

# ROCKFORD BOARD OF EDUCATION INVITATION FOR BID ON SUPPLIES, MATERIALS, EQUIPMENT OR SERVICES FOR SCHOOL DISTRICT NO. 205 ROCKFORD, ILLINOIS

IFB No. 21-41 Fairview E.C.C. Roof Replacement

DATE: June 2, 2021

RE: ADDENDUM NO. 4

#### To All Bidders:

Included are modifications, clarifications and/or corrections for the Project Manual and are hereby made a part of the contract documents. Please attach this addendum to the Project Manual(s) in your possession. Please note the receipt of this addendum on the bid form. Bidders shall review changes to all portions of this work as changes to one portion may affect the work of another.

If you plan to hand deliver your IFB submission on the due date, please note you must check in on the 2nd floor prior to coming to the bid opening. Please allow time for this as late submission will not be accepted.

Refer all questions relative to the business aspect, Instructions to Bidders, Special Conditions, and questions concerning the technical aspect of the documents to the Director of Purchasing by email at purchasingdeptstaff@rps205.com.

ROCKFORD BOARD OF EDUCATION

By: Dane Youngblood Director of Purchasing



#### **ADDENDUM**

TO: PROSPECTIVE BIDDERS

RE: ADDENDUM # 4

PROJECT NUMBER: RPS# 2126 BFA # 1121

IFB No. 21-41

FOR: Roof Replacement for Fairview Early Childhood Center

ADDRESS: 512 Fairview Avenue

Rockford, IL

DATE: 06-02-2021

Please attach Addendum 4 to the above Drawings, and kindly take same into consideration in preparing your proposal.

By \_\_\_\_\_Rob C. Belles,

Belles Firm of Architecture Inc.

This addendum consists of 11 pages including this sheet.

Project Number: RPS# 2126 BFA # 1121 Addendum 4
IFB No. 21-41 Page 2

For: Roof Replacement for Fairview Early Childhood Center

Address: 512 Fairview Avenue

Rockford, IL

#### CHANGE TO THE SCOPE

Exhaust fans and ventilation fans are to be removed and replaced with new. This addendum includes updated Architectural Plans and updated Architectural Details. This addendum contains (4) NEW Mechanical Sheets. Please note that the quantity of fans on the East Wing has changed.

Contractor's alternate to provide all new curbs in place of curb extensions and curb adaptors.

Revised Sheets Attached:

**Cover Sheet** 

Α1

A1.1

A1.2

A2

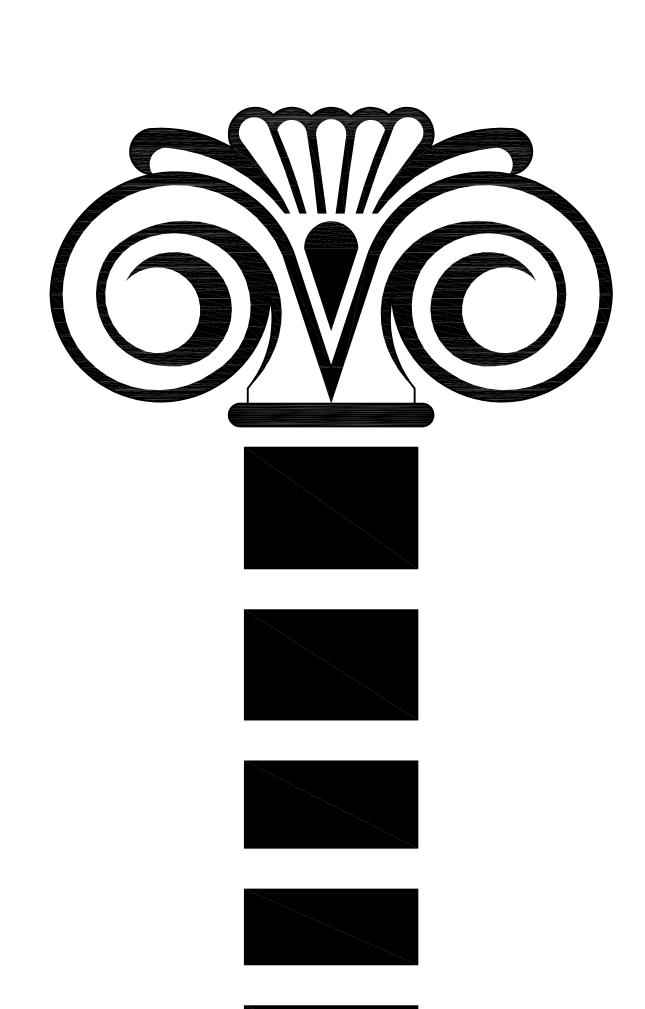
New Sheets Attached:

M-1

M-2

E-1

E-2



# ROOF REPLACEMENT FOR Rockford School District #205

501 7th Street

ROCKFORD, ILLINOIS

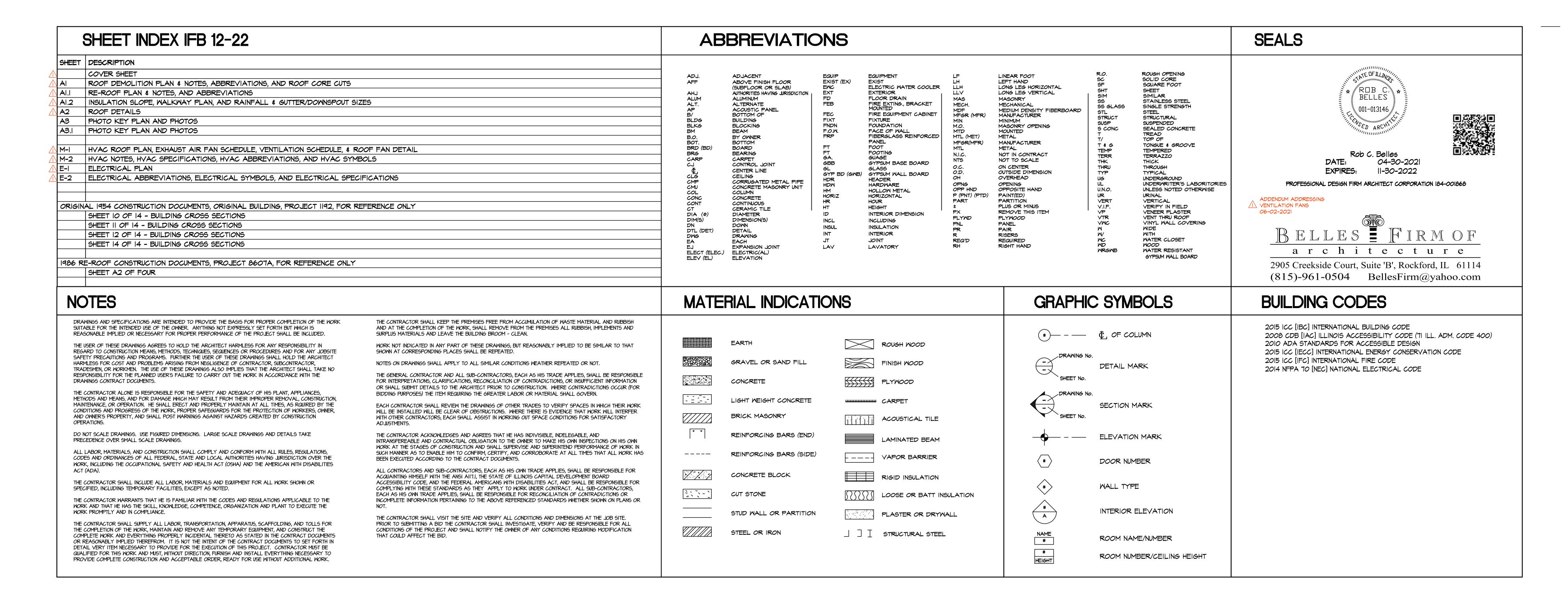


# FAIRVIEW EARLY CHILDHOOD CENTER

512 FAIRVIEW AVENUE

ROCKFORD, ILLINOIS

RPS # 2126 IFB No. 21-41



#### DEMOLITION NOTES GENERAL DEMOLITION NOTES THE ROOFING CONTRACTOR IS TO COORDINATE AND PROVIDE ALL DEMOLITION AND REMOVAL OF DEBRIS NECESSARY TO ACCOMMODATE NEW CONSTRUCTION. THE DEMOLITION PLAN IS PROVIDED AS AN AID IN PLANNING AND DOES NOT RELIEVE THE ROOFING CONTRACTOR'S RESPONSIBILITY IN FIELD VERIFYING THE EXISTING JOB SITE. PROVIDE ALL TEMPORARY SHORING AS REQUIRED TO SUPPORT STRUCTURES AND FINISHES TO REMAIN. ALL AREAS, FINISHES, AND ITEMS NOT REQUIRING DEMOLITION MUST BE PROTECTED DURING DEMOLITION AND CONSTRUCTION WORK. THIS DEMOLITION PLAN IS TO BE USED IN CONJUNCTION WITH ALL SHEETS IN THE DRAWING SET. ALL ITEMS TO BE REMOVED SHALL BE THE RESPONSIBILITY OF THE ROOFING CONTRACTOR UNLESS NOTED OTHERWISE. PRIOR TO DEMOLITION, THE CONTRACTOR SHALL VERIFY WITH THE OWNER ITEMS TO BE SALVAGED IN THE PROJECT. SALVAGED ITEMS SHALL BE REMOVED BY THE ROOFING CONTRACTOR AND TURNED OVER TO THE OWNER. ITEMS SHALL BE PLACED ON-SITE AT A ROOM, OR IN AN AREA, DESIGNATED BY THE OWNER. WHERE ITEMS ARE REMOVED, THE SUBSTRATE SHALL BE REPAIRED, PATCHED, CLEANED, ETC., TO A CONDITION SUITABLE TO RECEIVE NEW WORK AND OR FINISHES. ITEMS TO BE DISPOSED OF SHALL BE REMOVED FROM THE SITE IN A TIMELY MANNER. WIRES, CONDUITS, AND PIPES ARE TO REMAIN DURING ROOF TEAR-OFF. POWER ROOF EXHAUSTS (PRE), SKYLIGHTS, VENTS, ETC. TO BE REMOVED TEMPORARILY TO EXTEND NEW MEMBRANE OVER EXISTING CURB, AND THEN RE-SET IN FLASHING. ALL PLUMBING VENTS AND AIR INTAKE/EXHAUSTS TO REMAIN UNO. <u>DEMOLITION PLAN NOTES</u> REMOVE EXISTING GRANULATED SILICON COATING OVER APPROX. 3.5" FOAMED IN-PLACE INSULATION OVER EXISTING T&G BUILT-UP ROOF ON I" INSULATION. TOTAL IN PLACE ROOFING THICKNESS APPROX. 5". THE EXISTING TAR HAS BEEN SAMPLED AND CONTAINS ASBESTOS. THE ROOFING CONTRACTOR IS TO TAKE CARE TO REMOVE AND FOLLOW ALL APPLICABLE REGULATIONS FOR SAFE REMOVAL AND DISPOSAL. SEE ALSO CORE SAMPLES. DIA AT PENTHOUSE IT IS NOT NECESSARY TO REMOVE ALL EXISTING ROOFING. REMOVE ENOUGH OF THE SPRAY FOAM SUCH THAT NEW INSULATION CAN BE ATTACHED THAT WILL PROVIDE A SMOOTH SLOPED SURFACE FOR THE NEW MEMBRANE. D2 CAREFULLY REMOVE UPPERMOST METAL ROOF EDGE/FASCIA TO ALLOW FOR REMOVAL OF ROOF MEMBRANE. MAJORITY OF 24" TALL FASICA TO REMAIN. TAKE CARE TO NOT DAMAGE EXISTING WOOD BLOCKING FOR REUSE. SEE DETAIL I, SHEET A2. D2A EXISTING METAL FASCIA TO REMAIN. D3 EXISTING PLUMBING VENT THRU ROOF (VTR) TO REMAIN. REMOVE ALL PRIOR, EXISTING, UNDERLYING FLASHING/BOOT AND CLEAN PIPE. PREPARE PIPE AS REQUIRED FOR RAISING. BVENT D4 IT IS BELIEVED THERE IS AN EXISTING, COVERED AND PLUGGED, ROOF DRAIN (XRD) IN THIS GENERAL LOCATION. MAINTAIN PLUG. PLACE A NEW MTL. PAN OVER THE SUMP AND MAINTAIN THE DRAIN ABANDONED IN-PLACE. TAKE GREAT CARE TO NOT DISTURB ANY OF THE PIPING OR INSULATION AS IT IS ACM. D5 EXISTING ROOF DRAIN. (PXRD) TO BE ABANDONED IN PLACE. REMOVE STRAINER. PLUG EXISTING ROOF DRAIN PIPE BELOW DRAIN ASSEMBLY. PLACE A NEW MTL. PAN OVER THE SUMP AND MAINTAIN THE DRAIN ABANDONED IN-PLACE. SEE DETAIL 9, SHEET A2 TAKE GREAT CARE TO NOT DISTURB ANY OF THE PIPING OR INSULATION AS IT IS ACM. \_\_\_\_\_ D6 EXISTING POWER ROOF EXHAUST (PRE). REMOVE FAN UNIT, AND DISPOSE OF. REMOVE SPRAY FOAM INSULATION AND GRANULAR COATING FROM SIDES OF CURB/UNIT. REMOVE FLASHING/COUNTER FLASHING FROM EXISTING CURB TO REMAIN. D6A EXISTING (PRE). THIS APPEARS TO BE A ROUND PENETRATION THRU THE ROOF. REMOVE EXISTING FAN UNIT, AND DISPOSE OF. MODIFY EXISTING OPENING THRU METAL DECK TO ACCOMMODATE NEW PREFABRICATED, STRAIGHT-SIDED, LEAKPROOF ROOF CURB. D6B EXISTING POWER ROOF EXHAUST (PRE) TO REMAIN. DETACH UNIT TO INSTALL NEW FLASHING, AND ADDRESS CURB IF REQUIRED. REMOVE GRANULAR ROLLED ROOFING FROM SIDES OF CURB/UNIT. REMOVE FLASHING/COUNTER FLASHING FROM CURB. D7 EXISTING COMBUSTION AIR INTAKE (CAI) TO REMAIN. DETACH UNIT TO INSTALL NEW FLASHING, AND ADDRESS CURB IF REQUIRED. REMOVE ROLLED GRANULAR ROOFING FROM SIDES OF CURB. D8 EXISTING BOILER FLUE (FLUE) TO REMAIN. DETACH COLLAR. REMOVE FLASHING. REMOVE ROLLED GRANULAR ROOFING FROM SIDES OF CURB AND PREPARE FOR NEW ROOFING MEMBRANE. **ABBREVIATIONS** ROOF CORE CUTS D9 EXISTING BLOW DOWN SEPARATOR (BDS) PIPE THRU ROOF. REMOVE EXISTING COLLAR. REMOVE EXISTING GRANULAR ROOFING FROM SIDES OF PIPE AND PREPARE FOR NEW MEMBRANE FLASHING BOOT. \_\_\_\_\_\_\_\_\_\_ AIR COOLED CONDENSING UNIT ■ CORE ALL CORE SAMPLES HAD SIMILAR CONDITIONS DIO EXISTING BYENT TO REMAIN. DETACH COLLAR. REMOVE EXISTING COLLAR. REMOVE SPRAY FOAM BDS BOW DOWN SEPARATOR INSULATION AND GRANULAR COATING FROM SIDES OF PIPE TO REMAIN. COMBUSTION AIR INTAKE SILICOLN AND GRANULAR COATING ON 3-1/2" +/- SPRAY POLYURETHANE INSULATION DOWNSPOUT DII EXISTING DRYER VENT (DV) TO REMAIN. DETACH COLLAR. REMOVE EXISTING COLLAR. REMOVE DRYER VENT VIF THICKNESS SPRAY FOAM INSULATION AND GRANULAR COATING FROM SIDES OF PIPE TO REMAIN. CRICKETS, CANTS AND CURBS ARE EXPANSION JOINT EXHAUST FAN FORMED FROM EXCEPTIONALLY THICK FOAM DI2 REMOVE EXISTING ROOF HATCH AND DISPOSE OF. REMOVE SPRAY FOAM INSULATION AND METAL FLUE PIPE OVER APPROX 1 GRAVEL ON GRANULAR COATING FROM SIDES OF CURB TO REMAIN. SECURE AND PREPARE OPENING FOR NEW GAS REGULATOR VENT I" FESCO CELLULOSE INSULATED COVER BOARD REPLACEMENT ROOF HATCH. REMOVE LADDER AND DISPOSE OF. HIGH POINT OF ROOF ATTACHED TO METAL DECK 2"-3" PIPE/CONDUIT WITH LIGHT MOUNTED ON IT. (SEE 1986 RE-ROOF DRAWINGS FOR REFERENCE) DI3 EXISTING LIGHT POST TO REMAIN. REMOVE ALL INSULATION FROM AROUND POST. THERE IS LOW POINT OF ROOF SIGNIFICANT INSULATION AT SOME LOCATIONS. REMOVE INSULATION AND GRANULAR COATING FROM SIDES PITCH BOX TOTAL ROOFING SYSTEM DEPTH 5" +/-OF POST TO REMAIN AS NECESSARY TO APPLY NEW MEMBRANE BOOT FLASHING. POWER ROOF EXHAUSTER ROOF DRAIN ACM TESTING INDICATES THAT THE TAR SEALANT CONTAINS DI4 EXISTING SKYLIGHT. REMOVE EXISTING PLASTIC SKYLIGHT UNIT AND DISPOSE OF. UNIT TO BE ROOF TOP UNIT ASBESTOS. THE MATERIAL SHOULD BE PROFILED IN THE REPLACED. REMOVE EXISTING FLASHING. REMOVE SPRAY FOAM INSULATION AND GRANULAR COATING WASTE MANIFEST AND THE LANDFILL SHOULD BE MADE FROM SIDES OF CURB TO REMAIN. MAINTAIN WATERTIGHT CONDITION BY INSTALLING NEW SKYLIGHT PRIOR VENT THRU ROOF (PLUMBING VENT) AWARE THAT IT IS AN ASBESTOS CONTAINING MATERIAL TO END OF WORK DAY. SEE DETAIL 6, SHEET A2. ROOF DRAIN PLUGGED AND COVERED THIS MATERIAL NEEDS TO GO TO A SUBTITLE D LANDFILL ROOF DRAIN TO BE PLUGGED AND COVERED THAT ACCEPTS CONSTRUCTION AND DEMOLITION WASTE. THE DIS EXISTING EXHAUST FAN (EXF). REMOVE FAN UNIT AND DISPOSE OF. REMOVE EXISTING FLASHING. ACM MATERIAL SHALL BE REMOVED WITHOUT SANDING, REMOVE SPRAY FOAM INSULATION AND GRANULAR COATING FROM SIDES OF CURB TO REMAIN. ----> DIRECTION OF FLOW GRINDING, OR ABRADING, AND WORKERS SHALL BE ADEQUATELY PROTECTED WHEN HANDLING IT. DI6 REMOVE AND DISPOSE OF EXISTING SCUPPER AND ASSOCIATED BLOCKING AND FLASHING TO ACCOMMODATE NEW ROOF EDGE CONDITION. SEE DETAIL FROM FOAM RE-ROOF ILLUSTRATING HOW SCUPPER WAS ADDED. DIT REMOVE EXISTING THRU WALL SCUPPER FLASHING/BOX. REMOVE EXTERIOR COLLECTION BOX. REMOVE DOWNSPOUT. DISPOSE OF ALL. REMOVE SPRAY INSULATION AND GRANULAR COATING FROM INSIDE WALL FACES OF THRU WALL SCUPPER. CUT NEW "U" SHAPED SCUPPER OPENING IN EXISTING WALL. PREPARE OPENING TO REMAIN FOR NEW SCUPPER AND DOWNSPOUT. DIS REMOVE EXISTING THRU WALL SCUPPER FLASHING/BOX AND DISPOSE OF. PREPARE OPENING TO REMAIN FOR NEW MASONRY INFILL. DIBA CUT NEW "U" SHAPED SCUPPER OPENING IN EXISTING WALL. TAKE CARE TO SALVAGE EXISTING FACEBRICK FOR RE-USE IN 18 ABOVE. DI9 EXISTING PARAPET WALL WITH STONE COPING. REMOVE SPRAY INSULATION AND GRANULAR COATING FROM AGAINST PARAPET WALL AS NECESSARY FOR INSTALLATION OF NEW ROOFING MEMBRANE. VIF QUANTITY OF SPRAY FOAM AS IT IS THICK/DEEP IN MANY LOCATIONS. PREPARE TOP OF STONES TO REMAIN FOR NEW METAL COPING SYSTEM. DIPA CUT NEW "U" SHAPED SCUPPER OPENING IN EXISTING WALL. D20 REMOVE RUBBER MEMBRANE, ADHESIVE APPLIED, FROM COPING STONE AND MASONRY, AND DISPOSE OF. PREPARE TOP OF STONES TO REMAIN FOR NEW METAL COPING SYSTEM. D2I RAISED AREA ON ROOF. IT IS BELIEVED THIS IS AN ABANDONED ROOF CURB FROM AN EXHAUST FAN BELOW. INCLUDE THIS ASSUMPTION IN THE BASE BID. INCLUDE IN THE BASE BID THE REMOVAL OF THE CURB STRUCTURE AND INFILL OF THE OPENING WITH NEW METAL DECK FLUSH WITH THE EXISTING DECK TO REMAIN. D22 REMOVE EXISTING SKYLIGHT AND ENTIRE CURB DOWN TO METAL DECK. PROVIDE NEW METAL DECK OVER EXISTING OPENING. PREPARE FOR NEW INSULATION AND ROOFING TO COMPLETELY COVER. NO WORK ON INTERIOR UNDER THIS CONTRACT. D23 REMOVE EXISTING ROOF LADDER AND DISPOSE OF. RE-USE ANCHORS FOR NEW LADDER TO GREATEST EXTENT POSSIBLE. REMOVE NON-USED ANCHORS AND MORTAR HOLES. || D24 EXISTING AR INTAKE. DETACH UNIT AS REQUIRED TO EXTEND CURB, AND INSTALL ROOFING. SCOPE OF WORK REMOVE TPO MEMBRANE AND ASSOCIATED TERMINATIONS/FLASHING AS REQUIRED, AND WHERE INDICATED IN THE DEMOLITION DETAILS. REMOVE SPRAY FOAM WITH SILICONE GRANULAR RE-ROOF OVER TAR AND GRAVEL ROOF SYSTEM. REMOVE BUILT-UP ROOFING, DOWN TO METAL DECK AS INDICATED REMOVE AND REPLACE METAL CAPS AND FLASHINGS. REMOVE AND REPLACE ALL DAMAGED, WET, OR ROTTEN, WOOD NAILERS, BLOCKING, SHIMS. REMOVE AND REPLACE ALL DAMAGED FLASHINGS. INSTALL/PROVIDE NEW SUMPS AT EXISTING SCUPPERS. CREATE NEW SCUPPERS. REMOVE AND REPLACE SKYLIGHTS TO REMAIN. REMOVE AND COVER SKYLIGHTS TO BE ABANDONED.

REMOVE AND REPLACE ALL SCUPPERS / COLLECTOR BOXES, GUTTERS, DOWNSPOUTS, METAL COPINGS,

ROOF DIMENSIONS ARE TAKEN FROM ORIGINAL DRAWINGS. CONTRACTOR SHALL VERIFY ON-SITE.

ALL OPENINGS THRU ROOFS, INCLUDING STACKS, PLIMBING VENTS, EXHAUSTERS, HVAC EQUIPMENT, DRAING, PIPES, CONDUITS, WIRES,, ETC., ARE SHOWN IN APPROXIMATE QUANTITY AND LOCATION ONLY.

PROVIDE NEW PERIMETER GUTTERS AND ASSOCIATED DOWNSPOUTS.

PROVIDE NEW METAL COPING OVER EXISTING STONE COPINGS.

CONTRACTOR SHALL VERIFY ALL ON-SITE.

AND METAL ROOF EDGE.

