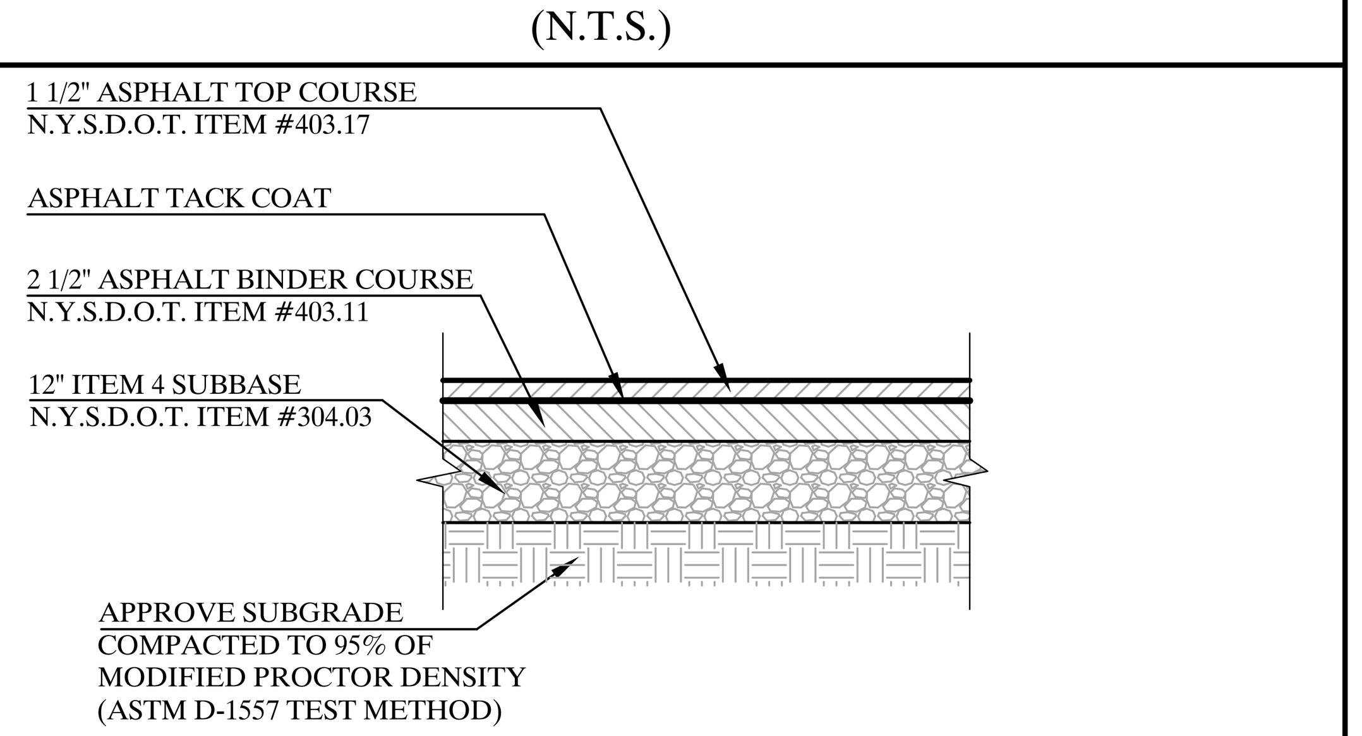
NOTES:

1. SIZE OF PAD TO BE AS INDICATED ON PLANS.
2. CONSTRUCTION JOINTS SHALL BE SPACED NO MORE THAN 50 FEET ON CENTER AND SHALL BE EQUALLY SPACED OVER THE LENGTH AND WIDTH OF THE PAD.
3. THE CONTRACTOR IS TO COORDINATE WITH TRADES FOR SERVICE LINES INTO THE PAD.
4. ANCHOR BOLTS TO BE INSTALLED PER MANUFACTURERS SPECIFICATIONS.

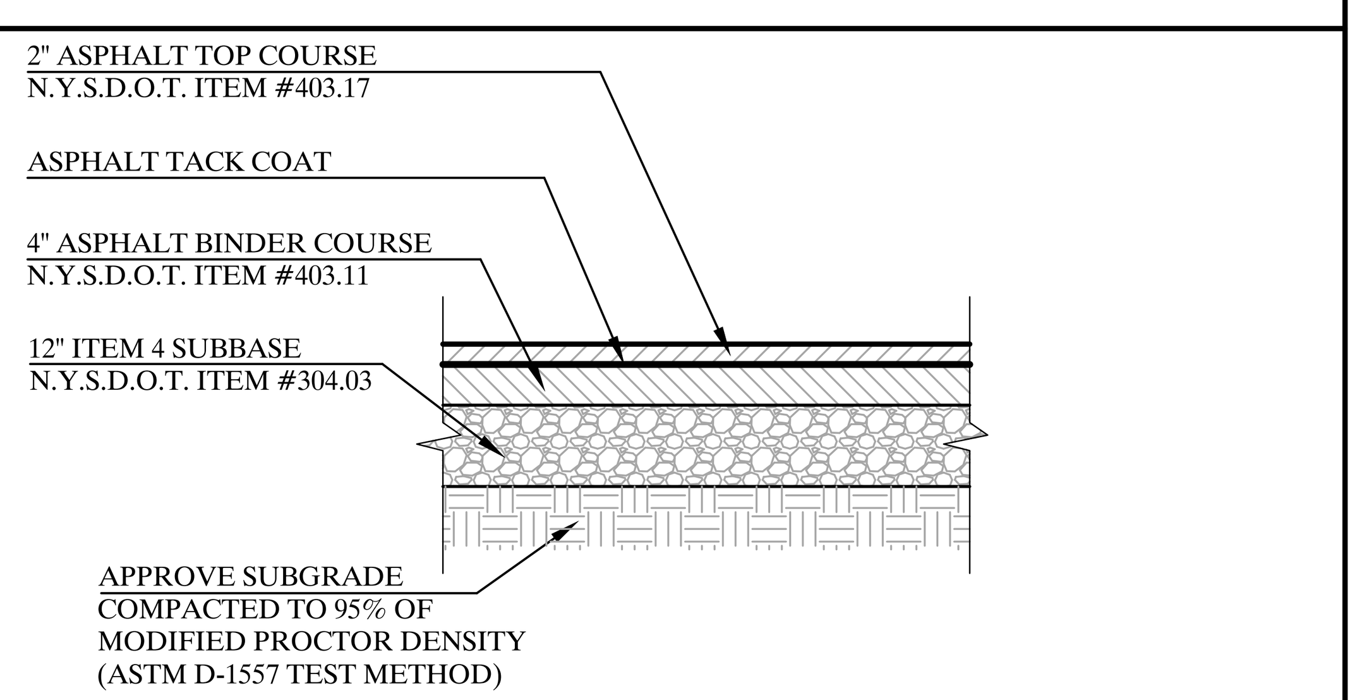
CONCRETE ADA RAMP DETAIL (N.T.S.)



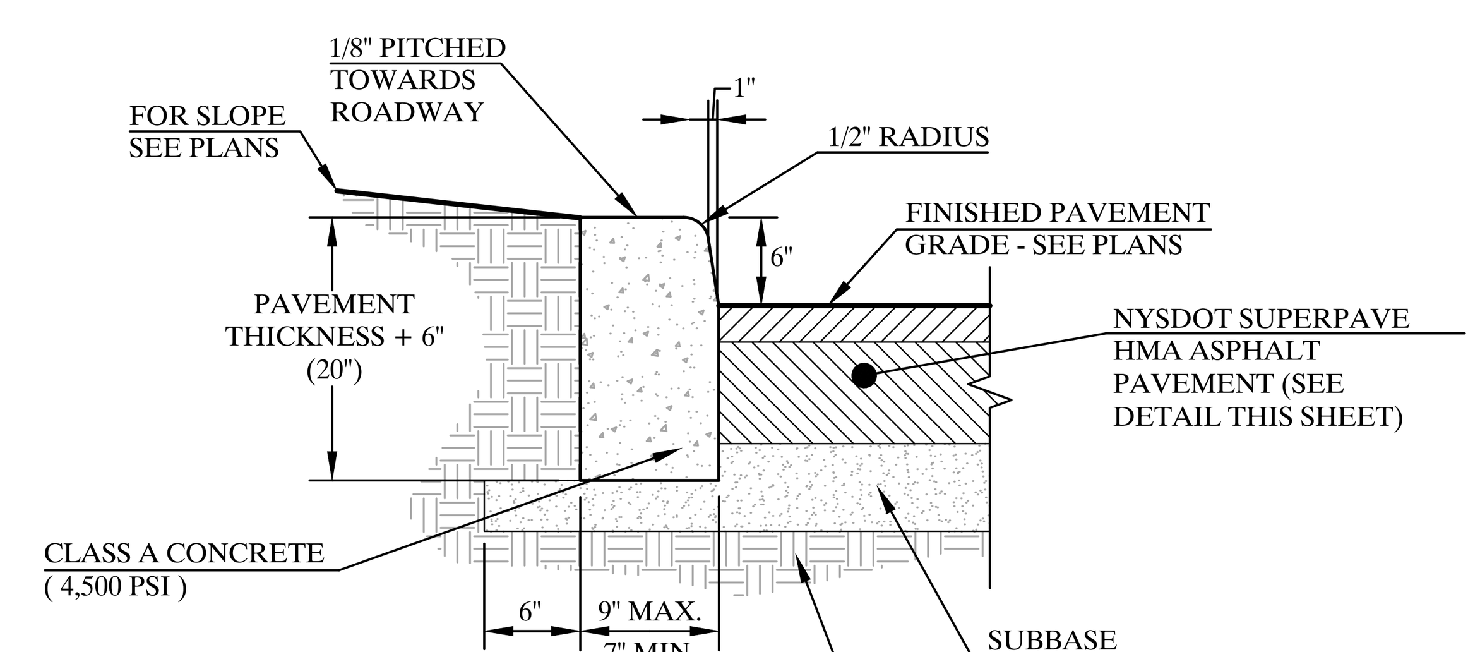
STANDARD DUTY ASPHALT PAVEMENT DETAIL (N.T.S.)



HEAVY DUTY ASPHALT PAVEMENT DETAIL (N.T.S.)



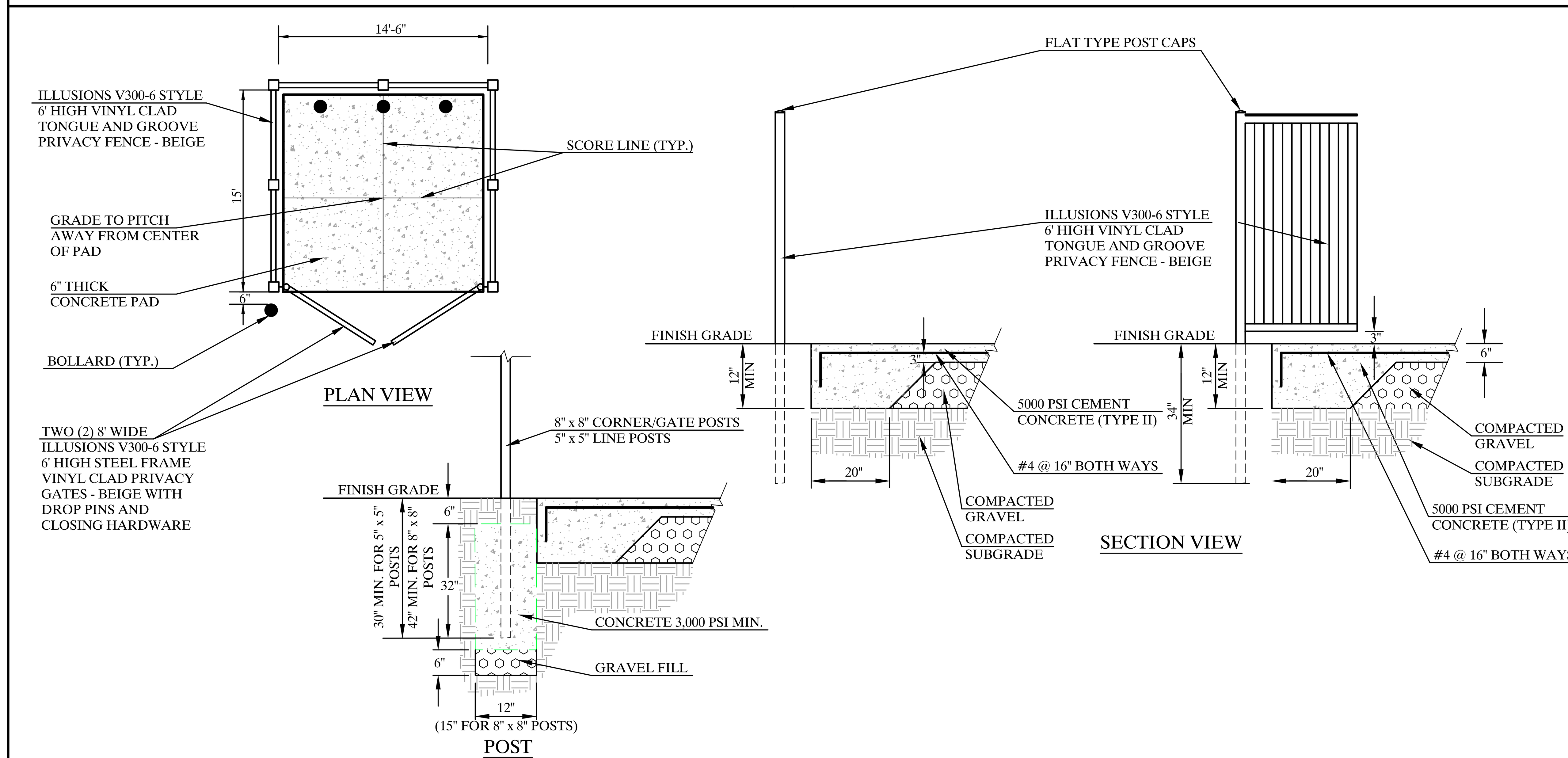
NYSDOT TYPE VF150 CONCRETE CURB DETAIL
TO BE USED WITHIN NYSDOT RIGHT-OF-WAY (N.T.S.)



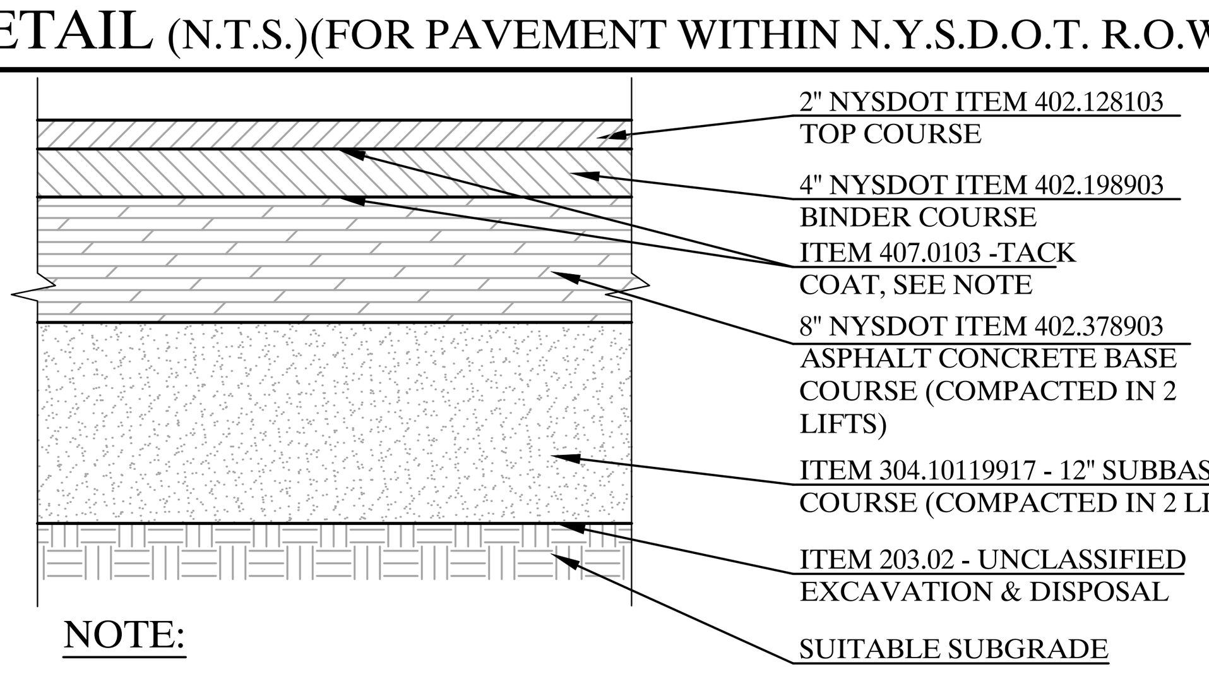
NOTES:

1. INSTALL ½" PREMOLDED BITUMINOUS EXPANSION JOINT EVERY 20 FEET.
2. INSTALL CONSTRUCTION JOINTS MID-WAY BETWEEN EXPANSION JOINTS SO THAT LENGTH OF CURB SEGMENTS WILL BE TEN (10) FEET.
3. WHEN INSTALLED ADJACENT TO SIDEWALK OR CONCRETE PAVEMENT MATCH EXPANSION JOINTS.

DUMPSTER PAD WITH ENCLOSURE DETAIL (N.T.S.)



NYSDOT SUPERPAVE HMA ASPHALT PAVEMENT DETAIL (N.T.S.)(FOR PAVEMENT WITHIN N.Y.S.D.O.T. R.O.W)



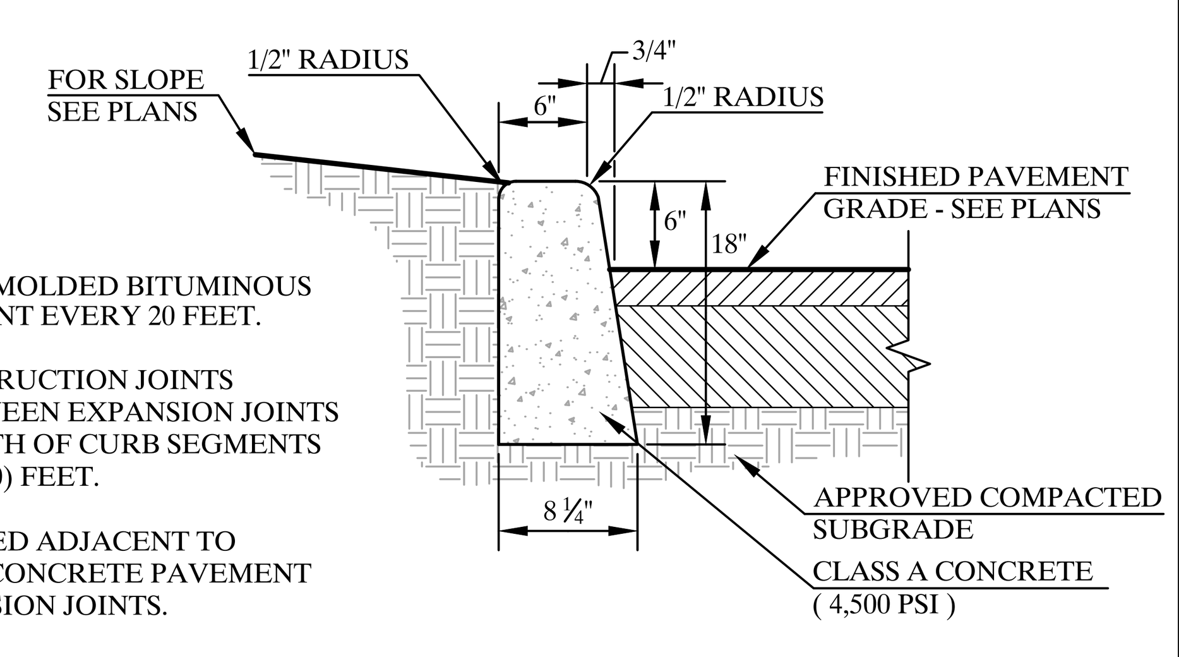
NOTE:

PLACE TACK COAT BETWEEN EVERY ASPHALT LIFT AND AT THE JOINTS BETWEEN NEW AND EXISTING ASPHALT PAVEMENT EDGES.

6" CAST IN PLACE CONCRETE CURB DETAIL (N.T.S.)

NOTES:

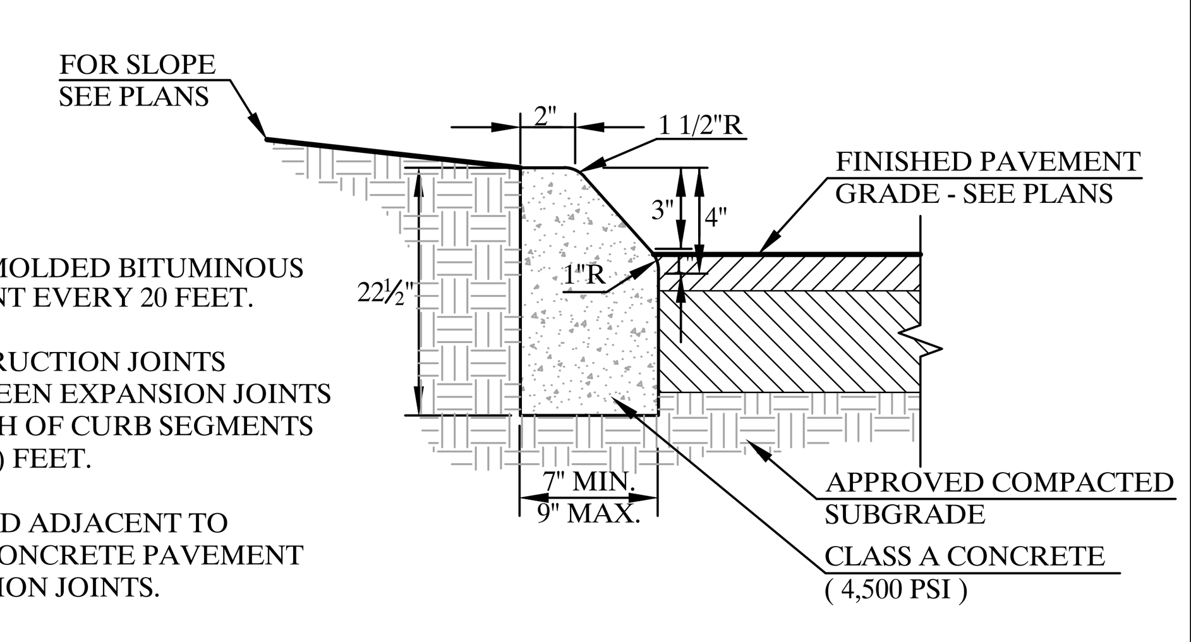
1. INSTALL ½" PREMOLDED BITUMINOUS EXPANSION JOINT EVERY 20 FEET.
2. INSTALL CONSTRUCTION JOINTS MID-WAY BETWEEN EXPANSION JOINTS SO THAT LENGTH OF CURB SEGMENTS WILL BE TEN (10) FEET.
3. WHEN INSTALLED ADJACENT TO SIDEWALK OR CONCRETE PAVEMENT MATCH EXPANSION JOINTS.



CAST IN PLACE MOUNTABLE CONCRETE CURB DETAIL (N.T.S.)

NOTES:

1. INSTALL ½" PREMOLDED BITUMINOUS EXPANSION JOINT EVERY 20 FEET.
2. INSTALL CONSTRUCTION JOINTS MID-WAY BETWEEN EXPANSION JOINTS SO THAT LENGTH OF CURB SEGMENTS WILL BE TEN (10) FEET.
3. WHEN INSTALLED ADJACENT TO SIDEWALK OR CONCRETE PAVEMENT MATCH EXPANSION JOINTS.



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SITE DETAILS 1 OF 2

BEDFORD VILLAGE FIRE DISTRICT

TOWN OF BEDFORD — WESTCHESTER COUNTY, NEW YORK

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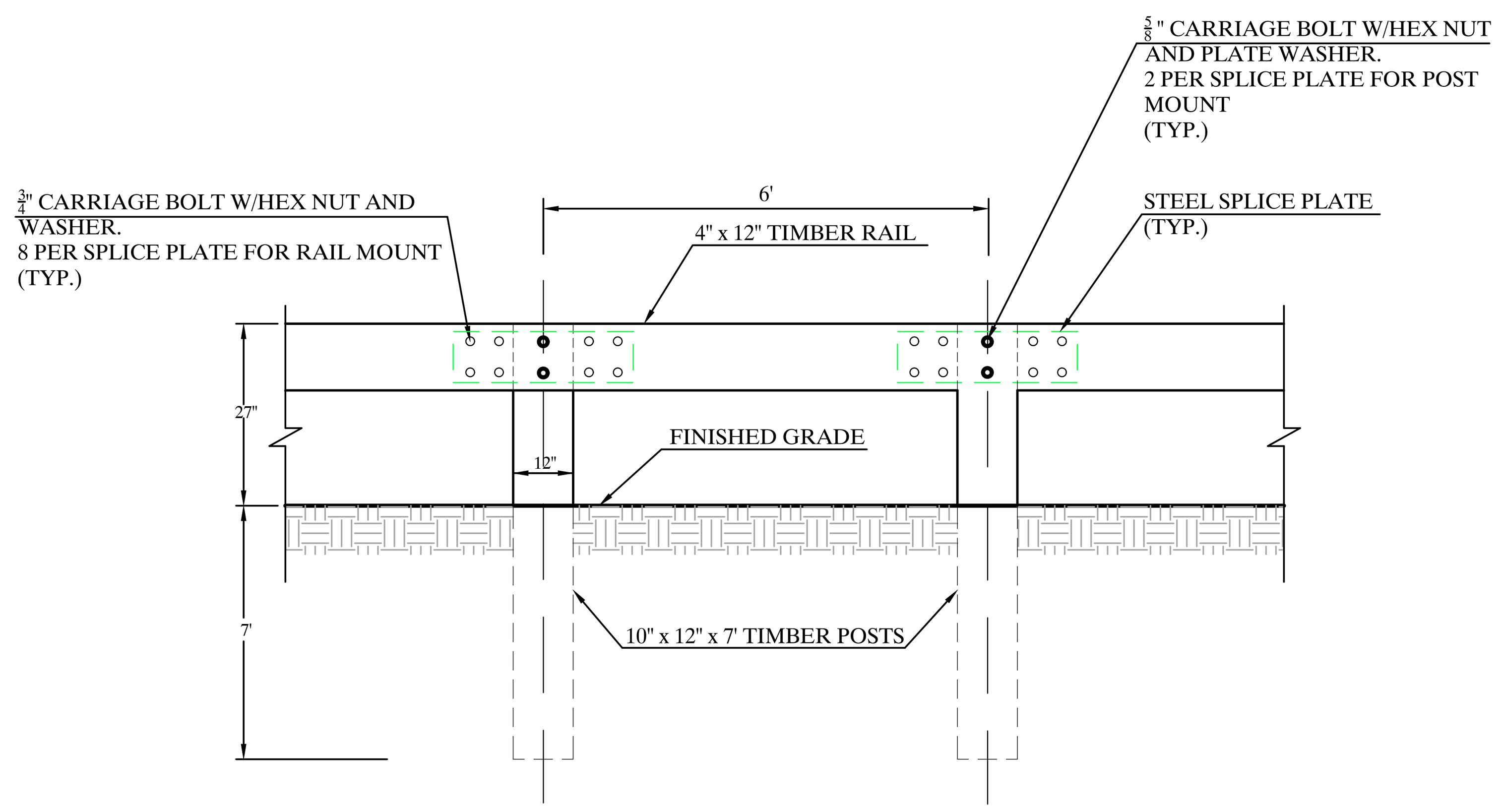
PROJECT I.D.: BDBEDFORDFIRE200

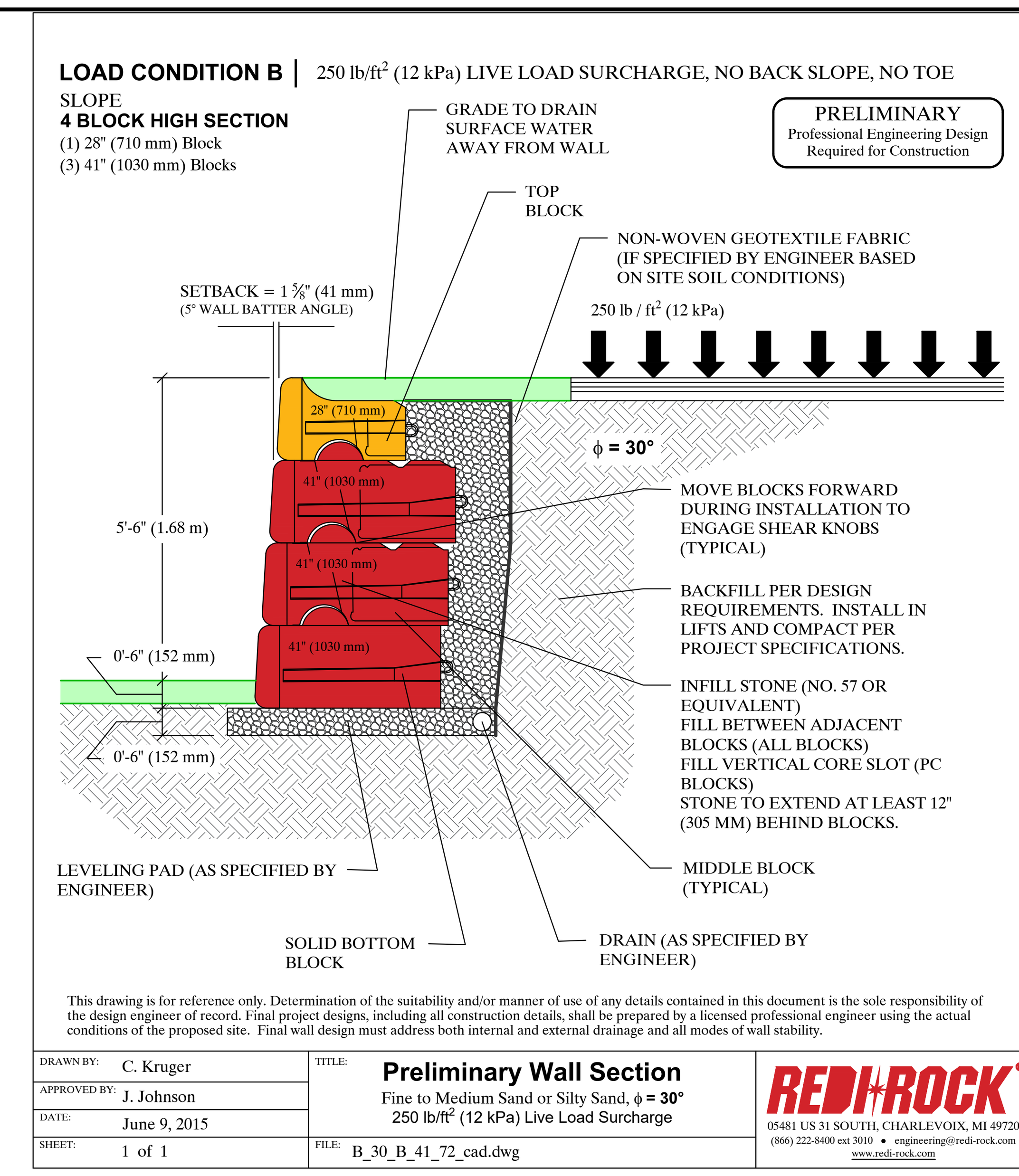
DATE: DECEMBER 1, 2020

WOOD GUIDE RAIL DETAIL
(N.T.S.)

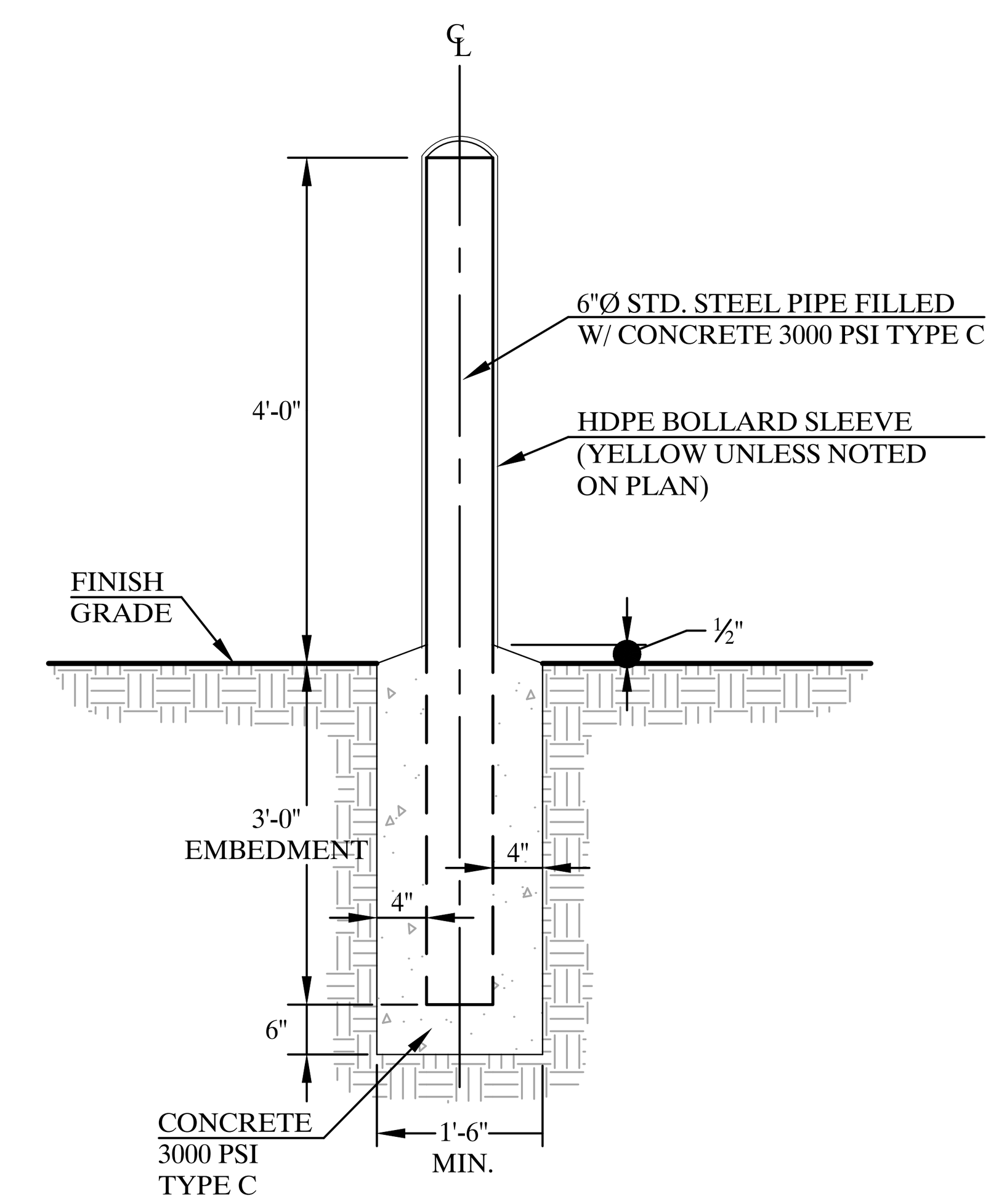


NOTE:
- GUIDE RAIL TO BE INSTALLED IN LOCATIONS AS SHOWN ON PLANS.

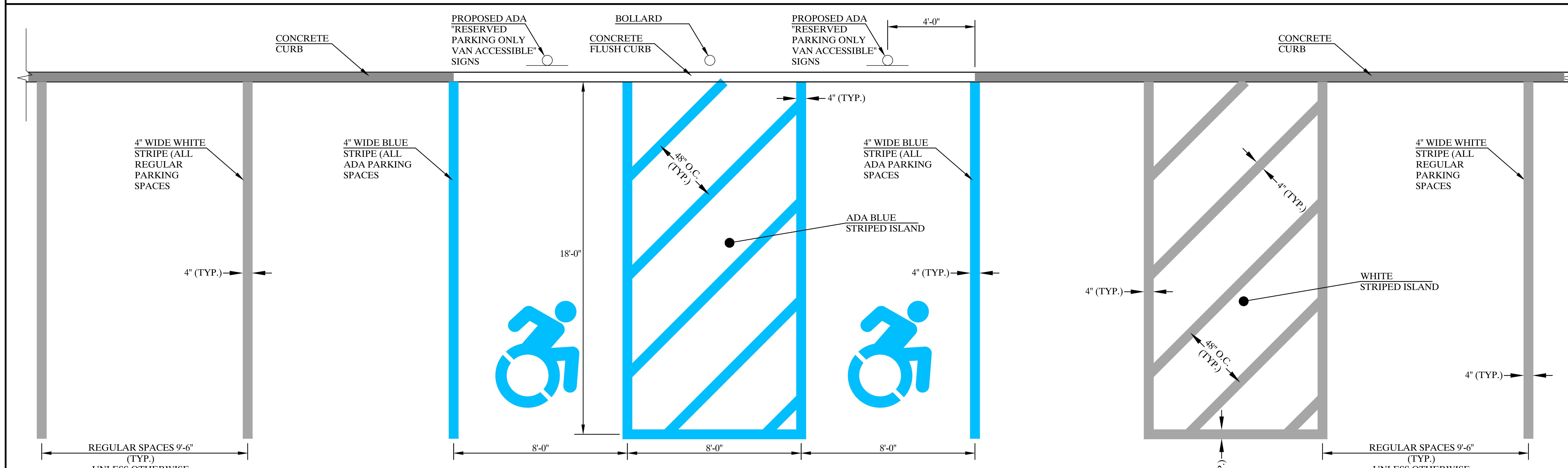
REDI - ROCK WALL SECTION DETAIL (N.T.S.)



BOLLARD DETAIL (N.T.S.)



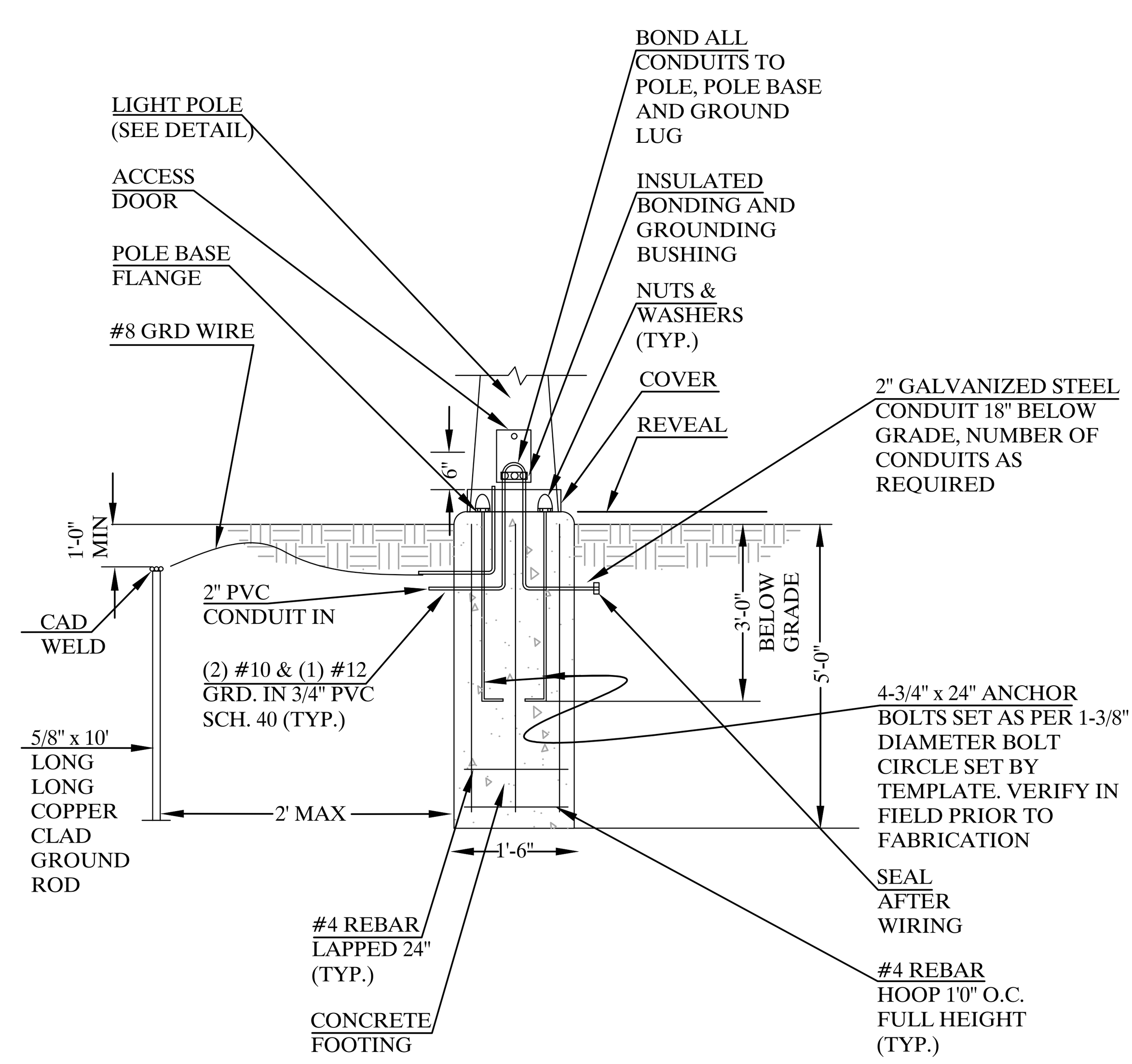
ACCESSIBLE PARKING STALL, REGULAR PARKING STALL AND STRIPED ISLAND DETAIL
(N.T.S.)



NOTE:

1. ALL ACCESSIBLE PARKING STALL PAVEMENT MARKINGS AND SYMBOLS SHALL BE BLUE.

LIGHT POLE FOUNDATION BASE DETAIL (N.T.S.)



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BEDFORD VILLAGE FIRE DISTRICT

TOWN OF BEDFORD — WESTCHESTER COUNTY, NEW YORK

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PROJECT I.D.: BDBEDFORDFIRE200

DATE: DECEMBER 1, 2020

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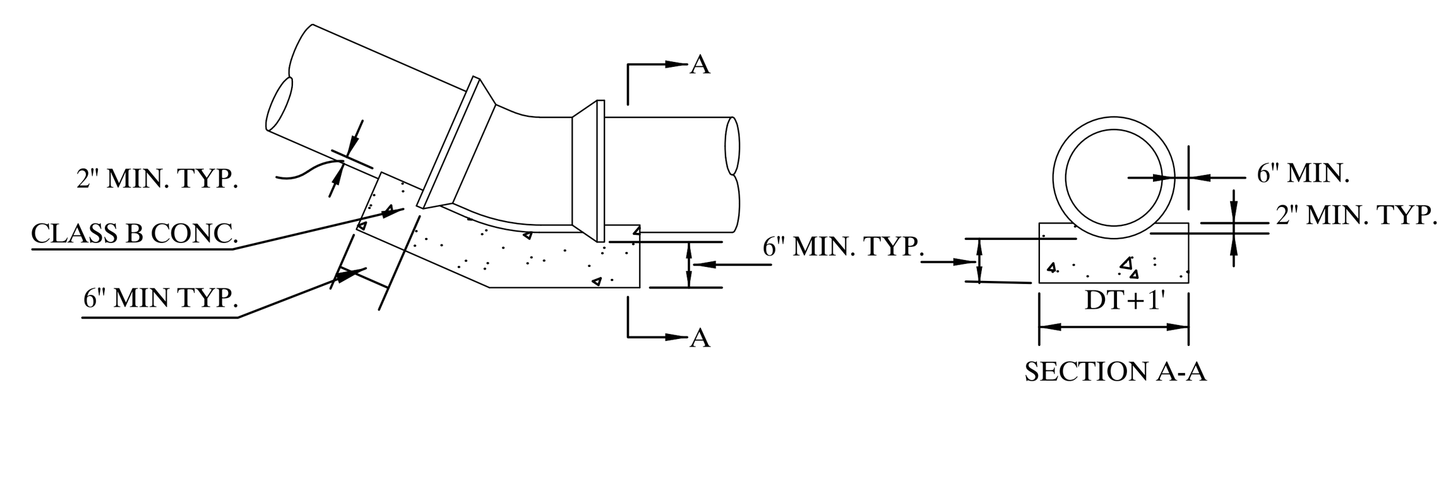
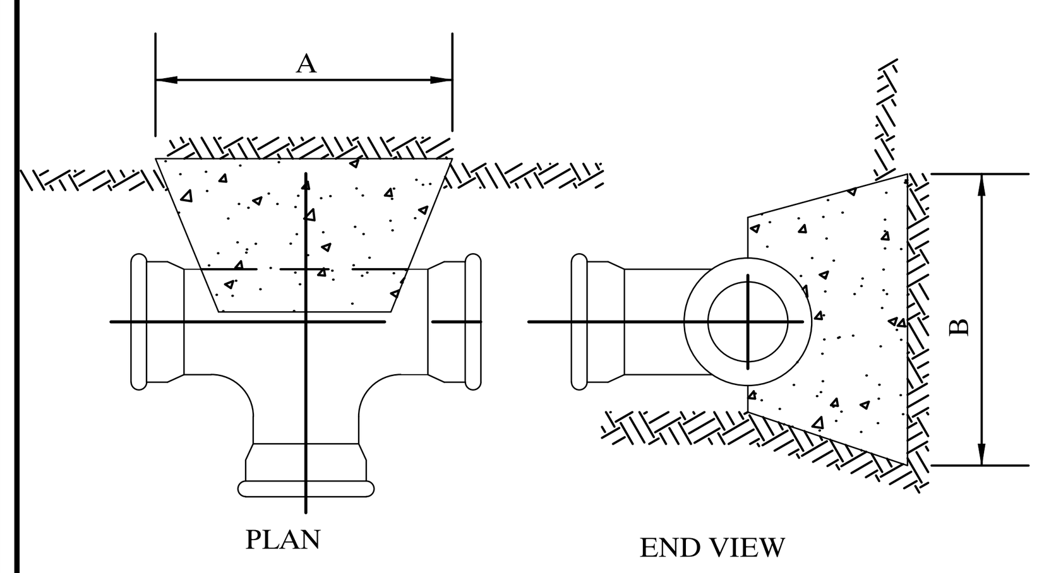
THRUST DISTRUBTION BLOCK & TEE ANCHOR DETAIL (N.T.S.)





PIPE SIZE	A	B
6"-8"	14"	16"
10"-12"	18"	24"
14"-16"	48"	32"
18"-20"	60"	40"
24"	72"	48"

NOTE:
FOR MECHANICAL JOINT PIPE, TITON AND PVC PIPE TIE RODS MUST BE USED IN CONJUNCTION WITH CONCRETE THRUST BLOCKS FOR HYDRANTS, VALVES ON TEES, AND WHEREVER REQUIRED BY ENGINEER.

TYPICAL TRENCH SECTIONS DETAIL (N.T.S.)

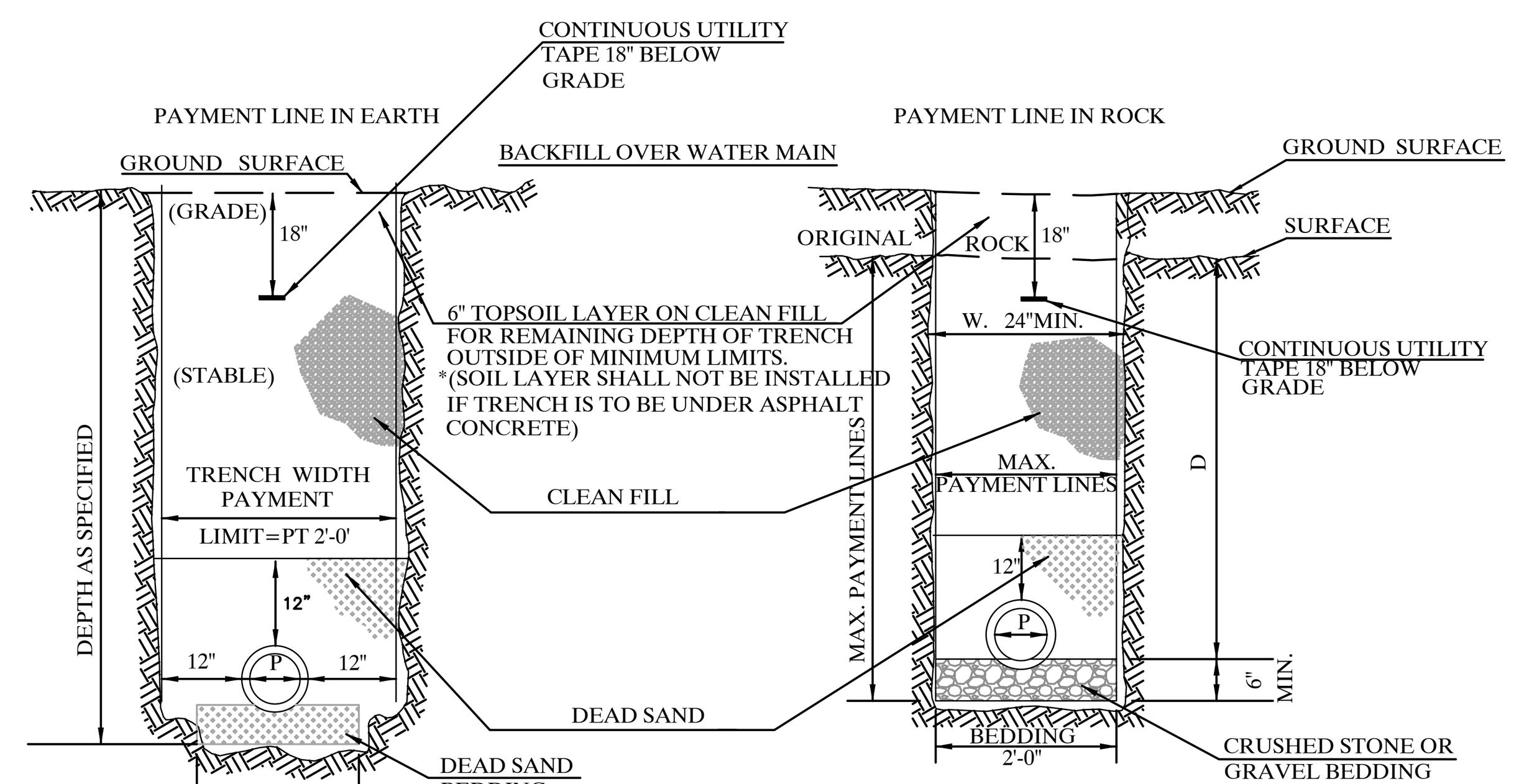
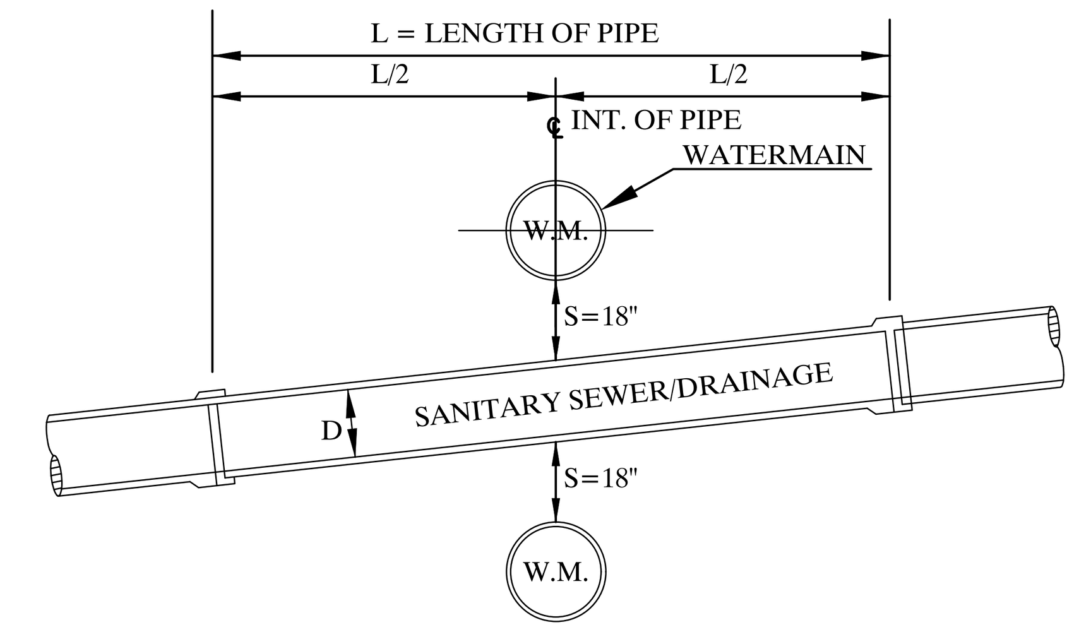


TABLE SHOWING MAX. PAYMENT LINE FOR ROCK EXC.	
DEPTH TO F.L. "D"FT.	ALLOWABLE WIDTH "W"
0' to 8'	P + 16"
8' to 12'	P + 22"
12' to 16'	P + 28"
16' to 20'	P + 34"
over 20'	P + 40"

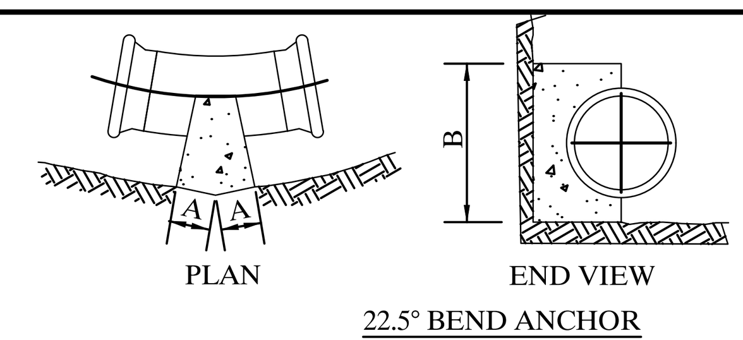
DRAINAGE AND SANITARY SEWER/WATERMAIN CROSSING DETAIL (N.T.S.)



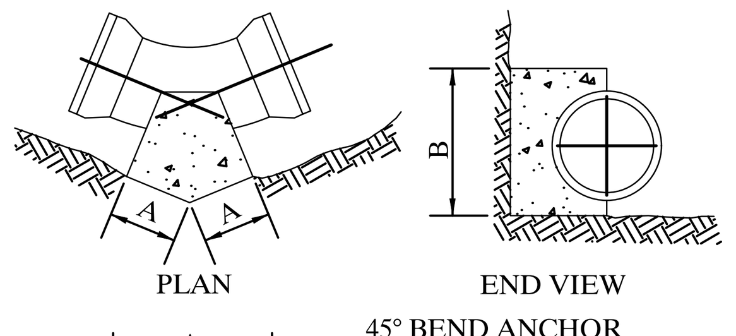
NOTE:
If non pressure cast iron, vitrified tile or asbestos cement sewer pipe passes beneath a water main with a vertical separation(S) of less than 18" inches then the sewer line must be installed as follows:

a) Three (3) lengths of either Cast iron or Asbestos Cement Pressure Pipe must be used. The middle lengths shall be placed so that the joints are equidistant from the Water Main (See Detail)
b) Three (3) Lengths of Pressure Pipe must be tested in the same manner as Required For Water Mains. (See Specifications).
c) In those cases where, due to field conditions the Sewer must be place above the Water Main, then the requirements as stated in (a) & (b) must be adhered to.
d) Each variation of water-sewer crossing from that shown on this detail shall be individually reviewed and approved by the Health Dept.

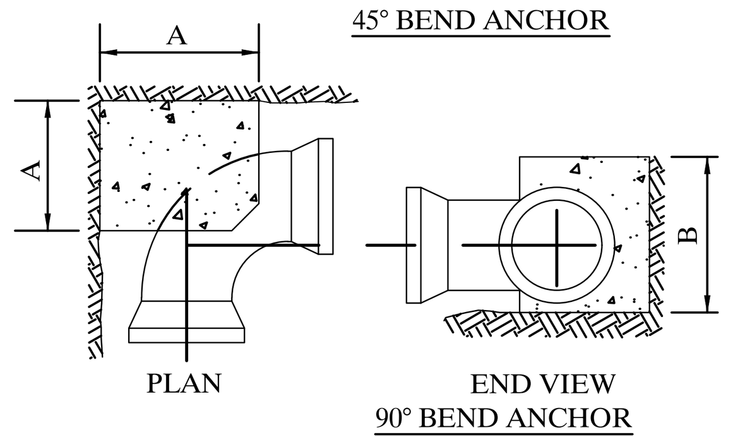
22.5°, 45°, 90° BEND & END CAP THRUST BLOCK DETAIL (N.T.S.)



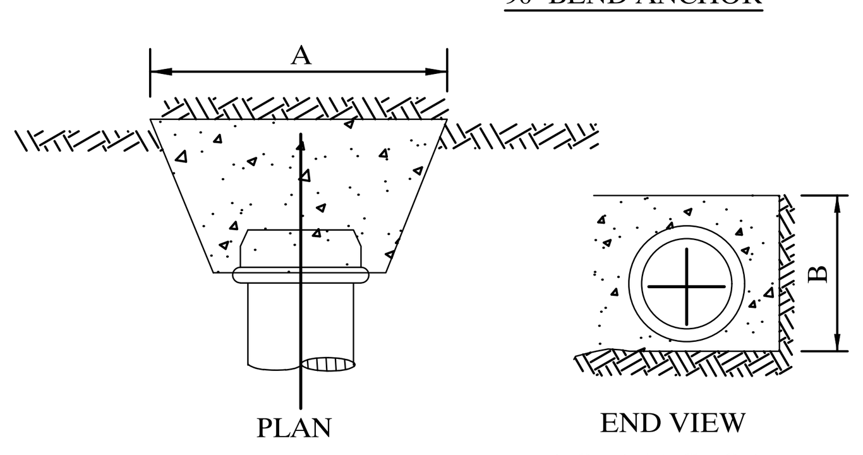
PIPE SIZE	A	B
6"-8"	5"	16"
10"-12"	7"	24"
14"-16"	8"	30"
18"-20"	9"	36"
24"	12"	42"



PIPE SIZE	A	B
6"-8"	6"	16"
10"-12"	10"	24"
14"-16"	16"	32"'
18"-20"	18"	36"
24"	24"	42"



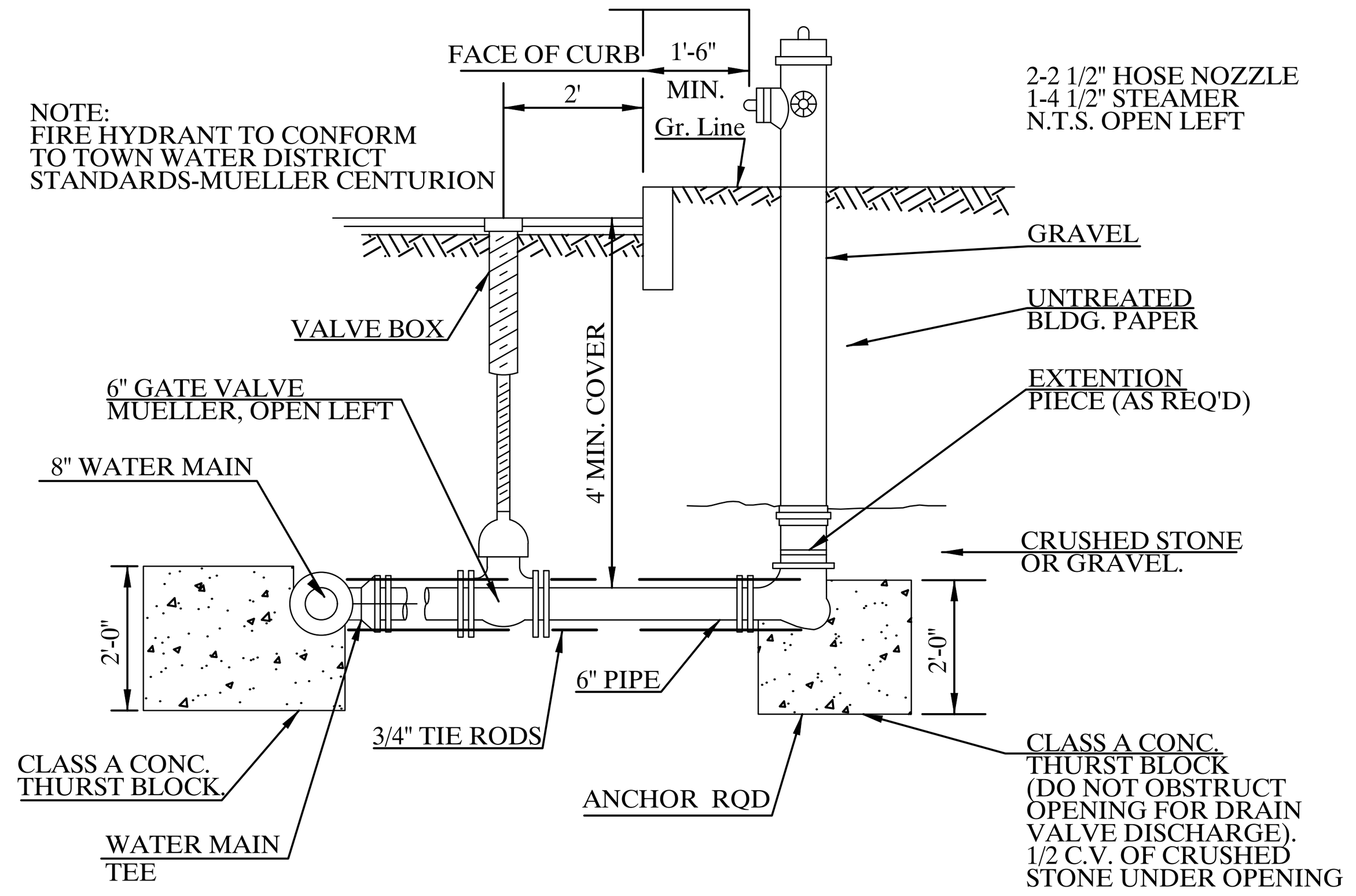
PIPE SIZE	A	B
6"-8"	14"	16"
10"-12"	20"	24"
14"-16"	24"	32"'
18"-20"	30"	40"
24"	36"	48"



PIPE SIZE	A	B
6"-8"	14"	16"
10"-12"	20"	24"
14"-16"	24"	32"'
18"-20"	30"	40"
24"	36"	48"

TYPICAL HYDRANT DETAIL (N.T.S.)

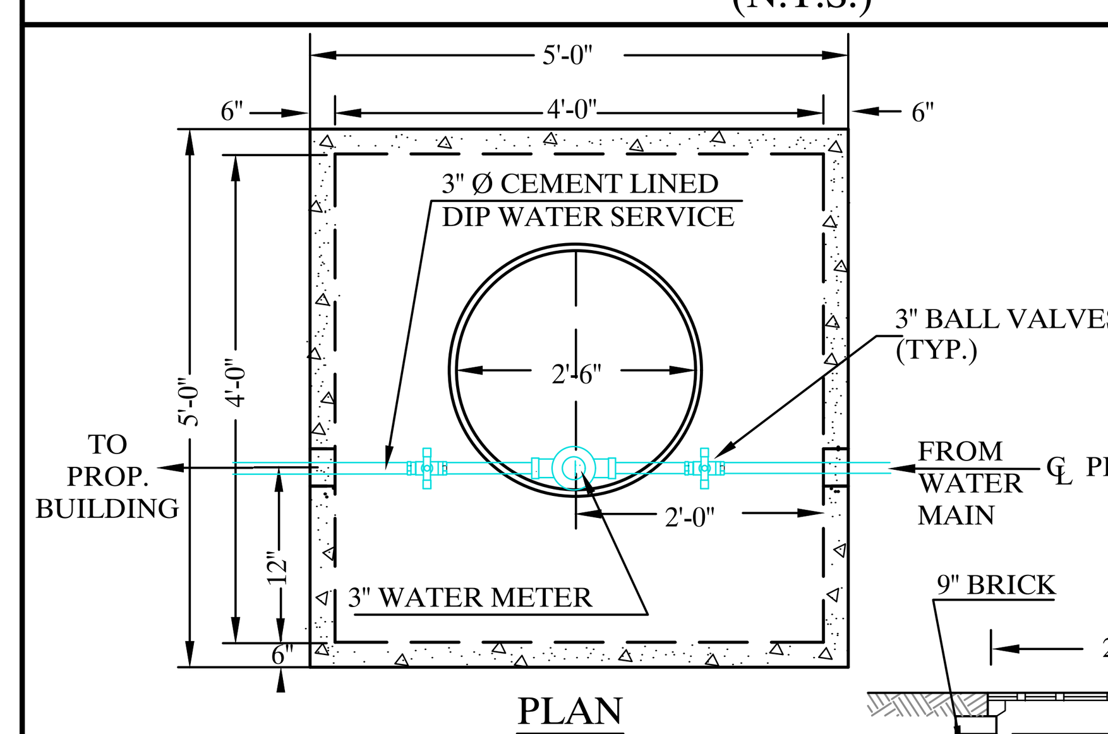
NOTE:
FIRE HYDRANT TO CONFORM TO TOWN WATER DISTRICT STANDARDS-MUELLER CENTURION

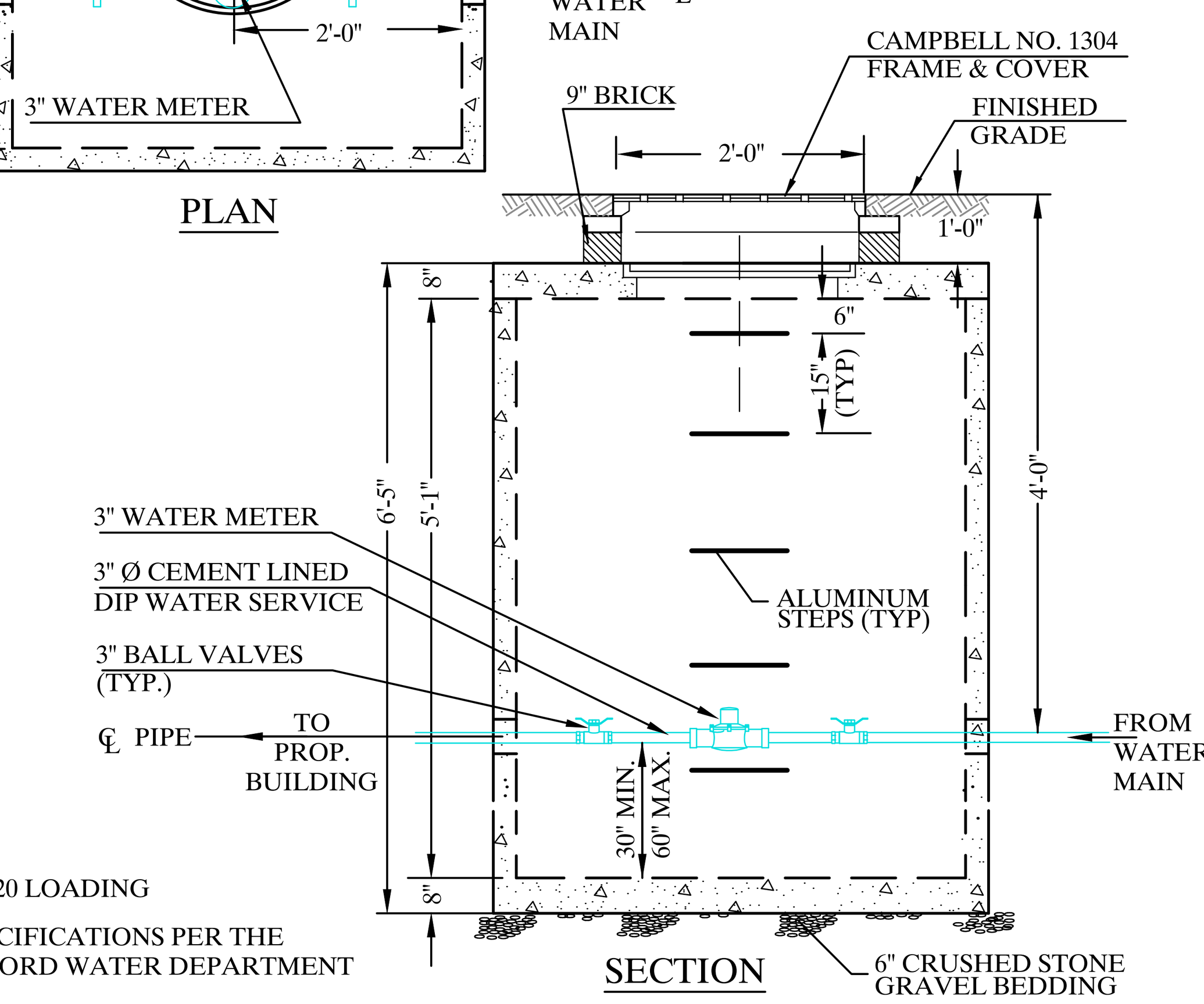


NOTES:

1. ALL CONCRETE BLOCKS TO BEAR ON UNDISTURBED GROUND.
2. 4 3/4" D STAINLESS STEEL TIE RODS WILL BE REQUIRED TIEING HYDRANT TO VALVE TO WATER MAIN.
3. WHERE THE WATER TABLE IS WHITHIN 7 FEET OF THE HYDRANT DRAINS, THEY SHOULD BE PLUGGED. WHEN THE DRAINS ARE PLUGGED THE BARRELS MUST BE PUMPED DRY AFTER USE DURING FREEZING WEATHER. WHERE HYDRANT DRAINS ARE NOT PLUGGED, A GRAVEL POCKET OR DRYWELL SHALL BE PROVIDED UNLESS THE NATURAL SOILS WILL PROVIDE ADEQUATE DRAINAGE. HYDRANT DRAINS SHALL NOT BE CONNECTED TO BE LOCATED WITHIN 10 FEET OF SANITARY OR STORM DRAINS.
4. HYDRANT DRAINS, WHERE ALLOWED, MUST BE ABOVE THE SEASONAL GROUND WATER LEVEL.

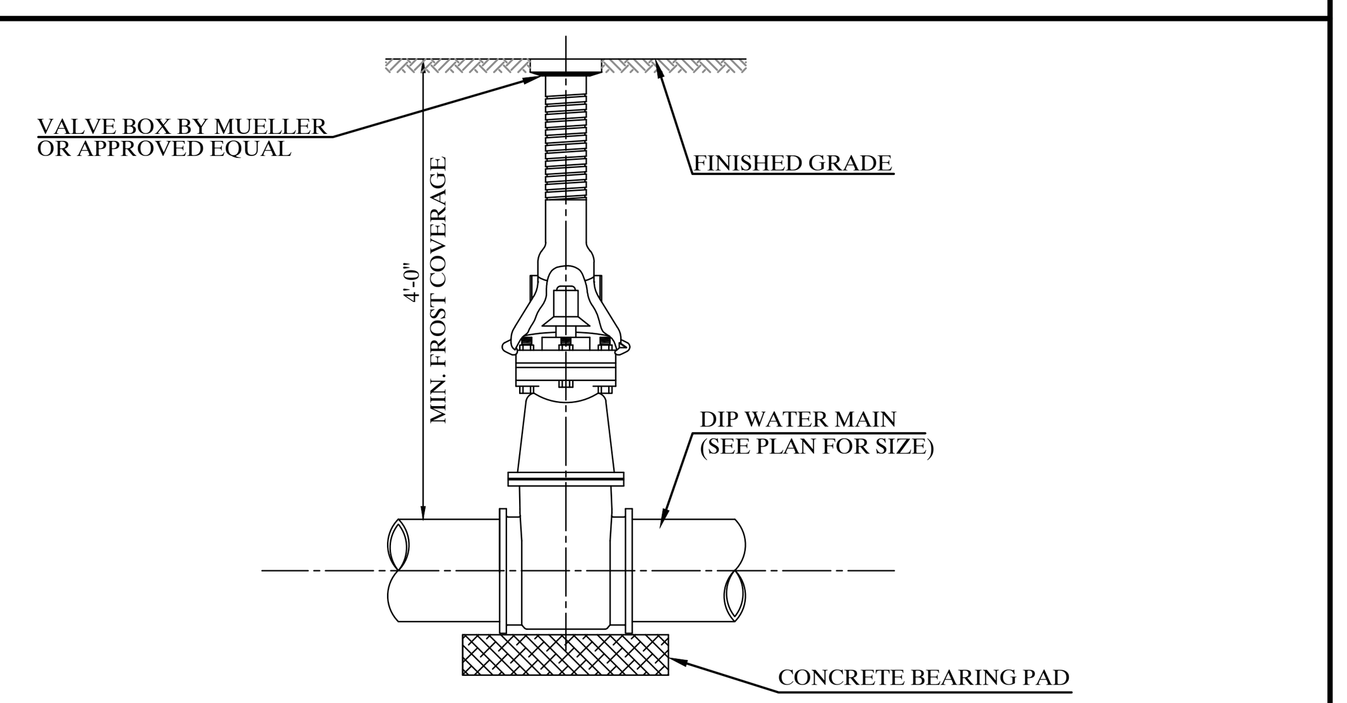
PRECAST CONCRETE WATER METER PIT (N.T.S.)



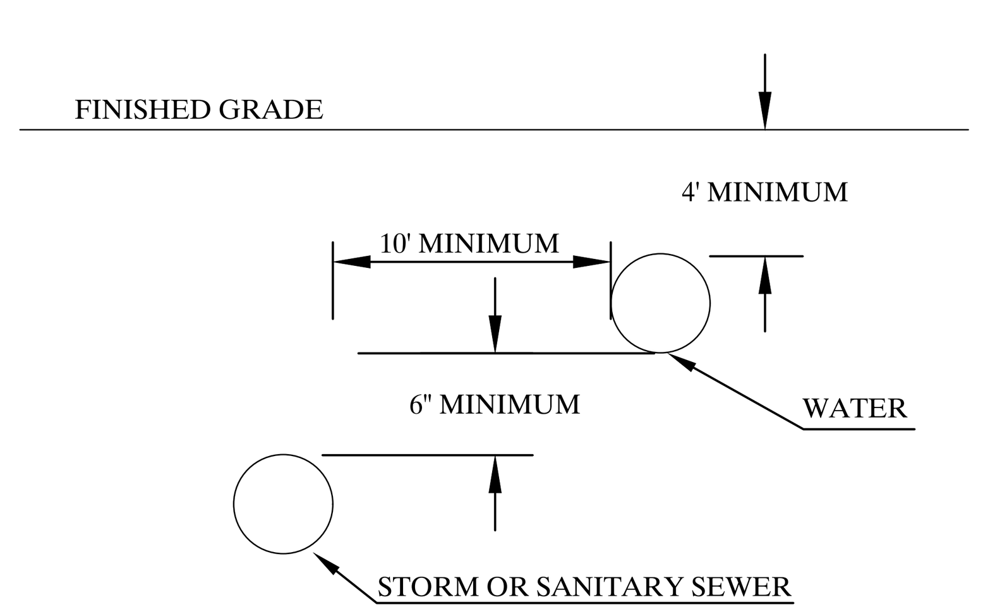


NOTE:
- DESIGN PER H 20 LOADING
- METER PIT SPECIFICATIONS PER THE TOWN OF BEDFORD WATER DEPARTMENT

GATE VALVE DETAIL (N.T.S.)



PARALLEL SEPARATION OF DRAIN & SEWER LINE W/ WATERMAIN (N.T.S.)



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WATER SERVICE DETAILS

BEDFORD VILLAGE FIRE DISTRICT

TOWN OF BEDFORD — WESTCHESTER COUNTY, NEW YORK

STATE OF NEW YORK LICENSED PROFESSIONAL ENGINEER 058738

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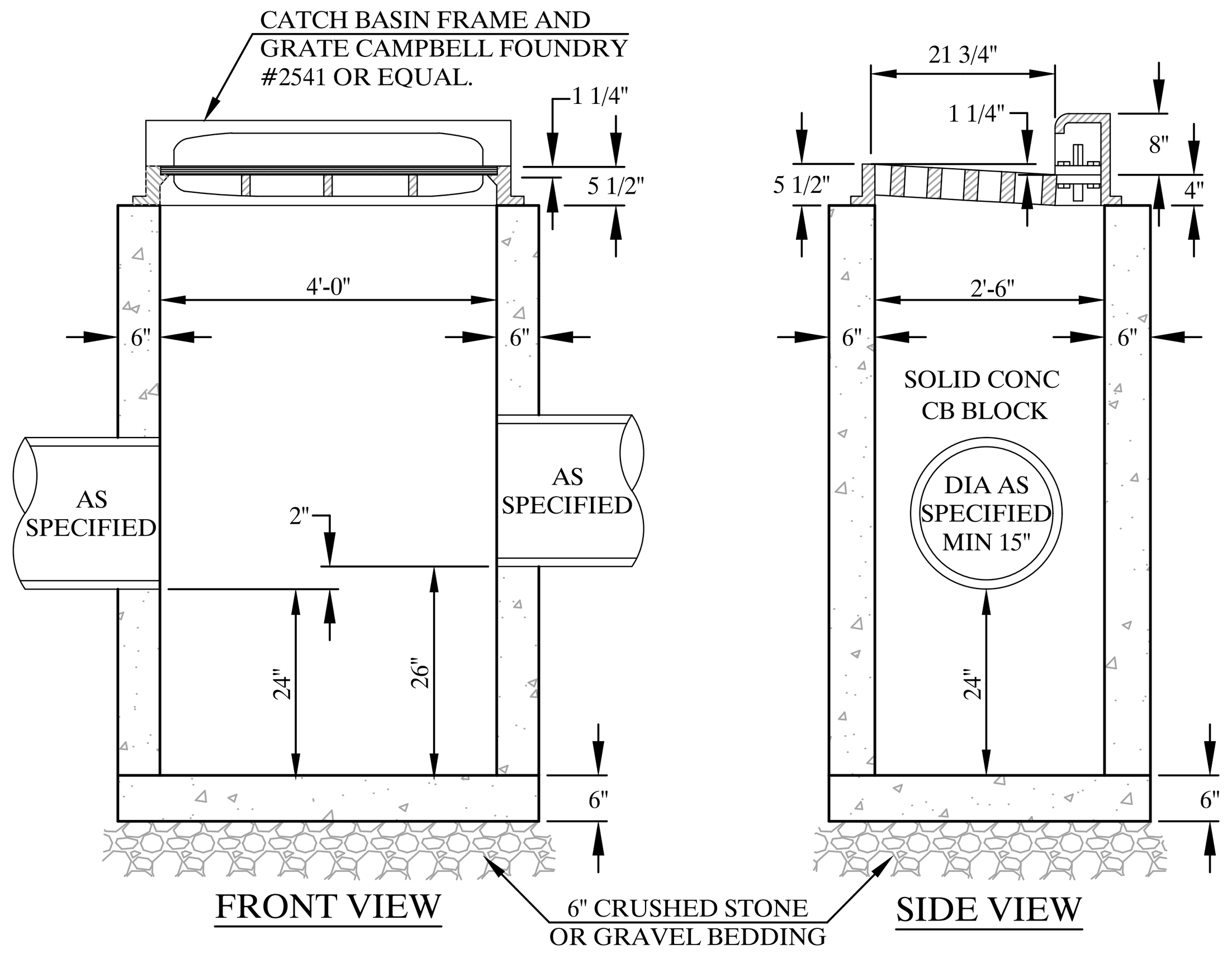
PROJECT I.D.: BDBEDFORDFIRE200

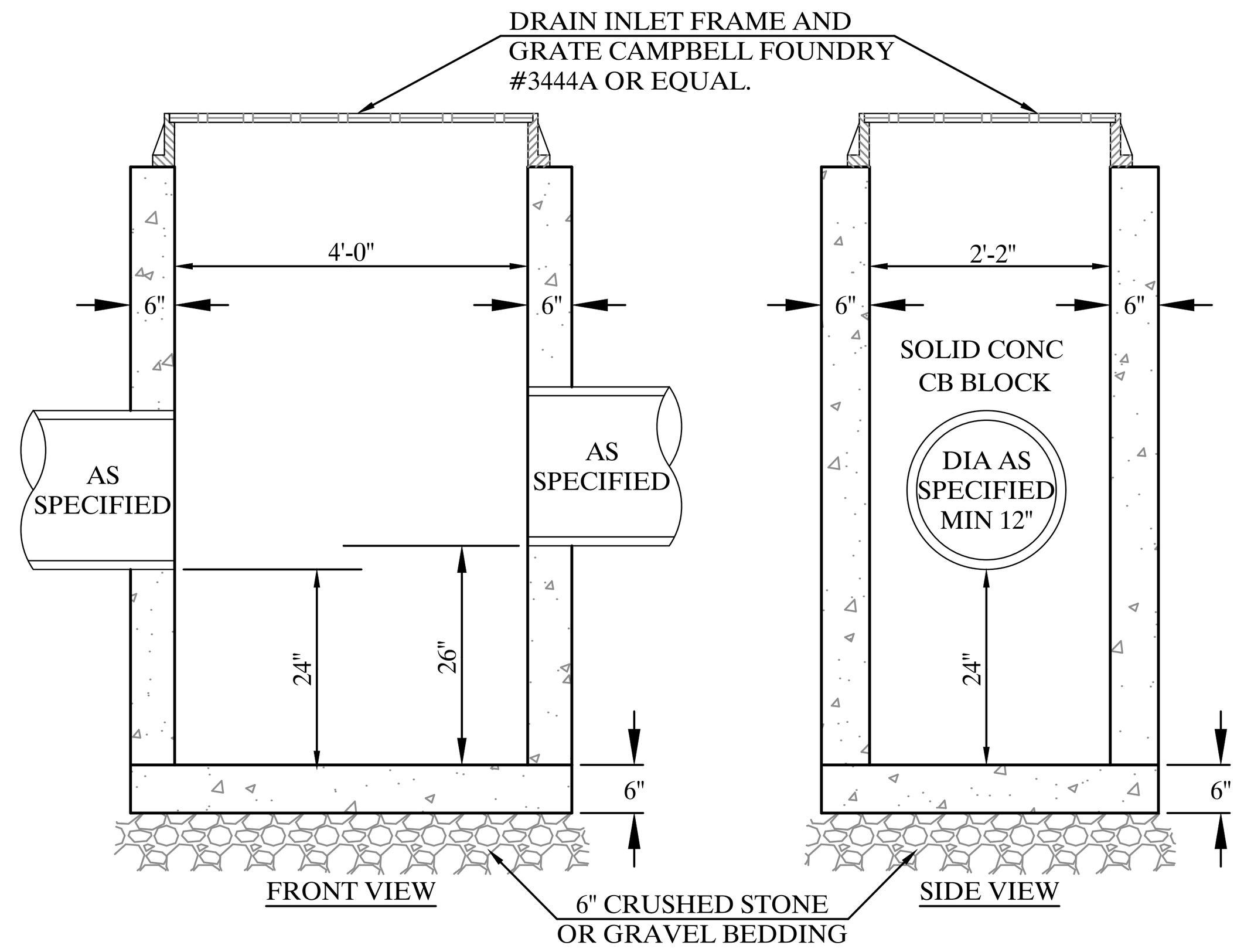
DATE: DECEMBER 1, 2020

CATCH BASIN DETAIL (N.T.S.)

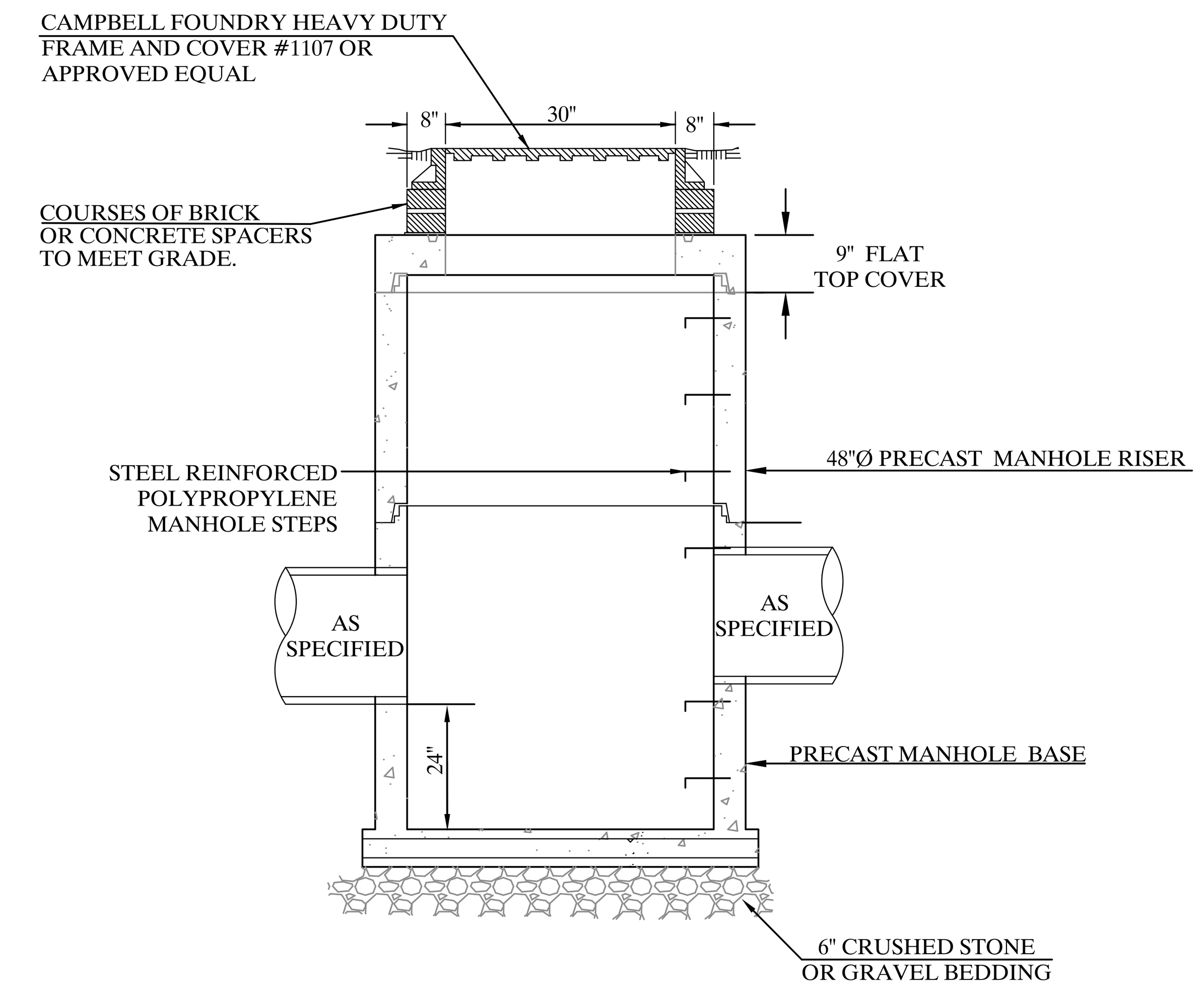


NOTE:
TYPE A CATCH BASIN AS SHOWN HERE ON WILL BE UTILIZED WHERE THE NEED FOR A DROP INLET EXISTS. THE CURB TYPE CASTING SHALL BE SUBSTITUTED WITH CAMPBELL FOUNDRY FRAME AND GRATE # 3433 OR EQUAL.

DRAIN INLET DETAIL (N.T.S.)



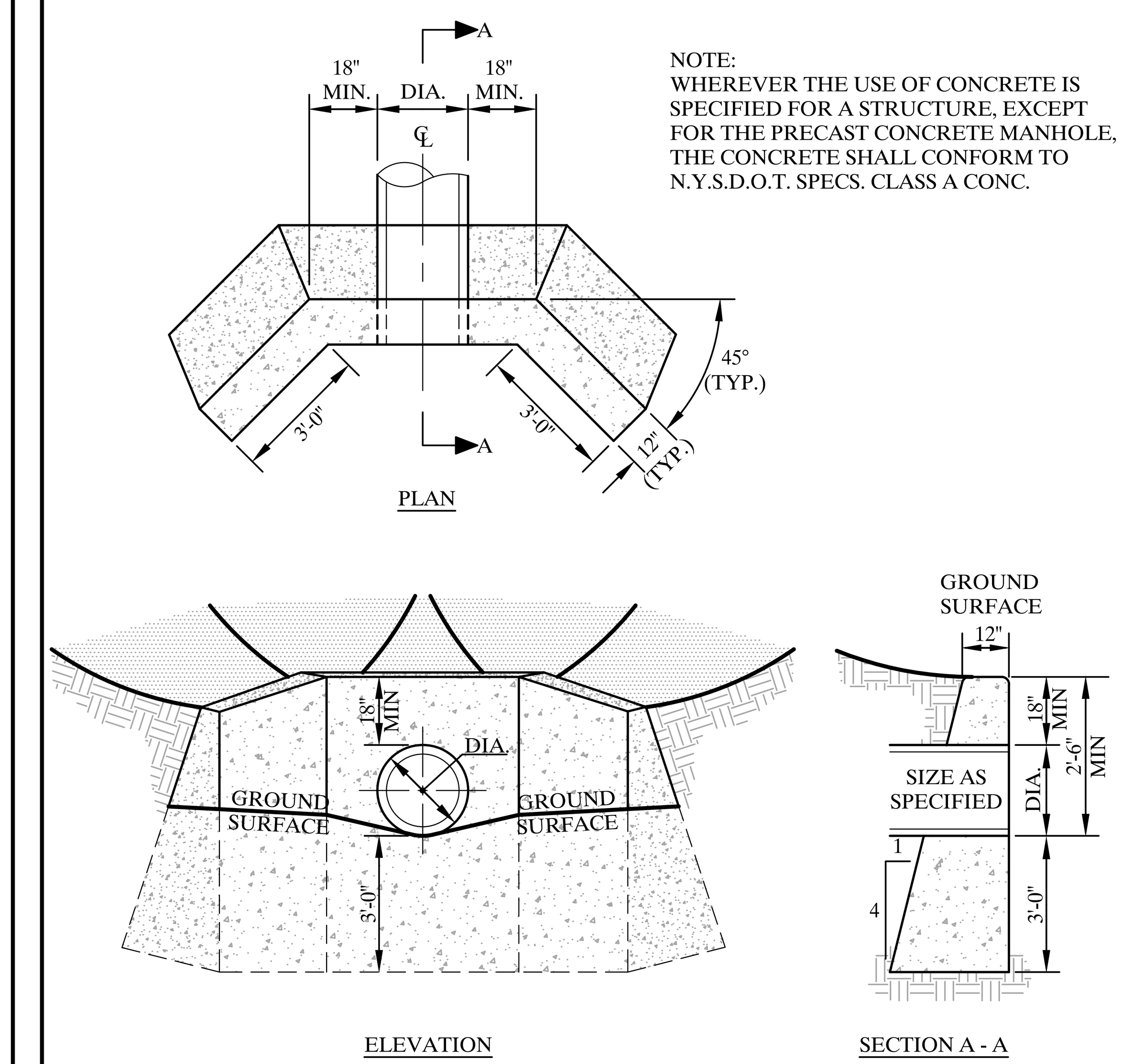
PRECAST DRAIN MANHOLE DETAIL (N.T.S.)



NOTES:

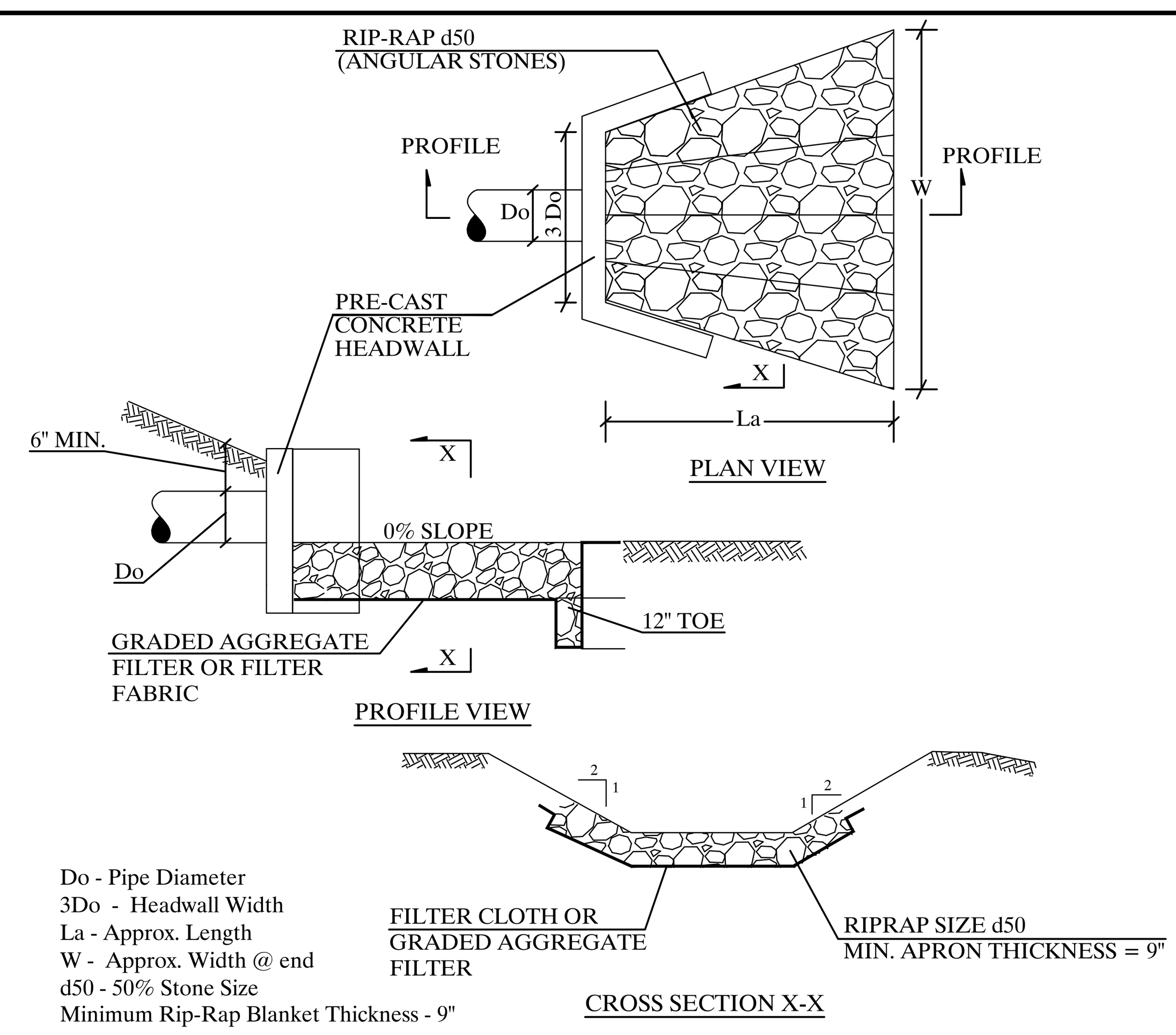
1. ALL JOINTS ON PRECAST UNITS ARE TO BE 'O' RING RUBBER GASKETS WITH EXTERIOR MORTARED JOINTS.
2. ALL MANHOLE STEPS ARE TO BE CAST IN PLACE DURING CONSTRUCTION.
3. MANHOLE STEPS ARE TO BE ALUMINUM OR APPROVED EQUAL.

CONCRETE HEADWALL DETAIL (N.T.S.)



NOTE:
WHEREVER THE USE OF CONCRETE IS SPECIFIED FOR A STRUCTURE, EXCEPT FOR THE PRECAST CONCRETE MANHOLE, THE CONCRETE SHALL CONFORM TO N.Y.S.D.O.T. SPECS. CLASS A CONC.

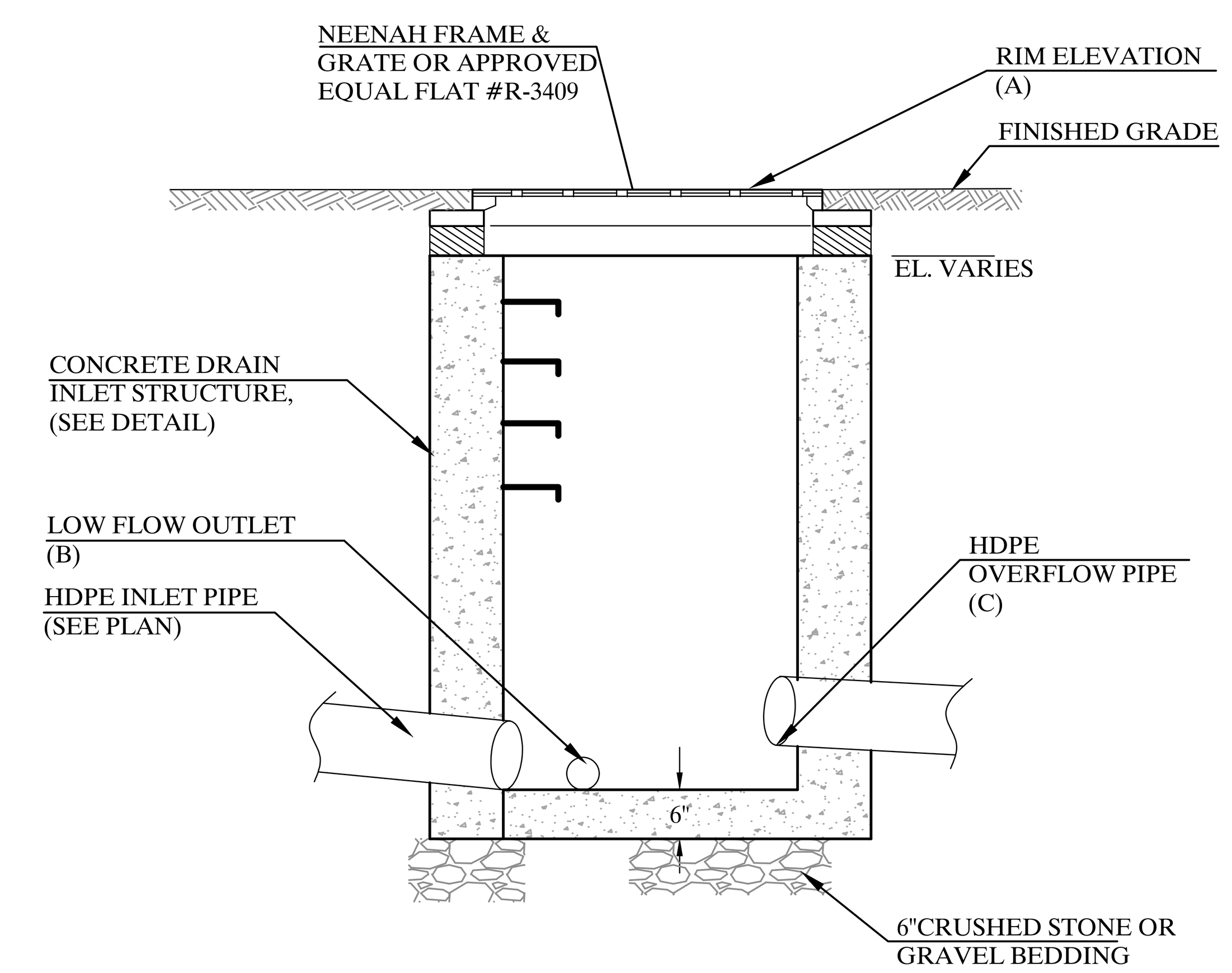
RIP RAP OUTLET PROTECTION DETAIL (N.T.S.)



Do - Pipe Diameter
3Do - Headwall Width
La - Approx. Length
W - Approx. Width @ end
d50 - 50% Stone Size
Minimum Rip-Rap Blanket Thickness - 9"

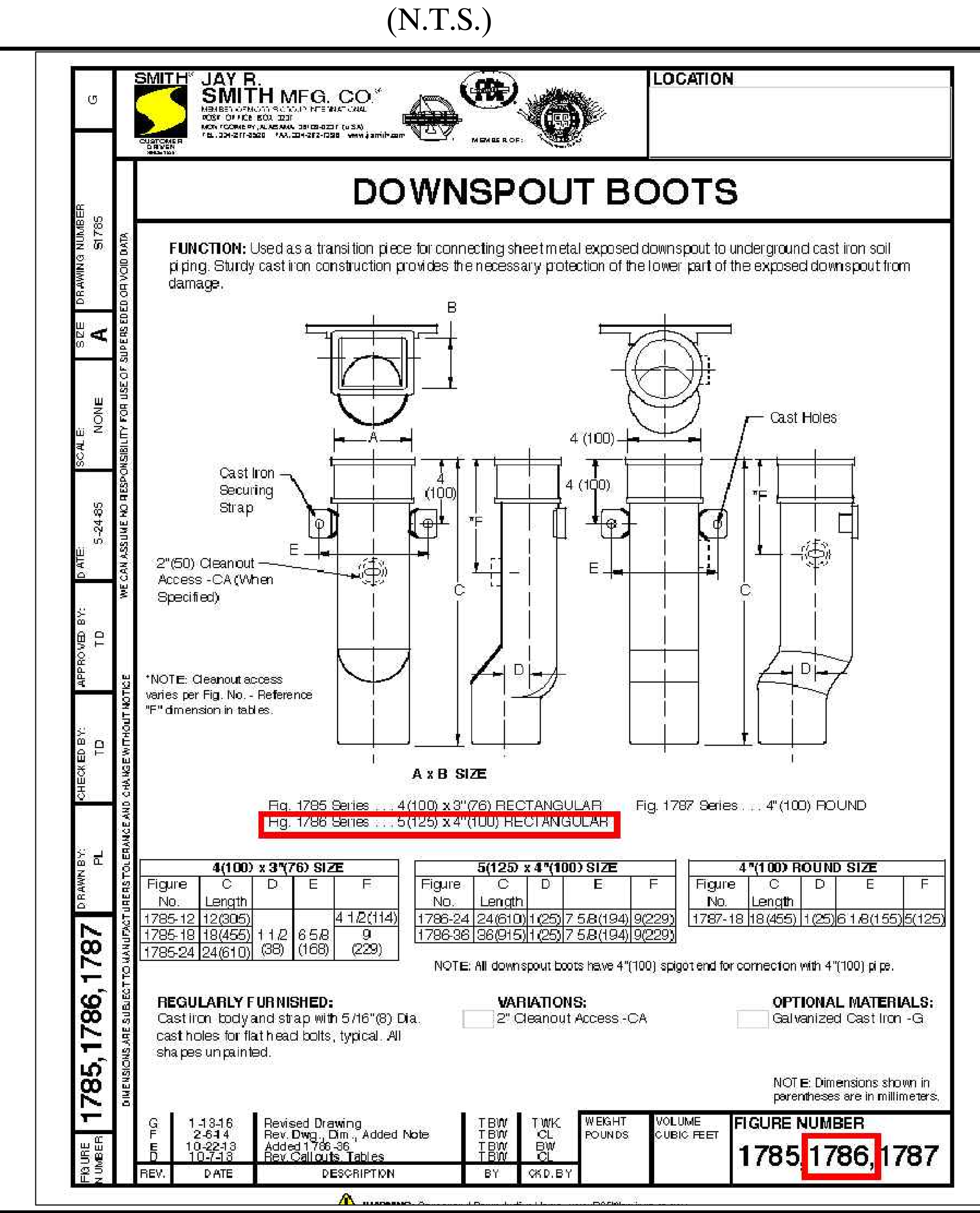
OUTLET PROTECTION LOCATION	Q (cfs)	Do (in)	3Do (ft)	La (min) (ft)	W (ft)	d50 (in)
HW #1	1.13	12	3.0	6	7	4
HW #2	1.13	12	3.0	6	7	4
HW #3	1.98	15	3.75	8	9.25	4
HW #4	0.40	6	1.5	6	6.5	4
HW #5	1.63	8	2.0	6	7	4

FLOW SPLITTER DETAIL (N.T.S.)

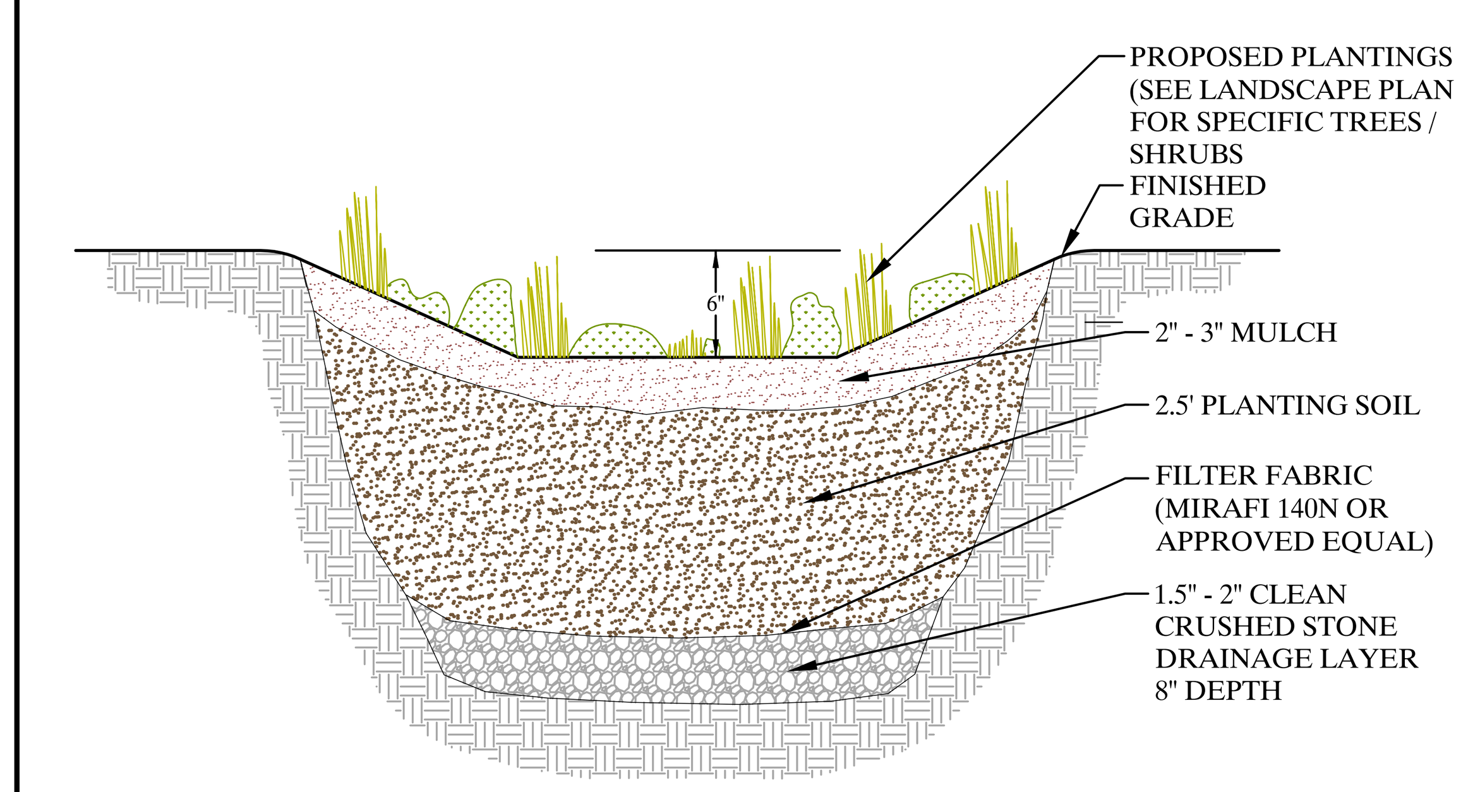


	FS #1	FS #2	FS #3
RIM (A)	374.2±	373.3±	370.5±
LOW FLOW (B)	367.75 (12"Ø PIPE W/11"Ø ORIFICE PLATE)	367.85 (6"Ø)	367.25 (8"Ø)
OVERFLOW (C)	368.90 (15"Ø)	369.85 (15"Ø)	368.25 (15"Ø)

DOWNSPOUT BOOTS DETAIL (N.T.S.)



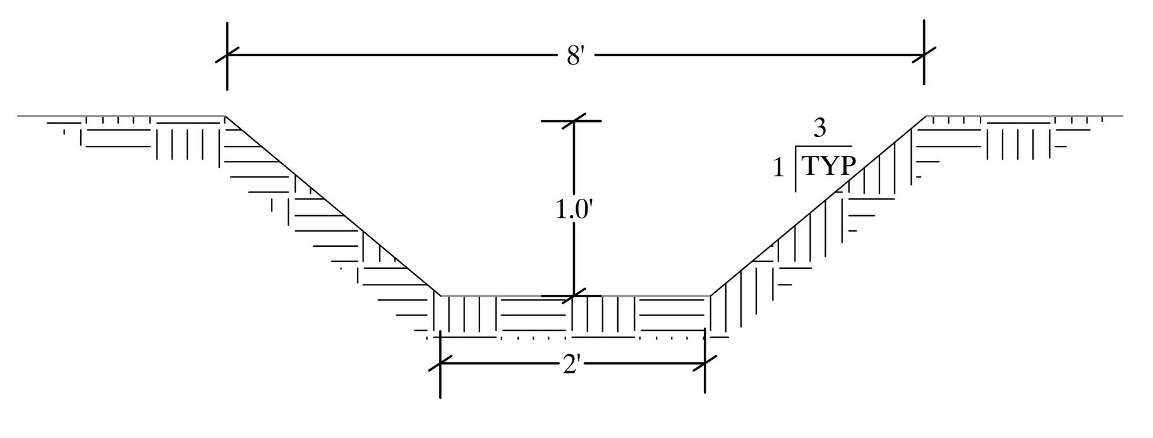
BIORETENTION DETAIL (N.T.S.)



NOTES:

1. PLANTING SOIL SHOULD BE THREE (3) PARTS SANDY LOAM, LOAMY SAND, LOAM (USDA) OR A LOAM/SAND MIX AND ONE (1) PART TOPSOIL BY VOLUME. THE CLAY CONTENT FOR THESE SOILS SHOULD BE LESS THAN 25% BY VOLUME
2. THE SOIL SHOULD BE A UNIFORM MIX, FREE OF STONES, STUMPS, ROOTS OR OTHER OBJECTS LARGER THAN 2 INCHES IN DIAMETER. THE SOIL SHOULD BE VISIBLY FREE OF NOXIOUS WEEDS.
3. THE SOIL SHOULD HAVE A pH RANGE OF 5.2 TO 7.0 AND AN ORGANIC CONTENT OF 1.5%-4.0%
4. THE MULCH LAYER SHOULD BE STANDARD LANDSCAPE STYLE, SINGLE OR DOUBLE, SHREDDED HARDWOOD MULCH OR CHIPS. THE MULCH LAYER SHOULD BE WELL AGED (STOCKPILED OR STORED FOR AT LEAST 12 MONTHS). THE MULCH LAYER SHOULD BE UNIFORM IN COLOR AND FREE OF WEED SEEDS, SOIL, ROOTS, GRASS CLIPPINGS, ETC.

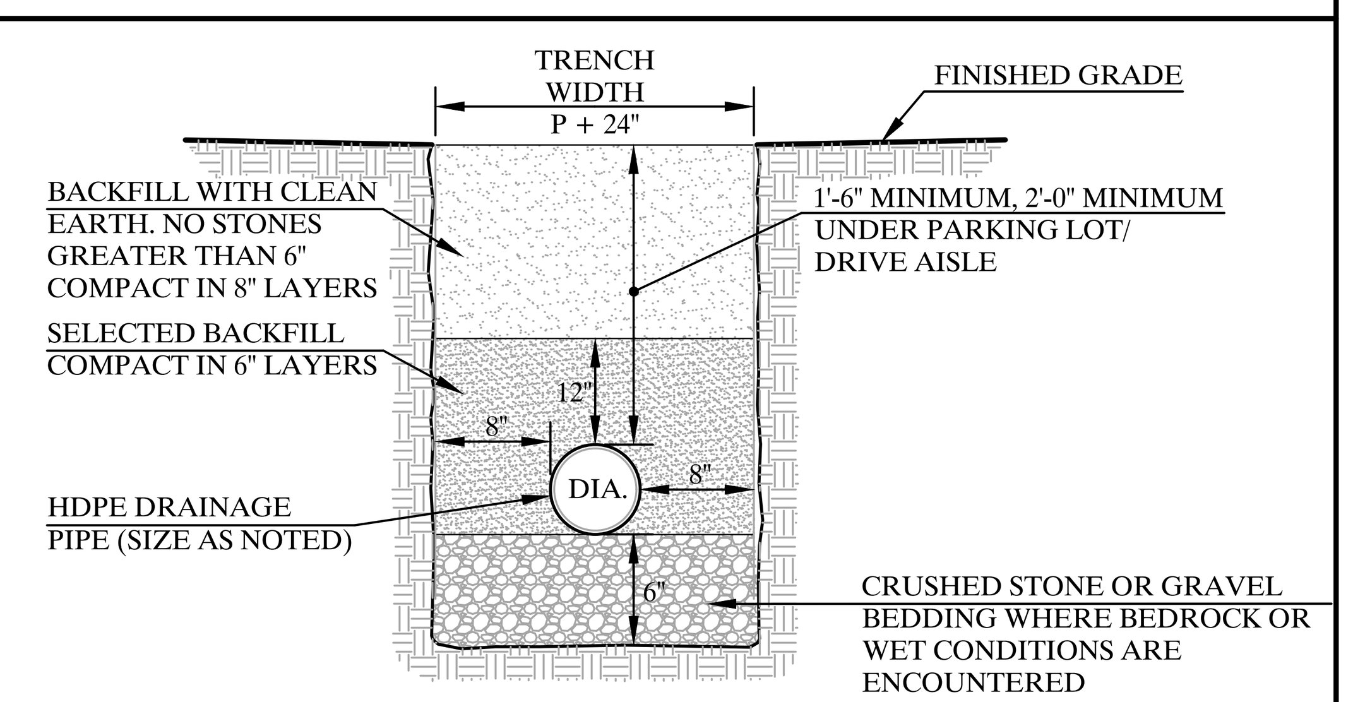
GRASS SWALE DETAIL (N.T.S.)



GRASS SWALE SECTION

NOTE:
FOR SWALE SEGMENTS NOT EXPECTED TO BE REGULARLY INUNDATED, SWALES SHALL BE SEEDED WITH A COMBINATION OF DEERTONGUE, SWITCHGRASS AND WILD RYE. FOR SWALE SEGMENTS THAT ARE EXPECTED TO BE INUNDATED ON A MORE FREQUENT BASIS, SWALES SHALL BE SEEDED WITH POINTED BROOMSEDGE, WOOD REED GRASS AND PRAIRIE CORD GRASS.

DRAINAGE TRENCH DETAIL (N.T.S.)



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DRAINAGE DETAILS

BEDFORD VILLAGE FIRE DISTRICT

TOWN OF BEDFORD — WESTCHESTER COUNTY, NEW YORK

STATE OF NEW YORK LICENSED PROFESSIONAL ENGINEER 058736

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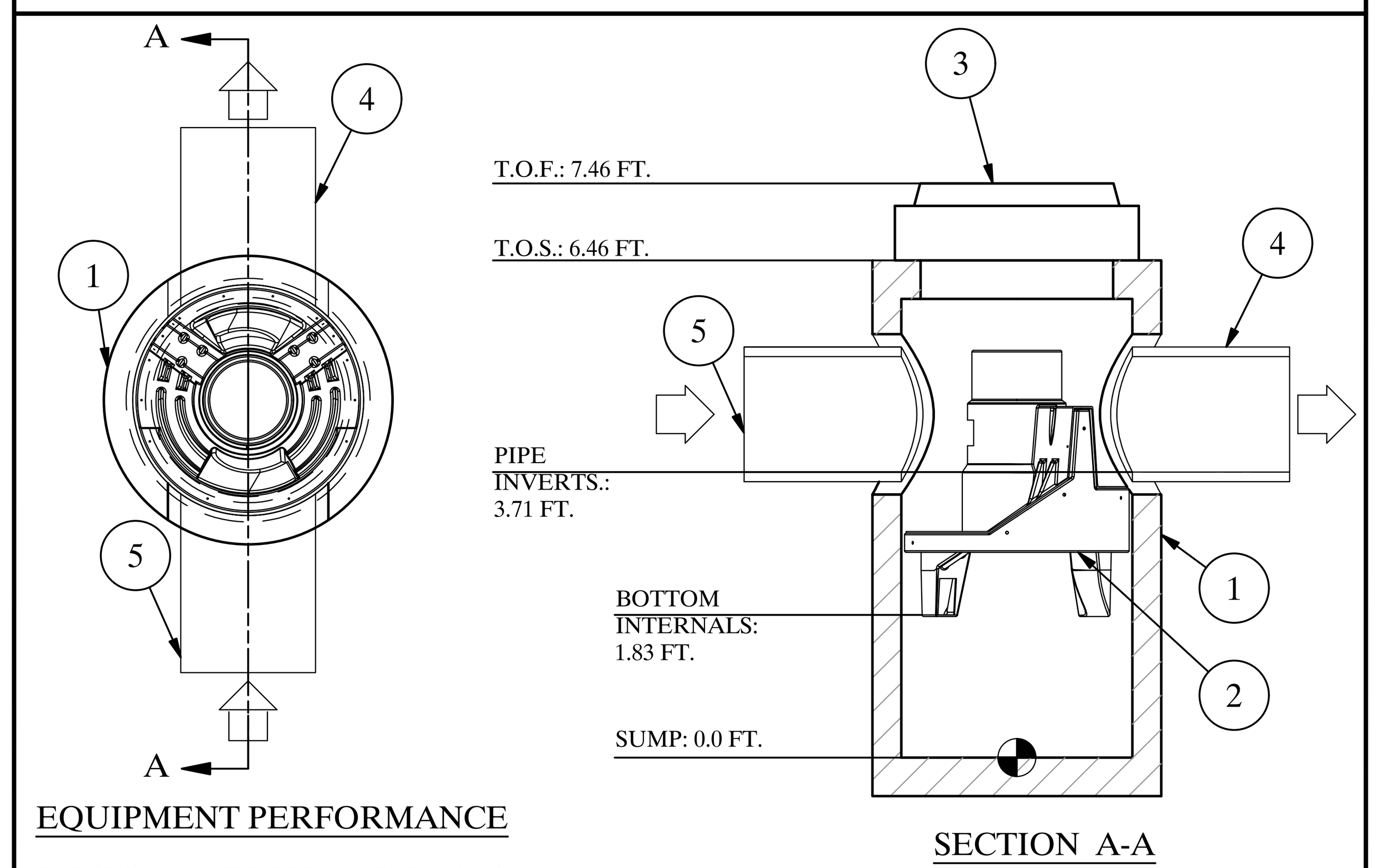
PROJECT I.D.: BDBEDFORDFIRE200

DATE: DECEMBER 1, 2020

FIRST DEFENSE 3 FT. WATER TREATMENT DETAIL (N.T.S.)



EQUIPMENT PERFORMANCE

THE STORMWATER TREATMENT UNIT SHALL ADHERE TO THE HYDRAULIC PARAMETERS GIVEN IN THE CHART BELOW AND PROVIDE THE REMOVAL EFFICIENCIES AND STORAGE CAPACITIES AS FOLLOWS:

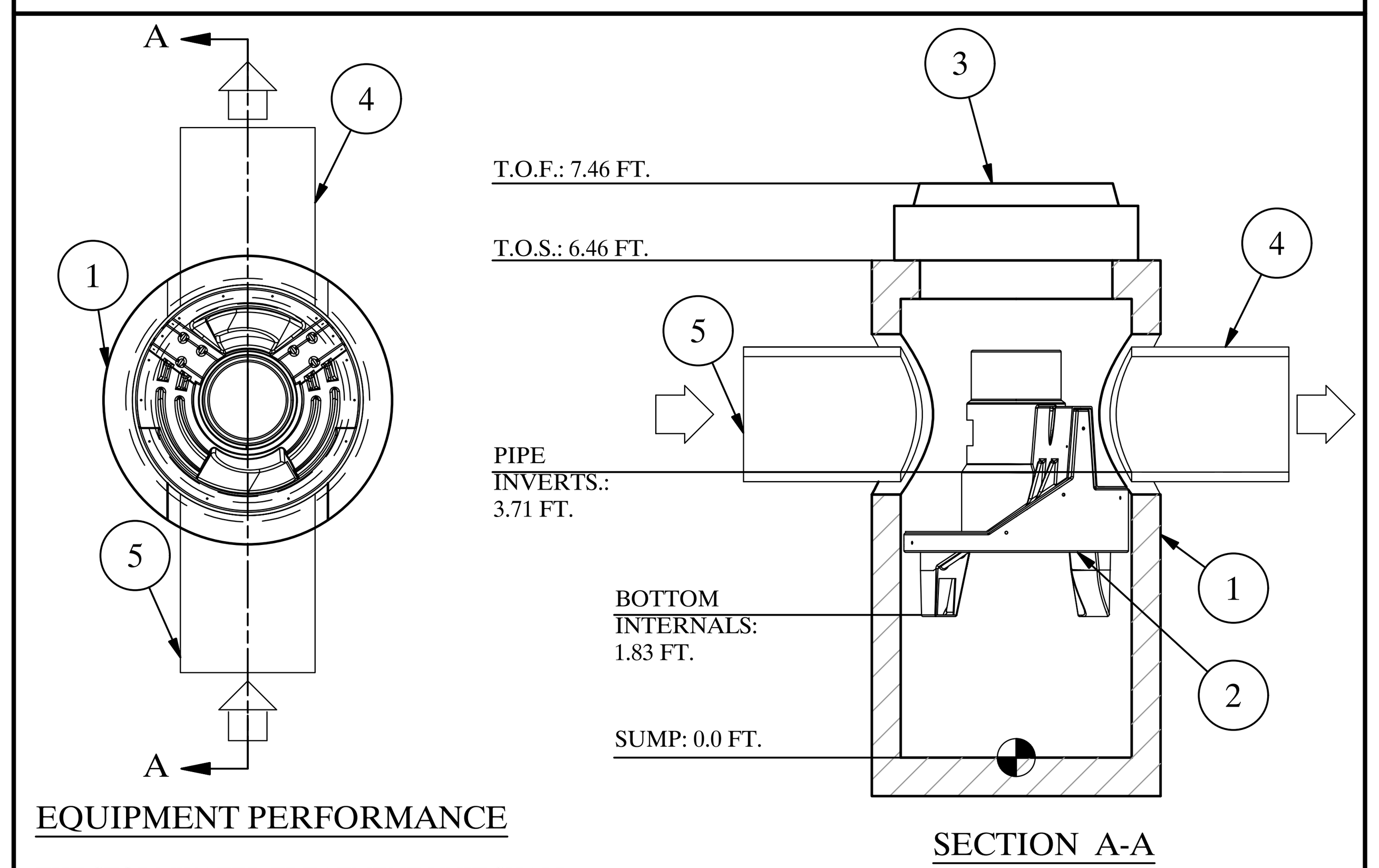
1. PEAK HYDRAULIC FLOW: 15.0 cfs
2. ESTIMATED HEAD LOSS AT 6 cfs: 3in.
3. MIN. SEDIMENT STORAGE CAPACITY: 0.4 cy.
4. OIL STORAGE CAPACITY: 125 Gal.

(HEADLOSS IS DEFINED AS THE DIFFERENCE BETWEEN STATIC WATER LEVEL AT THE INLET OF THE FIRST DEFENSE TO THE FREE WATER SURFACE IN THE OUTLET PIPE, ASSUMING FREE DISCHARGE)

Parts List

ITEM	SIZE (in)	DESCRIPTION
1	36	I.D. CONCRETE MANHOLE
2		INTERNAL COMPONENTS (PRE-INSTALLED)
3	30	FRAME AND GRATE (ROUND)
4	18 (MAX)	OUTLET PIPE
5	18 (MAX)	INLET PIPE

FIRST DEFENSE 4 FT. WATER TREATMENT DETAIL (N.T.S.)



EQUIPMENT PERFORMANCE

THE STORMWATER TREATMENT UNIT SHALL ADHERE TO THE HYDRAULIC PARAMETERS GIVEN IN THE CHART BELOW AND PROVIDE THE REMOVAL EFFICIENCIES AND STORAGE CAPACITIES AS FOLLOWS:

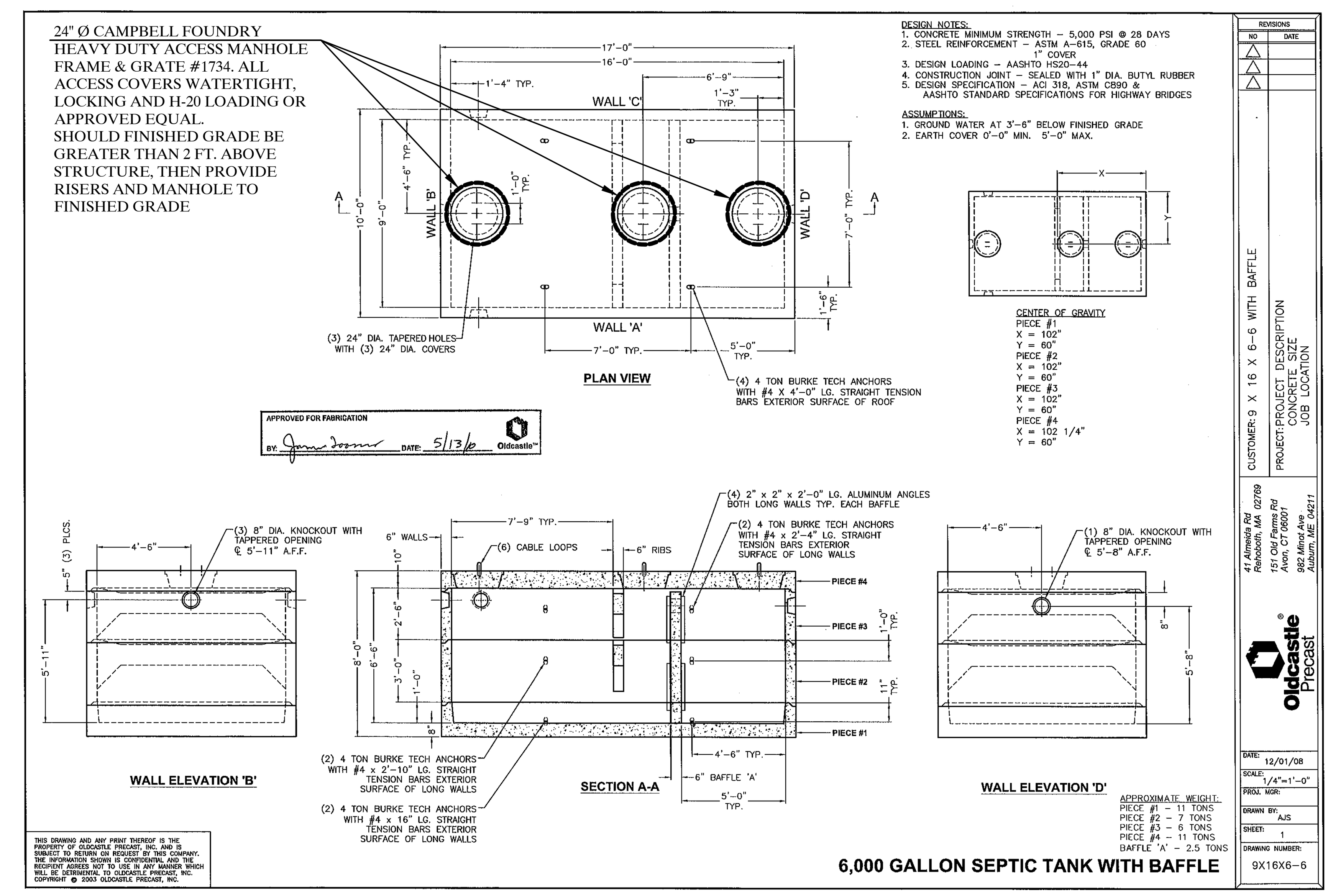
1. PEAK HYDRAULIC FLOW: 18.0 cfs
2. ESTIMATED HEAD LOSS AT 6 cfs: 3in.
3. MIN. SEDIMENT STORAGE CAPACITY: 0.7 cy.
4. OIL STORAGE CAPACITY: 191 Gal.

(HEADLOSS IS DEFINED AS THE DIFFERENCE BETWEEN STATIC WATER LEVEL AT THE INLET OF THE FIRST DEFENSE TO THE FREE WATER SURFACE IN THE OUTLET PIPE, ASSUMING FREE DISCHARGE)

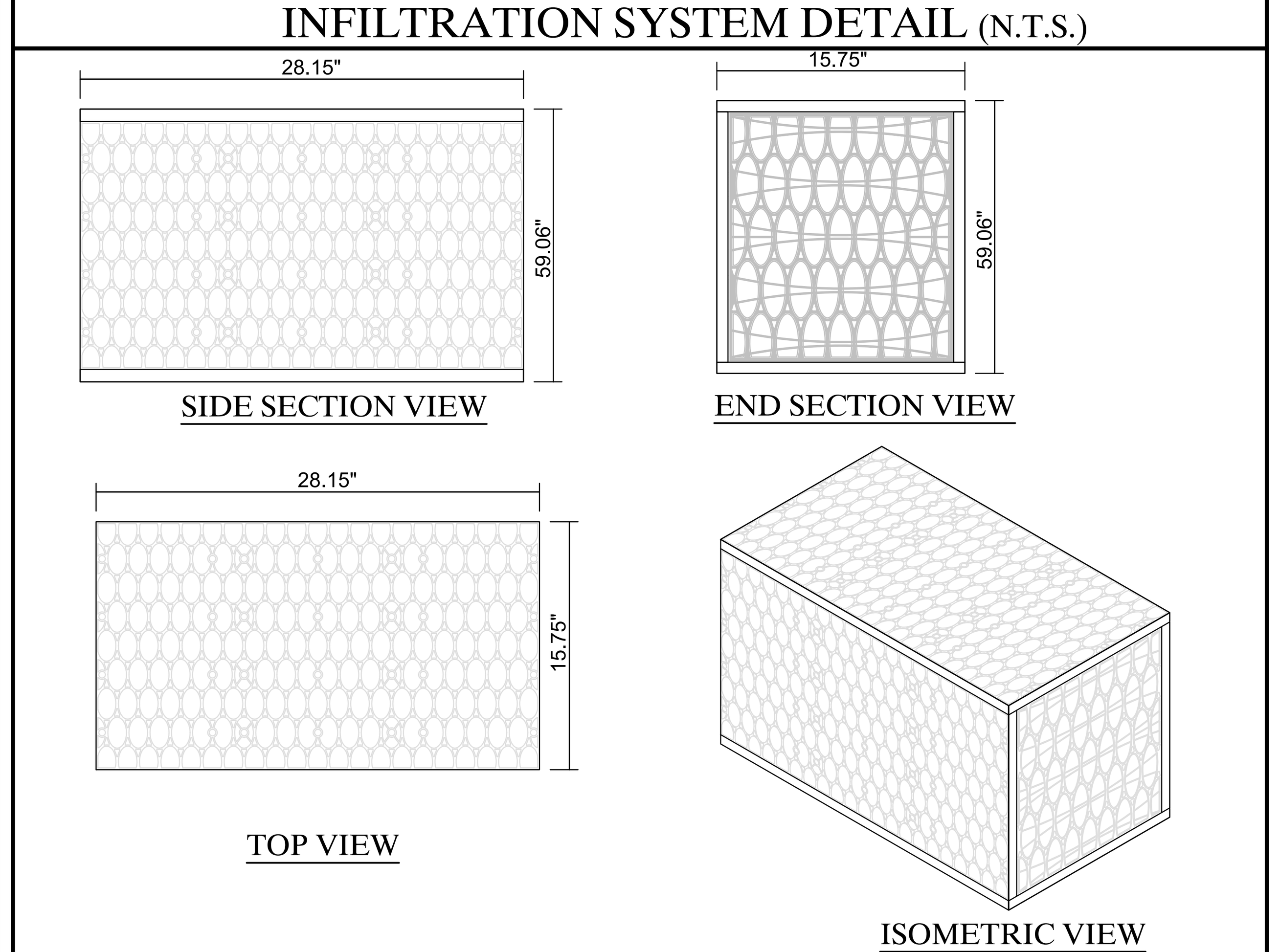
Parts List

ITEM	SIZE (in)	DESCRIPTION
1	48	I.D. CONCRETE MANHOLE
2		INTERNAL COMPONENTS (PRE-INSTALLED)
3	30	FRAME AND GRATE (ROUND)
4	24 (MAX)	OUTLET PIPE
5	24 (MAX)	INLET PIPE

OIL/WATER SEPARATOR DETAIL (N.T.S.)

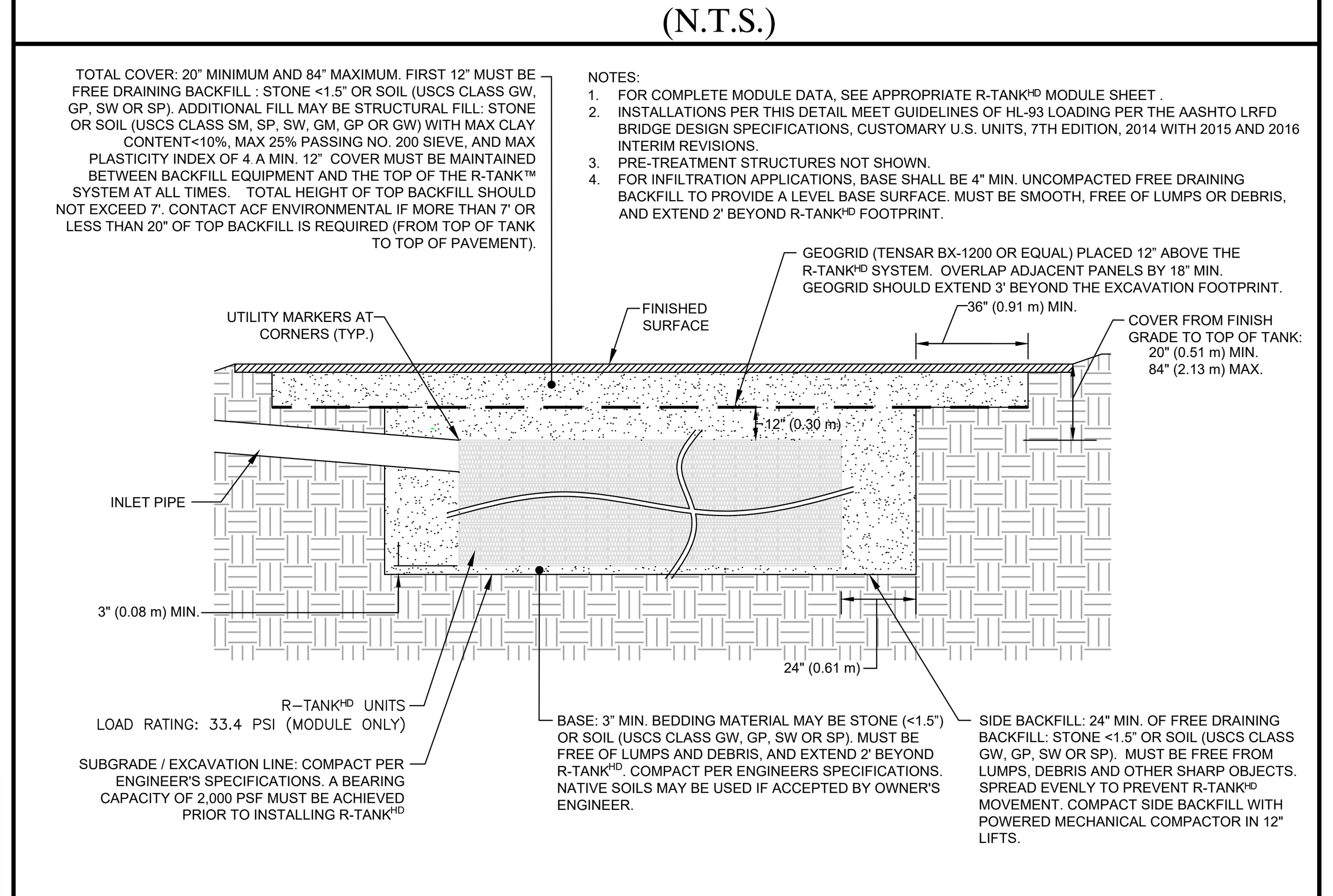


R-TANK HD MODEL 3.5 INFILTRATION SYSTEM DETAIL (N.T.S.)

