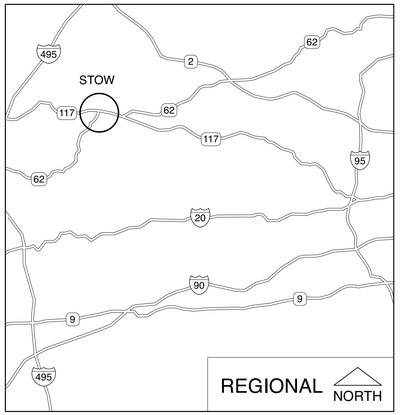
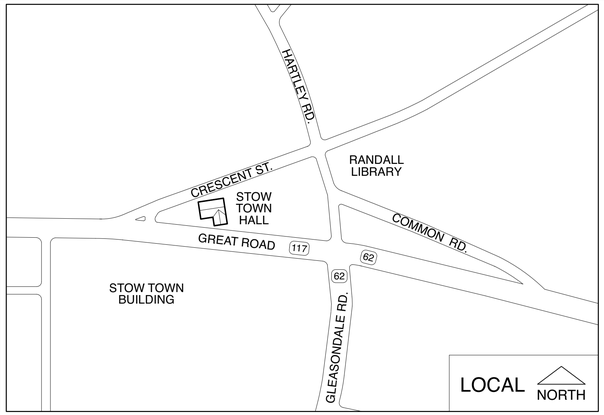
LOCUS PLAN





STOW TOWN HALL RESTORATION

375 GREAT ROAD STOW MA 01775

ARCHITECT:	Mills Whitaker Architects
SURVEYOR:	Reed Land Surveying
SUSTAINABILITY:	The Green Engineer
CIVIL:	PVI Site Design
LANDSCAPE:	Warner Larson Landscape Architects
STRUCTURAL:	Structures North Consulting Engineers
MECH. & ELECT.:	BLW Engineering
LIGHTING:	Available Light
AV & ACOUSTICS:	Acentech Incorporated
ENVIRONMENTAL:	Universal Environmental Consultants
COST ESTIMATING:	CHA Consulting

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A-05 DOOR AND FRAMES
A-06 WINDOW RESTORATION
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A-10.1 GROUND FLOOR PLAN
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S-1.2 PARTIAL FRAMING PLANS
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S-2.2 SECTIONS AND DETAILS
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S-3.2 SECTIONS AND DETAILS

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E-04 ELECTRICAL - DETAILS
E-05 ELECTRICAL - DETAILS
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ED-1.2 ELECTRICAL - DEMOLITION FLOOR PLAN
E-1.0 ELECTRICAL - PROPOSED LIGHTING FLOOR PLAN
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PROJECT NOTES

G-01: THIS SET OF DRAWINGS IS A FINAL CHECK SET AND IS NOT YET READY FOR BIDDING AND CONSTRUCTION PENDING CONTINUATION OF PROFESSIONAL SERVICES.

G-02: THIS PROJECT IS AN MGL CHAPTER 149 PROJECT. THE BID DATE AND PROJECT SCHEDULE ARE DEPENDANT UPON THE FUTURE ALLOCATION OF FUNDING.

G-03: REMAINING FINAL COORDINATION IS NEEDED BETWEEN MECHANICAL AND ELECTRICAL TRADES PRIMARILY WHILE OTHER TRADES ARE SUBSTANTIALLY DETAILED.

G-04: REFER TO THE PROJECT MANUAL FOR SPECIFICATIONS. BIDDING AND PROCUREMENT INFORMATION WILL NEED TO BE UPDATED WHEN A SCHEDULE IS DETERMINED.

G-05: REGULATORY INFORMATION RELATED TO EGRESS, OCCUPANCY, WORK AREAS AND ACCESSIBILITY ARE NOTED IN DRAWINGS A-01, A-02 AND A-03 HEREIN.

G-06: VARIANCES FROM CURRENT REGULATIONS OF THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (521 CMR) HAVE BEEN OBTAINED AND INCORPORATED HEREIN.

G-07: ALL WORK HAS BEEN DESIGNED IN COMPLIANCE WITH THE MASSACHUSETTS STATE BUILDING CODES, NINTH EDITION, FOR HISTORIC BUILDINGS SPECIFICALLY.

G-08: THE MASSACHUSETTS HISTORICAL COMMISSION HAS DETERMINED THAT THE STOW TOWN HALL IS ELIGIBLE FOR LISTING IN THE REGISTER OF HISTORIC PLACES.

G-09: REFER TO PROJECT INFORMATION AND APPENDICES IN A REPORT ENTITLED "FIVE OPTIONS" PREPARED BY MILLS WHITAKER ARCHITECT AND 1 AUGUST 1 2022,

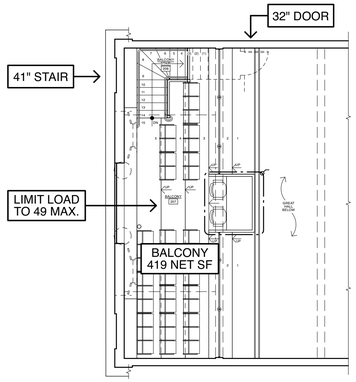
MILLS WHITAKER ARCHITECTS LLC
P.O. BOX 750089
ARLINGTON MA 02475
tel: 617-876-7611
fax: 617-876-6420

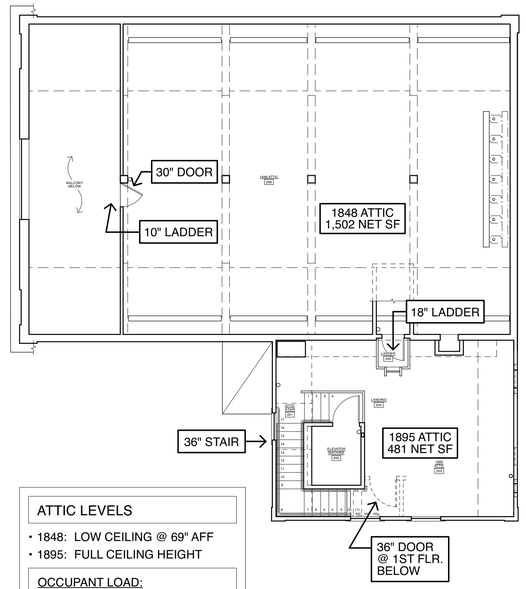
PROJECT NAME: STOW TOWN HALL RESTORATION
PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775
DRAWING TITLE: PROJECT INFORMATION

DATE: 30 JUNE 2022

FINAL CHECK SET
NOT FOR CONSTRUCTION

SHEET #: A-00





BALCONY (MEZZANINE)

OCCUPANT LOAD:

- EXISTING = 71 SEATS
- LIMIT LOAD TO 49 MAX. BY CODE TO ALLOW ONE MEZZ. EGRESS (40 ACTUAL PER LOOSE SEATING AS SHOWN)

EGRESS CAPACITY (1):

- 32" DOOR / .2 = 160 PERSONS
- 41" STAIR / .3 = 136 PERSONS
- 136 CAPACITY > 49 OCCUPANTS

THE BALCONY USE SHALL BE RESTRICTED TO "AUTHORIZED PERSONNEL ONLY" AS ENFORCED BY THE BUILDING COMMISSIONER.

ATTIC LEVELS

- 1848: LOW CEILING @ 69" AFF
- 1895: FULL CEILING HEIGHT

OCCUPANT LOAD:

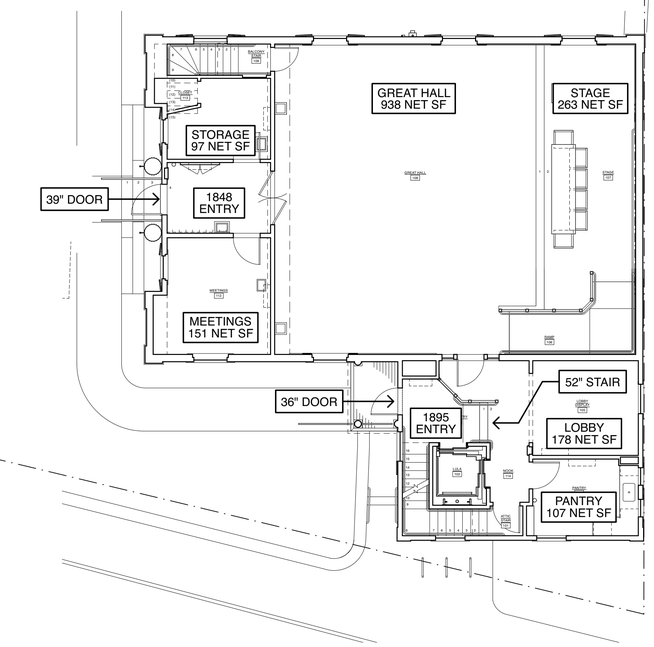
1,983 SF / 300 PER = 7 PERSONS

EGRESS CAPACITY (1):

- 36" DOOR / .2 = 160 PERSONS
- 36" STAIR / .3 = 120 PERSONS
- 120 CAPACITY > 7 OCCUPANTS

NORTH

2 A-01 BALCONY & ATTIC EXITS & OCCUPANCY
Scale: 1/8" = 1'-0"



FIRST FLOOR LEVEL

OCCUPANT LOAD:

134 PERSONS @ GREAT HALL (938 / 7)
18 PERSONS @ STAGE (263 / 15)
36 PERSONS @ LOBBY (178 / 5)
6 PERSONS @ PANTRY (107 / 20)
10 PERSONS @ MEETINGS (151 / 15)
1 PERSON @ STORAGE (97 / 300)

205 SUBTOTAL AT FIRST FLOOR
49 MAXIMUM LOAD AT BALCONY

254 OCCUPANT LOAD AT FIRST FLOOR

EGRESS CAPACITY (2):

- 39" DOOR / .2 @ 195 PERSONS + 52.5" STAIR / .3 @ 175 = 370 PERSONS
- 370 CAPACITY > 254 OCCUPANTS

NORTH

1 A-01 FIRST FLOOR EXITS & OCCUPANCY
Scale: 1/8" = 1'-0"

EGRESS INFORMATION RELATIVE TO BUILDING CODE

E1: TOTAL OCCUPANT LOAD FOR THE FACILITY IS AS FOLLOWS:

31 GROUND FLOOR
254 FIRST FLOOR + BALCONY
7 ATTIC LEVELS
292 TOTAL MAXIMUM OCCUPANTS

E2: EGRESS PROVISIONS HAVE BEEN DETERMINED IN COMPLIANCE WITH 780 CMR 34, (9TH EDITION), 2015 IEBC AND 2015 IBC AS APPLICABLE.

E3: OCCUPANT LOADS HAVE BEEN ESTABLISHED PER TABLE 1004.1.2 IN 2015 IBC USING MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT BY AREA AS FOLLOWS:

5 SF / PERSON: ASSEMBLY STANDING SPACE IN THE LOBBY AREA
7 SF / PERSON: ASSEMBLY CONCENTRATED IN THE GREAT HALL
15 SF / PERSON: ASSEMBLY UNCONCENTRATED IN MEETING ROOMS (GROUND & FIRST FLOORS)
20 SF / PERSON: PANTRY AREA FOR CATERING EVENTS
100 SF / PERSON: FOR GROUND FLOOR OFFICES & RESTROOMS (LESS MEETING ROOM SF)
300 SF / PERSON: MECHANICAL SPACES & STORAGE AREAS
BALCONY LIMIT OF 49: SEE NOTE BELOW

E4: IN THE BALCONY AREA, EXISTING WOODEN PEWS AND FOLDING WOODEN CHAIRS (IN GROUPINGS OF 2 & 3), ALONG WITH ONE STOOL AND OFFICE CHAIR, EQUALS 71 SEATS. REFER TO EXISTING SEATING LAYOUT IN DRAWING 2/A-12.0. IN ORDER TO REMOVE THE FIRE ESCAPE EXIT, THE BALCONY OCCUPANT LOAD MUST NOT EXCEED 49 PERSONS FOR ONE EXIT PER 2015 IBC TABLE 1006.2.1. THIS LOAD IS TAKEN INTO CONSIDERATION WITH EGRESS REQUIREMENTS FOR THE FIRST FLOOR AS A MEZZANINE LEVEL PER 2015 IBC 1004.1.1.2. THE BALCONY MEETS THE BUILDING CODE DEFINITION OF A "MEZZANINE" PER 2015 IBC 505.2.1 AS FOLLOWS:

FIRST FLOOR AREA OF GREAT ROOM INCLUDING STAGE = 1400 NET SF;
BALCONY AREA = 419 NET SF, OR 29.9% OF THE FIRST FLOOR AREA;
TOTAL AREA OF GREAT HALL + BALCONY = 1819 SF; BALCONY IS 23% OF TOTAL (LESS THAN 1/3rd OF OVERALL SIZE)

E5: ONE EXIT IS PROVIDED FOR THE GROUND FLOOR LEVEL IN COMPLIANCE WITH 2015 IBC TABLE 1006.3.2(2) SINCE THE OCCUPANT LOAD IS 18 (< 49 MAXIMUM ALLOWED) AND THE COMMON PATH OF EGRESS TRAVEL IS 50' (< 75' MAXIMUM).

E6: THE 1848 AND 1895 ATTICS WILL BE INTERCONNECTED VIA A FIXED SERVICE LADDER, THEREBY COMBINING EACH ATTIC INTO ONE WITH TWO MEANS OF EGRESS VIA THE BALCONY LADDER, CONNECTING LADDER, AND THE RECONSTRUCTED ELL STAIR. THE DOOR AT THE BOTTOM OF THE ELL STAIR WILL SWING INTO THE STAIR, NOT IN THE DIRECTION OF EGRESS TRAVEL, DUE TO ITS ENCROACHMENT ON ADJACENT OPENINGS AND THE LOW OCCUPANT LOAD OF 7 PERSONS IN THE ATTICS PER 2015 IBC 1010.1.2.1. THE ATTICS ARE NOT CLASSIFIED AS A "STORY" PER THE DEFINITIONS IN 2015 IBC 202:

ATTIC = THE SPACE BETWEEN THE CEILING BEAMS OF THE TOP STORY AND THE ROOF RAFTERS.

E7: THE RECONFIGURED ELL STAIRWAY REPLACES THE EXISTING WINDER STAIRS AND PROVIDES A CODE COMPLIANT STAIR TO CONNECT THE GROUND FLOOR, FIRST FLOOR AND ATTIC. MAXIMUM RISER HEIGHTS WILL BE 7" AND TREADS WILL BE 11" PER 2015 IBC 1011.5.2. THE STAIRS WILL SERVE AS EGRESS FROM THE ATTIC LEVEL TO THE FIRST FLOOR, BUT WILL NOT BE REQUIRED FOR EGRESS FOR THE GROUND FLOOR AND FIRST FLOOR AREAS. WIDTH OF THE STAIRS SHALL BE 36" PER 2015 IBC 1011.2, EXCEPTION FOR SERVING FEWER THAN 50.

PLUMBING CODE INFORMATION PER 248 CMR

P1: FACILITY USE GROUP IS ASSEMBLY A-3 PER 248 CMR 10.10(18)(b)1.

P2: ONE GENDER NEUTRAL HANDICAP ACCESSIBLE RESTROOM IS PROVIDED IN COMPLIANCE WITH 248 CMR 10.10(18)(i)3.

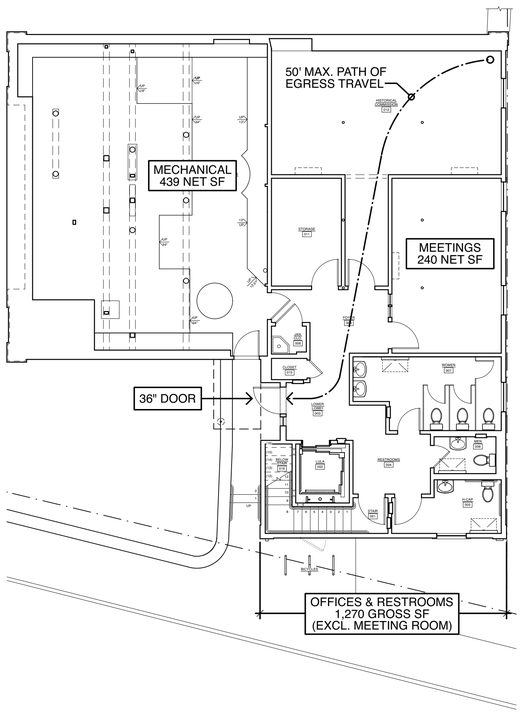
P3: TOTAL OCCUPANT LOAD FOR THE FACILITY IS 292, RESULTING IN AN ANTICIPATED DISTRIBUTION OF 146 MALE & 146 FEMALE OCCUPANTS FOR DETERMINATION OF MINIMUM PLUMBING FIXTURES PER 248 CMR 10.10 (18) TABLE 1 FOR AN ASSEMBLY USE GROUP A-3.

P3: PLUMBING CODE FIXTURE REQUIREMENTS AND PROVIDED FIXTURES ARE AS FOLLOWS:

FIXTURE COUNT

	Water Closets		Lavatories	
146 FEMALES	Min. Req'd	Provided	Min. Req'd	Provided
	3	3	1	2
	(1 per 50)	(1 per 49)	(1 per 200)	(1 per 73)
	WC (& 50% Urinals)		Lavatories	
146 MALES	Min. Req'd	Provided	Min. Req'd	Provided
	2	2	1	2
	(1 per 100)	(1 per 73)	(1 per 200)	(1 per 70)

NOTES:
1) Gender Neutral HCAP Restroom fixtures attributed to Males.
2) Urinals are optional for Males in A-3 Use Group per 24B CMR 10.10(18)(p)1.



GROUND FLOOR LEVEL

OCCUPANT LOAD:

13 PERSONS @ OFFICE + RESTROOMS (1,270 / 100)
16 PERSONS @ MEETING ROOM (240 / 15)
2 PERSONS @ MECHANICAL SPACE (439 / 300)

31 PERSONS TOTAL

EGRESS CAPACITY (1):

- 36" DOOR / .2 = 180 PERSONS
- 180 CAPACITY > 31 OCCUPANTS

NORTH

0 A-01 GROUND FLOOR EXITS & OCCUPANCY
Scale: 1/8" = 1'-0"

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ARLINGTON MA 02475
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STOW TOWN HALL RESTORATION
375 GREAT ROAD
STOW MA 01775

PROJECT NAME:
PROJECT ADDRESS:

EGRESS & OCCUPANCY INFORMATION

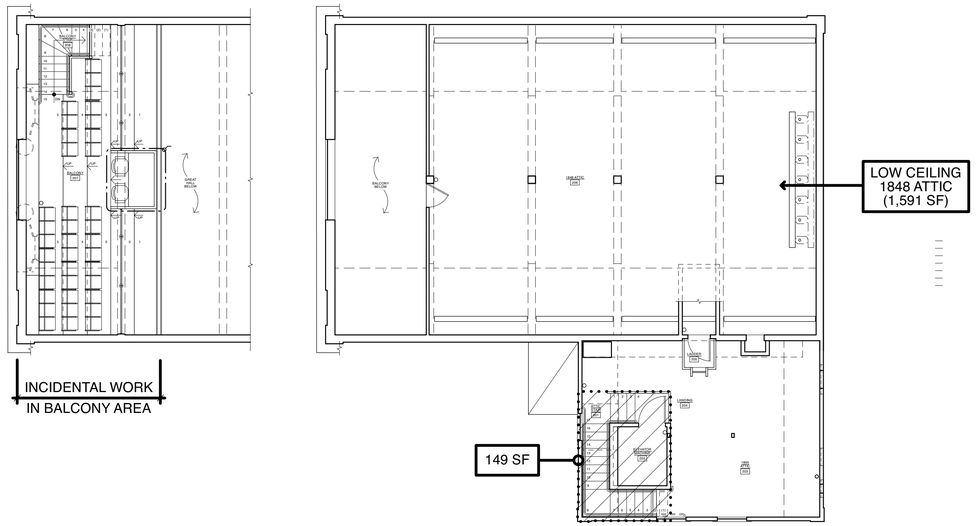
DRAWING TITLE:

DATE: 30 JUNE 2022

FINAL CHECK SET
NOT FOR CONSTRUCTION

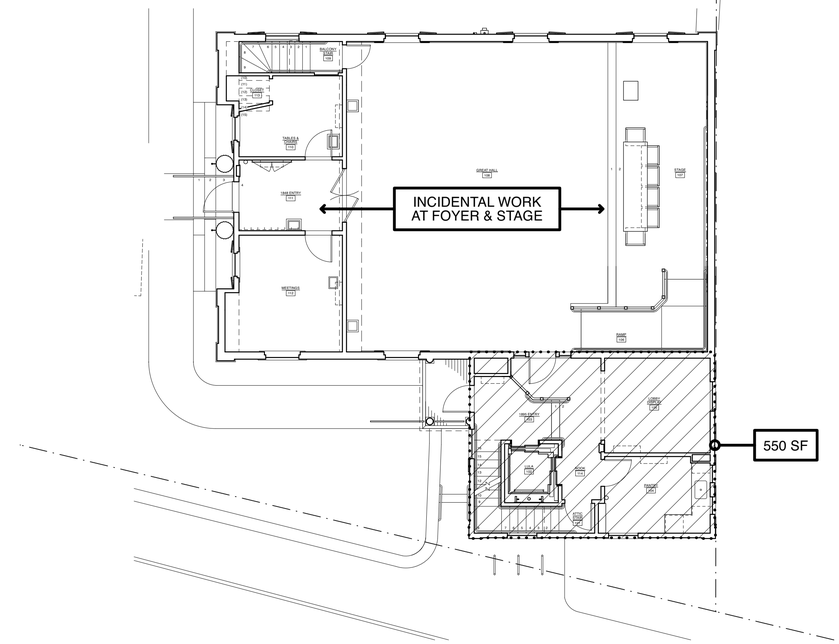
SHEET #:

A-01



2 A-02 BALCONY & ATTIC WORK AREA
Scale: 1/8" = 1'-0"

NORTH



1 A-02 FIRST FLOOR WORK AREA
Scale: 1/8" = 1'-0"

NORTH

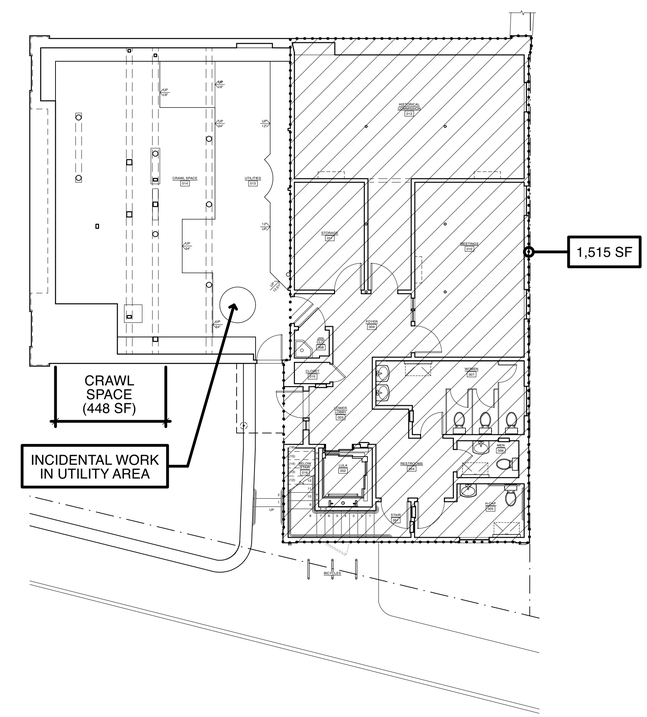
WORK AREA INFO	EXIST. S.F.	WORK AREA	PERCENTAGE
GROUND FLOOR	2,114	1,515	71.67%
FIRST FLOOR	2,562	569	22.21%
BALCONY & ATTIC	1,157	149	12.88%
TOTALS	5,833	2,233	38.28%

NOTE: "WORK AREA" IS THE RECONFIGURED SPACE AS DEFINED BY 2015 1EBC, SECTION 202, FOR COMPLIANCE WITH 780 CMR 34.

SIZES OF EXISTING BUILDING & WORK AREAS ARE IN GROSS SQUARE FEET MEASURED TO EXTERIOR WALLS, EXCLUDING CRAWL SPACE (ADJACENT TO UTILITY AREA) & THE UPPER ATTIC AREA WHERE NOTED (IN 1848 PORTION).

THE STOW TOWN HALL IS CERTIFIED BY THE MASSACHUSETTS HISTORICAL COMMISSION AS BEING ELIGIBLE FOR LISTING ON THE NATIONAL REGISTER OF HISTORIC PLACES. THEREFORE, THE FACILITY IS A "HISTORIC BUILDING" PER DEFINITIONS IN 780 CMR 34 AS NOTED IN 2015 IEBC SECTION 202.

SINCE THERE IS NO CHANGE IN OCCUPANCY FOR THE RESTORATION, ONLY LIMITED ASPECTS OF THIS PROJECT WILL BE SPECIFICALLY APPLICABLE TO "WORK AREA" INTERPRETATIONS AS "LEVEL 2 ALTERATIONS." BUILDING CODE INTERPRETATION FOR THE WORK ORIGINATES IN 2015 IBEC CHAPTER 12 'HISTORIC BUILDINGS."



0 A-02 GROUND FLOOR WORK AREA
Scale: 1/8" = 1'-0"

NORTH

MILLS
WHITAKER
ARCHITECTS
LLC

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PROJECT NAME: STOW TOWN HALL RESTORATION

PROJECT ADDRESS: 375 GREAT ROAD
STOW MA 01775

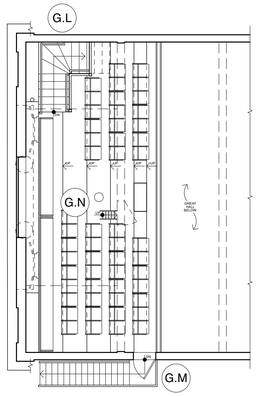
DRAWING TITLE: WORK AREA DIAGRAM

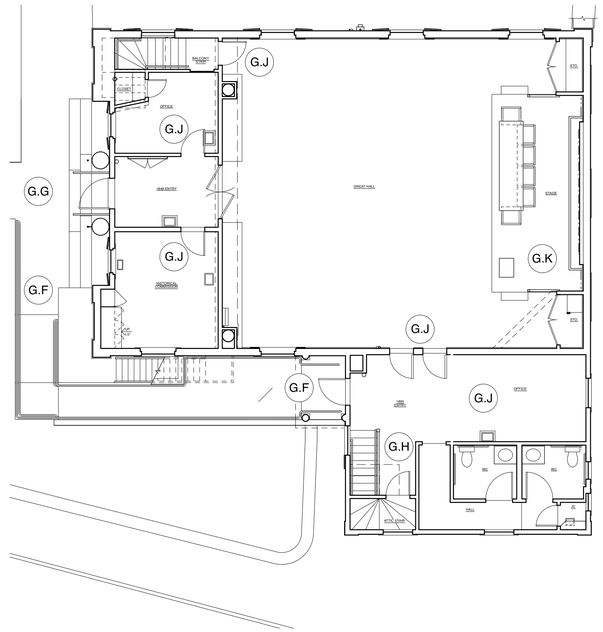
DATE: 30 JUNE 2022

FINAL CHECK SET
NOT FOR CONSTRUCTION

SHEET #:

A-02





EXISTING ACCESIBILITY CONDITIONS

G.F: ACCESSIBLE RAMP AND ENTRANCE NOT IN COMPLIANCE.
- LACK OF FULL EXTENSIONS AT RAILINGS
- INSUFFICIENTLY SIZED INTERMEDIATE LANDING
- INADEQUATE STRIKE SIDE DOOR CLEARANCE AT ENTRANCE

G.G: HISTORIC ENTRANCE NOT ACCESSIBLE
- NO WHEELCHAIR ACCESS AT PUBLIC ENTRANCE
- NSUFFICIENT LANDING OUTSIDE OF DOOR
- STAIRS UP TO AND INCLUDING AT DOOR ENTRANCE

G.H: STAIRS DOWN TO GROUND FLOOR NOT IN COMPLIANCE
- WINDER STAIRS NOT IN COMPLIANCE
- RAILINGS, TREADS & RISERS NOT IN COMPLIANCE

G.J: INTERIOR DOOR OPENINGS NOT IN COMPLIANCE
- 32" WIDE DOORS WITHOUT SUFFICIENT CLEAR WIDTH
- NOT ALL MANEUVERING CLEARANCES IN COMPLIANCE

G.K: GREAT HALL STAGE NOT WHEELCHAIR ACCESSIBLE
- 12" HIGH STAGE WITH NO WHEELCHAIR ACCESS

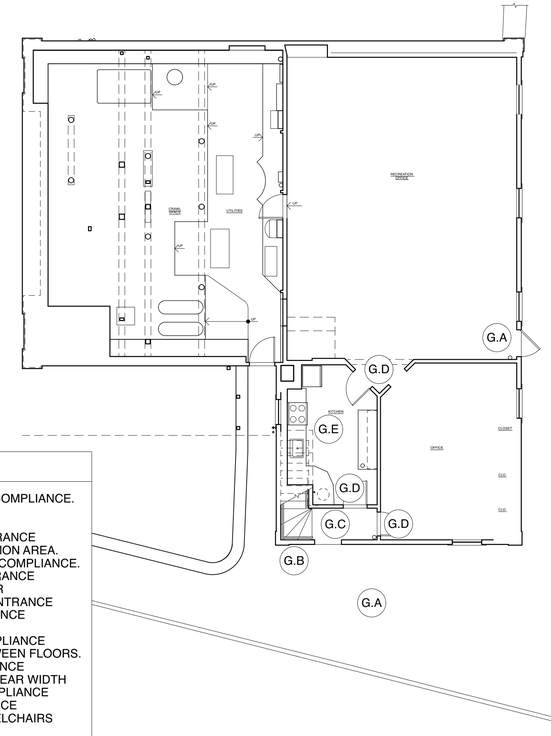
G.L: STAIRS TO BALCONY LEVEL NOT ACCESSIBLE
- WINDER STAIRS NOT IN COMPLIANCE
- RAILINGS, TREADS & RISERS NOT IN COMPLIANCE

G.M: FIRE ESCAPE FROM BALCONY LEVEL NOT ACCESSIBLE

G.N: TIERED SEATING IN BALCONY NOT ACCESSIBLE

NORTH

1.0 / A-03 EXISTING FIRST FLOOR & BALCONY ACCESSIBILITY CONDITIONS
Scale: 1/8" = 1'-0"



EXISTING ACCESSIBILITY CONDITIONS

G.A: ACCESSIBLE RAMP AND ENTRANCE NOT IN COMPLIANCE.
- LACK OF FULL EXTENSIONS AT RAILINGS
- INSUFFICIENTLY SIZED RAMP LANDINGS
- INADEQUATE DOOR CLEARANCES AT ENTRANCE
- ENTRANCE INTO OFFICE AREA, NOT COMMON AREA.

G.B: PUBLIC ENTRANCE FROM SIDEWALK NOT IN COMPLIANCE.
- NO WHEELCHAIR ACCESS AT PUBLIC ENTRANCE
- INSUFFICIENT LANDING OUTSIDE OF DOOR
- STAIRS UP TO AND INCLUDING AT DOOR ENTRANCE

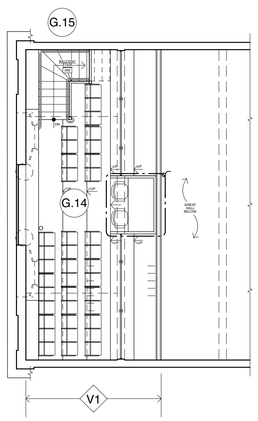
G.C: STAIRS UP TO FIRST FLOOR NOT IN COMPLIANCE
- WINDER STAIRS NOT IN COMPLIANCE
- RAILINGS, TREADS & RISERS NOT IN COMPLIANCE
- NO VERTICAL WHEELCHAIR ACCESS BETWEEN FLOORS.

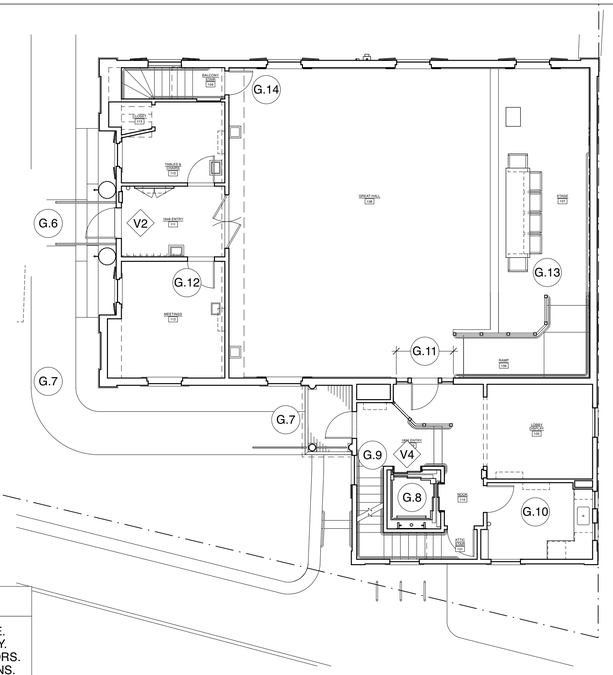
G.D: INTERIOR DOOR OPENINGS NOT IN COMPLIANCE
- 32" WIDE DOORS WITHOUT SUFFICIENT CLEAR WIDTH
- MANEUVERING CLEARANCES NOT IN COMPLIANCE

G.E: KITCHEN FOR PUBLIC USE NOT IN COMPLIANCE
- NO KNEE SPACE AT COUNTERS FOR WHEELCHAIRS
- KITCHEN SINK NOT ACCESSIBLE

NORTH

0.0 / A-03 EXISTING GROUND FLOOR
Scale: 1/8" = 1'-0"





ACCESSIBILITY RELATED WORK AT FIRST FLOOR & BALCONY

G.6: PRESERVATION OF HISTORIC ENTRANCE AT MONUMENTAL FACADE.
G.7: PROVIDE COMPLIANT ENTRANCE WALKWAY TO ACCESSIBLE ENTRY.
G.8: PROVIDE LU/LA ELEVATOR FOR VERTICAL ACCESS BETWEEN FLOORS.
G.9: PROVIDE STAIRS AND RAILINGS IN COMPLIANCE WITH REGULATIONS.
G.10: PROVIDE PANTRY WITH ACCESSIBLE SINK AND COUNTER AREAS.
G.11: PROVIDE COMPLIANT DOOR OPENING AT CONNECTION INTO 1895 ELL.
G.12: PROVIDE COMPLIANT DOORWAY INTO OFFICE AT FOYER AREA.
G.13: PROVIDE ACCESSIBLE RAMP TO GREAT HALL STAGE AREA.
G.14: PRESERVE TIERED BALCONY OF GREAT HALL FOR STAFF USE.
G.15: REPLACE STAIR RAILINGS FOR CONTINUITY TO GREAT HALL BALCONY.

NORTH

1.1 / A-03 FIRST FLOOR & BALCONY ACCESSIBILITY IMPROVEMENTS
Scale: 1/8" = 1'-0"

521 CMR VARIANCE REQUESTS

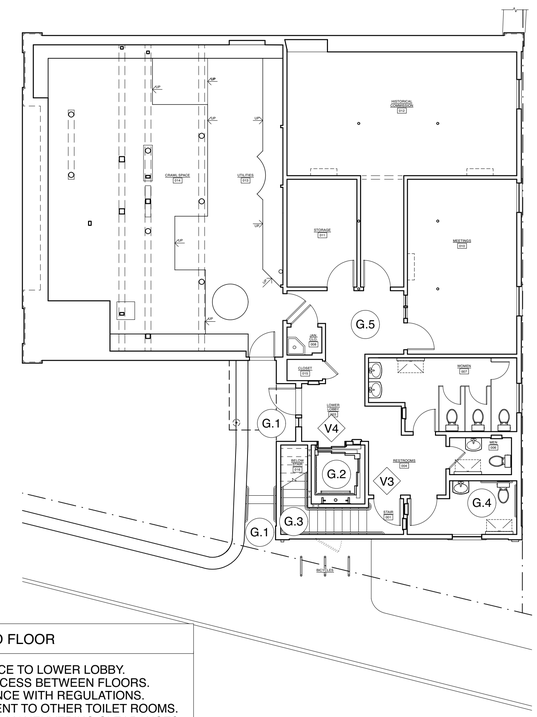
V1 Preserve Tiered Balcony (14.1)
Approved for Authorized Personnel Only

V2 Preserve Historic Entry (25.1 + 26.1.2)
Approved with Replacement Handrails

V3 Clearances at Stair Door (26.6.3 + 26.6.4)
Approved as Submitted

V4 Cab Size of LU/LA Elevator (28.12.3a)
Approved as Submitted

Refer to MAAB Variance Decisions for Details.



ACCESSIBILITY RELATED WORK AT GROUND FLOOR

G.1: PROVIDE NON-ACCESSIBLE PUBLIC ENTRANCE TO LOWER LOBBY.
G.2: PROVIDE LU/LA ELEVATOR FOR VERTICAL ACCESS BETWEEN FLOORS.
G.3: PROVIDE STAIRS AND RAILINGS IN COMPLIANCE WITH REGULATIONS.
G.4: PROVIDE ACCESSIBLE TOILET ROOM ADJACENT TO OTHER TOILET ROOMS.
G.5: PROVIDE ACCESSIBLE INTERIOR DOORS AND MANEUVERING CLEARANCES.

NORTH

0.1 / A-03 GROUND FLOOR ACCESSIBILITY IMPROVEMENTS
Scale: 1/8" = 1'-0"

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STOW TOWN HALL RESTORATION
375 GREAT ROAD
STOW MA 01775

ACCESSIBILITY IMPROVEMENTS

PROJECT NAME:
PROJECT ADDRESS:
DRAWING TITLE:

DATE: 30 JUNE 2022

FINAL CHECK SET
NOT FOR CONSTRUCTION

SHEET #:
A-03

DEMOLITION NOTES

NOTE: Key Notes are provided as a summary and are not intended to fully describe all conditions. Review existing conditions and available documents for determining scope and quantity of all associated demolition requirements. Remove all redundant and abandoned piping, conduit, devices and equipment as part of the demolition. Patch and repair any existing finishes scheduled to remain. IN ALL LOCATIONS, SALVAGE CASINGS & TRIM FOR RE-USE.

CEILING DEMOLITION NOTES

- C01 — Remove MEP components (ductwork, flues, conduits, piping, devices), plaster, metal lath and strapping.
- C02 — Remove acoustical ceiling components and MEP components.
- C03 — Remove plaster, wood lath, strapping, and MEP components, including where concealed above suspended ceilings.
- C04 — Salvage tin ceiling to extent required for re-use in Lower Lobby and for patching and selective replacement in areas where tin is scheduled to remain as finished surface.
- C05 — Remove gypsum wallboard, soffit trim, strapping, framing and MEP components.
- C06 — Remove strapping from floor joists in area where ceiling was previously removed.
- C07 — Remove ceiling joists to provide access to roof framing for reinforcement.
- C08 — Remove textured acoustical treatment at ceiling and upper walls. Remove plaster, lath & strapping.

DOOR DEMOLITION NOTES

- D01 — Remove door, frame and hardware; enlarge and reframe existing opening.
- D02 — Remove door, frame and hardware; infill opening to match adjacent surfaces.
- D03 — Remove door, frame and hardware.
- D04 — Remove door opening and associated frame (door is missing).
- D05 — Remove door, hardware and interior casings; retain frame and exterior casings for clapboard exterior wall infill as detailed.
- D06 — Remove door, frame and hardware; reframe for window to match adjacent.
- D07 — Salvage door; remove frame and hardware; shift and reframe opening for accessibility; lower stoop level due to replacement of ramp with accessible walkway; repair & re-use door at opening 0.01.

ELECTRICAL DEMOLITION NOTES

NOTE: Remove all devices, wiring, conduit, fixtures, receptacles and other items except where noted to be retained and reused with replacement components.

- E01 — Refer to Electrical Drawings for removal and replacement of electrical service and panels.
- E02 — Refer to Electrical Drawings for removal and replacement of fire alarm system.
- E03 — Refer to Electrical Drawings for tel/data service and system information.

FLOORING DEMOLITION NOTES

- F01 — Remove wood flooring, subfloor and joists; excavate for placement of substrate, foundation drainage and concrete slab.
- F02 — Remove wood stairs, framing and handrails.
- F03 — Remove ceramic tile and substrate materials to original subfloor below.
- F04 — Remove carpet, pad, staples and tack strips to expose wood flooring below.
- F05 — Remove maple flooring overlay and maple below to original subfloor.
- F06 — Remove maple steps at each side of Great Hall stage area.

GENERAL (MISCELLANEOUS) DEMOLITION

- G01 — Remove all MEP and other items made redundant by the work; patch openings and surfaces to match where applicable.
- G02 — Remove exterior ramp, landings, guard walls and rails to First Floor entrance.
- G03 — Remove service alley paving and excavate for revised entrance to Ground Floor.
- G04 — Remove exterior ramp, landings, fencing and rails to Ground Floor entrance.
- G05 — Remove steps to stair door and associated roof canopy above; repair clapboards at canopy and brackets to restore prior integrity of exterior wall.
- G06 — Remove appliances after services and utilities are disconnected.

GENERAL (MISCELLANEOUS) DEMOLITION (CONT'D)

- G07 — Remove counters and cabinets.
- G08 — Remove fire escape stairs, brackets, foundations, exit door, frame and hardware.
- G09 — Remove coats hooks and wood trim to which hooks are attached.
- G10 — Remove stair handrails and guards where shown. Salvage original wall-mounted brackets (12 total).
- G11 — Salvage, repair and reinstall boot scrapers at each side of historic entrance.

MECHANICAL DEMOLITION NOTES

NOTE: Remove all ductwork, piping, controls, flues, devices and other MEP items except where noted to retained and reused or relocated.

- M01 — Remove abandoned fire air horn system including compressor, tanks (interior and exterior), piping and any other components.
- M02 — Remove oil tank, fill/vent system, oil-fired furnaces, ductwork and controls.
- M03 — Remove pressurized well tank.
- M04 — Remove exposed ductwork.
- M05 — Remove concealed ductwork.
- M06 — Remove floor grilles; patch subfloor to match and tooth-in adjacent finished wood flooring.
- M07 — Remove plumbing fixtures, piping and accessories.
- M08 — Remove plumbing vent piping above attic floor surface.

PARTITION DEMOLITION NOTES

- P01 — Remove north-south wall at mid-point of 1895 addition; assume wall is providing intermediate support for continuous east-west 2x8 joist framing at first floor and attic.
- P02 — Remove east-west wall between steel beam and foundation at demising of 1848 and 1895 addition; assume wall is providing supplemental support of original exterior.
- P03 — Remove interior partitions where indicated. Retain any support posts within walls.
- P04 — Remove storage closets and furring to expose studs at exterior wall of addition.
- P05 — Remove plaster and wood lath to expose stud wall framing; salvage trim for reuse.
- P06 — Remove bearing walls adjacent to stairs.
- P07 — Remove plaster, lath and wood studs to expose north stone foundation wall.
- P08 — Remove plaster and lath; salvage wainscoting (base, boards, chair rail); expose wood studs.
- P09 — Remove portion of wall and lower floor curb; reframe for flush floor at passage doorway.
- P10 — Remove partial height storage closets, shelves, wall cleats, doors, frames and hardware; remove projection screen and associated supports.
- P11 — Remove paneling and furred wall to expose original concealed wall; remove concealed finishes at original wall to expose wood studs.

STRUCTURAL DEMOLITION NOTES

- S01 — Refer to Structural Drawings for limited work at existing freestanding posts, columns and footings supporting first floor level above.
- S02 — Remove "rat" slab and concrete ramp in Utility area for replacement slab per Structural and sewage ejector pit per Plumbing.
- S03 — Refer to Structural Drawings for removal of deteriorated rubble stone retaining wall to the extent detailed.
- S04 — Refer to Structural Drawings for selective repair and repointing of stone wall.

WINDOW DEMOLITION NOTES

- W-X — Remove window and reframe exterior wall for entrance to Ground Floor.
- W-Y — Salvage interior casings, rosettes, stool and aprons for re-use at window unit W05.

ROOM FINISH SCHEDULE

NO.	NAME	FLOOR	BASE	WALLS N	WALLS E	WALLS S	WALLS W	WAINSCOTING	CEILING CROWN	CEILING MATERIAL	CEILING HT. (INCHES)	NO.	REMARKS
001	STAIR	FIN WD	PTD REP 1895	PTD GYP	PTD GYP	PTD GYP	PTD GYP	- - -	- - -	PTD GYP	VARIES	001	
002	LULA	CAR IN CAB	- - -	FT GYP	FT GYP	FT GYP	FT GYP	- - -	- - -	- - -	- - -	002	CAB WALLS + CLG BY MANU
003	LOWER LOBBY	FIN WD	PTD REP 1895	PTD GYP	PTD GYP	PTD GYP	PTD GYP	PTD REP 1895	PTD WD	PTD SALV TIN	98	003	
004	RESTROOMS	FIN WD	PTD REP 1895	PTD GYP	PTD GYP	PTD GYP	PTD GYP	PTD REP 1895	- - -	ACT	98	004	
005	H-CAP	CT	PTD WD	PTD GYP + BB	PTD GYP + BB	PTD GYP + BB	PTD GYP + BB	SEE 4/A-16	- - -	ACT	96	005	
006	MEN	CT	PTD WD	PTD GYP + BB	PTD GYP + BB	PTD GYP + BB	PTD GYP + BB	SEE 4/A-16	- - -	ACT	96	006	
007	WOMEN	CT	PTD WD	PTD GYP + BB	PTD GYP + BB	PTD GYP + BB	PTD GYP + BB	SEE 4/A-16	- - -	ACT	96	007	
008	JANITOR CLOSET	RESIL	RESIL	PTD GYP	PTD GYP	PTD GYP	PTD GYP	- - -	- - -	- - -	108	008	
009	FOYER	FIN WD	PTD REP 1895	PTD GYP	PTD GYP	PTD GYP	PTD GYP	PTD REP 1895	- - -	ACT	96	009	
010	MEETINGS	FIN WD	PTD REP 1895	PTD GYP	PTD GYP	PTD GYP	PTD GYP	PTD REP 1895	PTD EX TIN (E)	PTD EX TIN	107	010	
011	STORAGE	RESIL	RESIL	PTD GYP	PTD GYP	PTD GYP	PTD GYP	- - -		ACT	96	011	
012	HISTORICAL COMM.	FIN WD	PTD WD	PTD GYP	PTD GYP	PTD GYP	PTD GYP	- - -	PTD EX TIN (N-E-W)	REF TIN + ACT	107+96	012	ACT IN HALL @ 96" AFF
013	UTILITIES	CONC	- - -	EX MSRY	EX PL + FRPLY	EX MSRY	- - -	- - -	- - -	EX	111.5	013	
014	CRAWL SPACE	EX (SOIL)	- - -	EX MSRY	- - -	EX MSRY	EX MSRY	- - -	- - -	EX	78.5	014	
015	CLOSET	RESIL	RESIL	PTD GYP	PTD GYP	PTD GYP	PTD GYP	- - -	- - -	- - -	98.25	015	SEAL AT DUCTS & PIPES
016	BELOW STAIR	CONC	- - -	FT GYP	FT GYP	FT GYP	FT GYP	- - -	- - -	FT GYP	VARIES	016	VENT TO HOISTWAY
101	ATTIC STAIR	FIN WD	PTD WD	PTD GYP	PTD GYP	PTD GYP	PTD GYP	- - -	- - -	PTD GYP	VARIES	101	
102	LULA	SEE 002	- - -	FT GYP	FT GYP	FT GYP	FT GYP	- - -	- - -	FT GYP	135	102	
103	1895 ENTRY	FIN WD	PTD REP 1895	PTD GYP	PTD GYP	PTD GYP	PTD GYP	PTD REP 1895	- - -	PTD GYP	98+103.5	103	
104	PANTRY	FIN WD	PTD WD	PTD GYP	PTD GYP	PTD GYP	PTD GYP	- - -	- - -	PTD GYP	103.5	104	
105	LOBBY DISPLAY	REF WD	PTD REP 1895	PTD GYP	PTD GYP	PTD GYP	PTD GYP	PTD REP 1895	- - -	PTD GYP	103.5	105	
106	RAMP	FIN WD	PTD WD	P BALUSTERS	PTD GYP	PTD GYP	- - -	SEE 4B/A-07	- - -		175-187	106	
107	STAGE	FIN + REF WD	PTD WD	PTD GYP	PTD GYP	PTD GYP	- - -	SEE 4B/A-07	SALV HR		174	107	TOOTH-IN FLOORING
108	GREAT HALL	REF WD	SALV WD	PTD GYP	PTD GYP	PTD GYP	PTD GYP	SEE 4A/A-07	SALV HR	PTD GYP + SF	186	108	
109	BALCONY STAIR	REF WD	SALV WD	PTD GYP	PTD GYP	PTD EX PL	PTD GYP	- - -	- - -	PTD GYP + EX	VARIES	109	
110	TABLE & CHAIRS	REF WD	PTD EX	PTD EX	PTD EX	PTD EX	PTD GYP	REF EX	PTD EX TIN (N-E-W)	PTD EX TIN	92-117.5	110	
111	1848 ENTRY	REF WD	PTD EX	PTD EX	PTD EX	PTD EX	PTD GYP	REF EX	PTD EX TIN (S-E-W)	PTD EX TIN	92-117.5	111	
112	MEETINGS	REF WD	PTD EX	PTD EX	PTD EX	PTD GYP	PTD GYP	REF EX	PTD EX TIN (N-S-E-W)	PTD EX TIN	92-117.5	112	
113	CLOSET	REF WD	PTD WD	PTD GYP	PTD GYP	PTD GYP	PTD GYP	- - -	- - -	PTD GYP	72-111.75	113	
114	NOOK	FIN WD	PTD REP 1895	- - -	PTD GYP	PTD GYP	PTD GYP	PTD REP 1895	- - -	PTD GYP	103.5	114	
201	ATTIC STAIR	FIN WD	PTD WD	PTD GYP	PTD GYP	EX + INSUL	EX + INSUL	- - -	- - -	EX + INSUL	VARIES	201	PTD GYP WALLS AT ELEV. HOISTWAY
202	ELEV. MACHINE	RESIL	RESIL	PTD GYP	PTD GYP	PTD GYP	PTD GYP	- - -	- - -	PTD GYP	84	202	
203	1895 ATTIC	EX WD	- - -	FT GYP	EX + INSUL	EX + INSUL	EX + INSUL	- - -	- - -	EX + INSUL	VARIES	203	
204	LANDING	FIN WD	- - -	PTD GUARD	PTD GUARD	PTD GYP	- - -	- - -	- - -	EX + INSUL	VARIES	204	
205	LADDER	PLYWOOD	- - -	FT GYP	WD GUARD	WD GUARD	WD GUARD	- - -	- - -	FT GYP	VARIES	205	
206	1848 ATTIC	EX + PLYWD	- - -	EX + INSUL	EX + INSUL	EX + INSUL	EX	- - -	- - -	EX + INSUL	VARIES	206	3/4" T/G PLYWOOD OVER EX WD
207	BALCONY	REF WD	PTD EX	PTD GYP	PTD EX	PTD GYP	PTD GYP	- - -	- - -	PTD GYP	VARIES	207	
208	BALCONY STAIR	REF WD	PTD EX	PTD GYP	PTD EX	PTD EX	PTD GYP	- - -	- - -	PTD GYP	VARIES	208	

ABBREVIATIONS:

ACT = ACOUSTICAL TILE
BB = BEADBOARD
CAR = CARPET
CLG = CEILING
CONC = CONCRETE
CT = CERAMIC TILE
EX = EXISTING
FIN = FINISH PER SPECS
FRPLY = FIRE RETARDANT PLYWOOD 3/4"
FT = FIRE TAPED
G/GYP = GYPSUM WALLBOARD
HR = HEAD RAIL
INSUL = INSULATION
MANU = MANUFACTURER
MSRY = MASONRY
NIC = NOT IN CONTRACT
PL = PLASTER
P/PTD = PAINT ALL SURFACES
REF = REPAIR & REFINISH
REP = REPLICATE NOTED MATERIAL
(N,S,E,W) = WALL DESIGNATIONS BY COMPASS
RESIL = RESILIENT TILE / BASE
SALV = REMOVE, REINSTALL & REFINISH
SF = STRETCHED FABRIC
VI = VERIFY IN FIELD
WD = WOOD

SAMPLES OF LEGEND NOTES:

EX WD = EXISTING UNFINISHED WOOD
REF WD = REPAIR & REFINISH EX. WOOD
FIN WD = PROVIDE & FINISH WOOD
FIN + REF WD => EXTEND, MATCH & FINISH STAGE FLOOR

PARTITION NOTES

Refer to Room Finish Schedule and Specifications for all materials. Provide solid wood blocking between studs or furring for attachment of trim, railing brackets, cabinets and devices as needed. Run each partition type continuously from floor structure to ceiling structure above and seal at sill, head and jambs.

- P.00 — Clean interior surface of existing exposed masonry wall and spray specified minimum thickness of closed cell foam insulation with intumescent coating. Minimum thickness shall be measured from the interiormost surfaces of stonework.
- P.01 — Clean exposed surface of wood stud cavities and spray specified thickness of closed cell foam insulation with intumescent coating in existing exterior stud wall cavity.
- P.02 — Clean exposed surface of wood stud cavities and spray specified thickness of closed cell foam insulation; install interior finishes as scheduled, including 5/8" drywall on 1/2" resilient furring to replicate thickness of former plaster.
- P.03 — Provide replacement furring over existing masonry wall to match existing depth; provide specified thickness of closed cell foam insulation and install interior finishes as scheduled.
- P.04 — Provide 2" x 4" wood stud exterior return walls to ground floor entrance with clapboards (match existing) over air barrier over 3/4" exterior grade plywood. Provide specified thickness of closed cell foam insulation and install interior finishes as scheduled. Install 1" x 6" exterior wood outside corner boards at each face of recess. Fire-rate one-hour below ell stairs.
- P.05 — Thickness of wall to be determined in the field after removal of chimney. Insulate stud cavity and finish per project standards.
- P.06 — Provide 2" x 6" wood stud exterior wall with clapboards (match existing) over air barrier over 3/4" exterior grade plywood. Provide specified thickness of closed cell foam insulation and install interior finishes as scheduled.
- P.07 — Retain existing plaster on wire lath at west side of partition (Utilities), and infill existing doorway to match plane of adjacent. Remove base on east side side of partition and patch wall at lowered floor elevation, providing finishes as scheduled.
- P.08 — Provide one-hour fire-rated system with one layer of 5/8" gypsum wallboard on each side of 3 5/8" light gauge metal stud framing per structural info. Finish tape outside and fire tape hoistway; friction fit 2.5" thick 25 PCF mineral wool sound attenuation fire blankets in stud cavities. UL Design U423. At west wall of attic machine room, provide furred out portion as indicated after installation of fire-rated portion of partition.
- P.09 — Provide non-rated shaft wall for ductwork and piping with 2 1/2" 20-gauge metal studs at 12" o.c. with finishes as scheduled for the room side only.
- P.10 — Provide one layer of 5/8" drywall on each side of 3 5/8" 20-gauge metal studs at 16" o.c. with finishes as scheduled.
- P.11 — Provide two layers of 5/8" drywall on each side of 3 5/8" 20-gauge metal studs at 16" o.c. with finishes as noted. Insulate stud cavity with 2.5" thick 25 PCF mineral wool sound attenuation fire blankets friction fit.
- P.12 — Assuming that existing wood stud wall can be retained (VIF or replace with 20-gauge metal studs or light gauge metal framing per Structural), provide two layers of 5/8" drywall on each side of studs. Insulate stud cavity with 2.5" thick 25 PCF mineral wool sound attenuation fire blankets friction fit. Provide wainscoting in restroom per partition type P.13.
- P.13 — Provide one layer of 5/8" drywall on each side of 3 5/8" 20-gauge metal studs at 16" o.c. with finishes as scheduled. Install 1/2" thick sheet wainscoting in restroom at lower portion over fire-taped drywall. Insulate stud cavity with 2.5" thick 25 PCF mineral wool sound attenuation fire blankets friction fit.
- P.14 — Similar to P.13 but with added thickness to accommodate plumbing clearances as noted in the drawings.
- P.15 — Repair existing west wall of Great Hall after removal of contemporary base cabinet and counter to repair and restore underlying finishes. Refer to wainscoting details for adjacent offices and foyer for concealed finishes at this wall.
- P.16 — Provide 5/8" gypsum wall board on south surface of studs and refinish north surface at stage ramp on opposite side with replacement wainscoting and 5/8" drywall on 1/2" resilient furring to replace plaster per drawings.
- P.17 — Provide one-hour fire-rated system with one layer of 5/8" gypsum wallboard on each side of 3 5/8" 20-gauge metal studs at 16" o.c. Provide finishes on each side as scheduled (see P.13 for restroom side). UL Design U423.
- P.18 — Attic enclosure separation partial partition walls with 2.5" metal studs, two layers of 5/8" drywall each side and 2.5" thick 25 PCF mineral wool sound attenuation fire blankets in stud cavity.
- P.19 — Separation wall between attics to receive replacement finishes on north side (Great Hall) per Type P.02 and 6" thick 25 PCF mineral wool sound attenuation blanket on 1895 attic side with two layers of 5/8" drywall over 1/2" resilient furring shimmed for continuous plane.
- P.20 — Provide 5/8" gypsum wallboard at both sides of existing studs; fire-tape at attic side and finish-tape at balcony side; provide 2.5" thick 25 PCF mineral wool sound attenuation fire blankets in stud cavity.
- P.21 — Similar to P.01 plus 5/8" fire-taped drywall to fire-rate partition one-hour.

CEILING NOTES

- C01 — Exposed wood framing.
- C02 — Exposed wood framing with closed cell spray foam and intumescent coating.
- C03 — Repaired and refinished existing painted tin ceiling panels.
- C04 — Salvaged, relocated and refinished existing painted tin ceiling panels.
- C05 — Suspended acoustical ceiling grid and acoustical panels.
- C06 — Painted gypsum board over leveled resilient furring on wood framing.
- C07 — Provide framing in ceiling void and cover with painted gypsum board.
- C08 — Provide acoustical attenuation surface materials over fire-taped gypsum board over leveled resilient furring on wood framing; insulate ceiling joist cavity at 1848 attic of Great Hall with 6" thick 2.5 PCF mineral fiber insulation.
- C09 — Painted gypsum board over leveled resilient furring on wood framing; insulate sloping rafter cavity with closed cell spray foam.

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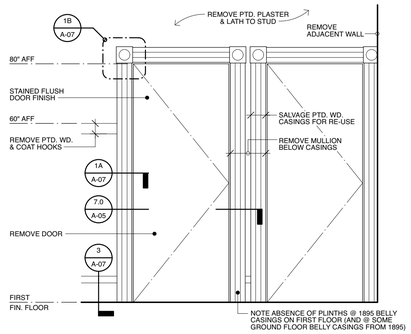
PROJECT NAME: STOW TOWN HALL RESTORATION
PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775
DRAWING TITLE: ROOM FINISH SCHEDULE

DATE: 30 JUNE 2022

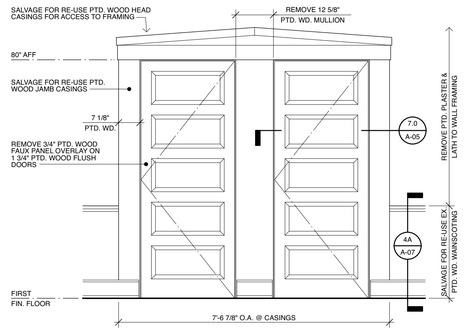
FINAL CHECK SET
NOT FOR CONSTRUCTION

SHEET #: A-04



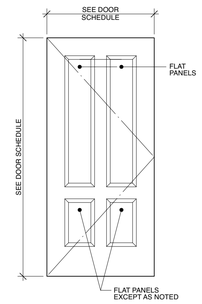
EXISTING DOORS FROM ELL TO GREAT HALL

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



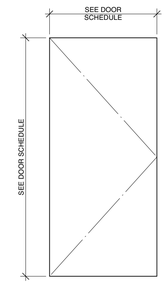
EXISTING DOORS FROM GREAT ROOM TO ELL

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



DOOR TYPE B

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



DOOR TYPE A

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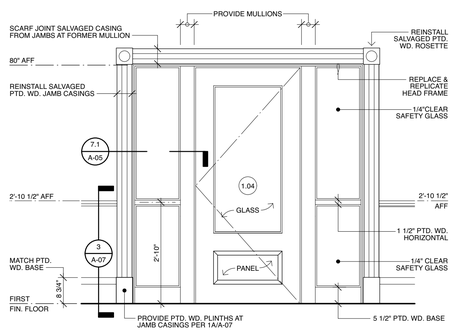
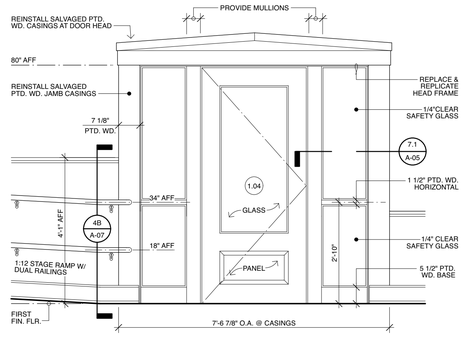


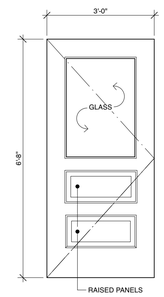
REPLACEMENT DOOR FROM ELL TO GREAT HALL

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



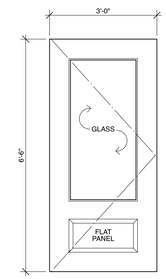
REPLACEMENT DOOR FROM GREAT ROOM TO ELL

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



DOOR TYPE D

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



DOOR TYPE C

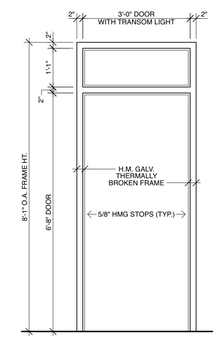
Scale: 1/2" = 1'-0"

DOORS & FRAMES

NO.	DOOR DATA TYPE	DOOR DATA SIZE	DOOR DATA MTR'L	DOOR DATA LABEL	HDWR SET	FRAME DATA TYPE	FRAME DATA MAT'L	FRAME DATA DET	REMARKS
0.01	EX REL	36 x 84 x 1.75	WD	- - -	H.A	F-D	HMG	5A	DOOR FROM 1ST FLOOR ELL
0.02	A	36 x 80 x 1.75	WD	C	H.B	F-A	HM	3A	
0.03	B	36 x 80 x 1.75	WD	- - -	H.C	F-A	HM	3A	UNDERCUT 1" FOR EXHAUST
0.04	B	36 x 80 x 1.75	WD	- - -	H.C	F-A	HM	3A	UNDERCUT 1" FOR EXHAUST
0.05	B	36 x 80 x 1.75	WD	- - -	H.D	F-A	HM	3A	LOUVERS IN LOWER PANELS
0.06	B	36 x 80 x 1.75	WD	- - -	H.E	F-A	HM	3B	
0.07	B	36 x 80 x 1.75	WD	- - -	H.F	F-A	HM	3A	
0.08	B	36 x 80 x 1.75	WD	- - -	H.G	F-A	HM	2A	
0.09	A	36 x 80 x 1.75	WD	- - -	H.G	F-A	HM	2A	UNDERCUT 1" FOR EXHAUST
0.10	A	36 x 80 x 1.75	WD	- - -	H.H	F-A	HM	2B	
0.11	A	34 x 80 x 1.75	WD	- - -	H.I	F-A	HMG	5B	
0.12	A	24 x 80 x 1.75	WD	- - -	H.G	F-A	HM	2A	UNDERCUT 1" FOR EXHAUST
0.13	- - -	- - -	- - -	- - -	- - -	F-E	HM	4	BORROWED LIGHT
0.14	- - -	- - -	- - -	- - -	- - -	F-F	HM	3C	SCREENED VENTS
1.01	D	36 x 80 x 1.75	WD	- - -	H.J	F-C	HMG	5C	
1.02	A	36 x 80 x 1.75	WD	C	H.K	F-A	HM	3A	
1.03	A	36 x 80 x 1.75	WD	- - -	H.L	F-A	HM	3A	
1.04	C	36 x 80 x 1.75	WD	- - -	H.M	F-B	WD	7.1	
1.05	EX	32 x 79 x 1.375	WD	- - -	H.N	EX	WD	EX	4-PANEL
1.06	EX PR	72 x 81 x 2.5	WD	- - -	H.O	EX	WD	EX	3/4" OVERLAY ON EX. DOOR
1.07	B	36 x 80 x 1.75	WD	- - -	H.G	F-B	WD	6	
1.08	B	36 x 80 x 1.75	WD	- - -	H.E	F-B	WD	6	
1.09	EX	41 x 84 x 1.75	WD	- - -	H.P	EX	WD	EX	6-PANEL
2.01	A	36 x 80 x 1.75	WD	C	H.Q	F-A	HM	1A	
2.02	EX	32 x 60 x 1.375	WD	- - -	H.R	EX	WD	EX	
2.03	A	30 x 80 x 1.75	WD	- - -	H.S	F-A	HM	1B	

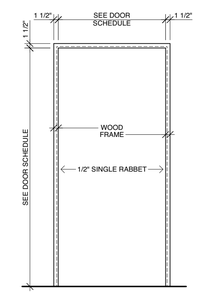
ABBREVIATIONS:

EX = EXISTING
HM = HOLLOW METAL
HMG = HM GALVANIZED & THERMALLY BROKEN
PR = PAIR
REL = RELOCATED
WD = WOOD



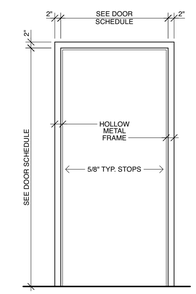
FRAME TYPE F-C

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



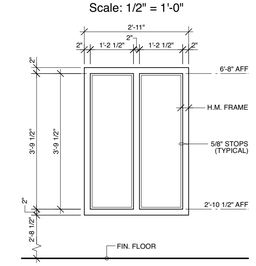
FRAME TYPE F-B

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



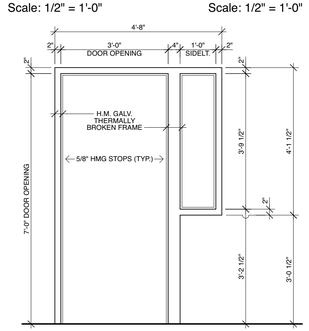
FRAME TYPE F-A

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



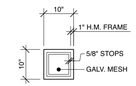
FRAME TYPE F-E

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



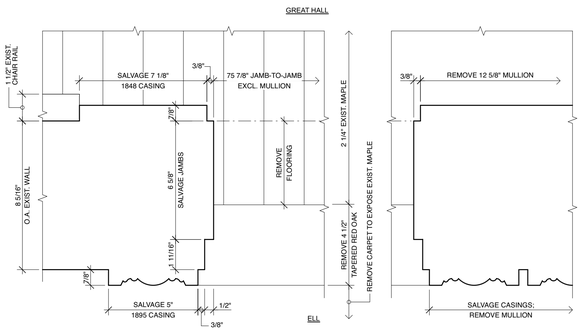
FRAME TYPE F-D

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



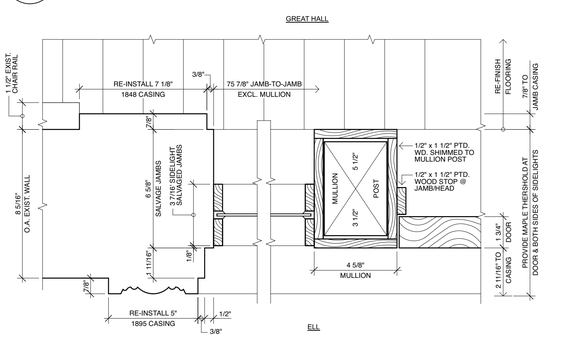
FRAME TYPE F-F

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



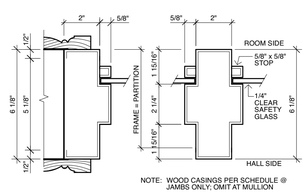
7.0 / A-05 EXISTING GREAT HALL TO ELL DOOR

Scale: 3" = 1'-0"



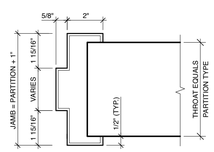
7.1 / A-05 GREAT HALL TO ELL DOOR

Scale: 3" = 1'-0"



4 / A-05 FRAME DETAIL NO. 4

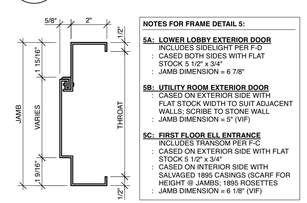
Scale: 3" = 1'-0"



DETAIL	THROAT	JAMB	WALL
1A	4 7/8"	5 7/8"	P08
1B	5"	6"	P18

1 / A-05 FRAME DETAIL NO. 1: NO CASINGS

Scale: 3" = 1'-0"



NOTES FOR FRAME DETAIL 5:

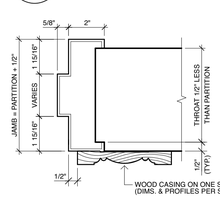
5A: LOWER LOBBY EXTERIOR DOOR
INCLUDES SIDELIGHT PER F-D
: CASED BOTH SIDES WITH FLAT STOCK 5 1/2" x 3/4"
: JAMB DIMENSION = 6 7/8"

5B: UTILITY ROOM EXTERIOR DOOR
: CASED ON EXTERIOR SIDE WITH FLAT STOCK WIDTH TO SUIT ADJACENT WALLS; SCRIBE TO STONE WALL
: JAMB DIMENSION = 5" (VIF)

5C: FIRST FLOOR ELL ENTRANCE
INCLUDES TRANSOM PER F-C
: CASED ON EXTERIOR SIDE WITH FLAT STOCK 5 1/2" x 3/4"
: CASED ON INTERIOR SIDE WITH SALVAGED 1895 CASINGS (SCARF FOR HEIGHT @ JAMBS; 1895 ROSETTES
: JAMB DIMENSION = 6 1/8" (VIF)

5 / A-05 FRAME DETAIL NO. 5

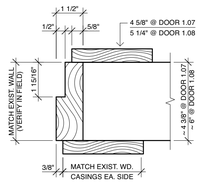
Scale: 3" = 1'-0"



DETAIL	THROAT	JAMB	WALL
2A	4 3/8"	5 3/8"	P10
2B	5 1/2"	6 1/2"	EX VIF

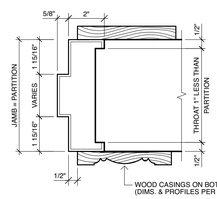
2 / A-05 FRAME DETAIL NO. 2: CASINGS ONE SIDE

Scale: 3" = 1'-0"



6 / A-05 FRAME DETAIL NO. 6

Scale: 3" = 1'-0"



DETAIL	THROAT	JAMB	WALL
3A	3 7/8"	4 7/8"	P10, 13, 17
3B	5 1/8"	6 1/8"	P11
3C	3 7/8"	4 7/8"	P08
NO CASINGS; TEAR AWAY BEAD @ GYP.			

3 / A-05 FRAME DETAIL NO. 3: CASINGS BOTH SIDES

Scale: 3" = 1'-0"

CASINGS SCHEDULE

CASING PROFILES OUTSIDE	CASING PROFILES INSIDE	DOOR DESIGNATIONS	COMMENTS
FLAT	NONE	0.11	FLAT = 1 x 4 SQUARE STOCK
FLAT	ELL	0.01	FLAT = 1 x 6 SQUARE STOCK
FLAT	1895	1.01	FLAT = 1 x 6 SQUARE STOCK; SCARF 1895 JAMBS
ELL	NONE	0.08, 0.09, 0.10, 0.12	ELL PER DETAIL 2/A-07
ELL	FLAT	1.02	FLAT = 1 x 4 SQUARE STOCK
ELL	ELL	0.02, 0.06, 0.07, 0.13	ELL PER DETAIL 2/A-07
1895	FLAT	0.03, 0.04, 0.05	1895 PER DETAIL 1/A-07; FLAT PER DETAIL 4/A-16
1895	ELL	1.03	1895 PER DETAIL 1/A-07

MILLS WHITAKER ARCHITECTS LLC

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PROJECT NAME: STOW TOWN HALL RESTORATION

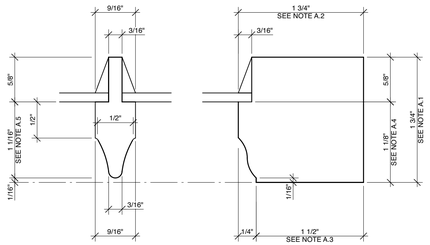
PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: DOORS AND FRAMES

DATE: 30 JUNE 2022

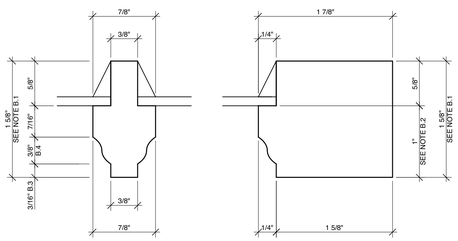
FINAL CHECK SET NOT FOR CONSTRUCTION

SHEET #: A-05



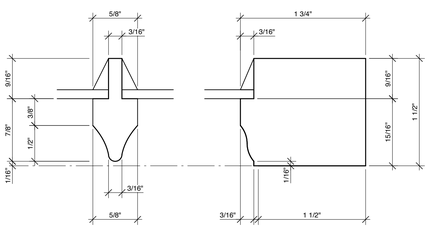
NOTES FOR 1.5" SASH
A.1 = 1 1/2"
A.2 = 1 1/2"
A.3 = 1 1/4"
A.4 = 7/8"
A.5 = 13/16

A A-06 MUNTIN PROFILE A
Scale: Actual Size

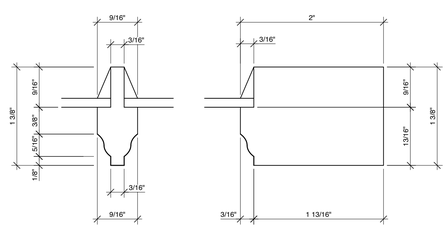


NOTES FOR 1.5" SASH
B.1 = 1 1/2"
B.2 = 7/8"
B.3 = 1/8"
B.4 = 3/8"

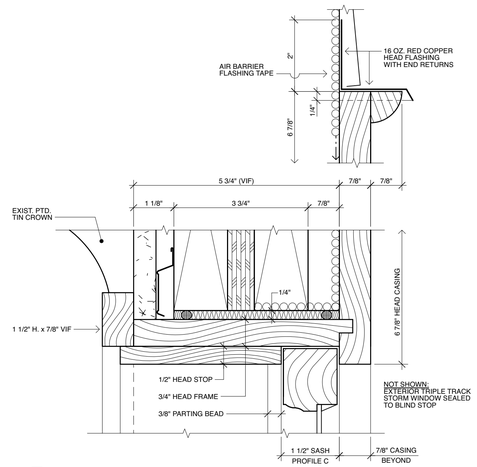
B A-06 MUNTIN PROFILE B
Scale: Actual Size



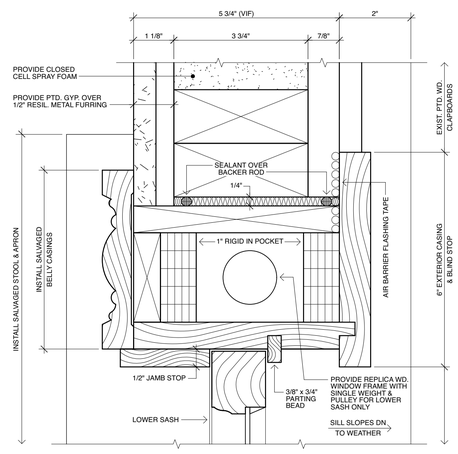
C A-06 MUNTIN PROFILE C
Scale: Actual Size



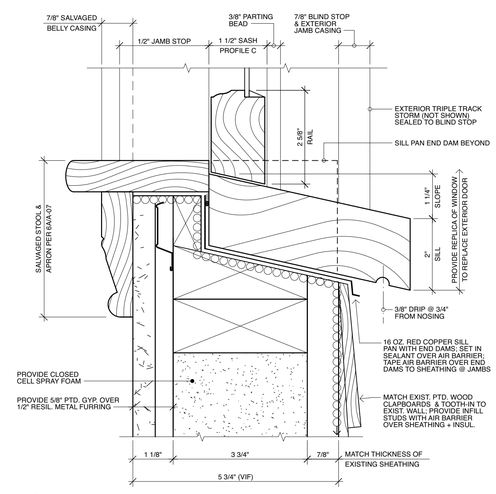
D A-06 MUNTIN PROFILE D
Scale: Actual Size



3C A-06 WINDOW HEAD DETAIL @ W05
Scale: Half Actual Size



3B A-06 WINDOW JAMB DETAIL @ W05
Scale: Half Actual Size



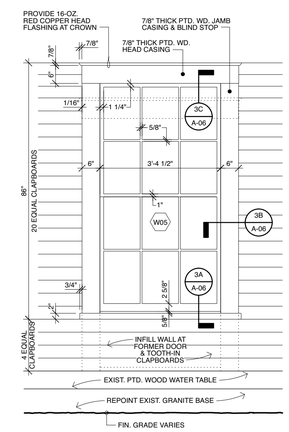
3A A-06 WINDOW SILL DETAIL @ W05
Scale: Half Actual Size

WINDOW RESTORATION

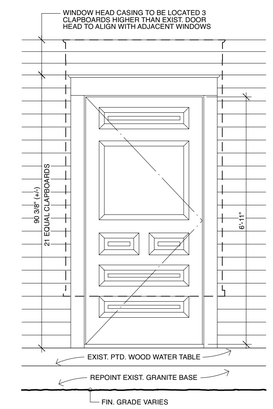
NO.		SASH SIZE		CONFIGURATION	MUNTIN		STORM		SHUTTERS	NO.	REMARKS
W01		39.5 x 77 x 1.5		EX 6-OVER-6 SH	B		EXTERIOR TT		- - -	W01	
W02		39.5 x 77 x 1.5		EX 6-OVER-6 SH	B		EXTERIOR TT		- - -	W02	
W03		39.5 x 77 x 1.5		EX 6-OVER-6 SH	C		EXTERIOR TT		- - -	W03	
W04		39.5 x 77 x 1.5		EX 6-OVER-6 SH	C		EXTERIOR TT		- - -	W04	
W05		39.5 x 77 x 1.5		6-OVER-6 SH	C		EXT TT + INT FX		- - -	W05	REMOVE DOOR & REFRAME OPENING
W06		BLOCKED @ EXT + INT		EX PR 3-LT CELLAR	- - -		NOT APPLICABLE		- - -	W06	EX CELLAR SASH BLOCKED @ INT. & EXT.
W07		BLOCKED @ EXT		EX PR 3-LT CELLAR	- - -		NOT APPLICABLE		- - -	W07	EX CELLAR SASH BLOCKED @ EXTERIOR
W08	LO:	39.5 x 76.5 x 1.5	LO:	EX 6-OVER-6 SH	B	LO:	EXTERIOR TT	LO:	EX 1/2 PR 18 x 78 x 1.25	W08	
	HI:	39.5 x 27 x 1.5	HI:	3-LT FXTR	B	HI:	EXTERIOR FX	HI:	NONE		
W09		39.5 x 76.5 x 1.5		EX 6-OVER-6 SH	C		EXTERIOR TT		- - -	W09	UPPER SASH NEWER THAN LOWER SASH
W10		39.5 x 76.5 x 1.5		EX 6-OVER-6 SH	C		EXTERIOR TT		- - -	W10	
W11		23.5 x 44.5 x 1.5		EX 1-OVER-1 SH	C		EXTERIOR TT		- - -	W11	EX PARTIALLY BLOCKED @ RESTROOM
W12		23.5 x 44.5 x 1.5		EX 1-OVER-1 SH	C		EXTERIOR TT		- - -	W12	REPLACE UPPER SASH GLASS WITH CLEAR
W13		39.5 x 76.5 x 1.5		EX 6-OVER-6 SH	C		EXTERIOR TT		- - -	W13	
W14		44.5 x 96 x 1.75		EX 12-OVER-12 SH	A		EXTERIOR TT		EX PR 22 x 97 x 1.375	W14	
W15		44.5 x 96 x 1.75		EX 12-OVER-12 SH	B		EXTERIOR TT		EX PR 22 x 97 x 1.375	W15	
W16		44.5 x 96 x 1.75		EX 12-OVER-12 SH	A		EXTERIOR TT		EX PR 22 x 97 x 1.375	W16	
W17		44.5 x 96 x 1.75		EX 12-OVER-12 SH	A		EXTERIOR TT		EX PR 22 x 97 x 1.375	W17	
W18	LO:	PR 30.75 x 53 x 1.5	LO:	EX 6-OVER-6 SH	A	LO:	EXTERIOR TT	LO:	EX PR 15.5 x 53.5 x 1.25	W18	
	HI:	PR 30.75 x 53 x 1.5	HI:	EX 6-OVER-6 FX	A	HI:	EXTERIOR FX	HI:	EX PR 15.5 x 53.5 x 1.25		
W19	LO:	PR 30.75 x 53 x 1.5	LO:	EX 6-OVER-6 SH	A	LO:	EXTERIOR TT	LO:	EX PR 15.5 x 53.5 x 1.25	W19	
	HI:	PR 30.75 x 53 x 1.5	HI:	EX 6-OVER-6 FX	A	HI:	EXTERIOR FX	HI:	EX PR 15.5 x 53.5 x 1.25		
W20		44.5 x 96 x 1.75		EX 12-OVER-12 SH	B		EXTERIOR TT		- - -	W20	
W21		44.5 x 96 x 1.75		EX 12-OVER-12 SH	B		EXTERIOR TT		- - -	W21	
W22		36.5 x 52.5 x 1.375		EX 6-OVER-6 SH	C		EXTERIOR TT		- - -	W22	
W23		39.5 x 76.5 x 1.375		EX 6-OVER-6 SH	D		EXTERIOR TT		- - -	W23	
W24		39.5 x 76.5 x 1.375		EX 6-OVER-6 SH	D		EXTERIOR TT		- - -	W24	
W25		113 x 46 x 1.75		EX 15-LT FIXED	B		INTERIOR FX		- - -	W25	FRONT GABLE TRIANGULAR SASH

ABBREVIATIONS:

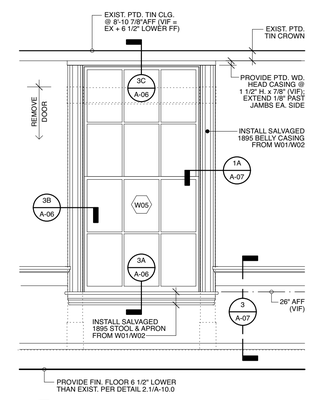
EX = EXISTING
EXT = EXTERIOR
FX = FIXED IN PLACE
FXTR = FIXED TRANSOM
HI = UPPER (SASH)
INT = INTERIOR
LT = LIGHT
LO = LOWER (SASH)
PR = PAIR
SH = SINGLE HUNG
TT = TRIPLE TRACK



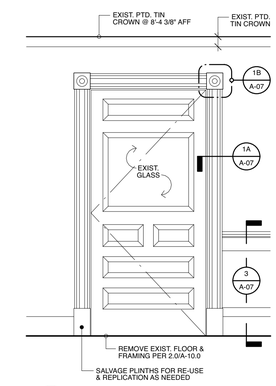
1.1 A-06 W05 EXTERIOR ELEVATION
Scale: 1/2" = 1'-0"



1.0 A-06 EXTERIOR @ EXIST. EXIT
Scale: 1/2" = 1'-0"



2.1 A-06 W05 INTERIOR ELEVATION
Scale: 1/2" = 1'-0"



2.0 A-06 INTERIOR @ EXIST. EXIT
Scale: 1/2" = 1'-0"

MILLS WHITAKER ARCHITECTS LLC
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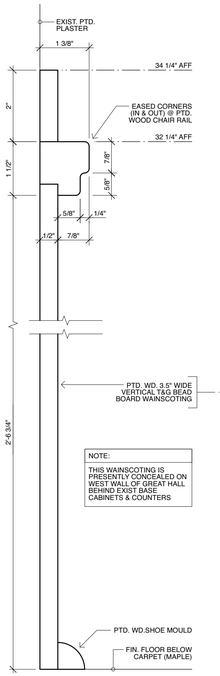
PROJECT NAME: STOW TOWN HALL RESTORATION
PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775
DRAWING TITLE: WINDOW RESTORATION

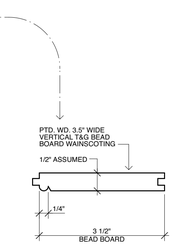
DATE: 30 JUNE 2022

FINAL CHECK SET NOT FOR CONSTRUCTION

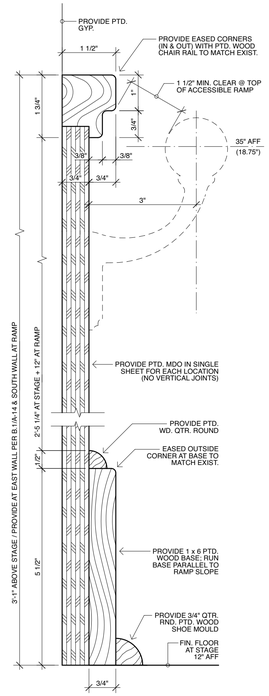
SHEET #: A-06



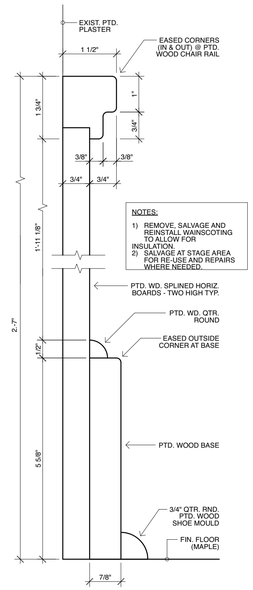
5A / A-07 EX. WAINSCOTING AT WEST WALL OF GREAT HALL & 1848 ENTRY + ADJACENT OFFICES
Scale: Half Actual Size



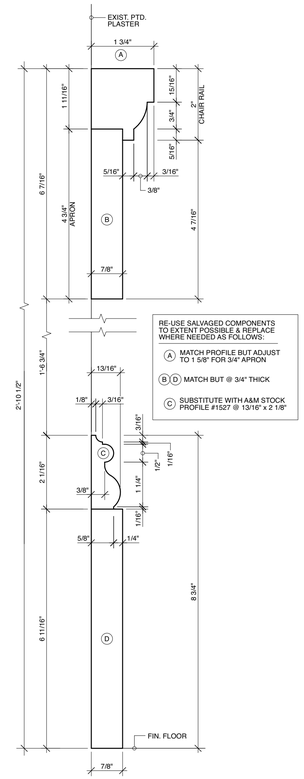
5B / A-07 EX. VERTICAL WAINSCOTING
Scale: Half Actual Size



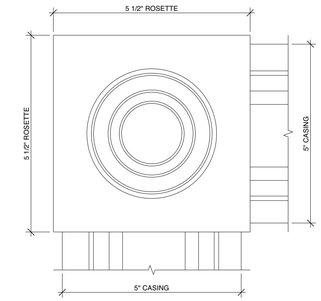
4B / A-07 STAGE WAINSCOTING
Scale: Half Actual Size



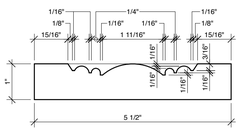
4A / A-07 EX. GREAT HALL WAINSCOTING
Scale: Half Actual Size



3 / A-07 EXIST. 1895 BASE & CHAIR RAIL
Scale: Half Actual Size

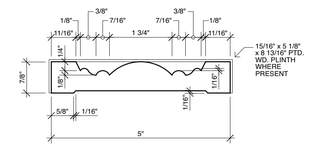


ELEVATION

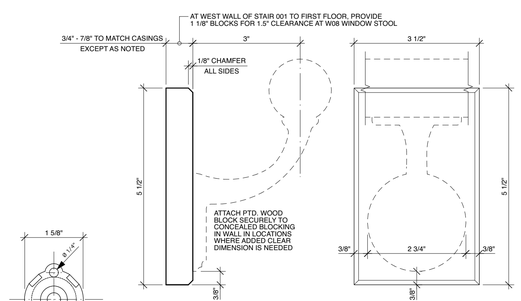


SECTION

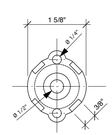
1B / A-07 EXIST. 1895 ROSETTE
Scale: Half Actual Size



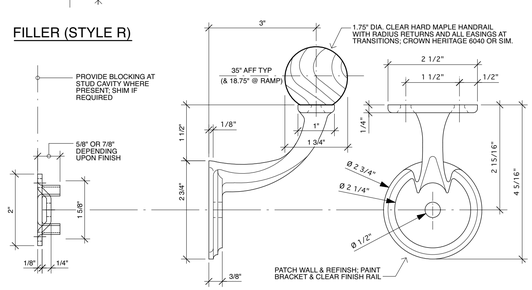
1A / A-07 EXIST. 1895 CASING
Scale: Half Actual Size



WOOD BLOCKS BELOW BRACKETS WHERE NEEDED



FILLER (STYLE R)

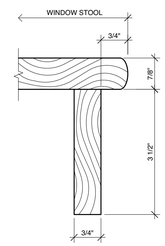


FILLER (STYLE F)
FINISH: PLATED STEEL

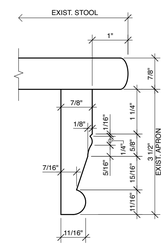
FLAT SADDLE WALL BRACKET (WAGNER 1791)

BRACKETS: MALLEABLE IRON
FILLERS: PLATED STEEL

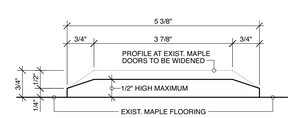
9 / A-07 WALL-MOUNTED HANDRAIL AND BRACKET
Scale: Half Actual Size



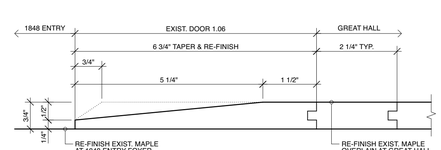
6B / A-07 RESTROOM APRON
Scale: Half Actual Size



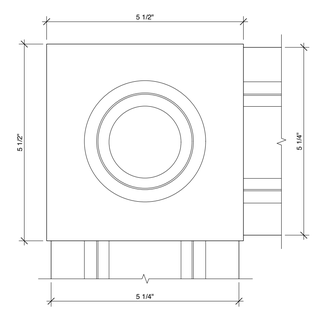
6A / A-07 1895 WINDOW APRON
Scale: Half Actual Size



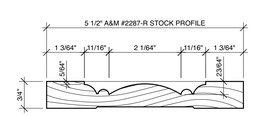
7 / A-07 TYPICAL MAPLE THRESHOLD
Scale: Half Actual Size



8 / A-07 EXIST. THRESHOLD TRANSITION TO GREAT HALL
Scale: Half Actual Size

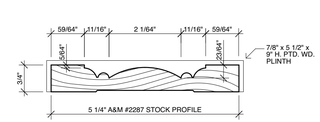


ELEVATION



SECTION

2B / A-07 ELL DOOR ROSETTE
Scale: Half Actual Size



2A / A-07 ELL DOOR CASING
Scale: Half Actual Size

MILLS WHITAKER ARCHITECTS LLC
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STOW TOWN HALL RESTORATION
375 GREAT ROAD
STOW MA 01775

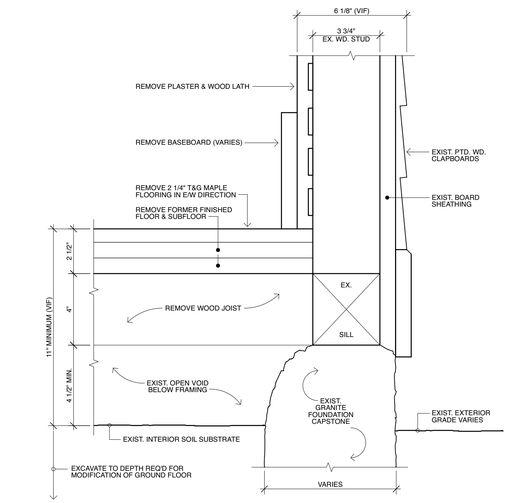
INTERIOR TRIM DETAILS

PROJECT NAME:
PROJECT ADDRESS:
DRAWING TITLE:

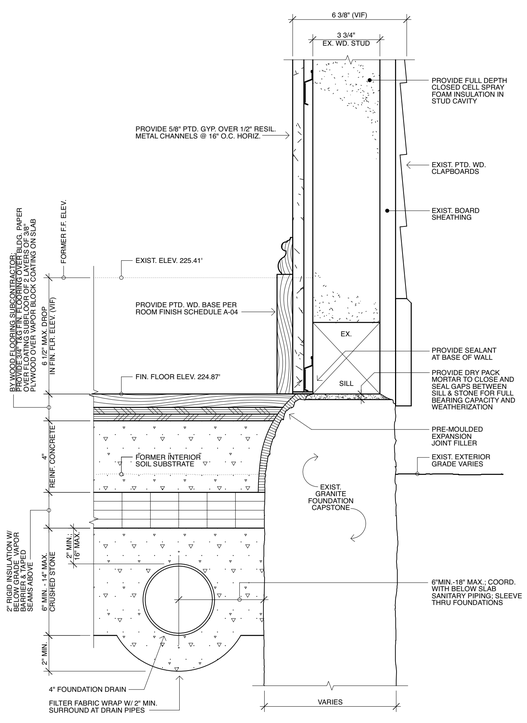
DATE: 30 JUNE 2022

FINAL CHECK SET
NOT FOR CONSTRUCTION

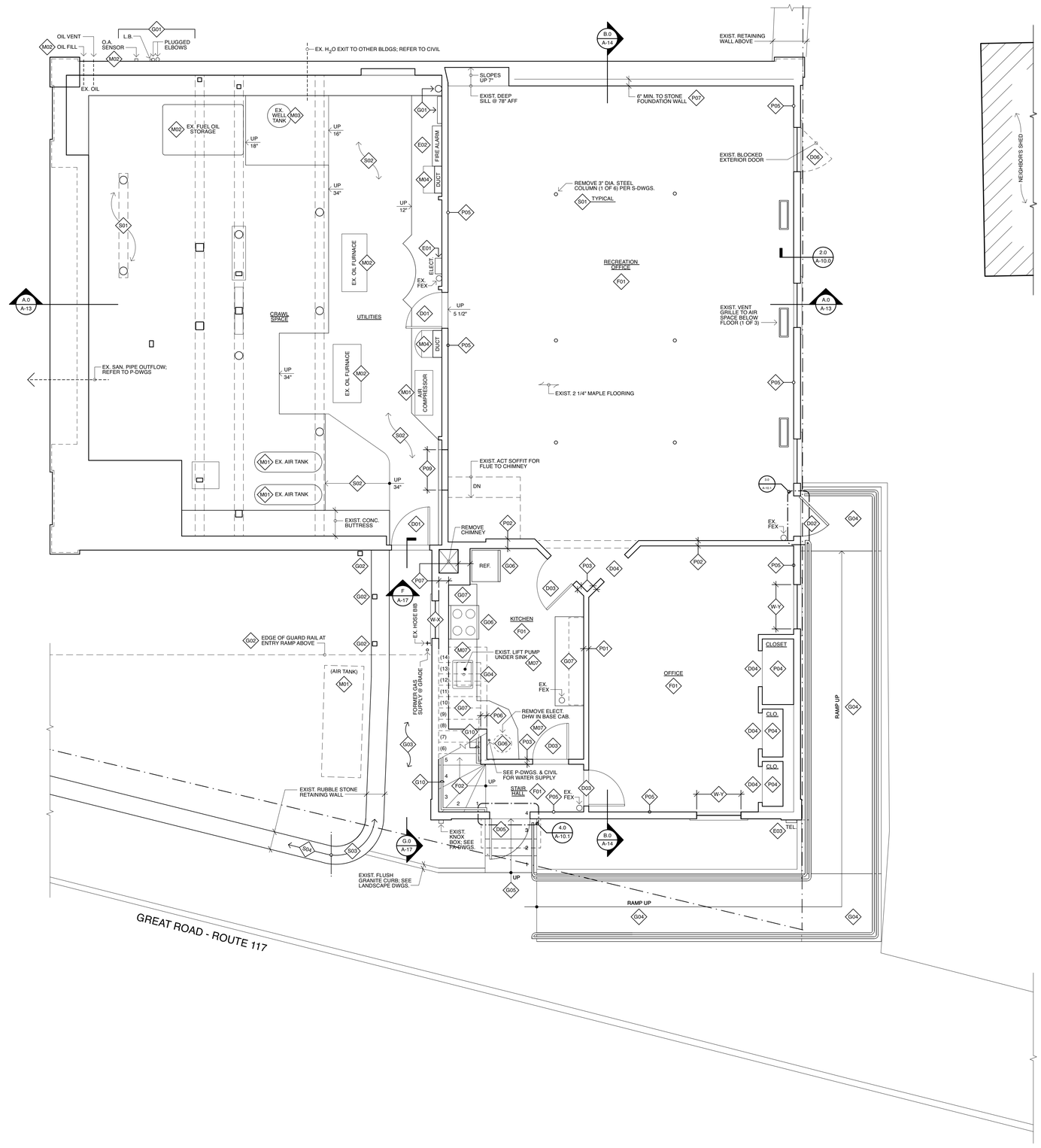
SHEET #:
A-07



2.0 / A-10.0 EXISTING DETAIL @ BASE OF EAST WALL
Scale: 3" = 1'-0"