06-02-2021 <u>------</u> 04-30-2021 

ADDENDUM ADDRESSING

SD205 #2126

ROOF DEMOLITION PLAN

#### **ROOF NOTES** GENERAL RENOVATION NOTES ROOFING CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADDITIONAL CORE CUTS, AT HIS DISCRETION, TO VERIFY THE EXISTING CONDITIONS. NO EXTRAG WILL BE ALLOWED TO COMPENSATE FOR EXISTING CONDITIONS WHICH DIFFER FROM WHAT IS DESCRIBED IN THE CONSTRUCTION DOCUMENTS. ROOFING CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS, ACTUAL DIMENSIONS OF THE ROOF, AND QUANTITIES PRIOR TO BIDDING. TYP A2 DO NOT SCALE DRAWINGS ROOFING CONTRACTOR TO FIELD VERIEY LOCATIONS, AND QUANTITIES, OF ALL ROOF EQUIPMENT, PIPING, VENTS, ETC. PRIOR TO BIDDING. LOCATIONS SHOWN ON PLANS SHOULD ONLY BE USED AS A GUIDE. CONTRACTOR SHALL FLASH ALL PENETRATIONS PER ROOFING MANUFACTURER'S WARRANTY STANDARDS. AS APPLICABLE, ROOFING CONTRACTOR TO EXTEND FLUES, CURBS, & EQUIPMENT SUCH THAT FLASHING IS A MINIMUM OF 8", AND CURB IS A MINIMUM OF 12" ABOVE THE NEW ROOF MEMBRANE.. AS APPLICABLE, ROOFING CONTRACTOR TO EXTEND PLUMBING VENTS SO THEY ARE A MINIMUM OF 12" ABOVE THE TOP OF THE ROOF. ALL DETAILS SHALL BE APPROVED BY THE ROOFING MANUFACTURER IN ORDER TO MAINTAIN THE NEW ROOF WARRANTY INTACT. PROVIDE SADDLES AT EQUIPMENT AND OTHER ROOF PENETRATIONS FOR POSITIVE DRAINAGE. e LOW ROOF A2 / SIM @ LOW SIDE ALL CONDUCTOR BOXES AND SCUPPERS TO BE INSTALLED PER SMACNA AND ROOFING MANUFACTURER'S RECOMMENDATIONS. A2 @ (3) SIDES MAINTAIN CONTINUOUS TEMPORARY PROTECTION AGAINST WATER INTRUSION DURING AND PRIOR TO INSTALLATION OF NEW ROOFING SYSTEM. ROOFING CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING DAMAGED GRASS AND PAVING AREAS BACK TO THEIR ORIGINAL CONDITION. ROOFING CONTRACTOR SHALL BE RESPONSIBLE FOR PICKING UP ALL NAILS, SCREMS, AND SIMILAR DEBRIS AROUND THE PERIMETER OF THE BUILDING. ROOFING CONTRACTOR TO MAKE SURE SADDLES AT SCUPPERS DO NOT TRAP WATER. ADJUST TAPERED A2 INSULATION ACCORDINGLY. PROTECT TPO SURFACE FROM DIRT AND STAINING DURING INSTALLATION, ELSE, SURFACE MUST BE CLEANED AFTER INSTALLATION IS COMPLETED. ROOFING CONTRACTOR SHALL REMOVE AND REPLACE ROTTEN BLOCKING WITH NEW TREATED WOOD BLOCKING AS REQUIRED TO ACCOMMODATE NEW FLASHING AND NEW INSULATION. RE-ROOF PLAN NOTES: NEW TPO ROOFING, OVER COVERBOARD, ON TAPERED 20PSI INSULATION SYSTEM. AIB AT HATCH SHOWN AIB, CONTRACTOR ALTERNATE TO BUILD-UP ROOF. DEE DETAIL 18, SHEET A2 A2 A2 ADD NEW TREATED WOOD BLOCKING AND/OR PLYWOOD AG REQUIRED AROUND PERIMETER OF ROOF FOR DEPTH OF NEW INSULATION. REPAIR/REPLACE EXISTING WOOD BLOCKING WHERE ROTTEN OR EXCESSIVELY DAMAGED. SEE EXISTING DETAILS AND REVISED DETAIL I SHEET A2. BASE BID: PROVIDE 2" TALL OF NEW 2X/PLY BLOCKING CONTINUOUS AROUND PERIMETER. PROVIDE AN ALLOWANCE OF 600 LINEAL FEET OF REPLACEMENT BLOCKING. SEE ALSO UNIT COST TO ADD OR DEDUCT FOR ACTUAL QUANTITY OF REPLACEMENT BLOCKING. PROVIDE NEW ROOF EDGE AND BOX GUTTER PER DETAIL I, SHEET A2. AS EXISTING PLUMBING VENT THRU ROOF (VTR) TO REMAIN. RAISE HEIGHT SUCH THAT PLUMBING VENT IS MIN. 12" ABOVE THE FINAL FINISHED ROOF SURFACE. PROVIDE ROOFING MANUFACTURER'S STANDARD PRE-MADE PIPE BOOT. SEE DETAIL II, SHEET A2. A4 IT IS BELIEVED THERE IS AN EXISTING, COVERED AND PLUGGED, ROOF DRAIN (XRD) IN THIS GENERAL LOCATION. MAINTAIN PLIG. PLACE A NEW ROOF PAN OVER THE SUMP AND MAINTAIN THE DRAIN ABANDONED IN-PLACE. SEE DETAIL 9, SHEET A2, SIM. AND 1986 RE-ROOF DRAWINGS. TAKE GREAT CARE TO NOT DISTURB ANY OF THE PIPING OR INSULATION AS IT IS ACM. A5 EXISTING ROOF DRAIN. (PXRD) TO BE ABANDONED IN PLACE. PLUG EXISTING ROOF DRAIN PIPE BELOW DRAIN ASSEMBLY. PLACE A NEW ROOF PLAN OVER THE SUMP AND MAINTAIN THE DRAIN ABANDONED IN-PLACE. INTAKE TAKE GREAT CARE TO NOT DISTURB ANY OF THE PIPING OR INSULATION AS IT IS ACM. A6 PROVIDE NEW POWER ROOF EXHAUST (PRE). SEE ALSO MECH SHEETS. RUN TPO UP SIDE OF CURB AND UNDER FAN UNIT, SEE DETAIL 1, SHEET A2. PROVIDE CURB ADAPTOR AND EXTEND/MODIFY CURB AS REQUIRED SUCH THAT BOTTOM OF FLASHING IS MINIMUM OF 8" ABOVE NEW ROOF. A6A PROVIDE NEW POWER ROOF EXHAUST (PRE) ON NEW PREFABRICATED ROOF CURB. SEE ALSO MECH SHEETS. RUN TPO UP SIDE OF CURB AND UNDER FAN UNIT, SEE DETAIL 8, SHEET A2. AGB EXISTING POWER ROOF EXHAUST (PRE) TO REMAIN. RUN TPO UP SIDE OF CURB AND UNDER FAN UNIT, SEE **ABBREVIATIONS** COLORS DETAIL 7, SHEET A2. EXTEND/MODIFY CURB AS REQUIRED SUCH THAT BOTTOM OF FLASHING IS MINIMUM OF 8" AIR COOLED CONDENSING UNIT BOW DOWN SEPARATOR COLOR: STANDARD GREY AT EXISTING COMBUSTION AIR INTAKE (CAI) TO REMAIN. DETACH UNIT TO INSTALL NEW FLASHING AND TPO COMBUSTION AIR INTAKE ROOFING. SEE DETAIL 7, SHEET A2. DOWNSPOUT GUTTERS, DOWNSPOUTS, FLASHINGS, COPINGS, AND OTHER EXTEND CURB AS REQUIRED SUCH THAT BOTTOM OF FLASHING IS MINIMUM OF 12" ABOVE NEW ROOF. DRYER VENT MISCELLANEOUS METALS COLOR: CLEAR ANODIZED EXPANSION JOINT AS EXISTING BOILER FLUE (FLUE) TO REMAIN. DETACH COLLAR. \ A2 / EXHAUST FAN EXTEND CURB AS REQUIRED SUCH THAT BOTTOM OF FLASHING IS MINIMUM OF 12" ABOVE NEW ROOF. METAL FLUE PIPE SUBMIT PHYSICAL COLOR SAMPLES FOR APPROVAL EXTEND ROOFING MEMBRANE UP SIDE AND OVER TOP OF EXISTING CURB. PROVIDE NEW FLASHING OVER TOP OF $\left(\begin{array}{c}2\\A2\end{array}\right)$ GAS REGULATOR VENT MEMBRANE. AND RE-ATTACH COLLAR. SEE DETAIL 1, SHEET A2. HIGH POINT OF ROOF 2"-3" PIPE/CONDUIT WITH LIGHT MOUNTED ON IT. A9 EXISTING BLOW DOWN SEPARATOR (BDS) PIPE THRU ROOF. LOW POINT OF ROOF PROVIDE ROOFING MANUFACTURER'S STANDARD PRE-MADE PIPE BOOT. SEE DETAIL II, SHEET A2. PITCH BOX POWER ROOF EXHAUSTER ROOF ANCHOR PROVIDE ROOFING MANUFACTURER'S STANDARD PRE-MADE PIPE BOOT. SEE DETAIL II, SHEET A2. ROOF DRAIN PROVIDE NEW COLLAR ROOF TOP UNIT All EXISTING DRYER VENT (DV) TO REMAIN. VENT THRU ROOF (PLUMBING VENT) PROVIDE ROOFING MANUFACTURER'S STANDARD PRE-MADE PIPE BOOT. SEE DETAIL II, SHEET A2. ROOF DRAIN PLUGGED AND COVERED PROVIDE NEW COLLAR ROOF DRAIN TO BE PLUGGED AND COVERED A12 AFTER REMOVAL OF EXISTING ROOF HATCH, BUILD NEW WALL AROUND ALL SIDES OF OPENING. SEE DETAIL ----> DIRECTION OF FLOW 19, SHEET A2. INSTALL NEW ROOF HATCH AND SAFETY RAILING. AI3 EXISTING LIGHT POST TO REMAIN. A2PROVIDE ROOFING MANUFACTURER'S STANDARD PRE-MADE PIPE BOOT. SEE DETAIL II, SHEET A2. ( A2 ) ALL EXISTING SKYLIGHT. AFTER REMOVAL OF EXISTING SKYLIGHT UNIT, EXTEND CURB AS REQUIRED SUCH THAT NEW SKYLIGHT UNDERSIDE OF FLASHING IS 8" ABOVE ROOF NEW ROOF MEMBRANE. ADD INSULATION BOARD TO EXTERIOR OF CURB AND EXTEND TPO UP SIDE AND ONTO TOP OF CURB. INSTALL NEW SKYLIGHT UNIT. SEE DETAIL MAINTAIN WATERTIGHT CONDITION BY INSTALLING NEW SKYLIGHT PRIOR TO END OF WORK DAY AIS NEW EXHAUST FAN (EXF) ON EXISTING CURB. SEE ALSO MECH SHEETS. RUN TPO UP SIDE OF CURB AND UNDER FAN UNIT, SEE DETAIL 1, SHEET A2. REPLACE CURB, OR PROVIDE CURB ADAPTOR AND EXTEND/MODIFY CURB AS REQUIRED SUCH THAT BOTTOM OF FLASHING IS MINIMUM OF 8" ABOVE NEW ROOF. A16 LOCATION OF NEW DOWNSPOUT. AT GRASSY/DIRT/PLANTING AREAS PROVIDE NEW CONCRETE SPLASH BLOCK ON GROUND. AIT AFTER REMOVAL OF EXISTING SCUPPER BOX AND DOWNSPOUT. MODIFY/CUT MASONRY PER DETAIL SUCH THAT SCUPPER IS AN OPEN "U" CONFIGURATION, AS OPPOSED TO CURRENT HOLE THRU WALL. SEE DETAIL 3, SHEET A2. PREPARE OPENING AND PROVIDE NEW SUMP, NEW SCUPPER, SCUPPER BOX, AND DOWNSPOUT. PROVIDE 24"x48" MEMBRANE SPLASH ON LOMER ROOF BELOW DOWNSPOUT. Als AFTER REMOVAL OF EXISTING SCUPPER BOX, DOWNSPOUT, AND THRU WALL SCUPPER ROOFING, PREPARE OPENING TO REMAIN FOR NEW MASONRY INFILL. FILL EXISTING OPENING WITH FACE BRICK SALVAGED FROM OPENING CUT AT IBA. BACK FACE AND CAVITY CAN BE ANY UNIT MASONRY SUCH THAT OPENING IS FILLED SOLID, AND FLUSH WITH 2 5 A2 A2 LOW BOTH FACES OF WALL TO REMAIN, AND AS ACCEPTABLE TO TAKE NEW ROOFING MEMBRANE. AISA CUT NEW "U" SHAPED SCUPPER OPENING IN EXISTING WALL. TAKE CARE TO SALVAGE EXISTING FACEBRICK FOR RE-USE IN 18 ABOVE. PREPARE OPENING AND PROVIDE NEW SUMP, NEW SCUPPER, SCUPPER BOX, AND DOWNSPOUT. SEE DETAIL 3, SHEET A2. PROVIDE NEW CONCRETE SPLASH BLOCK ON GROUND UNDER EACH DOWNSPOUT. AIG EXISTING PARAPET WALL WITH STONE COPING. PREPARE TOP OF STONES TO REMAIN FOR NEW METAL COPING SYSTEM. EXTEND TPO ROOFING UP INSIDE FACE OF PARAPET WALL, ONTO TOP OF PARAPET, AND DOWN FRONT OF STONE MINIMUM I". SEE DETAIL 2, SHEET A2. A20 LOCATION OF NEW DOWNSPOUT FROM UPPER MECH. SHAFT ROOF. PROVIDE 24"X48" MEMBRANE SPLASH ON LOWER ROOF BELOW DOWNSPOUT. A21 RAISED AREA ON ROOF. IT IS BELIEVED THIS IS AN ABANDONED ROOF CURB FROM AN EXHAUST FAN IN THE TEACHERS KITCHEN BELOW. INCLUDE THIS ASSUMPTION IN THE BASE BID. INCLUDE IN THE BASE BID THE REMOVAL OF THE CURB STRUCTURE AND INFILL OF THE OPENING WITH NEW METAL DECK FLUSH WITH THE EXISTING DECK TO REMAIN. PROVIDE NEW INSULATION AND TPO ROOFING OVER THIS FOR FINAL SMOOTH/LEVEL ROOF. A22 CUT NEW "U" SHAPED SCUPPER OPENING IN EXISTING WALL. TAKE GREAT CARE NOT TO DAMAGE STONE TO A2 \ A2 / A2 REMAIN. PREPARE OPENING AND PROVIDE NEW SUMP, NEW SCUPPER, SCUPPER BOX, AND DOWNSPOUT. SEE DETAIL 3, SHEET A2. TYP PROVIDE NEW CONCRETE SPLASH BLOCK ON GROUND UNDER EACH DOWNSPOUT. A23 AFTER REMOVAL OF EXISTING SKYLIGHT AND CURB, INFILL OPENING THE EXISTING OPENING WITH METAL DECK FLUSH WITH THE EXISTING DECK TO REMAIN. PROVIDE NEW INSULATION AND TPO ROOFING OVER THIS FOR FINAL SMOOTH/LEVEL ROOF. NO WORK ON INTERIOR UNDER THIS CONTRACT. A24 PROVIDE NEW ROOF LADDER IN EXISTING JANITOR CLOSET. ATTACH TO CONCRETE BLOCK WALL USING EXISTING BOLTS. NEW LADDER TO EXTEND TO WITHIN 3" OF TOP OF NEW CURB. VIF EXACT LENGTH/HEIGHT OF LADDER SEE DETAIL 20, SHEET A2. A25 PRIOR TO ROOF INSTALLATION, INSTALL ROOF ANCHOR EQUAL TO GUARDIAN PROTECTION CB-18 PART# 00657 STANDARD LOOP. FASTEN TO METAL DECK PER MFGR'S DIRECTIONS UTILIZING INCLUDED ANCHORS. 800-466-6385 www.quardianfall.com TYP OF (2) PROVIDE ROOFING MÁNUFACTURER'S STANDARD PRE-MADE PIPE BOOT. SEE DETAIL II, SHEET A2. TYP A2 A26 PROVIDE (2) ROMS OF 6" CLEAR POLYCARBONATE SNOW GUARDS COORDINATED WITHROOFING MFGR. FOR APPROVED ADHESIVE INSTALLATION METHOD ONTO NEW TPO ROOFING MATERIAL. SUBMIT APPROVED AND WARRANTED INSTALLATION METHOD TO ARCHITECT AND RPS205. A2T PROVIDE NEW ROOF LADDER, PER DETAIL 21, SHEET A2, FROM LOW ROOF TO HIGH/GYM ROOF. A28 EXISTING AIR INTAKE TO REMAIN. EXTEND TPO MEMBRANE UP SIDE OF CURB/FAN AND ONTO TOP. PROVIDE NEW FLASHING. RESET UNIT IN SEALANT, AND PROVIDE NEW SEALANT AT CONNECTION, AND ALL FASTENERS. SEE DETAIL 10, SHEET A2.