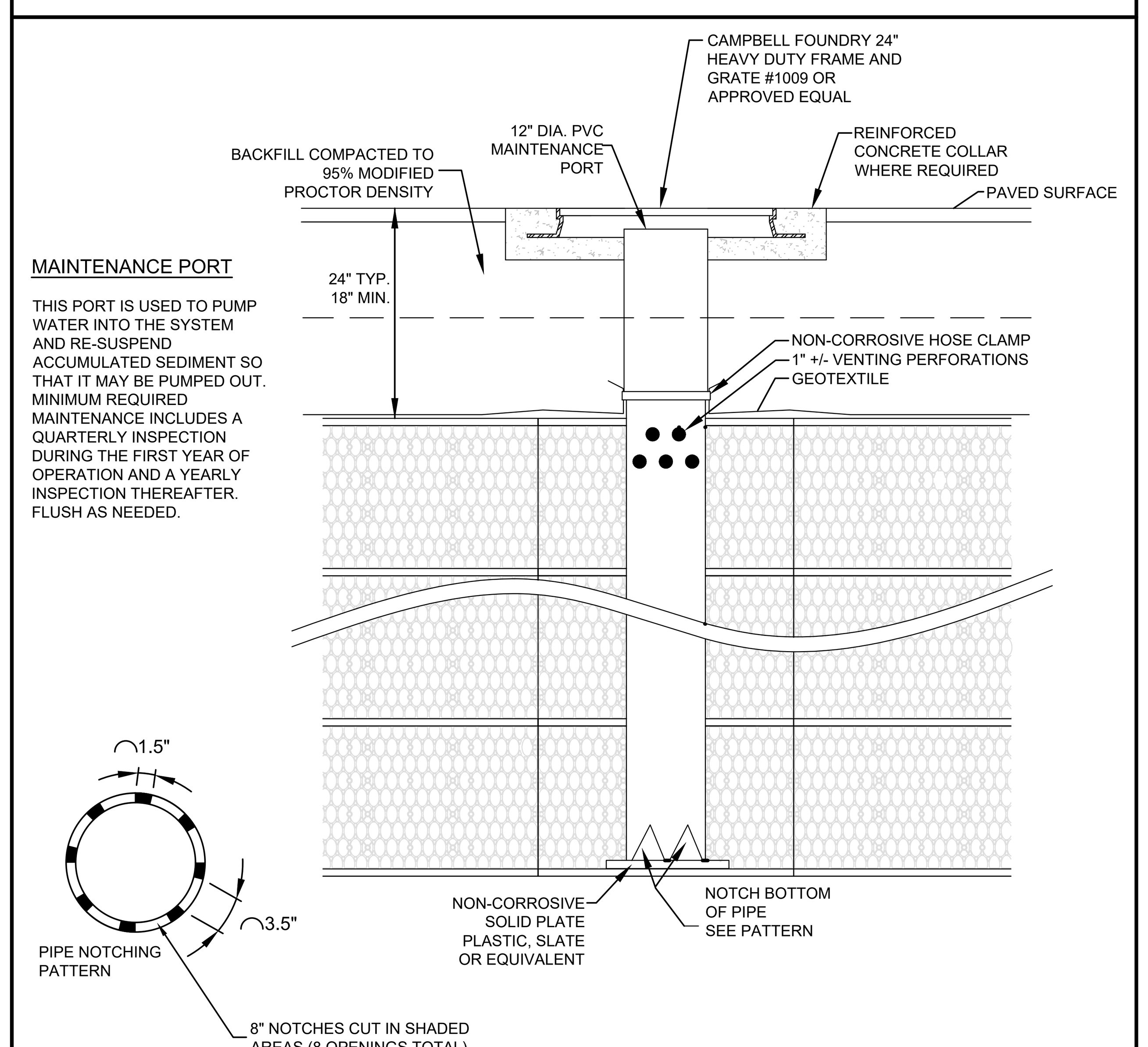


R-TANK HD LOADS SECTION VIEW

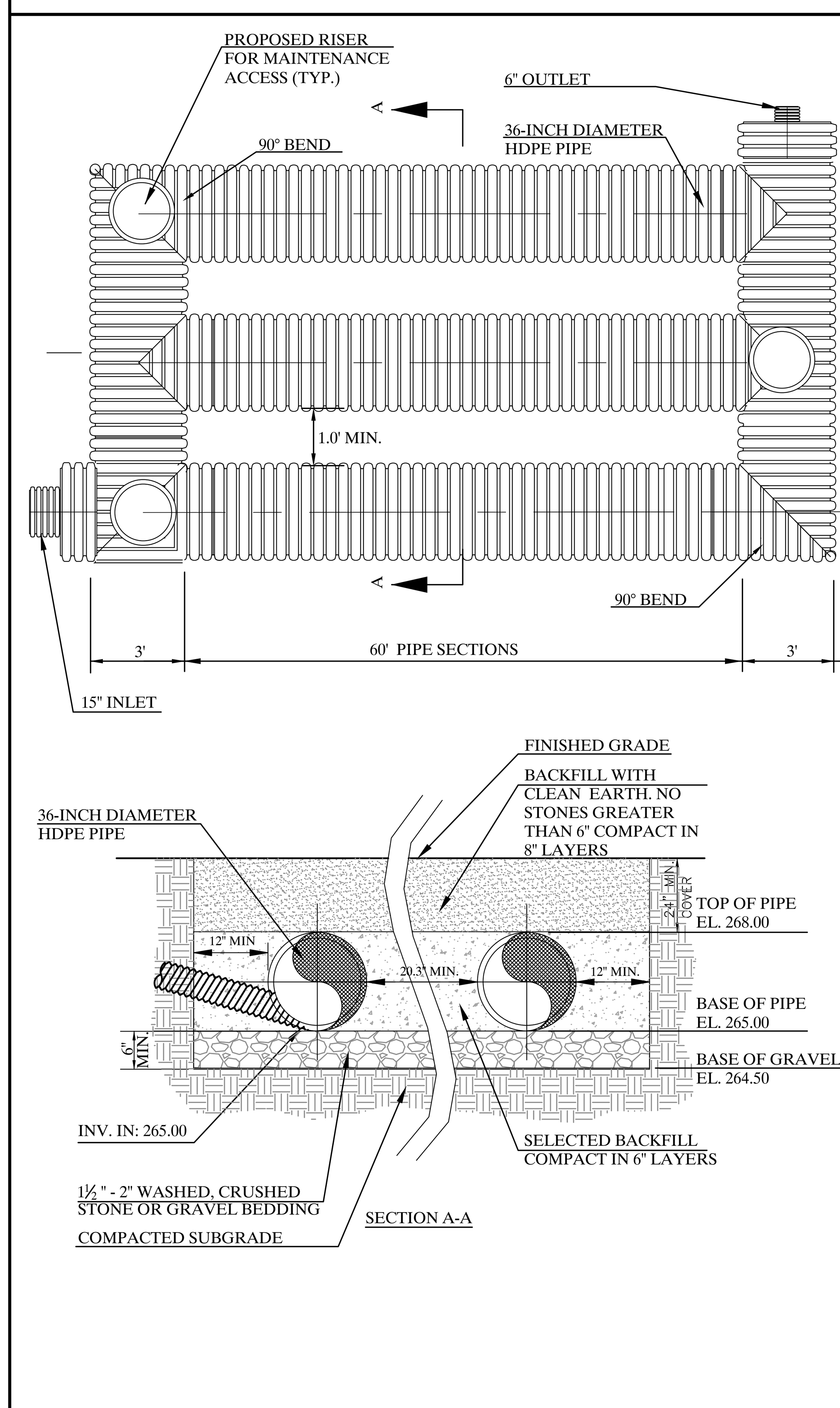
(N.T.S.)



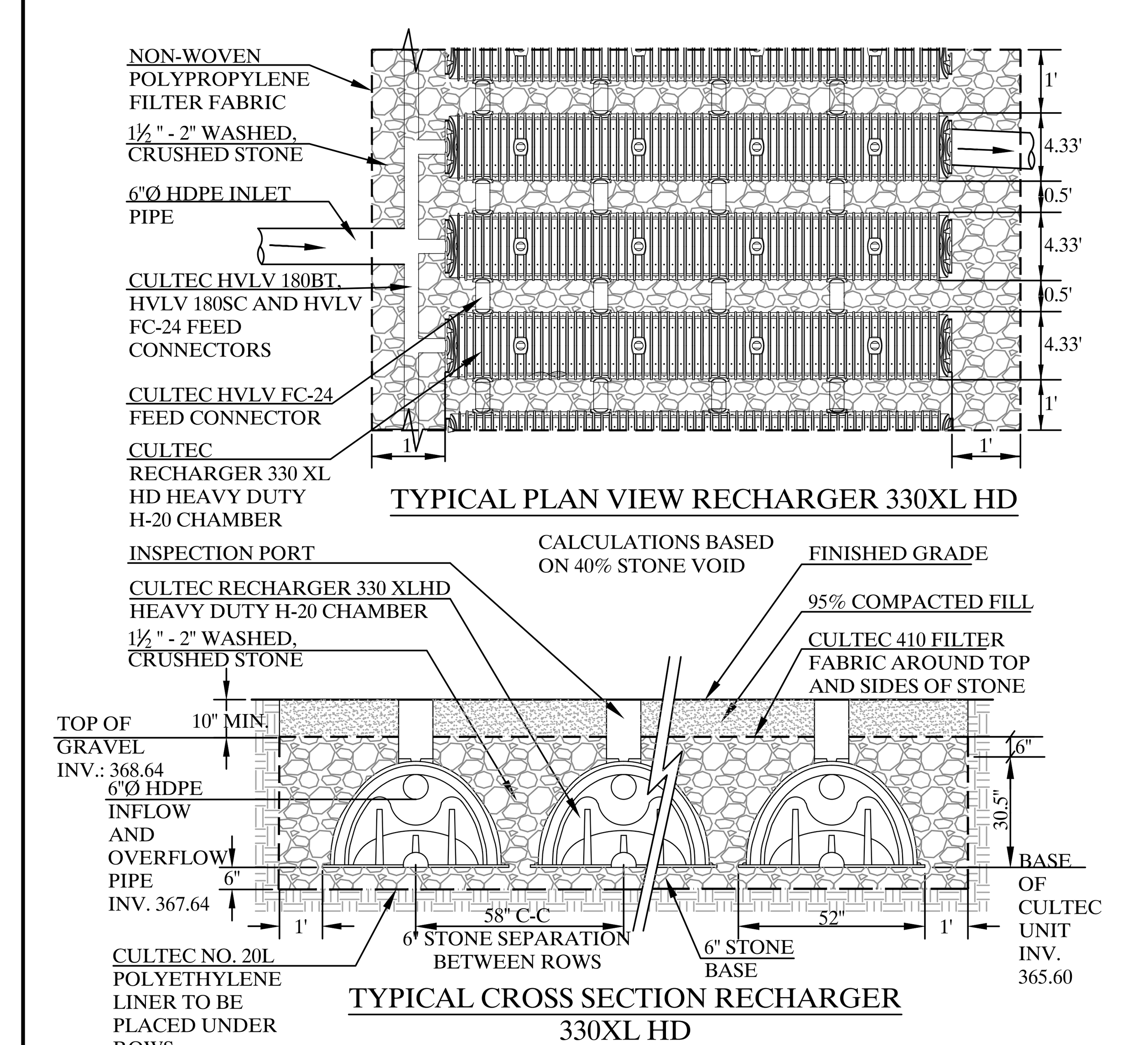
R-TANK TYPICAL MAINTENANCE PORT DETAIL (N.T.S.)



UNDERGROUND 36" PIPE DETENTION SYSTEM (N.T.S.)



CULTEC 330 XL RECHARGER INFILTRATION SYSTEM CHAMBER TYPICAL DETAIL (N.T.S.)



NOTE: DETAIL FOR TYPICAL INSTALLATION ONLY, REFER TO PLAN FOR LAYOUT & QUANTITY

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DRAINAGE DETAILS

BEDFORD VILLAGE FIRE DISTRICT

TOWN OF BEDFORD — WESTCHESTER COUNTY, NEW YORK

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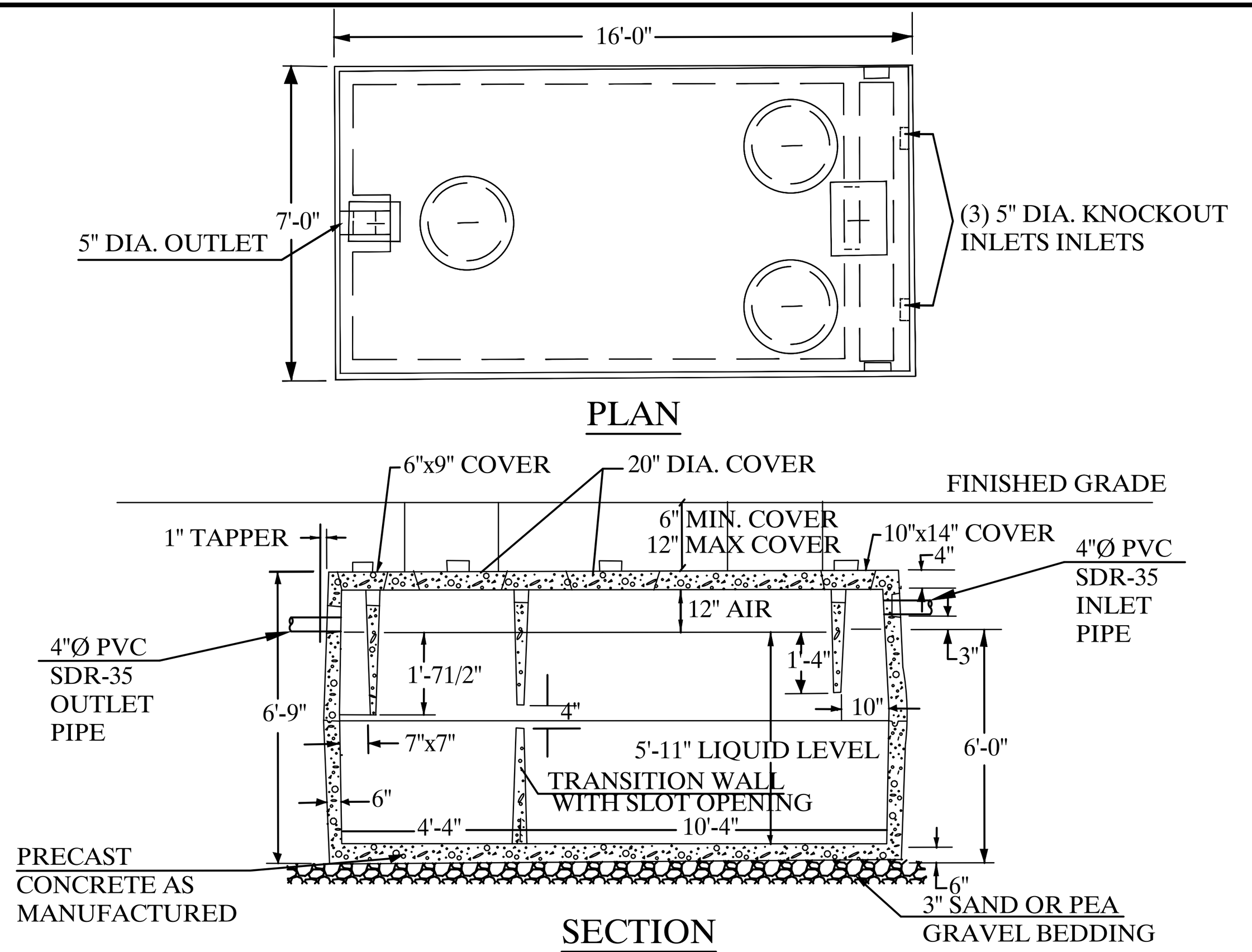
PROJECT I.D.: BDBEDFORDFIRE200

DATE: DECEMBER 1, 2020

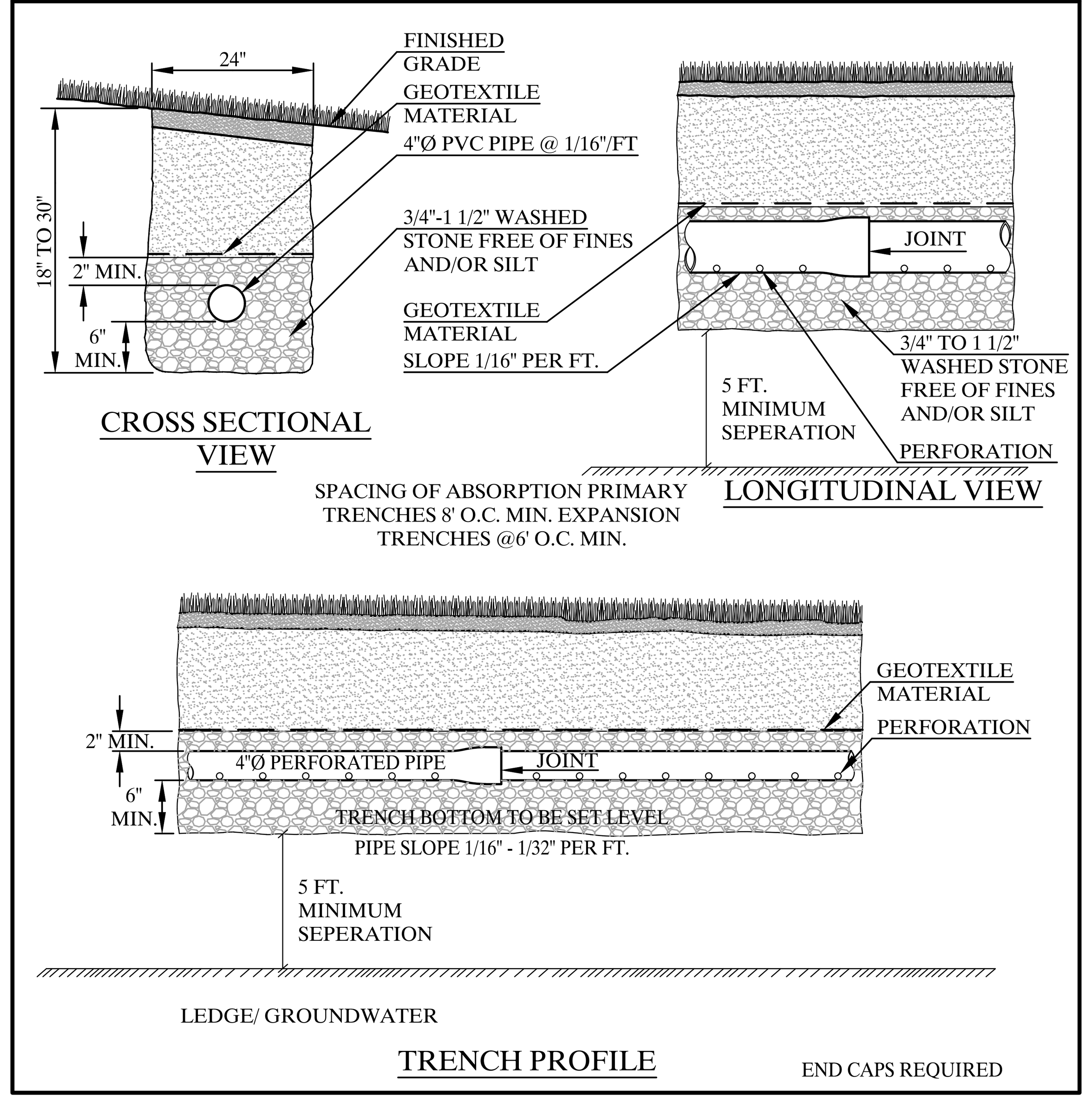
4000 GAL. SEPTIC TANK DETAIL (N.T.S.)



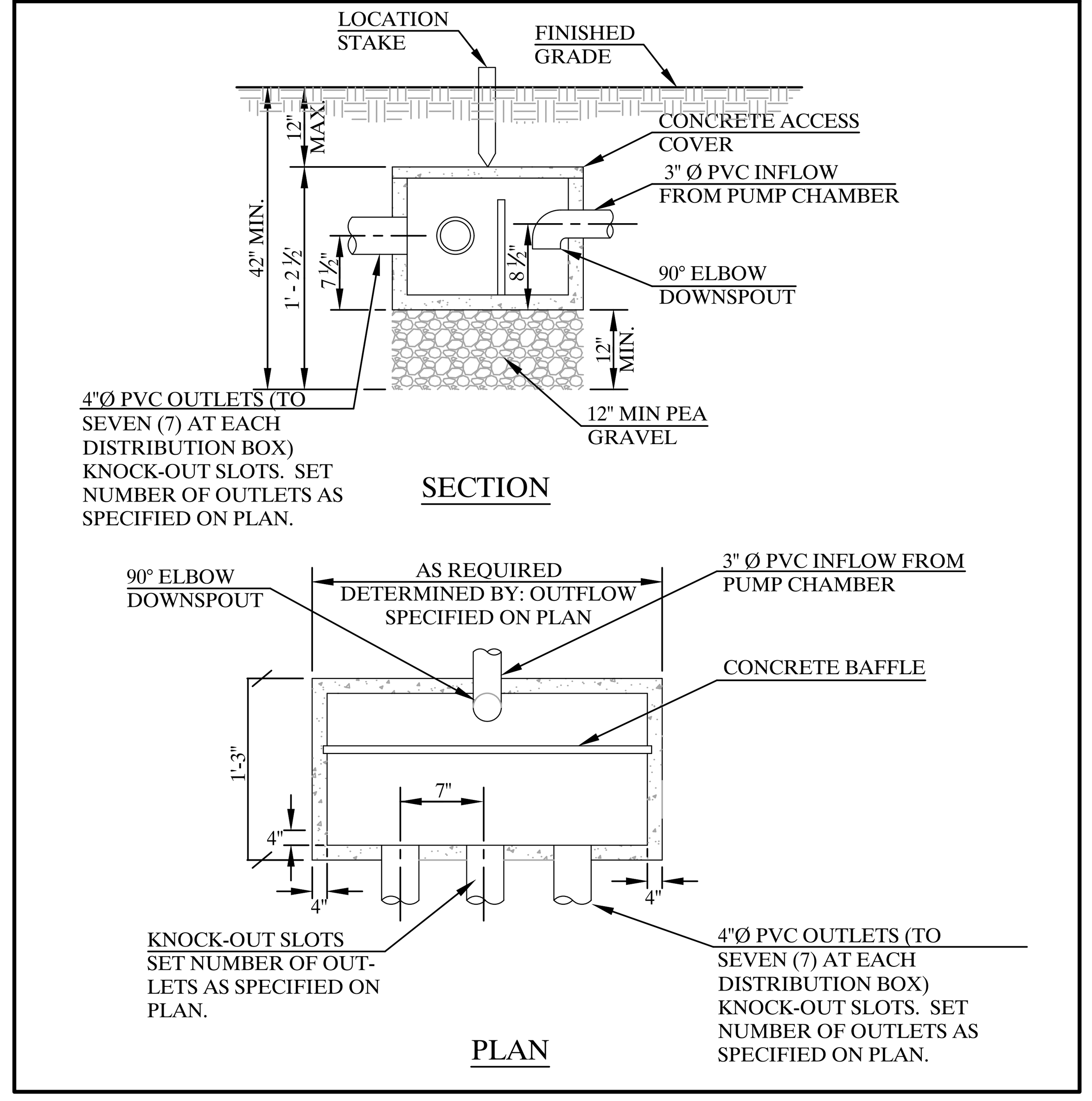
NOTES

1. CONCRETE -4000 P.S.I. MINIMUM STRENGTH @ 28 DAYS
2. STEEL REINFORCMENT - ASTM A-615, GRADE 60
3. TANKS ARE DESIGNED TO MEET ASTM C858 AND ACI 318 WITH AASHTO HS-20 LOADING
4. CONSTRUCTION JOINT - WATER TIGHT SEAL WITH 1" DIA. BUTYL RUBBER OR EQUIVALENT
5. ALL SEPTIC TANK OPENINGS SHALL BE WATER TIGHT AND CHILDPROOF.
6. ANY MANHOLES COVERS PROPOSED AT GRADE MUST BE WATERTIGHT, LOCKING AND H-20 LOADING.
7. THERE SHALL BE A MINIMUM OF 1 INCH CLEARANCE BETWEEN THE UNDERSIDE OF THE TOP OF SEPTIC TANK AND THE TOP OF ALL BAFFLES, PARTITIONS AND/OR TEES TO PERMIT VENTING OF TANK GASES.

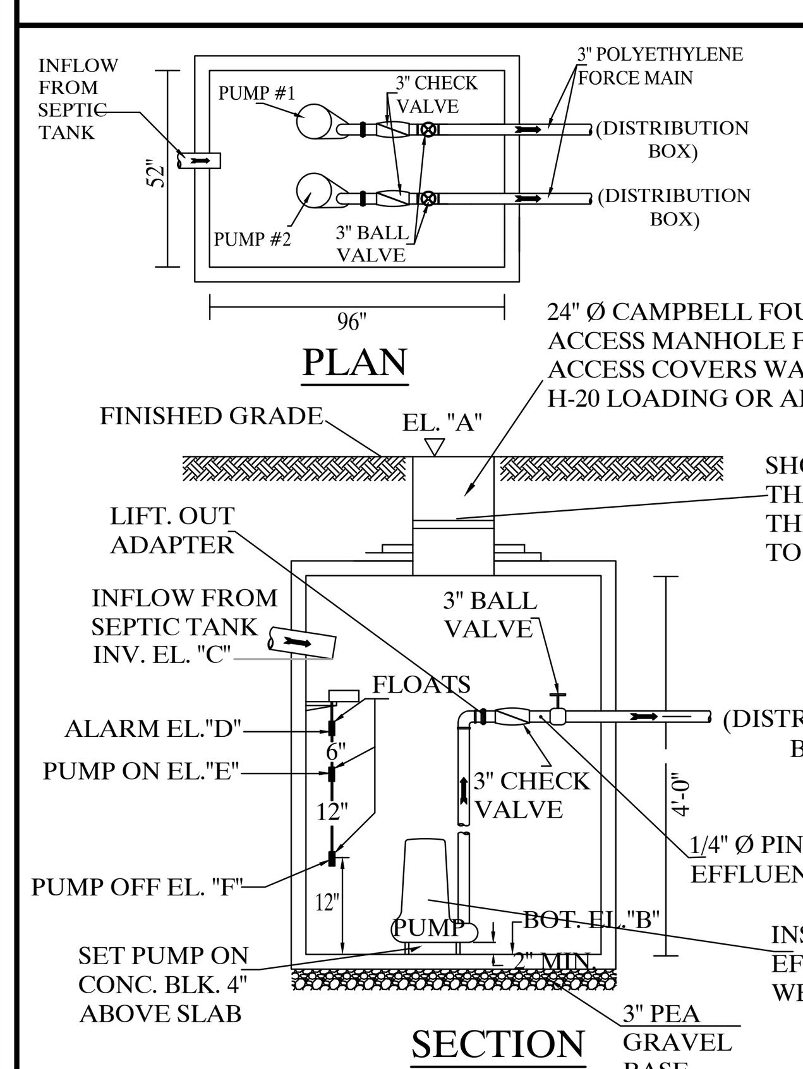
ABSORPTION TRENCH DETAIL (N.T.S.)



DISTRIBUTION BOX DETAIL (N.T.S.)



PUMP CHAMBER DETAIL (N.T.S.)



PUMP SPECIFICATIONS FOR PRIMARY & EXPANSION SYSTEM							
MANUFACT.	MODEL	H.P.	VOLTS	PHASE	MAX. AMP.	R.P.M.	SOLIDS
GOULDS	3887	.33	115	1	12.4	3500	2"MAX

DESIGN ELEVATIONS					
A	B	C	D	E	F
375.0±	368.8±	372.6.±	371.3±	370.8±	369.8±

24" Ø CAMPBELL FOUNDRY HEAVY DUTY ACCESS MANHOLE FRAME & GRATE #1734 ALL ACCESS COVERS WATERTIGHT, LOCKING AND H-20 LOADING OR APPROVED EQUAL

SHOULD FINISHED GRADE BE GREATER THAN 2 FT. ABOVE PUMP CHAMBER, THEN PROVIDE RISERS AND MANHOLE TO FINISHED GRADE

1/4" Ø PINHOLE FOR EFFLUENT RETURN

INSTALL GOULDS EFFLUENT PUMP WE0311BHF 1/3 HP

PUMP #1 DESIGN DATA- PRIMARY
FORCE MAIN 100 L.F. OF 3" INCH DIA.
STATIC HEAD: 3.7 FEET
TOTAL DYNAMIC HEAD: 10.0 FEET
DESIGN PUMPING RATE: 80 G.P.M.
VOLUME PUMPED/CYCLE: 260 GALS.

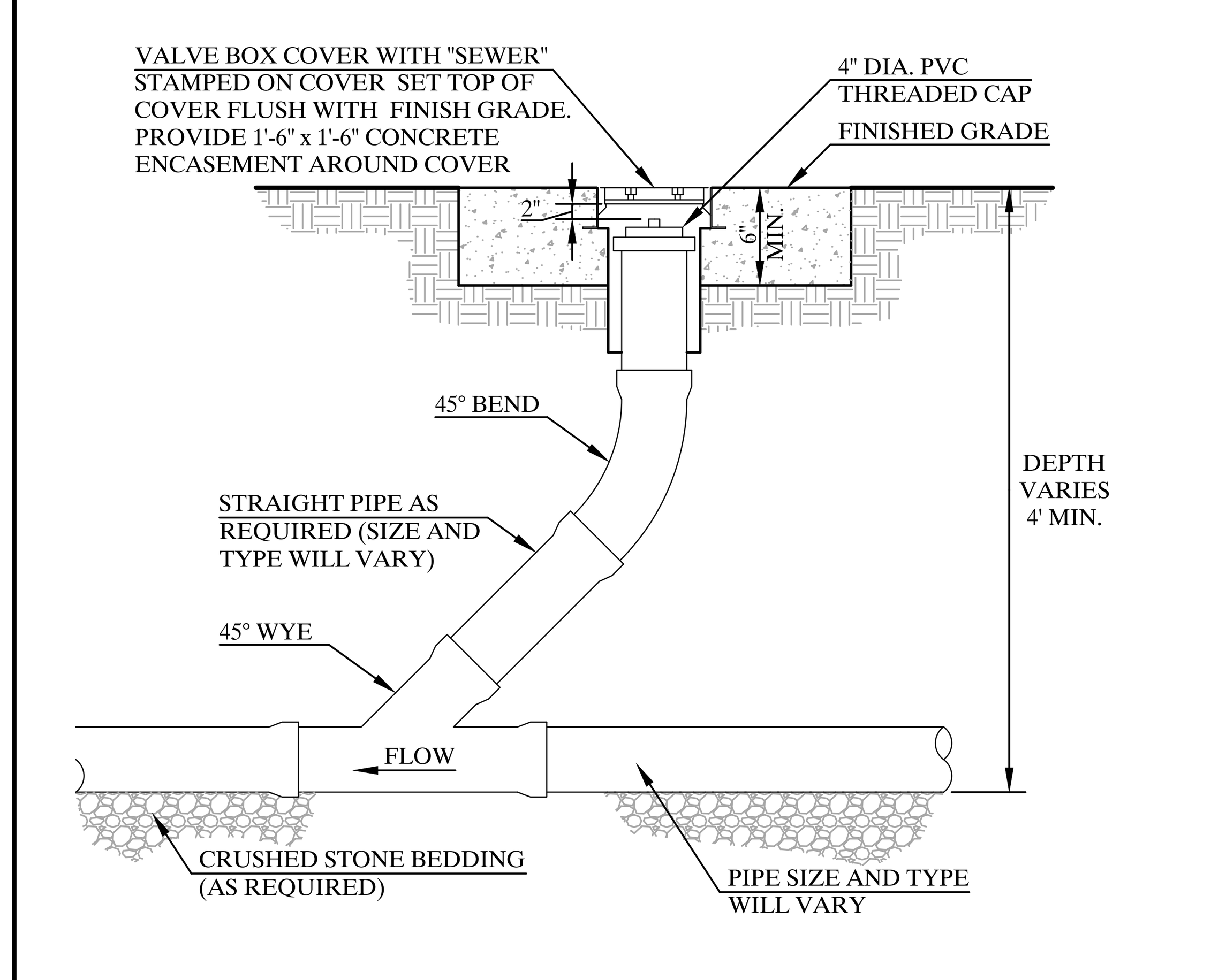
PUMP #2 DESIGN DATA- PRIMARY
FORCE MAIN 68 L.F. OF 3" INCH DIA.
STATIC HEAD: 3.7 FEET
TOTAL DYNAMIC HEAD: 9.0 FEET
DESIGN PUMPING RATE: 80 G.P.M.
VOLUME PUMPED/CYCLE: 260 GALS.

PUMP DESIGN DATA- EXPANSION (NOT PART OF THIS CONTRACT)
FORCE MAIN 438 L.F. OF 3" INCH DIA.
STATIC HEAD: 1.2 FEET
TOTAL DYNAMIC HEAD: 13.0 FEET
DESIGN PUMPING RATE: 48 G.P.M.
ADD ADDITIONAL 1 PUMP

PUMP NOTES

1.) INSTALL PUMP IN ACCORDANCE WITH MANUFACTURES SPECIFICATION.
2.) INSTALL AUDIO/VISUAL EMERGENCY ALARM WARNING DEVICE WITHIN FIRE HOUSE MECHANICAL ROOM.
3.) ALL ELECTRICAL CONNECTIONS TO BE PERFORMED BY AN ELECTRICIAN LICENSED TO DO WORK IN NEW YORK STATE. WORK SHALL BE IN COMPLIANCE WITH THE DEPARTMENT OF HEALTH, WESTCHESTER COUNTY.
4a.) PRIMARY PUMPS DRAWDOWN: MAXIMUM DOSE VOLUME = 224 GALLONS EACH
CHAMBER VOLUME: 8'-0" x 4'-4" x 7.48 = 259.3 GAL./FT. PROPOSED DRAW DOWN = 224 GAL/CYCLE EACH
224 GAL./CYCLE+ 36 GAL. DRAWBACK = 260 GAL./CYCLE/ 259.3 GAL.FT. = 1.0 FT. OF DRAW DOWN OR 12 INCHES
b.) EXPANSION: PUMP VOLUME AND DRAW DOWN REMAIN THE SAME, ADD ONE (1) ADDITIONAL IDENTICAL PUMPS.
5a.) PUMP SHALL BE ABLE TO PUMP 80 GPM @ 10.0 FT (PRIMARY S.S.D.S.)
b.) PUMP SHALL BE ABLE TO PUMP 48 GPM @ 15.0 FT (EXPANSION S.S.D.S.)
6.) FUTURE EXPANSION: TWO (2) 3" Ø PVC FORCEMAIN TO BE INSTALLED ALONG 3" BALL VALVE AND 3" CHECK VALVE.

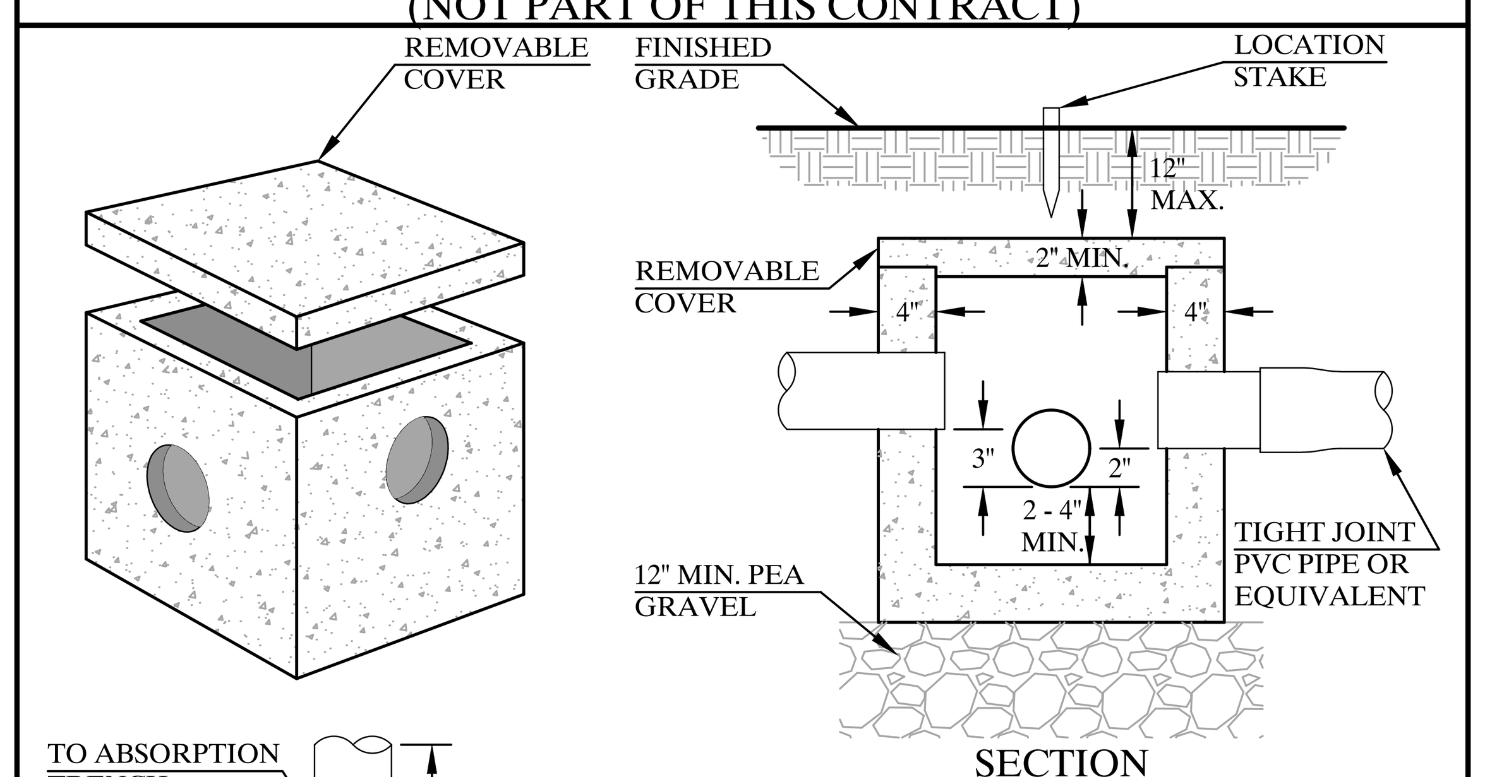
CLEANOUT DETAIL (N.T.S.)

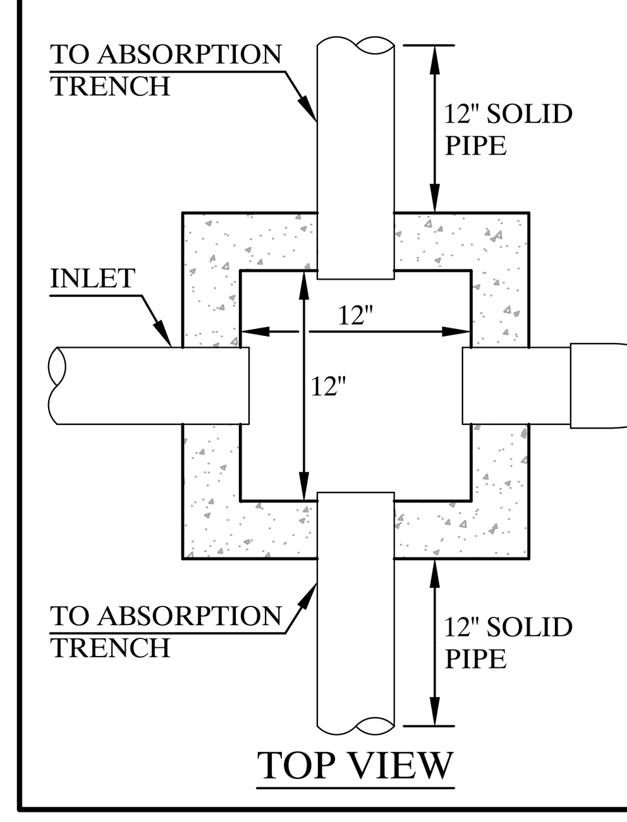


NOTE:
THE GRAVITY SEWER CLEANOUTS SHALL BE CONSTRUCTED AS SHOWN. .

PRECAST CONCRETE JUNCTION BOX DETAIL FOR FUTURE EXPANSION S.S.D.S. AREA (N.T.S.)

(NOT PART OF THIS CONTRACT)

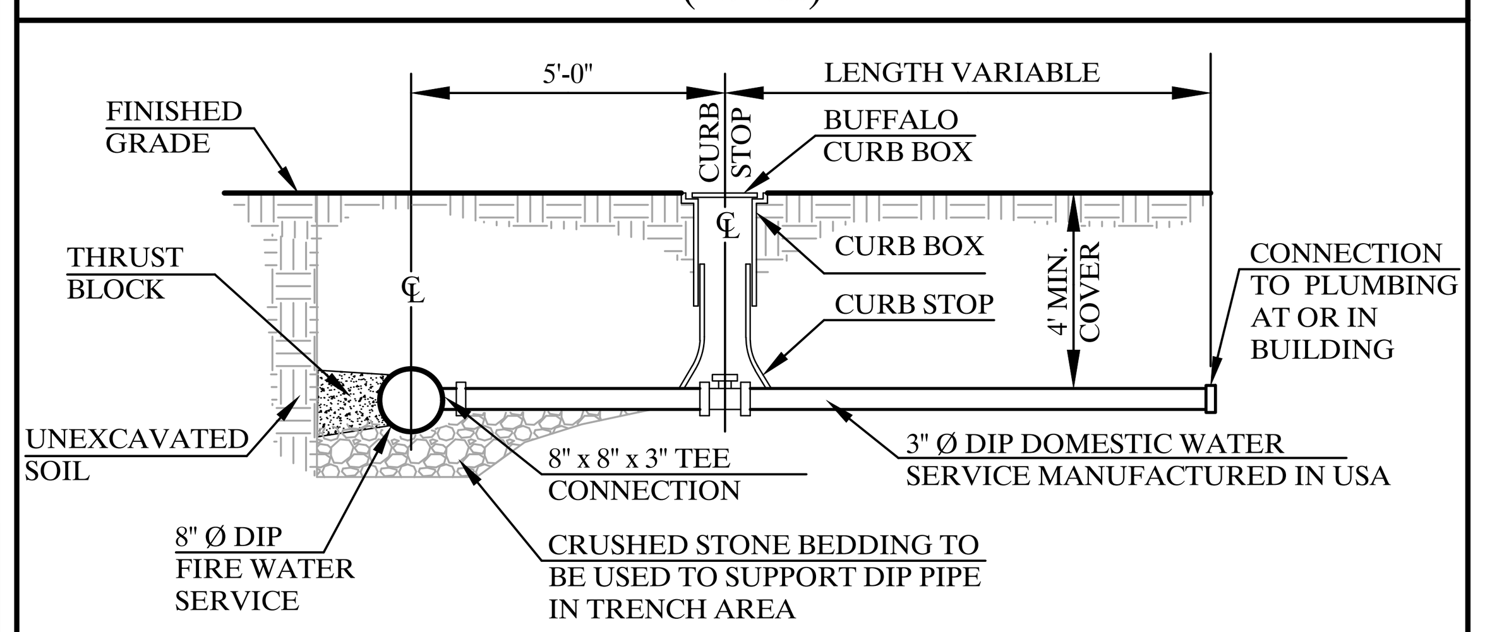




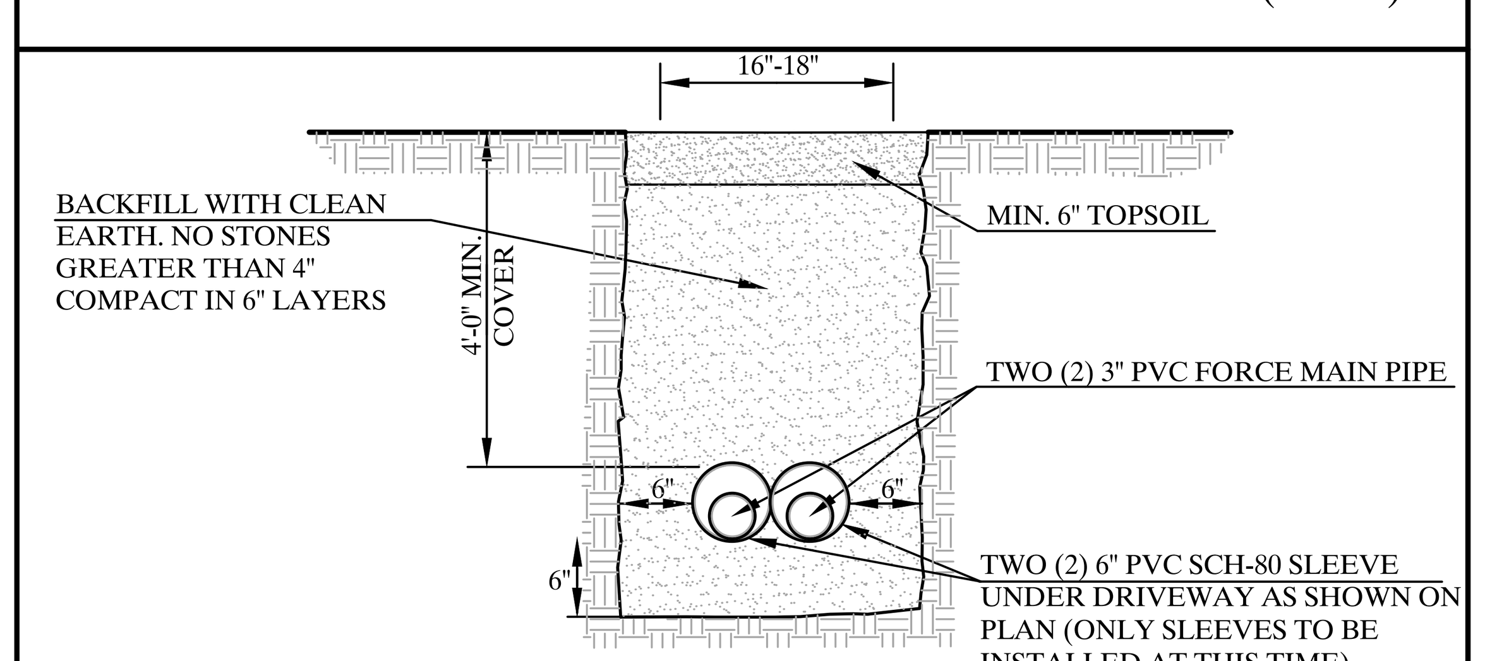
NOTES:

1. BOTTOM OF BOX MUST BE LEVEL AND FIRMLY SUPPORTED ON 12" MIN. SAND OR PEA GRAVEL.
2. PLACED ON SINGLE BRANCH DISTRIBUTORS.
3. WATERPROOFED MASONRY CONSTRUCTION.
4. TIGHT JOINT PIPE FROM SEPTIC TANK TO BOX AND BETWEEN ALL BOXES.

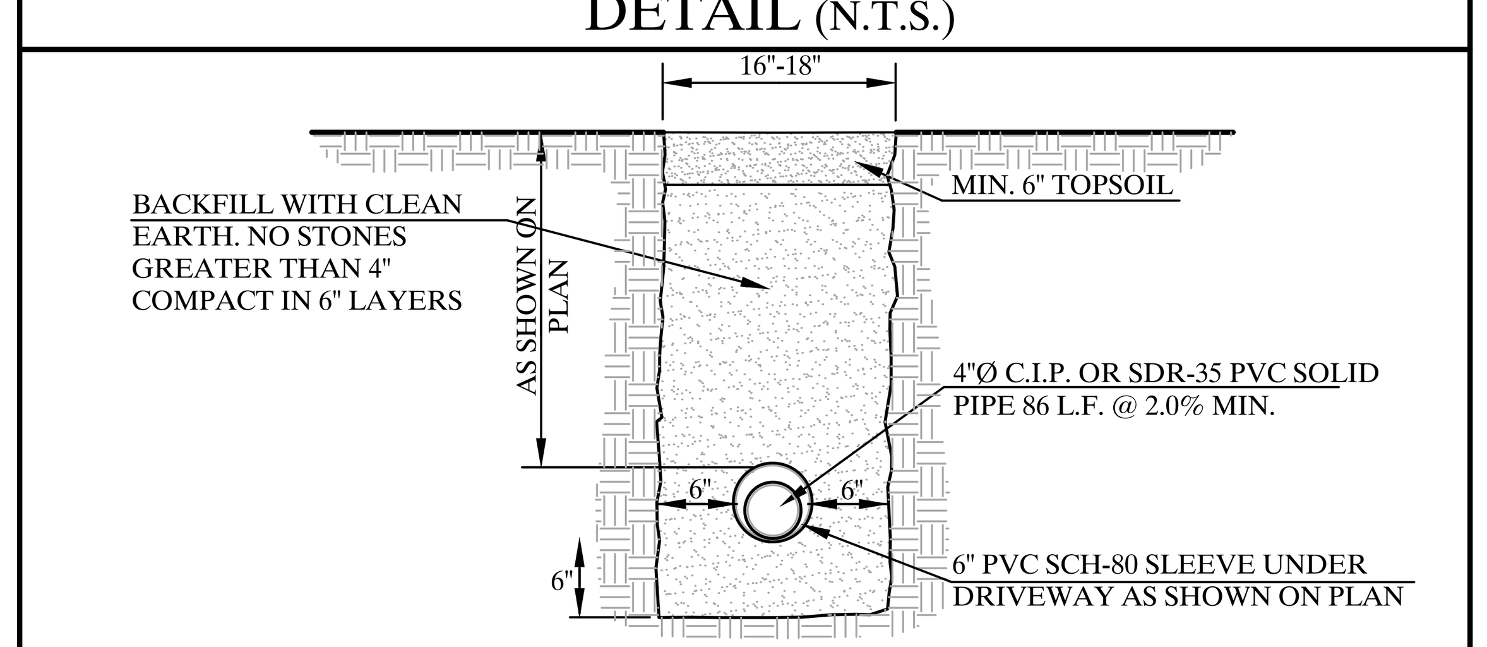
WATER SERVICE BUILDING CONNECTION DETAIL (N.T.S.)



TYPICAL FORCE MAIN TRENCH DETAIL (N.T.S.)



TYPICAL SEWER SERVICE/SLEEVE TRENCH DETAIL (N.T.S.)



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S.S.D.S. DETAILS

BEDFORD VILLAGE FIRE DISTRICT

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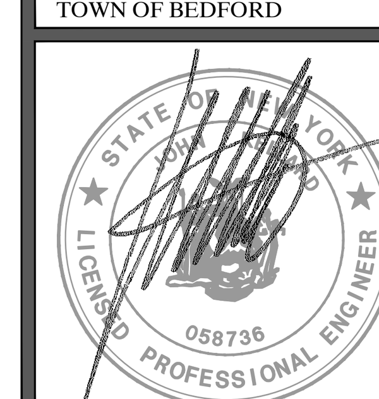

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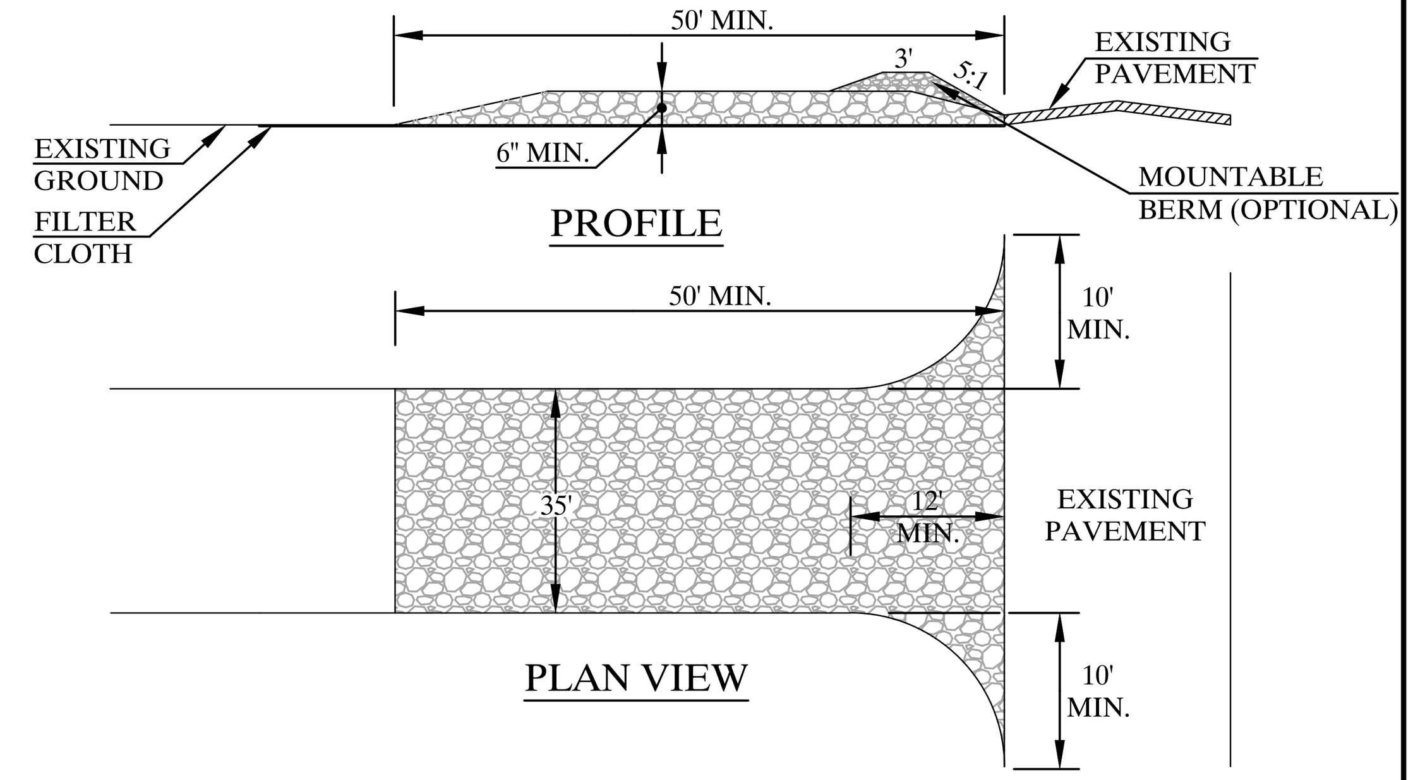
DATE: DECEMBER 1, 2020

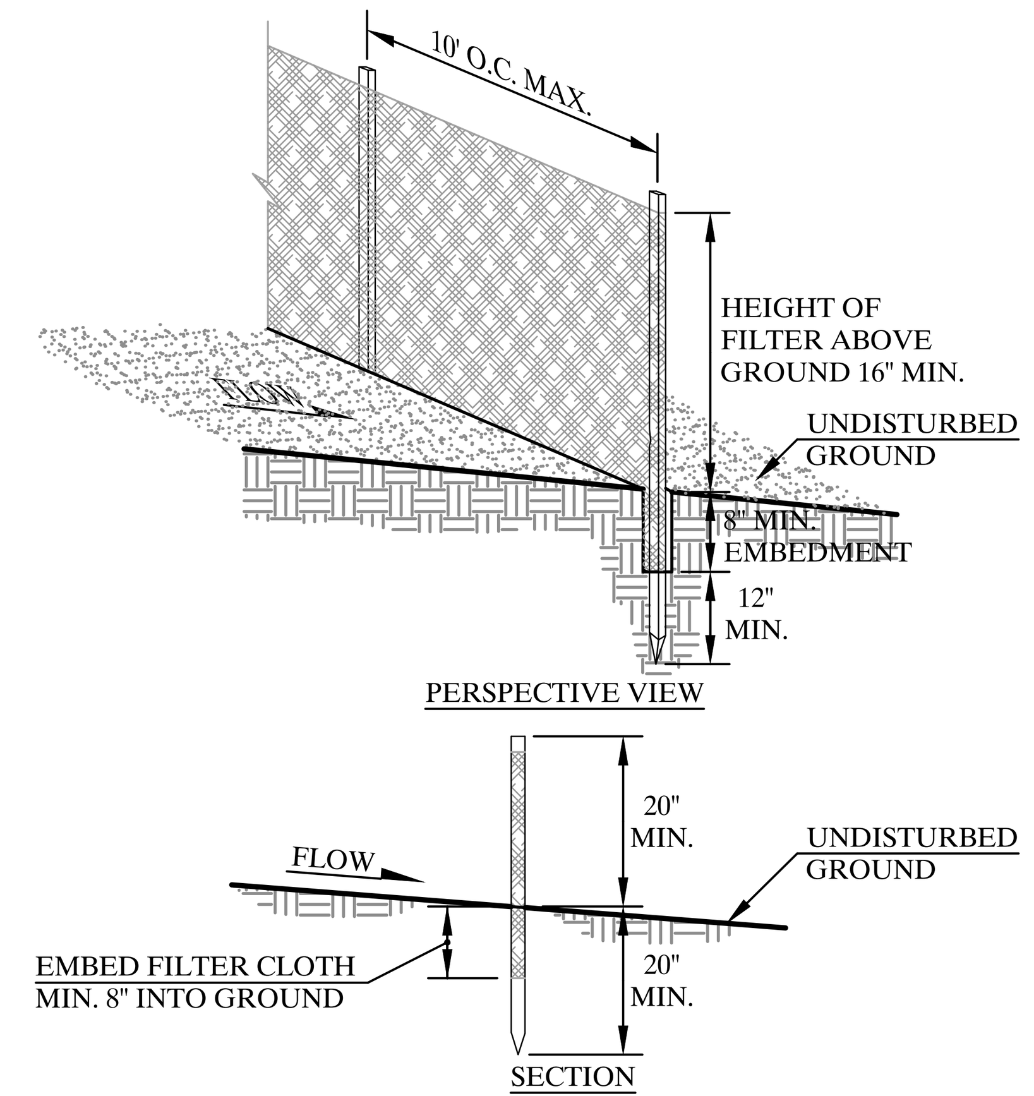
STABILIZED CONSTRUCTION ENTRANCE DETAIL (N.T.S.)



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CON- STRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

SILT FENCE DETAIL (N.T.S.)



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

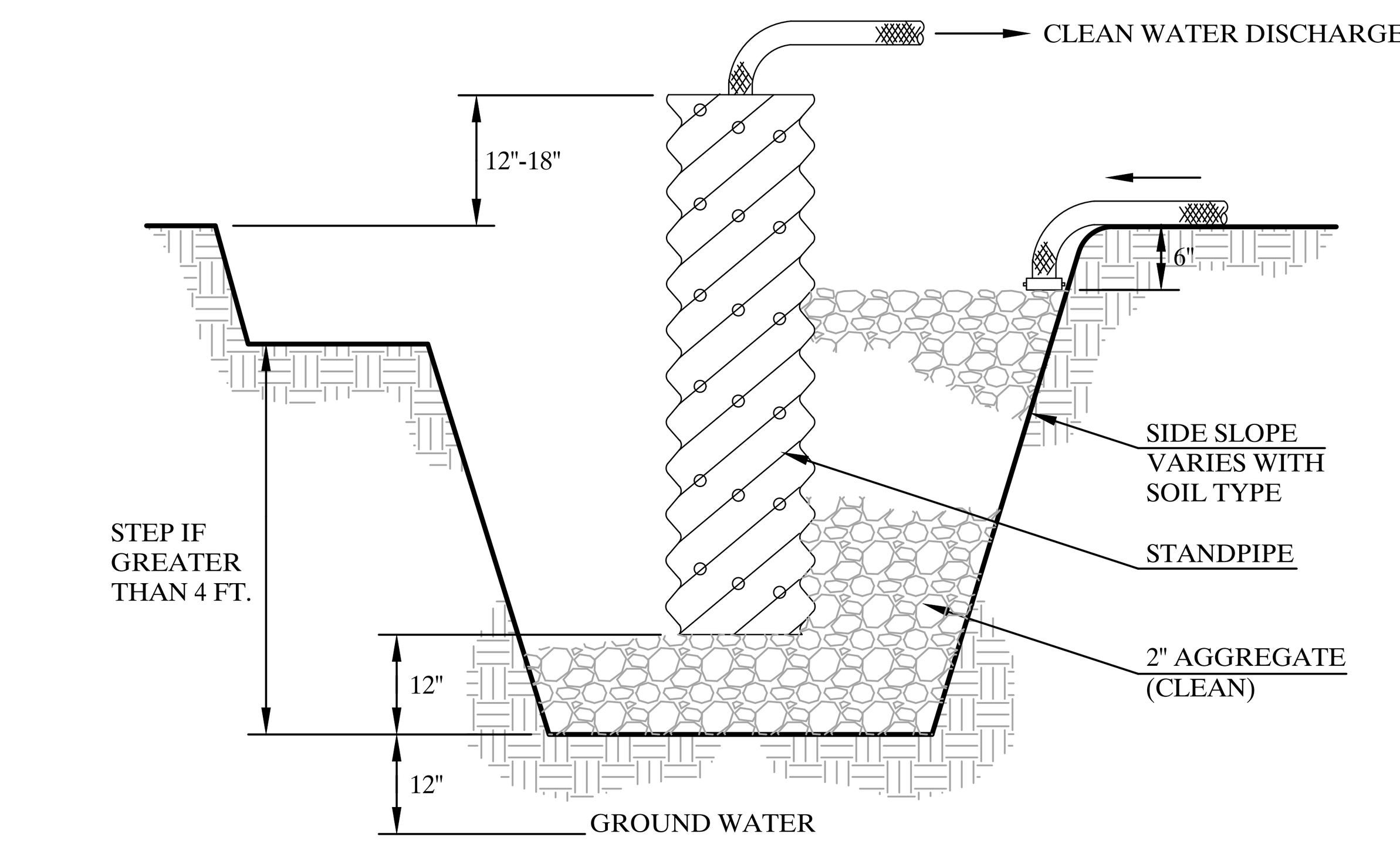
1. FILTER CLOTH TO BE FASTENED SECURELY TO POSTS AT TOP AND MID SECTION.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD

FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUAL

PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL

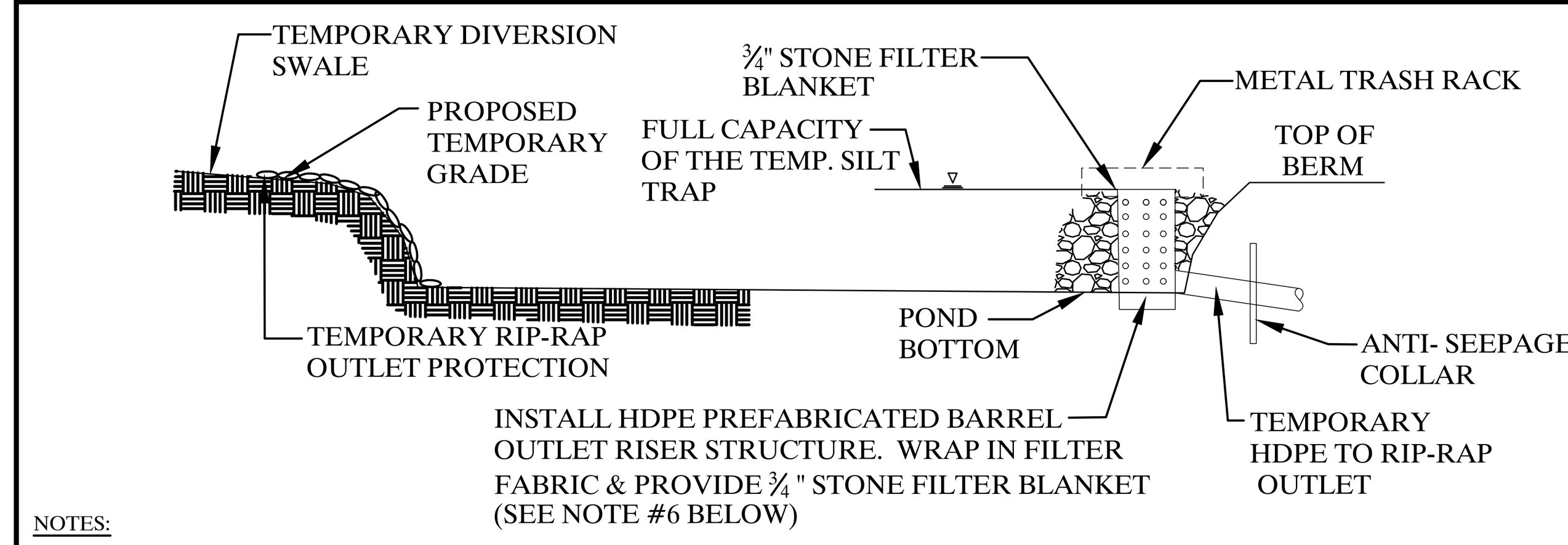
DEWATERING PIT DETAIL (N.T.S.)



INSTALLATION NOTES

1. PIT DIMENSIONS ARE VARIABLE.
2. THE STANDPIPE SHOULD BE A PERFORATED 12" TO 24" DIAMETER CORRUGATED METAL, PVC, OR HDPR PIPE.
3. A BASE OF 2" CLEAN AGGREGATE SHOULD BE PLACED IN THE PIT TO A DEPTH OF 12". AFTER INSTALLING THE STANDPIPE, THE PIT SURROUNDING THE STANDPIPE SHOULD THEN BE BACKFILLED WITH 2" AGGREGATE.
4. THE STANDPIPE SHOULD EXTEND 12" - 18" ABOVE THE LIP OF THE PIT.
5. IF DISCHARGE WILL BE PUMPED DIRECTLY TO A STORM DRAINAGE SYSTEM, THE STANDPIPE SHOULD BE WRAPPED WITH FILTER FABRIC BEFORE INSTALLATION. IF DESIRED, 1/4"-1/2" HARDWARE CLOTH MAY BE PLACED AROUND THE STANDPIPE, PRIOR TO ATTACHING THE FILTER FABRIC, THIS WILL INCREASE THE RATE OF WATER SEEPAGE INTO THE PIPE.

TEMPORARY SEDIMENT TRAP DETAIL (N.T.S.)



NOTES:

1. TEMPORARY SEDIMENT TRAP WILL BE INSPECTED AFTER EACH STORM OF 1/2" RAINFALL OR GREATER AND RISER WILL BE CLEARED OF ANY DEBRIS OR EXCESSIVE SILT.

2. TEMPORARY SEDIMENT TRAP SHALL BE CLEANED OUT WHEN 1/2 OF CAPACITY HAS BEEN ACCUMULATED WITH SEDIMENT. ONCE SEDIMENT HAS REACHED THIS MARK, CONTRACTOR WILL IMMEDIATELY CLEAN OUT SEDIMENT TO ORIGINAL SEDIMENT TRAP GRADE.

3. BERM TO BE MECHANICALLY COMPACTED EACH FILL, 8" LIFTS TO (95 % PROCTOR DENSITY). BERM FILL SHALL BE FREE OF ROOTS, WOODY VEGETATION, OVERSIZED STONES AND RELATIVELY PERVIOUS MATERIALS SUCH AS SAND OR GRAVEL.

4. TEMPORARY SEDIMENT TRAP WILL BE STABILIZED WITH JUTE MESH DURING THE NON GROWING SEASON. DURING THE GROWING SEASON HYDROMULCH AND/ OR SEED AND STRAW MULCH.

5. THE TOP 2/3 OF THE RISER SHALL BE PERFORATED WITH ONE (1) INCH DIAMETER HOLES OR SLITS SPACED SIX (6) INCHES VERTICALLY AND HORIZONTALLY AND PLACED IN THE CONCAVE PORTION OF PIPE. NO HOLES WILL BE ALLOWED WITHIN SIX (6) INCHES OF THE HORIZONTAL BARREL.

6. THE RISER SHALL BE WRAPPED WITH 1/4 TO 1/2 INCH HARDWARE CLOTH WIRE THEN WRAPPED WITH FILTER CLOTH (HAVING AN EQUIVALENT SIEVE SIZE OF 40-80). THE FILTER CLOTH SHALL EXTEND SIX (6) INCHES ABOVE THE HIGHEST HOLE AND SIX (6) INCHES BELOW THE LOWEST HOLE. WHERE ENDS OF THE FILTER CLOTH COME TOGETHER, THEY SHALL BE OVERLAPPED, FOLDED AND STAPLED TO PREVENT BYPASS. PROVIDE 3/4" STONE FILTER BLANKET AROUND FILTER CLOTH.

7. STRAPS OR CONNECTION BANDS SHALL BE USED TO HOLD THE FILTER CLOTH AND WIRE FABRIC IN PLACE. THEY SHALL BE PLACED AT THE TOP AND BOTTOM OF THE CLOTH.

8. FILL MATERIAL AROUND THE PIPE SPILLWAY SHALL BE HAND COMPACTED IN FOUR (4) INCH LAYERS. A MINIMUM OF TWO (2) FEET OF HAND COMPACTED BACKFILL SHALL BE PLACED OVER THE PIPE SPILLWAY BEFORE CROSSING IT WITH CONSTRUCTION EQUIPMENT.

9. THE RISER PIPE SHALL BE ANCHORED WITH EITHER A CONCRETE BASE OR STEEL PLATE BASE TO PREVENT FLOTATION AND/OR WATER FROM LEAVING THE BASIN BENEATH THE RISER. FOR CONCRETE BASED THE DEPTH SHALL BE TWELVE (12) INCHES WITH THE RISER EMBEDDED NINE (9) INCHES. A 1/4 INCH MINIMUM THICKNESS STEEL PLATE SHALL BE ATTACHED TO THE RISER BY CONTINUOUS WELD AROUND THE BOTTOM TO FORM A WATERTIGHT CONNECTION AND THEN PLACE TWO (2) FEET OF STONE, GRAVEL OR TAMPED EARTH ON THE PLATE.

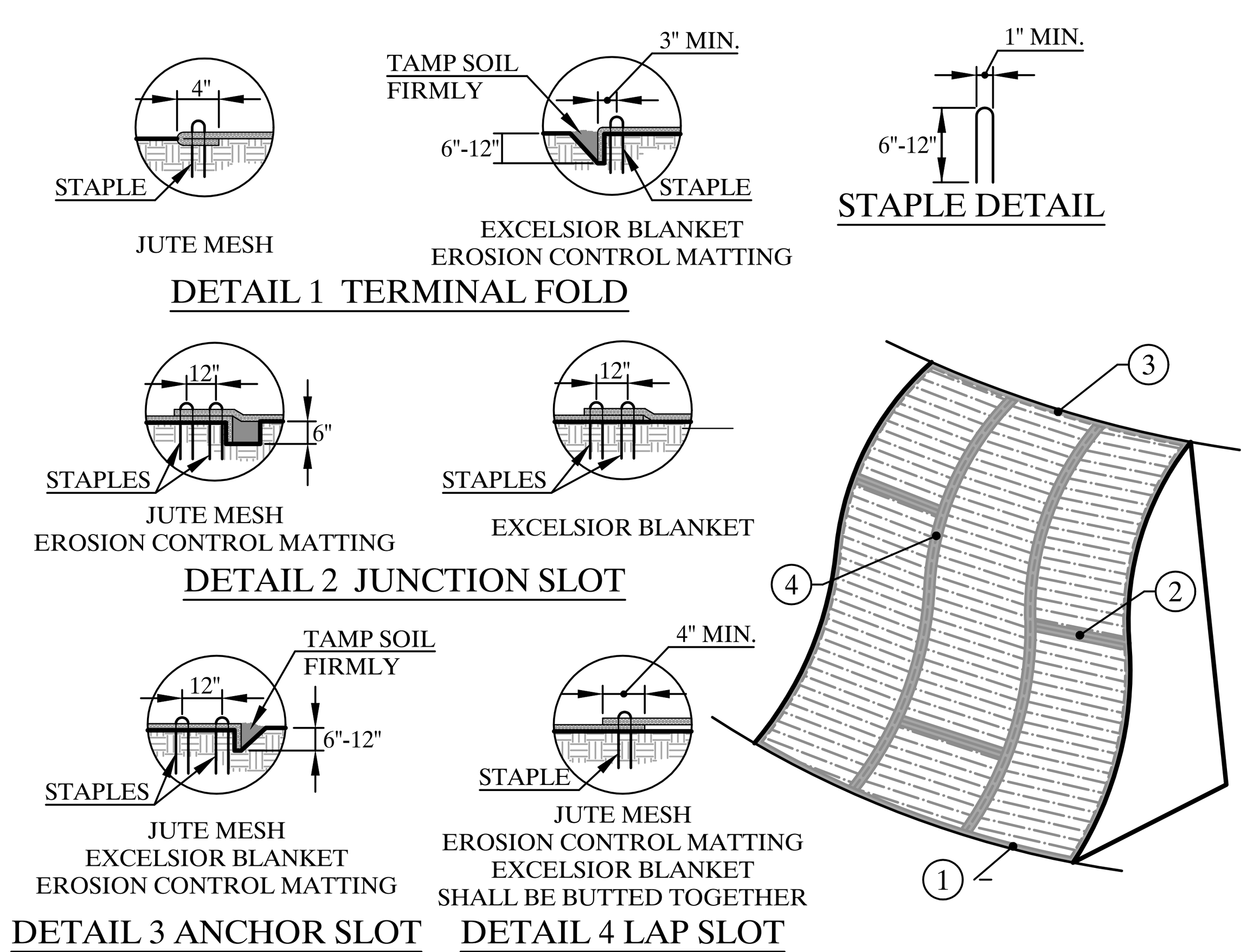
10. ALL PIPE CONNECTIONS SHALL BE WATERTIGHT, (SEE NOTE #9).

11. ALL SLOPES SHALL BE 2:1 OR FLATTER.

12. THE STRUCTURE SHALL BE REMOVED AND AREA STABILIZED WHEN THE DISTURBED DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

13. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE MINIMIZED.

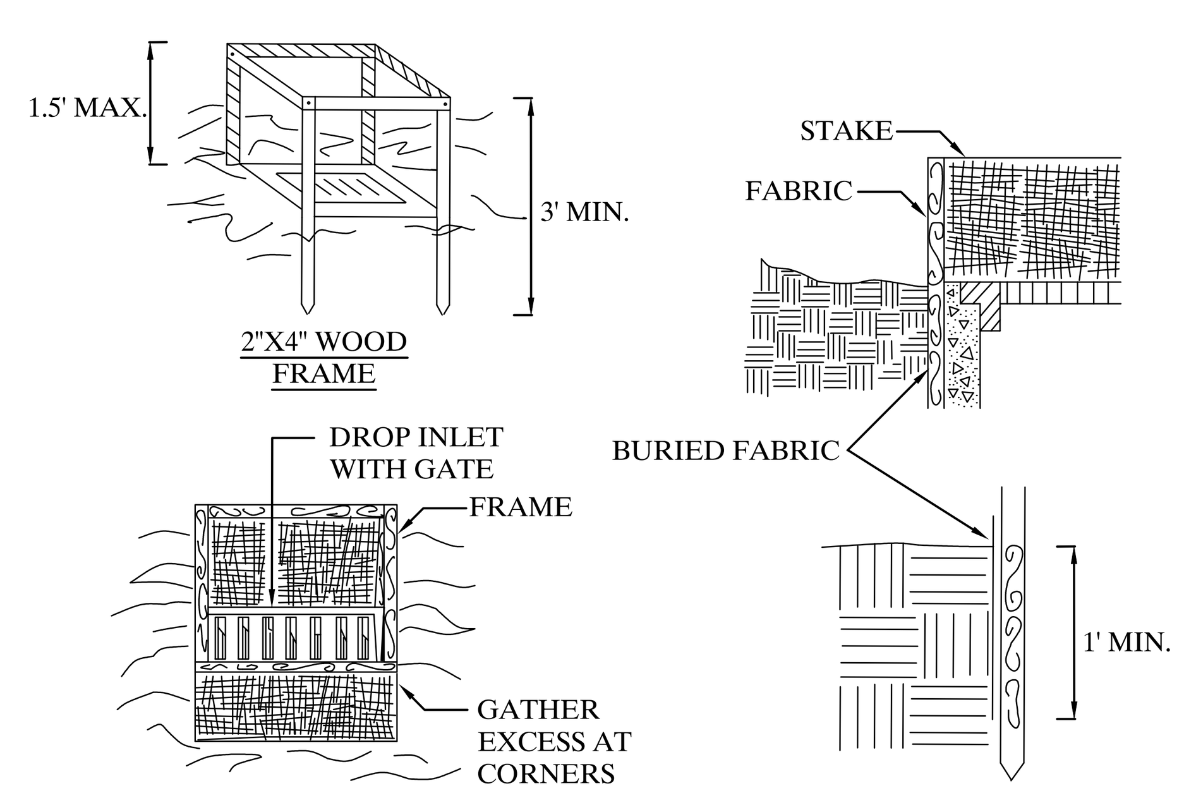
EROSION CONTROL BLANKET DETAIL (N.T.S.)



CONSTRUCTION SPECIFICATIONS

1. APPLY TO SLOPES GREATER THAN 3H:1V OR WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.
2. APPLY FERTILIZER, LIME AND SEED PRIOR TO PLACING MATTING.
3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4' X 225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4' X 150' ROLL OF MATERIAL.
4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

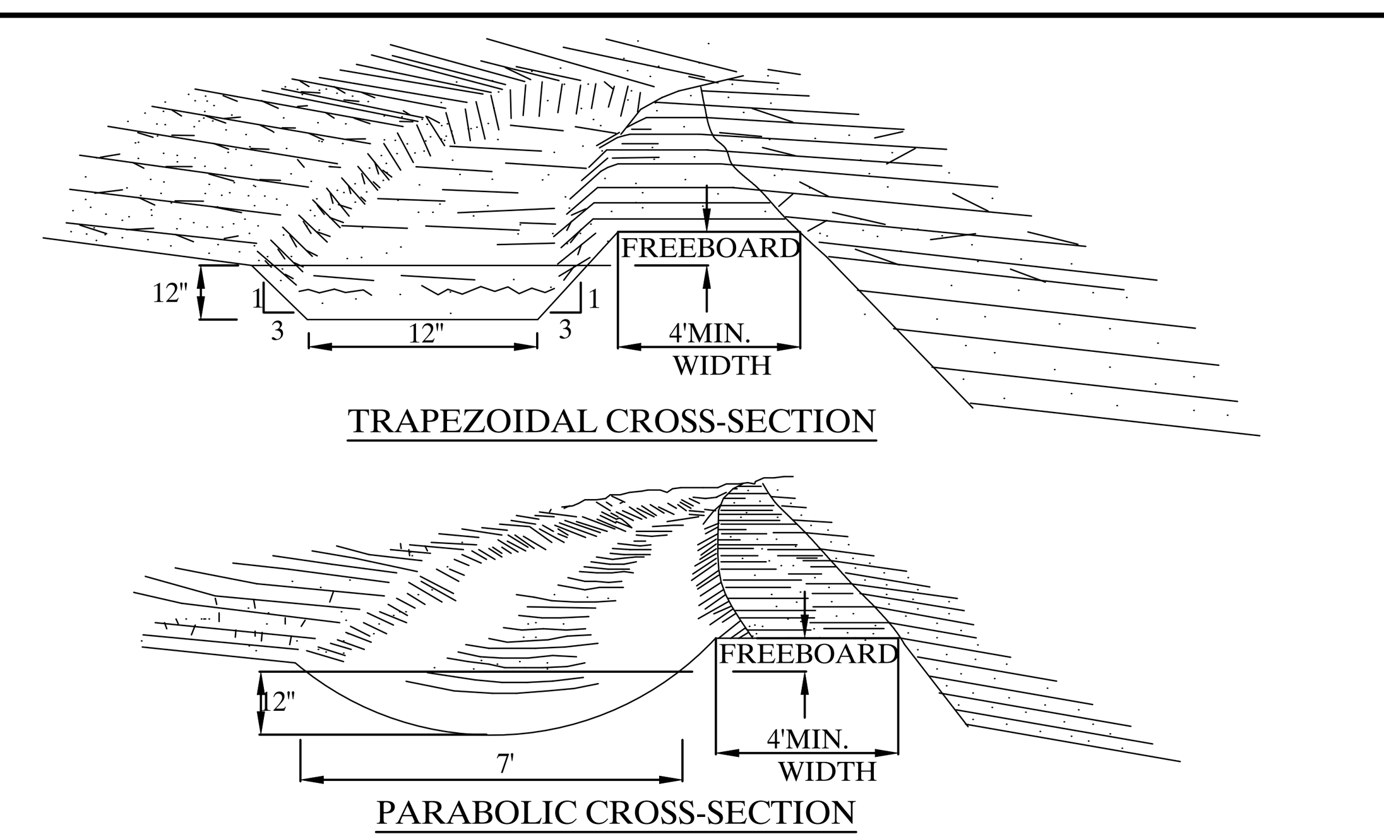
FILTER FABRIC INLET PROTECTION DETAIL (N.T.S.)



CONSTRUCTION SPECIFICATIONS

1. FILTER FABRIC SHALL HAVE AN EOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
3. STAKE MATERIALS WILL BE STANDARD 2" x 4" WOOD OR EQUIVALENT. METAL WITH A MINIMUM LENGTH OF 3 FEET.
4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
6. A 2" x 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.
7. MAXIMUN DRAINAGE AREA 1 ACRE

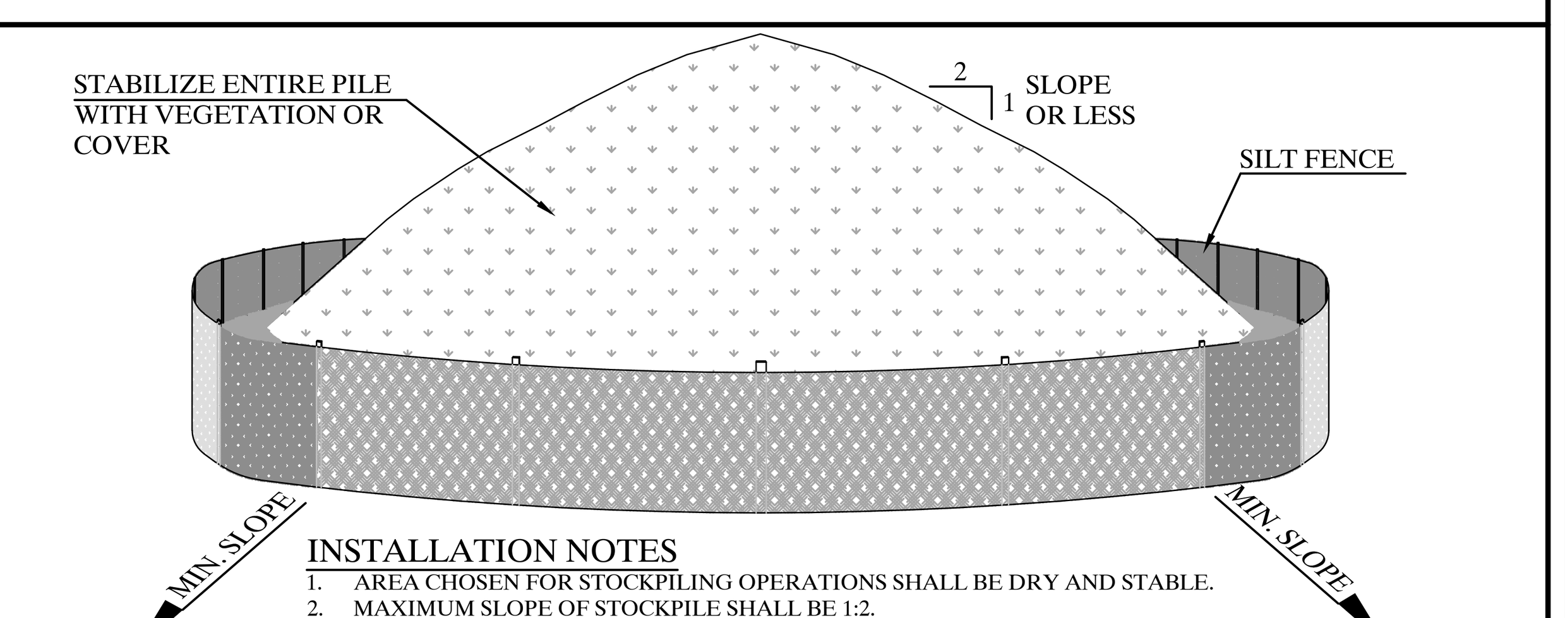
TEMPORARY DIVERSION SWALE DETAIL (N.T.S.)



CONSTRUCTION SPECIFICATIONS

1. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE DIVERSION.
2. THE DIVERSION SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN, AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
3. FILLS SHALL BE COMPACTED AS NEEDED TO PREVENT UNEQUAL SETTLEMENT THAT WOULD CAUSE DAMAGE IN THE COMPLETE DIVERSION.
4. ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE SPREAD OR DISPOSED OF SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE DIVERSION.
5. STABILIZATION SHALL BE DONE ACCORDING TO THE APPROPRIATE STANDARD AND SPECIFICATIONS FOR VEGETATIVE PRACTICES.
   A. FOR DESIGN VELOCITIES OF LESS THAN 3.5 FT. PER. SEC., SEEDING AND MULCHING MAY BE USED FOR THE ESTABLISHMENT OF THE VEGETATION. IT IS RECOMMENDED THAT, WHEN CONDITIONS PERMIT, TEMPORARY DIVERSIONS OR OTHER MEANS SHOULD BE USED TO PREVENT WATER FROM ENTERING THE DIVERSION DURING THE ESTABLISHMENT OF THE VEGETATION.
   B. FOR DESIGN VELOCITIES OF MORE THAN 3.5 FT. PER. SEC., THE DIVERSION SHALL BE STABILIZED WITH SOD, WITH SEEDING PROTECTED BY JUTE OR EXCELSIOR MATTING OR WITH SEEDING AND MULCHING INCLUDING TEMPORARY DIVERSION OF THE WATER UNTIL THE VEGETATION IS ESTABLISHED.

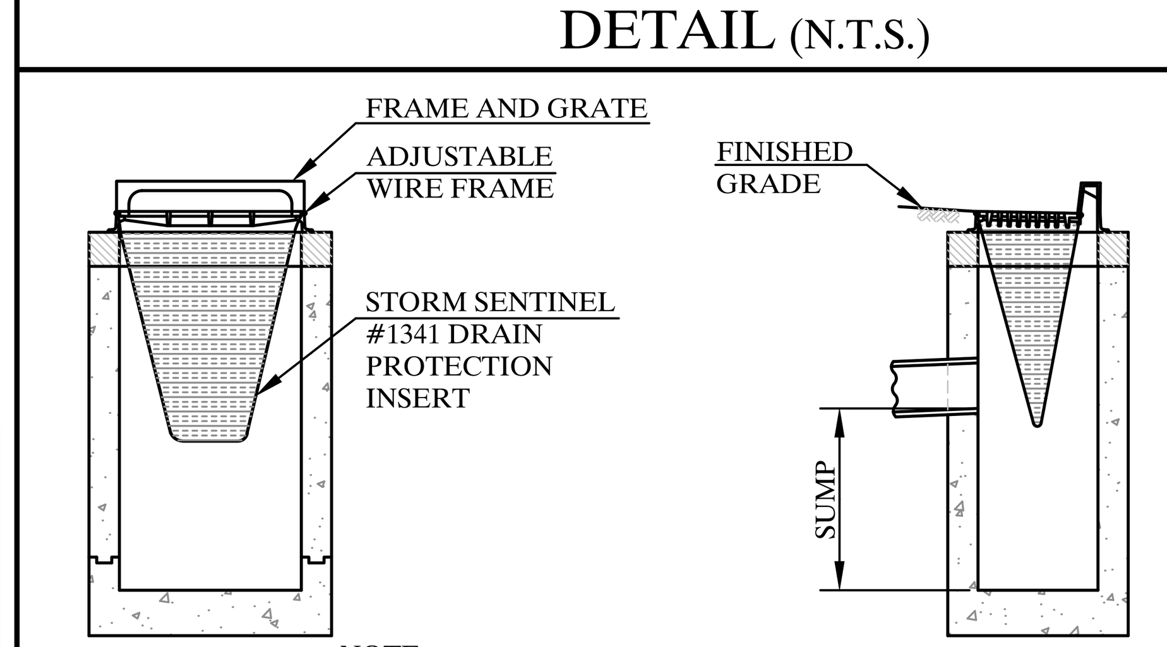
TEMPORARY SOIL STOCKPILE DETAIL (N.T.S.)



INSTALLATION NOTES

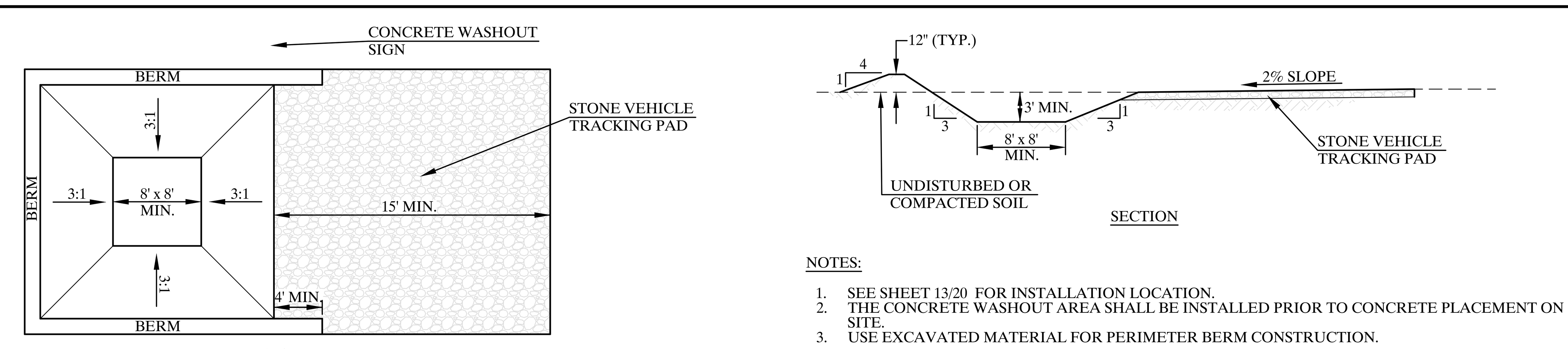
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE SPECIFICATIONS FOR INSTALLATION OF SILTFENCE.

CATCH BASIN FILTERS - INLET PROTECTION DETAIL (N.T.S.)



NOTE:
INSERTS TO BE MODEL # 1341 ADJUSTABLE CATCH BASIN INSERTS BY ENPAC OR APPROVED EQUAL.

CONCRETE WASHOUT AREA DETAIL (N.T.S.)



NOTES:

1. SEE SHEET 13/20 FOR INSTALLATION LOCATION.
2. THE CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
3. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

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SEDIMENT AND EROSION CONTROL DETAILS

BEDFORD VILLAGE FIRE DISTRICT

TOWN OF BEDFORD — WESTCHESTER COUNTY, NEW YORK

STATE OF NEW YORK · LICENSED PROFESSIONAL ENGINEER · 058736

No.	REVISIONS
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1.	JANUARY 15, 2021 - ISSUED FOR BID

20 / 21

PROJECT I.D.: BDBEDFORDFIRE200

DATE: DECEMBER 1, 2020

EROSION AND SEDIMENT CONTROL NOTES

All proposed soil erosion and sediment control practices have been designed in accordance with the following publications:

- New York Standards and Specifications for Erosion and Sediment Control, latest edition
- New York State SPDES General Permit for Stormwater Runoff from Construction Activity (GP_0_20_ 001)

The primary aim of the soil erosion and sediment control plan is to reduce soil erosion from areas stripped of vegetation during construction and to prevent silt from reaching the drainage structures, stormwater treatment systems, watercourses, waterbodies and downstream properties. The infiltration systems will not be put into service until the contributing drainage areas to the system have been stabilized. As outlined in the construction sequencing notes below and on the Sediment & Erosion Control Plan, the Sediment & Erosion Control Plan is an integral component of the construction phasing and project sequencing and will be implemented to control sediment and re-establish vegetation as soon as practicable. The plan will be implemented prior to the commencement of any earthmoving activities and will be maintained though the duration of the project.

A copy of the contractor certification form is provided in Stormwater Pollution Prevention Plan Section G. This form will be signed by the contractor prior to the commencement of construction activity. Each contractor and subcontractor shall identify at least one (1) person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor*. The *trained contractor* shall be on site on a daily basis when soil disturbance activities are being performed. The *trained contractor* must receive four (4) hours of NYSDEC endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other NYSDEC endorsed entity. The *trained contractor* must receive four (4) hours of training every three (3) years.

The owner/operator shall maintain at the construction site a copy of the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activities, GP-0-20-001, the Notice of Intent (NOI), the NOI acknowledgment letter, the Stormwater Pollution Prevention Plan Report for Bedford Village Firehouse, the MS4 SWPPP Acceptance Form and inspection reports from the qualified inspector until all disturbed areas have achieved final stabilization and the Notice of Termination (NOT) has been filed with the NYSDEC.

The applicant or developer or their representative shall be on site at all times when construction or grading activity takes place. A *qualified inspector* shall conduct site inspections a minimum of twice every seven (7) calendar days. The qualified inspector shall inspect and document the effectiveness of all erosion and sediment control practices. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. The reports shall be forwarded to the MS4 and also copied to the site logbook which is required to be kept on-site. The *qualified inspector* must be a licensed Professional Engineer, a Certified Professional in Erosion and Sediment Control (CPESC), a Registered Landscape Architect or someone working under the direct supervision of, and at the same company as, the Licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of NYSDEC endorsed training in proper erosion and sediment control principles from a soil and water conservation district.

The proposed soil erosion and sediment control devices include the planned erosion control practices outlined below. Maintenance procedures for each erosion control practice are also provided herein. The owner or operator must ensure that all erosion and sediment control practices identified herein are maintained in effective operating condition at all times.

STABILIZED CONSTRUCTION ENTRANCE

A stabilized construction entrance shall be installed at the project entrance as indicated on the plans. The purpose of the stabilized construction entrance is to prevent vehicles leaving the site from tracking sediment, mud or any other construction-related materials from the site onto Old Post Road and Southbrook Road.

Maintenance/Inspection

Stabilized construction entrance shall be inspected a minimum of twice every seven (7) calendar days. The Contractor shall maintain the construction entrance in a manner which prevents or significantly reduces the tracking of sediment/soil onto Old Post Road and Southbrook Road. The Contractor shall inspect the construction entrance daily and after each rain event for displacement or loss of aggregate. The Contractor shall top-dress the construction entrance when displacement/loss of aggregate occurs, or if the aggregate becomes clogged or silted to the extent that the entrance can no longer perform its intended function. The Contractor shall inspect the vicinity of the construction entrance several times a day and immediately remove any sediment dropped or washed onto Old Post Road and Southbrook Road.

SILT FENCE

Silt fence (geotextile filter cloth) shall be placed in locations depicted on the approved plans. The purpose of the silt fence is to reduce the velocity of sediment-laden stormwater from small drainage areas and to intercept the transported sediment load. In general, silt fence shall be used at the down-gradient perimeter of disturbed areas, toe of slopes or intermediately within slopes where obvious channel concentration of stormwater is not present. Silt fence shall always be installed parallel to the contours in order to prevent concentrated flows from developing along the silt fence.

Maintenance/Inspection

Silt fencing shall be inspected a minimum of twice every seven (7) calendar days. Inspections shall include ensuring that the fence material is tightly secured to the wood posts. In addition, overlapping filter fabric shall be secure and the fabric shall be maintained a minimum of six (6) inches below grade. In the event that any "bulges" develop in the fence, that section of fence shall be replaced immediately with a new fence section. Any visible sediment build-up against the fence shall be removed immediately and deposited on-site a minimum of 100 feet outside of any regulated wetland area, watercourse or waterbody.

INLET PROTECTION

After the drain inlets have been installed and the site is completely stabilized, these drain inlets will receive stormwater from the driveway and overland watersheds. During construction, a filter fabric drop inlet barrier shall be placed around the drain inlets to allow stormwater to be filtered prior to the stormwater being discharged to the drainage system.

Maintenance/Inspection

Inlet protection devices shall be inspected a minimum of twice every seven (7) calendar days. Care shall be taken to ensure that all inlet protection devices are properly located and secure and do not become displaced. Upon stabilization of the drainage areas, remove all materials and sediment and dispose of properly. Any accumulated sediments shall be removed from the device and deposited not less than 100 feet from a regulated wetland area, watercourse or waterbody.

TREE PROTECTION

All significant trees to be preserved located within the limits of disturbance and on the perimeter of the disturbance limits shall be protected from harm by erecting a three (3) feet high (minimum) snow fence completely surrounding the tree. Snow fence should extend to the drip-line of the tree to be preserved. Trees designated to be protected/saved are illustrated on the construction drawings and will be identified in the field prior to construction.

Maintenance/Inspection

The snow fence shall remain at the drip-line of the tree to be preserved. The snow fence shall be inspected a minimum of twice every seven (7) calendar days. Any damaged portions of the fence shall be repaired or replaced. Care shall also be taken to ensure that no construction equipment is driven or parked within the drip-line of the tree to be preserved.

RIP-RAP OUTLET PROTECTION

The outlets of all stormwater discharge areas will be protected from erosion by the placement of stone rip-rap at the culvert outlet. The purpose of the stone outlet protection is to reduce the velocities of the discharged water such that flows will not erode the receiving area.

Maintenance/Inspection

Maintenance of the outlet protection devices shall be inspected twice every seven (7) calendar days to determine if any scouring beneath the rip-rap has occurred and/or if any rip-rap has been displaced. All displaced rip-rap shall be re-positioned or replaced with new rip-rap. In addition, all leaves, twigs and brush shall be removed in the vicinity of the culvert/swale outlet to ensure that stormwater is flowing unobstructed.

SOIL/MATERIAL STOCKPILING

All soil/material stripped from the construction area during grubbing and grading shall be stockpiled within the vicinity of the locations illustrated on the approved plans, or in practical locations on-site approved by the MS4.

Maintenance/Inspection

All stockpiles shall be inspected a minimum of twice every seven (7) calendar days for signs of erosion or problems with seed establishment. Soil stockpiles shall be protected from erosion by vegetating the stockpile with a rapidly-germinating grass seed and surrounded with silt fence. If the project is ongoing during the non-growing season, the stockpiles shall be protected with a tarpaulin covering the entire stockpile.

SURFACE STABILIZATION

All disturbed areas will be protected from erosion with the use of vegetative measures (e.g., grass seed mix, sod), hydromulch, hay or erosion control blankets.

In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the soil disturbance has ceased.

Erosion control barriers consisting of silt fencing shall be placed around exposed areas during construction. Any areas stripped of vegetation during construction will be vegetated and/or mulched immediately to prevent erosion of the exposed soils. In areas where significant erosion potential exists (steep slopes) and/or where specifically directed, Curlex Excelsior erosion control blankets (manufactured by American Excelsior or approved equal) shall be installed.

Materials that may be used for mulching include straw, hay, salt hay, wood fiber, synthetic soil stabilizers, mulch netting, erosion control blankets or sod. A permanent vegetative cover will be established upon completion of construction of those areas which have been brought to finish grade and to remain undisturbed.

GENERAL LAND GRADING

The applicant/developer or their representatives shall be on-site at all times when construction or grading activity takes place and shall inspect and document the effectiveness of all sediment and erosion control practices. No more than five (5) acres of disturbed land will be exposed without stabilization at any one time.

The intent of the erosion controls is to control all disturbed areas, such that soils are protected from erosion by temporary methods and, ultimately by permanent vegetation.

DUST CONTROL

Where vegetative or mulch cover is not practical in disturbed areas of the site, dust shall be controlled by the use of water sprinkling. The surface shall be sprayed until wet. Dust control shall continue until such time as the entire site is adequately stabilized with permanent vegetative cover.

POLLUTION PREVENTION MEASURES FOR CONSTRUCTION RELATED ACTIVITIES

Pollution prevention practices for preventing litter, construction chemicals (if applicable) and construction debris from becoming a pollutant source in stormwater discharge include daily pickup of construction debris, inspection, and physical controls such as silt fencing. Inspections will also be conducted to ensure that dust control measures are utilized as necessary. During construction, maintenance, construction and waste materials will be stored within suitable areas/dumpsters, as appropriate, to minimize the exposure of the materials to stormwater and spill prevention. All maintenance and construction waste will be disposed of in a safe manner in accordance with all applicable regulations.

SOIL RESTORATION

All soils compacted during construction shall be restored in accordance with “Deep Ripping and Decompaction, April 2008” by the NYSDEC and Table 5.3 of the NYSDEC Stormwater Design Manual. See Appendix VII for Soil Restoration References.

GENERAL CONSTRUCTION SEQUENCING

Outlined below is a brief listing of the construction sequencing for the project.

Prior to any interior site activity, the owner, contractor, owner's engineer and NYCDEP representative shall hold a pre-construction meeting.

Stabilization shall be defined as “covering or maintaining an existing cover over soil. Cover can be vegetative (e.g., grass, trees, seed and mulch, shrubs, or turf) or non-vegetative (e.g., geotextiles, rip-rap, or gabions).”

The applicant shall notify the design engineer & MS4 at least 48 hours before any of the following as required by the Stormwater Management Officer:

- Start of construction
- Installation of sediment and erosion control measures
- Completion of site clearing
- Completion of rough grading
- Completion of final grading
- Close of the construction season
- Completion of final landscaping
- Successful establishment of landscaping.

The owners/contractor are required to submit As-Built plans for all stormwater management practices located on site after final construction is completed. The plan must show the final design specifications for all stormwater management facilities and must be certified by a New York State licensed land surveyor or professional engineer.

Construction Sequence

- Owner/operator to obtain all necessary permits/approvals.
- The owner/operator/contractor to conduct a pre-construction meeting.
- Contractor to stake clearing limits of disturbance.
- Contractor to install construction limits fencing.
- Contractor to commence clearing and grubbing of complete work area.
- Contractor to install stabilized construction entrance in location as indicated on the Sediment and Erosion Control Plan.
- Contractor to install silt fence, all erosion control measures and tree protection in location as indicated on the Sediment and Erosion Control Plan.
- Contractor to contact appropriate authorities to inspect sediment and erosion control measures.
- Contractor to construct Temporary Sediment Traps.
- Contractor to construct temporary diversion swale in location as indicated on the Sediment and Erosion Control Plan.
- Contractor to stockpile excavated topsoil for reuse on site, in soil stockpile locations as indicated on the Sediment and Erosion Control Plan.
- Contractor to initiate building excavation and general excavation and fill for parking area and driveways.
- Contractor shall construct building.
- Contractor to rough grade parking area and SSDS area.
- Contractor to initiate installation of storm drainage facilities, SSDS and infiltration practices. Contractor to keep infiltration practices off-line until contributing drainage area is stabilized. Storm drainage facilities to be installed include the underground piped detention system, bioretention basin, Cultect infiltration system, R-Tank infiltration system, grass swale and associated network of catch basins, manholes, drainage pipes, flow splitters, water quality structures, headwalls and outfalls.
- Contractor shall connect roof leaders to drainage system.
- Contractor to install utilities (electric, cable TV, phone), gas lines and water service.
- Contractor to notify WCHD for inspection of SSDS.
- Contractor to install inlet protection around installed drainage facilities.
- Contractor to re-install construction fence around perimeter of SSDS area.
- Contractor to provide dust control during construction as necessary.
- Contractor to topsoil and re-vegetate disturbed areas. Re-vegetate areas as indicated on the landscape plans with critical area seeding.
- Contractor to install electric service and light poles.
- Contractor to install curbing and sidewalks.
- Contractor to finish final grading of parking area to subgrade.
- Contractor to install Item #4 base course and asphalt pavement in parking area.
- Once the site is stabilized, the infiltration practices shall be placed on-line for site runoff. Roof runoff will be discharged to drainage system once roof gutters are installed.
- Contractor to complete landscaping in accordance with the landscape plan.
- Contractor to notify authorities to inspect final landscaping.
- Contractor shall remove silt fence, inlet protection, tree protection and all erosion control measures upon site stabilization

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NOTES

BEDFORD VILLAGE FIRE DISTRICT

TOWN OF BEDFORD — WESTCHESTER COUNTY, NEW YORK

STATE OF NEW YORK — JOHN KELLARD — 058736 — LICENSED PROFESSIONAL ENGINEER

No.	REVISIONS
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PROJECT I.D.: BDBEDFORDFIRE200

DATE: DECEMBER 1, 2020

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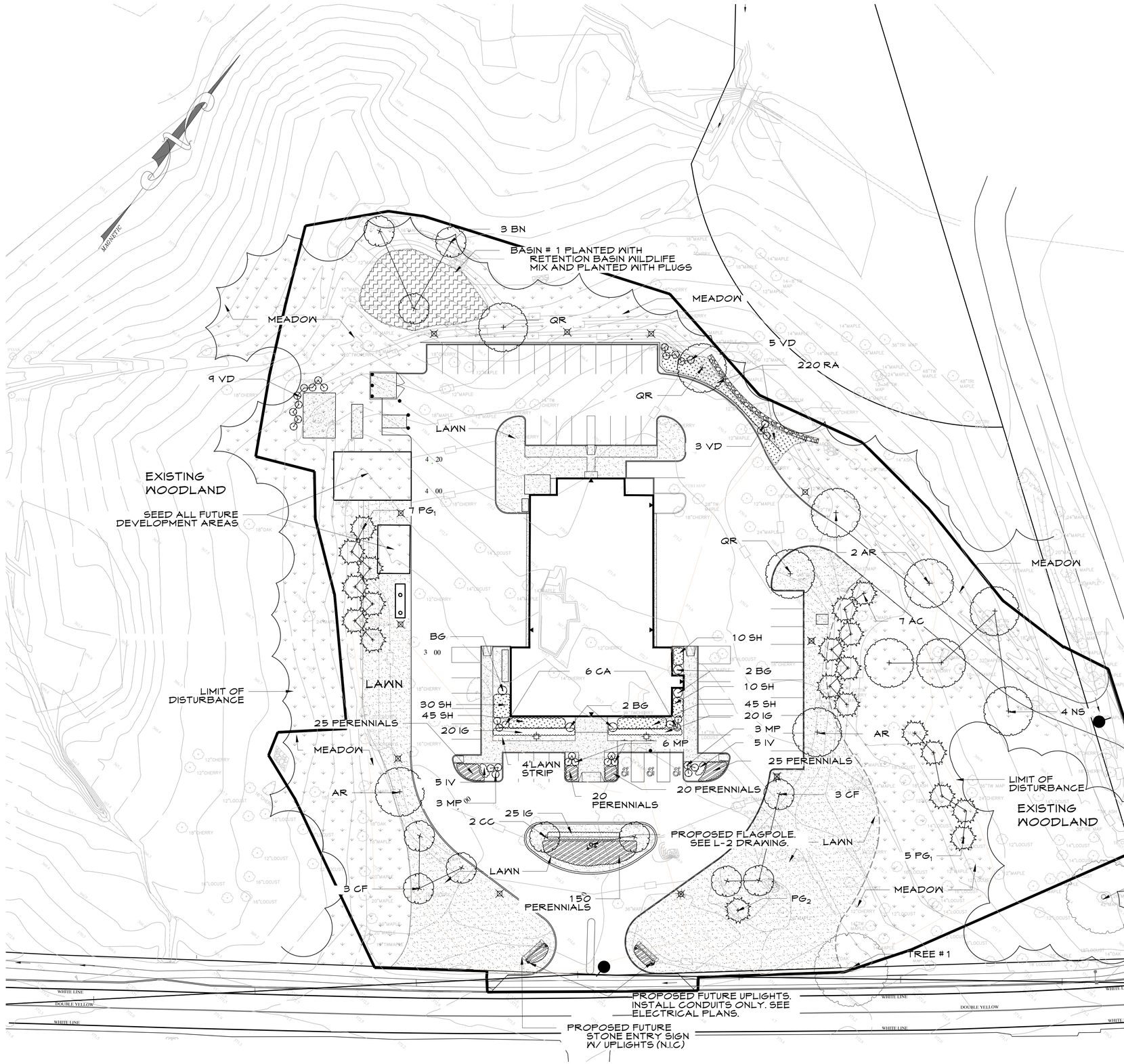

PLANT LIST

TREES

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
4	AR	Acer rubrum 'Red Sunset'	Red Maple 'Red Sunset'	3"-3 1/2" cal.	B&B
3	BN	Betula nigra	River Birch	10'-12' HT.	Multi-Stem, B&B
3	QR	Quercus rubra	Red Oak	3"-3 1/2" cal.	B&B
3	CF	Cornus florida 'Cloud Nine'	Flowering Dogwood 'Cloud Nine'	8'-10' HT.	B&B
2	CC	Cercis canadensis	Eastern Redbud	8'-10' HT.	B&B, Single Stem, Matching Species
4	NS	Nissa sylvatica	Tupelo	3"-3 1/2" cal.	B&B
12	PG1	Picea glauca	White Spruce	8'-10' HT.	B&B
1	PG2	Picea glauca	White Spruce	14'-16' HT.	B&B, Specimen
7	AC	Abies concolor	White Fir	8'-10' HT.	B&B

SHRUBS

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
5	BG	Buxus 'Green Mountain'	Boxwood	4'-4 1/2" HT.	B&B
65	IG	Ilex glabra 'Shamrock'	Shamrock Inkberry Holly	3'-3 1/2" HT.	B&B
10	IV	Itea virginica 'Little Henry'	Virginia Sweetspire 'Little Henry'	2'-2 1/2" HT.	5 Gal. Container
12	MP	Myrica pensilvanica	Bayberry	3'-3 1/2" HT.	7 Gal. Container
17	VD	Viburnum dentatum 'Chicago Lustre'	Arrowwood Viburnum	3'-3 1/2" HT.	7 Gal. Container
6	CA	Clethra alnifolia	Sweet Pepperbush	3'-3 1/2" HT.	7 Gal. Container

PERENNIALS

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
	35%	Rudbeckia hirta	Black-eyed Susan	1 GAL	18" O.C.
	10%	Echinacea purpurea	Purple Coneflower	1 GAL.	18" O.C.
	20%	Panicum virgatum 'Heavy Metal'	Switch Grass	1 GAL.	24" O.C.
240	10%	Anemone canadensis	Meadow ane mone	1 GAL.	18" O.C.
Total Perennials	10%	Aster novi-belgii	New York Asters	1 GAL.	18" O.C.
	10%	Agastache foeniculum	Giant Hyssops	1 GAL.	24" O.C.
	10%	Oenothera fruticosa 'Fyrverkeri'	Sundrops	1 GAL.	18" O.C.
	15%	Solidago candensis	Canada Goldenrod	1 GAL.	18" O.C.

GROUNDCOVERS

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
140	SH	Sporobolus heterolepis	Prairie Dropseed	1 GAL.	18" O.C.
220	RA	Rhus aromatica 'Gro-Low'	Gro-Low Sumac	3 GAL.	24" O.C.

STORMWATER MANAGEMENT AND BIORETENTION BASINS

2" PLUGS - BASIN #1

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
100	IV	Iris versicolor	Northern Blue Flag	2"	
50	LC	Lobelia cardinalis	Cardinal Flower	2"	
100	EP	Eutrochium purpureum 'Little Joe'	Little Joe Pye Weed	2"	
100	PV	Panicum virgatum 'Cheyenne Sky'	Switchgrass	2"	
150	JE	Juncus effusus	Soft Rush	2"	

MEADOW AREA

NORTHEAST NATIVE GRASS SEED MIX BY AMERICAN MEADOW			
	KEY	BOTANICAL NAME	COMMON NAME
	EV	Elymus virginicus	Virginia Wild Rye
	PV	Panicum virgatum	Switch Grass
	EC	Elymus canadensis	Canadian Wild Rye
	SS	Schizachyrium scoparium	Little Bluestem
	SN	Sorghastrum nutans	Indian Grass

STORMWATER MANAGEMENT AND BIORETENTION BASINS
RETENTION BASIN WILDLIFE MIX BY ERNST SEEDS

QTY	KEY	BOTANICAL NAME	COMMON NAME
22%	EV	Elymus Virginicus 'PA Ecotype'	Virginia Wildrye
22%	PP	Poa Palustris	Fowl Bluegrass
15%	CV	Carex Vulpinoidea 'PA Ecotype'	Fox Sedge
6%	CL	Carex Lupulina 'PA Ecotype'	Hop Sedge
5%	CS	Carex Scoparia 'PA Ecotype'	Blunt Broom Sedge
3%	JE	Juncus Effusus	Soft Rush
1%	AI	Asclepias Incarnata 'PA Ecotype'	Swamp Milkweed
0.50%	EP	Eupatorium Perfoliatum 'PA Ecotype'	Boneset
0.50%	SC	Scirpus Cyperinus 'PA Ecotype'	Woolgrass

NOTES:

1. ADD EROSION CONTROL FABRIC ON ALL SIDE SLOPES OF BIO-RETENTION BASINS.
2. APPLY FERTILIZERS ONLY AS REQUIRED BASED ON SOIL TESTING.
3. PROVIDE 4" TOPSOIL AT ALL NEW AREAS DESIGNATED AS LAWN.

PLANTING PLAN LEGEND

- LIMIT OF DISTURBANCE
- LAWN
- MEADOW
- PERENNIALS
- GROUNDCOVER
- BASINS
- DECIDUOUS TREE
- EVERGREEN TREE
- FLOWERING TREE
- SHRUB

General Notes

KEY MAP:

REGISTERED LANDSCAPE ARCHITECT JOHN A. IMBIANO No. 000813-1 STATE OF NEW YORK

No.	Revision/Issue	Date
1	ISSUE FOR BID	01.05.21

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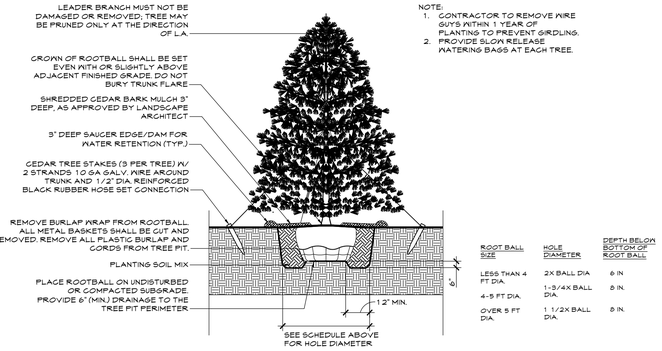
Project Name

Bedford Firehouse

Drawing Title

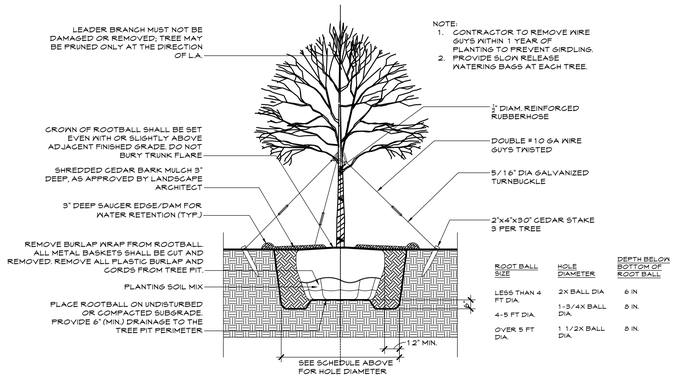
Landscape Plan

Scale	Sheet No.
1"=30'	L-1
Date: 09/06/2019	
Drawn By: VA / Checked By: JAI	



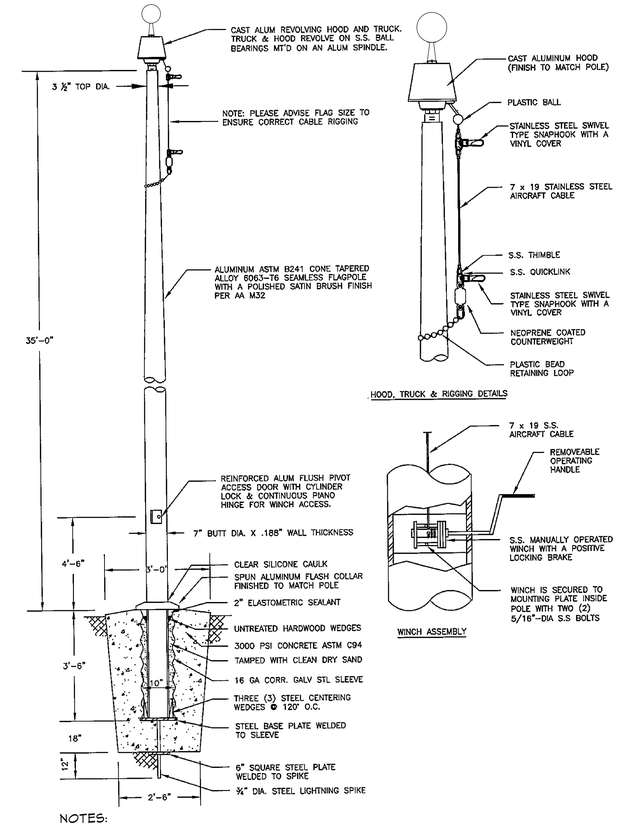
1 EVERGREEN TREE PLANTING DETAIL

SCALE: 3/8"=1-0"



3 DECIDUOUS TREE PLANTING DETAIL

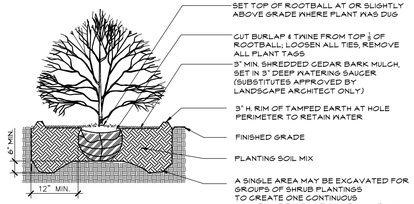
SCALE: 3/8"=1-0"



NOTES:
1. DETAIL AS PROVIDED BY FLAGPOLE MANUFACTURER FOR BIDDING PURPOSES ONLY.
2. PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL SIGNED AND SEAL BY A NY STATE LICENSED ENGINEER ADDRESSING STRUCTURAL, GEO-TECHNICAL, AND WIND LOADS.

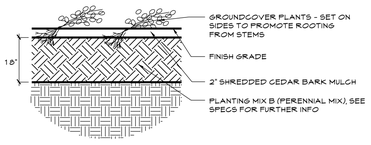
5 ALUMINUM INTERNAL HALYARD FLAGPOLE

SCALE: N.T.S



2 SHRUB PLANTING DETAIL

SCALE: 3/8"=1-0"



4 PERENNIAL PLANT BED DETAIL

SCALE: 3/8"=1-0"

TREE PRESERVATION/ PRUNING NOTES:

1. CONTRACTOR TO PROVIDE FOR ONE DAY OF PRUNING WITH A CREW UNDER THE SUPERVISION OF A NEW YORK STATE LICENSED ARBORIST UNDER THE BASE BID. ALL EQUIPMENT INCLUDING ANY AERIAL LIFTS NECESSARY TO PERFORM THE WORK SHALL BE INCLUDED IN THE COST. FOCUS OF PRUNING WILL BE MISCELLANEOUS TREES TO REMAIN ALONG SOUTH BROOK ROAD AND TREES AS NOTED #1 (OAK) AND #2 (MAPLE).
2. ALL TREES TO BE PRESERVED ON THE SITE SHALL BE PROTECTED AGAINST DAMAGE DURING CONSTRUCTION OPERATIONS BY THE USE OF WOODEN TREE GUARDS OR SNOW FENCING. IN NO CASE SHALL BOARDS OR FENCES BE NAILED TO PROTECTED TREES. THE TREE PROTECTION SHALL BE PLACED BEFORE ANY EXCAVATING OR GRADING IS BEGUN AND MAINTAINED FOR THE DURATION OF THE CONSTRUCTION WORK UNLESS OTHERWISE DIRECTED. MINIMUM LIMITS OF TREE PROTECTION FENCING SHALL BE THE DRIP LINE OF THE TREE.
3. NO MATERIAL SHALL BE STORED OR CONSTRUCTION OPERATION SHALL BE CARRIED ON WITHIN THE TREE PROTECTION FENCING. CONSTRUCTION EQUIPMENT, TRUCKS OR OTHER VEHICLES SHOULD NOT BE PARKED OR OPERATED UNDER THE CANOPY OF TREES TO BE SAVED. IF TRAFFIC CANNOT BE REROUTED OR MATERIAL STORAGE CANNOT BE RELOCATED AWAY FROM THE ROOT ZONE, THEN APPLY A LAYER OF WOOD CHIPS AT LEAST SIX INCHES THICK OVER THE ENTIRE ROOT ZONE AREA TO AVOID SOIL COMPACTION.
4. ALL DEBRIS AND WASTES SHALL BE HAULED AWAY FOR PROPER DISPOSAL AND IN NO CASE SHALL BE BURNED, BURIED ON SITE OR STOCKPILED OVER ROOT ZONES.
5. AVOID GRADE CHANGES AS MUCH AS POSSIBLE AROUND TREES TO BE PRESERVED. NEVER PILE EXCAVATED SOIL AROUND ANY TREE.
6. PROTECT ROOTS FROM DAMAGE WHEN LAYING UTILITY LINES BY TUNNELING RATHER THAN TRENCHING WHERE FEASIBLE.
7. ANY DAMAGE DONE TO EXISTING TREE CROWNS OR ROOT SYSTEMS SHALL BE REPAIRED IMMEDIATELY. ROOTS EXPOSED AND/OR DAMAGED DURING CONSTRUCTION SHALL BE CUT OFF CLEANLY AND TOPSOIL SHALL BE IMMEDIATELY PLACED OVER THE EXPOSED ROOT AREA. DAMAGED TREES SHALL BE WATERED AND PROTECTED FROM FUTURE DAMAGE.
8. ANY TREE DAMAGED DURING CONSTRUCTION SHALL BE INSPECTED BY A N.Y.S. LICENSED ARBORIST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING THE RECOMMENDATIONS BY THE ARBORIST AND ALL REPAIRS SHALL BE AT NO ADDITIONAL COST TO THE OWNER.
9. ALL BRANCH PRUNING, ROOT PRUNING AND FERTILIZATION WORK TO BE PERFORMED BY A CERTIFIED LICENSED ARBORIST AND REPUTABLE TREE CARE COMPANY. SUBMIT QUALIFICATIONS TO LANDSCAPE ARCHITECT FOR APPROVAL.
10. ALL PRUNING WORK TO BE COMPLETED IN ACCORDANCE WITH STANDARDS SET FORTH BY THE NATIONAL ARBORIST ASSOCIATION.
11. USE ONLY HAND METHODS FOR GRUBBING IN AREAS WITHIN DRIP-LINE OF TREES.
12. TREES SHALL BE PERIODICALLY INSPECTED AND CHECKED FOR SIGNS OF STRESS DURING TO NEW CONSTRUCTION BY A CERTIFIED ARBORIST RETAINED BY THE CONTRACTOR.

General Notes

KEY MAP:

REGISTERED LANDSCAPE ARCHITECT JOHN A. IMBIANO 000813 STATE OF NEW YORK

No.	Revision/Issue	Date
1	ISSUE FOR BID	01.05.21

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Project Name

Bedford Firehouse

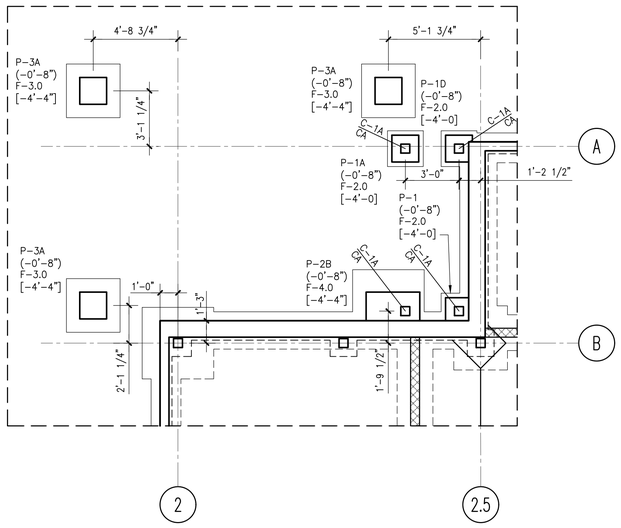
Drawing Title

Details

Scale: See Drawing
Date: 09/06/2019
Drawn By: VA
Checked By: JAI

Sheet No.

L-2

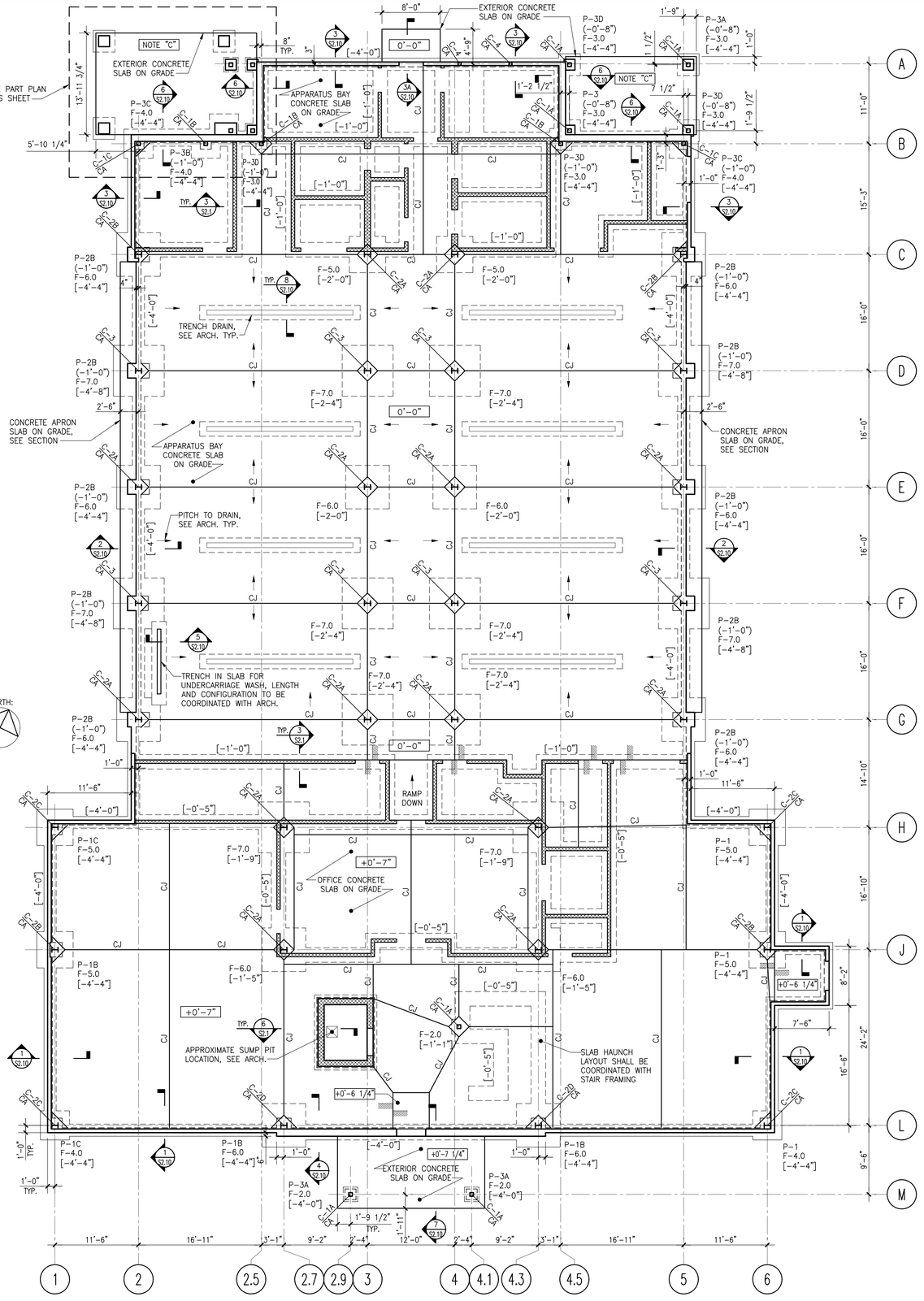


FOUNDATION PART PLAN

1/4" = 1'-0"

NORTH:

- SEE BELOW FOR NOTES NOT REPEATED HERE.



FOUNDATION AND SLAB ON GRADE PLAN

1/8" = 1'-0"

NORTH:

- DO NOT SCALE THIS PLAN. SEE ARCH. FOR ALL DIMENSIONS AND ELEVATIONS.
- APPARATUS BAY CONCRETE SLAB ON GRADE CONSTRUCTION: 8" THICK CONCRETE SLAB, REINFORCED WITH #5 BARS EACH WAY AT 12"o.c. SEE SPECIFICATIONS FOR REQUIRED ADMIXTURES. SEE M3.1 FOR COORDINATION OF RADIANT FLOOR HEATING WORK.
- OFFICE AND EXTERIOR SLAB ON GRADE CONSTRUCTION: 5" CONCRETE SLAB ON GRADE, REINFORCED WITH 6x6-W1.4xW1.4 WELDED WIRE FABRIC.

LEGEND

- INDICATES CMU SHEAR WALL, SEE "TYPICAL CONCRETE MASONRY WALL REINFORCEMENT DETAIL".
- "CA" INDICATES STEEL COLUMN ABOVE, SEE COLUMN SCHEDULE ON 1/S3.3.
- "CJ" INDICATES APPROXIMATE LOCATION OF CONTROL/CONSTRUCTION JOINTS IN SLABS ON GRADE. FOR DETAILS, SEE "TYPICAL SLAB ON GRADE DETAILS".
- P-## INDICATES PIER TYPE, SEE "PIER SCHEDULE AND PIER DETAILS".

NOTE "C"

ELEVATION OF EXTERIOR SLAB ON GRADE SHALL MATCH ELEVATION OF ADJACENT SIDEWALKS, SEE CIVIL.

FOOTING SCHEDULE

(ALLOWABLE BEARING PRESSURE: 3000 PSF)

MARK	PLAN SIZE N-S	PLAN SIZE E-W	THICKNESS	BOTTOM REINF. N-S	BOTTOM REINF. E-W
F-2.0	2'-0"	2'-0"	1'-0"	(3)-#5	(3)-#5
F-3.0	3'-0"	3'-0"	1'-4"	(4)-#5	(4)-#5
F-4.0	4'-0"	4'-0"	1'-4"	(5)-#5	(5)-#5
F-5.0	5'-0"	5'-0"	1'-4"	(6)-#5	(6)-#5
F-6.0	6'-0"	6'-0"	1'-4"	(7)-#5	(7)-#5
F-7.0	7'-0"	7'-0"	1'-8"	(10)-#5	(10)-#5

NOTES:

1. REFER TO TYPICAL FOOTING DETAIL AND FOUNDATION NOTES IN USING THIS SCHEDULE.

REFERENCE ELEVATION SCHEDULE

ITEM	DESCRIPTION	TOPO ELEV.	FROM PROJ. REF. ELEV. (U.O.N.)	FROM DRW. REF. ELEV. (U.O.N.)	SYMBOL FROM DWG. REF. ELEV.
PROJECT REF. ELEV.	T/APPARATUS BAY SLAB	376.0'	--	0'-0"	--
DRAWING REF. ELEV.	T/APPARATUS BAY SLAB	--	0'-0"	--	±X'-XX"
FRAMING ELEV.	T/ SLAB	--	--	SEE PLAN	±X'-XX"
	B/FOOTING	--	--	SEE PLAN	[±X'-XX"]
	T/PIER	--	--	-0'-1"	(±X'-XX")
	T/FND. WALL	--	--	SEE SECTION	(±X'-XX")

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Date Issue
01.15.21 ISSUED FOR BID

Project Title

Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

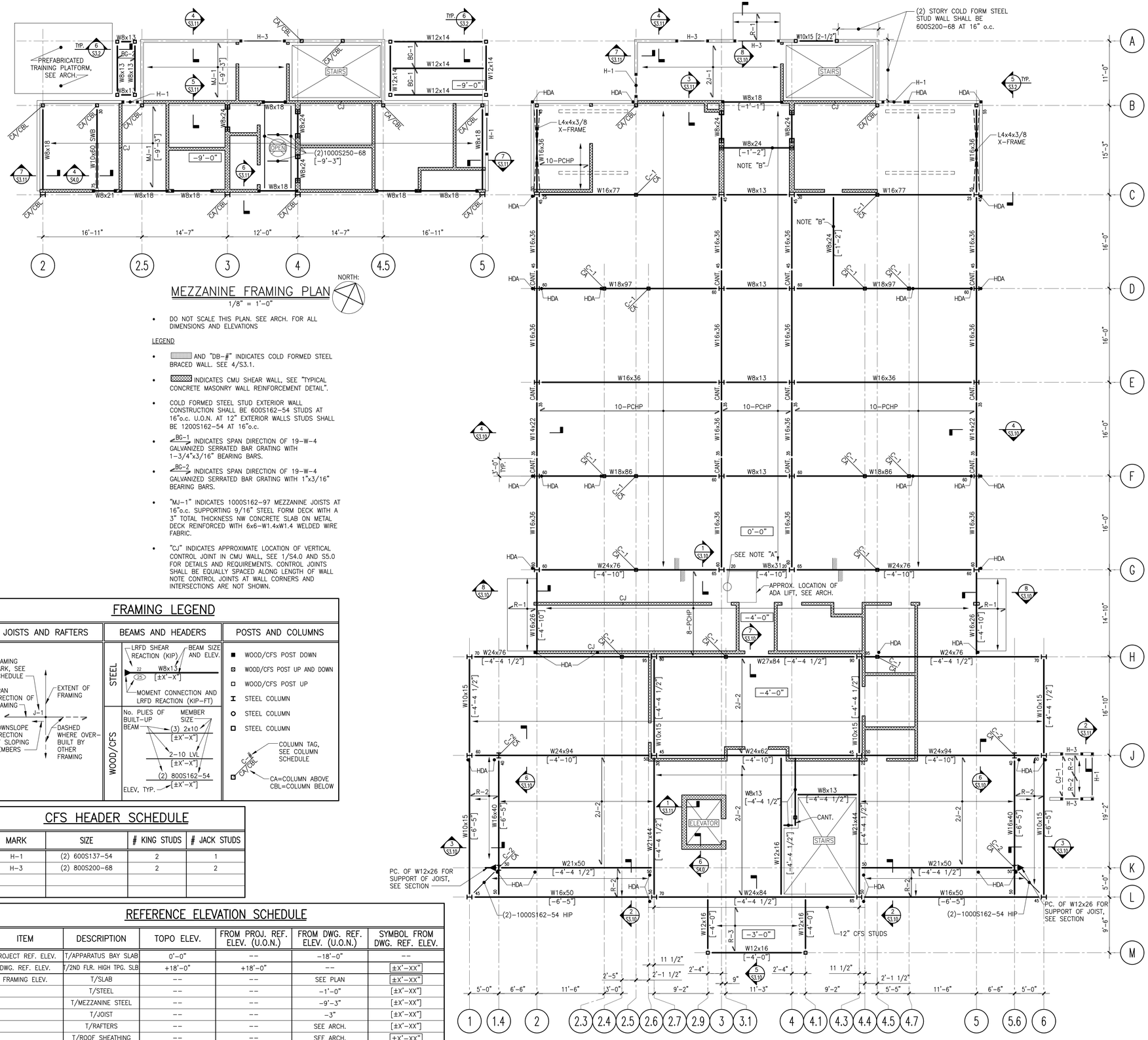
Drawing Title

FOUNDATION AND SLAB ON GRADE PLAN

Project No.	19105
Date	03-25-2020
Scale	AS NOTED
Drawing by	MAJ / JV
Checked by	PJC

PATRICK J. CONLON LICENSED PROFESSIONAL ENGINEER NEW YORK STATE OF NEW YORK 079876

Drawing No.
S1.0



MEZZANINE FRAMING PLAN

1/8" = 1'-0"

NORTH:

- DO NOT SCALE THIS PLAN. SEE ARCH. FOR ALL DIMENSIONS AND ELEVATIONS

LEGEND

- ▨ AND "DB-#" INDICATES COLD FORMED STEEL BRACED WALL. SEE 4/S3.1.
- ▩ INDICATES CMU SHEAR WALL, SEE "TYPICAL CONCRETE MASONRY WALL REINFORCEMENT DETAIL".
- COLD FORMED STEEL STUD EXTERIOR WALL CONSTRUCTION SHALL BE 600S162-54 STUDS AT 16"o.c. U.O.N. AT 12" EXTERIOR WALLS STUDS SHALL BE 1200S162-54 AT 16"o.c.
- BG-1 INDICATES SPAN DIRECTION OF 19-W-4 GALVANIZED SERRATED BAR GRATING WITH 1-3/4"x3/16" BEARING BARS.
- BG-2 INDICATES SPAN DIRECTION OF 19-W-4 GALVANIZED SERRATED BAR GRATING WITH 1"x3/16" BEARING BARS.
- "MJ-1" INDICATES 1000S162-97 MEZZANINE JOISTS AT 16"o.c. SUPPORTING 9/16" STEEL FORM DECK WITH A 3" TOTAL THICKNESS NW CONCRETE SLAB ON METAL DECK REINFORCED WITH 6x6-W1.4xW1.4 WELDED WIRE FABRIC.
- "CJ" INDICATES APPROXIMATE LOCATION OF VERTICAL CONTROL JOINT IN CMU WALL, SEE 1/S4.0 AND S5.0 FOR DETAILS AND REQUIREMENTS. CONTROL JOINTS SHALL BE EQUALLY SPACED ALONG LENGTH OF WALL NOTE CONTROL JOINTS AT WALL CORNERS AND INTERSECTIONS ARE NOT SHOWN.

FRAMING LEGEND

JOISTS AND RAFTERS	BEAMS AND HEADERS	POSTS AND COLUMNS
FRAMING MARK, SEE SCHEDULE; EXTENT OF FRAMING; SPAN DIRECTION OF FRAMING; J-1; DOWNSLOPE DIRECTION OF SLOPING MEMBERS; DASHED WHERE OVER-BUILT BY OTHER FRAMING	STEEL: LRFD SHEAR REACTION (KIP); BEAM SIZE AND ELEV.; 22; 25; W8x13 [±X'-X"]; MOMENT CONNECTION AND LRFD REACTION (KIP-FT)	WOOD/CFS POST DOWN; WOOD/CFS POST UP AND DOWN; WOOD/CFS POST UP; STEEL COLUMN; STEEL COLUMN; STEEL COLUMN
	WOOD/CFS: No. PLIES OF BUILT-UP BEAM; MEMBER SIZE; (3) 2x10 [±X'-X"]; 2-10 LVL [±X'-X"]; (2) 800S162-54 [±X'-X"]; ELEV, TYP.	COLUMN TAG, SEE COLUMN SCHEDULE; CA/CBL; CA=COLUMN ABOVE CBL=COLUMN BELOW

CFS HEADER SCHEDULE

MARK	SIZE	# KING STUDS	# JACK STUDS
H-1	(2) 600S137-54	2	1
H-3	(2) 800S200-68	2	2

REFERENCE ELEVATION SCHEDULE

ITEM	DESCRIPTION	TOPO ELEV.	FROM PROJ. REF. ELEV. (U.O.N.)	FROM DWG. REF. ELEV. (U.O.N.)	SYMBOL FROM DWG. REF. ELEV.
PROJECT REF. ELEV.	T/APPARATUS BAY SLAB	0'-0"	--	-18'-0"	--
DWG. REF. ELEV.	T/2ND FLR. HIGH TPG. SLB	+18'-0"	+18'-0"	--	[±X'-XX"]
FRAMING ELEV.	T/SLAB	--	--	SEE PLAN	[±X'-XX"]
	T/STEEL	--	--	-1'-0"	[±X'-XX"]
	T/MEZZANINE STEEL	--	--	-9'-3"	[±X'-XX"]
	T/JOIST	--	--	-3"	[±X'-XX"]
	T/RAFTERS	--	--	SEE ARCH.	[±X'-XX"]
	T/ROOF SHEATHING	--	--	SEE ARCH.	[±X'-XX"]
	T/CEILING JOISTS	--	--	SEE ARCH.	[±X'-XX"]

SECOND FLOOR FRAMING PLAN

1/8" = 1'-0"

NORTH:

- DO NOT SCALE THIS PLAN. SEE ARCH. FOR ALL DIMENSIONS AND ELEVATIONS.
- ROOF DECKING SHALL BE 1-1/2" TYPE B STEEL ROOF DECK (22 GAGE) WITH 5/8" PLYWOOD SHEATHING ON TOP.

