

1 Site Contractor Staging Plan
 1" = 50'
 SCALE: 1" = 50'

Legend	
	NUMBER OF ADJACENT PARKING STALLS
	BRUSH / VEGETATION LIMITS

General Site Notes

1. REFER TO DRAWING AC100 FOR GENERAL SITE NOTES THAT APPLY TO ALL AC-SERIES DRAWINGS.

S.E.D. Control No. 66-04-03-03-004-018

1	03/31/21	New Drawing
Rev. No.:	Date:	Description:



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Tetra Tech Engineers, Architects & Landscape Architects, P.C.

BID SET

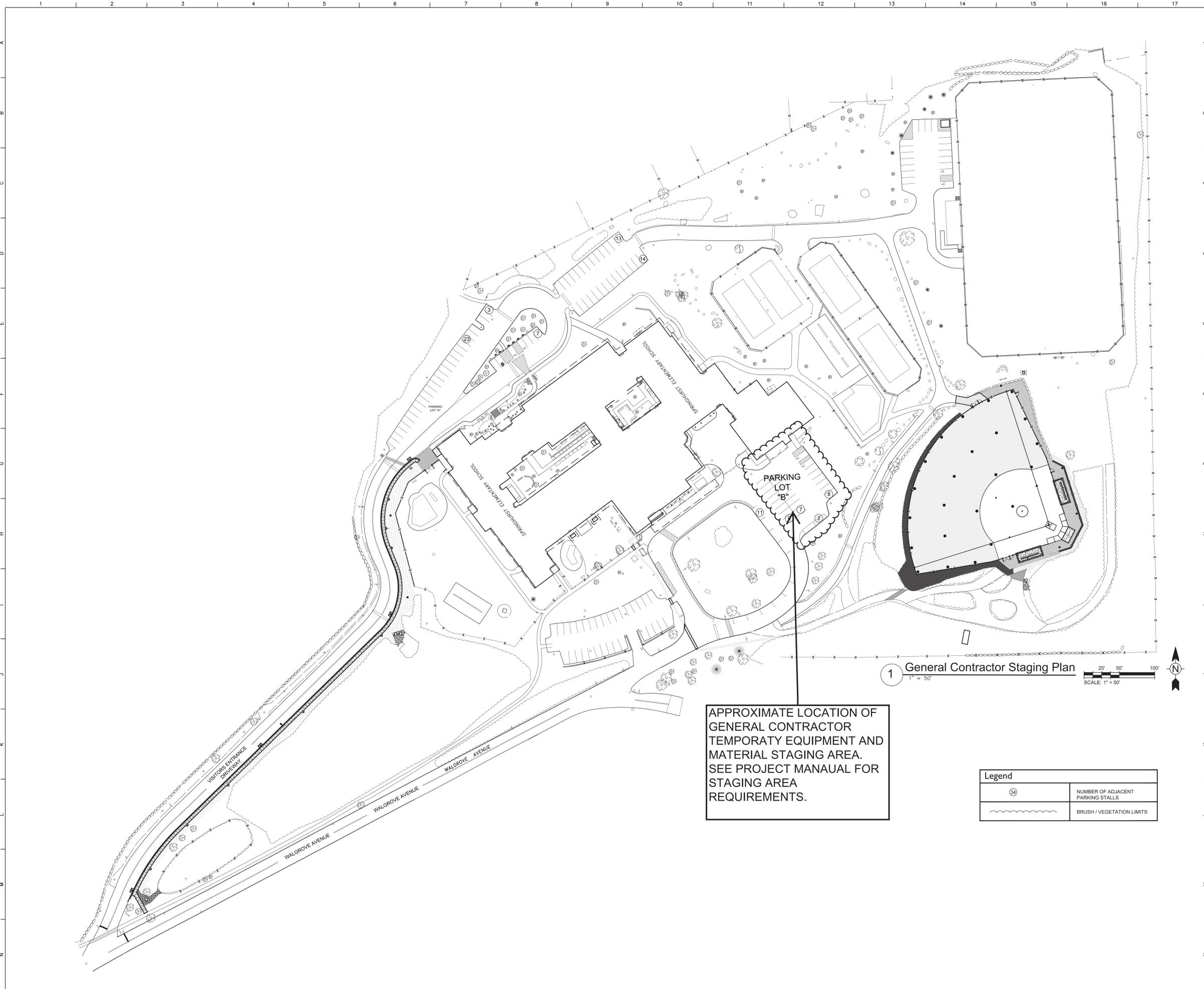


Dobbs Ferry Union Free School District
 Dobbs Ferry, New York

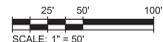
Reconstruction To:
 Springhurst Elementary School

SC Staging Plan

Drawn by: TWF	Date: 07/02/20	Drawing No.:
Project No.:	AG200	
234903-20001		



1 General Contractor Staging Plan
 1" = 50'



APPROXIMATE LOCATION OF
 GENERAL CONTRACTOR
 TEMPORARY EQUIPMENT AND
 MATERIAL STAGING AREA.
 SEE PROJECT MANUAL FOR
 STAGING AREA
 REQUIREMENTS.

Legend	
	NUMBER OF ADJACENT PARKING STALLS
	BRUSH / VEGETATION LIMITS

General Site Notes

1. REFER TO DRAWING AC100 FOR GENERAL SITE NOTES THAT APPLY TO ALL AC-SERIES DRAWINGS.

S.E.D. Control No. 66-04-03-03-004-018

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1	03/31/21	New Drawing



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BID SET

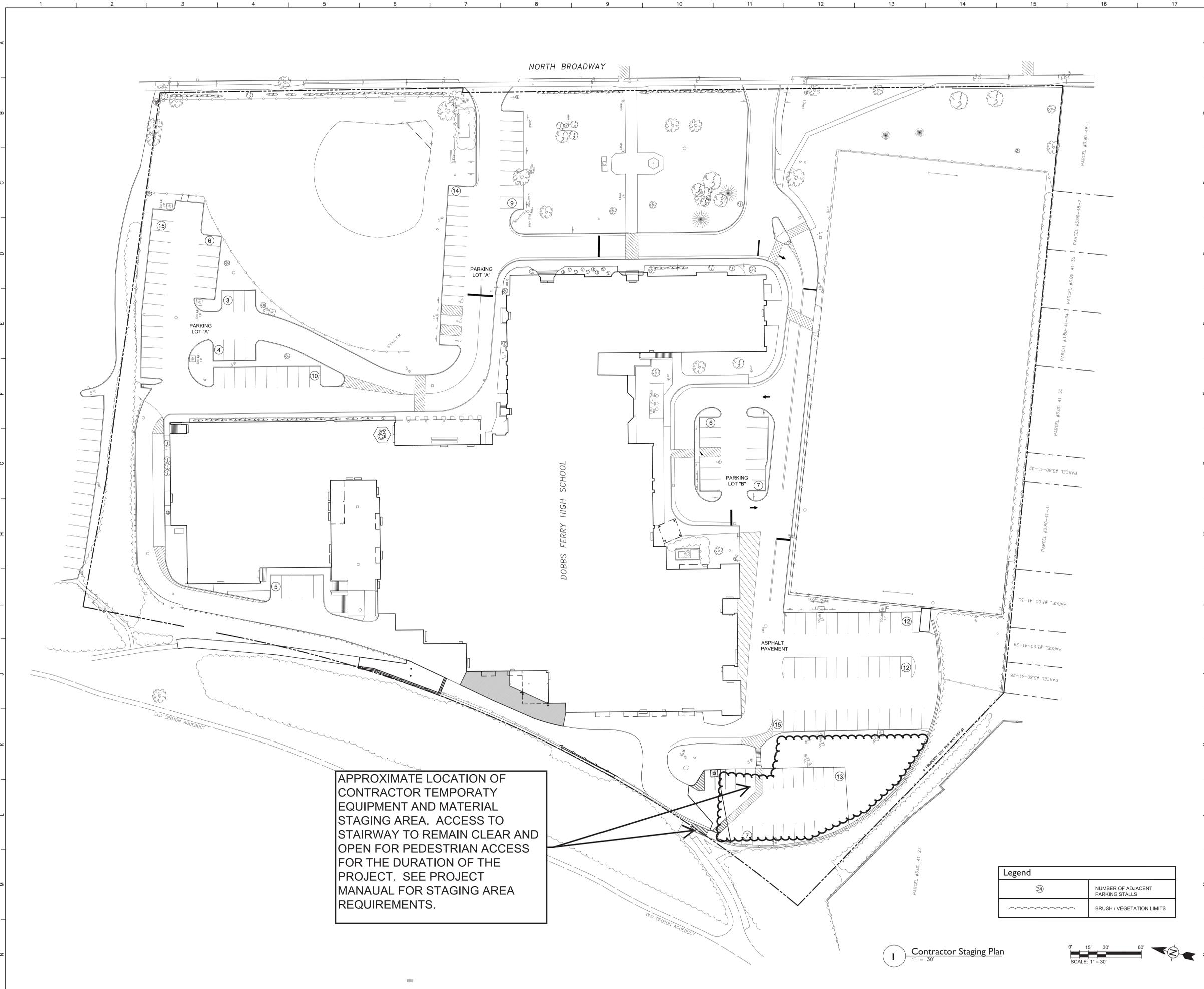


Dobbs Ferry Union Free School District
 Dobbs Ferry, New York

Reconstruction To:
 Springhurst Elementary School

GC Staging Plan

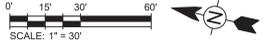
Drawn by: TWF	Date: 07/02/20	Drawing No.:
Project No.:		AG201
234903-20001		



APPROXIMATE LOCATION OF CONTRACTOR TEMPORARY EQUIPMENT AND MATERIAL STAGING AREA. ACCESS TO STAIRWAY TO REMAIN CLEAR AND OPEN FOR PEDESTRIAN ACCESS FOR THE DURATION OF THE PROJECT. SEE PROJECT MANUAL FOR STAGING AREA REQUIREMENTS.

