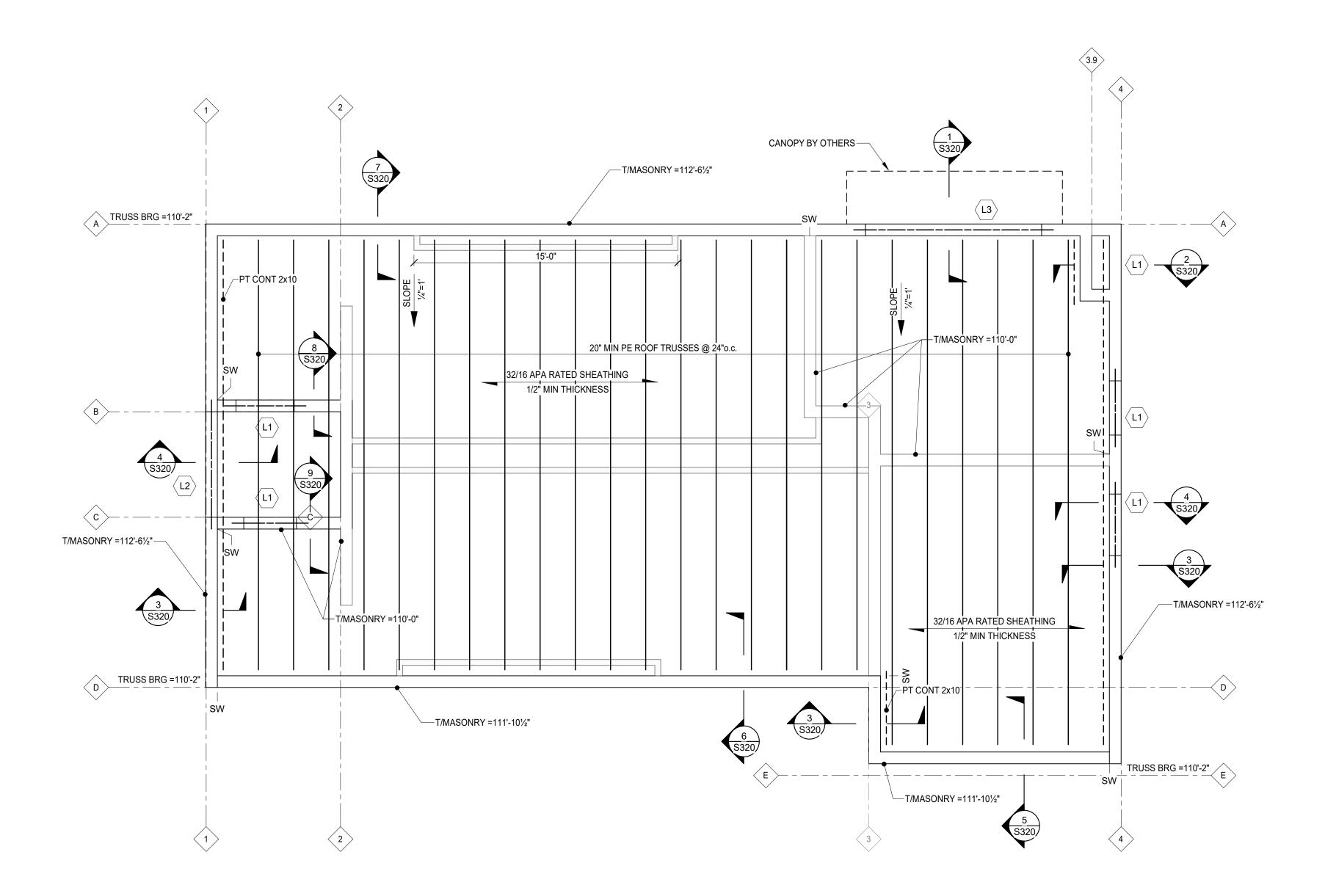


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FRAMING PLAN SCALE 1/4" = 1'-0"



SIZE    REMARKS      SBARS    SEE L1 LINTEL      #5 BARS    SEE L2 LINTEL      #5 BARS TOP & BOTTOM w/ #3 STIRRUPS    SEE L3 LINTEL      #5 BARS TOP & BOTTOM w/ #3 STIRRUPS    SEE L3 LINTEL      ACH END UNLESS NOTED OTHERWISE.    SSHOWN ON S200.      THE OPENING WIDTHS PER THE MASONRY DETAILS SHOWN ON S200.    THE OPENING WIDTHS PER THE MASONRY DETAILS SHOWN ON S200.      THE OPENING WIDTHS PER THE MASONRY DETAILS SHOWN ON S200.    THACHITECT.      ER SCHEDULE    BEARING    FULL HEIGHT      HEAD/SILL    BEARING    FULL HEIGHT      AND WINDOW LOCATIONS WITH ARCHITECTURAL DRAWINGS.    AND WINDOW LOCATIONS WITH ARCHITECTURAL DRAWINGS.	Newport Restroom & Concessions    900 E 6th St.      900 E 6th St.    Newport, KY 41071      Newport, KY 41071    Newport Independent Schools      Superintendent - Antonio Watts    Superintendent - Antonio Watts	
	SHEET TITLE FRAMING PLAN BG # ASE # 24103.04 DATE 09/25/2024	

LINTEL MARK L1 8" BOND BEAM w/ (2) CONT #5 B L2 16" DEEP LINTEL w/ (2) CONT #5 E L3 24" DEEP LINTEL w/ (2) CONT #5 E @12"o.c.

MASONRY LINTEL SCHEDULE NOTES: 1. LINTELS SHALL HAVE 8" MINIMUM BEARING EAC 2. COORDINATE WITH MASONRY LINTEL DETAILS S

BOORDINATE WITH ASONICT LINTLE DETAILS C
 PROVIDE MASONRY JAMBS DEPENDENT ON THE
 COORDINATE AND MATCH LINTEL WIDTHS WITH
 COORDINATE ALL MASONRY COURSING WITH A

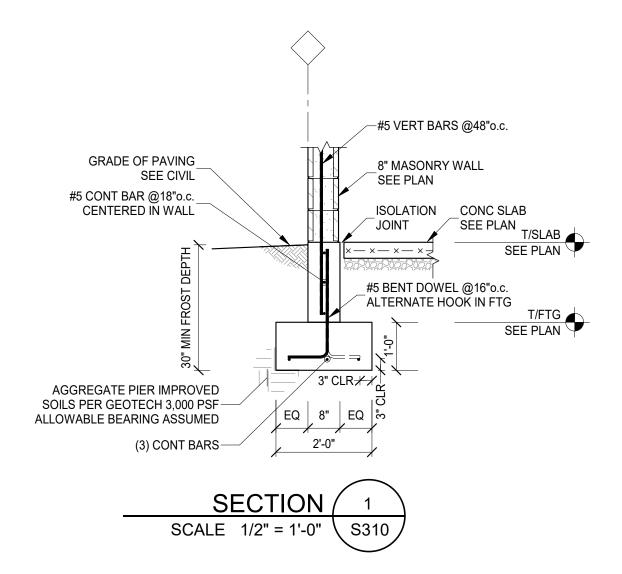
### HEADER

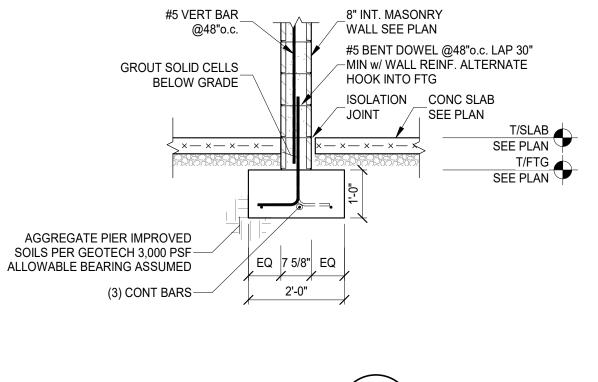
MARK

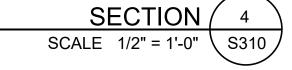
HEADER

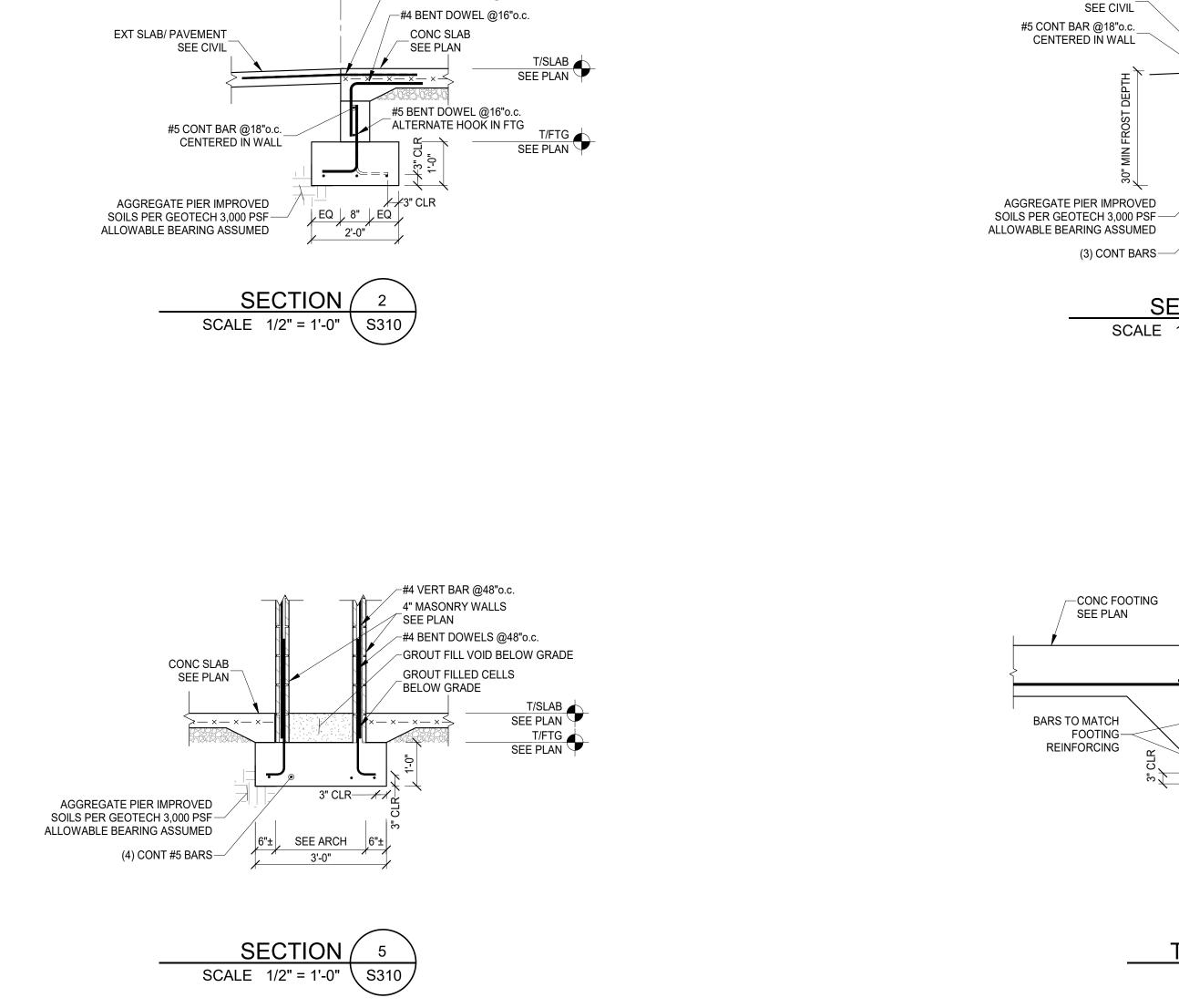
### PLAN NOTES:

COORDINATE ALL DIMENSIONS, DOOR AND
 ► = MOMENT CONNECTION.



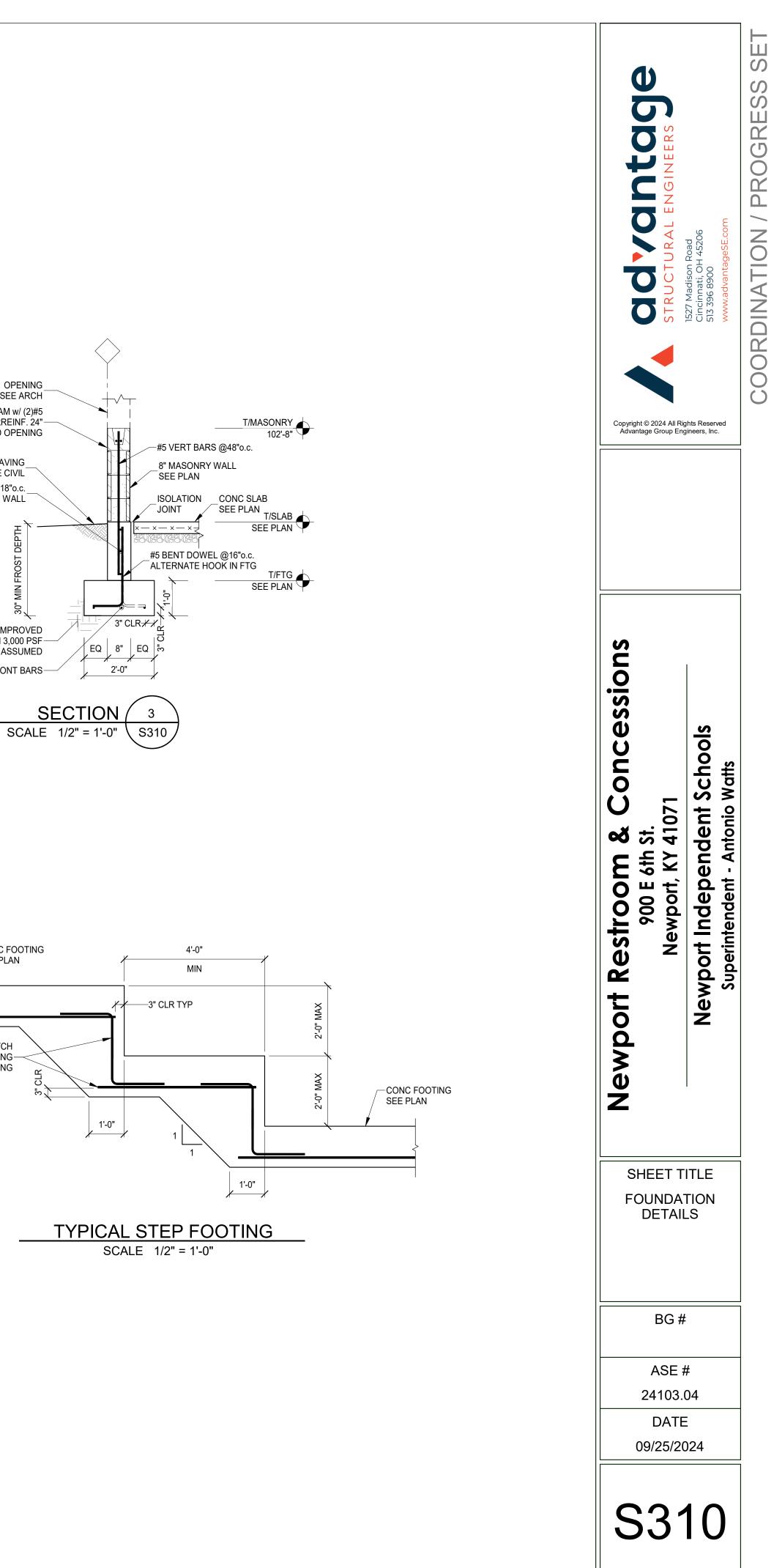




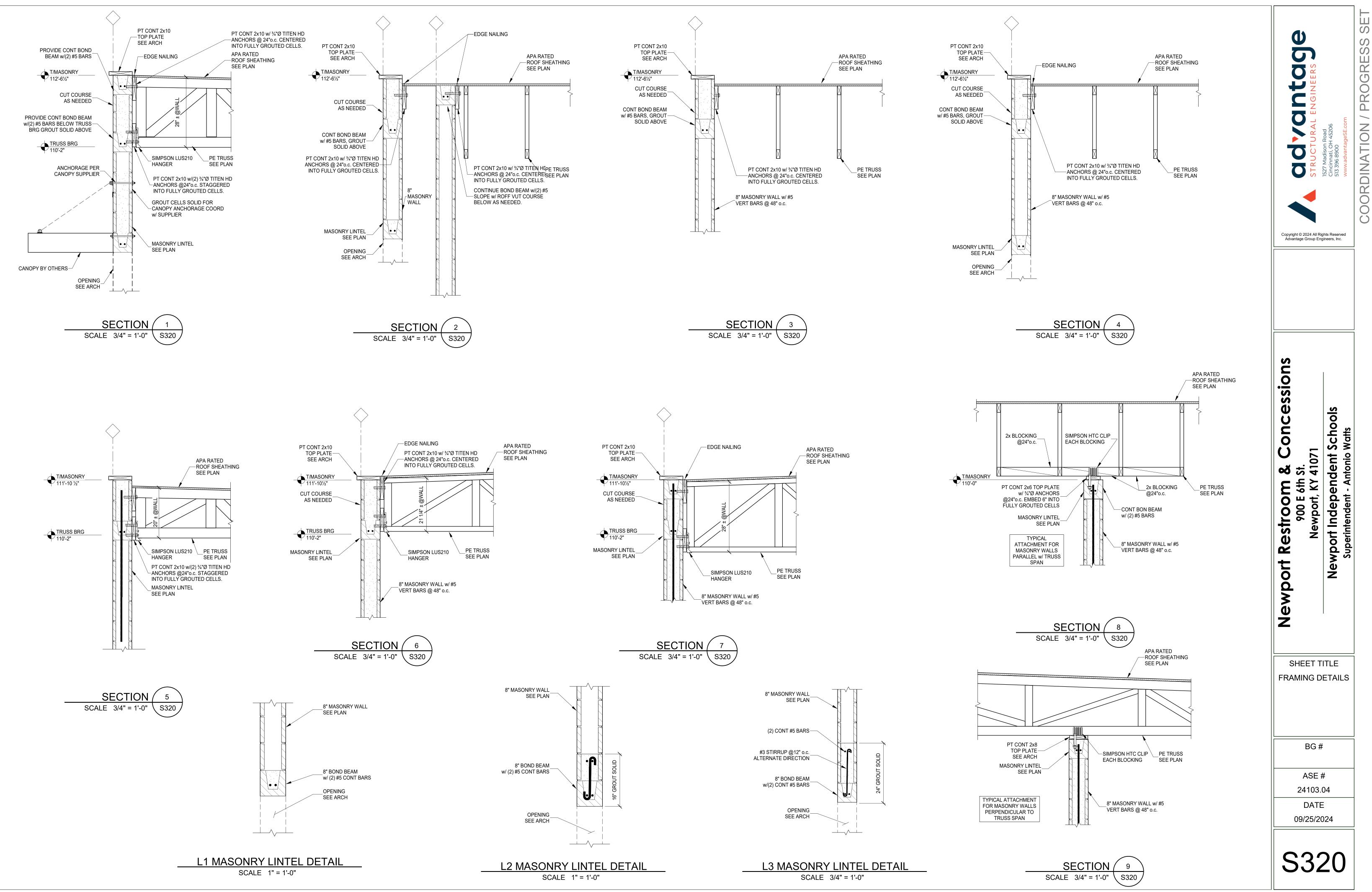


---#4x4'-0" LG DOWEL @ 16"o.c.

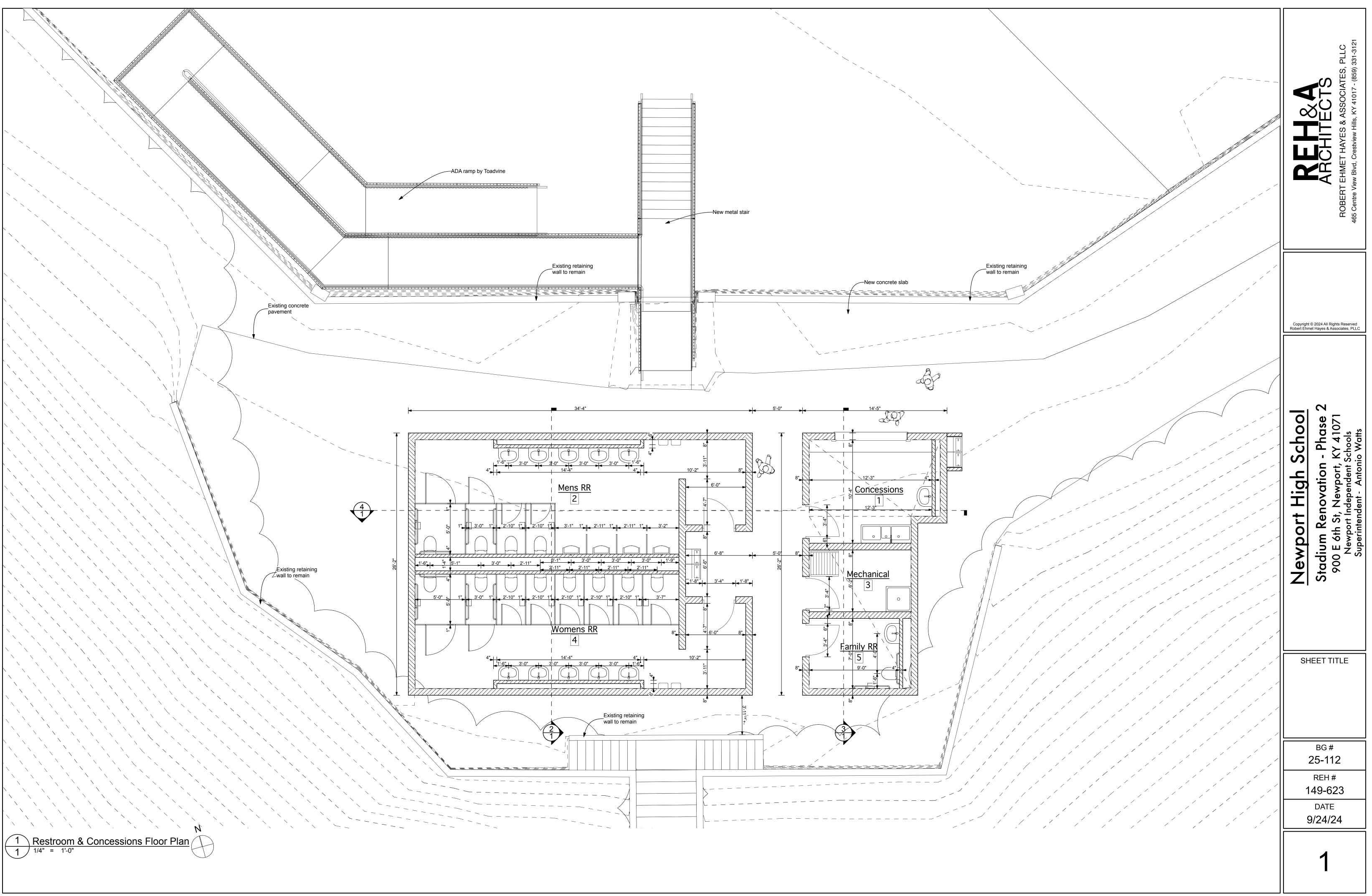
GRADE OF PAVING

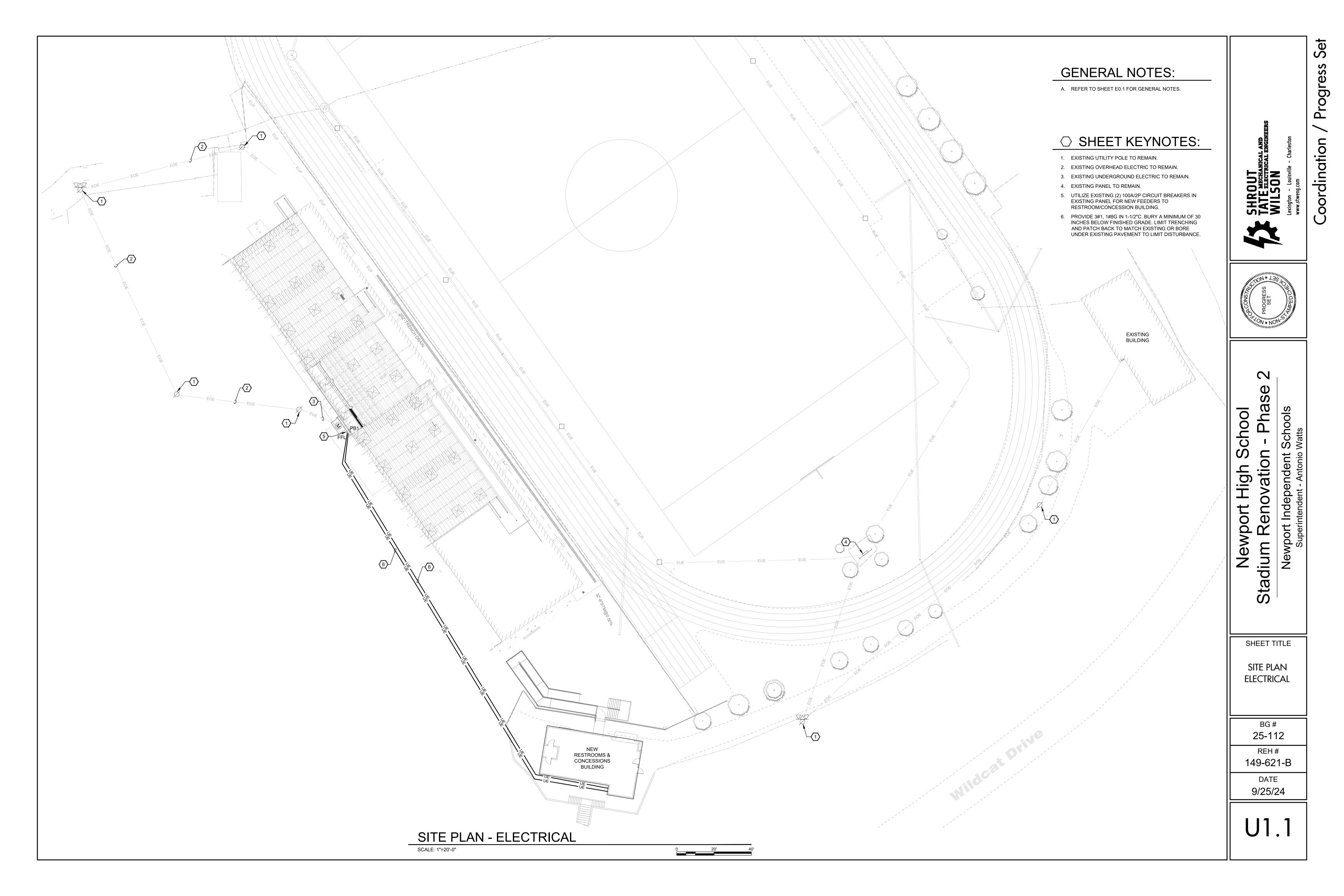


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# PLUMBING/FIRE PROTECTION LEGEND

