

PROPOSED TOILET ROOM RENOVATIONS  
LRHSD PROJECT NO. REF21-39-8313

CHEROKEE HIGH SCHOOL  
120 TOMLINSON MILL ROAD  
MARLTON, NJ 08053

LENAPE REGIONAL HIGH SCHOOL  
SCHOOL DISTRICT

PREPARED FOR THE  
LENAPE REGIONAL HIGH SCHOOL DISTRICT BOARD OF EDUCATION

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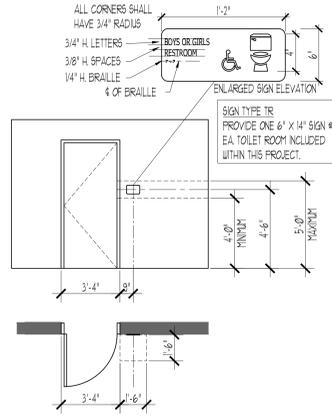
- E-001 ELECTRICAL COVER SHEET
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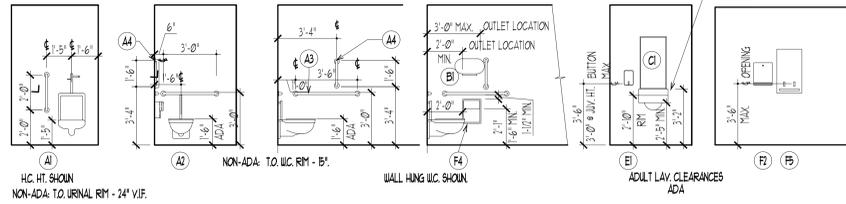


**NOTE: COLOR, FONT AND SIGN FINISH TO MATCH EXISTING BUILDING SIGNAGE.**

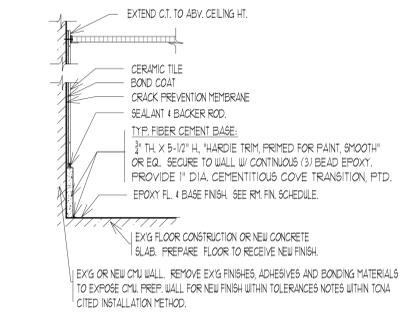


RM. NO.	ROOM NAME	GRAB BARS					TOILET TISSUE DISPENSER	MIRROR	SOAP DISPENSER	WASTE RECEIPT	TOWEL DISPENSER	SIN. WIP. DISPOSAL	SIN. WIP. DISPENSER
		A1	A2	A3	A4	A5							
		80-2	80-2	80-2	80-2	80-2	OWNER FURNISHED CONTRACTOR TO INSTALL	180	OWNER FURNISHED CONTRACTOR TO INSTALL	OWNER FURNISHED CONTRACTOR TO INSTALL	OWNER FURNISHED CONTRACTOR TO INSTALL	418-11 PROVIDE (1) TOTAL PER RM.	OWNER FURNISHED CONTRACTOR TO INSTALL
<b>CHEROKEE</b>													
C091	BOYS TR.						(2)	(2)	(2)			(3)	
C099	GRLS TR.						(3)	(3)	(3)				
B100-5-G	GRLS TR.						(1)	(1)	(1)			(1)	
B100-6-B	BOYS TR.						(4)	(1)	(1)				

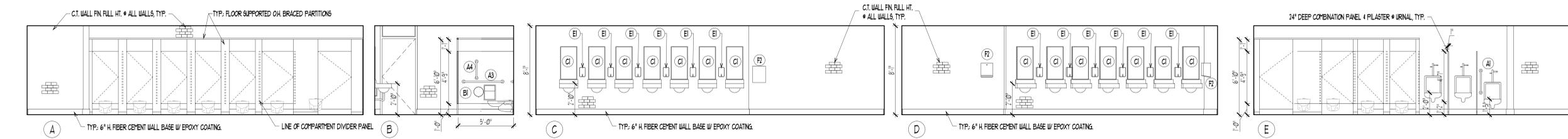
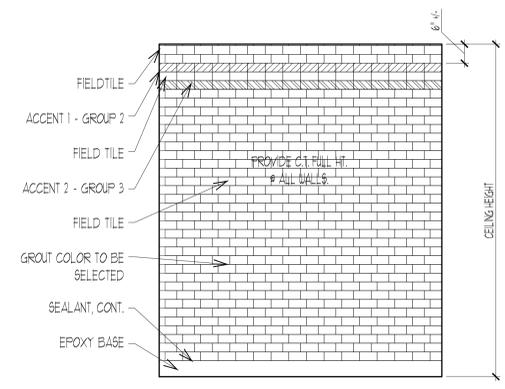
**ACCESSORY MOUNTING HTS.**



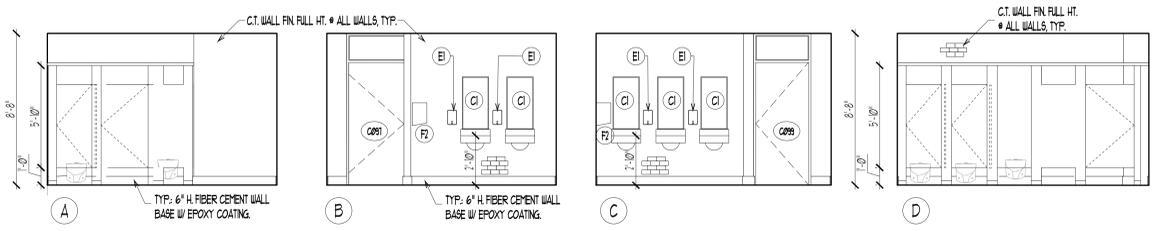
**5 TCNA W2021 C.T. DETAIL**



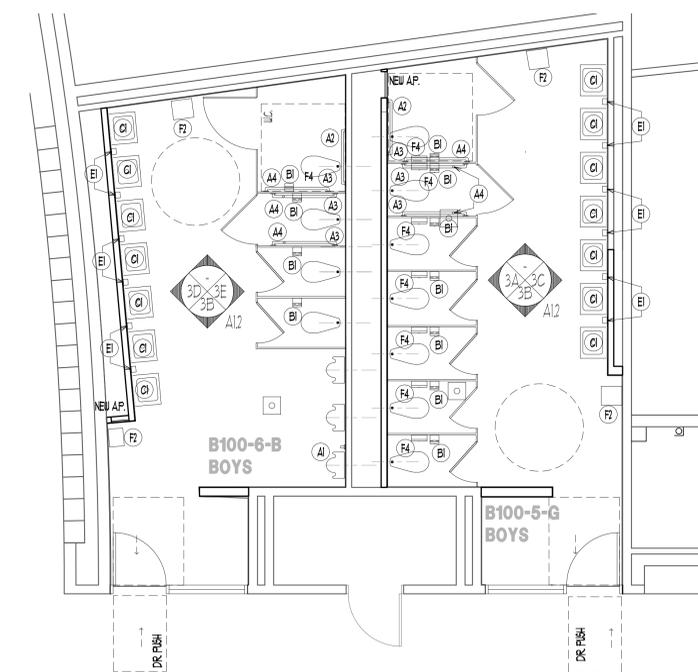
**6 C.T. ELEVATION - TYP.**



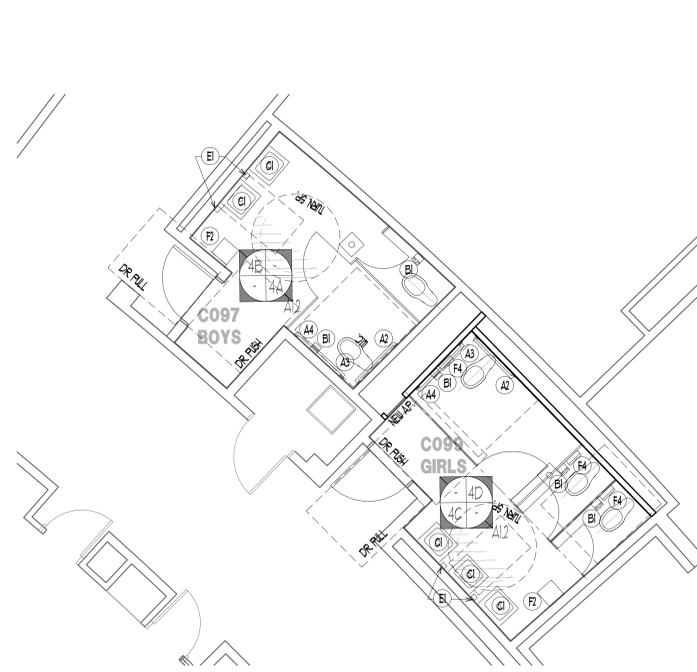
**3 INTERIOR ELEVATIONS GYM. T.R.**



**4 INTERIOR ELEVATIONS CAFE T.R.**



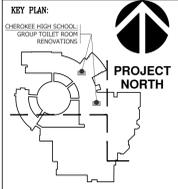
**1 PROPOSED FL. PLAN GYM T.R. - ACCESSORIES**



**2 PROPOSED FL. PLAN CAFE T.R. - ACCESSORIES**

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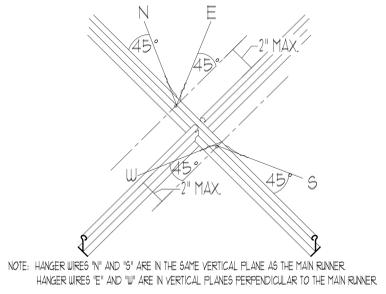
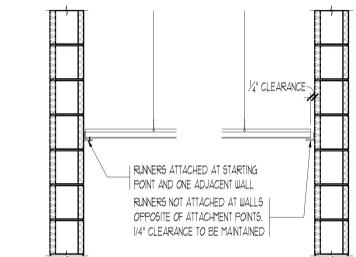
LOT No's. 1, 2, & 201  
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 LENAPE REGIONAL HIGH SCHOOL DISTRICT REF #21-39-6813  
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 Linda M. Vinzell, AIA, Secretary/Treasurer  
 New Jersey Architect Lic. # 2110100020, P.E. # 231000000  
 Drew C. Dingler, AIA, President  
 New Jersey Architect Lic. # 2110100000



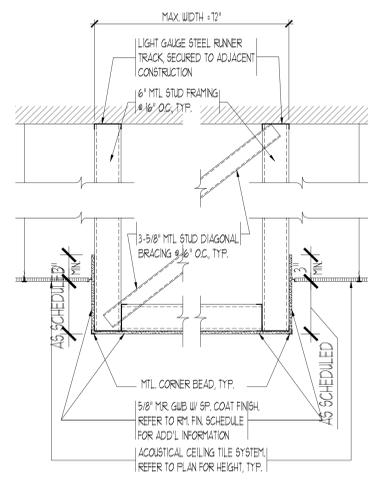
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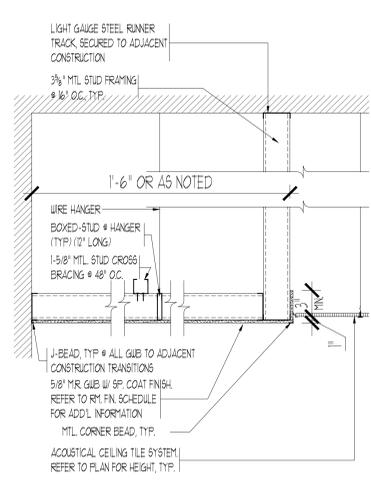
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 SHEET No.: **A12**



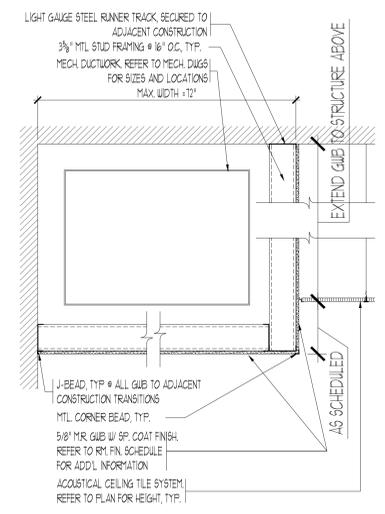
**3A A5.1 DETAIL CEILING GRID** N.T.S.



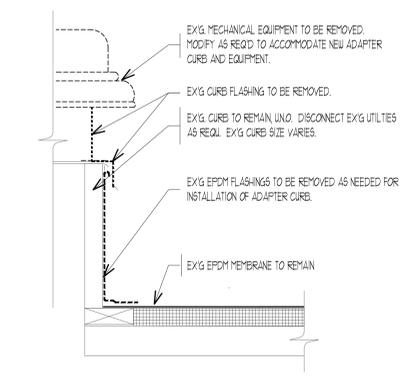
**3B A5.1 DETAIL SOFFIT** N.T.S.



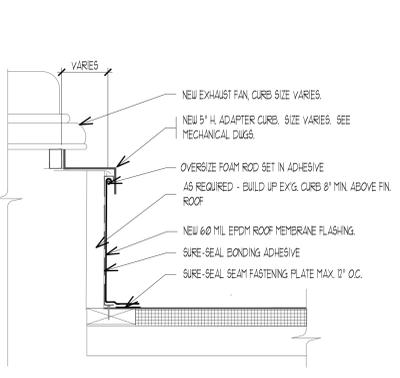
**3C A5.1 DETAIL SOFFIT** N.T.S.



**3D A5.1 DETAIL SOFFIT** N.T.S.



**A A5.1 EXISTING/DEMO. ROOF CURB DETAILS** 1-1/2"x1'-0"



**B A5.1 PROPOSED EPDM ROOF CURB DETAILS** 1-1/2"x1'-0"

**DEMO. NOTES**

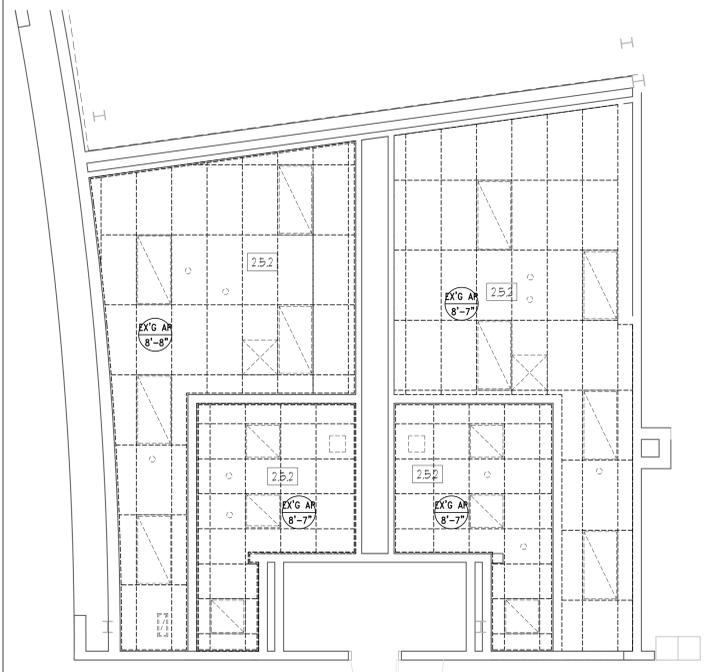
- 2.5.1 CEILING: REMOVE EXG HARD GIB/PLASTER CEILING IN ITS ENTIRETY
- 2.5.2 CEILING: REMOVE EXG 2X4 AND/OR 2X2 ACOUSTICAL CEILING IN THEIR ENTIRETY
- 2.5.3 CEILING: REMOVE EXG 1X1 SPLINE CEILING SYSTEM AS NEEDED FOR ACCESS TO UTILITIES.
- 2.5.4 CEILING: REMOVE EXG GIB SOFFITS IN THEIR ENTIRETY.
- 22.1.1 PLUMBING DEMOLITION: REMOVE PLUMBING SYSTEMS, DEVICES, AND ASSOCIATED PIPING AND FIXTURES INDICATED. REMOVE ALL URINALS, SINKS AND WATER CLOSETS. REFER TO THE CONTRACT PLUMBING DRAWINGS.
- 22.1.2 ABANDONED PLUMBING CONSTRUCTION: REMOVE AND CAP ABANDONED PLUMBING FIXTURES, PIPING AND SERVICES, BOTH PRE-EXISTING AND THAT RESULTING FROM THE WORK OF THIS CONTRACT.
- 23.1.1 MECHANICAL DEMOLITION: REMOVE MECHANICAL SYSTEMS INCLUDING MECHANICAL EQUIPMENT, DUCTWORK, DIFFUSERS AND ASSOCIATED PUMPS AND PIPING INDICATED. REFER TO THE CONTRACT MECHANICAL DRAWINGS.
- 23.1.2 ABANDONED MECHANICAL CONSTRUCTION: REMOVE AND CAP ABANDONED MECHANICAL EQUIPMENT, DUCTWORK AND ACCESSORIES, BOTH PRE-EXISTING AND THAT RESULTING FROM THE WORK OF THIS CONTRACT.
- 26.1.1 ELECTRICAL DEMOLITION: REMOVE ELECTRICAL DEVICES INCLUDING RECEPTACLES, DISCONNECTS, LIGHTING FIXTURES, CLOCK SPEAKER SYSTEMS. REFER TO THE CONTRACT ELECTRICAL DRAWINGS.
- 26.1.2 ELECTRICAL DEMOLITION: REMOVE SALVAGE EXISTING ELECTRICAL DEVICES AS INDICATED AND DIRECTED BY THE OWNER TURN OVER TO OWNER.
- 26.1.3 ABANDONED ELECTRICAL CONSTRUCTION: REMOVE AND CAP ABANDONED ELECTRICAL EQUIPMENT, DUCTWORK AND ACCESSORIES, BOTH PRE-EXISTING AND THAT RESULTING FROM THE WORK OF THIS CONTRACT.

**DEMO. TYP. NOTES FOR TOILET ROOMS AND ADJACENT SPACES:**

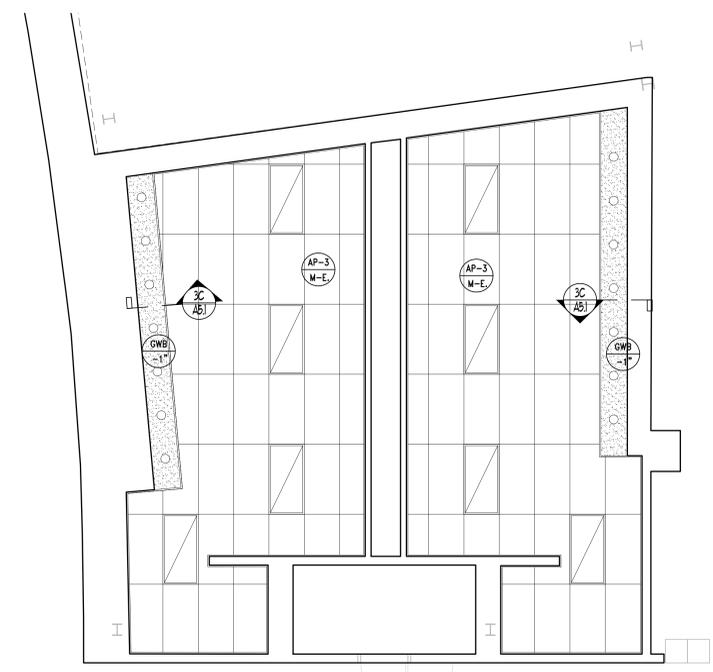
- 2.5.4 22.1.1 23.1.1 26.1.1 26.1.3 22.1.2 23.1.2 26.1.2

**KEY - REFLECTED CEILING PLAN**

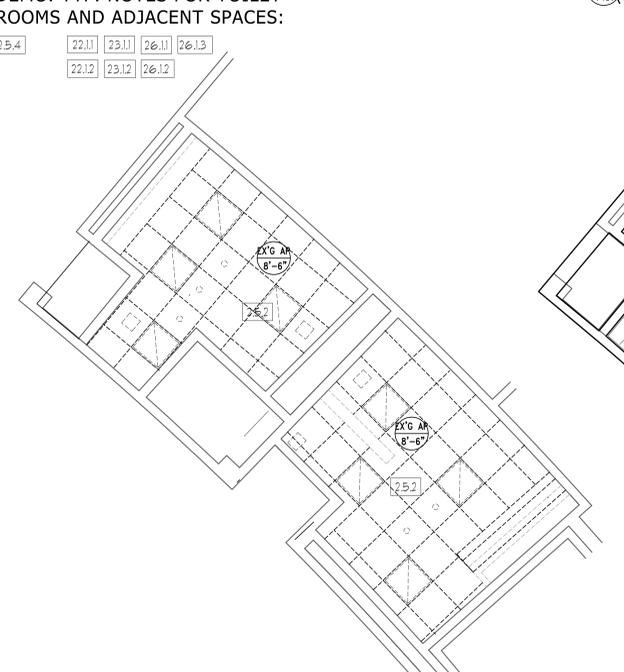
- CEILING TILE SIZES**
- AP-1 = 24" x 48"
  - AP-2 = 24" x 24" MOISTURE RESISTANT
  - AP-3 = 24" x 48" MOISTURE RESISTANT
- ROUND RECEPSED HAT LIGHT FIXTURE
  - 2' x 4' LIGHT FIXTURE
  - ▤ 2' x 2' LIGHT FIXTURE
  - ▬ SURFACE MOUNTED LIGHT FIXTURE
  - ⊗ EXIT LIGHTING
  - ⊕ SMOKE DETECTOR
  - ⊖ SPEAKER
  - ⊞ SUPPLY / RETURN AIR CEILING DIFFUSER
- AC-F 8'-0" DESIGNATES CEILING FINISHES
  - 8'-0" DESIGNATES CEILING HEIGHT
  - EXG. EXG. DESIGNATES CEILING FINISHES TO REMAIN. CEILING FINISHES ARE TO BE MAINTAINED AND PROTECTED. THE GENERAL CONTRACTOR SHALL REPLACE ALL EXISTING CEILING DAMAGED BY CONSTRUCTION OF THEIR WORK INCLUDING THE DAMAGES RESULTING FROM WORK PERFORMED BY OTHER TRADES, TYPICAL
  - AP-F M-E DESIGNATES HEIGHT OF NEW ACOUSTICAL CEILING TILE / PANELS AND GRADE TO MATCH EXISTING CEILING HEIGHT
  - EXP. X PTD. X EXPOSED DECK OR STRUCTURE, TYPICAL
  - PTD. X DESIGNATES PAINTED FINISH PER SPECIFICATION



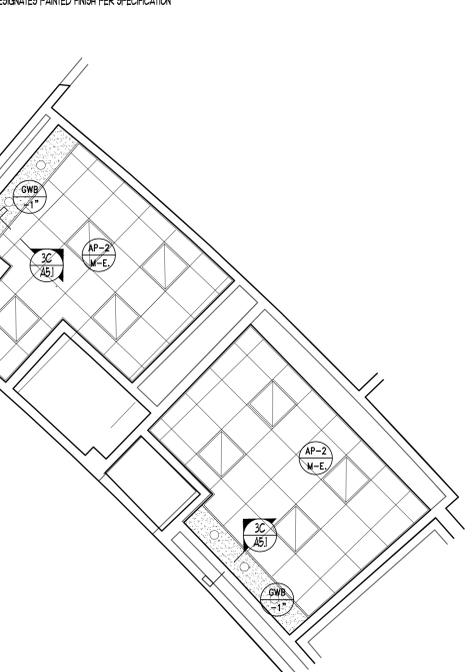
**1A A5.1 DEMO. - ENLARGED R.C.P. T.R. @ GYM** 1/4"x1'-0"



