

HILLSIDE INTERMEDIATE SCHOOL LOWER LEVEL CEILINGS REPLACEMENT

STATE PROJECT NO. TMP-088-MJTB

51 HILLSIDE AVENUE
NAUGATUCK, CT 06770

LIST OF DRAWINGS

R0.01	GENERAL INFORMATION I
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A1.01	LOWER LEVEL REFLECTED CEILING PLAN
MEP-1	MEP DEMO PLAN
MEP-2	MEP NEW WORK PLAN



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VOLUME 1 OF 1

DRAWINGS ISSUED FOR BIDDING AND CONSTRUCTION

5/2/2016

KAESTLE BOOS ASSOCIATES, INC. KAESTLE BOOS
associates, inc ARCHITECTURAL, STRUCTURAL & LANDSCAPE
CONSULTING ENGINEERING SERVICES, INC. MECHANICAL, PLUMBING & ELECTRICAL ENGINEER
TRC COMPANIES, INC. HAZARDOUS MATERIALS

ABBREVIATIONS			
SEE THE LIST OF DRAWINGS FOR LOCATIONS OF ABBREVIATIONS RELATING TO OTHER DISCIPLINES.			
ABOVE FINISH FLOOR	A.F.F.	INCH OR INCHES	IN. OR "
ABUSE RESISTANT GYPSUM BOARD	A.R.G.B.	INCLUDE, INCLUDING	INCL.
ACOUSTIC, ACOUSTICAL	AC	INFORMATION	INFO.
ACOUSTICAL CEILING TILE	A.C.T.	INSIDE DIAMETER	I.D.
ADDITION	ADDN	INSULATION	INSUL.
AIR CONDITIONING	A/C	INTERIOR	INT.
AIR HANDLING UNIT	A.H.U.	KICK PLATE	K.P.
ALTERNATE	ALT.		
ALUMINUM	ALUM.		
AMERICANS WITH DISABILITIES ACT	A.D.A.	LABORATORY	LAB.
ANCHOR, ANCHORAGE	ANCH	LABORATORY	LAB.
ANCHOR BOLTS	AB	LEAD COATED COPPER	L.C.C.
AND	&	LIGHTING	LTC.
ANGLE	L		
ANODIZED	ANOD.	MACHINE	MACH.
APPROVED	APPR.	MAINTENANCE	MAINT.
ARCHITECT, ARCHITECTURAL	ARCH.	MANUFACTURER	MFR.
ASBESTOS	ASB.	MARKER BOARD	MBS.
ASPHALT	ASPH.	MASONRY	MAS.
ASSEMBLY	ASSY	MASONRY OPENING	M.O.
ASSISTANT	ASST	MATERIAL	MATL.
AT	@	MAXIMUM	MAX.
AUTOMATIC	AUTO.	MECHANICAL	MECH.
		META	MET.
		MEZZANINE	MEZZ.
BEAM	BM	MINIMUM	MIN.
BEARING	BRG	MIRROR WITH FRAME	M.W.F.
BETWEEN	BET.	MISCELLANEOUS	MISC.
BEVEL, BEVELED	BEV.		
BUTANOLUS	BT.		
BLK	BLK	NORTH	N
BLOCKING	BLKG	NOT IN CONTRACT	N.I.C.
BOARD	BD	NOT IN PROJECT SCOPE	N.P.S.
BOTTOM	BOT.	NOT TO SCALE	N.T.S.
BOTTOM OF	B.O.	NUMBER	NO. OR #
BRICK EXPANSION JOINT	B.E.J.		
BUILDING	BLDG.	OFFICE	OFF.
BUILT-UP-ROOFING	B.U.R.	ON GENTER	O.C.
		OPPOSITE HAND	O.H.
CABINET	CAB.	OUNCE	OZ.
CABINET UNIT HEATER	C.U.H.	OUTSIDE DIAMETER	O.D.
CAPACITY	CAP.		
CEILING	CLG.	PAINTED	PTD
CEILING HEIGHT	CLG. HT.	PAIR	PR
CEMENT	CEM.	PAPER TOWEL DISPENSER	P.T.D.
CENTER	CTR.	PARTIAL	PART
CENTERLINE	CL	PASSAGE	PASS.
CERAMIC TILE	CER. T.	PERPENDICULAR	PERP.
CHALKBOARD	C.B.	PLASTER	PLAS.
CHANNEL	CH.	PLASTIC LAMINATE	PL. LAM.
CLEAR	CLR.	PLATE	PL.
CLOSET	CL.	PLUMBING	PLB.
COLUMN	COL.	PLYWOOD	PLYD.
CONCRETE	CONC.	POLYVINYL CHLORIDE	PVC
CONFERENCE	CONF.	P/O	P/O
CONTROL/CONSTRUCTION JOINT	CJ	PRECAST EXPANSION JOINT	P.E.J.
CONTINUOUS	CONT.	PREFABRICATED	PREFAB.
CONTRACTOR	CONTR.	PRESSURE TREATED	P.T.
CORRIDOR	CORR.	QUANTITY	QT.
COURSE, COURSES	CRS.	QUANTITY	Q.T.
DAMP-PROOFING	DMPFG	RADIUS	RAD.
DEGREE	DEG.	RAIN WATER CONDUCTOR	R.W.C.
DEMOLITION	DEMO.	RAIN WATER LEADER	R.W.L.
DEPARTMENT	DEPT.	RECEIVING	RECV.
DETAIL	DET.	REFRIGERATOR	REFR.
DIAMETER	DIA.	REINFORCE	RENF.
DIMENSION	DM.	REQUIRED	REQ'D
DISTANCE	DIS.	REVISED, REVISION	REV.
DOOR	DR.	ROSE	R.
DOUBLE HUNG	D.H.	ROPE HOOK	R.H.
DOWN	DN.	ROOF DRAIN	R.D.
DOWN SPOUT	D.S.	ROOF TOP UNIT	R.T.U.
DRAINING	DRM.	ROOM	RM.
DRINKING FOUNTAIN	D.F.	RUBBERIZED ASPHALT FABRIC LAMINATE	R.A.F.L.
EACH	EA.	SANITARY NAPKIN DISPENSER	S.N.D.
ELECTRIC, ELECTRICAL	ELEC.	SANITARY NAPKIN RECEPTACLE	S.N.R.
ELECTRIC WATER COOLER	EW.	SCHEDULE	SCHED.
ELEVATION	EL.	SCURPER	SC.
ELEVATOR	ELEV.	SECTION	SECT.
EMERGENCY	EMERG.	SEISMIC JOINT	S.J.
EQUAL	EQL.	SHED	SH.
EQUIPMENT	EQUIP.	SIMILAR	SIM.
ETHYLENE-PROPYLENE-DIENE-MONOMER	E.P.D.M.	SOAP DISPENSER	S.D.
EXHAUST FAN	E.F.	SOUND TRANSMISSION CLASS	S.T.C.
EXISTING	EXIST.	SPECIFICATIONS	SPEC.
EXISTING FIRE BLANKET	EFB	SPLASH BLOCK	S.B.
EXISTING FIRE EXTINGUISHER	EFE	SQUARE	SQ.
EXISTING ROOF DRAIN	E.R.D.	SQUARE FEET (FOOT)	S.F.
EXPANSION	EXP.	STAINLESS STEEL	ST. STL.
EXISTING TO REMAIN	E.T.R.	STANDARD	STD.
EXTENSION	EXT.	STEEL	STL.
STONE THRESHOLD	E.T.	STONE THRESHOLD	ST.
EXTERIOR	EXT.	STORAGE	STOR.
EXTERIOR INSULATION AND FINISH SYSTEM	E.I.F.S.	STRUCTURAL	STRUCT.
		STRUCTURAL GLAZED FACING TILE	SGT.
		STRUCTURAL STEEL	S. STL.
FEET, FOOT	FT	SUSPEND, SUSPENSION	SUSP.
FINISH, FINISHED	FIN.	SWING UP GRAB BAR	S.G.B.
FINISHED FLOOR	FF		
FIRE BLANKET	F.B.	TACKBOARD	TBD
FIRE EXTINGUISHER	F.E.	THROUGH	THRU
FIRE RETARDANT TREATED	F.R.T.	TOILET PAPER DISPENSER	T.P.D.
FIRE-PROOFING	FRPG.	TOILET PARTITION	T.P.
FLUORE	FLU.	TONGUE AND GROOVE	T. & G.
FLASHING	FLASH.	TOP OF	T.O.
FLOOR DRAIN	F.D.	TREAD	T.
FLOOR FINISH	FLR. FIN.	TYPICAL	TYP.
FOOTING	FTG.		
FOUNDATION	FN.	UNDERWRITERS' LABORATORIES, INC.	UL.
FURNISH, FURNISHED	FURN.	UNIT HEATER	U.H.
FURRED, FURRING	FURR.	UNIT VENTILATOR	U.V.
		UNLESS OTHERWISE NOTED	U.O.N.
		URINAL SCREEN	U.S.
GAUGE	GA.	VENT THROUGH ROOF	VTR
GALVANIZED	GALV.	VERIFY IN FIELD	V.I.F.
GRAB BAR	G.B.	VERTICAL	VERT.
GYPSUM WALLBOARD	GYP. BD.	VESTIBULE	VEST.
		VINYL COMPOSITION TILE	VCT
HAIR DRYER	H.R.D.		
HANDICAPPED	H.C.		
HEIGHT	HGT.		
HIGH POINT	H.P.		
HOLLOW METAL	H.M.		
HORIZONTAL	H.M.F.		
HORSE BIBB	HORB.		
HOUR	HR.		
		ZINC COATED COPPER	Z.C.C.
CEILING PLAN NOTES			
1. REFLECTED CEILING PLANS ARE INTENDED FOR COORDINATION PURPOSES FOR MECHANICAL, ELECTRICAL, FIRE PROTECTION, AND ARCHITECTURAL ELEMENTS. REFER TO RESPECTIVE DRAWINGS FOR SPECIFIC REQUIREMENTS.			
2. LIGHT FIXTURE SYMBOLS ON REFLECTED CEILING PLANS ARE DIAGRAMMATIC FOR REFERENCE ONLY. REFER TO ELECTRICAL DRAWINGS FOR TYPE OF LIGHT FIXTURES. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR QUANTITY OF LIGHT FIXTURES AS INDICATED ON ELECTRICAL DRAWINGS.			
3. NO SUSPENDED LOADS SHALL BE SUPPORTED BY THE ROOF DECK. THIS INCLUDES LIGHTING, CEILING SYSTEMS, ETC. ALL COMPONENTS SHALL BE SUSPENDED DIRECTLY FROM THE MAIN STRUCTURAL STEEL FRAMING MEMBERS PREFERABLY UTILIZING A SYSTEM OF UNISTRUTS, BEAM CLAMPS, AND THREADED RODS. ALL ATTACHMENT DEVICES SHALL BE SUBMITTED FOR REVIEW AND ARE SUBJECT TO APPROVAL OF THE MEP ENGINEER.			

