





DATE: ● 4-15-15

HTK PROJECT NUMBER:

■ 1410.03

STATE OF KANSAS

JF KANSAS ENERGY & SERVICE CENTE!

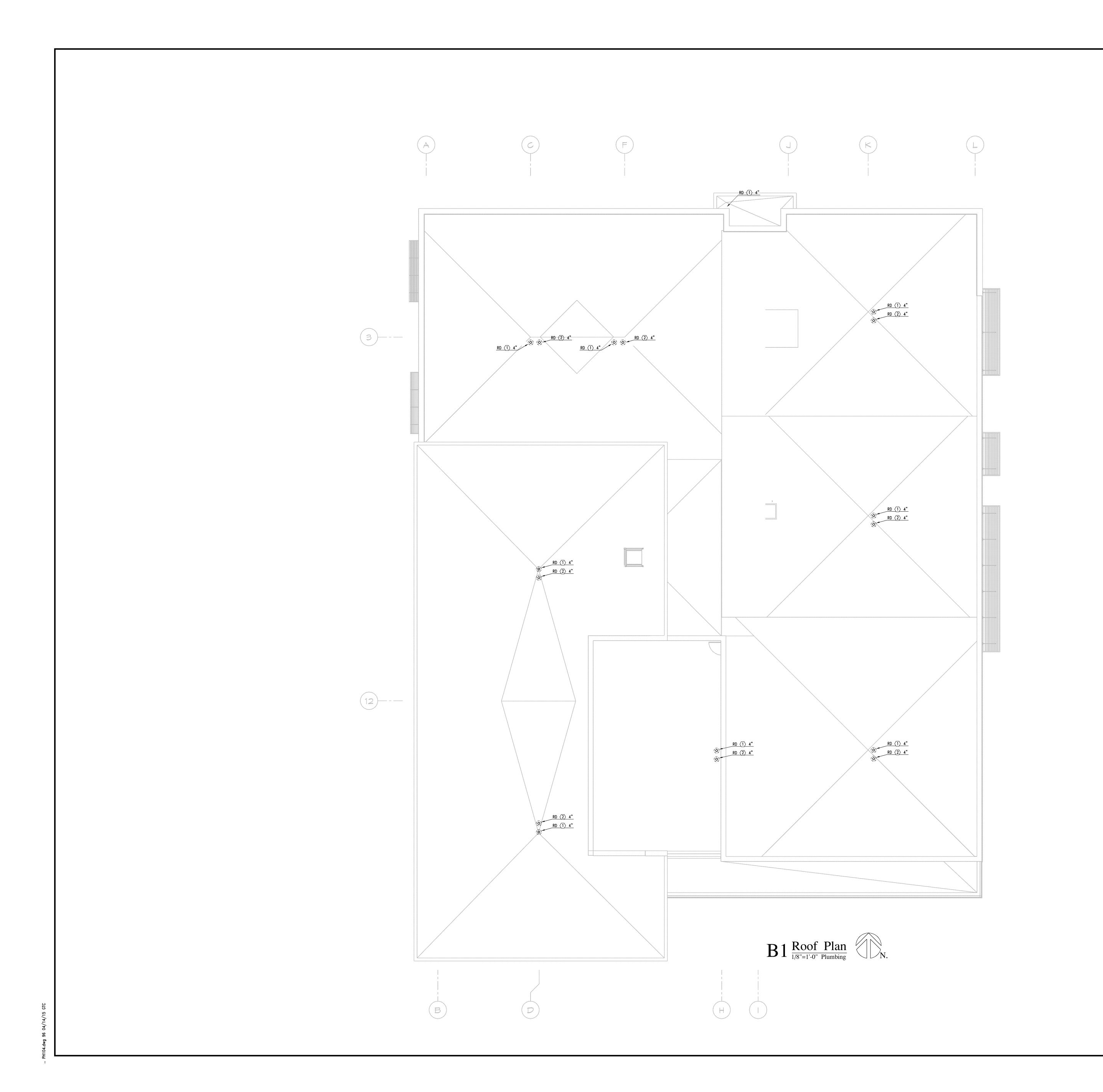
Seventh & Van Buren Street, Topeka, Kansas

BUILDING NUMBER 17300-00038

SECOND FLOOR PLAN - PLUMBING

A-012651 PH103

CONSTRUCTION DOCUMENTS



ARCHITECTS P.

POUS.KANSAS AVE.

10PEKA KANSAS 66612 OVERLAND PARK KANSAS 662-5373
P. 785-266-5373





DATE:

• 4-15-15

REVISED DATE

• 12-18-14

• 2-9-15

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Department of Administration
Office of Facilities and
Procurement Management
SOO SW Jackson, Suite 700
Opeka, Kansas 66612-1216
Phone 785-296-8899
FAX 785-296-3456

STATE OF KANSAS

DF KANSAS ENERGY & SERVICE CENTER

Seventh & Van Buren Street, Topeka, Kansas

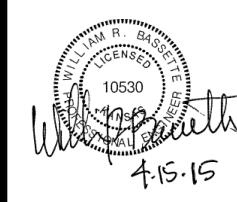
BUILDING NUMBER 17300-00038

STATE 0

ROOF PLAN -PLUMBING

A-012651 PH104





STATE OF KANSAS

OF KANSAS ENERGY & SERVICE CENTER

Seventh & Van Buren Street, Topeka, Kansas

BUILDING NUMBER 17300-00038

PLUMBING SCHEDULES

CONSTRUCTION DOCUMENTS

			PLUMBING FIXTURE	SCHEDULE		
	FIXTURE	MANUFACTURER/	DECORIDETION		FITTINGS	DELLA DICO
MARK	TYPE	MODEL	DESCRIPTION	MANUFACTURER/   MODEL	DESCRIPTION	REMARKS
P-1	WATER CLOSET	ZURN Z5615.258.00.00.00	WHITE VITREOUS CHINA, WALL HUNG TOILET, ELONGATED BOWL, 15" HIGH, SIPHON JET FLUSH, 1.28 GPF, COMPLETE WITH HIGH EFFICIENCY FLUSHOMETER VALVE.	Z5955SS-EL	ELONGATED, STANDARD WHITE, OPEN FRONT TOILET SEAT LESS COVER WITH STAINLESS STEEL CHECK HINGE.	3
P-1.1	ADA WATER CLOSET	ZURN Z5615.258.00.00.00	WHITE VITREOUS CHINA, WALL HUNG TOILET, ELONGATED BOWL, 17" HIGH, SIPHON JET FLUSH, 1.28 GPF, COMPLETE WITH HIGH EFFICIENCY FLUSHOMETER VALVE.	Z5955SS-EL	ELONGATED, STANDARD WHITE, OPEN FRONT TOILET SEAT LESS COVER WITH STAINLESS STEEL CHECK HINGE.	3, 6
P-2	URINAL	ZURN Z5755-U	1.0 GPF VITREOUS CHINA, WALL HUNG, INTEGRAL TRAP, WASHDOWN URINAL COMPLETE WITH 3/4" TOP SPUD CONNECTION, CONCEALED UNIVERSAL RETROFIT WALL BRACKET, 2" OUTLET CONNECTION AND VANDAL RESISTANT OUTLET STRAINER. MOUNT FIXTURE RIM AT 24" A.F.F. PROVIDE FLOOR MOUNTED, HEAVY DUTY TUBULAR STEEL UPRIGHTS, ADJUSTABLE CARRIER PLATED HANGER AND ALL OTHER REQUIRED MOUNTING HARDWARE.	ZTR6203-WS1-LL	SENSOR LONG LIFE BATTERY OPERATED URINAL FLUSH VALVE. 1.0 GPF	
P-2.1	ADA URINAL	ZURN Z5755-U	1.0 GPF VITREOUS CHINA, WALL HUNG, INTEGRAL TRAP, WASHDOWN URINAL COMPLETE WITH 3/4" TOP SPUD CONNECTION, CONCEALED UNIVERSAL RETROFIT WALL BRACKET, 2" OUTLET CONNECTION AND VANDAL RESISTANT OUTLET STRAINER. MOUNT FIXTURE RIM AT 17" A.F.F. PROVIDE FLOOR MOUNTED, HEAVY DUTY TUBULAR STEEL UPRIGHTS, ADJUSTABLE CARRIER PLATED HANGER AND ALL OTHER REQUIRED MOUNTING HARDWARE.	ZTR6203-WS1-LL	SENSOR LONG LIFE BATTERY OPERATED URINAL FLUSH VALVE. 1.0 GPF	6
P-3	LAVATORY	ZURN Z5310	20" X 18" VITREOUS CHINA WALL HUNG LAVATORY WITH REAR OVERFLOW AND SINGLE FAUCET HOLE. PROVIDE CONCEALED ARM CARRIER SYSTEM.	Z6930-XL	BATTERY POWERED, CHROME PLATED SENSOR FAUCET, 1.5 GPM, SINGLE HOLE FAUCET	1,2,3,4,5
P-3.1	ADA LAVATORY	ZURN Z5310	20" X 18" VITREOUS CHINA WALL HUNG LAVATORY WITH REAR OVERFLOW AND SINGLE FAUCET HOLE. PROVIDE CONCEALED ARM CARRIER SYSTEM. MOUNT TOP OF RIM AT 34" A.F.F.	Z6930-XL	ADA COMPLIANT, BATTERY POWERED, CHROME PLATED SENSOR FAUCET, 1.5 GPM, SINGLE HOLE FAUCET	1,2,3,4,5
P-4	JANITORS SINK	ZURN Z1996-36	24X36X10 MOP SERVICE BASIN. MOLDED HIGH DENSITY COMPOSITE BASIN WITH AN INTEGRALLY MOLDED SELF-DRAINING MOP SHELF, PVC DRAIN BODY, STAINLESS STEEL STRAINER AND 3 GASKETED OUTLET CONNECTION.	Z1996-SF	SERVICE SINK FAUCET- CHROME PLATED SERVICE FAUCET, COMPLETE WITH VACUUM BREAKER, INTEGRAL STOPS, ADJUSTABLE WALL BRACE, PAIL HOOK, FOUR-ARM HOT AND COLD HANDLES AND 3/4" HOSE THREAD ON SPOUT. WATER INLETS ARE FOR 1/2" PIPE AND ARE ECCENTRIC ON AN 8" CENTERLINE.	
P-5	ADA SHOWER	ZURN Z7500	TEMP-GARD PRESSURE BALANCING SHOWER VALVE WITH SINGLE BRONZE STEM, STAINLESS STEEL BALANCING PISTON AND BOTTOM ACCESS INTEGRAL SERVICE STOPS. STANDARD WITH 1/2" COPPER TUBING ASSEMBLY ENCLOSED BY 18 GAGE STAINLESS STEEL #4 BRUSHED FINISH SHROUD, CHROME PLATED BRASS SHOWER HEAD WITH 2.5 GPM FLOW CONTROL AND ADJUSTABLE SPRAY PATTERN, METAL STEM HANDLE			
P-6		ELKAY LR-3321	DOUBLE COMPARTMENT SINK: SEAMLESS #18 GAUGE, TYPE 302 (18-8) NICKEL BEARING STAINLESS STEEL. LK-6K-H SATIN FINISH FULLY UNDERCOATED, HOLES AT 4" O.C. 8" BOWL DEPTH. 1 3/4" RADIUS COVED CORNERS. SELF RIMMING.	AMERICAN STANDARD 2021.604	CAST BRASS KITCHEN FAUCET WITH METAL LEVER HANDLE, 1/2" CONNECTIONS. POLISHED CHROME FINISH, WITH ESCUTCHEON PLATE. PROVIDE BASKET STRAINER AND DRAIN.	2,3,5,8
	DOUBLE COMPARTMENT SINK	IN-SINK-ERATOR PRO 77	GARBAGE DISPOSAL: STAINLESS STEEL SINK FLANGE, STOPPER, GRIND CHAMBER, TWO 360 DEG. SWIVEL IMPELLERS, AUTO REVERSING, PERMANENTLY LUBRICATED BEARINGS, CORROSION PROTECTION SHIELD. CONTINUOUS FEED 1 HORSEPOWER CAPACITOR START MOTOR.			
P-7	DRINKING FOUNTAIN	HALSEY-TAYLOR HAC8FSBLQ	ADA COMPLIANT DUAL HEIGHT ELECTRIC WATER COOLER: BARRIER FREE WATER COOLER PROVIDING 8 GPM OF 50 DEGREE WATER AT 90 DEGREE AMBIENT. FRONT AND SIDE PUSHBARS, ADA COMPLIANT, LEAD FREE. MOUNT WITH MIN. 27" KNEE CLEARANCE AND SPOUT AT NO MORE THAN 36" AFF.			
P-8	DRENCH SHOWER AND EYEWASH	WATERSAVER SSBF909SSH TMV	HANDICAP ACCESSIBLE SAFETY STATION WITH WIDE ARE EYE/FACE WASH AND STAINLESS STEEL SHOWER HEAD.			

		DRAIN SCHE	EDULE
MARK	MANUFACTURER	MODEL NUMBER	DESCRIPTION
RD "1"	WADE	SERIES 3000-52-AE	CAST IRON ROOF DRAIN WITH BEARING PAN, ADJUSTABLE EXTENSION, POLYPROPYLENE MUSHROOM DOME, UNDER-DECK CLAMP
RD "2"	WADE	SERIES 3000-52-AE-D	SAME AS RD "A" WITH DAM FOR OVERFLOW DRAINAGE SERVICE.
FD-1	WADE	SERIES 1100 STD	CAST IRON FLOOR DRAIN WITH FLANGE, INTEGRAL REVERSIBLE CLAMPING COLLAR, SEEPAGE OPENINGS 1/2" PLUGGED PRIMER TAP AND 6" DIAMETER NICKEL BRONZE STRAINER WITH VANDAL PROOF SCREWS.
FD-2	WADE	SERIES 1240-1, 27	CAST IRON FLOOR DRAIN WITH PLUGGED 1/2", PRIMER TAP, INTEGRAL CLAMPING COLLAR SEEPAGE OPENINGS, ADJUSTABLE TOP, AND NICKEL BRONZE VENEER DUCTILE IRON LOOSE SET TRACTOR GRATE AND SEDIMENT BUCKET.

ELECTRIC DOMESTIC HOT WATER HEATER SCHEDULE

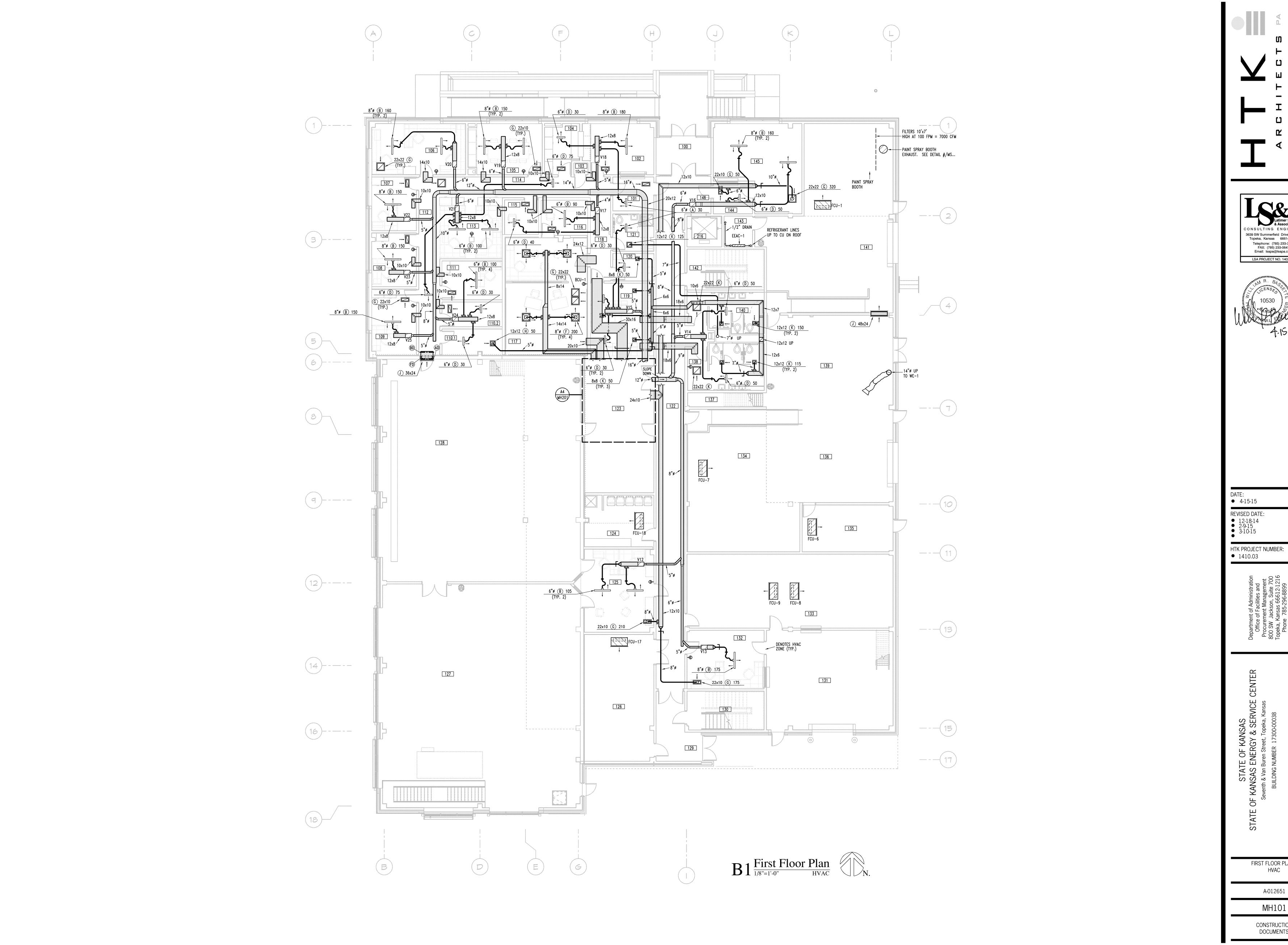
MARK MANUFACTURER MODEL NUMBER KW STORAGE

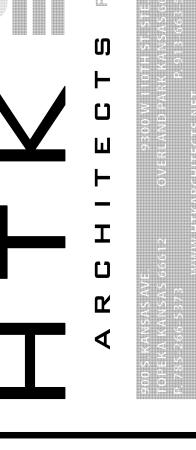
 DWH-1
 STATE
 CSB 82 9 SFE
 9
 80

ELECTRICAL CHARACTERISTICS

208 VAC, 3PH.

REMARKS:
1 - PROVIDE CHROME PLATED BRASS TAILPIECE AND GRID DRAIN.
2 - PROVIDE CHROME PLATED BRASS P-TRAP.
3 – PROVIDE LOOSE KEY STOPS AND FLEXIBLE RISERS.
4 - PROVIDE CONCEALED ARM TYPE CARRIER WITH SQUARE
TUBULAR STEEL UP-RIGHTS AND BLOCK TYPE BASES.
5 - INSULATE EXPOSED TAILPIECE, P-TRAP, AND WATER RISERS.
REFER TO SPECIFICATIONS FOR INSULATION METHODS.
6 - PROVIDE FLUSH VALVE HANDLE ON WIDE SIDE OF STALL.

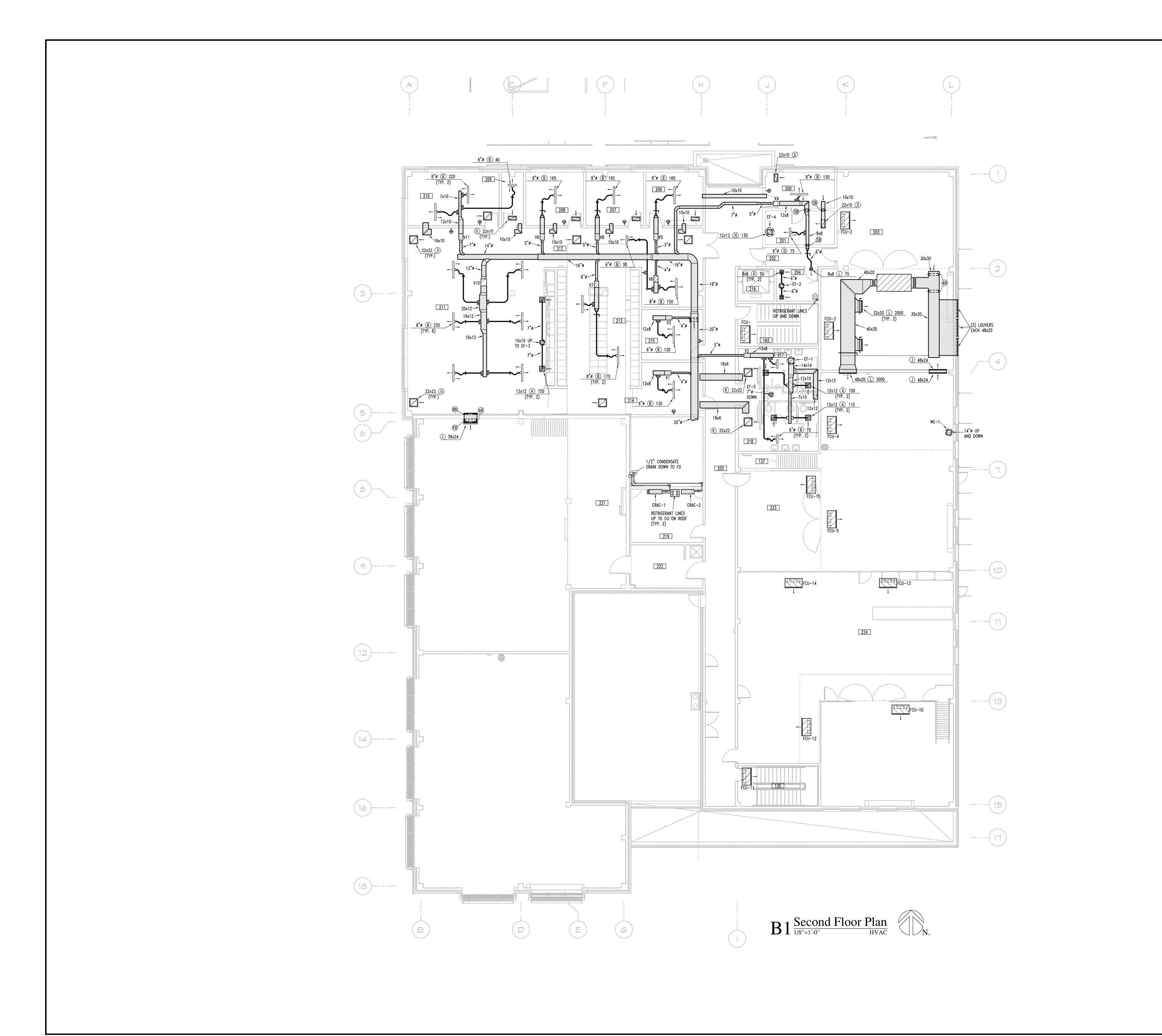








FIRST FLOOR PLAN -HVAC A-012651 MH101







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Seventh & Van Buren Street, Topeka, Kansas
BUILDING NUMBER 17300-00038