ABBREVIATI	ONS

PLUMBING SYMBOL	1
SYMBOL	DESCRIPTION
ə	PIPE DOWN
o	PIPE UP
<del></del>	TEE DOWN
<b>o</b>	TEE UP
	CONTINUATION
]	САР
<u> </u>	HAMMER ARRESTOR
кЯ	BALANCING VALVE
ιδι	BALL VALVE
	BUTTERFLY VALVE
× X	ELECTRIC CONTROL VALVE
Ŕ	PRESSURE REDUCING VALVE
Ń	CHECK VALVE
⊠	GATE VALVE
ולּו	PLUG VALVE
Þ	REDUCER
ılı	UNION
۵¢	VALVE IN VERTICAL
Ø	PRESSURE GAUGE
ŕ	STRAINER
岱	FLOW INDICATOR
	CLEANOUT
-0	FLOOR CLEANOUT
Ф	THERMOMETER
	RECIRC. BALANCING STATION
₽ <sup>FS</sup>	FLOW SWITCH
<b>∲</b> <sup>TS</sup>	TAMPER SWITCH ON VALVE
G	PUMP, INLINE
$\boldsymbol{a}$	SUMP PUMP
G	GAS METER
$\bigotimes$	WATER METER
TB	THRUST BLOCK
R	GAS REGULATOR
Фс	FLOOR DRAIN
oc	P-TRAP
Φ	FLOOR DRAIN GRATE
¢ <sup>S</sup> ∂ <sup>TS</sup>	FIRE PROTECTION RISER
\$⊱	FIRE PROTECTION CONNECTION (DOUBLE)
÷	FIRE PROTECTION CONNECTION (SINGLE)
$\langle\!$	SHEET NOTE
$\sim$	DEMOLITION NOTE
<b>O</b>	CONNECT NEW TO EXISTING
	EXTENT OF DEMOLITION
	EQUIPMENT TAG
RISER X PX.XX	RISER IDENTIFICATION TAG

ABBRE	VIATIONS
ADP	ACID DILUTION PIT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AG	AIR GAP
AV	ACID VENT
AW	ACID WASTE
BFF	BELOW FINISHED FLOOR
BFG	BELOW FINISHED GRADE
BTU	BRITISH THERMAL UNIT
CA	COMPRESSED AIR
CFH	CUBIC FEET/HOUR
CI	CAST IRON
CRD	COMBINATION ROOF DRAIN
со	CLEANOUT
CON	CONDENSATE
CW	COLD WATER
D	DISPOSAL
DD	DECK DRAIN
DI	DUCTILE IRON
DF	DRINKING FOUNTAIN
DSN	DOWNSPOUT NOZZLE
ECO	EXTERIOR CLEANOUT
EEW	EMERGENCY EYE WASH
ESEW	EMERGENCY ETE WASH
ET	
ETP	
EWC	
EWH	
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FS	
GPM	GALLONS PER MINUTE
GR	GREASE
GRV	GREASE VENT
GT	GREASE TRAP
GWH	GAS WATER HEATER
HA	
HB	HOSE BIBB
HW	HOT WATER
HWR	HOT WATER RETURN
I.E.	
IMB	ICE MAKER BOX
L/LAV	LAVATORY
LPG	LIQUID PETROLEUM GAS
LT	LAUNDRY TUB
MA	MEDICAL AIR
MB	MOP BASIN
MBH	1,000 BTU
MIN	MINIMUM
MS	MOP SINK
OR	OPEN RECEPTACLE
PD	PUMP DISCHARGE
PDI	PLUMBING DRAINAGE INSTITUTE

# ABBREVIATIONS CONT.

PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PT	PLASTER TRAP
RBS	RECIRC. BALANCE STATION
RD	ROOF DRAIN
RL	ROOF LEADER
RP	RECIRCULATION PUMP
RPZ	REDUCED PRESSURE ZONE BACKFLOW PREVENTER
S	SINK
SAN	SANITARY
SCO	STACK CLEANOUT
SP	SUMP PUMP
SS	SERVICE SINK
ST	STORAGE TANK
STM	STORM
ТВ	THRUST BLOCK
TD	TRENCH DRAIN
TP	TRAP PRIMER
TMV	THERMOSTATIC MIXING VALVE
T&P	TEMPERATURE & PRESSURE
TS	TAMPER SWITCH
U	URINAL
UT	UTILITY TUB
V	VENT
VB	VACUUM BREAKER
VTR	VENT THROUGH ROOF
WB	WASHER BOX
WC	WATER CLOSET
W.C.	WATER COLUMN
WCO	WALL CLEANOUT
WH	WALL HYDRANT
WS	WASH STATION
WS	WATER SOFTENER
Х	EXISTING

PLUMBING LINETYPES						
SYMBOL	DESCRIPTION					
-+++++	UNDER SLAB COLD WATER PIPING WITH SIZE					
	COLD WATER PIPING WITH SIZE					
	HOT WATER PIPING WITH SIZE					
	HOT WATER RETURN PIPING WITH SIZE					
-+ + + 1"SAN + + + + +	UNDER SLAB SANITARY PIPING WITH SIZE					
	SANITARY PIPING WITH SIZE					
-+-+-+ 1"V -+-+-+	UNDER SLAB VENT PIPING WITH SIZE					
1"V	VENT PIPING WITH SIZE					
-+ + + 1"GR - + + + ++	UNDER SLAB GREASE PIPING WITH SIZE					
-+-+-+-+1"GRV·+-+-+-+	UNDER SLAB GREASE VENT PIPING WITH SIZE					
1"GRV	GREASE VENT PIPING WITH SIZE					
-+ + + 1"AW - + + + +	UNDER SLAB ACID WASTE PIPING WITH SIZE					
	ACID WASTE PIPING WITH SIZE					
-+-+-+1"AV-+-+-+-+	UNDER SLAB ACID VENT PIPING WITH SIZE					
1"AV	ACID VENT PIPING WITH SIZE					
	ROOF LEADER PIPING WITH SIZE					
-+ + + 1"STM <del>-+ + + + −</del>	UNDER SLAB STORM WITH SIZE					
-+ -+ + 1"G+ -+ +	UNDER SLAB GAS PIPING WITH SIZE (SLEEVED)					
——————————————————————————————————————	GAS PIPING WITH SIZE					
1"TW	TEMPERED WATER PIPING WITH SIZE					

- INSPECTIONS.

- MAKE WATER/WEATHER TIGHT.
- GENERAL CONTRACTOR.

- PROVIDED AND INSTALLED AS SHOWN ON BOTH.
- SHOWN ON BOTH.
- DEDICATED WORKING/ELEC

#### GENERAL NOTES - PLUMBING:

A. <u>CONSTRUCTION PHASING</u>: ALL WORK SHALL BE COORDINATED AND SCHEDULED WITH THE GENERAL CONTRACTOR, OTHER TRADES, THE OWNER, RELATED UTILITY COMPANIES SHALL COINCIDE WITH CONSTRUCTION PHASING PER THE ARCHITECTURAL DOCUMENTS. CONTACT THE ARCHITECT/ENGINEER IN THE EVENT OF A CONFLICT.

B. <u>NEW UTILITIES:</u> THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NEW UTILITY SERVICES AND COSTS UNDER THIS CONTRACT. COORDINATE AND SCHEDULE ALL RELATED WORK WITH THE UTILITY COMPANIES.

C. <u>MAINTAIN SITE UTILITIES:</u> THE CONTRACTOR SHALL MAINTAIN ALL EXISTING SITE UTILITIES AT ALL TIMES. THE CONTRACTOR SHALL WORK CONTINUOUSLY TO RESTORE ANY OUTAGE. SCHEDULED SHUT-DOWNS SHALL REQUIRE 48 HOUR PRIOR NOTIFICATION WITH OWNER. COORDINATE ALL RELATED WORK WITH THE OWNER AND THE UTILITY COMPANIES AS REQUIRED.

D. VERIFY UTILITIES: FIELD VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WHERE REQUIRED FOR CONNECTIONS OF NEW WORK PRIOR TO CONSTRUCTION AND FABRICATION. DOCUMENT ON THE AS-BUILT DRAWINGS; THE TYPE, SIZE, MATERIAL, LOCATION AND INVERT ELEVATIONS OF ALL UTILITIES ENCOUNTERED. COORDINATE ALL RELATED WORK WITH ALL PARTIES INVOLVED. CONTACT THE ENGINEER IN THE EVENT OF A CONFLICT.

E. <u>CONTACT B.U.D.</u>: THE EXISTING UTILITIES, EQUIPMENT, AND PIPING SHOWN ON THESE DRAWINGS ARE FROM RECORD DRAWINGS AND VISUAL INSPECTION OF THE SITE. THE NUMBER, LOCATION, SIZE, AND TYPE OF UTILITIES SHOWN ARE APPROXIMATE, AND THERE MAY BE OTHER UTILITIES NOT SHOWN. THE CONTRACTOR SHALL CONTACT ALL AFFECTED UTILITY COMPANIES AND KENTUCKY B.U.D. PRIOR TO BEGINNING EXCAVATION.

F. PERMITS, TESTING, AND INSPECTIONS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS, TESTING AND SCHEDULES

G. REMOVAL OF EXISTING UTILITIES: REMOVE UNUSED/ABANDONED EQUIPMENT, PIPING, ETC. AS NECESSARY TO INSTALL THE NEW WORK. CAP THE ENDS OF ALL LINES AND ABANDONED IN PLACE.

H. <u>TEMPORARY CONSTRUCTION HEAT:</u> PROVIDE TEMPORARY HEAT IN CONSTRUCTION AREAS AS REQUIRED TO PREVENT FREEZING OF WATER PIPING DURING CONSTRUCTION.

I. PATCHING AND REPAIRING: PATCH AND REPAIR ALL AREAS WHERE WALLS, SLABS, PAVEMENT, CURBS, VEGETATION AND MATERIALS HAVE BEEN CUT, REMOVED, DISTURBED AND OR MODIFIED. MATCH EXISTING MATERIALS, RATINGS, AND FINISHES.

J. CUTTING EXISTING MATERIALS: CUTTING OF EXISTING PAVEMENT, SLABS, CONCRETE MASONRY, WALLS, ETC. SHALL BE SAW-CUT OR CORE DRILLED. NO "HAMMER DRILLING" WILL BE ALLOWED.

K. <u>ROOFING PENETRATIONS:</u> ALL ROOF PENETRATIONS SHALL BE IN COMPLIANCE WITH THE ROOFING MANUFACTURER'S GUIDELINES, THE AMERICAN ROOFING COUNCIL, AND MAINTAIN ALL WARRANTIES.

L. WALL PENETRATIONS: SEAL ALL PIPING PENETRATIONS THROUGH EXTERIOR WALLS WITH SILICONE SEALANT AS REQUIRED TO

M. EXISTING WALL OPENINGS: EXISTING OPENINGS IN WALLS THAT ARE NOT BEING RE-USED SHALL BE PATCHED/CLOSED BY THE

N. NEW OPENINGS: NEW OPENINGS FOR PLUMBING PENETRATIONS THROUGH FIRE/SMOKE RATED WALLS, ASSEMBLIES AND SLABS SHALL BE BY THE GENERAL CONTRACTOR. THE PLUMBING CONTRACTOR SHALL COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH THE GENERAL CONTRACTOR AND OTHER TRADES.

0. STRUCTURAL COORDINATION: THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING ALL BELOW SLAB / UNDERGROUND PIPING WITH STRUCTURAL COMPONENTS AND COORDINATING ALL STEPPED FOOTINGS OR SLEEVES WHERE REQUIRED.

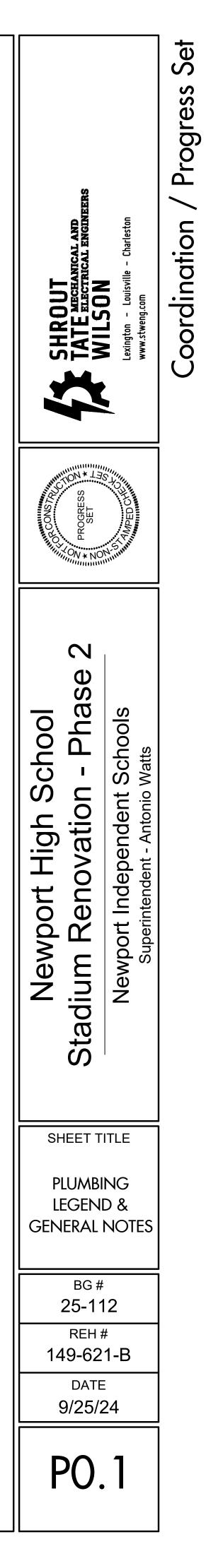
P. FIRE AND SMOKE STOPPING: ALL PLUMBING PENETRATIONS THROUGH FIRE/SMOKE RATED WALLS, ASSEMBLIES AND SLABS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE PLUMBING CONTRACTOR SHALL COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH THE GENERAL CONTRACTOR AND OTHER TRADES.

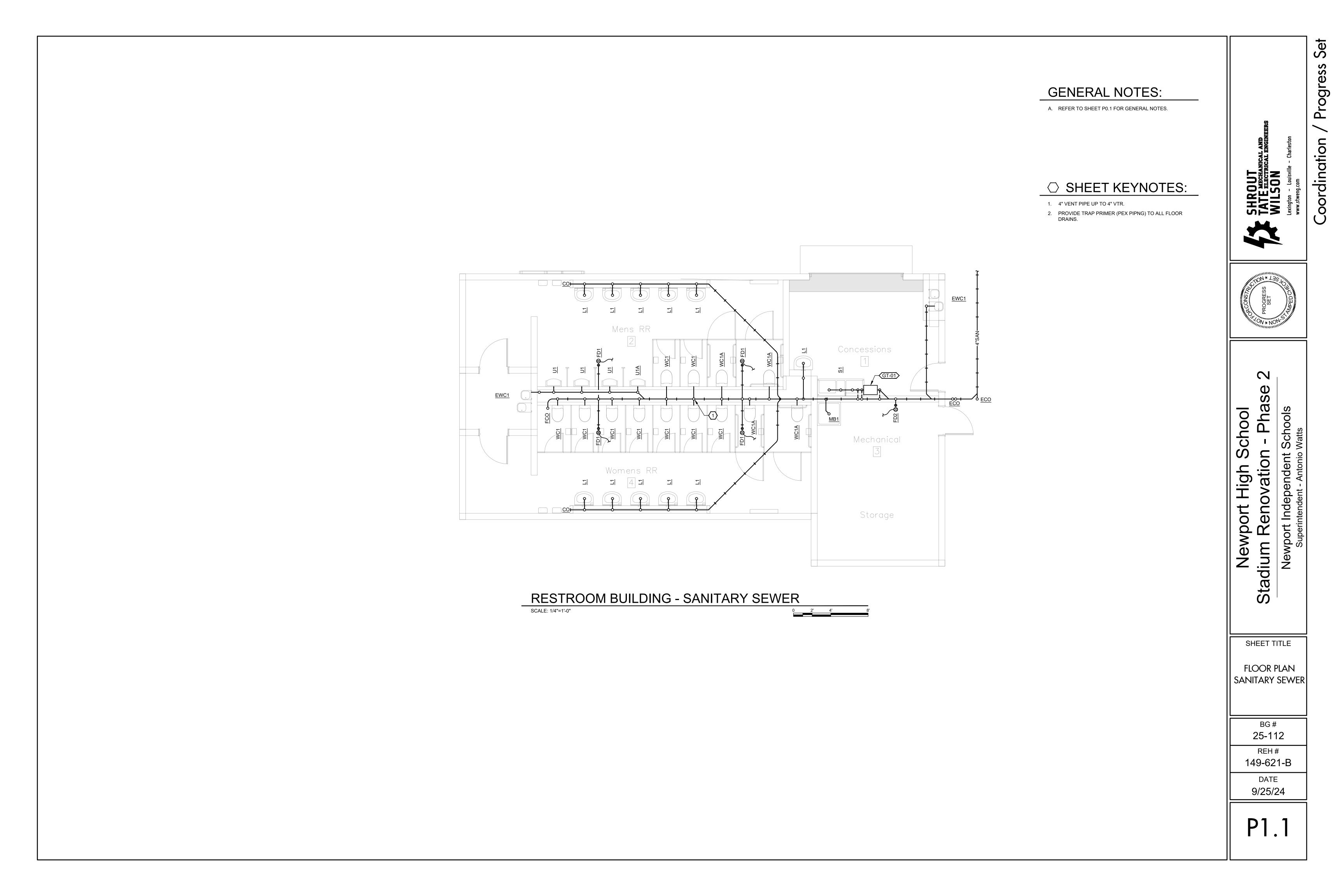
Q. INSULATION: INSULATE ALL DOMESTIC HOT/COLD WATER, RECIRCULATION PIPING, AND ROOF LEADERS.

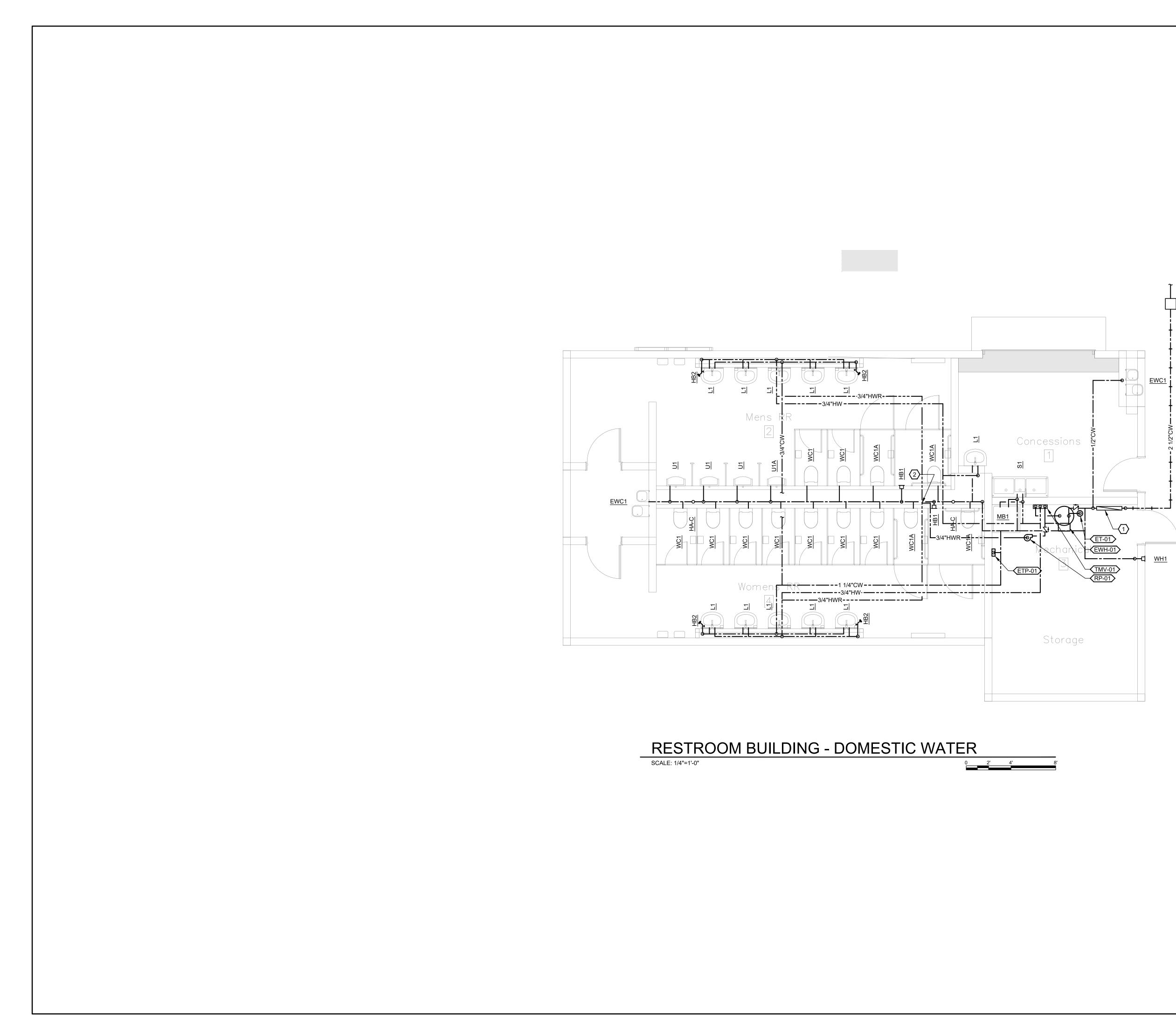
R. <u>HAMMER ARRESTOR:</u> ALL HAMMER ARRESTORS SHOWN ON FLOOR PLANS, BUT NOT ON RISERS OR VICE VERSA SHALL BE