**1B A5.1 PROPOSED - ENLARGED R.C.P. T.R. @ GYM** 1/4"x1'-0"



**2A A5.1 DEMO. - ENLARGED R.C.P. T.R. @ CAFE** 1/4"x1'-0"



**2B A5.1 PROPOSED - ENLARGED R.C.P. T.R. @ CAFE** 1/4"x1'-0"

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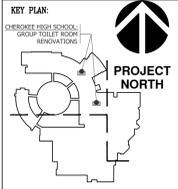
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120 TOMLINSON MILL ROAD, MARLTON, NEW JERSEY, 08053

BLOCK NO. 39  
TOWNSHIP OF EVESHAM

Dr. C. Dingler, AIA, President  
New Jersey, INC. # 210108886

Linda M. Vinzell, AIA, Secretary/Treasurer  
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CONV. No.: 8199 CHECKED BY: DCD  
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SHEET TITLE: R.C.P. AND DETAILS

SHEET No.: **A5.1**

### ABBREVIATIONS

AC	AIR CONDITIONING UNIT	HRU	HEAT RECOVERY UNIT
ACR	AIR CURTAIN	HUM	HUMIDITY OR HUMIDIFIER
AD	ACCESS DOOR	HV	HEATING & VENTILATING UNIT
AF	ARFOIL	HW	HOT WATER
AFI	ABOVE FINISHED FLOOR	HWR	HOT WATER RETURN
AHU	AIR HANDLING UNIT	HWS	HOT WATER SUPPLY
AL	ACOUSTICAL LINING	HX	HEAT EXCHANGER
AMD	AIR MEASURING DEVICE	HZ	HERTZ
AP	ACCESS PANEL	ID	INSIDE DIAMETER
AS	AIR SEPARATOR	I/L	INTERLOCK
ATC	AUTOMATIC TEMPERATURE CONTROL	IN	INCH
B	BOILER	IN/WG	INCHES WATER GAUGE
BAS	BUILDING AUTOMATION SYSTEM	KW	KILOWATT
BBD	BOILER BLOWDOWN	LAT	LEAVING AIR TEMPERATURE
BD	BACKDRAFT DAMPER	LB	POUND(S)
BDF	BOILER FEED UNIT	LB/HR	POUNDS PER HOUR
BF	BACK FLOW PREVENTER	LD	LINEAR DIFFUSER
BFW	BOILER FEEDWATER	LF	LINEAR FEET
BFWP	BOILER FEEDWATER PUMP	LH	LATENT HEAT
BHP	BRAKE HORSEPOWER	LPC	LOW PRESSURE CONDENSATE
BI	BACKWARD INCLINE	LPD	LOW PRESSURE DRIP
BOD	BOTTOM OF DUCT	LPS	LOW PRESSURE STEAM
BOP	BOTTOM OF PIPE	LR	LINEAR RETURN
BOS	BOTTOM OF STEEL	LRA	LOCKED ROTOR AMPS
BPD	BYPASS AIR DAMPER	LVR	LOUVER
BTU	BRITISH THERMAL UNIT	LWT	LEAVING WATER TEMPERATURE
BTUH	BRITISH THERMAL UNIT PER HOUR	MAU	MAKEUP AIR UNIT
BV	BUTTERFLY VALVE	MB	MIXING BOX
E	CENTER LINE	MBH	1000 BTU PER HOUR
CB	CONTINUOUS BOILER BLOWDOWN	MOD	MOTOR OPERATED DAMPER
CC	COILING COIL	MPP	MEDIUM PRESSURE STEAM RETURN
CD	CEILING DIFFUSER	MPS	MEDIUM PRESSURE STEAM SUPPLY
CF	CHEMICAL FEED UNIT	MU	MAKE UP WATER
CFM	CUBIC FEET PER MINUTE	(N)	NEW
CH	CHILLER	NC	NORMALLY CLOSED
CHWR	CHILLED WATER RETURN	NG	NATURAL GAS
CHWS	CHILLED WATER SUPPLY	NO	NORMALLY OPEN
CI	CAST IRON	NTS	NOT TO SCALE
CIP	CLEAN IN PLACE	OA	OUTSIDE AIR
COMP	COMPRESSOR	OAD	OUTSIDE AIR DAMPER
CON	CONCENTRIC	OA	OUTSIDE AIR INTAKE
COND	CONDENSATE	OB	OPPOSED BLADE DAMPER
CP	CONDENSATE PUMP	OCC	OCCUPIED
CRU	COMPUTER ROOM	OD	OUTSIDE DIAMETER
CS	CLEAN STEAM - PSIG	OED	OPEN END DUCT
CU	CONDENSING UNIT	OP	ORIFICE PLATE
CUH	CABINET UNIT HEATER	OV	OUTLET VELOCITY
CV	CONSTANT VOLUME / CONTROL VALVE	P	PUMP
CWB	CONSTANT VOLUME BOX	PBD	PARALLEL BLADE DAMPER
CWR	CONDENSER WATER RETURN	PC	PUMPED CONDENSATE - PSIG
CWS	CONDENSER WATER SUPPLY	PD	PRESSURE DROP
DA	DIRECT ACTING	PERF	PERFORATED
DB	DRY BULB	PH	PHASE
DC	DUCT COLLECTOR	PHC	PREHEAT COIL
DDC	DIRECT DIGITAL CONTROLS	PNEU	PNEUMATIC
DEH	DEHUMIDIFIER	PRV	PRESSURE REDUCING VALVE
DHWS/R	DOMESTIC HOT WATER SUPPLY / RETURN	PSF	POUNDS PER SQUARE FOOT
DA/Ø	DIAMETER	PSIA	POUNDS PER SQUARE INCH ABSOLUTE
DIFF	DIFFERENTIAL	PSIG	POUNDS PER SQUARE INCH GAUGE
DISCH	DISCHARGE	PT	PRESSURE TRANSMITTER
DL	DOOR LOUVER	PVC	POLYVINYL CHLORIDE
DN	DOWN	(R)	REMOVE EXISTING
DR	DRAIN	RA	RETURN AIR OR REVERSE ACTING
DWDI	DOUBLE WIDTH DOUBLE INLET	RAD	RADIATION
DX	DIRECT EXPANSION	RCP	RADIANT CEILING PANEL
DL/Ø	DRILLING AND LOGGING EXISTING TO REMAIN	RD	RETURN AIR DAMPER
EAT	ENTERING AIR TEMPERATURE	(RE)	RELOCATE EXISTING
EBB	ELECTRIC BASEBOARD RADIATION	RE	RELIEF AIR
EC	EVAPORATIVE CONDENSER	REFR	REFRIGERANT
ECC	ECCENTRIC	REFR	RELIEF DAMPER
EDH	ELECTRIC DUCT HEATER	RF	RETURN AIR FAN
EDR	EQUIVALENT DIRECT RADIATION	RG	RETURN AIR GRILLE
EF	EXHAUST FAN	RH	RELATIVE HUMIDITY
EG	EXHAUST GRILLE	RHC	REHEAT COIL
EGE	EMERGENCY GENERATOR EXHAUST	RHG	REFRIGERANT HOT GAS
EH	ELECTRIC HEATER	RL	REFRIGERANT LIQUID
EJ	EXPANSION JOINT	RO	ROOF OPENING
EMCS	ENERGY MONITORING CONTROL SYSTEM	RRM	REVOLUTIONS PER MINUTE
EP	ELECTRIC-PNEUMATIC	RR	RETURN AIR REGISTER
ER	EXHAUST REGISTER	RS	REFRIGERANT SUCTION
ERU	ENERGY RECOVERY UNIT	RTU	ROOF TOP UNIT
ES	END SWITCH	RV	REFRIGERANT VENT
ESP	EXTERNAL STATIC PRESSURE	S	STEAM - PSIG
ET	EXPANSION TANK	SA	SUPPLY AIR
EUH	ELECTRIC UNIT HEATER	SD	SMOKE DAMPER OR SUPPLY DIFFUSER
EWT	ENTERING WATER TEMPERATURE	SDA	SOUND ATTENUATOR
EX	EXHAUST	SEF	SMOKE EXHAUST FAN
(F)	FEET	SG	SUPPLY AIR FAN
F	FEET	SH	SENSIBLE HEAT
FC	FORWARD CURVED OR FLEX CONN.	SMD	SMOKE DETECTOR
FDU	FAN COIL UNIT	SP	STATIC PRESSURE
FCV	FLOW CONTROL VALVE	SQ FT	SQUARE FEET
FD	FLOOR DRAIN OR FIRE DAMPER	SR	SUPPLY AIR REGISTER
FG	FIBERGLASS	SRD	SAFETY RELIEF VALVE DISCHARGE
FH	FUME HOOD	SS	SAFETY RELIEF VALVE
FHE	FUME HOOD EXHAUST	SSS	STAINLESS STEEL
FLA	FULL LOAD AMPS	ST	STEAM
FM	FLOW METER	SUCT	SUCTION
FNB	FLAT ON BOTTOM	SWSI	SINGLE WIDTH SINGLE INLET
FOR	FUEL OIL RETURN	S/R	SUPPLY AND RETURN
FOS	FUEL OIL SUPPLY	T	THERMIST
FOT	FLAT ON TOP	TAB	TESTING AND BALANCING
FOW	FUEL OIL VENT	TAD	TRANSFER AIR DUCT
FPB	FAN POWERED BOX	TF	TERMINAL AIR FILTER
FRP	FIBERGLASS REINFORCED PIPE	TEMP	TEMPERATURE
FS	FLOW SWITCH	TH	TOTAL HEAT
FT	FEET OR FLASH TANK	TI	THERMIST
FT/WG	FEET WATER GAUGE	TOD	TOP OF DUCT
F&T	FLOAT & THERMOSTATIC TRAP	TOP	TOP OF PIPE
FTR	FINNED TUBE RADIATION	TOS	TOP OF STEEL
FV	FACE VELOCITY	TP	TOTAL PRESSURE
HEPA	HIGH EFFICIENCY PARTICULATE	TSP	TOTAL STATIC PRESSURE
ARRESTANCE FILTER		TT	TEMPERATURE TRANSMITTER
HL	HIGH LIMIT	UC	UNDERCUT
HQA	HAND-OFF AUTOMATIC SELECTOR SWITCH	UH	UNIT HEATER
H/O	HAND-OFF SELECTOR SWITCH	UNO	UNLESS NOTED OTHERWISE
		UNOCC	UNOCCUPIED
HP	HORSEPOWER OR HEAT PUMP	UV	UNIT VENTILATOR
HPC	HIGH PRESSURE CONDENSATE	V	VENT OR VOLTS
HPD	HIGH PRESSURE DRIP	VAC	VACUUM
HPS	HEAT PUMP SUPPLY	VAV	VARIABLE AIR VOLUME
HPS	HEAT PUMP RETURN	VB	VACUUM BREAKER
		VD	MANUAL VOLUME DAMPER
		VEL	VELOCITY
		VE	VENTILATING FAN
		VFD	VARIABLE FREQUENCY DRIVE
		VI	VIBRATION ISOLATOR
		VB	VIBRATION
		VV	VENTILATE INLET VANES
		VP	VACUUM PUMP
		VTR	VENT THROUGH ROOF
		WB	WET BULB
		WC	WATER COLUMN
		WG	WATER GAUGE
		WMS	WIRE MESH SCREEN
		WP	WATERPROOF
		XP	EXPLOSION PROOF

### DUCTWORK SYMBOLS

SYMBOL	DESCRIPTION
	SUPPLY/OUTSIDE AIR DUCT
	RETURN/EXHAUST AIR DUCT
	45° ENTRY TAKEOFF, RECTANGULAR TO RECTANGULAR
	90° TAKEOFF, RECTANGULAR TO ROUND, STRAIGHT
	90° TAKEOFF, RECTANGULAR TO ROUND BELLMOUTH W/ MANUAL VOLUME DAMPER
	90° TAKEOFF, ROUND TO ROUND, STRAIGHT
	90° CONICAL TAKEOFF, ROUND TO ROUND
	45° CONICAL LATERAL, ROUND TO ROUND
	45° LATERAL, ROUND TO ROUND
	45° WYE, ROUND TO ROUND
	END OF DUCT (CAPPED)
	SIDEWALL AIR TERMINAL W/D (ARROWS DENOTE THROW DIRECTION)
	LINEAR DIFFUSER
	FIRE DAMPER - VERTICAL POSITION
	FIRE DAMPER - HORIZONTAL POSITION
	FLEXIBLE CONNECTION
	MANUAL VOLUME DAMPER
	MOTOR OPERATED DAMPER
	SMOKE DETECTOR (DUCT-MOUNTED)
	EXHAUST AIR DESIGNATION
	RETURN AIR DESIGNATION
	SUPPLY AIR DESIGNATION

### LINE DESIGNATIONS

CHWS	CHILLED WATER SUPPLY
CHWR	CHILLED WATER RETURN
CWS	CONDENSER WATER SUPPLY
CWR	CONDENSER WATER RETURN
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
HPS	HEAT PUMP SUPPLY
HPR	HEAT PUMP RETURN
GS	GLYCOL SUPPLY
GR	GLYCOL RETURN
FOS	FUEL OIL SUPPLY
FOR	FUEL OIL RETURN
FOW	FUEL OIL VENT
NG	NATURAL GAS
C	COIL CONDENSATE DRAIN
MU	MAKE UP WATER
RV	REFRIGERANT VENT
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION

### APPLICABLE CODES & STANDARDS

THE FOLLOWING CODES AND STANDARDS APPLY TO THIS PROJECT:

- INTERNATIONAL BUILDING CODE (IBC) 2021, NJ EDITION.
- NAC REHABILITATION SUB-CODE S23-6
- INTERNATIONAL MECHANICAL CODE (IMC) 2021.
- INTERNATIONAL FUEL GAS CODE (IFGC) 2021.
- NATIONAL STANDARD PLUMBING CODE (NSPC) 2021
- NFPA 70 - NATIONAL ELECTRICAL CODE (NEC) 2020

GENERAL PROJECT NOTES

THE FOLLOWING NOTES APPLY TO ALL "M" MECHANICAL DRAWINGS:

- ALL WORK SHALL FOLLOW THE REFERENCED APPLICABLE CODES AS ADOPTED AND MODIFIED BY THE STATE OF NEW JERSEY.
- ALL WORK CONTAINED WITHIN THE MECHANICAL DRAWINGS AND SPECIFICATIONS IS THE RESPONSIBILITY OF THE SINGLE PRIME CONTRACTOR UNLESS OTHERWISE NOTED.
- NOT ALL SYMBOLS, ABBREVIATIONS AND LINE DESIGNATIONS ARE NECESSARILY USED ON THIS PROJECT.
- ALL HVAC EQUIPMENT, DUCTWORK, PIPING, SUPPORTS AND ACCESSORY LOCATIONS AND ROUTING SHALL BE COORDINATED WITH ALL OTHER TRADES AND FIELD VERIFIED TO INSTALLATION TO PROVIDE REQUIRED CLEARANCES FOR ALL OTHER SYSTEMS.
- SUPPLY, RETURN AND EXHAUST AIR OPENING LOCATIONS AND SIZES FOR ROOF MOUNTED MECHANICAL EQUIPMENT ARE SHOWN FOR DUCTWORK ROUTING ONLY. THE MECHANICAL CONTRACTOR SHALL VERIFY THE ACTUAL SIZES OF DUCT CONNECTIONS AND THE REQUIRED ROOF OPENING SIZES FOR THE ROOF MOUNTED EQUIPMENT AND COORDINATE THE FINAL LOCATION OF ROOF PENETRATIONS WITH THE GENERAL CONTRACTOR.
- THE CONTRACTOR PROVIDING MECHANICAL TRADE WORK SHALL INSTALL ALL ROOF MOUNTED MECHANICAL EQUIPMENT CURBS AND FLASHING AND COORDINATE WITH THE CONTRACTOR PROVIDING GENERAL TRADES PRIOR TO THE APPLICATION OF THE BUILDING ROOFING. THE CONTRACTOR PROVIDING MECHANICAL TRADE WORK SHALL ALSO INSTALL ALL NECESSARY ROOF CURB COUNTER-FLASHING TO ACHIEVE A WATER-TIGHT ROOFING SEAL.
- DUCTWORK MAINS AND BRANCHES ARE SHOWN DIAGRAMMATICALLY AND FOR DESIGN CLARITY AND AT THE ROOM LEVEL. ROUTING AND ARRANGEMENT IS SHOWN TO MINIMIZE NOISE CARRYOVER FROM MECHANICAL EQUIPMENT AND ADJOINING SPACES. CONTRACTOR MAY PROPOSE REROUTING, OFFSETS, RISERS AND DROPS AS NECESSARY TO CLEAR INSTALLED TRUSSES, JOISTS AND OTHER INTERFERENCES. FINAL DUCTWORK LAYOUT WILL BE APPROVED IN REQUIRED DUCTWORK SHOP DRAWING SUBMITTAL REVIEW PRIOR TO INSTALLATION. DEVIATIONS FROM APPROVED DUCTWORK SHOP DRAWING TO SUIT FIELD CONDITIONS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
- ALL PIPING/DUCTWORK/CONTROLS PENETRATING FIRE RATED PARTITIONS, WALLS AND CEILINGS SHALL BE SEALED ON BOTH SIDES USING AN APPROVED, UL LISTED FIRE SEALANT TO MATCH EXISTING WALL FIRE RATING. WHERE A PIPE/DUCT/CONTROL CONDUIT HAS BEEN PREVIOUSLY PENETRATED A FIRE RATED PARTITION, WALL OR CEILING, THE CONTRACTOR SHALL PATCH AND SEAL THE PENETRATION ON BOTH SIDES USING AN APPROVED, UL LISTED FIRE SEALANT TO MATCH EXISTING WALL FIRE RATING. ALL FIRESTOP SYSTEMS SHALL BE TESTED IN ACCORDANCE WITH ASTM E814. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- CONTRACTOR SHALL RE-APPLY FIREPROOFING IN TYPE AND THICKNESS TO MATCH EXISTING IN ANY AREAS WHERE EXISTING FIREPROOFING IS DAMAGED DO TO DEMOLITION OR NEW WORK ACTIVITIES. REFER TO ARCHITECTURAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- CONTRACTOR SHALL COORDINATE THE REPLACEMENT OF MECHANICAL EQUIPMENT WITH THE FACILITIES STAFF AND THE OWNER IN ADDITION TO ALL OTHER WORK BEING COMPLETED UNDER SEPARATE CONTRACTS. ALL ITEMS BEING REMOVED AS PART OF THE UPGRADES SHALL BE REMOVED FROM THE PREMISES AND DISPOSED OF IN ACCORDANCE WITH LOCAL REGULATIONS.
- MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR IN REGARDS TO THE DISCONNECT AND RECONNECT OF ALL EQUIPMENT BEING REMOVED AND/OR REPLACED IN-KIND AS INDICATED ON THE CONTRACT DOCUMENTS.
- MECHANICAL CONTRACTOR SHALL FURNISH LOOSE MOTOR STARTERS AND DISCONNECT SWITCHES FOR INSTALLATION AND WIRING BY THE ELECTRICAL CONTRACTOR.
- ELECTRICAL COORDINATION: CONTRACTOR PROVIDING MECHANICAL TRADE WORK SHALL COORDINATE VOLTAGES FOR EACH PIECE OF EQUIPMENT BEFORE PURCHASING EQUIPMENT WITH CONTRACTOR PROVIDING ELECTRICAL TRADE WORK.
- HVAC TESTING & BALANCING (AIR & WATER) IS A PART OF THIS CONTRACT. CONTRACTOR SHALL SUBMIT SIGNED AND SEALED TEST & BALANCE REPORTS, REFER TO PROJECT BOOK SPECIFICATIONS FOR DETAILS.
- CONTRACTOR SHALL PROVIDE FLEXIBLE CONNECTIONS AT ALL DUCT CONNECTIONS TO EQUIPMENT. IF DUCT CONNECTION TO EQUIPMENT CANNOT BE MADE WITHOUT A HARD CONNECTION (E.G. MIXING BOX/FILTER RACK ASSEMBLY), CONTRACTOR SHALL PROVIDE FLEX CONNECTIONS FOR ALL DUCT CONNECTING WITH A HARD CONNECTION TO EQUIPMENT.
- ALL EXISTING WALLS, CEILINGS, ROOF, FLOORS AND OTHER FINISHED SURFACES DAMAGED OR MODIFIED SHALL BE REPAIRED TO MATCH ADJACENT UNDISTURBED AREA. PATCH AND REPAIR SHALL MATCH EXISTING ADJACENT SURFACES AS TO THICKNESS, TEXTURE, MATERIALS AND COLOR. ALL REMOVED OPENINGS SHALL BE PATCHED AND REPAIRED TO MATCH ADJACENT UNDISTURBED AREA AND ARCHITECTURE. ALL ROOF PENETRATIONS SHALL BE PERFORMED SUCH THAT WARRANTY IS MAINTAINED.
- CONTRACTOR SHALL REMOVE, STORE AND RE-INSTALL ALL CEILING TILES AS REQUIRED TO ACCESS ABOVE CEILING AREAS TO ROUTE NEW PIPING OR INSTALL EQUIPMENT. CONTRACTOR SHALL SUPPLY MATCHING CEILING TILES FOR ANY BROKEN TILES THAT OCCUR DURING THE CONSTRUCTION.
- CONTRACTOR SHALL MODIFY SPRINKLER PIPING SYSTEMS AS REQUIRED TO ALLOW NEW EQUIPMENT INSTALLATION AND DUCTWORK MODIFICATIONS. WORK SHALL BE PERFORMED BY A CERTIFIED SPRINKLER CONTRACTOR.
- ALL NECESSARY STAGING AND MATERIAL STORAGE AREAS SHALL BE AS DIRECTED AND APPROVED BY THE OWNER.
- ALL SYSTEMS THAT NEED TO BE DRAINED SHALL BE COORDINATED WITH THE OWNER.
- ALL WORK SHALL BE PERFORMED TO NOT INTERFERE WITH THE NORMAL OPERATION OF THE FACILITIES. COORDINATE ANY NECESSARY SHUTDOWNS WITH THE FACILITY. MINIMIZE SHUTDOWNS TO LIMIT IMPACT OF INTERRUPTION OF COOLING, HEATING, DHW AND ELECTRICAL SERVICE TO THE FACILITY.
- ALL MEANS OF EGRESS MUST BE KEPT FREE AND CLEAR OF ALL MATERIAL.
- VERIFY ALL CONDITIONS, ELEVATIONS AND MEASUREMENTS SHOWN ON CONTRACT DRAWINGS. ALL DIMENSIONS AND ELEVATIONS FOR NEW AND EXISTING EQUIPMENT, PIPING AND APPARATUS ARE APPROXIMATE AND ARE ONLY FOR REFERENCE. SUBMIT SHOP DRAWINGS SHOWING ALL DIMENSIONS AND ELEVATIONS VERIFIED IN THE FIELD.
- CONTRACTOR SHALL TEMPORARILY RELOCATE ALL PIPING, ELECTRICAL CONDUITS, LIGHTING, CONTROLS, ETC., TO ACCOMMODATE WORK UNDER THIS CONTRACT. RESTORE TO INITIAL OPERATING CONDITION AND FUNCTION UPON COMPLETION OF WORK. EXISTING PIPING IN WORK AREA SMALLER THAN 2" AND CONDUITS SMALLER THAN 1" ARE NOT EXPLICITLY SHOWN. CONDUCT FIELD SURVEY AS REQUIRED TO DETERMINE EXISTING CONDITIONS.
- PROVIDE VALVED DRAINS ON ALL WATER PIPING SYSTEM LOW POINTS AND AS REQUIRED ON NEW EQUIPMENT. PROVIDE AIR VENTS AT PIPING SYSTEM HIGH POINTS AS REQUIRED FOR RELEASING AIR DURING STARTUP.
- NO PIPING SMALLER THAN 3/4" EXCEPT AS NOTED.
- PROVIDE WIRING AND RACEWAYS RELATED TO CONTROL OF MECHANICAL EQUIPMENT. RACEWAYS TO BE MINIMUM 3/4" RIGID CONDUIT.
- CONTRACTOR SHALL REFER TO SPECIFICATIONS FOR MATERIAL PIPE SIZE & MATERIAL TYPE BY SYSTEM. FOR SYSTEMS REQUIRING DISSIMILAR METALS CONTRACTOR SHALL PROVIDE GALVANIC CORROSION AND CATHODIC PROTECTION (DIELECTRIC UNION, DIELECTRIC FITTING, ETC.) IN ACCORDANCE WITH THE SPECIFICATIONS.
- CONTRACTOR IS RESPONSIBLE FOR CONDUCTING WALK-THROUGH OF SITE PRIOR TO SUBMITTING BID TO BE FAMILIAR WITH SITE CONDITIONS AND REQUIREMENTS.
- THE CONTRACTOR SHALL PROVIDE ALL REQUIRED CALCULATIONS (SIGNED AND SEALED BY AN ENGINEER LICENSED IN THE STATE OF NEW JERSEY) AND INSTALLATION INFORMATION TO SHOW COMPLIANCE WITH SEISMIC AND WIND FORCES IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE 2021, NJ EDITION. INFORMATION SHALL BE MADE AVAILABLE TO ENGINEER FOR REVIEW AND ALSO, MADE AVAILABLE UPON REQUEST FOR SUBMISSION TO CODE ENFORCEMENT. PROVIDE ALL SUPPORT SYSTEMS, SUPPLEMENTAL STEEL, ANCHORS, PIPE HANGERS AND ENGINEERING DOCUMENTATION NECESSARY TO PROVIDE A COMPLETE CODE COMPLIANT SYSTEM.