Legend	
(34)	NUMBER OF ADJACENT PARKING STALLS
~~~~~	BRUSH / VEGETATION LIMITS

1 Contractor Staging Plan  
1" = 30'



**General Site Notes**

1. REFER TO DRAWING BC100 FOR GENERAL SITE NOTES THAT APPLY TO ALL BC-SERIES DRAWINGS.

S.E.D. Control No. 66-04-03-03-0-001-019

1	03/31/21	New Drawing
Rev. No.:	Date:	Description:



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**BID SET**

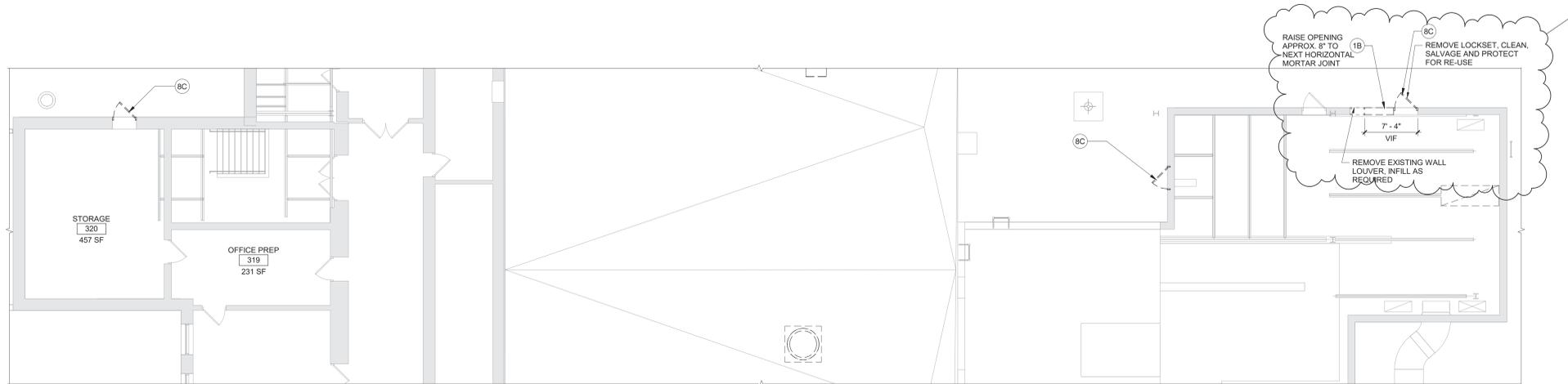


Dobbs Ferry Union Free School District  
Dobbs Ferry, New York

Reconstruction To:  
Middle High School

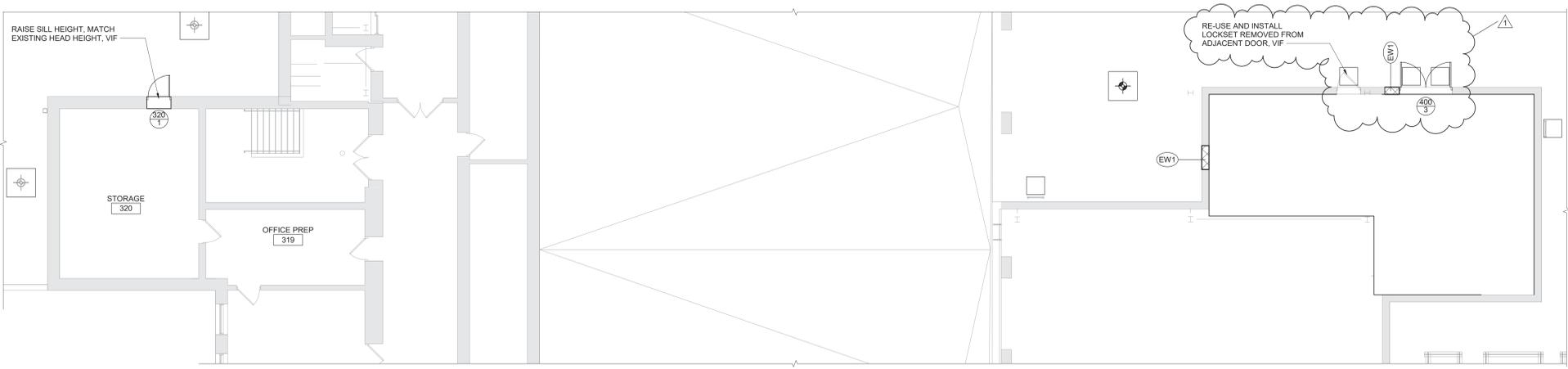
Contractor Staging Plan

Drawn by: TWF	Date: 07/02/20	Drawing No.:
Project No.:	234903-20001	
		<b>BG200</b>



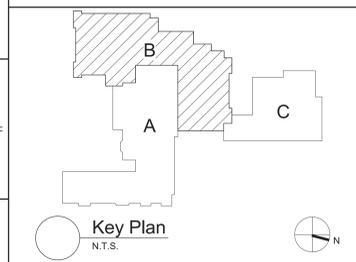
THIS DRAWING PARTIALLY  
SUPERSEDES 4/BA100

1 Partial Third Floor Demolition Plan  
1/8" = 1'-0"



THIS DRAWING PARTIALLY  
SUPERSEDES 5/BA130

2 Partial Third Floor Plan  
1/8" = 1'-0"



S.E.D. Control No. 66-04-03-03-0-001-019

Rev. No.	Date	Description
1	03/30/21	BID ADDENDUM NO 1



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**BID SET**

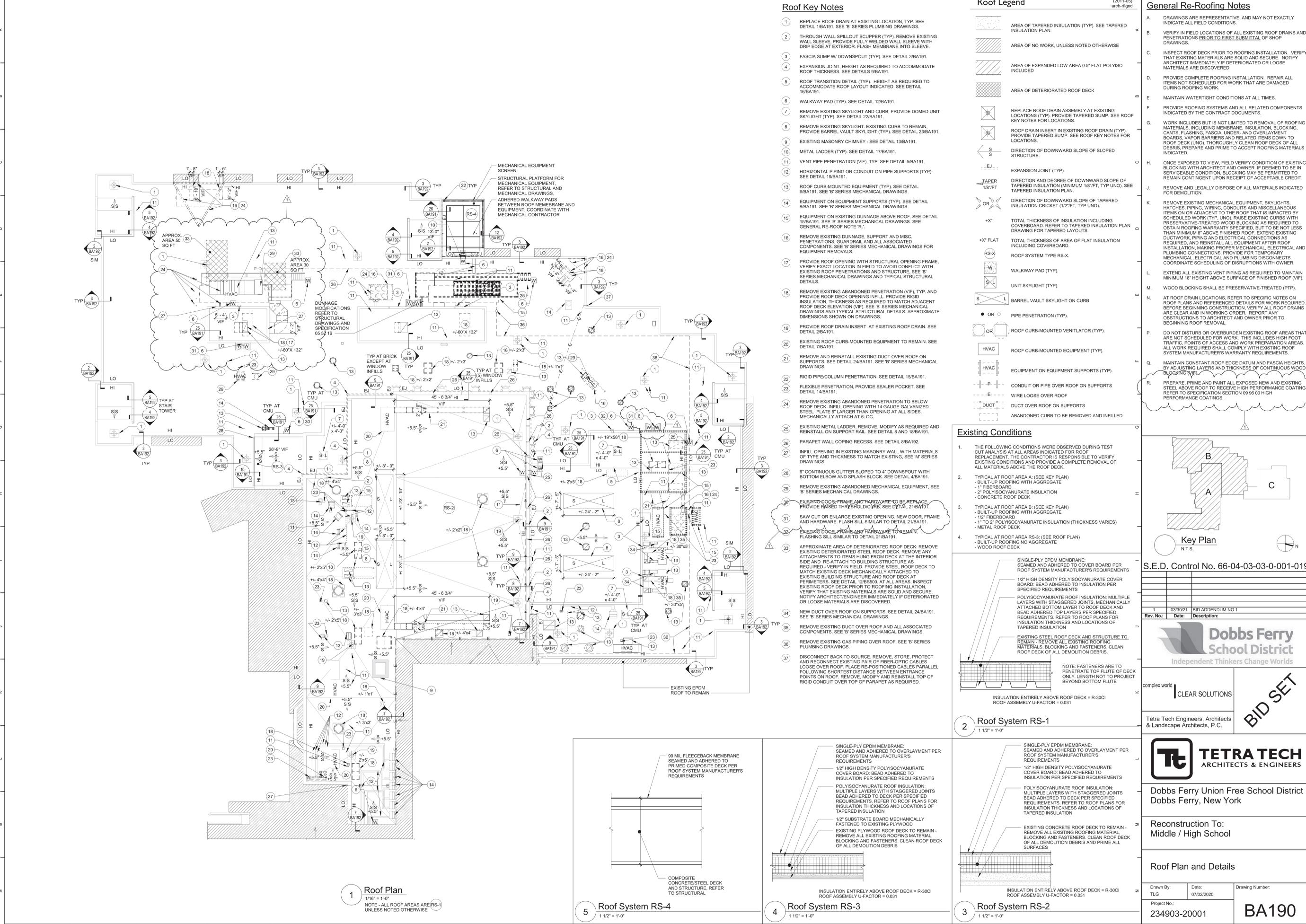


Dobbs Ferry Union Free School District  
Dobbs Ferry, New York

Reconstruction To:  
Middle / High School

Partial Third Floor Demolition and Floor Plans

Drawn By: Author	Date: 07/02/2020	Drawing Number:
Project No.:	234903-20001	
		<b>BA02B</b>



**Roof Key Notes**

- 1 REPLACE ROOF DRAIN AT EXISTING LOCATION. TYP. SEE DETAIL 1/BA191. SEE 'B' SERIES PLUMBING DRAWINGS.
- 2 THROUGH WALL SPILLOUT SCUPPER (TYP). REMOVE EXISTING WALL SLEEVE. PROVIDE FULLY WELDED WALL SLEEVE WITH DRIP EDGE AT EXTERIOR. FLASH MEMBRANE INTO SLEEVE.
- 3 FASCIA SUMP W/ DOWNSPOUT (TYP). SEE DETAIL 3/BA191.
- 4 EXPANSION JOINT. HEIGHT AS REQUIRED TO ACCOMMODATE ROOF THICKNESS. SEE DETAILS 9/BA191.
- 5 ROOF TRANSITION DETAIL (TYP). HEIGHT AS REQUIRED TO ACCOMMODATE ROOF LAYOUT INDICATED. SEE DETAIL 16/BA191.
- 6 WALKWAY PAD (TYP). SEE DETAIL 12/BA191.
- 7 REMOVE EXISTING SKYLIGHT AND CURB. PROVIDE DOMED UNIT SKYLIGHT (TYP). SEE DETAIL 22/BA191.
- 8 REMOVE EXISTING SKYLIGHT. EXISTING CURB TO REMAIN. PROVIDE BARREL VAULT SKYLIGHT (TYP). SEE DETAIL 23/BA191.
- 9 EXISTING MASONRY CHIMNEY - SEE DETAIL 13/BA191.
- 10 METAL LADDER (TYP). SEE DETAIL 17/BA191.
- 11 VENT PIPE PENETRATION (VIF). TYP. SEE DETAIL 5/BA191.
- 12 HORIZONTAL PIPING OR CONDUIT ON PIPE SUPPORTS (TYP). SEE DETAIL 19/BA191.
- 13 ROOF CURB-MOUNTED EQUIPMENT (TYP). SEE DETAIL 6/BA191. SEE 'B' SERIES MECHANICAL DRAWINGS.
- 14 EQUIPMENT ON EQUIPMENT SUPPORTS (TYP). SEE DETAIL 8/BA191. SEE 'B' SERIES MECHANICAL DRAWINGS.
- 15 REMOVE EXISTING DUNNAGE ABOVE ROOF. SEE DETAIL 15/BA191. SEE 'B' SERIES MECHANICAL DRAWINGS. SEE GENERAL RE-ROOF NOTE 'R'.
- 16 REMOVE EXISTING DUNNAGE, SUPPORT AND MISC. PENETRATIONS, GUARDRAIL AND ALL ASSOCIATED COMPONENTS. SEE 'B' SERIES MECHANICAL DRAWINGS FOR EQUIPMENT REMOVALS.
- 17 PROVIDE ROOF OPENING WITH STRUCTURAL OPENING FRAME. VERIFY EXACT LOCATION IN FIELD TO AVOID CONFLICT WITH EXISTING ROOF PENETRATIONS AND STRUCTURE. SEE 'B' SERIES MECHANICAL DRAWINGS AND TYPICAL STRUCTURAL DETAILS. APPROXIMATE DIMENSIONS SHOWN ON DRAWINGS.
- 18 REMOVE EXISTING ABANDONED PENETRATION (VIF). TYP. AND PROVIDE ROOF DECK OPENING INFILL. PROVIDE RIGID INSULATION, THICKNESS AS REQUIRED TO MATCH ADJACENT ROOF DECK ELEVATION (VIF). SEE 'B' SERIES MECHANICAL DRAWINGS AND TYPICAL STRUCTURAL DETAILS. APPROXIMATE DIMENSIONS SHOWN ON DRAWINGS.
- 19 PROVIDE ROOF DRAIN INSERT AT EXISTING ROOF DRAIN. SEE DETAIL 2/BA191.
- 20 EXISTING ROOF CURB-MOUNTED EQUIPMENT TO REMAIN. SEE DETAIL 7/BA191.
- 21 REMOVE AND REINSTALL EXISTING DUCT OVER ROOF ON SUPPORTS. SEE DETAIL 24/BA191. SEE 'B' SERIES MECHANICAL DRAWINGS.
- 22 RIGID PIPE/COLUMN PENETRATION. SEE DETAIL 15/BA191.
- 23 FLEXIBLE PENETRATION. PROVIDE SEALER POCKET. SEE DETAIL 14/BA191.
- 24 REMOVE EXISTING ABANDONED PENETRATION TO BELOW ROOF DECK. INFILL OPENING WITH 14 GAUGE GALVANIZED STEEL PLATE 8" LARGER THAN OPENING AT ALL SIDES. MECHANICALLY ATTACH AT 6" OC.
- 25 EXISTING METAL LADDER. REMOVE. MODIFY AS REQUIRED AND REINSTALL ON SUPPORT RAIL. SEE DETAIL 8 AND 18/BA191.
- 26 PARAPET WALL COPING RECESS. SEE DETAIL 8/BA191.
- 27 INFILL OPENING IN EXISTING MASONRY WALL WITH MATERIALS OF TYPE AND THICKNESS TO MATCH EXISTING. SEE 'M' SERIES DRAWINGS.
- 28 6" CONTINUOUS GUTTER SLOPED TO 4" DOWNSPOUT WITH BOTTOM ELBOW AND SPLASH BLOCK. SEE DETAIL 4/BA191.
- 29 REMOVE EXISTING ABANDONED MECHANICAL EQUIPMENT. SEE 'B' SERIES MECHANICAL DRAWINGS.
- 30 EXISTING DOOR FRAME AND HARDWARE TO BE REPLACED. PROVIDE RAISED THRESHOLD COPING. SEE DETAIL 21/BA191.
- 31 SAW CUT OR ENLARGE EXISTING OPENING. NEW DOOR FRAME AND HARDWARE. FLASH SILL SIMILAR TO DETAIL 21/BA191.
- 32 EXISTING DOOR FRAME AND HARDWARE TO REMAIN. FLASHING SILL SIMILAR TO DETAIL 21/BA191.