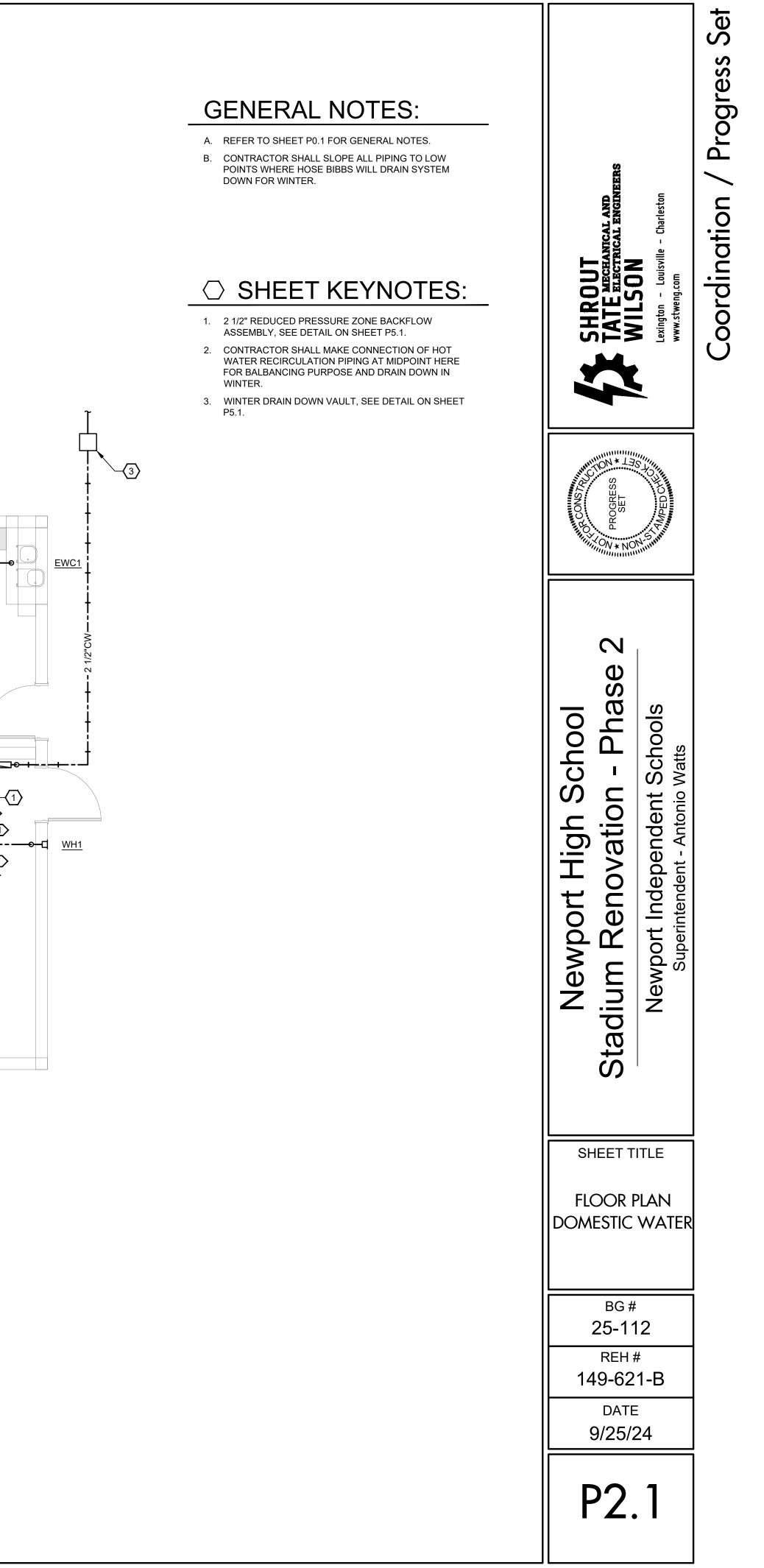
S. VALVES: ALL VALVES SHOWN ON FLOOR PLANS, BUT NOT ON RISERS OR VICE VERSA, SHALL BE PROVIDED AND INSTALLED AS IF

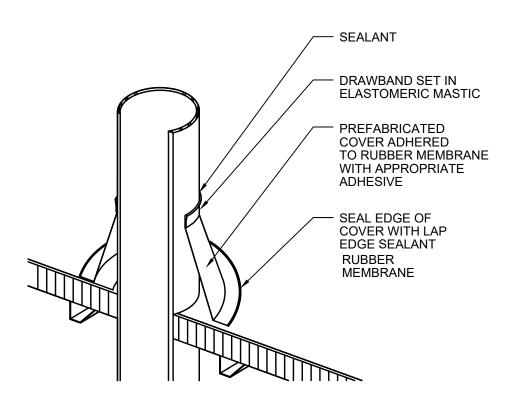
T. ELECTRICAL PANELS AND EQUIPMENT: PLUMBING PIPING, SYSTEMS, AND EQUIPMENT SHALL BE INSTALLED TO MAINTAIN THE RICAL SPACE ABOVE, BELOW, AND IN FRONT OF ELECTRICAL PANELS AND EQUIPMENT PER THE REQUIREMENTS OF THE N.E.C. (NATIONAL ELECTRIC CODE).





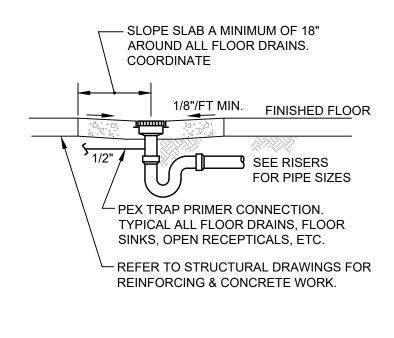




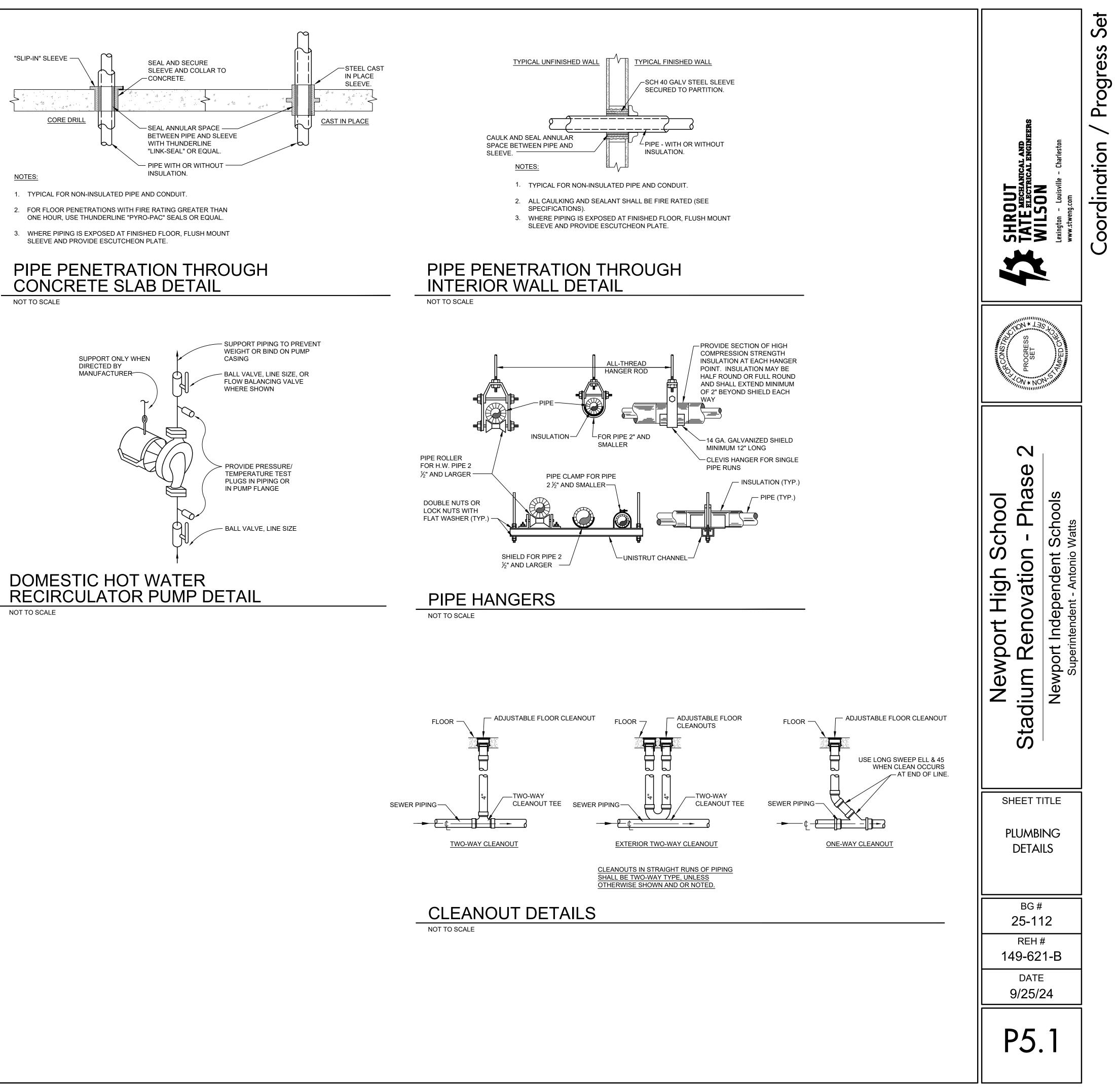


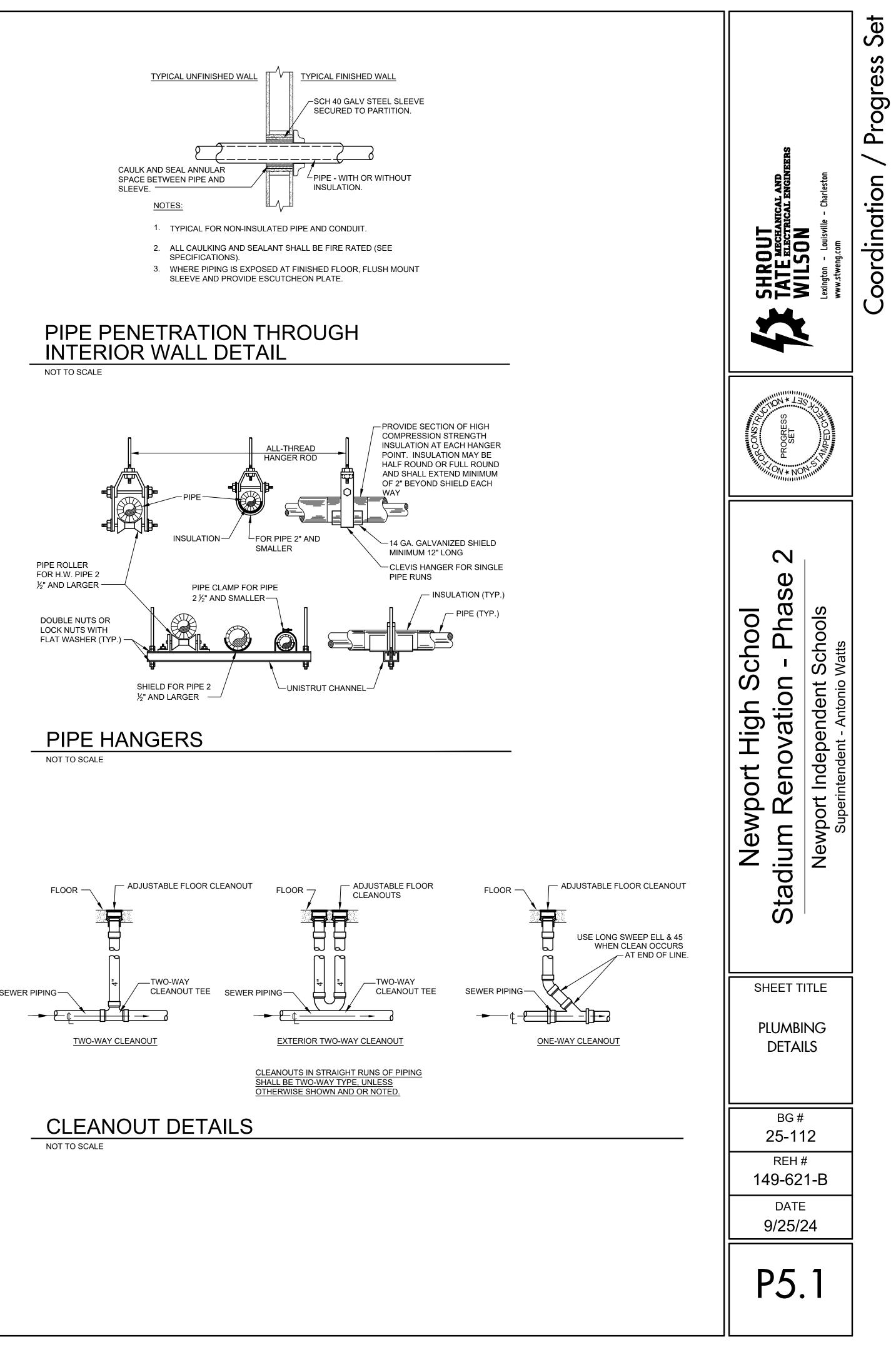
NOTE: REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL FLASHING.

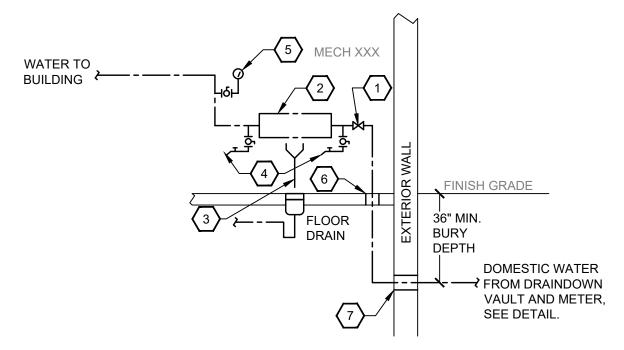
#### **TYPICAL VENT THROUGH ROOF DETAIL** NOT TO SCALE



FLOOR DRAIN DETAIL NOT TO SCALE





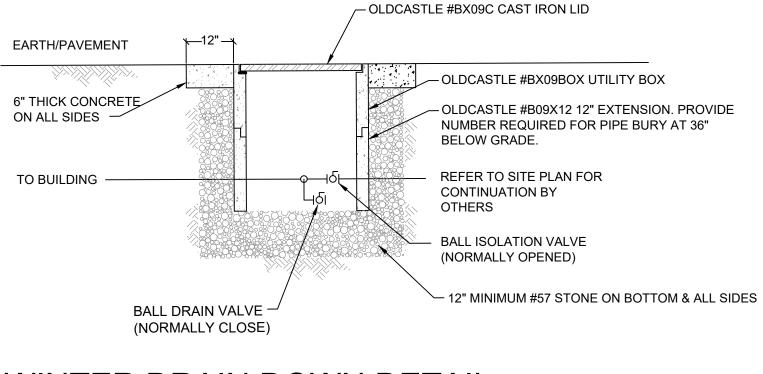


DETAIL NOTES

- MAIN DOMESTIC WATER SERVICE VALVE. EPOXY COATED NON-RISING STEM RESILIENT WEDGE GATE VALVE, SIZE OF WATER SERVICE.
- 2. RPZ BACK FLOW PREVENTER, EPOXY COATED, WITH OPTIONAL EPOXY COATED WYE STRAINER, AND OPTIONAL OS&Y GATE VALVES. INSTALL PER MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
- 3. ROUTE DRAIN FUNNEL AND PIPING TO NEAREST FLOOR DRAIN. CUT DRAIN PIPING AT 60° ANGLE.
- 4.  $\frac{3}{4}$ " <u>HB</u> HOSE BIBB AND SHUT-OFF VALVE FOR SYSTEM DRAIN DOWN.
- 5. PRESSURE GAUGE WITH GAUGE PROTECTER, SHUTOFF, AND BLEED VALVE.
- 6. SLEEVE WATER SERVICE THROUGH FLOOR SLAB.
- 7. SLEEVE WATER SERVICE IN FOUNDATION WALL IF NECESSARY. COORDINATE LOCATION AND DEPTH WITH STRUCTURAL CONTRACTOR.

# DOMESTIC WATER SERVICE ENTRANCE DETAIL (OVER 2" RPZ)

NOT TO SCALE

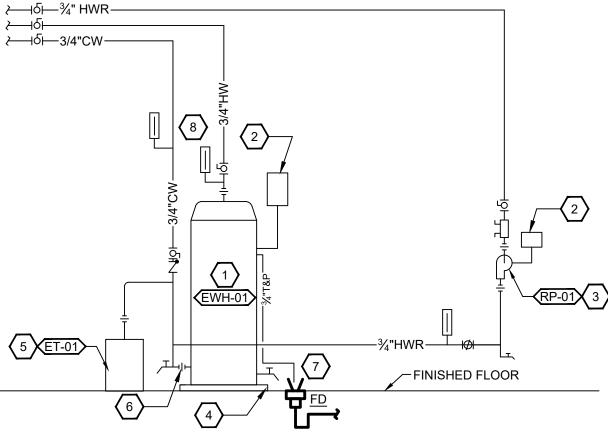


WINTER DRAIN DOWN DETAIL

NOT TO SCALE

GENERAL WATER HEATER NOTES

- REFER TO PLANS FOR PIPE SIZES AT SPECIFIC WATER HEATERS.
- PIPING MUST BE SLOPED BACK TO LOW POINT IN PIPING INSTALLATION FOR WINTER DRAINING PURPOSES.
- PROVIDE UNI-STRUT TYPE VERTICAL SUPPORTS FOR RECIRCULATION PUMP.
- INSTALL DIELECTRIC UNION/FLANGE AT ALL WATER CONNECTIONS TO HEATERS.
- LABEL ALL PIPING AND EQUIPMENT. REFER TO SPECIFICATIONS. • INSULATE ALL DOMESTIC WATER PIPING. REFER TO SPECIFICATIONS.

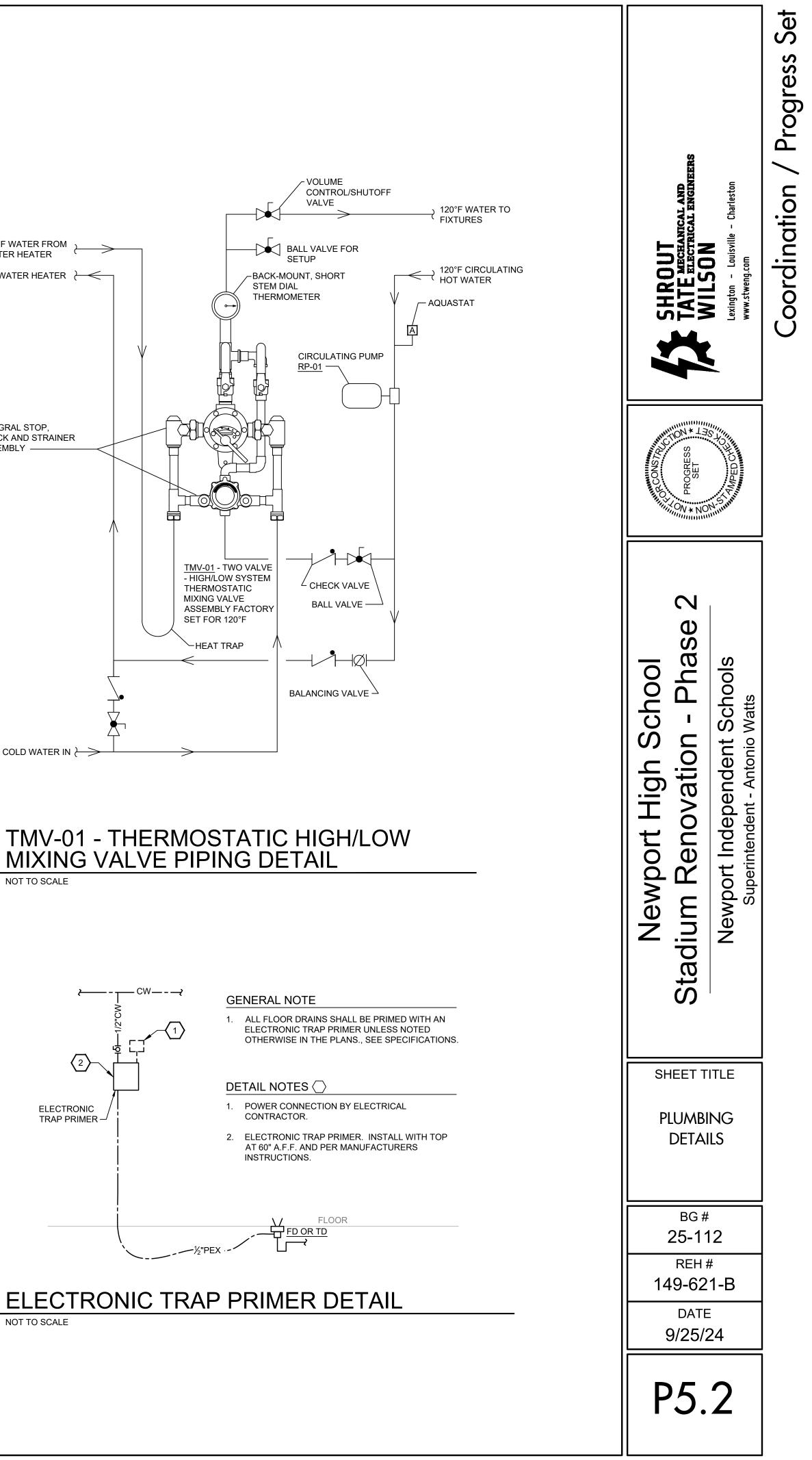


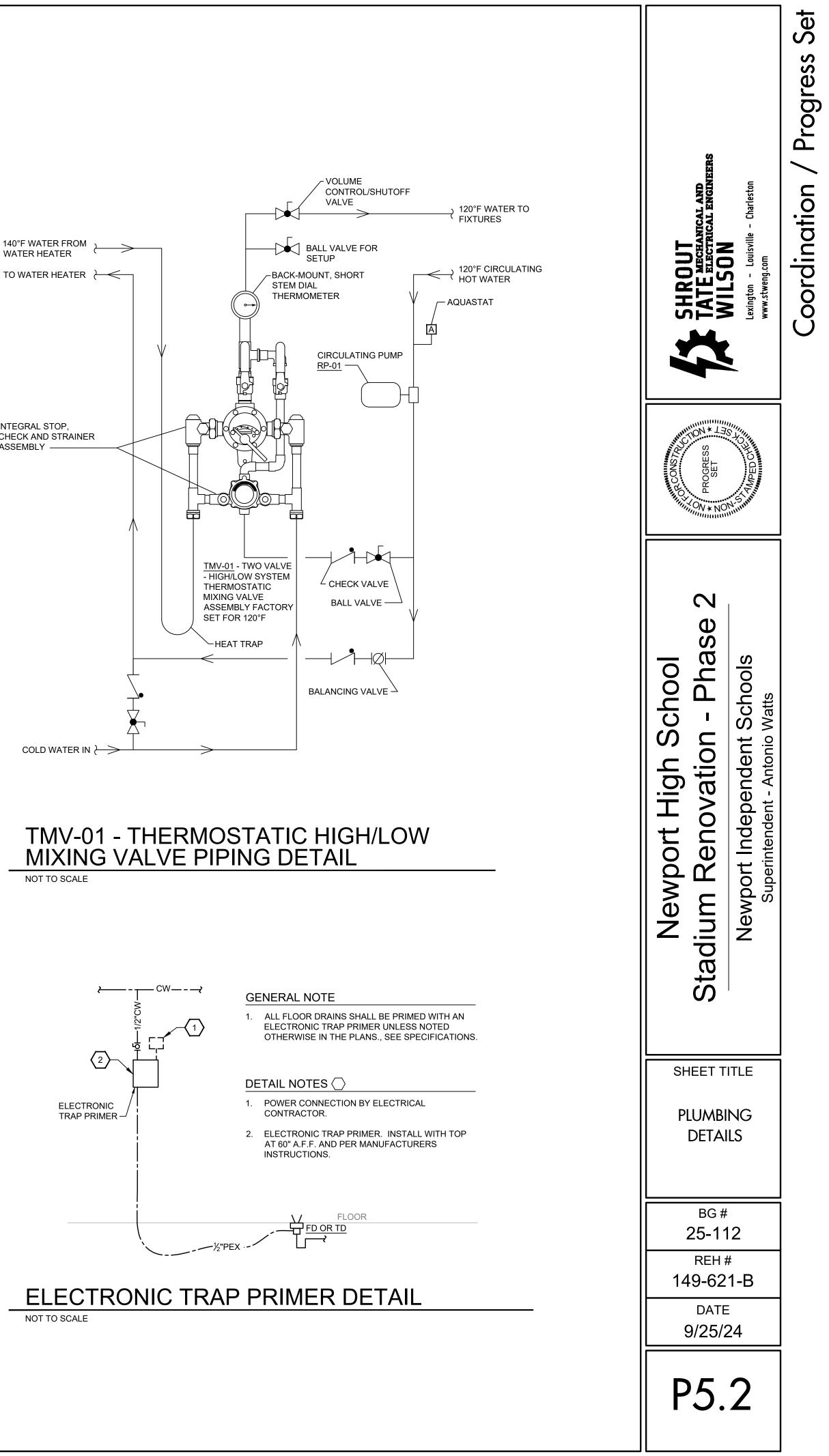
INTEGRAL STOP, CHECK AND STRAINER ASSEMBLY