### DUCTWORK SYMBOLS

SYMBOL	DESCRIPTION
	MANUAL BALANCING VALVE WITH PRESSURE TAPS
	BALL VALVE
	GATE VALVE
	GLOBE VALVE
	BUTTERFLY VALVE
	PLUG VALVE
	VACUUM BREAKER
	CHECK VALVE
	ANGLE SHUTOFF VALVE
	ANGLE BALANCING/SHUTOFF VALVE
	TRIPLE DUTY VALVE
	COMBINATION BALANCING/SHUTOFF VALVE W/PRESSURE TAPS
	PRESSURE REDUCING VALVE
	SAFETY/RELIEF VALVE - PLAN AND ELEVATION
	PUMP - GENERIC
	PUMP - END SUCTION
	BASKET STRAINER - ELEVATION AND PLAN
	Y-STRAINER WITH PLUG
	Y-STRAINER WITH DRAIN VALVE
	PRESSURE GAUGE WITH GAUGE COCK
	PRESSURE GAUGE WITH GAUGE COCK AND BOURDON TUBE
	THERMOMETER
	THERMOSTAT
	PRESSURE/TEMPERATURE TEST FITTING
	FLOW METER
	PIPE UP AND DOWN
	TEE CONNECTION - STRAIGHT, DOWN, AND UP
	UNION
	END CAP
	BLIND FLANGE
	PIPE BELLOWS
	PIPE ANCHOR
	PIPE GUIDE (SLIDING)
	PIPE GUIDE (MOMENT)
	ELECTRICALLY HEAT TRACED PIPING
	AIR VENT - (MANUAL)
	AUTOMATIC AIR VENT
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	STEAM TRAP - FLOAT AND THERMOSTATIC
	STEAM TRAP - BUCKET
	STEAM TRAP - THERMOSTATIC
	STEAM TRAP - THERMODYNAMIC
	EXPANSION LOOP AND SIZE

### GENERAL PROJECT NOTES

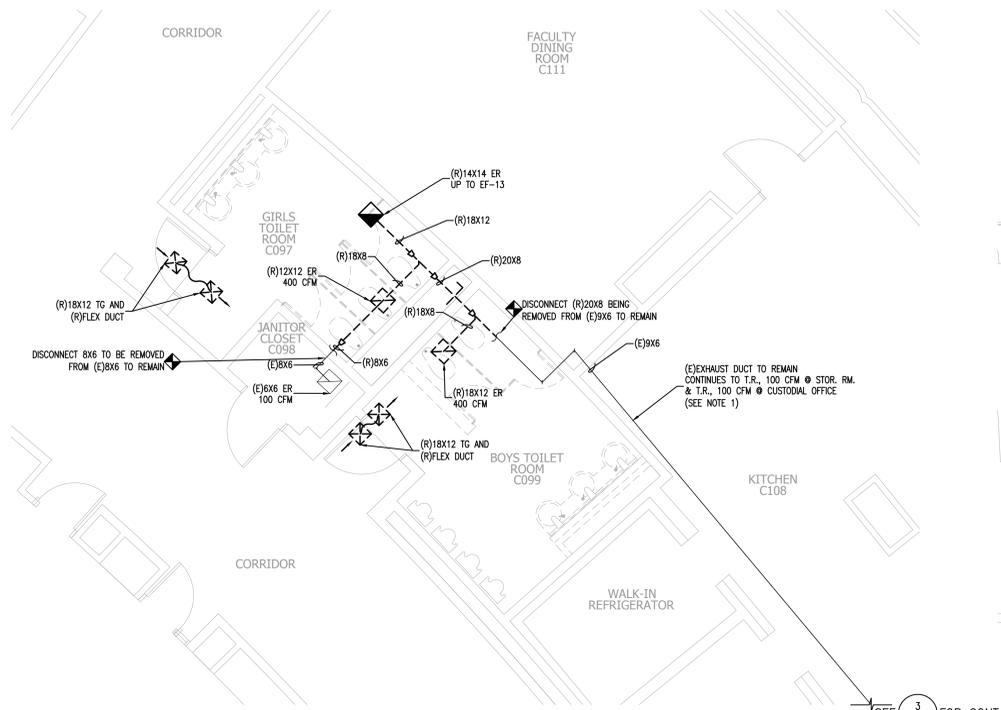
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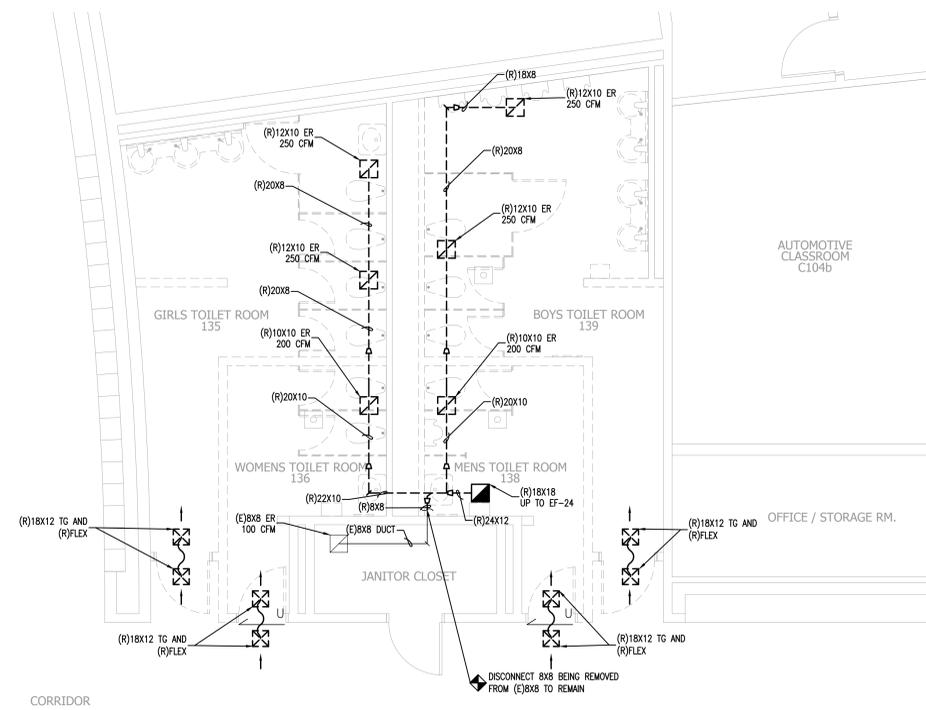
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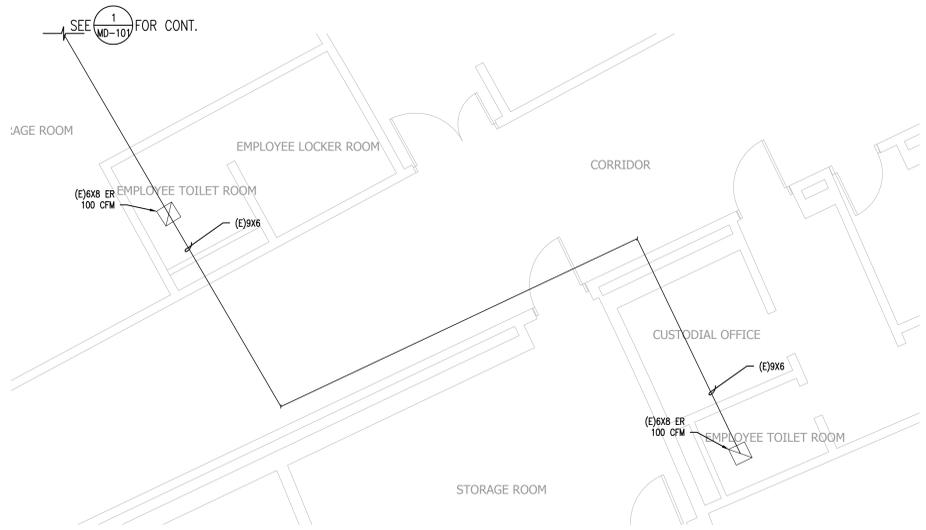
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- CONTRACTOR SHALL REMOVE, STORE AND RE-INSTALL ALL CEILING TILES AS REQUIRED TO ACCESS ABOVE CEILING AREAS TO ROUTE NEW PIPING OR INSTALL EQUIPMENT. CONTRACTOR SHALL SUPPLY MATCHING CEILING TILES FOR ANY BROKEN TILES THAT OCCUR DURING THE CONSTRUCTION.
- CONTRACTOR SHALL MODIFY SPRINKLER PIPING SYSTEMS AS REQUIRED TO ALLOW NEW EQUIPMENT INSTALLATION AND DUCTWORK MODIFICATIONS. WORK SHALL BE PERFORMED BY A CERTIFIED SPRINKLER CONTRACTOR.
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- ALL WORK SHALL BE PERFORMED TO NOT INTERFERE WITH THE NORMAL OPERATION OF THE FACILITIES. COORDINATE ANY NECESSARY SHUTDOWNS WITH THE FACILITY. MINIMIZE SHUTDOWNS TO LIMIT IMPACT OF INTERRUPTION OF COOLING, HEATING, DHW AND ELECTRICAL SERVICE TO THE FACILITY.
- ALL MEANS OF EGRESS MUST BE KEPT FREE AND CLEAR OF ALL MATERIAL.
- VERIFY ALL CONDITIONS, ELEVATIONS AND MEASUREMENTS SHOWN ON CONTRACT DRAWINGS. ALL DIMENSIONS AND ELEVATIONS FOR NEW AND EXISTING EQUIPMENT, PIPING AND APPARATUS ARE APPROXIMATE AND ARE ONLY FOR REFERENCE. SUBMIT SHOP DRAWINGS SHOWING ALL DIMENSIONS AND ELEVATIONS VERIFIED IN THE FIELD.
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- PROVIDE VALVED DRAINS ON ALL WATER PIPING SYSTEM LOW POINTS AND AS REQUIRED ON NEW EQUIPMENT. PROVIDE AIR VENTS AT PIPING SYSTEM HIGH POINTS AS REQUIRED FOR RELEASING AIR DURING STARTUP.
- NO PIPING SMALLER THAN 3/4" EXCEPT AS NOTED.
- PROVIDE WIRING AND RACEWAYS RELATED TO CONTROL OF MECHANICAL EQUIPMENT. RACEWAYS TO BE MINIMUM 3/4" RIGID CONDUIT.
- CONTRACTOR SHALL REFER TO SPECIFICATIONS FOR MATERIAL PIPE SIZE & MATERIAL TYPE BY SYSTEM. FOR SYSTEMS REQUIRING DISSIMILAR METALS CONTRACTOR SHALL PROVIDE GALVANIC CORROSION



**1 MECHANICAL DEMO FLOOR PLAN – NORTH CAFETERIA TOILET ROOMS**  
 MD-101 SCALE: 1/4" = 1'-0"  
 SCALE BAR: 1/4"=1'-0"



**2 MECHANICAL DEMO FLOOR PLAN – GYMNASIUM TOILET ROOMS**  
 MD-101 SCALE: 1/4" = 1'-0"  
 SCALE BAR: 1/4"=1'-0"



**3 MECHANICAL DEMO FLOOR PLAN – STORAGE TOILET ROOM AND OFFICE TOILET ROOM**  
 MD-101 SCALE: 1/4" = 1'-0"  
 SCALE BAR: 1/4"=1'-0"

- EQUIPMENT REPLACEMENT NOTES:**
- GENERAL NOTES:**
- REFER TO MECHANICAL LEAD SHEET, M-001 FOR NOTES THAT PERTAIN TO THE SCOPE OF THIS PROJECT.
  - CONTRACTOR SHALL COORDINATE THE REPLACEMENT OF MECHANICAL EQUIPMENT WITH THE OWNER AND OTHER WORK BEING COMPLETED UNDER SEPARATE CONTRACTS. ALL ITEMS REMOVED FROM THE EQUIPMENT AS PART OF THE REPLACEMENT SHALL BE REMOVED FROM THE PREMISES AND DISPOSED OF IN ACCORDANCE WITH LOCAL REGULATIONS.
  - CONTRACTOR SHALL COORDINATE AND SCHEDULE THE DRAINING OF ANY HYDRONIC SYSTEMS WITH THE FACILITIES MANAGER AND OWNER.
  - CONTRACTOR SHALL SUBMIT TO ARCHITECT & ENGINEER PRODUCT DATA FOR ALL ITEMS THAT ARE TO BE INCLUDED IN THE REPLACEMENT FOR REVIEW PRIOR TO COMMENCING WORK.
- SCOPE OF DEMOLITION NOTES:**
- DEMOLISH AND REMOVE EXISTING EXHAUST FAN(S) IN ITS ENTIRETY. EXISTING CURB TO REMAIN. SAFELY DISCONNECT AND SAFE OFF ELECTRICAL POWER IN ACCORDANCE WITH NEC GUIDELINES. REFER TO ELECTRICAL DRAWINGS FOR FURTHER ELECTRICAL REQUIREMENTS. DEMOLISH AND REMOVE ALL CONTROL WIRING AND CONDUIT BACK TO SOURCE. DISCONNECT DUCTWORK AND REMOVE ALL ASSOCIATED HANGERS AND APPURTENANCES.
  - DEMOLISH AND REMOVE ALL DUCTWORK ASSOCIATED WITH EXISTING EXHAUST FANS. REMOVE ALL HANGERS, DAMPERS, EXHAUST GRILLES, ACCESSORIES, AND ALL ASSOCIATED APPURTENANCES.
  - DEMOLISH AND REMOVE EXISTING EXHAUST AND TRANSFER GRILLES. DEMOLISH ALL ASSOCIATED TRANSFER DUCTS AND EXHAUST DUCTWORK WHERE INDICATED ON PLANS.

**MEP ENGINEER:**

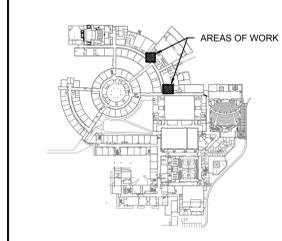
**CONCORD ENGINEERING**

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 520 South Burnt Mill Road  
 Voorhees, New Jersey 08043  
 www.concord-engineering.com

No.	Date	Description
12/19/24		ISSUE FOR BID

**REVISIONS:**

**KEY PLAN:**



John A. Marchiatava P. E.  
 New Jersey P. E. No. 243E495200

**Professional Engineer**  
 John A. Marchiatava P. E.

**PROJECT: REF21-39-8313**  
**LRHSD - CHEROKEE HIGH SCHOOL**  
**NORTH PHASE 4 HVAC**  
**UPGRADES**

CHEROKEE HIGH SCHOOL  
 120 TOMLINSON MILL RM  
 MARLTON, NEW JERSEY

**DRAWING TITLE:**  
**MECHANICAL DEMOLITION**  
**FLOOR PLANS**

DRAWN BY: ARA	SCALE: AS NOTED	DWG SIZE: 42x30
CHECKED BY: BTR	DRAWING NO. MD-101	REVISION
DATE: 12/19/2024		
PROJECT NO.: 8C22002		

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**EQUIPMENT REPLACEMENT NOTES:**

**GENERAL NOTES:**

1. REFER TO MECHANICAL LEAD SHEET, M-001 FOR 'NOTES' THAT PERTAIN TO THE SCOPE OF THIS PROJECT.
2. CONTRACTOR SHALL COORDINATE THE REPLACEMENT OF MECHANICAL EQUIPMENT WITH THE OWNER AND OTHER WORK BEING COMPLETED UNDER SEPARATE CONTRACTS. ALL ITEMS REMOVED FROM THE EQUIPMENT AS PART OF THE REPLACEMENT SHALL BE REMOVED FROM THE PREMISES AND DISPOSED OF IN ACCORDANCE WITH LOCAL REGULATIONS.
3. CONTRACTOR SHALL COORDINATE AND SCHEDULE THE DRAINING OF ANY HYDRONIC SYSTEMS WITH THE FACILITIES MANAGER AND OWNER.
4. CONTRACTOR SHALL SUBMIT TO ARCHITECT & ENGINEER PRODUCT DATA FOR ALL ITEMS THAT ARE TO BE INCLUDED IN THE REPLACEMENT FOR REVIEW PRIOR TO COMMENCING WORK.

**SCOPE OF DEMOLITION NOTES:**

1. DEMOLISH AND REMOVE EXISTING EXHAUST FAN IN ITS ENTIRETY. SAFELY DISCONNECT AND SAFE OFF ELECTRICAL POWER PER NEC GUIDELINES. REFER TO ELECTRICAL DRAWINGS FOR FURTHER ELECTRICAL REQUIREMENTS. EXISTING CURB TO REMAIN. PREPARE EXISTING CURB TO RECEIVE NEW ADAPTABLE CURB UNDER NEW WORK. COORDINATE ALL ROOFING WORK WITH ROOF MANUFACTURER AND ARCHITECT TO MAINTAIN ANY EXISTING ROOF WARRANTY.



**1 MECHANICAL DEMO ROOF PLAN – NORTH CAFETERIA TOILET ROOMS**  
 MD-102 SCALE: 1/8" = 1'-0"  
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**2 MECHANICAL DEMO ROOF PLAN – GYMNASIUM TOILET ROOMS**  
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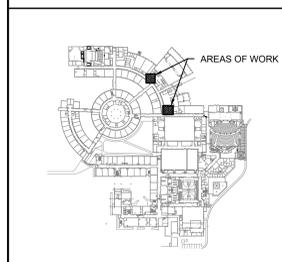
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**KEY PLAN:**



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**Professional Engineer**  
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**PROJECT: REF21-39-8313**

LRHSD - CHEROKEE HIGH SCHOOL  
 NORTH PHASE 4 HVAC  
 UPGRADES

CHEROKEE HIGH SCHOOL  
 120 TOMLINSON MILL RM  
 MARLTON, NEW JERSEY

**DRAWING TITLE:**

MECHANICAL DEMOLITION  
 ROOF PLANS

DRAWN BY:	ARA	SCALE:	AS NOTED	DWG SIZE:	42x30
CHECKED BY:	BTR	DRAWING NO.:	MD-102	REVISION:	
DATE:	12/19/2024	PROJECT NO.:	8C22002		

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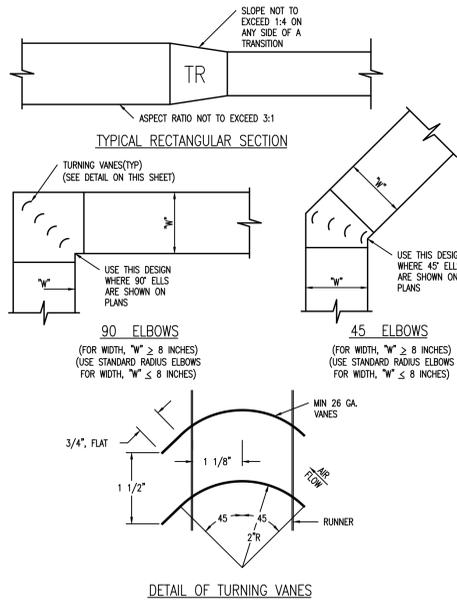




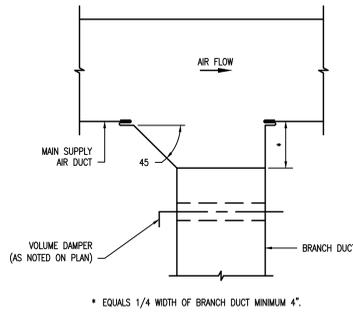
**EXHAUST FAN SCHEDULE**

SYMBOL	SERVICE	FAN TYPE	DRIVE TYPE	CFM	ESP IN WC	FAN RPM	MOTOR HP	BHP	ELECTRICAL		OPER WEIGHT (LBS)	SONES/ dBA	BASIS OF DESIGN		NOTES
									V/PH/Hz	AMPS			MANUFACTURER	MODEL NUMBER	
EF-13	1st CAFE / BOYS B100-1-M & GIRLS B100-2-B-A TR'S	DOWNBLAST	DIRECT	650	0.6	1286	0.25	0.12	120/160	3.8	62	5.8/51	GREENHECK	G-100-VG	1,2,3,4,5,6,7
EF-24	1st GYM / BOYS B100-6-B & GIRLS B100-5-G TR'S	DOWNBLAST	DIRECT	1080	0.5	994	0.50	0.19	120/160	6.6	82	7.0/54	GREENHECK	G-140-VG	1,2,3,4,5,6,7

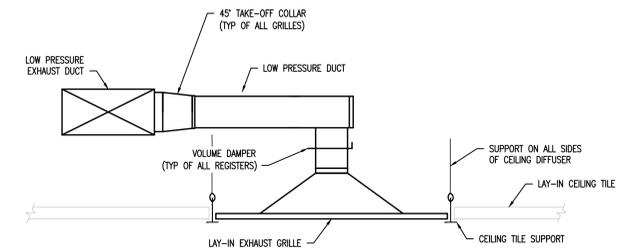
- NOTES:**
- PROVIDE BIRDSCREEN
  - PROVIDE CURB ADAPTER TO MOUNT FAN TO EXISTING CURB. PROVIDE WEATHERTIGHT SEAL.
  - PROVIDE MOTORIZED BACKDRAFT DAMPER. INTERLOCK DAMPER OPERATION WITH EXHAUST FAN OPERATION. MOTORIZED DAMPER TO HAVE SAME VOLTAGE AS FAN
  - PROVIDE PREMIUM EFFICIENCY EC MOTOR (OR VARI-GREEN)
  - PROVIDE FACTORY MOUNTED PREWIRED DISCONNECT SWITCH RATED FOR THE APPROPRIATE LOCATION & APPLICATION.
  - PROVIDE SPEED CONTROLLER IF DIRECT DRIVE FAN. PROVIDE BELT TENSIONER IF BELT DRIVEN FAN.
  - PROVIDE CORROSION RESISTANT COATING.



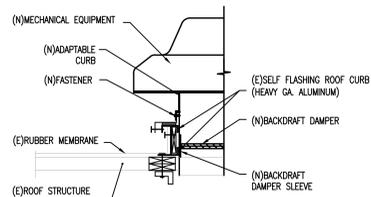
**1 DUCT LAYOUT DETAILS**  
M-301 SCALE: N.T.S.