LEGEND

- → INDICATES DOWNSLOPE DIRECTION OF SLOPING MEMBERS.
- ▩ INDICATES CMU SHEAR WALL, SEE "TYPICAL CONCRETE MASONRY WALL REINFORCEMENT DETAIL".
- - - INDICATES COLD FORMED STEEL BEARING WALL ABOVE.
- COLD FORMED STEEL STUD EXTERIOR WALL CONSTRUCTION SHALL BE 600S162-54 STUDS AT 16"o.c. U.O.N. AT 12" EXTERIOR WALLS STUDS SHALL BE 1200S162-54 AT 16"o.c.
- "R-1" INDICATES 600S162-54 RAFTERS AT 16" o.c.
- "R-2" INDICATES 1000S162-54 RAFTERS AT 16" o.c.
- "R-3" INDICATES 1200S162-54 RAFTERS AT 16" o.c.
- "2J-1" INDICATES 1000S162-97 FLOOR JOISTS AT 16"o.c. SUPPORTING 9/16" STEEL FORM DECK WITH A 3" TOTAL THICKNESS NW CONCRETE SLAB ON METAL DECK REINFORCED WITH 6x6-W1.4xW1.4 WELDED WIRE FABRIC.
- "2J-2" INDICATES HAMBRO MD200 COMPOSITE FLOOR SYSTEM WITH 14" JOISTS AT 4'-0"o.c. AND A 4-1/2" TOTAL THICKNESS NW CONCRETE SLAB ON METAL DECK REINFORCED WITH 6x6-W1.4xW1.4 WELDED WIRE FABRIC.
- "CJ-1" INDICATES 600S162-54 CEILING JOISTS AT 16"o.c.
- "8-PCHP" INDICATES 8" PRECAST CONCRETE HOLLOW PLANKS WITH 2" NW CONCRETE TOPPING SLAB. TOPPING SLAB SHALL BE REINFORCED WITH 6x6-W1.4xW1.4 WELDED WIRE FABRIC.
- "10-PCHP" INDICATES 10" PRECAST CONCRETE HOLLOW PLANKS WITH 2" NW CONCRETE TOPPING SLAB. TOPPING SLAB SHALL BE REINFORCED WITH 6x6-W1.4xW1.4 WELDED WIRE FABRIC.
- "HDA" INDICATES HOLDOWN FROM COLD FORMED STEEL BRACED WALL ABOVE, SEE S3.1.
- ⊟ INDICATES BEARING PLATE, SEE 5/S4.0.
- "CJ" INDICATES APPROXIMATE LOCATION OF VERTICAL CONTROL JOINT IN CMU WALL, SEE 1/S4.0 AND S5.0 FOR DETAILS AND REQUIREMENTS. CONTROL JOINTS SHALL BE EQUALLY SPACED ALONG LENGTH OF WALL NOTE CONTROL JOINTS AT WALL CORNERS AND INTERSECTIONS ARE NOT SHOWN.

NOTE "A"
APPROXIMATE LOCATION OF TIEBACK BRACKET SUPPORT FOR ADA LIFT. SPECIALTY ENGINEER TO PROVIDE DESIGN OF BUILT UP COLD FORMED STEEL POST TO UNDERSIDE OF ROOF TRUSSES. PROVIDE BLOCKING AND CONNECTION DESIGN FOR CONNECTION BETWEEN ROOF TRUSSES. HORIZONTAL TIEBACK FORCE IS LOCATED AT HEIGHT OF 6'-7 7/8" ABOVE SECOND FLOOR LOW SLAB WITH A VALUE OF 368 POUNDS (SERVICE LEVEL LOAD).

NOTE "B"
BEAM TO SUPPORT (1) OSHA FALL PROTECTION SYSTEM TIE-OFF DESIGNED BY THE CONTRACTOR.

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Date Issue
01.15.21 ISSUED FOR BID

Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
SECOND FLOOR AND MEZZANINE FRAMING PLANS

Project No.	19105
Date	03-25-2020
Scale	AS NOTED
Drawing by	MAJ / JV
Checked by	PJC

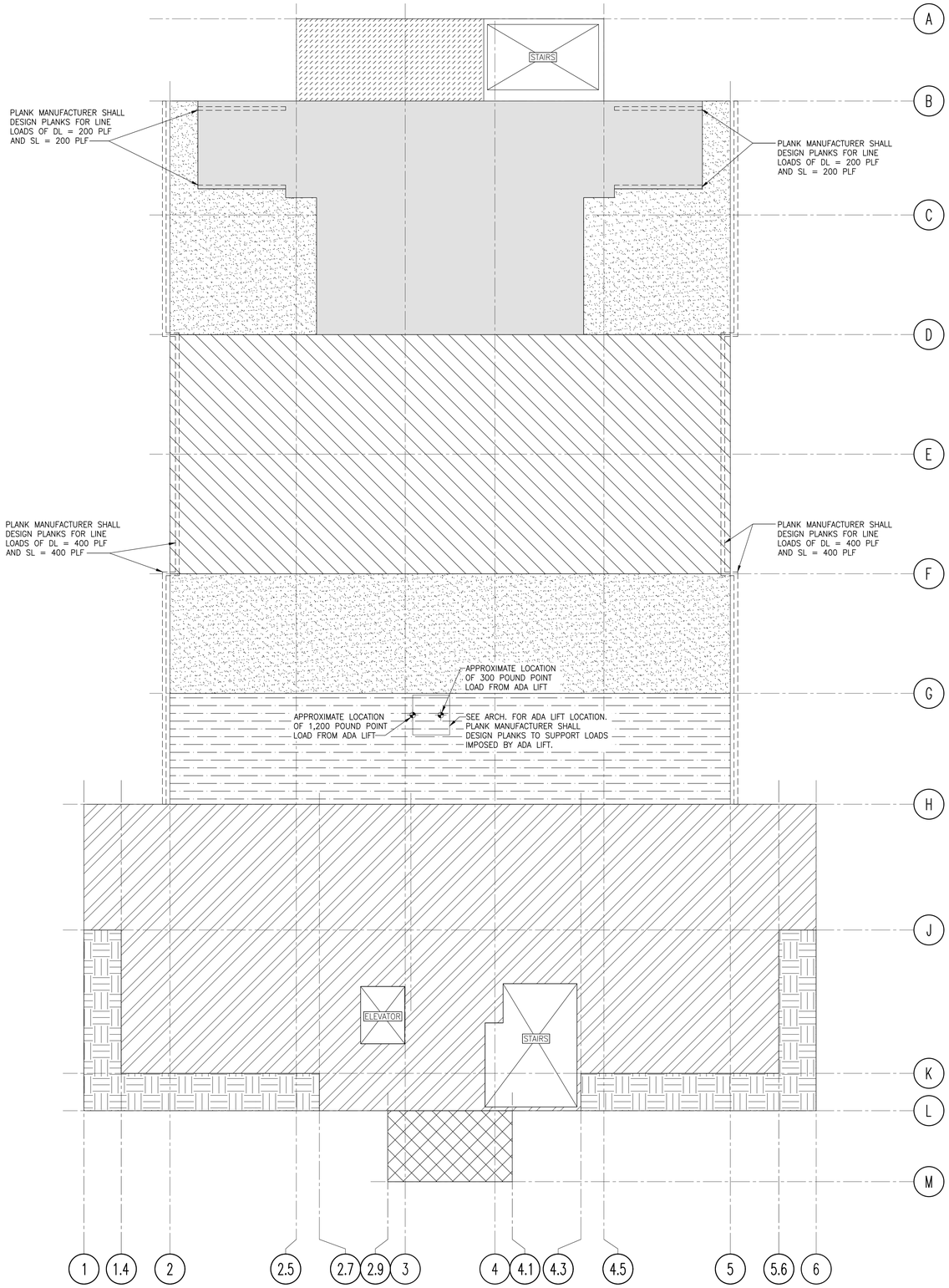
STATE OF NEW YORK · PATRICK J. CONLON · 079876 · LICENSED PROFESSIONAL ENGINEER

Drawing No.
S1.1

SECOND FLOOR LOADING SCHEDULE

HATCH	PLANK + TOPPING DL	BAR JOIST + SOMD DL	SDL (PSF)	TOTAL DL (PSF)	LL (PSF)
	96	– –	14	110	100
	– –	– –	– –	30	0
	– –	53	7	60	80
	– –	– –	– –	25	100
	85	– –	15	100	80
	96	– –	14	110	125
	96	– –	14	110	80
	– –	– –	– –	65	80

NOTE:
SEE S1.1 FOR LOCATIONS OF HOLDOWNS FROM THE COLD FORMED STEEL BRACED WALLS ABOVE. ELEMENTS SUPPORTING HOLDOWNS SHALL BE CAPABLE OF WITHSTANDING THE ENTIRE CAPACITY OF THE SIMPSON HOLDOWN SPECIFIED ON S3.1.



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Project Title

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550 Old Post Road
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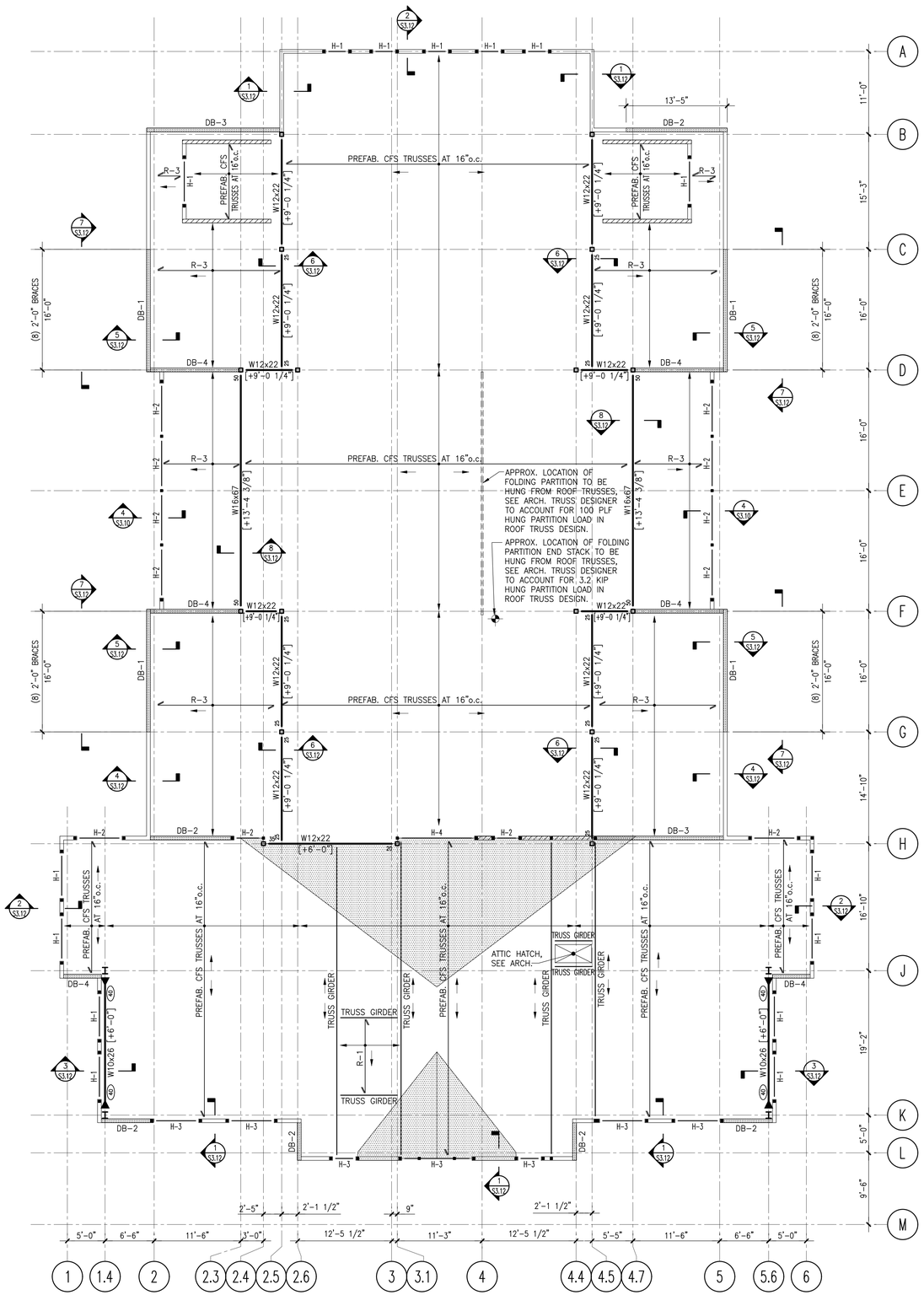
Drawing Title

SECOND FLOOR LOADING PLAN

Project No.	19105
Date	03-25-2020
Scale	1/8"=1'-0"
Drawing by	MAJ / JV
Checked by	PJC

STATE OF NEW YORK · PATRICK J. CONLON · 079876 · LICENSED PROFESSIONAL ENGINEER

Drawing No.
S1.1L



ROOF FRAMING PLAN

1/8" = 1'-0"

NORTH:

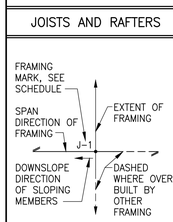
- DO NOT SCALE THIS PLAN. SEE ARCH. FOR ALL DIMENSIONS AND ELEVATIONS.
- ROOF DECKING SHALL BE 1-1/2" TYPE B STEEL ROOF DECK WITH 5/8" PLYWOOD SHEATHING ON TOP.

LEGEND

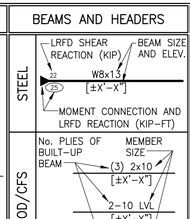
- —► INDICATES DOWNSLOPE DIRECTION OF SLOPING MEMBERS.
- ▶ INDICATES STEEL MOMENT CONNECTION.
- ▨ AND "DB-#" INDICATES COLD FORMED STEEL BRACED WALL. SEE 4/S3.1.
- ▨ INDICATES COLD FORMED STEEL STUD BEARING WALL. TYPICAL WALL CONSTRUCTION SHALL BE 600S162-54 STUDS AT 16"o.c.
- ▨ INDICATES AREA OF FALSEWORK TRUSS OVERBUILD.
- "R-3" INDICATES 1200S162-54 RAFTERS AT 16"o.c. PROVIDE SIMPSON S/HJCT HANGER WHERE APPLICABLE.

FRAMING LEGEND

JOISTS AND RAFTERS

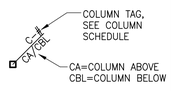


BEAMS AND HEADERS



POSTS AND COLUMNS

- ■ WOOD/CFS POST DOWN
- ⊠ WOOD/CFS POST UP AND DOWN
- □ WOOD/CFS POST UP
- I STEEL COLUMN
- ○ STEEL COLUMN
- □ STEEL COLUMN



CFS HEADER SCHEDULE

MARK	SIZE	# KING STUDS	# JACK STUDS
H-1	(2) 600S137-54	2	1
H-2	(2) 600S162-54	2	1
H-3	(2) 800S200-68	2	2
H-4	(2) 1000S200-97	2	2

ROOF TRUSS PERMANENT BRACING SCHEDULE

TRUSS MEMBER	BEAM SIZE
TOP CHORD	CONT. ROOF SHEATHING
BOTTOM CHORD	LATERAL RESTRAINT AT 10'-0" o.c. MAX. (LAPPED OVER 2 TRUSSES MIN.)
	DIAGONAL BRACING ROWS AT 20'-0" o.c. MAX.
WEBS	LATERAL RESTRAINT AT 10'-0" o.c. MAX. (LAPPED OVER 2 TRUSSES MIN.)
	DIAGONAL BRACING ROWS AT 20'-0" o.c. MAX.

- TEMPORARY BRACING OF ROOF TRUSSES SHALL BE INSTALLED BY CONTRACTOR PER THE REQUIREMENTS OF THE ROOF TRUSS MANUFACTURER.

REFERENCE ELEVATION SCHEDULE

ITEM	DESCRIPTION	TOPO ELEV.	FROM PROJ. REF. ELEV. (U.O.N.)	FROM DRW. REF. ELEV. (U.O.N.)	SYMBOL FROM DWG. REF. ELEV.
PROJECT REF. ELEV.	T/APPARATUS BAY SLAB	376.0'	--	-18'-0"	--
DRAWING REF. ELEV.	T/2ND FLR. HIGH TPG. SLB	--	+18'-0"	--	--
FRAMING ELEV.	T/ATTIC SHEATHING	--	--	SEE ARCH.	[±X'-XX"]
	T/STEEL	--	--	SEE PLAN/SECTION	[±X'-XX"]
	T/WALL PLATE	--	--	SEE ARCH.	--

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Structural Engineering:

Conlon Engineering, LLC
Structural Engineers
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203.740.0990

Date	Issue
01.15.21	ISSUED FOR BID

Project Title

Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

Drawing Title: ROOF FRAMING PLAN

Project No.	19105
Date	08-25-2020
Scale	AS NOTED
Drawing by	MAJ / JV
Checked by	PJC

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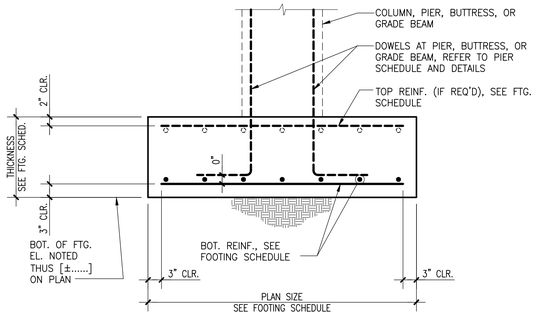
Drawing No. S1.2



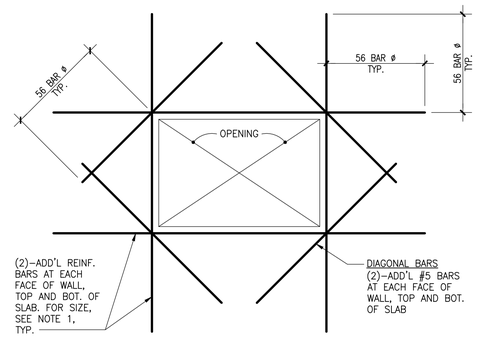
NOTES:

1. SEE FOUNDATION PLAN FOR FOOTING SCHEDULE AND FOUNDATION NOTES IN USING THIS DETAIL.

TYPICAL FOOTING DETAIL

NO SCALE

1 S2.0



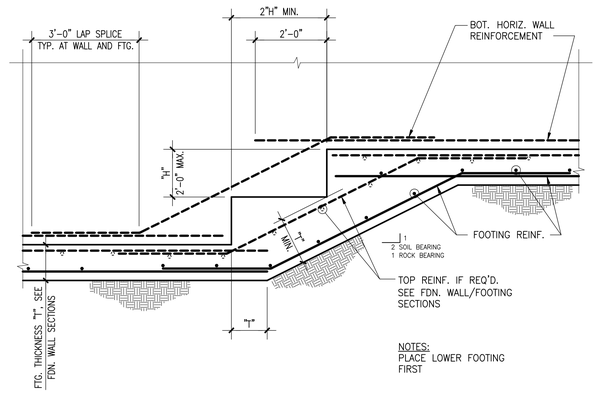
NOTES:

1. AT WALLS, ADDITIONAL REINFORCING SIZE SHALL MATCH HORIZONTAL AND VERTICAL REINFORCING. AT SLABS USE #5 BARS.
2. THIS DETAIL APPLIES AT ALL OPENINGS 12"x12" AND LARGER. DETAIL IS SIMILAR AT ALL CIRCULAR OPENINGS 12" AND LARGER.
3. COORDINATE ALL OPENING SIZES AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.

TYPICAL SLAB/WALL PENETRATION REINFORCING DETAIL

NO SCALE

2 S2.0



NOTES:
PLACE LOWER FOOTING FIRST

TYPICAL STEPPED FOOTING DETAIL

NO SCALE

3 S2.0

NOTES:

1. ALL BAR SPLICES SHALL BE CLASS "B" LAP SPLICES WITH 56 BAR DIAMETERS MINIMUM.
2. PROVIDE CONSTRUCTION JOINT AT END OF EACH DAY'S POUR OR AS REQUIRED TO LIMIT THE LENGTH OF WALL POUR TO A MAXIMUM OF 30 FEET.
3. PROVIDE CONSTRUCTION/CONTROL JOINTS AT FACE OF PIERS UNLESS OTHERWISE NOTED ON PLAN.
4. AT CONTROL JOINT, PROVIDE BEVEL JOINT "T"/10 INTO WALL SURFACE BOTH SIDES. STOP ALTERNATING HORIZONTAL REINFORCING BARS 6" SHORT OF CONTROL JOINT.
5. SEE APPROPRIATE SECTION FOR WALL REINFORCEMENT.
6. VERTICAL REINFORCING AND/OR SUPPORT BARS NOT SHOWN FOR CLARITY.
7. PROVIDE CAULKING AT JOINT IF REQUIRED. SEE SPECIFICATIONS.

TYPICAL CONCRETE WALL CONSTRUCTION DETAIL

NO SCALE

4 S2.0

NOTES:

1. AT STEP FOOTING, FOR WALL AND FOOTING REINFORCING, SEE "TYPICAL STEPPED FOOTING DETAIL".
2. IF REQUIRED, FOR ADDITIONAL WALL REINFORCING, SEE "TYPICAL SLAB/WALL PENETRATION REINFORCING DETAIL".

TYPICAL STEP FOOTING DETAIL AT WALL PIPE PENETRATION

NO SCALE

5 S2.0

SLAB ON GRADE DETAIL (AT APPARATUS BAY SLAB)

NOTES:

1. THE SAW CUT IS TO BE PERFORMED UP TO 12 HOURS AFTER THE CONC. IS POURED, REFER TO ACI 301
2. SEE SLAB PLAN FOR CONTROL JOINT LOCATIONS NOTED "CJ"

TYPICAL CONTROL/CONSTRUCTION JOINT DETAIL (AT APPARATUS BAY SLAB)

SLAB ON GRADE DETAIL (AT WWF REINF. SLABS)

NOTE:
THE SAW CUT IS TO BE PERFORMED UP TO 12 HOURS AFTER THE CONC. IS POURED, REFER TO ACI 301

CONTROL JOINT DETAIL (AT WWF REINF. SLABS)

STEPPED SLAB DETAIL

CONSTRUCTION JOINTS ARE TO BE USED WHEN CONCRETING OPERATIONS ARE TO BE INTERRUPTED.

SLAB ON GRADE CONSTRUCTION JOINT DETAIL (AT WWF REINF. SLABS)

SLAB AT COLUMN DETAIL

TYPICAL SLAB ON GRADE DETAILS

NO SCALE

6 S2.0

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Project Title
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Drawing Title
TYPICAL FOUNDATION DETAILS

Project No.	19105
Date	03-25-2020
Scale	AS NOTED
Drawing by	MAJ / JV
Checked by	PJC

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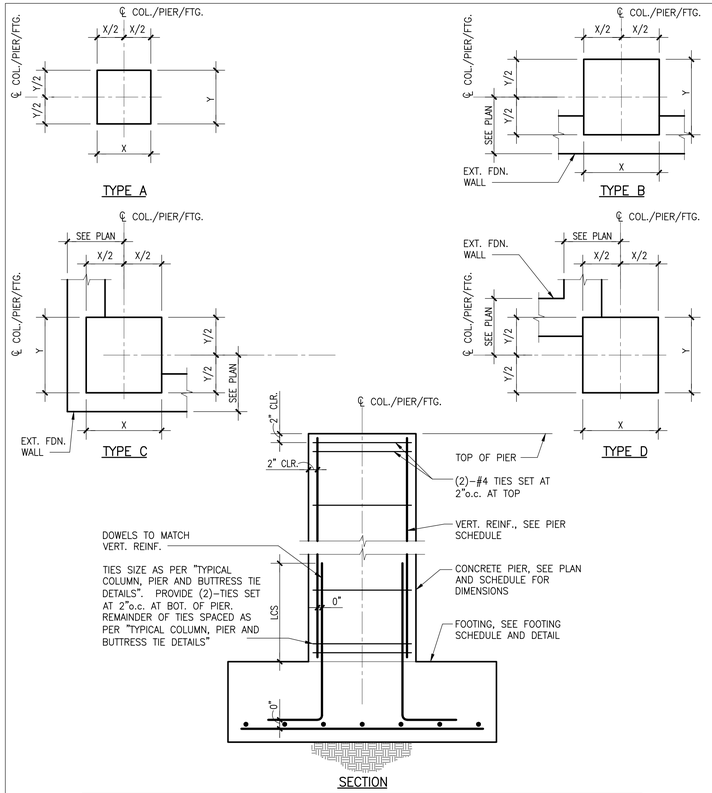
Drawing No.
S2.0



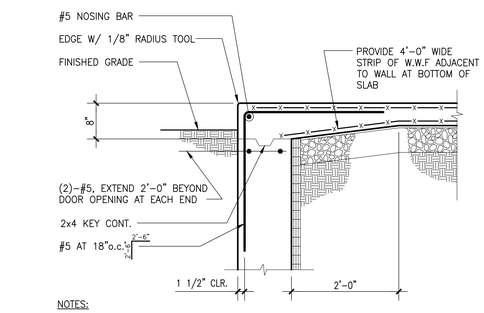
PIER SCHEDULE

MARK	TYPE	"X" E–W DIR.	"Y" N–S DIR.	VERTICAL REINF.	REMARKS
P–1X	SEE ABOVE	24"	24"	(8)–#5	
P–2X	SEE ABOVE	36"	24"	(10)–#5	
P–3X	SEE ABOVE	18"	18"	(6)–#5	

PIER SCHEDULE AND PIER DETAILS

NO SCALE

1 S2.1



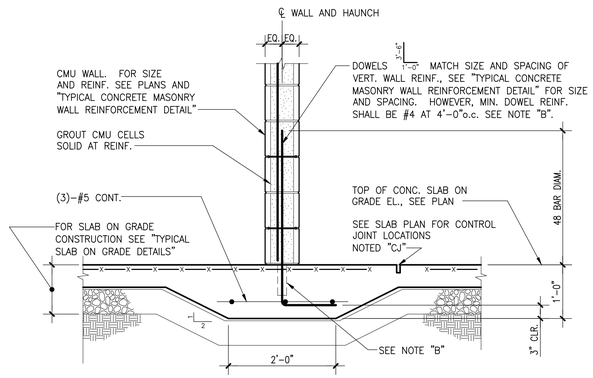
NOTES:

1. SEE APPROPRIATE SECTION FOR REMAINDER OF FOUNDATION INFORMATION NOT REPEATED HERE.
2. SEE ARCHITECTURAL DRAWINGS FOR LOCATION AND EXTENT OF EXTERIOR DOORS.

TYPICAL FOUNDATION WALL DETAIL AT EXTERIOR DOORS

NO SCALE

2 S2.1



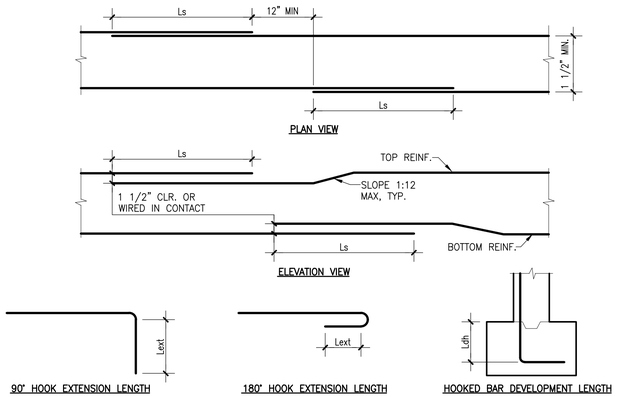
NOTE "A":
SEE ARCH. DWGS. FOR SIZE, LENGTH, EXTENT, AND LOCATION OF INT. CMU WALLS.

NOTE "B":
ALTERNATE TO CAST DOWELS: PROVIDE DRILLED DOWELS (NOT SHOWN). MATCH SIZE AND SPACING OF VERTICAL WALL REINF. MAX. SPACING 4'–0"o.c. DRILL AND EMBED DOWELS 8" INTO CONC. W/ HILTI HY–200 ADHESIVE ANCHORING SYSTEM

TYPICAL CMU WALL SUPPORT DETAIL

NO SCALE

3 S2.1



NOTES:

1. SCHEDULE APPLIES TO UNCOATED GRADE 60 REINFORCING BARS IN NORMAL WEIGHT CONCRETE.
2. FOR LIGHTWEIGHT CONCRETE MULTIPLY LENGTH IN SCHEDULE BY 1.3.
3. ALL SPLICES SHALL BE CLASS B SPLICES UNLESS INDICATED OTHERWISE.
4. TOP BARS (INDICATED WITH "T" IN SCHEDULE) ARE HORIZONTAL TOP BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS.
5. BOTTOM BARS (INDICATED WITH "B" IN SCHEDULE) ARE ALL VERTICAL BARS AND HORIZONTAL BARS WITH LESS THAN 12" OF CONCRETE CAST BELOW HORIZONTAL BARS.
6. ALL HORIZONTAL SPLICES SHALL BE STAGGERED AS SHOWN. IF MORE THAN 50% OF VERTICAL REINFORCING IS LAP SPLICED WITHIN THE REQUIRED LAP SLICE LENGTH, THE LAP SPLICE LENGTH SHALL BE INCREASED BY 33%.
7. LAP SPLICES LISTED IN THE SCHEDULE ARE CLASS B LAPS, FOR CLASS A LAPS REDUCE LENGTH BY 25%.

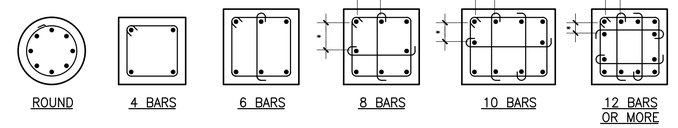
ACI 318–14 REINFORCING BAR SPLICE AND DEVELOPMENT LENGTH (INCHES)

NORMAL WT. CONCRETE f'c (PSI)	0.375" #3		0.500" #4		0.625" #5		0.750" #6		0.875" #7		1.000" #8		1.128" #9		1.270" #10		1.410" #11	
	"CLASS B" TENSION LAP SPLICE "Ls" SCHEDULE																	
	T	B	T	B	T	B	T	B	T	B	T	B	T	B	T	B	T	B
3000	28	22	38	29	47	36	56	43	81	63	93	72	105	81	116	90	128	98
4000	25	19	33	25	41	31	49	37	71	54	81	62	91	70	101	78	111	85
5000	22	17	29	23	36	28	44	34	63	49	72	56	81	63	90	69	99	76
6000	20	16	27	21	33	26	40	31	58	45	66	51	74	57	82	63	90	70
	TENSION DEVELOPMENT LENGTH "Ld" SCHEDULE																	
3000	22	17	29	22	36	28	43	33	63	48	72	55	81	62	90	69	98	76
4000	19	15	25	19	31	24	37	29	54	42	62	48	70	54	78	60	85	66
5000	17	13	23	17	28	22	34	26	49	38	56	43	63	48	69	54	76	59
6000	16	12	21	16	26	20	31	24	45	34	51	39	57	44	63	49	70	54
	COMPRESSION LAP SPLICE SCHEDULE																	
--	12		15		19		23		27		30		34		39		43	
	COMPRESSION DEVELOPMENT LENGTH "Ld" SCHEDULE																	
3000	9		11		14		17		20		22		25		28		31	
4000	8		10		12		15		17		19		22		25		27	
5000	8		9		12		14		16		18		21		23		26	
6000	8		9		12		14		16		18		21		23		26	
	TENSION 90° AND 180° HOOKED BAR DEVELOPMENT LENGTH "Ldh" SCHEDULE																	
3000	9		11		14		17		20		22		25		28		31	
4000	8		10		12		15		17		19		22		25		27	
5000	7		9		11		13		15		17		20		22		24	
6000	6		8		10		12		14		16		18		20		22	
	90° HOOKED BAR EXTENSION LENGTH "Lext" SCHEDULE																	
--	5		6		8		9		11		12		14		16		17	
	180° HOOKED BAR EXTENSION LENGTH "Lext" SCHEDULE																	
--	3		3		3		3		4		4		5		6		6	

SCHEDULE OF EMBEDMENT AND SPLICE LENGTH

NO SCALE

5 S2.1



TYPICAL TIE ARRANGEMENT

"*" INDICATES WHEN 6" OR LESS OMIT INTERIOR TIE.

MAXIMUM SPACING OF TIES

VERTICAL BAR SIZE	SIZE AND SPACING OF TIES		
	#3	#4	#5
#5	10"	–	–
#6	12"	–	–
#7	14"	–	–
#8	16"	16"	–
#9	18"	18"	–
#10	18"	20"	–
#11	†	22"	22"
#14	†	24"	27"
#18	†	24"	30"

"*" INDICATES MAXIMUM SPACING NOT TO EXCEED LEAST DIMENSION OF COMPRESSION MEMBER.

† INDICATES #3 TIES NOT PERMITTED.

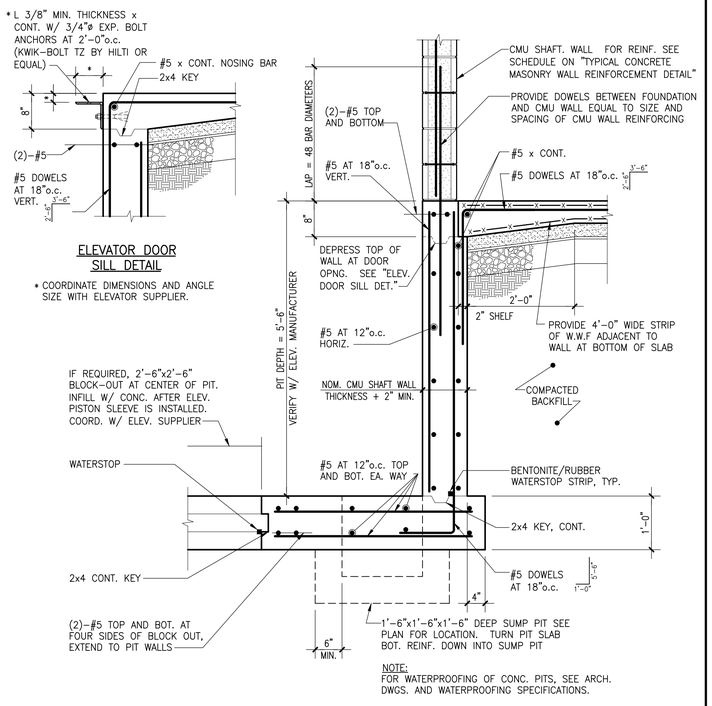
NOTES:

1. THE VERTICAL BARS SHALL BE SPACED AROUND THE PERIMETER SO AS TO ACHIEVE APPROXIMATELY EQUAL SPACING.
2. THE MINIMUM VERTICAL BAR SPACING SHALL BE 1.5 X THE BAR DIAMETER, BUT NOT LESS THAN 1".
3. TIES SHALL BE ARRANGED SUCH THAT EVERY CORNER AND ALTERNATE VERTICAL BAR SHALL HAVE LATERAL SUPPORT PROVIDED BY THE CORNER OF A TIE WITH AN INCLUDED ANGLE OF NOT MORE THAN 135 DEGREES AND NO BAR SHALL BE FURTHER THAN 6" CLEAR ON EACH SIDE ALONG THE TIE FROM SUCH A LATERALLY SUPPORTED BAR.
4. TIES SHALL BE LOCATED VERTICALLY NOT MORE THAN ONE–HALF A TIE SPACING ABOVE THE TOP OF FOOTING OR SLAB IN ANY STORY, AND SHALL BE SPACED AS PROVIDED HEREIN TO NOT MORE THAN ONE–HALF A TIE SPACING BELOW THE LOWEST HORIZONTAL REINFORCEMENT IN SLAB OR DROP PANEL ABOVE.
5. WHERE BEAMS OR BRACKETS FRAME FROM FOUR DIRECTIONS INTO A COLUMN, PIER OR BUTRESS, TERMINATION OF TIES NOT MORE THAN 3" BELOW REINFORCEMENT IN SHALLOWEST OF SUCH BEAMS OR BRACKETS SHALL BE PERMITTED.
6. SEE THE GENERAL NOTES FOR THE MINIMUM CONCRETE COVER REQUIREMENTS FOR REINFORCEMENT.
7. WHERE PIERS ARE ADJACENT TO FOUNDATION WALLS, PIERS ARE TO BE POURED MONOLITHICALLY WITH WALLS, PIER REINFORCING SHALL EXTEND WITHIN 2" OF OPPOSITE FACE OF WALL.

TYPICAL COLUMN, PIER AND BUTTRESS TIE DETAILS

NO SCALE

4 S2.1



TYPICAL ELEVATOR PIT DETAIL

NO SCALE

6 S2.1

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TYPICAL FOUNDATION DETAILS

Project No.	19105
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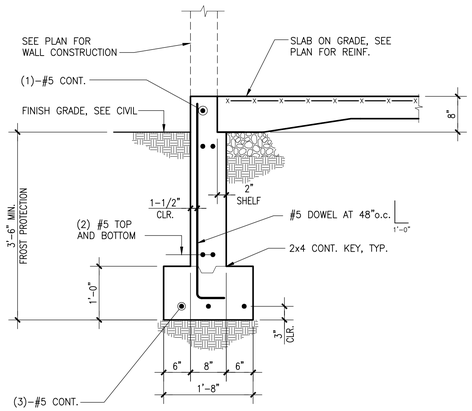
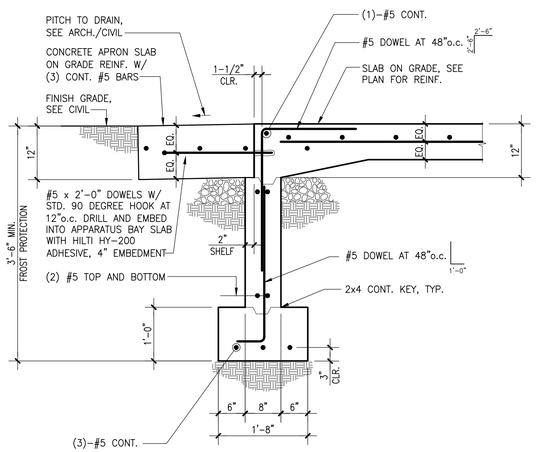
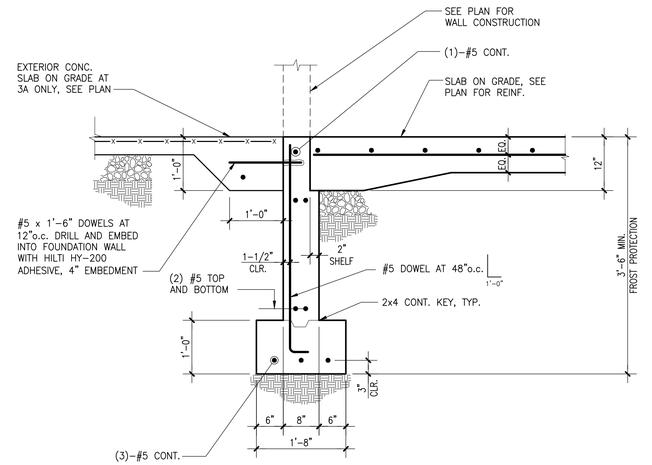
Drawing No.
S2.1



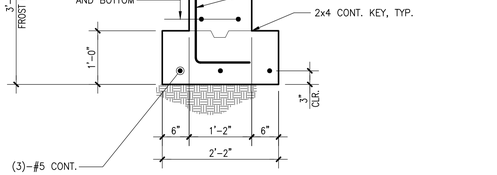
SECTION
3/4" = 1'–0"
1 S2.10



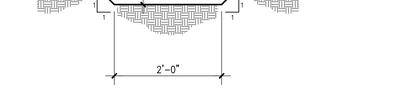
SECTION
3/4" = 1'–0"
2 S2.10



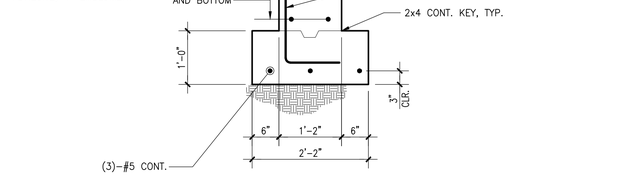
SECTION
3/4" = 1'–0"
3 S2.10 3A S2.10



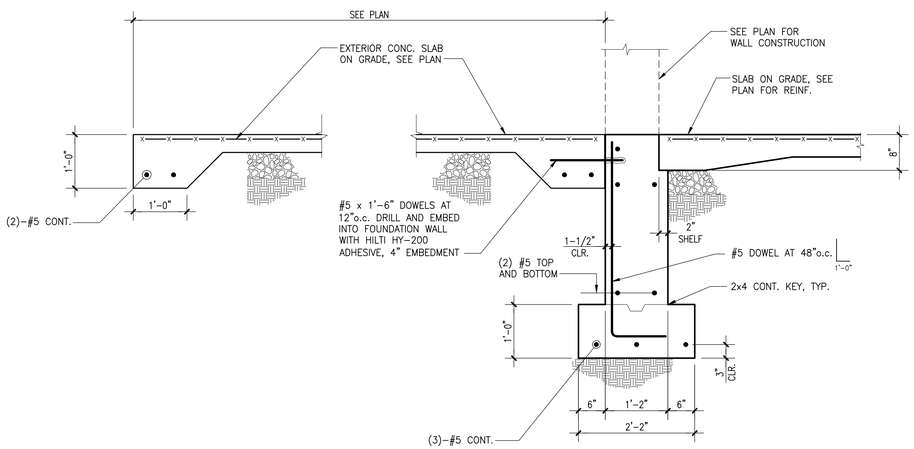
SECTION
3/4" = 1'–0"
4 S2.10



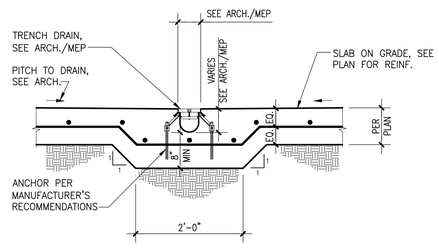
SECTION
3/4" = 1'–0"
5 S2.10



SECTION
3/4" = 1'–0"
6 S2.10



SECTION
3/4" = 1'–0"
7 S2.10



SECTION
3/4" = 1'–0"
8 S2.10

INSULATION BELOW APPARATUS BAY SLAB NOT SHOWN. SEE 6/S2.0 FOR INSULATION AND DESIGN CRITERIA. SUBMIT PROPOSED INSULATION TO ENGINEER FOR REVIEW.

INSULATION NOTE
NO SCALE
9 S2.10

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FOUNDATION SECTIONS

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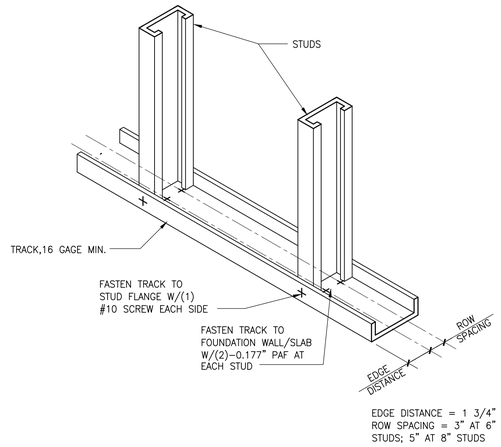
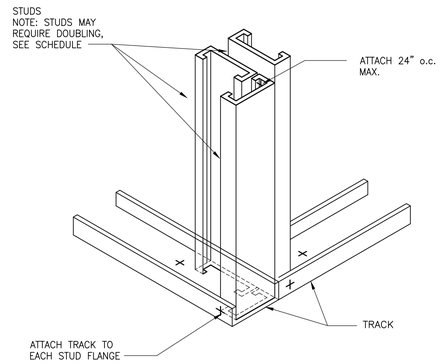
Drawing No.
S2.10



TYPICAL COLD FORMED STUD WALL DETAIL

3/4" = 1'-0"

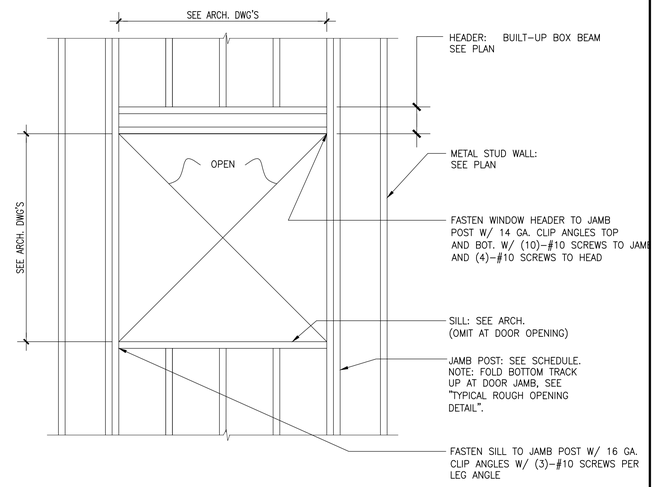
1 S3.0



TYPICAL STUD WALL CORNER DETAIL

3/4" = 1'-0"

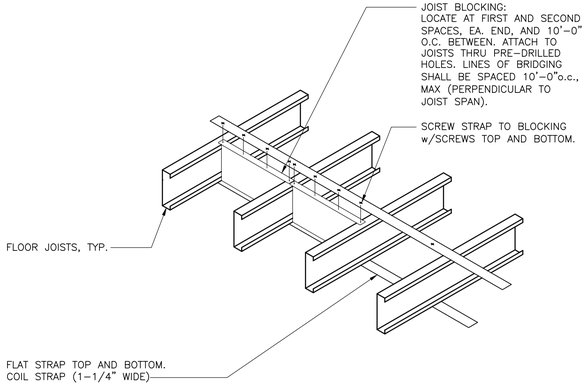
2 S3.0



TYPICAL STUD WALL OPENING

3/4" = 1'-0"

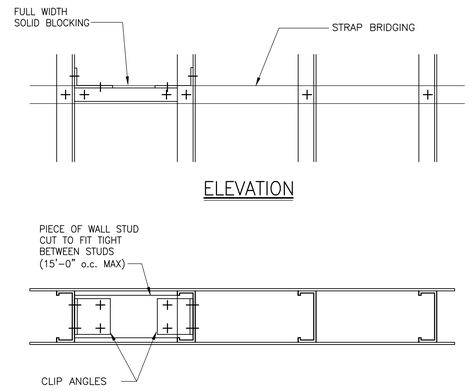
3 S3.0



TYPICAL JOIST BRIDGING DETAILS

3/4" = 1'-0"

4 S3.0

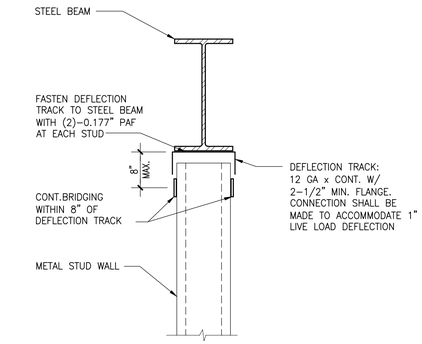


PLAN DETAIL

TYPICAL WALL STUD BRIDGING DETAILS

3/4" = 1'-0"

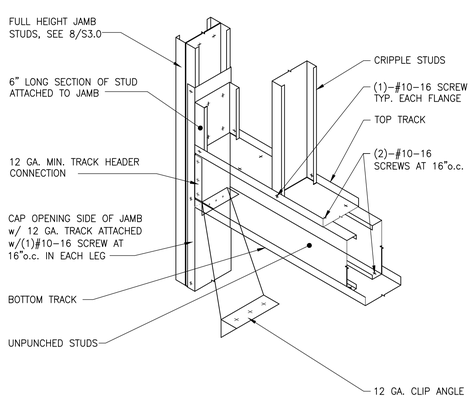
5 S3.0



TYPICAL DEFLECTION TRACK DETAIL

3/4" = 1'-0"

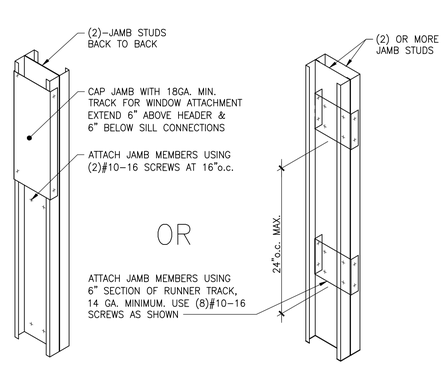
6 S3.0



TYPICAL BOXED HEADER DETAIL

3/4" = 1'-0"

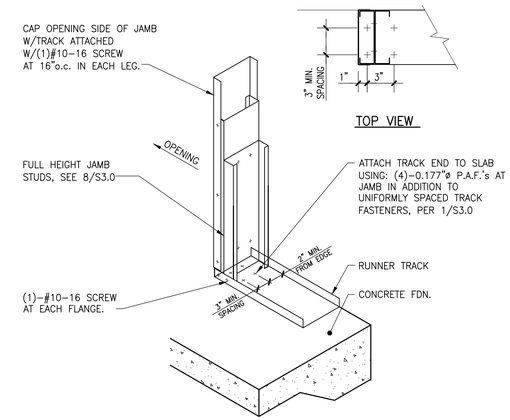
7 S3.0



TYPICAL BUILT-UP JAMB DETAIL

3/4" = 1'-0"

8 S3.0



TYPICAL JAMB ANCHORAGE DETAIL

3/4" = 1'-0"

9 S3.0

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Date Issue
01.15.21 ISSUED FOR BID

Project Title

Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

Drawing Title

TYPICAL COLD FORMED STEEL DETAILS

Project No.	19105
Date	08-25-2020
Scale	AS NOTED
Drawing by	MAJ / JV
Checked by	PJC

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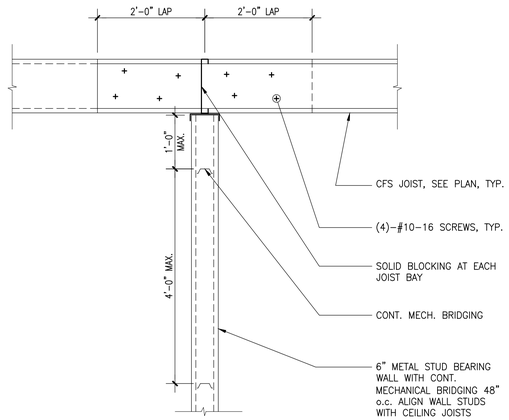
Drawing No.

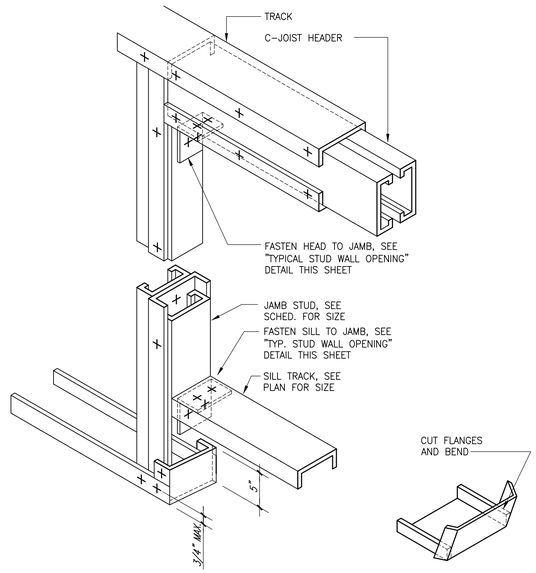
S3.0



TYP. INTERIOR BEARING WALL DETAIL

3/4" = 1'-0"

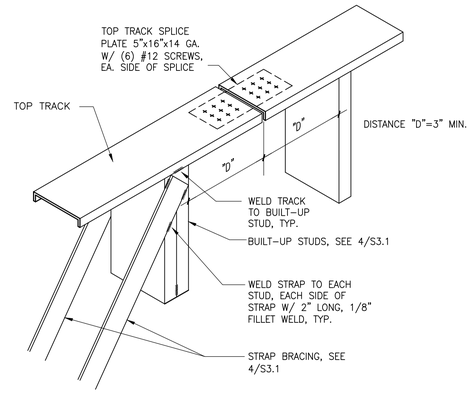
1 S3.1



TYPICAL ROUGH OPENING DETAIL

3/4" = 1'-0"

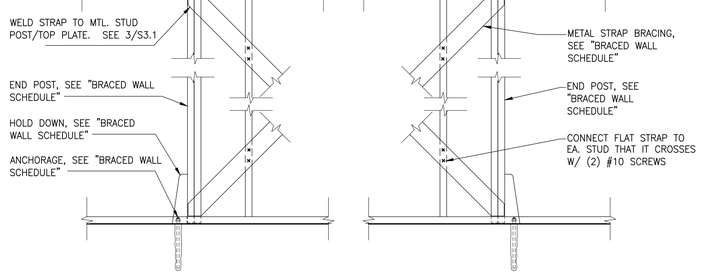
2 S3.1



TYP. STRAP BRACING CONNECTION DETAIL

3/4" = 1'-0"

3 S3.1



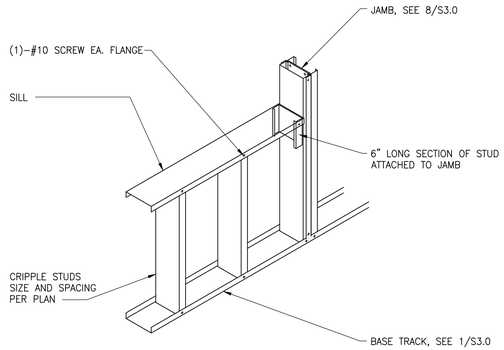
DIAGONAL BRACING SCHEDULE

MARK	STRAP BRACING		MTL. STUDS		SIMPSON HOLDOWN		
	THICKNESS	BOTH SIDES OF WALL (Y/N)	TYPICAL	END POST SIZE	MODEL	ANCHOR SIZE	HOLDOWN SCREWS INTO END POST
DB-1	2" WIDE 16 GA.	N	SEE PLAN	(2)-600S162 -54 (BACK TO BACK)	S/LTT20	1/2"ø	(8)-#10
DB-2	4" WIDE 16 GA.	N	SEE PLAN	(2)-600S162 -54 (BACK TO BACK)	S/HDU4	5/8"ø	(6)-#14
DB-3	4" WIDE 16 GA.	Y	SEE PLAN	(2)-600S162 -54 (BACK TO BACK)	S/HDU6	5/8"ø	(12)-#14
DB-4	4" WIDE 16 GA.	Y	SEE PLAN	(2)-600S162 -54 (BACK TO BACK)	S/HDU9	7/8"ø	(18)-#14

BRACED WALL SCHEDULE AND ELEVATION

3/4" = 1'-0"

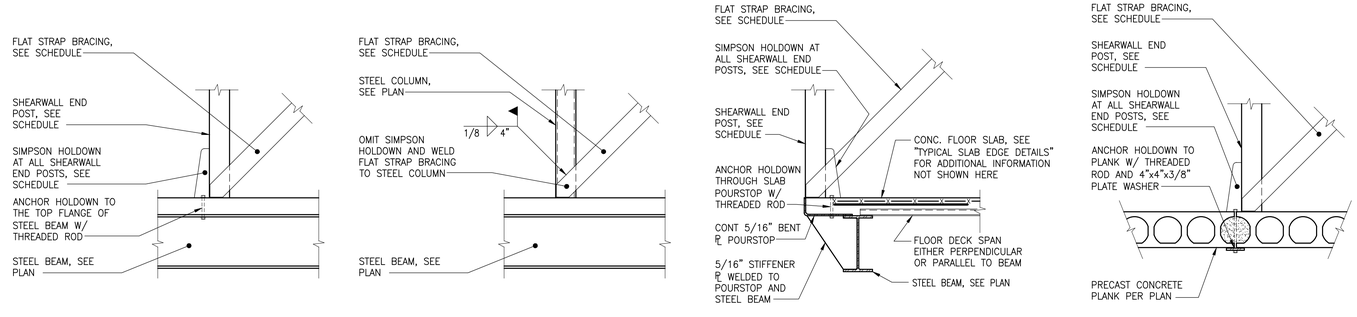
4 S3.1



TYPICAL SILL DETAIL

3/4" = 1'-0"

5 S3.1



TYPICAL HOLDOWN ANCHORAGE DETAILS

NO SCALE

6 S3.1

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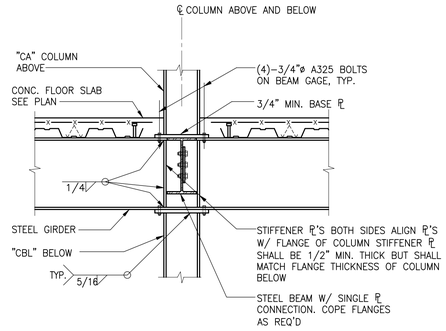
Drawing No.

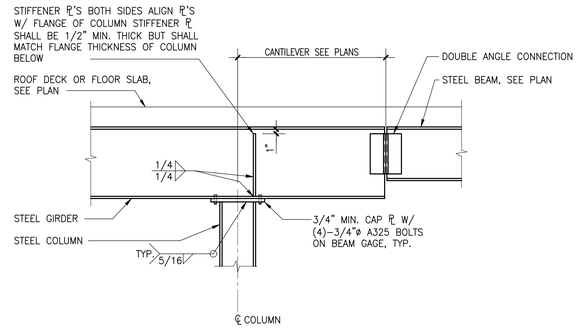
S3.1



TYPICAL COLUMN INTERRUPTED BY GIRDER CONNECTION DETAIL

NO SCALE

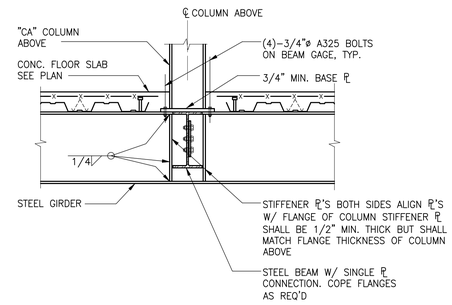
1 S3.2



TYPICAL CANTILEVER GIRDER OVER COLUMN CONNECTION DETAIL

NO SCALE

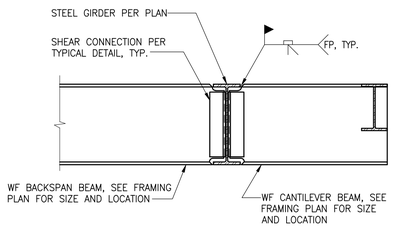
2 S3.2



TYPICAL GIRDER SUPPORTING COLUMN CONNECTION DETAIL

NO SCALE

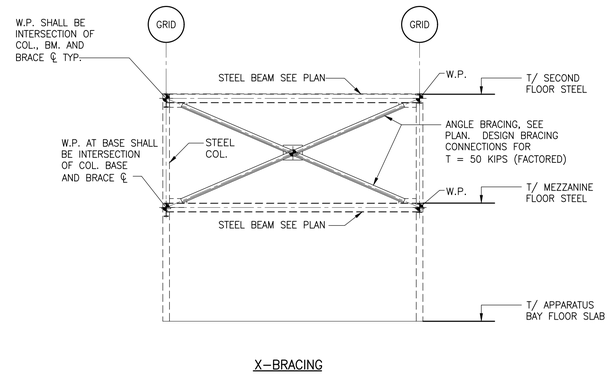
3 S3.2



TYPICAL SPLIT CANTILEVER DETAIL

3/4" = 1'–0"

4 S3.2



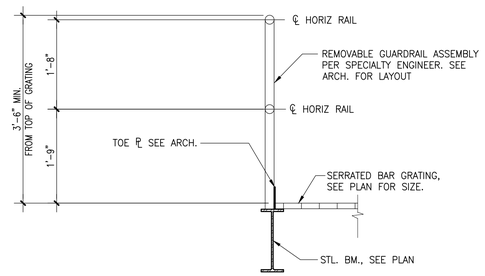
X–BRACING

TYPICAL BRACING ELEVATION

NO SCALE

5 S3.2

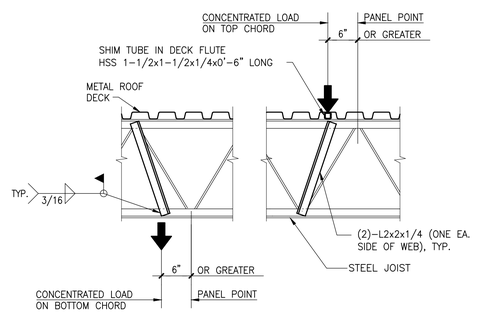
NOTE:
SEE ARCH. DWGS. FOR GATE NOT SHOWN HERE. SPECIALTY ENGINEER TO PROVIDE SIGNED AND SEALED CALCULATIONS.



SECTION

3/4" = 1'–0"

6 S3.2



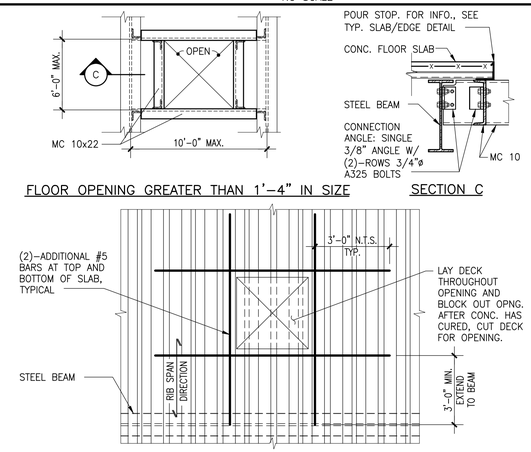
WEB STIFFENER DETAIL

- A WEB STIFFENER MUST BE APPLIED TO ANY JOIST BETWEEN THE CHORD WHERE THE CONCENTRATED LOAD IS APPLIED AND THE PANEL POINT OF THE OPPOSITE CHORD WHEN A CONCENTRATED LOAD IS PLACED ON THE JOIST 6" OR MORE AWAY FROM A PANEL POINT.
- WHEN PIPES/CONDUITS ARE LESS THAN 4"ø, JOISTS DO NOT REQUIRE REINFORCING.

TYPICAL JOIST REINFORCING DETAIL

NO SCALE

7 S3.2



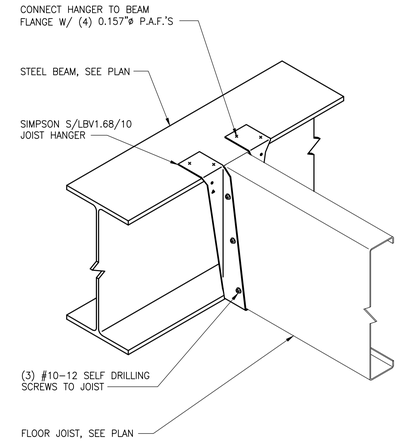
FLOOR OPENING DETAIL 1'–4" OR LESS IN SIZE

NOTE:
SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF ALL ROOF/FLOOR PENETRATIONS. DO NOT SCALE OPENINGS.

TYPICAL ROOF/FLOOR OPENING DETAIL

NO SCALE

8 S3.2



TYPICAL STEEL BEAM SUPPORTING CFS JOIST DETAIL

NO SCALE

9 S3.2

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Checked by	PJC

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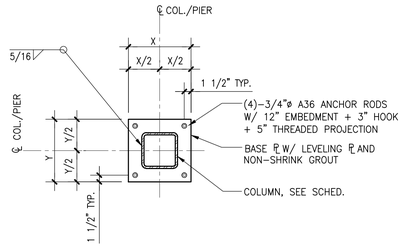
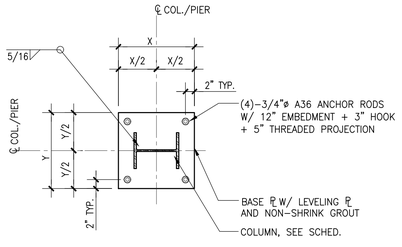
Drawing No.

S3.2



TYPE 1
BASE PL DETAIL

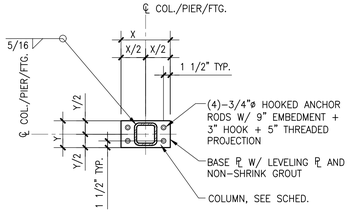


TYPE 2
BASE PL DETAIL

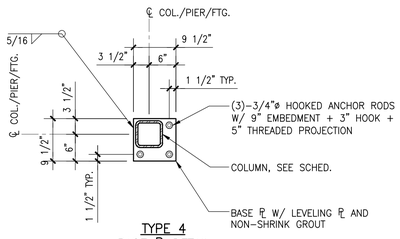
COLUMN SCHEDULE

DESIGNATION	SIZE	BASE PLATE SIZE ("X" DIM. x THICKNESS x "Y" DIM.)	BASE PL TYPE
C–1A	HSS 6x6x3/8	12"x3/4"x1'–0"	1
C–1B	HSS 6x6x3/8	12"x3/4"x0'–7"	3
C–1C	HSS 6x6x3/8	9–1/2"x3/4"x0'–9 1/2"	4
C–2A	W10x33	17"x3/4"x1'–5"	2
C–2B	W10x33	17"x3/4"x1'–2"	6
C–2C	W10x33	12–1/2"x3/4"x1'–2 1/2"	7
C–2D	W10x33	13"x3/4"x1'–6"	5
C–3	W10x39	17"x3/4"x1'–5"	2
C–4	HSS 5x5x3/8	11"x3/4"x0'–6"	3

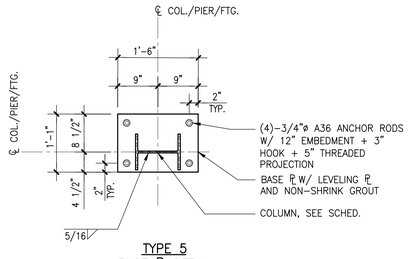
NOTE:
* INDICATES BASE PLATES FOR COLUMNS IN BRACED FRAMES SHALL BE 1–1/2" THICK



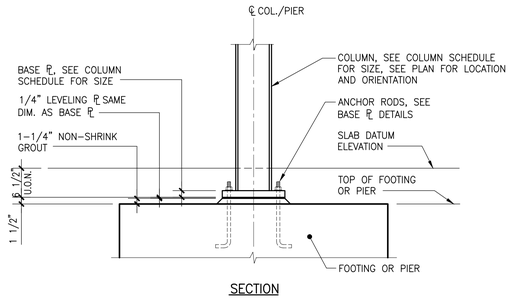
TYPE 3
BASE PL DETAIL



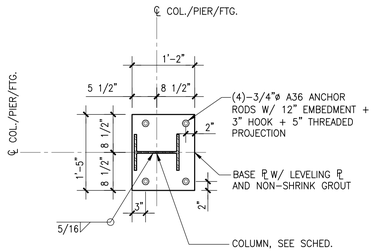
TYPE 4
BASE PL DETAIL



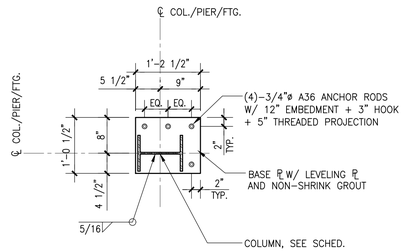
TYPE 5
BASE PL DETAIL



SECTION



TYPE 6
BASE PL DETAIL



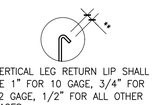
TYPE 7
BASE PL DETAIL

STEEL COLUMN SCHEDULE AND BASE PL DETAILS

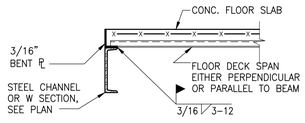
NO SCALE

1
S3.3

** VERTICAL LEG RETURN LIP SHALL BE 1" FOR 10 GAGE, 3/4" FOR 12 GAGE, 1/2" FOR ALL OTHER GAGES

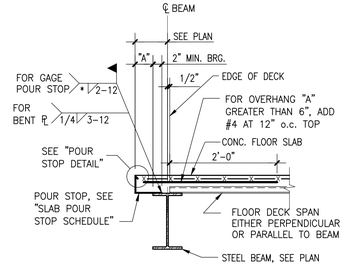


POUR STOP DETAIL



DETAIL AT STAIR

* MATCH WELD TO GAGE.



EDGE DETAIL

SLAB POUR STOP SCHEDULE

SLAB THICKNESS	"A" DIMENSION (OVERHANG)	POUR STOP
2 1/2" TO 5 1/2"	0" UP TO 2"	18 GA.
	GREATER THAN 2", UP TO 4"	16 GA.
	GREATER THAN 4", UP TO 6"	14 GA.
	GREATER THAN 6", UP TO 9"	12 GA.
	GREATER THAN 9", UP TO 11"	10 GA.
	GREATER THAN 11", UP TO 1'–4"	5/16" BENT PL
5 3/4" TO 6 1/2"	0" UP TO 2"	16 GA.
	GREATER THAN 2", UP TO 4"	14 GA.
	GREATER THAN 4", UP TO 8"	12 GA.
	GREATER THAN 8", UP TO 10"	10 GA.
	GREATER THAN 10", UP TO 1'–4"	5/16" BENT PL
6 3/4" TO 8"	0" UP TO 1"	14 GA.
	GREATER THAN 1", UP TO 5"	12 GA.
	GREATER THAN 5", UP TO 8"	10 GA.
	GREATER THAN 8", UP TO 1'–4"	5/16" BENT PL

NOTE: POUR STOPS INDICATED IN THIS DETAIL ARE TO BE USED UNLESS OTHERWISE DETAILED.

TYPICAL SLAB EDGE DETAILS

NO SCALE

2
S3.3

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Drawing Title
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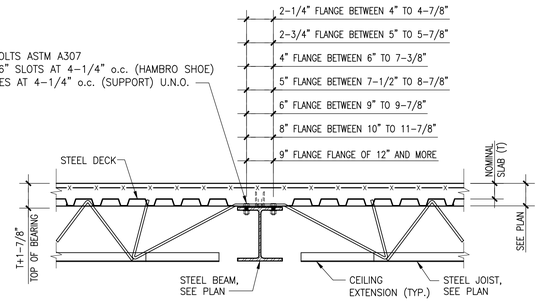
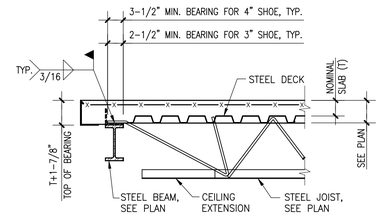
Drawing No.
S3.3



BOLTED JOISTS ON STEEL BEAM

3/4" = 1'–0"

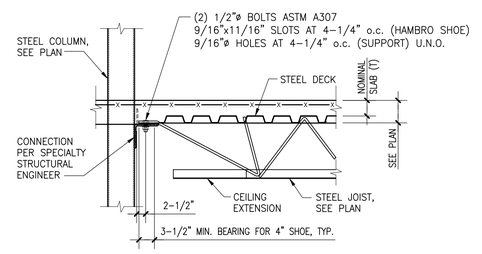
1 S3.4



PERPENDICULAR TO STEEL BEAM

3/4" = 1'–0"

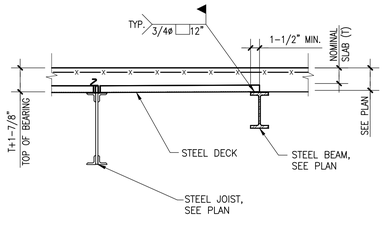
2 S3.4



BOLTED JOISTS ON STEEL COLUMN

3/4" = 1'–0"

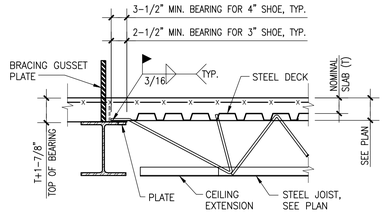
3 S3.4



PARALLEL TO STEEL BEAM

3/4" = 1'–0"

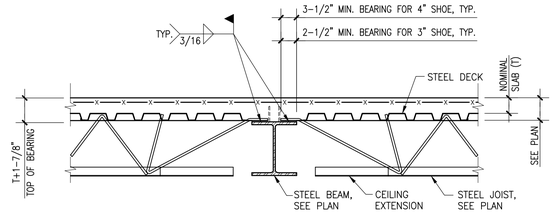
4 S3.4



PERPENDICULAR TO STEEL BEAM WITH BRACING

3/4" = 1'–0"

5 S3.4



PERPENDICULAR TO STEEL BEAM

3/4" = 1'–0"

6 S3.4

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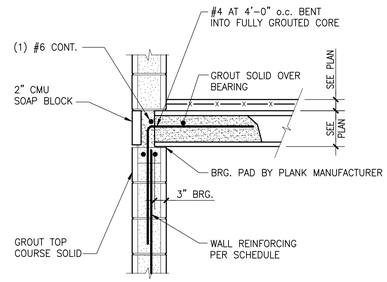
Drawing No.

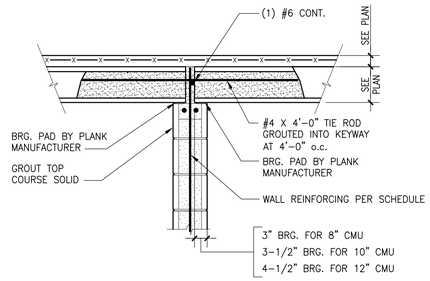
S3.4



TYPICAL EXTERIOR BEARING

NO SCALE

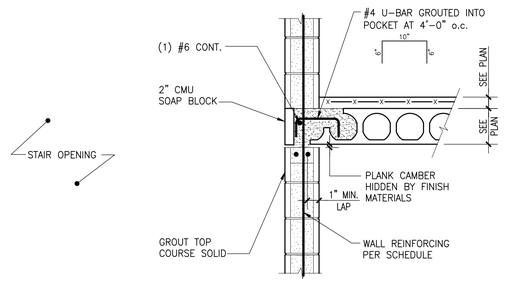
1 S3.5



TYPICAL INTERIOR BEARING

NO SCALE

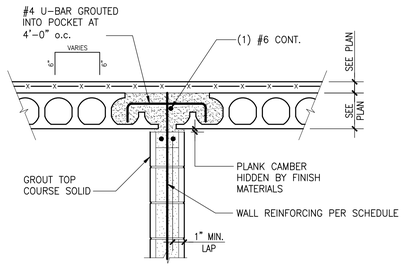
2 S3.5



TYPICAL SIDE LAP AT STAIRS

NO SCALE

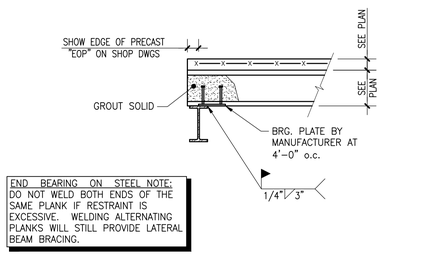
3 S3.5



TYPICAL SIDE LAP DETAIL

NO SCALE

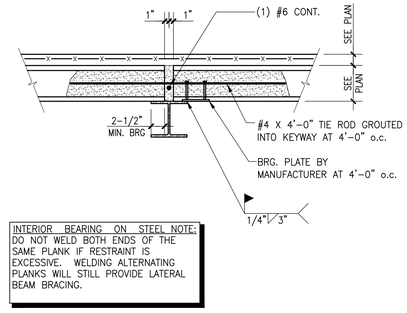
4 S3.5



TYPICAL END BEARING ON STEEL

NO SCALE

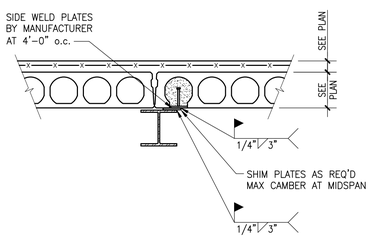
5 S3.5



TYPICAL INTERIOR BEARING ON STEEL

NO SCALE

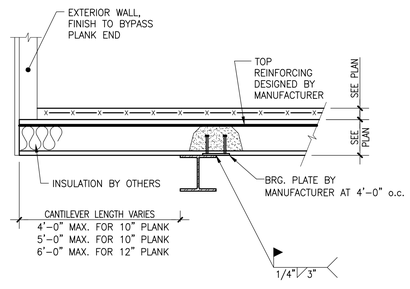
6 S3.5



TYPICAL INTERIOR SIDE LAP ON STEEL

NO SCALE

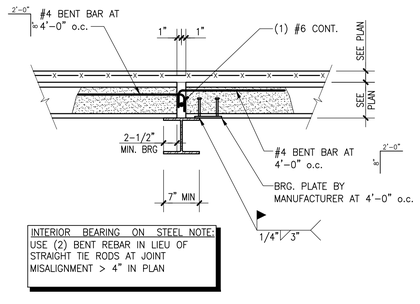
7 S3.5



TYPICAL CANTILEVERED PLANK

NO SCALE

8 S3.5



TYPICAL INTERIOR BEARING ON STEEL

NO SCALE

9 S3.5

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Date	Issue
01.15.21	ISSUED FOR BID

Project Title

Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

Drawing Title

TYPICAL PLANK DETAILS

Project No.	19105
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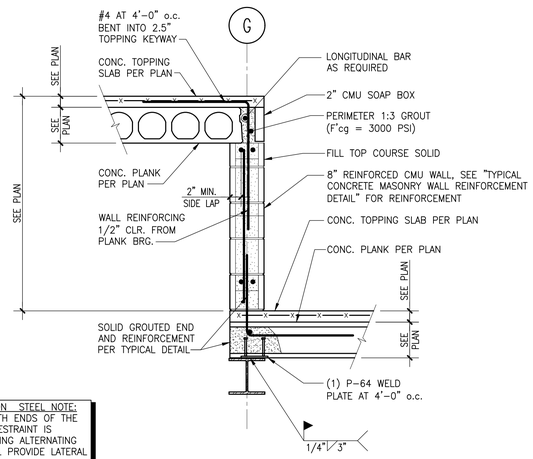
Scale	AS NOTED
Drawing by	MAJ / JV
Checked by	PJC

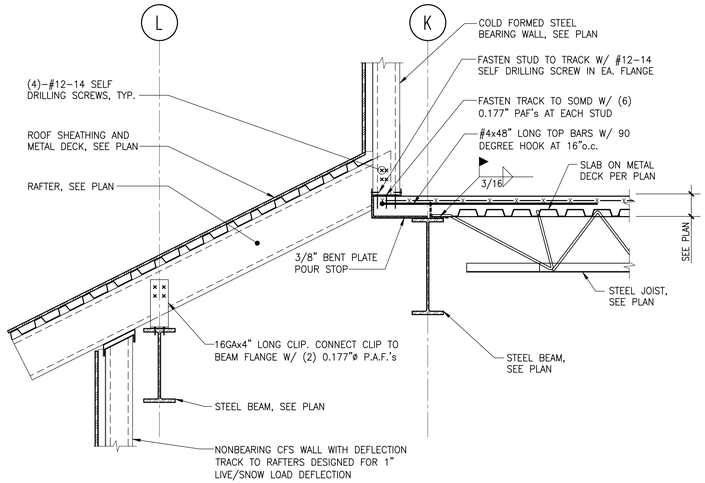
Drawing No.

S3.5

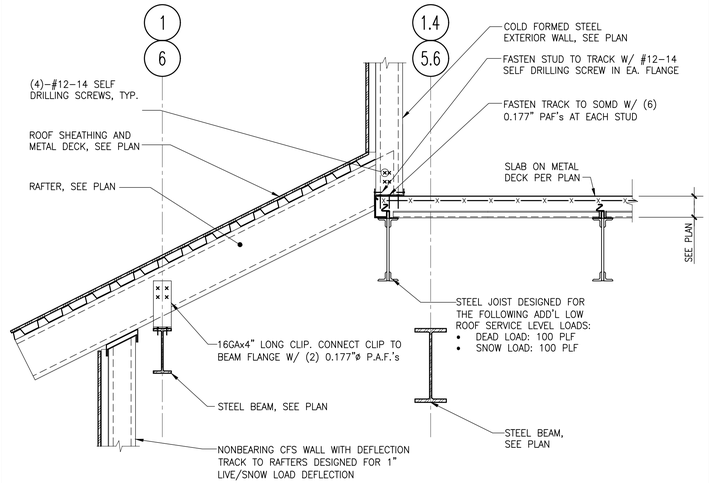


END BEARING ON STEEL NOTE:
DO NOT WELD BOTH ENDS OF THE SAME PLANK IF RESTRAINT IS EXCESSIVE. WELDING ALTERNATING PLANKS WILL STILL PROVIDE LATERAL BEAM BRACING.

SECTION 1 S3.10
3/4" = 1'-0"



SECTION 2 S3.10
3/4" = 1'-0"



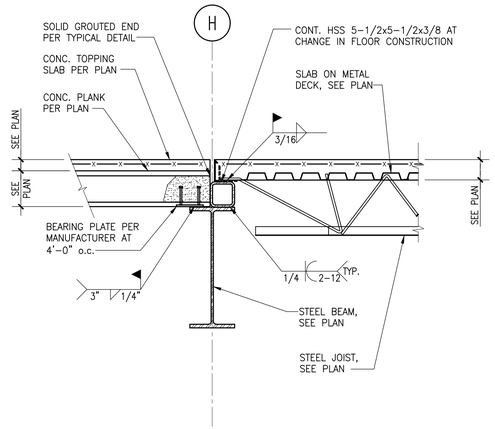
SECTION 3 S3.10
3/4" = 1'-0"

NOTE:
SEE ARCH. FOR ALL DIMENSIONS AND ELEVATIONS.

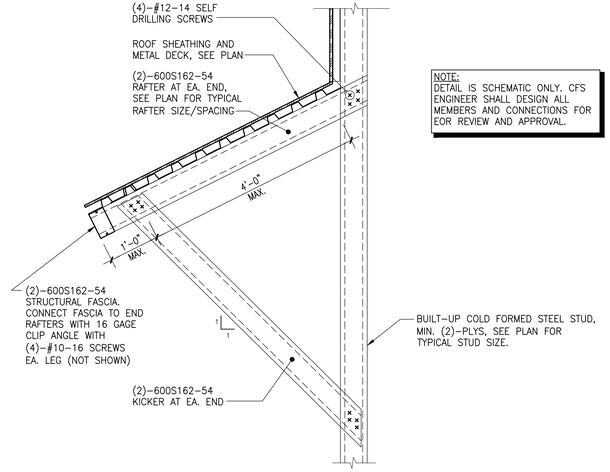
SECTION 4 S3.10
3/4" = 1'-0"

SECTION 5 S3.10
3/4" = 1'-0"

SECTION 6 S3.10
3/4" = 1'-0"



SECTION 7 S3.10
3/4" = 1'-0"



NOTE:
DETAIL IS SCHEMATIC ONLY. CFS ENGINEER SHALL DESIGN ALL MEMBERS AND CONNECTIONS FOR EOR REVIEW AND APPROVAL.

SECTION 8 S3.10
3/4" = 1'-0"

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Drawing Title
FRAMING SECTIONS

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Checked by	PJC

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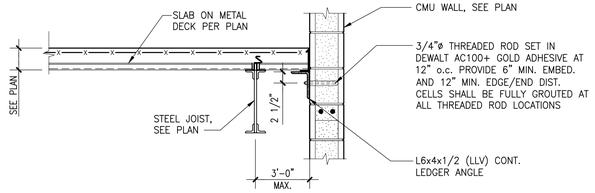
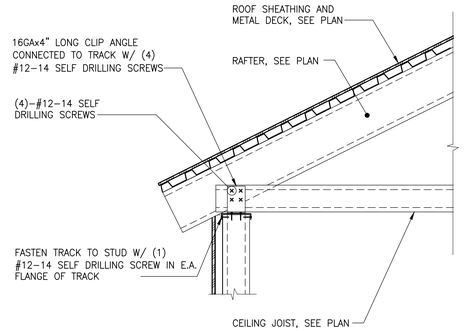
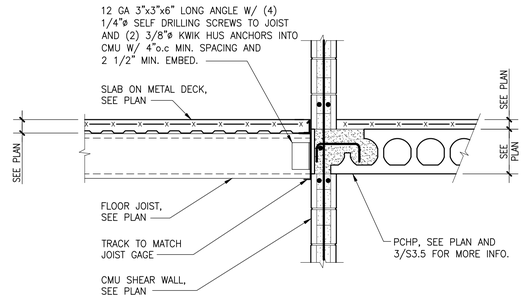
Drawing No.
S3.10



SECTION
3/4" = 1'-0"
1 S3.11



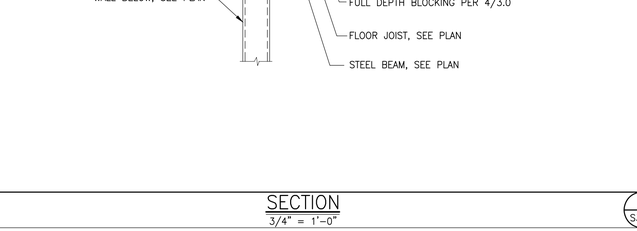
SECTION
3/4" = 1'-0"
2 S3.11



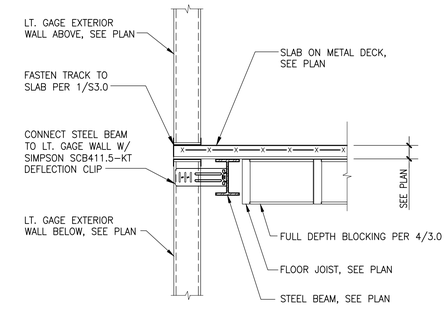
SECTION
3/4" = 1'-0"
3 S3.11

SECTION
3/4" = 1'-0"
4 S3.11

SECTION
3/4" = 1'-0"
5 S3.11



SECTION
3/4" = 1'-0"
6 S3.11



SECTION
3/4" = 1'-0"
7 S3.11

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Drawing Title

FRAMING SECTIONS

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Checked by	PJC

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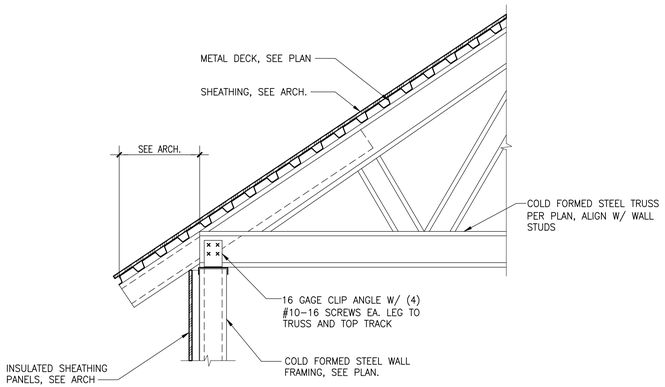
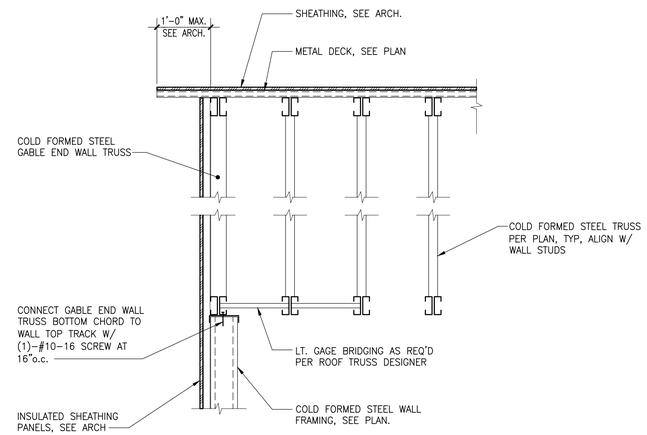
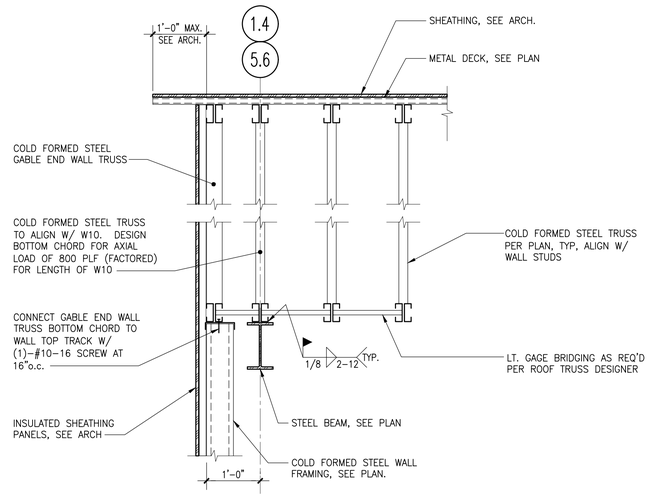


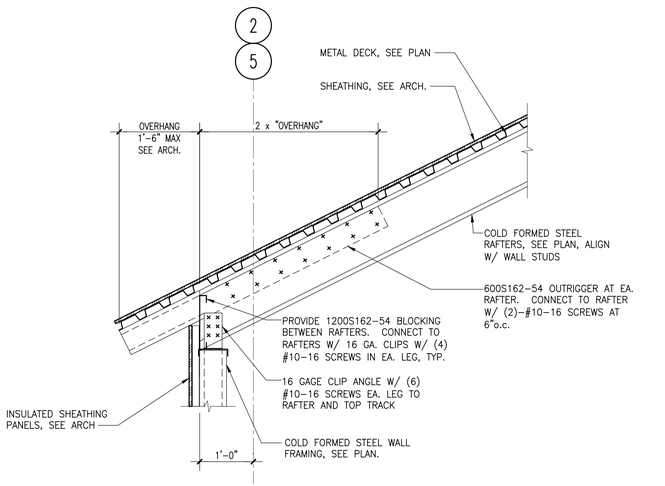
SECTION 1 S3.12
3/4" = 1'-0"



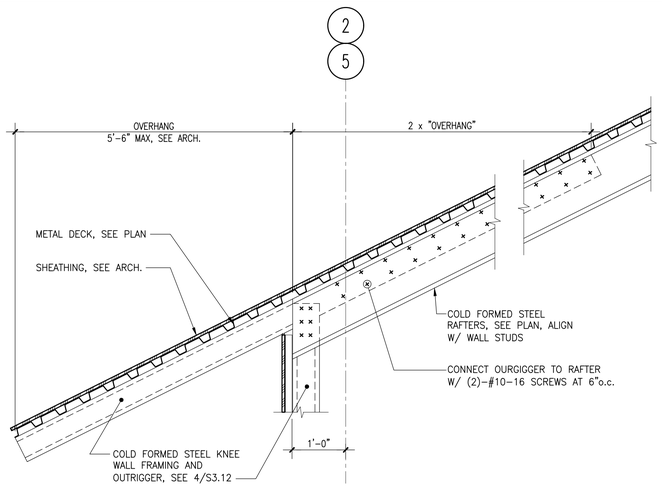
SECTION 2 S3.12
3/4" = 1'-0"



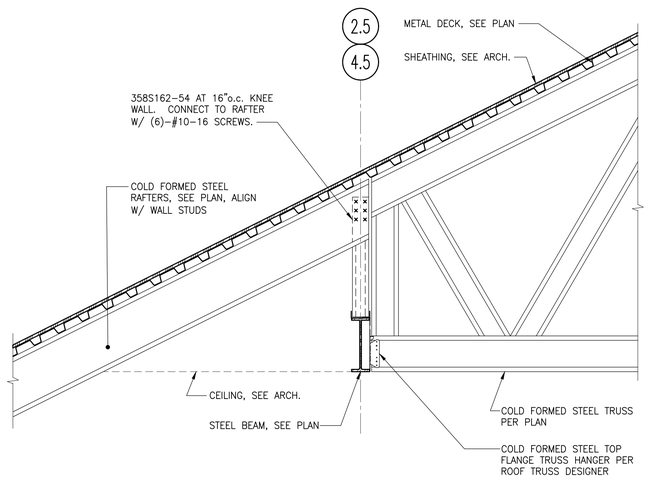
SECTION 3 S3.12
3/4" = 1'-0"



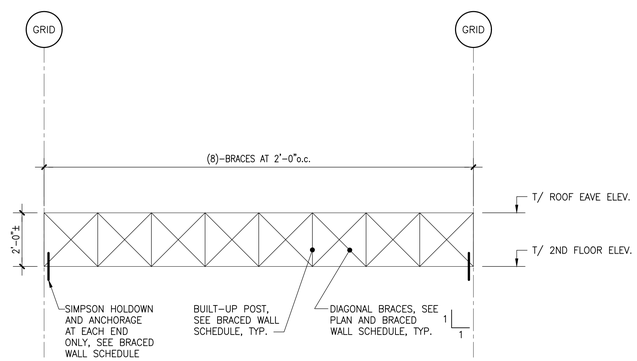
SECTION 4 S3.12
3/4" = 1'-0"



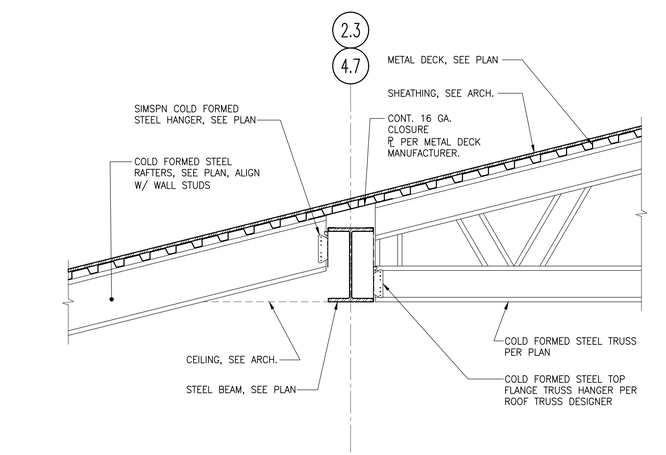
SECTION 5 S3.12
3/4" = 1'-0"



SECTION 6 S3.12
3/4" = 1'-0"



SECTION 7 S3.12
3/4" = 1'-0"



SECTION 8 S3.12
3/4" = 1'-0"

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FRAMING SECTIONS

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Drawing by	MAJ / JV
Checked by	PJC

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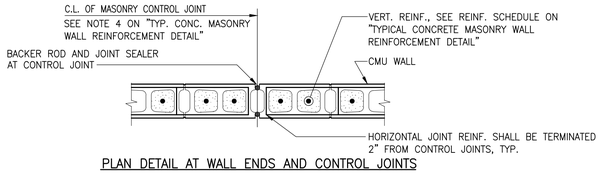
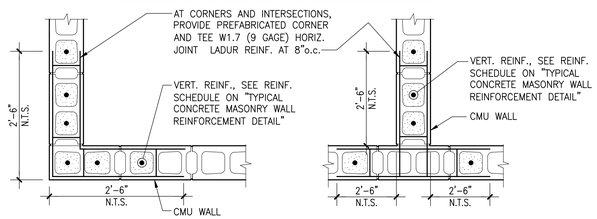
Drawing No.
S3.12



PLAN DETAIL AT WALL ENDS AND CONTROL JOINTS



PLAN DETAIL AT CORNERS AND INTERSECTIONS

- TYPICAL HORIZONTAL JOINT REINFORCEMENT NOT SHOWN FOR CLARITY.

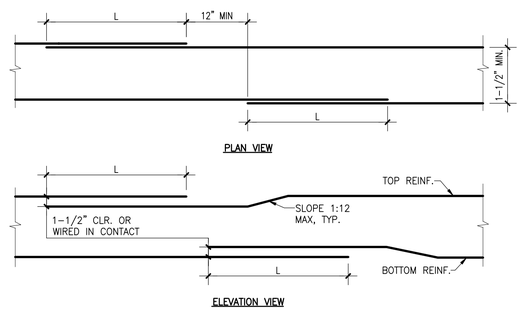
TYPICAL MASONRY WALL PLAN DETAILS

NO SCALE

1 S4.0

CONCRETE MASONRY SPLICE OR DEVELOPMENT LENGTH (L)							
MASONRY COMPRESSIVE STRENGTH f'm (PSI)	#3	#4	#5	#6	#7	#8	#9
	REINFORCING AT CMU FACE						
1500	1'-7"	2'-10"	4'-5"				
2000	1'-5"	2'-3"	3'-10"	4'-6"	5'-3"	6'-0"	6'-10"
2500	1'-3"	2'-2"	3'-5"				
	REINFORCING AT CMU CENTERLINE						
1500	1'-4"	1'-9"	2'-2"	3'-7"	4'-6"	6'-0"	
2000	1'-2"	1'-6"	1'-10"	3'-2"	4'-0"	5'-6"	6'-10"
2500	1'-0"	1'-4"	1'-8"	2'-9"	3'-6"	5'-0"	

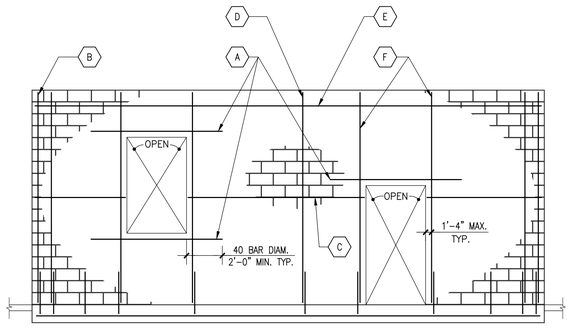
NOTES:
1. SCHEDULE APPLIES TO GRADE 60 REINFORCING BARS.
2. FACE BARS MUST HAVE 1-1/2" MINIMUM CLEAR COVER.



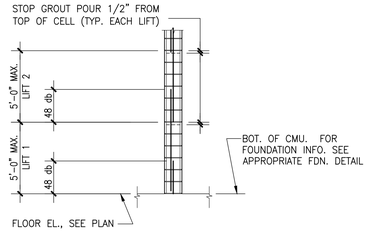
CONCRETE MASONRY REINFORCING SPLICE SCHEDULE

NO SCALE

2 S4.0



REINFORCEMENT PLACEMENT ELEVATION



SECTION – LOW LIFT WALL GROUTING DETAIL

- FOR ADDITIONAL GROUTING REQUIREMENTS, SEE NOTE 6 AND GENERAL NOTES.

REINFORCEMENT SCHEDULE

KEYNOTES		REINFORCEMENT BY WALL TYPE 6" WALL	8" WALL
A	HORIZ. REINF. BOND BEAM COURSE ABOVE AND BELOW ALL OPENINGS. AT JAMBS, PROVIDE HOLES IN BOTTOM OF "U" BLOCK BOND BEAM AS REQUIRED TO ALLOW PLACEMENT OF FULL HEIGHT VERTICAL REINF. (SEE KEY NOTE F).	(2)-#4	(2)-#6
B	VERTICAL FULL HEIGHT REINFORCEMENT AT WALL ENDS, CORNERS, AND EACH SIDE OF CONTROL JOINTS PER REINFORCEMENT SCHEDULE.	(2)-#6	(2)-#8
C	HORIZONTAL REINFORCED BOND BEAM ALONG THE HEIGHT OF THE WALL. PROVIDE HOLES IN BOTTOM OF "U" BLOCK BOND BEAM AS REQUIRED TO ALLOW PLACEMENT OF FULL HEIGHT VERTICAL REINF.	(1)-#6 AT 24"o.c.	(2)-#4 AT 32"o.c.
D	TYPICAL VERTICAL REINFORCEMENT PER REINFORCEMENT SCHEDULE U.O.N. BY SECTION. CENTER BARS IN CELLS U.O.N.	#6 AT 48" o.c.	#6 AT 32" o.c.
E	HORIZONTAL REINFORCED BOND BEAM AT TOP OF WALL. PLACE REINFORCEMENT ONE COURSE LOWER WHERE WALL ABUTS FLOOR ABOVE. PROVIDE KNOCKOUT WEB TYPE BOND BEAM UNITS.	(2)-#4	(2)-#6
F	VERTICAL FULL HEIGHT REINFORCEMENT ALONG BOTH SIDES OF ALL WALL OPENINGS, SEE KEYNOTE "A" FOR HOLES IN "U" BLOCK BOND BEAM.	(2)-#6	(2)-#6

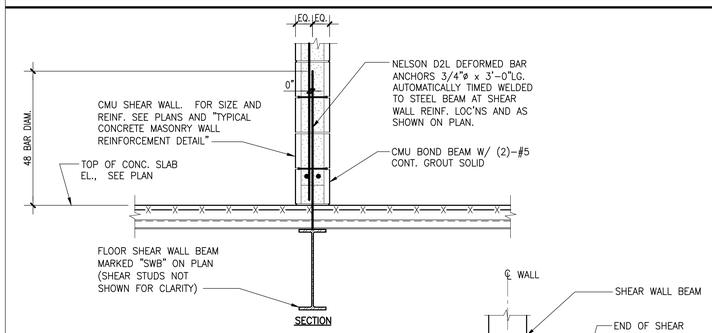
NOTES:

1. SEE WALL ELEVATION FOR PLACEMENT OF REINFORCEMENT AND ADDITIONAL REQUIREMENTS.
2. ALL WALLS SHALL HAVE HORIZ. JOINT REINFORCEMENT AS PER GENERAL NOTES.
3. FOR CMU WALL LOCATIONS AND EXTENT, SEE ARCH. DWGS.
4. SEE ARCH. DWGS. FOR LOCATIONS OF CONTROL JOINTS. DO NOT LOCATE CONTROL JOINTS WITHIN 32" OF MASONRY OPENINGS. ALSO SEE CONCRETE MASONRY NOTES FOR CRITERIA FOR CONTROL JOINT LOCATIONS.
5. ALL CMU CELLS CONTAINING REINFORCEMENT SHALL BE GROUTED SOLID.
6. ALL GROUTED CELLS SHALL BE MECHANICALLY VIBRATED IN ACCORDANCE WITH ACI 530. IN ADDITION, AFTER 10 MINUTES, MECHANICALLY VIBRATE GROUTED CELLS A SECOND TIME.

TYPICAL CONCRETE MASONRY WALL REINFORCEMENT DETAIL

NO SCALE

3 S4.0

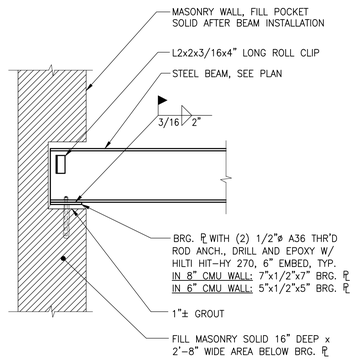


NOTE
WHERE DEFORMED BAR ANCHORS ALIGN ABOVE RIB CREST OF COMPOSITE FLOOR DECK, MOVE DEFORMED REINF. ANCHORS A MAX OF 6" ALONG LENGTH OF SHEAR WALL SUCH THAT ANCHORS WILL ALIGN ABOVE RIB THROUGH AND STILL BE LOCATED WITHIN CMU CELL WITH A 1" MIN. GROUT COVER ALL AROUND.

TYP. BASE ANCHORAGE DETAIL FOR SHEAR WALLS ON ELEVATED SLABS AND BEAMS

NO SCALE

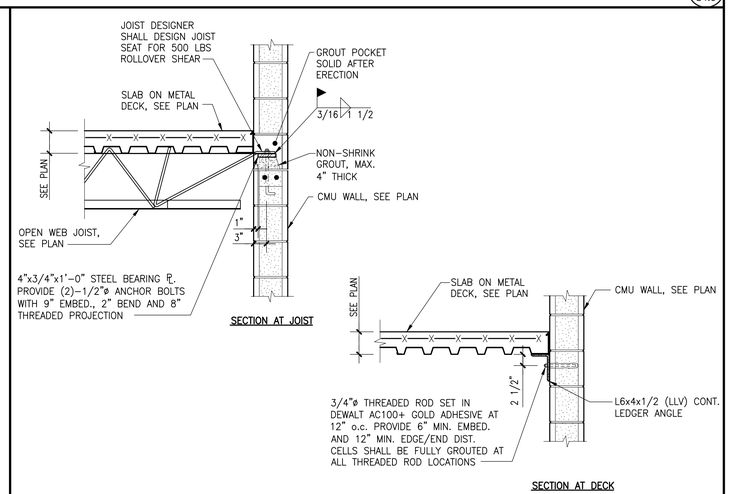
4 S4.0



TYP. MASONRY BEARING POCKET DETAIL

NO SCALE

5 S4.0



SECTION

3/4" = 1'-0"

6 S4.0

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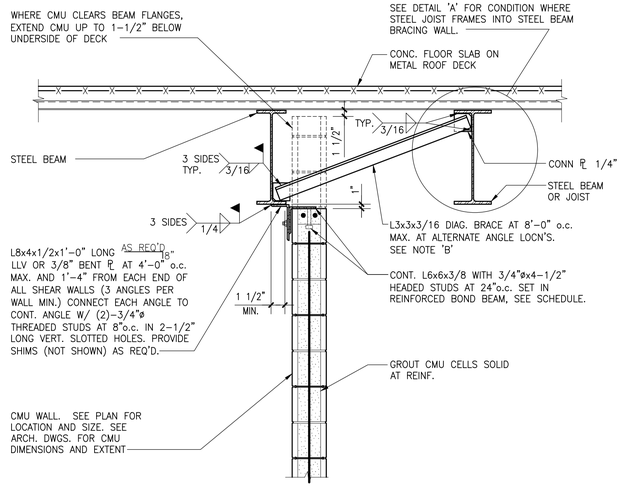
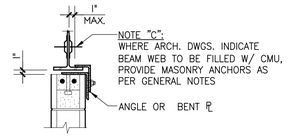


TYP. CONNECTION DETAIL AT TOP OF CMU SHEAR WALLS – AT STEEL BEAMS

NO SCALE

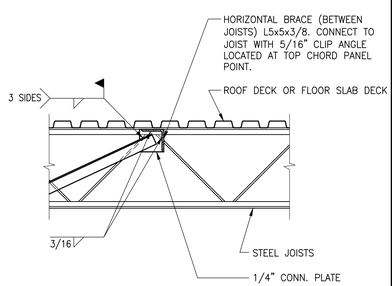
1 S4.1



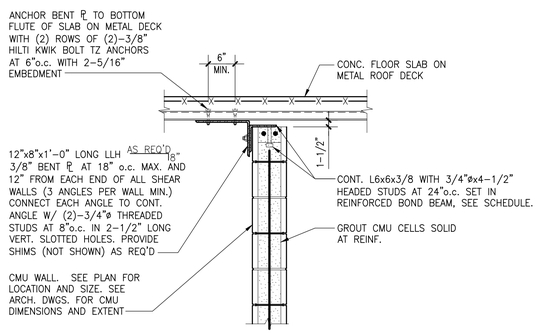
VARIATION AT CMU WALL UNDER BEAM

NOTE "A":
THIS DETAIL APPLIES AT ALL CMU WALLS

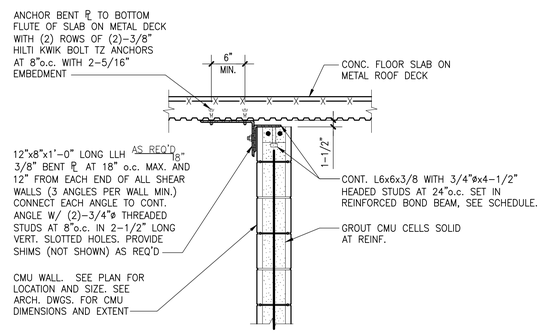
NOTE 'B':
DIAG. BRACE NOT REQUIRED WHERE STEEL BEAMS FRAME INTO WEB OF STEEL BEAM BRACING WALL.



DETAIL 'A'



CMU WALL PERPENDICULAR TO SLAB ON METAL DECK



CMU WALL PARALLEL TO SLAB ON METAL DECK

TYP. CONNECTION DETAIL AT TOP OF CMU SHEAR WALLS – AT SLAB ON METAL DECK

NO SCALE

2 S4.1

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Project Title

Bedford Fire Headquarters

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Bedford, NY 10506

Drawing Title

TYPICAL MASONRY DETAILS

Project No.	19105
Date	03-25-2020
Scale	AS NOTED
Drawing by	MAJ / JV
Checked by	PJC

STATE OF NEW YORK · PATRICK J. CONLON · 079876 · LICENSED PROFESSIONAL ENGINEER

Drawing No.

S4.1

GENERAL NOTES:

1. THE PURPOSE OF THESE DRAWINGS IS TO SHOW THE STRUCTURAL WORK ASSOCIATED WITH THE CONSTRUCTION OF THE NEW BEDFORD FIRE HEADQUARTERS IN BEDFORD, NY.

2. THE WORK SHOWN ON THESE DRAWINGS HAS BEEN DESIGNED IN ACCORDANCE WITH THE STRUCTURAL REQUIREMENTS OF THE NEW YORK STATE UNIFORM FIRE PREVENTION AND BUILDING CODE WHICH IS THE 2018 INTERNATIONAL BUILDING CODE AS AMENDED BY THE 2020 UNIFORM CODE SUPPLEMENT.

3. THE STRUCTURAL COMPONENTS HAVE BEEN DESIGNED FOR THE FOLLOWING LOADS:

A. FLOOR LIVE LOAD:

ASSEMBLY	100 PSF
OFFICES	50 PSF + 15 PSF PARTITION
FIRST FLOOR CORRIDORS	100 PSF
CORRIDORS ABOVE FIRST FLOOR	80 PSF
LOBBIES	100 PSF
TOILET ROOMS	60 PSF
STAIRS	100 PSF
STORAGE ROOM	125 PSF

LIVE LOAD HAVE NOT BEEN REDUCED ON GIRDERS, COLUMNS AND FOOTINGS

B. ROOF LOADS:

SNOW:	
RISK CATEGORY	IV
GROUND SNOW LOAD, Pg	30 PSF
EXPOSURE FACTOR, Ce	1.0
THERMAL FACTOR, Ct	1.1
IMPORTANCE FACTOR, Is	1.2
FLAT ROOF SNOW LOAD, Pf	28 PSF
SLOPED ROOF SNOW LOAD, Ps	28 PSF
UNBALANCED SNOW LOAD	36 PSF
MAXIMUM SNOW DRIFT	54 PSF
DRIFT WIDTH, W	10.5 FT
RAIN LOADS:	0 PSF
ROOF LIVE LOAD:	20 PSF

C. WIND DESIGN DATA:
WIND LOADS HAVE BEEN DETERMINED BASED ON SECTION 1609.6, SIMPLIFIED PROVISIONS FOR LOW RISE BUILDINGS SECTION 1609.1.1 IN ACCORDANCE WITH ASCE 7-16, CHAPTER 27 (DIRECTIONAL PROCEDURE)

RISK CATEGORY	IV
ULTIMATE WIND SPEED (3-SECOND GUST)	129 MPH
EXPOSURE	B
INTERNAL PRESSURE COEFFICIENT	0.18
"a" DIMENSION FOR USE WITH COMPONENTS AND CLADDING	10.0 FT

DESIGN WIND PRESSURE FOR COMPONENTS AND CLADDING ON BUILDING WALLS (USE ZONE 4 GENERALLY; USE ZONE 5 WITHIN "a" OF BUILDING WALL CORNERS):

	SURFACE PRESSURE (PSF)			
AREA	10 SQ.FT	20 SQ. FT.	50 SQ. FT.	100 SQ. FT.
NEGATIVE ZONE 4	-33.1	-31.7	-29.9	-28.5
NEGATIVE ZONE 5	-40.8	-38.1	-34.4	-31.7
POSITIVE ZONE 4 & 5	30.5	29.1	27.3	25.9

DESIGN WIND PRESSURE FOR COMPONENTS AND CLADDING ON BUILDING ROOFS (FOR LOCATIONS OF ZONES 1, 2 AND 3, REFER TO BUILDING CODE):

	SURFACE PRESSURE (PSF)			
AREA	10 SQ.FT	20 SQ. FT.	50 SQ. FT.	100 SQ. FT.
NEGATIVE ZONE 1	-27.9	-27.1	-26.1	-25.3
NEGATIVE ZONE 2	-48.6	-44.7	-39.6	-35.7
NEGATIVE ZONE 3	-71.8	-67.2	-61.0	-56.3
POSITIVE ALL ZONES	17.6	16.0	16.0	16.0
OVERHANG ZONE 1 & 2	-56.9	-56.9	-56.9	-56.9
OVERHANG ZONE 3	-95.6	-86.3	-73.9	-64.6

DESIGN WIND PRESSURE FOR MAIN WIND FORCE RESISTING SYSTEMS:

	SURFACE PRESSURE (PSF)			
SURFACE	CASE A W/-GCpi	CASE A W/+GCpi	CASE B W/-GCpi	CASE B W/+GCpi
1	17.0	7.7	-7.0	-16.3
2	-13.2	-22.5	-13.2	-22.5
3	-6.6	-15.9	-4.9	-14.2
4	-5.0	-14.3	-7.0	-16.3
5			15.0	5.7
6			-2.8	-12.1
1E	23.4	14.1	-7.8	-17.1
2E	-23.0	-32.3	-23.0	-32.3
3E	-11.5	-20.8	-9.0	-18.3
4E	-9.7	-19.0	-7.8	-17.1
5E			20.4	11.1
6E			-6.5	-15.8

D. EARTHQUAKE DESIGN DATA:

RISK CATEGORY	IV
SEISMIC IMPORTANCE FACTOR, Ie:	1.5
MAPPED SHORT PERIOD SPECTRAL RESPONSE ACCELERATIONS, SS:	0.272 g
MAPPED 1 SECOND PERIOD SPECTRAL RESPONSE ACCELERATIONS, S1:	0.06 g
SITE CLASS:	E
DESIGN SHORT PERIOD SPECTRAL RESPONSE ACCELERATIONS, SDS:	0.424 g
DESIGN 1 SECOND PERIOD SPECTRAL RESPONSE ACCELERATIONS, SD1:	0.167 g
SEISMIC DESIGN CATEGORY:	D
SEISMIC FORCE RESISTING SYSTEM: SPECIAL REINFORCED MASONRY SHEAR WALLS	
DESIGN BASE SHEAR:	280 KIPS
SEISMIC RESPONSE COEFFICIENT, CS:	0.07
RESPONSE MODIFICATION FACTOR, R:	5
DEFLECTION AMPLIFICATION FACTOR, Cd:	3.5
ANALYSIS PROCEDURE:	EQUIVALENT LATERAL FORCE

E. OTHER LOADS:

CONCENTRATED LOADS:	
ALL FLOORS (ON 2-1/2 FEET SQUARE)	2000 LBS.
STAIR TREADS (ON 4 INCHES SQUARE)	300 LBS.
ELEVATOR MACHINE ROOM GRATING (ON 4 INCHES SQUARE)	300 LBS
IMPACT LOADS	
LOADS INCREASED AS FOLLOWS:	
ELEVATOR MACHINERY	100%
CHAIN LIFTS	25%

F. GUARDRAILS (LOAD APPLIED IN ANY DIRECTION):

TOP RAIL CONCENTRATED	200 LBS
OR	
TOP RAIL UNIFORM LOAD	50 PLF

4. THIS STRUCTURE HAS BEEN DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE CONSTRUCTION OF THE BUILDING HAS BEEN COMPLETED. THE STABILITY OF THE STRUCTURE PRIOR TO COMPLETION IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. THIS RESPONSIBILITY EXTENDS TO ALL RELATED ASPECTS OF THE CONSTRUCTION ACTIVITY INCLUDING, BUT NOT LIMITED TO, ERECTION METHODS, ERECTION SEQUENCE, TEMPORARY BRACING, FORMS, SHORING, USE OF EQUIPMENT, AND SIMILAR CONSTRUCTION PROCEDURES. REVIEW OF THE CONSTRUCTION BY THE ENGINEER IS FOR CONFORMANCE WITH DESIGN ASPECTS ONLY, NOT TO REVIEW THE CONTRACTOR'S CONSTRUCTION PROCEDURES. LACK OF COMMENT ON THE PART OF THE ENGINEER WITH REGARD TO CONSTRUCTION PROCEDURES IS NOT TO BE INTERPRETED AS APPROVAL OF THOSE PROCEDURES.

5. THIS STRUCTURE UTILIZES MASONRY SHEAR WALLS, BRACING ELEMENTS, AND MOMENT FRAMES TO PROVIDE LATERAL STABILITY. THEREFORE, TEMPORARY BRACING, GUYS, ETC., MUST BE MAINTAINED UNTIL ALL MASONRY SHEAR WALLS HAVE BEEN ERECTED AND ATTACHED TO THE STEEL FRAMING AND BRACING AND MOMENT FRAMES HAVE BEEN ERECTED.

6. JOBSITE SAFETY AND CONSTRUCTION PROCEDURES ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. REVIEW OF THE CONSTRUCTION BY THE ENGINEER IS FOR CONFORMANCE WITH DESIGN ASPECTS ONLY, NOT TO REVIEW THE CONTRACTOR'S PROVISIONS FOR JOB SITE SAFETY. LACK OF COMMENT BY THE ENGINEER IS NOT TO BE INTERPRETED AS APPROVAL OF THOSE ASPECTS OF WORK.

7. ONE BLACKLINE PRINT OF ALL ERECTION AND DETAIL SHOP DRAWINGS FOR STEEL REINFORCING BARS (CONCRETE AND MASONRY CONSTRUCTION), STRUCTURAL STEEL, STEEL JOISTS, COLD-FORMED STEEL FRAMING (WALL FRAMING AND ROOF TRUSS), COLD FORMED STEEL ROOF TRUSSES AND STEEL DECK INDICATING THE FABRICATOR, MANUFACTURER, FINISH, LAYOUT, AND ALL ACCESSORIES MUST BE SUBMITTED TO AND BE CHECKED BY THE CONTRACTOR AND SUBCONTRACTOR AND BEAR THE CHECKER'S INITIALS BEFORE SUBMISSION TO THE ARCHITECT FOR REVIEW PRIOR TO FABRICATION.

8. TESTING AND INSPECTION OF CONCRETE STEEL REINFORCING BARS (CONCRETE AND MASONRY CONSTRUCTION), MASONRY, STRUCTURAL STEEL, STEEL JOISTS, STEEL DECK, COLD-FORMED STEEL FRAMING, COLD FORMED ROOF TRUSSES, PLYWOOD SHEATHING, AND OTHER WORK IS DESCRIBED IN THE PROJECT "STATEMENT OF SPECIAL INSPECTIONS". THE CONTRACTOR SHALL REVIEW THE "STATEMENT OF SPECIAL INSPECTIONS" AND COORDINATE THE SCHEDULING OF INSPECTIONS WITH THE SPECIAL INSPECTOR. UNINSPECTED WORK THAT REQUIRED INSPECTIONS MAY BE REJECTED SOLELY ON THAT BASIS.

9. IF FAULTY CONSTRUCTION PROCEDURES, OR MATERIAL, RESULT IN DEFECTIVE WORK THAT REQUIRES ADDITIONAL ENGINEERING TIME TO DEVISE CORRECTIVE MEASURES, PROFESSIONAL FEES MAY BE CHARGED TO THE CONTRACTOR AT THE STANDARD HOURLY RATE OF ADDITIONAL SERVICES. SUCH FEES MAY BE WITHHELD FROM THE GENERAL CONTRACTOR'S PAYMENT.

10. LOADS OPENINGS AND STRUCTURE IN ANY WAY RELATED TO REQUIREMENTS OF OTHER (NON-STRUCTURAL) DISCIPLINES ARE SHOWN FOR BIDDING PURPOSES ONLY. HOWEVER, THESE PLANS DO NOT SHOW THE FULL SCOPE OF OPENINGS, IN ROOFS, FLOORS AND WALLS. FOR SIZE AND LOCATION OF ALL OPENINGS, SEE ARCHITECTURAL, AND MECHANICAL DRAWINGS. DO NOT SCALE OPENINGS. THE CONTRACTOR SHALL OBTAIN FROM THE HEATING AND VENTILATING, ELECTRICAL, PLUMBING AND OTHER TRADES THE FINAL APPROVED SIZE AND LOCATION OF ALL OPENINGS, EQUIPMENT AND WORK TO BE PROVIDED FOR THEIR TRADE FOR ROOFS, FLOORS AND WALLS, WHETHER SHOWN OR NOT SHOWN ON STRUCTURAL DRAWINGS. EXCESS COST RELATED TO VARIATION IN REQUIREMENTS OR EQUIPMENT ARE NOT TO BE BORNE BY THE OWNER.

11. MECHANICAL EQUIPMENT WEIGHTS USED IN DESIGN OF SUPPORTING ELEMENTS ARE INDICATED ON THE DRAWINGS. CONTRACTOR SHALL NOTIFY THE ARCHITECT PRIOR TO INSTALLATION OF EQUIPMENT IF ACTUAL WEIGHT EXCEEDS WEIGHT SHOWN ON DRAWINGS.

12. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND ANGLES WITH ARCHITECTURAL DRAWINGS AND EXISTING CONDITIONS BEFORE PROCEEDING WITH ANY WORK.

13. THESE DRAWINGS ARE SUPPLEMENTED BY A DETAILED TECHNICAL SPECIFICATION. THE NOTES SHOWN UNDER CERTAIN CATEGORIES OF WORK ARE INTENDED TO SUMMARIZE BASIC REQUIREMENTS.

14. WORK SHOWN AS "TYPICAL DETAILS" APPLY THROUGHOUT THE PROJECT AS REQUIRED. WORK SHOWN AS "SECTIONS" SHALL BE CONSIDERED TO APPLY FOR THE SAME AND SIMILAR CONDITIONS IN THE BUILDING.

15. SOME DETAILS OF THE WORK ARE SHOWN ON THE ARCHITECTURAL DRAWINGS. A CAREFUL REVIEW AND STUDY OF THESE DETAILS ARE NECESSARY BEFORE THE FULL SCOPE OF THE WORK CAN BE COMPREHENDED.

16. DO NOT SCALE DRAWINGS.

FOUNDATION NOTES:

1. THE FOUNDATIONS HAVE BEEN DESIGNED TO REST ON INORGANIC, UNDISTURBED SOIL OR COMPACTED GRANULAR FILL HAVING A BEARING VALUE OF 3000 PSF AS RECOMMENDED IN THE GEOTECHNICAL ENGINEERING REPORT PREPARED BY CARLIN SIMPSON & ASSOCIATES AND DATED SEPTEMBER 10, 2019. SUCH BEARING STRATA IS ANTICIPATED AT THE BOTTOM OF FOOTING ELEVATIONS NOTED ON THE FOUNDATION PLAN. ALL BEARING STRATA SHALL BE REVIEWED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE IN ORDER TO VERIFY THE BEARING VALUE.

2. SEE ABOVE REFERENCED GEOTECHNICAL REPORT FOR STRUCTURAL FILL MATERIAL SPECIFICATION. RECOMMENDATIONS FOR THE PREPARATION OF SOIL BEARING SURFACES, BACKFILL AND DRAINAGE STATED IN THE GEOTECHNICAL REPORT ARE TO BE CONSIDERED PART OF THE PROJECT REQUIREMENTS.

3. THE GEOTECHNICAL REPORT DESCRIBES THE MATERIAL, PROCESS, LOCATION AND EXTENT OF REMOVING UNSUITABLE MATERIALS AND PLACING COMPACTED GRANULAR FILL FOR SUPPORT OF FOUNDATIONS AND FLOOR SLABS.

4. THE SLAB-ON-GRADE SUB-BASE SHALL BE A CRUSHER RUN STONE FREE FROM SOFT DISINTEGRATED PIECES, MUD, DIRT, OR OTHER INJURIOUS MATERIAL THE MATERIAL SHALL HAVE NO STONE GREATER THAN 2 INCHES IN ANY ONE DIMENSION AND WITH LESS THAN 10 PERCENT BY WEIGHT PASSING A NO. 100 SIEVE.

5. THE BOTTOM OF EXTERIOR FOOTINGS NOT ON SOLID ROCK SHALL BE AT LEAST 3' - 6" BELOW FINISHED GRADE.

6. ALL SOIL SURROUNDING AND UNDER FOOTINGS SHALL BE PROTECTED FROM FREEZING AND FROST ACTION DURING THE COURSE OF CONSTRUCTION.

7. STEP FOOTINGS WHERE ELEVATIONS CHANGE AT A MAXIMUM SLOPE OF ONE VERTICAL ON TWO HORIZONTAL AND PLACE LOWER FOOTINGS FIRST.

8. FOUNDATION WALLS SHALL BE TEMPORARILY BRACED UNTIL THE FLOOR SLAB AT THE TOP OF THE WALL HAS BEEN POURED AND THE CONCRETE HAS ATTAINED ITS SPECIFIED COMPRESSIVE STRENGTH UNLESS BACKFILL IS PLACED ON BOTH SIDES SIMULTANEOUSLY AND TO THE SAME LEVEL.

9. KEEP FOUNDATION EXCAVATIONS FREE OF WATER AT ALL TIMES.

10. USE LEAN CONCRETE (f'c=1500 PSI) OR CONTROLLED COMPACTED FILL FOR OVER-EXCAVATION OF FOOTINGS.

11. EXISTING UTILITIES: LOCATE EXISTING UNDERGROUND UTILITIES IN AREAS OF EXCAVATION WORK. PROVIDE ADEQUATE MEANS OF SUPPORT AND PROTECTION DURING EARTHWORK OPERATIONS.

12. WHERE FOOTINGS ARE IN CLOSE PROXIMITY OF SUB-SURFACE PIPING, BOTTOM OF FOOTINGS SHALL BE AT LEAST 8" BELOW ELEVATION OF PIPING, UNLESS OTHERWISE SHOWN ON THE DRAWINGS.

13. SUBMITTALS TO THE ENGINEER ARE REQUIRED FOR STRUCTURAL FILL, AND SLAB SUB-BASE.

CONCRETE NOTES:

1. ALL CONCRETE WORK SHALL CONFORM TO ALL THE REQUIREMENTS OF ACI 301-05, "SPECIFICATIONS FOR STRUCTURAL CONCRETE IN BUILDINGS" AND ACI 318-14 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".

2. CONCRETE SHALL BE THE SPECIFIED WEIGHT AND DEVELOP A MINIMUM STRENGTH IN 28 DAYS AS FOLLOWS;

LOCATION	WEIGHT	MINIMUM STRENGTH	MAXIMUM WATER/CEMENTITIOUS RATIO (OR SLUMP WHERE INDICATED)
FOOTINGS	NORMAL	3,000 PSI	SLUMP: 4" +/- 1"
WALLS AND PIERS - EXPOSED TO DE-ICING COMPOUNDS	NORMAL	4,500 PSI	0.40
SLABS-ON-GRADE	NORMAL	5,000 PSI	0.40
SLABS-ON-METAL-DECK	NORMAL	3,500 PSI	SLUMP: 4" +/- 1"

3. ALL EXTERIOR CONCRETE FOOTINGS, SLABS, WALLS AND PIERS SHALL BE SPECIAL DENSIFIED ANTI-CORROSION CONCRETE WITH THE FOLLOWING MIXTURE:

A. 5000 PSI WITH 0.40 MAXIMUM WATER CEMENT RATIO
B. SILICA FUME ADDITIVE AT 10% WEIGHT OF CEMENT
C. W.R. GRACE "DCI" OR "DCI S" CORROSION INHIBITOR AT 5 GALLONS PER CUBIC YARD. AIR ENTRAINMENT SHALL BE ADJUSTED ACCORDINGLY TO COMPENSATE FOR THE CORROSION INHIBITOR ADMIXTURE.
D. SUPER PLASTICIZER ADDITIVE FOR WORKABILITY

4. ALL DETAILING FABRICATION, AND ERECTION OF REINFORCING BARS, UNLESS OTHERWISE NOTED, MUST FOLLOW THE LATEST ACI CODE AND THE LATEST ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES".

5. CONCRETE DESIGN MIX WILL BE SUBMITTED TO THE ENGINEER FOR REVIEW, TOGETHER WITH LABORATORY REPORTS ATTESTING THAT THE MIXES CAN ATTAIN THE MINIMUM STRENGTH REQUIRED IN ACCORDANCE WITH SECTION 4 OF ACI 301-05.

6. NO ADMIXTURES ARE PERMITTED WITHOUT THE ENGINEERS WRITTEN PERMISSION OTHER THAN ENTRAINED AIR. ALL LIGHTWEIGHT CONCRETE AND CONCRETE EXPOSED TO THE WEATHER, SUCH AS THAT USED IN FOUNDATION WALLS, SHALL CONTAIN 5% ± 1% ENTRAINED AIR. DO NOT USE AIR ENTRAINMENT ADMIXTURE FOR INTERIOR NORMALWEIGHT CONCRETE SLABS.

7. LIMIT WATER-SOLUBLE, CHLORIDE-ION CONTENT IN HARDENED CONCRETE TO 0.15 PERCENT BY WEIGHT OF CEMENT.

8. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60.

9. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WITH A MINIMUM YIELD STRENGTH OF 75 KSI. LAP ONE MESH SIZE AT SIDES AND ENDS, AND WIRE TOGETHER.

10. THE FOLLOWING CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:

LOCATION	COVER (INCHES)
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3
CONCRETE EXPOSED TO EARTH OR WEATHER:	
#6 THROUGH #18 BARS	2
#5 BAR AND SMALLER	1-1/2
CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:	
SLABS, WALLS, JOISTS:	
#14 AND #18 BARS	1-1/2
#11 BAR AND SMALLER	3/4
BEAMS, COLUMNS	
PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS	1-1/2

11. THE CONVEYANCE, PLACEMENT AND PROTECTION OF THE CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 5, ACI 318. MECHANICAL VIBRATORS ARE TO BE USED TO CONSOLIDATE THE FRESHLY CAST CONCRETE AROUND THE REINFORCING AND AGAINST FORM SURFACES AND TO PREVENT THE FORMATION OF AIR OR STONE POCKETS, HONEYCOMBING, PITTING OR PLANES OF WEAKNESS. HOWEVER, CARE MUST BE USED TO AVOID OVER VIBRATION THAT CAN LEAD TO AGGREGATE SEGREGATION.

12. NO WELDING OF REINFORCING WILL BE PERMITTED.

13. ALL LAP SPLICES SHALL BE CLASS B, IN ACCORDANCE WITH ACI 318 INDICATED ABOVE.

14. CONCRETE PIERS: PLACE CONCRETE PIERS AND WALLS TOGETHER. SET PIER REINFORCING AND SET WALL REINFORCING THROUGH PIER VERTICAL BARS. PROVIDE DOWELS WITH STANDARD HOOK FROM FOOTING AT ALL PIERS. SIZE AND QUANTITY OF DOWELS TO MATCH VERTICAL PIER REINFORCING (CLASS "B" SPLICE).

15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LIMITING POURS TO MINIMIZE SHRINKAGE CRACKING. IN GENERAL, WALLS SHALL NOT BE POURED IN CONTINUOUS LENGTHS EXCEEDING 30 FEET WITHOUT PROVIDING CONSTRUCTION JOINTS OR CONTROL JOINTS. THE LOCATION AND CONFIGURATION OF JOINTS EXPOSED TO VIEW SHALL BE COORDINATED WITH THE ARCHITECT.

16. FINISH ELEVATED FLOOR SLABS FLAT AND LEVEL WITHIN A TOLERANCE OF +/- 1/4 INCHES TO THE ELEVATION INDICATED ON THE DRAWINGS. PROVIDE ADDITIONAL CONCRETE REQUIRED DUE TO FORMWORK AND FLOOR FRAMING DEFLECTION TO ACHIEVE THIS FINISHED TOP OF SLAB ELEVATION. THE ANTICIPATED DEFLECTION FOR BOTH BEAMS AND GIRDERS IS 1". DESIGN OF FLOOR FRAMING MEMBERS INCLUDES THE ADDITIONAL CONCRETE FOR THIS ANTICIPATED DEFLECTION.

17. THE INSTALLATION OF SLABS SHALL CONFORM TO THE REQUIREMENTS OF ACI 302.1R-04. INTERIOR FINISH SLAB SURFACES ARE TO HAVE A STEEL TROWEL FINISH. SURFACES OF SLABS FORMING THE SUBSTRATE FOR MUD JOBS ARE TO HAVE A CLEAN TEXTURED (SCRATCHED) SURFACE. EXTERIOR SLAB SURFACES ARE TO HAVE A BROOM FINISH UNLESS SPECIFIED ON THE ARCHITECTURAL DRAWINGS.

18. SUBMITTALS TO THE ENGINEER ARE REQUIRED FOR CEMENT, REINFORCING BARS, ADMIXTURES, AND AGGREGATES AS SPECIFIED IN SPECIFICATION SECTION 033000.

CONCRETE MASONRY NOTES:

1. ALL CONCRETE MASONRY WORK SHALL CONFORM TO THE REQUIREMENTS OF "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530-13/ ASCE 5-13/ TMS 402-13)" AND "SPECIFICATIONS FOR MASONRY STRUCTURES (ACI 530.1-13/ ASCE 6-13/ TMS 602-13)".

2. THE COMPRESSIVE MASONRY STRENGTH, f'm, SHALL BE 1500 PSI MINIMUM. SYSTEM COMPONENTS HAVE BEEN SELECTED BASED ON THE UNIT STRENGTH METHOD.

3. CONCRETE BLOCK SHALL BE LIGHTWEIGHT HOLLOW LOAD BEARING MASONRY UNITS CONFORMING TO ASTM C 90, TYPE N-1, WITH A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 1,900 PSI ON THE NET AREA OF THE UNITS. UNITS SHALL BE PROTECTED FROM MOISTURE ABSORPTION.

4. PORTLAND CEMENT USED IN THE MORTAR AND GROUT SHALL CONFORM TO ASTM C 150. MASONRY CEMENT OR MORTAR CEMENT SHALL NOT BE USED.

5. MORTAR SHALL BE TYPE S CONFORMING TO THE VOLUMETRIC PROPORTIONS SET FORTH IN ASTM C-270. USE 1 PART PORTLAND CEMENT; 0.25 TO 0.5 PARTS HYDRATED LIME OR LIME PUTTY; AND AGGREGATE PROPORTIONED TO 2.25 TO 3 TIMES THE SUM OF THE SEPARATE VOLUMES OF CEMENTITIOUS MATERIALS (I.E. PORTLAND CEMENT PLUS LIME). PROVIDE AGGREGATE IN LOOSE, DAMP CONDITION. ADD WATER TO PRODUCE A WORKABLE MIX.

6. COARSE GROUT USED IN PILASTERS AND WALLS SHALL CONFORM TO THE VOLUMETRIC PROPORTIONS SET FORTH IN ASTM C 476. USE ONE PART PORTLAND CEMENT, 2.25 TO 3 PARTS DAMP, LOOSE SAND, 1 TO 2 PARTS 3/8" PEA GRAVEL. ADD WATER TO PRODUCE A FLOWABLE MIX WITH AN 8 TO 11 INCH SLUMP. ALTERNATIVELY, FINE GROUT MAY BE USED THAT CONFORMS TO THE VOLUMETRIC PROPORTIONS SET FORTH IN ASTM C 476 USING ONE PART PORTLAND CEMENT, 2.25 TO 3 PARTS DAMP LOOSE SAND AND ADDING WATER TO PRODUCE A FLOWABLE MIX WITH AN 8 TO 11 INCH SLUMP.

7. JOINT (HORIZONTAL) REINFORCEMENT SHALL BE HOT-DIPPED GALVANIZED W1.7 (9 GAGE) STEEL WIRE, ASTM A 82 WITH ASTM A 153 CLASS B-2 COATING, LADUR TYPE, DUR-O-WALL, OR AN APPROVED EQUAL. PLACE JOINT REINFORCING IN EVERY SECOND COURSE (16"o.c.). JOINT REINFORCEMENT SHALL BE LAPPED 6 INCHES AT SPLICES.

8. PLACE UNITS WHILE MORTAR IS SOFT AND PLASTIC. REMOVE AND RELAY IN FRESH MORTAR ANY UNIT DISTURBED TO THE EXTENT THAT INITIAL BOND IS BROKEN AFTER INITIAL POSITIONING.

9. FULLY BED UNITS IN ALL SHEARWALLS INCLUDING CROSS WEBS.

10. ALL CELLS WITH REINFORCING BARS OR BOLTS SHALL BE GROUTED SOLID.

11. VERTICAL CELLS TO BE GROUTED SOLID SHALL HAVE A MINIMUM CLEAR OPENING OF 3"x2-1/2". THE ENTIRE PERIMETER OF THE CELL SHALL BE FULLY BEDDED WITH MORTAR.

12. CONSOLIDATE GROUT POURS EXCEEDING 12 INCHES IN HEIGHT BY MECHANICAL VIBRATION AND RECONSOLIDATE BY MECHANICAL VIBRATION AFTER INITIAL WATER ABSORPTION AND SETTLEMENT HAS OCCURRED.

13. GROUT POURS EXCEEDING 5 FEET ARE HIGH LIFT POURS REQUIRING CLEANOUTS AND SHALL BE INSTALLED IN LIFTS NOT EXCEEDING 12 FEET IF THE FOLLOWING PROVISIONS ARE MET:

- CONSTRUCTED MASONRY HAS CURED FOR AT LEAST 4 HOURS
- GROUT SLUMP IS BETWEEN 10" AND 11"
- THERE IS NO HORIZONTAL BOND BEAM REINFORCEMENT IN THE LIFT EXCEPT AT THE TOP OF THE LIFT

HIGH LIFT GROUTING SHALL NOT BE USED UNLESS HIGHLIFT GROUT PROCEDURES ARE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVED BY THE ENGINEER

14. COVER THE TOPS OF ALL MASONRY CONSTRUCTION TO PROTECT AGAINST PRECIPITATION.

15. MASONRY SHALL NOT BE CONSTRUCTED IN TEMPERATURES BELOW 40 F. PROVIDE A HEAT SOURCE AND PROTECTION AS REQUIRED TO MAINTAIN TEMPERATURE ABOVE 40 F IN ACCORDANCE WITH ACI 530.1, SECTION 1.8.C.

16. HOT WEATHER CONSTRUCTION TECHNIQUES, ACI 530.1, SECTION 1.8.D, SHALL BE IMPLEMENTED WHEN THE AMBIENT AIR TEMPERATURE EXCEEDS 100 F, OR 90 F IF THE WIND SPEED EXCEEDS 8 MPH.

17. UNLESS OTHERWISE SHOWN ON ARCHITECTURAL OR STRUCTURAL DRAWINGS PROVIDE VERTICAL CONTROL JOINTS THROUGH CONCRETE MASONRY UNIT WALLS FOR FULL WALL HEIGHT AS FOLLOWS:

A. DISTANCE BETWEEN JOINTS SHOULD NOT EXCEED THE LESSER OF LENGTH TO HEIGHT RATIO OF 1.5, OR 25 FEET.
B. AT CHANGES IN WALL HEIGHT.
C. AT CHANGES IN WALL THICKNESS - INCLUDING PIPE AND DUCT CHASES AND PILASTERS.
D. AT AND ABOVE EXPANSION JOINTS IN FOUNDATIONS AND FLOORS.
E. AT AND BELOW EXPANSION JOINTS IN ROOFS AND FLOORS THAT BEAR ON THE WALL.
F. FOR OPENINGS, DO NOT LOCATE CONTROL JOINTS WITHIN 32 INCHES OF OPENINGS.
G. ADJACENT TO CORNERS OF WALLS OR AT WALL INTERSECTIONS WITHIN A DISTANCE EQUAL TO HALF THE CONTROL JOINT SPACING.