ACOUSTICAL PANEL CEILINGS	
PART 1 - GENERAL	
1.1 RELATED DOCUMENTS	
A. THE CONTRACTOR, SUBCONTRACTORS, AND/OR SUPPLIERS PROVIDING GOODS AND SERVICES REFERENCED IN OR RELATED TO THIS SECTION SHALL ALSO BE BOUND BY THE RELATED DOCUMENTS IDENTIFIED IN DIVISION 01 SECTION "SUMMARY."	
1.2 SUMMARY	
A. SECTION INCLUDES:	
1. ACOUSTICAL PANELS AND EXPOSED SUSPENSION SYSTEMS FOR CEILINGS.	
1.3 DEFINITIONS	
A. CAC: CEILING ATTENUATION CLASS.	
B. LR: LIGHT REFLECTANCE COEFFICIENT.	
C. NRC: NOISE REDUCTION COEFFICIENT.	
1.4 SUBMITTALS	
A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED.	
B. COORDINATION DRAWINGS: REFLECTED CEILING PLANS, DRAWN TO SCALE, ON WHICH THE FOLLOWING ITEMS ARE SHOWN AND COORDINATED WITH EACH OTHER, BASED ON INPUT FROM INSTALLERS OF THE ITEMS INVOLVED:	
1. CEILING SUSPENSION SYSTEM MEMBERS.	
2. METHOD OF ATTACHING HANGERS TO BUILDING STRUCTURE.	
3. CEILING-MOUNTED ITEMS INCLUDING LIGHTING FIXTURES, DIFFUSERS, GRILLES, SPEAKERS, SPRINKLERS, ACCESS PANELS, AND SPECIAL MOLDINGS.	
4. MINIMUM DRAWING SCALE: 1/8" INCH = 1 FOOT.	
C. SAMPLES FOR VERIFICATION: FOR EACH COMPONENT INDICATED AND FOR EACH EXPOSED FINISH REQUIRED, PREPARED ON SAMPLES OF SIZE INDICATED BELOW.	
1. ACOUSTICAL PANEL: SET OF 6-INCH- SQUARE SAMPLES OF EACH TYPE, COLOR, PATTERN, AND TEXTURE.	
2. EXPOSED SUSPENSION SYSTEM MEMBERS, MOLDINGS, AND TRIM: SET OF 12-INCH- LONG SAMPLES OF EACH TYPE, FINISH, AND COLOR.	
D. PRODUCT TEST REPORTS: BASED ON EVALUATION OF COMPREHENSIVE TESTS PERFORMED BY A QUALIFIED TESTING AGENCY, FOR EACH ACOUSTICAL PANEL CEILING.	
E. RESEARCH/EVALUATION REPORTS: FOR EACH ACOUSTICAL PANEL CEILING AND COMPONENTS.	
F. MAINTENANCE DATA: FOR FINISHES TO INCLUDE IN MAINTENANCE MANUALS.	
G. WARRANTIES: SPECIAL WARRANTIES SPECIFIED IN THIS SECTION.	
1.5 QUALITY ASSURANCE	
A. MOCKUPS: BUILD MOCKUPS TO VERIFY SELECTIONS MADE UNDER SAMPLE SUBMITTALS AND TO DEMONSTRATE AESTHETIC EFFECTS AND SET QUALITY STANDARDS FOR MATERIALS AND EXECUTION.	
1. APPROVED MOCKUPS MAY BECOME PART OF THE COMPLETED WORK IF UNDISTURBED AT TIME OF SUBSTANTIAL COMPLETION.	
1.6 DELIVERY, STORAGE, AND HANDLING	
A. DELIVER ACOUSTICAL PANELS, SUSPENSION SYSTEM COMPONENTS, AND ACCESSORIES TO PROJECT SITE IN ORIGINAL, UNOPENED PACKAGES AND STORE THEM IN A FULLY ENCLOSED, CONDITIONED SPACE WHERE THEY WILL BE PROTECTED AGAINST DAMAGE FROM MOISTURE, HUMIDITY, TEMPERATURE EXTREMES, DIRECT SUNLIGHT, SURFACE CONTAMINATION, AND OTHER CAUSES.	
B. BEFORE INSTALLING ACOUSTICAL PANELS, PERMIT THEM TO REACH ROOM TEMPERATURE AND A STABILIZED MOISTURE CONTENT.	
C. HANDLE ACOUSTICAL PANELS CAREFULLY TO AVOID CHIPPING EDGES OR DAMAGING UNITS IN ANY WAY.	
1.7 PROJECT CONDITIONS	
A. ENVIRONMENTAL LIMITATIONS: DO NOT INSTALL ACOUSTICAL PANEL CEILINGS UNTIL SPACES ARE ENCLOSED AND WEATHERPROOF. WET WORK IN SPACES IS COMPLETE AND DRY, WORK ABOVE CEILINGS IS COMPLETE, AND AMBIENT TEMPERATURE AND HUMIDITY CONDITIONS ARE MAINTAINED AT THE LEVELS INDICATED FOR PROJECT WHEN OCCUPIED FOR ITS INTENDED USE.	
1.8 COORDINATION	
A. COORDINATE LAYOUT AND INSTALLATION OF ACOUSTICAL PANELS AND SUSPENSION SYSTEM WITH OTHER CONSTRUCTION THAT PENETRATES CEILINGS OR IS SUPPORTED BY THEM, INCLUDING LIGHT FIXTURES, HVAC EQUIPMENT, AND PARTITION ASSEMBLIES.	
1.9 EXTRA MATERIALS	
A. FURNISH EXTRA MATERIALS DESCRIBED BELOW THAT MATCH PRODUCTS INSTALLED AND THAT ARE PACKAGED WITH PROTECTIVE COVERING FOR STORAGE AND IDENTIFIED WITH LABELS DESCRIBING CONTENTS:	