SECOND FLOOR PLAN - HVAC

A-012651

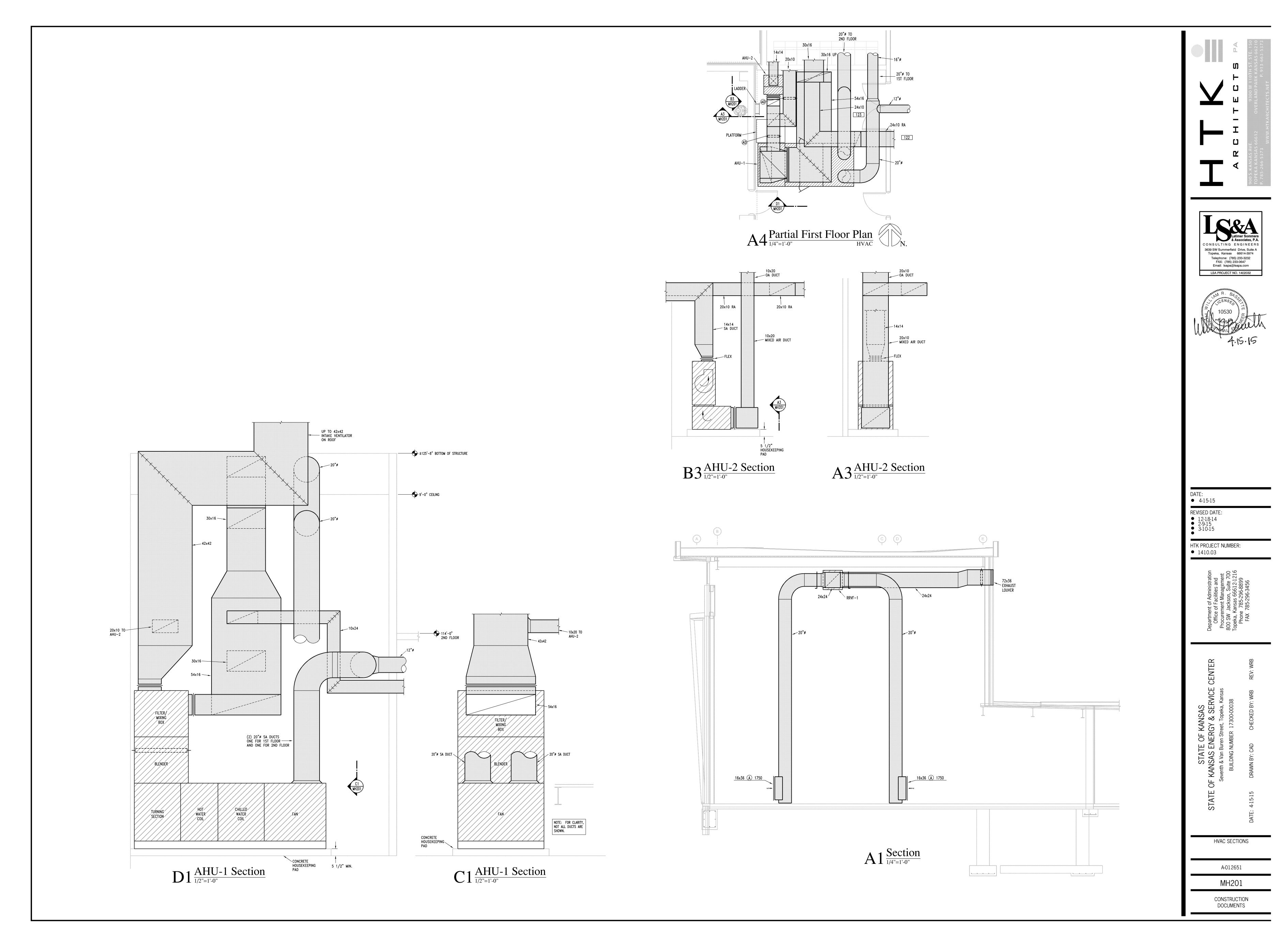
MH102

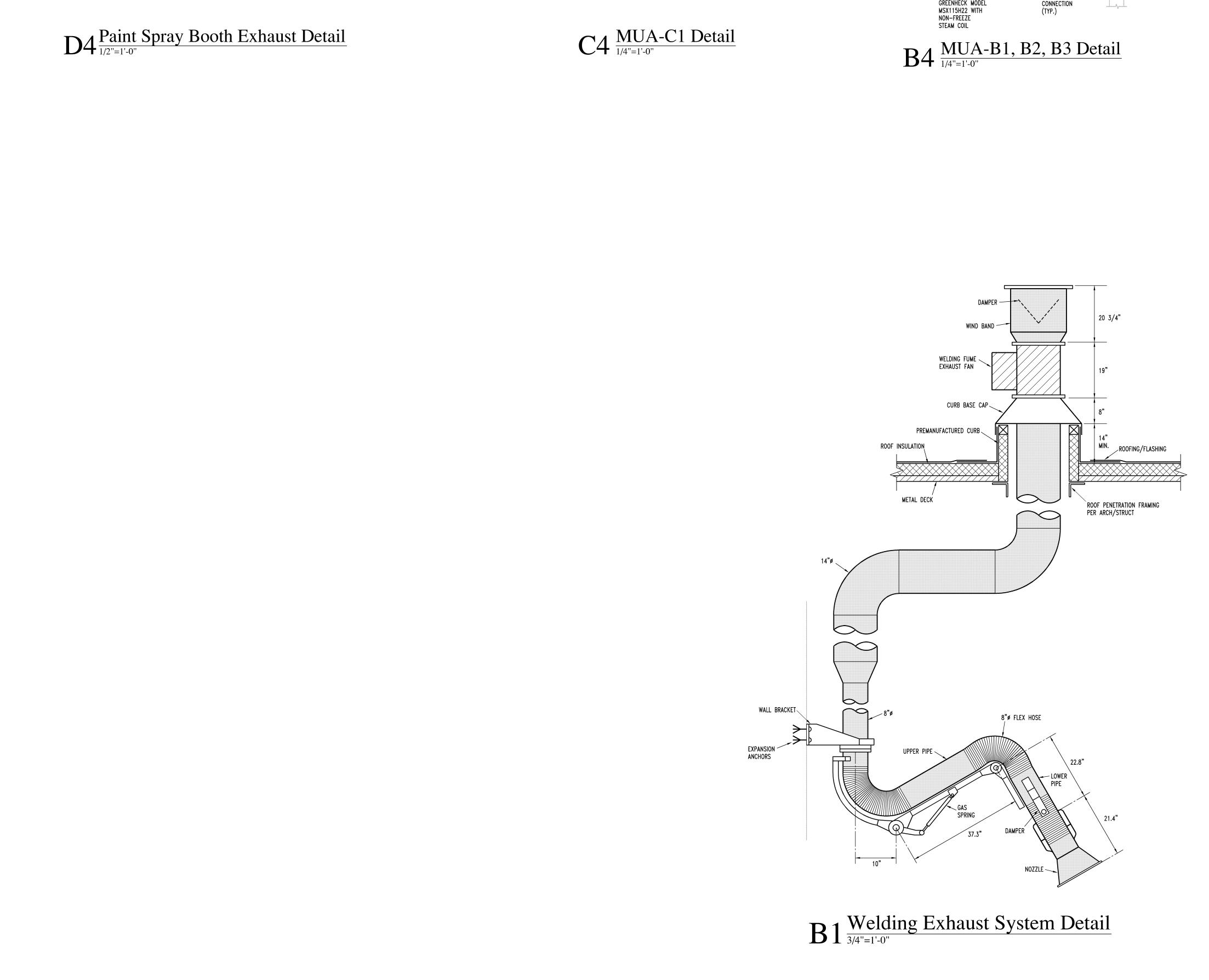
CONSTRUCTION DOCUMENTS





FIRST FLOOR PLAN -HVAC





24x18 EACH WAY

"BUTTERFLY" STYLE WEATHERHEAD
WITH WIND BAND

\_\_\_ 24"ø EXHAUST DUCT

METAL DECK

PAINT SPRAY BOOTH

SHEET METAL RAIN COLLAR

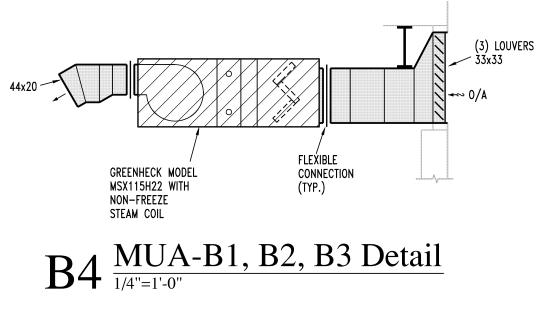
SHEETMETAL ROOF CAP

ROOF PENETRATION FRAMING PER ARCH/STRUCT

INSULATED PREMANUFACTURED CURB

BELT DRIVEN TUBE AXIAL FAN WITH SPARK PROOF FAN BLADES

ROOFING AND FLASHING



3639 SW Summerfield Drive, Suite A Topeka, Kansas 66614-3974 Telephone: (785) 233-3232 FAX: (785) 233-0647 Email: Isapa@Isapa.com

LSA PROJECT NO. 1402032

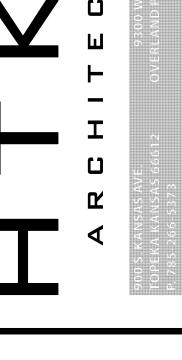
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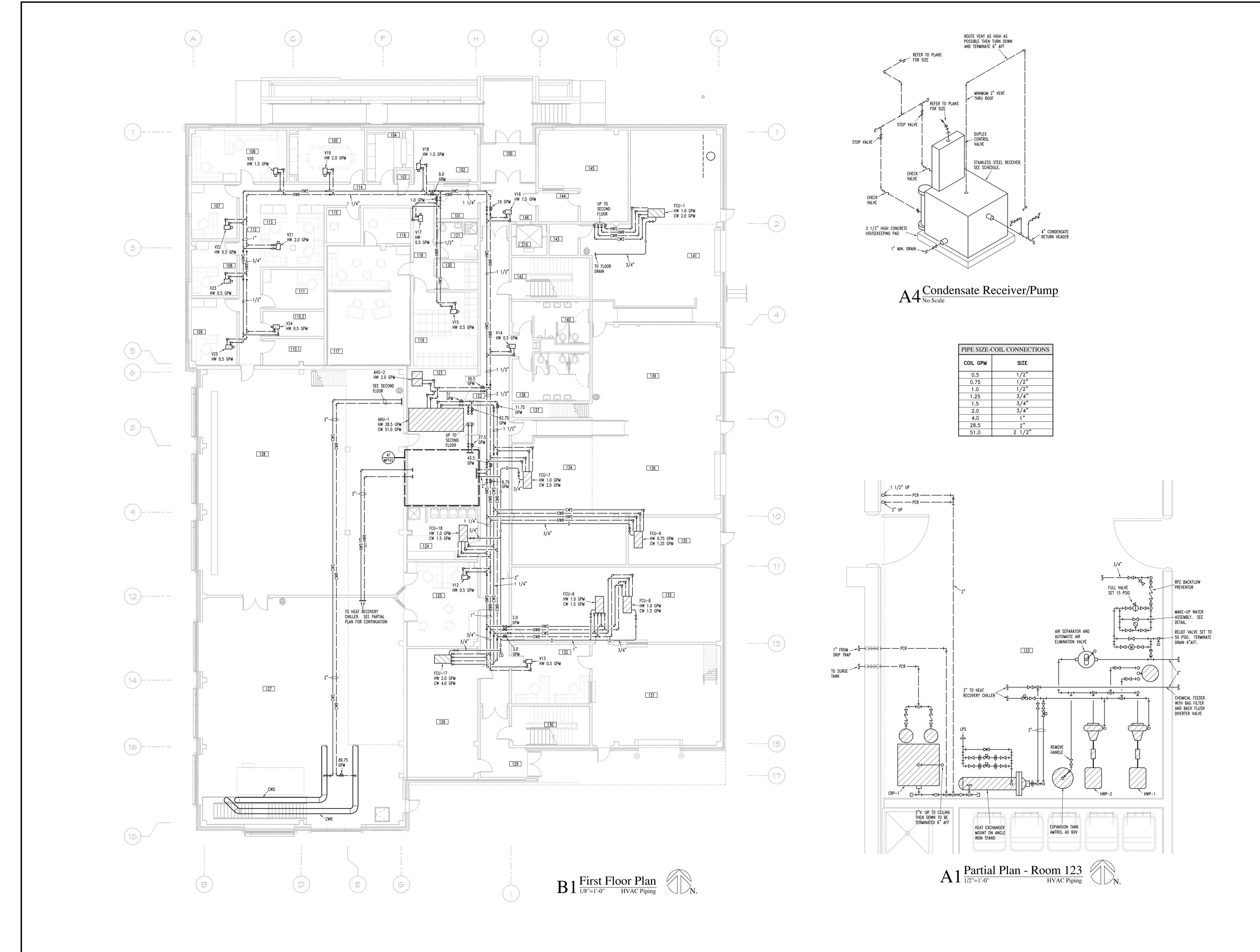
■ 1410.03

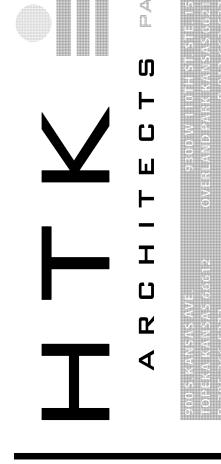
MECHANICAL DETAILS

MH202

CONSTRUCTION DOCUMENTS











Department of Administration
Office of Facilities and
Office of Facilities and
Procurement Management
800 SW Jackson, Suite 700
Topeka, Kansas 66612-1216
Phone 785-296-8899
FAX 785-296-3456

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Seventh & Van Buren Street, Topeka, Kansas
BUILDING NUMBER 17300-00038

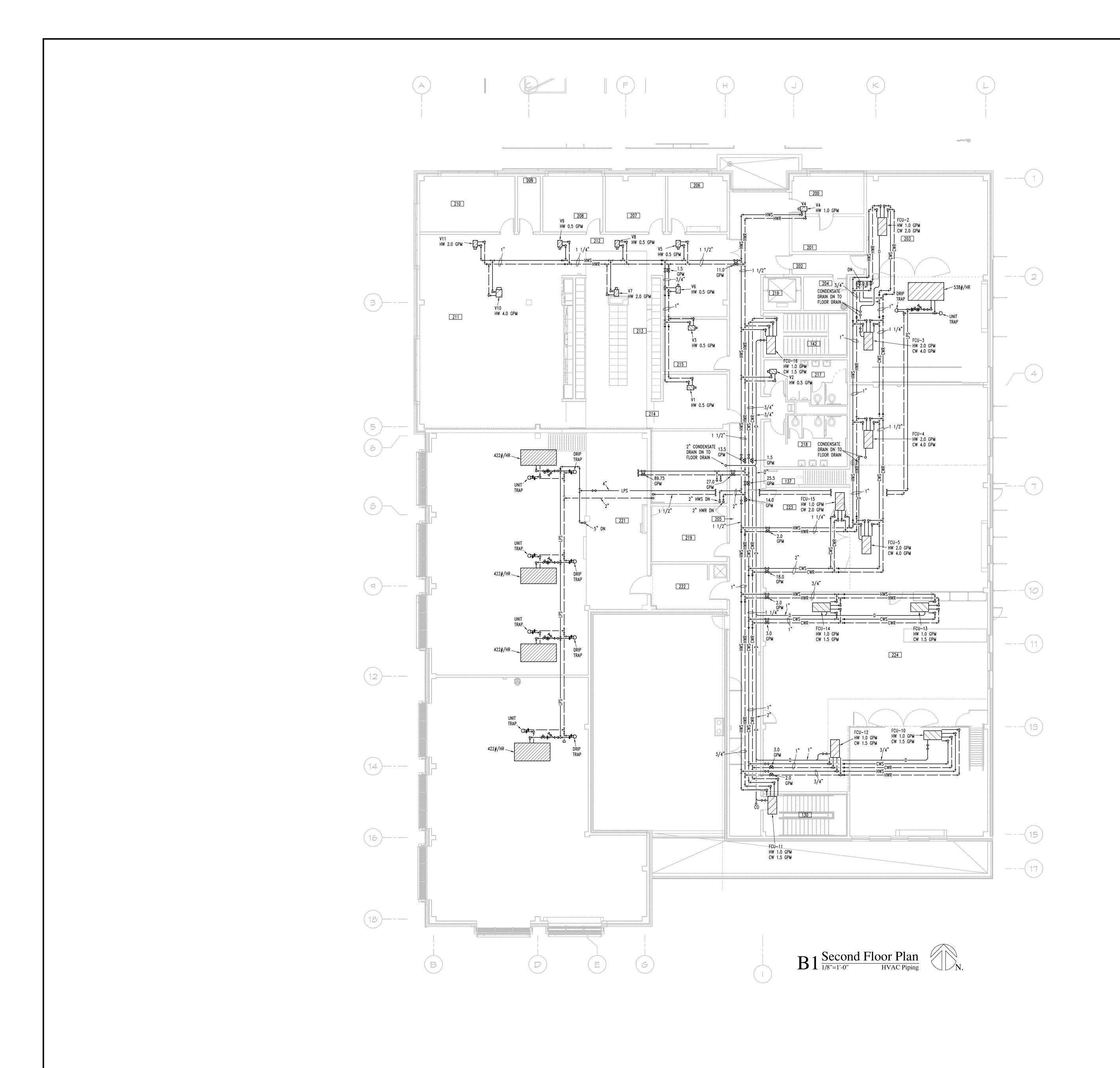
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FIRST FLOOR PLAN HVAC PIPING

A-012651

MP101

CONSTRUCTION DOCUMENTS







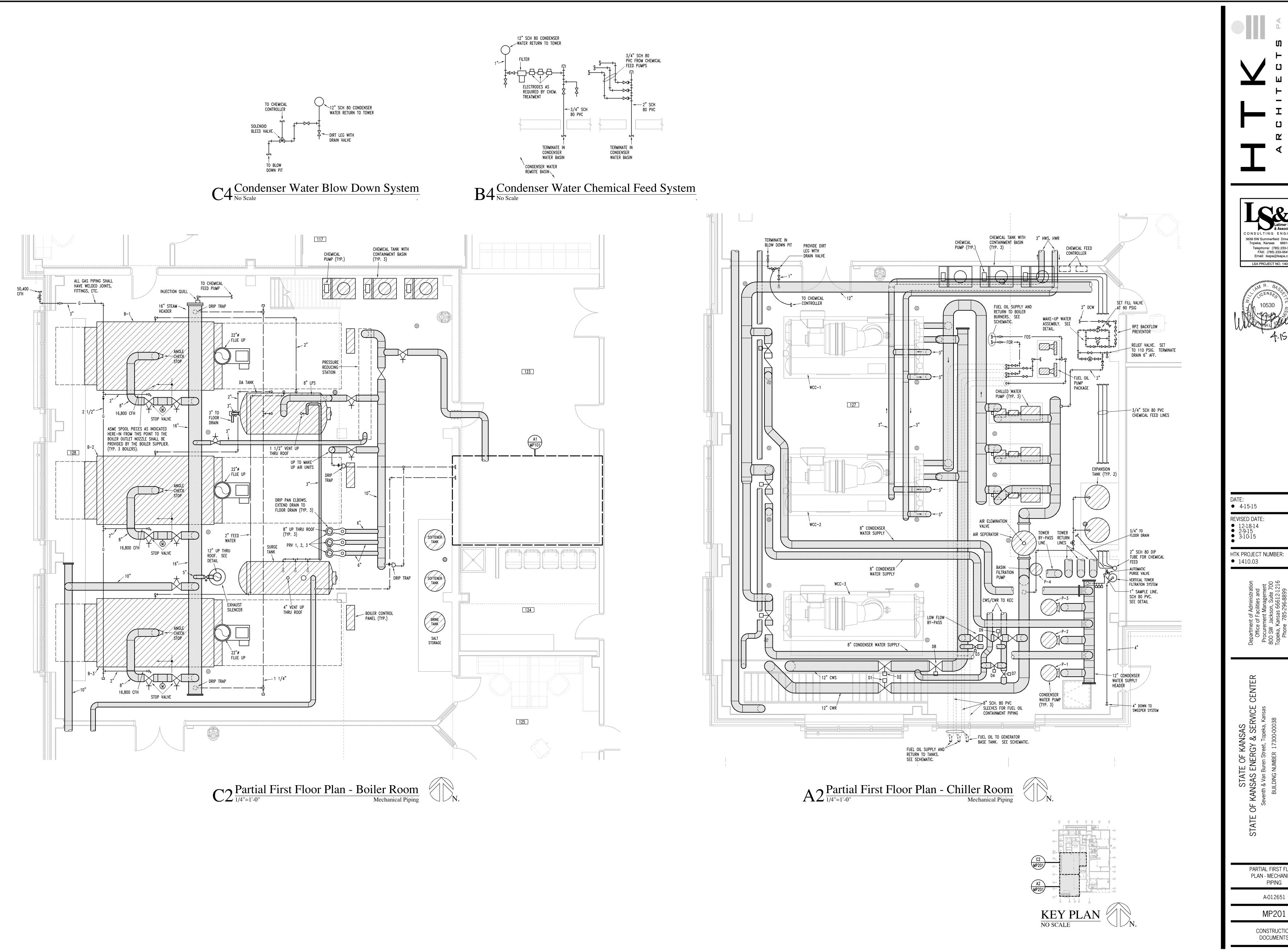
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SECOND FLOOR PLAN - HVAC PIPING

A-012651 MP102



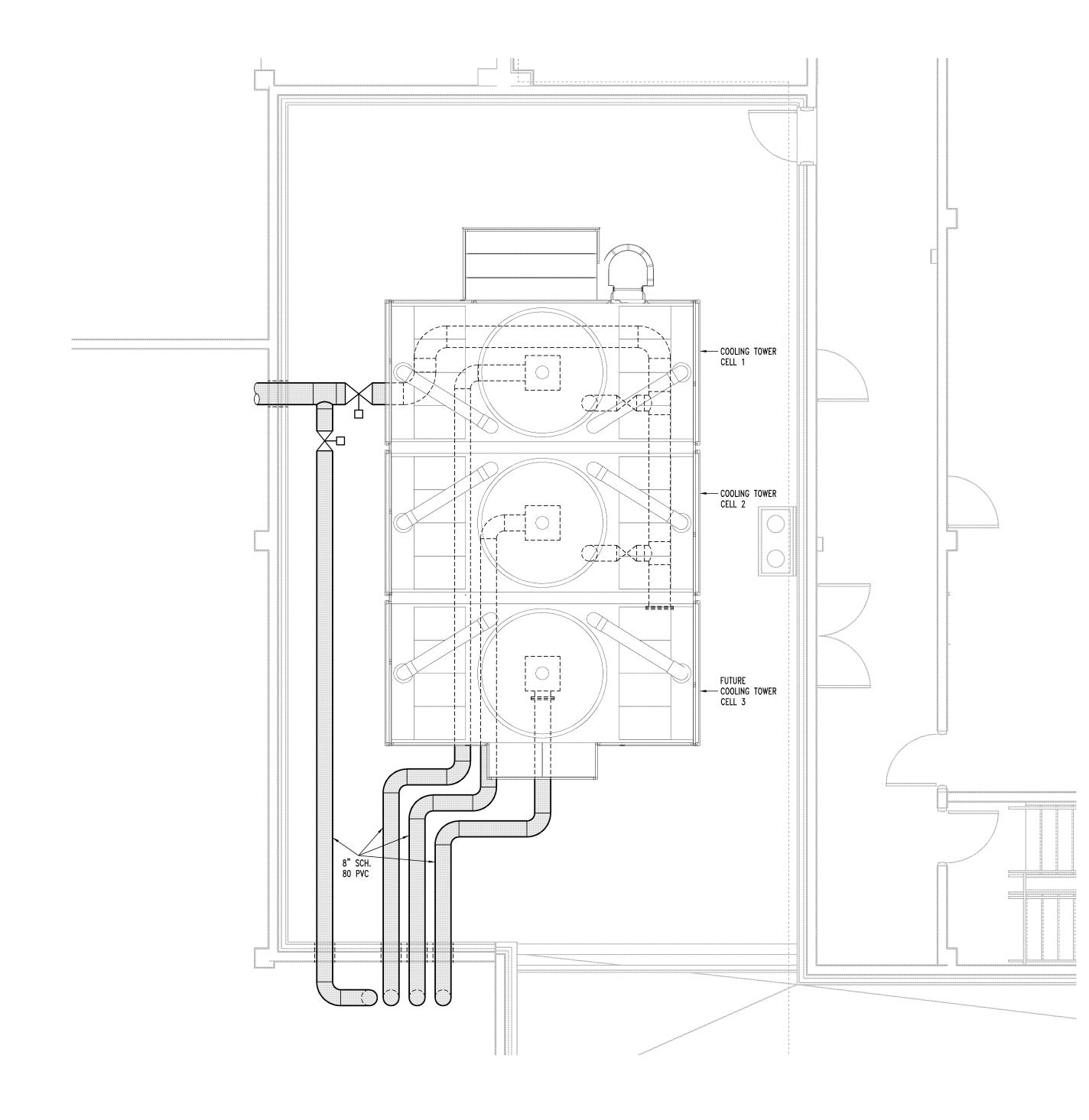




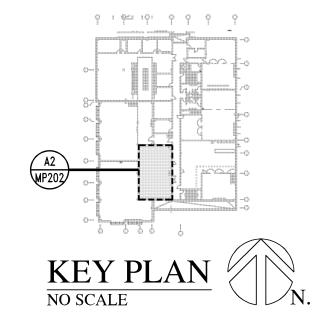
PARTIAL FIRST FLOOR PLAN - MECHANICAL PIPING

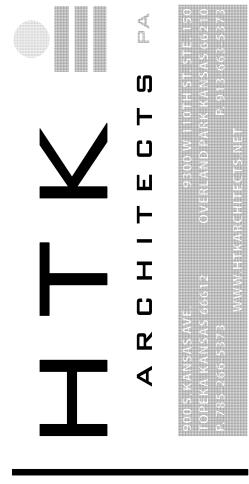
A-012651 MP201

CONSTRUCTION DOCUMENTS









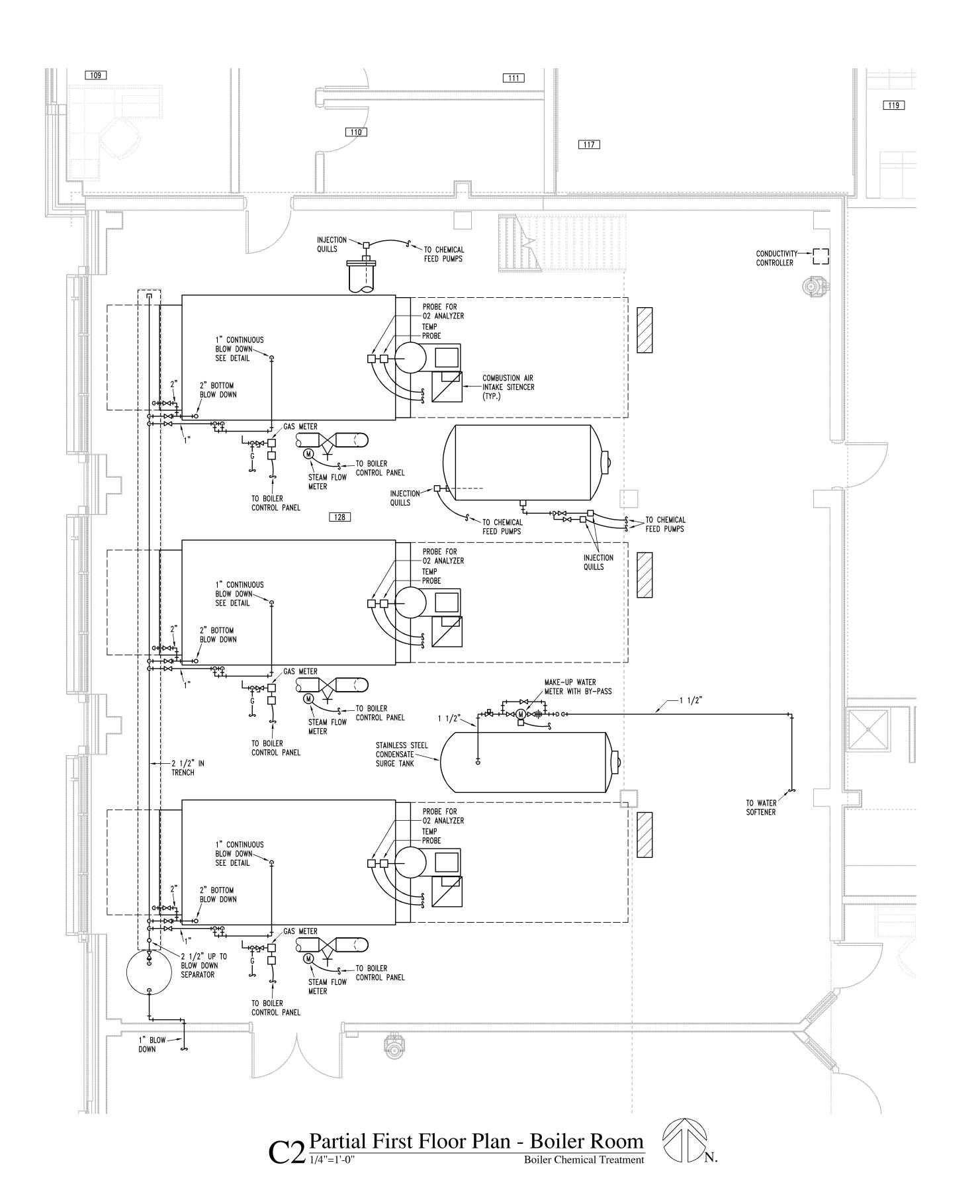


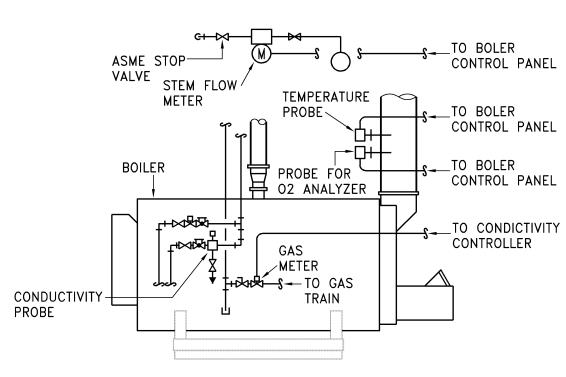


PARTIAL SECOND FLOOR PLAN -MECHANICAL PIPING

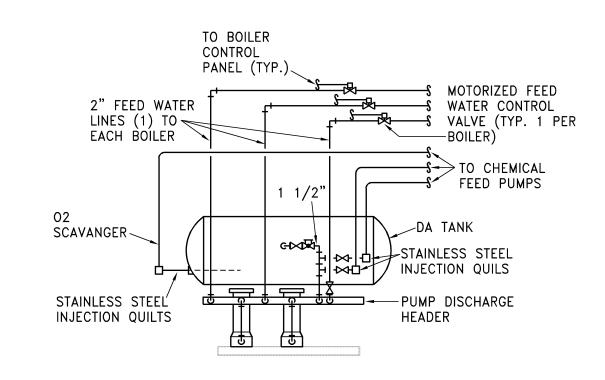
A-012651

MP202 CONSTRUCTION DOCUMENTS

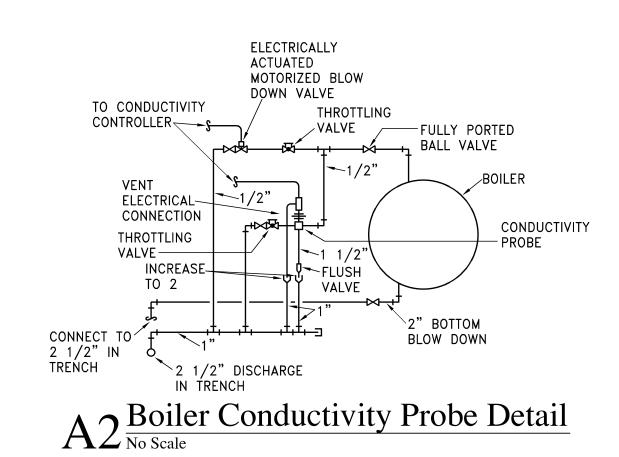




## $A4 \frac{Boiler\ Metering\ and\ Measurement}{{}_{No\ Scale}}$



## $A3 \frac{\text{Chemical Feed Connections - DA Tank}}{\text{No Scale}}$



A R C H I T E C T S PA





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Department of Administration Office of Facilities and Procurement Management 800 SW Jackson, Suite 700 Topeka, Kansas 66612-1216 Phone 785-296-8899 FAX 785-296-3456

