GROVE & DALL'OLIO A R C H I T E C T S pllc

MEMORANDUM

To: All Bidders

From: Matthew Grove Grove & Dall'Olio Architects PLLC 304 267-2120

Date: July 21, 2020

Re: **Shepherdstown Opera House Renovation** ADDENDUM No. 2

The following information amends or supersedes the current issue of architectural, structural, and MEP drawings/specifications dated June 22, 2020.

1. The third floor roof deck will require new roof sheathing, insulation and roof membrane.

2. What panel are rooftop units M1 &M2 receiving their power feeds from? H2-2,4 – refer to panel schedule H2 and power plan on E1.1.

3. Where is the Fire Alarm Panel being located? Is it staying in the original spot from site visit? Lobby 101, north wall, left side near Janitor's Closet door.

4. Is the MDP for the service being located where it is currently The new electrical service will be located on the back of the building between the back stage door and corner of the building (generally where it is currently located). There is no MDP, this will be meter stack arrangement (see Power Riser Diagram on Sheet E2.1).

5. The Contractor shall provide closet fixtures model MNSL L46 1LL by Lithonia Lighting.

6. For Fire Alarm.system, how many points will need to be monitored for the sprinkler system? The fire alarm and sprinkler systems are "design build" as indicated on E0.1. The fire alarm system design (including number of monitoring and control points) will be the responsibility of the fire alarm contractor. It will be the fire alarm contractor's responsibility to coordinate the fire alarm design with the sprinkler system requirements. That said, fire alarm will be activated on sprinkler flow (flow switch). Also, the main sprinkler service valves will have tamper switches that will require monitoring.

- 7. Sheet M0.1: MECHANICAL SPECIFICATIONS under "CODES AND STANDARDS", change code references to the following:
 - 2015 INTERNATIONAL BUILDING CODE (IBC)
 - 2015 INTERNATIONAL RESIDENTIAL CODE (IRC)
 - 2015 INTERNATIONAL MECHANICAL CODE (IMC) 2015 INTERNATIONAL PLUMBING CODE (IPC)

 - 2015 INTERNATIONAL ENERGY CONCERVATION CODE (IECC)
 - 2014 NATIONAL ELECTRIC CODE (NEC)
 - 2015 NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 101
- 8. Sheet M2.1: PARTIAL PLAN "B" SUPPLY AIR DUCTS SERVING THE BAR and LOBBY AREAS; REVISE FROM 8"X8" TO 10"X10" that drop and run in both directions.



- 9. Sheet M4.1: LINEAR BAR GRILLE SCHEDULE CHANGE C1 TO D1
- 10. Sheet M4.1: RESIDENTIAL 2-WAY SUPPLY REGISTER SCHEDULE change basis of design TO HART & COOLEY model 92VHV STEEL double deflection register with opposed blade dampers.
- 11. Sheet P0.1: REVISED PLUMBING FIXTURE SCHEDULE (ATTACHED)
- 12. Sheet P0.2: REVISED PLUMBING SPECIFICATIONS (ATTACHED)
- 13. Sheet P1.1: ADD FLOOR SINK IN 102A (SEE REVISED PLUMBING FIXTURE SCHEDULE) FOR INDIRECT DRAINAGE OF THREE-COMPARTMENT SINK
- 14. Sheet P1.1: ADD ¹/₂" WATER LINE W/BACKFLOW PREVENTER IN 102A FOR UNDERCOUNTER ICE MAKER.
- 15. Sheet P1.1: ADD ³/₄" WATER LINE TO NEW WALL HYDRAND LOCATED BETWEEN BACK STAGE DOOR AND STAIR C DOOR. WATER LINE SHALL BE UNDER SLAB ADJACENT TO THE NEW STORM WATER PIPING (SEE A1.2).
- 16. Sheet P1.1 & P1.2: Add floor drains (see revised Plumbing Fixture Schedule) in 102B, 102C, M04, M05, 206A, 208A, 209A, 307A AND 309A).
- 17. SHEET P1.2: ADD WALL HYDRANT ON THIRD FLOOR ROOF DECK BEHIND DOOR TO 305.
- 18. SHEET P1.2: ADD LAUNDRY SINK (REFER TO REVISED PLUMBING FIXTURE SCHEDULE) IN 302A.
- 19. GENERAL: REFERING TO SHEET A1.2, COORDINATE INSTALLATION OF STORM WATER LINE WITH GC.
- 20. GENERAL: WATER TAP IN STREET IS PART OF THIS CONTRACTOR'S SCOPE OF WORK.
- 21. GENERAL: Provide 1/4" water supply to refrigerators for ice makers from nearby water lines.
- 22. Sheet M0.1: Delete section C. under "Air Distribution" as there is no flexible ductwork on this project.
- 23. Provide/install sealant on concrete slabs and new concrete block work. Apply SurePoxy HM EPL as manufactured by Kaufman.
- 24. Structural shoring will be required for the installation of new east side block wall and footing in the auditorium. Other minor shoring areas may also be required. Include delegated design of the shoring.
- 25. All submitted RFI responses are being made available for all bidders through Addenda.
- 26. Finish schedule list's Beaded Board for rooms 204,205, because it is existing and is to remain. Delete beaded board in bathrooms 307,& 309. Also delete ceramic tile shower surrounds in rooms 307 and 309. Tub specified includes an integral shower surround.
- 27. Acoustic panels shown on Sheet A6.1 detail 1 may be Sonora 1" thick panel made by Acoustical Solutions of Richmond, VA or equal. Fabric shall be Spinel(style 3582) Tiger Eye by Guilford of Maine.
- 28. What is a L-1, L-2, L-3 type Lavatory. See revised Plumbing Fixture Schedule
- 29. What is a S-1, S-2, S-3, S-4 type Sink. See revised Plumbing Fixture Schedule
- 30. Will there be a need for an expansion tank; if so, how many? No expansion tank(s)

- 31. Is there a preferred washer machine box. Guy Grey Model T or approved equal
- 32. Electrical devices shall all be brown. All device plates shall be bronze plated steel. All light fixtures shall have dimmer switches except public bathrooms (use occupancy sensor switches for public bathrooms) and technical theater lighting. Provide Ariadni (Lutron) toggle switch with dimmer slide on side.
- 33. Add 3-way switch to entry corridor lights in both third floor apartments. Provide fixture 17 above shower in room 208A.
- 34. Partition between Lounge and Auditorium shall be a 2x4 wall. Delete reference called out as 2x6 wall on Structural drawing S.1. Lintel above window in this door shall be (2) 9 ¼" x 1 ¾" LVLs instead of (3) 7 ¼" x 1 ¾" LVLs.
- 35. Sheet E1.1: See revised (clouded) changes to electrical and power plan (ATTACHED)

End Addendum No. 2



FEATURES & SPECIFICATIONS

INTENDED USE — Inspired by classic fluorescent strip channels, this LED fixture offers a traditional appearance that incorporates the latest technology. Available in several lengths and lumen packages. Ideal for use in commercial, retail, office, warehouse and display applications. Certain airborne contaminants can diminish the integrity of acrylic and/or polycarbonate.