1. ACOUSTICAL CEILING PANELS: FULL-SIZE PANELS EQUAL TO 2 PERCENT OF QUANTITY INSTALLED, FOR EACH CEILING PANEL TYPE.	
2. SUSPENSION SYSTEM COMPONENTS: QUANTITY OF EACH EXPOSED COMPONENT EQUAL TO 2 PERCENT OF QUANTITY INSTALLED, FOR EACH SUSPENSION SYSTEM TYPE.	
1.10 WARRANTY	
A. SPECIAL WARRANTY FOR ACOUSTICAL PANEL CEILINGS AND SUSPENSION SYSTEMS: MANUFACTURER'S STANDARD FORM IN WHICH MANUFACTURER AGREES TO REPLACE ACOUSTICAL PANEL CEILINGS AND SUSPENSION SYSTEMS THAT FAIL IN MATERIALS OR WORKMANSHIP WITHIN SPECIFIED WARRANTY PERIOD.	
1. FAILURE OF CEILING PANELS INCLUDES SAGGING AND WARPING, AND GROWTH OF MOLD, MILDEW, AND STAIN CAUSING BACTERIA.	
2. FAILURE OF SUSPENSION SYSTEMS INCLUDES RUSTING.	
3. WARRANTY DOES NOT COVER DAMAGES THAT MAY OCCUR FROM VIBRATIONS, FIRE, WATER, FREEZING TEMPERATURES, ACCIDENT OR ANY FORM OF ABUSE OR EXPOSURE TO ABNORMAL CONDITIONS.	
4. WARRANTY PERIOD: 30 YEARS FROM DATE OF SUBSTANTIAL COMPLETION.	
B. SPECIAL WARRANTY: MANUFACTURER'S STANDARD FORM IN WHICH MANUFACTURER AGREES TO REPAIR OR REPLACE COMPONENTS OF SOUND-ABSORBING CEILING UNITS THAT FAIL IN MATERIALS OR WORKMANSHIP WITHIN SPECIFIED WARRANTY PERIOD.	
1. FAILURES INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:	
a. ACOUSTICAL PERFORMANCE.	
b. WARPING OF CORE.	
2. WARRANTY PERIOD: TWO YEARS FROM DATE OF SUBSTANTIAL COMPLETION.	
PART 2 - PRODUCTS	
2.1 PERFORMANCE REQUIREMENTS	
A. SEISMIC PERFORMANCE: ACOUSTICAL CEILING SHALL WITHSTAND THE EFFECTS OF EARTHQUAKE MOTIONS DETERMINED ACCORDING TO ASCE/SEI 7 AND THE CONNECTICUT STATE BUILDING CODE.	
B. SURFACE-BURNING CHARACTERISTICS: COMPLY WITH ASTM E 84; TESTING BY A QUALIFIED TESTING AGENCY. IDENTIFY PRODUCTS WITH APPROPRIATE MARKINGS OF APPLICABLE TESTING AGENCY.	
1. FLAME-SPREAD INDEX: COMPLY WITH ASTM E 1264 FOR CLASS A MATERIALS.	
2. SMOKE-DEVELOPED INDEX: 450 OR LESS.	
C. FIRE-RESISTANCE RATINGS: COMPLY WITH ASTM E 119; TESTING BY A QUALIFIED TESTING AGENCY. IDENTIFY PRODUCTS WITH APPROPRIATE MARKINGS OF APPLICABLE TESTING AGENCY.	
1. INDICATE DESIGN DESIGNATIONS FROM UL'S "FIRE RESISTANCE DIRECTORY" OR FROM THE LISTINGS OF ANOTHER QUALIFIED TESTING AGENCY.	
2.2 ACOUSTICAL PANELS, GENERAL	
A. SOURCE LIMITATIONS: OBTAIN EACH TYPE OF ACOUSTICAL CEILING PANEL AND SUPPORTING SUSPENSION SYSTEM FROM SINGLE MANUFACTURER.	
B. GLASS-FIBER-BASED PANELS: MADE WITH BINDER CONTAINING NO UREA FORMALDEHYDE.	
C. ACOUSTICAL PANEL STANDARD: PROVIDE MANUFACTURER'S STANDARD PANELS OF CONFIGURATION INDICATED THAT COMPLY WITH ASTM E 1264 CLASSIFICATIONS AS DESIGNATED BY TYPES, PATTERNS, ACOUSTICAL RATINGS, AND LIGHT REFLECTANCES, UNLESS OTHERWISE INDICATED.	
1. MOUNTING METHOD FOR MEASURING NRC: TYPE E-400; PLENUM MOUNTING IN WHICH FACE OF TEST SPECIMEN IS 15-3/4 INCHES AWAY FROM TEST SURFACE PER ASTM E 793.	
D. ANTIMICROBIAL FUNGICIDE TREATMENT: PROVIDE ACOUSTICAL PANELS WITH FACE AND BACK SURFACES COATED WITH ANTIMICROBIAL TREATMENT CONSISTING OF MANUFACTURER'S STANDARD FORMULATION WITH FUNGICIDE ADDED TO INHIBIT GROWTH OF MOLD AND MILDEW AND SHOWING NO MOLD OR MILDEN GROWTH WHEN TESTED ACCORDING TO ASTM D 3273 AND EVALUATED ACCORDING TO ASTM D 3274 OR ASTM G 21.	
2.3 ACOUSTICAL PANELS FOR ACOUSTICAL PANEL CEILING	
A. BASIS-OF-DESIGN PRODUCT: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS AS INDICATED BY ARMSTRONG WORLD INDUSTRIES, INC. OR A COMPARABLE PRODUCT BY ONE OF THE FOLLOWING:	
1. CERTANTEED, INC.	
2. USG INTERIORS, INC.	
B. CLASSIFICATION: PROVIDE PANELS COMPLYING WITH ASTM E 1264 FOR TYPE, FORM, AND PATTERN AS FOLLOWS:	