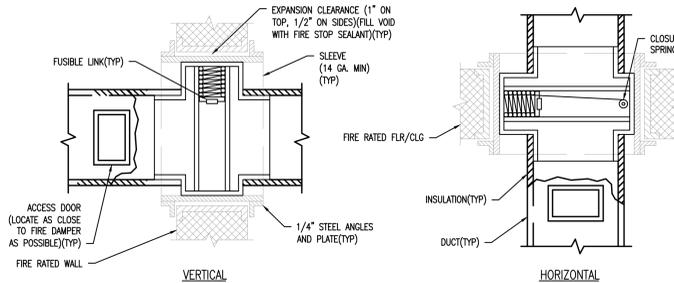
**2 TYPICAL LOW PRESSURE RECTANGULAR DUCT TAKE-OFF DETAIL**  
M-301 SCALE: N.T.S.



**3 BRANCH DUCT DETAIL**  
M-301 SCALE: N.T.S.



**4 FLAT ROOF CURB ADAPTER DETAIL**  
M-301 SCALE: N.T.S.



**5 1-1/2 HOUR FIRE DAMPER DETAIL**  
M-301 SCALE: N.T.S.

- NOTES:**
- ALL FIRE, SMOKE, FIRE/SMOKE DAMPER INSTALLATIONS SHALL COMPLY WITH SMACNA AND NFPA STANDARDS
  - CONTRACTOR SHALL PROVIDE CONTINUOUS FIRE-STOPPING AROUND ENTIRE FIRE DAMPER ASSEMBLY TO MAINTAIN RATING.
  - MINIMUM ACCESS DOOR SIZE SHALL BE 12x12, UNLESS OTHERWISE NOTED.

**CHEROKEE HIGH SCHOOL - LRHSD - VENTILATION SCHEDULE**

ROOM NUMBER	ROOM NAME	BREATHING ZONE OA CALCULATION		ZONE OA CALCULATION		EXHAUST CALCULATION			DESIGN AIRFLOWS			NOTES
		VBZ = (Rp*P2)/(Ra*Az)	VOZ = VBZ / EZ	NO. OF FLOOR AREA (SF)	NO. OF PEOPLE (QTY)	NO. OF FIXTURES (QTY)	EA RATE (CFM / FIXTURE) OR (CFM/SF)	CALCULATED EXHAUST AIRFLOW (CFM)	OUTDOOR AIRFLOW (CFM)	EXHAUST AIRFLOW (CFM)	TRANSFER AIRFLOW (CFM)	
CO97	GIRL'S TOILET ROOM	125	-	-	2	70	140	-	140	140	-	
CO99	BOY'S TOILET ROOM	143	-	-	3	70	210	-	210	210	-	
TOTALS:		268						0	350	350	-	
B100-6-B	BOY'S TOILET ROOM	332	-	-	7	70	490	-	490	490	-	
B100-5-G	GIRL'S TOILET ROOM	355	-	-	7	70	490	-	490	490	-	
TOTALS:		687						0	980	980	-	

**AIR TERMINAL DEVICE SCHEDULE**

SYMBOL	SERVICE	TYPE	CFM RANGE	NECK SIZE	N.C. (@ MAX CFM)	FACE OVERALL DIMENSIONS WxL (IN.)	BASIS OF DESIGN	
							MANUFACTURER	MODEL NUMBER
ER-1	EXHAUST	DUCT MOUNT	0-300	10X10	23	12X12	PRICE	630
TG-1	TRANSFER	DUCT MOUNT	0-140	10X10	-	12X12	PRICE	630
TG-2	TRANSFER	DUCT MOUNT	141-650	18X18	-	20X20	PRICE	630
TG-3	TRANSFER	DUCT MOUNT	651-900	20X20	-	22X22	PRICE	630
TG-4	TRANSFER	DUCT MOUNT	901-1200	24X24	-	24X24	PRICE	630

- NOTES:**
- REFER TO MECHANICAL DRAWINGS FOR LOCATIONS.
  - MOUNTING FRAME TYPE SHALL BE COORDINATED WITH THE CEILING/WALL CONSTRUCTION TYPE.
  - FLEXIBLE DUCTS CONNECTING TO THE DIFFUSERS SHALL BE FULL SIZE OF NECK DIAMETER AND NOT EXCEED 6' IN LENGTH.
  - DIFFUSERS SHALL BE 4-WAY BLOW UNLESS OTHERWISE INDICATED ON PLANS
  - PROVIDE SQUARE TO ROUND NECK ADAPTERS IF REQUIRED
  - ALL GRILLES MOUNTED IN CEILINGS, SOFFITS, OR WALLS SHALL HAVE BAKED WHITE ENAMEL FINISH OR COLOR AS SELECTED BY ARCHITECT. FINAL COLORS TO BE DETERMINED POST AWARD. ALL GRILLES MOUNTED ON GALVANIZED EXPOSED DUCTWORK SHALL BE ORDERED 'PRIMED TO BE PAINTED IN FIELD'
  - PROVIDE BUILT IN DAMPER (630D) FOR ALL EXHAUST GRILLES LOCATED WITHIN INACCESSIBLE CEILINGS

MEP ENGINEER:

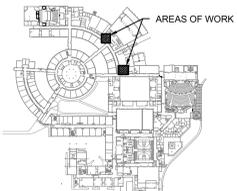


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-	12/19/24	ISSUE FOR BID

REVISIONS:

KEY PLAN:



John A. Marchiatava P. E.  
New Jersey P. E. No. 24GE0492500

Professional Engineer  
John A. Marchiatava P. E.

PROJECT: REF21-39-8313  
LRHSD - CHEROKEE HIGH SCHOOL  
NORTH PHASE 4 HVAC  
UPGRADES

CHEROKEE HIGH SCHOOL  
120 TOMLINSON MILL RM  
MARLTON, NEW JERSEY

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LEGEND	
	EXISTING COLD WATER PIPING
	NEW COLD WATER PIPING
	EXISTING HOT WATER PIPING
	NEW HOT WATER PIPING
	EXISTING SANITARY WASTE PIPING
	NEW SANITARY WASTE PIPING
	EXISTING SANITARY VENT PIPING
	NEW SANITARY VENT PIPING
	EXISTING GREASE WASTE PIPING
	NEW GREASE WASTE PIPING
	NEW GAS PIPING
	EXISTING PIPING TO BE REMOVED
	GRADE & FLOOR CLEANOUT
	FLOW DIRECTION
	PIPING DOWN/DROP @ ELBOW
	PIPING DOWN/DROP @ TEE
	PIPING RISE/UP @ ELBOW
	PIPING RISE/UP @ TEE
	P-TRAP
	CONCENTRIC REDUCER
	ECCENTRIC REDUCER
	UNION
	CAPPED OFF PIPE
	BALL VALVE
	BACKFLOW PREVENTER
	SHOCK ABSORBER
	CHECK VALVE
	PRESSURE REGULATING/REDUCING VALVE
	BALANCING VALVE
	GAS COCK
	SOLENOID OPERATED AUTOMATIC GAS SHUT OFF VALVE
	WATER METER
	GAS METER
	MIXING VALVE
	FLOOR DRAIN
	FLOOR SINK
	POINT OF DEMOLITION TO EXISTING
	POINT OF CONNECTION TO EXISTING
	FOOD SERVICE EQUIPMENT IDENTIFICATION
	TROUGH DRAIN

### PLUMBING DEMOLITION NOTES

- IT IS THE INTENT THAT ALL EXISTING PIPING, DUCTWORK, FIXTURES AND OTHER EQUIPMENT AND MATERIALS THAT INTERFERE WITH THE ALTERED EXISTING BUILDING ARRANGEMENTS AND NEW SYSTEMS BE REMOVED, RELOCATED, REROUTED OR ABANDONED. THE DRAWINGS GENERALLY INDICATE MAJOR ITEMS OF EXISTING MATERIALS AND EQUIPMENT THAT ARE TO BE REMOVED, RELOCATED, REROUTED OR ABANDONED BY EACH TRADE. IT IS NOT POSSIBLE TO INDICATE ALL RELATED ACCESSORIES, SPECIALTIES AND OTHER MINOR ITEMS. HOWEVER, THEIR REMOVAL, RELOCATIONS, REROUTING OR ABANDONMENT SHALL ALSO BE INCLUDED IN THIS CONTRACT AND SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
- EXISTING CONCEALED AND EXPOSED EQUIPMENT AND MATERIALS THAT WILL BECOME ABANDONED DUE TO NEW WORK SHALL BE REMOVED BACK TO ACTIVE RISER AND MAIN AND PROPERLY PLUGGED OR CAPPED BEHIND FINISHED SURFACES.
- ALL EXISTING PIPING TO BE DEMOLISHED MAY NOT BE SHOWN. CONTRACTOR SHALL DURING PRE-BID SITE VISIT DETERMINE EXTENT OF DEMOLITION AND INCLUDE COST OF THIS WORK IN BID. SHOULD A CONTRACTOR REQUIRE REMOVAL, RELOCATION OR REROUTING OF ANOTHER TRADE'S WORK THAT IS NOT INDICATED ON DRAWINGS, THE CONTRACTOR REQUIRING SUCH WORK SHALL BE RESPONSIBLE FOR THAT WORK AND PAY ALL REQUIRED COSTS. ALL UNKNOWN BELOW SLAB PIPING ENCOUNTERED DURING INSTALLATION OF NEW WORK SHALL BE REMOVED AND CAPPED OFF AT ACTIVE MAIN OR BRANCH. ALLOWANCE SHALL BE MADE FOR THESE ITEMS IN BID PRICE.
- EXISTING EQUIPMENT AND MATERIALS THAT ARE TO REMAIN, BUT BECOME EXPOSED DUE TO NEW WORK, SHALL BE RELOCATED AND RECONNECTED AS DIRECTED BY ARCHITECT.
- ALL WORK INVOLVING ALTERATIONS TO EXISTING SYSTEMS, EQUIPMENT AND MATERIALS SHALL BE REVIEWED WITH ARCHITECT AND OWNER BEFORE BEGINNING WORK.
- REMOVED EQUIPMENT AND MATERIALS NOT DESIRED BY OWNER SHALL BECOME PROPERTY OF CONTRACTOR AND SHALL BE PROMPTLY REMOVED FROM SITE. EQUIPMENT AND MATERIALS DESIRED BY OWNER SHALL BE DELIVERED BY CONTRACTOR TO AN ON-SITE STORAGE LOCATION DESIGNATED BY OWNER.
- THE CONTRACTOR MUST SURVEY AND VERIFY LOCATIONS AND PHYSICAL SIZES OF ALL EXISTING ITEMS AND DETERMINE WHETHER RELOCATION OR REROUTING WILL BE REQUIRED. IF RELOCATION OR REROUTING IS REQUIRED, INCLUDING THAT OF ALL RELATED ACCESSORIES, SPECIALTIES AND OTHER MINOR ITEMS, THE CONTRACTOR SHALL INCLUDE ALL NECESSARY WORK AS PART OF HIS CONTRACT AND IT SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
- PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR CUTTING AND CAPPING OF THE BUILDING'S EXISTING DOMESTIC WATER, SANITARY SEWER AND NATURAL GAS SERVICES AS SHOWN ON THE CONTRACT DRAWINGS. ALL REMAINING PLUMBING SYSTEMS INCLUDING PIPING, FIXTURE, EQUIPMENT, ETC., SHALL BE DEMOLISHED AND REMOVED BY OTHERS.
- PRIOR TO TERMINATION OF THE BUILDING'S EXISTING DOMESTIC WATER, SANITARY SEWER AND NATURAL GAS SERVICES, PLUMBING CONTRACTOR SHALL NOTIFY AND COORDINATE THIS WORK WITH EACH RESPECTIVE UTILITY COMPANY.
- PRIOR TO BID, CONTRACTOR SHALL FIELD INSPECT AND VERIFY SCOPE OF DEMOLITION WORK AND INCLUDE IN BID ALL COSTS ASSOCIATED WITH THE DISCONNECTION AND SAFING-OFF OF THE BUILDING'S EXISTING DOMESTIC WATER, SANITARY SEWER AND NATURAL GAS SERVICES.

### GENERAL SPECIFICATIONS

- ALL PLUMBING SHALL COMPLY WITH THE 2021 EDITION OF THE NATIONAL STANDARD PLUMBING CODE AS ADOPTED BY THE STATE OF NEW JERSEY.
- CONTRACTOR SHALL PROVIDE AND PAY ALL FEES AND PERMITS.
- THE DRAWINGS ARE INTENDED TO SHOW APPROXIMATE AND RELATIVE LOCATIONS OF MATERIALS AND EQUIPMENT. DRAWINGS SHALL NOT BE SCALED TO DETERMINE EXACT POSITIONS AND CLEARANCES. BECAUSE OF DIAGNOSTIC LAYOUT AND SMALL SCALE OF DRAWINGS, NOT ALL RISERS, DROPS, OFFSETS, VENTS, TRAPS AND RELATED SPECIALTIES ARE INDICATED. PROVIDE ALL SUCH PIPING, FITTINGS, VALVES AND SPECIALTIES REQUIRED IN SUCH CASES TO INSURE A COMPLETE AND PROPERLY OPERATING INSTALLATION IN ACCORDANCE WITH CODES AND WITHOUT EXTRA COST TO OWNER.
- WORK SHALL BE PERFORMED BY MECHANICS SKILLED IN PARTICULAR TRADE INVOLVED, THAT IS, PLUMBING WORK SHALL BE PERFORMED BY PLUMBERS, ELECTRICAL WORK SHALL BE PERFORMED BY ELECTRICIANS, MECHANICAL WORK PERFORMED BY STEAM FITTERS AND SHEET METAL MECHANICS.
- ALL WORK SHALL BE INSPECTED, TESTED AND APPROVED BY THE PROPER AUTHORITIES HAVING JURISDICTION. CERTIFIED COPIES OF THESE APPROVALS SHALL BE DELIVERED TO THE OWNER BEFORE FINAL PAYMENT.
- SLEEVES SHALL BE INSTALLED THROUGH FLOORS AND FIRE RATED WALLS. SLEEVES SHALL BE 2 PIPE SIZES LARGER THAN PIPE PASSING THRU AND SHALL BE SCHEDULE 40 STEEL PIPE. PROVIDE FIRE PROOF SEAL BETWEEN PIPES AND SLEEVES WHEN PASSING THRU FIRE RATED WALLS/FLOORS. SLEEVES PASSING THRU FLOORS SHALL BE EXTENDED 4" ABOVE FLOOR.
- ESCUTCHEON PLATES SHALL BE PROVIDED ON ALL PIPE WHICH PASS THROUGH WALL PARTITIONS, FLOORS OR CEILINGS. PLATES SHALL BE ONE PIECE, CHROME FINISHED BRONZE.
- COREDRIILLING SHALL BE ACCOMPLISHED BY MECHANICAL MEANS IN A MANNER THAT WILL NOT AFFECT THE INTEGRITY OF THE STRUCTURE. AFTER INSTALLATION OF PIPING THRU THE COREDRILL, PACK THE ANNULAR SPACE WITH OAKUM OR FIBROUS GLASS, LEAVING A MINIMUM OF TWO INCHES AT EACH END TO BE FILLED AND FINISHED WITH A "FIRE BARRIER" MATERIAL EQUAL TO 3M "PENETRATION SEALING SYSTEMS" SUCH AS "CP-25 CAULK", "303 PUTTY" OR "FS-195 WRAP". APPLICATION OF "FIRE BARRIER" MATERIAL SHALL BE IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND APPLICABLE CODES.
- PROVIDE COPIES OF ALL TEST REPORTS TO OWNER.
- FLUSH VALVE/TANK HANDLES FOR HANDICAPPED WATER CLOSETS SHALL FACE WIDE SIDE OF STALL/ROOM.
- COORDINATE LOCATION OF ALL ABOVE CEILING PIPING WITH MECHANICAL, ELECTRICAL & FIRE PROTECTION CONTRACTORS PRIOR TO INSTALLATION.
- IF CONFLICT ARISES BETWEEN ITEMS SHOWN ON DRAWINGS AND ITEMS SPECIFIED, THE MOST STRINGENT ITEM SHALL BE USED.
- THE INSTALLATION OF ALL INSULATION SHALL BE PERFORMED BY AN EXPERIENCED CRAFTSMAN IN A NEAT WORKMAN-LIKE MANNER AND SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS FOR SERVICE INTENDED.
- ALL NEW PLUMBING FIXTURES SHALL MEET THE APPROPRIATE "ANSI" STANDARDS LISTED IN THE PLUMBING SUBCODE. USE OF SUBSTANDARD AND NON-COMFORMING FOREIGN MADE PRODUCTS IS PROHIBITED.
- ALL PLUMBING SYSTEMS AND VALVES SHALL BE LABELED FOR PROPER IDENTIFICATION. NAMEPLATES, METAL TAGS, & PLASTIC PIPE MARKERS SHALL BE IN ACCORDANCE WITH BRIMAR IDENTIFICATION & SAFETY PRODUCTS, BRIMAR INDUSTRIES, INC.
- INSULATE EXPOSED WASTE & WATER PIPING BELOW HANDICAPPED LAVATORIES WITH PLUMBEREX "PRO-EXTREME" FORM FIT INSULATING COVERS.
- HANDICAPPED FIXTURE HEIGHTS SHALL BE IN ACCORDANCE WITH ICC/ANSI A-117.1.
- ALL PLUMBING FIXTURES SHALL BE PROVIDED WITH CHROME PLATED SHUT OFF VALVES (ANGLE STOPS), CHROME PLATED SUPPLIES AND P-TRAPS.

### HANGERS & SUPPORTS

- HANGERS AND ANCHORS SHALL BE SECURELY ATTACHED TO BUILDING CONSTRUCTION AT SUFFICIENTLY CLOSE INTERVALS TO SUPPORT PIPING AND ITS CONTENTS.
  - VERTICAL PIPING FOR CAST IRON SHALL BE SUPPORTED AT BASE AND AT EACH STORY HEIGHT BUT NOT MORE THAN 15 FOOT INTERVALS.
  - VERTICAL PIPING FOR COPPER SHALL BE SUPPORTED AT EACH STORY HEIGHT BUT NOT MORE THAN 10 FOOT INTERVALS.
  - VERTICAL PIPING FOR STEEL SHALL BE SUPPORTED AT BASE AND AT EVERY OTHER STORY HEIGHT BUT NOT MORE THAN 15 FOOT INTERVALS.
  - HORIZONTAL PIPING FOR CAST IRON SHALL BE SUPPORTED WITH MINIMUM ONE HANGER LOCATED WITHIN 18" OF EACH JOINT, AT CHANGES IN DIRECTION, AND AT EACH BRANCH CONNECTION, WHERE PIPE IS SUSPENDED BY NON-RIGID HANGERS MORE THAN 18" LONG PROVIDE LATERAL SUPPORT.
  - HORIZONTAL PIPING FOR COPPER SHALL BE SUPPORTED AT 6 FOOT INTERVALS FOR PIPE SIZES 1-1/4" AND SMALLER AND AT 10 FOOT INTERVALS FOR PIPE SIZES 1-1/2" AND LARGER, WHERE PIPE IS SUSPENDED BY NON-RIGID HANGERS MORE THAN 18" LONG PROVIDE LATERAL SUPPORT.
  - HORIZONTAL PIPING FOR STEEL SHALL BE SUPPORTED AT 12 FOOT INTERVALS FOR PIPE SIZES 1-1/4" AND SMALLER AND AT 12 FOOT INTERVALS FOR PIPE SIZES 1-1/2" AND LARGER, WHERE PIPE IS SUSPENDED BY NON-RIGID HANGERS MORE THAN 18" LONG PROVIDE LATERAL SUPPORT.
  - PLASTIC PIPE SHALL BE SUPPORTED AT INTERVALS OF NOT MORE THAN 4 FEET, AT END OF BRANCHES, AND CHANGES OF DIRECTION OR ELEVATION. SUPPORTS SHALL ALLOW FOR FREE MOVEMENT. VERTICAL PIPE SHALL BE MAINTAINED IN STRAIGHT ALIGNMENT. TRAP ARMS IN EXCESS OF 3 FEET SHALL BE SUPPORTED AS CLOSE TO TRAP AS POSSIBLE. CARE SHALL BE TAKEN NOT TO COMPRESS, DISTORT, CUT OR ABRASE PIPING.
- ALL SUPPORTS COMING IN CONTACT WITH COPPER PIPING SHALL BE PLASTIC COATED.
- INSTALL METAL SHIELDS ON HANGERS SUPPORTING INSULATED PIPE.
- PROVIDE HANGERS THAT ARE U.L. LISTED AND LABELED.
- ALL DOMESTIC WATER, STORM & SANITARY WASTE PIPE SUPPORTS SHALL BE IN ACCORDANCE WITH THE NATIONAL STANDARD PLUMBING CODE 2021 AS ADOPTED BY THE STATE OF NEW JERSEY.
- PLUMBING SYSTEMS SHALL BE INSTALLED SO AS TO PREVENT STRAINS & STRESSES WHICH WILL EXCEED STRUCTURAL STRENGTH OF PIPE. PROVISIONS SHALL BE MADE FOR EXPANSION & CONTRACTION OF PIPING. ALL HANGERS LOCATED OUTSIDE OR IN CORROSIVE AREAS SHALL BE GALVANIZED.
- ALL HANGERS ON GALVANIZED PIPE SHALL BE GALVANIZED.
- MINIMUM ROD DIAMETER FOR SINGLE RIGID SUPPORTS SHALL BE AS FOLLOWS:
  - FOR 1/4" THRU 2" PIPE: 3/8" DIAMETER
  - FOR 2 1/2" AND 3" PIPE: 1/2" DIAMETER
  - FOR 4" AND 5" PIPE: 5/8" DIAMETER
  - FOR 6" PIPE: 3/4" DIAMETER
  - FOR 8" THRU 12" PIPE: 7/8" DIAMETER
  - FOR 14" THRU 18" PIPE: 1" DIAMETER
  - RODS MAY BE REDUCED ONE SIZE FOR DOUBLE ROD HANGERS (3/8" DIA MIN).
- LONG RUNS OF DOMESTIC WATER PIPING SHALL BE SECURED TO AVOID MOVEMENT DUE TO PRESSURE FLUCTUATIONS (WATER HAMMER).

### ABBREVIATIONS

ABV CLG	ABOVE CEILING
BF	BARRIER-FREE
BLW FLR	BELOW FLOOR
BT	BATHTUB
BFP	BACKFLOW PREVENTER
CI	CAST IRON
CO	CLEANOUT
OW	COLD WATER
CON	CONTINUE
CWFU	COLD WATER FIXTURE UNIT
DF	DRINKING FOUNTAIN
DFU	DRAINAGE FIXTURE UNIT
DN	DOWN
EC	ELECTRICAL CONTRACTOR
EWC	ELECTRICAL WATER COOLER
E	EXISTING
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
FM	FORCE MAIN
FW	FLOOR SINK
FPC	FIRE PROTECTION CONTRACTOR
FS	FLOOR SINK
FSEC	FOOD SERVICE CONTRACTOR
G	GAS
GC	GENERAL CONTRACTOR
GI	GREASE INTERCEPTOR
GPM	GALLONS PER MINUTE
GW	GREASE WASTE
HB	HOSE BIBB
HC	HANDICAPPED ACCESSIBLE
HW	HOT WATER
HWFU	HOT WATER FIXTURE UNIT
HWR	HOT WATER RETURN
IW	INDIRECT WASTE
LAV	LAVATORY SINK
MC	MECHANICAL CONTRACTOR
MR	MOP RECEPTOR
MS	MOP SINK
MV	MIXING VALVE
N	NEW
PC	PLUMBING CONTRACTOR
PRV	PRESSURE REGULATING/REDUCING VALVE
RAC	RUN ABOVE CEILING
RD/ORD	ROOF DRAIN/OVERFLOW ROOF DRAIN
SA	SANITARY
SH	SHOWER
SK	SINK
SF	SQUARE FOOT
S/S	STAINLESS STEEL
T & P	TEMPERATURE & PRESSURE
TD	TRENCH DRAIN / TROUGH DRAIN
TW	TEMPERED WATER
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
UR	URNAL
V	VENT
VTR	VENT THRU ROOF
W	WITH
WB	WASHING MACHINE SUPPLY & WASTE BOX
WC	WATER CLOSET
WCO	WALL CLEAN OUT
W/D	WASHER/DRYER
WH	WALL HYDRANT

### SUBMITTAL NOTE:

- CONTRACTOR SHALL PROVIDE SUBMITTALS FOR ALL PIPING, VALVES, EQUIPMENT, ETC IN ACCORDANCE WITH ARCHITECTURAL SPECIFICATIONS. NO WORK SHALL BEGIN UNTIL APPROVAL HAS BEEN OBTAINED FROM ARCHITECT/ENGINEER.
- CONTRACTOR SHALL SUBMIT COORDINATION DRAWINGS 1/4" SCALE MINIMUM FOR REVIEW AND APPROVAL AS STATED IN NOTE 1 ABOVE.