- 33 APPROXIMATE AREA OF DETERIORATED ROOF DECK. REMOVE EXISTING DETERIORATED STEEL ROOF DECK. REMOVE ANY ATTACHMENTS TO ITEMS HUNG FROM DECK AT THE INTERIOR SIDE AND RE-ATTACH TO BUILDING STRUCTURE AS REQUIRED - VERIFY IN FIELD. PROVIDE STEEL ROOF DECK TO MATCH EXISTING DECK MECHANICALLY ATTACHED TO EXISTING BUILDING STRUCTURE AND ROOF DECK AT PERIMETERS. SEE DETAIL 12/BS500. AT ALL AREAS, INSPECT EXISTING ROOF DECK PRIOR TO ROOFING INSTALLATION. VERIFY THAT EXISTING MATERIALS ARE SOLID AND SECURE. NOTIFY ARCHITECT/ENGINEER IMMEDIATELY IF DETERIORATED OR LOOSE MATERIALS ARE DISCOVERED.
- 34 NEW DUCT OVER ROOF ON SUPPORTS. SEE DETAIL 24/BA191. SEE 'B' SERIES MECHANICAL DRAWINGS.
- 35 REMOVE EXISTING DUCT OVER ROOF AND ALL ASSOCIATED COMPONENTS. SEE 'B' SERIES MECHANICAL DRAWINGS.
- 36 REMOVE EXISTING GAS PIPING OVER ROOF. SEE 'B' SERIES PLUMBING DRAWINGS.
- 37 DISCONNECT BACK TO SOURCE. REMOVE, STORE, PROTECT AND RECONNECT EXISTING PAIR OF FIBER-OPTIC CABLES LOOSE OVER ROOF. PLACE RE-POSITIONED CABLES PARALLEL FOLLOWING SHORTEST DISTANCE BETWEEN ENTRANCE POINTS ON ROOF. REMOVE, MODIFY AND REINSTALL TOP OF RIGID CONDUIT OVER TOP OF PARAPET AS REQUIRED.

**Roof Legend**

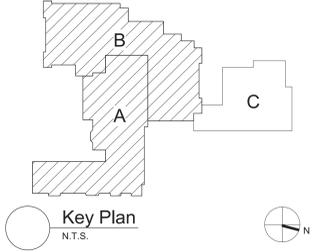
- AREA OF TAPERED INSULATION (TYP). SEE TAPERED INSULATION PLAN.
- AREA OF NO WORK, UNLESS NOTED OTHERWISE
- AREA OF EXPANDED LOW AREA 0.5" FLAT POLYISO INCLUDED
- AREA OF DETERIORATED ROOF DECK
- REPLACE ROOF DRAIN ASSEMBLY AT EXISTING LOCATIONS (TYP). PROVIDE TAPERED SUMP. SEE ROOF KEY NOTES FOR LOCATIONS.
- ROOF DRAIN INSERT IN EXISTING ROOF DRAIN (TYP). PROVIDE TAPERED SUMP. SEE ROOF KEY NOTES FOR LOCATIONS.
- METAL LADDER (TYP).
- VENT PIPE PENETRATION (VIF). TYP. SEE DETAIL 5/BA191.
- HORIZONTAL PIPING OR CONDUIT ON PIPE SUPPORTS (TYP). SEE DETAIL 19/BA191.
- ROOF CURB-MOUNTED EQUIPMENT (TYP). SEE DETAIL 6/BA191. SEE 'B' SERIES MECHANICAL DRAWINGS.
- EQUIPMENT ON EQUIPMENT SUPPORTS (TYP). SEE DETAIL 8/BA191. SEE 'B' SERIES MECHANICAL DRAWINGS.
- REMOVE EXISTING DUNNAGE, SUPPORT AND MISC. PENETRATIONS, GUARDRAIL AND ALL ASSOCIATED COMPONENTS. SEE 'B' SERIES MECHANICAL DRAWINGS FOR EQUIPMENT REMOVALS.
- PROVIDE ROOF OPENING WITH STRUCTURAL OPENING FRAME. VERIFY EXACT LOCATION IN FIELD TO AVOID CONFLICT WITH EXISTING ROOF PENETRATIONS AND STRUCTURE. SEE 'B' SERIES MECHANICAL DRAWINGS AND TYPICAL STRUCTURAL DETAILS. APPROXIMATE DIMENSIONS SHOWN ON DRAWINGS.
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- PROVIDE ROOF DRAIN INSERT AT EXISTING ROOF DRAIN. SEE DETAIL 2/BA191.
- EXISTING ROOF CURB-MOUNTED EQUIPMENT TO REMAIN. SEE DETAIL 7/BA191.
- REMOVE AND REINSTALL EXISTING DUCT OVER ROOF ON SUPPORTS. SEE DETAIL 24/BA191. SEE 'B' SERIES MECHANICAL DRAWINGS.
- RIGID PIPE/COLUMN PENETRATION. SEE DETAIL 15/BA191.
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- EXISTING METAL LADDER. REMOVE. MODIFY AS REQUIRED AND REINSTALL ON SUPPORT RAIL. SEE DETAIL 8 AND 18/BA191.
- PARAPET WALL COPING RECESS. SEE DETAIL 8/BA191.
- INFILL OPENING IN EXISTING MASONRY WALL WITH MATERIALS OF TYPE AND THICKNESS TO MATCH EXISTING. SEE 'M' SERIES DRAWINGS.
- 6" CONTINUOUS GUTTER SLOPED TO 4" DOWNSPOUT WITH BOTTOM ELBOW AND SPLASH BLOCK. SEE DETAIL 4/BA191.
- REMOVE EXISTING ABANDONED MECHANICAL EQUIPMENT. SEE 'B' SERIES MECHANICAL DRAWINGS.
- EXISTING DOOR FRAME AND HARDWARE TO BE REPLACED. PROVIDE RAISED THRESHOLD COPING. SEE DETAIL 21/BA191.
- SAW CUT OR ENLARGE EXISTING OPENING. NEW DOOR FRAME AND HARDWARE. FLASH SILL SIMILAR TO DETAIL 21/BA191.
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- NEW DUCT OVER ROOF ON SUPPORTS. SEE DETAIL 24/BA191. SEE 'B' SERIES MECHANICAL DRAWINGS.
- REMOVE EXISTING DUCT OVER ROOF AND ALL ASSOCIATED COMPONENTS. SEE 'B' SERIES MECHANICAL DRAWINGS.
- REMOVE EXISTING GAS PIPING OVER ROOF. SEE 'B' SERIES PLUMBING DRAWINGS.
- DISCONNECT BACK TO SOURCE. REMOVE, STORE, PROTECT AND RECONNECT EXISTING PAIR OF FIBER-OPTIC CABLES LOOSE OVER ROOF. PLACE RE-POSITIONED CABLES PARALLEL FOLLOWING SHORTEST DISTANCE BETWEEN ENTRANCE POINTS ON ROOF. REMOVE, MODIFY AND REINSTALL TOP OF RIGID CONDUIT OVER TOP OF PARAPET AS REQUIRED.

**General Re-Roofing Notes**

- A. DRAWINGS ARE REPRESENTATIVE, AND MAY NOT EXACTLY INDICATE ALL FIELD CONDITIONS.
- B. VERIFY IN FIELD LOCATIONS OF ALL EXISTING ROOF DRAINS AND PENETRATIONS PRIOR TO FIRST SUBMITTAL OF SHOP DRAWINGS.
- C. INSPECT ROOF DECK PRIOR TO ROOFING INSTALLATION. VERIFY THAT EXISTING MATERIALS ARE SOLID AND SECURE. NOTIFY ARCHITECT IMMEDIATELY IF DETERIORATED OR LOOSE MATERIALS ARE DISCOVERED.
- D. PROVIDE COMPLETE ROOFING INSTALLATION. REPAIR ALL ITEMS NOT SCHEDULED FOR WORK THAT ARE DAMAGED DURING ROOFING WORK.
- E. MAINTAIN WATERTIGHT CONDITIONS AT ALL TIMES.
- F. PROVIDE ROOFING SYSTEMS AND ALL RELATED COMPONENTS INDICATED BY THE CONTRACT DOCUMENTS.
- G. WORK INCLUDES BUT IS NOT LIMITED TO REMOVAL OF ROOFING MATERIALS, INCLUDING MEMBRANE, INSULATION, BLOCKING, CANTS, FLASHING, FASCIA, UNDER-AND-OVERLAYMENT BOARDS, VAPOR BARRIERS AND RELATED ITEMS DOWN TO ROOF DECK (UNO), THOROUGHLY CLEAN ROOF DECK OF ALL DEBRIS, PREPARE AND PRIME TO ACCEPT ROOFING MATERIALS INDICATED.