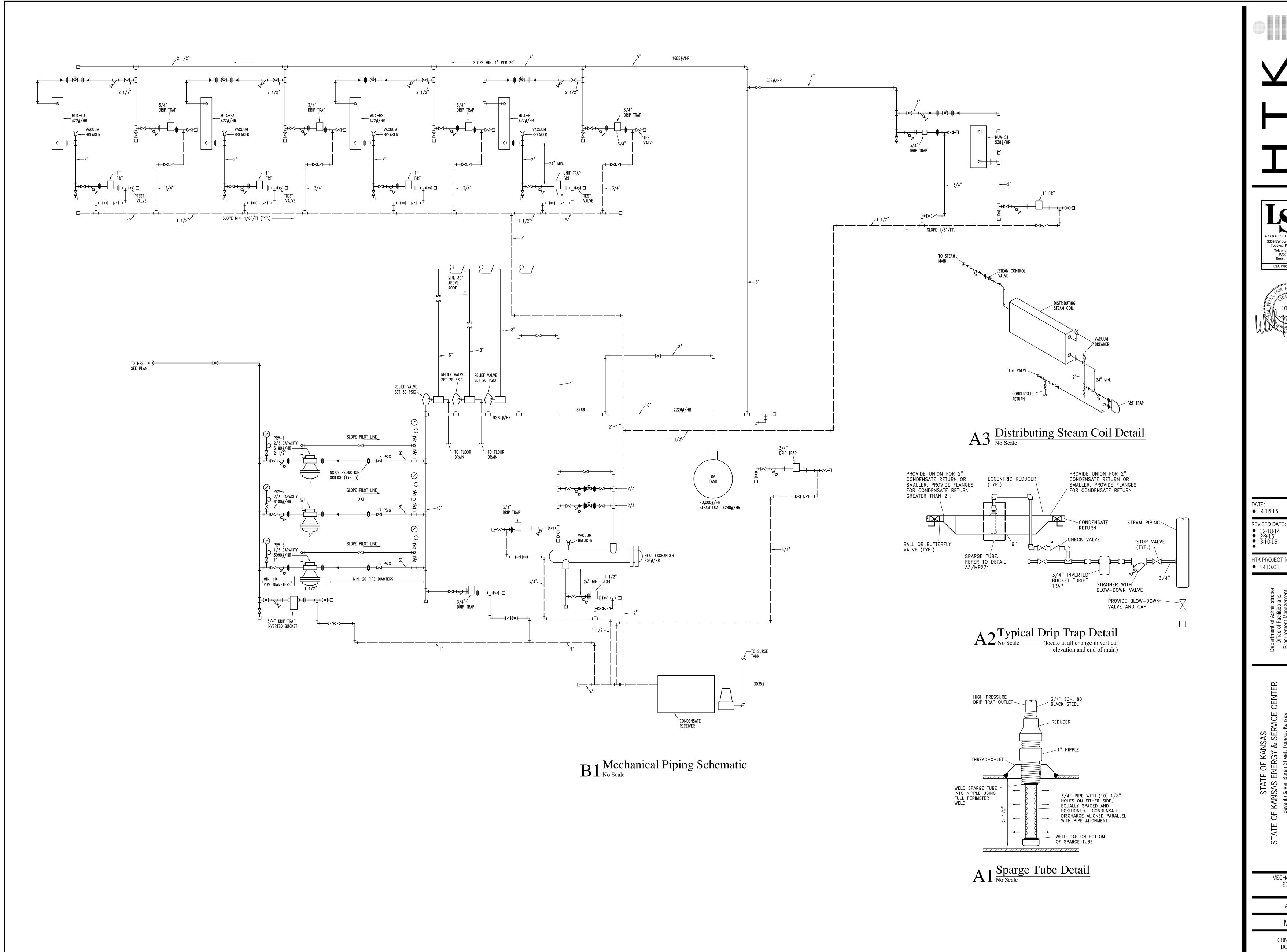
STATE OF KANSAS
STATE OF KANSAS ENERGY & SERVICE CENTER
Seventh & Van Buren Street, Topeka, Kansas
BUILDING NUMBER 17300-00038

PARTIAL FIRST FLOOR PLAN -BOILER CHEMICAL TREATMENT

> A-012651 MP301

> > CONSTRUCTION DOCUMENTS

MP301.dwg 48 04/14/15 GTC





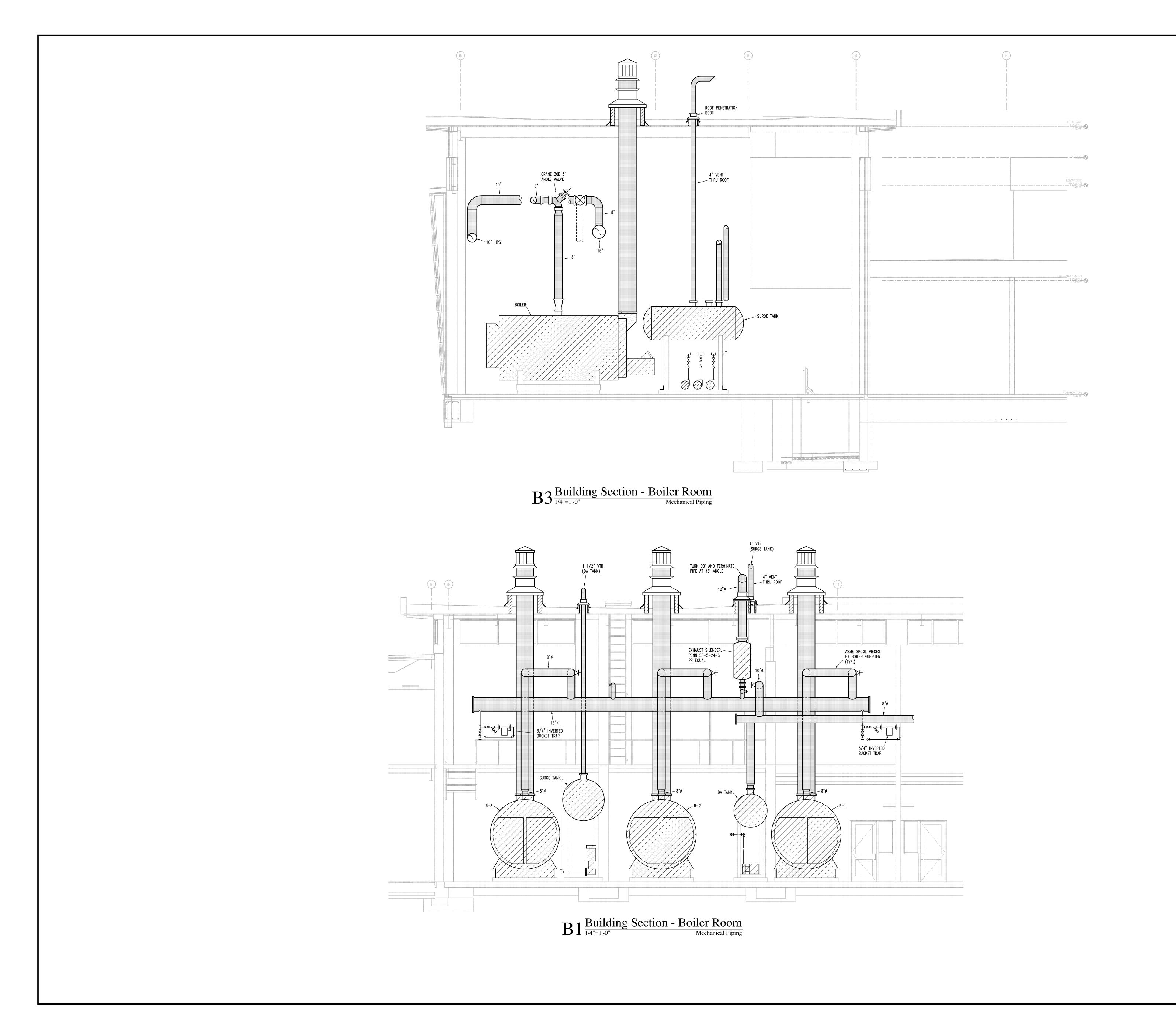


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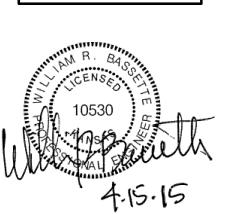
STATE OF KANSAS
F KANSAS ENERGY & SERVICE C
Seventh & Van Buren Street, Topeka, Kansas
BUILDING NUMBER 17300-00038

MECHANICAL PIPING SCHEMATIC

A-012651 MP302





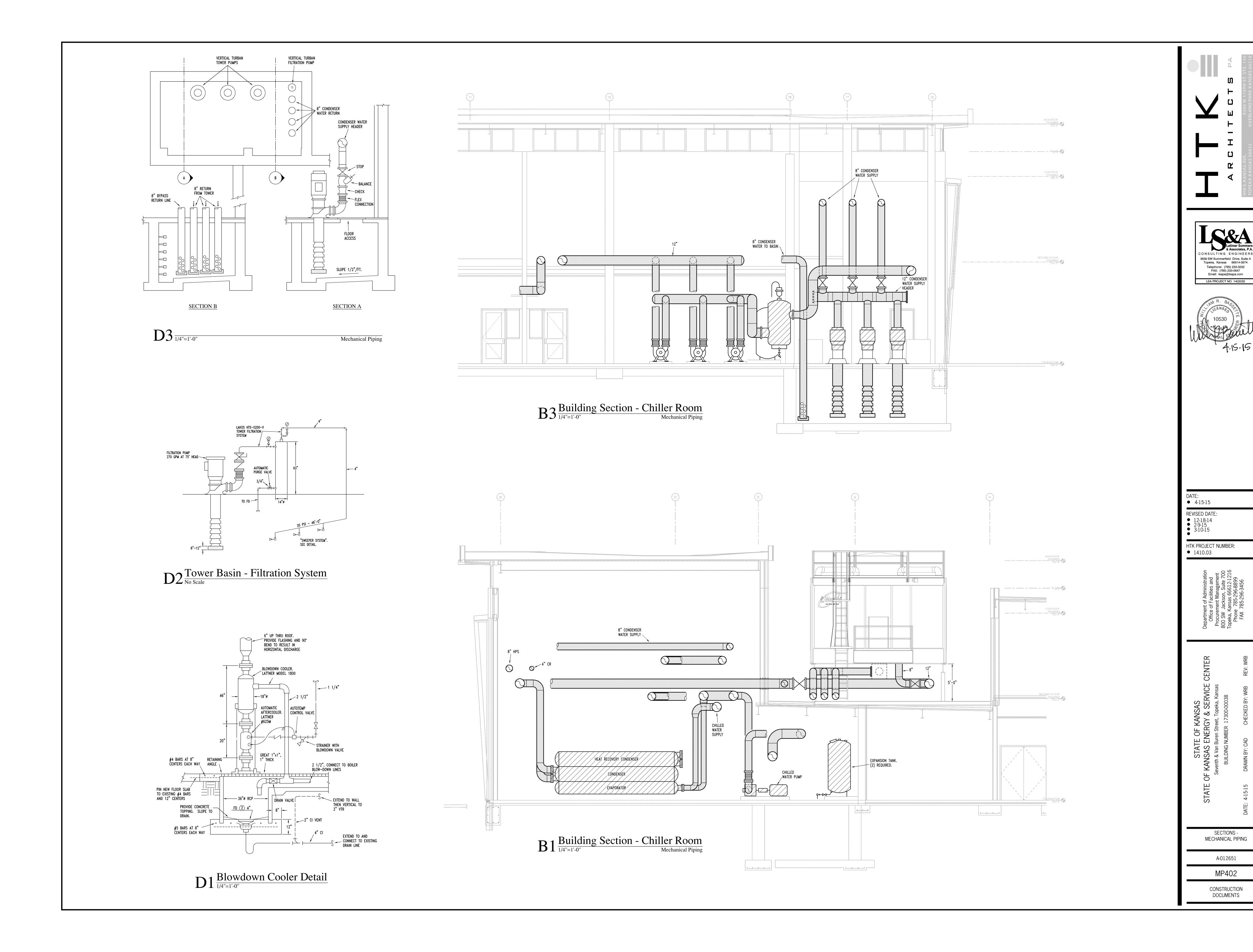


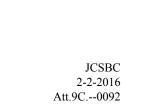
SECTIONS -MECHANICAL PIPING

A-012651

MP401

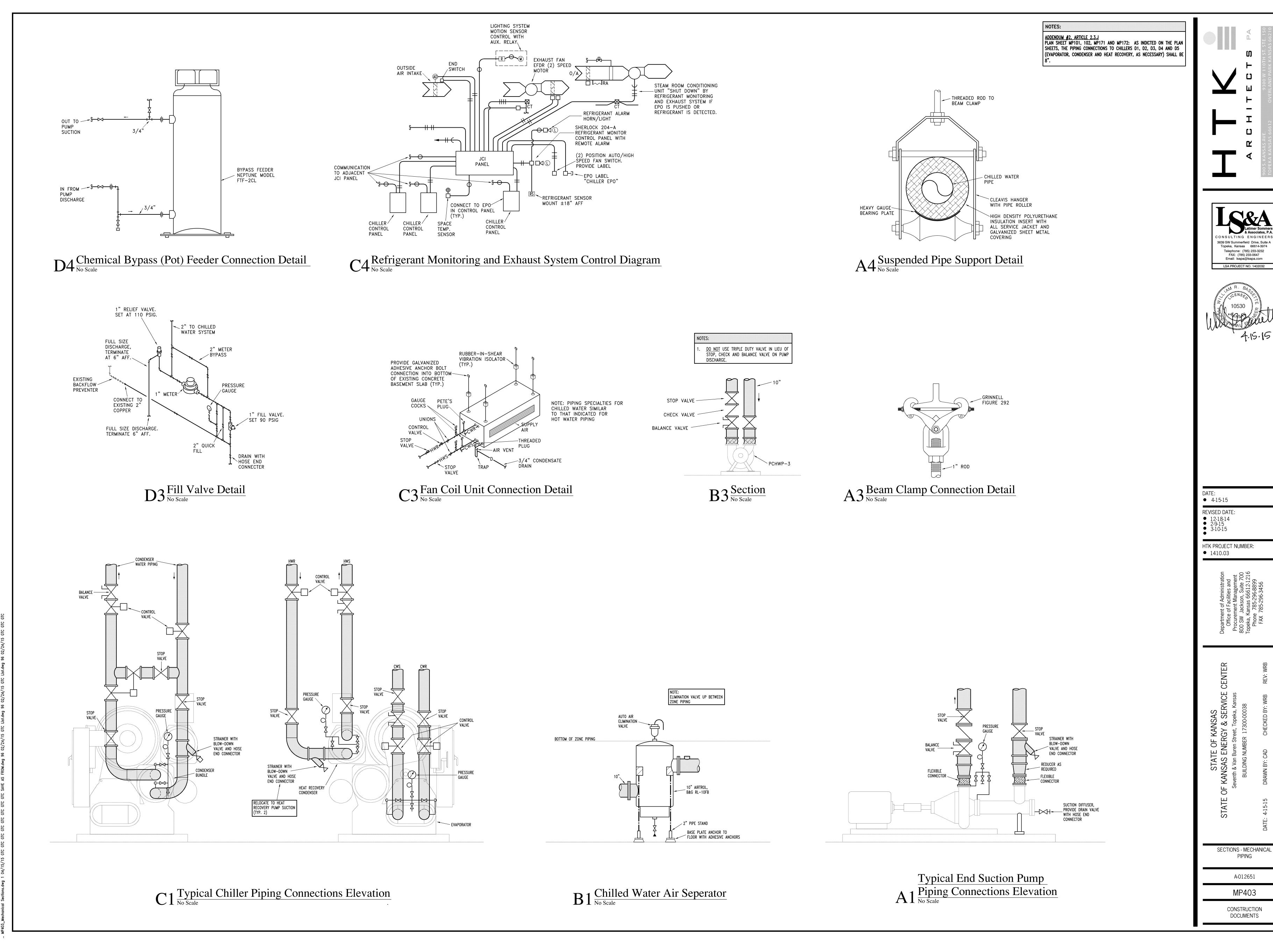
CONSTRUCTION DOCUMENTS





A-012651

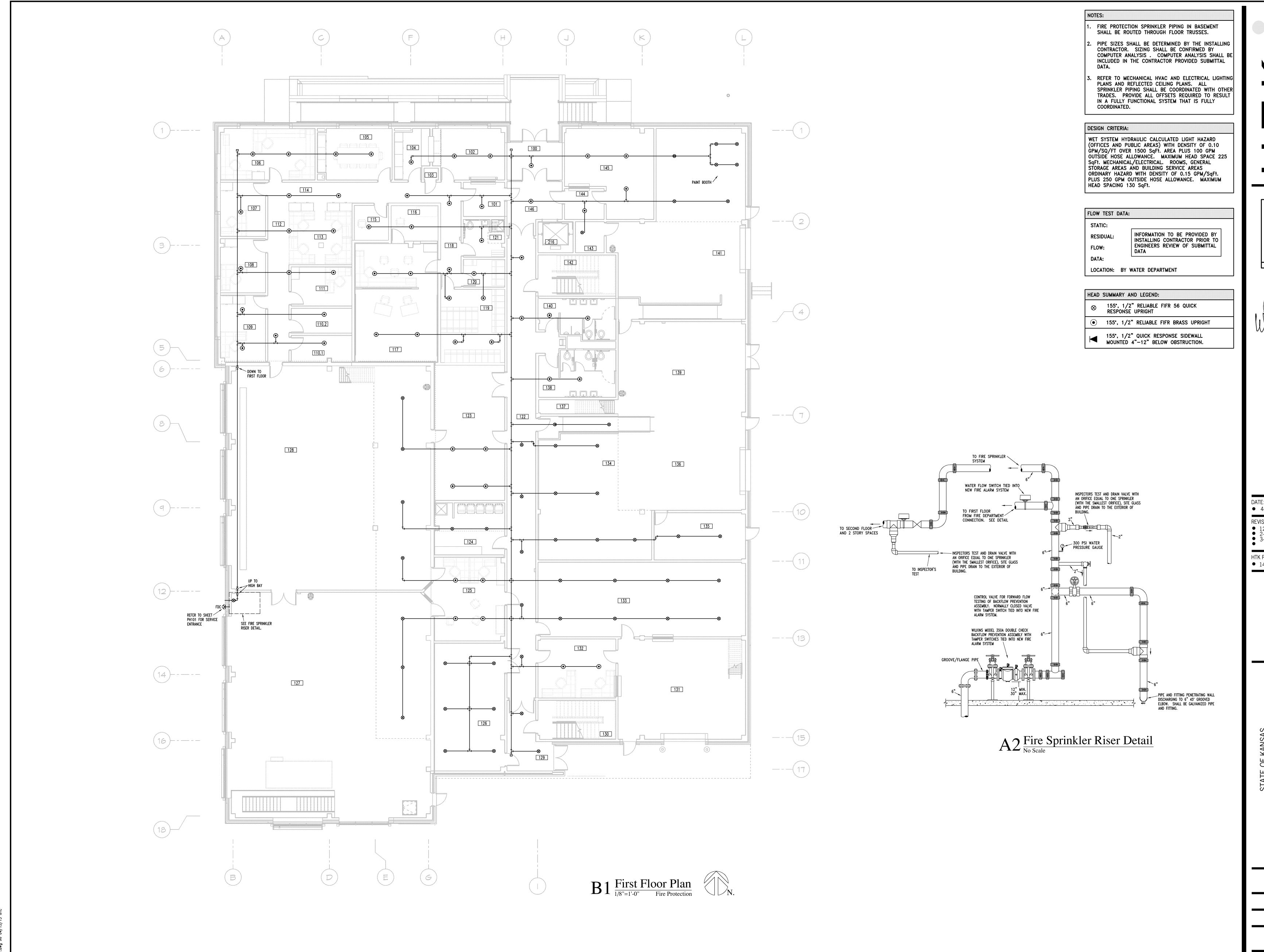
MP402



JCSBC 2-2-2016 Att.9C.--0093

MP403 CONSTRUCTION DOCUMENTS

A-012651



A R C H I T E C T S

9300 W 110TH ST. ST

TOPEKA KANSAS 66612 OVERLAND PARK KANSAS 9,785-266-5373 WWW.HTKARCHITECTS.NET





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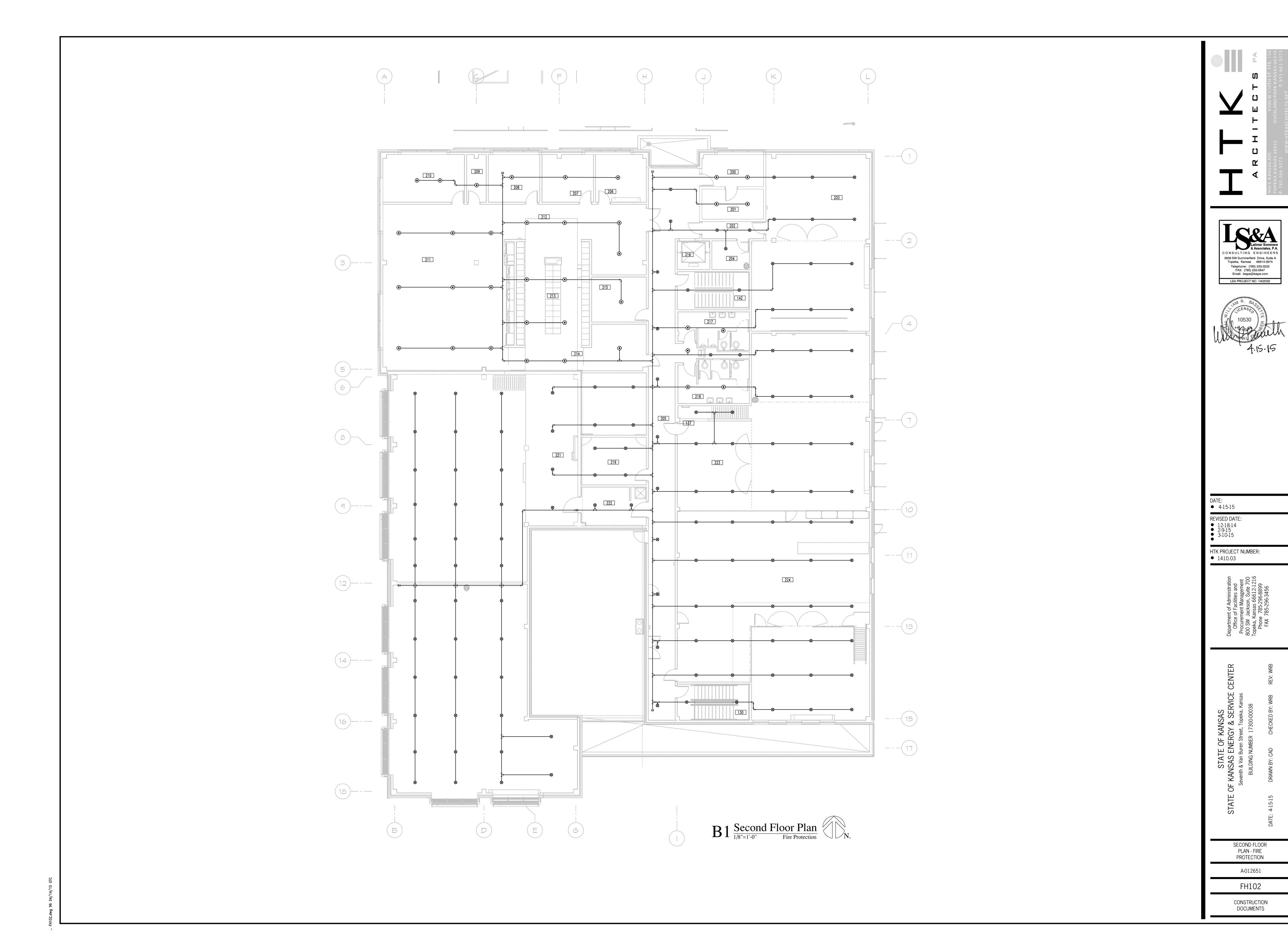
Department of Administration Office of Facilities and Procurement Management 800 SW Jackson, Suite 700 Topeka, Kansas 66612-1216 Phone 785-296-8899 FAX 785-296-3456

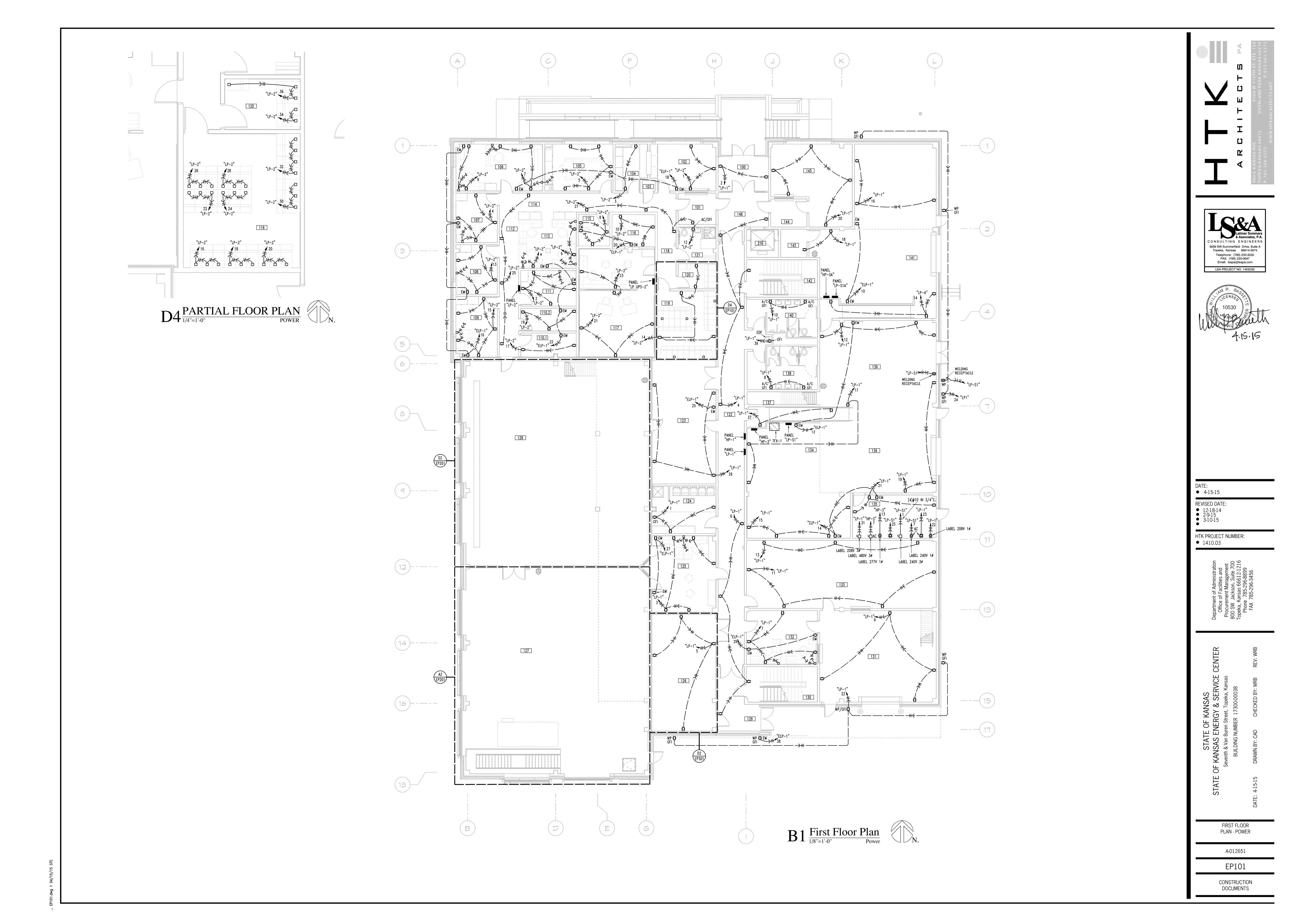
STATE OF KANSAS ENERGY & SERVICE CENTER
Seventh & Van Buren Street, Topeka, Kansas
BUILDING NUMBER 17300-00038