#### DETAIL NOTES

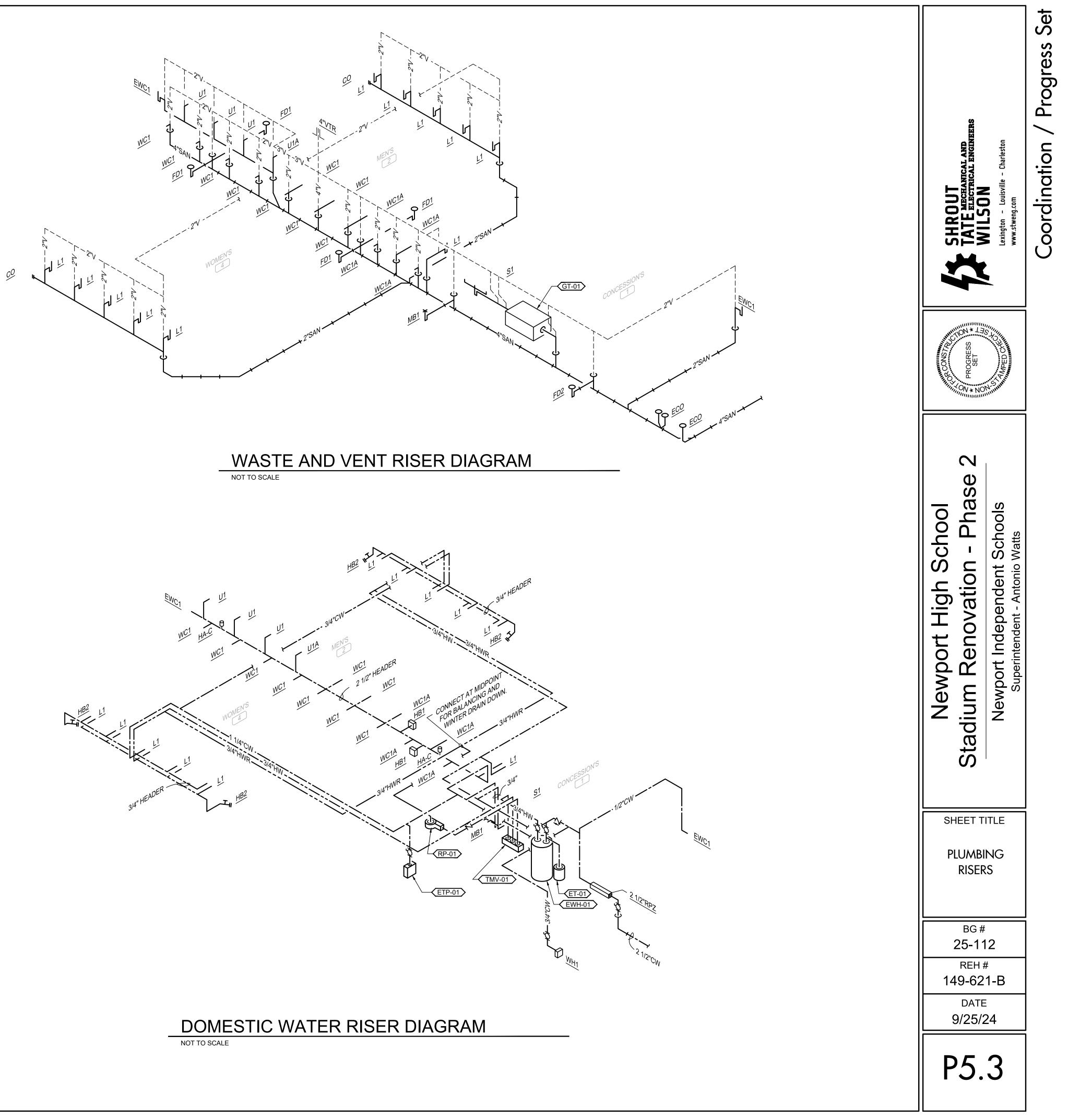
- ELECTRIC WATER HEATER. INSTALL PER MANUFACTURERS INSTRUCTIONS. SET 1.
- DISCHARGE TEMPERATURE TO 120°F. POWER CONNECTIONS BY OTHERS. COORDINATE WITH G.C./ELECTRICAL 2.
- CONTRACTOR.
- HOT WATER RECIRCULATION PUMP 3. 4" TALL CONCRETE HOUSEKEEPING PAD, 6" LARGER THAN WATER HEATER 4.
- EACH DIRECTION. INSTALL EXPANSION TANK ON FLOOR. 5.
- $\frac{3}{4}$ " BOILER DRAIN. 6
- SPILL T&P DISCHARGE TO FLOOR DRAIN. TEMPERATURE GAUGE. (TYPICAL) 8.

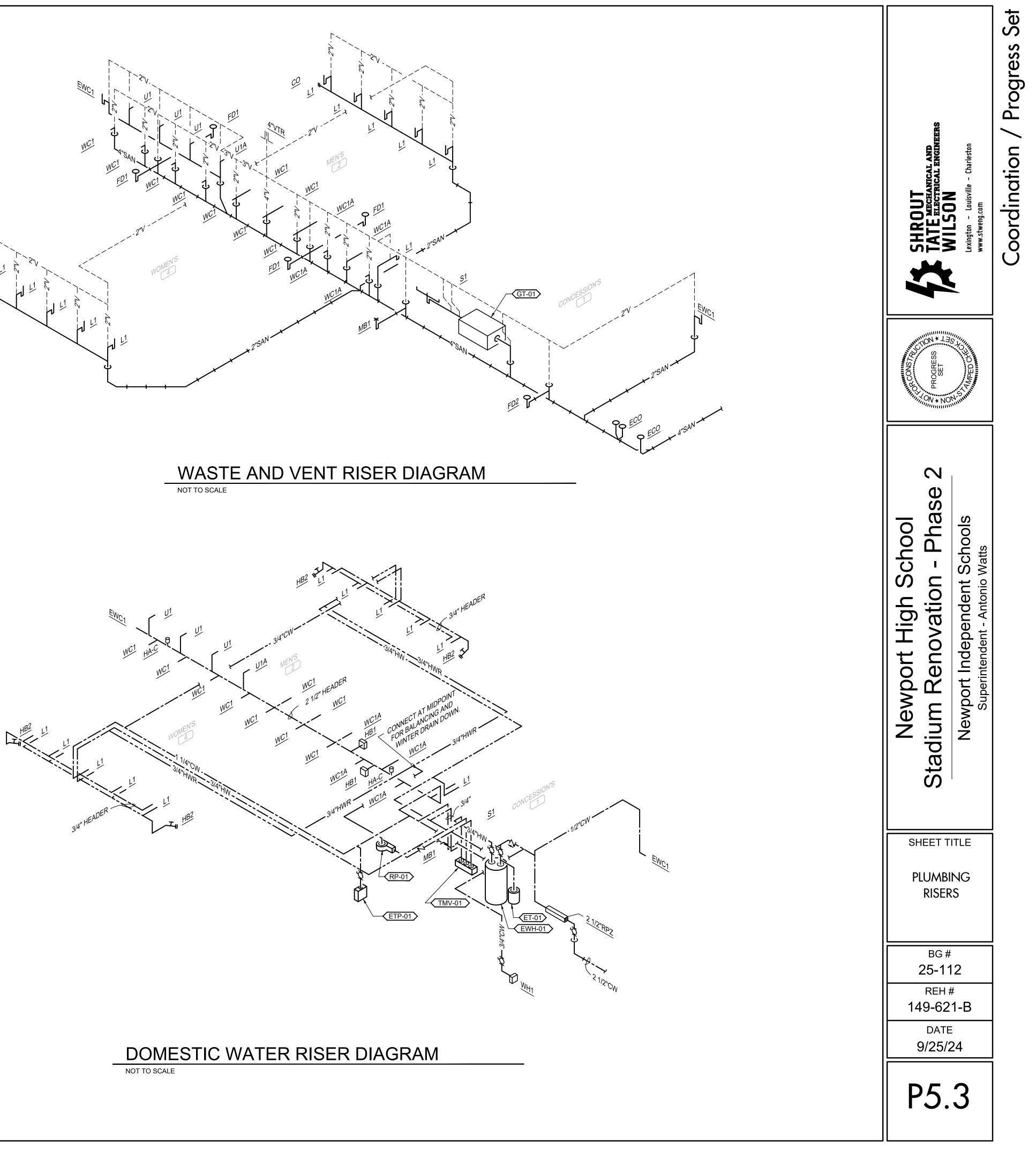
### ELECTRIC WATER HEATER PIPING DETAIL NOT TO SCALE











WATER HAMMER ARRESTOR SCHEDULE									
MARK MAN	MANUFACTURER	MODEL	LOCATION	PIPE SIZE	FIXTURE	REMARKS			
	MANUFACIURER	MODEL	LOCATION	INCHES	UNITS	REMARNS			
HA-A	JOSAM	75001A	SEE PLANS	1/2"	1-11	1,2,3			
HA-B	JOSAM	75002B	SEE PLANS	3/4"	12-32	1,2,3			
HA-C	JOSAM	75003C	SEE PLANS	1"	33-60	1,2,3			
REMARKS <sup>.</sup>									

1. SIZING PER PLUMBING DRAINAGE INSTITUTE (PDI) STANDARD PDI-WH201, LATEST EDITION 2. ASSE 1010 CERTIFIED

3. LEAD FREE

OTHER ACCEPTABLE MANUFACTURERS INCLUDE: JOSAM, SIOUX CHIEF. REFER TO SPECIFICIATIONS FOR ADDITIONAL REQUIREMENTS.

### **BACKFLOW PREVENTER**

MARK	MANUFACTURER	MODEL	TYPE	LOCATION	SIZE	MAX WATER PRESSURE	REMARKS			
BFP-01	WATTS	WATTS LF009 REDUCED PRESSUR		SEE PLANS	2.5"	175 PSI	2,3,4			
REMARKS:	REMARKS:									
1. LEAD FRI	1. LEAD FREE CAST COPPER SILICON BODY									

2. EPOXY COATED CAST IRON.

3. PROVIDE WITH STRAINER.

4. NON-RISING STEM RESILIENT SEATED GATE VALVES

OTHER ACCEPTABLE MANUFACTURER'S INCLUDE: AMES, ZURN WILKINS

TRAP PRIMER SCHEDULE								
MARK	MANUFACTURER	MODEL	LOCATION	NUMBER OF PORTS	VOLTAGE	REMARKS		
ETP-01	PPP	PTS-X	MECHANICAL	SEE PLANS FOR # OF FD'S	120V	ALL		
REMARKS:								

. NUMBER OF PORTS DETERMINED BY CONTRACTOR.

. INSTALLATION SHALL BE TO THE MANUFACTURERS INSTALLATION INSTRUCTIONS.

3. ALL FLOOR DRAINS SHALL HAVE TRAPS PRIMED.

OTHER ACCEPTABLE MANUFACTURERS INCLUDE SIOUX CHIEF OR SUBMIT ALTERNATE MANUFACTURERS FOR APPROVAL TO ENGINEER

THERMOSTATIC MIXING VALVE SCHEDULE										
MARK	ARK MANUFACTURER	ER MODEL	LOCATION	FLOW RANGE	FLOW AT	FLOW AT OUTLET		CONNECTIONS		
				GPM	10 PSIG DROP	TEMP °F	INLET	OUTLET	REMARKS	
TMV-01	LAWLER	801	MECH	1-25	25	120	3/4"	1"	ALL	
REMARKS:										

. LOCKABLE BRASS BALL VALVES AT INLET CONNECTIONS AND TEMPERATURE GAUGE WITH PETCOCK AT OUTLET

2. ASSE 1017 COMPLIANT, LEAD FREE, SOLID BRASS MASTER MIXING VALVE WITH INTEGRAL CARTRIDGE STYLE CHECKS AND SCREENS 3. HI-LO MIXING VALVE.

4. FOLLOW INSTALLATION INSTRUCTIONS TO INSURE MINIMUM FLOW OF 0.50 CAN BE MET. INCLUDE CABINET WITH VALVE.

5. VANDAL RESISTANT MOUNTED AT 48" AFF.

6. OTHER ACCEPTABLE MANUFACTURERS INCLUDE: POWERS, LEONARD. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

EXPANSION TANK SCHEDULE										
MARK	MANUFACTURER	MODEL	LOCATION/ WATER HEATER	TANK VOLUME (GAL)	ACCEPTANCE VOLUME (GAL)	REMARKS				
ET-01	AMTROL	ST-5	MECHANICAL	2	0.45	1				
REMARKS										
1. 100 PSIC	1. 100 PSIG PRESSURE RATING									

OTHER ACCEPTABLE MANUFACTURERS INCLUDE: WESSELS, WATTS.

REFER TO SPECIFICIATIONS FOR ADDITIONAL REQUIREMENTS.

	PLUMBING FIXTURE SCHEDULE											
MARK	MANUFACTURER	MODEL / TYPE	TRIM	CW	HW	TRAP	WASTE	VENT	MOUNTING	REMARKS	OTHER ACCEPTABLE MANUFACTURERS	
<u>WC1 /</u> WC1A	AMERICAN STANDARD	2257.101 WATER CLOSET	<u>FLUSH VALVE</u> : AMERICAN STANDARD MODEL 6047.111.002 <u>SEAT</u> : AMERICAN STANDARD 5901.100	1"		INTEGRAL	4"	2"	WALL HUNG: WC1 - RIM 15" WC1A - RIM 17"	ADA COMPLIANT, ELONGATED BOWL, TOP SPUD, 1.6 GPF MANUAL FLUSH VALVE, HEAVY DUTY OPEN FRONT SEAT LESS COVER, WITH CARRIER	ZURN, SLOAN, KOHLER, CRANE	
<u>U1 / U1A</u>	AMERICAN STANDARD	6590.001 URNIAL	FLUSH VALVE: AMERICAN STANDARD 6045.101.002	3/4"		INTEGRAL	2"	2"	Wall Hung: U1 - Lip 24" U1A - Lip 17"	TOP SPUD, 1.0GPF MANUAL FLUSH VALVE, WITH CARRIER	ZURN, SLOAN, KOHLER, CRANE	
<u>L1</u>	AMERICAN STANDARD		FAUCET: AMERICAN STANDARD MODEL 7385.004.002 TRIM: CHROME PLATED GRID DRAIN, LOOSE KEY OPERATED SUPPLY STOPS, ADA COMPLIANT INSULATION WRAP.	1/2"	1/2"	1-1/4"	2"	2"	WALL HUNG: RIM 34"	20-1/2 " X 18-1/4", VITREOUS CHINA, 4" CENTERS, BACK AND SIDE SPLASH, HEAVY DUTY CONCEALED ARM CARRIERS, 0.5 GPM	ZURN, SLOAN, KOHLER, CRANE, MOEN, DELTA, T&S	
<u>S1</u>	ELKAY	LEFT AND RIGHT	<u>FAUCET</u> : ELKAY LK940AT14T4S <u>TRIM:</u> CHROME PLATED GRID STRAINER, LOOSE KEY OPERATED SUPPLY STOPS.	1/2"	1/2"	1-1/4"	2"	2"	FLOOR SET	10" X 14" X 12" INSIDE BOWL, #16 GAUGE 300 STAINLESS STEEL, CENTER DRAIN, 2 HOLE PUNCH, LEVER HANDLE GOOSENECK FAUCET	JUST, AMERICAN STANDARD	
<u>MB1</u>		TSB100 TERRAZZO MOP SINK	FAUCET: 830AA WITH VACUUM BREAKER TRIM: 832AA HOSE AND HANGER, MSG WALL GUARDS	3/4"	3/4"	3"	3"	2"	FLOOR SET	24" X 24" X 12", STAINLESS STEEL CAPS ON ALL SIDES, ACCESSIBLE CHECK VALVES ON SUPPLIES MUST BE PROVIDED	STERN WILLIAMS, MUSTEE	
<u>EWC1</u>	ELKAY VANDAL RESISTANT COOLER WITH BOTTLE FILLER	MODEL LZSTL8WSVRSK	DELIVERS 8 GPH. INSTALL RIGHT HAND LOW	1/2"	_	1-1/4"	2"	2"	WALL MOUNTED	FIVE YEAR LIMITED WARRANTY.		
<u>HB1</u>	WOODFORD	B24 BOXED HOSE BIBB	WITH VACUUM BREAKER	1/2"					12" AFF	HOSE BIBB TO BE USED FOR DRAINING THE PIPING DURING WINTERS.		
<u>HB2</u>	WOODFORD	MODEL 24 HOSE BIBB	WITH VACUUM BREAKER	1/2"					12" AFF	HOSE BIBB TO BE USED FOR DRAINING THE PIPING DURING WINTERS.		
<u>WHI</u>		M-3509QT NON FREEZE BOX WALL HYDRANT	VARIATIONS: -CL CYLINDER LOCK, -W WATER COVER	3/4"					18" AFG	WITH INTEGRAL VACUUM BREAKER, QUARTER TURN FULL FLOW VALVE, COORDINATE DEPTH WITH INTERIOR WALL.	WOODFORD, ZURN , MIFAB	
FD1	ZURN	ZB415B-P FLOOR DRAIN	POLISHED BRONZE TOP, TRAP PRIMER CONNECTION	1/2"			3"/4" SEE RISER		FLUSH IN FLOOR	TRAP PIMER PIPING MAY BE PEX TYPE.	WATTS, JAY R SMITH, MIFAB, WADE, JOSAM	
<u>FD2</u>	ZURN	Z511-P-Y FLOOR DRAIN	TRAP PRIMER CONNECTION, SEDIMENT BUCKET	1/2"			4"		FLUSH IN FLOOR	TRAP PIMER PIPING MAY BE PEX TYPE.	WATTS, JAY R SMITH, MIFAB, WADE, JOSAM	
ECO	ZURN	Z1400 CLEANOUT	POLISHED BRONZE TOP				VARIES		FLUSH WITH GRADE		FROET. WATTS, JAY R SMITH, MIFAB, WADE , JOSAM	

	GREASE IRAP SCHEDULE									
MARK	MANUFACTURER	MODEL	LOCATION	DIMENSIONS LxWxD	INLET/ OUTLET (IN)	WEIGHT (LBS)	REMARKS			
GT-01	ZURN	GT2700-7	INTERIOR	17 3/4"-11 7/8"X11 1/8"	2"	-	ALL			
REMARKS:							<u> </u>			

. INSTALL GREASE TRAP PARTIALLY UNDER 3 COMPARTMENT SINK AS SHOWN AND DETAILED ON PLANS 2. MANUFACTURER NAME, 'GREASE TRAP', AND CAPACITY (GAL) SHALL BE CAST INTO TOP OF UNIT

OTHER ACCEPTABLE MANUFACTURERS INCLUDE: CLOW, REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

# ELECTRIC WATER HEATER SCHEDULE

						•••								
MARK	MANUFACTURER	MODEL	LOCATION	SERVICE	TANK	RECOVERY	EXPANSION	RECIRCULATION	MIXING		ELECT	RICAL		REMARKS
	MANO ACTORER	ANOFACTURER MODEL LOCATION	SERVICE	CAPACITY (GAL)	AT 90ºF RISE	TANK #	PUMP #	VALVE #	KW	V / Ø / Hz	FLA	MOCP		
EWH-01	AO SMITH	PNT-55	MECHANICAL	BUILDING	50	21	ET-01	RP-01	TMV-01	4.5	240/1/60	18.75	25	ALL
DEMADKO														

REMARKS: . PROVIDE WITH ASME APPROVED TEMPERATURE AND PRESSURE RELIEF VALVE.

. SET AT 140 DEGREES. INSTALL MIXING VALVE TO PROVIDE 120 DEGREES TO FIXTURES.

3. PROVIDE WITH IMMERSION TYPE THERMOSTAT.

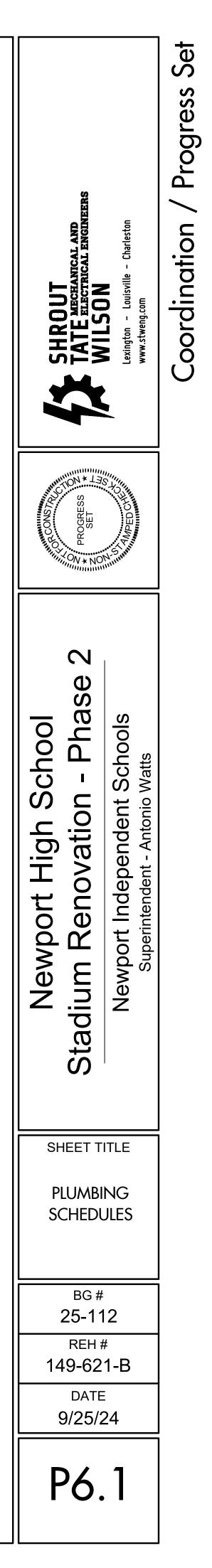
OTHER ACCEPTABLE MANUFACTURERS INCLUDE: STATE, LOCHINVAR. REFER TO SPECIFICIATIONS FOR ADDITIONAL REQUIREMENTS.

	PUMP SCHEDULE												
MARK	MANUFACTURER	MODEL	LOCATION	FLOW	HEAD	RPM	CONNE	CTIONS		ELECT	RICAL		REMARKS
MARK	MANUFACIURER	WODEL	LUCATION	(GPM)	(FT)		INLET	OUTLET	HP	V / Ø / Hz	MCA	MOCP	
RP-01	TACO	008-BF6	MECHANICAL	8	15	3,250	3/4"	3/4"	1/25	120/1/60		15	ALL
REMARKS:													
1. DOMEST	IC HOT WATER RECIP	RCULATION PUMP											

2. PROVIDE DISCONNECT.

OTHER ACCEPTABLE MANUFACTURERS INCLUDE: WILO, BELL& GOSSETT.