<u>Click here for Acrylic-Polycarbonate Compatibility table for suitable uses.</u>

CONSTRUCTION — Compact-design channel and cover are formed from code-gauge cold-rolled steel. Easy to install row aligner included with 2LL versions for continuous row mounting. High-gloss, baked white enamel finish (standard).

OPTICS — LEDs provided 80+ color rendering index (CRI) at 4000K. Diffuse polycarbonate lens provides smooth, linear illumination which is designed to resemble the classic look of traditional fluorescent tubes. Lumen output up to 1,150 lumens per foot.

ELECTRICAL — The fixture is tested to withstand a maximum line surge of 2.5kV/.2kA ring wave for indoor locations. MVOLT versions also tested to withstand a maximum line surge of 2kV/1kA combination wave for indoor locations. For applications requiring higher level of protection, additional surge protection must be provided.

INSTALLATION — Fixture may be surface or suspension mounted with appropriate mounting options. Aligner locks in place for easy continuous row mounting. Luminaire should be installed in applications where ambient temperatures do not exceed 95°F (35°C) for 4' and 8' models or 104°F (40°C) for 2' models.

LISTINGS — CSA certified to US and Canadian safety standards and listed suitable for damp locations. Minimum starting temperature at -40° F (-40° C). Maximum ambient operating temperature of 95° F (35° C) for 4' and 8' models. Maximum ambient operating temperature of 104° F (40° C) for 2' models.

WARRANTY — 5-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

NOTE: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25°C. Specifications subject to change without notice.



ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Catalog number	Description	Lumens	Wattage	Voltage	Color Temperature	Color Rendering Index	Pallet Quantity
MNSL L23 1LL 120V 40K 80CRI	2' 1-Light 120V LED Strip Light	1150	12	120V	40K 4000K	80CRI 80 CRI	576
MNSL L24 2LL MVOLT 40K 80CRI	2' 2-Light MVOLT LED Strip Light	2200	25	MVOLT (120-277V)	40K 4000K	80CRI 80 CRI	336
MNSL L46 1LL 120V 40K 80CRI	4' 1-Light 120V LED Strip Light	2300	25	120V	40K 4000K	80CRI 80 CRI	288
MNSL L48 2LL MVOLT 40K 80CRI	4' 2-Light MVOLT LED Strip Light	4500	50	MVOLT (120-277V)	40K 4000K	80CRI 80 CRI	168
MNSL L96 2LL MVOLT 40K 80CRI	8' 2-Light MVOLT LED Strip Light	8200	90	MVOLT (120-277V)	40K 4000K	80CRI 80 CRI	252

Catalog

Number

Notes

Туре

PHOTOMETRICS

See <u>www.lithonia.com</u>.