- H. ONCE EXPOSED TO VIEW, FIELD VERIFY CONDITION OF EXISTING BLOCKING BY ARCHITECT AND OWNER. IF DEEMED TO BE IN SERVICEABLE CONDITION, BLOCKING MAY BE PERMITTED TO REMAIN CONTINGENT UPON RECEIPT OF ACCEPTABLE CREDIT.
- J. REMOVE AND LEGALLY DISPOSE OF ALL MATERIALS INDICATED FOR DEMOLITION.
- K. REMOVE EXISTING MECHANICAL EQUIPMENT, SKYLIGHTS, HATCHES, PIPING, WIRING, CONDUITS AND MISCELLANEOUS ITEMS ON OR ADJACENT TO THE ROOF THAT IS IMPACTED BY SCHEDULED WORK (TYP. UNO), RAISE EXISTING CURBS WITH PRESERVATIVE-TREATED WOOD BLOCKING AS REQUIRED TO OBTAIN RISE AND PROVIDE A COMPLETE REMOVAL OF ROOF INSTALLATION, MAKING PROPER MECHANICAL, ELECTRICAL AND PLUMBING CONNECTIONS. PROVIDE FOR TEMPORARY MECHANICAL, ELECTRICAL AND PLUMBING DISCONNECTS. COORDINATE SCHEDULING OF DISRUPTIONS WITH OWNER.
- L. EXTEND ALL EXISTING VENT PIPING AS REQUIRED TO MAINTAIN MINIMUM 18" HEIGHT ABOVE SURFACE OF FINISHED ROOF (VIF). WOOD BLOCKING SHALL BE PRESERVATIVE-TREATED (PTP).
- N. AT ROOF DRAIN LOCATIONS, REFER TO SPECIFIC NOTES ON ROOF PLANS FOR RECEIVED DETAILS FOR WORK REQUIRED. BEFORE BEGINNING CONSTRUCTION, VERIFY ALL ROOF DRAINS ARE CLEAR AND IN WORKING ORDER. REPORT ANY OBSTRUCTIONS TO ARCHITECT AND OWNER PRIOR TO BEGINNING ROOF REMOVAL.
- P. DO NOT DISTURB OR OVERBURDEN EXISTING ROOF AREAS THAT ARE NOT SCHEDULED FOR WORK. THIS INCLUDES HIGH FOOT TRAFFIC, POINTS OF ACCESS AND WORK PREPARATION AREAS. ALL WORK REQUIRED SHALL COMPLY WITH EXISTING ROOF SYSTEM MANUFACTURER'S WARRANTY REQUIREMENTS.
- Q. MAINTAIN CONSTANT ROOF EDGE DATUM AND FASCIA HEIGHTS, BY ADJUSTING LAYERS AND THICKNESS OF CONTINUOUS WOOD BLOCKING (TYP).
- R. PREPARE, PRIME AND PAINT ALL EXPOSED NEW AND EXISTING STEEL ABOVE ROOF TO RECEIVE HIGH PERFORMANCE COATING. REFER TO SPECIFICATION SECTION 09 96 00 HIGH PERFORMANCE COATINGS.

**Existing Conditions**

1. THE FOLLOWING CONDITIONS WERE OBSERVED DURING TEST CUT ANALYSIS AT ALL AREAS INDICATED FOR ROOF REPLACEMENT. THE CONTRACTOR IS RESPONSIBLE TO VERIFY EXISTING CONDITIONS AND PROVIDE A COMPLETE REMOVAL OF ALL MATERIALS ABOVE THE ROOF DECK.
  - TYPICAL AT ROOF AREA A: (SEE KEY PLAN)
  - BUILT-UP ROOFING WITH AGGREGATE
  - 1" FIBERBOARD
  - 2" POLYISOCYANURATE INSULATION
  - CONCRETE ROOF DECK
2. TYPICAL AT ROOF AREA B: (SEE KEY PLAN)
  - BUILT-UP ROOFING WITH AGGREGATE
  - 1" FIBERBOARD
  - 1" TO 2" POLYISOCYANURATE INSULATION (THICKNESS VARIES)
  - METAL ROOF DECK
3. TYPICAL AT ROOF AREA C: (SEE KEY PLAN)
  - BUILT-UP ROOFING WITH AGGREGATE
  - 1" FIBERBOARD
  - 1" TO 2" POLYISOCYANURATE INSULATION (THICKNESS VARIES)
  - METAL ROOF DECK
4. TYPICAL AT ROOF AREA RS-3: (SEE ROOF PLAN)
  - BUILT-UP ROOFING NO AGGREGATE
  - WOOD ROOF DECK



Key Plan  
N.T.S.

S.E.D. Control No. 66-04-03-03-0-001-019

Rev. No.	Date	Description
1	03/30/21	BID ADDENDUM NO 1

**Dobbs Ferry School District**  
Independent Thinkers Change Worlds

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Tetra Tech Engineers, Architects & Landscape Architects, P.C.

**BID SET**

**TETRA TECH ARCHITECTS & ENGINEERS**

Dobbs Ferry Union Free School District  
Dobbs Ferry, New York

Reconstruction To:  
Middle / High School

Roof Plan and Details

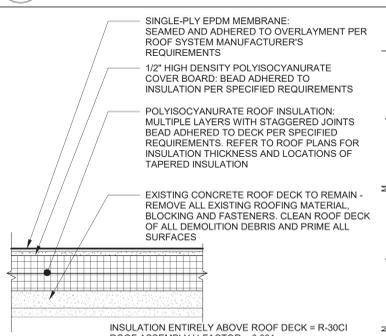
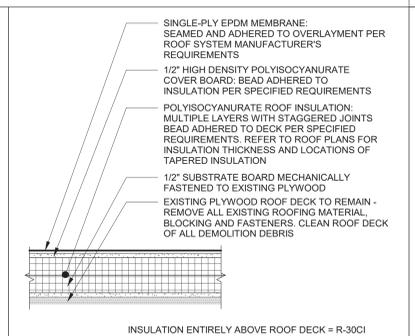
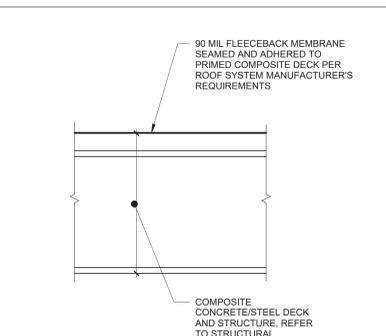
Drawn By: TLG	Date: 07/02/2020	Drawing Number: BA190
Project No.: 234903-20001		

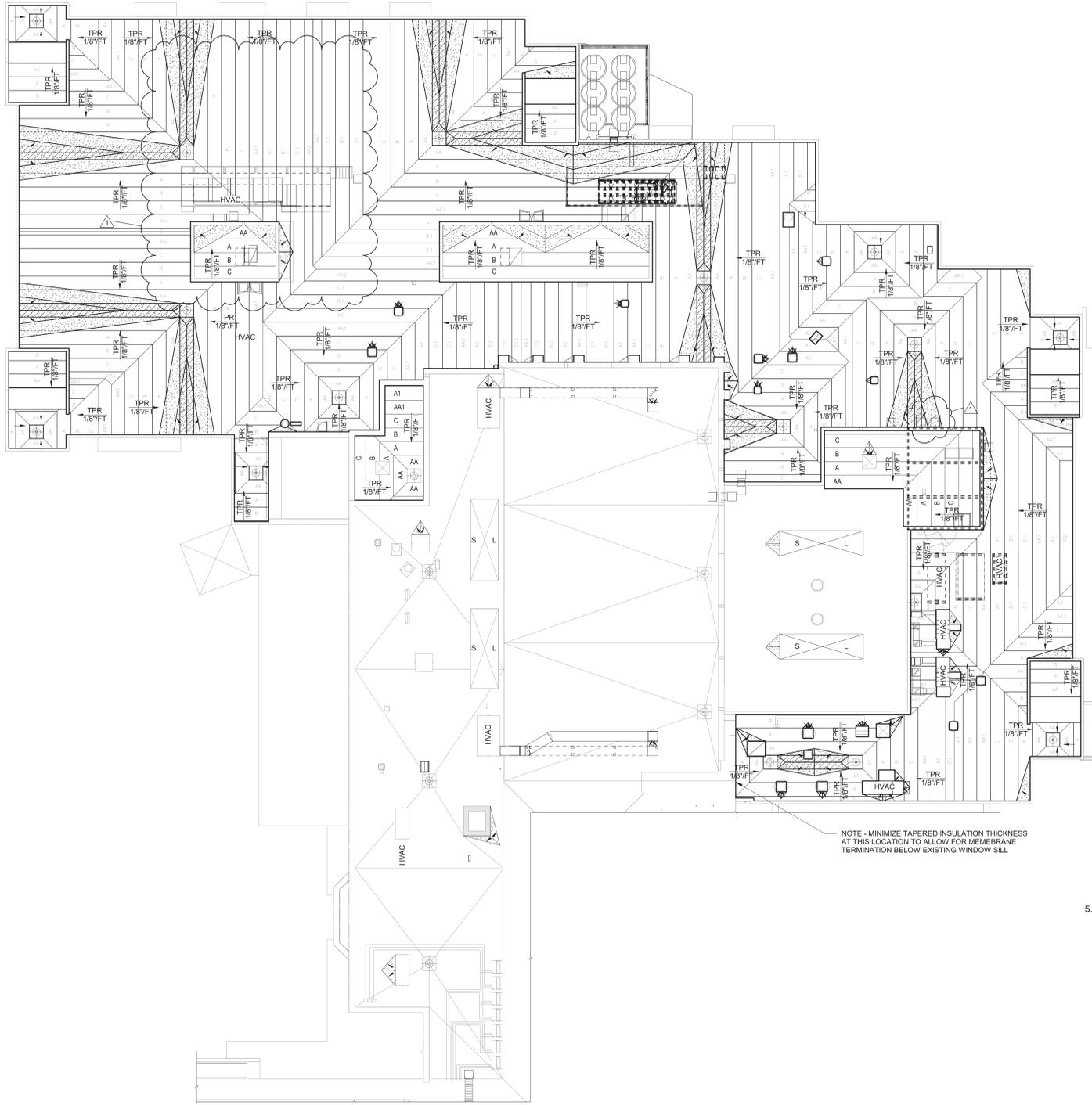
**1 Roof Plan**  
1/16" = 1'-0"  
NOTE - ALL ROOF AREAS ARE RS-1 UNLESS NOTED OTHERWISE

**5 Roof System RS-4**  
1 1/2" = 1'-0"

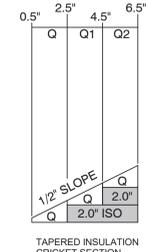
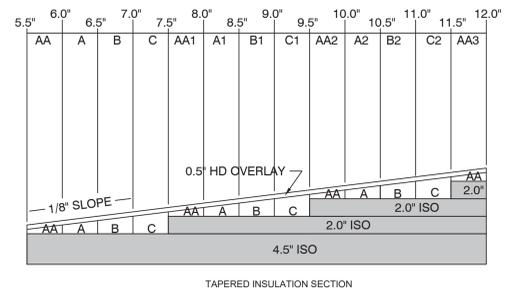
**4 Roof System RS-3**  
1 1/2" = 1'-0"

**3 Roof System RS-2**  
1 1/2" = 1'-0"



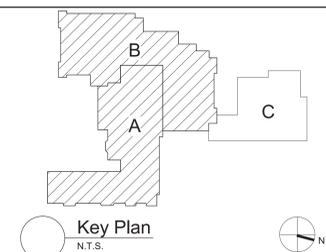


NOTE - MINIMIZE TAPERED INSULATION THICKNESS AT THIS LOCATION TO ALLOW FOR MEMBRANE TERMINATION BELOW EXISTING WINDOW SILL



Roof Legend	
	AREA OF TAPERED INSULATION (TYP). SEE TAPERED INSULATION PLAN.
	AREA OF NO WORK, UNLESS NOTED OTHERWISE
	AREA OF EXPANDED LOW AREA 0.5\"/>
	AREA OF DETERIORATED ROOF DECK
	REPLACE ROOF DRAIN ASSEMBLY AT EXISTING LOCATIONS (TYP). PROVIDE TAPERED SUMP. SEE ROOF KEY NOTES FOR LOCATIONS.
	ROOF DRAIN INSERT IN EXISTING ROOF DRAIN (TYP). PROVIDE TAPERED SUMP. SEE ROOF KEY NOTES FOR LOCATIONS.
	DIRECTION OF DOWNWARD SLOPE OF SLOPED STRUCTURE.
	EXPANSION JOINT (TYP).
	DIRECTION AND DEGREE OF DOWNWARD SLOPE OF TAPERED INSULATION (MINIMUM 1/8\"/>
	DIRECTION OF DOWNWARD SLOPE OF TAPERED INSULATION CRICKET (1/2\"/>
	+X\"/>
	+X\"/> FLAT TOTAL THICKNESS OF AREA OF FLAT INSULATION INCLUDING COVERBOARD.
	RS-X ROOF SYSTEM TYPE RS-X.
	W WALKWAY PAD (TYP).
	S/L UNIT SKYLIGHT (TYP).
	S/L BARREL VAULT SKYLIGHT ON CURB
	● OR ○ PIPE PENETRATION (TYP).
	OR ROOF CURB-MOUNTED VENTILATOR (TYP).
	HVAC ROOF CURB-MOUNTED EQUIPMENT (TYP).
	HVAC EQUIPMENT ON EQUIPMENT SUPPORTS (TYP).
	-P- CONDUIT OR PIPE OVER ROOF ON SUPPORTS
	-E- WIRE LOOSE OVER ROOF
	-DUCT- DUCT OVER ROOF ON SUPPORTS
	- - - ABANDONED CURB TO BE REMOVED AND INFILLED

- Tapered Insulation Notes**