18. SUBMITTALS TO THE ENGINEER ARE REQUIRED FOR CERTIFICATES OF COMPLIANCE FOR BLOCK GRADE AND STRENGTH, GROUT, MORTAR, AND REINFORCING BARS PRIOR TO DELIVERY TO THE SITE.

STRUCTURAL STEEL NOTES:

1. DESIGN FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE "SPECIFICATION FOR STRUCTURAL STEEL FOR BUILDINGS" AISC 360-16.

2. MATERIALS:

WIDE FLANGE SHAPES:	ASTM A992 GRADE 50
AMERICAN STANDARD SHAPES, ANGLES, PLATES AND BARS:	ASTM A36
STRUCTURAL STEEL TUBING, RECTANGULAR AND SQUARE:	ASTM A500, GRADE C (Fy=50 KSI)
STRUCTURAL STEEL TUBING, ROUND:	ASTM A500, GRADE C (Fy=46 KSI)
STRUCTURAL STEEL PIPE:	ASTM A53, GRADE B (Fy=35 KSI)
BOLTS	ASTM A325
ANCHOR RODS	ASTM F1554, GRADE 36
WELDING ELECTRODE	ASTM E70XX, LOW HYDROGEN
SHEAR CONNECTORS	3/4" DIAM. ASTM A108

3. ALL WELDING SHALL CONFORM TO AMERICAN WELDING SOCIETY'S AWS D1.1 "STRUCTURAL WELDING CODE-STEEL" CODE FOR ARC AND GAS WELDING AND BE PERFORMED BY A CERTIFIED WELDER IN ACCORDANCE WITH A.W.S. STANDARDS.

4. HIGH STRENGTH BOLTS: INSTALL HIGH-STRENGTH BOLTS ACCORDING TO RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS' (RCSC'S) "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A 490 BOLTS" FOR TYPE OF BOLT AND TYPE OF JOINT SPECIFIED:

JOINT TYPE: SNUG TIGHTENED

5. BEAM SHEAR, MOMENT AND AXIAL FORCES REACTIONS ARE INDICATED ON THE PLANS, REFER TO THE TYPICAL BEAM LEGEND FOR REACTION AND MOMENT DESIGNATIONS. BEAMS WITH REACTIONS NOT SHOWN, SHALL BE DESIGNED FOR A 18 KIP REACTION (FACTORED LOADS FOR STRENGTH DESIGN).

6. THE FABRICATOR IS RESPONSIBLE FOR DESIGNING SHEAR, MOMENT AND AXIAL FORCES CONNECTIONS FOR THE REACTIONS, MOMENTS AND AXIAL FORCES SHOWN ON THESE PLANS AND SUBMITTING THESE DESIGN CALCULATIONS FOR REVIEW BY THE STRUCTURAL ENGINEER OF RECORD THROUGH THE ARCHITECT. THE REACTIONS, MOMENTS AND AXIAL FORCES SHOWN ARE "FACTORED" LOADS FOR STRENGTH DESIGN. CONNECTIONS MAY BE DESIGNED FOR THESE VALUES USING THE "LOAD AND RESISTANCE FACTOR DESIGN PROCEDURE" SPECIFIED IN THE 14TH EDITION OF THE AISC MANUAL.

7. FOR MOMENT CONNECTIONS, NOTCH-TOUGH WELDING ELECTRODES, COMPLYING WITH AWS REQUIREMENTS, SHALL BE USED. ALSO FOR FULL PENETRATION WELDS, PROVIDE WELDING TABS AT BEAM FLANGE EDGES TO ALLOW WELDING OF FULL BEAM WIDTH.

8. FOR MOMENT CONNECTIONS, BACKING BARS AND WELD TABS FOR WELDS SHALL BE REMOVED AND THE JOINTS SHALL BE GROUND OR FINISHED SMOOTH IN ACCORDANCE WITH THE REQUIREMENTS OF THE AISC "SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS AS ADOPTED IN MARCH, 2005, INCLUDING SUPPLEMENT NO. 1, DATED 2005", UNLESS OTHERWISE NOTED.

9. ALL MOMENT CONNECTIONS UTILIZING FULL OR PARTIAL PENETRATION GROOVE WELDS, SHALL BE ULTRASONIC TESTED, AS INDICATED IN THE STATEMENT OF SPECIAL INSPECTIONS, AND SHALL BE DETAILED TO ALLOW FOR SUCH ULTRASONIC TESTING.

10. STUD SHEAR CONNECTORS SHALL BE FIELD-WELDED IN ACCORDANCE WITH AWS D1.1.

11. WHERE SLOTTED HOLE CONNECTIONS ARE SHOWN, NUTS SHALL BE FASTENED SNUG TIGHT, THEN UNTIGHTENED BY ONE-HALF TURN. PEEN THREADS TO PREVENT FURTHER LOOSENING OF THE NUT.

12. ALL BOLTED CONNECTIONS THAT WILL BE EXPOSED TO VIEW SHALL HAVE BOLTS FOR THE FULL DEPTH OF THE CONNECTED MEMBER, WHETHER REQUIRED TO SUPPORT THE REACTIONS SHOWN OR NOT.

13. STRUCTURAL STEEL SHALL BE CLEANED IN ACCORDANCE WITH THE STEEL STRUCTURES PAINTING COUNCIL SPECIFICATION SP-3 FOR POWER TOOL CLEANING (EXCEPT FOR STEEL EXPOSED TO WEATHER) AND PAINTED WITH THE SPECIFIED PRIMER.

14. ALL STEEL MEMBERS AND BOLTING EXPOSED TO WEATHER SHALL BE CLEANED IN ACCORDANCE WITH THE STEEL STRUCTURES PAINTING COUNCIL SPECIFICATION SP-6 FOR COMMERCIAL BLAST CLEANED AND HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A 123 AND ASTM A 153. MINIMUM ACCEPTABLE ZINC COATING WEIGHT SHALL BE 2 OZ./SQ. FT. SEE ARCHITECTURAL SPECIFICATIONS FOR FINISHED PAINT IF REQUIRED. CLEAN AREAS WHERE GALVANIZING IS DAMAGED OR MISSING AND REPAIR GALVANIZING TO COMPLY WITH ASTM A 780.

15. PROVIDE BITUMASTIC PROTECTION COATING FOR ALL STRUCTURAL STEEL BELOW GRADE.

16. CONTINUOUS MEMBERS, WHERE INDICATED ON THE DRAWINGS, SHALL REQUIRE EITHER 1) THE MEMBER TO BE FURNISHED AS ONE PIECE, OR 2) IF INDIVIDUAL PIECES ARE TO BE PROVIDED, THEN THEY SHALL BE CONNECTED BY EITHER WELDING OR BOLTING TO DEVELOP THE FULL STRENGTH OF THE CONTINUOUS MEMBER.

17. SPLIT CANTILEVERS FOR STEEL BEAMS SHALL BE DESIGNED FOR THE FULL MOMENT CAPACITY OF THE BEAM UNLESS OTHERWISE NOTED.

18. UNLESS OTHERWISE NOTED, AT CANTILEVER BEAM CONNECTION TO TOP OF COLUMNS, PROVIDE WELDED 3/4" CAP PLATE WITH (4)-3/4" DIAMETER A325 BOLTS ON BEAM GAGE. PROVIDE 1/2" MINIMUM FITTED STIFFENERS WELDED AT BOTH SIDES OF BEAM WEB. LOCATE STIFFENERS OVER COLUMN FLANGE ON CANTILEVER SIDE.

19. PROVIDE 1/4" CLOSURE PLATE WITH SEAL WELD AT ENDS OF ALL HSS MEMBERS.

20. FABRICATOR SHALL HOLD A CURRENT AISC CERTIFICATION FOR "STANDARD FOR STEEL BUILDING STRUCTURES (STD)".

21. FOR MISCELLANEOUS STEEL, SEE ARCHITECTURAL DRAWINGS.

22. SUBMITTALS TO THE ENGINEER ARE REQUIRED FOR CERTIFICATES OF COMPLIANCE FOR STRUCTURAL STEEL, BOLTS, NUTS, WASHERS, AND WELD FILLER MATERIAL PRIOR TO THE FABRICATION OF ANY STEEL.

PRECAST PRESTRESSED HOLLOW-CORE PLANK NOTES:

1. PRECAST PRE-STRESSED HOLLOW CORE PLANKS SHALL BE DESIGNED IN ACCORDANCE WITH THE PROCEDURE SET FORTH IN ACI-318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"

2. SHOP DRAWINGS SHALL INCLUDE THE DESIGNATION, DIMENSIONS, AND LAYOUT OF THE UNITS; SECTIONS AND DETAILS SHOWING CONNECTIONS, EDGE CONDITIONS, AND SUPPORT CONDITIONS; AND THE DEAD, LIVE AND OTHER APPLICABLE LOADS USED IN THE DESIGN.

3. DESIGN CALCULATIONS SHALL BE PERFORMED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW YORK EXPERIENCED IN PRECAST PRE-STRESSED CONCRETE DESIGN AND SHALL BE SUBMITTED TO THE ARCHITECT AND ENGINEER OF RECORD FOR APPROVAL.

4. PRE-STRESSING STEEL SHALL BE UNCOATED SEVEN WIRE STRAND WHICH HAS BEEN STRESS-RELIEVED AS A UNIT AFTER THE WIRES HAVE BEEN FORMED INTO A STRANDS. IT SHALL BE MANUFACTURED AND TESTED IN ACCORDANCE WITH ASTM A-416, GRADE 250K OR 270K

5. REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-615, GRADE 60.

6. WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-185

7. THE PRECAST MANUFACTURING PLANT SHALL BE CERTIFIED BY THE PRE-STRESSED CONCRETE INSTITUTE PLANT CERTIFICATION PROGRAM. THE ERECTOR SHALL HAVE AT LEAST 2 YEARS OF EXPERIENCED IN THE ERECTION OF PRECAST STRUCTURAL CONCRETE SIMILAR TO THE REQUIREMENTS OF THIS PROJECT.

STEEL DECK NOTES:

1. STEEL DECK SHALL BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE CURRENT SPECIFICATION OF THE STEEL DECK INSTITUTE.

2. NON-COMPOSITE FORMED STEEL FLOOR DECK TO BE 9/16" INCH DEEP, 26 GAGE (UNCOATED STEEL THICKNESS = 0.0179"), UNIFORM, GALVANIZED (G60 COATING), UNITED STEEL DECK TYPE UFS DECK AS MANUFACTURED BY CANAM STEEL DECK, INCORPORATED, OR AN APPROVED EQUAL.

3. FORMED STEEL ROOF DECK TO BE 1-1/2" DEEP, 20 GAGE (UNCOATED STEEL THICKNESS = 0.0358"), GALVANIZED (G60 COATING), WIDE RIB, UNITED STEEL DECK "B" DECK PROFILE, AS MANUFACTURED BY CANAM STEEL DECK, INCORPORATED OR AN APPROVED EQUAL.

4. THE STEEL DECK SHALL BE SUPPLIED IN MINIMUM LENGTHS AS REQUIRED TO PROVIDE A "3-SPAN" CONDITION. END CLOSURES, ROOF SUMPS, CLOSURES AT PENETRATIONS, AND ALL OTHER ACCESSORIES NECESSARY FOR A COMPLETE INSTALLATION ARE REQUIRED.

5. NON-COMPOSITE FORMED STEEL FLOOR DECK WITH A THICKNESS OF 24 GAGE OR LESS SHALL BE WELDED TO SUPPORTING STEEL WITH 3/8" DIAMETER FUSION WELDS THROUGH 16 GAGE WELDING WASHERS. NON-COMPOSITE FORMED STEEL FLOOR DECK WITH A THICKNESS OF 22 GAGE OR GREATER SHALL BE WELDED TO SUPPORTING STEEL WITH 5/8" DIAMETER PUDDLE WELDS. SPACE WELDS AT 15" ON CENTER MAXIMUM AT END SUPPORTS AND 30" ON CENTER MAXIMUM AT INTERMEDIATE SUPPORTS. INTERMEDIATE SIDE CONNECTIONS SHALL BE MADE AT MID-SPAN OR 3'-0" ON CENTER, WHICHEVER IS SMALLER. END LAPS OF SHEETS SHALL BE A MINIMUM OF 2" AND SHALL OCCUR OVER SUPPORTS.

6. FORMED STEEL ROOF DECK SHALL BE WELDED TO SUPPORTING STEEL WITH 5/8" DIAMETER PUDDLE WELDS AT ALL EDGE RIBS PLUS A SUFFICIENT NUMBER OF INTERIOR RIBS TO LIMIT THE SPACING BETWEEN ADJACENT POINTS OF ATTACHMENT 12" ON CENTER. TO THE DECK ATTACHMENT PATTERN SHOWN ON THE DRAWINGS. (FOR CONNECTION OF METAL ROOF DECK TO COLD FORMED FRAMING, USE NO. 10 SELF TAPPING SCREWS AT 12" ON CENTER). INTERMEDIATE SIDE CONNECTIONS SHALL BE MADE WITH #10 SELF-TAPPING SCREWS AT MID-SPAN OR 3'-0" ON CENTER, WHICHEVER IS SMALLER. END LAPS OF SHEETS SHALL BE A MINIMUM OF 2" AND SHALL OCCUR OVER SUPPORTS.

IN LIEU OF PUDDLE WELDS, POWDER ACTUATED FASTENERS HAVING THE SAME CAPACITY AS THE SPECIFIED PUDDLE WELDS, MAY BE USED. FASTENERS SHALL BE MANUFACTURED BY HILTI, INC. OR AN APPROVED EQUAL. SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL TO THE ENGINEER INDICATING FASTENER DATA INCLUDING SIZE VS. STEEL SUBSTRATE MATERIAL, SPACINGS, CAPACITIES, INCLUDING DIAPHRAGM SHEAR CAPACITIES, METHOD OF INSTALLATION AND PROGRAM FOR QUALITY ASSURANCE OF INSTALLATION.

IN LIEU OF PUDDLE WELDS, PNEUMATICALLY APPLIED FASTENERS HAVING THE SAME CAPACITY AS THE SPECIFIED PUDDLE WELDS, MAY BE USED. FASTENERS SHALL BE MANUFACTURED BY PNEUTEK, INC. OR AN APPROVED EQUAL. SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL TO THE ENGINEER INDICATING FASTENER DATA INCLUDING SIZE VS. STEEL SUBSTRATE MATERIAL, SPACINGS, CAPACITIES, INCLUDING DIAPHRAGM SHEAR CAPACITIES, METHOD OF INSTALLATION AND PROGRAM FOR QUALITY ASSURANCE OF INSTALLATION.

7. STEEL DECK MUST BE PROTECTED BEFORE AND AFTER ERECTION AND ALL DEBRIS CLEANED FROM ITS SURFACE WHERE CONCRETE WILL BE POURED OR ROOFING IS TO BE PLACED.

LINTEL NOTES:

1. ALL LINTELS SHALL BE STEEL LINTELS UNLESS OTHERWISE NOTED.

2. UNLESS OTHERWISE NOTED, FOR LINTELS OVER DOORS, WINDOWS, DUCTS, AND MISCELLANEOUS OPENINGS IN NON BEARING 4", 8" AND 12" CMU AND FOR BRICK WALLS, USE FOR EACH 4" OF MASONRY:

ANGLE SIZE	MAX. M.O.	BEARING EACH END
3 1/2" x 3/8" FLAT PLATE	2'-0"	6"
3 1/2" x 4" x 5/16" (LLV)	3'-6"	6"
3 1/2" x 5" x 5/16" (LLV)	5'-0"	6"
3 1/2" x 6" x 5/16" (LLV)	6'-0"	8"
3 1/2" x 6" x 3/8" (LLV)	8'-0"	8"

3. OPENINGS IN NON BEARING WALLS (BLOCK OR BLOCK AND BRICK) WHERE NO SPECIFIC LINTELS OR LINTEL SIZES ARE INDICATED SHALL HAVE THE FOLLOWING SIZES

MAX M.O.	WALL THICKNESS	LINTEL SIZE
9'-0"	8"	W8x24
9'-0"	9"-13"	W8x31+5/16" PLATE
12'-0"	8"	W8x28
12'-0"	9"-13"	W8x35+5/16" PLATE

PLATES INDICATED IN ABOVE LINTELS SHALL HAVE A WIDTH 1" LESS THAN THE WALL THICKNESS.

4. FOR 6" PARTITIONS USE WT 7x13 FOR SPANS UP TO 7'-0" WITH 6" BEARING EACH END.

5. FOR 10" PARTITIONS USE WT 7x21.5 FOR SPANS UP TO 7'-0" WITH 8" BEARING EACH END

6. FILL FIRST COURSE DIRECTLY UNDER BEARING WITH GROUT FOR 16" LENGTH.

7. SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF OPENINGS.

8. WHEN OPENINGS OCCUR IN BEARING WALLS OR THE HEIGHT OF MASONRY ABOVE THE LINTEL IS LESS THAN THE OPENING WIDTH OR WHEN A CONTROL JOINT IS LOCATED DIRECTLY ABOVE OR WITHIN 16" OF THE JAMB OPENING AND DRAWINGS DO NOT OTHERWISE INDICATE A SPECIFIC LINTEL DESIGN, CONSULT WITH THE ARCHITECT TO CONFIRM LINTEL REQUIREMENTS.

9. FOR ALL WALL BEARING BEAMS PROVIDE 7 1/2" x 5/8" x 0'-7 1/2" BEARING PLATES ON 3/4" GROUT BED WITH (2)-5/8" DIAMETER x 6" LONG WELDED ANCHOR STUDS AT 3" o.c. UNLESS OTHERWISE NOTED. FIELD WELD BOTTOM FLANGE OF BEAM TO BEARING PLATE WITH 1/4" WELD AT EACH SIDE OF FLANGE.

10. LINTELS OVER ADJACENT OPENINGS WITH PIERS BETWEEN LESS THAN 2'-8" WIDE SHALL BE CONTINUOUS OVER PIERS. MASONRY UNITS OF SUCH PIERS SHALL BE FILLED WITH GROUT FOR FULL STORY HEIGHT.

11. CONNECT LINTEL TO STRUCTURAL STEEL COLUMNS WHEN THERE IS LESS THAN 16" OF MASONRY BETWEEN THE MASONRY OPENING AND THE OUTERMOST FACE OF COLUMN.

12. SEE ARCHITECTURAL DRAWINGS FOR ANY PRECAST CONCRETE LINTELS THAT ARE REQUIRED.

13. LINTELS SUPPORTING EXTERIOR MASONRY SHALL BE HOT-DIPPED GALVANIZED. SEE STRUCTURAL STEEL NOTES.

14. LINTELS FOR OPENINGS IN WALLS: THESE PLANS DO NOT SHOW THE FULL SCOPE OF STEEL LINTELS REQUIRED FOR NEW WALL OPENINGS FOR DOORS, WINDOWS, DUCTS, LOUVERS, ETC.. FOR MASONRY OPENING SIZE AND LOCATION OF ALL NEW WALL OPENINGS, SEE ARCHITECTURAL AND MECHANICAL DRAWINGS. DO NOT SCALE OPENINGS. FOR STEEL LINTEL SIZE FOR CORRESPONDING MASONRY OPENING SIZE, SEE NOTES, ABOVE, UNLESS OTHERWISE NOTED ON PLANS.

COLD-FORMED METAL FRAMING NOTES:

1. DESIGN, FABRICATION AND ERECTION OF COLD-FORMED METAL FRAMING SHALL CONFORM TO THE AMERICAN IRON AND STEEL INSTITUTE'S "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS", CURRENT EDITION AS REFERENCED BY THE APPLICABLE BUILDING CODE, AND THE SPECIFICATIONS OF THE MANUFACTURER OF THE COLD-FORMED METAL FRAMING.

2. ALL STUDS AND/OR JOISTS AND ACCESSORIES SHALL BE OF THE TYPE, SIZE, STEEL THICKNESS AND SPACING SHOWN ON THE DRAWINGS. STUDS, TRACKS, BRACING AND BRIDGING SHALL BE MANUFACTURED PER ASTM C955.

3. ALL STUDS, JOISTS AND ACCESSORIES SHALL BE FORMED FROM STEEL THAT CONFORMS TO THE REQUIREMENTS OF ASTM A-1003 WITH A YIELD AS FOLLOWS:

16 GA. (0.0598") OR HEAVIER 50 KSI
18 GA. (0.0474") OR LIGHTER 33 KSI

4. ALL STUDS, JOISTS AND ACCESSORIES SHALL BE GALVANIZED WITH A MINIMUM G-60 COATING.

5. TOUCHUP PAINT: IMMEDIATELY AFTER FABRICATION AND ERECTION, CLEAN WELDS, FASTENERS, AND DAMAGED GALVANIZED SURFACES. TOUCHUP AND REPAIR SURFACES WITH GALVANIZED REPAIR PAINT IN ACCORDANCE WITH ASTM A780, APPLIED BY BRUSH OR SPRAY TO PROVIDE MINIMUM DRY FILM THICKNESS OF 2.0 MILS.

COLD FRAMED METAL SIZES AND ATTACHMENTS SHALL NOT BE LESS THAN THOSE INDICATED ON THE CONTRACT DOCUMENTS.

6. WHERE FRAMING SYSTEMS ARE NOT SHOWN ON THE DRAWINGS, DESIGN FRAMING SYSTEMS FOR THE DESIGN LOADS INDICATED IN THE CONTRACT DOCUMENTS. PROVIDE FOR MOVEMENT OF FRAMING MEMBERS WITHOUT DAMAGE OR OVERSTRESSING, SHEATHING FAILURE, CONNECTION FAILURE, UNDUE STRAIN ON FASTENERS AND ANCHORS, OR OTHER DETRIMENTAL EFFECTS WHEN SUBJECT TO A MAXIMUM AMBIENT TEMPERATURE OF 120 DEG F. DESIGN FRAMING SYSTEM TO MAINTAIN CLEARANCES AT OPENINGS, TO ALLOW FOR CONSTRUCTION TOLERANCES, AND TO ACCOMMODATE LIVE LOAD DEFLECTION OF PRIMARY BUILDING STRUCTURE FOR AN UPWARD AND DOWNWARD MOVEMENT OF 1 INCH FOR FLOORS AND L/240 FOR ROOFS.

7. CONNECTIONS SHALL BE ACCOMPLISHED WITH SELF-DRIVING SCREWS OR WELDING SO THAT THE CONNECTION MEETS OR EXCEEDS THE DESIGN LOADS REQUIRED AT THAT CONNECTION.

ALL CONNECTIONS SHALL BE MADE USING A MINIMUM OF FOUR (4) #12-16 SCREWS, UNLESS OTHERWISE SHOWN ON DRAWINGS.

SCREW SPACING AND EDGE DISTANCE SHALL NOT BE LESS THAN 1".

MINIMUM CONNECTION ANGLE THICKNESS SHALL BE 16 GAGE, BUT NO THINNER THAN THE MATERIAL OF THE MEMBERS THAT ARE BEING CONNECTED,

8. WELDING SHALL CONFORM TO STRUCTURAL WELDING CODE D1.1 AND SPECIFICATION FOR WELDING SHEET IN STRUCTURES E1.3 OF THE AMERICAN WELDING SOCIETY AND BE PERFORMED BY A CERTIFIED WELDER IN ACCORDANCE WITH AWS STANDARDS.

9. TEMPORARY BRACING SHALL BE PROVIDED AND LEFT IN PLACE UNTIL WORK IS PERMANENTLY STABILIZED.

10. JOISTS SHALL BE LOCATED DIRECTLY OVER BEARING STUDS OR A LOAD DISTRIBUTION MEMBER SHALL BE PROVIDED TO TRANSFER LOADS.

11. ALL BUILT-UP FRAMING MEMBERS SHALL BE OF WELDED CONSTRUCTION, UNLESS OTHERWISE NOTED.

12. AVOID HOLES AT ENDS OF MEMBERS. HOWEVER, SHOULD HOLES OCCUR, PROVIDE ADDITIONAL REINFORCING AT THE ENDS OF THE MEMBER WHERE HOLES OCCUR, UNLESS OTHERWISE NOTED.

13. PROVIDE LATERAL BLOCKING, BRIDGING, AND WEB STIFFENERS FOR VERTICAL AND HORIZONTAL FRAMING MEMBERS, AND OTHER FRAMING MEMBERS AS REQUIRED AND IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS OR RECOMMENDATIONS, UNLESS INDICATED OTHERWISE ON THE DRAWINGS.

14. TRACK: 16 GAGE MINIMUM. SECURELY ANCHORED TO ADJACENT STRUCTURE OR MEMBER.

15. ALL FRAMING COMPONENTS: CUT SQUARELY OR AT AN ANGLE TO FIT SQUARELY AGAINST ABUTTING MEMBERS. ALL MEMBERS: HELD FIRMLY IN POSITION UNTIL PROPERLY FASTENED, ERECT MEMBER LEVEL, PLUMB, AND TRUE TO LINE AND TO DIMENSIONS AND ELEVATIONS INDICATED.

16. STUDS: SEATED SQUARELY IN THE TRACK WITH THE STUD WEB AND FLANGES ABUTTING THE TRACK WEB, AND SECURELY ATTACHED TO THE FLANGES OR WEB OF BOTH TRACKS.

17. SPLICES IN STUDS AND OTHER FRAMING COMPONENTS: NOT PERMITTED.

18. SHAPE DESIGNATIONS AND SECTION PROPERTIES ARE BASED ON THE UNIVERSAL SYSTEM FOR LIGHT GAGE STEEL FRAMING MEMBERS. FOR EXAMPLE, "600S162-54" DENOTES 6" DEEP, 1-5/8" WIDE FLANGE, STUD, 54 MILS(=16 GAGE) THICKNESS.

19. SUBMITTALS TO THE ENGINEER ARE REQUIRED FOR CERTIFICATES OF COMPLIANCE FOR FRAMING MEMBERS (STUDS, JOISTS, TRACKS, ETC.), SCREWS, AND ACCESSORIES (CONNECTION CLIPS, STIFFENERS, ETC.) PRIOR TO DELIVERY TO THE SITE.

20. SHOP DRAWINGS: SHOW LAYOUT, SPACING, SIZES, THICKNESS, MATERIAL SPECIFICATION, AND TYPES OF COLD-FORMED METAL FRAMING. SHOW FASTENING AND ANCHORAGE DETAILS, INCLUDING MECHANICAL FASTENERS. SHOW REINFORCING CHANNELS, OPENING FRAMING, SUPPLEMENTAL FRAMING, STRAPPING, BRACING, BRIDGING, SPLICES, ACCESSORIES, CONNECTION DETAILS, AND ATTACHMENT TO ADJOINING WORK.

THE COLD-FORMED METAL ENGINEER AND FABRICATOR SHALL DESIGN ALL MEMBERS AND CONNECTIONS AND SHALL SUBMIT CALCULATIONS OF ALL DESIGNS, SIGNED AND SEALED BY A QUALIFIED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NEW YORK WHO IS RESPONSIBLE FOR THEIR PREPARATION. THEY SHALL NOT DESIGN ANY CHANGES TO THE COLD-FORMED METAL FRAMING, INCLUDING SIZES, GAGE, SPACING AND CONNECTIONS, THAT ARE INDICATED ON THE DRAWINGS.

PREFABRICATED COLD-FORMED METAL TRUSS NOTES:

1. PREFABRICATED COLD-FORMED METAL TRUSSES SHALL BE DESIGNED, IN ACCORDANCE WITH THE AMERICAN IRON AND STEEL INSTITUTE'S "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS", CURRENT EDITION AS REFERENCED BY THE APPLICABLE BUILDING CODE.

2. TRUSS FABRICATOR SHALL BE A MEMBER OF THE TRUSS PLATE INSTITUTE (TPI) AND SHALL PARTICIPATE IN THE "TRUSS PLATE INSTITUTE'S QUALITY ASSURANCE INSPECTION PROGRAM".

3. THE MANUFACTURER SHALL DESIGN THE TRUSSES FOR THE FOLLOWING LOADS, UNLESS OTHERWISE NOTED:

TOP CHORD LIVE LOAD	SEE THIS SHEET FOR LIVE LOAD CRITERIA
TOP CHORD SNOW LOAD	SEE THIS SHEET FOR SNOW LOAD CRITERIA
TOP CHORD WIND LOAD	SEE THIS SHEET FOR WIND LOAD CRITERIA
TOP CHORD DEAD LOAD	20 PSF
BOTTOM CHORD LIVE LOAD	20 PSF (SEE PLAN FOR ADDITIONAL HUNG PARTITION LOADS)
BOTTOM CHORD DEAD LOAD	10 PSF

MAXIMUM ALLOWABLE DEFLECTIONS:

ROOFS:	SNOW/LIVE LOAD -	VERTICAL: L/240 OR 1.00"; HORIZONTAL: 0.375"
	TOTAL LOAD -	VERTICAL: L/180 OR 1.50"; HORIZONTAL: 0.5"
FLOORS:	LIVE LOAD -	VERTICAL: L/360 OR 0.75"
	TOTAL LOAD -	VERTICAL: L/240 OR 1.00"

4. INDICATE TRUSS TYPE, SPAN, SPACING AND DEPTH ON THE DRAWINGS. SPACING, AND DEPTH, SPECIFIED ON THE FRAMING PLANS SHALL NOT BE EXCEEDED.

5. TRUSSES SHALL BE FABRICATED IN ACCORDANCE WITH THE APPROVED TRUSS SHOP DRAWINGS USING JIGS OR TEMPLATES TO ENSURE CONSISTENT COMPONENT PLACEMENT AND ALIGNMENT OF COMPONENTS AND TO MAINTAIN SPECIFIED TOLERANCES. TRUSS MEMBERS SHALL BE ACCURATELY CUT BY SAWING OR SHEARING. DO NOT TORCH CUT.

6. TRUSS FABRICATOR SHALL FURNISH ALL REQUIRED HANGERS, HOLDDOWN STRAPS AND OTHER PREFABRICATED FASTENING OR CONNECTION DEVICES INDICATED ON THE APPROVED TRUSS SHOP DRAWINGS.

7. TRUSSES SHALL BE INSTALLED IN ACCORDANCE WITH THE TRUSS COMPONENT MANUFACTURER'S INSTRUCTIONS AND TRUSS FABRICATOR'S APPROVED SHOP DRAWINGS. USE CORRECT FASTENERS AND INSTALL TRUSSES PLUMB, ADEQUATELY BRACED, IN THE PROPER ORIENTATION, AND AT THE SPACING SPECIFIED ON THE APPROVED ERECTION PLAN

8. INSTALL ALL ERECTION (TEMPORARY INSTALLATION) BRACING AND PERMANENT BRACING AND BRIDGING BEFORE APPLICATION OF ANY LOADS. FOLLOW RECOMMENDATIONS OF THE LIGHT GAUGE STEEL ENGINEERS ASSOCIATION (LGSEA) FIELD INSTALLATION GUIDE FOR COLD-FORMED STEEL TRUSSES.

9. CUTTING OF TRUSSES MEMBERS OR FIELD ALTERATION OF ANY TRUSS IS NOT PERMITTED WITHOUT A REVISED DESIGN DRAWING FROM THE TRUSS SUPPLIER BEARING THE CERTIFICATION OF A PROFESSIONAL ENGINEER REGISTERED IN THE JURISDICTION OF THE PROJECT.

10. REPAIR OR REPLACE DAMAGED TRUSSES MEMBERS, INCLUDING CHORDS, WEBS, BRACING, AND COMPLETE TRUSSES AS DIRECTED AND APPROVED IN WRITING IN ADVANCE BY THE ARCHITECT/ENGINEER-OF-RECORD AND THE TRUSS COMPONENT MANUFACTURER.

11. SHOP DRAWINGS AND DESIGN CALCULATIONS BEARING THE CERTIFICATION OF A PROFESSIONAL ENGINEER REGISTERED IN THE JURISDICTION OF THE PROJECT SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. SHOP DRAWINGS SHALL CONTAIN THE FOLLOWING INFORMATION FOR EACH TYPE AND SIZE OF TRUSS ASSEMBLY TO BE PROVIDED: DETAIL OF TRUSSES, LAYOUT, SPACINGS, SIZES, THICKNESS, TYPES OF COLD-FORMED METAL FRAMING, MATERIAL SPECIFICATIONS AND PROPERTIES, AND FABRICATION, FASTENING AND ANCHORAGE DETAILS, INCLUDING MECHANICAL FASTENERS AND WELDMENTS. SHOW REINFORCING ELEMENTS, FRAMING FOR OPENINGS, SUPPLEMENTAL FRAMING, STRAPPING, BRACING, BRIDGING, SPLICES, ACCESSORIES, CONNECTION DETAILS, AND PERMANENT BRACING MEMBERS AND THEIR LOCATIONS FOR COMPRESSION MEMBERS. INCLUDE IN THIS SUBMISSION THE FOLLOWING: A) TYPICAL GABLE END TRUSS DETAILS, B) OVERBUILD TRUSS DETAILS, C) PIGGYBACK TRUSS DETAILS, D) ERECTION PLAN INDICATING LOCATION AND QUANTITY OF EACH TRUSS TYPE, E) ERECTION DETAILS, AND F) HANDLING, INSTALLATION AND TEMPORARY BRACING RECOMMENDATIONS.

12. TRUSSES TO BE SUPPLIED FOR THE BUILDING REQUIRE SPECIAL INSPECTIONS AND MUST BE INSPECTED DURING FABRICATION BY THE INSPECTOR DESIGNATED ON THE STATEMENT OF SPECIAL INSPECTIONS. TRUSSES DELIVERED TO THE SITE PRIOR TO RECEIVING SUCH INSPECTION MAY BE REJECTED SOLELY FOR THAT REASON.

SHEATHING PANELS:

1. SHEATHING PANELS, PLYWOOD OR ORIENTED STRAND BOARD ("OSB"), SHALL CONFORM TO U.S. PRODUCT STANDARD PS-1, AND BEAR THE APA GRADE-TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION. ONLY PLYWOOD SHALL BE USED ON FLOORS.

2. SHEATHING PANELS FOR FLOORS, ROOF, AND WALLS SHALL BE APA RATED SHEATHING, EXPOSURE 1, WITH A MINIMUM SPAN INDEX RATING OF 32/16. SEE ARCHITECTURAL PLANS FOR THICKNESS.

3. SHEATHING PANELS ON FLAT SURFACES SHALL BE INSTALLED WITH FACE GRAIN PERPENDICULAR ACROSS SUPPORTS AND CONTINUOUS OVER TWO OR MORE SPANS. PROVIDE 1/8" SPACE BETWEEN PANEL EDGES PARALLEL TO FACE GRAIN, 1/16" SPACE BETWEEN PANEL EDGES OVER SUPPORTING MEMBERS.

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Owner: Bedford Village Fire District
34 Village Green
Bedford, NY 10506

Structural Engineering:
Conlon Engineering, LLC
Structural Engineers
246 Federal Rd, Suite B23
Brookfield, CT 06804
203.740.0990

Date Issue
01.15.21 ISSUED FOR BID

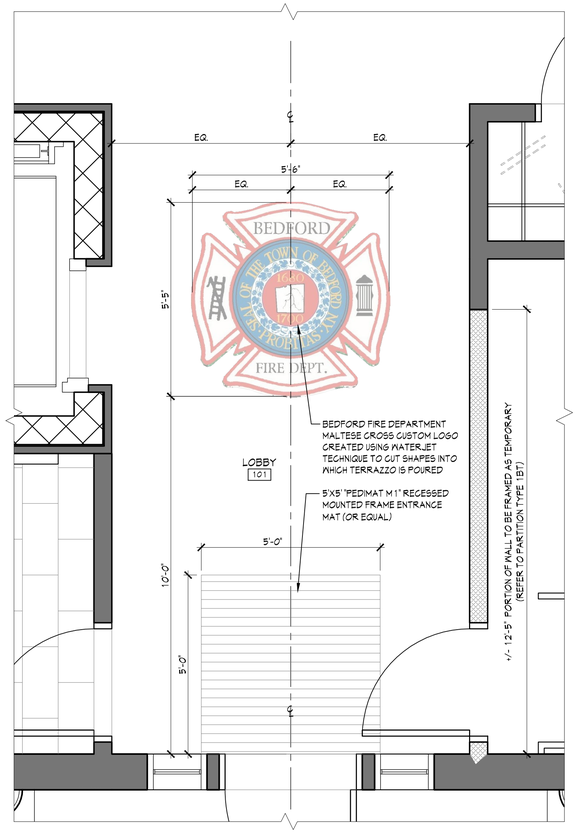
Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
GENERAL NOTES AND MATERIAL SPECIFICATIONS

Project No.	19105
Date	03-25-2020
Scale	AS NOTED
Drawing by	MAJ / JV
Checked by	PJC

STATE OF NEW YORK
PATRICK J. CONLON
079876
LICENSED PROFESSIONAL ENGINEER

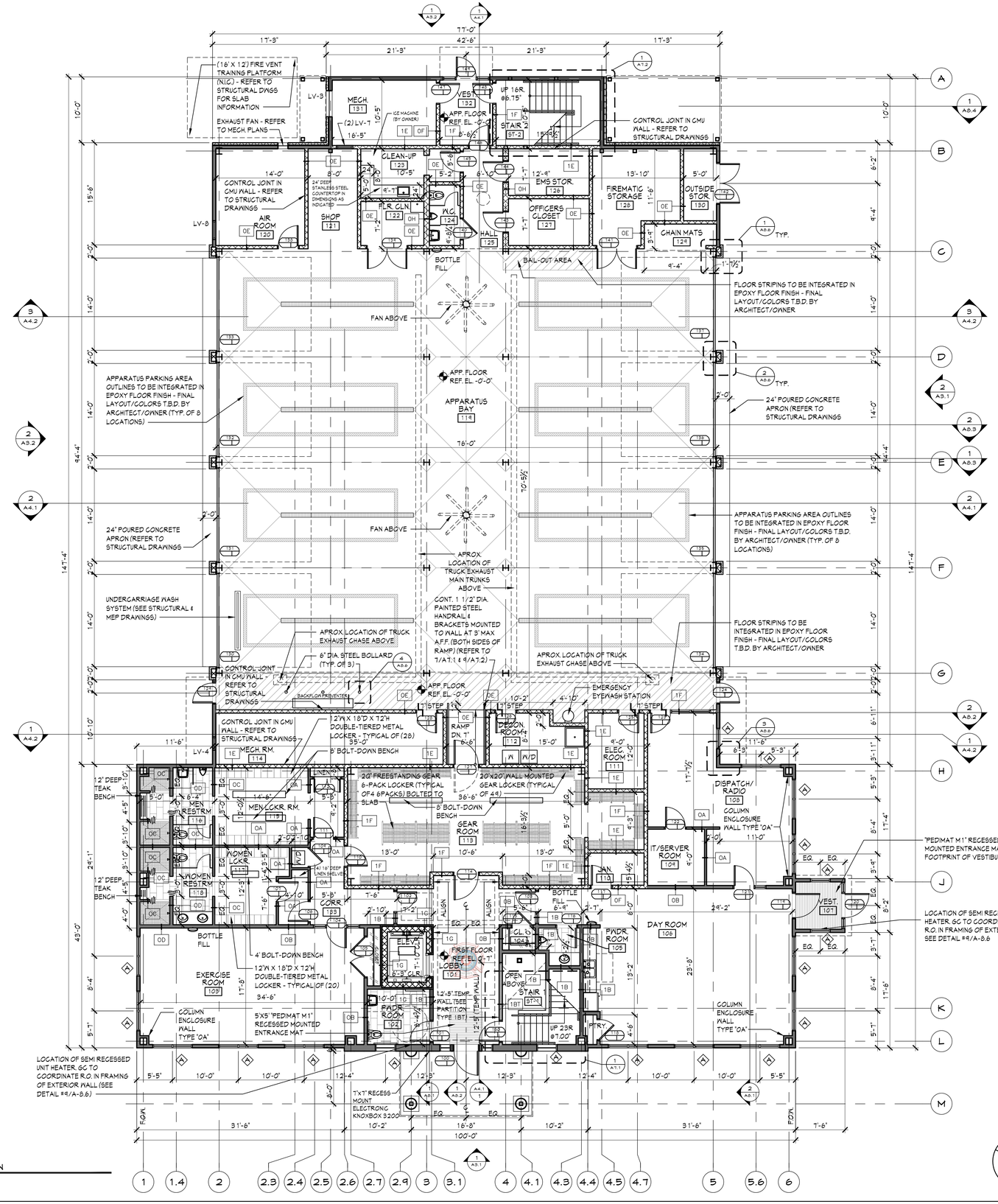
Drawing No.
S5.0



2 PARTIAL ENLARGED PLAN - LOBBY 101
1/2"=1'-0"

GENERAL NOTES

1. NOTIFY THE ARCHITECT OF DISCREPANCIES THAT AFFECT THE WORK VERIFY ALL CONDITIONS PRIOR TO PROCEEDING WITH WORK.
2. ALL DIMENSIONS ARE SHOWN TO FACE OF STUD UNLESS OTHERWISE NOTED.
3. ALL BATHROOMS AND POWDER ROOMS SHALL RECEIVE MOISTURE RESISTANT GYPSUM WALL BOARD AT ALL WALLS AND CEILING. TILED WALLS TO RECEIVE TILE BACKER (REFER TO PARTITION TYPES).
4. ALL DOOR AND WINDOW R.O. IN UNITS SHALL ALLOW FOR 2 X WOOD BLOCKING AT ALL SIDES.
5. WHERE LOCATION OF DOORS ARE NOT DIMENSIONED THEY SHALL BE CENTERED IN THE WALL OR PLACED 5" MIN. FROM ADJACENT WALLS AS REQUIRED FOR DOOR CASING.
6. COORDINATE ALL CUSTOM CABINETRY WITH OWNER PRIOR TO FABRICATION.
7. ALL CLOSETS SHALL HAVE 5/8" AC PLYWOOD SHELF IN CONFIGURATIONS INDICATED ON THE FLOOR PLANS WITH EDGE BANDING AND SUPPORTED WITH 1 X 3 WOOD CLEATS AND DIVIDERS WHERE REQUIRED. HANGING RODS SHALL BE 1-1/4" ROUND CHROME PLATED. (UNLESS INDICATED ELSEWHERE IN THE DRAWINGS)
8. ALL LINEN CLOSETS SHALL HAVE MINIMUM (4) 16" DEEP SHELVES. SHELVES TO BE 5/8" AC PLYWOOD IN CONFIGURATIONS INDICATED ON THE FLOOR PLANS WITH EDGE BANDING AND SUPPORTED WITH 1X3 WOOD CLEATS AND DIVIDERS WHERE REQUIRED.



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

Sullivan Architecture, P.C.
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914-761-6006 (F) 914-761-4919

Owner: Bedford Village Fire District
34 Village Green
Bedford, NY 10506

Date Issue
01.15.21 ISSUED FOR BID

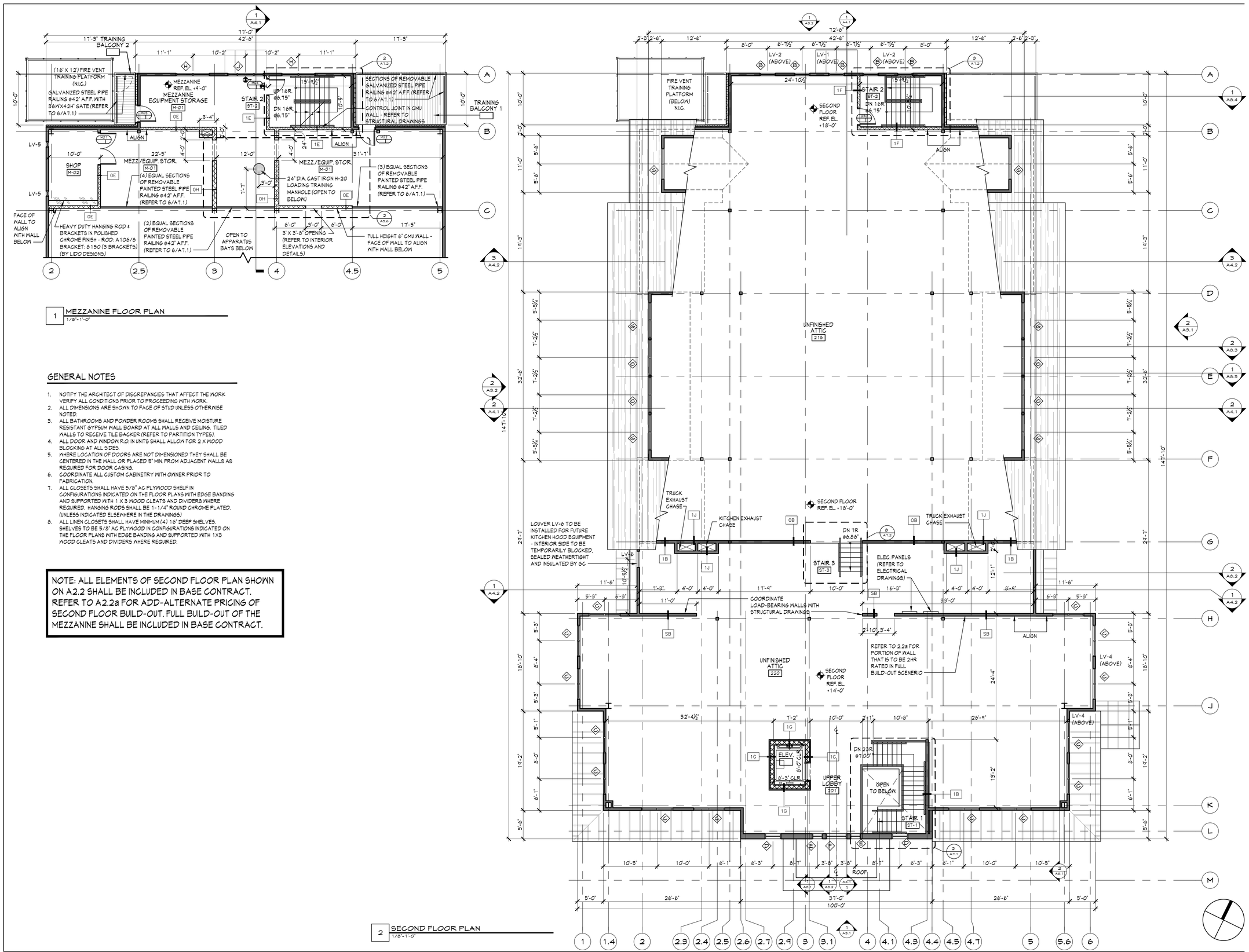
Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
FIRST FLOOR PLAN

Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	cjp
Checked by	

REGISTERED ARCHITECT JOHN P. SULLIVAN No. 017102 STATE OF NEW YORK

Drawing No.
A2.1



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

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

GENERAL NOTES

1. NOTIFY THE ARCHITECT OF DISCREPANCIES THAT AFFECT THE WORK VERIFY ALL CONDITIONS PRIOR TO PROCEEDING WITH WORK.
2. ALL DIMENSIONS ARE SHOWN TO FACE OF STUD UNLESS OTHERWISE NOTED.
3. ALL BATHROOMS AND POWDER ROOMS SHALL RECEIVE MOISTURE RESISTANT GYPSUM WALL BOARD AT ALL WALLS AND CEILING. TILED WALLS TO RECEIVE TILE BACKER (REFER TO PARTITION TYPES).
4. ALL DOOR AND WINDOW R.O. IN UNITS SHALL ALLOW FOR 2 X WOOD BLOCKING AT ALL SIDES.
5. WHERE LOCATION OF DOORS ARE NOT DIMENSIONED THEY SHALL BE CENTERED IN THE WALL OR PLACED 5" MIN. FROM ADJACENT WALLS AS REQUIRED FOR DOOR CASING.
6. COORDINATE ALL CUSTOM CABINETRY WITH OWNER PRIOR TO FABRICATION.
7. ALL CLOSETS SHALL HAVE 5/8" AC PLYWOOD SHELF IN CONFIGURATIONS INDICATED ON THE FLOOR PLANS WITH EDGE BANDING AND SUPPORTED WITH 1 X 3 WOOD CLEATS AND DIVIDERS WHERE REQUIRED. HANGING RODS SHALL BE 1 - 1/4" ROUND CHROME PLATED. (UNLESS INDICATED ELSEWHERE IN THE DRAWINGS)
8. ALL LINEN CLOSETS SHALL HAVE MINIMUM (4) 16" DEEP SHELVES. SHELVES TO BE 5/8" AC PLYWOOD IN CONFIGURATIONS INDICATED ON THE FLOOR PLANS WITH EDGE BANDING AND SUPPORTED WITH 1X3 WOOD CLEATS AND DIVIDERS WHERE REQUIRED.

NOTE: ALL ELEMENTS OF SECOND FLOOR PLAN SHOWN ON A2.2 SHALL BE INCLUDED IN BASE CONTRACT. REFER TO A2.2a FOR ADD-ALTERNATE PRICING OF SECOND FLOOR BUILD-OUT. FULL BUILD-OUT OF THE MEZZANINE SHALL BE INCLUDED IN BASE CONTRACT.

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Owner: Bedford Village Fire District
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Date Issue
01.15.21 ISSUED FOR BID

Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title MEZZANINE & SECOND FLOOR PLAN (BASE CONTRACT)

Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	CJP
Checked by	

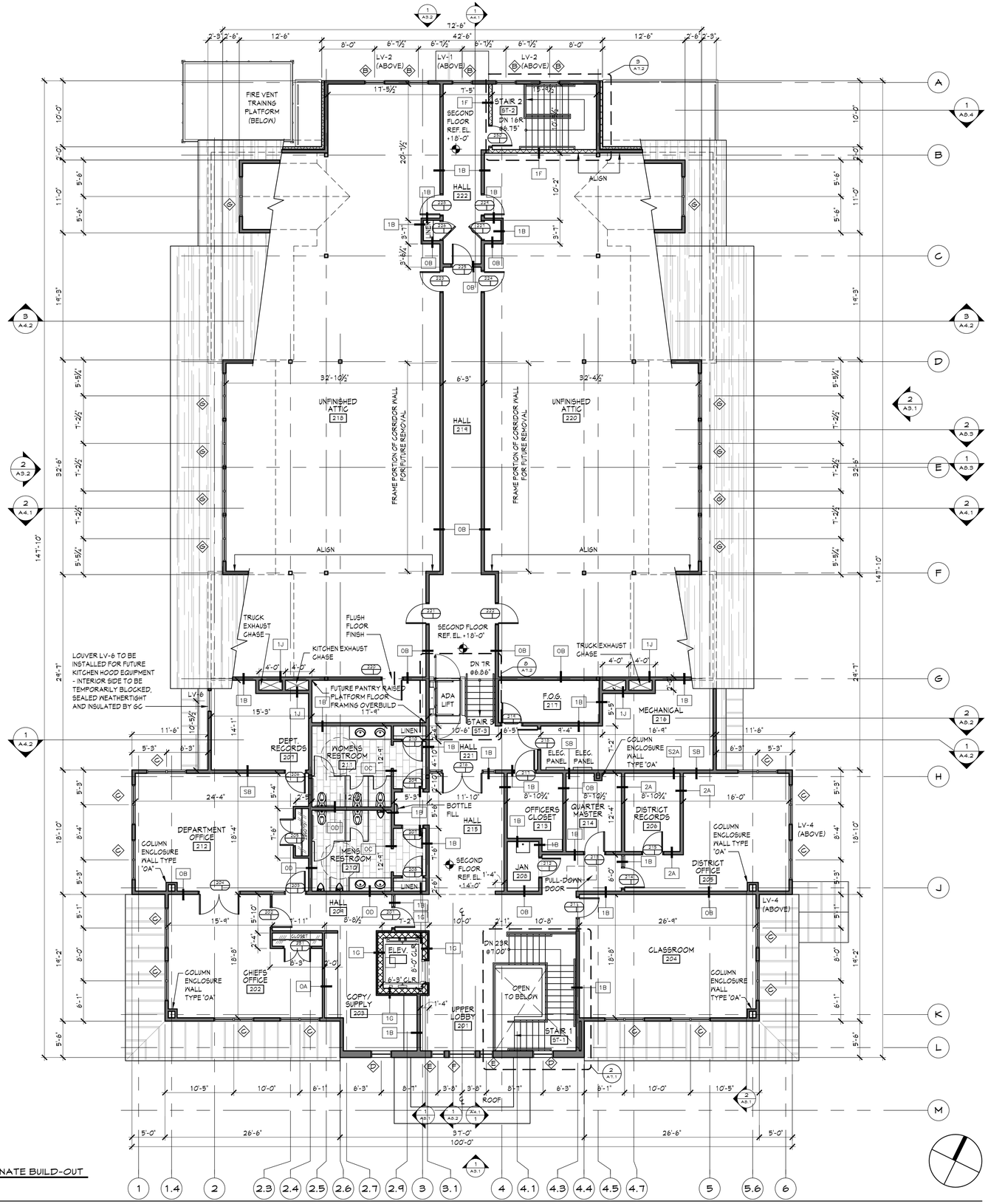
REGISTERED ARCHITECT JOHN F. SULLIVAN No. 017705 STATE OF NEW YORK

Drawing No. A2.2

GENERAL NOTES

1. NOTIFY THE ARCHITECT OF DISCREPANCIES THAT AFFECT THE WORK VERIFY ALL CONDITIONS PRIOR TO PROCEEDING WITH WORK.
2. ALL DIMENSIONS ARE SHOWN TO FACE OF STUD UNLESS OTHERWISE NOTED.
3. ALL BATHROOMS AND POWDER ROOMS SHALL RECEIVE MOISTURE RESISTANT GYPSUM WALL BOARD AT ALL WALLS AND CEILING. TILED WALLS TO RECEIVE TILE BACKER (REFER TO PARTITION TYPES).
4. ALL DOOR AND WINDOW R.O. IN UNITS SHALL ALLOW FOR 2 X WOOD BLOCKING AT ALL SIDES.
5. WHERE LOCATION OF DOORS ARE NOT DIMENSIONED THEY SHALL BE CENTERED IN THE WALL OR PLACED 5" MIN. FROM ADJACENT WALLS AS REQUIRED FOR DOOR CASING.
6. COORDINATE ALL CUSTOM CABINETRY WITH OWNER PRIOR TO FABRICATION.
7. ALL CLOSETS SHALL HAVE 5/8" AC PLYWOOD SHELF IN CONFIGURATIONS INDICATED ON THE FLOOR PLANS WITH EDGE BANDING AND SUPPORTED WITH 1 X 3 WOOD CLEATS AND DIVIDERS WHERE REQUIRED. HANGING RODS SHALL BE 1-1/4" ROUND CHROME PLATED. (UNLESS INDICATED ELSEWHERE IN THE DRAWINGS)
8. ALL LINEN CLOSETS SHALL HAVE MINIMUM (4) 16" DEEP SHELVES. SHELVES TO BE 5/8" AC PLYWOOD IN CONFIGURATIONS INDICATED ON THE FLOOR PLANS WITH EDGE BANDING AND SUPPORTED WITH 1X3 WOOD CLEATS AND DIVIDERS WHERE REQUIRED.

NOTE: THE SECOND FLOOR PLAN BUILD-OUT SHOWN ON A2.2a SHALL BE PRICED AS AN ADD-ALTERNATE. REFER TO A2.2 FOR ELEMENTS OF THE SECOND FLOOR THAT ARE INCLUDED IN THE BASE CONTRACT.



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Owner: Bedford Village Fire District
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Bedford, NY 10506

Date Issue
01.15.21 ISSUED FOR BID

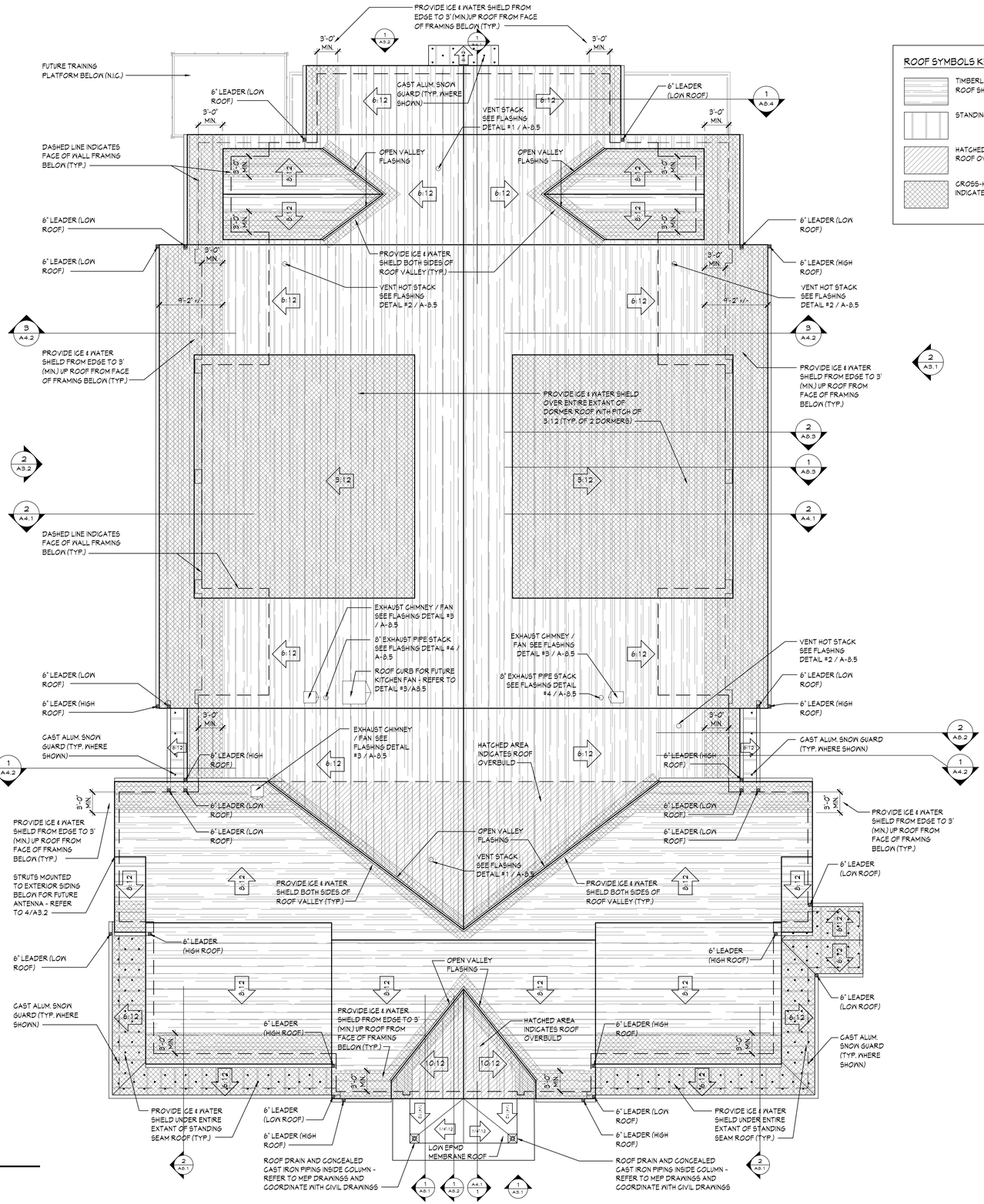
Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
SECOND FLOOR PLAN (ALTERNATE BUILD-OUT)

Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	cjp
Checked by	

REGISTERED ARCHITECT JOHN P. SULLIVAN JR. No. 017186 STATE OF NEW YORK

Drawing No.
A2.2a



1 ROOF PLAN
1/8"=1'-0"

Sullivan Architecture, P.C.
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914-761-6006 (F) 914-761-4919

Owner: Bedford Village Fire District
34 Village Green
Bedford, NY 10506

Date	Issue
01.15.21	ISSUED FOR BID

Project Title

Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

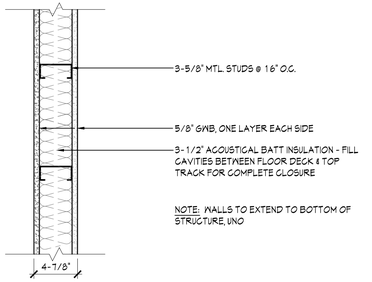
Drawing Title

ROOF PLAN

Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	cjp
Checked by	

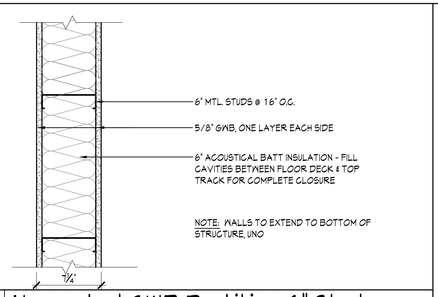
REGISTERED ARCHITECT JOHN P. SULLIVAN No. 017195 STATE OF NEW YORK

Drawing No. A2.3



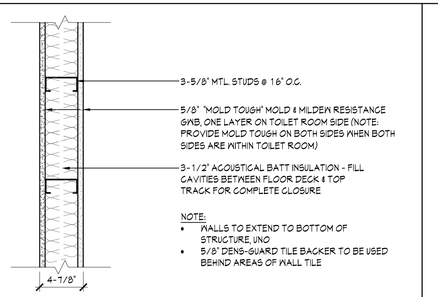
0A Non-rated GWB Partition 3-5/8" Stud

1-1/2" = 1'-0" NON-BEARING



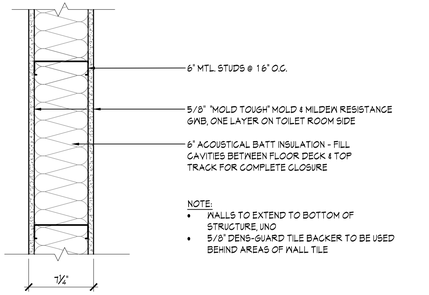
0B Non-rated GWB Partition 6" Stud

1-1/2" = 1'-0" NON-BEARING



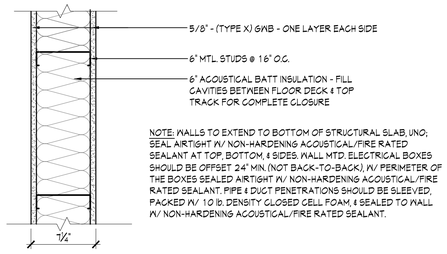
0C Non-rated Toilet Rm. Part. 3-5/8" Stud

1-1/2" = 1'-0" NON-BEARING



0D Non-rated Toilet Rm. Partition 6" Stud

1-1/2" = 1'-0" NON-BEARING

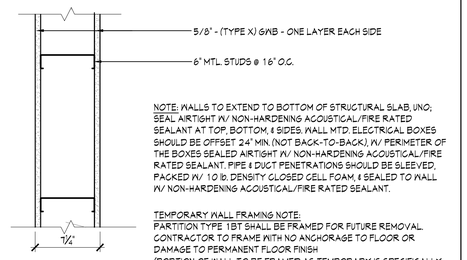


1B 1 Hr. rated GWB Partition 6" Stud

1-1/2" = 1'-0" NON-LOAD BEARING UL# U419

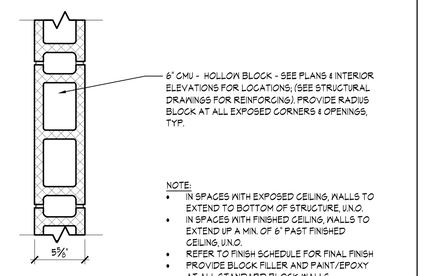
S1B 1 Hr. rated GWB Partition 6" Stud

1-1/2" = 1'-0" LOAD BEARING UL# U423



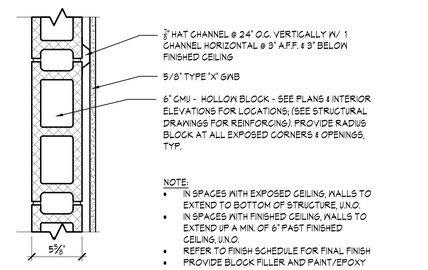
1BT 1 Hr. (Temp.) GWB Partition 6" Stud

1-1/2" = 1'-0" NON-LOAD BEARING UL# U419



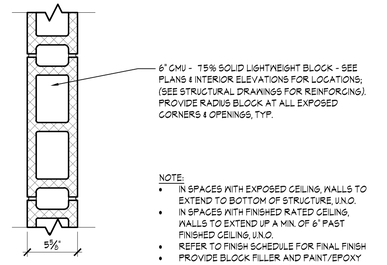
0E Non-Rated 6" CMU Partition

NON - LOAD BEARING



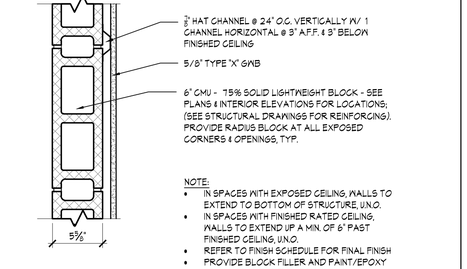
0F Non-Rated 6" CMU Partition

NON - LOAD BEARING



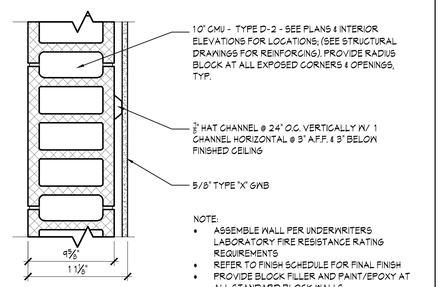
1E 1 Hr. Rated 6" CMU Partition

NON - LOAD BEARING UL# U906



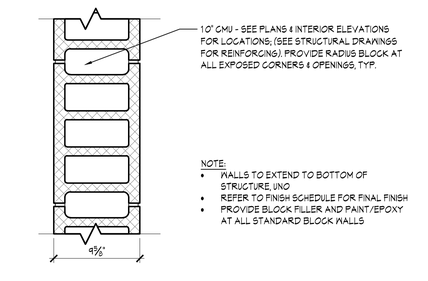
1F 1 Hr. Rated 6" CMU Partition

NON - LOAD BEARING UL# U906



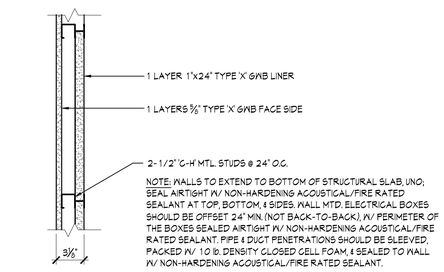
1G 1 Hr. 10" CMU w/ 5/8" GWB Furring

LOAD BEARING UL# U914



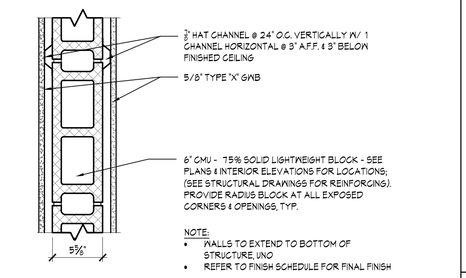
0H Non-Rated 10" CMU Partition

LOAD BEARING



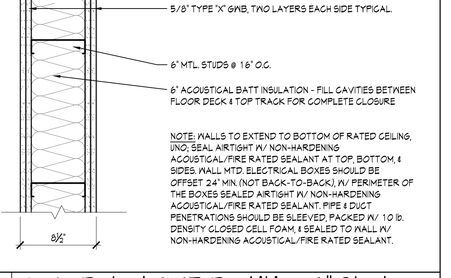
1J 1-Hr. Rated GWB Shaftwall CH Stud

1-1/2" = 1'-0" UL# U469, Design STC = 35



1K 1 Hr. Rated 6" CMU Partition

NON - LOAD BEARING UL# U906

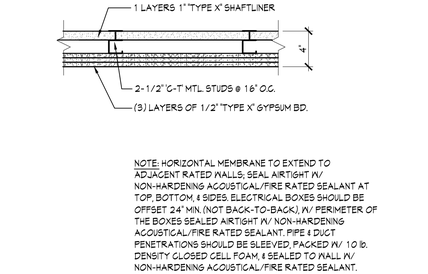


2A 2-Hr. Rated GWB Partition 6" Studs

1-1/2" = 1'-0" NON-LOAD BEARING UL# U409

S2A 2-Hr. Rated GWB Partition 6" Studs

1-1/2" = 1'-0" LOAD BEARING UL# U409



C-2 2-Hr. Rated Horizontal Membrane

1-1/2" = 1'-0"

GENERAL NOTE:
WHERE THERE IS AN ACCESSIBLE CONCEALED FLOOR, FLOOR-CEILING OR ATTIC SPACE - FIRE WALLS, FIRE BARRIERS, FIRE PARTITIONS, SMOKE BARRIERS AND SMOKE PARTITIONS OR ANY OTHER WALL REQUIRED TO HAVE PROTECTED OPENINGS OR PENETRATIONS SHALL BE EFFECTIVELY AND PERMANENTLY IDENTIFIED WITH SIGNS OR STENCILING IN THE CONCEALED SPACE.

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Owner: Bedford Village Fire District
34 Village Green
Bedford, NY 10506

Date	Issue
01.15.21	ISSUED FOR BID

Project Title

Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

Drawing Title

PARTITION TYPES

Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	cjp
Checked by	

REGISTERED ARCHITECT JOHN P. SULLIVAN No. 017185 STATE OF NEW YORK

Drawing No. A2.4

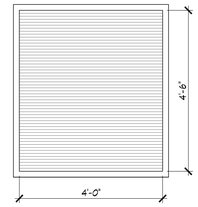
DOOR SCHEDULE

DOOR NUMBER	ROOM NAME	DOOR TYPE	DOOR MTL	DOOR SIZE WIDTH	DOOR SIZE HEIGHT	DOOR SIZE THICK.	FRAME TYPE	FRAME MTL	FRAME DETAIL HEAD	FRAME DETAIL JAMB	FRAME DETAIL SILL	HARDWARE GROUP	LABEL	REMARKS
FIRST FLOOR														
100	LOBBY	D1	AL/MD	3'-8"	8'-0"	1 3/4"	F1	AL/MD	H3	J3	S2	1		DOOR: MARVIN UCD3680 SIDELITE: MARVIN UCD1680 (TYP OF 2)
101	FNDR. RM.	D4	MDF	3'-0"	8'-0"	1 3/4"	F1	HM	H1	J1	S3	14	C	
102	LOBBY	D5	MDF	3'-0"	8'-0"	1 3/4"	F1	HM	H1	J1	S4	4	C	
103	LOBBY	D5	MDF	3'-0"	8'-0"	1 3/4"	F1	HM	H1	J1	S4	4	C	
104	WELLNESS	D16	MDF	3'-0"	8'-0"	1 3/4"	F1	HM	H1	J1	S6	4		
105	CLOSET	D6	MDF	6'-0"	8'-0"	1 3/4"	F2	HM	H1	J1	S1	27		
106	WOMEN LCKR. RM.	D4	MDF	3'-0"	8'-0"	1 3/4"	F1	HM	H1	J1	S1	15		
107	WOMEN LCKR. RM.	D7	HM	3'-0"	8'-0"	1 3/4"	F1	HM	H1	J1	S1	15		
108	NOT USED													
109	LAUNDRY	D14	MDF	2'-8"	8'-0"	1 3/4"	F1	HM	H1	J1	S1	11		
110	GEAR ROOM	D11	HM	3'-0"	8'-0"	1 3/4"	F1	HM	H6	J6	S1	6	C	
111	MEN LCKR. RM.	D4	MDF	3'-0"	8'-0"	1 3/4"	F1	HM	H1	J1	S1	15		
112	LINEN	D8	HM	4'-0"	8'-0"	1 3/4"	F2	HM	H1	J1	S1	27		
113	NOT USED													
114	GEAR ROOM	D11	HM	3'-8"	8'-0"	1 3/4"	F1	HM	H6	J6	S4	6	C	
115	CLOSET	D4	MDF	3'-0"	8'-0"	1 3/4"	F1	HM	H1	J1	S4	11		
116	FNDR. RM.	D4	MDF	3'-0"	8'-0"	1 3/4"	F1	HM	H1	J1	S5	14		
117	JANITOR	D4	MDF	3'-0"	8'-0"	1 3/4"	F1	HM	H6	J6	S6	8		
118	PANTRY	D4	MDF	3'-0"	8'-0"	1 3/4"	F1	HM	H1	J1	S1	12		
119	DAY ROOM	D11	HM	3'-8"	8'-0"	1 3/4"	F1	HM	H1	J1	S1	3		
120	VESTIBULE	D3	FRP	3'-8"	8'-0"	1 3/4"	F1	HM	H5	J5	S7	2		INSULATED F.R.P. DOOR & SIDELIGHTS
121	DISPATCH/RADIO	D5	MDF	3'-0"	8'-0"	1 3/4"	F1	HM	H1	J1	S1	4		
122	LT./SERVER RM.	D4	MDF	3'-0"	8'-0"	1 3/4"	F1	HM	H1	J1	S6	7		
123	DISPATCH/RADIO	D9	HM	3'-0"	8'-0"	1 3/4"	F1	HM	H6	J6	S6	6	C	
124	APPARATUS BAY	D2	FRP	3'-0"	8'-0"	1 3/4"	F1	HM	H5	J5	S7	3		INSULATED F.R.P. DOOR
125	ELEC. ROOM	D7	HM	3'-0"	8'-0"	1 3/4"	F1	HM	H2	J2	S6	17		
126	DEGN ROOM	D7	HM	3'-0"	8'-0"	1 3/4"	F1	HM	H2	J2	S1	11a		
127	GEAR ROOM	D10	HM	3'-8"	8'-0"	1 3/4"	F3	HM	H2	J2	S1	5		
128	MECHANICAL RM.	D7	HM	3'-0"	8'-0"	1 3/4"	F1	HM	H2	J2	S6	17		
129	APPARATUS BAY	D2	FRP	3'-0"	8'-0"	1 3/4"	F1	HM	H5	J5	S7	3		INSULATED F.R.P. DOOR
130	APPARATUS BAY	D17	AL/GL	14'-0"	14'-0"			STL	REFER TO 2/A8.3			30		SECTIONAL OVERHEAD DOOR
131	APPARATUS BAY	D17	AL/GL	14'-0"	14'-0"			STL	REFER TO 2/A8.3			30		SECTIONAL OVERHEAD DOOR
132	APPARATUS BAY	D17	AL/GL	14'-0"	14'-0"			STL	REFER TO 2/A8.3			30		SECTIONAL OVERHEAD DOOR
133	APPARATUS BAY	D17	AL/GL	14'-0"	14'-0"			STL	REFER TO 2/A8.3			30		SECTIONAL OVERHEAD DOOR
134	APPARATUS BAY	D17	AL/GL	14'-0"	14'-0"			STL	REFER TO 2/A8.3			30		SECTIONAL OVERHEAD DOOR
135	APPARATUS BAY	D17	AL/GL	14'-0"	14'-0"			STL	REFER TO 2/A8.3			30		SECTIONAL OVERHEAD DOOR
136	APPARATUS BAY	D17	AL/GL	14'-0"	14'-0"			STL	REFER TO 2/A8.3			30		SECTIONAL OVERHEAD DOOR
137	APPARATUS BAY	D17	AL/GL	14'-0"	14'-0"			STL	REFER TO 2/A8.3			30		SECTIONAL OVERHEAD DOOR
138	CASCADE	D7	HM	3'-0"	7'-0"	1 3/4"	F1	HM	H2	J2	S1	11a		
139	FLOOR CLEANING	D8	HM	6'-0"	7'-0"	1 3/4"	F2	HM	H2	J2	S1	26		
140	M.C.	D7	HM	3'-0"	7'-0"	1 3/4"	F1	HM	H2	J2	S1	18		
141	FIREMATIC STORAGE	D8	HM	6'-0"	7'-0"	1 3/4"	F2	HM	H2	J2	S6	28		
142	OUTSIDE STORAGE	D8	HM	6'-0"	7'-0"	1 3/4"	F2	HM	H5	J5	S7	29		
143	OFFICERS CLOSET	D7	HM	3'-0"	7'-0"	1 3/4"	F1	HM	H2	J2	S6	9		
144	EMS STORAGE	D7	HM	3'-0"	7'-0"	1 3/4"	F1	HM	H2	J2	S6	9		
145	CLEAN-UP	D7	HM	3'-0"	7'-0"	1 3/4"	F1	HM	H2	J2	S1	11a		
146	VESTIBULE	D11	HM	3'-0"	7'-0"	1 3/4"	F1	HM	H6	J6	S1	13	C	
147	MECHANICAL	D7	HM	3'-0"	7'-0"	1 3/4"	F1	HM	H6	J6	S6	17	C	
148	STAIR 2	D12	HM	3'-0"	7'-0"	1 3/4"	F1	HM	H6	J6	S6	4	C	
149	VESTIBULE	D3	FRP	3'-0"	7'-0"	1 3/4"	F1	HM	H5	J5	S7	3		INSULATED F.R.P. DOOR & SIDELIGHTS
150	STAIR 1	D7	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S1	10	C	DOOR & HARDWARE TO BE IN TEMPORARY WALL - IF FULL SECOND FLOOR BUILD-OUT ALTERNATE IS ACCEPTED DOOR IS NOT REQUIRED
MEZZANINE														
M01	DRYING ROOM	D8	HM	6'-0"	7'-0"	1 3/4"	F2	HM	H2	J2	S1	26		
M02	TRAINING BALCONY	D7	STL	3'-0"	7'-0"	1 3/4"	F1	HM	H5	J5	S6	22		INSULATED STEEL DOOR
M03	TRAINING PLATFORM	D7	STL	3'-0"	7'-0"	1 3/4"	F1	HM	H5	J5	S6	22		INSULATED STEEL DOOR
M04	STAIR 2	D12	HM	3'-0"	7'-0"	1 3/4"	F1	HM	H2	J2	S6	10	C	
SECOND FLOOR														
201	UPPER LOBBY	D5	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S1	7	C	
202	CHIEF'S OFFICE	D5	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S9	7		
203	DEPARTMENT OFFICE	D5	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S9	7		
204	DEPARTMENT OFFICE	D6	MDF	6'-0"	7'-0"	1 3/4"	F2	HM	H1	J1	S1	25		
205	STORAGE	D6	MDF	4'-0"	7'-0"	1 3/4"	F2	HM	H1	J1	S1	27		
206	DEPT. RECORDS	D4	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S9	8		
207	MENS RESTROOM	D4	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S5	11	C	
208	LINEN	D7	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S1	21		
209	WOMENS RESTROOM	D4	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S5	11	C	
210	LINEN	D7	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S1	21		
211	CLASSROOM	D5	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S9	7	C	
212	JANITOR	D4	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S6	8		
213	QUARTER MASTER	D4	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S1	8	C	
214	DISTRICT OFFICE	D5	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S9	7	C	
215	DISTRICT RECORDS	D4	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S9	8	B	2 HR RATED STORAGE ROOM
216	HALL	D13	MDF	6'-0"	7'-0"	1 3/4"	F2	HM	H1	J1	S1	23	C	
217	OFFIGERS CLOSET	D4	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S1	8	C	
218	MECHANICAL	D4	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S6	16	C	
219	F.O.G.	D4	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S1	8		
220	ATTIC (FUTURE PANTRY)	D4	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S1	8		
221	ATTIC (FUTURE KITCHEN)	D4	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S1	8		
222	ATTIC (FUTURE STOR.)	D4	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S1	11		
223	ATTIC (FUTURE REST.RM.)	D4	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S1	14		
224	ATTIC (FUTURE REST.RM.)	D4	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S1	14		
225	HALL	D4	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S1	10a		
226	STORAGE	D4	MDF	2'-8"	7'-0"	1 3/4"	F1	HM	H1	J1	S1	16		
227	STOR. (FUTURE LAUND.)	D14	MDF	2'-8"	7'-0"	1 3/4"	F1	HM	H1	J1	S1	16		
228	ATTIC (FUTURE DORM)	D4	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S1	7	C	
229	ATTIC (FUTURE DORM)	D4	MDF	3'-0"	7'-0"	1 3/4"	F1	HM	H1	J1	S1	7	C	
230	STAIR 2	D12	HM	3'-0"	7'-0"	1 3/4"	F1	HM	H6	J6	S6	10	C	
231	STORAGE	D6	MDF	4'-0"	7'-0"	1 3/4"	F2	HM	H1	J1	S1	27		

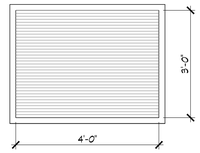
NOTE: ALL DOORS AND ASSOCIATED HARDWARE INCLUDED IN DASHED OUTLINE TO BE PRICED AS AN ADD-ALTERNATE (REFER TO A2.2a)

WINDOW SCHEDULE

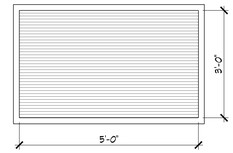
SYMBOL	MANUFACTURER	WINDOW MODEL	TYPE	FINISH EXTERIOR	FINISH INTERIOR	FINISH COLOR	GLAZING THICKNESS	GLAZING TYPE	GLAZING FINISH	INSECT SCREEN FRAME	INSECT SCREEN TYPE	GRILL TYPE	REMARKS	SYMBOL
A	MARVIN	"ELEVATE" ELDH3660 2W E	D.H.	FIBERGLASS	WOOD	TO BE SELECTED	7/8"	LOW E2 (ARGON)	CLEAR	EXTRUDED	ALUMINUM	SIM. DIVIDED LITE	MULLED UNITS	A
B	MARVIN	"ELEVATE" ELDH3660 E	D.H.	FIBERGLASS	WOOD	TO BE SELECTED	7/8"	LOW E2 (ARGON)	CLEAR	EXTRUDED	ALUMINUM	SIM. DIVIDED LITE		B
C	MARVIN	"ELEVATE" ELDH3652 2W	D.H.	FIBERGLASS	WOOD	TO BE SELECTED	7/8"	LOW E2 (ARGON)	CLEAR	EXTRUDED	ALUMINUM	SIM. DIVIDED LITE	MULLED UNITS	C
D	MARVIN	"ELEVATE" ELDH3652	D.H.	FIBERGLASS	WOOD	TO BE SELECTED	7/8"	LOW E2 (ARGON)	CLEAR	EXTRUDED	ALUMINUM	SIM. DIVIDED LITE		D
E	MARVIN	"ELEVATE" ELDH2272	D.H.	FIBERGLASS	WOOD	TO BE SELECTED	7/8"	LOW E2 (ARGON)	CLEAR	EXTRUDED	ALUMINUM	SIM. DIVIDED LITE		E
F	MARVIN	"ELEVATE" ELDH4272 E	D.H.	FIBERGLASS	WOOD	TO BE SELECTED	7/8"	LOW E2 (ARGON)	CLEAR	EXTRUDED	ALUMINUM	SIM. DIVIDED LITE		F
G	MARVIN	"ELEVATE" ELAWN 4139 2W	AWNING	FIBERGLASS	WOOD	TO BE SELECTED	7/8"	LOW E2 (ARGON)	CLEAR	EXTRUDED	ALUMINUM	SIM. DIVIDED LITE	MULLED UNITS	G
H	MARVIN	"ELEVATE" ELDH3648 2W	D.H.	FIBERGLASS	WOOD	TO BE SELECTED	7/8"	LOW E2 (ARGON)	CLEAR	EXTRUDED	ALUMINUM	SIM. DIVIDED LITE	MULLED UNITS	H
J	MARVIN	"ELEVATE" (2) ELDH2648 & (1) ELDH3648	D.H.	FIBERGLASS	WOOD	TO BE SELECTED	7/8"	LOW E2 (ARGON)	CLEAR	EXTRUDED	ALUMINUM	SIM. DIVIDED LITE	MULLED UNITS	J



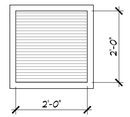
LV-1 ALUMINUM LOUVER



LV-2 ALUMINUM LOUVER



LV-3 ALUMINUM LOUVER



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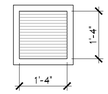

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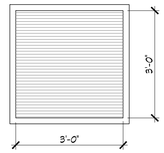
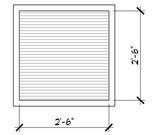
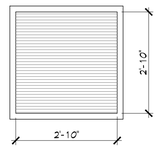


LV-6 ALUMINUM LOUVER



LV-7 ALUMINUM LOUVER



LV-8 ALUMINUM LOUVER

NOTES:
- LOUVERS SHOWN FOR ARCHITECTURAL DESIGN INTENT ONLY - REFER TO MECHANICAL DRAWINGS AND SPECIFICATIONS FOR COMPLETE INFORMATION ON LOUVERS - LOUVERS TO BE COORDINATED AND SUPPLIED BY MECHANICAL CONTRACTOR
- ALL EXTERIOR LOUVERS LOCATED IN SIDING TO BE TRIMMED BY ARTISAN 3.25" TRIM BOARD (ALL SIDES) - TYP.

1 LOUVER SCHEDULE
1/2"=1'-0"

Sullivan Architecture, P.C.
31 Mamaroneck Avenue
White Plains, New York 10601
914-761-6006 (F) 914-761-4919

Owner: Bedford Village Fire District
34 Village Green
Bedford, NY 10506

Date Issue
01.15.21 ISSUED FOR BID

Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
DOOR, WINDOW & LOUVER SCHEDULE

Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	cjp
Checked by	

REGISTERED ARCHITECT JOHN F. SULLIVAN JR. No. 017185 STATE OF NEW YORK

Drawing No.
A2.5

GENERAL NOTES

DOOR & FRAME NOTES:

1. FOR DOOR OPERATION AND HAND, REFER TO FLOOR PLANS.
2. ALL FIRE RATED DOORS SHALL HAVE UL RATED HARDWARE. ALL FIRE RATED DOORS TO HAVE LATCHES.
3. ALL GLAZED DOORS SHALL HAVE TEMPERED SAFETY GLAZING. INTERIOR DOORS SHALL HAVE 1/4" THICK GLASS AND EXTERIOR DOORS SHALL HAVE INSULATED GLASS (DOUBLE GLAZING WITH AIR SPACE). ALL GLAZING AT RATED DOORS SHALL MEET UL REQUIREMENTS FOR S.F. BASED ON MATERIAL USED.
4. DOOR THRESHOLDS SHALL NOT EXCEED 1/2" IN HEIGHT. THRESHOLDS $\frac{1}{2}$" BEVEL 1:2 RATIO MAX.
5. CLOSER OPENING FORCE SHALL NOT EXCEED 8 LBS. AT EXTERIOR DOORS AND 5 LBS AT INTERIOR DOORS.
6. EXIT DOOR HARDWARE SHALL ALLOW DOOR TO BE OPENED FROM INSIDE WITHOUT KEY, SPECIAL KNOWLEDGE OR EFFORT.
7. MANUALLY-OPERATED EDGE- OR SURFACE-MOUNTED FLUSH BOLTS ARE NOT PERMITTED AT EXIT DOORS.
8. ALL PASSAGE DOORS WITH LATCHES OR LOCKING MECHANISMS SHALL BE EQUIPPED WITH SINGLE-EFFORT LEVER-TYPE HARDWARE, PANIC BARS, OR OTHER HARDWARE TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE HARDWARE. DOOR HARDWARE SHALL BE CENTERED BETWEEN 34" AND 48" ABOVE THE FLOOR.
9. ALL DOORS SHALL HAVE MIN. 10" SMOOTH SURFACE AT BOTTOM TO MEET ANSI REQUIREMENTS.
10. ALL RATED DOORS TO HAVE SMOKE SEALS, UL LABELS AND REQUIRED FIRE RATED COMPONENTS.
11. FIRE DOORS FOR OPENINGS IN FIRE RATED PARTITIONS SHALL COMPLY WITH SECTION 716 - OPENING PROTECTIVES. NON FIRE RATED GLAZING MATERIAL IN THE DOOR ASSEMBLY SHALL HAVE A MAXIMUM EXPOSED AREA OF 100 SQUARE INCHES.
12. ARCHITECT TO SELECT HM, MDF, FRP AND WD FINISH COLOR FOR DOORS AND FRAMES. ENSURE WOOD DOOR HAS FINISH COAT AT EACH SIDE, INCLUDING TOP AND BOTTOM.
13. WHERE LOCATION OF DOORS ARE NOT DIMENSIONED, THEY SHALL BE CENTERED IN THE WALL OR PLACED 4-5/8" FROM ADJACENT WALL.
14. ALARM/SECURITY SYSTEM BY SECURITY VENDOR. COORDINATE WIRING DURING INSTALLATION.

ABBREVIATIONS:

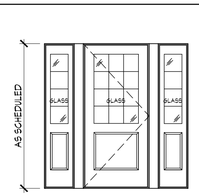
AL, ALUM	ALUMINUM
ANOD	ANODIZED
PT	PAINT
HM	HOLLOW METAL
WD	WOOD
FF	FACTORY FINH
STL	STEEL
HC	HOLLOW CORE WOOD
SC	SOLID CORE WOOD
AL/MRR	ALUMNUM MIRRORED DOOR
FRP	FIBERGLASS REINFORCED PLASTIC

UL DOOR LABEL:

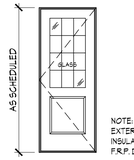
C LABEL	45 MIN FIRE RATING

DOOR TYPES

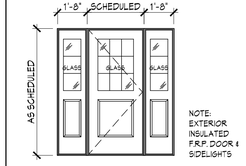
SCALE : 1/4"= 1'-0"



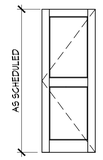
D1 WD. CLAD EXT. DOOR & SIDELIGHTS



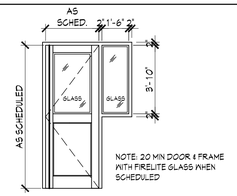
D2 F.R.P. EXTERIOR DOOR



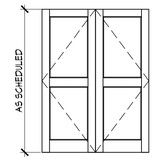
D3 F.R.P. EXT. DOOR & SIDELIGHTS



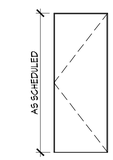
D4 MDF INTERIOR PANEL DOOR



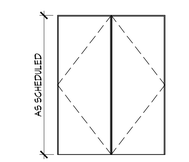
D5 MDF INT. PANEL DOOR W/SIDELIGHT



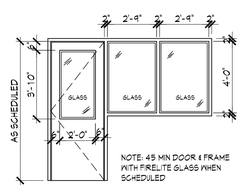
D6 DOUBLE MDF INT. PANEL DOOR



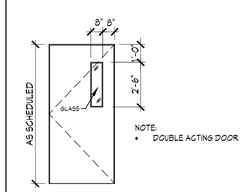
D7 FLUSH DOOR



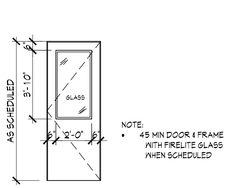
D8 DOUBLE FLUSH METAL DOOR



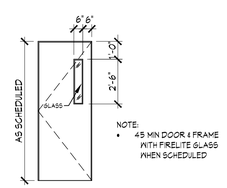
D9 H.M. DOOR WITH LITE & SIDELITE



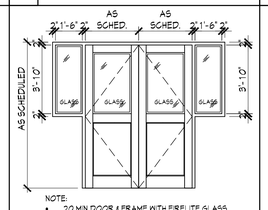
D10 FLUSH H.M. DOOR (DBL. ACTING)



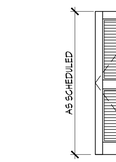
D11 H.M. DOOR WITH LITE



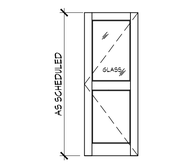
D12 H.M. DOOR WITH LITE



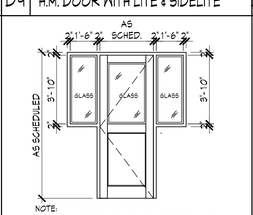
D13 MDF INT. PANEL DOOR W/SIDELIGHT



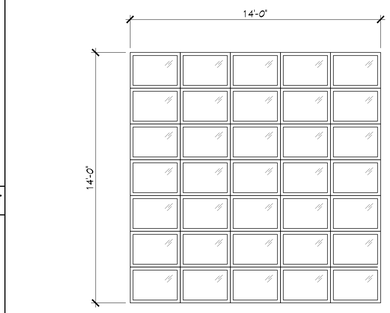
D14 MDF INTERIOR LOUVER DOOR



D15 MDF INTERIOR PANEL DR. W/GLASS

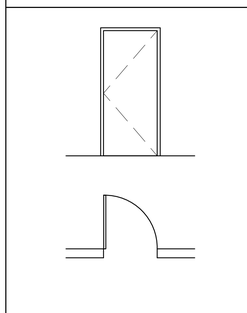


D16 MDF INT. PANEL DOOR W/SIDELIGHT

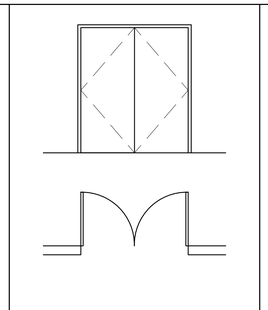


D17 ALUMINUM & GLASS SECTIONAL OVERHEAD DOOR

DOOR FRAME TYPES



F1 SWING DOOR FRAME



F2 SWING DOOR FRAME

F3 DBL. ACTING SWING DR FRAME

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Owner: Bedford Village Fire District
34 Village Green
Bedford, NY 10506

Date Issue

01.15.21	ISSUED FOR BID

Project Title

Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

Drawing Title

DOOR TYPES

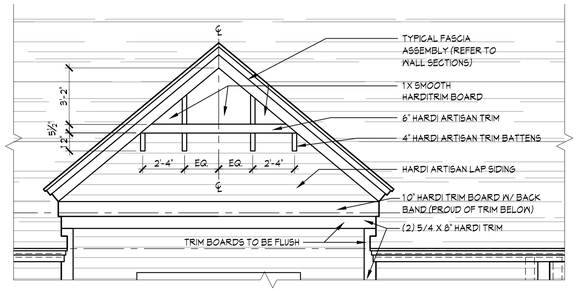
Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	CJP
Checked by	

REGISTERED ARCHITECT JOHN P. SULLIVAN No. 017186 STATE OF NEW YORK

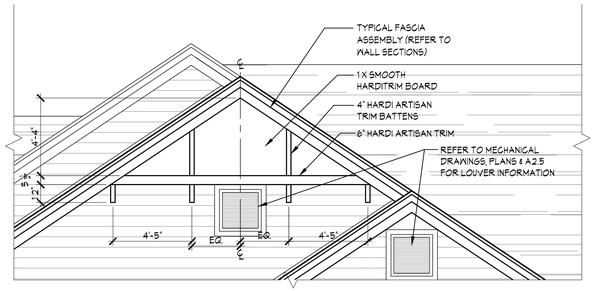
Drawing No.

A2.6

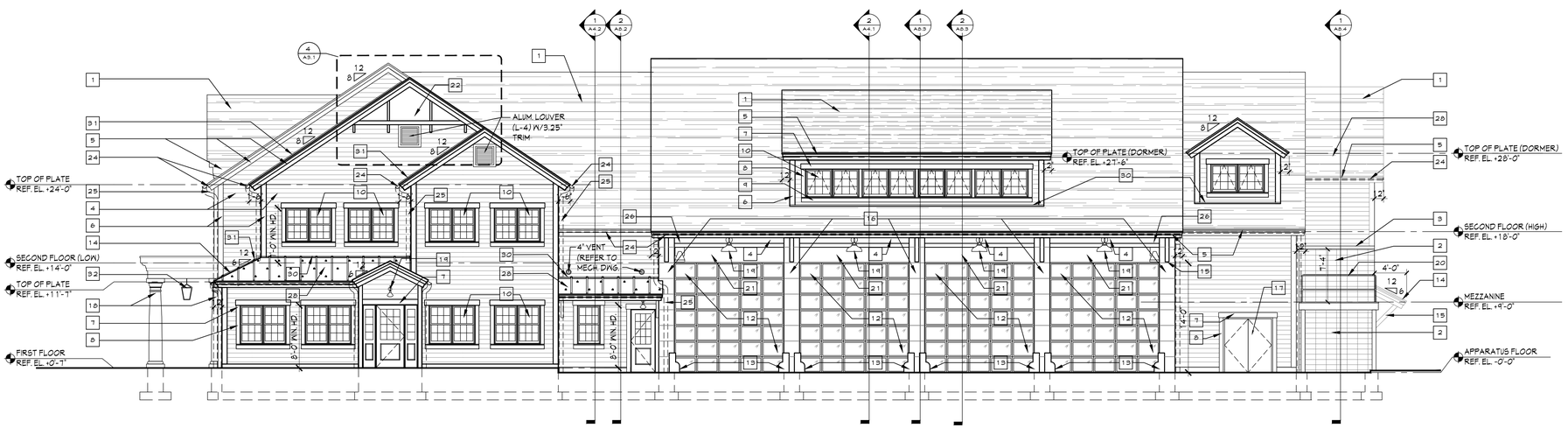
1 SOUTH ELEVATION
1/8"=1'-0"



3 PARTIAL ENLARGED ELEVATION
1/4"=1'-0"



4 PARTIAL ENLARGED ELEVATION
1/4"=1'-0"



2 WEST ELEVATION
1/8"=1'-0"

ELEVATION MATERIAL SCHEDULE

1	TIMBERLINE HD ARCHITECTURAL ROOF SHINGLE (OR EQUAL)
2	GROUND FACE CONC. BLOCK VENEER (STACK BOND)
3	PRECAST STONE COPING
4	HARDIE ARTISAN LAP SIDING ("7" EXPOSURE) (OR EQUAL)
5	HARDIE TRIM FASCIA ASSEMBLY (OR EQUAL)
6	HARDIE ARTISAN TRIM 6" CORNER BOARD (OR EQUAL) (TYP.)
7	HARDIE TRIM 8" WINDOW/DOOR HEAD (OR EQUAL) (TYP.)
8	HARDIE ARTISAN TRIM 6" WINDOW/DOOR CASING (OR EQUAL) (TYP.)
9	HARDIE ARTISAN TRIM 6" WINDOW APRON (OR EQUAL) (TYP.)
10	MARVIN "ELEVATE" DOUBLE-HUNG WINDOW (OR EQUAL)
11	MARVIN "ULTIMATE" ALUM.-CLAD COMMERCIAL WOOD DOOR (OR EQUAL)
12	14' x 14' ALUM. & GLASS OVERHEAD GARAGE DOOR
13	PAINTED STEEL CORNER GUARDS
14	STANDING SEAM METAL ROOF
15	COMPOSITE TRIMMED BRACKET (REFER TO SECTIONS & DETAILS)
16	24" HIGH PRECAST STONE PANEL
17	INSULATED STEEL DOOR
18	FIBERGLASS ARCHITECTURAL COLUMN ENCLOSURE
19	EXTERIOR WALL SCONCE
20	SECTIONS OF REMOVABLE GALVANIZED PIPE RAILING (REFER TO 6/A7.1)
21	PRECAST STONE LINTEL & CAP
22	HARDI PANEL & HARDI TRIM GABLE PANELING
23	"FIRE VENT" TRAINING PLATFORM (N.I.C.)
24	6" K-STYLE ALUMINUM GUTTER
25	4" RECTANGULAR ALUMINUM LEADER
26	FLOOD LIGHT
27	ALUMINUM LOUVER
28	CAST ALUMINUM PAD STYLE SNOW GUARD (BY ALPINE OR EQUAL)
29	(2) 5/4 x 8" HARDI TRIM BOARDS (GLUED AND SCREWED)
30	CONTINUOUS ALUMINUM FLASHING (2" EXPOSURE)
31	CONTINUOUS ALUMINUM STEPPED FLASHING (2" EXPOSURE)
32	EXTERIOR PENDANT LIGHT FIXTURE

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Date Issue

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Project Title

Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

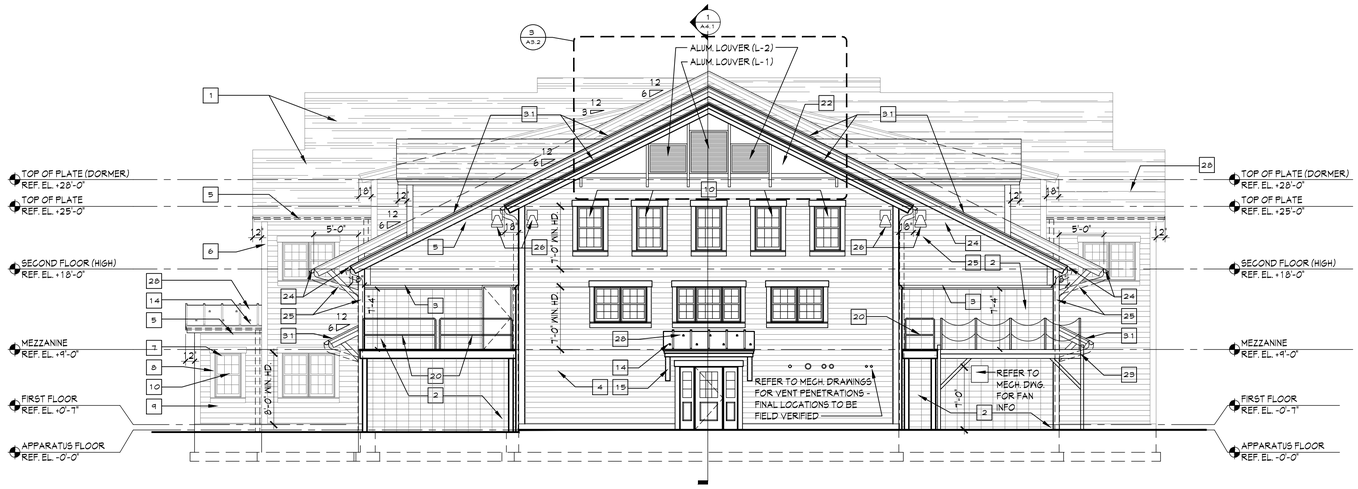
Drawing Title

EXTERIOR ELEVATIONS

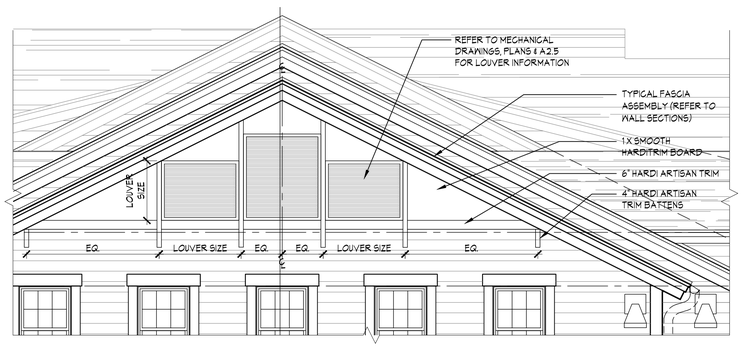
Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	cjp
Checked by	

REGISTERED ARCHITECT JOHN F. SULLIVAN No. 017186 STATE OF NEW YORK

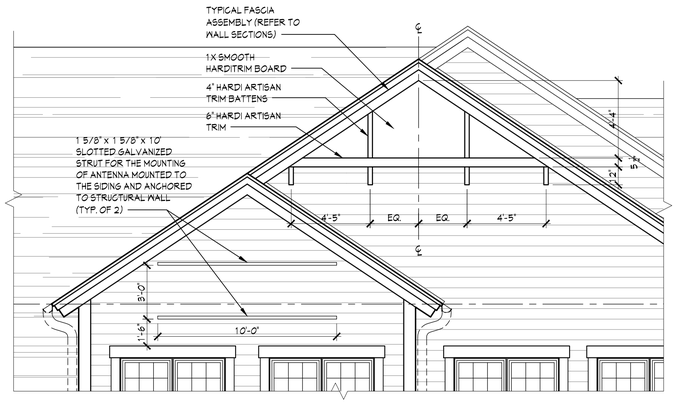
Drawing No. A3.1



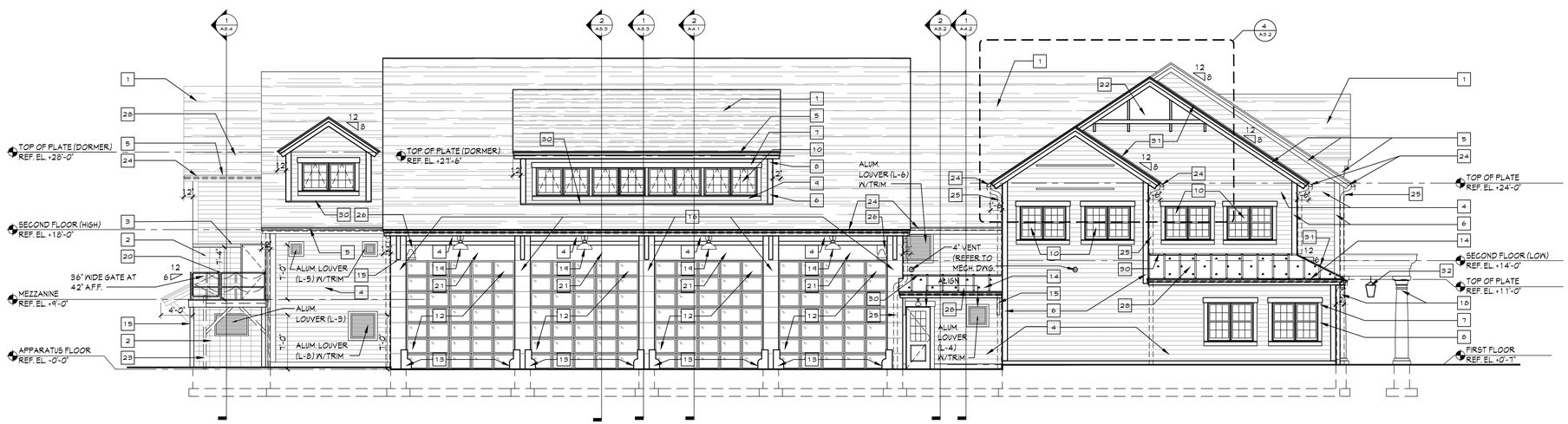
1 NORTH ELEVATION
1/8"=1'-0"



3 PARTIAL ENLARGED ELEVATION
1/4"=1'-0"



4 PARTIAL ENLARGED ELEVATION
1/4"=1'-0"



2 EAST ELEVATION
1/8"=1'-0"

ELEVATION MATERIAL SCHEDULE

1	TIMBERLINE HD ARCHITECTURAL ROOF SHINGLE (OR EQUAL)
2	GROUND FACE CONC. BLOCK VENEER (STACK BOND)
3	PRECAST STONE COPING
4	HARDIE ARTISAN LAP SIDING (7" EXPOSURE) (OR EQUAL)
5	HARDIE TRIM FASCIA ASSEMBLY (OR EQUAL)
6	HARDIE ARTISAN TRIM 6" CORNER BOARD (OR EQUAL) (TYP.)
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31	CONTINUOUS ALUMINUM STEPPED FLASHING (2" EXPOSURE)
32	EXTERIOR PENDANT LIGHT FIXTURE

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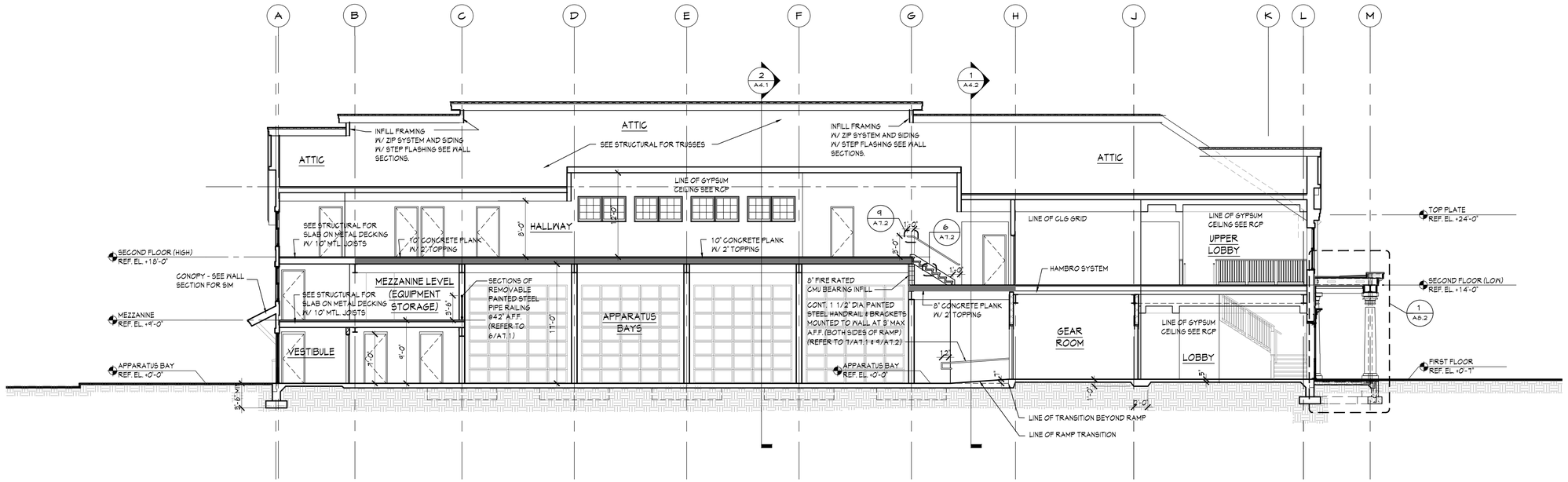
Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
EXTERIOR ELEVATIONS

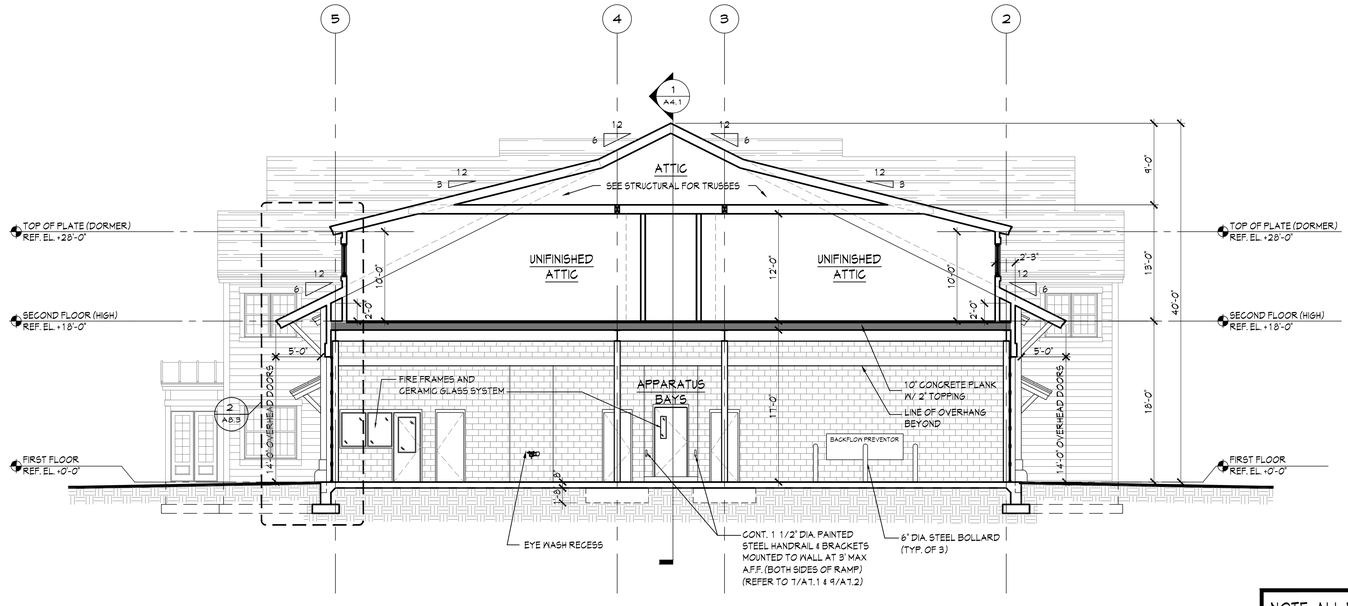
Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	cjp
Checked by	

REGISTERED ARCHITECT ARTHUR F. SULLIVAN No. 017189 STATE OF NEW YORK

Drawing No.
A3.2



1 BUILDING SECTION
1/8"=1'-0"



2 BUILDING SECTION
1/8"=1'-0"

NOTE: ALL FINISHES ON SECOND FLOOR SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. REFER TO A2.2 & A2.2a FOR MORE INFORMATION REGARDING WHAT SCOPE IS INCLUDED IN THE BASE CONTRACT AND WHAT IS TO BE PRICED AS AN ADD-ALTERNATE

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Date	Issue
01.15.21	ISSUED FOR BID

Project Title

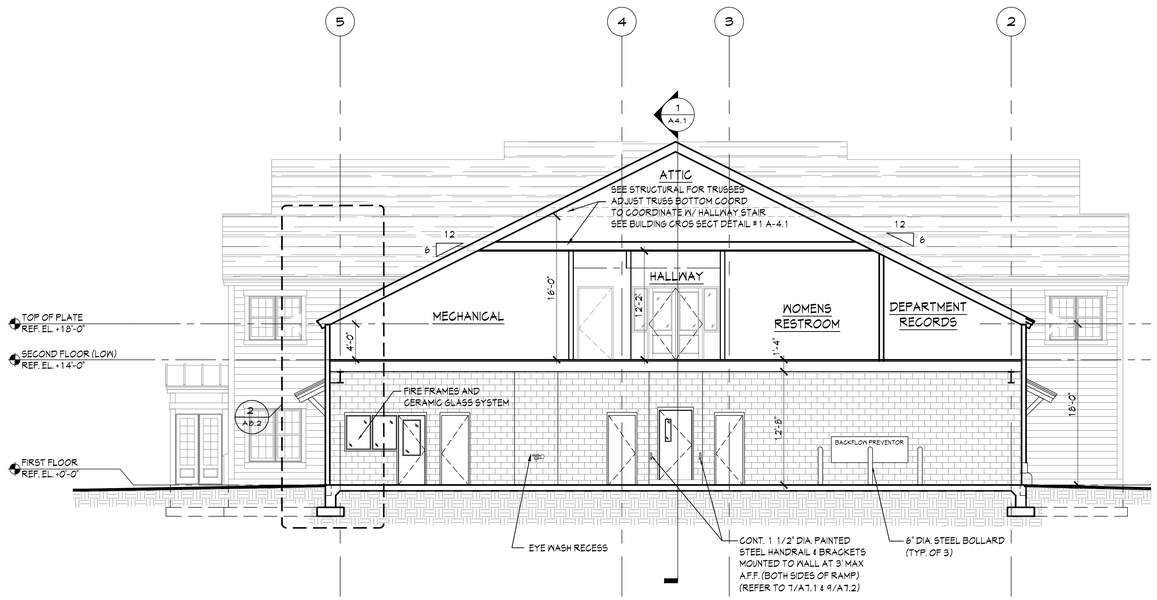
Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

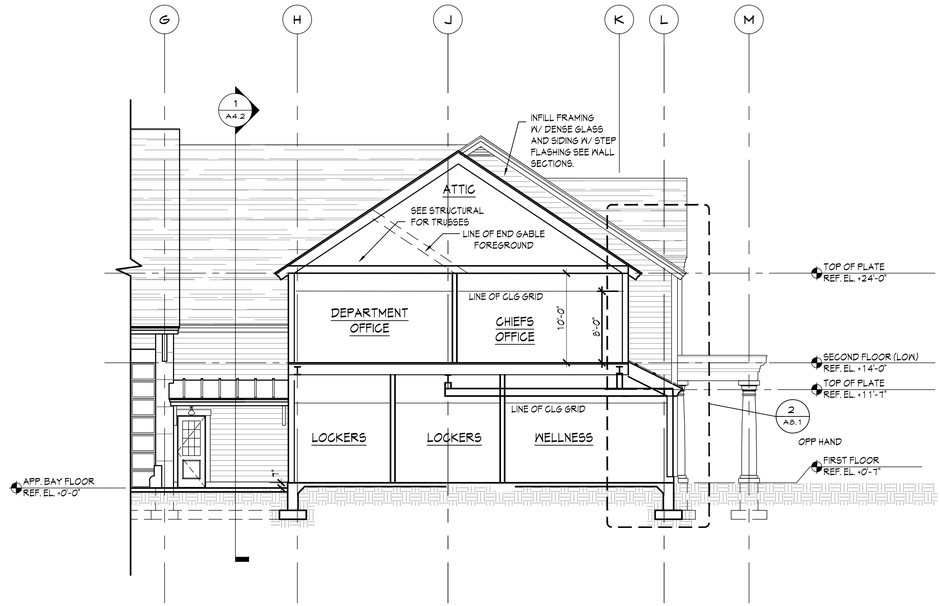
Drawing Title
BUILDING SECTIONS

Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	CJP
Checked by	

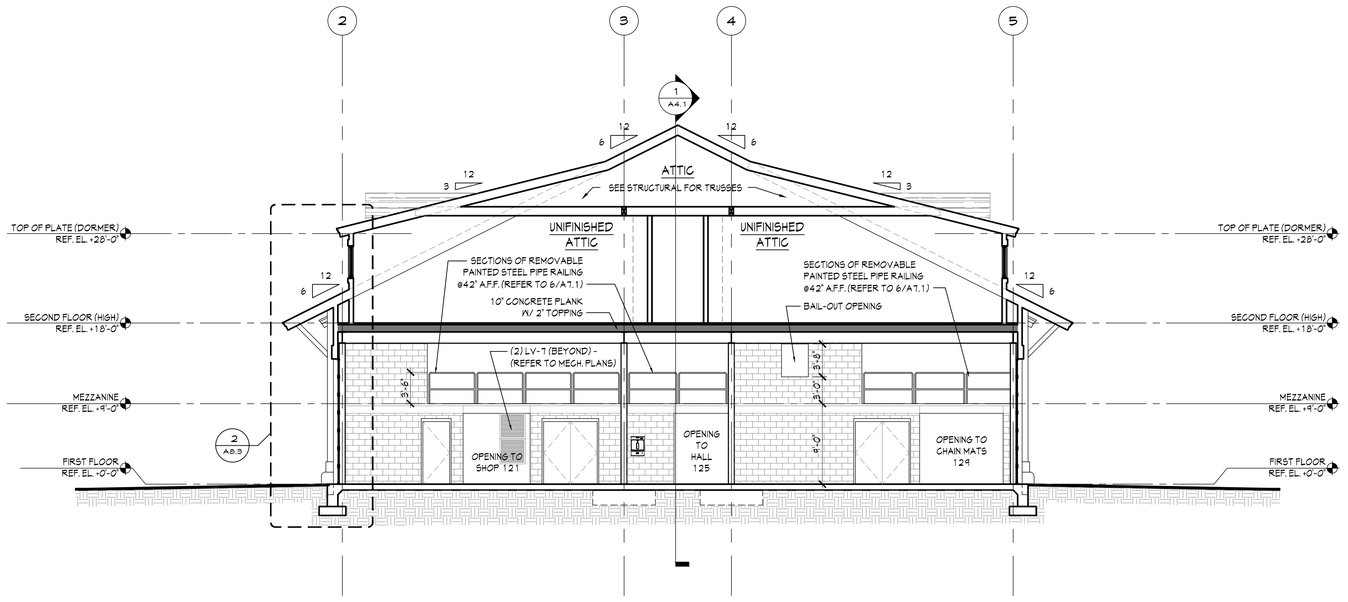
Drawing No.
A4.1



1 BUILDING SECTION
1/8"=1'-0"



2 BUILDING SECTION
1/8"=1'-0"



3 BUILDING SECTION
1/8"=1'-0"

NOTE: ALL FINISHES ON SECOND FLOOR SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. REFER TO A2.2 & A2.2a FOR MORE INFORMATION REGARDING WHAT SCOPE IS INCLUDED IN THE BASE CONTRACT AND WHAT IS TO BE PRICED AS AN ADD-ALTERNATE

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Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
BUILDING SECTIONS

Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	cjp
Checked by	

REGISTERED ARCHITECT JOSEPH P. SULLIVAN No. 017169 STATE OF NEW YORK

Drawing No.
A4.2

ROOM FINISH SCHEDULE

ROOM NUMBER	ROOM NAME	FLOOR MATL/FINISH	BASE MATL	WALLS MATL	WALLS FINISH	CEILING MATL	CEILING FINISH	REMARKS
FIRST FLOOR								
ST-1	STAIR 1	TERR-1		GYP. BD.	PT-_	GYP-1	PT-_	
ST-2	STAIR 2	RBR-3	VCB-1	CEMENT BD. CONC. BLK.	PT-_	GYP-1	PT-_	FLOOR FINISH AT 1ST FLOOR TO BE SCONC-1 ALL INTERMEDIATE LANDINGS TO RBR-3
ELEV.	ELEVATOR	RBR-1			PT-_			OTHER THAN FLOOR, ALL ELEVATOR FINISHES TO BE SUPPLIED BY ELEV. MFR (SELECTED BY ARCH.)
101	LOBBY	TERR-1	TERB-1	GYP. BD.	PT-_	GYP-1	PT-_	CUSTOM WATERJET CUT TECHNIQUE TERRAZZO LOGO (REFER TO 2/A2.1)
102	POWDER ROOM	PFT-1	PCB-1	GYP. BD.	PT-_ / PWT-1	GYP-1	PT-_	REFER TO INTERIOR ELEVATIONS FOR WALL TILE CONFIGUARATIONS
103	EXERCISE ROOM	SCONC-1		GYP. BD.	PT-_	EXP. GYP-1	PT-_	CEILING AND ALL COMPONENTS TO BE PAINTED
104	CLOSET	LVT-1	VCB-1	GYP. BD.	PT-_	ACT-1		
105	POWDER ROOM	PFT-1	PCB-1	GYP. BD.	PT-_ / PWT-1	GYP-1	PT-_	REFER TO INTERIOR ELEVATIONS FOR WALL TILE CONFIGUARATIONS
106	DAY ROOM	LVT-1	VCB-1	GYP. BD.	PT-_	EXPOSED	PT-_	CEILING AND ALL COMPONENTS TO BE PAINTED
107	VESTIBULE	SCONC-1	VCB-1	GYP. BD.	PT-_	GYP-1	PT-_	"PEDIMAT M 1" RECESSED ENTRANCE MAT - FULL FOOTPRINT OF VESTIBULE
108	DISPATCH / RADIO	LVT-1	VCB-1	GYP. BD.	PT-_	ACT-1		
109	IT / SERVER ROOM	LVT-1	VCB-1	GYP. BD.	PT-_	ACT-1		
110	JANITOR CLOSET	EPOXY-1	EPXB-1	CONC. BLK.	FRP	EXPOSED	PT-_	CEILING AND ALL COMPONENTS TO BE PAINTED
111	ELECTRICAL ROOM	SCONC-1		CONC. BLK.	PT-_	EXPOSED	PT-_	
112	DECONTAMINATION RM	EPOXY-1	EPXB-1	CONC. BLK.	EPXN	EXPOSED	PT-_	CEILING AND ALL COMPONENTS TO BE PAINTED
113	GEAR ROOM	EPOXY-1	EPXB-1	CONC. BLK.	EPXN	GYP-1	PT-_	
114	MECHANICAL ROOM	SCONC-1		CONC. BLK.	PT-_	EXPOSED	PT-_	
115	MEN LOCKER ROOM	EPOXY-1	EPXB-1	GYP. BD.	PT-_	ACT-1		
116	MEN RESTROOM	PFT-2 / PFT-3	PCB-2	GYP. BD.	PT-_ PWT243	GYP-1	PT-_	REFER TO INTERIOR ELEVATIONS FOR WALL TILE CONFIGUARATIONS
117	WOMEN LOCKER ROOM	EPOXY-1	EPXB-1	GYP. BD.	PT-_	ACT-1		
118	WOMEN RESTROOM	PFT-2 / PFT-3	PCB-2	GYP. BD.	PT-_ PWT243	GYP-1	PT-_	REFER TO INTERIOR ELEVATIONS FOR WALL TILE CONFIGUARATIONS
119	APPARATUS BAY	EPOXY-1	EPXB-1	CONC. BLK.	EPXN	EXPOSED	PT-_	CEILING AND ALL COMPONENTS TO BE PAINTED
120	AIR ROOM	EPOXY-1	EPXB-1	CONC. BLK.	PT-_	EXPOSED	PT-_	CEILING AND ALL COMPONENTS TO BE PAINTED
121	SHOP	EPOXY-1	EPXB-1	CONC. BLK.	EPXN	EXPOSED	PT-_	CEILING AND ALL COMPONENTS TO BE PAINTED
122	FLOOR CLEANING	EPOXY-1	EPXB-1	CONC. BLK.	PT-_	EXPOSED	PT-_	CEILING AND ALL COMPONENTS TO BE PAINTED
123	CLEAN-UP	EPOXY-1	EPXB-1	CONC. BLK.	PT-_	EXPOSED	PT-_	CEILING AND ALL COMPONENTS TO BE PAINTED
124	WATER CLOSET	EPOXY-1	EPXB-1	CONC. BLK.	EPXN	EXPOSED	PT-_	CEILING AND ALL COMPONENTS TO BE PAINTED
125	HALL	EPOXY-1	EPXB-1	CONC. BLK.	EPXN	EXPOSED	PT-_	CEILING AND ALL COMPONENTS TO BE PAINTED
126	EMS STORAGE	SCONC-1		CONC. BLK.	PT-_	EXPOSED	PT-_	CEILING AND ALL COMPONENTS TO BE PAINTED
127	OFFICER'S CLOSET	SCONC-1		CONC. BLK.	PT-_	EXPOSED	PT-_	CEILING AND ALL COMPONENTS TO BE PAINTED
128	FIREMATIC STORAGE	SCONC-1		CONC. BLK.	PT-_	EXPOSED	PT-_	CEILING AND ALL COMPONENTS TO BE PAINTED
129	CHAIN MATS	EPOXY-1	EPXB-1	CONC. BLK.	EPXN	EXPOSED	PT-_	CEILING AND ALL COMPONENTS TO BE PAINTED
130	OUTSIDE STORAGE	SCONC-1		CONC. BLK.	PT-_	EXPOSED	PT-_	CEILING AND ALL COMPONENTS TO BE PAINTED
131	MECHANICAL	SCONC-1		CONC. BLK.	PT-_	EXPOSED	PT-_	
132	VESTIBULE	EPOXY-1	VCB-1	GYP. BD.	PT-_	ACT-1		
133	CORRIDOR	EPOXY-1	VCB-1	GYP. BD.	PT-_	ACT-1		

ROOM NUMBER	ROOM NAME	FLOOR MATL/FINISH	BASE MATL	WALLS MATL	WALLS FINISH	CEILING MATL	CEILING FINISH	REMARKS
MEZZANINE FLOOR								
ST-2	STAIR 2	RBR-3	VCB-1	CEMENT BD. CONC. BLK.	PT-_	GYP-1	PT-_	FLOOR FINISH AT MEZZANINE TO BE SCONC-1 ALL INTERMEDIATE LANDINGS TO RBR-3
M-01	MEZZANINE EQUIP. STOR.	SCONC-1		CONC. BLK.	PT-_	EXPOSED	PT-_	CEILING AND ALL COMPONENTS TO BE PAINTED
M-02	SHOP	SCONC-1		CONC. BLK.	PT-_	EXPOSED	PT-_	CEILING AND ALL COMPONENTS TO BE PAINTED
SECOND FLOOR								
ST-1	STAIR 1	TERR-1		GYP. BD.	PT-_	GYP-1	PT-_	
ST-2	STAIR 2	RBR-2	VCB-1	CEMENT BD. CONC. BLK.	PT-_	GYP-1	PT-_	FLOOR FINISH AT 2ND FLOOR TO BE SCONC-1 ALL INTERMEDIATE LANDINGS TO RBR-3
ELEV.	ELEVATOR	RBR-1						OTHER THAN FLOOR, ALL ELEVATOR FINISHES TO BE SUPPLIED BY ELEV. MFR (SELECTED BY ARCH.)
201	UPPER LOBBY	LVT-2	VCB-1	GYP. BD.	PT-_	GYP-1	PT-_	
202	CHIEF'S OFFICE	CPT-1	VCB-1	GYP. BD.	PT-_	ACT-1		
203	COPY / SUPPLY	LVT-2	VCB-1	GYP. BD.	PT-_	ACT-1		
204	CLASSROOM	CPT-1	VCB-1	GYP. BD.	PT-_	ACT-1		
205	DISTRICT OFFICE	CPT-1	VCB-1	GYP. BD.	PT-_	ACT-1		
206	DISTRICT RECORDS	SCONC-1	VCB-1	GYP. BD.	PT-_	GYP-1	PT-_	
207	DEPT. RECORDS	SCONC-1	VCB-1	GYP. BD.	PT-_	ACT-1		
208	JANITOR CLOSET	SCONC-1	VCB-1	GYP. BD.	FRP-1	GYP-1		
209	HALL	LVT-2	VCB-1	GYP. BD.	PT-_	ACT-1		
210	MEN'S RESTROOM	PFT-3	PCB-2	GYP. BD.	PT-_ / PWT-2	GYP-1	PT-_	REFER TO INTERIOR ELEVATIONS FOR WALL TILE CONFIGUARATIONS
211	WOMEN'S RESTROOM	PFT-3	PCB-2	GYP. BD.	PT-_ / PWT-2	GYP-1	PT-_	REFER TO INTERIOR ELEVATIONS FOR WALL TILE CONFIGUARATIONS
212	DEPARTMENT OFFICE	CPT-1	VCB-1	GYP. BD.	PT-_	ACT-1		
213	OFFICER'S CLOSET	LVT-2	VCB-1	GYP. BD.	PT-_	ACT-1		
214	QUARTER MASTER	LVT-2	VCB-1	GYP. BD.	PT-_	ACT-1		
215	HALL	LVT-2	VCB-1	GYP. BD.	PT-_	GYP-1	PT-_	
216	MECHANICAL	SCONC-1		GYP. BD.	PT-_	EXPOSED	PT-_	
217	F.O.G.	LVT-2	VCB-1	GYP. BD.	PT-_	ACT-1		
218	UNFINISHED ATTIC							
219	HALL	SCONC-1	VCB-1	GYP. BD.	PT-_	GYP-1	PT-_	
220	UNFINISHED ATTIC							
221	HALL	SCONC-1	VCB-1	GYP. BD.	PT-_	ACT-1		
222	HALL	SCONC-1	VCB-1	GYP. BD.	PT-_	ACT-1		
ST-3	STAIR 3	RBR-3	VCB-1	GYP. BD.	PT-_			

NOTE: ALL FINISHES INCLUDED IN DASHED BUBBLE TO BE PRICED AS AN ADD-ALTERNATE (REFER TO A2.2a)

NOTE: ALL FINISHES INCLUDED IN DASHED BUBBLE TO BE PRICED AS AN ADD-ALTERNATE (REFER TO A2.2a)

GENERAL NOTES:

1. ALL BATHROOMS AND POWDER ROOMS SHALL RECEIVE MOISTURE RESISTANT GYPSUM WALL BOARD AT ALL WALLS AND CEILING. TILED WALLS TO RECEIVE TILE BACKER (REFER TO PARTITION TYPES).
2. IN AREAS OF EXPOSED CEILING, ALL PIPING, CONDUIT, DUCTS, ETC. TO BE INDIVIDUALLY PAINTED IN COLORS TO BE SELECTED BY ARCHITECT.
3. ALL GYPSUM BOARD WALLS AND CEILINGS TO BE PRIMED AND RECEIVE TWO COATS OF FINISH PAINT. (REFER TO SPECIFICATIONS)
4. ALL CONCRETE BLOCK TO BE PAINTED OR RECEIVE EPOXY FINISH TO FIRST RECEIVE COAT OF BLOCK FILLER PRIMER. (REFER TO SPECIFICATIONS)
5. ALL CEILING GRIDS TO BE CENTERED IN EACH INDIVIDUAL SPACE, BUT DO NOT ALLOW LESS THAN 6" OF TILE AGAINST WALLS. SEE RCP'S FOR DETAILED LAYOUTS.
6. ALL DOOR FRAMES TO BE PAINTED.
7. ALL CLOSETS SHALL HAVE 5/8" AC PLYWOOD SHELF IN CONFIGURATIONS INDICATED ON THE FLOOR PLANS WITH EDGE BANDING AND SUPPORTED WITH 1 X 3 WOOD CLEATS AND DIVIDERS WHERE REQUIRED. HANGING RODS SHALL BE 1-1/4" ROUND CHROME PLATED. (UNLESS INDICATED ELSEWHERE IN THE DRAWINGS)
8. ALL LINEN CLOSETS SHALL HAVE MINIMUM (4) 16" DEEP SHELVES. SHELVES TO BE 5/8" AC PLYWOOD IN CONFIGURATIONS INDICATED ON THE FLOOR PLANS WITH EDGE BANDING AND SUPPORTED WITH 1X3 WOOD CLEATS AND DIVIDERS WHERE REQUIRED.
9. FURNISH AND INSTALL SHOWER ROD AND HOOKS IN ALL SHOWERS (REFER TO INTERIOR ELEVATIONS)
10. ALL EXPOSED PIPING, DUCTWORK AND CONDUIT TO BE PAINTED IN INDIVIDUAL COLORS (TO BE DETERMINED) (TYPICAL - UNLESS NOTED OTHERWISE)
11. ALL EXPOSED PIPING TO BE PAINTED AND LABELED.
12. THE EPOXY FLOOR FINISH SCOPE OF WORK SHALL INCLUDE A MINIMUM OF (3) EPOXY COLORS TO BE LAID OUT IN FLOOR PATTERNS DETERMINED BY OWNER.
13. WHERE SCHEDULED AS WALL FINISH EPOXY PAINT TO EXTEND UP THE FULL HEIGHT OF EXPOSED WALL. IF SPACE CONTAINS HUNG CEILING, EPOXY WALL PAINT TO EXTEND UP 6" PAST CEILING LINE.
14. ALL NON-CARPETED WALKING SURFACES AS PART OF THE MEANS OF EGRESS SHALL HAVE A SLIP-RESISTANT SURFACE AND BE SECURELY ATTACHED.

FINISH SPECIFICATIONS

FLOORS

SYMBOL	MATERIAL	MANUFACTURER	TYPE/ SERIES	SIZE(S)	COLOR	REMARKS
CPT-1	CARPET TILE/PLANK	SHAW CONTRACT	UNDERTONE TILE	9" X 36"	5T157_57103 NATURAL	INSTALLATION: STAGGER
SCONC-1	SEALED CONCRETE					
PCONC-1	POLISHED CONCRETE					
RBR-1	RUBBER	ROPPE	ENVIRE RB. SHEET			RUBBER DOT
RBR-2 (NOT USED)						
RBR-3	RUBBER TREAD & RISERS	ROPPE	VANTAGE			RISER & TREAD RUBBER DOT
LVT-1	LUXURY VINYL TILE	SHAW CONTRACT	TERRAIN II 20 MIL (5MM)	6" X 48"	4110V_05012 SUMMIT	INSTALLATION: STAGGER
LVT-2	LUXURY VINYL TILE	SHAW CONTRACT	TERRAIN II 20 MIL (5MM)	6" X 48"	4110V_07003 SEQUOIA	INSTALLATION: STAGGER
EPOXY-1	POURED EPOXY	DUR-A-FLEX	SHOP FLOOR			MINIMUM OF (3) COLORS
TERR-1	TERRAZZO	EPOXY-RESIN THIN-SET TERR				REFER TO 2/A2.1 FOR TERRAZZO LOGO INFORMATION
PFT-1	PORCELAIN FLOOR TILE	STONEPEAK	SIMPLY MODERN	12" X 24"	SIMPLY TAN	
PFT-2	PORCELAIN FLOOR TILE	STONEPEAK	SIMPLY MODERN	2" X 2"	SIMPLY GREY	MOSAIC TILE
PFT-3	PORCELAIN FLOOR TILE	STONEPEAK	SIMPLY MODERN	12" X 24"	SIMPLY GREY	

WALLS

SYMBOL	MATERIAL	MANUFACTURER	TYPE/ SERIES	SIZE(S)	COLOR	REMARKS
PWT-1	PORCELAIN WALL TILE	STONEPEAK	SIMPLY MODERN	12" X 12"	SIMPLY TAN	3"X12" BULLNOSE TRIM 6"X12" COVE BASE
PWT-2	PORCELAIN WALL TILE	STONEPEAK	SIMPLY MODERN	12" X 24"	SIMPLY GREY	3"X12" BULLNOSE TRIM 6"X12" COVE BASE
PWT-3	PORCELAIN WALL TILE	STONEPEAK	SIMPLY MODERN	2" X 2"	SIMPLY GREY	MOSAIC TILE
FRP	FIBER REINFORCED POLYMER	KAL-LITE	SMOOTH WALL PANL	.060" THK.		
EPXN	EPOXY	DUR-A-FLEX	DUR-A-WALL VC		T.B.D.	

BASE

SYMBOL	MATERIAL	MANUFACTURER	TYPE/ SERIES	SIZE(S)	COLOR	REMARKS
VCB-1	VINYL COVE BASE	JOHNSONITE	PERCEPTIONS	4.25"		
EPXB-1	EPOXY BASE	DUR-A-FLEX	DUR-A-WALL VC			
PCB-1	PORCELAIN COVE BASE	STONEPEAK	SIMPLY MODERN	6" X 12"	SIMPLY TAN	
PCB-2	PORCELAIN COVE BASE	STONEPEAK	SIMPLY MODERN	6" X 12"	SIMPLY GREY	
TERRB-1	TERRAZZO FORMED BASE	EPOXY-RESIN THIN-SET TERR				

CEILINGS

SYMBOL	MATERIAL	MANUFACTURER	TYPE/ SERIES	SIZE(S)	COLOR	REMARKS
ACT-1	ACOUSTICAL CEILING TILE	ARMSTRONG	#1774 (DUNE)	24" x 24"	WHITE	SEE RCP FOR DETAILED LAYOUTS
GYP-1	GYP. BOARD CEILING					

PAINT

SYMBOL	MATERIAL	MANUFACTURER	TYPE/ SERIES	SIZE(S)	COLOR	REMARKS
PT-1	PAINT	BENJAMIN MOORE			T.B.D.	
PT-2	PAINT	BENJAMIN MOORE			T.B.D.	
PT-3	PAINT	BENJAMIN MOORE			T.B.D.	
PT-4	PAINT	BENJAMIN MOORE			T.B.D.	
PT-5	PAINT	BENJAMIN MOORE			T.B.D.	
PT-6	PAINT	BENJAMIN MOORE			T.B.D.	
PT-7	PAINT	BENJAMIN MOORE			T.B.D.	
PT-8	PAINT	BENJAMIN MOORE			T.B.D.	