ACOUSTICAL PANEL CEILINGS

1. CEILING TYPE C-1:

a. BASIS OF DESIGN PRODUCT: ARMSTRONG WORLD INDUSTRIES, INC.; ULTIMA #1913.

1) TYPE AND FORM: TYPE IV, MINERAL BASE WITH MEMBRANE-FACED OVERLAY; FORM 1, MODULAR, WITH GLASS-FIBER CLOTH OVERLAY.

2) PATTERN: E (LIGHTLY TEXTURED)

3) COLOR: WHITE.

4) LR: NOT LESS THAN 0.90.

5) NRC: NOT LESS THAN 0.70.

6) CAC: NOT LESS THAN 35.

7) EDGE/JOINT DETAIL: SQUARE.

8) THICKNESS: 3/4 INCH.

9) MODULAR SIZES: 24 X 48 INCHES.

10) ANTIMICROBIAL TREATMENT: BIOBLOCK + AND HUMIGUARD PLUS.

2. CEILING TYPE C-2:

a. BASIS OF DESIGN PRODUCT: ARMSTRONG WORLD INDUSTRIES, INC.; KITCHEN ZONE

1) SURFACE TEXTURE: SMOOTH

2) COMPOSITION: MINERAL FIBER

3) COLOR: WHITE

4) SIZE: 24IN X 48IN

5) EDGE PROFILE: SQUARE LAY-IN 15/16IN FOR INTERFACE WITH PRELUDE XL 15/16" EXPOSED TEE GRID.

6) NOISE REDUCTION COEFFICIENT(NRC):

7) CEILING ATTENUATION CLASS (CAC) : ASTM C 1414; CLASSIFIED WITH UL LABEL ON PRODUCT CARTON 33.

8) SAGIN: N/A

9) ARTICULATION CLASS (AC):

10) FLAME SPREAD: ASTM E 1264; CLASS A (UL)

11) LIGHT REFLECTANCE WHITE PANEL: ASTM E 1477; 0.89

12) DIMENSIONAL STABILITY: HUMIGUARD PLUS

13) RECYCLE CONTENT: POST-CONSUMER - 3% PRE-CONSUMER WASTE - 33%

14) ACCEPTABLE PRODUCT: KITCHEN ZONE, 672 AS MANUFACTURED BY ARMSTRONG WORLD INDUSTRIES

C. BROAD SPECTRUM ANTIMICROBIAL FUNGICIDE AND BACTERICIDE TREATMENT: PROVIDE ACOUSTICAL PANELS TREATED WITH MANUFACTURER'S STANDARD ANTIMICROBIAL FORMULATION THAT INHIBITS FUNGUS, MOLD, MILDEW, AND GRAM-POSITIVE AND GRAM-NEGATIVE BACTERIA AND SHOWING NO MOLD, MILDEW, OR BACTERIAL GROWTH WHEN TESTED ACCORDING TO ASTM D 3273 AND EVALUATED ACCORDING TO ASTM D 3274 OR ASTM G 21.

2.4 METAL SUSPENSION SYSTEMS, GENERAL

A. METAL SUSPENSION SYSTEM STANDARD: PROVIDE MANUFACTURER'S STANDARD DIRECT-HUNG METAL SUSPENSION SYSTEMS OF TYPES, STRUCTURAL CLASSIFICATIONS, AND FINISHES INDICATED THAT COMPLY WITH APPLICABLE REQUIREMENTS IN ASTM C 635

B. FINISHES AND COLORS, GENERAL: COMPLY WITH MAMM'S "METAL FINISHES MANUAL FOR ARCHITECTURAL AND METAL PRODUCTS" FOR RECOMMENDATIONS FOR APPLYING AND DESIGNATING FINISHES. PROVIDE MANUFACTURER'S STANDARD FACTORY-APPLIED FINISH FOR TYPE OF SYSTEM INDICATED.

C. ATTACHMENT DEVICES: SIZE FOR FIVE TIMES THE DESIGN LOAD INDICATED IN ASTM C 635, TABLE 1, "DIRECT HUNG," UNLESS OTHERWISE INDICATED. COMPLY WITH SEISMIC DESIGN REQUIREMENTS.

D. WIRE HANGERS, BRACES, AND TIES: PROVIDE WIRES COMPLYING WITH THE FOLLOWING REQUIREMENTS:

1. ZINC-COATED, CARBON-STEEL WIRE: ASTM A 641/A 641M, CLASS 1 ZINC COATING, SOFT TEMPER.

2. SIZE: SELECT WIRE DIAMETER SO ITS STRESS AT 3 TIMES HANGER DESIGN LOAD (ASTM C 635, TABLE 1, "DIRECT HUNG") WILL BE LESS THAN YIELD STRESS OF WIRE, BUT PROVIDE NOT LESS THAN 0.106-INCH- DIAMETER WIRE.

E. HANGER RODS: MILD STEEL, ZINC COATED OR PROTECTED WITH RUST-INHIBITIVE PAINT.

F. SEISMIC STABILIZER BARS: MANUFACTURER'S STANDARD PERIMETER STABILIZERS DESIGNED TO ACCOMMODATE SEISMIC FORCES.

G. SEISMIC STRUTS: MANUFACTURER'S STANDARD COMPRESSION STRUTS DESIGNED TO ACCOMMODATE SEISMIC FORCES.

H. SEISMIC CLIPS: MANUFACTURER'S STANDARD SEISMIC CLIPS DESIGNED AND SPACED TO SECURE ACOUSTICAL PANELS IN-PLACE.

I. HOLD-DOWN CLIPS: PROVIDE MANUFACTURER'S STANDARD HOLD-DOWN CLIPS SPACED 24 INCHES O.C. ON ALL CROSS TEES.

1. PROVIDE HOLD DOWN CLIPS AT ALL VESTIBULES.

2.5 METAL SUSPENSION SYSTEM FOR ACOUSTICAL PANEL CEILING

A. WIDE-FACE, CAPPED, DOUBLE-WEB, HOT-DIP GALVANIZED, G60, STEEL SUSPENSION SYSTEM: MAIN AND CROSS RUNNERS ROLL FORMED FROM COLD-ROLLED STEEL SHEET, HOT-DIP GALVANIZED ACCORDING TO ASTM A 653/A 653M, G60 COATING DESIGNATION, WITH PREFINISHED, COLD-ROLLED, 15/16-INCH-WIDE, METAL CAPS ON FLANGES.

1. BASIS-OF-DESIGN PRODUCT: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE ARMSTRONG WORLD INDUSTRIES, INC.; PRELUDE XL 15/16" EXPOSED TEE SYSTEM OR A COMPARABLE PRODUCT BY ONE OF THE FOLLOWING:

a. CERTANTEED; 15/16" CLASSIC STAB SYSTEM.

b. USG INTERIORS, INC.; DONN DX/DXL.

2. STRUCTURAL CLASSIFICATION: INTERMEDIATE DUTY SYSTEM.

3. FACE DESIGN: FLAT, FLUSH.

4. FACE FINISH: WHITE, TYPICAL.

PART 3 - EXECUTION

3.1 EXAMINATION

A. EXAMINE SUBSTRATES, AREAS, AND CONDITIONS, INCLUDING STRUCTURAL FRAMING TO WHICH ACOUSTICAL PANEL CEILINGS ATTACH OR ADJUT, WITH INSTALLER PRESENT, FOR COMPLIANCE WITH REQUIREMENTS SPECIFIED IN THIS AND OTHER SECTIONS THAT AFFECT CEILING INSTALLATION AND ANCHORAGE AND WITH REQUIREMENTS FOR INSTALLATION TOLERANCES AND OTHER CONDITIONS AFFECTING PERFORMANCE OF ACOUSTICAL PANEL CEILINGS.

1. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

3.2 PREPARATION

A. MEASURE EACH CEILING AREA AND ESTABLISH LAYOUT OF ACOUSTICAL PANELS TO BALANCE BORDER WIDTHS AT OPPOSITE EDGES OF EACH CEILING. AVOID USING LESS-THAN-HALF-WIDTH PANELS AT BORDERS, AND COMPLY WITH LAYOUT SHOWN ON REFLECTED CEILING PLANS.