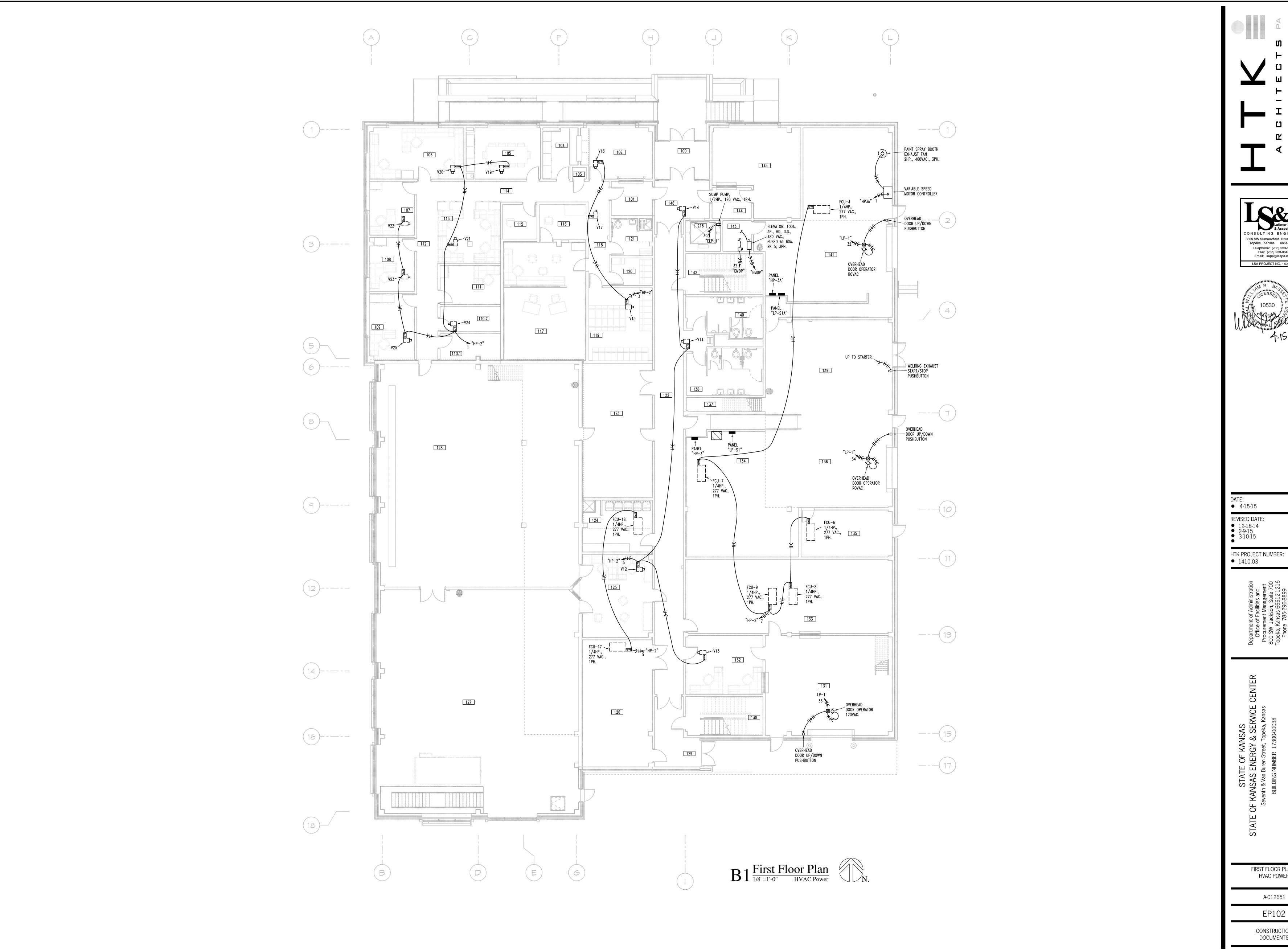
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FIRST FLOOR
PLAN - FIRE
PROTECTION

A-012651







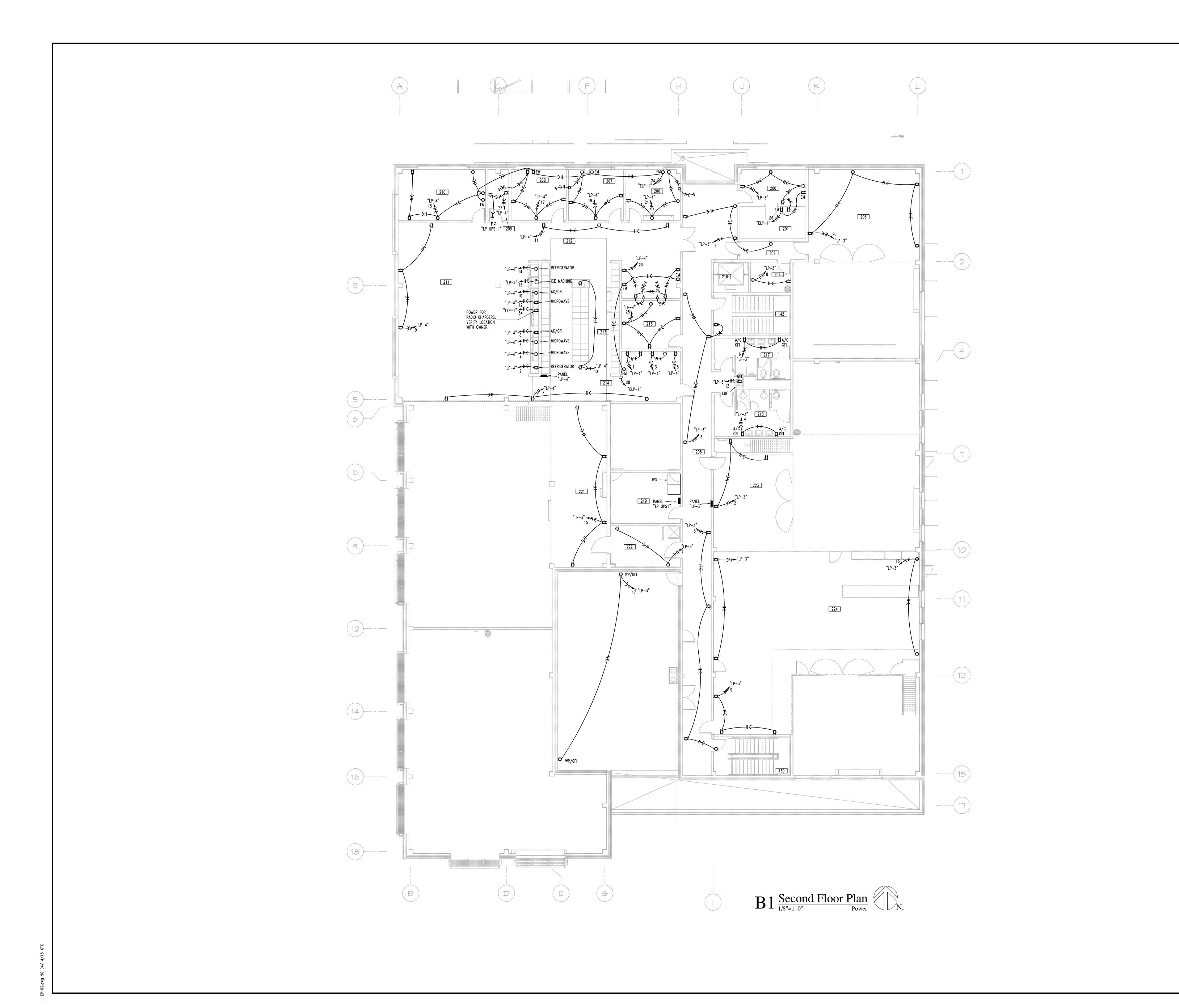




STATE OF KANSAS
F KANSAS ENERGY & SERN
Seventh & Van Buren Street, Topeka, K
BUILDING NUMBER 17300-00038

FIRST FLOOR PLAN -HVAC POWER

EP102







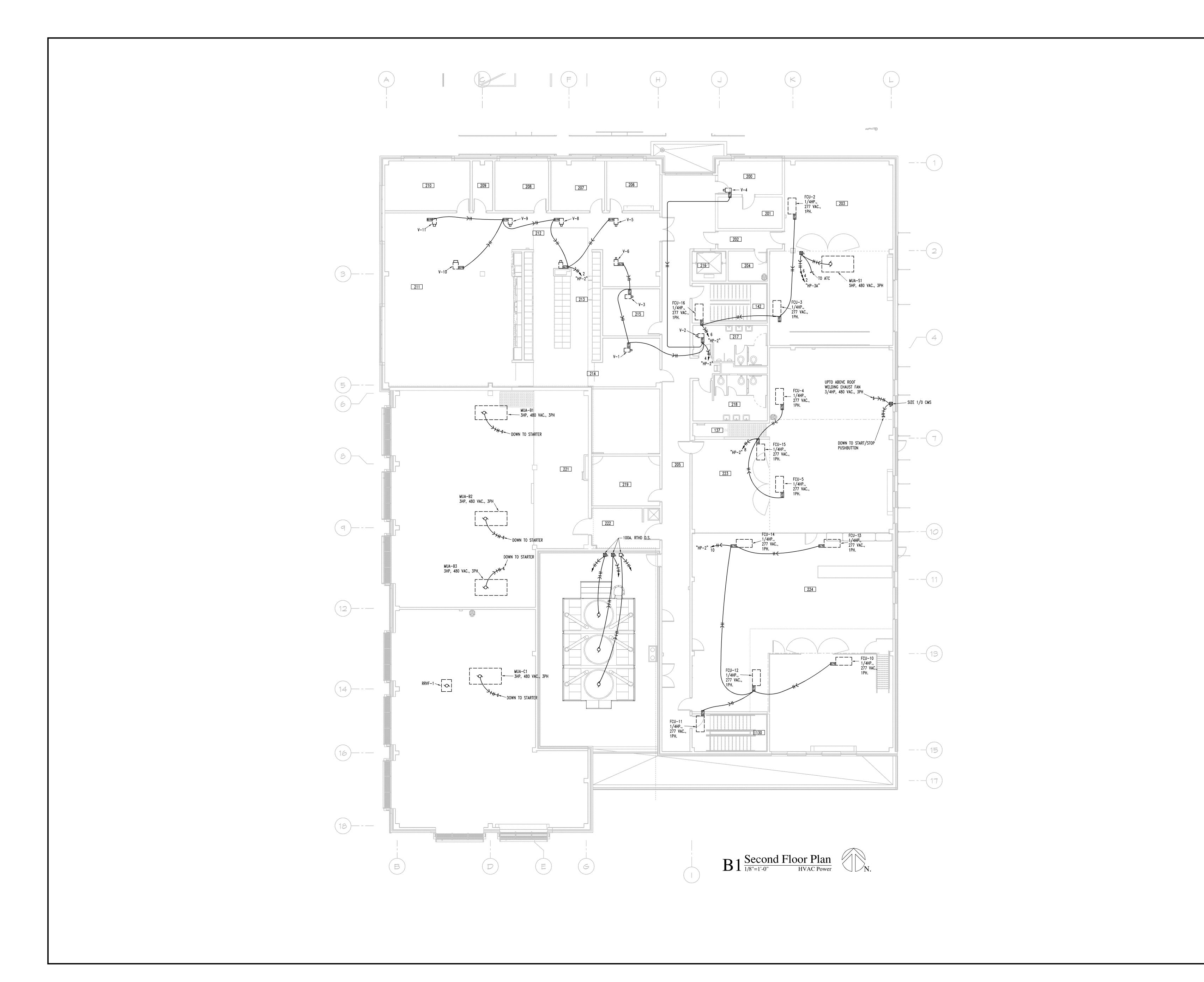
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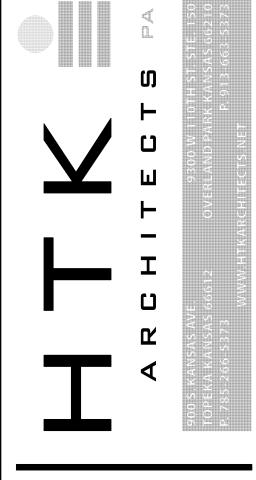
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STATE OF KANSAS
F KANSAS ENERGY & SERN
Seventh & Van Buren Street, Topeka, K.
BUILDING NUMBER 17300-00038

SECOND FLOOR PLAN -POWER A-012651 EP103 CONSTRUCTION DOCUMENTS









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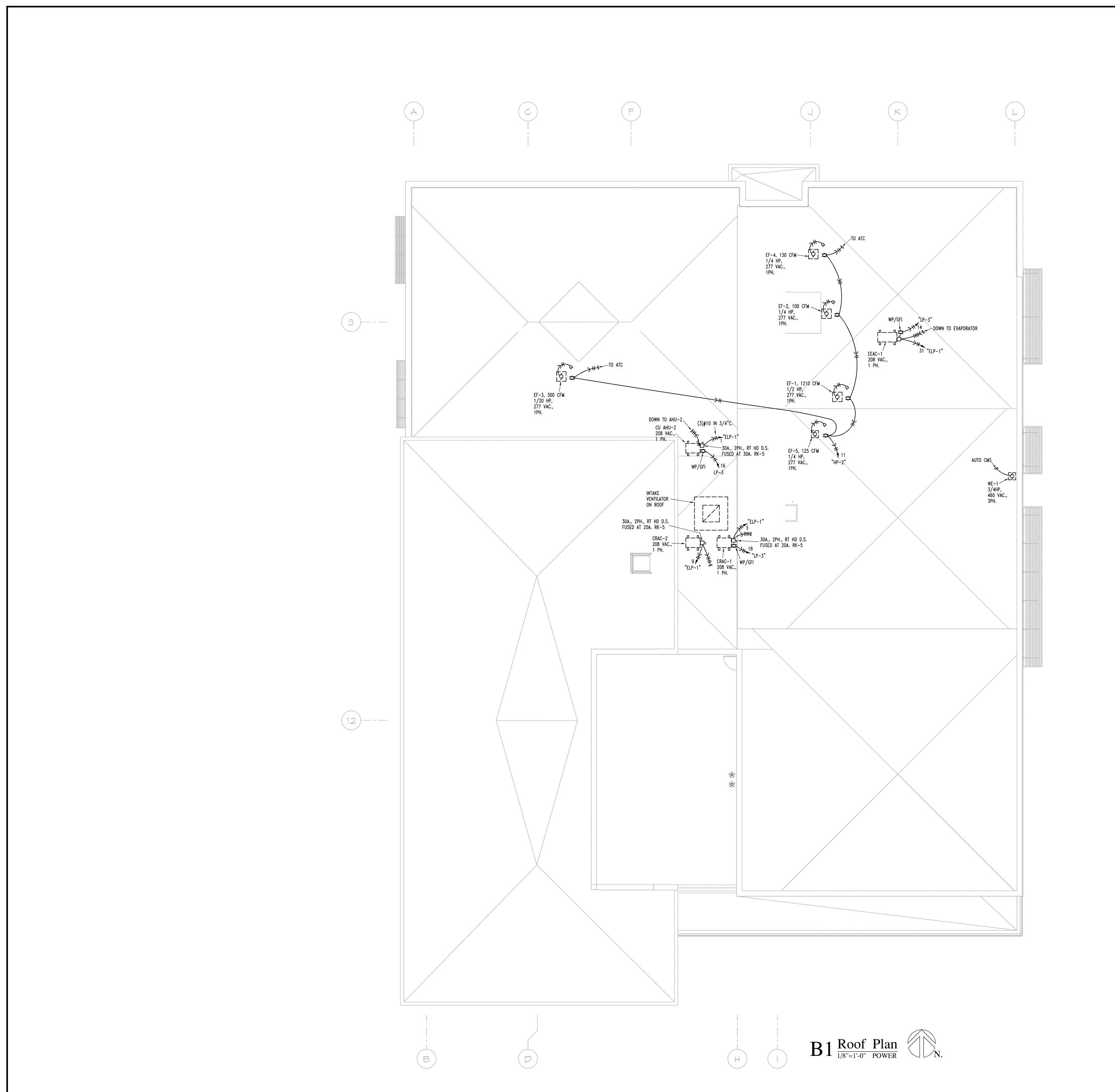
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Department of Administration Office of Facilities and Procurement Management 800 SW Jackson, Suite 700 Topeka, Kansas 66612-1216 Phone 785-296-8899 FAX 785-296-3456

STATE OF KANSAS
STATE OF KANSAS ENERGY & SERVICE CENTER
Seventh & Van Buren Street, Topeka, Kansas
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SECOND FLOOR PLAN - HVAC POWER

A-012651 EP104







STATE OF KANSAS

F KANSAS ENERGY & SERVICE CENTER

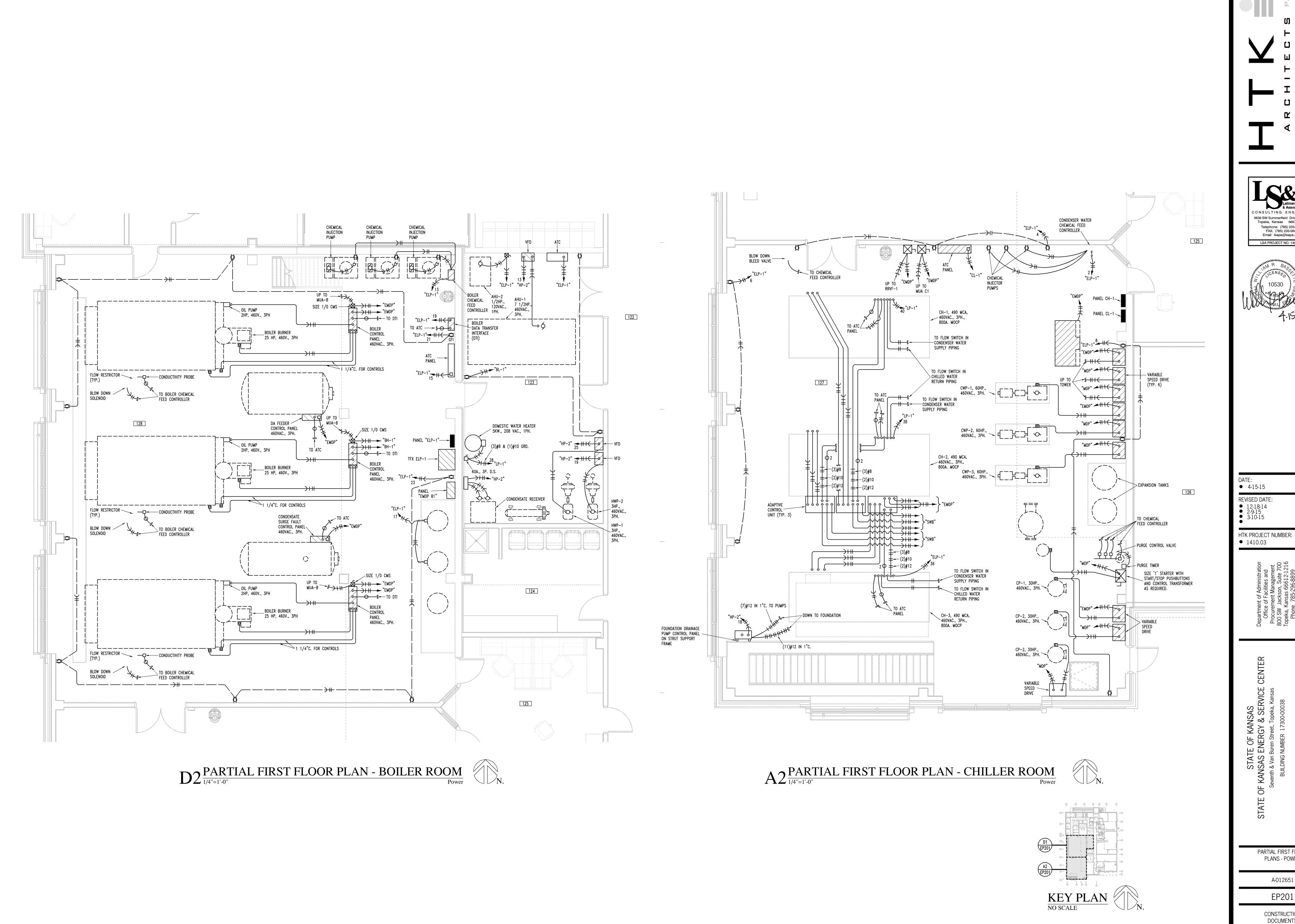
Seventh & Van Buren Street, Topeka, Kansas

BUILDING NUMBER 17300-00038

ROOF PLAN -POWER

A-012651 EP105

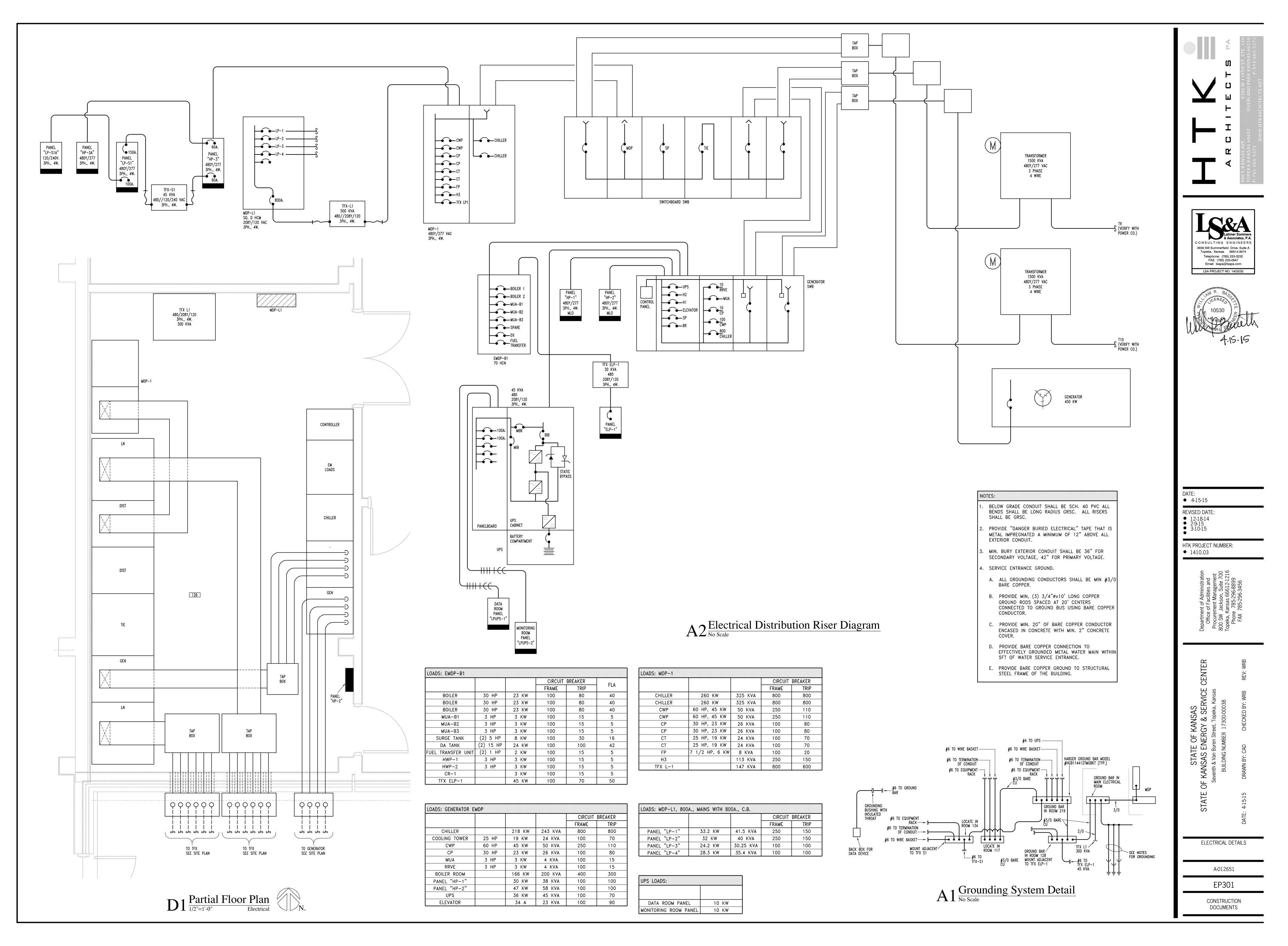
CONSTRUCTION DOCUMENTS



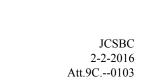
PARTIAL FIRST FLOOR PLANS - POWER A-012651 EP201 CONSTRUCTION DOCUMENTS

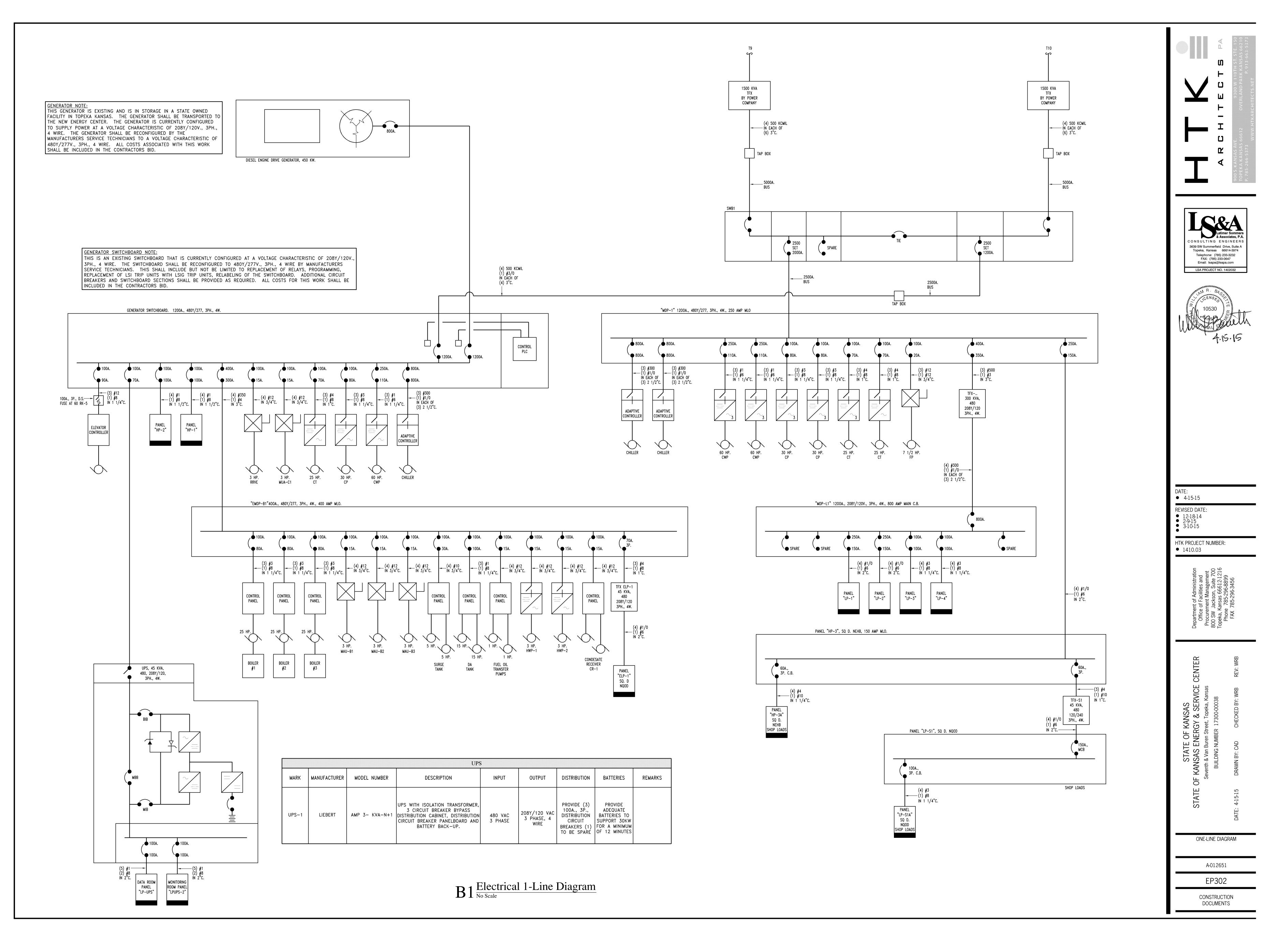
3639 SW Summerfield Drive, Suite A Topeka, Kansas 66614-3974 Telephone: (785) 233-3232 FAX: (785) 233-0647 Email: Isapa@Isapa.com

