DOCUMENT 00 90 00 ADDENDUM

ADDENDUM NO. [1] Date: March 18, 2020

RE: LA CRESCENT - HOKAH PUBLIC SCHOOLS ELEMENTARY SCHOOL ADDITION AND RENOVATION 504 S OAK ST LA CRESCENT, MN 55947 HSR 19014

FROM: HSR Associates, Inc 100 Milwaukee Street La Crosse, WI 54603 (608) 784-1830

To: Prospective Bidders

This addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated March 2020. Acknowledge receipt of this Addendum in the space provided on the bid form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of [4] pages, Pre-bid attendance, and [25] 30 x 42 drawings.

CHANGES TO BIDDING REQUIREMENTS AND CONDITIONS OF THE CONTRACT:

1. Pre-bid attendance attached hereto

CHANGES TO SPECIFICATIONS:

- 1. Section 07 21 19 FOAMED-IN-PLACE INSULATION
 - a. 2.01, A: Delete "open" from first sentence. Spray foam shall be closed cell only.
 - b. 2.01, A, 1: Change R-value from "5" to "7".

2. Section 23 09 14 ELECTRIC INSTRUMENTATION AND CONTROL DEVICES FOR HVAC

- a. 1.02 Description of the Work: Replace Article with the following:
 - A. Install a complete new direct digital control system with electronic/electric actuation of all valves and dampers as specified herein and shown on the reference drawings.
 - B. All work shown on plans is Base Bid including the new air handling units (<u>AHU-1</u>, <u>AHU-2</u> and <u>AHU-3</u>), new boilers (<u>B-1</u> and <u>B-2</u>), new hot water pumps (<u>P-1</u> and <u>P-2</u>), new make-up air unit (<u>MAU-1</u>), and new rooftop units (<u>RTU-1</u> thru <u>RTU-7</u>)
 - C. This project will require a balance (by Balancing Contractor) of all air and water flow for the entire facility upon completion of the new control system installation.
- 3. Section 23 09 23 DIRECT DIGITAL CONTROL SYSTEM FOR HVAC
 - a. 2.02, A, 1: After paragraph 1 add the following acceptable manufacturers; Automated Logic, Alerton, Invenys, Trane, American Auto-Matrix, Andover and Siemens.

CHANGES TO DRAWINGS

- 4. <u>Sheet C101 LAYOUT PLAN</u> 30 x 42 attached hereto
 - a. Revisions clouded on Drawing.
 - b. Pavement mix revised at 1C101.
- 5. <u>Sheet C104 UTILITY PLAN</u> 30 x 42 attached hereto
 - a. Revisions clouded on Drawing.
 - b. Revision to Cleanout Schedule.
- 6. Sheet A093 FIRST FLOOR REMOVAL PLAN SEGMENT C 30 x 42 attached hereto
 - a. Revisions clouded on Drawing.
 - b. Revision to removal note 26.
 - c. CO2 sensor shall be installed in return air for RTU-7.
- 7. Sheet P000 Symbols, Abbreviations & Schedules Plumbing 30 x 42 attached hereto
 - a. Revise fixture unit values on Plumbing Fixture Schedule, as shown.
 - b. Revise expansion tank ET-1 model info, as shown.
- Sheet P093 First Floor Removal Plan Plumbing Area C 30 x 42 attached hereto a. Add existing piping for wall hydrants, and storm piping, as shown.
- 9. <u>Sheet P094 Second Floor Removal Plan Plumbing Area A & C</u> 30 x 42 attached hereto a. Revise locations of existing storm piping, as shown.
- 10. Sheet P100 Underfloor Plan Plumbing Area A 30 x 42 attached hereto
 - a. Add utilities for future greenhouse, as shown.
 - b. Add sanitary for EWC, as shown.
 - c. Revise sanitary size, as shown.
- 11. <u>Sheet P101 Bsmt/Underfloor Plan Plumbing Area B & C</u> 30 x 42 attached hereto a. Revise waste and vent for mop basin above, as shown.
- 12. <u>Sheet P102 First Floor Plan Plumbing Area A</u> 30 x 42 attached hereto
 - a. Add wall hydrants WH-1 and piping, as shown.
 - b. Add EWC and piping, as shown.
- 13. <u>Sheet P103 First Floor Plan Plumbing Area B & C</u> 30 x 42 attached hereto
 - a. Add wall hydrants WH-1 and piping, as shown.
 - b. Add existing storm piping, as shown.
 - c. Revise waste and vent for mop basin, as shown.
 - d. Add note for gas connection to HVAC equipment, as shown.
- 14. <u>Sheet P300 Waste & Vent Isometric South</u> 30 x 42 attached hereto a. Add fixture labels and note in kitchen area, as shown.
- 15. <u>Sheet P303 Domestic Water Isometric South</u> 30 x 42 attached hereto
 - a. Add wall hydrants WH-1 and piping, as shown.
 - b. Add EWC and piping, as shown.
 - c. Add fixture labels and not in kitchen area, as shown.
- 16. <u>Sheet P304 Domestic Water Isometric Northwest</u> 30 x 42 attached hereto
 - a. Add wall hydrants WH-1 and piping, as shown.
- 17. <u>Sheet P305 Domestic Water Isometric Northeast</u> 30 x 42 attached hereto a. Add wall hydrants WH-1 and piping, as shown.
- 18. M102 LEVEL 1 DUCTWORK REMODEL PLAN AREA B 30 x 42 attached hereto
 - a. Revisions clouded on Drawing.
 - b. Duct Smoke Detector included in return of RTU-1.

19014 La Crescent Elementary

School Addition & Renovation 00 90 00 -2

19. M103 – LEVEL 1 DUCTWORK REMODEL PLAN - AREA 'C' 30 x 42 attached hereto

- a. Revisions clouded on Drawing
- b. Stand support for RTU-7 shall be provided by General Contractor.
- c. Duct Smoke Detector included in return of RTU-7.
- d. CO2 sensor shall be installed in return air for RTU-7.
- 20. Sheet E000 Symbols, Abbreviations & Details Electrical 30 x 42 attached hereto
 - a. Revise Communications Device Schedule, as shown.
 - b. Revise Audio Enhancement Device Schedule, as shown.
- 21. <u>Sheet E102L First Floor Lighting Area A</u> 30 x 42 attached hereto
- a. Add keyed note #5 and lighting control system with astronomical time clock, as shown.
- 22. Sheet E102P First Floor Power & Systems Area A 30 x 42 attached hereto
 - a. Revise speaker connection callouts in all areas, as shown.
 - b. Add floor box connections in Library 160, as shown.
- <u>Sheet E103P First Floor Power & Systems Area B</u> 30 x 42 attached hereto
 a. Revise speaker connection callouts in all areas, as shown.
- 24. <u>Sheet E104P First Floor Power & Systems Area C</u> 30 x 42 attached hereto a. Revise speaker connection callouts in all areas, as shown.
- 25. <u>Sheet E105P Second Floor Power & Systems Area A</u> 30 x 42 attached hereto a. Revise speaker connection callouts in all areas, as shown.
- <u>Sheet E106P Second Floor Power & Systems Area B</u> 30 x 42 attached hereto a. Revise speaker connection callouts in all areas, as shown.
- <u>Sheet E107P Second Floor Power & Systems Area C</u>30 x 42 attached hereto a. Revise speaker connection callouts in all areas, as shown.
- <u>Sheet E801 Panel Schedules Electrical</u> 30 x 42 attached hereto
 a. Revise panel schedules for Panel A1C, as shown.

PRIOR APPROVALS

- 1. Section 04 20 00 UNIT MASONRY
 - a. 2.05, B: York 304 Adhered Flexible Stainless Steel Flashing. (This is not a substitute for stainless steel flashing specified elsewhere)
- 2. Section 07 42 13 METAL WALL PANELS
 - a. Metal Sales Manufacturing Corp: TL-17 and TL17-D
- Section 10 22 39 FOLDING PANEL PARTITIONS

 Moderco; Signature 843E
- 4. Section 22 30 00 PLUMBING EQUIPMENT
 - a. Expansion Tanks:
 - i. Elbi: HTL-400 Hydronic Expansion Tanks.
- 5. Section 23 52 33 CONDENSING BOILERS
 - a. Bryan Boilers: BFIT-3000

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"SIGN-IN" SHEET

PROJECT: La Crescent MS/ HS and Elementary School

HSR NO.: 19014 DATE: March 13, 2020 at 10:00 a.m.



PLEASE PRINT ALL INFORMATION CLEARLY

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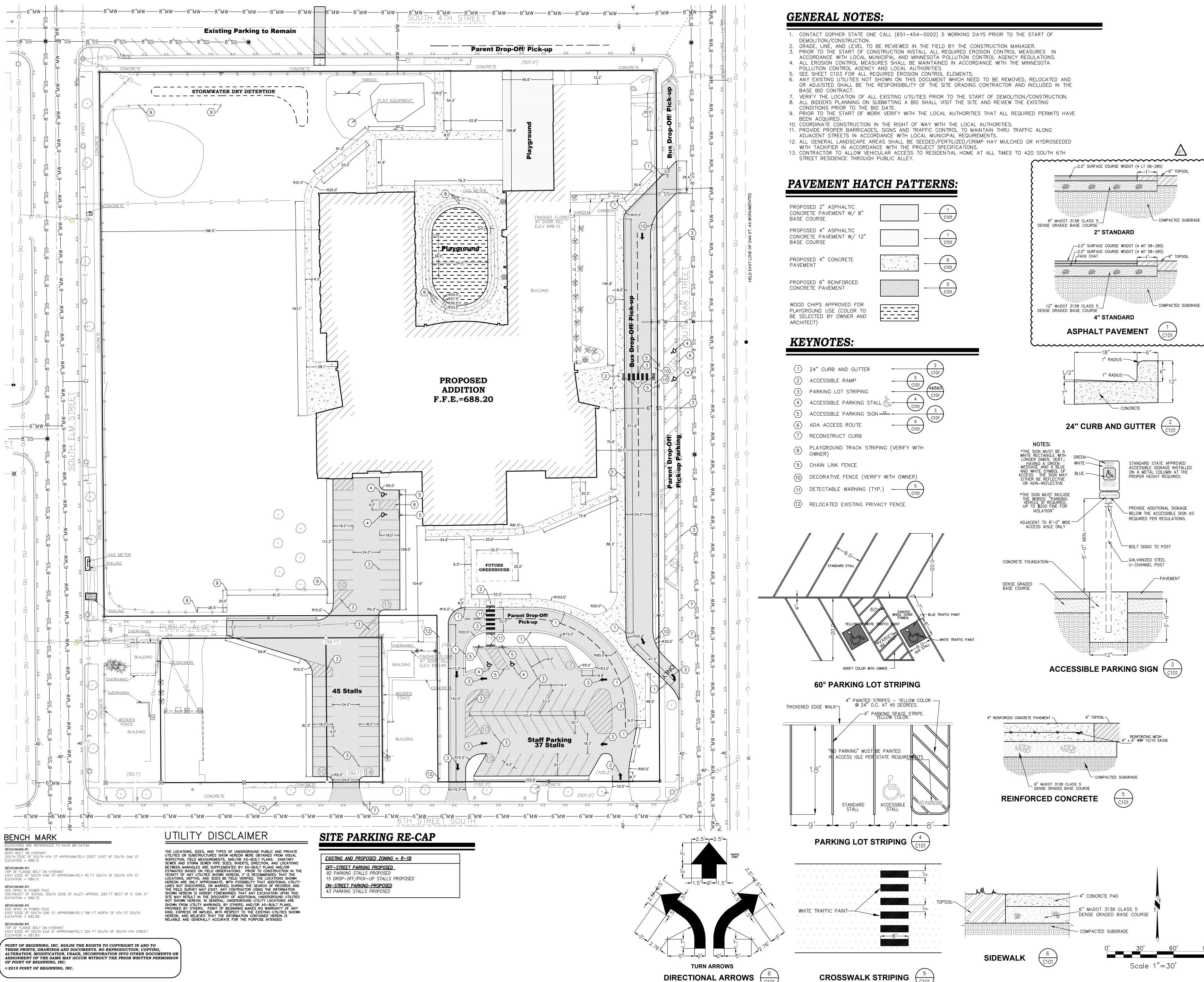


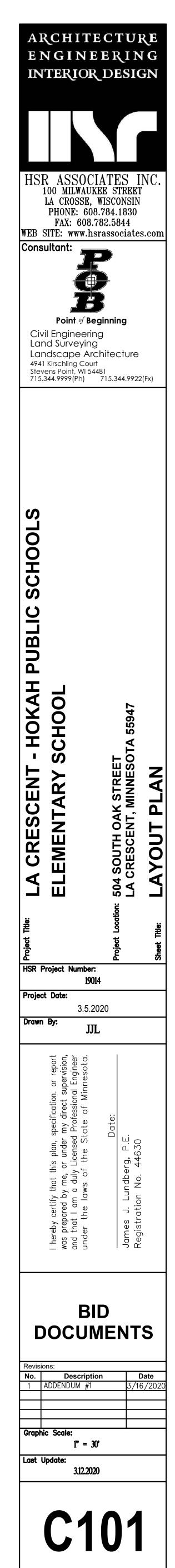
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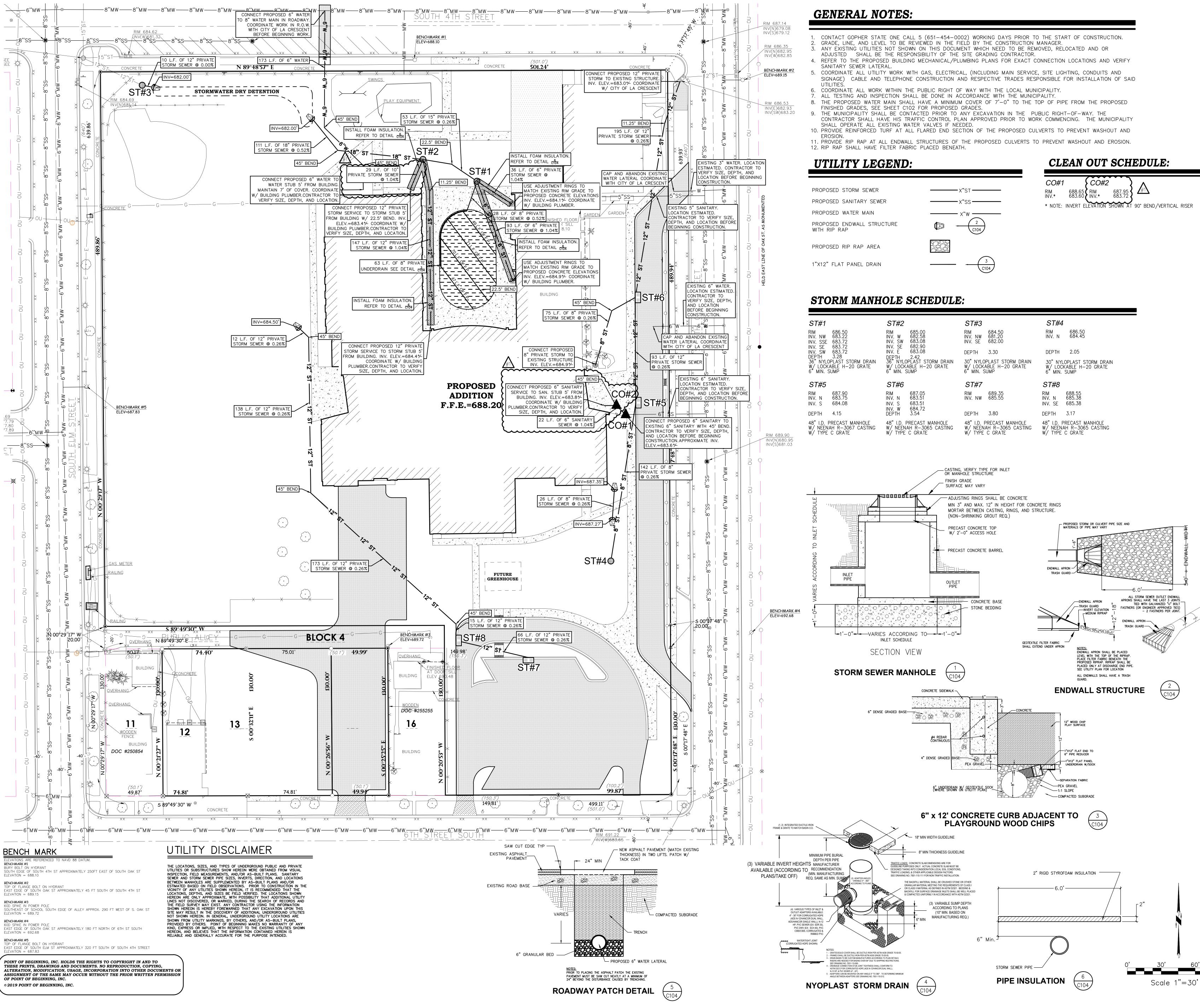
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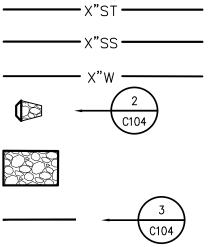
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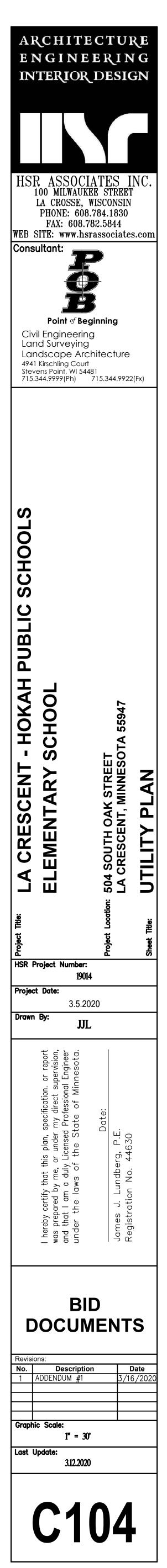
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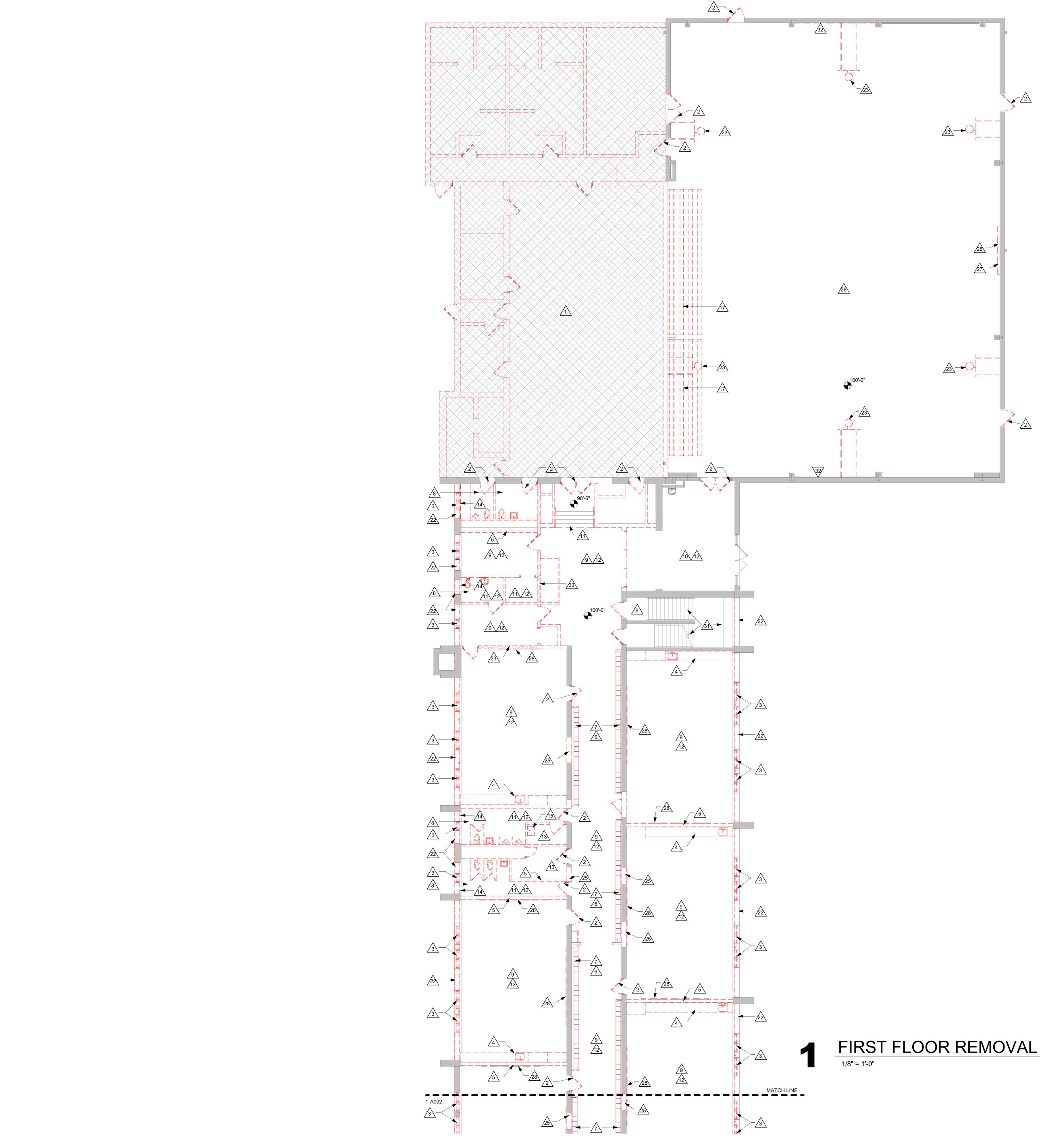












REMOVAL GENERAL NOTES: A ALL STRUCTURES SHOWN DASHED ON THIS PLAN SHALL BE COMPLETELY REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR UNLESS OTHERWISE NOTED. REFERENCE MEP SHEETS FOR ALL EQUIPMENT REMOVALS AND MODIFICATIONS. TIME AND METHODS SHALL BE COORDINATED WITH AND AGREED TO BY THE OWNER AND ARCHITECT. THIS SHALL INCLUDE ALL ELECTRICAL, MECHANICAL OR PLUMBING WITHIN THE REMOVED STRUCTURE. TERMINATE AND CAP MEP AS REQUIRED. DO NOT ABANDON IN PLACE UNUSED CONDUIT, PIPE, ETC. REMOVE COMPLETELY. VERIFY GENERAL CONDITIONS IN FIELD PRIOR TO BIDDING. PREPARATION FOR NEW FINISHES SHALL INCLUDE BUT NOT LIMITED TO REMOVAL OF EXISTING FINISHES, REMOVAL OF TAPES, GLUES (MASTIC), NAILS, ETC. PATCHING OF HOLES AND CRACKS TO PROVIDE AN ACCEPTABLE SURFACE FOR NEW FINISH INSTALLATION. OWNER WILL REMOVE LOOSE FURNISHINGS AND EQUIPMENT FROM THE WORK AREA PRIOR TO START OF CONSTRUCTION. MAINTAIN ALL EXIT DOORS AND CORRIDORS IN UNOBSTRUCTED OPERABLE CONDITION WITH SAFE PASSAGE AWAY FROM THE BUILDING. COORDINATE WITH LOCAL FIRE MARSHAL AS REQUIRED. ROOM NUMBERS ARE SHOWN ON THIS PLAN FOR INFORMATIONAL AND COORDINATE PURPOSES ONLY. SEE MECHANICAL, PLUMBING AND ELECTRICAL SHEETS FOR ADDITIONAL REMOVAL NOTES AND ITEMS. G COORDINATE REMOVAL AND PATCHING WITH MEP DRAWINGS. PATCH TO MATCH EXISTING ADJACENT CONDITIONS. H COORDINATE STORAGE LOCATIONS FOR SALVAGED EQUIPMENT, ACCESSORIES, ETC. WITH THE OWNER. SALVAGED ITEMS SHALL BE PLACED AT A COMMON LOCATION

REMOVAL PLAN LEGEND:

INDICATED BY OWNER.

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SYMBOL INDICATES CONSTRUCTION NOTE THIS SHEET REMOVE ITEMS NOTED WITH DASHED LINES

SYMBOL INDICATES REMOVAL OF DOOR AND FRAME UNLESS NOTED OTHERWISE

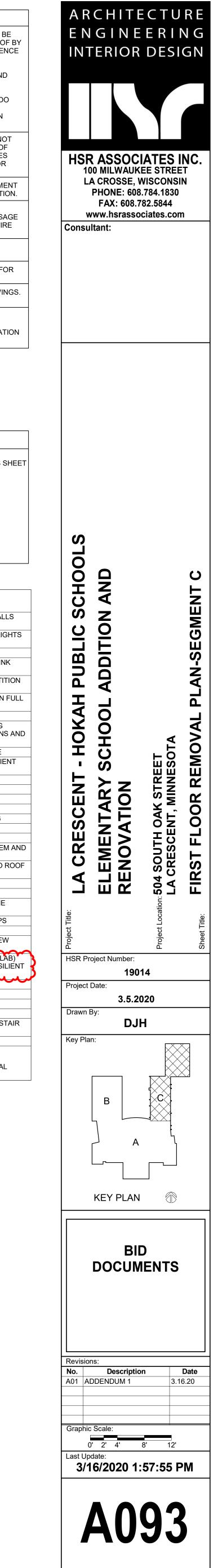
INDICATES AREA OF COMPLETE BUILDING REMOVAL

KEY NOTES REMOVAL

- REMOVE ENTIRE BUILDING INCLUDING FOUNDATION WALLS AND FOOTINGS AT AREAS SHOWN CROSS HATCHED. REMOVE EXISTING DOOR AND FRAME INCLUDING SIDELIGHTS AND TRANSOMS WHERE APPLICABLE REMOVE EXISTING WINDOW REMOVE EXISTING CASEWORK - (SEE PLUMBING FOR SINK REMOVAL IF APPLICABLE) REMOVE EXISTING NON-LOAD BEARING MASONRY PARTITION FULL HEIGHT REMOVE EXISTING NON-LOAD BEARING STUD PARTITION FULL HEIGHT REMOVE EXISTING LOCKERS AND BASE REMOVE EXISTING TOILET ROOM, INCLUDING PLUMBING FIXTURE (SEE PLUMBING DRAWINGS), TOILET PARTITIONS AND ACCESSORIES REMOVE EXISTING VCT FLOORING AND RESILIENT BASE REMOVE EXISTING CERAMIC TILE FLOORING AND RESILIENT BASE REMOVE EXISTING CERAMIC TILE FLOORING REMOVE EXISTING AC TILE CEILING REMOVE EXISTING PLASTER CEILING AND FRAMING REMOVE EXISTING CERAMIC TILE WALL FINISH REMOVE EXISTING PLUMBING FIXTURE - SEE PLUMBING REMOVE EXISTING ROOF ACCESS LADDER REMOVE EXISTING BLEACHERS REMOVE EXISTING BALLASTED ROOF MEMBRANE SYSTEM AND INSULATION DOWN TO EXISTING ROOF DECK. (ALT BID) REMOVE EXISTING ROOF MEMBRANE SYSTEM DOWN TO ROOF DECK. REMOVE EXISTING ROOF HATCH - INFILL OPENING REMOVE EXISTING ROOF OVERHANG REMOVE EXISTING WINDOW INFILL AND INTERIOR STONE WINDOW STOOL (EXTERIOR STONE SILL TO REMAIN) REMOVE EXISTING WALL HUNG BASKETBALL BACKSTOPS REMOVE EXISTING METAL WALL PANELS PROVIDE OPENING IN EXISTING MASONRY WALL FOR NEW DOOR AND FRAME - SEE STRUCTURAL FOR LINTEL REMOVE ALL EXISTING FLOOR TILE (DOWN TO FLOOR SLAB) AND RESILIENT BASE. PREP FLOOR SLAB FOR NEW RESILIENT ATHLETIC FLOORING. REMOVE EXISTING PROJECTION SCREEN
- REMOVE EXISTING MARKERBOARD/TACKBOARD
- REMOVE EXISTING WALL MOUNTED ACCESS LADDER REMOVE EXISTING CONC. HOUSEKEEPING PAD
- REMOVE EXISTING TILE TREADS, RISERS AND BASE AT STAIR AND LANDING. PREP STAIR/LANDING FOR NEW FINISH.
- REMOVE EXISTING PROTECTION PADS VERIFY COLUMN LOCATIONS/SECOND FLOOR BEARING CONDITIONS AT EXISTING MASONRY WALLS PRIOR TO
- DEMOLITION-COORDINATE W/ ARCHITECT & STRUCTURAL ENGINEER

FIRST FLOOR REMOVAL PLAN -SEGMENT C





	WATER CAL	CULATION W	ORKSHEET						
Wate	r Calculation Worksheet For	-	I/504 South Oak St, La Cre Address of Project	escent, MN					
IN	FORMATION REQUIRED TO S		,	TION:					
1-	Demand of building in water supp =		800 : (GPM)	183					
1.a.	Demand of equipment requiring G	Gallons Per Minute:	(GPM)	0					
1.b.	Total Building Demand Gallons P		(GPM)	183					
2-	Elevation difference from main or			7					
3-	Size of water meter (when require	-	othe 1" r X	3"					
<u>-</u>	Developed length from main or ex	,	· · ·	175					
4- 5-		-		75					
5-	Low pressure at main in street or	external pressure tank.	(psi)	75					
	ALCULATE WATER SERVICE unnecessary for internal pressure t								
6-	Low pressure at main in street or	external pressure tank. (val	ue of # 5 above)	75					
7-	Determine pressure loss due to fr	riction in <u>6"</u> inc	ch diameter water service.						
	Water service piping material is	Ductile Iron & PVC							
	Pressure loss per 100 ft. = 0).1 X 1.75	Subtract value of "7"	0.175					
	(decimal equivalent of service len	igth, i.e. 65 ft = 0.65)	Subtotal	74.83					
8-	Determine pressure loss or gain of (multiply the value of # 2 above b		Subtract value of "8"	3.04					
9-	Available pressure after the buildi	ing control valve.	Subtotal	71.79					
CA	LCULATE THE PRESSURE A	VAILABLE FOR UNIFOR	M LOSS (VALUE OF "A	")					
В.	Available pressure after the buildi		,	, 71.79					
C.	Pressure loss of water meter (wh	Pressure loss of water meter (when meter is required) Subtract value of "C"							
			Subtotal	66.79					
D.	Pressure at controlling fixture*.								
	(Controlling fixture is: Lavator (*Controlling fixture is the fixture with the r	y in Segment C).	Subtract value of "D"	15					
	operate properly which includes the follow fixture performance; loss due to instantan treatment devices, and backflow prevente	ving when determining eous water heaters, water	Subtotal	51.79					
E.	Difference in elevation between b	C C	,						
	and the controlling fixture in feet;	X .434 psi/ft.	Subtract value of "E"	5.642					
			Subtotal	46.15					
F.	Pressure loss due to water treatm								
	which serve the controlling fixture (Pressure loss due to;	e. (Water softeners, filters, Water Softener).	etc.) Subtract value of "F"	15					
	. ,	/·	Subtotal	31.15					
G.	Pressure loss through tankless w	ater heaters, combination be							
	heaters, heat exchangers which s	serve the controlling fixture;							
	(Pressure loss due to;	N/A).	Subtract value of "G"	0					
			Subtotal	31.15					
H.	Developed length from building configuration fixture in feet 875	ontrol valve to controlling X 1.5	Divide by value "H"	1312.50					
	Water distribution piping is:		Subtotal	0.0237					
	· · · · · · · · · · · · · · · · · · ·	21 - 11	Multiply by:	100					
٨	Pressure available for uniform los		"Δ" =	2.37					
Α.		$A = \frac{B - (C + D + E + F + G)}{H}$	A	2.01					