A2 TYP

\ A2 /

A2

@ LOW ROOF

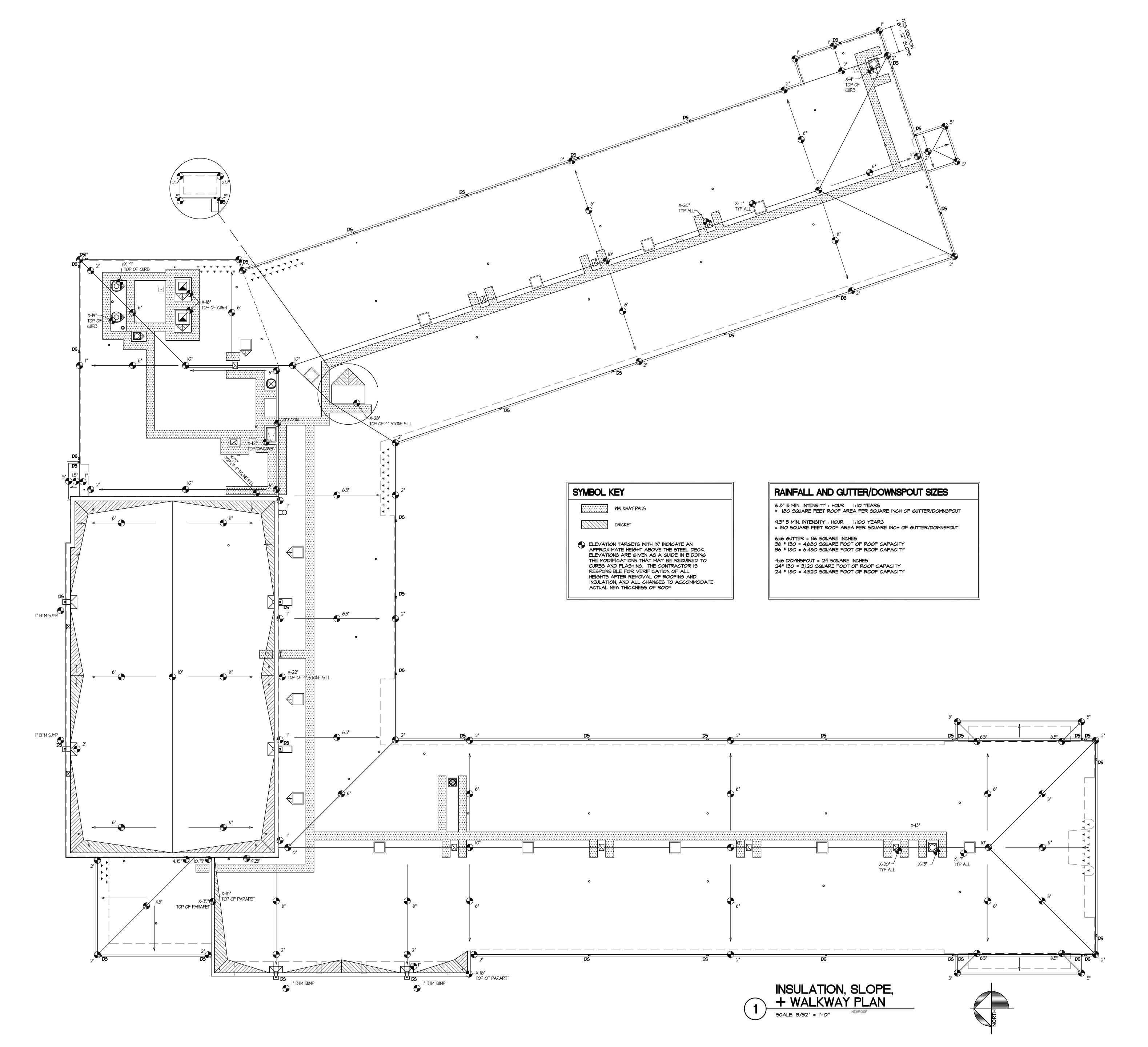
\ A2 / @ LOW ROOF

VENTILATION FANS 06-02-202 CHANGE 25PSI TO 20PSI &
ADD COVERBOAD TO ALL 05-20-2021

04-30-2021

SD205 #2126

A1.1



SS F M M O F

a i t e c t u r e

ourt, Suite 'B', Rockford, IL 61114

BellesFirm@yahoo.com
184-001868

ADDENDUM ADDRESSING
VENTILATION FANS
06-02-2021

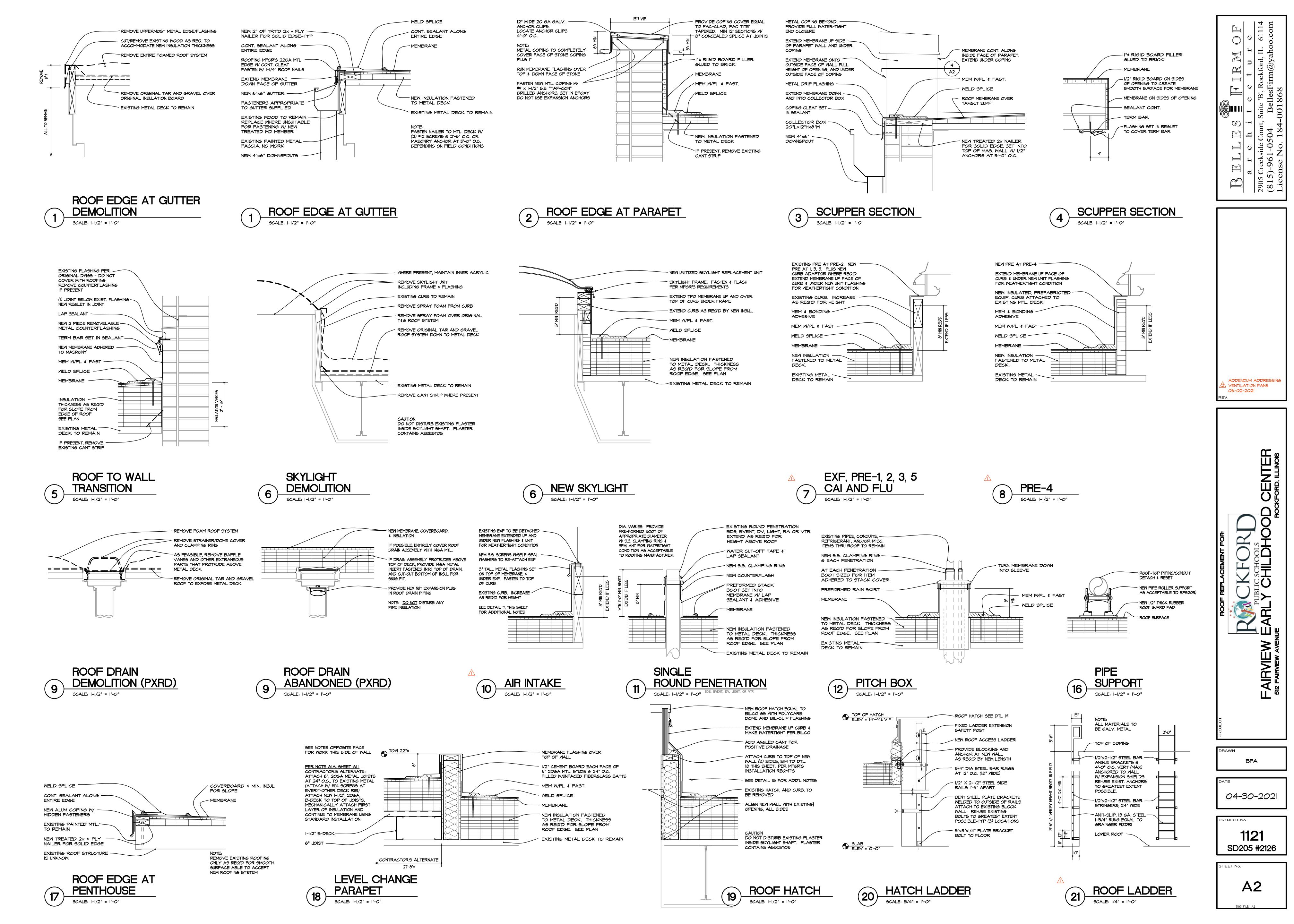
ROOF REPLACEMENT FOR:

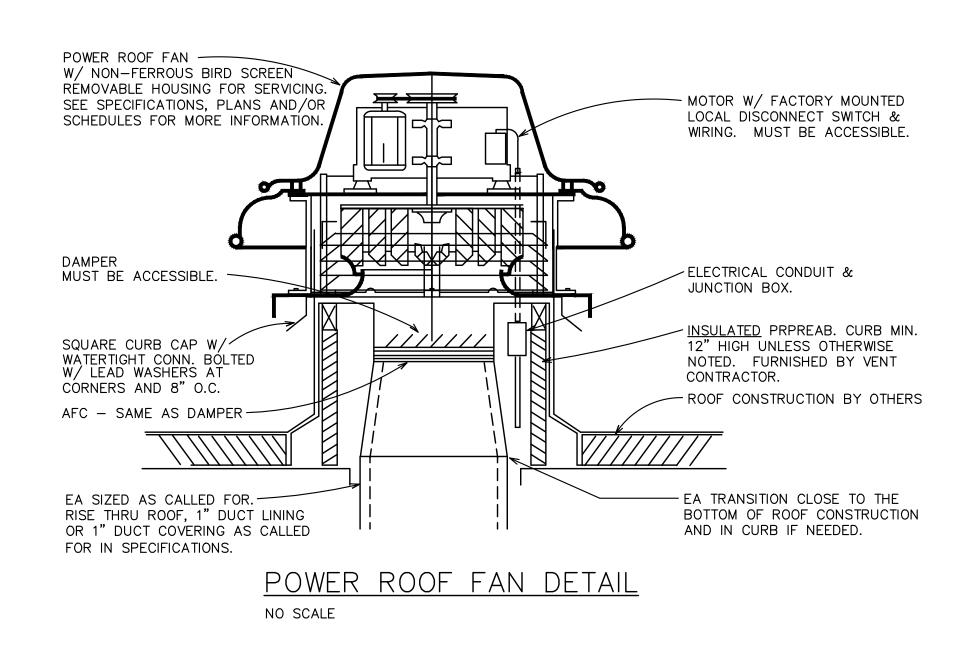
BFA

04-30-2021

1121 SD205 #2126

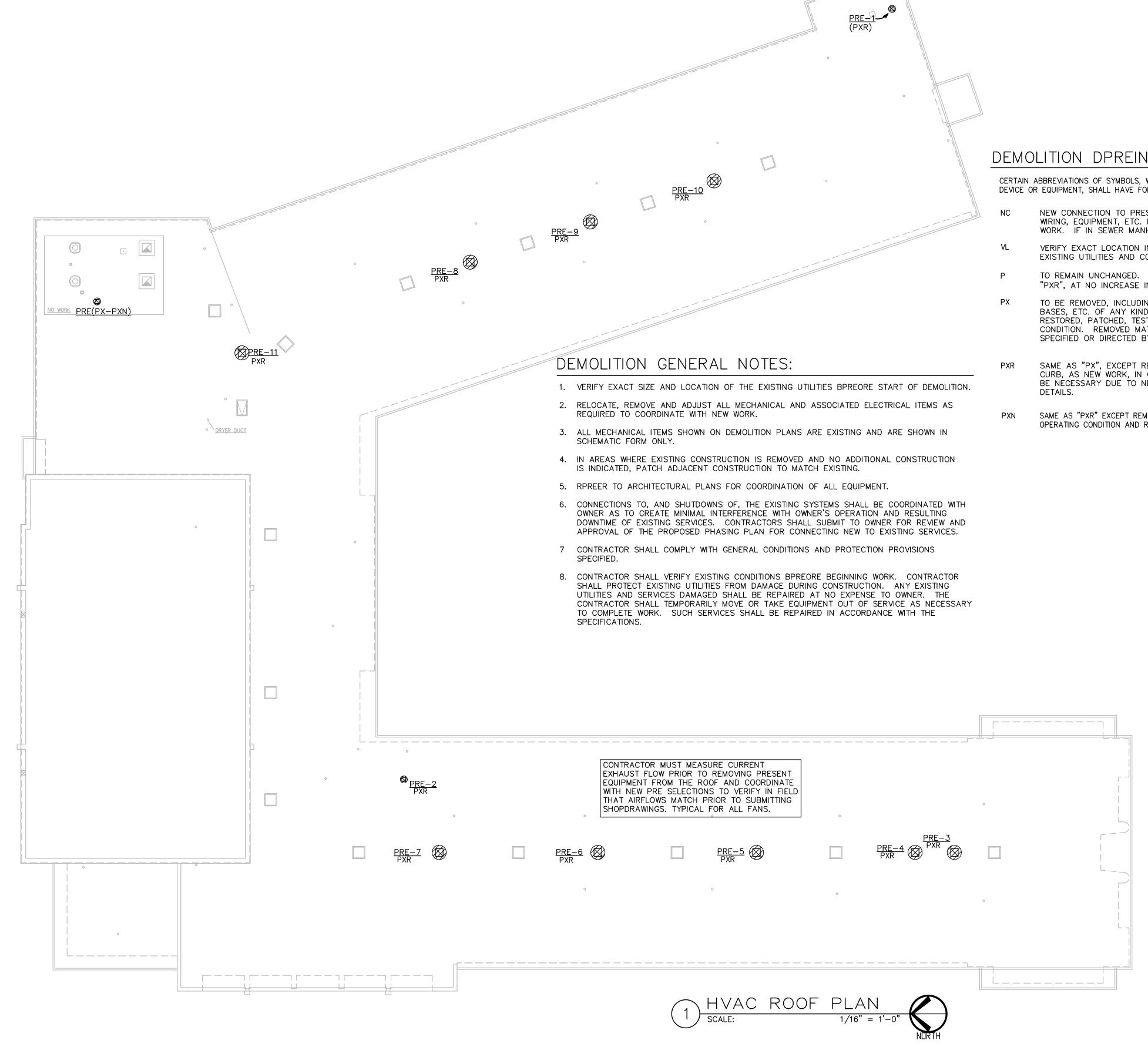
A1.2





RM #	ROOMNAME	23 III. ADM. CODE 185 HEALTH/LIFE SAFETY IN PUBLICK SCHOOLS REQD.				REQ'D.		SERVED BY		
11101 #	ROOMINAMIL	FLR. AREA	# OF PEOPLE	O.A. REQ'D./	CFM/				EXISTING	
		(SQ. FT.) Az	PEOPLE	PERSON Rp	SQ. FT. Ra	O.A. (CFM)	E.A. (CFM)	EXHAUST FAN (CFM)	EXHAUST SYSTEM	NOTE
1	CL. RM. EARLY CHILDHOOD	1062	57	5.0	_	285	-	PRE-3		1
2	CL. RM. EARLY CHILDHOOD	1028	57	5.0	_	285	_	11(1 0		'
3	CL. RM. EARLY CHILDHOOD	828	46	5.0	_	230	_			
4	CL. RM. EARLY CHILDHOOD	828	46	5.0	_	230	_	PRE-4		1
5	CL. RM. EARLY CHILDHOOD	820	46	5.0	_	230	_			
5	CL. RM. EARLY CHILDHOOD	824	46	5.0	_	230	_			
7	CL. RM. EARLY CHILDHOOD	824	46	5.0	_	230	_	PRE-5		1
3	CL. RM. EARLY CHILDHOOD	824	46	5.0	_	230	_			
9	CL. RM. EARLY CHILDHOOD	844	47	5.0	-	835	_	PRE-6		1
0	CL. RM. EARLY CHILDHOOD	844	47	5.0	_	835	_	TIKE 0		•
1	NOT USED									
2	CL. RM. EARLY CHILDHOOD	832	47	5.0	_	235	_	PRE-7		1
3	CL. RM. EARLY CHILDHOOD	831	47	5.0	_	235	_			
4	CL. RM. EARLY CHILDHOOD	814	46	5.0	_	230	_			
5	CL. RM. EARLY CHILDHOOD	817	46	5.0	_	230	_	PRE-8		1
6	CL. RM. EARLY CHILDHOOD	819	46	5.0	_	230	_			
7	CL. RM. EARLY CHILDHOOD	819	46	5.0	_	230	_			
8	CL. RM. EARLY CHILDHOOD	817	46	5.0	_	830	_	PRE-9		1
9	CL. RM. EARLY CHILDHOOD	819	46	5.0	_	230	_			
20	CL. RM. EARLY CHILDHOOD	826	47	5.0	_	235	_	DDE 10		1
21	OT/PT CLASSROOM	820	46	5.0	_	230	_	PRE-10		'
	BOY'S (NORTH WING)	289	_	_	1.5	_	433	PRE-2		
	GIRL'S (NORTH WING)	312	_	_	1.5	_	468	PRE-2		
	BOY'S (SOUTH WING)	303	_	_	1.5	_	455	PRE-1		
	GIRL'S (SOUTH WING)	286	_	_	1.5	_	429	PRE-1		
	FACULTY LOUNGE	1466	74	5.0	2.0	_	2932		PRE(P)	
	KITCHEN	279	_	_	2.0	_	558	PRE-11		
	SPECIAL ED & IEP	319	18	5.0	_	90	_	ı	_	
	PARENT WAITING AREA	285	15	5.0	_	75	_	ı	_	
	DIAGNOSTIC TEAM ROOM	531	27	5.0	_	135	_	ı	-	
	SPEECH & LANGUAGE TEST	116	27	5.0	-	135	_	ı	1	
	#1 FAMILY SUPPORT	367	18	5.0	-	90	_	_	_	
	OFFICE (SOUTH)	297	15	5.0	_	75	_	_	_	
	CONFERENCE ROOM	164	8	5.0	_	40	_	_	_	
	PRINCIPAL OFFICE	204	10	5.0	_	50	_	_	_	
	COPY	70	1	5.0	_	_	50	_	PRE(P)	
	GYMNASIUM	2869	475	5.0	_	2375	_	_	AC(P)	
	GROSS ROOM	2807	475	5.0	_	2375	_	_	AC(P)	
	KITCHEN	279	6	-	2.0	_	558	_	PRE(P)	
	CORRIDOR A	1128	_	-	-	_	_	_	GRAV-VENT	
	CORRIDOR H	2205	_	-	_	_	_	-	GRAV-VENT	
	CORRIDOR F	2937	_	_	_	_	_	-	GRAV-VENT	
	NURSE	195	9	5.0	-	45	_	_	GRAV-VENT	
	LIBRARY	677	27	5.0	-	135	_	PRE-7		1
	<b> </b>	i	24	5.0	i e	120		NL-/		

NOTES: 1. FAN SHALL RECONNECTED TO EXISTING CONTROLS (VERIFY).



EXHAUST AIR FAN SCHEDULE												
UNIT MARK	MFR	MODEL NUMBER	AREAS SERVED	LOCATION	AIRFLOW CFM	TYPE	EXTERNAL S.P.	FAN RPM	MOTOR HP	SONES	ELECTRICAL	NOTES
PRE-1	GREENHECK	AE-16-428-B	SOUTH B&G RESTROOMS	ROOF	885	DIRECT	0.25"	1,121	1/6	11.7	115/1	1 – 6
PRE-2	GREENHECK	AE-16-428-B	NORTH B&G RESTROOMS	ROOF	900	DIRECT	0.25"	1,082	1/6	10.3	115/1	1 - 6
PRE-4, PRE-5, PRE-6, PRE-7, PRE-8, PRE-9, PRE-10	GREENHECK	AE-18-433-B	CLASSROOMS	ROOF	1,200	DIRECT	0.5"	1,132	1/3	14.2	115/1	1 - 6
PRE-11	GREENHECK	VG-098-1/6	KITCHEN	ROOF	250-560	DIRECT	0.3"	1,491	1/4	9.3	115/1	1 - 7

ALTERNATE MANUFACTURER'S ACCEPTED PROVIDED THEY ARE EQUAL TO SPECIFIED EQUIPMENT

NOTES: 1. FAN SHALL HAVE AMCA SEAL & BE U.L. CERTIFIED.

2. FAN SHALL HAVE ALUMINUM BIRD SCREEN. 3. SAFETY DISCONNECT SWITCH.

4. PROVIDE DUCT MOUNTED GRAVITY BACKDRAFT DAMPER.

5. EXHAUST FAN SHALL BE CONTROLLED BY TIME CLOCK OR INDIRECTLY WITH LCP TO OPERATE DURING OCCUPANCY HOURS ONLY.

6. FAN SHALL BE MOUNTED TO NEW CURB MOUNTED TO EXISTING LOCATION. 7. FAN SHALL BE 2-SPEED VARIABLE SPEED MOTOR.



CERTAIN ABBREVIATIONS OF SYMBOLS, WHEN APPLIED TO PRESENT (OR EXISTING) LINE, DEVICE OR EQUIPMENT, SHALL HAVE FOLLOWING MEANINGS:

- NEW CONNECTION TO PRESENT PIPING, DEVICE, MANHOLE, SEWER, DUCT, WIRING, EQUIPMENT, ETC. INSTALL, TEST, COVER, PAINT, ETC. SAME AS NEW WORK. IF IN SEWER MANHOLE, PROVIDE FLOW CHANNEL IN BOTTOM.
- VERIFY EXACT LOCATION IN FIELD. THIS NOTE APPLIES TO ALL PRESENT OR EXISTING UTILITIES AND CONSTRUCTION WHETHER CALLED FOR OR NOT.
- TO REMAIN UNCHANGED. IF CHANGE CANNOT BE AVOIDED, CHANGE "P" TO "PXR", AT NO INCREASE IN CONTRACT PRICE. VERIFY LOCATION.
- TO BE REMOVED, INCLUDING UNNEEDED CONNECTIONS, PIPING, DUCTS, WIRING, BASES, ETC. OF ANY KIND. OTHER DISTURBED WORK OF ANY KIND SHALL BE RESTORED, PATCHED, TESTED, COVERED, PAINTED, ETC. TO EQUAL ORIGINAL CONDITION. REMOVED MATERIALS MUST NOT BE REUSED UNLESS OTHERWISE SPECIFIED OR DIRECTED BY ARCHITECT.
- SAME AS "PX", EXCEPT REMOVED, REINSTALLED NEW PRE TO BE ON NEW CURB, AS NEW WORK, IN ORIGINAL POSITION. SLIGHTLY NEW POSITIONING MAY BE NECESSARY DUE TO NEW ROOF INSULATION, SEE NEW WORK PLAN FOR
- SAME AS "PXR" EXCEPT REMOVED, CLEANED AND RESTORED TO GOOD OPERATING CONDITION AND REINSTALLED SAME AS NEW WORK, IN SAME LOCATION.

ADDENDUM 4

a r c h 2905 Creekside Cour (815)-961-0504 License No. 184



6-1-21

PROJECT No. 1121 SD205 #2126



#### SQUARE RECTANGULAR TYPE TD T-BAR DIFFUSER (PROVIDE VOLUME DAMPER AT DUCT TAKEOFF (DG) DOOR GRILLE UC) UNDER CUT

DG CFM

LOUVER SIZE AIR LOUVER, (BOTTOM OF DUCT TO DRAIN TOWARD LOUVER) CFM

MOTOR OPERATED DAMPER PROVIDE CEILING & DUCT ACCESS

FIRE DAMPER

# CONTROL SYMBOLS

TEMPERATURE SENSOR THERMOSTAT OR DDC TEMPERATURE SENSOR

### GENERAL NOTES

- DRAWINGS ARE GENERALLY DIAGRAMMATIC. EACH CONTRACTOR SHALL MAKE REQUIRED CHANGES FROM THE GENERAL ROUTING SHOWN ON THESE DRAWINGS SUCH AS OFF SETS. BENDS OR CHANGES IN ELEVATION DUE TO COORDINATION WITH THE WORK OF OTHER TRADES AND THE BUILDING CONSTRUCTION. ALL CHANGES SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER. FOR PRESENT CONSTRUCTION, VERIFY ALL EXISTING CONDITIONS PRIOR TO BIDDING TO AVOID CONFLICT. IT IS INTENDED THAT ALL EQUIPMENT, MATERIAL, DEVICES, ETC., SHALL BE LOCATED SYMMETRICALLY WITH THE ARCHITECTURAL ELEMENTS, NOTWITHSTANDING THE FACT THAT LOCATIONS INDICATED BY THESE DRAWINGS MAY BE DISTORTED FOR CLARITY
- ALL MECHANICAL WORK SHALL CONFORM WITH THE INTERNATIONAL MECHANICAL CODES 2015, LOCAL & MUNICIPAL CODES AND AUTHORITY HAVING JURISDICTION.
- EACH CONTRACTOR SHALL CHECK DRAWINGS OF THE OTHER TRADES TO VERIFY THEIR WORK WILL BE INSTALLED CLEAR OF OBSTRUCTIONS. MAINTAIN MAXIMUM HEADROOM AT ALL POINTS IN THE BUILDING WHERE HEADROOM OR SPACE CONDITIONS APPEAR INADEQUATE, NOTIFY ARCHITECT BPREORE PROCEEDING WITH THE INSTALLATION.
- 4. FURNISH ALL TRADES ADVANCE INFORMATION ON LOCATIONS AND SIZES OF PIPING, DUCTWORK, EQUIPMENT FRAMES. BOXES. SLEEVE AND OPENINGS NEEDED FOR WORK. FURNISH INFORMATION AND SHOP DRAWINGS TO PERMIT OTHER TRADES TO COORDINATE THEIR WORK.
- WHERE WORK OF ONE TRADE WILL INTERFERE WITH WORK OF ANOTHER TRADE, ALL TRADES SHALL ASSIST TO WORK COORDINATE THEIR WORK.
- 6. PRIOR TO BIDDING THE HVAC CONTRACTOR SHALL REVIEW ALL DRAWINGS AND COORDINATE WORK. CONTRACTOR SHALL IMMEDIATELY REPORT TO THE ARCHITECT ANY INCONSISTENCIES OR INTERFERENCE WITH HIS WORK.
- 7. CONTRACTOR SHALL COORDINATE ALL CEILING DIFFUSERS, REGISTERS, AND/OR GRILLES WITH SUSPENDED CEILING AND LIGHT PATTERNS. OPENINGS SHALL BE IN CENTER OF TILES.
- SHEETMETAL DUCT SIZES MAY BE ALTERED TO FIT JOB CONDITIONS, BUT NET FREE AREAS MUST BE MAINTAINED. INCREASE SHEETMETAL DUCT SIZE TO ALLOW FOR DUCT LINING WHERE USED. WRAP ALL DUCTWORK EXCEPT AS NOTED. MAXIMUM DUCT ASPECT RATIO 1:5
- ALL DUCTWORK TO BE HELD TIGHT TO STRUCTURAL ROOF JOISTS, BEAMS, ETC, AS CLEARANCE IS MINIMAL. COORDINATE WITH OTHER CONTRACTORS TO AVOID CONFLICT.
- 10. CONTRACTOR SHALL INCLUDE IN HIS WORK THE RELOCATION OF ALL CROSS BRACING, AS REQUIRED TO FIT DUCTS BETWEEN JOISTS. THIS WORK SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR WITH ARCHITECTURAL APPROVAL
- 11. CONTRACTOR SHALL PROVIDE ALL DUCT DROPS AND OFFSETS TO AVOID INTERFERENCES WITH JOISTS, OTHER DUCTS, LIGHTS, PIPES, ETC.
- 12. ALL THERMOSTATS LOCATED UP 4'-6" TO 5'-0" TO MATCH ADJACENT LIGHT SWITCHES AND WITH PLASTIC OR CAST GUARDS AS SPECIFIED. ALL THERMOSTATS LOCATED ON EXTERIOR WALLS OR COLUMNS MUST BE MOUNTED ON THERMAL INSULATING BLOCKS.
- 13. CONTRACTOR SHALL PROVIDE COOLING COIL CONDENSATE DRAIN LINES FROM AIR HANDLING UNIT TO DRAIN.
- 14. HEATING, VENTILATING, AIR CONDITIONING AND ELECTRICAL DESIGNS ARE BASED ON THE REQUIREMENTS FOR THE SPECIFIED EQUIPMENT MANUFACTURER. CONDUITS, DISCONNECTS, BREAKERS, FUSES AND WIRE SIZES ARE SELECTED ON THE BASIS OF SPECIFIED EQUIPMENT MANUFACTURER. INCREASED CURRENT REQUIREMENTS NECESSITATING LARGER WIRE, BREAKERS, FUSES, SWITCHES, ETC. TO ACCOMMODATE ANY ALTERNATE OR SUBSTITUTE MANUFACTURER'S EQUIPMENT OTHER THAN AS SHOWN ON DRAWINGS OR SCHEDULES SHALL BE PROVIDED WITHOUT INCREASE IN CONTRACT PRICE BY THE CONTRACTOR FURNISHING EQUIPMENT.
- 15. INSTALL 1" OF NON-SHRINK GROUT AROUND DUCTWORK AND PIPING ON EACH WALL FACE TO SEAL OPENINGS AND ELIMINATE SOUND TRANSFER WITH AIR-TIGHT CONNECTIONS.
- 16. EXTEND RTU EXHAUST TO MAINTAIN 10 FT SEPARATION TO ANY AIR INTAKES, VERIFY LOCATION, CONFIRM WITH LOCAL INSPECTORS AS TO REQUIREMENTS.
- 17. GUARDS SHALL BE PROVIDED WHERE APPLIANCES EQUIPMENT, FANS OR OTHER COMPONENTS THAT REQUIRE SERVICE ARE LOCATED WITHIN 10 FT OF ROOF EDGE OR OPEN SIDE OF A WALKING SURFACE AND SUCH EDGE OR OPEN SIDE IS LOCATED MORE THAN 30 INCHES ABOVE THE FLOOR, ROOF OR GRADE BELOW. THE GUARD SHALL BE EXTEND NOT LESS THAN 30 INCHES BEYOND EACH END OF EQUIPMENT AND THE TOP OF THE GUARD SHALL BE LOCATED NOT LESS THAN 42 INCHES ABOVE ELEVATED SURFACE.
- 18. <u>INSULATION</u>
- DUCT INSULATION SHALL CONFORM TO THE REQUIREMENTS OF 2018 IMC SECTION 604 AND 2018 IECC SECTION C403.11.1 FOR COMMERCIAL BUILDINGS AND R403.3.1 FOR RESIDENTIAL BUILDINGS.
- A. <u>COMMERCIAL BUILDINGS</u> SUPPLY AND RETURN AIR DUCTS AND PLENUMS SHALL BE INSULATED WITH NOT LESS THAN R-6 INSULATION WHERE LOCATED IN UNCONDITIONED SPACES AND WHERE LOCATED OUTSIDE THE BUILDING WITH NOT LESS THAN R-8 INSULATION IN CLIMATE ZONES 1-4 AND NOT LESS THAN R-12 INSULATION IN CLIMATE ZONES 5-8. WHERE LOCATED WITHIN A BUILDING ENVELOPE ASSEMBLY, THE DUCT OR PLENUM SHALL BE SEPARATED FROM THE BUILDING EXTERIOR OR UNCONDITIONED OR EXEMPT SPACES BY NOT LESS THAN OF R-8 INSULATION IN CLIMATE ZONES 1-4 AND NOT LESS THAN R-12 INSULATION IN CLIMATE ZONES 5-8. EXCEPTION: WHERE LOCATED WITHIN EQUIPMENT. EXCEPTION: WHERE THE DESIGN TEMPERATURE DIFFERENCE BETWEEN THE INTERIOR AND EXTERIOR OF THE
- DUCTS, AHU & FILTER BOXES SHALL BE SEALED. JOINTS AND SEAMS SHALL COMPLY WITH IMC SECTION 603.9.
- 19. <u>SUPPORTS AND ANCHORS</u> MANUFACTURERS: GRINNELL, B-LINE, O.Z. GEDNEY, MICHIGAN HANGER, BERGEN/CARPENTER AND PATERSON.
- USE MATERIALS COMPATIBLE WITH PIPING SYSTEMS AVOIDING ELECTROLYTIC ACTION AND CONFORM TO ANSI/ASME B31, NFPA, MSS SP-58, 69, 89. WIRE ARE NOT ALLOWED TO BE USED AS A HANGER SUPPORT
- 20. <u>TESTING AND BALANCING</u>
- A. AIR BALANCING SHALL BE ACCOMPLISHED BY ADJUSTMENT OF ADJUSTABLE FAN SHEAVES.
- BRANCH DAMPERS ARE TO BE USED FOR ANY REQUIRED TRIM ADJUSTMENT. B. THE CONTRACTOR SHALL PROVIDE ALL LABOR AND EQUIPMENT INCLUDING SHEAVES AS REQUIRED TO BALANCE ALL AIR SYSTEMS IN ACCORDANCE WITH QUANTITIES SHOWN
- C. BALANCING SHALL BE PERFORMED UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER AND REPORT SHALL BE PROVIDED ON AABC TYPE FORMS.