### "AS BUILT" CONSTRUCTION DRAWINGS NOTES:

- CONTRACTOR SHALL PROVIDE (1) SET OF "AS-BUILT" DRAWINGS ON DISC IN PDF FORMAT TO ARCHITECT AND OWNER AT THE COMPLETION OF PROJECT.
- TWO (2) SETS OF "AS-BUILT" DRAWINGS ON BLACKLINE PRINTS SHALL BE SUPPLIED TO THE ARCHITECT FOR THE ARCHITECT'S AND ENGINEER'S USE AT THE PROJECT COMPLETION.

### CONTINUITY OF EXISTING SYSTEMS

- ALL WORK SHALL BE PERFORMED AT SUCH TIME AND IN SUCH MANNER AS WILL LEAST INTERFERE WITH MAINTENANCE AND OPERATION OF OWNER'S ACTIVITIES. PROVISIONS SHALL BE MADE TO PERMIT OWNER'S USE OF ALL THE BUILDING AND OF EXISTING SYSTEMS AT ALL TIMES. PROVIDE TEMPORARY FACILITIES TO SECURE THESE CONDITIONS. REMOVE TEMPORARY FACILITIES WHEN PERMANENT WORK HAS BEEN PLACED INTO SERVICE.
- FULLY COORDINATE WITH ARCHITECT, OWNER AND ALL OTHER TRADES, ALL WORK INVOLVING SHUT-DOWN AND INTERRUPTION OF EXISTING SYSTEMS AND SERVICE.
- SHUT-DOWN OF EXISTING SERVICES WHERE REQUIRED TO INSTALL NEW SYSTEMS OR ALTER EXISTING SHALL BE PERFORMED IN A MANNER THAT WILL NOT INTERFERE WITH OWNER'S OPERATIONS. ALL COSTS FOR PERFORMING THIS WORK SHALL BE BORNE BY THE CONTRACTOR AND WITHOUT "EXTRA" COST TO THE OWNER.
- EXISTING SYSTEMS AND SERVICES THAT ARE TEMPORARILY DISCONNECTED, BUT ARE TO REMAIN IN USE, SHALL BE PERMANENTLY RECONNECTED AND RETURNED TO PROPER OPERATION.
- FULLY COORDINATE WITH ARCHITECT, OWNER AND OTHER TRADES TO ENSURE COMPLETE CONTINUITY OF ALL SYSTEMS AND SERVICES.

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No.	Date	Description
-	12/19/24	ISSUE FOR BID

REVISIONS:

### KEY PLAN:

AREAS OF WORK

John A. Marchalava P. E.  
New Jersey P. E. No. 24GE0492500

Professional Engineer  
John A. Marchalava P. E.

PROJECT: REF21-39-8313

LRHSD - CHEROKEE HIGH SCHOOL  
NORTH PHASE 4 HVAC  
UPGRADES

CHEROKEE HIGH SCHOOL  
120 TOMLINSON MILL RM  
MARLTON, NEW JERSEY

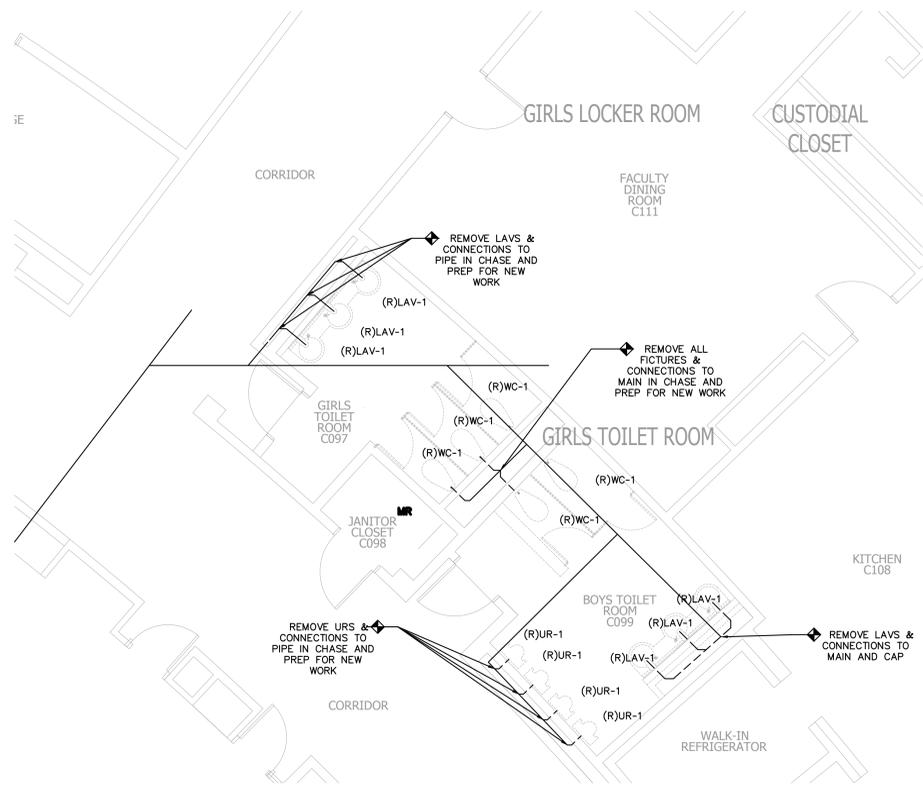
DRAWING TITLE:

PLUMBING COVER  
SHEET

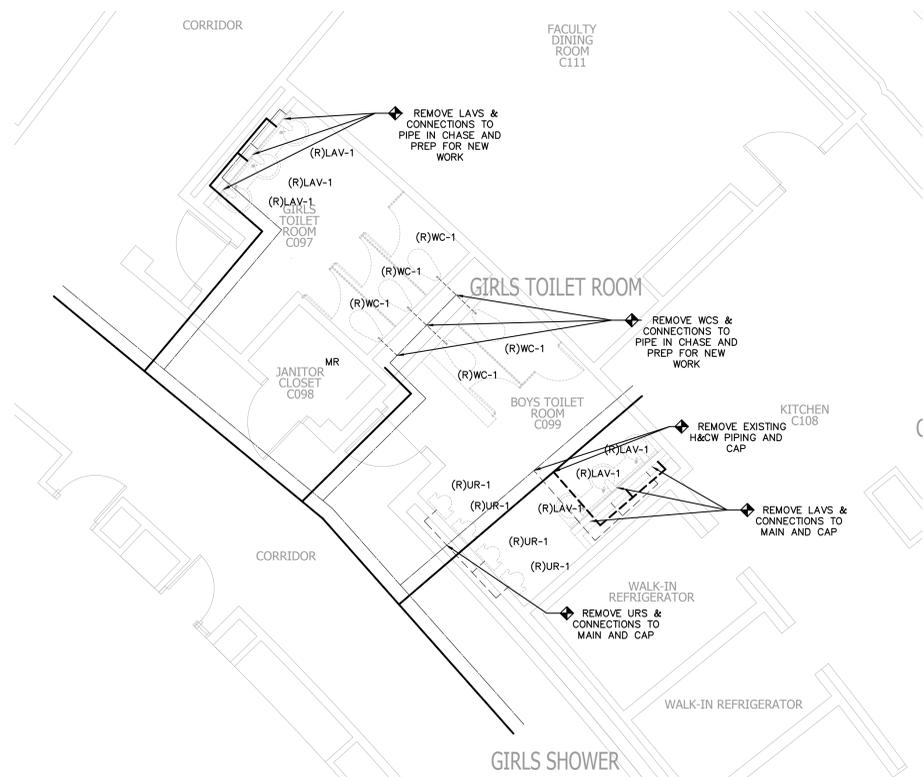
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CHECKED BY:	JMS	DRAWING NO.:	P-000	REVISION:	
DATE:	12/19/2024	PROJECT NO.:	8C22002		

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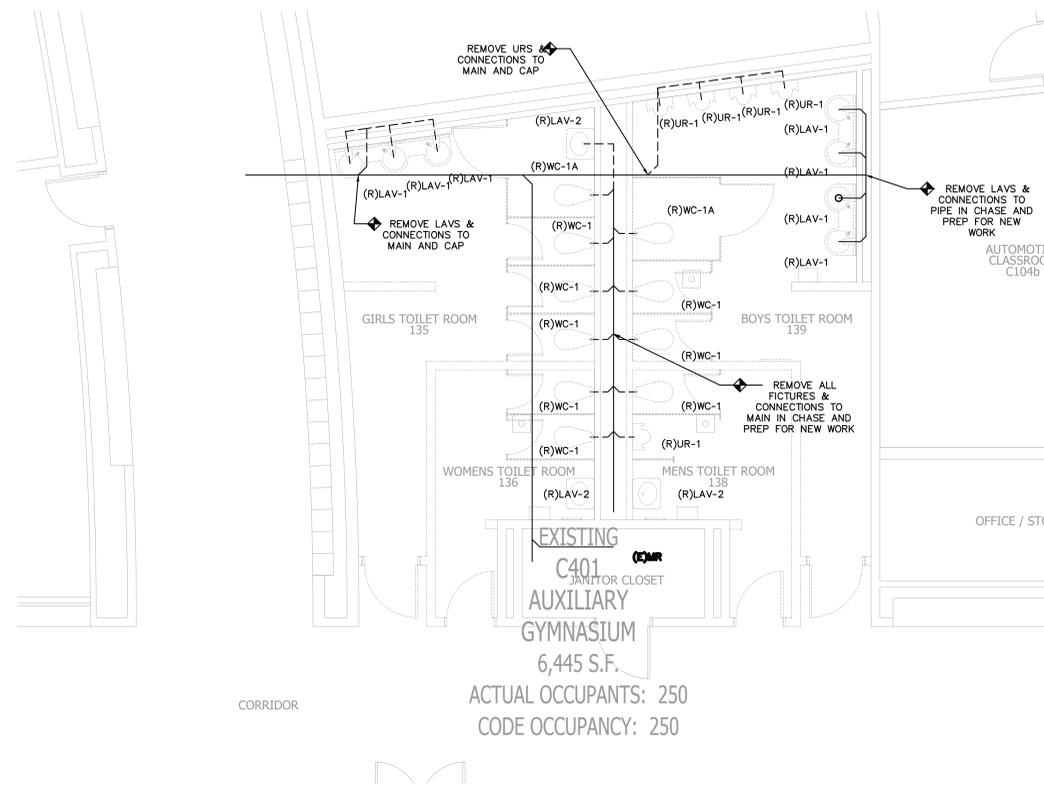




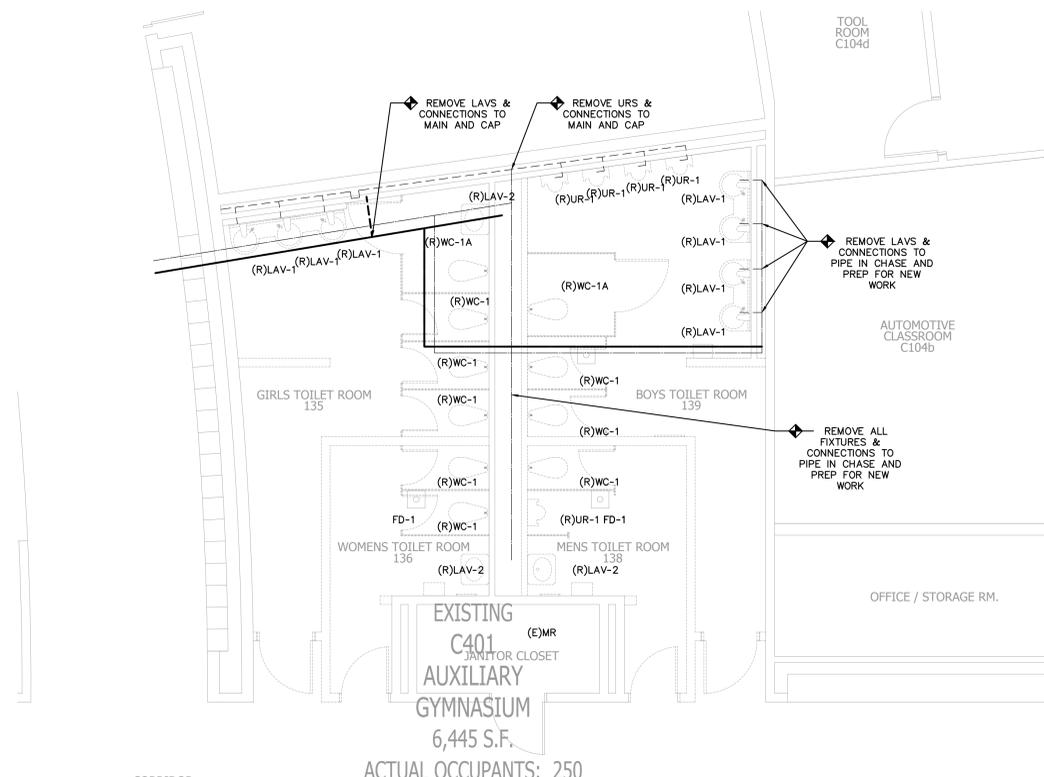
**1 SANITARY DEMO FLOOR PLAN – NORTH CAFETERIA TOILET ROOMS**  
 PD-101 SCALE: 1/4" = 1'-0"  
 SCALE BAR: 1/4"=1'-0"



**3 DOMESTIC WATER DEMO FLOOR PLAN – NORTH CAFETERIA TOILET ROOMS**  
 PD-101 SCALE: 1/4" = 1'-0"  
 SCALE BAR: 1/4"=1'-0"



**2 SANITARY DEMO FLOOR PLAN – GYMNASIUM TOILET ROOMS**  
 PD-101 SCALE: 1/4" = 1'-0"  
 SCALE BAR: 1/4"=1'-0"



**4 DOMESTIC WATER DEMO FLOOR PLAN – GYMNASIUM TOILET ROOMS**  
 PD-101 SCALE: 1/4" = 1'-0"  
 SCALE BAR: 1/4"=1'-0"

**PLUMBING DEMOLITION NOTES:**

**GENERAL NOTES:**

- REFER TO PLUMBING LEAD SHEET, P-000 FOR "NOTES" THAT PERTAIN TO THE SCOPE OF THIS PROJECT.
- EXISTING CONCEALED AND EXPOSED EQUIPMENT AND MATERIALS THAT WILL BECOME ABANDONED DUE TO NEW WORK SHALL BE REMOVED BACK TO ACTIVE RISER AND MAIN AND PROPERLY PLUGGED OR CAPPED BEHIND FINISHED SURFACES.
- WHERE PIPING PENETRATES AN EXISTING WALL OR SURFACE AND IS BEING ABANDONED IN PLACE, THE PIPING SHALL BE CUT BEYOND THE EXTERIOR SURFACE OF THE MATERIAL AND CAPPED. ONCE CAPPED, THE SURFACE SHALL BE PATCHED TO MATCH EXISTING SURFACES.
- IN THE REMOVAL OF ANY PART OF A DRAINAGE OR WATER SYSTEM, DEAD ENDS SHALL BE AVOIDED EXCEPT WHERE NECESSARY TO EXTEND TO A CLEANOUT SO AS TO BE ACCESSIBLE.
- CONTRACTOR SHALL VERIFY LOCATION, SIZE, AND ROUTING OF ALL PIPING PRIOR TO DEMOLITION. PLUMBING DRAWINGS ARE DIAGRAMMATIC AND MAY NOT BE AN EXACT REPRESENTATION OF FIELD CONDITIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING SHUTOFF VALVES FOR DOMESTIC AND NATURAL GAS PIPING TO ISOLATE THE AREA OF WORK PRIOR TO DEMOLITION.
- REMOVED EQUIPMENT AND MATERIALS NOT DESIRED BY OWNER SHALL BECOME PROPERTY OF CONTRACTOR AND SHALL BE PROMPTLY REMOVED FROM SITE. EQUIPMENT AND MATERIALS DESIRED BY OWNER SHALL BE DELIVERED BY CONTRACTOR TO AN ON-SITE LOCATION DESIGNATED BY OWNER.

**MEP ENGINEER:**

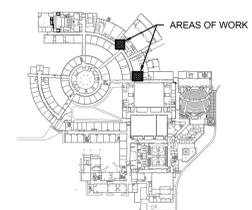


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No.	Date	Description
1	12/19/24	ISSUE FOR BID

**REVISIONS:**

**KEY PLAN:**



John A. Marchalava P. E.  
 New Jersey P. E. No. 24GE0492500

**Professional Engineer**  
 John A. Marchalava P. E.

**PROJECT: REF21-39-8313**

LRHSD - CHEROKEE HIGH SCHOOL  
 NORTH PHASE 4 HVAC  
 UPGRADES

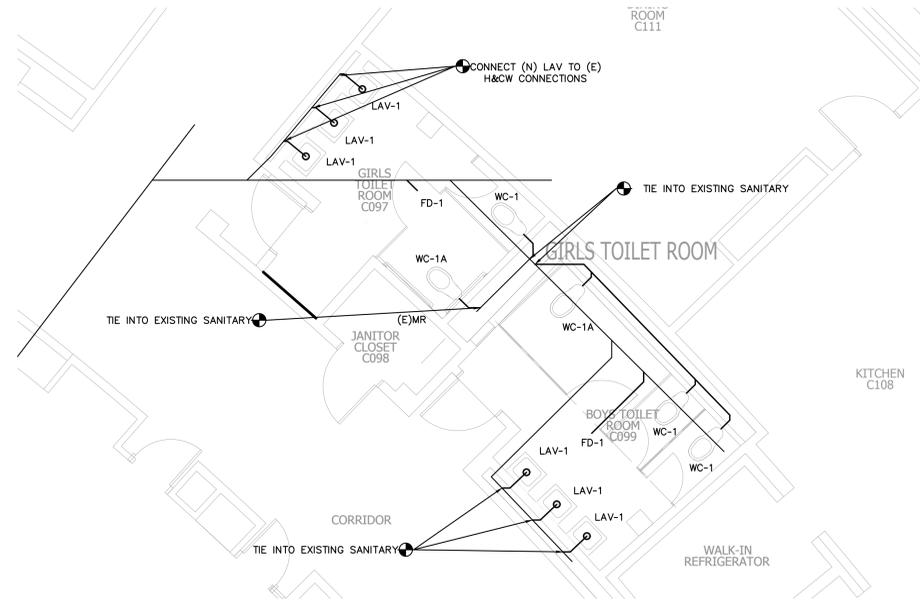
CHEROKEE HIGH SCHOOL  
 120 TOMLINSON MILL RM  
 MARLTON, NEW JERSEY

**DRAWING TITLE:**

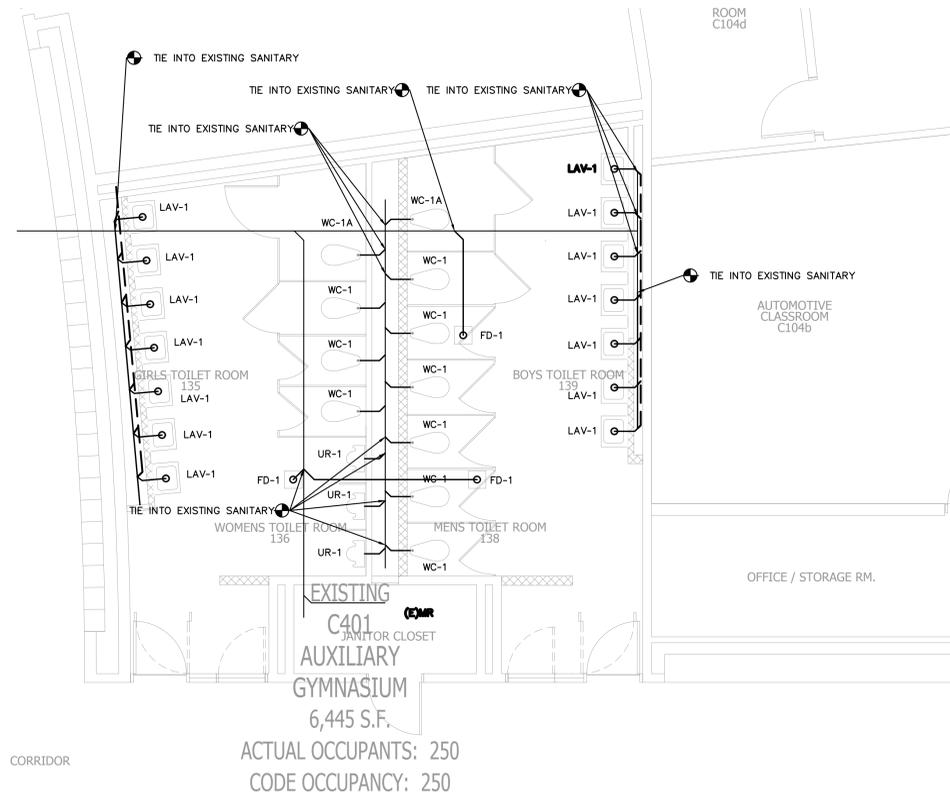
PLUMBING DEMOLITION  
 FLOOR PLANS

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CHECKED BY: JMS	DRAWING NO.	REVISION
DATE: 12/19/2024	<b>PD-101</b>	
PROJECT NO.: 8C22002		