LSA PROJECT NO. 1402032









					PAN	ELBOARD	SCHED	JLE					
PANEL NO.: "LP-3"				LOCATI	ON: SE	OND FLOOR	CORRIDO	₹					KAIC: .
PANEL TYPE: SQ D NQOD WITH BOLT	ON CIRC	CUIT BRE	AKERS	VOLTS:	: 208Y/	120	PHASE:	3		WI	RE: 4		MAINS: 100A. MLO
DESCRIPTION	WA	TTS/PHA	SE	WIRE	C/B			C/B	WIRE	WA	TTS/PHA	SE	DESCRIPTION
DESCRIPTION	Α	В	С	SIZE	TŔIP	4	0	TŘIP	SIZE	Α	В	С	DESCRIPTION
CONVENIENCE RECEPTACLES COR. 205	800				20	3 1		20		600			CONVENIENCE RECEPTACLES RM. 223
CONVENIENCE RECEPTACLES COR. 205		800			20	5 ~		20			400		CONVENIENCE RECEPTACLES RM. 218
CONVENIENCE RECEPTACLES COR. 205			800		20	7 0	8	20				400	CONVENIENCE RECEPTACLES RM. 217
CONVENIENCE RECEPTACLES RM. 222	400				20	9		20		400			CONVENIENCE RECEPTACLES RM. 204
CONVENIENCE RECEPTACLES RM. 224		600			20		10	20			1000		CONVENIENCE RECEPTACLES RM. 200
CONVENIENCE RECEPTACLES RM. 224			400		20	11	12	20				1000	ELECTRIC DRINKING FOUNTAIN
CONVENIENCE RECEPTACLES RM. 224	400				20	13	14	20		1000			SERVICE RECEPTACLE ON ROOF
CONVENIENCE RECEPTACLES RM. 221		800			20	15	16	20			1000		SERVICE RECEPTACLE ON ROOF
CONVENIENCE RECEPTACLES AT COOLING TOWERS			400		20	17	18	20				1000	SERVICE RECEPTACLE ON ROOF
SPARE	1000				20	19	20	20		1000			CONVENIENCE RECEPTACLES RM. 203
SPARE		1000			20	21	22	20			1000		SPARE
SPARE			1000		20	23	24	20				1000	SPARE
SPARE	1000				20	25	26	20		1000			SPARE
SPARE		1000			20	27	28 30	20			1000		SPARE
SPARE			1000		20	29		20				1000	SPARE
CONNECTED LOAD	3600	4200	3600				7			4000	4400	4400	CONNECTED LOAD

PANELBOARD SCHEDULE

PANELBOARD SCHEDULE

PANELBOARD SCHEDULE

#12 20 19 20 20 #12

PHASE: 3

LOCATION: FIRST FLOOR CORRIDOR

PHASE: 3

C/B WIRE TRIP SIZE

LOCATION: FIRST FLOOR SHOP ROOM 134

VOLTS: 480Y/277

PHASE: 3

KAIC: .

MAINS: 100A. MLO

LTG. RM. 211

SITE LIGHTING

SITE LIGHTING

SITE LIGHTING

300 SITE LIGHTING

SPACE

SPACE

SPACE

SPACE

SPACE

SPACE

SPACE

KAIC: .

MAINS: 150A. MLO

DESCRIPTION

WELDING EXHAUST FAN 3/4 HP, 460 VAC, 3 PHASE

TRANSFORMER TFX-S1

45 KVA

SPARE

SPARE

SPARE SPARE

SPARE

SPARE

KAIC:

MAINS: 150A. MLO

DESCRIPTION

CONVENIENCE RECEPTACLES RM. 100

CONVENIENCE RECEPTACLES RM. 100, 146

CONVENIENCE RECEPTACLES RM. 122, 129 CONVENIENCE RECEPTACLES RM. 138

CONVENIENCE RECEPTACLES RM. 140

CONVENIENCE RECEPTACLES RM. 139

CONVENIENCE RECEPTACLES RM. 141

CONVENIENCE RECEPTACLES RM. 141

CONVENIENCE RECEPTACLES RM. 145

CONVENIENCE RECEPTACLES RM. 123

400 CONVENIENCE RECEPTACLES RM. 141

EXTERIOR RECEPTACLES

ELECTRIC WATER HEATER

O/H DOOR OPERATOR

O/H DOOR OPERATOR

CHILLER CONTROL

CHILLER CONTROL

500 O/H DOOR OPERATOR

1000 SPARE

4700 | 6400 | 6600 | CONNECTED LOAD

600 EXTERIOR RECEPTACLES

2000 SPARE

2000 SPARE

2000 SPARE

18500 18500 18500 CONNECTED LOAD

WIRE: 4

А В

WATTS/PHASE

4740 | 2800 | 2780 | CONNECTED LOAD

WIRE: 4

WATTS/PHASE

DESCRIPTION

LTG. 2ND FL CORR., TOILET RM.

LTG. RM. 131, 223, 224

2480 LTG. 2ND FL. N. MAINT. OFFICES

WIRE: 4

WATTS/PHASE

LOCATION: CORRIDOR 112

VOLTS: 480Y/277

WATTS/PHASE

1280

2560

2800

1800

7300 8445 5520

WATTS/PHASE

2000

2000

2000

19080 | 19080 | 19080 |

500

1000

6100 | 5400 | 5000

1000

2000

2000

2400

PANEL NO.: "HP-1"

PANEL TYPE: SQ D NEHB

LIGHTING KHP OFFICES

LIGHTING KHP OFFICES

LIGHTING ROOM 117

LIGHTING, BOILER ROOM

LIGHTING, CHILLER ROOM

LTG. RM. 139, 134, 136

TUNNEL LIGHTING

TUNNEL LIGHTING

CONNECTED LOAD

PANEL NO.: "HP-3"

PANEL "HP-3A"

SPARE

SPARE

SPARE

SPARE SPARE

SPARE

SPARE

CONNECTED LOAD

PANEL NO.: "LP-1"

DESCRIPTION

CONVENIENCE RECEPTACLES RM. 124

CONVENIENCE RECEPTACLES RM. 125

CONVENIENCE RECEPTACLES RM. 126

CONVENIENCE RECEPTACLES RM. 132 CONVENIENCE RECEPTACLES RM. 131

CONVENIENCE RECEPTACLES RM. 133

CONVENIENCE RECEPTACLES RM. 134

CONVENIENCE RECEPTACLES RM. 134

CONVENIENCE RECEPTACLES RM. 136

CONVENIENCE RECEPTACLES RM. 135 CONVENIENCE RECEPTACLES RM. 135

TEST 2 POLE RECEPTACLE RM. 135

SPARE SPARE

SPARE

CONNECTED LOAD

TEST 3 POLE DISCONNECT RM. 135 500

CONVENIENCE RECEPTACLES RM. 135

CONVENIENCE RECEPTACLES RM. 133 600

PANEL TYPE: SQ D NEHB

DESCRIPTION

TEST CIRCUIT RM. 135, 3 PHASE

TEST CIRCUIT RM. 135, SINGLE PHASE | 2000

PANEL TYPE: SQ D NQOD WITH BOLT ON CIRCUIT BREAKERS

SPACE

SPACE SPACE

SPACE

DESCRIPTION

LTG. 1ST FL CORR., TOILET RM.

LTG. OFFICES S. END OF 1ST FL.

LTG. RM. 141, 143, 144, 145, 203

					PA1	NELBOARD	SCHEDI	JLE					
PANEL NO.: "LP-4"				LOCAT	ION: SE	COND FLOOR	MAINTENA	ANCE O	FFICE A	AREA			KAIC: .
PANEL TYPE: SQ D NQOD WITH BOLT	ON CIRC	CUIT BRE	AKERS	VOLTS	: 208Y/	<sup>′</sup> 120	PHASE:	3		WI	RE: 4		MAINS: 100A. MLO
DESCRIPTION	WA	ATTS/PHA	ASE	WIRE	C/B			C/B	WIRE	WA	TTS/PHA	\SE	DESCRIPTION
DESCRIPTION	Α	В	С	SIZE	TRIP		2	TRIP	SIZE	Α	В	С	DESCRIPTION
CONVENIENCE RECEPTACLES RM. 214	400			#12	20	3 1	$\begin{bmatrix} 2 \\ 4 \end{bmatrix}$	20	#12	1000			REFRIGERATOR
CONVENIENCE RECEPTACLES RM. 214		400		#12	20	<b>├</b>		20	#12		1500		MICROWAVE
CONVENIENCE RECEPTACLES RM. 214			400	#12	20	5 ~	6	20	#12			1500	MICROWAVE
CONVENIENCE RECEPTACLES RM. 214	600			#12	20	<u> </u>	8	20	#12	1000			CONVENIENCE RECEPTACLES ABOVE COUNTER 2
CONVENIENCE RECEPTACLES RM. 211		600		#12	20	9	10	20	#12		1000		CONVENIENCE RECEPTACLES ABOVE COUNTER 2
CONVENIENCE RECEPTACLES RM. 212			600	#12	20	11	12	20	#12			1500	MICROWAVE
CONVENIENCE RECEPTACLES RM. 213	400			#12	20	13	14	20	#12	1000			REFRIGERATOR
CONVENIENCE RECEPTACLES RM. 210		1000		#12	20	15	16	20 /	#12		1500		ICE MACHINE
CONVENIENCE RECEPTACLES RM. 208			1000	#12	20	17	18	<b>2</b> P	#12			1500	VERIFY SIZE AND ELECTRICAL REQUIREMENT
CONVENIENCE RECEPTACLES RM. 207	1000			#12	20	19	20	20		1000			SPARE
CONVENIENCE RECEPTACLES RM. 206		1000		#12	20	21	22	20			1000		SPARE
CONVENIENCE RECEPTACLES RM. 212			1200	#12	20	23	24	20				1000	SPARE
CONVENIENCE RECEPTACLES RM. 215	800			#12	20	25	26	20		1000			SPARE
CONVENIENCE RECEPTACLES RM. 209		400		#12	20	27	28	20			1000		SPARE
SPARE			1000		20	29 ~	30	20				1000	SPARE
						1 442	7						
CONNECTED LOAD	3200	3400	4200	1	1					5000	6000	6500	CONNECTED LOAD

				. "		1 ^ 1	I I	4.0		l "				
FCU'S 1ST FL. WEST		1660		#12	20	9 ~ 1	<b>₽</b> ┤──	10	20	#12		4155		FCU'S 2ND FL. SOUTH
EXHAUST FANS			4150	#12	20	111	<del>╏</del> ╋╌ᠰ╴	12	20 /	#12				CONDENSATE RECEIVER
AHU-1	3900			#10	30 /	13	╂┼╌ᠰ╴	14	/	#12	•			
10 HP, 460 VAC, 3 PHASE		3900		#10		15	<b>┝</b> ┼╌ <sup>┼</sup> ╌	16	3P	#12		•		
			3900	#10	<b>∠</b> 3P	17	┠╋╌ᠰ╴	18	20 /	#12			1700	FOUNDATION DRAINAGE PUMP
HWP-1	1330			#12	20 /	19	╂┼╌ᠰ╴	20	/	#12	1700			(2) 1-1/2HP, 460 VAC, 3 PHASE
3 HP, 460 VAC, 3 PHASE		1330		#12		21	<b>,</b>	22	3P	#12		1700		
			1330	#12	<b>∠</b> 3P	23	╂┿╌╲╌	24	20	#12			Х	SPARE
HWP-2	1330			#12	20 /	25	$H \sim$	26	20	#12	Х			SPARE
3 HP, 460 VAC, 3 PHASE		1330		#12		27	<b>•</b>	28	20	#12		Х		SPARE
			1330	#12	<b>∕</b> 3P	29	<b>├</b> -^-	30	20	#12			Х	SPARE
						] <u> </u>	77							
CONNECTED LOAD	12665	9050	11810								5800	6955	4200	CONNECTED LOAD
PANEL NO.: "HP-3A"				LOCAT		NELBOAR			ULE					KAIC: .
PANEL TYPE: SQ D NEHB				VOLTS	: 480Y/		PH	IASE:	3		WI	RE: 4		MAINS: 100A. MLO
	WA	ATTS/PH	ASE	WIRE	C/B		<u> </u>		C/B	WIRE	l w	TTS/PHA	\SE	
DESCRIPTION	A	В	С	SIZE	TRIP				TRIP	SIZE	A	В	С	DESCRIPTION
PAINT SPRAY BOOTH EXHAUST	950			#12	20 /	<u> </u>	$H^{+}$		20 /	1	2200			MUA-S1, 5 HP, 3 PHASE
2 HP, 460 VAC, 3 PHASE		950		#12		3	<b>┝┼</b> ╌┼╴	4	/			2200		
			950	#12	<b>3</b> P	5	┟ <del>╽</del> ╌┈┈	6	3P				2200	
SPARF	2000				20	7~	$\coprod_{\sim}$	8	20		2000			SPARF

PANELBOARD SCHEDULE

PHASE: 3

C/B WIRE

2 20 #12 1600

KAIC: 10

WATTS/PHASE

MAINS: 100A. MLO

DESCRIPTION

VAV TERMINALS 2ND FL. N. OFFICES

VAV TERMINALS 2ND FL. N. OFFICES

FCU'S 2ND FL. NORTH

FCU'S 2ND FL. CENTER

LOCATION: 1ST FL. MAIN ELECTRICAL ROOM

VOLTS: 480Y/277

WATTS/PHASE

PANEL NO.: "HP-2"

FCU'S 1ST FL. EAST

PANEL TYPE: SQ D NEHB

DESCRIPTION

VAV TERMINALS 1ST FL. NW OFFICES

VAV TERMINALS 1ST FL. NW OFFICES

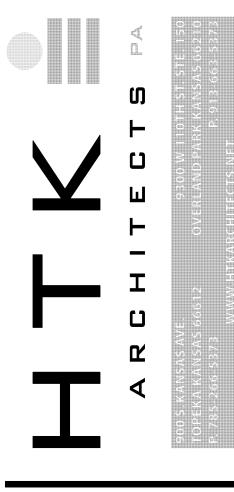
VAV TERMINALS 1ST FL. CORR. AND OFFICES

					PAN	IELBOARD	SCHED	ULE					
PANEL NO.: "HP-3A"				LOCAT	ION: FIR	ST FLOOR RO	OM 141						KAIC: .
PANEL TYPE: SQ D NEHB				VOLTS	: 480Y/	277	PHASE:	3		WI	RE: 4		MAINS: 100A. MLO
DESCRIPTION WATTS/PHASE				WIRE	C/B			C/B	WIRE	WA	ATTS/PHA	SE	DESCRIPTION
DESCRIPTION	Α	В	С	SIZE	TRIP		- 0	TŘIP	SIZE	Α	В	С	DESCRIPTION
PAINT SPRAY BOOTH EXHAUST	950			#12	20 /	<del>                                     </del>		20 /		2200			MUA-S1, 5 HP, 3 PHASE
2 HP, 460 VAC, 3 PHASE		950		#12		3					2200		
			950	#12	3P	5		<b>∠</b> 3P				2200	
SPARE	2000				20	<u> </u>	8_	20		2000			SPARE
SPARE		2000			20	9 ^	10	20			2000		SPARE
SPARE			2000		20	11 ~	12	20				2000	SPARE
SPARE	2000				20	13	14	20		2000			SPARE
SPARE		2000			20	15	16	20			2000		SPARE
SPARE			2000		20	17	18	20				2000	SPARE
SPARE	2000				20	19		20		2000			SPARE
SPARE		2000			20	21		20			2000		SPARE
SPARE			2000		20	23	24	20				2000	SPARE
SPARE	2000				20	25		20		2000			SPARE
SPARE		2000			20	27		20			2000		SPARE
SPARE			2000		20	29	30	20				2000	SPARE
						777	7						
CONNECTED LOAD	8950	8950	8950							10000	10000	10000	CONNECTED LOAD

DESCRIPTION	WA	TTS/PHA	SE	WIRE	C/B				C/B	WIRE	WA	TTS/PHA	\SE	DESCRIPTION
DESCRIPTION	Α	В	С	SIZE	TŘIP			0	TŔIP	SIZE	Α	В	С	DESCRIPTION
PAINT SPRAY BOOTH EXHAUST	950			#12	20 /	<del>┤</del> ┼┪	T	_ <del></del>	20 /		2200			MUA-S1, 5 HP, 3 PHASE
2 HP, 460 VAC, 3 PHASE		950		#12		3	╁┿┼		/			2200		
			950	#12	3P	5	<del>∐</del> ∳		3P				2200	
SPARE	2000				20	<u> </u>	┝┼┼	8_	20		2000			SPARE
SPARE		2000			20	9 ~	┞╋┼	10	20			2000		SPARE
SPARE			2000		20	11 ~	╁┼	12	20				2000	SPARE
SPARE	2000				20	13	<b>├</b> ┼┼	14	20		2000			SPARE
SPARE		2000			20	15	┞╋┼	16_	20			2000		SPARE
SPARE			2000		20	17	╫	18_	20				2000	SPARE
SPARE	2000				20	19	<b>┝</b> ┼┼		20		2000			SPARE
SPARE		2000			20	21	╂╋╂		20			2000		SPARE
SPARE			2000		20	23	╫	24	20				2000	SPARE
SPARE	2000				20	25	<b>┝</b> ┼┼		20		2000			SPARE
SPARE		2000			20	27	╂╋╂		20			2000		SPARE
SPARE			2000		20	29	╫	30	20				2000	SPARE
						2	777							
CONNECTED LOAD	8950	8950	8950								10000	10000	10000	CONNECTED LOAD
					PAN	NELBOA	RD S	SCHED	ULE					
PANEL NO.: "LP-2"	_	_	_	LOCAT	ION: SE	CURITY OF	FICE	AREA		_				KAIC: .

					PAN	NELBOARD	SCHED	JLE					
PANEL NO.: "LP-2"				LOCATI	ON: SE	CURITY OFFICE	E AREA						KAIC: .
PANEL TYPE: SQ D NQOD WITH BOLT	ON CIRC	CUIT BRE	AKERS	VOLTS:	208Y/	120	PHASE:	3		l v	VIRE: 4		MAINS: 150A. MLO
DESCRIPTION	WA	ATTS/PHA	SE	WIRE	C/B			C/B	WIRE	٧	VATTS/PHA	SE	DESCRIPTION
DESCRIPTION	Α	В	С	SIZE	TRIP		0	TŘIP	SIZE	Α	В	С	DESCRIPTION
CONVENIENCE RECEPTACLES RM. 102	600			#12	20	<del>                                     </del>		20	#12	1000			CONVENIENCE RECEPTACLES RM. 111
CONVENIENCE RECEPTACLES RM. 104		400		#12	20	3 ~		20	#12		800		CONVENIENCE RECEPTACLES RM. 113
CONVENIENCE RECEPTACLES RM. 105			1000	#12	20	5 ~	6	20	#12			800	CONVENIENCE RECEPTACLES RM. 113
CONVENIENCE RECEPTACLES RM. 106	1000			#12	20	<b>1</b>	8	20	#12	600			SECURITY OFFICE AREA
CONVENIENCE RECEPTACLES RM. 106		600		#12	20	9 ~	10	20	#12		600		CONVENIENCE RECEPTACLES RM. 116
CONVENIENCE RECEPTACLES RM. 107			1000	#12	20	11 ~	12	20	#12			400	CONVENIENCE RECEPTACLES RM. 121
CONVENIENCE RECEPTACLES RM. 108	1000			#12	20	13	14	20	#12	1000			CONVENIENCE RECEPTACLES RM. 119, 120
CONVENIENCE RECEPTACLES RM. 109		1000		#12	20	15	16	20	#12		600		CONVENIENCE RECEPTACLES RM. 119 LOCKERS
CONVENIENCE RECEPTACLES RM. 110.1			400	#12	20	17	18	20	#12			600	CONVENIENCE RECEPTACLES RM. 119 LOCKERS
CONVENIENCE RECEPTACLES RM. 110.2	600			#12	20	19	20	20	#12	600			CONVENIENCE RECEPTACLES RM. 119 LOCKERS
CONVENIENCE RECEPTACLES RM. 117		600		#12	20	21		20	#12		600		CONVENIENCE RECEPTACLES RM. 119 LOCKERS
CONVENIENCE RECEPTACLES RM. 117			600	#12	20	23	24	20	#12			600	CONVENIENCE RECEPTACLES RM. 119 LOCKERS
CONVENIENCE RECEPTACLES RM. 112	800			#12	20	25	26	20	#12	600			CONVENIENCE RECEPTACLES RM. 119 LOCKERS
CONVENIENCE RECEPTACLES RM. 114		800		#12	20	27	28	20	#12		600		CONVENIENCE RECEPTACLES RM. 119 LOCKERS
SPARE			1000		20	29		20	#12			600	CONVENIENCE RECEPTACLES RM. 119 LOCKERS
SPARE	1000				20	31	32	20	#12	600			CONVENIENCE RECEPTACLES RM. 119 LOCKERS
SPARE		1000			20	33	34	20	#12		600		CONVENIENCE RECEPTACLES RM. 120 LOCKERS
SPARE			1000		20	35		20	#12			400	CONVENIENCE RECEPTACLES RM. 120 LOCKERS
SPARE	1000				20	37	38	20		1000			SPARE
SPARE		1000			20	39	40	20			1000		SPARE
SPARE			1000		20	41 ~	42	20				1000	SPARE
						<u> </u>	7						

CONNECTED LOAD	6000	5400	6000						5400	4800	4400	CONNECTED LOAD
					PAN	NELBOARD SCHED	ULE					
PANEL NO.: "LP-4"				LOCAT	ION: SE	COND FLOOR MAINTEN	ANCE O	FFICE A	AREA			KAIC: .
PANEL TYPE: SQ D NQOD WITH BOLT	ON CIRC	CUIT BRE	AKERS	VOLTS	: 208Y/	120 PHASE	: 3		WI	RE: 4		MAINS: 100A. MLO
DESCRIPTION	WA	ATTS/PHA	SE	WIRE	C/B		C/B	WIRE	WA	TTS/PHA	SE	DESCRIPTION
DESCRIPTION	Α	В	С	SIZE	TŘIP		TRIP	SIZE	Α	В	С	DESCRIPTION
CONVENIENCE RECEPTACLES RM. 214	400			#12	20	1 7 1 1 2	20	#12	1000			REFRIGERATOR
CONVENIENCE RECEPTACLES RM. 214		400		#12	20	3 ~ 4	20	#12		1500		MICROWAVE
CONVENIENCE RECEPTACLES RM. 214			400	#12	20	5 ~ 6	20	#12			1500	MICROWAVE
CONVENIENCE RECEPTACLES RM. 214	600			#12	20	7 ~ 10	20	#12	1000			CONVENIENCE RECEPTACLES ABOVE COUNTER 2
CONVENIENCE RECEPTACLES RM. 211		600		#12	20	9 10	20	#12		1000		CONVENIENCE RECEPTACLES ABOVE COUNTER 2
CONVENIENCE RECEPTACLES RM. 212			600	#12	20	11 ~ 12	20	#12			1500	MICROWAVE
CONVENIENCE RECEPTACLES RM. 213	400			#12	20	13 14	20	#12	1000			REFRIGERATOR
CONVENIENCE RECEPTACLES RM. 210		1000		#12	20	15 16	20 /	#12		1500		ICE MACHINE
CONVENIENCE RECEPTACLES RM. 208			1000	#12	20	17 18	2P	#12			1500	VERIFY SIZE AND ELECTRICAL REQUIREMENTS
CONVENIENCE RECEPTACLES RM. 207	1000			#12	20	19 ~ 20	20		1000			SPARE
CONVENIENCE RECEPTACLES RM. 206		1000		#12	20	$\frac{21}{27}$	20			1000		SPARE
CONVENIENCE RECEPTACLES RM. 212			1200	#12	20	23 ~ 24	20				1000	SPARE
CONVENIENCE RECEPTACLES RM. 215	800			#12	20	25 ~ 26	20		1000			SPARE
CONVENIENCE RECEPTACLES RM. 209		400		#12	20	27 ~ 28	20			1000		SPARE
SPARE			1000		20	29 ~ 30	20				1000	SPARE
CONNECTED LOAD	3200	3400	4200						5000	6000	6500	CONNECTED LOAD







4-15-15

HTK PROJECT NUMBER:

1410.03

ELECTRICAL SCHEDULES

CONSTRUCTION

					PAI	VELBO.	ARD	SCHED	JLE					
PANEL NO.: "ELP-1"		LOCATION: FIRST FLOOR MAIN BOILER ROOM										KAIC: .		
PANEL TYPE: SQ D NQOD WITH BOLT	ON CIRC	CUIT BRE	AKERS	VOLTS	: 208Y/	120		PHASE:	3		WI	RE: 4		MAINS: 150A. MCB
DESCRIPTION	WA	TTS/PHA	\SE	WIRE	C/B				C/B	WIRE	WA	TTS/PHA	SE	DESCRIPTION
BESCKII HON	Α	В	С	SIZE	TRIP	] , .		2	TRIP	SIZE	Α	В	С	DESCRIPTION
CU-AHU-2	2160			#10	30 /	$\begin{bmatrix} 1 \\ 3 \end{bmatrix}$	•	$\begin{bmatrix} 2 \\ 4 \end{bmatrix}$	20	#12	1000			CONDENSER WATER CHEMICAL TREATMENT
		2160		#10	<b>2</b> P		1+	- 6	20	#12		600		CHILLER ROOM RECEPTACLES
CU-CRAC-1			1700	#12	] 20 /		+++	~ 8	20	#12			600	CHILLER ROOM RECEPTACLES
	1700			#12	<b>2</b> P	<del>  7</del>	+		20	#12	600			CHILLER ROOM RECEPTACLES
CU-CRAC-2		1700		#12	] 20 /	9	1+	10 12	20	#12		400		EMER. RECEPTACLES RM. 141
			1700	#12	<b>2</b> P	11 4		<b>-</b> -	20	#12			400	EMER. RECEPTACLES RM. 139, 134
BOILER ROOM CHEMICAL TREATMENT	1000			#12	20	13	+	14	20	#12	400			EMER. RECEPTACLES RM. 134, 135
BOILER ROOM ATC PANEL		1000		#12	20	15	-   +	$\vdash$ $\vdash$	20	#12		800		EMER. RECEPTACLES SECURITY OFFICES
WATER SOFTENER			1000	#12	20	17		18	20	#12			600	EMER. RECEPTACLES SECURITY OFFICES
BOILER ROOM DATA TRANSFER PANEL	1000			#12	20	19	+	20	20	#12	400			EMER. RECEPTACLES SECURITY OFFICES
BOILER ROOM CONVENIENCE RECEPTACLES		800		#12	20	21	-   +	22	20	#12		800		EMER. RECEPTACLES SECURITY OFFICES
BOILER ROOM CONVENIENCE RECEPTACLES			1000	#12	20	23		24	20	#12			800	EMER. RECEPTACLES MAINT. OFFICES
EMERGENCY RECEPTACLES ROOM 123	200			#12	20	25 ^	+	<u>26</u> 28	20	#12	400			EMER. RECEPTACLES MAINT. OFFICES
EMERGENCY RECEPTACLES ROOM 125		400		#12	20	—— \	-   +	$\vdash$ $\!$	20	#12		600		EMER. RECEPTACLES MAINT. OFFICES
EMERGENCY RECEPTACLES ROOM 132			400	#12	20	29		30	20	#12			1200	ELEV. PIT DRAINAGE PUMP 1/2HP, 120 VAC
CU EEAC	1700			#12	] 20 /	31	+	- $-$	20	#12	1000			ELEVATOR CAB POWER
		1700		#12	<b>2</b> P		-	34	20	#12		1000		EMER. RECEPT MAINT. BAT CHARGERS
TUNNEL RECEPTACLES			1000	#10	20	35		<b>-</b>	20	#12			1000	CHILLER CONTROL
TUNNEL RECEPTACLES	1000			#10	20	37	+	38	20	#12	1000			S. EXT RECEPT AND LIGHTING CONTROL
FACP		1000		#12	20	39	+	$\vdash$ $\vdash$	20			1000		SPARE
SPARE			1000		20	41_^	++4	42	20				1000	SPARE
							<u> </u>							
CONNECTED LOAD	8760	8760	7800								4800	5200	5600	CONNECTED LOAD

DESCRIPTION	WA	ATTS/PHA	ASE	WIRE	C/B			C/B	WIRE	WA	TTS/PHA	SE	DESCRIPTION
DESCRIPTION	A	В	С	SIZE	TŔIP		0	TRIP	SIZE	Α	В	С	DESCRIPTION
RECEPTACLE ROOM 209	1000			#12	20	$\frac{1}{7}$ $\uparrow$	$\begin{bmatrix} 2 \\ 4 \end{bmatrix}$	20		1000			SPARE
SPARE		1000			20	3 ~	4	20			1000		SPARE
SPARE			1000		20	5 ~ 1	6	20				1000	SPARE
SPARE	1000				20	<del>- ^ ♦+</del>	8	20		1000			SPARE
SPARE		1000			20	9	10	20			1000		SPARE
SPARE			1000		20	11	12	20				1000	SPARE
SPARE	1000				20	13	14	20		1000			SPARE
SPARE		1000			20	15	16	20			1000		SPARE
SPARE			1000		20	17	18	20				1000	SPARE
SPARE	1000				20	19	20	20		1000			SPARE
SPARE		1000			20	21	22	20			1000		SPARE
SPARE			1000		20	23	24	20				1000	SPARE
SPARE	1000				20	25	26	20		1000			SPARE
SPARE		1000			20	27	28	20			1000		SPARE
SPARE			1000		20	29	30	20				1000	SPARE
						کک	7						
CONNECTED LOAD	5000	5000	5000							5000	5000	5000	CONNECTED LOAD

PANELBOARD SCHEDULE

PHASE: 3

KAIC: .