WATER CALCULATION WORKSHEET			WAS	STF		W	ATER	PL	UMBING FIXTURES SCHEDULE
Water Calculation Worksheet For La Crescent Elem School/504 South Oak St, La Crescent, MN Name/Address of Project	ID	FIXTURE	DFU TRA			COLD	HOT HWFU SIZE		DESCRIPTION / REMARKS
INFORMATION REQUIRED TO SIZE WATER SERVICE AND WATER DISTRIBUTION: Demand of building in water supply fixture units (WSFU)	<u>DW-1</u>	DISHWASER	4"			1/2"			FIXTURE: BY OTHERS, INSTALLED BY PC. REFER TO FS103 AND FS105 FOR ADDITIONAL INFORMATION TRAP & DRAIN: 2" DRAIN TO PROVIDED 4" HUB DRAIN.
1- = 800 : (GPM) 183 1.a. Demand of equipment requiring Gallons Per Minute: (GPM) 0	<u>Dvv-1</u>	DISHWASER	4			1/2	1/2		STOPS & SUPPLIES: 1/2" COLD WATER LINE WITH SHUTOFF VALVE TO WATER TEMPERING DEVICE.
1.b. Total Building Demand Gallons Per Minute: (GPM) 183									FIXTURE: ELKAY LZSTL8WSLK WALL HUNG, HI-LO ELECTRIC WATER COOLER WITH BOTTLE FILLING STATION, STA BUTTON VALVE CONTROLS, SELF-CONTAINED CHILLER UNDER FIXTURE, ADA COMPLIANT.
2- Elevation difference from main or external pressure tank to building control valve; (feet) 7 3- Size of water meter (when required) 5/8"3/4"1" 1"r rX3"	<u>EWC-1</u>	ELECTRIC WATER COOLEF HI-LO WITH BOTTLE FILLEF	R 1 1 1/4	/4" 1 1/2"	0.5	1/2"			TRAP & DRAIN: CHROME PLATED 17 GAUGE CAST BRASS TRAP.
4- Developed length from main or external pressure tank to building control valve; (feet) <u>175</u>		(ADA COMPLIANT)							STOPS & SUPPLIES: McGUIRE LFBV2165CC, LOOSE KEY QUARTER TURN ANGLE STOPS WITH CHROME PLATED ES RISER SUPPLIES.
5- Low pressure at main in street or external pressure tank. (psi) 75	<u>HB-1</u>	HOSE BIBB			3	1/2"			SUPPORT: MANUFACTURER'S RECOMMENDED WALL BRACKET AND COMPONENTS. FIXTURE: WOODFORD MODEL 24 ANTI-SIPHON HOSE BIBB, EXPOSED COLD WATER, INTEGRAL VACCUM BREAKER
CALCULATE WATER SERVICE PRESSURE LOSS (unnecessary for internal pressure tanks)									FIXTURE: BY OTHERS, INSTALLED BY PC. REFER TO FS103 AND FS105 FOR ADDITIONAL INFORMATION
6- Low pressure at main in street or external pressure tank. (value of # 5 above) 75	<u>KS-1</u>	KITCHEN SINK (4-COMPARTMENT BY FEC	3 2"	' 1 1/2"	2.25	3/4"	2.25 3/4"	}	FAUCET: BY OTHERS, INSTALLED BY PC. TRAP & DRAIN: COPPER WASTE TO INDIRECT CONNECTION TO FLOOR SINK.
7- Determine pressure loss due to friction in 6" inch diameter water service.					$\left \right\rangle$	n			STOPS & SUPPLIES: McGUIRE LFBV2165CC, LOOSE KEY QUARTER TURN ANGLE STOPS WITH CHROME PLATED ES RISER SUPPLIES.
Water service piping material is Ductile Iron & PVC									FIXTURE: BY OTHERS, INSTALLED BY PC. REFER TO FS103 AND FS105 FOR ADDITIONAL INFORMATION FAUCET: BY OTHERS, INSTALLED BY PC.
Pressure loss per 100 ft. = <u>0.1</u> X <u>1.75</u> Subtract value of "7" <u>0.175</u>	<u>KS-2</u>	KITCHEN SINK (2-COMPARTMENT BY FEC	3 2"	' 1 1/2"	1.5	1/2"	1.5 1/2"		TRAP & DRAIN: TRAP & DRAIN: CHROME PLATED 17 GAUGE CAST BRASS TRAP, WITH GRID STRAINER DRAIN. CO TO FLOOR SINK.
(decimal equivalent of service length, i.e. 65 ft = 0.65)Subtotal74.838-Determine pressure loss or gain due to elevation,Subtract value of "8"3.04									STOPS & SUPPLIES: McGUIRE LFBV2165CC, LOOSE KEY QUARTER TURN ANGLE STOPS WITH CHROME PLATED ES RISER SUPPLIES.
(multiply the value of # 2 above by .434)									FIXTURE: BY OTHERS, INSTALLED BY PC. REFER TO FS103 AND FS105 FOR ADDITIONAL INFORMATION
9- Available pressure after the building control valve. Subtotal	<u>KS-3</u>	KITCHEN SINK (PRE-RINSE SINK BY FEC)	3 2"	' 1 1/2"	1.5	1/2"	1.5 1/2"		FAUCET: BY OTHERS, INSTALLED BY PC. TRAP & DRAIN: CHROME PLATED 17 GAUGE CAST BRASS TRAP, WITH GRID STRAINER DRAIN.
B. Available pressure after the building control valve. (from "9" above) Value of "B"71.79									STOPS & SUPPLIES: McGUIRE LFBV2165CC, LOOSE KEY QUARTER TURN ANGLE STOPS WITH CHROME PLATED ES RISER SUPPLIES.
C. Pressure loss of water meter (when meter is required) Subtract value of "C" 5.0									FIXTURE: WALL HUNG FIXTURE BY OTHERS, INSTALLED BY PC. PC SHALL INSTALL WALL HANGER FOR FIXTURE. ADDITIONAL INFORMATION
Subtotal <u>66.79</u>	<u>KS-4</u>	SINK (HAND WASHING BY FEC)	1 1 1/2	/2" 1 1/2"	1	1/2"	1 1/2"		FAUCET: BY OTHERS, INSTALLED BY PC. TRAP & DRAIN: COPPER WASTE TO INDIRECT CONNECTION TO FLOOR SINK.
D. Pressure at controlling fixture*. (Controlling fixture is: Lavatory in Segment C). Subtract value of "D" 15									STOPS & SUPPLIES: McGUIRE LFBV2165CC, LOOSE KEY QUARTER TURN ANGLE STOPS WITH CHROME PLATED ES RISER SUPPLIES.
(*Controlling fixture is the fixture with the most demanding pressure to operate properly which includes the following when determining Subtotal 51.79									FIXTURE: KOHLER KINGSTON K-2007 WALL HUNG LAVATORY, WHITE VITEROUS CHINA, OVERFLOW, CONCEALED ADA COMPLIANT.
fixture performance; loss due to instantaneous water heaters, water treatment devices, and backflow preventers which serve the controlling fixture.)									FAUCET: CHICAGO FAUCETS 807-E2805-665PSHAB METERING FAUCET, CAST BRASS SPOUT, PUSH HANDLE, 0.5 G SINGLE HOLE MOUNTING, CHROME FINISH, SINGLE MIXED SUPPLY, INCLUDE 131-ABNF BELOW DECK THERMOSTA
E. Difference in elevation between building control valve and the controlling fixture in feet; 13 X .434 psi/ft. Subtract value of "E" 5.642	<u>L-1</u>	LAVATORY (WALL HUNG)	1 1 1/4	/4" 1 1/2"	0.5	1/2"	0.5 1/2"	2/P900	COMPLIANT. TRAP & DRAIN: CHROME PLATED 17 GAUGE CAST BRASS TRAP, OFFSET DRAIN AND P-TRAP, WITH GRID STRAINE
Subtotal 46.15									STOPS & SUPPLIES: McGUIRE LFBV2165CC, LOOSE KEY QUARTER TURN ANGLE STOPS WITH CHROME PLATED ES RISER SUPPLIES.
F. Pressure loss due to water treatment devices and backflow preventers which serve the controlling fixture. (Water softeners, filters, etc.)									SUPPORT: COMMERCIAL GRADE, WALL HUNG LAVATORY SUPPORT, STEEL STANCHIONS, IRON WELDED FEET, ST
(Pressure loss due to; Water Softener). Subtract value of "F"15									FIXTURE: BRADLEY FL-3L S53-315 NSD TMA (VERIFY COLOR WITH OWNER) COAL CW-CHROME PT FREQUENCY LA LAVATORY STATIONS, COLOR TO BE DETERMINED, NO SOAP DISPENSER, NAVIGATOR THERMOSTATIC MIXING VA CHROME PLATED COMBINED WASTE, PLUG-IN POWER ADAPTER, ADA COMPLIANT.
G. Pressure loss through tankless water heaters, combination boiler / hot water	<u>L-2</u>	LAVATORY (3-STATION)		/4" 1 1/2"	2.25	3/4"	2.25 3/4"	<u></u>	FAUCET: INLCUDED WITH LAVATORY PACKAGE, SENSOR OPERATED, CHROME PLATED.
heaters, heat exchangers which serve the controlling fixture; (Pressure loss due to; N/A). Subtract value of "G" 0						$\sqrt{1}$	h h		TRAP & DRAIN: INCLUDED WITH LAVATORY PACKAGE, CHROME PLATED CAST BRASS TRAP AND WASTE PIPING, V
Subtotal 31.15									STOPS & SUPPLIES: McGUIRE LFBV2165CC, LOOSE KEY QUARTER TURN ANGLE STOPS WITH CHROME PLATED ES RISER SUPPLIES.
H.Developed length from building control valve to controlling fixture in feet875X 1.5Divide by value "H"1312.50									FIXTURE: FIAT SB2424 24"x24"x6" HIGH BASIN, ONE PIECE TERRAZZO, INTEGRAL MOLDED-IN DRAIN, 3" DRAIN CON FAUCET: CHICAGO FAUCETS SERVICE SINK FAUCET 305-RRCF WITH ROUGH CHROME FINISH, 3/4" MALE HOSE TH
Water distribution piping is: Type L Copper Subtotal 0.0237	<u>MB-1</u>	MOP BASIN	3 3"	' 2"	2.25	3/4"	2.25 3/4"		SUPPLY ARMS WITH INTEGRAL SERVICE STOPS AND LEVER HANDLES. PROVIDE WATTS MODEL 8AC NON-REMOV
Multiply by: 100									TRAP & DRAIN: PVC P-TRAP WITH STRAINER DRAIN. ACCESSORIES: HOSE AND HOSE HOLDER 832AA. AND WALL GUARDS MSG2424.
A. Pressure available for uniform loss "A" = 2.37 Formula: $A = \frac{B-(C+D+E+F+G)}{H} \times 100$									FIXTURE: ELKAY LUSTERSTONE DRKAD251760 SELF-RIMMING SINK, SINGLE BOWL, 18 GAUGE TYPE 304 STAINLES SINGLE BUBBLER HOLE, 24"x17"x6" DEEP, ADA COMPLIANT.
H H									FAUCET: ELKAY LK500GN05T4 MANUAL FAUCET, 5" GOOSENECK SPOUT, HOT AND COLD LEVER WRISTBLADE LEV
	<u>S-1</u>	SINK WITH BUBBLER	2 1 1/	/2" 1 1/2"	1.5	1/2"	1.5 1/2"		MOUNTING ON LEFT SIDE OF SINK, CHROME FINISH, INCLUDE BELOW DECK THERMOSTATIC MIXING VALVE ASSE BUBBLER: ELKAY LKSS1141A, STAINLESS STEEL, POLISHED FINISH, ANTIMICROBIAL MOUTH GUARD, PUSH BUTTO
	-	(CLASSROOMS)							ADA COMPLIANT. TRAP & DRAIN: CHROME PLATED 17 GAUGE CAST BRASS TRAP. WITH GRID STRAINER DRAIN.
PLUMBING DRAIN AND CLEANOUT SCHEDULE	-								STOPS & SUPPLIES: McGUIRE LFBV2165CC, LOOSE KEY QUARTER TURN ANGLE STOPS WITH CHROME PLATED ES
DFU TRAP VENT SHEET DESCRIPTION / REMARKS	_								RISER SUPPLIES. FIXTURE: ELKAY LUSTERSTONE LRAD172065 SELF-RIMMING SINK, SINGLE BOWL, 18 GAUGE TYPE 304 STAINLESS
FD-1 FLOOR DRAIN (SQUARE) 2 2" 2" 1/P900 FIXTURE: ZURN ZN415-S, CAST IRON BODY, 6" NICKEL BRONZE "TYPE S" SQUARE STRAINER, COMBINATION INVERTIBLE MEMBRANE CLAMP, AND ADJUSTABLE COLLAR.	_								HOLES ON 4" CENTERS, ADA COMPLIANT. FAUCET: CHICAGO FAUCETS 895-GN2AE35ABCP MANUAL FAUCET, 5.25" GOOSENECK SPOUT, HOT AND COLD LEV
FD-2FLOOR DRAIN (ROUND)64"2"1/P900FIXTURE: ZURN ZN508, CAST IRON BODY, 9" DIAMETER NICKEL BRONZE TOP, SEEPAGE PAN, COMBINATION MEMBRANE FLASHING CLAMP & FRAME, AND HEAVY DUTY DEEP FLANGE SLOTTED GRATE.	<u>S-2</u>	SINK	2 1 1/2	/2" 1 1/2"	1.5	1/2"	1.5 1/2"		MOUNTING ON 4" CENTERS, CHROME FINISH, INCLUDE BELOW DECK THERMOSTATIC MIXING VALVE ASSE 1070, A
FS-1 FLOOR SINK 4 6 3" 4" 2" FIXTURE: ZURN Z1920-2, CAST IRON BODY WITH ACID RESISTANT EPOXY COATED INTERIOR (A.R.C.), SQUARE BODY WITH HALF GRATE, ALUMINUM ANTI-SPLASH DOME STRAINER.									TRAP & DRAIN: CHROME PLATED 17 GAUGE CAST BRASS TRAP, WITH GRID STRAINER DRAIN. STOPS & SUPPLIES: McGUIRE LFBV2165CC, LOOSE KEY QUARTER TURN ANGLE STOPS WITH CHROME PLATED ES
HD-1 HUB DRAIN - AT GRADE 6 3" 1 1/2" EXTEND HUB 1" AFF (MIN), INSTALL PIPE INCREASER ONE PIPE SIZE LARGER MINIMUM.									RISER SUPPLIES. FIXTURE: ELKAY LUSTERSTONE LRAD332165MR2 SELF-RIMMING SINK, DOUBLE BOWL, 18 GAUGE TYPE 304 STAIN
8 4" 2" 4 2" 1 1/2" FIXTURE: ZURN Z415 LESS STRAINER WITH ZURN Z400U ADJUSTABLE STRAINER EXTENSION, CAST IRON	_								OVERALL SIZE, TWO FAUCET HOLES ON 4" CENTERS WITH FAUCET CONTROLS TO RIGHT OF CENTER, ADA COMP
HD-2 HUB DRAIN - ABOVE GRADE 6 3" 1 1/2" 5/P900 BODY WITH SEEPAGE PAN, COMBINATION MEMBRANE FLASHING CLAMP, EXTEND HUB 2" AFF (MIN), INSTALL 2" PIPE INCREASER ONE PIPE SIZE LARGER.	<u>S-3</u>	SINK (DOUBLE BOWL)	2 1 1/2	(2" 1 1/2"	1.5	1/2"	1.5 1/2"		FAUCET: KOHLER SIMPLICE K-649 MANUAL FAUCET WITH PULL DOWN SPRAY, 8" GOOSENECK SPOUT, SINGLE LE' CONTROL TO RIGHT OF SPOUT, 1.5 GPM, TWO HOLE MOUNTING WITH SPOUT CENTERED BEHIND SINK AND CONT BELOW DECK THERMOSTATIC MIXING VALVE ASSE 1070, ADA COMPLIANT.
RD-1 ROOF DRAIN FIXTURE: ZURN ZC100-C-EA-R ROOF DRAIN, CAST IRON BODY, 15" DIA, COMBINATION MEMBRANE FLASHING CLAMP/GRAVEL GUARD, UNDERDECK CLAMP, ADJUSTABLE EXTENSION, ROOF SUMP RECEIVER, AND CAST									TRAP & DRAIN: CHROME PLATED 17 GAUGE CAST BRASS TRAP, WITH BASKET STRAINER DRAIN.
IRON STRAINER. IRON STRAINER. AREAS WITH HARD FLOORS: ZURN ZN1400-BP, CAST IRON, ADJUSTABLE FLOOR CLEANOUT WITH NICKEL	-								STOPS & SUPPLIES: McGUIRE LFBV2165CC, LOOSE KEY QUARTER TURN ANGLE STOPS WITH CHROME PLATED ES RISER SUPPLIES.
FCO FLOOR CLEANOUT BRONZE TOP AND BRONZE PLUG. AREAS WITH CARPETED FLOORS: ZURN ZN1400-BP-CM, CAST IRON, ADJUSTABLE FLOOR CLEANOUT WITH									FIXTURE: KOHLER BARDON K-4991-ET, WALL HUNG URINAL, 0.5 GPF, FLUSHOMETER TYPE, WASHOUT, 3/4" TOP SI STANDARD HEIGHT.
WCO WALL CLEANOUT FIXTURE: ZURN ZS1468, POLISHED STAINLESS STEEL, ROUND ACCESS COVER, SECURING SCREW & BRONZE RAISED HEX HEAD PLUG. VERIFY LENGTH OF SCREW REQUIRED WITH WALL CONSTRUCTION.	<u>UR-1</u>	URINAL (STANDARD HEIGHT)	2 2"	' 1 1/2"	5 (MIN	N) 2"			FLUSH VALVE: SLOAN ROYAL 186 SFSM-0.5-HW SENSOR FLUSH VALVE, HARD WIRED, EXPOSED 3/4" TOP SPUD, 0. ANGLE STOP, CHROME FINISH, ADA COMPLIANT. INCLUDE TRANSFORMER AS REQUIRED FOR EACH UNIT.
RAISED HEX HEAD PLUG. VERIFY LENGTH OF SCREW REQUIRED WITH WALL CONSTRUCTION.									SUPPORT: COMMERCIAL GRADE, WALL HUNG URINAL SUPPORT, STEEL STANCHIONS, IRON WELDED FEET, STEEL
GAS WATER HEATERS SCHEDULE									FIXTURE: SAME AS UR-1, MOUNTED AT ADA HEIGHT.
ID MANUFACTURER MODEL # GAS PRESS ELECTRICAL RECOVERY MAX EEE% CAP SHEET DESCRIPTION / REMARKS	<u>UR-2</u>	URINAL (ADA HEIGHT)	2 2"	' 1 1/2"	5 (MIN	N) 2"			FLUSH VALVE: SAME AS UR-1, MOUNTED AT ADA HEIGHT. SUPPORT: COMMERCIAL GRADE, WALL HUNG URINAL SUPPORT, STEEL STANCHIONS, IRON WELDED FEET, STEEL
IN WC VOLTS PHASE GPH RISE °F EFF GAL SHEET	- ├──								FIXTURE: KOHLER KINGSTON K-4325, WALL HUNG WATER CLOSET, 1.6 GPF, FLUSHOMETER TYPE, 1 1/2" TOP SPU
WHR-1 WHR-2 HTP PHOENIX 130-119 30-130 12" 120 1 195 80 96% 119 316L STAINLESS STEEL TANK, NATURAL GAS FIRED, MODULATING BURNER, SEALED COMBUSTION, 2" VENT / INTANK, LCD DISPLAY AND DIGITAL CONTROL. INCLUDE CONCENTRIC VENT KIT THRU ROOF.	D				40 (141)				TRAPWAY, ELONGATED BOWL, MOUNT AT STANDARD HEIGHT. FLUSH VALVE: SLOAN ROYAL 111 SFSM-1.6-HW SENSOR FLUSH VALVE, HARD WIRED, EXPOSED 1 1/2" TOP SPUD,
	<u>WC-1</u>	WATER CLOSET (STANDARD HEIGHT)	6 4"	' 2"	10 (MIN	2"			ANGLE STOP, CHROME FINISH, ADA COMPLIANT. INCLUDE TRANSFORMER AS REQUIRED FOR EACH UNIT. SEAT: KOHLER LUSTRA K-4670-CA, OPEN FRONT TOILET SEAT, WHITE INJECTION MOLDED, SELF SUSTAINING CH
GREASE INTERCEPTOR SCHEDULE	ר ך								SEAT: KOHLER LUSTRA K-4670-CA, OPEN FRONT TOILET SEAT, WHITE INJECTION MOLDED, SELF SUSTAINING CHE SUPPORT: COMMERCIAL GRADE, WALL HUNG WATER CLOSET SUPPORT, STEEL STANCHIONS, IRON WELDED FEE
ID MANUFACTURER MODEL # SIZE GPM GPM GALLONS GREASE GREASE SHEET DESCRIPTION / REMARKS	┑								FIXTURE: SAME AS WC-1, MOUNTED AT ADA HEIGHT.
POLYETHYLENE GREASE INTERCEPTOR, 3" INLET / OUTLET PLAN-EA-34, TWO (WATER CLOSET (ADA HEIGHT)	6 4"	' 2"	10 (MIN	N) 2"			FLUSH VALVE: SAME AS WC-1, MOUNTED AT ADA HEIGHT. SEAT: KOHLER LUSTRA K-4670-CA. OPEN FRONT TOILET SEAT. WHITE INJECTION MOLDED. SELF SUSTAINING CHE
GI-1 SCHIER PRODUCTS GB-250 68" 33.5" 51.5" 100 275 1,751 BOLTED ACCESS COVERS, INCLUDE RISERS SR24, INSTALL BELOW GRADE PER MANUFACTURER'S INSTRUCTIONS. INCLUDE VENTED FLOW REGULATOR ON INLET.									SUPPORT: COMMERCIAL GRADE, WALL HUNG WATER CLOSET SUPPORT, STEEL STANCHIONS, IRON WELDED FEE
	<u>WH-1</u>	WALL HYDRANT			4	3/4"			FIXTURE: WOODFORD MODEL B-67-RB, EXTERNAL FREEZELESS WALL HYDRANT, AUTOMATIC DRAINING, INTEGRA CONNECTION, LOOSE TEE KEY. HYDRANT LENGTH TO MATCH 14" WALL THICKNESS.
GREASE INTERCEPTOR SIZING CALCULATIONS: TWO COMPARTMENT SINK HOLDING CAPACITY: GREASE INTERCEPTOR SHALL PROVIDE A MINIMUM: (1) BASIN TO GREASE WASTE 19"x12" = 2.5 CU FT 51.8 GALLONS PER MINUTE	<u></u>	WASHING MACHINE WALL BOX	4 2"	' 1 1/2"	2	1/2"	2 1/2"	6/P900	
2.5 CU FT x 7.4805 = 18.75 GALLONS 129.6 GALLONS OF LIQUID HOLDING CAPACITY									TALVED, HTTEOTAL WATEN HAWIVIER ARRESTORS, Z DRAIN UUTLET.
18.75 GALLONS x 0.75 x 1 MIN DRAIN PERIOD = 14.1 GPM 14.1 GPM x 2.5 = 35.25 GALLON CAPACITY								_	

WATER CALCULATION WORKSHEET				WASTE		WATER	F	LUMBING FIXTURES SCHEDULE
Water Calculation Worksheet For La Crescent Elem School/504 South Oak St, La Crescent, MN Name/Address of Project Name/Address of Project	ID	FIXTURE		TRAP VENT (MIN)		OLD	HOT DETA	ET DESCRIPTION / REMARKS
INFORMATION REQUIRED TO SIZE WATER SERVICE AND WATER DISTRIBUTION: Demand of building in water supply fixture units (WSFU)					CWFU	SIZE HW	USIZE	FIXTURE: BY OTHERS, INSTALLED BY PC. REFER TO FS103 AND FS105 FOR ADDITIONAL INFORMATION
1- = <u>800</u> : (GPM) <u>183</u>	<u>DW-1</u>	DISHWASER		4"		1/2"	1/2"	TRAP & DRAIN: 2" DRAIN TO PROVIDED 4" HUB DRAIN. STOPS & SUPPLIES: 1/2" COLD WATER LINE WITH SHUTOFF VALVE TO WATER TEMPERING DEVICE.
1.a. Demand of equipment requiring Gallons Per Minute: (GPM) 0 1.b. Total Building Demand Gallons Per Minute: (GPM) 183								FIXTURE: ELKAY LZSTL8WSLK WALL HUNG, HI-LO ELECTRIC WATER COOLER WITH BOTTLE FILLING STATION, STAI BUTTON VALVE CONTROLS, SELF-CONTAINED CHILLER UNDER FIXTURE, ADA COMPLIANT.
2- Elevation difference from main or external pressure tank to building control valve; (feet) 7	ENTER	ELECTRIC WATER COOL	ER			4 (0)		TRAP & DRAIN: CHROME PLATED 17 GAUGE CAST BRASS TRAP.
3- Size of water meter (when required) 5/8" 3/4" 1" rX 3"	EWC-1	HI-LO WITH BOTTLE FILL (ADA COMPLIANT)	ER 1	1 1/4" 1 1/2"	0.5	1/2"		STOPS & SUPPLIES: McGUIRE LFBV2165CC, LOOSE KEY QUARTER TURN ANGLE STOPS WITH CHROME PLATED ES RISER SUPPLIES.
 4- Developed length from main or external pressure tank to building control valve; (feet) <u>175</u> 5- Low pressure at main in street or external pressure tank. (psi) 75 								SUPPORT: MANUFACTURER'S RECOMMENDED WALL BRACKET AND COMPONENTS.
	<u>HB-1</u>	HOSE BIBB			3	1/2"		FIXTURE: WOODFORD MODEL 24 ANTI-SIPHON HOSE BIBB, EXPOSED COLD WATER, INTEGRAL VACCUM BREAKER,
CALCULATE WATER SERVICE PRESSURE LOSS (unnecessary for internal pressure tanks)								FIXTURE: BY OTHERS, INSTALLED BY PC. REFER TO FS103 AND FS105 FOR ADDITIONAL INFORMATION FAUCET: BY OTHERS, INSTALLED BY PC.
6- Low pressure at main in street or external pressure tank. (value of # 5 above)75	<u>KS-1</u> (KITCHEN SINK (4-COMPARTMENT BY FE	EC) 3	2" 1 1/2"	2.25	3/4" 2.2	5 3/4" }	TRAP & DRAIN: COPPER WASTE TO INDIRECT CONNECTION TO FLOOR SINK.
7- Determine pressure loss due to friction in 6" inch diameter water service.						M	A01	STOPS & SUPPLIES: McGUIRE LFBV2165CC, LOOSE KEY QUARTER TURN ANGLE STOPS WITH CHROME PLATED ES RISER SUPPLIES.
Water service piping material is Ductile Iron & PVC								FIXTURE: BY OTHERS, INSTALLED BY PC. REFER TO FS103 AND FS105 FOR ADDITIONAL INFORMATION FAUCET: BY OTHERS, INSTALLED BY PC.
Pressure loss per 100 ft. = <u>0.1</u> X <u>1.75</u> Subtract value of "7" <u>0.175</u>	<u>KS-2</u>	KITCHEN SINK (2-COMPARTMENT BY FE	-C) 3	2" 1 1/2"	1.5	1/2" 1.5	5 1/2"	
(decimal equivalent of service length, i.e. 65 ft = 0.65)Subtotal74.838-Determine pressure loss or gain due to elevation,Subtract value of "8"3.04								STOPS & SUPPLIES: McGUIRE LFBV2165CC, LOOSE KEY QUARTER TURN ANGLE STOPS WITH CHROME PLATED ES
(multiply the value of # 2 above by .434)								RISER SUPPLIES. FIXTURE: BY OTHERS, INSTALLED BY PC. REFER TO FS103 AND FS105 FOR ADDITIONAL INFORMATION
9- Available pressure after the building control valve. Subtotal <u>71.79</u>	<u>KS-3</u>	KITCHEN SINK (PRE-RINSE SINK BY FE		2" 1 1/2"	1.5	1/2" 1.5	5 1/2"	FAUCET: BY OTHERS, INSTALLED BY PC. TRAP & DRAIN: CHROME PLATED 17 GAUGE CAST BRASS TRAP, WITH GRID STRAINER DRAIN.
CALCULATE THE PRESSURE AVAILABLE FOR UNIFORM LOSS (VALUE OF "A") B. Available pressure after the building control valve. (from "9" above) Value of "B" 71.79		(PRE-RINGE SINK BT PE						STOPS & SUPPLIES: McGUIRE LFBV2165CC, LOOSE KEY QUARTER TURN ANGLE STOPS WITH CHROME PLATED ES RISER SUPPLIES.
C. Pressure loss of water meter (when meter is required) Subtract value of "C" 5.0								FIXTURE: WALL HUNG FIXTURE BY OTHERS, INSTALLED BY PC. PC SHALL INSTALL WALL HANGER FOR FIXTURE. R ADDITIONAL INFORMATION
Subtract value of 0	KS-4	SINK (HAND WASHING BY FE		1 1/2" 1 1/2"	1	1/2" 1	1/2"	FAUCET: BY OTHERS, INSTALLED BY PC.
D. Pressure at controlling fixture*.		(HAND WASHING BY FE						TRAP & DRAIN: COPPER WASTE TO INDIRECT CONNECTION TO FLOOR SINK. STOPS & SUPPLIES: McGUIRE LFBV2165CC, LOOSE KEY QUARTER TURN ANGLE STOPS WITH CHROME PLATED ES
(Controlling fixture is: <u>Lavatory in Segment C</u>). Subtract value of "D" <u>15</u> (*Controlling fixture is the fixture with the most demanding pressure to								RISER SUPPLIES. FIXTURE: KOHLER KINGSTON K-2007 WALL HUNG LAVATORY, WHITE VITEROUS CHINA, OVERFLOW, CONCEALED F
operate properly which includes the following when determining Subtotal <u>51.79</u>								ADA COMPLIANT. FAUCET: CHICAGO FAUCETS 807-E2805-665PSHAB METERING FAUCET, CAST BRASS SPOUT, PUSH HANDLE, 0.5 GF
treatment devices, and backflow preventers which serve the controlling fixture.)								SINGLE HOLE MOUNTING, CHROME FINISH, SINGLE MIXED SUPPLY, INCLUDE 131-ABNF BELOW DECK THERMOSTATIC COMPLIANT.
E.Difference in elevation between building control valve and the controlling fixture in feet;13X .434 psi/ft.Subtract value of "E"5.642	<u>L-1</u>	LAVATORY (WALL HUNG	G) 1	1 1/4" 1 1/2"	0.5	1/2" 0.5	5 1/2" 2/P9	TRAP & DRAIN: CHROME PLATED 17 GAUGE CAST BRASS TRAP, OFFSET DRAIN AND P-TRAP, WITH GRID STRAINER
Subtotal46.15								STOPS & SUPPLIES: McGUIRE LFBV2165CC, LOOSE KEY QUARTER TURN ANGLE STOPS WITH CHROME PLATED ES RISER SUPPLIES.
F. Pressure loss due to water treatment devices and backflow preventers which serve the controlling fixture. (Water softeners, filters, etc.)								SUPPORT: COMMERCIAL GRADE, WALL HUNG LAVATORY SUPPORT, STEEL STANCHIONS, IRON WELDED FEET, STI
(Pressure loss due to;Water Softener). Subtract value of "F"15							A01	FIXTURE: BRADLEY FL-3L S53-315 NSD TMA (VERIFY COLOR WITH OWNER) COAL CW-CHROME PT FREQUENCY LAV LAVATORY STATIONS, COLOR TO BE DETERMINED, NO SOAP DISPENSER, NAVIGATOR THERMOSTATIC MIXING VAI CHROME PLATED COMBINED WASTE, PLUG-IN POWER ADAPTER, ADA COMPLIANT.
Subtotal 31.15 G. Pressure loss through tankless water heaters, combination boiler / hot water		LAVATORY (3-STATION		1 1/4" 1 1/2"	2.25	3/4" 2.2	5 3/4"	FAUCET: INLCUDED WITH LAVATORY PACKAGE, SENSOR OPERATED, CHROME PLATED.
heaters, heat exchangers which serve the controlling fixture;	<u>L-2</u>			1 1/4 1 1/2	2.25			TRAP & DRAIN: INCLUDED WITH LAVATORY PACKAGE, CHROME PLATED CAST BRASS TRAP AND WASTE PIPING, W
(Pressure loss due to; N/A). Subtract value of "G" 0 Subtotal 31.15								STOPS & SUPPLIES: McGUIRE LFBV2165CC, LOOSE KEY QUARTER TURN ANGLE STOPS WITH CHROME PLATED ES RISER SUPPLIES.
H. Developed length from building control valve to controlling								FIXTURE: FIAT SB2424 24"x24"x6" HIGH BASIN, ONE PIECE TERRAZZO, INTEGRAL MOLDED-IN DRAIN, 3" DRAIN CONN
fixture in feet875X 1.5Divide by value "H"1312.50Water distribution piping is:Type L CopperSubtotal0.0237	MD 1	MOP BASIN	2	3" 2"	2.25	3/4" 2.2	E 2/4"	FAUCET: CHICAGO FAUCETS SERVICE SINK FAUCET 305-RRCF WITH ROUGH CHROME FINISH, 3/4" MALE HOSE THR SUPPLY ARMS WITH INTEGRAL SERVICE STOPS AND LEVER HANDLES. PROVIDE WATTS MODEL 8AC NON-REMOVA
Multiply by: 100	<u>MB-1</u>	MOP BASIN	3	3 2	2.25	3/4 2.2	5 3/4"	TRAP & DRAIN: PVC P-TRAP WITH STRAINER DRAIN.
A. Pressure available for uniform loss "A" = 2.37								ACCESSORIES: HOSE AND HOSE HOLDER 832AA, AND WALL GUARDS MSG2424.
Formula: A = $\frac{B-(C+D+E+F+G)}{H}$ X 100								FIXTURE: ELKAY LUSTERSTONE DRKAD251760 SELF-RIMMING SINK, SINGLE BOWL, 18 GAUGE TYPE 304 STAINLESS SINGLE BUBBLER HOLE, 24"x17"x6" DEEP, ADA COMPLIANT.
								FAUCET: ELKAY LK500GN05T4 MANUAL FAUCET, 5" GOOSENECK SPOUT, HOT AND COLD LEVER WRISTBLADE LEVE MOUNTING ON LEFT SIDE OF SINK, CHROME FINISH, INCLUDE BELOW DECK THERMOSTATIC MIXING VALVE ASSE 1
	<u>S-1</u>	SINK WITH BUBBLER (CLASSROOMS)	2	1 1/2" 1 1/2"	1.5	1/2" 1.5	5 1/2"	BUBBLER: ELKAY LKSS1141A, STAINLESS STEEL, POLISHED FINISH, ANTIMICROBIAL MOUTH GUARD, PUSH BUTTON
PLUMBING DRAIN AND CLEANOUT SCHEDULE		(ADA COMPLIANT. TRAP & DRAIN: CHROME PLATED 17 GAUGE CAST BRASS TRAP. WITH GRID STRAINER DRAIN.
WASTE DETAIL /								STOPS & SUPPLIES: McGUIRE LFBV2165CC, LOOSE KEY QUARTER TURN ANGLE STOPS WITH CHROME PLATED ES
DFU TRAP VENT SHEET DESCRIPTION/REMARKS								RISER SUPPLIES. FIXTURE: ELKAY LUSTERSTONE LRAD172065 SELF-RIMMING SINK, SINGLE BOWL, 18 GAUGE TYPE 304 STAINLESS S
FD-1 FLOOR DRAIN (SQUARE) 2 2" 1/P900 FIXTURE: ZURN ZN415-S, CAST IRON BODY, 6" NICKEL BRONZE "TYPE S" SQUARE STRAINER, COMBINATION INVERTIBLE MEMBRANE CLAMP, AND ADJUSTABLE COLLAR.								HOLES ON 4" CENTERS, ADA COMPLIANT.
FD-2 FLOOR DRAIN (ROUND) 6 4" 2" 1/P900 FIXTURE: ZURN ZN508, CAST IRON BODY, 9" DIAMETER NICKEL BRONZE TOP, SEEPAGE PAN, COMBINATION MEMBRANE FLASHING CLAMP & FRAME, AND HEAVY DUTY DEEP FLANGE SLOTTED GRATE.	<u>S-2</u>	SINK	2	1 1/2" 1 1/2"	1.5	1/2" 1.5	5 1/2"	FAUCET: CHICAGO FAUCETS 895-GN2AE35ABCP MANUAL FAUCET, 5.25" GOOSENECK SPOUT, HOT AND COLD LEVE MOUNTING ON 4" CENTERS, CHROME FINISH, INCLUDE BELOW DECK THERMOSTATIC MIXING VALVE ASSE 1070, AD
FS-1 FLOOR SINK 4 3" 2" FIXTURE: ZURN Z1920-2, CAST IRON BODY WITH ACID RESISTANT EPOXY COATED INTERIOR (A.R.C.), SQUARE BODY WITH HALF GRATE, ALUMINUM ANTI-SPLASH DOME STRAINER.								TRAP & DRAIN: CHROME PLATED 17 GAUGE CAST BRASS TRAP, WITH GRID STRAINER DRAIN.
4 2" 1 1/2"								STOPS & SUPPLIES: McGUIRE LFBV2165CC, LOOSE KEY QUARTER TURN ANGLE STOPS WITH CHROME PLATED ES RISER SUPPLIES.
HD-1 HUB DRAIN - AT GRADE 6 3" 1 1/2" EXTEND HUB 1" AFF (MIN), INSTALL PIPE INCREASER ONE PIPE SIZE LARGER MINIMUM. 8 4" 2" EXTEND HUB 1" AFF (MIN), INSTALL PIPE INCREASER ONE PIPE SIZE LARGER MINIMUM.								FIXTURE: ELKAY LUSTERSTONE LRAD332165MR2 SELF-RIMMING SINK, DOUBLE BOWL, 18 GAUGE TYPE 304 STAINL OVERALL SIZE, TWO FAUCET HOLES ON 4" CENTERS WITH FAUCET CONTROLS TO RIGHT OF CENTER, ADA COMPL
HD-2 HUB DRAIN - ABOVE GRADE 4 2" 1 1/2" FIXTURE: ZURN Z415 LESS STRAINER WITH ZURN Z400U ADJUSTABLE STRAINER EXTENSION, CAST IRON BODY WITH SEEPAGE PAN, COMBINATION MEMBRANE FLASHING CLAMP, EXTEND HUB 2" AFF (MIN), INSTALL								FAUCET: KOHLER SIMPLICE K-649 MANUAL FAUCET WITH PULL DOWN SPRAY, 8" GOOSENECK SPOUT, SINGLE LEV CONTROL TO RIGHT OF SPOUT, 1.5 GPM, TWO HOLE MOUNTING WITH SPOUT CENTERED BEHIND SINK AND CONTR
8 4" 2" PIPE INCREASER ONE PIPE SIZE LARGER. FIXTURE: ZURN ZC100-C-EA-R ROOF DRAIN, CAST IRON BODY, 15" DIA, COMBINATION MEMBRANE FLASHING	<u>S-3</u>	SINK (DOUBLE BOWL)	2	1 1/2" 1 1/2"	1.5	1/2" 1.5	5 1/2"	BELOW DECK THERMOSTATIC MIXING VALVE ASSE 1070, ADA COMPLIANT.
RD-1 ROOF DRAIN CLAMP/GRAVEL GUARD, UNDERDECK CLAMP, ADJUSTABLE EXTENSION, ROOF SUMP RECEIVER, AND CAST IRON STRAINER. IRON STRAINER.								TRAP & DRAIN: CHROME PLATED 17 GAUGE CAST BRASS TRAP, WITH BASKET STRAINER DRAIN. STOPS & SUPPLIES: McGUIRE LFBV2165CC, LOOSE KEY QUARTER TURN ANGLE STOPS WITH CHROME PLATED ES
AREAS WITH HARD FLOORS: ZURN ZN1400-BP, CAST IRON, ADJUSTABLE FLOOR CLEANOUT WITH NICKEL BRONZE TOP AND BRONZE PLUG.								RISER SUPPLIES.
FCO FLOOR CLEANOUT AREAS WITH CARPETED FLOORS: ZURN ZN1400-BP-CM, CAST IRON, ADJUSTABLE FLOOR CLEANOUT WITH NICKEL BRONZE TOP AND BRONZE PLUG, WITH CARPET MARKER.								FIXTURE: KOHLER BARDON K-4991-ET, WALL HUNG URINAL, 0.5 GPF, FLUSHOMETER TYPE, WASHOUT, 3/4" TOP SP STANDARD HEIGHT.
WCO WALL CLEANOUT FIXTURE: ZURN ZS1468, POLISHED STAINLESS STEEL, ROUND ACCESS COVER, SECURING SCREW & BRONZE RAISED HEX HEAD PLUG. VERIFY LENGTH OF SCREW REQUIRED WITH WALL CONSTRUCTION. FIXTURE: ZURN ZS1468, POLISHED STAINLESS STEEL, ROUND ACCESS COVER, SECURING SCREW & BRONZE	<u>UR-1</u>	URINAL (STANDARD HEIGHT)	2	2" 1 1/2"	5 (MIN)	2"		FLUSH VALVE: SLOAN ROYAL 186 SFSM-0.5-HW SENSOR FLUSH VALVE, HARD WIRED, EXPOSED 3/4" TOP SPUD, 0.5 ANGLE STOP, CHROME FINISH, ADA COMPLIANT. INCLUDE TRANSFORMER AS REQUIRED FOR EACH UNIT.
								SUPPORT: COMMERCIAL GRADE, WALL HUNG URINAL SUPPORT, STEEL STANCHIONS, IRON WELDED FEET, STEEL
GAS WATER HEATERS SCHEDULE								FIXTURE: SAME AS UR-1, MOUNTED AT ADA HEIGHT.
ID MANUEACTURER MODEL # GAS GAS ELECTRICAL RECOVERY MAX TANK DETAIL / DESCRIPTION / DEMARKS	<u>UR-2</u>	URINAL (ADA HEIGHT)	2	2" 1 1/2"	5 (MIN)	2"		
ID MANUFACTURER MODEL # GAS CFH PRESS IN WC VOLTS PHASE GPH RISE °F CFF% GAL CAP GAL SHEET DESCRIPTION / REMARKS								SUPPORT: COMMERCIAL GRADE, WALL HUNG URINAL SUPPORT, STEEL STANCHIONS, IRON WELDED FEET, STEEL FIXTURE: KOHLER KINGSTON K-4325, WALL HUNG WATER CLOSET, 1.6 GPF, FLUSHOMETER TYPE, 1 1/2" TOP SPUE
WHR-1 WHR-2 HTP PHOENIX 130-119 30-130 12" 120 1 195 80 96% 119 316L STAINLESS STEEL TANK, NATURAL GAS FIRED, MODULATING BURNER, SEALED COMBUSTION, 2" VENT / INTANK, LCD DISPLAY AND								TRAPWAY, ELONGATED BOWL, MOUNT AT STANDARD HEIGHT.
DIGITAL CONTROL. INCLUDE CONCENTRIC VENT KIT THRU ROOF.	<u>WC-1</u>	WATER CLOSET (STANDARD HEIGHT)	6	4" 2"	10 (MIN)) 2"		FLUSH VALVE: SLOAN ROYAL 111 SFSM-1.6-HW SENSOR FLUSH VALVE, HARD WIRED, EXPOSED 1 1/2" TOP SPUD, 1 ANGLE STOP, CHROME FINISH, ADA COMPLIANT. INCLUDE TRANSFORMER AS REQUIRED FOR EACH UNIT.
		,						SEAT: KOHLER LUSTRA K-4670-CA, OPEN FRONT TOILET SEAT, WHITE INJECTION MOLDED, SELF SUSTAINING CHE
								SUPPORT: COMMERCIAL GRADE, WALL HUNG WATER CLOSET SUPPORT, STEEL STANCHIONS, IRON WELDED FEE FIXTURE: SAME AS WC-1, MOUNTED AT ADA HEIGHT.
ID MANUFACTURER MODEL # L W H GPM GALLONS GREASE SHEET DESCRIPTION / REMARKS		WATER CLOSET (ADA			10 (MIN)			FLUSH VALVE: SAME AS WC-1, MOUNTED AT ADA HEIGHT.
GI-1 SCHIER PRODUCTS 68" 33.5" 51.5" 100 275 1,751 POLYETHYLENE GREASE INTERCEPTOR, 3" INLET / OUTLET PLAN-EA-34, TWO (2) BOLTED ACCESS COVERS, INCLUDE RISERS SR24, INSTALL BELOW GRADE PER BOLTED ACCESS COVERS, INCLUDE RISERS SR24, INSTALL BELOW GRADE PER	<u>WC-2</u>	HEIGHT)	6	4" 2"		2"		SEAT: KOHLER LUSTRA K-4670-CA, OPEN FRONT TOILET SEAT, WHITE INJECTION MOLDED, SELF SUSTAINING CHE
GB-250 68 33.5 51.5 100 275 1,751 MANUFACTURER'S INSTRUCTIONS. INCLUDE VENTED FLOW REGULATOR ON INLET.								SUPPORT: COMMERCIAL GRADE, WALL HUNG WATER CLOSET SUPPORT, STEEL STANCHIONS, IRON WELDED FEE
GREASE INTERCEPTOR SIZING CALCULATIONS:	<u>WH-1</u>	WALL HYDRANT			4	3/4"		FIXTURE: WOODFORD MODEL B-67-RB, EXTERNAL FREEZELESS WALL HYDRANT, AUTOMATIC DRAINING, INTEGRAI CONNECTION, LOOSE TEE KEY. HYDRANT LENGTH TO MATCH 14" WALL THICKNESS.
TWO COMPARTMENT SINK HOLDING CAPACITY: GREASE INTERCEPTOR SHALL PROVIDE A MINIMUM: (1) BASIN TO GREASE WASTE 19"x12" = 2.5 CU FT 51.8 GALLONS PER MINUTE	<u>WM-1</u>	WASHING MACHINE WA BOX	LL 4	2" 1 1/2"	2	1/2" 2	1/2" (6/P9	FIXTURE: GUY GRAY T200TPCPVCHA WASHING MACHINE RECESSED WALL BOX, WHITE POWDER COATED FINISH, VALVES, INTEGRAL WATER HAMMER ARRESTORS, 2" DRAIN OUTLET.
2.5 CU FT x 7.4805 = 18.75 GALLONS 129.6 GALLONS OF LIQUID HOLDING CAPACITY 18.75 GALLONS x 0.75 x 1 MIN DRAIN PERIOD = 14.1 GPM 129.6 GALLONS OF LIQUID HOLDING CAPACITY			1		1			
18.75 GALLONS X 0.75 X 1 MIN DRAIN PERIOD = 14.1 GPM 14.1 GPM x 2.5 = 35.25 GALLON CAPACITY		r						