MNSL_THD

		F	PLU	MBIN	IG F	IXTURE	E SCEDEULE		1		PL	UM	BING	FIXTURE	SCEDEULE		S IS A	SCHEDU	JLE OF			IG SYI			, PPEAR ON T		JECT)	
DES.	FIXTURE TRA	P WASTE	VENT	COLD WATER W	HOT N VATER	MANUFACTURER/ MODEL #	DESCRIPTION	DES.	FIXTURE	TRAP	ASTE VEI	NT CC WA	DLD HO	DT MANUFACTURER/ TER MODEL #	DESCRIPTION		SAN-	SANITA	ARY PIPINO	G G-UNDERGROUN	SAN		Å ⊣	DOUBLE CH	ECK VALVE		DCBF	}P
MS	MOP SINK 3"	3"	1 ½"	¹ / ₂ "	½" N F	MOP SINK: MSB-2424 FAUCET: FIAT 830-AA	FLOOR MOUNTED 24"X24"X10" WHITE, MOLDED ONE PIECE CONSTRUCTION. 3" INTEGRAL DRAIN WITH REMOVABLE STAINLESS STEEL DOME STRAINER AND LINT BASKET. FAUCET SHALL BE CHROME PLATED W/ VACUUM BREAKER, PAIL HOOK, WALL SUPPORT AREM. 3/"	wc	FLOOR MOUNTED TANK TYPE WATER CLOSET	INTEGRAL	3" 1–	·1/2" ½	2" -	- KOHLER "HIGHLINE" MODEL: #K-3427	FLOOR MOUNTED, SIPHON JET, WHITE, VITREOUS CHINA, ELONGATED BOWL, WATER SAVER 1.6 GPF. PROVIDE PLASTIC, CLOSED FRONT SEAT AND COVER, WITH CHECK HINGES. PROVIDE CHROME PLATED FLUSH VALVE.	s s s	SD	- STORM	M DRAIN P M DRAIN P SOIL DRAIN	PIPING PIPING BELOW S	SD SLAB SD SSD			REDUCED PI BACKFLOW	RESSURE PREVENTOR		RPBP	P
							HOSE CONNECTION, VALVES ON 8" CENTERS. PROVIDE WITH 30" FLEXIBLE HEAVY DUTY 5%" RUBBER HOSE AND STAINLESS STEEL HOSE SUPPORT BRACKET. ANSI									F	FM ————————————————————————————————————	FORCE	ED MAIN PIPE		FM V		—	FLOW SWITC	CAUGE		FS	
					_	JOSAM 21500	A-112.18.1-1975. 4" PIPE OUTLET SIZE, COATED CAST IRON ROOF	■ L−1	LAVATORY (201A, 208A, 209A, 307A,	1-½"	1-½" 1 ½ (U.	¹ / ₄ " ¹ / ₂ .0.N.)	2" ¹ /2	" FIXTURE: KOHLER "CAXTON" UNDERMOUNT	PROVIDE RECTANGULAR WHITE, VITREOUS CHINA, FRONT OVERFLOW, UNDER-MOUNT TYPE, APPROXIMATELY 20"X16". PROVIDE FLEXIBLE CHROME PLATED WATER			DOMES	STIC COLD STIC HOT	WATER WATER	CW HW		<u>—</u> ((A-B IS RAM	.NGE, PSIG)		PG T	
RD	ROOF - DRAIN					SERIES OR (APPROVED EQUAL)	DRAIN, LARGE POLYPROPYLENE LOCKING DOME, WEJOC NON-PUNCTURING CLAMP RING WITH INTERGRAL GRAVEL STOP, LARGE SUMP WITH WIDE ROOF FLANGE AND BOTTOM OUTLET. PROVIDE WITH DECK CLAMP.		309A)					MODEL #K-20000 FAUCET: WATER-CREATION F2-0009 W/ POP-UP	SUPPLIES AND 17-GAUGE CHROME PLATED "P" TRAP AND EXTENSION TO WALL.		110° — 40° —	DOMES DOMES DOMES	STIC HOT STIC HOT STIC HOT	WATER (110°F) WATER (140°F) WATER RECIRC.	HW HW		\$	(A-B IS RA SHOCK ARR (WITH PDI	NGE, °F) ∠ESTOR RATING INDICATEI))	SA	
FD	FLOOR 2" DRAIN	1-1/4"	-	1⁄2"	-	JOSAM 30000-A SERIES W/ ½" TRAF	CAST IRON FLOOR DRAIN, TWO-PIECE BODY WITH P DOUBLE DRAINAGE FLANGE, WEJLOC INVERTIBLE	L-2	LAVATORY	1-½"	1-1/2" 1	V ₄ " V ₂	2" ¹ /2	FIXTURE: KOHLER	PROVIDE OVAL WHITE, VITREOUS CHINA, FRONT	- IV	IW ——	INDIRE NATUR	ECT WASTE RAL GAS F	E FUEL	IW GAS		-0	CLEANOUT ((HORIZONTAL/VER	TICAL)	C0	
	(102B, 102¢, M04, M05, 206A, 208A, 209A, 307A, 309A)					PRIMER (OR APPROVED EQUAL)	NON-PUNCTURING FLASHING COLLAR, WEEPHOLES, BOTTOM OUTLET AND ADJUSTABLE SATIN NIKALOY ROUND SUPER-FLO STRAINER WITH INTERGRAL BRONZE BACKWATER VALVE.		(102B, 102C M04, M05)	,	(U.	.0.N.)		CAXION UNDER-MOUNT MODEL #K-2209 FAUCET: ZURN 76913-XL	17"X14". PROVIDE FLEXIBLE CHROME PLATED WATER SUPPLIES AND 17-GAUGE CHROME PLATED "P" TRAP AND EXTENSION TO WALL.		F — SP —	FIRE S	SUPPLY / SPRINKLER	SERVICE PIPE PIPE	F SP			VENT THRU DRY-PIPE \	ROOF VALVE ASSEMBLY		VTR DPV	
FS	FLOOR SINK 3" (102A)	1-½"	_	½" FOR TP	-	ZURN Z1900 PROVIDED BY PLUMBI CONTRACTOR	NING							HARD-WIRED MOTION SENSOR.			IR —— CA ——	IRRIGA COMPR	ATION PIPE RESSED AI	R	IR CA	-		P S W W SD S	ANITARY/VENT ST NATER RISERS STORM DRAIN/RAI	'ACK NLEADER		
								SH-1	SHOWER STALL	2"	2" 1	V ₄ " V ₂	2" ¹ /2	FIXTURE: AKER PLASTICS BARRIER	BARRIER FREE, 60"X36", ONE-PIECE GELCOATED FIBERGLASS SHOWER WITH 2" DAM THRESHOLD, AND A	<u>۶</u>	(TURNING D TURNING L	JP	DN UP		7	F F' G C	IRE MAIN/STANDF JAS PIPE RISER	'IPE/RISER		
									(201A)					BF-S60SD/REZ9 COORDINATE RIGHT	FACTORY MOUNTED $1-\frac{1}{4}$ " DIA. WHITE POWER COATED BAR PACKAGE (LESS SURROUND).	\(TOP TAKE OFF S BOTTOM TAKE OFF			GD GARAGE DRAIN DS DRY STANDPIPE FD FOUNDATION DRAIN			AL					
														UNITS AS REQUIRED. FAUCET: SPEAKMAN SM-3060-1				→ PIPE (→ GATE	CONTINUES VALVE	S	GV	_		SP S CD C	SPRINKLER PIPE R	ISER N RISER		
								SH-2	SHOWER STALL	2"	2" 1	V ₄ " ^V ₂	2" ¹ /2		BARRIER FREE, 42"X42", ONE-PIECE GELCOATED FIBERGLASS SHOWER WITH 2" DAM THRESHOLD, AND A			GATE CHECK	VALVE K VALVE		GV CV			SED	PRINKLER EXPRES	S DRAIN		
									(206A)					BF-S60SD/REZ9 COORDINATE RIGHT	FACTORY MOUNTED $1-\frac{1}{4}$ " DIA. WHITE POWER COATED BAR PACKAGE (LESS SURROUND).	<u>ب</u>	; BALANCING/REGULATING VALVE		GULATING VALVE BV		<u>P-1</u>	DET.		ATION JN (REFER TO DR	AWING/SHEI	ET)		
														UNITS AS REQUIRED. FAUCET: SPEAKMAN SM-3060-1			⊠ <u></u> §		DE SCREW	/ & YOKE VALV	/E OS&Y		CON CON	$\frac{\text{NECT TO E}}{\text{ADE FIEVAT'}}$	XISTING			
								SH-3	SHOWER STALL (208A,	2"	2" 1	<i>V</i> ₄ " <i>V</i> ₂	2" ¹ /2	"FIXTURE: AKER PLASTICS BARRIER FREE SHOWER MODEL	BARRIER FREE, 36"X48", ONE-PIECE GELCOATED FIBERGLASS SHOWER WITH 2" DAM THRESHOLD, AND A		⊠	\rightarrow GAS S \rightarrow GAS C		VALVE	SOL GC		AIR	VENT VALV	/E AND PRESSURE		AV	