- PROVIDE TAPERED CRICKETS AT ALL PENETRATIONS FOR CONTINUOUS DRAINAGE FLOW, TYP.
  - PROVIDE TAPERED FIBER EDGE STRIPS AT ALL TRANSITIONS.
  - PROVIDE TAPERED ROOF DRAIN SUMPS - SEE DETAILS 1 AND 2/BA193.



S.E.D. Control No. 66-04-03-03-0-001-019

Rev. No.	Date	Description
1	03/30/21	BID ADDENDUM NO 1



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Dobbs Ferry Union Free School District  
 Dobbs Ferry, New York

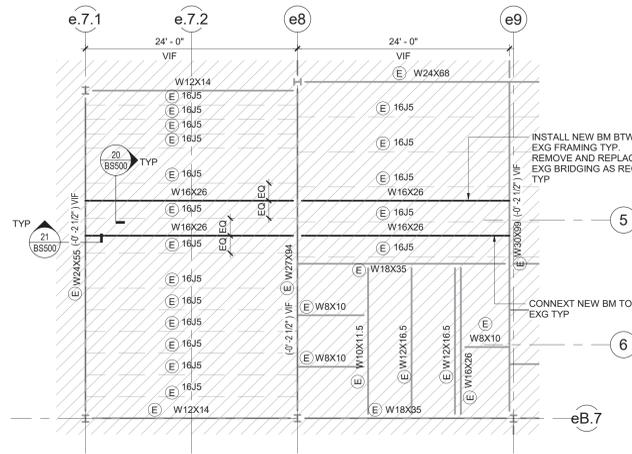
Reconstruction To:  
 Middle / High School

Tapered Insulation Plan

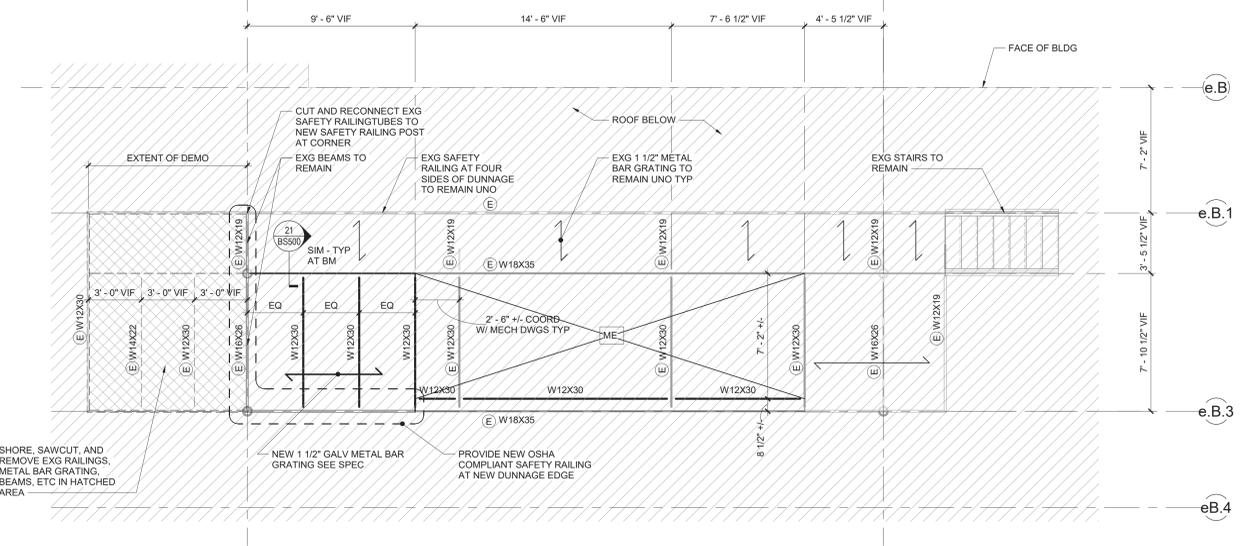
Drawn By: TLG	Date: 07/02/2020	Drawing Number: BA193
Project No.: 234903-20001		

1 Tapered Insulation Plan  
 1/16" = 1'-0"

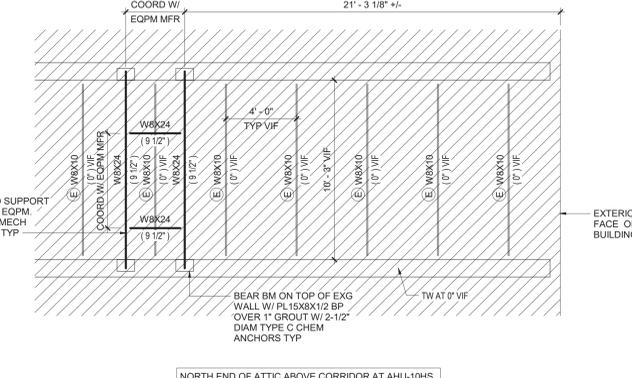
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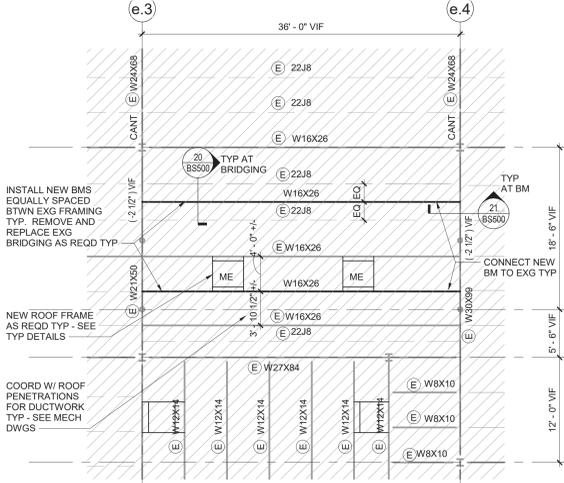
**6 Partial Roof Framing - Area B**  
 1/8" = 1'-0"  
 KEYBOARD M218, REC 237A, CORR C-203, SP ED M213  
 DATUM FOR TOS AT EXG ROOF TOS ELEVATION 129'-6 3/4" VIF  
 ALL STEEL AT (0') UNO



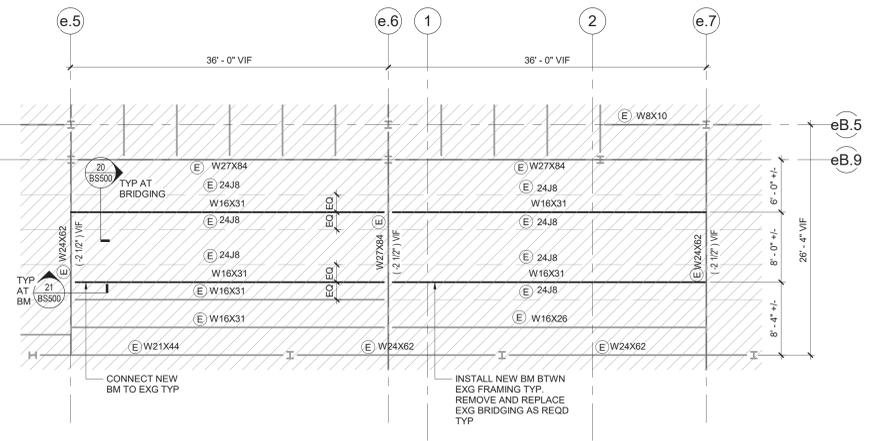
**1 Roof Dunnage Demo and Framing Plan - Area B**  
 1/4" = 1'-0"  
 DATUM FOR TOS AT EXG DUNNAGE TOS ELEVATION 136'-4" VIF  
 ALL STEEL AT (0') UNO



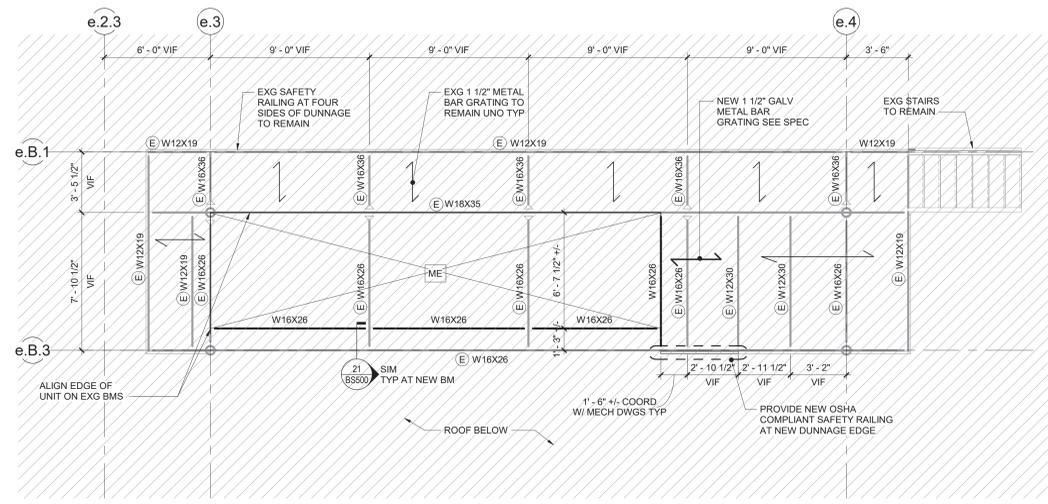
**7 Partial Attic Framing Plan - Area A**  
 1/4" = 1'-0"  
 DATUM FOR TOS AT EXG ROOF TOS ELEVATION 129'-6 3/4" VIF  
 ALL STEEL AT (0') UNO



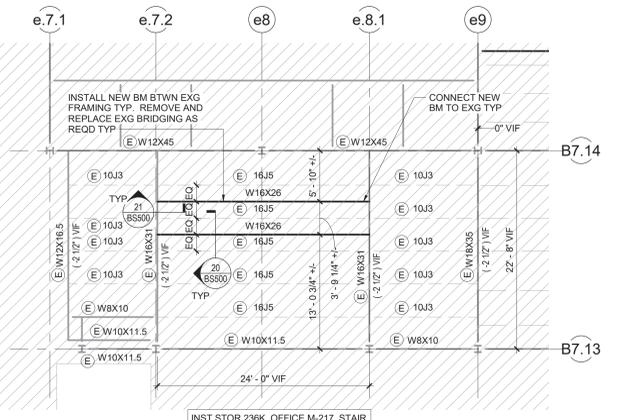
**4 Partial Roof Framing - Area B**  
 1/8" = 1'-0"  
 INNOVATION LAB 226, COMP LAB M207 AT AHU - 1HS  
 SEE ARCH DWGS FOR DEMOLITION OF EXG DUNNAGE IN THIS AREA  
 DATUM FOR TOS AT EXG ROOF TOS ELEVATION 129'-6 3/4" VIF  
 ALL STEEL AT (0') UNO



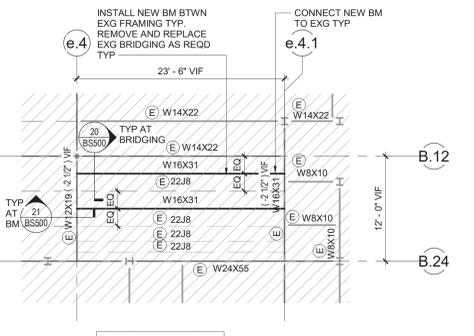
**2 Partial Roof Framing - Area B**  
 1/8" = 1'-0"  
 CORR C-202, CLASSROOM M220, CLASSROOM M219  
 DATUM FOR TOS AT EXG ROOF TOS ELEVATION 129'-6 3/4" VIF  
 ALL STEEL AT (0') UNO



**8 Roof Dunnage Framing Plan - Area B**  
 1/4" = 1'-0"  
 DATUM FOR TOS AT EXG DUNNAGE TOS ELEVATION 136'-4" VIF  
 ALL STEEL AT (0') UNO

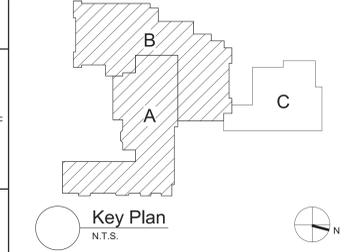


**5 Partial Roof Framing - Area B**  
 1/8" = 1'-0"  
 DATUM FOR TOS AT EXG ROOF TOS ELEVATION 129'-6 3/4" VIF  
 ALL STEEL AT (0') UNO



**3 Partial Roof Framing - Area B**  
 1/8" = 1'-0"  
 CORR C-202, DATA ROOM  
 DATUM FOR TOS AT EXG ROOF TOS ELEVATION 129'-6 3/4" VIF  
 ALL STEEL AT (0') UNO

- NOTES
- DIMENSIONS AND ELEVATIONS SHOWN ON PLAN AS PLUS/MINUS (+/-) AND VIF ARE TO BE CONSIDERED APPROXIMATE. EXACT VALUES FOR ALL (+/-) AND VIF DIMENSIONS ARE TO BE DETERMINED BY THE CONTRACTOR IN THE FIELD THROUGH A PRELIMINARY BUILDING LAYOUT. CONTRACTOR TO VERIFY EXISTING DIMENSIONS, ELEVATIONS AND CONDITIONS AND NOTIFY A/E OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK. COORDINATE INFORMATION WITH OTHER TRADES.
  - REFER TO SHEET BS600 FOR GENERAL NOTES, LINTEL SCHEDULE AND SPECIFIC LINTEL DETAILS.
  - REFER TO SHEET BS600 FOR COLUMN SCHEDULE.
  - REFER TO SHEET BS600 FOR TYPICAL DETAILS.
  - PROVIDE ALL ROOF AND FLOOR JOISTING FRAMES PER DIV 05 SPEC. COORDINATE QUANTITIES, LOCATION, AND SIZE OF OPENINGS WITH OTHERS AND MECH, PLBG, AND ARCH DWGS.
  - ROOF DECK TO BE GALVANIZED 1 1/2" WIDE RIBBED 20 GAUGE CORRUGATED STEEL UNLESS OTHERWISE NOTED.



S.E.D. Control No. 66-04-03-03-0-001-019

Rev. No.	Date	Description



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Dobbs Ferry Union Free School District  
 Dobbs Ferry, New York

Reconstruction To:  
 Middle / High School

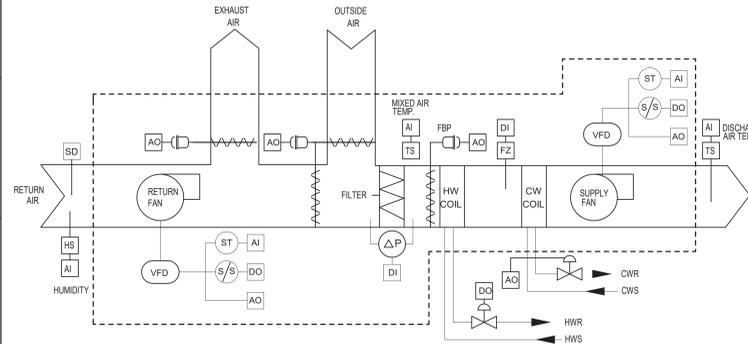
Demolition and Framing Plans - Areas A and B

Drawn By: TSM/mjs	Date: 07/02/2020	Drawing Number: BS131
Project No.: 234903-20001		

BID SET

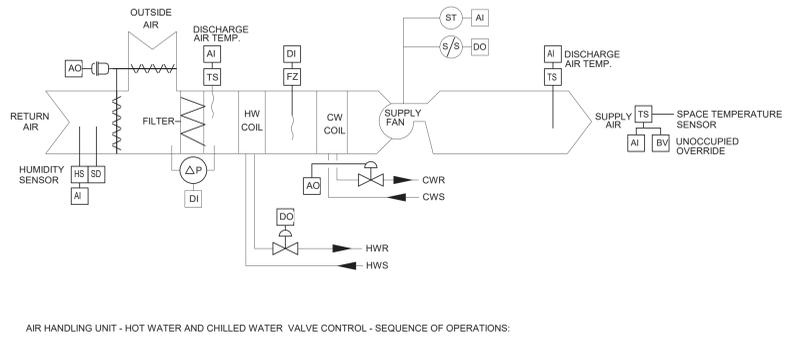
**GENERAL NOTES:**

1. REFER TO BM050 FOR GENERAL NOTES.



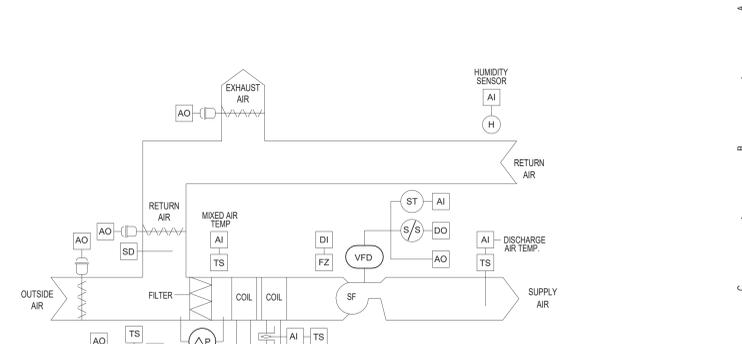
**AIR HANDLING UNIT - HOT WATER/FACE & BYPASS AND CHILLED WATER VALVE CONTROL - SEQUENCE OF OPERATIONS:**  
NOTE: ALL CONTROL DEVICES WITHIN DASHLINE BOUNDARY WILL BE FACTORY INSTALLED AND WIRED TO A CONTROL TERMINAL STRIP WITHIN THE UNIT FOR EXTENSION TO THE BUILDING AUTOMATION SYSTEM

- OCCUPIED MODE:**
  - SUPPLY FAN AND ASSOCIATED RETURN FAN SHALL RUN CONTINUOUSLY.
  - THE OUTSIDE AIR DAMPER SHALL OPEN TO THE POSITION REQUIRED TO MAINTAIN THE MINIMUM OUTSIDE AIR QUANTITY INDICATED. OUTSIDE AIR DAMPER SHALL NEVER BE POSITIONED BELOW THIS MINIMUM POSITION EXCEPT IN CASE OF ALARM.
  - THE RETURN FAN VFD SHALL TRACK THE SUPPLY FAN VFD AT 80% (ADJ.) OF THE SUPPLY FAN VFD SPEED AND NEVER DROP BELOW 20%.
  - WHEN THE OUTSIDE AIR TEMPERATURE IS 50 DEG. F. OR LOWER, OPEN HOT WATER VALVE.
  - THE CONTROLLER SHALL MEASURE THE SUPPLY AIR TEMPERATURE AND MODULATE THE FACE AND BYPASS DAMPER TO MAINTAIN A SUPPLY TEMPERATURE SETPOINT OF 55 DEG. F. (ADJ.).
  - THE CONTROLLER SHALL MEASURE THE MIXED AIR TEMPERATURE AND MODULATE THE ECONOMIZER DAMPERS IN SEQUENCE TO MAINTAIN A SETPOINT 2 DEG. F. (ADJ.) LESS THAN THE SUPPLY AIR TEMPERATURE SETPOINT. THE OUTSIDE AIR DAMPER SHALL NEVER BELOW THE MINIMUM OUTSIDE AIR SETPOINT.