2.1 / A-10.0 DETAIL @ BASE OF EAST WALL
Scale: 3" = 1'-0"



1 / A-10.0 EXISTING GROUND FLOOR PLAN
Scale: 1/4" = 1'-0"

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fax: 617-876-6420

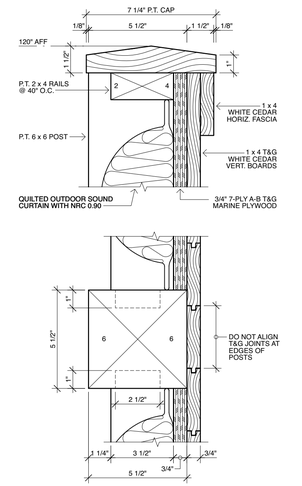
PROJECT NAME: STOW TOWN HALL RESTORATION
PROJECT ADDRESS: 375 GREAT ROAD, STOW MA 01775

DRAWING TITLE: EXISTING GROUND FLOOR PLAN

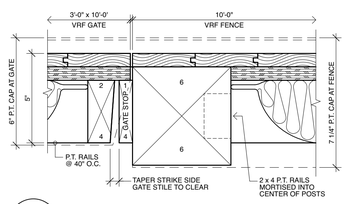
DATE: 30 JUNE 2022

FINAL CHECK SET
NOT FOR CONSTRUCTION

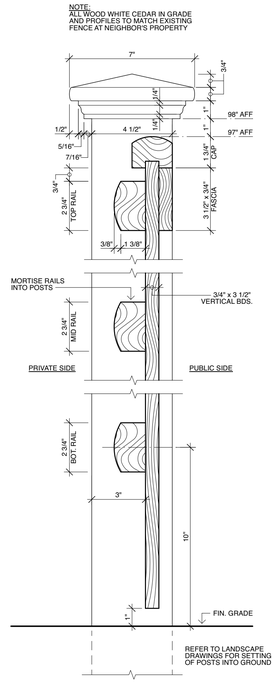
SHEET #: A-10.0



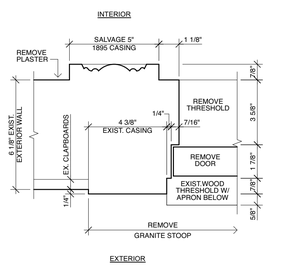
2B A-10.1 VRF FENCE ENCLOSURE
Scale: 3" = 1'-0"



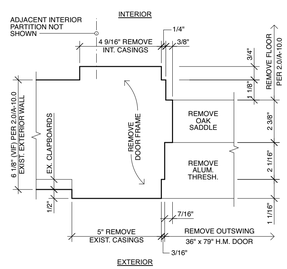
2C A-10.1 VRF FENCE GATE
Scale: 3" = 1'-0"



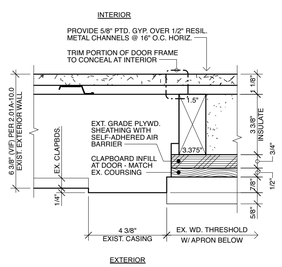
2A A-10.1 FENCE INFILL @ GREAT ROAD
Scale: 3" = 1'-0"



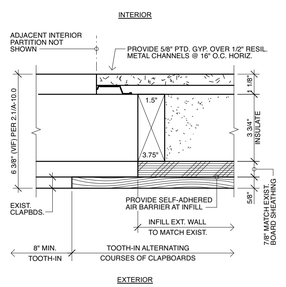
4.0 A-10.1 EXTERIOR STAIR HALL
Scale: 3" = 1'-0"



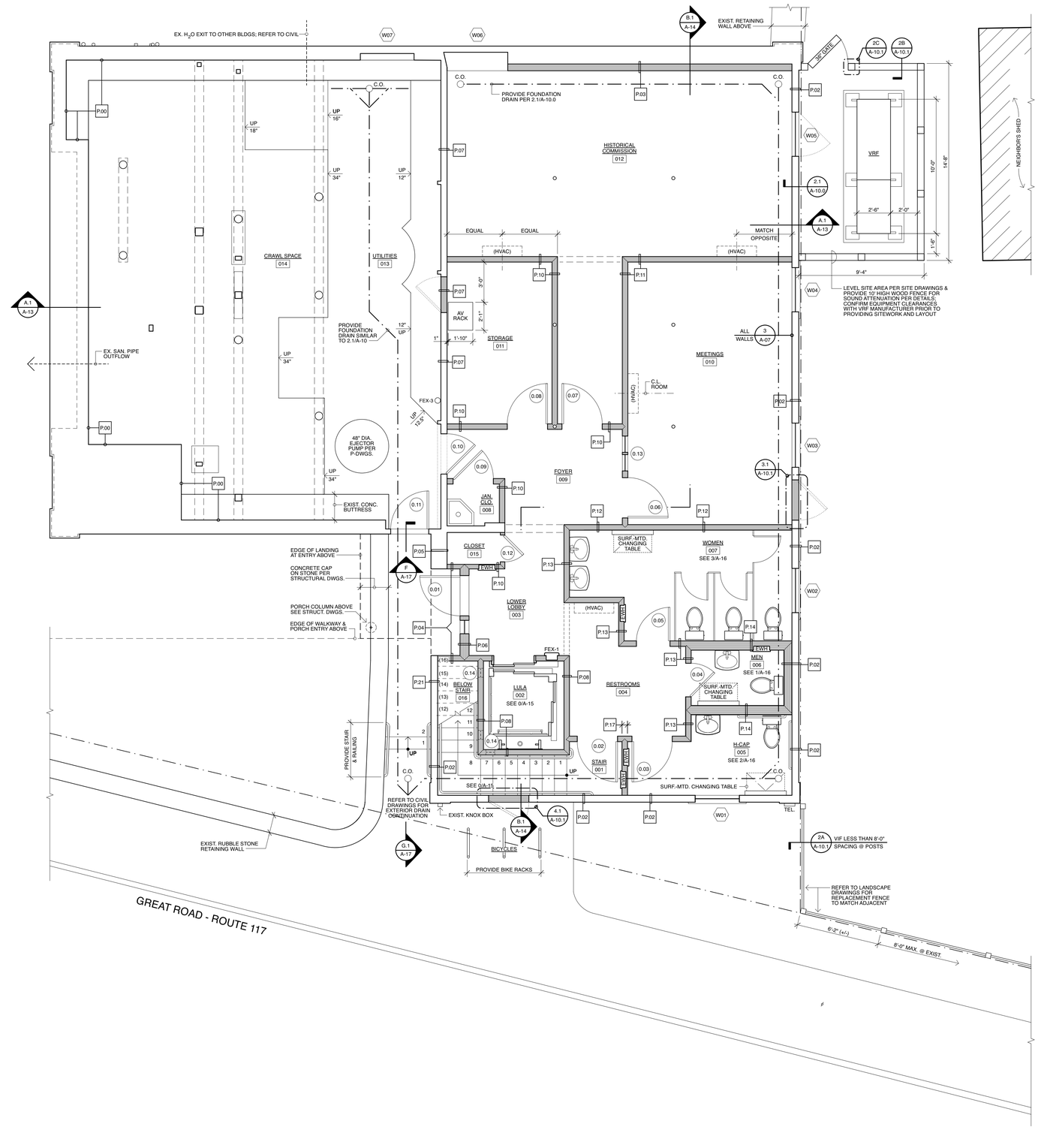
3.0 A-10.1 EXTERIOR RAMP DOOR
Scale: 3" = 1'-0"



4.1 A-10.1 INFILL AT STAIR HALL
Scale: 3" = 1'-0"



3.1 A-10.1 INFILL AT RAMP DOOR
Scale: 3" = 1'-0"



1 A-10.1 GROUND FLOOR PLAN
Scale: 1/4" = 1'-0"

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STOW TOWN HALL RESTORATION
375 GREAT ROAD
STOW MA 01775

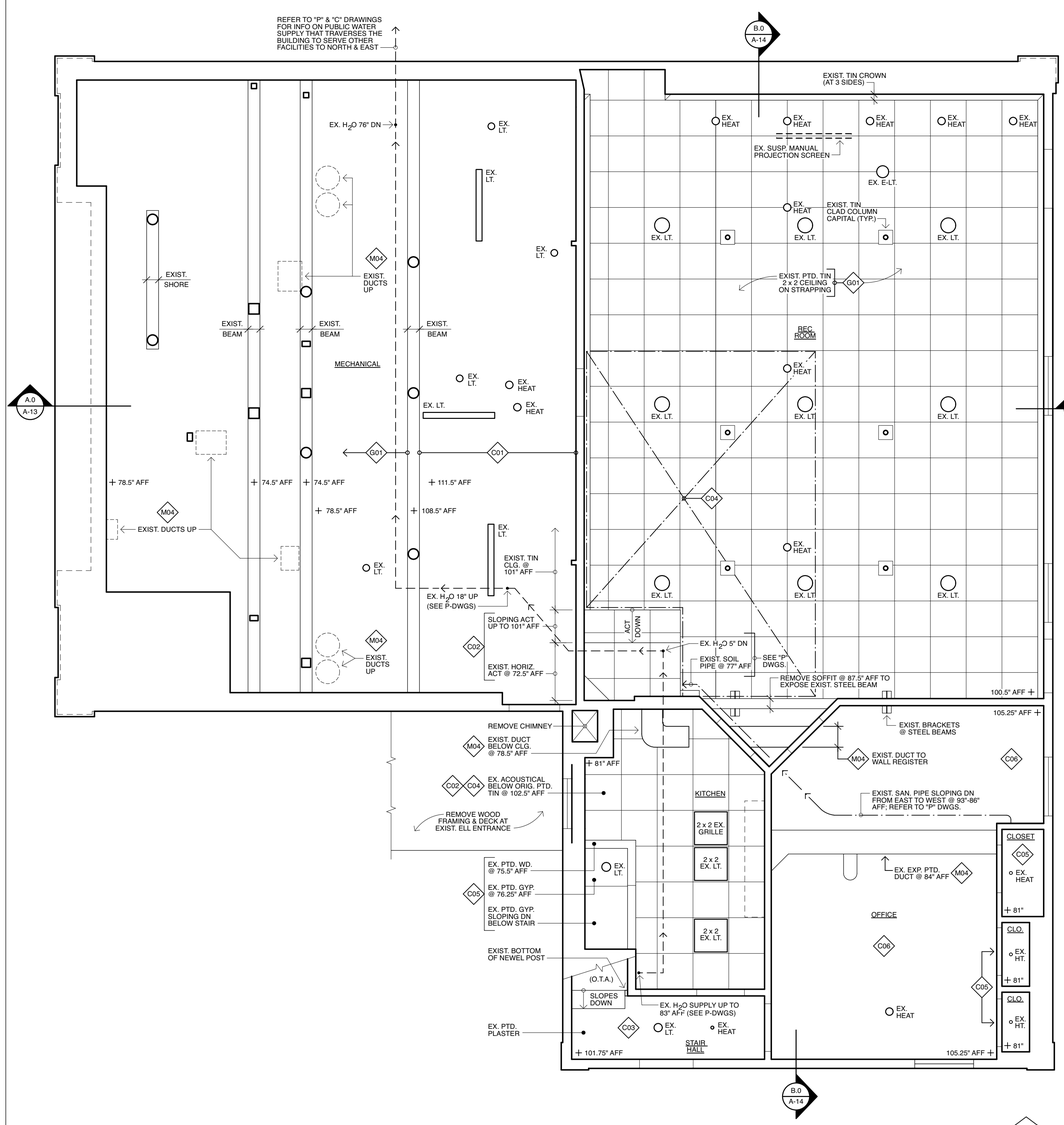
GROUND FLOOR PLAN

PROJECT NAME:
PROJECT ADDRESS:
DRAWING TITLE:

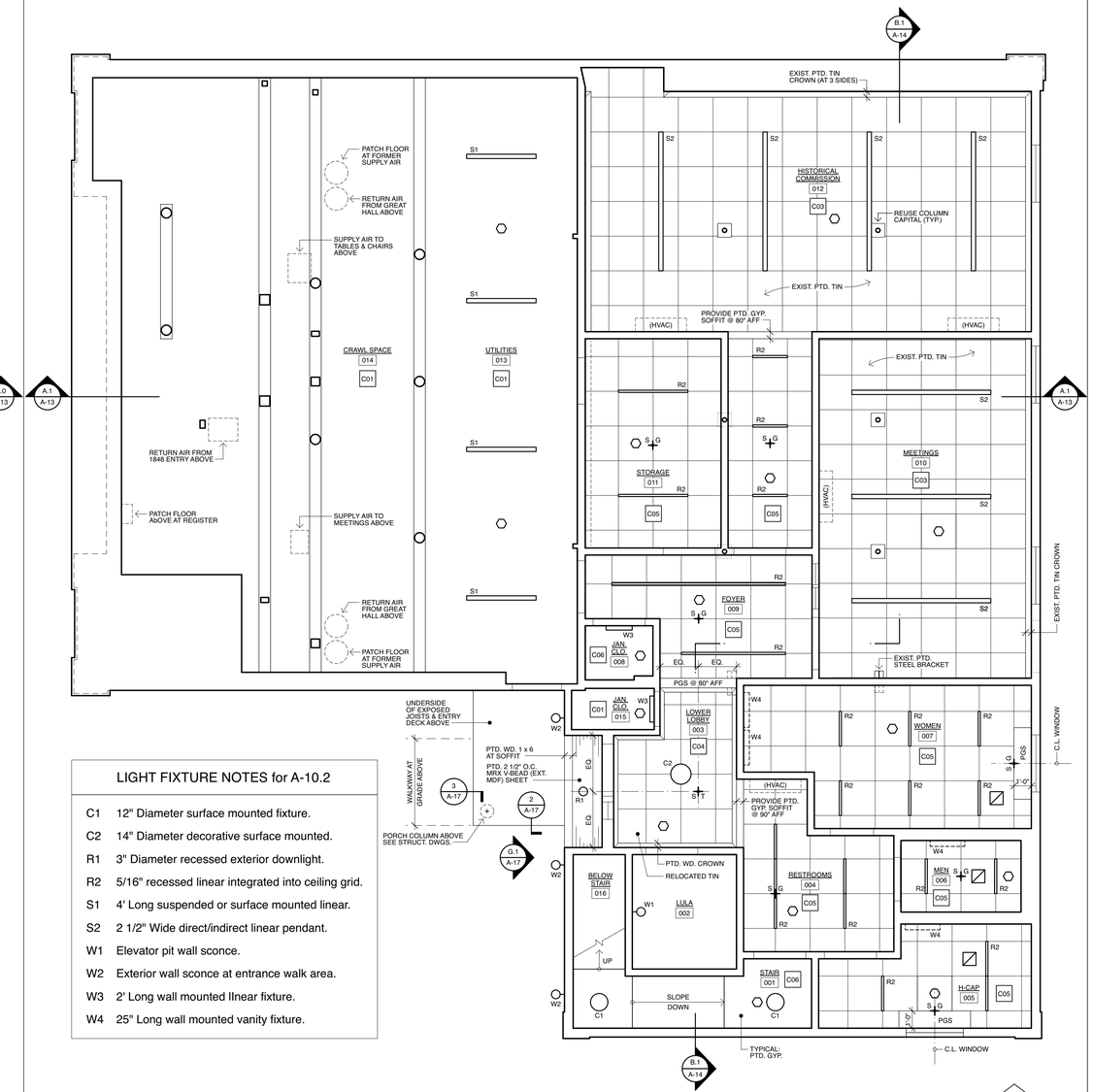
DATE: 30 JUNE 2022

FINAL CHECK SET
NOT FOR CONSTRUCTION

SHEET #:
A-10.1



1.0 A-10.2 EXISTING GROUND FLOOR CEILING
Scale: 1/4" = 1'-0"



1.1 A-10.2 GROUND FLOOR CEILING
Scale: 1/4" = 1'-0"

LIGHT FIXTURE NOTES for A-10.2

C1	12" Diameter surface mounted fixture.
C2	14" Diameter decorative surface mounted.
R1	3" Diameter recessed exterior downlight.
R2	5/16" recessed linear integrated into ceiling grid.
S1	4' Long suspended or surface mounted linear.
S2	2 1/2" Wide direct/indirect linear pendant.
W1	Elevator pit wall sconce.
W2	Exterior wall sconce at entrance walk area.
W3	2' Long wall mounted llnear fixture.
W4	25" Long wall mounted vanity fixture.

CEILING LEGEND

R2	LINEAR LIGHT FIXTURE INCORPORATED IN ACOUSTICAL TILE GRID PATTERN
S2	LINEAR LIGHT FIXTURE SUSPENDED BELOW PAINTED METAL CEILING
C#	SURFACE MOUNTED CEILING FIXTURE
S#	SUSPENDED PENDANT LIGHT FIXTURE
W#	WALL SCONCE LIGHTING FIXTURE
S T	STARTING POINT FOR INSTALLATION OF 24" x 24" SALVAGED TIN CEILING PANELS
S G	STARTING POINT FOR INSTALLATION OF 24" x 24" ACOUSTICAL TILE GRID
	SMOKE OR HEAT DETECTOR PER FIRE ALARM DRAWINGS
	HVAC RETURN AIR OR EXHAUST GRILLE
T#	SURFACE MOUNTED TRACK & LIGHT FIXTURE
W#	WALL MOUNTED LINEAR FIXTURE

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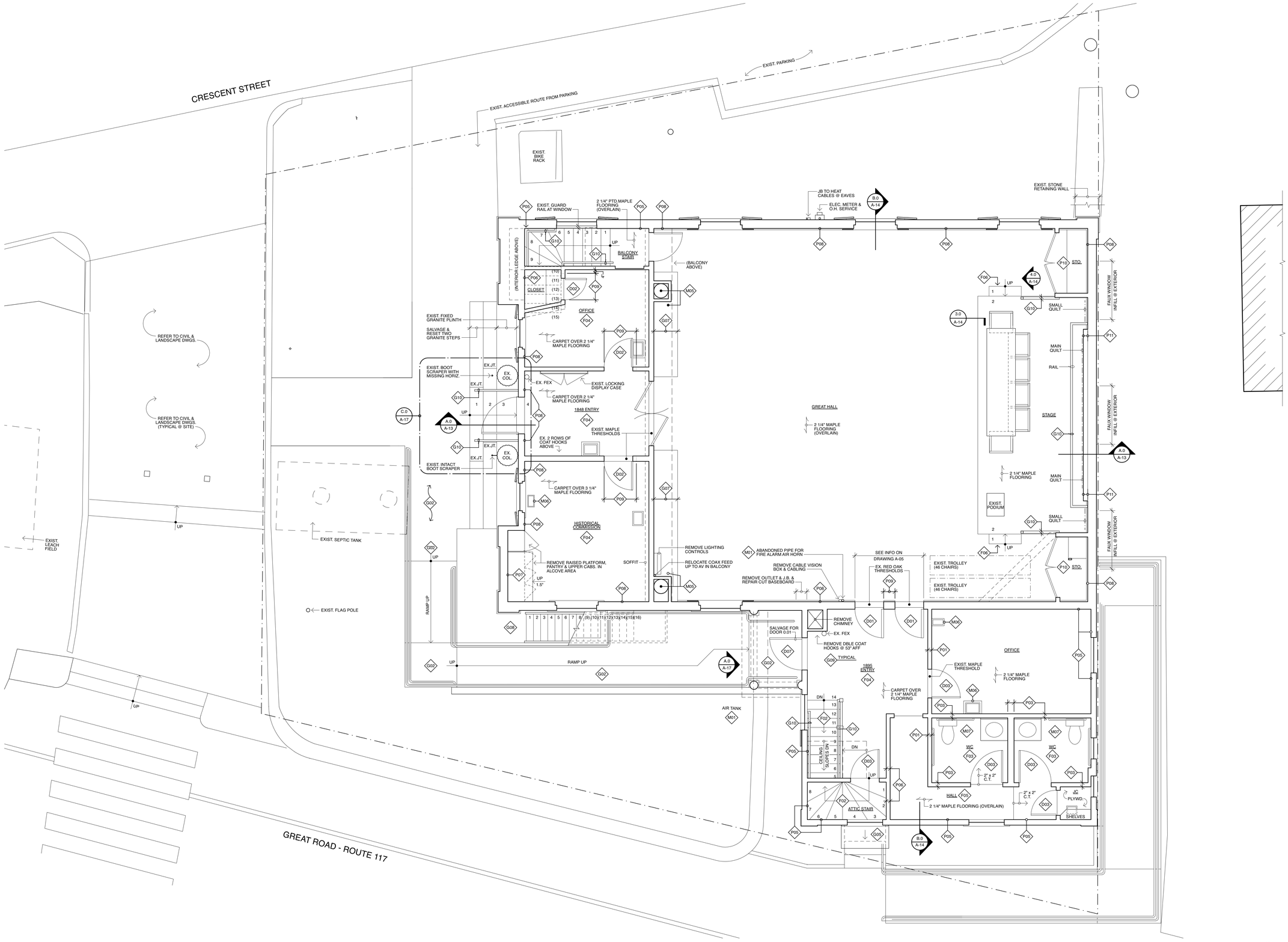
PROJECT NAME: STOW TOWN HALL RESTORATION
PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775
DRAWING TITLE: GROUND FLOOR CEILING

DATE: 30 JUNE 2022

FINAL CHECK SET NOT FOR CONSTRUCTION

SHEET #: A-10.2



1 A-11.0 EXISTING FIRST FLOOR PLAN
Scale: 1/4" = 1'-0"

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STOW TOWN HALL RESTORATION
375 GREAT ROAD
STOW MA 01775

EXISTING FIRST FLOOR PLAN

PROJECT NAME:

PROJECT ADDRESS:

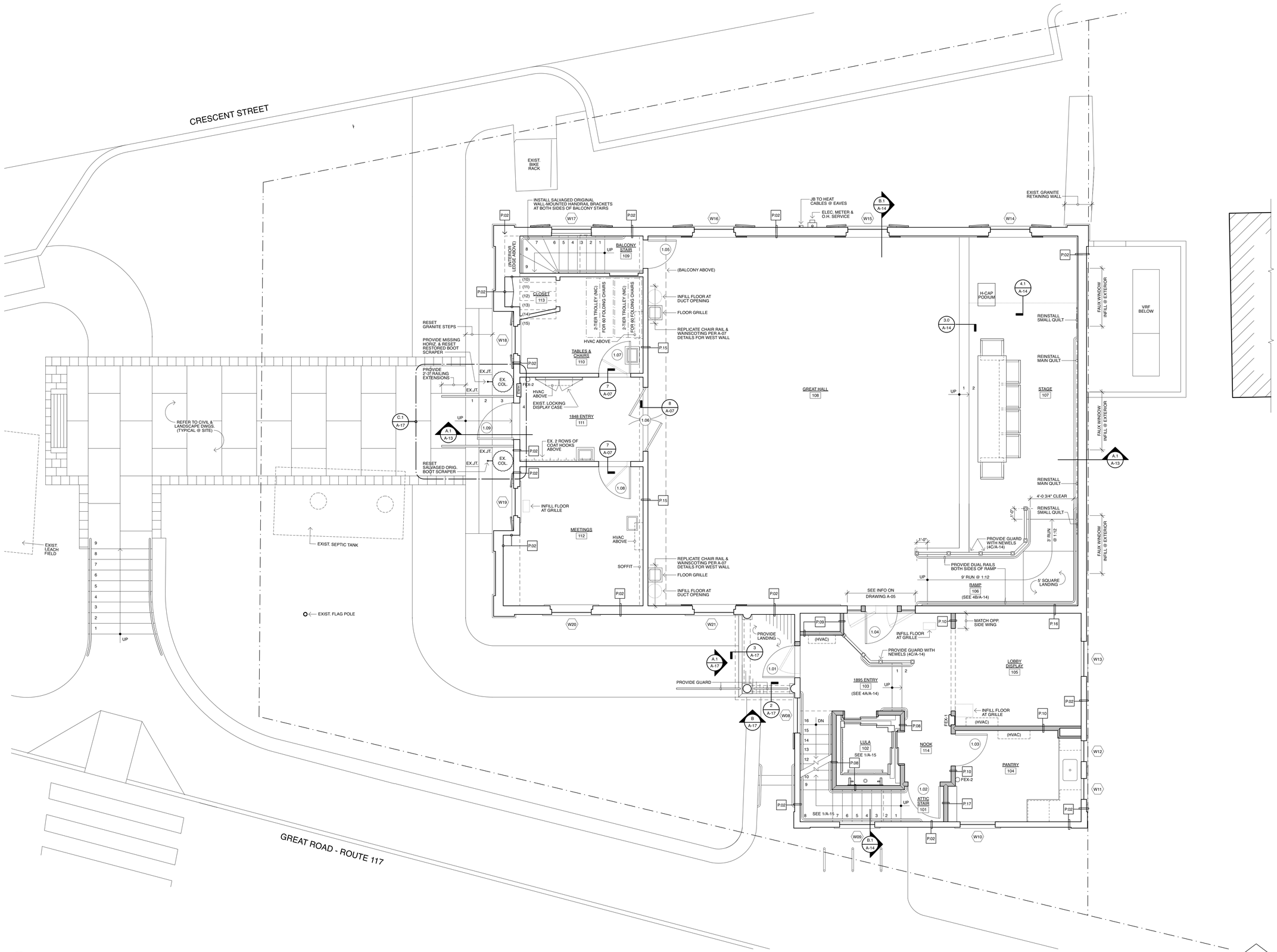
DRAWING TITLE:

DATE: 30 JUNE 2022

FINAL CHECK SET
NOT FOR CONSTRUCTION

SHEET #:

A-11.0



1 A-11.1 FIRST FLOOR PLAN
Scale: 1/4" = 1'-0"

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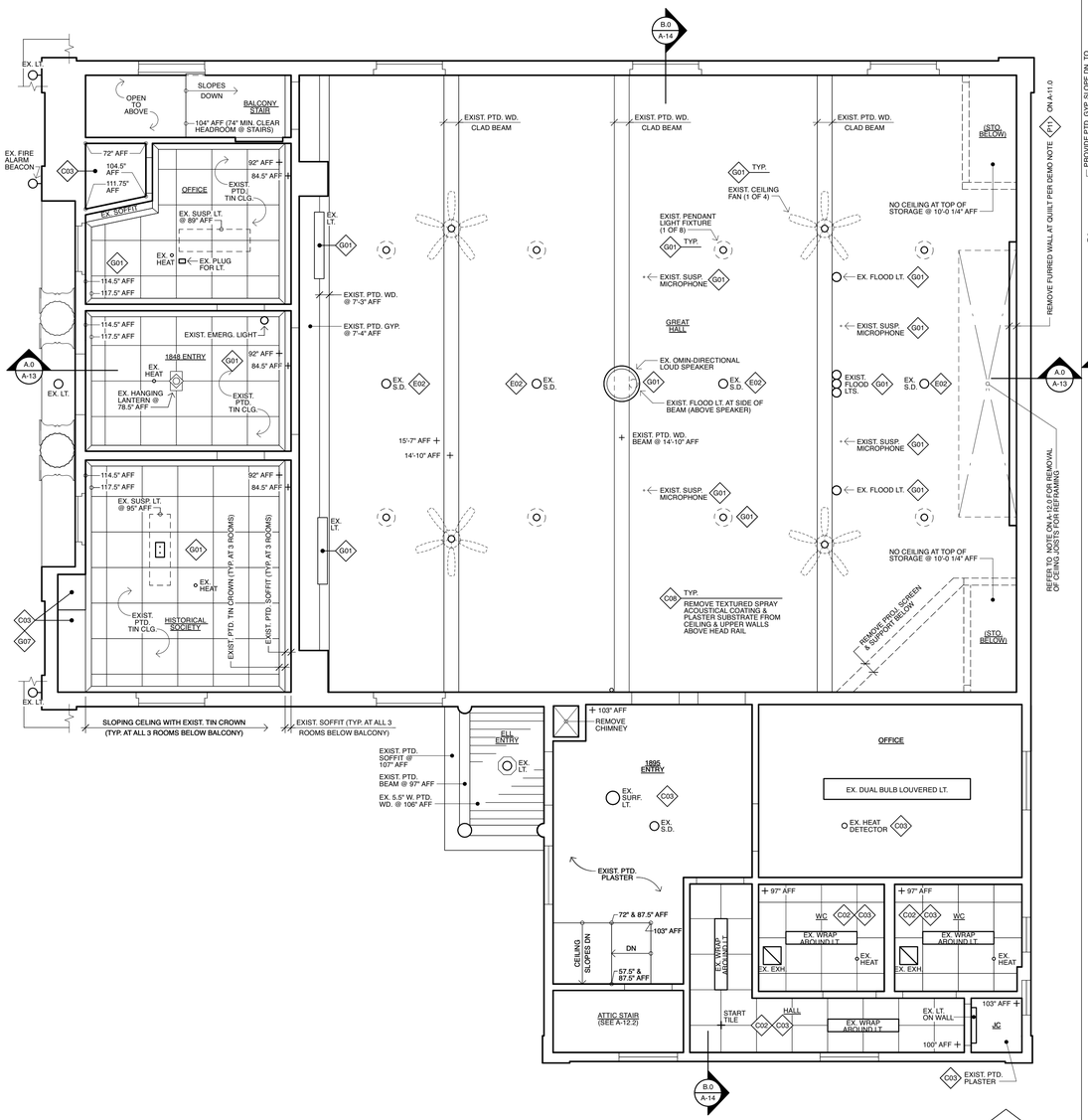
PROJECT NAME: STOW TOWN HALL RESTORATION
PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: FIRST FLOOR PLAN

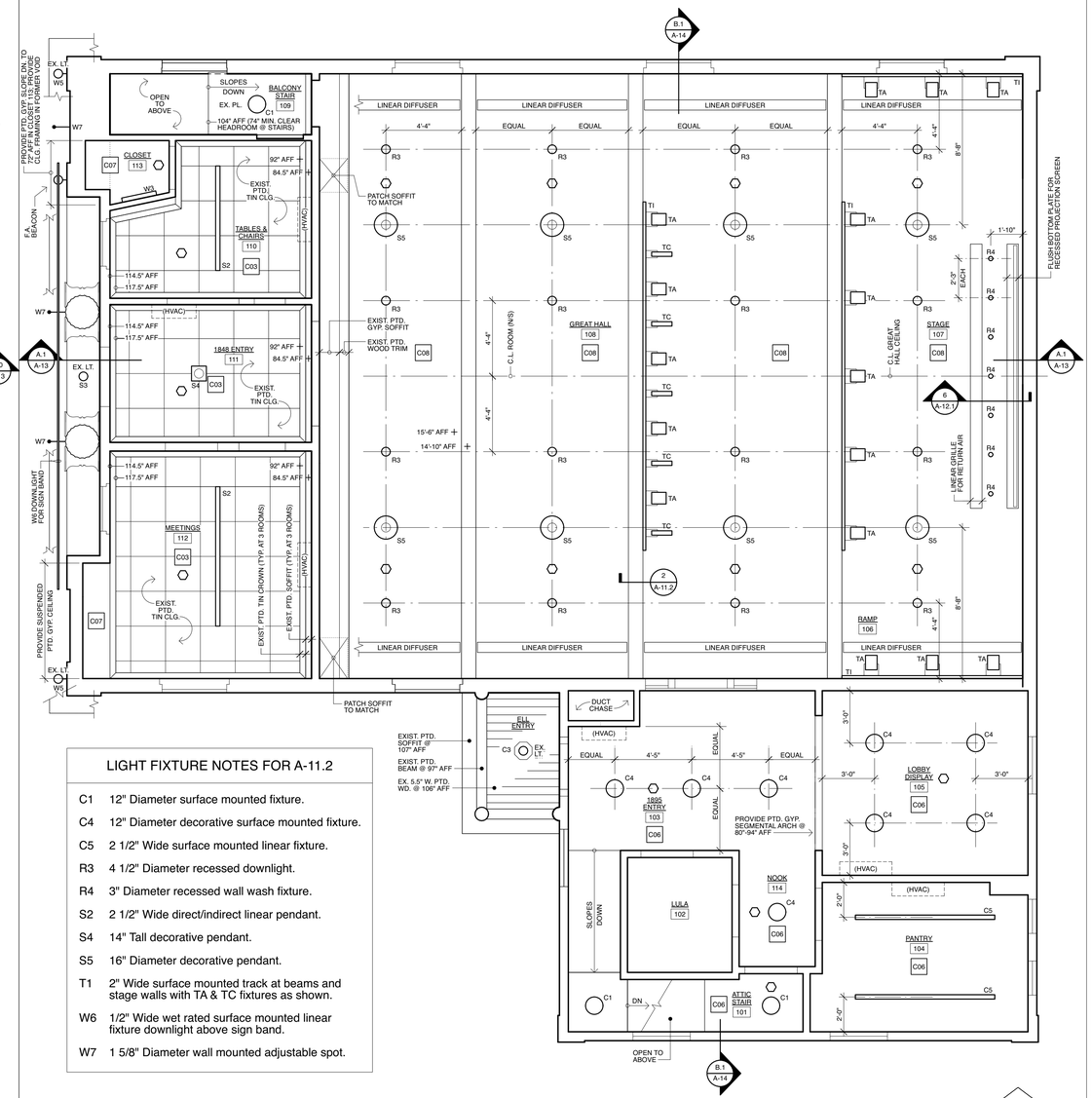
DATE: 30 JUNE 2022

FINAL CHECK SET
NOT FOR CONSTRUCTION

SHEET #: A-11.1



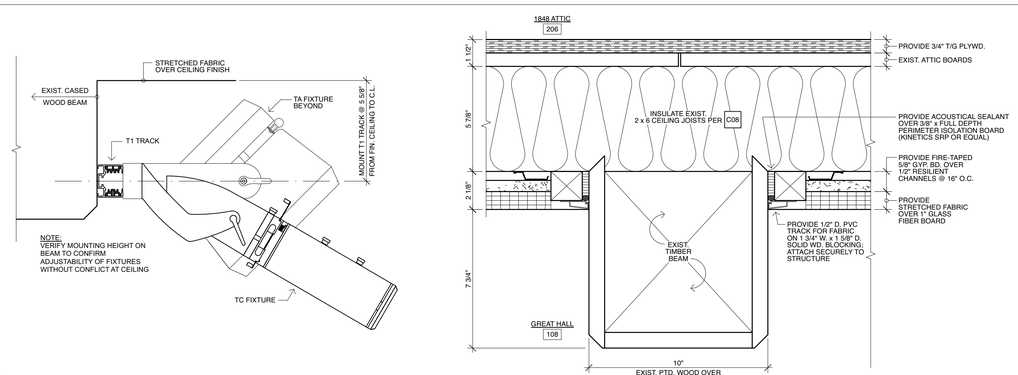
1.0 A-11.2 EXISTING FIRST FLOOR CEILING
Scale: 1/4" = 1'-0"



1.1 A-11.2 FIRST FLOOR CEILING
Scale: 1/4" = 1'-0"

LIGHT FIXTURE NOTES FOR A-11.2

C1	12" Diameter surface mounted fixture.
C4	12" Diameter decorative surface mounted fixture.
C5	2 1/2" Wide surface mounted linear fixture.
R3	4 1/2" Diameter recessed downlight.
R4	3" Diameter recessed wall wash fixture.
S2	2 1/2" Wide direct/indirect linear pendant.
S4	14" Tall decorative pendant.
S5	16" Diameter decorative pendant.
T1	2" Wide surface mounted track at beams and stage walls with TA & TC fixtures as shown.
W6	1/2" Wide wet rated surface mounted linear fixture downlight above sign band.
W7	1 5/8" Diameter wall mounted adjustable spot.



2 A-11.2 DETAILS @ GREAT HALL CEILING
Scale: 3" = 1'-0"

CEILING LEGEND

R2	LINEAR LIGHT FIXTURE INCORPORATED IN ACOUSTICAL TILE GRID PATTERN	S G	STARTING POINT FOR INSTALLATION OF 24" x 24" ACOUSTICAL TILE GRID
S2	LINEAR LIGHT FIXTURE SUSPENDED BELOW PAINTED METAL CEILING		SMOKE OR HEAT DETECTOR PER FIRE ALARM DRAWINGS
C#	SURFACE MOUNTED CEILING FIXTURE		HVAC RETURN AIR OR EXHAUST GRILLE
S#	SUSPENDED PENDANT LIGHT FIXTURE	T#	SURFACE MOUNTED TRACK & LIGHT FIXTURE
W#	WALL SCONCE LIGHTING FIXTURE	W#	WALL MOUNTED LINEAR FIXTURE
S T	STARTING POINT FOR INSTALLATION OF 24" x 24" SALVAGED TIN CEILING PANELS		

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STOW TOWN HALL RESTORATION
375 GREAT ROAD
STOW MA 01775

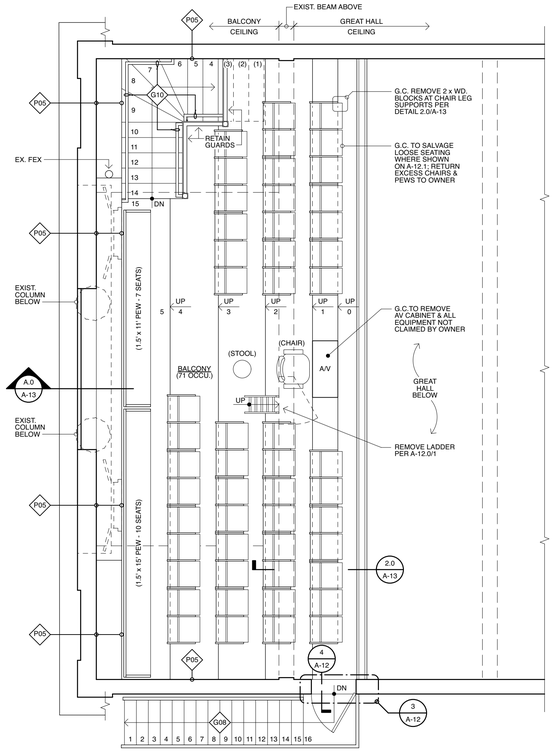
FIRST FLOOR CEILING

PROJECT NAME:
PROJECT ADDRESS:
DRAWING TITLE:

DATE: 30 JUNE 2022

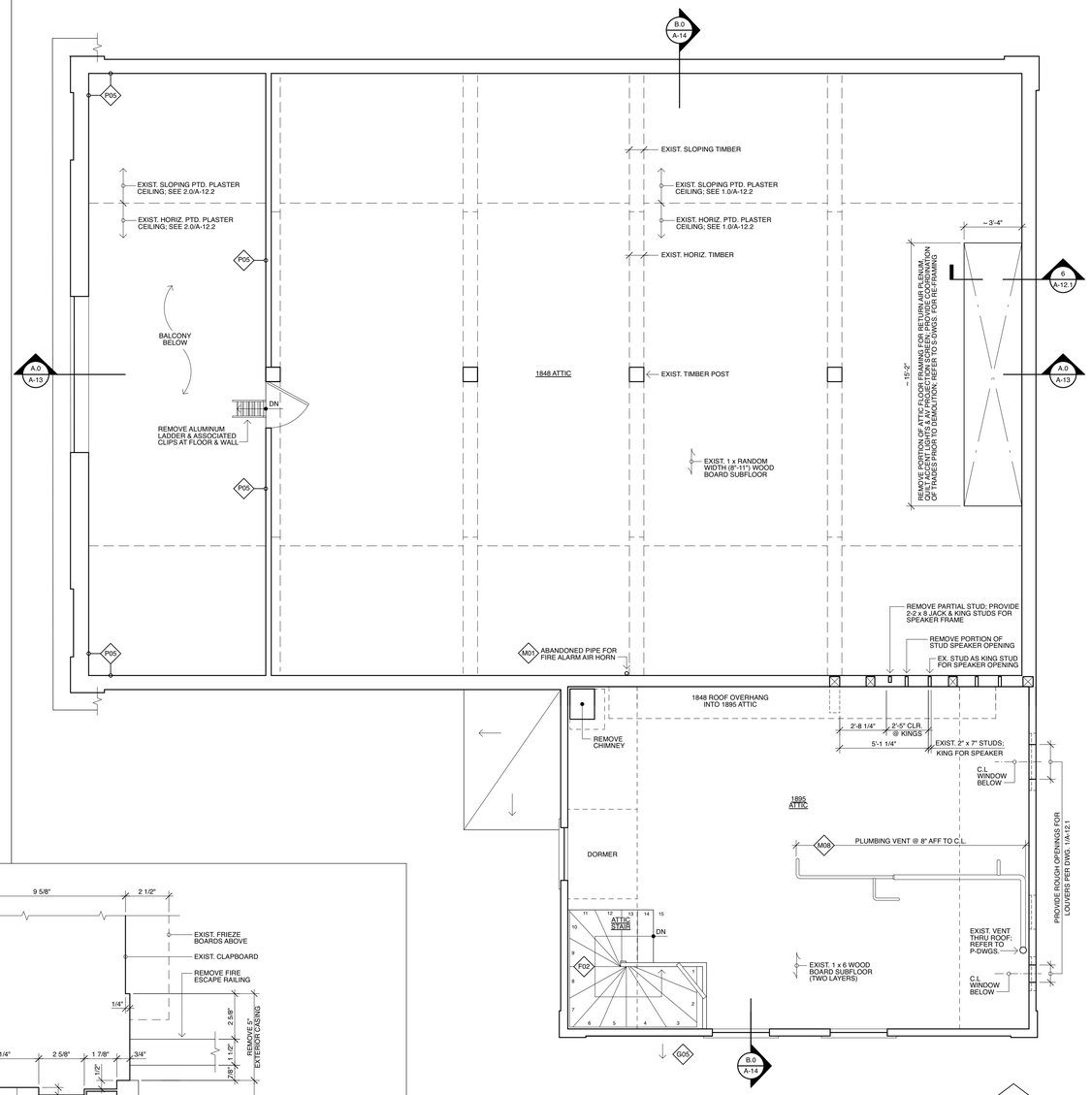
FINAL CHECK SET
NOT FOR CONSTRUCTION

SHEET #:
A-11.2



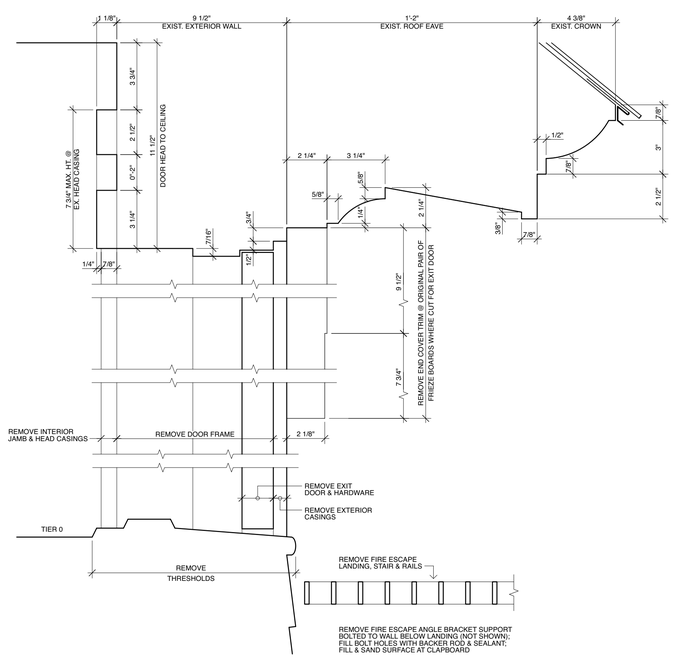
2 A-12.0 EXISTING BALCONY PLAN
Scale: 1/4" = 1'-0"

NORTH

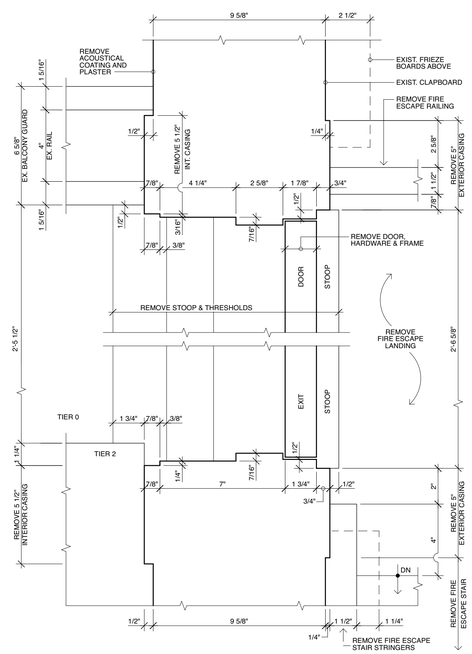


1 A-12.0 EXISTING ATTIC PLAN
Scale: 1/4" = 1'-0"

NORTH



4 A-12.0 EXISTING SECTION @ FIRE ESCAPE DOOR
Scale: 3" = 1'-0"



3 A-12.0 EXISTING PLAN @ FIRE SECAPE DOOR
Scale: 3" = 1'-0"

NORTH

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STOW TOWN HALL RESTORATION
375 GREAT ROAD
STOW MA 01775

PROJECT NAME:

PROJECT ADDRESS:

DRAWING TITLE:

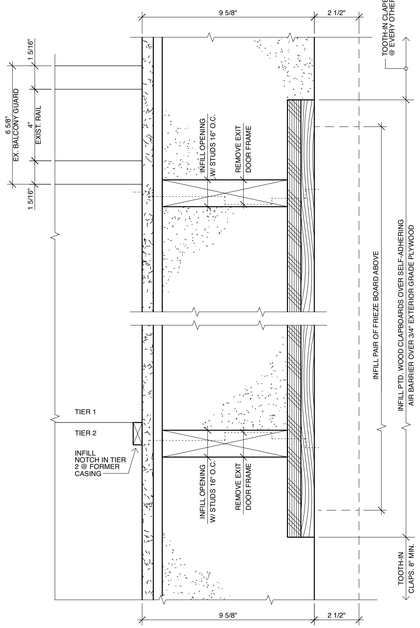
EXISTING BALCONY & ATTIC PLAN

DATE: 30 JUNE 2022

FINAL CHECK SET
NOT FOR CONSTRUCTION

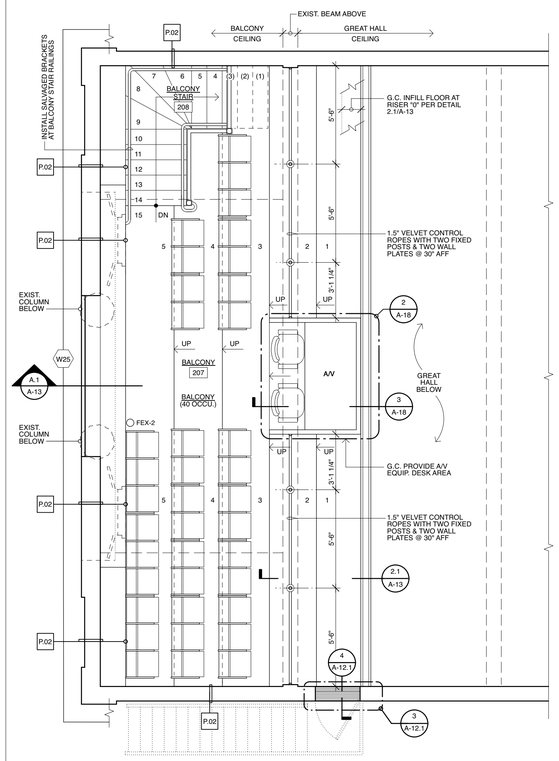
SHEET #:

A-12.0



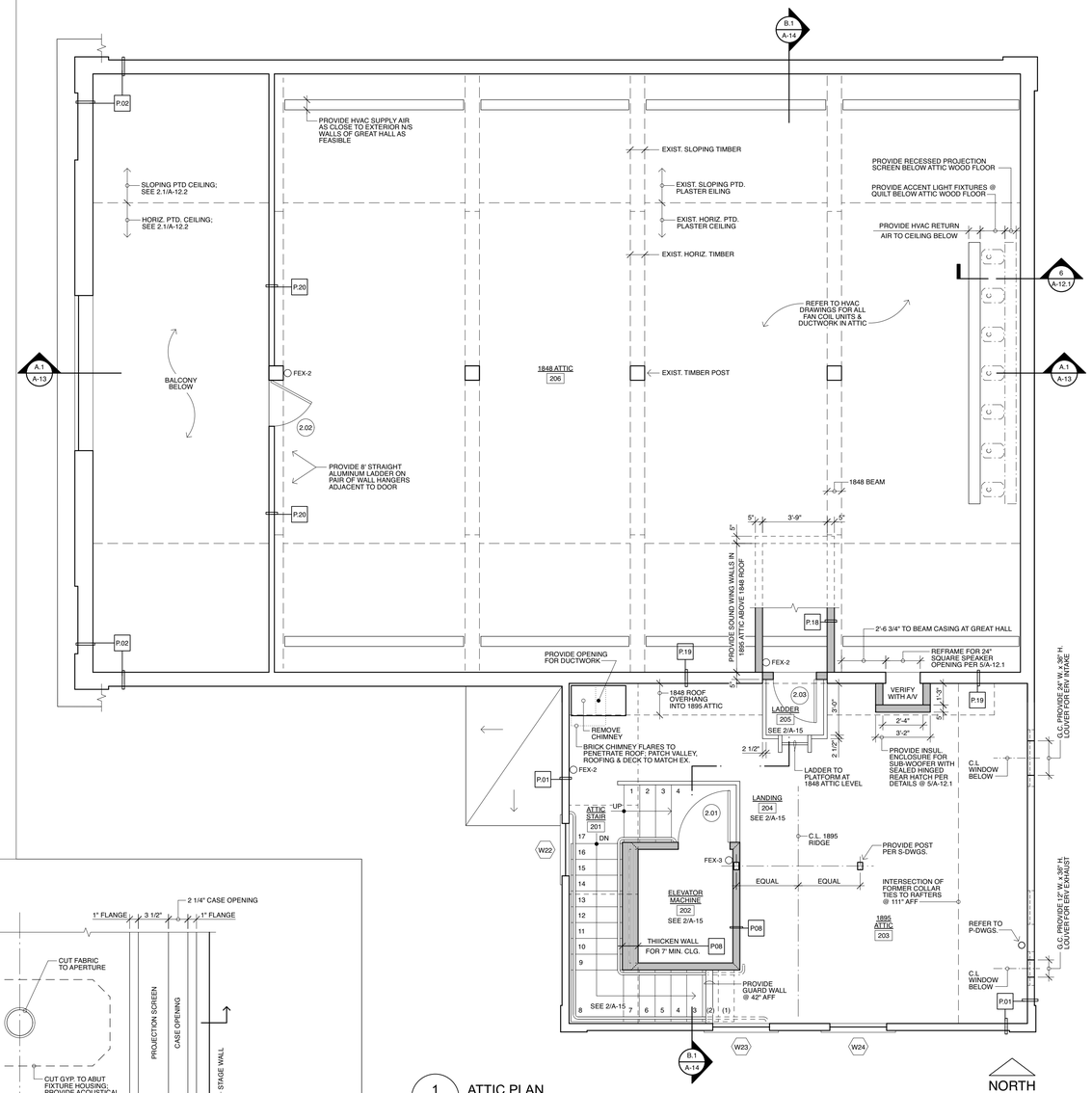
3 A-12.1 INFILL PLAN @ FIRE ESCAPE DOOR
Scale: 3" = 1'-0"

NORTH

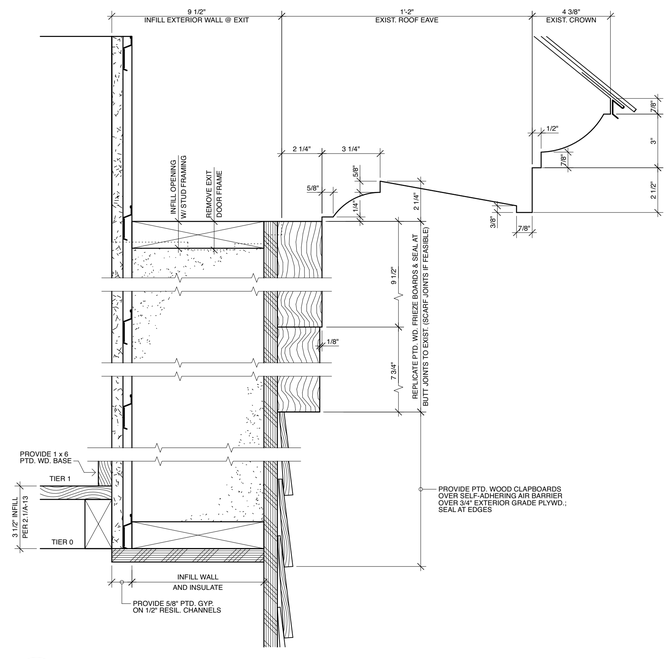


2 A-12.1 BALCONY PLAN
Scale: 1/4" = 1'-0"

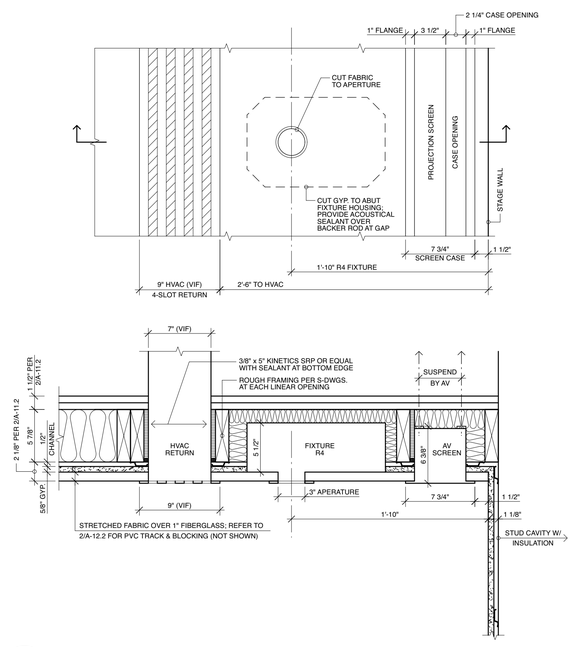
NORTH



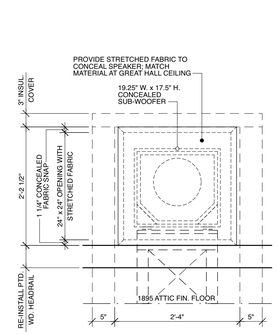
1 A-12.1 ATTIC PLAN
Scale: 1/4" = 1'-0"



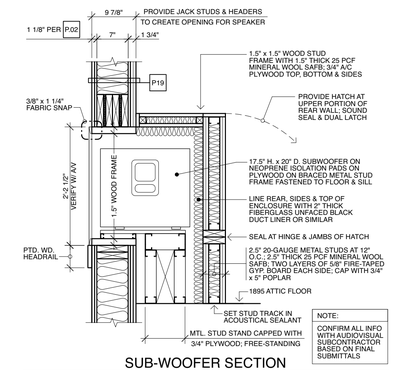
4 A-12.1 INFILL SECTION @ FIRE ESCAPE DOOR
Scale: 3" = 1'-0"



6 A-12.1 SECTION & PLAN AT STAGE CEILING
Scale: 1 1/2" = 1'-0"



GREAT HALL ELEVATION



SUB-WOOFER SECTION

NOTE:
CONFIRM ALL INFO WITH AUDIOVISUAL SUBCONTRACTOR BASED ON FINAL SUBMITTALS

5 A-12.1 ENCLOSURE FOR SUB-WOOFER IN 1895 ATTIC
Scale: 3/4" = 1'-0"

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STOW TOWN HALL RESTORATION
375 GREAT ROAD
STOW MA 01775

BALCONY & ATTIC PLAN

PROJECT NAME:
PROJECT ADDRESS:
DRAWING TITLE:
DATE: 30 JUNE 2022

FINAL CHECK SET
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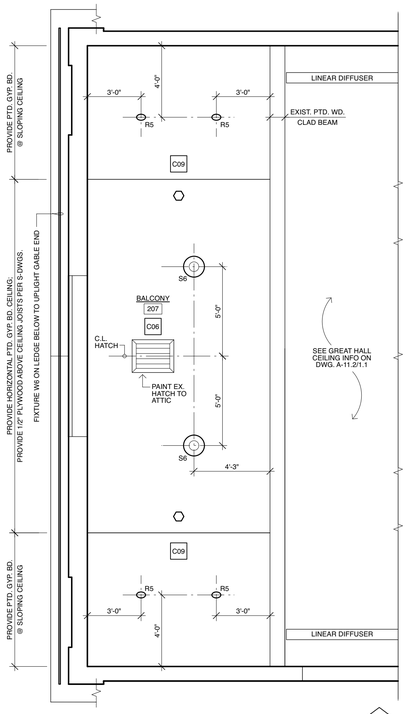
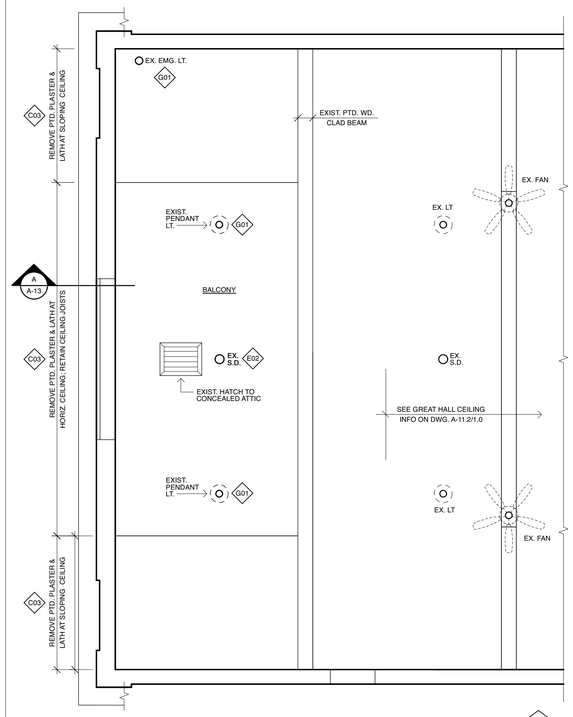
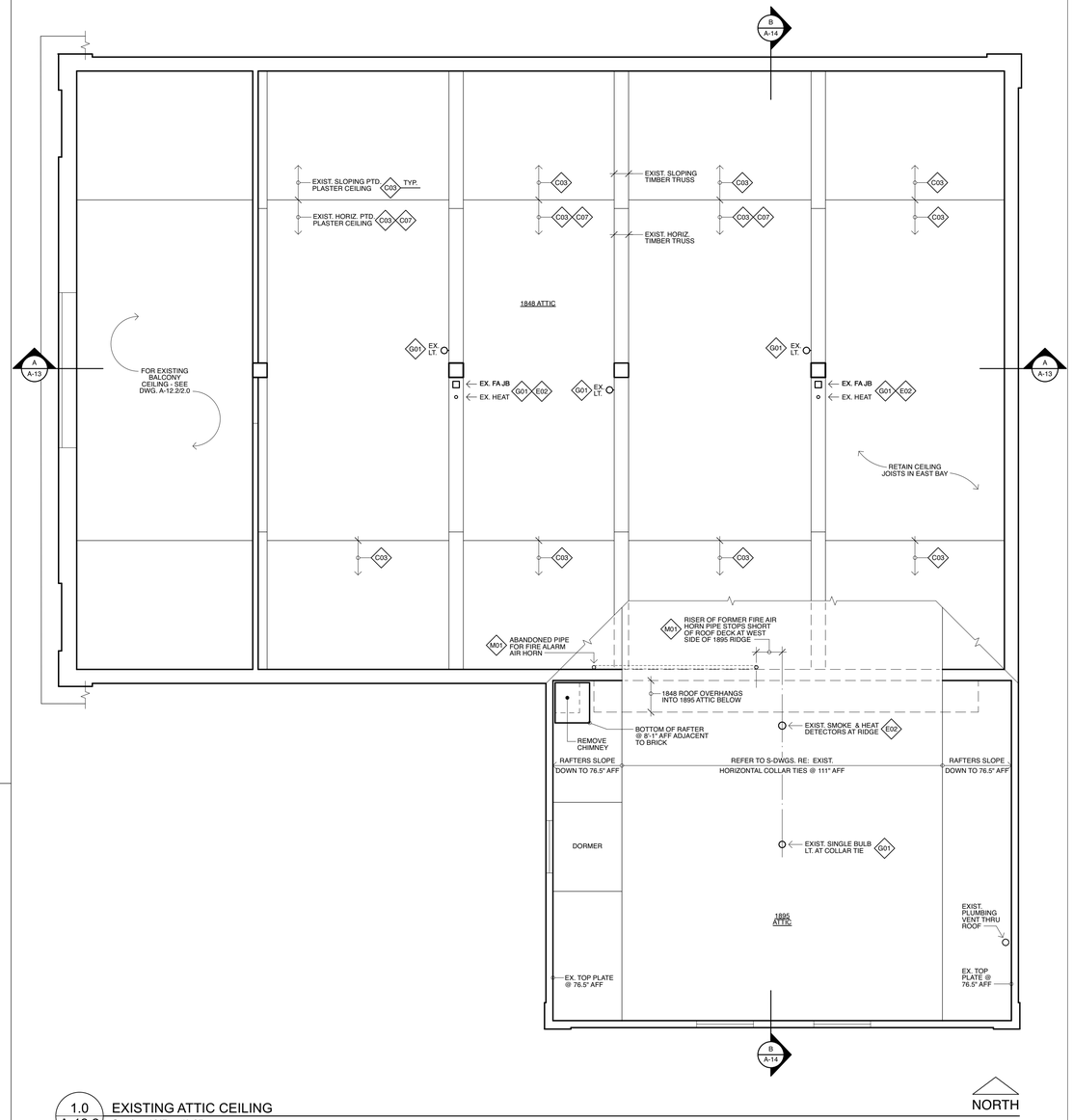
SHEET #:
A-12.1



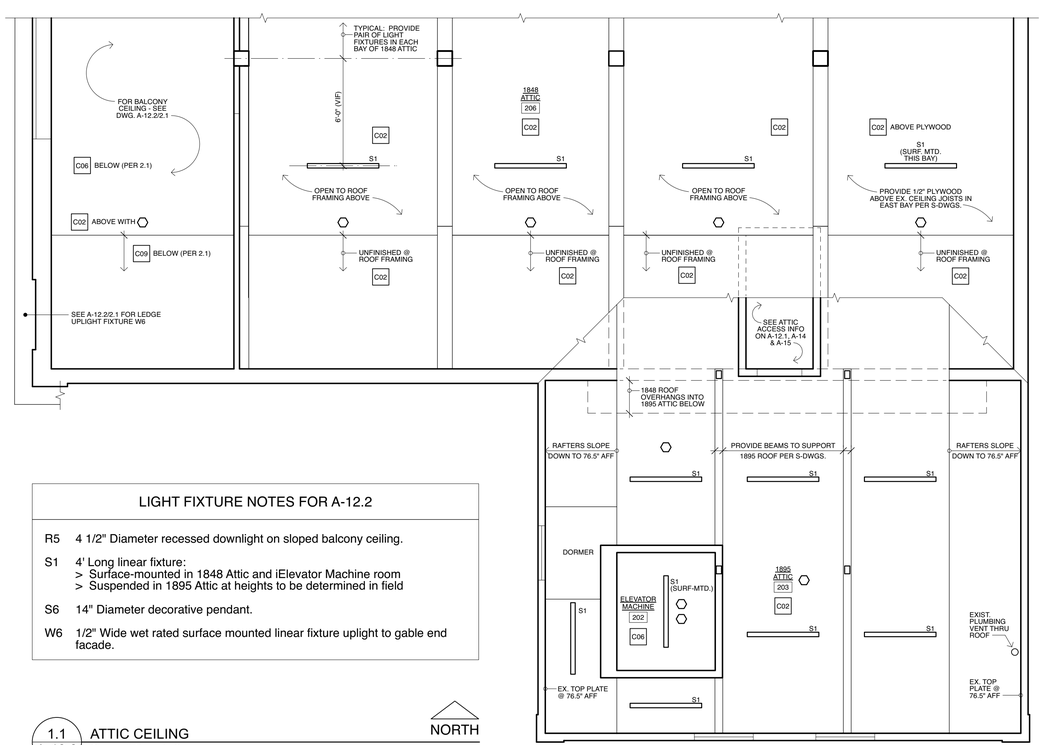
2.1 A-12.2 BALCONY CEILING
Scale: 1/4" = 1'-0"



2.0 A-12.2 EXISTING BALCONY CEILING
Scale: 1/4" = 1'-0"



1.0 A-12.2 EXISTING ATTIC CEILING
Scale: 1/4" = 1'-0"



1.1 A-12.2 ATTIC CEILING
Scale: 1/4" = 1'-0"

LIGHT FIXTURE NOTES FOR A-12.2

R5	4 1/2" Diameter recessed downlight on sloped balcony ceiling.
S1	4' Long linear fixture: > Surface-mounted in 1848 Attic and iElevator Machine room > Suspended in 1895 Attic at heights to be determined in field
S6	14" Diameter decorative pendant.
W6	1/2" Wide wet rated surface mounted linear fixture uplight to gable end facade.

CEILING LEGEND

R2	LINEAR LIGHT FIXTURE INCORPORATED IN ACOUSTICAL TILE GRID PATTERN
S2	LINEAR LIGHT FIXTURE SUSPENDED BELOW PAINTED METAL CEILING
C#	SURFACE MOUNTED CEILING FIXTURE
S#	SUSPENDED PENDANT LIGHT FIXTURE
W#	WALL SCONCE LIGHTING FIXTURE
S.T	STARTING POINT FOR INSTALLATION OF 24" x 24" SALVAGED TIN CEILING PANELS
S.G	STARTING POINT FOR INSTALLATION OF 24" x 24" ACOUSTICAL TILE GRID
	SMOKE OR HEAT DETECTOR PER FIRE ALARM DRAWINGS
	HVAC RETURN AIR OR EXHAUST GRILLE
T#	SURFACE MOUNTED TRACK & LIGHT FIXTURE
W#	WALL MOUNTED LINEAR FIXTURE

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PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775
DRAWING TITLE: BALCONY & ATTIC CEILING

DATE: 30 JUNE 2022

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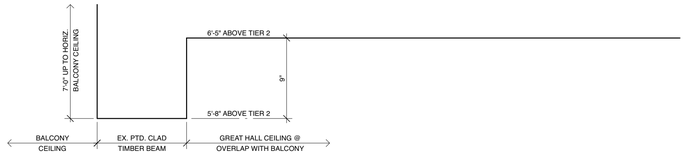
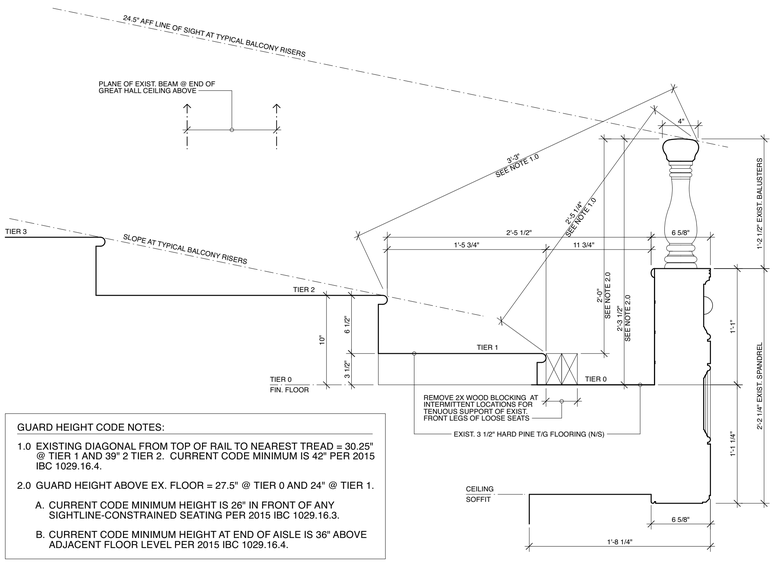
SHEET #: A-12.2



1 / A-13 EXISTING BEAM PROFILE @ BALCONY
Scale: 1 1/2" = 1'-0"



GUARD HEIGHT CODE NOTES:

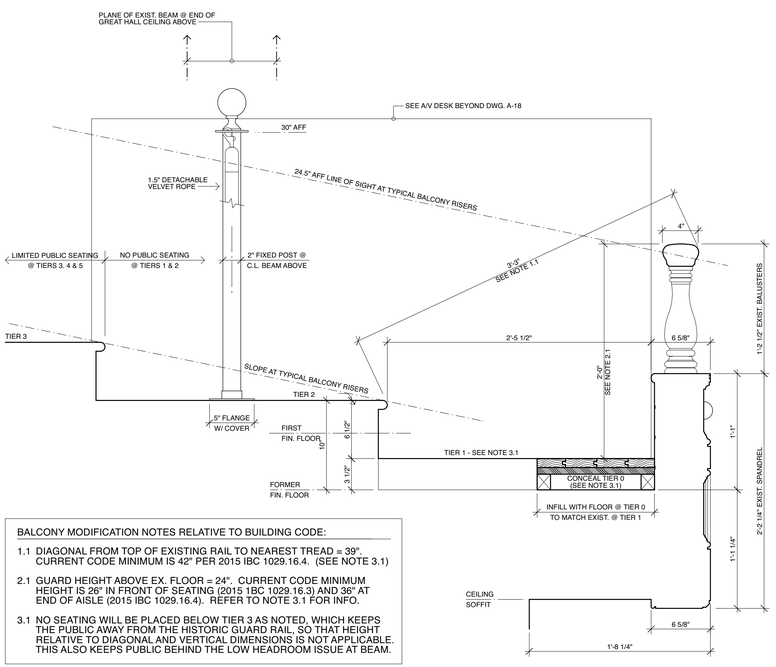
1.0 EXISTING DIAGONAL FROM TOP OF RAIL TO NEAREST TREAD = 30.25" @ TIER 1 AND 39" 2 TIER 2. CURRENT CODE MINIMUM IS 42" PER 2015 IBC 1029.16.4.

2.0 GUARD HEIGHT ABOVE EX. FLOOR = 27.5" @ TIER 0 AND 24" @ TIER 1.

A. CURRENT CODE MINIMUM HEIGHT IS 26" IN FRONT OF ANY SIGHTLINE-CONSTRAINED SEATING PER 2015 IBC 1029.16.3.

B. CURRENT CODE MINIMUM HEIGHT AT END OF AISLE IS 36" ABOVE ADJACENT FLOOR LEVEL PER 2015 IBC 1029.16.4.

2.0 / A-13 EXISTING BALCONY GUARD RAIL
Scale: 1 1/2" = 1'-0"



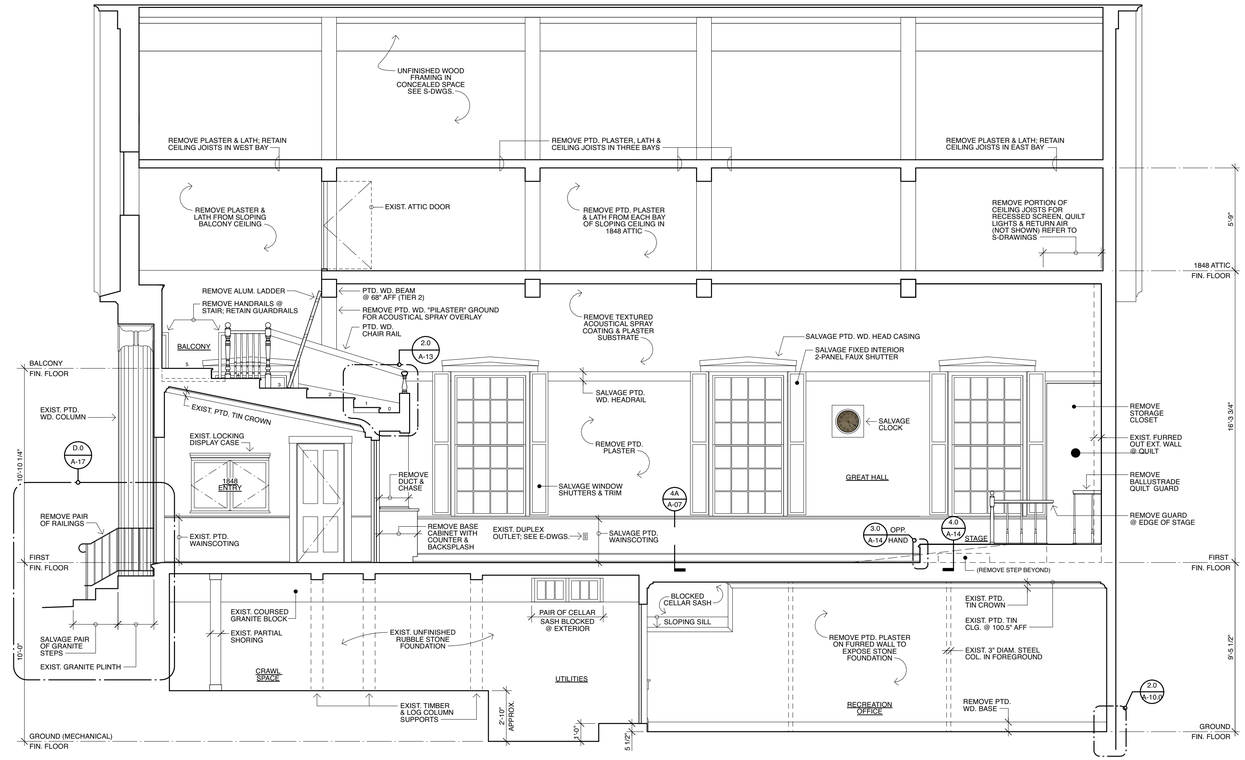
BALCONY MODIFICATION NOTES RELATIVE TO BUILDING CODE:

1.1 DIAGONAL FROM TOP OF EXISTING RAIL TO NEAREST TREAD = 39". CURRENT CODE MINIMUM IS 42" PER 2015 IBC 1029.16.4. (SEE NOTE 3.1)

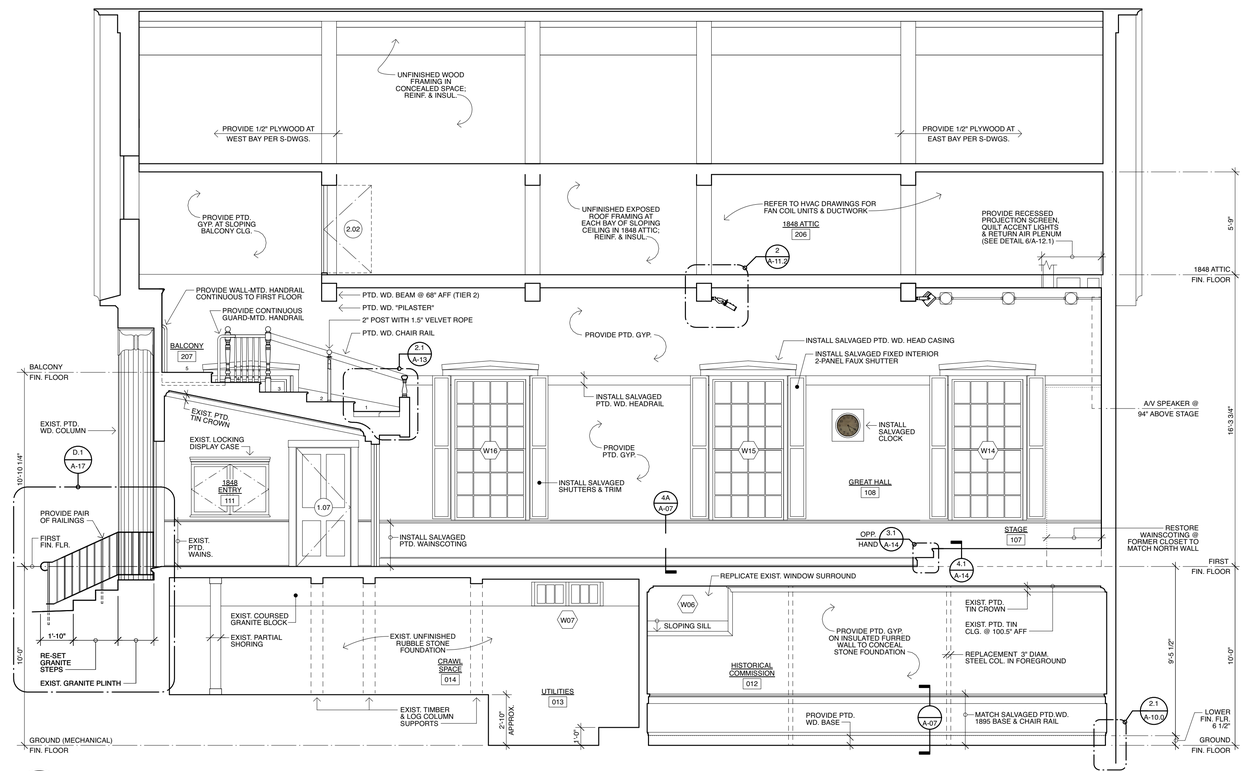
2.1 GUARD HEIGHT ABOVE EX. FLOOR = 24". CURRENT CODE MINIMUM HEIGHT IS 26" IN FRONT OF SEATING (2015 1BC 1029.16.3) AND 36" AT END OF AISLE (2015 IBC 1029.16.4). REFER TO NOTE 3.1 FOR INFO.

3.1 NO SEATING WILL BE PLACED BELOW TIER 3 AS NOTED, WHICH KEEPS THE PUBLIC AWAY FROM THE HISTORIC GUARD RAIL, SO THAT HEIGHT RELATIVE TO DIAGONAL AND VERTICAL DIMENSIONS IS NOT APPLICABLE. THIS ALSO KEEPS PUBLIC BEHIND THE LOW HEADROOM ISSUE AT BEAM.

2.1 / A-13 BALCONY GUARD RAIL
Scale: 1 1/2" = 1'-0"



A.0 / A-13 EXISTING LONGITUDINAL SECTION LOOKING NORTH
Scale: 1/4" = 1'-0"



A.1 / A-13 LONGITUDINAL SECTION LOOKING NORTH
Scale: 1/4" = 1'-0"

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PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: LONGITUDINAL SECTION

DATE: 30 JUNE 2022

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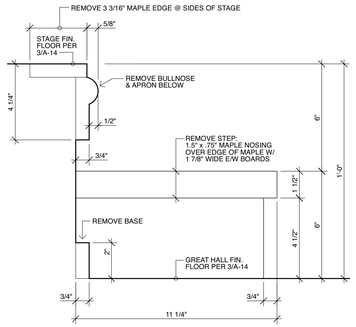
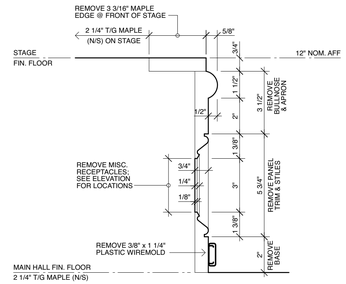
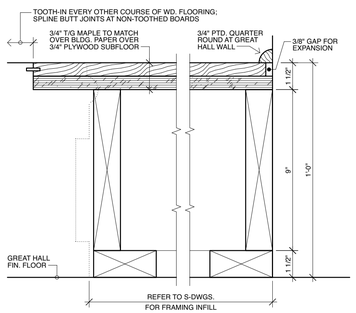
SHEET #: A-13



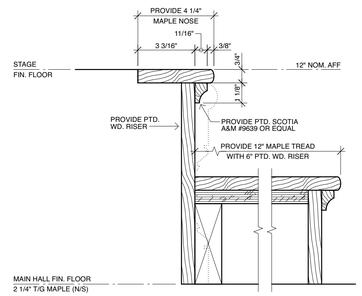
4.0 / A-14 EXISTING STEP AT SIDE OF STAGE
Scale: 3" = 1'-0"



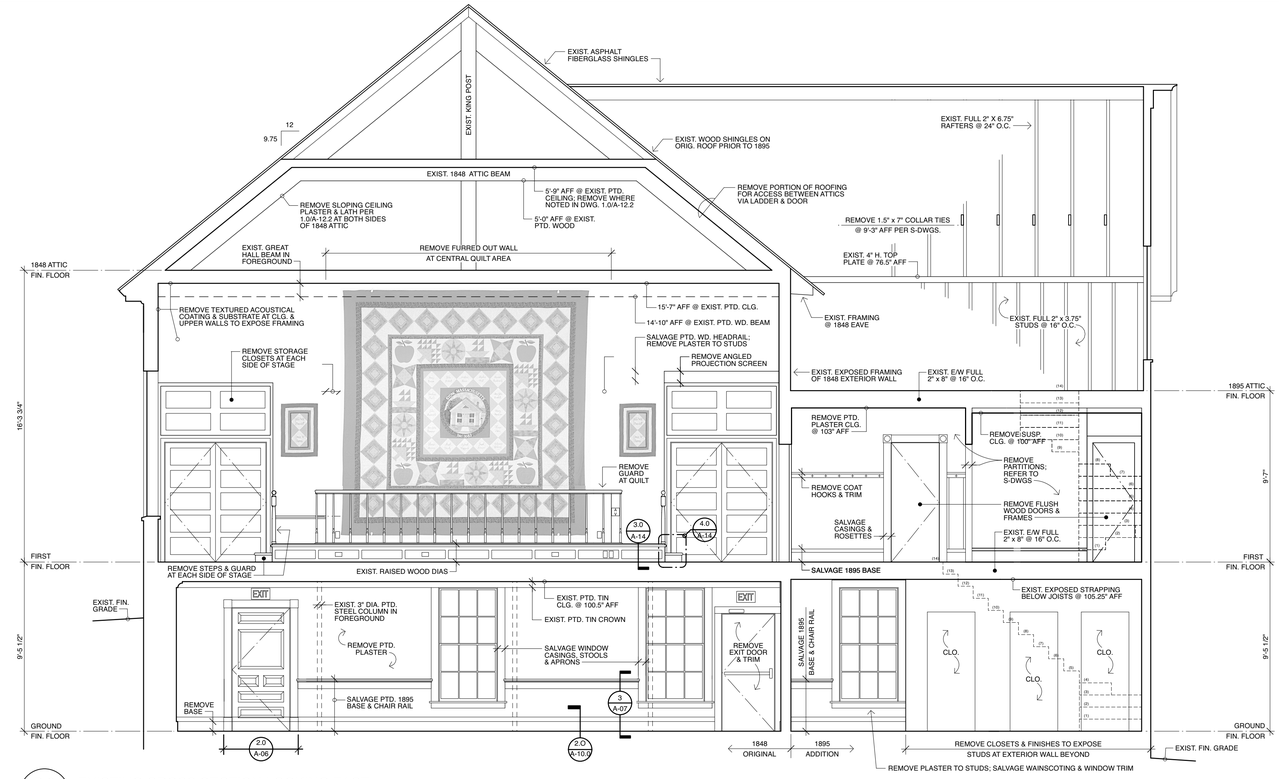
3.0 / A-14 EXISTING STAGE APRON DETAIL
Scale: 3" = 1'-0"



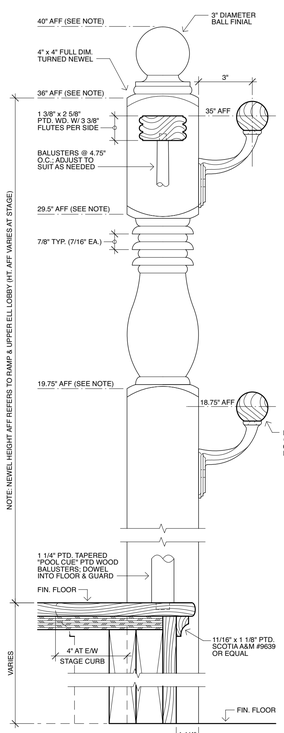
4.1 / A-14 STAGE INFILL
Scale: 3" = 1'-0"



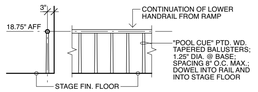
3.1 / A-14 STAGE STEP
Scale: 3" = 1'-0"



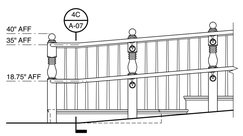
B.0 / A-14 EXISTING CROSS SECTION LOOKING EAST
Scale: 1/4" = 1'-0"



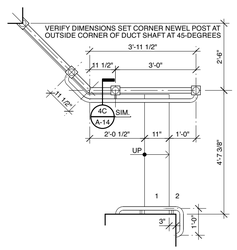
4C / A-14 NEWELS - GUARDS - RAILS
Scale: 3" = 1'-0"



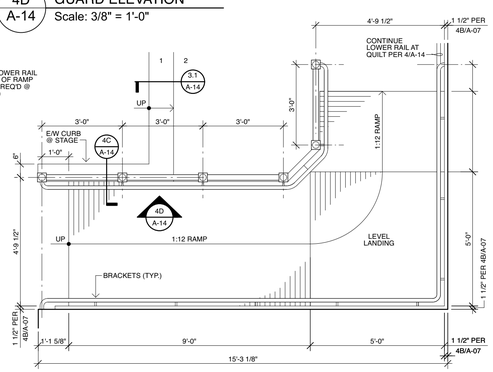
4E / A-14 QUILT GUARD RAIL
Scale: 3/8" = 1'-0"



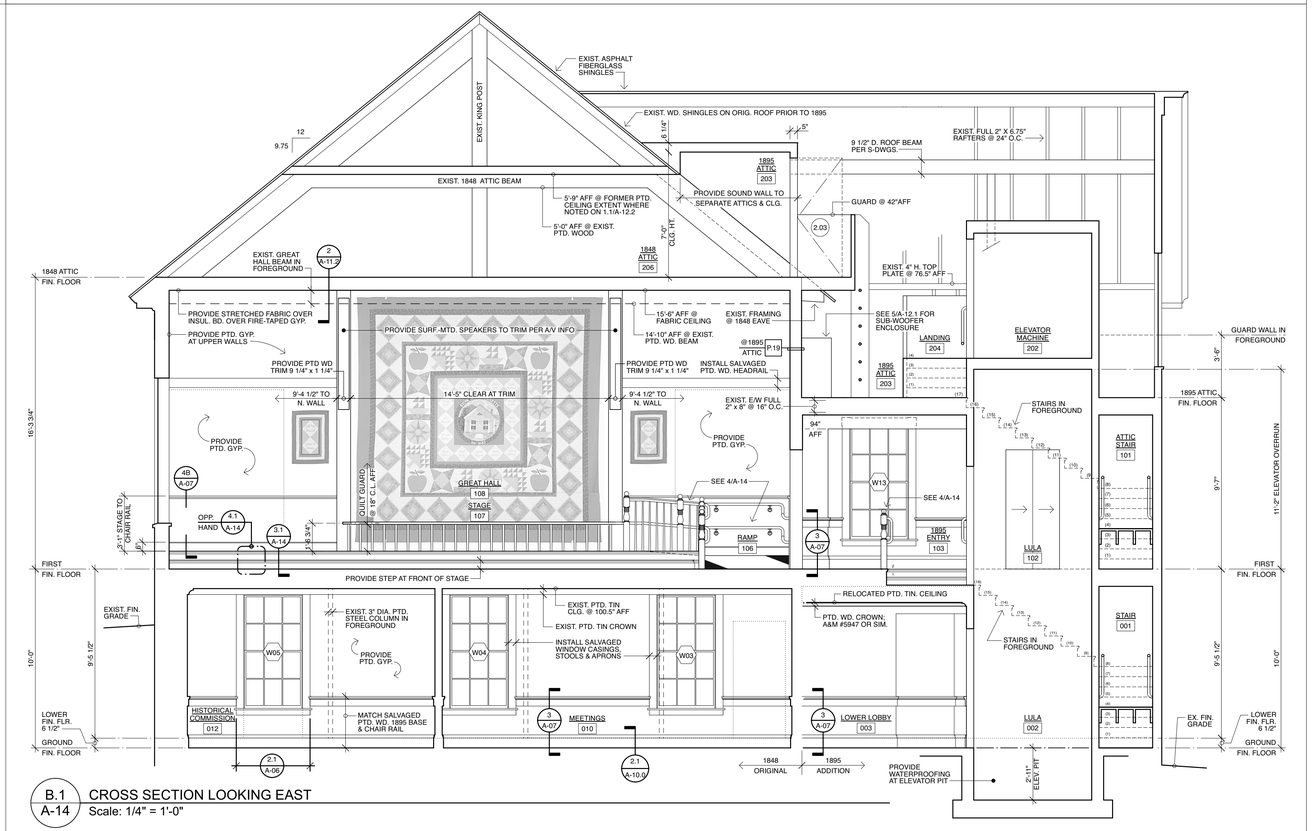
4D / A-14 LOWER RAMP GUARD ELEVATION
Scale: 3/8" = 1'-0"



4A / A-14 ELL LOBBY
Scale: 3/8" = 1'-0"



4B / A-14 STAGE RAMP
Scale: 3/8" = 1'-0"



B.1 / A-14 CROSS SECTION LOOKING EAST
Scale: 1/4" = 1'-0"

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STOW TOWN HALL RESTORATION
375 GREAT ROAD
STOW MA 01775

PROJECT NAME:
PROJECT ADDRESS:

DRAWING TITLE: CROSS SECTION

DATE: 30 JUNE 2022

FINAL CHECK SET
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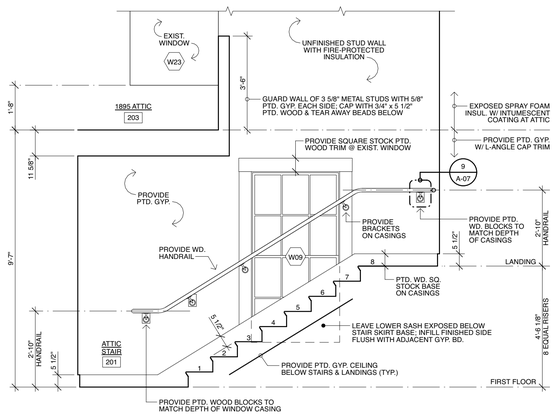
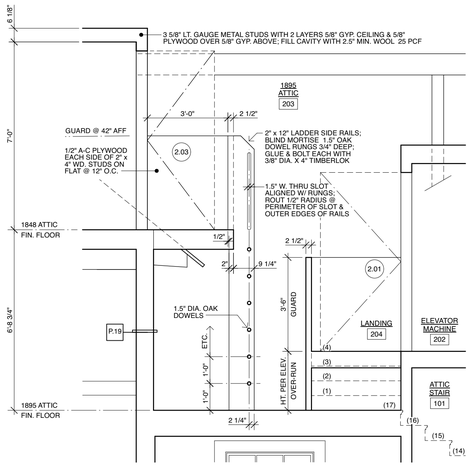
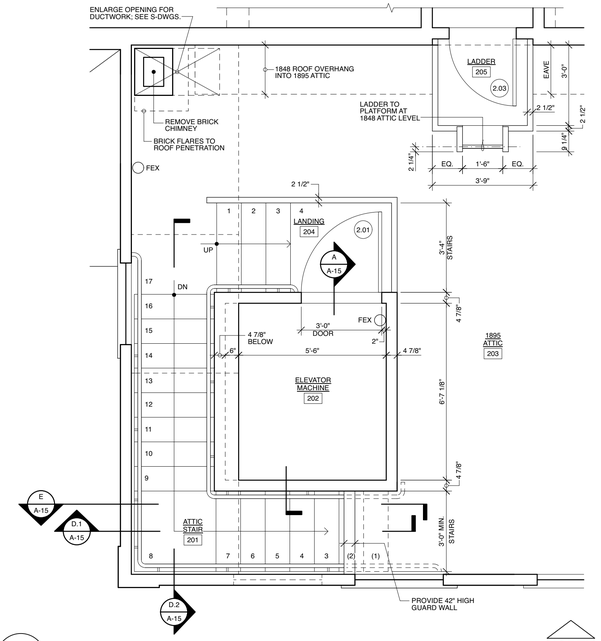
SHEET #: A-14



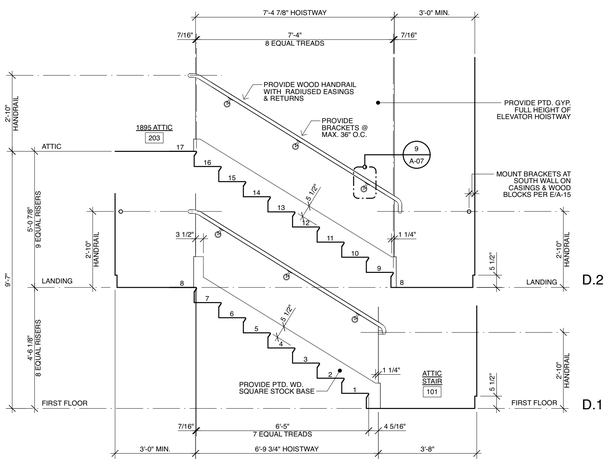
E / A-15 SOUTH ELEVATION OF RECONSTRUCTED STAIR - FIRST FLOOR TO ATTIC
Scale: 3/8" = 1'-0"



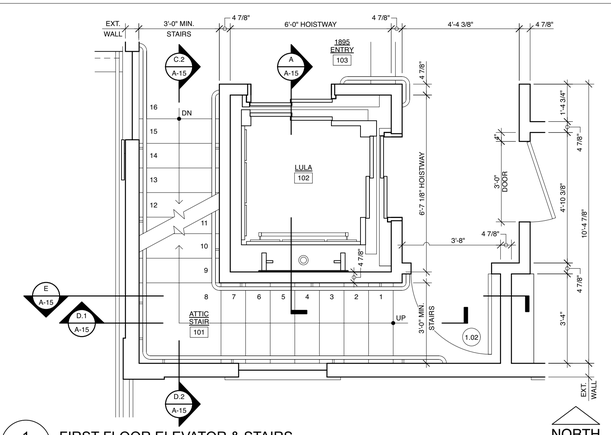
B / A-15 ATTIC SECTION
Scale: 3/8" = 1'-0"



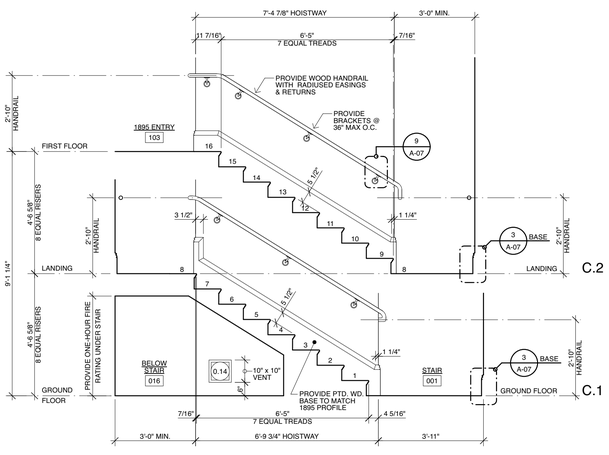
2 / A-15 ATTIC LEVEL ELEVATOR & STAIRS
Scale: 3/8" = 1'-0"



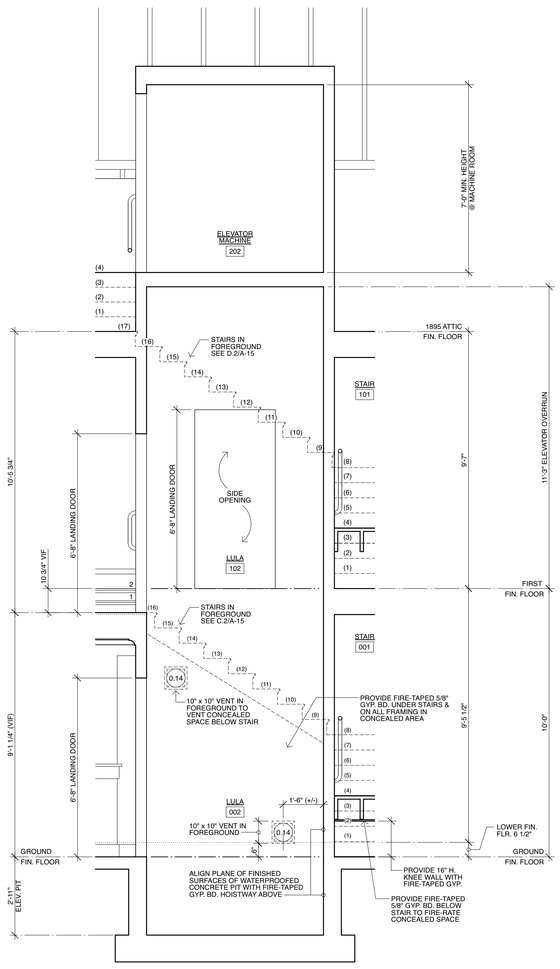
D / A-15 FIRST FLOOR TO ATTIC LEVEL STAIR
Scale: 3/8" = 1'-0"



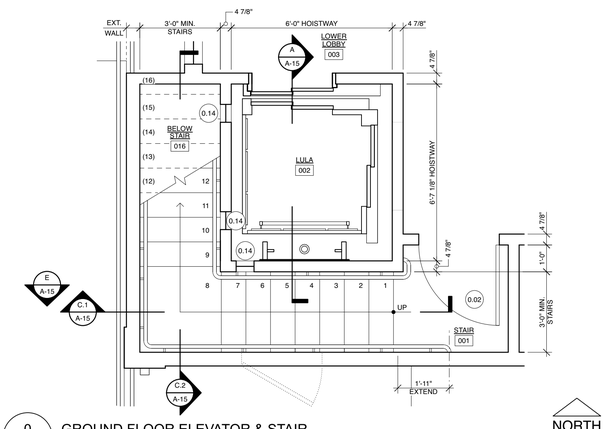
1 / A-15 FIRST FLOOR ELEVATOR & STAIRS
Scale: 3/8" = 1'-0"



C / A-15 GROUND FLOOR TO FIRST FLOOR STAIR
Scale: 3/8" = 1'-0"



A / A-15 ELEVATOR SECTION
Scale: 3/8" = 1'-0"



0 / A-15 GROUND FLOOR ELEVATOR & STAIR
Scale: 3/8" = 1'-0"