MAINS: 100A. MLO

WIRE: 4

LOCATION: SECOND FLOOR DATA ROOM

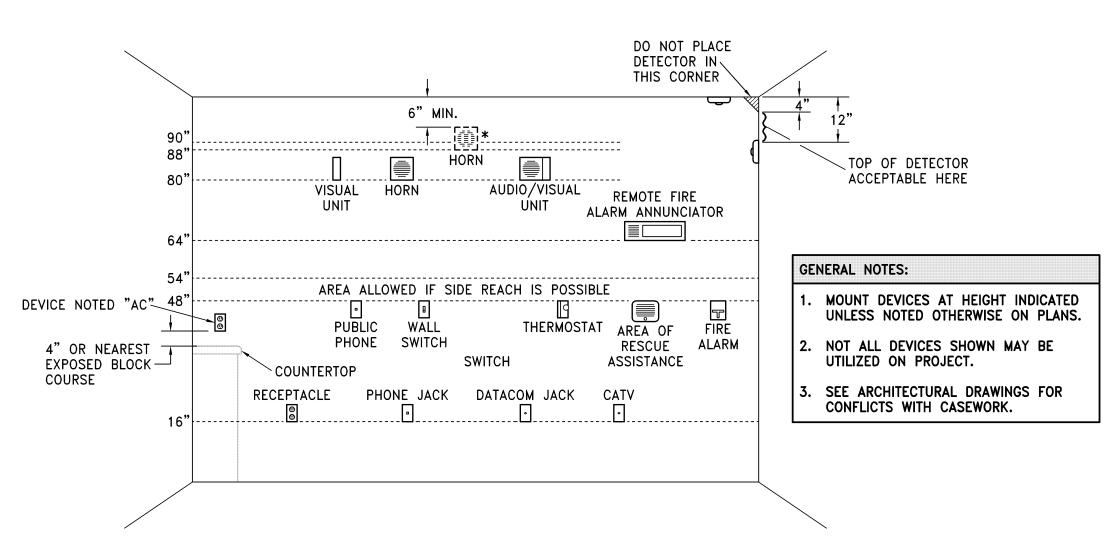
PANEL NO.: "LP UPS-1"

PANEL TYPE: SQ D NQOD WITH BOLT ON CIRCUIT BREAKERS VOLTS: 208Y/120

					PAN	NELBOARI	SCHED	JLE					
PANEL NO.: "LP UPS-2"				LOCATI	ON: FIR	ST FLOOR S		KAIC: .					
PANEL TYPE: SQ D NQOD WITH	BOLT ON CIRC	CUIT BRE	AKERS	VOLTS: 208Y/120 PHASE: 3						WI	RE: 4		MAINS: 100A. MLO
DESCRIPTION	WA	WATTS/PHASE W		WIRE	C/B			C/B	WIRE	WATTS/PHASE			DESCRIPTION
DESCRIFTION	Α	В	С	SIZE	TRIP		0	TRIP	SIZE	Α	В	С	DESCRIPTION
SPARE	1000				20	<del>                                     </del>	$T^{\wedge} \overset{Z}{\overset{J}}{\overset{J}{\overset{J}{\overset{J}{\overset{J}{\overset{J}{\overset{J}{\overset{J}}{\overset{J}{\overset{J}}{\overset{J}{\overset{J}}{\overset{J}{\overset{J}{\overset{J}}{\overset{J}{\overset{J}}{\overset{J}{\overset{J}}{\overset{J}{\overset{J}}{\overset{J}{\overset{J}}{\overset{J}{\overset{J}}{\overset{J}}{\overset{J}}{\overset{J}{\overset{J}}{\overset{J}}{\overset{J}}{\overset{J}}{\overset{J}}{\overset{J}}{\overset{J}}{\overset{J}}{\overset{J}}{\overset{J}}{\overset{J}}{\overset{J}}{\overset{J}}}{\overset{J}}}{\overset{J}}}{\overset{J}}}}}}}}}$	20		1000			SPARE
SPARE		1000			20	3 ^	4	20			1000		SPARE
SPARE			1000		20	5 ~	6	20				1000	SPARE
SPARE	1000				20	<u> </u>	8	20		1000			SPARE
SPARE		1000			20	9	10	20			1000		SPARE
SPARE			1000		20	11 ~ 11	$\sim \frac{12}{14}$	20				1000	SPARE
SPARE	1000				20	13	14	20		1000			SPARE
SPARE		1000			20	15	16	20			1000		SPARE
SPARE			1000		20	17 ~	18	20				1000	SPARE
SPARE	1000				20	19	~ 20	20		1000			SPARE
SPARE		1000			20	21	22	20			1000		SPARE
SPARE			1000		20	23 ^	~ 24	20				1000	SPARE
SPARE	1000				20	25	<u>26</u>	20		1000			SPARE
SPARE		1000			20	27	28	20			1000		SPARE
SPARE			1000		20	29 ^	~ 30	20				1000	SPARE
						77	<u></u>						
CONNECTED LOAD	5000	5000	5000							5000	5000	5000	CONNECTED LOAD

					PAN	IELBOARD	SCHED	ULE					
PANEL NO.: "LP-S1"		LOCAT	ION: FIR	ST FLOOR SI	HOP ROOI	d 134					KAIC: .		
PANEL TYPE: SQ D NQOD WITH	BOLT ON CIRC	CUIT BRE	AKERS	VOLTS	: 120/2	40	PHASE:	3		WII	RE: 4		MAINS: 150A. MCB
DESCRIPTION	WA			WIRE	C/B			C/B TRIP	WIRE	WA	TTS/PHA	SE	DESCRIPTION
DESCRIPTION	A			SIZE	TŘIP		. 2		SIZE	Α	A B C		DESCRIPTION
TEST CIRCUIT ROOM 135	500			#10	30 /	<del>                                     </del>	-	100 /		6000			PANEL "LP-S1A"
		500		#10		3	$+\uparrow -\frac{4}{6}$				6000		
			500	#10	3P	5	6	<b>3</b> P				6000	
TEST CIRCUIT ROOM 135	500			#10	30 /	<del>                                     </del>	8	20		1000			SPARE
		500		#10	2P	9	10	20			1000		SPARE
SPARE			1000		20	11 ~	12	20				1000	SPARE
SPARE	1000				20	13	14	20		1000			SPARE
SPARE		1000			20	15	16	20			1000		SPARE
SPARE			1000		20	17	18	20				1000	SPARE
SPARE	1000				20	19		20		1000			SPARE
SPARE		1000			20	21	~ 22	20			1000		SPARE
SPARE			1000		20	23	~ 24	20				1000	SPARE
SPARE	1000				20	25	26	20		1000			SPARE
SPARE		1000			20	27	28	20			1000		SPARE
SPARE			1000		20	29 ~	30	20				1000	SPARE
						<u> </u>	<u> </u>						
CONNECTED LOAD	4000	4000	4000							5000	5000	5000	CONNECTED LOAD

					PAN	IELBOARD	SCHED	ULE					
PANEL NO.: "LP-S1A"	LOCATI	ON: FIR	ST FLOOR SH	IOP ROOM	1 141					KAIC: .			
PANEL TYPE: SQ D NQOD WITH BOLT	ON CIRC	CUIT BRE	AKERS	VOLTS:	: 120/2	40	PHASE: 3			WI	RE: 4		MAINS: 100A. MLO
DESCRIPTION	WA			WIRE C/B				C/B	WIRE	WATTS/PHASE			DESCRIPTION
DESCRIPTION	Α	В	С	SIZE	TŔIP		2	TŔIP	SIZE	Α	В	С	DESCRIPTION
SPARE	1000				20	3 1	2	20		1000			SPARE
SPARE		1000			20	5 0	6	20			1000		SPARE
SPARE			1000		20	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		20				1000	SPARE
SPARE	1000				20	9 0	8_	20		1000			SPARE
SPARE		1000			20		1012	20			1000		SPARE
SPARE			1000		20	17		20				1000	SPARE
SPARE	1000				20	13	14	20		1000			SPARE
SPARE		1000			20	15	16_	20			1000		SPARE
SPARE			1000		20	├── <del>│                                  </del>	18	20				1000	SPARE
SPARE	1000				20	19		20		1000			SPARE
SPARE		1000			20	21		20			1000		SPARE
SPARE			1000		20	23	24	20				1000	SPARE
SPARE	1000				20	25	26	20		1000			SPARE
SPARE		1000			20	27		20			1000		SPARE
SPARE			1000		20	29		20				1000	SPARE
						<u> </u>	7						
CONNECTED LOAD	5000	5000	5000							5000	5000	5000	CONNECTED LOAD



1.	VISUAL UNIT DEVICE BOTTOM 80" ABOVE HIGHEST FLOOR LEVEL OR
	TOP 6" BELOW CEILING; WHICHEVER IS LOWER.
2.	AUDIO UNIT DEVICE BOTTOM 80" ABOVE HIGHEST FLOOR LEVEL OR
	TOP 6" BELOW CEILING; WHICHEVER IS LOWER.
	* TOP OF UNIT NOT LESS THAN 90" ABOVE FLOOR AND
	NOT LESS THAN 6" BELOW CEILING (NFPA) (BOTTOM AT 88" WITH BLOCK COURSES). MOUNT AT NFPA HEIGHT ONLY IF REQUIRED BY LOCAL AHJ.
3.	AUDIO/VISUAL UNIT DEVICE BOTTOM 80" ABOVE HIGHEST FLOOR LEVEL OR
	TOP 6" BELOW CEILING; WHICHEVER IS LOWER.
4.	PULL STATION
	HIGHEST OPERABLE PART SHALL NOT BE MORE THAN 48" ABOVE THE FLOOR (FRONT APPROACH).
	ELECTRICAL DEVICE MOUNTING HEIGHTS SHALL CONFORM TO THE LATEST EDITION OF THE ADA STANDARDS FOR
	ACCESSIBLE DESIGN.

A1 Electrical Device Mounting Heights

A R C H I T E C T S PA

900 S.KANSAS AVE. 9300 W 110TH ST. 150
TOPEKA KANSAS 66612 OVERLAND PARK KANSAS 66210





DATE:

• 4-15-15

REVISED DATE:

• 12-18-14
• 2-9-15

HTK PROJECT NUMBER:

■ 1410.03

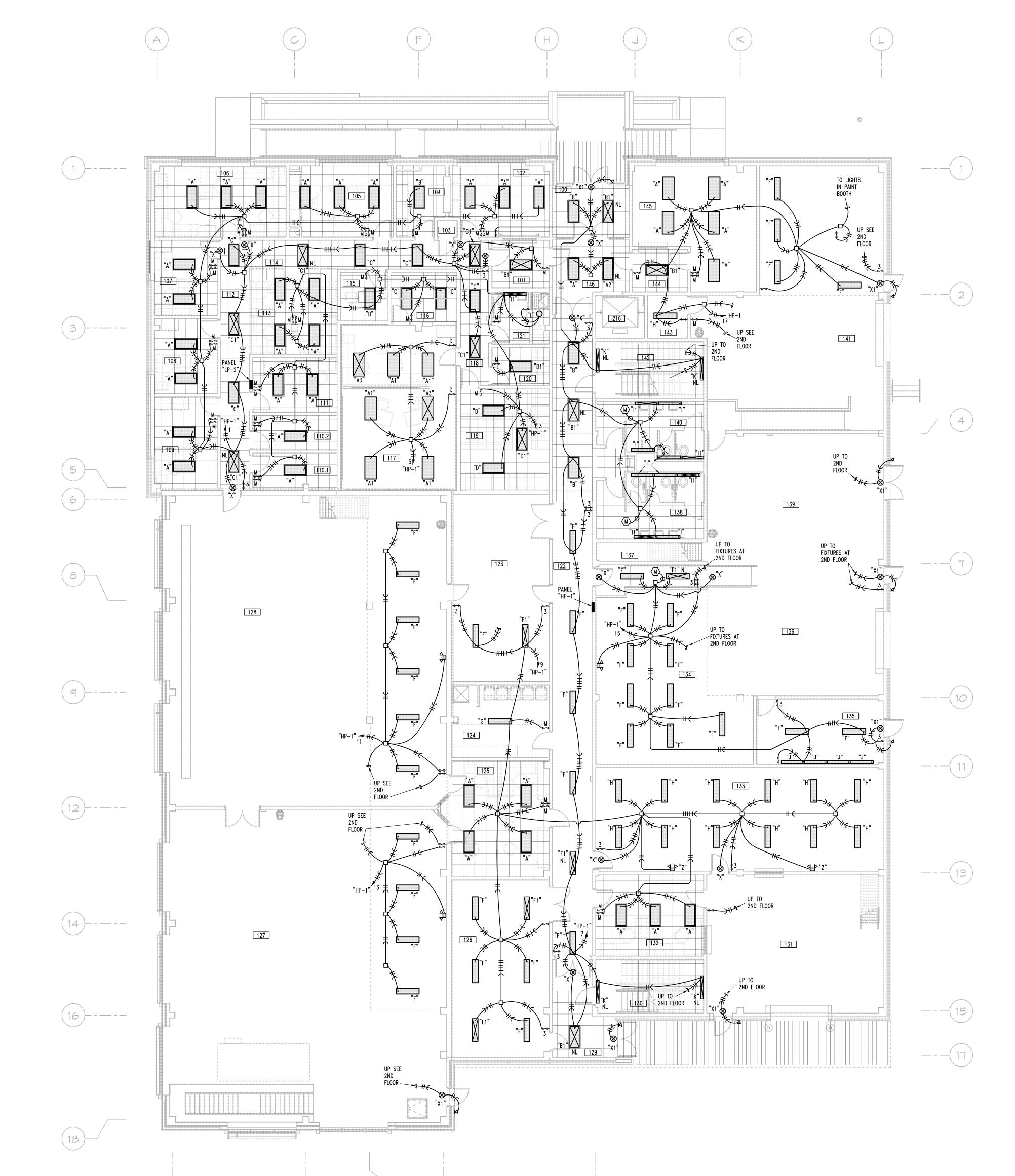
Department of Administration Office of Facilities and Procurement Management 800 SW Jackson, Suite 700 Topeka, Kansas 66612-1216 Phone 785-296-8899 FAX 785-296-3456

STATE OF KANSAS
STATE OF KANSAS ENERGY & SERVICE CENTER
Seventh & Van Buren Street, Topeka, Kansas
BUILDING NUMBER 17300-00038

ELECTRICAL DETAIL AND SCHEDULES

> A-012651 EP402

CONSTRUCTION DOCUMENTS



 $B1 \underset{1/8"=1'\text{-}0"}{\text{First Floor Plan}} \quad \bigcirc_{N.}$ 

		LI	GHT FIX	KTURE SCH	EDULE							
MARK		MODEL AUMED		MOUNTING		FINIOU		DEMARKS				
MARK	MANUFACTURER	MODEL NUMBER	LAY-IN	SUSPENDED	WALL	FINISH	LED	FLUOR.	HID.	VOLTAGE	WATTS	REMARKS
"A"	WILLIAMS	DIG-S24-LED*PH75/840-AD-ED*PH	Χ			WHITE	Х			277	80	2, 3
"A1"	WILLIAMS	DIG-S24-LED*PH75/840-AD-EDD*PH	Х			WHITE	Χ			277	80	3
"A2"	WILLIAMS	DIG-S24-LED*PH75/840-AD-EP-PH-EM-BSL-310	Х			WHITE	Х			277	80	
"A3"	WILLIAMS	DIG-S24-LED*PH75/840-AD-EDD*PH-EM-BSL-310	Х			WHITE	Χ			277	80	5
"B"	WILLIAMS	DIG-S24-LED*PH60/840-AD-ED*PH	Х			WHITE	Х			277	62	-
"B1"	WILLIAMS	DIG-S24-LED*PH60/840-AD-ED*PH-EM-BSL-310	Х							277	62	5
"C"	WILLIAMS	DIG-S24-LED*PH50/840-AD-ED*PH	Χ			WHITE	Χ			277	50	-
"C1"	WILLIAMS	DIG-S24-LED*PH50/840-AD-ED*PH-EM-BSL-310								277	50	5
"D"	WILLIAMS	DIG-S24-LED*PH40/840-AD-ED*PH	Χ			WHITE	Χ			277	42	-
"D1"	WILLIAMS	DIG-S24-LED*PH40/840-AD-ED*PH-EM-BSC-310								277	42	5
"F"	COOPER	4WNLED-LD1-70-F-UNV-L840		Х		WHITE	Χ			277	80	1
"F1"	COOPER	4WNLED-LD1-70-F-UNV-L840-EM								277	80	5
"G"	COOPER	4WNLED-LD1-54-F-UNV-L840		Х		WHITE	Χ			277	60	1
"H"	COOPER	4WNLED-LD1-41-F-UNV-L840		Х		WHITE	Χ			277	50	1
" "	WILLIAMS	LL6G-4-LED*PH34/840-F116S/MWA-ED*PH	Χ			WHITE	Χ			277	45	-
"11"	WILLIAMS	LL6G-4-LED*PH34/840-F116S/MWA-EP*PH-								277		5
		EM-BSC-310										
"J"	COOPER	S23-D-W-1L40-SR-4-1-S1-S935-S			Χ	SILVER	Х			277	45	ı
"K"	WILLIAMS	SLF-4-LED*PH75/840-HIA-ED*PH-EM-BSC-310			Χ	SILVER	Χ			277	80	-
"L"	WILLIAMS	LEDSL60-PH20/840-EDD*PH-120		RECESSED		WHITE	Х			277	30	-
"M"	WILLIAMS	SLF-4-LED*PH75/840-HIA			Χ	WHITE	Х			277	80	
"M1"	WILLIAMS	SLF-4-LED*PH75/840-HIA-EM-BSC-310			Χ	WHITE	Χ			277	80	5
"N"	RAB LIGHTING	VXBR-LED-B-DG			Χ	NATURAL ALUMINUM	Х			277		
"X"	DUAL LITE	EVEU-R-W-E-I-EMERGENCY EXIT LIGHT			Х	WHITE	Х			277		5
"X1"	DUAL LITE	EVC-U-R-W-D4-I-EMERGENCY EXIT			Х	WHITE	Х			277		4, 5
		LIGHT WITH REMOTE OUTDOOR HEAD										
"Z"	DUAL LITE	AS-80-6V-I-WB6 EMERGENCY LIGHTING UNIT			Х	BLACK				277		5

1 — FOR HIGH CEILING AREAS MOUNT FIXTURE AT 25'-0" A.F.F., FOR LOWER CEILING MOUNT FIXTURE AT 12'-0" A.F.F. 2 — PROVIDE DUAL LEVEL SWITCHING OPTION. 3 — PROVIDE WITH DIMMING DRIVER. 4 — PROVIDE REMOTE EMERGENCY LIGHTING UNIT. 5 — PROVIDE EMERGENCY LIGHTING FEATURE.





4-15-15

HTK PROJECT NUMBER:

■ 1410.03

FIRST FLOOR PLAN -LIGHTING

A-012651 EL101



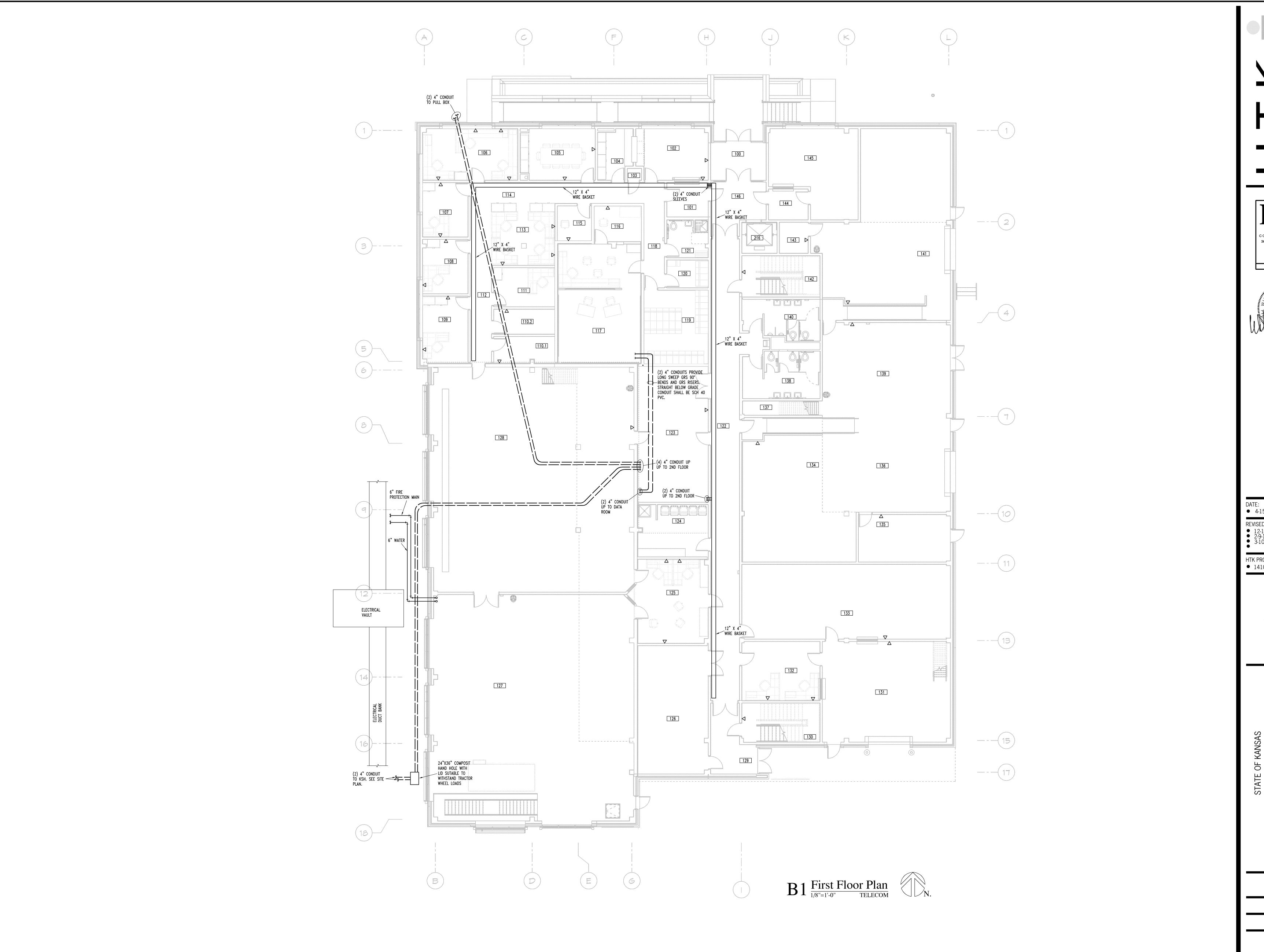


SECOND FLOOR PLAN -LIGHTING

A-012651

EL102

CONSTRUCTION DOCUMENTS







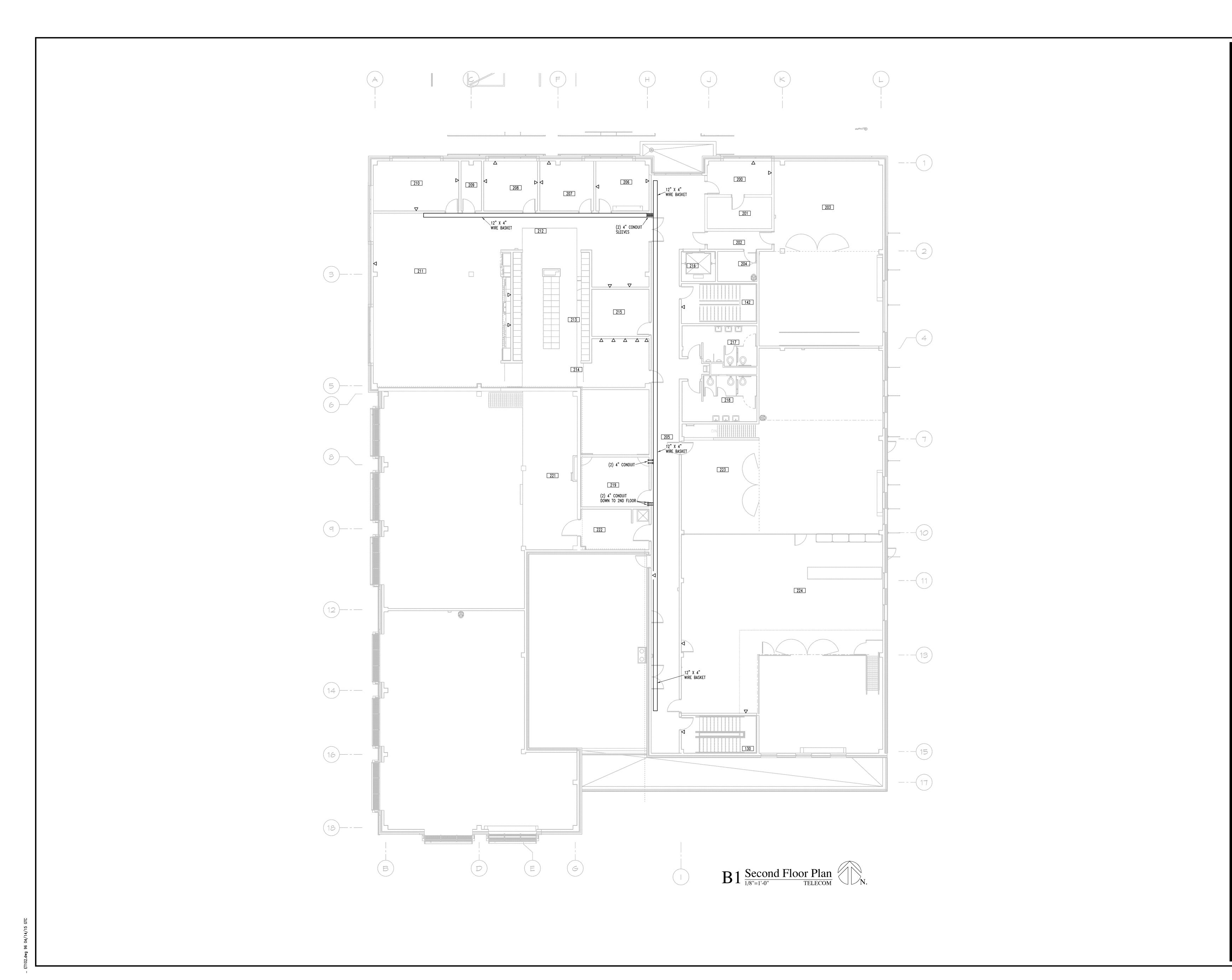
DATE: ● 4-15-15

HTK PROJECT NUMBER:

■ 1410.03

STATE OF KANSAS
F KANSAS ENERGY & SERN
Seventh & Van Buren Street, Topeka, K
BUILDING NUMBER 17300-00038

FIRST FLOOR PLAN -TELECOM A-012651 ET101

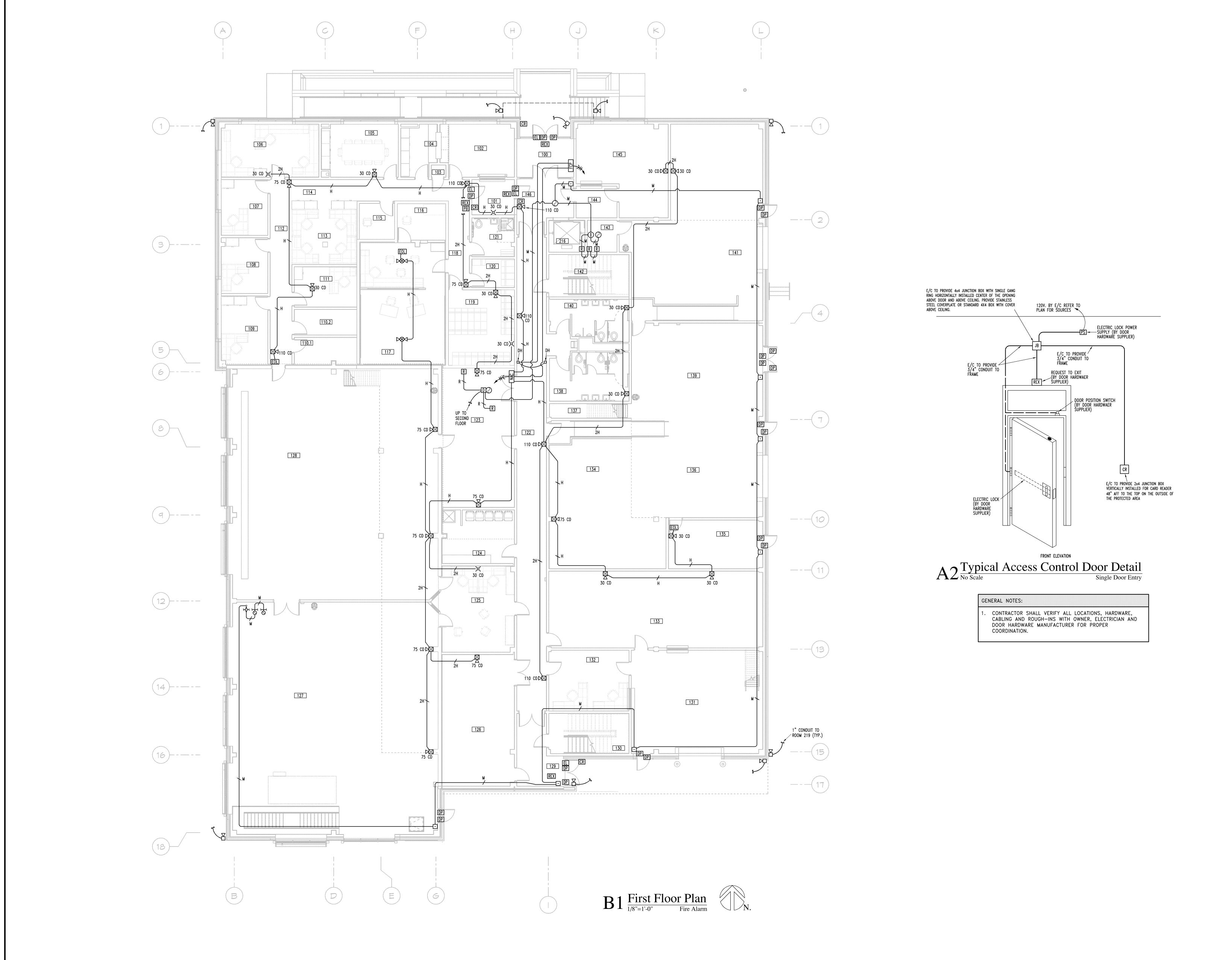






STATE OF KANSAS
STATE OF KANSAS ENERGY & SERVICE CEN
Seventh & Van Buren Street, Topeka, Kansas
BUILDING NUMBER 17300-00038

SECOND FLOOR PLAN -TELECOM A-012651 ET102 CONSTRUCTION DOCUMENTS



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900 S. KANSAS AVE.
TOPEKA KANSAS 66612
P. 785-266-5373
WWW.HTKARCHITECTS.NET
P. 913-663-537





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• 2-9-15

• 3-10-15

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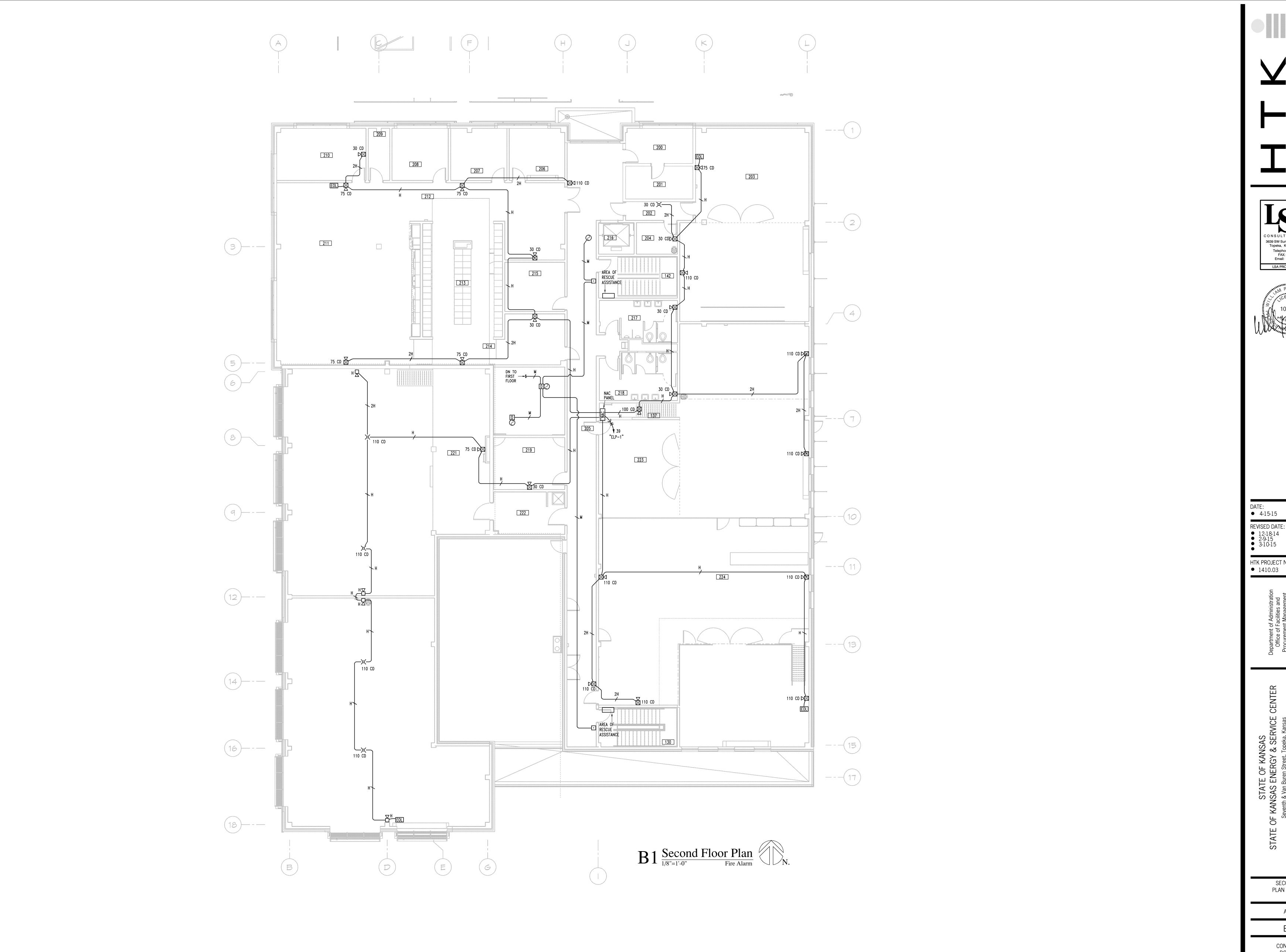
Department of Administration
Office of Facilities and
Procurement Management
800 SW Jackson, Suite 700
Topeka, Kansas 66612-1216
Phone 785-296-8899
FAX 785-296-3456

STATE OF KANSAS
STATE OF KANSAS ENERGY & SERVICE CENTER
Seventh & Van Buren Street, Topeka, Kansas
BUILDING NUMBER 17300-00038
ATE: 4-15-15 DRAWN BY: CAD CHECKED BY: WRB REV: WRB

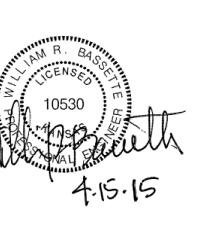
FIRST FLOOR PLAN -FIRE ALARM

> A-012651 EY101

CONSTRUCTION DOCUMENTS



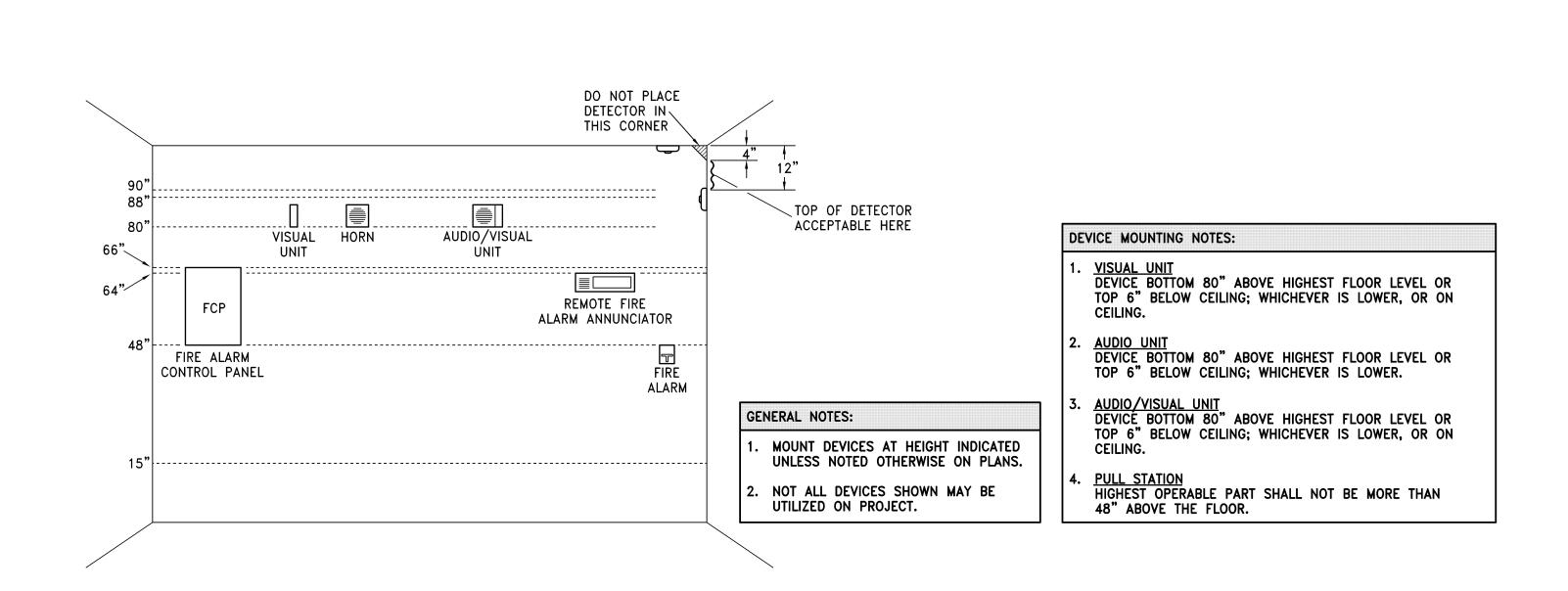




STATE OF KANSAS
F KANSAS ENERGY & SERN
Seventh & Van Buren Street, Topeka, K.
BUILDING NUMBER 17300-00038

SECOND FLOOR PLAN - FIRE ALARM

A-012651 EY102



C4 Electrical Device Mounting Heights

SLC LOOP IN FROM

PREVIOUS DEVICE

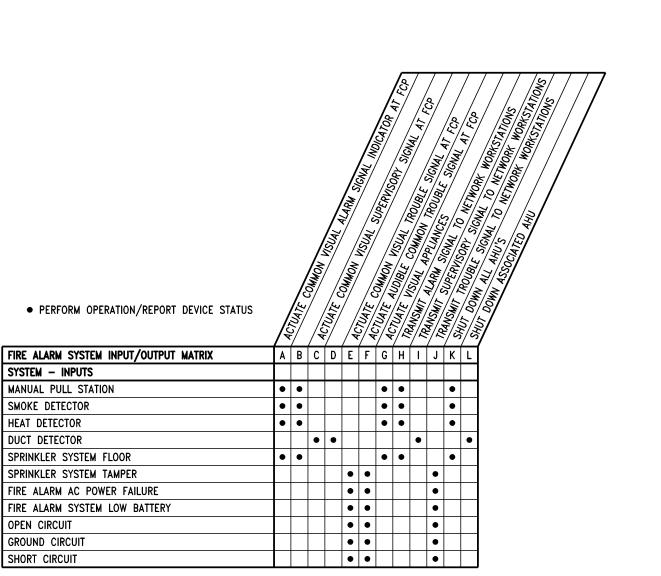
Н	AUDIBLE AND VISU	JAL CIRCUIT - 2 CON	DUCTOR 14 A	WG SOLID	
	NON-PLENUM RAT BELDEN 5120UL AREA=0.0356 SQ.	ER: FPLR CO (2) INCH. AR	) #14 AWG (R	THHN ED/BLACK) . INCH (EACH)	
K	REMOTE TEXT SWI	TCH/LED CIRCUIT - (	2) 2 CONDUCT	FOR 18 AWG SOLID	
	NON-PLENUM RAT BELDEN 532OUL AREA = 0.0179 S	Q. INCH #1		NK/BROWN) (2) /ORANGE) AREA	
М	SLC CIRCUIT - 1	PAIR 16 AWG SOLID	UNSHIELDED.		
	NON-PLENUM RAT BELDEN 5320UL A SQ. INCH.	ED: FPLR CO REA = 0.0179 (2) AR	#16 AWG (Y	IFFN ELLOW/BLUE) D. INCH (EACH)	
P	SLC POWER CIRCU	IT - 2 CONDUCTOR	14 AWG SOLID		
	NON-PLENUM RAT BELDEN 5120UL AREA = 0.0356 S	ED: FPLR CO (2) Q. INCH AR	#14 AWG (Y		
R	RELAY CIRCUIT -	2 CONDUCTOR 14 A	WG SOLID		
	NON-PLENUM RAT BELDEN 5120UL AREA = 0.0356 S	(2)	NDUIT ONLY: 1 #14 AWG (YI EA=0.0097 SQ		
С	ANNUNCIATOR COM	IMUNICATION - 2 CO	NDUCTOR 16 T	WISTED AND SHIELDED	
	NON-PLENUM RAT BELDEN 5200FE DIAMETER: 0.184 AREA = 0.0266 S	NCH			
С	 Onduit size	CONDUCTOR	AREA	CONDUIT SIZE	CONDUCTOR AREA
	1/2" 3/4" 1"	0.12 SQ INC 0.21 SQ INC 0.34 SQ INC	H.*	1 1/4" 1 1/2" 2"	0.60 SQ INCH.* 0.82 SQ INCH.* 1.34 SQ INCH.*
		*	40% FILL I	PED NEC	

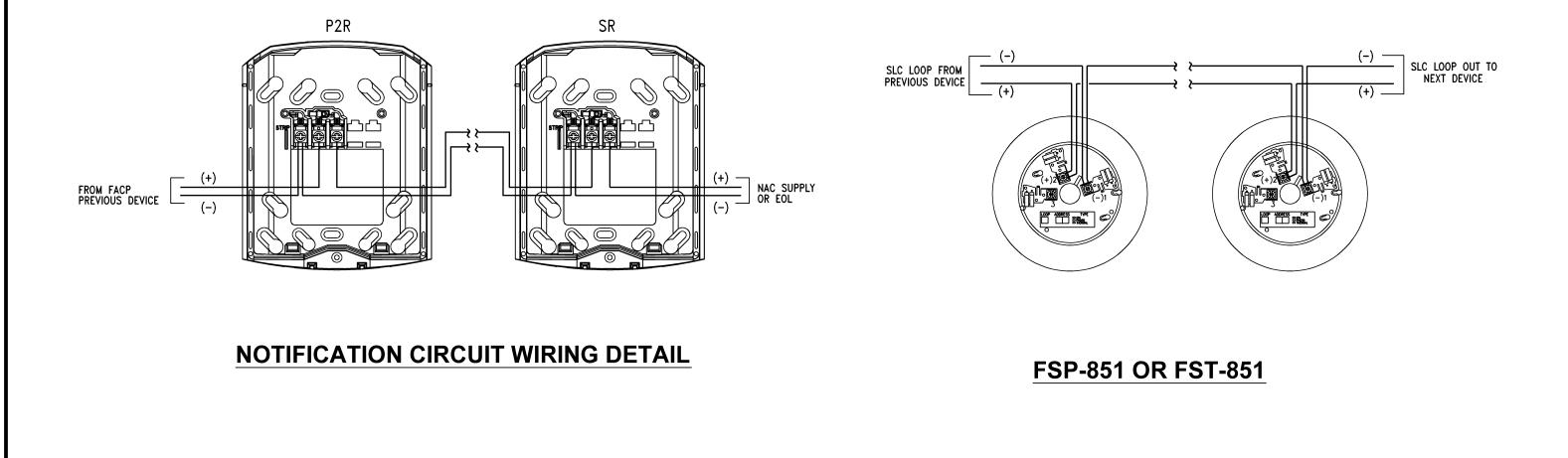
SYSTEM INSTALLATION.
NOTE: EQUIVALENT CABLES BY WEST PENN. ALL CONDUCTORS AND CABLES SHALL BE IN CONDUIT.

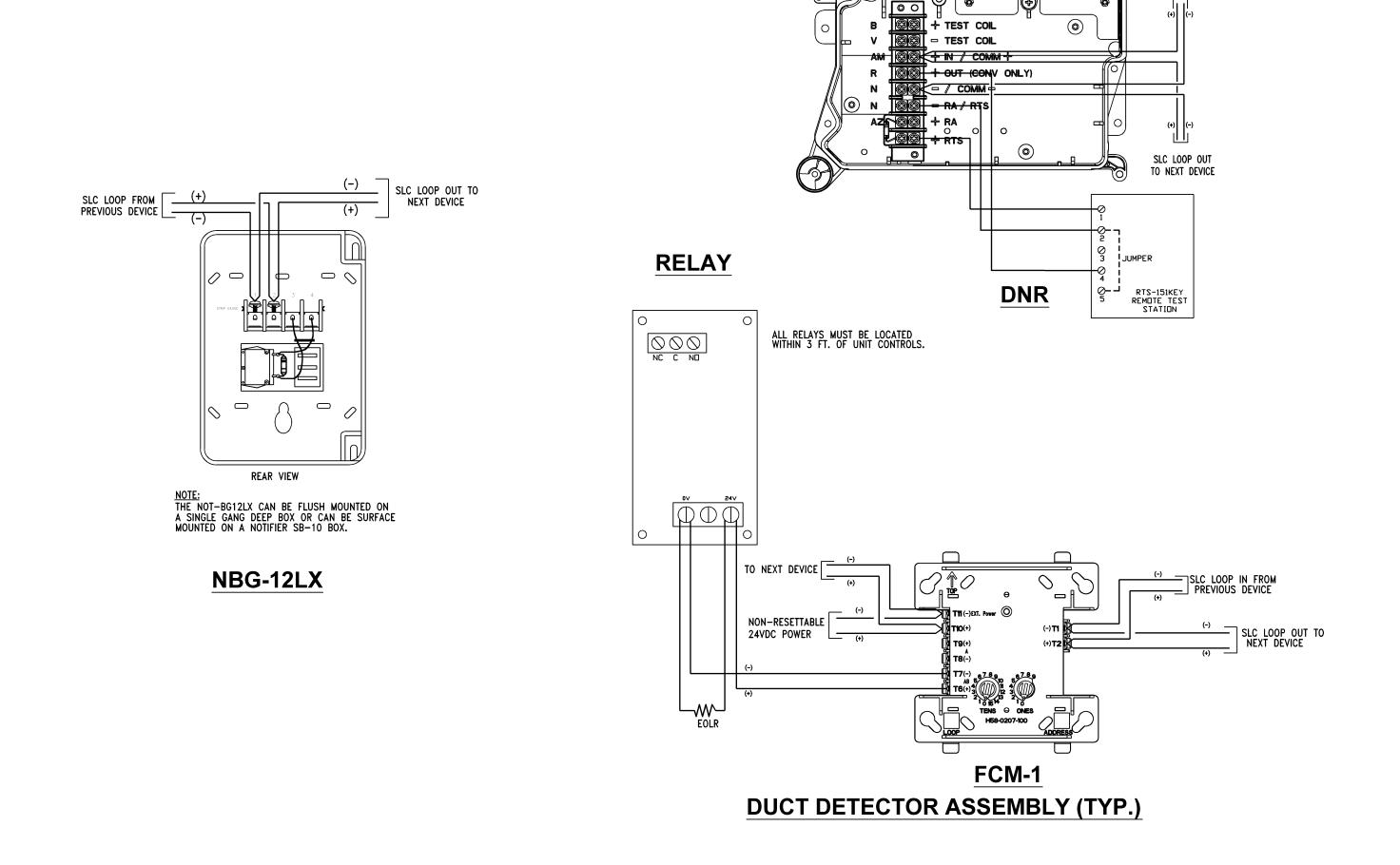
ITEMS SUCH AS CAPACITANCE BETWEEN CONDUCTORS AND WIRE GAUGE CAN BE CRUCIAL TO BE CIRCUIT DESIGN OF THIS

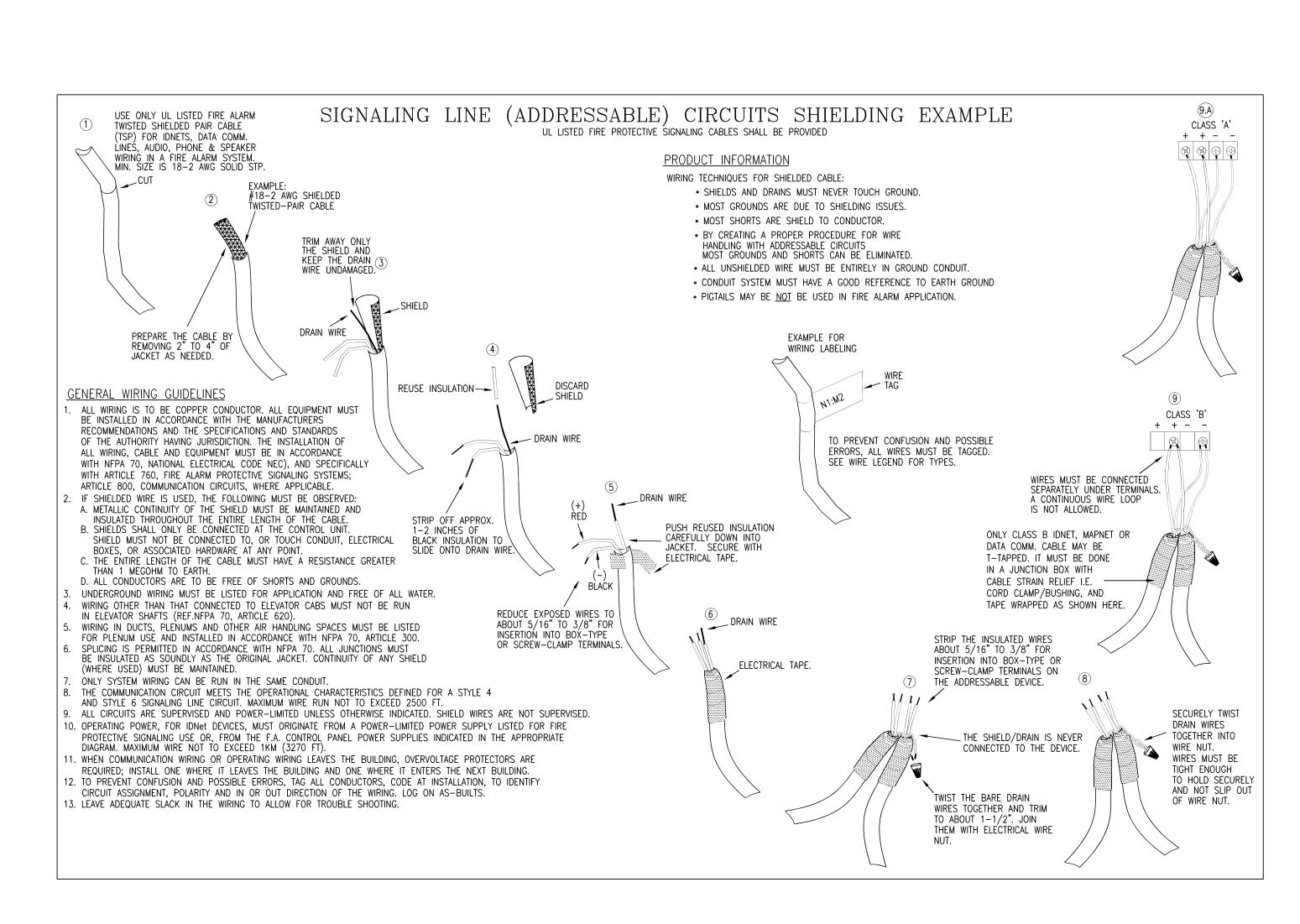
	NFPA SYMBOLS LEGEND	MANUFACTURER	MODEL NUMBE
(2)	SMOKE DETECTOR	NOTIFIER	FSP-851
1	HEAT DETECTOR	NOTIFIER	FSP-851
RO	DUCT DETECTOR	NOTIFIER	DNR & FCM-1 & R10
•	ADDRESSABLE MANUAL PULL STATION	NOTIFIER	NBG-12LX
B→	BEAM DETECTOR (TRANSMITTER OR RECEIVER)	BOSCH	D296 & FMM-101
5 <b>-</b> ∳3	WATERFLOW SWITCH	NOTIFIER	FMM-101
,Q,	TAMPER SWITCH ON VALVE	NOTIFIER	FMM-101
LPS	LOW AIR PRESSURE SWITCH	NOTIFIER	FMM-101
⊠⊲ <sup>15</sup>	A/V (WALL MOUNTED) 24 VDC 15 CANDELA	NOTIFIER	P2R
□⊲н	FIRE ALARM HORN	NOTIFIER	
<b>⋈</b> 110	A/V (CEILING MOUNTED) 24 VDC 110 CANDELA	NOTIFIER	PC2R
× <sup>30</sup>	STROBE 24 VDC 30 CANDELA, ADDRESS: "V1-3"	NOTIFIER	SR
FCP	FIRE ALARM CONTROL PANEL	NOTIFIER	NFS-320 OR NFS-6
FAA	FIRE ALARM ANNUNCIATOR	NOTIFIER	FDU-80
IAM R	RELAY IAM	NOTIFIER	FRM-1
EOL	END OF LINE RESISTOR		
T	TAMPER SWITCH		
TS	KEYED TEST SWITCH	NOTIFIER	RTS151KEX
	ADDRESSABLE INPUT MODULE	NOTIFIER	
R	ADDRESSABLE RELAY - EITHER CONTROL OR MONITOR	NOTIFIER	
DH	DOOR HOLD OPEN DEVICE	NOTIFIER	

NOTE: REFER TO DEVICE MOUNTING HEIGHT DETAIL FOR MOUNTING REQUIREMENTS.