DUCT OR PLENUM IS NOT GREATER THAN 15 DEG. F.

- 21. <u>AIR DISTRIBUTION SYSTEMS</u>
- A. AIR TERMINALS
- 1. PROVIDE SUPPLY AND RETURN AIR DIFFUSERS/REGISTERS AS SHOWN ON SCHEDULES.
- B. SHEET METAL WORK 1. EXCEPT AS OTHERWISE SHOWN OR NOTED, ALL DUCTWORK AND OTHER SHEET METAL WORK SHALL BE GALVANIZED SHEET STEEL AND SHALL BE INSTALLED IN ACCORDANCE WITH SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC. (SMACNA) DUCT CONSTRUCTION. STANDARDS. DUCT SYSTEMS TO BE 2" PRESSURE CLASS.
- 2. ALL DUCT DIMENSIONS INDICATED ON THE PLANS ARE INSIDE CLEAR DIMENSIONS.
- 3. SUPPLY DUCTWORK TO BE RECTANGULAR WITH HEMMED "S" LONGITUDINAL SEAMS AND DUCTMATE TRANSVERSE JOINTS 4. MANUAL VOLUME DAMPERS: GALVANIZED STEEL, PER SMACNA EXCEPT PROVIDE BEARING AT ONE
- END OF DAMPER ROD AND QUADRANT, WITH LEVER AND LOCKSCREW AT THE OPPOSITE END. FOR INSULATED DUCTS, QUADRANTS MOUNTED ON COLLAR TO CLEAR INSULATION. LEVERS MUST BE
- C. EXHAUST DUCTWORK ELBOWS TO BE LONG RADIUS TYPE. D. ACCESS DOORS SHALL BE PROVIDED IN DUCTWORK WHEREVER CONTROLS, CONTROL
- DAMPERS, COILS, & INSTRUMENTS ARE INSTALLED. E. THE PLENUM CHAMBER THAT IS USED FOR RECIRCULATION OF AIR SHALL BE OF TIGHT CONSTRUCTION AND ALL SOURCES OF AIR CONTAMINATION FROM TRAPS, SOIL STACKS, DOWNSPOUTS, VENTS, EXHAUST DISCHARGE AND OTHER SOURCES WILL BE ENCLOSED SO THAT NO CONTAMINATED AIR WILL BE RECIRCULATED.
- A. HVAC CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE AND INSTALL CONTROL WIRING FOR HVAC EQPM.
- 23. SHUTOFF DAMPERS (MANDATORY) A. PER 2018 IECC SECTION C403.7.7. OUTDOOR AIR INTAKE AND EXHAUST OPENINGS AND STAIRWAY AND SHAFT VENTS SHALL BE PROVIDED WITH CLASS I MOTORIZED DAMPERS. THE DAMPERS SHALL HAVE AN AIR LEAKAGE RATE NOT GREATER THAN 4 CFM/SQ. FT. OF DAMPER SURFACE AREA AT 1.0 INCH WATER GAUGE (249 Pa) AND SHALL BE LABELED BY ÁN APPROVED AGENCY WHEN TESTED IN ACCORDANCE
- WITH AMCA 500D FOR SUCH PURPOSE. B. OUTDOOR AIR INTAKE AND EXHAUST DAMPERS SHALL BE INSTALLED WITH AUTOMATIC CONTROLS CONFIGURED TO CLOSE WHEN THE SYSTEMS OR SPACES SERVED ARE NOT IN USE OR DURING UNOCCUPIED PERIOD WARM-UP AND SETBACK OPERATION, UNLESS THE SYSTEMS SERVED REQUIRE OUTDOOR OR EXHAUST AIR IN ACCORDANCE WITH THE IMC OR THE DAMPERS ARE OPENED TO PROVIDE INTENTIONAL ECONOMIZER COOLING.
- C. STAIRWAY AND SHAFT VENT DAMPERS SHALL BE INSTALLED WITH AUTOMATIC CONTROLS CONFIGURED TO OPEN UPON THE ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE OF THE BUILDING'S FIRE ALARM SYSTEM OR THE INTERRUPTION OF POWER TO THE DAMPER.
- EXCEPTION: NONMOTORIZED GRAVITY DAMPERS SHALL BE AN ALTERNATIVE TO MOTORIZED DAMPERS FOR EXHAUST AND RELIPRE OPENINGS AS FOLLOWS: 1. IN BUILDINGS LESS THAN THREE STORIES IN HEIGHT ABOVE GRADE PLANE. 2. IN BUILDINGS OF ANY HEIGHT LOCATED IN CLIMATE ZONES 1, 2 OR 3. 3. WHERE THE DESIGN EXHAUST CAPACITY IS NOT GREATER THAN 300 CFM.

## HVAC SPECIFICATIONS

<u>15050 BASIC MECHANICAL MATERIALS AND METHODS</u> Provide complete systems as called for, and/or shown, and/or specified. HVAC contractor to furnish and completely install the system, service, equipment, or material named, together with other associated devices, equipment, materials, wiring, piping, etc., as required to perform work called for, shall be responsible to the HVAC Contractor. Secure all permits for work as required. Where "furnish and install", "provide", "furnish", "install" or equivalent words are used, they mean that the contractor shall furnish and completely install the system, service, equipment or material named, together with other associated devices, equipment, material, wiring, piping, etc., as required for a complete operating installation.

STANDARDS, CODES AND REGULATIONS Equipment, devices, apparatus and installations to be in full compliance with applicable standards, requirements, rules, regulations, codes, statutes, ordinances, etc., local, city, county, state government, Illinois Administrative Code, Owner's insurance company, local gas and electric utilities, labor regulations. Changes required to conform to requirements shall be made without increase in contract price as approved by the Architect.

Electrical equipment, wiring, gas burning equipment, handling and storage equipment, all hydronic piping, rPRErigeration piping, insulating materials, etc., shall comply with requirements of NFPA, NEC, UL, AGA, OSHA, EPA, BOCA, local and all applicable state and federal safety codes; for a particular type installation and shall be so labeled where applicable.

Materials to be of new grade, U.S. make and quality specified.

Wiring to be in compliance with latest N.E.C. and all applicable codes. Line wires, of proper size, shall be furnished by Electrical Contractor, with final power connections made by Electrical Contractor. Heating Contractor, within his contract, shall be responsible for all control wiring of equipment, provide devices, panels, disconnect switches, starters, interlocks, controls, etc., to give a complete/satisfactory operating system.

BPREore any work is installed and bPREore any equipment is purchased, contractor shall carPREully check specifications and drawings for every trade and job conditions and any lack of coordination between his work and the specifications and drawings or job conditions shall be immediately reported to the Architect, in writing. The Architect will work out conflicts and adjustments in contract prices. Changes in equipment shall be incorporated in the shop drawings.

If contractor fails to call such lack of coordination between specifications, drawings and job conditions to the Architect's attention, in writing, bPREore any work is done or bPREore equipment is purchased, it will be assumed that no conflicts exist. If conflicts arise during the construction period, they shall be immediately reported to the Architect in writing and they will be worked out by the Architect, but no increase in contract price will be allowed. The Architect's decisions shall be final. When heating and cooling equipment is operated by the Heating contractor, the Heating contractor shall be solely responsible for the operation and safety of such equipment. When heating and cooling equipment is operated by the owner (or other contractors), the owner (or other contractors) shall be solely responsible for the operation and safety of such equipment.

HVAC Contractor shall guarantee all equipment, apparatus, materials and workmanship entering into this contract and shall replace all parts at his own expense which have proven dPREective within one (1) year from formal acceptance. Individual items shall be guaranteed as called for in addition to the above.

Each respective contractor shall submit to the Architect for approval, bPREore construction is started, seven (7) copies of shop drawings for equipment, devices, material, controls, accessories, wiring diagrams, etc., for respective installation.

SPECIAL SUPERVISION AND INSTRUCTIONS Each specialized installation shall be made under the supervision of a factory trained engineer or contractor's superintendent who shall (a) submit a written report that the installation has been installed in keeping with the specified requirements and the manufacturer's standards; (b) instruct the Owner's operating personnel bPREore final acceptance; (c) prepare permanent form operating instructions, parts lists, wiring diagrams and control diagrams, in booklet form, in triplicate, turned over to Owner and (d) certify that the installation is operating satisfactorily under the Owner's personnel and certify that the Owner's personnel

are trained on systems and equipment per manufacturer's guidelines. CUTTING AND PATCHING Contractor shall set sleeves and inserts required for intakes, piping, hangers, louvers, ventilators, ductwork, etc., in construction. Supply General Contractor with complete information as to size and location of openings, through walls, floors, roofs, etc.,. for installation of this work If this information is not supplied bPREore new walls or floors are built, HVAC contractor shall cut all openings as approved by the Architect. Patching and rebuilding required to patch openings, and to restore construction to its original condition bPREore cutting, using skilled craftsmen, as approved by the Architect. Shall be performed by others. Openings shall be accurately located, as small as possible, and neatly and cleanly cut. Wall openings shall be neatly cemented and wall frames grouted in place by Heating contractor.

Sheet metal ductwork to be installed, constructed, fabricated, etc., in accordance with the latest SMACNA manual, all local codes; galvanized sheet steel or 2s or 3s aluminum sheets. Furnish volume dampers with external locking quadrants. Provide sealed hinged-removable access doors where called for and/or required for access to controls, operators, sensors, filters, dampers, etc..

FLEXIBLE DUCTWORK

Flexible ducts shall be of Wiremold, Flexmaster, Thermaflex, Genflex or approved make, Wiremold type WG constructed of high temperature, vinyl organsol coated glass fabric; 14 oz. and cold rolled corrosion—resistant coated steel spiral. Duct shall be factory pre—insulated with minimum of 1" of 3/4 lb. density glass fiber blanket, sheathed with an exterior flame—resistant vinyl vapor barrier. Strap clamps shall be plastic trap or stainless steel draw-up clamps for securing flexible air duct. Prior to clamping, duct shall be sealed as per manufacturer's recommendations. Flexible duct to be suitable for use with system pressure rating and design. FLEXIBLE DUCT RUNS SHALL NOT EXCEED MAXIMUM LENGTH DICTATED BY LOCAL CODE.