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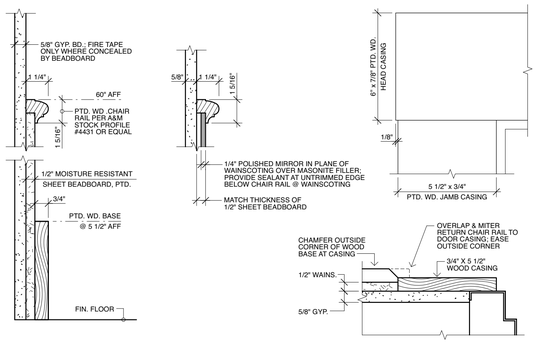
PROJECT NAME:
PROJECT ADDRESS:

DRAWING TITLE: ELEVATOR & STAIRS

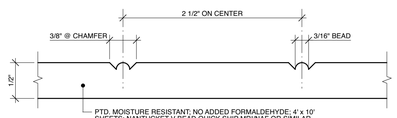
DATE: 30 JUNE 2022

FINAL CHECK SET
NOT FOR CONSTRUCTION

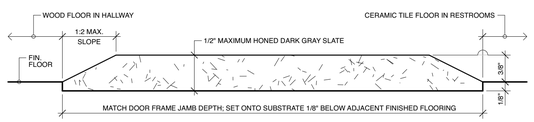
SHEET #:
A-15



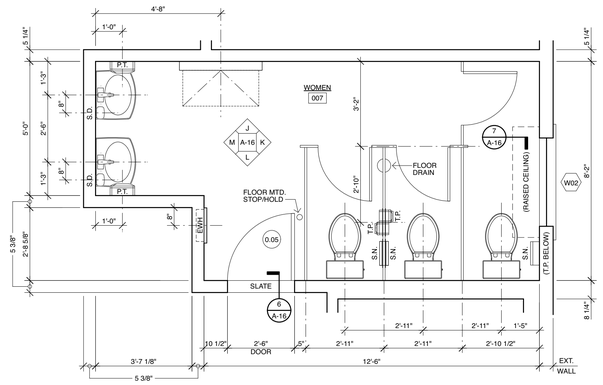
4 A-16 RESTROOM TRIM, WAINSCOTING & MIRROR FRAME
Scale: 3" = 1'-0"



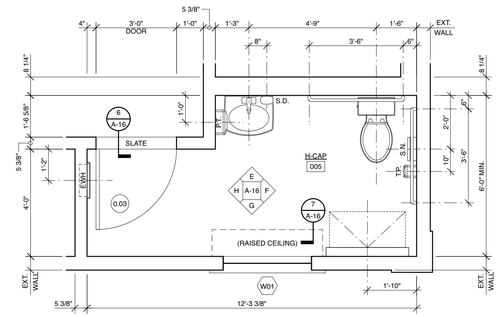
5 A-16 SHEET WAINSCOTING
Scale: Actual Size



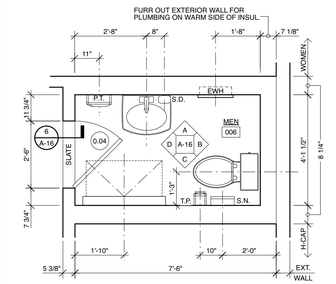
6 A-16 SLATE THRESHOLD AT RESTROOMS
Scale: Actual Size



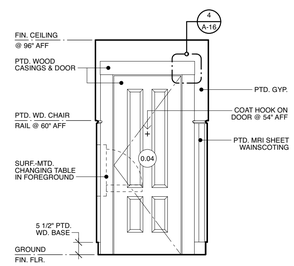
3 A-16 WOMEN'S RESTROOM
Scale: 3/8" = 1'-0"



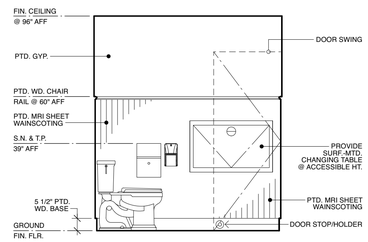
2 A-16 ACCESSIBLE RESTROOM
Scale: 3/8" = 1'-0"



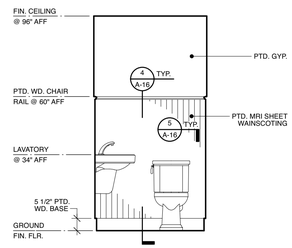
1 A-16 MEN'S RESTROOM
Scale: 3/8" = 1'-0"



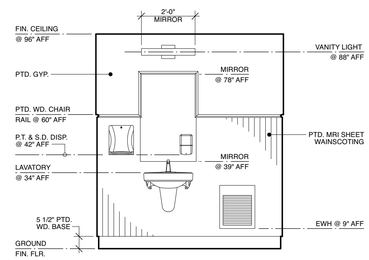
D A-16 MEN'S WEST ELEVATION
Scale: 3/8" = 1'-0"



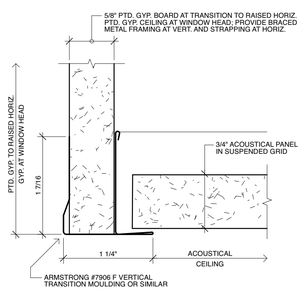
C A-16 MEN'S SOUTH ELEVATION
Scale: 3/8" = 1'-0"



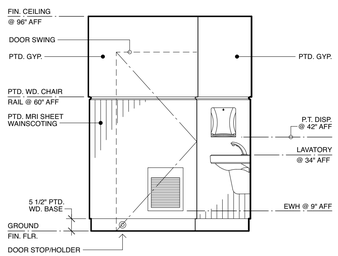
B A-16 MEN'S EAST ELEVATION
Scale: 3/8" = 1'-0"



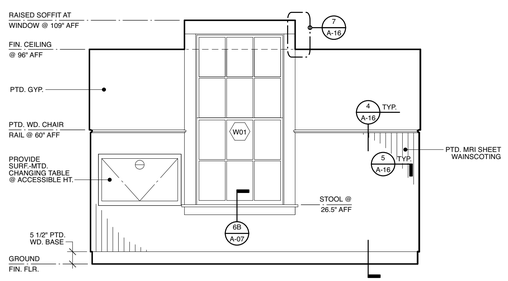
A A-16 MEN'S NORTH ELEVATION
Scale: 3/8" = 1'-0"



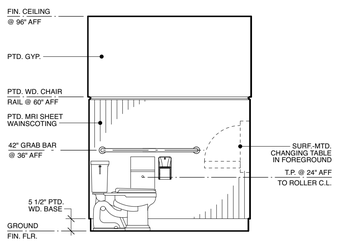
7 A-16 RESTROOM CEILING
Scale: Actual Size



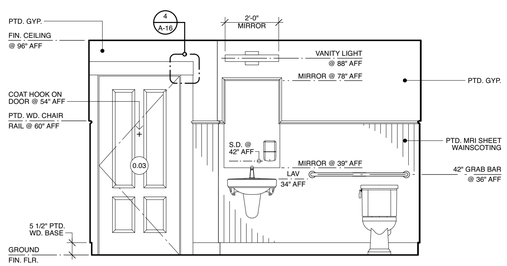
H A-16 ACCESSIBLE WEST ELEVATION
Scale: 3/8" = 1'-0"



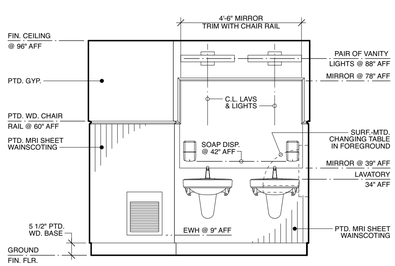
G A-16 ACCESSIBLE SOUTH ELEVATION
Scale: 3/8" = 1'-0"



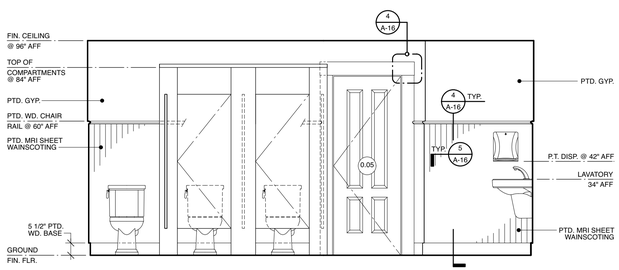
F A-16 ACCESSIBLE EAST ELEVATION
Scale: 3/8" = 1'-0"



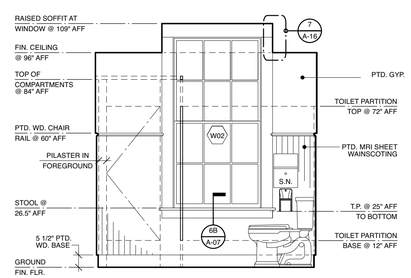
E A-16 ACCESSIBLE NORTH ELEVATION
Scale: 3/8" = 1'-0"



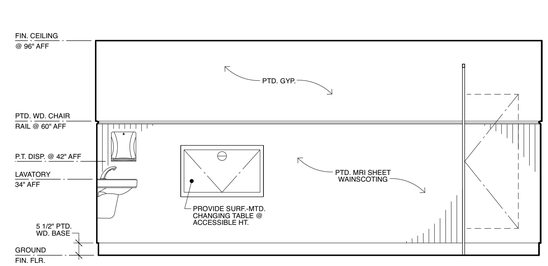
M A-16 WOMAN'S WEST ELEVATION
Scale: 3/8" = 1'-0"



L A-16 WOMAN'S SOUTH ELEVATION
Scale: 3/8" = 1'-0"



K A-16 WOMAN'S EAST ELEVATION
Scale: 3/8" = 1'-0"



J A-16 WOMAN'S NORTH ELEVATION
Scale: 3/8" = 1'-0"

MILLS WHITAKER ARCHITECTS LLC
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STOW TOWN HALL RESTORATION
375 GREAT ROAD
STOW MA 01775

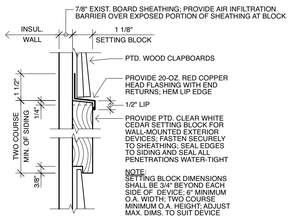
RESTROOMS

PROJECT NAME:
PROJECT ADDRESS:
DRAWING TITLE:

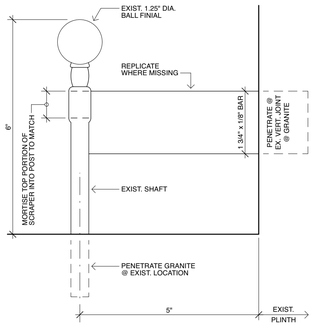
DATE: 30 JUNE 2022

FINAL CHECK SET
NOT FOR CONSTRUCTION

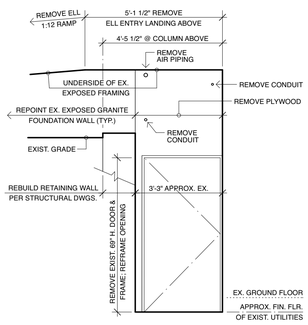
SHEET #:
A-16



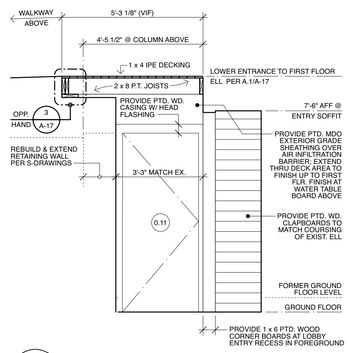
H A-17 SETTING BLOCK DETAIL
Scale: 3" = 1'-0"



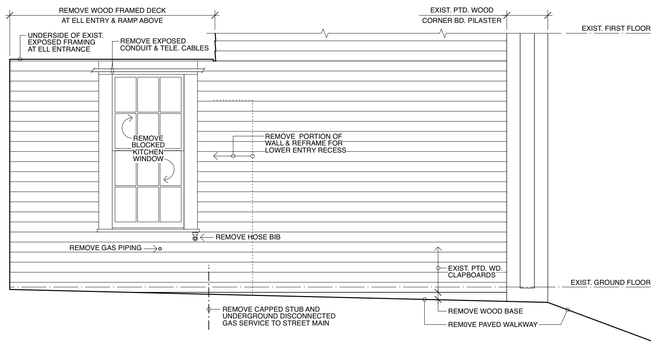
E A-17 BOOT SCRAPERS @ FRONT STEPS
Scale: Half Actual Size



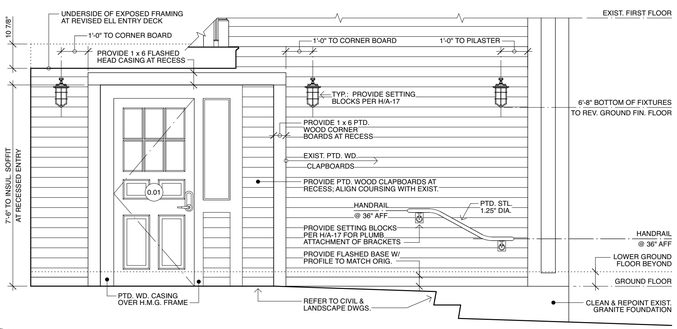
F.0 A-17 SERVICE ENTRY - DEMOLITION
Scale: 3/8" = 1'-0"



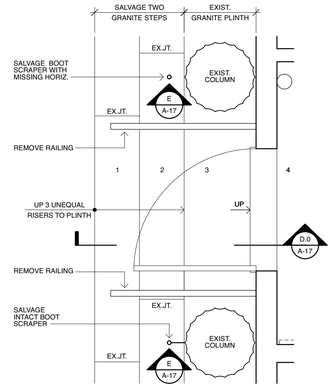
F.1 A-17 SERVICE ENTRY - RECONFIGURATION
Scale: 3/8" = 1'-0"



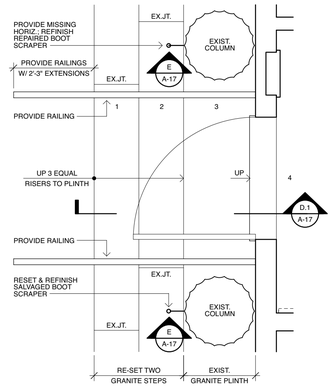
G.0 A-17 WEST ELEVATION OF ELL AT EXISTING SERVICE DOOR ALLEY
Scale: 3/8" = 1'-0"



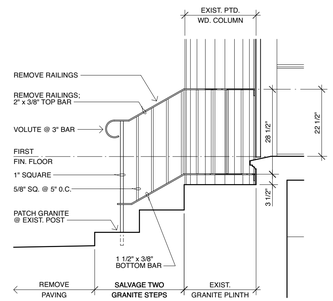
G.1 A-17 WEST ELEVATION OF ELL AT LOWER LOBBY ENTRY
Scale: 3/8" = 1'-0"



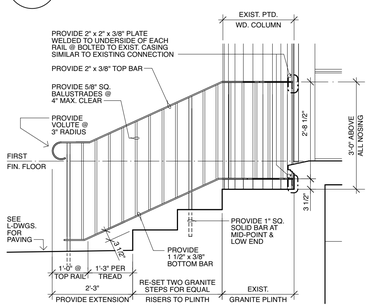
C.0 A-17 EXIST. PARTIAL PLAN @ FRONT STEPS
Scale: 1/2" = 1'-0"



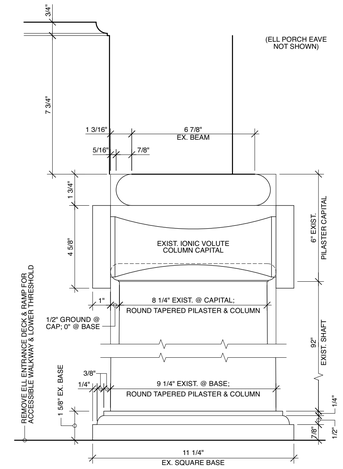
C.1 A-17 PARTIAL PLAN @ FRONT STEPS
Scale: 1/2" = 1'-0"



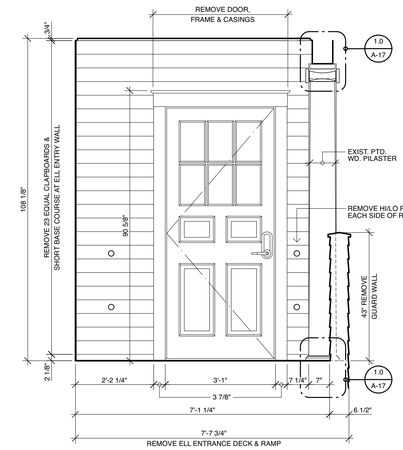
D.0 A-17 EXIST. SECTION AT FRONT STEPS
Scale: 1/2" = 1'-0"



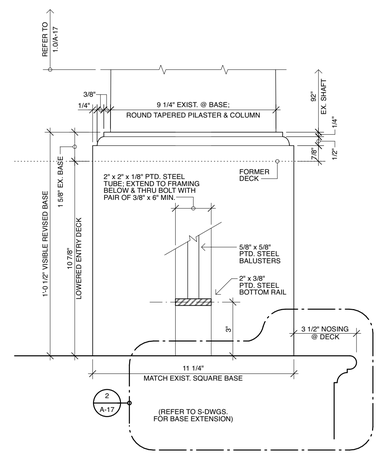
D.1 A-17 SECTION AT FRONT STEPS
Scale: 1/2" = 1'-0"



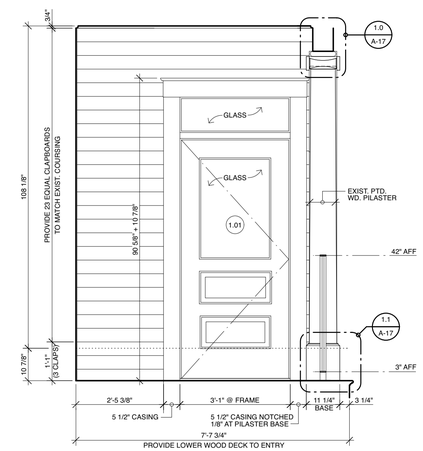
1.0 A-17 ELL PILASTER & COLUMN INFO
Scale: 3" = 1'-0"



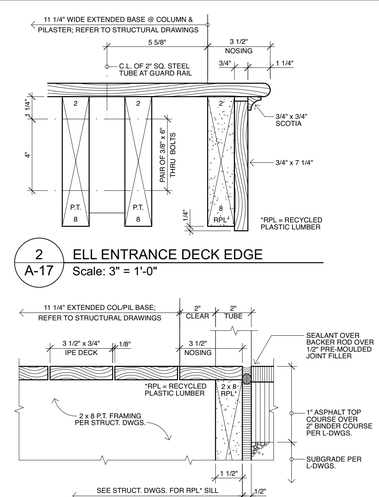
A.0 A-17 EXISTING EXTERIOR OF ELL ENTRY
Scale: 1/2" = 1'-0"



1.1 A-17 EXTENDED BASE @ ELL ENTRY
Scale: 3" = 1'-0"

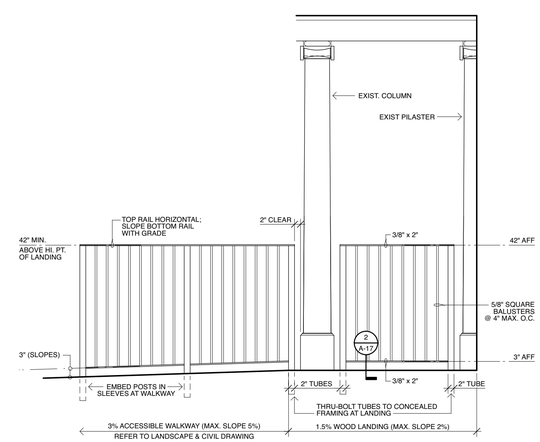


A.1 A-17 EXTERIOR OF MODIFIED ELL ENTRY
Scale: 1/2" = 1'-0"



2 A-17 ELL ENTRANCE DECK EDGE
Scale: 3" = 1'-0"

3 A-17 ELL ENTRANCE DECK @ WALKWAY
Scale: 3" = 1'-0"



B A-17 GUARD RAIL ELEVATION AT ELL ENTRY
Scale: 1/2" = 1'-0"

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fax: 617-876-6420

STOW TOWN HALL RESTORATION
375 GREAT ROAD
STOW MA 01775

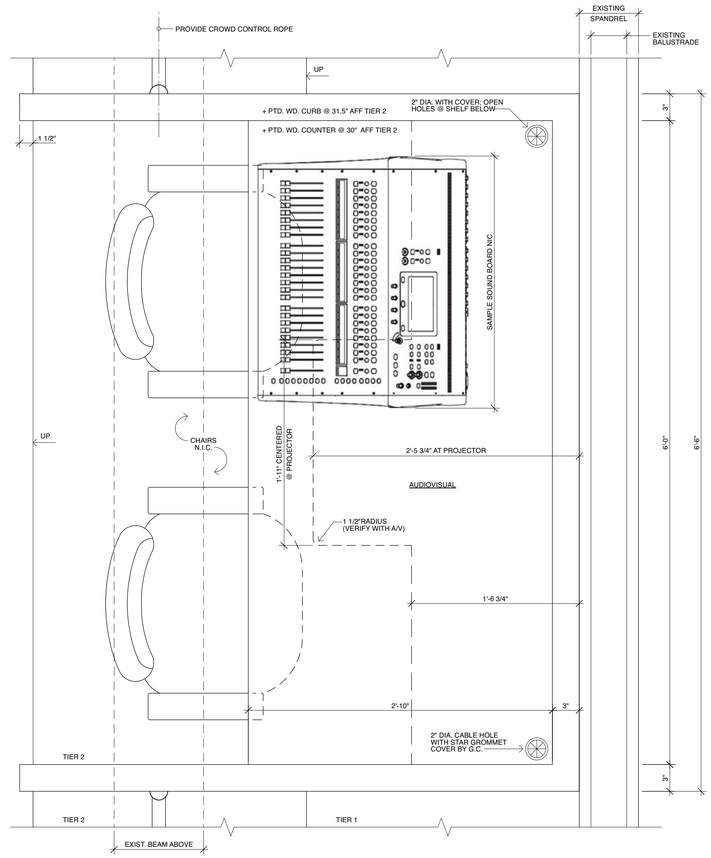
PROJECT NAME:
PROJECT ADDRESS:

DRAWING TITLE: ENTRANCE DETAILS

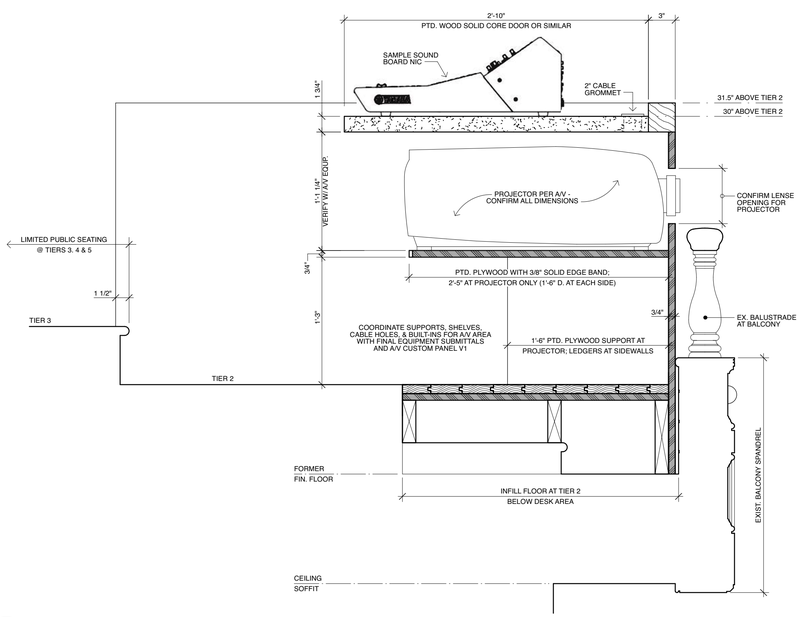
DATE: 30 JUNE 2022

FINAL CHECK SET
NOT FOR CONSTRUCTION

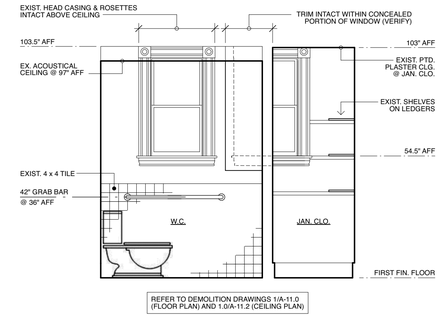
SHEET #:
A-17



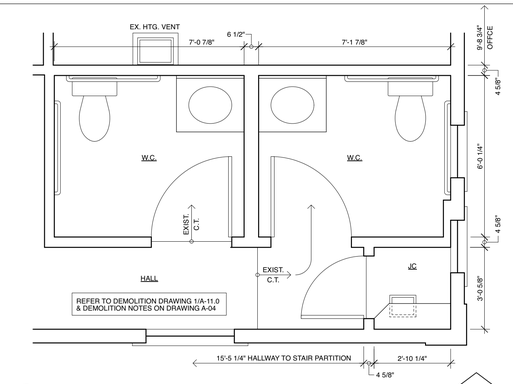
2 / A-18 PLAN @ AUDIOVISUAL DESK
Scale: 1 1/2" = 1'-0"



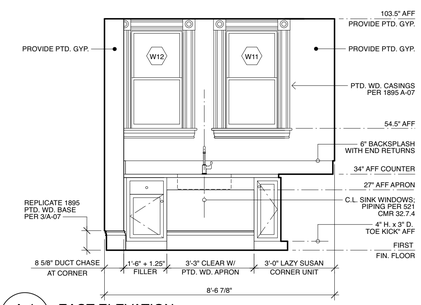
3 / A-18 SECTION @ AUDIOVISUAL DESK
Scale: 1 1/2" = 1'-0"



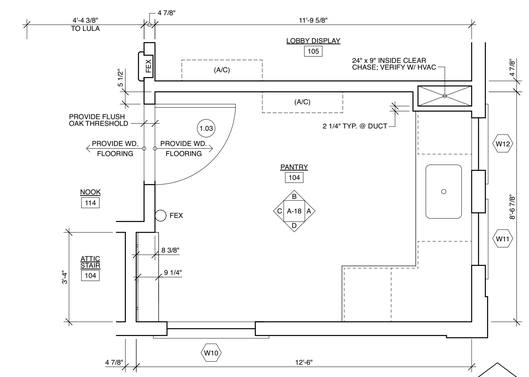
A.0 / A-18 EXISTING EAST ELEVATION
Scale: 3/8" = 1'-0"



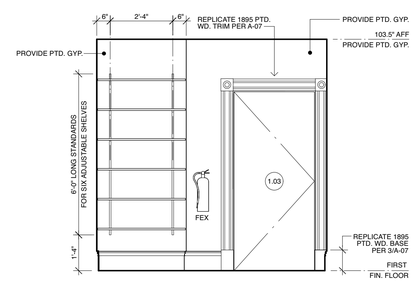
1.0 / A-18 EXISTING PARTIAL PLAN @ S.E. CORNER OF 1ST FLOOR
Scale: 3/8" = 1'-0"



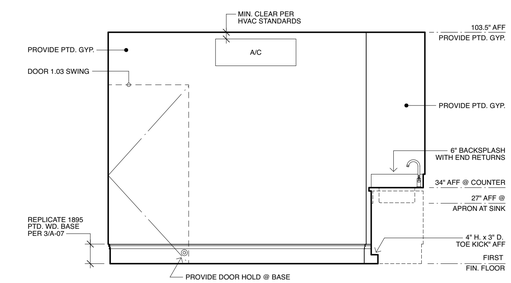
A.1 / A-18 EAST ELEVATION
Scale: 3/8" = 1'-0"



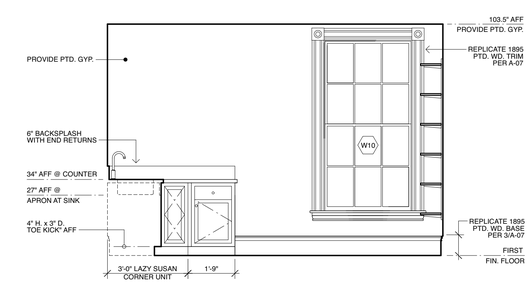
1.1 / A-18 PANTRY PLAN @ S.E. CORNER OF 1ST FLOOR
Scale: 3/8" = 1'-0"



C / A-18 WEST ELEVATION
Scale: 3/8" = 1'-0"



B / A-18 NORTH ELEVATION
Scale: 3/8" = 1'-0"



D / A-18 SOUTH ELEVATION
Scale: 3/8" = 1'-0"

MILLS WHITAKER ARCHITECTS LLC
P.O. BOX 750089
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tel: 617-876-7611
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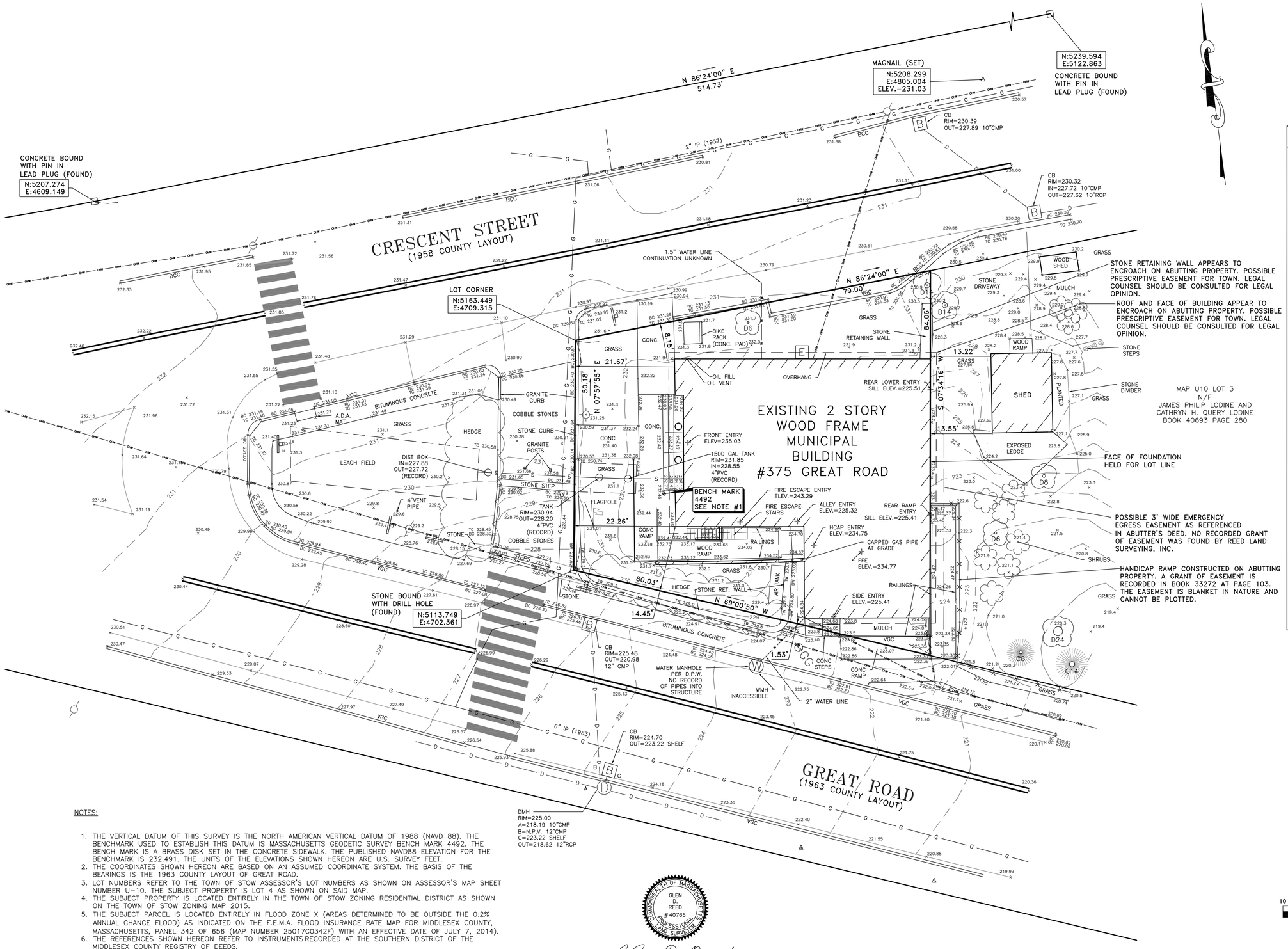
PROJECT NAME: STOW TOWN HALL RESTORATION
PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775
DRAWING TITLE: PANTRY & BALCONY A/V

DATE: 30 JUNE 2022

FINAL CHECK SET NOT FOR CONSTRUCTION

SHEET #: A-18



NOTES:

1. THE VERTICAL DATUM OF THIS SURVEY IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). THE BENCHMARK USED TO ESTABLISH THIS DATUM IS MASSACHUSETTS GEODETIC SURVEY BENCH MARK 4492. THE BENCH MARK IS A BRASS DISK SET IN THE CONCRETE SIDEWALK. THE PUBLISHED NAVD88 ELEVATION FOR THE BENCHMARK IS 232.491. THE UNITS OF THE ELEVATIONS SHOWN HEREON ARE U.S. SURVEY FEET.
2. THE COORDINATES SHOWN HEREON ARE BASED ON AN ASSUMED COORDINATE SYSTEM. THE BASIS OF THE BEARINGS IS THE 1963 COUNTY LAYOUT OF GREAT ROAD.
3. LOT NUMBERS REFER TO THE TOWN OF STOW ASSESSOR'S LOT NUMBERS AS SHOWN ON ASSESSOR'S MAP SHEET NUMBER U–10. THE SUBJECT PROPERTY IS LOT 4 AS SHOWN ON SAID MAP.
4. THE SUBJECT PROPERTY IS LOCATED ENTIRELY IN THE TOWN OF STOW ZONING RESIDENTIAL DISTRICT AS SHOWN ON THE TOWN OF STOW ZONING MAP 2015.
5. THE SUBJECT PARCEL IS LOCATED ENTIRELY IN FLOOD ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD) AS INDICATED ON THE F.E.M.A. FLOOD INSURANCE RATE MAP FOR MIDDLESEX COUNTY, MASSACHUSETTS, PANEL 342 OF 656 (MAP NUMBER 25017C0342F) WITH AN EFFECTIVE DATE OF JULY 7, 2014).
6. THE REFERENCES SHOWN HEREON REFER TO INSTRUMENTS RECORDED AT THE SOUTHERN DISTRICT OF THE MIDDLESEX COUNTY REGISTRY OF DEEDS.
7. THE SEPTIC LOCATION AND INVERT ELEVATIONS SHOWN HEREON ARE FROM RECORD SEPTIC AS–BUILT PLANS ONLY. VERTICAL DATUM USED ON SEPTIC AS–BUILT HAS NOT BEEN VERIFIED BY REED LAND SURVEYING. COVERS WERE BURIED AT TIME OF FIELD SURVEY.
8. THE FIELD SURVEY FOR THIS PROJECT WAS CONDUCTED BETWEEN OCTOBER 16, 2020 AND NOVEMBER 24, 2020.
9. THE UNDERGROUND UTILITY LOCATIONS AND SIZES AS SHOWN HEREON ARE BASED ON AVAILABLE RECORD DATA AND FIELD EVIDENCE AND ARE APPROXIMATE. DIG SAFE SHOULD BE CALLED PRIOR TO ANY EXCAVATIONS.

COMMONWEALTH OF MASSACHUSETTS
GLEN D. REED
40766
PROFESSIONAL LAND SURVEYOR

Glen D. Reed

GLEN D. REED, P.L.S. LICENSE NO. 40766
AS AGENT FOR REED LAND SURVEYING, INC.
NOT INDIVIDUALLY

LEGEND

THESE STANDARD SYMBOLS & ABBREVIATIONS MAY BE FOUND IN THE DRAWING

- STREET SIGN
- FIRE HYDRANT
- DRAIN MANHOLE
- ELECTRIC MANHOLE
- SEWER MANHOLE
- CATCH BASIN
- ELECTRIC BOX/MTR
- GAS METER
- MONITORING WELL
- GAS GATE
- WGV — WATER GATE
- WSO — WATER SHUT OFF
- EHH — ELECTRIC HAND HOLE
- OIL — OIL FILL/TANK
- UTILITY POLE
- LIGHT POLE
- GUY POLE
- GUY WIRE
- YARD LIGHT
- BOUND
- BOUND W/ DRILL HOLE
- BOUND W/ DISK
- DH/IP
- BOULDER
- POST/BOLLARD
- BUSH/SHRUB
- CONIFEROUS TREE
- DECIDUOUS TREE
- PIPE CONTINUATION UNKNOWN
- BC — BOTTOM OF CURB
- BW — BOTTOM OF WALL
- BCC — BIT. CONC CURB
- BIT. — BITUMINOUS
- CONC. — CONCRETE
- D.I. — DUCTILE IRON
- DH — DRILL HOLE
- D12 — 12" DECIDUOUS (SIZE VARIES)
- C12 — 12" CONIFEROUS (SIZE VARIES)
- EP — EDGE OF PAVEMENT
- (FD) — FOUND
- GW — GUY WIRE
- IP — IRON PIPE
- LSA — LANDSCAPED AREA
- NPV — NO PIPES VISIBLE
- RCP — REINFORCED CONCRETE PIPE
- RET. — RETAINING
- SBDH — STONE BOUND DRILL HOLE
- SGC — SLOPED GRANITE CURB
- TC — TOP OF CURB
- TW — TOP OF WALL
- UP — UTILITY POLE
- V.C. — VITRIFIED CLAY
- VCC — VERTICAL CONCRETE CURB
- VGC — VERTICAL GRANITE CURB

UTILITY LINE LEGEND

DRAINAGE	D
SEWER	S
WATER	W
GAS	G
ELECTRIC	E
UNDERGROUND ELECTRIC	UE
OVERHEAD WIRES	OHW

LOCUS DATA

OWNER:
TOWN OF STOW

TITLE REFERENCE:
BOOK 524 PAGE 512
JANUARY 10, 1848

AREA:
5,214± SQUARE FEET

10 0 10 20
SCALE: 1"=10'

Reed
Land Surveying, Inc.
109 RHODE ISLAND ROAD, SUITE 4A
LAKEVILLE, MASSACHUSETTS 02347
(508) 923-1181 FAX. (508) 923-1191

© 2020 REED LAND SURVEYING, INC.

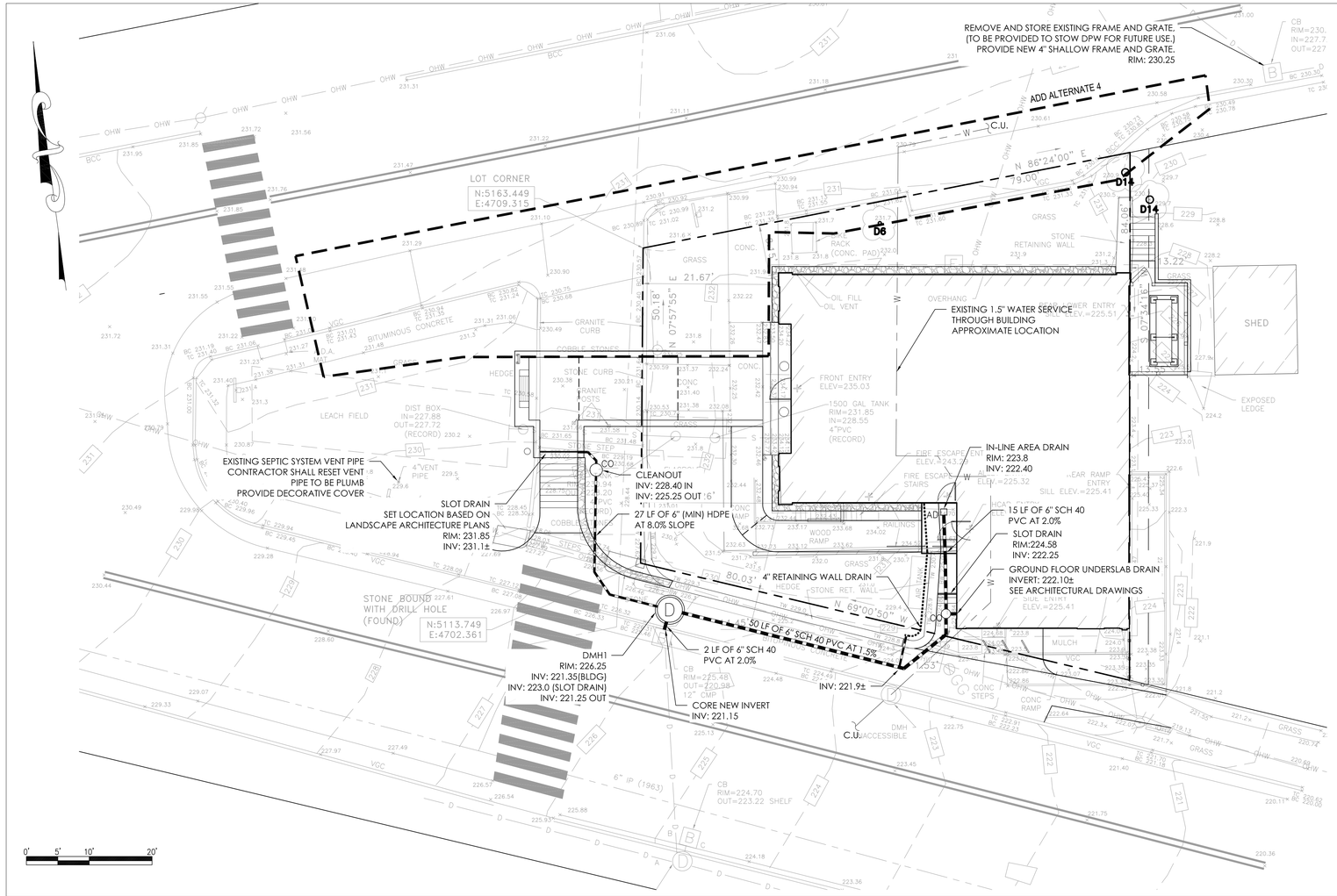
MILLS
WHITAKER
ARCHITECTS
LLC
P.O. BOX 750089
ARLINGTON MA 02475
tel: 617–876–7611
fax: 617–876–6420

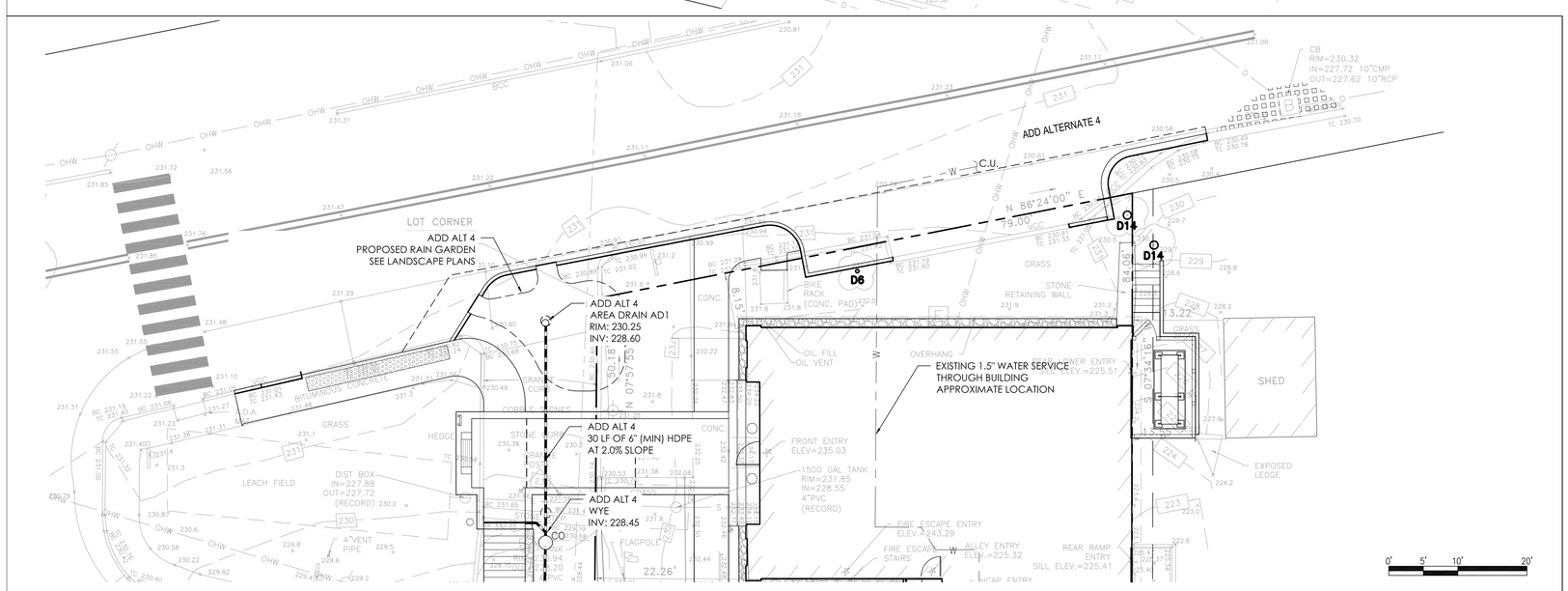
PROJECT NAME: STOW TOWN HALL RESTORATION
PROJECT ADDRESS: 375 GREAT ROAD
STOW MA 01775

DRAWING TITLE: EXISTING SITE SURVEY

DATE: 25 MARCH 2021

SHEET #: V–01





1 ADD ALTERNATE 4
NOT TO SCALE

UTILITY LEGEND

	PROPERTY LINE
	EXISTING BUILDING
W	EXISTING WATER SERVICE
S	EXISTING SEWER SERVICE
97	EXISTING CONTOUR LINE
	PROPOSED DRAIN LINE
D	PROPOSED DRAIN MANHOLE
LB	PROPOSED LEACHING BASIN
	PROPOSED AREA DRAIN
C.U.	CONTINUATION UNKNOWN

GENERAL NOTES

1. EXISTING CONDITIONS INFORMATION IS REPRODUCED FROM THE SURVEY PREPARED BY REED LAND SURVEYING, INC. DATED NOVEMBER 6, 2020.
2. SCREENED IMAGES SHOW EXISTING CONDITIONS. WHERE EXISTING CONDITIONS LIE UNDER OR ARE IMPINGED UPON BY PROPOSED BUILDINGS AND/OR SITE ELEMENTS, THE EXISTING CONDITION WILL BE REMOVED, ABANDONED AND/OR CAPPED OR DEMOLISHED AS REQUIRED.
3. THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN ARE BASED ON THE SURVEY REFERENCED ABOVE. PRIOR TO THE START OF ANY EXCAVATION, THE CONTRACTOR SHALL NOTIFY DIGSAFE AND THE PROPER LOCAL AUTHORITIES OR RESPECTIVE UTILITY COMPANIES TO CONFIRM THE LOCATION OF ALL EXISTING UTILITIES. ANY DAMAGE DUE TO FAILURE OF THE CONTRACTOR TO CONTACT THE PROPER AUTHORITIES SHALL BE BORNE BY THE CONTRACTOR.
4. CONTRACTOR SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL CONSTRUCTION DOCUMENTS, SPECIFICATIONS AND SITE CONDITIONS PRIOR TO BIDDING AND PRIOR TO CONSTRUCTION.
5. ANY DISCREPANCIES BETWEEN DRAWINGS, SPECIFICATIONS, AND SITE CONDITIONS SHALL BE REPORTED IMMEDIATELY TO THE OWNER'S REPRESENTATIVE FOR CLARIFICATION AND RESOLUTION PRIOR TO BIDDING OR CONSTRUCTION.
6. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING CONDITIONS TO REMAIN THAT ARE DUE TO CONTRACTOR OPERATIONS.
7. ALL ITEMS TO BE REMOVED THAT ARE NOT STOCKPILED FOR LATER REUSE ON THE PROJECT OR DELIVERED TO THE OWNER SHALL BE LEGALLY DISPOSED OF BY THE CONTRACTOR.

UTILITY NOTES

1. CONTRACTOR TO ADJUST UTILITY ELEMENT MEANT TO BE FLUSH WITH GRADE (CLEAN-OUTS, UTILITY MANHOLES, CATCH BASINS, INLETS, ETC.) THAT IS AFFECTED BY SITE WORK OR GRADE CHANGES, WHETHER SPECIFICALLY NOTED ON PLANS OR NOT.
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
3. THE CONTRACTOR SHALL ALTER THE MASONRY OF THE TOP SECTION OF ALL EXISTING DRAINAGE STRUCTURES AS NECESSARY FOR CHANGES IN GRADE, AND RESET ALL WATER AND DRAINAGE FRAMES, GRATES, AND BOXES TO THE PROPOSED FINISH SURFACE GRADE.
4. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF ALL GAS, ELECTRIC, TELEPHONE, AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES.
5. CONTRACTOR SHALL MAINTAIN, OR ADJUST TO NEW FINISH GRADE, AS NECESSARY ALL UTILITY AND SITE STRUCTURES SUCH AS: LIGHT POLES, SIGN POLES, MANHOLES, CATCH BASINS, HAND HOLES, WATER AND GAS GATES, HYDRANTS, ETC., FROM MAINTAINED UTILITY AND SITE SYSTEMS, UNLESS OTHERWISE NOTED OR DIRECTED BY OWNER'S REPRESENTATIVE.
6. ALL SEWER PIPES SHALL BE PVC PER ASTM D3034, SDR-35 AND ASTM D1784 WITH RUBBER GASKET JOINTS.
7. SITE LIGHTING IS SHOWN FOR COORDINATION PURPOSES ONLY. REFER TO ELECTRICAL PLANS FOR EXACT TYPE AND LOCATION.
8. REFER TO ELECTRICAL PLANS FOR SECTIONS AND DETAILS OF THE UTILITY DUCT BANK.
9. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION, AT THE CONTRACTOR'S EXPENSE.
10. REFER TO ARCHITECTURAL PLANS FOR PROPOSED LOCATION OF UTILITY SERVICE STUBS AT BUILDING.
11. THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY, THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRICAL.) FINAL DESIGN AND LOCATIONS AT THE BUILDING WILL BE PROVIDED BY THE ARCHITECT. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE UTILITY CONNECTIONS WITH THE RESPECTIVE COMPANIES PRIOR TO ANY UTILITY CONSTRUCTION.
12. CONTRACTOR SHALL PROVIDE ALL FITTINGS, BENDS, RESTRAINTS, THRUST BLOCKS, AND OTHER APPURTENANCES NECESSARY FOR INSTALLATION OF WATER SERVICE WHETHER SPECIFICALLY NOTED OR NOT.

SEPTIC VENT COVER

DECORATIVE SEPTIC VENT COVER SHALL BE ONE OF THE FOLLOWING:

- CREATEK STONE COVER (GRANITE POST) BY INFILTRATOR WATER TECHNOLOGIES, LLC
- PAGODA VENT COVER BY THE PAGODA VENT COMPANY, KITTERY MAINE.
- ROCK ENCLOSURE MODEL 113 AS MANUFACTURED BY DEKORRA.

PVI SITE DESIGN
PVI Site Design, LLC
Civil Engineering - Land Entitlements
Master Planning - Project Management
339-206-1030

MILLS WHITAKER ARCHITECTS LLC
P.O. BOX 750089
ARLINGTON MA 02475
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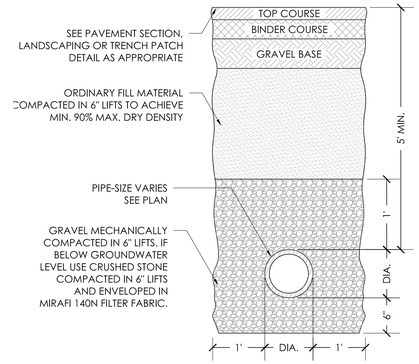
fax: 617-876-6420

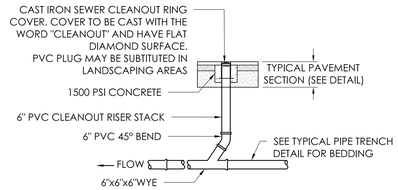
PROJECT NAME: STOW TOWN HALL RESTORATION
PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775
DRAWING TITLE: UTILITY PLAN

DATE: 30 JUNE 2022

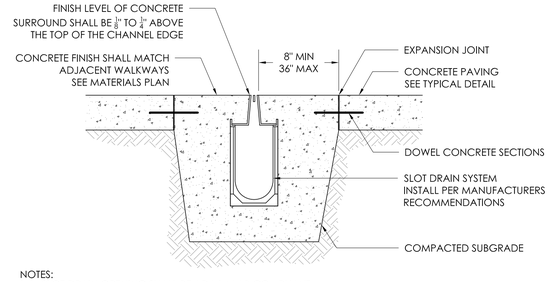
SHEET #: C-01



1 TYPICAL DRAIN PIPE TRENCH
NOT TO SCALE

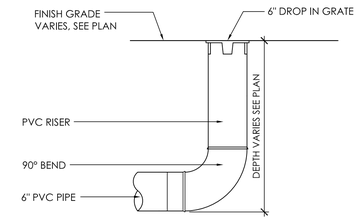


2 TYPICAL CLEAN OUT
NOT TO SCALE

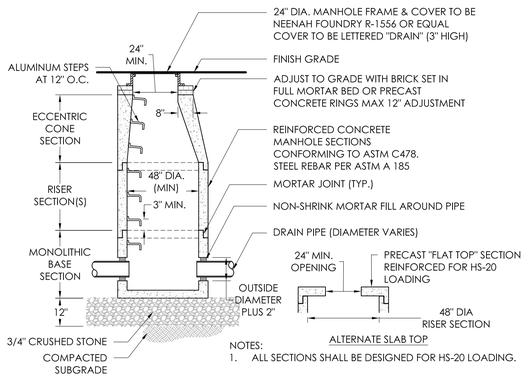


NOTES:
1. SLOT DRAIN OPENING SHALL BE ADA/MAAB COMPLIANT.
2. SLOT DRAIN SHALL BE SET IN 4,000 PSI (MIN) CONCRETE

3 TYPICAL SLOTTED DRAIN
NOT TO SCALE



4 TYPICAL IN-LINE AREA DRAIN
NOT TO SCALE



NOTES:
1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.

5 TYPICAL DRAIN MANHOLE
NOT TO SCALE

PVI SITE DESIGN
PVI Site Design, LLC
Civil Engineering - Land Entitlements
Master Planning - Project Management
339-206-1030

MILLS WHITAKER ARCHITECTS LLC
P.O. BOX 750089
ARLINGTON MA 02475
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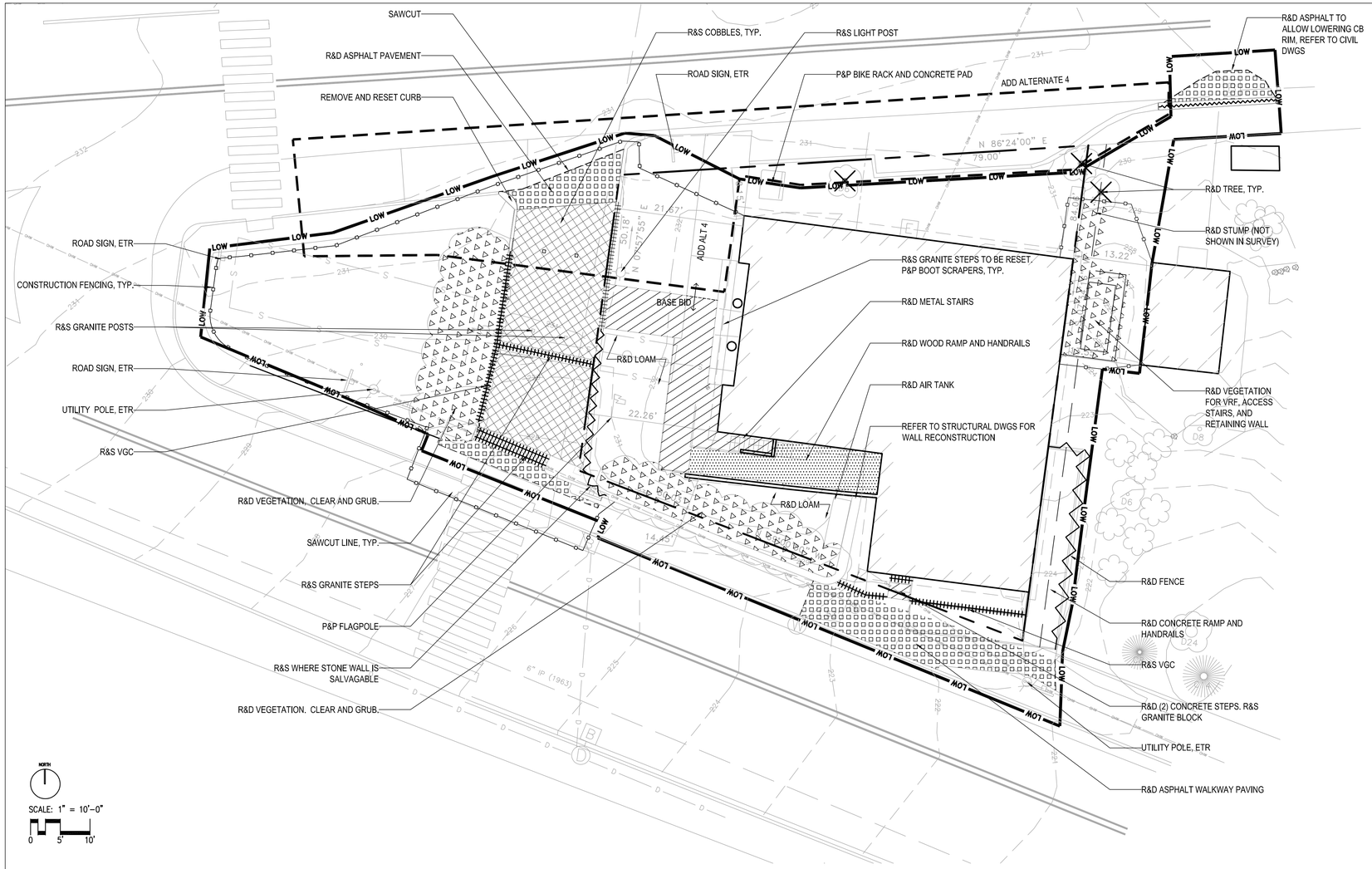
fax: 617-876-6420

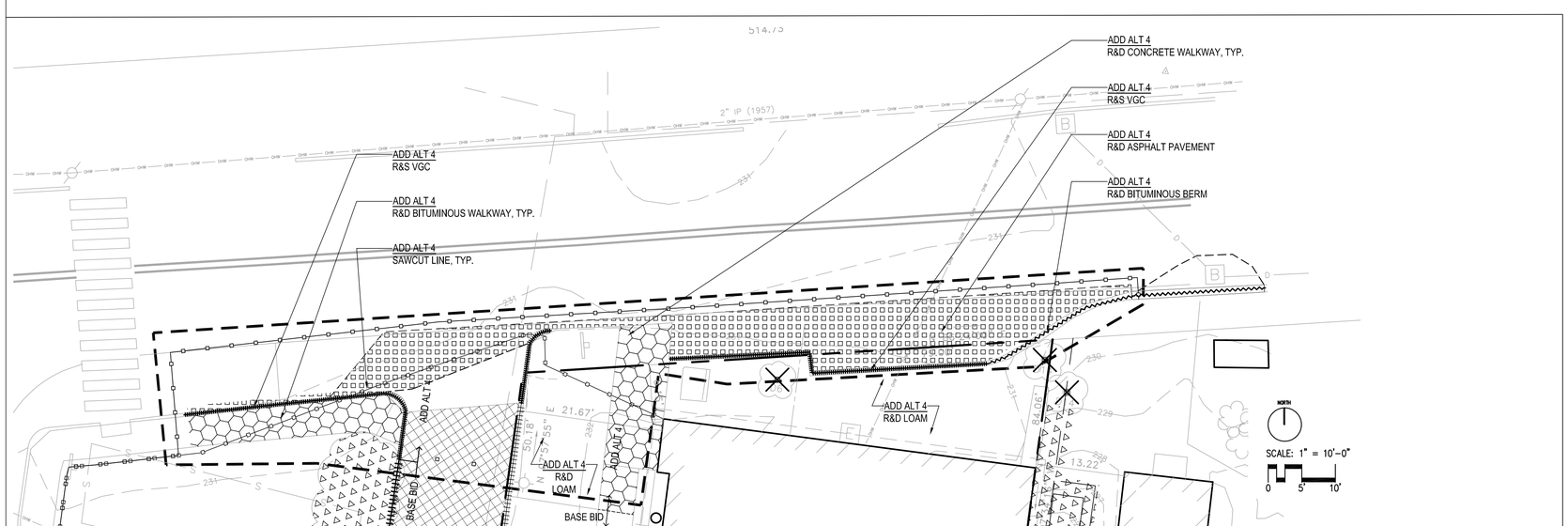
PROJECT NAME: STOW TOWN HALL RESTORATION
PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: DETAILS

DATE: 30 JUNE 2022

SHEET #: C-02





2 ADD ALTERNATE 4
SCALE 1"=10'-0"

NOTES:

1. EXISTING CONDITIONS INFORMATION FROM A SURVEY PERFORMED BY REED LAND SURVEYING, INC., 109 RHODE ISLAND ROAD SUITE 4A, LAKEVILLE, MA 02347, DATED DECEMBER 2, 2020.
2. CONTRACTOR SHALL REMOVE ALL EXISTING FOOTINGS, PAVEMENT, WALKS, WALLS, TREES AND SHRUBS NECESSARY TO COMPLETE THE WORK UNDER THIS CONTRACT. ALL ITEMS, INCLUDING BUT NOT LIMITED TO; STRUCTURES AND RELATED FOOTINGS, SITE AMENITIES, FENCES AND FENCE FOOTINGS, HAND RAILS, SIGNS, LIGHT POSTS AND LIGHT POST FOOTINGS LOCATED WITHIN THE LIMIT OF WORK LINE SHALL BE REMOVED AND LEGALLY DISPOSED OF UNLESS NOTED OTHERWISE. REFER TO CIVIL, ARCHITECTURAL, AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION REGARDING REMOVAL AND DEMOLITION REQUIREMENTS.
3. ITEMS TO BE SALVAGED SHALL BE STORED ON-SITE WITHIN CONSTRUCTION FENCING AND SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION.
4. SALVAGE ALL SITE SIGNAGE REQUIRED TO BE REMOVED BY THE WORK OF THIS PROJECT, AND PROVIDE TO OWNER'S REPRESENTATIVE. DISPOSE OF FOOTINGS AND DAMAGED POSTS.
5. REFER TO CIVIL DRAWINGS FOR TREATMENT OF EXISTING SITE UTILITIES AND DRAINAGE SYSTEMS. REFER TO ELECTRICAL SITE PLANS FOR TREATMENT OF EXISTING SITE ELECTRICAL.
6. CONTRACTOR SHALL NOTIFY DIGSAFE (1-888-DIG-SAFE) AND VERIFY UNDERGROUND UTILITIES PRIOR TO EXCAVATION.
7. CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED TO ROADS, WALKS, UTILITIES, SITE IMPROVEMENTS, EXISTING OR PROPOSED, DAMAGED BY THIS PROJECT.
8. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO STARTING WORK.
9. ALL WORK SHALL COMPLY WITH ALL LOCAL AND STATE REGULATORY AGENCIES' REQUIREMENTS.
10. CONTRACTOR SHALL PROTECT ALL TREES TO REMAIN WITHIN THE LIMIT OF WORK.
11. REMOVE AND DISPOSE OF ALL STRIPPED TOPSOIL ON SITE.

SITE PREPARATION LEGEND:

	REMOVE AND SALVAGE COBBLES
	REMOVE AND DISPOSE ASPHALT PAVEMENT
VGC	VERTICAL GRANITE CURB
ETR	EXISTING TO REMAIN
R&S	REMOVE AND SALVAGE
R&D	REMOVE AND DISPOSE
P&P	PRESERVE AND PROTECT
	R & D TREE (AND GRUB)

BASE BID LEGEND:

	REMOVE AND DISPOSE WOOD WALKWAY
	REMOVE AND DISPOSE CONCRETE WALKWAY PAVEMENT
	R&D ASPHALT PAVEMENT
	R&D VEGETATION, CLEAR AND GRUB
	SAWCUT LINE
	R&S REUSABLE WALL STONE
	R&D FENCING
	R&S REUSABLE VGC
	R&D BITUMINOUS CURB

ADD ALT LEGEND:

	REMOVE AND DISPOSE CONCRETE WALKWAY PAVEMENT
	R&D ASPHALT PAVEMENT
	SAWCUT LINE
	R&S REUSABLE VGC
	R&D BITUMINOUS CURB

WARNER LARSON
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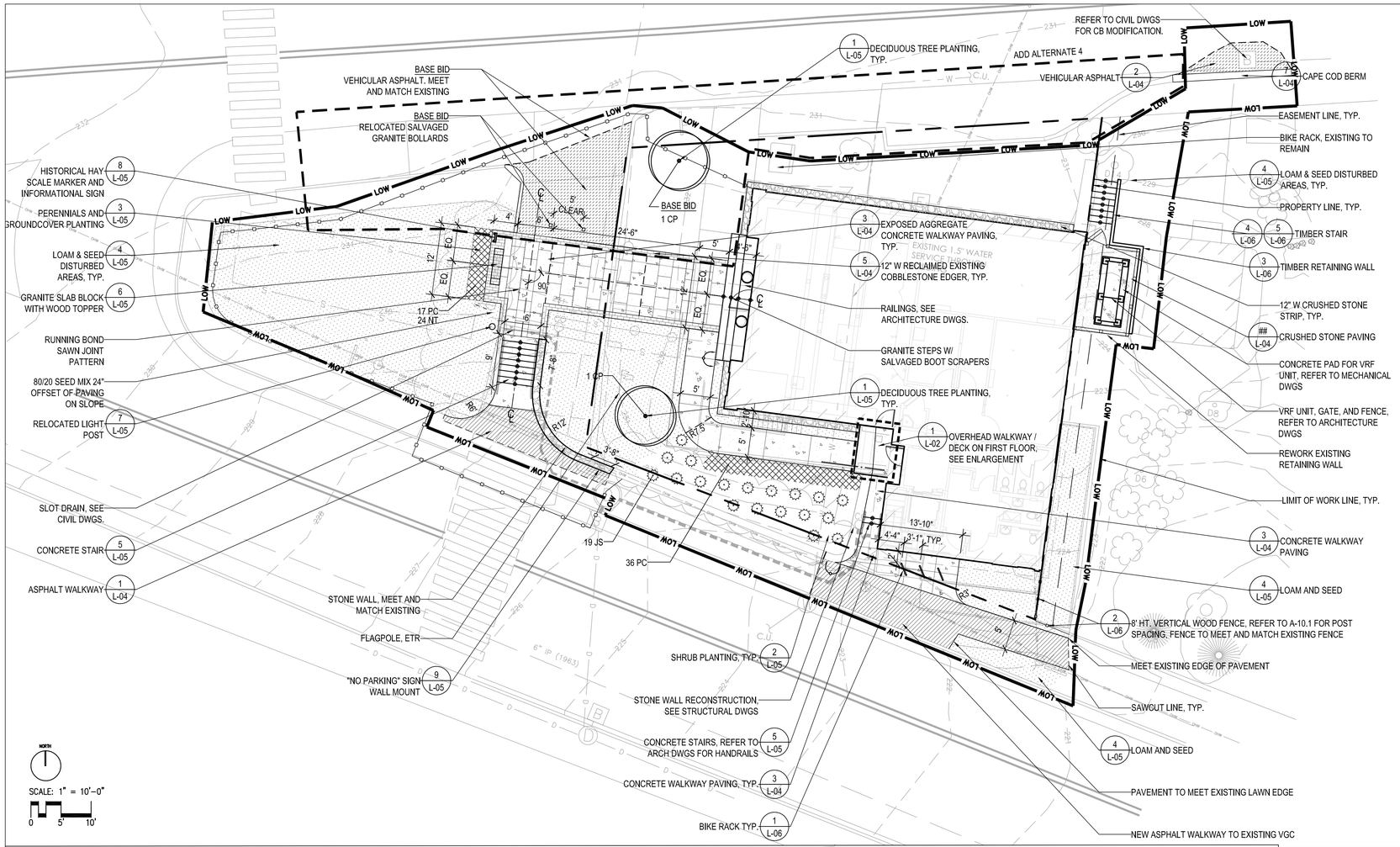
MILLS WHITAKER ARCHITECTS LLC
P.O. BOX 750089
ARLINGTON MA 02475
tel: 617-876-7611
fax: 617-876-6420

PROJECT NAME: STOW TOWN HALL RESTORATION
PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: SITE PREPARATON PLAN

DATE: 30 JUNE 2022

SHEET #: L-01



NOTES:

1. EXISTING CONDITIONS INFORMATION IS FROM A SURVEY PERFORMED BY REED LAND SURVEYING, INC., 109 RHODE ISLAND ROAD SUITE 4A, LAKEVILLE, MA 02347, DATED DECEMBER 2, 2020.
2. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO STARTING WORK.
3. CONTRACTOR SHALL NOTIFY DIGSAFE 1-888-DIG-SAFE AND VERIFY UNDERGROUND UTILITIES PRIOR TO EXCAVATION.
4. CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED TO ROADS, WALKS, UTILITIES, SITE IMPROVEMENTS, EXISTING OR PROPOSED, DAMAGED BY THIS PROJECT.
5. ITEMS INDICATED AS "RELOCATED" ARE SALVAGED AND STORED FROM EXISTING SITE AND ARE TO BE INSTALLED BY THE GENERAL CONTRACTOR.
6. CONTRACTOR SHALL COORDINATE LOCATION OF ALL UTILITIES (LINES, DUCTS, CONDUITS, SLEEVES, FOOTINGS) WITH LOCATIONS OF PROPOSED LANDSCAPE ELEMENTS (WALLS, TREE ROOTBALLS, PROPOSED LIGHTING FOOTINGS). CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO CONTINUING WORK.
7. CONTRACTOR SHALL STAKE OUT ALL SITE IMPROVEMENTS BOTH HORIZONTALLY AND VERTICALLY IN THE FIELD, AND SUCH STAKEOUT TO BE APPROVED BY THE ARCHITECT PRIOR TO CONSTRUCTION.
8. DIMENSIONS TO CURB LINES ARE TO THE FACE OF THE CURB. DIMENSIONS TO SITE OR BUILDING WALLS ARE TO THE OUTSIDE (OR EXPOSED) FACE OF WALL UNLESS OTHERWISE NOTED.
9. ALL LINES AND DIMENSIONS ARE PARALLEL OR PERPENDICULAR TO THE LINES FROM WHICH THEY ARE MEASURED UNLESS OTHERWISE NOTED.
10. THE DIMENSIONS SHOWN ON THE DRAWINGS SHOW DESIGN INTENT AND MUST BE FIELD VERIFIED PRIOR TO PREPARATION OF SHOP DRAWINGS.
11. PROVIDE EXPANSION JOINTS IN CONCRETE WALKS AT 30' O.C. AND CONTROL JOINTS AT 10' O.C. AS PER SPECIFICATIONS, UNLESS OTHERWISE INDICATED ON DRAWINGS.
12. ALL CURVES SHALL BE SMOOTH, CONTINUOUS RADII. NO STRAIGHT SECTIONS OR ABRUPT TRANSITIONS.
13. ALL CHANGES IN PAVEMENT MATERIALS SHALL BE FLUSH WITH EACH OTHER UNLESS OTHERWISE SHOWN.
14. IF EXISTING TREE, UTILITIES OR STRUCTURES IMPEDE EXCAVATION ACTIVITIES IN ANY MANNER, CONTRACTOR SHALL INFORM THE ARCHITECT AND OWNER PRIOR TO CONTINUING WITH CONSTRUCTION ACTIVITIES.
15. GROUND FLOOR ARCHITECTURE FLOOR PLAN SHOWN

LAYOUT LEGEND:

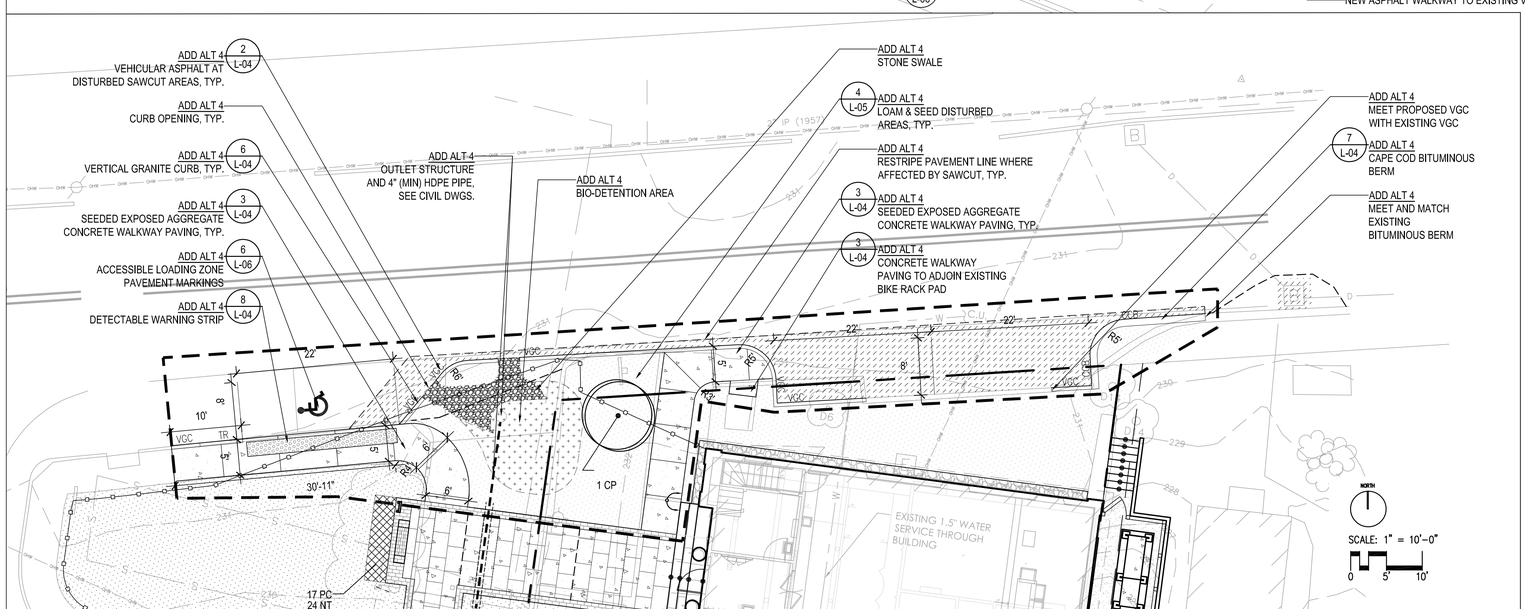
- CENTERLINE
- ALIGN
- DIMENSION (7'-6")

PLANTING LEGEND:

- LOAM AND SEED
- GROUNDCOVER PLANTING, SEE PLANT SCHEDULE
- DECIDUOUS TREE PLANTING, SEE PLANT SCHEDULE
- SHRUB PLANTING, SEE PLANT SCHEDULE

MATERIALS LEGEND:

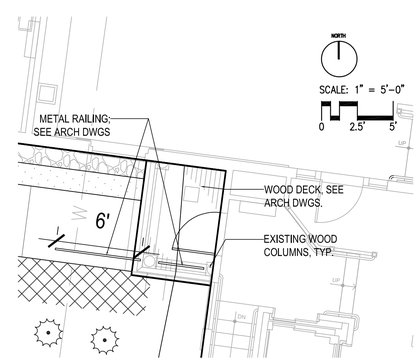
- EXPOSED AGGREGATE CONCRETE WALKWAY PAVING
- ASPHALT WALKWAY PAVING
- VEHICULAR ASPHALT PAVING
- RECLAIMED GRANITE COBBLE EDGER
- SAWCUT LINE
- VGC — VERTICAL GRANITE CURB
- ETR — EXISTING TO REMAIN
- EJ — EXPANSION JOINT
- L&S — LOAM AND SEED, SEE PLANTING PLAN FOR FINAL SURFACE TREATMENT



2 ADD ALTERNATE 4
SCALE 1"=10'-0"

PLANT_SCHEDULE

TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
CP	2	Carpinus caroliniana 'CCSQU' TM	Palisade American Hornbeam	2.5-3" cal. B&B	
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
JS	19	Juniperus chinensis 'Sargentii'	Sargent Juniper	2 gal.	
GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
PC	53	Panicum virgatum 'Cape Breeze'	Cape Breeze Switch Grass	2 gal.	18" O.C.
NT	24	Narcissus *Tete-a-Tete*	Tete-a-Tete Daffodil	BULB	3/GRP 18" O.C.



1 1ST FLOOR ACCESS ENLARGEMENT
SCALE 1"=5'-0"

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617.464.1440 warnerlarson.com

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ARLINGTON MA 02475
tel: 617-876-7611
fax: 617-876-6420

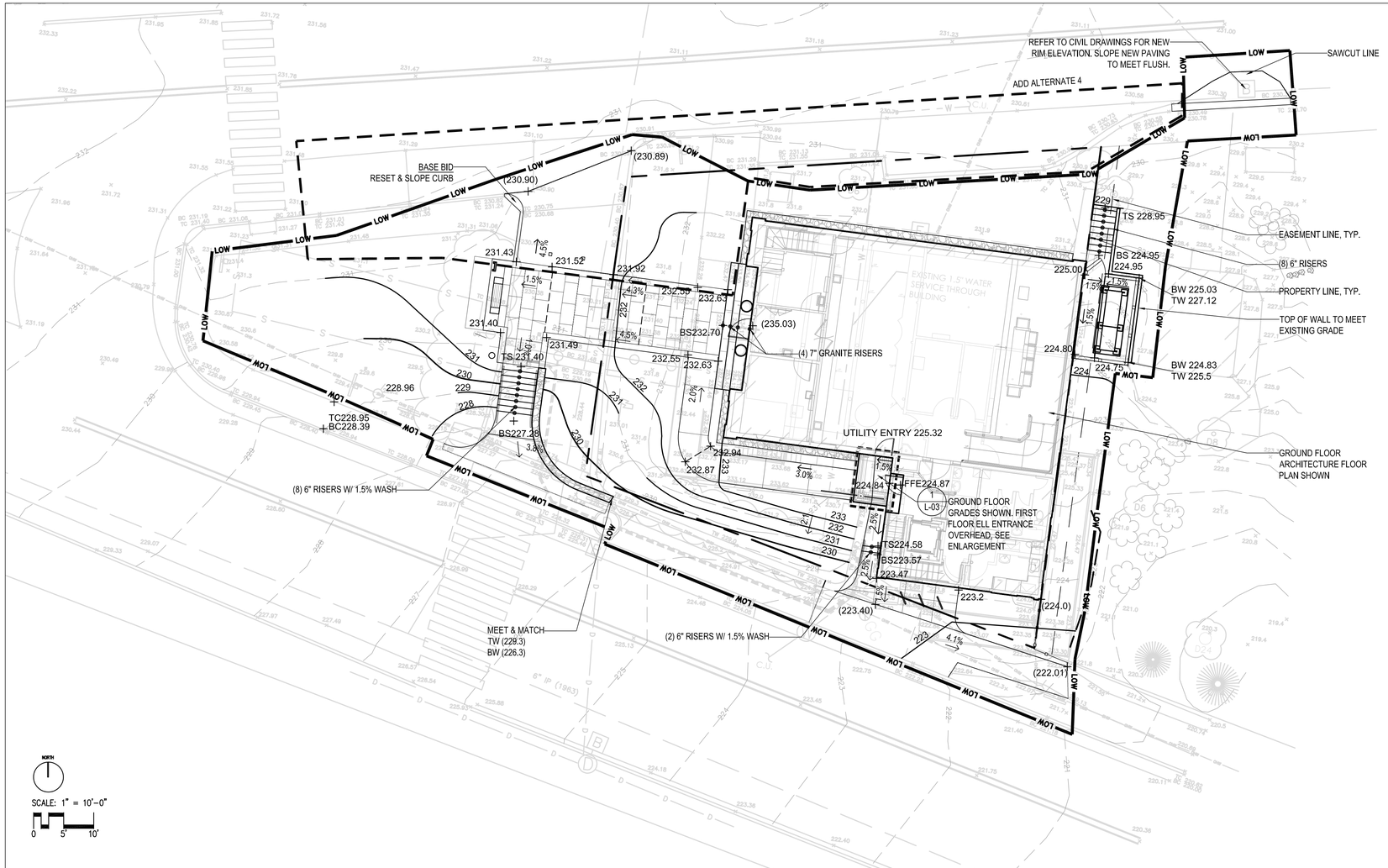
STOW TOWN HALL RESTORATION
375 GREAT ROAD
STOW MA 01775

LAYOUT, MATERIALS, & PLANTING PLAN

PROJECT NAME:
PROJECT ADDRESS:
DRAWING TITLE:

DATE: 30 JUNE 2022

SHEET #:
L-02

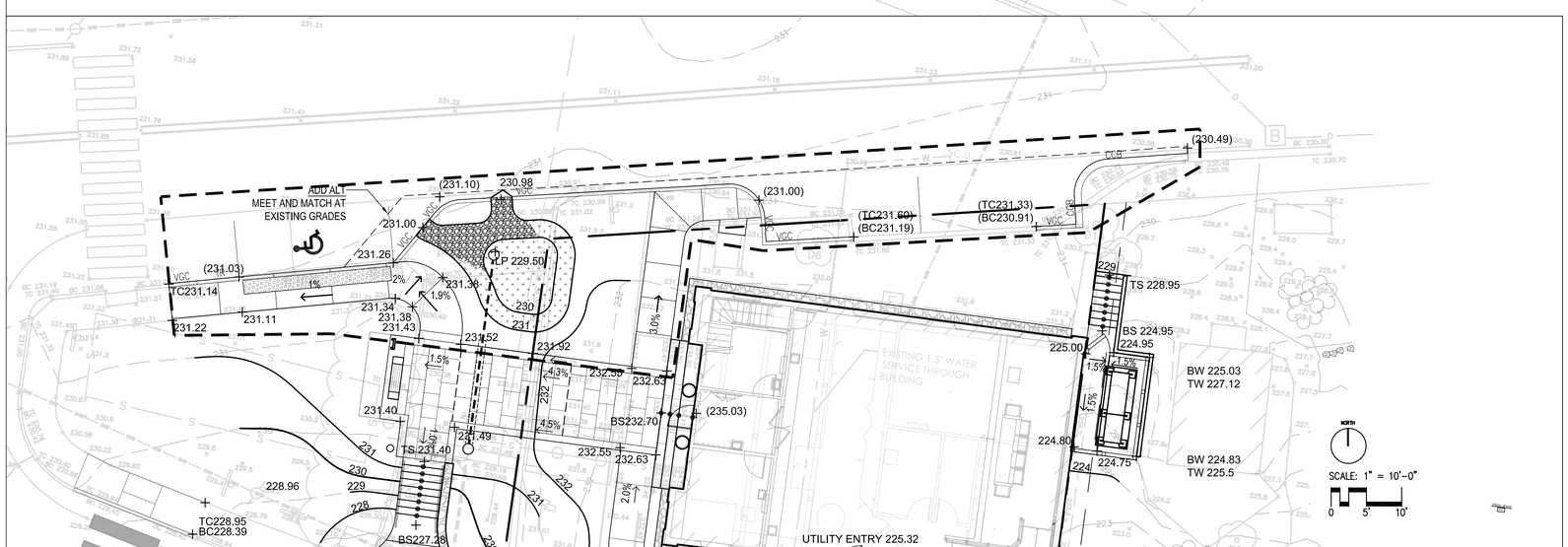


NOTES:

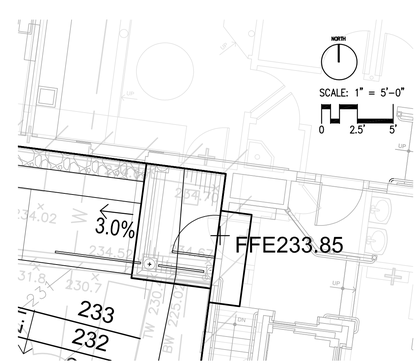
1. EXISTING CONDITIONS INFORMATION IS FROM A SURVEY PERFORMED BY REED LAND SURVEYING, INC., 109 RHODE ISLAND ROAD SUITE 4A, LAKEVILLE, MA 02347, DATED DECEMBER 2, 2020.
2. CONTRACTOR SHALL STAKE OUT ALL SITE IMPROVEMENTS BOTH HORIZONTALLY AND VERTICALLY IN THE FIELD, AND SUCH STAKEOUT TO BE APPROVED BY THE ARCHITECT PRIOR TO CONSTRUCTION.
3. SPOT GRADES AND CONTOURS INDICATED ON THE THIS PLAN DESCRIBE FINAL SURFACE ELEVATIONS FOR COMPLETED CONSTRUCTION.
4. ALL CHANGES IN PAVEMENT MATERIALS SHALL BE FLUSH WITH EACH OTHER UNLESS OTHERWISE SHOWN.
5. SEE CIVIL DRAWINGS FOR ALL SUBSURFACE DRAINAGE SYSTEMS INCLUDING UNDERDRAINS AND DRAIN STRUCTURES.
6. IF EXISTING TREE, UTILITIES OR STRUCTURES IMPEDE EXCAVATION ACTIVITIES IN ANY MANNER, CONTRACTOR SHALL INFORM THE ARCHITECT AND OWNER PRIOR TO CONTINUING WITH CONSTRUCTION ACTIVITIES.
7. SLOPES SHALL NOT EXCEED 3:1 SLOPE EXCEPT AS SHOWN ON THE PLANS
8. EXTERIOR CONCRETE PAVING AT DOOR THRESHOLDS SHALL BE FLUSH WITH FINISH FLOOR ELEVATION (UNLESS OTHERWISE SHOWN) AND SHALL SLOPE AT 1.5% PITCH AWAY FROM THE BUILDING, WITH EXCEPTION OF WALK-OFF GRATES. REFER TO STRUCTURAL DRAWINGS FOR DETAIL OF PAVEMENT / BUILDING CONNECTION
9. ALL PAVED WALKWAY AREAS, PLAZAS , CROSSWALKS, ACCESSIBLE PARKING SPACES, AND ASSOCIATED ACCESS AISLES AND ACCESSIBLE ROUTES SHALL BE GRADED SUCH THAT THEY ARE IN FULL COMPLIANCE WITH THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD RULES AND REGULATIONS.

GRADING LEGEND:

650	EXISTING CONTOUR
650	PROPOSED CONTOUR
+ 553.1 (556.15)	EXISTING SPOT ELEVATION
+ 556.15	PROPOSED SPOT ELEVATION
4.5% →	PROPOSED SLOPE
TS BS	TOP OF STAIR BOTTOM OF STAIR
TW BW	TOP OF WALL BOTTOM OF WALL
TC BC	TOP OF CURB BOTTOM OF CURB
TH	DOOR THRESHOLD
HP	HIGH POINT



2 ADD ALTERNATE 4
SCALE 1"=10'-0"



1 1ST FLOOR ACCESS ENLARGEMENT
SCALE 1"=5'-0"

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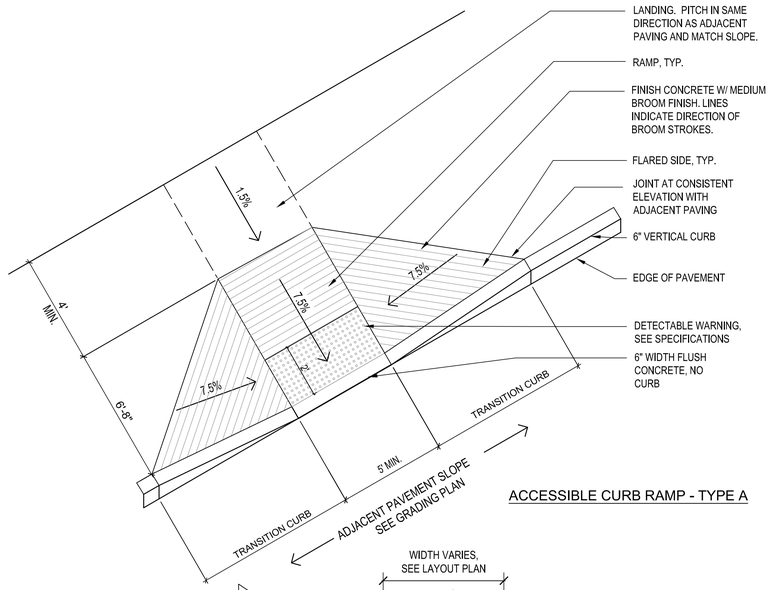
fax: 617-876-6420

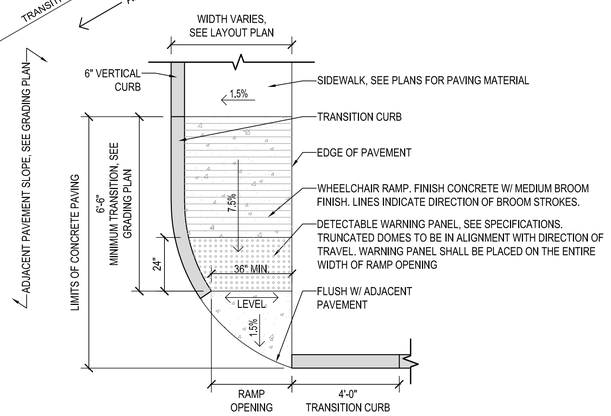
PROJECT NAME: STOW TOWN HALL RESTORATION
PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775
DRAWING TITLE: GRADING PLAN

DATE: 30 JUNE 2022

SHEET #: L-03



ACCESSIBLE CURB RAMP - TYPE A



ACCESSIBLE CURB RAMP - TYPE C

TRANSITION CURB LENGTH CHART ON 7.5% SLOPE RAMP W/ 6" CURB REVEAL

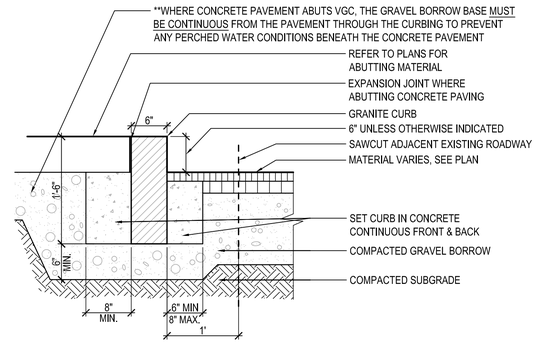
ADJACENT PAVEMENT SLOPE	TRANSITION LENGTH UPHILL SIDE	TRANSITION LENGTH DOWNHILL SIDE
0%	6.5'	6.5'
0-1%	7'-8"	6.5'
>1-2%	9.0'	6.5'
>2-3%	11.0'	6.5'
>3-4%	14.0'	6.5'
>4-5%	15.0' MAX	6.5'

NOTES:

1. CURBS AND WALKS ALONG ACCESSIBLE CURB RAMPS SHALL CONFORM TO THE APPLICABLE REGULATIONS OF THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD AND THE AMERICANS WITH DISABILITIES ACT. NON-CONFORMING WORK SHALL BE REMOVED AND REINSTALLED AT THE CONTRACTORS EXPENSE.
2. MAXIMUM SLOPE ON RAMP NOT TO EXCEED 8.0%. MAXIMUM CROSS SLOPE PERPENDICULAR TO RAMP NOT TO EXCEED 1.8%.
3. MAXIMUM SLOPE ON LANDING NOT TO EXCEED 1.8%. MINIMUM SLOPE ON LANDING NOT TO BE LESS THAN 1%.
4. MAXIMUM TRANSITION CURB AND FLARED SIDE SLOPES NOT TO EXCEED 8.0%. MINIMUM TRANSITION CURB AND FLARED SIDE SLOPE NOT TO BE LESS THAN 7%.
5. SOME ACCESSIBLE CURB CUT CONFIGURATIONS INDICATED MAY REQUIRE RADIAL TRANSITION CURBS. SEE LAYOUT DRAWING FOR RADIAL DIMENSIONS.
6. DETECTABLE WARNING SURFACE COLOR TO CONTRAST ADJACENT PAVING MATERIAL: DARK WITH LIGHT OR LIGHT WITH DARK AS DEFINED IN THE AMERICANS WITH DISABILITIES ACT, SEE SPECIFICATIONS.
7. CURB CUTS SHALL BE PERPENDICULAR TO THE CURB, UNLESS OTHERWISE SHOWN.
8. REFER TO TRANSITION CURB LENGTH CHART FOR TRANSITION CURB LENGTHS.
9. PROVIDE POSITIVE DRAINAGE AWAY FROM BOTTOM OF CURB RAMPS TO PREVENT PONDING.
10. ALL RAMPS SHALL BE CONCRETE PAVING PER DETAIL

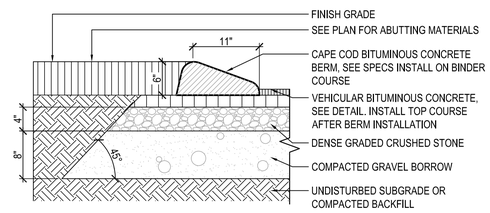
10 ACCESSIBLE CURB RAMP

SCALE: 3/8" = 1'-0"



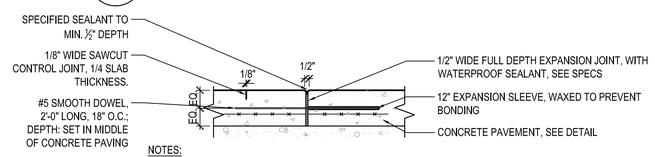
6 VERTICAL GRANITE CURB

SCALE: 1" = 1'-0"



7 CAPE COD BITUMINOUS CONCRETE BERM

SCALE: 1" = 1'-0"

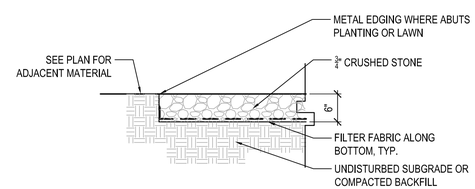


NOTES:

1. DOWEL IS TYPICAL AT ALL EXPANSION JOINTS WITHIN CONCRETE PAVING AND BETWEEN CONCRETE PAVING AND CONCRETE STAIRS.
2. DELETE EXPANSION SLEEVE AND DOWEL WHERE JOINT ABUTS RETAINING WALL, CURBS, OR OTHER FIXED OBJECTS.
3. INSTALL JOINTS AS SHOWN ON PLAN. EXPANSION JOINTS AT A MAXIMUM OF 30' APART AND CONTROL JOINTS AT A MAXIMUM OF 10' APART UNLESS SPACED MORE CLOSELY ON THE PLANS.

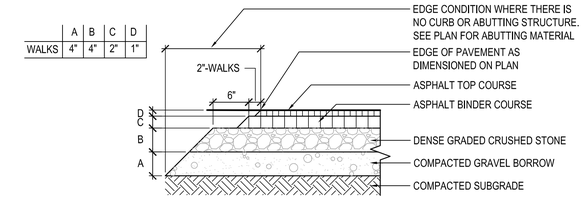
8 DETECTABLE WARNING

SCALE: 1" = 1'-0"



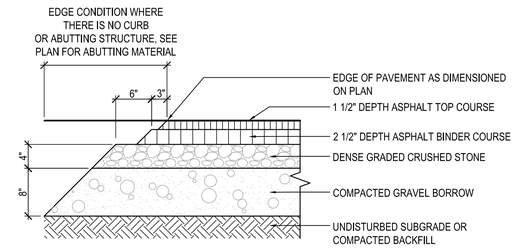
9 CRUSHED STONE PAVING

SCALE: 1" = 1'-0"



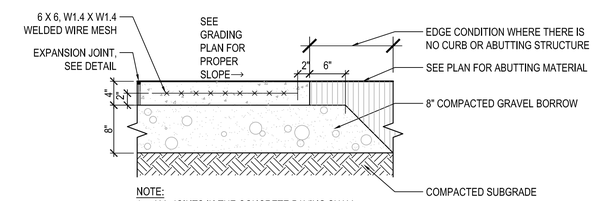
1 ASPHALT WALKWAY PAVING

SCALE: 1" = 1'-0"



2 VEHICULAR ASPHALT PAVING

SCALE: 1" = 1'-0"

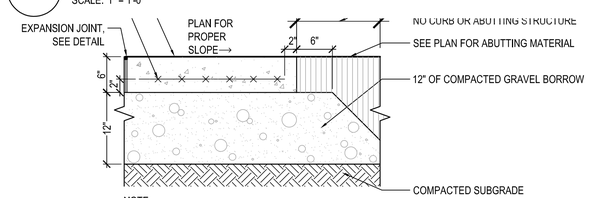


NOTE:

1. ALL JOINTS IN THE CONCRETE PAVING SHALL CONFORM WITH THE JOINT PATTERN SHOWN ON THE PLANS.
2. PAVEMENT SHALL HAVE A MEDIUM BROOM FINISH, PERPENDICULAR TO PRIMAR DIRECTION OF TRAVEL, WHERE NOT SHOWN AS EXPOSED AGGREGATE.