									209A)					BF-S60SD/REZ9 COORDINATE RIGHT HAND & LEFT HAND	BAR PACKAGE (LESS SURROUND).		&		SURE REDU	JCING VALVE	PRV		REL					
														UNITS AS REQUIRED. FAUCET: SPEAKMAN SM-3060-1		, , , ,		WALL	HYDRANT	VENTER ASSEME	WH HB	- <u> </u>		LINE CIRCUL OR DRAIN (LATING PUMP (SANITARY)		FD	
								Т	TUB FAUCET (206A)	2"	2" 1	V ₄ " V ₂	2" ¹ /2	WATER-CREATION CLASSIC F2-00009,	TUB IS EXISTING TO BE REUSED	<u> </u>	·帅 		1			Ó	ARE ROC	<u>A DRAIN (S</u> OF DRAIN (S	STORM)		AD RD	
								SH/T	SHOWER	2"	2" 1 ⁽	Y ₄ " ^Y 2	2" ¹ /2	FIXTURE: AKER	BARRIER FEE, 60"X33" ONE-PIECE GELCOATED			MIXINO	G VALVE A	ASSEMBLY	MV 	© - 0	OPE EME	IN SITE DRA	AIN .OOR DRAIN (SANI	TARY)	OSD EFD	
									COMBINATION (307A, 309A)					FREE TUB/SHOWER MODEL BF-TS60. COORDINATE RIGHT	FIBERGLASS TUB/SHOWER WITH 17- ¾ APRON STRUCTURALLY ENFORCED WALL SURROUND, AND A FACTORY MOUNTED WHITE BAR PACKAGE.				WATER VAL REDUCER	LVE	BWV	, 		TRAP PRIMI	ER VALVE		TP	
														HAND & LEFT HAND AS REQUIRED. SHOWER HEAD: SPEAKMAN SM-3070-1				PIPE S FIRE H	SLEEVE IOSE VALV	Έ	SLV FHV			SHUT-OFF	VALVE IN VERTIC;	4L		
								S-1	KITCHEN SINK	1 ½"	1 ½" 1	<i>y</i> ₄ " <i>y</i> ₄	ź" <u>}</u>	2" SINK: ELKAY LR3322 FAUCET: AMERICAN	SELF-RIMMING TYPE 302, 18 GA. STAINLESS STEEL. 33"W X 22"L X 8", DOUBLE BOWL, 4-HOLE PUNCHED,	CTHIS IS A SCHEDULE OF STANDARD SYSTEMS. SOME SYSTEMS MAY NOT APPE			HEDUL NOT APPEA	LE AR ON THIS PROJECT)								
									305, 310)					7231 (POLISHED CHROME)	FAUCET: GOOSENECK, SWING SPOUT, LEVER HANDLES. WITH FOOD WASTE DISPOSER.				P (L	PIPE MATERIAL		CONNECTION		F	FITTINGS	INSU		
								S-2	KITCHEN SINK (201)	1 ½"	1 ½" 1	¥," ¥	ź" ½	2" SINK: ELKAY "CROSSTOWN" ECTRU17179TC FAUCET: WATER CREATION SINGLE HOLL PULL-OUT S5-0011-0	TYPE 304, 18 GA. STAINLESS STEEL. 18.5"W X 18.5"L X 9", DOUBLE BOWL. WITH FOOD WASTE DISPOSER.	SYSTEM	PIPI SER	PE SIZE OR RVICE	SEAM STL (SCH OR W	R (TYPE) SCH) NIZED (SCH)	ED ED AND COUPLE	R AND COOFICE R ENE GASKET	NT WELD	URE CLASS STEEL IRON	LE IRON ABLE IRON SHT COPPER	IESS	FIBER AR FOAM VP JACKET (ASJ	NOTES
								S-3	PANTRY SINK (210A)	1 ½"	1 ½" 1	¥4" ¥2	ź" ½	2" SINK: ELKAY HD33569 FAUCET: AMERICAN STANDARD QUINCE	SELF-RIMMING TYPE 304, 18 GA. STAINLESS STEEL. 20"W X 15.5"L X 9", SINGLE BOWL, UNDER-MOUNT. FAUCET: HIGH ARC W/ PULL-DOWN SPRAY	SANITARY	UN	NDERGROUND	BLACK	COPPE AMD PVC (GALVA	CAST GROOV THRFA	WELD NEOPF	× Solve	PRESS BLACK CAST	MALLE WROU		CELLUI CELLUI KRAFT	KEYED
								S-4	HAND	1 ½"	1 ½" 1	<i>y</i> ₄ " <i>y</i> ₂	ź" ^j ź	4433.300 2" SINK: ADVANCE TACO	WITHOUT FOOD WASTE DISPOSER.	WASTE SANITARY	UN ABC ABC	NDERGROUND OVE GROUND OVE GROUND		DWV	X		((X					2
									SINK (102A)					7-PS-60 W/ GOOSE NECK FAUCET	PLATED P-TRAP, ETC.	VENT GAS	AB(OUT	OVE GROUND TDOOR ≤ 2 "	D D D CW STD	>wv	X	X X	1	150#	DWV X			1
								S-5	THREE – COMPARTME	1 ½"	1 ½" 1	1/4" ¹ /4	2" 1/2	ź" REGENCY 39" LONG, TYPE 304, 16 GA.	FAUCET WITH DOUBLE JOINTED SPOUT AND WRIST BLADE HANDLES.	1	OUT IN	$\frac{\text{TDOOR} > 2"}{\text{NDOOR} \le 2"}$	CW STD CW STD		X	X X	1	STD X 150#	X		++++-	1
									SINK (102A)					STAINLESS STEEL FAUCET: ZURN Z842K4		4	UN	NDERGROUND	CW STD CW STD	POLYE		X	X 1	150#	P(JLYE	++++	3
								S-6	LAUNDRY SINK (302A)	1 ½"	1 ½" 1	<i>V</i> ₄ " <i>V</i>	2" [}]	2" WOOD CRAFTERS BC2732-WH, BC2732COM-WH	INCLUDES FAUCET	DOMESTIC COLD WATER	C	UP TO 2" 2 1/2" 2 1/2"	CW	L STD	CUT ROLL	X X			GAL X	<u> </u>		\square
								WH	WALL	-		3	4 " –	- ZURN Z-1300	NON-FREEZE, FLUSH INSTALLATION, NICKLE BRONZE		0\ 0\	VER 2 1/2" VER 2 1/2"	ERW	L STD	ROLL CUT	X			GAL	1"1"	X X	_
									HYDRANT						BOX AND HINGED COVER W/ OPERATING KEY LOCK AND "WATER" CAST IN COVER, $\frac{3}{4}$ " HOSE OUTLET, W/AUTOMATIC DRAINING VACUUM BREAKER. VALVE	DOMESTIC HOT WATER		UP TO 2" 2 1/2"	CW	L STD	ROLL	X X				<u> </u>		_
															SHALL BE OF SUFFICIENT LENGTH TO EXTEND THROUGH WALL AND PLACE THE VALVE SEAT INSIDE OF THE BUILDING TO FREEZING. BRONZE SEAT AND REPLACABLE WASHERS MOUNT 24" ABOVE ENVIOLED OF ADE			<u> </u>	CW CW	L 40	ROLL CUT	X			GAL X	1"	X X	+
								wco	WALL	_		-		ZURN Z-1441-BP	DURA-COATED, CAST IRON BODY, GAS AND WATERTIGHT	STODY		OVER 4" OVER 4"	CW CW	L 40	ROLL CUT	X			GAL X	$\frac{1-1/2^{"}}{1-1/2}$	<u>, Х</u>	\square
									CLEANOUT						BRONZE THREADED PLUG, WITH ROUND SMOOTH STAINLESS STEEL ACCESS COVER AND SECURING SCREW.	STURM		NDERGROUND			X		X (() (4
								FCO	FLOOR CLEANOUT	-				ZURN ZB-1400	ADJUSTABLE, DURA-COATED, CAST IRON BODY W/ POLISHED BRONZE SCORIATED TOP, GAS AND WATERTIGHT ABS THREADED PLUG.	KEYED NOT 1. OUTDO 2 PVC N	DTES:	PING TO BE I	PAINTED.			RATED WALLS	4.	INSULATE H	ORIZONTAL PIPING	1/2" THICK		<u>2,4</u>
								ІМВ	ICE MAKER BOX	-	- -	,	2"	– GUY GRAY BIM875		2. FVC N 3. UNDER	RGROUNI	ID PIPING TO) BE PLAST	TIC COATED.	ι πτυυυΗ	MATEN WALLS.	ວ. ເ	PIPE SIZE PIPE SIZE PIPE SIZE PIPE SIZE	2-1/2" OR LESS 3" TO 6" 8" TO LARGER	, WASIE DRA 	ER FT. 'ER FT. 'PER FT.	10:
																J								_ 7.66				