### GREASE TRAP SCHEDUILE



# MECHANICAL LEGEND

SYMBOL	DESCRIPTION
	SUPPLY AIR DIFFUSER (4-WAY, 3-WAY, 2-WAY, 1-WAY)
$\otimes$	SUPPLY AIR DIFFUSER (ROUND)
	RETURN GRILLES
	EXHAUST GRILLES
	FLEXIBLE CONNECTION
	SUPPLY AIR DUCT (UP,- DOWN)
	RETURN AIR DUCT (UP,- DOWN)
	EXHAUST AIR DUCT (UP,- DOWN)
	ACCESS DOOR
	RECTANGULAR TO ROUND DUCTWORK TRANSITION
	RECTANGULAR TO RECTANGULAR TRANSITION
	DUCT CHANGE IN ELEVATION; R= RISE, D= DROP
	DUCT SIZE BACKDRAFT DAMPER (ARROW INDICATES FLOW I
	MANUAL VOLUME CONTROL BALANCE DAMPER
	SMOKE DAMPER
	MOTORIZED DAMPER
	COMBINATION - FIRE / SMOKE DAMPER
	ELBOW WITH TURNING VANES
	ELBOW ROUND
•	CONNECT NEW TO EXISTING
>	INDICATES AIR FLOW DIRECTION
-[X]XH <sub>GV</sub>	GATE VALVE (HORIZ VERT.)
-Decl	GLOBE VALVE (HORIZ VERT.)
	BUTTERFLY VALVE (HORIZ VERT.)
-Ö	BALL VALVE (HORIZ VERT.)
-&	CONTROL VALVE (2-WAY, 3-WAY)
——	TRIPLE-DUTY VALVE
Q	PRESSURE GAUGE
[	TEMPERATURE GAUGE / THERMOMETER
	PRESSURE REDUCING VALVE
	STRAINER
	CHECK VALVE
P	FLOW INDICATOR
 	BALANCE VALVE
V	EXISTING PIPING/DUCT/EQUIPMENT TO REMAIN
	EXISTING PIPING/DUCT/EQUIPMENT TO BE REMOVED
]	CAP OR PLUG
	PIPE DOWN, PIPE UP
	INCREASER / REDUCER
-	MANUAL AIR VENT
	AUTOMATIC AIR VENT
	AUTOMATIC AIR VENT ROOM THERMOSTAT OR DUCT STAT
©	AUTOMATIC AIR VENT ROOM THERMOSTAT OR DUCT STAT SENSOR (CO, CO2, ETC.)
	AUTOMATIC AIR VENT ROOM THERMOSTAT OR DUCT STAT SENSOR (CO, CO2, ETC.) HUMIDISTAT
	AUTOMATIC AIR VENT ROOM THERMOSTAT OR DUCT STAT SENSOR (CO, CO2, ETC.) HUMIDISTAT SUPPLY AIR DEVICE (S-1) / AIRFLOW (CFM)
©	AUTOMATIC AIR VENT ROOM THERMOSTAT OR DUCT STAT SENSOR (CO, CO2, ETC.) HUMIDISTAT
	AUTOMATIC AIR VENT ROOM THERMOSTAT OR DUCT STAT SENSOR (CO, CO2, ETC.) HUMIDISTAT SUPPLY AIR DEVICE (S-1) / AIRFLOW (CFM)
	AUTOMATIC AIR VENT ROOM THERMOSTAT OR DUCT STAT SENSOR (CO, CO2, ETC.) HUMIDISTAT SUPPLY AIR DEVICE (S-1) / AIRFLOW (CFM) EQUIPMENT IDENTIFICATION
	AUTOMATIC AIR VENT ROOM THERMOSTAT OR DUCT STAT SENSOR (CO, CO2, ETC.) HUMIDISTAT SUPPLY AIR DEVICE (S-1) / AIRFLOW (CFM) EQUIPMENT IDENTIFICATION DETAIL NO./ SHEET NO.
	AUTOMATIC AIR VENT ROOM THERMOSTAT OR DUCT STAT SENSOR (CO, CO2, ETC.) HUMIDISTAT SUPPLY AIR DEVICE (S-1) / AIRFLOW (CFM) EQUIPMENT IDENTIFICATION DETAIL NO./ SHEET NO. SECTION NO / SHEET NO.
	AUTOMATIC AIR VENT ROOM THERMOSTAT OR DUCT STAT SENSOR (CO, CO2, ETC.) HUMIDISTAT SUPPLY AIR DEVICE (S-1) / AIRFLOW (CFM) EQUIPMENT IDENTIFICATION DETAIL NO./ SHEET NO. SECTION NO / SHEET NO. INDICATED TAG OR SHEET NOTE

	ABBR	EVIA
	AFC	ABC
	AFF	ABC
	AFG	ABC
	AHU-X	AIR
	AS-X	AIR
	ATV	AUT
	B-X	BOII
	BTU	BRI
	BTUH	BRI
	С	CON
	CAS-X	MIN
	CFM	CUE
	CH-X	CHI
/ DIRECTION)	CT-X	cod
	CU-X	CON
	E-X	EXH
	EF-X	EXH
	EH-X	ELE
	ERU-X	ENE
	ESP	EXT
	EXT-X	EXP
	FCU-X	FAN
	FZT	FRE
	GBD	GRA
	GPM	GAL
	HP	HOF
	HP-X	HEA
	HT-X	HEA
	HX-X	HEA
	KW	KILO
	L-X	LOU
	MAU-X	MAH
	MBH	ТНС
	MCU-X	MIN
	NC NO	NOF
	P-X	PUN
	PRV	PRE
	R-X	RET
	RTU-X	ROC
	S-X	SUF
	SF-X	SUF
	SP	тот
	T-X	TRA
	UMU-X	MIN
	VAV-X	VAF
	X	EXIS
	HVAC	
	SYMBOL	
	RA	
	KA	
	EA	
	AO	

ABBRE	EVIATIONS
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU-X	AIR HANDLING UNIT
AS-X	AIR SEPARATOR
ATV	AUTO. TEMPERING VALVE
B-X	BOILER
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNITS PER HOUR
C	COMMON
CAS-X	MINISPLIT CASSETTE UNIT
CFM	CUBIC FEET PER MINUTE
CH-X	CHILLER
CT-X	COOLING TOWER
CU-X	CONDENSING UNIT
E-X	EXHAUST AIR DEVICE
EF-X	EXHAUST FAN DESIGNATION
EH-X	ELECTRIC HEATER
ERU-X	ENERGY RECOVERY UNIT
ESP	EXTERNAL STATIC PRESSURE
ESF EXT-X	
FCU-X	FAN COIL UNIT
FZT	
GBD	
GPM	
	HORSEPOWER
HP-X	
HT-X	
HX-X	HEAT EXCHANGER
KW	KILOWATT
L-X	
MAU-X	
MBH	
MCU-X	
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
P-X	
PRV	PRESSURE REDUCING VALVE
R-X	
RTU-X	
S-X	
SF-X	
SP	TOTAL STATIC PRESSURE
T-X	TRANSFER AIR DEVICE
UMU-X	MINISPLIT WALL-MOUNTED UNIT
VAV-X	VARIABLE AIR VOLUME BOX
Х	EXISTING
HVAC	

SYMBOL	DESCRIPTION
RA	RETURN AIR DUCTWORK
SA	SUPPLY AIR DUCTWORK
—— EA ———	EXHAUST AIR DUCTWORK
—— OA ———	OUTSIDE AIR DUCTWORK

# **GENERAL NOTES:**

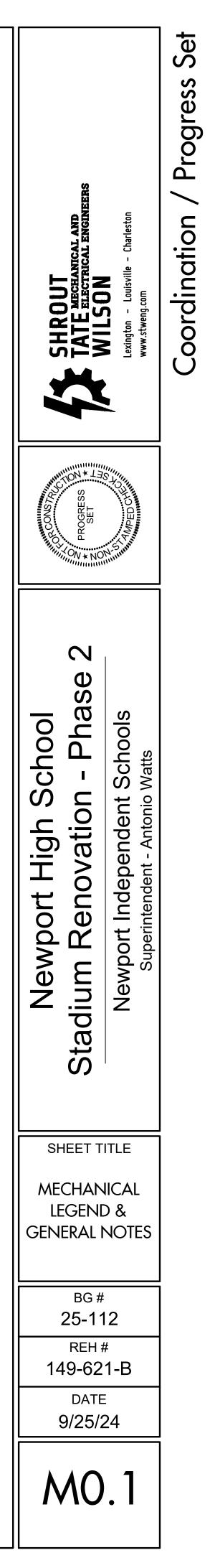
- A. REFER TO SPECIFICATIONS AND THE CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
- B. ALL MECHANICAL WORK SHALL BE PERFORMED BY A LICENSED

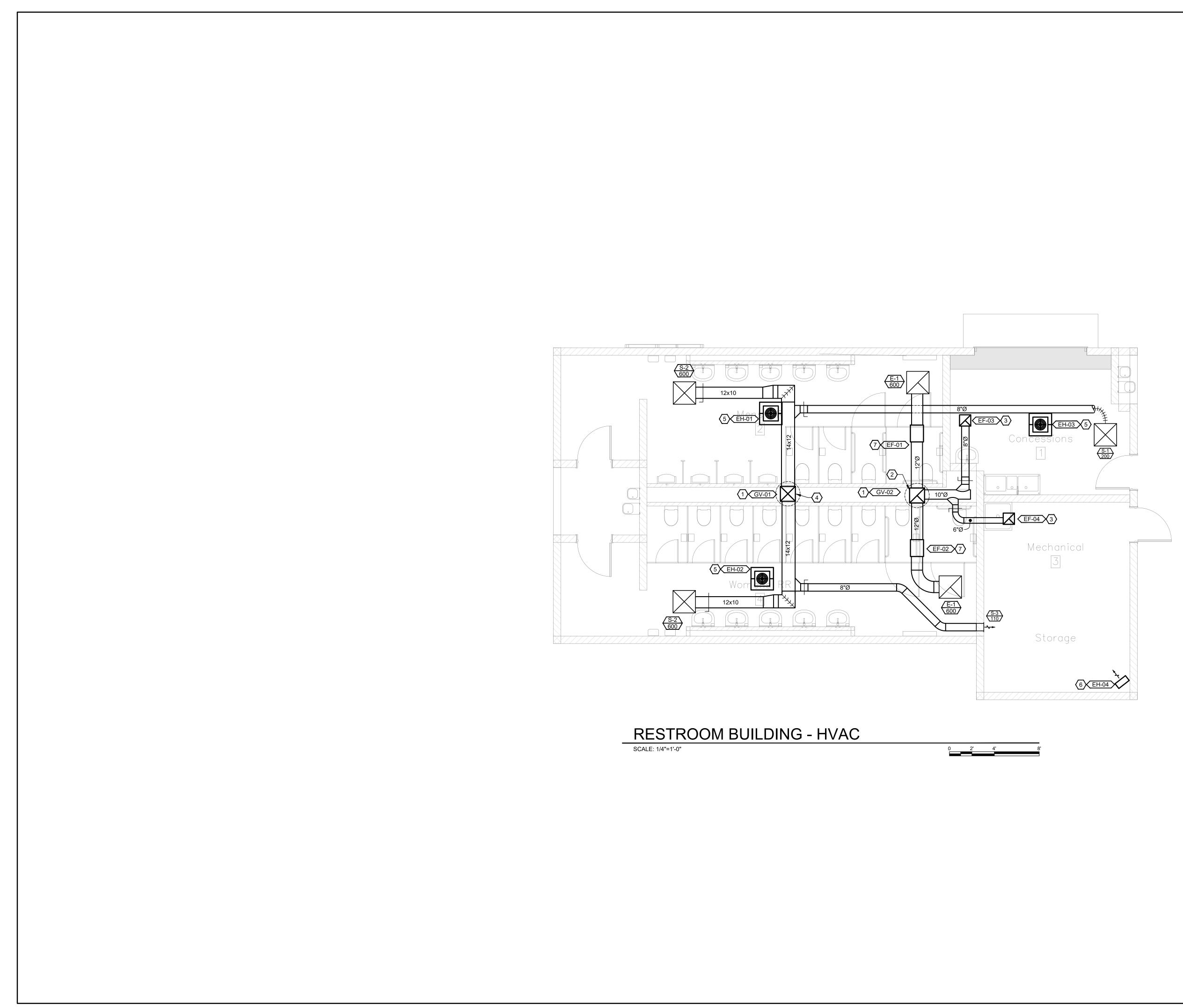
MECHANICAL CONTRACTOR

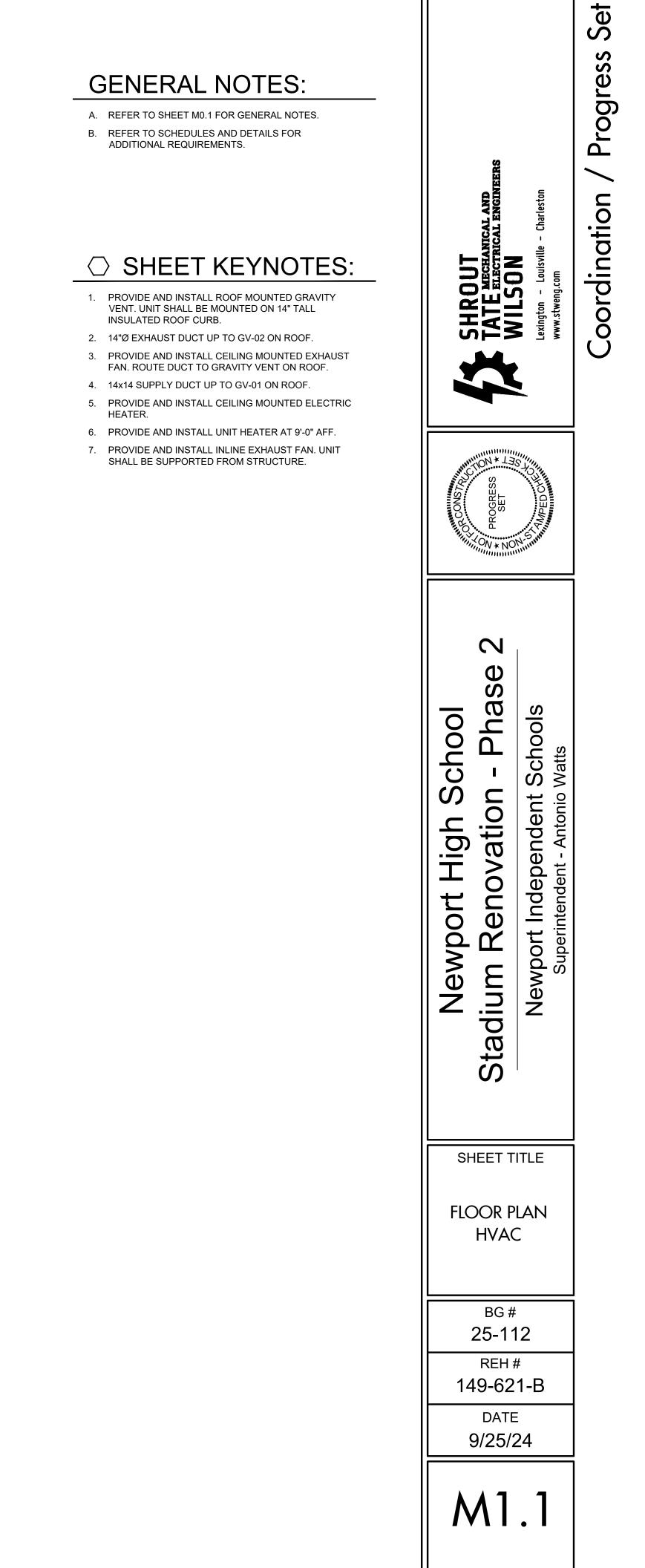
- C. ALL WORK SHALL BE COORDINATED AND SCHEDULED WITH THE CONSTRUCTION MANAGER (CM) OR GENERAL CONTRACTOR (GC), OTHER TRADES, THE OWNER, AND RELATED UTILITY COMPANIES. ALL WORK SHALL COINCIDE WITH THE CONSTRUCTION PHASING PER THE CONTRACT DOCUMENTS OR CONSTRUCTION DOCUMENTS AND/OR AS MODIFIED BY THE CM/GC AND APPROVED BY THE OWNER AND DESIGN TEAM. THE MECHANICAL CONTRACTOR SHALL COORDINATE AND DEVELOP A PHASING PLAN WHERE ONE IS NOT EXPLICITLY SHOWN AND SHALL ENSURE THAT SAID PHASING PLAN IS APPROVED PRIOR TO PROCEEDING WITH WORK. ANY AND ALL DEMOLITION SHALL NOT PERMIT INTERRUPTION OF SERVICE IN AN OCCUPIED BUILDING UNLESS COORDINATED AND APPROVED.
- D. ALL DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENTS OR GEOMETRICAL RELATIONSHIPS OF DUCTWORK, PIPING, EQUIPMENT, AND SERVICES. THEY ARE NOT INTENDED TO SPECIFY OR SHOW EVERY OFFSET, SEQUENCE, DEVICE, OPTION, FITTING, VALVE, OR COMPONENT. CONTRACTOR TO PROVIDE ANY ADDITIONAL DUCT OR PIPING OFFSETS AND/OR FITTINGS, INCLUDING DIVIDED DUCTS AND FLATTENED DUCTS, REQUIRED FOR PROPER INSTALLATION AND TO MAINTAIN CLEARANCES AS ENCOUNTERED IN THE FIELD.
- E. THE MECHANICAL CONTRACTOR SHALL OBTAIN A COPY OF THE ENTIRE SET OF CONTRACT DOCUMENTS PRIOR TO BID AND SHALL COORDINATE ROUTING AND INSTALLATION OF MECHANICAL DUCTWORK, PIPING, AND EQUIPMENT WITH ALL OTHER DISCIPLINES AND TRADES INCLUDING BUT NOT LIMITED TO CIVIL, ARCHITECTURAL, STRUCTURAL, FIRE SUPPRESSION, PLUMBING, AND ELECTRICAL.
- F. REFER TO THE ENTIRE SET OF CONTRACT DOCUMENTS FOR DETAILS OF CONSTRUCTION AND INSTALLATION REQUIREMENTS. FURNISH ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED FOR COMPLETION AND OPERATION OF A FULLY FUNCTIONAL MECHANICAL SYSTEM AND IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS INCLUDING BUT NOT LIMITED TO THE KENTUCKY BUILDING CODE, ASHRAE, IMC, IECC, SMACNA, AND NFPA.
- G. THE EXACT LOCATIONS OF ALL EQUIPMENT, DUCTS, DIFFUSERS, ETC. SHALL BE COORDINATED WITH ALL OTHER TRADES. CEILING MOUNTED LIGHTING AND ELECTRICAL REQUIREMENTS TAKE PRECEDENCE OVER CEILING MOUNTED MECHANICAL EQUIPMENT. SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR CEILING GRID AND LIGHTING LAYOUT FOR COORDINATION OF FINAL DIFFUSER LOCATIONS.
- H. THE MECHANICAL DRAWINGS REFLECT A "BASIS OF DESIGN" HVAC SYSTEM THAT HAS BEEN DESIGNED AROUND SPECIFIC PRODUCTS/MANUFACTURER'S (SEE SCHEDULES). THE SELECTION OF A "BASIS OF DESIGN" HAS INFLUENCED THE DESIGNS OF OTHER TRADES (ELECTRICAL, STRUCTURAL, ETC.), THE CONTRACTOR MAY USE "NON-BASIS OF DESIGN" PRODUCTS/MANUFACTURER'S AS PERMITTED BY THE SPECIFICATIONS AND/OR CONTRACT DOCUMENTS, COORDINATION OF ALL MODIFICATIONS TO EACH DISCIPLINE WHICH RESULT FROM THE USE OF "NON-BASIS OF DESIGN" EQUIPMENT OR MATERIALS SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR. IF "NON-BASIS OF DESIGN" MANUFACTURERS, SIZES, OR MODEL NUMBERS ARE BID, SUBMITTED, OR INSTALLED; IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR AND ALL OF HIS OR HER SUBCONTRACTORS TO COORDINATE ALL DIFFERENCES PRIOR TO BID. ALL COSTS OF ALL TRADES ASSOCIATED WITH THE USE OF "NON-BASIS OF DESIGN" EQUIPMENT SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR AND SHALL BE INCLUDED IN THE BID. SUBSEQUENTLY. ANY ADDITIONAL COST BORE BY THE ENGINEER (MECHANICAL, ELECTRICAL, ETC) TO ACCOMMODATE "NON-BASIS OF DESIGN" EQUIPMENT SHALL BE BORE BY THE CONTRACTOR AND PAID TO THE ENGINEER OF RECORD DURING SUBMITTALS.
- I. EQUIPMENT OR MATERIALS AS ALLOWED BY THE SPECIFICATIONS AND/OR CONTRACT DOCUMENTS. WHICH ARE INSTALLED AND SUBSEQUENTLY VIEWED UNSATISFACTORY BY THE OWNER AND/OR ENGINEER WITHIN THE WARRANTY PERIOD, SHALL BE REMOVED COMPLETELY BY THE CONTRACTOR AND REPLACED WITH THE ORIGINAL DESIGN OR CORRECTED AS DIRECTED BY THE ENGINEER WITHOUT ADDITIONAL COST TO THE OWNER.
- J. CONTRACTOR SHALL VISIT THE JOB SITE, FIELD VERIFY FIT, COORDINATE WITH OTHER TRADES, AND BECOME FAMILIAR WITH ALL PROJECT CONDITIONS PRIOR TO FABRICATING DUCTWORK, INSTALLING EQUIPMENT, ETC. NO ALLOWANCES WILL BE MADE FOR LACK THEREOF.
- K. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND COSTS FOR ALL PERMITS, TESTING, AND INSPECTIONS.
- L. CONTRACTOR TO REMOVE UNUSED/ABANDONED HVAC SYSTEMS AND EQUIPMENT UNLESS INDICATED OTHERWISE ON THE CONTRACT DOCUMENTS.
- M. COORDINATE WITH THE CONTRACT DOCUMENTS AND PROVIDE TEMPORARY HEAT AS REQUIRED.
- N. INFORMATION AND COMPONENTS SHOWN ON RISER DIAGRAMS OR DETAILS BUT NOT SHOWN ON PLANS AND VICE VERSA, SHALL BE PROVIDED AS IF REQUIRED BY BOTH.
- O. THE ENTIRE MECHANICAL INSTALLATION SHALL BE AS REQUIRED TO MAINTAIN FIRE/SMOKE RATINGS AND/OR "UL" ASSEMBLY RATINGS AS REQUIRED BY THE CONTRACT DOCUMENTS AND AS SHOWN ON THE ARCHITECTURAL AND MECHANICAL DRAWINGS. SEAL AROUND ALL PENETRATIONS THROUGH ALL FIRE/SMOKE SEPARATIONS AND/OR "UL" RATED ASSEMBLIES. COORDINATE ALL PENETRATIONS WITH THE CONSTRUCTION MANAGER AND/OR GENERAL CONTRACTOR. PROVIDE ADDITIONAL FIRE DAMPERS, SMOKE DETECTORS, AND SMOKE DAMPERS (INCLUSIVE OF WIRING) AS REQUIRED FOR A FULLY FUNCTIONAL AND CODE COMPLIANT SYSTEM.