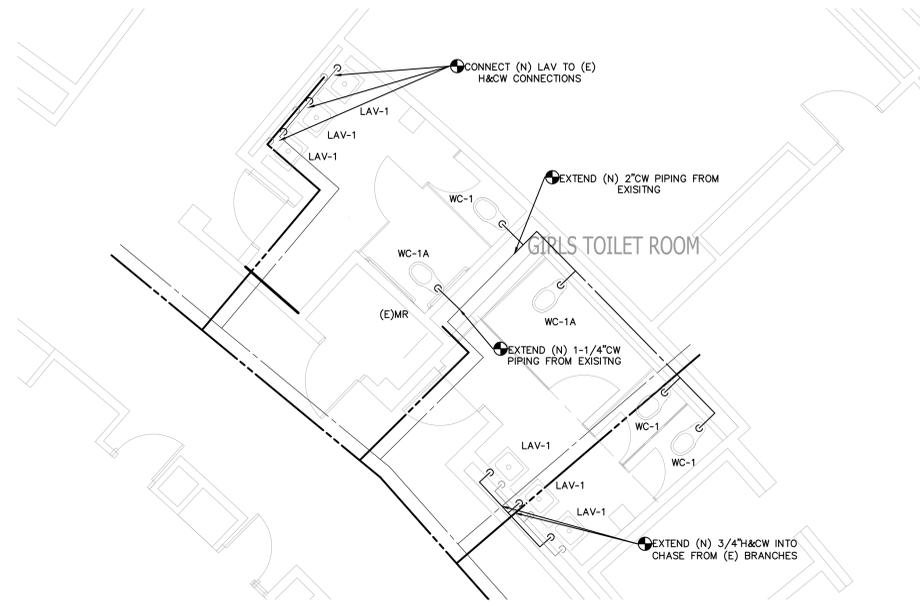
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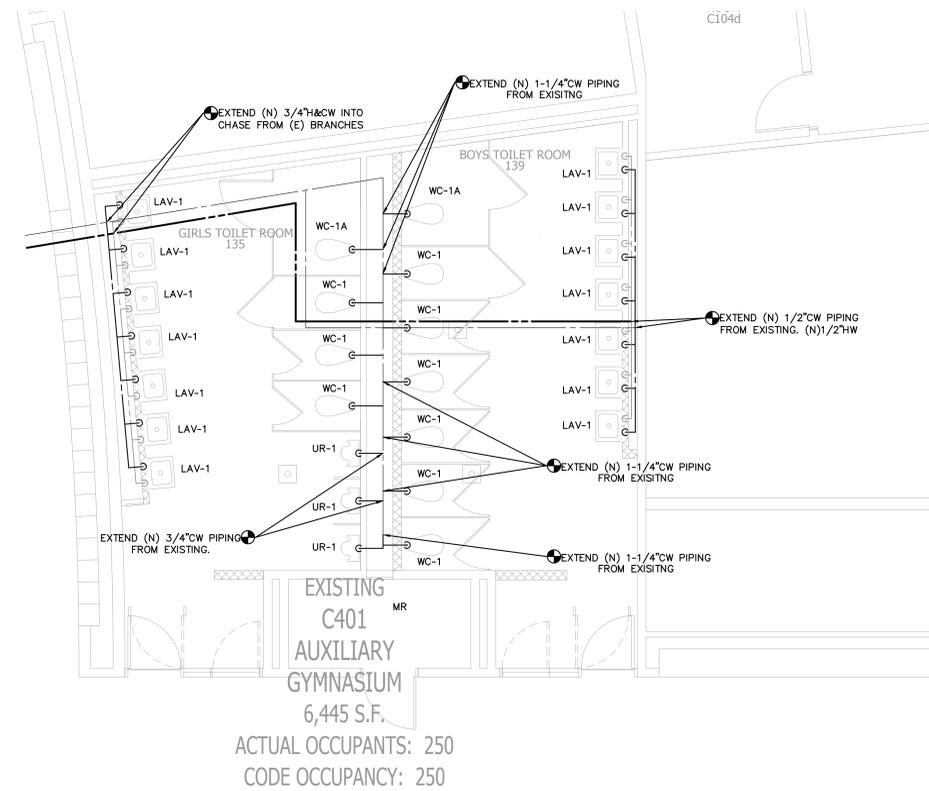
**1 SANITARY NEW WORK FLOOR PLAN – NORTH CAFETERIA TOILET ROOMS**  
 P-101 SCALE: 1/4" = 1'-0"  
 SCALE BAR: 1/4"=1'-0"



**2 SANITARY NEW WORK FLOOR PLAN – GYMNASIUM TOILET ROOMS**  
 P-101 SCALE: 1/4" = 1'-0"  
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**4 DOMESTIC WATER NEW WORK FLOOR PLAN – GYMNASIUM TOILET ROOMS**  
 P-101 SCALE: 1/4" = 1'-0"  
 SCALE BAR: 1/4"=1'-0"

- PLUMBING NEW WORK NOTES:**
- GENERAL NOTES:**
- REFER TO PLUMBING LEAD SHEET, P-000 FOR 'NOTES' THAT PERTAIN TO THE SCOPE OF THIS PROJECT.
  - EXISTING CONCEALED AND EXPOSED EQUIPMENT AND MATERIALS THAT WILL BECOME ABANDONED DUE TO NEW WORK SHALL BE REMOVED BACK TO ACTIVE RISER AND MAIN AND PROPERLY PLUGGED OR CAPPED BEHIND FINISHED SURFACES.
  - WHERE PIPING PENETRATES AN EXISTING WALL OR SURFACE AND IS BEING ABANDONED IN PLACE, THE PIPING SHALL BE CUT BEYOND THE EXTERIOR SURFACE OF THE MATERIAL AND CAPPED. ONCE CAPPED, THE SURFACE SHALL BE PATCHED TO MATCH EXISTING SURFACES.
  - IN THE REMOVAL OF ANY PART OF A DRAINAGE OR WATER SYSTEM, DEAD ENDS SHALL BE AVOIDED EXCEPT WHERE NECESSARY TO EXTEND TO A CLEANSOUT SO AS TO BE ACCESSIBLE.
  - CONTRACTOR SHALL VERIFY LOCATION, SIZE, AND ROUTING OF ALL PIPING PRIOR TO DEMOLITION. PLUMBING DRAWINGS ARE DIAGRAMMATIC AND MAY NOT BE AN EXACT REPRESENTATION OF FIELD CONDITIONS.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING SHUTOFF VALVES FOR DOMESTIC AND NATURAL GAS PIPING TO ISOLATE THE AREA OF WORK PRIOR TO DEMOLITION.
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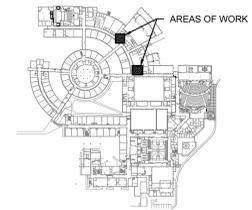


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KEY PLAN:



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Professional Engineer  
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 LRHSD - CHEROKEE HIGH SCHOOL  
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 UPGRADES

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 MARLTON, NEW JERSEY

DRAWING TITLE:  
 PLUMBING NEW WORK  
 FLOOR PLANS

DRAWN BY: SJM	SCALE: AS NOTED	DWG SIZE: 42x30
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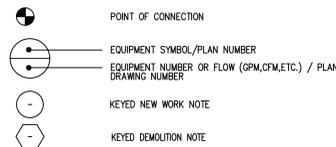
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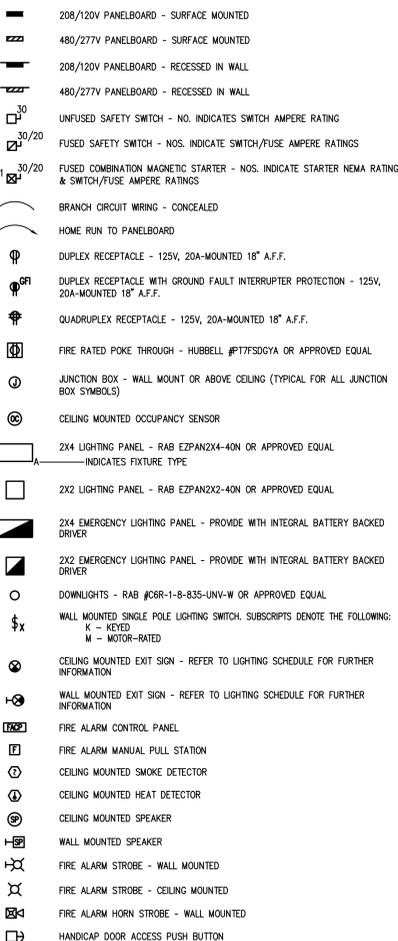
PROJECT CODES

APPLICABLE CODES  
INTERNATIONAL BUILDING CODE - NJ EDITION 2021  
REHABILITATION SUBCODE - NJAC 5:23-6  
NATIONAL ELECTRIC CODE 2020

MISC. DWG. SYMBOLS



SYMBOLS



ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR
ADC	ABOVE DROP CEILING
C, CND	CONDUIT
B.C.	BELOW CEILING
DISC.	DISCONNECT
DWG	DRAWING
EX	EXISTING
ER	EXISTING TO BE REMOVED
EWV	ELECTRIC WATER COOLER
ETR	EXISTING TO REMAIN
F.P.C.	FIRE PROTECTION CONTRACTOR
G, GND	GROUND
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
K.E.C.	KITCHEN EQUIPMENT CONTRACTOR
KW	KILOWATTS
KVA	KILOVOLT AMPERES
N.E.C.	NATIONAL ELECTRIC CODE
PVC	POLYVYNAL CHLORIDE CONDUIT, SCHEDULE 40
R	REMOVE
RE	RELOCATE
SW	SWITCH
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
U.O.N.	UNLESS OTHERWISE NOTED
UG, U/G	UNDERGROUND
W/	WITH
WG	WIRE GUARD
WP	WEATHERPROOF
PH	PHASE
V	VOLT
4W	FOUR WIRE
25A	25 AMPERES

GENERAL ELECTRICAL NOTES

- SOME LEGEND SYMBOLS AND ELECTRICAL PROJECT NOTES MAY NOT BE USED. SEE PLANS FOR APPLICABLE DEVICES.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2020 EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) AND THE SPECIFICATION.
- ALL CIRCUIT BREAKERS SERVING HVAC EQUIPMENT SHALL BE UL LISTED AS 'HACR'.
- THE DRAWINGS ARE DIAGRAMMATIC. EXACT LOCATION OF EQUIPMENT, WIRING AND RACEWAYS SHALL BE DETERMINED BY CONTRACTOR SUBJECT TO ENGINEER APPROVAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ELECTRICAL CHARACTERISTICS OF ALL NEW EQUIPMENT, MOTORS, ETC. BEFORE INSTALLING CABLING AND RACEWAY. IF THERE ARE ANY DISCREPANCIES BETWEEN THE ACTUAL RATING OF EQUIPMENT AT THE SITE AND THE DRAWINGS, THEN THE ENGINEER SHALL BE NOTIFIED.
- ALL EMPTY CONDUITS SHALL HAVE A PULL STRING INSTALLED.
- THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF ALL OTHER CONTRACTORS ON SITE, IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT.
- ALL PANELS, WIRING DEVICES, BOXES, AND ENCLOSURES LOCATED OUTDOORS SHALL BE NEMA 3R. ALL PANELS, WIRING DEVICES, BOXES, AND ENCLOSURES LOCATED INDOORS SHALL BE NEMA 1.
- ALL FUSES IN DISCONNECT SWITCHES SHOWN SHALL BE CLASS RK-1, FAST ACTING, UNLESS RECOMMENDED OTHERWISE BY THE EQUIPMENT SUPPLIER/MANUFACTURER.
- THE ELECTRICAL CONTRACTOR TO PROVIDE MOUNTING SUPPORTS FOR ALL DISCONNECT SWITCHES. USE P1000 UNISTRUT FOR ALL INDOOR SUPPORTS AND GALVANIZED P1000 UNISTRUT FOR ALL OUTDOOR SUPPORTS.
- ALL RACEWAYS PENETRATING FIRE RATED PARTITIONS, WALLS, AND CEILINGS SHALL BE SEALED USING APPROVED FIRE RATED SEALANT TO MATCH THE REQUIRED WALL FIRE RATING.
- THE ELECTRICAL CONTRACTOR SHALL SECURE FROM OTHER CONTRACTORS ON THE PROJECT: SHOP DRAWINGS TO VERIFY CHARACTERISTICS OF ALL EQUIPMENT TO BE WIRED. IF THE CONTRACTOR FINDS DISCREPANCIES BETWEEN THE SHOP DRAWINGS AND THE ELECTRICAL PLANS, THE ELECTRICAL CONTRACTOR SHALL NOTIFY THE ENGINEER PROMPTLY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTIONS TO THE ELECTRICAL INSTALLATION IF THE DRAWING REVIEW IS NOT COMPLETED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL SUBMIT TO THE OWNER: CERTIFICATES OF INSPECTION FOR THE ELECTRICAL INSTALLATION FROM AN APPROVED INSPECTION AGENCY UPON COMPLETION OF ELECTRICAL WORK.
- THE ENTIRE ELECTRICAL SYSTEM SHALL BE TESTED FOR PROPER GROUNDING AND OPERATION. TEST SHALL VERIFY THAT THE SYSTEM HAS NO SHORT CIRCUITS, OPENS, OVERLOADS, OR PANEL IMBALANCES. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND TEST INSTRUMENTS. ALL EQUIPMENT AND WIRING SYSTEMS SHALL BE GROUNDED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE.
- PRIOR TO FINAL ACCEPTANCE OF THE ELECTRICAL WORK, THE ELECTRICAL CONTRACTOR SHALL SUBMIT TO THE OWNER A WRITTEN STATEMENT GUARANTEEING ALL EQUIPMENT, MATERIALS, AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE OF THE PROJECT. UPON WRITTEN NOTICE TO THE CONTRACTOR DURING THE WARRANTY PERIOD, THE CONTRACTOR NO EXPENSE TO THE OWNER, SHALL REPAIR OR REPLACE ALL DEFECTIVE MATERIALS OR WORKMANSHIP.
- ALL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATION MAINTENANCE, AND REPAIR. MINOR DEVIATIONS FROM THE PLANS MAY BE MADE TO ACCOMPLISH THIS, SUBJECT TO THE APPROVAL OF THE ENGINEER.
- ALL MATERIALS AND EQUIPMENT FURNISHED FOR THIS PROJECT SHALL BE NEW, LISTED, AND APPROVED BY UL.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, INSPECTIONS, LICENSES AND PAY UTILITY COMPANY FEES WHERE REQUIRED.
- ALL FUSED AND NON-FUSED DISCONNECT SWITCHES SHALL HAVE: 600 VOLT RATING FOR 480 VOLT CIRCUITS & 250 VOLT RATING FOR 208 VOLT CIRCUITS. SIZE FUSES TO COMPLY WITH NAMEPLATE RATING OF EQUIPMENT SERVED.
- ELECTRICAL CONTRACTOR SHALL PROVIDE ADEQUATE TEMPORARY ELECTRICAL LIGHT AND POWER AS REQUIRED FOR THE PROJECT WORK OF ALL TRADES DURING CONSTRUCTION.
- PROVIDE MODIFICATION OF THE FIRE ALARM SYSTEM TO ACCEPT NEW DEVICE. WIRE TO NEAREST INITIATOR DEVICE CIRCUIT. PROVIDE PROGRAMMING OF FIRE ALARM SYSTEM TO ACCEPT NEW DEVICE(S) AS NECESSARY.
- CONTRACTOR TO ENSURE THAT NEW DEVICE(S) SHALL BE FULLY COMPATIBLE WITH EXISTING FIRE ALARM SYSTEM.
- PROVIDE FIRE ALARM CABLE IN CONDUIT AS NECESSARY IN ACCORDANCE WITH MANUFACTURER STANDARDS.
- FIRE ALARM SYSTEM SHALL UNDERGO A 100% RE-ACCEPTANCE TEST IN ACCORDANCE WITH NFPA 72.
- ELECTRICAL CONTRACTOR SHALL CONCEAL ALL NEW WIRING ASSOCIATED WITH NEW SWITCH LOCATIONS AND RECEPTACLES WITHIN EXISTING TILED MASONRY WALLS. CONTRACTOR SHALL INSTALL JUNCTION BOXES ABOVE DROP CEILINGS IN THE LOCATION OF THE NEW DEVICES AS NECESSARY TO ACCESS EXISTING MASONRY CELLS. PROVIDE APPROPRIATE WALL SEALANT MATCHING RATING OF EXISTING WALLS WHERE PENETRATIONS ARE MADE ABOVE DROP CEILINGS.

ELECTRICAL DEMOLITION NOTES

- NOTES AND GRAPHIC REPRESENTATIONS SHALL NOT LIMIT THE EXTENT OF DEMOLITION REQUIRED. CONTRACTOR SHALL VISIT THE SITE, CAREFULLY EXAMINE EXISTING CONDITIONS AND SHALL PERFORM ALL DEMOLITION REQUIRED TO ACHIEVE THE FINAL DESIGN INTENT AS REQUIRED BY THE CONTRACT DOCUMENTS. EXTENT OF ALL DEMOLITION WORK SHALL BE COORDINATED WITH THE OWNER & ENGINEER.
- ALL WORK REQUIRED TO REMAIN IN SERVICE BUT INTERFERING WITH THE ALTERATIONS SHALL BE RELOCATED AND RECONNECTED USING MATERIALS AND STANDARDS OF THIS CONTRACT.
- ANY EQUIPMENT AND WIRING TO BE REMOVED SHALL BE DE-ENERGIZED PRIOR TO ANY DEMOLITION WORK.
- EQUIPMENT INDICATED TO BE REMOVED SHALL BE TAKEN FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE LAWS AND ENVIRONMENTAL REGULATIONS. EQUIPMENT REQUIRED TO BE TURNED OVER TO THE OWNER SHALL BE PLACED IN A MUTUALLY ACCEPTABLE LOCATION.
- PROCEDURE FOR FEEDERS AND BRANCH CIRCUITS TO BE RE-USED - REMOVE CONDUIT AND WIRING TO LOCATIONS WHICH AVOID CONFLICTS WITH NEW WORK. INSTALL JUNCTION BOXES, TAPE OFF CONDUCTORS AND IDENTIFY WITH PANEL AND CIRCUIT NUMBER.
- ALL WORK SHALL BE PROPERLY IDENTIFIED AFTER DEMOLITION. UPDATE ALL PANEL SCHEDULES TO REFLECT EQUIPMENT AND CIRCUIT REMOVALS.

MOUNTING HEIGHT (AFF)	EQUIPMENT SYMBOL (OR REFER TO DESCRIPTION, NEXT COLUMN)	DESCRIPTION OF EQUIPMENT (DEVICES, OUTLETS, ETC.)	REMARKS
12'-0" U.O.N.	□	EXTERIOR WALL MOUNTED LIGHTING FIXTURES	SEE ARCHITECTURAL ELEVATIONS
10'-0"/8'-6"	⚡	BATTERY OPERATED EMERGENCY LIGHTING UNITS OR REMOTE MOUNTED HEADS	OR 1' BELOW CEILING WHICH EVER HEIGHT IS LOWER
8'-6"	— —	PENDANT MOUNTED INDUSTRIAL AND STRIP LIGHTING FIXTURES	
8'-4"	⊞	WALL MOUNTED CLOCKS AND SPEAKERS	OR 9" BELOW CEILING WHICH EVER HEIGHT IS LOWER
7'-6"	⚡	TOP OF EXIT SIGNS (NOT MOUNTED ABOVE A DOOR)	
ENTIRE LENS NOT LESS THAN 80% & NOT GREATER THAN 90% AFF	⚡	FIRE ALARM NOTIFICATION DEVICES	
6'-6"	⊞	CENTERLINE OF INTERIOR WALL MOUNTED FIXTURES	
6'-0"	⊞	MAXIMUM ELEVATION OF DISCONNECT SWITCHES, STARTERS AND CONTACTORS	
4'-6"	⊞	MAXIMUM ELEVATION OF WALL MOUNTED PHONES	3'-6" FOR ADA DEVICES
4'-0"	— —	WALL MOUNTED WIREMOLD	
3'-6"	⊞	WALL MOUNTED ELECTRICAL CONTROL DEVICES, SWITCHES, MANUAL MOTOR STARTERS	
OPERABLE PART OF PULL STATION NOT LESS THAN 3'-6" NOR MORE THAN 4'-0" AFF	⊞	WALL MOUNTED FIRE ALARM PULL STATION	
3'-0"	⊞	WALL MOUNTED RECEPTACLE IN MECHANICAL, ELECTRICAL, AND ELEVATOR ROOMS AND ON BUILDING EXTERIORS	
1'-6"	⊞	WALL MOUNTED RECEPTACLE, DATA OUTLET, TELEPHONE OUTLET OR SPECIAL RECEPTACLE	

DRAWING SHEET INDEX (PROJECT 8313)

SHEET NO.	DRAWING NUMBER	DRAWING TITLE	SCALE	DATE	ISSUE
1	E-001	ELECTRICAL LEAD SHEET	NTS	12/19/2024	x
2	ED-101	ELECTRICAL PARTIAL DEMOLITION PLANS - NORTH CAFÉ AND GYMNASIUM TOILET ROOMS	1/4"=1'-0"		x
3	ED-102	ELECTRICAL PARTIAL ROOF DEMOLITION PLANS - NORTH CAFÉ AND GYMNASIUM TOILET ROOMS	1/8"=1'-0"		x
4	E-101	ELECTRICAL PARTIAL NEW WORK PLANS - NORTH CAFÉ AND GYMNASIUM TOILET ROOMS	1/4"=1'-0"		x
5	E-102	ELECTRICAL PARTIAL ROOF NEW WORK PLANS - NORTH CAFÉ AND GYMNASIUM TOILET ROOMS	1/8"=1'-0"		x
6	E-201	ELECTRICAL PARTIAL CEILING NEW WORK PLANS - NORTH CAFÉ AND GYMNASIUM TOILET ROOMS	NTS		x
7	E-301	ELECTRICAL DETAILS	NTS		x

Maximum Wire Distances vs. Wire Size for 20A, 1 Phase Branch Cir

Voltage (V)	Load Amps	Wire Size (Copper)		
		#12	#10	#8
120V	14	50	80	125
120V	12	55	100	150
120V	10	65	125	175
120V	5	125	200	-
277V	14	110	200	-
277V	12	125	225	-
277V	10	150	250	-
277V	5	300	-	-

\* The above wire lengths are provided for reference only. Electrical Contractor is responsible to confirm voltage drop is less than 3% for the actual branch circuit routing.

1 TYPICAL VOLTAGE DROP CALCULATIONS  
E-001 SCALE: NONE

MEP ENGINEER:

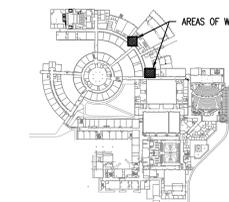


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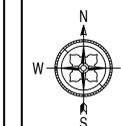
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REVISIONS:

KEY PLAN:



John A. Marchalava P. E.  
New Jersey P. E. No. 24C04692930



Professional Engineer  
John A. Marchalava P. E.