FOUR COMPARTMENT SINK HOLDING CAPACITY: (2) BASINS TO GREASE WASTE 24"x18"x12" = 3 CU FT x 2 BASINS = 6 CU FT

6 CU FT x 7.4805 = 44.9 GALLONS 44.9 GALLONS x 0.75 x 1 MIN DRAIN PERIOD = 33.7 GPM

33.7 GPM x 2.5 = 84.3 GALLON CAPACITY

COMBI-OVEN DRAINS:

(2) APPLIANCES = 2 GPM x 2 APPLIANCES = 4 GPM 4 GPM x 2.5 = 10 GALLON CAPACITY

							V	VATER SOF	ΓΕΝΕ	R SC	HEDL	JLE				
Г	D MANUFACTURER MODEL #	E	ELECTRIC	AL	GI	PM	MAX PRESS	GRAINS CAPACITY /	PACITY / RESIN TANK STOP			ORAGE SALT		AGE	DETAIL /	DESCRIPTION / RE
	D MANOFACTORER MODEL #	AMPS	VOLTS	PHASE	CONT	PEAK	DROP	P LBS SALT	DIA	HEIGHT	CU FT	DIA	HEIGHT	LBS	SHEET	DESCRIPTION / RE
<u>w</u>	S-1 HELLENBRAND 125-64 (DUPLEX PROGR FLOW)	FRACT	120	1	25	40	15	(2) 56,000 / 20	(2) 13"	(2) 54"	(2) 2	(2) 18"	(2) 40"	(2) 330		DUPLEX PROGRES AND PISTON VALV INTERLOCKING W SYSTEMMATE CO BACKUP.

						EJE	СТО	RS AI	ND S	UMP	PUMI	PS SCHEDULE
ID			ELEC	TRICAL				DISCHARGE		BASIN		DESCRIPTION / REMARKS
ID	MANUFACTURER MODEL #	HP	AMPS	VOLTS	PHASE	HD FT	DIA	DEPTH	SHEET	DESURIPTION / REMARKS		
										FLOOR MOUNTED EJECTOR, CAST IRON CASE, CAST IRON 4.4 DOUBLE SEALED BEARINGS, AIR FILLED HERMETICALLY SEAL POWER CORD, OVERLOAD PROTECTION.		
<u>SP-1</u>	B&G 1EC0411P1	0.40	7.5	115	1 3400 NO 30 20	24"	30"		CONTROLS: INTEGRAL PIGGYBACK FLOAT WITH PUMP, INCLU ALONE HIGH WATER ALARM LIGHT AND BUZZER.			
												BASIN & COVER: TOP INDUSTRIES FIBERGLASS BASIN WITH A BASIN, & PERFORRATED LID WITH GROMMETS FOR PIPE & CO

					E	XPANS	ION		(SCH	EDULE	
ID	MANUFACTURER MODEL #		IZE ↓HE\GHT	SYSTEM		NE GALLONS		PRESSURE		DESCRIPTION / REMARKS	
<u>ET-1</u>	AMTROL ST-35L	10"	37"	DOMESTIC HW	10	10		150	2/P400	NON-ASME CARBON STEEL THERMAL EXPANSION TANK, NSF/ANSI 61 BUTYL DIAPHRAGM, PRECHARGED, STAINLESS STEEL CONNECTION.	
	PUMP SCHEDULE										
ID	MANUFACTURER MODEL #	HP	ELEC AMPS	TRICAL		M VFD	DISC GPM		DETAIL / SHEET	DESCRIPTION / REMARKS	
<u>CP-1</u>	B&G PL-45B	1/6	2.1	115	1 330	00 NO	14.5			INLINE PUMP, SINGLE SPEED, LUBRICATED, BRONZE LEAD-FREE BODY, CARBON STEEL SHAFT, CARBON BEARING, STAINLESS STEEL COMPONENTS, INCLUDE HONEYWELL L6006C1018 AQUASTAT CONTROLLER AND CONNECT TO CIRCULATION PUMP.	

	PLUMBI
STAINLESS STEEL BASIN, SELF-CLOSING PUSH	
D ESCUTCHEONS & CHROME PLATED COPPER	
KER, 3/4" HOSE CONNECTION.	
D ESCUTCHEONS & CHROME PLATED COPPER	
COPPER WASTE TO INDIRECT CONNECTION	
D ESCUTCHEONS & CHROME PLATED COPPER	
D ESCUTCHEONS & CHROME PLATED COPPER	
RE. REFER TO FS103 AND FS105 FOR	
D ESCUTCHEONS & CHROME PLATED COPPER	
ED FOR ARM SUPPORT, SINGLE FAUCET HOLE,	
5 GPM NON-AERATING SPRAY OUTLET, STATIC MIXING VALVE ASSE 1070, ADA	
INER DRAIN. D ESCUTCHEONS & CHROME PLATED COPPER	
, STEEL SLEEVES, FASTEN TO FLOOR.	
Y LAVATORY SYSTEM, WALL HUNG, THREE S VALVE AND SUPPLIES, COAL ACCESS PANEL,	
G, WITH GRID STRAINER DRAIN.	
D ESCUTCHEONS & CHROME PLATED COPPER	
ONNECTION. THREADED OUTLET, PAIL HOOK, ADJUSTABLE IOVABLE CHROME VACUUM BREAKER.	E
LESS STEEL, SINGLE FAUCET HOLE AND	
LEVERS, 1.5 GPM, SINGLE MOUNTING HOLE ISE 1070, ADA COMPLIANT.	
TTON VALVE, MOUNT ON RIGHT SIDE OF SINK,	
D ESCUTCHEONS & CHROME PLATED COPPER	
ESS STEEL, 17"x20"x6.5" DEEP, TWO FAUCET	
0, ADA COMPLIANT.	
D ESCUTCHEONS & CHROME PLATED COPPER	
AINLESS STEEL, 33"x21.25"x6.5" DEEP DMPLIANT. LEVER VOLUME AND TEMPERATURE	–×
ONTROL TO RIGHT, CHROME FINISH, INCLUDE	
D ESCUTCHEONS & CHROME PLATED COPPER	
P SPUD, WHITE VITREOUS CHINA, MOUNT AT	
D, 0.5 GPF, TRUE MECHANICAL OVERRIDE, 3/4"	
FEEL SLEEVES, FASTEN TO FLOOR.	
TEEL SLEEVES, FASTEN TO FLOOR.	
SPUD, WHITE VITREOUS CHINA, 2.125"	
CHECK HINGES, ANTI-MICROBIAL AGENT.	
FEET, STEEL SLEEVES, FASTEN TO FLOOR.	
CHECK HINGES, ANTI-MICROBIAL AGENT.	
FEET, STEEL SLEEVES, FASTEN TO FLOOR.	
GRAL VACUUM BREAKER, 3/4" HOSE ISH, 1/2" QUARTER TURN HOT AND COLD	
REMARKS	
ALVE, 1.25" METER FOR EACH UNIT, WIRING, FULLY PROGRAMMABLE CONTROLLER, LCD DISPLAY, BATTERY	
4.44" IMPELLER, SINGLE SEAL MOTOR,	
EALED SHAFT, 1-1/2" DISCHARGE, 20 FT	
CLUDE ALDERON VERSA'LARM 7001 STAND	
CONDUIT.	I
EXPANSION TANK, NSF/ANSI 61 BUTYL SS STEEL CONNECTION.	

CW	COLD WATER
+1W	HOT WATER
HWR	HOT WATER RECIRCULATION
CS	COLD SOFT WATER
	TEMPERED WATER
W	DOMESTIC WATER SERVICE
NPC	NON-POTABLE COLD WATER
G	NATURAL GAS
A	COMPRESSED AIR
	SANITARY DRAIN, WASTE OR SEWER (SAN)
	VENT (V)
GW	GREASE WASTE
— — — AV— — — — — —	ACID VENT
	CLEAR WATER VENT CLEAR WATER WASTE
ST	STORM DRAIN CONDUCTOR OR SEWER
OD	OVERFLOW DRAIN
——————————————————————————————————————	EXISTING PIPE (SERVICE DESIGNATED)
— — XX (E) — — — —	EXISTING VENT (SERVICE DESIGNATED)
	EXISTING PIPE TO BE REMOVED/DEMOLISHED
— — XX (E) — — —	EXISTING VENT TO BE REMOVED/DEMOLISHED
	TEE (BRANCH TO SIDE)
	TEE (BRANCH DOWN)
———————————————————————————————————————	RISER UP
	RISER DOWN
OR	CLEANOUT (CO) WALL CLEANOUT (WCO)
O	FLOOR CLEANOUT (FCO)
N	
	DOWNSPOUT NOZZLE (DSN) UNION
	FLANGE
····	FLOW
→	CHECK VALVE
	PRESSURE REGULATING VALVE
	SOLENOID VALVE
	HOSE BIBB (HB) OR WALL HYDRANT (WH)
	POINT OF CONNECTION (POC)
]	CAP
фф	BALANCING VALVE
	SHUTOFF VALVE
<u>+ / i</u>	PIPE STRAINER
—*	FIXTURE STOP
0	VALVE IN RISER
Ф	THERMOMETER
•	PRESSURE GAUGE
P	
Р	WATER HAMMER ARRESTOR
ര്പ	RELIEF VALVE
→ → [']	RPBP - REDUCED PRESSURE ZONE BACKFLOW P
$\square \square $	
OR	OR
OR RPBP	OR DCV - DOUBLE DETECTOR CHECK VALVE ASSEMI
	DCV - DOUBLE DETECTOR CHECK VALVE ASSEMI
	DCV - DOUBLE DETECTOR CHECK VALVE ASSEM FLOOR DRAIN (FD) HUB DRAIN (HD) AREA DRAIN (AD)
RPBP O	DCV - DOUBLE DETECTOR CHECK VALVE ASSEM FLOOR DRAIN (FD) HUB DRAIN (HD)
	DCV - DOUBLE DETECTOR CHECK VALVE ASSEM FLOOR DRAIN (FD) HUB DRAIN (HD) AREA DRAIN (AD)
	DCV - DOUBLE DETECTOR CHECK VALVE ASSEM FLOOR DRAIN (FD) HUB DRAIN (HD) AREA DRAIN (AD) ROOF DRAIN (RD) OR OVERFLOW DRAIN (ORD) FLOOR SINK (FS) FINISHED FLOOR ELEVATION
	DCV - DOUBLE DETECTOR CHECK VALVE ASSEMING FLOOR DRAIN (FD) HUB DRAIN (HD) AREA DRAIN (AD) ROOF DRAIN (RD) OR OVERFLOW DRAIN (ORD) FLOOR SINK (FS) FINISHED FLOOR ELEVATION FIXTURE UNITS - DRAINAGE OR SUPPLY (DFU OF
	DCV - DOUBLE DETECTOR CHECK VALVE ASSEMI FLOOR DRAIN (FD) HUB DRAIN (HD) AREA DRAIN (AD) ROOF DRAIN (RD) OR OVERFLOW DRAIN (ORD) FLOOR SINK (FS) FINISHED FLOOR ELEVATION FIXTURE UNITS - DRAINAGE OR SUPPLY (DFU OF DEMOLITION KEYED NOTE
	DCV - DOUBLE DETECTOR CHECK VALVE ASSEMING FLOOR DRAIN (FD) HUB DRAIN (HD) AREA DRAIN (AD) ROOF DRAIN (RD) OR OVERFLOW DRAIN (ORD) FLOOR SINK (FS) FINISHED FLOOR ELEVATION FIXTURE UNITS - DRAINAGE OR SUPPLY (DFU OF

	· L	
	L LT	LAVATORY LAUNDRY TRAY
)) O)	MB MH	MOP BASIN MANHOLE
(DSN)	NPC NPCS	NON-POTABLE COLD WATER NON-POTABLE COLD SOFT WATER
	OD ORD	OVERFLOW DRAIN OVERFLOW ROOF DRAIN
	PC PRV	PLUMBING CONTRACTOR PRESSURE REGULATING VALVE
	RPBP	REDUCED PRESSURE ZONE BACKFLOW PREVENTER
NG VALVE		SINK SANITARY SHOWER SPRINKLER PIPING STORM
N (POC)	T TMV	TEMPERED WATER THERMOSTATIC MIXING VALVE
	UR	URINAL
	V VTR	VENT VENT THRU ROOF
-0100	WCO WF WM WH	DOMESTIC WATER SERVICE WATER CLOSET WALL CLEANOUT WASH FOUNTAIN WASHING MACHINE WALL BOX WALL HYDRANT WATER HAMMER ARRESTOR WATER HEATER WATER SOFTENER
ESTOR	YCO	YARD CLEANOUT
SSURE ZONE BACKFLOW PREVENTER		
OVERFLOW DRAIN (ORD)		
ATION		
IAGE OR SUPPLY (DFU OF WSFU)		

	WCO WF WM WH WHA	WATER CLOSET WALL CLEANOUT WASH FOUNTAIN WASHING MACHINE WALL BOX WALL HYDRANT WATER HAMMER ARRESTOR WATER HEATER
	YCO	YARD CLEANOUT
BACKFLOW PREVENTER		
ALVE ASSEMBLY		
RAIN (ORD)		
PELY (DELLOF W.SELI)		

ABBREVIATIONS:

CB CATCH BASIN

CW COLD WATER

CP CIRCULATION PUMP

CWV CLEAR WATER VENT

CWW CLEAR WATER WASTE

DCV DOUBLE CHECK VALVE

DSN DOWNSPOUT NOZZLE

EC ELECTRICAL CONTRACTOR

EWC ELECTRIC WATER COOLER

ESEW EMERGENCY SHOWER/EYEWASH

F FIRE PROTECTION WATER SERVICE

FEC FOOD EQUIPMENT CONTRACTOR

FPC FIRE PROTECTION CONTRACTOR

GC GENERAL CONTRACTOR GI GREASE TRAP/INTERCEPTOR

HWR HOT WATER RECIRCULATION

EEW EMERGENCY EYEWASH

FCO FLOOR CLEANOUT

G NATURAL GAS

GW GREASY WASTE

HC HVAC CONTRACTOR HW HOT WATER

IE INVERT ELEVATION

HB HOSE BIBB

DI DISTILLED WATER

DW DISHWASHER

E EXISTING

CO CLEANOUT

A COMPRESSED AIR

AFF ABOVE FINISHED FLOOR

AFG ABOVE FINISHED GRADE

BFF BELOW FINISHED FLOOR

CS COLD SOFT WATER/CUP SINK

(X) PX

TAG FOR CONTINUATION MATCH POINTS

GENERAL NOTES

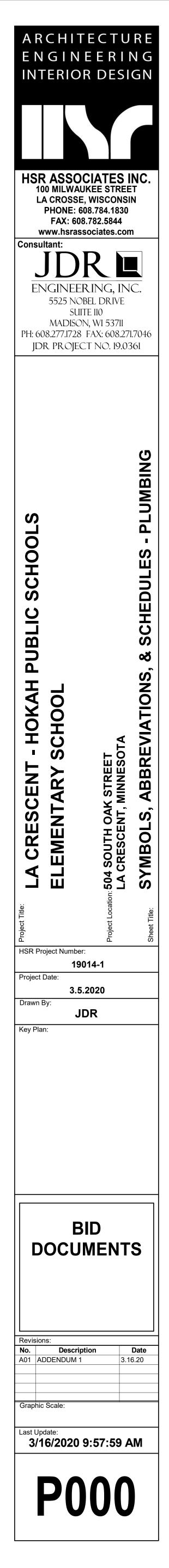
- PC SHALL VISIT SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS PRIOR TO CONSTRUCTION. PC SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND REPORT ANY
- DISCREPANCIES TO THE A/E PRIOR TO COMMENCING WORK. PC SHALL MAINTAIN AND PROTECT ALL EXISTING PIPING AND FIXTURES THAT ARE TO REMAIN
- DURING CONSTRUCTION. . GC SHALL BE RESPONSIBLE FOR ALL FLOOR SAW CUTTING AND PATCHING RELATED TO
- PLUMBING WORK. PC SHALL CAMERA AND LOCATE ALL EXISTING UNDERGROUND SANITARY BUILDING DRAIN
- AND REPORT FINDINGS TO THE A/E. . BUILDING WILL BE OCCUPIED THROUGHOUT CONSTRUCTION. COORDINATE ALL
- INTERRUPTIONS WITH THE OWNER'S REPRESENTATIVE. . IF A DEAD END IS CREATED IN THE REMOVAL OF ANY PART OF A DRAIN SYSTEM, ALL OPENINGS IN THE DRAIN SYSTEM SHALL BE PROPERLY SEALED.

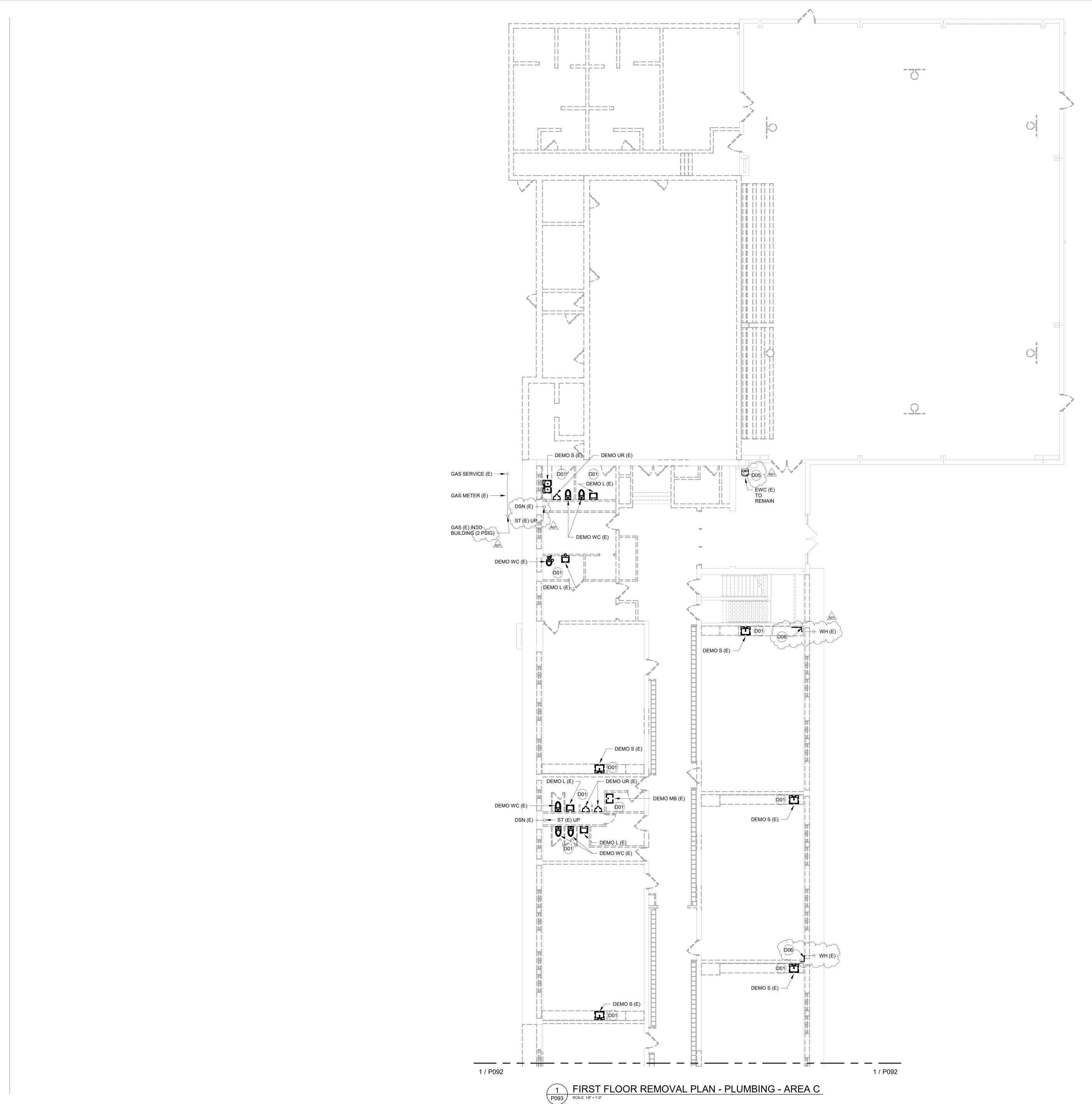
PLENUM NOTE: RETURN AIR CEILING PLENUMS ARE UTILIZED ON THIS PROJECT THROUGHOUT. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL ASCERTAIN THAT ALL ROOMS TO WHICH AIR IS SUPPLIED, HAVE RETURN AIR PATHS BACK TO AND THRU THE CEILING PLENUM. ANY SPACES OBSERVED WHICH DO NOT HAVE SUCH OPENINGS SHALL BE REPORTED TO A/E IMMEDIATELY FOR RESOLUTION. PIPING AND DUCTWORK SHALL BE INSTALLED IN

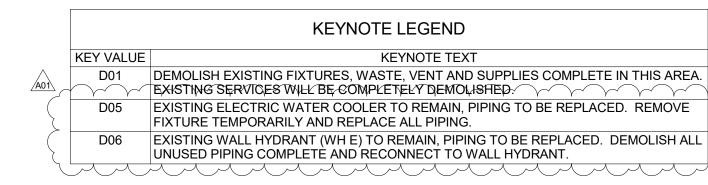
SUCH A MANNER SO AS NOT TO BLOCK THE RETURN AIR PATH, RETURN AIR OPENINGS TO SHAFTS & INTAKE DUCTWORK. ALL MATERIALS IN PLENUMS SHALL BE PLENUM RATED NON-COMBUSTABLE MATERIALS.