3 CONCRETE WALKWAY PAVING

SCALE: 1" = 1'-0"

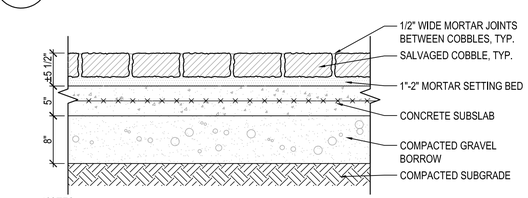


NOTE:

1. ALL JOINTS IN THE CONCRETE PAVING SHALL CONFORM WITH THE JOINT PATTERN SHOWN ON THE PLANS.

4 EXPANSION JOINT

SCALE: 1" = 1'-0"



NOTES:

1. COBBLE PAVERS AT ACCESSIBLE CROSSINGS MUST HAVE BEVELED EDGES. CHANGES IN VERTICAL SURFACE LEVEL MUST BE EQUAL TO OR LESS THAN 1/4"
2. HORIZONTAL SURFACE DISCONTINUITIES MUST BE EQUAL TO OR LESS THAN 1/2".
3. COBBLES AT ACCESSIBLE CROSSINGS TO BE TREATED WITH THERMAL FINISH TO PROVIDE SLIP-RESISTANCE

5 RECLAIMED COBBLESTONE BAND

SCALE: 1" = 1'-0"

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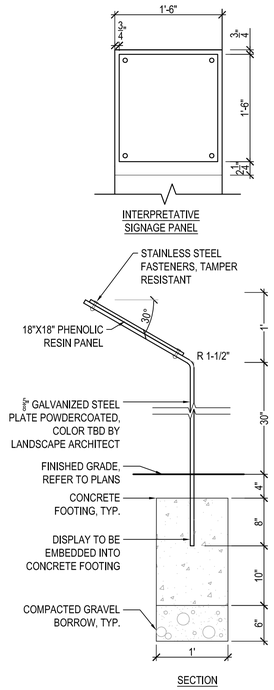
PROJECT NAME: STOW TOWN HALL RESTORATION

PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: DETAILS

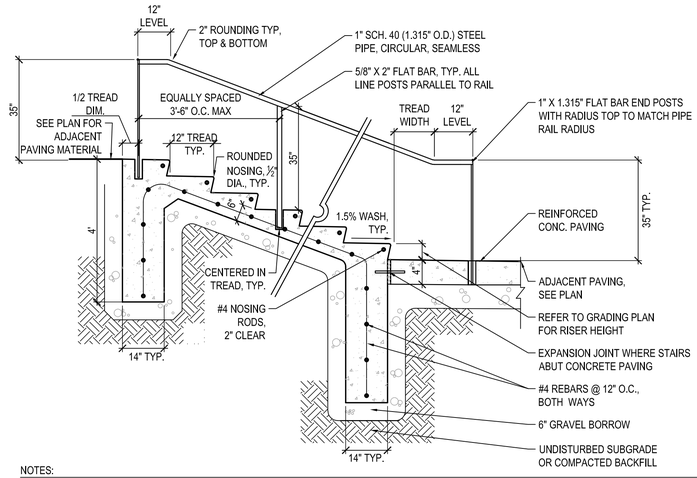
DATE: 30 JUNE 2022

SHEET #: L-04



8 HAY SCALE HISTORICAL MARKER

SCALE: 1" = 1'-0"

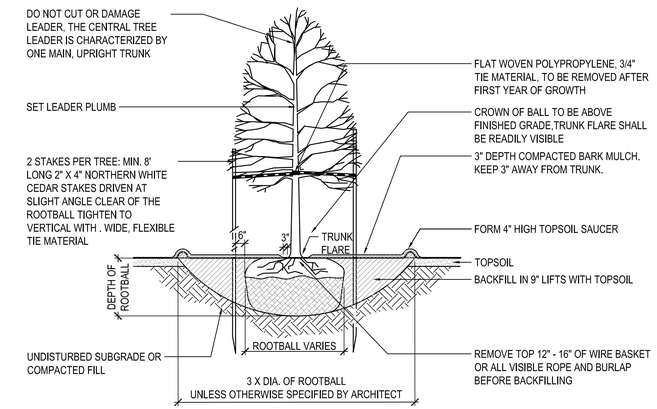


NOTES:

1. CONTRACTOR SHALL FIELD MEASURE CONCRETE STAIRS AND SUBMIT LARGE SCALE SHOP DRAWINGS OF HANDRAILS AND ALL NECESSARY HARDWARE PER SPECIFICATION.
2. ALL POSTS TO BE SET PLUMB AND VERTICAL. ALL RAILS SHALL FOLLOW GRADE AT BASE.
3. ALL HANDRAIL POSTS SHALL BE SET IN THE STAIR TREADS. THE CENTERLINE OF THE POST SHALL BE 4 INCHES FROM THE EDGE OF STAIR.
4. HANDRAIL SHALL BE ON BOTH SIDES OF STAIRS EXCEPT AT SPECTATOR SEATING.
5. ALL WELDS SHALL BE SMOOTH GROUND TO PROVIDE SEAMLESS CONNECTIONS AND RAILINGS SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION. REFER TO SPECIFICATIONS FOR FINISH AND COLOR.
6. WHERE RAMP RAILINGS ARE SHOWN ON PLAN CONNECTING TO STAIR END POSTS, TOP RAIL SHALL BE CONTINUOUS AND SMOOTH AND THE RAMP BOTTOM RAIL SHALL TERMINATE AT THE STAIR END POST. REFER TO CONCRETE RAMP AN HANDRAIL DETAIL ON THIS SHEET.

5 CONCRETE STAIR WITH HANDRAILS

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



NOTES:

1. TREE SHALL BE MARKED ON ITS NORTH FACING SIDE AT NURSERY. TREE SHALL BE PLANTED WITH ORIGINAL NORTH FACING SIDE FACING NORTH ON SITE.
2. IF ROOTBALL IS PACKAGED IN "PLASTIC BURLAP" OR TREATED BURLAP, REMOVE BURLAP COMPLETELY.
3. DO NOT DAMAGE MAIN ROOTS OR ROOT BALL WHEN INSTALLING TREE STAKE.
4. ALL STAKES, GUYWIRES, AND TIES TO BE REMOVED AFTER THE FIRST YEAR OF GROWTH, UNLESS OTHERWISE SPECIFIED BY THE ARCHITECT.
5. WATER THOROUGHLY AFTER INSTALLATION AT RATE OF 3-5 GALLONS/INCH CALIPER.
6. PROVIDE SLOW RELEASE WATERING BAG AS PER SPECIFICATIONS
7. PROVIDE A MINIMUM OF 2 STAKES PER TREE

1 DECIDUOUS TREE PLANTING

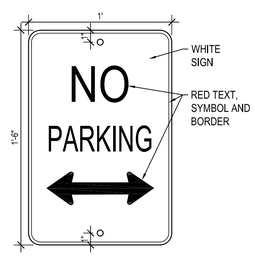
SCALE: 1/2" = 1'-0"

NOTE:

1. PLANTS TO BEAR SAME RELATIONSHIP TO FINISH GRADE AS TO PREVIOUS GRADE

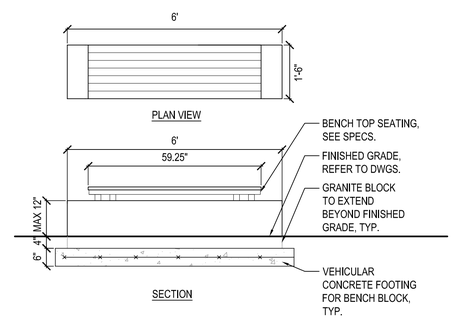
2 SHRUB PLANTING

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



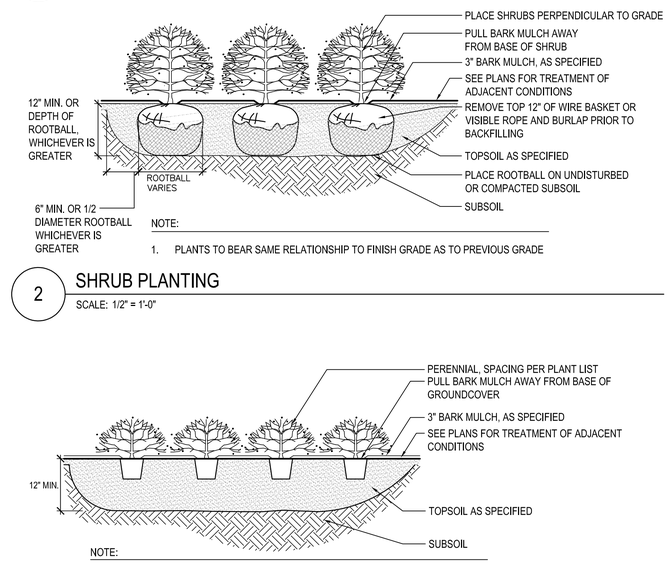
9 NO PARKING SIGN

SCALE: 2" = 1'-0"



6 GRANITE BLOCK BENCH WITH WOOD TOPPER

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

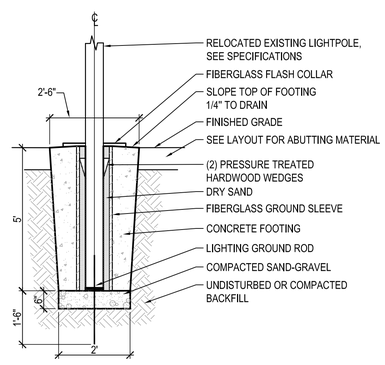


NOTE:

1. PLANTS TO BEAR SAME RELATIONSHIP TO FINISH GRADE AS TO PREVIOUS GRADE IN POTS

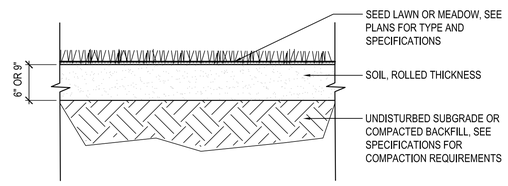
3 PERENNIALS AND GRASSES AND GROUNDCOVER PLANTING

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



7 LIGHT POLE FOOTING

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



NOTE:
IF SEEDING OPERATIONS ARE COMPLETED TOO LATE IN THE FALL FOR ADEQUATE GERMINATION AND GROWTH OF GRASS, THEN MAINTENANCE SHALL CONTINUE INTO THE FOLLOWING SPRING, OR UNTIL FINAL ACCEPTANCE, AT NO COST TO THE OWNER.

4 LAWN OR FESCUE

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

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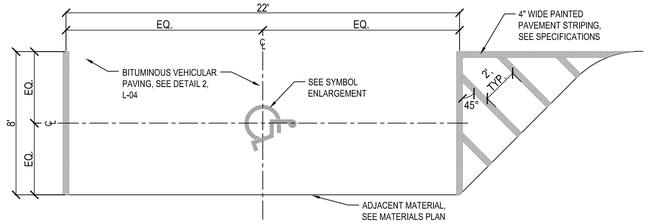
STOW TOWN HALL RESTORATION
375 GREAT ROAD
STOW MA 01775

PROJECT NAME:
PROJECT ADDRESS:

DRAWING TITLE: DETAILS

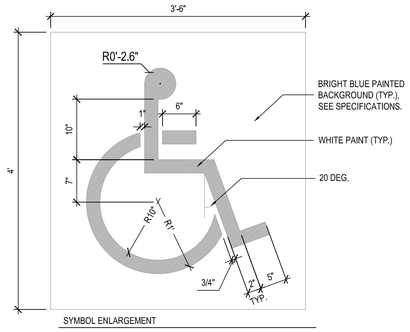
DATE: 30 JUNE 2022

SHEET #: L-05



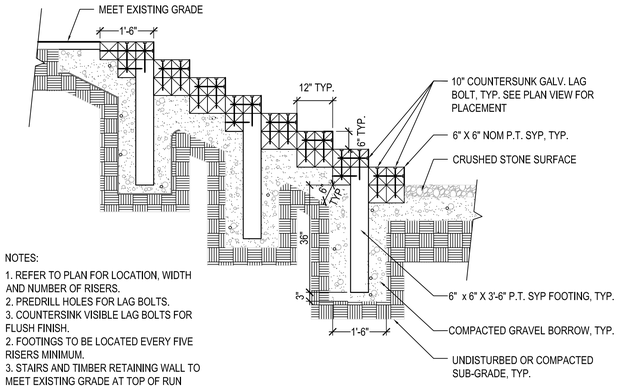
6 ADD ALT 4 - ACCESSIBLE PARALLEL LOADING ZONE

SCALE: 1/4" = 1'-0"



7 ADD ALT 4 - ADA SYMBOL ENLARGEMENT

SCALE: 1" = 1'-0"

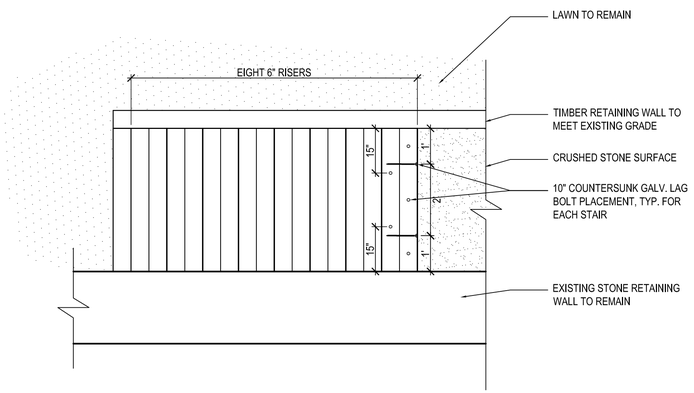


NOTES:

1. REFER TO PLAN FOR LOCATION, WIDTH AND NUMBER OF RISERS.
2. PREDRILL HOLES FOR LAG BOLTS.
3. COUNTERSINK VISIBLE LAG BOLTS FOR FLUSH FINISH.
2. FOOTINGS TO BE LOCATED EVERY FIVE RISERS MINIMUM.
3. STAIRS AND TIMBER RETAINING WALL TO MEET EXISTING GRADE AT TOP OF RUN

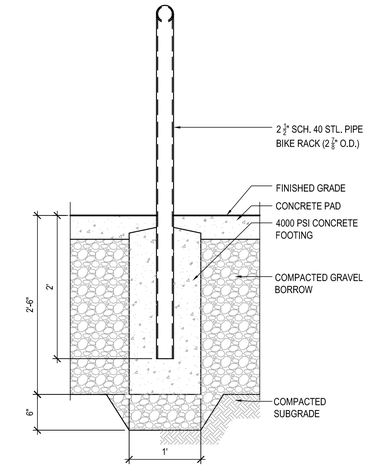
4 TIMBER STAIRS

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



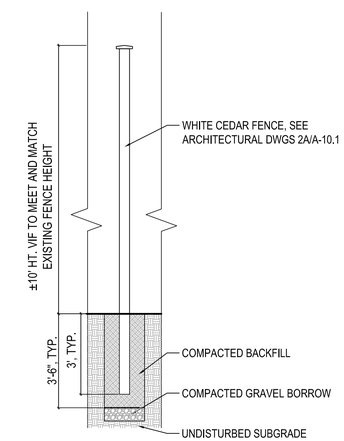
5 PLAN VIEW OF STAIRS

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



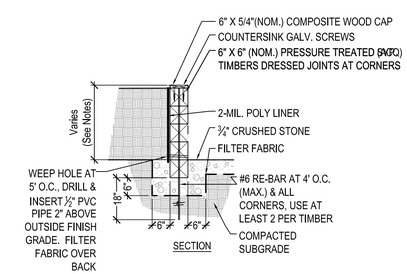
1 BIKE RACK

SCALE: 1" = 1'-0"



2 VERTICAL WOOD SLAT FENCE

SCALE: 3/8" = 1'-0"



NOTES:

1. ALL HARDWARE TO BE GALVANIZED.
2. TOP OF WALL TO FOLLOW EXISTING GRADE

3 TIMBER RETAINING WALL

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

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fax: 617-876-6420

PROJECT NAME: STOW TOWN HALL RESTORATION

PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: DETAILS

DATE: 30 JUNE 2022

SHEET #: L-06

GENERAL

G1. WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NINTH EDITION OF THE MASSACHUSETTS BUILDING CODE.

G2. CONTRACTOR IS TO EXAMINE ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR VERIFICATION OF LOCATION AND DIMENSIONS OF OTHER PROJECT REQUIREMENTS NOT SHOWN ON THE FRAMING PLANS.

G3. CONTRACTOR SHALL VERIFY & COORDINATE ALL DIMENSIONS ON THE JOB. DO NOT SCALE DRAWINGS.

G4. SEE SPECS FOR ADDITIONAL REQUIREMENTS NOT CALLED OUT ON THIS SHEET OR ON PLANS & DETAILS

TEMPORARY SHORING AND BRACING

B1. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL MEANS AND METHODS OF CONSTRUCTION EMPLOYED ON THIS PROJECT, AND FOR ALL TEMPORARY BRACING, SUPPORT, AND PROTECTION OF THE EXISTING STRUCTURE. PROVIDE AND INSTALL SHORING DESIGNED TO SUPPORT THE TEMPORARY STRUCTURAL LOADS OF THE SUPPORTED ITEMS. SUBMIT SHORING PRODUCTS, CONFIGURATION, AND PROCEDURE TO THE ARCHITECT FOR HIS REVIEW PRIOR TO SHORING AND BRACING.

B2. SHORING SHALL BE OF ANY MATERIAL THAT IS SUITABLE FOR THE APPLICATION. TIMBER SHORING SHALL BE FULLY DRIED AND ALL END GRAIN SHALL BE SEALED TO PREVENT ABSORPTION OF WATER AND ASSOCIATED SWELLING. SHORING SHALL BE MADE STABLE, STIFF, AND SNUG FITTING SO AS NOT TO DEFLECT UNDER LOAD. PRE LOAD SUPPORTED ELEMENTS FOR SNUG FIT ONLY. SHORING SHALL DEFLECT NO MORE THAN THE GIVEN SPAN LENGTH DIVIDED BY 600.

B3. BEARING SURFACES OF SHORING SHALL BE REVIEWED WITH ARCHITECT IN FIELD AND SHALL PROVIDE FOR PROPER TRANSFER OF LOADS TO SUPPORTING AND SUPPORTED ELEMENTS.

FOUNDATIONS

F1. FOUNDATIONS ARE TO BE CARRIED DOWN TO UNDISTURBED NATURAL SOILS HAVING A MINIMUM BEARING CAPACITY OF 2.0 TONS PER SQUARE FOOT; PROVIDE LEAN CONCRETE FOR ANY ELEVATION DIFFERENCES BETWEEN SUITABLE BEARING MATERIAL AND THE BOTTOM OF FOOTINGS. A QUALIFIED SOILS PROFESSIONAL SHALL BE RETAINED BY THE OWNER TO VERIFY THE SUITABILITY OF THE SOIL UPON COMPLETION OF EXCAVATIONS.

F2. FOOTING DEPTHS SHOWN ON THE DRAWINGS REPRESENT ESTIMATED DEPTHS AND ARE NOT TO BE CONSTRUED AS LIMITING THE AMOUNT OF EXCAVATION REQUIRED TO REACH GOOD BEARING MATERIAL.

F3. EXTERIOR CONSTRUCTION IS TO BE CARRIED DOWN BELOW FINISHED EXTERIOR GRADE TO A MINIMUM DEPTH OF 4 FEET UNLESS NOTED OTHERWISE. IF LEDGE IS DISCOVERED IN EXCAVATING FOR NEW FOOTINGS, CONSULT ENGINEER FOR INSTRUCTION ON PINNING NEW FOUNDATION CONSTRUCTION TO LEDGE.

F4. FOOTING EXCAVATIONS ARE TO BE FINISHED BY HAND.

F5. MAKE NO EXCAVATIONS TO THE FULL DEPTH INDICATED WHEN FREEZING TEMPERATURE OR HEAVY RAIN MAY BE EXPECTED, UNLESS THE FOUNDATIONS OR SLABS CAN BE PLACED IMMEDIATELY AFTER THE EXCAVATION HAS BEEN COMPLETED. PROTECT THE BOTTOM SO EXCAVATED FROM FROST IF PLACING OF CONCRETE IS DELAYED. SHOULD PROTECTION FAIL, REMOVE FROZEN OR SWOLLEN MATERIALS AND REPLACE WITH CONCRETE OR GRAVEL FILL, AS DIRECTED BY A GEOTECHNICAL ENGINEER, AT NO COST TO OWNER.

F6. BACKFILL UNDER & AROUND/AGAINST NEW STRUCTURES IS TO BE COMPACTED TO 95 PERCENT IN 6" LIFTS.

F7. UNLESS NOTED OTHERWISE, FOOTINGS ARE TO BE CENTERED UNDER SUPPORTED MEMBERS.

F8. PROVIDE 6" OF CRUSHED STONE UNDER ALL NEW SLABS ON GRADE.

F9. REFER TO ARCHITECTURAL DRAWINGS FOR VAPOR BARRIER, PROVIDE 15-MIL MEMBRANE AS A MINIMUM.

F10. FOOTINGS SHALL BE PROTECTED AGAINST FROST AND RAIN UNTIL PROJECT IS COMPLETED.

F11. BACKFILL NO EXTERIOR WALLS UNTIL PERMANENT FLOOR FRAMING/LATERAL STRUCTURAL SUPPORT SYSTEM IS IN PLACE.

F12. TEMPORARY BRACING SHALL BE USED DURING BACKFILLING WHERE THE PERMANENT LATERAL SUPPORT FOR THE TOP OF THE WALLS IS PROVIDED BY FLOOR FRAMING. THE TEMPORARY SUPPORT FOR THESE WALLS SHALL REMAIN IN PLACE UNTIL SUCH FLOOR FRAMING IS IN PLACE AND COMPLETE.

F13. BACKFILLING SHALL BE DONE SIMULTANEOUSLY ON BOTH SIDES OF EACH WALL IN ORDER TO MINIMIZE UNBALANCED EARTH PRESSURES.

F14. CONTRACTOR SHALL CONTROL SURFACE AND SUBSURFACE WATER DURING CONSTRUCTION SO THAT FOUNDATION WORK WILL BE DONE IN DRY AND ON UNDISTURBED SOILS.

CONCRETE AND REINFORCEMENT

C1. CONCRETE WORK IS TO CONFORM TO BUILDING CODE REQUIREMENTS FOR REINFORCED AND PLAIN CONCRETE (ACI 318-14) AND SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS (ACI 301-10).

C2. CONCRETE SHALL BE CONTROLLED CONCRETE, PROPORTIONED, AND MIXED UNDER THE SUPERVISION OF AN APPROVED CONCRETE TESTING AGENCY RETAINED BY THE OWNER.

C3. WHEN CONCRETE IS PLACED AT OR BELOW AMBIENT TEMPERATURES OF 40 DEGREES F, OR WHENEVER LOWER TEMPERATURES ARE LIKELY TO OCCUR WITHIN 48 HOURS AFTER PLACEMENT OF CONCRETE, COLD WEATHER CONCRETING PROCEDURES, IN ACCORDANCE TO ACI 306 SHALL BE FOLLOWED. COLD WEATHER PROTECTION SHALL ALSO APPLY TO REINFORCED BRICK AND CMU MASONRY CONSTRUCTION WHENEVER THE TEMPERATURE FALLS BELOW 40 DEGREES.

C4. INTERIOR CONCRETE IS TO HAVE 4,000 PSI (NORMALWEIGHT) COMPRESSIVE STRENGTH AT 28 DAYS.

C5. EXTERIOR CONCRETE IS TO HAVE 5,000 PSI (NORMALWEIGHT) COMPRESSIVE STRENGTH AT 28 DAYS.

C6. CONCRETE IS TO BE PLACED WITHOUT HORIZONTAL CONSTRUCTION JOINTS.

C7. STRUCTURAL STEEL BELOW GRADE IS TO BE COATED PER STEEL GENERAL NOTES.

C8. DETAILING, FABRICATION, AND ERECTION OF REINFORCEMENT, UNLESS OTHERWISE NOTED, SHALL CONFORM TO ACI "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-14)" AND ACI "DETAILING MANUAL-2004 (SP-066(04))".

C9. STEEL REINFORCEMENT UNLESS OTHERWISE SHOWN IS TO CONFORM TO ASTM 615 GRADE 60 (YIELD STRESS = 60,000 PSI).

C10. WELDED WIRE FABRIC REINFORCEMENT SHALL BE ASTM A185 WWF 4x4 W2.9xW2.9 IN ALL NEW 4" SLABS ON GRADE & PATCHING.

C11. CONCRETE TO BE EXPOSED TO THE WEATHER OR DE-ICING SALTS IN THE FINISHED PROJECT IS TO BE AIR-ENTRAINED AND CONTAIN 2.5 GAL/CU. YD DCI CORROSION INHIBITOR OR APPROVED EQUAL.

C12. REINFORCEMENT IS TO BE CONTINUOUS THROUGH ALL CONSTRUCTION JOINTS UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

C13. WELDED WIRE FABRIC IS TO LAP 6 INCHES OR ONE SPACE PLUS 2 INCHES, WHICHEVER IS LARGER, AND IS TO BE WIRED TOGETHER.

C14. CURE FLOOR SURFACES (INCLUDING PATCHES IN EXISTING) IN ACCORDANCE WITH ACI 308, AND PROVIDE A SUBMITTAL FOR THE PROPOSED CURING METHOD AND ACCESSORIES TO BE USED.

C15. PROVIDE MIX DESIGN FOR EACH TYPE OF CONCRETE TO BE USED ON THE PROJECT. EACH MIX DESIGN SHALL BE APPROVED PRIOR TO ORDERING CONCRETE.

C16. FIELD INSPECTION AND TESTING: FIELD INSPECTION AND TESTING SHALL BE PERFORMED IN ACCORDANCE WITH ACI 301 AND THE COMMONWEALTH OF MASSACHUSETTS STATE BUILDING CODE. THE OWNER SHALL PAY FOR ALL SAMPLING AND LABORATORY TESTING.

C17. A MINIMUM OF THREE CONCRETE TEST CYLINDERS WILL BE TAKEN FOR EACH DAY'S BATCH AND SHALL BE TESTED BY A QUALIFIED TESTING AGENCY TO BE RETAINED BY THE OWNER. SAMPLES SHALL BE TESTED FOR COMPRESSIVE STRENGTH AT 7, 14 AND 28 DAYS, AND TESTING AGENCY SHALL SUBMIT ALL TEST RESULTS TO THE OWNER AND ARCHITECT.

STRUCTURAL STEEL

S1. STRUCTURAL STEEL WORK SHALL CONFORM TO "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" (ASD OR LRFD, 14th EDITION (AISC 360-10); AND STRUCTURAL WELDING CODE - STEEL (AWS D1.1-04).

S2. STRUCTURAL STEEL SHALL BE NEW STEEL CONFORMING TO THE FOLLOWING:

ROLLED STEEL SHAPES:	A992 GRADE 50
PLATES:	ASTM A36
STRUCTURAL PIPES:	ASTM A53, GRADE B
STRUCTURAL TUBES:	ASTM A500, GRADE B
ANCHOR BOLTS:	ASTM A307
HIGH STRENGTH BOLTS:	ASTM A325
WELDING ELECTRODES:	AWS E70-XX FOR NEW STEEL AWS E60-XX FOR EXISTING STEEL

S3. WELDING SHALL BE DONE BY APPROVED CERTIFIED WELDERS, AND SHALL CONFORM TO THE AMERICAN WELDING SOCIETY CODE. SEE SPECIFICATIONS. ALL FILLET WELDS SHALL BE MADE WITH A RETURN LEG ON THE WELD END. THE MINIMUM SIZE OF FILLET WELDS SHALL BE DETERMINED IN ACCORDANCE WITH PARAGRAPH J2.2B. OF THE AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS.

S4. ELECTRODES FOR ALL FIELD AND SHOP WELDING SHALL CONFORM TO A-233 (CLASS 70).

S5. ANCHOR BOLTS, LEVELING PLATES, OR BEARING PLATES SHALL BE LOCATED AND BUILT INTO CONNECTING WORK, PRESENT BY TEMPLATES OR SIMILAR METHODS. PLATES SHALL BE SET IN FULL BEDS OF NON-SHRINK GROUT OR LEVELING NUTS USED WITH NON-SHRINK GROUT PACKED BETWEEN UNDERSIDE OF PLATE AND TOP OF FOOTING FOLLOWING COLUMN PLACEMENT.

S6. ALL LINTELS AND STEEL EXPOSED TO WEATHER SHALL BE HOT-DIPPED GALVANIZED.

S7. ALL STRUCTURAL STEEL (REINFORCING STEEL FOR FOOTINGS, EMBEDDED SECTIONS OF ANCHOR BOLTS EXCLUDED) SHALL BE COATED WITH TWO HEAVY APPLICATIONS OF AN EPOXY PAINT (BAR-RUST 235, DURA-PLATE 235 OR APPROVED EQUIVALENT). SUBMIT PRODUCT INFORMATION FOR APPROVAL PRIOR TO PURCHASING MATERIAL. WORK SHALL BE DONE AFTER STEEL HAS BEEN INSTALLED YET BEFORE SLABS ARE PLACED/PATCHED. FOLLOW ALL MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS.

S8. STRUCTURAL STEEL FRAMING SHALL BE TRUE AND PLUMB BEFORE CONNECTIONS ARE FINALLY BOLTED, WELDED OR BEFORE DRY-PACK IS PLACED BETWEEN THE UNDERSIDE OF BEARING PLATES AND THE TOP OF FOOTINGS.

S9. TEMPORARY ERECTION BRACING AND SUPPORTS SHALL BE PROVIDED TO HOLD NEW STRUCTURAL STEEL FRAMING SECURELY IN POSITION. SUCH TEMPORARY BRACING AND SUPPORTS SHALL NOT BE REMOVED UNTIL PERMANENT BRACING HAS BEEN INSTALLED.

S10. MINIMUM CONNECTION PLATE THICKNESS SHALL BE ⅜".

MASONRY CONSTRUCTION

J1. MORTAR FOR NEW CMU CONSTRUCTION SHALL MEET ALL REQUIREMENTS OF ASTM C270 TYPE "S".

J2. GROUT FOR CMU CONSTRUCTION SHALL CONFORM TO ASTM C-476, FINE.

J3. CONCRETE MASONRY UNITS FOR NEW CONSTRUCTION SHALL CONFORM TO ASTM C90, GRADE N-1.

J4. THE CONTRACTOR SHALL EXERCISE EXTREME CARE DURING ALL JOINT CUTTING AND UNIT REMOVAL OPERATIONS TO USE TOOLS AND METHODS THAT DO NOT CAUSE ANY DAMAGE TO MASONRY UNITS THAT ARE TO BE RE-USED OR KEPT IN PLACE. THE CONTRACTOR SHALL REPLACE ALL UNITS THAT ARE DAMAGED BY SUCH OPERATIONS AT NO COST TO THE OWNER.

J5. FINISH-POINT OUTER SURFACES OF JOINTS TO MATCH JOINTS OF ADJACENT EXISTING WORK (APPEARANCE OF SAMPLE SECTION TO BE APPROVED BY THE OWNER OR ARCHITECT).

J6. BONDING METHODS, TIES, LINTELS AND ACCESSORIES SHALL BE APPROVED BY THE ARCHITECT.

J7. CLEAN ALL SURFACES PER THE SATISFACTION OF THE OWNER.

J8. WORK UNDER THIS SECTION SHALL ONLY BE DONE WHEN THE AMBIENT AIR, MATERIAL, AND SUBSTRATE TEMPERATURES ARE ABOVE 40 DEGREES FAHRENHEIT BY 9:00 AM AND RISING UNLESS TENTING AND TEMPORARY HEAT IS PROVIDED BY THE CONTRACTOR.

J9. PROTECT MASONRY WORK IN HOT WEATHER TO PREVENT EXCESSIVE EVAPORATION OF SETTING BEDS AND GROUT. PROVIDE ARTIFICIAL SHADE, WIND BREAKS AND USE COOLED MATERIALS AS REQUIRED. USE FRESH MORTAR. DISCARD MORTAR THAT HAS STIFFENED DUE TO HYDRATION.

J10. REFER TO SPECIFICATIONS FOR FURTHER REQUIREMENTS AND THE REQUIREMENTS OF WORK FOR HISTORIC MASONRY.

J11. PROPERLY STORE ALL MATERIALS TO AVOID MOISTURE ABSORPTION.

STRUCTURAL WOOD

W1. WOOD CONSTRUCTION IS TO CONFORM THE "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" (NDS-15).

W2. NEW TIMBER FOR STRUCTURAL USE IS TO BE SURFACE DRIED AND HAVE A MOISTURE CONTENT OF NOT MORE THAN 15 PERCENT.

W3. STRUCTURAL TIMBER IS TO BE IDENTIFIED BY THE GRADE MARK OF, OR CERTIFICATE OF INSPECTION ISSUED BY, A GRADING OR INSPECTION BUREAU OR AGENCY RECOGNIZED AS BEING COMPETENT.

W4. STRUCTURAL TIMBER IS TO BE VISUALLY STRESS-GRADED LUMBER IN ACCORDANCE WITH THE PROVISIONS OF ASTM DESIGNATION D245-06, "METHODS FOR ESTABLISHING STRUCTURAL GRADES AND RELATED ALLOWABLE PROPERTIES FOR VISUALLY GRADED LUMBER."

W5. TIMBER IS TO BE HANDLED AND COVERED TO PREVENT DAMAGE AND MOISTURE ABSORPTION FROM SNOW OR RAIN.

W6. ALL STRUCTURAL WOOD IS TO HAVE THE FOLLOWING MINIMUM DESIGN STRENGTHS AND IS TO HAVE MATERIAL CERTIFICATES AND GRADE STAMPS ATTESTING THEREOF (UNITS IN PSI UNLESS OTHERWISE NOTED):

LOCATION OF USE	FB	FT	FV	FC PERP	FC PARALL	E (KSI)	Emin (KSI)
JOISTS/RAFTERS	875	450	135	425	1400	1400	510
BEARING WALL STUDS	675	350	135	425	725	1200	370
TIMBER POSTS (NO. 1) (DOUGLAS FIR, SOLID TIMBERS)	1200	825	170	625	1000	1600	580
LAMINATED VENEER LUMBER	2600	1550	285	750	2510	2000	1016
PARALLEL STRAND LUMBER	2400	1755	190	425	2500	1800	915

W7. WOOD JOISTS/RAFTERS:
1. SPLICES ARE TO OCCUR ONLY OVER BEARING POINTS.
2. JOISTS SHALL BE TOE NAILED TO WOOD SUPPORT WITH TWO 10d NAILS.
3. MINIMUM BEARING FOR JOISTS = 1½ INCH AT ENDS, AND 3½ INCHES WHERE JOISTS ARE CONTINUOUS.
4. USE METAL JOIST HANGERS AT ALL FLUSH FRAME CONDITIONS.
5. JOISTS ARE TO BE DOUBLED UNDER PARALLEL PARTITIONS.
6. BRIDGING WILL BE SOLID USING 2"x JOIST DEPTH INSTALLED IN OFFSET FASHION. MAXIMUM SPACING = 8 FEET.
7. NO JOIST IS TO BE NOTCHED OR DRILLED WITH HOLES WITHOUT PROPER REINFORCEMENT.
8. JOIST SUPPORT SOLELY BY NAILING IS NOT ALLOWED BY CODE.

W8. STUD WALLS:
1. NEW WOOD STUD WALLS SHALL BE 2x6 AT 16" O.C. MINIMUM U.N.O.
2. STUDS ARE TO BE NAILED TO THE SOLE PLATE WITH THREE 10d OR FOUR 8d TOE NAILS.
3. WHERE STRUCTURAL SHEATHING OVERLAPS SOLE PLATE, NAIL SHEATHING TO SOLE PLATE AT 6" MAXIMUM ON-CENTER.
4. USE 2x BRIDGING AT MID-HEIGHT OF REGULAR HEIGHT WALLS AND AT ALL PANEL EDGES.
5. ALL STUDS TO BE CONTINUOUS FROM FLOOR TO FLOOR OR ROOF TO FLOOR

W9. STUD WALL OPENINGS:
1. STUD WALL OPENINGS ARE TO BE FRAMED TO PROVIDE A RIGID ENCLOSURE. JAMB STUD IS TO EXTEND IN ONE PIECE FROM HEADER TO SOLE PLATE. PROVIDE SPECIFIED NUMBER OF JACK STUDS SHOWN IN PLAN.
2. A MINIMUM OF TRIPLE STUDS ARE TO BE USED AT ALL WALL OPENINGS.

W10. NAILING: DOUBLE FRAMED OPENINGS: NAIL INNER STUD TO OUTER STUD WITH 16d NAILS, 24" O.C. TOE NAIL INNER STUD TO WALL PLATE WITH TWO 8d NAILS OR END NAIL WITH 16d NAILS. NAIL OUTER STUD TO HEADER WITH FOUR 16d NAILS AND TO TOP PLATE WITH TWO 8d TOE NAILS.

W11. PLATES (BEARING OR NON-BEARING):
1. SOLE PLATES ARE TO BE NAILED TO SUBFLOOR AND JOISTS WITH 16d NAILS AT EACH JOIST.
2. TOP PLATES FOR BEARING PARTITIONS ARE TO BE TWO 2x6s, A CONTINUOUS HEADER, OR AS INDICATED ON SECTIONS. PLATE MEMBERS OF PRINCIPAL PARTITIONS ARE TO BE LAPPED OR ANCHORED TO EXTERIOR WALL FRAMING. SPLICES ARE TO OCCUR OVER STUDS. NAIL PLATES TO STUDS WITH TWO 16d NAILS AT 24" O.C.
3. TOP PLATES FOR NON-BEARING INTERIOR PARTITIONS MAY BE SINGLE. NAIL PLATE TO STUD WITH TWO 16d NAILS. WHEN TOP PLATE IS PARALLEL TO CEILING OR FLOOR FRAMING, INSTALL 2x6 CROSS BLOCKING NOT MORE THAN 4'-0" O.C.
4. WHEN TOP PLATES ARE CUT FOR PIPING, DUCT WORK OR UPTURNED BEAMS, REINFORCE WITH STEEL STRAPS.

W12. BEAMS AND GIRDERS:
1. GIRDERS WILL NOT REST LESS THAN 4" ON SUPPORTS.
2. WHERE BEAMS AND GIRDERS OF NOMINAL 2" MEMBERS ARE SHOWN, NAIL WITH TWO ROWS OF 16d NAILS SPACED NOT MORE THAN 24" O.C., LOCATE END JOISTS IN MEMBERS OVER SUPPORTS.
3. ALL BEAMS MUST BE SPLICED ONLY OVER SUPPORTS UNLESS SPECIFICALLY INSTRUCTED OTHERWISE BY THE ARCHITECT.
4. ALL BUILT-UP WOOD BEAMS WIDER THAN 6" AND NAILERS ATTACHED TO STEEL BEAMS ARE TO BE BOLTED WITH ½" DIAMETER THROUGH-BOLTS AT 2'-0" O.C. STAGGERED SPACING, UNLESS OTHERWISE NOTED.

W13. PLYWOOD NAILED TO ALL PARTITIONS:
1. PLYWOOD IS TO BE ½" THICK MINIMUM.
2. NAIL SHEATHING TO STUDS, PLATES, AND BLOCKING WITH 6d NAILS SPACED 4" O.C. ALONG ALL EDGES OF PLYWOOD SHEETS (BLOCK PANEL EDGES AS REQ'D) AND 12" O.C. ALONG INTERMEDIATE MEMBERS.
3. NAILING SHOULD COMPLY WITH THE RECOMMENDATIONS OF THE AMERICAN PLYWOOD ASSOCIATION.

W14. PLYWOOD ROOF:
1. PLYWOOD WILL BE ¾" THICK MINIMUM INSTALLED WITH GRAIN OF OUTER PLIES AT RIGHT ANGLES TO RAFTERS AND BE STAGGERED SO THAT END JOISTS IN ADJACENT PANELS OCCUR OVER DIFFERENT RAFTERS. PROVIDE AT LEAST 1/16" JOINT SPACE AT PANEL EDGES. AT PATCHING AREAS PROVIDE ADD'L LAYERS AS REQ'D TO MATCH THICKNESS OF EXISTING SURROUNDING SHEATHING TO REMAIN.
2. PLYWOOD IS TO BE NAILED WITH 8d COMMON OR 6d THREADED NAILS. NAILS ARE TO BE 6 INCHES O.C. AT ALL EDGES AND 12" O.C. AT INTERIOR LINES OF SUPPORT.

W15. CONNECTIONS:
1. ALL WOOD POST BASES ON WOOD TO BE SIMPSON TYPE BC.
2. ALL WOOD BEAMS ON COLUMNS TO HAVE SIMPSON TYPE PC OR EPC CONNECTIONS.
3. ALL FLUSH FRAMED CONVENTIONAL WOOD JOIST CONNECTIONS TO BE SIMPSON TYPE HU OR EQUAL.
4. COMPLY WITH MANUFACTURER INSTALLATION SPECIFICATIONS FOR ALL OF THE ABOVE.
5. ALL WOOD POST BASES ON CONCRETE TO BE SIMPSON TYPE ABU OR EQUAL.
6. ANCHOR BOLTS AND BOLTS FOR STRUCTURAL TIMBER ARE TO BE ASTM A307. STANDARD CUT WASHERS ARE TO BE PROVIDED BETWEEN THE WOOD AND BOLT NUT, UNLESS STEEL PLATES OR PLATE WASHERS ARE USED, AS INDICATED ON STRUCTURAL DRAWINGS. BOLT HOLES IN STRUCTURAL TIMBER ARE TO BE 1/16 INCH LARGER THAN THE NOMINAL BOLT DIAMETER INDICATED.
7. ALL EXTERIOR CONNECTION HARDWARE INCLUDING NAILS, BOLTS, AND FABRICATED CONNECTORS IS TO BE STAINLESS STEEL OR GALVANIZED. ELECTROGALVANIZED STOCK SHALL HAVE A CLASS RATING OF 40 OR HIGHER, AND HOT-DIPPED GALVANIZED STOCK SHALL BE G-185.

W16. ENGINEERED WOOD TIMBER
1. SCHEDULE ON SHOP DRAWINGS AND PROVIDE LOAD RATED PRE-MANUFACTURED WOOD CONNECTORS FOR POSTS TO BEAM AND ALL FLUSH-FRAMED MEMBERS. PROVIDE FASTENERS IN ACCORDANCE WITH MANUFACTURER SCHEDULE FOR EACH TYPE.
2. WHERE NO MANUFACTURED WOOD CONNECTOR EXISTS, FABRICATE FROM ¼ INCH WELDED STEEL PLATE TO CONFORM TO THE MOST SIMILAR SIMPSON CONNECTOR.
3. CONNECTION SHALL BE DESIGNED FOR MAXIMUM CAPACITY OF THE CONNECTED MEMBERS FOR THE SPANS INDICATED.
4. END BEARING OF LVL BEAMS SHALL BE 2½ INCHES MINIMUM AND ACROSS THE FULL WIDTH OF THE BEAM.
5. MINIMUM BEARING LENGTHS ARE GOVERNED BY Fc PERPENDICULAR OF THE WALL PLATE = 425-PSI, OR BY 750-PSI BEARING STRENGTH OF THE VENEER LUMBER WHEN PLACED ON STEEL SUPPORTING CONNECTOR.
6. ALL LVL BEAMS REQUIRE LATERAL SUPPORT OR BLOCKING AT BEARING POINTS.
7. BUILT UP LVL BEAMS SHALL BE NAILED OR BOLTED TOGETHER IN ACCORDANCE WITH THE SCHEDULE ON THE MANUFACTURER'S LITERATURE, BUT NOT LESS THAN 3 ROWS OF 16d NAILS AT 12 INCHES O.C. THROUGH ALL PLIES.
8. ADHESIVES SHALL BE PROVIDED AT ALL PLYWOOD FLOOR TO WOOD JOIST AND BEAM FASTENINGS. ADHESIVES SHALL CONFORM TO TRUSS JOIST MANUFACTURER'S STANDARDS AND MEET THE REQUIREMENTS OF ASTM D2559.

LIGHT GAGE METAL FRAMING

LG1. PROVIDE LIGHT GAGE GALVANIZED METAL FRAMING AS INDICATED ON THE DRAWINGS THAT IS EQUAL OR EQUIVALENT TO THE PRODUCTS THAT ARE DESIGNATED ON THE DRAWINGS AND ARE MANUFACTURED BY MARINO\WARE OF S. PLAINFIELD, NJ. MATCH ALL STRUCTURAL AND MATERIAL PROPERTIES OF THE DESIGNATED PRODUCTS.

LG2. FRAMING SHALL BE FORMED FROM STEEL CONFORMING TO THE MINIMUM REQUIREMENTS OF ASTM A446, GRADE D, POSSESSING A MINIMUM YIELD OF 50,000 PSI.

LG3. GALVANIZED FRAMING PRODUCTS SHALL BE COATED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A525.

LG4. PROTECT MATERIALS STORED ON SITE FROM EXPOSURE TO WEATHER BY IMPERVIOUS COVER OR SHELTER. MATERIALS SHALL BE STORED FLAT AND IN A MANNER TO PREVENT DISTORTION.

LG5. SCREWED CONNECTION REQUIREMENTS:
A. SCREW SHALL BE OF THE TYPE, SIZE AND LOCATION SHOWN ON THE DRAWINGS AND APPROVED SHOP DRAWINGS (NO. 12 ITW-BUILDEX TRAXX SCREWS).
B. SCREW PENETRATION THROUGH JOINTED MATERIALS SHALL NOT BE LESS THAN THREE EXPOSED SCREW THREADS.
C. SCREWS SHALL BE PROVIDED WITH CORROSION PROTECTIVE COATING THAT WILL REMAIN INTACT DURING INSTALLATION.
D. CONTRACTOR SHALL REFER TO INSTALLATION INSTRUCTIONS PUBLISHED BY THE SCREW MANUFACTURER AND ASTM C-954 FOR MINIMUM SPACING AND EDGE DISTANCE REQUIREMENTS AND TORQUE REQUIREMENTS.

LG6. CONCRETE AND EXTERNAL ANCHOR REQUIREMENTS: PROVIDE PROPERLY LOCATED AND SIZED HOLES FOR ANCHORS TO CONCRETE AND ATTACHMENTS.

LG7. FIELD CUTTING OF STRUCTURAL STEEL FRAMING MEMBERS SHALL BE BY SAW OR SHEAR. TORCH CUTTING WILL NOT BE PERMITTED EXCEPT BY WRITTEN APPROVAL OF THE ENGINEER OF RECORD.

LG8. TEMPORARY BRACING SHALL BE PROVIDED AND REMAIN IN PLACE UNTIL WORK IS PERMANENTLY STABILIZED.

LG9. WHERE SPLICING OF TRACK IS NECESSARY BETWEEN BRACING LOCATIONS, A PIECE OF STUD OR ADDITIONAL TRACK SHALL BE PLACED BETWEEN ADJACENT TRACKS AND FASTENED BY WELD OR SCREW TO EACH SIDE OF THE TRACK, EACH END.

LG10. SPLICING OF FRAMING COMPONENTS, OTHER THAN TRACK, IS NOT PERMITTED.

LG11. STUDS SHALL BE SPACED AS SHOWN ON THE CONTRACT DRAWINGS OR AS REQUIRED TO MEET THE DESIGN REQUIREMENTS AND LIMITATION OF COLLATERAL MATERIALS.

LG12. STUDS SHALL BE PLUMBED, ALIGNED AND SECURED TO THE CONTINUOUS RUNNER TRACKS AT EACH END AND EACH SIDE.

LG13. STUD PERMANENT BRACING SHALL BE INTER-PRODUCTS SPAZZER 5400 BRIDGING/SPACER BAR, OR EQUAL, AND SHALL BE INSTALLED PER THE MANUFACTURER'S SPECIFICATION AND DETAILS. APPLICABLE MANUFACTURER'S DETAILS INCLUDE, "SPAZZER BRIDGING DETAIL", "SPAZZER LAP DETAIL", AND "SPAZZER OFF MODULE DETAIL". SUBMIT MANUFACTURER'S SPEC AND DETAILS FOR APPROVAL.

DESIGN LOADS (NEW ELEMENTS)

100 PSF 1ST FLOOR LIVE LOAD
25 PSF ATTIC FLOOR LIVE LOAD
ROOF: 38.5 PSF SNOW LOAD (50 PSF GROUND SNOW w/ 0.77 CORRECTION FACTOR)

IF ACTUAL CONDITIONS ENCOUNTERED IN THE FIELD VARY FROM THOSE ASSUMED, NOTIFY ARCHITECT IMMEDIATELY & ALLOW FOR RE-ISSUE OF DETAIL IN AFFECTED AREA

ABBREVIATIONS

ABBREVIATION	WORD
ADDL	ADDITIONAL
ALT	ALTERNATE
ACI	AMERICAN CONCRETE INSTITUTE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI	AMERICAN IRON AND STEEL INSTITUTE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
ARCHT	ARCHITECT or ARCHITECTURAL
AWS	AMERICAN WELDING SOCIETY
AB	ANCHOR BOLT
BM	BEAM
BRG	BEARING
BETW	BETWEEN
B	BOTTOM
BEW	BOTTOM EACH WAY
BS	BOTH SIDES
C	CAMBER
CIP	CAST-IN-PLACE
CTRD	CENTERED
℄	CENTER LINE
CO	CLEAN OUT
CL	CLEAR
COL	COLUMN
CONC	CONCRETE
CMU	CONCRETE MASONRY UNIT
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CJ	CONTROL JOINT(S)
COORD	COORDINATE
DEPR	DEPRESSION
DET	DETAIL
Ø	DIAMETER
DO	DITTO
DWG	DRAWING
EA	EACH
EE	EACH END
EF	EACH FACE
ES	EACH SIDE
EW	EACH WAY
ELECT	ELECTRICAL
EL	ELEVATION
ELEV	ELEVATOR
EQ	EQUAL
EQUIP	EQUIPMENT
EXP BOLT	EXPANSION BOLT
EXP JT	EXPANSION JOINT
EXT	EXTERIOR
FT	FEET or FOOT
FIN	FINISH
FIN FL	FINISHED FLOOR
FL	FLOOR
FTG	FOOTING
FDN	FOUNDATION
GALV	GALVANIZED
GA	GAUGE or GAGE
GEN	GENERAL
GR	GRADE
GB	GRADE BEAM
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
HP	HIGH POINT
HS	HIGH STRENGTH
HORIZ	HORIZONTAL
HEF	HORIZONTAL EACH FACE
JT	JOINT
K	KIP (1000 POUNDS)
LG	LONG
LWC	LIGHTWEIGHT CONCRETE
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LP	LOW POINT
MANUF	MANUFACTURER
MAS	MASONRY
MAX	MAXIMUM
MECH	MECHANICAL
MID	MIDDLE
MIN	MINIMUM
MISC	MISCELLANEOUS
NF	NEAR FACE
NTS	NOT TO SCALE
NWC	NORMAL WEIGHT CONCRETE
NO	NUMBER
OC	ON CENTER
OPNG	OPENING
ℙ	PLATE
PVC	POLYVINYL CHLORIDE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
REF	REFERENCE
REINF	REINFORCE or REINFORCEMENT
REM	REMAINDER
REQD	REQUIRED
SCHED	SCHEDULE
SECT	SECTION
SC	SHEAR CONNECTOR
SIM	SIMILAR
SOG	SLAB ON GRADE
SPECS	SPECIFICATIONS
STD	STANDARD
STL	STEEL
SF	STEP FOOTING
STIFF	STIFFENER
STR	STRUCTURAL
TEMP	TEMPERATURE
T	TOP
TOC	TOP OF CONCRETE
TOS	TOP OF STEEL/STEM (SEE PLAN)
TOW	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
V or VERT	VERTICAL
VEF	VERTICAL EACH FACE
VIF	VERTICAL INSIDE FACE or VERIFY IN FIELD
VOF	VERTICAL OUTSIDE FACE
WWF	WELDED WIRE FABRIC
W/	WITH
WP	WORKING POINT

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PLAN NOTES:

1. SEE SHEET S-0.1 FOR STRUCTURAL GENERAL NOTES & SHEETS S-2.1 THROUGH S-3.2 FOR STRUCTURAL DETAILS.
2. VERIFY ALL DIMENSIONS IN THE FIELD. NOTIFY THE ENGINEER OF ANY DISCREPANCIES. DO NOT SCALE DRAWINGS.
3. BOTTOM OF INTERIOR FOOTINGS SHALL BE 18" MIN. BELOW TOP OF BASEMENT SLAB AND BEAR ON 2 TSF BEARING CAPACITY SOILS. REINF. W/ #4 @ 6" O.C. EA. WAY, BOTTOM (3" BOT. & SIDE COVER)
4. ALL NEW FOUNDATION WALL FOOTINGS SHALL BE 48" BELOW EXTERIOR GRADE AND BEAR ON 2 TSF BEARING CAPACITY SOILS.
5. FOUNDATION WALLS MUST BE POURED MONOLITHICALLY. COLD JOINTS IN FOUNDATION WALLS ARE NOT ACCEPTABLE. SEE DETAILS ON S2.1.
6. PROVIDE 6" FREE DRAINING COMPACTED GRAVEL UNDER ALL NEW INTERIOR FOOTINGS AND PROVIDE VAPOR RETARDER PER ARCH. SPECS (15-MIL MEMBRANE, MINIMUM)
7. TEXT DIRECTION INDICATES SPAN DIRECTION OF JOISTS & BEAMS U.N.O. W/ LEADER LINE
8. PROVIDE METAL HANGERS AT ALL FLUSH-FRAMED CONDITIONS, SUBMIT COMPLETE SCHEDULE OF HANGERS FOR APPROVAL PRIOR TO ORDERING STOCK. CONNECTIONS SOLELY BY NAILING ARE NOT ACCEPTABLE.
9. ALL NEW FLOOR DECKING IS ¾" T&G APA SPAN-RATED PLYWOOD GLUED AND NAILED
10. ALL NEW ROOF DECKING IS ¾" APA SPAN RATED CDX ROOF DECKING
11. LVL - INDICATES LAMINATED VENEER LUMBER (MAY BE BUILT-UP OF STANDARD 1¾" PLIES)
12. PSL - INDICATES PARALLEL STRAND LUMBER (SOLID MEMBER OF WIDTH NOTED)
13. LVL/PSL MATERIAL SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 5%. CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL MATERIALS ON SITE CLEAN AND DRY BEFORE, DURING AND AFTER INSTALLATION.
14. NEW WALL INFILL AREAS SHALL MATCH EXISTING SURROUNDING AREAS TO REMAIN, RIP-TO-FIT OR FUR-OUT (2x4 MIN.) 16" ON CENTER
15. PROVIDE POST CAPS AT ALL WOOD POSTS & INVERTED POST CAPS AT ALL TRANSFERS, SEE DETAILS ON SHEET S-3.2.
16. FULL DEPTH SOLID BLOCKING TO BE INSTALLED AT FRAMING MID-SPAN (8'-0" O.C. MAX) AND ABOVE BEARING WALLS

LEGEND

OR (E) - INDICATES EXISTING STRUCTURE

OR (N) - INDICATES NEW STRUCTURE

P1 - INDICATES 3½x5¼ PSL POST

TS4 - INDICATES (N) HSS4x4x5/16 TUBE STEEL COLUMN (SHOWN ROUND TO DIFFERENTIATE FROM WOOD POSTS), SEE DETAILS A/S-2.1 & 1/S-2.1

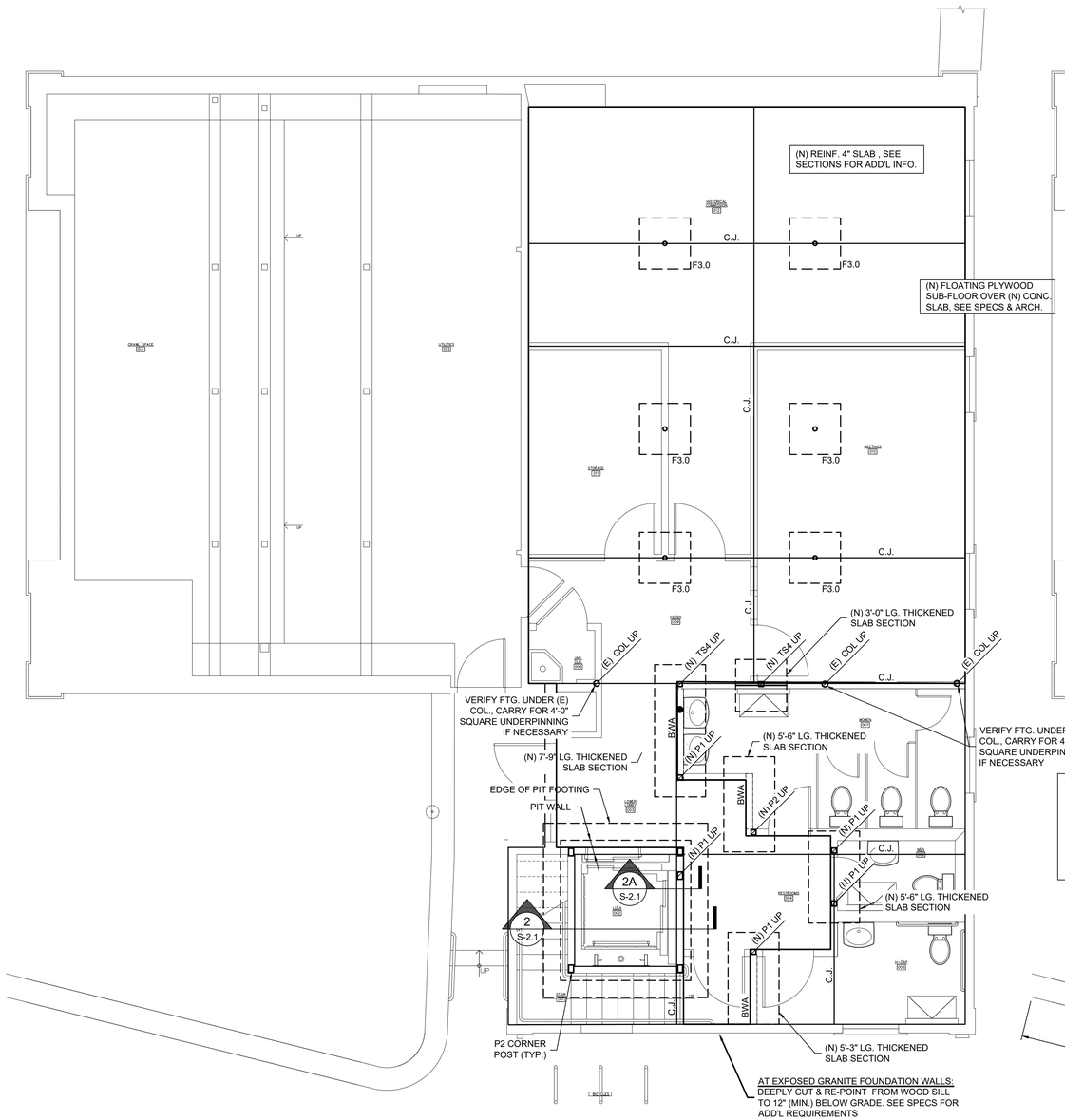
F3.0 - INDICATES (N) 3'-0"x3'-0"x15" CONC. FTG. REINF. W/ #4 @ 6" O.C. EA. WAY, BOT. (3" SIDE & BOT COVER)

H1 - INDICATES (N) 2-2x10 HEADER

J1 - INDICATES (N) 1¾x5¼ LVLs @ 20" O.C. (ADDED W/IN EXIST. FIRST FLOOR FRAMING BAYS)

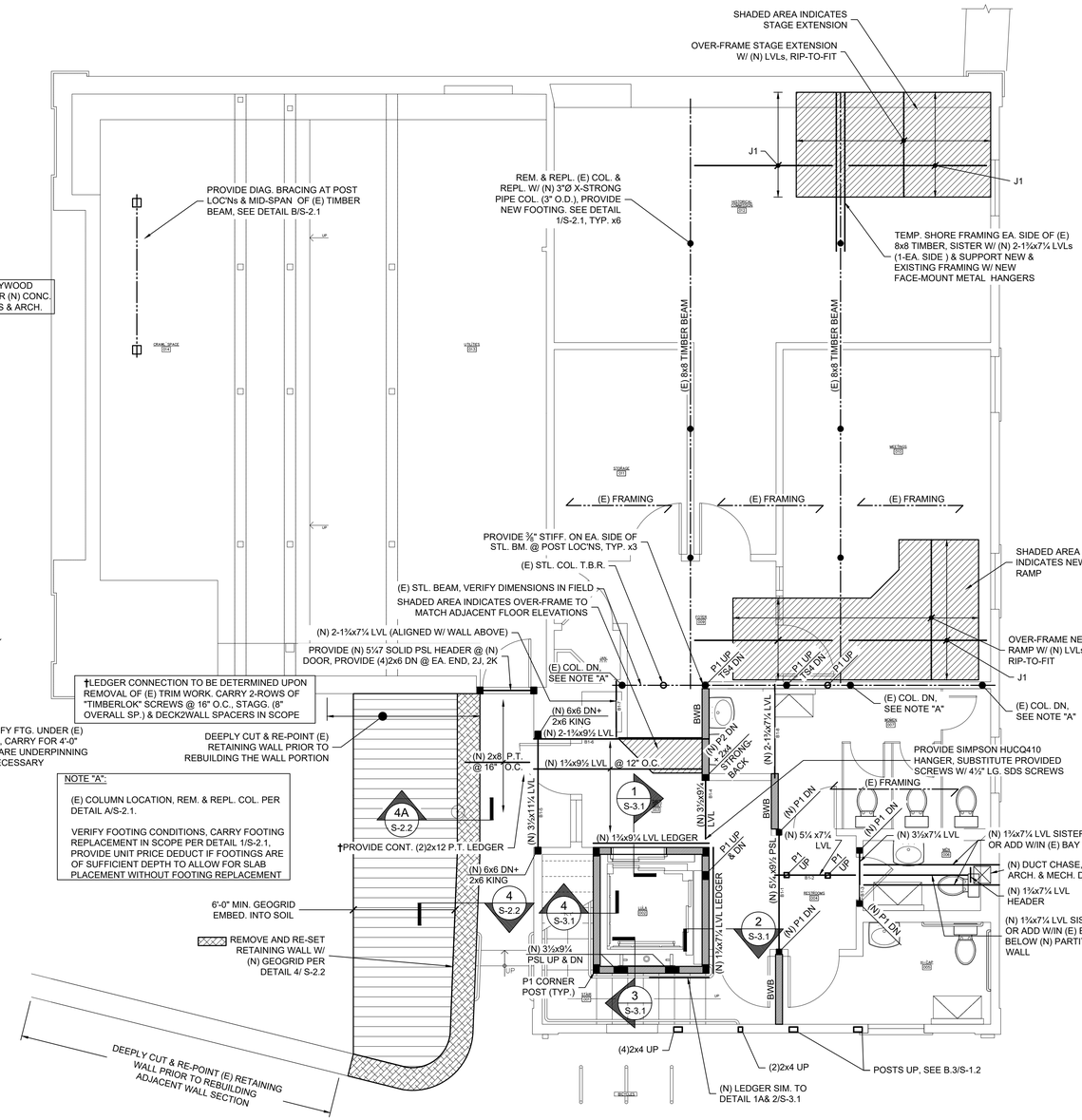
BWA - INDICATES INTERIOR BEARING WALL ABOVE

BWB - INDICATES INTERIOR BEARING WALL BELOW



B.1 S-1.1 FOUNDATION PLAN
Scale: 1/4" = 1'-0"

4 0 4 8
SCALE OF FEET



B.2 S-1.1 FIRST FLOOR FRAMING
Scale: 1/4" = 1'-0"

N

4 0 4 8
SCALE OF FEET

IF ACTUAL CONDITIONS ENCOUNTERED IN THE FIELD VARY FROM THOSE ASSUMED, NOTIFY ARCHITECT IMMEDIATELY & ALLOW FOR RE-ISSUE OF DETAIL IN AFFECTED AREA

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tel: 617-876-7611
fax: 617-876-6420

STOW TOWN HALL RESTORATION
375 GREAT ROAD
STOW MASSACHUSETTS

PARTIAL FRAMING PLANS

PROJECT NAME:
PROJECT ADDRESS:
DRAWING TITLE:

REV:

DATE: 30 JUNE 2022

FINAL CHECK SET
NOT FOR CONSTRUCTION

SHEET #:

S-1.1

PLAN NOTES:

1. SEE SHEET S-0.1 FOR STRUCTURAL GENERAL NOTES & SHEETS S-2.1 THROUGH S-3.2 FOR STRUCTURAL DETAILS.
2. VERIFY ALL DIMENSIONS IN THE FIELD. NOTIFY THE ENGINEER OF ANY DISCREPANCIES. DO NOT SCALE DRAWINGS.
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4. ALL NEW FOUNDATION WALL FOOTINGS SHALL BE 48" BELOW EXTERIOR GRADE AND BEAR ON 2 TSF BEARING CAPACITY SOILS.
5. FOUNDATION WALLS MUST BE POURED MONOLITHICALLY. COLD JOINTS IN FOUNDATION WALLS ARE NOT ACCEPTABLE. SEE DETAILS ON S2.1.
6. PROVIDE 6" FREE DRAINING COMPACTED GRAVEL UNDER ALL NEW INTERIOR FOOTINGS AND PROVIDE VAPOR RETARDER PER ARCH. SPECS (15-MIL MEMBRANE, MINIMUM)
7. TEXT DIRECTION INDICATES SPAN DIRECTION OF JOISTS & BEAMS U.N.O. W/ LEADER LINE
8. PROVIDE METAL HANGERS AT ALL FLUSH-FRAMED CONDITIONS, SUBMIT COMPLETE SCHEDULE OF HANGERS FOR APPROVAL PRIOR TO ORDERING STOCK. CONNECTIONS SOLELY BY NAILING ARE NOT ACCEPTABLE.
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13. LVL/PSL MATERIAL SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 5%. CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL MATERIALS ON SITE CLEAN AND DRY BEFORE, DURING AND AFTER INSTALLATION.
14. NEW WALL INFILL AREAS SHALL MATCH EXISTING SURROUNDING AREAS TO REMAIN, RIP-TO-FIT OR FUR-OUT (2x4 MIN.) 16" ON CENTER
15. PROVIDE POST CAPS AT ALL WOOD POSTS & INVERTED POST CAPS AT ALL TRANSFERS, SEE DETAILS ON SHEET S-3.2.
16. FULL DEPTH SOLID BLOCKING TO BE INSTALLED AT FRAMING MID-SPAN (8'-0" O.C. MAX) AND ABOVE BEARING WALLS

LEGEND

OR (E) - INDICATES EXISTING STRUCTURE

OR (N) - INDICATES NEW STRUCTURE

P1 - INDICATES 3½x5¼ PSL POST

TS4 - INDICATES (N) HSS4x4x5/16 TUBE STEEL COLUMN (SHOWN ROUND TO DIFFERENTIATE FROM WOOD POSTS), SEE DETAILS A/S-2.1 & 1/S-2.1

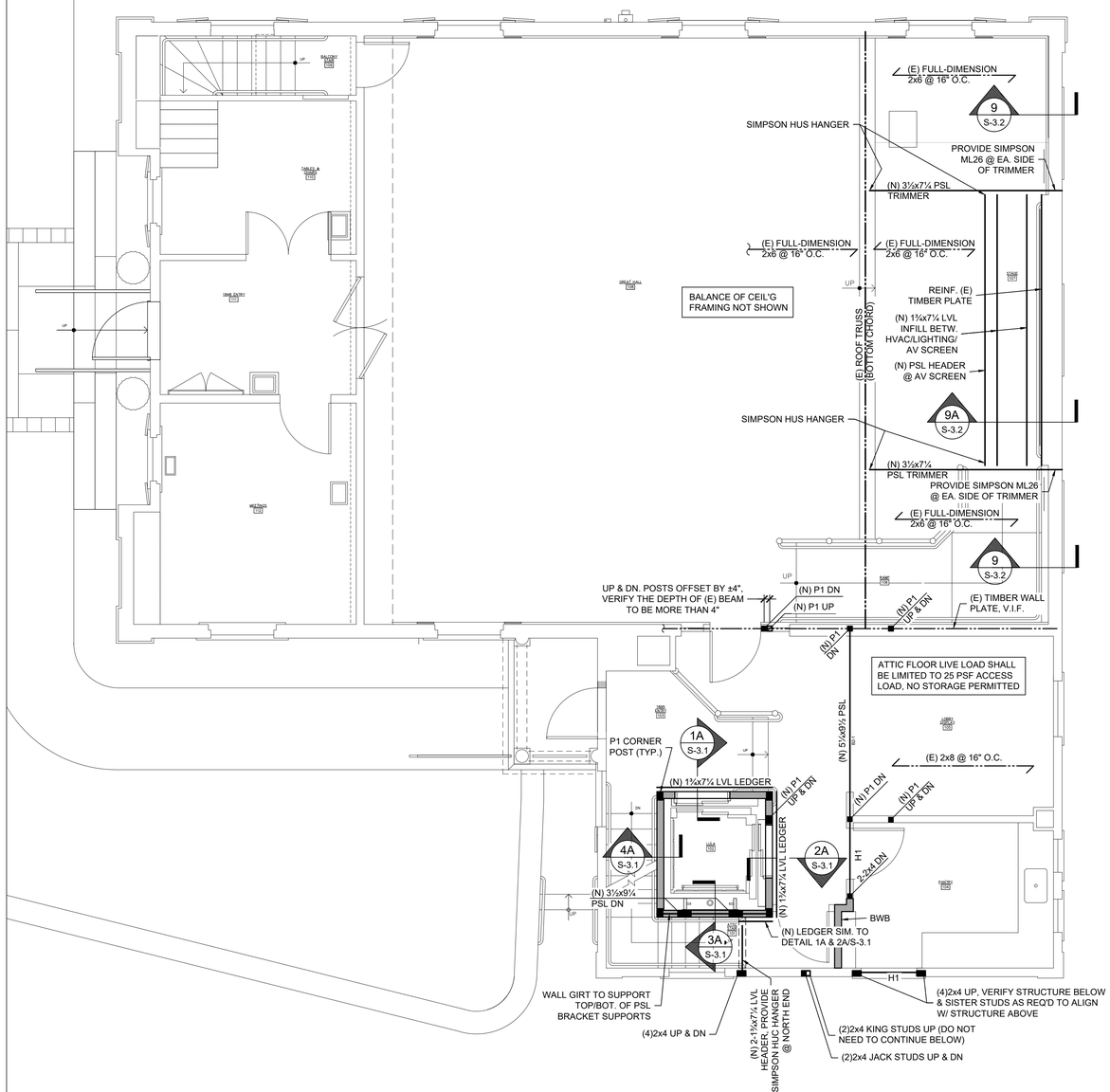
F3.0 - INDICATES (N) 3'-0"x3'-0"x15" CONC. FTG. REINF. W/ #4 @ 6" O.C. EA. WAY, BOT. (3" SIDE & BOT COVER)

H1 - INDICATES (N) 2-2x10 HEADER

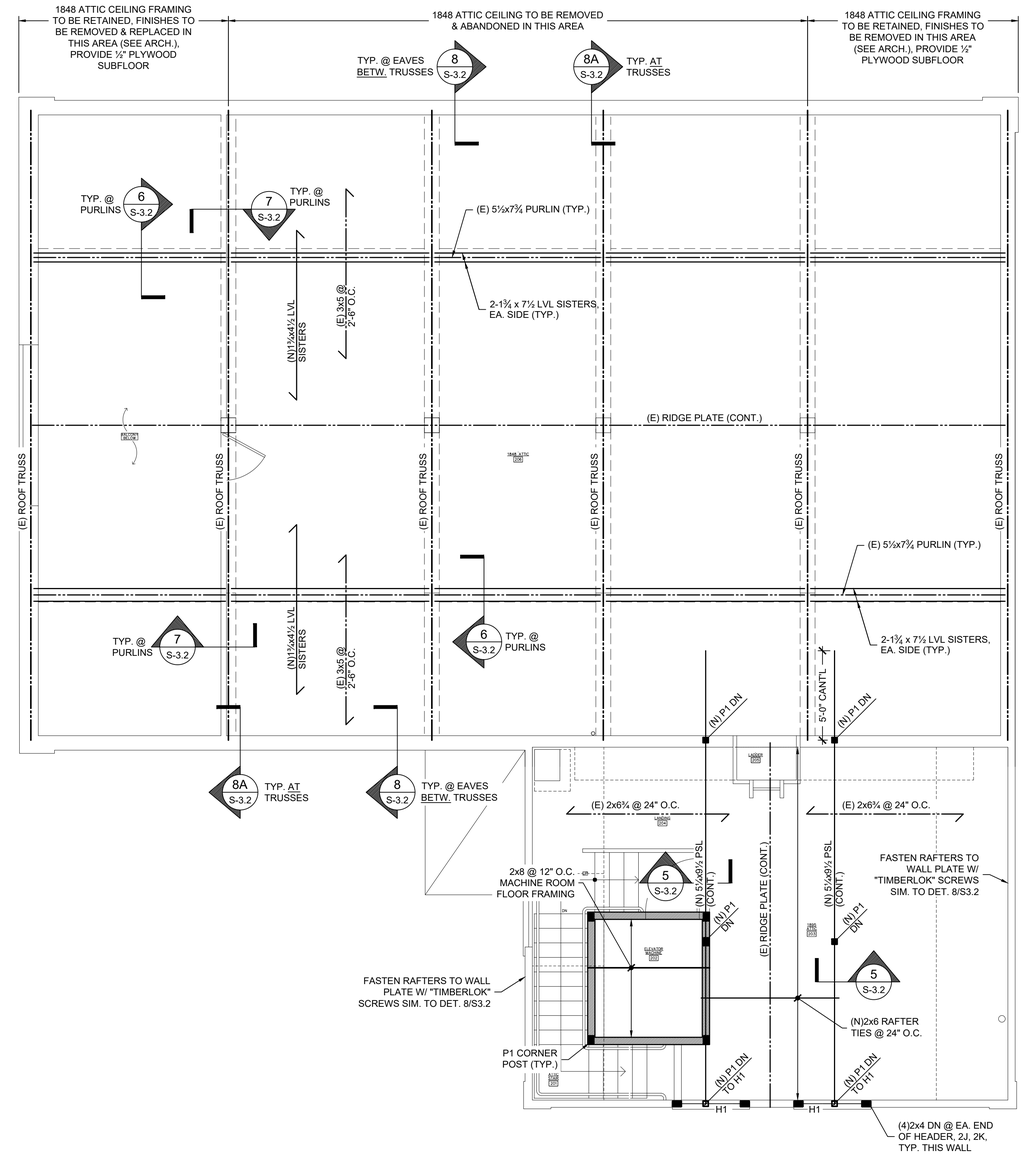
J1 - INDICATES (N) 1¾x5¼ LVLs @ 20" O.C. (ADDED W/IN EXIST. FIRST FLOOR FRAMING BAYS)

BWA - INDICATES INTERIOR BEARING WALL ABOVE

BWB - INDICATES INTERIOR BEARING WALL BELOW



B.3 / S-1.2 ATTIC FLOOR FRAMING PLAN
Scale: 1/4" = 1'-0"
N
4 0 4 8
SCALE OF FEET



B.4 / S-1.2 ROOF FRAMING PLAN
Scale: 1/4" = 1'-0"
N
4 0 4 8
SCALE OF FEET

IF ACTUAL CONDITIONS ENCOUNTERED IN THE FIELD VARY FROM THOSE ASSUMED, NOTIFY ARCHITECT IMMEDIATELY & ALLOW FOR RE-ISSUE OF DETAIL IN AFFECTED AREA

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tel: 617-876-7611
fax: 617-876-6420

STOW TOWN HALL RESTORATION
375 GREAT ROAD
STOW MASSACHUSETTS

PROJECT NAME:
PROJECT ADDRESS:

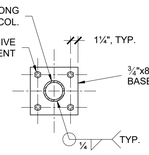
DRAWING TITLE: PARTIAL FRAMING PLANS

REV:

DATE: 30 JUNE 2022

FINAL CHECK SET
NOT FOR CONSTRUCTION

SHEET #:
S-1.2

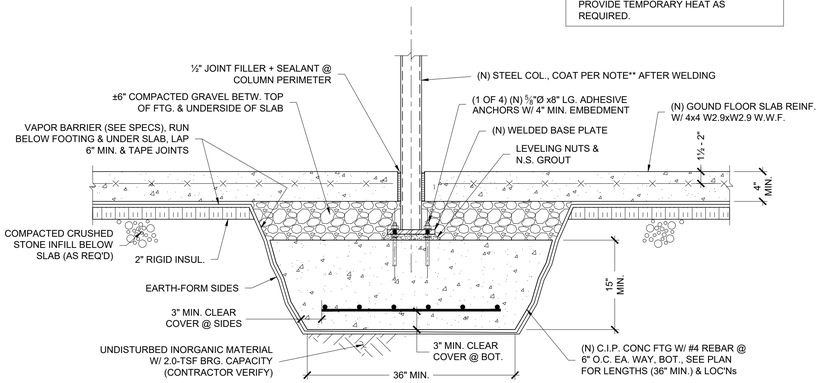


BASE PLATE PLAN DETAIL

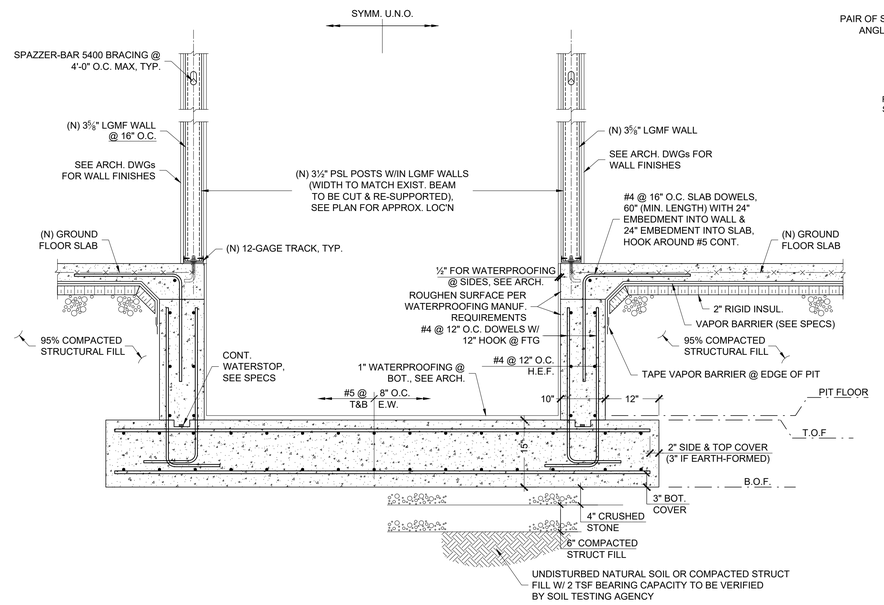
**COATING OPTIONS:
- TWO HEAVY APPLICATIONS OF BAR-RUST 235 MULTIPURPOSE EPOXY
- TWO HEAVY APPLICATIONS OF DURA-PLATE 235 MULTIPURPOSE EPOXY

(REINFORCING STEEL FOR FOOTINGS & EMBEDDED SECTIONS OF ANCHOR BOLTS NOT INCLUDED)

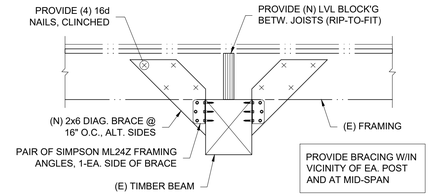
NOTE THE TEMPERATURES REQUIRED FOR THE SELECTED PRODUCT AND PROVIDE TEMPORARY HEAT AS REQUIRED.



REF. S-1.1 — 1 / S-2.1 COLUMN/FOOTING/BEAM SECTION
NTS



REF. S-1.1 — 2 / S-2.1 SECTION @ LU/LA PIT
¾" = 1'-0"



PROVIDE BRACING W/IN VICINITY OF EA. POST AND AT MID-SPAN

REF. S-1.1 — B / S-2.1 BEAM BRACING DETAIL
NTS

MINIMUM SPLICE & DEVELOPMENT LENGTH

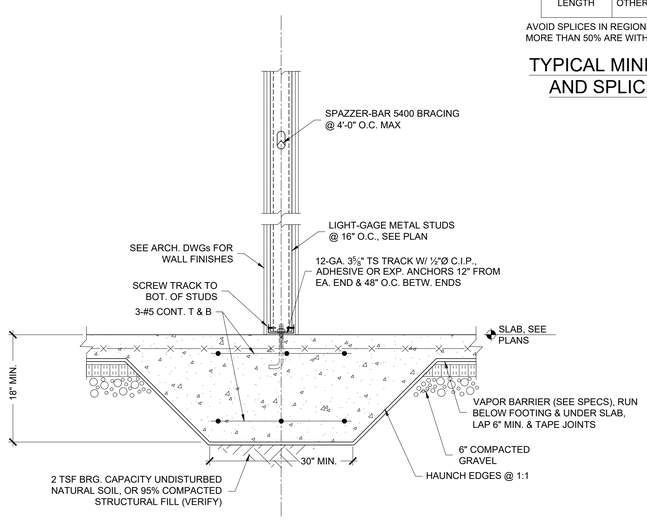
(UNLESS OTHERWISE SHOWN ON DRAWINGS)

(fy = 60 ksi, f'c = 4000 psi)

		#3	#4	#5	#6	#7	#8	#9	#10	#11
SPLICE LENGTH	TOP BARS OTHER BARS	18" 14"	24" 18"	30" 24"	36" 28"	42" 32"	51" 39"	64" 49"	82" 63"	100" 77"
DEVELOPMENT LENGTH	TOP BARS OTHER BARS	14" 12"	18" 14"	24" 18"	28" 21"	32" 25"	39" 30"	49" 38"	63" 48"	77" 59"

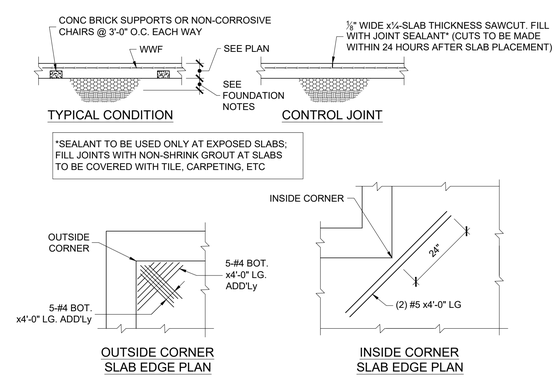
AVOID SPLICES IN REGIONS OF MAX. MOMENT. IF THIS IS NOT POSSIBLE STAGGER SPLICES SO THAT NOT MORE THAN 50% ARE WITHIN A REQUIRED LAP LENGTH; OTHERWISE INCREASE SPLICE LENGTHS BY 30%.

TYPICAL MINIMUM REINFORCEMENT DEVELOPMENT AND SPLICE LENGTH (CONCRETE f'c = 4,000 PSI)

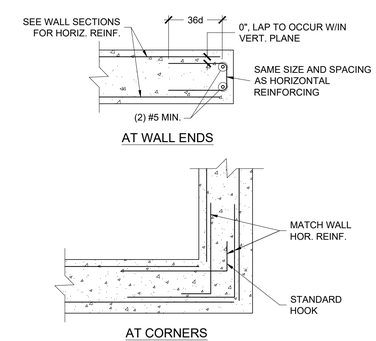


REF. S-1.1 — 3 / S-2.1 TYP. THICKENED SLAB SECTION
NTS

SEE DETAIL 1/S-2.1 FOR ADD'L INFO NOT REPEATED HERE



CONCRETE SLAB-ON-GRADE DETAILS
N.T.S.



PLAN DETAILS OF TYPICAL WALL REINFORCING
NTS

VERT. REINF. NOT SHOWN

IF ACTUAL CONDITIONS ENCOUNTERED IN THE FIELD VARY FROM THOSE ASSUMED, NOTIFY ARCHITECT IMMEDIATELY & ALLOW FOR RE-ISSUE OF DETAIL IN AFFECTED AREA

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MILLS WHITAKER ARCHITECTS LLC
P.O. BOX 750089
ARLINGTON MA 02475
tel: 617-876-7611
fax: 617-876-6420

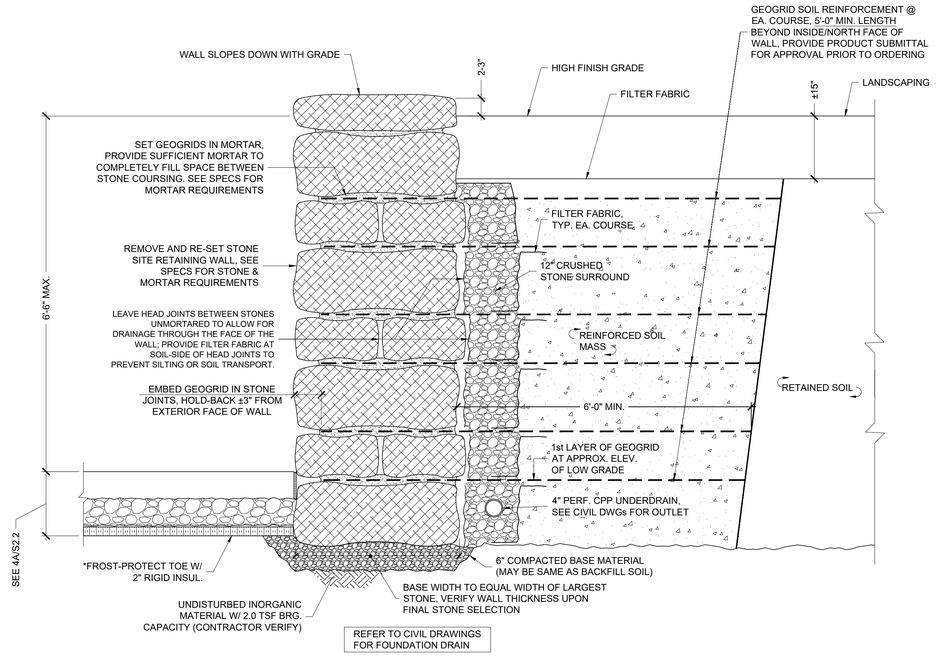
PROJECT NAME: STOW TOWN HALL RESTORATION
PROJECT ADDRESS: 375 GREAT ROAD STOW MASSACHUSETTS
DRAWING TITLE: SECTIONS AND DETAILS

REV:

DATE: 30 JUNE 2022

FINAL CHECK SET NOT FOR CONSTRUCTION

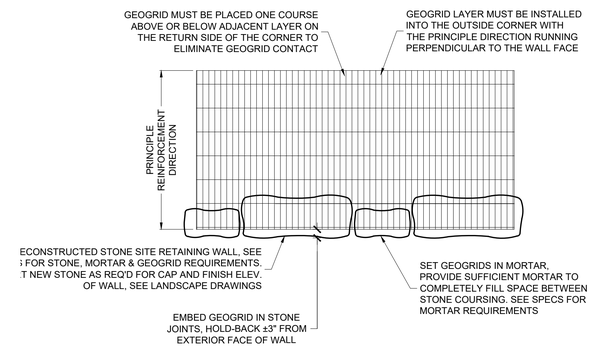
SHEET #: S-2.1



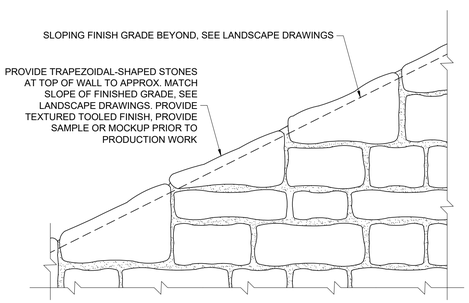
REF. S-1.1 — 4 / S-2.2

RETAINING WALL REPLACEMENT SECTION

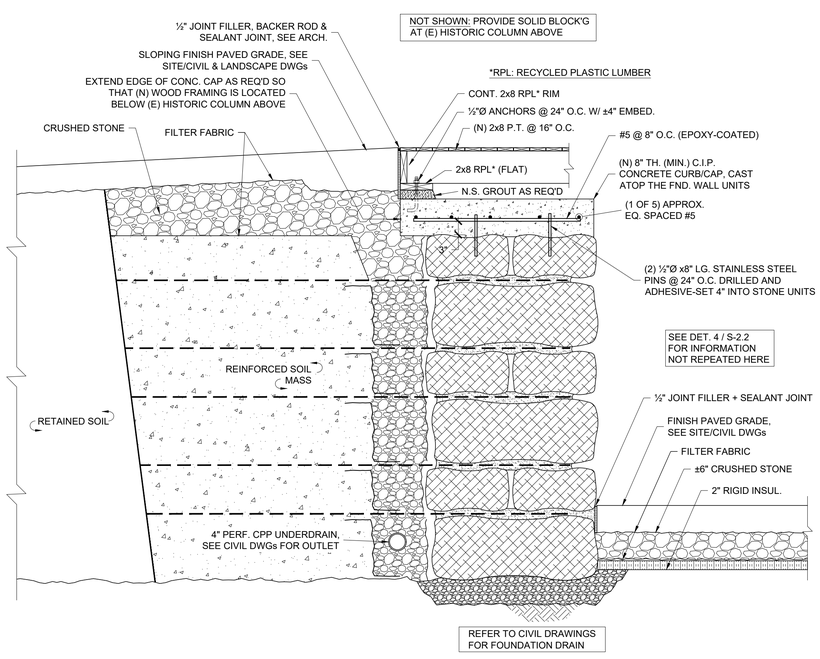
NTS



PLAN DETAIL



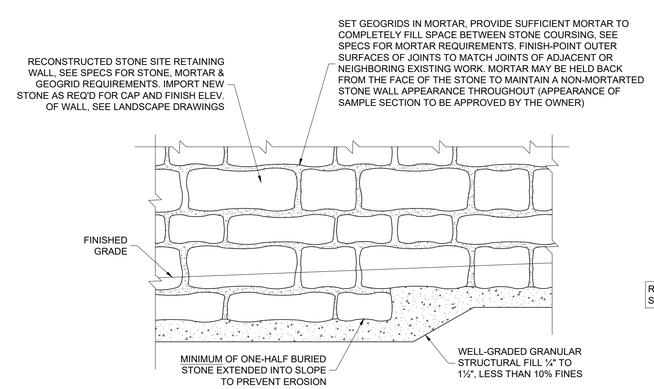
ELEVATION DETAIL @ TOP OF WALL



REF. S-1.1 — 4A / S-2.2

RETAINING WALL / JOIST POCKET DETAIL

NTS



RIGID INSULATION NOT SHOWN FOR CLARITY

ELEVATION DETAIL @ BOT. OF WALL

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PROJECT ADDRESS: 375 GREAT ROAD, STOW MASSACHUSETTS
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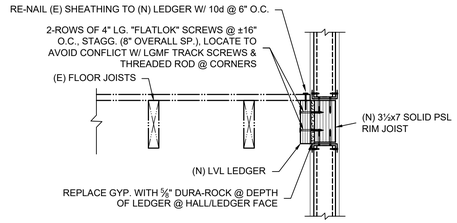
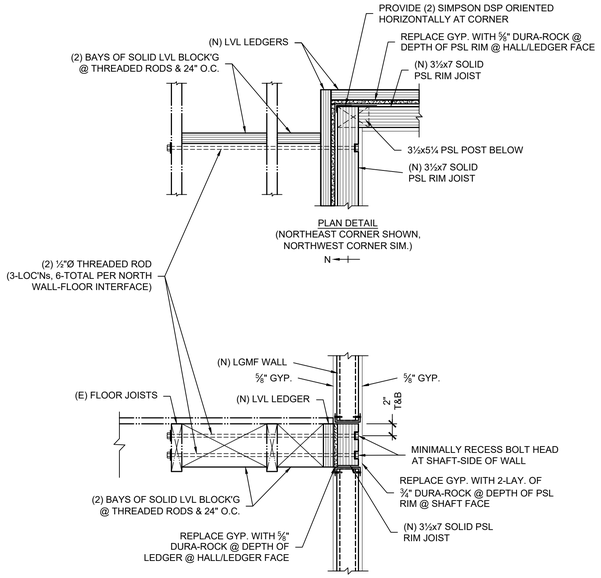


TYP. NORTH WALL

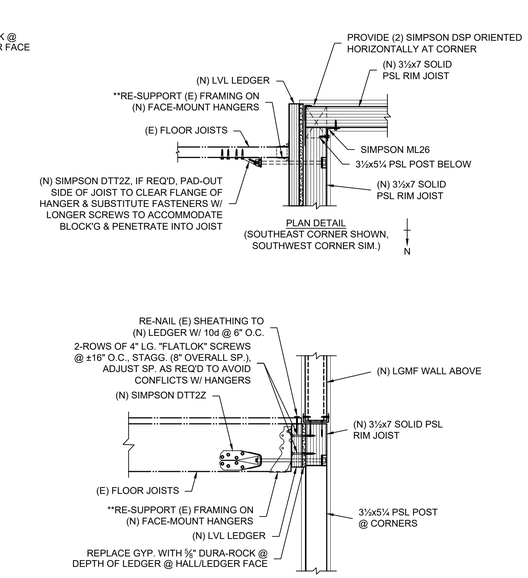
**FIELD-VERIFY SIZES & COORD. SPECIAL ORDER AS REQUIRED

IF REQ'D (AVOID IF POSSIBLE), ORDER HANGERS THAT ARE SLIGHTLY LARGER THAN THE WIDTH OF THE JOIST, SHIM SIDES TIGHT W/ PLYWOOD AS REQ'D SO THAT FLANGES ARE INSTALLED TIGHT TO ONE SIDE OF (E)JOIST & AT 90° ANGLES TO SEAT

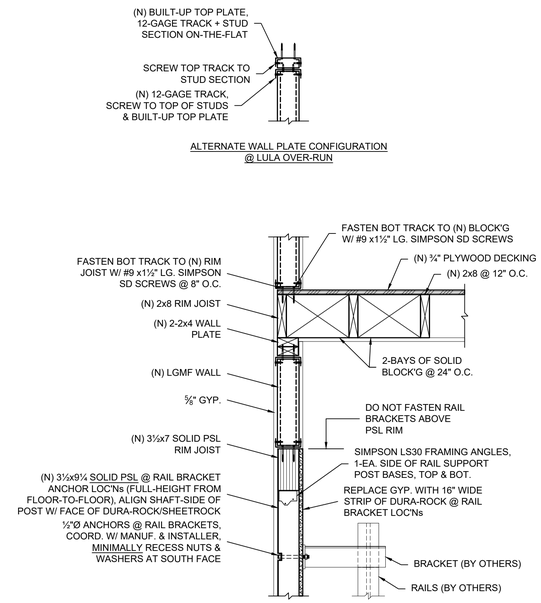
DETAILS ON THIS SHEET CONTAIN SIMILAR INFO. AND NOT ALL INFORMATION THAT IS TYPICAL IS CALLED OUT ON EACH DETAIL- CROSS REFERENCE THESE DETAILS FOR SIMILAR CONDITIONS NOT REPEATED



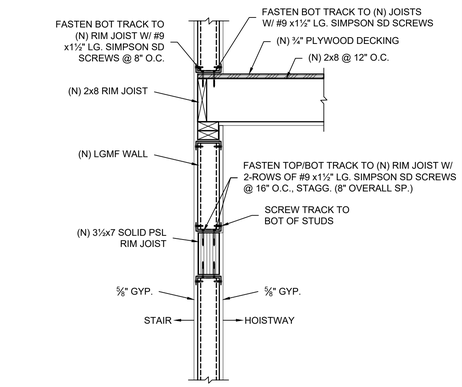
NORTH WALL NEAR CORNERS



EAST WALL



SOUTH WALL



WEST WALL

REF. S-1.1 (1A / S-3.1) WALL SECTION @ LULA
NTS

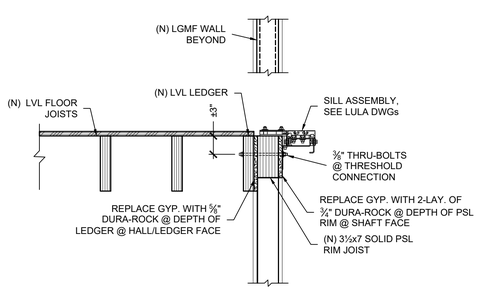
REF. S-1.1 (2A / S-3.1) WALL SECTION @ LULA
NTS

REF. S-1.2 (3A / S-3.1) WALL SECTION @ LULA
NTS

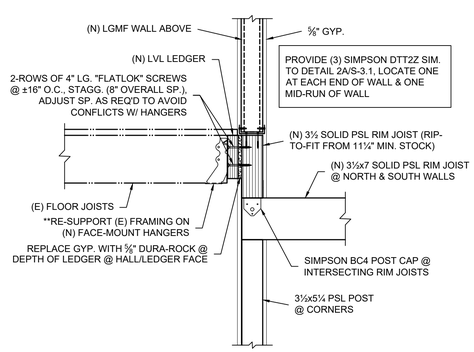
REF. S-1.2 (4A / S-3.1) WALL SECTION @ LULA
NTS

SOUTHWEST SIM. TO DETAIL 1A/S-3.1, FLIP VERTICALLY, PROVIDE SIMPSON BC4 @ SOUTHEAST CORNER PER DETAIL 2/S-3.1

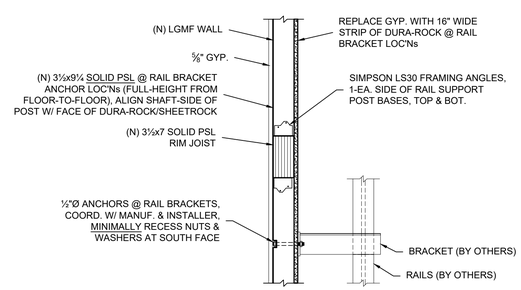
NORTHWEST CORNER PER DETAIL 1A/S-3.1, SOUTHWEST SIM., FLIP VERTICALLY



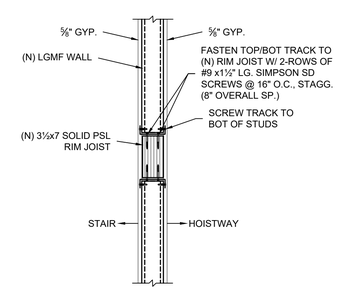
NORTH WALL @ ENDS OF SILL



EAST WALL



SOUTH WALL



WEST WALL

REF. S-1.1 (1 / S-3.1) WALL SECTION @ LULA
NTS

SEE DETAIL 1A/S-3.1 FOR TYP. LEDGER COND. (INCLUDING BLOCK'G) & ANCHORAGE AT CORNERS

REF. S-1.1 (2 / S-3.1) WALL SECTION @ LULA
NTS

REF. S-1.2 (3 / S-3.1) WALL SECTION @ LULA
NTS

REF. S-1.2 (4 / S-3.1) WALL SECTION @ LULA
NTS

IF ACTUAL CONDITIONS ENCOUNTERED IN THE FIELD VARY FROM THOSE ASSUMED, NOTIFY ARCHITECT IMMEDIATELY & ALLOW FOR RE-ISSUE OF DETAIL IN AFFECTED AREA

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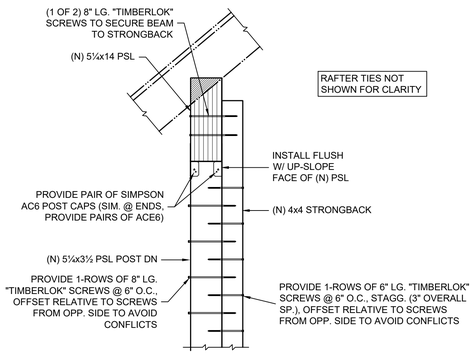
STOW TOWN HALL RESTORATION
375 GREAT ROAD
STOW MASSACHUSETTS

PROJECT NAME:
PROJECT ADDRESS:
DRAWING TITLE: SECTIONS AND DETAILS
REV:
DATE: 30 JUNE 2022

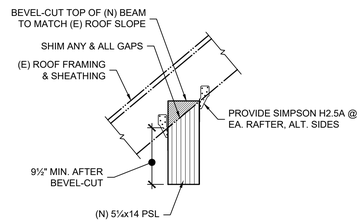
FINAL CHECK SET
NOT FOR CONSTRUCTION

SHEET #:
S-3.1



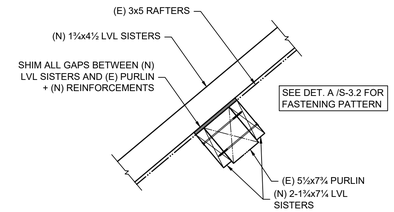
REF. S-1.2 5 S-3.2 **BEAM SECTION**
NTS

SEE X.1/S-1 FOR INFO NOT REPEATED HERE

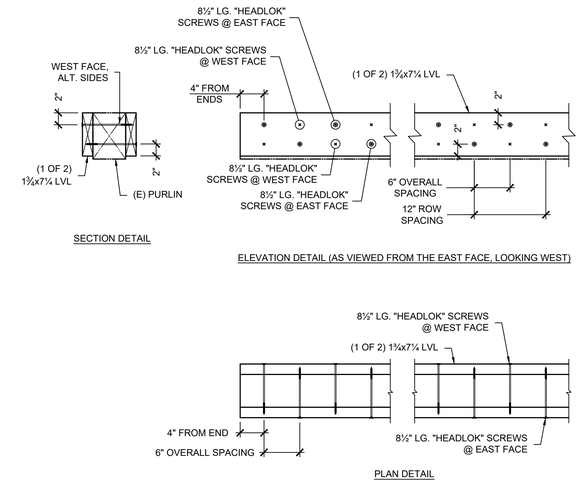


REF. S-1.2 5.A S-3.2 **BEAM SECTION**
NTS

ALONG LENGTH OF BEAM

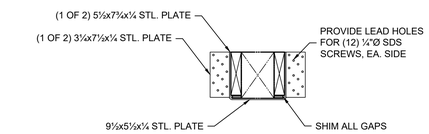


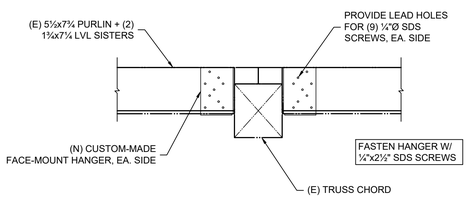
REF. S-1.2 6 S-3.2 **PURLIN SECTION**
NTS



"HEADLOK" FASTENING PATTERN

1" = 1'-0"

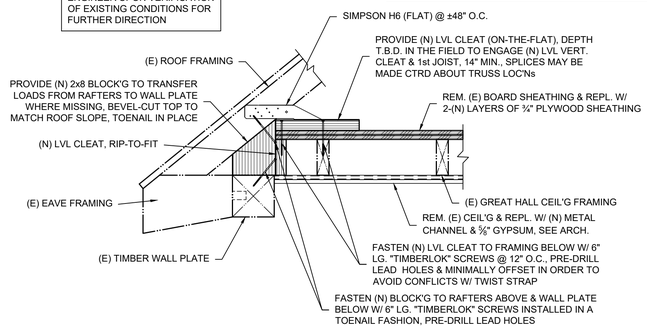




REF. S-1.2 7 S-3.2 **SECTION**
NTS

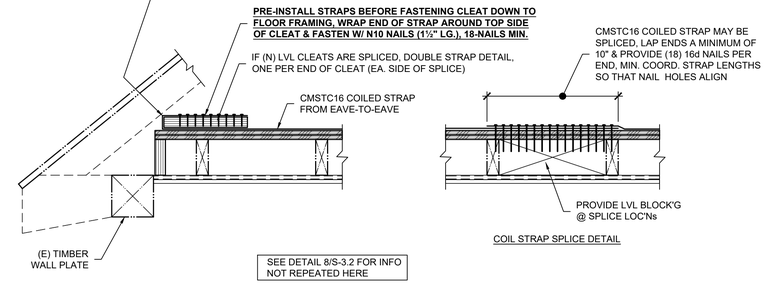
DETAIL IS CONCEPTUAL, NOTIFY ENGINEER UPON VERIFICATION OF EXISTING CONDITIONS FOR FURTHER DIRECTION

NEW DUCT OPENINGS TO BE AS CLOSE AS POSSIBLY TO THE EXTERIOR WALL WITHOUT CONFLICTING WITH (N) LVL CLEAT. CARRY RELOCATING JOISTS AS REQ'D TO PROVIDE SYMMETRICAL DUCT LAYOUT IN SCOPE & PROVIDE UNIT PRICE DEDUCT IF NOT REQ'D



REF. S-1.2 8 S-3.2 **WALL SECTION @ EAVE**
NTS

STRAP SHOWN OFFSET IN EXPLODED FASHION TO SHOW CONFIGURATION, INSTALL TIGHT WITH NO SLACK

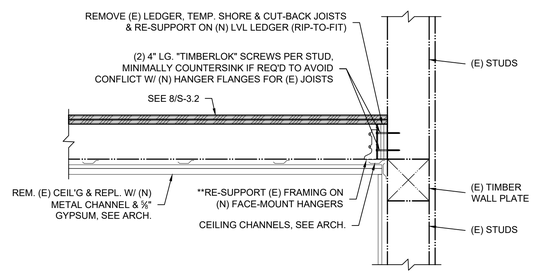


SEE DETAIL 8/S-3.2 FOR INFO NOT REPEATED HERE

REF. S-1.2 8A S-3.2 **WALL SECTION @ TRUSS LOC'N**
NTS

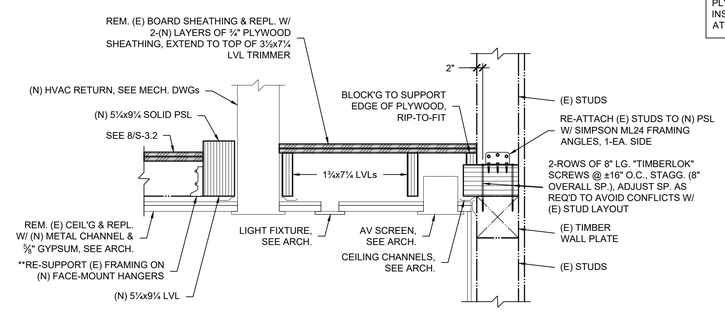
**FIELD-VERIFY SIZES & COORD. SPECIAL ORDER AS REQUIRED

IF REQ'D (AVOID IF POSSIBLE), ORDER HANGERS THAT ARE SLIGHTLY LARGER THAN THE WIDTH OF THE JOIST, SHIM SIDES TIGHT W/ PLYWOOD AS REQ'D SO THAT FLANGES ARE INSTALLED TIGHT TO ONE SIDE OF (E)JOIST & AT 90° ANGLES TO SEAT



REF. S-1.2 9 S-3.2 **WALL SECTION @ EAST GEW**
NTS

OUTBOARD OF AV SCREEN



REF. S-1.2 9A S-3.2 **WALL SECTION @ EAST GEW**
NTS

OUTBOARD OF AV SCREEN

IF ACTUAL CONDITIONS ENCOUNTERED IN THE FIELD VARY FROM THOSE ASSUMED, NOTIFY ARCHITECT IMMEDIATELY & ALLOW FOR RE-ISSUE OF DETAIL IN AFFECTED AREA

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PROJECT NAME: STOW TOWN HALL RESTORATION
PROJECT ADDRESS: 375 GREAT ROAD STOW MASSACHUSETTS

DRAWING TITLE: SECTIONS AND DETAILS

REV:

DATE: 30 JUNE 2022

FINAL CHECK SET NOT FOR CONSTRUCTION

SHEET #: S-3.2

GENERAL NOTES

1. ALL PLUMBING WORK SHALL BE DONE IN ACCORDANCE WITH THE MASSACHUSETTS STATE PLUMBING CODE.
2. CAREFULLY COORDINATE LOCATION OF PIPING WITH ALL OTHER TRADES.
3. ALL PIPING SHOWN DIAGRAMMATICALLY AND EXACT LOCATION SHALL BE DETERMINED IN THE FIELD.
4. ALL PIPING SHALL BE RUN CONCEALED ABOVE CEILINGS, IN WALLS AND IN CHASES, UNLESS OTHERWISE NOTED.
5. NO STRUCTURAL MEMBERS SHALL BE CUT WITHOUT THE APPROVAL OF THE STRUCTURE ENGINEER.
6. ALL PIPING SHALL BE SUPPORTED FROM BUILDING STRUCTURE.
7. THE TERM "PROVIDE" SHALL MEAN FURNISH AND INSTALL.
8. RUN WATER PIPE ON THE WARM SIDE OF BUILDING INSULATION. NO WATER PIPING SHALL BE RUN ON EXTERIOR WALLS.
9. PROVIDE DRAWOFFS WITH BALL VALVE, HOSE END VACUUM BREAKER, CAP & CHAIN AT ALL DOMESTIC WATER LOW POINTS AND PITCH PIPING TO DRAIN.
10. ALL SANITARY WASTE PIPING SHALL PITCH A MIN OF ¼" PER FT. FOR PIPING 4" & LARGER, AND ½" PER FT FOR PIPING UP TO 3".
11. PROVIDE BALANCING VALVES ON THE HOT WATER RE-CIRCULATION SYSTEM, AS REQUIRED AND/OR AS SHOWN.
12. PROVIDE SHOCK ABSORBERS ON ALL PIPING SERVICING FLUSH VALVE FIXTURES.
13. ALL PIPING SHALL BE NEW, INSTALLED PARALLEL TO BUILDING LINES AND PITCHED TO LOW POINTS.
14. PLUMBING CONTRACTOR SHALL PROVIDE FIRESTOPPING FOR ALL PENETRATIONS THRU FIRE WALLS AND FIRE RATED SEPARATIONS. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR THESE AREAS.
15. PLUMBING CONTRACTOR SHALL FURNISH, INSTALL AND MAINTAIN ALL SCAFFOLDING, HOISTING EQUIPMENT DERRICKS, ETC., NECESSARY FOR INSTALLATION OF WORK, UP TO 8' IN HEIGHT.
16. ALL PLUMBING PIPING AND DRAINS SHALL BE KEPT CLEAR OF BLOCKAGE WHILE CONSTRUCTION IS UNDERWAY. ALL PLUMBING PIPING SHALL BE DEBURRED BEFORE JOINTS ARE MADE
17. THE PLUMBING CONTRACTOR SHALL PROVIDE ALL CUTTING AND PATCHING IN ORDER TO ACCOMMODATE THE PLUMBING WORK
18. WHERE PLUMBING DROPS ONLY ARE SHOWN TO FIXTURES OR GROUPS OF FIXTURES, THE PLUMBING CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS OF WATER, SANITARY AND VENT TO EACH FIXTURE. PLUMBING CONNECTIONS TO FIXTURES SHALL BE IN ACCORDANCE WITH THE PLUMBING FIXTURE SCHEDULE. PROVIDE SERVICE STOP AT EACH FIXTURE
19. ALL ISOLATION VALVES AND BUTTERFLY VALVES INSTALLED IN WALLS OR ABOVE CEILINGS SHALL BE PROVIDED WITH ACCESS PANELS . WHERE REMOVABLE SUSPENDED CEILING TILES ARE USED, NO ACCESS PANELS ARE REQUIRED.
20. ALL PIPING RISER PENETRATIONS THRU FLOORS SHALL BE SEALED WATER TIGHT.
21. PRIOR TO BID, THE CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE THEMSELVES WITH ALL ASPECTS OF THE WORK AND ALL CONDITIONS TO WHICH THE WORK WILL BE INSTALLED. ANY DISCREPANCY BETWEEN THE WORK SHOWN ON THE DRAWINGS AND ANY CONDITIONS, EXISTING OR PROPOSED, SHALL BE SUBMITTED TO THE ARCHITECT IN WRITING. FAILURE OF THE CONTRACTOR TO FAMILIARIZE THEMSELVES WITH ALL EXISTING CONDITIONS AND THEIR RELATION TO THE NEW WORK AND FAILURE TO SUBMIT DISCREPANCIES IN WRITING TO THE ARCHITECT PRIOR TO THE COMMENCEMENT OF ANY PLUMBING WORK SHALL NOT BE ACCEPTED AS A CAUSE FOR ANY EXTRA CHARGE TO THE CONTRACT.