PROJECT: REP21-39-8313

LRHSD - CHEROKEE HIGH SCHOOL  
NORTH PHASE 4 HVAC  
UPGRADES

CHEROKEE HIGH SCHOOL  
120 TOMLINSON MILL RM  
MARLTON, NEW JERSEY

DRAWING TITLE:

ELECTRICAL COVER SHEET

DRAWN BY:	TJT	SCALE:	AS NOTED	DWG SIZE:	42x30
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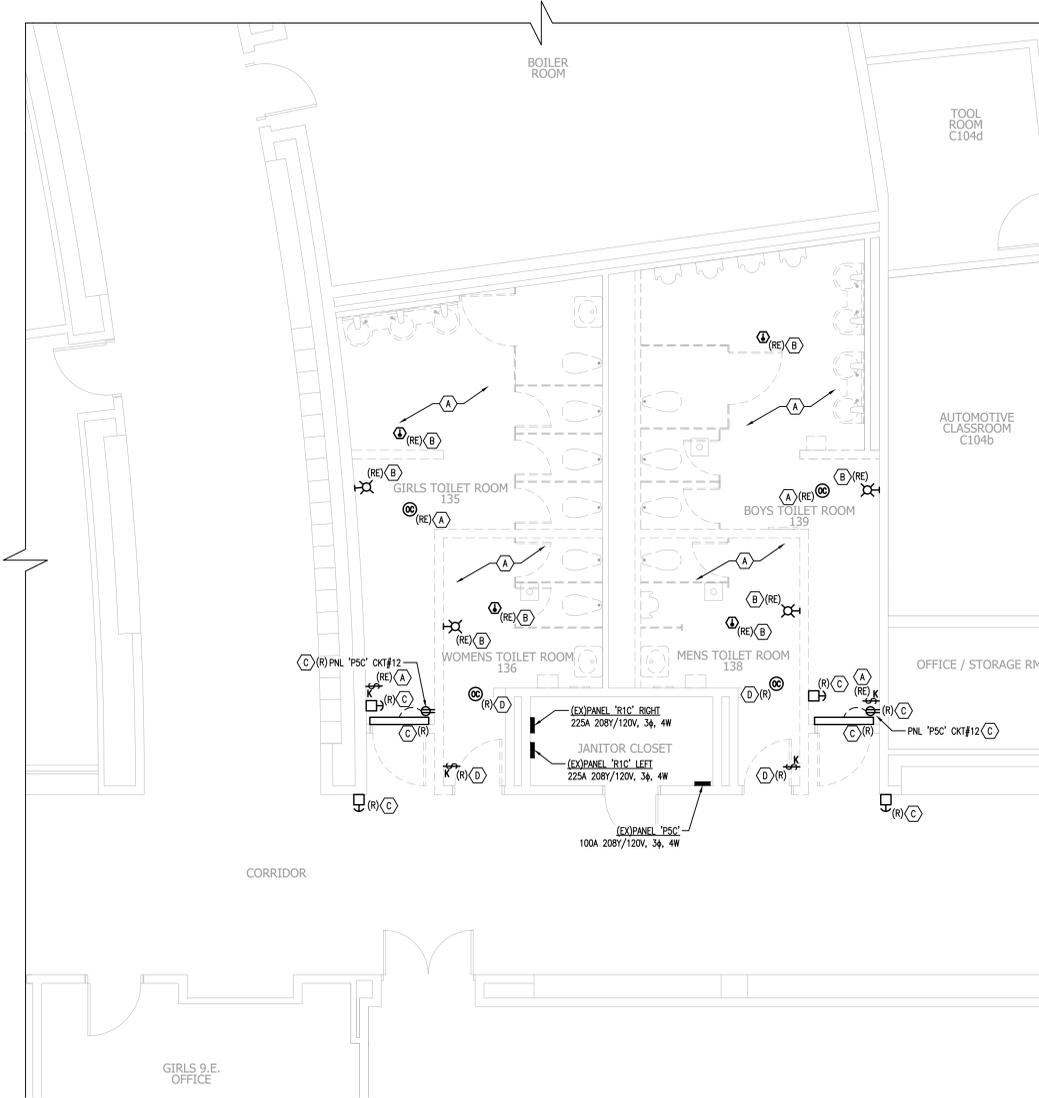
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**1 ELECTRICAL DEMOLITION PLAN – CAFETERIA TOILET ROOMS**

ED-101 SCALE: 1/4" = 1'-0"



**2 ELECTRICAL DEMOLITION PLAN – GYMNASIUM TOILET ROOMS**

ED-101 SCALE: 1/4" = 1'-0"



**DEMOLITION OF EXISTING SYSTEM NOTES:**

**GENERAL NOTES:**

- REFER TO ELECTRICAL LEAD SHEET, E-001, FOR "NOTES" THAT PERTAIN TO THE SCOPE OF THIS PROJECT. REFER TO SPECIFICATIONS AND DETAILS FOR PROJECT DETAILS AND EXECUTION REQUIREMENTS.
- THE ELECTRICAL CONTRACTOR SHALL ACCOMPLISH COMPLETE ELECTRICAL DEMOLITION OF ALL ELECTRICAL EQUIPMENT/DEVICES ASSOCIATED WITH THE REMOVAL OF MECHANICAL EQUIPMENT IDENTIFIED ON PLAN.
- DEMOLITION OF THESE DEVICES SHALL INCLUDE, BUT NOT BE LIMITED TO, COMPLETE REMOVAL OF ALL BRANCH CIRCUIT POWER WIRING AND ASSOCIATED CONDUIT AND BOX SYSTEMS FROM THE AFFECTED MECHANICAL EQUIPMENT BACK TO THE PANEL OF ORIGIN. REMOVE EXISTING DISCONNECT SWITCHES, STARTERS AND OTHER ELECTRICAL EQUIPMENT ASSOCIATED WITH THE MECHANICAL EQUIPMENT AND SYSTEMS BEING DEMOLISHED.
- THE ELECTRICAL CONTRACTOR SHALL MAKE AN ON SITE INSPECTION OF THE PROJECT AREA TO DETERMINE A FULL SCOPE OF DEMOLITION WORK BEFORE SUBMITTING A PROPOSAL.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE APPROPRIATE FIRE RATED ABANDONMENT PLATES FOR ALL REMOVED FLOOR MOUNTED POKE THROUGH WIRING DEVICES.
- ALL DEMOLISHED MATERIAL SHALL BE REMOVED FROM THE SITE BY THE ELECTRICAL CONTRACTOR. THE CONTRACTOR IS TO RECYCLE WHEREVER POSSIBLE. COORDINATE ALL REMOVAL AND DISPOSAL WITH THE OWNER WHO RESERVES THE RIGHT TO SALVAGE ANY HVAC OR ELECTRICAL COMPONENTS.
- ALL POWER SHUT DOWNS MUST BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.
- ALL DEMOLITION WORK SHALL BE DONE IN A SAFE AND ORDERLY MANNER AND IN ACCORDANCE WITH THE N.E.C., OSHA AND STATE REGULATIONS.
- THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE REMOVAL OF EQUIPMENT WITH OTHER TRADES SO AS NOT TO AFFECT THE OPERATION OF EXISTING SYSTEMS.
- DO NOT DEMOLISH THE FOLLOWING ITEMS:
  - BRANCH CIRCUIT WIRING PASSING THROUGH THE AREA OF DEMOLITION BUT FEEDING OTHER WIRING DEVICES, LIGHT FIXTURES, AND OTHER EQUIPMENT NOT WITHIN THE SCOPE OF THE WORK.
  - EXISTING BRANCH CIRCUIT WIRING FOR HVAC EQUIPMENT TO REMAIN—UNLESS STATED ON MECHANICAL DEMOLITION PLAN.
- ELECTRICAL CONTRACTOR MAY RE-USE TO THE MAXIMUM EXTENT POSSIBLE ALL WIRING AND RACEWAY ASSOCIATED WITH EXISTING EQUIPMENT BEING REMOVED. RE-USE OF WIRING, RACEWAY AND BREAKERS LOCATED IN LOCAL PANELS IS PERMITTED AS LONG AS IT MEETS THE INSTALLATION REQUIREMENTS OF THE NEW EQUIPMENT BEING PROVIDED. PROVIDE MEGGER TESTING OF CABLES TO BE RE-USED PER ANSI/ NETA ATS-2021 STANDARDS.

**DEMOLITION KEYED NOTES:**

GENERAL: DEMOLITION NOTES ARE INDICATED WITH THE FOLLOWING SYMBOL (f) AND ARE NUMBERED AS FOLLOWS:

- (A) EXISTING HARD CEILING AND ALL EXISTING LIGHT FIXTURES WITHIN SPACE ARE TO BE DEMOLISHED AND REMOVED. ELECTRICAL CONTRACTOR TO REMOVE EXISTING WIRING AND CONDUIT ASSOCIATED WITH DEMOLISHED ELECTRICAL FIXTURES BACK TO PANEL OF ORIGIN. EXISTING LIGHTING CONTROLS (SENSORS AND SWITCHES) ARE TO BE REMOVED DURING CONSTRUCTION AND REINTEGRATED FOR NEW LIGHT FIXTURES. ALL WIRING TO BE SUPPORTED BY s-HOOKS AND BRIDAL RINGS. REFER TO NEW WORK PLANS FOR NEW DROP CEILING INFORMATION.
- (B) EXISTING FIRE ALARM DEVICE TO BE REMOVED AND RELOCATED. ELECTRICAL CONTRACTOR TO EXTEND WIRING AND CONDUIT AS NECESSARY TO FACILITATE RELOCATION. SEE NOTE 21 ON ELECTRICAL LEAD SHEET FOR FIRE ALARM DEVICE DEMOLITION AND RELOCATION NOTES.
- (C) EXISTING DOOR OPENER AND ASSOCIATE RECEPTACLE TO BE DEMOLISHED AND REMOVED. DISCONNECT AND REMOVE ALL WIRING AND RACEWAY BACK TO POINT OF ORIGIN. SPARE THE EXISTING BREAKER.
- (D) ELECTRICAL CONTRACTOR SHALL TURN OVER DEVICE TO DISTRICT FOR STORAGE STOCK.

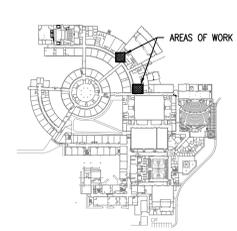
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No.	Date	Description
1	12/19/24	ISSUE FOR BID

**REVISIONS:**

**KEY PLAN:**



John A. Marchalava P. E.  
 New Jersey P. E. No. 24CE0495200  
  
**Professional Engineer**  
 John A. Marchalava P. E.

**PROJECT: REF21-39-8313**  
 LRHSD - CHEROKEE HIGH SCHOOL  
 NORTH PHASE 4 HVAC  
 UPGRADES

CHEROKEE HIGH SCHOOL  
 120 TOMLINSON MILL RM  
 MARLTON, NEW JERSEY

**DRAWING TITLE:**  
 ELECTRICAL DEMO FLOOR PLANS

DRAWN BY:	SCALE:	AS NOTED	DWG SIZE:
TJJ	AS NOTED		42x30
CHECKED BY:	DRAWING NO.	REVISION	
LH			
DATE:	PROJECT NO.:		
12/19/2024	8C22002		
		ED-101	

ALL WORK SHOWN IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR, UNLESS NOTED OTHERWISE.

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**1 ELECTRICAL NEW WORK FLOOR PLAN – CAFETERIA TOILET ROOMS**

E-101 SCALE: 1/4" = 1'-0"



**2 ELECTRICAL NEW WORK FLOOR PLAN – GYMNASIUM TOILET ROOMS**

E-101 SCALE: 1/4" = 1'-0"



**NEW WORK SYSTEM NOTES:**

1. GENERAL NOTES:
  - A. REFER TO ELECTRICAL LEAD SHEETS, E-001 FOR "NOTES" THAT PERTAIN TO THE SCOPE OF THIS PROJECT.
  - B. REFER TO BOOK SPECIFICATIONS FOR PROJECT DETAILS AND EXECUTION REQUIREMENTS.
  - C. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2020 EDITION OF THE NATIONAL ELECTRICAL CODE.
  - D. CONTRACTOR SHALL PROVIDE ALL REQUIRED CONDUITS, RACEWAYS, CONDUCTORS, AND OTHER EQUIPMENT NECESSARY TO PROVIDE A COMPLETE WORKING SYSTEM.
  - E. ELECTRICAL CONTRACTOR SHALL INSTALL ALL (N) EQUIPMENT IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND SHALL MAINTAIN ALL CLEARANCES AS NOTED WITHIN THE WRITTEN INSTRUCTIONS.
  - F. ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL ALL ELECTRICAL EQUIPMENT, WIRING AND RACEWAY, AND MAKE ALL CONNECTIONS TO/FROM PANELBOARDS, DISCONNECT SWITCHES, ADJUSTABLE SPEED DRIVES, MOTOR STARTERS, AND THE END USE EQUIPMENT NECESSARY FOR A FULLY OPERATIONAL SYSTEM. COORDINATE WITH MECHANICAL CONTRACTOR.
  - G. ALL RACEWAYS PENETRATING FIRE RATED PARTITIONS, WALLS, AND CEILINGS SHALL BE SEALED USING APPROVED FIRE RATED SEALANT TO MATCH THE REQUIRED WALL FIRE RATING.
  - H. ALL POWER SHUT DOWNS MUST BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.
  - I. THE ELECTRICAL CONTRACTOR SHALL MAKE AN ON SITE INSPECTION TO DETERMINE THE FULL SCOPE OF WORK AND WORKING CONDITIONS BEFORE SUBMITTING A PROPOSAL.
  - J. ALL CIRCUIT BREAKERS SERVING HVAC EQUIPMENT SHALL BE UL LISTED AS "HACR".
  - K. THE DRAWINGS ARE DIAGNOSTIC. EXACT LOCATION OF EQUIPMENT, WIRING AND RACEWAYS SHALL BE DETERMINED BY CONTRACTOR SUBJECT TO ARCHITECT APPROVAL.
  - L. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ELECTRICAL CHARACTERISTICS OF ALL NEW EQUIPMENT, MOTORS, ETC. BEFORE INSTALLING CABLING AND RACEWAY. IF THERE ARE ANY DISCREPANCIES BETWEEN THE ACTUAL RATING OF EQUIPMENT AT THE SITE AND THE DRAWINGS, THEN THE ENGINEER SHALL BE NOTIFIED.
  - M. THE CONTRACTOR SHALL SUBMIT TO THE OWNER: CERTIFICATES OF INSPECTION FOR THE ELECTRICAL INSTALLATION FROM AN APPROVED INSPECTION AGENCY UPON COMPLETION OF ELECTRICAL WORK.
  - N. ALL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATION MAINTENANCE, AND REPAIR. MINOR DEVIATIONS FROM THE PLANS MAY BE MADE TO ACCOMPLISH THIS, SUBJECT TO THE APPROVAL OF THE ENGINEER.
  - O. THE ELECTRICAL CONTRACTOR SHALL USE MAXIMUM OF 6' OF FLEXIBLE CONDUIT FOR FOR EQUIPMENT SUBJECT TO VIBRATION, NOISE TRANSMISSION, OR MOVEMENT, AND FOR ALL MOTORS. USE LIQUID TIGHT FLEXIBLE CONDUIT IN WET OR DAMP LOCATIONS. INSTALL SEPARATE GROUND CONDUCTOR ACROSS FLEXIBLE CONNECTIONS.
  - P. ALL WIRING SHALL BE COPPER CONDUCTOR WITH 600 VOLT TYPE THHN, OR THWN INSULATION IN CONDUIT. THE MINIMUM SIZE WIRE FOR POWER CIRCUITS SHALL BE #12 AWG. SOLID CONDUCTORS SHALL BE USED FOR NUMBER 10 AND 12. STRANDED CONDUCTORS SHALL BE USED FOR NUMBER 8 AND LARGER. THE CONTRACTOR MAY USE METAL CLAD TYPE "MC" WHERE ALLOWED BY THE NATIONAL ELECTRICAL CODE AND APPROVED FOR USE BY THE AUTHORITIES HAVING JURISDICTION.
  - Q. ALL MATERIALS AND EQUIPMENT FURNISHED FOR THIS PROJECT SHALL BE NEW, LISTED, AND APPROVED BY UL.
  - R. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, INSPECTIONS, LICENSES AND PAY UTILITY COMPANY FEES.
  - S. ALL FUSED AND NON-FUSED DISCONNECT SWITCHES SHALL HAVE: 600 VOLT RATING FOR 480 VOLT CIRCUITS. SIZE FUSES TO COMPLY WITH NAMEPLATE RATING OF EQUIPMENT SERVED.
  - T. THE ELECTRICAL CONTRACTOR SHALL PROVIDE NEW TYPEWRITTEN PANEL SCHEDULES WITHIN THE SCOPE OF THIS PROJECT. THIS INCLUDES ALL PANELS EVEN IF ONLY A FEW CIRCUITS WERE CHANGED AS A RESULT OF THIS PROJECT. WHERE ACTUAL FIELD CONDITIONS REQUIRE DIFFERENT CIRCUIT NUMBERS THAN THOSE INDICATED ON PLANS THE CONTRACTOR SHALL ADVISE OWNER OF CHANGES ON REQUIRED AS-BUILT DRAWINGS.
  - U. ELECTRICAL CONTRACTOR SHALL BE REQUIRED TO VERIFY EXISTING DEMAND LOADS ON EXISTING ELECTRICAL EQUIPMENT THAT IS BEING MODIFIED AS PART OF THIS SCOPE OF WORK AND ADVISE ENGINEER OF RECORD/OWNER WHERE THE EXISTING AND NEW EQUIPMENT LOADS EXCEED THE RATING OF THE EXISTING ELECTRICAL EQUIPMENT.
  - V. ELECTRICAL CONTRACTOR SHALL CONCEAL ALL NEW WIRING ASSOCIATED WITH NEW SWITCH LOCATIONS AND RECEPTACLES WITHIN EXISTING TILED MASONRY WALLS. CONTRACTOR SHALL INSTALL JUNCTION BOXES ABOVE DROP CEILINGS IN THE LOCATION OF THE NEW DEVICES AS NECESSARY TO ACCESS EXISTING MASONRY CELLS. PROVIDE APPROPRIATE WALL SEALANT MATCHING RATING OF EXISTING WALLS WHERE PENETRATIONS ARE MADE ABOVE DROP CEILINGS.

**NEW WORK KEYED NOTES:**

GENERAL: NEW WORK NOTES ARE INDICATED WITH THE FOLLOWING SYMBOL (1) AND ARE NUMBERED AS FOLLOWS:

1. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL WIRING AND RACEWAY AS NECESSARY TO THE FIRE ALARM DEVICE INTO EXISTING LOCAL POWER SUPPLY/BOOSTER PANEL CIRCUIT. EXISTING FIRE ALARM SYSTEM SHALL PASS A 100% RE-ACCEPTANCE TEST IN ACCORDANCE WITH NFPA 72 UPON COMPLETION OF INSTALLATION. REFER TO NOTE #21 ON E-001 FOR FIRE ALARM NOTES.
2. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL (1) NEW 20A/1P CIRCUIT BREAKER IN PANEL P78 (CIRCUIT #24) TO POWER NEW GFI RECEPTACLES AS SHOWN ON PLANS. PROVIDE ALL WIRING AND RACEWAY.
3. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL (1) NEW 20A/1P CIRCUIT BREAKER IN PANEL R1C-R (CIRCUIT #35) TO POWER NEW GFI RECEPTACLES AS SHOWN ON PLANS. PROVIDE ALL WIRING AND RACEWAY.

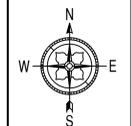
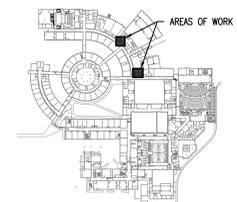
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No.	Date	Description
-	12/19/24	ISSUE FOR BID

**REVISIONS:**

**KEY PLAN:**



John A. Marchiatava P. E.  
 New Jersey P. E. No. 24C204952500

**Professional Engineer**  
 John A. Marchiatava P. E.

**PROJECT: REF21-39-8313**

**LRHSD - CHEROKEE HIGH SCHOOL  
 NORTH PHASE 4 HVAC  
 UPGRADES**

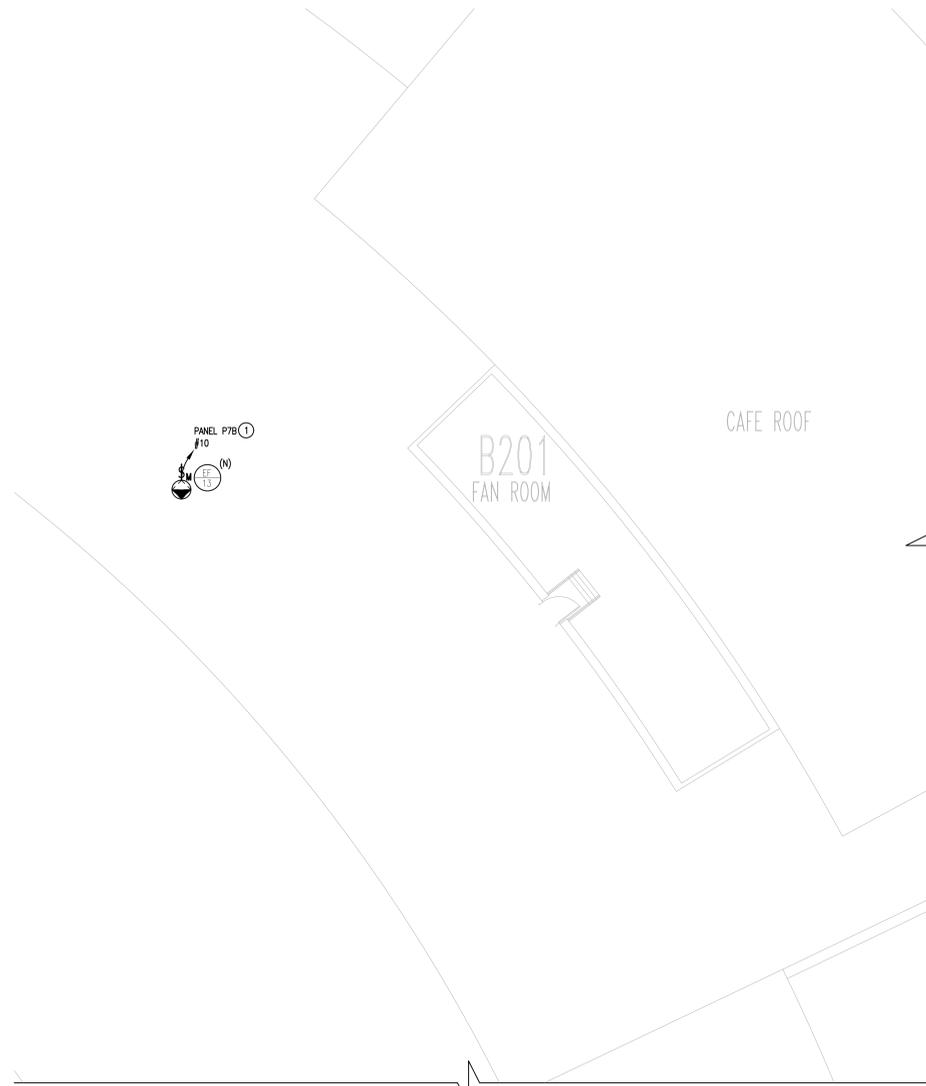
**CHEROKEE HIGH SCHOOL  
 120 TOMLINSON MILL RM  
 MARLTON, NEW JERSEY**

**DRAWING TITLE:**

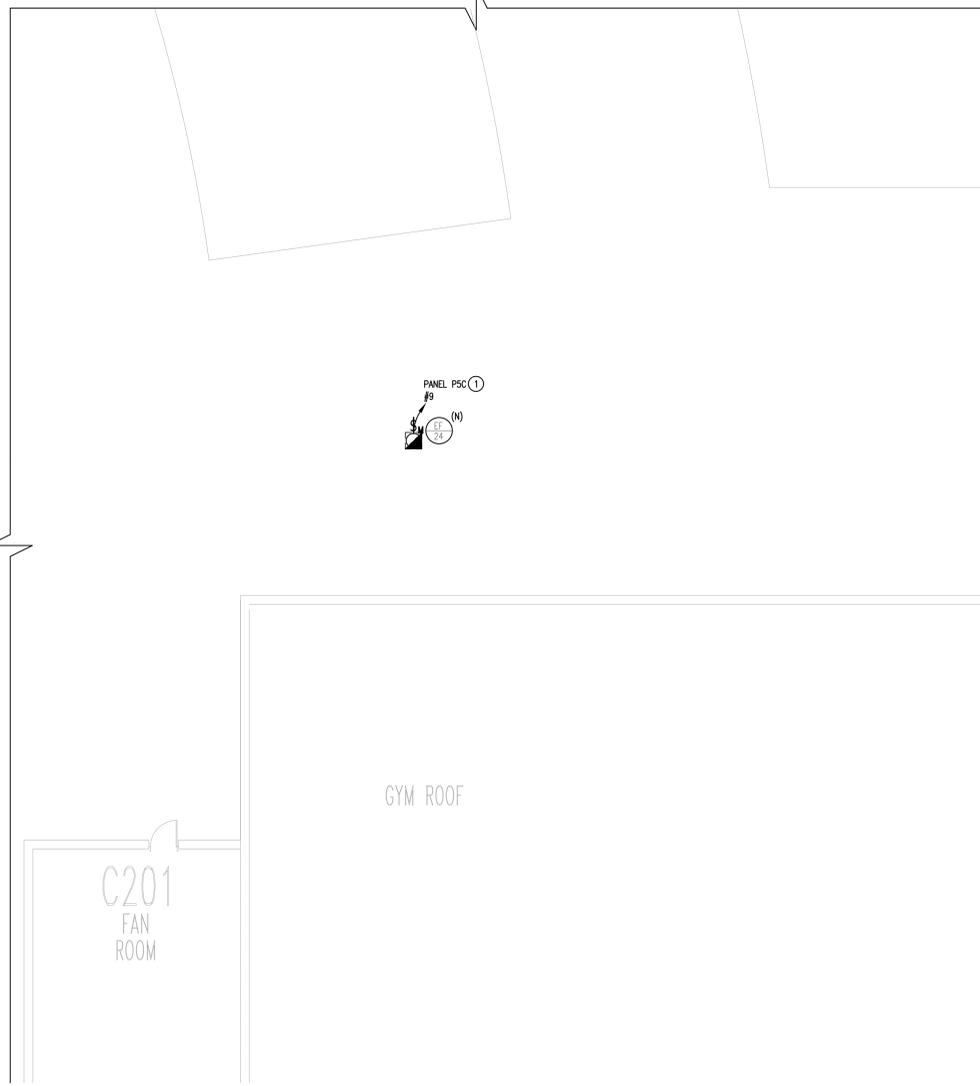
**ELECTRICAL NEW WORK PLANS**

DRAWN BY: TJJ	SCALE: AS NOTED	DWG SIZE: 42x30
CHECKED BY: LH	DRAWING NO. E-101	REVISION
DATE: 12/19/2024		
PROJECT NO.: 8C22002		