Flexible connections, as called for on drawings, to be fire—water weather—resistant fabric as manufactured by Ventfab or approved

OPENINGS, SLEEVES AND CHASES

Contractor shall set sleeves and inserts required for piping, hangers, intakes, louvers, ventilators, ductwork, curbs, etc., in construction. Contractor to furnish General Contractor with complete information as to size and location of openings through walls, floors, roofs, etc., for installing this work. If this information is not supplied bPREore new walls, floors, roofs, etc., are built, respective Contractor shall furnish, cut and patch all required openings for installation of equipment, material, devices, etc., as required and approved by the Architect. For new construction, General Contractor will cut holes through roof and Roofing Contractor will do all flashing, roof patching, etc., unless otherwise noted. Roof openings 18" and larger shall be framed with headers connected to roof joists with steel members framed between. All roofing work and equipment to meet requirements of National Association of Roofing Contractors.

# **ABBREVIATIONS**

THIS PROJECT HAS BEEN DESIGNED TO MEET ALL THE APPLICABLE CODES PERTAINING TO HEATING. VENTILATING AND AIR CONDITIONING IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSTALL THE SYSTEMS AS DESIGNED AND IN A MANNER THAT MEETS THE APPROPRIATE CODE

The Mechanical Contractor shall be responsible to cut and patch necessary roof, wall or floor openings and provide materials and hardware for complete installation.

REQUIREMENTS AND MANUFACTURER RECOMMENDATIONS.

HEET ADDED WITH ADDENDUM 4

reek 96 Se

2905 C<sub>1</sub> (815)-Licen



LEGACY DESIGNS

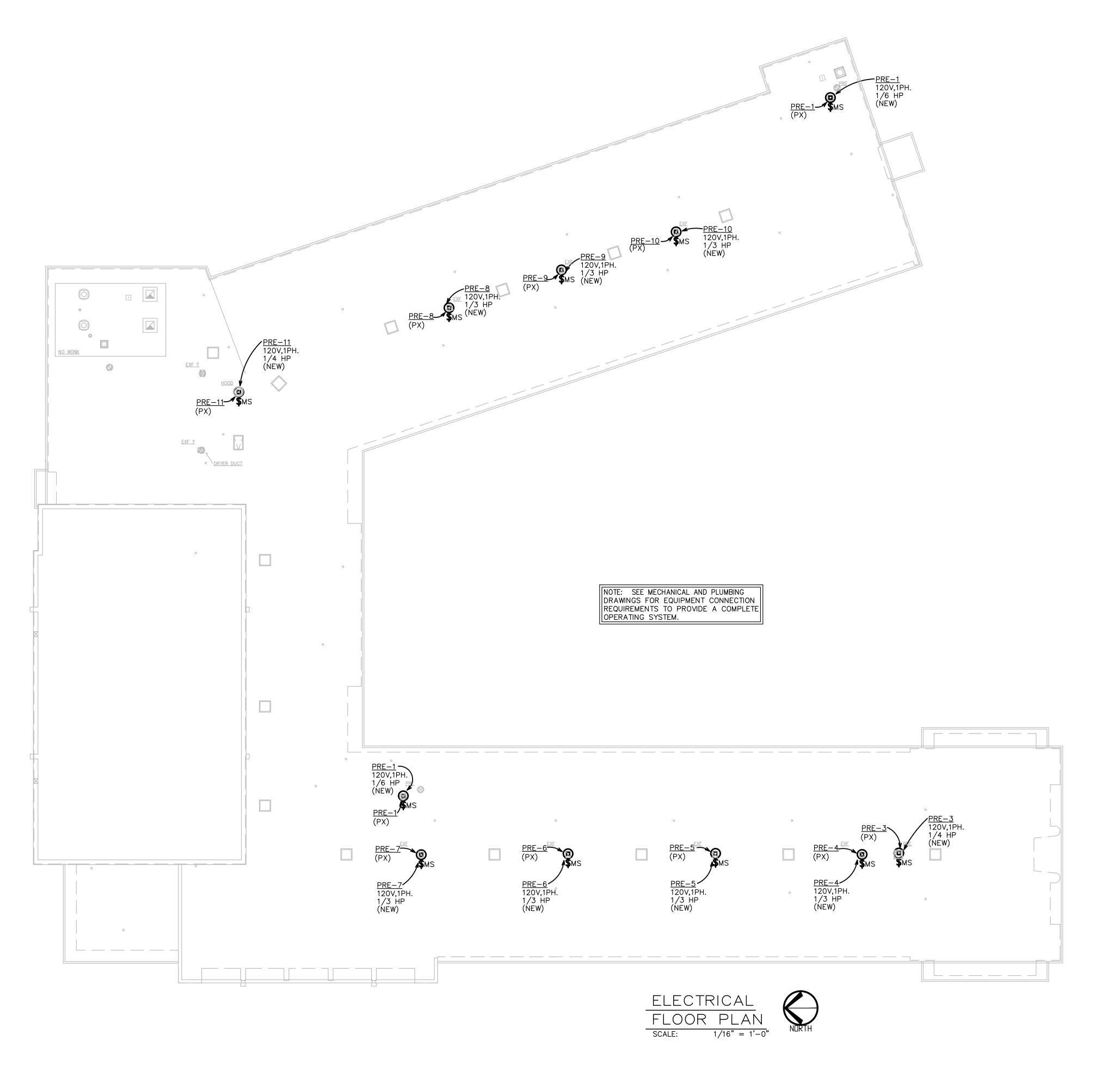
6-1-21

PROJECT No. 1121 SD205 #2126



221154

HVAC SPECIFICATIONS



REFERENCE NOTES:

1. DISCONNECT PRESENT EXHAUST FAN TO BE PRELACED AND EXTEND WIRING AS REQUIRED TO ACCOMMODATE NEW 18" CURB AND POWER CONNECTION AT EACH LOCATION.

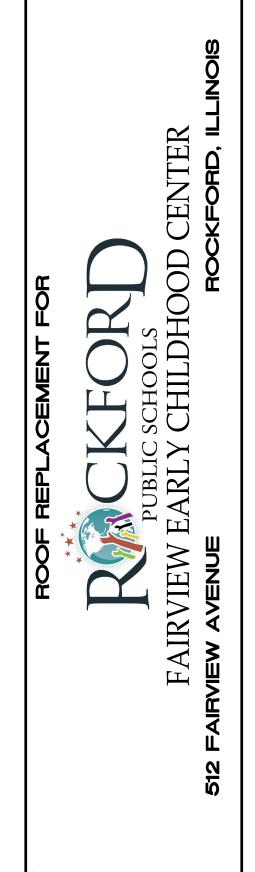
Legacy Designs, Inc. 6116 Mulford Village Drive
ROCKFORD, ILLINOIS 61107
Professional Design Firm No. 184-003483
815-484-4708 Phone 815-484-4710 Fax
e-mail legacy@legacydesigns.net
web site www.legacydesigns.net

B E L L

a r c

2905 Creekside (815)-961-05

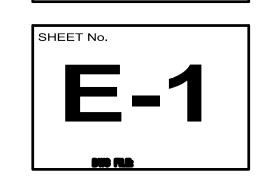
SHEET ADDED WITH ADDENDUM 4



LEGACY DESIGNS

ATE **6-1-21** 

1121 SD205 #2126





	LLLCHNOAL ADDIN	_	
	ADOVE ENHOUSED ELOOD	NICO	NATIONAL ELECTRICAL CORE
FF	ABOVE FINISHED FLOOR	NEC	NATIONAL ELECTRICAL CODE
М	AMMETER	NIC	NOT IN CONTRACT
0.0	AMPERES	Р	TO REMAIN UNCHANGED, IF CHANGE CANNOT BE AVOIDED,
SC	ABOVE SUSPENDED CEILING		CHANGE "P" TO "PXR", AT NO INCREASE IN CONTRACT PRICE.
	CONDUIT		VERIFY LOCATION.
ī.o.o	CENTER LINE	PX	TO BE COMPLETELY REMOVED, INCLUDING UNNEEDED
ĪSC	DISCONNECT		CONNECTIONS, CONDUITS, RACEWAYS, PIPING, DUCTS, BOXES,
С	ELECTRICAL CONTRACTOR		WIRING, BASES, ETC., OF EVERY KIND. UNUSED OPENINGS PLUGGED
	EMERGENCY		OR CAPPED, TESTED, COVERED, PAINTED SAME AS NEW WORK.
В0	FURNISHED BY OTHER THAT ELECTRICAL		OTHER DISTURBED WORK OF EVERY KIND RESTORED, PATCHED,
	CONTRACTOR. COMPLETELY WIRED,		TESTED, COVERED, PAINTED, ETC., EQUAL TO ORIGINAL CONDITION.
	WITH FINAL CONNECTIONS TO EQUIPMENT		REMOVED MATERIALS MUST NOT BE REUSED UNLESS OTHERWISE
	AND DEVICES, BY ELECTRICAL CONTRACTOR.		SPECIFIED OR DIRECTED BY ENGINEER.
LA	FULL LOAD AMPS	PXN	REMOVED, CLEANED AND RESTORED TO GOOD OPERATING CONDITION
FI	GROUND FAULT INTERRUPTER		AND REINSTALLED AT POINT/LOCATION MARKED "PN". BOXES, WIRING
Р	HORSEPOWER		CONDUIT, ETC, TO BE "PX".
3	JUNCTION BOX	PN	COMPLETELY REINSTALL DEVICE, LINE, EQUIPMENT, ETC., REMOVED,
W	KILOWATTS		AT NEW LOCATION, SAME AS NEW WORK. RECONNECT TO PRESENT
TG	LIGHTING		CIRCUIT/SWITCH LEG/SYSTEMS WIRING, ETC., UNLESS NOTED OTHERWISE
V	LOW VOLTAGE		ON DRAWINGS.
AG	MAGNETIC		RE-LAMP LIGHT FIXTURES FOR (PN) LIGHTS AS REQUIRED.
AX	MAXIMUM	PH	PHASE (Ø)
DP	MAIN DISTRIBUTION PANEL	PNL	PANEL
FR	MANUFACTURER	SW	SWITCH
IN	MINIMUM	V	VOLT
TD	MOUNTED	W	WIRE

2.04. BOXES

WIRED BY EC

WEATHERPROOF

A. Outlet Boxes: Hot dipped galvanized, 1.25 oz./sq. ft. or cadmium

conduit; attached lugs for locating.

Flush Mounted in Walls:

A. NEC 300-21; UL rated flexible sealant.

Protect all metallic materials against corrosion.

steel or non—terrous materials.

2.08. CORROSION PREVENTION

Interior Boxes: Pressed sheet steel, with knockouts for

fixture studs and maximum 2 connecting conduits.

conduit terminations and wiring devices.

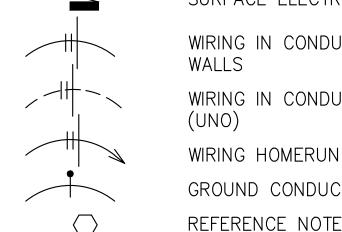
Ceiling Boxes: 4 inch octagon boxes for 1 fixture; including

a. Boxes with matching plaster cover for single or two gang

Two gang box or larger for conductors, conductor joints,

# ELECTRICAL SYMBOLS

	TYPICAL: ALL MOUNTING HEIGHTS ARE TO DEVICE CENTERLINE U.N.O.
MS <del>()</del>	SWITCHES MANUAL MOTOR STARTER
	MISCELLANEOUS
	OUTLET WITH FINAL CONNECTIONS TO EQUIPMENT. WHICH IS FBO. VERIFY EXACT LOCATION AND HEIGHT BEFORE ROUGH—IN.
	SURFACE ELECTRICAL PANEL 36" AFF TO BOTTOM UNO
	WIRING IN CONDUIT CONCEALED, ABOVE CEILINGS OR IN TO CHARACTER MARKS



EXECUTION

WIRING IN CONDUIT CONCEALED IN OR UNDER FLOORS (UNO) WIRING HOMERUN TO PANEL GROUND CONDUCTOR

CHARACTER MARKS= NUMBER OF WIRES, IF NONE ARE SHOWN PROVIDE TWO EXCEPT IF A GROUND CONDUCTOR IS REQUIRED PROVIDE THREE

equipment loads specified.

for unused spaces.

and wall pattern.

being remodeled.

to the following:

A. Examination

panelboard indicating:

1. Maintain headroom, neat mechanical appearance, and support

Provide mounting brackets, busbar drillings, and filler pieces

electrical, heating and plumbing equipment, architectural details

Before submitting his bid, Contractor shall visit the present

Contractor shall contact the Owner to carefully verify all

present external and internal exposed, concealed, buried

operating characteristics, etc., including, but not limited

d. New connections to present equipment and/or services.

e. All areas/locations of demolition and adjoining spaces.

f. All areas/locations for relocated/reinstalled equipment.

connection to present facilities/equipment are incorrectly

shown on plans or incorrectly specified, he shall notify the

Owner, in writing, at least 10 (ten) working days before bids

Owner will issue an addendum to all contractors, calling their

attention to revised point or points of connection, as

3. Verify that abandoned wiring, equipment, piping, boxes, etc.

points of connections as to location, size, type, depth.

a. Present building construction and conditions.

b. Present interior electrical distribution system.

c. Present electrical operating characteristics.

serve only abandoned facilities and remove.