WATER HAMMER SCHEDULE

TAG NO	FIXTURE UNIT RATING	MANUFACTURER	MODEL
WHA-'A'	1-11	J.R. SMITH	5005
WHA-'B'	12-32	J.R. SMITH	5010
WHA-'C'	33-60	J.R. SMITH	5020
WHA-'D'	61-113	J.R. SMITH	5030
WHA-'E'	114-154	J.R. SMITH	5040
WHA-'F'	155-330	J.R. SMITH	5050

NOTES : WATER HAMMER ARRESTORS SHALL BE BY PRECISION, J.R. SMITH, WATTS, SIOUX CHIEF OR APPROVED EQUAL.

		PIPING/EQUIPMENT TO BE REMOVED
	CW	COLD WATER ABOVE FLOOR
	CW	COLD WATER BELOW FLOOR
	HW	HOT WATER ABOVE FLOOR
	SAN	SANITARY WASTE ABOVE FLOOR
	SAN	SANITARY WASTE BELOW FLOOR
	V	VENT ABOVE FLOOR
	V	VENT BELOW FLOOR
G	G	NATURAL GAS LINE ABOVE FLOOR
	FCO	FLOOR CLEANOUT
	FPCO	GRADE CLEANOUT
	CO	CLEANOUT
	WPCO	WALL CLEANOUT - PROVIDE ACCESS PANEL
		CAPPED PIPE
		UNION
		PIPE BREAK
		PIPE SLEEVE
		BALL VALVE
		GAS SHUT OFF VALVE
TP	TP	TRAP PRIMING STATION
		ELBOW UP OR RISE
		ELBOW DOWN OR DROP
		TEE DROP
		OPEN-END DRAIN, P-TRAP
	WHHB	WALL HYDRANT/HOSE BIBB
	CTE	CONNECT TO EXISTING
		REMOVALS EXTENT
	FD	FLOOR DRAIN

AFF	ABOVE FINISHED FLOOR
ARCH	ARCHITECT
BWV	BACKWATER VALVE
CFH	CUBIC FEET PER HOUR
CLG	CEILING
CO	CLEANOUT
CONN	CONNECTION
CONT	CONTINUATION
CTE	CONNECT TO EXISTING
DF	DRINKING FOUNTAIN
DWG	DRAWING
EC	ELECTRICAL CONTRACTOR
ELEC	ELECTRICAL
ETBR	EXISTING TO BE REMOVED
ETR	EXISTING TO REMAIN
EX	EXISTING
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FFE	FINISHED FLOOR ELEVATION
FT	FOOT/FEET
GC	GENERAL CONTRACTOR
GPF	GALLON PER FLUSH
GPM	GALLON PER MINUTE
GWH	GAS-FIRED WATER HEATER
HB	HOSE BIBB
INV. EL	INVERT ELEVATION
LAV.	LAVATORY
LPC	LIMIT OF PLUMBING CONTRACT
MIN	MINIMUM
MAX	MAXIMUM
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OED	OPEN-END DRAIN
PC	PLUMBING CONTRACTOR
SH	SHOWER
TP	TRAP PRIMER
UR	URINAL
VTR	VENT THRU ROOF
WC	WATER CLOSET
WH	WALL HYDRANT

PLUMBING FIXTURE SCHEDULE

TAG NO	FIXTURE	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL	SIZE	CW (in)	HW (in)	SAN (in)	V (in)	FLOW RATE	FAUCET	TRAP	SERVICE STOPS AND SUPPLIES	CARRIER	REMARKS
WC-1	WATER CLOSET	KOHLER	TRESHAM COMFORT HEIGHT K-3950	30-½" x 20-½" x 30-½"	½"	N/A	3"	2"	1.28 GPF	N/A	INTEGRAL	½" COMPRESSION x ½" O.D. CHROME PLATED LEAD FREE QUARTER-TURN, COMPRESSION STRAIGHT/ANGLE VALVE, CHROME PLATED COPPER RISER AND CHROME PLATED ESCUTCHEON EQUAL TO MCGUIRE LF2166CCSD	N/A	SEAT SHALL BE WHITE OPEN FRONT LESS COVER, HANDICAP ACCESSIBLE 5901.100, WITH CLOSET BOLT/WAX KIT.
LAV-1	LAVATORY	KOHLER	PINOIR WALL-MOUNT K-2028-1	18" x 12"	½"	½"	2"	2"	0.5 GPM	SLOAN EAF-100	1¼" X 1¼" 17GA CAST BRASS CHROME PLATED P-TRAP W/ CO PLUG, EQUAL TO MCGUIRE 8090CBOS6 OR APPROVED EQUAL	TWO ½" COMPRESSION x ½" O.D. CHROME PLATED LEAD FREE QUARTER-TURN, COMPRESSION STRAIGHT/ANGLE VALVE, CHROME PLATED COPPER RISER AND CHROME PLATED ESCUTCHEON EQUAL TO MCGUIRE LFBV2165CCFR15	Z1231 CONCEALED BY ZURN OR APPROVED EQUAL	WALL MOUNTED HANDICAP ACCESSIBLE HEIGHT WITH TRUEBRO MODEL #102 E-Z KIT. PROVIDE K-2057 BATRHOOM SINK SHROUD. PROVIDE SYMMONS MODEL#7-210-CK SET TO 110".
SK-1	SINK	DAYTON	D12521	25" x 21½" x 6 9/16"	½"	½"	2"	2"	1.5 GPM	MOEN 7864 WITH TMV-2	BASKET DRAIN D1125 1¼" X 1¼" 17GA CAST BRASS CHROME PLATED P-TRAP W/ CO PLUG, EQUAL TO MCGUIRE 8089CBOS6	TWO ½" COMPRESSION x ½" O.D. CHROME PLATED LEAD FREE QUARTER-TURN, COMPRESSION STRAIGHT/ANGLE VALVE, CHROME PLATED COPPER RISER AND CHROME PLATED ESCUTCHEON EQUAL TO MCGUIRE LFBV2165CCFR15		-
MSB-1	SERVICE SINK	KOHLER	WHITBY	28" X 28"	½"	½"	3"	2"	UNRESTRICTED	MOEN 8124	3"	N/A	N/A	WALL GUARDS, MOP BRACKET, HOSE BRACKET, FAUCET BRASS CONSTRUCTION, CHROME FINISH, VACUUM BREAKER, INTEGRAL CHECK STOPS, CERAMIC DISC CARTRIDGE, ¼ TURN OPERATION
HB-1	HOSE BIBB	CHICAGO	952	-	½"	-	-	-	-	-	-	-	-	MODEL NO. 293 POLISHED CHROME-PLATED FAUCET, 3/4 INCH HOSE THREAD OUTLET, REMOVABLE TEE HANDLE, 1/2 INCH INLET, WALL FLANGE. CHICAGO E-27 SPOUT OUTLET INLINE BACKFLOW PREVENTER WITH 3/4 INCH HOSE INLET AND OUTLET.

NOTES : ALL PLUMBING FIXTURES, FAUCETS, AND FLUSH VALVES SHALL BE FIELD ADJUSTED TO ENSURE PROPER AND CODE COMPLIANT OPERATION FOR TEMPERATURE AND FLOW. ALL LAV FAUCETS SHALL BE FIELD ADJUSTED TO LIMIT THE HOT WATER TEMPERATURE FROM THE FAUCET TO A MAXIMUM OF 110°F. PROVIDE SERVICE STOPS FOR ALL FIXTURES. ALL EXPOSED WATER AND WASTE PIPING ASSOCIATED WITH FIXTURES SHALL BE CHROME FINISH. PROVIDE ALL SUPPLIES, SERVICE STOPS, TAILPIECES AND TRAPS FOR FIXTURES AS REQUIRED. PROVIDE ALL FINAL CONNECTIONS. PROVIDE CONCEALED FIXTURE CARRIERS FOR ALL WALL MOUNTED PLUMBING FIXTURES. FIXTURE CARRIERS SHALL BE AS RECOMMENDED BY THE PLUMBING FIXTURE MANUFACTURERS AND SHALL BE BY WADE, SMITH OR ZURN

MATERIAL SPECIFICATION

SERVICES		CAST IRON - HUB & SPIGOT PIPE	CAST IRON - HUBLESS (NO-HUB) PIPE	COPPER DWV PIPE	WATER TUBE TYPE L COPPER PIPE	BLACK STEEL SCH40 PIPE	REMARKS
COLD WATER	ABOVE GROUND				■		W/IDENTIFICATION
	BELOW GROUND						
HOT WATER	ABOVE GROUND				■		W/IDENTIFICATION
	BELOW GROUND						
SANITARY WASTE/STORM DRAIN	ABOVE GROUND		■	■			W/IDENTIFICATION
	BELOW GROUND						
SANITARY VENT	ABOVE GROUND		■	■			W/IDENTIFICATION
	BELOW GROUND						
INDIRECT WASTE	ABOVE GROUND			■			W/IDENTIFICATION
	BELOW GROUND						
NATURAL GAS	EXTERIOR					■	CORROSION RESISTANT COATING AND IDENTIFICATION

RE-CIRCULATING PUMP SCHEDULE

TAG NO	SYSTEM	MANUFACTURER	MODEL	HEAD	FLOW	ELECTRICAL REQUIREMENTS			REMARKS
						VOLTS	HZ	HP	
RP-1	DOMESTIC HW	GRUNDFOS	ALPHA	4.05	3 GPM	120	60	1/2	ALL BRONZE CONSTRUCTION. PROVIDE W/ VIBRATION ISOLATION SUPPORT. PROVIDE WITH TACO DIGITAL TIMER 265-3 AND AQUASTAT 563-2.

NOTES : RECIRCULATING PUMP SHALL BE BY TACO, GRUNDFOS, APPOLLO OR APPROVED EQUAL

ELECTRIC WATER HEATER

TAG NO	MANUFACTURER	MODEL	NUMBER OF ELEMENTS	TEMPERATURE SETTING (°F)	STORAGE (GAL)	RECOVERY AT 80°F (GPH)	ELECTRICAL REQUIREMENTS			REMARKS
							KW	VOLTS	PH	
HWH-1	A.O SMITH	DEL-30	2	120	30	20	4	208	3	WALL HUNG WATER HEATERS. PROVIDE SAFE WASTE PAN AND COORDINATE ALL ELECTRICAL REQUIREMENTS W/ ELECTRICAL CONTRACTOR.

NOTES : COORDINATE W/ E.C. WATER HEATER SHALL BE BY A.O SMITH, STATE, BRADFORD WHITE, OR APPROVED EQUAL.

TRAP PRIMER SCHEDULE

TAG	DESIGNATION	MANUFACTURER	MODEL	COMMENTS
TP-1	UNDER LAV TRAP PRIMER	PRECISION PLUMBING PRODUCTS	PRO1-ULP500	-
TP-2	MECHANICAL TRAP PRIMER	PRECISION PLUMBING PRODUCTS	P1-500	-
TP-3	ELECTRONIC TRAP PRIMER	PRECISION PLUMBING PRODUCTS	MPB-500-115V	115 VOLT PRIMER WITH 6 FOOT 3 PRONG PLUG & DISTRIBUTION BOX

NOTES: ALL FLOOR DRAINS TO BE EQUIPPED WITH TRAP PRIMER UNLESS RECEIVING CONTINUOUS OR SEMI-CONTINUOUS FLOW FROM AN INDIRECT WASTE FIXTURE. NOT ALL TRAP PRIMERS OR PIPING ARE SHOWN ON DRAWINGS.

PIPING INSULATION THICKNESS SCHEDULE

TEMPERATURE	INSULATION CONDUCTIVITY		NOMINAL PIPE OR TUBE SIZE		
	CONDUCTIVITY	MEAN RATING TEMPERATURE	< 1"	1" < 1½"	1½" < 4"
40°F -60°F	0.21 - 0.27	75	0.5"	0.5"	1.0"
105°F - 140°F	0.21 - 0.28	100	1.0"	1.0"	1.5"

FOR PIPING SMALLER THAN 1½" AND LOCATED IN PARTITIONS WITHIN CONDITIONED SPACES, REDUCTION OF 1" INSULATION THICKNESS SHALL BE PERMITTED, BUT NOT TO A THICKNESS LESS THAN 1"

Progress Set Requires Final Coordination with All Other Trades prior to Issuance of Bidding & Construction Documents

EJECTOR PUMP SCHEDULE

TAG NO.	TYPE	MANUFACTURER	MODEL	FLOW(GPM)	HEAD (FT.)	INLET	OUTLET (IN.)	ELECTRICAL REQUIREMENTS					REMARKS
								VOLTS	HZ	HP	PH	RPM	
EP-1	DUPLEX SET OF WEIL PUMP CO. 3" SUBMERSIBLE EJECTOR PUMPS	WEIL	SERIES 2500 MODEL 2533	100 GPM	20'TDH	4"	3"	208	60	2.0	3	1750	PROVIDE 48"DIA. X 60 DEEP FIBERGLASS BASIN WITH INLET AND ANCHOR FLANGE 6" FROM TOP AS REQUIRED. PROVIDE 53" ROUND STEEL GAS TIGHT COVER WITH ALL NECESSARY OPENINGS. EACH PUMP TO HAVE WEIL 2613-3 DUPLEX REMOVAL SYSTEM. DUPLEX TOP DISCHARGES, CHAMBER VENT AND ELECTRICAL CONNECTIONS. SEE SPECIFICATION FOR FURTHER DETAILS.

NOTES : COORDINATE W/ ELECTRICAL CONTRACTOR

DRAIN SCHEDULE

TAG NO	TYPE	STYLE	MANUFACTURER	MODEL	OUTLET	STRAINER	REMARKS
FD-1	FLOOR DRAIN	NO-HUB	ZURN	ZN415-P-NH	3"	5"	CAST IRON BODY AND FLASHING COLLAR WITH PROTECTOR CAP, ½" TRAP PRIMER CONNECTION, 5-INCH DIAMETER NICKEL BRONZE ADJUSTABLE ROUND STRAINER

NOTES : PROVIDE ALL FLOOR DRAINS WITH TRAP PRIMING SYSTEM SIOUX CHIEF 695-01.

BLW

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HVAC * Electrical * Plumbing * Fire Protection

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PROJECT NAME: STOW TOWN HALL RESTORATION
PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

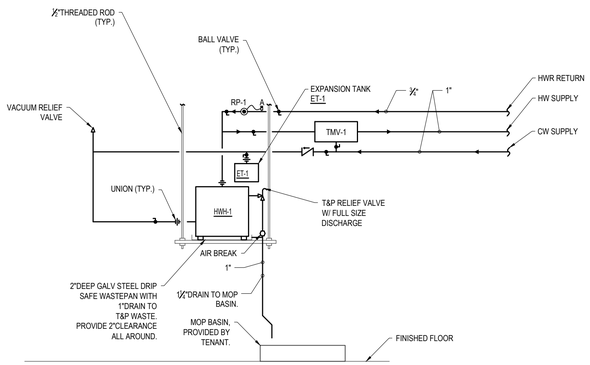
DRAWING TITLE: PLUMBING LEGEND, ABBREVIATIONS, NOTES & SCHEDULES

DATE: 11 JUN 2021

PROGRESS DRAWINGS NOT FOR CONSTRUCTION

SHEET #:

P-01



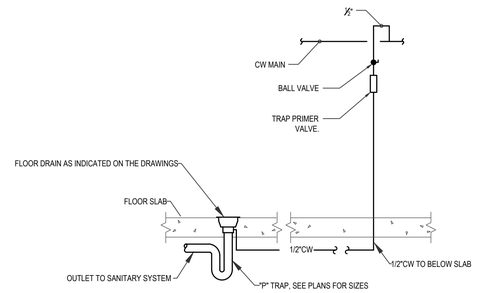
NOTES :

1. ELEC WATER HEATER SHALL BE INSTALLED ON WALL, ABOVE MOP SINK. PROVIDE SUPPORT, AS REQUIRED.

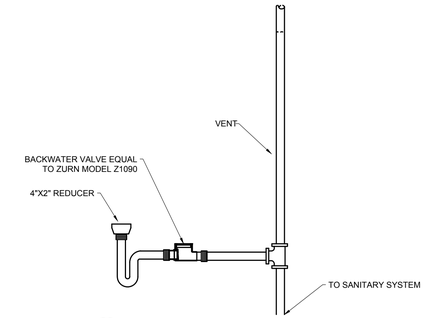
2. ELEC WATER HEATER SHALL BE COORDINATED WITH TENANT WORK.

3. PROVIDE ½" CD PLYWOOD UNDERNEATH SAFE WASTE PAN.

1 TYPICAL ELECTRIC WATER HEATER MOUNTED ABOVE MOP SINK DETAIL
NOT TO SCALE



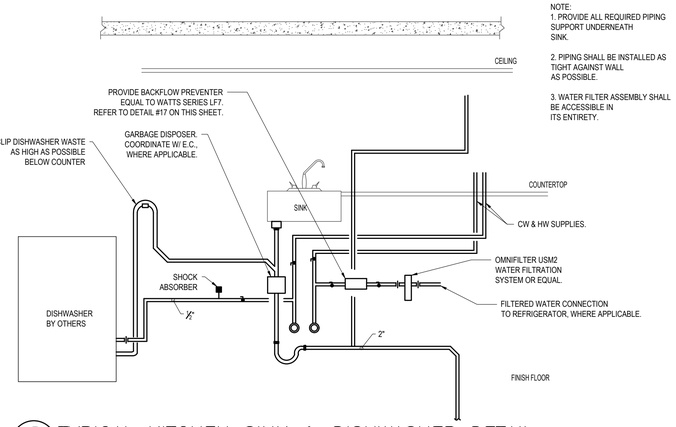
2 TYPICAL TRAP PRIMER AT FLOOR DRAIN
NOT TO SCALE



6 OPEN END DRAIN DETAIL
NOT TO SCALE

NOTES:

1. COORDINATE FINAL LOCATION W/ HVAC COTRACTOR

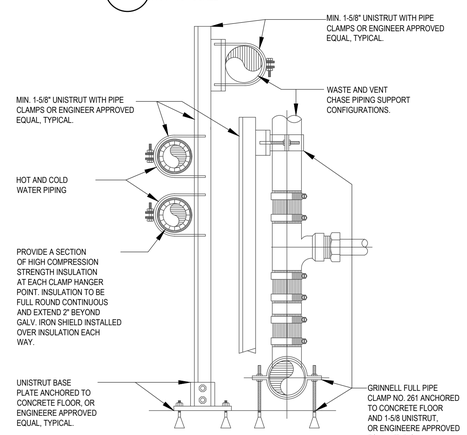


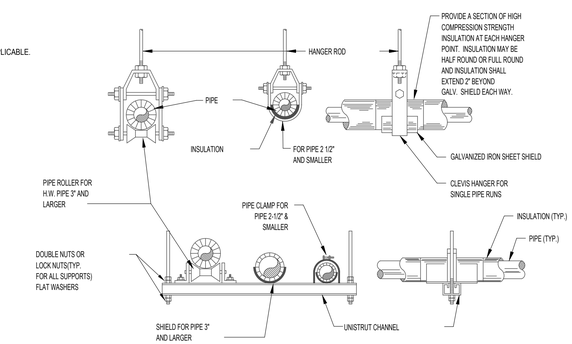
NOTE:
1. PROVIDE ALL REQUIRED PIPING SUPPORT UNDERNEATH SINK.

2. PIPING SHALL BE INSTALLED AS TIGHT AGAINST WALL AS POSSIBLE.

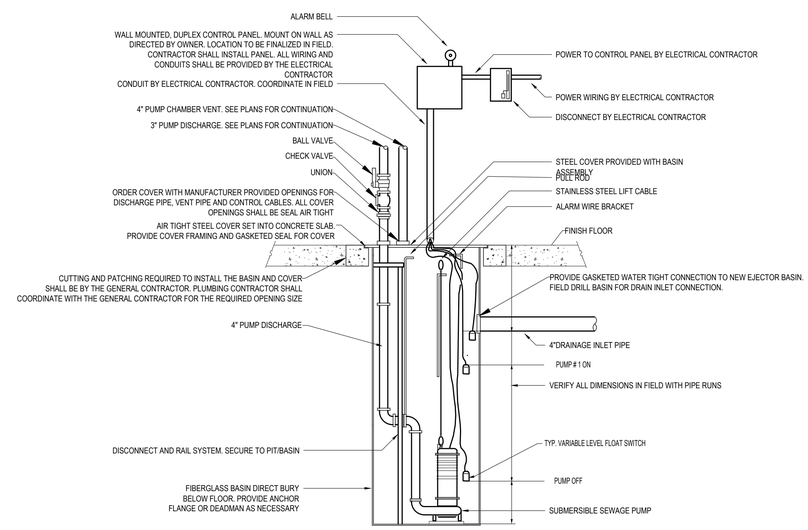
3. WATER FILTER ASSEMBLY SHALL BE ACCESSIBLE IN ITS ENTIRETY.

3 TYPICAL KITCHEN SINK & DISHWASHER DETAIL
NOT TO SCALE





4 TYPICAL PIPING HANGERS AND SUPPORTS DETAIL
NOT TO SCALE



EJECTOR NOTES

1. EJECTOR SYSTEM MANUFACTURER SHALL BE ZOELLER AND SHALL COME COMPLETE AS A SYSTEM INCLUDING BASIN, CONTROL PANEL, PUMPS, VALVES, FLOAT SWITCHES, DISCONNECT SYSTEM AND COVER. THE PLUMBING CONTRACTOR SHALL ASSEMBLE ALL COMPONENTS IN THE FIELD

2. ALL PUMPS, JUNCTION BOXES, FLOAT SWITCHES, CABLES, VALVES, UNIONS, DISCONNECT RAIL SYSTEMS, LIFTING CABLE, PULL ROD, COVER, AND ALL ACCESSORIES, PIPING AND EQUIPMENT ASSOCIATED WITH THE EJECTOR PUMPS AND LOCATED INSIDE THE PIT SHALL BE BY ZOELLER OR APPROVED EQUAL

3. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL WIRING AND CONDUIT. ELECTRICIAN SHALL MAKE ALL FINAL CONNECTIONS UNLESS OTHERWISE NOTED ABOVE

4. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL ALL CABLE ASSOCIATED WITH THE FLOAT SWITCHES. FINAL CONNECTIONS OF THE CABLES TO THE CONTROL PANEL SHALL BE BY THE ELECTRICAL CONTRACTOR. POWER TO THE PUMPS SHALL BE BY THE ELECTRICAL CONTRACTOR. POWER TO THE CONTROL PANEL SHALL BE BY THE ELECTRICAL CONTRACTOR

5. CONTROL PANEL SHALL INCLUDE FOLLOWING: MAGNETIC STARTERS, FUSIBLE DISCONNECT SWITCH, TOA SELECTOR SWITCH, PUMP RUNNING LIGHT, 4" ALARM BELL 120V MOUNTED ON PANEL DOOR, 1 NUMBERED AND WIRED TERMINAL STRIP WITH SET OF CONTACTS FOR REMOTE ALARM DEVICE AND INTEGRAL TRANSFORMER FOR REDUCTION OF VOLTAGE TO 115V

6. PLUMBING CONTRACTOR SHALL FIELD DRILL ALL OPENINGS IN THE PUMP BASIN AND COVER FOR ALL PENETRATIONS AND SHALL PROVIDE WATER TIGHT SEALS

7. THE CUTTING AND PATCHING OF THE EXISTING CONCRETE FLOOR SLAB TO ACCOMMODATE THE PUMP BASIN AND COVER SHALL BE BY THE GENERAL CONTRACTOR. THE PLUMBING CONTRACTOR SHALL COORDINATE WITH THEN GENERAL CONTRACTOR FOR THE EXTENT OF THE WORK. THE EXCAVATION FOR THE BASIN SHALL BE BY THE PLUMBING CONTRACTOR

5 DUPLEX EJECTOR PUMP SYSTEM
NOT TO SCALE

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PROJECT NAME: STOW TOWN HALL RESTORATION

PROJECT ADDRESS: 375 GREAT ROAD, STOW MA 01775

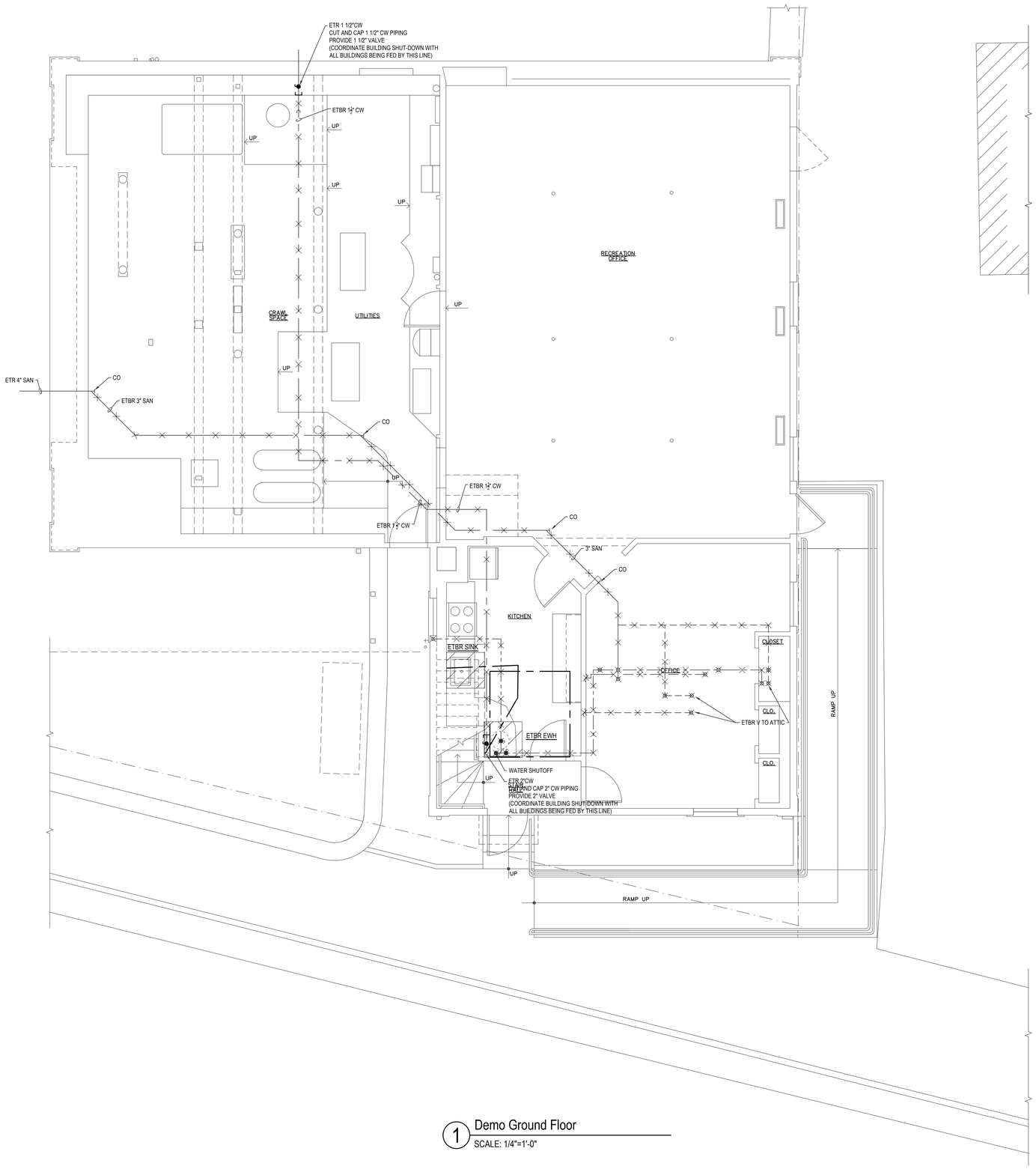
DRAWING TITLE: PLUMBING DETAILS

DATE: 11 JUN 2021

PROGRESS DRAWINGS NOT FOR CONSTRUCTION

SHEET #:

P-02



1 Demo Ground Floor

SCALE: 1/4"=1'-0"

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PROJECT NAME: STOW TOWN HALL RESTORATION

PROJECT ADDRESS: 375 GREAT ROAD
STOW MA 01775

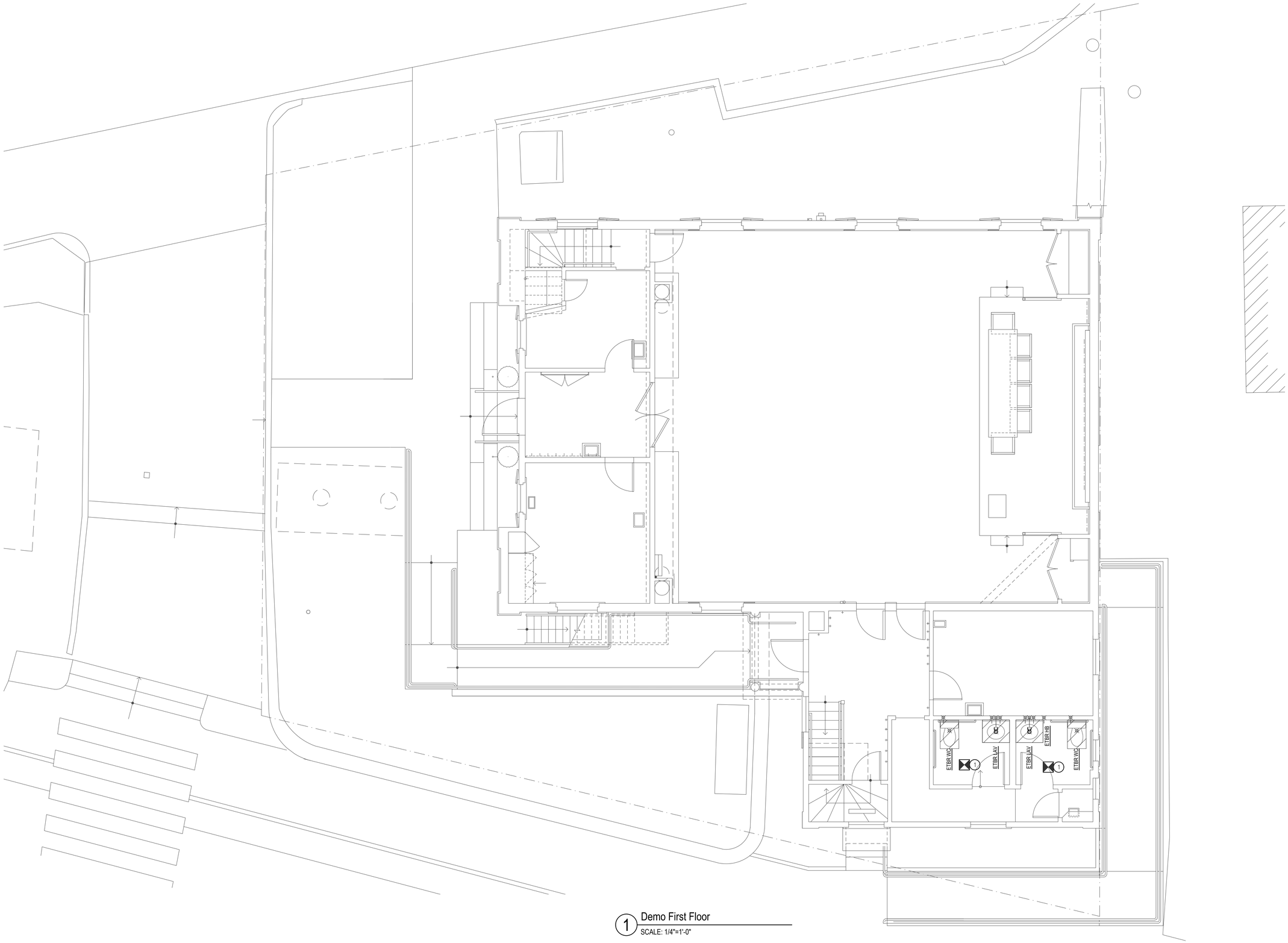
DRAWING TITLE: PLUMBING - GROUND FLOOR DEMO PLAN

DATE: 11 JUN 2021

PROGRESS DRAWINGS
NOT FOR CONSTRUCTION

SHEET #:

PD-10.0



1 Demo First Floor
SCALE: 1/4"=1'-0"

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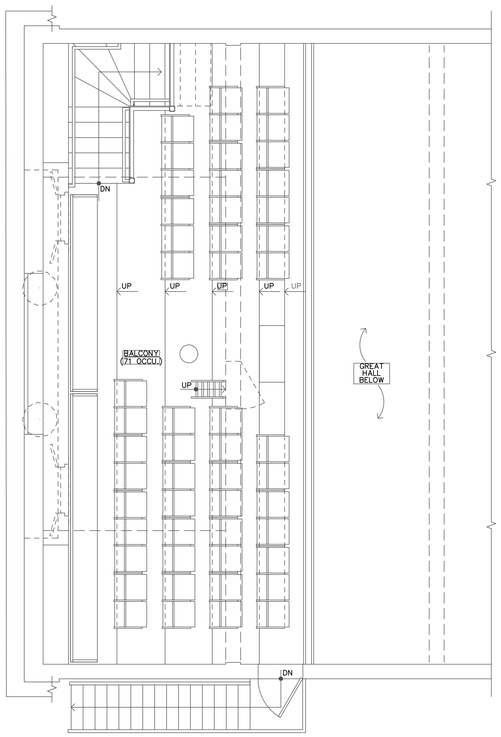
PROJECT ADDRESS: 375 GREAT ROAD
STOW MA 01775

DRAWING TITLE: PLUMBING - FIRST FLOOR DEMO PLAN

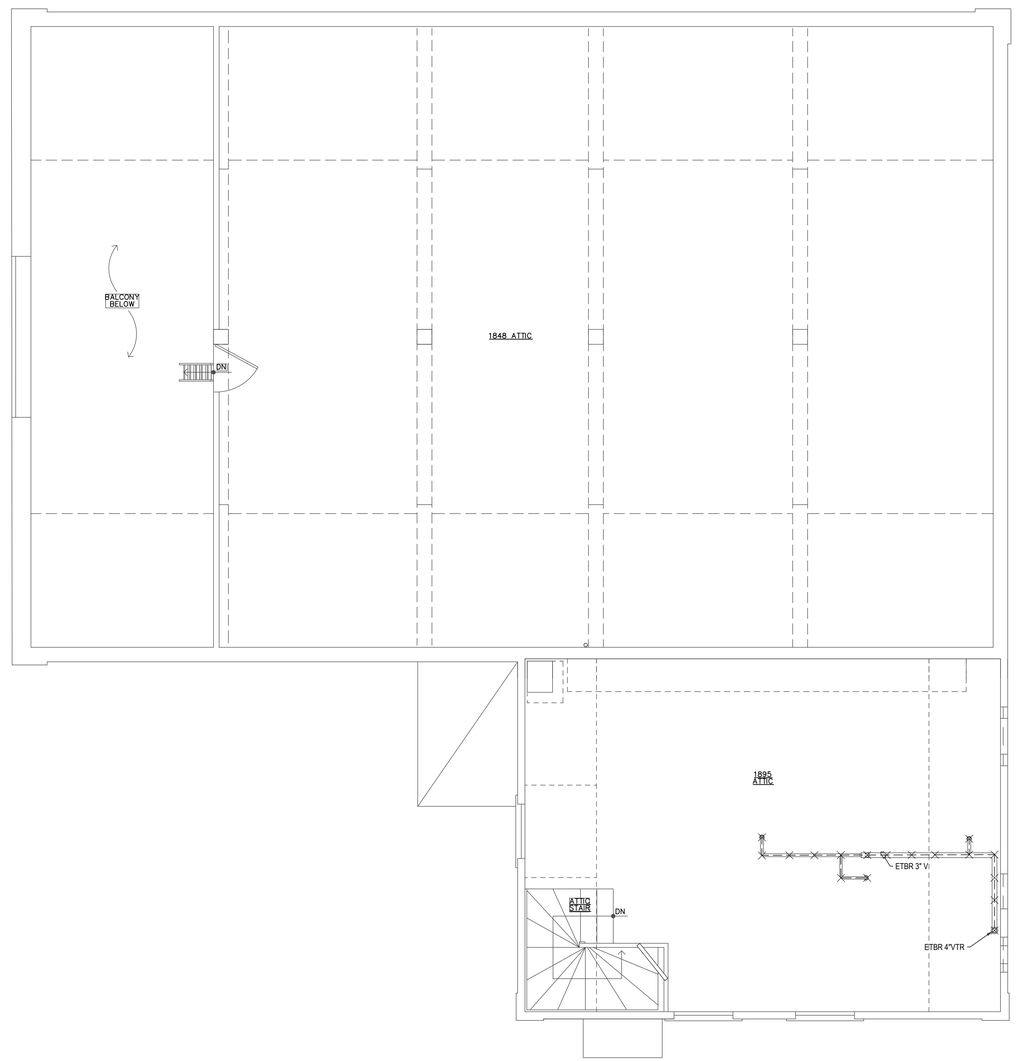
DATE: 11 JUN 2021

PROGRESS DRAWINGS
NOT FOR CONSTRUCTION

SHEET #:
PD-11.0



1 Demo Balcony
SCALE: 1/4"=1'-0"



2 Demo Attic
SCALE: 1/4"=1'-0"

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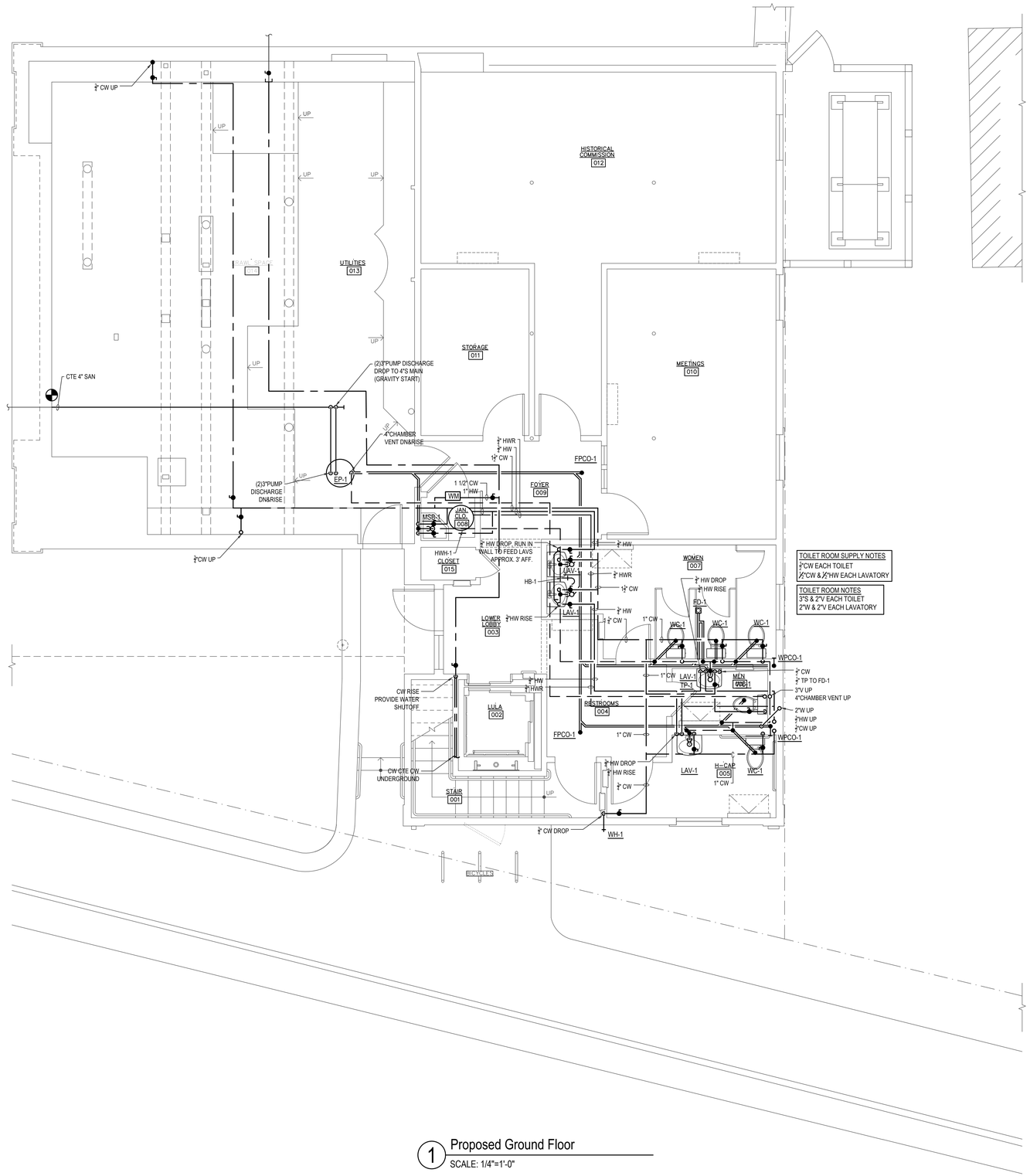
STOW MA 01775

DRAWING TITLE: PLUMBING - BALCONY & ATTIC DEMO PLAN

DATE: 11 JUN 2021

PROGRESS DRAWINGS
NOT FOR CONSTRUCTION

SHEET #:
PD-12.0



TOILET ROOM SUPPLY NOTES
¾"CW EACH TOILET
½"CW & ½"HW EACH LAVATORY

TOILET ROOM NOTES
3"S & 2"V EACH TOILET
2"W & 2"V EACH LAVATORY

1 Proposed Ground Floor
SCALE: 1/4"=1'-0"

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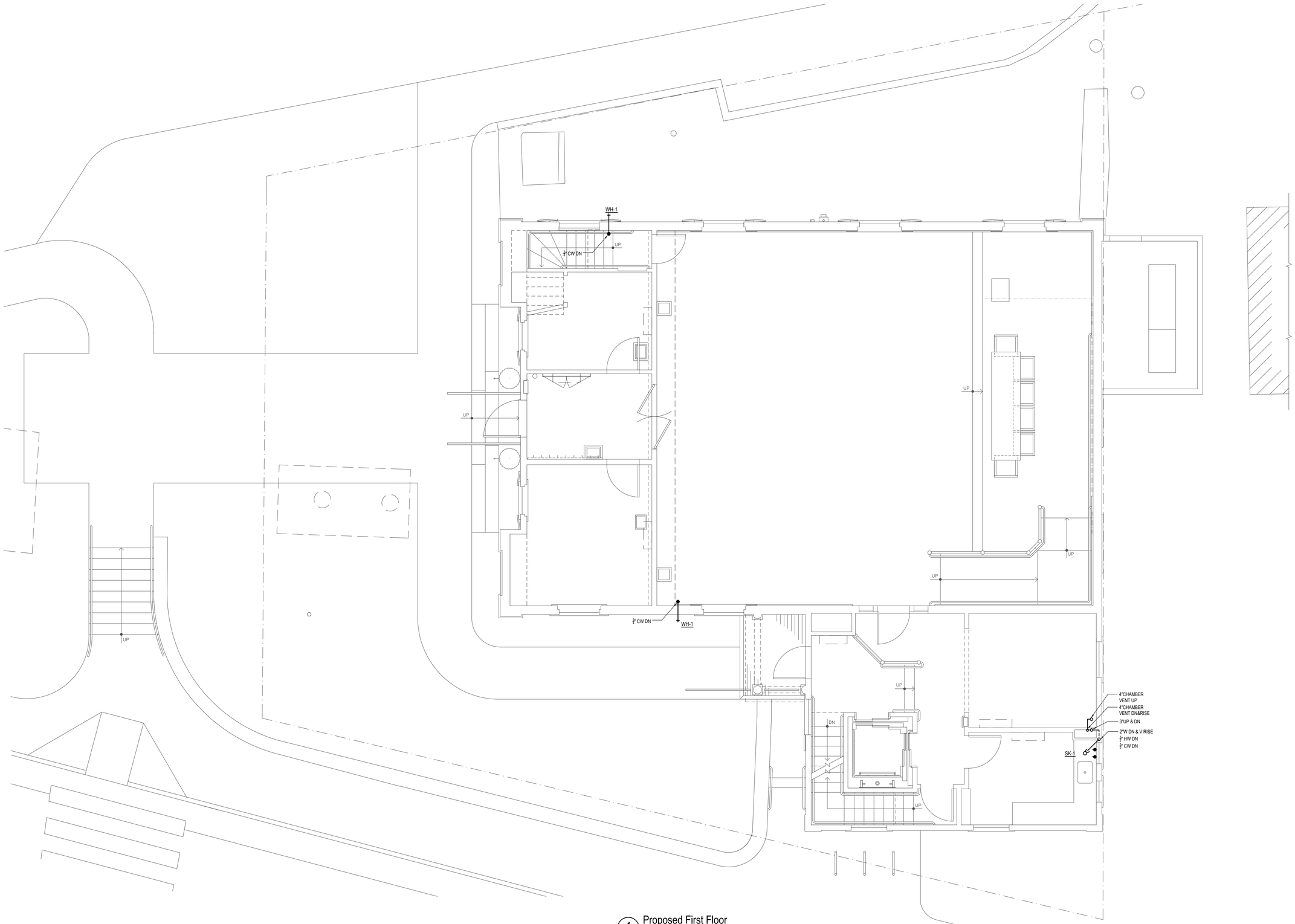
PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: PLUMBING - GROUND FLOOR PLAN

DATE: 11 JUN 2021

PROGRESS DRAWINGS NOT FOR CONSTRUCTION

SHEET #:
P-10.0



1 Proposed First Floor

SCALE: 1/4"=1'-0"

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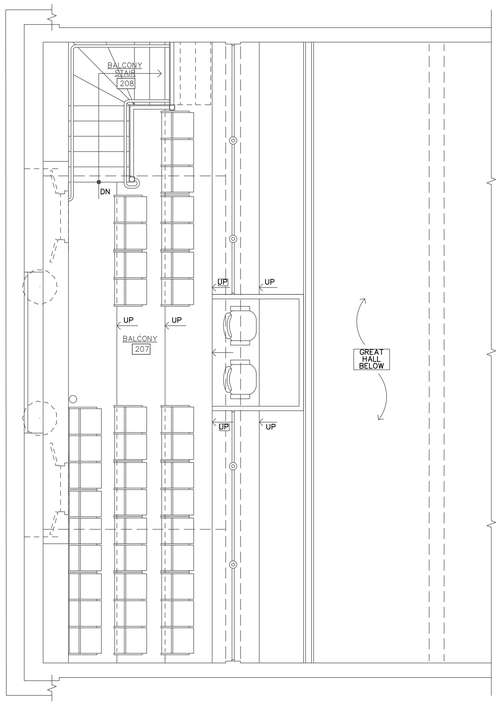
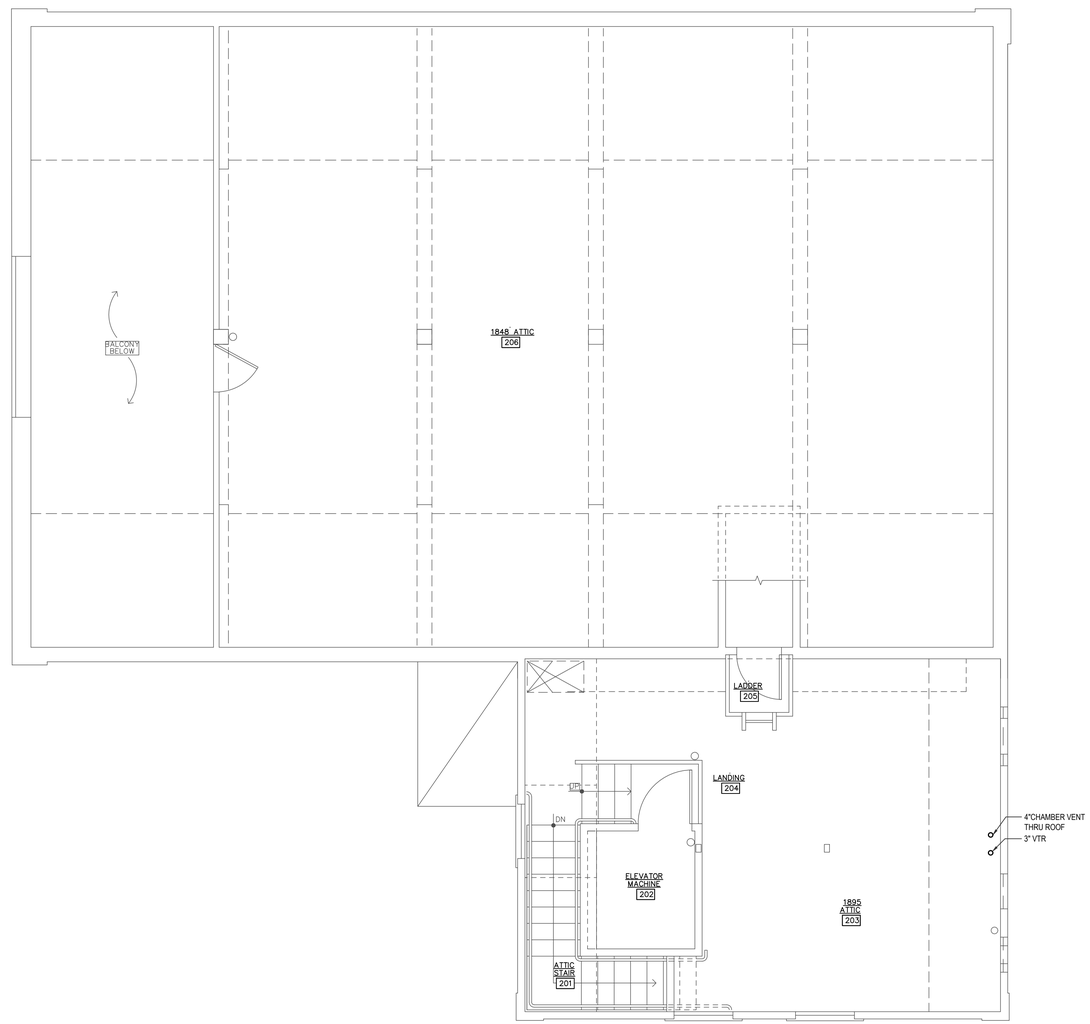


1 Proposed Balcony
SCALE: 1/4"=1'-0"



2 Proposed Attic
SCALE: 1/4"=1'-0"

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NOT FOR CONSTRUCTION

SHEET #:
P-12.0

DRAWING NOTES

ACCU-1	EQUIPMENT DESIGNATION
1	DRAWING REVISION NOTE
1	DRAWING WORK NOTE
1	DRAWING KEY NOTE
1	DRAWING REVISION NOTE
	CONNECT TO EXISTING
	CAP EXISTING
	LIMIT OF DEMOLITION
	DEMOLITION SCOPE
	REVISION CLOUD

DUCTWORK LEGEND

12"x8"	RECTANGULAR DUCTWORK- FIRST DIMENSION IS SIDE SHOWN (IN.)
12"Ø	ROUND DUCTWORK- DIMENSION IS DUCT DIAMETER (IN.)
EX. 12"x8"	EXISTING DUCTWORK
	EXISTING DUCTWORK TO BE REMOVED
	RECTANGULAR SUPPLY DUCTWORK UP
	RECTANGULAR SUPPLY DUCTWORK DOWN
	RECTANGULAR RETURN DUCTWORK UP
	RECTANGULAR RETURN DUCTWORK DOWN
	RECTANGULAR EXHAUST DUCTWORK UP
	RECTANGULAR EXHAUST DUCTWORK DOWN
	ROUND DUCTWORK UP
	ROUND DUCTWORK DOWN
	BEAM PENETRATION BY DUCTWORK
	CAPPED DUCTWORK
	ACOUSTICALLY LINED DUCTWORK
	FLEXIBLE CONNECTION
	RECTANGULAR TRANSITION
	RECTANGULAR TO ROUND DUCTWORK TRANSITION
	MITERED ELBOW WITH TURNING VANES
UP	CHANGE OF ELEVATION UP IN DIRECTION OF AIRFLOW
DN	CHANGE OF ELEVATION DOWN IN DIRECTION OF AIRFLOW

PIPING LEGEND

LPS	LOW PRESSURE STEAM
LPC	LOW PRESSURE STEAM CONDENSATE
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
CHS	CHILLED WATER SUPPLY
CHR	CHILLED WATER RETURN
CWS	CONDENSER WATER SUPPLY
CWR	CONDENSER WATER RETURN
RLS	REFRIGERANT SUCTION
RLL	REFRIGERANT LIQUID
RHG	REFRIGERANT HOT GAS
MUW	MAKE UP WATER
CD	A.C. CONDENSATE DRAIN
PC	PUMPED CONDENSATE
CA	COMBUSTION AIR
V	VENT
	PIPING TO BE REMOVED
	EXISTING PIPING TO REMAIN
	PIPE OFF BOTTOM
	PIPE OFF TOP
	RUN-OUT OFF BOTTOM
	RUN-OUT OFF TOP
	BRANCH CONNECTION (DIRECTION TO BE FIELD DETERMINED)
	PIPE UP
	PIPE DOWN
	STUB UP TO TERMINAL
	PIPE BREAK
	DIRECTION OF FLOW
	DRAIN PIPE PITCH AND FLOW

DAMPER LEGEND

VD	VOLUME DAMPER (VD)
RD	RADIATION DAMPER (RD)
FD	FIRE DAMPER (FD)
BDD	BACKDRAFT DAMPER (BDD)
M	MOTORIZED (MD) OR AUTOMATIC CONTROL DAMPER (ACD)
SD	SMOKE DAMPER (SD)
FSD	COMBINATION FIRE & SMOKE DAMPER (FSD)
ZD	ZONE DAMPER (ZD)

AIR DEVICE LEGEND

	SUPPLY OR OUTDOOR AIR
	RETURN OR EXHAUST AIR
	SIDEWALL SUPPLY REGISTER OR GRILLE
	SUPPLY DIFFUSER
	SUPPLY DIFFUSER OR REGISTER BELOW DUCT
	SIDEWALL RETURN OR EXHAUST REGISTER
	RETURN REGISTER OR GRILLE
	RETURN REGISTER OR GRILLE BELOW DUCT
	EXHAUST REGISTER OR GRILLE
	EXHAUST REGISTER OR GRILLE BELOW DUCT
U	UNDERCUT DOOR
DL	DOOR LOUVER

VALVE LEGEND

	GATE VALVE (GV)
	ISOLATION VALVE (ISV), REFER TO DETAILS & SPEC.
	GLOBE VALVE (GLV)
	BALL VALVE (BLV)
	DRAIN VALVE (DV)
	BUTTERFLY VALVE (BFV)
	SWING CHECK VALVE (SCV)
	LIFT CHECK VALVE (LCV)
	BALANCE COCK
	BALANCE VALVE (BV)
	PRESSURE REDUCING VALVE (PRV)
	RELIEF VALVE (RV)
	TWO-WAY AUTOMATIC CONTROL VALVE (ACV)
	THREE-WAY AUTOMATIC CONTROL VALVE (ACV)
	SELF-CONTAINED CONTROL VALVE (SCC)
	UNION (U)
	FLANGE (FLG)
	IN-LINE STRAINER
	BASKET STRAINER
	CONCENTRIC REDUCER/ENLARGER (CRD)
	ECCENTRIC REDUCER/ENLARGER (ERD)
	THERMOMETER (TRM)
	PRESSURE GAUGE (PG)
	FLOW SWITCH (FSW)
	AUTOMATIC AIR VENT (AAV)
	MANUAL AIR VENT (MAV)
	MULTI-PURPOSE VALVE (MPV)
	FLOW MEASURE STATION (FMS)
	PIPE ANCHOR (AN)
	PIPE GUIDE (PG)
	EXPANSION COMPENSATOR (EC)
	PIPE FLEXIBLE CONNECTION (PFC)
	PIPE CAP
	STRAINER W/ DRAIN VALVE AND CAP
	HOSE END DRAIN VALVE
	OUTSIDE SCREW & YOKE GATE VALVE (OSY)
	TRIPLE DUTY VALVE
	PT, PRESSURE/TEMPERATURE PLUG
	LUBE TYPE TEST COCK

CONTROL SCHEMATIC LEGEND

	CONTROL LINE
CO	CO SENSOR
CO2	CO2 SENSOR
SP	STATIC PRESSURE SENSOR
DPS	DIFFERENTIAL PRESSURE SENSOR
T	HEAT/COOL THERMOSTAT
T R	REVERSE ACTING THERMOSTAT
$	SWITCH CONTROLLER
TC	TIME CLOCK CONTROLLER
HS	HUMIDITY SENSOR
TS	TEMPERATURE SENSOR
FS	FLOW SWITCH
F	FLOW RATE SENSOR
DPS	DIFFERENTIAL PRESSURE SENSOR
DPS	DIFFERENTIAL PRESSURE SWITCH
HLL	HIGH HUMIDITY LIMIT SWITCH
SPH	HIGH STATIC PRESSURE SWITCH, MANUAL RESET
SPL	LOW STATIC PRESSURE SWITCH, MANUAL RESET
FZ	FREEZESTAT
HLT	HIGH LIMIT THERMOSTAT
E1	ENTHALPY CONTROL
AFS	AIR FLOW MEASURING STATION
VFD	VARIABLE FREQUENCY DRIVE
DSD	DUCT SMOKE DETECTOR
	FILTER GAUGE
	CAPILLARY TUBE

ABBREVIATIONS

AAV	AUTOMATIC AIR VENT	GC	GENERAL CONTRACTOR
AD	ACCESS DOOR	GE	GENERAL EXHAUST
AFG	ABOVE FINISHED GRADE	GPM	GALLONS PER MINUTE
AP	ACCESS PANEL	HC	HEATING COIL
ARCH.	ARCHITECT	HP	HORSE POWER
ATC	AUTOMATIC TEMPERATURE CONTROL	HVAC	HEATING, VENTILATION AND AIR CONDITIONING
BOD	BOTTOM OF DUCT		
BTU	BRITISH THERMAL UNIT	IN	INCHES
BTUH	BRITISH THERMAL UNITS PER HOUR	ID	INSIDE DIAMETER
C	CLOSED	KW	KILOWATTS
CA	COMBUSTION AIR	LAT	LEAVING AIR TEMPERATURE
CAP	CAPACITY	LD	LOUVERED DOOR
CAR	COMBUSTION AIR RELIEF	LWT	LEAVING WATER TEMPERATURE
CAS	COMBUSTION AIR SUPPLY	MAT	MIXED AIR TEMPERATURE
CC	COOLING COIL	MAX	MAXIMUM
CFM	CUBIC FEET PER MINUTE	MBH	THOUSANDS OF BTU'S PER HOUR
CO	CLEAN OUT	MECH	AUTOMATIC AIR VENT
CD	CONDENSATE DRAIN	MIN	MINIMUM
CONN.	CONNECT	NC	NORMALLY CLOSED
CONTR	CONTRACTOR	NIC	NOT IN CONTRACT
CT	CURRENT TRANSFORMER	NO	NORMALLY OPEN
CV	CONTROL VALVE	NTS	NOT TO SCALE
DB	DRY BULB TEMPERATURE	OA	OUTDOOR AIR
DDC	DIRECT DIGITAL CONTROL	OAI	OUTDOOR AIR INTAKE
DIA.	DIAMETER	OAT	OUTDOOR AIR TEMPERATURE
DN	DOWN	OBD	OPPOSED BLADE DAMPER
DO	DIGITAL OUTPUT	OD	OUTSIDE DIAMETER
DR	DRAIN	OED	OPEN END DUCT
DWG	DRAWING	PC	PLUMBING CONTRACTOR
DX	DIRECT EXPANSION	PD	PRESSURE DROP
EA	EACH	PSI	POUNDS PER SQUARE INCH
EA	EXHAUST AIR	RA	RETURN AIR
EAT	ENTERING AIR TEMPERATURE	RAT	RETURN AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR	RM	ROOM
EL	ELBOW	SA	SUPPLY AIR
EMS	ENERGY MANAGEMENT SYSTEM	SAT	SUPPLY AIR TEMPERATURE
ESP	EXTERNAL STATIC PRESSURE	SDC	STAND-ALONE DIGITAL CONTROLLER
ETBR	EXISTING TO BE REMOVED	SF	SQUARE FEET
ETR	EXISTING TO REMAIN	SPD	SPEED
EWT	ENTERING WATER TEMPERATURE	SS	STAINLESS STEEL
EX.	EXISTING	SST	SATURATED SUCTION TEMPERATURE
EXH	EXHAUST	TA	TRANSFER AIR
FA	FREE AREA	TSTAT	THERMOSTAT
FLA	FULL LOAD AMPS	TYP	TYPICAL
FLD	FLOOR DRAIN	UC	UNDERCUT DOOR
FPI	FINS PER INCH	VFD	VARIABLE FREQUENCY DRIVE
FPM	FEET PER MINUTE	VI	VIBRATION ISOLATION
FT	FEET	WB	WET BULB TEMPERATURE
GAL	GALLONS	WMS	WIRE MESH SCREEN

EQUIPMENT TAGS

AC	AIR CONDITIONING UNIT	EV	ELEVATOR VENT
ACCU	AIR COOLED CONDENSING UNIT	EUH	ELECTRIC UNIT HEATER
AFS	AIR FLOW MONITORING STATION	FCU	FAN COIL UNIT
AHU	AIR HANDLING UNIT	FTR	GALLONS
AS	AIR SEPARATOR	H	GENERAL CONTRACTOR
B	BOILER	HWP	GENERAL EXHAUST
BC	BRANCH CONTROL BOX	HP	GALLONS PER MINUTE
BP	BOILER PUMP	HS	HEATING COIL
CH	CHILLER	HEX	HORSE POWER
CHP	CHILLER PUMP	KEF	KITCHEN EXHAUST FAN
CHWP	CHILLED WATER PUMP	LU	LOUVER
CP	CONDENSATE PUMP	P	PUMP
CUH	CABINET UNIT HEATER	RF	RETURN FAN
CV	CONVECTOR	RR	RETURN REGISTER
DBF	DRYER BOOSTER FAN	SD	SUPPLY DIFFUSER
EBB	ELECTRIC BASEBOARD	SF	SUPPLY FAN
EDH	ELECTRIC DUCT HEATER	SR	SUPPLY REGISTER
EF	EXHAUST FAN	TF	TOILET EXHAUST FAN
EG	EXHAUST GRILLE	TR	TRANSFER REGISTER
ER	EXHAUST REGISTER	UH	UNIT HEATER
ERV	ENERGY RECOVERY VENTILATOR	VAV	VARIABLE AIR VOLUME BOX
ET	EXPANSION TANK	VB	VACUUM BREAKER

GENERAL NOTES

1. MECHANICAL WORK INDICATED (PIPING, DUCT, ETC.) IS DIAGRAMMATIC. EXACT LOCATIONS OF ALL COMPONENTS ARE TO BE DETERMINED IN THE FIELD (SPACING SUBJECT TO ARCHITECT'S REVIEW AND APPROVAL) TO AVOID CONFLICT WITH OTHER TRADES AND EXISTING SITE CONDITIONS.
2. CONTRACTOR SHALL VISIT AND CAREFULLY EXAMINE THE SITE TO IDENTIFY EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT THE WORK OF THIS SECTION. REPORT IN WRITING (THROUGH THE GENERAL CONTRACTOR) TO THE OWNER AND ARCHITECT ANY CONDITIONS WHICH MIGHT ADVERSELY AFFECT WORK. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR WORK CAUSED BY UNFAMILIARITY WITH SITE CONDITIONS THAT ARE VISIBLE OR READILY CONSTRUED BY AN EXPERIENCED OBSERVER.
3. WORK REQUIRING INTERRUPTION OF BUILDING SERVICES SHALL BE CAREFULLY REVIEWED AND COORDINATED WITH OWNER TO MINIMIZE FREQUENCY AND DURATION OF SERVICE INTERRUPTIONS.
4. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION OF CEILING GRID, DIFFUSERS, AND GRILLES.
5. ALL INSTALLATIONS SHALL PERMIT AND PROVIDE ACCESSIBILITY FOR SERVICE AND REPLACEMENT OF ALL NEW EQUIPMENT AND EXISTING EQUIPMENT IMPACTED BY THIS WORK.
6. COORDINATE ALL OPENINGS IN FLOORS WITH STRUCTURAL DRAWINGS AND GENERAL CONTRACTOR.
7. COORDINATE ALL ROOF OPENINGS WITH ARCHITECT AND STRUCTURAL ENGINEER.
8. REFER TO STRUCTURAL FRAMING PLANS FOR EXACT LOCATION OF ALL ROOF MOUNTED EQUIPMENT.
9. ALL MECHANICAL EQUIPMENT, PIPING, AND DUCTWORK SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF GOVERNING LOCAL, STATE, AND FEDERAL SEISMIC CODES. PARTICULAR ATTENTION SHALL BE MADE TO VIBRATION ISOLATION, ANCHORING, AND BALANCING REQUIREMENTS.
10. ALL DUCTWORK SHALL BE INSTALLED IN ACCORDANCE WITH CODES AND STANDARDS SET FORTH IN NFPA, SMACNA, AND ASHRAE FOR MEDIUM AND LOW PRESSURE DUCTWORK SYSTEMS.
11. ALL EXPOSED DUCTWORK SHALL BE PAINTED TO MATCH CEILING, REFER TO ARCHITECTURAL PLANS.
12. PROVIDE MANUAL VOLUME DAMPERS AT ALL BRANCH DUCTS FOR AIR BALANCING. ALL VOLUME DAMPERS LOCATED ABOVE INACCESSIBLE CEILING OR BEHIND INACCESSIBLE WALL SHALL BE PROVIDED WITH REMOTE WIRE DAMPER AT THE AIR OUTLETS.
13. ALL SHEET METAL PLENUMS AT OUTSIDE AIR LOUVERS SHALL BE INSULATED WITH RIGID INSULATION, AS PER SPECIFICATION.
14. RUN-OUTS TO RETURN AND EXHAUST REGISTERS, OR GRILLES ABOVE GYP BOARD CEILINGS, SHALL BE RIGID DUCTED. NO FLEXIBLE DUCT WORK SHALL BE ALLOWED ON RETURN OR EXHAUST REGISTERS.
15. ALL DUCTS, PIPES, AND EQUIPMENT SHALL BE INDEPENDENTLY SUPPORTED FROM THE BUILDING STRUCTURE WITH PROPER ALLOWANCES FOR CONTRACTION, EXPANSION, AND VIBRATION ELIMINATION.
16. PROVIDE COPPER 1" RUN-OUTS TO HOT WATER REHEAT COILS, CABINET HEATERS AND UNIT HEATERS UNLESS NOTED OTHERWISE.
17. PROVIDE SWING JOINTS AT ALL BRANCH CONNECTIONS TO HYDRONIC EQUIPMENT.
18. ROOM THERMOSTATS SHALL BE MOUNTED 4'-0" ABOVE FINISHED FLOOR UNLESS OTHERWISE DIRECTED.
19. COORDINATE EXACT LOCATION OF UNIT HEATERS IN ELECTRIC ROOMS WITH ELECTRICAL CONTRACTOR.
20. REFER TO SPECIFICATIONS FOR TYPE OF VALVE TO BE USED. VALVES ARE SHOWN ON PLANS FOR PLACEMENT ONLY.
21. ALL DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR FREE AREA REQUIRED.
22. ALL DIFFUSER, REGISTER, AND GRILLE SIZES INDICATED ON FLOOR PLANS ARE NECK SIZE REQUIRED.
23. ALL PIPING IS TO BE SLOPED A MINIMUM OF 1/4" PER HUNDRED FEET IN THE DIRECTION OF DRAINAGE.
24. NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED ON THIS PROJECT.
25. COORDINATE ENTIRE INSTALLATION WITH THE WORK OF ALL OTHER TRADES PRIOR TO ANY FABRICATION OR INSTALLATIONS.
26. OBTAIN ALL REQUIRED PERMITS AND PAY ALL FEES RELATED TO SAME.
27. REVIEW ALL ARCHITECTURAL, STRUCTURAL, PLUMBING, ELECTRICAL, FIRE PROTECTION AND SITE DRAWINGS BEFORE STARTING ANY WORK TO BECOME FAMILIAR WITH THE DETAILS OF CONSTRUCTION, AND COORDINATE WITH OTHER TRADES.
28. PROVIDE ALL NECESSARY PIPING, EQUIPMENT AND SUPPORTS AS WELL AS ANY ADDITIONAL EQUIPMENT, ETC. NOT SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS BUT NECESSARY TO PROVIDE COMPLETE AND WORKABLE SYSTEMS.
29. PROVIDE ACCESS TO ALL EQUIPMENT REQUIRING PERIODIC SERVICE AND MAINTENANCE.
30. DO NOT SCALE THESE DRAWINGS. TAKE ALL MEASUREMENTS IN THE FIELD IN COORDINATION WITH ALL EQUIPMENT AS APPROVED AND WITH ALL OTHER TRADES.
31. ALL DUCTWORK SHALL BE INSTALLED ON ACCORDANCE WITH THE LATEST EDITION OF SMACNA
32. ALL HOT WATER, REFRIGERANT AND CONDENSATE PIPING SHALL BE INSULATED IN ACCORDANCE WITH THE MASSACHUSETTS STATE BUILDING CODE.
33. ALL PIPING HIGH POINTS SHALL HAVE 3/4 INCH VENTS AND LOW POINTS SHALL HAVE 3/4" DRAINS.
34. ALL ROTATING EQUIPMENT SHALL HAVE FLEXIBLE PIPE ON DUCT CONNECTIONS AND APPROVED VIBRATION ISOLATORS.
35. PROVIDE AIRTIGHT ACCESS DOOR FOR INSPECTION OF FIRE DAMPERS, FILTERS, AND COILS.
36. CONTRACTOR SHALL VERIFY DUCT, PIPING AND EQUIPMENT LOCATIONS FOR INTERFERENCES BEFORE INSTALLATION.
37. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.
38. PROVIDE VERTICAL SUPPORTS FOR HOT WATER, REFRIGERANT AND CONDENSATE PIPING AT THE FOLLOWING MAXIMUM INTERVALS; 15' FOR 6"& 5" DIAMETER PIPE; 12' FOR 4" DIAMETER PIPE; 10' FOR 3" & 2-1/2" DIAMETER PIPE; 8' FOR 2" DIAMETER PIPE; 7' FOR 1-1/2 & 1-1/4" DIAMETER PIPE; 5' FOR 1" & 3/4" DIAMETER PIPE.
39. REFERENCE DRAWING H-002 FOR HVAC EQUIPMENT SCHEDULES.
40. DETAILS ON SHEET H-03, H-04 & H-05 ARE APPLICABLE TO ALL EQUIPMENT, EXCEPT WHERE INDICATED.
41. REFERENCE DRAWING H-06 FOR SEQUENCE OF OPERATION OF NEW EQUIPMENT.

DEMOLITION NOTES

1. PRIOR TO COMMENCING WORK OF THIS SECTION, EXAMINE SITE AND CONDITIONS UNDER WHICH WORK WILL BE PERFORMED. DETERMINE EXACT LOCATIONS OF EXISTING EQUIPMENT, PIPING AND CONTROLS. REPORT TO OWNER ANY CONDITIONS THAT MIGHT ADVERSELY AFFECT WORK. COMMENCEMENT OF WORK SHALL BE CONSTRUED AS COMPLETE ACCEPTANCE OF EXISTING CONDITIONS & PREPARATORY WORK.
2. ABANDONING OF DUCTWORK, PIPING OR EQUIPMENT IN PLACE SHALL NOT BE ALLOWED. COMPLETE REMOVAL REQUIRED UNLESS NOTED OTHERWISE.
3. EQUIPMENT TO BE REMOVED: DISCONNECT AND CAP SERVICES AND REMOVE EQUIPMENT.
4. EQUIPMENT TO BE SALVAGED: DISCONNECT, CAP SERVICES, REMOVE EQUIPMENT, DELIVER TO OWNER.
5. COMPLY WITH ALL STATE & LOCAL CODES AS TO REMOVAL & DISPOSAL OF EQUIPMENT FROM SITE.
6. COMPLY WITH GOVERNING EPA NOTIFICATION REGULATIONS BEFORE BEGINNING SELECTIVE DEMOLITION.
7. REMOVE PREVIOUSLY ABANDONED WORK IN THE WAY OF EXISTING CONSTRUCTION, OR AS NOTED.
8. COMPLY WITH HAULING AND DISPOSAL REGULATIONS OF AUTHORITIES HAVING JURISDICTION.
9. PERMITS: GIVE ALL REQUIRED NOTICES, FILE ALL REQUIRED PLANS AND SPECIFICATIONS RELATING TO THE WORK OF THIS SECTION WITH THE PROPER AUTHORITIES AND PAY FOR ANY REQUIRED PERMITS.
10. ALL AIR-CONDITIONING EQUIPMENT AND SYSTEMS SHALL BE REMOVED OR DEMOLISHED WITHOUT RELEASING REFRIGERANTS. REFRIGERANT RECOVERY IS TO BE PERFORMED BY A REFRIGERANT RECOVERY TECHNICAL CERTIFIED BY AN EPA-APPROVED CERTIFICATION PROGRAM.
11. ALL EQUIPMENT AND SYSTEMS TO BE REMOVED OR DEMOLISHED UNDER THIS SECTION AND NOT DESIRED BY OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL REMOVE ALL SUCH EQUIPMENT FROM THE SITE PROMPTLY AFTER DETACHMENT FROM BUILDING STRUCTURE.
11. EXISTING PIPING SHOWN ON DRAWINGS DOES NOT INDICATE FULL EXTENT OF PIPING DEMOLITION. FIELD VERIFICATIONS REQUIRED.

FINAL COORDINATION NEEDED PRIOR TO ISSUANCE

BLW

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PROJECT NAME: STOW TOWN HALL RESTORATION

PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: HVAC LEGENDS, NOTES & ABBREVIATIONS

DATE: 11 JUN 2021

PROGRESS DRAWINGS NOT FOR CONSTRUCTION

SHEET #: H-01

ENERGY RECOVERY VENTILATION UNIT SCHEDULE

TAG NO.	MANUFACTURER (AS STANDARD)	MODEL NO. (AS STANDARD)	LOCATIONS SERVED	SUPPLY FAN DATA			EXHAUST FAN DATA			ENERGY RECOVERY DATA											ELECTRIC HEATING COIL DATA						ELECTRICAL DATA					WEIGHT (LBS)	REMARKS
				MAX (CFM)	ESP (IN.WC.)	MOTOR (HP)	MAX (CFM)	ESP (IN.WC.)	MOTOR (HP)	TYPE	SUMMER PERFORMANCE (°F-DB/°F-WB)					WINTER PERFORMANCE (°F)					CAPACITY (MBH)	KW	ΔT (°F)	L X W (IN X IN)	MCA (A)	MOCP (A)	VOLTS/PH	VOLTS	PHASE	HZ	MCA (A)	MOCP (A)		
											MBH	EAT-SA	LAT-SA	EAT-EX	LAT-EX	MBH	EAT-SA	LAT-SA	EAT-EX	LAT-EX													
ERV-1	RENEWAIRE	HE1X-INH	COMMON SPACES	550	1.0	0.5	590	1.2	0.5	CORE	10.6	90.4/72.8	77.6/66.1	75.0/62.5	--/--	41.3	0	52.9	70	--	23.8	7	40	12 X 12	24.3	25.0	208 / 3	208	1	60	10.8	15	300	PROVIDE DISCONNECT, RESTRAINED SPRING ISOLATION MOUNTS, LOW-LEAK MOTORIZED DAMPERS, BYPASS DAMPER, ECM FAN MOTORS, MERV 13 OA FILTERS, DUCT MOUNTED ELECTRIC HEATING COIL, REMOTE MICROPROCESSOR-BASED CONTROLLER W/ FROST CONTROL, DIRTY FILTER SENSOR, INDEPENDENT FAN CONTROL, FACTORY ACTIVATED BACNET
ERV-2	RENEWAIRE	HE1.5X-INV	GREAT HALL	1100	1.0	1.0	1100	1.0	1.0	CORE	17.6	90.4/72.8	78.1/66.1	75.0/62.5	--/--	71.0	0	50.0	70	--	34.0	10	31	14 X 14	34.4	35.0	208 / 3	208	1	60	7.7	15	505	PROVIDE DISCONNECT, RESTRAINED SPRING ISOLATION MOUNTS, LOW-LEAK MOTORIZED DAMPERS, MERV 13 OA FILTERS, ECM FAN MOTORS, DUCT MOUNTED ELECTRIC HEATING COIL, REMOTE MICROPROCESSOR-BASED CONTROLLER W/ FROST CONTROL, DIRTY FILTER SENSOR, INDEPENDENT FAN CONTROL, FACTORY ACTIVATED BACNET

INDOOR FAN COIL UNITS

UNIT NUMBER	LOCATION		FAN(S)						CAPACITY DATA					ELECTRIC DATA				MANUFACTURER MODEL NUMBER (BASIS OF DESIGN)	REMARKS
		CFM (MIN-MAX)	OA (CFM MIN)	STATIC PRESS.(IN.WG)		QTY	WATTS	FLA	COOLING		HEATING @ 47°F		HEATING @ 0°F MBH	MCA	V	Ø	HZ		
				TOTAL W/ DIRTY FILTERS	EXTERNAL				MBH	POWER (A / W)	MBH	POWER (A / W)							
FCU-1	GREAT HALL	980 - 1400	265	--	0.8	1	---	---	48.0	-	54.0	-	45.3	5.63	208	1	60	MITSUBISHI PVFY-P48NAMU-E	② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
FCU-2	GREAT HALL	767 - 1095	265	--	0.8	1	---	---	36.0	-	40.0	-	22.2	4.13	208	1	60	MITSUBISHI PVFY-P36NAMU-E	② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨
FCU-3	VARIES	570 - 920	N/A	--	--	1	---	---	36.0	-	40.0	-	22.0	0.63	208	1	60	MITSUBISHI PKFY-P36NKMU-E2	② ③ ④ ⑤ ⑧ ⑨
FCU-4	VARIES	570 - 920	N/A	--	--	1	---	---	24.0	-	27.0	-	15.0	0.63	208	1	60	MITSUBISHI PKFY-P24NKMU-E2	② ③ ④ ⑤ ⑧ ⑨
FCU-5	VARIES	222 - 353	N/A	--	--	1	---	---	15.0	-	17.0	-	9.4	0.24	208	1	60	MITSUBISHI PKFY-P15NLMU-E	② ③ ④ ⑤ ⑧ ⑨
FCU-6	VARIES	152 - 297	N/A	--	--	1	---	---	12.0	-	13.5	-	7.5	0.24	208	1	60	MITSUBISHI PKFY-P12NLMU-E	② ③ ④ ⑤ ⑧ ⑨
FCU-7	VARIES	141 - 237	N/A	--	--	1	---	---	8.0	-	9.0	-	5.0	0.24	208	1	60	MITSUBISHI PKFY-P08NLMU-E	② ③ ④ ⑤ ⑧ ⑨
FCU-8	VARIES	141 - 191	N/A	--	--	1	---	---	6.0	-	6.7	-	3.7	0.24	208	1	60	MITSUBISHI PKFY-P06NLMU-E	② ③ ④ ⑤ ⑧ ⑨

① UNIT SHALL BE SERVED BY DEDICATED AIR-SOURCE HEAT PUMP UNIT, SEE SPECIFICATIONS FOR ACCESSORIES.
② UNIT SHALL BE SERVED BY MULTI-ZONE AIR-SOURCE HEAT PUMP UNIT, SEE SPECIFICATIONS FOR ACCESSORIES.
③ PROVIDE DRAIN PAN SENSOR, INTEGRAL COND. PUMP OR LITTLE GIANT MODEL NUMBER VCC-20ULS(120V/1/60HZ)
④ PROVIDE DISCONNECT SWITCH
⑤ PROVIDE WALL THERMOSTAT
⑥ PROVIDE W/ MERV 13 FILTER
⑦ PROVIDE SPRING VIBRATION ISOLATION (4) FOR MOUNTING
⑧ ACTUAL HEATING OUTPUT SHALL BE AS NOTED OR GREATER AT AT 0°F
⑨ COORDINATE REFRIGERANT LINE SIZES & LENGTHS WITH MANUFACTURER PRIOR TO INSTALLATION

AIR-SOURCE HEAT PUMP UNITS

UNIT NO.	SERVICE	LOCATION	MODULE	COOLING @ 95°F-DB MBH	HEATING @ 47°F MBH	HEATING @ 0°F MBH	OUTDOOR FAN(S)			ELECT. SERVICE				WEIGHT (LBS)	MANUFACTURER MODEL NUMBER (BASIS OF DESIGN)	REMARKS
							NO.	HP EA.	CFM	MCA/MOCP	VOLTS	PHASE	HZ			
HP-1	BC-1	GRADE	2	312.0	350.0	194.0	4	-	-	57 + 49 / 90 + 80	208	3	60	800 + 700	MITSUBISHI PURY-EP312TSNU-A	① ② ③ ⑤ ⑦ ⑧

① PROVIDED FUSED DISCONNECT SWITCH.
② PROVIDE ROOF STAND/MOUNT (MIN 24" TALL)
③ PROVIDE WIND BAFFLE & SNOW/HAIL GUARDS
④ PROVIDE LOW AMBIENT OPERATION
⑤ PROVIDE BASE PAN HEATER
⑥ PROVIDE TWINNING KIT(S)
⑦ COORDINATE REFRIGERANT LINE SIZES AND LENGTHS WITH MANUFACTURER PRIOR TO INSTALLATION
⑧ PROVIDE 0°F CONTROLS, SEE SPECIFICATIONS FOR ACCESSORIES.

ALL OUTDOOR UNITS TO BE PERMANENTLY STENCILED WITH UNIT NUMBER ON EXTERIOR CABINET AND ON INSIDE OF ACCESS PANEL

ELECTRIC HEATER SCHEDULE

TAG No.	LOCATION(S) SERVED	MANUFACTURER (AS STANDARD)	MODEL No. (AS STANDARD)	FAN DATA		CAPACITY		ELECTRICAL DATA			REMARKS
				CFM	HP	MBH	KW	AMPS	VOLTS	PHASE	
EUH-1	UTILITY SPACE	QMARK	MUH-05-81	350	1/100	17.0	5.0	24.0	208	3	PROVIDE DISCONNECT, SPACE THERMOSTAT, FAN SWITCH, MOUNTING BRACKET
EWH-1	STAIRS / BATHROOMS	QMARK	AWH 3150F	100	--	5.1	1.5	12.5	208	1	PROVIDE DISCONNECT, FAN DELAY SWITCH, RECESSED INSTALL FRAME, SECURITY COVER
EBB-1	BATHROOMS	QMARK	CSH-07A	--	--	1.7	0.5	2.4	208	1	PROVIDE DISCONNECT, THERMAL OVERLOAD, COMPLETE COVER

PIPE INSULATION SCHEDULE

SYSTEM/SERVICE	INSULATION TYPE	FITTINGS INSULATION TYPE	INSULATION WALL THICKNESS (IN.) PIPE DIAMETER (IN.)			
			Ø<1	1≤Ø≤1½	1½<Ø≤4	4<Ø
HEATING HOT WATER (HWS & HWR)	FIBERGLASS WITH ALL SERVICE JACKET	FIBERGLASS WITH PVC JACKET	1-1/2	1-1/2	2	2
CHILLED WATER (CHS & CHR)	FIBERGLASS WITH ALL SERVICE JACKET	FIBERGLASS WITH PVC JACKET	1	1	1	1
DUAL TEMP. WATER (DTS & DTR)	FIBERGLASS WITH ALL SERVICE JACKET	FIBERGLASS WITH PVC JACKET	1-1/2	1-1/2	2	2
CONDENSATE PIPING (CD)	ELASTOMERIC	ELASTOMERIC	1/2	1/2	3/4	3/4
REFRIGERANT PIPING (RLL & RLS)	ELASTOMERIC	ELASTOMERIC	3/4	1	1	1

PIPE MATERIAL TABLE

SYSTEM/SERVICE	LOCATION	PIPING	FITTINGS	JOINTS
HYDRONIC (HWS&R, CHS&R)	BELOW GRADE	PERMAPIPE XTRU-THERM W/ 3" FOAM INSULATION	--	--
HYDRONIC (Ø ≤ 2-1/2")	ABOVE GRADE	TYPE "L" SEAMLESS COPPER TUBING	WROUGHT COPPER	SOLDER
HYDRONIC (Ø ≥ 3")	ABOVE GRADE	SCHEDULE 40 SEAMLESS BLACK STEEL	SCHEDULE 40 BLACK STEEL	WELDED OR MECH. CONNECTION
REFRIGERANT (RLL & RLS)	ABOVE GRADE	COPPER - ARC	COPPER, NO LEAD	BRAZED
CONDENSATE DRAIN (CD)	ABOVE GRADE	TYPE 'L' COPPER	WROUGHT COPPER, NO LEAD	95/5 NO-LEAD SOLDER

REGISTER, GRILLE & DIFFUSER SCHEDULE

TAG NO.	MANUFACTURER (AS STANDARD)	MODEL NO. (AS STANDARD)	SYSTEM SERVED	CFM RANGE	NECK SIZE	FRAME TYPE	MOUNTING	MATERIAL	DAMPER	FINISH	MAX. NC LEVEL	MAX VELOCITY (FPM)	REMARKS
SD1	TITUS	TDC-AA	SUPPLY	VARIES	SEE PLAN	SQUARE	CEILING	AL	YES	WHITE	25	~500	--
SR1	TITUS	300-RL	SUPPLY	VARIES	SEE PLAN	SURFACE	CEILING	STEEL	YES	WHITE	25	~500	--
LD1	TITUS	ML-39	SUPPLY	VARIES	SEE PLAN	FLUSH	WALL	AL	YES	WHITE	25	~500	PROVIDE SINGLE-SLOT, CONTINUOUS PLENUM, CONCEALED MOUNT, FLUSH BORDER & END CAPS
LD2	TITUS	ML-39	SUPPLY	VARIES	SEE PLAN	SURFACE	CEILING	AL	YES	WHITE	25	~500	PROVIDE THREE-SLOT, CONTINUOUS INSULATED PLENUM, BORDER FRAME, END CAPS& BLANK-OFF PANELS AS NECESSARY
RR1	TITUS	350-RL	RETURN	VARIES	SEE PLAN	SQUARE	CEILING	STEEL	NO	WHITE	25	~500	--
LR1	TITUS	MLR-39	RETURN	VARIES	SEE PLAN	SURFACE	CEILING	AL	YES	WHITE	25	~500	PROVIDE FOUR-SLOT, BORDER FRAME, END CAPS& BLANK-OFF PANELS AS NECESSARY
ER1	TITUS	350-RL	EXHAUST	VARIES	SEE PLAN	SQUARE	CEILING	STEEL	YES	WHITE	25	~500	--
TR1	TITUS	350-RL	TRANSFER	--	SEE PLAN	SQUARE	CEILING	STEEL	NO	WHITE	25	~500	--

NOTES:
1) COORDINATE MOUNTING REQUIREMENTS WITH ARCHITECTURAL REFLECTED CEILING PLANS.
2) COORDINATE FINISH & COLOR WITH ARCHITECT.
3) PROVIDE FRAME SUITABLE FOR SURFACE MOUNTING, CEILING OR SIDEWALL.
4) PROVIDE SQUARE TO ROUND TRANSITIONS WHERE NEEDED.
5) REFER TO DRAWINGS FOR NECK SIZES & CFM UNLESS NOTED ABOVE.
6) PROVIDE OPPOSED BLADE DAMPER.