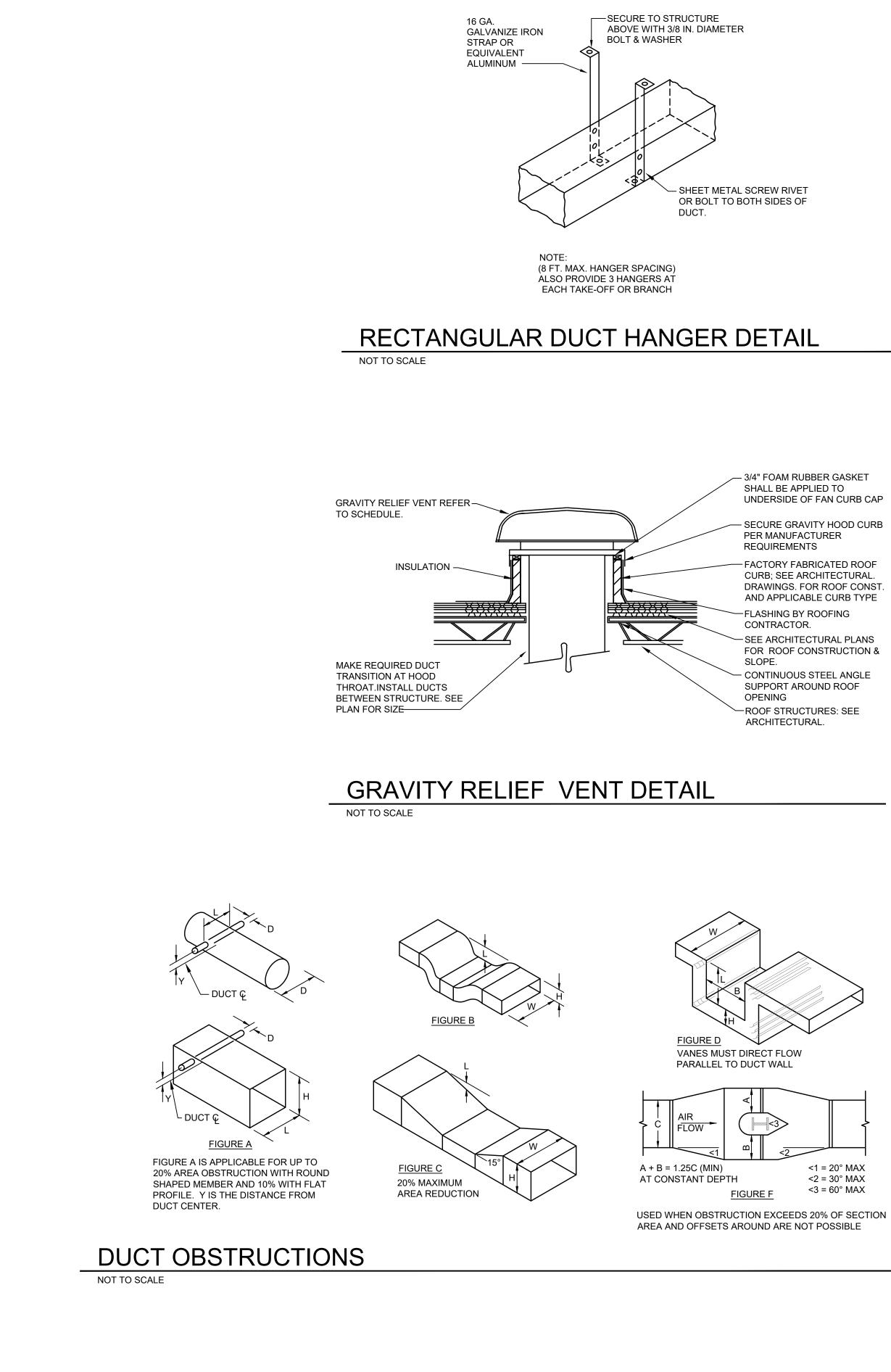


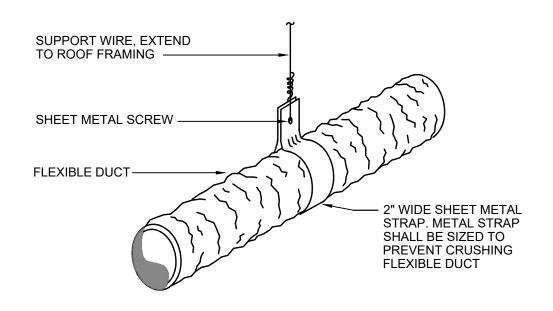
- P. ALL DUCTWORK, PIPING, AND MECHANICAL EQUIPMENT SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE. NO OTHER TRADES, I.E. ELECTRICAL, CEILING, PLUMBING, ETC., SHALL BE SUSPENDED, HUNG, OR SUPPORTED FROM MECHANICAL DUCTWORK OR MECHANICAL PIPING.
- Q. ALL BUILDING PENETRATIONS MUST BE COORDINATED WITH THE ARCHITECT AND SHALL BE FLASHED AND SEALED WEATHER-TIGHT. ALL MATERIALS AND COLORS MUST BE PRE-APPROVED BY THE ARCHITECT. NEW OPENINGS AND/OR PENETRATIONS FOR MECHANICAL ITEMS SHALL BE CUT, SLEEVED, ETC. BY THE MECHANICAL CONTRACTOR. ALL OPENINGS SHALL BE CORE DRILLED OR SAW-CUT. NO "<u>HAMMER DRILLING</u>" WILL BE ALLOWED.
- R. ROUTE DUCTWORK AS HIGH AS POSSIBLE TO FACILITATE ACCESS TO ABOVE CEILING SPACE. COORDINATE ROUTING WITH OTHER SERVICES AND TRADES. PROVIDE ADDITIONAL DUCTWORK, OFFSETS, ETC. TO ACCOMMODATE FIELD CONDITIONS AS REQUIRED FOR A COMPLETE AND FUNCTIONING SYSTEM AT NO ADDITIONAL COST. ADDITIONAL OFFSETS REQUIRE APPROVAL FROM THE ENGINEER. ROUTE DUCTWORK BETWEEN JOISTS WHERE POSSIBLE.
- S. ALL AIR DEVICES LOCATED ABOVE GYPBOARD OR HARD CEILINGS SHALL HAVE ACCESSIBLE BALANCING DAMPERS.
- T. ALL DUCTWORK SHALL BE CONSTRUCTED AND INSTALLED PER SMACNA HVAC DUCT CONSTRUCTION STANDARDS.
- U. PROVIDE AND INSTALL DUCT ACCESS DOORS FOR INSPECTION OF ALL INSTALLED FIRE DAMPERS AS DIRECTED BY SMACNA HVAC CONSTRUCTION STANDARDS.
- V. MAXIMUM FLEXIBLE DUCT LENGTH SHALL BE 5'-0". ALL FLEXIBLE DUCT SHALL CONFORM TO THE REQUIREMENTS OF UL 181 FLEXIBLE AIR DUCTS. SUPPORT TO ELIMINATE SAGGING AND KINKING. INSULATED FLEXIBLE DUCTS SHALL MEET MINIMUM R-VALUES REQUIRED BY THE IECC.
- W. ALL HVAC EQUIPMENT TO BE INSTALLED PER MANUFACTURER'S REQUIREMENTS. UTILIZE FACTORY FILTERS DURING CONSTRUCTION.
- X. THE OWNER SHALL CONTRACT DIRECTLY WITH A THIRD PARTY TEST AND BALANCE (TAB) COMPANY TO BALANCE SYSTEM TO AIR QUANTITIES INDICATED ON PLANS AND PROVIDE OWNERS REPRESENTATIVES WITH COMPLETE NEBB/AABC BALANCE REPORT. THE MECHANICAL CONTRACTOR SHALL PROVIDE AS MANY ADDITIONAL SITE VISITS AS REQUIRED BY THE ENGINEER FOR A COMPLETE AND FUNCTIONING AND APPROVED SYSTEM IN COMPLIANCE WITH THE CONTRACT DOCUMENTS.
- Y. ALL RECTANGULAR 90 DEG. AND 45 DEG. ELBOWS SHALL HAVE TURNING VANES.
- Z. PROVIDE A MANUAL VOLUME DAMPER AT ALL BRANCH TAKE-OFFS ON SUPPLY, RETURN, AND OUTSIDE AIR DUCTWORK AT NO ADDITIONAL COST. PROVIDE A MAIN RETURN DAMPER UPSTREAM OF OUTSIDE AIR CONNECTIONS IN RETURN AIR PLENUM DESIGNS. COORDINATE ADDITIONAL MANUAL VOLUME DAMPER LOCATIONS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM WITH THE ENGINEER PRIOR TO ORDER, FABRICATION, OR INSTALLATION.
- AA. ALL DUCT DIMENSIONS SHOWN ARE INTERIOR "CLEAR" DUCT DIMENSIONS.
- AB. MAINTAIN 10'-0" MINIMUM CLEARANCE BETWEEN OUTDOOR AIR INTAKES AND EXHAUST, PLUMBING VENTS, ETC. AND/OR AS REQUIRED BY IMC, WHICHEVER IS MORE STRINGENT.
- AC. MAINTAIN 10'-0" MINIMUM CLEARANCE FROM EDGE OF ROOFTOP EQUIPMENT TO ROOF EDGE UNLESS RAILING OR PARAPET OF SUFFICIENT HEIGHT IS TO BE PROVIDED IN ACCORDANCE WITH ALL APPLICABLE CODES INCLUDING BUT NOT LIMITED TO: IBC, IMC, LOCAL CODES, OSHA GUIDELINES (WHERE APPLICABLE). REFER TO ARCHITECTURAL.
- AD. PROVIDE CONDUIT, BOXES AND CONTROL WIRING IN COMPLIANCE WITH THE NEC AND DIVISION 26.
- AE. MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR AND DRAWINGS FOR CONNECTIONS AND LOCATION OF ALL EQUIPMENT.
- AF. CONTRACTOR SHALL PROVIDE ADDITIONAL OFFSETS OR BENDS IN PIPING AS REQUIRED TO ALLOW FOR EXPANSION AND CONTRACTION DUE TO TEMPERATURE CHANGES AND DIFFERENCES IN THE AMBIENT TEMPERATURE WHEN PIPING AND EQUIPMENT IS INSTALLED.
- AG. PROVIDE MANUAL AIR VENTS AT HIGH POINTS AND DRAIN VALVES AT LOW POINTS OF ALL HYDRONIC PIPING. AUTOMATIC AIR VENTS SHALL BE INSTALLED WHERE INDICATED IN THE CONTRACT DOCUMENTS AND/OR AS REQUIRED FOR A FULLY FUNCTIONAL SYSTEM.
- AH. MECHANICAL CONTRACTOR SHALL COORDINATE WITH THE ARCHITECTURAL PLANS AND GC/CM ALL AREAS WHERE MECHANICAL / ELECTRICAL EQUIPMENT AND DEVICES ARE INDICATED TO BE DEMOLISHED AND THE REQUIRED REPAIR AND RESTORATION OF ALL WALLS, ROOFS, CEILINGS, FLOORS, ETC. SHALL BE INCLUDED IN THEIR BID.
- AI. ALL ROOF PENETRATIONS SHALL BE IN COMPLIANCE WITH THE ROOFING MANUFACTURER'S GUIDELINES AND THE AMERICAN ROOFING COUNCIL. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE AS NECESSARY TO MAINTAIN ALL WARRANTIES.
- AJ. STRUCTURAL MEMBERS SHALL NOT BE CUT OR COMPROMISED IN ANY WAY.
- AK. DO NOT BLOCK ACCESS TO HVAC OR ELECTRICAL EQUIPMENT. DO NOT INSTALL PIPING, DUCTWORK, OR EQUIPMENT OVER ELECTRICAL PANELS/SWITCHGEAR OR THE 30" x 42" (W x D) CLEARANCE IN FRONT OF THESE ELECTRICAL ITEMS. COORDINATE ADDITIONAL REQUIREMENTS WITH NEC.







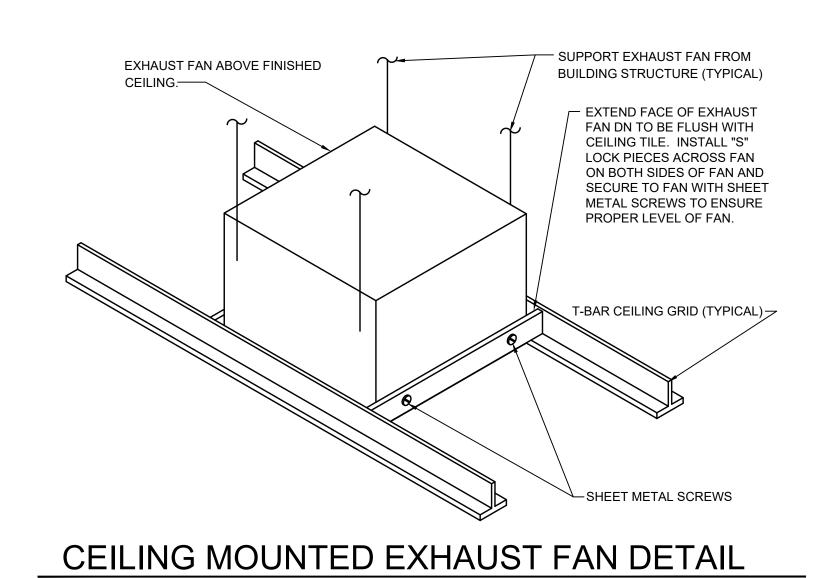


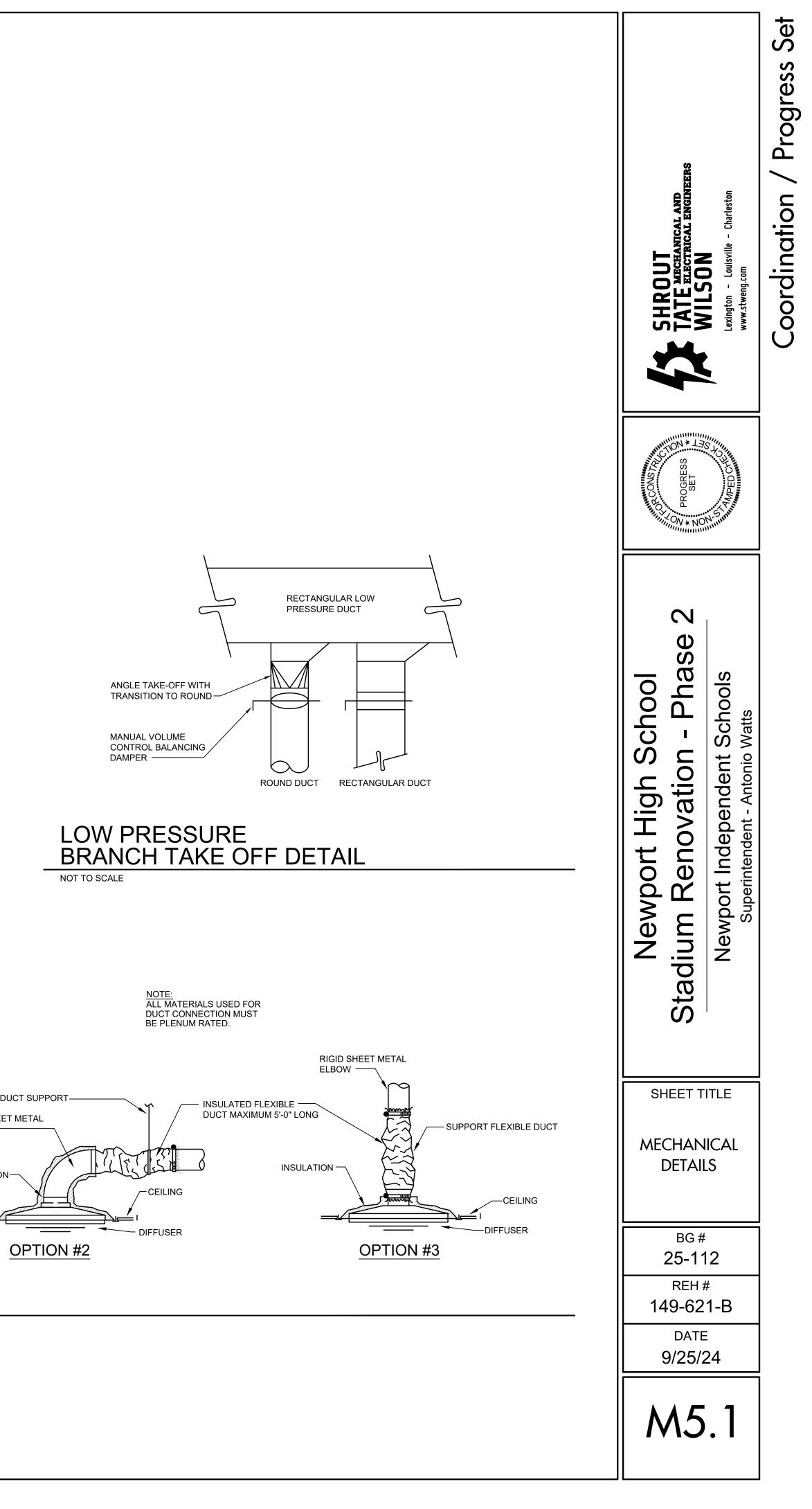


# FLEXIBLE DUCT SUPPORT DETAILS

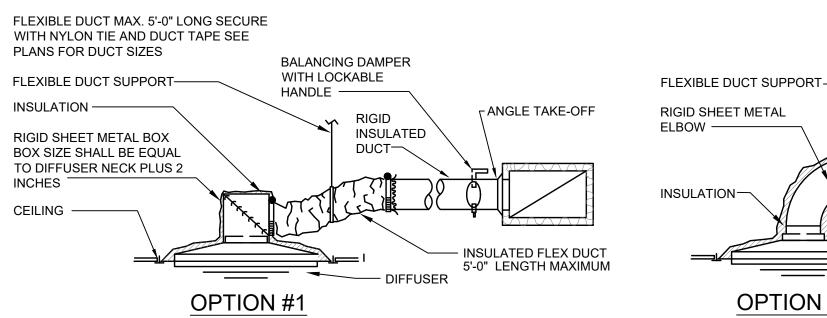
NOT TO SCALE

NOT TO SCALE





<u>NOTE:</u> PROVIDE A MINIMUM OF FOUR (4) SHEET METAL SCREWS THRU 3-WRAPS OF DUCT TAPE TO SECURE FLEXIBLE DUCT TO THE SHEET METAL PRIOR TO INSTALLING THE 1/4" WIDE PLENUM RATED NYLON TIE. THE FLEXIBLE DUCT INSULATION SHALL BE SECURED WITH 3-WRAPS OF DUCT TAPE.



# **DIFFUSER RUNOUT DETAIL**

NOT TO SCALE



### EXHAUST/SUPPLY FAN SCHEDULE

MARK	MANUFACTURER	MODEL	CFM	ESP	SONES	DRIVE	RPM		ELEC.	TRICAL		REMARKS
		MODEL		(IN H20)		TYPE		V/Ø/Hz	HP	NEC FLA	MOCP	
EF-01	GREENHECK	CSP-A710-VG	600	0.38	3.0	DIRECT	1447	115/60/1	FRAC	3.5	15	ALL
EF-02	GREENHECK	CSP-A710-VG	600	0.38	3.0	DIRECT	1447	115/60/1	FRAC	3.5	15	ALL
EF-03	GREENHECK	SP-A250	200	0.38	3.5	DIRECT	1000	115/60/1	FRAC	0.56	15	ALL
EF-04	GREENHECK	SP-A390-VG	110	0.38	3.0	DIRECT	1074	115/60/1	FRAC	1.5	15	ALL

REMARKS:

1. PROVIDE WITH UNIT MOUNTED DISCONNECT

2. PROVIDE WITH UNIT MOUNTED SPEED CONTROL 3. PROVIDE WITH APPROPRIATE BACKDRAFT DAMPER

4. SUPPORT FROM THE STRUCTURE

5. INTERLOCK WITH LIGHTING CONTROLS, COORDINATE WITH ELECTRICAL CONTRACTOR.

	AIR DEVICE SCHEDULE										
MARK	MANUFACTURER	MODEL	MAX CFM	MODULE (INCHES)	AIR PATTERN	NECK (INCHES)	MAXNC	REMARKS			
S-1	PRICE	SCD	200	24x24	4-WAY	8"Ø	20	1,3			
S-2	PRICE	SCD	600	24x24	4-WAY	12"Ø	20	1,3			
S-3	PRICE	510	110	8x8	45 DEG DEF	6x6	20	2,3,4			
E-1	PRICE	530	1000	24x24	-	22x22	20	1,3,4			

REMARKS:

1. LAY-IN TYPE

2. SURFACE/WALL MOUNTED GRILLE.

3. PROVIDE WITH WHITE FINISH.

4. 45 DEG BLADES.

	ELECTRIC HEATER SCHEDULE										
MARK	MARK MANUFACTURER MODEL TYPE CFM BTUH ELECTRICAL										REMARKS
MAIN	MANOFACTORER	WODEL	IIFE		ыли	V/Ø/Hz	KW	MCA	MOCP	(LBS)	<b>NEWARKS</b>
EH-01	REDDI	21RCH5A1	CEILING	600	17,000	240/1/60	5	20.8	30	45	ALL
EH-02	REDDI	21RCH5A1	CEILING	600	17,000	240/1/60	5	20.8	30	45	ALL
EH-03	REDDI	21RCH5A1	CEILING	600	17,000	240/1/60	5	20.8	30	45	ALL
EH-04	REDDI	HF1B5105N	UNIT	400	17.1	240/1/60	5	20.9	30	25	ALL

REMARKS:

1. INTEGRAL THERMOSTAT AND DISCONNECT

2. INTEGRAL DISCONNECT AND WALL MOUNTED THERMOSTAT.

3. INSTALL PER MANUFACTURER'S INSTRUCTIONS 4. PROVIDE REQUIRED MOUNTING BRACKET FOR MOUNTING AS INDICATED ON PLANS

OTHER ACCEPTABLE MANUFACTURERS INCLUDE: Q-MARK, MARKEL. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

	GRAVITT HOOD SCHEDULE										
MARK	MANUFACTURER	MODEL	CFM		SIZE		PRESSURE	INTAKE/ EXHAUST	REMARKS		
MAINN	WANOFACTORER	MODEL	CEIVI	WIDTH (IN)	HEIGHT (IN)	LENGTH (IN)	DROP (IN WG)	INTAKE/ EAHAUST	NE MARKS		
GV-01	GREENHECK	GRSI-16	910	29	23	29	0.06	INTAKE	ALL		
GV-02	GREENHECK	GRSR-16	910	29	23	29	0.06	EXHAUST	ALL		

REMARKS: 1. WITH 14" INSULATED ROOF CURB.