3.3 INSTALLATION

A. GENERAL: INSTALL ACOUSTICAL PANEL CEILINGS TO COMPLY WITH ASTM C 636 AND SEISMIC DESIGN REQUIREMENTS INDICATED, PER MANUFACTURER'S WRITTEN INSTRUCTIONS AND CISCAS "CEILING SYSTEMS HANDBOOK."

B. SUSPEND CEILING HANGERS FROM BUILDING'S STRUCTURAL MEMBERS AND AS FOLLOWS:

1. INSTALL HANGERS PLUMB AND FREE FROM CONTACT WITH INSULATION OR OTHER OBJECTS WITHIN CEILING PLENUM THAT ARE NOT PART OF SUPPORTING STRUCTURE OR OF CEILING SUSPENSION SYSTEM.

2. SPAY HANGERS ONLY WHERE REQUIRED TO MISS OBSTRUCTIONS, OFFSET RESULTING HORIZONTAL FORCES BY BRACING, COUNTERBRACING, OR OTHER EQUALLY EFFECTIVE MEANS.

3. WHERE WIDTH OF JOISTS AND OTHER CONSTRUCTION WITHIN CEILING PLENUM PRODUCES HANGER SPACINGS THAT INTERFERE WITH LOCATION OF HANGERS AT SPACINGS REQUIRED TO SUPPORT STANDARD SUSPENSION SYSTEM MEMBERS, INSTALL SUPPLEMENTAL SUSPENSION MEMBERS AND HANGERS IN FORM OF TRAPEZES OR EQUIVALENT DEVICES.

4. SECURE WIRE HANGERS TO CEILING SUSPENSION MEMBERS AND TO SUPPORTS ABOVE WITH A MINIMUM OF THREE TIGHT TURNS. CONNECT HANGERS DIRECTLY EITHER TO STRUCTURES OR TO INSERTS, EYE SCREWS, OR OTHER DEVICES THAT ARE SECURE AND APPROPRIATE FOR SUBSTRATE AND THAT WILL NOT DEGRADE OR OTHERWISE FAIL DUE TO AGE, CORROSION, OR ELEVATED TEMPERATURES.

5. SECURE FLAT, ANGLE, CHANNEL, AND ROD HANGERS TO STRUCTURE, INCLUDING INTERMEDIATE FRAMING MEMBERS, BY ATTACHING TO INSERTS, EYE SCREWS, OR OTHER DEVICES THAT ARE SECURE AND APPROPRIATE FOR SUBSTRATE TO WHICH HANGERS ARE ATTACHED AND TYPE OF HANGER INVOLVED. INSTALL HANGERS IN A MANNER THAT NOT CAUSE THEM TO DEGRADATE OR FAIL DUE TO AGE, CORROSION, OR ELEVATED TEMPERATURES.

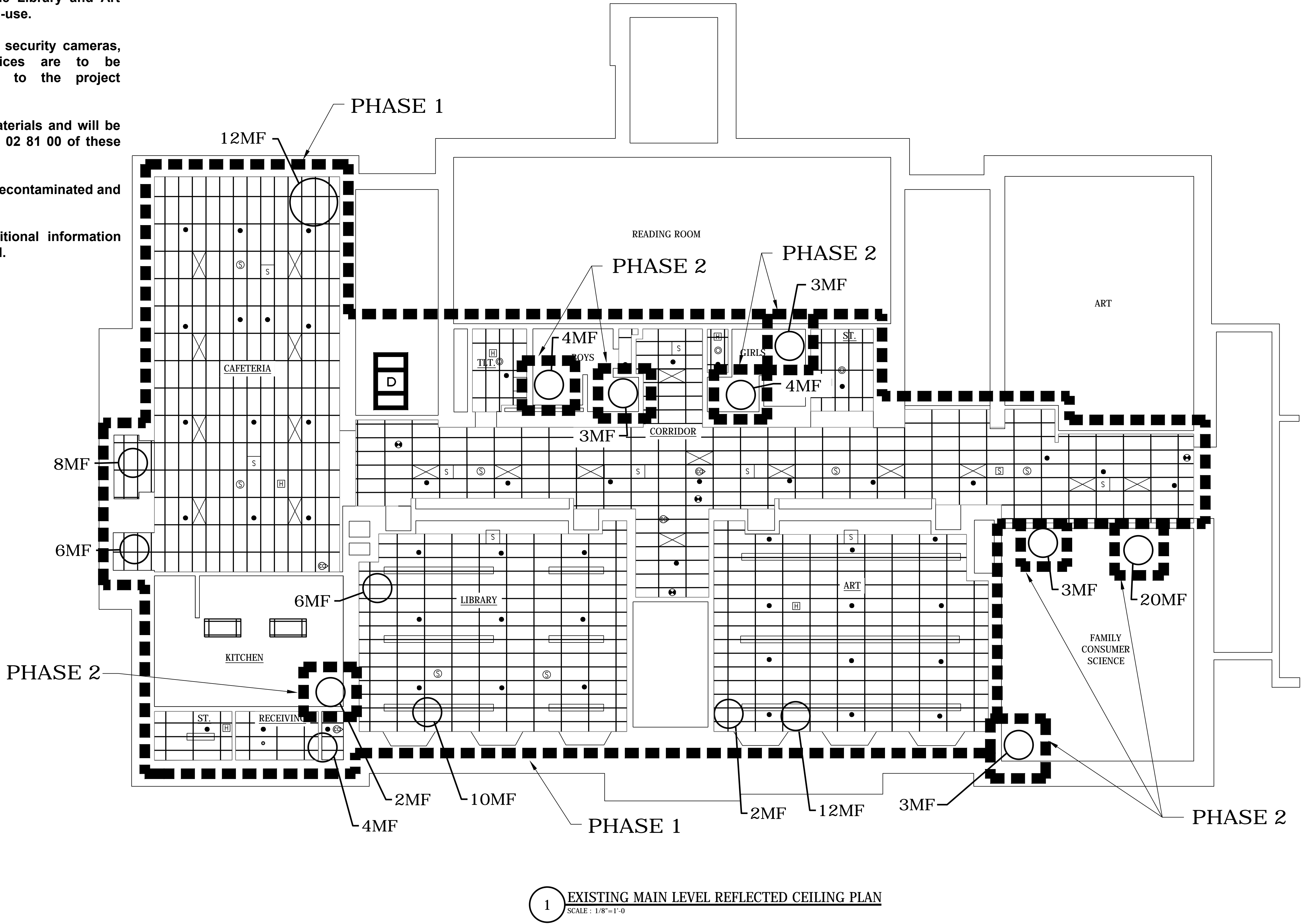
6. DO NOT SUPPORT CEILINGS DIRECTLY FROM PERMANENT METAL FORMS OR FLOOR DECK. FASTEN HANGERS TO CAST-IN-PLACE HANGER INSERTS, POSTINSTALLED MECHANICAL OR ADHESIVE ANCHORS, OR POWER-ACTUATED FASTENERS THAT EXTEND THROUGH FORMS INTO CONCRETE.

7. WHEN STEEL FRAMING DOES NOT PERMIT INSTALLATION OF HANGER WIRES AT SPACING REQUIRED, INSTALL BARRING CHANNELS OR OTHER SUPPLEMENTAL SUPPORT FOR ATTACHMENT OF HANGER WIRES.

Asbestos Notes:

1. Phase 1 includes the removal of:
- All 2'x4' ceiling tile with pinhole pattern as ACM

• Remove all mudded pipe fittings, pipe insulation and roof drain/bowl insulation as ACM
2. Phase 2 is the removal of mudded pipe fittings above non asbestos containing ceiling tiles.
3. Recessed lighting and sprinkler heads located in the corridor and cafeteria is contaminated with asbestos. These lighting fixtures and sprinkler heads will be disposed as ACM.
4. Surface mounted light fixtures in the Library and Art Room are to be decontaminated for re-use.
5. All ceiling speakers, heat detectors, security cameras, and wireless access point devices are to be decontaminated and turned over to the project electrician.
6. Lamps and ballasts are regulated materials and will be disposed in accordance with section 02 81 00 of these specifications.
7. The existing ceiling tile grid is to be decontaminated and re-used.
8. Refer to Section 02 08 00 for additional information concerning Phase 1 asbestos removal.