  - AS THE MIXED AIR TEMPERATURE CONTINUES TO RISE AND THE OUTSIDE AIR CAN NO LONGER PROVIDE ECONOMIZER COOLING, RETURN THE OUTSIDE AND RETURN AIR DAMPERS TO MINIMUM POSITION AND OPEN THE CHILLED WATER CONTROL VALVE TO MAINTAIN THE SUPPLY AIR TEMPERATURE SETPOINT.
- UNOCCUPIED MODE:**
  - SUPPLY FAN AND ASSOCIATED EXHAUST FAN SHALL BE OFF.
  - THE OUTSIDE AIR DAMPER AND ASSOCIATED RELIEF HOOD DAMPER SHALL BE FULLY CLOSED.
  - WHERE SPACE HAS FINNED TUBE RADIATION, RADIATION SHALL PROVIDE FIRST STAGE UNOCCUPIED HEATING.
  - ON DROP IN SPACE TEMPERATURE BELOW THE UNOCCUPIED SETPOINT, CYCLE THE FAN ON AND MODULATE THE RESPECTIVE ZONE HEATING COIL CONTROL VALVE AS REQUIRED TO MAINTAIN REDUCED SPACE TEMPERATURE SETPOINT. USE 5 DEG. F. (ADJUSTABLE) DEADBAND AS REQUIRED TO MINIMIZE SHORT CYCLING.
  - A TIMED LOCAL OVERRIDE CONTROL SHALL ALLOW AN OCCUPANT TO OVERRIDE THE SCHEDULE AND PLACE THE UNIT INTO OCCUPIED MODE FOR 1 HOUR (ADJUSTABLE). AT EXPIRATION OF THIS TIME, CONTROL OF THE UNIT SHALL AUTOMATICALLY RETURN TO THE SCHEDULE.
- WARM-UP MODE:**
  - THE UNIT SHALL START PER AN OPTIMUM START PROGRAM.
  - THE OUTSIDE AIR DAMPER AND ASSOCIATED RELIEF HOOD DAMPER SHALL BE FULLY CLOSED AND THE ASSOCIATED EXHAUST FAN SHALL BE OFF.
  - THE SUPPLY FAN SHALL RUN AND THE FACE AND BYPASS DAMPER SHALL MODULATE TO MAINTAIN DISCHARGE AIR SETPOINT.
- SAFETIES**
  - A SEPARATE LOW LIMIT FREEZE STAT WITH AUTOMATIC RESET SHALL BE INSTALLED WITH SENSING ELEMENT SERPENTINED ACROSS THE FACE OF THE COIL. WHENEVER COIL FREEZE-UP CONDITIONS ARISE (36 DEG. F. ADJUSTABLE) THE SUPPLY FAN SHALL STOP, THE OUTSIDE AIR DAMPER SHALL CLOSE 100%, AND FACE AND BYPASS DAMPER SHALL OPEN TO 100% FACE POSITION. AN ALARM SHALL ALSO BE ACTIVATED.
  - FIRE ALARM SHUTDOWN



**AIR HANDLING UNIT - HOT WATER AND CHILLED WATER VALVE CONTROL - SEQUENCE OF OPERATIONS:**

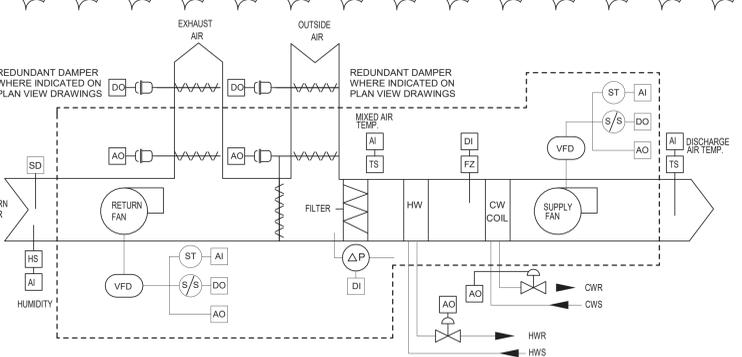
- OCCUPIED MODE:**
  - SUPPLY FAN AND ASSOCIATED EXHAUST FAN SHALL RUN CONTINUOUSLY.
  - THE OUTSIDE AIR DAMPER SHALL OPEN TO THE POSITION REQUIRED TO MAINTAIN THE MINIMUM OUTSIDE AIR QUANTITY INDICATED. OUTSIDE AIR DAMPER SHALL NEVER BE POSITIONED BELOW THIS MINIMUM POSITION EXCEPT IN CASE OF ALARM.
  - WHEN THE OUTSIDE AIR TEMPERATURE IS 50 DEG. F. (ADJ.), OPEN HEATING HOT WATER 2-WAY VALVE TO ALLOW WATER FLOW THROUGH THE HEATING COIL.
  - WHEN THE SPACE TEMPERATURE IS AT OR BELOW THE DISCHARGE AIR TEMPERATURE SETPOINT, MODULATE THE FACE AND BYPASS DAMPER TO MAINTAIN SETPOINT SUBJECT TO DISCHARGE HIGH LIMIT OF 70 DEG. F. (ADJUSTABLE) AND DISCHARGE LOW LIMIT OF 50 DEG. F. (ADJUSTABLE).
  - WHEN THE SPACE TEMPERATURE RISES 3 DEG. F. (ADJUSTABLE) ABOVE THE SPACE HEATING SETPOINT, AND THE OUTSIDE AIR TEMPERATURE IS LOWER THAN THE SPACE TEMPERATURE, THE OUTSIDE AIR DAMPER SHALL MODULATE OPEN AND THE ASSOCIATED RELIEF HOOD DAMPER SHALL OPEN TO MAINTAIN THE OCCUPIED SETPOINT. THIS SHALL BE DONE SUBJECT TO DISCHARGE LOW LIMIT OF 55 DEG. F. (ADJUSTABLE), AND WITH THE HEATING VALVE FULLY CLOSED.
  - WHEN THE SPACE TEMPERATURE IS ABOVE THE COOLING SETPOINT, AND THE OUTSIDE AIR CANNOT COOL THE SPACE, THE RESPECTIVE COOLING VALVE SHALL MODULATE TO MAINTAIN SPACE TEMPERATURE WITH THE HEATING VALVE FULLY CLOSED. USE 5 DEG. F. (ADJUSTABLE) DEADBAND BETWEEN HEATING AND COOLING SETPOINTS.
- UNOCCUPIED MODE:**
  - SUPPLY FAN AND ASSOCIATED EXHAUST FAN SHALL BE OFF.
  - THE OUTSIDE AIR DAMPER AND ASSOCIATED RELIEF HOOD DAMPER SHALL BE FULLY CLOSED.
  - WHERE SPACE HAS FINNED TUBE RADIATION, RADIATION SHALL PROVIDE FIRST STAGE UNOCCUPIED HEATING.
  - ON DROP IN SPACE TEMPERATURE BELOW THE UNOCCUPIED SETPOINT, CYCLE THE FAN ON AND COIL CONTROL VALVE FULL OPEN AS REQUIRED TO MAINTAIN REDUCED SPACE TEMPERATURE. USE 5 DEG. F. (ADJUSTABLE) DEADBAND AS REQUIRED TO MINIMIZE SHORT CYCLING.
  - A TIMED LOCAL OVERRIDE CONTROL SHALL ALLOW AN OCCUPANT TO OVERRIDE THE SCHEDULE AND PLACE THE UNIT INTO OCCUPIED MODE FOR 1 HOUR (ADJUSTABLE). AT EXPIRATION OF THIS TIME, CONTROL OF THE UNIT SHALL AUTOMATICALLY RETURN TO THE SCHEDULE.
- WARM-UP MODE:**
  - THE UNIT SHALL START PER AN OPTIMUM START PROGRAM.
  - THE OUTSIDE AIR DAMPER AND ASSOCIATED RELIEF HOOD DAMPER SHALL BE FULLY CLOSED AND THE ASSOCIATED EXHAUST FAN SHALL BE OFF.
  - THE SUPPLY FAN SHALL RUN AND THE CONTROL VALVE SHALL MODULATE TO MAINTAIN OCCUPIED SETPOINT.
- SAFETIES**
  - A SEPARATE LOW LIMIT FREEZE STAT WITH AUTOMATIC RESET SHALL BE INSTALLED WITH SENSING ELEMENT SERPENTINED ACROSS THE FACE OF THE COIL. WHENEVER COIL FREEZE-UP CONDITIONS ARISE (36 DEG. F. ADJUSTABLE) THE SUPPLY FAN SHALL STOP, THE OUTSIDE AIR DAMPER SHALL CLOSE 100%, AND CONTROL VALVE SHALL OPEN 100%. AN ALARM SHALL ALSO BE ACTIVATED.
  - FIRE ALARM SHUTDOWN



**AUDITORIUM AIR HANDLING UNIT - SEQUENCE OF OPERATIONS:**

- OCCUPIED MODE:**
  - SUPPLY FAN SHALL RUN CONTINUOUSLY AT THE FREQUENCIES DETERMINED BY THE BALANCING CONTRACTOR.