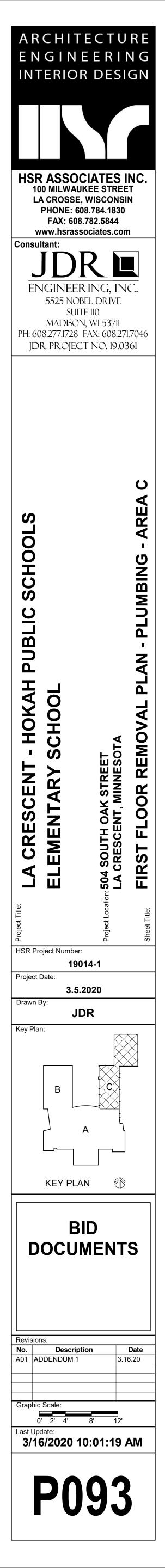
PLUMBING SHEET INDEX

PLUM	PLUMBING SHEET INDEX							
P000	SYMBOLS, ABBREVIATIONS, & SCHEDULES - PLUMBING							
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P091	BSMT/UNDERFLR REMOVAL PLAN - PLUMBING - AREA C							
P092	FIRST FLOOR REMOVAL PLAN - PLUMBING - AREA A							
P093	FIRST FLOOR REMOVAL PLAN - PLUMBING - AREA C							
P094	SECOND FLOOR REMOVAL PLAN - PLUMBING - AREA A & C							
P100	UNDERFLOOR PLAN - PLUMBING - AREA A							
P101	BSMT/UNDERFLOOR PLAN - PLUMBING - AREA B & C							
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P305	DOMESTIC WATER ISOMETRIC - NORTHEAST							
P306	STORM ISOMETRIC - PLUMBING							
P400	ENLARGED PLANS - PLUMBING							
P900	DETAILS - PLUMBING							

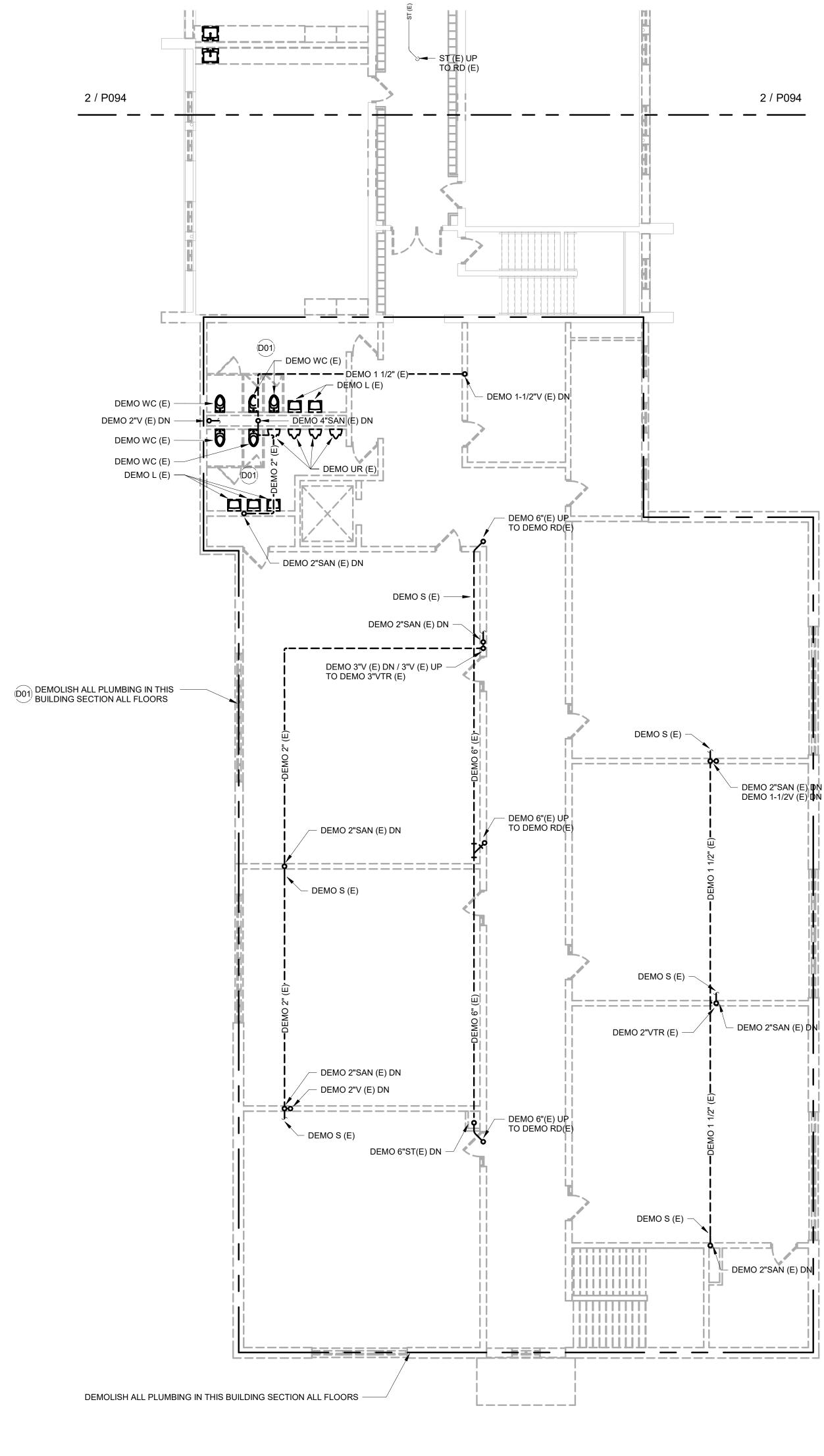




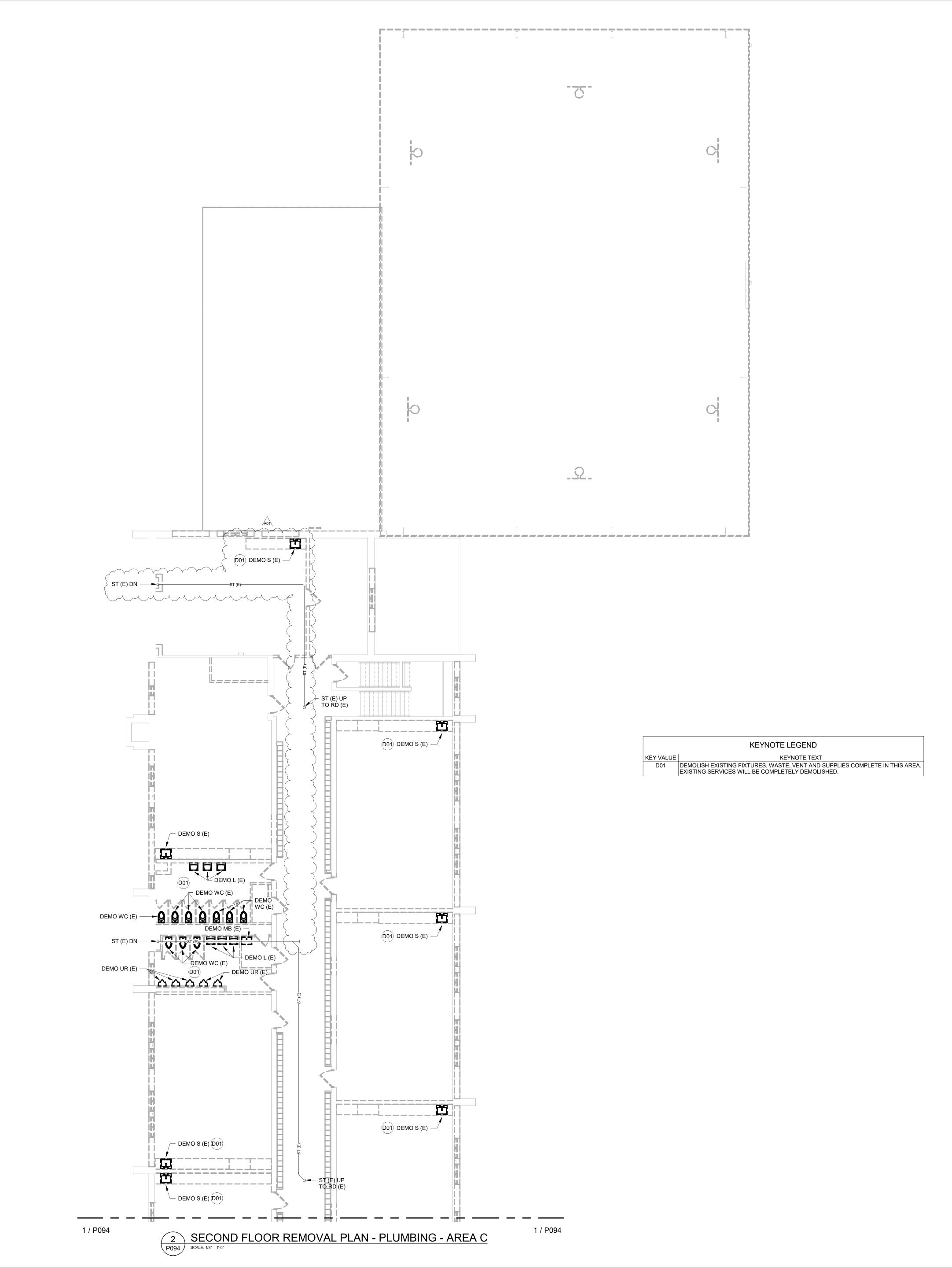




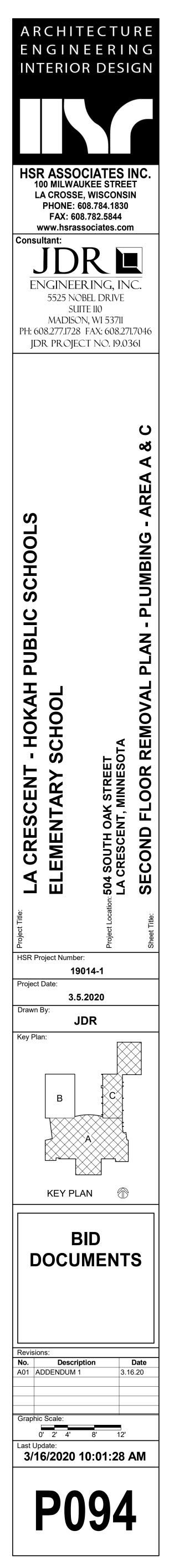


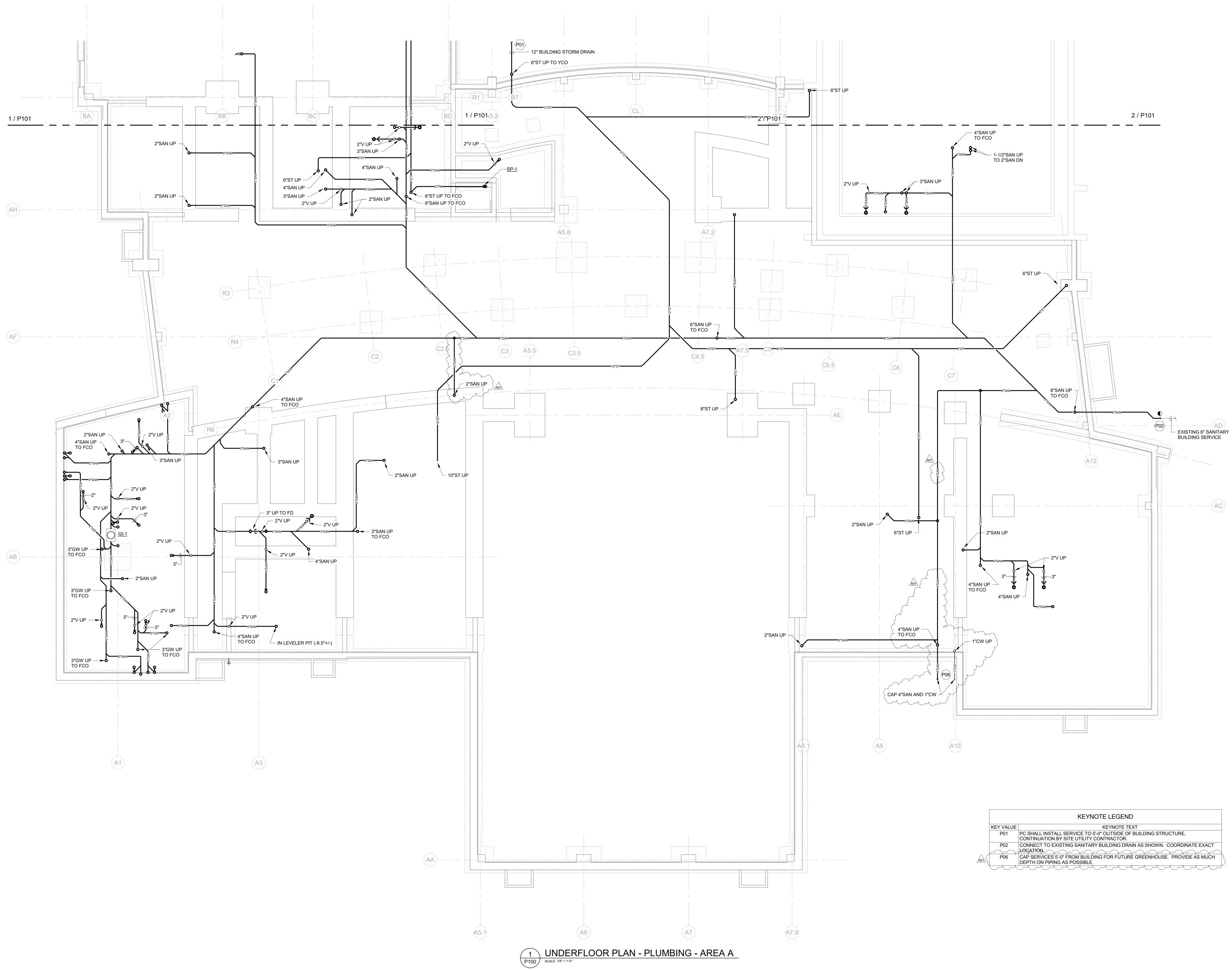


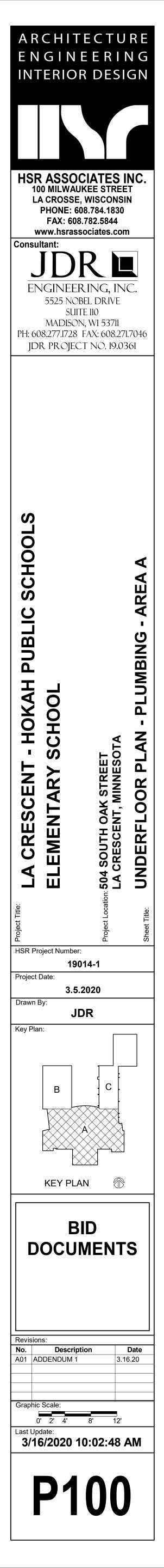
1 SECOND FLOOR REMOVAL PLAN - PLUMBING - AREA A P094 SCALE: 1/8" = 1'-0"

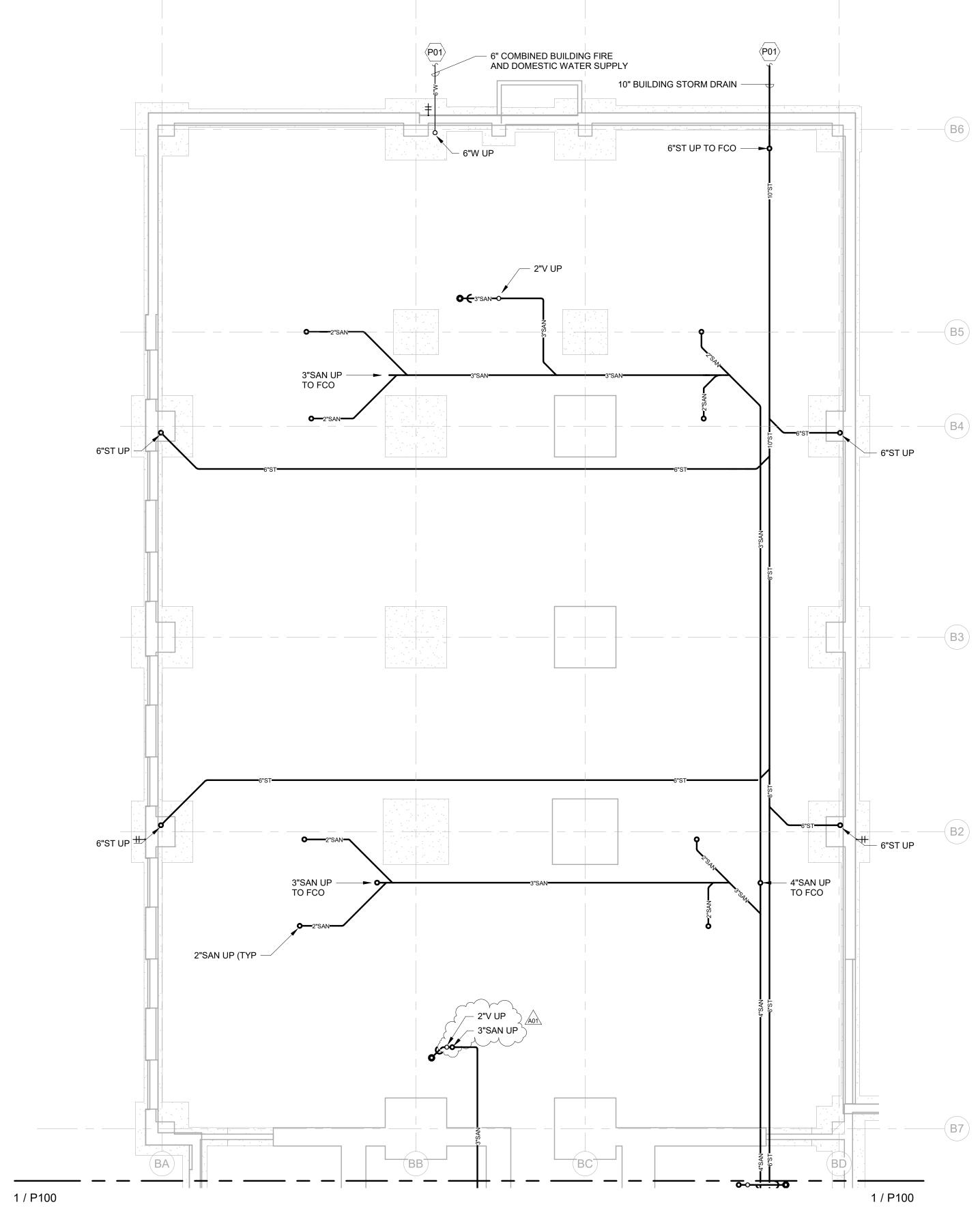




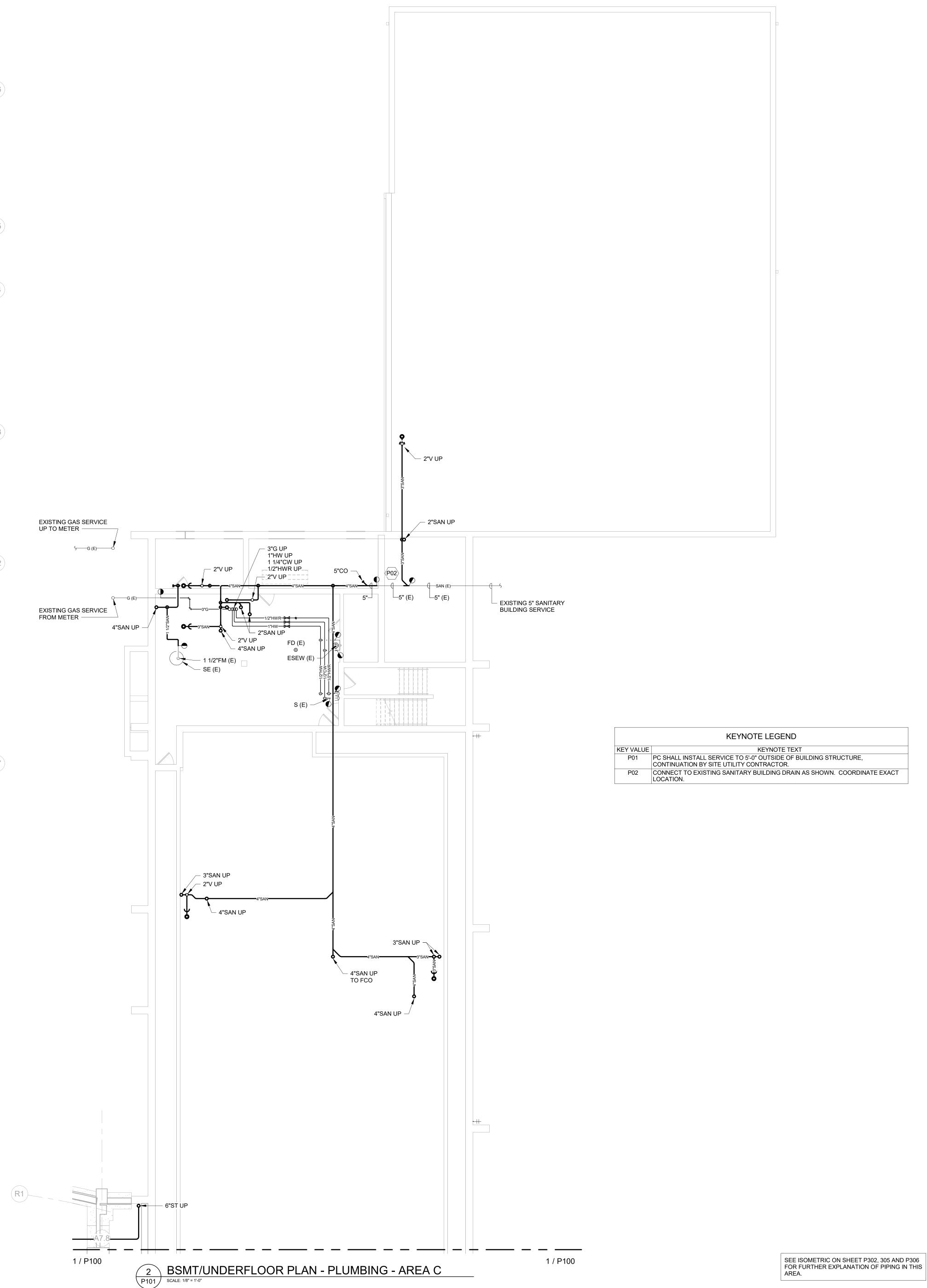


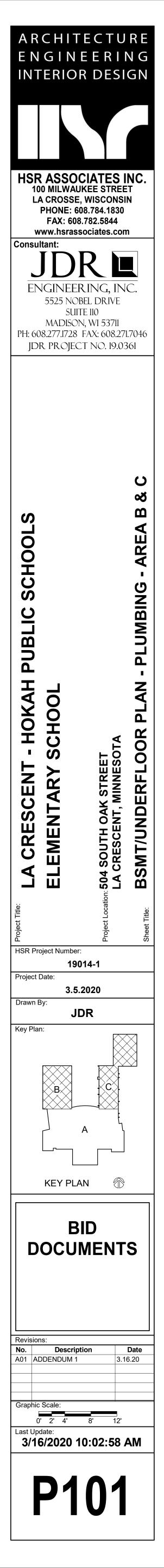


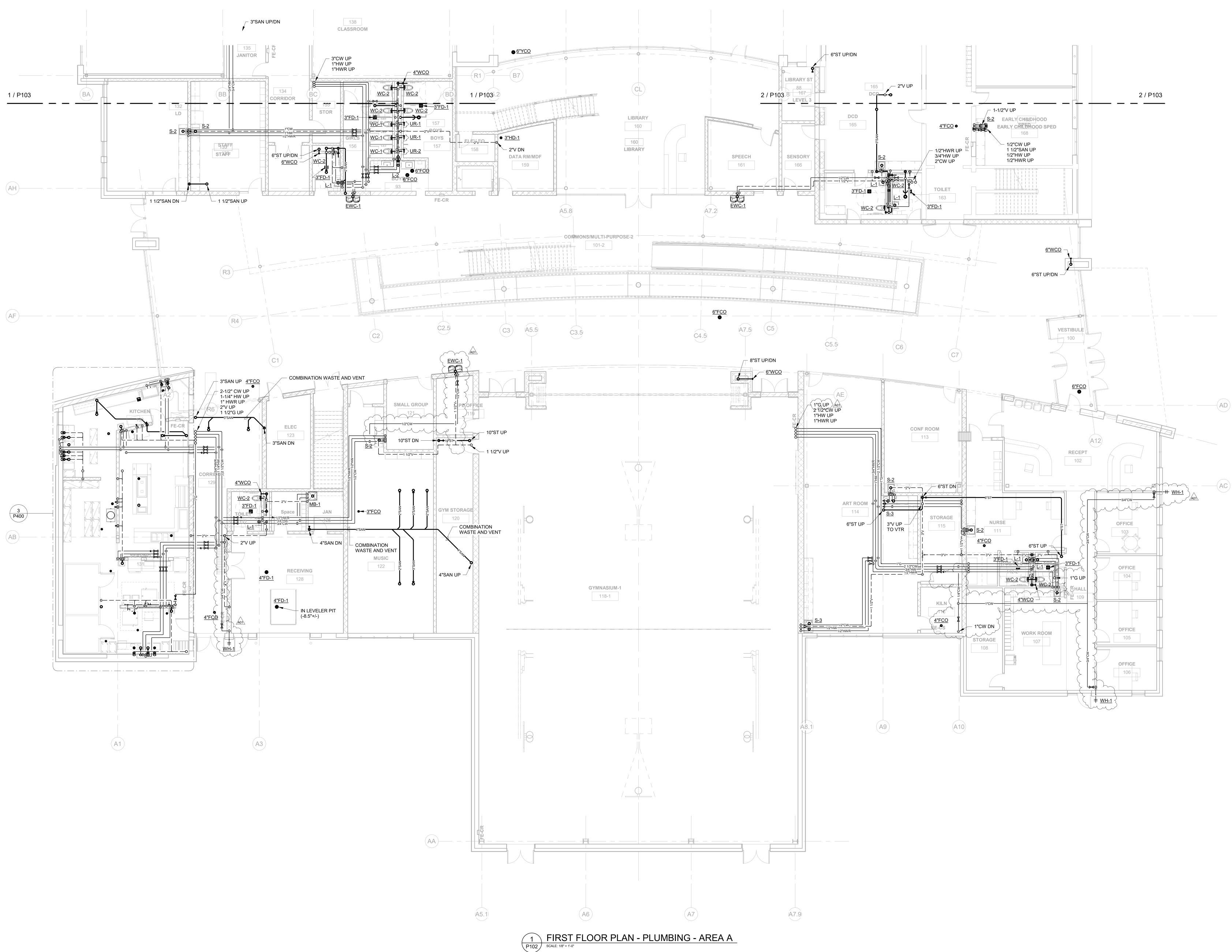


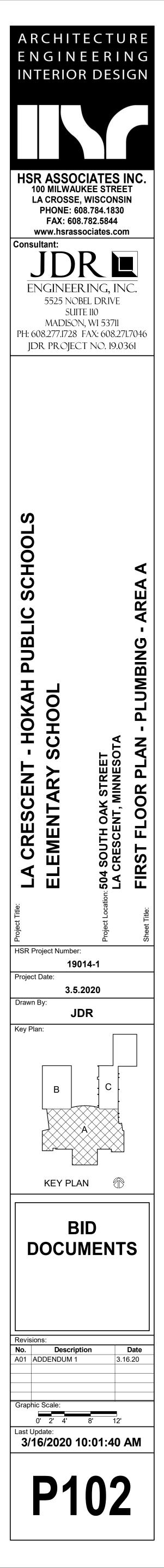


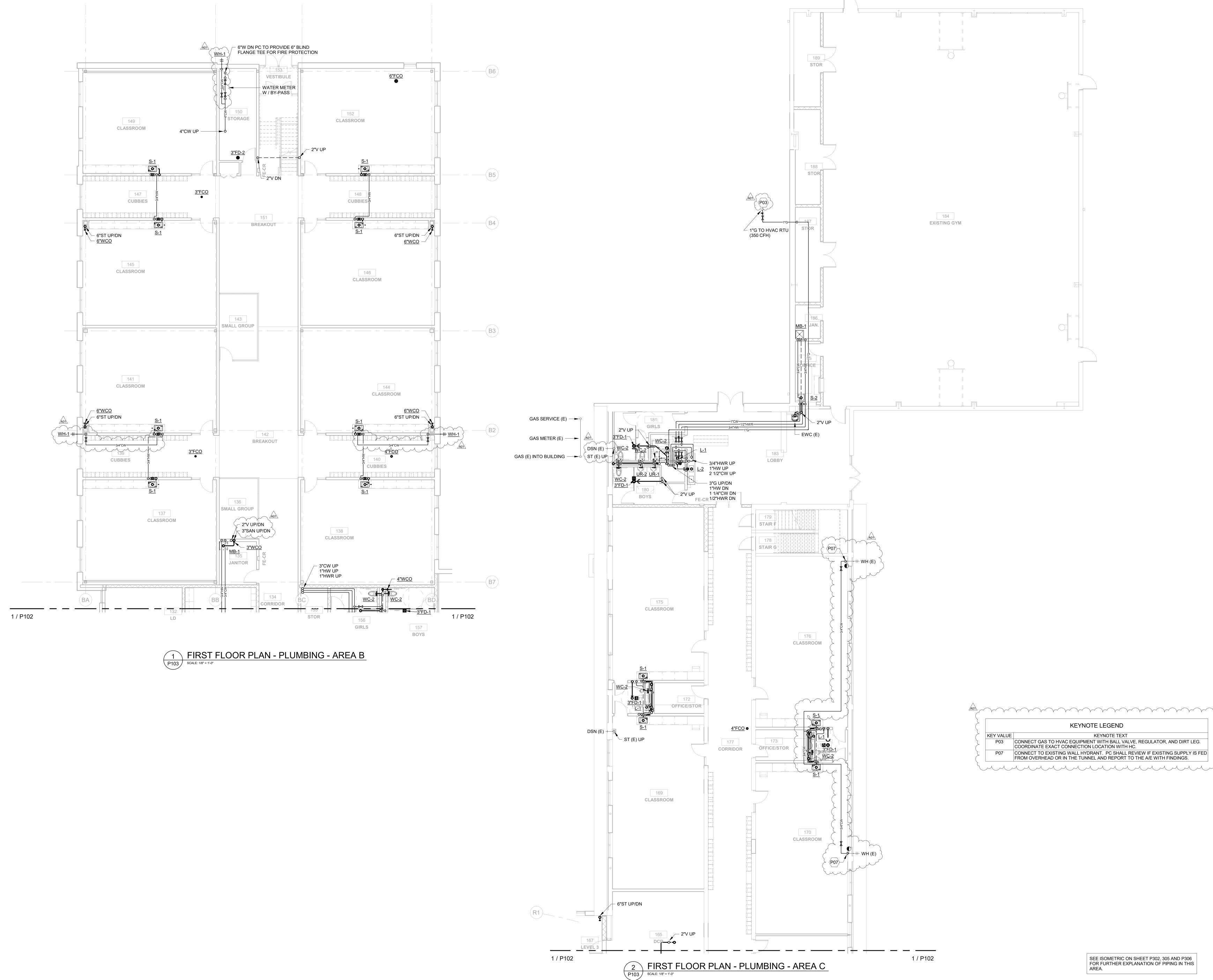
1 UNDERFLOOR PLAN - PLUMBING - AREA B SCALE: 1/8" = 1'-0"



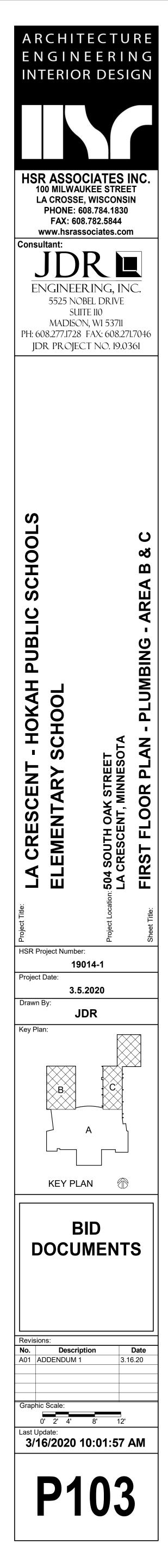




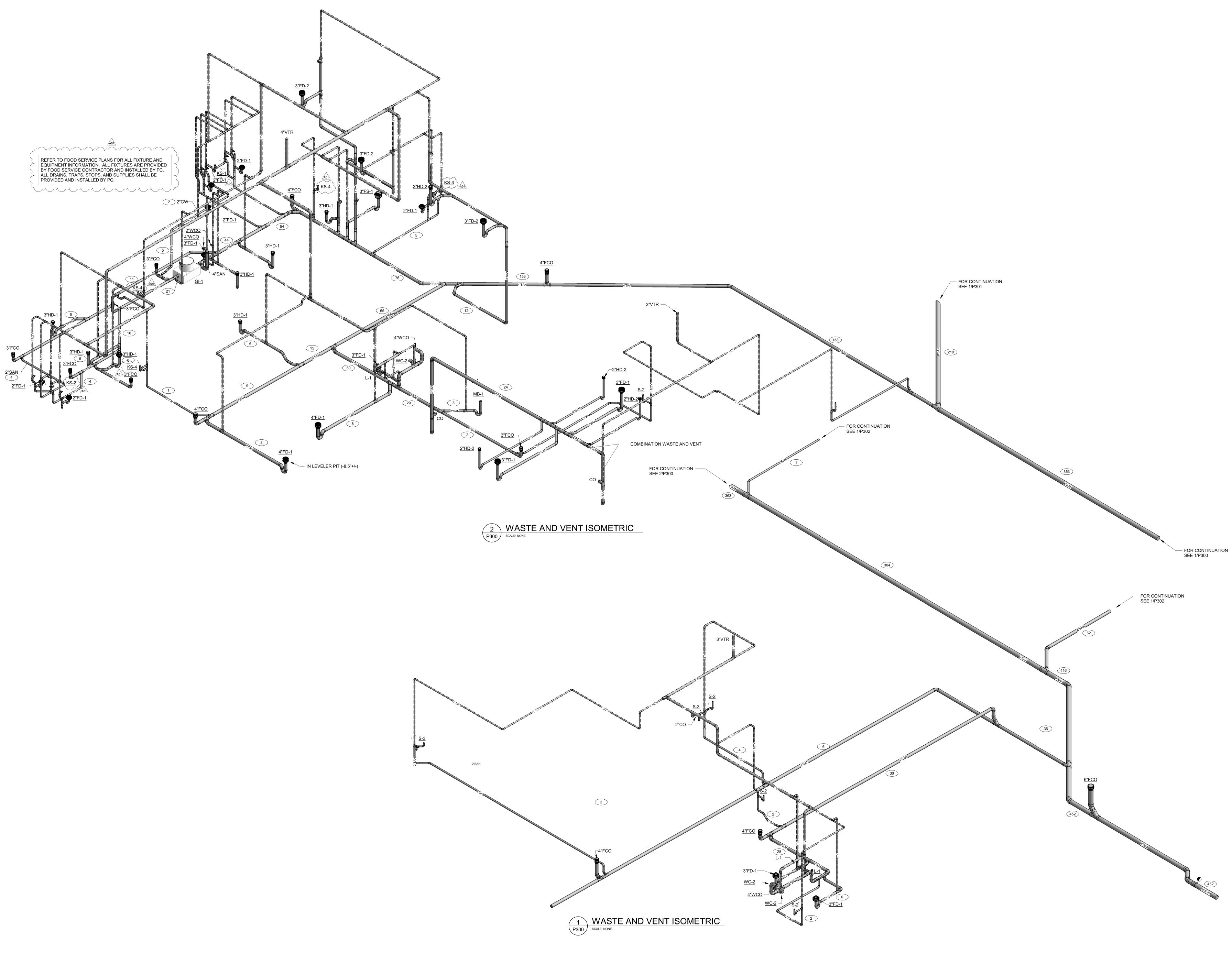


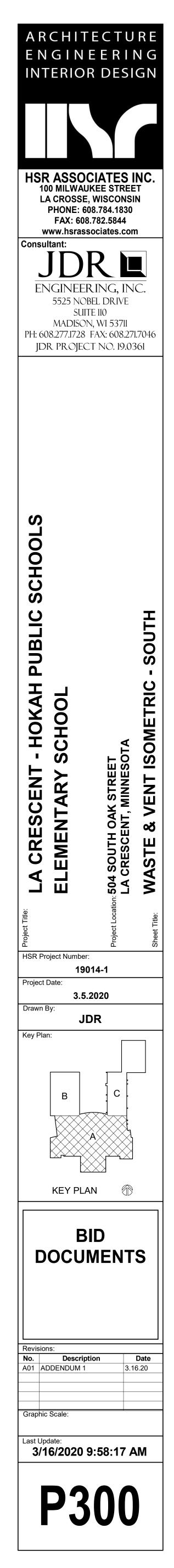


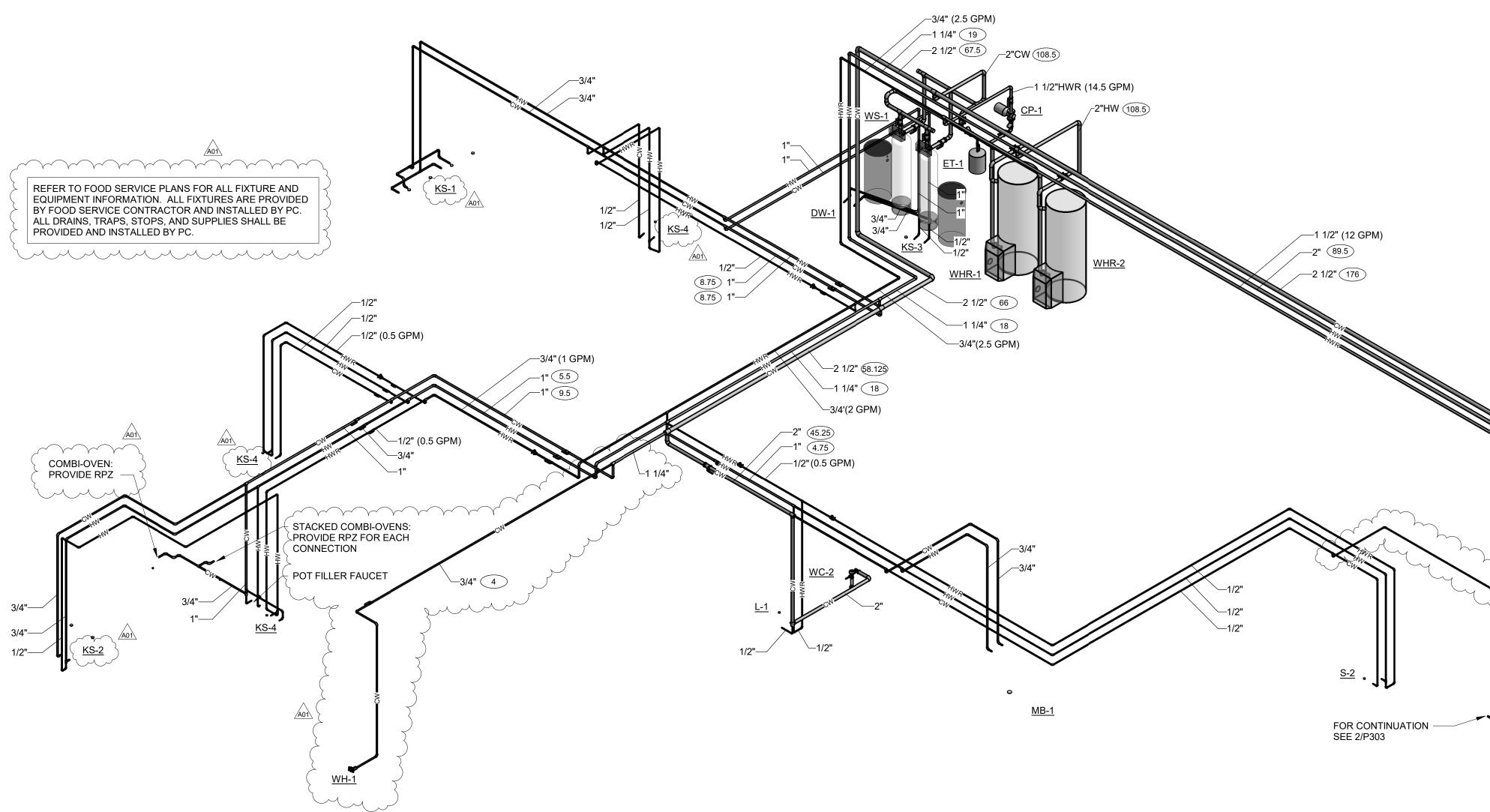
SEE ISOMETRIC ON SHEET P302, 305 AND P306 FOR FURTHER EXPLANATION OF PIPING IN THIS AREA.