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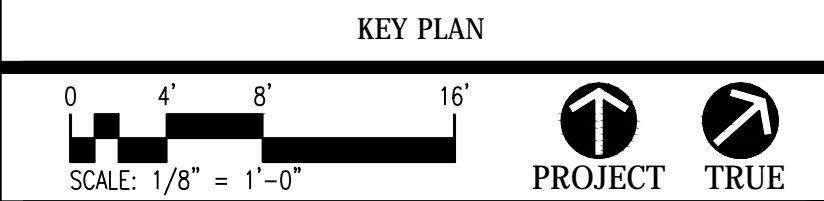
TRC

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BOROUGH OF NAUGATUCK
CONNECTICUT

NAUGATUCK
CEILING TILE
REPLACEMENT AND
RELATED WORK AT
HILLSIDE
INTERMEDIATE
SCHOOL
51 HILLSIDE AVENUE
NAUGATUCK, CT 06770

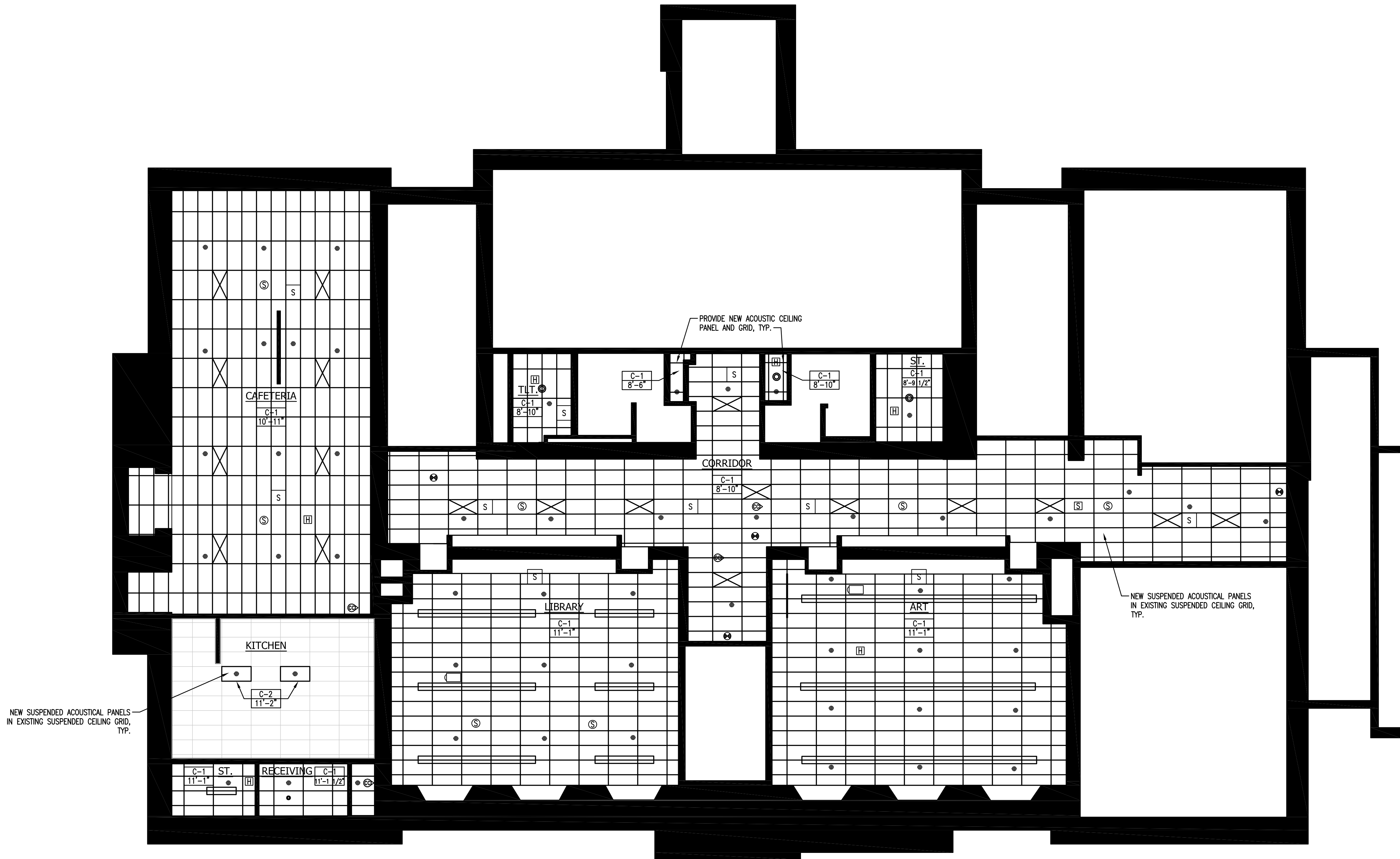
STATE PROJECT NO. TMP-088-MJTb

PROJECT NO.: 251709 DRAWN BY: REA

ASBESTOS
ABATEMENT

DRAWING NO.:
ASB-1

LEGEND OF SYMBOLS	
	2'x4' SUSPENDED ACOUSTICAL PANEL
	SURFACE MOUNTED LIGHT FIXTURE
	RECESSED LIGHT FIXTURE
	EXIT SIGN
	SMOKE OR HEAT DETECTOR
	SECURITY CAMERA
	SPEAKER
	SECURITY MOTION DETECTOR
	NUMBER MUDDED FITTING
	PHASE LINE
	WORKER DECONTAMINATION UNIT



1 EXISTING MAIN LEVEL REFLECTED CEILING PLAN
SCALE: 1/8"=1'-0"

ALTERNATE NO. 1
PAINT ALL EXISTING SUSPENDED CEILING GRIDS WITH CEILING TYPE DESIGNATION C-1.

CEILING PLAN LEGEND (REFER TO ELECTRICAL DRAWINGS FOR MORE INFORMATION. REFER TO ASBESTOS DRAWINGS FOR REMOVAL OF SUSPENDED ACOUSTICAL PANELS)	
NEW 2'x4' SUSPENDED ACOUSTICAL PANEL	RECESSED LIGHT FIXTURE
EXISTING 2'x4' SUSPENDED ACOUSTICAL PANEL TO REMAIN	SURFACE MOUNTED LIGHT FIXTURE
CEILING TYPE LEGEND	
C-X	CEILING TYPE
C-0	CEILING HEIGHT ABOVE FINISHED FLOOR
C-1	ACOUSTICAL PANEL (2' X 4')
C-2	ACOUSTICAL PANEL (2' X 4' WASHABLE)
EXIT SIGN	EXIT SIGN
SMOKE OR HEAT DETECTOR	SMOKE OR HEAT DETECTOR
SECURITY CAMERA	SECURITY CAMERA
SPEAKER	SPEAKER
SECURITY MOTION DETECTOR	SECURITY MOTION DETECTOR
CEILING MOUNTED VIDEO PROJECTOR	SEE SECURITY DWGS.
CEILING MOUNTED PROJECTION SCREEN	SEE MEP SPECIAL SYSTEMS DWGS.