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Date Issue
01.15.21 ISSUED FOR BID

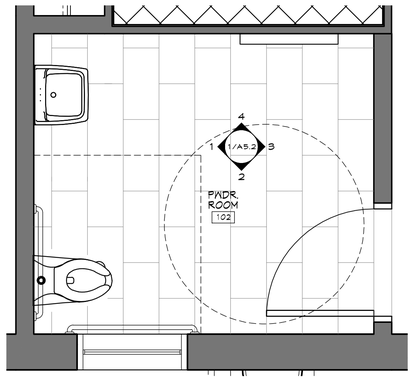
Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

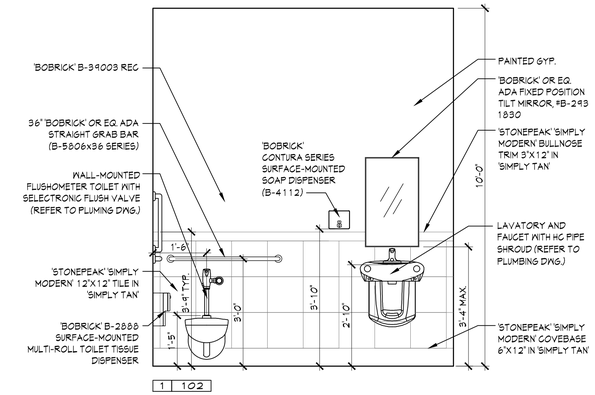
Drawing Title
FINISH SCHEDULE

Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	CJP
Checked by	

REGISTERED ARCHITECT JOHN P. SULLIVAN No. 017195 STATE OF NEW YORK

Drawing No. A5.1





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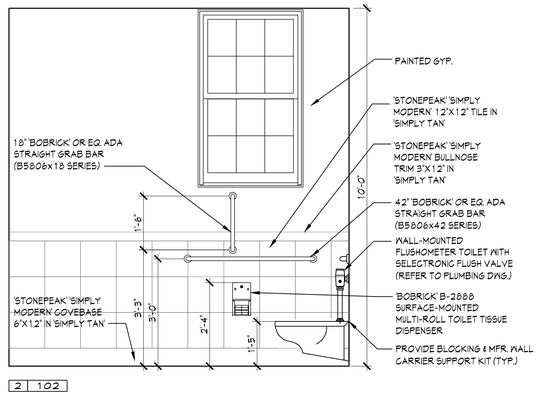

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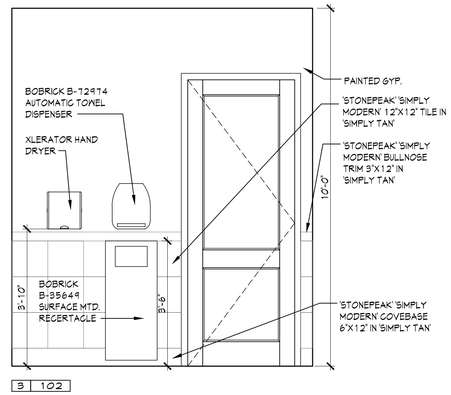

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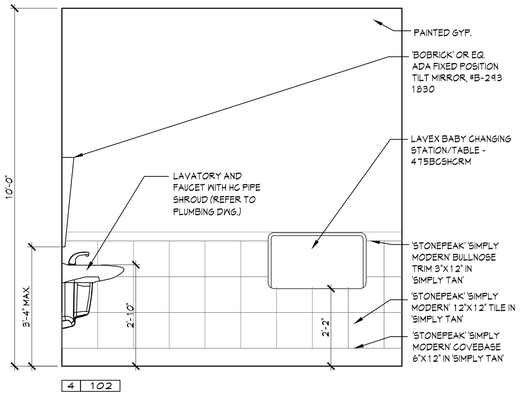
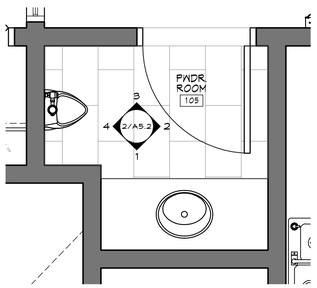
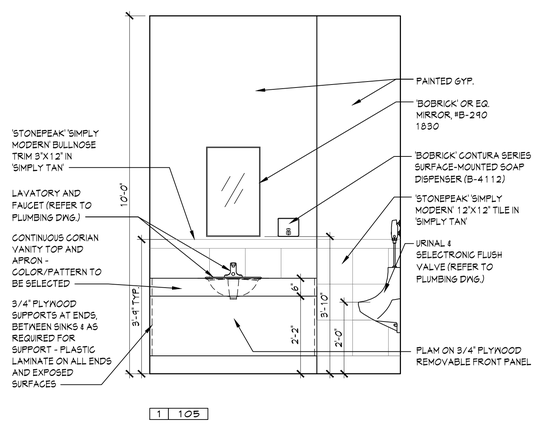


4 | 102

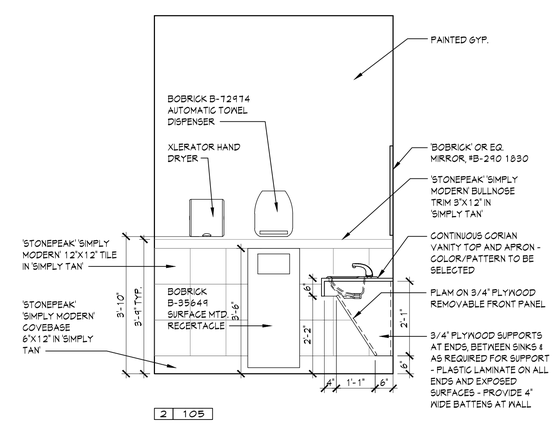
1 ROOM # 102 POWDER ROOM

1/2"=1'-0"





1 | 105



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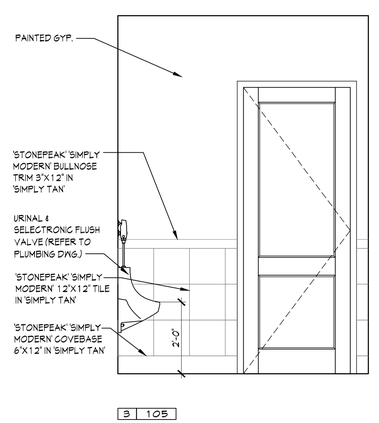

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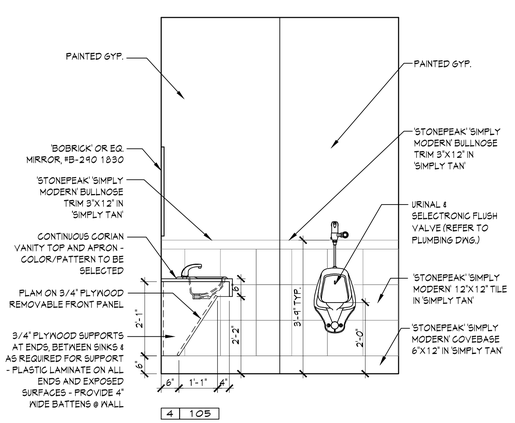

4 | 105

2 ROOM # 105 POWDER ROOM

1/2"=1'-0"

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Date Issue

01.15.21	ISSUED FOR BID

Project Title

Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

Drawing Title

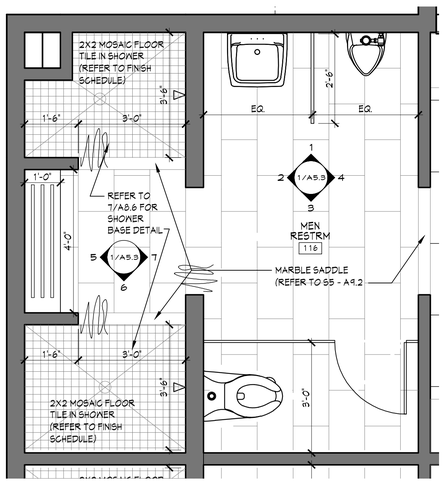
ENLARGED FLOOR PLANS & INTERIOR ELEVATIONS

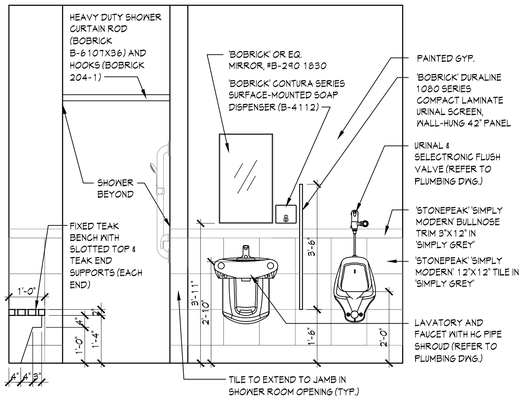
Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	CJP
Checked by	

REGISTERED ARCHITECT JOHN P. SULLIVAN No. 017105 STATE OF NEW YORK

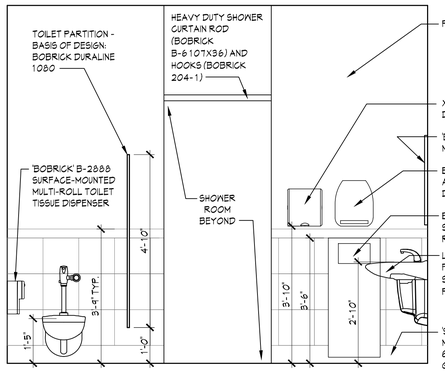
Drawing No.

A5.2

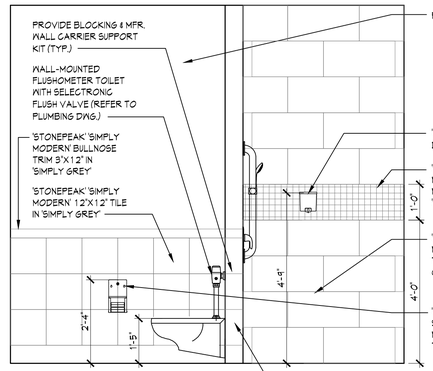




4 | 116



1 | 116



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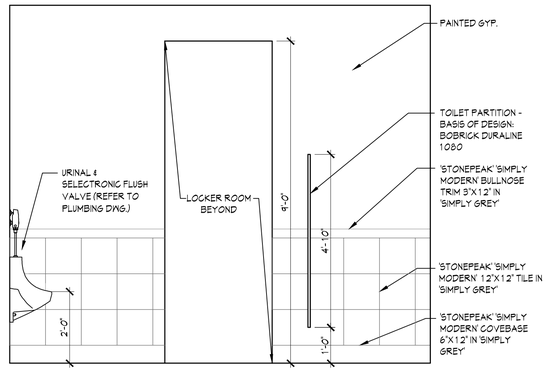

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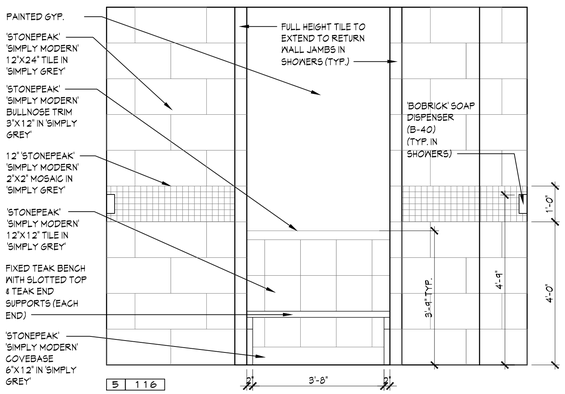

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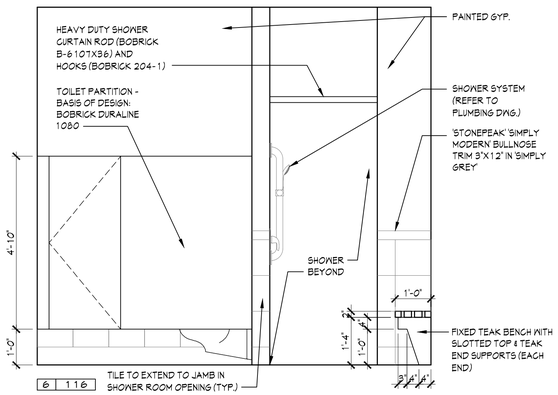
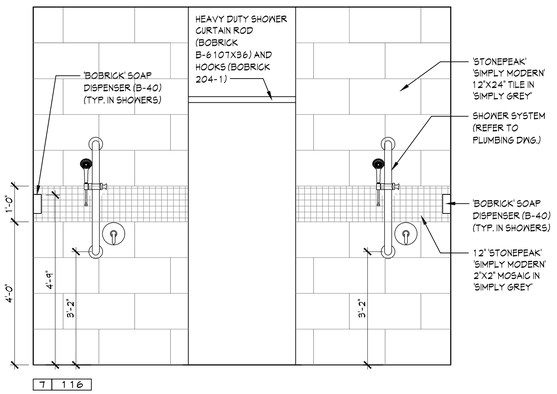


6 | 116



7 | 116

1 ROOM # 116 MEN'S RESTROOM
1/2"=1'-0"

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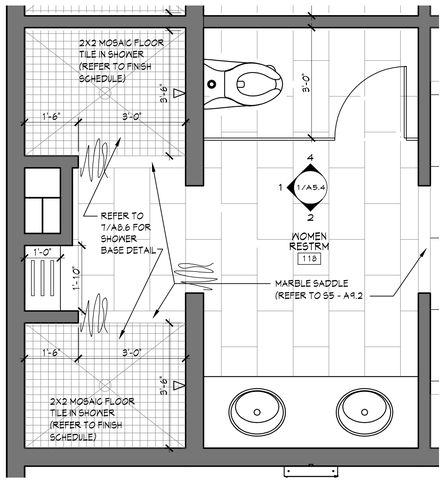
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

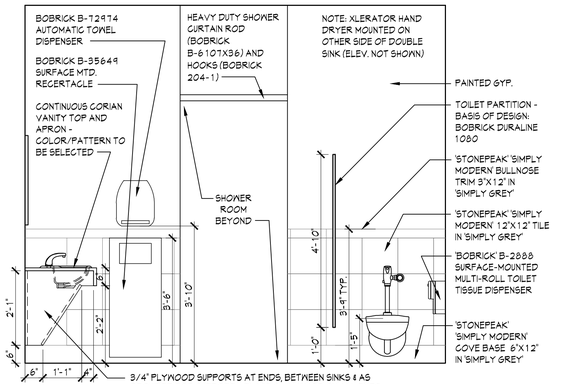
Drawing Title
ENLARGED FLOOR PLANS & INTERIOR ELEVATIONS

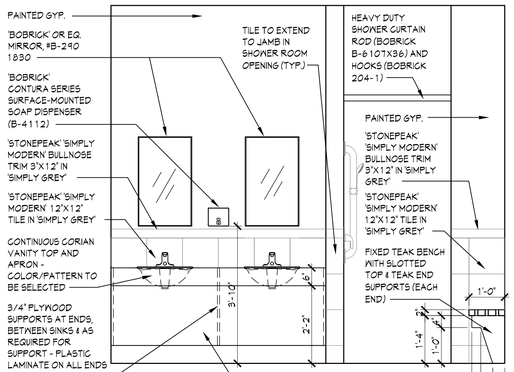
Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	cjp
Checked by	

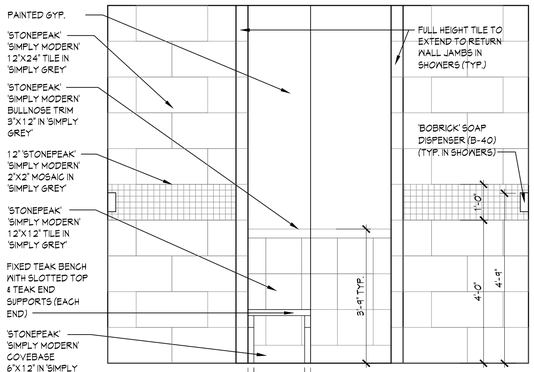
REGISTERED ARCHITECT JOSEPH P. SULLIVAN No. 017185 STATE OF NEW YORK

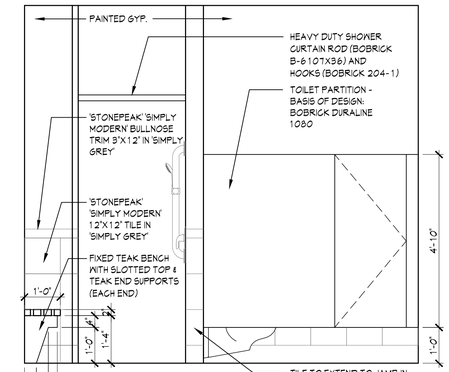
Drawing No.
A5.3



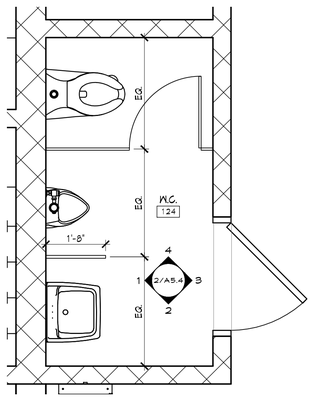


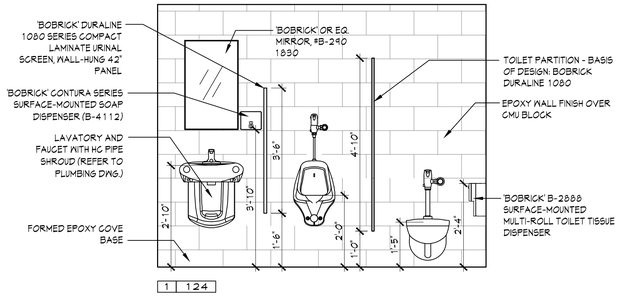


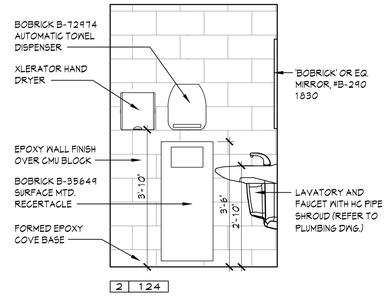


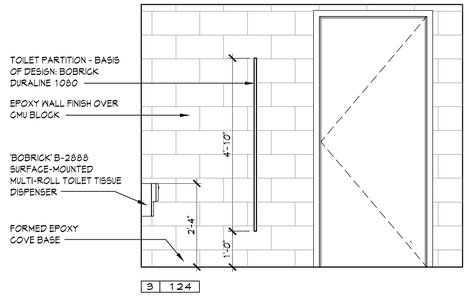


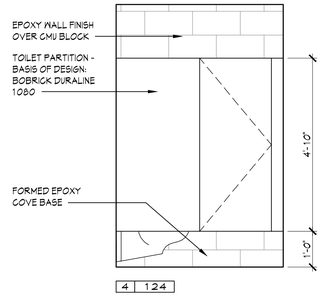
1 ROOM # 118 WOMENS RESTROOM
1/2"=1'-0"











2 ROOM # 124 WATER CLOSET
1/2"=1'-0"

Sullivan Architecture, P.C.
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White Plains, New York 10601
914-761-6006 (F) 914-761-4919

Owner: Bedford Village Fire District
34 Village Green
Bedford, NY 10506

Date Issue

01.15.21	ISSUED FOR BID

Project Title

Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

Drawing Title

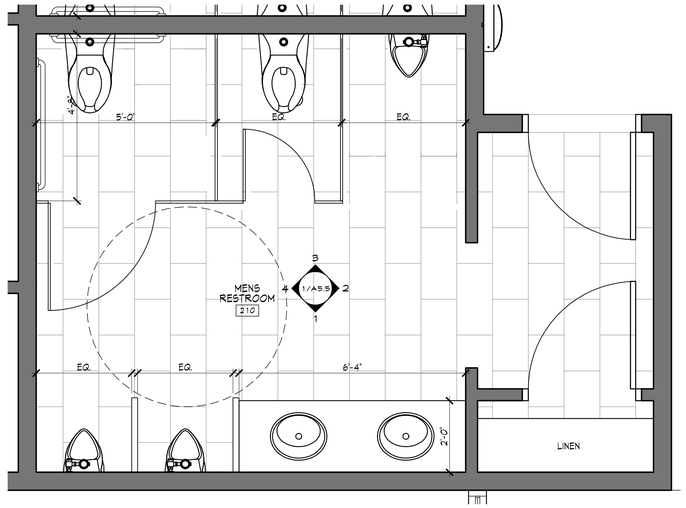
ENLARGED FLOOR PLANS & INTERIOR ELEVATIONS

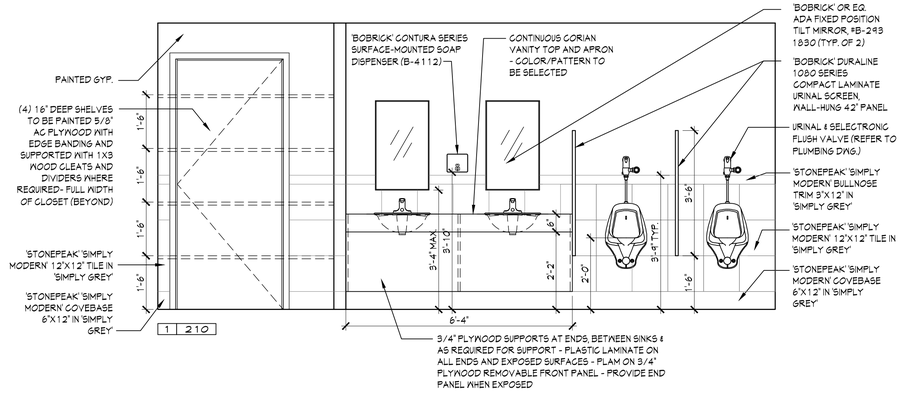
Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	GJP
Checked by	

REGISTERED ARCHITECT JOHN F. SULLIVAN No. 011195 STATE OF NEW YORK

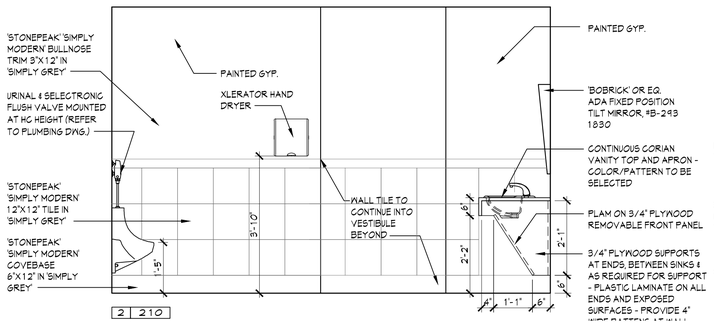
Drawing No.

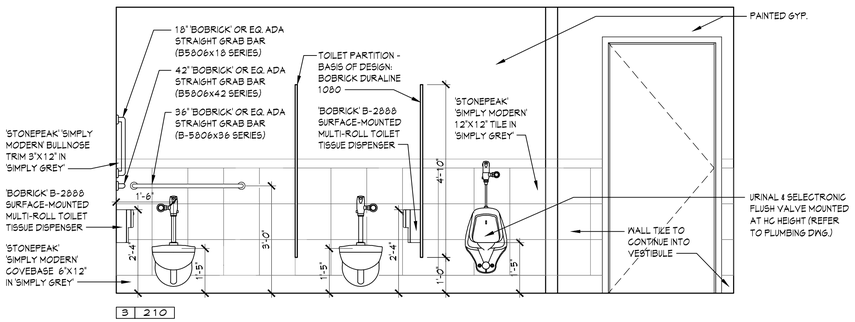
A5.4

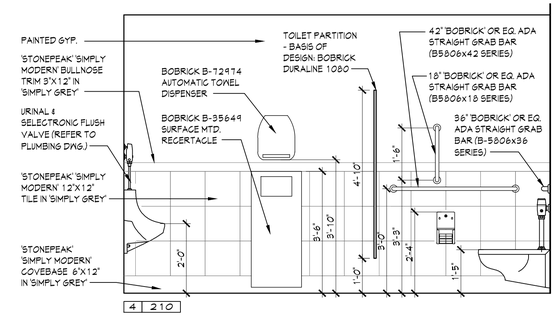




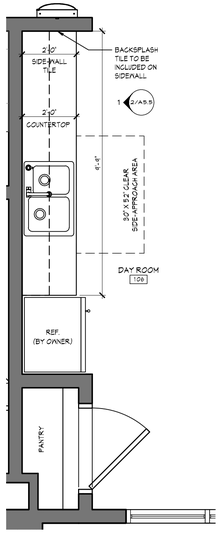
NOTE: ROOM 210 SHALL BE PRICED AS AN ADD-ALTERNATE (REFER TO A2.2a FOR ADD-ALTERNATE PRICING OF SECOND FLOOR BUILD-OUT.)

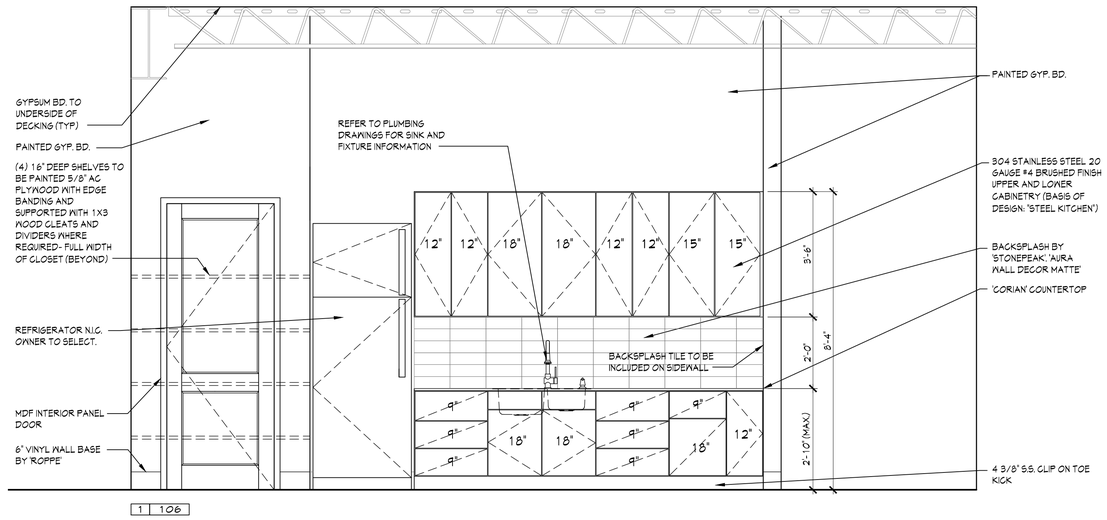






1 ROOM #210 MEN'S RESTROOM
1/2"=1'-0"





2 ROOM #106 DAY ROOM (KITCHENETTE)
1/2"=1'-0"

Sullivan Architecture, P.C.
31 Mamaroneck Avenue
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914-761-6006 (F) 914-761-4919

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34 Village Green
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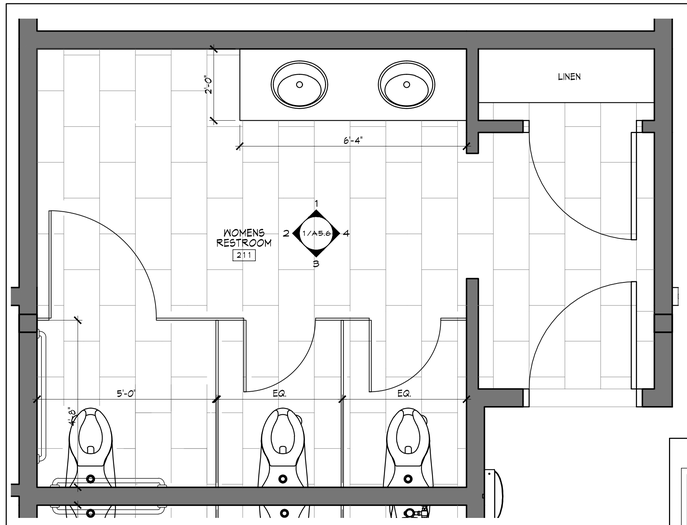
Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
ENLARGED FLOOR PLANS & INTERIOR ELEVATIONS

Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	GJP
Checked by	

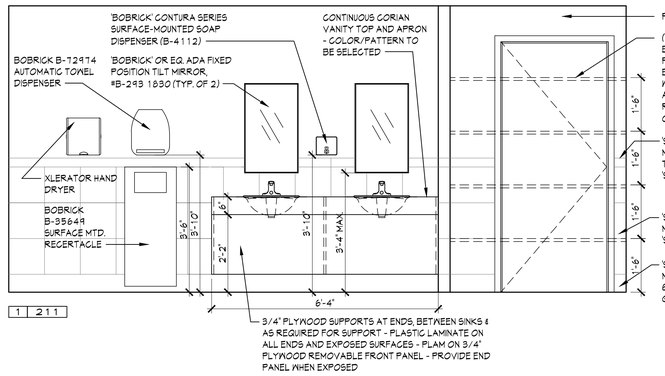
REGISTERED ARCHITECT JOHN P. SULLIVAN No. 011198 STATE OF NEW YORK

Drawing No.
A5.5

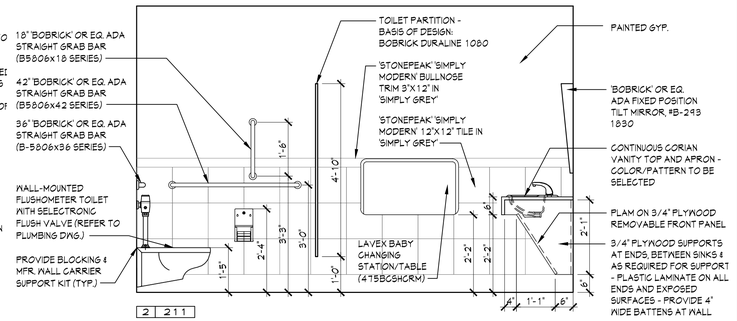


1 ROOM #211 WOMEN'S RESTROOM
1/2"=1'-0"

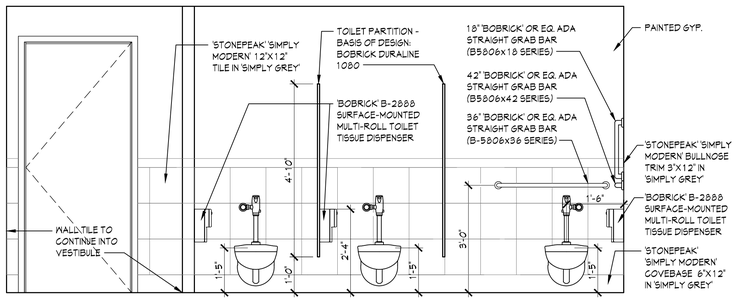
NOTE: ROOMS 211 SHALL BE PRICED AS AN ADD-ALTERNATE (REFER TO A2.2a FOR ADD-ALTERNATE PRICING OF SECOND FLOOR BUILD-OUT.)



1 211



2 211



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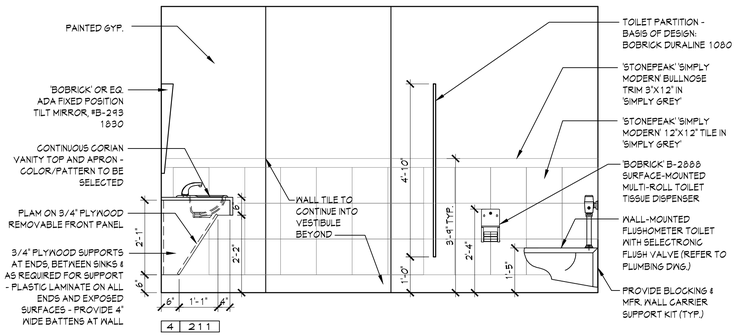

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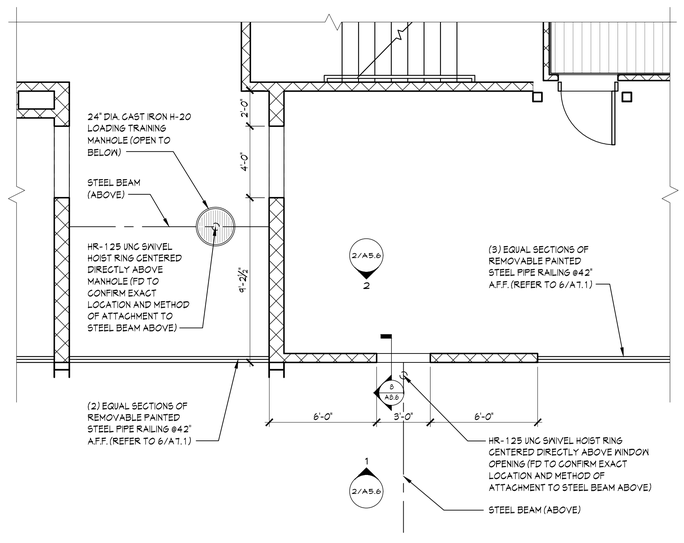
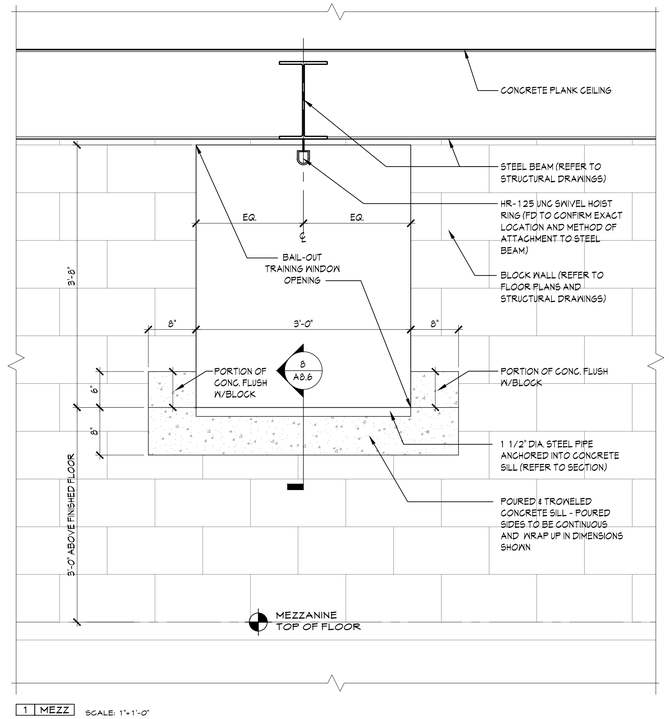
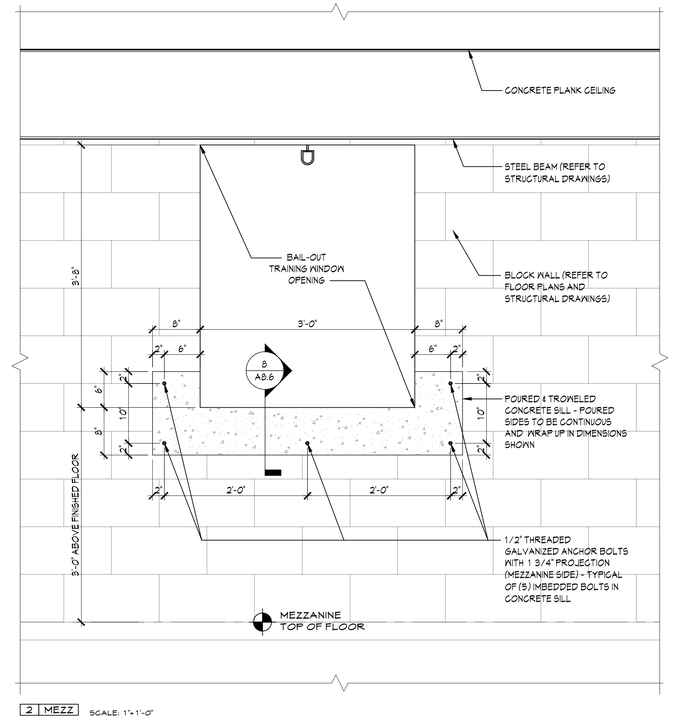


2 PARTIAL MEZZANINE PLAN & INTERIOR ELEVATIONS
1/4"=1'-0"



1 MEZZ SCALE: 1"=1'-0"



2 MEZZ SCALE: 1"=1'-0"

Sullivan Architecture, P.C.
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White Plains, New York 10601
914-761-6006 (F) 914-761-4919

Owner: Bedford Village Fire District
34 Village Green
Bedford, NY 10506

Date Issue
01.15.21 ISSUED FOR BID

Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
ENLARGED FLOOR PLANS & INTERIOR ELEVATIONS

Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	cjp
Checked by	

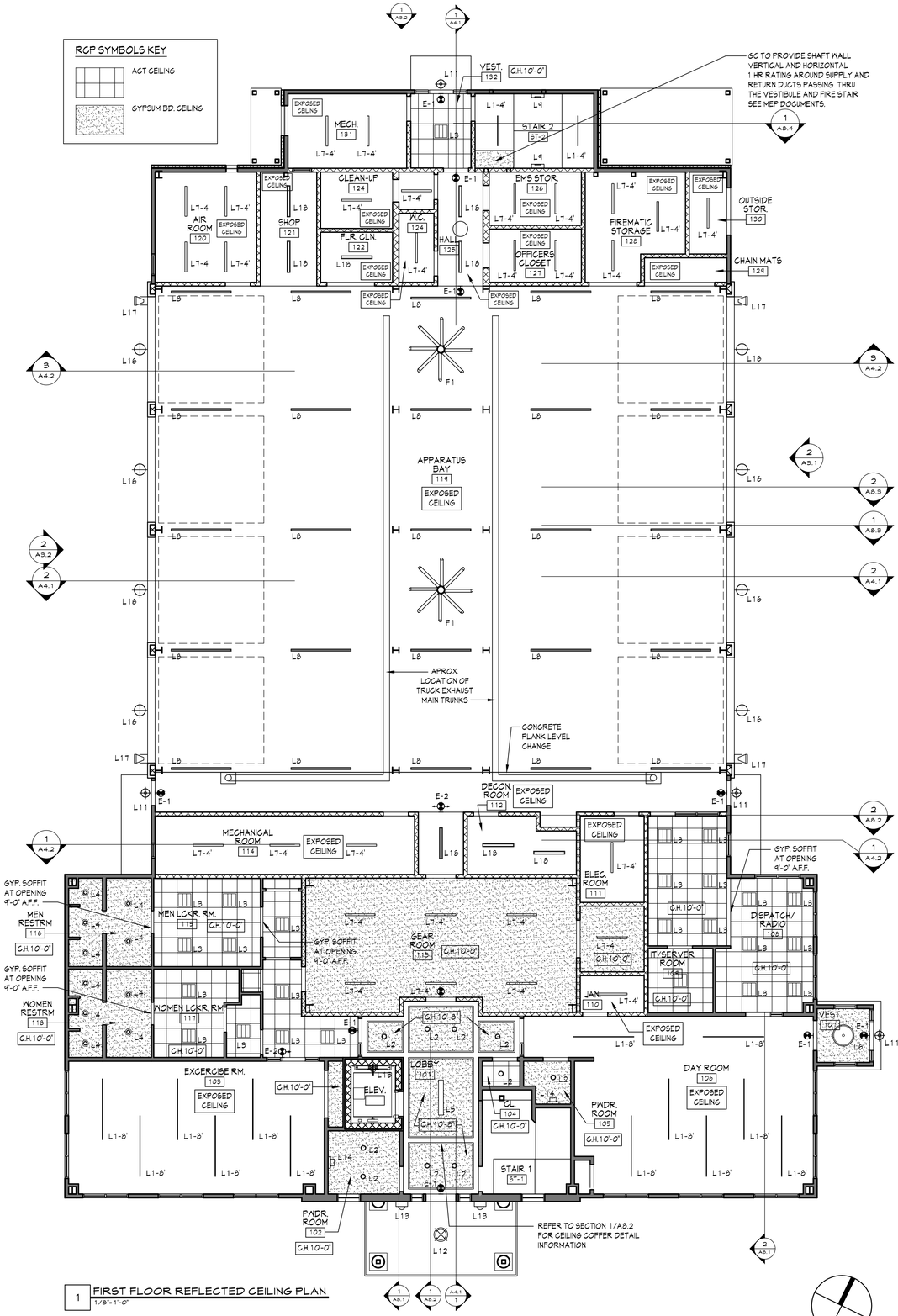
REGISTERED ARCHITECT JOHN F. SULLIVAN No. 017118 STATE OF NEW YORK

Drawing No.
A5.6

LIGHTING FIXTURE SCHEDULE

NOTE: REFER TO ELECTRICAL DRAWINGS FOR COMPLETE LIGHTING INFORMATION

SYMBOL	FIXTURE	TYPE/DESCRIPTION	PRODUCT INFORMATION	MANUFACTURER	REMARKS
	F1	ESSENCE 8FT FAN KIT	8 FT - 158 RPM	BIG ASS FANS	
	L1-8'	SAYLITE LED LINEAR LIGHTING CHANNEL	LLLSA - 9TL - 23W1500L - 30K - SA	SAYLITE	
	L1-4'	SAYLITE LED LINEAR LIGHTING CHANNEL	LLLSA - 4BL - 23W1500L - 30K - SA	SAYLITE	MOUNTING KIT: HG601WH DRIVER: MTIM40L24DG
	L2	LIGHTOLIER - CALCULITE LED 6" GEN 3	6RN - C6L30B30ME1 - C6RDLWH	LIGHTOLIER	
	L3	DAY-BRITE RECESSED EVO GRID 2X2	2EVG30L835 - 2 - D - UNV - DIM	DAY-BRITE	
	L4	LIGHTOLIER - CALCULITE LED 6" GEN 3	6RN - C6L30B30ME1 - C6RSLWH	LIGHTOLIER	
	L5	MEMORY LED LINEAR PENDANT	MFMP206783	MODERN FORMS	
	L6	SHAPER - 122 SHAPER	122 - 36 - 5 - L4/830 - UNV - MW	SHAPER	DRUM: 122 - 36 - VLW
	L7	DAY-BRITE INDUSTRIAL 5FL SPECIFICATION	5FL455L840 - PPS - UNV - DIM	DAY-BRITE	
	L8	DAY-BRITE INDUSTRIAL VAPORLUME LED DW	DWAET0L840 - 8 - UNV - WHP	DAY-BRITE	
	L9	JAYLUM LED WALL MOUNTED SCONCE	JS - L - L - 2 - L35 - 1D - UNV - SU-WA - STD - W	CORELITE	
	L10	LEVITON - LED CEILING LAMPHOLDER	000 - 09850 - LED	LEVITON	
	L11	MAXIM - SHORELINE	10104BK	MAXIM	
	L12	ALFORD PLACE OUTDOOR PENDANT	HKYP297130 - (12V LED OPTION)	HINKLEY	
	L13	MAXIM - LIGHTHOUSE	5866CLFTAR	MAXIM	CONTRACTOR TO PROVIDE RED BULBS
	L14	MAXIM - SPEC VANITY	52000 - POLISHED CHROME	MAXIM	
	L15	LITHONIA - UTILITY VAPOR TIGHTS	VM1505L M6	LITHONIA	
	L16	BARN LIGHT - CHEROKEE UPLIGHT SERIES	G - ULG18 - 100 - G26 - CLR - NA - LED16.8 - 3000K	BARN LIGHT	
	L17	EATON - ALL PRO - LED FLOOD SERIES	F5L2850LW	EATON	
	L18	DAY-BRITE INDUSTRIAL VAPORLUME LED V2	V2WAE51L840 - 4 - UNV - MD360W	DAY-BRITE	
	L19	DUO LED PENDANT	ALRP267758 - (LARGE OPTION FIXTURE)	ALORA LIGHTING	LARGE OPTION FIXTURE - 31.5" DIAMETER
	E-1	COOPER - SURE-LITES LPX SERIES	LPX 6 (WALL MOUNT)	COOPER	
	E-2	COOPER - SURE-LITES LPX SERIES	LPX 6 (WALL MOUNT)	COOPER	REFER TO RCP FOR DIRECTION CHEVRONS
	E-3	COOPER - SURE-LITES LPX SERIES	LPX 6 (CEILING MOUNT)	COOPER	REFER TO RCP FOR DIRECTION CHEVRONS



1 FIRST FLOOR REFLECTED CEILING PLAN
1/8"=1'-0"

Sullivan Architecture, P.C.
31 Mamaroneck Avenue
White Plains, New York 10601
914-761-6006 (F) 914-761-4919

Owner: Bedford Village Fire District
34 Village Green
Bedford, NY 10506

Date Issue
01.15.21 ISSUED FOR BID

Project Title

Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

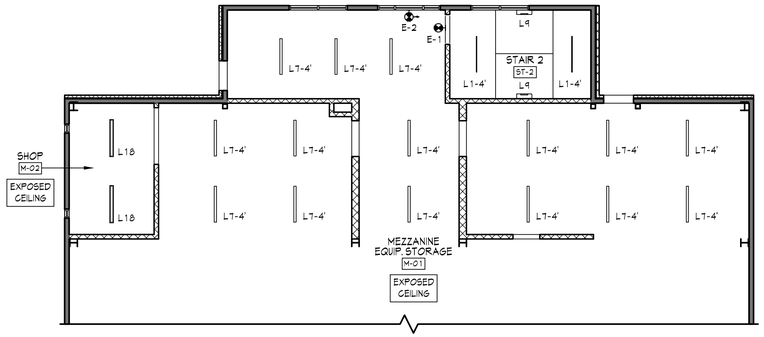
Drawing Title

FIRST FLOOR REFLECTED CEILING PLAN

Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	cjp
Checked by	

REGISTERED ARCHITECT JOHN P. SULLIVAN No. 017185 STATE OF NEW YORK

Drawing No. A6.1



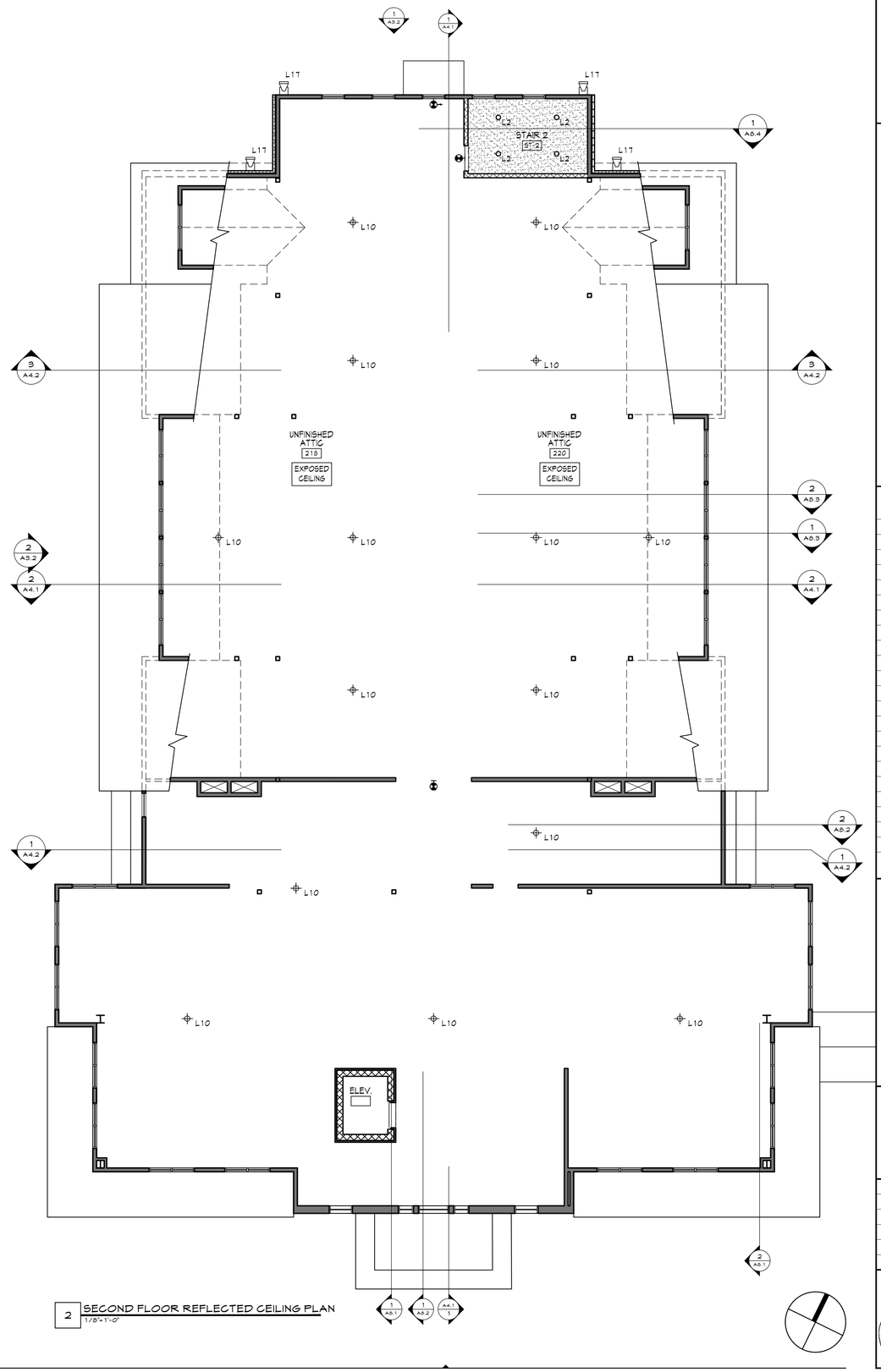
1 MEZZANINE REFLECTED CEILING PLAN
1/8"=1'-0"

LIGHTING FIXTURE SCHEDULE

NOTE: REFER TO ELECTRICAL DRAWINGS FOR COMPLETE LIGHTING INFORMATION

SYMBOL	FIXTURE	TYPE/DESCRIPTION	PRODUCT INFORMATION	MANUFACTURER	REMARKS
✳	F1	ESSENCE 8FT FAN KIT	8 FT - 158 RPM	BIG ASS FANS	
———	L1-8'	SAYLITE LED LINEAR LIGHTING CHANNEL	LLLSA - 97L - 23W1500L - 30K - SA	SAYLITE	
——	L1-4'	SAYLITE LED LINEAR LIGHTING CHANNEL	LLLSA - 48L - 23W1500L - 30K - SA	SAYLITE	MOUNTING KIT: HG601WH DRIVER: MTIM40L24DC
○	L2	LIGHTOLIER - CALCULITE LED 6" GEN 3	6RN - G6L30B30ME1 - C6RDLWH	LIGHTOLIER	
▥	L3	DAY-BRITE RECESSED EVO GRID 2X2	2EVG30L835 - 2 - D - UNV - DIM	DAY-BRITE	
◎	L4	LIGHTOLIER - CALCULITE LED 6" GEN 3	6RN - G6L30B30ME1 - C6RSLWH	LIGHTOLIER	
▭	L5	MEMORY LED LINEAR PENDANT	MFMP206783	MODERN FORMS	
⊙	L6	SHAPER - 122 SHAPER	122 - 36 - S - L9/830 - UNV - MW	SHAPER	DRUM: 122 - 36 - VLW
———	L7	DAY-BRITE INDUSTRIAL 5FL SPECIFICATION	5FL455L840 - PP5 - UNV - DIM	DAY-BRITE	
———	L8	DAY-BRITE INDUSTRIAL VAPORLUME LED DW	DWAE70L840 - 8 - UNV - WHP	DAY-BRITE	
▭	L9	JAYLUM LED WALL MOUNTED SCONCE	JS - L - L - 2 - L35 - 1D - UNV - SU-WA - STD - W	CORELITE	
⌖	L10	LEVITON - LED CEILING LAMPHOLDER	000 - 09850 - LED	LEVITON	
⌖	L11	MAXIM - SHORELINE	10104BK	MAXIM	
⊗	L12	ALFORD PLACE OUTDOOR PENDANT	HKYP297130 - (12V LED OPTION)	HINKLEY	
◡	L13	MAXIM - LIGHTHOUSE	5866CLFTAR	MAXIM	CONTRACTOR TO PROVIDE RED BULBS
▭	L14	MAXIM - SPEC VANITY	52000 - POLISHED CHROME	MAXIM	
⌖	L15	LITHONIA - UTILITY VAPOR TIGHTS	VM150SL M6	LITHONIA	
⊕	L16	BARN LIGHT - CHEROKEE UPLIGHT SERIES	G - ULG18 - 100 - G26 - CLR - NA - LED16.8 - 3000K	BARN LIGHT	
⏢	L17	EATON - ALL PRO - LED FLOOD SERIES	FSL2850LW	EATON	
▭	L18	DAY-BRITE INDUSTRIAL VAPORLUME LED V2	V2WAE51L840 - 4 - UNV - MD360W	DAY-BRITE	
◎	L19	DUO LED PENDANT	ALRP267758 - (LARGE OPTION FIXTURE)	ALORA LIGHTING	LARGE OPTION FIXTURE - 31.5" DIAMETER
☢	E-1	COOPER - SURE-LITES LPX SERIES	LPX 6 (WALL MOUNT)	COOPER	
☢	E-2	COOPER - SURE-LITES LPX SERIES	LPX 6 (WALL MOUNT)	COOPER	REFER TO RCP FOR DIRECTION CHEVRONS
☢	E-3	COOPER - SURE-LITES LPX SERIES	LPX 6 (CEILING MOUNT)	COOPER	REFER TO RCP FOR DIRECTION CHEVRONS

NOTE: ALL ELEMENTS OF SECOND FLOOR RCP SHOWN ON A6.2 SHALL BE INCLUDED IN BASE CONTRACT. REFER TO A6.2a FOR ADD-ALTERNATE PRICING OF SECOND FLOOR RCP BUILD-OUT. FULL BUILD-OUT OF THE MEZZANINE SHALL BE INCLUDED IN BASE CONTRACT.



2 SECOND FLOOR REFLECTED CEILING PLAN
1/8"=1'-0"

Sullivan Architecture, P.C.
31 Mamaroneck Avenue
White Plains, New York 10601
914-761-6006 (F) 914-761-4919

Owner: Bedford Village Fire District
34 Village Green
Bedford, NY 10506

Date Issue
01.15.21 ISSUED FOR BID

Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title MEZZANINE & SECOND FLOOR RCP (BASE CONTRACT)

Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	GJP
Checked by	

REGISTERED ARCHITECT JOHN P. SULLIVAN No. 017195 STATE OF NEW YORK

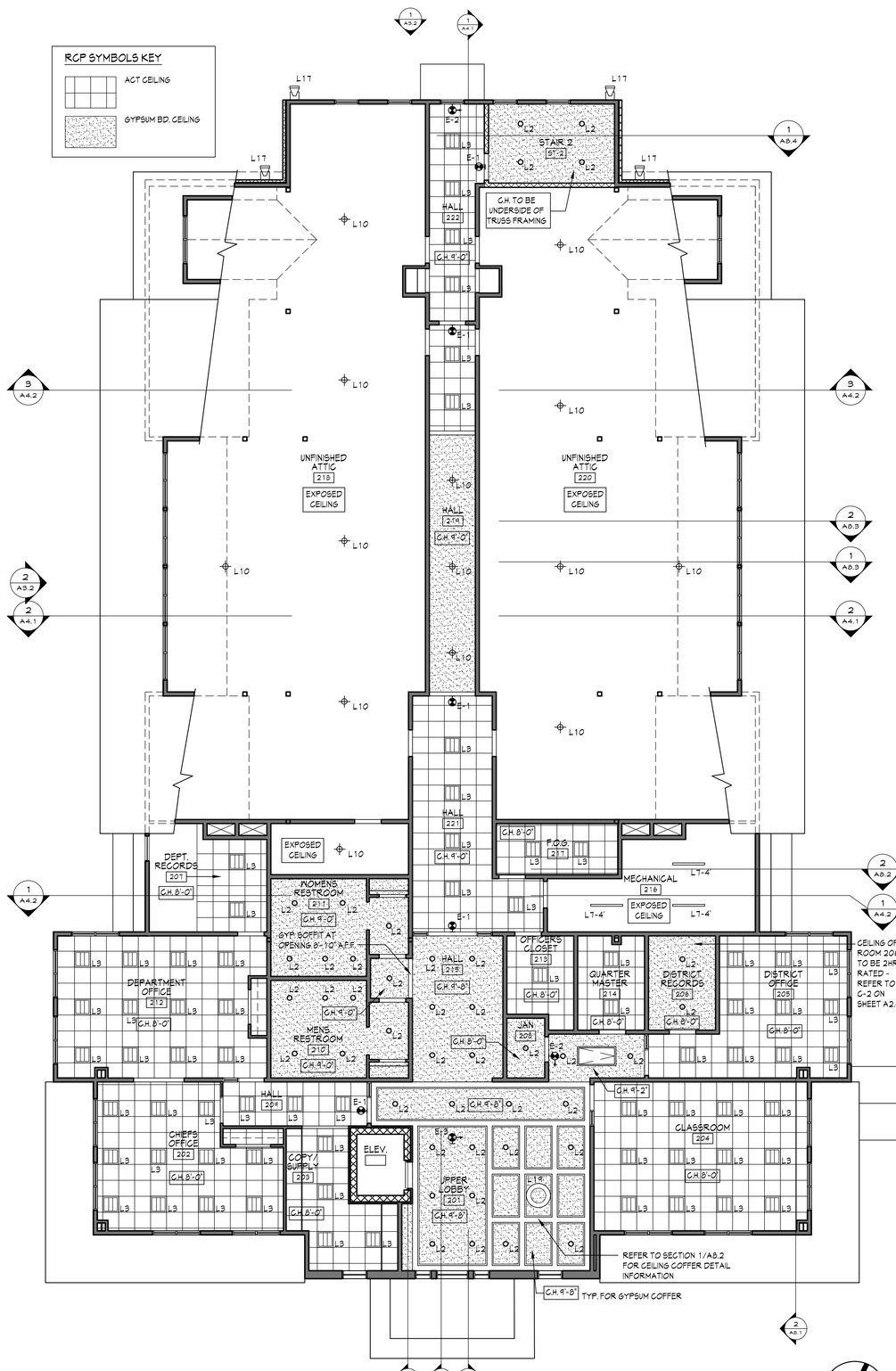
Drawing No. A6.2

LIGHTING FIXTURE SCHEDULE

NOTE: REFER TO ELECTRICAL DRAWINGS FOR COMPLETE LIGHTING INFORMATION

SYMBOL	FIXTURE	TYPE/DESCRIPTION	PRODUCT INFORMATION	MANUFACTURER	REMARKS
	F1	ESSENCE 8FT FAN KIT	8 FT - 158 RPM	BIG ASS FANS	
	L1-8'	SAYLITE LED LINEAR LIGHTING CHANNEL	LLLSA - 97L - 23W1500L - 30K - SA	SAYLITE	
	L1-4'	SAYLITE LED LINEAR LIGHTING CHANNEL	LLLSA - 48L - 23W1500L - 30K - SA	SAYLITE	MOUNTING KIT: HC601WH DRIVER: MTIM40L24DG
	L2	LIGHTOLIER - CALCULITE LED 6" GEN 3	6RN - C6L30830ME1 - C6RDLWH	LIGHTOLIER	
	L3	DAY-BRITE RECESSED EVO GRID 2X2	2EVG30L835 - 2 - D - UNV - DIM	DAY-BRITE	
	L4	LIGHTOLIER - CALCULITE LED 6" GEN 3	6RN - C6L30830ME1 - C6RSLWH	LIGHTOLIER	
	L5	MEMORY LED LINEAR PENDANT	MFMP206783	MODERN FORMS	
	L6	SHAPER - 122 SHAPER	122 - 36 - 5 - L49/830 - UNV - MW	SHAPER	DRUM: 122 - 36 - VLW
	L7	DAY-BRITE INDUSTRIAL 5FL SPECIFICATION	5FL455L840 - PPS - UNV - DIM	DAY-BRITE	
	L8	DAY-BRITE INDUSTRIAL VAPORLUME LED DW	DWAE7L840 - 8 - UNV - WHP	DAY-BRITE	
	L9	JAYLUM LED WALL MOUNTED SCONCE	JS - L - L - 2 - L35 - 1D - UNV - SU-WA - STD - W	CORELITE	
	L10	LEVITON - LED CEILING LAMPHOLDER	000 - 09850 - LED	LEVITON	
	L11	MAXIM - SHORELINE	10104BK	MAXIM	
	L12	ALFORD PLACE OUTDOOR PENDANT	HKYP297130 - (12V LED OPTION)	HINKLEY	
	L13	MAXIM - LIGHTHOUSE	5886CLFTAR	MAXIM	CONTRACTOR TO PROVIDE RED BULBS
	L14	MAXIM - SPEC VANITY	52000 - POLISHED CHROME	MAXIM	
	L15	LITHONIA - UTILITY VAPOR TIGHTS	VW1505L M6	LITHONIA	
	L16	BARN LIGHT - CHEROKEE UPLIGHT SERIES	G - ULG18 - 100 - G26 - CLR - NA - LED16.8 - 3000K	BARN LIGHT	
	L17	EATON - ALL PRO - LED FLOOD SERIES	FSL2850LW	EATON	
	L18	DAY-BRITE INDUSTRIAL VAPORLUME LED V2	V2WAE5 1L840 - 4 - UNV - MD360W	DAY-BRITE	
	L19	DUO LED PENDANT	ALRP267758 - (LARGE OPTION FIXTURE)	ALORA LIGHTING	LARGE OPTION FIXTURE - 31.5" DIAMETER
	E-1	COOPER - SURE-LITES LPX SERIES	LPX 6 (WALL MOUNT)	COOPER	
	E-2	COOPER - SURE-LITES LPX SERIES	LPX 6 (WALL MOUNT)	COOPER	REFER TO RCP FOR DIRECTION CHEVRONS
	E-3	COOPER - SURE-LITES LPX SERIES	LPX 6 (CEILING MOUNT)	COOPER	REFER TO RCP FOR DIRECTION CHEVRONS

NOTE: THE SECOND FLOOR REFLECTED CEILING PLAN BUILD-OUT SHOWN ON A6.2a SHALL BE PRICED AS AN ADD-ALTERNATE. REFER TO A6.2 FOR THE REFLECTED CEILING PLAN OF THE SECOND FLOOR THAT IS TO BE INCLUDED IN THE BASE CONTRACT.



1 SECOND FLOOR REFLECTED CEILING PLAN - ALTERNATE BUILD-OUT
1/8"=1'-0"

Sullivan Architecture, P.C.
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White Plains, New York 10601
914-761-6006 (F) 914-761-4919

Owner: Bedford Village Fire District
34 Village Green
Bedford, NY 10506

Date Issue

01.15.21	ISSUED FOR BID

Project Title

Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

Drawing Title

SECOND FLOOR RCP (ALTERNATE BUILD-OUT)

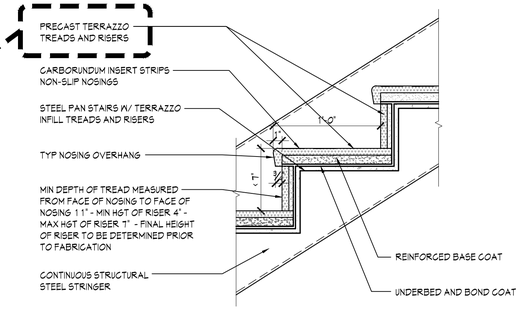
Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	CJP
Checked by	

REGISTERED ARCHITECT JOHN F. SULLIVAN No. 011198 STATE OF NEW YORK

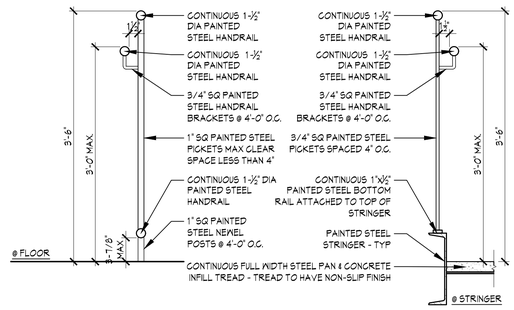
Drawing No.

A6.2a

NOTE: PRECAST TERRAZZO TREADS AND RISERS NOT INCLUDED IN BASE CONTRACT (PROVIDE IN ADD-ALTERNATE PRICING FOR FULL SECOND FLOOR BUILD-OUT)



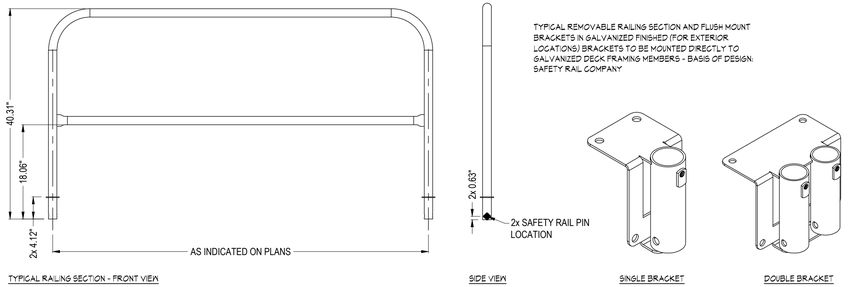
5 TYPICAL TREAD & RISER DETAIL
1-1/2"=1'-0"



4 TYPICAL RAILING DETAILS
1"=1'-0"

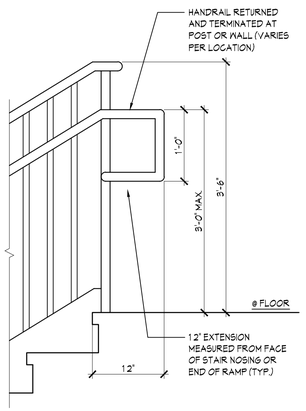
STAIR NOTES

1. PROVIDE STAIR SHOP DRAWINGS.
2. CONTRACTOR TO FIRESTOP AT ALL LOCATIONS REQUIRED UPON COMPLETION OF STAIR ENCLOSURE.
3. ALL DOORS INTO STAIR ENCLOSURE TO BE "C" RATED (TYP.)
4. ALL HANDRAILS SHALL RETURN TO ADJACENT WALL UNLESS NOTED OTHERWISE



TYPICAL REMOVABLE RAILING SECTION AND FLUSH MOUNT BRACKETS IN GALVANIZED FINISHED (FOR EXTERIOR LOCATIONS) BRACKETS TO BE MOUNTED DIRECTLY TO GALVANIZED DECK FRAMING MEMBERS - BASIS OF DESIGN: SAFETY RAIL COMPANY

6 REMOVABLE PIPE RAIL
NOT TO SCALE

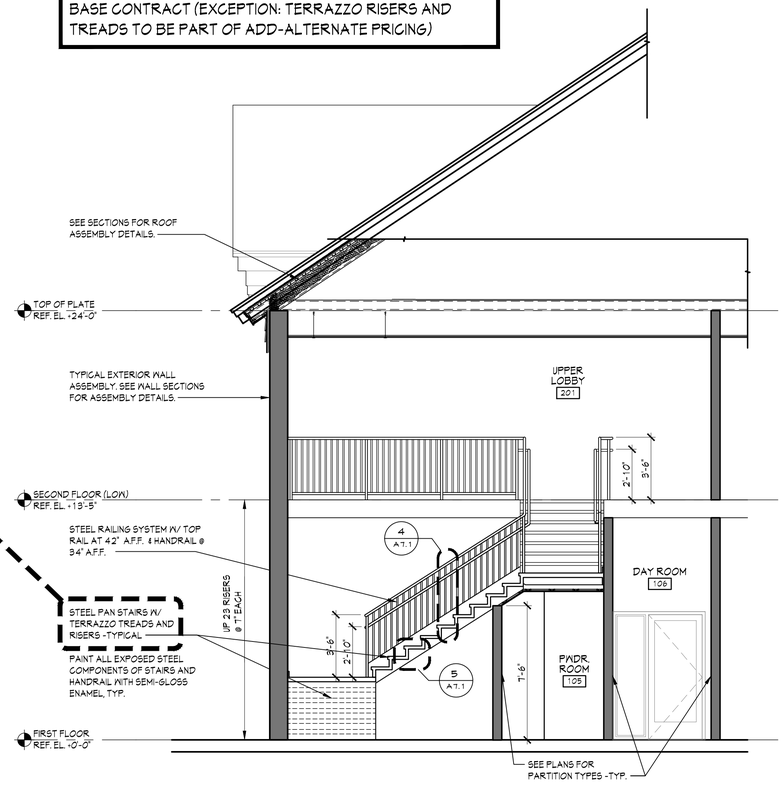


7 TYP. HANDRAIL RETURN DETAIL
1-1/2"=1'-0"

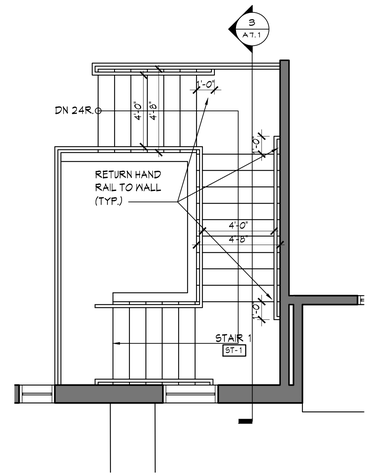
NOTE: HANDRAIL TO BE RETURNED TO POST ONLY WHEN NOT CONTINUING OR NOT ADJACENT TO WALL SURFACE. HANDRAIL TO BE RETURNED TO ADJACENT WALL AS DEFAULT

NOTE: STAIR 1 AND ALL ASSOCIATED COMPONENTS INCLUDING ALL HAND RAILS/GUARDS ON THE SECOND FLOOR TO BE FULLY BUILT AND INSTALLED AS PART OF THE BASE CONTRACT (EXCEPTION: TERRAZZO RISERS AND TREADS TO BE PART OF ADD-ALTERNATE PRICING)

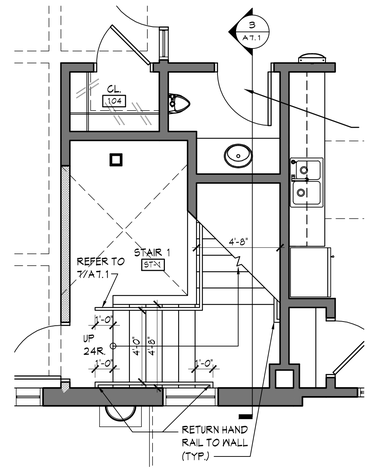
NOTE: PRECAST TERRAZZO TREADS AND RISERS NOT INCLUDED IN BASE CONTRACT (PROVIDE IN ADD-ALTERNATE PRICING FOR FULL SECOND FLOOR BUILD-OUT)



3 STAIR # 1 SECTION
1/4"=1'-0"



2 STAIR # 1 2ND FLOOR PLAN
1/4"=1'-0"



1 STAIR # 1 1ST FLOOR PLAN
1/4"=1'-0"

Sullivan Architecture, P.C.
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White Plains, New York 10601
914-761-6006 (F) 914-761-4919

Owner: Bedford Village Fire District
34 Village Green
Bedford, NY 10506

Date	Issue
01.15.21	ISSUED FOR BID

Project Title

Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

Drawing Title

STAIR # 1 PLANS, SECTIONS & DETAILS

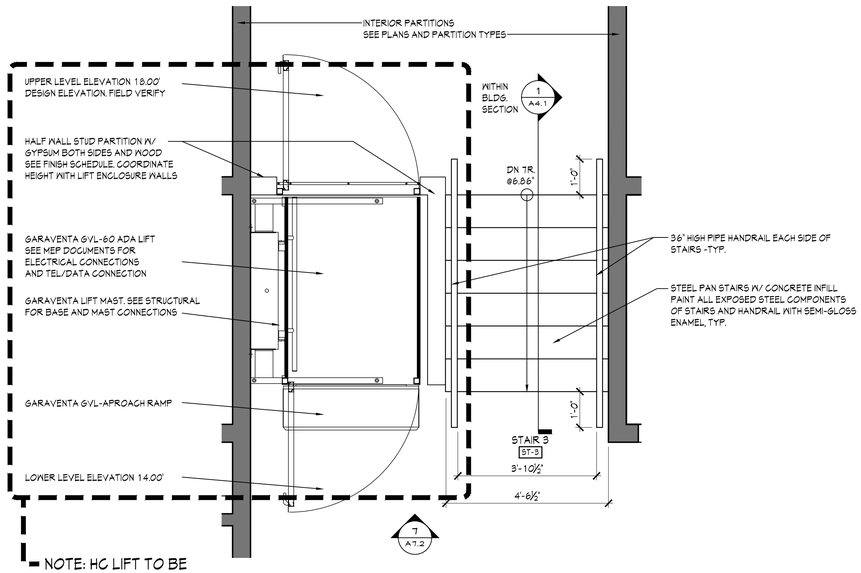
Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	cjp
Checked by	

REGISTERED ARCHITECT JOHN F. SULLIVAN III NO. 017195 STATE OF NEW YORK

Drawing No. A7.1

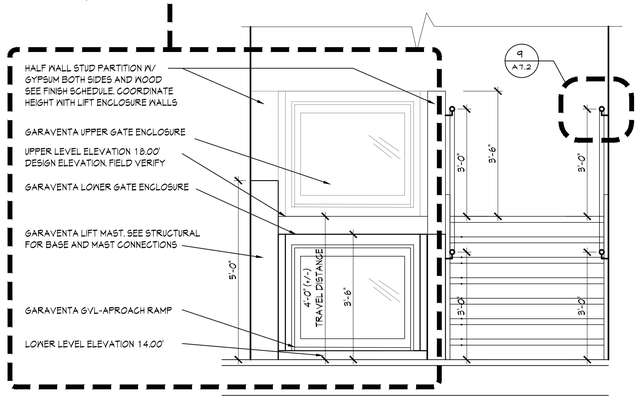
ELEVATOR NOTES

1. ADA LIFT SHALL BE GARAVENTA OPAL - MODEL NUMBER GVL-60 WITH NO PIT AND SUPPLIED APPROACH RAMP AT LOWER LEVEL OR EQUAL.
2. SEE MANF. SHOP DRAWINGS FOR LOCATIONS OF MAST SUPPORTS

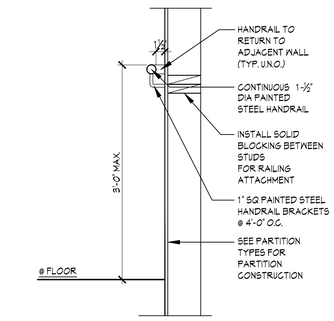


8 STAIR #3 - ADA LIFT - SECOND FLOOR PARTIAL PLAN
1/2"=1'-0"

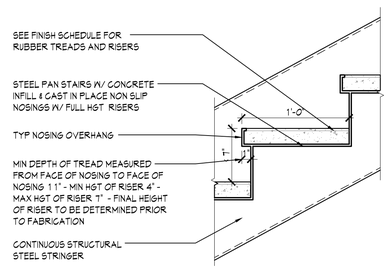
NOTE: HC LIFT TO BE INCLUDED IN ADD-ALTERNATE SECOND FLOOR BUILD-OUT (REFER TO A2.2a)



7 STAIR #3 - ADA LIFT ELEVATION
1/2"=1'-0"



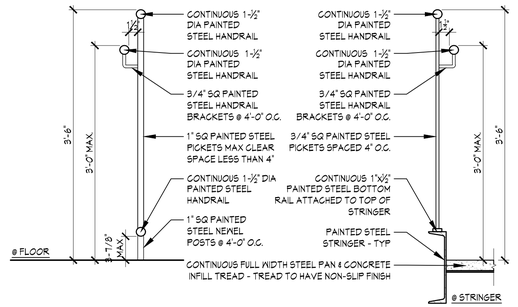
9 TYPICAL WALL RAILING DETAIL
1"=1'-0"



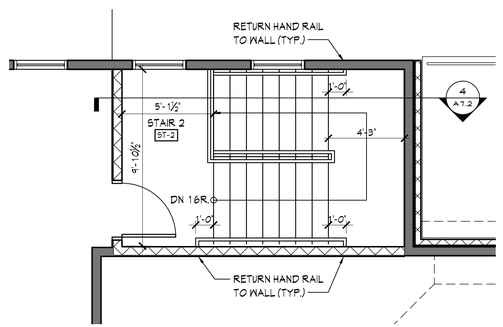
6 TYPICAL TREAD & RISER DETAIL
1-1/2"=1'-0"

STAIR NOTES

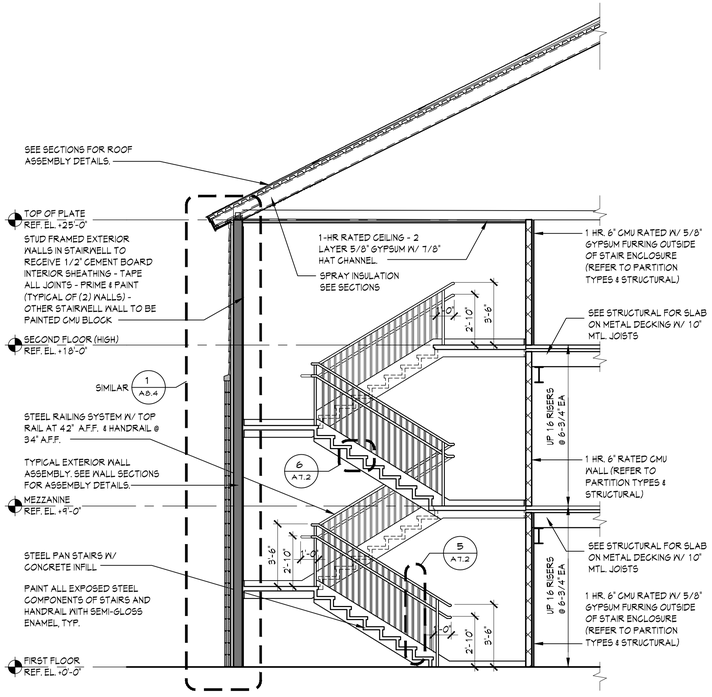
1. PROVIDE STAIR SHOP DRAWINGS.
2. CONTRACTOR TO FIRESTOP AT ALL LOCATIONS REQUIRED UPON COMPLETION OF STAIR ENCLOSURE.
3. ALL DOORS INTO STAIR ENCLOSURE TO BE "C" RATED (TYP.)
4. ALL HANDRAILS SHALL RETURN TO ADJACENT WALL UNLESS NOTED OTHERWISE
5. STAIR 2 GENERAL NOTE: STUD FRAMED EXTERIOR WALLS IN STAIR 2 TO RECEIVE 1/2" CEMENT BOARD INTERIOR SHEATHING - TAPE ALL JOINTS - PRIME & PAINT (TYPICAL OF (2) WALLS) - OTHER STAIRWELL WALL TO BE PAINTED CMU BLOCK



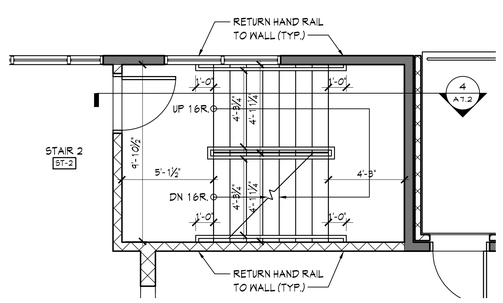
5 TYPICAL RAILING DETAILS
1"=1'-0"



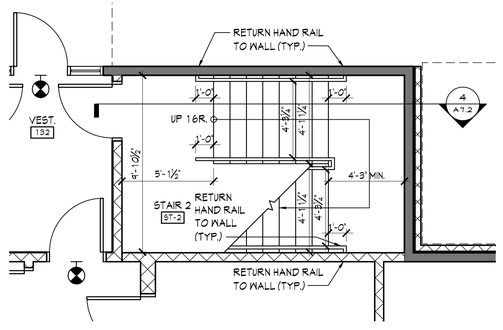
3 STAIR #2 2ND FLOOR PLAN
1/4"=1'-0"



4 STAIR #2 SECTION
1/4"=1'-0"



2 STAIR #2 MEZZANINE FLOOR PLAN
1/4"=1'-0"



1 STAIR #2 1ST FLOOR PLAN
1/4"=1'-0"

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Bedford, NY 10506

Date Issue
01.15.21 ISSUED FOR BID

Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
STAIR #2 PLANS
STAIR #3 - ADA LIFT PLANS
SECTIONS & DETAILS

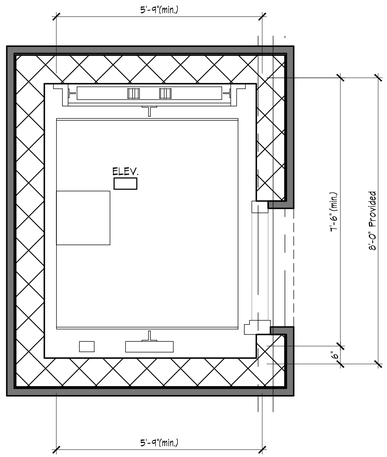
Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	cjp
Checked by	

REGISTERED ARCHITECT JOHN P. SULLIVAN NO. 017195 STATE OF NEW YORK

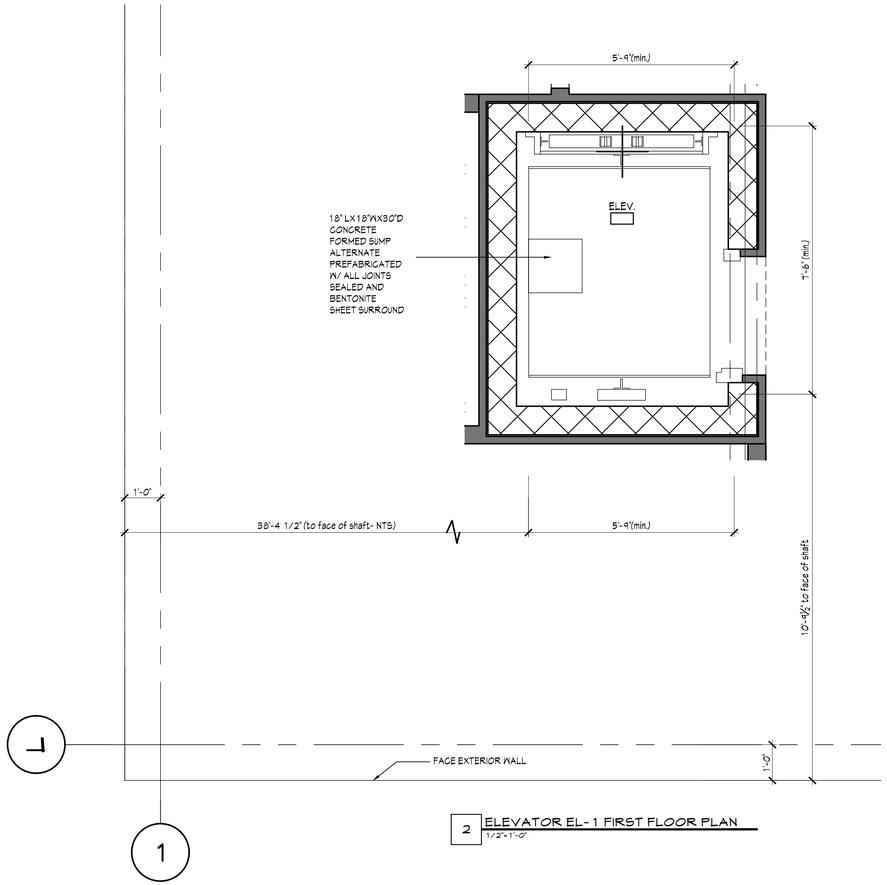
Drawing No. A7.2

ELEVATOR NOTES

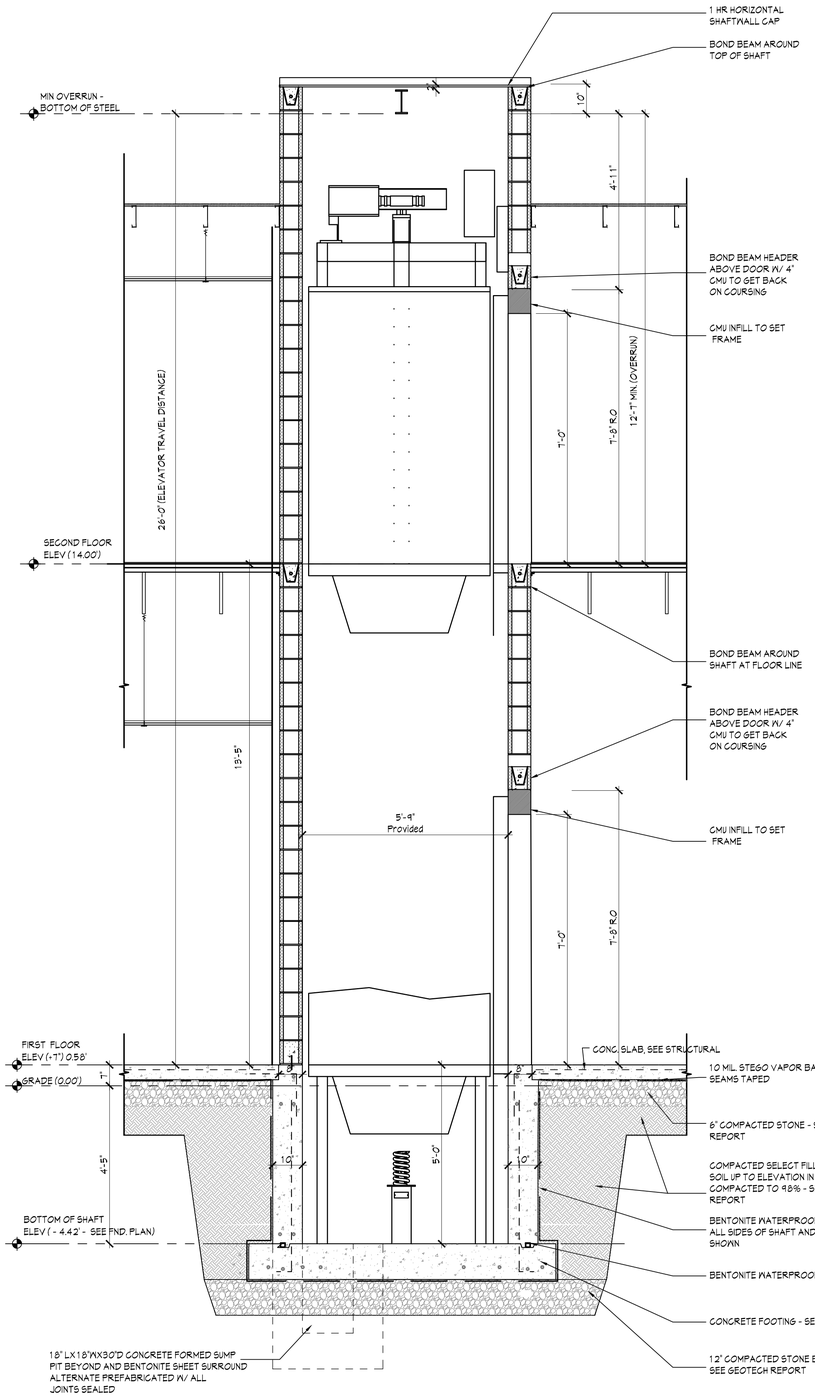
1. ELEVATOR 1 SHALL BE A 3100 TRANSACTION ELEVATOR ABOVE GROUND BY SCHINDLER OR EQUAL. ELEVATOR SHALL BE 100 FPM SPEED (MIN.). FINAL SPEED SHALL BE CALCULATED BY VENDOR AND SUBMITTED FOR APPROVAL.
2. ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL PIT LIGHT AND GFI DUPLEX OUTLET COORDINATED WITH SHOP DRAWINGS.
3. CONTRACTOR TO INSTALL PIT LADDER COORDINATED WITH SHOP DRAWINGS.
4. EACH PRIME CONTRACTOR TO PROVIDE HOLES AS REQUIRED IN ELEVATOR SHAFT FIRESTOP AS REQUIRED UPON COMPLETION OF ELEVATOR INSTALLATION.
5. CONTRACTOR TO PROVIDE SUMP PIT AT ELEVATOR SHAFT. SEE STRUCTURAL DOCUMENTS FOR ADDITIONAL NOTES & INFORMATION.
6. ALL DOORS INTO ELEVATOR HOISTWAY TO BE 1 1/2 HOUR FIRE RATED, IN ACCORDANCE WITH NFPA 252 OR UL 10B.
7. SEE MANF. SHOP DRAWINGS FOR LOCATIONS OF SHAFT INSERTS AND ALL M.O. OPENINGS REQUIRED.
8. SEE ELECTRICAL DWG FOR POWER CONNECTIONS.
9. OWNER VENDOR TO PROVIDE TELE/DATA CONNECTION COORDINATED W/ GC AND SCHINDLER



1 ELEVATOR EL-1 SECOND FLOOR PLAN
1/2"=1'-0"



2 ELEVATOR EL-1 FIRST FLOOR PLAN
1/2"=1'-0"



3 ELEVATOR SHAFT SECTION
1/2"=1'-0"

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01.15.21 ISSUED FOR BID

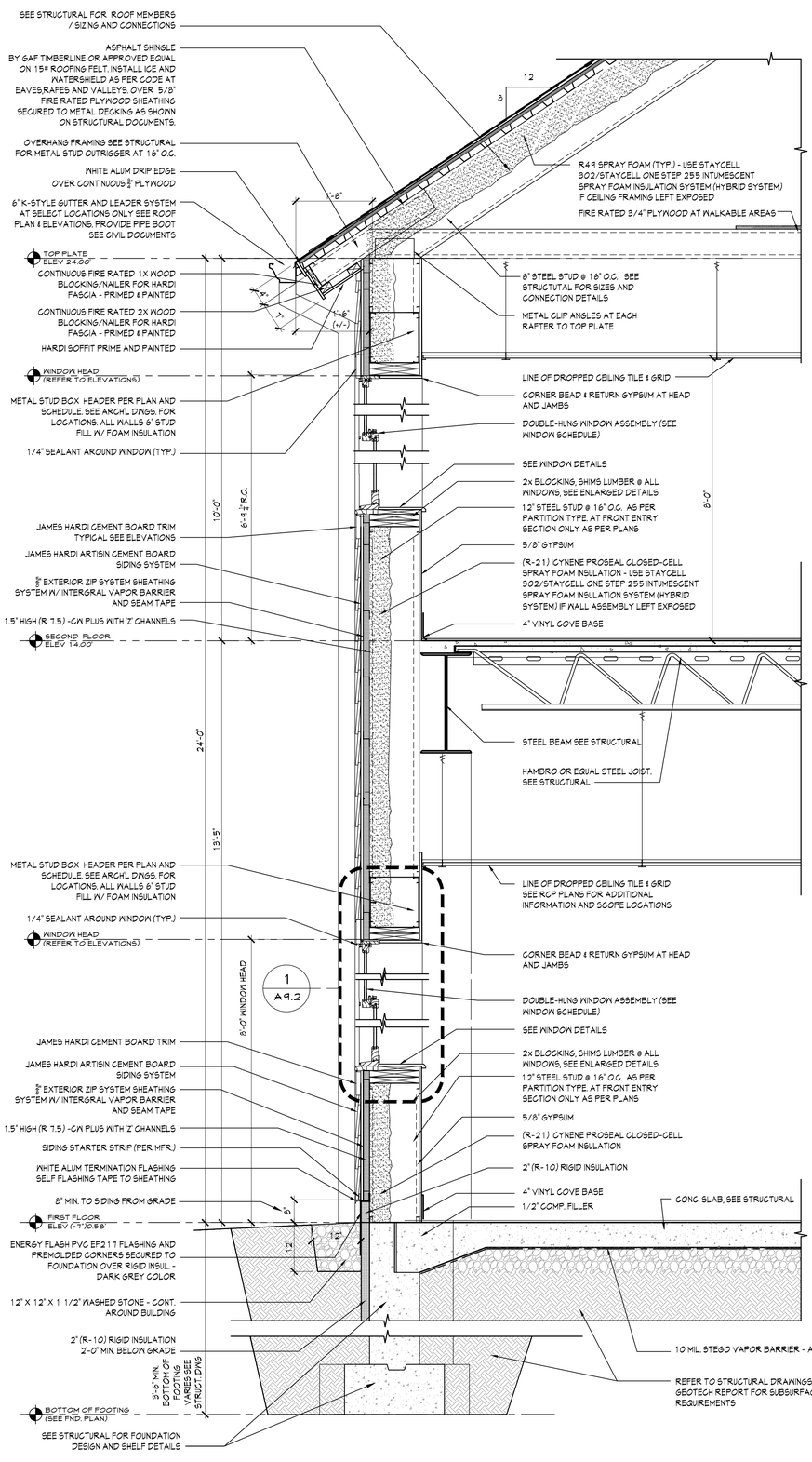
Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
ELEVATOR PLAN AND SECTION

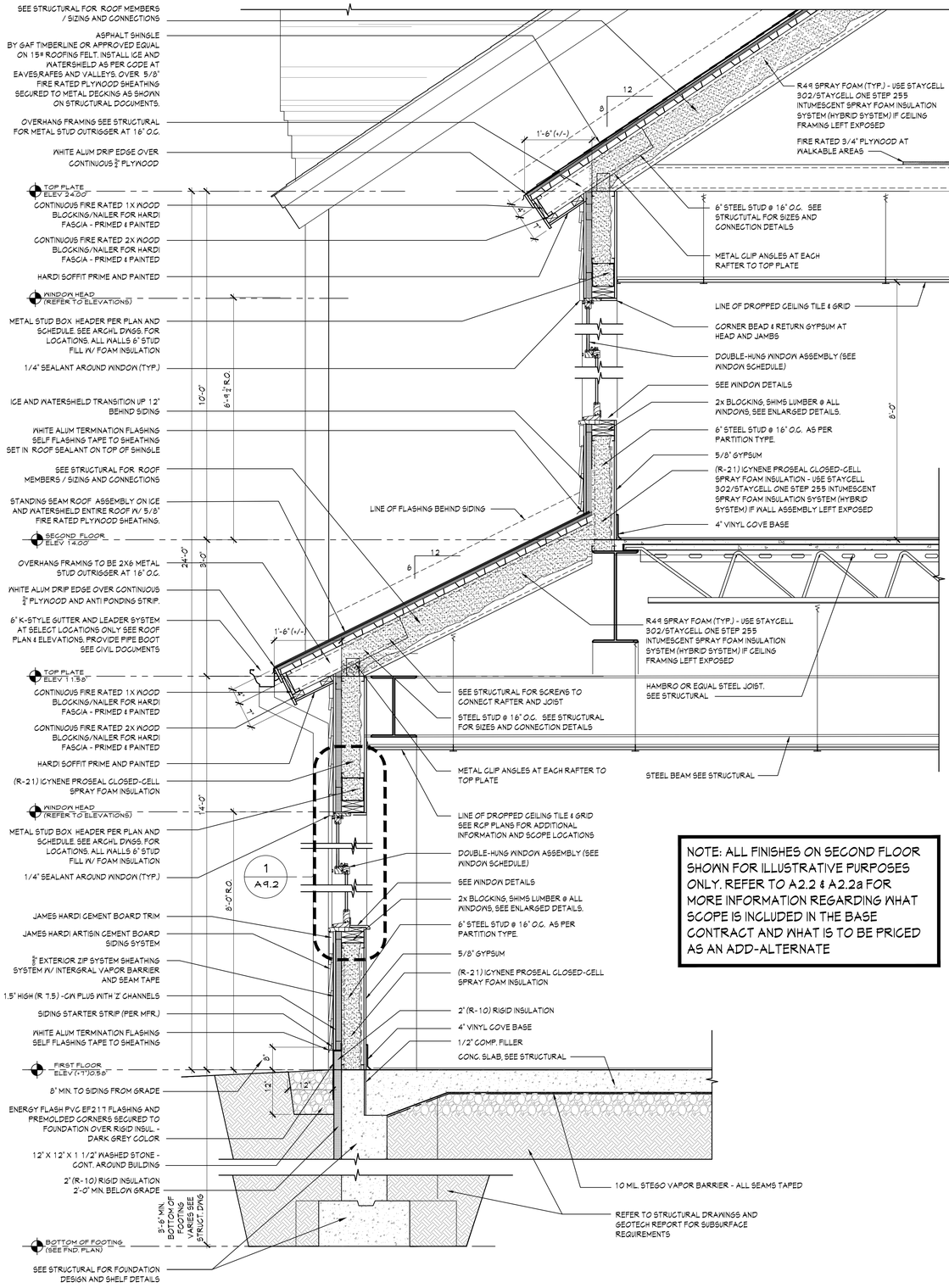
Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	ka
Checked by	

REGISTERED ARCHITECT JOHN F. SULLIVAN No. 011105 STATE OF NEW YORK

Drawing No.
A7.3



1 WALL SECTION
3/4"=1'-0"



2 WALL SECTION
3/4"=1'-0"

NOTE: ALL FINISHES ON SECOND FLOOR SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. REFER TO A2.2 & A2.2a FOR MORE INFORMATION REGARDING WHAT SCOPE IS INCLUDED IN THE BASE CONTRACT AND WHAT IS TO BE PRICED AS AN ADD-ALTERNATE

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Project Title

Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

Drawing Title

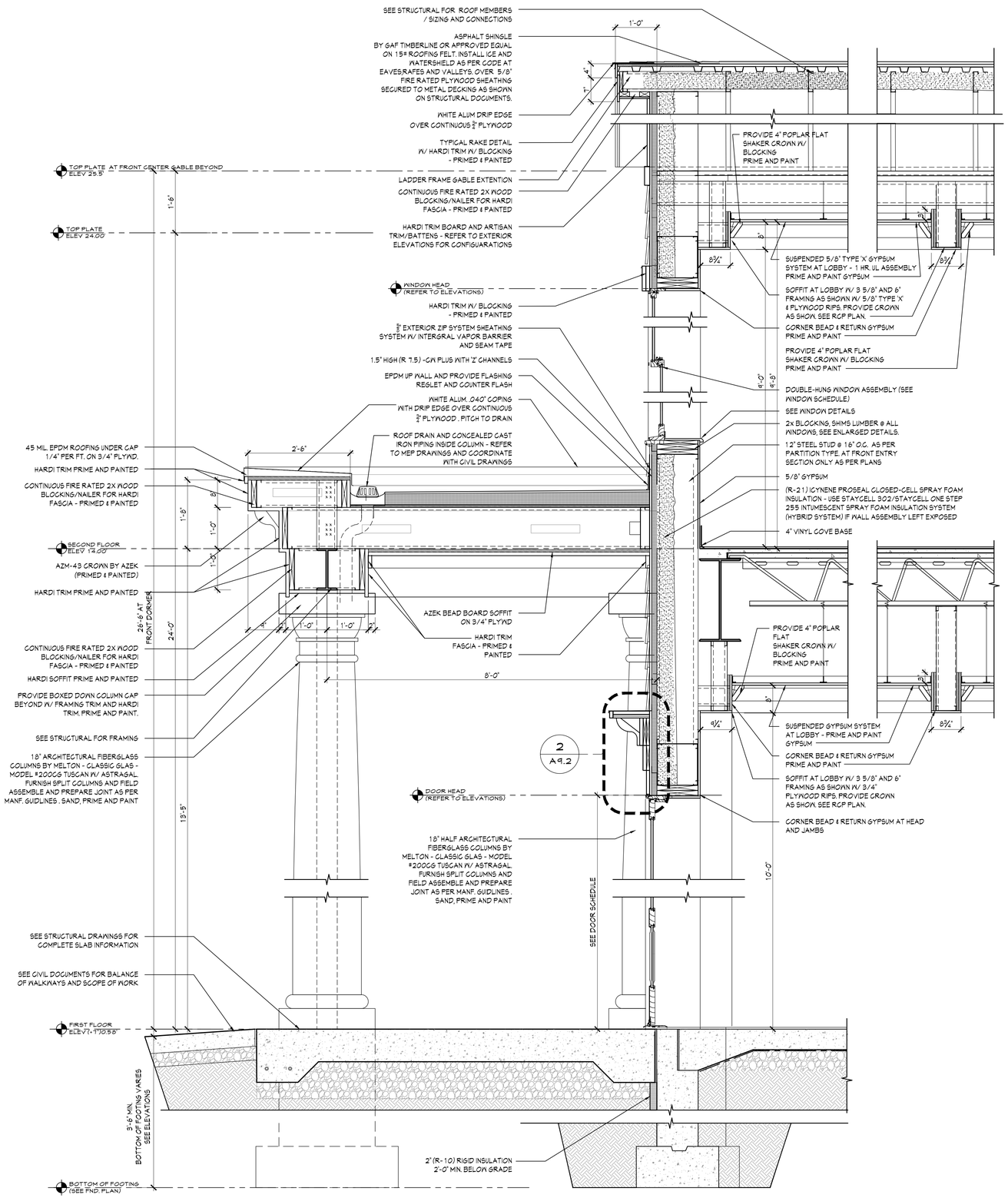
WALL SECTIONS

Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	ka
Checked by	

REGISTERED ARCHITECT ARTHUR F. SULLIVAN No. 017185 STATE OF NEW YORK

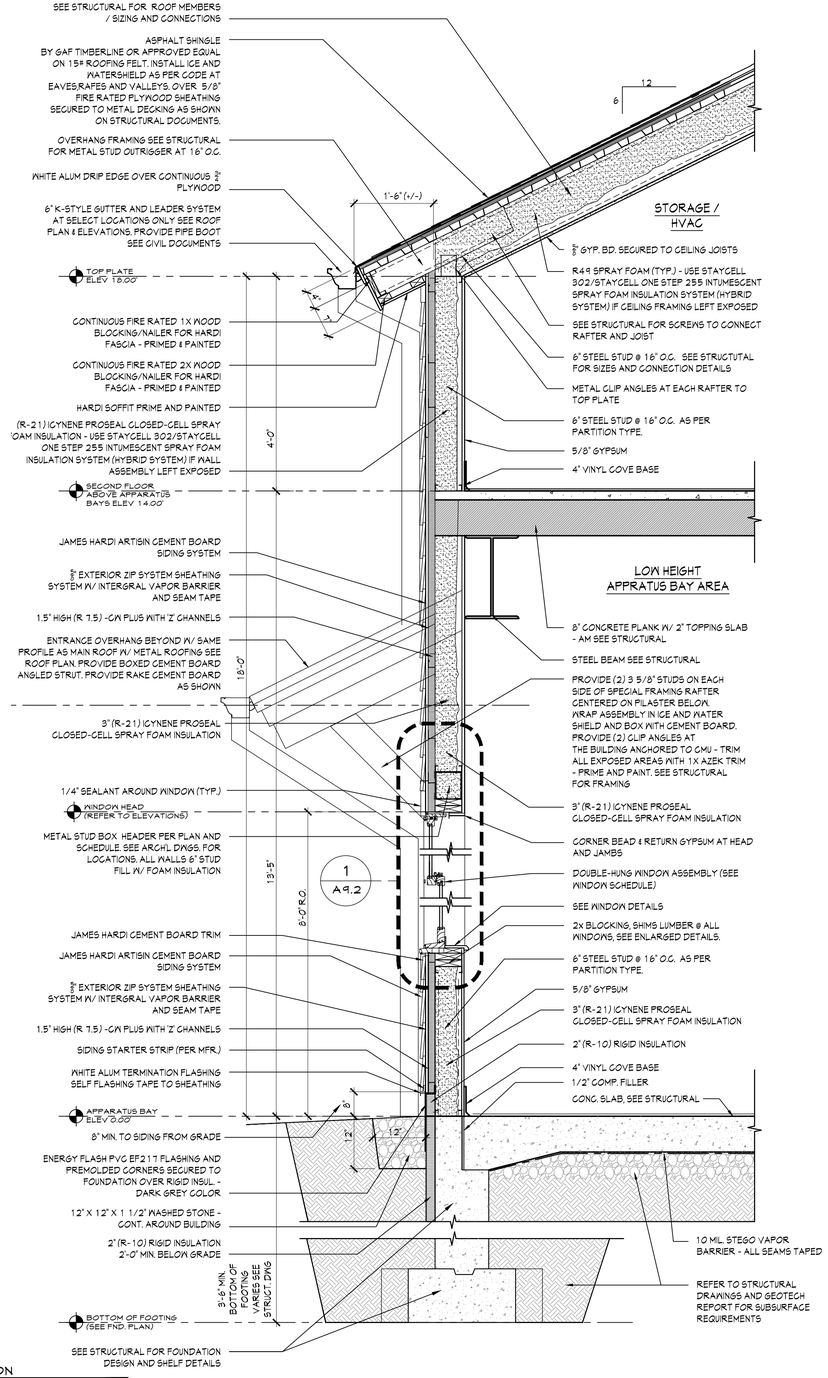
Drawing No.

A8.1



1 WALL SECTION
3/4"=1'-0"

NOTE: ALL FINISHES ON SECOND FLOOR SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. REFER TO A2.2 & A2.2a FOR MORE INFORMATION REGARDING WHAT SCOPE IS INCLUDED IN THE BASE CONTRACT AND WHAT IS TO BE PRICED AS AN ADD-ALTERNATE



2 WALL SECTION
3/4"=1'-0"

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Project Title

Bedford Fire Headquarters

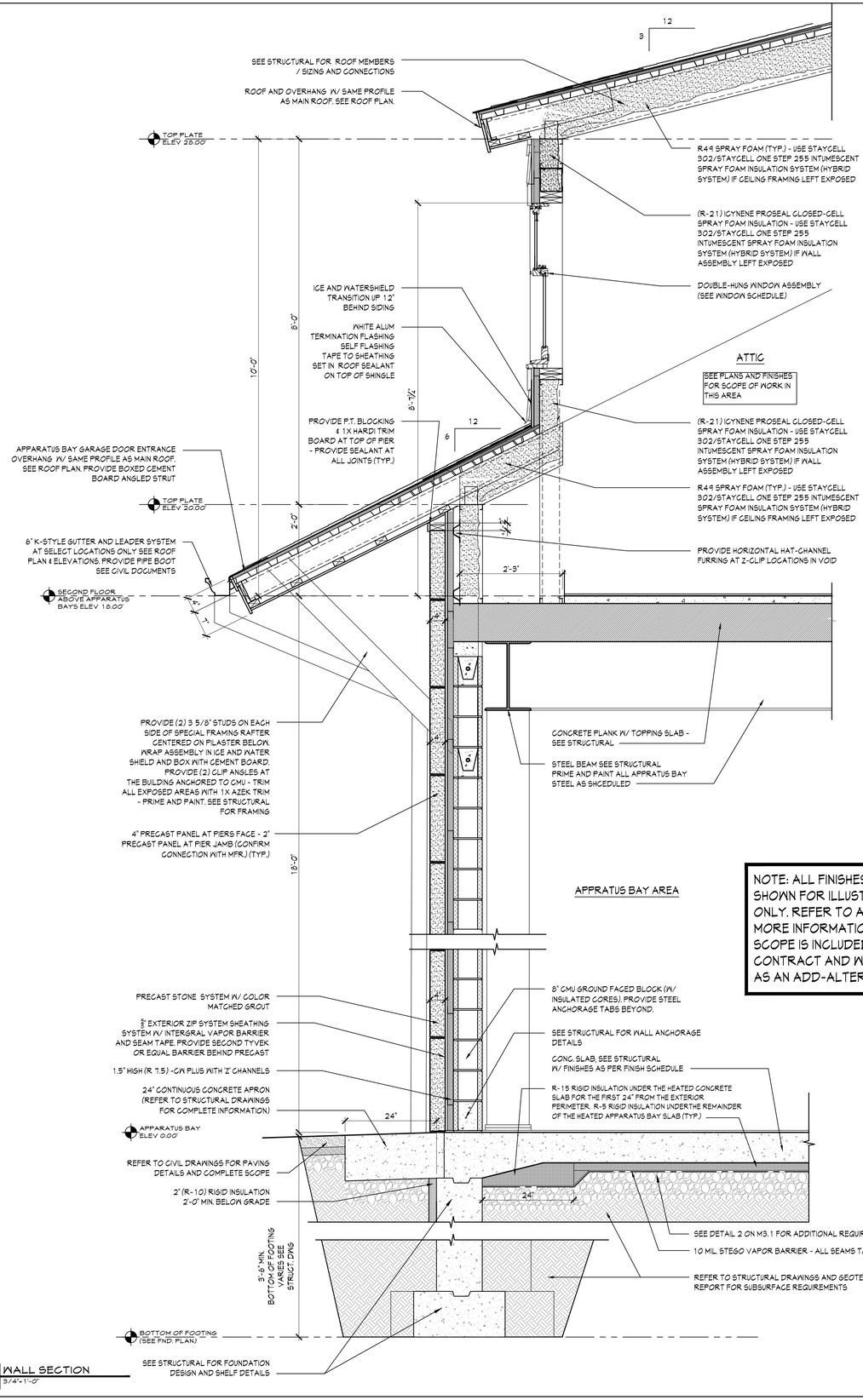
550 Old Post Road
Bedford, NY 10506

Drawing Title
WALL SECTIONS

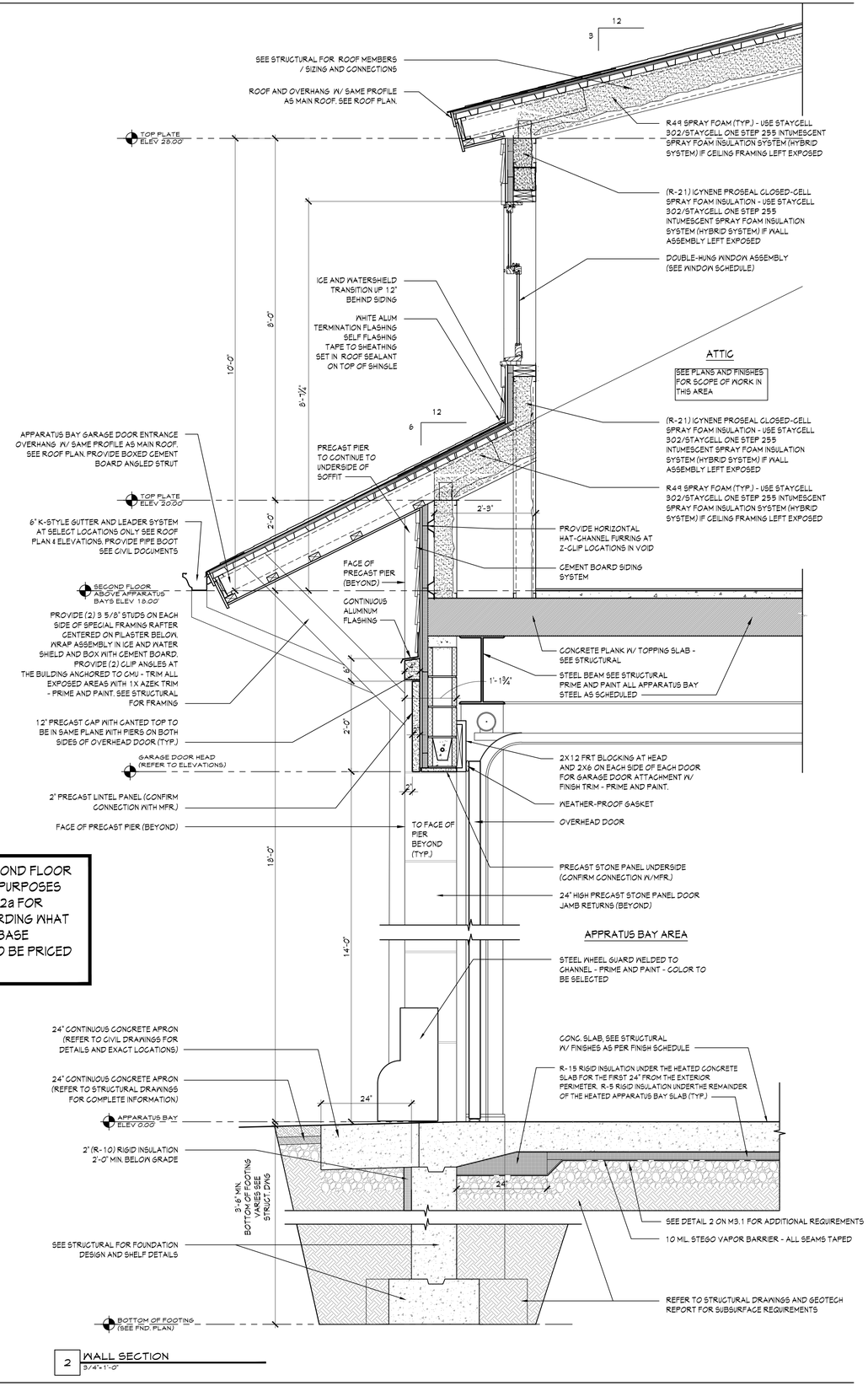
Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	ka
Checked by	

REGISTERED ARCHITECT JOHN P. SULLIVAN No. 017186 STATE OF NEW YORK

Drawing No.
A8.2



NOTE: ALL FINISHES ON SECOND FLOOR SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. REFER TO A2.2 & A2.2a FOR MORE INFORMATION REGARDING WHAT SCOPE IS INCLUDED IN THE BASE CONTRACT AND WHAT IS TO BE PRICED AS AN ADD-ALTERNATE



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Project Title

Bedford Fire Headquarters

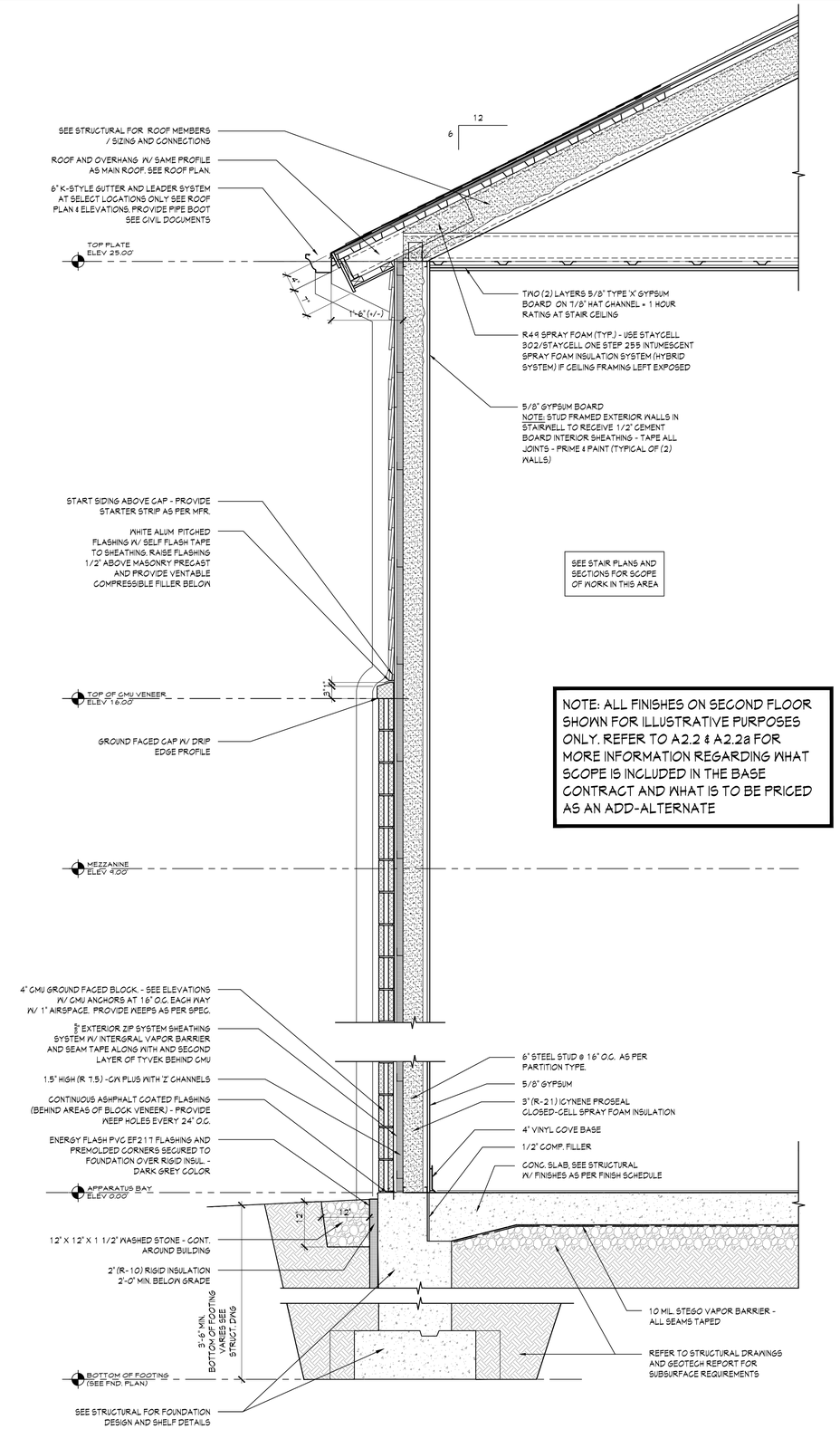
550 Old Post Road
Bedford, NY 10506

Drawing Title
WALL SECTIONS

Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	ka
Checked by	

REGISTERED ARCHITECT JOHN F. SULLIVAN No. 017139 STATE OF NEW YORK

Drawing No.
A8.3



1 WALL SECTION
3/4"=1'-0"

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Project Title

Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

Drawing Title

WALL SECTIONS

Project No.	1913
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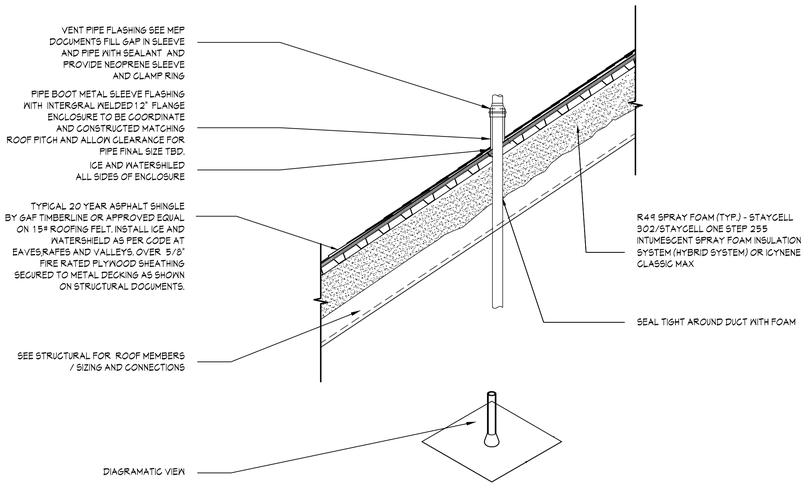
Drawing by	ka
Checked by	

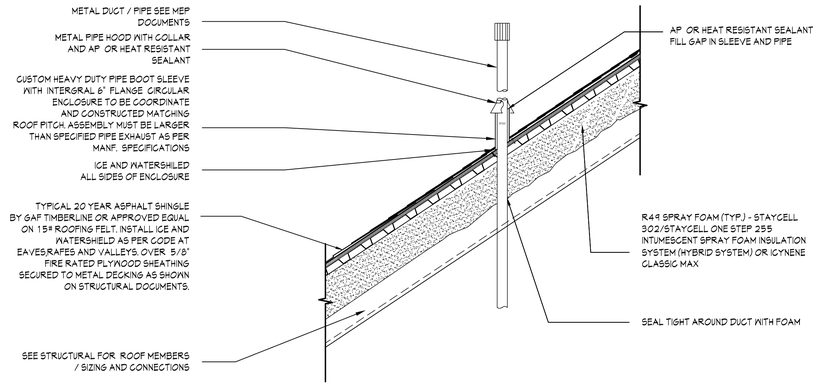
REGISTERED ARCHITECT JOHN P. SULLIVAN No. 011795 STATE OF NEW YORK

Drawing No.

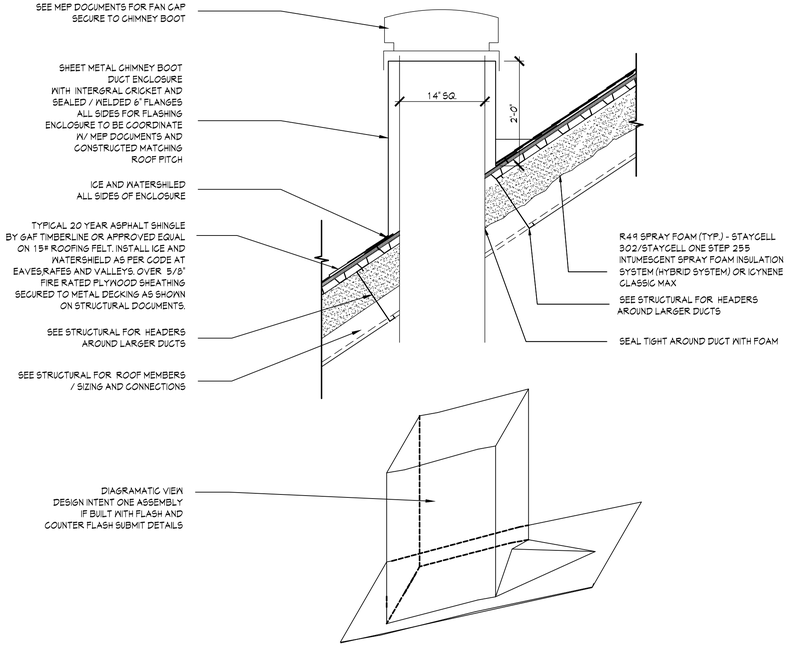
A8.4



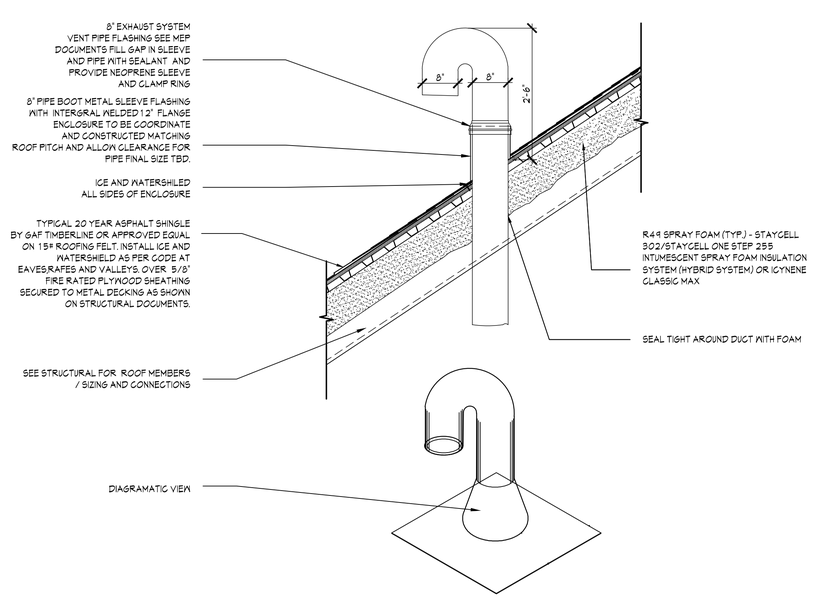
1 VENT PIPE DETAIL
3/4"=1'-0"



2 HOT - VENT PIPE DETAIL
3/4"=1'-0"



3 CHIMNEY DUCT FLASHING - FAN DETAIL
3/4"=1'-0"



4 TRUCK EXHAUST SYSTEM PIPE FLASHING DETAIL
3/4"=1'-0"

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Bedford Fire Headquarters
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Drawing Title
MISC. DETAILS

Project No.	1413
Date	01-28-20
Scale	AS NOTED
Drawing by	ka
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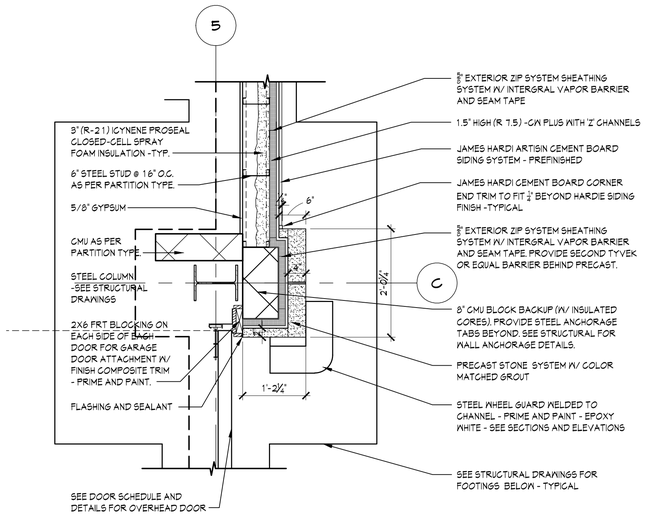
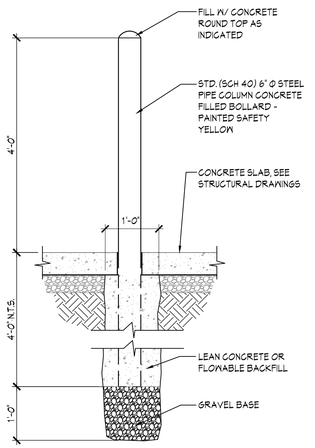
REGISTERED ARCHITECT STEVEN E. SULLIVAN No. 017159 STATE OF NEW YORK

Drawing No.
A8.5



1 ENLARGED PIER PLAN DETAIL AT END WALL
3/4"=1'-0"

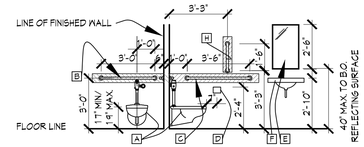


4 BOLLARD DETAIL
3/4"=1'-0"

HATCHED AREA REPRESENT WALL REINFORCING FOR GRAB BARS INSTALLED IN ALL BATHROOMS

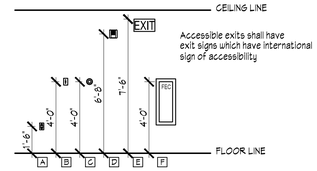
TOILET ROOM CRITERIA

A. BLOCKING REQUIRED TO BE INSTALLED AS SHOWN
B. GRAB BARS IN TYPE 'B' UNITS TO MEET ADA ANSI STANDARDS.
C. ALL BLOCKING & MOUNTING SHALL CONFORM TO ADA STANDARDS
D. SEE ENGINEERING DOCUMENTS FOR FIXTURE SELECTIONS
E. SEE INTERIOR DESIGN DOCUMENTS FOR ACCESSORIES & FINISHES.



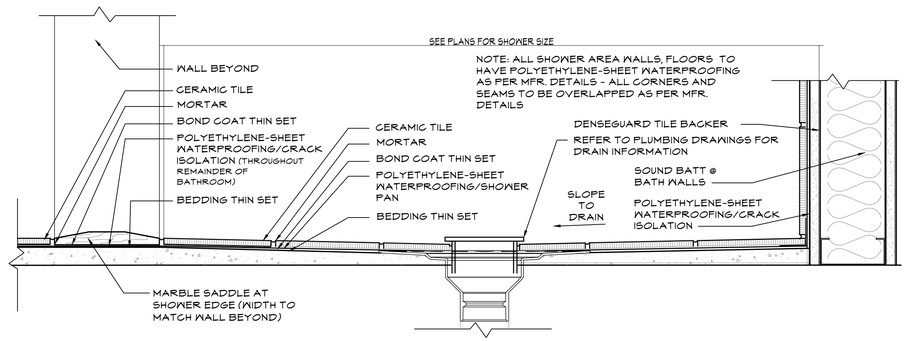
A HC COMPLIANT WALL MTD TOILET
B TOILET GRAB BAR "B-5680X36" PROVIDE AT EACH ADA TOILET
C SIDE TOILET GRAB BAR "B5806X42" PROVIDE AT EACH ADA TOILET
D TOILET PAPER ROLL DISPENSER- PROVIDE AT EACH TOILET
E WALL MOUNTED MIRRORS
F SINGLE WALL HUNG LAVATORY OR VANITY SINK TOP.
G NOT USED
H SIDE GRAB BAR "B5806X18" PROVIDE AT EACH ADA TOILET

5 TOILET ROOM MOUNTING DETAILS
1/4"=1'-0"



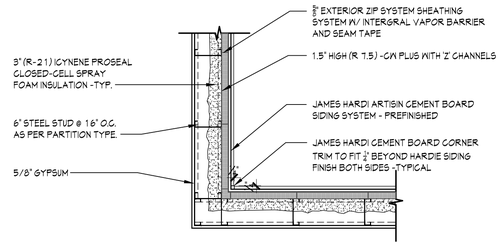
A WALL MOUNTED OUTLET/TELE
B WALL MOUNTED SWITCH
C WALL MOUNTED THERMOSTAT
D WALL MOUNTED HORN STROBE
E WALL MOUNTED EXIT LIGHT - MIN 6" BELOW CEILING
F FIRE EXTINGUISHER CABINET

6 VARIOUS MOUNTING HEIGHT INFORMATION
1/4"=1'-0"

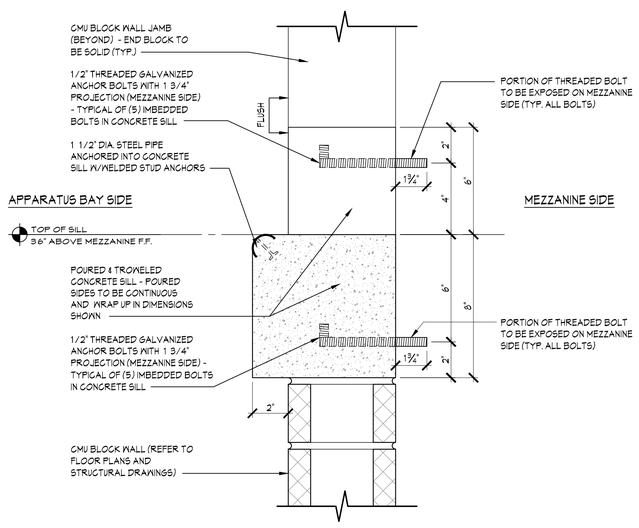


7 TYPICAL THIN-SET TILE SHOWER FLOOR DETAIL
3"=1'-0"

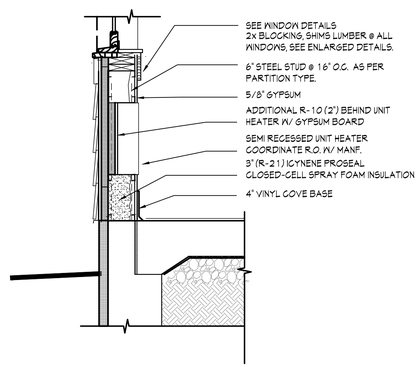
2 ENLARGED PIER PLAN DETAIL BETWEEN O.H. DOOR
3/4"=1'-0"



3 ENLARGED CORNER TRIM PLAN DETAIL
3/4"=1'-0"



8 BAIL-OUT OPENING SILL DETAIL
3"=1'-0"



9 SEMI RECESSED UNIT HEATER
3/4"=1'-0"

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Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
MISC. DETAILS

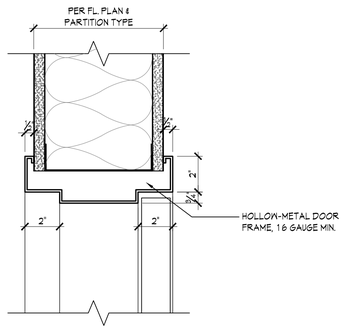
Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	ka
Checked by	

REGISTERED ARCHITECT VICTOR P. SULLIVAN No. 017191 STATE OF NEW YORK

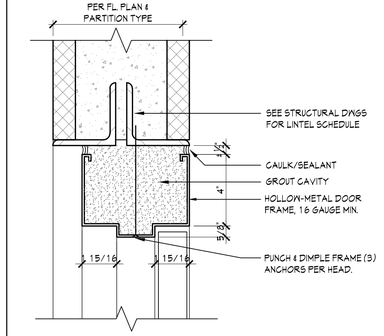
Drawing No.
A8.6

DOOR HEAD & JAMB DETAILS - ('H' INDICATES HEAD DETAIL, 'J' INDICATES JAMB DETAILS)

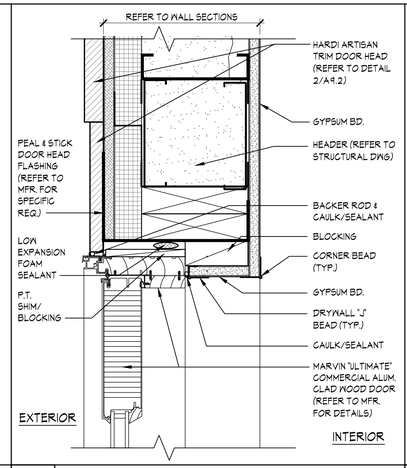
SCALE : 3"= 1'-0"



H1 HM DOOR HEAD - STUD WALL OPENING

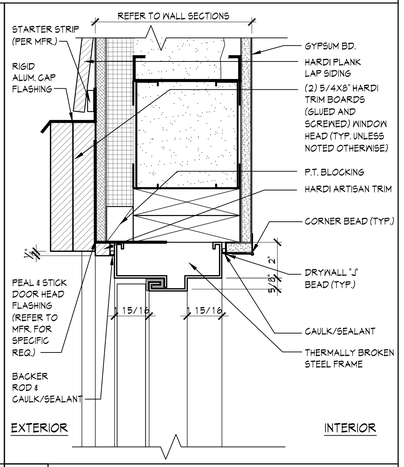


H2 HM DOOR HEAD - MASONRY OPENING

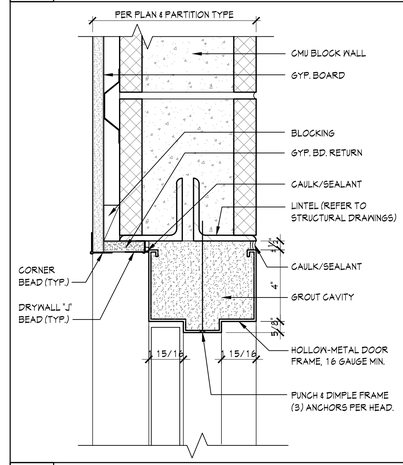


H3 CLAD WD. DR. HEAD - STUD WALL

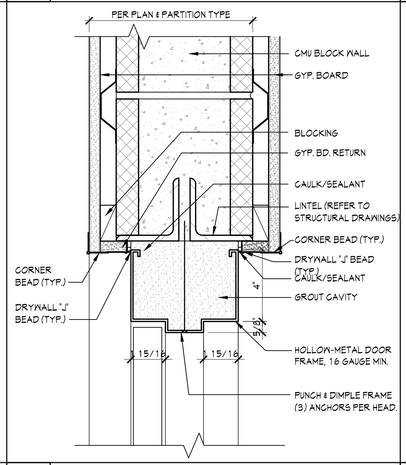
H4 NOT USED



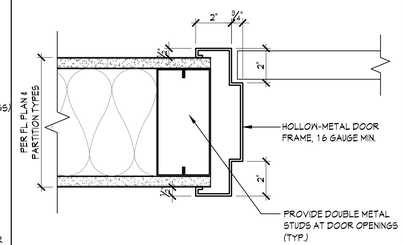
H5 EXTERIOR DR. HEAD - STUD WALL



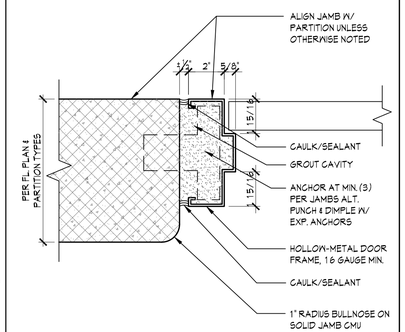
H6 HM DOOR HEAD - MASONRY OPENING



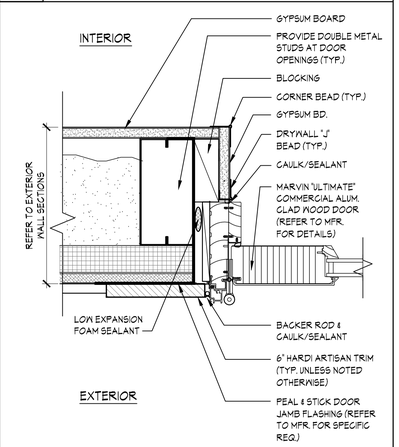
H7 HM DOOR HEAD - MASONRY OPENING



J1 HM DOOR JAMB - STUD WALL OPENING

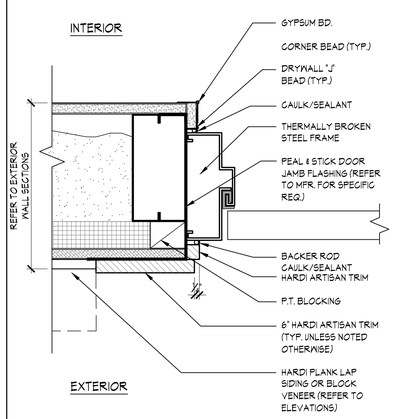


J2 HM DOOR JAMB - MASONRY OPENING

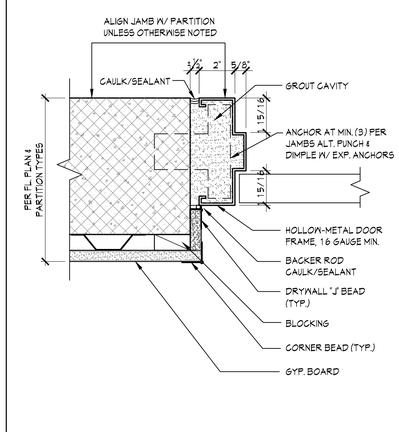


J3 CLAD WD. DR. JAMB - STUD WALL

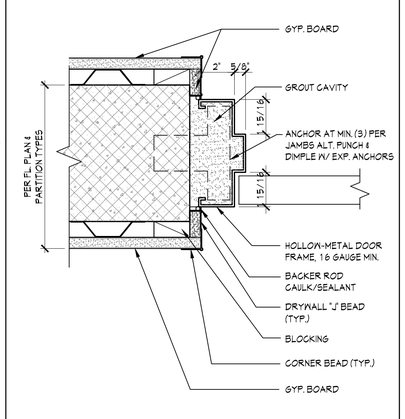
J4 NOT USED



J5 EXTERIOR DR. JAMB - STUD WALL



J6 HM DOOR JAMB - MASONRY OPENING



J7 HM DOOR JAMB - MASONRY OPENING

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Owner: Bedford Village Fire District
34 Village Green
Bedford, NY 10506

Date Issue

01.15.21 ISSUED FOR BID

Project Title

Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

Drawing Title

DOOR DETAILS

Project No.	1913
Date	01-28-20
Scale	AS NOTED
Drawing by	cjp
Checked by	

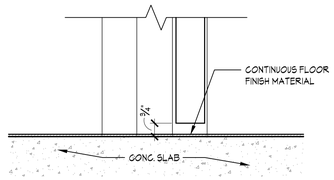
REGISTERED ARCHITECT JOHN P. SULLIVAN No. 017185 STATE OF NEW YORK

Drawing No.