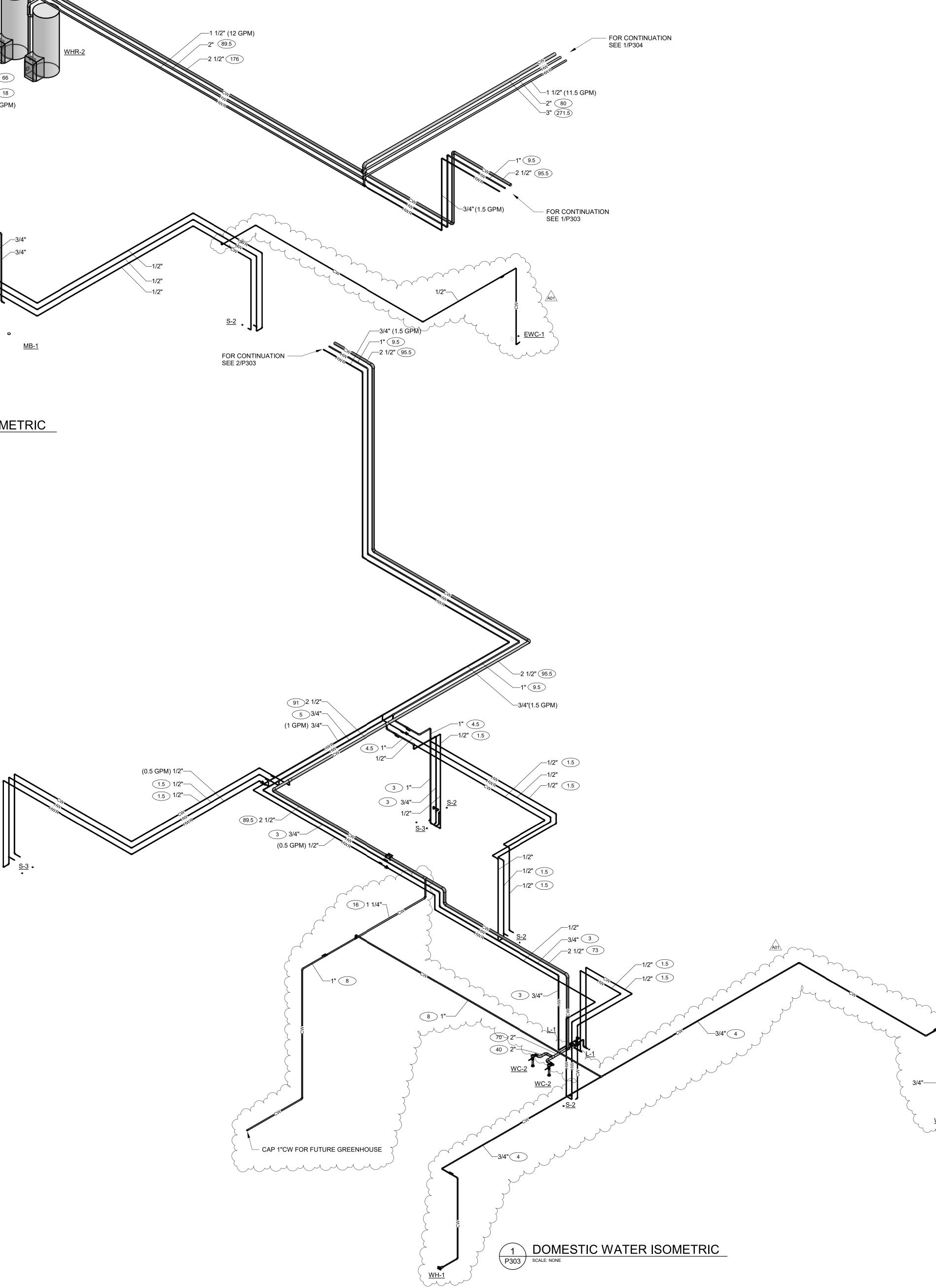


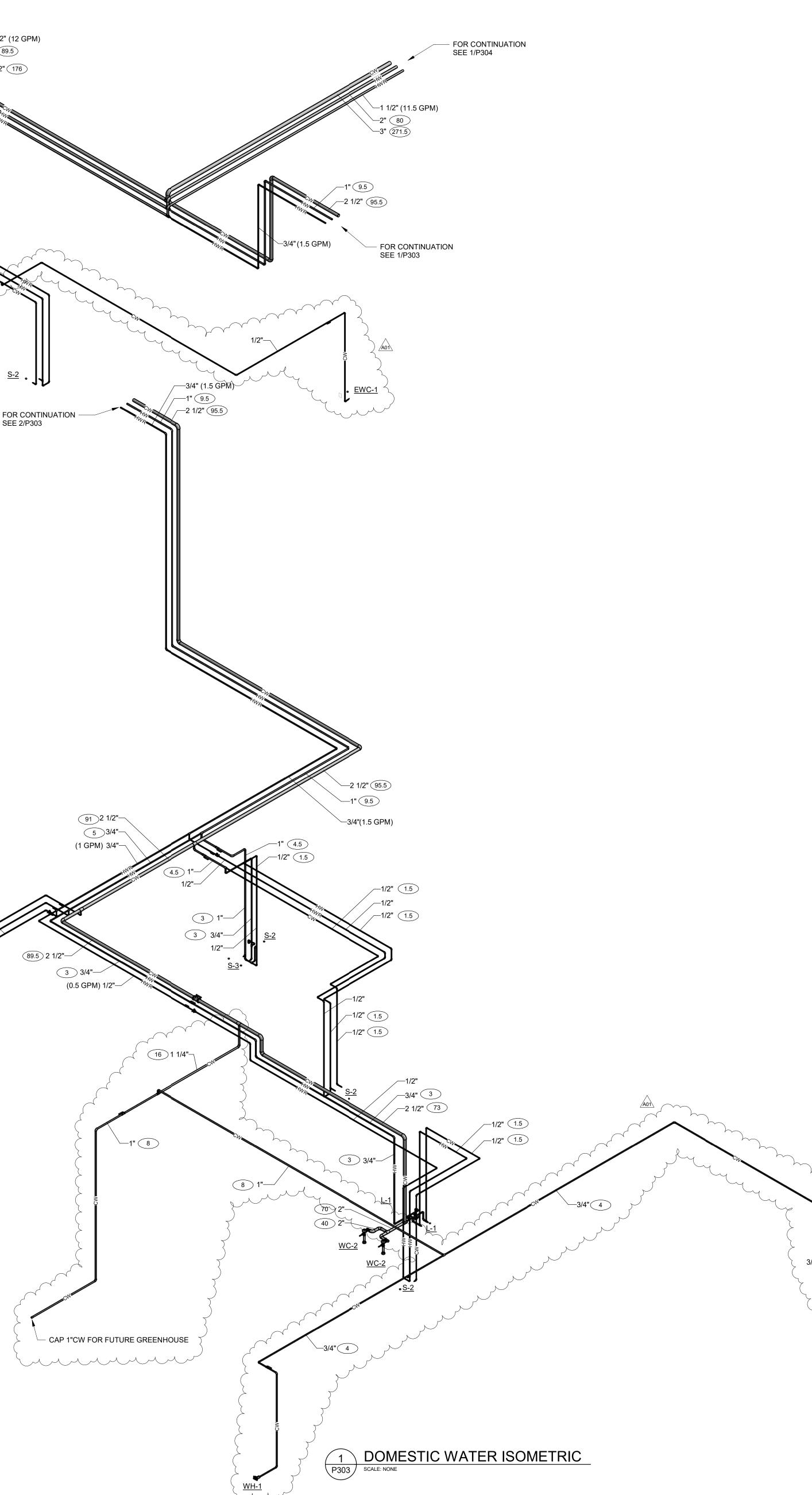


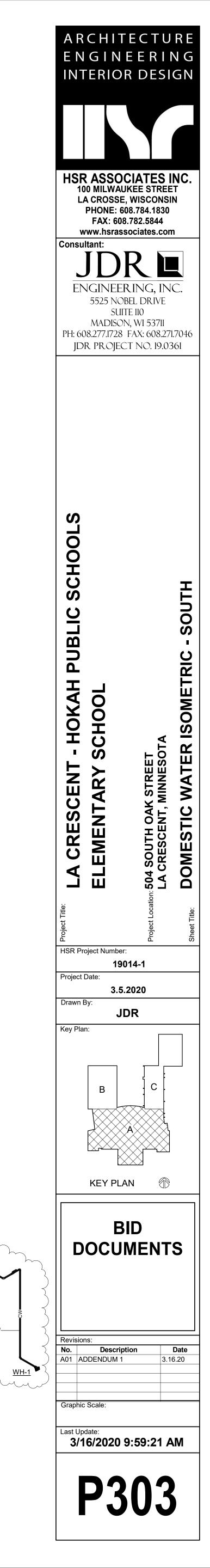


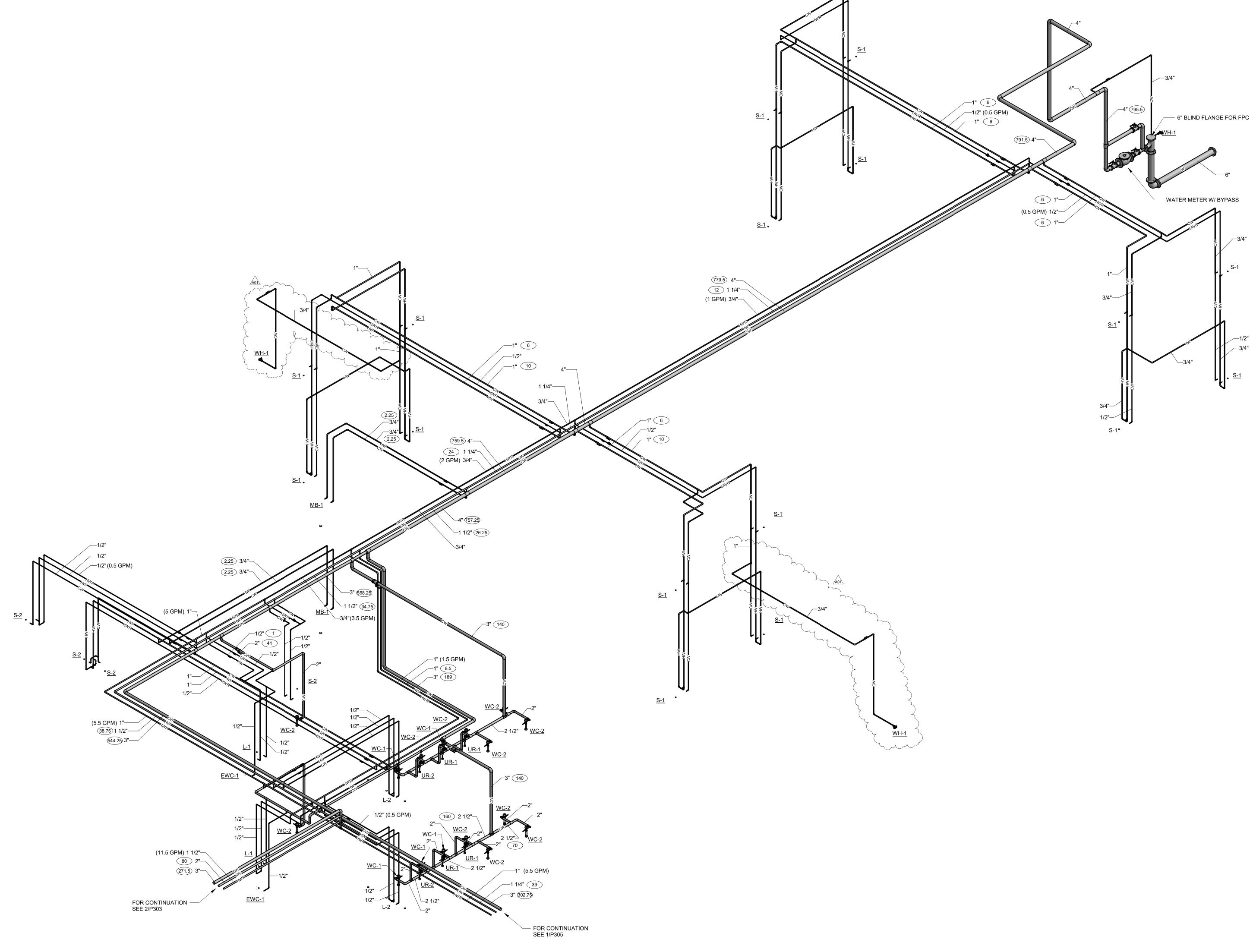


2 DOMESTIC WATER ISOMETRIC P303 SCALE: NONE

























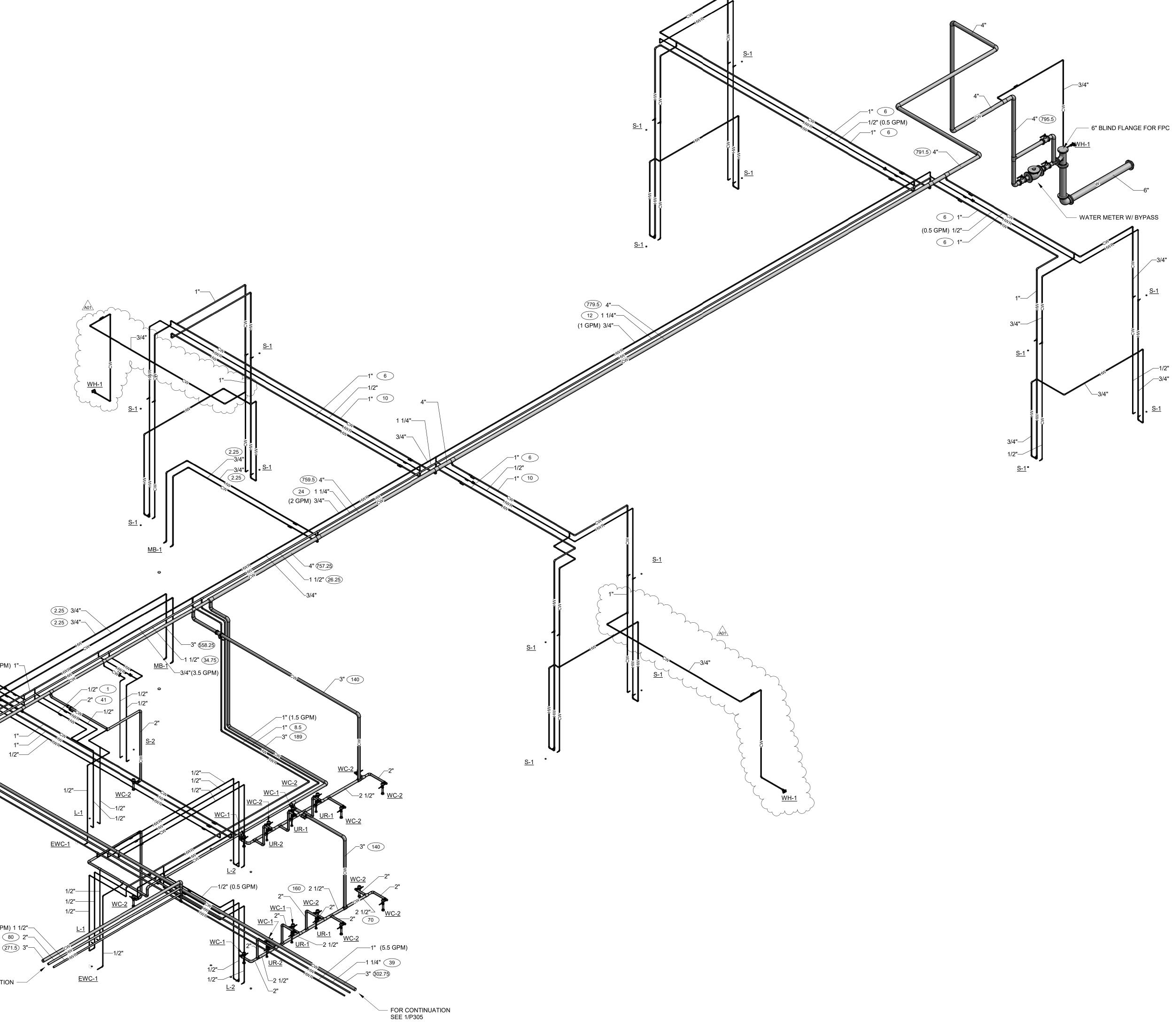




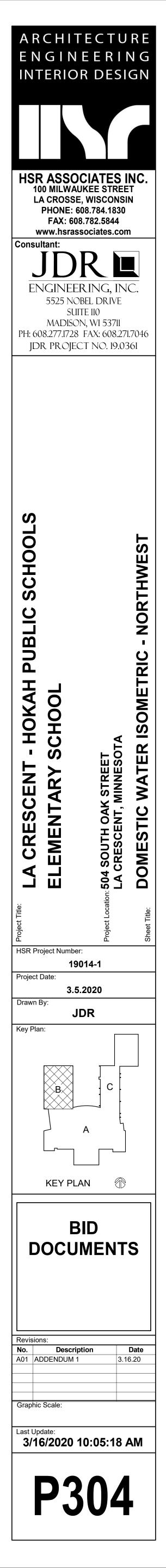


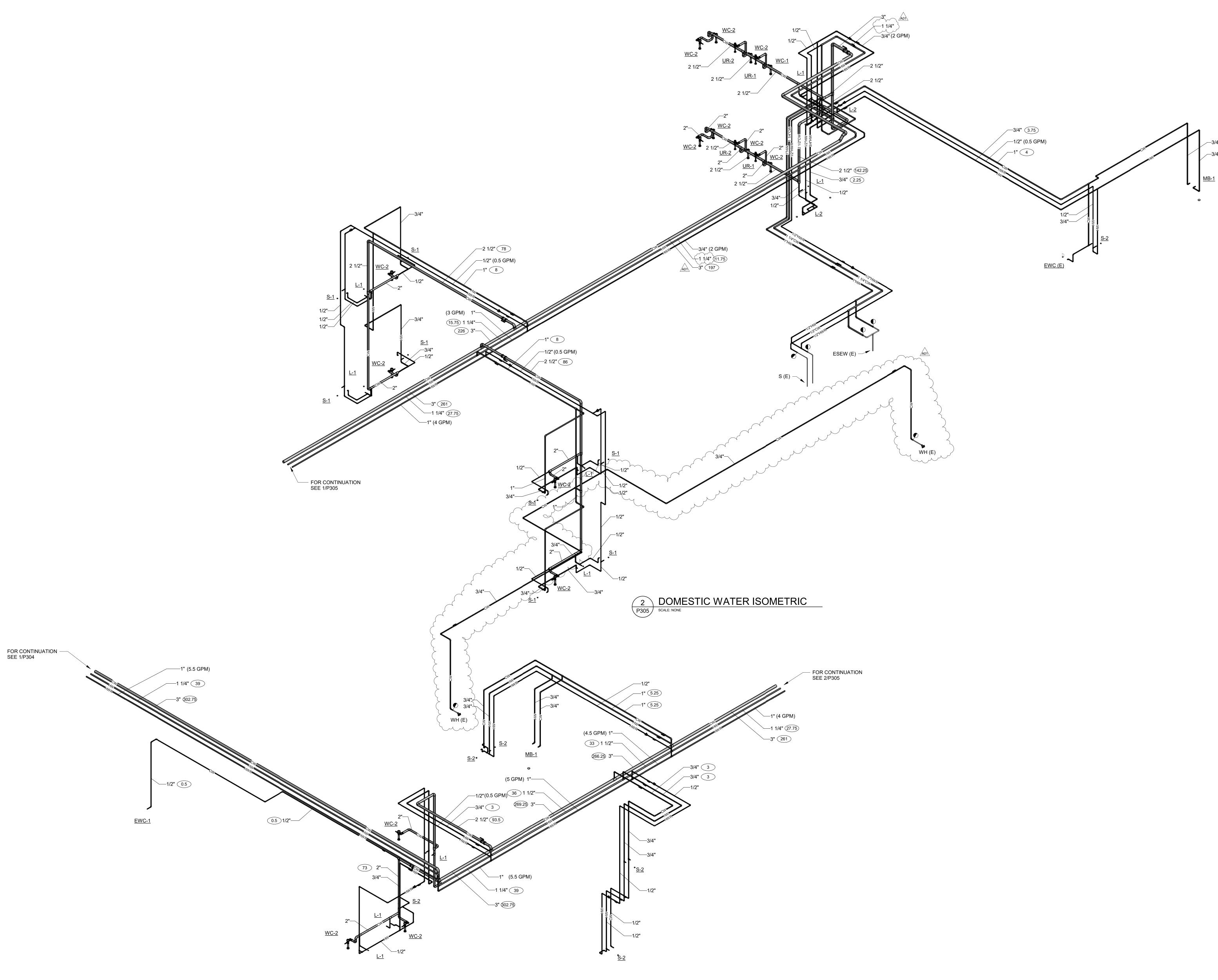




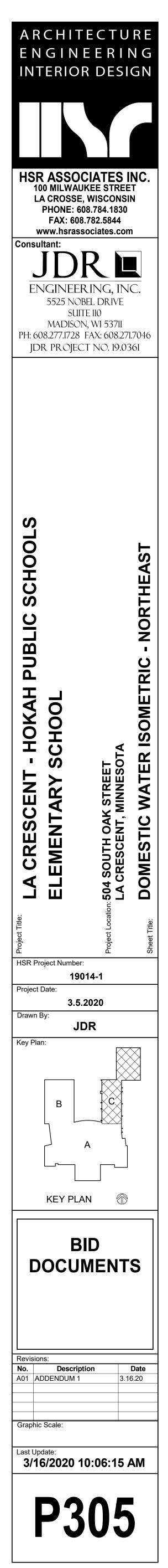


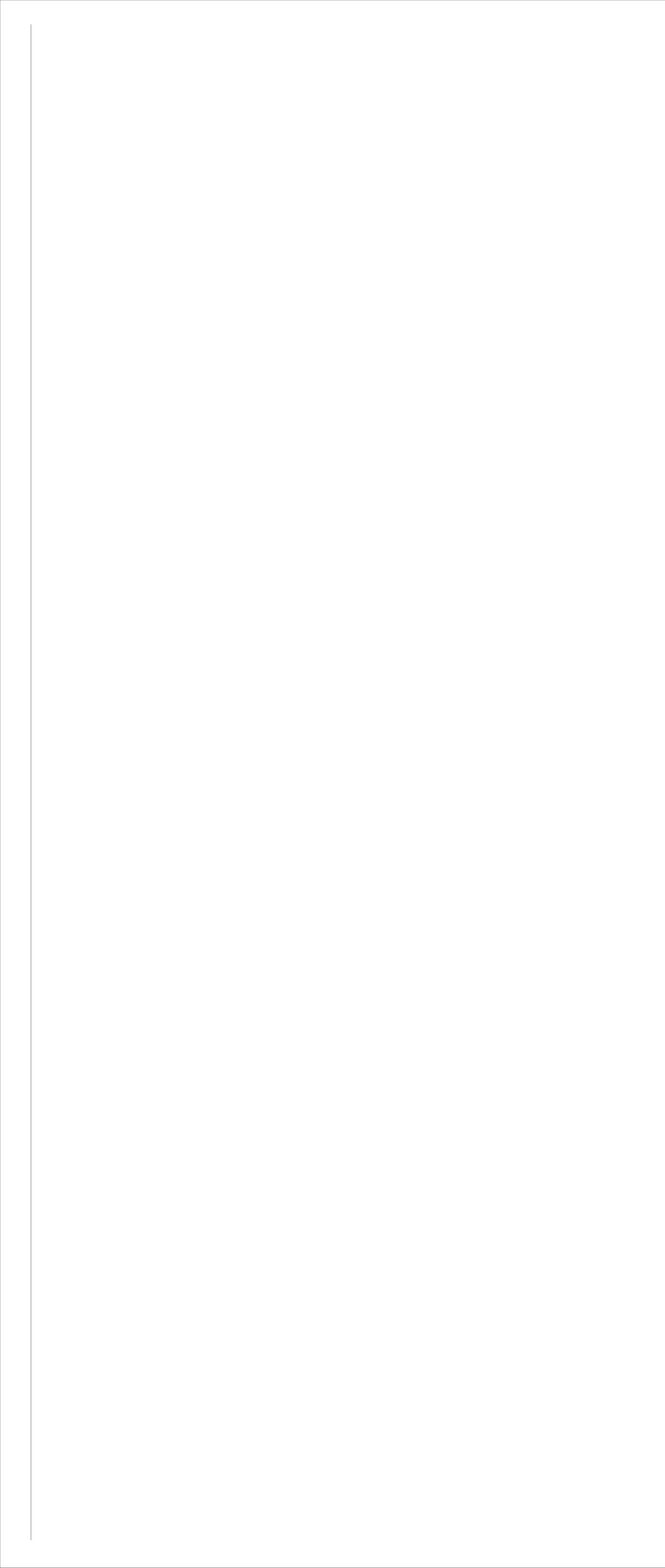
1 DOMESTIC WATER ISOMETRIC P304 SCALE: NONE

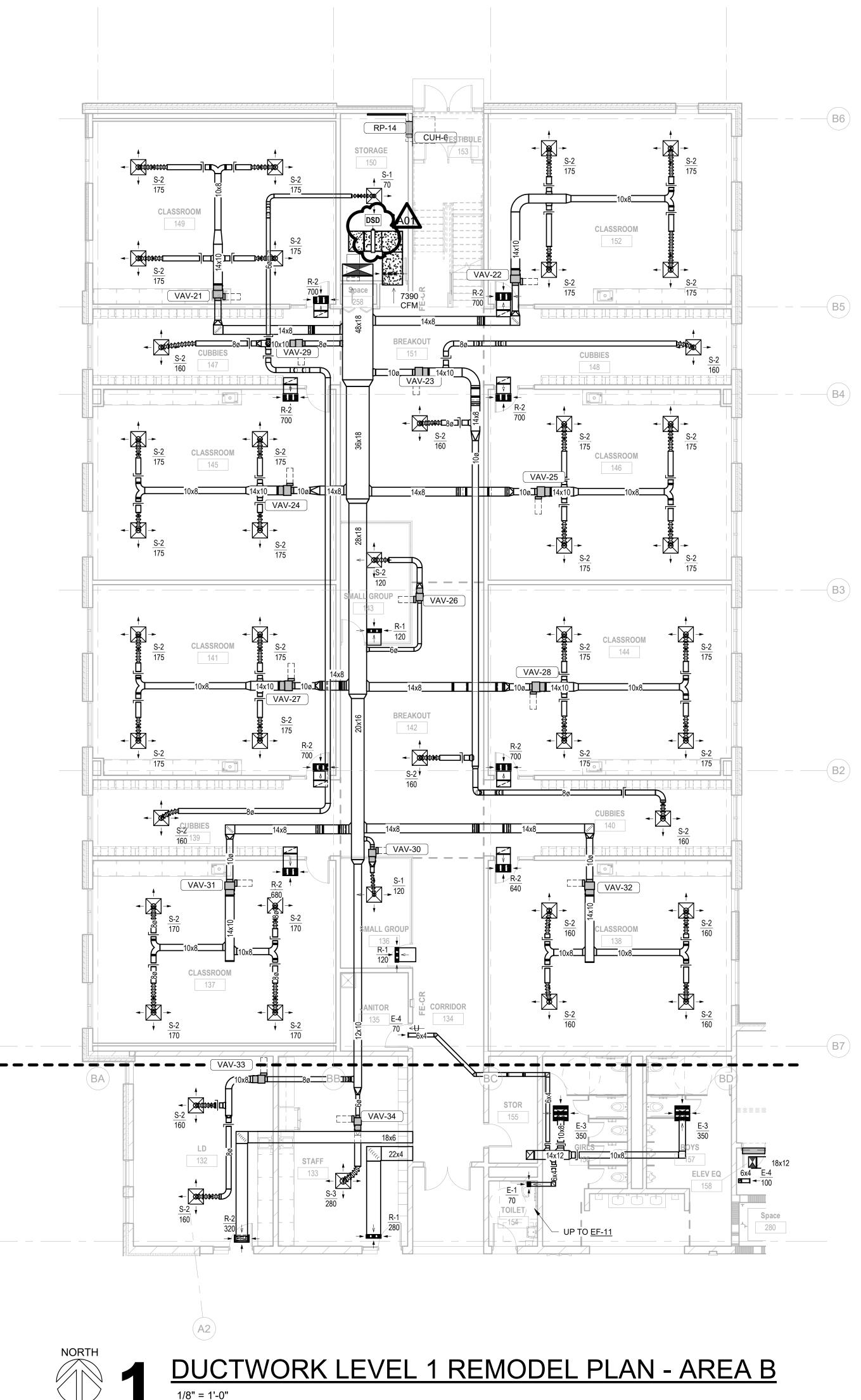




1 DOMESTIC WATER ISOMETRIC P305 SCALE: NONE

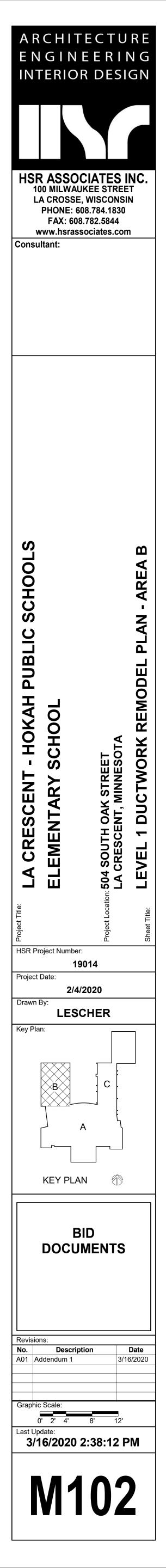


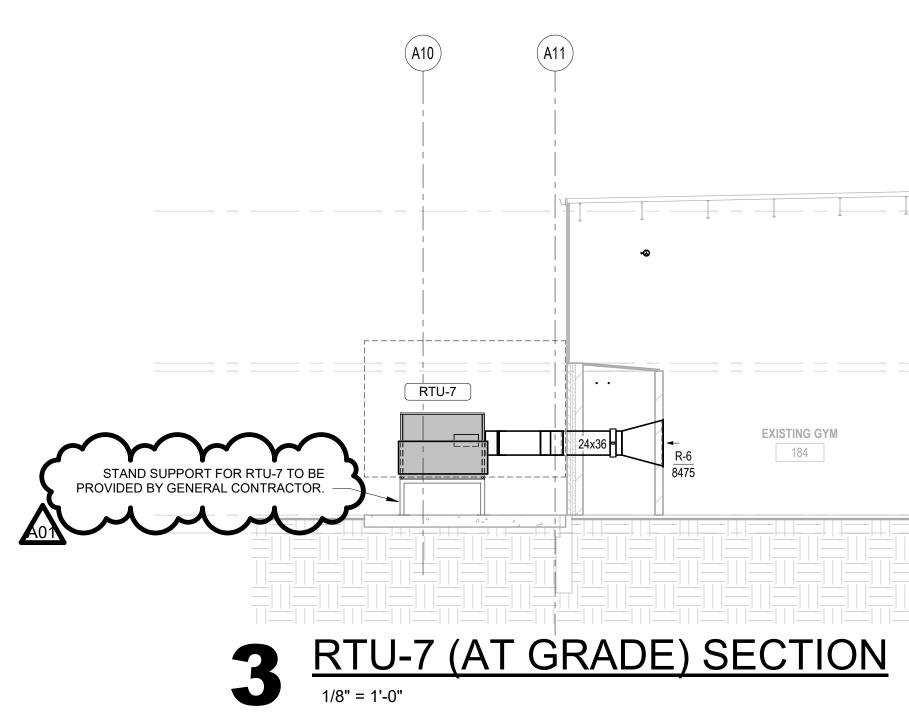


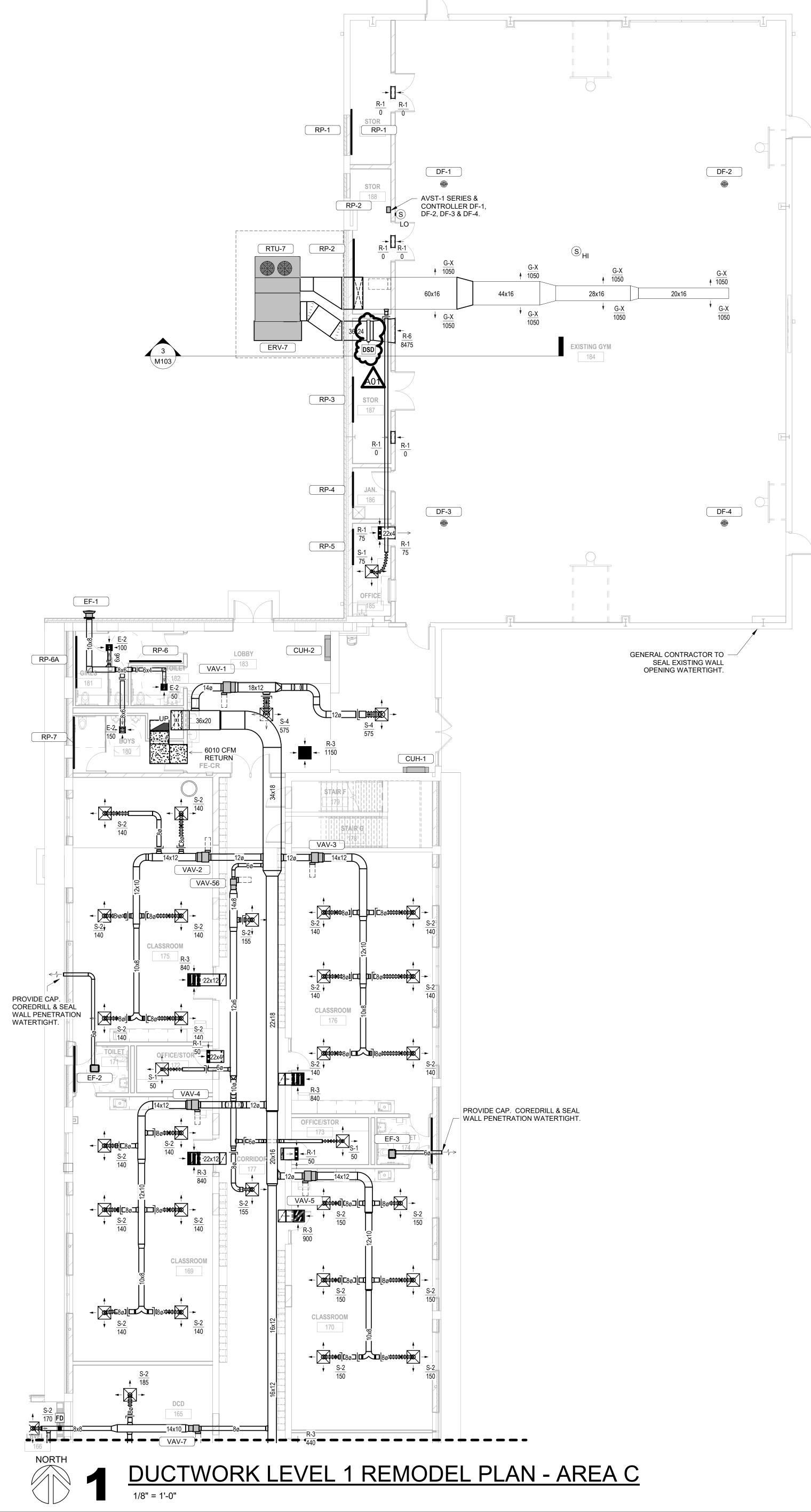


DUCTWORK LEVEL 1 REMODEL PLAN - AREA B 1/8" = 1'-0"