HVAC POWER EQUIPMENT SCHEDULE

TAG	DESCRIPTION	LOCATION	MANUFACTURER (AS STANDARD)	MODEL NO. (AS STANDARD)	FIRE ALARM CONNECTION	ELECTRICAL DATA			REMARKS
						VOLTS	PHASE	HZ	
CP	CONDENSATE PUMP	REFER TO DRAWINGS	LITTLE GIANT	VCC-20ULS	NO	120	1	60	--
M	MOTORIZED DAMPER	REFER TO DRAWINGS	---	---	NO	120	1	60	--

BRANCH SELECTOR SCHEDULE

TAG No.	MAXIMUM CONNECTABLE CAPACITY	ELECTRICAL DATA				NOM. POWER INPUT (W)		BASED ON MFR/MODEL	REMARKS
		V	PH	HZ	PORTS	COOLING	HEATING		
BC-1	432,000 - BTUH	208	1	60	16	274	137	MITSUBISHI/CMB-P1016NU	--

REFRIGERANT PIPE SIZE TABLE

FROM UNIT(S)	TO UNIT(S)	REF LIQUID PIPE SIZE	REF SUCTION PIPE SIZE	CONDENSATE DRAIN PIPE SIZE
FCU-1	BC-1	3/8"	5/8"	3/4"
FCU-2	BC-1	3/8"	5/8"	3/4"
FCU-3	BC-1	3/8"	5/8"	3/4"
FCU-4	BC-1	3/8"	5/8"	3/4"
FCU-5	BC-1	1/4"	1/2"	3/4"
FCU-6	BC-1	1/4"	1/2"	3/4"
FCU-7	BC-1	1/4"	1/2"	3/4"
FCU-8	BC-1	1/4"	1/2"	3/4"
BC-1	HP-1	1/4"	1/2"	3/4"

1) CONTRACTOR SHALL PROVIDE REFRIGERANT PIPE FROM AIR HANDLING UNIT TO HEAT PUMP
2) CONTRACTOR SHALL PROVIDE CONDENSATE DRAIN PIPE FROM AIR HANDLING UNIT TO STORM DRAIN
3) CONTRACTOR SHALL VERIFY REFRIGERANT PIPE SIZE WITH MANUFACTURER BEFORE INSTALLING

DUCT INSULATION SCHEDULE

SYSTEM/SERVICE	LOCATION	INSULATION TYPE	MINIMUM INSTALLED R-VALUE	REMARKS
COMBUSTION, VENT & EXHAUST AIR	UNHEATED SPACE	2" FIBERGLASS WRAP WITH FSK FACING	5	DUCT FROM DAMPER/UNIT TO ENVELOPE PENETRATION
SUPPLY, RETURN & OUTDOOR AIR	CONDITIONED SPACE	2" FIBERGLASS WRAP WITH FSK FACING	5	--
SUPPLY, RETURN & OUTDOOR AIR	UNCONDITIONED SPACE	3" FIBERGLASS WRAP WITH FSK FACING	8	--
SUPPLY & RETURN AIR	EXTERNAL TO BLDG ENVELOPE	3" FIBERGLASS WITH ALUMINUM JACKET	12	INSTALLATION PER DETAIL & MANUFACTURE INSTRUCTIONS

COORDINATION DRAWINGS

PRIOR TO THE COMMENCEMENT OF ANY WORK AT THE SITE, THE MECHANICAL CONTRACTOR SHALL CAREFULLY COORDINATE THE DESIGN OF THE MECHANICAL SYSTEMS WITH THE WORK OF ALL OTHER TRADES AND IN PARTICULAR THE WORK OF THE FIRE PROTECTION SYSTEMS AND THE DESIGN OF THE NEW HVAC DUCTWORK SYSTEMS IN RELATION TO THE LOCATIONS AND PIPE ELEVATIONS OF THE NEW FIRE PROTECTION AND PLUMBING PIPING SYSTEMS, THE EXISTING BUILDING CONDITIONS, NEW BUILDING CONDITIONS, THE NEW HVAC WORK, THE NEW PLUMBING WORK AND THE NEW ELECTRICAL WORK. THE NEW HVAC DUCTWORK SYSTEMS ARE EXTENSIVE AND MAY BE IN CONFLICT WITH SOME OF THE NEW PLUMBING MAINS, RISERS AND PIPING SYSTEMS ABOVE GROUND. THE MECHANICAL CONTRACTOR SHALL CREATE MECHANICAL SYSTEM COORDINATION DRAWINGS SHOWING ALL OF THE PROPOSED MECHANICAL WORK. THESE COORDINATION DRAWINGS SHALL BE GIVEN TO THE GENERAL CONTRACTOR FOR DISTRIBUTION TO THE OTHER TRADES IN ORDER TO COORDINATE THE INSTALLATIONS OF ALL WORK OF THE OTHER TRADES ON THE PROJECT. THE MECHANICAL CONTRACTOR SHALL CONDUCT COORDINATION MEETINGS WITH THE GENERAL CONTRACTOR, THE PLUMBING CONTRACTOR, THE FIRE PROTECTION CONTRACTOR AND THE ELECTRICAL CONTRACTOR IN ORDER TO COORDINATE THE WORK OF ALL TRADES, TO IDENTIFY AND RESOLVE ALL INSTALLATION CONFLICTS AND INTERFERENCES BETWEEN THE WORK OF ALL TRADES AND THE EXISTING AND NEW BUILDING AND CEILING CONDITIONS AND TO INSURE THAT ALL TRADES ARE COORDINATED AND THAT ALL TRADES FIT INTO THE BUILDING SPACES WITHOUT CONFLICT OR INTERFERENCE. NO WORK SHALL BE INSTALLED IN THE BUILDING WITHOUT THESE COORDINATION DRAWINGS AND COORDINATION MEETINGS BEING PERFORMED AND WITHOUT VERIFICATION THAT ALL TRADES ARE FULLY COORDINATED AND THAT ALL TRADES FIT INTO THE BUILDING SPACES WITHOUT CONFLICT OR INTERFERENCE. ALL CONFLICTS AND INTERFERENCES BETWEEN TRADES AND BUILDING CONDITIONS WILL BE RESOLVED ON THESE COORDINATION DRAWINGS PRIOR TO THE INSTALLATION OF ANY WORK AT THE SITE. ANY WORK THAT IS INSTALLED WITHOUT THIS COORDINATION BEING PERFORMED AND WITHOUT ALL CONFLICTS AND INTERFERENCES BETWEEN TRADES AND WITH THE EXISTING BUILDING CONDITIONS BEING RESOLVED ON THE TRADE CONTRACTORS COORDINATION DRAWINGS SHALL BE REMOVED AND REPLACED BY THE TRADE CONTRACTOR AND AT NO EXTRA COST TO THE CONTRACT.

BLW

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PROJECT NAME: STOW TOWN HALL RESTORATION

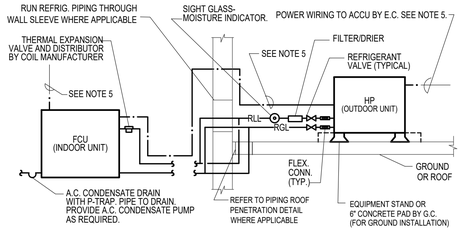
PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: HVAC SCHEDULES

DATE: 11 JUN 2021

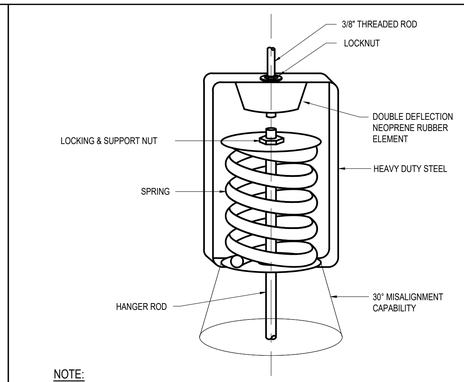
PROGRESS DRAWINGS NOT FOR CONSTRUCTION

SHEET #: H-02



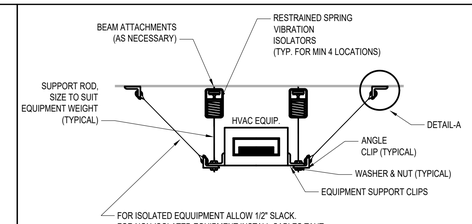
NOTES:
1. SIZE PIPING PER EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.
2. ALL INTERIOR PIPING SHALL BE CONCEALED IN CEILINGS AND WALLS..
3. FURNISH AND INSTALL ALL REFRIGERANT VALVES AND SPECIALTIES REQUIRED BY MANUFACTURER.
4. PROVIDE WEATHERTIGHT SEAL AT ALL PIPING PENETRATIONS. COORDINATE PENETRATIONS WITH G.C. AND ALL ASSOCIATED TRADES AS REQUIRED.
5. SPLIT SYSTEM MANUFACTURERS UTILIZE DIFFERENT WIRING CONFIGURATIONS. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THE WIRING REQUIREMENTS OF THE SHOP DRAWING APPROVED EQUIPMENT WITH THE ELECTRICAL CONTRACTOR.
A. SINGLE FEED SYSTEM
THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR POWER WIRING TO THE HP UNIT, FUSED DISCONNECT AND WIRING TO THE HP UNIT. THE LOW OR LINE VOLTAGE CONTROL/FAN POWER WIRING BETWEEN THE HP UNIT AND THE FCU SHALL BE PROVIDED BY THE ATC CONTRACTOR.
B. DUAL FEED SYSTEM
THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR POWER WIRING TO THE FCU AND HP UNITS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE POWER FEED TO THE HP UNIT, FUSED DISCONNECT AND WIRING TO THE HP UNIT. THE ELECTRICAL CONTRACTOR SHALL PROVIDE POWER FEED TO THE FCU, NON-FUSED DISCONNECT AND WIRING TO FCU. THE CONTROL WIRING BETWEEN FCU AND HP UNIT SHALL BE PROVIDED BY THE ATC CONTRACTOR.

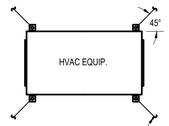
VARIABLE REFRIGERANT FLOW PIPING DETAIL N.T.S.



NOTE:
1. ALL AIR HANDLING EQUIPMENT SUSPENDED FROM STRUCTURES AND ALL STEAM AND CHILLED WATER PIPING IN MECHANICAL ROOMS SHALL BE HUNG WITH VIBRATION ISOLATORS.
2. HANGER SIZE SHALL BE AS PER MANUFACTURER'S RECOMMENDATION AND ACCORDING TO THE LOAD OF THE EQUIPMENT.

TYPICAL SPRING VIBRATION ISOLATION DETAIL N.T.S.

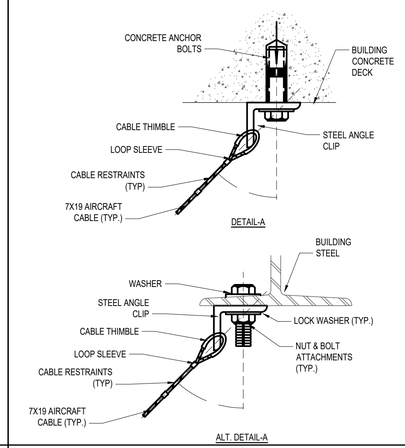




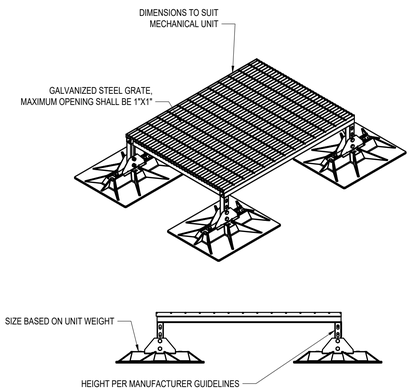
CABLE IS AT 45° ANGLE TO CEILING. ALTERNATE DIRECTIONS AS SHOWN TO PROVIDE AXIAL, LATERAL AND DOWNWARD RESTRAINT

NOTES:
1) CONTRACTOR SHALL PROVIDE SUPPLEMENTARY STEEL ANGLE(S) OR CHANNEL SUPPORT(S) WELDED TO BEAM FLANGE AS NECESSARY.
2) ALL CONNECTED DUCTWORK AND PIPING SHALL BE INDEPENDENTLY SUPPORTED FROM STRUCTURE.

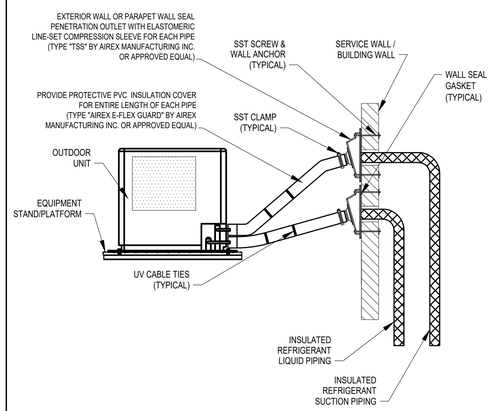
TYPICAL HVAC EQUIPMENT SUSPENSION DETAIL N.T.S.



"DETAIL-A" RESTRAINTS N.T.S.

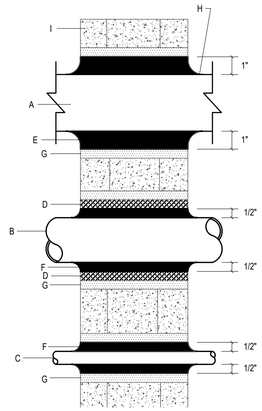


TYPICAL HEAT PUMP UNIT EQUIPMENT STAND N.T.S.



TYPICAL REFRIGERANT PIPE WALL SEAL DETAIL N.T.S.

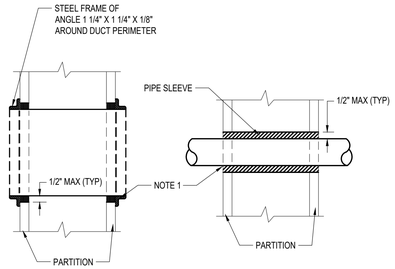
SEE ALSO ACOUSTICAL SPECIFICATION: PENETRATIONS OF MASONRY/CONCRETE CONSTRUCTIONS



A. PENETRATING DUCT
B. PIPE OR CONDUIT, MINIMUM DIAMETER ≥ 1"
C. PIPE OR CONDUIT, MINIMUM DIAMETER < 1"
D. METAL PIPE SLEEVE OR METAL STUD
E. 1" THICK CLOSED CELL NEOPRENE SHEET INSULATION
F. 1/2" THICK, SELF-SEAL, CLOSED CELL NEOPRENE PIPE INSULATION
G. GROUT
H. FIRE-PROOF CAULKING, PACKED AIRTIGHT
I. CONCRETE MASONARY UNIT OR POURED CONCRETE WALL

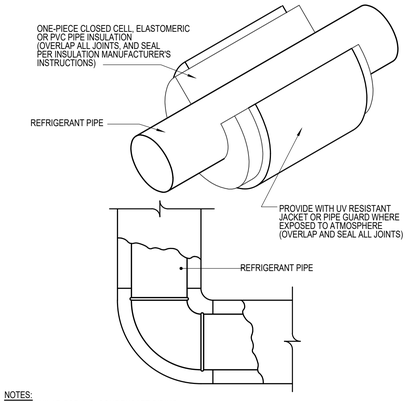
MASONRY/CONCRETE PENETRATIONS BY DUCTS, PIPES N.T.S.

NOTE:
DUCT PENETRATION SHOWN IS WHERE FIRE DAMPER IS NOT REQUIRED BY CODE.



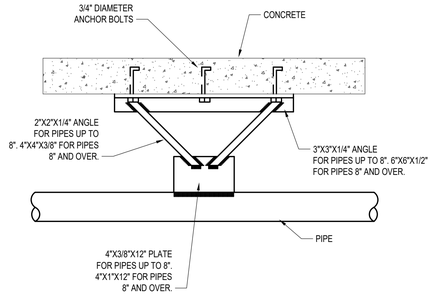
NOTES:
1. AT FIRE RATED PARTITIONS, ADD ADDITIONAL LAYER OF FIRE SAFING INSULATION AROUND PENETRATION SO AS TO FILL CAVITY.
2. DUCT AND PIPE PENETRATIONS THRU CORRIDOR WALLS ABOVE THE CEILING ARE TO BE FIRE STOPPED AROUND THE PENETRATION.

TYPICAL DUCT & PIPE PENETRATION DETAIL N.T.S.

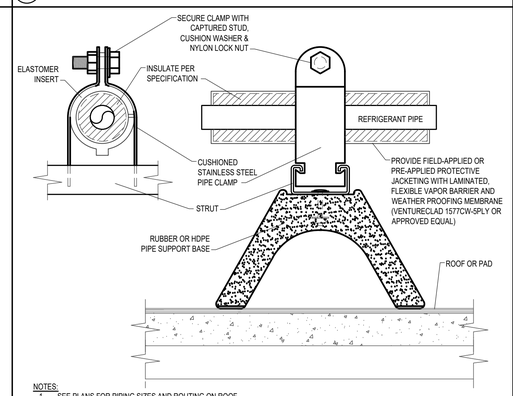


NOTES:
1. SIMILAR FOR A.C. CONDENSATE PIPING

TYPICAL REFRIGERANT PIPING INSULATION N.T.S.

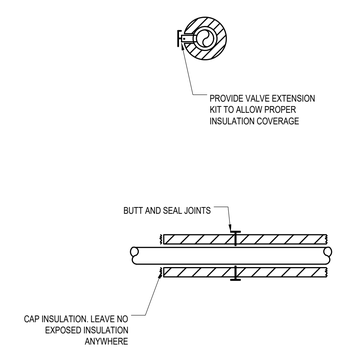


TYPICAL PIPE ANCHOR DETAIL N.T.S.



NOTES:
1. SEE PLANS FOR PIPING SIZES AND ROUTING ON ROOF
2. HVAC CONTRACTOR SHALL FURNISH AND INSTALL ALL PIPE SUPPORTS AND ASSOCIATED HARDWARE FOR HVAC SYSTEMS
3. COORDINATE LENGTH AND NUMBER OF ROOF SUPPORTS AS NECESSARY TO PROVIDE FOR NUMBER OF PIPES, INSULATION AND JACKETING THICKNESS, ETC.
4. PROVIDE PIPING SUPPORTS AT REQUIRED INTERVALS AND AT EACH CHANGE OF DIRECTION, MAXIMUM SPACING SHALL NOT EXCEED 10'-0"

TYPICAL EXTERIOR PIPE SUPPORT DETAIL N.T.S.



PIPE INSULATION AT VALVE HANDLE N.T.S.

BLW
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STOW TOWN HALL RESTORATION
375 GREAT ROAD
STOW MA 01775

PROJECT NAME:
PROJECT ADDRESS:

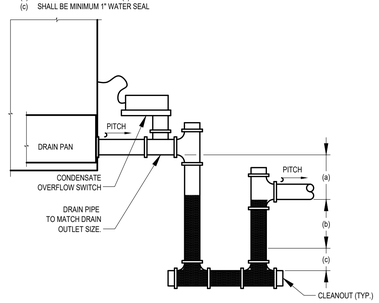
DRAWING TITLE: HVAC DETAILS I

DATE: 11 JUN 2021

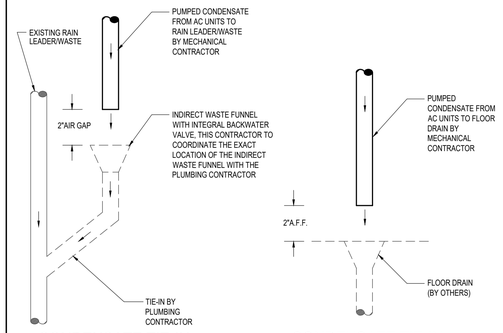
PROGRESS DRAWINGS NOT FOR CONSTRUCTION

SHEET #:
H-03

NOTES:
1. CONDENSATE OVERFLOW SWITCH MAY BE INLINE OR ATTACHED TO DRAIN PAN HIGHER THAN THE CONDENSATE DRAIN CONNECTION.
2. CONDENSATE OVERFLOW SWITCH SHALL TURN OFF CORRESPONDING UNIT AND EMIT AUDIBLE SIGNAL.
3. ALLOW SUFFICIENT SPACE BELOW FAN FOR TRAP.
4. PITCH DRAIN FOR PROPER RUNOFF.
5. MANUALLY PRIME FILL TRAP BEFORE START-UP TO FORM INITIAL DRAIN SEAL.
6. SUPPORT LENGTHY DRAIN LINES TO PREVENT SAG AND CONDENSATE OVERFLOW.
7. TRAP DIMENSIONS:
   (a) SHALL BE GREATER THAN THE MAXIMUM FAN SUCTION STATIC PRESSURE (MEASURED IN INCHES WATER COLUMN) AT MAXIMUM AIRFLOW WITH DIRTY FILTERS AND COILS.
   (b) SHALL BE GREATER THAN (a)/2
   (c) SHALL BE MINIMUM 1" WATER SEAL



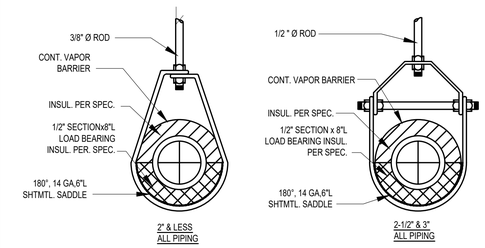
TYPICAL INDOOR CONDENSATE DRAIN & TRAP DETAIL N.T.S.



CONDENSATE TIE-IN TO SANITARY
NOT TO SCALE

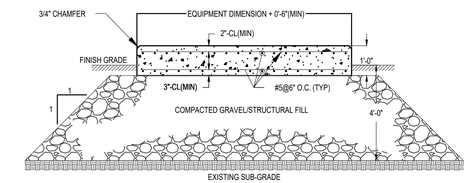
CONDENSATE TIE-IN ABOVE FLOOR DRAINS
NOT TO SCALE

INDIRECT CONDENSATE DRAIN DETAIL N.T.S.



TYPICAL PIPE SUPPORT DETAIL N.T.S.

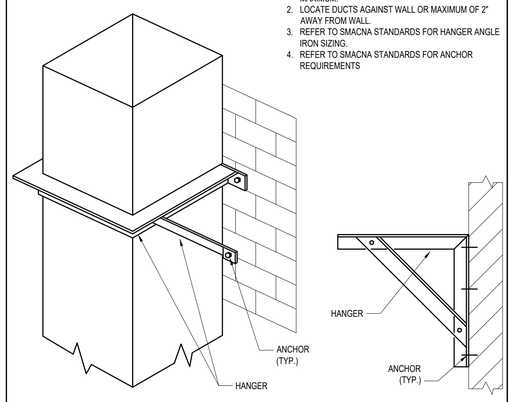
NOTES:
1. COORDINATE EQUIPMENT PAD DIMENSIONS WITH APPROVED EQUIPMENT SUBMITTAL. COORDINATE ANY/ALL BURIED PIPING AND CONDUIT LOCATIONS PRIOR TO EXCAVATION.
2. PRIOR TO ADDING GRAVEL FILL, THE SUBGRADE SHALL BE COMPACTED WITH AT LEAST 6 PASSES OF A 5-TON VIBRATORY ROLLER.
3. GRAVEL FILL SHALL BE ADDED AND EXTENDED LATERALLY BELOW THE CONCRETE PAD AND SLAB. THE GRAVEL FILL SHOULD BE PLACED IN 6-INCH LIFTS AND COMPACTED.



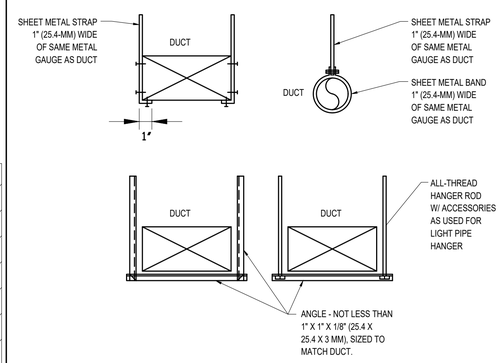
NEED TO CONFIRM DEPTH WITH LEDGE DETAILS & COORDINATE GRADES WITH CIVIL & LANDSCAPE; MAKE CLEAR THAT PAD IS BY HVAC SUBCONTRACTOR

TYPICAL EXTERIOR EQUIPMENT PAD DETAIL N.T.S.

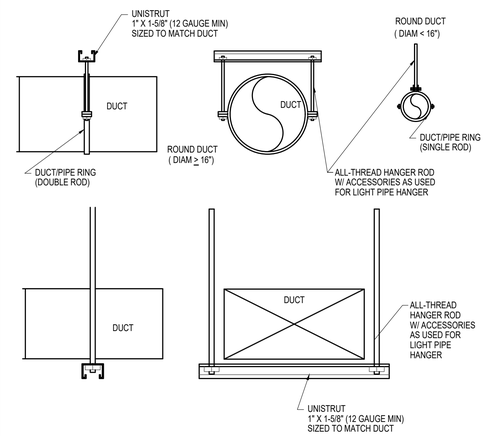
NOTES:
1. BRACKETS ARE SIZED FOR 12 FEET OF DUCT, MAXIMUM.
2. LOCATE DUCTS AGAINST WALL OR MAXIMUM OF 2" AWAY FROM WALL.
3. REFER TO SMACNA STANDARDS FOR HANGER ANGLE IRON SIZING.
4. REFER TO SMACNA STANDARDS FOR ANCHOR REQUIREMENTS



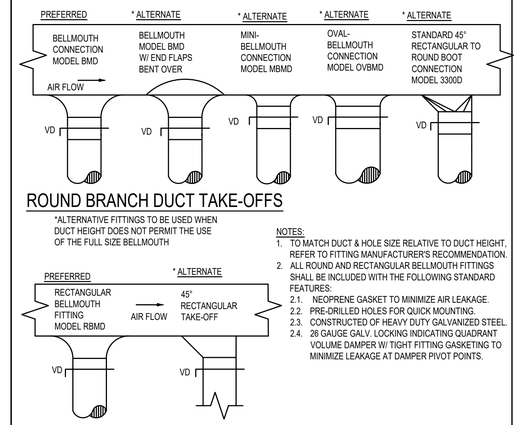
TYPICAL VERTICAL DUCT WALL SUPPORT DETAIL N.T.S.



TYPICAL (CONCEALED) SHEET METAL DUCT SUPPORTS N.T.S.



TYPICAL (EXPOSED) SHEET METAL DUCT SUPPORTS N.T.S.



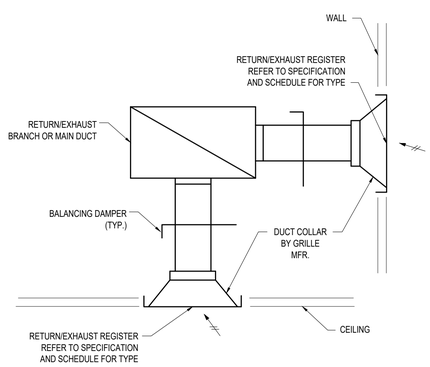
ROUND BRANCH DUCT TAKE-OFFS

*ALTERNATIVE FITTINGS TO BE USED WHEN DUCT HEIGHT DOES NOT PERMIT THE USE OF THE FULL SIZE BELLMOUTH

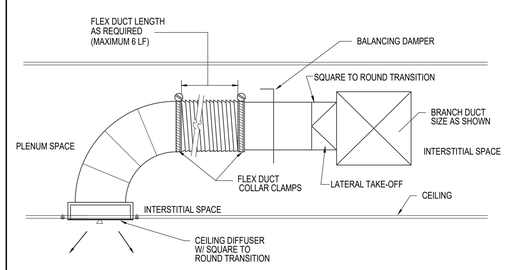
NOTES:
1. TO MATCH DUCT & HOLE SIZE RELATIVE TO DUCT HEIGHT, REFER TO FITTING MANUFACTURER'S RECOMMENDATION.
2. ALL ROUND AND RECTANGULAR BELLMOUTH FITTINGS SHALL BE INCLUDED WITH THE FOLLOWING STANDARD FEATURES:
   2.1. NEOPRENE GASKET TO MINIMIZE AIR LEAKAGE.
   2.2. PRE-DRILLED HOLES FOR QUICK MOUNTING.
   2.3. CONSTRUCTED OF HEAVY DUTY GALVANIZED STEEL.
   2.4. 26 GAUGE GALV. LOCKING INDICATING QUADRANT VOLUME DAMPER W/ TIGHT FITTING GASKETING TO MINIMIZE LEAKAGE AT DAMPER PIVOT POINTS.

RECTANGULAR BRANCH DUCT TAKE-OFFS

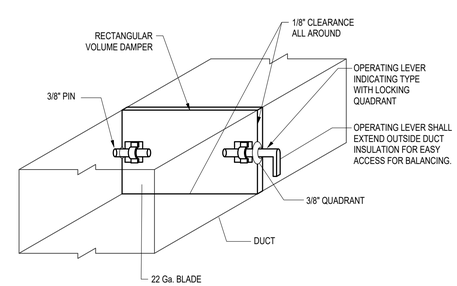
TYPICAL BRANCH TAKE-OFFS DETAIL N.T.S.



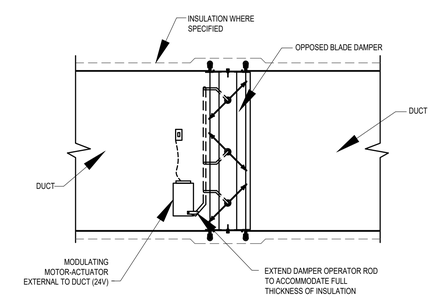
TYPICAL RETURN / EXHAUST REGISTER DETAIL N.T.S.



TYPICAL SUPPLY DIFFUSER DETAIL N.T.S.



TYPICAL VOLUME DAMPER DETAIL N.T.S.



GENERAL NOTES:
1) DUCT SHALL BE SUPPORTED FROM BUILDING STRUCTURE AND ON BOTH SIDES OF DAMPER
2) PROVIDE ACCESS TO ALL DAMPER ACTUATORS, IDENTIFICATION TAG SHALL BE VISIBLE FROM ACCESS POINT

TYPICAL MOTORIZED DAMPER DETAIL N.T.S.

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STOW TOWN HALL RESTORATION
375 GREAT ROAD
STOW MA 01775

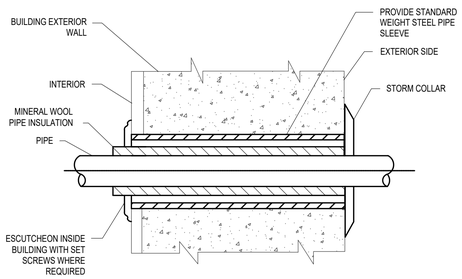
PROJECT NAME:
PROJECT ADDRESS:

DRAWING TITLE: HVAC DETAILS II

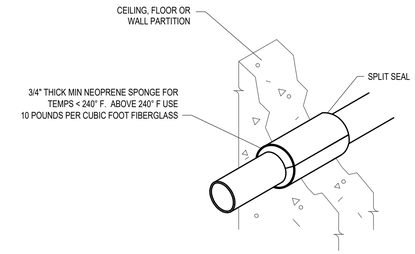
DATE: 11 JUN 2021

PROGRESS DRAWINGS NOT FOR CONSTRUCTION

SHEET #: H-04



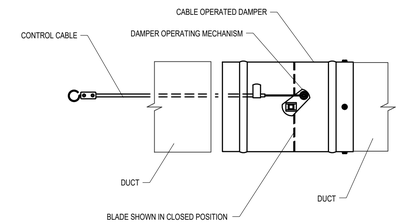
TYPICAL (ABOVE GRADE) EXTERIOR WALL SLEEVE N.T.S.



NOTE:

THIS DETAIL IS FOR ONE FLOOR ONLY, TO BE USE IN AN ENGINEERED RISER WITH ANCHORS, GUIDES, ETC, IF NECESSARY. COORDINATE WITH STRUCTURAL ENGINEER.

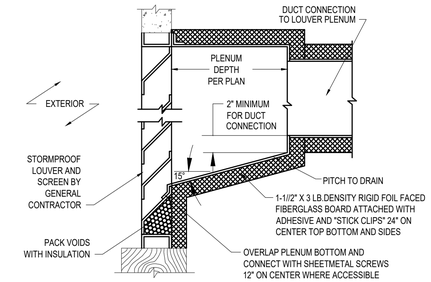
TYPICAL ACOUSTICAL PIPE SEAL DETAIL N.T.S.



NOTE:

1. CONTROL CABLE SHALL TERMINATE AT DIFFUSER AND BE ADJUSTABLE THROUGH THE DIFFUSER FACE.
2. IF CONTROL CABLE IS INSTALLED EXTERNAL TO DUCT, FACE PANEL SHALL BE PROVIDED FOR ADJUSTMENT.

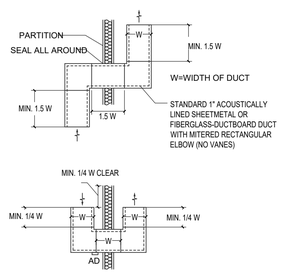
TYPICAL REMOTE VOLUME DAMPER DETAIL N.T.S.



NOTES:

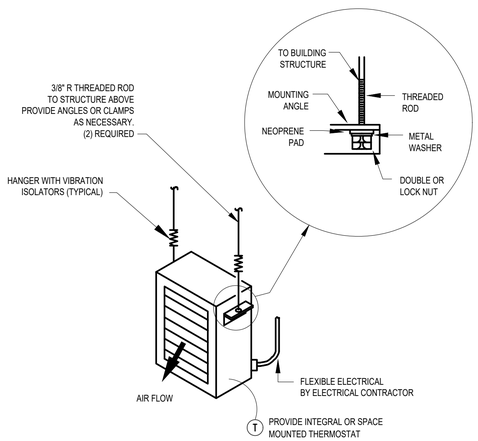
1. SHEETMETAL PLENUM CONTRUCTION SHALL BE PER SMACNA.
2. SUPPORT PLENUM FROM FLOOR OR STRUCTURE ABOVE WITH GALVANIZED STEEL ANGLES AND CHANNELS, CROSS BREAK ALL PANELS FOR RIGIDITY.
3. LOUVER SHALL BE INSTALLED MIN. OF 3 FT ABOVE SNOW ACCUMULATING SURFACE (ROOF, WALKWAY, ETC.)
4. BARE SHEETMETAL PAINTED BY HVAC SUBCONTRACTOR (BLACK OR AS DIRECTED BY ARCHITECT).

TYPICAL LOUVER PLENUM CONNECTION DETAIL N.T.S.

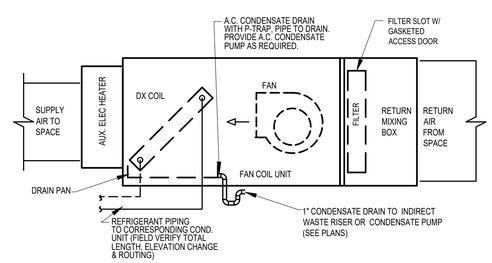


NOTES:
1. IF PARTITION IS FIRE RATED, PROVIDE FIRE DAMPER.
2. SEE PLANS FOR SIZE AND LOCATION OF RETURN AIR TRANSFER DUCTS.

TYPICAL RETURN PLENUM TRANSFER DUCT DETAIL N.T.S.



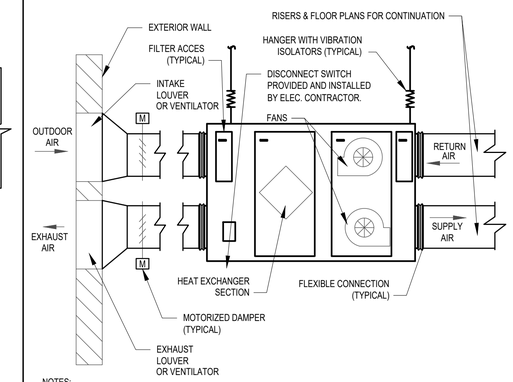
TYPICAL HORIZONTAL UNIT HEATER DETAIL N.T.S.



NOTES:

1) ALL PIPING SHALL BE INSULATED IN ACCORDANCE WITH 780 CMR.
2) PROVIDE RETURN AIR MIXING BOX W/ DISPOSABLE RETURN AIR FILTER (ACCESSED VIA PANEL)
3) PROVIDE MIN 24"X24" ACCESS PANEL WHERE UNIT IS CONCEALED ABOVE CEILING OR WITHIN WALL.
4) SIZE PIPING PER EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.
5) ALL INTERIOR PIPING SHALL BE CONCEALED IN CEILINGS AND WALLS.
6) FURNISH AND INSTALL ALL REFRIGERANT VALVES AND SPECIALTIES REQUIRED BY MANUFACTURER.
7) CONTRACTOR SHALL INSTALL FAN COIL UNITS IN ACCORDANCE WITH ALL MANUFACTURER'S INSTRUCTIONS, RECOMMENDATIONS AND REQUIREMENTS.
8) CONTRACTOR SHALL PROVIDE ALL NECESSARY HANGERS, SUPPORTS AND VIBRATION ISOLATION COMPONENTS FOR COMPLETE INSTALLATION OF UNITS PER CONNECTION DETAIL.

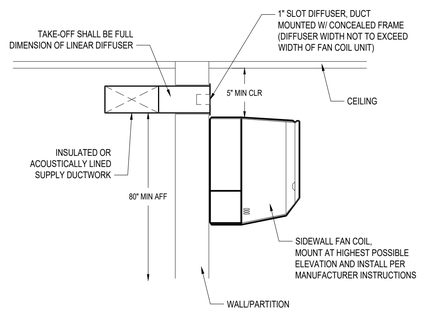
TYPICAL DUCTED FAN COIL UNIT (FCU) DETAIL N.T.S.



NOTES:

1) IF ERV UNIT CABINET DOES NOT ALLOW FOR INTEGRAL FILTERS ON OA AND EA AIRSTREAM INLETS, CONTRACTOR SHALL PROVIDE SHEET METAL FILTER BOXES PRIOR TO FLEXIBLE DUCT CONNECTIONS ON BOTH AIRSTREAMS. FILTER ACCESS DOOR SHALL BE CONSTRUCTED WITH FULL LENGTH PIANO HINGE ON THE LONGEST SIDE AND BE COMPLETELY GASKETED.
2) SIMILAR FOR ROOF INTAKE AND/OR DISCHARGE, SEE VENT W/ DAMPER DETAIL FOR TERMINATIONS

TYPICAL ENERGY RECOVERY VENTILATOR (ERV) DETAIL N.T.S.



NOTES:

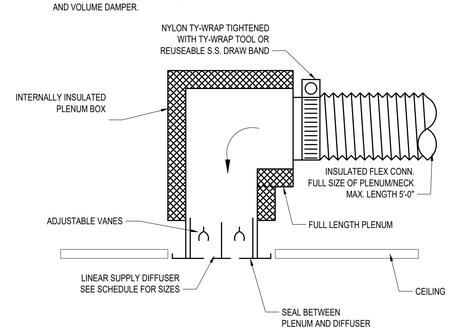
1. OFFSETS SHALL BE MADE WITH RIGID METAL DUCT AND SHALL NOT EXCEED 30°
2. BRANCH CONNECTION TO MAIN DUCT SHALL BE MADE WITH 45° TAPERED TAKE-OFF
3. VOLUME DAMPER SHALL BE PROVIDED AT TAKE-OFF CONNECTION OR AS INDICATED ON PLAN

80" MINIMUM SHOULD REFER TO BOTTOM OF FAN COIL FOR ADA, NOT TO DUCT

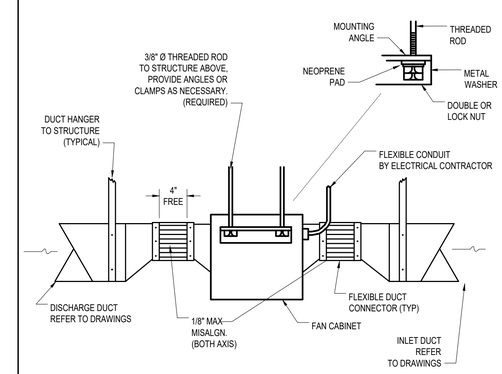
LINEAR DIFFUSER AT WALL MOUNTED FAN COIL UNIT N.T.S.

NOTES:

1. OFFSETS WITH DUCT SHALL NOT EXCEED 30° AND SHALL BE GRADUAL, OFFSETS IN EXCESS OF 30° SHALL BE MADE WITH RIGID MEATL DUCT.
2. FLEX DUCT SHALL NOT HAVE MORE THAN 1/2" SAG/FT.
3. FOR PERIMETER DIFFUSERS LOCATE DISTANCE FROM OUTSIDE WALL SHOWN ON ARCH. PLANS.
4. CONNECTION TO MAIN DUCT SHALL BE WITH TAPERED CONNECTION AND VOLUME DAMPER.



LINEAR DIFFUSER CONNECTION AT CEILING N.T.S.



TYPICAL IN-LINE FAN DETAIL N.T.S.

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STOW TOWN HALL RESTORATION
375 GREAT ROAD
STOW MA 01775

PROJECT NAME:
PROJECT ADDRESS:

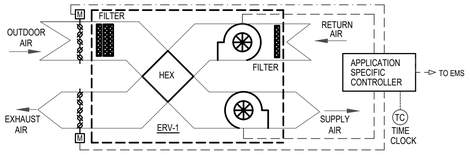
DRAWING TITLE: HVAC DETAILS III

DATE: 11 JUN 2021

PROGRESS DRAWINGS NOT FOR CONSTRUCTION

SHEET #:

H-05



APPLICATION TABLE
ENERGY RECOVERY UNIT
ERV-1

COMM. AREA ENERGY RECOVERY UNIT SEQUENCE OF OPERATION

THE ENERGY RECOVERY UNIT & DAMPERS SHALL BE OPERATED THROUGH THE UNIT CONTROLLER & TIME CLOCK PER MANUFACTURER'S PACKAGED CONTROL SEQUENCES. THE UNIT CONTROLLER SHALL BE ADDRESSABLE THROUGH THE EMS SYSTEM. THE LISTED SEQUENCE IS REVERSIBLE UNLESS NOTED.

OCCUPIED HOURS (ADJ.): MONDAY THRU FRIDAY, 6:00AM TO 7:59PM
SATURDAY AND SUNDAY, 6:00AM TO 5:59PM

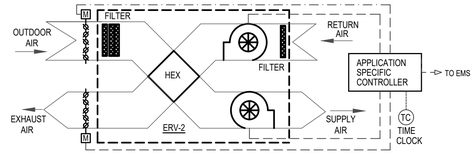
UNOCCUPIED HOURS (ADJ.): MONDAY THRU FRIDAY, 8:00PM TO 5:59AM
SATURDAY, SUNDAY AND HOLIDAYS, 6:00PM TO 5:59AM

DURING OCCUPIED HOURS THE OUTDOOR & EXHAUST AIR DAMPERS SHALL OPEN FULLY, THE SUPPLY FAN & EXHAUST FAN SHALL ENERGIZE AND OPERATE CONTINUOUSLY.

DURING UNOCCUPIED HOURS THE SUPPLY & EXHAUST FANS SHALL BE DE-ENERGIZED THEN THE OUTDOOR & EXHAUST AIR DAMPERS SHALL BE CLOSED FULLY.

THE UNIT FANS SPEEDS SHALL BE SET TO MAINTAIN CONSTANT AIRFLOW WITHIN THE DUCTWORK, THE SUPPLY & EXHAUST AIR FLOWS SHALL BE BALANCED TO MAINTAIN AIR FLOW PATTERN AND PRESSURIZATION AS INDICATED.

FAN OR DAMPER FAILURE SHALL TRANSMIT THE APPROPRIATE ALARM TO THE UNIT CONTROL PANEL AND THE EMS.



APPLICATION TABLE
ENERGY RECOVERY UNIT
ERV-2

COMM. AREA ENERGY RECOVERY UNIT SEQUENCE OF OPERATION

THE ENERGY RECOVERY UNIT & DAMPERS SHALL BE OPERATED THROUGH THE UNIT CONTROLLER & TIME CLOCK PER MANUFACTURER'S PACKAGED CONTROL SEQUENCES. THE UNIT CONTROLLER SHALL BE ADDRESSABLE THROUGH THE EMS SYSTEM. THE LISTED SEQUENCE IS REVERSIBLE UNLESS NOTED.

OCCUPIED HOURS (ADJ.): MONDAY THRU FRIDAY, 6:00AM TO 7:59PM
SATURDAY AND SUNDAY, 6:00AM TO 5:59PM

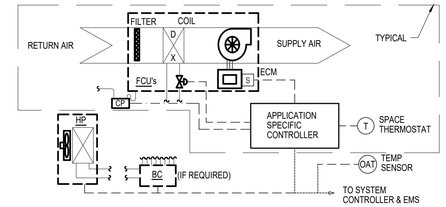
UNOCCUPIED HOURS (ADJ.): MONDAY THRU FRIDAY, 8:00PM TO 5:59AM
SATURDAY, SUNDAY AND HOLIDAYS, 6:00PM TO 5:59AM

DURING OCCUPIED HOURS THE OUTDOOR & EXHAUST AIR DAMPERS SHALL OPEN FULLY, THE SUPPLY FAN & EXHAUST FAN SHALL ENERGIZE AND OPERATE CONTINUOUSLY.

DURING UNOCCUPIED HOURS THE SUPPLY & EXHAUST FANS SHALL BE DE-ENERGIZED THEN THE OUTDOOR & EXHAUST AIR DAMPERS SHALL BE CLOSED FULLY.

THE UNIT FANS SPEEDS SHALL BE SET TO MAINTAIN CONSTANT AIRFLOW WITHIN THE DUCTWORK, THE SUPPLY & EXHAUST AIR FLOWS SHALL BE BALANCED TO MAINTAIN AIR FLOW PATTERN AND PRESSURIZATION AS INDICATED.

FAN OR DAMPER FAILURE SHALL TRANSMIT THE APPROPRIATE ALARM TO THE UNIT CONTROL PANEL AND THE EMS.



APPLICATION TABLE
TYPICAL OF ALL FCU'S, BC'S & HP'S

MULTI-ZONE VRF SYSTEM SEQUENCE OF OPERATION

THE INDOOR UNITS UNITS SHALL BE OPERATED THROUGH SPACE THERMOSTAT AND SYSTEM CONTROLLER, SYSTEM CONTROLLER SHALL BE ADDRESSABLE THROUGH THE EMS SYSTEM. THE LISTED SEQUENCE IS REVERSIBLE UNLESS NOTED.

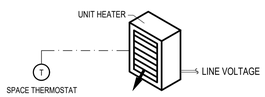
THE UNIT SUPPLY FAN SHALL BE NORMALLY ENERGIZED AT LOW SPEED AND OPERATE CONTINUOUSLY. UNIT FAILURE SHALL TRANSMIT THE APPROPRIATE ALARM SIGNAL TO THE EMS.

HEATING MODE:

UPON A CALL FOR HEATING FROM THE SPACE THERMOSTAT THE UNIT SHALL OPERATE MAINTAIN SPACE TEMPERATURE SET POINT 70°F(ADJ.). UPON CONTINUED CALL FOR HEAT THE UNIT SUPPLY FAN SHALL INCREMENTALLY INCREASE SPEED TO THE HIGH SETTING TO MAINTAIN SPACE TEMPERATURE SET POINT.

COOLING MODE:

UPON A CALL FOR COOLING FROM THE SPACE THERMOSTAT THE UNIT SHALL OPERATE TO MAINTAIN SPACE TEMPERATURE SET POINT 75°F(ADJ.) UPON CONTINUED CALL FOR COOLING THE UNIT SUPPLY FAN SHALL INCREMENTALLY INCREASE SPEED TO THE HIGH SETTING TO MAINTAIN SPACE TEMPERATURE SET POINT.

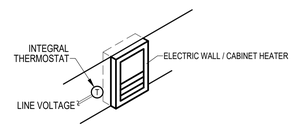


APPLICATION TABLE
ELECTRIC UNIT HEATER
EUH-1

ELECTRIC UNIT HEATER SEQUENCE OF OPERATION

THE UNIT HEATER SHALL BE CONTROLLED THROUGH SPACE MOUNTED THERMOSTAT; ALL SETTINGS ARE TO BE ADJUSTABLE.

UPON SENSING SPACE TEMPERATURE BELOW SET POINT OF 50°F(ADJ.) THE UNIT FAN SHALL ENERGIZE THEN FOLLOWING A SHORT DELAY THE HEATING ELEMENT SHALL ENERGIZE AND THE UNIT SHALL OPERATE TO MAINTAIN SET POINT. UPON SATISFYING CALL FOR HEAT, THE HEATING ELEMENT SHALL DE-ENERGIZE AND AFTER SHORT DELAY THE FAN SHALL DE-ENERGIZE.

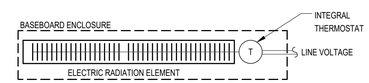


APPLICATION TABLE
ELECTRIC WALL HEATER
EWH-1

ELECTRIC WALL HEATER SEQUENCE OF OPERATION

THE WALL HEATER SHALL BE CONTROLLED THROUGH INTEGRAL THERMOSTAT; ALL SETTINGS ARE TO BE ADJUSTABLE.

UPON SENSING SPACE TEMPERATURE BELOW SET POINT OF 60°F(ADJ.) THE UNIT FAN SHALL ENERGIZE THEN FOLLOWING A SHORT DELAY THE HEATING ELEMENT SHALL ENERGIZE AND THE UNIT SHALL OPERATE TO MAINTAIN SET POINT. UPON SATISFYING CALL FOR HEAT, THE HEATING ELEMENT SHALL DE-ENERGIZE AND AFTER SHORT DELAY THE FAN SHALL DE-ENERGIZE.



APPLICATION TABLE
ELECTRIC BASEBOARD HEATER
EBB-1

ELECTRIC BASEBOARD HEATER SEQUENCE OF OPERATION

THE BASEBOARD HEATER SHALL BE OPERATED THROUGH INTEGRAL THERMOSTAT. THE SEQUENCE LISTED BELOW IS REVERSIBLE UNLESS NOTED OTHERWISE.

THE HEATING ELEMENT SHALL BE NORMALLY DE-ENERGIZED.

UPON SENSING SPACE TEMPERATURE BELOW SET POINT OF 60°F (ADJ.) THE HEATING ELEMENT SHALL ENERGIZE AND OPERATE TO MAINTAIN SET POINT.

UPON SATISFYING THE CALL FOR HEAT THE HEATING ELEMENT SHALL DE-ENERGIZE.

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PROJECT NAME: STOW TOWN HALL RESTORATION
PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: HVAC SEQUENCES

DATE: 11 JUN 2021

PROGRESS DRAWINGS NOT FOR CONSTRUCTION

SHEET #: H-06

DIAGRAM SYMBOL LEGEND	
DISPLAY	DESCRIPTION
—//—	POWER WIRE
———	CONTROL WIRE
- - - -	REF. PIPE

CONT.No		PAGE	

CITY MULTI

SYSTEM SCHEMATIC DWG.

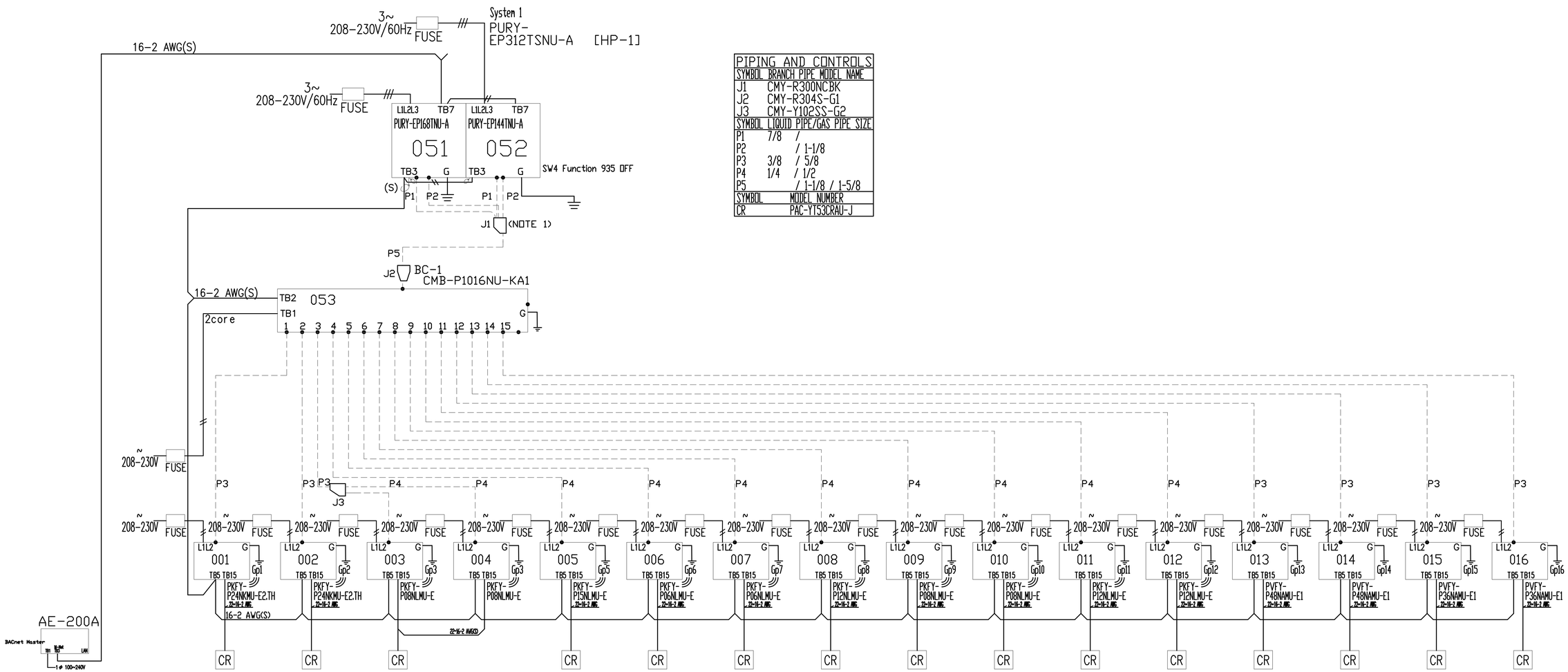
This drawing is schematic in nature. Final routing of piping & wiring shall be determined by the installing contractor.

Additional refrigerant charge is needed depending on the size and length of extended piping. Please refer the amount of pre-charge and the formula of calculation which is mentioned on the data book.

$1.25mm^2$(16 AWG) : $1.25mm^2$(16 AWG) or more. $0.75mm^2$(20 AWG) : between $0.5mm^2$(24 AWG) and $0.75mm^2$(20 AWG).

Coded Notes:
NOTE 1: Install twinning Y's within 15 degrees of level and with 20 inches of straight pipe on converging connection - reference installation manual for additional details including but not limited to special trapping requirements when twinning, and pipe slope requirements

PIPING AND CONTROLS		
SYMBOL	BRANCH PIPE	MODEL NAME
J1	CMY-R300NCBK	
J2	CMY-R304S-G1	
J3	CMY-Y102SS-G2	
SYMBOL	LIQUID PIPE/GAS PIPE SIZE	
P1	7/8 /	
P2	/ 1-1/8	
P3	3/8 / 5/8	
P4	1/4 / 1/2	
P5	/ 1-1/8 / 1-5/8	
SYMBOL	MODEL NUMBER	
CR	PAC-Y1S3CRAU-J	



Lower Lobby	Meeting Room	Hist. Comm.	Hist. Comm.	Rm 112	Entry	Table & Chair	Upper Lobby	Display	Pantry	Elev. Mach.	Attic-Addition	Great Hall	Great Hall	Great Hall	Great Hall
FCU-3A	FCU-3B	FCU-7A	FCU-7B	FCU-5A	FCU-8A	FCU-8B	FCU-6A	FCU-7D	FCU-7E	FCU-6B	FCU-6C	FCU-1A	FCU-1B	FCU-2A	FCU-2B

REMARKS
Comments:

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PROJECT NAME: STOW TOWN HALL RESTORATION
PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: HVAC VRF PIPING & WIRING RISER

DATE: 11 JUN 2021

PROGRESS DRAWINGS NOT FOR CONSTRUCTION

SHEET #: H-07

FUEL OIL SYSTEM REMOVAL NOTES:

1) LOCATION AND DIMENSIONING OF EXISTING STORAGE TANK, PIPING, ETC. IS APPROXIMATE. ALL EXISTING CONDITIONS SHOWN ARE TO BE CONSIDERED DIAGRAMMATIC. CONTRACTOR SHALL FIELD VERIFY AND COORDINATE ALL EXISTING CONDITIONS PRIOR TO COMMENCING ANY WORK.

2) CONTRACTOR SHALL CAPTURE ALL FUEL OIL IN EXISTING PIPING AND TANKS TO BE DEMOLISHED AND DISPOSE OF AS INDICATED AND IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.

3) CONTRACTOR SHALL BE REQUIRED TO NOTIFY FIRE DEPARTMENT AND OBTAIN NECESSARY PERMITS PRIOR TO COMMENCING OIL TANK REMOVAL WORK.

GENERAL DEMOLITION NOTES:

1) CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EQUIPMENT, PIPING & AUTOMATIC CONTROL DEVICES TO REMAIN DURING THE COURSE OF THIS WORK.

2) ALL EQUIPMENT PADS, BASES, STANDS, SUPPORTS, ETC. FOR HVAC SYSTEMS TO BE REMOVED SHALL BE DEMOLISHED IN THEIR ENTIRETY UNLESS OTHERWISE NOTED.

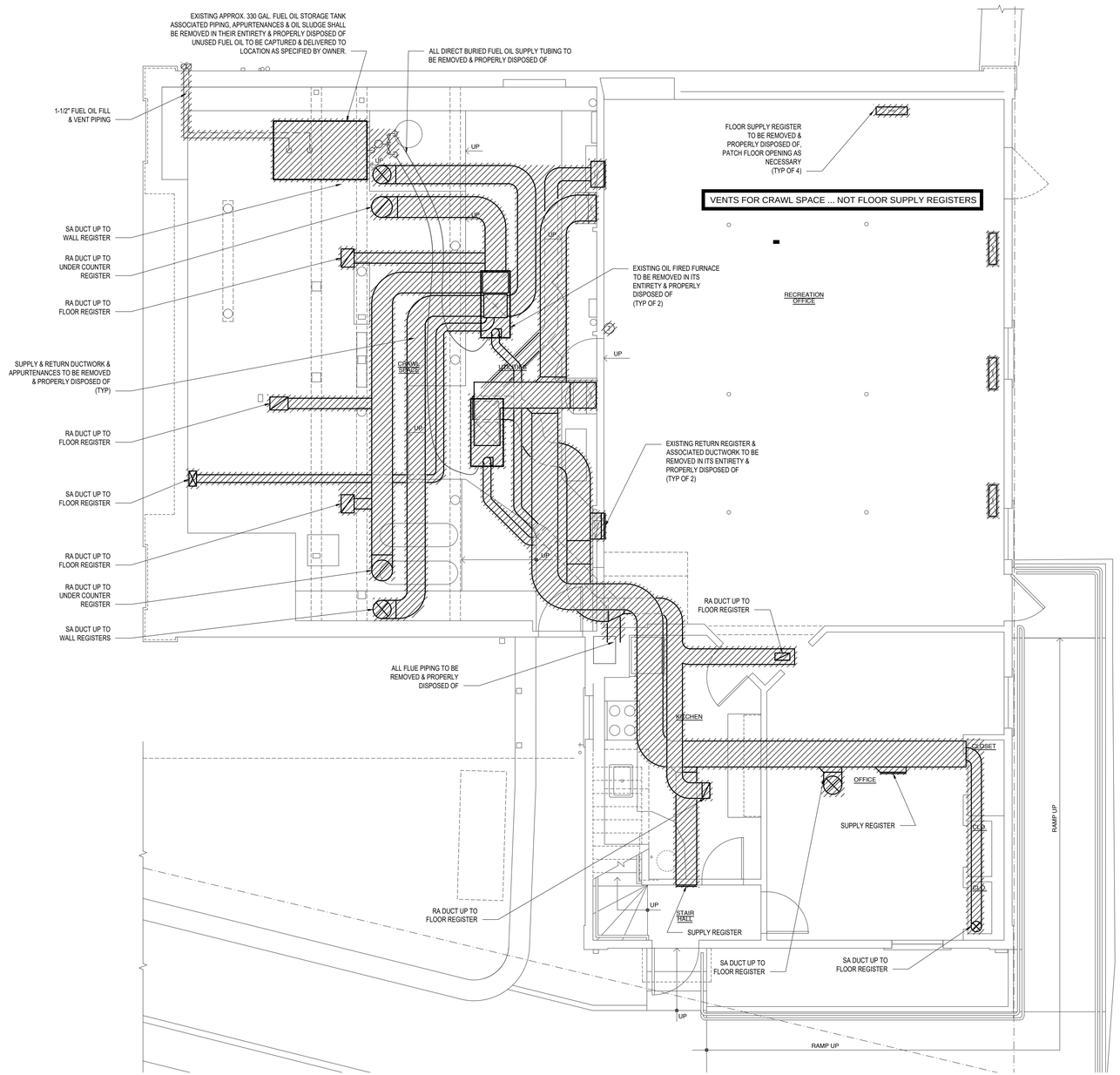
3) ALL ELECTRICAL & AUTOMATIC CONTROL COMPONENTS FOR HVAC SYSTEMS TO BE REMOVED SHALL BE DEMOLISHED IN THEIR ENTIRETY UNLESS OTHERWISE NOTED.

3) ALL ACCESSORIES & APPURTENANCES FOR HVAC SYSTEMS TO BE REMOVED SHALL BE DEMOLISHED IN THEIR ENTIRETY UNLESS OTHERWISE NOTED.

4) CONTRACTOR SHALL DISPOSE OF BREECHING(S) & ASSOCIATED ACCESSORIES AS HAZARDOUS MATERIALS.

5) ALL FLOOR SURFACES AFFECTED BY THE DEMOLITION OF EQUIPMENT, PADS, BASES, SUPPORTS, ETC. SHALL BE PATCHED AND FINISHED TO MATCH ADJACENT AREA BY THE CONTRACTOR.

6) ALL EXTERIOR WALL, INTERIOR WALL AND FLOOR SURFACES AFFECTED BY THE DEMOLITION OF FUEL OIL PIPE, TANK(S), EQUIPMENT AND SUPPORTS SHALL BE PATCHED AND FINISHED TO MATCH ADJACENT AREA BY THE CONTRACTOR.



1 HVAC-GROUND FLOOR DEMOLITION PLAN

SCALE: 1/4" = 1'- 0"

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fax: 617-876-6420

PROJECT NAME: STOW TOWN HALL RESTORATION

PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: HVAC GROUND FLOOR DEMOLITION PLAN

DATE: 11 JUN 2021

PROGRESS DRAWINGS NOT FOR CONSTRUCTION

SHEET #: H-10

FUEL OIL SYSTEM REMOVAL NOTES:

1) LOCATION AND DIMENSIONING OF EXISTING STORAGE TANK, PIPING, ETC. IS APPROXIMATE. ALL EXISTING CONDITIONS SHOWN ARE TO BE CONSIDERED DIAGRAMMATIC. CONTRACTOR SHALL FIELD VERIFY AND COORDINATE ALL EXISTING CONDITIONS PRIOR TO COMMENCING ANY WORK.

2) CONTRACTOR SHALL CAPTURE ALL FUEL OIL IN EXISTING PIPING AND TANKS TO BE DEMOLISHED AND DISPOSE OF AS INDICATED AND IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.

3) CONTRACTOR SHALL BE REQUIRED TO NOTIFY FIRE DEPARTMENT AND OBTAIN NECESSARY PERMITS PRIOR TO COMMENCING OIL TANK REMOVAL WORK.

GENERAL DEMOLITION NOTES:

1) CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EQUIPMENT, PIPING & AUTOMATIC CONTROL DEVICES TO REMAIN DURING THE COURSE OF THIS WORK.

2) ALL EQUIPMENT PADS, BASES, STANDS, SUPPORTS, ETC. FOR HVAC SYSTEMS TO BE REMOVED SHALL BE DEMOLISHED IN THEIR ENTIRETY UNLESS OTHERWISE NOTED.

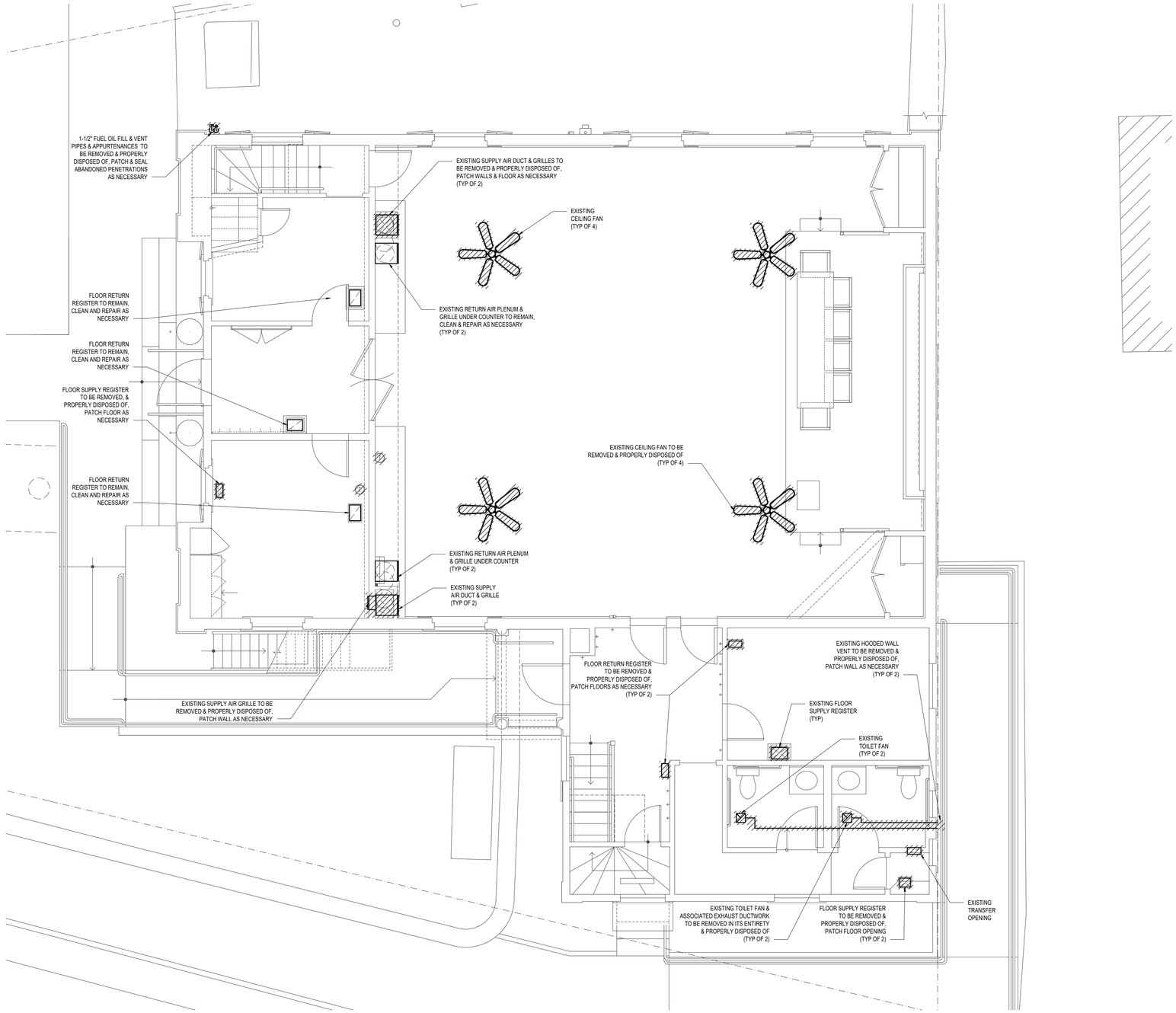
3) ALL ELECTRICAL & AUTOMATIC CONTROL COMPONENTS FOR HVAC SYSTEMS TO BE REMOVED SHALL BE DEMOLISHED IN THEIR ENTIRETY UNLESS OTHERWISE NOTED.

3) ALL ACCESSORIES & APPURTENANCES FOR HVAC SYSTEMS TO BE REMOVED SHALL BE DEMOLISHED IN THEIR ENTIRETY UNLESS OTHERWISE NOTED.

4) CONTRACTOR SHALL DISPOSE OF BREECHING(S) & ASSOCIATED ACCESSORIES AS HAZARDOUS MATERIALS.

5) ALL FLOOR SURFACES AFFECTED BY THE DEMOLITION OF EQUIPMENT, PADS, BASES, SUPPORTS, ETC. SHALL BE PATCHED AND FINISHED TO MATCH ADJACENT AREA BY THE CONTRACTOR.

6) ALL EXTERIOR WALL, INTERIOR WALL AND FLOOR SURFACES AFFECTED BY THE DEMOLITION OF FUEL OIL PIPE, TANK(S), EQUIPMENT AND SUPPORTS SHALL BE PATCHED AND FINISHED TO MATCH ADJACENT AREA BY THE CONTRACTOR.



1 HVAC-FIRST FLOOR DEMOLITION PLAN

SCALE: 1/4" = 1'- 0"

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PROJECT NAME: STOW TOWN HALL RESTORATION

PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: HVAC FIRST FLOOR DEMOLITION PLAN

DATE: 11 JUN 2021

PROGRESS DRAWINGS NOT FOR CONSTRUCTION

SHEET #: H-11

GENBERAL NEW WORK NOTES:

1) ALL PIPING AND DUCTWORK SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE. ALL HVAC EQUIPMENT SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE, ROOF CURB OR EQUIPMENT STAND.

2) ALL DUCT CONNECTIONS TO FANS, AIR HANDLING UNITS AND FAN COIL UNITS SHALL BE MADE WITH CONVENTIONAL FLEXIBLE DUCT CONNECTIONS. ALL DUCT CONNECTIONS TO AIR DEVICES SUCH AS GRILLES AND REGISTERS SHALL BE MADE WITH A MAXIMUM OF 6FT FLEXIBLE DUCT.

3) ELECTRICAL CONNECTIONS TO ISOLATED EQUIPMENT SHOULD BE MADE WITH SECTIONS OF FLEXIBLE ELECTRICAL CONDUIT THAT ARE INSTALLED IN A SLACK CONDITION

4) ALL DUCT JOINTS, SEAMS (LONGITUDINAL AND TRANSVERSE), CONNECTIONS SHALL BE COMPLETELY SEALED WITH MASTIC AND/OR MASTIC TAPE.

6) ALL DUCT ELBOWS SHALL BE COMPLETELY SEALED WITH MASTIC.

7) ALL LOUVER PLENUMS SHALL BE INSULATED PER SCHEDULE ON DRAWING H-02. ALL SUPPLY AIR DUCT MAINS SHALL BE INTERNALLY LINED AS INDICATED. SUPPLY AIR BRANCH DUCTWORK MAY BE INTERNALLY LINED OR WRAPPED WITH INSULATION.

8) ALL REFRIGERANT AND CONDENSATE DRAIN PIPING TO BE INSULATED PER SCHEDULE ON DRAWING H002

9) ALL A/C CONDENSATE PIPING SHALL BE TYPE L COPPER, COORDINATE DRAIN LOCATION WITH PLUMBING CONTRACTOR. PROVIDE CONDENSATE DRAINS AND PUMPS FOR ALL FAN COIL UNITS.

10) ALL CONDENSATE PIPING SHALL PITCH IN THE DIRECTION OF FLOW IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS

11) CONTRACTOR SHALL DISCHARGE CONDENSATE TO INDIRECT WASTE STANDPIPE OR FLOOR DRAIN IN MECHANICAL ROOM OR ROOF. COORDINATE LOCATION AND CONNECTION WITH PLUMBING CONTRACTOR.

12) CONTRACTOR SHALL FIELD COORDINATE ALL REFRIGERANT PIPE SIZES AND ROUTING WITH EXISTING CONDITIONS & EQUIPMENT MANUFACTURER.

13) CONTRACTOR SHALL PRESSURE TEST ALL REFRIGERANT PIPING PRIOR TO CHARGING SYSTEM.

14) ALL EXTERIOR PIPING PENETRATIONS (ROOF OR WALL) SHALL BE SEALED WEATHERTIGHT PER DETAILS ON H-03, H-04 & H-05.

15) CONTRACTOR SHALL COORDINATE ALL THERMOSTAT AND SENSOR LOCATIONS WITH ARCHITECT PRIOR TO INSTALLATION.

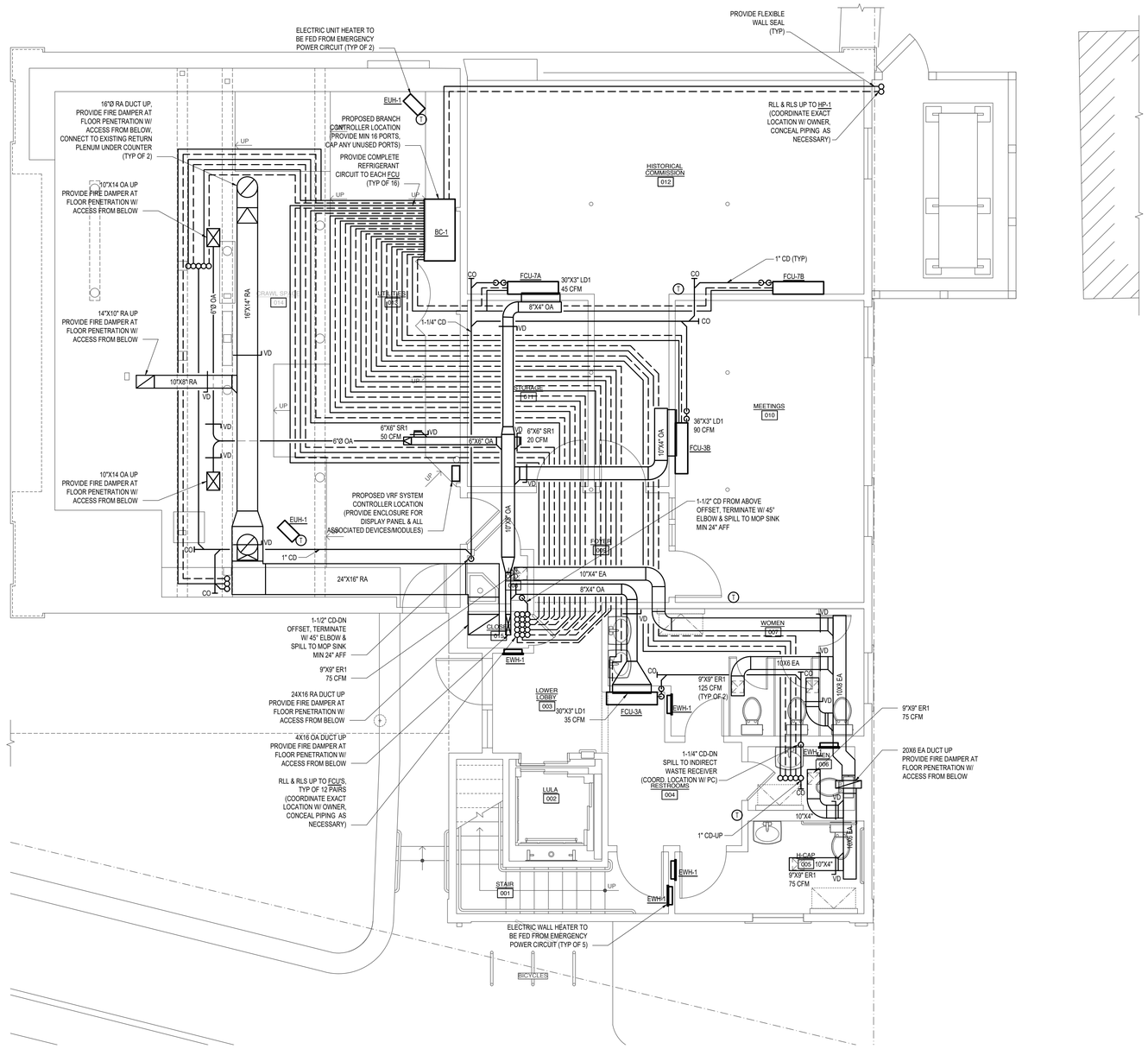
16) ALL EXTERIOR REFRIGERANT PIPING AND SPECIALTIES SHALL BE PROVIDED WITH A COVERING, SEE TYPICAL DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. PRODUCT SHALL BE FIELD-APPLIED OR PRE-APPLIED PROTECTIVE FINISHING AND/OR VAPOR SEALING, OPERATING WITHIN THE RANGE OF -94°F (-70°C) AND 300°F (149°C), JACKETED WITH LAMINATED, FLEXIBLE, SELF-ADHERING, PROTECTIVE JACKETING, VAPOR BARRIER AND WEATHER PROOFING MEMBRANE, HAVING A HIGH PERFORMANCE ACRYLIC ADHESIVE CAPABLE OF INSTALLATION WITH NO ADDITIONAL MECHANICAL ATTACHMENT. MATERIAL SHALL BE VENTURECLAD 1577CW (5PLY) NATURAL, WHITE (WHITE MEMBRANE), OR APPROVED EQUAL WITH FINISH COORDINATED THROUGH ARCHITECT. JACKETING MATERIAL SHALL HAVE A MAXIMUM FLAME SPREAD/SMOKE DEVELOPED INDEX OF 10/20 PER UL 723 TEST, A 0.000 WATER VAPOR PERMEANCE RATING PER ASTM E-96, AND MOLD INHIBITORS INCORPORATED. ALL PRODUCTS SHALL BE UV STABLE. FABRICATION AND INSTALLATION SHALL CONFORM TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND MIDWEST INSULATION CONTRACTORS ASSOCIATION NATIONAL INSULATION STANDARDS MANUAL. IF THERE IS CONFLICTING INFORMATION, MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL TAKE PRECEDENCE.

GENERAL COORDINATION NOTES:

1) THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS IN THE FIELD.

2) ANY AND ALL ROOFING WORK OR REPAIR SHALL BE COMPLETED BY ROOFING CONTRACTOR CERTIFIED FOR INSTALLATION AND REPAIR OF THE EXISTING ROOF SYSTEM TO MAINTAIN WARRANTY

3) ANY AND ALL DIMENSIONS INDICATED ON THESE PLANS ARE PURPORTED ONLY AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORK.



1 HVAC-GROUND FLOOR NEW WORK PLAN

SCALE: 1/4" = 1'- 0"

BLW

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HVAC * Electrical * Plumbing * Fire Protection

MILLS WHITAKER ARCHITECTS LLC

P.O. BOX 750089
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PROJECT NAME: STOW TOWN HALL RESTORATION

PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: HVAC GROUND FLOOR NEW WORK PLAN

DATE: 11 JUN 2021

PROGRESS DRAWINGS NOT FOR CONSTRUCTION

SHEET #: H-20

GENBERAL NEW WORK NOTES:

1) ALL PIPING AND DUCTWORK SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE. ALL HVAC EQUIPMENT SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE, ROOF CURB OR EQUIPMENT STAND.

2) ALL DUCT CONNECTIONS TO FANS, AIR HANDLING UNITS AND FAN COIL UNITS SHALL BE MADE WITH CONVENTIONAL FLEXIBLE DUCT CONNECTIONS. ALL DUCT CONNECTIONS TO AIR DEVICES SUCH AS GRILLES AND REGISTERS SHALL BE MADE WITH A MAXIMUM OF 6FT FLEXIBLE DUCT.

3) ELECTRICAL CONNECTIONS TO ISOLATED EQUIPMENT SHOULD BE MADE WITH SECTIONS OF FLEXIBLE ELECTRICAL CONDUIT THAT ARE INSTALLED IN A SLACK CONDITION

4) ALL DUCT JOINTS, SEAMS (LONGITUDINAL AND TRANSVERSE), CONNECTIONS SHALL BE COMPLETELY SEALED WITH MASTIC AND/OR MASTIC TAPE.

6) ALL DUCT ELBOWS SHALL BE COMPLETELY SEALED WITH MASTIC.

7) ALL LOUVER PLENUMS SHALL BE INSULATED PER SCHEDULE ON DRAWING H-02. ALL SUPPLY AIR DUCT MAINS SHALL BE INTERNALLY LINED AS INDICATED. SUPPLY AIR BRANCH DUCTWORK MAY BE INTERNALLY LINED OR WRAPPED WITH INSULATION.

8) ALL REFRIGERANT AND CONDENSATE DRAIN PIPING TO BE INSULATED PER SCHEDULE ON DRAWING H002

9) ALL A/C CONDENSATE PIPING SHALL BE TYPE L COPPER, COORDINATE DRAIN LOCATION WITH PLUMBING CONTRACTOR. PROVIDE CONDENSATE DRAINS AND PUMPS FOR ALL FAN COIL UNITS.

10) ALL CONDENSATE PIPING SHALL PITCH IN THE DIRECTION OF FLOW IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS

11) CONTRACTOR SHALL DISCHARGE CONDENSATE TO INDIRECT WASTE STANDPIPE OR FLOOR DRAIN IN MECHANICAL ROOM OR ROOF. COORDINATE LOCATION AND CONNECTION WITH PLUMBING CONTRACTOR.

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GENERAL COORDINATION NOTES:

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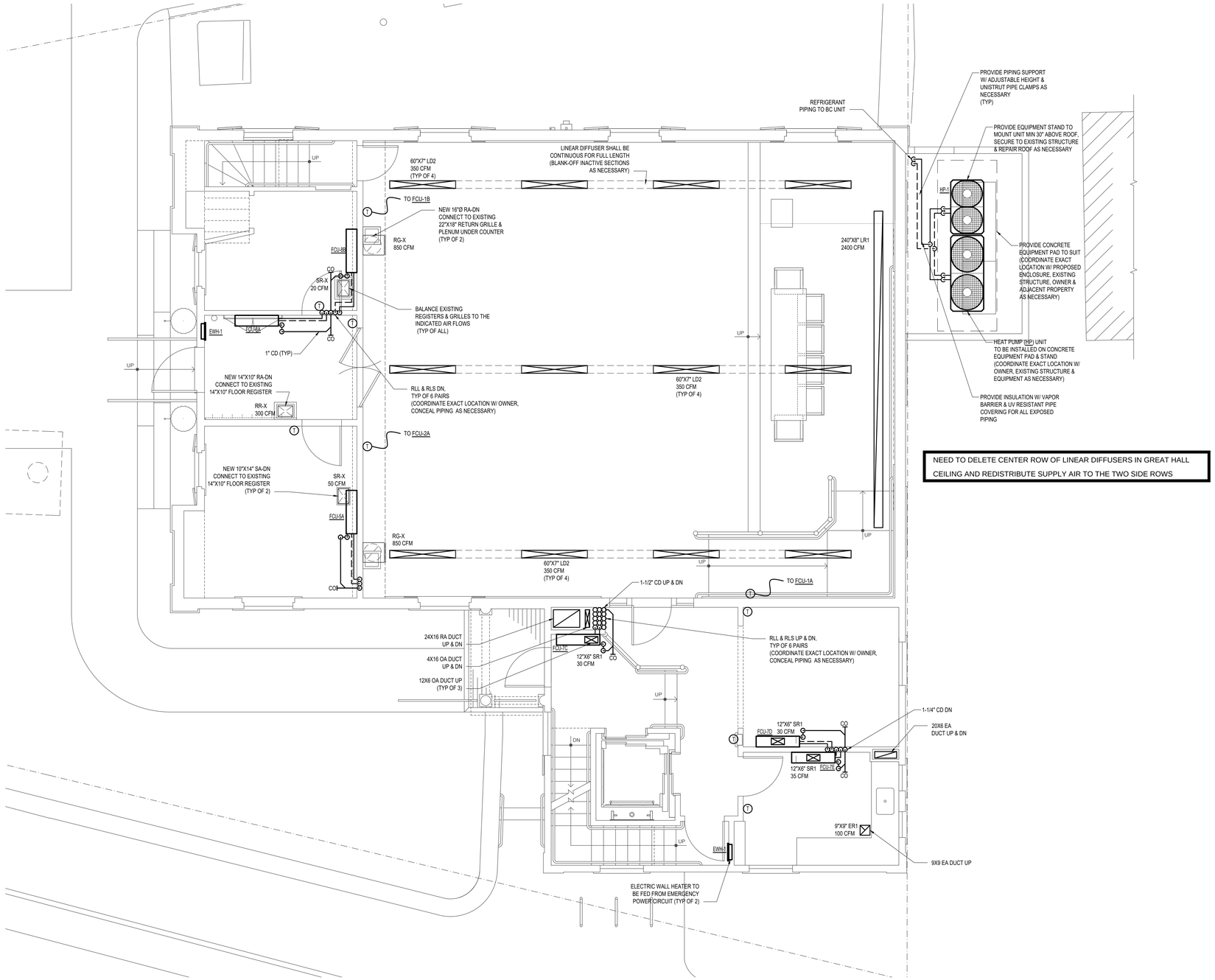
2) ANY AND ALL ROOFING WORK OR REPAIR SHALL BE COMPLETED BY ROOFING CONTRACTOR CERTIFIED FOR INSTALLATION AND REPAIR OF THE EXISTING ROOF SYSTEM TO MAINTAIN WARRANTY

3) ANY AND ALL DIMENSIONS INDICATED ON THESE PLANS ARE PURPORTED ONLY AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORK.



NEED TO DELETE CENTER ROW OF LINEAR DIFFUSERS IN GREAT HALL CEILING AND REDISTRIBUTE SUPPLY AIR TO THE TWO SIDE ROWS

1 HVAC-FIRST FLOOR NEW WORK PLAN

SCALE: 1/4" = 1'- 0"

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fax: 617-876-6420

PROJECT NAME: STOW TOWN HALL RESTORATION

PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: HVAC FIRST FLOOR NEW WORK PLAN

DATE: 11 JUN 2021

PROGRESS DRAWINGS NOT FOR CONSTRUCTION

SHEET #: H-21

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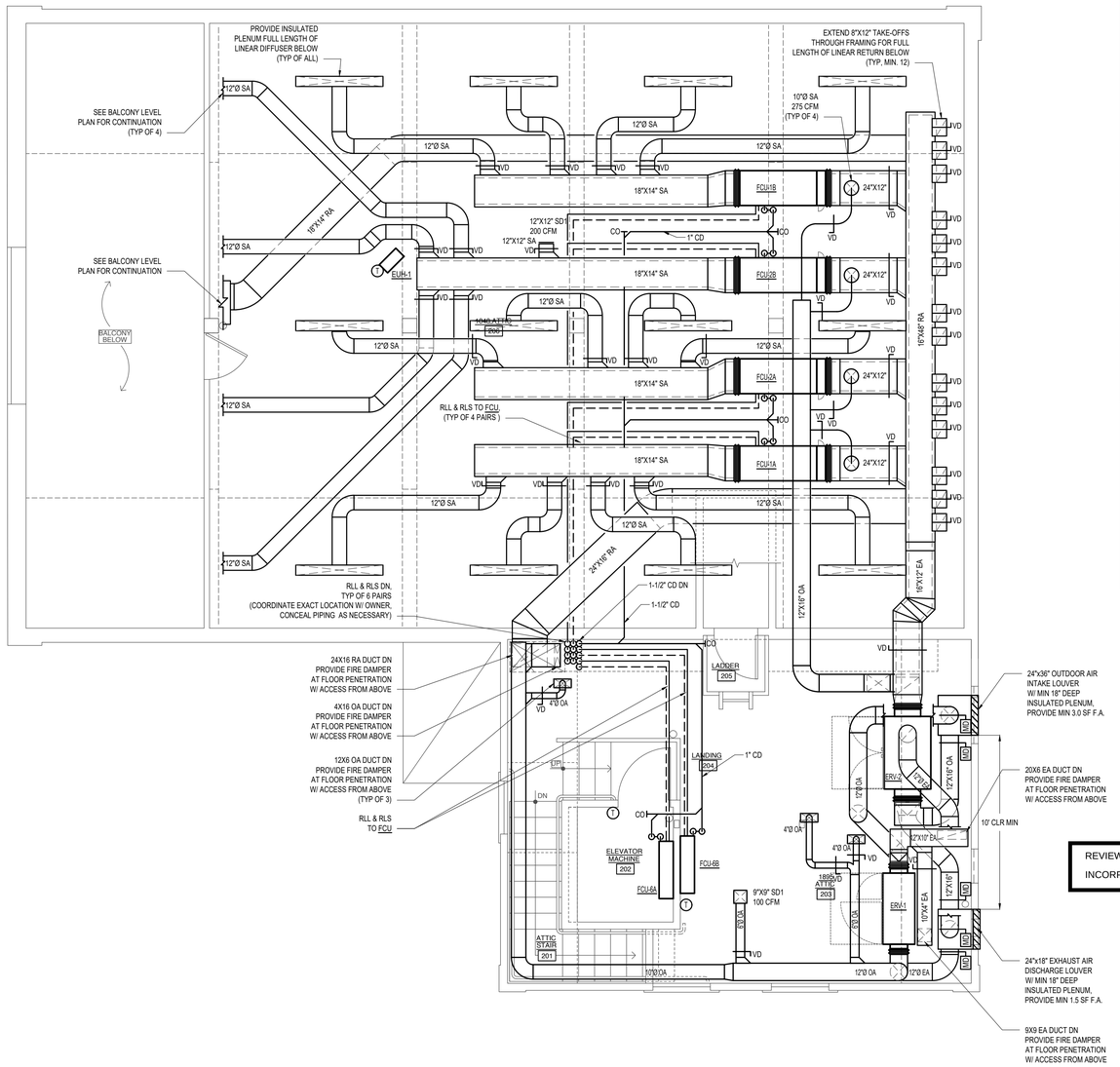
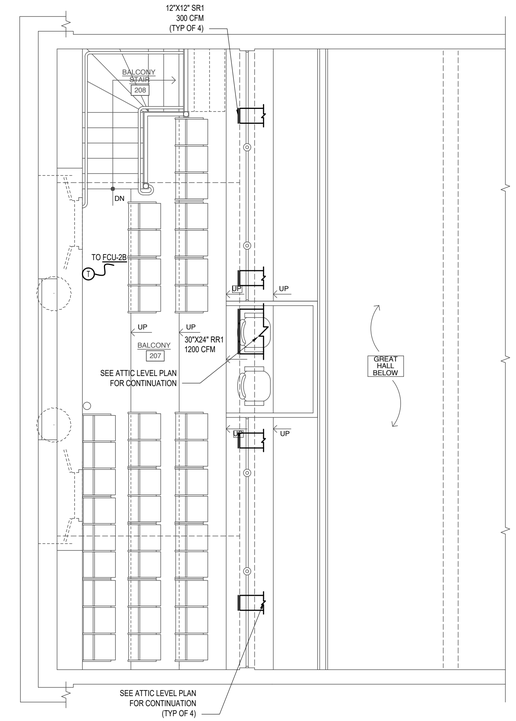
NEED TO DELETE CENTER ROW OF LINEAR DIFFUSERS IN GREAT HALL CEILING AND REDISTRIBUTE SUPPLY AIR TO THE TWO SIDE ROWS



REVIEW ACOUSTICAL CONSULTANT'S REPORT AND INCORPORATE ATTENUATORS, LINING, ISOLATORS, CFM



1 HVAC-ATTIC LEVEL NEW WORK PLAN
SCALE: 1/4" = 1'- 0"

2 HVAC-BALCONY LEVEL NEW WORK PLAN
SCALE: 1/4" = 1'- 0"

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fax: 617-876-6420

PROJECT NAME: STOW TOWN HALL RESTORATION
PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775
DRAWING TITLE: HVAC BALCONY & ATTIC NEW WORK PLANS

DATE: 11 JUN 2021

PROGRESS DRAWINGS NOT FOR CONSTRUCTION

SHEET #: H-22

GENERAL NOTES

1. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR MOUNTING HEIGHTS AND EXACT LOCATIONS OF ALL DEVICES.
2. PERFORM WORK AND PROVIDE MATERIALS AND EQUIPMENT TO MAKE INSTALLATION COMPLETE IN EVERY DETAIL UNDER THIS CONTRACT WHETHER OR NOT SPECIFICALLY SHOWN ON DRAWINGS.
3. ALL CONDUIT, WIRING AND ELECTRICAL EQUIPMENT SHALL BE INSTALLED AND GROUNDED IN ACCORDANCE WITH THE LATEST STANDARDS OF THE NATIONAL & STATE ELECTRICAL CODES AND ANY APPLICABLE LOCAL REGULATIONS.
4. ALL FLOOR, MASONRY WALLS AND STRUCTURAL CEILING PENETRATIONS SHALL BE SLEEVED.
5. PROVIDE FIRE/MOISTURE SEAL FOR WALL, FLOOR OR CEILING PENETRATIONS.
6. DO NOT LAY CABLES OR RACEWAY ON, OR SUPPORT FROM SUSPENDED CEILING OR PIPING AND DUCTWORK.
7. OUTLET BOXES SHALL BE MOUNTED FLUSH. CONDUIT SHALL BE RUN CONCEALED. WHERE WALLS ARE BLOCK, DEVICES AND WIRING SHALL BE SURFACE MOUNTED. PROVIDE WIREMOLD OR EQUAL TO SURFACE MOUNTED RACEWAY WITH FINISHED BOXES.
8. NO CONDUIT SMALLER THAN 3/4 INCH ELECTRICAL TRADE SIZE SHALL BE USED, UNLESS SPECIFICALLY CALLED FOR ON THE DRAWINGS.
9. ALL WIRING WITHIN UTILITY CLOSETS MAY BE IN SURFACE MOUNTED CONDUIT. EMT MAY BE UTILIZED.
10. FLEXIBLE CONDUIT CONNECTIONS SHALL BE A MAXIMUM OF 6'-0".
11. MC TYPE CONDUCTOR WITH INTEGRAL GROUND WIRE MAY BE UTILIZED FOR POWER AND LIGHTING CIRCUITS. MC CABLE SHALL BE UTILIZED ONLY WHERE COMPLETELY CONCEALED AND INSTALLED IN ACCORDANCE WITH CODE.
12. STEEL OR FIRE-RATED ELECTRICAL BOXES (SWITCHES, OUTLETS, JUNCTION BOXES, ETC.) SHALL BE PROVIDED AND INSTALLED IN ALL FIRE RATED ASSEMBLIES AS IN ACCORDANCE WITH BUILDING AND ELECTRICAL CODES. UL LISTED MOLDABLE PUTTY PADS OR FIREBLOCK/SPRAY FOAM INSULATE SHALL BE USED TO SEAL ALL ANNULAR SPACES/PENETRATIONS AROUND OUTLET BOXES. FIRE RATED ASSEMBLIES INCLUDE EXTERIOR WALLS, FIRE-RATED WALLS, FLOOR/CEILING ASSEMBLIES AND ROOF/CEILING ASSEMBLIES.
13. ALL EQUIPMENT AND WIRING SHOWN ON DWGS IS DIAGRAMMATICALLY. EXACT LOCATION AND METHOD OF SUPPORT SHALL BE DETERMINED IN THE FIELD, EXCEPT WHERE SPECIFIC DIMENSIONS AND DETAILS ARE SHOWN. ALL CONDUIT RUNS SHALL BE RIGIDLY SUPPORTED.
14. COORDINATE WITH ARCHITECTURAL FURNITURE LAYOUTS FOR EXACT LOCATION OF WALL MOUNTED POWER AND COMMUNICATIONS DEVICES. COORDINATE ALL LIGHTING FIXTURES, AND SWITCH LOCATIONS WITH ARCHITECT AND ARCHITECTURAL REFLECTED CEILING PLANS AND ELEVATIONS.