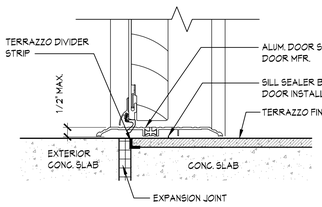
A9.1

SILL & FLOOR TRANSITION DETAILS - ('S' INDICATES SILL DETAILS, 'FT' INDICATES FLOOR TRANSITION)

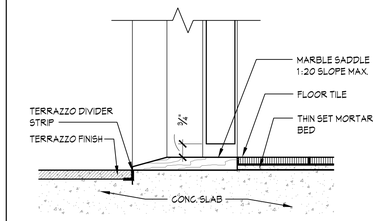
SCALE : 3"=1'-0"



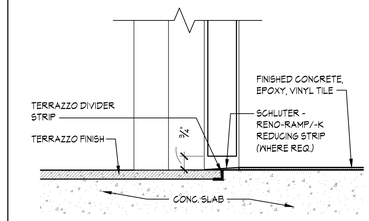
S1 DOOR SILL - FLUSH (NO SILL)



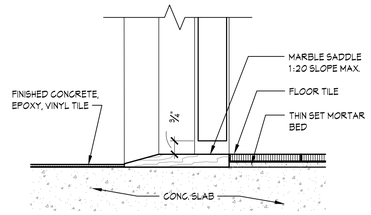
S2 DOOR SILL - ALUM CLAD WD. DOOR



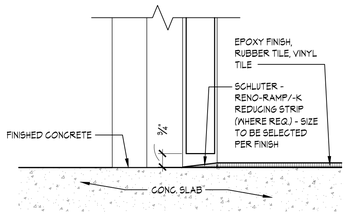
S3 DOOR SILL - TERAZZO TO TILE



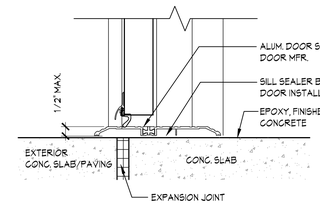
S4 DR. SILL - TERAZZO TO OTHER FINISH



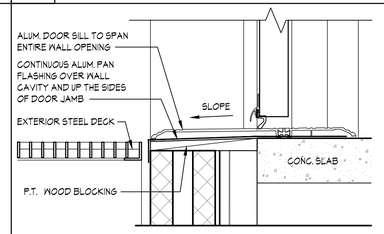
S5 DR. SILL - TILE TO OTHER FINISH



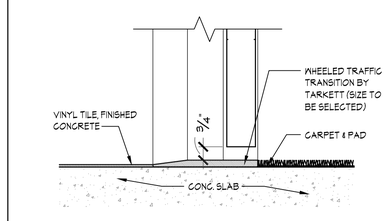
S6 DR. SILL - EPOXY TO CONCRETE



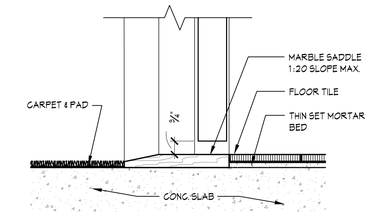
S7 DOOR SILL - ALUMINUM SILL



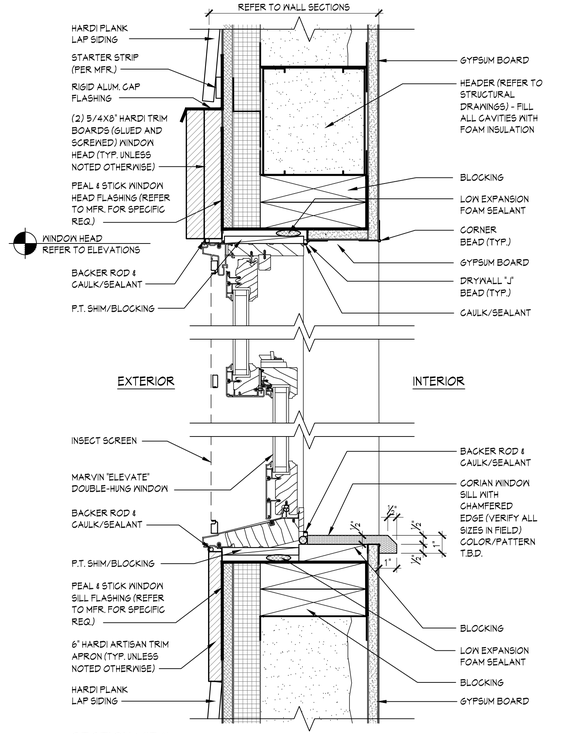
S8 DOOR SILL - ALUMINUM SILL



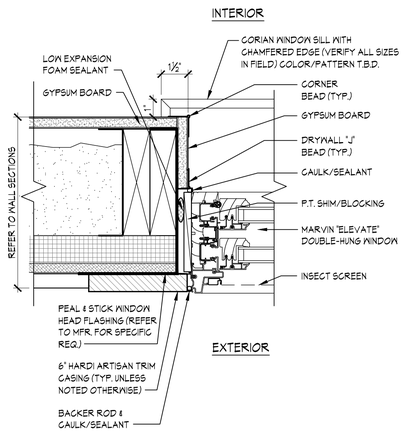
S9 DOOR SILL - CARPET TO FLOOR TILE



S10 DOOR SILL - CARPET TO FLOOR TILE



SECTION VIEW

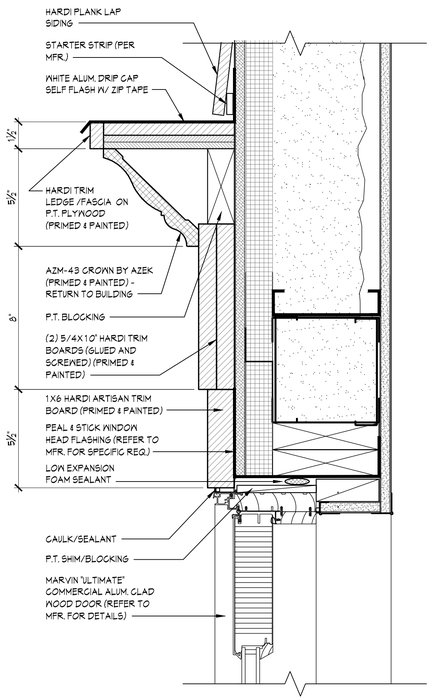


PLAN VIEW

GENERAL WINDOW NOTES:

- ALL WINDOWS IN THE PROJECT ARE TO BE FURNISHED AND INSTALLED AS PART OF THE BASE BID.
- ALL EXTERIOR WINDOW COMPONENTS, TRIM, ETC. ARE TO BE FURNISHED AND INSTALLED FOR ALL WINDOWS AS PART OF THE BASE BID.
- IN AREAS INDICATED AS UNFINISHED ON THE FLOOR PLANS - INTERIOR CORIAN WINDOW SILL, GYPSUM BOARD AND ASSOCIATED INTERIOR FINISH COMPONENTS ARE NOT INCLUDED IN THE BASE BID OR ADD-ALTERNATE BID.
- IN AREAS INDICATED AS ADD-ALTERNATE ON THE FLOOR PLANS - INTERIOR CORIAN WINDOW SILL, GYPSUM BOARD AND ASSOCIATED INTERIOR FINISH COMPONENTS ARE TO BE BID AS ADD-ALTERNATE ITEMS.

1 TYPICAL WINDOW DETAILS
3"=1'-0"



2 DOOR HEAD TRIM AT FRONT ENTRY
3"=1'-0"

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Project Title

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Drawing Title

DOOR & WINDOW DETAILS

Project No.	1913
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Drawing by	cjp
Checked by	

REGISTERED ARCHITECT TIMOTHY P. SULLIVAN No. 017169 STATE OF NEW YORK

Drawing No.

A9.2

DESIGN CRITERIA

HAZARD CLASSIFICATION[1]	DENSITY[2]	PROTECTION AREA PER SPRINKLER[3]
LIGHT HAZARD	0.1 GPM / 1500 SQ. FT.	225 SQ. FT. MAX
ORDINARY HAZARD GROUP 1	0.15 GPM / 1500 SQ. FT.	130 SQ. FT. MAX
ORDINARY HAZARD GROUP 2	0.2 GPM / 1500 SQ. FT.	130 SQ. FT. MAX
EXTRA HAZARD GROUP 1	0.3 GPM / 2500 SQ. FT.	100 SQ. FT. MAX
EXTRA HAZARD GROUP 2	0.4 GPM / 2500 SQ. FT.	100 SQ. FT. MAX

NOTES:
1.) HAZARD CLASSIFICATION, DENSITY AND MAX. PROTECTION AREA SHALL BE IN ACCORDANCE WITH NFPA 13 – 2013 RECOMMENDATIONS UNLESS OTHERWISE NOTED.
2.) WHERE REQUIRED BY THE BUILDING DEPARTMENT OR AUTHORITY HAVING JURISDICTION FOR PERMIT, THE ENTIRE SYSTEM SHALL BE HYDRAULICALLY CALCULATED.
3.) THE MINIMUM PRESSURE AT EACH SPRINKLER HEAD SHALL BE 7 PSI.
4.) EQUIVALENT FITTING LENGTHS USED IN HYDRAULIC CALCULATIONS SHALL BE IN ACCORDANCE WITH NFPA 13 – 2013.
5.) DISCHARGE FROM EACH SPRINKLER SHALL NOT BE LESS THAN REQUIRED AREA COVERAGE BY THIS HEAD. AREA COVERAGE PER HEAD SHALL BE DETERMINED IN ACCORDANCE WITH NFPA 13 SECTION 8.6.2.2.1 (2013).
6.) HYDRAULIC CALCULATIONS SHALL BE BROUGHT BACK TO THE CONNECTION TO THE RISER OR SPRINKLER CONTROL VALVE (F.C.A).
7.) FLOW VELOCITY IN SPRINKLER PIPING SHALL NOT EXCEED 20 FEET PER SECOND (FPS).

SYMBOL & ABBREVIATIONS

SYMBOL	ABBREVIATION	DESCRIPTION
	EX.	EXISTING TO REMAIN
	NEW	NEW WORK
	DEM.	EXISTING TO BE REMOVED
	–	ELBOW UP
	–	ELBOW DOWN
	–	TEE DOWN
	–	TEE UP
	–	PIPE CAP OR FLUSHING CONNECTION
	–	GATE VALVE
	–	OS&Y GATE VALVE
	–	BUTTERFLY VALVE
	–	CHECK VALVE
	–	UNION
	–	TEMPERATURE GAGE
	–	PRESSURE GAGE
FS	–	WATER FLOW SWITCH
TS	–	TAMPER SWITCH
	–	INSPECTORS TEST CONNECTION
	–	FLOW ARROW
	–	SPRINKLER GUARD
	–	NEW PENDENT SPRINKLER, CONCEALED OR EXPOSED AS NOTED.
	–	NEW UPRIGHT SPRINKLER
	–	SIDEWALL SPRINKLER
	–	POINT OF CONNECTION
	–	POINT OF DISCONNECTION
N1	–	HYDRAULIC REFERENCE NODE
S2	–	HYDRAULIC REFERENCE SPRINKLER
	FDC	FIRE DEPARTMENT CONNECTION
	FP	FIRE PUMP
	AFF	ABOVE FINISHED FLOOR
	AHC	ABOVE HUNG CEILING
	ATC	AT CEILING
	BFP	BACKFLOW PREVENTOR
	DCDA	DOUBLE CHECK DETECTOR ASSEMBLY
	DCV	DOUBLE CHECK VALVE BFP
	DN.	DOWN
	FCA	FLOOR CONTROL ASSEMBLY
	FD	FLOOR DRAIN
	FLFD	FUNNEL FLOOR DRAIN
	GPM	GALLONS PER MINUTE
	JP	JOCKEY PUMP
	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
	(NO)	NORMALLY OPEN
	(NC)	NORMALLY CLOSED
	NTS	NOT TO SCALE
	PRV	PRESSURE REDUCING VALVE
	PSI	POUNDS PER SQUARE INCH
	RPZ	REDUCED PRESSURE ZONE BFP
	SF	SQUARE FOOT
	TS	TAMPER SWITCH
	TYP	TYPICAL
	U.O.N.	UNLESS OTHERWISE NOTED

NOTE: FOR REFERENCE ONLY. NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED IN THIS PROJECT.

GENERAL NOTES

1. THE REVISED SPRINKLER SYSTEM SHALL BE DESIGNED AND INSTALLED BY AN EXPERIENCED FIRE PROTECTION CONTRACTOR IN STRICT ACCORDANCE WITH NFPA–13, THE REQUIREMENTS OF THE LANDLORD, LANDLORD'S FIRE INSURANCE UNDERWRITER, AND ALL GOVERNMENTAL AGENCIES AND AUTHORITIES HAVING JURISDICTION OVER THE PREMESIS.
2. COORDINATE ALL WORK WITH OTHER TRADES TO MINIMIZE INTERFERENCES WITH NEW AND EXISTING FACILITIES, TO FACILITATE TIMELY COMPLETION AND AVOID NECESSITY FOR CUTTING AND PATCHING. FURNISH TO OTHER AFFECTED TRADES ALL NECESSARY INFORMATION, WORKING DRAWINGS OR MATERIALS REQUIRED FOR INSTALLATION AND COMPLETION OF ALL WORK. ALL CONFLICTS, OBSTRUCTIONS AND/OR MODIFICATIONS TO THE SPRINKLER DESIGN LAYOUT DUE TO FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO FABRICATION AND INSTALLATION.
3. CONTRACTOR SHALL CONDUCT FLOW TEST TO ESTABLISH EXACT FLOW AND PRESSURE AVAILABLE ON THE SITE FOR PREPARATION OF HYDRAULIC CALCULATIONS.
4. ALTER PIPING AS REQUIRED TO SUIT CEILING HEIGHTS, DUCTWORK, AND LIGHTS. PROVIDE AT NO EXTRA COST ALL ADDITIONAL PIPING AND FITTINGS REQUIRED TO OFFSET SYSTEM TO AVOID STRUCTURAL, ARCHITECTURAL, MECHANICAL, AND ELECTRICAL INTERFERENCES, WHETHER INDICATED OR NOT, BEFORE INSTALLING WORK.
5. WHEN INSTALLING SPRINKLER HEADS, THE CONTRACTOR SHALL PROVIDE THE SHORTEST HYDRAULIC PIPE LENGTH BETWEEN THE FINAL SPRINKLER HEAD LOCATION AND THE BRANCH LINE CONNECTION. MINIMUM 1" FOR TWO HEADS, 1–1/4" FOR THREE HEADS AND 1–1/2" FOR FIVE HEADS.
6. EXACT LOCATION OF SPRINKLER HEADS IN FINISHED AREAS SHALL BE COORDINATED WITH ARCHITECTURAL REFLECTED CEILING PLANS. SPRINKLER HEADS INSTALLED IN HUNG CEILING WILL BE POSITIONED AS FOLLOWS: LOCATED WITH TOLERANCE ± 1/2" OF THE CENTERLINE OF THE TILES.
7. INSTALL SPRINKLER HEADS TIGHT TO BOTTOM OF HUNG CEILING WITH CARE THAT THE FINISH IS NOT DAMAGED.
8. WHEN CONCEALED TYPE SPRINKLER HEADS ARE USED, THE COVER PLATES WILL BE FLUSH WITH THE CEILING PLANE TO LIMIT SHADOW EFFECT. TOLERANCE GREATER THAN ± 1/8" IS UNACCEPTABLE.
9. PROVIDE TWO 2–1/2 GALLON PRESSURIZED WATER AND ONE 10 LB ABC DRY CHEMICAL EXTINGUISHERS FOR EMERGENCY USE DURING CONSTRUCTION.
10. PROVIDE ALL PIPE OPENINGS THROUGH PARTITIONS WITH PIPE SLEEVES. FOR PIPES PENETRATING FIRE RATED PARTITIONS, THE SPACE BETWEEN THE PIPE AND THE SLEEVE SHALL BE SEALED WITH A LISTED FIRE STOPPING ASSEMBLY OR MATERIAL.
11. ALL HOSE CONNECTION AND FIRE DEPARTMENT CONNECTION THREADS SHALL BE TESTED TO VERIFY COMPATIBILITY WITH THREADS USED BY LOCAL FIRE DEPARTMENT, IN ACCORDANCE WITH NFPA–14 (2013) SECTION 11.3.
12. THE CONTRACTOR SHALL MAKE A PROVISION FOR (10) EXTRA SPRINKLERS INCLUDING IMMEDIATE BRANCH PIPING, FITTINGS AND ARM–OVERS. THE CONTRACTOR SHALL COORDINATE WITH FINAL CONFIGURATION OF OPEN AND HUNG CEILINGS, ALL HVAC DUCTWORK AND PIPING AND STRUCTURAL ELEMENTS THROUGHOUT THE AREA OF WORK.

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MEP Engineer: OLA Consulting Engineers
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8 West 38th St. Suite 501, New York, NY
Tel: 914-747-2800

Date	Issue
03.10.20	MEETING
03.27.20	DESIGN DEVELOPMENT
05.07.20	PROGRESS
05.08.20	CD PROGRESS SET
05.28.20	CD PROGRESS SET
06.30.20	CD REVIEW SET
09.01.20	CONSTRUCTION PROGRESS
09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
FIRE PROTECTION SYMBOLS, ABBREVIATIONS, & NOTES

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JRT/MS
Checked by	JF/RS

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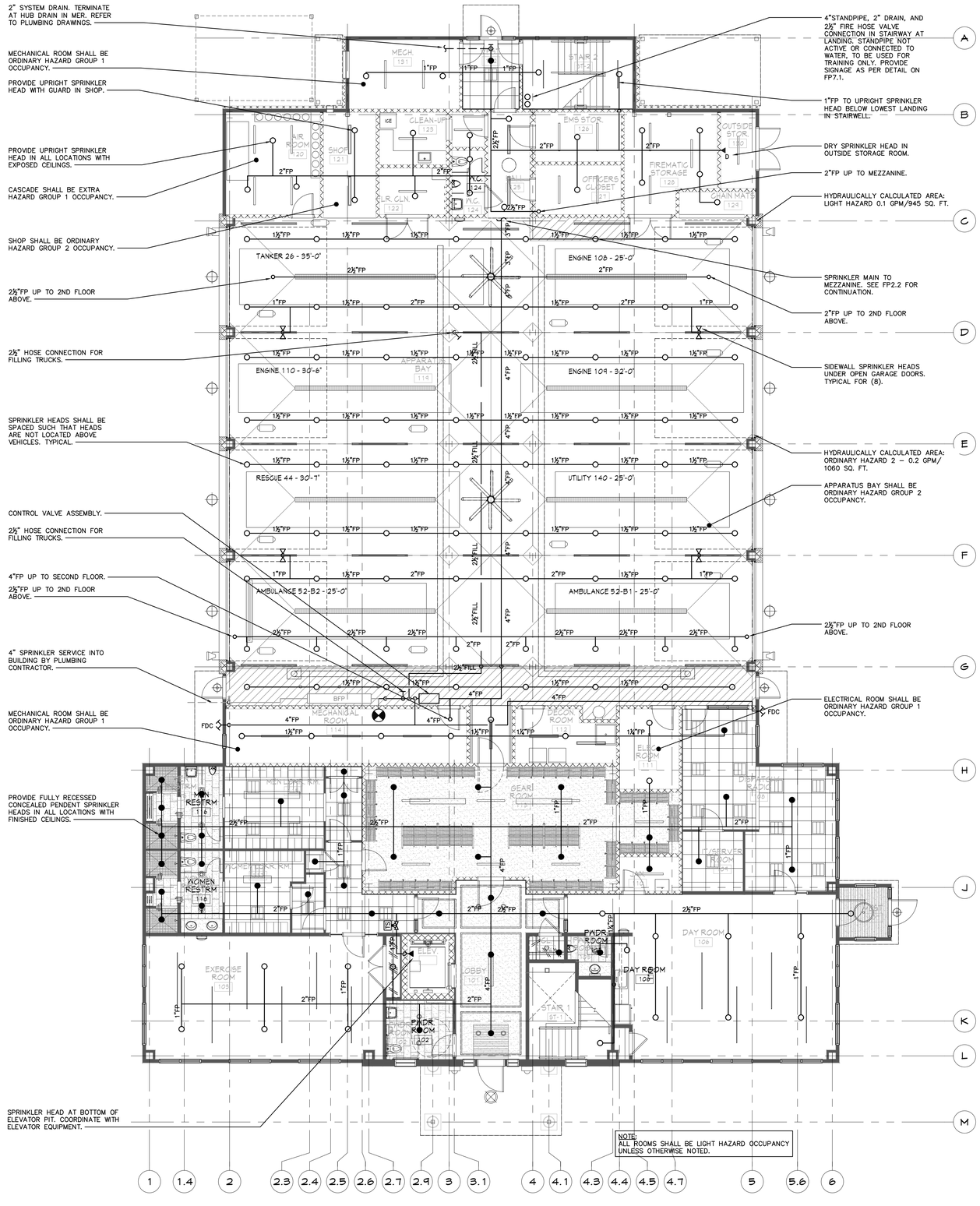
Drawing No.
FP0.1



1 FIRE PROTECTION FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

NORTH

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05.08.20	CD PROGRESS SET
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09.01.20	CONSTRUCTION PROGRESS
09.15.20	ICC SUBMISSION
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Project Title
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Drawing Title
FIRE PROTECTION FIRST FLOOR PLAN

Project No.	NSPC0070.00
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Drawing by	JRT/MS
Checked by	JF/RS

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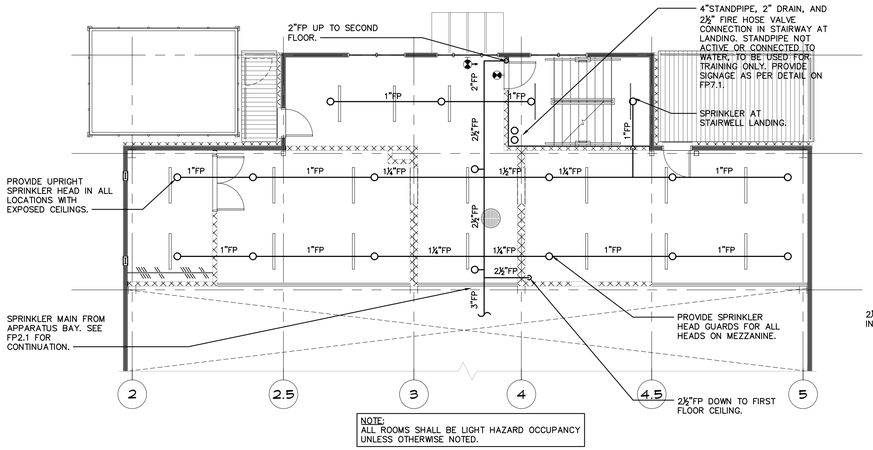
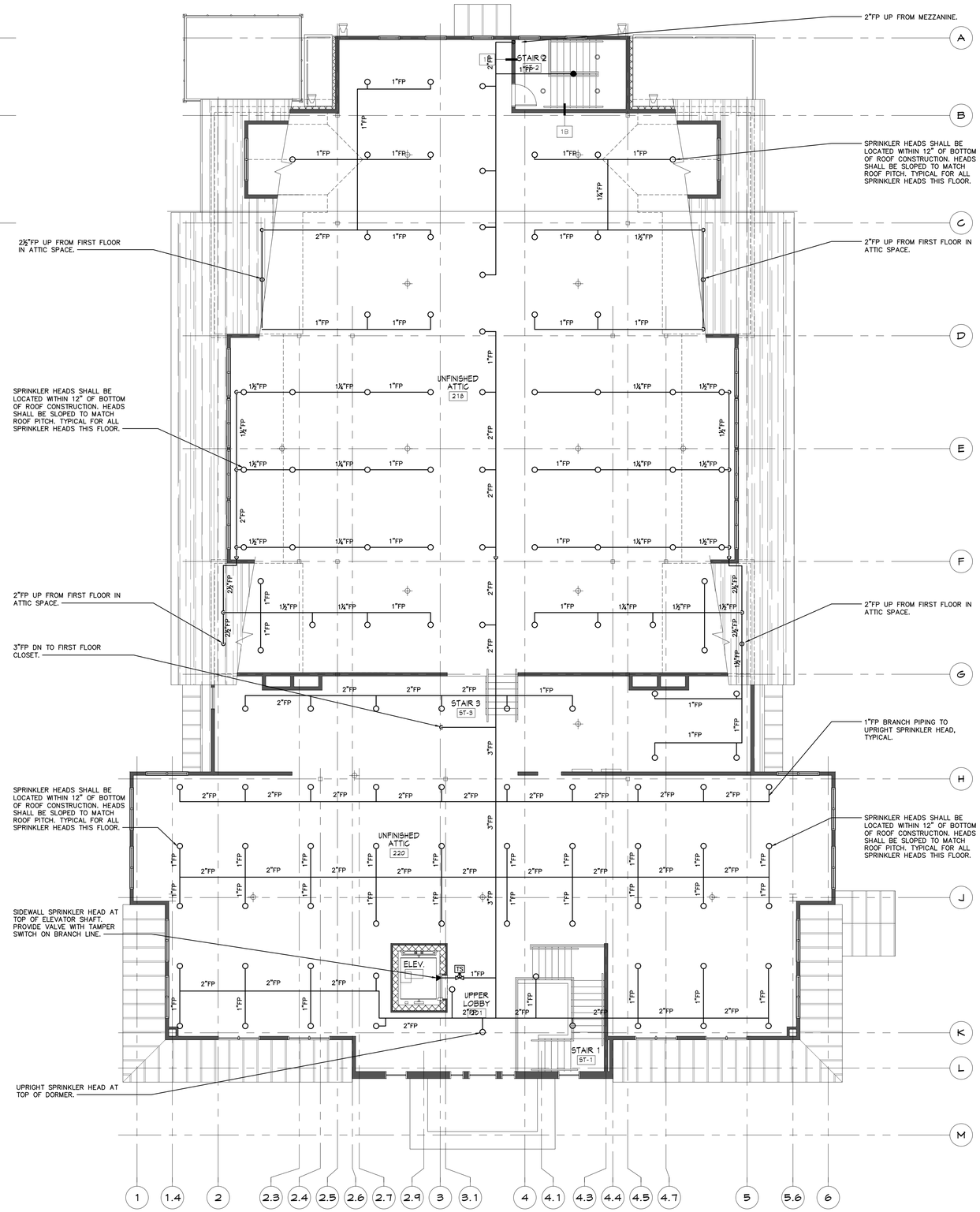
Drawing No.
FP2.1



1 FIRE PROTECTION MEZZANINE PLAN
SCALE: 1/8" = 1'-0"
NORTH



2 FIRE PROTECTION SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"
NORTH

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Date	Issue
03.10.20	MEETING
03.27.20	DESIGN DEVELOPMENT
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05.08.20	CD PROGRESS SET
05.28.20	CD PROGRESS SET
06.30.20	CD REVIEW SET
09.01.20	CONSTRUCTION PROGRESS
09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
FIRE PROTECTION MEZZANINE & SECOND FLOOR PLAN

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JRT/MS
Checked by	JF/RS

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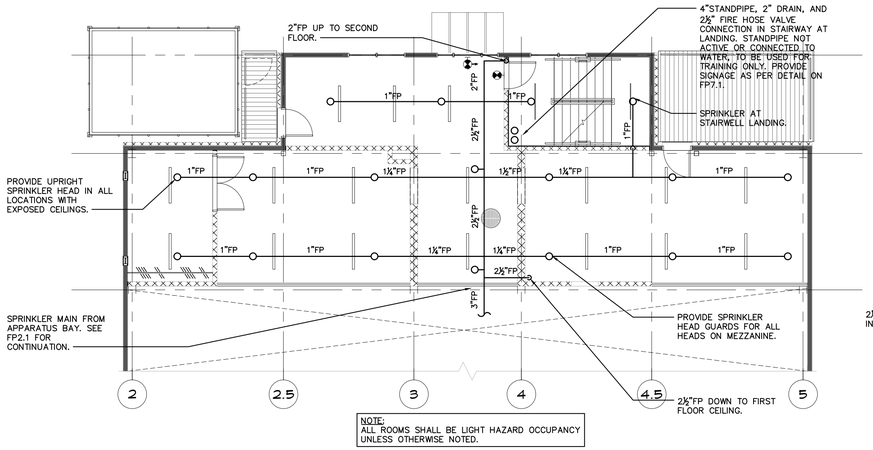
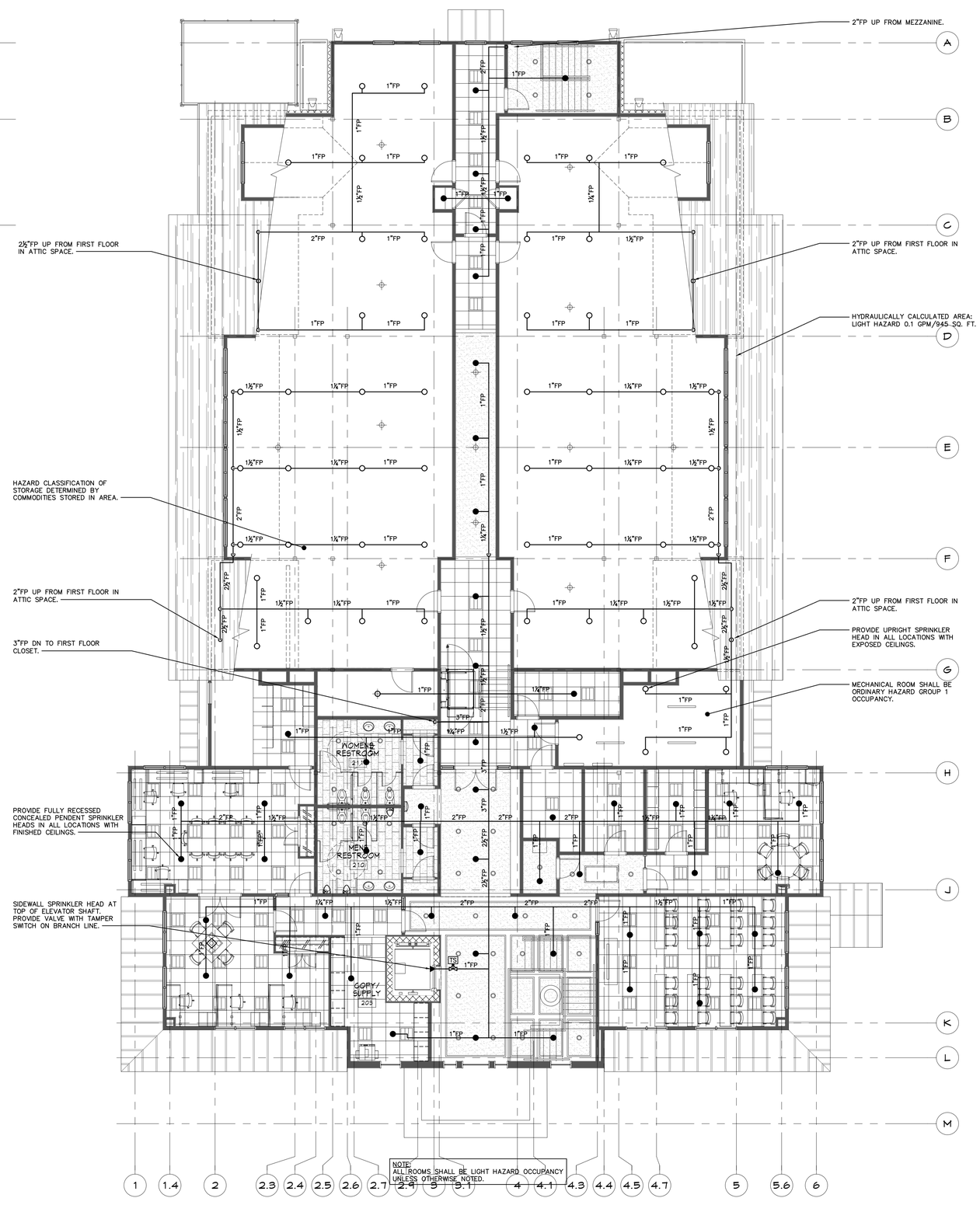
Drawing No.
FP2.2



1 FIRE PROTECTION MEZZANINE PLAN
SCALE: 1/8" = 1'-0"

NORTH



2 FIRE PROTECTION SECOND FLOOR ALTERNATE PLAN
SCALE: 1/8" = 1'-0"

NORTH

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Tel: 914-747-2800

Date	Issue
03.10.20	MEETING
03.27.20	DESIGN DEVELOPMENT
05.07.20	PROGRESS
05.08.20	CD PROGRESS SET
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06.30.20	CD REVIEW SET
09.01.20	CONSTRUCTION PROGRESS
09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

Project Title
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Drawing Title
FIRE PROTECTION SECOND FLOOR ALTERNATE PLAN

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JRT/MS
Checked by	JF/RS

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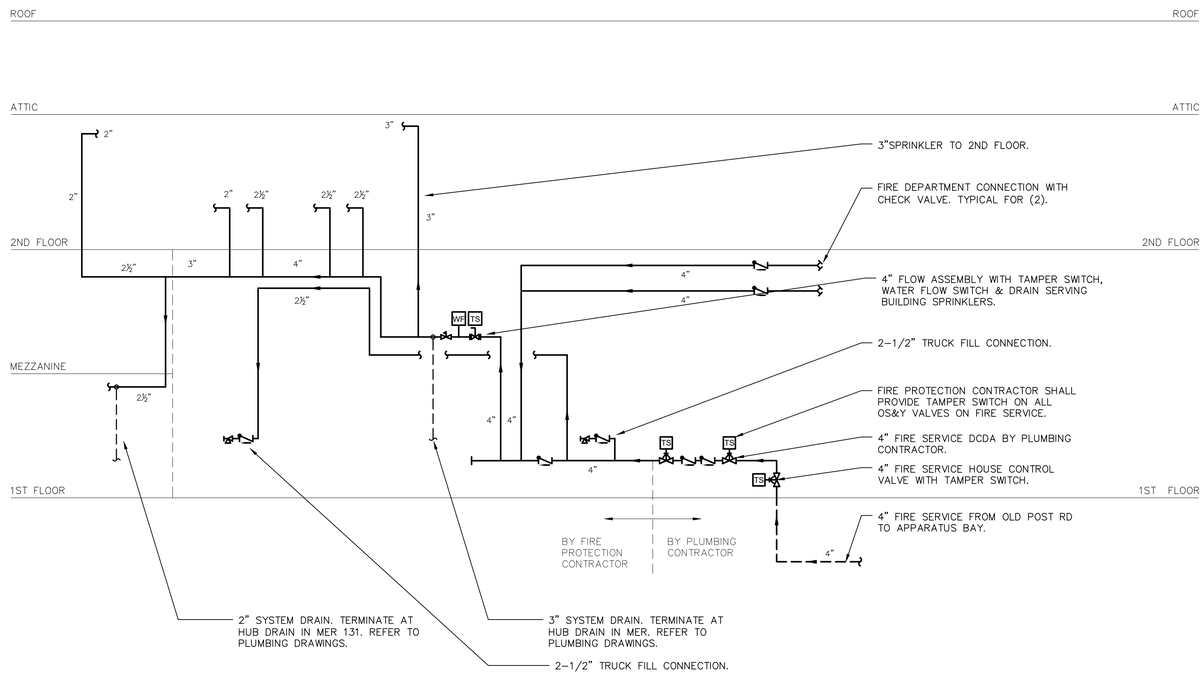
Drawing No.
FP2.2A



1 FIRE PROTECTION RISER DIAGRAM
SCALE: NONE

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Drawing Title
FIRE PROTECTION RISER DIAGRAMS

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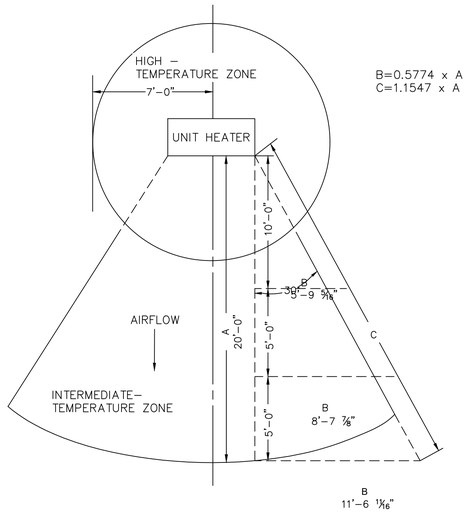
Drawing No.
FP5.1

SPRINKLER HEAD SCHEDULE										
SYM.	TYPE	LOCATION	FINISH	MANUF.	MODEL	HEAD TEMP.	MAX CLG. TEMP	ORIFICE	K-FACTOR	MEA#
⊕	CONCEALED	FINISHED AREAS PER PLANS	COVER PLATE COLOR PER ARCHITECT	RELIABLE	G5-56	165°F	100°F	1/2"	5.6	258-93-E
○	UPRIGHT	EXPOSED AREAS PER PLANS	CHROME PLATED	RELIABLE	F1FR	165°F	100°F	1/2"	5.6	258-93-E
○	UPRIGHT	MECHANICAL ROOMS	NATURAL BRONZE	RELIABLE	GFR	212°F	150°F	1/2"	5.6	258-93-E
◄D	DRY HORIZONTAL SIDEWALL	OUTSIDE STORAGE 130	CHROME PLATED	RELIABLE	F3QR	200°F	150°F	1/2"	5.6	258-93-E
◁	SIDEWALL	FINISHED AREAS PER PLANS	NATURAL BRONZE	RELIABLE	G6-56	165°F	100°F	1/2"	5.6	258-93-E

NOTES:

1. SPRINKLER HEADS SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS
2. PROVIDE METAL WIRE GUARDS WHERE SPRINKLERS ARE SUBJECT TO DAMAGE, SUCH AS SPRINKLER HEADS LOCATED UNDER MECHANICAL DUCTS IN MECHANICAL EQUIPMENT ROOMS WHEN LOCATED LOWER THAN 7'-0" AFF AND HEADS IN TRASH CHUTE.
3. ALL SPRINKLER HEADS THROUGHOUT THE PROJECT AREA SHALL BE OF THE ORDINARY TEMPERATURE RATING EXCEPT AS FOLLOWS:
   A. SPRINKLER HEADS LOCATED CLOSE TO HEATERS, HOT WATER PIPING OR LOW-PRESSURE BLOW-OFF VALVE SHALL BE OF THE TEMPERATURE RATING AS REQUIRED BY NFPA-13.
   B. ALL HEAT GENERATING EQUIPMENT WHICH CAN AFFECT THE TEMPERATURE RATING OF THE SPRINKLER HEADS SHALL BE CLEARLY IDENTIFIED ON THE SHOP DRAWINGS PRIOR TO SUBMISSION FOR APPROVAL.

7 SPRINKLER HEAD SCHEDULE
SCALE: NONE



4 SPRINKLER TEMPERATURE ZONES AT UNIT HEATERS
SCALE: NONE

FIRE DEPARTMENT CONNECTION

FIRE ALARM CONTROL PANEL

FIRE DEPARTMENT STANDPIPE

FIRE PUMP TEST CONNECTION

A "FIRE ALARM CONTROL PANEL" SIGN SHALL BE PROVIDED IN MINIMUM 2" (INCH) LETTER WITH A MINIMUM $\frac{1}{2}$" STROKE. THE COLOR OF THE LETTERS SHALL BE CONTRASTING WITH RESPECT TO THE BACKGROUND. THE SIGN SHALL BE PROVIDED ON THE DOOR LEADING TO THE FIRE ALARM CONTROL PANEL(S) UNLESS OTHERWISE APPROVED BY THE FIRE CODE OFFICIAL. (IFC 509)

FIRE SPRINKLER RISER ROOM

A WEATHERPROOF "FIRE SPRINKLER RISER ROOM" SIGN SHALL BE PROVIDED ON THE EXTERIOR ACCESS DOOR FOR ALL SPRINKLER RISER ROOMS. LETTERING SHALL BE PROVIDED IN MINIMUM 2" (INCH) LETTER HEIGHT WITH A MINIMUM $\frac{3}{8}$" STROKE. THE COLOR OF THE LETTERS SHALL BE CONTRASTING WITH RESPECT TO THE BACKGROUND. (IFC 509-2015)

FIRE PUMP ROOM

A WEATHERPROOF "FIRE PUMP ROOM" SIGN SHALL BE PROVIDED ON THE EXTERIOR ACCESS DOOR FOR ALL SPRINKLER RISER ROOMS. LETTERING SHALL BE PROVIDED IN MINIMUM 2" (INCH) LETTER HEIGHT WITH A MINIMUM $\frac{3}{8}$" STROKE. THE COLOR OF THE LETTERS SHALL BE CONTRASTING WITH RESPECT TO THE BACKGROUND. (IFC 5009-2015)

18"

FIRE DEPARTMENT CONNECTION

12"

FIRE DEPARTMENT STANDPIPE

FIRE PUMP TEST CONNECTION

A WEATHERPROOF REFLECTIVE ALUMINUM "FIRE DEPARTMENT CONNECTION", "FIRE DEPARTMENT STANDPIPE", "FIRE PUMP TEST CONNECTION" SIGN(S) OF A MINIMUM DIMENSION OF 18" WIDE BY 12" HIGH SHALL BE PROVIDED ABOVE THE EACH ACCESSORY. 6" RED LETTERING SHALL BE PROVIDED ON A REFLECTIVE WHITE BACKGROUND WITH $\frac{3}{8}$" RED TRIM STRIP AROUND THE ENTIRE OUTER EDGE OF THE SIGN. WHERE THE FDC DOES NOT SERVE THE ENTIRE BUILDING A SIGN SHALL BE PROVIDED INDICATING THE PORTION OF THE BUILDING SERVED. (IFC 509-2015)

FIRE DEPARTMENT CONNECTION
ROOF STANDPIPES
STARTING ENGINE PRESSURE 165PSI
MAXIMUM ENGINE PRESSURE 265 PSI

SIGNS SHALL BE PROVIDED AT FIRE DEPARTMENT OCNNECTIONS INDICATING THE AREAS OF THE BUILDING SERVED AND THE MINIMUM REQUIRED PRESSURE AND FLOW TO BE DELIVERED THROUGH THE INLETS. WHERE A FIRE DEPARTMENT CONNECTION SERVICES MULTIPLE BUILDINGS, STRUCTURES, OR LOCATIONS, THE SIGN SHALL INDICATE THE BUILDINGS STRUCTURES, OR LOCATIONS SERVED. (NFPA-14 2007/2013ED 6.4.5)

2 SIGNAGE MOUNTING HEIGHT DETAILS
SCALE: NONE

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Owner: Bedford Village Fire District
34 Village Green
Bedford, NY 10506

MEP Engineer: OLA Consulting Engineers
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Drawing Title
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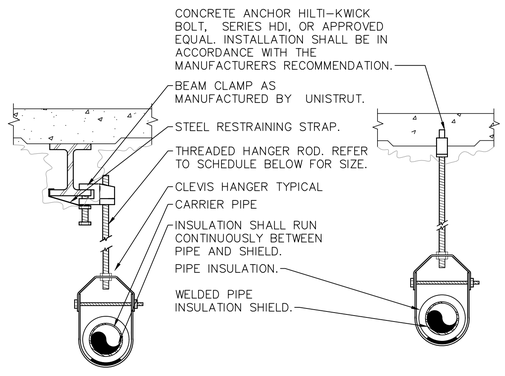
Checked by	JF/RS

Drawing No.
FP7.1

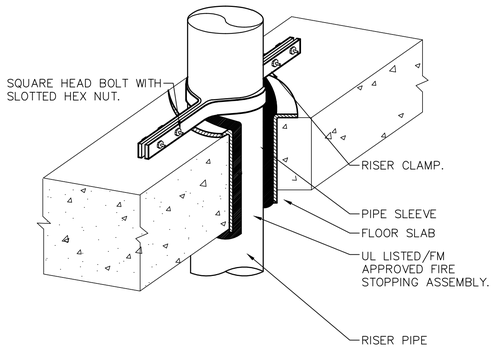


PIPE HANGER SCHEDULE					
PIPE DIA.	3/4"-2"	2 1/2"-3"	4"-5"	6"	8"-12"
HANGER DIA.	3/8"	1/2"	5/8"	3/4"	7/8"

NOTES:

1.) CLEVIS HANGERS WITH WELDED INSULATION SHIELDS SIMILAR TO RAUCH FIG. 100SH ON ALL PIPES LARGER THAN 1".
2.) FOR PIPES 1" OR SMALLER, A BAND HANGER WITH INSULATION SHIELD MAY BE USED SIMILAR TO RAUCH FIG. NO. 1ASH.
3.) FOR NON-INSULATED PIPE, INSULATION SHIELDS MAY BE OMITTED.
4.) ALL PIPE HANGERS SHALL BE GALVANIZED STEEL OR FACTORY PAINTED BLACK WITH ENAME.
5.) FOR NON FERROUS PIPING WITHOUT INSULATION, ALL HANGERS SHALL BE COPPER PLATED OR FURNISHED WITH A DI-ELECTRIC BETWEEN PIPE AND HANGERS.
6.) WHERE EXISTING BUILDING STRUCTURAL COMPONENTS HAVE FIREPROOF MATERIAL, ANY AREA THAT IS DISTURBED OR DAMAGED AS A RESULT OF HANGER INSTALLATION SHALL BE PATCHED WITH UL AND FM APPROVED FIREPROOFING TO MATCH EXISTING.
7.) HANGER INSTALLATION IN PRECAST CONCRETE PLANKS SHALL INCLUDE ANCHORS AND FIREPROOFING METHOD APPROVED BY THE PLANK MANUFACTURER.

6 PIPE HANGER DETAIL
SCALE: NONE



5 PIPE PENETRATION DETAIL
SCALE: NONE

HYDRAULIC SYSTEM

THIS BUILDING IS PROTECTED BY A HYDRAULICALLY DESIGNED AUTOMATIC SPRINKLER SYSTEM.

LOCATION

NO. OF SPRINKLERS

BASIS OF DESIGN
1--DENSITY GPM/SQ.FT.
2--DESIGNED AREA OF DISCHARGE SQ.FT.

SYSTEM DEMAND
1-GPM DISCHARGE GPM
2-RESIDUAL PRESSURE AT FIRE PUMP DISCHARGE P.S.I.

THIS VALVE CONTROLS AUTOMATIC SPRINKLER SYSTEM IN _____ AND MUST ALWAYS BE KEPT OPEN.

LOW POINT DRAIN

AUTO. SPRINKLER AND STANDPIPE

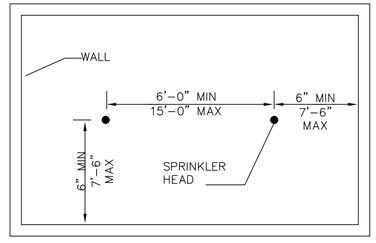
DRAIN VALVE

AUTO. SPRINKLER FIRE DEPT. CONNECTION FOR SPRK. SYST.

INSPECTORS TEST

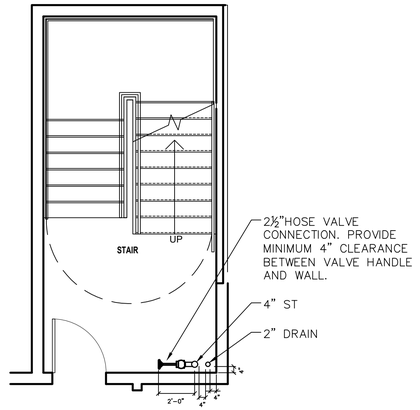
INACTIVE STANDPIPE TRAINING ONLY

3 TYPICAL SIGNS
SCALE: NONE

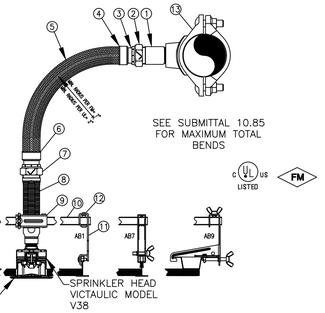


	MAX AREA PER HEAD	DENSITY PER 1500 SQ. FT
LIGHT HAZARD	225 SQ. FT.	0.10 GPM/SQ. FT.
ORDINARY HAZARD	130 SQ. FT.	0.16 GPM/SQ. FT.

1 SPRINKLER HEAD SPACING CRITERIA
SCALE: NONE



4 TYPICAL STANDPIPE CLEARANCE DETAIL
SCALE: 1/4" = 1'-0"

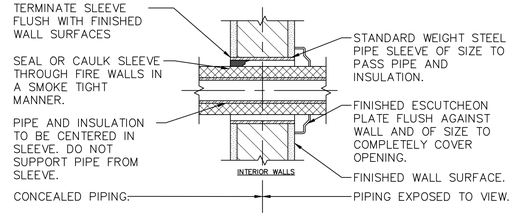


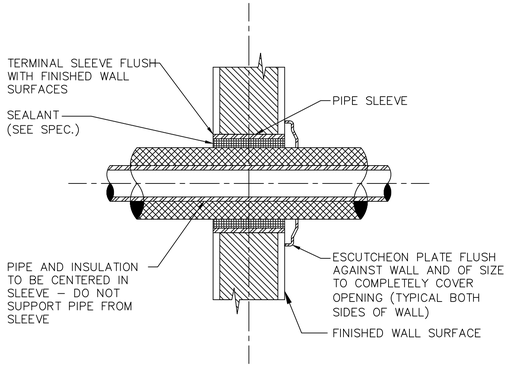
BRAIDED FLEXIBLE
HOSE SPRINKLER ASSEMBLIES
FOR CONCEALED PENDENT SPRINKLERS

PRODUCT LEGEND	
1	INLET NIPPLE (1" MPT) OR IGS GROOVE STYLE 108 COUPLING
2	NUT
3	ISOLATION RING
4	COLLAR / WELD FITTING
5	STAINLESS STEEL FLEXIBLE BRAIDED HOSE (1" NOMINAL DIAMETER) (LENGTHS AVAILABLE 31", 36" 48", 60", & 72")
6	COLLAR / WELD FITTING
7	NUT
8	REDUCING OUTLET (AVAILABLE 1/2" OR 3/4" FMPT)
9	CENTER BRACKET ASSEMBLY
10	SQUARE BAR (AVAILABLE IN 24" AND 48" LENGTHS)
11	END BRACKET ASSEMBLY
12	SHEET METAL SCREW
13	VIC MECHANICAL-T OUTLET STYLE 922 FIRELOCK (1" FMPT)

- LISTED FLEXIBLE SPRINKLER HOSE FITTINGS AND THEIR ANCHORING COMPONENTS INTENDED FOR USE IN INSTALLATIONS CONNECTING THE SPRINKLER SYSTEM PIPING TO SPRINKLERS SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LISTING, INCLUDING ANY INSTALLATION INSTRUCTIONS.
- WHEN INSTALLED AND SUPPORTED BY SUSPENDED CEILINGS, THE CEILING SHALL MEET ASTM C635, STANDARD SPECIFICATION FOR THE MANUFACTURE, PERFORMANCE, AND TESTING OF METAL SUSPENSION SYSTEMS FOR ACOUSTICAL TILE AND LAY-IN PANEL CEILINGS, AND SHALL BE INSTALLED IN ACCORDANCE WITH ASTM C636, STANDARD PRACTICE FOR INSTALLATION OF METAL CEILING SUSPENSION SYSTEMS FOR ACOUSTICAL TILE AND LAY-IN PANELS.
- WHERE FLEXIBLE SPRINKLER HOSE FITTINGS EXCEED 6 FT (1.8 M) IN LENGTH AND ARE SUPPORTED BY A SUSPENDED CEILING IN ACCORDANCE WITH THE ABOVE STANDARD, A HANGER(S) ATTACHED TO THE STRUCTURE SHALL BE REQUIRED TO ENSURE THAT THE MAXIMUM UNSUPPORTED LENGTH DOES NOT EXCEED 6 FT (1.8 M).
- WHERE FLEXIBLE SPRINKLER HOSE FITTINGS ARE USED TO CONNECT SPRINKLERS TO BRANCH LINES IN SUSPENDED CEILINGS, A LABEL LIMITING RELOCATION OF THE SPRINKLER SHALL BE PROVIDED ON THE ANCHORING COMPONENT.

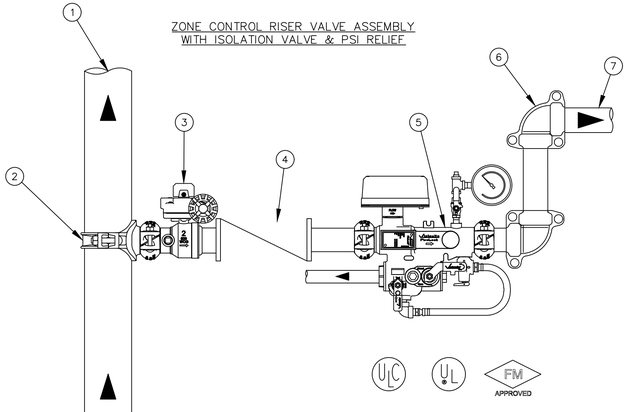
1 FLEXIBLE HOSE DETAIL
SCALE: NONE

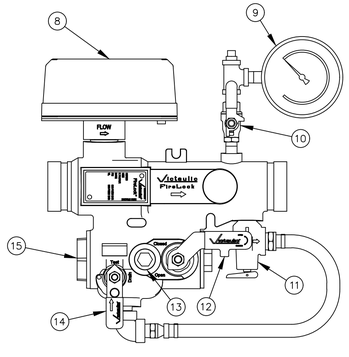




2 PIPE WALL SLEEVE DETAIL
SCALE: NONE

PRODUCT LEGEND	
1	RISER
2	VIC MECHANICAL TEE STYLE 920N
3	VIC FIRELOCK BALL VALVE SERIES 728 WITH TAMPER SWITCH
4	CHECK VALVE
5	VIC FIRELOCK ZONE CONTROL RISER MODULE SERIES 747MP
6	VIC IR FIRELOCK 90 DEG ELBOW No. 101
7	TO SPRINKLER SYSTEM
8	UL LISTED FM APPROVED FLOW SWITCH (SYSTEM SENSOR MODEL WFDT)
9	PRESSURE GAUGE
10	ISOLATION VALVE FOR GAUGE
11	PRESSURE RELIEF VALVE
12	SHUT OFF VALVE (HANDLE ON BOTH SIDES)
13	SITE GLASS (VISIBLE FROM BOTH SIDES)
14	TEST AND DRAIN VALVE (HANDLE ON BOTH SIDES)
15	THREADED DRAIN CONNECTION
SEE VICTAULIC SUBMITTAL NUMBER 10.96	





NOTES:
1. DETAIL BASED ON VICTAULIC MODEL 747MP OR APPROVED EQUAL.
2. REFER TO VICTAULIC SUBMITTAL 10.96 FOR ADDITIONAL DETAILS.
3. FIRELOCK ZONE CONTROL RISER MODULE W/ PSI RELIEF CAN BE MOUNTED IN THE HORIZONTAL OR VERTICAL UPFLOW POSITION

3 SPRINKLER ZONE CONTROL RISER MODULE WITH PSI RELIEF
SCALE: NONE

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Checked by	JF/RS

PATRICK F. LYNCH — STATE OF NEW YORK — 065467 — LICENSED PROFESSIONAL ENGINEER

Drawing No.
FP7.2

PLUMBING CALCULATIONS

PLUMBING FIXTURE UNIT SCHDULE

TAG	FIXTURE	DRAINAGE FIXTURE UNITS	WATER SUPPLY FIXTURE UNITS		
			COLD	HOT	TOTAL
P-1	WATER CLOSET – PRIVATE	3	6	–	6
P-2	LAVATORY – PRIVATE	1	0.5	0.5	0.7
P-3	LAVATORY – PRIVATE	1	0.5	0.5	0.7
P-4	URINAL – ¾" INLET	1	5	–	5
P-5	KITCHEN SINK	2	1.0	1.0	1.4
P-6	SHOWER	2	1.0	1.0	1.4
P-7	UTILITY SINK	2	2.25	2.25	3.0
P-8	BOTTLE FILL	0.5	0.25	–	0.25
P-9	MOP SINK	2	2.25	2.25	3.0
P-11	SERVICE SINK	2	2.25	2.25	3.0
WM	LAUNDRY WASHER	2	1.0	1.0	1.4
FD	FLOOR DRAIN	2	–	–	–
HB	HOSE BIB	–	20	–	20
NFHB	NON-FREEZE HOSE BIB	–	20	–	20

NOTES:
DRAINAGE FIXTURE UNIT VALUES AND WATER FIXTURE LOADS VALUES ARE IN ACCORDANCE WITH SECTION 709 & E103 OF THE 2020 PLUMBING CODE OF NEW YORK STATE.

WATER SYSTEM SIZING CALCULATIONS:

PIPE MATERIAL: TYPE L COPPER.

FIXTURE UNIT COUNT AT SOURCE: APPROXIMATELY 275 FIXTURES UNITS WITH SUPPLY SYSTEM PREDOMINATELY FOR FLUSH TANK TOILETS AND 8 HYDRANTS. THIS EQUATES TO APPROXIMATELY 104 GPM.

PIPE SIZING AT SOURCE = 3"DIA.
PER PUBLISHED HYDRAULIC DATA, 3"DIA TYPE L COPPER AT 104 GPM = 2.61'/100' HEAD LOSS.

ALL PIPE SIZING ON THIS SYSTEM HAS BEEN BASED ON A MORE CONSERVATIVE 4'/100' HEAD LOSS ESTIMATE.

WATER PRESSURE AT SOURCE: ASSUMING 60 PSI STATIC PRESSURE.

HEAD LOSS CALCULATIONS
VALVES & FITTINGS:
- 3" WATER METER WITH STRAINER = 2.0 PSI
- 3" RPZ = 7.0 PSI
- (6) ISOLATION VALVES = ~ 7' EQUIVALENT X 4'/100 = 0.3' = 0.13 PSI
- (14) ELBOWS = ~ 90' EQUIVALENT X 4'/100' = 3.6' = 1.6 PSI
- (8) BRANCH TEE = ~ 6.3' EQUIVALENT X 4'/100' = 0.24' = 0.11 PSI

TOTAL PRESSURE LOSS = 10.84 PSI
FACTOR OF SAFETY (+ 5%) = 11.38 PSI

PIPE LOSS CALCULATIONS
- PIPE RUN TO FARTHEST FIXTURE: ~ 180' X 4'/100 = 7.2' = 3.13 PSI
- ELEVATION CHANGE TO FARTHEST FIXTURE: 18' = 7.8 PSI

TOTAL PIPE LOSS = 10.93 PSI

TOTAL LOSS ESTIMATES = 22.31 PSI
PRESSURE AT SOURCE = 60 PSI

AVAILABLE PRESSURE AT FARTHEST FIXTURES = 37.69 PSI.

TOTAL BUILDING FIXTURE COUNT:
P-1 = 9
P-2 = 8
P-3 = 3
P-4 = 6
P-5 = 1
P-6 = 1
P-7 = 2
P-8 = 3
P-9 = 0
P-11 = 2
WM = 2
HB-1 = 2
NFHB = 6

TOTAL FIXTURE UNITS = 274.25
FLOW = ~104 GPM

DRAINAGE SYSTEM SIZING CALCULATIONS:

PIPE SIZING AT SEWER CONNECTION = 4" SANITARY.
ALL PIPE SIZING ON THIS SYSTEM HAS BEEN BASED ON A 1/8" PER FOOT SLOPE.
TOTAL DRAINAGE FIXTURE UNITS = 77.5.

AS PER TABLE 710.1(1):
MAXIMUM NUMBER OF DRAINAGE FIXTURES UNITS
4" SANITARY MAIN AT 1/8" PER FOOT SLOPE = 180 > 77.5.

NOTE: WATER FIXTURE LOADS AND PIPE SIZES CALCULATED IN ACCORDANCE WITH SECTION E103 OF THE 2020 PLUMBING CODE OF NEW YORK STATE.

NOTE: DRAINAGE FIXTURE UNITS CALCULATED IN ACCORDANCE WITH SECTION 709 AND 710 OF THE 2020 PLUMBING CODE OF NEW YORK STATE.

SYMBOL & ABBREVIATIONS

SYMBOL	ABBREVIATION	DESCRIPTION
———	NEW	NEW WORK ABOVE SLAB
- - - - - -	NEW	NEW WORK BELOW SLAB
—— – ——	CW	COLD WATER
—— - - ——	HW	HOT WATER
—— - - - ——	HWC	HOT WATER RECIRCULATION
– – – V – – –	V	VENT
———W———	W	WASTE LINE
———S———	S	SOIL LINE
———G———	G	GAS LINES
—— L ——	LDR	LEADER
—— SS ——	SS	SANITARY SEWER (SITE WORK ONLY)
—— SD ——	SD	STORM DRAINAGE
—— PD ——	PD	PUMP DISCHARGE
	–	3-WAY VALVE
	–	BUTTERFLY VALVE
	–	2-WAY VALVE
	–	PLUG VALVE
	–	SOLENOID VALVE
	–	GATE VALVE
	–	GLOBE VALVE
	–	CHECK VALVE
	–	OS&Y GATE VALVE
	–	BALL VALVE
IQI	–	CIRCUIT SETTER
	–	MANUAL AIR VENT
	–	T&P RELIEF VALVE
	–	PRESSURE REDUCING VALVE
	–	TEE DOWN
	–	ELBOW DOWN
	–	TEE UP
	–	ELBOW UP
	–	PIPE CAP
	CODP	CLEAN OUT DECK PLATE
	WCO	WALL CLEAN OUT
	FCO	FLOOR CLEAN OUT
	FLFD	FUNNEL FLOOR DRAIN
	–	CONCENTRIC REDUCER
	–	ECCENTRIC REDUCER
	–	STRAINER
	–	FLEXIBLE CONNECTION
	–	FLOW ARROW
	–	PRESSURE GAGE
	–	PUMP
	–	THERMOMETER
	–	BASKET STRAINER
	HB	HOSE BIB
	NFHB	NON-FREEZE HOSE BIB
	RD	ROOF DRAIN
	FD	FLOOR DRAIN
	–	UNION
P 1	–	RISER TAG
	–	EYE WASH
	–	WALL HYDRANT
–	AFF	ABOVE FINISHED FLOOR
–	AHC	ABOVE HUNG CEILING
–	BFP	BACK FLOW PREVENTOR

SYMBOL	ABBREVIATION	DESCRIPTION
–	VTR	VENT THROUGH ROOF
–	FS	FLOOR SINK
–	FAI	FRESH AIR INTAKE
–	RPZ	REDUCED PRESSURE ZONE – BFP
–	BP	BOOSTER PUMP
–	RP	RECIRCULATION PUMP
–	DCV	DOUBLE CHECK VALVE – BFP
–	TYP	TYPICAL
–	H.W. HTR	HOT WATER HEATER

GENERAL NOTES

1. THE CONTRACT DRAWINGS INDICATE THE EXTENT AND GENERAL ARRANGEMENTS OF THE PLUMBING SYSTEMS. IF ANY DEPARTURES FROM THE DRAWINGS ARE DEEMED NECESSARY BY THE PLUMBING CONTRACTOR, DETAILS OF SUCH DEPARTURES AND THE REASONS THEREFORE SHALL BE SUBMITTED TO THE OWNER AND ENGINEER FOR APPROVAL. NO SUCH DEPARTURES SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE OWNER AND ENGINEER. EQUIPMENT AND PIPING ARRANGEMENTS SHALL PROVIDE ADEQUATE AND ACCEPTABLE CLEARANCES FOR ENTRY, SERVICING, AND MAINTENANCE. ANY CHANGES TO PIPING AND EQUIPMENT LOCATIONS NECESSARY TO AVOID INTERFERENCE WITH OTHER TRADES SHALL BE MADE AT NO EXTRA COST.
2. THE PLUMBING WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE LATEST EDITION OF THE PREVAILING NEW YORK STATE PLUMBING AND BUILDING CODES. IN CASE OF CONFLICT BETWEEN THE CONTRACT DOCUMENTS AND A GOVERNING CODE OR ORDINANCE, THE MORE STRINGENT STANDARD SHALL APPLY.
3. THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR PAYING RELATED FEES.
4. CONNECTIONS TO EXISTING UTILITIES AND SERVICES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS, INVERT ELEVATIONS, AND SIZES OF EXISTING PLUMBING SERVICES IN FIELD, AND SHALL CONNECT NEW PLUMBING SERVICES AS INDICATED ON DRAWINGS.
5. PRIOR TO FABRICATION, THIS CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AND CONDITIONS ON JOB SITE, AND COORDINATE THIS WORK WITH THE WORK OF ALL OTHER TRADES.
6. ALL ACCESS PANELS SHALL BE BY GENERAL CONTRACTOR. THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR LOCATION.
7. PROVIDE ALL PLUMBING FIXTURES, PIPING, VALVES AND ACCESSORY ITEMS AS SPECIFIED AND AS REQUIRED FOR A COMPLETE INSTALLATION. ROUGHING DIMENSIONS OF FIXTURES MUST BE COORDINATED WITH THE GENERAL CONTRACTOR.
8. PITCH ALL WASTE, SANITARY, AND STORM DRAIN PIPING AT MAXIMUM SLOPE POSSIBLE, BUT NOT LESS THAN 1/8" PER FOOT FOR PIPING ≥3" AND 1/4" PER FOOT FOR PIPING ≤ 2½".
9. NO PIPING SHALL RUN EXPOSED IN FINISHED AREAS.
10. PROVIDE DIELECTRIC FITTINGS OR COUPLINGS WHEREVER DISSIMILAR METALS ARE JOINED.
11. PROVIDE SHUTOFF VALVES AT ALL FIXTURES AND EQUIPMENT ON COLD WATER, AND HOT WATER PIPES.
12. ALL WORK SHALL BE PROPERLY TESTED, BALANCED, AND CLEANED AND DISINFECTED. PROVIDE A ONE YEAR WARRANTY FROM DATE OF FINAL INSPECTION ON ALL PARTS AND LABOR.
13. PROVIDE ALL PIPE OPENINGS THROUGH PARTITIONS WITH PIPE SLEEVES. FOR PIPES PENETRATING FIRE RATED PARTITIONS, THE SPACE BETWEEN THE PIPE AND THE SLEEVE SHALL BE SEALED WITH FIRE STOPPING MATERIAL. PENETRATIONS FOR PIPING SHALL BE MADE BY CORE DRILLING WHENEVER POSSIBLE.
14. PROVIDE TRAP SEAL PRIMERS FOR FLOOR DRAINS AS REQUIRED. INSTALL THE PRIMER VALVE IN THE COLD WATER SERVICE, WITH THE TRAP CONNECTION PIPED TO THE FLOOR DRAIN TRAP. LOCATE THE VALVE IN AN ACCESSIBLE LOCATION.
15. THE PLUMBING CONTRACTOR SHALL PROVIDE ALL CUTTING, PATCHING, CORE DRILLING, PAINTING, ACCESS PANELS, AND FINAL RESTORATION REQUIRED TO FACILITATE THE INSTALLATION OF PLUMBING PIPING, INCLUDING ABOVE CEILINGS AND IN SHAFTS THAT WILL NOT BE REPLACED OR OPENED UNDER ANY OTHER SCOPE OF WORK RELATED TO THIS PROJECT. CONTRACTOR TO REMOVE AND REPLACE CEILINGS, AND OPEN AND PATCH SHAFTS AND WALLS, AS REQUIRED TO EXECUTE THE PLUMBING WORK.
16. SEE THE ARCHITECTURAL DRAWINGS FOR EXACT PHASING AND TIME SCHEDULE FOR CONSTRUCTION.
17. ALL MOTOR STARTERS AND DISCONNECT SWITCHES FOR PLUMBING EQUIPMENT SHALL BE FURNISHED BY THE PLUMBING CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR, UNLESS OTHERWISE NOTED. DISCONNECT SWITCHES FURNISHED BY THE PLUMBING CONTRACTOR FOR PLUMBING EQUIPMENT SHALL BE HEAVY DUTY TYPE.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY VENTILATION AND EXHAUST AIR WHEN WELDING OR SOLDERING OPERATIONS ARE PERFORMED, AS REQUIRED BY OSHA.
19. INDIVIDUAL, BRANCH AND CIRCUIT VENTS SHALL CONNECT TO A VENT STACK, STACK VENT, OR EXTEND TO THE OPEN AIR. EVERY DRY VENT CONNECTING TO A HORIZONTAL DRAIN SHALL CONNECT ABOVE THE CENTERLINE OF THE HORIZONTAL DRAIN PIPE. EVERY DRY VENT SHALL RISE VERTICALLY TO A POINT NOT LESS THAN 6 INCHES ABOVE THE FLOOD LEVEL RIM OF THE HIGHEST TRAP OR TRAPPED FIXTURE BEING VENTED. A CONNECTION BETWEEN A VENT PIPE AND A VENT STACK OR STACK VENT SHALL BE MADE AT NOT LESS THAN 6 INCHES ABOVE THE FLOOD LEVEL RIM OF THE HIGHEST FIXTURE SERVED BY THE VENT. HORIZONTAL VENT PIPES FORMING BRANCH VENTS, RELIEF VENTS OR LOOPS SHALL BE LOCATED NOT LESS THAN 6 INCHES ABOVE THE FLOOD LEVEL RIM OF THE HIGHEST FIXTURE SERVED.
20. IN CONCEALED LOCATIONS WHERE PIPING, OTHER THAN CAST-IRON OR GALVANIZED STEEL, IS INSTALLED THROUGH HOLES OR NOTCHES IN STUDS, JOISTS, RAFTERS OR SIMILAR MEMBERS LESS THAN 1¼ INCHES FROM THE NEAREST EDGE OF THE MEMBER, THE PIPE SHALL BE PROTECTED BY STEEL PLATES. SUCH SHIELDS SHALL HAVE A THICKNESS OF NOT LESS THAN 0.0575 INCH (NO. 16 GAUGE). SUCH PLATES SHALL COVER THE AREA OF THE PIPE WHERE THE MEMBER IS NOTCHED OR BORED AND SHALL EXTEND NOT LESS THAN 2 INCHES ABOVE THE SOLE PLATES AND BELOW THE TOP PLATES.

Sullivan Architecture, P.C.
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MEP Engineer: OLA Consulting Engineers
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8 West 38th St. Suite 501, New York, NY
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Date	Issue
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09.01.20	CONSTRUCTION PROGRESS
09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
PLUMBING SYMBOLS, ABBREVIATIONS, & GENERAL NOTES

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JRT
Checked by	JF/RS

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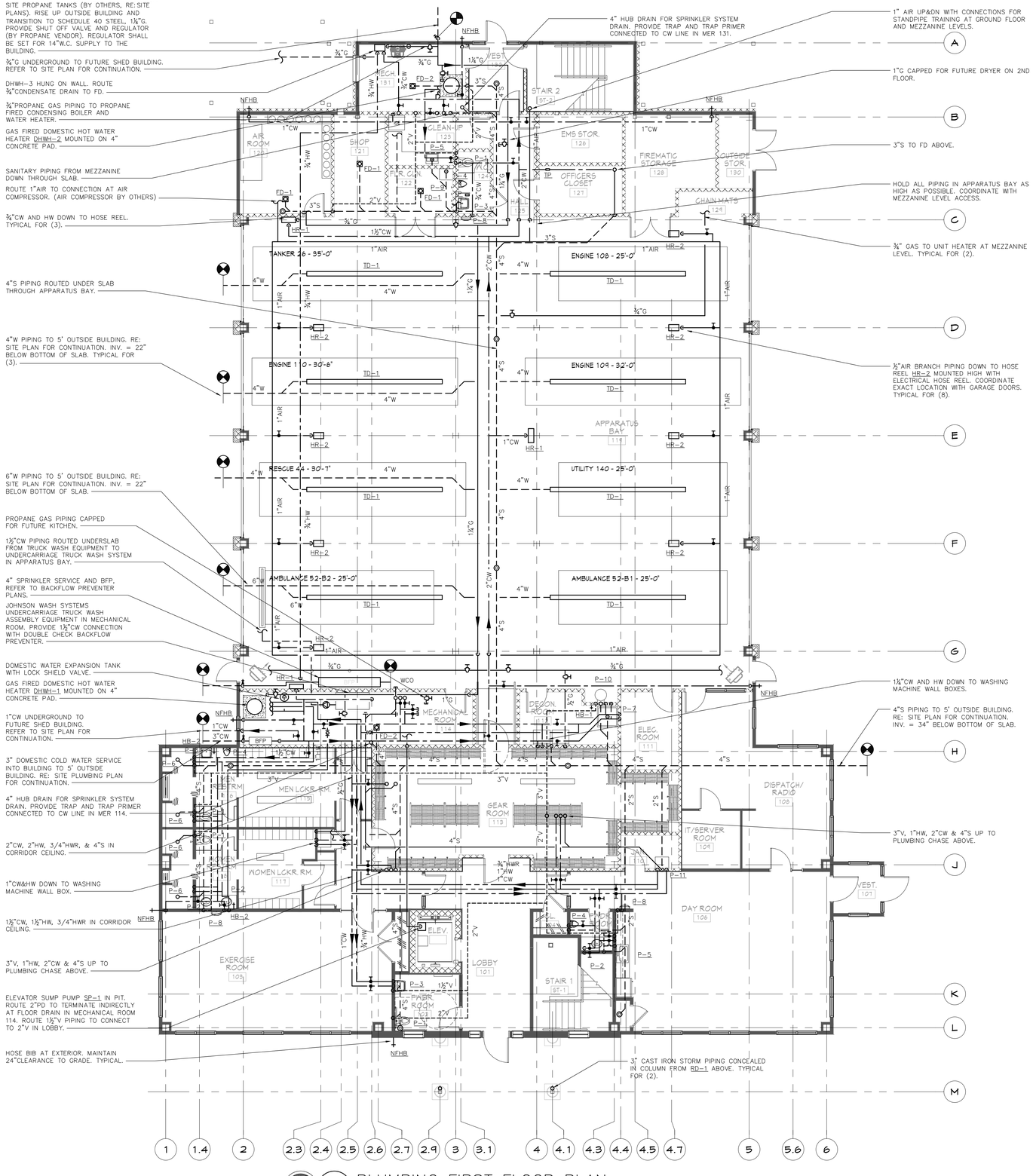
Drawing No.
P0.1



1 PLUMBING FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

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Drawing Title
PLUMBING FIRST FLOOR PLAN

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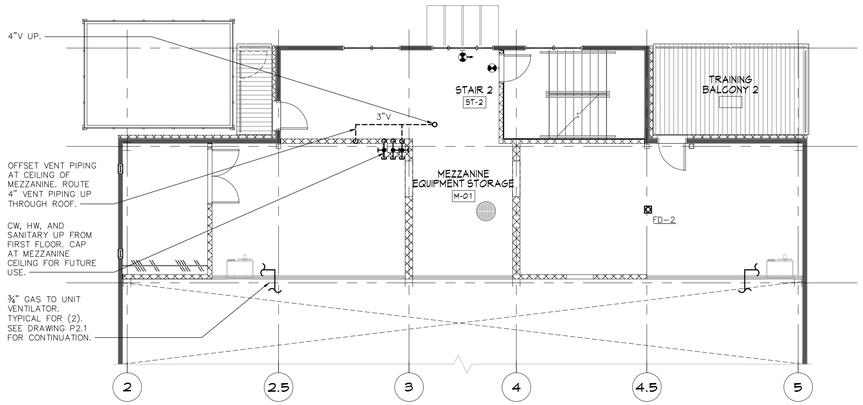
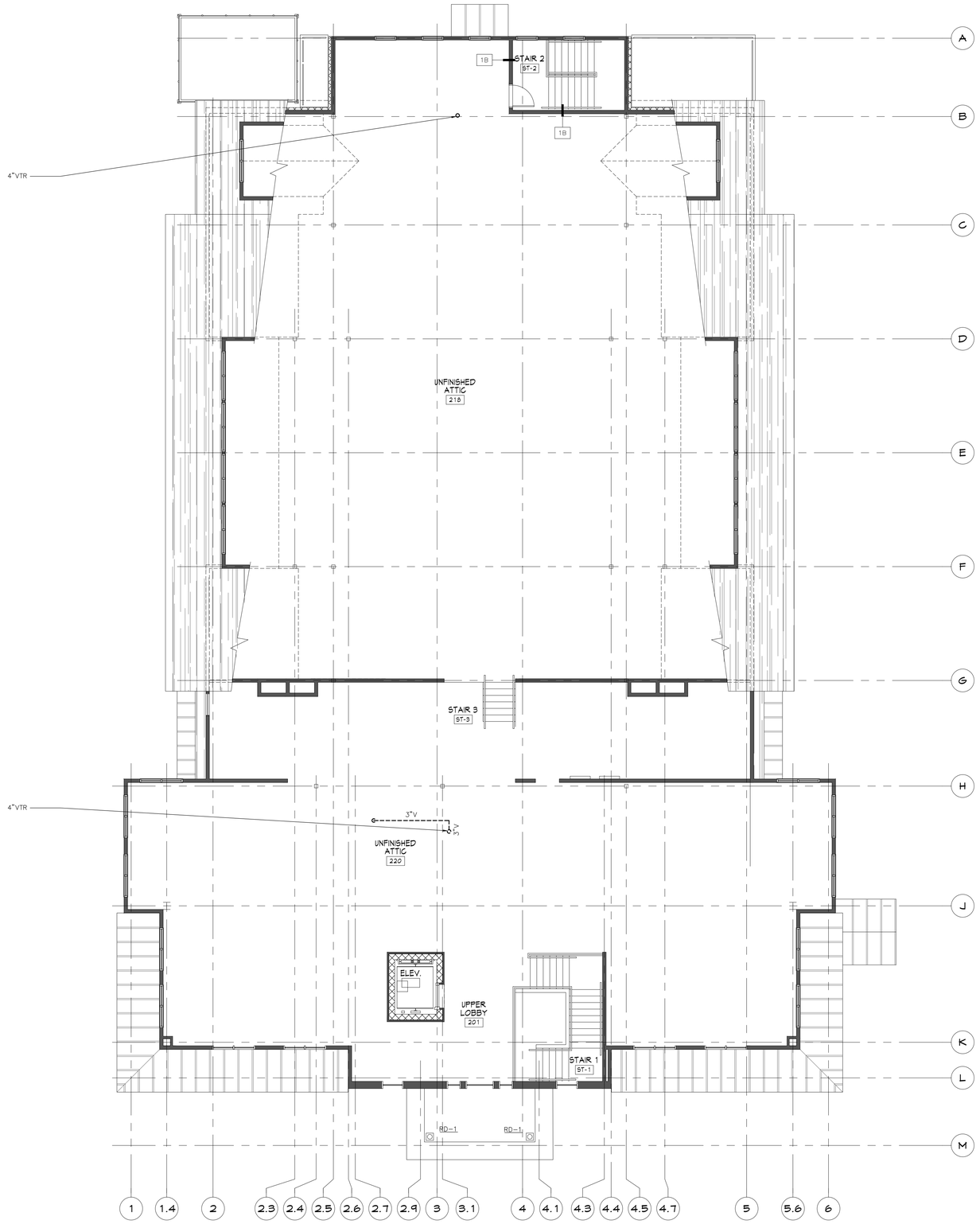
Drawing No.
P2.1



1 PLUMBING MEZZANINE PLAN
SCALE: 1/8" = 1'-0"
NORTH



2 PLUMBING SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"
NORTH

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Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
PLUMBING MEZZANINE & SECOND FLOOR PLAN

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JRT
Checked by	JF/RS

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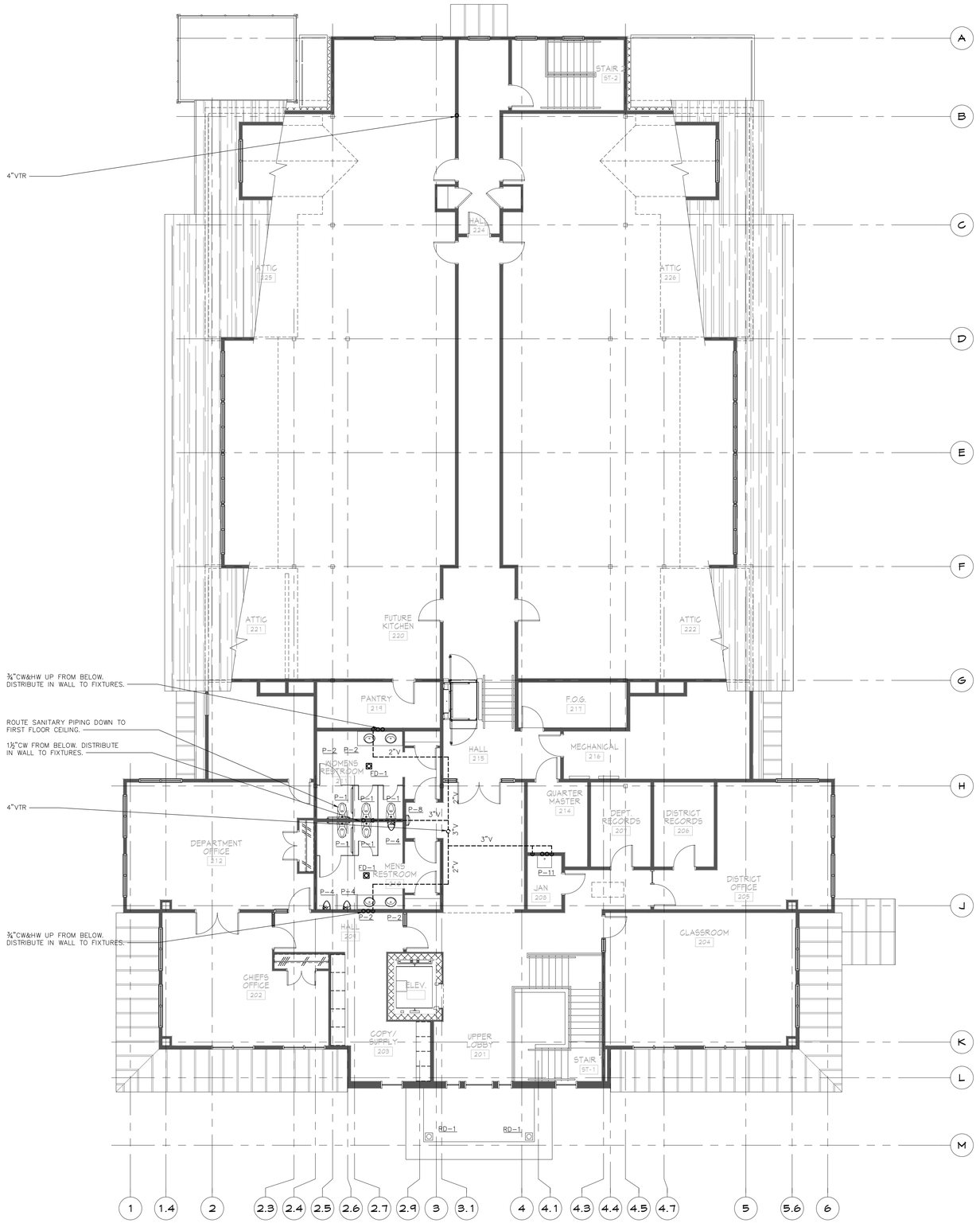
Drawing No.
P2.2



1 PLUMBING SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"

NORTH

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Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
PLUMBING SECOND FLOOR ALTERNATE PLAN

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JRT
Checked by	JF/RS

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Drawing No.
P2.2A

GENERAL NOTES:

1. ADEQUATE HEAT AND LIGHT SHALL BE PROVIDED IN LOCATIONS WHERE BACKFLOW PREVENTERS ARE TO BE INSTALLED.
2. THE CONTRACTOR SHALL USE ONLY AMERICAN MADE, UL/FM APPROVED VALVES.
3. NO WORK SHALL PROCEED WITHOUT WESTCHESTER COUNTY DEPARTMENT OF HEALTH APPROVAL.
4. BACKFLOW PREVENTER ARRANGEMENT SHALL NOT BE ALTERED WITHOUT PRIOR APPROVAL BY WESTCHESTER COUNTY DEPARTMENT OF HEALTH.
5. BACKFLOW PREVENTION SHALL BE PROTECTED FROM THE HIGHEST FLOOD LEVEL.
6. BY-PASSES AROUND BACKFLOW PREVENTER ASSEMBLEY SHALL NOT BE PERMITIED.
7. BACKFLOW PREVENTER DEVICE SHALL BE TESTED INITIALLY AND ANNUALLY BY A CERTIFIED AND LICENSED TESTER. AT THE TIME OF INITIAL TESTING PART A AND B OF DOH 1013 FORM MUST BE COMPLETED, TEST RESULTS (FORM DOH 1013) SHALL BE FORWARDED TO WESTCHESTER COUNTY DEPARTMENT OF HEALTH, OWNER AND ENGINEER.
8. THE BACKFLOW PREVENTER SHALL BE REBUILT EVERY FIVE YEARS.
9. ALL PLUMBING WORK SHALL BE PERFORMED BY A LICENSED PLUMBER IN THE TOWN OF BEDFORD AND ACCORDING TO DEPARTMENT OF PUBLIC WORKS REGULATIONS.
10. CONTRACTOR SHALL DISINFECT AND PRESSURE TEST BACKFLOW PREVENTER ASSEMBLY BEFORE PLACING IN SERVICE. DISINFECTION SHALL BE IN ACCORDANCE WITH AWWA STANDARD C651-05 WITH THE EXCEPTION OF SECTION 4.4.2.
11. CONTRACTOR SHALL ADEQUATELY SUPPORT ALL PIPING AND DEVICES.
12. WHERE THE DISTANCE BETWEEN THE WATER METER AND THE BACKFLOW PREVENTER ASSEMBLY IS GREATER THAN 10'-0", ALL EXPOSED PIPING SHALL BE STENCILED "FEED LINE TO BACKFLOW PREVENTER – DO NOT TAP" AT 5'-0" INTERVALS.

EQUIPMENT NOTES:

1. THE 3"ø DOMESTIC WATER BACKFLOW PREVENTER ASSEMBLY SHALL BE WATTS MODEL LF009M2QT REDUCED PRESSURE ZONE (LEAD FREE) BACKFLOW PREVENTER. ASSEMBLY SHALL BE SUITABLE FOR PRESSURES UP TO 175 PSI AND TEMPERATURES UP TO 110℉ (CONSTANT) AND 140℉ (INTERMITTENT). THE ASSEMBLY SHALL HAVE SILICON SEATS AND LEAD FREE CAST COPPER SILICON ALLOY VALVE BODIES.

2. DOMESTIC WATER METER SHALL BE 3" SIZE PROVIDED AND INSTALLED BY TOWN OF BEDFORD WATER DEPARTMENT. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION.

INSTALLATION NOTES:

A. STRAINERS ARE RECOMMENDED PRIOR TO EACH BACKFLOW DEVICE ON NON-FIRE FIGHTING LINES ONLY. NO STRAINER IS TO BE USED ON A FIRE LINE WITHOUT INSURANCE UNDERWRITER APPROVAL.
B. ASSEMBLIES SHOULD BE SPECIFIED AND INSTALLED WITH MANUFACTURER SUPPLIED VALVES.
C. WATER LINES SHOULD BE THOROUGHLY FLUSHED BEFORE INSTALLATION OF DEVICE TO PREVENT DEBRIS FOULING THE DEVICE CHECK VALVES.
D. DEVICES MUST BE MOUNTED HORIZONTALLY UNLESS APPROVED FOR VERTICAL INSTALLATION.
E. ASSEMBLIES SHOULD NOT BE INSTALLED IN AREAS CONTAINING CORROSIVE OR TOXIC GASES WHICH COULD RENDER THE DEVICE INOPERABLE.

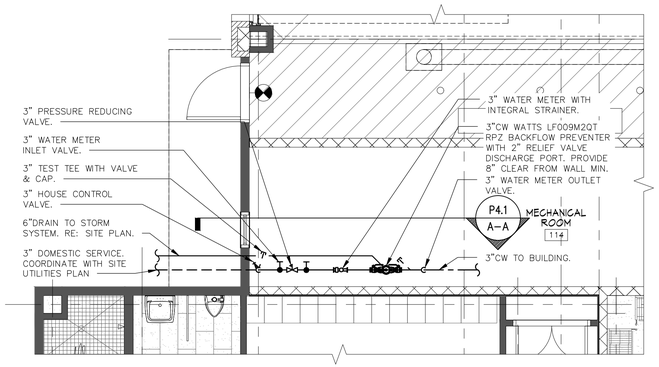
NOTE: INSTALLATION SHALL BE IN ACCORDANCE WITH WESTCHESTER COUNTY DEPARTMENT OF HEALTH REQUIREMENTS.

SYMBOLS AND ABBREVIATIONS

SYMBOL	ABBREVIATION	DESCRIPTION
—— – ——	CW	COLD WATER
–	AFF	ABOVE FINISHED FLOOR
–	BFP	BACK FLOW PREVENTER
–	DCV	DOUBLE CHECK VALVE
–	DN.	ELBOW DOWN
–	MAX.	MAXIMUM
–	MIN.	MINIMUM
–	PC	PLUMBING CONTRACTOR
–	RPZ	REDUCED PRESSURE ZONE
–	TYP	TYPICAL
►	–	DIRECTION OF FLOW

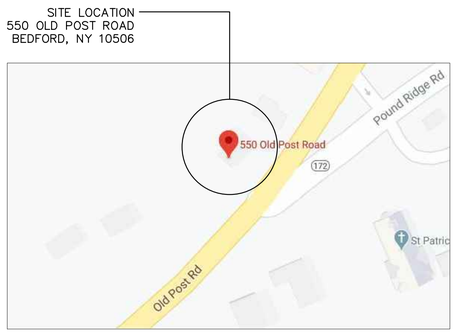
BUILDING INFORMATION

ADDRESS: 550 OLD POST ROAD, BEDFORD, NY 10506
COUNTY: WESTCHESTER COUNTY



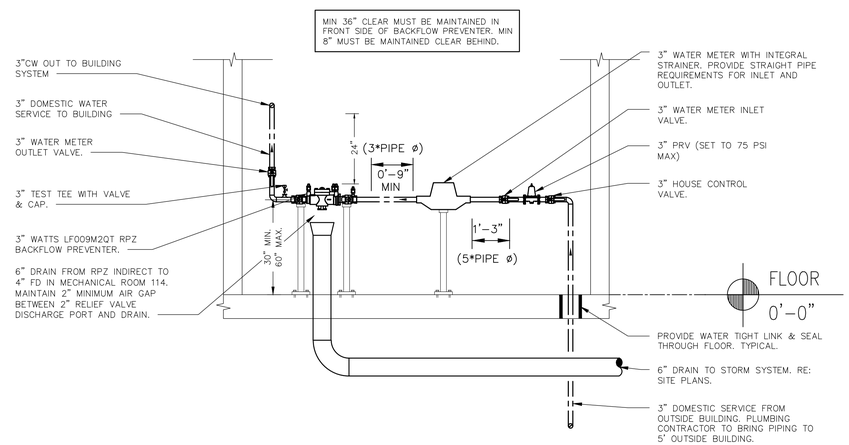
2 PLUMBING NEW WORK PART PLAN
SCALE: 1/4" = 1'-0"

NORTH



1 SITE LOCATION MAP
SCALE: NONE

NORTH



3 PLUMBING ELEVATION A-A
SCALE: 1/2" = 1'-0"

Sullivan Architecture, P.C.
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09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
PLUMBING BACKFLOW PREVENTER PART PLAN

Project No.	NSFC007.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JRT
Checked by	JF/RS

STATE OF NEW YORK · PATRICK F. LYNCH · 069467 · LICENSED PROFESSIONAL ENGINEER

Drawing No.
P4.1

GENERAL NOTES:

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3. NO WORK SHALL PROCEED WITHOUT WESTCHESTER COUNTY DEPARTMENT OF HEALTH APPROVAL.
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EQUIPMENT NOTES:

1. THE 4"ø FIRE PROTECTION BACKFLOW PREVENTER ASSEMBLY SHALL BE WATTS MODEL 709 OS&Y DCDA (LEAD FREE) BACKFLOW PREVENTER. ASSEMBLY SHALL BE SUITABLE FOR PRESSURES UP TO 175 PSI AND TEMPERATURES UP TO 110°F (CONSTANT) AND 140°F (INTERMITTENT). THE ASSEMBLY SHALL HAVE SILICON SEATS AND LEAD FREE CAST COPPER SILICON ALLOY VALVE BODIES.

2. DOMESTIC WATER METER SHALL BE 2" SIZE PROVIDED AND INSTALLED BY TOWN OF BEDFORD WATER DEPARTMENT. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION.

INSTALLATION NOTES:

A. STRAINERS ARE RECOMMENDED PRIOR TO EACH BACKFLOW DEVICE ON NON-FIRE FIGHTING LINES ONLY. NO STRAINER IS TO BE USED ON A FIRE LINE WITHOUT INSURANCE UNDERWRITER APPROVAL.
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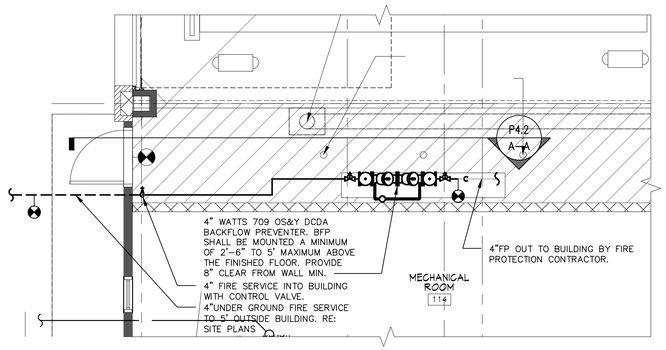
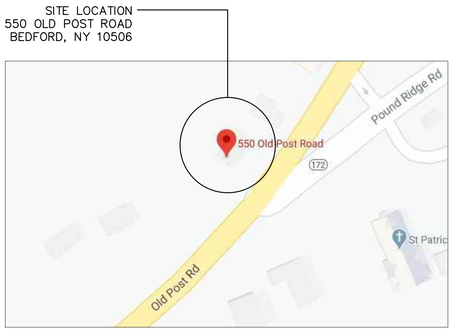
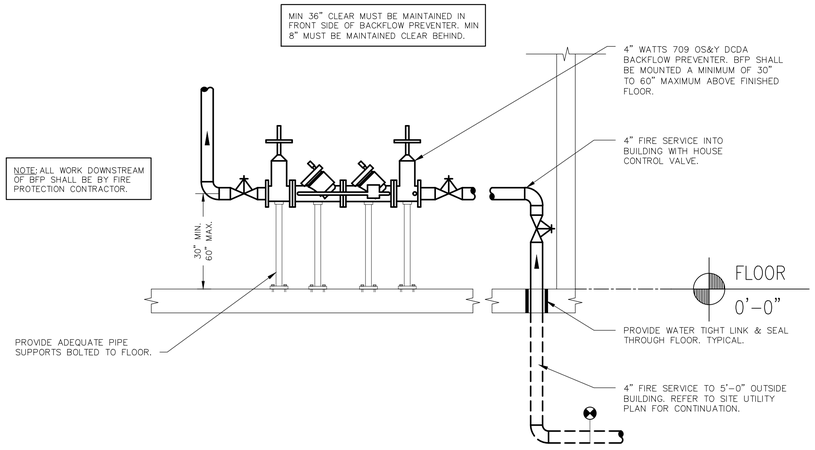


2 PLUMBING NEW WORK PART PLAN
SCALE: 1/4" = 1'-0"
NORTH



1 SITE LOCATION MAP
SCALE: NONE
NORTH



3 PLUMBING ELEVATION A-A
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Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
PLUMBING BACKFLOW PREVENTOR PART PLAN

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JRT
Checked by	JF/RS

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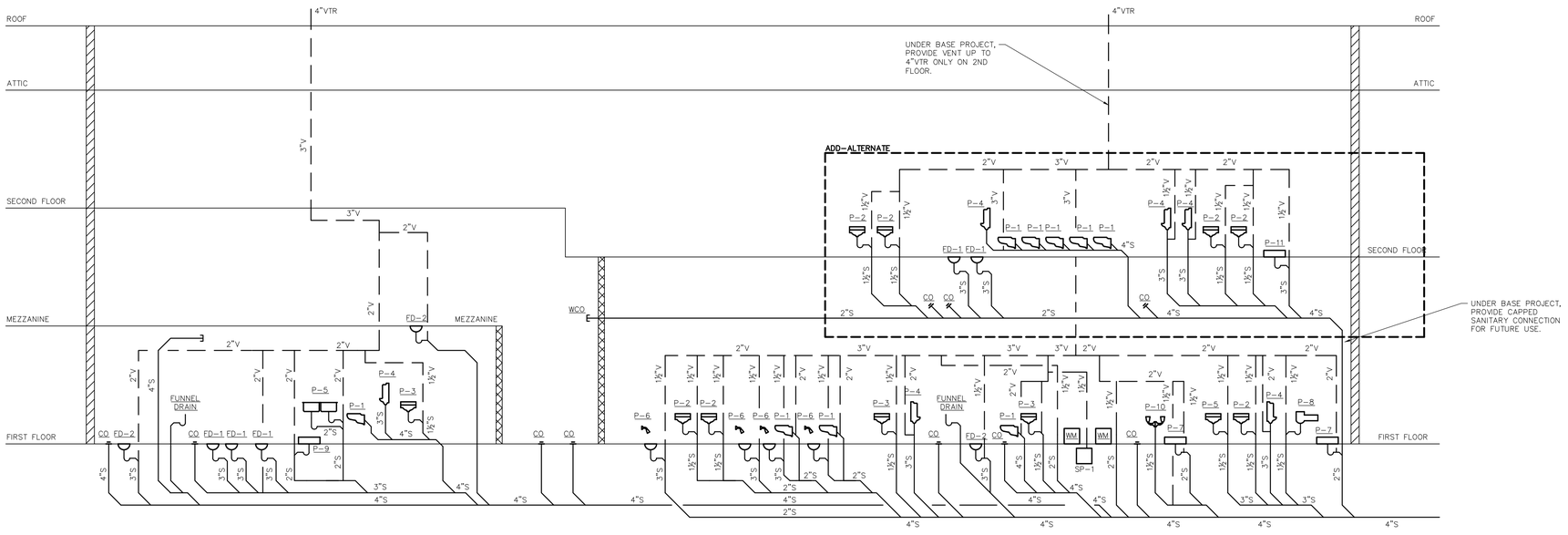
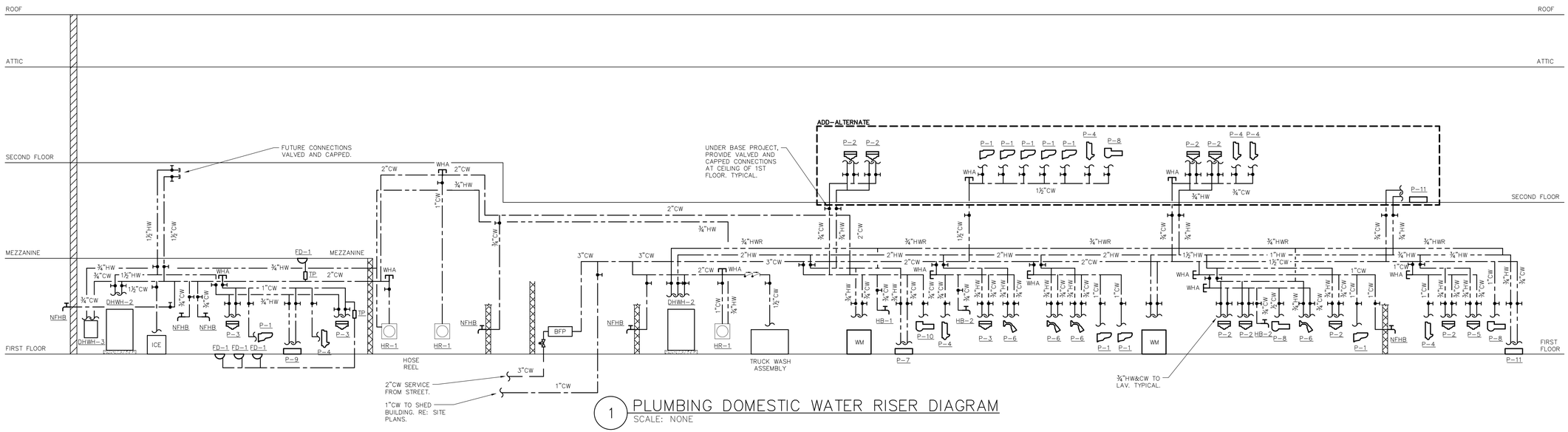
Drawing No.
P4.2



2 PLUMBING SANITARY/VENT RISER DIAGRAM
SCALE: NONE



1 PLUMBING DOMESTIC WATER RISER DIAGRAM
SCALE: NONE

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Drawing Title
PLUMBING RISER DIAGRAMS

Project No.	NSFC0070.00
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Scale	AS NOTED
Drawing by	JRT
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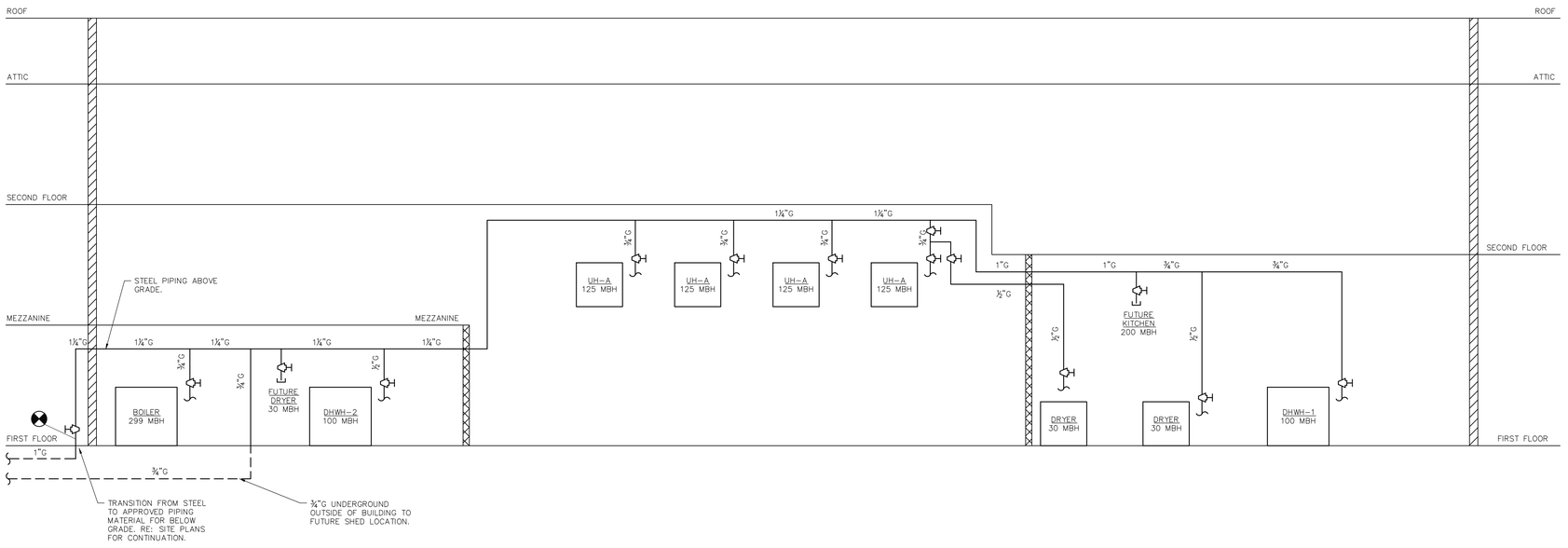
Drawing No.
P5.1



1 PLUMBING PROPANE GAS RISER DIAGRAM
SCALE: NONE

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PLUMBING GAS RISER DIAGRAM

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Drawing No.
P5.2

PLUMBING DRAINAGE SPECIALTIES SCHEDULE

TAG	SYMBOLS PLAN	SYMBOLS ELEVATION	FIXTURES	DESCRIPTION
CO	⏐	⏐	CLEANOUT	WALL CLEANOUT WITH CLEANOUT TEE AND CHROME PLATED BRONZE SQUARE ACCESS COVER AND FRAME. WADE #W-8480 OR APPROVED EQUAL
CODP	◎	⏐	CLEANOUT DECKPLATE	FLOOR CLEANOUT WITH ADJUSTABLE HEAD, ANCHOR FLANGE, CUT-OFF SECTIONS AND ROUND SCORIATED NICKEL-BRONZE TOP: WADE #W-6000 OR APPROVED EQUAL. PROVIDE HEAVY DUTY CAST IRON TOP FOR MECHANICAL ROOMS.
FD-1	▣	⌓	FLOOR DRAIN	TOILET ROOMS AND GENERAL USE AREAS: WATTS #FD-100-M WITH 6"x 6" NICKEL-BRONZE TOP, CAST IRON BODY, & TRAP PRIMER TAPPING. TRAP PRIMER SHALL BE WATTS MODEL LFTP300.
FD-2	▣	⌓	FLOOR DRAIN	MECHANICAL EQUIPMENT ROOMS: WATTS MODEL FD-320-Y EPOXY COATED CAST IRON AREA DRAIN WITH ANCHOR FLANGE, WEEPHOLES, 8"DIAMETER FIXED TOP WITH DUCTILE IRON GRATE, SEDIMENT BUCKET, TRAP SEAL, AND NO HUB (STANDARD) 3" OUTLET. PROVIDE TRAP SEAL SIMILAR TO ZURN Z1072-ZSHIELD. TRAP PRIMER SHALL BE WATTS MODEL LFTP300.
TD-1	▬	–	TRENCH DRAIN	ZURN ZFV806-U4-GDC-DB 6" WIDE REVEAL FIBER REINFORCED VINYLESTER TRENCH DRAIN SYSTEM WITH MECHANICAL CONNECTIONS BETWEEN SECTIONS, CLASS C GALVANIZED DUCTILE SLOTTED GRATE, 4" NO-HUB BOTTOM OUTLET, AND BOTTOM DOME STRAINER.
RD-1	▣	⌓	ROOF DRAIN	ZURN MODEL ZA-100 WITH DUCO CAST IRON BODY WITH SUMP, REMOVABLE CAST IRON DOME STRAINER, MEMBRANE FLANGE AND MEMBRANE CLAMP WITH INTEGRAL GRAVEL STOP, ADJUSTABLE UNDER DECK CLAMP, ROOF SUMP RECEIVER, WATERPROOFING FLANGE, ADJUSTABLE EXTENSION SLEEVE FOR ROOF INSULATION. OUTLET SIZE TO MATCH EXISTING, COORDINATE IN FIELD. COORDINATE WITH ROOFING TYPE, REFER TO ARCHITECTURAL SPECIFICATIONS.

NOTES:
1.) REFER TO ARCHITECT'S DRAWINGS FOR QUANTITY, LOCATIONS, & MOUNTING HEIGHTS.

PLUMBING WATER SPECIALTIES SCHEDULE

TAG	SYMBOLS PLAN	SYMBOLS ELEVATION	FIXTURES	DESCRIPTION
WHA	□	–	WATER HAMMER ARRESTOR	TYPE 650 SERIES: SIOUX CHIEF "HYDRARESTER" PISTON-TYPE, WITH TYPE L COPPER TUBE CONSTRUCTION, PRESSURIZED AIR CUSHION. REFER TO MANUFACTURER'S RECOMMENDED SIZING. RE: RISER.
HB-1	⊢	⅂	HOSE BIB	IN UNFINISHED SPACES, WASHDOWN FAUCET SHALL BE CAST BRASS HOSE BIBBS WITH SEPARATE TAMPER PROOF VACUUM BREAKER WITH ¾" MALE INLET AND ¾" HOSE THREAD OUTLET: WATTS SERIES SC8 OR ACCEPTABLE EQUIVALENT.
HB-2	⊢	⅂	HOSE BIB	IN FINISHED AREAS, WASHDOWN FAUCET SHALL BE POLISHED CHROME-PLATED WALL FAUCET WITH WALL FLANGE, ¾" INLET, ¾" HOSE THREAD OUTLET AND REMOVABLE LOOSE KEY T-HANDLE: CHICAGO #293-6 WITH #E27 VACUUM BREAKER OR ACCEPTABLE EQUIVALENT.
NFHB	⊢	⅂	NON-FREEZE HOSE BIB	CAST BRASS, THREADED, NON_FREEZE, HEAVY-DUTY HYDRANT WITH NIKALOY BOX AND LOCKING COVER, BRASS OPERATING PARTS, 3/4" HPT HOSE OUTLET, 3/4" IPS OUTSIDE, ELBOW ADAPTER, "T" HANDLE KEY, AND INTEGRAL VACUUM BREAKER/BACKFLOW PREVENTER: WADE #8600. PIPING SERVING WH-1 TO BE ROUTED DN IN INTERIOR WALLS.
HR-1	□	–	HOSE REEL - WATER	HANNAY REELS SERIES N800 MODEL # N818-25-26-10.5B, SPRING REWIND, ¾" HOSE, 70' LENGTH, 1" FEMALE NPT INLET AND OUTLET CONNECTIONS, STANDARD PRESSURE UP TO 2,000 PSI, STANDARD TEMPERATURE RANGE 40°F TO 250°F. PROVIDE ADJUSTABLE THERMOSTATIC MIXING VALVE FOR REELS WITH HOT WATER.

PLUMBING SPECIALTIES SCHEDULE

TAG	SYMBOLS PLAN	SYMBOLS ELEVATION	FIXTURES	DESCRIPTION
HR-2	□	–	HOSE REEL - AIR	HANNAY REELS SERIES N700 MODEL # N716-17-18-8L, SPRING REWIND, SIZED FOR ¼" THROUGH ½" HOSE, 50' LENGTH, ½" FEMALE NPT INLET AND OUTLET CONNECTIONS, STANDARD PRESSURE UP TO 3,000 PSI, STANDARD TEMPERATURE RANGE -60°F TO 250°F.

EQUIPMENT NOTES

1. DOMESTIC HOT WATER HEATER (DHWH-1&2): SHALL BASED ON AO SMITH MODEL BTX-100, 50 GALLON CAPACITY, RATED FOR 115 GPH @ 100 DEG RISE, GAS FIRED, 120V/1ø/60 Hz, SINGLE POINT ELECTRICAL CONNECTION, 28"ø x 65"HIGH. PROVIDE DISCONNECT SWITCH.
2. DOMESTIC HOT WATER HEATER (DWHW-3): SHALL BE BASED ON RINNAI SENSEI MODEL RU199i, GAS FIRED OCNDENSING WATER HEATER, RATED FOR 0.29-9.8 GPM, 199 BTU INPUT, 120V/1PH/60Hz, MCA=4 AMPS, MOCP = 10 AMPS. PROVIDE PROPANE CONVERSION KIT, CONDENSATE NEUTRALIZING KIT.
3. HOT WATER CIRCULATION PUMP (HWCP-1): SHALL BE BASED ON BELL & GOSSETT MODEL NBF-33. ELECTRICAL CHARACTERISTICS SHALL BE 120V/SINGLE PHASE/60 Hz, 125 WATTS, 110 AMPS AND 2950 RPM AT 5 GPM AND 10 FEET OF HEAD. PUMP SHALL HAVE LEAD-FREE BRONZE BODY. PUMP SHALL BE PROVIDED WITH MOTOR STARTER AND DISCONNECT SWITCH.
4. EXPANSION TANK: SHALL BE BASED ON AMTROL EXTROL MODEL AX-40V-DD WITH 23 GALLON TANK VOLUME AND 11.3 GALLON ACCEPTANCE VOLUME. EXPANSION TANK SHALL BE ASME RATED WITH 125 PSIG WORKING PRESSURE AND 240°F OPERATING TEMPERATURE. TANK SHALL BE CONSTRUCTED OF CARBON STEEL SHELL, HEAVY DUTY BUTYL DIAPHRAGM AND SHALL HAVE RED OXIDE PRIME COAT. PROVIDE FACTORY SUPPORT SADDLES.
5. ELEVATOR SUMP PUMP SP-1: SHALL BE BASED ON STANCOR MODEL SE50 PUMP, 0.5 HP, 115V-1 PHASE-60 HERTZ, 5 FLA, 50 GPM @ 22 FEET HEAD AND 3600 RPM. PROVIDE STANCOR CHECK VALVE WITH EACH PUMP. PROVIDE OIL MINDER CONTROL SYSTEM FOR EACH PUMP WITH BUILT IN AUDIBLE AND VISUAL ALARM WHEN PUMP DOES NOT RUN DUE TO OIL IN PIT OR HIGH LIQUID ALARM. PROVIDE SILENCING BUTTON FOR AUDIBLE ALARM BUILT INTO PANEL. PANEL SHALL HAVE ADDITIONAL CONTACT FOR A REMOTE ALARM LOCATION. PROVIDE JUNCTION BOX WITH MULTI PIN CONNECTOR AND CORD LENGTHS AS REQUIRED. PANEL TO HAVE INDICATOR LIGHTS FOR OIL SPILL, HIGH LIQUID LEVEL, OVERLOAD AND PUMP RUN. CONTROL PANEL ENCLOSURE TO BE NEMA4X WATERTIGHT CORROSION RESISTANT FIBERGLASS.

PLUMBING FIXTURE SCHEDULE

TAG	SYMBOLS PLAN	SYMBOLS ELEVATION	FIXTURES	PLUMBING CONNECTIONS WASTE	VENT	COLD WATER	HOT WATER	DESCRIPTION
P-1			WATER CLOSET WALL-MOUNT	4"	2"	1"	–	MANUFACTURER: AMERICAN STANDARD MODEL: 3351.511 AFWALL MILLENNIM FLOWISE 1.1 GPF FLUSHOMETER TOILET SYSTEM, EXPOSED TOP SPUD, SELECTRONIC FLUSH VALVE COLOR/FINISH: WHITE NOTES: VITREOUS CHINA, HIGH EFFICIENCY, LOW CONSUMPTION 1.1 GPF, 2-1/8" FULLY GLAZED TRAPWAY, TRIP LEVEL SHALL BE AWAY FROM WALL. COORDINATE WITH PLANS. SEAT: AMERICAN STANDARD 5901.100 HEAVY DUTY TOILET SEAT WITH EVERCLEAN FLUSH VALVE: MODEL 606B.111 SELECTRONIC FLUSH VALVE, HARD WIRED, PROXIMITY SENSING HANDS-FREE OPERATION, ADA COMPLIANT, RIGHT HAND/LEFT HAND ORIENTATION TO BE VERIFIED IN FIELD. COORDINATE WITH ELECTRICAL CONTRACTOR FOR IN WALL ROUGHING OF POWER SUPPLY WIRING, TRANSFORMERS, ETC. CARRIER FITTING: ZURN ZN1201-N_4 NARROW WALL WITH 8-13/16" FRONT TO BACK EZCARRY ADJUSTABLE HORIZONTAL HIGH PERFORMANCE SIPHON JET NO-HUB WATER CLOSET CARRIER SYSTEM. RIGHT HAND/LEFT HAND INLET TO BE VERIFIED IN FIELD, RATED UP TO 500 LB CAPACITY.
P-2			LAVATORY - COUNTER MOUNTED	1½"	1½"	¾"	¾"	MANUFACTURER: AMERICAN STANDARD MODEL: 0476.028 AQUALYN COUNTERTOP SINK - 16"WIDE, 10" FRONT TO BACK, 5-5/8" DEEP COLOR/FINISH: TO BE COORDINATED WITH ARCHITECT NOTES: ADA COMPLIANT, VITREOUS CHINA, FRONT OVERFLOW, OVAL COUNTERTOP SINK, 1-1/4" TRAP, FAUCET HOLES ON 4" CENTERS, PROVIDE MOUNTING KIT AS REQUIRED FOR INSTALLATION. FAUCET: AMERICAN STANDARD 605B.205, INNSBROOK SELECTRONIC CENTERSET FAUCET: CAST BRASS BODY, 0.5 GPM MAX, MULTI-LAMINAR SPRAY, THERMOSTATIC MIXING VALVE MODEL 605XTMV1070, HARD-WIRED AC POWER KIT MODEL PK00.HAC, LEAD FREE, ADA COMPLIANT. COORDINATE WITH ELECTRICAL CONTRACTOR FOR IN WALL ROUGHING OF POWER SUPPLY WIRING, TRANSFORMERS, ETC.
P-3			LAVATORY - WALL HUNG	1½"	1½"	¾"	¾"	MANUFACTURER: AMERICAN STANDARD MODEL: MURRO UNIVERSAL DESIGN 0954.004EC 21¼"x20½" WALL HUNG LAVATORY WITH 4" CENTER FAUCET HOLES. COLOR/FINISH: TO BE COORDINATED WITH ARCHITECT NOTES: ADA COMPLIANT, VITREOUS CHINA, REAR OVERFLOW, 1-1/4" TRAP, PROVIDE HANGER PLATE AS REQUIRED FOR INSTALLATION. PROVIDE MODEL 0059.020EC SHROUD. FAUCET: AMERICAN STANDARD 605B.205, INNSBROOK SELECTRONIC CENTERSET FAUCET: CAST BRASS BODY, 0.5 GPM MAX, MULTI-LAMINAR SPRAY, THERMOSTATIC MIXING VALVE MODEL 605XTMV1070, HARD-WIRED AC POWER KIT MODEL PK00.HAC, LEAD FREE, ADA COMPLIANT. COORDINATE WITH ELECTRICAL CONTRACTOR FOR IN WALL ROUGHING OF POWER SUPPLY WIRING, TRANSFORMERS, ETC.
P-4			URINAL	3"	2"	¾"	–	MANUFACTURER: AMERICAN STANDARD MODEL: ALLBROOK FLOWISE HIGH EFFICIENCY URINAL SYSTEM #6550.510, 0.5 GPF EXPOSED TOP SPUD URINAL AND SELECTRONIC URINAL FLUSH VALVE, VITREOUS CHINA, ¾" INLET SPUD, OUTLET CONNECTION 2" THREADED INSIDE, PROVIDE CONCEALED WALL CARRIER AND SUPPORT, ADA COMPLIANT. FLUSH VALVE: 0.5 GPF EXPOSED SENSOR-OPERATED FOR 3/4" TOP SPUD URINALS. HARD-WIRED AC POWER, 20 PSI (FLOWING), 80 PSI (STATIC) OPERATING PRESSURE. 10 GPM FLOW REQUIREMENT. COORDINATE WITH ELECTRICAL CONTRACTOR FOR IN WALL ROUGHING OF POWER SUPPLY WIRING, TRANSFORMERS, ETC.
P-5			PANTRY SINK	2"	1½"	¾"	¾"	MANUFACTURER: AMERICAN STANDARD MODEL: 18CR.332232C.075 MONTVALE STAINLESS STEEL DOUBLE BOWL DUAL MOUNT SINK COLOR/FINISH: TO BE COORDINATED WITH ARCHITECT NOTES: 18 GA STAINLESS STEEL CONSTRUCTION, 15¼" x 18" x 9" LARGE BOWL DEPTH, 12½" x 15 15/16" x 7½" SMALL BOWL DEPTH, SINGLE FAUCET HOLE, REAR CENTER 3-1/2" DRAIN OPENINGS, PROVIDE ALL REQUIRED MOUNTING HARDWARE. FAUCET: MANUFACTURER: AMERICAN STANDARD MODEL: SINGLE HANDLE SWIVEL DECK MOUNT, 2-FUNCTION PULL-DOWN SPRAYER FINISH: STAINLESS STEEL NOTES: ADA COMPLIANT, LEAD FREE, ROTATING SPOUT, SPRAY AND STREAM FUNCTIONS, 1.8 GPM FLOW RATE @ 60 PSI, CERAMIC DISC CARTRIDGE.
P-6			SHOWER	2"	1½"	¾"	¾"	SHOWER KIT: MANUFACTURER: AMERICAN STANDARD MODEL: 1662SG.221 COMMERCIAL SHOWER SYSTEM KIT NOTES: ADA COMPLIANT, POLISHED CHROME FINISH, 36" METAL SLIDEBAR, 59" METAL HOSE, 1.5 GPM HANDSHOWER. SHOWER VALVE TRIM: MANUFACTURER: AMERICAN STANDARD MODEL: T675.500.002 NOTES: ADA COMPLIANT, BRASS CONSTRUCTION, LEVER HANDLE, PRESSURE BALANCING VALVE CARTRIDGE, POLISHED CHROME FINISH, INCLUDE ALL MOUNTING ADAPTERS AND ROUGH-IN HARDWARE. DRAIN: WADE MODEL 1100-A WITH 5" ROUND ADJUSTABLE NIKEL-BRASS STRAINER, CAST IRON BODY, CAST IRON DRAINAGE FLANGE, FLASHING CLAMP, AND SEDIMENT BUCKET.
P-7			UTILITY SINK	3"	2"	¾"	¾"	UTILITY SINK: MANUFACTURER: ELKAY MODEL: LRS3322 LUSTERTONE CLASSIC STAINLESS STEEL SINGLE BOWL DROP-IN SINK COLOR/FINISH: LUSTROUS SATIN FINISH NOTES: 18 GA STAINLESS STEEL CONSTRUCTION, 33" x 22" x 7⅝" BOWL DEPTH, FOUR FAUCET HOLES, CENTER 3-1/2" DRAIN OPENING, BOTTOM PAD SOUND GUARD, LESS BOTTOM GRID. PROVIDE ALL REQUIRED MOUNTING HARDWARE. FAUCET: MANUFACTURER: AMERICAN STANDARD MODEL: 6409.171 TOP MOUNT FAUCET WITH 8" GOOSENECK SPOUT AND PULL-OUT SPRAYER FINISH: POLISHED CHROME NOTES: ADA COMPLIANT, SWIVEL SPOUT, 1.5 GPM FLOW RATE @ 60 PSI, CERAMIC DISC CARTRIDGE, VANDAL RESISTANT WRIST BLADES, 1/2" MALE THREADED INLETS.
P-8			BOTTLE FILL STATION	1½"	1½"	½"	–	ELKAY MODEL LZWSBK, WALL MOUNT BOTTLE FILING STATION, FILTERED & REFRIGERATED WATER, COOLER RATED FOR 8 GPH. 120V/1Hz/60PH, 1 AMP FLA, 370 WATTS. MECHANICAL BOTTLE FILLER BUTTON ACTIVATION, STAINLESS STEEL FINISH, GREEN TICKER, LAMINAR FLOW, NO BUBBLER.
P-9			MOP SINK	2"	1½"	¾"	¾"	MOP SINK: FIAT MODEL MSB2424, 24" X 24" ONE PIECE MOLDED STONE 10" DEEP MOP BASIN WITH STAINLESS STEEL DRAIN BODY AND COMBINATION DOME STRAINER / LINT BASKET. FAUCET: KROWNE 8" CENTER WALL MOUNTED FAUCET WITH PRE-RINSE MODEL 18-706L. FAUCET SHALL BE CHROME PLATED BRASS WITH ¼ TURN CERAMIC CARTRIDGE VALVES WITH INERNAL CHECK, LEVER HANDLES, HEAVY DUTY FLANGES, 1.8 GPM FAUCET SPOUT AND 1.15 GPM SPRAY HEAD.
P-10			EYE WASH / SHOWER	2"	1-1/2"	3/4"	¾"	BASED ON ACORN SAFETY, BARRIER FREE COMBINATION STATION EYE/FACE WASH AND SHOWERHEAD, MODEL S2340-AS-BF. EYE/FACE WASH SHALL HAVE TWO SPRAY HEADS. EACH HEAD HAS A "FLIP TOP" DUST COVER, INTERNAL FLOW CONTROL AND FILTER TO REMOVE IMPURITIES FROM THE WATER FLOW. PROVIDE THERMOSTATIC MIXING VALVE MODEL ET71-1-BVS-OTG. PROVIDE OUTLET TEMPERATURE COMPLYING WITH ANSI Z358.1.
P-11			SERVICE SINK	2"	2"	¾"	¾"	SERVICE SINK: ELKAY MODEL ESSB2520C WALL HUNG SERVICE SINK KIT. 304 STAINLESS STEEL, BUFFED SATIN FINISH, 14 GAGE STEEL, 25" x 19½" x 24", 3½" DRAIN. FAUCET: ELKAY MODEL LK940BR03L2H, 8" CENTERSET WALL MOUNT FAUCET WITH 3" BUKET HOOK SPOUT, 2" LEVER HANDLES.

NOTES:
1.) REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURE FINISHES, QUANTITY, LOCATIONS, & MOUNTING HEIGHTS.

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Date	Issue
03.10.20	MEETING
03.27.20	DESIGN DEVELOPMENT
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09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
PLUMBING SCHEDULES

Project No.	NBFC0010.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JRT
Checked by	JF/RS

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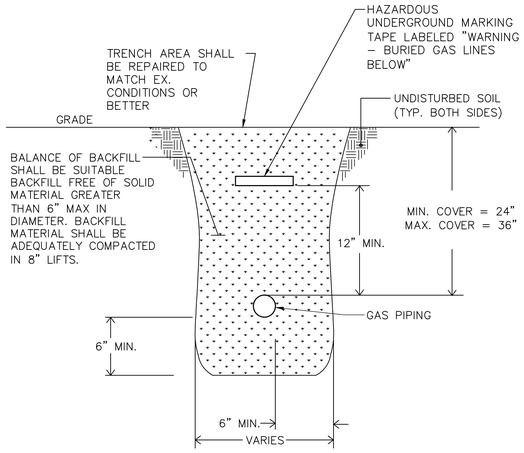
Drawing No.
P6.1

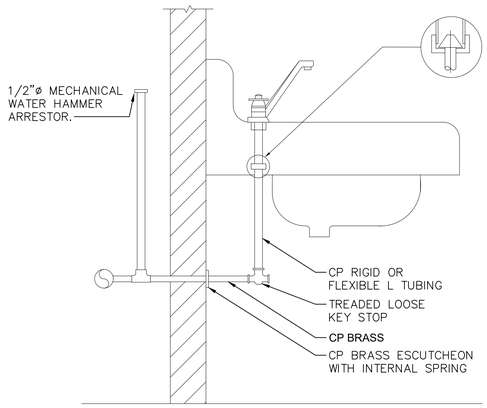


NOTES:

1.) PRIOR TO BACKFILLING ALL FIELD COATINGS SHALL BE MADE IN ACCORDANCE WITH PIPE MANUFACTURER SPECIFICATIONS.

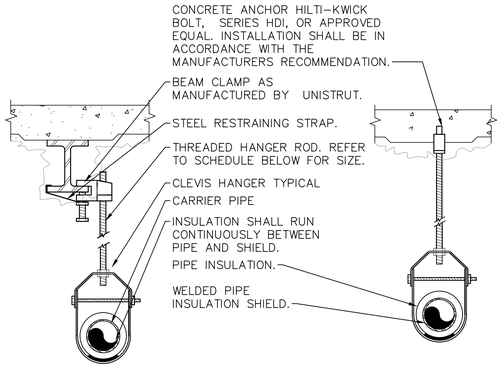
2.) BACKFILL SHALL BE YELLOW SAND, FREE OF STONES, CINDERS, VEGETATION AND OTHER DEBRIS.

9 TRENCHING DETAIL FOR GAS PIPING
SCALE: NONE



NOTE:
SIMILAR SUPPLY ARRANGEMENT TO OTHER FIXTURES

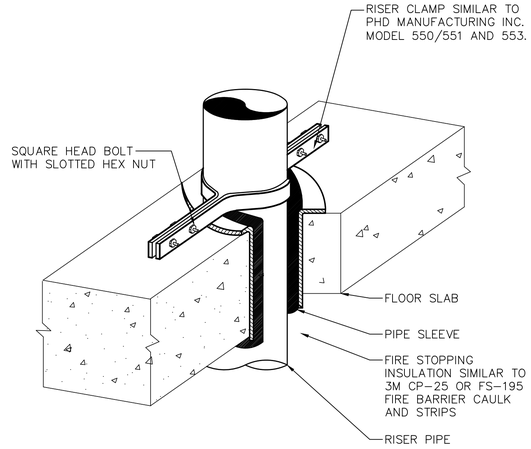
8 TYPICAL LAVATORY SUPPLY CONNECTION
SCALE: NONE



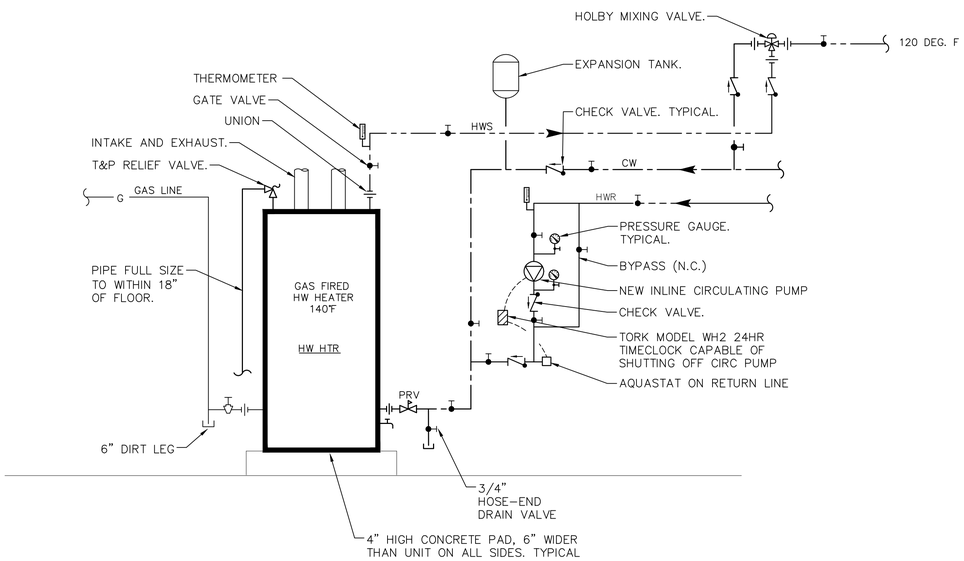
PIPE HANGER SCHEDULE						
PIPE DIA.	3/4"–2"	2 1/2"–3"	4"–5"	6"	8"–12"
HANGER DIA.	3/8"	1/2"	5/8"	3/4"	7/8"

NOTES:
1.) CLEVIS HANGERS WITH WELDED INSULATION SHIELDS SIMILAR TO RAUCH FIG. 100SH ON ALL PIPES LARGER THAN 1".
2.) FOR PIPES 1" OR SMALLER, A BAND HANGER WITH INSULATION SHIELD MAY BE USED SIMILAR TO RAUCH FIG. NO. 1ASH.
3.) FOR NON–INSULATED PIPE, INSULATION SHIELDS MAY BE OMITTED.
4.) ALL PIPE HANGERS SHALL BE GALVANIZED STEEL OR FACTORY PAINTED BLACK WITH ENAMEL.
5.) FOR NON FERROUS PIPING WITHOUT INSULATION, ALL HANGERS SHALL BE COPPER PLATED OR FURNISHED WITH A DI–ELECTRIC BETWEEN PIPE AND HANGERS.
6.) WHERE EXISTING BUILDING STRUCTURAL COMPONENTS HAVE FIREPROOF MATERIAL, ANY AREA THAT IS DISTURBED OR DAMAGED AS A RESULT OF HANGER INSTALLATION SHALL BE PATCHED WITH UL AND FM APPROVED FIREPROOFING TO MATCH EXISTING.
7.) HANGER INSTALLATION IN PRECAST CONCRETE PLANKS SHALL INCLUDE ANCHORS AND FIREPROOFING METHOD APPROVED BY THE PLANK MANUFACTURER.

6 PIPE HANGER DETAIL
SCALE: NONE

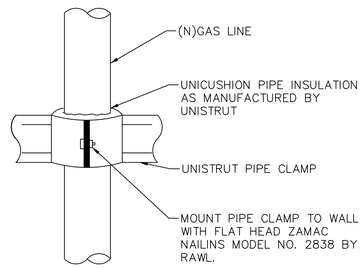


3 VERTICAL PIPE SUPPORT DETAIL
SCALE: NONE

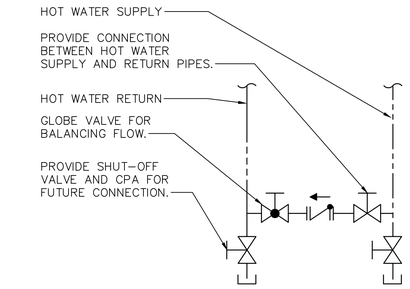


NOTES:
1.) THE BALANCE OF THE PIPING ARRANGEMENT IS SIMILAR FOR HOT WATER HEATERS WITH NO RECIRCULATION SYSTEM.

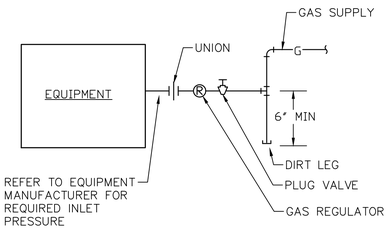
7 HOT WATER HEATER SCHEMATIC
SCALE: NONE



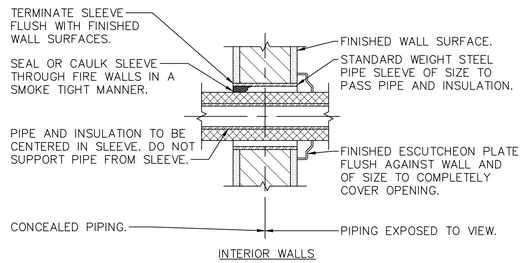
5 GAS PIPE SUPPORT DETAIL
SCALE: NONE



2 HOT WATER RECIRC CONNECTION DETAIL
SCALE: NONE



4 EQUIPMENT GAS CONNECTION SCHEMATIC
SCALE: NONE



1 PIPE WALL SLEEVE DETAIL FOR INTERIOR WALLS
SCALE: NONE

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550 Old Post Road
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Drawing Title
PLUMBING DETAILS

Project No.	NSPC0010000
Date	03-27-20
Scale	AS NOTED
Drawing by	JRT
Checked by	JF/RS

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Drawing No.
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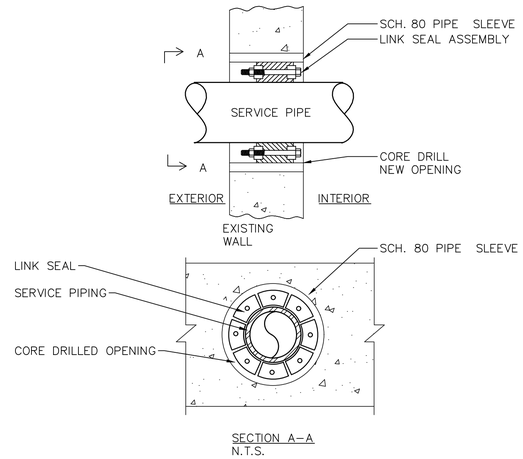

SECTION A–A
N.T.S.

NOTES:
1.) SEAL ASSEMBLY BASED ON THUNDERLINE MODEL "C" LINK–SEAL MODULAR SEAL, WITH EPDM SEAL ELEMENT, COMPOSITE PRESSURE PLATES, STEEL WITH 2–PART ZINC DICHROMATE & ORGANIC COATED NUTS AND BOLTS RATED FOR AN OPERATING TEMPERATURE RANGE OF –40°F TO +250°F.
2.) USE LINK SEAL AT ALL LOCATIONS WHERE PIPES PENETRATE EXTERIOR WALLS, ABOVE GRADE OR BELOW GRADE.