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**1 ELECTRICAL NEW WORK ROOF PLAN – CAFETERIA TOILET ROOMS**  
 E-102 SCALE: 1/8" = 1'-0"  
 SCALE BAR: 1/8"=1'-0"



**2 ELECTRICAL NEW WORK ROOF PLAN – GYMNASIUM TOILET ROOMS**  
 E-102 SCALE: 1/8" = 1'-0"  
 SCALE BAR: 1/8"=1'-0"

**NEW WORK SYSTEM NOTES:**

1. GENERAL NOTES:
  - A. REFER TO ELECTRICAL LEAD SHEETS, E-001 FOR "NOTES" THAT PERTAIN TO THE SCOPE OF THIS PROJECT.
  - B. REFER TO BOOK SPECIFICATIONS FOR PROJECT DETAILS AND EXECUTION REQUIREMENTS.
  - C. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2020 EDITION OF THE NATIONAL ELECTRICAL CODE.
  - D. CONTRACTOR SHALL PROVIDE ALL REQUIRED CONDUITS, RACEWAYS, CONDUCTORS, AND OTHER EQUIPMENT NECESSARY TO PROVIDE A COMPLETE WORKING SYSTEM.
  - E. ELECTRICAL CONTRACTOR SHALL INSTALL ALL (N) EQUIPMENT IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND SHALL MAINTAIN ALL CLEARANCES AS NOTED WITHIN THE WRITTEN INSTRUCTIONS.
  - F. ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL ALL ELECTRICAL EQUIPMENT, WIRING AND RACEWAY, AND MAKE ALL CONNECTIONS TO/FROM PANELBOARDS, DISCONNECT SWITCHES, ADJUSTABLE SPEED DRIVES, MOTOR STARTERS, AND THE END USE EQUIPMENT NECESSARY FOR A FULLY OPERATIONAL SYSTEM. COORDINATE WITH MECHANICAL CONTRACTOR.
  - G. ALL RACEWAYS PENETRATING FIRE RATED PARTITIONS, WALLS, AND CEILINGS SHALL BE SEALED USING APPROVED FIRE RATED SEALANT TO MATCH THE REQUIRED WALL FIRE RATING.
  - H. ALL POWER SHUT DOWNS MUST BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.
  - I. THE ELECTRICAL CONTRACTOR SHALL MAKE AN ON SITE INSPECTION TO DETERMINE THE FULL SCOPE OF WORK AND WORKING CONDITIONS BEFORE SUBMITTING A PROPOSAL.
  - J. ALL CIRCUIT BREAKERS SERVING HVAC EQUIPMENT SHALL BE UL LISTED AS "HACR".
  - K. THE DRAWINGS ARE DIAGRAMMATIC. EXACT LOCATION OF EQUIPMENT, WIRING AND RACEWAYS SHALL BE DETERMINED BY CONTRACTOR SUBJECT TO ARCHITECT APPROVAL.
  - L. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ELECTRICAL CHARACTERISTICS OF ALL NEW EQUIPMENT, MOTORS, ETC. BEFORE INSTALLING CABLING AND RACEWAY. IF THERE ARE ANY DISCREPANCIES BETWEEN THE ACTUAL RATING OF EQUIPMENT AT THE SITE AND THE DRAWINGS, THEN THE ENGINEER SHALL BE NOTIFIED.
  - M. THE CONTRACTOR SHALL SUBMIT TO THE OWNER: CERTIFICATES OF INSPECTION FOR THE ELECTRICAL INSTALLATION FROM AN APPROVED INSPECTION AGENCY UPON COMPLETION OF ELECTRICAL WORK.
  - N. ALL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATION MAINTENANCE, AND REPAIR. MINOR DEVIATIONS FROM THE PLANS MAY BE MADE TO ACCOMPLISH THIS, SUBJECT TO THE APPROVAL OF THE ENGINEER.
  - O. THE ELECTRICAL CONTRACTOR SHALL USE MAXIMUM OF 6' OF FLEXIBLE CONDUIT FOR FOR EQUIPMENT SUBJECT TO VIBRATION, NOISE TRANSMISSION, OR MOVEMENT, AND FOR ALL MOTORS. USE LIQUID TIGHT FLEXIBLE CONDUIT IN WET OR DAMP LOCATIONS. INSTALL SEPARATE GROUND CONDUCTOR ACROSS FLEXIBLE CONNECTIONS.
  - P. ALL WIRING SHALL BE COPPER CONDUCTOR WITH 600 VOLT TYPE THHN, OR THWN INSULATION IN CONDUIT. THE MINIMUM SIZE WIRE FOR POWER CIRCUITS SHALL BE #12 AWG. SOLID CONDUCTORS SHALL BE USED FOR NUMBER 10 AND 12-STRANDED CONDUCTORS SHALL BE USED FOR NUMBER 8 AND LARGER. THE CONTRACTOR MAY USE METAL CLAD TYPE "MC" WHERE ALLOWED BY THE NATIONAL ELECTRICAL CODE AND APPROVED FOR USE BY THE AUTHORITIES HAVING JURISDICTION.
  - Q. ALL MATERIALS AND EQUIPMENT FURNISHED FOR THIS PROJECT SHALL BE NEW, LISTED, AND APPROVED BY UL.
  - R. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, INSPECTIONS, LICENSES AND PAY UTILITY COMPANY FEES.
  - S. ALL FUSED AND NON-FUSED DISCONNECT SWITCHES SHALL HAVE: 600 VOLT RATING FOR 480 VOLT CIRCUITS. SIZE FUSES TO COMPLY WITH NAMEPLATE RATING OF EQUIPMENT SERVED.
  - T. THE ELECTRICAL CONTRACTOR SHALL PROVIDE NEW TYPED PANEL SCHEDULES WITHIN THE SCOPE OF THIS PROJECT. THIS INCLUDES ALL PANELS EVEN IF ONLY A FEW CIRCUITS WERE CHANGED AS A RESULT OF THIS PROJECT. WHERE ACTUAL FIELD CONDITIONS REQUIRE DIFFERENT CIRCUIT NUMBERS THAN THOSE INDICATED ON PLANS THE CONTRACTOR SHALL ADVISE OWNER OF CHANGES ON REQUIRED AS-BUILT DRAWINGS.
  - U. ELECTRICAL CONTRACTOR SHALL BE REQUIRED TO VERIFY EXISTING DEMAND LOADS ON EXISTING ELECTRICAL EQUIPMENT THAT IS BEING MODIFIED AS PART OF THIS SCOPE OF WORK AND ADVISE ENGINEER OF RECORD/OWNER WHERE THE EXISTING AND NEW EQUIPMENT LOADS EXCEED THE RATING OF THE EXISTING ELECTRICAL EQUIPMENT.
  - V. ELECTRICAL CONTRACTOR SHALL CONCEAL ALL NEW WIRING ASSOCIATED WITH NEW SWITCH LOCATIONS AND RECEPTACLES WITHIN EXISTING TILED MASONRY WALLS. CONTRACTOR SHALL INSTALL JUNCTION BOXES ABOVE DROP CEILINGS IN THE LOCATION OF THE NEW DEVICES AS NECESSARY TO ACCESS EXISTING MASONRY CELLS. PROVIDE APPROPRIATE WALL SEALANT MATCHING RATING OF EXISTING WALLS WHERE PENETRATIONS ARE MADE ABOVE DROP CEILINGS.

**NEW WORK KEYED NOTES:**

- GENERAL: NEW WORK NOTES ARE INDICATED WITH THE FOLLOWING SYMBOL (N) AND ARE NUMBERED AS FOLLOWS:
1. ELECTRICAL CONTRACTOR SHALL PROVIDE WIRING AND RACEWAY FROM EXISTING EXHAUST FAN CIRCUIT TO POWER NEW EXHAUST FAN. PROVIDE NEW MOTOR-RATED SWITCH.

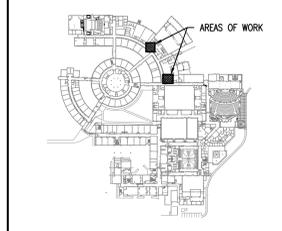
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No.	Date	Description
12/19/24	ISSUE FOR BID	

**REVISIONS:**

**KEY PLAN:**



John A. Marchiatava P. E.  
 New Jersey P. E. No. 24GE0495200  
  
**Professional Engineer**  
 John A. Marchiatava P. E.

**PROJECT: REP21-39-8313**

LRHSD - CHEROKEE HIGH SCHOOL  
 NORTH PHASE 4 HVAC  
 UPGRADES

CHEROKEE HIGH SCHOOL  
 120 TOMLINSON MILL RM  
 MARLTON, NEW JERSEY

**DRAWING TITLE:**

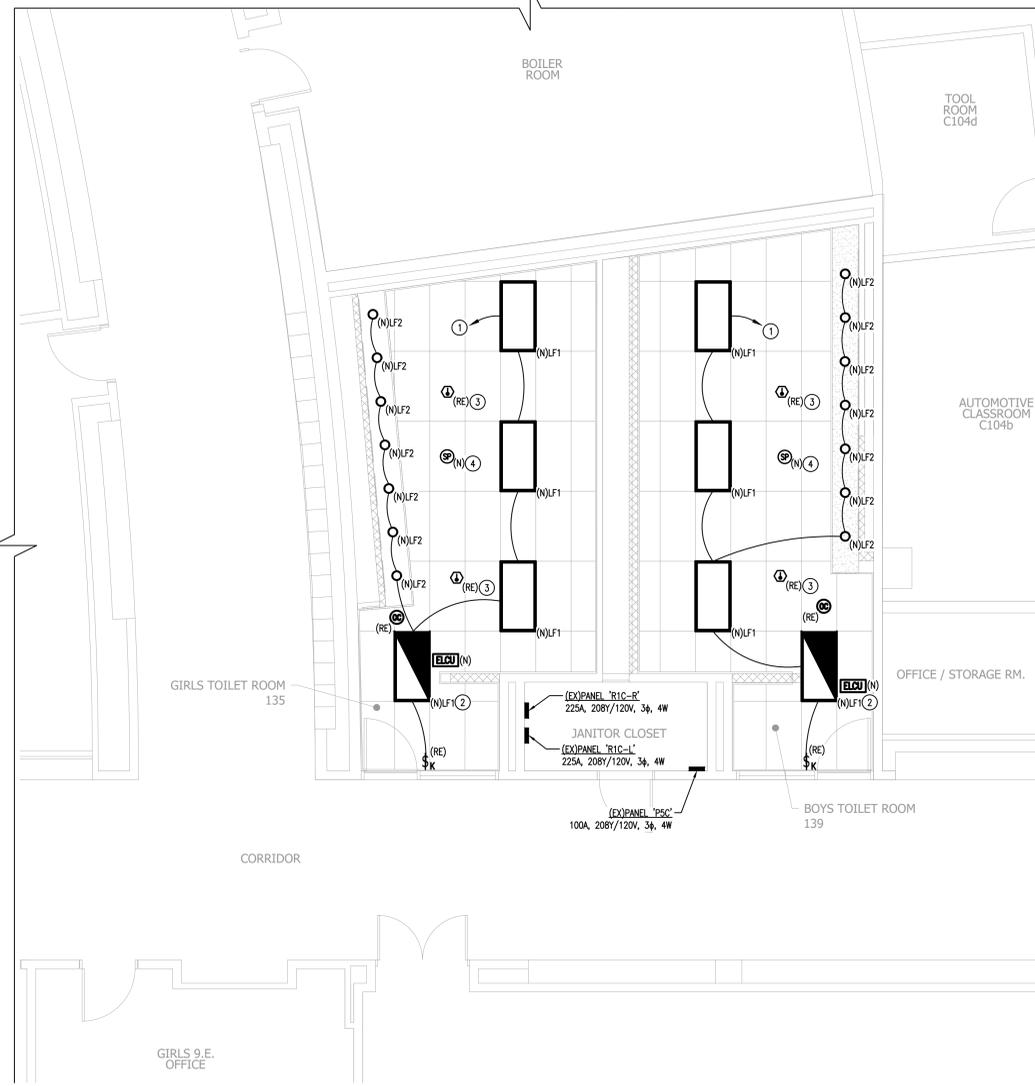
ELECTRICAL NEW WORK ROOF PLANS

DRAWN BY: TJJ	SCALE: AS NOTED	DWG SIZE: 42x30
CHECKED BY: LH	DRAWING NO. E-102	REVISION
DATE: 12/19/2024	PROJECT NO.: 8C22002	

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**1 ELECTRICAL NEW WORK CEILING PLAN – CAFETERIA TOILET ROOMS**  
 E-201 SCALE: 1/4" = 1'-0"



**2 ELECTRICAL NEW WORK CEILING PLAN – GYMNASIUM TOILET ROOMS**  
 E-201 SCALE: 1/4" = 1'-0"



**NEW WORK SYSTEM NOTES:**

1. GENERAL NOTES:
  - A. REFER TO ELECTRICAL LEAD SHEETS, E-001 FOR "NOTES" THAT PERTAIN TO THE SCOPE OF THIS PROJECT.
  - B. REFER TO BOOK SPECIFICATIONS FOR PROJECT DETAILS AND EXECUTION REQUIREMENTS.
  - C. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2020 EDITION OF THE NATIONAL ELECTRICAL CODE.
  - D. CONTRACTOR SHALL PROVIDE ALL REQUIRED CONDUITS, RACEWAYS, CONDUCTORS, AND OTHER EQUIPMENT NECESSARY TO PROVIDE A COMPLETE WORKING SYSTEM.
  - E. ELECTRICAL CONTRACTOR SHALL INSTALL ALL (N) EQUIPMENT IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND SHALL MAINTAIN ALL CLEARANCES AS NOTED WITHIN THE WRITTEN INSTRUCTIONS.
  - F. ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL ALL ELECTRICAL EQUIPMENT, WIRING AND RACEWAY, AND MAKE ALL CONNECTIONS TO/FROM PANELBOARDS, DISCONNECT SWITCHES, ADJUSTABLE SPEED DRIVES, MOTOR STARTERS, AND THE END USE EQUIPMENT NECESSARY FOR A FULLY OPERATIONAL SYSTEM. COORDINATE WITH MECHANICAL CONTRACTOR.
  - G. ALL RACEWAYS PENETRATING FIRE RATED PARTITIONS, WALLS, AND CEILINGS SHALL BE SEALED USING APPROVED FIRE RATED SEALANT TO MATCH THE REQUIRED WALL FIRE RATING.
  - H. ALL POWER SHUT DOWNS MUST BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.
  - I. THE ELECTRICAL CONTRACTOR SHALL MAKE AN ON SITE INSPECTION TO DETERMINE THE FULL SCOPE OF WORK AND WORKING CONDITIONS BEFORE SUBMITTING A PROPOSAL.
  - J. ALL CIRCUIT BREAKERS SERVING HVAC EQUIPMENT SHALL BE UL LISTED AS "HACR".
  - K. THE DRAWINGS ARE DIAGRAMMATIC. EXACT LOCATION OF EQUIPMENT, WIRING AND RACEWAYS SHALL BE DETERMINED BY CONTRACTOR SUBJECT TO ARCHITECT APPROVAL.
  - L. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ELECTRICAL CHARACTERISTICS OF ALL NEW EQUIPMENT, MOTORS, ETC. BEFORE INSTALLING CABLING AND RACEWAY. IF THERE ARE ANY DISCREPANCIES BETWEEN THE ACTUAL RATING OF EQUIPMENT AT THE SITE AND THE DRAWINGS, THEN THE ENGINEER SHALL BE NOTIFIED.
  - M. THE CONTRACTOR SHALL SUBMIT TO THE OWNER: CERTIFICATES OF INSPECTION FOR THE ELECTRICAL INSTALLATION FROM AN APPROVED INSPECTION AGENCY UPON COMPLETION OF ELECTRICAL WORK.
  - N. ALL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATION MAINTENANCE, AND REPAIR. MINOR DEVIATIONS FROM THE PLANS MAY BE MADE TO ACCOMPLISH THIS, SUBJECT TO THE APPROVAL OF THE ENGINEER.
  - O. THE ELECTRICAL CONTRACTOR SHALL USE MAXIMUM OF 6' OF FLEXIBLE CONDUIT FOR EQUIPMENT SUBJECT TO VIBRATION, NOISE TRANSMISSION, OR MOVEMENT, AND FOR ALL MOTORS. USE LIQUID TIGHT FLEXIBLE CONDUIT IN WET OR DAMP LOCATIONS. INSTALL SEPARATE GROUND CONDUCTOR ACROSS FLEXIBLE CONNECTIONS.
  - P. ALL WIRING SHALL BE COPPER CONDUCTOR WITH 600 VOLT TYPE THHN, OR THWN INSULATION IN CONDUIT. THE MINIMUM SIZE WIRE FOR POWER CIRCUITS SHALL BE #12 AWG. SOLID CONDUCTORS SHALL BE USED FOR NUMBER 10 AND 12. STRANDED CONDUCTORS SHALL BE USED FOR NUMBER 8 AND LARGER. THE CONTRACTOR MAY USE METAL CLAD TYPE "MC" WHERE ALLOWED BY THE NATIONAL ELECTRICAL CODE AND APPROVED FOR USE BY THE AUTHORITIES HAVING JURISDICTION.
  - Q. ALL MATERIALS AND EQUIPMENT FURNISHED FOR THIS PROJECT SHALL BE NEW, LISTED, AND APPROVED BY UL.
  - R. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, INSPECTIONS, LICENSES AND PAY UTILITY COMPANY FEES.
  - S. ALL FUSED AND NON-FUSED DISCONNECT SWITCHES SHALL HAVE: 600 VOLT RATING FOR 480 VOLT CIRCUITS. SIZE FUSES TO COMPLY WITH NAMEPLATE RATING OF EQUIPMENT SERVED.
  - T. THE ELECTRICAL CONTRACTOR SHALL PROVIDE NEW TYPEWRITTEN PANEL SCHEDULES WITHIN THE SCOPE OF THIS PROJECT. THIS INCLUDES ALL PANELS EVEN IF ONLY A FEW CIRCUITS WERE CHANGED AS A RESULT OF THIS PROJECT. WHERE ACTUAL FIELD CONDITIONS REQUIRE DIFFERENT CIRCUIT NUMBERS THAN THOSE INDICATED ON PLANS THE CONTRACTOR SHALL ADVISE OWNER OF CHANGES ON REQUIRED AS-BUILT DRAWINGS.
  - U. ELECTRICAL CONTRACTOR SHALL BE REQUIRED TO VERIFY EXISTING DEMAND LOADS ON EXISTING ELECTRICAL EQUIPMENT THAT IS BEING MODIFIED AS PART OF THIS SCOPE OF WORK AND ADVISE ENGINEER OF RECORD/OWNER WHERE THE EXISTING AND NEW EQUIPMENT LOADS EXCEED THE RATING OF THE EXISTING ELECTRICAL EQUIPMENT.
  - V. ELECTRICAL CONTRACTOR SHALL CONCEAL ALL NEW WIRING ASSOCIATED WITH NEW SWITCH LOCATIONS AND RECEPTACLES WITHIN EXISTING TILED MASONRY WALLS. CONTRACTOR SHALL INSTALL JUNCTION BOXES ABOVE DROP CEILINGS IN THE LOCATION OF THE NEW DEVICES AS NECESSARY TO ACCESS EXISTING MASONRY CELLS. PROVIDE APPROPRIATE WALL SEALANT MATCHING RATING OF EXISTING WALLS WHERE PENETRATIONS ARE MADE ABOVE DROP CEILINGS.

**NEW WORK KEYED NOTES:**

- GENERAL: NEW WORK NOTES ARE INDICATED WITH THE FOLLOWING SYMBOL (N) AND ARE NUMBERED AS FOLLOWS:
- 1 ELECTRICAL CONTRACTOR SHALL UTILIZE EXISTING LOCAL LIGHTING CIRCUIT TO POWER NEW LIGHT FIXTURES. PROVIDE ADDITIONAL WIRING AND CONDUIT AS NECESSARY.
  - 2 ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL UL924 LISTED DEVICE FOR EMERGENCY FIXTURES TO ALLOW EMERGENCY FIXTURES TO TURN ON TO FULL BRIGHTNESS IN THE EVENT OF A POWER FAILURE.
  - 3 ELECTRICAL CONTRACTOR SHALL RELOCATE EXISTING FIRE ALARM DEVICE IN NEW TOILET ROOM. PROVIDE ALL WIRING AND RACEWAY AS NECESSARY TO TIE INTO EXISTING LOCAL POWER SUPPLY/BOOSTER PANEL CIRCUIT. EXISTING FIRE ALARM SYSTEM SHALL PASS A 100% RE-ACCEPTANCE TEST IN ACCORDANCE WITH NFPA 72 UPON COMPLETION OF INSTALLATION.
  - 4 ELECTRICAL CONTRACTOR SHALL EXTEND EXISTING SPEAKER WIRE IN KIND FROM EXISTING DEMO LOCATION TO NEW LOCATION AS INDICATED ON NEW WORK PLAN. PROVIDE NEW CEILING MOUNTED SPEAKER (TO MATCH EXISTING DISTRICT TYPE). PROVIDE FINAL INSTALLATION AND SPEAKER WIRE TAPS AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.

**MEP ENGINEER:**

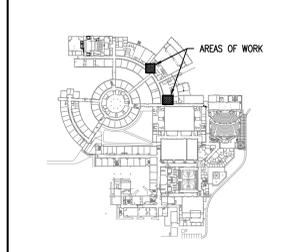


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No.	Date	Description
-	12/19/24	ISSUE FOR BID

**REVISIONS:**

**KEY PLAN:**



John A. Marchiatava P. E.  
 New Jersey P. E. No. 243E04692500

**PROJECT: REF21-39-8313**  
 LRHSD - CHEROKEE HIGH SCHOOL  
 NORTH PHASE 4 HVAC  
 UPGRADES

CHEROKEE HIGH SCHOOL  
 120 TOMLINSON MILL RM  
 MARLTON, NEW JERSEY

**DRAWING TITLE:**  
 ELECTRICAL NEW WORK  
 REFLECTED CEILING PLANS

DRAWN BY: TJT	SCALE: AS NOTED	DWG SIZE: 42x30
CHECKED BY: LH	DRAWING NO. E-201	REVISION
DATE: 12/19/2024	PROJECT NO.: 8C22002	

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