  - THE OUTSIDE AIR AND RETURN AIR DAMPERS SHALL OPEN TO THE POSITION REQUIRED TO MAINTAIN THE MINIMUM OUTSIDE AIR QUANTITY INDICATED. OUTSIDE AIR DAMPER SHALL NEVER BE POSITIONED BELOW THIS MINIMUM POSITION EXCEPT IN CASE OF ALARM.
  - WHEN THE SPACE TEMPERATURE IS AT OR BELOW THE HEATING SETPOINT, THE HEATING CONTROL VALVE SHALL MODULATE TO MAINTAIN SPACE HEATING SETPOINT SUBJECT TO DISCHARGE HIGH LIMIT OF 110 DEG. F. (ADJUSTABLE) AND DISCHARGE LOW LIMIT OF 70 DEG. F. (ADJUSTABLE).
  - WHEN THE SPACE TEMPERATURE RISES 3 DEG. F. (ADJUSTABLE) ABOVE THE SPACE HEATING SETPOINT, AND THE OUTSIDE AIR ENTHALPY IS LOWER THAN THE SPACE ENTHALPY, THE OUTSIDE AIR AND EXHAUST AIR DAMPERS SHALL MODULATE OPEN AND THE RETURN DAMPER SHALL MODULATE CLOSED TO MAINTAIN THE SPACE SETPOINT. THIS SHALL BE DONE SUBJECT TO LOW LIMIT OF 55 DEG. F. (ADJUSTABLE) AND WITH THE HEATING VALVE FULLY CLOSED.
  - WHEN THE SPACE TEMPERATURE IS 3 DEG. F. (ADJUSTABLE) ABOVE THE COOLING SETPOINT, AND THE OUTSIDE AIR CANNOT COOL THE SPACE, THE COOLING CONTROL VALVE SHALL MODULATE TO MAINTAIN SPACE TEMPERATURE WITH THE HEATING VALVE FULLY CLOSED. USE 5 DEG. F. (ADJUSTABLE) DEADBAND BETWEEN HEATING AND COOLING SETPOINTS.
- UNOCCUPIED MODE:**
  - THE SUPPLY FAN SHALL BE OFF.
  - THE OUTSIDE AIR DAMPER AND EXHAUST AIR DAMPER SHALL BE FULLY CLOSED, AND THE RETURN AIR DAMPER SHALL BE FULLY OPEN.
  - WHERE SPACE HAS FINNED TUBE RADIATION, RADIATION SHALL PROVIDE FIRST STAGE UNOCCUPIED HEATING.
  - IF THE FINNED TUBE CANNOT MAINTAIN SPACE TEMPERATURE SETPOINT, CYCLE THE SUPPLY FAN ON AND MODULATE THE HEATING COIL CONTROL VALVE AS REQUIRED TO MAINTAIN REDUCED SPACE TEMPERATURE. USE 5 DEG. F. (ADJUSTABLE) DEADBAND TO MINIMIZE SHORT CYCLING.
  - WHEN THE SPACE TEMPERATURE RISES ABOVE THE UNOCCUPIED ECONOMIZER COOLING SETPOINT, ALLOW ECONOMIZER COOLING WITH THE COOLING AND HEATING VALVE CLOSED 100%.
  - A TIMED LOCAL OVERRIDE CONTROL SHALL ALLOW AN OCCUPANT TO OVERRIDE THE SCHEDULE AND PLACE THE UNIT INTO OCCUPIED MODE FOR 1 HOUR (ADJUSTABLE). AT EXPIRATION OF THIS TIME, CONTROL OF THE UNIT SHALL AUTOMATICALLY RETURN TO THE SCHEDULE.
- WARM-UP MODE:**
  - THE UNIT SHALL START PER AN OPTIMUM START PROGRAM.
  - THE OUTSIDE AIR DAMPER AND EXHAUST AIR DAMPER SHALL BE FULLY CLOSED, AND THE RETURN AIR DAMPER SHALL BE FULLY OPEN.
  - THE SUPPLY FAN SHALL RUN AND THE HEATING CONTROL VALVE SHALL MODULATE TO MAINTAIN OCCUPIED SETPOINT.
- SAFETIES:**
  - DIFFERENTIAL PRESSURE ACROSS THE AIR FILTERS SHALL GENERATE AN ALARM WHENEVER THE DIFFERENTIAL PRESSURE EXCEEDS ITS ADJUSTABLE SETPOINT.
  - A SEPARATE LOW LIMIT FREEZE STAT WITH AUTOMATIC RESET SHALL BE INSTALLED WITH SENSING ELEMENT SERPENTINED ACROSS THE FACE OF THE COIL. WHENEVER FREEZE-UP CONDITIONS ARISE (36 DEG. F. ADJUSTABLE) THE SUPPLY FAN SHALL STOP, THE OUTSIDE AIR AND EXHAUST AIR DAMPERS SHALL CLOSE 100%, THE HEATING CONTROL VALVE SHALL OPEN 100% AND AN ALARM SHALL BE ACTIVATED.
  - FIRE ALARM SHUTDOWN

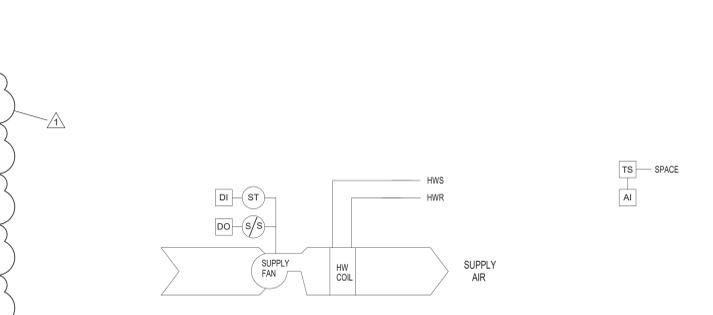
**5 Air Handling Unit - With Supply Air Temperature Control (AHU-1HS)**  
NTS



**AIR HANDLING UNIT - HOT WATER/FACE & BYPASS AND CHILLED WATER VALVE CONTROL - SEQUENCE OF OPERATIONS:**  
NOTE: ALL CONTROL DEVICES WITHIN DASHLINE BOUNDARY WILL BE FACTORY INSTALLED AND WIRED TO A CONTROL TERMINAL STRIP WITHIN THE UNIT FOR EXTENSION TO THE BUILDING AUTOMATION SYSTEM

- OCCUPIED MODE:**
  - SUPPLY FAN AND ASSOCIATED RETURN FAN SHALL RUN CONTINUOUSLY.
  - THE OUTSIDE AIR DAMPER SHALL OPEN TO THE POSITION REQUIRED TO MAINTAIN THE MINIMUM OUTSIDE AIR QUANTITY INDICATED. OUTSIDE AIR DAMPER SHALL NEVER BE POSITIONED BELOW THIS MINIMUM POSITION EXCEPT IN CASE OF ALARM.
  - THE RETURN FAN VFD SHALL TRACK THE SUPPLY FAN VFD AT 80% (ADJ.) OF THE SUPPLY FAN VFD SPEED AND NEVER DROP BELOW 20%.
  - WHEN THE OUTSIDE AIR TEMPERATURE IS 50 DEG. F. OR LOWER, OPEN HOT WATER VALVE.
  - THE CONTROLLER SHALL MEASURE THE SUPPLY AIR TEMPERATURE AND MODULATE THE 2-WAY HW CONTROL VALVE TO MAINTAIN A SUPPLY TEMPERATURE SETPOINT OF 55 DEG. F. (ADJ.).
  - THE CONTROLLER SHALL MEASURE THE MIXED AIR TEMPERATURE AND MODULATE THE ECONOMIZER DAMPERS IN SEQUENCE TO MAINTAIN A SETPOINT 2 DEG. F. (ADJ.) LESS THAN THE SUPPLY AIR TEMPERATURE SETPOINT. THE OUTSIDE AIR DAMPER SHALL NEVER BELOW THE MINIMUM OUTSIDE AIR SETPOINT.
  - AS THE MIXED AIR TEMPERATURE CONTINUES TO RISE AND THE OUTSIDE AIR CAN NO LONGER PROVIDE ECONOMIZER COOLING, RETURN THE OUTSIDE AND RETURN AIR DAMPERS TO MINIMUM POSITION AND OPEN THE CHILLED WATER CONTROL VALVE TO MAINTAIN THE SUPPLY AIR TEMPERATURE SETPOINT.
- UNOCCUPIED MODE:**
  - SUPPLY FAN AND ASSOCIATED EXHAUST FAN SHALL BE OFF.
  - THE OUTSIDE AIR DAMPER AND ASSOCIATED RELIEF HOOD DAMPER SHALL BE FULLY CLOSED.
  - WHERE SPACE HAS FINNED TUBE RADIATION, RADIATION SHALL PROVIDE FIRST STAGE UNOCCUPIED HEATING.
  - ON DROP IN SPACE TEMPERATURE BELOW THE UNOCCUPIED SETPOINT, CYCLE THE FAN ON AND MODULATE THE RESPECTIVE ZONE HEATING COIL CONTROL VALVE AS REQUIRED TO MAINTAIN REDUCED SPACE TEMPERATURE SETPOINT. USE 5 DEG. F. (ADJUSTABLE) DEADBAND AS REQUIRED TO MINIMIZE SHORT CYCLING.