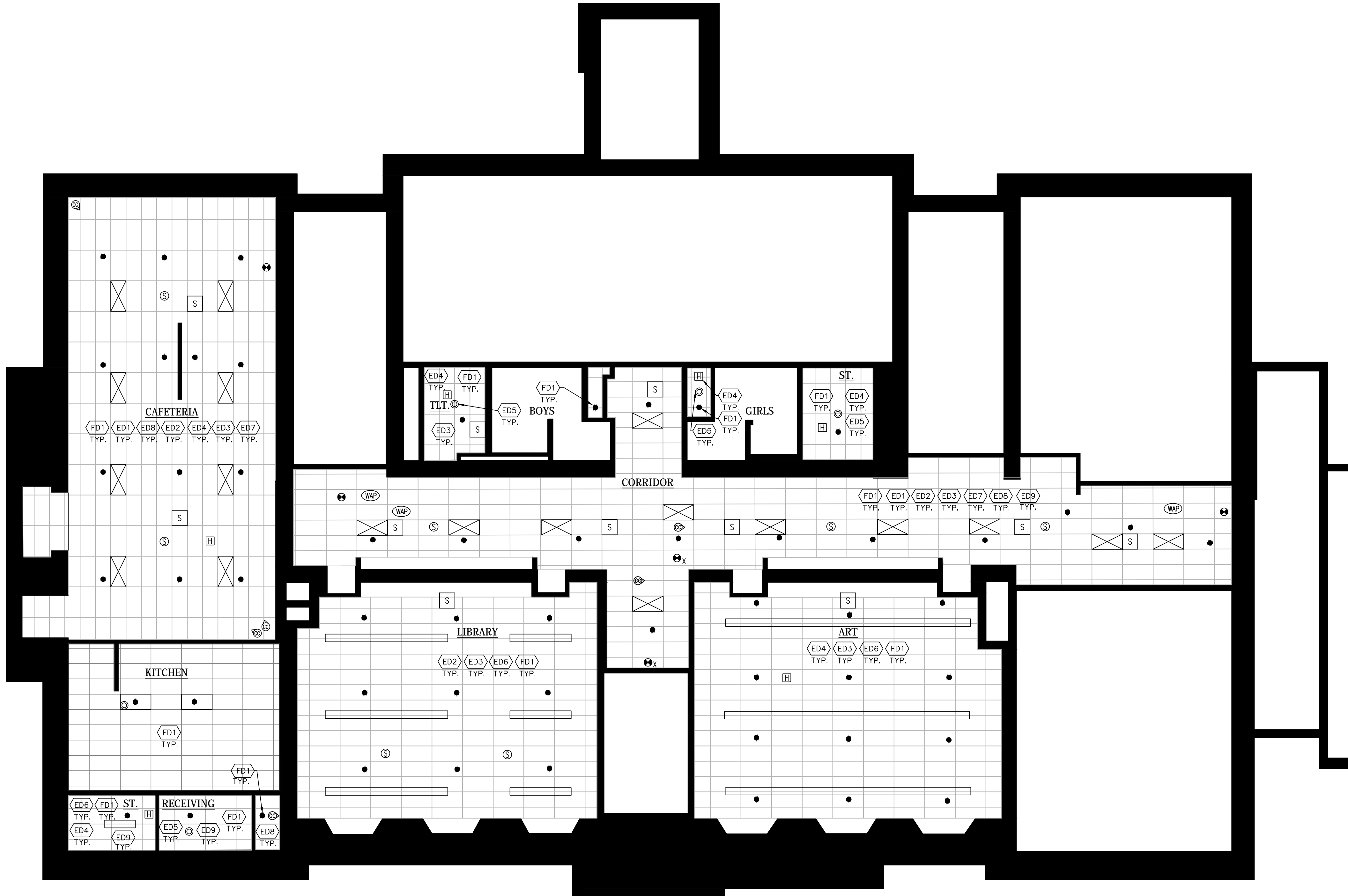


HILLSIDE
INTERMEDIATE
SCHOOL
LOWER LEVEL
CEILINGS
REPLACEMENT
51 HILLSIDE AVENUE
NAUGATUCK, CT 06770
STATE PROJECT NO. TMP-088-MJT8

PROJECT NO.: 16006.00 DRAWN BY: NCB

LOWER LEVEL
REFLECTED
CEILING PLAN

DRAWING NO.:
A1.01



- ELECTRICAL DEMOLITION NOTES**
 - ED1 REMOVE EXISTING RECESSED FLUORESCENT LIGHTING FIXTURES AND REPLACE WITH NEW. SEE DRAWING MEP-2.
 - ED2 REMOVE EXISTING SPEAKERS AND REINSTALL AFTER NEW CEILING IS IN PLACE. CONNECT TO EXISTING WIRING.
 - ED3 REMOVE EXISTING VALCOM CEILING SPEAKERS AND REINSTALL AFTER NEW CEILING IS IN PLACE. CONNECT TO EXISTING WIRING.
 - ED4 REMOVE EXISTING HEAT DETECTORS AND REINSTALL AFTER NEW CEILING IS IN PLACE. CONNECT TO EXISTING WIRING.
 - ED5 REMOVE EXISTING INCANDESCENT FIXTURE AND REPLACE WITH NEW. SEE DRAWING MEP-2.
 - ED6 EXISTING SURFACE MOUNTED LIGHT FIXTURES TO REMAIN. PROTECT FIXTURES DURING CEILING REPLACEMENT.
 - ED7 REMOVE EXISTING EXIT SIGN AND REPLACE WITH NEW. SEE DRAWING MEP-2.
 - ED8 REMOVE EXISTING SECURITY CAMERA AND REINSTALL AFTER NEW CEILING IS IN PLACE. SEE MEP-2.
 - ED9 REMOVE EXISTING WIRELESS ACCESS POINT AND REINSTALL AFTER NEW CEILING IS IN PLACE. TYPICAL. SEE MEP-2
- FIRE PROTECTION DEMOLITION NOTES**
 - FD1 REMOVE EXISTING SPRINKLER HEADS AND REPLACE WITH NEW. SEE DRAWING MEP-2.
- GENERAL DEMOLITION NOTE**