ΠΙΔΚΟΙΝΙ
. <u>GENERAL</u> A. Provide a complete wet pipe system
B. The system shall be installed in acC. System piping shall be hydraulically
using the design densities required (if applicable). Provide mains and individual spaces being sprinkled.
D. The hydraulic calculations for the s the nearest fire hydrant. E. Sprinkler piping shall be installed a
Contractor to provide the clearance F. Provide sprinkler system with requir switches, alarm values, isolation val
G. Water Flow Alarm Switches as required by H. Supervisory Switches as required by
all applicable codes and the local F shop drawings that have been stam
by the West Virginia State Fire Mars
 A. The referenced codes shall include effective prior to the Date of Substance B. Modifications required by the Author
C. Where alterations to and/or deviation and secure his approval before star
E. All rules and regulations of the Und F. Provide all work in accordance with
West Virginia State Fire Code 202 National Electric Code. NFPA 101
NFPA Standard #13 — Installa NFPA Standard #24 — Installa
<u>QUALITY ASSURANCE</u> A. Basis of Design: As indicated on
в. Acceptable Manufacturers: If they 1. Pipe and fittings: Allied Tube 2. Valves: Mueller, Nibco, Stock
 Fire department connections: Sprinkler heads: Reliable, Ce
PIPE, FITTINGS AND VALVES A. Interior Piping:
 Interior pipe shall be new and Pipe shall be black steel, con 31.10) or arooved (UL approx
3. Schedule 10 pipe (lightwall) n cut-grooved. B Underground Piping:
 onderground Piping: 1. Ductile Iron: a. Pipe shall be Class
b. Fittings shall be (c. Joining Gaskets s C. Fittings:
 Fittings shall be new and des Cast iron flange fittings shall Cast iron threaded fittings shall
smaller diameter pipe and sh 4. Weld fittings shall be black s
16.5 or ANSI B 16.11. 5. Grooved couplings and mecha shall be EPDM or butyl rubbe
E. Unions and Flanges: 1. Cast—iron flange unions shall 16.1.
2. Mechanical couplings for use to ASTM A 536) and shall be
treated carbon steel bolts and
A. Gate Valves: 1. 2 inches and smaller: 200—; Class B.
2. 2 1/2 inches and larger: 17 Class B. B. Check Valuer:
 Cneck values: 1. 2-1/2 inches and larger: 17 C. Butterfly Values:
1. UL listed with full lug type du closure at 175 psi and worm casing for attachment of sup
2. UL listed with grooved—end d a tapped hole in case of ge
<u>FIRE_DEPARTMENT_CONNECTIONS</u> A. Provide fire department connections
 B. Provide fire department connections C. Wall-Mounted Siamese Inlet: Provide Provide double clapper valves, plugs
1. Basis of Design: Potter-Roen
A. Sprinkler head discharge characteris B. Sprinkler heads shall have UL and C. Provide sprinkler head critics circuit
D. Unless specified otherwise, provide s 1. Concealed spaces: Rough bro
 Untinished spaces: Rough br Finished spaces: Concealed. Upright Type, Standard: Encapsulat
F. Pendent Type, Standard: Encapsula G. Concealed Type: Standard pendent coverplates for heads installed in c
Basis of Design: Reliable Model G1.
A. Water Flow Detector: 1. For wet sprinkler systems, pr
shall have UL label. Provide switch for connection to othe a. Basis of Design:
B. Valve Supervisory Switch: Provide U Provide tamper switch, required trin connection to other building clarm
C. Ball Drip: Provide cast brass autor Inc. Model #5982.
D. Inspector's Sight Test Connection: sprinkler head.
A. Unfinished Spaces (mechanical roor
type as required to provide specifie
Fiat, White Ceiling Areas: Conceale
PIPING SUPPORTS
PIPING SUPPORTS A. Pipe supports shall conform to NFP/ PRESSURE TESTING