OTHER ACCEPTABLE MANUFACTURERS INCLUDE: RUSKIN, UNITED ENERTECH. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

OTHER ACCEPTABLE MANUFACTURERS INCLUDE: CARNES, COOK. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

GENERAL NOTES:

COORDINATE AIR DEVICE LOCATIONS WITH REFLECTED CEILING PLANS PRIOR TO INSTALLATION. LIGHTING HAS PRIORITY OVER HVAC. ALL AIR DEVICES SHALL BE OF ALUMINUM CONSTRUCTION

OTHER ACCEPTABLE MANUFACTURERS INCLUDE: KREUGER, TITUS. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

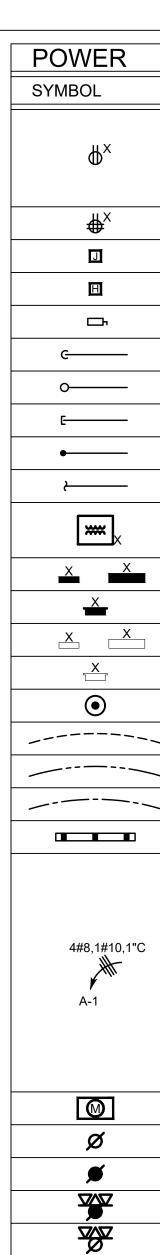
### GRAVITY HOOD SCHEDULE

2. REFER TO ARCHITECTURAL ELEVATIONS FOR ROOF SLOPE.

SHROUT TATE RECHANICAL AND TATE RECHANICAL ENGINEERS WILCON	Lexington - Louisville - Charleston www.stweng.com	Coordination / Progress Set
PROGRESS	AMPED C	
Newport High School Stadium Renovation - Phase 2	Newport Independent Schools Superintendent - Antonio Watts	
SHEET T	lical	
SCHEDU		
BG # 25-11 REH #	12 #	
149-62 Date 9/25/2	Ē	
M6	.1	

# ELECTRICAL LEGEND

LIGHTING	
SYMBOL	DESCRIPTION
♦ ♦	SURFACE MOUNTED LUMINAIRE (NORMAL & EMERGENCY)
	RECESSED LUMINAIRE (NORMAL & EMERGENCY)
$\mathbf{Q}^{X}  \mathbf{Q}^{X}$	WALL MOUNTED LUMINAIRE (NORMAL AND EMERGENCY)
Ø <sup>x</sup> Ø <sup>x</sup>	RECESSED LUMINAIRE (NORMAL AND EMERGENCY)
<b>•</b>	SURFACE MOUNTED LUMINAIRE (NORMAL AND EMERGENCY)
	LINEAR PENDANT LUMINAIRE (NORMAL AND EMERGENCY)
	WALL BRACKET LUMINAIRE (NORMAL AND EMERGENCY)
	INDUSTRIAL STRIP LUMINAIRE (NORMAL AND EMERGENCY)
×طه <sub>×</sub>	TWO-HEAD EMERGENCY LIGHTING UNIT
<b>x</b> × <b>4</b> ××	EMERGENCY REMOTE HEAD (SINGLE OR DOUBLE)
<b>***</b> *	EMERGENCY EXIT SIGN WITH COMBINATION EMERGENCY LUMINAIRE WALL AND CEILING MOUNT
⊗x ⊗x	EMERGENCY EXIT SIGN - SINGLE FACE WITH ARROWS AS INDICATED WALL AND CEILING MOUNTED
₽x ₫x	EMERGENCY EXIT SIGN - DOUBLE FACE
• <b>•</b>	POLE MOUNTED LUMINAIRE
<b>o</b> <sub>x</sub>	FLOOD OR SPOT LUMINAIRE
LC-X	LIGHTING CONTROL RISER REFERENCE TAG
PC	PHOTOCELL
BP	BATTERY PACK
PP	LIGHTING CONTROL POWER PACK
PS	POWER SUPPLY
ТС	TIME CLOCK
С	CONTACTOR, POLES AS REQUIRED
0	DAYLIGHT SENSOR
Q. Q.	DUAL TECHNOLOGY LOW VOLTAGE CORNER MOUNTED OCCUPANCY SENSOR WITH POWER PACK AND CEILING MOUNT OR WALL MOUNT BRACKET AS SHOWN.
69	DUAL TECHNOLOGY LOW VOLTAGE CEILING MOUNTED, 360° OCCUPANCY SENSOR.
\$ <sup>X</sup>	LIGHT SWITCH - SUBSCRIPT INDICATES THE FOLLOWING : 3 - 3 WAY, 4 - 4 WAY, K - KEY OPERATED, D - DIMMER, OS - LINE VOLTAGE OCCUPANCY SENSOR, L - LOW VOLTAGE, M - MANUAL MOTOR STARTER W/ HANDLE GUARD KIT AND PADLOCK. SEE LIGHTING CONTROL DIAGRAM SHEET FOR OTHER SUBSCRIPTS.



# **GENERAL NOTES:**

### SITE UTILITIES:

#### A. COORDINATE ALL SITE UTILITY WORK WITH THE FOLLOWING:

DUKE ENERGY KY DANIELLE JONES - (513) 817-7110 DANIELLE.JONES@DUKE-ENERGY.COM

DUKE ENERGY SERVICE MANUAL - RED BOOK OHIO AND KENTUCKY INTERNET PDF LINK: HTTPS://WWW.DUKE-ENERGY.COM//\_/MEDIA/PDFS/ PARTNER-WITH-US/CONSTRUCTION-TOOLBOX/ OHIO-METERING-INSTALLATIONS-RED-BOOK.PDF

- B. ALL COSTS FROM THE UTILITY COMPANIES LISTED ABOVE SHALL
- C. KY B.U.D: BEFORE YOU DIG PHONE 1-800-752-6007. THE
- INSTALLATIONS) WITH THE NEW SITE GRADING.
- E. UNDERGROUND CONDUITS SHALL BE BURIED A MINIMUM OF 30-INCHES BELOW GRADE UNLESS OTHERWISE NOTED.

	ELECTRICA
DESCRIPTION	SWITCHES
TAMPER RESISTANT DUPLEX RECEPTACLE - SUBSCRIPT INDICATES THE FOLLOWING : C - INSTALL 4 INCHES ABOVE COUNTER OR BACKSPLASH,	INTERIOR RECEPTACLES
CM - CEILING MOUNTED, E - EMERGENCY, G - GROUND FAULT CIRCUIT INTERRUPTER, GB - BLANK FACE GROUND FAULT INTERRUPT, IG - ISOLATED	EXTERIOR RECEPTACLE
GROUND, P - SPLIT-WIRED PLUG LOAD CONTROL, WP - WEATHER PROOF, U - WITH USB PORT	COMMUNICATIONS / DAT
TAMPER RESISTANT QUADRUPLEX RECEPTACLE	NOTE: MOUNTING HEIGH
JUNCTION BOX	
HAND DRYER; DYSON AIRBLADE V HU02 NICKEL, 120V, 1000W, BRUSHED STAINLESS FINISH OR EQUIVALENT	
SAFETY SWITCH (SIZE/FUSING/POLES/NEMA - OPTIONAL)	
CONDUIT TURNED DOWN	
CONDUIT TURNED UP	
CONDUIT WITH END CAP	
EQUIPMENT CONNECTION	φ
CONDUIT CONTINUATION	
TRANSFORMER; X - INDICATES IDENTIFICATION	
SURFACE MOUNTED PANELBOARD/DISTRIBUTION PANEL/AUTOMATIC TRANSFER SWITCH; X - INDICATES IDENTIFICATION	
FLUSH MOUNTED PANELBOARD; X - INDICATES IDENTIFICATION	
EXISTING SURFACE MOUNTED PANELBOARD/DISTRIBUTION PANEL; X - INDICATES IDENTIFICATION	
EXISTING FLUSH MOUNTED PANELBOARD; X - INDICATES IDENTIFICATION	
GROUND ROD	
LOW-VOLTAGE CIRCUIT WITH CONDUCTOR TYPES AS REQUIRED BY THE MANUFACTURER FOR THE PARTICULAR SYSTEM.	
UTP LIGHTING CONTROL CABLE	
CIRCUIT CONNECTED TO EMERGENCY POWER	
SURFACE MOUNTED RACEWAY	
BRANCH CIRCUIT HOMERUN TO PANELBOARD. THE NUMBER OF TICK MARKS INDICATES THE NUMBER OF CONDUCTORS. LONG TICK MARKS REPRESENT UNGROUNDED CONDUCTORS. SHORT TICK MARKS REPRESENT GROUNDED CONDUCTORS (NEUTRAL). A GROUNDING CONDUCTOR (GROUND) SHALL BE INSTALLED WITH ALL CIRCUITS. TICK MARKS AND CONDUCTOR SIZES ARE ONLY SHOWN ON THE HOMERUN. INSTALL THE REQUIRED QUANTITY AND SIZE CONDUCTORS TO EACH DEVICE ON THE SAME CIRCUIT AS INDICATED ON THE DRAWINGS. MINIMUM CONDUCTOR SIZE = #12 MINIMUM CONDUIT SIZE = 3/4 INCH	

### ELECTRICAL DEVICE MOUNTING HEIGHTS

SWITCHES	48 INCHES TO TOP				
INTERIOR RECEPTACLES	16 INCHES TO BOTTOM				
EXTERIOR RECEPTACLES	24 INCHES TO BOTTOM				
COMMUNICATIONS / DATA OUTLETS	16 INCHES TO BOTTOM				
NOTE: MOUNTING HEIGHTS UNLESS OTH	IERWISE NOTED ON DRAWINGS.				

**DN vs EXISTING LINE WEIGHTS** EXISTING 

SUBSCRIPT EXAMPLE:

1"C = CONDUIT SIZE

ELECTRICAL METER

NEW UTILITY POLE

EXISTING UTILITY POLE

4#8 = (3) UNGROUNDED AND (1) NEUTRAL CONDUCTORS SIZE IF OTHER THAN #12

1#10 = GROUNDING CONDUCTOR SIZE IF OTHER THAN #12

NEW UTILITY POLE WITH POLE MOUNTED TRANSFORMERS

EXISTING UTILITY POLE WITH POLE MOUNTED TRANSFORMERS

A-1 = PANEL NAME - POLE POSITION IN PANEL

BE THE ELECTRICAL CONTRACTOR'S FINANCIAL RESPONSIBILITY.

UNDERGROUND UTILITIES SHOWN ON THESE DRAWINGS ARE FROM SITE SURVEYS, RECORD DRAWINGS AND FROM VISUAL SITE INSPECTIONS. UTILITY LOCATIONS ARE APPROXIMATE AND THERE MAY BE OTHER UNDERGROUND UTILITIES IN THE AREA. CONTACT ALL UTILITY COMPANIES PRIOR TO BEGINNING ANY EXCAVATION.

D. COORDINATE ALL ELECTRICAL SITE WORK (DEMOLITION AND NEW

### INTERRUPTIONS OF SERVICE

- A. THE BUILDING SERVICES AND SYSTEMS SHALL REMAIN OPERATIONAL THROUGHOUT THE DURATION OF THE PROJECT. IF INTERRUPTIONS TO ANY SERVICE OR SYSTEM ARE NECESSARY TO FACILITATE COMPLETING THE PROJECT, THE CONTRACTOR SHALL: 1. APPRISE THE OWNER OF ANTICIPATED INTERRUPTIONS IN
- ADVANCE AND SCHEDULE FOR TIMES THAT ARE CONVENIENT TO THE OWNER AND ALL OTHER AFFECTED PARTIES. COORDINATE AN ACCEPTABLE DURATION AND WORK AS
- NECESSARY TO MEET THE AGREED UPON SCHEDULE. NO INTERRUPTIONS SHALL OCCUR PRIOR TO RECEIVING WRITTEN APPROVAL FROM THE OWNER AND ALL OTHER AFFECTED PARTIES.
- 4. FOR UNPLANNED INTERRUPTIONS, THE CONTRACTOR SHALL WORK CONTINUOUSLY TO RESTORE THE AFFECTED SERVICE(S) AND SYSTEM(S).

### LIGHTING

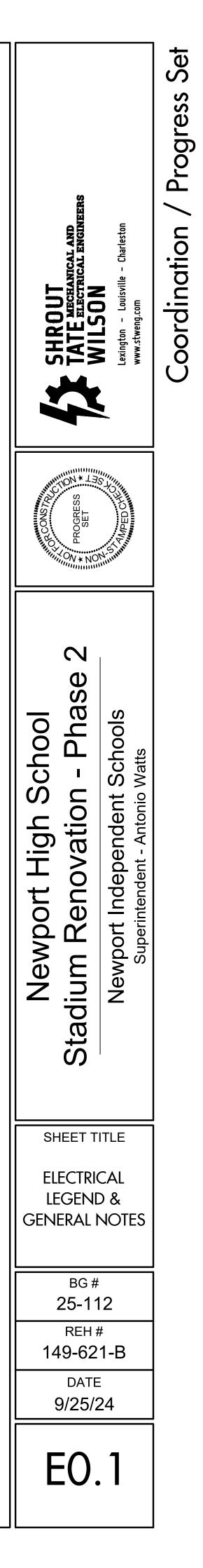
A. THE CONTRACTOR SHALL INSTALL THE REQUIRED NUMBER OF CONDUCTORS BETWEEN SWITCHES, LIGHT FIXTURES AND ASSOCIATED DEVICES FOR A COMPLETE AND WORKING SYSTEM. PROVIDE SINGLE-LEVEL OR DUAL-LEVEL SWITCHING, THREE-WAY SWITCHING OR OTHER SWITCHING METHOD AS INDICATED ON THE DRAWINGS.

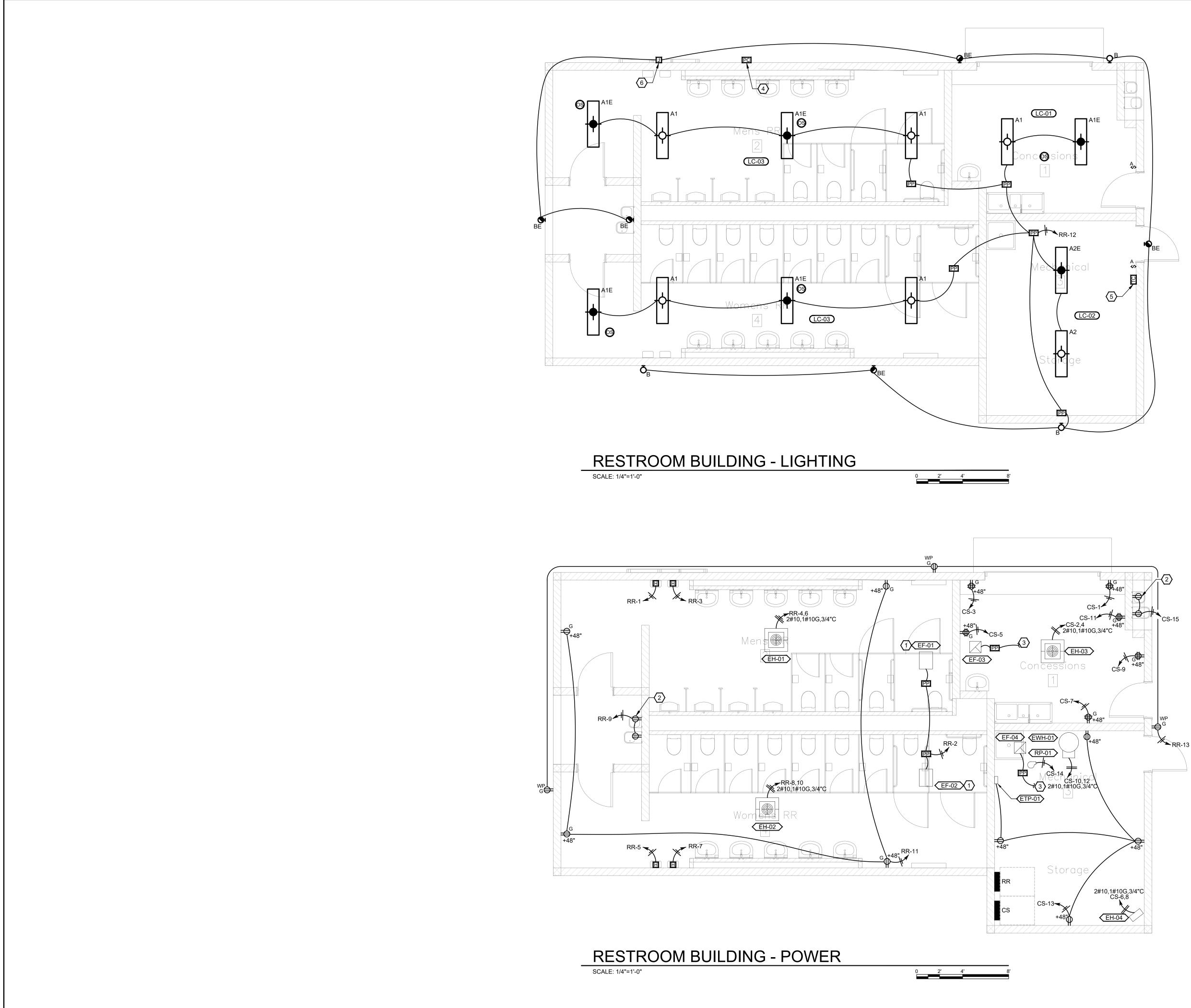
B. INSTALL AN UNSWITCHED CONDUCTOR TO ALL EXIT LIGHTS, EMERGENCY LIGHTS AND ALL OTHER FIXTURES USED FOR EMERGENCY ILLUMINATION AND SUPPLIED WITH INTEGRAL OR EXTERNAL BATTERIES. INSTALL A NORMAL UNSWITCHED CONDUCTOR TO ALL EMERGENCY RELAYS WHEN EMERGENCY POWER IS PROVIDED BY A GENERATOR OR MEANS OTHER THAN BATTERY POWER. THE UNSWITCHED CONDUCTOR SHALL BE FED FROM THE SAME CIRCUIT AS THE SWITCHED CONDUCTOR(S).

C. CABLING ASSOCIATED WITH THE LOW VOLTAGE LIGHTING CONTROLS, INCLUDING DIMMING, NETWORK AND CONTROL CABLES, SHALL BE INSTALLED AND SUPPORTED IN A SIMILAR MANNER AS THE TELECOMMUNICATIONS CABLING. CABLING SHALL BE INSTALLED IN CONDUIT WHEN LOCATED IN AREAS WITH EXPOSED CEILINGS OR STRUCTURES, ABOVE INACCESSIBLE CEILINGS AND WHERE LOCATED WITHIN WALLS. CABLING INSTALLED ABOVE ACCESSIBLE, CONCEALED CEILINGS SHALL BE INSTALLED IN CONDUIT OR SHALL BE SUPPORTED BY J-HOOKS. THE CABLING SHALL BE INSTALLED SEPARATE FROM LINE VOLTAGE CONDUCTORS AND TELECOMMUNICATIONS CABLING. J-HOOKS MAY BE ATTACHED TO THE OUTSIDE OF THE TELECOMMUNICATIONS CABLE TRAY, IF AVAILABLE, PROVIDING THE MAXIMUM RATED WEIGHT CAPACITY OF THE CABLE TRAY IS NOT EXCEEDED.

±10'	+10' INDICATES THE MOUNTING HEIGHT OF THE DEVICE TO BOTTOM
1Ø	1-PHASE
3Ø	3-PHASE
ATS	AUTOMATIC TRANSFER SWITCH
BTM	воттом
СТ	CURRENT TRANSFORMER
EOE	EXISTING OVERHEAD ELECTRIC
EOF	EXISTING OVERHEAD FIBER OPTIC
EOP	EXISTING OVERHEAD PRIMARY
EOS	EXISTING OVERHEAD SECONDARY
EOT	EXISTING OVERHEAD TELEPHONE
EUE	EXISTING UNDERGROUND ELECTRIC
EUF	EXISTING UNDERGROUND FIBER OPTIC
EUP	EXISTING UNDERGROUND PRIMARY
EUS	EXISTING UNDERGROUND SECONDARY
EUT	EXISTING UNDERGROUND TELEPHONE
EOTV	EXISTING OVERHEAD TELEVISION
EUTV	EXISTING UNDERGROUND TELEVISION
GF	GROUND FAULT PROTECTION
GND	GROUND
KWH	KILO WATT HOUR
OE	OVERHEAD ELECTRIC
OF	OVERHEAD FIBER OPTIC
OP	OVERHEAD PRIMARY
OS	OVERHEAD SECONDARY
ОТ	OVERHEAD TELEPHONE
OTV	OVERHEAD TELEVISION
PT	POTENTIAL TRANSFORMER
SPD	SURGE PROTECTIVE DEVICE
UE	UNDERGROUND ELECTRIC
UF	UNDERGROUND FIBER OPTIC
UP	UNDERGROUND PRIMARY
US	UNDERGROUND SECONDARY
UT	UNDERGROUND TELEPHONE
UTP	UNSHIELDED TWISTED PAIR
UTV	UNDERGROUND TELEVISION
WG	PROVIDE DEVICE WITH MANUFACTURER'S WIREGUARD.
WP	PROVIDE DEVICE WITH WEATHERPROOF COVER. RECEPTACLES TO WEATHER-RESISTANT TYPE AND PROVIDED WITH A CAST ALUMINUM EXTRA DUTY, WHILE-IN-USE COVER.

- NOMINAL VOLTAGE
- A. THE NOMINAL VOLTAGE FOR THE POWER DISTRIBUTION SYSTEM SHALL BE 120/240V, 120/208V OR 277/480V AS NOTED ON THE DRAWINGS.
- B. THE CONTRACTOR SHALL CONFIRM THE SUPPLY VOLTAGE AT THE SERVICE IS NOMINAL PRIOR TO ENERGIZING PERMANENT POWER. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY AND ADJUST THE TAPS ON THE UTILITY TRANSFORMER AS NECESSARY TO PROVIDE THE SPECIFIED NOMINAL VOLTAGE AT THE SERVICE.
- C. THE CONTRACTOR SHALL CONFIRM THE SUPPLY VOLTAGE ON EQUIPMENT CONNECTED TO THE SECONDARY OF DISTRIBUTION TRANSFORMERS IS NOMINAL PRIOR TO ENERGIZING. THE CONTRACTOR SHALL ADJUST THE TAPS ON DISTRIBUTION TRANSFORMERS AS NECESSARY TO PROVIDE THE SPECIFIED NOMINAL VOLTAGE AT THE EQUIPMENT.
- D. THE CONTRACTOR SHALL INFORM THE ENGINEER IF THE VOLTAGE AT THE SERVICE OR AT THE EQUIPMENT CONNECTED TO THE SECONDARY OF DISTRIBUTION TRANSFORMERS IS MORE THAN +/-2% OF NOMINAL.
- E. THE CONTRACTOR SHALL PROVIDE A WRITTEN RECORD OF THE MEASURED VOLTAGES TO THE ENGINEER AND INCLUDE A COPY IN THE O&M MANUALS.



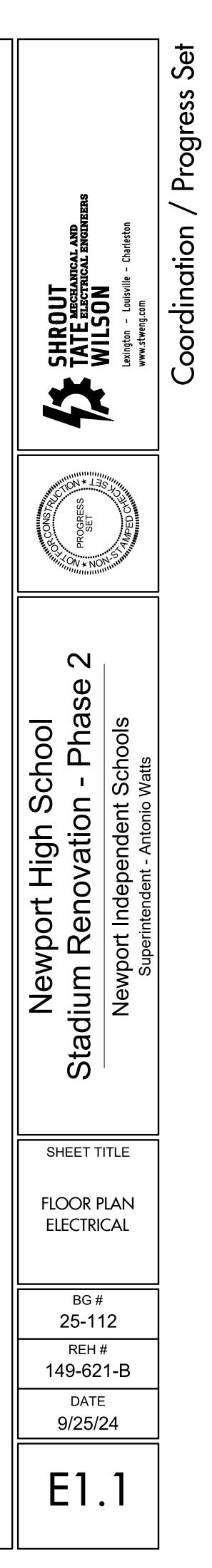


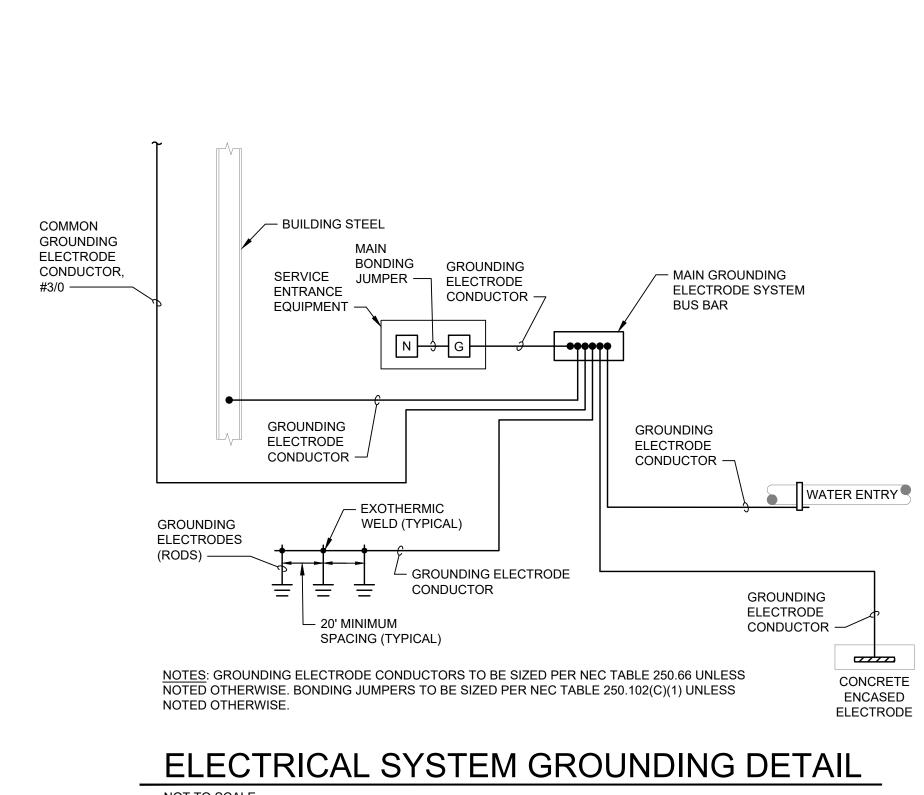
# **GENERAL NOTES:**

- A. REFER TO SHEET E0.1 FOR GENERAL NOTES.
- B. POWER PACKS ARE SHOWN ON PLANS FOR CLARITY OF CIRCUIT CONNECTIONS. POWER PACKS ARE TO BE INSTALLED IN AN ACCESSIBLE LOCATION IN MECHANICAL ROOM.