(AH)-



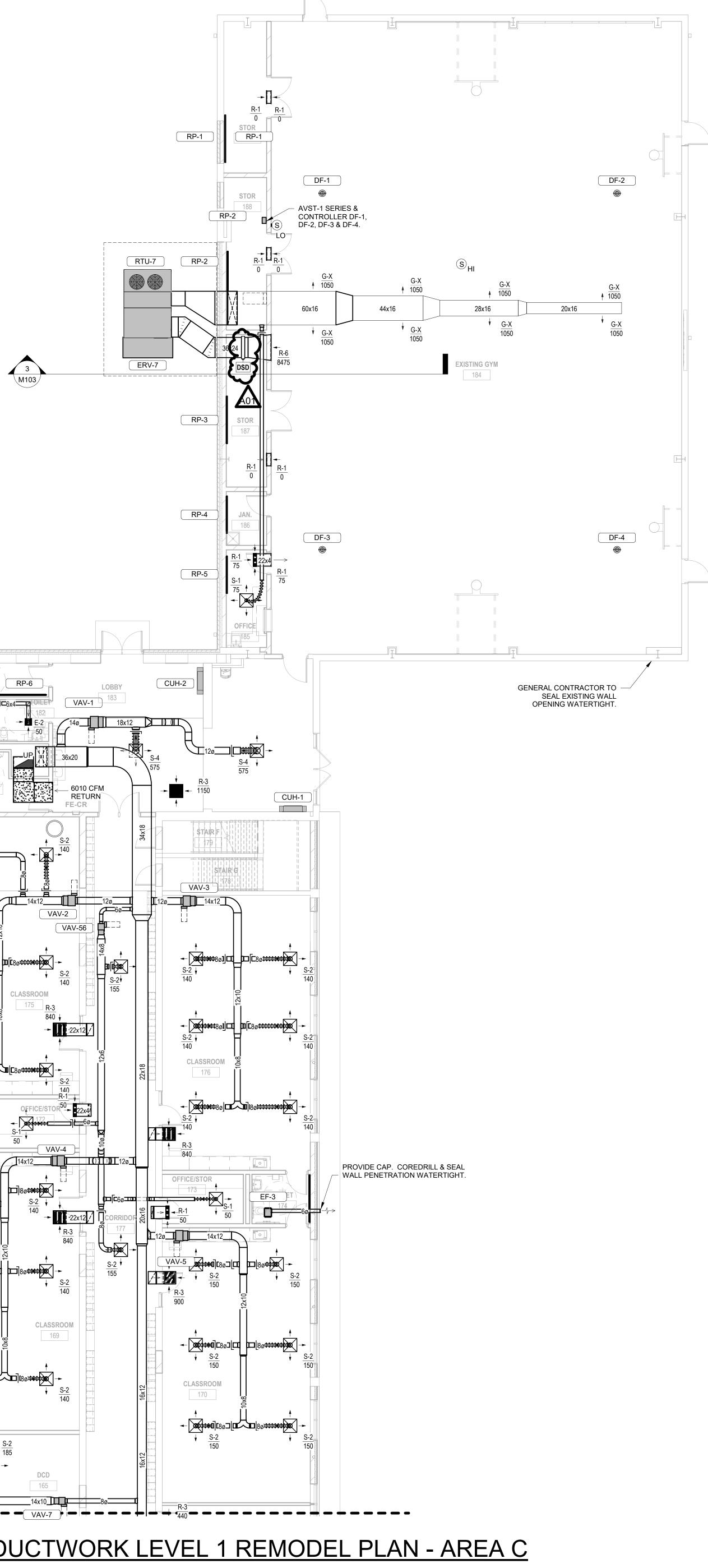


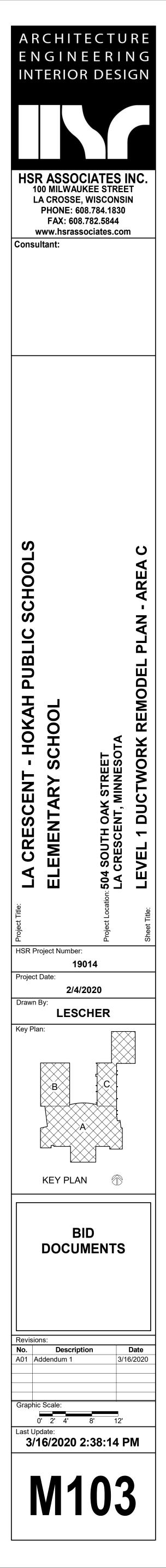


FIRST FLOOR Below Grade 98'-6"

EXISTING GYM

SECMECH MEZZ-112'-0"





SYMBOL	CALLOUT	DESCRIPTION	LAMP	INPUT WATTS	TOTAL LUMENS	LAMP COLOR	VOLTS	MOUNTING	MODEL	FIXTURE DEPTH	NOTES
	A	2X2 RECESSED LED	(1) LED	33.1	4070	3500K	MULTIPLE	RECESSED	LITHONIA 2VTL2-40L-ADP-EZ1-LP835 / 2VT2 F916 COLUMBIA LCAT22-35VLG-ED1U MERC LR15-22G-4300-35K-1%-UNI	4-3/8"	SHADED FIXTURES TO BE CONNECTED TO CENTRAL INVERTER PANEL EL1A.
X	В	6" LED DOWNLIGHT	(1) LED	19.7	2006	3500K	MULTIPLE	RECESSED	GOTHAM EVO6-35/20-AR-MD-LS-MVOLT-GZ1-TRW PRESCOLITE LTR-6RD-H-ML20L-DM1/LTR-6RD-T-ML-35K-8-MD/SS-WT INTENSE SS66G4DR-L3-358/IC630-C-SF-W	7-9/16"	
	D	8FT LED STRIP	(1) LED	81	11267	3500K	MULTIPLE	SURFACE	LITHONIA TZL1D-L96-10000LM-FST-MVOLT-35K-80CRI-CS1W-WH COLUMBIA MPS8-35HL-FW-EDU-C6TL201 MERCURY LIGHTING LSA8-10000-35K-HTA-1%-UNI	2.9882"	COORDINATE HANGER CHAIN/AIRCRAFT CABLE/WIREGAURD REQUIRMENTS WITH OWNER.
⊢ −−1	E2	2FT LED STRIP	(1) LED	22	2742	3500K	MULTIPLE	SURFACE	LITHONIA ZL1D-L24-2500LM-FST-MVOLT-35K-80CRI-CS1W-WH COLUMBIA MPS2-35HL-FW-EDU-C6TL201 MERCURY LSA4-2800-35K-HTA-1%-UNI	2.9882"	COORDINATE HANGER CHAIN/AIRCRAFT CABLE/WIREGAURD REQUIRMENTS WITH OWNER.
├ ────┤	E4	4FT LED STRIP	(1) LED	59	7480	3500K	MULTIPLE	SURFACE	LITHONIA ZL1D-L48-7000LM-FST-MVOLT-35K-80CRI-CS1W-WH COLUMBIA MPS4-35VL-FW-EDU-C6TL201 MERCURY LSA4-5700-35K-HTA-1%-UNI	2.9882"	COORDINATE HANGER CHAIN/AIRCRAFT CABLE/WIREGAURD REQUIRMENTS WITH OWNER.
	F	HIGH BAY LED	(1) LED	146	18000	3500K	MULTIPLE	PENDANT/SURFACE	LITHONIA IBHST-18000LM-SD080-MD-0Z10-35K-80CRI-WH / IBAC120 M20-WGIBH4 COLUMBIA PEL4-35MM-FAW-EDU-WG-LHVQM10 MERCURY LHBT4-18000-35K-R-1%-UNI W/AC KIT	4-3/8"	PROVIDE CABLE LENGTH TO MOUNT LIGHT FIXTURES BELOW STRUCTURAL TRUSSES.
Q	G	3' LED DECORATIVE PENDANT	(1) LED	38	3335	3500K	MULTIPLE	PENDANT	SPI 12125-L38W-120-277-3500K-14W-45-DF_MA01-DF_PSC OCL TB5-PAFK-36-MW-WTP-LED2-35K-WF-LED1-35K-UNV-48-DM1 DELRAY 6308-W-W35-D-B4MR16LED	45.3	
	H6	6' LINEAR LED RECESSED	(1) LED	19.68	2340	3500K	MULTIPLE	RECESSED	NULITE RG4-03-L35-UNV-DO-1C-FRF-6 LITE CONTROL 4L-DW-D-6-6-SOF-C1-35K-D040-D01-1C-UNV-W1 MERCURY MLS3-G-72-390-35K-ASO-1%-U	3-7/8"	REFER TO LIGHTING FLOOR PLANS FOR SYSTEM RUN LENGTHS.
	H8	8' LINEAR LED RECESSED	(1) LED	26.24	3120	3500K	MULTIPLE	RECESSED	NULITE RG4-03-L35-UNV-DO-1C-FRF-8 LITE CONTROL 4L-DW-D-8-8-SOF-C1-35K-D040-D01-1C-UNV-W1 MERCURY MLS3-G-96-390-35K-ASO-1%-U	3-7/8"	REFER TO LIGHTING FLOOR PLANS FOR SYSTEM RUN LENGTHS.
	H12	LINEAR LED RECESSED	(1) LED	39.36	4680	3500K	MULTIPLE	RECESSED	NULITE RG4-03-L35-UNV-DO-1C-FRF-12 LITE CONTROL 4L-DW-D-12-12-SOF-C1-35K-D040-D01-1C-UNV-W1 MERCURY MLS3-G-144-390-35K-ASO-1%-U	3-7/8"	REFER TO LIGHTING FLOOR PLANS FOR SYSTEM RUN LENGTHS.
Q	J	6" LED CYLINDER	(1) LED	40.14	4000	3500K	MULTIPLE	PENDANT	INDY LC6-C-40LM-35K-MVOLT-B-G4-80CRI-ZT / L6-HW-CS / CSTEM-48IN-BLCAB PRESCOLITE LTC-6RD-CM-40L35K8MD-DM1-SSBL-BL INTENSE SS6G4C-L6-358-W-C-P48	13-1/4"	
<u> </u>	К	LED TRACK LIGHT	(1) LED	300	793	3500K	MULTIPLE	PENDANT/SURFACE	LUMEN PULSE LATSM4-A-120-L10-35K-CR80-N-MWH-b-MWH / 1C-AWH-PH ARCHITRAK AKTMNLED9L35WH/AKT4WH WH AKTEF WH AKTEC WH INTENSE IQ-LO-35-W-NF/IS*WH		PROVIDE WITH SINGLE CIRCUIT TRACK SYSTEM (INCLUDING ALL REQUIRED CONNECTORS/ACCESSORIES) AND CURRENT LIMITER TO 300W. VERIFY QUANTITY OF TRACK HEADS AND FINISHES WITH OWNER/ARCHITECT.
	L36	LED BATHROOM WALL MOUNT	(1) LED	31.5	4000	3500K	MULTIPLE	WALL	LUMENWERX WALWDI-HLO-LED-80-1000-35-3'-UNV-D1-1-DMB-W FINELITE S17LED-VCF-SF-3'-V-835-120-SC	4-1/2"	
	N2	2' LINEAR LED SURFACE	(1) LED	9.7	1142	3500K	MULTIPLE	SURFACE	NULITE RG6-05-L35-UNV-D-1C-FRF-2 LITCONTROL 6L-S-D-2-2-SOF-C1-35K-D060-D01-1C-UNV-W1 MERCURY MLS3-M1-24-625-35K-1%-U	5-1/2"	
	N4	4' LINEAR LED SURFACE	(1) LED	19.4	2284	3500K	MULTIPLE	SURFACE	NULITE RG6-05-L35-UNV-D-1C-FRF-4 LITCONTROL 6L-S-D-4-4-SOF-C1-35K-D060-D01-1C-UNV-W1 MERCURY MLS3-M1-48-625-35K-1%-U	5-1/2"	
	N6	6' LINEAR LED SURFACE	(1) LED	29.1	3426	3500K	MULTIPLE	SURFACE	NULITE RG6-05-L35-UNV-D-1C-FRF-6 LITCONTROL 6L-S-D-6-6-SOF-C1-35K-D060-D01-1C-UNV-W1 MERCURY MLS3-M1-72-625-35K-1%-U	5-1/2"	
Ж.	OA	EXTERIOR LED CYLINDER	(1) LED	28	1491	3000K	MULTIPLE	SURFACE	.HESS VL485L LED-WW-UNV-W-MB-DG-DIM LITON WD2340-B-UE-DUN-T35 LIGMAN UTA-31881-2X37W-T2-T2-W30 STND FINISH-120/277	19.1"	PROVIDE UP AND DOWN CYLINDER LIGHTING.
X-	OB	SINGLE HEAD POLE LIGHT	(1) LED	140	17221	3000K	120V 1P 2W	CEILING	LITHONIA DSX2-P1-30K-T4M-MVOLT-SPA-HS-DBLXD BEACON VP-L/64L-135/4K7/4/UNV/A/BL/BC/SSSB20-40A-1-B3-BL GARDCO ECF-S-48L-1A-WW-G2-AR-4-UNV-HIS-BZ		PROVIDE SQUARE POLE WITH BASE AND MOUNT FIXTURE AT 20' T GROUND.
Q	OC	EXTERIOR LED BOLLARD	(1) LED	30	2120	3500K	MULTIPLE	SURFACE	STERNBERG LIGHTING BL-4-SL360-FG-26L-35-T3R-F-MDL03-PEC-UBT LIGMAN UMC-10011-22W-T3-W35-STND FINISH-120/277		
Х́Н	Р	6" LED WALL MOUNT	(1) LED	26.46	2800	3500K	MULTIPLE	PENDANT	INDY LC6-W-28LM-35K-MVOLT-B-G4-80CRI-ZT / L6-HW-CS / CSTEM-48IN-BLCAB PRESCOLITE LTC-6RD-CM-30L-35K-8-MD-DM1-SS-BL INTENSE SS6G4C-L5-358-B-HZ-WB	12"	
Ŕ	X/EM	EXIT/EGRESS COMBO UNIVERSAL	(1) LED	3.8	0		MULTIPLE	RECESSED	LITHONIA ECR LED M6 DUAL LITE EVCURW EMERGI-LITE ELXN400R-2LED	8"	FIXTURE TO BE CONNECTED TO CENTRAL INVERTER PANEL EL1A
×	ХА	EXIT UNIVERSAL	(1) LED	1	0		MULTIPLE	WALL/CEILING	LITHONIA EXR LED M6 DUAL LITE EVEURW EMERGI-LITE ELX400RN	7.13"	FIXTURE TO BE CONNECTED TO CENTRAL INVERTER PANEL EL1A
×	ХВ	EXIT UNIVERSAL SINGLE FACE SURFACE/PENDANT EDGELIT	(1) LED	2.5	0		MULTIPLE	WALL/CEILING	LITHONIA EDG-1-R / ELA US12 DUAL LITE LES-STEM-S-R-D-N-A EMERGI-LITE PAR6	5-1/2"	FIXTURE TO BE CONNECTED TO CENTRAL INVERTER PANEL EL1A
×	XB2	EXIT UNIVERSAL DOUBLE FACE SURFACE/PENDANT EDGELIT	(1) LED	2.5	0		MULTIPLE	WALL/CEILING	LITHONIA EDG-2-R / ELA US12 DUAL LITE LES-STEM-S-R-D-N-A EMERGI-LITE PAR6	5-1/2"	FIXTURE TO BE CONNECTED TO CENTRAL INVERTER PANEL EL1A
×	XC	EXIT UNIVERSAL SINGLE FACE RECESSED EDGELIT	(1) LED	2.5	0		MULTIPLE	RECESSED	LITHONIA EDGR-1-R DUAL LITE LECSRDNA EMERGI-LITE PAR6	5-1/2"	FIXTURE TO BE CONNECTED TO CENTRAL INVERTER PANEL EL1A.

MANUFACTURER'S NAMES AND CATALOG NUMBERS ARE USED FOR QUALITY AND PERFORMANCE ONLY. ALTERNATE LISTED LIGHT FIXTURES AND OTHER ELECTRICAL DEVICES MANUFACTURED BY OTHERS SHALL BE EQUALLY ACCEPTABLE PROVIDED THEY MEET OR EXCEED IN PERFORMANCE AND QUALITY AS SPECIFIED.

LIGHT	ING CONTROL	SCHEDULE					
SYMBOL	DESCRIPTION	NOTES					
0-10V DIMMER SWITCH		SINGLE POLE DIMMER SWITCH. MOUNT AT 46" TO CENTER UNLESS NOTED OTHERWISE.					
4 3	0-10V THREE WAY DIMMER SWITCH	MOUNT AT 46" TO CENTER UNLESS NOTED OTHERWISE.					
(S) A	CEILING MOUNTED OCCUPANCY SENSOR TYPE A	DUAL TECHNOLOGY LOW VOLTAGE 360 DEGREE LARGE MOTION STANDARD RANGE CEILING SENSOR WITH ISOLATED LOW VOLTAGE RELAY. NLIGHT #nCM PDT-10 SERIES OR EQUAL BY LEVITON, HUBBELL, OR WATTSTOPPER.					
B	CEILING MOUNTED OCCUPANCY SENSOR TYPE B	DUAL TECHNOLOGY LOW VOLTAGE 360 DEGREE HIGH MOUNT (FROM 15'-0" - 45'-0") CEILING SENSOR WITH ISOLATED LOW VOLTAGE RELAY. NLIGHT #nCM PDT-6 SERIES OR EQUAL BY LEVITON, HUBBELL, OR WATTSTOPPER.					
(6)	DAYLIGHT SENSOR	CEILING/SURFACE MOUNT DAYLIGHT HARVESTING WITH AUTOMATIC DIMMING PHOTOCELL CONTROL. nLIGHT #nCM ADCX SERIES OR EQUAL BY LEVITON, HUBBELL, OR SENSOR SWITCH.					
\$ 4	FOUR WAY SWITCH	MOUNT AT 46" TO CENTER UNLESS NOTED OTHERWISE.					
\$ PL	PILOT LIGHT SWITCH	MOUNT AT 46" TO CENTER UNLESS NOTED OTHERWISE.					
\$	SINGLE POLE SWITCH	MOUNT AT 46" TO CENTER UNLESS NOTED OTHERWISE.					
\$	THREE WAY SWITCH	MOUNT AT 46" TO CENTER UNLESS NOTED OTHERWISE.					
\$ T	TIMER SWITCH	MOUNT AT 46" TO CENTER UNLESS NOTED OTHERWISE.					
⊤ S A	WALL OCCUPANCY SENSOR TYPE A	PIR SINGLE RELAY WALL SENSOR, SELECTABLE SETTINGS FOR OCCUPANCY OR VACANCY. MOUNT AT 46" TO CENTER UNLESS NOTED OTHERWISE. nLIGHT #nWSX PDT LV SERIES OR EQUAL BY LEVITON, HUBBELL, OR WATTSTOPPER.					
B	WALL OCCUPANCY SENSOR TYPE B	PIR SINGLE RELAY WALL SENSOR WITH 0-10V DIMMING, SELECTABLE SETTINGS FOR OCCUPANCY OR VACANCY. MOUNT AT 46" TO CENTER UNLESS NOTED OTHERWISE. nLIGHT #nWSX PDT LV-DX SERIES OR EQUAL BY LEVITON, HUBBELL, OR WATTSTOPPER.					

FIKE	ALARM SCHED	ULE
SYMBOL	DESCRIPTION	NOTES
ÞØ	CEILING MOUNTED AUDIO-VISUAL NOTIFICATION DEVICE	FIRE ALARM SYSTEM CEILING MOUNT AUDIO/VISUAL ANNUNCIATION DEVICE W/ADJUSTABLE CANDELA SETTINGS. ADJUST CANDELA TO SETTING INDICATED ON AHJ APPROVED FA PLAN.
DMS	DUCT MOUNTED SMOKE	ADDRESSABLE DUCT MOUNTED SMOKE DETECTOR. COORDINATE LOCATION AND CONTROL INTERFACE WITH HC.
FAAP	FIRE ALARM ANNUNCIATOR PANEL	FIRE ALARM SYSTEM WALL MOUNTED ANNUNCIATOR PANEL.
FACP	FIRE ALARM CONTROL PANEL	FIRE ALARM SYSTEM WALL MOUNTED CONTROL PANEL.
FS	FLOW SWITCH	FIRE PROTECTION SYSTEM FLOW SWITCH MONITORED BY FIRE ALARM SYSTEM
H	HEAT DETECTOR	FIRE ALARM SYSTEM CEILING HEAT DETECTOR.
	PULLSTATION	FIRE ALARM SYSTEM PULLSTATION. LOCATE IN PATH OF EGRESS WITHIN 5' OF EGRESS DOOR
S	SMOKE DETECTOR	FIRE ALARM SYSTEM CEILING SMOKE DETECTOR.
TS	TAMPER SWITCH	FIRE PROTECTION SYSTEM TAMPER SWITCH MONITORED BY FIRE ALARM SYSTEM
	WALL MOUNTED AUDIO-VISUAL NOTIFICATION DEVICE	FIRE ALARM SYSTEM WALL MOUNTED AUDIO/VISUAL ANNUNCIATION DEVICE WITH ADJUSTABLE CANDELA SETTINGS. ADJUST CANDELA TO SETTING INDICATED
		ON PLAN.
	WALL MOUNTED VISUAL NOTIFICATION DEVICE	FIRE ALARM SYSTEM WALL MOUNTED AUDIO/VISUAL ANNUNCIATION DEVICE WITH ADJUSTABLE CANDELA SETTINGS. ADJUST CANDELA TO SETTING INDICATED
		ON PLAN.
ACCE	ESS CONTROL S	SCHEDULE
SYMBOL	CALLOUT	NOTES
·	AIPHONE-DOOR RELEASE	ELECTRICAL CONTRACTOR TO PROVIDE SYSTEM DEVICE, RACEWAY AND JUNCTION BOX. REFER TO E900 FOR TYPICAL DOOR ACCESS CONTROL DETAILS. REFER TO SPEC SECTION 28.13.00.

SYMBOL	CALLOUT	NOTES
·	AIPHONE-DOOR RELEASE	ELECTRICAL CONTRACTOR TO PROVIDE SYSTEM DEVICE, RACEWAY AND JUNCTION BOX. REFER TO E900 FOR TYPICAL DOOR ACCESS CONTROL DETAILS. REFER TO SPEC SECTION 28.13.00.
CR	CARD READER	ELECTRICAL CONTRACTOR TO PROVIDE SYSTEM DEVICE, RACEWAY AND JUNCTION BOX. REFER TO E900 FOR TYPICAL DOOR ACCESS CONTROL DETAILS. REFER TO SPEC SECTION 28.13.00.
DPS	DOOR POSITION SWITCH	ELECTRICAL CONTRACTOR TO PROVIDE SYSTEM DEVICE, RACEWAY AND JUNCTION BOX. REFER TO E900 FOR TYPICAL DOOR ACCESS CONTROL DETAILS. REFER TO SPEC SECTION 28.13.00.
ES	ELECTRIC STRIKE	ELECTRICAL CONTRACTOR TO PROVIDE SYSTEM DEVICE, RACEWAY AND JUNCTION BOX. REFER TO E900 FOR TYPICAL DOOR ACCESS CONTROL DETAILS. REFER TO SPEC SECTION 28.13.00.

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DE A THR	A SINGLE EADED HERWISE	
E A THR	A SINGLE EADED VIDE TWO	
E A THR	A SINGLE EADED HERWISE	
E A THR	A SINGLE EADED HERWISE	$\overline{\langle}$
E A THR	A SINGLE EADED VIDE TWO	
NG FOR A DE A THR _OW VOL	A SINGLE EADED .TAGE	
NG FOR A DE A THR LOW VOL		
NG FOR A DE A THR LOW VOL		
E A THR	A SINGLE EADED VIDE TWO	

AUDIC	AUDIO ENHANCEMENT DEVICE SCHEDULE								
SYMBOL	DESCRIPTION	NOTES							
C	CLASSROOM CAMERA	ELECTRICAL CONTRACTOR TO PROVIDE 4" SQUARE BOX WITH EXTENSION RING FOR A SINGLE GANG DEVICE AND A 3/4" CONDUIT TO ACCESSIBLE CEILING MINIMUM. PROVIDE A THREADED BUSHING ON THE CONDUIT END. PROVIDE TWO CAT6 CABLES AND JACKS UNLESS OTHERWISE NOTED. REFER TO AUDIO ENHANCEMENT DETAILS SHOWN OF SHEET E902. COORDINATE ALL REQUIREMENTS WITH MANUFACTUER.							
EC	EMERGENCY CALL	ELECTRICAL CONTRACTOR TO PROVIDE 4" SQUARE BOX WITH EXTENSION RING FOR A SINGLE GANG DEVICE AND A 3/4" CONDUIT TO ACCESSIBLE CEILING MINIMUM. PROVIDE A THREADED BUSHING ON THE CONDUIT END. MOUNT AT 46" AFF UNLESS NOTED OTHERWISE. PROVIDE A PURPLE CAT6 CABLE AND JACKS UNLESS OTHERWISE NOTED. REFER TO AUDIO ENHANCEMENT DETAILS SHOWN OF SHEET E902. COORDINATE ALL REQUIREMENTS WITH MANUFACTUER.							
$\forall \forall \forall$	PAGING HORN	ELECTRICAL CONTRACTOR TO PROVIDE 4" SQUARE BOX WITH EXTENSION RING FOR A SINGLE GANG DEVICE AND A 3/4" CONDUIT TO ACCESSIBLE CEILING MINIMUM. PROVIDE A THREADED BUSHING ON THE CONDUIT END. PROVIDE 18/2 WIRING TO SPEAKER UNLESS NOTED OTHERWISE. COORDINATE EXACT REQUIREMENTS WITH LOW VOLTAGE CONTRACTOR. REFER TO AUDIO ENHANCEMENT DETAILS SHOWN OF SHEET E902. COORDINATE ALL REQUIREMENTS WITH MANUFACTUER.							
A	SPEAKER CEILING CLASSROOM	ELECTRICAL CONTRACTOR TO PROVIDE 4" SQUARE BOX WITH EXTENSION RING FOR A SINGLE GANG DEVICE AND A 3/4" CONDUIT TO ACCESSIBLE CEILING MINIMUM. PROVIDE A THREADED BUSHING ON THE CONDUIT END. PROVIDE 18/2 WIRING TO SPEAKER UNLESS NOTED OTHERWISE. COORDINATE EXACT REQUIREMENTS WITH LOW VOLTAGE CONTRACTOR. REFER TO AUDIO ENHANCEMENT DETAILS SHOWN OF SHEET E902. COORDINATE ALL REQUIREMENTS WITH MANUFACTUER.							
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ELECTRICAL SHEET INDEX

SITE PLAN - ELECTRICAL

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E104L E104P

E105L

E105P

E106L

E106P

E107L

E107P

E108

E109

E600

E601

E800

E801

E802

E803

E804

E805

E900

E901

E902

SYMBOLS, ABBREVIATIONS & DETAILS - ELECTRICAL

BASEMENT REMOVAL PLAN - ELEC. - AREA A

BASEMENT REMOVAL PLAN - ELEC. - AREA C

FIRST FLOOR REMOVAL PLAN - ELEC. - AREA A

FIRST FLOOR REMOVAL PLAN - ELEC. - AREA C

SECOND FLOOR REMOVAL PLAN - ELEC. - AREA A

SECOND FLOOR REMOVAL PLAN - ELEC. - AREA C

FIRST FLOOR - POWER & SYSTEMS - AREA A

FIRST FLOOR - POWER & SYSTEMS - AREA B

FIRST FLOOR - POWER & SYSTEMS - AREA C

SECOND FLOOR - POWER & SYSTEMS - AREA A

SECOND FLOOR - POWER & SYSTEMS - AREA B

SECOND FLOOR - POWER & SYSTEMS - AREA C

DEMOLITION ONE LINE DIAGRAM - ELECTRICAL

AUDIO ENHANCEMENT DETAILS - ELECTRICAL

FIRST FLOOR - LIGHTING - AREA A

FIRST FLOOR - LIGHTING - AREA B

FIRST FLOOR - LIGHTING - AREA C

SECOND FLOOR - LIGHTING - AREA A

SECOND FLOOR - LIGHTING - AREA B

SECOND FLOOR - LIGHTING - AREA C

NEW ONE LINE DIAGRAM - ELECTRICAL

EQUIPMENT SCHEDULES - ELECTRICAL

PANEL SCHEDULES - ELECTRICAL

DETAILS - ELECTRICAL

DETAILS - ELECTRICAL

BASEMENT - ELEC. - AREA C

ROOF PLAN - ELEC.