HYDRONIC FIRE PROTECTION SYSTEM NOTES	GEN
e a complete wet pipe system of automatic sprinklers in heated areas. Conceal all piping in finished spaces except backstage & Stair C. Istem shall be installed in accordance with the rules and regulations of the WV State Fire Marshal's office.	<u>SECTION 15000 – GENERAL PLUMBING REQUIREMENT</u> PART 1 GENERAL A. Provide under this Division complete p the Drawings and as specified herein.
piping shall be hydraulically designed throughout all areas in accordance with the rules and regulations of NFPA Pamphlet No. 13 the design densities required by code. Sprinkler system design shall accommodate a potential load of the greater density of mixed use plicable). Provide mains and branches designed to support head density and spacing as required by the hazard classification of the und spaces being sprinkled.	1.2 CODES AND STANDARDS A. Codes and standards listed herein, ins be followed as minimum requirements Where these specifications require hig
rdraulic calculations for the sprinkler system pipe sizing shall be based on the actual site residual and static pressures as measured at arest fire hydrant.	and workmanship specified. B. Prior to purchase or installation, give
er piping shall be installed and coordinated with the ductwork and other mechanical and electrical services in the ceiling cavities by the ctor to provide the clearances for lighting fixtures as indicated on the drawings.	rules or regulations, or Authorities Ha C. The referenced codes shall include ar
e sprinkler system with required drain lines, test connections, spare heads, tools, Siamese connections, alarms, circuit closers, monitor es, alarm valves, isolation valves, air compressors, etc.	effective prior to the permit issue dat D. Make any and all modifications requir
Flow Alarm Switches as required by NFPA Standards. isory Switches as required by NFPA Standards.	E. Where alterations to and/or deviations and secure approval before starting t
itomatic Sprinkler Design/Build Contractor will perform the final sprinkler system design, including hydraulic calculations, as required by	F. Where Contract Documents' requirements govern.
Irawings that have been stamped and signed by a professional engineer, liscensed in the State of Virginia, and submit them for review West Virginia State Fire Marshal.	G. All rules and regulations of the Under H. All work shall comply with the followi
STANDARDS	1. Codes: International Building Code, lates
ferenced codes shall include any and all supplements, addenda, memoranda, information bulletins and any other changes and additions ve prior to the Date of Substantial Completion by adoption of the local Authority Havina Jurisdiction.	International Plumbing Code, lat International Fuel Gas Code, late
ations required by the Authorities Having Jurisdiction shall be made without additional charge to the Owner.	National Electric Code. 2. Standards: In addition to the r
contract Documents' requirements are in excess of Code requirements, the Contract Documents shall govern.	codes published by the following guidelines shall be considered r
es and regulations of the Underwriters Laboratories (UL) shall be complied with whether or not indicated in the Contract Documents.	with the recommendations and American Society of Mechanical
West Virginia State Fire Code 2020 National Electric Code	American National Standards Ins American Water Works (AWWA)
National Electric Code. NFPA 101 = NEPA Standard #13 — Installation of Sprinkler Systems, latest edition in force.	American Society for Testing an
NFPA Standard #24 — Installation of Private Water Supplies, latest edition in force.	Underwriters Laboratories (UL).
JRANCE of Design: As indicated on the drawings and as specified in Part 2 of this section	Plumbing Drainage Institute Manufacturer's Standardization S
able Manufacturers: If they comply with these specifications, products by the following manufacturers will be acceptable. Pipe and fittings: Allied Tube & Conduit, U.S. Pipe and Foundry Victaulic.	1.3 PERMITS A. Obtain and pay for all permits, licens
Valves: Mueller, Nibco, Stockham, Milwaukee, Grinell, Victaulic, Watts, Clay Valve. Fire department connections: Potter-Poemer Allenco	Documents. 1.4 GUARANTEE
Sprinkler heads: Reliable, Central, Viking.	A. Guarantee in form satisfactory to the apparatus will develop capacities and
S AND VALVES	certification of substantial completion, B. During the guarantee period, remedy,
Interior pipe shall be new and designed for 175 psi working pressure. Pipe shall be black steel conforming to ASTM A 135 Schedule 40 Schedule 40 pipe may be threaded (ANSL B 2.1) welded (ANSL B	shall be completed within a reasonabl costs to the Contractor.
The share black steel, contorning to Astm A 100, schedule 40. Schedule 40 pipe may be intedded (ANSI & 2.1), welded (ANSI & 31.10) or grooved (UL approved). Sate black to size (itstatedi) man be matched (ANSI D 71.10 or b) or will arrange (UL arrange). Lickturell size abolt act be	1.5 COMPLETE PERFORMANCE OF WORK A. Execute work in strict accordance with
schedule 10 pipe (lightwall) may be welded (ANSI & 31.10, a, b) or roll—grooved (UL approved). Lightwall pipe shall not be cut—grooved. urgund Disinge	B. Provide labor, materials, apparatus, a be reasonably implied as essential wh
pround Piping: Ductile Iron: Discussed to Discus 50,00,51, with interactive to the sector for muchanized is interactive.	C. In cases of doubt as to the Work inte Architect.
 a. Pipe shall be Class 50 OR 51, with integrally cast bell and spigot for mechanical joints. b. Fittings shall be Class 2, short body pattern to match spigot gland and rubber gasket on adjoining pipe or fitting. 	A. Coordinate efforts of all trades and f
C. Joining Gaskers shall be plain rubber lype A, ANSI A 21.11 and ASIM F 30. :: Fittings shall be new and designed for 175 psi working procedure	B. Where the work of various trades will will interface with work of other trades.
Cast iron flange fittings shall conform to ANSI B 16.1 and shall be UL approved.	work before coordinating with work of
smaller diameter pipe and shall conform to ANSI B 16.3 and shall be UL approved. Weld fiftings shall be black steel same weight as adjoining pipe, and shall conform to ANSI B 16.9 ANSI B 16.25 ASTM A 234 ANSI B	A. The Drawings show the general layout