4. If contractor finds that any present point of points of

site, building, areas being remodeled and adjacent areas not

Prepare and affix typewritten directory to inside cover of

1. Circuit number/breaker number and use.

C. Install all panels dead front, coordinated with adjoining

SHEET ADDED WITH

ADDENDUM 4

# S:

NEW CONNECTIONS TO PRESENT RACEWAY,

DEVICE, WIRING, EQUIPMENT, ETC, INSTALL

TEST, COVER, PAINT, ETC., SAME AS NEW WORK

MOUNTING

EL	ECTRICAL SPECIFICATION
1.01.	WORK INCLUDES
A. B. C. D.	Raceways. Wires and cables. Boxes. Supporting devices.
1.02.	REGULATORY REQUIREMENTS
А.	<ul> <li>National Electrical Code, NEC (2014)</li> <li>1. Comply with NEC/NFPA No. 70, for construction and installation of basic materials.</li> <li>2. NEC 300-21: Wiring Methods; Spread of Fire or Products of Combustion.</li> <li>3. Building code for the city of Rockford.</li> <li>Underwriter's Laboratories, UL:</li> <li>1. All basic materials listed and labeled by UL.</li> </ul>
1.03.	•
Α.	American National Standards Institute, ANSI: 1. C80.3: Specification for Electrical Metallic Tubing, Zinc
В.	Coated. National Electrical Manufacturer's Association, NEMA: 1. Enclosures: Publication 250. a. Type 1: Indoor use, atmospheric conditions normal.
C.	Underwriter's Laboratories, UL
1.04.	PROJECT RECORD DOCUMENTS
А. В.	Accurately record on mylar sepia copy of actual locations and wiring methods and "As—built" record documents. Submit for Architect's review.
1.05.	DRAWINGS AND SPECIFICATIONS
Α.	With the exception of systems and equipment furnished by Owner, it is intended that work covered by Specifications and Drawings includes systems complete and operative, irrespective of whether or not every item is specifically shown on plans and/or specified. Any omission of direct reference herein to any essential item shall not excuse contractor from complying with above intent.
B.	In case of error or inconsistency, between Specifications and Drawings or within either document itself the item or arrangement of better quality, greater quantity or highest cost shall take precedence over drawings as directed by Owner. Figured dimensions supersede scaled dimensions. Contractor shall take no advantage of, an shall promptly call Owner's attention to any error, omission or inconsistency in Specifications and Drawings prior to submitting bid.
C.	Material shall be new. Seconds or damaged materials will be rejected by Owner, who reserves the right to disapprove and reject any materials, proposed or installed which, in their opinion, fail to meet quality standards specified. Contractor shall, at his expense, remove any rejected materials and replace with approved materials.
2.	PRODUCTS
2.01.	RACEWAYS
Α.	Conduit Materials, Components:  1. Conduit:  a. Electrical Metallic Tubina: ANSI C80 3

Electrical Metallic Tubing: ANSI C80.3.

Building Wiring: 98% conductivity copper, 600 volt insulation,

B. Branch Circuit Wiring: Conductors smaller than #12 AWG not

Provide permanent plastic name tag indicating load fed.

a. EMT Conduit: Set screw.

120/208 v., 3 phase, 4 wire

2.02. WIRES AND CABLES

2.03. WIRING SYSTEM IDENTIFICATION

Phase A Black

Phase B Red

Phase C Blue

Neutral White

5. Ground Green

A. Wire Insulation Color:

B. Pull Boxes and Junction Boxes: NEC metal construction; with screwon or hinged cover. 1. Flush Mounted Pull Boxes: Overlapping covers with flush—head cover retaining screws; prime coated. A. Wiring Devices shall be Hubbell, Leviton, or Approved equal to those listed Underwriter's approved and N.E.C. rated. Furnish shop drawings. Refer to symbol list for scheduled wiring devices. B. All receptacles must be grounded type with separate green ground wire from ground terminal on all grounded receptacle to backbox(and from backbox to ground bar in panelboard). Self-grounding, clip is not acceptable. C. All duplex receptacles installed within 6 feet of a sink shall have ground fault circuit-interrupter protection. Install wiring devices where indicated, in accordance with manufacturer's written instructions, applicable requirements of NEC abd NECA's "Standard of Installation" and in accordance with recognized industry practices to ensure that products served the intended function. All wiring devices in finished areas shall be flush mounted in recessed outlet boxes unless specifically noted otherwise. Wiring devices in unfinished spaces, mechanical, and utility areas may be either flush mounted or surface mounted as conditions dictate and as practical unless otherwise noted on plans; coordinate F. All duplex receptacle mounted in a vertical position shall be mounted with the ground opening down. Verify acceptance with Architect, Owner and local code authorities having jurisdiction before installing. I. Install receptacles and switches only in electrical boxes which are clean; free from excess building materials, debris, etc. Elevations indicated in Symbol Schedule and plans are nominal. Install to nearest block coursing, to clear equipment, or as noted. Switches and operating devices shall not be installed higher than 48" — in compliance with handicap code requirement — where applicable. Receptacles, telephone outlets. and other power and communication output devices shall not be installed lower than 18" — in compliance with handicap code requirements — where applicable. Coodinate with Mechanical Contractor and be responsible for assuring that wiring devices clear heating baseboard, wall, fin, cabinet units, ductwork, registers, and other HVAC equipment and appurtenances. M Coodination with Plumbing Contractor and be responsible for assuring that wiring devices clear sinks, cabinets, piping and other plumbing equipment and appurtenances. N. Coodination with General and Cabinert Contractor and be responsible for assuring that wiring wiring devices clear cabinet work, counters, shelving, etc. Coodination with General and Cabinert Contractor and be responsible for assuring that wiring frame — latch side — with exceptions for adjacent glass light panels, etc. Contractor shall be responsible for achieving same. 2.06. SUPPORTING DEVICES A. Conduit Supports: Single Runs: Galvanized conduit straps or ring bolt type hangers with specialty spring clips Vertical Runs: Channel support with conduit fittings. Hollow Masonry: Toggle bolts or spider type expansion anchors. Solid Masonry: Lead expansion anchors or preset inserts Metal Surfaces: Machine screws, bolts, or welded studs. Wood Surfaces: Wood screws. Concrete Surfaces: Self-drilling anchors or power-driven studs. All 120V, single phase, 15 Amp and 20 Amp branch circuits serving bedrooms shall be protected by a listed arc—fault circuit interrupter, combination type installed 2.07. FIRE AND SMOKE PENETRATION SEALANT

All equipment enclosures given rust—inhibiting treatment and standard finish by manufacturer.

a. Includes anchors, bolts, braces, boxes, bodies, clamps, fittings, guards, nuts, pins, rods,

shims, thimbles, washers and miscellaneous parts; other than stainless steel or non—ferrous

shims, thimbles, washers and miscellaneous parts; other than stainless steel or non-ferrous

Ferrous Metal Parts: Hot dip aalvanized, ASTM A123 or ASTM A153.

Isolation of Dissimilar Metals: Separate dissimilar metals with NEC approved material.

3.01. INSTALLATION Drawings are diagrammatic and are intended to convey scope of work and indicate general arrangement of conduit, boxes, equipment, fixtures and other work included in contract. 3.02. RACEWAYS Locations: Above—Grade Interior Locations: Electrical metallic tubing. Install liquid—tight flexible conduit where subjected to one or more of the following conditions. a. Moist or humid atmosphere where condensate can be expected or accumulate. Corrosive atmosphere. Subjected to water spray. Subjected to dripping oil, grease, or water. 3. Size raceways in accordance with NEC for TW wire regardless of wire type used. B. Installation of Conduit: Install conduit and tubing products indicated, in accordance with manufacturer's written instructions and requirements of NEC and NECA, Standard of Installation. Conceal conduit in all areas excluding mechanical, electrical and other unfinished rooms, connections to motors, and connections to surface cabinets. Attach conduit with clamps. Coordinate installation of conduit in partition work. Install conduit free from dents and bruises. Plug conduit ends to prevent entry of dirt or moisture. Clean out conduit before installation of conductor(s). Alter conduit routing to avoid structural obstructions. minimize cross-overs; and where possible, install raceways above water and steam piping. Allow minimum 6 inch clearance at flues, steam pipes, and heat 10. Route all exposed conduits parallel or perpendicular to building lines. 11. Fire rated walls, partitions, floors, ceiling penetrations: Sealed in accordance with NEC 300-21. a. Flexible conduit sufficient length to avoid vibration transmission. 12. Building Expansion Joints: Install UL listed expansion fittings complete with grounding jumpers where conduits cross building expansion joints. a. Provide bends or offsets in conduit adjacent to building expansion joints where conduit is installed above 3.03. RACEWAY SYSTEM IDENTIFICATION A. Identify all exposed conduits and boxes as follows: 1. Boxes, on face of coverplate. a. Power — Show panel, voltage and circuit number, painted stenciled letters. (Black letters, yellow background). Systems — Indicate system, such as sound, clock, telephone, etc., (black letters, yellow background). B. Identify all conduit and boxes above accessible ceilings. 1. Follow steps A.1. above. C. Lettering to be as large as possible for each conduit size. 3.04. WIRE AND CABLES A. Installation:

Lace or clip groups of feeder conductors at distribution

Conductor size indicated on drawings indicates ampacity

Provide knockout closures to cap unused knockout holes where

a. Flush mount outlet boxes in areas other than mechanical

rooms, electrical rooms, and above removable ceilings.

1) Adjust position of outlets in finished masonry walls

2) Coordinate cutting of masonry walls to achieve neat

3) Locate boxes in masonry walls so that only corner need

center, pull boxes and wireways.

blanks have been removed.

Architect/Engineer.

rooms, or storage areas.

Outlet Boxes:

b. Masonry Walls:

3.05. BOXES

requirements using copper conductors.

Support all boxes independently of conduit.

openings for boxes.

location for equipment served.

to suit masonry course lines.

be cut from masonry units.

c. Do not use sectional boxes unless approved by

d. Adjust outlet mounting height to grade with specified

4. Pull Boxes and Junction Boxes: Locate pull boxes and junction boxes above removable ceilings or in electrical rooms, utility

3.06. SUPPORTING DEVICES 3.07. INSTALLATION PANELBOARDS 3.08. PRESENT EQUIPMENT AND CONSTRUCTION Make conductor length for parallel feeders identical.

required. 6. If electrical contractors fail to notify the Owner, in writing, as outlined above, it will be expected that their bid includes everything required to provide proper connections to all present points of connection as they actually exist or as they will be provided. 7. All modifications, relocations, replacements, additional runs and extensions, etc. will be provided by electrical contractors without increase in contract price. Following removed present equipment and materials which are in good condition (or are placed in good condition), suitable, meet requirements of these specifications, and are approved in writing by engineer, or called for, may be reused (PXN-PN). Lighting fixtures. Speakers. Removed conduit and wire must not be reused. Any of above equipment which is not reused and following removed present equipment shall become property of contractor, and shall be removed from premises by him (PX). Equipment so designated on drawings. Following present equipment shall be carefully removed, intact, match, marked, in—so—far as is practical, shall remain property of

are due to be submitted.

Owner. and shall be delivered to Owner outside of building where directed by the engineer (PX-DO). 1. Equipment so designated on drawings. F. Contractor shall: Provide new floors under removed present equipment and where

Repair floors under and walls adjacent to removed equipment, to match adjacent construction.

3. Fill in present chases which are no longer required and neatly patch to match adjacent construction. 4. Cut openings required for:

a. His work. b. Admission of new equipment

c. Removal of present equipment

New connection to present construction. Patch and repair unused present holes and openings, and those left by the removal of present equipment and admission of new

Patch and repair present equipment, and building construction which has been cut, removed, disturbed or marred as required to restore it to original condition before being disturbed.

G. Unused openings in enclosures in conduits, boxes, cabinets, and panels shall be filled.

Present painted construction which is marred shall be repaired same as new construction. Certain abbreviations or symbols, when applied to present (or existing) line, device or equipment, shall have the following

NC New connections to present piping, device, wiring, equipment, etc. Install, test, cover, paint, etc., same as new work.

P To remain unchanged. If change cannot be avoided, change "P" to "PXR", at no increase in contract price. Verify location.

PX To be completely removed, including unneeded connections, piping, ducts, wiring, bases, etc., of every kind. Unused new work. Other disturbed work of every kind restored, patched, tested, covered, painted, etc., to equal original condition. Removed materials must not be reused unless otherwise specified or directed by engineer.

PX-DO Fixtures, equipment, devices, etc., removed intact, as far as practical, identified as required, and delivered to owner outside of building as directed by architect/engineer. Associated boxes, wiring, conduits, etc., to be "PX".

PXR Removed, cleaned and restored to good operating condition and reinstalled, same as new, in original position. If reconditioning is impractical, provide new device/equipment, as approved by engineer, at no increase to contract price. If adjacent walls, floors, ceiling, etc., are damaged, they shall be repaired by electrical contractor as directed by architect.

PXN Removed, cleaned and restored to good operating condition and reinstalled at point/location marked "PN". Boxes, wiring conduit, etc., to be "PX".

PN Completely reinstall device, line, equipment, etc., removed, circuit/switch leg/systems wiring, etc., unless noted otherwise on drawings.

J. Work of every division shall be coordinated with all other work and with present conditions, so that: 1. Electrical services to be present buildings or portions of buildings will not be interrupted during periods when those

services are needed.

finished rooms or spaces shall be concealed in finished rooms, where possible, or shall be run in adjoining unfinished rooms, shafts, chambers, cloak rooms, etc., where exposed conduit is permitted in finished present rooms by Architect in writing, it shall be wiremold, with matching boxes, run as inconspicuously as possible, in straight lines, parallel to walls and ceilings, with neat bends. Unneeded boxes, switches and wiring shall be completely removed and openings patched. In present rooms or locations where new lighting equipment is shown, present fixtures, boxes, wiring, switches, etc., shall be removed as per note "PX", unless another symbol is shown on drawings. Where specifically approved by Architect in writing, boxes may be permitted to remain and be provided with new flush covers, extending over entire wall

A. Clean systems internally before placing in operation. Clean externally and restore damaged surfaces. B. Lubricate equipment per manufacturer's instructions. Where —

openings plugged or capped, tested, covered, painted same as

at new location, same as new work. Reconnect to present

Re-lamp light fixtures for (PN) fixtures as required.

K. New conduit serving new and/or present electrical devices in

L. Lighting fixtures which are reused shall have lens and reflectors cleaned. All fixtures shall be provided with new lamps. M. Work shall be coordinated so that heating, plumbing, electrical and telephone services to the present building will not be interrupted, except as approved by the Architect. 3.09. CLEANING

lubricating points are not easily accessible, provide extensions.

LEGACY DESIGNS

6-1-21

1121 SD205 #2126

221154