4	ELECTRICAL DISCONNECT	EWC	ELECTRIC WATER COOLER
M	MOTOR CONNECTION	FAAP	FIRE ALARM ANNUNCIATOR PANEL
\mathcal{A}		FACP	FIRE ALARM CONTROL PANEL
	SPECIAL ELECTRICAL CONNECTION	GC	GENERAL CONTRACTOR
	PUSH BUTTON	GFCI	GROUND FAULT CURRENT INTERRUPTER
	OVERHEAD DOOR CONTROL	GFI	GROUND FAULT INTERRUPTER
	ELECTRICAL PANEL	GRD	GROUND
$(\mathbf{X}) \text{ OR } \langle \mathbf{Y} \rangle$	SEE NOTE SYMBOL	HP	HORSE POWER
<u> </u>	SURFACE MOUNTED DIVIDED RACEWAY	HC	HEATING, VENTILATING CONTRACTOR
		J-BOX	JUNCTION BOX
		MDP	MAIN DISTRIBUTION PANEL
		MLO	MAIN LUG ONLY
		PC	PLUMBING CONTRACTOR
		PNL	PANEL
		RM	ROOM
		TCP	TEMPERATURE CONTROL PANEL
		WP	WEATHERPROOF
		XFMR	TRANSFORMER
		WG	
	$\bigvee \longrightarrow \bigvee \longrightarrow \bigvee$	$\bigvee \bigvee \bigvee$	

<u>GENERAL:</u>

VOLUME CONTROL

MICROPHONE

SECURITY INTERCOM/AI PHONE

V

∕SI∕

 $\langle M \rangle$

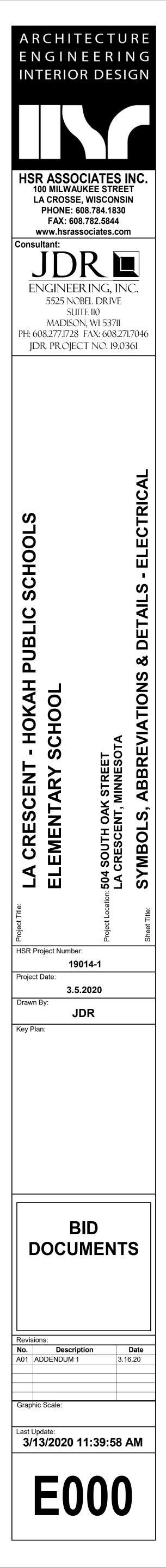
ABBREVIATIONS:

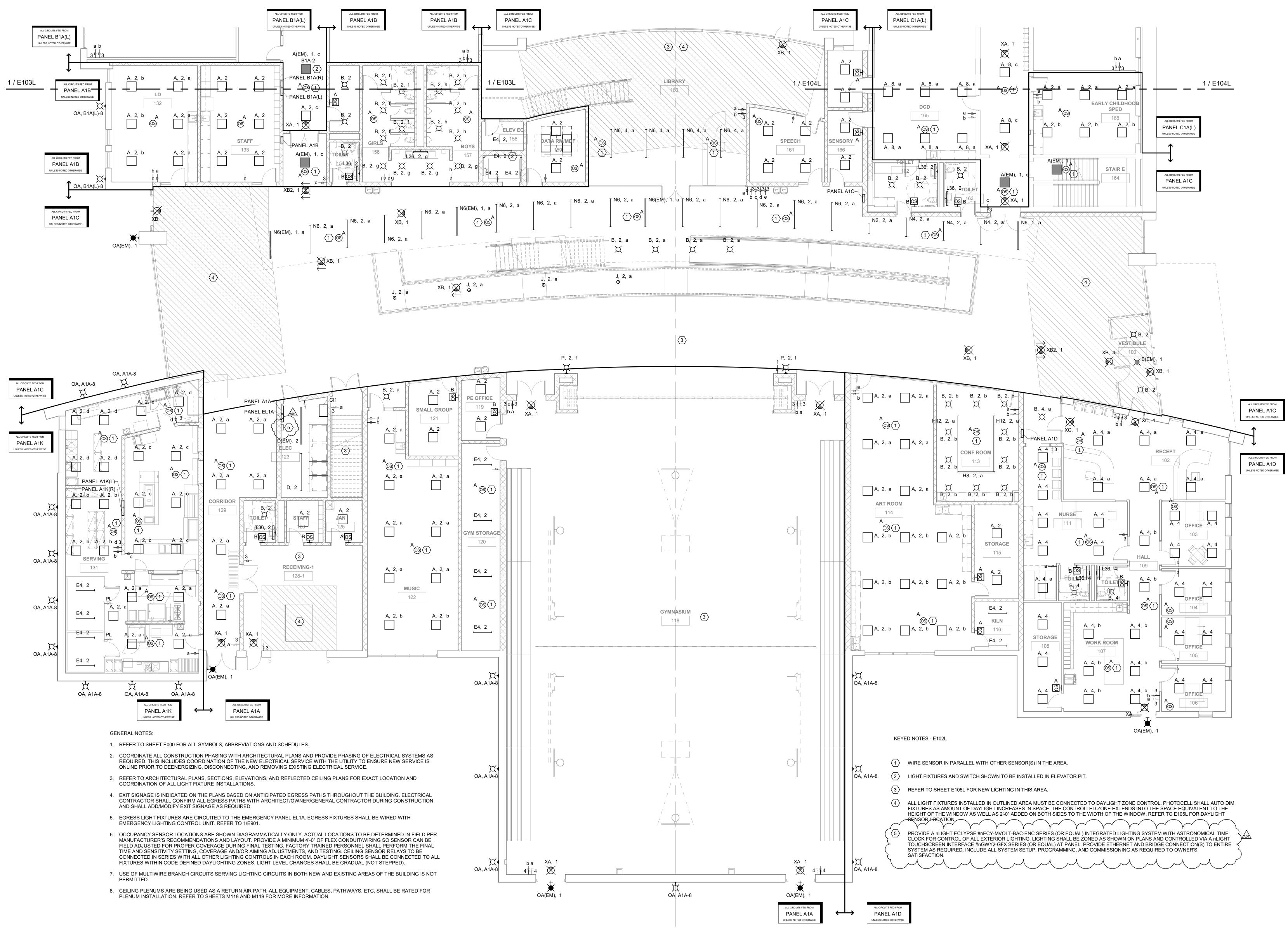
(E) EXISTING TO REMAIN

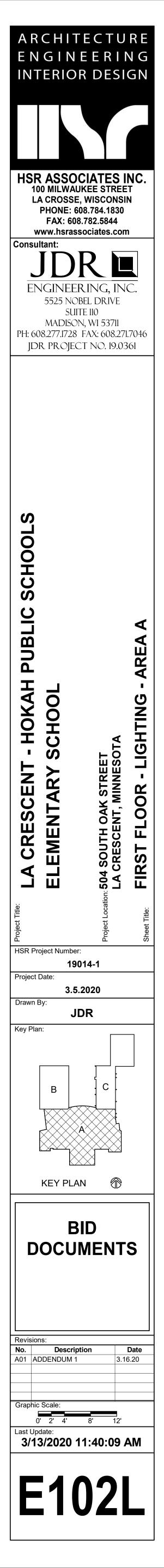
CR CORD REEL

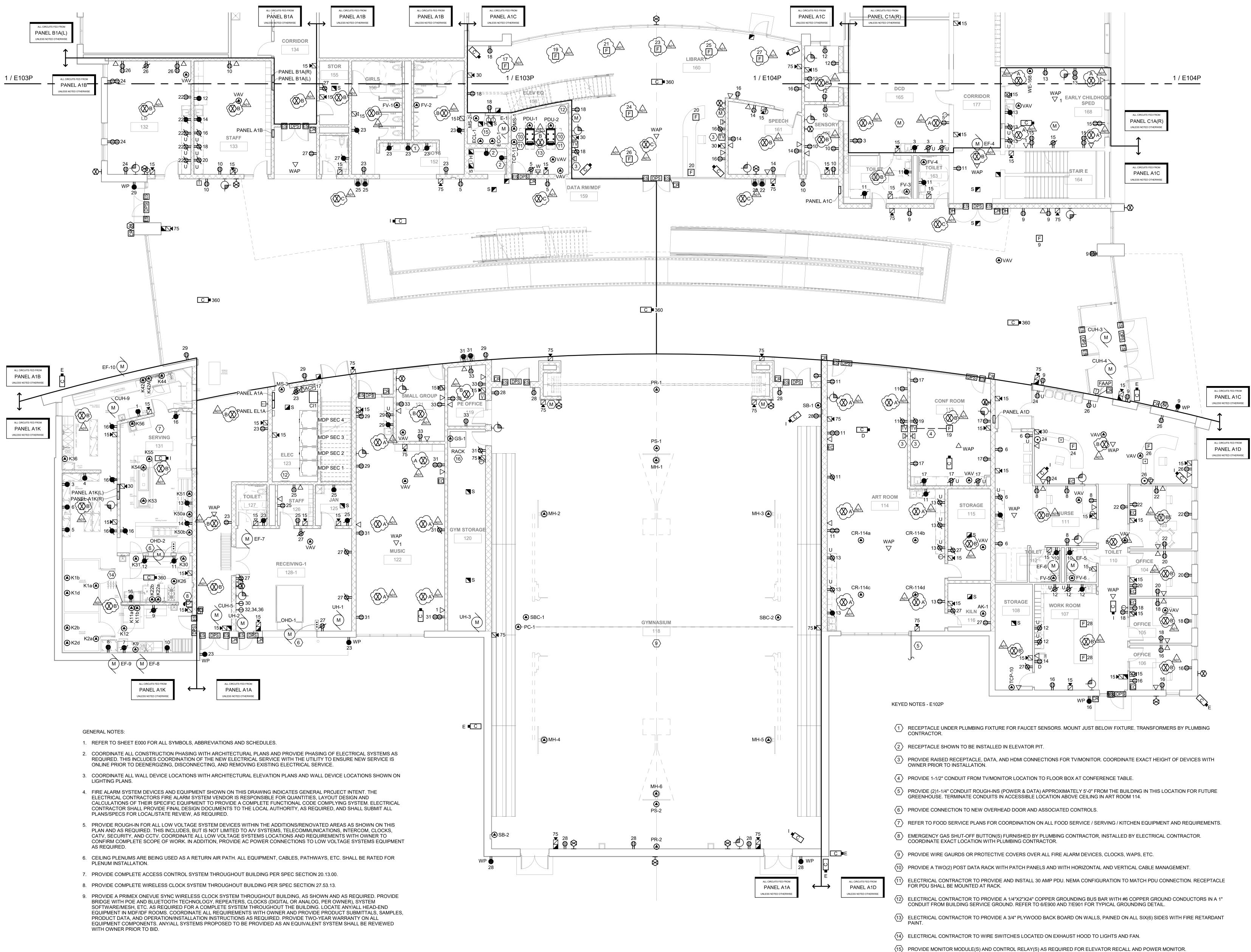
CD CORD DROP

RECEPT	ACLE SCHEDULE		
SYMBOL	CALLOUT	VOLTS	NOTES
ф	CEILING RECEPTACLE	120V 1P 2W	MOUNT IN CEILING UNLESS NOTED OTHERWISE.
د دR	CORD REEL CONNECTION	120V 1P 2W	PROVIDE A HUBBELL #HBL 45123R20 CORD REEL. COORDINATE EXACT REQUIREMENTS WITH OWNER.
⇒ D	DEDICATED DUPLEX RECEPTACLE	120V 1P 2W	MOUNT @ 18" UNLESS NOTED OTHERWISE.
	DOUBLE DUPLEX RECEPTACLE	120V 1P 2W	MOUNT @ 18" UNLESS NOTED OTHERWISE.
\Rightarrow	DUPLEX RECEPTACLE	120V 1P 2W	MOUNT @ 18" UNLESS NOTED OTHERWISE.
F	FLOOR BOX	120V 1P 2W	WIREMOLD #RFB4 SERIES FLOOR BOX. UNLESS OTHERWISE NOTED, PROVIDE WITH TWO DUPLEX RECEPTACLES AND TWO CAT CABLES / JACKS DATA COMPLETE WITH ALL REQUIRED HARDWARE COORDINATE CONCRETE WORK WITH G.C. PROVIDE 1-1/2" CONDUIT MINIMUM FOR DATA CABLING.
\odot	FURNITURE CONNECTION	120V 1P 2W	PROVIDE CONNECTION/WHIP TO OWNER PROVIDED FURNITURE.
=●	GFCI DUPLEX RECEPTACLE	120V 1P 2W	MOUNT @ 18" UNLESS NOTED OTHERWISE.
-\$\$	RAISED DOUBLE DUPLEX RECEPTACLE	120V 1P 2W	MOUNT @ 46" UNLESS NOTED OTHERWISE.
-\$	RAISED DUPLEX RECEPTACLE	120V 1P 2W	MOUNT @ 46" UNLESS NOTED OTHERWISE.
	RAISED GFCI DUPLEX RECEPTACLE	120V 1P 2W	MOUNT @ 46" UNLESS NOTED OTHERWISE.
\rightarrow	SIMPLEX RECEPTACLE	SEE PLANS	MOUNT @ 18" UNLESS NOTED OTHERWISE.
⇒ U	USB DUPLEX RECEPTACLE	120V 1P 2W	MOUNT @ 18" UNLESS NOTED OTHERWISE.
=● WP	WEATHER PROOF GFCI DUPLEX RECEPTACLE	120V 1P 2W	MOUNT @ 18" UNLESS NOTED OTHERWISE. PROVIDE WITH HEAVY DUTY WEATHERPROOF "IN USE" COVER.



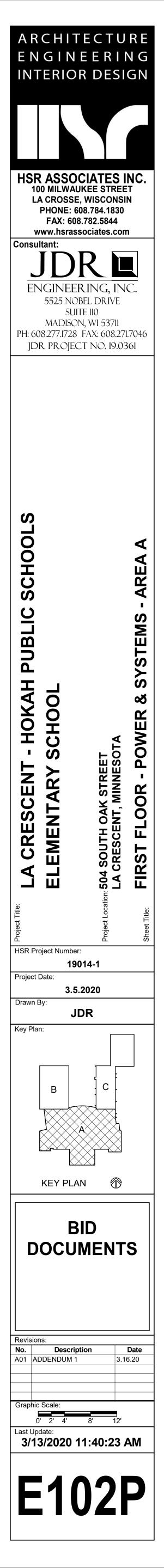


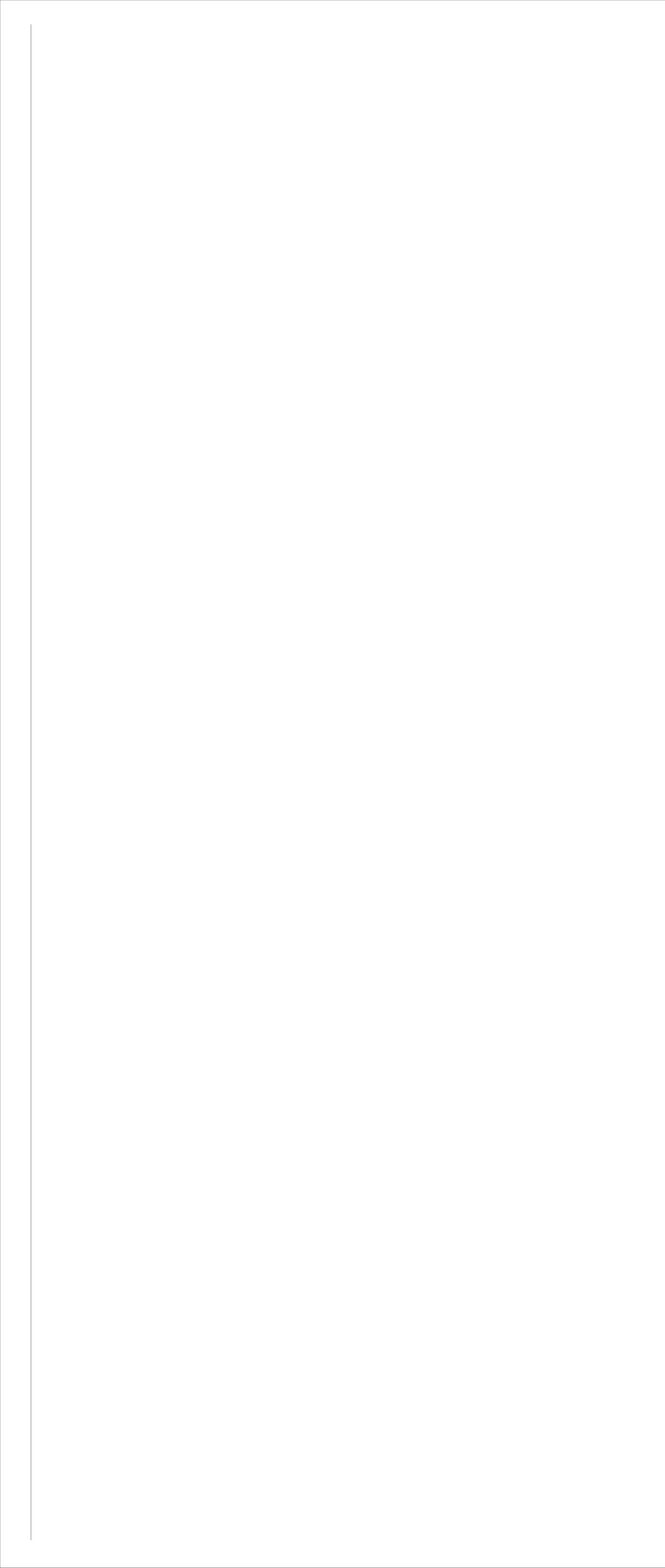


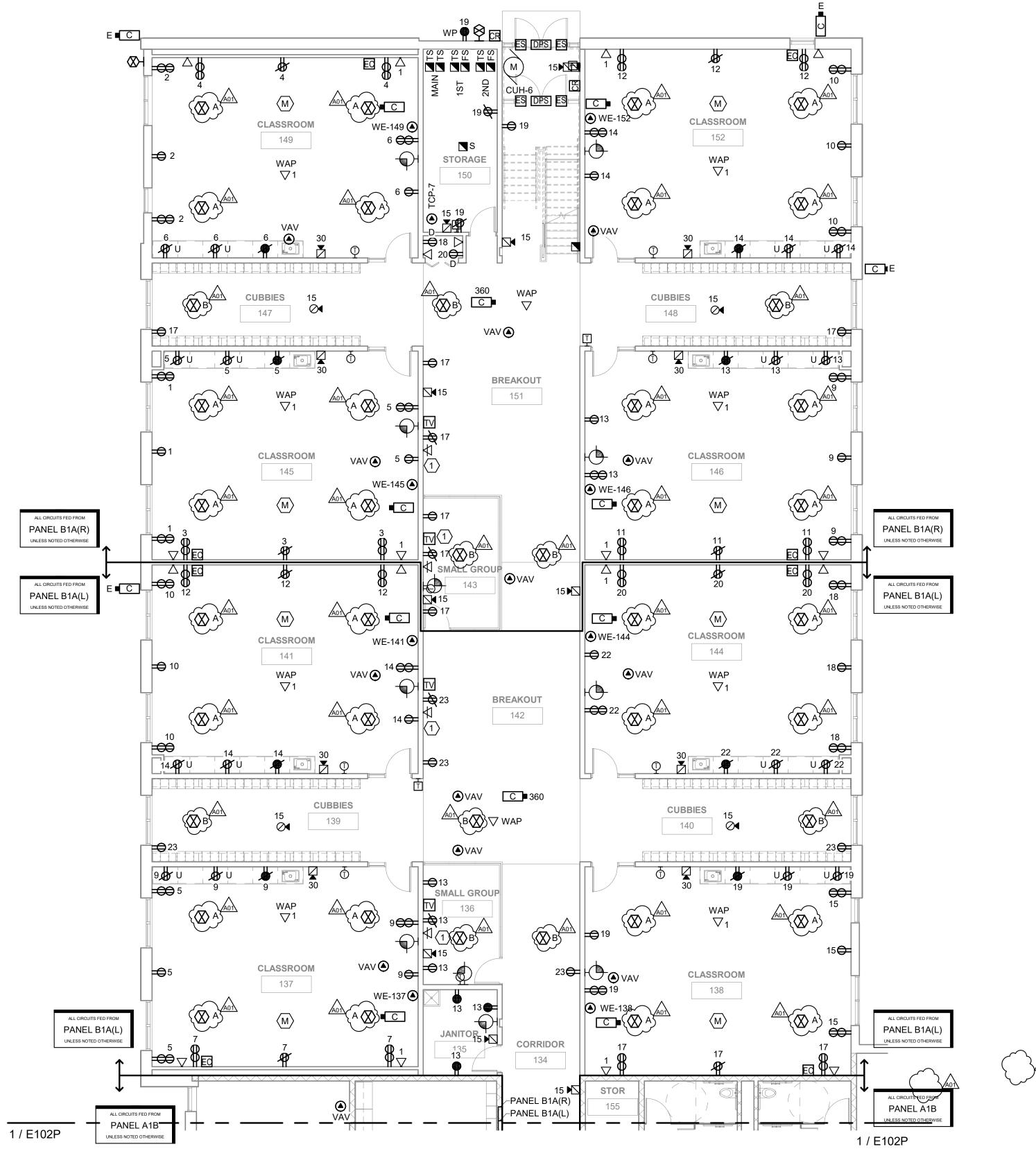


T FIRST FLOOR - POWER & SYSTEMS - AREA A E102P SCALE: 1/8" = 1'-0"

(16) ELECTRICAL CONTRACTOR TO PROVIDE STAND ALONE SOUND SYSTEM FOR GYM 118.







<u>FIRST FLOOR - POWER & SYSTEMS - AREA B</u> E103P SCALE: 1/8" = 1'-0"

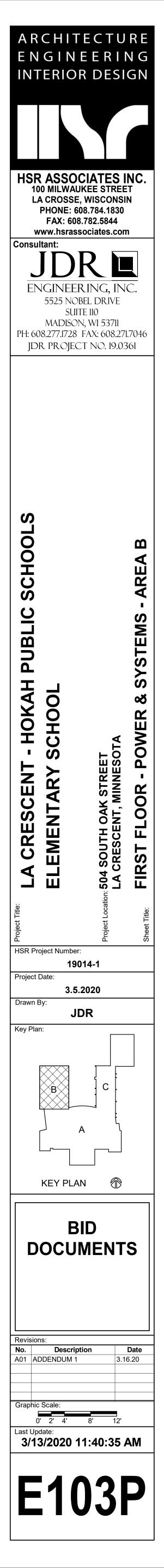
GENERAL NOTES:

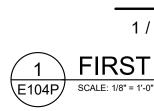
- 1. REFER TO SHEET E000 FOR ALL SYMBOLS, ABBREVIATIONS AND SCHEDULES.
- 2. COORDINATE ALL CONSTRUCTION PHASING WITH ARCHITECTURAL PLANS AND PROVIDE PHASING OF ELECTRICAL SYSTEMS AS REQUIRED. THIS INCLUDES COORDINATION OF THE NEW ELECTRICAL SERVICE WITH THE UTILITY TO ENSURE NEW SERVICE IS ONLINE PRIOR TO DEENERGIZING, DISCONNECTING, AND REMOVING EXISTING ELECTRICAL SERVICE.
- 3. COORDINATE ALL WALL DEVICE LOCATIONS WITH ARCHITECTURAL ELEVATION PLANS AND WALL DEVICE LOCATIONS SHOWN ON LIGHTING PLANS.
- 4. FIRE ALARM SYSTEM DEVICES AND EQUIPMENT SHOWN ON THIS DRAWING INDICATES GENERAL PROJECT INTENT. THE ELECTRICAL CONTRACTORS FIRE ALARM SYSTEM VENDOR IS RESPONSIBLE FOR QUANTITIES, LAYOUT DESIGN AND CALCULATIONS OF THEIR SPECIFIC EQUIPMENT TO PROVIDE A COMPLETE FUNCTIONAL CODE COMPLYING SYSTEM. ELECTRICAL CONTRACTOR SHALL PROVIDE FINAL DESIGN DOCUMENTS TO THE LOCAL AUTHORITY, AS REQUIRED, AND SHALL SUBMIT ALL PLANS/SPECS FOR LOCAL/STATE REVIEW, AS REQUIRED.
- 5. PROVIDE ROUGH-IN FOR ALL LOW VOLTAGE SYSTEM DEVICES WITHIN THE ADDITIONS/RENOVATED AREAS AS SHOWN ON THIS PLAN AND AS REQUIRED. THIS INCLUDES, BUT IS NOT LIMITED TO A/V SYSTEMS, TELECOMMUNICATIONS, INTERCOM, CLOCKS, CATV, SECURITY, AND CCTV. COORDINATE ALL LOW VOLTAGE SYSTEMS LOCATIONS AND REQUIREMENTS WITH OWNER TO CONFIRM COMPLETE SCOPE OF WORK. IN ADDITION, PROVIDE AC POWER CONNECTIONS TO LOW VOLTAGE SYSTEMS EQUIPMENT AS REQUIRED.
- 6. CEILING PLENUMS ARE BEING USED AS A RETURN AIR PATH. ALL EQUIPMENT, CABLES, PATHWAYS, ETC. SHALL BE RATED FOR PLENUM INSTALLATION.
- 7. PROVIDE COMPLETE ACCESS CONTROL SYSTEM THROUGHOUT BUILDING PER SPEC SECTION 20.13.00.
- 8. PROVIDE COMPLETE WIRELESS CLOCK SYSTEM THROUGHOUT BUILDING PER SPEC SECTION 27.53.13.
- 9. PROVIDE A PRIMEX ONEVUE SYNC WIRELESS CLOCK SYSTEM THROUGHOUT BUILDING, AS SHOWN AND AS REQUIRED. PROVIDE BRIDGE WITH POE AND BLUETOOTH TECHNOLOGY, REPEATERS, CLOCKS (DIGITAL OR ANALOG, PER OWNER), SYSTEM SOFTWARE/MESH, ETC. AS REQUIRED FOR A COMPLETE SYSTEM THROUGHOUT THE BUILDING. LOCATE ANY/ALL HEAD-END EQUIPMENT IN MDF/IDF ROOMS. COORDINATE ALL REQUIREMENTS WITH OWNER AND PROVIDE PRODUCT SUBMITTALS, SAMPLES, PRODUCT DATA, AND OPERATION/INSTALLATION INSTRUCTIONS AS REQUIRED. PROVIDE TWO-YEAR WARRANTY ON ALL EQUIPMENT COMPONENTS. ANY/ALL SYSTEMS PROPOSED TO BE PROVIDED AS AN EQUIVALENT SYSTEM SHALL BE REVIEWED WITH OWNER PRIOR TO BID.

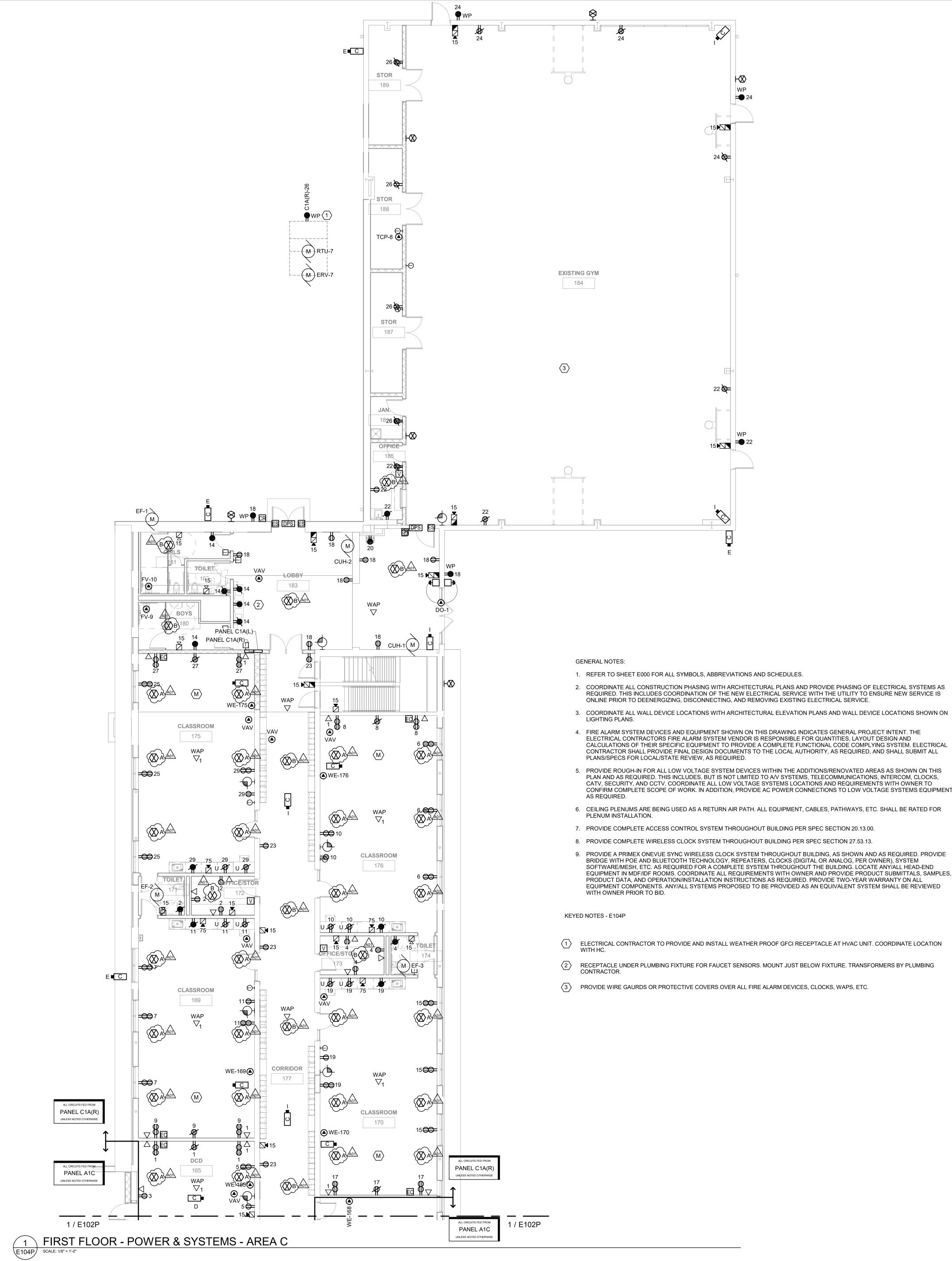
1 PROVIDE RAISED RECEPTACLE, DATA, AND HDMI CONNECTIONS FOR TV/MONITOR. COORDINATE EXACT HEIGHT OF DEVICES WITH

KEYED NOTES - E103P

OWNER PRIOR TO INSTALLATION.







COORDINATE ALL CONSTRUCTION PHASING WITH ARCHITECTURAL PLANS AND PROVIDE PHASING OF ELECTRICAL SYSTEMS AS REQUIRED. THIS INCLUDES COORDINATION OF THE NEW ELECTRICAL SERVICE WITH THE UTILITY TO ENSURE NEW SERVICE IS ONLINE PRIOR TO DEENERGIZING, DISCONNECTING, AND REMOVING EXISTING ELECTRICAL SERVICE.

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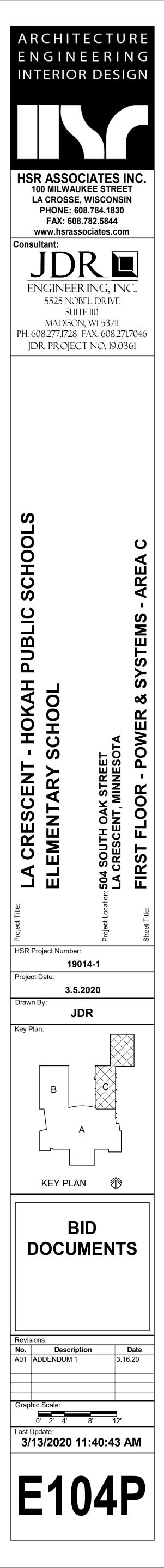
CATV, SECURITY, AND CCTV. COORDINATE ALL LOW VOLTAGE SYSTEMS LOCATIONS AND REQUIREMENTS WITH OWNER TO CONFIRM COMPLETE SCOPE OF WORK. IN ADDITION, PROVIDE AC POWER CONNECTIONS TO LOW VOLTAGE SYSTEMS EQUIPMENT

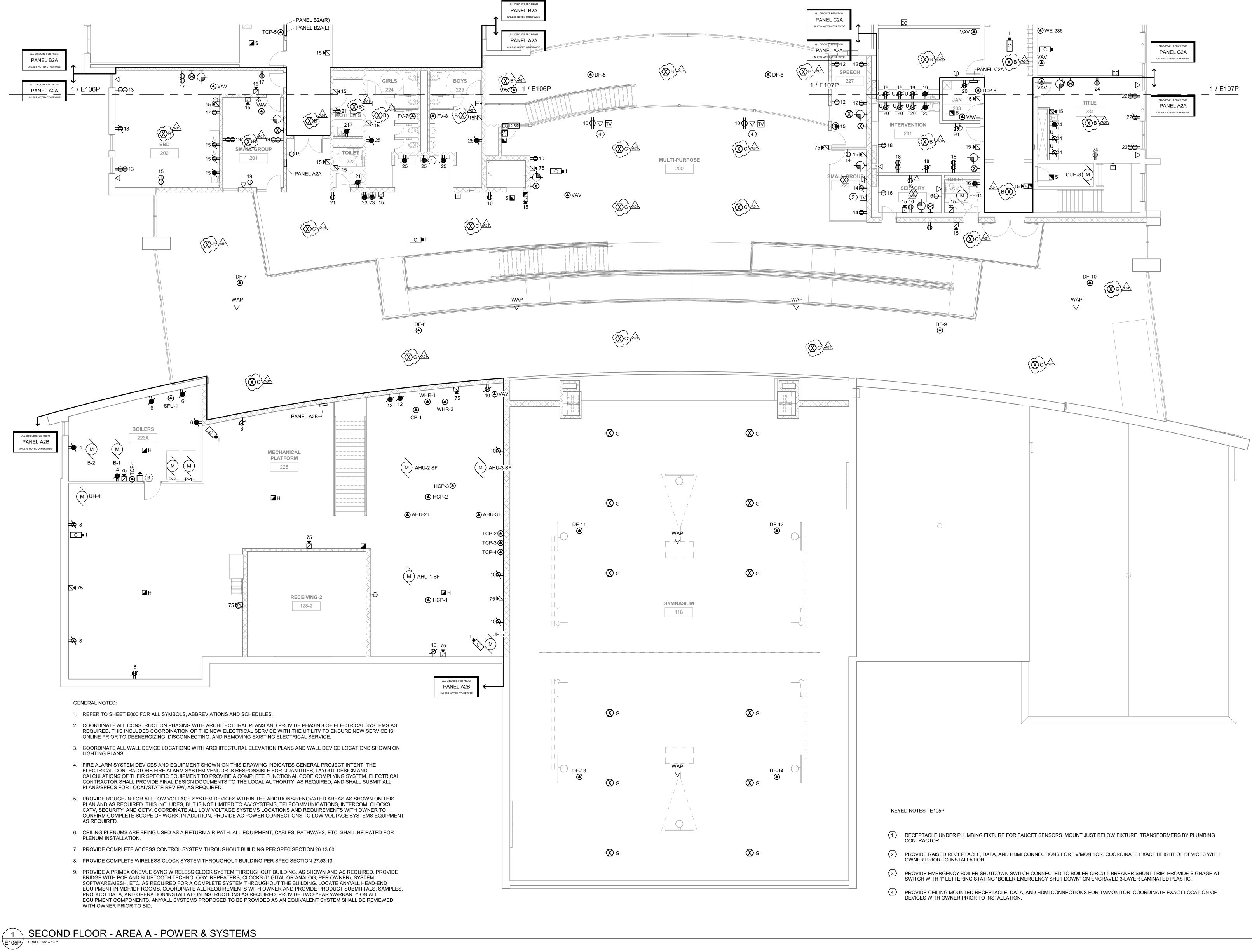
6. CEILING PLENUMS ARE BEING USED AS A RETURN AIR PATH. ALL EQUIPMENT, CABLES, PATHWAYS, ETC. SHALL BE RATED FOR

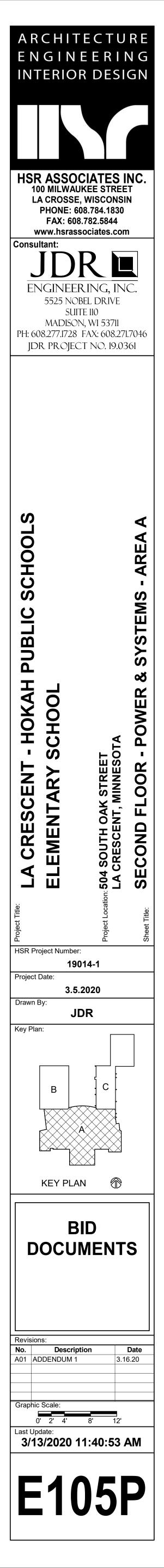
7. PROVIDE COMPLETE ACCESS CONTROL SYSTEM THROUGHOUT BUILDING PER SPEC SECTION 20.13.00.