16.5 or ANSI B 16.11. Grooved couplings and mechanical fittings shall be malleable iron conforming to ASTM A 47 and shall be III approved Gasket material	elbow, transition, turning vane, or sim
shall be EPDM or butyl rubber. and Elanges:	proceeding. B Follow the Drawings in laving out the
Cast—iron flange unions shall be black standard, 175 psi working pressure WOG, UL approved, conforming to ASTM A 126 and ANSI B 16.1	maximum headroom throughout. Whe
Mechanical couplings for use with grooved pipe/fittings shall be malleable iron (conforming to ASTM A 47) or ductile iron (conforming to ASTM A 536) and shall be use an event of the state of bigged two sizes design accurate in position with tight fitting, best	1.8 MANUFACTURER'S RECOMMENDATIONS
treated carbon steel bolts and nuts (conforming to ASTM A 183). Gasket material shall be EPDM or butyl rubber.	articles, materials, and equipment per
	1.9 SUBMITTALS
aives: 2 inches and smaller: 200—pound WSP, bronze, OS&Y, rising stem, screwed bonnet, solid wedge disc, screwed, UL listed, ASTM A 126,	subcontractors, for all materials and Architect
class b. 2 1/2 inches and larger: 175—pound WOG, IBBM, OS&Y, rising stem, bolted bonnet, solid wedge disc, flanged, UL listed, ASTM A 126,	B. Prior to forwarding submittals to the are in compliance with the Contract D
Valves:	C. A minimum period of two weeks, exc resubmitted for review. This time per
2—1/2 inches and larger: 175—pound WOG, IBBM, swing, bolted cap, renewable seat, flanged, UL listed, ASIM A 126, Class B. ly Valves:	D. Approval of product data shall not re requirements in the Contract Documen
UL listed with full lug type ductile iron body, aluminum bronze disc, 316 stainless steel stem, Buna–N seat, phenolic ring, bubble–fight closure at 175 psi and worm gear manual operator with crank or handwheel and indicator. Provide a tapped hole in gear operator	others does not grant the Contractor Contract Documents shall govern the
using for anachment of supervisory switch. UL listed with grooved—end design, grade "H" butyl seat, bubble—tight closure at 200 psi, manual gear operator, standard trim. Provide	PART 2 PRODUCTS 2.1 MATERIALS
a tapped noie in case of gear operator for attachment of supervisory switch.	A. The word "Provide" is defined as req which it refers.
e fire department connections with local fire department standard hose threads.	B. Unless otherwise specified, provide net finish work in every detail, and select
in a generation connections with finish selected by Architect. Iounted Siamese Inlet: Provide flush wall-mounted, two-way, brass body, Siamese connections at locations indicated on the drawings.	material is given, provide a first class C. Eauipment desianated as "Basis of De
Basis of Design: Potter-Roemer Series #5750; or Allenco Series #270.	and service (maintenance) requiremen like equipment are acceptable conting
EADS er bead discharge characteristics, identification, temperature ratings, classifications, and performance shall comply with NEPA 13	additional cost, any modifications to install, operate, and service the equip
er head discharge characteristics, identification, temperature rainings, classifications and performance shar comply with NFFA 13. er heads shall have UL and FM approval. a sprinkler head orifice size as required by coverage and bydraulic calculations.	PART 3 EXECUTION 3.1 EXCAVATION AND BACKFILLING
specified otherwise, provide sprinkler head finishes as follows: Concented spaces: Rough bronze	A. General: Provide excavation and back building, and to points of connection
Unfinished spaces: Rough bronze. Finished spaces: Concealed	 B. Trenching: Excavate to the required excavate rock to a minimum depth or
t Type, Standard: Encapsulated, fusible alloy and spring lever actuator. Basis of Design: Reliable Model G—SSU. It Type, Standard: Encapsulated fusible alloy and spring lever actuator. Basis of Design: Reliable Model G—SSP.	uniform bearing for the bottom quart joints. Provide separate trenches for
iled Type: Standard pendent head of either adjustable or non-adjustable type and two-piece cup/coverplate assembly. Provide white lates for heads installed in ceiling tiled spaces. Provide factory-standard coverplate finish as selected by Architect in all other areas	C. Backfilling: Do not backfill trenches Local Authorities having jurisdiction th
of Design: Reliable Model G1.	 Provide backfill consisting of sa and compacted by hand tampi
Flow Detector:	using materials as specified the 3.2 SLEEVES, FORMED OPENINGS, PLATES, AND IN
For wet sprinkler systems, provide paddle—type, clamp—on flow switch with field—adjustable retard and automatic recycle. Flow switch shall have UL label. Provide electrical characteristics compatible with Division 16 Fire Alarm System. Provide auxiliary contacts on flow	 A. Provide sleeves for all piping passing B. Provide sleeves and formed openings
switch for connection to other building alarm systems. a. Basis of Design: Reliable Model A.	C. Check floor and wall construction tini following.
Supervisory Switch: Provide UL listed valve—mounted supervisory switch arranged to detect the open or closed position of control valve. • tamper switch, required trim and electrical characteristics compatible with Division 16 Fire Alarm System. Provide auxiliary contacts for	1. Terminate sleeves flush with wa 2. In areas where pipes are expos
tion to other building alarm systems. Basis of Design: Potter—Roemer, Inc. Figure #6220 Series. ip: Provide cast brass automatic ball drip with 3/4—inch threaded outlet. Basis of Desian: Allenco Model #2112NY: or Potter—Roemer.	D. 3.3 RECORD DRAWINGS A. Maintain at the project site a complet
odel #5982. For's Sight Test Connection: Provide semi—steel sight test connection with glass tube and having flow equivalent to one 1/2—inch	"Record Drawings" to show changes of construed as authorization for the Co
er head.	
<u>540 TYP59</u> hed Spaces (mechanical rooms, storage rooms, janitor's closets, other areas not having <u>finished ce</u> ilings): Up right, pende nt or sidewall	
s required to provide specified coverage and maintai n maximum headroom. /hite Ceiling Areas: Concealed type with white coverplate.	
upports shall conform to NFPA requirements.	
STING a pressure tests for the entire system including all tenant improvements, changes, etc. in accordance with NEDA Standard No. 17 and	
, recours toole to the only system measuring an tenant improvements, changes, etc., in accordance with META standard No. 13 and	