1 PIPE LINK SEAL DETAIL FOR EXTERIOR WALLS
SCALE: NONE

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Bedford, NY 10506

Drawing Title
PLUMBING DETAILS

Project No.	NSPC0070.00
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Drawing No.
P7.2

SYMBOL & ABBREVIATIONS

SYMBOL	ABBREVIATION	DESCRIPTION
–	AC–	AIR CONDITIONING UNIT
–	ACC–	AIR COOLED CONDENSING UNIT
–	AD	ACCESS DOOR
–	AFF	ABOVE FINISHED FLOOR
–	AHC	ABOVE HUNG CEILING
–	AHU–	AIR HANDLING UNIT
–	AP	ACCESS PANEL
–	BDD	BACKDRAFT DAMPER
–	BHP	BRAKE HORSEPOWER
–	BTU	BRITISH THERMAL UNIT
–	CFM	CUBIC FEET PER MINUTE
–	CH–	CABINET HEATER
–	℄	CENTERLINE
–	CP–	CONDENSATE PUMP
–	DB	DRY BULB TEMPERATURE
–	DIA. OR ø	DIAMETER
–	DX	DIRECT EXPANSION
–	EA	EXHAUST AIR
–	EAT	ENTERING AIR TEMPERATURE
–	EX–	EXHAUST FAN
–	EL	ELEVATION
–	ER	EXHAUST REGISTER
–	ESP	EXTERNAL STATIC PRESSURE
–	EWT	ENTERING WATER TEMPERATURE
–	FPM	FEET PER MINUTE
–	FPS	FEET PER SECOND
–	FTR	FINNED TUBE RADIATION
–	GPM	GALLONS PER MINUTE
–	HP	HORSE POWER
–	HV–	HEATING AND VENTILATING UNIT
–	KX–	KITCHEN EXHAUST
–	LAT	LEAVING AIR TEMPERATURE
–	LF	LINEAR FEET
–	LWT	LEAVING WATER TEMPERATURE
–	MBH	1000 BRITISH THERMAL UNITS PER HOUR
–	MER	MECHANICAL EQUIPMENT ROOM
–	NC	NORMALLY CLOSED
–	NIC	NOT IN CONTRACT
–	NO	NORMALLY OPEN
–	OAI	OUTSIDE AIR INTAKE
–	PSI	POUNDS PER SQUARE INCH
–	RA	RETURN AIR
–	RPM	REVOLUTIONS PER MINUTE
–	SA	SUPPLY AIR
–	SP	STATIC PRESSURE
–	TD	TRANSFER DUCT
–	TDH	TOTAL DYNAMIC HEAD
–	TSP	TOTAL STATIC PRESSURE
–	TYP.	TYPICAL
–	U.O.N.	UNLESS OTHERWISE NOTED
–	WB	WET BULB TEMPERATURE
–	WG	INCHES OF WATER GAUGE
–	WMS	WIRE MESH SCREEN
–	WB	WET BULB TEMPERATURE
–	WG	INCHES OF WATER GAUGE
–	–	3–WAY VALVE
–	–	FLEXIBLE CONNECTION
–	–	2–WAY VALVE

SYMBOL	ABBREVIATION	DESCRIPTION
	–	PLUG VALVE
	–	LOCK SHIELD VALVE
	–	GATE VALVE
	–	GLOBE VALVE
	–	TEE DOWN
	–	ELBOW DOWN
	–	TEE UP
	–	ELBOW UP
	–	CONCENTRIC REDUCER
	–	ECCENTRIC REDUCER
	–	OS&Y GATE VALVE
	–	STRAINER
	–	PRESSURE REDUCING VALVE
	–	FLOW ARROW
	–	BUTTERFLY VALVE
	–	BALANCING VALVE
	–	MANUAL AIR VENT
	–	SOLENOID VALVE
M	–	MOTORIZED VALVE
	–	T&P RELIEF VALVE
	–	BALL VALVE
	–	PRESSURE GAGE
	–	TERMOMETER
	–	CHECK VALVE
	–	UNION
	EX.	EXISTING TO REMAIN
	REL.	REMOVE AND RELOCATE
	NEW	NEW WORK
	DEM.	EXISTING TO BE REMOVED
CD	–	CONDENSATE DRAIN
HWS	–	HOT WATER SUPPLY
HWR	–	HOT WATER RETURN
PD	–	PUMP DISCHARGE, CONDENSATE
RL	–	REFRIGERANT LIQUID
RS	–	REFRIGERANT SUCTION
HG	–	REFRIGERANT HOT GAS
T	–	THERMOSTAT
M	–	MOTORIZED DAMPER
S	–	SMOKE DETECTOR
	–	DOOR UNDER CUT
	–	DOOR LOUVER
	–	AIR INTO REGISTER
	–	POINT OF CONNECTION DISCONNECTION
	UH	UNIT HEATER
	CUH	CABINET UNIT HEATER
	P–1	PUMP
	SR	SUPPLY REGISTER
	CD	1–WAY
	CD	2–WAY
	CD	2–WAY
	CD	3–WAY
	CD	4–WAY
	RR/RG	RETURN REGISTER/GRILLE
	–	SUPPLY DUCT UP
	–	SUPPLY DUCT DOWN
	–	RETURN DUCT UP
	–	RETURN DUCT DOWN
	–	TRANSITION FROM SQUARE TO ROUND DUCT

SYMBOL	ABBREVIATION	DESCRIPTION
	–	TRANSITION
D	–	DUCT DROP
R	–	DUCT RISE
	–	SQUARE VANED ELBOW
	–	DUCT RISE
	–	DUCT DROP
	–	DUCT TRANSITION
	–	ALUMINUM DUCT
	AL	ACOUSTIC LINING
	FD/AD	FIRE DAMPER W/ ACCESS DOOR
	SD/AD	SMOKE DAMPER W/ ACCESS DOOR
	CFSD	COMBINATION FIRE/SMOKE DAMPER W/ ACCESS DOOR
	VD	VOLUME DAMPER
	AL	ACOUSTIC LINING
6x8	–	DUCT SIZE – 1ST FIGURE IS SIDE SHOWN
	FC	FLEXIBLE CONNECTION
	–	ALUMINUM DUCT
F 50	–	DIFFUSER/REGISTER TAG – TYPE / CFM
SECT/ DWG#		SECTION CALLOUT
HWUH–#	–	HOT WATER UNIT HEATER
ECUH–#	–	ELECTRIC CABINET UNIT HEATER
GFUH–#	–	GAS FIRED UNIT HEATER
EDH–#	–	ELECTRIC DUCT HEATER
VEF–#	–	VEHICLE EXHAUST FAN

GENERAL NOTES

1. CONTRACT DRAWINGS, AS FAR AS THEY RELATE TO THE GENERAL ARRANGEMENT AND LOCATION OF EQUIPMENT, SHEET METAL, AND PIPING, SHALL BE UNDERSTOOD AS DIAGRAMMATIC. ANY CHANGES TO EQUIPMENT, SHEET METAL, AND PIPING LOCATIONS NECESSARY TO AVOID INTERFERENCE WITH OTHER TRADES SHALL BE MADE AT NO EXTRA COST, AND MUST BE APPROVED BY THE ENGINEER.
2. THE MECHANICAL CONTRACTOR SHALL INSTALL FIRE DAMPERS WITH ACCESS DOORS IN ALL DUCTS PENETRATING FIRE RATED WALLS, WHETHER SPECIFICALLY SHOWN ON THE DRAWINGS OR NOT.
3. THE MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL VOLUME DAMPERS IN DUCTWORK AS REQUIRED TO BALANCE THE AIRFLOW AT ALL REGISTERS AND DIFFUSERS TO THE CFM'S INDICATED ON PLAN, WHETHER SPECIFICALLY SHOWN ON THE DRAWINGS OR NOT.
4. PROVIDE ALL PIPE OPENINGS THROUGH PARTITIONS WITH PIPE SLEEVES. FOR PIPES PENETRATING FIRE RATED PARTITIONS, THE SPACE BETWEEN THE PIPE AND THE SLEEVE SHALL BE SEALED WITH FIRE STOPPING MATERIAL. PENETRATIONS FOR PIPING SHALL BE MADE BY CORE DRILLING WHENEVER POSSIBLE.
5. ACOUSTICALLY LINE ALL TRANSFER DUCTS. ACOUSTIC LINING SHALL BE 1" THICK. PROVIDE RETURN REGISTERS AT TRANSFER DUCT INLETS & OUTLETS LOCATED BELOW THE CEILING, OR IN AREAS WITH NO CEILING.
6. DUCT–MOUNTED SMOKE DETECTORS AND SAMPLING TUBES SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR. THE MECHANICAL CONTRACTOR SHALL INSTALL EACH SAMPLING TUBE IN THE DUCTWORK. THE ELECTRICAL CONTRACTOR SHALL INSTALL AND WIRE EACH SMOKE DETECTOR. THE MECHANICAL CONTRACTOR SHALL NOT BRANCH OFF ANY DUCT REQUIRING A DUCT SMOKE DETECTOR BEFORE THE DUCT SMOKE DETECTOR. LOCATE SMOKE DETECTORS IN SERVICEABLE AREAS, NOT IN SHAFTS.
7. ALL MOTOR STARTERS AND DISCONNECT SWITCHES FOR HVAC EQUIPMENT SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR, UNLESS OTHERWISE NOTED. DISCONNECT SWITCHES FURNISHED BY THE MECHANICAL CONTRACTOR FOR HVAC EQUIPMENT SHALL BE HEAVY DUTY TYPE.
8. DUCT DIMENSIONS SHOWN ON MECHANICAL DRAWINGS REFER TO INSIDE CLEAR DUCT DIMENSIONS. WHERE DUCTWORK IS LINED, THE MECHANICAL CONTRACTOR SHALL INCREASE THE SIZE OF DUCT TO COMPENSATE FOR LINING.
9. LOCATE THERMOSTATS AND TEMPERATURE SENSORS 5'–0" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED. COORDINATE LOCATION WITH FURNITURE, CABINETS, ETC. FURNISH LOCKING TAMPERPROOF COVER FOR ALL NEW THERMOSTATS IN PUBLIC AREAS.
10. COORDINATE DUCTWORK, GRILLE, DIFFUSER AND REGISTER LOCATIONS WITH LIGHTS, SPRINKLER HEADS, SMOKE DETECTORS, AND THE ARCHITECTURAL PLANS.
11. THE MECHANICAL CONTRACTOR SHALL NOTE THAT, IN ADDITION TO THE SPECIFICATIONS AND DETAILS GIVEN IN THESE PLANS FOR PIPE HANGERS AND SUPPORTS, ALL HANGERS AND SUPPORTS SHALL BE DESIGNED AND INSTALLED IN COMPLIANCE WITH APPLICABLE SEISMIC CODES.
12. ALL EXPOSED DUCTWORK LOCATED IN AREAS WHERE THERE IS NO CEILING SHALL BE ROUND OR OVAL SPIRAL DUCTWORK, INTERNALLY LINED, PRIMED AND FINISHED PAINTED WITH FLAT ENAMEL. COORDINATE COLOR SELECTION WITH ARCHITECTURAL PLANS.
13. THE MECHANICAL CONTRACTOR SHALL SUBMIT FOR REVIEW A COMPOSITE SHOP DRAWING, FULLY COORDINATED WITH ALL OTHER TRADES, INDICATING DUCTWORK, PLUMBING AND SPRINKLER PIPING, SMOKE DETECTORS, LIGHTS, CONDUITS, SMOKE DETECTORS, DIFFUSERS, GRILLES, ETC.
14. ALL WORK SHALL COMPLY WITH NEW YORK STATE MECHANICAL CODE, NEW YORK STATE BUILDING CODE, LOCAL BUILDING CODE, AND NEW YORK STATE ENERGY CODE REQUIREMENTS. IN CASE OF CONFLICT BETWEEN THE CONTRACT DOCUMENTS AND A GOVERNING CODE OR ORDINANCE, THE MORE STRINGENT STANDARD SHALL APPLY.
15. DURING CONSTRUCTION, ALL OPEN OR INCOMPLETE DUCTWORK SHALL BE CAPPED AIRTIGHT WITH WITH HEAVY POLYETHYLENE PLASTIC. AFTER THE INSTALLATION OF DUCTWORK, REGISTERS, GRILLES, AND DIFFUSERS, THE CONTRACTOR SHALL BLANK OFF ALL REGISTERS, GRILLES, AND DIFFUSERS WITH HEAVY POLYETHYLENE PLASTIC AND TAPE AIR TIGHT, IN AREAS THAT ARE UNDER CONSTRUCTION, UNTIL WORK IS COMPLETE IN THOSE AREAS. FLOOR REGISTERS AND GRILLES SHALL ALSO BE COVERED WITH 1/8" MASONITE.
16. WHEN GENERAL CONSTRUCTION IS COMPLETE, VACUUM CLEAN ALL DIFFUSERS, REGISTERS, GRILLES, AND HVAC EQUIPMENT IN THE PROJECT AREA OR SERVING THE PROJECT AREA. REMOVE ANY CONSTRUCTION DEBRIS. REPLACE ALL AIR FILTERS WITH NEW.
17. THE OWNER'S PERMANENT HVAC EQUIPMENT SHALL NOT BE USED BY ANY CONTRACTOR DURING CONSTRUCTION FOR TEMPORARY HEATING, COOLING, OR VENTILATION. IF TEMPORARY HEATING, COOLING, OR VENTILATION IS REQUIRED AT ANY POINT DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE TEMPORARY HEATING, COOLING, OR VENTILATION EQUIPMENT, DUCTWORK, CONTROLS, AND POWER AT HIS OWN EXPENSE.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY VENTILATION AND EXHAUST AIR WHEN WELDING OR SOLDERING OPERATIONS ARE PERFORMED, AS REQUIRED BY OSHA.
19. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL NECESSARY PERMITS AND FOR PAYING RELATED FEES.
20. ALL DUCTWORK SHALL BE PRESSURE TESTED AND INSPECTED PRIOR TO CONCEALMENT IN GENERAL CONSTRUCTION OR INSTALLATION OF HUNG CEILINGS.

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Project Title
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Drawing Title
MECHANICAL SYMBOLS, ABBREVIATIONS, & GENERAL NOTES

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Drawing No.
M0.1

PROPANE-FIRED CONDENSING HOT WATER BOILER B-1 FOR RADIANT HEAT. DIRECT VENT AND INLET THROUGH WALL.

36x60 OUTSIDE AIR INTAKE LOUVER.

PROVIDE 3" AIR INLET AND 3" DIRECT VENT FOR DOMESTIC HOT WATER HEATER.

GS-1&2 AND EDH-1&2 WITH 30x30 HEAVY DUTY LOUVER AND FD TO SHOP 121.

HV-1, H&V UNIT TO SERVE APPARATUS BAY SUPPORT ROOMS VENTILATION/MAKEUP AIR.

EF-1 LOCATED 36"AFF WITH BACKDRAFT DAMPER AND WEATHER HOOD WITH ½"WMS. ARRANGED TO RUN WHEN ROOM TEMPERATURE EXCEEDS 90°F.

RADIANT HEAT CONTROL MANIFOLDS. REFER TO DRAWING M3.1 FOR RADIANT HEAT LAYOUT.

ACC-2 ON 6" EQUIPMENT PAD (60"x48", REFER TO CIVIL DRAWINGS FOR DETAILS) AS PART OF ADD-ALT #1.

¾"RL, ⅜RS, AND ⅝HG DOWN TO ACC-1. SEAL PENETRATION THROUGH WALL WATERTIGHT.

CONDENSING UNIT ACC-3 LOCATED OUTSIDE ON 6" CONCRETE EQUIPMENT PAD (114"x48", REFER TO CIVIL DRAWINGS FOR DETAILS).

ADD-ALTERNATE

34x34 RELIEF LOUVER WITH MOTORIZED DAMPER ARRANGED TO OPEN WHEN EF-1 RUNS.

(2) ¾"CD PIPES FROM AC-3&4 ABOVE. ROUTE TO INDIRECT DISCHARGE AT FLOOR DRAIN IN MER BELOW.

REFRIGERANT LINES FROM ACC-3 UP TO ATTIC.

OVERHEAD GARAGE DOOR AREA.

RADIANT HEAT SPACE THERMOSTAT SHALL BE LOCKING TAMPERPROOF TYPE.

GARAGE EXHAUST ZONE 1.

VEHICLE EXHAUST FAN VEF-1 HUNG FROM BUILDING STRUCTURE WITH VIBRATION ISOLATION.

8"ø VEHICLE EXHAUST DUCT UP THROUGH FLOOR ABOVE TO DISCHARGE WITH GOOSENECK ON ROOF.

14"ø APPARATUS BAY EXHAUST AIR UP, 2000 CFM. TRANSITION TO 14x14 SQUARE DUCT IN VERTICAL RISE. GX-1 ON ROOF.

CO DETECTION CONTROL PANEL.

MOTOR STARTERS FOR VX-1&2.

AC-1 HUNG FROM BUILDING STRUCTURE AS HIGH AS POSSIBLE WITH VIBRATION ISOLATION. ROUTE ¾"CD FROM UNIT TO INDIRECT DISCHARGE AT FLOOR DRAIN IN MER.

24x24 OUTSIDE AIR INTAKE LOUVER WITH 12" PLENUM AND MOTORIZED DAMPER.

ACC-1 REFRIGERANT FLOW SELECTOR BOX. REFER TO REFRIGERANT RISER DIAGRAMS FOR DISTRIBUTION PIPE SIZING.

ROUTE REFRIGERANT PIPING ABOVE CEILING TO ASSOCIATED INDOOR AC UNITS. REFER TO REFRIGERANT RISER DIAGRAM FOR PIPE SIZING.

¾"RL, ⅜RS, AND ⅝HG DOWN TO ACC-1. SEAL PENETRATION THROUGH WALL WATERTIGHT.

10x10 EA UP.

CONDENSING UNITS LOCATED OUTSIDE ON 6" CONCRETE EQUIPMENT PAD (114"x48", REFER TO CIVIL DRAWINGS FOR DETAILS).

4"DRYER VENT FROM STACKED WASHER/DRYER IN CLOSET, TERMINATE WITH DRYER VENT CAP.

ALL DUCTWORK DOWNSTREAM OF EXHAUST REGISTERS SERVING SHOWERS SHALL BE ALUMINUM. TYPICAL.

ADD-ALTERNATE

CONDENSING UNIT LOCATED OUTSIDE ON 6" CONCRETE EQUIPMENT PAD (60"x48", REFER TO CIVIL DRAWINGS FOR DETAILS).

¾"RL, ⅜RS, AND ⅝HG DOWN TO ACC-2, SEAL PENETRATIONS THROUGH WALL WATERTIGHT. ROUTE ABOVE CEILING TO PLUMBING CHASE ON FLOOR ABOVE AND RISE UP.

WALL MOUNTED VRF UNIT AC-D TYPICAL FOR (3).

ROUTE ¾" CD DISCHARGE FROM AC UNIT CONDENSATE PUMPS TO INDIRECT DISCHARGE AT WASHER/DRYER WALLBOX. TYPICAL FOR (4).

REFER TO PART PLAN ON DRAWING M7.3.

HOT WATER PUMP P-1 FOR RADIANT SYSTEM.

TOILET EXHAUST FAN TX-2. 6"ø EA DUCT OUT TO SIDEWALL DISCHARGE FROM MER 132.

HOLD DUCTWORK CROSSING CORRIDOR AS HIGH AS POSSIBLE IN BEAM BAY.

14x8 SA AND RA STACKED OVER/UNDER TIGHT TO BACK WALL. SHOWN OFFSET FOR CLARITY. TYPICAL FOR THIS SYSTEM.

FIRST FLOOR ROOMS TO BE PRESSURIZED IN ORDER TO CONTAIN CONTAMINANTS. RELATIVE PRESSURIZATION BETWEEN ROOMS INDICATED BY FLOW ARROWS. TYPICAL.

GARAGE EXHAUST ZONE 2.

CARBON MONOXIDE DETECTOR MOUNTED TO COLUMN. TYPICAL FOR (2).

FUTURE RELOCATED AIR FILTRATION SYSTEM LOCATION (AIRVAC 911, 190 LBS), HUNG TIGHT TO CEILING. PROVIDE HANGERS FOR FUTURE CONNECTION. TYPICAL FOR (3).

VEHICLE EXHAUST RAIL SYSTEM, PLYMOVENT MODEL SBTA 31 WITH 6"ø BRANCH DUCT FROM 8"ø COMMON EXHAUST DUCT DOWN TO FLEXIBLE HOSE. RAIL IS TO BE MOUNTED BELOW THE OPEN GARAGE DOOR PATH. COORDINATE EXACT LOCATION IN FIELD. TYPICAL FOR (8).

VEHICLE EXHAUST FAN VEF-2 HUNG FROM BUILDING STRUCTURE WITH VIBRATION ISOLATION.

8"ø VEHICLE EXHAUST DUCT UP THROUGH FLOOR ABOVE TO DISCHARGE WITH GOOSENECK ON ROOF.

UH-A HUNG AS HIGH AS POSSIBLE FROM BUILDING STRUCTURE WITH VIBRATION ISOLATION. ROUTE 4" AIR INTAKE TO SIDEWALL INLET WITH WEATHER HOOD AND INSECT SCREEN. ROUTE 4" VENT UP THROUGH FLOOR ABOVE TO ROOF. TYPICAL FOR (2).

14"ø APPARATUS BAY EXHAUST AIR UP, 2000 CFM. TRANSITION TO 14x14 SQUARE DUCT IN VERTICAL RISE. GX-2 ON ROOF.

24x10 EXHAUST GRILLE MOUNTED ON 14"ø ROUND SPIRAL DUCTWORK, 650 CFM. TYPICAL FOR (6).

4"DRYER VENT FROM DECON ROOM, TERMINATE WITH DRYER VENT CAP.

CEILING MOUNTED VRF CASSETTE UNIT AC-A.

ROUTE ¾" CD FROM AC-A TO INDIRECT DISCHARGE AT JANITOR'S SINK. TYPICAL FOR (2).

VRF DISPLAY CONTROLLER IN DISPATCH ROOM.

HI/LOW TEMPERATURE SENSORS IN FILE SERVER ROOM ARRANGED TO ALARM AT VRF DISPLAY CONTROLLER.

SUPPLEMENTAL SEMI-RECESSED CABINET UNIT HEATER, TYPICAL.

WALL MOUNTED VRF CONSOLE UNIT AC-D ABOVE WINDOW. TYPICAL FOR (2).

ROUTE ¾" CD DISCHARGE FROM AC UNIT CONDENSATE PUMPS TO INDIRECT DISCHARGE AT JANITOR'S SINK. TYPICAL FOR (2).

FLOOR MOUNTED VRF CONSOLE UNIT AC-C.

RECESSED SUPPLEMENTAL ELECTRIC HEATER EH-1.

NOTES:
1. ALL FIRST FLOOR VRF SPLIT SYSTEMS TO BE PROVIDED WITH CONDENSATE PUMP AND ¾"CD TO INDIRECT DISCHARGE IN JANITOR'S CLOSET.
2. REFER TO RISER DIAGRAMS ON DRAWING M6.2 FOR VRF REFRIGERANT PIPE SIZES.

1 MECHANICAL FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

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MECHANICAL FIRST FLOOR PLAN

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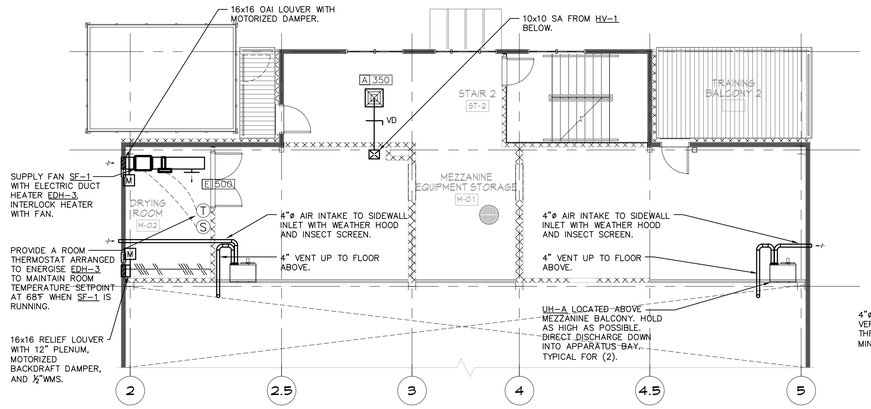
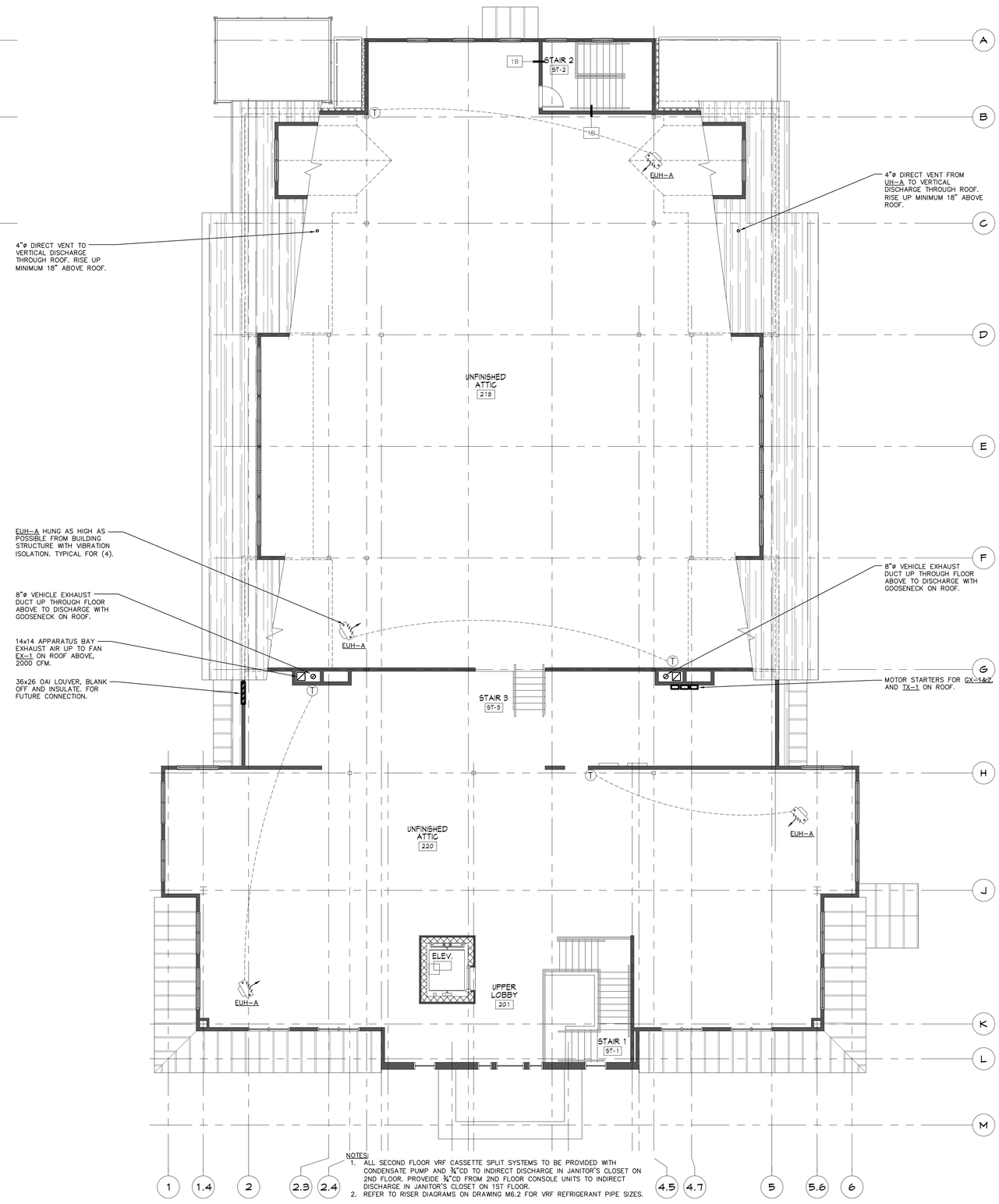
Drawing No. M2.1



1 MECHANICAL MEZZANINE PLAN
SCALE: 1/8" = 1'-0"
NORTH



NOTES:
1. ALL SECOND FLOOR VRF CASSETTE SPLIT SYSTEMS TO BE PROVIDED WITH CONDENSATE PUMP AND ¾"CD TO INDIRECT DISCHARGE IN JANITOR'S CLOSET ON 2ND FLOOR. PROVEIDE ¾"CD FROM 2ND FLOOR CONSOLE UNITS TO INDIRECT DISCHARGE IN JANITOR'S CLOSET ON 1ST FLOOR.
2. REFER TO RISER DIAGRAMS ON DRAWING M6.2 FOR VRF REFRIGERANT PIPE SIZES.

2 MECHANICAL SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"
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MECHANICAL MEZZANINE & SECOND FLOOR PLAN

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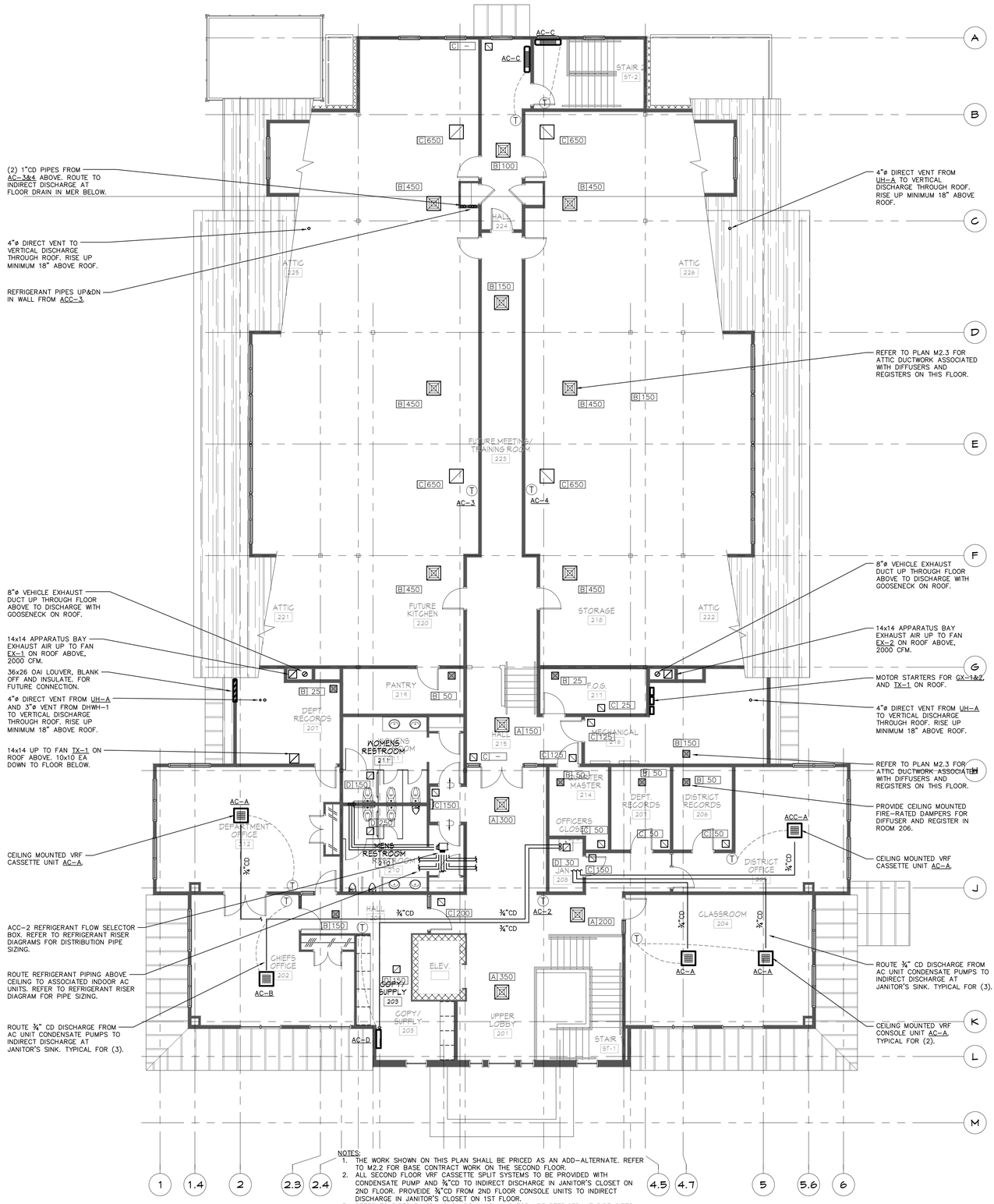
Drawing No.
M2.2



1 MECHANICAL SECOND FLOOR ALTERNATE PLAN
SCALE: 1/8" = 1'-0"

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MECHANICAL SECOND FLOOR ALTERNATE PLAN

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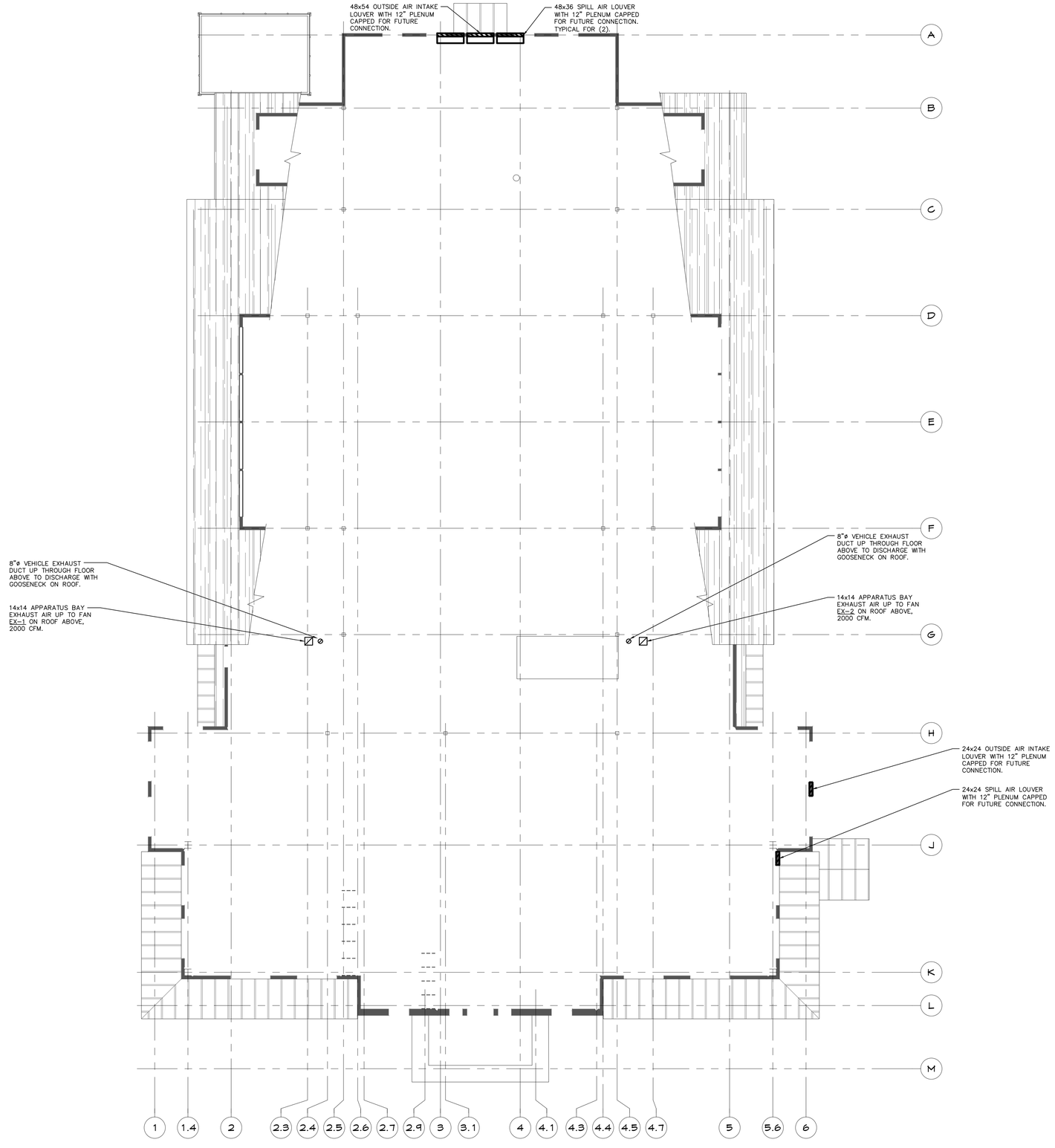
Drawing No.
M2.2A



NORTH

1 MECHANICAL ATTIC PLAN
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05.28.20	CD PROGRESS SET
06.30.20	CD REVIEW SET
09.01.20	CONSTRUCTION PROGRESS
09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
MECHANICAL ATTIC PLAN

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JRT
Checked by	JF/RS

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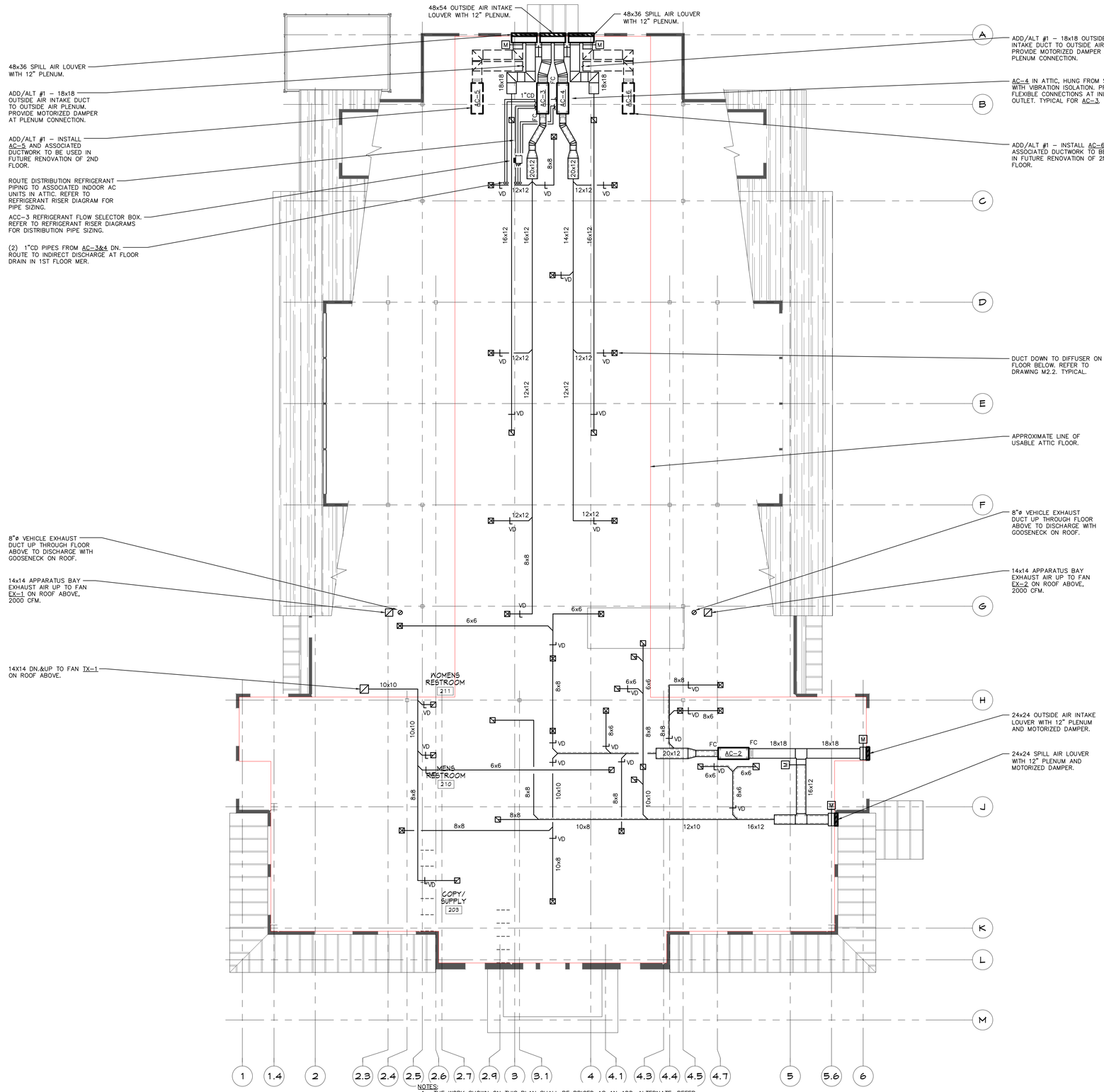
Drawing No.
M2.3



NOTES:
1. THE WORK SHOWN ON THIS PLAN SHALL BE PRICED AS AN ADD-ALTERNATE. REFER TO M2.3 FOR BASE CONTRACT WORK IN THE ATTIC.

1 MECHANICAL ALTERNATE ATTIC PLAN
SCALE: 1/8" = 1'-0"

NORTH

Sullivan Architecture, P.C.
31 Mamaroneck Avenue
White Plains, New York 10601
914-761-6006 (F) 914-761-4919

Owner: Bedford Village Fire District
34 Village Green
Bedford, NY 10506

MEP Engineer: OLA Consulting Engineers
50 Broadway, Hawthorne, NY 10532
8 West 38th St. Suite 501, New York, NY
Tel: 914-747-2800

Date	Issue
03.10.20	MEETING
03.27.20	DESIGN DEVELOPMENT
05.07.20	PROGRESS
05.08.20	CD PROGRESS SET
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MECHANICAL ATTIC ALTERNATE PLAN

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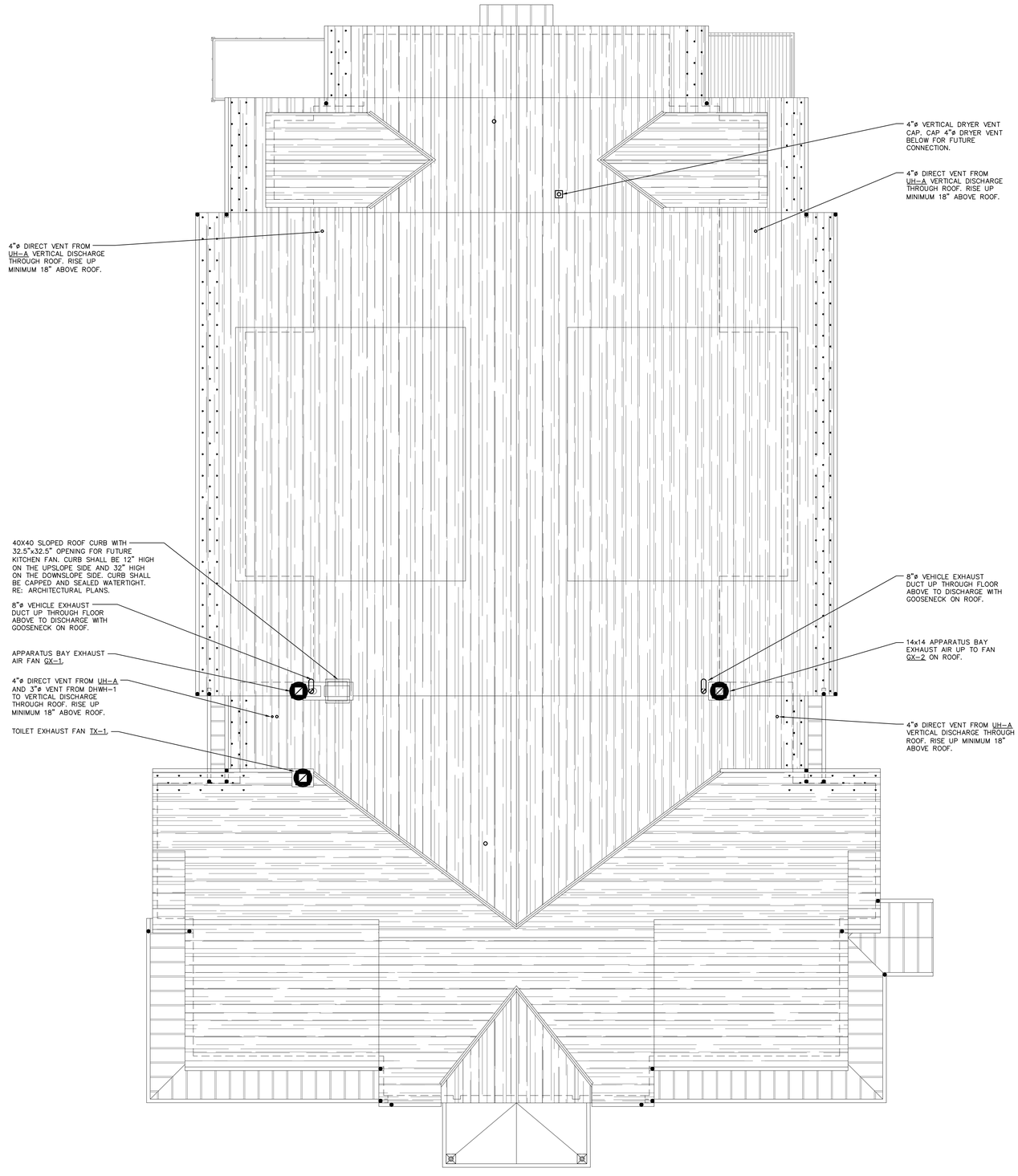
Drawing No.
M2.3A



NORTH

1 MECHANICAL ROOF PLAN
SCALE: 1/8" = 1'-0"

Sullivan Architecture, P.C.
31 Mamaroneck Avenue
White Plains, New York 10601
914-761-6006 (F) 914-761-4919

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Date	Issue
03.10.20	MEETING
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05.07.20	PROGRESS
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Bedford Fire Headquarters
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Drawing Title
MECHANICAL ROOF PLAN

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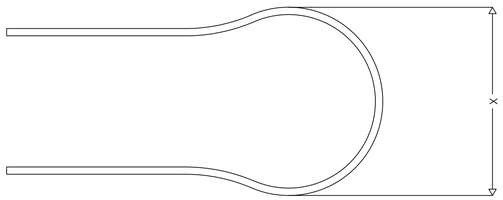
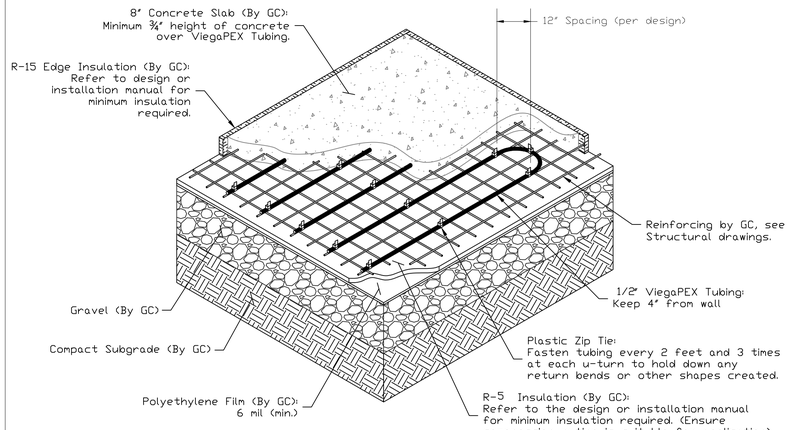
Drawing No.
M2.4



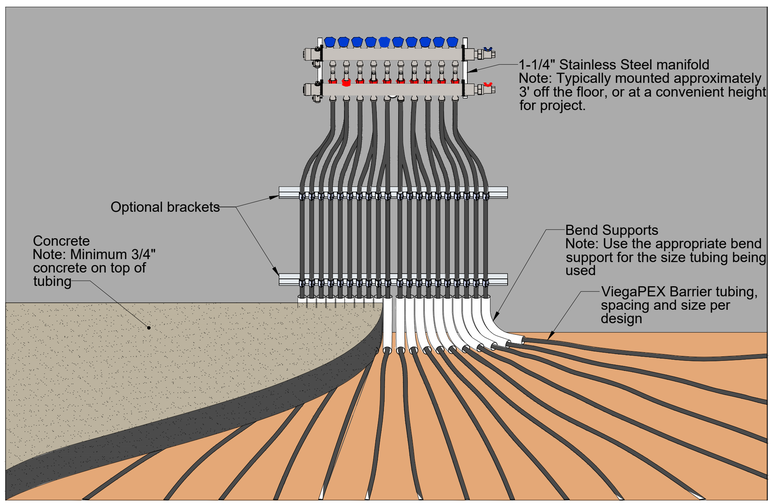
Tube Spacing
When the tube spacing is less than the minimum bending dimension, the loops ends should be swept out to at least the dimension shown.

Otherwise, IF tube spacing is equal or greater than "X", a standard loop may be used.

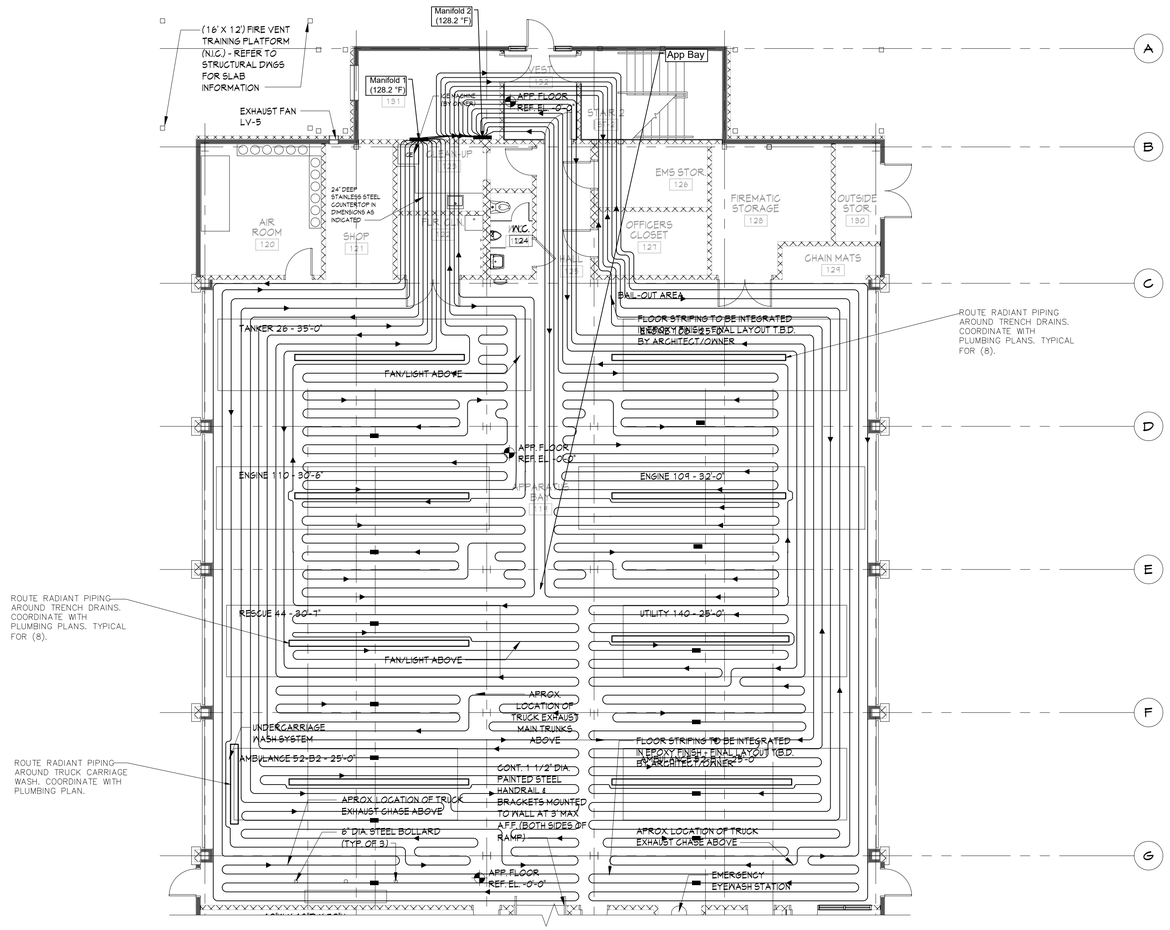
Tubing Size	With the Coil
5/16"	7"
3/8"	8"
1/2"	10"
5/8"	12"
3/4"	14"
1"	18"
1 1/4"	22"
1 1/2"	26"
2"	34"



Section Through Slab On Or Below Grade Installation Using Plastic Zip Ties



2 RADIANT HEATING DETAILS
SCALE: NONE



Manifolds

Name	ManifoldType	# Circuits	Tubing Size	Supply Temp [°F]	Total Load [Btu/hr]	TotalFlow [USGPM]	Head Loss [ft water]
Manifold 1	Stainless Steel - Shut Off/Balancing/Flow Meters, 1-1/4"	7	5/8"	128	118,128	11.85	23.8
Manifold 2	Stainless Steel - Shut Off/Balancing/Flow Meters, 1-1/4"	7	5/8"	128	105,619	10.60	20.9

Rooms

Name	Heating Zone	Area [ft²]	Heating Room Temp [°F]	Req. Surface Temp [°F]	Floor Cover R [R]	Panel Type	Heat Loss [Btu/hr]	Panel Backloss	Total Load [Btu/hr]	Supplemental
App Bay	101	5,263	65	85	0.0	Embedded Slab	210,510	20,341	230,850	6,387

Circuit Information

Number	Manifold	Rooms	Tube Size	Spacing [in]	Length [ft]	Flow [USGPM]	Head Loss [ft water]	Actuator
M1.1	Manifold 1	App Bay	5/8"	12	417	1.66	15.5	No
M1.2	Manifold 1	App Bay	5/8"	12	427	1.73	17.1	No
M1.3	Manifold 1	App Bay	5/8"	12	431	1.73	17.4	No
M1.4	Manifold 1	App Bay	5/8"	12	435	1.75	17.8	No
M1.5	Manifold 1	App Bay	5/8"	12	421	1.67	15.9	No
M1.6	Manifold 1	App Bay	5/8"	12	415	1.64	15.2	No
M1.7	Manifold 1	App Bay	5/8"	12	418	1.67	15.8	No
M2.1	Manifold 2	App Bay	5/8"	12	436	1.41	12.2	No
M2.2	Manifold 2	App Bay	5/8"	12	433	1.44	12.6	No
M2.3	Manifold 2	App Bay	5/8"	12	426	1.45	12.6	No
M2.4	Manifold 2	App Bay	5/8"	12	424	1.52	13.6	No
M2.5	Manifold 2	App Bay	5/8"	12	418	1.54	13.6	No
M2.6	Manifold 2	App Bay	5/8"	12	418	1.60	14.7	No
M2.7	Manifold 2	App Bay	5/8"	12	429	1.63	15.5	No

NORTH

1 MECHANICAL FIRST FLOOR RADIANT PLAN
SCALE: 1/8" = 1'-0"

Sullivan Architecture, P.C.
31 Mamaroneck Avenue
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914-761-6006 (F) 914-761-4919

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Drawing Title
MECHANICAL FIRST FLOOR RADIANT PLAN

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Checked by	JF/RS

STATE OF NEW YORK · PATRICK F. LYNCH · 065467 · LICENSED PROFESSIONAL ENGINEER

Drawing No.
M3.1

FAN SCHEDULE

DESIGNATION	TX-1	TX-2	GX-1&2	GS-1&2	VEF-1&2	SF-1	EF-1
LOCATION	ROOF	WC 124	ROOF	MER 131	APPARATUS BAY	DRYING ROOM	AIR ROOM
AREA SERVED	TOILET ROOMS	WC 124	APPARATUS BAY	APPARATUS BAY	VEHICLE EXHAUST	DRYING ROOM	AIR ROOM
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	PLYMOVENT	GREENHECK	GREENHECK
MODEL	GB-141HP	SP-B70	GB-141	BSQ-140	TEV-3110	SQ-90-G	SS1-16-436-A
WEIGHT (LBS)	64				40.5	49	63
FAN TYPE	GETRIFUGAL	CENTRIFUGAL	GETRIFUGAL	INLINE GETRIFUGAL	CENTRIFUGAL	INLINE CENTRIFUGAL	SIDEWALL
DRIVE TYPE	BELT	DIRECT	BELT	BELT	DIRECT	DIRECT	DIRECT
CFM	1210	50	2000	2000	2000	200	3200
BHP	.38	.01	.76	.6	2.75	.04	0.79
HP	.5	16 WATTS	1	.75	3	½5	1
RPM	1508	675	1483	1364	3460	1300	1,750
SP (IN H_2O)	1	.25	1	.75	3.2	0.25	0.5
VOLTS/ø/Hz	208/1/60	120/1/60	208/3/60	208/1/60	208/3/60	120/1/60	208/1/60
STARTER TYPE	HOA	HOA	VFD	VFD	VFD	HOA	HOA
STARTER LOCATION	MER 216	MER 131	MER 216	STORAGE 129	MER 114	DRYING ROOM	AIR ROOM

NOTES:
1. ALL MOTORS 1 HP OR GREATER SHALL BE PREMIUM EFFICIENCY.
2. ALL MOTORS FURNISHED WITH VARIABLE FREQUENCY DRIVES SHALL BE INVERTER DUTY RATED & APPROVED FOR VARIABLE SPEED AND TORQUE APPLICATIONS.
3. FURNISH RUBBER IN SHEAR OR SPRING VIBRATION ISOLATORS AS PER THE SPECIFICATION.
4. FURNISH WALL MOUNTED SPEED CONTROLLER OR THERMOSTAT AS INDICATED ON PLAN.
5. FURNISH MOTOR AND BELT GUARDS FOR ALL EXTERNAL MOTOR DRIVES.
6. MOTOR STARTER AND DISCONNECT SWITCH FOR EACH FAN SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR. EACH ROOFTOP FAN SHALL BE FURNISHED WITH WEATHERPROOF UNIT-MOUNTED LOCAL DISCONNECT SWITCH.
7. ALL TX AND EX FANS SHALL HAVE ECM MOTORS.
8. FOR EF-1 PROVIDE WALL HOUSING MOUNTING OPTION WITH BACKDRAFT DAMPER AND WEATHER HOOD WITH ½"WMS.

DIFFUSER, REGISTER, GRILLE SCHEDULE

ID	A	B	C	D	E	F
MANUFACTURER	TITUS	TITUS	TITUS	TITUS	TITUS	TITUS
DESIGNATION	CD	CD	RR	ER	SR	RR
MODEL	OMNI-AA	TDC	355FL	355FL	300FL	355FL
SIZE	24x24	12x12	24x24 OR 12x12	8x8	12x8	12x8
TYPE	CEILING SUPPLY	CEILIGN SUPPLY	CEILING RETURN	EXHAUST	SIDEWALL SUPPLY	SIDEWALL RETURN
DESCRIPTION	ALL-ALUMINUM PLAQUE FACE DIFFUSER FOR USE IN ARCHITECTURAL CEILINGS.	STEEL CONSTRUCTION, 4-WAY DIFFUSER	ALUMINUM CONSTRUCTION, WITH ½" SPACING, 35° FIXED DEFLECTION AIRFOIL BLADES.	ALUMINUM CONSTRUCTION, WITH ½" SPACING, 35° FIXED DEFLECTION AIRFOIL BLADES.	ALUMINUM CONSTRUCTION, WITH ¾" SPACING, DOUBLE DEFLECTION SUPPLY GRILLE.	ALUMINUM CONSTRUCTION, WITH ½" SPACING, 35° FIXED DEFLECTION AIRFOIL BLADES.
NOTES	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5	1,2,3,4	1,2,3,4,5	1,2,3,4,5

NOTES:
1. BAKED ENAMEL FINISH; COORDINATE COLOR WITH ARCHITECT.
2. PROVIDE OPPOSED BLADE VOLUME DAMPER IN NECK.
3. COORDINATE MOUNTING FRAME WITH CEILING/WALL CONSTRUCTION & PROVIDE SURFACE LAY-IN AS REQUIRED.
4. NOISE CRITERION SHALL BE KEPT <30 NC.
5. NECK SIZE SHALL BE ACCORDING TO NECK SCHEDULE.

NECK SCHEDULE:
6"ø | 75 – 195 CFM
8"ø | 196 – 310 CFM
10"ø | 311 – 435 CFM
12"ø | 436 – 600 CFM
14"ø | 601 – 750 CFM
15"ø | 751 – 850 CFM

EQUIPMENT NOTES

13. RECESSED ELECTRIC CABINET UNIT HEATER (ECUH-B): SHALL BE INDEECO MODEL WRI, CATALOG NUMBER 930U00750V RATED AT 563 WATTS, 208V/1PH/60HZ, 2.9 AMPS, 40 CFM. PROVIDE DISCONNECT SWITCH AND ADJUSTABLE THERMOSTAT WITH OFF POSITION. SUBMIT COLOR CHART FOR ARCHITECTURAL APPROVAL.

14. ELECTRIC DUCT HEATER EDH-1&2: SHALL BE GREENHECK MODEL IDHC, 32 KW, 208V/3ϕ/60HZ, 90 FLA, 2000 CFM, 50° AIR TEMP RISE. FURNISH THE FOLLOWING CONTROL OPTIONS: SCR CONTROL, DISCONNECT SWITCH, FAN INTERLOCK WITH GS-1, DUCT THERMOSTAT ARRANGED TO PROVIDE 60°F AIR. INTERLOCK WITH FAN GS-1 SO THAT HEATER ONLY OPERATES WHILE FAN GS-1 IS RUNNING, AS NECESSARY TO MAINTAIN AIR DISCHARGE TEMPERATURE MINIMUM OF 50°F.

15. ELECTRIC DUCT HEATER EDH-3: SHALL BE GREENHECK MODEL IDHC, 5 KW, 208V/3ϕ/60HZ, 14 FLA, 200 CFM, 80° AIR TEMP RISE. FURNISH THE FOLLOWING CONTROL OPTIONS: SCR CONTROL, DISCONNECT SWITCH, FAN INTERLOCK WITH SF-1, DUCT THERMOSTAT ARRANGED TO PROVIDE 60°F AIR. INTERLOCK WITH FAN SF-1 SO THAT HEATER ONLY OPERATES WHILE FAN SF-1 IS RUNNING, AS NECESSARY TO MAINTAIN AIR DISCHARGE TEMPERATURE MINIMUM OF 80°F.

16. HORIZONTAL DISCHARGE HOT WATER UNIT HEATER (HWUH-A): SHALL BE VULCAN MODEL HV-118A, HORIZONTAL DISCHARGE CONFIGURATION, RATED AT 9.2 MBH, 1.9 GPM, 140°F EWT, 120°F LWT, 2.2' WPD (FT H_2O), 500 CFM. MOTOR SHALL BE RATED AT 16 WATTS, 1550 RPM, 0.8 AMPS, 1.0 MCA, 15 MOCP, 115V/1ϕ/60HZ. PROVIDE WALL THERMOSTAT, FAN GUARD, AND AIR DEFLECTION LOUVER. HANG UNIT FROM BUILDING STRUCTURE WITH VIBRATION ISOLATORS. FURNISH DISCONNECT SWITCH.

17. HOT WATER EXPANSION TANK (ET-1): SHALL BE AMTROL MODEL AX-15V-DD, 12" DIAMETER, 22" HIGH, 8 GALLONS, WITH 3/4" NPT SYSTEM CONNECTION, 3/4" NPT CHARGING VALVE, 3/4" DRAIN PLUG, 240°F MAX OPERATING TEMPERATURE, 125 PSI MAX WORKING PRESSURE, FACTORY PRE-CHARGED TO 12 PSIG. UNIT SHALL BE MANUFACTURED IN ACCORDANCE WITH ASME SECTION VIII.

18. CO & NO_2 DETECTION SYSTEM: SHALL BE SIERRA MONITOR CORPORATION. PROVIDE SENTRY 5000-IT CONTROLLERS (SEE PLANS FOR LOCATION) WITH NATIVE BACNET INPUT/OUTPUT. CONTROL PANELS SHALL BE LINKED TO BMS. ALL SPACE TRANSMITTERS SHALL BE MOUNTED 5'-0" AFF IN A PROTECTED LOCATION. PROVIDE LIGHT/HORN STROBE AS INDICATED ON PLAN TO BE ENERGIZED UPON LEVEL "HIGH HIGH" ALARM. PROVIDE SIGNAGE "CO & NO_2 DETECTION" NEAR HORN STROBE
    - CO TRANSMITTERS SHALL BE 5100-04-IT-S1-01-00-0-0-C
    - NO_2 TRANSMITTERS SHALL BE 5100-12-IT-S1-01-00-0-0-C

19. VEHICLE EXHAUST RAIL SYSTEM: SHALL BE BASED ON PLYMOVENT EXHAUST RAIL SYSTEM COMPOSED OF (8) VSRX RAILS MOUNTED BELOW THE OPEN GARAGE DOOR PATH & LENGTH NOTED ON PLAN, (8) FLEXIBLE HOSES WITH TROLLEY FOR MOUNTING TO RAIL, 6" 40' LONG HOSES CAPABLE OF 600°F CONTINUOUS & 1250°F INTERMITTENT. 400°F TEMPERATURE RESISTANCE ON ALL COMPONENTS. FANS (VX-1&2) SHALL BE TEV-3110 AS NOTED IN SCHEDULE ON THIS PLAN. PROVIDE VFD FOR FAN MOTOR. PROVIDE (2) NTX NEMA 4X WALL MOUNT TRANSMITTERS WITH 433 MHz RCRC-3R RECEIVER MOUNTED TO FAN VFD. PROVIDE ALL SUPPORTS AND HANGERS AS REQUIRED. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR DETAILS. COORDINATE WITH ALL PIPING, EQUIPMENT, GARAGE DOORS, ETC IN APPARATUS BAY.

20. HEAVY DUTY LOUVERS: SHALL BE RUSKIN MODEL L26, 6" DEEP, WITH 47% FREE AREA, OPTIONAL 16 GAGE STEEL CONSTRUCTION, CHEVRON STYLE BLADES AT 3-1/2" SPACING, 6" DEEP STEEL FRAME. REFER TO PLANS FOR SIZE. COORDINATE INSTALLATION REQUIREMENTS WITH ARCHITECTURAL PLANS. ANODIZED CUSTOM COLOR TO BE SELECTED BY ARCHITECT. COORDINATE WITH ARCHITECTURAL PLANS.

21. ELECTRIC UNIT HEATERS (EUH-A): SHALL BE MARKEL MODEL F3FUH07C03, RATED AT 575 CFM, 25.6 MBH, 7.5 kW, 208V/3ϕ/60Hz, 20.8 AMPS. PROVIDE THE FOLLOWING OPTIONS: FAN GUARD, AIR DEFLECTION LOUVER, SUMMER FAN SWITCH, HEAT PURGE FAN DELAY SWITCH, DISCONNECT SWITCH, & WALL THERMOSTAT.

22. VERTICAL DRYER VENT CAP: SHALL BE SIMILAR TO DRYERJACK MODEL 466.

EQUIPMENT NOTES

1. ELECTRIC CABINET UNIT HEATER (ECUH-A): UNIT SHALL BE BASED ON MARKEL MODEL F30522T2DWB RECESSED TYPE COMMERCIAL FAN FORCED WALL HEATER. BUILT IN TAMPERPROOF THERMOSTAT, THERMAL OVERLOAD CUTOFF, FAN DELAY SWITCH. UNIT SHALL BE RATED ACCORDING TO THE FOLLOWING SPECIFICATIONS:
    A. FAN CFM: 100
    B. ELECTRIC COIL CAPACITY: 7.7 MBH
    C. kW: 1.5
    D. VOLTS/PH/HZ: 208/1/60
    E. AMPS: 10.8
    F. FURNISH DISCONNECT SWITCH WITH EACH UNIT.

2. LOUVERS: SHALL BE RUSKIN MODEL ELF375DX, 4" DEEP, WITH 54% FREE AREA, 6063T5 EXTRUDED ALUMINUM DRAINABLE BLADES AT 37.5° AND 5-3/32" SPACING, 4" DEEP 6063T5 EXTRUDED ALUMINUM FRAME. AND 1/2" GALVANIZED STEEL BIRD SCREEN. MINIMUM LOUVER SIZE 12"x12". ANODIZED CUSTOM COLOR TO BE SELECTED BY ARCHITECT. COORDINATE WITH ARCHITECTURAL PLANS.

3. GAS-FIRED UNIT HEATERS (GFUH-A): SHALL BE MODINE MODEL HDS-125, 125 MBH INPUT, 102.5 MBH OUTPUT. UNITS SHALL BE DIRECT-VENT SEPARATED COMBUSTION TYPE WITH 4"ø FLUE OUTLET, 4"ø AIR INLET, AND 1/2"ø GAS CONNECTION. FAN SHALL BE 1/8 HP, 1625 RPM. ELECTRICAL REQUIREMENTS: 120V/1ϕ/60HZ. PROVIDE PROPANE CONVERSION KIT AND LOCAL DISCONNECT SWITCH. FURNISH WITH SINGLE-STAGE, DIRECT SPARK IGNITION CONTROLS, WITH 100% SHUT-OFF AND CONTINUOUS RETRY. PROVIDE ELECTRIC WALL THERMOSTAT AND CONDENSATE NEUTRALIZING KIT.

4. GAS-FIRED HOT WATER BOILER (B-1): SHALL BE WEIL MCLAIN EVG-299, STAINLESS STEEL FIRE-TUBE CONDENSING HOT WATER BOILER, RATED AS FOLLOWS:
    - 299 MBH PROPANE GAS INPUT.
    - 280 MBH GROSS OUTPUT.
    - 140°F MAXIMUM SUPPLY WATER TEMPERATURE.
    - 160 PSI MAXIMUM OPERATING PRESSURE.
    - 208V/1Ph/60Hz
    - 10-TO-1 TURNDOWN RATIO

    FURNISH THE FOLLOWING FEATURES & OPTIONS:
    - WALL-MOUNT KIT.
    - BOILER DIGITAL CONTROL PACKAGE
    - 1-1/2"ø HOT WATER INLET & OUTLET CONNECTIONS.
    - 1" CONDENSATE DRAIN
    - 3"ø DIRECT VENT CONNECTIONS.
    - CONDENSATE NEUTRALIZER KIT
    - SIDEWALL VENT/AIR TERMINATION KIT
    - PROPANE CONVERSION KIT
    - BOILER CIRCULATOR – TACO 0014
    - DISCONNECT SWITCH

5. PRIMARY HOT WATER PUMP P-1: SHALL BE ARMSTRONG MODEL 4380 0103-000.3 CLOSE COUPLED VERTICAL IN-LINE CENTRIFUGAL PUMP RATED AT 29 GPM, 25' TDH, .333 HP, 208V/1PH/60HZ, 1675 RPM. PROVIDE DISCONNECT SWITCH.

6. CONDENSATE PUMP (CP-1): SHALL BE LITTLE GIANT MODEL VCM-20ULS, RATED AT 25 GPH @ 15' HEAD, WITH 1/2 GALLON TANK, 3/8" DISCHARGE CONNECTION, & SHUT-OFF AT 20' HEAD. MOTOR SHALL 1/30 HP, 93 WATTS, 115V/1ϕ/60Hz, 1.5 AMPS. INCLUDE THE FOLLOWING OPTIONS: SAFETY SWITCH, 6' POWER CORD, THERMAL OVERLOAD PROTECTOR, NYLON SUMP PAN, POLYPROPYLENE CONTROL FLOAT, BUILT-IN CHECK VALVE, FILTER SCREEN, STAINLESS STEEL SHAFT. PUMP SHALL BE ARRANGED TO SHUT DOWN AC UNIT IF THE SAFETY SWITCH DETECTS NO FLOW. PROVIDE DISCONNECT SWITCH.

7. OUTSIDE AIR INTAKE FOR GAS FIRED EQUIPMENT: FOR ALL GAS FIRED DIRECT VENTING CONDENSING & NON-CONDENSING APPLIANCES SHALL BE SINGLE-WALL SPIRAL GALVANIZED STEEL BY SHEET METAL CONNECTORS, INC. ALL DUCTWORK IS 4-PLY SPIRAL LOCKSEAM MEETING ASTM A-653. ALL DUCT CONNECTIONS SHALL BE MADE WITH A DOUBLE LEGGED EPDM GASKET CREATING AN AIR-TIGHT CONNECTION MEETING ASTM A-653. SINGLE-WALL DUCT GUAGE SHALL BE SELECTED FOR POSITIVE, NEUTRAL, AND NEGATIVE DRAFT UP TO 15"WC WITH A MINIMUM GAUGE OF 24. PRODUCT IS RATED FOR ZERO CLEARANCE TO COMBUSTIBLES. PROVIDE STRAIGHT SECTIONS, ELBOWS, OFFSETS, CONNECTION ADAPTERS, WALL SLEEVES, AND SCREENED TERMINATIONS.

8. LISTED SPECIAL GAS VENTING FOR GAS FIRED EQUIPMENT: SHALL BE HEATFAB "SAF-T VENT CI PLUS", DOUBLE WALL CONSTRUCTION, 1" FIBERGLASS INSULATION, AL-29-4C STAINLESS STEEL. SPECIAL VENT UL 1738 FOR POSITIVE, NEUTRAL, AND NEGATIVE DRAFT UP TO 15"WC. PRODUCT IS RATED FOR ZERO CLEARANCE TO COMBUSTIBLES. PROVIDE STRAIGHT SECTIONS, ELBOWS, OFFSETS, CONNECTION ADAPTERS, WALL SLEAVES, AND SCREENED TERMINATIONS.

9. AIR SEPARATOR: SHALL BE ARMSTRONG MODEL 1"-ASL, 350°F MAXIMUM WORKING TEMPERATURE, 125 PSIG MAXIMUM WORKING PRESSURE, 1" INLET & OUTLET CONNECTIONS, 3/4" NPT AIR OUTLET, 3/4" NPT DRAIN. UNIT SHALL BE MANUFACTURED IN ACCORDANCE WITH ASME CODE. PROVIDE AUTOMATIC AIR ELIMINATOR, ARMSTRONG MODEL AAE-750, WITH 250°F MAXIMUM OPERATING TEMPERATURE, 2-133 PSIG AIR PRESSURE OPERATING RANGE, 100% SPRING ACTION POSITIVE SHUTOFF, 3/4" NPT SYSTEM CONNECTION.

10. RADIANT MANIFOLD #1&2: SHALL BE VIEGA STAINLESS STEEL MANIFOLD (PART #15906) INCLUDING 8 OUTLETS, 1" CONNECTIONS, SHUTOFFS, AND BALANCING VALVES.

11. RADIANT MIXING STATION #1&2: SHALL BE VIEGA HIGH HEAD MIXING STATION PART #12127, INCLUDING BALL VALVE SHUT OFF VALVES, BALANCING VALVES, 3-WAY DIVERTING OR MIXING VALVE, SENSOR WELL, STRAP ON TEMPERATURE SENSOR, TEMPERATURE AND PRESSURE GAUGE, SECONDARY 3-SPEED CIRCULATOR PUMP (HWCP-1&2) RATED AT 12 GPM @ 22' HEAD, 120V/1ø/60Hz.

12. APPARATUS BAY DUCT-MOUNTED EXHAUST GRILLE: SHALL BE TITUS MODEL US-DL SPIRAL DUCT DRUM LOUVER, ALUMINUM CONSTRUCTION, OPPOSED BLADE VOLUME DAMPER OPTION AC-15-HD, 24x10, CFM AS NOTED ON PLANS. FINISH SHALL BE BAKED ON ENAMEL. SUBMIT COLOR CHART TO ARCHITECT FOR APPROVAL. FRAME SHALL BE SUITABLE SURFACE MOUNTING ON ROUND SPIRAL DUCTWORK.

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Project Title
Bedford Fire Headquarters
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Drawing Title
MECHANICAL SCHEDULES & EQUIPMENT NOTES

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JRT
Checked by	JF/RS

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Drawing No.
M6.1

Ventilation Index
First Floor

Room No.	Room Name	Area (sq.ft.)	Occupancy Type		Code				Zone Distribution Effectivness	Design SA		EA	Design OA		Code OA	
			Category	Type	Pers./1000 sq.ft.	No. of Occ.	OA CFM / Pers.	OA CFM / sq.ft.		CFM	CFM / sq.ft.	CFM	% w/o Div.	CFM	CFM	CFM / sq.ft.
101	Lobby	317	Public Spaces	Corridors	0	0	0	0.06	0.8	350	1.1		40%	140	24	0.08
111	Electrical Room	98	storage	warehouses	0	0	0	0.06	0.8	50	0.5		40%	20	7	0.08
112	Decon Room	102	offices	office space	5	1	5	0.06	0.8	50	0.5		40%	20	14	0.14
113	Gear Room	618	storage	warehouses	0	0	0	0.06	0.8	400	0.6		40%	160	46	0.08
119	Apparatus Bay	5,300	storage	Enclosed parking garage	0	0	0	0.75	1.0	4000	0.8	4,000.0	100%	4,000	3,975	0.75
120	Air Room	198	storage	warehouses	0	0	0	0.06	0.8	300	1.5		40%	120	15	0.08
122	Floor Cleaning	64	storage	warehouses	0	0	0	0.06	0.8	75	1.2		40%	30	5	0.08
123	Clean-Up	72	storage	warehouses	0	0	0	0.06	0.8	75	1.0		40%	30	5	0.08
126	Ems Storage	87	storage	warehouses	0	0	0	0.06	0.8	75	0.9		40%	30	7	0.08
127	Officer's Closet	87	storage	warehouses	0	0	0	0.06	0.8	75	0.9		40%	30	7	0.08
128	Firematic Storage	173	storage	warehouses	0	0	0	0.06	0.8	100	0.6		40%	40	13	0.08

Ventilation Index
Second Floor

Room No.	Room Name	Area (sq.ft.)	Occupancy Type		Code				Zone Distribution Effectivness	Design SA		EA	Design OA		Code OA	
			Category	Type	Pers./1000 sq.ft.	No. of Occ.	OA CFM / Pers.	OA CFM / sq.ft.		CFM	CFM / sq.ft.	CFM	% w/o Div.	CFM	CFM	CFM / sq.ft.
201	Upper Lobby	867	Public Spaces	Corridors	0	0	0	0.06	0.8	850	1.0		38%	323	65	0.08
203	Copy/Supply	278	Workrooms	Copy rooms	4	2	5	0.06	0.8	150	0.5		38%	57	33	0.12
206	District Records	99	storage	warehouses	0	0	0	0.06	0.8	50	0.5		38%	19	7	0.08
213	Officer's Closet	89	storage	warehouses	0	0	0	0.06	0.8	50	0.6		38%	19	7	0.08
214	Quarter Master	99	storage	warehouses	0	0	0	0.06	0.8	50	0.5		38%	19	7	0.08
216	Mechanical Room	274	storage	warehouses	0	0	0	0.06	0.8	150	0.5		38%	57	21	0.08
217	F.O.G.	98	storage	warehouses	0	0	0	0.06	0.8	25	0.3		38%	10	7	0.08
218	Unfinished Attic	2,667	storage	warehouses	0	0	10	0.06	0.8	1350	0.5		15%	203	200	0.08
219	Hall	497	Public Spaces	Corridors	0	0	0	0.06	0.8	300	0.6		15%	45	37	0.08
220	Unfinished Attic	2,549	storage	warehouses	0	0	0	0.06	0.8	1350	0.5		15%	203	191	0.08
222	Hall	168	Public Spaces	Corridors	0	0	0	0.06	0.8	100	0.6		38%	38	13	0.08

Natural Ventilation Index

Room No.	Room Name	Area (sq.ft.)	Natural Ventilation	
			Openable Area	% floor area
205	District Office	333	45	13.5%
204	Classroom	485	60	12.4%
201	Upper Lobby	893	22.5	2.5%
203	copy/supply	279	7.5	2.7%
202	chiefs office	390	60	15.4%
212	department office	468	45	9.6%
108	dispatch/radio	400	52.5	13.1%
106	Day Room	762	75	9.8%
103	Wellness	600	75	12.5%

As per 2018 IMC section 402.2, the minumum openable area to the outdoors shall be 4% of the floor area being ventilated.

FAN COIL UNIT SCHEDULE

DESIGNATION:	HV-1	
LOCATION	MER 131	
MANUFACTURER	FIRST CO.	
MODEL	16MB	
UNIT DIMENSIONS – WIDTH x HEIGHT x DEPTH (IN)	23x42x20	
DESIGN DATA:		
SUMMER OA TEMP (°F) DB/WB	95/72	
WINTER OA TEMP (°F)	10	
FILTERS:		
TYPE	1" MERV 8	
HOT WATER COIL:		
FACE AREA (SQ. FT.)		
No. OF ROWS/FINS PER INCH	3/12	
E.W.T./L.W.T. (°F)	140/110	
E.A.T./L.A.T. (°F)	44/85	
CAPACITY (MBH)	54	
GPM	3.6	
W.P.D. (FT H_2O)	2	
SUPPLY FAN:		
CFM	1200	
OAI CFM	525	
FAN MOTOR HP	½	
ESP (IN H_2O)	0.5	
VOLTS/ø/Hz	208/1/60	
FLA/MCA/MOCP	8/-/-	

NOTES:

PROVIDE THE FOLLOWING FEATURES & OPTIONS FOR EACH UNIT:
- UNITARY CONTROLLER BY AUTOMATIC TEMPERATURE CONTROLS MANUFACTURER, COMPATIBLE WITH THE BUILDING AUTOMATION SYSTEM.
- COORDINATE RIGHT-HAND/LEFT-HAND COIL CONNECTIONS IN THE FIELD.
- KEY LOCK ACCESS DOORS.
- FURNISH 2-WAY MODULATING CONTROL VALVE FOR EACH COIL, WITH PIPING PACKAGE AS PER DETAIL ON DRAWING M7.3. 5 PSI MAX AT CONTROL VALVE.
- FOR UNITS WITH OAI INLET: FREEZE STAT ARRANGED TO OVERRIDE THE COIL CONTROL VALVE & SHUT DOWN UNIT AS PER THE SEQUENCE OF OPERATIONS.
- WALL MOUNTED THERMOSTAT.
- FACTORY FURNISHED LOCAL DISCONNECT SWITCH.
- COIL AIR VENT.
- (2) SETS OF SPARE FILTERS FOR EACH UNIT.

VRF SYSTEM - INDOOR UNIT SCHEDULE

DESIGNATION	AC-1	AC-2	AC-3&4	AC-5&6
LOCATION	MER 114	ATTIC	ATTIC	ATTIC
MANUFACTURER	DAIKIN	DAIKIN	DAIKIN	DAIKIN
MODEL	FXTQ60TAVJUD	FXTQ54TAVJUD	FXTQ60TAVJUD	FXTQ36TAVJUD
WEIGHT OF UNIT (LBS)	167	167	167	150
REFRIGERANT TYPE	R-410A	R-410A	R-410A	R-410A
SUCTION PIPE SIZE (IN)	5/8	5/8	5/8	–
LIQUID PIPE SIZE (IN)	3/8	3/8	3/8	–
DESIGN DATA:				
SUPPLY AIR (CFM)	1500	1500	1500	–
OUTDOOR AIR (CFM)	600	575	225	–
RETURN AIR (CFM)	900	925	1275	–
SUMMER OA TEMP (°F) DB/WB	92/74	92/74	92/74	–
SUMMER RA TEMP (°F) DB/WB	78/65	78/65	78/65	–
WINTER OA TEMP (°F)	10	10	10	–
WINTER RA TEMP (°F)	70	70	70	–
EVAPORATOR COIL (COOLING):				
E.A.T. (°F) DB/WB	80/67	80/67	80/67	–
L.A.T. (°F) DB/WB	55.2/55	57/53.1	55.2/55	–
CAPACITY (MBH) SENS./TOTAL	40.4/60	37.4/51.1	40.4/60	–
EVAPORATOR COIL (HEATING):				
E.A.T. (°F) DB	68	68	68	–
L.A.T. (°F) DB				–
CAPACITY (MBH) SENS./TOTAL	70.6	63.3	70.6	–
SUPPLY FAN:				
DESIGN AIRFLOW (CFM)	1500	1350		–
HP	1	1	1	–
ESP (IN H_2O)	.75	.75	.75	–
ELECTRICAL DATA:				
VOLTS/ø/Hz	208/1/60	208/1/60	208/1/60	208/1/60
MCA/MOCP (AMPS)	8.6/15	8.6/15	8.6/15	4.9/15

ADD-ALTERNATE

NOTES:
1. FIELD SUPPLIED LOCAL DISCONNECT SWITCH AT EACH INDOOR UNIT SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR & INSTALLED BY THE ELECTRICAL CONTRACTOR.
2. UNIT SHALL INCLUDE INTERNAL CONDENSATE PUMP.
3. REMOTE DETECTION UNIT – TO BE FIELD INSTALLED IN THE INDOOR AC UNIT CASSETTE.
4. CONNECTOR AND CONNECTOR PROTECTOR.
5. DETECTOR INSTALLATION KIT.
6. ALARM CONTACT ARRANGED TO SHUT DOWN AC UNIT UPON PUMP FAILURE.
7. (1) EXTRA SET OF FILTERS PER UNIT.
8. AC-5&6 ARE ADD/ALT #1 WORK ONLY.

VRF SYSTEM - INDOOR UNIT SCHEDULE

INDOOR UNIT DESIGNATION	AC-A	AC-B	AC-C	AC-D
MANUFACTURER	DAIKIN	DAIKIN	DAIKIN	DAIKIN
MODEL	FXZQ12TAVJU	FXZQ18TAVJU	FXLQ12MVJU9	FXAQ18PVJU
TYPE	CEILING CASSETTE	CEILING CASSETTE	FLOOR CONSOLE	WALL MOUNTED
COOLING CAPACITY (TOTAL)(MBH)	12,000	18,000	12,000	12,000
HEATING CAPACITY (MBH)	13,500	20,000	13,500	13,500
REFRIGERANT TYPE	R-410A	R-410A	R-410A	R-410A
LIQUID LINE (INCHES)	¼	¼	¼	¼
HOT GAS LINE (INCHES)	½	½	½	½
CONDENSATE LINE (INCHES)	¾	¾	¾	¾
CFM	350	500	280	500
VOLTS/ø/Hz	208/1/60	208/1/60	208/1/60	208/1/60
MCA (AMPS)	0.4	0.6	0.5	0.4

NOTES:
1. FIELD SUPPLIED LOCAL DISCONNECT SWITCH AT EACH INDOOR UNIT SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR & INSTALLED BY THE ELECTRICAL CONTRACTOR.
2. UNIT SHALL INCLUDE INTERNAL CONDENSATE PUMP POWERED THROUGH THE INDOOR UNIT.
3. REMOTE DETECTION UNIT – TO BE FIELD INSTALLED IN THE INDOOR AC UNIT CASSETTE.
4. CONNECTOR AND CONNECTOR PROTECTOR.
5. DETECTOR INSTALLATION KIT.
6. ALARM CONTACT ARRANGED TO SHUT DOWN AC UNIT UPON PUMP FAILURE.

VRF SYSTEM - OUTDOOR CONDENSING UNIT SCHEDULE

OUTDOOR UNIT DESIGNATION	ACC-1	ACC-2	ACC-3	ACC-4
MANUFACTURER	DAIKIN	DAIKIN	DAIKIN	DAIKIN
MODEL	RELQ144TATJU	RELQ120TATJU	RELQ192TATJU	RELQ72TATJU
REFRIGERANT TYPE	R-410A	R-410A	R-410A	R-410A
NOMINAL COOLING / HEATING CAPACITY (MBH)	144 / 162	120 / 135	192 / 216	72 / 81
LIQUID LINE (INCHES)	½	½	5/8	3/8
HOT GAS LINE (INCHES)	1-1/8	1-1/8	1-1/8	¾
HIGH/LOW PRESSURE LINE (INCHES)	7/8	¾	1-1/8	5/8
VOLTS/ø/Hz	208/3/60	208/3/60	208/3/60	203/3/60
MCA/MOCP	60.8 + 60.8 / 70 + 70	83.4/90	76.5 + 76.5 / 80 + 80	60.8/70
EER (NON-DUCTED/DUCTED)	12.9/12.6	13.7/12.4	12.5/12.7	–
IEER (NON-DUCTED/DUCTED)	22.5/18.6	23.4/19.6	22.4/19	–
COP (NON-DUCTED/DUCTED)	3.81/3.55	3.98/3.51	3.85/3.59	–
WEIGHT (LBS.)	1,452	793	1,586	727
HEIGHT x WIDTH x LENGTH (IN)	67x98x30	67x49x30	67x98x30	67x49x30
VRF SYSTEM - UNIT COMBINATIONS				
OUTDOOR UNIT DESIGNATION	ACC-1	ACC-2	ACC-3	ACC-4
INDOOR UNITS SERVED	AC-1 (MER 114)	AC-A (DEPT OFFICE)	AC-3 (ATTIC)	AC-5 (ATTIC)
	AC-D (EXERCISE)	AC-B (CHIEF'S OFFICE)	AC-4 (ATTIC)	AC-6 (ATTIC)
	AC-D (EXERCISE)	AC-D (COPY/SUPPLY)	AC-D (AIR ROOM)	
	AC-D (EXERCISE)	AC-A (CLASSROOM)	AC-C (STAIR 2)	
	AC-A (DISPATCH)	AC-A (CLASSROOM)	AC-C (HALL 224)	
	AC-A (IT/SERVER)	AC-A (DISTRICT OFFICE)		
	AC-C (DAY ROOM)	AC-2 (ATTIC)		
	AC-C (DAY ROOM)			
	AC-C (LOBBY)			

ADD-ALTERNATE

NOTES:
1. OUTDOOR CONDENSERS SERVE MULTIPLE INDOOR UNITS. REFER TO SCHEDULE FOR INDOOR/OUTDOOR UNIT CONFIGURATIONS. REFER TO RISERS AND MANUFACTURER'S INSTALLATION REQUIREMENTS FOR PIPING DETAILS.
2. PROVIDE THE FOLLOWING OPTIONS FOR EACH UNIT:
- 0° LOW AMBIENT CONTROLS.
- 7-DAY PROGRAMMABLE WIRED SYSTEM CONTROLLER WITH ALARM OUTPUT.

2. FIELD SUPPLIED WEATHERPROOF LOCAL DISCONNECT SWITCH AT EACH OUTDOOR UNIT SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR & INSTALLED BY THE ELECTRICAL CONTRACTOR.
3. THE AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL PROVIDE CONTROL WIRING BETWEEN THE OUTDOOR UNIT AND INDOOR UNIT.
4. ACC-4 IS ADD-ALT #1 WORK ONLY.

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Drawing Title
MECHANICAL SCHEDULES

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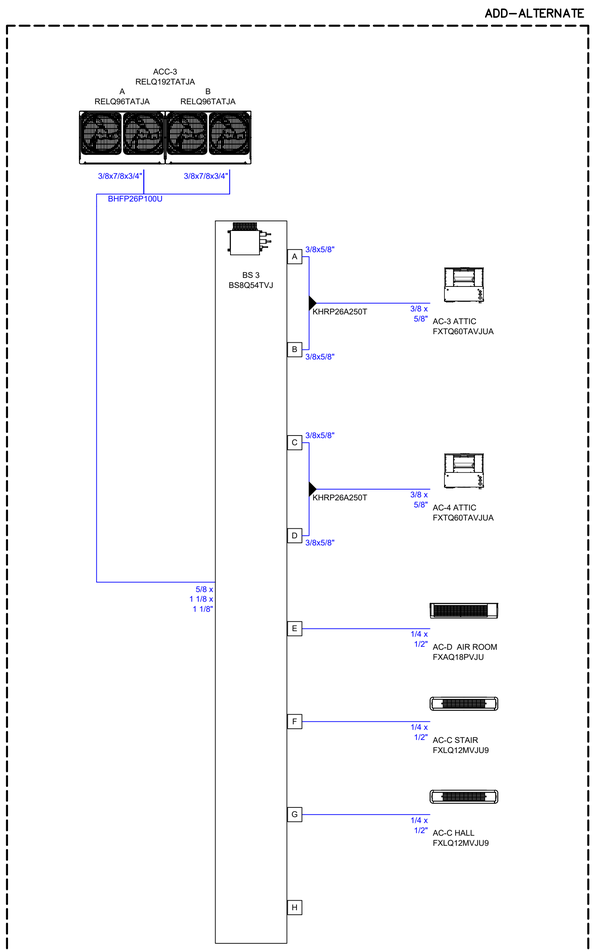
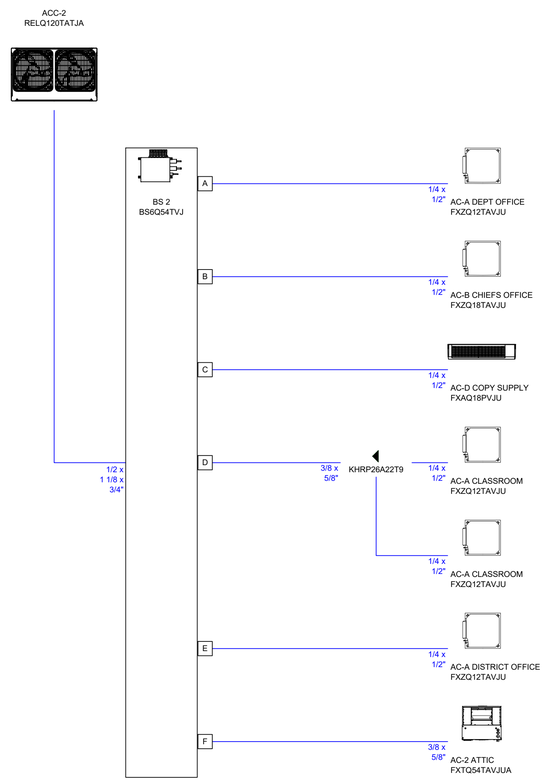
Drawing No.
M6.2

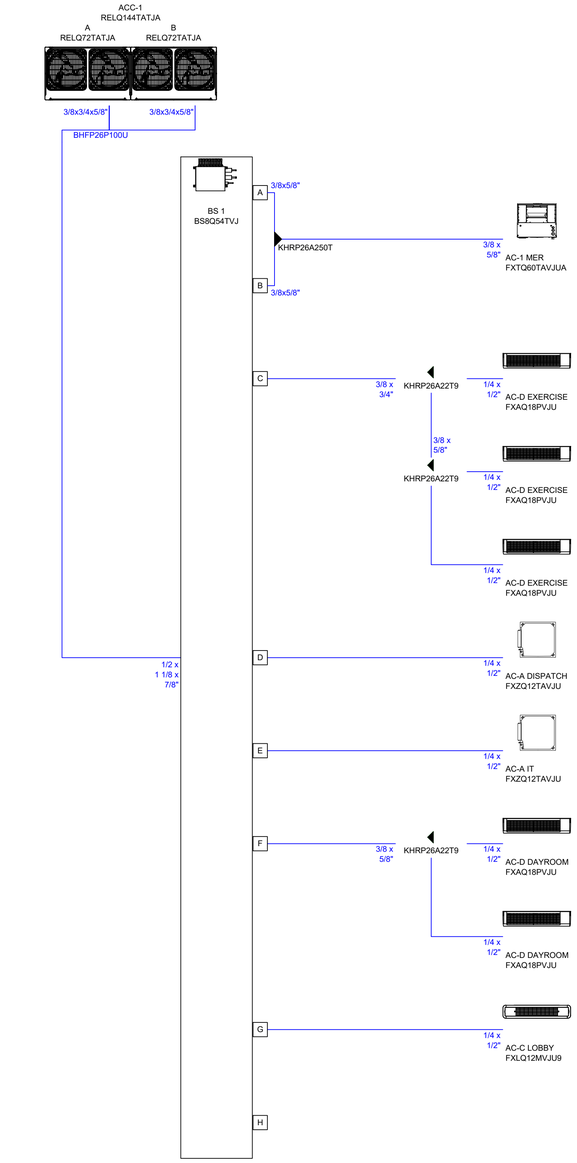
ADD–ALTERNATE



3 ACC–3 VRF PIPING DIAGRAM
SCALE: N/A



2 ACC–2 VRF PIPING DIAGRAM
SCALE: N/A



1 ACC–1 VRF PIPING DIAGRAM
SCALE: N/A

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Drawing Title
MECHANICAL RISERS

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Drawing by	JRT
Checked by	JF/RS

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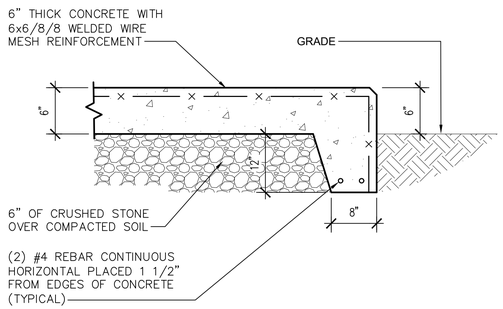
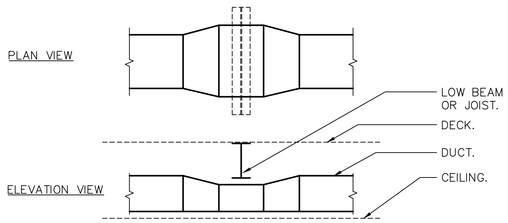
Drawing No.
M6.3



8 CONCRETE EQUIPMENT SUPPORT PAD DETAIL
SCALE: NONE



NOTES:
1.) WHERE INDICATED ON THE PLANS, OR REQUIRED DUE TO FIELD CONDITIONS, THE CONTRACTOR SHALL ROUTE DUCTWORK UNDER LOW BEAMS OR JOISTS IN THE MANNER INDICATED ABOVE.
2.) REDUCE DUCT HEIGHT AT THE CROSSING IN ORDER TO FIT UNDER THE BEAM OR JOIST.
3.) INCREASE DUCT WIDTH AT THE CROSSING IN ORDER TO MAINTAIN THE SAME CROSS SECTIONAL AREA.
4.) USE SMACNA APPROVED TRANSITIONS.

6 DUCT UNDER LOW BEAM DETAIL
SCALE: NONE

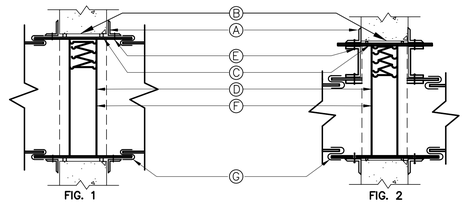


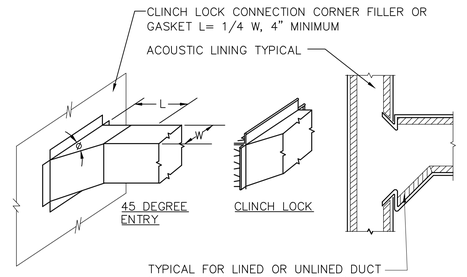
FIG. 1 FIG. 2

NOTES:

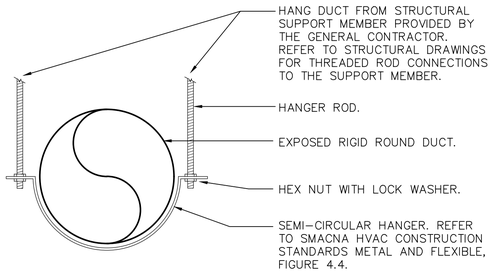
A.) RETAINING ANGLES SHALL BE A MINIMUM 1-1/2"x1-1/2"x16 GAUGE AND MUST OVERLAP THE STRUCTURAL OPENING BY A MINIMUM OF 1".
B.) CLEARENCE BETWEEN SLEEVE AND OPENING SHALL BE 1/8" PER LINEAR FOOT, AS PER SMACNA FIG. 2-1.
C.) STEEL SLEEVE SHALL BE AS PER SMACNA TABLE 2-2.
D.) U.L. APPROVED FIRE DAMPER.
E.) SECURE RETAINING ANGLES TO SLEEVE ONLY AT 8" CENTERS AS PER SMACNA FIG. 2-1.
F.) SECURE DAMPER TO SLEEVE AT 8" CENTERS AS PER SMACNA FIG. 2-1.
G.) CONNECT DUCT TO SLEEVE WITH BREAK-AWAY CONNECTION AS PER SMACNA FIG. 2-2.

1.) FIRE DAMPERS TO BE CONSTRUCTED AND INSTALLED ACCORDING TO NFPA 90A, UL LABELS AND THE LATEST ISSUE OF S.M.A.C.N.A. CHAPTER 2.
2.) CURTAIN TYPE FIRE DAMPERS SHOWN, MULTI-BLADE PIVOTED FIRE DAMPERS MEETING THE ABOVE STANDARD WILL BE ACCEPTABLE.
3.) PROVIDE ACCESS DOORS. INSTALL (1) AD FOR EACH FIRE DAMPER AS PER SMACNA FIG. 6-1.
4.) FOR DUCT 12" OR LESS IN DEPTH, FIRE DAMPER SHALL BE OUT OF THE AIR STREAM. REFER TO FIGURE 2.

4 SHUTTER TYPE FIRE DAMPER AND SLEEVE DETAIL
SCALE: NONE

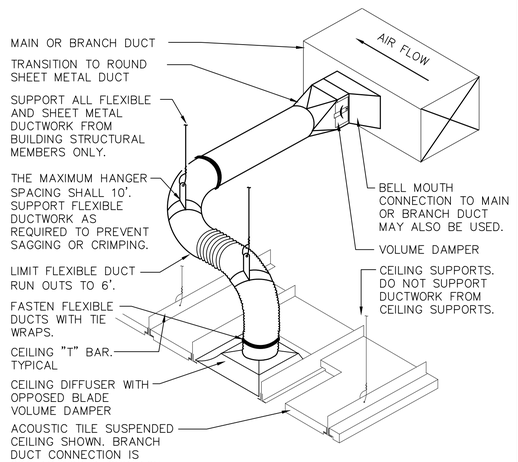


2 DUCT BRANCH CONNECTION DETAIL
SCALE: NONE



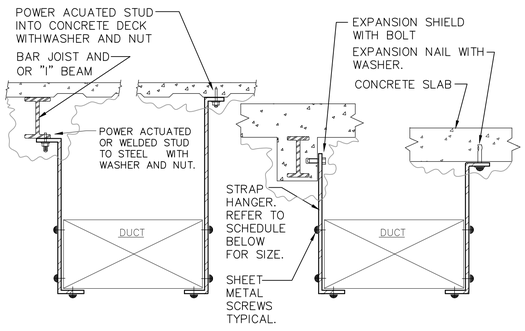
HANGER ROD SCHEDULE		
DUCT SIZE	HANGER DIA	MAXIMUM SPACING
UP TO 2 SQ. FT.	16 GAUGE – 3/8"	8'-0"
2 SQ FT TO 4 SQ FT	11 GAUGE – 1/2"	8'-0"
4 SQ FT TO 10 SQ FT	11 GAUGE – 1/2"	6'-0"
OVER 10 SQ FT.	11 GAUGE – 1/2"	4'-0"

7 HANGER DETAIL FOR EXPOSED ROUND DUCTWORK
SCALE: NONE



NOTES:
1.) THIS BRANCH DUCT ARRANGEMENT IS SIMILAR FOR PLENUM SLOT DIFFUSERS.

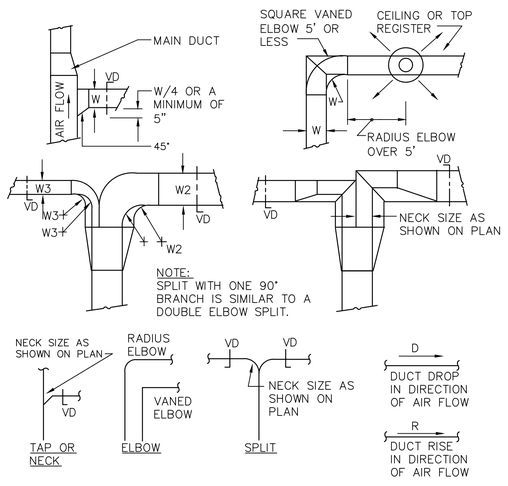
5 FLEXIBLE DUCT CONNECTION DETAIL
SCALE: NONE



NOTES:
1.) FOR DUCTS OVER 49" WIDE, THE STRAP HANGER SHALL BE TURNED UNDER THE BOTTOM OF THE DUCT.
2.) WHERE EXISTING BUILDING STRUCTURAL COMPONENTS HAVE FIREPROOF MATERIAL, ANY AREA THAT IS DISTURBED OR DAMAGED AS A RESULT OF HANGER INSTALLATION SHALL BE PATCHED WITH UL AND FM APPROVED FIREPROOFING TO MATCH EXISTING.
3.) HANGER INSTALLATION IN PRECAST CONCRETE PLANKS SHALL INCLUDE ANCHORS AND FIREPROOFING METHOD APPROVED BY THE PLANK MANUFACTURER.

HANGER STRAP SCHEDULE		
DUCT SIZE	HANGER SIZE	MAXIMUM SPACING
UP TO 2 SQ.FT.	1" X 1/16"	8'-0"
2 SQ.FT. TO 4 SQ.FT.	1" X 1/8"	8'-0"
4 SQ.FT. TO 10 SQ.FT.	1" X 1/8"	6'-0"
OVER 10 SQ.FT.	1" X 1/8"	4'-0"

3 DUCT HANGER DETAIL
SCALE: NONE



NOTES:
1.) SINGLE LINE REPRESENTATIONS REFER TO DOUBLE LINE DETAILS.
2.) USE RADIUS OR SQUARE VANED BENDS FOR BOTH ELBOWS AND SPLITS AS DETERMINED BY SPACE LIMITATIONS, AND THE DISTANCE FROM AIR OUTLETS.
3.) ALL SQUARE ELBOWS SHALL HAVE FACTORY TURNING VANES, AND MAINTAIN A CONSTANT WIDTH.
4.) WHERE DUCTS SPLIT, THE SOLID LINE REPRESENTATION IS PREFERRED, UNLESS PRECLUDED BY SPACE, OR OTHERWISE INDICATED.
5.) USE ELBOW SPLIT FOR BRANCH CONNECTIONS ONLY WHERE NECK SIZE IS GIVEN.

1 DUCT BRANCH TAKE-OFF DETAIL
SCALE: NONE

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Project Title
Bedford Fire Headquarters
550 Old Post Road
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Drawing Title
MECHANICAL DETAILS 1 OF 3

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JRT
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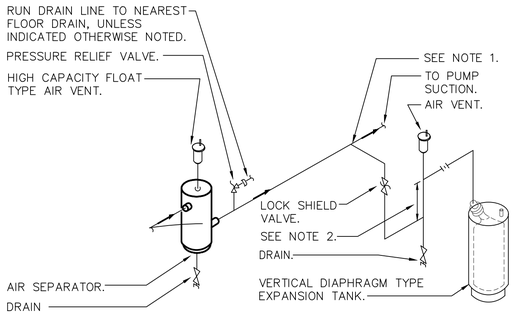
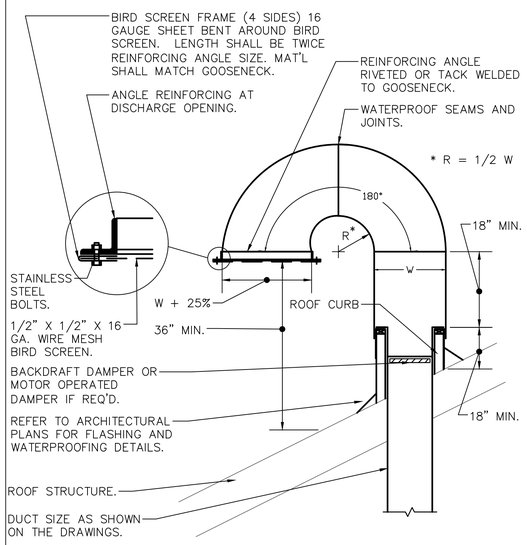
Drawing No.
M7.1



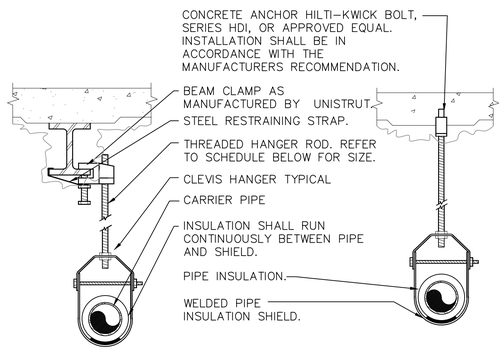
NOTES:
1.) CONNECT TO SIDE OF MAIN TO PREVENT AIR OR DEBRIS FROM ENTERING PIPE TO TANK, TOP OR BOTTOM CONNECTION NOT PERMITTED.
2.) PROVIDE 12" MINIMUM DROP ANTI-THERMOSYPHON LOOP TO PREVENT GRAVITY HEATING OF TANK.
3.) PROVIDE STRAINER IN AIR SEPARATOR WHEN INDICATED IN THE EXPANSION TANK EQUIPMENT NOTE.
4.) FOR HOT WATER SYSTEMS 2" AND SMALLER, USE AN IN-LINE AIR PURGER INSTEAD OF AN AIR SEPARATOR.
5.) SET THE PRESSURE REDUCING VALVE SO THAT THE PRESSURE AT HIGHEST POINT IN THE SYSTEM IS 4 PSIG.

8 EXPANSION TANK CONNECTION SCHEMATIC
SCALE: NONE



NOTES:
1.) GOOSENECK SHALL BE CONSTRUCTED OF THE SAME MATERIAL AND PRESSURE CLASSIFICATION AS SYSTEM DUCTWORK.

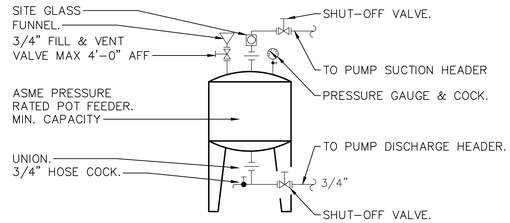
6 GOOSENECK DETAIL
SCALE: NONE



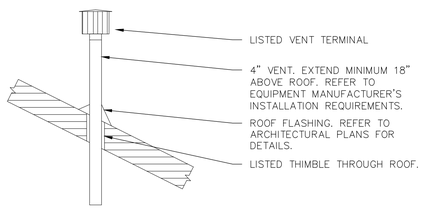
PIPE HANGER SCHEDULE						
PIPE DIA.	3/4"-2"	2 1/2"-3"	4"-5"	6"	8"-12"	
HANGER DIA.	3/8"	1/2"	5/8"	3/4"	7/8"	

NOTES:
1.) CLEVIS HANGERS WITH WELDED INSULATION SHIELDS SIMILAR TO RAUCH FIG. 100SH ON ALL PIPES LARGER THAN 1".
2.) FOR PIPES 1" OR SMALLER, A BAND HANGER WITH INSULATION SHIELD MAY BE USED SIMILAR TO RAUCH FIG. NO. 1ASH.
3.) FOR NON-INSULATED PIPE, INSULATION SHIELDS MAY BE OMITTED.
4.) ALL PIPE HANGERS SHALL BE GALVANIZED STEEL OR FACTORY PAINTED BLACK WITH ENAMEL.
5.) FOR NON FERROUS PIPING WITHOUT INSULATION, ALL HANGERS SHALL BE COPPER PLATED OR FURNISHED WITH A DI-ELECTRIC BETWEEN PIPE AND HANGERS.
6.) WHERE EXISTING BUILDING STRUCTURAL COMPONENTS HAVE FIREPROOF MATERIAL, ANY AREA THAT IS DISTURBED OR DAMAGED AS A RESULT OF HANGER INSTALLATION SHALL BE PATCHED WITH UL AND FM APPROVED FIREPROOFING TO MATCH EXISTING.
7.) HANGER INSTALLATION IN PRECAST CONCRETE PLANKS SHALL INCLUDE ANCHORS AND FIREPROOFING METHOD APPROVED BY THE PLANK MANUFACTURER.

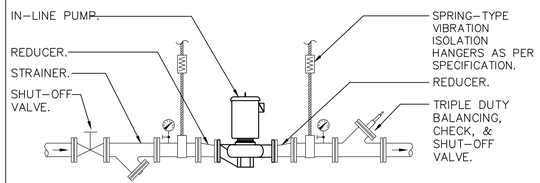
4 PIPE HANGER DETAIL
SCALE: NONE



2 CHEMICAL POT FEEDER PIPING SCHEMATIC
SCALE: NONE

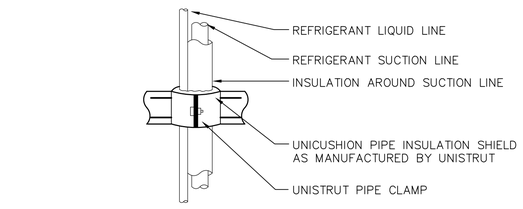


7 ROOF VENT PENETRAION DETAIL
SCALE: NONE



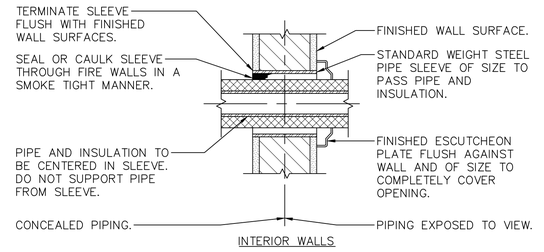
NOTES:
1.) HANG IN-LINE PUMP FROM BUILDING STRUCTURE WITH VIBRATION ISOLATORS.
2.) REFER TO PLANS FOR PIPE SIZES.

5 IN-LINE PUMP DETAIL
SCALE: NONE



NOTES:
1.) LIQUID AND SUCTION LINES MAY BE ROUTED TOGETHER FOR CONVENIENCE, BUT MUST BE COMPLETELY INSULATED FROM EACH OTHER. DO NOT SOLDER LIQUID AND SUCTION LINES TOGETHER. DO NOT ALLOW METAL TO METAL CONTACT.
2.) LINES SHOULD BE INSTALLED WITH AS FEW BENDS AS POSSIBLE, ALLOWING SERVICE ACCESS TO THE INDOOR COIL.
3.) USE LONG RADIUS ELBOWS WHEREVER POSSIBLE, EXCEPT IN OIL RETURN TRAPS, WHERE SHORT RADIUS ELBOWS SHOULD BE USED.
4.) SLOPE HORIZONTAL SUCTION LINES 1 INCH EVERY 20 FEET TOWARD THE OUTDOOR UNIT.
5.) HANGER INSTALLATION IN PRECAST CONCRETE PLANKS SHALL INCLUDE ANCHORS AND FIREPROOFING METHOD APPROVED BY THE PLANK MANUFACTURER.

3 REFRIGERANT PIPE SUPPORT DETAIL
SCALE: NONE



1 PIPE WALL SLEEVE DETAIL FOR INTERIOR WALLS
SCALE: NONE

(NKGD0068.01)

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Drawing Title
MECHANICAL DETAILS 2 OF 3

Project No.	NSPC0070.00
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Drawing by	JRT
Checked by	JF/RS

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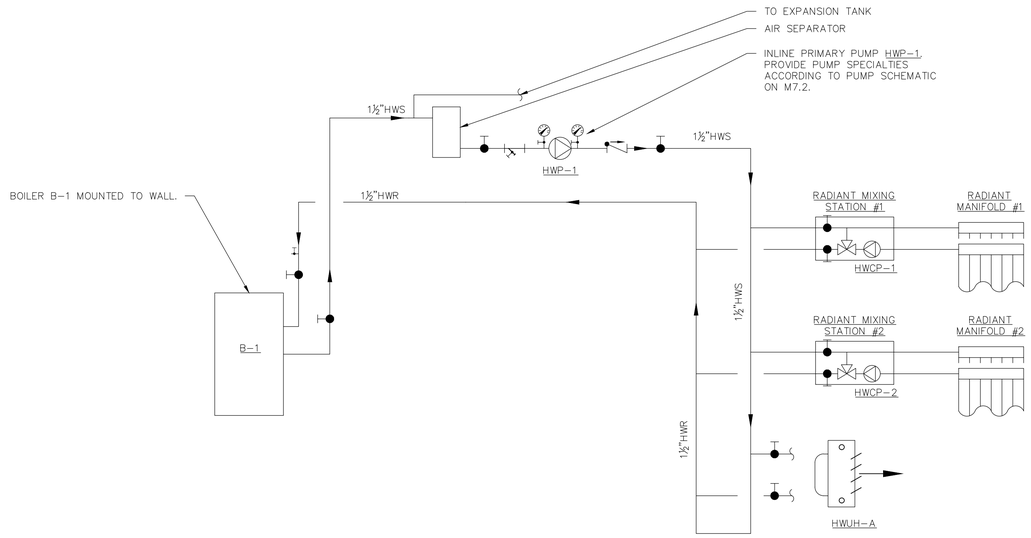
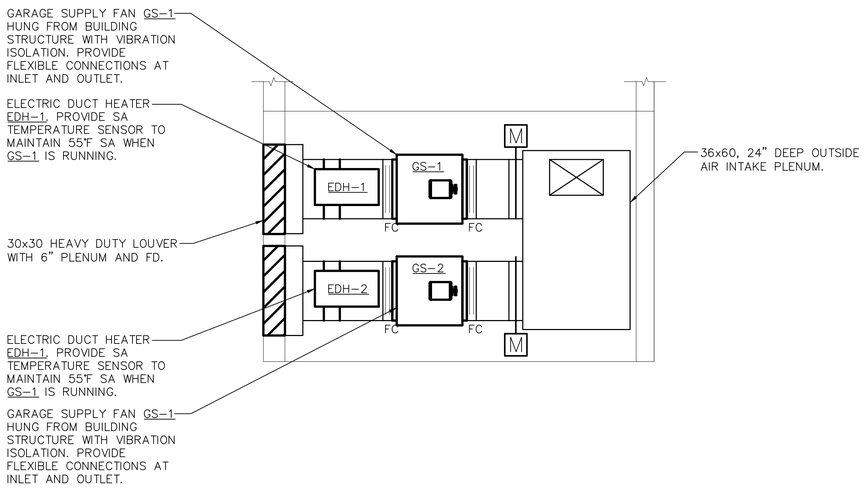
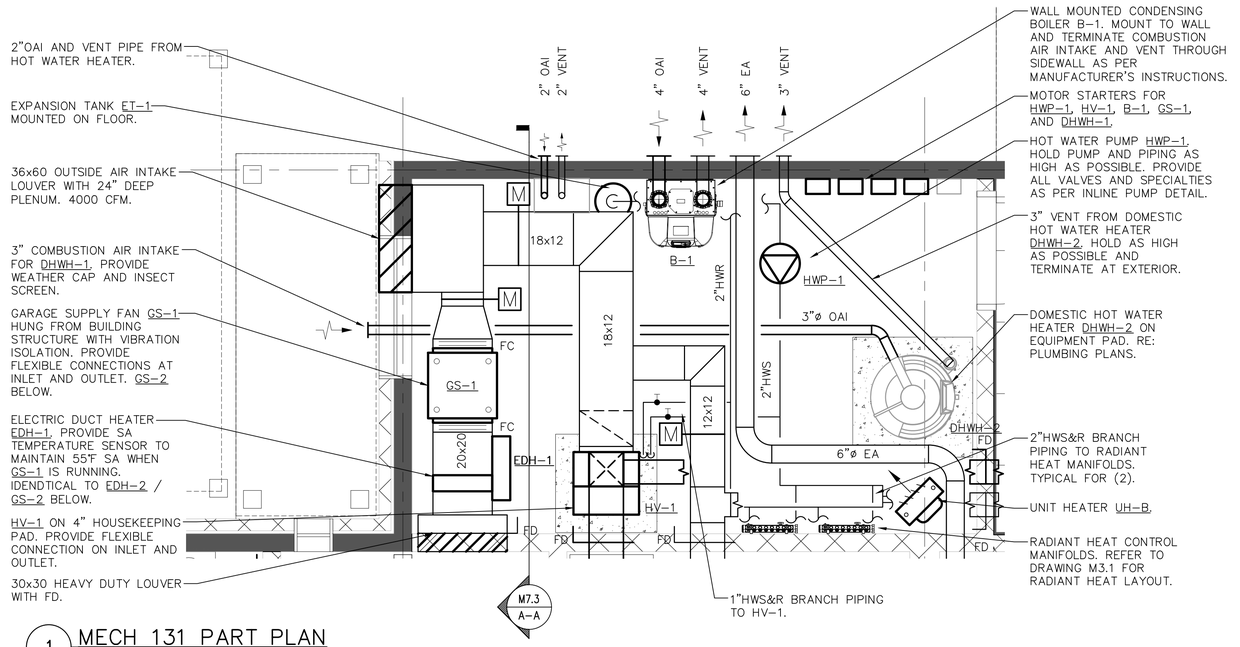
Drawing No.
M7.2



2 HOT WATER SYSTEM RISER
SCALE: NONE



3 MECH 131 SECTION A-A
SCALE: 1/2" = 1'-0"



1 MECH 131 PART PLAN
SCALE: 1/2" = 1'-0"

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Drawing No.
M7.3

SYMBOLS AND ABBREVIATIONS

SYMBOL	ABBREVIATION	DESCRIPTION
———	–	CONDUIT AND WIRING
– – – – –	–	CONDUIT & WIRING TO BE REMOVED UON
—UG–E—	–	BURIED POWER CONDUIT
—UG–C—	–	BURIED COMMUNICATION CONDUIT
—OH—	–	OVERHEAD CONDUCTORS
	–	HANDHOLE
	–	HOMERUN TO PANEL, ARROWS INDICATE # 1P
	–	MULTI–POLE HOMERUN
	–	ELECTRICAL EQUIPMENT AS INDICATED
	–	ELECTRICAL EQUIPMENT TO BE REMOVED UON
M	–	ELECTRIC METER
J · J	–	JUNCTION BOX
	–	FUSED DISCONNECT SWITCH
	–	UNFUSED DISCONNECT SWITCH
	–	COMBINATION MOTOR STARTER/FUSED DISC.
	–	MOTOR STARTER
25	–	MOTOR, NUMBER INDICATES HORSEPOWER (HP)
	–	BATTERY PACK EMERGENCY LIGHT FIXTURE
	–	EXIT LIGHT, FACES–SHADED, CHEVRON–ARROW
S_x	–	LOW VOLTAGE SINGLE POLE SWITCH (x – INDICATES FIXTURE BEING CONTROLLED)
S_x^3	–	LOW VOLTAGE THREE WAY SWITCH (x – INDICATES FIXTURE BEING CONTROLLED)
S_x^{DIM}	–	LOW VOLTAGE DIMMER SWITCH (x – INDICATES FIXTURE BEING CONTROLLED)
S_M	–	MOTOR RATED TOGGLE SWITCH
	–	WALL MTD OCCUPANCY/MOTION SENSOR
OC	–	CEILING MOUNTED OCCUPANCY SENSOR
U, TV	–	DUPLEX RECEPTACLE. (U – INDICATES WITH USB, TV – INDICATES FOR TV)
	–	DOUBLE DUPLEX RECEPTACLE
	–	SPECIAL RECEPTACLE
	–	TELEPHONE OUTLET
x	–	DATA OUTLET (x – INDICATES # OF JACKS, 1 JACK UON)
	–	COMBINATION TELEPHONE/DATA OUTLET
	–	COMBINATION DATA & TV OUTLET
	–	TV OUTLET
PA	–	WALL MOUNTED PUBLIC ADDRESS SPEAKER
PH	–	PUBLIC ADDRESS TELEPHONE
SP	–	CEILING MOUNTED PUBLIC ADDRESS SPEAKER
	–	REMOTE RESCUE STATION
TC	–	TIME CLOCK
CR	–	CARD READER
DA	–	DOOR ALARM
ES	–	ELECTRIC DOOR STRIKE
KP	–	KEY PAD
PTZ	–	SECURITY CAMERA PTZ – PAN, TILT, ZOOM
O	–	PUSHBUTTON
HD	–	ELECTRIC HAND DRYER
EPO	EPO	EMERGENCY POWER OFF SWITCH
RASP	RASP	RESCUE ASSIST. SYSTEM MASTER STATION
	CB	CIRCUIT BREAKER
	–	ENCLOSED CIRCUIT BREAKER
200AS 150AF	–	FUSED SWITCH
G	GEN	GENERATOR

SYMBOL	ABBREVIATION	DESCRIPTION
	–	GENERATOR RECEPTACLE
OR	GND	GROUND AS PER LOCAL CODE
	–	GROUND BAR
OR	–	GROUND ROD
	–	TRANSFER SWITCH
OR T	XFMR	TRANSFORMER
	CT	CURRENT TRANSFORMER
	–	UTILITY POLE
WM	WM	WATER MAIN
B	–	BOILER BREAK GLASS STATION
	NC	NORMALLY CLOSED CONTACTS
	NO	NORMALLY OPEN CONTACTS
	CV	CONTROL VALVE
LD	–	LEAK DETECTOR
M	MD	MOTORIZED DAMPER
	SD OR CFSD	SMOKE DAMPER
UH	UH	UNIT HEATER
VAV	VAV	VARIABLE AIR VOLUME BOX
	A	AMPERE(S)
	AC	AIR CONDITIONER
	ACC	AIR CONDITIONER CONDENSER
	AFF	ABOVE FINISHED FLOOR
	AF	AMPERAGE OF FUSE
	AGL	ABOVE GRADE LEVEL
	AHU	AIR HANDLING UNIT
	AL	ALUMINIUM
	ARC	ARC FAULT INTERRUPTER
	AS	AMPERAGE OF SWITCH
	ATS	AUTOMATIC TRANSFER SWITCH
	AWG	AMERICAN WIRE GAUGE
	BCW	BARE COPPER WIRE
	BLDG	BUILDING
	BMS	BUILDING MANAGEMENT SYSTEM
	C	CONDUIT
	CD	CANDELA
	CKT	CIRCUIT
	CLG	CEILING
	COL	COLUMN
	CU	COPPER
	CUH	CABINET UNIT HEATER
	DEM.	DEMOLISH AND REMOVE
	DISC	DISCONNECT
	DIM	DIMMER
	DWG	DRAWING
	ELEV	ELEVATOR
	EMT	ELECTRICAL METALLIC TUBING
	EM	EMERGENCY
	EX.	EXISTING TO REMAIN
	FLR	FLOOR
	FBO	FURNISHED BY OTHERS
	FC	FAN COIL UNIT
	GEN	GENERATOR
	GFI	GROUND FAULT INTERRUPTER
	HP	HORSEPOWER
	HVAC	HEATING VENTILATION AIR CONDITIONING
	IG	ISOLATED GROUND
	IMC	INTERMEDIATE METAL CONDUIT
	KVA	KILO–VOLT–AMPERE

SYMBOL	ABBREVIATION	DESCRIPTION
	KW	KILO–WATT
	LTG	LIGHTING
	MAX	MAXIMUM
	MCB	MAIN CIRCUIT BREAKER
	MIN	MINIMUM
	MLO	MAIN LUG ONLY
	MTS	MANUAL TRANSFER SWITCH
	NIC	NOT IN CONTRACT
	NL	NIGHT LIGHT
	NTS	NOT TO SCALE
	OH	OVERHEAD
	P	POLE
	PBO	PROVIDED BY OTHERS
	PNL	PANEL
	PVC	POLY VINYL CHLORIDE
	RECP	RECEPTACLE
	REL.	REMOVE AND RELOCATE
	RGS	RIGID GALVANIZED STEEL
	RTU	ROOF TOP UNIT
	SCH	SCHEDULE
	SPD	SURGE PROTECTION DEVICE
	SW	SWITCH(ES)
	TELCO	TELEPHONE COMPANY
	TYP	TYPICAL
	UG	UNDERGROUND
	UON	UNLESS OTHERWISE NOTED
	USB	UNIVERSAL SERIAL BUS
	UV	UNIT VENTILATOR
	VIF	VERIFY IN FIELD
	V	VOLT(S)
	VSD	VARIABLE SPEED DRIVE
	WG	WIRE GUARD
	WH	WATER HEATER
	WP	WEATHERPROOF

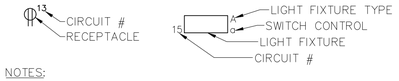
NOTES:
1. ALL SYMBOLS AND ABBREVIATIONS MAY NOT BE APPLICABLE FOR THIS PROJECT.
2. SEE LIGHTING FIXTURE SCHEDULE FOR LIGHT FIXTURE SYMBOLS.

TYPICAL BRANCH CIRCUIT WIRING LEGEND

2–#12 & 1–#12 GND (1–1P–20A OR 1–1P–15A CB)

3–#12 & 1–#12 GND (3P–20A OR 3P–15A CB)

2–#12 & 1–#12 GND (2P–20A OR 2P–15A CB)



NOTES:
1. EACH 120V AND 277V CIRCUIT SHALL HAVE A DEDICATED NEUTRAL CONDUCTOR. SHARED NEUTRAL HOMERUNS ARE NOT PERMITTED.
2. CONDUCTORS SHALL BE INCREASED FOR VOLTAGE DROP AND DERATING AS PER APPLICABLE ELECTRICAL CODE. FOR CIRCUITS THAT ARE BETWEEN 100' AND 150' IN LENGTH, PHASE AND NEUTRAL CONDUCTORS SHALL BE #10 AWG. FOR CIRCUITS THAT ARE BETWEEN 150' AND 225' IN LENGTH, PHASE AND NEUTRAL CONDUCTORS SHALL BE #8 AWG. FOR LENGTHS GREATER THAN 225' IN LENGTH, VERIFY CONDUCTOR SIZES WITH ENGINEER.

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Drawing Title
ELECTRICAL SYMBOLS, ABBREVIATIONS AND NOTES

Project No.	NSPC0070.00
Date	03-27-20
Scale	NONE
Drawing by	JL/MRP
Checked by	JF/RS

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Drawing No.
E0.1

GENERAL NOTES

1. ALL WORK SHOWN IS NEW UNLESS OTHERWISE NOTED (UON) EXISTING TO REMAIN (EX.).

2. THE DRAWINGS ARE TO BE CONSIDERED SCHEMATIC ONLY AND DO NOT NECESSARILY SHOW THE EXACT LOCATIONS AND DETAILS OF THE WORK TO BE INSTALLED.

3. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND PAYING ALL FEES ASSOCIATED WITH THIS WORK INCLUDING FILING WITH THE UTILITY COMPANY (AS REQUIRED), AND WITH LOCAL AUTHORITY HAVING JURISDICTION.

4. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO HIRE A THIRD PARTY ELECTRICAL INSPECTION AGENCY TO PROVIDE UL INSPECTIONS AND SUBMIT A CERTIFICATE OF INSPECTION PRIOR TO FINAL REQUEST FOR PAYMENT.

5. ALL WORK INVOLVING THE ELECTRIC SERVICE SHALL BE COORDINATED AND APPROVED BY THE UTILITY COMPANY, NYSEG.

6. ALL CONDUCTORS SHALL BE COPPER UON "ON DRAWINGS".

7. ELECTRONIC FILES OF THE MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION DRAWINGS ARE AVAILABLE TO THE CONTRACTOR. THE ENGINEER MAY GRANT THE CONTRACTOR A LIMITED LICENSE TO MAKE A DERIVATIVE WORK OF THE DATABASE FOR THE PURPOSE OF SHOP DRAWINGS, SUBMITTALS AND AS-BUILT DRAWINGS. UPON REQUEST, THE ENGINEER SHALL PROVIDE A RELEASE FORM THAT MUST BE SIGNED AND RETURNED BY THE CONTRACTOR PRIOR TO RELEASE OF THE ELECTRONIC FILES.

8. CIRCUIT NUMBERS ARE FOR INFORMATION PURPOSES ONLY. ACTUAL CIRCUIT NUMBERS SHALL BE DETERMINED IN THE FIELD.

9. CORE DRILLING OR TRENCHING THROUGH AN EXISTING FLOOR SLAB, WHEN REQUIRED, SHALL BE COORDINATED WITH THE OWNER. FLOOR SLABS SHALL BE RADAR SCANNED PRIOR TO CORE DRILLING OR TRENCHING. ALL WORK, INCLUDING CORE DRILLING, RADAR SCAN, INSTALLATION OF FIRE STOPPING, & CONDUIT/CABLE INSTALLATION SHALL BE PERFORMED DURING NON-BUSINESS HOURS AND INCLUDED IN BASE BID. USE EXTREME CAUTION DURING ANY CUTTING OPERATION TO AVOID DAMAGE TO EXISTING EQUIPMENT/SYSTEMS. ANY ITEMS DAMAGED AS A RESULT OF CORE DRILLING SHALL BE REPAIRED AT NO COST TO THE CLIENT. ALL CORES SHALL BE FIRE SEALED.

10. FOR EACH WALL MOUNTED COMMUNICATIONS OUTLET, SPEAKER, SECURITY CAMERA AND CARD READER INDICATED, PROVIDE A 1900 JUNCTION BOX WITH AN EXTENDER COLLAR AND 1 INCH CONDUIT WITH DRAGLINE 6 INCHES ABOVE ACCESSIBLE CEILING FOR INSTALLATION OF CABLE. PROVIDE CONDUIT FOR CABLING IN ALL EXPOSED AREAS.

11. COMMUNICATION WIRING SHALL BE COLOR CODED AS FOLLOWS:
    11.1. DATA: BLUE
    11.2. FIRE-ALARM: RED
    11.3. SECURITY CAMERAS: YELLOW
    11.4. DOOR ACCESS: GREEN

12. WHERE GFI RECEPTACLES ARE CIRCUITED WITH GENERAL CONVENIENCE RECEPTACLES, THE GFI RECEPTACLE SHALL BE THE LAST DEVICE ON THE CIRCUIT.

13. INSTALL CONDUIT EXPANSION FITTINGS AT ALL LOCATIONS WHERE CONDUITS CROSS BUILDING OR STRUCTURE EXPANSION JOINTS.

14. CEILING MOUNTED RECEPTACLES SHALL BE MOUNTED FLUSH TO CEILING.

15. UNLESS OTHERWISE NOTED, DISCONNECT SWITCHES, STARTERS, HOAS AND MOTOR RATED TOGGLE SWITCHES FOR MECHANICAL PUMPS, CABINET AND UNIT HEATERS, RETURN FANS, ROOF FANS, VAV BOXES, COMPRESSORS, FAN COIL UNITS, AIR HANDLERS AND CONDENSERS SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR. COORDINATE ALL WORK WITH THE MECHANICAL CONTRACTOR.

16. DISCONNECT SWITCHES FOR MOTORIZED DAMPERS, CFSD/SD AND VAV BOXES SUPPLIED BY MECHANICAL CONTRACTOR AND INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR. SWITCHES NOT SHOWN ON PLANS.

17. INCLUDE IN BASE BID (4) 1P-20A CIRCUITS ON EACH LEVEL (150' LENGTH EACH) FOR HVAC SYSTEM CONTROL PANELS. EXACT LOCATION OF CONTROL PANELS SHALL BE COORDINATED WITH DIVISION 23 IN THE FIELD. CIRCUITS SHALL ORIGINATE FROM THE FOLLOWING PANELBOARDS:

    FIRST FLOOR – RP1B
    SECOND FLOOR – RP2B

18. ALL SMOKE, CO & COMBINATION SMOKE/CO ALARMS TO BE 120V, MULTI STATION HEADS WITH NON-REMOVABLE, NON-REPLACEABLE, 10 YEAR MINIMUM BATTERY BACKUP, U.O.N. PROVIDE WIRING AS REQUIRED BETWEEN HEADS. ALL HEADS WITHIN DWELLING UNIT SHALL BE CONNECTED TOGETHER.

19. ALL 120V, 15 AND 20 AMP CIRCUITS FEEDING LOADS IN KITCHENS, FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, LAUNDRY AREAS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY, COMBINATION TYPE ARC-FAULT CIRCUIT INTERRUPTER CIRCUIT BREAKERS.

20. EACH DUPLEX AND QUAD RECEPTACLE SHALL BE LABELED WITH THE CIRCUIT NUMBER WHICH IT SERVES. ALPHANUMERICS TO BE 1/8" HIGH AND BLACK ON CLEAR BACKGROUND. LABELS SHALL BE SELF ADHESIVE. IDENTIFY ASSOCIATED PANEL AND CIRCUIT NUMBER.

21. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL CUTTING, PATCHING, PAINTING, AND FINAL RESTORATION REQUIRED TO FACILITATE THE DEMOLITION AND INSTALLATION OF ALL ELECTRICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO PANELBOARDS, CONDUITS, WIRING, DEVICES, FIXTURES, ETC. INCLUDING ABOVE CEILINGS. CONTRACTOR TO REMOVE AND REPLACE CEILINGS, AND OPEN AND PATCH WALLS, AS REQUIRED TO EXECUTE THE ELECTRICAL WORK.

22. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO HIRE AND PAY ALL FEES FOR THE UL FIELD EVALUATION SERVICE TO RE-INSPECT AND RE-CERTIFY THE SWITCHBOARD IN RELATION TO MODIFICATIONS REQUIRED WHEN TAPPING THE BUS. CONTRACTOR SHALL SCHEDULE WITH UL PRIOR TO START OF WORK. UL SHALL BE PRESENT WHILE TAPPING OF THE SWITCHBOARD IS EXECUTED. (TEL:1-877-ULHELPS)

23. ALL ELECTRICAL EQUIPMENT INCLUDING SWITCHBOARD, PANELBOARDS, DISCONNECT SWITCHES ETC. SHALL BE MANUFACTURED BY SQAURE D.

24. PROVIDE SURGE PROTECTORS FOR ALL MAIN SWITCHBOARDS/PANELS AND ALL PANELS CONNECTED TO THE EMERGENCY GENERATOR SYSTEM.

DEFINITION OF TERMS

1. WHEREVER IN THE CONTRACT DOCUMENTS THE WORD "CLIENT" IS USED, IT MUST BE UNDERSTOOD THAT "BEDFORD VILLAGE FIRE DISTRICT" IS INTENDED.

2. WHEREVER IN THE CONTRACT DOCUMENTS THE WORD "ARCHITECT" IS USED, IT MUST BE UNDERSTOOD THAT "SULLIVAN ARCHITECTURE, P.C." IS INTENDED.

3. WHEREVER IN THE CONTRACT DOCUMENTS THE WORD "ENGINEER" IS USED, IT MUST BE UNDERSTOOD THAT "OLA CONSULTING ENGINEERS" IS INTENDED.

4. WHEREVER IN THE CONTRACT DOCUMENTS THE WORDS "ELECTRICAL UTILITY" OR "POWER COMPANY" ARE USED, IT MUST BE UNDERSTOOD THAT "NYSEG" IS INTENDED.

5. WHEREVER IN THE CONTRACT DOCUMENTS THE WORDS "TELEPHONE UTILITY" OR "TELCO" ARE USED, IT MUST BE UNDERSTOOD THAT "VERIZON FIOS" IS INTENDED.

6. WHEREVER IN THE CONTRACT DOCUMENTS THE WORDS "FIRE ALARM SYSTEM" OR "FIRE ALARM VENDOR" ARE USED, IT MUST BE UNDERSTOOD THAT "OPEN SYSTEM" IS INTENDED.

7. "WORK" MUST BE DEEMED TO CONSIST OF ALL LABOR AND OPERATIONS, TRANSPORTATION, HOISTING, MATERIALS, TOOLS, EQUIPMENT, SERVICES, INSPECTIONS, INVESTIGATIONS, COORDINATION AND SUPERVISION REQUIRED AND / OR REASONABLY NECESSARY TO PRODUCE THE CONSTRUCTION REQUIRED BY THE CONTRACT DOCUMENTS.

8. "FURNISH" MEANS THE DESIGN, FABRICATION, PURCHASE AND DELIVERY TO THE JOB SITE.

9. "INSTALL OR INSTALLATION" MEANS THE ACT OF PHYSICALLY PLACING, APPLYING, SETTING, ERECTING, ANCHORING, SECURING, ETC., CONSTRUCTION MATERIALS, EQUIPMENT, FURNISHINGS, APPLIANCES, AND SIMILAR ITEMS SPECIFIED AND FURNISHED AT THE JOB SITE. INSTALLATION OF SPECIFIED ITEMS MUST BE COMPLETE IN ALL RESPECTS.

10. "PROVIDE" MEANS TO FURNISH AND INSTALL CONSTRUCTION MATERIAL, EQUIPMENT, ETC. AS DEFINED ABOVE.

11. THE FOLLOWING ARE DEFINITIONS OF SHOP DRAWING STAMP ACTIONS:

    A. "NO EXCEPTIONS TAKEN" MEANS THAT THE SHOP DRAWING IS CORRECT AS TO PERFORMANCE, CAPACITY, ETC. AND SUBSTANTIAL CONFORMANCE TO THE CONTRACT DRAWINGS AND SPECIFICATIONS. FABRICATION AND/OR PURCHASE MAY COMMENCE.