## $\bigcirc$ SHEET KEYNOTES:

- 1. EXHAUST FAN TO BE CONTROLLED WITH LIGHT FIXTURES IN ROOM.
- COORDINATE EXACT LOCATION WITH REVIEWED SHOP DRAWINGS.
- 3. CONNECT TO UNSWITCHED LIGHTING CIRCUIT IN ROOM.
- 4. PROVIDE PHOTOCELL ON NORTH SIDE OF BUILDING. COORDINATE EXACT LOCATION WITH ARCHITECT/OWNER.
- 5. PROVIDE NLIGHT nDTC OR EQUIVALENT BY WATTSTOPPER OR HUBBELL. CONNECT TO LIGHTING CONTROL DEVICES FOR EXTERIOR.
- 6. PROVIDE CONNECTION TO LED SIGN.





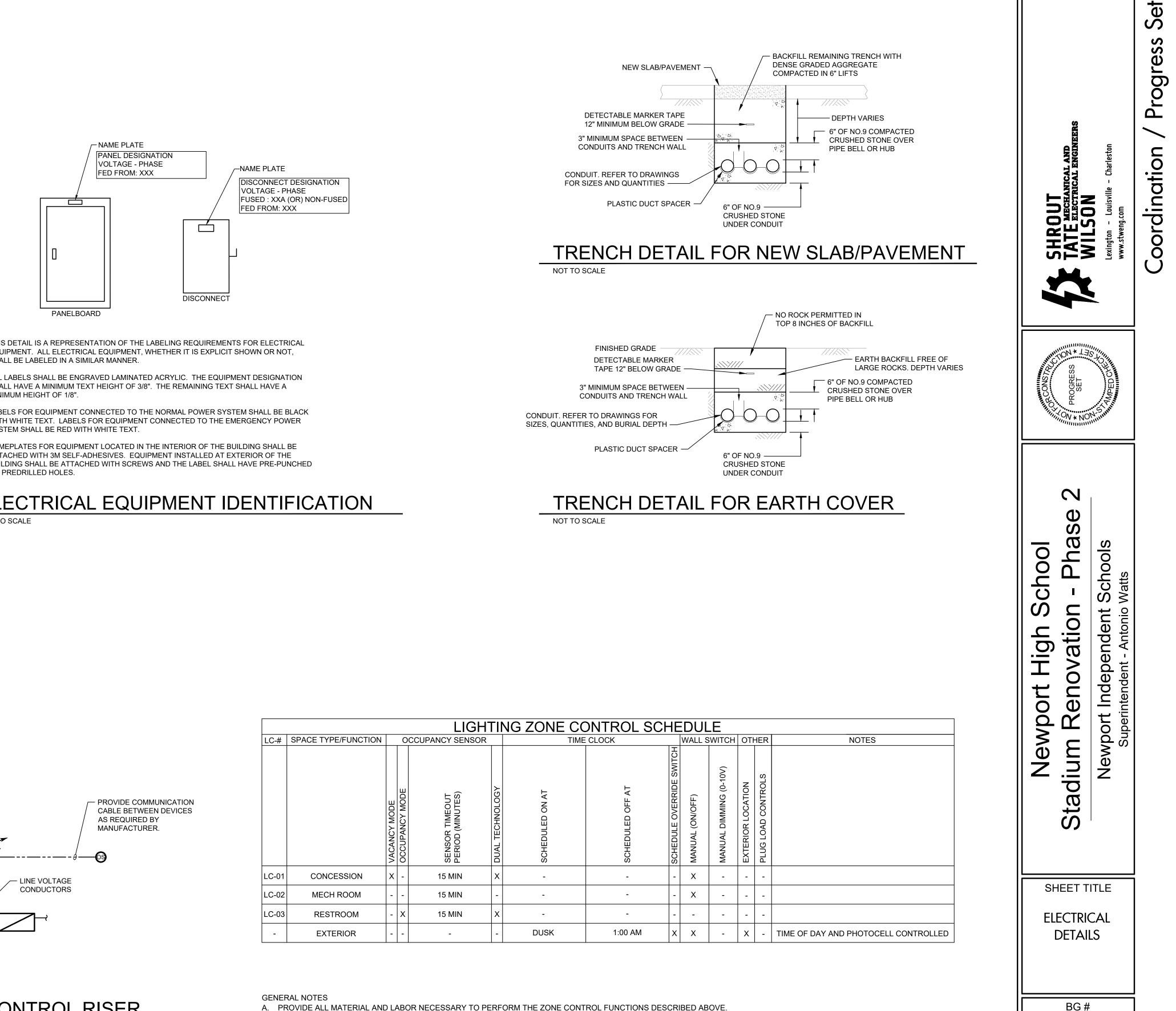
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LIGHTING C	ONTROL LEGEND						
SYMBOL	DESCRIPTION						
\$ <sup>A</sup>	ON/OFF						
\$ <sup>B</sup>	ON/OFF, RAISE/LOWER						
\$ <sup>C</sup>	2-ZONE, ON/OFF						
\$ <sup>E</sup>	2-ZONE, ON/OFF, RAISE/LOWER						
\$ <sup>F</sup>	OCCUPANCY SENSOR, ON/OFF						
\$ <sup>G</sup>	OCCUPANCY SENSOR, ON/OFF, RAISE/LOWER						
\$ <sup>H</sup>	4-ZONE, ON/OFF, RAISE/LOWER						
\$ <sup>L</sup>	LOW VOLTAGE SWITCH						
PP a	POWER PACK WITH 0-10V DIMMING - 'a' SUBSCRIPT INDICATES ZONE						
	LIGHT FIXTURE DRIVER. REFER TO LIGHT FIXTURE SCHEDULE - 'a' SUBSCRIPT INDICATES ZONE CONTROL.						
S	RJ45 SPLITTER						
PS	POWER SUPPLY						
63	360 DEGREE DUAL TECHNOLOGY OCCUPANCY SENSOR						
Q	CORNER MOUNTED, DUAL TECHNOLOGY OCCUPANCY SENSOR						
0	DAYLIGHT SENSOR						
	2#18 DIMMING CONDUCTOR CABLE						
	CATEGORY 5E UTP NETWORK CABLE						

CIRCUIT

# **TYPICAL LIGHTING CONTROL RISER**

NOT TO SCALE

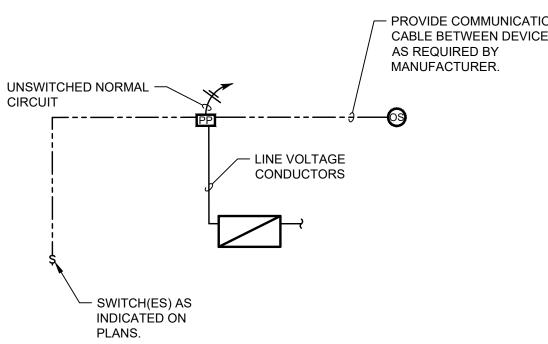


NOT

- 1. THIS DETAIL IS A REPRESENTATION OF THE LABELING REQUIREMENTS FOR ELECTRICAL EQUIPMENT. ALL ELECTRICAL EQUIPMENT, WHETHER IT IS EXPLICIT SHOWN OR NOT, SHALL BE LABELED IN A SIMILAR MANNER.
- 2. ALL LABELS SHALL BE ENGRAVED LAMINATED ACRYLIC. THE EQUIPMENT DESIGNATION SHALL HAVE A MINIMUM TEXT HEIGHT OF 3/8". THE REMAINING TEXT SHALL HAVE A MINIMUM HEIGHT OF 1/8".
- 3. LABELS FOR EQUIPMENT CONNECTED TO THE NORMAL POWER SYSTEM SHALL BE BLACK WITH WHITE TEXT. LABELS FOR EQUIPMENT CONNECTED TO THE EMERGENCY POWER SYSTEM SHALL BE RED WITH WHITE TEXT.
- NAMEPLATES FOR EQUIPMENT LOCATED IN THE INTERIOR OF THE BUILDING SHALL BE ATTACHED WITH 3M SELF-ADHESIVES. EQUIPMENT INSTALLED AT EXTERIOR OF THE BUILDING SHALL BE ATTACHED WITH SCREWS AND THE LABEL SHALL HAVE PRE-PUNCHED OR PREDRILLED HOLES.

# ELECTRICAL EQUIPMENT IDENTIFICATION

NOT TO SCALE



NOTE: LIGHTING CONTROL RISER SHOWS TYPICAL CONNECTIONS BETWEEN DEVICES AND LIGHT FIXTURES. REFER TO THE FLOOR PLANS FOR QUANTITIES OF DEVICES, LIGHT FIXTURES, AND ZONES.

							_			
				LIGH	ΓΠ	NG ZONE CC	)			
LC-#	SPACE TYPE/FUNCTION	OCCUPANCY SENSOR 1								
		VACANCY MODE	OCCUPANCY MODE	SENSOR TIMEOUT PERIOD (MINUTES)	DUAL TECHNOLOGY	SCHEDULED ON AT				
LC-01	CONCESSION	x	-	15 MIN	x	-				
LC-02	MECH ROOM	-	-	15 MIN	-	-				
LC-03	RESTROOM	-	x	15 MIN	x	-				
-	EXTERIOR	-	-	-	-	DUSK				

- A. PROVIDE ALL MATERIAL AND LABOR NECESSARY TO PERFORM THE ZONE CONTROL FUNCTIONS DESCRIBED ABOVE.
- B. BOX MARKED WITH 'X' INDICATES THAT ZONE FUNCTION IS REQUIRED. C. PROVIDE DETAILED LIGHTING CONTROL PLANS, RISERS, ETC. WITH SHOP DRAWING SUBMITTAL.
- D. BASIS-OF-DESIGN = nLIGHT; WATTSTOPPER AND HUBBELL EQUIVALENTS.
- E. COORDINATE ALL PROGRAMMED TIME OF DAY SCHEDULES WITH OWNER.
- AUXILIARY POWER PACK/CONTACTS AND THE TEMPERATURE CONTROLS SYSTEM. COORDINATE ALL REQUIREMENTS WITH TCC AS REQUIRED.
- H. THE DETECTION OF OCCUPANCY BY ONE OCCUPANCY SENSOR SHALL ENABLE ALL LIGHTS WITHIN THAT CONTROL ZONE TO OPERATE. CONNECT OCCUPANCY SENSORS TOGETHER AS REQUIRED FOR THIS FUNCTION.
- I. SUPPORTING DEVICES BY THE CEILING TILE OR GRID IS NOT PERMITTED.
- J. PROVIDE ADDITIONAL 25 FEET OF CONTROLS CABLING COILED UP ABOVE CEILING AT EACH OCCUPANCY AND DAYLIGHT SENSOR. SHOP DRAWINGS.

F. PROVIDE AUXILIARY POWER PACK OR AUXILIARY CONTACTS IN SENSORS AND CAT5e CABLING CONNECTION FROM ROOM CONTROLLER/RELAY POWER PACK FOR TEMPERATURE CONTROLS CABLING CONNECTIONS. ALL DEVICES AND CABLING SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR WITH THE EXCEPTION OF THE CONNECTION BETWEEN THE G. ALL LOW-VOLTAGE LIGHTING CONTROLS CABLING SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR. USE NON-BOOTED CAT5e CABLES FOR INTERCONNECTING NLIGHT DEVICES.

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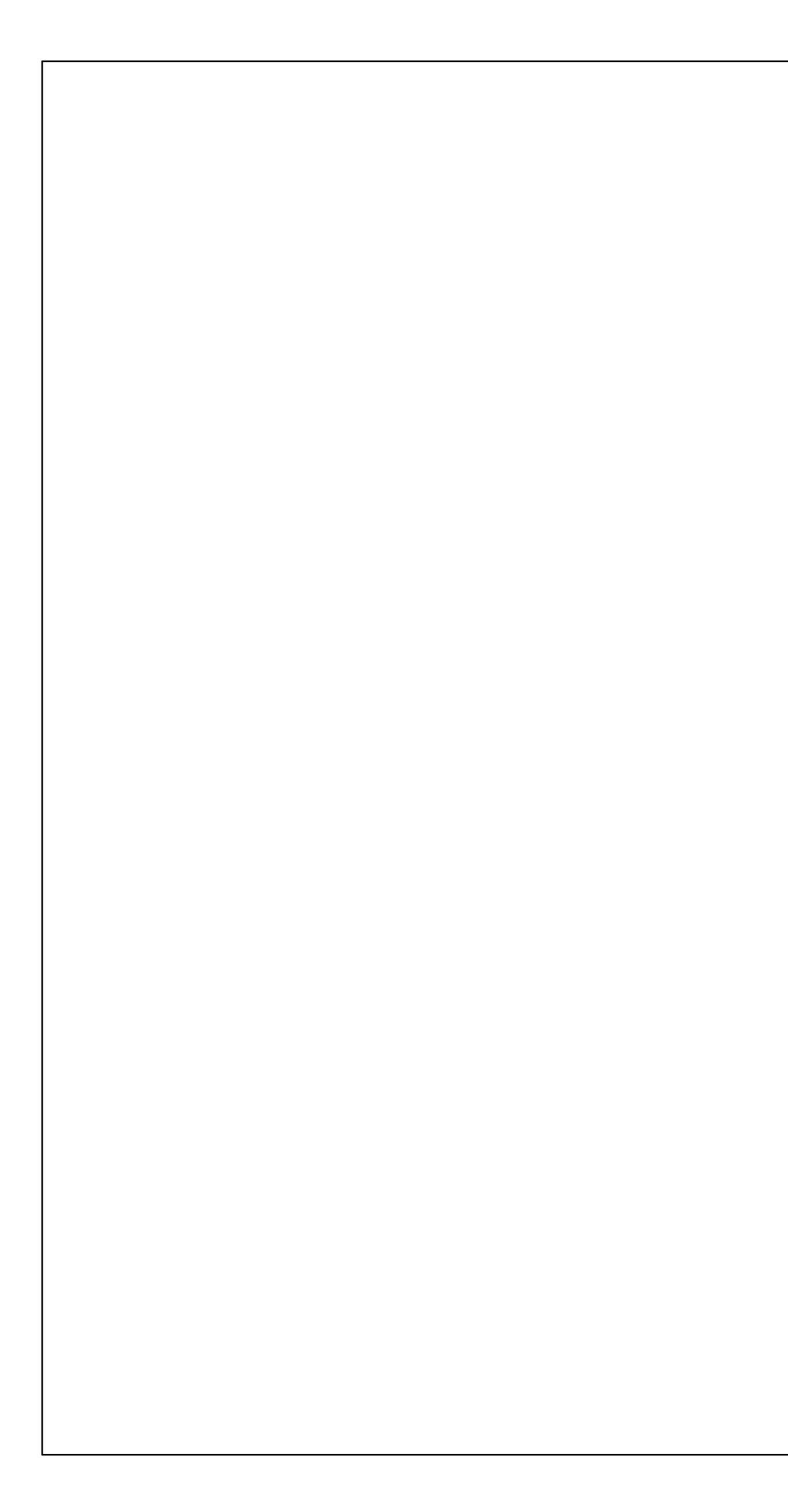
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9/25/24

E5.

PROVIDE MOUNTING BRACKETS AND ADDITIONAL SUPPORTS, HARDWARE, ETC. FOR CEILING MOUNTED SENSORS. DEVICES SHALL BE SUPPORTED FROM STRUCTURAL MEMBERS.

K. WALL STATION BUTTONS SHALL BE PROVIDED WITH CUSTOM ENGRAVED LABELS. EXAMPLE: "ON/OFF", "(UP ARROW)". VERIFY ENGRAVING WITH OWNER/ENGINEER PRIOR TO RELEASE OF



LIGHT	FIXTURE

FIXTURE	DECODIDITION				LAMPS				MOUNTING		
TYPE	DESCRIPTION	TYPE CRI DIMMING			COLOR TEMP   LUMENS   WATTS		VOLTS	TYPE	MANUFACTURER - MODEL NUMBER	NOTES	
A1	4 FT, LOW PROFILE ENCLOSED AND GASKETED FIXTURE	LED	80	NA	4000K	3000	18	MVOLT	SURFACE	LITHONIA FEM LPACL MD; COOPER APVTS SERIES; COLUMBIA LXEM SERIES;	
A1E	SAME AS TYPE 'A1' WITH BATTERY BACKUP	LED	80	NA	4000K	3000	18	MVOLT	SURFACE	LITHONIA FEM LPACL MD; COOPER APVTS SERIES; COLUMBIA LXEM SERIES;	
A2	4 FT, LOW PROFILE ENCLOSED AND GASKETED FIXTURE	LED	80	NA	4000K	3000	18	MVOLT	SUSPENDED	LITHONIA FEM LPACL MD; COOPER APVTS SERIES; COLUMBIA LXEM SERIES;	2
A2E	SAME AS TYPE 'A2' WITH BATTERY BACKUP	LED	80	NA	4000K	3000	18	MVOLT	SUSPENDED	LITHONIA FEM LPACL MD; COOPER APVTS SERIES; COLUMBIA LXEM SERIES;	2
В	EXTERIOR WALL PACK	LED	80	NA	4000K	1229	10	MVOLT	WALL	LITHONIA WDGE1 VW; PERFORMANCE IN LIGHTING SHEILD SERIES; HUBBELL RWL SERIES;	1
BE	SAME AS TYPE 'B' WITH BATTERY BACKUP	LED	80	NA	4000K	1229	10	MVOLT	WALL	LITHONIA WDGE1 VW; PERFORMANCE IN LIGHTING SHEILD SERIES; HUBBELL RWL SERIES;	1

NOTES:

1

MOUNT AT APPROXIMATELY 8'-6" ABOVE FINISHED GRADE

2 MOUNT AT APPROXIMATELY 9'-0" ABOVE FINISHED FLOOR

PANEL	RR

							1 \					
					BRANCH	I CIRCU	IT PANE	LBOARD	)			
VOLTAGE		1 PHASE	POLES	MAIN	AMPS	MAIN TYPE		MIN. kAIC	M	MOUNTING		
120/240		3 WIRE	30	10	100		CB	22		SURFACE		
POLE BREAKER		KER	LOAD SERVED			PHASE	LOADS		LOAD SERVED	BREA	KER	POLE
NO.	TRIP	Ρ			KVA	A	В	KVA	LOAD SERVED	TRIP	Ρ	NO.
1	20	1	MENS HAN		1.0	1.8		0.8	EF-01, EF-02	15	1	2
3	20	1	MENS HAN		1.0		3.5	2.5	EH-01	30	2	4
5	20	1		HAND DRYER	1.0	3.5		2.5	-	-	-	6
7	20	1		HAND DRYER	1.0		3.5	2.5	EH-02	30	2	8
9	20G	1	WATER CO	DOLER	1.0	3.5		2.5	-	-	-	10
11	20G	1	RCPT RR		0.7		1.0	0.3	LTG	20	1	12
13	20G	1	EXTERIOR	RCPT	0.5	0.5		0.0	SPACE ONLY			14
15	20G	1	SPARE		0.5		0.5	0.0	SPACE ONLY			16
17	20G	1	SPARE		0.5	0.5		0.0	SPACE ONLY			18
19	20	1	SPARE		0.5		0.5	0.0	SPACE ONLY			20
21			SPACE ON	ILY	0.0	0.0		0.0	SPACE ONLY			22
23			SPACE ON	ILY	0.0		0.0	0.0	SPACE ONLY			24
25			SPACE ON	ILY	0.0	0.0		0.0	SPACE ONLY			26
27			SPACE ON	ILY	0.0		0.0	0.0	SPACE ONLY			28
29			SPACE ON	ILY	0.0	0.0		0.0	SPACE ONLY			30
			F	PHASE TOTALS:		99	90		TOTAL 18.9	KVA		

 PHASE TOTALS:
 9.9
 9.0
 TOTAL:
 18.9
 KVA

 BREAKER ABBREVIATIONS:
 G - GFCI; A - AFCI; L - LOCKOUT; S - SHUNT TRIP; C - COMBINATION GFCI/AFCI; E - ELECTRONIC

ADJUSTABLE TRIP; MCB - MAIN CIRCUIT BREAKER; MLO - MAIN LUG ONLY

					P	ANE	EL C	S				
					BRANCH	I CIRCUI	T PANE	LBOAR	)			
V	VOLTAGE 1 PHASE POLES					MAIN AMPS MAIN TYPE		MIN. kAIC	M	MOUNTING		
120/240		3 WIRE	30	10	0	MCB		22		URFA	CE	
POLE	BREA	<b>KER</b>		DSERVED		PHASE	LOADS		LOAD SERVED	BREA	<b>KER</b>	POLE
NO.	TRIP	Ρ	LOAL	JOLINED	KVA	A	В	KVA	LOAD SERVED	TRIP	P	NO.
1	20	1	RCPT CON		0.4	2.9		2.5	EH-03	30	2	2
3	20	1	RCPT CON	CESSION	0.4		2.9	2.5	-	-	-	4
5	20	1	RCPT CON	CESSION	0.4	2.9		2.5	EH-04	30	2	6
7	20	1	RCPT CON		0.4		2.9	2.5	-	-	-	8
9	20	1	RCPT CON	CESSION	0.4	2.6		2.3	EWH-01	25	2	10
11	20	1	RCPT CON	CESSION	0.4		2.6	2.3	-	-	-	12
13	20G	1	RCPT MEC		0.7	1.2		0.5	RP-01	15	1	14
15	20G	1	WATER CO		0.5		0.5	0.0	SPACE ONLY			16
17			SPACE ON	ILY	0.0	0.0		0.0	SPACE ONLY			18
19			SPACE ON		0.0		0.0	0.0	SPACE ONLY			20
21			SPACE ON		0.0	0.0		0.0	SPACE ONLY			22
23			SPACE ON	ILY	0.0		0.0	0.0	SPACE ONLY			24
25			SPACE ON	ILY	0.0	0.0		0.0	SPACE ONLY			26
27			SPACE ON		0.0		0.0	0.0	SPACE ONLY			28
29			SPACE ON	ILY	0.0	0.0		0.0	SPACE ONLY			30
			-	PHASE TOTALS.		96	88		TOTAL · 18.4	KVA		

 
 PHASE TOTALS:
 9.6
 8.8
 TOTAL:
 18.4
 KVA

 BREAKER ABBREVIATIONS:
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 ADJUSTABLE TRIP; MCB - MAIN CIRCUIT BREAKER; MLO - MAIN LUG ONLY

#### E SCHEDULE