LIGHTING NOTES

1. ALL CONDUIT, FIXTURES AND OUTLETS ARE SHOWN DIAGRAMMATICALLY. EXACT LOCATION AND METHOD OF SUPPORT SHALL BE DETERMINED IN THE FIELD, EXCEPT WHERE SPECIFIC DIMENSIONS AND DETAILS ARE SHOWN.
2. ALL LIGHTING FIXTURE SPACING DIMENSIONS AND MOUNTING HEIGHTS ARE RECOMMENDED LOCATIONS. SLIGHT VARIATIONS WHERE NECESSARY TO AVOID INTERFERENCE SHALL BE DETERMINED IN THE FIELD.
3. WHERE REQUIRED, ADDITIONAL SUPPORT STEEL FOR THE LIGHTING INSTALLATION SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR. SEISMIC RESTRAINTS SHALL BE INCLUDED AS PER STATE BUILDING CODE.
4. PROVIDE SEPARATE UN-SWITCHED NEUTRAL TO ALL EXIT SIGNS, EMERGENCY BATTERY UNITS AND EMERGENCY LIGHT FIXTURES CONTAINING EMERGENCY BALLASTS.
5. FIRE-RATED BOXES/ENCLOSURES FOR RECESSED LIGHTING FIXTURES SHALL BE PROVIDED AND INSTALLED IN FIRE-RATED ASSEMBLIES AS IN ACCORDANCE WITH BUILDING AND ELECTRICAL CODES. FIRE-RATED ASSEMBLIES INCLUDE: FIRE-RATED WALLS, FLOOR/CEILING ASSEMBLIES AND ROOF/CEILING ASSEMBLIES. REFER TO ARCHITECTURAL PLANS FOR LOCATIONS OF FIRE-RATED ASSEMBLIES.

POWER NOTES

1. ALL CONDUITS ARE SHOWN DIAGRAMMATICALLY. EXACT LOCATION AND METHOD OF SUPPORT SHALL BE DETERMINED IN THE FIELD, EXCEPT WHERE SPECIFIC DIMENSIONS AND DETAILS ARE SHOWN. ALL CONDUIT RUNS SHALL BE RIGIDLY SUPPORTED.
2. NEC - 406.12 TAMPER-RESISTANT RECEPTACLES - IN ALL AREAS SPECIFIED IN 406.12 PARAGRAPHS (1-7) AND ASSEMBLY SUBSETS LISTED IN NEC 518.2, ALL NONLOCKING-TYPE, 125 VOLT, 15 AND 20 AMPERE RECEPTACLES SHALL BE LISTED TAMPER RESISTANT RECEPTACLES.
3. CONDUCTORS AND CABLE SHALL BE MINIMUM #12 AWG, 600 VOLT, COPPER WITH TYPE THHN/THWN INSULATION. PROVIDE SEPARATE GREEN GROUND IN ALL FEEDERS. WIRE SIZE #8 AWG AND LARGER SHALL BE STRANDED, #10 AWG AND SMALLER SHALL BE SOLID. COLOR CODE CONDUCTORS BLACK, RED, BLUE, WITH WHITE NEUTRAL AND GREEN GROUND EXCEPT AS NOTED FOR 120 VOLT.
4. ELECTRICAL CONTRACTOR SHALL CONFIRM ALL NEMA CONFIGURATIONS AND REQUIRED ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT SPECIFICATIONS PRIOR TO ROUGH-IN.

DEMOLITION NOTES

1. REFER TO THE ARCHITECTURAL DRAWINGS FOR THE FULL EXTENT OF THE SCOPE OF DEMOLITION. DISCONNECT AND MAKE SAFE ALL ELECTRICAL EQUIPMENT IDENTIFIED FOR REMOVAL ON THE HVAC, AND PLUMBING PLANS. THE ELECTRICAL SCOPE MAY EXTEND BEYOND THE AREA DEFINED BY THE ARCHITECTURAL DEMOLITION LIMITS TO FULLY COMPLY WITH VARIOUS REQUIREMENTS DEFINED BY THESE NOTES.
2. THE ELECTRICAL DEMOLITION PLANS AND DETAILS INDICATE THE GENERAL INTENT AND ARE NOT INTENDED TO SHOW ALL ITEMS TO BE REMOVED OR RETAINED. THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE PRIOR TO THE SUBMISSION OF BIDS TO BECOME FAMILIAR WITH THE ACTUAL CONDITIONS AND EXTENT OF WORK. DEVICES AND EQUIPMENT LOCATED ON WALLS AND/OR CEILINGS TO BE REMOVED SHALL BE DISCONNECTED AND MADE SAFE. THE ELECTRICAL CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF ANY UNANTICIPATED HIDDEN CONDITIONS ENCOUNTERED DURING DEMOLITION.
3. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ALL SYSTEMS OR BUILDING COMPONENTS DAMAGED DURING THE EXECUTION OF THE WORK. DAMAGE SHALL INCLUDE BUT NOT BE LIMITED TO DESTRUCTION OR DISPOSAL OF ITEMS INTENDED TO REMAIN OR TO BE SALVAGED.
4. THE ELECTRICAL CONTRACTOR SHALL CIRCUIT TRACE AND LABEL ALL EXISTING BRANCH CIRCUITS AND FEEDERS WITHIN THE AREA OF DEMOLITION SCOPE PRIOR TO DE-ENERGIZING AND DISCONNECTION. ALL CIRCUITS WITHIN PANELBOARDS IDENTIFIED FOR REMOVAL SHALL BE TRACED AND LABELED TO ENSURE THAT NO AREA OUTSIDE THE DEMOLITION SCOPE LIMIT IS AFFECTED.
5. THE ELECTRICAL CONTRACTOR SHALL DE-ENERGIZE AND REMOVE ALL CONDUCTORS AND RACEWAYS TO THEIR POINTS OF ORIGIN WITHIN THE AREA OF DEMOLITION SCOPE. ITEMS IDENTIFIED FOR DEMOLITION SHALL NOT BE ABANDONED IN PLACE. RACEWAYS THAT ENTER MASONRY WALLS AND FLOORS SHALL BE CUT FLUSH AT THE SURFACE FOR PATCHING BY OTHERS.
6. THE ELECTRICAL CONTRACTOR SHALL TEMPORARILY SUPPORT ALL ITEMS TO REMAIN THAT ARE AFFECTED BY THE DEMOLITION OF BUILDING STRUCTURAL COMPONENTS (WALLS, CEILINGS, ETC.). TEMPORARILY SUPPORTED ITEMS SHALL BE PERMANENTLY SUPPORTED AND INSTALLED WHEN FINALIZED STRUCTURES ARE IN PLACE.
7. ALL REMOVED ITEMS SHALL BE LEGALLY DISPOSED OF UNLESS IDENTIFIED FOR REUSE. THE OWNER'S REPRESENTATIVE SHALL INSPECT ALL RETAINED ITEMS PRIOR TO PLACEMENT IN THE IDENTIFIED STORAGE LOCATION BY THE ELECTRICAL CONTRACTOR.
8. THE EXISTING FIRE ALARM SYSTEM SHALL REMAIN FULLY FUNCTIONAL DURING THE ENTIRE DEMOLITION AND CONSTRUCTION PERIOD. REUSE OF EXISTING FIRE ALARM SYSTEM RACEWAYS SHALL NOT BE ALLOWED. ALL REQUIRED SYSTEM SHUTDOWNS SHALL BE COORDINATED WITH AND APPROVED BY THE OWNER'S REPRESENTATIVE AND THE AUTHORITY HAVING JURISDICTION. DEMOLITION OF THE EXISTING SYSTEM SHALL NOT COMMENCE UNTIL THE NEW SYSTEM HAS BEEN COMPLETELY INSTALLED, TESTED AND APPROVED BY THE AUTHORITY HAVING JURISDICTION.
9. ALL DEMOLITION SCOPE ASSOCIATED WITH LOW VOLTAGE SYSTEMS INCLUDING BUT NOT LIMITED TO TELEPHONE, DATA, SECURITY, PAGING, CCTV, ETC. SHALL BE INCLUDED IN THIS CONTRACT.
10. REMOVED FLUORESCENT AND HID LAMPS AND BATTERIES SHALL BE RECYCLED BY A FACILITY APPROVED BY THE OWNER'S REPRESENTATIVE. A UNIFORM HAZARDOUS WASTE MANIFEST SHALL BE PREPARED FOR ALL DISPOSALS AND RETURNED WITH ALL APPLICABLE SIGN OFF'S PRIOR TO APPLICATION FOR FINAL PAYMENT.
11. ALL BALLAST IN LIGHTING FIXTURES TO BE DISPOSED SHALL BE VERIFIED TO BE PCB FREE. ALL BALLAST MANUFACTURED PRIOR TO 1979 AND NOT LABELED AS PCB FREE SHALL BE CONSIDERED TO CONTAIN PCBs. PROVIDE WRITTEN VERIFICATION TO THE OWNER'S REPRESENTATIVE THAT CONFIRMS PCB FREE WASTE. WHERE PCB FREE WASTE CANNOT BE VERIFIED, BALLAST SHALL BE RECYCLED BY A FACILITY APPROVED BY THE OWNER'S REPRESENTATIVE, WITH PCB COMPONENTS ELIMINATED BY A HIGH TEMPERATURE INCINERATION. A UNIFORM HAZARDOUS WASTE MANIFEST SHALL BE PREPARED FOR ALL DISPOSALS AND RETURNED WITH ALL APPLICABLE SIGN OFF'S PRIOR TO APPLICATION FOR FINAL PAYMENT. ALL HANDLING SHALL CONFORM TO EPA REQUIREMENTS. PROVIDE BREAKOUT COST FOR THIS SCOPE.

EXISTING EQUIPMENT DESIGNATIONS

X	EXISTING TO BE REMOVED, REMOVE ALL ASSOCIATE CONDUIT AND CONDUCTORS
XM	EXISTING TO REMAIN
XN	EXISTING EQUIPMENT TO BE REPLACED WITH NEW, CONNECT TO EXISTING EQUIPMENT CIRCUIT
XR	EXISTING EQUIPMENT TO BE RELOCATED, JUNCTION AND EXTEND EXISTING CONDUIT AND CONDUCTORS
XC	NEW EQUIPMENT TO BE CONNECTED TO NEAREST AVAILABLE BRANCH CIRCUIT, PROVIDE NEW BRANCH CIRCUITRY FROM NEAREST EXISTING DEVICE (TO REMAIN) TO NEW DEVICE AS REQUIRED
XL	NEW LOCATION OF EXISTING EQUIPMENT, JUNCTION AND EXTEND CONDUIT AND CONDUCTORS AS REQUIRED

ABBREVIATIONS

A/AMP	AMPERE	IMC	INTERMEDIATE METALLIC CONDUIT
AC	ALTERNATING CURRENT	JB	JUNCTION BOX
AF	AMPERE FRAME	KVA	KILOVOLT-AMPERE
AFF	ABOVE FINISHED FLOOR	KW	KILOWATT
AFG	ABOVE FINISHED GRADE	LTG	LIGHTING
AIC	AMPERE INTERRUPTING CAPACITY	MCB	MAIN CIRCUIT BREAKER
AL	ALUMINUM	MCC	MOTOR CONTROL CENTER
AT	AMPERE TRIP	MEC	MASSACHUSETTS ELECTRICAL CODE
ATS	AUTOMATIC TRANSFER SWITCH	MLO	MAIN LUGS ONLY
AWG	AMERICAN WIRE GAUGE	MTD	MOUNTED
C	CONDUIT	MTG	MOUNTING
CB	CIRCUIT BREAKER	NEC	NATIONAL ELECTRICAL CODE
CKT	CIRCUIT	No., #	NUMBER
CL	CENTERLINE	NS	NON-SYSTEM
CU	COPPER	NTS	NOT TO SCALE
DC	DIRECT CURRENT	PC	PLUMBING CONTRACTOR
DE	DUAL ELEMENT	PWR	POWER
DWG	DRAWING	RGS	RIGID STEEL CONDUIT
EC	ELECTRICAL CONTRACTOR	RMS	ROOT MEAN SQUARE VALUE
EMH	ELECTRICAL MANHOLE	RPM	REVOLUTIONS PER MINUTE
EMT	ELECTRIC METALLIC CONDUIT	SF	SQUARE FOOT
EWC	ELECTRIC WATER COOLER	SN	SOLID NEUTRAL
FLMT	FLEXIBLE LIQUID TIGHT METALLIC TUBING	ST	SHUT TRIP CIRCUIT BREAKER
GC	GENERAL CONTRACTOR	SWBD	SWITCHBOARD
GF	GROUND FAULT CIRCUIT BREAKER	TYP	TYPICAL
GFI	GROUND FAULT INTERRUPTING	V	VOLTS
GND	GROUND	VA	VOLT-AMPERE
HP	HORSEPOWER	VFD	VARIABLE FREQUENCY DRIVE
HVAC	HEATING, VENTILATION AND AIR CONDITIONING	WP	WEATHERPROOF

BRANCH CIRCUIT AND FEEDER SYMBOLS

PP1-2
PP1-2,4,6

HOMERUN TO PANELBOARD "PP1", CIRCUIT NUMBER "2
REFER TO PANEL SCHEDULE FOR BREAKER SIZE AND NUMBER OF POLES
CONCEALED UNLESS OTHERWISE NOTED
NUMBER OF ARROWS INDICATES NUMBER OF INDIVIDUAL HOMERUNS "2", "4", AND "6"
UNLESS NOTED OTHERWISE, WIRING FOR EACH CIRCUIT SHALL BE:
20A/1P - 2#12,#12G-3/4"C
20A/2P - 3#12,#12G-3/4"C
20A/3P - 4#12,#12G-3/4"C
WIRING FOR MULTIPLE HOMERUNS MAY BE COMBINED IN CONDUIT IN ACCORDANCE WITH NEC REQUIREMENTS

4#1,#6G-1 1/2"C

HOMERUN FEEDER / BRANCH CIRCUIT CALLOUT:
INDICATES (3) #1 AWG (PHASE), (1) #1 AWG (NEUTRAL), (1) #6 GROUND IN A 1-1/2" CONDUIT

FLEXIBLE CONNECTION TO MOTOR OR EQUIPMENT

LIGHTING AND CONTROLS

FIXTURE SYMBOLS SHOWN BELOW ARE REPRESENTATIVE. NOT ALL SYMBOLS FROM THE PLANS HAVE BEEN SHOWN ON THIS LEGEND. FIXTURE TAG AND CIRCUIT NUMBER LOCATIONS ARE ALSO REPRESENTATIVE. ACTUAL TAG AND CIRCUIT NUMBER LOCATIONS MAY VARY ON PLANS.

LIGHTING FIXTURE (SEE LIGHTING FIXTURE SCHEDULE)
"A" INDICATES LIGHTING FIXTURE TYPE
"#" INDICATES CIRCUIT NUMBER
"a" INDICATES SWITCH CONTROL
"NL" INDICATES NIGHT LIGHT (UNSWITCHED) CIRCUIT

SHADING INDICATES EMERGENCY FIXTURE; INTEGRAL EMERGENCY BATTERY PACK FOR DRIVER

EB EMERGENCY BATTERY UNIT WITH (2) TWO HEADS

EXIT SIGN, SHADING INDICATES FACE, ARROW INDICATES DIRECTION OF CHEVRON

S_a SINGLE POLE SWITCH, RATED 20A, 120/277V, MOUNTING HEIGHT 48" TO CENTERLINE OF TOGGLE SWITCH IN "ON" POSITION
S_a^a "a" INDICATES FIXTURE SWITCH CONTROL
S_a^3 "3" INDICATES 3-WAY SWITCH CONTROL
S_a^4 "4" INDICATES 4-WAY SWITCH CONTROL
S_a^D "D" INDICATES DIMMING CONTROL

PC LIGHTING CONTROL SYSTEM DEVICE
"PC" INDICATES PHOTOCELL, MOUNTED AT HIGHEST POINT ON ROOF FACING NORTH
"TC" INDICATES TIMECLOCK, SURFACE MOUNTED

TYPICAL SENSOR ANNOTATION:
"a" INDICATES FIXTURE SWITCH CONTROL
"3" INDICATES 3-WAY SWITCH CONTROL
"4" INDICATES 4-WAY SWITCH CONTROL
"D" INDICATED DIMMING CONTROL

3 WALL OCCUPANCY SENSOR, MULTI-TECHNOLOGY, 180°, 300SF OF COVERAGE

CEILING MOUNTED OCCUPANCY SENSOR, LOW VOLTAGE, 360° TWO-SIDED, 2000SF COVERAGE

RECEPTACLES AND DEVICES

TYPICAL RECEPTACLE ANNOTATION:
"S" INDICATES CIRCUIT NUMBER
"WP" INDICATES WEATHERPROOF IN-USE COVER
"FB#" INDICATES FLOOR BOX CONFIGURATION, REFER TO FLOOR BOX SCHEDULE / DETAILS FOR ADDITIONAL INFORMATION
REFER TO SPECIFICATIONS FOR ADDITIONAL RECEPTACLE AND DEVICE DETAILS

5 DUPLEX CONVENIENCE RECEPTACLE OUTLET

DUPLEX CONVENIENCE RECEPTACLE OUTLET, COUNTERTOP MOUNTING

DUPLEX CONVENIENCE RECEPTACLE OUTLET, COORDINATE MOUNTING HEIGHT WITH ARCHITECT

EMERGENCY DUPLEX CONVENIENCE RECEPTACLE OUTLET

DUPLEX GROUND FAULT CIRCUIT INTERRUPTING RECEPTACLE OUTLET

DUPLEX GROUND FAULT CIRCUIT INTERRUPTING RECEPTACLE OUTLET, COUNTERTOP MOUNTING

EMERGENCY DUPLEX GROUND FAULT CIRCUIT INTERRUPTING RECEPTACLE OUTLET,

PK1 RECESSED 6" FIRE-RATED POKE-THRU FOR POWER AND TELECOM. PROVIDE (2) 20 AMP DUPLEX RECEPTACLES, 3/4" CONDUIT FOR POWER, AND (1) 2" CONDUIT AND MOUNTING PROVISIONS FOR TEL-DATA OUTLETS. HUBBELL S16PTDEH SERIES OR APPROVED EQUAL. COVER TYPE AND FINISH AS DEFINED BY ARCHITECT.

FB1 2-GANG RECESSED FLOOR BOX FOR INSTALLATION IN SLAB ON GRADE, WITH AVAILABLE KNOCK OUTS FROM 1/2" TO 2". HUBBELL CFB02300R SERIES OR APPROVED EQUAL. PROVIDE 20 AMP DUPLEX RECEPTACLE, 3/4" CONDUIT FOR POWER, 1 1/4" CONDUIT FOR TEL-DATA, AND PROVISIONS FOR TEL-DATA OUTLETS. COORDINATE ROUTING OF ALL CONDUITS IN FIELD WITH ARCHITECT. COVER TYPE AND FINISH AS DEFINED BY ARCHITECT.

DUPLEX RECEPTACLE OUTLET, CEILING MOUNTING

DOUBLE DUPLEX CONVENIENCE RECEPTACLE OUTLET

DOUBLE DUPLEX CONVENIENCE RECEPTACLE OUTLET, COUNTERTOP MOUNTING

EMERGENCY DOUBLE DUPLEX CONVENIENCE RECEPTACLE OUTLET

WIRELESS ACCESS POINT (WAP)

J JUNCTION BOX, COORDINATE MOUNTING HEIGHT WITH ARCHITECT, "HT" INDICATES HEAT TRACE

TEL / DATA / COMM OUTLETS

REFER TO SPECIFICATIONS FOR ADDITIONAL TEL / DATA DEVICE DETAILS

TV CABLE TELEVISION CONNECTION, FLUSH MOUNTING WITH SINGLE GANG BACK BOX AND COVER PLATE WITH "F"-CONNECTOR.

TELEPHONE / COMPUTER OR DATA OUTLET (RJ45), WITH SINGLE GANG BACK BOX AND COVER PLATE. 3/4" CONDUIT BACK TO SERVER ROOM

FLOOR MOUNTED COMMUNICATIONS OUTLET (RJ45), UTILIZE BRASS COVER PLATE

CEILING MOUNTED COMPUTER / ETHERNET OR DATA OUTLET (RJ45) WITH SINGLE GANG BACK BOX AND COVER PLATE

WAC WIRELESS ACCESS POINT CONTROLLER

MOTORS AND CONTROLS

½ MOTOR, NUMERAL INDICATES HORSEPOWER

S_M MANUAL MOTOR STARTED, RATED 20A, 250V, COORDINATE MOUNTING HEIGHT IN FIELD, MOUNTING HEIGHT SHALL NO EXCEED 6'-7" AFF

60A 3R DISCONNECT SWITCH RATED 30A, 3-POLE, IN NEMA TYPE 1 ENCLOSURE, UNLESS OTHERWISE NOTED
"3R" INDICATES NEMA TYPE 3R ENCLOSURE
"2P" INDICATES 2-POLE, SINGLE PHASE DISCONNECT
"60A" INDICATES 60A SWITCH

60AF 40AT 3R FUSED DISCONNECT SWITCH RATED 30A, 3-POLE, IN NEMA TYPE 1 ENCLOSURE, UNLESS OTHERWISE NOTED
"3R" INDICATES NEMA TYPE 3R ENCLOSURE
"2P" INDICATES 2-POLE, SINGLE PHASE DISCONNECT
"60AF" INDICATES 60A FUSE SIZE
"40AT" INDICATES 40A TRIP RATING

CP CONTROLS
"CP" INDICATES CONTROL PANEL
"VFD" INDICATES VARIABLE FREQUENCY DRIVE
"RGAP" INDICATES REMOTE GENERATOR ANNUNCIATOR PANEL

PANELBOARD AND TERMINAL CABINET

120/208V PANEL, SURFACE MOUNTED, REFER TO PANEL SCHEDULES

120/208V PANEL, RECESSED MOUNTED, REFER TO PANEL SCHEDULES

TELEPHONE TERMINAL, 4'x8' 3/4" PLYWOOD BACKBOARD, PAINTED BLACK

CCT TERMINATION ENCLOSURE
"CCT" INDICATES CENTRAL TELECOMUNICATIONS
"TTB" INDICATES TELEPHONE TERMINAL BLOCK
"CTB" INDICATES CABLE TERMINAL CABINET
"SPD" INDICATES SURGE PROTECTIVE DEVICE

MISCELLANEOUS

UTILITY METER

S SPEAKER

SYSTEM CLOCK

SURFACE MOUNT RACEWAY, REFER TO DETAILS

ANNOTATIONS

ECH 1 MECHANICAL EQUIPMENT TAG, REFER TO MECHANICAL EQUIPMENT COORDINATION SCHEDULE FOR ELECTRICAL REQUIREMENTS

SHEET NOTE TAG
"#" INDICATES CALL OUT TO CORRESPONDING SHEET NOTE

1 REVISION TAG

E101 DETAIL CALLOUT
"#" INDICATES THE DETAIL REFERENCE NUMBER
"E101" INDICATES THE DRAWING ON WHICH THE DETAIL CAN BE FOUND

NOTE ON THIS SET OF DRAWINGS:
FINAL COORDINATION NEEDED WITH ALL OTHER TRADES, INCLUDING ARCHITECTURAL, CIVIL, LANDSCAPE, STRUCTURAL, MECHANICAL, ELECTRICAL, LIGHTING, AND AUDIOVISUAL DRAWINGS & SPECS PRIOR TO COMPLETION OF CONSTRUCTION DOCUMENTS & ISSUANCE OF FINAL BID DOCUMENTS.

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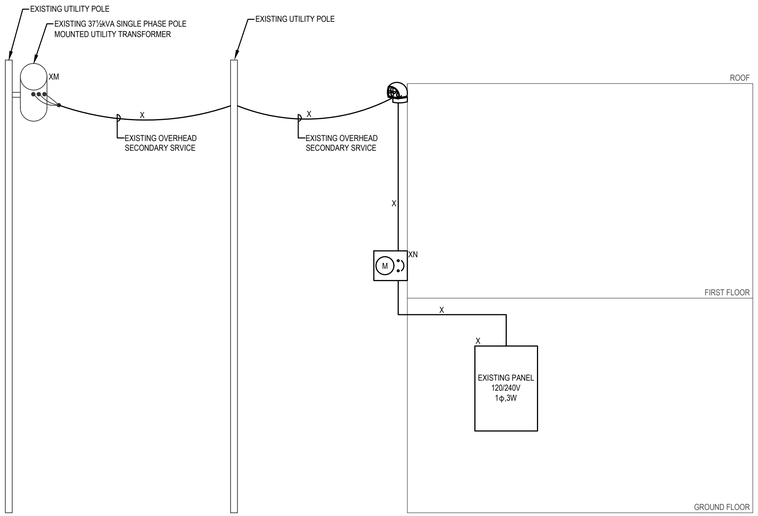
PROJECT NAME: STOW TOWN HALL RESTORATION
PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: ELECTRICAL - LEGEND & NOTES

DATE: 11 JUN 2021

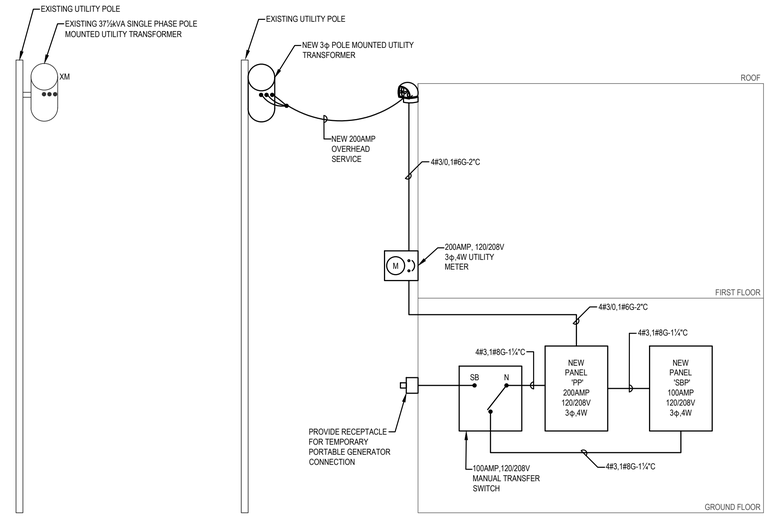
PROGRESS DRAWINGS NOT FOR CONSTRUCTION

SHEET #:
E-01



DEMOLITION POWER RISER DIAGRAM

N.T.S.

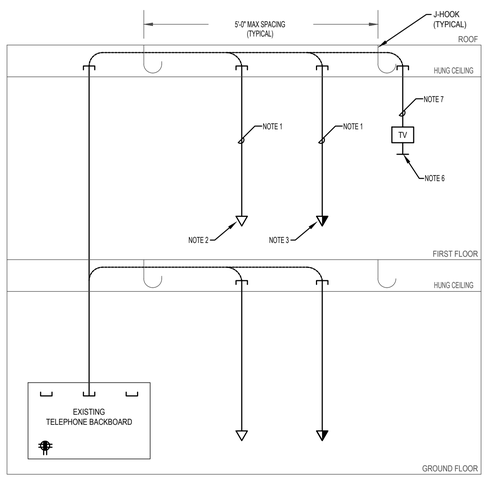


POWER RISER DIAGRAM

N.T.S.

NOTES:

1. FEEDERS SHOWN ON RISER DIAGRAM ARE BASED ON COPPER.
2. ELECTRICAL CONTRACTOR SHALL PROVIDE (2) SETS OF NORMALLY OPEN (NO) CONTACTS WITHIN THE LIFE SAFETY A.T.S. TO BE USED BY THE ATC CONTRACTOR AND ELEVATOR CONTRACTOR.
3. ALL PANELBOARDS SHALL BE SERIES RATED. THE SUBMITTING PANELBOARD MANUFACTURER AND ELECTRICAL CONTRACTOR SHALL SUBMIT BEFORE FINAL APPROVAL A SHORT CIRCUIT ANALYSIS FOR THE PROPOSED EQUIPMENT BASED ON THE AIC RATING FOR THE POLE MOUNTED TRANSFORMER PROVIDED BY THE UTILITY COMPANY.
5. ELECTRICAL CONTRACTOR SHALL GROUND AS IN ACCORDANCE WITH NEC ARTICLE 250 AS AMENDED BY THE STATE ELECTRICAL CODE.



TELECOMMUNICATIONS RISER DIAGRAM

N.T.S.

NOTES:

1. HOMERUN PLENUM RATED CAT6 WIRING (COLOR PER OWNER'S STANDARD) FROM EACH DATA OUTLET OR (2)HOMERUN CAT6 CABLE DROP FOR 2-PORT COMBINATION DEVICE TO PATCH PANEL (TYPICAL).
2. DATA OUTLET AND COVER PLATE, AS NOTED ON LEGEND, SEE FLOOR PLANS FOR EXACT QUANTITY AND LOCATION (TYP.)
3. COMBINATION TELEPHONE/DATA OUTLET AND COVER PLATE, AS INDICATED ON LEGEND, SEE FLOOR PLANS FOR EXACT QUANTITY AND LOCATION (TYP.).
4. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL HOMERUNS FROM DEVICE TO IDF CLOSET. CONTRACTOR SHALL TERMINATE ALL HOMERUNS AT DEVICE END AT PUNCH-DOWN BLOCK/PATCH PANEL (HEAD END EQUIPMENT) WITHIN IDF CLOSET. PROVIDE SERVICE LOOPS IN IDF CLOSET. NO SPLICES SHALL BE ALLOWED. PROVIDE SIX FEET OF EXTRA LENGTH, LOPED IN THE CLOSET TO ALLOW FOR FURNITURE ADJUSTMENT OF PATCH PANEL. TEST ALL CABLES IN ACCORDANCE WITH EIA AND TIA STANDARDS. PROVIDE REPORT. WIRE PUNCH/TERMINATION (EIA/TIA 568-A CAT6 STANDARDS) PROTOCOL SHALL BE VERIFIED WITH OWNER FOR VOICE OVER INTERNET PROTOCOL (VOIP) PRIOR TO INSTALL.
5. PROVIDE ALL TEL/DATA CABLING IN 1"C CONDUIT TO ABOVE NEAREST ACCESSIBLE CEILING SPACE OR IN WIREMOLD WHERE EXPOSED BELOW CEILING.
6. CATV OUTLET, AS INDICATED ON LEGEND. FINAL CONNECTION BY E.C.
7. RG-6 COAXIAL CABLE FURNISHED AND INSTALLED BY E.C.

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PROJECT NAME: STOW TOWN HALL RESTORATION

PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: ELECTRICAL - RISERS

DATE: 11 JUN 2021

PROGRESS DRAWINGS NOT FOR CONSTRUCTION

SHEET #:

E-02

LIGHTING FIXTURE SCHEDULE

FIXTURE TYPE	DESCRIPTION	MANUFACTURER AND CATALOG NUMBER	LIGHT SOURCE					VOLTAGE
			LUMENS	TEMP (K)	No.	WATTAGE	TYPE	
X							LED	120
X							LED	120
X							LED	120
X							LED	120
X							LED	120
X							LED	120
X							LED	120
X							LED	120
X							LED	120
X							LED	120
X							LED	120
X							LED	120
X							LED	120
X							LED	120
X							LED	120
X							LED	120
X							LED	120
EM	WALL MOUNTED EMERGENCY BATTERY UNIT WITH TWO (2) HEADS	EXITRONIX # NFT-W-G2	-	-	2	2.7	LED	120
X1	SINGLE FACE EDGELIT EXIT SIGN, REFER TO FLOOR PLANS FOR DIRECTIONAL ARROWS AND MOUNTING TYPES (WALL/CEILING)	EXITRONIX # S902-WB-SR-RC-BA	-	-	1	4	LED	120

LIGHTING FIXTURE NOTES:

1. ALL RECESSED FIXTURE TRIMS TO BE PAINTED TO MATCH CEILING.

2. PROVIDE A COMPLETE AND OPERABLE SYSTEM INCLUDING ALL NECESSARY MOUNTING HARDWARE, POWER FEEDS, WIRING CONNECTIONS, DRIVERS, AND CONTROL INTERFACES.

3. PAINT ALL FLANGES INSTALLED IN DRYWALL TO MATCH ADJACENT CEILING FINISH. FLANGES SHALL BE REMOVED FROM CEILING PRIOR TO PAINTING, OR RAZOR CUT AFTER PAINTING TO ALLOW FOR REMOVAL OF THE TRIM FROM THE CEILING.

* ELECTRICAL CONTRACTOR SHALL PROVIDE DIMMABLE LED REPLACEMENT LAMPS, LAMP COLOR TEMPERATURE 2700K, AS INDICATED ON THE LIGHTING FIXTURE SCHEDULE.

** ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY COMPONENTS FOR A COMPLETE AND OPERATIONAL SYSTEM.

PANEL 'PP', 225 AMP, 120/208 VOLT, 3-PHASE, 4-WIRE & GND

INTERRUPTING CAPACITY: 30,000 AMPS RMS SYM MAIN: 200A M.C.B. MOUNTING: SURFACE

LOAD DESCRIPTION	CB	CIRC NO.	kVA LOAD A	kVA LOAD B	kVA LOAD C	kVA LOAD A	kVA LOAD B	kVA LOAD C	CIRC NO.	CB	LOAD DESCRIPTION
LIGHTING - GROUND FLOOR	20	1	1.00			0.00			2		SPACE & HARDWARE
LIGHTING - 1ST FLOOR	20	3		1.00			0.00		4		SPACE & HARDWARE
LIGHTING - 1ST FLOOR	20	5			1.00			0.00	6		SPACE & HARDWARE
LIGHTING - EXTERIOR	20	7	1.00			0.00			8		SPACE & HARDWARE
RECEPS. - BATHROOM GROUND FLOOR	20	9		0.72			0.00		10		SPACE & HARDWARE
RECEPS. - LOWER LOBBY	20	11			0.36			0.00	12		SPACE & HARDWARE
RECEPS. - MEETINGS 010	20	13	0.54			0.00			14		SPACE & HARDWARE
RECEPS. - MEETINGS 010	20	15		0.54			0.00		16		SPACE & HARDWARE
RECEPS. - UTILITIES 013	20	17			0.36			0.00	18		SPACE & HARDWARE
RECEPS. - HISTORICAL COMMISSION	20	19	0.72			0.00			20		SPACE & HARDWARE
RECEPS. - HISTORICAL COMMISSION	20	21		0.72			0.00		22		SPACE & HARDWARE
SPACE & HARDWARE		23			0.00			0.00	24		SPACE & HARDWARE
SPACE & HARDWARE		25	0.00			0.00			26		SPACE & HARDWARE
SPACE & HARDWARE		27		0.00			0.00		28		SPACE & HARDWARE
SPACE & HARDWARE		29			0.00			0.00	30		SPACE & HARDWARE
SPACE & HARDWARE		31	0.00			0.00			32		SPACE & HARDWARE
SPACE & HARDWARE		33		0.00			0.00		34		SPACE & HARDWARE
SPACE & HARDWARE		35			0.00			0.00	36		SPACE & HARDWARE
SPACE & HARDWARE		37	0.00			0.00			38		SPACE & HARDWARE
SPACE & HARDWARE		39		0.00			0.00		40		SPACE & HARDWARE
SPACE & HARDWARE		41			0.00			0.00	42		SPACE & HARDWARE

PHASE A 3.26 kVA
PHASE B 2.98 kVA
PHASE C 1.72 kVA

TOTAL LOAD 7.96 kVA

NOTES:

PANEL 'SBP', 100 AMP, 120/208 VOLT, 3-PHASE, 4-WIRE & GND

INTERRUPTING CAPACITY: 30,000 AMPS RMS SYM MAIN: 100A M.C.B. MOUNTING: SURFACE

LOAD DESCRIPTION	CB	CIRC NO.	kVA LOAD A	kVA LOAD B	kVA LOAD C	kVA LOAD A	kVA LOAD B	kVA LOAD C	CIRC NO.	CB	LOAD DESCRIPTION
SPACE & HARDWARE		1	0.00			0.00			2		SPACE & HARDWARE
SPACE & HARDWARE		3		0.00			0.00		4		SPACE & HARDWARE
SPACE & HARDWARE		5			0.00			0.00	6		SPACE & HARDWARE
SPACE & HARDWARE		7	0.00			0.00			8		SPACE & HARDWARE
SPACE & HARDWARE		9		0.00			0.00		10		SPACE & HARDWARE
SPACE & HARDWARE		11			0.00			0.00	12		SPACE & HARDWARE
SPACE & HARDWARE		13	0.00			0.00			14		SPACE & HARDWARE
SPACE & HARDWARE		15		0.00			0.00		16		SPACE & HARDWARE
SPACE & HARDWARE		17			0.00			0.00	18		SPACE & HARDWARE
SPACE & HARDWARE		19	0.00			0.00			20		SPACE & HARDWARE
SPACE & HARDWARE		21		0.00			0.00		22		SPACE & HARDWARE
SPACE & HARDWARE		23			0.00			0.00	24		SPACE & HARDWARE
SPACE & HARDWARE		25	0.00			0.00			26		SPACE & HARDWARE
SPACE & HARDWARE		27		0.00			0.00		28		SPACE & HARDWARE
SPACE & HARDWARE		29			0.00			0.00	30		SPACE & HARDWARE

PHASE A 0.00 kVA
PHASE B 0.00 kVA
PHASE C 0.00 kVA

TOTAL LOAD 0.00 kVA

NOTES:

MECHANICAL EQUIPMENT COORDINATION SCHEDULE

EQUIP. TAG	EQUIPMENT DESCRIPTION	HP	MCA	kVA	VOLT	PHASE	PANEL CIRCUIT No.	CIRCUIT BREAKER	FEEDER	S_M	⊠			~	WP	SEE NOTE
BC-1	BRANCH CKT SELECTOR		1.6	0.26	208	1		15A/2P	3#12,1#12G-¾"C	✓		✓		✓		2
ERV-1	ENERGY RECOVERY UNIT		10.8	1.80	208	1		15A/2P	3#12,1#12G-¾"C			✓	30AF/15AT	✓		
	ELEC DUCT HEATER		24.3	7.00	208	3		40A/3P	4#6,1#10G-¾"C			✓	60AF/40AT	✓		
ERV-2	ENERGY RECOVERY UNIT		7.7	1.28	208	1		15A/2P	3#12,1#12G-¾"C	✓		✓		✓		
	ELEC DUCT HEATER		34.7	10.00	208	3		60A/3P	4#6,1#10G-1"C			✓	60AF/60AT	✓		
EUH-1	ELEC UNIT HEATER		17.4	5.00	208	3	SEE PLANS	20A/3P	4#12,1#12G-¾"C			✓	30AF/20AT	✓		1
EWH-1	ELEC WALL HEATER		9.0	1.50	208	1	SEE PLANS	15A/2P	3#12,1#12G-¾"C	✓		✓		✓		1
FCU-1A	INDOOR FAN COIL UNIT		5.6	0.94	208	1		15A/2P	3#12,1#12G-¾"C	✓		✓		✓		5
CP-1A	CONDENSATE PUMP		1.9	0.18	120	1		20A/1P	2#12,1#12G-¾"C	✓			NEMA 5-20R	✓		
FCU-1B	INDOOR FAN COIL UNIT		5.6	0.94	208	1		15A/2P	3#12,1#12G-¾"C	✓		✓		✓		5
CP-1B	CONDENSATE PUMP		1.9	0.18	120	1		20A/1P	2#12,1#12G-¾"C	✓			NEMA 5-20R	✓		
FCU-2A	INDOOR FAN COIL UNIT		4.1	0.69	208	1		15A/2P	3#12,1#12G-¾"C	✓		✓		✓		5
CP-2A	CONDENSATE PUMP		1.9	0.18	120	1		20A/1P	2#12,1#12G-¾"C	✓			NEMA 5-20R	✓		
FCU-2B	INDOOR FAN COIL UNIT		4.1	0.69	208	1		15A/2P	3#12,1#12G-¾"C	✓		✓		✓		5
CP-2B	CONDENSATE PUMP		1.9	0.18	120	1		20A/1P	2#12,1#12G-¾"C	✓			NEMA 5-20R	✓		
FCU-3A	INDOOR FAN COIL UNIT		0.6	0.10	208	1		15A/2P	3#12,1#12G-¾"C	✓		✓		✓		5
CP-3A	CONDENSATE PUMP		1.9	0.18	120	1		20A/1P	2#12,1#12G-¾"C	✓			NEMA 5-20R	✓		
FCU-3B	INDOOR FAN COIL UNIT		0.6	0.10	208	1		15A/2P	3#12,1#12G-¾"C	✓		✓		✓		5
CP-3B	CONDENSATE PUMP		1.9	0.18	120	1		20A/1P	2#12,1#12G-¾"C	✓			NEMA 5-20R	✓		
FCU-4	INDOOR FAN COIL UNIT	EQUIPMENT DESIGNATION NOT USED														
CP-4	CONDENSATE PUMP	EQUIPMENT DESIGNATION NOT USED														
FCU-5A	INDOOR FAN COIL UNIT		0.2	0.04	208	1		15A/2P	3#12,1#12G-¾"C	✓		✓		✓		5
CP-5A	CONDENSATE PUMP		1.9	0.18	120	1		20A/1P	2#12,1#12G-¾"C	✓			NEMA 5-20R	✓		
FCU-6A	INDOOR FAN COIL UNIT		0.2	0.04	208	1		15A/2P	3#12,1#12G-¾"C	✓		✓		✓		5
CP-6A	CONDENSATE PUMP		1.9	0.18	120	1		20A/1P	2#12,1#12G-¾"C	✓			NEMA 5-20R	✓		
FCU-6B	INDOOR FAN COIL UNIT		0.2	0.04	208	1		15A/2P	3#12,1#12G-¾"C	✓		✓		✓		5
CP-6B	CONDENSATE PUMP		1.9	0.18	120	1		20A/1P	2#12,1#12G-¾"C	✓			NEMA 5-20R	✓		
FCU-7A	INDOOR FAN COIL UNIT		0.2	0.04	208	1		15A/2P	3#12,1#12G-¾"C	✓		✓		✓		5
CP-7A	CONDENSATE PUMP		1.9	0.18	120	1		20A/1P	2#12,1#12G-¾"C	✓			NEMA 5-20R	✓		
FCU-7B	INDOOR FAN COIL UNIT		0.2	0.04	208	1		15A/2P	3#12,1#12G-¾"C	✓		✓		✓		5
CP-7B	CONDENSATE PUMP		1.9	0.18	120	1		20A/1P	2#12,1#12G-¾"C	✓			NEMA 5-20R	✓		
FCU-7C	INDOOR FAN COIL UNIT		0.2	0.04	208	1		15A/2P	3#12,1#12G-¾"C	✓		✓		✓		5
CP-7C	CONDENSATE PUMP		1.9	0.18	120	1		20A/1P	2#12,1#12G-¾"C	✓			NEMA 5-20R	✓		
FCU-7D	INDOOR FAN COIL UNIT		0.2	0.04	208	1		15A/2P	3#12,1#12G-¾"C	✓		✓		✓		5
CP-7D	CONDENSATE PUMP		1.9	0.18	120	1		20A/1P	2#12,1#12G-¾"C	✓			NEMA 5-20R	✓		
FCU-7E	INDOOR FAN COIL UNIT		0.2	0.04	208	1		15A/2P	3#12,1#12G-¾"C	✓		✓		✓		5
CP-7E	CONDENSATE PUMP		1.9	0.18	120	1		20A/1P	2#12,1#12G-¾"C	✓			NEMA 5-20R	✓		
FCU-8A	INDOOR FAN COIL UNIT		0.2	0.04	208	1		15A/2P	3#12,1#12G-¾"C	✓		✓		✓		5
CP-8A	CONDENSATE PUMP		1.9	0.18	120	1		20A/1P	2#12,1#12G-¾"C	✓			NEMA 5-20R	✓		
FCU-8B	INDOOR FAN COIL UNIT		0.2	0.04	208	1		15A/2P	3#12,1#12G-¾"C	✓		✓		✓		5
CP-8B	CONDENSATE PUMP		1.9	0.18	120	1		20A/1P	2#12,1#12G-¾"C	✓			NEMA 5-20R	✓		
HP-1	AIR SOURCE HEAT PUMP		57.0	16.43	208	3		90A/3P	4#6,1#6G-1½"C			✓	100AF/90AT	✓	✓	
	MOD. 1 & 2		49.0	14.12	208	3		80A/3P	4#4,1#6G-1½"C			✓	100AF/80AT	✓	✓	
EP-1	DUPLEX EJECTOR PUMP	2	9.4	2.70	208	3		15A/3P	4#12,1#12G-¾"C		✓	✓	30AF/15AT	✓		2
	LEAD/LAG	2	9.4	2.70	208	3		15A/3P	4#12,1#12G-¾"C		✓	✓	30AF/15AT	✓		2
HWH-1	ELEC HOT WATER HEATER		13.9	4.00	208	3		20A/3P	4#12,1#12G-¾"C			✓	30AF/20AT	✓		
RP-1	RE-CIRC HW PUMP	1/2	12.3	1.18	120	1		20A/1P	2#12,1#12G-¾"C	✓	✓	✓		✓		

MECHANICAL SCHEDULE NOTES:

1. DISCONNECT SWITCH PROVIDED WITH EQUIPMENT, REFER TO MECHANICAL SCHEDULES FOR DETAILS
2. CONTROLLER PROVIDED WITH EQUIPMENT. ELECTRICAL CONTRACTOR SHALL WIRE BRANCH CIRCUIT THROUGH CONTROLLER MOUNTED BY MECHANICAL CONTRACTOR
3. VFD PROVIDED WITH EQUIPMENT, ELECTRICAL CONTRACTOR SHALL WIRE BRANCH CIRCUIT THROUGH VFD MOUNTED BY MECHANICAL CONTRACTOR
4. STARTER PROVIDED WITH EQUIPMENT, ELECTRICAL CONTRACTOR SHALL WIRE BRANCH CIRCUIT THROUGH STARTER MOUNTED BY MECHANICAL CONTRACTOR
5. CONDENSATE PUMP PROVIDED WITH EQUIPMENT, REFER TO CONDENSATE PUMP EQUIPMENT DESIGNATIONS AND FLOOR PLANS FOR DETAILS

SCHEDULE NOTES:

1. EQUIPMENT LOCATIONS SHOWN ON ELECTRICAL PLANS ARE APPROXIMATE LOCATIONS ONLY. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR EXACT LOCATIONS.
2. REFER TO MECHANICAL SCHEDULES FOR ADDITIONAL INFORMATION AND DETAILS

BLW

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HVAC * Electrical * Plumbing * Fire Protection

MILLS WHITAKER ARCHITECTS LLC

P.O. BOX 750089
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PROJECT NAME: STOW TOWN HALL RESTORATION

PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

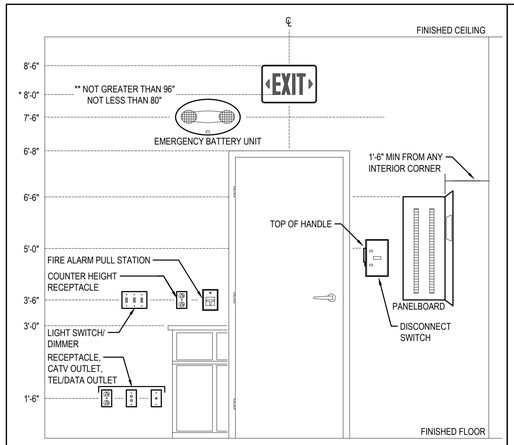
DRAWING TITLE: ELECTRICAL - SCHEDULES

DATE: 11 JUN 2021

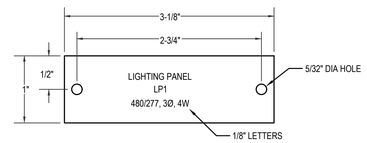
PROGRESS DRAWINGS NOT FOR CONSTRUCTION

SHEET #:

E-03



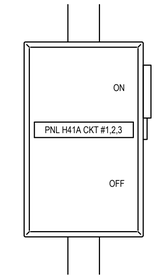
DEVICE MOUNTING HEIGHT DETAIL N.T.S.



NOTES:

1. NAMEPLATE TO BE CONSTRUCTED OF 1/16" THICK WHITE SURFACE WITH LETTER ENGRAVED INTO BLACK LAMINATIONS.
2. ALL NAMEPLATES SHALL BE SECURED BY MACHINE SCREWS.
3. NO NAMEPLATES SHALL BE PASTED ON.

TYPICAL NAMEPLATE DETAIL N.T.S.



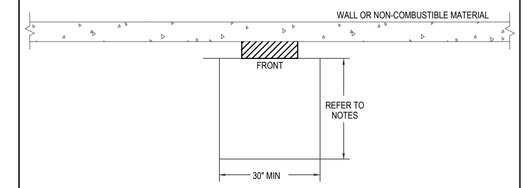
FUSED DISCONNECT SWITCH

NON-FUSED DISCONNECT SWITCH

NOTES:

1. AT A MINIMUM, ELECTRICAL CONTRACTOR SHALL PROVIDE TYPED LABELS WITH PTOUCH MACHINE TO INDICATE PANEL NAME AND CIRCUIT NUMBER. PROVIDE 'EMERGENCY' TYPED LABEL FOR CIRCUITS CONNECTED TO EMERGENCY PANELS. COORDINATE EXACT NAMING WITH PERSONNEL. IF FACILITY STANDARD IS ENGRAVED COVERPLATES, THE ELECTRICAL CONTRACTOR SHALL PROVIDE ENGRAVED COVERPLATES TO MATCH FACILITY REQUIREMENTS.

FUSED DISCONNECT LABELING DETAIL N.T.S.



WALL MOUNTED PANELS

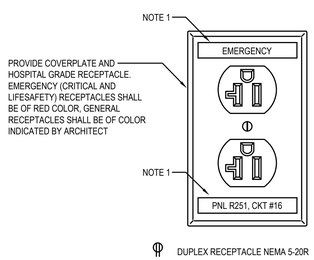
* MINIMUM WORKING CLEARANCE (IN THE DIRECTION OF ACCESS TO LIVE PARTS) AS REQUIRED BY NEC 110-16(a), CONDITION 2 :

- 3' FOR 0-150 VOLT TO GROUND ELECTRIC EQUIPMENT
- 3-1/2' FOR 150-600 VOLT TO GROUND ELECTRIC EQUIPMENT

THE MINIMUM HEADROOM OF WORKING SPACE SHALL BE 6-1/2'

PANELS INCLUDE: POWER PANELS, CONTACTORS, CONTROL CABINETS, DISCONNECT SWITCHES, CONTROL CABINETS, DISCONNECT SWITCHES, MOTOR STARTERS, TIME CLOCK AND SIMILAR ELECTRIC EQUIPMENT.

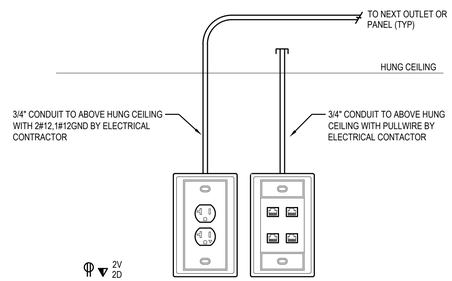
CLEARANCES FOR ELECTRIC EQUIPMENT DETAIL N.T.S.



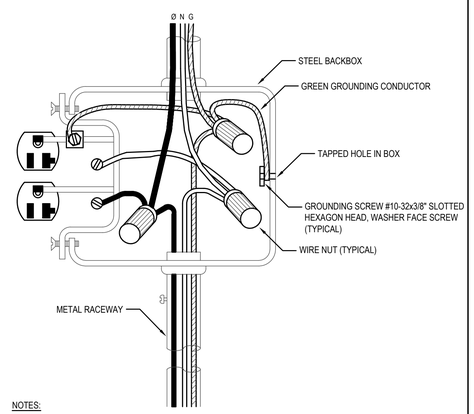
NOTES:

1. AT A MINIMUM, ELECTRICAL CONTRACTOR SHALL PROVIDE TYPED LABELS WITH PTOUCH MACHINE TO INDICATE PANEL NAME AND CIRCUIT NUMBER. PROVIDE 'EMERGENCY' TYPED LABEL FOR CIRCUITS CONNECTED TO EMERGENCY PANELS. COORDINATE EXACT NAMING WITH FACILITY'S PERSONNEL. IF FACILITY STANDARD IS ENGRAVED COVERPLATES, THE ELECTRICAL CONTRACTOR SHALL PROVIDE ENGRAVED COVERPLATES TO MATCH FACILITY REQUIREMENTS.

TYPICAL RECEPTACLE LABELING DETAIL N.T.S.



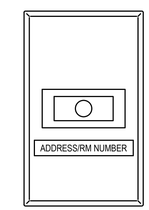
TYPICAL WORK STATION DETAIL N.T.S.



NOTES:

1. GROUNDING CONDUCTOR SHALL BE CONTINUOUS SO THAT REMOVAL OF DEVICE WILL NOT INTERFERE WITH CONDUCTOR CONTINUITY.

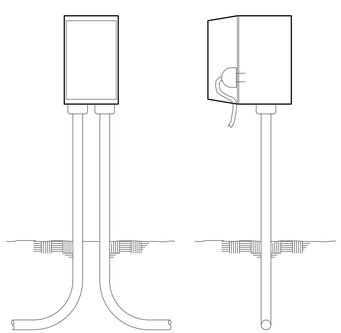
TYPICAL RECEPTACLE WIRING DETAIL N.T.S.



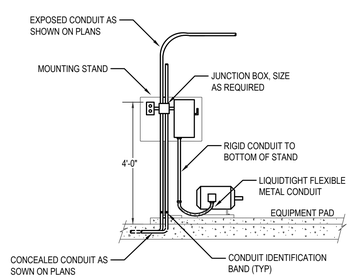
NOTES:

1. AT A MINIMUM, ELECTRICAL CONTRACTOR SHALL PROVIDE TYPED LABELS WITH PTOUCH MACHINE TO INDICATE ADDRESS OF FIRE ALARM DEVICE WITHIN ENCLOSED ROOM OR ROOM NUMBER IF SYSTEMS IS ZONED. LABELING SYSTEM SHALL BE APPLIED BUT NOT LIMITED TO THE FOLLOWING DEVICES: AUDIBLE/VISUAL DEVICE, VISUAL DEVICE, SMOKE DETECTOR, REMOTE TEST STATION, REMOTE ALARM INDICATOR, FLOW SWITCH, TAMPER SWITCH, ETC.

TYPICAL FIRE ALARM DEVICE LABELING DETAIL N.T.S.



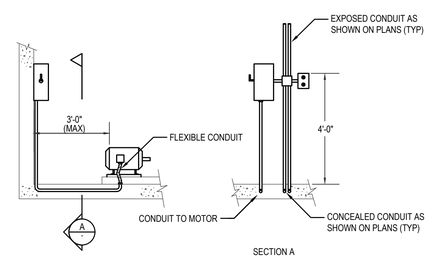
WEATHERPROOF BOX MOUNTING DETAIL N.T.S.



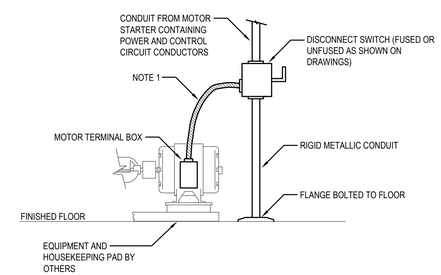
NOTES:

1. GROUND WIRE CONNECTED TO LUG IN MOTOR JUNCTION BOX.

MOTOR FEED DETAIL N.T.S.



INSTALLATION OF EQUIPMENT ON WALL DETAIL N.T.S.



NOTES:

1. FLEXIBLE LIQUIDTIGHT CONDUIT CONNECTION CONTAINING POWER CIRCUIT CONDUCTORS (MAXIMUM LENGTH SHALL BE 36").

MOTOR DISCONNECT SWITCH MOUNTING DETAIL N.T.S.

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HVAC * Electrical * Plumbing * Fire Protection

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P.O. BOX 750089
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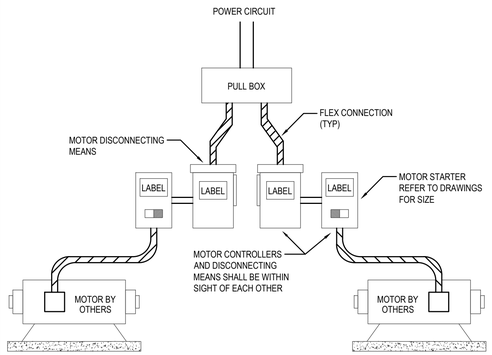
PROJECT NAME: STOW TOWN HALL RESTORATION
PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: ELECTRICAL - DETAILS

DATE: 11 JUN 2021

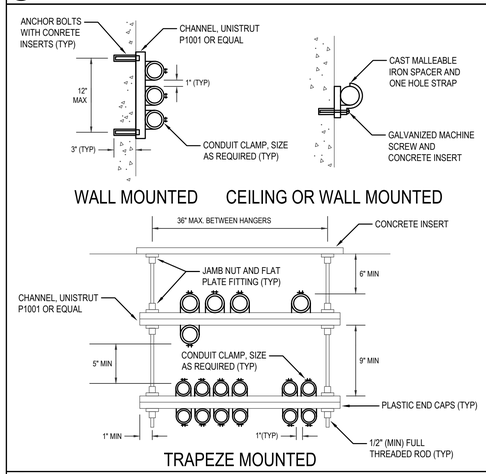
PROGRESS DRAWINGS NOT FOR CONSTRUCTION

SHEET #: E-04



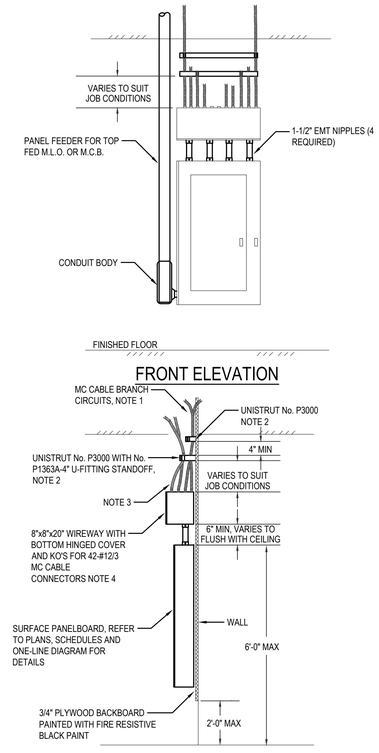
MULTIPLE MOTORS FED FROM SAME CIRCUIT DETAIL

N.T.S.



CONDUIT MOUNTING DETAIL

N.T.S.



NOTES:

1. SUPPORT ALL CABLE RUNS FROM BUILDING STRUCTURE TO HIGH ABOVE CEILING. DO NOT ALLOW CABLES TO LAY-ON HUNG CEILINGS AT ANY POINT IN RUN.
2. PROVIDE UNISTRUT No. M5026 OR No. M5028 CABLE/CONDUIT CLAMPS FOR EACH BRANCH CIRCUIT. INSTALL ALL INSIDE CABLE RUNS ON INSIDE STRUT AND INSIDE WIREWAY KO'S BEFORE INSTALLING ANY RUNS ON OUTSIDE STRUT. SUPPLY AND INSTALL ONE SPARE CLAMP FOR EACH SPARE OR SPACE IN PANELBOARD.
3. INSTALL MARKER TAPE INDICATING CIRCUIT NUMBERS FOR EACH CABLE RUN.
4. CUT BACK CABLE ARMOR JACKET SUFFICIENT TO RUN CONDUCTORS THRU WIREWAY AND NIPPLES TO EACH CIRCUIT BREAKER. WITHOUT SPLICES.
5. CONDUCTORS RUN IN PANELBOARDS, NIPPLES AND WIREWAY SHALL BE GROUPED WITH 3 PHASES AND NEUTRALS IN EACH BUNDLED CONDITION TO AVOID INDUCTIVE HEATING IN METALLIC ENCLOSURES.

TYPICAL PANELBOARD/BRANCH CIRCUIT WIRING DETAIL

N.T.S.

NOTES:

1. FIRE/SMOKE DAMPER PROVIDED BY MECHANICAL CONTRACTOR.
2. ALL RELAYS AND WIRING PROVIDED BY ELECTRICAL CONTRACTOR. COORDINATE WITH MECHANICAL CONTRACTOR AND FIRE ALARM SYSTEM MAINTENANCE VENDOR PRIOR TO INSTALLATION.
3. CONNECT NO MORE THAN DAMPERS ON A SINGLE 120 VOLT CIRCUIT. [CONNECT NO MORE THAN DAMPERS ON A SINGLE 24 VOLT CIRCUIT.] REFER TO POWER PLAN FOR ZONING REQUIREMENTS. IN GENERAL, ALL RETURN DAMPERS SHALL BE CONNECTED AS ONE ZONE AND ALL SUPPLY DAMPERS SHALL BE CONNECTED AS ONE ZONE.
4. RELAY COILS R1 AND R2 SHALL BE 24 VOLT DC (UNLESS OTHERWISE NOTED BY FIRE ALARM MAINTENANCE VENDOR) WITH 120 VOLT, 15 AMP RATED CONTACTS.

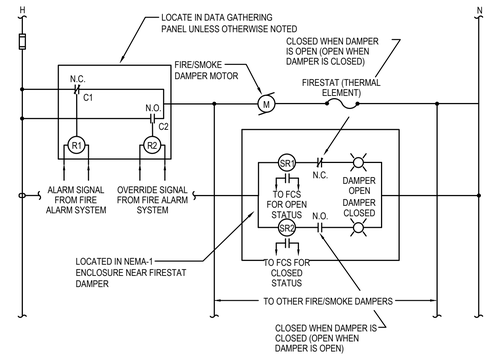
OPERATIONAL NOTES:

NORMAL CONDITION: RELAY R1 ENERGIZED. CONTACT C1 CLOSED. FIRESTAT (F.S.) CLOSED. DAMPER MOTOR ENERGIZED. DAMPER OPEN. OPEN DAMPER POSITION SWITCH SHOULD BE CLOSED AND 'LED' INDICATING "DAMPER OPEN" SHOULD BE ENERGIZED.

ALARM CONDITION: RELAY R1 DENERGIZED. CONTACT C1 OPEN. DAMPER MOTOR DENERGIZED. DAMPER CLOSED. "CLOSED" DAMPER POSITION SWITCH SHOULD BE CLOSED AND 'LED' INDICATING "DAMPER CLOSED SHOULD BE ENERGIZED".

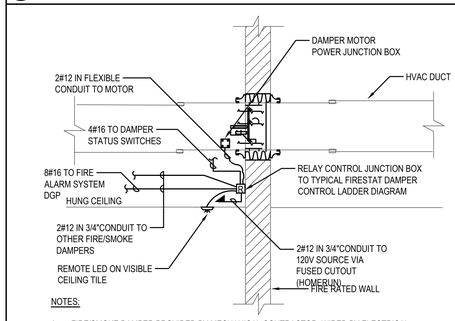
FIRE CONDITION: FIRESTAT OPEN. DAMPER MOTOR DENERGIZED. DAMPER CLOSED. "CLOSED" DAMPER POSITION SHOULD BE CLOSED AND 'LED' INDICATING "DAMPER CLOSED" SHOULD BE ENERGIZED.

OVERRIDE CONDITION: RELAY R2 ENERGIZED. CONTACT C2 CLOSED. DAMPER MOTOR ENERGIZED. DAMPER OPEN. "OPEN" DAMPER POSITION SWITCH SHOULD BE CLOSED AND 'LED' INDICATING "DAMPER OPEN" SHOULD BE ENERGIZED.



TYPICAL FIRE/SMOKE DAMPER CONTROL LADDER DETAIL

N.T.S.

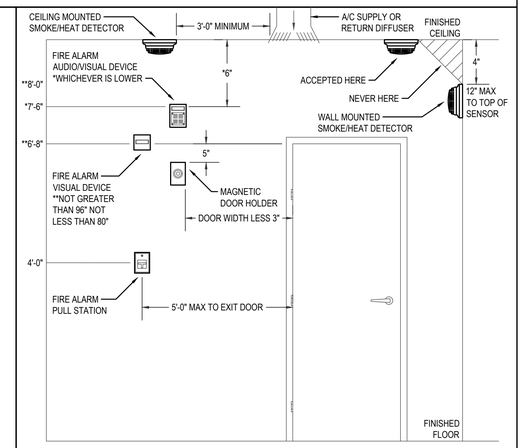


NOTES:

1. FIRE/SMOKE DAMPER PROVIDED BY MECHANICAL CONTRACTOR, WIRED BY ELECTRICAL CONTRACTOR.
2. ALL POWER WIRING SHALL BE IN 3/4" CONDUIT. ALL WIRING FROM CONTROL JUNCTION SHALL BE IN 3/4" FLEXIBLE CONDUIT.
3. LED'S SHALL BE MOUNTED ON A SINGLE GANG WHITE PLATE WITH ENGAVED BLACK LETTERING INDICATING "DAMPER-OPEN", "DAMPER-CLOSED."
4. ALL CONDUCTORS SHALL BE NY CITY APPROVED UNLESS OTHERWISE NOTED. QUANTITY QUANTITY AND SIZE OF CONDUCTORS ARE SHOWN FOR ESTIMATING PURPOSES ONLY. EXACT QUANTITY AND SIZE SHALL BE PER FA MAINTENANCE VENDOR'S SHOP DRAWINGS.

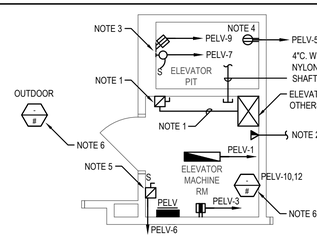
TYPICAL FIRE/SMOKE DAMPER INTERCONNECT DETAIL

N.T.S.



DEVICE MOUNTING HEIGHT DETAIL

N.T.S.



NOTE:

1. REFER TO ONE-LINE & COORDINATE EXACT ELEVATOR FEEDER & DISCONNECT REQUIREMENTS WITH SELECTED ELEVATOR VENDOR PRIOR TO ROUGH-IN/INSTALLATION (AT A MINIMUM):
   1.1. ELEVATOR DISCONNECT SWITCH SHALL BE INSTALLED ON THE LATCH SIDE OF THE DOOR WITHIN 18". LEVER FOR THE DISCONNECT SWITCH SHALL FACE THE DOOR.
   1.2. DISCONNECT SHALL BE LOCKABLE WITH SOLID NEUTRAL.
   1.3. DISCONNECT SHALL HAVE AN AUXILIARY CONTACT, CONFIGURATION SINGLE POLE SINGLE THROW.
   1.4. WIRING FROM DISCONNECT CONTACTS TO CONTROLLER SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR AND COORDINATED WITH MANUFACTURER.
   1.5. DISCONNECTS SHALL BE PROVIDED IN SERIES FOR BOTH THE CONTROLLER AND MOTOR IF LOCATED IN DIFFERENT LOCATIONS (EG; TOP OF SHAFT).
2. 3/4" CONDUIT AND DEDICATED TOUCH TONE PHONE LINE CAPABLE OF TWO WAY COMMUNICATION, TO TELEPHONE BACKBOARD FOR ELEVATOR CAB EMERGENCY PHONE CONNECTIONS (EXACT REQUIREMENTS SHALL BE COORDINATED WITH MANUFACTURER).
3. ELEVATOR SERVICE LIGHT, LIGHT SWITCH AND RECEPTACLE SHALL BE INSTALLED AT THE ELEVATOR PIT LEVEL AND TOP OF THE ELEVATOR SHAFT.
4. A SINGLE SUMP PUMP RECEPTACLE SHALL BE PROVIDED, AND REQUIRES GFCI PROTECTION (NEC 620.6)
5. ELEVATOR CAB DISCONNECT 20A, 240V, LOCKABLE FUSED DISCONNECT FOR ELEVATOR 120V (LIGHTING & FAN).
6. REFER TO MECHANICAL EQUIPMENT SCHEDULE FOR EXACT ELECTRICAL REQUIREMENTS, REFER TO ELECTRICAL AND MECHANICAL FLOOR PLANS FOR EXACT LOCATION OF EQUIPMENT.

PANEL 'PELV', 100 AMP, 120/208 VOLT, 3-PHASE, 4-WIRE & GND

INTERRUPTING CAPACITY: 22,000 AMPS RMS SYM MAIN: 100A I.C.B. MOUNTING: SURFACE

LOAD DESCRIPTION	CB	CIRC NO.	KVA LOAD A	B	C	A	B	C	CIRC NO.	CB	LOAD DESCRIPTION
ELEV MACHINE RM LTG	20	1	0.2			1.1			2	20	ELEV DOOR CURTAINS/BARRIERS
ELEV MACHINE RM RECEPT	20(G)	3		0.2			0.5		4	20	HOIST DAMPER
SUMP RECEPT	20(G)	5			0.8			0.3	6	20(L)	CAB LIGHT/FAN #1
PIT MAINTENANCE LTG	20	7	0.2			0.3			8	20(L)	CAB LIGHT/FAN #2
PIT MAINTENANCE RECEPT	20(G)	9		0.2			1.2		10	20	HVAC
SPARE	20	11			0.0			1.2	12		
SPARE	20	13	0.0			0.0			14	-	SPACE
SPARE	20	15		0.0			0.0		16	-	SPACE
SPARE	20	17			0.0			0.0	18	-	SPACE
ELEV MOTOR (##P) VIA CONTRLR	?	19	0.0			0.0			20	60	ELEV MOTOR (##P) VIA CONTRLR
		21		0.0			0.0		22		
		23			0.0			0.0	24		

PHASE A 1.80 kVA
PHASE B 2.08 kVA
PHASE C 2.25 kVA
TOTAL LOAD 6.13 kVA

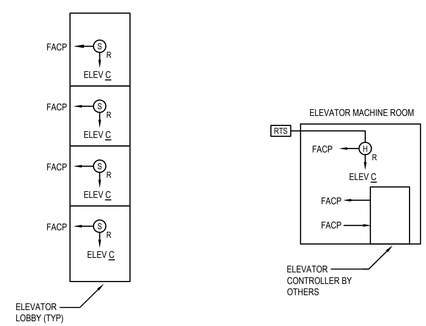
NOTES:
L - INDICATES BREAKER LOCK
G - INDICATES GFCI PROTECTION

PANEL NOTES:

1. ELEVATOR FEEDER SHALL MATCH THE SIZE OF THE ELEVATOR FEEDER BREAKER SHOWN ON THE SCHEDULE. REFER TO THE FEEDER SCHEDULE AND COORDINATE EXACT ELEVATOR FEEDER AND DISCONNECT REQUIREMENTS WITH SELECTED ELEVATOR VENDOR PRIOR TO ROUGH-IN/INSTALLATION.
2. PROVIDE PANEL PELV WITH LOCABLE COVER.
3. (L) INDICATES BREAKER LOCK.

ELEVATOR MACHINE ROOM, PIT & SHAFT DETAILS

N.T.S.

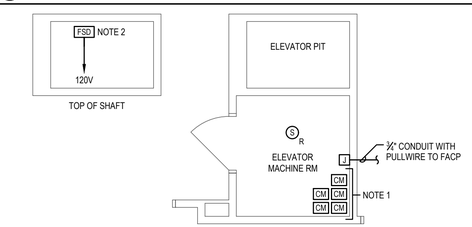


NOTES:

1. SEND ELEVATOR RECALL SIGNAL TO ELEVATOR CONTROL PANEL WHEN SMOKE DETECTORS IN ELEVATOR LOBBY OR ELEVATOR SHAFT GO INTO ALARM.
2. SEND A UNIQUE ELEVATOR RECALL SIGNAL TO ELEVATOR CONTROL PANEL WHEN SMOKE DETECTOR(S) IN PIT GO INTO ALARM TO SEND THE ELEVATOR AWAY FROM THE PIT.
3. ELEVATOR CONTROLLER SHALL INITIATE ELEVATOR RECALL.

ELEVATOR RECALL WIRING DETAIL

N.T.S.



NOTE:

1. PROVIDE AND INSTALL (5) ADDRESSABLE CONTROL MODULE DEVICES.
   1.1. ONE TO INITIATE ELEVATOR RECALL TO PRIMARY FLOOR.
   1.2. ONE TO DIRECT RECALL TO ALTERNATE FLOOR.
   1.3. ONE TO SIGNAL MACHINE ROOM SMOKE
   1.4. ONE TO SIGNAL FIREMANS HAT
   1.5. ONE TO CONTROL SMOKE DAMPER AT TOP OF ELEVATOR SHAFT
2. PROVIDE 120 VOLT POWER FOR SMOKE DAMPER AT TOP OF ELEVATOR SHAFT. DAMPER SHALL BE PROGRAMMED TO OPEN UPON ACTIVATION OF SMOKE DETECTOR AT ELEVATOR MACHINE ROOM, OR AS DIRECTED. PROVIDE CONTROL WIRING FROM DAMPER MOTOR TO FIRE ALARM CONTROL PANEL, REFER TO FIRE ALARM RISER.

ELEVATOR MACHINE ROOM, PIT & SHAFT DETAILS

N.T.S.

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MILLS WHITAKER ARCHITECTS LLC
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tel: 617-876-7611
fax: 617-876-6420

PROJECT NAME: STOW TOWN HALL RESTORATION

PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: ELECTRICAL - DETAILS

DATE: 11 JUN 2021

PROGRESS DRAWINGS NOT FOR CONSTRUCTION

SHEET #: E-05

(#) NOTES:

1. ALL ELECTRICAL ITEMS SHOWN SHALL BE DE-ENERGIZED AND REMOVED COMPLETELY INCLUDING BRANCH CIRCUITRY BACK TO THEIR SOURCE (EXISTING PANELBOARDS), UNLESS NOTED OTHERWISE. REFER TO DRAWING E-01 FOR DEMOLITION SUBSCRIPTS.
2. EXACT QUANTITY OF ELECTRICAL ITEMS MAY DIFFER IN FIELD. THIS PLAN IS TO INDICATE SCOPE OF DEMOLITION AND GENERAL AMOUNT OF ITEM'S TO BE REMOVED.
3. ALL ITEMS TO BE REMOVED SHALL BE DISPOSED OFF SITE IN A LEGAL MANNER.
4. FOR ALL ITEMS TO BE REUSED/RELOCATED, REFER TO NEW WORK PLANS FOR NEW LOCATIONS.
5. ELECTRICAL CONTRACTOR SHALL DISCONNECT AND MAKE SAFE ALL ELECTRICAL EQUIPMENT ASSOCIATED WITH MECHANICAL EQUIPMENT TO BE REMOVED BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL REMOVE ALL ELECTRICAL EQUIPMENT (INCLUDING DISCONNECTS, STARTERS, JUNCTION BOXES, WIREWAYS, WIRING AND APPURTENANCES) ASSOCIATED WITH HVAC EQUIPMENT INDICATED FOR REMOVAL. REFER TO MECHANICAL PLANS FOR DETAILS.

1 Existing Ground Floor
SCALE: 1/4"=1'-0"

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PROJECT NAME: STOW TOWN HALL RESTORATION
PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: ELECTRICAL - DEMOLITION FLOOR PLAN

DATE: 11 JUN 2021

PROGRESS DRAWINGS NOT FOR CONSTRUCTION

SHEET #: ED-1.0

NOTES:

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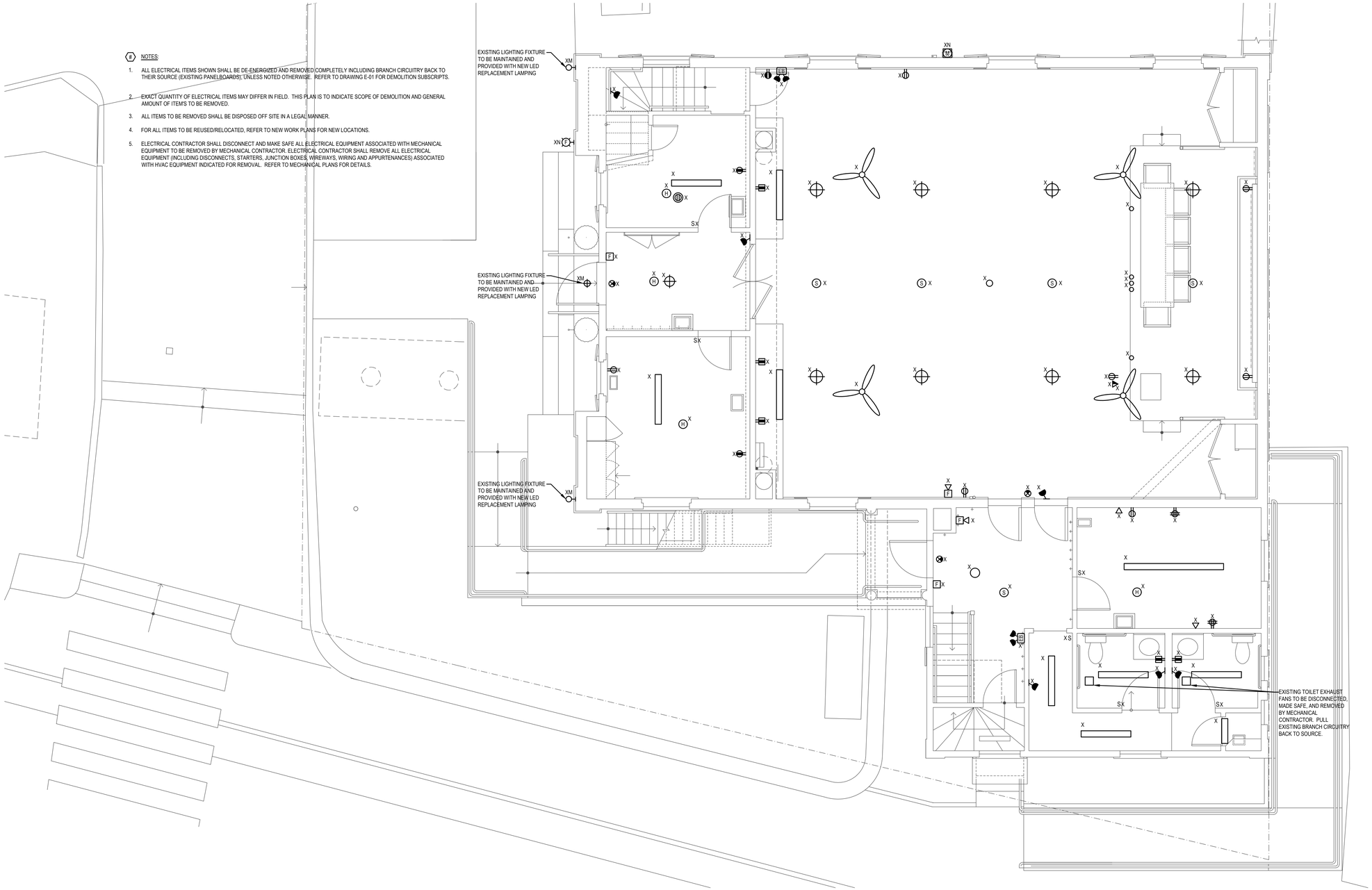

1 Existing First Floor
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DRAWING TITLE: ELECTRICAL - DEMOLITION FLOOR PLAN

DATE: 11 JUN 2021

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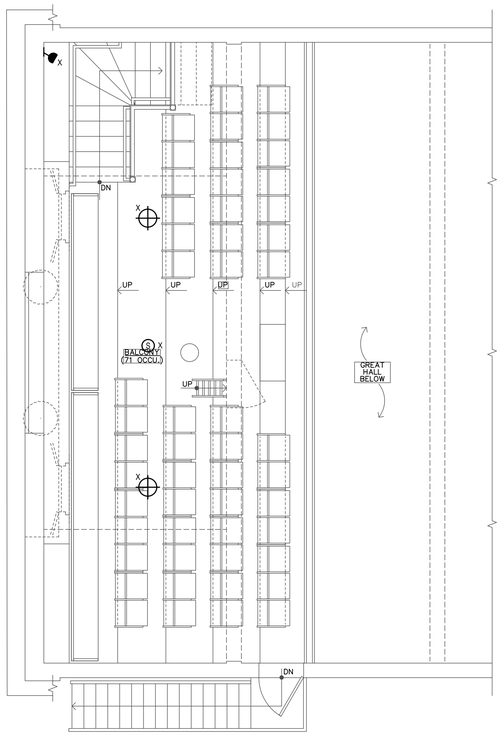

1 Existing Balcony
SCALE: 1/4"=1'-0"

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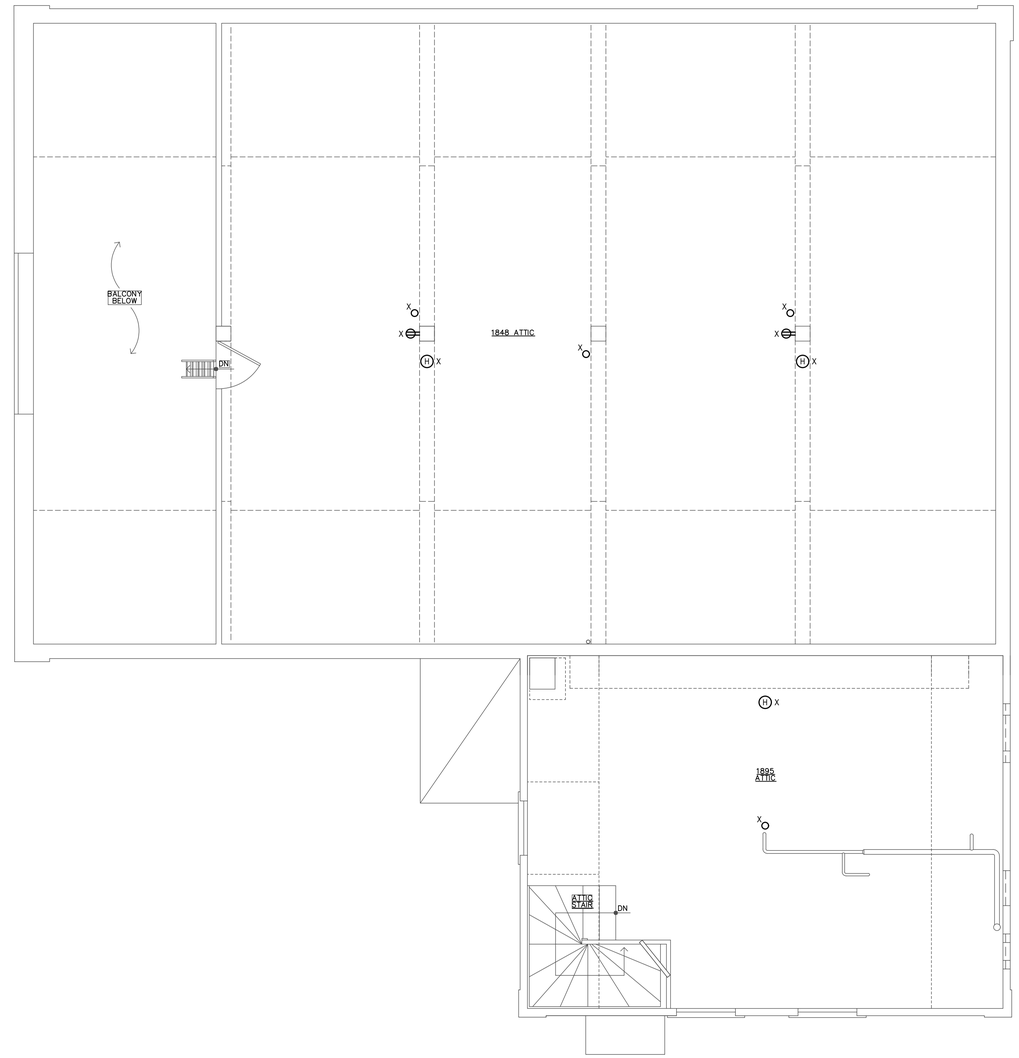

2 Existing Attic
SCALE: 1/4"=1'-0"

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PROGRESS DRAWINGS
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1 Proposed Ground Floor

SCALE: 1/4"=1'-0"

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PROJECT NAME: STOW TOWN HALL RESTORATION

PROJECT ADDRESS: 375 GREAT ROAD
STOW MA 01775

DRAWING TITLE: ELECTRICAL - PROPOSED LIGHTING FLOOR PLAN

DATE: 11 JUN 2021

PROGRESS DRAWINGS
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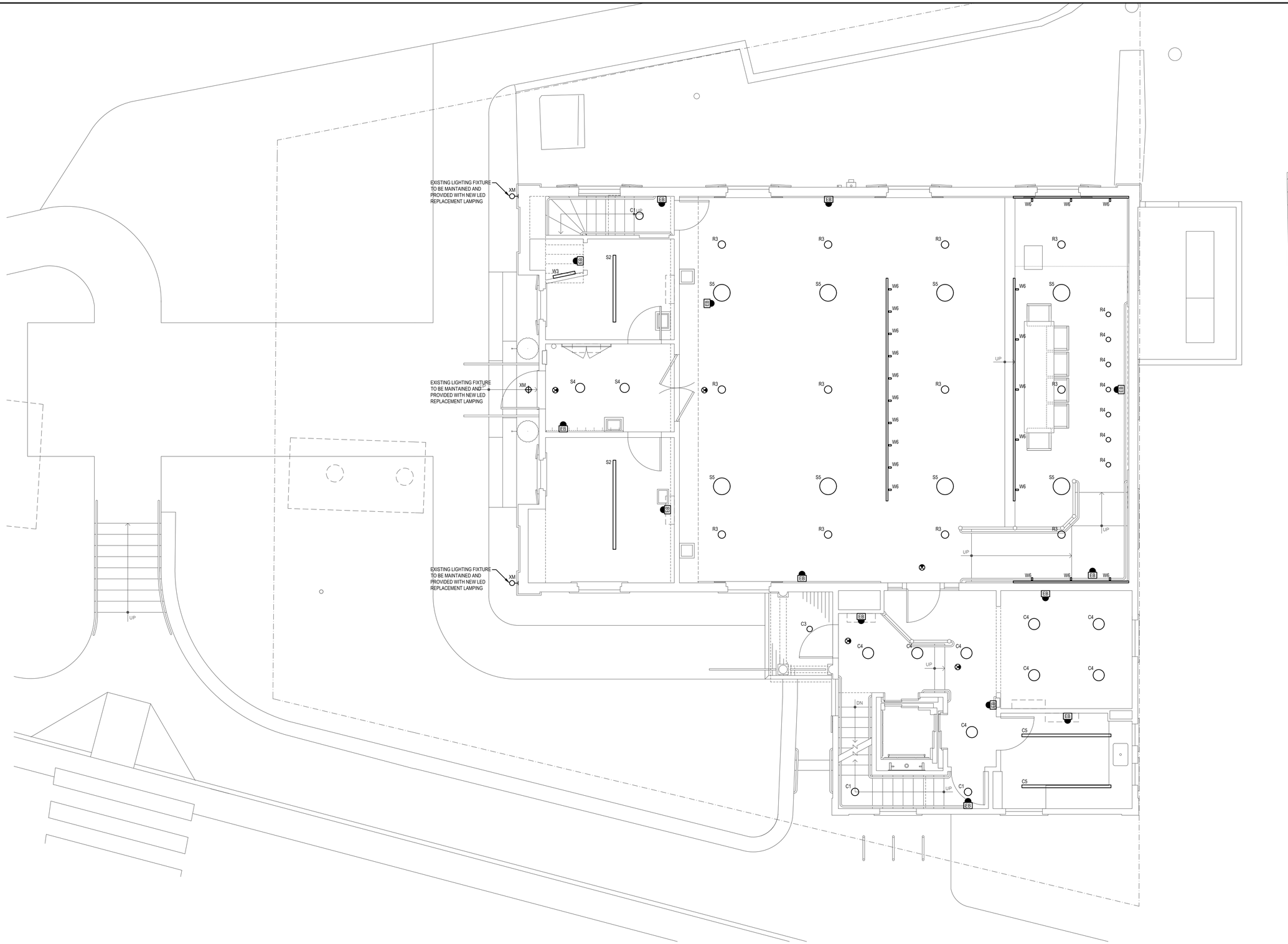
SHEET #:

E-1.0



1 Proposed Ground Floor

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DRAWING TITLE: ELECTRICAL - PROPOSED LIGHTING FLOOR PLAN

DATE: 11 JUN 2021

PROGRESS DRAWINGS NOT FOR CONSTRUCTION

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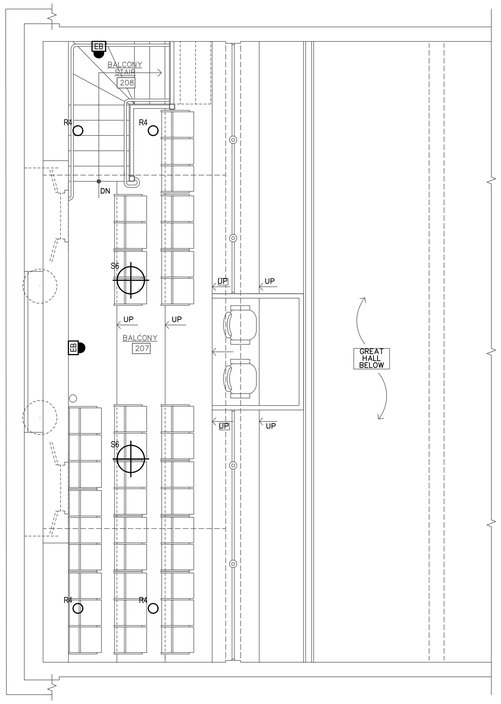
E-1.1



1 Proposed Balcony
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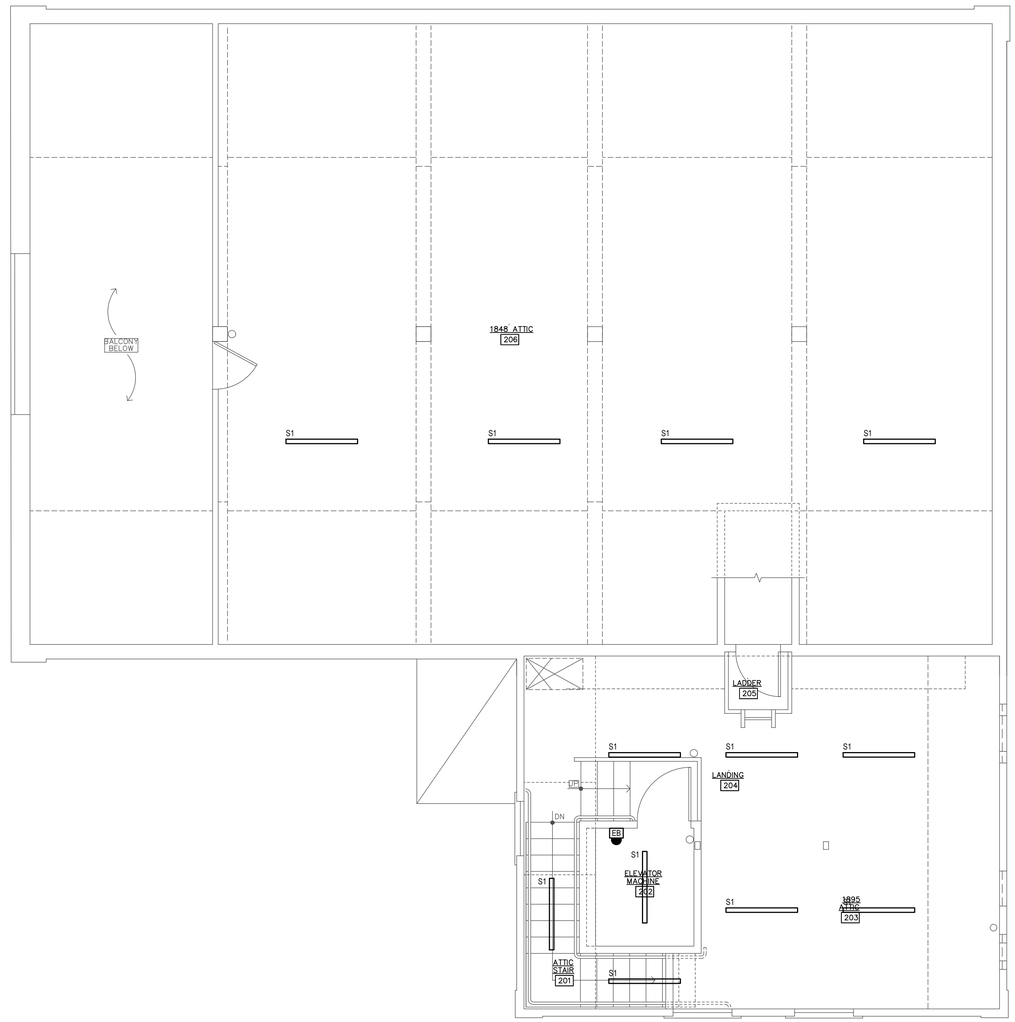

2 Proposed Attic
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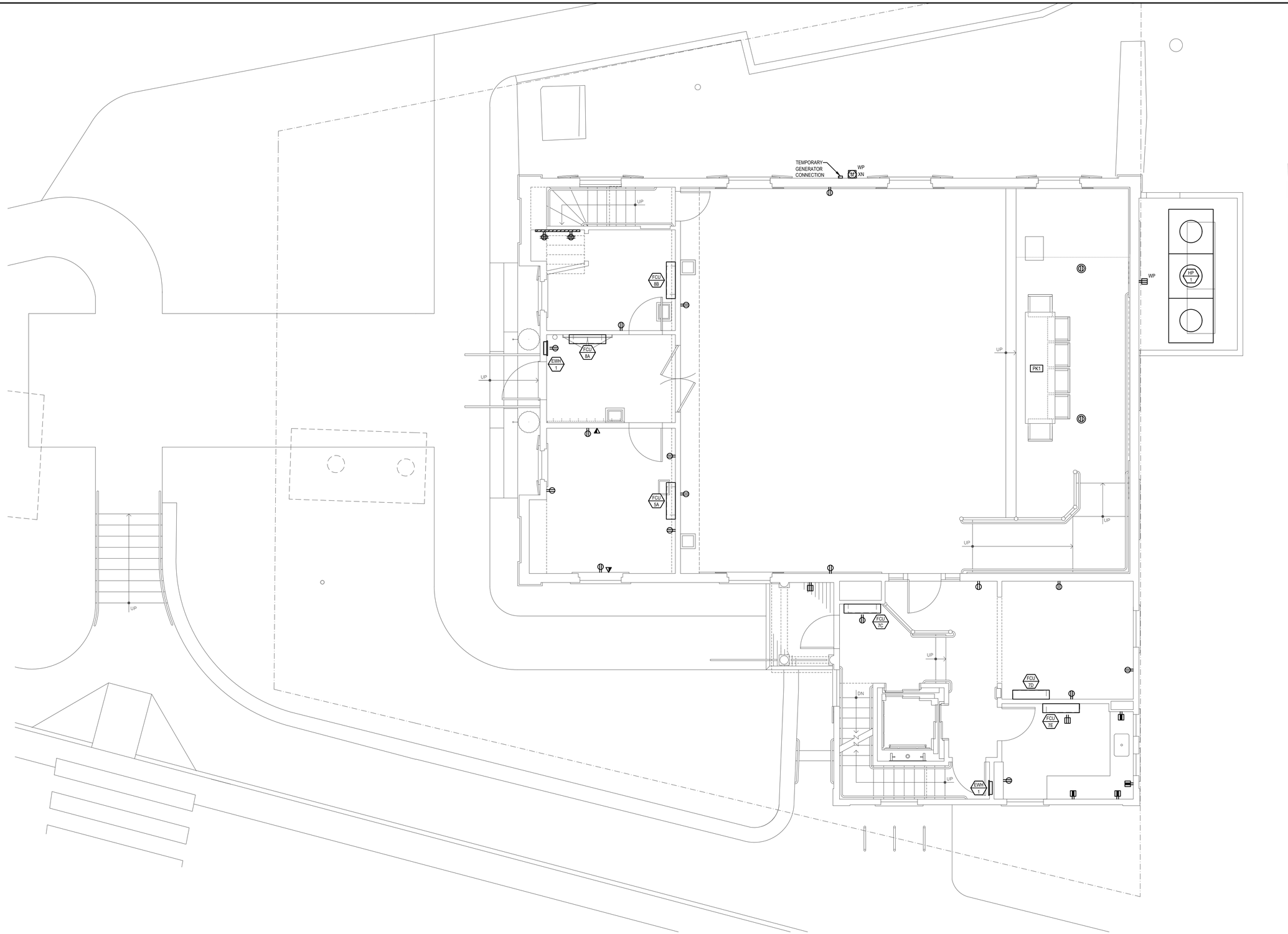

1 Proposed First Floor

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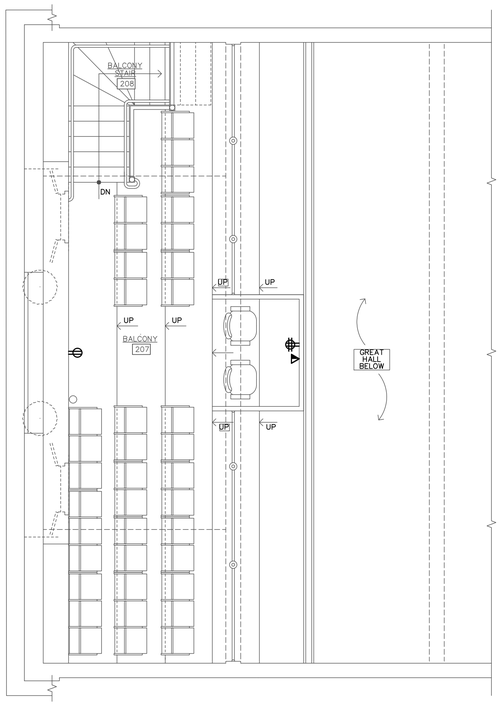

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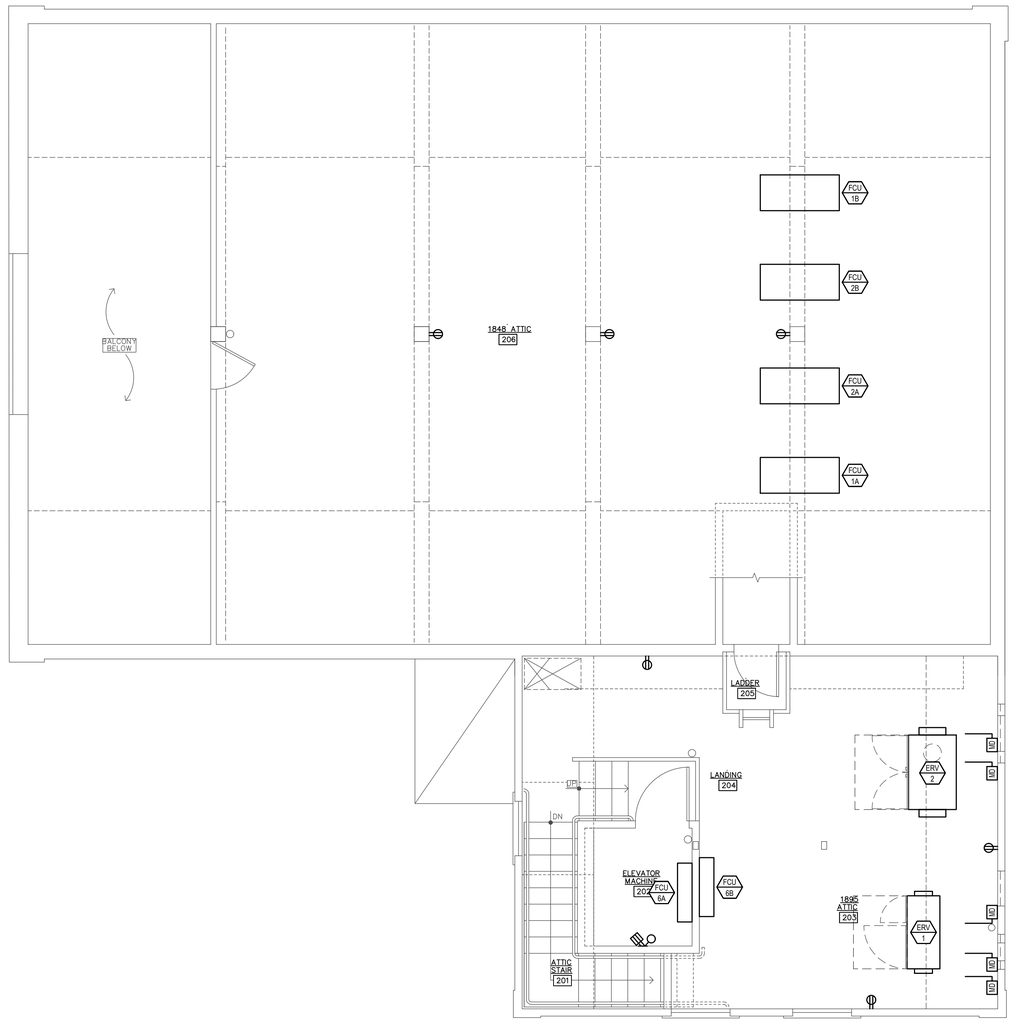

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DATE: 11 JUN 2021

PROGRESS DRAWINGS NOT FOR CONSTRUCTION

SHEET #:
E-2.2

FIRE ALARM SPECIFICATION

1. FIRE DETECTION AND ALARM SYSTEM

1.1. GENERAL

1.1.1. THE EXISTING FIRE ALARM SYSTEM SHALL BE REPLACED IN ITS ENTIRETY WITH NEW UNDER THE SCOPE OF WORK OF THIS PROJECT. AT NO TIME DURING CONSTRUCTION SHALL THE BUILDING BE WITHOUT FIRE ALARM PROTECTION.