  - A TIMED LOCAL OVERRIDE CONTROL SHALL ALLOW AN OCCUPANT TO OVERRIDE THE SCHEDULE AND PLACE THE UNIT INTO OCCUPIED MODE FOR 1 HOUR (ADJUSTABLE). AT EXPIRATION OF THIS TIME, CONTROL OF THE UNIT SHALL AUTOMATICALLY RETURN TO THE SCHEDULE.
- WARM-UP MODE:**
  - THE UNIT SHALL START PER AN OPTIMUM START PROGRAM.
  - THE OUTSIDE AIR DAMPER AND ASSOCIATED RELIEF HOOD DAMPER SHALL BE FULLY CLOSED AND THE ASSOCIATED EXHAUST FAN SHALL BE OFF.
  - THE SUPPLY FAN SHALL RUN AND THE FACE AND BYPASS SHALL MODULATE TO MAINTAIN DISCHARGE AIR SETPOINT.
- SAFETIES**
  - A SEPARATE LOW LIMIT FREEZE STAT WITH AUTOMATIC RESET SHALL BE INSTALLED WITH SENSING ELEMENT SERPENTINED ACROSS THE FACE OF THE COIL. WHENEVER COIL FREEZE-UP CONDITIONS ARISE (36 DEG. F. ADJUSTABLE) THE SUPPLY FAN SHALL STOP, THE OUTSIDE AIR DAMPER SHALL CLOSE 100%, AND FACE AND BYPASS DAMPER SHALL OPEN TO 100% FACE POSITION. AN ALARM SHALL ALSO BE ACTIVATED.
  - FIRE ALARM SHUTDOWN

**3 Air Handling Unit - Chilled, Hot Water Valve Control (AHU-12,13,15,17,18HS)**  
NTS



**UNIT HEATER - HOT WATER - SEQUENCE OF OPERATIONS:**

- HEATING MODE:**
  - UPON A CALL FOR HEAT, AND THE BUILDING SUPPLY WATER TEMPERATURE IS ABOVE 100 DEG. F. (ADJUSTABLE) CYCLE THE SUPPLY FAN TO MAINTAIN HEATING SETPOINT OF 65 DEG. F. (ADJ.).
- SAFETIES:**
  - PROVIDE CURRENT SENSOR TO SENSE THE STATUS OF THE FAN. WHEN FAN MOTOR AMP DRAW IS OUT OF NORMAL RANGE, GENERATE AN ALARM AT THE OWS.
  - PROVIDE A LOW SPACE TEMPERATURE ALARM INPUT IF THE SPACE TEMPERATURE IS BELOW SETPOINT FOR 10 MINUTES (ADJ.) AFTER A CALL FOR HEAT.

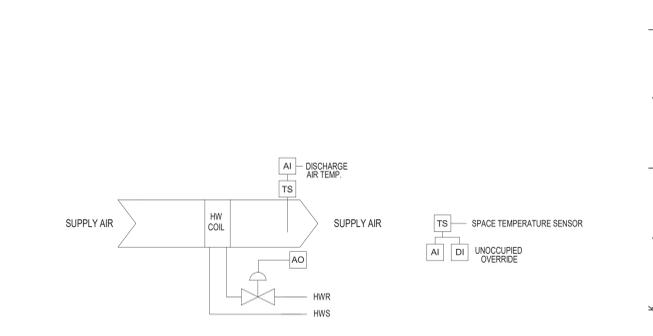
**4 Hot Water Unit Heater Control Sequence**  
NTS



**DUCT MOUNTED HEATING COIL - HOT WATER - SEQUENCE OF OPERATIONS:**

- HEATING MODE:**
  - WHEN THE SPACE TEMPERATURE IS AT OR BELOW THE HEATING SETPOINT AND THE RELATED FAN SYSTEM HAS BEEN ENABLED, THE 2-WAY CONTROL VALVE SHALL MODULATE TO MAINTAIN SPACE HEATING SETPOINT SUBJECT TO DISCHARGE HIGH LIMIT OF 110 DEG. F. (ADJUSTABLE) AND DISCHARGE LOW LIMIT OF 70 DEG. F. IN HEATING MODE (ADJUSTABLE).
  - WHERE REHEAT COIL SERVES MULTIPLE SPACES, PROVIDE ADDITIONAL SPACE TEMPERATURE SENSORS (WHERE INDICATED) AND AVERAGE THE SPACE TEMPERATURE READINGS.

**1 Auditorium Air Handling Unit Control**  
NTS



**DUCT MOUNTED HEATING COIL - HOT WATER - SEQUENCE OF OPERATIONS:**

- HEATING MODE:**
  - WHEN THE SPACE TEMPERATURE IS AT OR BELOW THE HEATING SETPOINT AND THE RELATED FAN SYSTEM HAS BEEN ENABLED, THE 2-WAY CONTROL VALVE SHALL MODULATE TO MAINTAIN SPACE HEATING SETPOINT SUBJECT TO DISCHARGE HIGH LIMIT OF 110 DEG. F. (ADJUSTABLE) AND DISCHARGE LOW LIMIT OF 70 DEG. F. IN HEATING MODE (ADJUSTABLE).
  - WHERE REHEAT COIL SERVES MULTIPLE SPACES, PROVIDE ADDITIONAL SPACE TEMPERATURE SENSORS (WHERE INDICATED) AND AVERAGE THE SPACE TEMPERATURE READINGS.

**2 Duct Mounted Heating Coil - Hot Water - Sequence of Operations**  
NTS



**DUCT MOUNTED HEATING COIL - HOT WATER - SEQUENCE OF OPERATIONS:**

- HEATING MODE:**
  - WHEN THE SPACE TEMPERATURE IS AT OR BELOW THE HEATING SETPOINT AND THE RELATED FAN SYSTEM HAS BEEN ENABLED, THE 2-WAY CONTROL VALVE SHALL MODULATE TO MAINTAIN SPACE HEATING SETPOINT SUBJECT TO DISCHARGE HIGH LIMIT OF 110 DEG. F. (ADJUSTABLE) AND DISCHARGE LOW LIMIT OF 70 DEG. F. IN HEATING MODE (ADJUSTABLE).
  - WHERE REHEAT COIL SERVES MULTIPLE SPACES, PROVIDE ADDITIONAL SPACE TEMPERATURE SENSORS (WHERE INDICATED) AND AVERAGE THE SPACE TEMPERATURE READINGS.

**6 Air Handling Unit - With Supply Air Temperature Control (AHU-2HS-5HS)**  
12" = 1'-0"



S.E.D. Control No. 66-04-03-03-0-001-019

Rev. No.	Date	Description
1	3/30/21	BID Addendum No 1



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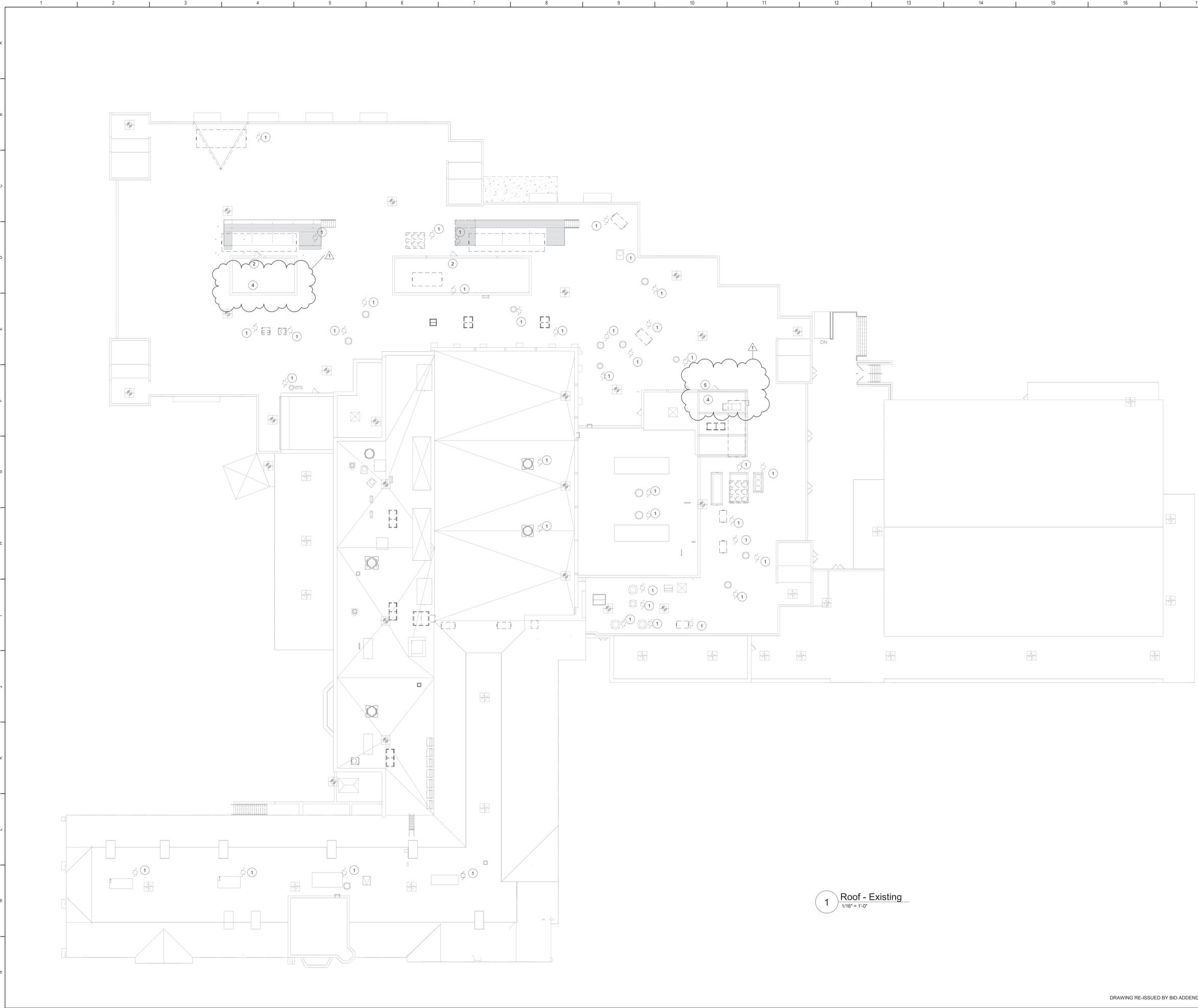
Dobbs Ferry Union Free School District  
Dobbs Ferry, New York

Reconstruction To:  
Middle / High School

Controls

Drawn By: DPM/pgm	Date: 07/02/2020	Drawing Number: <b>BM701</b>
Project No.: 234903-20001		

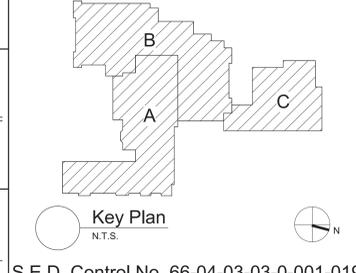
**BID SET**



- Keyed Notes**
- 1 DISCONNECT MECHANICAL EQUIPMENT. TAG AND COIL CIRCUIT FOR REUSE.
  - 2 DISCONNECT AND REMOVE SWITCHES AND CONDUIT TO ACCOMADTE WIDENING OF DOOR OPENING. COORDINATE ALL WORK WITH GENERAL CONTRACTOR.
  - 3 DISCONNECT MECHANICAL EQUIPMENT REMOVE CONDUIT AND CONDUCTORS BACK TO SOURCE.
  - 4 DISCONNECT LIGHT SWITCH FOR WIDER DOOR REPLACEMENT. EXTEND/MODIFY CIRCUITRY AS NECESSARY. COORDINATE ALL WORK WITH GENERAL CONTRACTOR.
  - 5 REMOVE EXTERIOR WALL LUMINAIRE AND CONDUCTIRS BACK TO SOURCE.

**General Notes**

A. REFER TO BE101 FOR GENERAL DEMOLITION AND GENERAL NOTES.



S.E.D. Control No. 66-04-03-03-001-019

Rev. No.	Date	Description
1	3/30/21	BID Addendum No 1



Dobbs Ferry Union Free School District  
Dobbs Ferry, New York

Reconstruction To:  
Middle / High School

Roof Demolition Plan

Drawn By: CR	Date: 07/02/2020	Drawing Number: <b>BE105</b>
Project No.: 234903-20001		

1 Roof - Existing  
1/16" = 1'-0"