    B. "MAKE CORRECTIONS NOTED" MEANS THAT THE SHOP DRAWING IS CORRECT AS TO PERFORMANCE, CAPACITY, ETC. AND SUBSTANTIAL CONFORMANCE TO THE CONTRACT DRAWINGS AND/OR SPECIFICATIONS, SUBJECT TO AND IN COMPLIANCE WITH THE ANNOTATIONS AND/OR CORRECTIONS INDICATED ON THE SHOP DRAWING. FABRICATION AND/OR PURCHASE MAY COMMENCE.

    C. "AMEND AND RESUBMIT" MEANS THAT THE COMMENTS AND/OR CORRECTION ARE SO EXTENSIVE AND IMPORTANT THAT THE REVIEWER WANTS TO SEE HOW THE COMMENTS AND/OR CORRECTIONS ARE RESOLVED PRIOR TO RELEASE FOR FABRICATION AND/OR PURCHASE. FABRICATIONS AND/OR PURCHASE MAY NOT COMMENCE.

    D. "REJECTED" MEANS THAT THE SHOP DRAWING DOES NOT COMPLY OR CONFORM TO THE CONTRACT DRAWINGS AND/OR SPECIFICATIONS. FABRICATION AND/OR PURCHASE MAY NOT COMMENCE.

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Bedford, NY 10506

MEP Engineer: OLA Consulting Engineers
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Date	Issue
03.10.20	MEETING
03.27.20	DESIGN DEVELOPMENT
05.07.20	PROGRESS
05.08.20	CD PROGRESS SET
05.28.20	CD PROGRESS SET
06.30.20	CD REVIEW SET
09.01.20	CONSTRUCTION PROGRESS
09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

Project Title

Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

Drawing Title

ELECTRICAL GENERAL NOTES AND DEFINITION OF TERMS

Project No.	NSPC0070.00
Date	03-27-20
Scale	NONE
Drawing by	JL/WRP
Checked by	JF/RS

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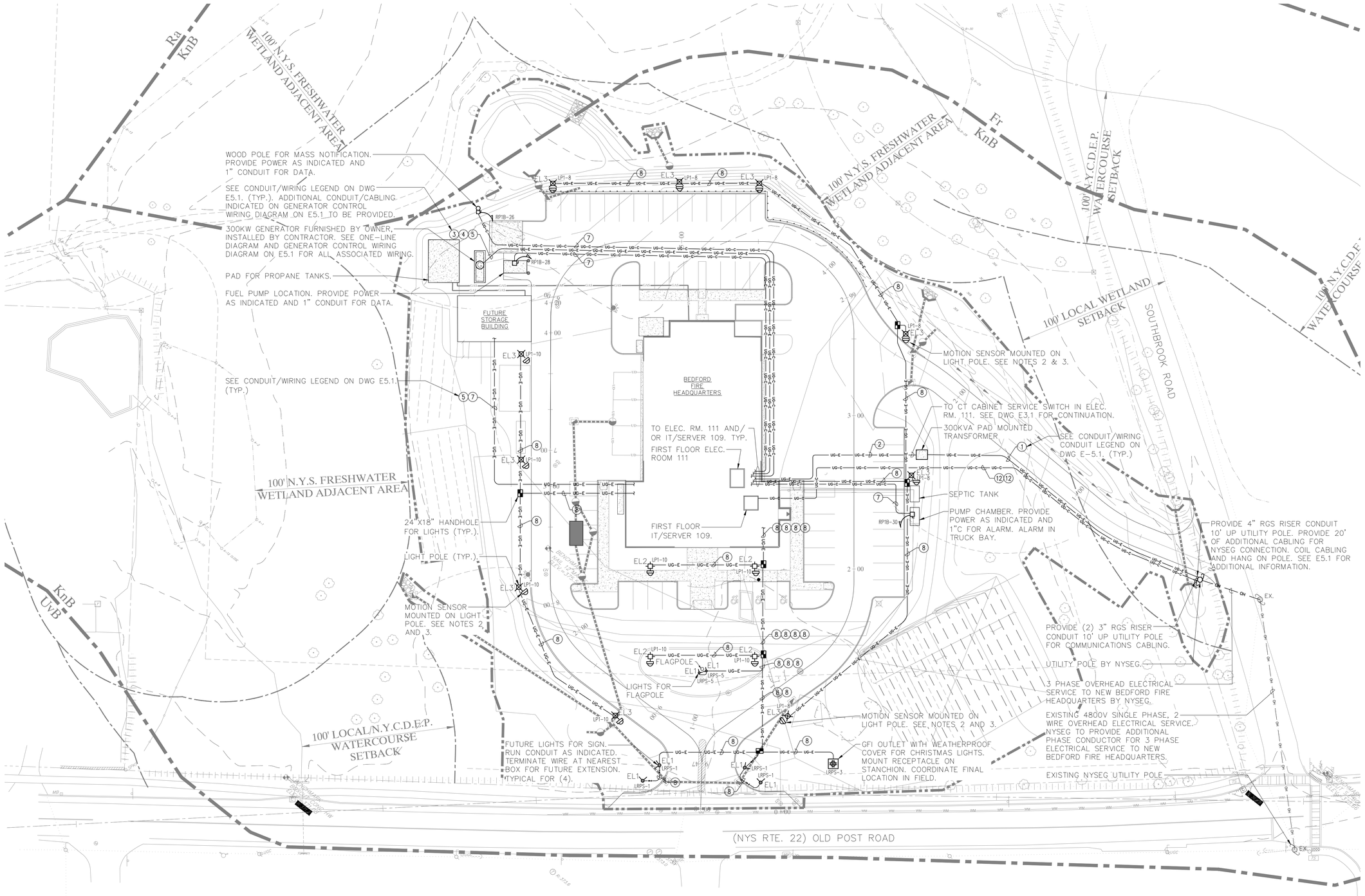
Drawing No.

E0.2



1 ELECTRICAL SITE PLAN – POWER, COMMUNICATIONS & LIGHTING

NOTES:

1. REFER TO DWG E6.1 FOR LIGHTING FIXTURE SCHEDULE.
2. MOTION SENSORS ON POLES SHALL BE nLIGHT TYPE RSBOR-10-BK-G2. SENSORS SHALL DIM FIXTURES DIRECTLY THROUGH DIMMING WIRES TO DRIVERS. SENSORS SHALL COMMUNICATE WIRELESSLY TO nLIGHT ECLIPSE.
3. PROVIDE nLIGHT ECLIPSE CONTROLLER nECY-MVOLT-ENC-AIR IN ELECTRICAL ROOM TO ALLOW FOR PROGRAMMING OF LIGHT POLES TO DIM AND TURN OFF AS DIRECTED BY THE FIRE DEPARTMENT. THE FIXTURE SHALL RETURN TO FULL BRIGHTNESS WITH ACTIVATION OF ANY SENSOR ON ANY POLE. AIR ANTENNAE SHALL BE MOUNTED ON EXTERIOR OF FIREHOUSE WALL IN DIRECT SIGHT OF A LIGHT POLE WITH A SENSOR.

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Project Title
Bedford Fire Headquarters
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Drawing Title
ELECTRICAL SITE PLAN - POWER, COMMUNICATIONS & LIGHTING

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS SHOWN
Drawing by	JL/WRP
Checked by	JF/RS

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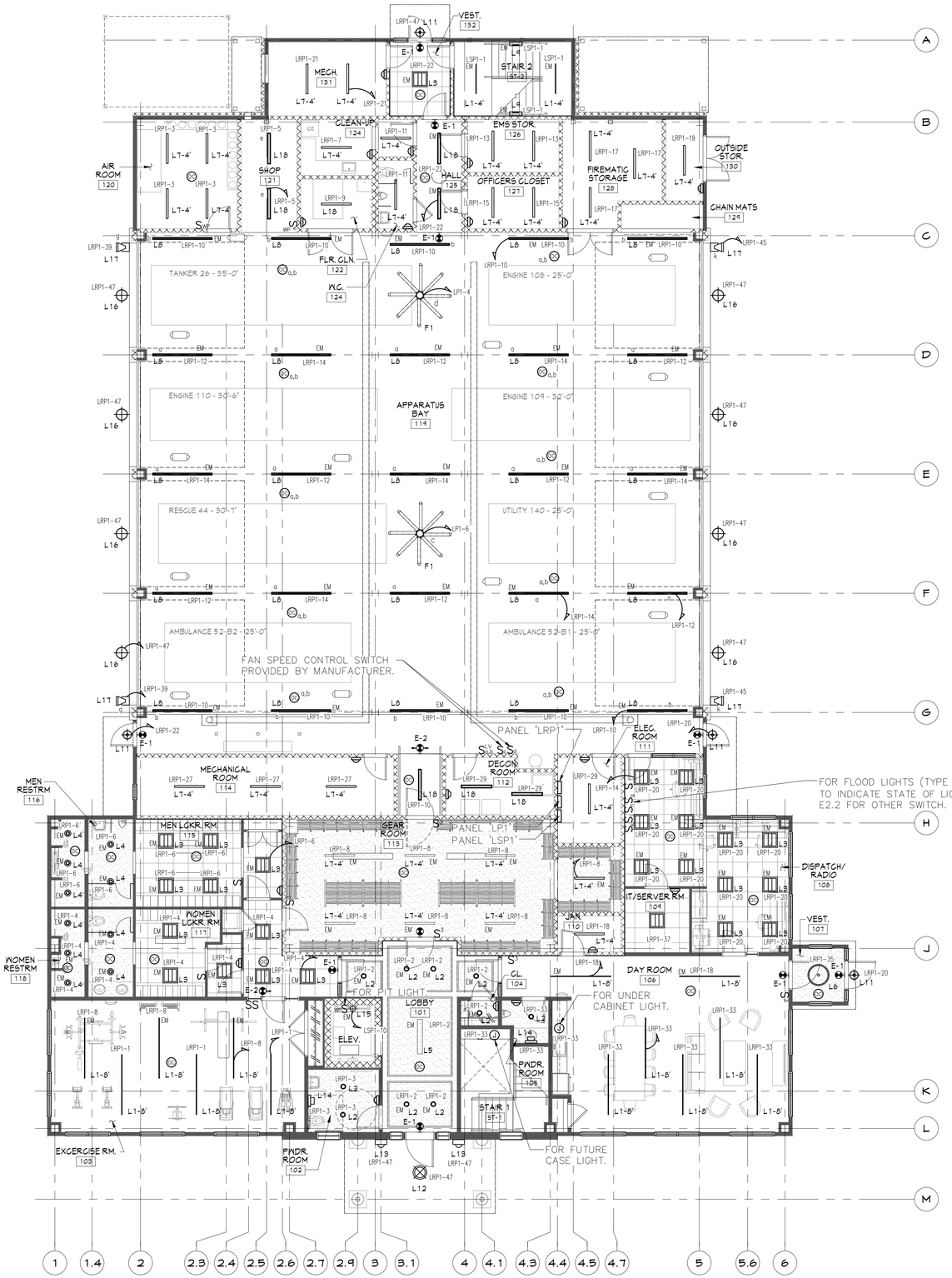
Drawing No.
E1.1



1 ELECTRICAL FIRST FLOOR PLAN – LIGHTING
SCALE: 1/8" = 1'-0"

NOTES:

1. ALL LIGHTING CIRCUITS WILL BE CONTROLLED THROUGH LIGHTING RELAY PANELS.
2. ALL ZONES/ROOMS WITH OCCUPANCY SENSORS WILL BE MANUAL ON.
3. ALL ZONES WILL BE TIME BASED AND BE PROGRAMMED TO BE IN OCCUPANCY MODE DURING TIMES DESIGNED BY FIRE DEPT CHIEF.
4. STAIR LIGHTING WILL BE ON AT ALL TIMES AND DIMMED WHEN NOT OCCUPIED.
5. PROVIDE NORMAL POWER SENSING CIRCUIT FOR ALL EMERGENCY LIGHTING CONTROL PANELS AND ALL STAIR LIGHTING FIXTURES.
6. REFER TO WIRING DIAGRAMS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING LIGHTING CONTROLS.

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Project Title
Bedford Fire Headquarters
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Drawing Title
ELECTRICAL FIRST FLOOR PLAN - LIGHTING

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JL/MRP
Checked by	JF/RS

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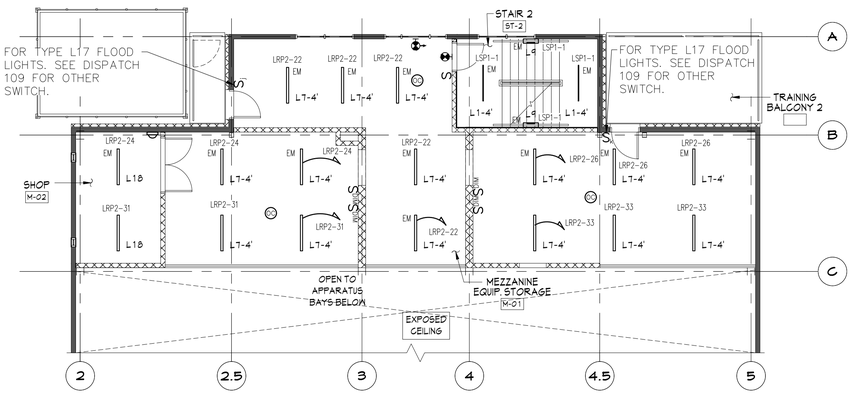
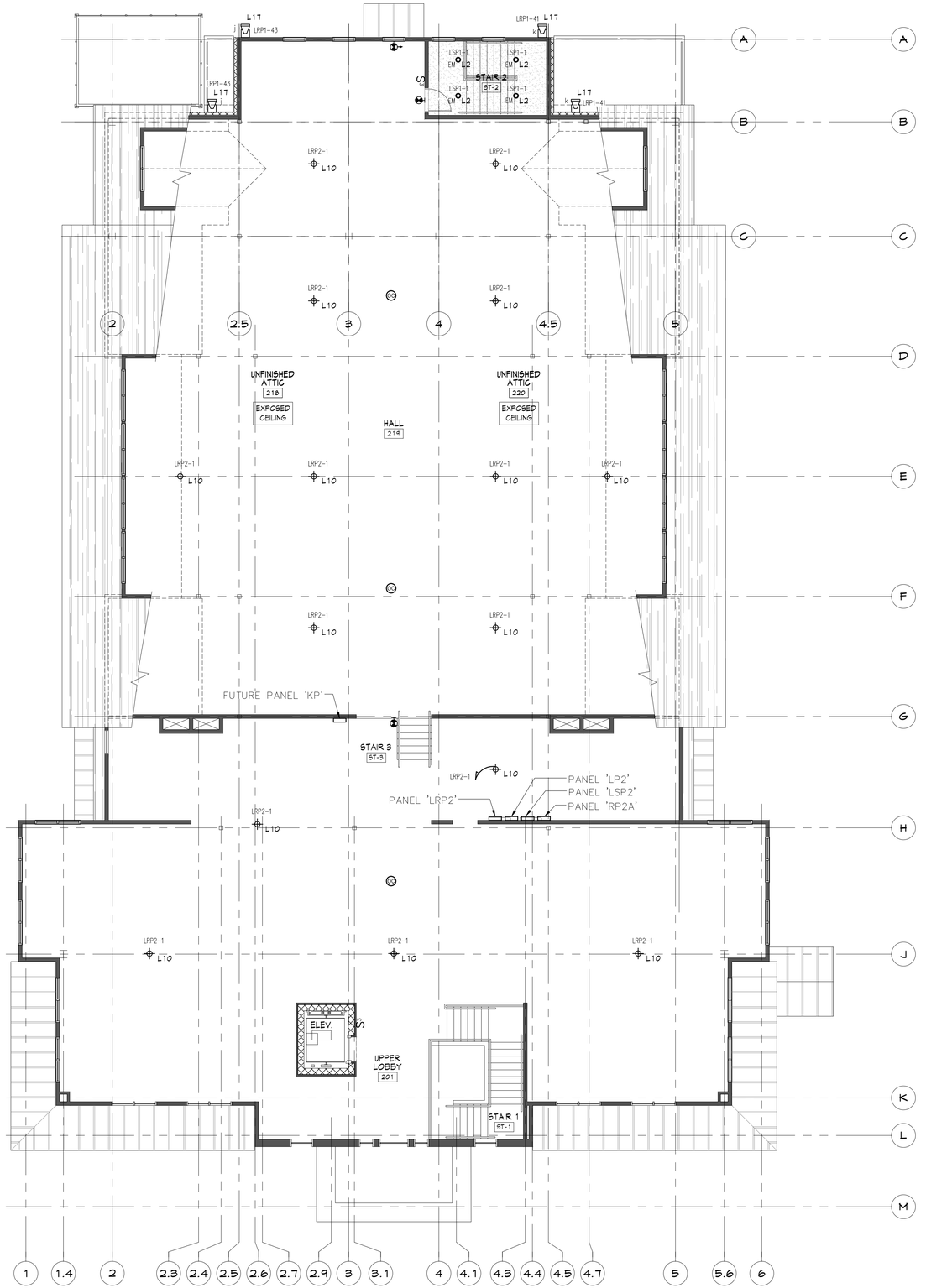
Drawing No.
E2.1



1 ELECTRICAL MEZZANINE PLAN – LIGHTING
SCALE: 1/8" = 1'-0"

NORTH



2 ELECTRICAL SECOND FLOOR PLAN – LIGHTING
SCALE: 1/8" = 1'-0"

NORTH

NOTES:

1. ALL ZONES WILL BE TIME BASED AND BE PROGRAMMED TO BE IN OCCUPANCY MODE DURING TIMES DESIGNATED BY FIRE DEPARTMENT CHIEF.
2. STAIR LIGHTING WILL BE ON AT ALL TIMES AND DIMMED WHEN NOT OCCUPIED.
3. PROVIDE NORMAL POWER SENSING CIRCUIT TO ALL EMERGENCY LIGHTING CONTROL PANELS AND ALL STAIR LIGHTING FIXTURES.
4. REFER TO WIRING DIAGRAMS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING LIGHTING CONTROLS.

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ELECTRICAL SECOND FLOOR PLAN - LIGHTING

Project No.	NSPC0070.00
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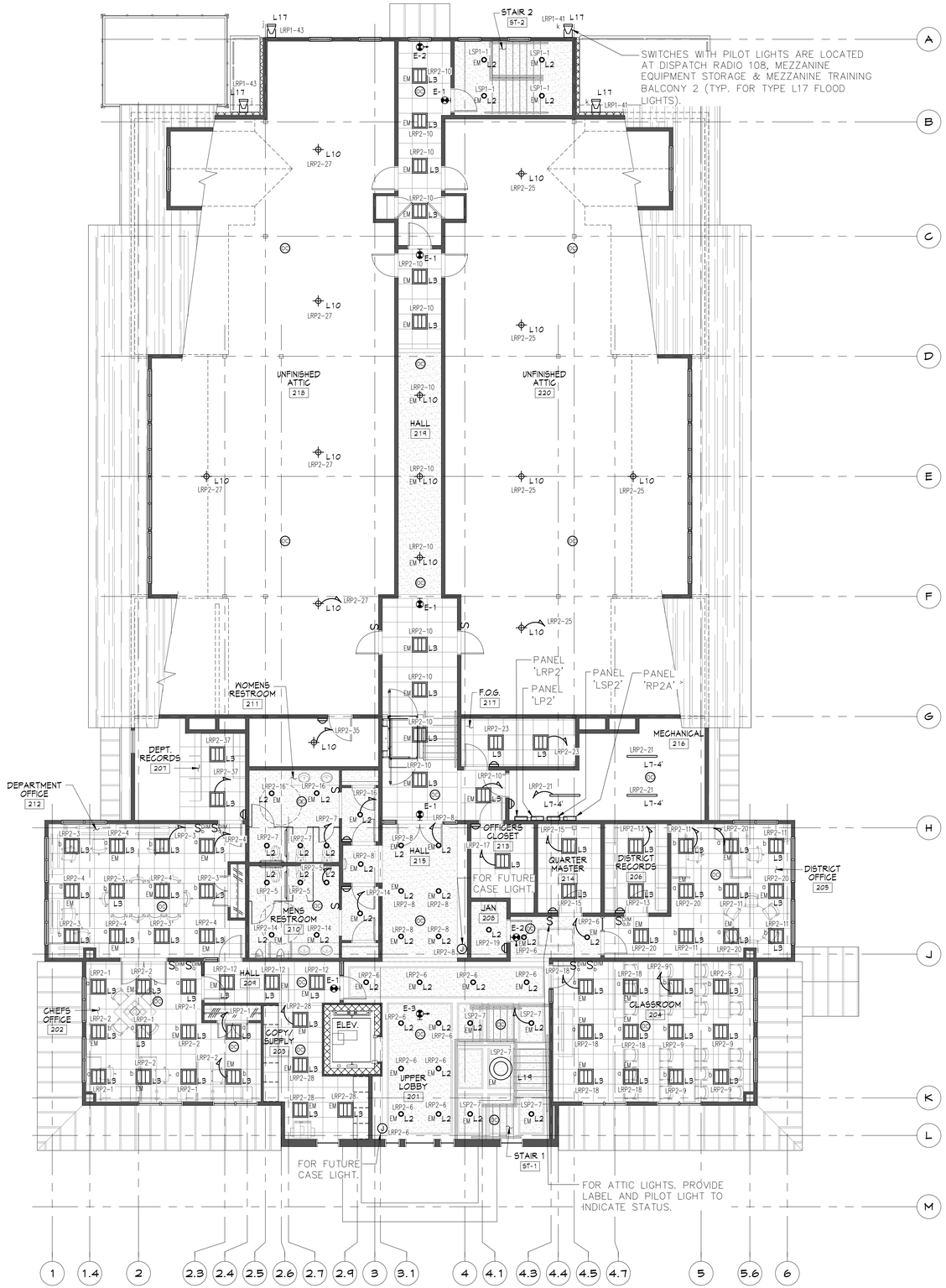
Drawing No.
E2.2



NORTH

2 ELECTRICAL SECOND FLOOR PLAN – LIGHTING (ALTERNATE))

SCALE: 1/8" = 1'-0"

NOTES:

1. ALL LIGHTING CIRCUITS WILL BE CONTROLLED THROUGH LIGHTING RELAY PANELS.
2. ALL ZONES/ROOMS WITH OCCUPANCY SENSORS WILL BE MANUAL ON.
3. ALL ZONES WILL BE TIME BASED AND BE PROGRAMMED TO BE ON OCCUPANCY MODE DURING TIMES DESIGNED BY FIRE DEPARTMENT CHIEF.
4. STAIR LIGHTING WILL BE ON AT ALL TIMES AND DIMMED WHEN NOT OCCUPIED.
5. ALL FLOOD LIGHTS TO HAVE LOCAL SWITCH & 3-WAY SWITCH IN DISPATCH ROOM 108 WITH PILOT LIGHT.
6. PROVIDE NORMAL POWER SENSING CIRCUIT FOR ALL EMERGENCY LIGHTING CONTROL PANELS AND ALL STAIR LIGHTING FIXTURES.
7. REFER TO WIRING DIAGRAMS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING LIGHTING CONTROLS.

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Project Title

Bedford Fire Headquarters

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Drawing Title

ELCTRICAL SECOND FLOOR PLAN - LIGHTING (ALTERNATE)

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JL/WRP
Checked by	JF/RS

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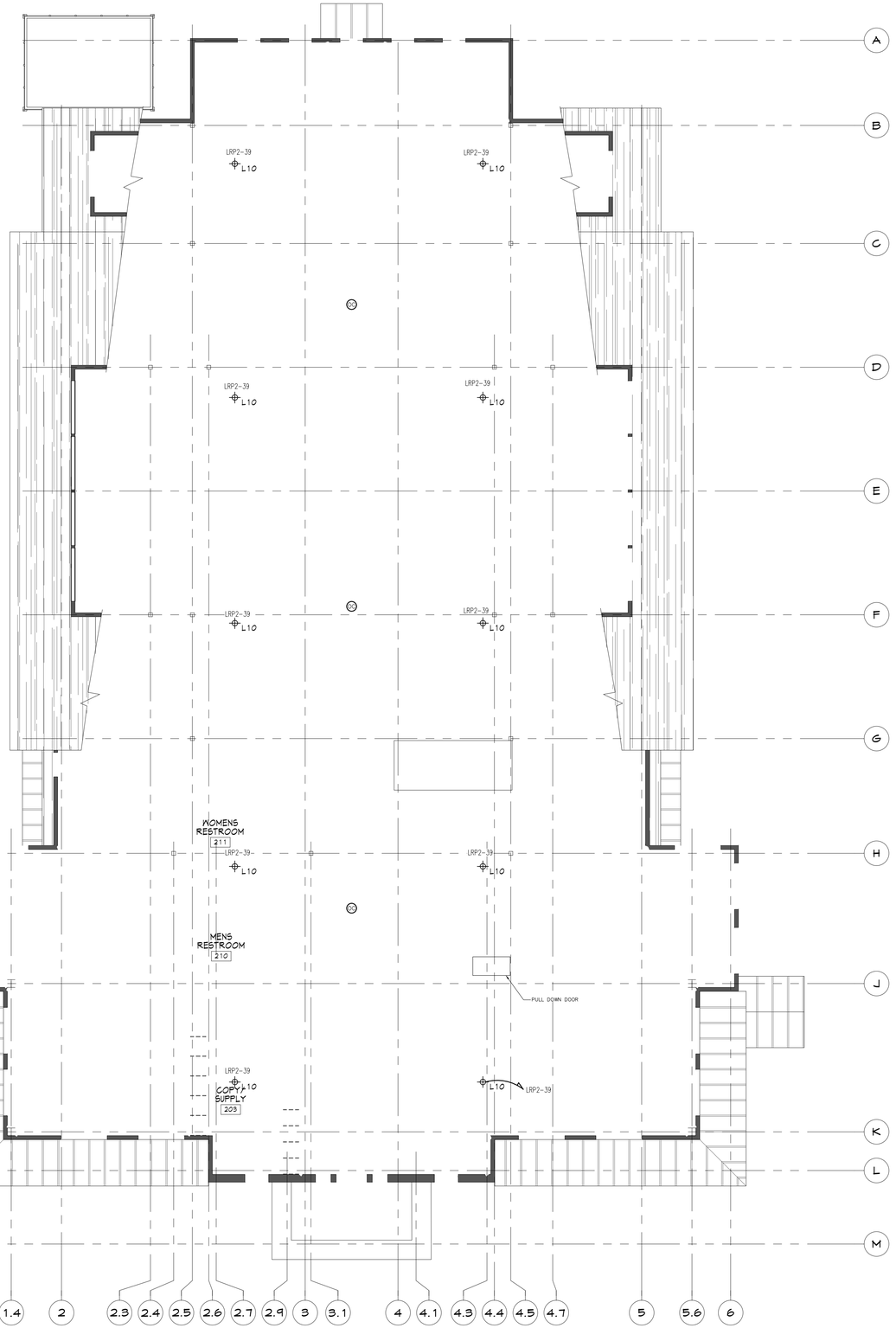
Drawing No.

E2.2A



NORTH

1 ELECTRICAL ATTIC PLAN – LIGHTING (ALTERNATE)
SCALE: 1/8" = 1'-0"

NOTES:

1. LIGHT SWITCH FOR ATTIC LIGHTS LOCATED ON 2ND FLOOR.

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Bedford Fire Headquarters
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Drawing Title
ELECTRICAL ATTIC PLAN - LIGHTING (ALTERNATE)

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JL/WRP
Checked by	JF/RS

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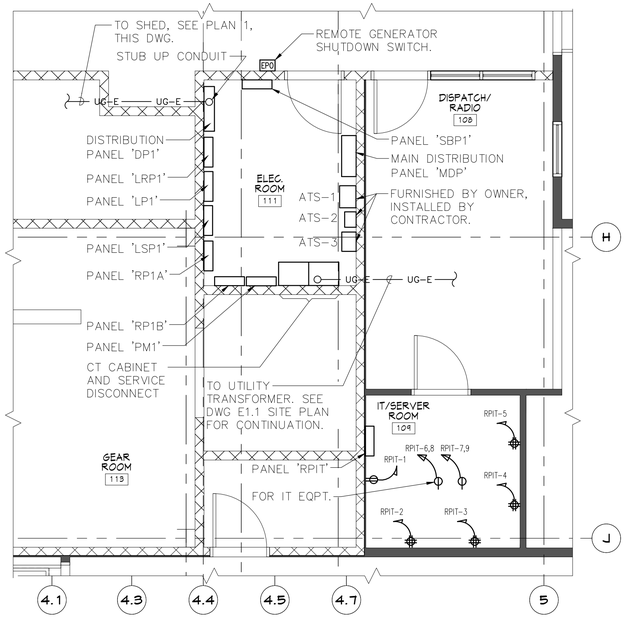
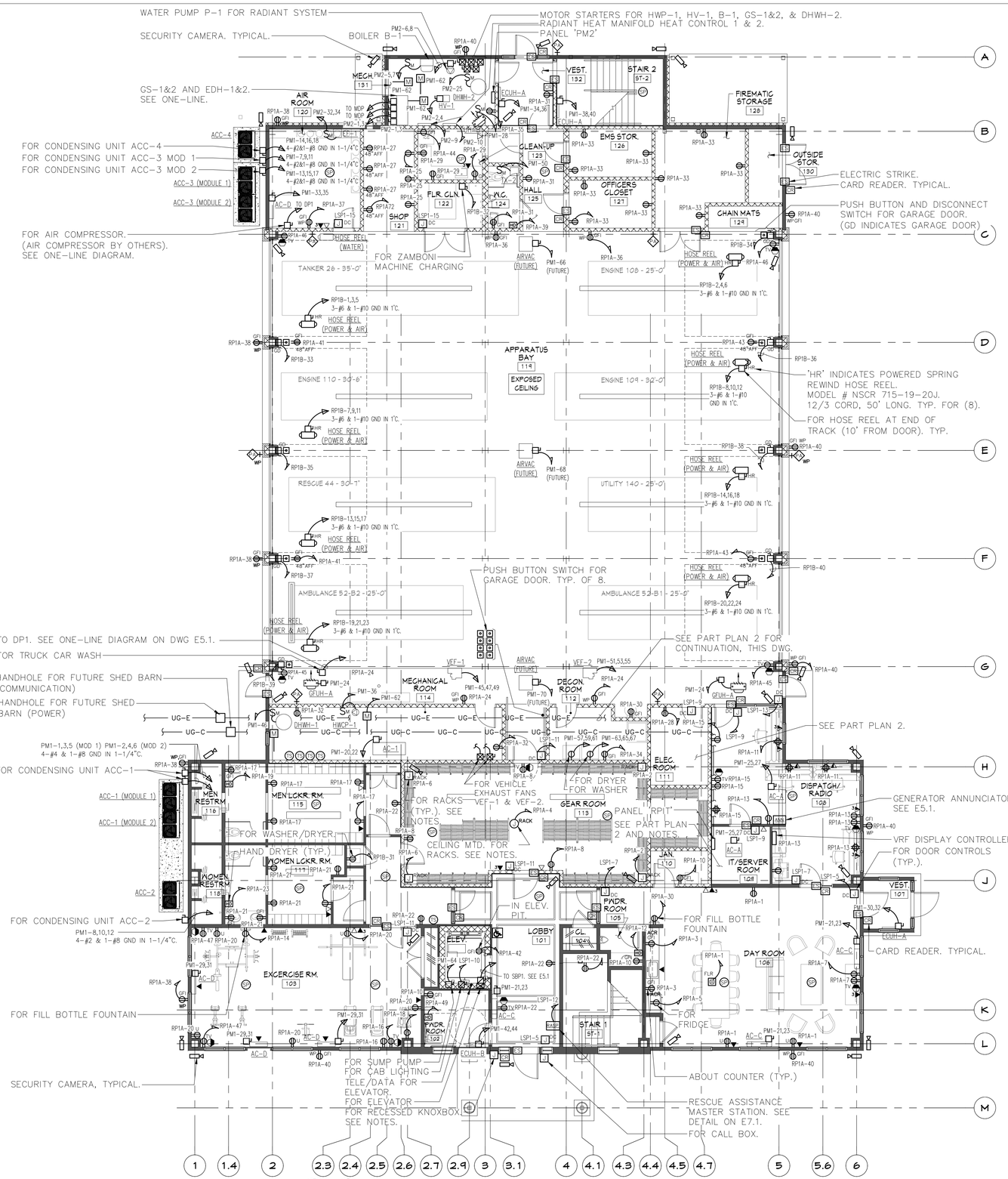
Drawing No.
E2.3A

NOTES:

1. ALL DATA CABLING SHALL BE IN CONDUIT WHERE EXPOSED AND CABLING SHALL BE COLOR CODED FOR SPECIFIC SYSTEM.
2. PROVIDE (2) 2" SPARE CONDUITS WITH PULL STRING FROM IT ROOM UP TO ATTIC FOR FUTURE USE.
3. PROVIDE TELEPHONE AND DATA CONNECTIONS FOR ELEVATOR. COORDINATE WITH MANUFACTURER.
4. PROVIDE JUNCTION BOX AND CONDUIT FOR RECESSED KNOXBOX AND LOW VOLTAGE WIRING AT FRONT ENTRY AS NEEDED. SEE FIRE-ALARM PLANS FOR ADDITIONAL INFORMATION. COORDINATE WITH GC. SEE ARCHITECTURAL PLANS FOR ADDITIONAL INFO.
5. PROVIDE POWER REQUIRED FOR AUTOMATIC PLUMBING FIXTURE POWER KITS. PROVIDE JUNCTION BOX AND/OR RECEPTACLE, CONDUIT AND WIRING FOR AUTOMATIC PLUMBING FIXTURES. CONNECT TO RECEPTACLE CIRCUIT SERVING RESTROOM/AREA. COORDINATE ALL LOCATIONS WITH PLUMBING DRAWINGS. COORDINATE FINAL INSTALLATION WITH PLUMBING CONTRACTOR.
6. PROVIDE WIRING, RECEPTACLE AND COVER-PLATE AT EACH LOCKER IN TURNOUT GEAR ROOM. CONNECT TO CIRCUIT AT JUNCTION BOXES NOTED. TYPICAL FOR EACH WALL MOUNTED LOCKER AND LOCKERS IN CENTER OF ROOM.



2 ELECTRICAL AND IT ROOM FIRST FLOOR PART PLAN
SCALE: 1/4" = 1'-0"
NORTH



1 ELECTRICAL FIRST FLOOR PLAN - POWER & DATA
SCALE: 1/8" = 1'-0"
NORTH

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01.15.21	ISSUED FOR BID

Project Title
Bedford Fire Headquarters
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Bedford, NY 10506

Drawing Title
ELECTRICAL FIRST FLOOR PLAN - POWER & DATA

Project No.	NSPC0010.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JL/MRP
Checked by	JF/RS

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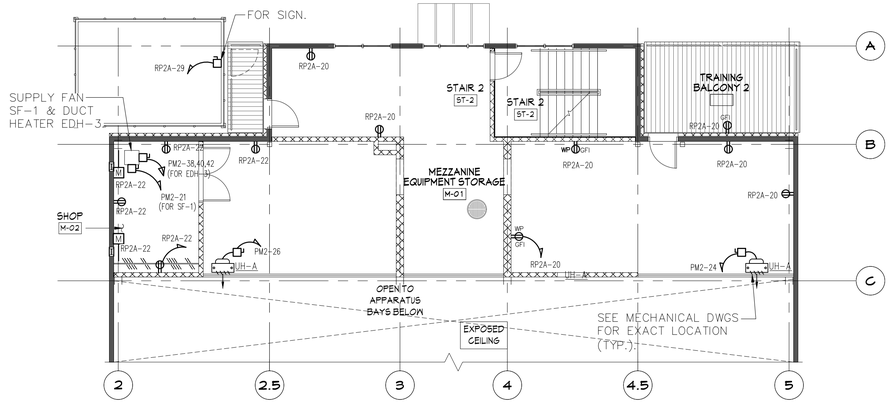
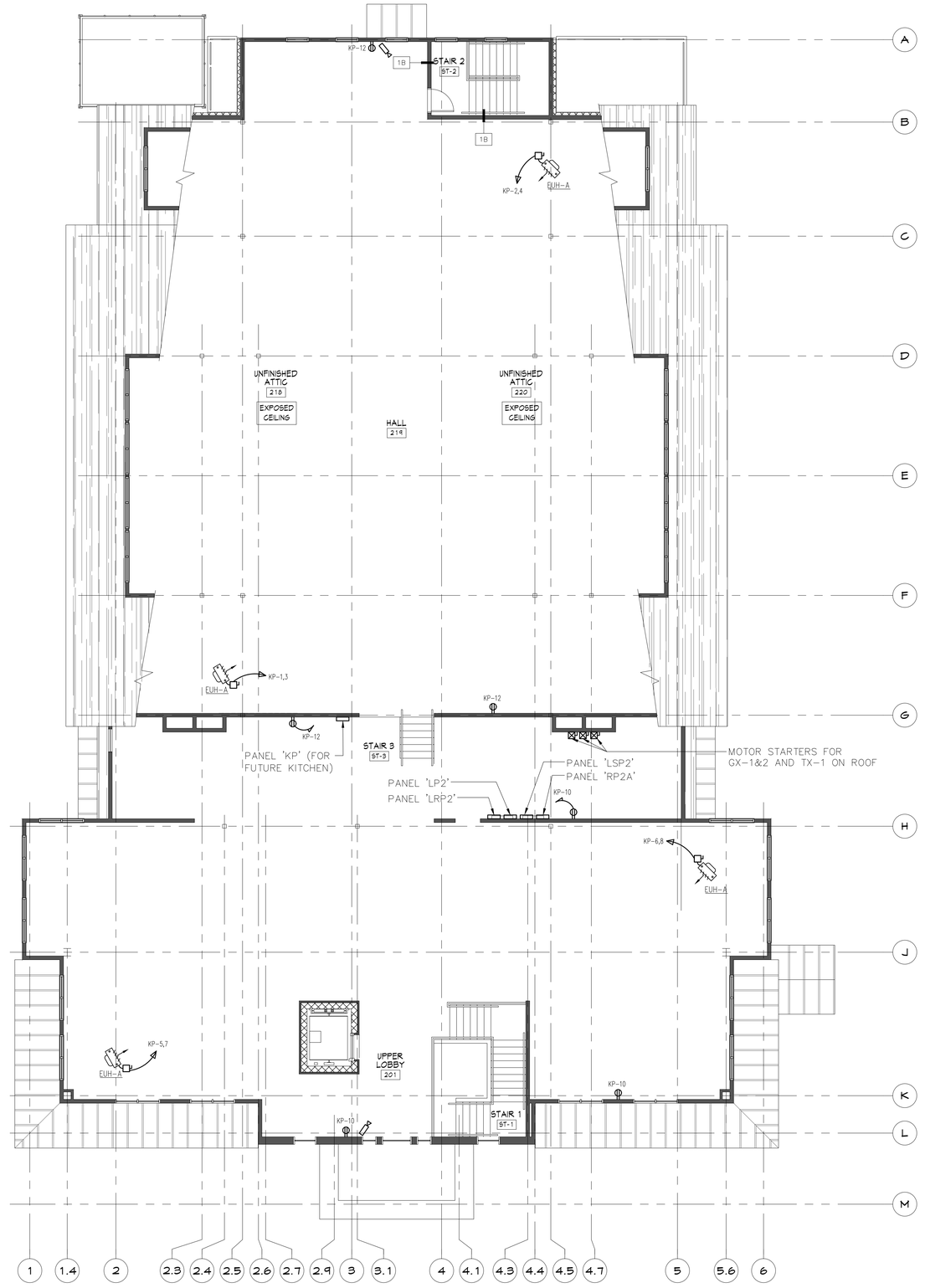
Drawing No.
E3.1



1 ELECTRICAL MEZZANINE PLAN – POWER & DATA
SCALE: 1/8" = 1'-0"
NORTH



2 ELECTRICAL SECOND FLOOR PLAN – POWER & DATA
SCALE: 1/8" = 1'-0"
NORTH

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Project Title
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Drawing Title
ELECTRICAL SECOND FLOOR PLAN - POWER & DATA

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
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Checked by	JF/RS

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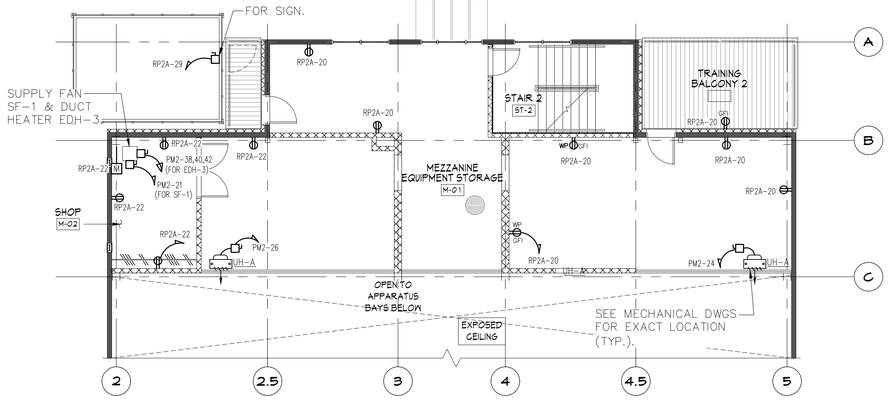
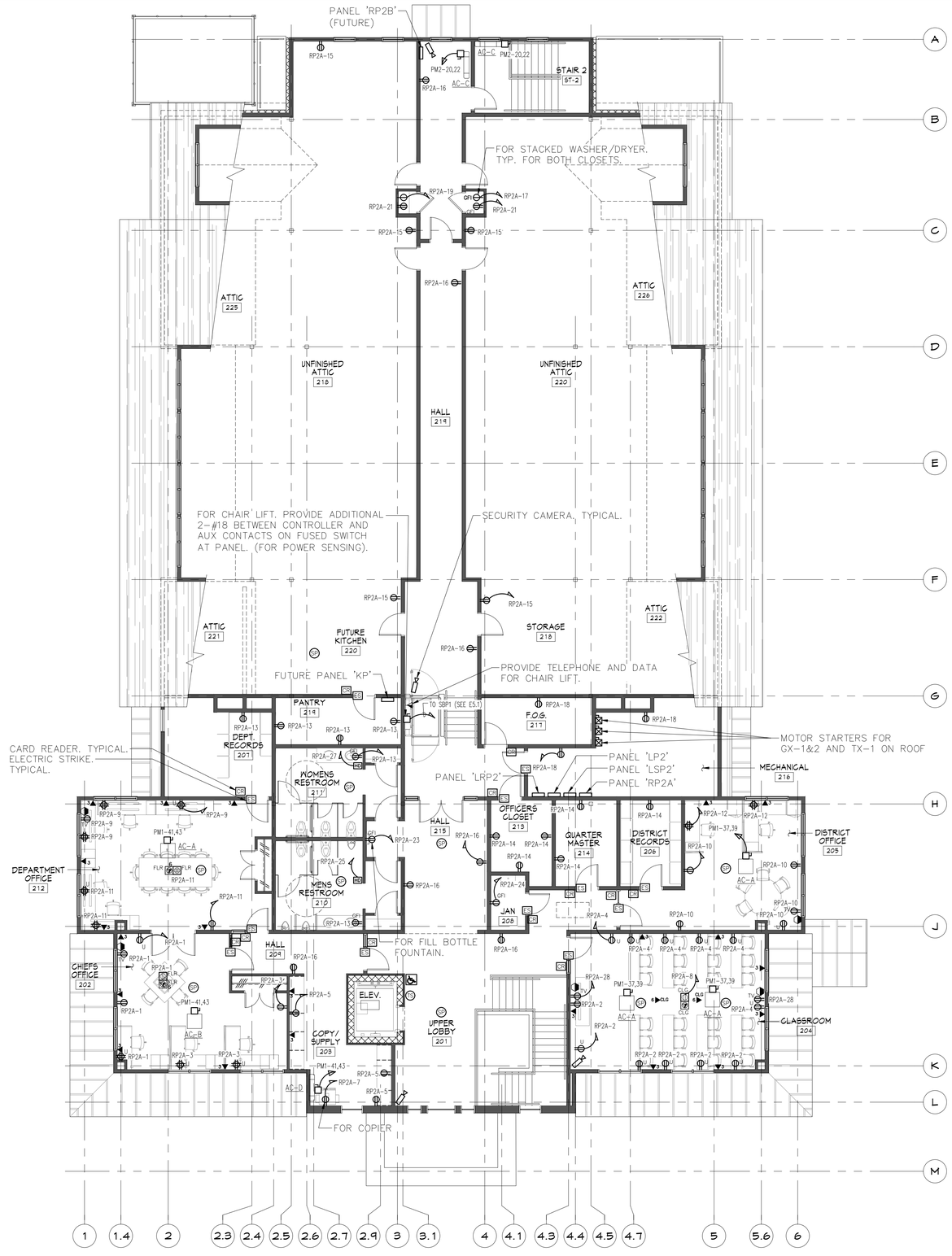
Drawing No.
E3.2



1 ELECTRICAL MEZZANINE PLAN – POWER & DATA
SCALE: 1/8" = 1'-0"

NORTH



2 ELECTRICAL SECOND FLOOR PLAN – POWER & DATA (ALTERNATE)
SCALE: 1/8" = 1'-0"

NORTH

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Date	Issue
03.10.20	MEETING
03.27.20	DESIGN DEVELOPMENT
05.07.20	PROGRESS
05.08.20	CD PROGRESS SET
05.28.20	CD PROGRESS SET
06.30.20	CD REVIEW SET
09.01.20	CONSTRUCTION PROGRESS
09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

Project Title

Bedford Fire Headquarters

550 Old Post Road
Bedford, NY 10506

Drawing Title

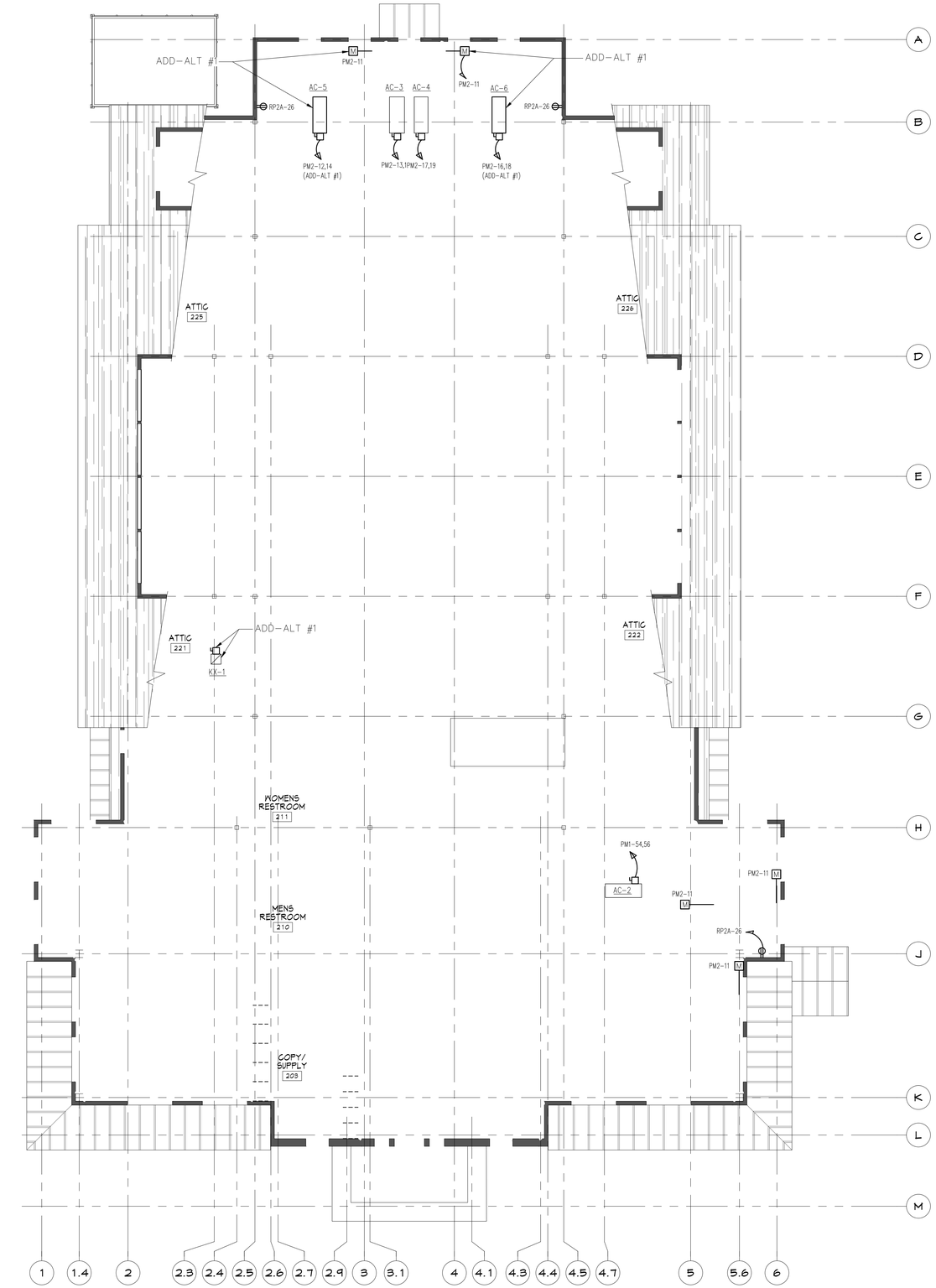
ELECTRICAL SECOND FLR PLAN - POWER & DATA (ALTERNATE)

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JL/WRP
Checked by	JF/RS

STATE OF NEW YORK · PATRICK F. LYNCH · 069467 · LICENSED PROFESSIONAL ENGINEER

Drawing No.

E3.2A



1 ELECTRICAL ATTIC PLAN (ALTERNATE)
SCALE: 1/8" = 1'-0"

NORTH

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Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
ELECTRICAL ATTIC PLAN - POWER (ALTERNATE)

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JL/WRP
Checked by	JF/RS

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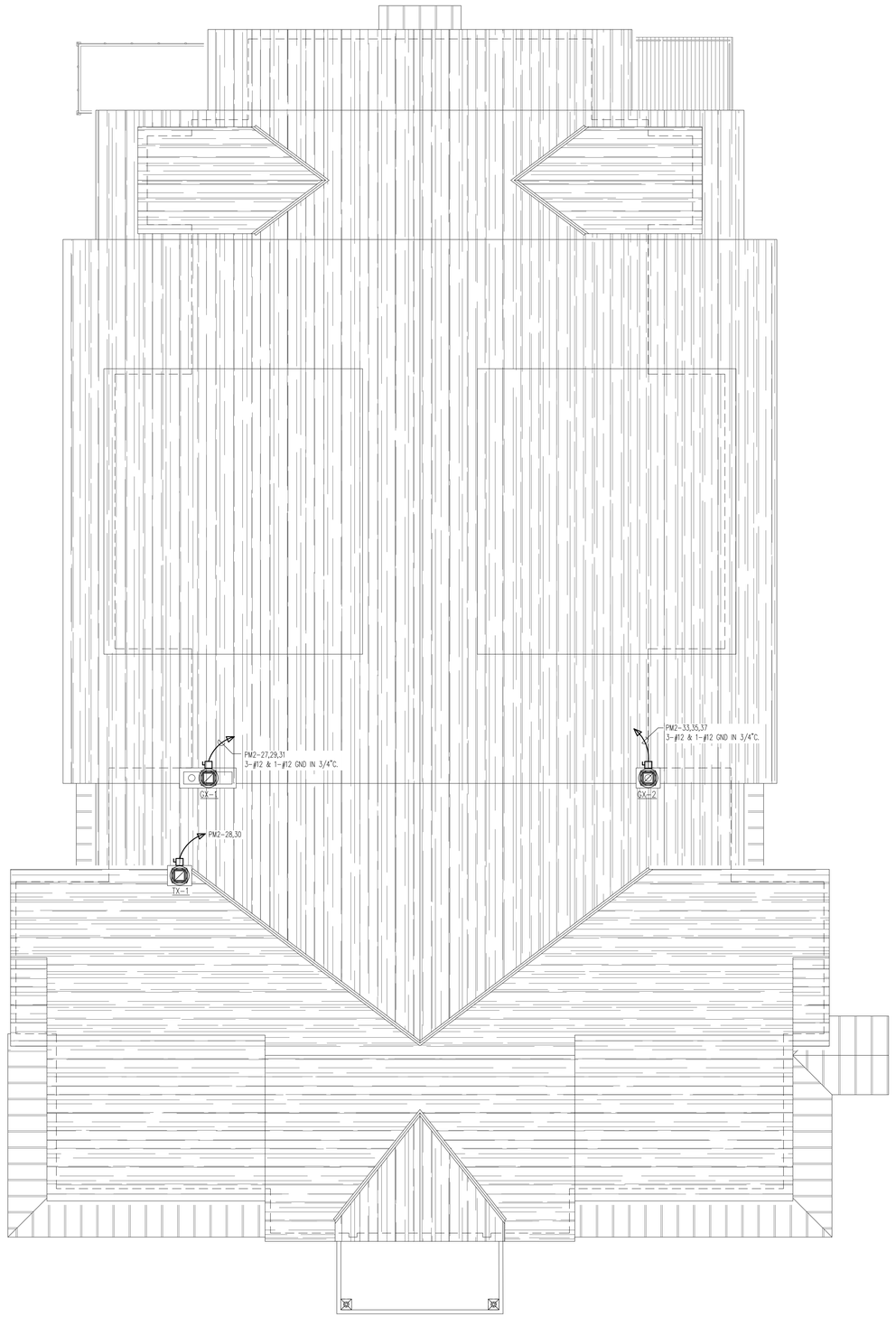
Drawing No.
E3.3A



1 ELECTRICAL ROOF PLAN – POWER
SCALE: 1/8" = 1'-0"

NORTH

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Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
ELECTRICAL ROOF PLAN - POWER

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JL/WRP
Checked by	JF/RS

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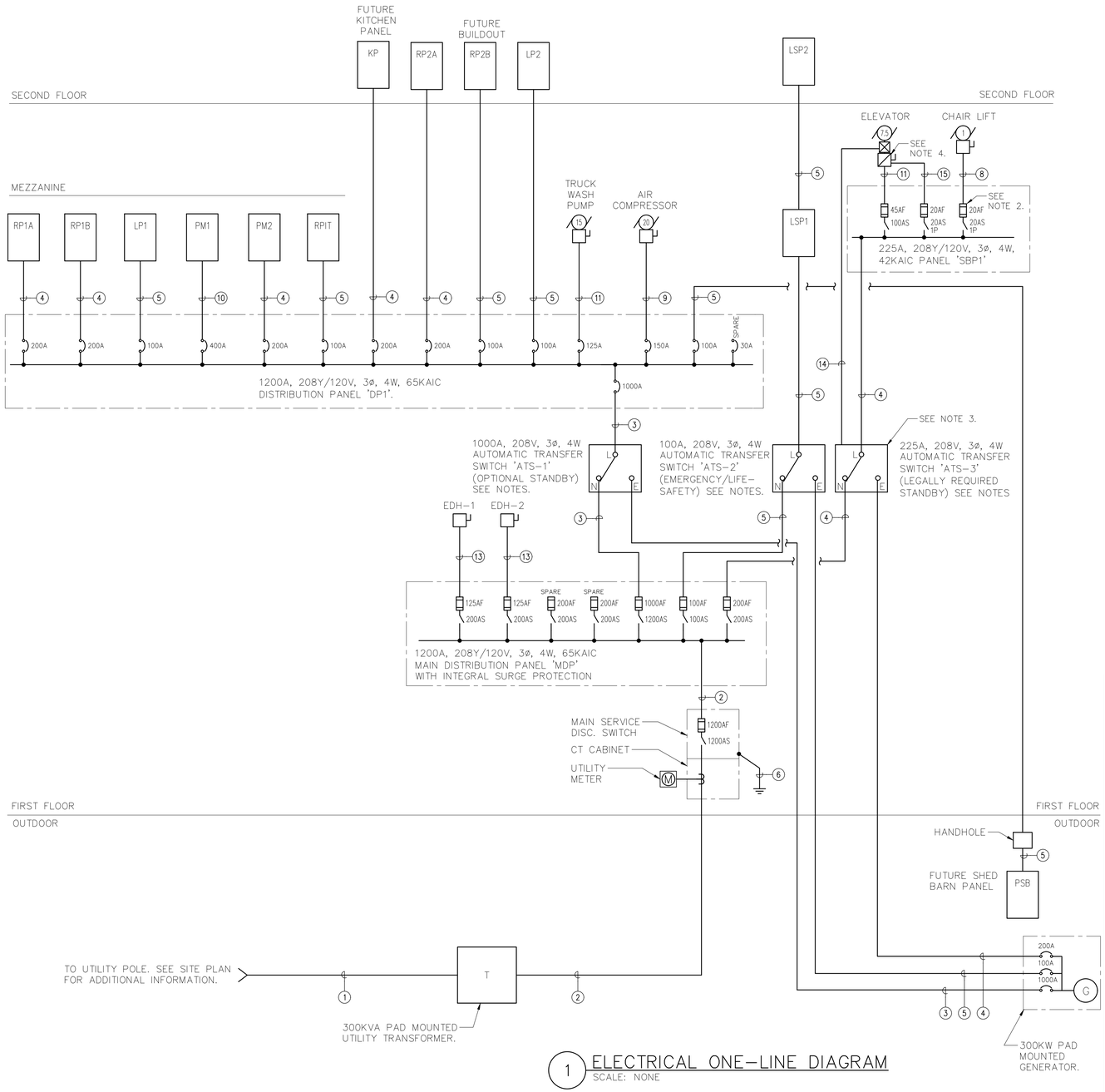
Drawing No.
E3.4



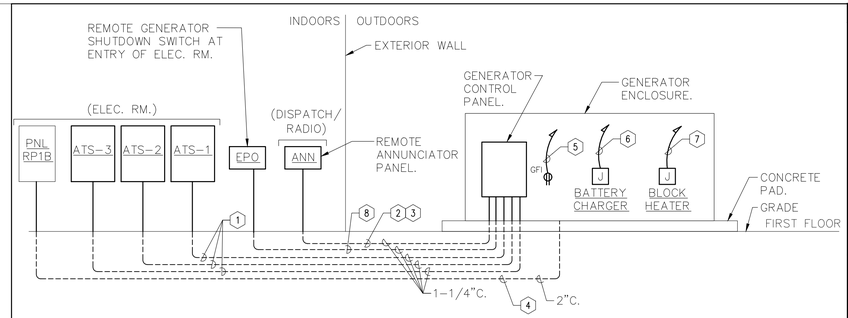
1 ELECTRICAL ONE-LINE DIAGRAM
SCALE: NONE

WIRING/CONDUIT LEGEND:

1. 3-#2 AL IN 4"C, MEDIUM VOLTAGE PRIMARY CABLING PER NYSEG SPECIFICATIONS.
2. 3 SETS OF 4-#600MCM & 1-#3/0 GND IN (3) 3-1/2"C. PROVIDE (1) 3-1/2"C SPARE.
3. 3 SETS OF 4-#500MCM & 1-#2/0 GND IN (3) 3-1/2"C.
4. 4-#4/0 & 1-#4 GND IN 2-1/2"C.
5. 4-#1 & 1-#6 GND IN 1-1/2"C.
6. #3/0 GND BARE COPPER WIRE
7. 1" EMPTY CONDUIT WITH PULL CORD.
8. 2-#8 & 1-#10 GND IN 1"C.
9. 3-#2 & 1-#6 GND IN 1-1/2"C
10. 4-#500MCM & 1-#3 GND IN 3-1/2"C
11. 3-#4 & 1-#6 GND IN 1"C.
12. 3" EMPTY CONDUIT WITH PULL CORD FOR COMMUNICATIONS.
13. 4-#1/0 & 1-#6 GND IN 1-1/2"C.
14. 4-#12 IN 3/4"C
15. 2-#12 & 1-#12 GND IN 3/4"C.

NOTES:

1. SURGE PROTECTIVE DEVICE (SPD) SHALL BE INSTALLED IN ALL EMERGENCY SYSTEMS SWITCHBOARDS AND PANEL BOARDS.
2. PROVIDE AUXILIARY CONTACTS FOR FUSED SWITCH SERVING CHAIR LIFT FOR POWER SENSING.
3. ATS-3 SHALL BE PROVIDED WITH NORMALLY OPEN AND NORMALLY CLOSED CONTACTS. PROVIDE WIRING AS INDICATED BETWEEN ELEVATOR CONTROLLER AND ATS FOR SIGNALING.
4. ELEVATOR DISCONNECT SWITCH SHALL HAVE SHUNT TRIP CAPABILITY FOR FIRE-ALARM SHUT DOWN. SHUNT TRIP COIL SHALL BE CIRCUITED TO PANEL SBP1 AS INDICATED. COORDINATE WITH FIRE-ALARM VENDOR.
5. GENERATOR AND ATS'S SHALL BE FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR.



2 GENERATOR CONTROL WIRING DIAGRAM
SCALE: NONE

LEGEND:

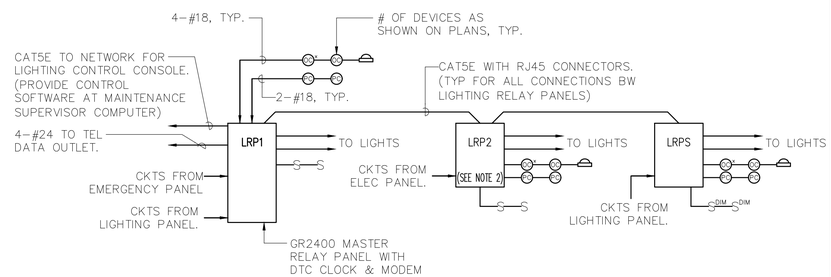
1. 4-#12 AWG. START CIRCUIT FROM AUTOMATIC TRANSFER SWITCH TO GENERATOR CONTROL PANEL.
2. TWISTED SHIELDED PAIR - BELDEN #9841. COMMUNICATIONS CIRCUIT FROM GENERATOR CONTROL PANEL TO REMOTE ANNUNCIATOR.
3. 2-#12 AWG. POWER FROM GENERATOR SET BATTERY TO REMOTE ANNUNCIATOR.
4. POWER CONDUIT FOR BRANCH CIRCUITS TO GENERATOR SET. SEE CIRCUIT INFORMATION FOR ITEMS 5, 6 & 7 BELOW.
5. 2-#12 & 1-#12 GROUND. CIRCUIT RP1B-25 FOR RECEPTACLE.
6. 2-#12 & 1-#12 GROUND. CIRCUIT RP1B-27 FOR BATTERY CHARGER.
7. 2-#12 & 1-#12 GROUND. CIRCUIT RP1B-29. FOR BLOCK HEATER.
8. 4-#12 AWG. EMERGENCY STOP CIRCUIT FROM EPO SWITCH TO GENERATOR CONTROL PANEL.

NOTES:

1.) WIRING ON THIS DETAIL SHOWN FOR INFORMATIONAL PURPOSES ONLY. COORDINATE EXACT SIZE, QUANTITY AND TYPE OF WIRING WITH MANUFACTURER'S SUGGESTION FOR EQUIPMENT PURCHASED.

2.) CONDUITS SHALL BE 1" U.O.N.

3.) SEE ONE-LINE DIAGRAM FOR POWER OUTPUT FEEDERS INFORMATION.



3 LIGHTING CONTROL WIRING DIAGRAM
SCALE: NONE

WIRING DIAGRAM NOTES:

1.) THIS IS NOT A POINT-TO-POINT WIRING DIAGRAM. PROVIDE NUMBER OF DEVICES AS SHOWN ON PLANS.

2.) REFER TO PANEL SCHEDULE FOR NUMBER OF RELAY CIRCUITS TO BE CONTROLLED.

3.) POWER WIRING SHALL BE AS INDICATED ON PLAN.

4.) PROVIDE 1P-20A AND 2-#12 & 1-#12 GND IN 3/4"C TO EACH RELAY PANEL FOR POWER. UTILIZE LOCAL LIGHTING PANEL.

5.) ALL DIGITAL SWITCHES SHALL BE CUSTOM FACTORY ENGRAVED WITH LABELS TO BE DETERMINED BY THE CLIENT.

6.) PANEL 'LRP1' SHALL BE A MASTER PANEL.

7.) ALL PANELS SHALL HAVE NETWORKING CAPABILITY.

8.) SEE SPECIFICATIONS FOR MORE INFORMATION.

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Project Title
Bedford Fire Headquarters
550 Old Post Road
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Drawing Title
ELECTRICAL ONE-LINE DIAGRAM

Project No.	NSPC0010.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JL/MRP
Checked by	JF/RS

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Drawing No.
E5.1

LIGHTING FIXTURE SCHEDULE

FIXTURE DESIGNATION	MANUFACTURER	CATALOG NUMBER	LAMPS	VOLTS	INPUT WATTS (W)	MOUNTING	REMARKS
F1	BIG ASS FANS	8 FT – 158 RPM	–	120	1,200	SURFACE	ESSENCE 8FT FAN KIT
L1–8'	SAYLITE	LLLSA–97L–46W1500L–30K–SA–HC601WH–MTIM40L24DC	LED	120	46	SURFACE	LINEAR LIGHTING CHANNEL
L1–4'	SAYLITE	LLLSA–48L–23W1500L–30K–SA–HC601WH–MTIM40L24DC	LED	120	23	SURFACE	LINEAR LIGHTING CHANNEL
L2	LIGHTOLIER	6RN–C6L30830ME1–C6RDLWH	LED	120	30	RECESSED	CALCULATED LED 6" GEN 3 ROUND DOWNLIGHT
L3	DAY–BRITE	2EVG30L835–2–D–UNV–DIM	LED	120	25	RECESSED	2'x2' LIGHTING FIXTURE
L4	LIGHTOLIER	6RN–C6L30830ME1–C6RSLWH	LED	120	30	RECESSED	CALCULATED LED 6" GEN 3 ROUND DOWNLIGHT
L5	MODERN FORMS	MFMP206783	LED	120	80	SURFACE	LED LINEAR PENDANT
L6	SHAPER	122–36–S–L9/830–UNV–MW DRUM: 122–36–VLM	LED	UNV	72	SURFACE	LED DECORATIVE ROUND LIGHTING FIXTURE.
L7	DAY–BRITE	5FL455L840–PPS–UNV–DIM	LED	120	37	SURFACE	6"x4' INDUSTRIAL LED LIGHTING FIXTURE.
L8	DAY–BRITE	DWAE70L840–8–UNV–WHP	LED	UNV	130	SURFACE	7"x8' SEALED INDUSTRIAL LED LIGHTING FIXTURE'
L9	EATON (CORELITE)	JS–L–L–2–L35–1D–UNV–SU–WA–STD–W	LED 3500K	UNV	18	SURFACE	WALL MOUNT SCONCE LED LIGHTING FIXTURE.
L10	LEVITON	000–09850–LED	LED 3000K	120	10	SURFACE	LED CEILING LAMPHOLDER.
L11	MAXIM LIGHTING	SHORELINE 10104BK	(1) 60W E26 MEDUIM	120	60	SURFACE	WALL MOUNT DECORATIVE OUTDOOR LIGHTING FIXTURE.

FIXTURE DESIGNATION	MANUFACTURER	CATALOG NUMBER	LAMPS	VOLTS	INPUT WATTS (W)	MOUNTING	REMARKS
L12	HINKLEY	HKYP297130–(12VLED OPTION)	LED	120	16	SURFACE	ALFORD PLACE OUTDOOR PENDANT.
L13	MAXIM LIGHTING	LIGHTHOUSE 5866CLFTAR	(1) 60W E26 MEDUIM	120	60	SURFACE	CONTRACTOR TO PROVIDE RED BULBS.
L14	MAXIM LIGHTING	VANITY 52000–POLISHED CHROME	LED	120	12	SURFACE	VANITY LIGHTING FIXTURE.
L15	LITHONIA LIGHTING	VW150SL M6	HIGH PRESSURE SODIUM (HPS)	120	150	SURFACE	UTILITY VAPOR TIGHT LIGHTING FIXTURE.
L16	BARN LIGHT U.S.A.	CHEROKEE UPLIGHT SERIES G–ULC18–100–G26–CLR–NA–LED16.8–3000K	LED	120	16.8	SURFACE	BARN TYPE LIGHTING FIXTURE.
L17	EATON	FSL2850LW	LED	UNV	28.23	SURFACE	SINGLE HEAD LED FLOOD LIGHTING FIXTURE.
L18	DAY–BRITE	V2WAE51L840–4–UNV–MD360W	LED	UNV	46	SURFACE	SEALED WET LOCATION INDUSTRIAL FIXTURE.
L19	ALORA LIGHTING	ALRP267758–(LARGE OPTION FIXTURE)	LED	UNV	60	PENDANT	DUO LED PENDANT. LARGE OPTION FIXTURE – 31.5" DIAMETER
E–1	COOPER	SURE–LITES LPX SERIES LPX 6 (WALL MOUNT)	LED	120	0.98	SURFACE	EXIT LIGHT. REFER TO ARCHITECTURAL DWGS FOR DIRECTION CHEVRONS.
E–2	COOPER	SURE–LITES LPX SERIES LPX 6 (WALL MOUNT)	LED	120	0.98	SURFACE	EXIT LIGHT. REFER TO ARCHITECTURAL DWGS FOR DIRECTION CHEVRONS.
E–3	COOPER	SURE–LITES LPX SERIES LPX 6 (CEILING)	LED	120	0.98	SURFACE	EXIT LIGHT. REFER TO ARCHITECTURAL DWGS FOR DIRECTION CHEVRONS.
EL–1	PHOENIX FLOOR	MODEL MLF–MF–120–WW–CD	LED 3000K	120	78	FLOOR MOUNTED	UPLIGHT FOR FLAGPOLE
EL–2	SPRING CITY ELECTRICAL MFG. CO.	JEF–LE060–2G2–30–FM3–YPLO	LED 3000K	120	60	POLE	PROVIDED BY OWNER
EL–3	LEOTEK	AR13–48N–MV–WW–2–XX–100–S	LED 3000K	120	72	POLE	TYPE 2 DISTRIBUTION POLE MOUNTED LIGHTING FIXTURE. PROVIDE DIMMING DRIVER PND1. INTEGRATE WITH LIGHTING CONTROLS.

NOTES:

1. VERIFY ALL FIXTURE CATALOG NUMBERS FOR INTENDED APPLICATIONS WITH REQUIRED ACCESSORIES.
2. ALL BALLASTS IN FIXTURES LOCATED OUTDOORS SHALL BE ZERO DEGREE RATED STARTING TEMPERATURE. REFER TO DRAWINGS FOR LOCATION OF FIXTURES.
3. ALL LIGHT FIXTURES TAGGED AS "EM" SHALL BE FED FROM EMERGENCY POWER PANELS. THESE FIXTURES SHALL BE SWITCHED AS INDICATED. UPON LOSS OF NORMAL POWER, EMERGENCY LIGHT FIXTURES SHALL BE AUTOMATICALLY SHUNTED TO FULL BRIGHT REGARDLESS OF STATE OF CONTROLLING SWITCH. SEE DETAIL FOR ADDITIONAL INFORMATION.
4. IN THE EVENT THE CONTRACTOR CHOOSES TO SUBSTITUTE LIGHT FIXTURES FOR THOSE THAT ARE SPECIFIED ON THE LIGHT FIXTURE SCHEDULE, THE CONTRACTOR SHALL SUBMIT POINT–TO–POINT PHOTOMETRIC CALCULATIONS FOR ALL AREAS WHERE THE SUBSTITUTED FIXTURES ARE INDICATED TO BE INSTALLED ON THE DRAWINGS. THESE CALCULATIONS SHALL BE SUBMITTED ALONG WITH THE LIGHT FIXTURE SHOP DRAWINGS.

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Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
ELECTRICAL LIGHTING FIXTURE SCHEDULE

Project No.	NSPC0070.00
Date	03-27-20
Scale	NONE
Drawing by	JL/MRP
Checked by	JF/RS

STATE OF NEW YORK · PATRICK F. LYNCH · 069467 · LICENSED PROFESSIONAL ENGINEER

Drawing No.
E6.1

LRP1 SCHEDULE (LIGHTING RELAY PANEL)

RELAY NO.	DESCRIPTION	CIRCUIT BREAKER SERVING RELAY	CIRCUIT BREAKER SERVING RELAY	DESCRIPTION	RELAY NO.
1	LTG – 1ST FLR RM 103	LP1–1	LSP1–2	LTG – 1ST FLR RM 101	2
3	LTG – 1ST FLR RM 120	LP1–1	LSP1–2	LTG – 1ST FLR RM 117	4
5	LTG – 1ST FLR RM 121	LP1–1	LSP1–2	LTG – 1ST FLR RM 115	6
7	LTG – 1ST FLR RM 124	LP1–3	LSP1–4	LTG – 1ST FLR RM 113	8
9	LTG – 1ST FLR RM 122	LP1–3	LSP1–4	LTG – 1ST FLR RM 119	10
11	LTG – 1ST FLR RM 124	LP1–3	LSP1–6	LTG – 1ST FLR RM 119	12
13	LTG – 1ST FLR RM 126	LP1–3	LSP1–6	LTG – 1ST FLR RM 119	14
15	LTG – 1ST FLR RM 127	LP1–3	LSP1–8	LTG – 1ST FLR RM 103	16
17	LTG – 1ST FLR RM 128	LP1–5	LSP1–8	LTG – 1ST FLR RM 106	18
19	LTG – 1ST FLR RM 130	LP1–5	LSP1–8	LTG – 1ST FLR RM 108	20
21	LTG – 1ST FLR RM 131	LP1–5	LSP1–8	LTG – 1ST FLR RM 125, 132	22
23	LTG – 1ST FLR RM 125	LP1–5			24
25	LTG – 1ST FLR RM 132	LP1–5			26
27	LTG – 1ST FLR RM 114	LP1–7			28
29	LTG – 1ST FLR RM 112	LP1–7			30
31	LTG – 1ST FLR RM 111	LP1–7			32
33	LTG – 1ST FLR RM 106	LP1–7			34
35	LTG – 1ST FLR RM 107	LP1–7			36
37	LTG – 1ST FLR RM 110	LP1–7			38
39	LTG – OUTDOOR (TYPE L17 WEST)	LP1–12			40
41	LTG – OUTDOOR (TYPE L17 TRAINING BALCONY 2)	LP1–12			42
43	LTG – OUTDOOR (TYPE L17 TRAINING BALCONY 1)	LP1–12			44
45	LTG – OUTDOOR (TYPE L17 EAST)	LP1–12			46
47	LTG – OUTDOOR	LP1–2			48

NOTES:

1. PANEL SHALL BE GR2400 MASTER RELAY PANEL WITH 48 RELAYS. PROVIDE INTEGRAL DIGITAL TIME CLOCK WITH MODEM.
2. CONTRACTOR SHALL COORDINATE TIME CLOCK REQUIREMENTS WITH THE OWNER AND PROGRAM TO SUIT THE OWNERS NEEDS.
3. BARRIER SHALL BE PROVIDED BETWEEN NORMAL AND EMERGENCY SIDE OF PANEL.

LRPS SCHEDULE (SITE LIGHTING RELAY PANEL)

RELAY NO.	DESCRIPTION	CIRCUIT BREAKER SERVING RELAY	CIRCUIT BREAKER SERVING RELAY	DESCRIPTION	RELAY NO.
1	LTG – SIGNS AT STREET	LP1–9		SPARE	2
3	RECP – CHRISTMAS TREE AT STREET	LP1–9		SPARE	4
5	LTG – FLAGPOLE	LP1–9		SPARE	6
7					8
9					10
11					12

NOTES:

1. PANEL SHALL BE GR2400 MASTER RELAY PANEL WITH 12 RELAYS. PROVIDE INTEGRAL DIGITAL TIME CLOCK WITH MODEM.
2. CONTRACTOR SHALL COORDINATE TIME CLOCK REQUIREMENTS WITH THE OWNER AND PROGRAM TO SUIT THE OWNERS NEEDS.

LSP1 PANEL SCHEDULE (FUSED LIFE–SAFETY PANEL)

MAIN RATING: 100A MAIN: MLO KAIC RATING: 42KAIC
VOLTAGE: 208Y/120V PHASE: 3 WIRE: 4 MOUNTING: RECESSED

CIRC. NO.	LOAD DESCRIPTION	FUSE AMPS	NO. OF POLES	NO. OF POLES	FUSE AMPS	LOAD DESCRIPTION	CIRC. NO.
1	LTG – ST–2	20	1	1	20	LRP1–2,4,6	2
3	FACP	20LK	1	1	20	LRP1–8,10	4
5	DOOR CONTROLS	20	1	1	20	LRP1–12	6
7	DOOR CONTROLS	20	1	1	20	LRP1–14,16,18,20,22	8
9	DOOR CONTROLS	20	1	1	20	ELEV LIGHT & ELEV. PIT LIGHT	10
11	DOOR CONTROLS	20	1	1	20	RESCUE ASSISTANCE MASTER	12
13	DOOR CONTROLS	20	1				14
15	DOOR CONTROLS	20	1				16
17	DOOR CONTROLS	20	1				18
19	DOOR CONTROLS	20	1				20
21							22
23							24
25							26
27							28
29							30
31							32
33							34
35	SPARE	20	1	1	20	SPARE	36
37	SPARE	20	1	1	20	SPARE	38
39	SPARE	20	1	1	20	SPARE	40
41	SPARE	20	1	1	20	SPARE	42

LK – PROVIDE LOCKING TABS

NOTES: PROVIDE INTEGRAL SURGE PROTECTOR WITH VISIBLE STATUS INDICATION AND SURGE COUNTER.

LP1 PANEL SCHEDULE

MAIN RATING: 100A M.L.O. KAIC RATING: 42KAIC
VOLTAGE: 208Y/120V PHASE: 3 WIRE: 4 MOUNTING: RECESSED

CIRC. NO.	LOAD DESCRIPTION	BKR. AMPS	NO. OF POLES	NO. OF POLES	BKR. AMPS	LOAD DESCRIPTION	CIRC. NO.
1	LRP1–1,3,5	20	1	1	20	LRP1–47	2
3	LRP1–7,9,11,13,15,	20	1	1	15	CEILING FAN – 1ST FLR 119	4
5	LRP1–17,19,21,23,25	20	1	1	15	CEILING FAN – 1ST FLR 119	6
7	LRP1–27,29,31,33,35,37	20	1	1	20	SITE LIGHTS	8
9	LRPS–1,3,5	20	1	1	20	SITE LIGHTS	10
11	SPARE	20	1	1	20	LRP1–39 THRU 45	12
13	SPARE	20	1	1	20	SPARE	14
15	SPARE	20	1	1	20	SPARE	16
17	SPARE	20	1	1	20	SPARE	18
19	SPARE	20	1	1	20	SPARE	20
21							22
23							24
25							26
27							28
29							30
31							32
33							34
35	SPARE	20	1	1	20	SPARE	36
37	SPARE	20	1	1	20	SPARE	38
39	SPARE	20	1	1	20	SPARE	40
41	SPARE	20	1	1	20	SPARE	42

LK – PROVIDE LOCKING TABS ON C.B.; GF – GFI TYPE C.B.; GP – GFP TYPE C.B.;
AF – ARC FAULT TYPE C.B.; ST – SHUNT TRIP C.B.

NOTES:

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Drawing Title
ELECTRICAL PANEL SCHEDULES

Project No.	NSPC0070.00
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Checked by	JF/RS

STATE OF NEW YORK · PATRICK F. LYNCH · 068467 · LICENSED PROFESSIONAL ENGINEER

Drawing No.
E6.2

PM1 PANEL SCHEDULE

MAIN RATING: 400A MAIN C.B.: 400A KAIC RATING: 65KAIC

VOLTAGE: 208Y/120V PHASE: 3 WIRE: 4 MOUNTING: SURFACE

CIRC. NO.	LOAD DESCRIPTION	BKR. AMPS	NO. OF POLES	NO. OF POLES	BKR. AMPS	LOAD DESCRIPTION	CIRC. NO.
1							2
3	ACC-1 (MOD 1)	70	3	3	70	ACC-1 (MOD 2)	4
5							6
7							8
9	ACC-3 (MOD 1)	80	3	3	90	ACC-2	10
11							12
13							14
15	ACC-3 (MOD 2)	80	3	3	70	ACC-4	16
17							18
19	SPARE	20	1	2	15	AC-1 - 1ST FLR MECH RM 114	20
21	AC-C - 1ST FLR DAY RM 106 & LOBBY 101	20	2				22
23				1	20	GFUH-A - APPARATUS BAY	24
25	AC-A - 1ST FLR DISPATCH RM 108 & IT RM 109	20	2	1	20	SPARE	26
27				1	15	UH-B - 1ST FLR 131	28
29	AC-D - 1ST FLR EXERCISE 103	20	2	2	20	ECUH-A - 1ST FLR VEST 107	30
31							32
33	AC-D - 1ST FLR AIR RM 120	20	2	2	20	ECUH-A - 1ST FLR VEST 132	34
35							36
37	AC-D - 2ND FLR CLASSROOM 204 & OFFICE 205	20	2	2	20	ECUH-A - 1ST FLR STAIR ST2	38
39							40
41	AC-A,B,D-2ND FLR COPY 203 CHIEF OFF. 202, DEP OFF. 212	20	2	2	20	ECUH-B - 1ST FLR PWDR 102	42
43							44
45				1	15	DHWH-1 - 1ST FLR 114	46
47	VEF-1 - APPARATUS BAY	30	3	1	20	SPARE	48
49				1	15	TX-2 - IST FLR 124	50
51				1	20	SPARE	52
53	VEF-2 - APPARATUS BAY	30	3	2	15	AC-2 - ATTIC	54
55							56
57				1	20	SPARE	58
59	WASHER - DECON ROOM	20	3	1	20	SPARE	60
61				1	20	MOTORIZED DAMPERS	62
63				1	25	SUMP PUMP SP-1	64
65	DRYER - DECON ROOM 4-#8 & 1-#10 GND, 3/4"C	40	3	1	35	AIRVAC (FUTURE)	66
67				1	35	AIRVAC (FUTURE)	68
69	SPARE	20	1	1	35	AIRVAC (FUTURE)	70
71	SPARE	20	1	1	20	SPARE	72

LK - PROVIDE LOCKING TABS ON C.B.; GF - GFI TYPE C.B.; GP - GFP TYPE C.B.;
AF - ARC FAULT TYPE C.B.; ST - SHUNT TRIP C.B.

NOTES:

RPIT PANEL SCHEDULE

MAIN RATING: 100A MAIN C.B.: 100A KAIC RATING: 42KAIC

VOLTAGE: 208Y/120V PHASE: 3 WIRE: 4 MOUNTING: SURFACE

CIRC. NO.	LOAD DESCRIPTION	BKR. AMPS	NO. OF POLES	NO. OF POLES	BKR. AMPS	LOAD DESCRIPTION	CIRC. NO.
1	RECP - DEDICATED	20	1	1	20	RECP - DEDICATED	2
3	RECP - DEDICATED	20	1	1	20	RECP - DEDICATED	4
5	RECP - DEDICATED	20	1	2	20	RECP - DEDICATED 208V	6
7	RECP - DEDICATED - 208V	20	2				8
9				1	20	SPARE	10
11	SPARE	20	1	1	20	SPARE	12
13	SPARE	20	1	1	20	SPARE	14
15	SPARE	20	1	1	20	SPARE	16
17	SPARE	20	1	1	20	SPARE	18
19	SPARE	20	1	1	20	SPARE	20
21	SPARE	20	1	1	20	SPARE	22
23	SPARE	20	1	1	20	SPARE	24
25	SPARE	20	1	1	20	SPARE	26
27	SPARE	20	1	1	20	SPARE	28
29	SPARE	20	1	1	20	SPARE	30
31	SPARE	20	1	1	20	SPARE	32
33	SPARE	20	1	1	20	SPARE	34
35	SPARE	20	1	1	20	SPARE	36
37	SPARE	20	1	1	20	SPARE	38
39	SPARE	20	1	1	20	SPARE	40
41	SPARE	20	1	1	20	SPARE	42

LK - PROVIDE LOCKING TABS ON C.B.; GF - GFI TYPE C.B.; GP - GFP TYPE C.B.;
AF - ARC FAULT TYPE C.B.; ST - SHUNT TRIP C.B.

NOTES:

RP1B PANEL SCHEDULE

MAIN RATING: 200A MAIN C.B.: 200A KAIC RATING: 42KAIC

VOLTAGE: 208Y/120V PHASE: 3 WIRE: 4 MOUNTING: SURFACE

CIRC. NO.	LOAD DESCRIPTION	BKR. AMPS	NO. OF POLES	NO. OF POLES	BKR. AMPS	LOAD DESCRIPTION	CIRC. NO.
1							2
3	HOSE REEL - 1ST FLR 119	45	3	3	45	HOSE REEL - 1ST FLR 119	4
5							6
7							8
9	HOSE REEL - 1ST FLR 119	45	3	3	45	HOSE REEL - 1ST FLR 119	10
11							12
13							14
15	HOSE REEL - 1ST FLR 119	45	3	3	45	HOSE REEL - 1ST FLR 119	16
17							18
19							20
21	HOSE REEL - 1ST FLR 119	45	3	3	45	HOSE REEL - 1ST FLR 119	22
23							24
25	GENERATOR RECEPTACLE	20	1	1	20	MASS NOTIFICATION POLE	26
27	GENERATOR BATTERY CHARGER	20	1	1	20	SITE FUEL PUMP	28
29	GENERATOR BLOCK HEATER	20	1	1	20	PUMP CHAMBER	30
31	STACKABLE WASHER/DRYER	20	1	1	20	ZAMBONI CHARGER	32
33	GRAGE DOOR MOTOR	20	1	1	20	GRAGE DOOR MOTOR	34
35	GRAGE DOOR MOTOR	20	1	1	20	GRAGE DOOR MOTOR	36
37	GRAGE DOOR MOTOR	20	1	1	20	GRAGE DOOR MOTOR	38
39	GRAGE DOOR MOTOR	20	1	1	20	GRAGE DOOR MOTOR	40
41	SPARE	20	1	1	20	SPARE	42
43	SPARE	20	1	1	20	SPARE	44
45	SPARE	20	1	1	20	SPARE	46
47	SPARE	20	1	1	20	SPARE	48
49	SPARE	20	1	1	20	SPARE	50
51	SPARE	20	1	1	20	SPARE	52
53	SPARE	20	1	1	20	SPARE	54

LK - PROVIDE LOCKING TABS ON C.B.; GF - GFI TYPE C.B.; GP - GFP TYPE C.B.;
AF - ARC FAULT TYPE C.B.; ST - SHUNT TRIP C.B.

NOTES:

PM2 PANEL SCHEDULE

MAIN RATING: 200A MAIN C.B.: 200A KAIC RATING: 42KAIC

VOLTAGE: 208Y/120V PHASE: 3 WIRE: 4 MOUNTING: SURFACE

CIRC. NO.	LOAD DESCRIPTION	BKR. AMPS	NO. OF POLES	NO. OF POLES	BKR. AMPS	LOAD DESCRIPTION	CIRC. NO.
1	GS-1&2 - 1ST FLR MECH 131	20	2	2	15	HV-1 - 1ST FLR 131	2
3							4
5	B-1 - 1ST FLR 131	20	2	2	15	P-1 - 1ST FLR 131	6
7							8
9	RADIANT HEAT MANIFOLD 131	20	1	1	20	RADIANT HEAT MANIFOLD 131	10
11	MOTORIZED DAMPERS - ATTIC	20	1	2	15	SPARE FOR AC-5 - ATTIC (ADD-ALT #1)	12
13	AC-3 - ATTIC	15	2				14
15				2	15	SPARE FOR AC-6 - ATTIC (ADD-ALT #1)	16
17	AC-4 - ATTIC	15	2				18
19				2	15	AC-C - 2ND FLR	20
21	SF-1	20	1				22
23	SPARE	20	1	1	25	UH-A - MEZZZNINE	24
25	DHWH-2	15	1	1	25	UH-A - MEZZZNINE	26
27	GX-1 - ROOF	15	3	2	15	TX-1 - ROOF	28
29							30
31				2	25	EF-1 - AIR ROOM 120	32
33	GX-2 - ROOF	15	3				34
35				1	15	HWCP-1 1ST FLR	36
37				3	20	DUCT HEATER EDH-3	38
39	SPARE	20	1				40
41	SPARE	20	1				42
43	SPARE	20	1	1	20	SPARE	44
45	SPARE	20	1	1	20	SPARE	46
47	SPARE	20	1	1	20	SPARE	48
49	SPARE	20	1	1	20	SPARE	50
51	SPARE	20	1	1	20	SPARE	52
53	SPARE	20	1	1	20	SPARE	54

LK - PROVIDE LOCKING TABS ON C.B.; GF - GFI TYPE C.B.; GP - GFP TYPE C.B.;
AF - ARC FAULT TYPE C.B.; ST - SHUNT TRIP C.B.

NOTES:

RP1A PANEL SCHEDULE

MAIN RATING: 200A M.L.O. KAIC RATING: 42KAIC

VOLTAGE: 208Y/120V PHASE: 3 WIRE: 4 MOUNTING: SURFACE

CIRC. NO.	LOAD DESCRIPTION	BKR. AMPS	NO. OF POLES	NO. OF POLES	BKR. AMPS	LOAD DESCRIPTION	CIRC. NO.
1	RECP - 1ST FLR 106	20	1	1	20	RACK - 1ST FLR 113	2
3	RECP - 1ST FLR 106	20	1	1	20	RACK - 1ST FLR 113	4
5	RECP - 1ST FLR REF. 106	20	1	1	20	RACK - 1ST FLR 113	6
7	RECP - 1ST FLR 106	20	1	1	20	RECP - 1ST FLR 113	8
9	SPARE	20	1	1	20	RECP - 1ST FLR 102,105,110	10
11	RECP - 1ST FLR 108	20	1	1	20	HAND DRYER 1ST FLR 105	12
13	RECP - 1ST FLR 108	20	1	1	20	RECP - 1ST FLR 103	14
15	RECP - 1ST FLR 108	20	1	1	20	RECP - 1ST FLR 103	16
17	RECP - 1ST FLR 115	20	1	1	20	RECP - 1ST FLR 103	18
19	HAND DRYER 1ST FLR 115	20	1	1	20	RECP - 1ST FLR 103	20
21	RECP - 1ST FLR 117	20	1	1	20	RECP - 1ST FLR CORR. & LOBBY	22
23	HAND DRYER - 1ST FLR 117	20	1	1	20	RECP - 1ST FLR 119	24
25	RECP - 1ST FLR 121	20	1	1	20	RECP - 1ST FLR 119	26
27	RECP - 1ST FLR 121	20	1	1	20	RECP - 1ST FLR 111	28
29	RECP - 1ST FLR 123	20	1	1	20	RECP - 1ST FLR WATER FOUNTAINS	30
31	RECP - 1ST FLR 124,125,132	20	1	1	20	RECP - 1ST FLR MECH RM 114	32
33	RECP - 1ST FLR 126,127,128	20	1	1	20	RECP - 1ST FLR 112	34
35	RECP - 1ST FLR 131	20	1	1	20	RECP - 1ST FLR 119	36
37	RECP - 1ST FLR 120	20	1	1	20	RECP - OUTDOOR	38
39	HAND DRYER - 1ST FLR 124	20	1	1	20	RECP - OUTDOOR	40
41	RECP - 1ST FLR 119	20	1	1	20	RECP - ELEVATOR PIT	42
43	RECP - 1ST FLR 119	20	1	1	20	RECP - ICE MACHINE RM 123	44
45	RECP - TV'S 1ST FLR 119	20	1	1	20	RECP - TV'S 1ST FLR 119	46
47	RECP - TV'S 1ST FLR 103	20	1	1	20	SPARE	48
49	HAND DRYER 1ST FLR 105	20	1	1	20	SPARE	50
51	SPARE	20	1	1	20	SPARE	52
53	SPARE	20	1	1	20	SPARE	54

LK - PROVIDE LOCKING TABS ON C.B.; GF - GFI TYPE C.B.; GP - GFP TYPE C.B.;
AF - ARC FAULT TYPE C.B.; ST - SHUNT TRIP C.B.

NOTES:

Sullivan Architecture, P.C.
31 Mamaroneck Avenue
White Plains, New York 10601
914-761-6006 (F) 914-761-4919

Owner: Bedford Village Fire District
34 Village Green
Bedford, NY 10506

MEP Engineer: OLA Consulting Engineers
50 Broadway, Hawthorne, NY 10532
8 West 38th St. Suite 501, New York, NY
Tel: 914-747-2800

Date	Issue
03.10.20	MEETING
03.27.20	DESIGN DEVELOPMENT
05.07.20	PROGRESS
05.08.20	CD PROGRESS SET
05.28.20	CD PROGRESS SET
06.30.20	CD REVIEW SET
09.01.20	CONSTRUCTION PROGRESS
09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
ELECTRICAL PANEL SCHEDULES

Project No.	NSPC0070.00
Date	03-27-20
Scale	NONE
Drawing by	JL/MRP
Checked by	JF/RS

STATE OF NEW YORK · PATRICK F. LYNCH · 069467 · LICENSED PROFESSIONAL ENGINEER

Drawing No.
E6.3

KP PANEL SCHEDULE

MAIN RATING: 200A M.L.O. KAIC RATING: 42KAIC

VOLTAGE: 208Y/120V PHASE: 3 WIRE: 4 MOUNTING: SURFACE

CIRC. NO.	LOAD DESCRIPTION	BKR. AMPS	NO. OF POLES	NO. OF POLES	BKR. AMPS	LOAD DESCRIPTION	CIRC. NO.
1	EUH-A	15	2	2	15	EUH-A	2
3							4
5	EUH-A	15	2	2	15	EUH-A	6
7							8
9	SPARE	20	1	1	20	RECP 2ND FLOOR	10
11	SPARE	20	1	1	20	RECP 2ND FLOOR	12
13	SPARE	20	1	1	20	SPARE	14
15	SPARE	20	1	1	20	SPARE	16
17							18
19							20
21							22
23							24
25							26
27							28
29							30
31							32
33							34
35							36
37							38
39							40
41							42

LK – PROVIDE LOCKING TABS ON C.B.; GF – GFI TYPE C.B.; GP – GFP TYPE C.B.;
AF – ARC FAULT TYPE C.B.; ST – SHUNT TRIP C.B.

NOTES:

LSP2 PANEL SCHEDULE (FUSED LIFE-SAFETY PANEL)

MAIN RATING: 100A MAIN: M.L.O. KAIC RATING: 42KAIC

VOLTAGE: 208Y/120V PHASE: 3 WIRE: 4 MOUNTING: SURFACE

CIRC. NO.	LOAD DESCRIPTION	FUSE AMPS	NO. OF POLES	NO. OF POLES	FUSE AMPS	LOAD DESCRIPTION	CIRC. NO.
1	LRP2-2,4	20	1	1	20	LRP2-2,4	2
3	SPARE	20	1	1	20	LRP2-6,8	4
5	SPARE	20	1	1	20	LRP2-10	6
7	LTG – 2ND FLR ST-1	20	1	1	20	LRP2-12,14,16	8
9	SPARE	20	1	1	20	LRP2-18,20,22,24,26,28	10
11	SPARE	20	1	1	20	SPARE	12
13	SPARE	20	1	1	20	SPARE	14
15	SPARE	20	1	1	20	SPARE	16
17							18
19							20
21							22
23							24
25							26
27							28
29							30
31							32
33							34
35							36
37							38
39							40
41							42

LK – PROVIDE LOCKING TABS

NOTES: PROVIDE INTEGRAL SURGE PROTECTOR WITH VISIBLE STATUS INDICATION AND SURGE COUNTER.

RP2B PANEL SCHEDULE

MAIN RATING: 200A MAIN C.B.: 200A KAIC RATING: 42KAIC

VOLTAGE: 208Y/120V PHASE: 3 WIRE: 4 MOUNTING: SURFACE

CIRC. NO.	LOAD DESCRIPTION	BKR. AMPS	NO. OF POLES	NO. OF POLES	BKR. AMPS	LOAD DESCRIPTION	CIRC. NO.
1	–	–	–	–	–	–	2
3	–	–	–	–	–	–	4
5	–	–	–	–	–	–	6
7	–	–	–	–	–	–	8
9	–	–	–	–	–	–	10
11	–	–	–	–	–	–	12
13	–	–	–	–	–	–	14
15	–	–	–	–	–	–	16
17	–	–	–	–	–	–	18
19	–	–	–	–	–	–	20
21	–	–	–	–	–	–	22
23	–	–	–	–	–	–	24
25	–	–	–	–	–	–	26
27	–	–	–	–	–	–	28
29	–	–	–	–	–	–	30
31	–	–	–	–	–	–	32
33	–	–	–	–	–	–	34
35	SPARE	20	1	1	20	SPARE	36
37	SPARE	20	1	1	20	SPARE	38
39	SPARE	20	1	1	20	SPARE	40
41	SPARE	20	1	1	20	SPARE	42

LK – PROVIDE LOCKING TABS ON C.B.; GF – GFI TYPE C.B.; GP – GFP TYPE C.B.;
AF – ARC FAULT TYPE C.B.; ST – SHUNT TRIP C.B.

NOTES:

RP2A PANEL SCHEDULE

MAIN RATING: 200A MAIN C.B.: 200A KAIC RATING: 42KAIC

VOLTAGE: 208Y/120V PHASE: 3 WIRE: 4 MOUNTING: SURFACE

CIRC. NO.	LOAD DESCRIPTION	BKR. AMPS	NO. OF POLES	NO. OF POLES	BKR. AMPS	LOAD DESCRIPTION	CIRC. NO.
1	RECP – 2ND FLR 202	20	1	1	20	RECP – 2ND FLR 204	2
3	RECP – 2ND FLR 202	20	1	1	20	RECP – 2ND FLR 204	4
5	RECP – 2ND FLR 203	20	1	1	20	RECP – 2ND FLR 204	6
7	RECP – 2ND FLR 203 (COPIER)	20	1	1	20	RECP – 2ND FLR 204	8
9	RECP – 2ND FLR 212	20	1	1	20	RECP – 2ND FLR 205	10
11	RECP – 2ND FLR 212	20	1	1	20	RECP – 2ND FLR 205	12
13	RECP – 2ND FLR 207, 210, 211	20	1	1	20	RECP – 2ND FLR 206, 213, 214	14
15	RECP – 2ND FLR 218, 220	20	1	1	20	RECP – 2ND FLR 209, 208, 215	16
17	RECP – 2ND FLR HALL CLOSET	20	1	1	20	RECP – 2ND FLR 216, 217	18
19	RECP – 2ND FLR HALL CLOSET	20	1	1	20	RECP – 2ND FLR M-01	20
21	RECP – 2ND FLR HALL CLOSET	20	1	1	20	RECP – 2ND FLR M-02	22
23	RECP – 2ND FLR WATER BOTTLE FILL	20	1	1	20	RECP – 2ND FLR 206	24
25	HAND DRYER 2ND FLR 210	20	1	1	20	RECP – ATTIC	26
27	HAND DRYER 2ND FLR 211	20	1	1	20	RECP – TV 2ND FLR 204	28
29	OUTDOOR SIGN	20	1	1	20	SPARE	30
31	SPARE	20	1	1	20	SPARE	32
33	SPARE	20	1	1	20	SPARE	34
35	SPARE	20	1	1	20	SPARE	36
37	SPARE	20	1	1	20	SPARE	38
39	SPARE	20	1	1	20	SPARE	40
41	SPARE	20	1	1	20	SPARE	42

LK – PROVIDE LOCKING TABS ON C.B.; GF – GFI TYPE C.B.; GP – GFP TYPE C.B.;
AF – ARC FAULT TYPE C.B.; ST – SHUNT TRIP C.B; AX – AUXILIARY CONTACTS.

NOTES:

LRP2 SCHEDULE (LIGHTING RELAY PANEL)

RELAY NO.	DESCRIPTION	CIRCUIT BREAKER SERVING RELAY	CIRCUIT BREAKER SERVING RELAY	DESCRIPTION	RELAY NO.
1	LTG – 2ND FLR RM 202	LP2-1	LSP2-2	LTG – 2ND FLR RM 202	2
3	LTG – 2ND FLR RM 212	LP2-1	LSP2-2	LTG – 2ND FLR RM 212	4
5	LTG – 2ND FLR RM 210	LP2-1	LSP2-4	LTG – 2ND FLR RM 201	6
7	LTG – 2ND FLR RM 211	LP2-1	LSP2-4	LTG – 2ND FLR RM 215	8
9	LTG – 2ND FLR RM 204	LP2-3	LSP2-6	LTG – 2ND FLR RM 219	10
11	LTG – 2ND FLR RM 205	LP2-3	LSP2-8	LTG – 2ND FLR RM 209	12
13	LTG – 2ND FLR RM 206	LP2-3	LSP2-8	LTG – 2ND FLR RM 210	14
15	LTG – 2ND FLR RM 214	LP2-3	LSP2-8	LTG – 2ND FLR RM 211	16
17	LTG – 2ND FLR RM 213	LP2-3	LSP2-10	LTG – 2ND FLR RM 204	18
19	LTG – 2ND FLR RM 208	LP2-3	LSP2-10	LTG – 2ND FLR RM 205	20
21	LTG – 2ND FLR RM 216	LP2-5	LSP2-10	LTG – MEZZANINE M-01	22
23	LTG – 2ND FLR RM 217	LP2-5	LSP2-10	LTG – MEZZANINE M-02	24
25	LTG – 2ND FLR RM 220	LP2-5	LSP2-10	LTG – MEZZANINE STORAGE	26
27	LTG – 2ND FLR RM 218	LP2-5	LSP2-10	LTG – 2ND FLR RM 203	28
29	OUTDOOR	LP2-5			30
31	LTG – MEZZANINE M-02	LP2-7			32
33	LTG – MEZZANINE STORAGE	LP2-7			34
35	LTG – 2ND FLR RM UNNAMED	LP2-5			36
37	LTG – 2ND FLR RM 207	LP2-5			38
39	LTG – ATTIC	LP2-7			40
41					42
43					44
45					46
47					48

NOTES:

1. PANEL SHALL BE GR2400 RELAY PANEL WITH 48 RELAYS. PROVIDE INTEGRAL DIGITAL TIME CLOCK WITH MODEM.
2. CONTRACTOR SHALL COORDINATE TIME CLOCK REQUIREMENTS WITH THE OWNER AND PROGRAM TO SUIT THE OWNERS NEEDS.

LP2 PANEL SCHEDULE

MAIN RATING: 100A MAIN C.B.: MLO KAIC RATING: 42KAIC

VOLTAGE: 208Y/120V PHASE: 3 WIRE: 4 MOUNTING: SURFACE

CIRC. NO.	LOAD DESCRIPTION	BKR. AMPS	NO. OF POLES	NO. OF POLES	BKR. AMPS	LOAD DESCRIPTION	CIRC. NO.
1	LRP2-1,3,5,7	20	1	1	20	SPARE	2
3	LRP2-9,11,13,15,17,19	20	1	1	20	SPARE	4
5	LRP2-21,23,25,27,35,37	20	1	1	20	SPARE	6
7	LRP2-31,33,39	20	1	1	20	SPARE	8
9							10
11							12
13							14
15							16
17							18
19							20
21							22
23							24
25							26
27							28
29							30
31							32
33							34
35							36
37							38
39							40
41							42

LK – PROVIDE LOCKING TABS ON C.B.; GF – GFI TYPE C.B.; GP – GFP TYPE C.B.;
AF – ARC FAULT TYPE C.B.; ST – SHUNT TRIP C.B.

NOTES:

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Owner: Bedford Village Fire District
34 Village Green
Bedford, NY 10506

MEP Engineer: OLA Consulting Engineers
50 Broadway, Hawthorne, NY 10532
8 West 38th St. Suite 501, New York, NY
Tel: 914-747-2800

Date	Issue
03.10.20	MEETING
03.27.20	DESIGN DEVELOPMENT
05.07.20	PROGRESS
05.08.20	CD PROGRESS SET
05.28.20	CD PROGRESS SET
06.30.20	CD REVIEW SET
09.01.20	CONSTRUCTION PROGRESS
09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

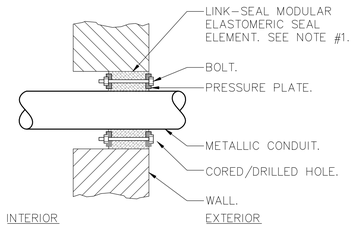
Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
ELECTRICAL PANEL SCHEDULES

Project No.	NSPC0070.00
Date	03-27-20
Scale	NONE
Drawing by	JL/MRP
Checked by	JF/RS

STATE OF NEW YORK · PATRICK F. LYNCH · 069467 · LICENSED PROFESSIONAL ENGINEER

Drawing No.
E6.4

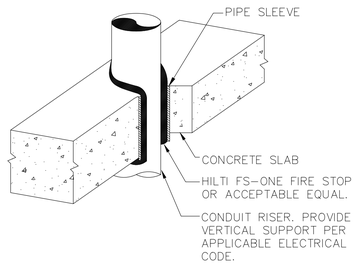


NOTES:

1. SEAL ASSEMBLY BASED ON MODEL "C" LINK-SEAL MODULAR SEAL, WITH EPDM SEAL ELEMENT, REINFORCED NYLON POLYMER PRESSURE PLATES, STEEL WITH 2-PART ZINC DICHROMATE & CORROSION INHIBITING COATING NUTS AND BOLTS AND WITH A OPERATING TEMPERATURE RANGE OF -40°F TO +250°F.
2. PROVIDE AND INSTALL TWO SEALS WHEN PENETRATED WALL THICKNESS IS GREATER THAN 12".
3. PROVIDE SCHEDULE 80 WALL SLEEVE FOR NEW WALL CONSTRUCTION PER MANUFACTURER'S REQUIREMENTS.

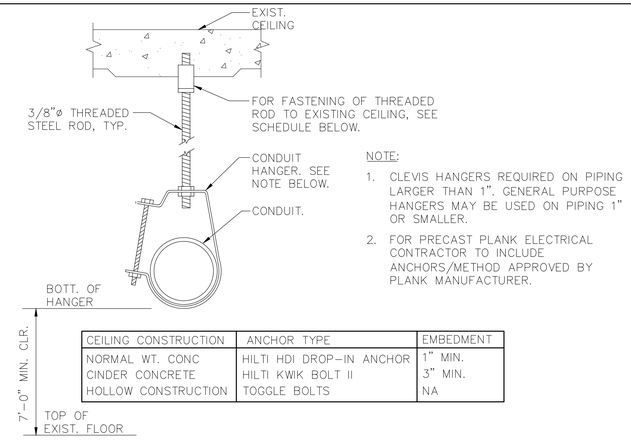
9 TYPICAL EXTERIOR MASONRY WALL BELOW GRADE CONDUIT PENETRATION DETAIL

SCALE: NONE



6 TYPICAL VERTICAL CONDUIT PENETRATION DETAIL

SCALE: NONE



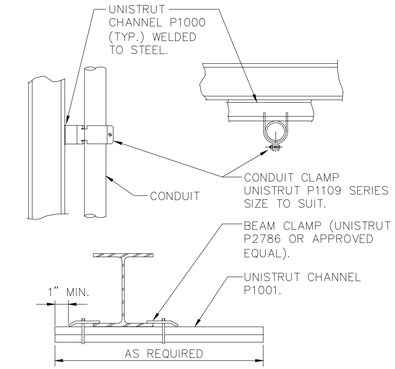
NOTE:

1. CLEVIS HANGERS REQUIRED ON PIPING LARGER THAN 1". GENERAL PURPOSE HANGERS MAY BE USED ON PIPING 1" OR SMALLER.
2. FOR PRECAST PLANK ELECTRICAL CONTRACTOR TO INCLUDE ANCHORS/METHOD APPROVED BY PLANK MANUFACTURER.

CEILING CONSTRUCTION	ANCHOR TYPE	EMBEDMENT
NORMAL WT. CONC	HILTI HDI DROP-IN ANCHOR	1" MIN.
CINDER CONCRETE	HILTI KWIK BOLT II	3" MIN.
HOLLOW CONSTRUCTION	TOGGLE BOLTS	NA

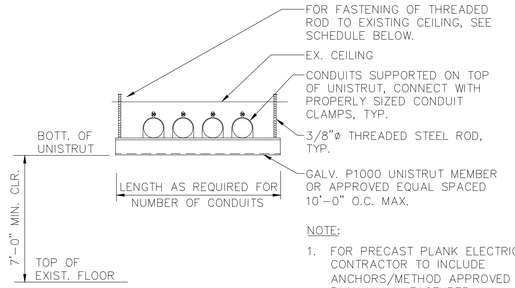
8 SINGLE CONDUIT HANGER DETAIL

SCALE: NONE



7 CONDUIT SUPPORTED FROM STRUCTURAL STEEL

SCALE: NONE



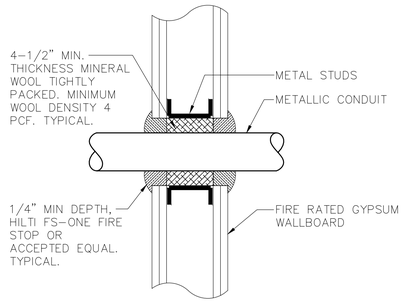
NOTE:

1. FOR PRECAST PLANK ELECTRICAL CONTRACTOR TO INCLUDE ANCHORS/METHOD APPROVED BY PLANK MANUFACTURER.

CEILING CONSTRUCTION	ANCHOR TYPE	EMBEDMENT
NORMAL WT. CONC	HILTI HDI DROP-IN ANCHOR	1" MIN.
CINDER CONCRETE	HILTI KWIK BOLT II	3" MIN.
HOLLOW CONSTRUCTION	TOGGLE BOLTS	NA

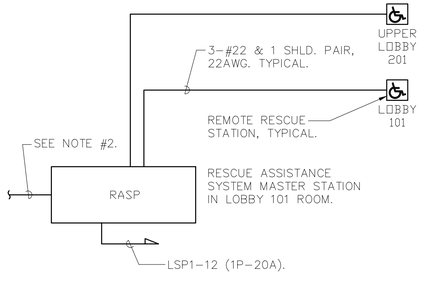
5 TRAPEZE SUPPORT DETAIL

SCALE: NONE



4 TYPICAL FIRE RATED GYPSUM WALL CONDUIT PENETRATION DETAIL

SCALE: NONE



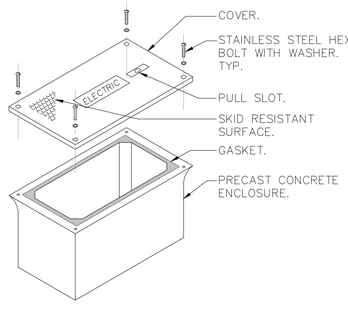
NOTES:

1.) PROVIDE ALL NECESSARY WIRING, MODULES, COMPONENTS, EXTENDER CABINET, AND PROGRAMMING REQUIRED.

2.) PROVIDE A PHONE LINE PLUS A DIALER FOR RESCUE ASSISTANCE SYSTEM MASTER STATION MONITORING.

3 RESCUE ASSISTANCE SYSTEM RISER DIAGRAM

SCALE: NONE

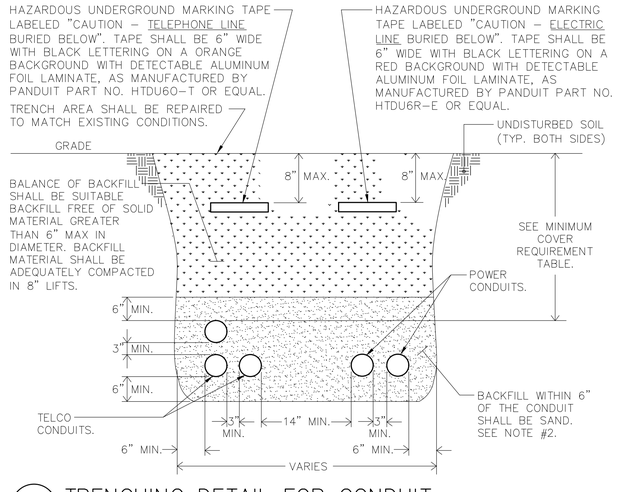


NOTES:

1. HAND HOLE SHALL BE 18"L x 11"W x 18"H WITH OPEN BOTTOM AND RATED FOR VEHICULAR TRAFFIC AS MANUFACTURED BY QUAZITE, MODEL #PC1118BA OR EQUAL. BOX SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
2. PROVIDE 6" OF GRAVEL BELOW BOX.
3. COVER SHALL BE IMPRINTED WITH THE APPROPRIATE DESCRIPTION OF BOX CONTENTS (I.E. ELECTRIC, TELEPHONE, DATA, CABLE TV, ETC.).

2 HAND HOLE DETAIL

SCALE: NONE



MINIMUM COVER REQUIREMENT TABLE	
LOCATION	NONMETALLIC RACEWAYS LISTED FOR DIRECT BURIAL WITHOUT CONCRETE ENCASEMENT OR OTHER APPROVED RACEWAYS
ALL LOCATION NOT SPECIFIED BELOW.	18"
IN TRENCH BELOW 2-IN. THICK CONCRETE OR EQUIVALENT.	12"
UNDER MINIMUM OF 4-IN. THICK CONCRETE EXTERIOR SLAB WITH NO VEHICULAR TRAFFIC AND THE SLAB EXTENDING NOT LESS THAN 6 IN. BEYOND THE UNDERGROUND INSTALLATION.	4" SEE NOTE #2.
UNDER STREETS, HIGHWAYS, ROADS, ALLEYS, DRIVEWAYS, AND PARKING LOTS.	24"

NOTES:

1. DETAIL SHOWN FOR INFORMATION PURPOSES. SAME CONCEPT SHALL ALSO APPLY FOR SINGLE CONDUITS.
2. SAND MAY BE OMITTED FOR INSTALLATIONS WHERE COVER REQUIREMENTS ARE 6" OR LESS.

1 TRENCHING DETAIL FOR CONDUIT

SCALE: NONE

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MEP Engineer: OLA Consulting Engineers
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03.10.20	MEETING
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09.01.20	CONSTRUCTION PROGRESS
09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
ELECTRICAL DETAILS

Project No.	NSPG0010.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JL/MRP
Checked by	JF/RS

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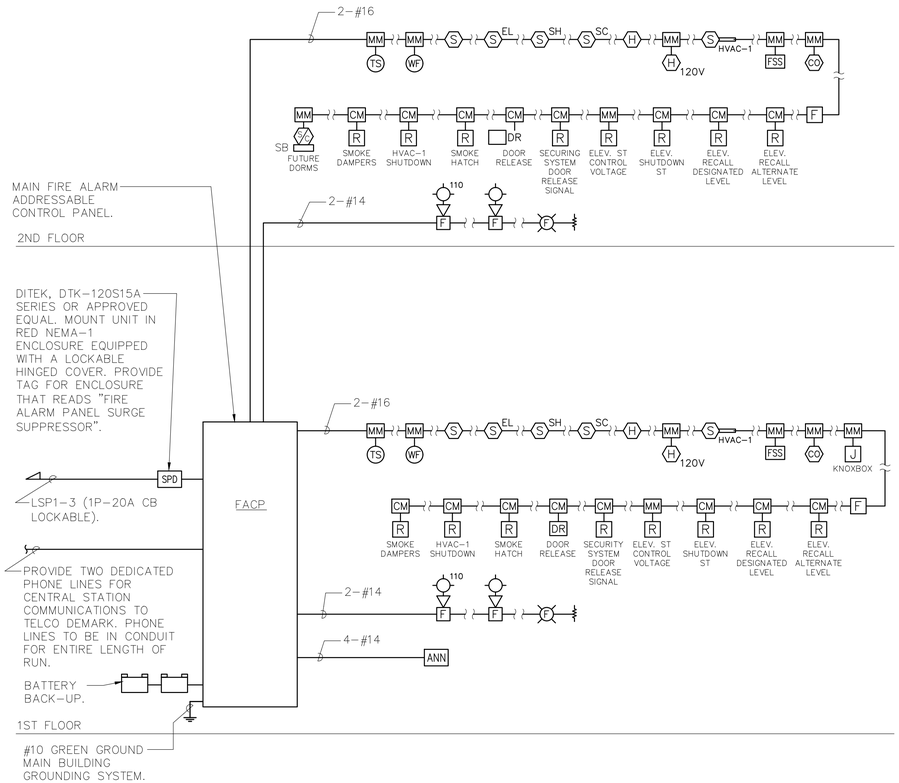
Drawing No.
E7.1



1 FIRE ALARM RISER DIAGRAM
SCALE: NONE

RISER NOTES:

1. THIS IS NOT A POINT-TO-POINT WIRING DIAGRAM. PRIOR TO STARTING ANY WORK, A WORKING POINT-TO-POINT WIRING DIAGRAM SHALL BE OBTAINED FROM FIRE ALARM SYSTEM VENDOR AND PERFORM ALL WORK IN ACCORDANCE WITH THAT DIAGRAM.
2. ELECTRICAL CONTRACTOR SHALL INCLUDE IN THE BASE BID ALL 120V CIRCUITS THAT ARE REQUIRED TO SUPPORT THE OPERATION OF THE FIRE ALARM SYSTEM. COORDINATE REQUIREMENTS WITH THE FIRE ALARM VENDOR.
3. QUANTITY OF STROBE BOOSTER POWER SUPPLY PANELS AND ASSOCIATED 120V CIRCUITS SHALL BE COORDINATED WITH SELECTED FIRE ALARM SYSTEM MANUFACTURER AND/OR FIRE ALARM VENDOR.
4. PROVIDE ALL NECESSARY WIRING, MODULES, COMPONENTS, EXTENDER CABINET, AND PROGRAMMING REQUIRED TO CONNECT NEW DEVICES.
5. PROVIDE ALL NECESSARY HARDWARE AND PROGRAMMING TO PROVIDE THE CLIENT WITH 20% SPARE CAPACITY ON ALL INITIATING AND INDICATING CIRCUITS.
6. PROVIDE AS PART OF THE BASE CONTRACT ALL LABOR AND MATERIALS TO INSTALL FIFTEEN (15) ADDITIONAL FIRE ALARM DEVICES DURING CONSTRUCTION. THE FIFTEEN (15) FIRE ALARM DEVICES CAN BE BUT NOT LIMITED TO SMOKE DETECTOR, HEAT DETECTOR, DOOR HOLDER, DUCT DETECTOR, FAN SHUTDOWN, TAMPER SWITCHES, FLOW SWITCHES, ETC. INCLUDE ALL LABOR AND MATERIALS INCLUDING WIRE, BOXES, CONDUIT, TERMINATIONS, HARDWARE, SOFTWARE, PROGRAMMING AND TESTING.
7. HEAT DETECTORS IN ELEVATOR MACHINE ROOM AND/OR SHAFT SHALL HAVE A LOWER TEMPERATURE RATING THAN THE NEARBY SPRINKLER HEAD(S). HEAT DETECTORS SHALL BE INSTALLED 2'-0" MAXIMUM AWAY FROM EACH SPRINKLER HEAD IN THE ELEVATOR MACHINE ROOM AND EACH HEAD LOCATED GREATER THAN 2'-0" ABOVE THE FLOOR OF THE ELEVATOR SHAFT. UPON ACTIVATION OF A HEAT DETECTOR USED FOR ELEVATOR POWER SHUTDOWN, THERE SHALL BE A DELAY IN THE ACTIVATION OF THE POWER SHUNT TRIP. THIS DELAY SHALL BE THE TIME THAT IT TAKES THE ELEVATOR CAB TO TRAVEL FROM THE TOP OF THE HOISTWAY TO THE LOWEST RECALL LEVEL. COORDINATE WITH ELEVATOR CONTRACTOR.
8. DUCT SMOKE DETECTORS SHALL BE FURNISHED AND WIRED BY ELECTRICAL CONTRACTOR AND INSTALLED IN DUCT WORK BY MECHANICAL CONTRACTOR.
9. CARBON MONOXIDE AND NATURAL GAS DETECTORS SHALL BE SUPERVISED BY FIRE ALARM SYSTEM BUT SHALL NOT SEND AN ALARM SIGNAL TO THE SYSTEM. THESE DETECTORS SHALL CONTAIN INTERNAL HORNS TO PROVIDE LOCAL ALARM ONLY.
10. ALL VISUAL ALARM DEVICES SHALL BE ADA COMPLIANT.
11. MAKE CONNECTIONS TO SIDES OR BOTTOM OF FACP ONLY.
12. ELECTRICAL CONTRACTOR TO PROVIDE A RELAY FOR EACH SMOKE DAMPER/COMBINATION FIRE SMOKE DAMPER. RELAYS ARE NOT SHOWN ON PLANS FOR CLARITY.
13. DOOR HOLDERS SHALL BE FURNISHED AND WIRED BY THE ELECTRICAL CONTRACTOR AND INSTALLED BY THE GENERAL CONTRACTOR.
14. MAINTAIN A 19" TO 24" CLEARANCE AROUND THE CENTERLINE OF THE BEAM OF BEAM TYPE SMOKE DETECTORS.
15. PROVIDE REMOTE LED INDICATORS FOR ALL CONCEALED FIRE ALARM DEVICES SUCH AS DUCT SMOKE DETECTORS, ABOVE CEILING SMOKE DETECTORS, ELEVATOR SHAFT DETECTORS, MONITORING AND CONTROL MODULES, ETC. LED INDICATORS FOR DEVICES MOUNTED ABOVE DROP CEILINGS SHALL BE MOUNTED BELOW ASSOCIATED DEVICES. LABEL INDICATORS TO INDICATE DEVICE SERVED.
16. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE THE ENGINEER WITH AN ACCURATE AS-BUILT FIRE ALARM DRAWING, SHOWING INSTALLED DEVICE LOCATIONS AND A COMPLETE INTERCONNECTION WIRING DIAGRAM OF THE SYSTEM.
THE DRAWINGS SHALL BE PROVIDED IN AUTOCAD FORMAT AND HARD COPIES. AS-BUILT DRAWINGS MUST BE PROVIDED TO THE ENGINEER BEFORE PROJECT CAN BE CLOSEOUT.
17. CONTRACTOR TO PROVIDE SMOKE DETECTOR(S) IN ALL LOCATIONS CONTAINING FIRE ALARM CONTROL PANELS, DATA GATHERING PANELS, BOOSTER POWER SUPPLIES, OR ANY OTHER FIRE ALARM SYSTEM PANEL, WHETHER SHOWN ON PLANS OR NOT.

FIRE ALARM SYMBOLS

SYMBOL	ABBREVIATION	DESCRIPTION
F	–	FIRE ALARM MANUAL PULL STATION
F	–	FIRE ALARM COMBINATION AUDIO/VISUAL DEVICE (15/75 CD – STROBE)
F 110	–	FIRE ALARM COMBINATION AUDIO/VISUAL DEVICE (110 CD – STROBE)
F	–	FIRE ALARM STROBE 15/75 CD
F 110	–	FIRE ALARM STROBE 110 CD
S EL; SH; SC	–	SMOKE DETECTOR. EL – ELEVATOR LOBBY; SH – SMOKE HATCH; SC – PLENUM RATED ABOVE CEILING
SB	SB	FIRE ALARM DEVICE. SB – SOUNDER BASE FOR SMOKE OR CARBON MONOXIDE DETECTOR
CO	–	CARBON MONOXIDE DEVICE (15/75 CD – STROBE)
S AC-__	–	DUCT MOUNTED SMOKE DETECTOR
H	–	HEAT DETECTOR
CO	–	CARBON MONOXIDE DETECTOR
NG	–	NATURAL GAS DETECTOR
B	–	FIRE ALARM BELL
TS	–	FIRE ALARM TAMPER SWITCH
WF	–	FIRE ALARM WATER FLOW SWITCH
WS	–	FIRE ALARM WARDEN STATION
DR	–	FIRE ALARM DOOR RELEASE
ANN	–	FIRE ALARM ANNUNCIATOR PANEL
CM	CM	FIRE ALARM CONTROL MODULE
MM	MM	FIRE ALARM MONITORING MODULE
FACP	FACP	FIRE ALARM CONTROL PANEL
BPS	BPS	BOOSTER POWER SUPPLY
DGP	DGP	DATA GATHERING PANEL
FCS	FCS	FIRE COMMAND STATION
FSS	FSS	FIRE SUPPRESSION SYSTEM PANEL
R	–	FIRE ALARM RELAY
-WW-	EOL	END OF LINE RESISTOR
– – –	SD OR CFSD	SMOKE DAMPER
	ST	SHUNT TRIP

NOTES:
1. ALL SYMBOLS AND ABBREVIATIONS MAY NOT BE APPLICABLE FOR THIS PROJECT.

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09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
FIRE ALARM SYMBOLS, ABBREVIATIONS, NOTES AND RISER DIAGRAM

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JL/WRP
Checked by	JF/RS

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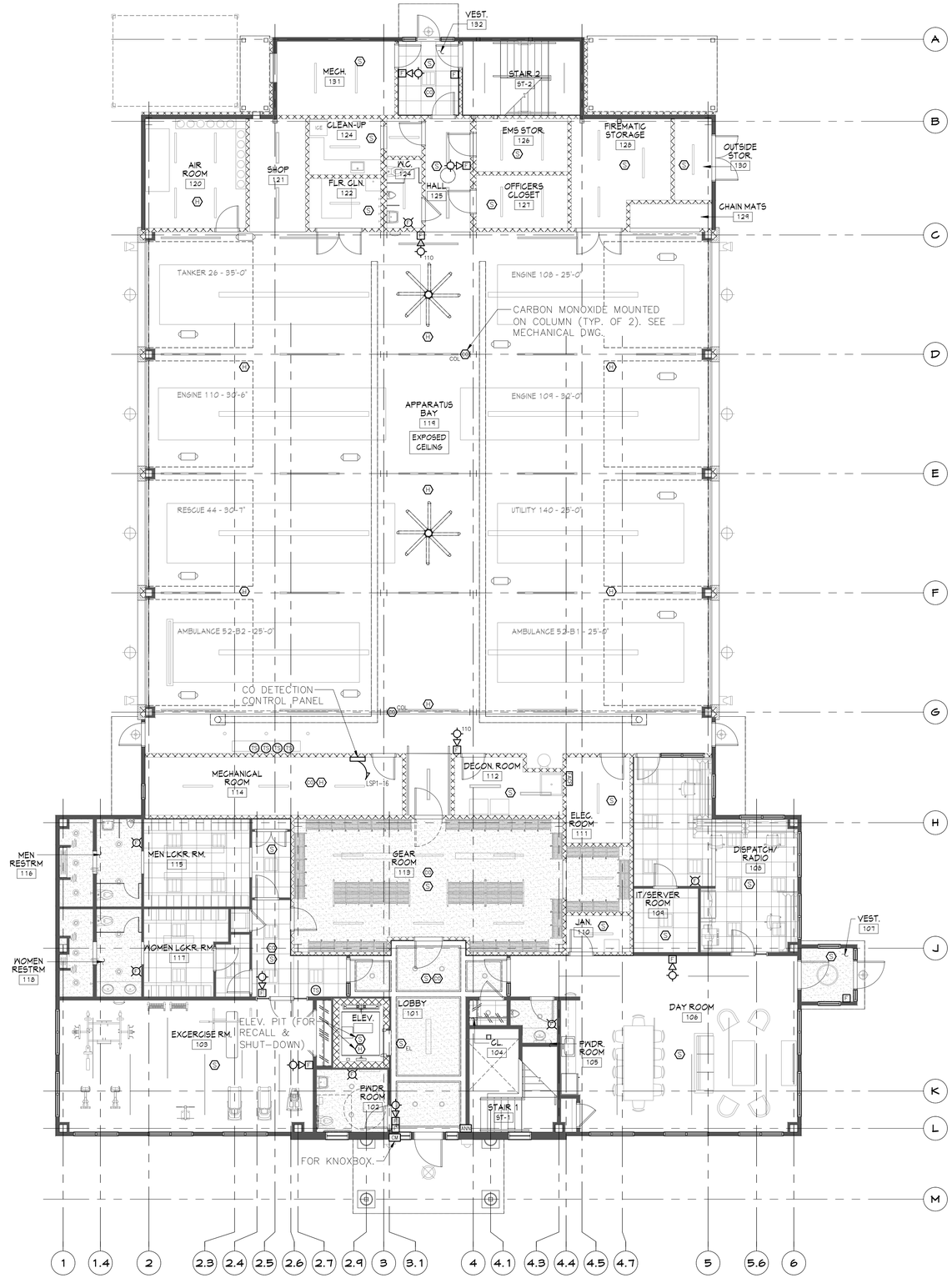
Drawing No.
FA0.1



1 FIRE ALARM FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

NORTH

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Project Title
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Bedford, NY 10506

Drawing Title
FIRE ALARM FIRST FLOOR PLAN

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JL/WRP
Checked by	JF/RS

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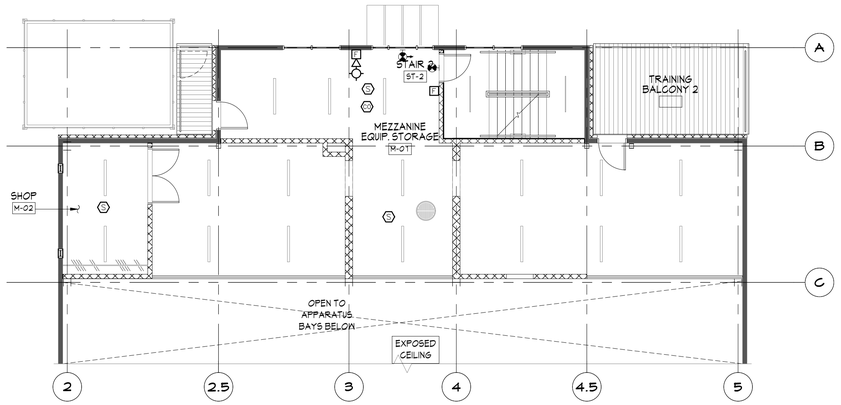
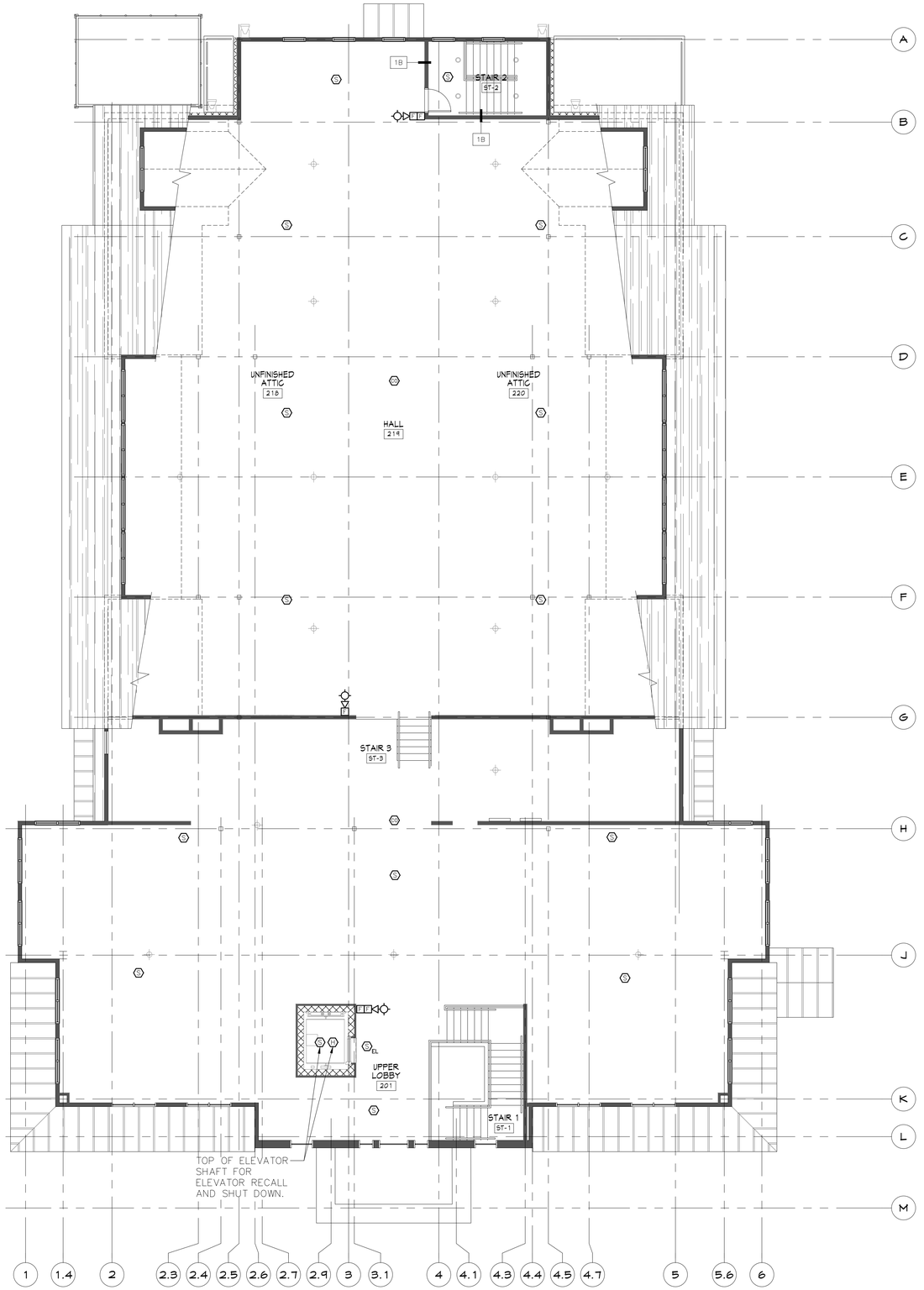
Drawing No.
FA2.1



NORTH

1 FIRE ALARM MEZZANINE PLAN
SCALE: 1/8" = 1'-0"



NORTH

2 FIRE ALARM SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"

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09.15.20	ICC SUBMISSION
01.15.21	ISSUED FOR BID

Project Title
Bedford Fire Headquarters
550 Old Post Road
Bedford, NY 10506

Drawing Title
FIRE ALARM MEZZANINE & SECOND FLOOR PLAN

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JL/MRP
Checked by	JF/RS

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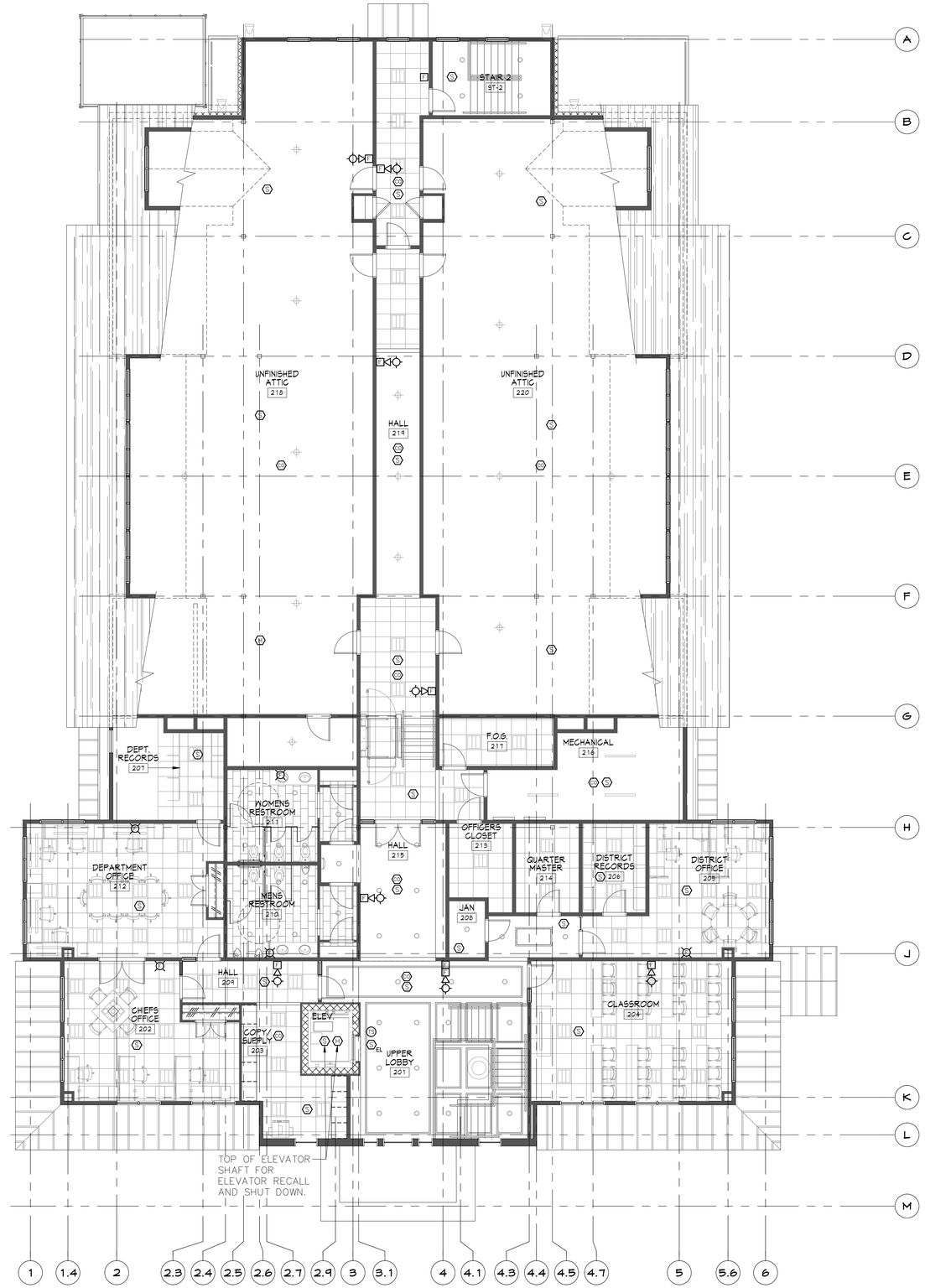
Drawing No.
FA2.2



NORTH

2 FIRE ALARM SECOND FLOOR PLAN (ALTERNATE)
SCALE: 1/8" = 1'-0"

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01.15.21	ISSUED FOR BID

Project Title
Bedford Fire Headquarters
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Bedford, NY 10506

Drawing Title
FIRE ALARM SECOND FLOOR PLAN (ALTERNATE)

Project No.	NSPC0070.00
Date	03-27-20
Scale	AS NOTED
Drawing by	JL/MRP
Checked by	JF/RS

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FA2.2A