1.1.2. THE CONTRACTOR MUST OBTAIN A PERMIT FROM THE FIRE DEPARTMENT PRIOR TO COMMENCEMENT OF EQUIPMENT INSTALLATION. ALL WORK SHALL BE DONE IN CONFORMANCE WITH THE LOCAL FIRE DEPARTMENT INSTALLATION REQUIREMENTS AND SYSTEM INSTALLATION GUIDELINES.

1.1.3. ALL FIRE ALARM WORK BEYOND THE CELLULAR COMMUNICATOR AND INSIDE OF THE BUILDING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ABSOLUTELY NO CONNECTIONS SHALL BE MADE TO THE MUNICIPAL FIRE ALARM CIRCUITS, EXCEPT BY THE LOCAL FIRE DEPARTMENT.

1.1.4. ALL FIRE ALARM DEVICES AND EQUIPMENT USED SHALL BE APPROVED FOR USE BY THE LOCAL FIRE DEPARTMENT.

1.1.5. THE CONTRACTOR SHALL FURNISH, INSTALL AND PLACE IN OPERATION AN ADDRESSABLE, SUPERVISED, GENERAL EVACUATION FIRE ALARM SYSTEM FOR THE COMPLETE BUILDING, UNLESS NOTED OTHERWISE.

1.1.6. THE COMPLETED FIRE ALARM SYSTEM SHALL MEET ALL LOCAL AND STATE CODES.

1.1.7. EQUIPMENT AND COMPLETED INSTALLATION SHALL BE U.L. LISTED OR APPROVED AND SHALL MEET APPROVAL OF THE LOCAL FIRE DEPARTMENT, STATE FIRE MARSHALL, AUTHORITIES HAVING JURISDICTION AND SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, ADA CODE, NFPA 70, 72 AND 72E.

1.1.8. THE COMPLETE SYSTEM SHALL CONTAIN SMOKE DETECTION, HEAT DETECTORS, AUDIO/VISUAL ALARMS, PULL STATIONS, AND OTHER DEVICES INCLUDING POWER SUPPLIES AS REQUIRED FOR A COMPLETE SYSTEM.

1.1.9. THE OWNER SHALL BE RESPONSIBLE FOR TELEPHONE CONNECTION COMPANY CHARGES AND/OR SECOND PARTY MONITORING COMPANY FEES.

1.1.10. DEVICE ADDRESSES SHALL BE LEGIBLE WITHOUT REMOVAL OF THE DETECTOR. THE DETECTOR ADDRESS SHALL BE CONCEALED WHEN PLACED INTO THE BASE.

1.1.11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF DEDICATED TELEPHONE HOMERUN WIRING.

1.2. MAIN FIRE ALARM CONTROL PANEL (FACP)

1.2.1. ELECTRICAL CONTRACTOR SHALL PROVIDE AN ADDRESSABLE MAIN FIRE ALARM CONTROL PANEL. CONTROL PANEL SHALL CONTAIN THE REQUIRED NUMBER OF SUPERVISED INITIATING AND INDICATING CIRCUITS FOR THE BUILDING.

1.2.2. THE SYSTEMS SHALL HAVE BUILT-IN 24 VOLTS DC POWER SUPPLY AND INTEGRAL BATTERY CHARGER.

1.2.3. TWENTY-FOUR (24) HOURS OF BATTERY STANDBY POWER SHALL BE PROVIDED WITH FIVE (5) MINUTES OF ALARM SIGNALING AT THE END OF THIS TWENTY-FOUR (24) HOUR PERIOD, AS REQUIRED BY NFPA 72. ALSO PROVIDE 20% ADDITIONAL BATTERY CAPACITY.

1.2.4. LIGHTNING PROTECTION SHALL BE INCLUDED WITHIN THE FACP TO PROTECT THE PANEL FROM LIGHTNING SURGES ON THE 120 VOLT SUPPLY CIRCUIT.

1.2.5. THE FACP SHALL TRANSMIT AN ALARM SIGNAL TO THE LOCAL FIRE DEPARTMENT VIA A METHOD COORDINATED WITH THE LOCAL FIRE DEPARTMENT. IN ACCORDANCE WITH NFPA 72, COMMON METHODS ARE INDICATED BELOW:

1.2.5.1. THE FACP SHALL HAVE A DIGITAL ALARM COMMUNICATOR TRANSMITTER (DACT) TO ENABLE AUTOMATIC TRANSMISSION OF THE ALARM SIGNAL TO THE FIRE DEPARTMENT.

1.2.5.2. DACT CELLULAR COMMUNICATOR

1.2.5.3. AES MESH NETWORK COMMUNICATOR PER LOCAL FIRE DEPARTMENT REQUIREMENTS.

1.3. SEQUENCE OF OPERATIONS: REFER TO SEQUENCE OF OPERATIONS INPUT/OUTPUT MATRIX

1.4. REMOTE DEVICES

1.4.1. SMOKE DETECTORS SHALL BE ADDRESSABLE PHOTOELECTRIC TYPE (UNLESS NOTED OTHERWISE) AND SHALL OPERATE AT 24 VOLTS DC. PROVIDE DOUBLE CONTACT BASE FOR SMOKE DETECTORS USED FOR ELEVATOR RECALL AND TO OPERATE REMOTE LED'S.

1.4.2. HEAT DETECTORS SHALL BE ADDRESSABLE (UNLESS NOTED OTHERWISE), LOW PROFILE, MATTE WHITE, 200 DEGREE FIXED TEMPERATURE OR 135 DEGREES RATE OF RISE TYPE.

1.4.3. PULL STATIONS SHALL BE ADDRESSABLE (UNLESS NOTED OTHERWISE), SEMI-FLUSH, DOUBLE ACTION.

1.4.4. HORN/STROBE DEVICES SHALL BE PROVIDED IN A COMMON ENCLOSURE. THE VISIBLE STROBE SHALL MEET ALL THE REQUIREMENTS OF THE ADA.

1.4.5. BOOSTER PANEL - BOOSTER PANEL SHALL PROVIDE REMOTE POWER WITH BUILT IN BATTERY CHARGER CONNECTED TO ANY 12 OR 24 VOLT FIRE ALARM CONTROL PANEL. PRIMARY APPLICATIONS INCLUDE NAC SYNCHRONIZATION OR AUXILIARY POWER TO SUPPORT 24 VOLT ACCESSORIES.

1.4.6. MONITOR MODULES SHALL BE PROVIDED TO MONITOR AND CONNECT CONVENTIONAL INITIATING DEVICES ONTO THE ADDRESSABLE LOOP.

1.4.7. REMOTE ALARM INDICATORS SHALL BE LED INDICATORS ON SINGLE PLASTIC PLATES.

1.4.8. CONTROL & RELAY MODULES SHALL BE USED TO CONTROL CONVENTIONAL DEVICES (NOTIFICATION CIRCUITS, AHU'S, DOOR HOLDERS, ETC). OVER THE ADDRESSABLE LOOP. MODULES SHALL BE PROVIDE A SUPERVISED OUTPUT RATED FOR 2 AMP AT 24 VOLTS DC AND 0.5 AMP AT 120 VOLT.

1.4.9. DOOR HOLDERS SHALL BE RATED 24 VOLTS AC/DC MAGNETIC FLUSH, SEMI FLUSH, SURFACE AND/OR FLOOR MOUNTED AS INDICATED ON THE DRAWINGS. MINIMUM HOLDING FORCE SHALL BE 25 POUNDS. BODY SHALL BE DIECAST WITH POLISHED CHROME FINISH. PROVIDE SWIVEL CATCH WITH REQUIRED ROD LENGTHS AND BACK PLATES FOR SECURE MOUNTING TO DOOR.

1.4.10. STROBE ONLY DEVICES SHALL BE PROVIDED AND SHALL MEET ALL REQUIREMENTS OF NFPA AND ADA CODES.

1.4.10.1. PROVIDE LED TYPE REMOTE ANNUNCIATOR, POSITIONED AS SHOWN ON THE DRAWINGS. THE ANNUNCIATOR SHALL BE FLUSH MOUNTED TYPE AND SHALL BE SUPERVISED FOR SYSTEM TROUBLE. ALL ALARM LED'S AND WIRING SHALL BE SUPERVISED. THE NUMBER OF ZONES SHALL BE AS SHOWN ON THE DRAWINGS.

1.5. WIRING

1.5.1. ALL FIRE ALARM WIRE AND CABLE SHALL BE UL LISTED FOR FIRE ALARM USE.

1.5.2. THE FIRE ALARM SYSTEM SHALL BE A COMPLETE AUTOMATIC AND MANUAL, CLOSED CIRCUIT, CLASS A, 4 WIRE, CONNECTED AND LEFT IN FIRST-CLASS OPERATING CONDITION.

1.5.3. FOR FIRE ALARM WIRING IN ENCLOSED SPACES, PROVIDE PLENUM RATED, TYPE FPLP, WITH RED OUTER JACKET. INSTALLATION SHALL MEET REQUIREMENTS OF NEC ARTICLE 770 AND 725. CONDUCTORS SHALL BE SOLID COPPER #14 MINIMUM, WITH LOW SMOKE, LOW FLAME TYPE JACKET.

1.5.4. FOR FIRE ALARM WIRING IN EXPOSED AREAS, PROVIDE TYPE THHN INSULATION. WIRE SIZE SHALL BE #14 AWG MINIMUM. ALL SURFACE MOUNTED WIRING RELATED TO THE FIRE ALARM SYSTEM SHALL BE INSTALLED IN TYPE EMT/RGS CONDUIT.

1.5.5. ALL JOINTS AND CONNECTIONS SHALL BE IN JUNCTION BOXES. ALL CONNECTIONS NOT ON APPROVED TERMINAL STRIPS SHALL BE SOLDERED AND TAPED. ALL JUNCTION BOXES SHALL BE PAINTED RED.

1.6. TWO-HOUR RESISTIVE CABLES

1.6.1. CABLES SHALL MEET NFPA 70, NFPA 72, UL CATEGORY FHIT SYSTEM 40A.

1.6.2. CABLES SHALL BE EQUAL TO COMTRAN CABLE'S VITALINK FHIT SYSTEM 40A TWO-HOUR FIRE RATED CIRCUIT INTEGRITY (CI/CIC) CABLE.

1.7. MANUFACTURERS

1.7.1. COMPLETE SYSTEMS SHALL BE MANUFACTURED BY FCI (FIRE CONTROL INSTRUMENTS), EDWARDS, NOTIFIER, SIMPLEX, OR EQUAL.

1.8. TESTING

1.8.1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIRE ALARM TESTING AND CERTIFICATION CHARGES.

1.8.2. CERTIFY THE INSTALLATION WITH ACCEPTANCE TESTING. THE ELECTRICAL CONTRACTOR SHALL CONDUCT THE ACCEPTANCE TEST WITH THE LOCAL FIRE DEPARTMENT IN ACCORDANCE WITH NFPA 72. TEST INCLUDE BUT MAY NOT BE LIMITED TO THE FOLLOWING: MEGGER (INSULATION) TESTING, LOOP CONTINUITY, GROUND, SHORT, OPEN CIRCUIT, A WRITTEN REPORT SHALL BE SUBMITTED DETAILING THE RESULTS OF THE PRELIMINARY TESTS SHALL ACCOMPANY THE REQUEST FOR FINAL ACCEPTANCE TEST.

FIRE ALARM

TYPICAL DEVICE ANNOTATION:
"15" INDICATES CANDELA RATING

F 15 — AUDIO / VISUAL DEVICE
"F" INDICATES HORN / VISUAL

L 15 — VISUAL ONLY DEVICE
"L" INDICATES WHITE LENS FOR FIRE

F 15 — CEILING MOUNTED AUDIO / VISUAL DEVICE
"F" INDICATES HORN / VISUAL

L 15 — CEILING MOUNTED VISUAL ONLY DEVICE

F — MANUAL PULL STATION

S R — SMOKE DETECTOR
"R" INDICATES ELEVATOR RECALL

H F — HEAT DETECTOR, 135° RATE-OF-RISE TYPE
"F" INDICATES 190° FIXED TEMPERATURE

FACP — FIRE ALARM DEVICE
"FACP" INDICATES FIRE ALARM CONTROL PANEL
"FABP" INDICATES FIRE ALARM BOOSTER PANEL
"FATC" INDICATES FIRE ALARM TERMINAL CABINET
"AES" INDICATES AES MESH NETWORK COMMUNICATOR, COORDINATE TYPE WITH LOCAL FIRE DEPARTMENT
"ANN" INDICATES FIRE ALARM ANNUNCIATOR PANEL
"DACT" INDICATES DIGITAL ALARM COMMUNICATOR TRANSMITTER
"CELL" INDICATES CELLULAR COMMUNICATOR
"RADIO" INDICATES RADIO COMMUNICATOR
"CM" INDICATES CONTROL MODULE
"MIM" INDICATES MONITOR MODULE
"DH" INDICATES MAGNETIC DOOR HOLDER
"KB" INDICATES KEY BOX
"RTS" INDICATES REMOTE TEST STATION
"FSD" INDICATES SMOKE DAMPER
"BDA" INDICATES BI-DIRECTIONAL AMPLIFIER
"BAN" INDICATES BI-DIRECTIONAL AMPLIFIER ANNUNCIATOR
"SCP" INDICATES SMOKE CONTROL PANEL (FURNISHED AND INSTALLED BY M.C.; WIRED BY E.C.)

F H — FIRE ALARM ANNUNCIATION DEVICE
"F" INDICATES RED INDICATING BEACON, EXTERIOR MOUNTED, WEATHERPROOF
"R" INDICATES REMOTE AREA LED INDICATOR

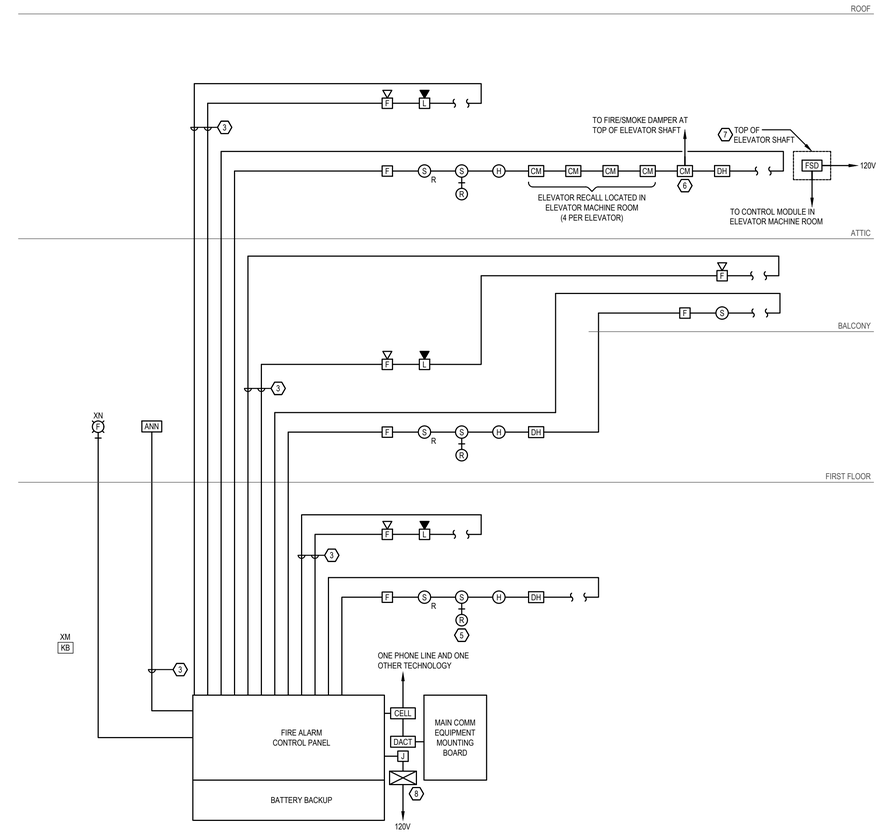
SEQUENCE OF OPERATIONS INPUT / OUTPUT MATRIX

	SYSTEM OUTPUTS	CONTROL UNIT ANNUNCIATION								NOTIFICATION								REQUIRE LIFE SAFETY CONTROL					
	FIRE ALARM SYSTEM OPERATION SCHEDULE	ACTUATE COMMON ALARM SIGNAL INDICATOR	ACTUATE AUDIBLE ALARM SIGNAL	ACTUATE COMMON SUPERVISORY SIGNAL INDICATOR	ACTUATE AUDIBLE SUPERVISORY SIGNAL	ACTUATE COMMON TROUBLE SIGNAL INDICATOR	ACTUATE AUDIBLE COMMON TROUBLE SIGNAL	ACTUATE FIRE FLOOR ALARM INDICATOR		ACTUATE EVACUATION SIGNALS ON ALL FLOORS	ACTUATE LOCAL AUDIBLE TEMP-3 PATTERN FIRE SIGNAL	ACTUATE LOCAL ADA VISUAL ALARM	ACTUATE ELEVATOR FIRE KEY	TRANSMIT FIRE ALARM SIGNAL TO SUPERVISING STATION	TRANSMIT SUPERVISORY SIGNAL TO SUPERVISING STATION	TRANSMIT TROUBLE SIGNAL TO SUPERVISORY STATION		RELEASE MAGNETICALLY HELD SMOKE DOORS	RECALL PEDESTRIAN ELEV. TO PRIMARY RECALL FLOOR	RECALL PEDESTRIAN ELEV. TO ALTERNATE RECALL FLOOR	OPEN SMOKE DAMPER AT TOP OF ELEVATOR SHAFT	CLOSE FIRE/SMOKE DAMPER ON ASSOCIATED FIRE FLOOR	
	SYSTEM INPUTS	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	
1	MANUAL FIRE ALARM BOXES	●	●					●		●	●	●		●	●			●					
2	SMOKE DETECTORS	●	●					●		●	●	●		●	●			●				●	
3	ELEVATOR LOBBY SMOKE DETECTORS	●	●							●	●	●	●	●	●			●	●				
4	ELEVATOR LOBBY SMOKE ON PRIMARY RECALL FLOOR	●	●							●	●	●	●	●	●			●		●			
5	ELEVATOR MACHINE SMOKE DETECTORS	●	●							●	●	●	●	●	●			●	●		●		
6	HEAT DETECTORS	●	●					●		●	●	●		●	●			●					
7	FIRE ALARM AC POWER FAILURE					●	●							●			●						
8	FIRE ALARM SYSTEM LOW BATTERY					●	●							●			●						
9	OPEN CIRCUIT					●	●							●			●						
10	GROUND FAULT					●	●							●			●						
11	NOTIFICATION APPLIANCE SHORT CIRCUIT					●	●							●			●						
12	SUPERVISORY			●	●									●		●							
13	TROUBLE					●	●							●			●						

NOTES:

1. ALL EVENTS SHALL BE RECORDED AT THE FIRE ALARM CONTROL PANEL AND SHALL INDICATE TIME AND DATE OF OCCURRENCE AND LIST DEVICE INITIATED.

2. TROUBLE AND SUPERVISORY SIGNALS SHALL BE MONITORED IN ACCORDANCE WITH 780CMR 903.4.1.



FIRE ALARM RISER DIAGRAM

N.T.S.

FIRE ALARM RISER DIAGRAM NOTES:

1. ELECTRICAL CONTRACTOR SHALL PROVIDE CIRCUIT BREAKER HANDLE-LOCK ON ALL 120 VOLT FIRE ALARM POWER CIRCUITS. HANDLE LOCK SHALL ALLOW THE CIRCUIT BREAKER TO TRIP, BUT PREVENT SWITCHING OF THE CIRCUIT BREAKER TO THE "OFF" POSITION.

2. PROVIDE SMOKE DETECTOR IN VICINITY (WITHIN 21'-0") OF FIRE ALARM CONTROL PANEL, AND ALL FIRE ALARM BOOSTER PANELS AND COMMUNICATORS. SMOKE DETECTORS IN ELEVATOR LOBBY SHALL BE PROGRAMMED AND/OR PROVIDED WITH ELEVATOR RECALL CAPABILITY.

3. TWO HOUR FIRE RESISTIVE CABLES THAT MEET LEVELS 2 OR 3 PATHWAY SURVIVABILITY SHALL BE PROVIDED AS IN ACCORDANCE WITH NFPA 72 SECTION 24.4.2.8.5 AS FOLLOWS:
   - WIRING BETWEEN THE FACP AND THE REMOTE ANNUNCIATOR(S).
   - DEVICE WIRING TO NOTIFICATION APPLIANCES FROM FACP TO THE FIRST DEVICE ON THE CIRCUIT (INCLUDING THE LAST DEVICE BACK TO PANEL).
   - ALL WIRING BETWEEN FLOORS.
   - SEE NOTE 1.6 OF DRAWING FIRE ALARM SPECIFICATIONS.

4. RISER DIAGRAM DOES NOT SHOW ENTIRE SYSTEM. REFER TO FLOOR PLANS FOR EXACT QUANTITIES AND LOCATIONS OF ALL SYSTEM DEVICES.

5. PROVIDE REMOTE ALARM INDICATOR OVER DOOR OF EACH LOCKED ROOM THAT CONTAINS A SMOKE OR HEAT DETECTOR WHETHER OR NOT SHOWN ON THE FLOOR PLANS: SUCH AS, ELEVATOR MACHINE ROOMS, ELECTRIC ROOMS, MECHANICAL ROOMS, IT ROOMS, ETC.

6. CONTROL MODULE FOR ELEVATOR FIRE SHUTTER.

7. PROVIDE 120VOLT POWER AND CONTROL MODULE FOR CONTROL OF SMOKE DAMPER AT TOP OF ELEVATOR SHAFT. DAMPER SHALL BE PROGRAMMED TO OPEN UPON ACTIVATION OF SMOKE DETECTOR AT ELEVATOR MACHINE ROOM, OR AS DIRECTED PROVIDE CONTROL WIRING FROM DAMPER MOTOR TO FIRE ALARM TERMINAL CABINET.

8. PROVIDE A 20AMP, 120VOLT, 1 PHASE SURGE PROTECTOR EQUAL TO MCG SURGE PROTECTION MODEL NO. 415. SURGE PROTECTOR SHALL BE INSTALLED BETWEEN THE CIRCUIT BREAKER IN THE PANEL AND THE FIRE ALARM PANEL, AND IN ACCORDANCE WITH MANUFACTURER'S WIRING RECOMMENDATIONS.

9. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL REQUIRED POWER SUPPLIES FOR A COMPLETE AND OPERABLE SYSTEM. POWER SUPPLY CALCULATIONS SHALL BE INCLUDED IN FIRE ALARM SHOP DRAWINGS.

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fax: 617-876-6420

PROJECT NAME: STOW TOWN HALL RESTORATION

PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: FIRE ALARM - LEGEND & NOTES

DATE: 11 JUN 2021

PROGRESS DRAWINGS NOT FOR CONSTRUCTION

SHEET #: FA-01

1 Proposed Ground Floor

SCALE: 1/4"=1'-0"

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PROJECT NAME: STOW TOWN HALL RESTORATION

PROJECT ADDRESS: 375 GREAT ROAD
STOW MA 01775

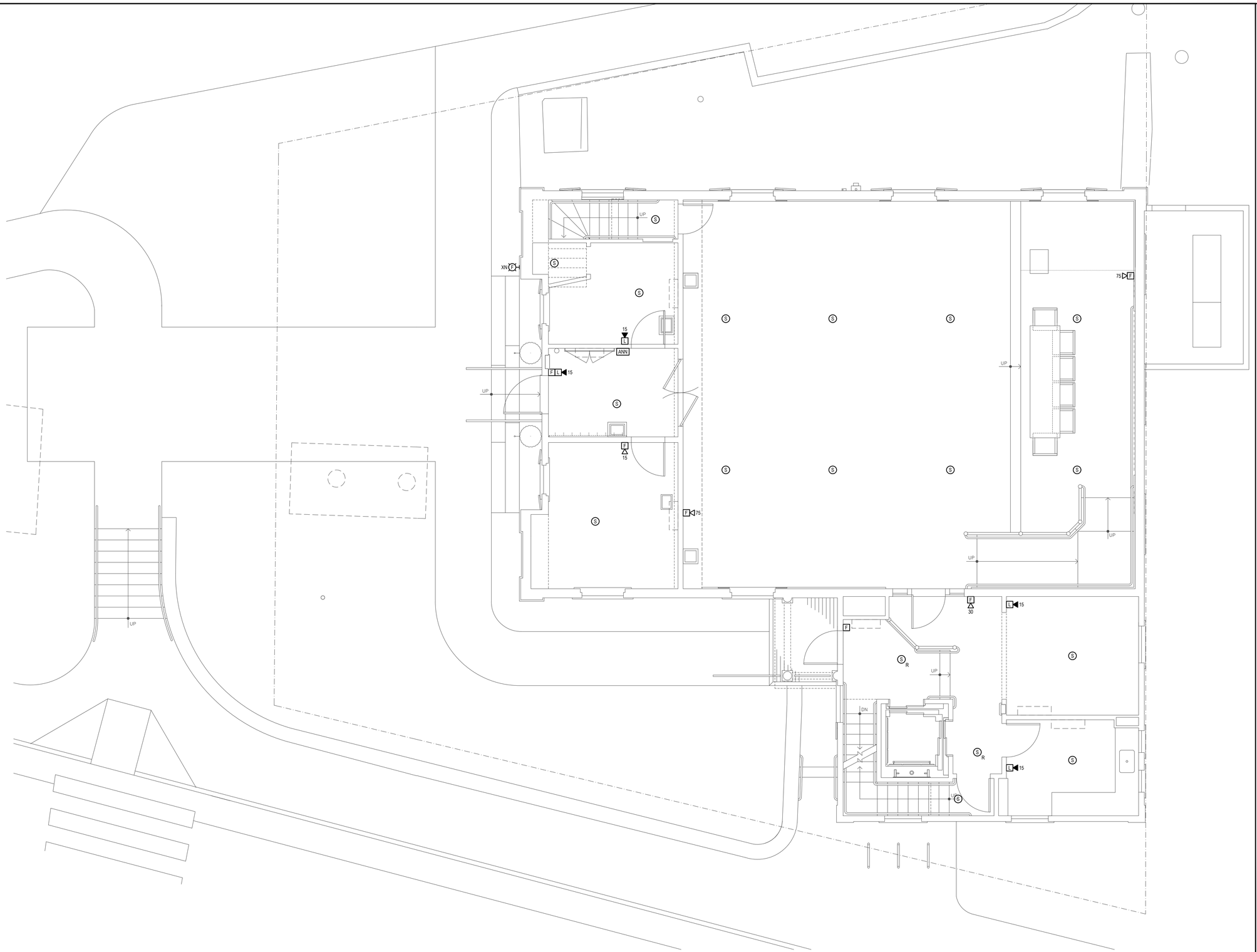
DRAWING TITLE: FIRE ALARM - PROPOSED FLOOR PLAN

DATE: 11 JUN 2021

PROGRESS DRAWINGS
NOT FOR CONSTRUCTION

SHEET #:

FA-1.0



1 Proposed First Floor

SCALE: 1/4"=1'-0"

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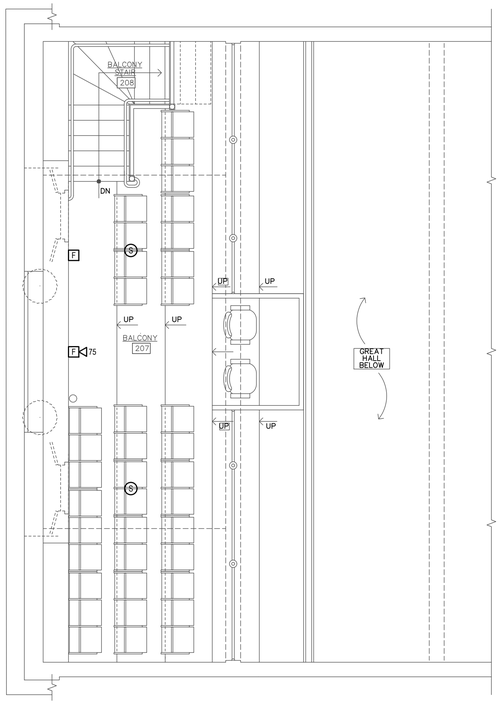
DATE: 11 JUN 2021

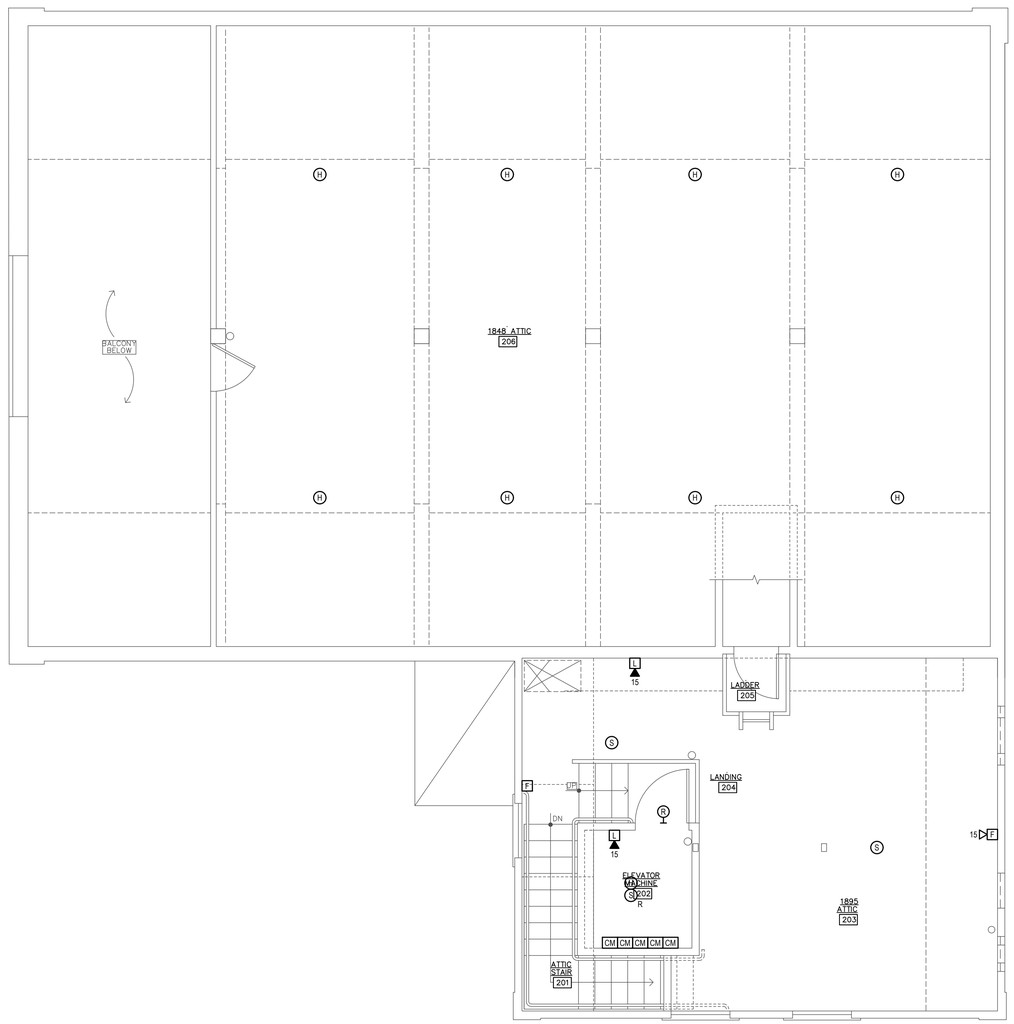
PROGRESS DRAWINGS
NOT FOR CONSTRUCTION

SHEET #:

FA-1.1



1 Proposed Balcony
SCALE: 1/4"=1'-0"



2 Proposed Attic
SCALE: 1/4"=1'-0"

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PROJECT NAME: STOW TOWN HALL RESTORATION
PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: FIRE ALARM - PROPOSED FLOOR PLAN

DATE: 11 JUN 2021

PROGRESS DRAWINGS NOT FOR CONSTRUCTION

SHEET #:
FA-1.2

STOW TOWN HALL RESTORATION
AUDIOVISUAL SYSTEMS

NOTES FOR GENERAL CONTRACTOR:

1. VERIFY EXACT LOCATION OF AUDIOVISUAL DEVICES AND THEIR MOUNTING WITH ARCHITECTURAL DRAWINGS.
2. PROVIDE ALL MISCELLANEOUS MATERIALS IN ORDER TO PROVIDE A COMPLETE AND OPERABLE AUDIOVISUAL SYSTEM.
3. PROVIDE BLOCKING FOR WALL MOUNTED AUDIOVISUAL DEVICES AS INDICATED OR REQUIRED.
4. SUPPLY MILLWORK FOR AUDIOVISUAL SYSTEMS AS INDICATED OR REQUIRED.
5. PROVIDE ATTACHMENT POINTS AT SUPERSTRUCTURE FOR MOUNTING LOUDSPEAKERS, VIDEO PROJECTORS, ETC. AS REQUIRED.
6. AUDIOVISUAL BOXES SHALL NOT BE INSTALLED BACK TO BACK WITH ANY OTHER DEVICE IN A WALL WITHIN A GIVEN STUD BAY.

NOTES FOR ELECTRICAL CONTRACTOR:

1. ELECTRICAL CONTRACTOR SHALL PROVIDE A COMPLETE CONDUIT SYSTEM FOR THE AUDIOVISUAL SYSTEM, INCLUDING ALL CONDUITS, JUNCTION BOXES, CABLE TRAY, FLOOR BOXES, AND AUDIOVISUAL OUTLETS BOXES UNLESS OTHERWISE NOTED. REFER TO AUDIOVISUAL SYSTEM SYMBOL LEGEND AND CONDUIT RISER DIAGRAMS FOR DETAILS. AV DRAWINGS DO NOT SHOW ALL REQUIRED COMPONENTS FOR A COMPLETE SYSTEM (I.E. ; PULL BOXES, CONDUIT FITTINGS, ETC.).
2. AC POWER, CONDUIT, AND TELECOMMUNICATION REQUIREMENTS SHOWN ON AUDIOVISUAL DRAWINGS ARE PROVIDED FOR COORDINATION AND REFERENCE ONLY AND ARE NOT PART OF THE AUDIOVISUAL CONTRACTOR'S SCOPE OF WORK.
3. SEE ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR AC POWER AND CONDUIT DETAILS.
4. SEE TELECOMMUNICATION DRAWINGS AND SPECIFICATIONS FOR TELECOMMUNICATION DETAILS.
5. PROVIDE AN AC POWER SYSTEM FOR THE AUDIOVISUAL SYSTEM. AC SYSTEM INCLUDES A DEDICATED POWER PANEL WITH TRANSIENT VOLTAGE SURGE SUPPRESSORS, AND A SEPARATE ISOLATED GROUND.
6. AC POWER FOR GIVEN AUDIOVISUAL SYSTEM WILL BE FED FROM A COMMON AC PANEL WITH TRANSIENT VOLTAGE SURGE SUPPRESSION AND ON THE SAME PHASE.
7. EACH 120 VAC CIRCUIT SHALL BE 3-WIRE WITH A HOT, DEDICATED NEUTRAL, AND GROUND.
8. DEDICATED AC CIRCUITS TERMINATE IN THE AUDIOVISUAL EQUIPMENT RACKS UNLESS OTHERWISE INDICATED. AC CIRCUITS TERMINATE IN A RACEWAY SYSTEM PROVIDED BY THE AUDIOVISUAL CONTRACTOR.
9. INSULATE AUDIOVISUAL EQUIPMENT RACKS FROM INCOMING METAL CONDUITS WITH PVC TO EMT CONNECTOR IN TOP OF RACK OR USING OTHER APPROVED MEANS.
10. TELECOMMUNICATION AND AC POWER OUTLETS ARE TO BE MOUNTED ADJACENT TO ASSOCIATED AUDIOVISUAL DEVICES UNLESS OTHERWISE NOTED.
11. PROVIDE A COMPLETE CONDUIT SYSTEM FOR THE AUDIOVISUAL SYSTEM WITH A PULL LINE IN AUDIOVISUAL SYSTEM CONDUITS.
12. PROVIDE A PULLBOX IN AUDIOVISUAL SYSTEM CONDUIT RUNS OVER 100 FEET OR THAT CONTAIN MORE THAN (2) CONSECUTIVE 90° BENDS.
13. ALL CONDUITS CARRYING AUDIOVISUAL SYSTEM SIGNALS ARE NOT TO BE RUN PARALLEL TO POWER CONDUITS UNLESS THE SPACING EXCEEDS 2'-0" AND THE RUN IS LESS THAN 50'-0".
14. ALL CONDUITS CARRYING AUDIOVISUAL SYSTEM SIGNALS SHALL BE FERROUS METALS, BONDED TO GROUND EVEN IN OR BELOW SLABS. CONDUITS IN OR BELOW SLABS SHALL BE RIGID METALLIC CONDUITS. SEAL ALL JOINTS TO PREVENT LEAKING.
15. NO FLEX CONDUIT SHALL BE USED IN AUDIOVISUAL SYSTEMS UNLESS OTHERWISE NOTED.
16. ALL CONDUITS TO BE 3/4" UNLESS OTHERWISE NOTED.
17. VERIFY SIZE OF PULL BOXES AND JUNCTION BOXES WILL ACCEPT REQUIRED CONDUIT CONNECTIONS, AND SUPPLY LARGER BOXES IF REQUIRED.
18. ALL GANG BOXES ARE 2-1/2" DEEP WITH 13/16" GANG COVER FOR DRY WALL OR PLASTER WALL CONSTRUCTION, OR 3- 1/2" DEEP FOR MASONRY WALL CONSTRUCTION UNLESS OTHERWISE NOTED.
19. ALL AUDIOVISUAL SYSTEM CONDUIT STUBS SHALL BE TERMINATED WITH PLASTIC BUSHINGS AND SHALL BE STUBBED INTO ACCESSIBLE LOCATIONS.
20. ALL AUDIOVISUAL SYSTEM CONDUIT QUANTITIES AND SIZES HAVE BEEN CHOSEN BASED UPON SYSTEM REQUIREMENTS AND TO MAINTAIN SIGNAL SEPARATION. DO NOT COMBINE MULTIPLE RUNS INTO LARGER CONDUITS.

NOTES FOR AUDIOVISUAL CONTRACTOR:

1. VERIFY EXACT LOCATION OF AUDIOVISUAL DEVICES WITH ARCHITECTURAL DRAWINGS.
2. THE SIGNAL LEVEL SEPARATION INDICATED ON DRAWINGS (MICROPHONE, LINE, SPEAKER, INTERCOM, VIDEO, CONTROL, RF, AND AC) IS TO BE MAINTAINED.
3. NO SPLICES SHALL BE PERMITTED. ALL CABLE RUNS SHALL BE CONTINUOUS FROM POINT OF ORIGIN TO TERMINATION POINT.
4. WIRING ENTERING A PLENUM SPACE FROM A CONDUIT STUB SHALL BE PLENUM RATED IN ITS ENTIRETY.
5. AUDIOVISUAL SYSTEM CONTRACTOR PROVIDES MOUNTING HARDWARE AS REQUIRED TO ATTACH AUDIOVISUAL EQUIPMENT TO ATTACHMENT POINTS SUPPLIED BY THE GENERAL CONTRACTOR.
6. LAYOUTS OF EQUIPMENT RACKS, RECEPTACLE PLATES, AND PANELS ARE DIAGRAMMATIC. ACTUAL LAYOUTS AND LABELS SHALL BE SUBMITTED TO THE ARCHITECT AND THE AUDIOVISUAL CONSULTANT FOR APPROVAL PRIOR TO FABRICATION.
7. LAYOUTS OF MULTIPLE PLATES/PANELS ARE SIMILAR OR TYPICAL AS NOTED. VERIFY AND SUBMIT EXACT CONFIGURATION THAT DETAILS CONNECTORS AND LABELING SCHEME FOR ALL RECEPTACLE PANELS AND RACK PANELS WITH FUNCTIONAL DIAGRAM TO ARCHITECT AND AUDIOVISUAL CONSULTANT FOR APPROVAL PRIOR TO FABRICATION.
8. PROVIDE SECURITY COVERS FOR FRONT ACCESSIBLE CONTROLS THAT DO NOT REQUIRE USER ACCESS OR ADJUSTMENT.
9. SUPPLY AUDIOVISUAL EQUIPMENT RACKS WITH AC RECEPTACLES, LACING BARS, AND REAR RACK RAILS. USE SPECIFIED AC RECEPTACLES WITHIN AUDIOVISUAL EQUIPMENT RACKS.
10. PROVIDE NON-CONDUCTIVE FIRE-RATED PLINTH UNDER FIXED EQUIPMENT RACKS AND SECURE PLINTH TO FLOOR. PLINTH TO BE MASONITE OR SIMILAR.
11. EQUIPMENT RACK WIRING MUST MEET INDUSTRY STANDARDS FOR NEATNESS AND SEPARATION OF SIGNAL TYPES (MIC, LINE, VIDEO, LOUDSPEAKER, AC POWER).
12. PROVIDE ENGRAVED LABELS ON EQUIPMENT RACKS THAT CLEARLY INDICATE THE EQUIPMENT TYPE AND FUNCTION. SECURE LABELS BELOW EQUIPMENT ON VENT OR BLANK PANEL.
13. ALL CONNECTION PANELS ARE FINISHED 1/8" ALUMINUM ANODIZED WITH ENGRAVED LETTERING FILLED WITH ENAMEL PAINT. COORDINATE FINISH WITH ARCHITECT AND AUDIOVISUAL CONSULTANT PRIOR TO FABRICATION AND INSTALLATION OF PANELS.
14. RACK PANELS ARE FINISHED 1/8" ALUMINUM ANODIZED BLACK WITH ENGRAVED LETTERING FILLED WITH WHITE ENAMEL PAINT. COORDINATE FINISH WITH ARCHITECT AND AUDIOVISUAL CONSULTANT PRIOR TO FABRICATION AND INSTALLATION OF PANELS.
15. USE INSULATED JACKS ON RACK PANELS, CONNECTION PANELS, AND WALL PLATES.
16. PROVIDE FLUSH FITTING COVERS FOR ALL SURFACE MOUNT RECEPTACLE BOXES.

AUDIOVISUAL DRAWING LIST

AV-00	AUDIOVISUAL-SYMBOLS AND LEGENDS
AV-01	AUDIOVISUAL-INSTALLATION DETAILS
AV-10.1	AUDIOVISUAL-GROUND FLOOR PLAN
AV-11.1	AUDIOVISUAL-FIRST FLOOR PLAN
AV-11.2	AUDIOVISUAL-FIRST FLOOR CEILING
AV-12.1	AUDIOVISUAL-BALCONY FLOOR PLAN
AV-13	AUDIOVISUAL-SECTIONS/ELEVATIONS
AV-20	AUDIOVISUAL-RISER DIAGRAM
AV-30	AUDIOVISUAL-FUNCTIONAL DIAGRAM I
AV-31	AUDIOVISUAL-FUNCTIONAL DIAGRAM I
AV-40	AUDIOVISUAL-PLATE DETAILS & RACK LAYOUT

AUDIOVISUAL SYSTEMS SYMBOL LEGEND

SYMBOL	DESCRIPTION	BOX TYPE (H" x W" x D")	MOUNTING LOCATION	ADDITIONAL NOTES
AV JUNCTION BOX SYMBOLS				
A1	WALL-MOUNTED ANTENNA, TYPE 1	1-GANG DEEP METAL BOX WITH COVER	SURFACE MOUNT TO WALL AT 9'-0" AFF	WIRELESS MICROPHONE
A2	WALL-MOUNTED ANTENNA, TYPE 2	1-GANG DEEP METAL BOX WITH COVER	SURFACE MOUNT TO WALL AT 9'-0" AFF	ASSISTIVE LISTENING SYSTEM
F1	FLOOR BOX, STAGE	FSR FL-600P-6 FLOOR BOX W/ FINISHED COVER	FLUSH MOUNT IN FLOOR	TELE/DATA AND POWER REQUIREMENTS BY OTHERS
J1	JUNCTION BOX, TYPE 1	6"X6"X24" METAL TROUGH	SURFACE MOUNT AT 6'-0" AFF	
M1	CEILING-MOUNTED MICROPHONE	4" SQUARE METAL BOX WITH COVER	MOUNT TO CEILING BEAM	COORDINATE FINISH WITH ARCHITECT
MR	CEILING-MOUNTED MICROPHONE, RECORDING	4" SQUARE METAL BOX WITH COVER	MOUNT TO CEILING BEAM	COORDINATE FINISH WITH ARCHITECT
MC	MOTOR CONTROLLER	4" SQUARE METAL BOX WITH COVER	RECESSED INTO CEILING AS PART OF PROJECTION SCREEN CASE	
R1	RECEPTACLE PANEL, TYPE 1	3-GANG DEEP METAL BOX WITH COVER	FLUSH MOUNT IN WALL AT RECEPTACLE HEIGHT	
R2	RECEPTACLE PANEL, TYPE 2	12"X12"X4" NEMA 1 ENCLOSURE WITH OVERSIZED FLUSH COVER	FLUSH MOUNT IN WALL AT RECEPTACLE HEIGHT	
R3	RECEPTACLE PANEL, TYPE 3	8"X8"X4" NEMA 1 ENCLOSURE WITH OVERSIZED FLUSH COVER	FLUSH MOUNT IN WALL AT RECEPTACLE HEIGHT	
R4	RECEPTACLE PANEL, TYPE 4	12"X12"X4" NEMA 1 ENCLOSURE WITH OVERSIZED FLUSH COVER	FLUSH MOUNT IN WALL AT RECEPTACLE HEIGHT	
S1	WALL MOUNTED LOUDSPEAKER	2-GANG DEEP METAL BOX WITH COVER	FLUSH MOUNT IN WALL AT 8'-6" AFF	
S2	SUBWOOFER	2-GANG DEEP METAL BOX WITH COVER	MOUNT TO WALL AT 2'-0" AFF	
T1	WALL-MOUNTED TOUCH PANEL	2-GANG DEEP METAL BOX WITH COVER	FLUSH MOUNT IN WALL AT SWITCH HEIGHT	
V1	WALL-MOUNTED VIDEO PROJECTOR, TYPE #	2-GANG DEEP METAL BOX WITH COVER	FLUSH MOUNT IN BALCONY VIDEO PROJECTOR ENCLOSURE	

SYMBOL	DESCRIPTION	BOX TYPE	MOUNTING LOCATION	ADDITIONAL NOTES
AV ELECTRICAL SYMBOLS (COORDINATION ONLY)		NOTE: I.G. = ISOLATED GROUND RECEPTACLE		
	DUPLEX AC RECEPTACLE	1-GANG METAL BOX	FLUSH MOUNT IN WALL AT RECEPTACLE HEIGHT	
	DOUBLE DUPLEX AC RECEPTACLE	2-GANG METAL BOX	FLUSH MOUNT IN WALL AT RECEPTACLE HEIGHT	
	HARDWIRED AC POWER	PROVIDE JUNCTION BOX AS REQUIRED	HARDWIRE TO AV DEVICE AS INDICATED	COORDINATE WITH AV DEVICE MANUFACTURERS SPECIFICATIONS
	CEILING MOUNTED DUPLEX AC RECEPTACLE	1-GANG METAL BOX	FLUSH MOUNT IN CEILING UNLESS OTHERWISE NOTED	
	CEILING MOUNTED DOUBLE DUPLEX AC RECEPTACLE	2-GANG METAL BOX	FLUSH MOUNT IN CEILING UNLESS OTHERWISE NOTED	
	CEILING MOUNTED HARDWIRED AC POWER	PROVIDE JUNCTION BOX AS REQUIRED	HARDWIRE TO AV DEVICE AS INDICATED	COORDINATE WITH AV DEVICE MANUFACTURERS SPECIFICATIONS
	FLOOR MOUNTED DUPLEX AC POWER	PROVIDE JUNCTION BOX AS REQUIRED	FLUSH MOUNT IN FLOOR BOX	
F1	AV FLOOR BOX DUPLEX AC RECEPTACLE	1 GANG FLOOR BOX INSERT	FLUSH MOUNT IN FLOOR BOX	COORDINATE WITH AV AND TELE/DATA
AV TEL/DATA SYMBOLS (COORDINATION ONLY)				
	DATA DROP	1-GANG METAL BOX	FLUSH MOUNT IN WALL AT RECEPTACLE HEIGHT	PROVIDE DROPS PER PROJECT STANDARD
	CEILING MOUNT ONE DATA DROP	1-GANG METAL BOX	FLUSH MOUNT IN CEILING	PROVIDE DROPS PER PROJECT STANDARD
	FLOOR BOX COMPONENT	1-GANG METAL BOX	FLUSH MOUNT IN FLOOR AS INDICATED	PROVIDE DROPS PER PROJECT STANDARD
F1	AV FLOOR BOX TELE/DATA OUTLET	1 GANG FLOOR BOX INSERT	FLUSH MOUNT IN FLOOR BOX	PROVIDE DROPS PER PROJECT STANDARD

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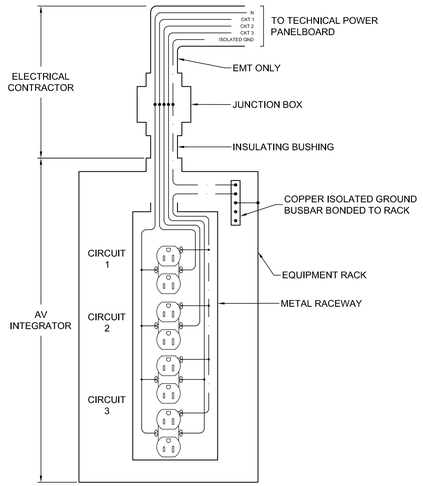
PROJECT NAME: STOW TOWN HALL RESTORATION

PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: AUDIOVISUAL-SYMBOLS AND LEGENDS

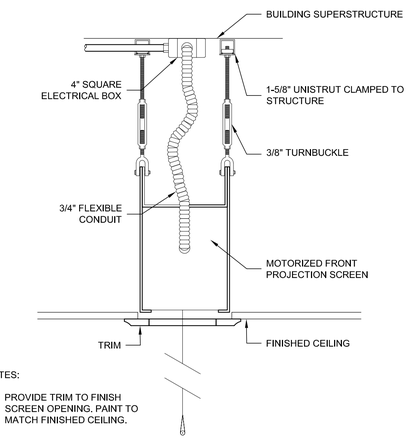
DATE: 15 OCT 2021

SHEET #: AV-00



1 RACK AC POWER OUTLET DETAIL

SCALE: N.T.S.

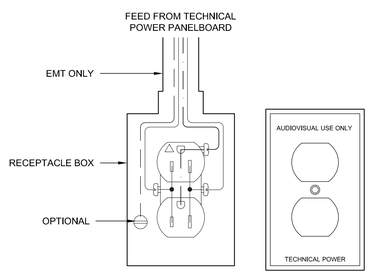


NOTES:

1. PROVIDE TRIM TO FINISH SCREEN OPENING. PAINT TO MATCH FINISHED CEILING.

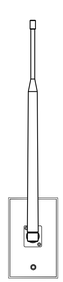
4 VIDEO PROJECTION SCREEN MOUNTING DETAIL

SCALE: N.T.S.



2 ISOLATED GROUND DETAIL

SCALE: N.T.S.

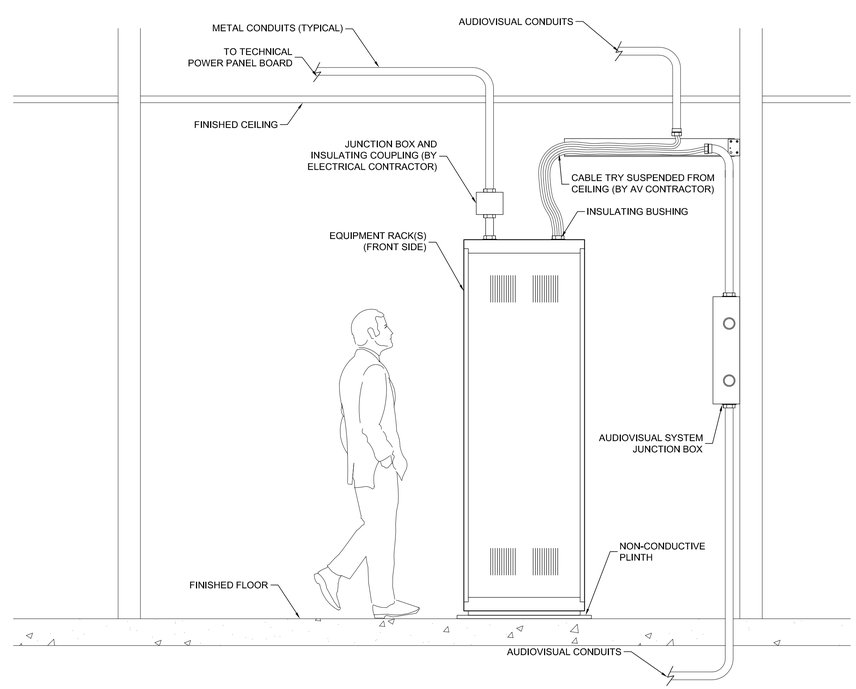


3 ANTENNA DETAIL - WIRELESS MICROPHONE & ASSISTIVE LISTENING

SCALE: N.T.S.

NOTES:

1. EQUIPMENT RACK(S) MUST BE INSULATED FROM ALL CONDUIT, RACEWAYS, AND BUILDING METAL. PROVIDE A COPPER METAL BUSBAR IN EACH EQUIPMENT RACK. BOND BUSBAR TO EQUIPMENT RACK AND INCOMING ISOLATED GROUND FROM TECHNICAL POWER PANEL BOARD.
2. PROVIDE INSULATING COUPLING, AS INDICATED ON AC POWER CONDUITS, FOR ANY CONDUITS FEEDING EQUIPMENT RACKS PER NEC 250.96(B).
3. CONDUIT MAY BE USED IN PLACE OF CABLE TRAY FOR ROUTING CABLES BETWEEN WALL MOUNTED JUNCTION BOX AND THE EQUIPMENT RACK.
4. PROVIDE INSULATING COUPLING TO PROTECT EXPOSED CABLES ENTERING RACK.
5. FASTEN EQUIPMENT RACKS TO PLINTH. FASTEN PLINTH TO FLOOR. MAINTAIN ELECTRICAL ISOLATION OF RACK FROM FLOOR, CABLE TRAY, AND ANY INCOMING CONDUITS.
6. AUDIOVISUAL CONTRACTOR PROVIDES JUNCTION BOX WITH EQUIPMENT RACKS FOR TERMINATING AC POWER CIRCUITS. AUDIOVISUAL CONTRACTOR TERMINATES RACK-MOUNT AC RECEPTACLES IN JUNCTION BOX. ELECTRICAL CONTRACTOR TERMINATES AC CIRCUITS IN JUNCTION BOX AND MAKES FINAL CONNECTIONS. AC POWER TO ENTER EQUIPMENT RACKS AT LOCATION THAT AC RECEPTACLES ARE MOUNTED WITHIN RACKS.
7. RACK TO BE LOCATED TO PROVIDE CLEARANCE AT FRONT, REAR AND AT LEAST ONE SIDE. REFER TO PLAN DRAWINGS FOR EXACT DIMENSIONS. PREFERRED MINIMUM IS 3'-0" CLEAR



5 AV EQUIPMENT RACK INSTALLATION DETAIL

SCALE: N.T.S.

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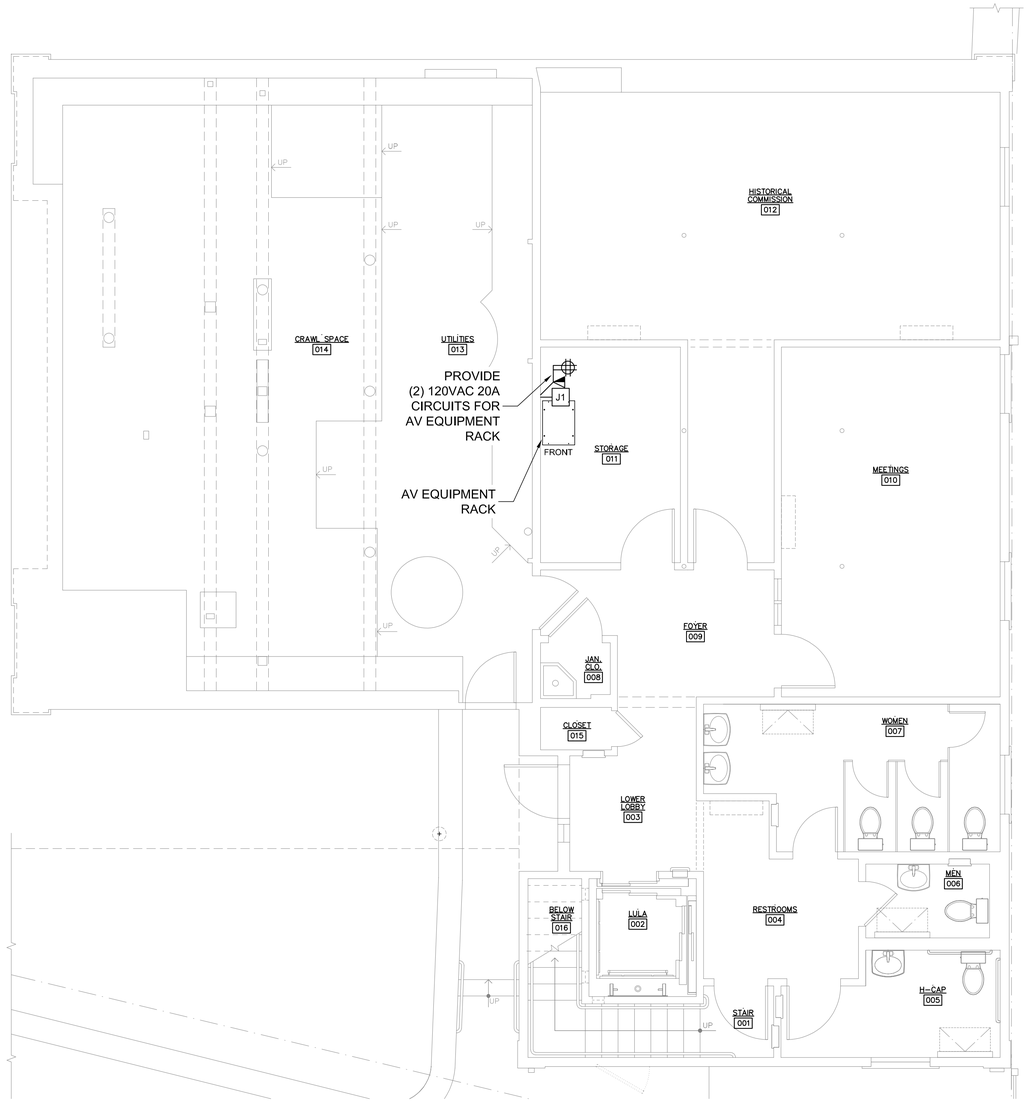
PROJECT NAME: STOW TOWN HALL RESTORATION

PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: AUDIOVISUAL INSTALLATION DETAILS

DATE: 15 OCT 2021

SHEET #: AV-01



1 AUDIOVISUAL-GROUND FLOOR PLAN

SCALE: 1/4" = 1'-0"

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ARCHITECTS
LLC

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PROJECT NAME: STOW TOWN HALL RESTORATION

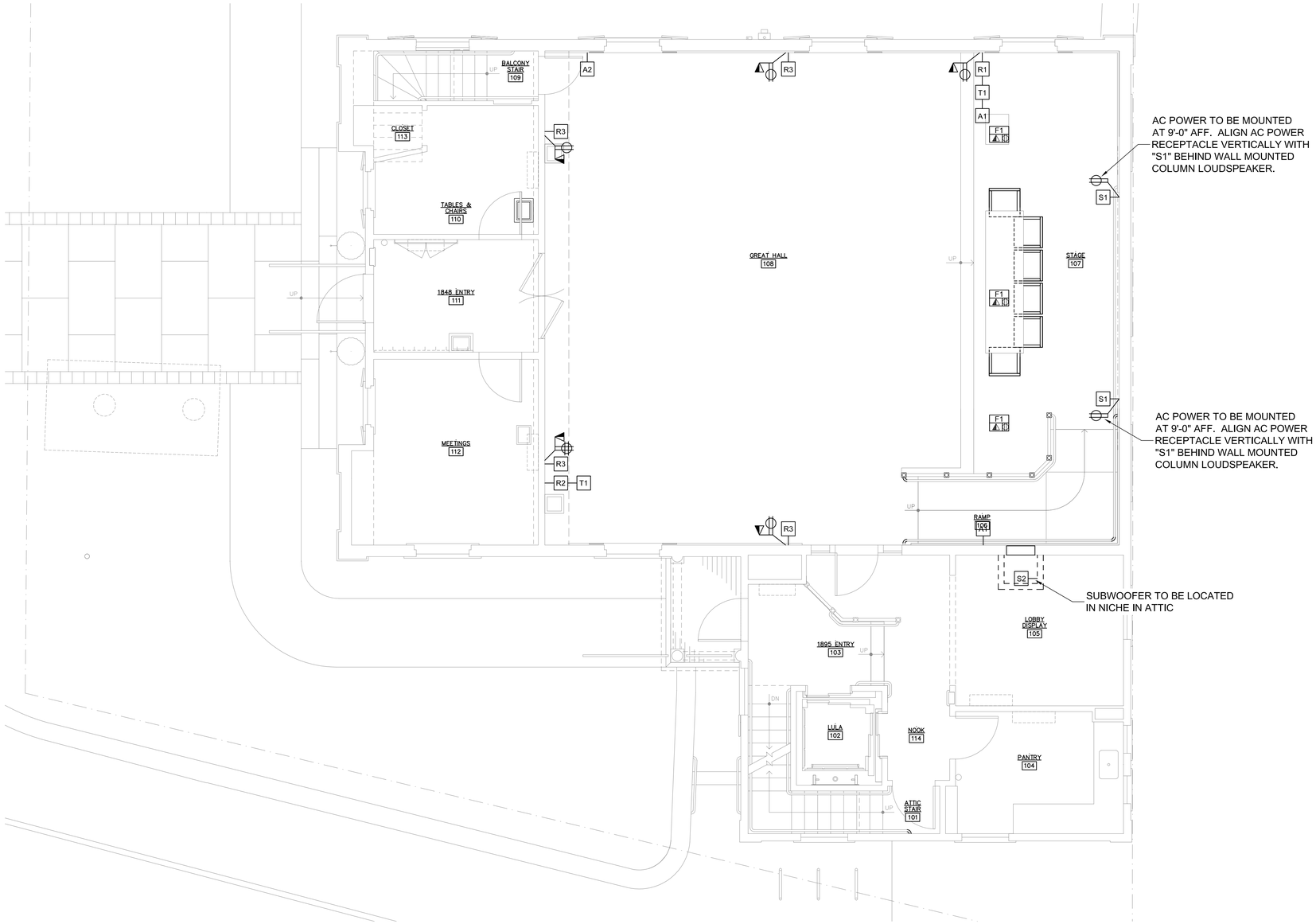
PROJECT ADDRESS: 375 GREAT ROAD
STOW MA 01775

DRAWING TITLE: AUDIOVISUAL-GROUND FLOOR PLAN

DATE: 15 OCT 2021

SHEET #:

AV-10.1



1 AUDIOVISUAL-FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

MILLS WHITAKER ARCHITECTS LLC

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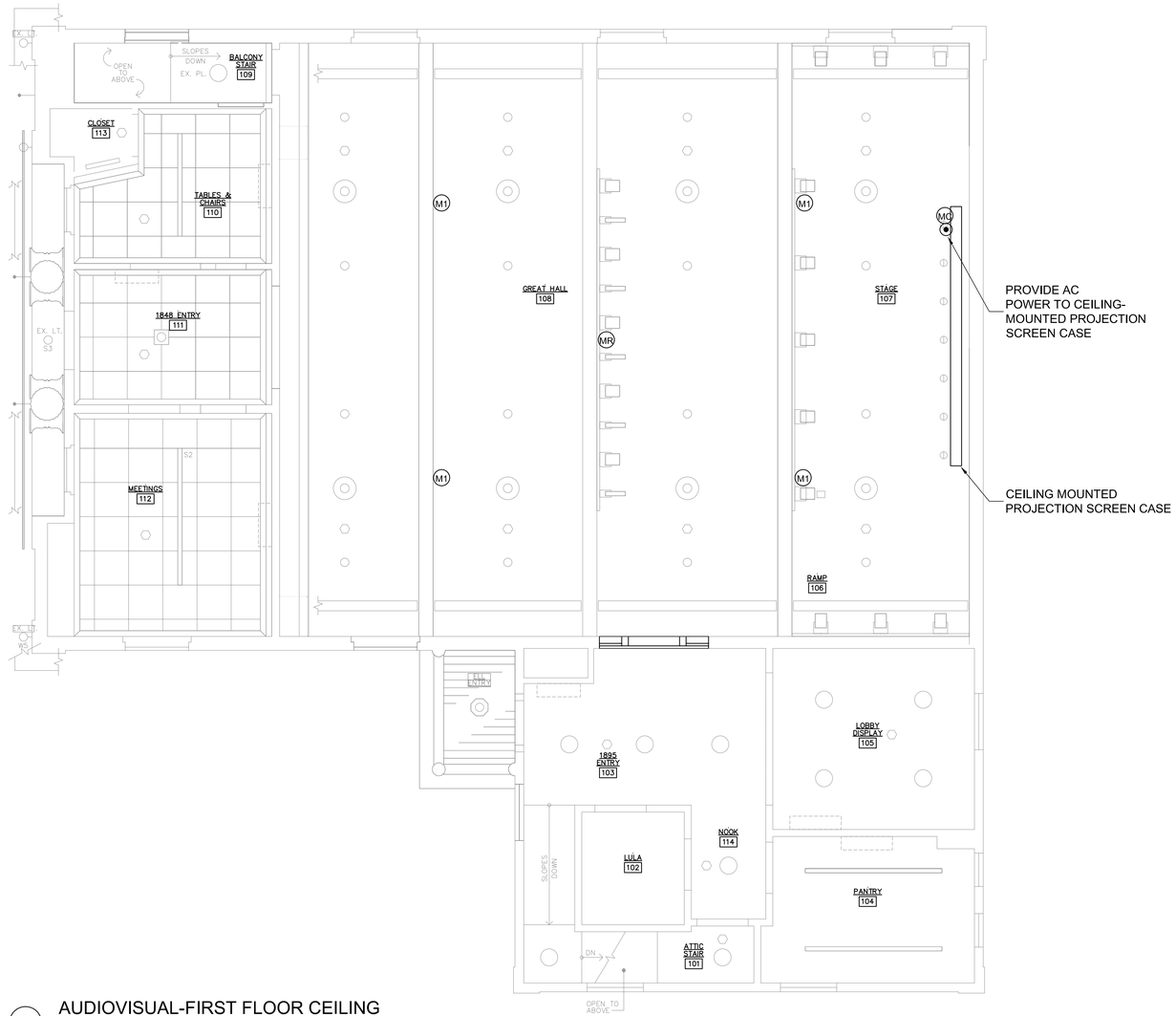
PROJECT ADDRESS: 375 GREAT ROAD
STOW MA 01775

DRAWING TITLE: AUDIOVISUAL-FIRST FLOOR PLAN

DATE: 15 OCT 2021

SHEET #:

AV-11.1



1 AUDIOVISUAL-FIRST FLOOR CEILING

SCALE: 1/4" = 1'-0"

MILLS WHITAKER ARCHITECTS LLC

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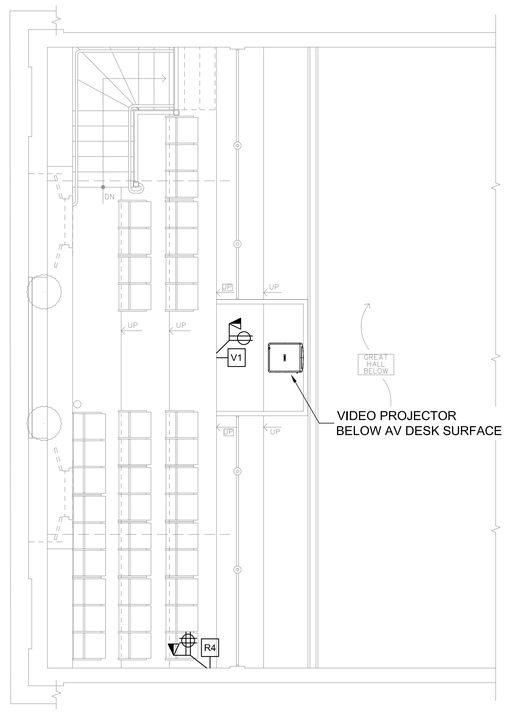
PROJECT ADDRESS: 375 GREAT ROAD
STOW MA 01775

DRAWING TITLE: AUDIOVISUAL-FIRST FLOOR CEILING

DATE: 15 OCT 2021

SHEET #:

AV-11.2



1 AUDIOVISUAL-BALCONY FLOOR PLAN

SCALE: 1/4" = 1'-0"

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LLC

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PROJECT NAME: STOW TOWN HALL RESTORATION

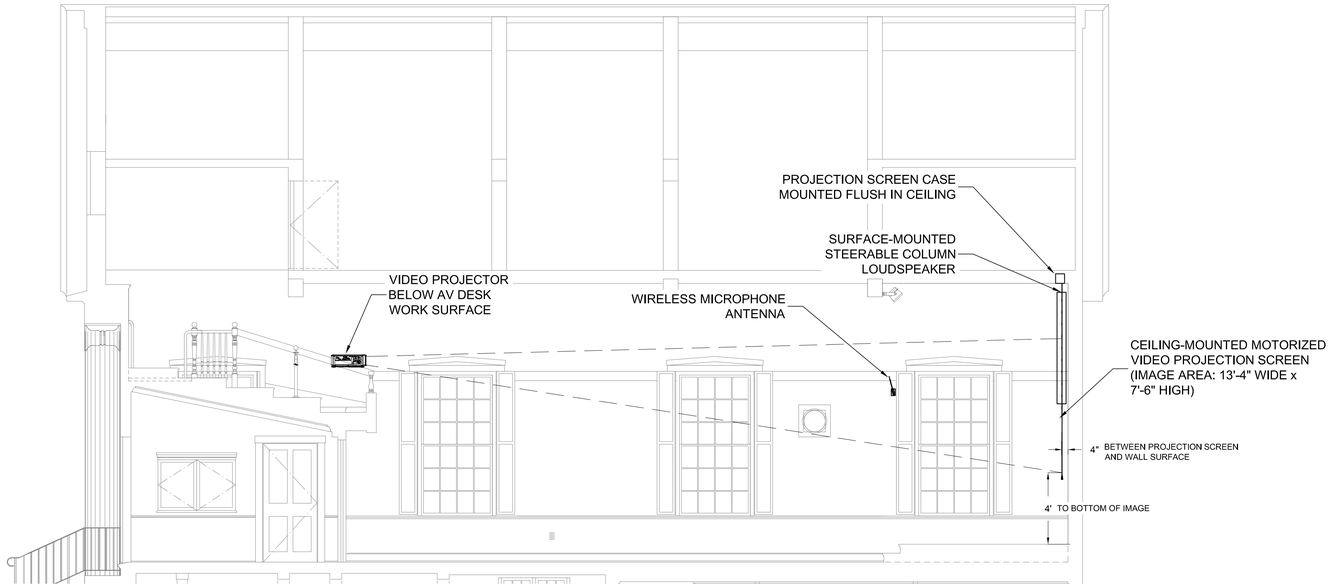
PROJECT ADDRESS: 375 GREAT ROAD
STOW MA 01775

DRAWING TITLE: AUDIOVISUAL-BALCONY FLOOR PLAN

DATE: 15 OCT 2021

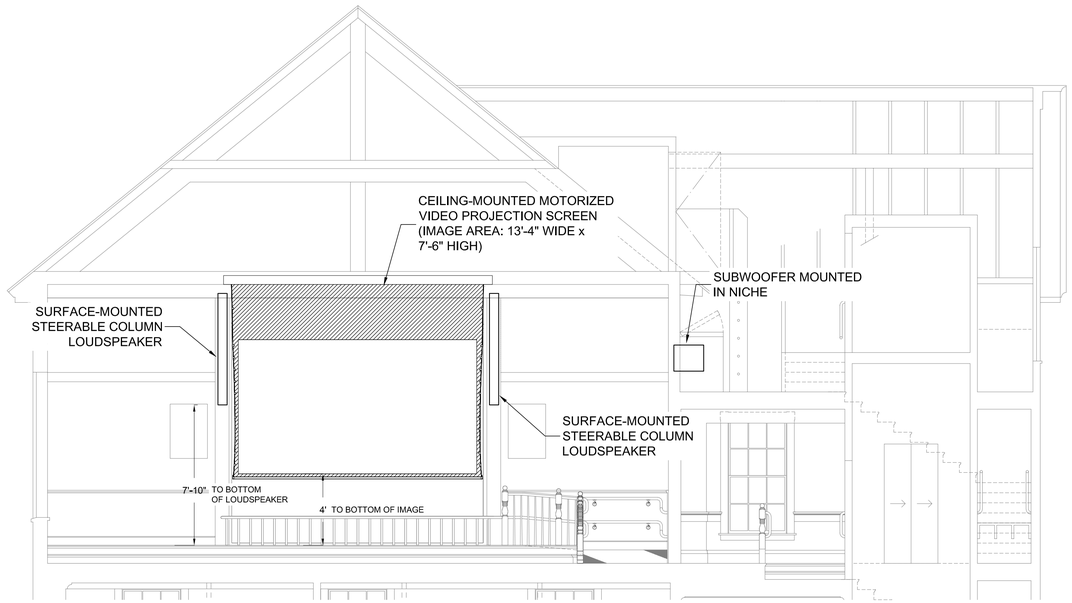
SHEET #:

AV-12.1



1 AUDIOVISUAL - LONGITUDINAL SECTION LOOKING NORTH

SCALE: 1/4" = 1'-0"



2 AUDIOVISUAL - CROSS SECTION LOOKING EAST

SCALE: 1/4" = 1'-0"

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PROJECT NAME: STOW TOWN HALL RESTORATION

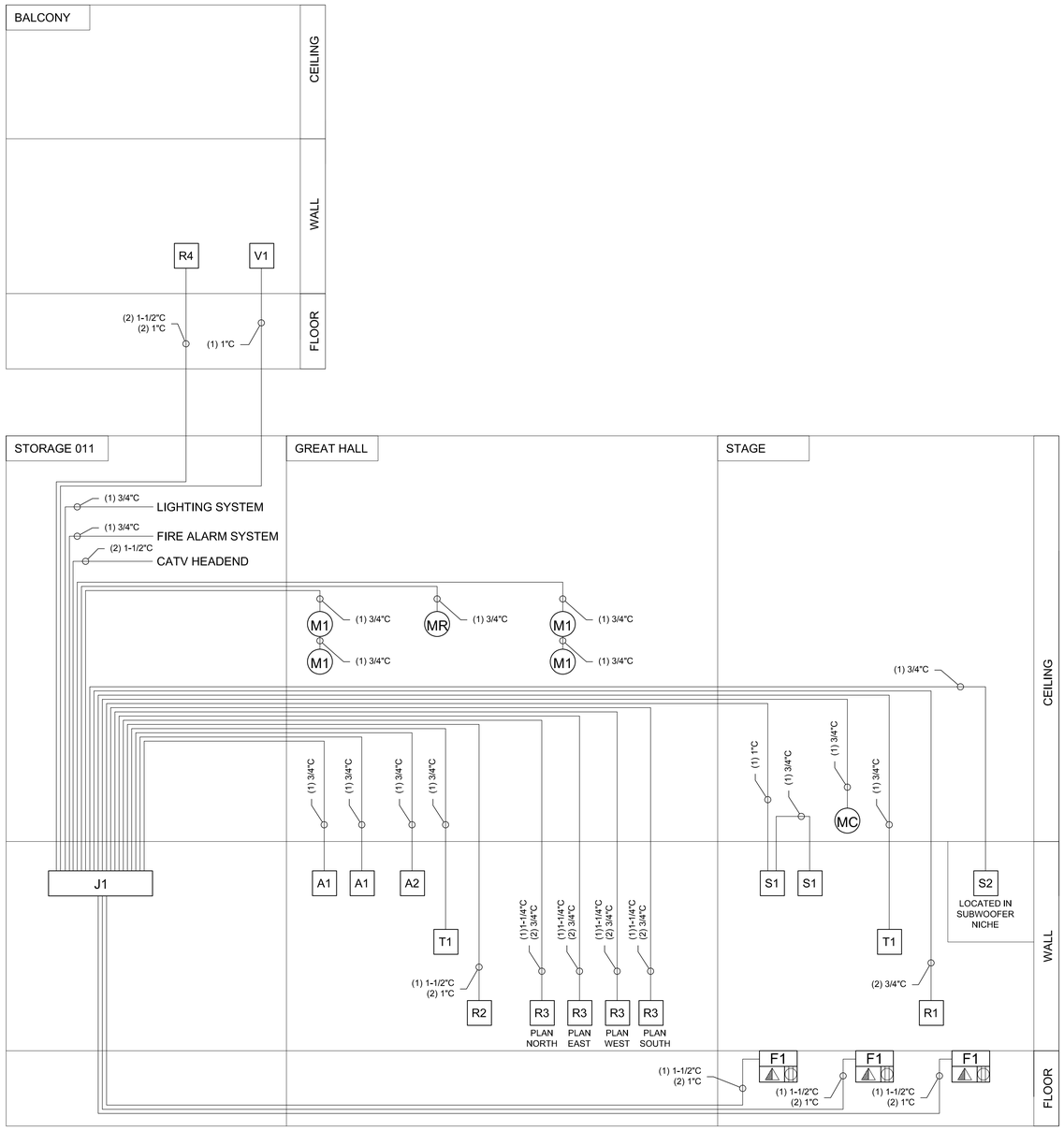
PROJECT ADDRESS: 375 GREAT ROAD
STOW MA 01775

DRAWING TITLE: AUDIOVISUAL-SECTIONS/ELEVATIONS

DATE: 15 OCT 2021

SHEET #:

AV-13



1 AUDIOVISUAL RISER DIAGRAM

SCALE: N.T.S.

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PROJECT NAME: STOW TOWN HALL RESTORATION

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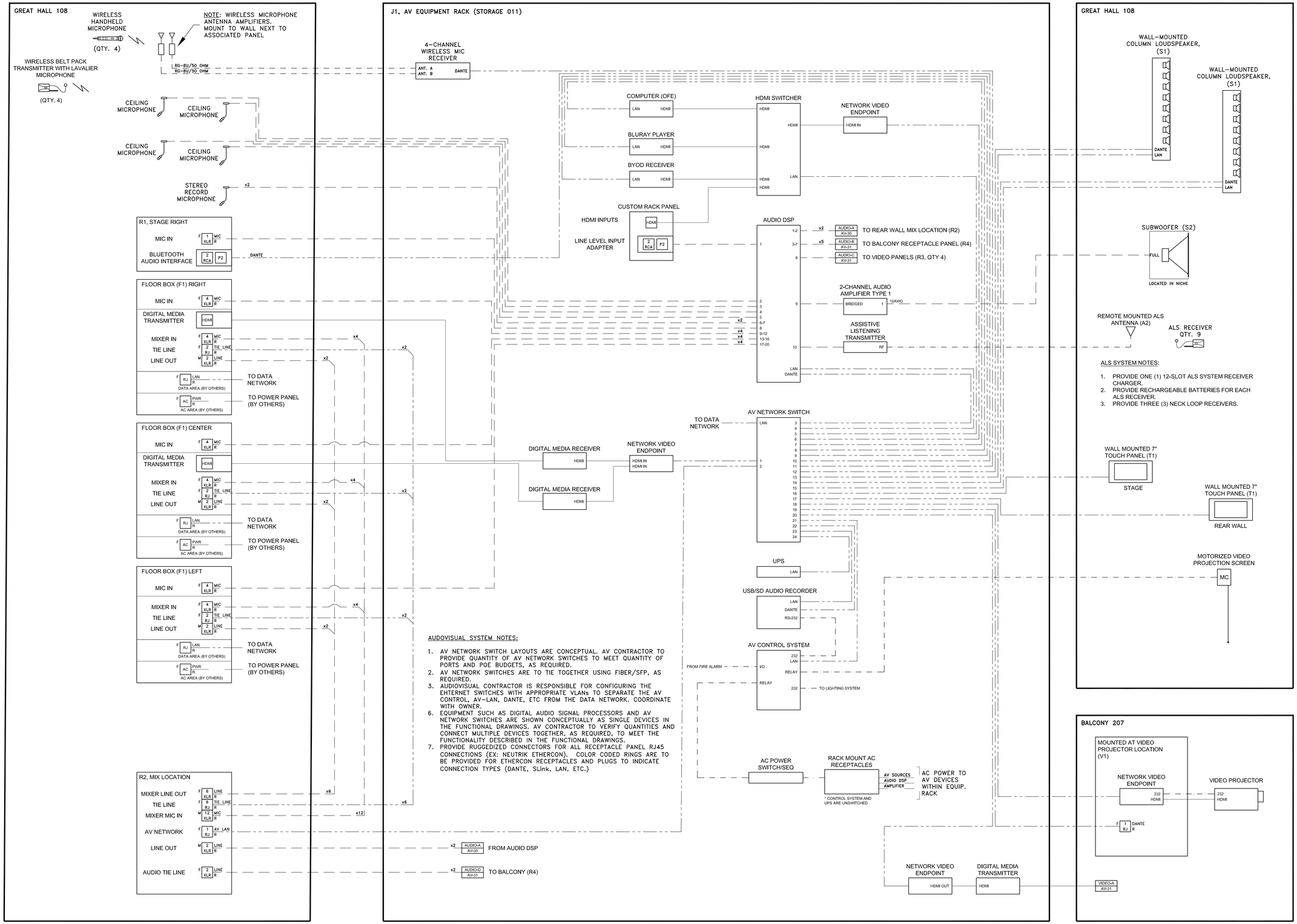
STOW MA 01775

DRAWING TITLE: AUDIOVISUAL-RISER DIAGRAM

DATE: 15 OCT 2021

SHEET #:

AV-20



AUDOVISUAL SYSTEM NOTES:

1. AV NETWORK SWITCH LAYOUTS ARE CONCEPTUAL. AV CONTRACTOR TO PROVIDE QUANTITY OF AV NETWORK SWITCHES TO MEET QUANTITY OF PORTS AND POE BUDGETS, AS REQUIRED.
2. AV NETWORK SWITCHES ARE TO TIE TOGETHER USING FIBER/SFP, AS REQUIRED.
3. AUDIOVISUAL CONTRACTOR IS RESPONSIBLE FOR CONFIGURING THE EHTERNET SWITCHES WITH APPROPRIATE VLANs TO SEPARATE THE AV CONTROL, AV-LAN, DANTE, ETC FROM THE DATA NETWORK. COORDINATE WITH OWNER.
6. EQUIPMENT SUCH AS DIGITAL AUDIO SIGNAL PROCESSORS AND AV NETWORK SWITCHES ARE SHOWN CONCEPTUALLY AS SINGLE DEVICES IN THE FUNCTIONAL DRAWINGS. AV CONTRACTOR TO VERIFY QUANTITIES AND CONNECT MULTIPLE DEVICES TOGETHER, AS REQUIRED, TO MEET THE FUNCTIONALITY DESCRIBED IN THE FUNCTIONAL DRAWINGS.
7. PROVIDE RUGGEDIZED CONNECTORS FOR ALL RECEPTACLE PANEL RJ45 CONNECTIONS (EX: NEUTRIK ETHERCON). COLOR CODED RINGS ARE TO BE PROVIDED FOR ETHERCON RECEPTACLES AND PLUGS TO INDICATE CONNECTION TYPES (DANTE, SLink, LAN, ETC.)

ALS SYSTEM NOTES:

1. PROVIDE ONE (1) 12-SLOT ALS SYSTEM RECEIVER CHARGER.
2. PROVIDE RECHARGEABLE BATTERIES FOR EACH ALS RECEIVER.
3. PROVIDE THREE (3) NECK LOOP RECEIVERS.

1 GREAT HALL AV FUNCTIONAL DIAGRAM

SCALE: N.T.S.

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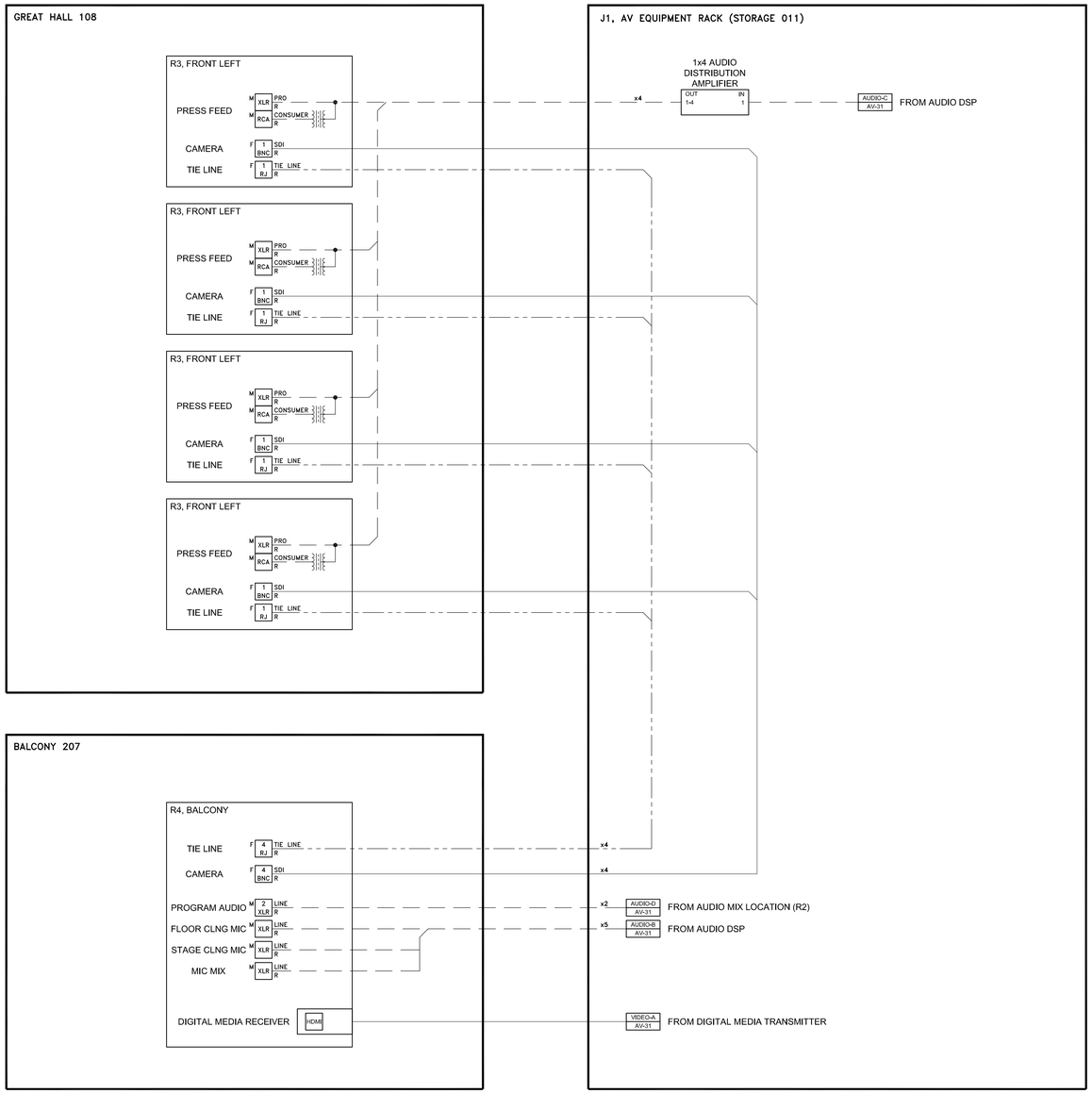
PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: AUDIOVISUAL-FUNCTIONAL DIAGRAM I

DATE: 15 OCT 2021

SHEET #: AV-30



1 VIDEO PRODUCTION - FUNCTIONAL DIAGRAM

SCALE: N.T.S.

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PROJECT NAME: STOW TOWN HALL RESTORATION

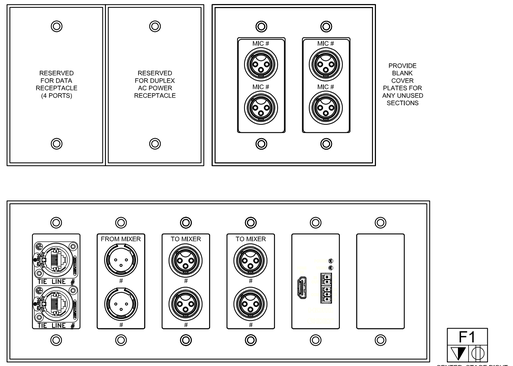
PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: AUDIOVISUAL-FUNCTIONAL DIAGRAM II

DATE: 15 OCT 2021

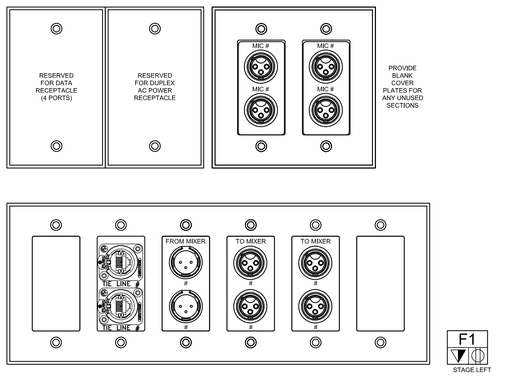
SHEET #:

AV-31



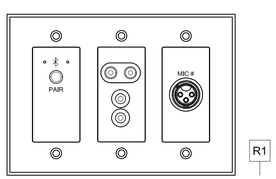
1 FLOOR BOX F1 - CENTER, STAGE RIGHT

SCALE: N.T.S.



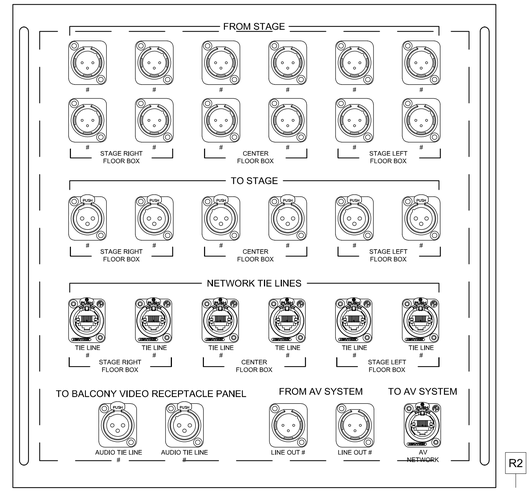
2 FLOOR BOX F1 - STAGE LEFT

SCALE: N.T.S.



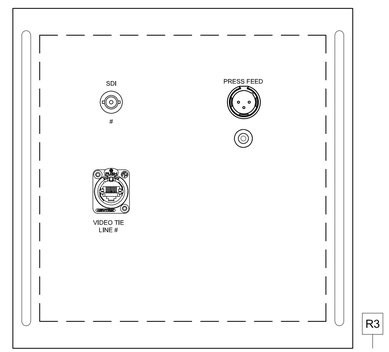
3 RECEPTACLE PANEL R1

SCALE: N.T.S.



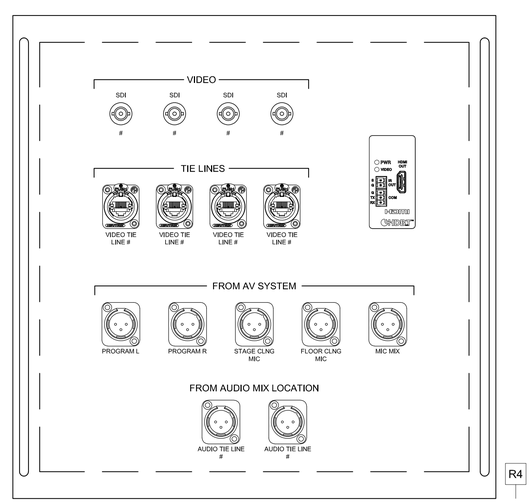
4 RECEPTACLE PANEL R2 - AUDIO MIX LOCATION

SCALE: N.T.S.



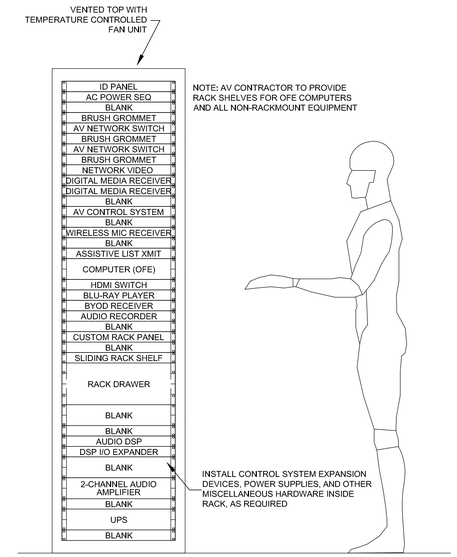
5 RECEPTACLE PANEL R3 - CAMERA LOCATION, TYPICAL OF 4

SCALE: N.T.S.



6 RECEPTACLE PANEL R4 - BALCONY

SCALE: N.T.S.



7 AV EQUIPMENT RACK LAYOUT

SCALE: N.T.S.

7 AV EQUIPMENT RACK ID PANEL

SCALE: N.T.S.

7 CUSTOM RACK PANEL

SCALE: N.T.S.

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PROJECT NAME: STOW TOWN HALL RESTORATION

PROJECT ADDRESS: 375 GREAT ROAD STOW MA 01775

DRAWING TITLE: AUDIOVISUAL-PLATE DETAILS & RACK LAYOUT

DATE: 15 OCT 2021

SHEET #:

AV-40