1) REFER TO HAZARDOUS MATERIALS PLANS FOR SCOPE OF ADDITIONAL ITEMS TO BE REMOVED

MEP PLAN LEGEND

RECESSED LIGHT FIXTURE

PENDANT MOUNTED LIGHT FIXTURE

SURFACE MOUNTED LIGHT FIXTURE

EXIT SIGN

SMOKE OR HEAT DETECTOR

SECURITY CAMERA

SPEAKER

SPRINKLER HEAD

EXISTING TO REMAIN

1 MEP DEMOLITION PLAN
SCALE: 1/8"=1'-0"



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KEY PLAN

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

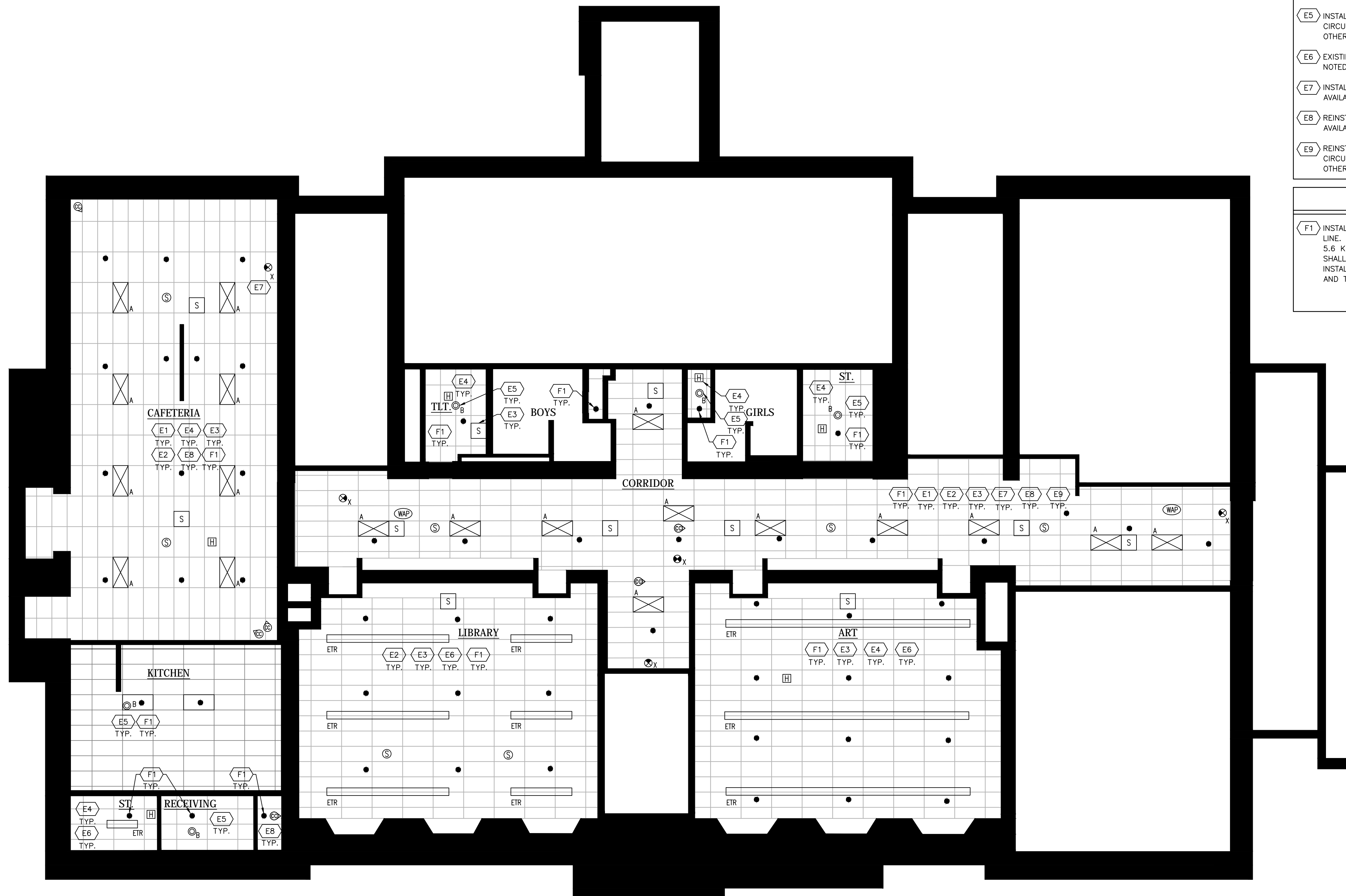
PROJECT TRUE

HILLSIDE
INTERMEDIATE
SCHOOL

51 HILLSIDE AVENUE
NAUGATUCK, CT 06770

PROJECT NO.: 16006.00 DRAWN BY: NCB

MEP DEMO PLAN



ELECTRICAL NOTES

E1) INSTALL NEW RECESSED LIGHTING FIXTURE. CONNECT TO EXISTING CIRCUIT MADE AVAILABLE AFTER DEMOLITION. TYPICAL UNLESS OTHERWISE NOTED.

E2) REINSTALL EXISTING SPEAKER TO EXISTING WIRING MADE AVAILABLE AFTER DEMOLITION. TYPICAL UNLESS OTHERWISE NOTED.

E3) REINSTALL EXISTING VALCOM CEILING SPEAKER TO EXISTING WIRING MADE AVAILABLE AFTER DEMOLITION. TYPICAL UNLESS OTHERWISE NOTED.

E4) REINSTALL EXISTING HEAT DETECTOR TO EXISTING WIRING MADE AVAILABLE AFTER DEMOLITION. TYPICAL UNLESS OTHERWISE NOTED.

E5) INSTALL NEW SURFACE MOUNTED FIXTURE. CONNECT TO EXISTING CIRCUIT MADE AVAILABLE AFTER DEMOLITION. TYPICAL UNLESS OTHERWISE NOTED.

E6) EXISTING LIGHT FIXTURES TO REMAIN. TYPICAL UNLESS OTHERWISE NOTED.

E7) INSTALL NEW EXIT SIGNS. CONNECT TO EXISTING CIRCUIT MADE AVAILABLE AFTER DEMOLITION. TYPICAL UNLESS OTHERWISE NOTED.

E8) REINSTALL EXISTING SECURITY CAMERA TO EXISTING WIRING MADE AVAILABLE AFTER DEMOLITION. TYPICAL UNLESS OTHERWISE NOTED.

E9) REINSTALL EXISTING WIRELESS ACCESS POINT. CONNECT TO EXISTING CIRCUIT MADE AVAILABLE AFTER DEMOLITION. TYPICAL UNLESS OTHERWISE NOTED.

FIRE PROTECTION NOTES

F1) INSTALL NEW SPRINKLER HEADS. CONNECT TO EXISTING SPRINKLER LINE. NEW SPRINKLER HEADS TO BE SEMI-RECESSED 1/2" ORIFICE, 5.6 K-FACTOR, CHROME FINISH, VICTAULIC #V2707. CONTRACTOR SHALL INCLUDE SYSTEM SHUTDOWN, DRAINING OF SYSTEM, INSTALLATION OF NEW SPRINKLER HEADS AND REFILLING OF SYSTEM AND TEST. COORDINATE WITH LOCAL FIRE MARSHALL.

1 MEP NEW WORK PLAN
SCALE: 1/8"=1'-0"

LIGHTING FIXTURE SCHEDULE				
TYPE	MANUFACTURER	VOLTAGE	LAMPS	FIXTURE DESCRIPTION
A	LITHONIA 2ALVL4-50L-NDP-EZ1-LP835	120	LED	2' X 4' LED RECESSED FIXTURE WITH 5000 LUMEN OUTPUT
B	LITHONIA FWML-13-B-30	120	LED	13" SURFACE MOUNTED CIRCULAR LED FIXTURE WITH WHITE ACRYLIC DIFFUSER
X	LITHONIA LOM-S-W-3-R-120/277-EL N	120	LED	LED EXIT SIGN WITH EMERGENCY BATTERY UNIT; WHITE THERMOPLASTIC HOUSING WITH RED LETTERS. UNIVERSAL SINGLE OR DOUBLE FACE.
NOTES:				
1. REFER TO THE ELECTRICAL SPECIFICATIONS FOR ADDITIONAL GENERAL REQUIREMENTS.				
2. FIXTURES SHALL BE UL OR ETL LISTED.				
3. BALLASTS USED FOR RECESSED HID DOWNLIGHTS SHALL BE POTTED TYPE WITH MULTI-TAP BALLAST (120/277) INPUT VOLTAGE AND MINIMUM STARTING TEMPERATURE OF -20 DEGREES				
4. MOUNTING HARDWARE SUCH AS HANGERS, BRACKETS, RAILS, YOKES, STEMS, CHAINS, ETC., SHALL BE PROVIDED AS NECESSARY TO MOUNT SPECIFIED FIXTURE.				
5. REFER TO ARCHITECTURAL DRAWINGS AND REFLECTED CEILING PLANS FOR SPECIFIC DETAILS, ARRANGEMENT, MOUNTING HEIGHTS, CEILING CONSTRUCTION, ETC., COLORS AND FINISHES SHALL BE SELECTED BY THE ARCHITECT.				
6. FIXTURES SHALL BE SEISMICALLY SUPPORTED AS REQUIRED BY THE APPLICABLE BUILDING CODE. RECESSED FLUORESCENT FIXTURES SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE WITH A MINIMUM OF 2 SUPPORTS.				
7. WIRE EMERGENCY FIXTURES AND EXIT SIGNS AHEAD OF SWITCHED LEGS.				



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KEY PLAN



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INTERMEDIATE
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MEP NEW WORK
PLAN

DRAWING NO.:
MEP-2