NERAL REQUIRMENTS

<u>TS</u>

plumbing and fire protection systems, fully adjusted, tested, and commissioned for use as indicated on 1.

nsofar as they apply, form a part of these Specifications, the same as if they were fully written and shall its. Where standards conflict, that standard with the more stringent requirements shall be applicable. igher grade material or workmanship than the referenced standards, provide the highest grade of material

e written notice to the Architect of any materials or apparatus believed in violation of laws, ordinances, aving Jurisdiction.

any and all supplements, addenda, memoranda, information bulletins and any other changes and additions ate by adoption of the local Authority Having Jurisdiction. ired by the Authorities Having Jurisdiction without additional charge to the Owner.

ns from the Contract Documents are required by the Authorities, report the requirements to the Architect the alterations. Nents are in excess of Code requirements and are permitted under the Code, the Contract Documents shall

lerwriters Laboratories shall be complied with whether or not indicated in the Contract Documents. wing codes and standards.

test edition in force atest edition in force atest edition in force

requirements shown or specified, comply with the latest current applicable standards, specifications and ing (where the following publications list recommendations and guidelines, the recommendations and requirements of this contract and the items and systems shall be constructed and/or tested in accordance I guidelines):

Engineers (ASME). stitute (ANSI).

and Materials (ASTM). ation (NFPA).

Society of the Valves and Fittings Industry, Inc. (MSS).

uses, and inspection certificates required for all work in accordance with the provisions of the Contract

e Owner, that all Work installed is free from defects in workmanship and/or materials. Guarantee that all characteristics specified for a period of one year from the date of final acceptance by the Owner or , whichever occurs later.

, without cost to the Owner, defective workmanship, materials, and apparatus performance. Remedial work ble time specified by the Owner. In default thereof, the Owner may have such work done and charge all

th the best practice of the trades In a thorough, substantial, workmanlike manner by competent workmen. and appliances essential to the complete functioning of the systems described and indicated, or which may rhether mentioned in the Contract Documents or not. Itended, or in the event of need for explanation thereof, request supplementary instructions from the

furnish in writing, with copies to the Architect and Owner, any information necessary to permit the work storily and with least possible interference or delay. Ill be Installed in close proximity to one another, or where there Is evidence that the work of one trade des, assist in working out space conditions to make a satisfactory adjustment. If one trade installs his of other trades, make necessary changes to correct the condition without extra charge.

ut of the various items of equipment. However, layout of equipment, accessories, specialties, ductwork, c unless specifically dimensioned, and do not necessarily indicate every required valve, fitting, trap, duct, milar items required for a complete installation. Consult the Architectural Drawings and details for exact equipment. Where same is not definitely located, obtain the information from the Architect before

e work and check drawings of all trades to verify spaces in which work will be installed. Maintain here space conditions appear inadequate, request clarification from the Architect before proceeding with the

ifferently in the Contract Documents, apply, install, connect, erect, use, clean, and condition manufactured er manufacturer's current printed recommendations. Keep copies of such printed recommendations at job

rior to proceeding with the Work, obtain complete submittals from the manufacturers, suppliers, vendors, equipment specified in this Division and submit data and details of such materials and equipment to the

Architect, review and certify that the equipment, materials, methods, etc. represented by the submittals Documents.

Acclusive of transmittal time, will be required in the Engineer's office each time a submittal is submitted or period shall be considered by the Contractor when scheduling his work. relieve the Contractor of the responsibility for errors that may be contained therein, or for deviations from ents. It shall be clearly understood that the Architect or Engineer noting some errors but overlooking r permission to proceed in error. Regardless of any information contained in the product data the e work and are neither waived nor superseded in any way by submittal review.

equiring the Contractor to "furnish, erect, test, adjust and install complete and ready for use" the item to

iss standard article as approved by the Architect.

Design" has been coordinated for structural penetrations; duct, piping, and electrical connection; operating ents; and physical size with regard to space where equipment is housed. Other specified manufacturers of igent on the Contractor providing a complete installation and maintaining full responsibility to provide, at no the structure or configuration of adjoining equipment and the installation that is required to properly ipment being used.

ckfilling of trenches required for the installation of all utility services and underground piping within the n with exterior underground utilities outside of the building. I depths and grade the bottoms of trenches to secure the required slope for pipe llnes. Where encountered, of six inches below the bottom of pipe. Excavate the bottom of the trench by hand to provide firm, rter of the pipe. Excavate recesses for joints for pipe having bells, sleeves, other enlargement at the por water and sewer lines.

until the piping has been tested as required and reviewed and approved by the Architect and/or any hereof. and or selected excavated material, placed to a depth of one foot above the top of the conduit or pipe

orig. Provide backfill for the remainder of the trench in accordance with the requirements of Division 2, erein, and compact as required to produce the specified density. NSERTS

g through masonry, concrete, tile and gypsum wall construction. s of sufficient size to pass continuous, uninterrupted insulation of the specified thickness.

nishes to determine proper length of sleeves for various locations and make actual lengths to suit the

alls, partitions, and ceilings. ısed, extend sleeves 2 inches above finished floor.

ete set of "Record Drawings" reflecting an accurate as—built record of all Work. In addition, mark the and deviations in the Work from that shown on the Contract Documents. This requirement shall not be Contractor to make changes in the layout or work without definite instructions from the Architect. NORTH (building)



131 W. German St. Shepherdstown West Virginia



Mech/Elect Engineer

FHC Engineering, PC 4 Weems Lane #277 Winchester, VA 22601 540 247-2939

Structural Engineer

Ruckman Engineering, PLC 22-B Ricketts Drive Winchester, VA 22601



 Date
 JUNE
 04, 2020

 Scole
 As Noted
 Project Number
 19820

 Drawing Number
 Image: Contract Number
 19820

P0.2