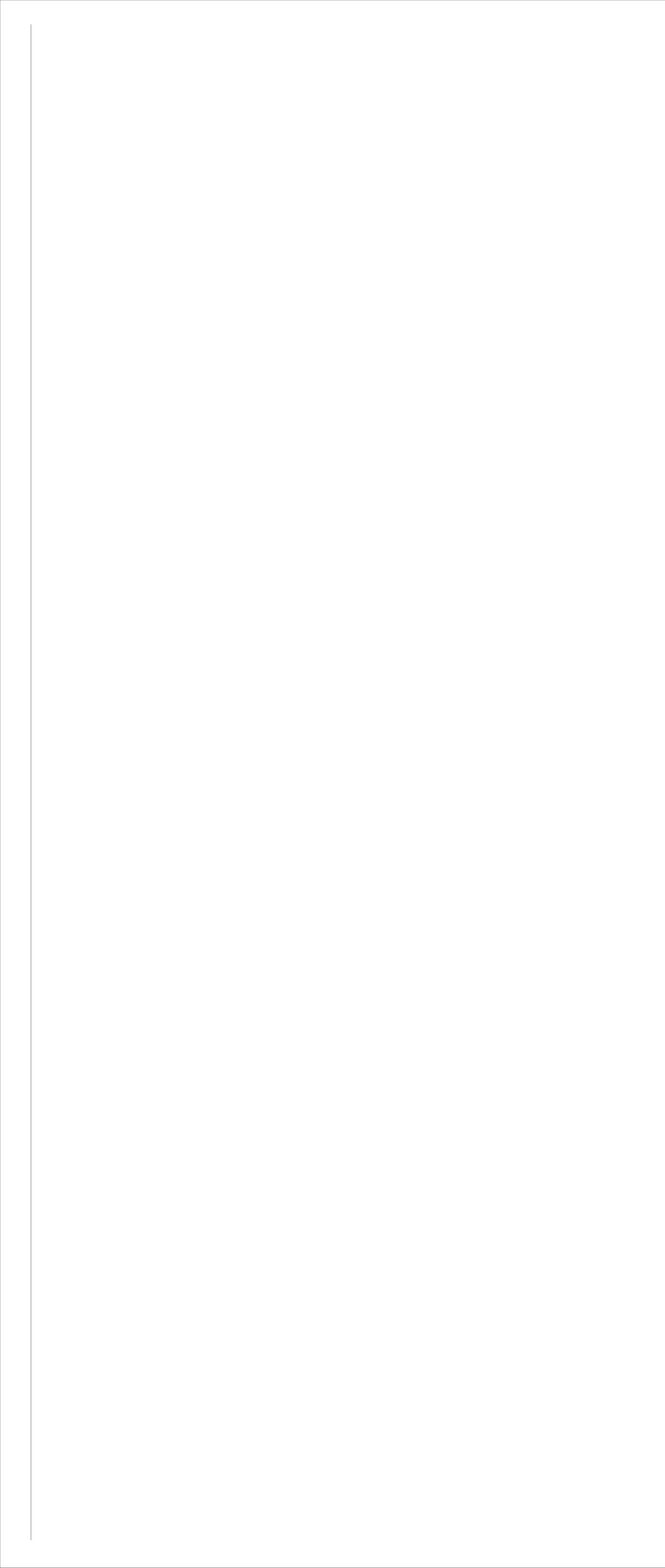
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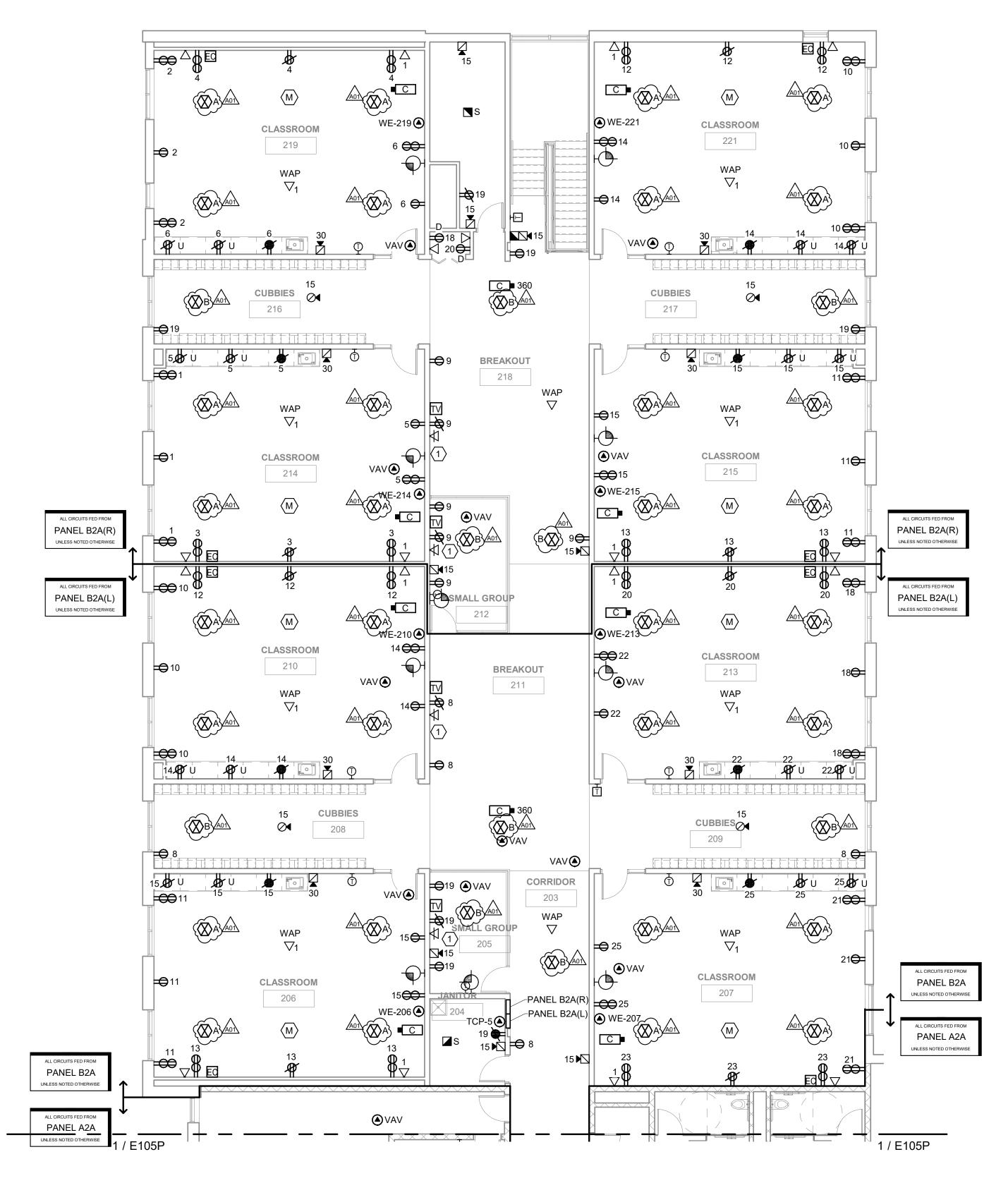
(1) ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL WEATHER PROOF GFCI RECEPTACLE AT HVAC UNIT. COORDINATE LOCATION WITH HC.











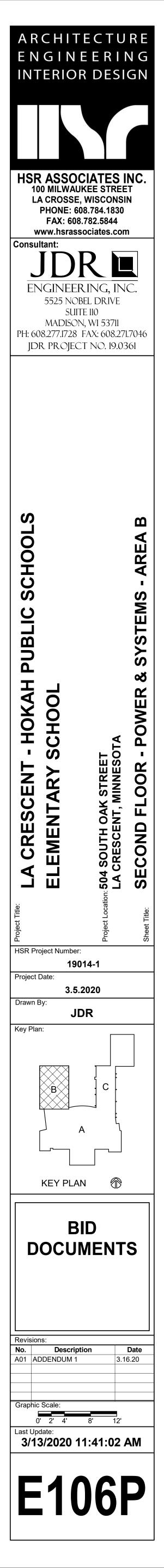
1 SECOND FLOOR - POWER & SYSTEMS - AREA B E106P SCALE: 1/8" = 1'-0"

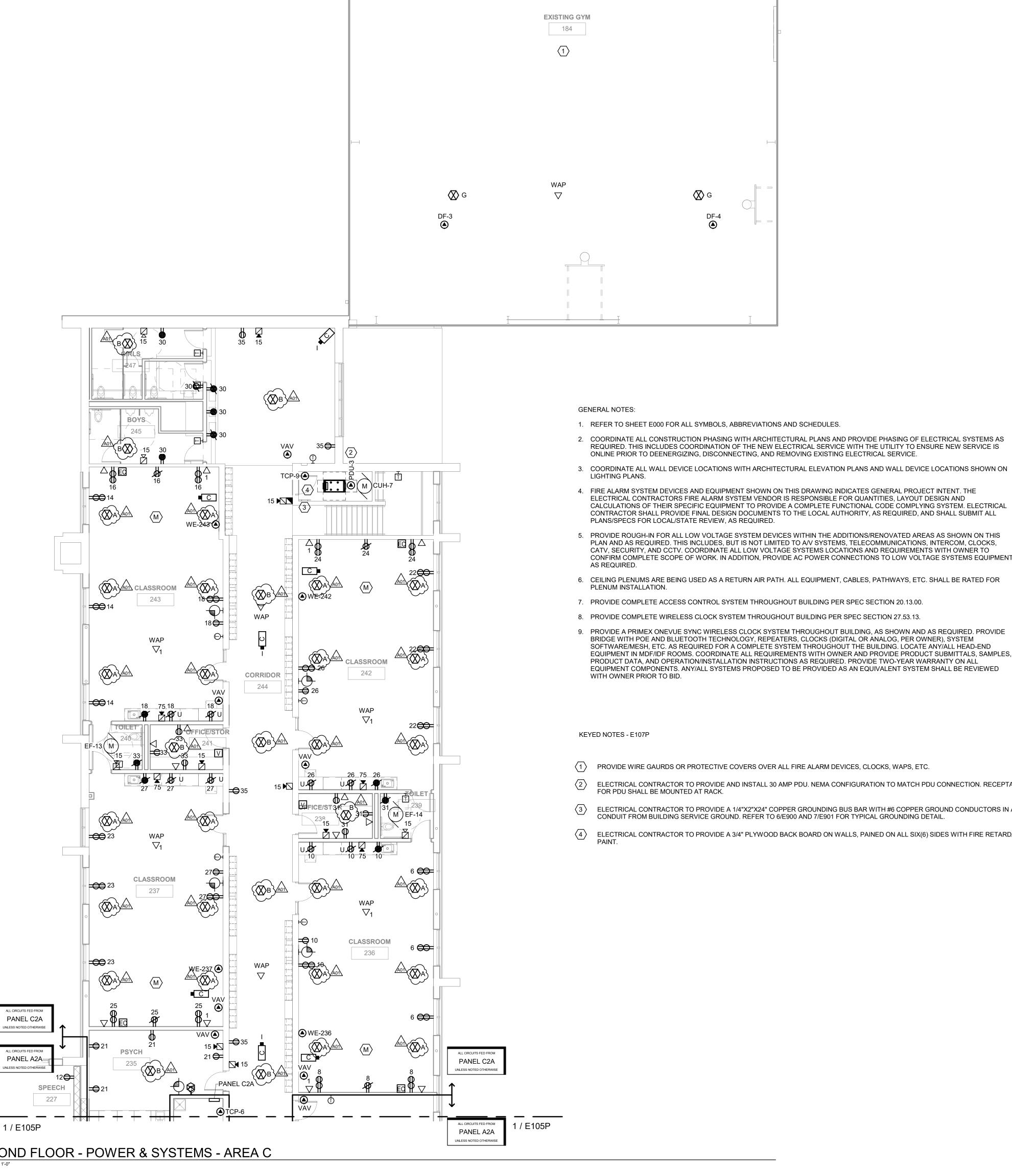
GENERAL NOTES:

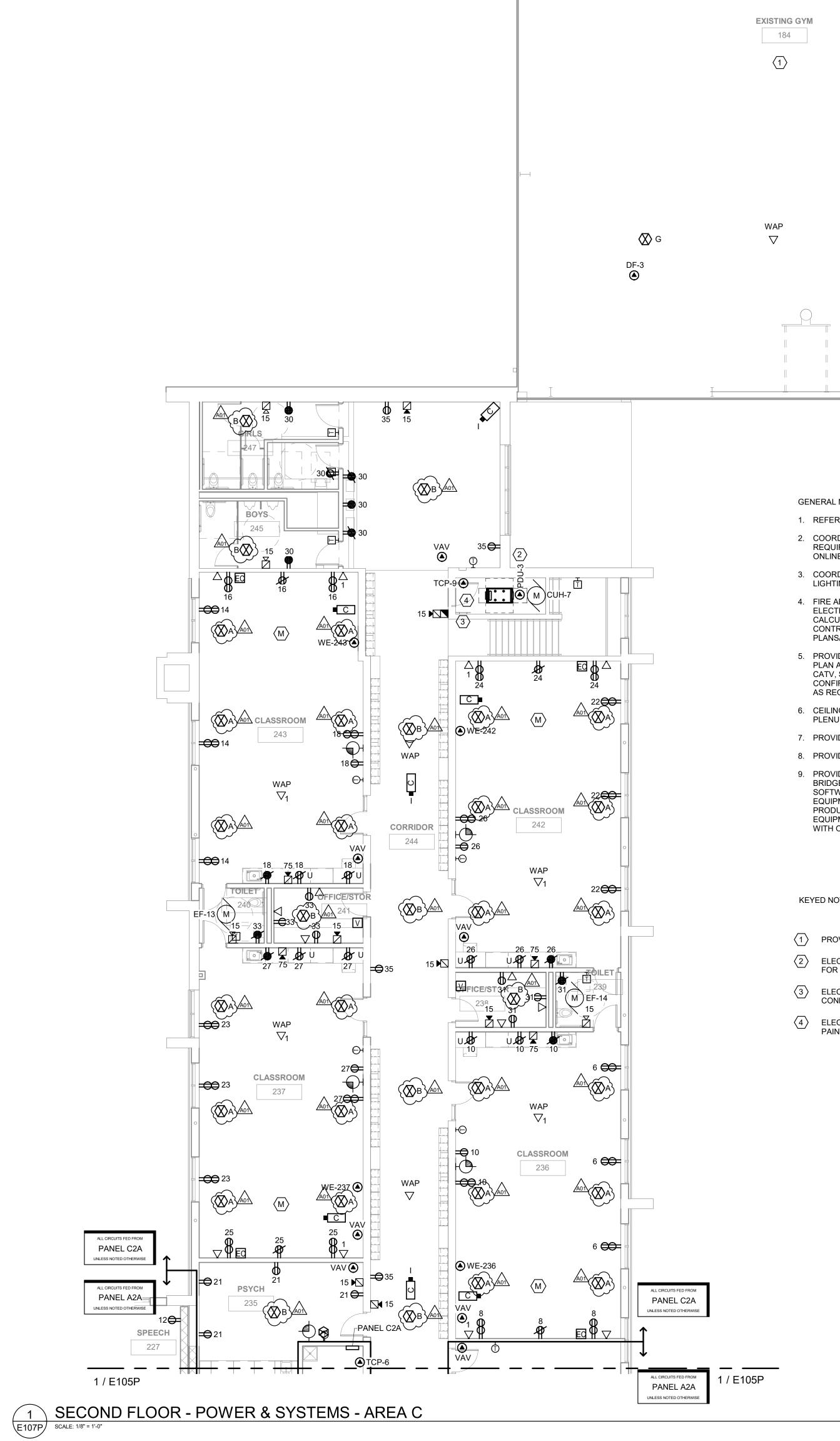
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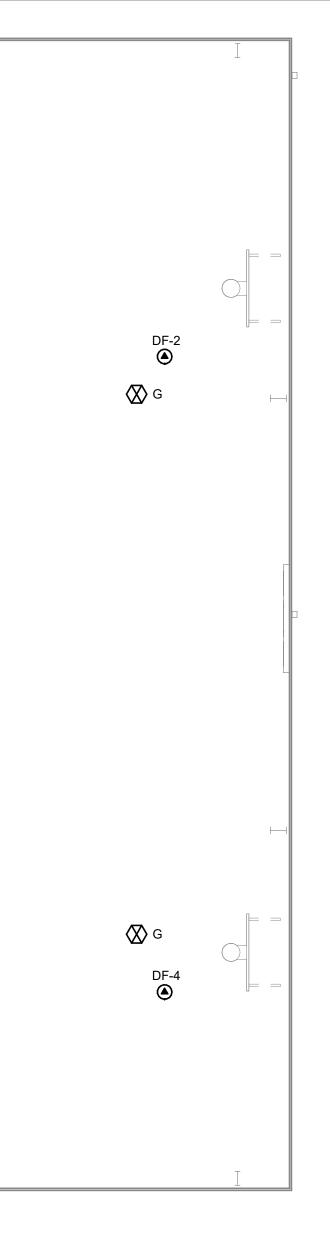
KEYED NOTES - E106P

PROVIDE RAISED RECEPTACLE, DATA, AND HDMI CONNECTIONS FOR TV/MONITOR. COORDINATE EXACT HEIGHT OF DEVICES WITH OWNER PRIOR TO INSTALLATION.









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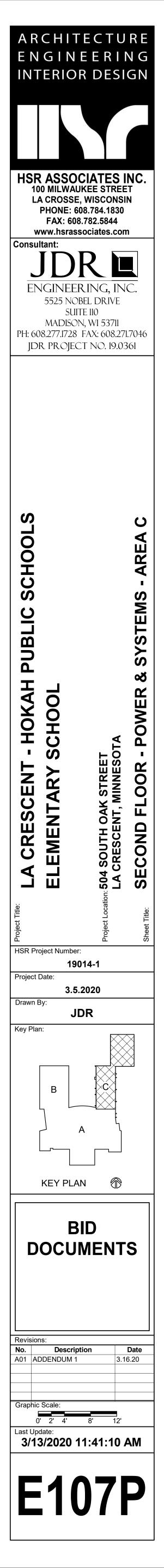
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1 PROVIDE WIRE GAURDS OR PROTECTIVE COVERS OVER ALL FIRE ALARM DEVICES, CLOCKS, WAPS, ETC.

2 ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL 30 AMP PDU. NEMA CONFIGURATION TO MATCH PDU CONNECTION. RECEPTACLE FOR PDU SHALL BE MOUNTED AT RACK.

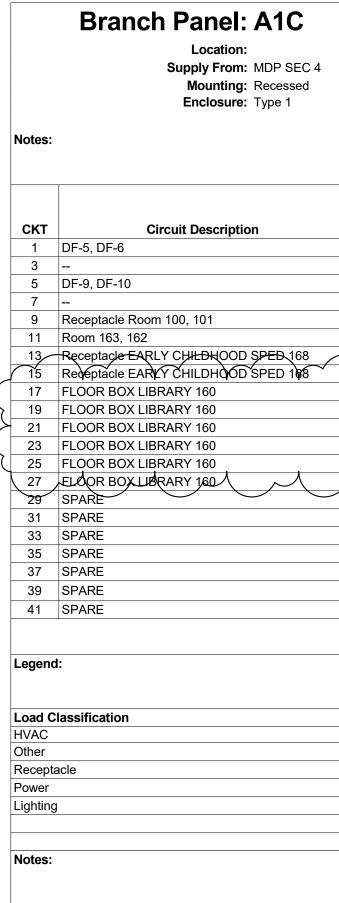
(3) ELECTRICAL CONTRACTOR TO PROVIDE A 1/4"X2"X24" COPPER GROUNDING BUS BAR WITH #6 COPPER GROUND CONDUCTORS IN A 1" CONDUIT FROM BUILDING SERVICE GROUND. REFER TO 6/E900 AND 7/E901 FOR TYPICAL GROUNDING DETAIL.

4 ELECTRICAL CONTRACTOR TO PROVIDE A 3/4" PLYWOOD BACK BOARD ON WALLS, PAINED ON ALL SIX(6) SIDES WITH FIRE RETARDANT



Location: CORRIDOR 129 Supply From: MDP SEC 4 Mounting: Recessed Enclosure: Type 1				Volts: 208Y/120V 3P 4W Phases: 3 Wires: 4							A.I.C. Rating: 22,000 (FIELD VERIFY) Mains Type: Mains Rating: 225 A MCB Rating:		
Notes:													
скт	Circuit Description	Trip	Poles		A		3		C	Poles	Trip	Circuit Description	скт
1	UH-1, UH-2, UH-3 - UNIT HEATER	20 A	1	0.3	1.5	-	-			1	20 A	LIGHTING 1ST FLOOR AREA A	2
3	CUH-5 - CAB HEATER	20 A	1	0.0	1.0	0.7	1.2			1	20 A	LIGHTING 1ST FLOOR AREA A	4
5	EF-8, EF-9, EF-10	20 A	2					1.7	1.5	1	20 A	LIGHTING 1ST FLOOR AREA A	6
7				1.7	0.4					1	20 A	EXTERIOR LIGHTING	8
9	DF-11, DF-12, DF-13, DF-14	20 A	2			0.2	1.2			1	20 A	SB-1 - SCORE BOARD	10
11								0.2	1.2	1	20 A	SB-2 - SCORE BOARD	12
13	VAV CONTROL AREA A	20 A	1	0.2	1.2					1	20 A	SBC-1 - SCORE BOARD CONTROLLER	14
15	CUH-9 - CAB HEATER	20 A	1			0.7	1.2			1	20 A	SBC-2 - SCORE BOARD CONTROLLER	16
17	FACP	20 A	1					0	1.2	1	20 A	PC-1 - POWER CURTAIN	18
19	MS-3 - MINI SPLIT	20 A	2	0.1	1.2					1	20 A	P-1 - PROJECTOR	20
21						0.1	1.2			1	20 A	P-2 - PROJECTOR	22
23	RECP RM. 123, 127, 129	20 A	1					1.1	1.2	1	20 A	PS-1, PS-2 - PROJECTOR SCREEN	24
25	RECP RM. 126, 125	20 A	1	0.9	1.2					1	20 A	GS-1 - GYM SOUND SYSTEM	26
27	EF-7	20 A	1			0.9	1.6			1	20 A	RECP RM 118	28
29	RECP RM 122	20 A	1					0.7	0.2	1	20 A	WASHING MACHINE RM 128	30
31	RECP RM 122	20 A	1	1.1	14.4					3	50 A	DRYER RM 128	32
33	RECP RM 119, 120	20 A	1			1.3	0						34
35	OHD-1 - OVERHEAD DOOR	20 A	1					1.9	0				36
37	SPARE	20 A	1	0	1.1					1	20 A	EXTERIOR POLE LIGHTS	38
39	SPARE	20 A	1			0	0			1	20 A	SPARE	40
41	SPARE	20 A	1					0	0	1		SPARE	42
43	SPARE	20 A	1	0	0					1		SPARE	44
45	SPARE	20 A	1			0	0			1		SPARE	46
47	SPARE	20 A	1					0	0	1		SPARE	48
49	SPARE	20 A	1	0	0					1		SPARE	50
51	SPARE	20 A	1			0	0			1		SPARE	52
53	SPARE	20 A	1					0	0	1	20 A	SPARE	54
			al Load:		kVA		kVA		kVA				
		Tota	I Amps:	210).3 A	85.	4 A	90.	.3 A				
Legen	d:												
_oad C	Classification	Con	nected L	.oad	Der	mand Fa	ctor	Estin	nated De	emand		Panel Totals	
IVAC			5831 VA			100.00%			5831 VA				

Load Classification
HVAC
Motor
Other
Receptacle
Power
Lighting
Notes:



Connected Load	Demand Factor	nd Factor Estimated Demand		Totals
5831 VA	100.00%	5831 VA		
1920 VA	125.00%	2400 VA	Total Conn. Load:	46104 VA
0 VA	0.00%	0 VA	Total Est. Demand:	42775 VA
24540 VA	70.37%	17270 VA	Total Conn.:	128 A
8400 VA	125.00%	10500 VA	Total Est. Demand:	119 A
5539 VA	125.00%	6923 VA		

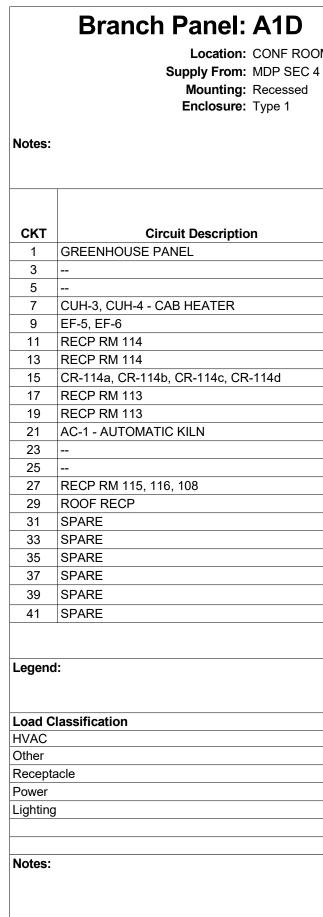
A.I.C. Rating: 22,000 (FIELD VERIFY)

					Phases: Wires:						Mains Type: Mains Rating: 225 A MCB Rating:		
	Trip	Poles		4	В		с		Poles	Trip	Circuit Description		
	20 A	2	0.1	1.3					1	20 A	Lighting EARLY CHILDHOOD SPED 168	2	
					0.1	1.1			1	20 A	Lighting LIBRARY 160	4	
	20 A	2					0.1	0.8	1	20 A	Lighting COMMONS/MULTI-PURPOSE 101	6	
			0.1	0.8					1	20 A	Lighting	8	
	20 A	1			1.6	0.9				20 A	Receptacle SENSORY 166	10	
	20 A	1				1.2 0.7		1	20 A	Receptacle	12		
~	-20 A	J	0.9	0.7	\frown				1	-20 A	Receptacle SPEECH 161	14	
	20⁄A	1	\frown	$ \gamma$	0.7	0.7	$ \gamma $	Υ N	\square	20/A	Receptacle LIBRAR 160	16	
	20 A	1					1	0.9	1	20 A	Receptacle LIBRARY 160	18	
	20 A	1	1	0.7					1	20 A	Receptacle LIBRARY 160	20	
	20 A	1			1	0.8			1	20 A	Receptacle COMMONS/MULTI-PURPOSE 101	22	
	20 A	1					1	1	1	20 A	FLOOR BOX LIBRARY 160	24	
	20 A	1	1	1 1					1	20 A	FLOOR BOX LIBRARY 160	26	
	20/A	2		\square	1	$\begin{pmatrix} 0 \end{pmatrix}$	\square	\sim	$\begin{pmatrix} 1 \end{pmatrix}$	20/A	SPARE ~ ~	28	
_	20 A	1					0	0	$\overline{}$	20 A	SPARE	30	
	20 A	1	0	0					1	20 A	SPARE	32	
	20 A	1			0	0			1	20 A	SPARE	34	
	20 A	1					0	0	1	20 A	SPARE	36	
	20 A	1	0	0					1	20 A	SPARE	38	
	20 A	1			0	0			1	20 A	SPARE	40	
	20 A	1					0	0	1	20 A	SPARE	42	
	Tota	al Load:	7.5 kVA		7.5 kVA 8 kVA		6.7	6.7 kVA					
Total Amps:		63.9 A		67.7 A		56.	56.2 A						
	0.0			R		-4	P-4'						
	Con	nected L	oad	Der	nand Fa		Estin		mand		Panel Totals		
	1	4 IN VA		1	100100%	n	1	4 In VA		1			

Volts: 208Y/120V 3P 4W

Connected Load	Demana racior	Lotimated Demand		lotais
416 VA	100.00%	416 VA		
0 VA	0.00%	0 VA	Total Conn. Load:	22279 VA
17440 VA	78.67%	13720 VA	Total Est. Demand:	19670 VA
480 VA	125.00%	600 VA	Total Conn.:	62 A
3992 VA	125.00%	4990 VA	Total Est. Demand:	55 A

	Location: STAFF 133 Supply From: MDP SEC 4 Mounting: Recessed Enclosure: Type 1		Volts: 208Y/120V 3P 4W Phases: 3 Wires: 4									A.I.C. Rating: 22,000 (FIELD VERIFY) Mains Type: Mains Rating: 225 A MCB Rating:			
Notes:															
CKT	Circuit Description	Trip	Deles		٨		5		c	Delee	Trin	Circuit D		CK	
	Circuit Description	Trip 20 A	Poles	0.1	A 1.1		3	· · · · ·	C	Poles	Trip 20 A	Circuit De		2 CK1	
1 3	DF-7, DF-8		2	0.1	1.1	0.1	9.4			1		Lighting DATA RM/MDF ² E-1 - ELEVATOR	59	4	
5	 Receptacle Room 101, 159	 20 A				0.1	9.4	0.5	9.4		100 A	E-I-ELEVATOR		6	
7	PDU-1 - POWER DISTRIBUTION UNIT	30 A	2	1.7	9.4			0.5	9.4					8	
9				1.7	9.4	1.7	0.5				 20 A	 Receptacle Room 101, 13	33	10	
9 11	PDU-2 - POWER DISTRIBUTION UNIT	 30 A	2			1.7	0.5	1.7	1	1	20 A 20 A	Receptacle STAFF 133	00	10	
13		30 A		1.7	1.2			1.7	1	1		Receptacle STAFF 133		12	
15	 MS-1, MS-2 - MINI SPLIT	 20 A	2	1.7	1.2	0.2	1.2			1	20 A 20 A	Receptacle STAFF 133		14	
17		20 A				0.2	1.2	0.2	1.2	1	20 A	Receptacle STAFF 133		18	
19	ECC-1 - ELEVATOR CONVENIENCE CIRCUIT	20 A	1	0.6	1.2			0.2	1.2	1	20 A	Receptacle STAFF 133		20	
21	Receptacle Space 259	20 A	1	0.0	1.2	0.4	0.9			1		Receptacle LD 132		20	
23	Room 157, 152	20 A	1			0.4	0.5	1.3	0.5	1		Receptacle LD 132		24	
25	Receptacle COMMONS/MULTI-PURPOSE 101	20 A	1	0.8	0.5			1.0	0.5	1	20 A	Receptacle LD 132		24	
27	Receptacle Room 154, 155, 173	20 A	1	0.0	0.5	0.5	1.2			1	20 A	TCP-11 - TEMPERATUR		20	
29	Receptacle COMMONS/MULTI-PURPOSE 101	20 A	1			0.5	1.2	0.7	1.2	1		FV-1 - FLUSH VALVE PC		30	
31	Receptacle COMMONS/MOLTH OR CSE 101	20 A	1	0.8	1.2			0.7	1.2	1	20 A	FV-2 - FLUSH VALVE PC		32	
33	SPARE	20 A	1	0.0	1.2	0	0			1	20 A	SPARE		34	
35	SPARE	20 A	1			0	0	0	0	1	20 A	SPARE		36	
37	SPARE	20 A	1	0	0			0	0	1		SPARE		38	
39	SPARE	20 A	1	0	0	0	0			1		SPARE		40	
	SPARE		1			0	0	0	0	1				40	
41	SPARE	20 A		20.2	2 kVA	16.1	kVA	0	0	I	20 A	SPARE		42	
			al Load: I Amps:		.8 A		.5 A		3 kVA).1 A						
Legenc											1				
	lassification		nected L		Dei	mand Fa			nated De			Panel	Totals		
HVAC		1824 VA			100.00%			1824 VA							
Motor		28281 VA			125.00%			35351 VA			Total Conn. Load: 54147 VA				
Recept	acie	19996 VA			75.01%			14998 VA			Total Est. Demand: 57232 VA				
Power		3000 VA			125.00%			3750 VA			Total Conn.:				
i i abtina			1094 VA			125.00%)		1368 VA	۱		Total Est. Demand:	199 A		
Lighting															



Location: CONF ROOM 113 Supply From: MDP SEC 4 Mounting: Recessed Enclosure: Type 1						208Y/12 3 4	20V 3P 4	W		A.I.C. Rating: 22,000 (FIELD VERIFY) Mains Type: Mains Rating: 225 A MCB Rating:			
	Tria	Delea		•					Dalaa	Taia		OKT	
rcuit Description	Trip 60 A	Poles 3	0	A		B			Poles	Trip 20 A	Circuit Description	2 CKT	
			0	<u> </u>	0	1.2			1	20 A 20 A	LIGHTING 1ST FLOOR AREA A	4	
					0	1.2	0	0.9	1		RECP RM 111	6	
AB HEATER	20 A		1.4	0.7			0	0.9	1		RECP RM 111	8	
	20 A	1	1.4	0.7	0	0.8			1		FV-5, FV-6	10	
	20 A	1			U	0.0	1.3	0.9	1			12	
	20 A	1	1.3	1.2			1.5	0.9	1		RECP RM 107	12	
b, CR-114c, CR-114d	20 A	1	1.5	1.2	0.7	2.1			1		RECP RM 106, 107	16	
5, 51(-11+6, 51(-11+6	20 A	1			0.7	2.1	1.3	0.9	1		RECP RM 105, 109	18	
	20 A	1	0.7	0.7			1.0	0.5	1		RECP RM 104	20	
IC KILN	40 A	3	0.1	0.7	3.8	0.9			1		RECP RM 103, 109	22	
					0.0	0.0	3.8	0.7	1		RECP RM 102	24	
			3.8	0.9			0.0	0.7	1		RECP RM 102	26	
6, 108	20 A	1	0.0	0.0	0.7	0.7			1		RECP RM 107	28	
	20 A	1			0.7	0.1	0.2	1.2	1			30	
	20 A	1	0	0			0.2	1.2	1		SPARE	32	
	20 A	1	•		0	0			1	20 A	SPARE	34	
	20 A	1					0	0	1	20 A	SPARE	36	
	20 A	1	0	0					1	20 A	SPARE	38	
	20 A	1	-		0	0			1		SPARE	40	
	20 A						0	0	1		SPARE	42	
		al Load:	11.6	kVA	11	kVA		kVA	1	2077		72	
		al Amps:		7 A		9 A		8 A					
		inected L			nand Fa			nated De			Panel Totals		
					100.00%)		2623 VA	۹				
		2623 VA		0.00%			1	0 VA			Total Conn. Load: 33777 VA		
		0 VA						10500.	٨				
		0 VA 17120 VA	A		79.21%			13560 V			Total Est. Demand: 33727 VA		
		0 VA 17120 VA 11900 VA	A A		79.21% 125.00%)		14876 V	A		Total Conn.: 94 A		
		0 VA 17120 VA	A A		79.21%)			A				