A R C H I T E C T S PA

900 S. KANSAS AVE.
10PEKA KANSAS 66612 OVERLAND PARK KANSAS 66210
P. 785-266-5373

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DATE:

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Department of Administration Office of Facilities and Procurement Management 800 SW Jackson, Suite 700 Topeka, Kansas 66612-1216 Phone 785-296-8899 FAX 785-296-3456

STATE OF KANSAS

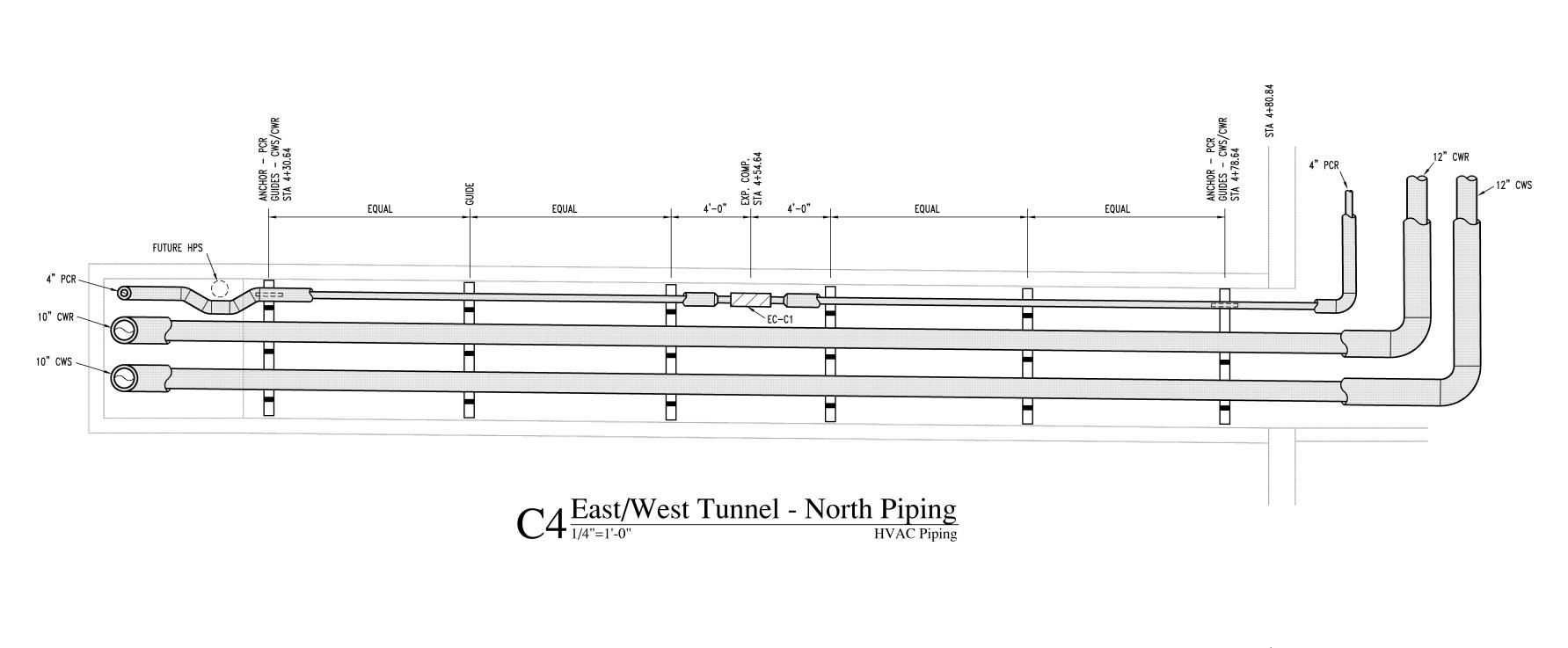
STATE OF KANSAS ENERGY & SERVICE CENTER
Seventh & Van Buren Street, Topeka, Kansas
BUILDING NUMBER 17300-00038

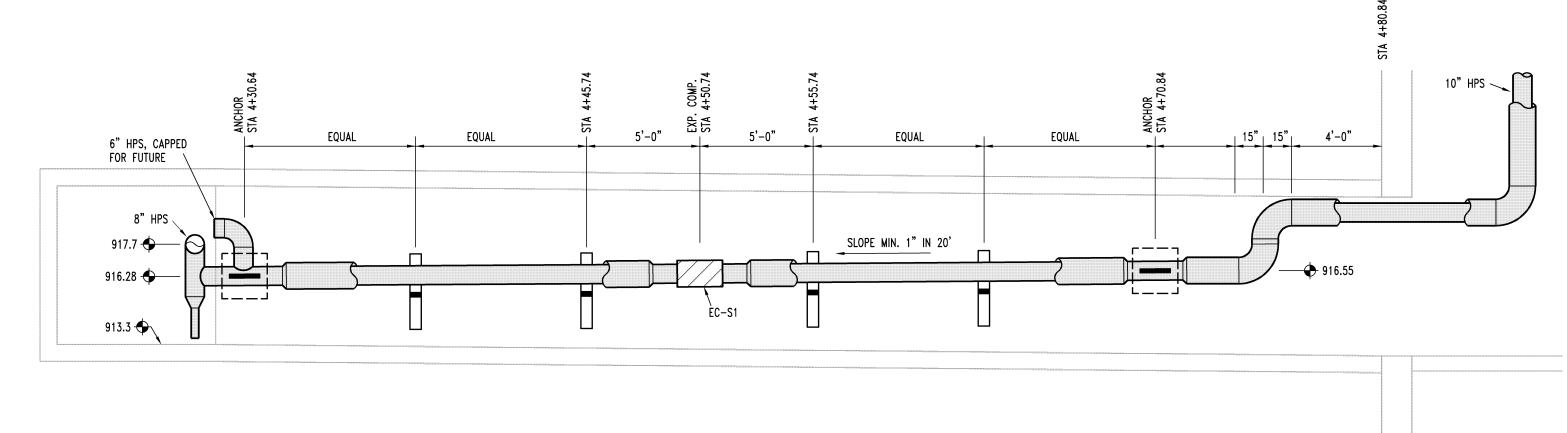
TE: 4-15-15 DRAWN BY: CAD CHECKED BY: WRB

FIRE ALARM DETAILS AND SCHEDULES

A-012651

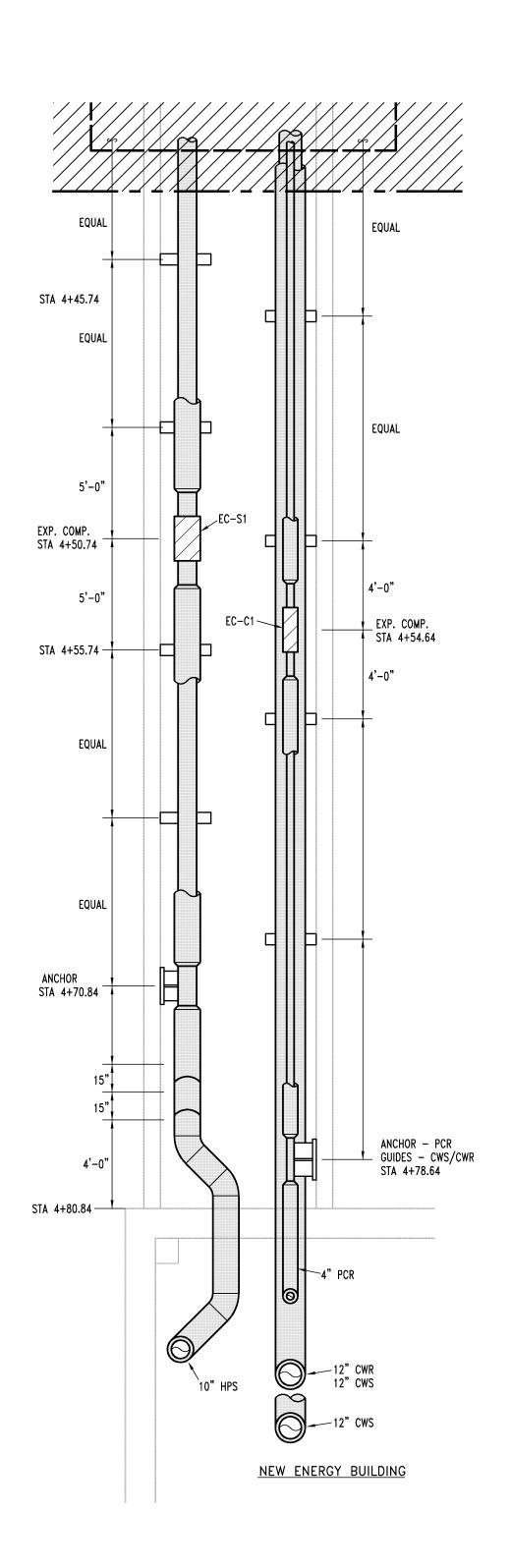
EY201



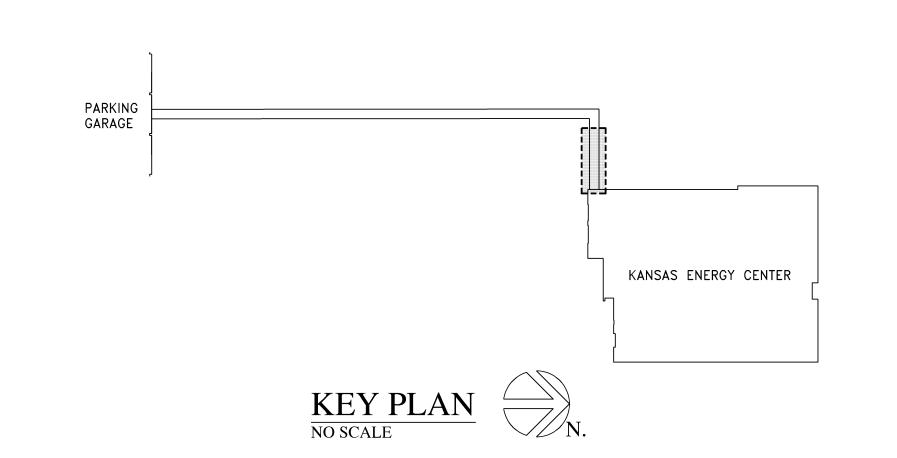


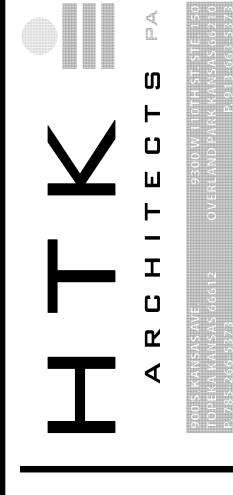
 $C3^{\frac{East/West\ Tunnel\ -\ South\ Piping}{1/4"=1"-0"}}_{\frac{HVAC\ Piping}{}}$ 

				T	YPE			
MARK	LOCATION	SERVICE	SIZE	SLIP	BELL	COMPRESSION	EXTENSION	REMARKS
EC-S1	TUNNEL	STEAM	10"	Х		4"	1"	_
EC-S2	TUNNEL	STEAM	8"	Х		4"	1 1/2"	_
EC-S3	TUNNEL	STEAM	8"	Х		8"	1 1/2"	-
EC-S4	PARKING GARAGE	STEAM	8"	Х		4"	1 1/2"	-
EC-S5	PARKING GARAGE	STEAM	8"		Х	-	_	(2) BALL JOINTS
EC-S6	PARKING GARAGE	STEAM	8"		Х	-	_	(3) BALL JOINTS
EC-S7	PARKING GARAGE	STEAM	8"		Х	-	_	(2) BALL JOINTS
EC-S8	PARKING GARAGE	STEAM	8"		Х	-	-	(2) BALL JOINTS
EC-S9	PARKING GARAGE	STEAM	8"		Х	-	_	(2) BALL JOINTS
EC-C1	TUNNEL	CONDENSATE	4"	Х		4"	1"	-
EC-C2	TUNNEL	CONDENSATE	4"	Х		4"	1"	-
EC-C3	TUNNEL	CONDENSATE	4"	Х		4"	1"	-
EC-C4	PARKING GARAGE	CONDENSATE	4"	Х		4"	1"	-
EC-C5	PARKING GARAGE	CONDENSATE	4"		Х	-	_	(2) BALL JOINTS
EC-C6	PARKING GARAGE	CONDENSATE	4"		Х	-	_	(2) BALL JOINTS
EC-C7	PARKING GARAGE	CONDENSATE	4"		Х	-	_	(2) BALL JOINTS
EC-CW-1	PARKING GARAGE	CHILLED WATER	10"		Х	-	_	(2) BALL JOINTS   EACH CWS & CWI
EC-S10	KSH NW VAULT	STEAM	8"	Х		4"	1"	-
EC-S11	KSH NW VAULT	STEAM	6"	Х		4"	1"	-
EC-S12	KSH NW VAULT	STEAM	6"	Х		4"	1"	_
EC-S13	KSH NW VAULT	STEAM	6"	Х		4"	1"	_













DATE:

• 4-15-15

REVISED DATE:

• 12-18-14
• 2-9-15
• 3-10-15

HTK PROJECT NUMBER:
• 1410.03

trnent of Administration fice of Facilities and curement Management SW Jackson, Suite 700 (a, Kansas 66612-1216 Ione 785-296-8899 AX 785-296-3456

Department of Adminis Office of Facilities a Procurement Manages 800 SW Jackson, Suit Topeka, Kansas 66612 Phone 785-296-345

STATE OF KANSAS ENERGY & SERVICE CENTER
Seventh & Van Buren Street, Topeka, Kansas
BUILDING NUMBER 17300-00038

DATE: 4-15-15 DRAWN BY: CAD CHECKED BY: WRB

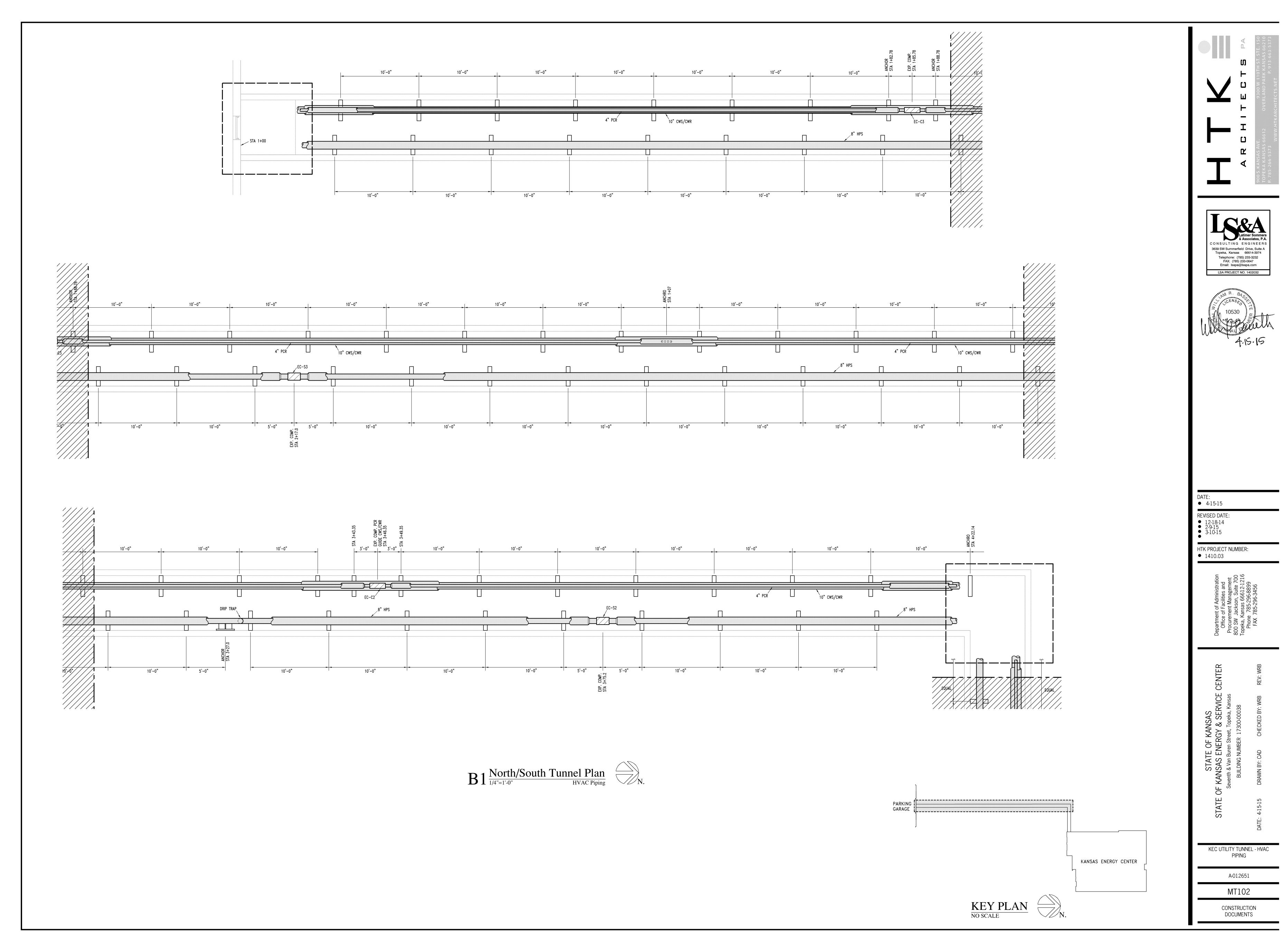
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PIPING

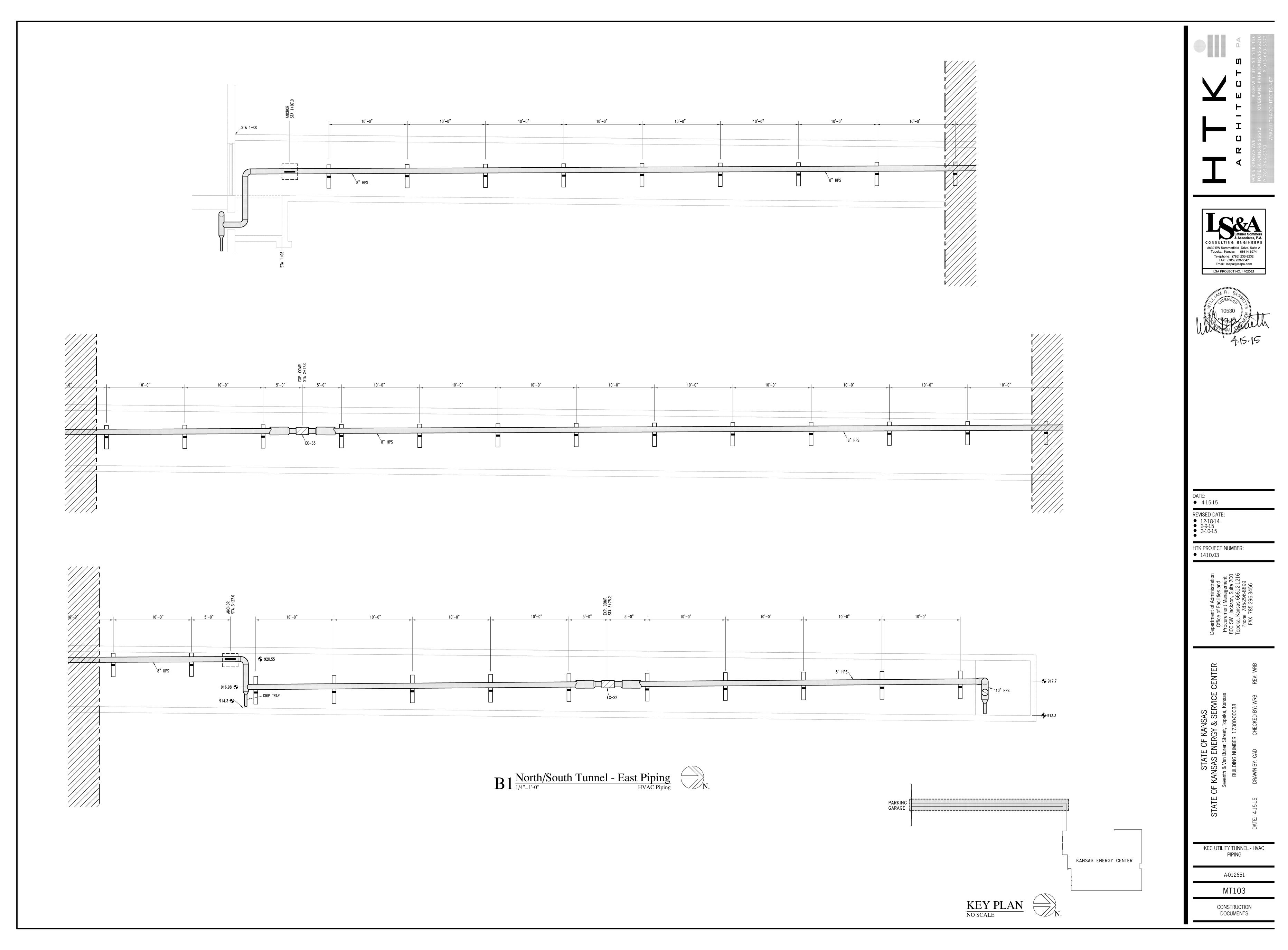
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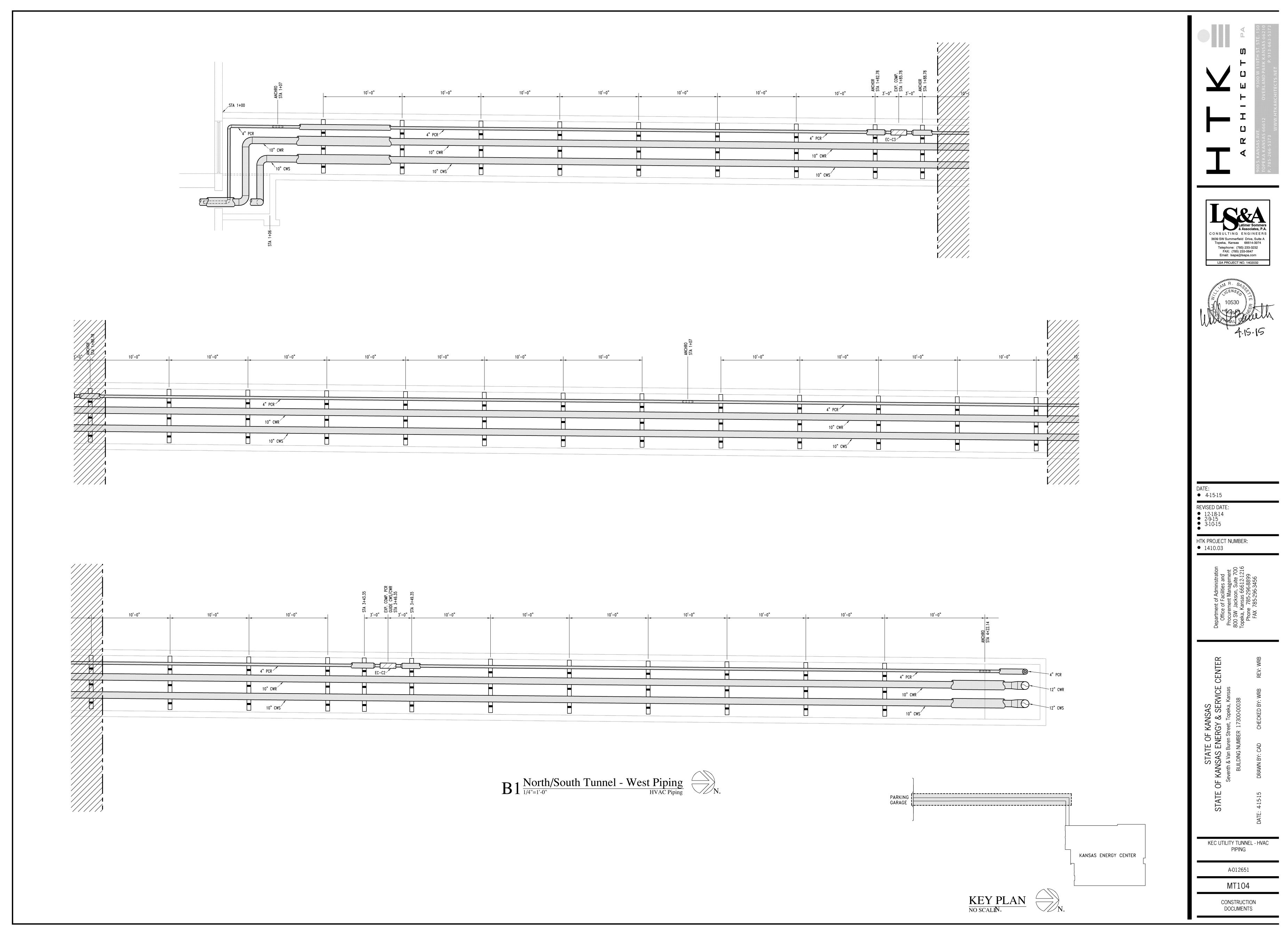
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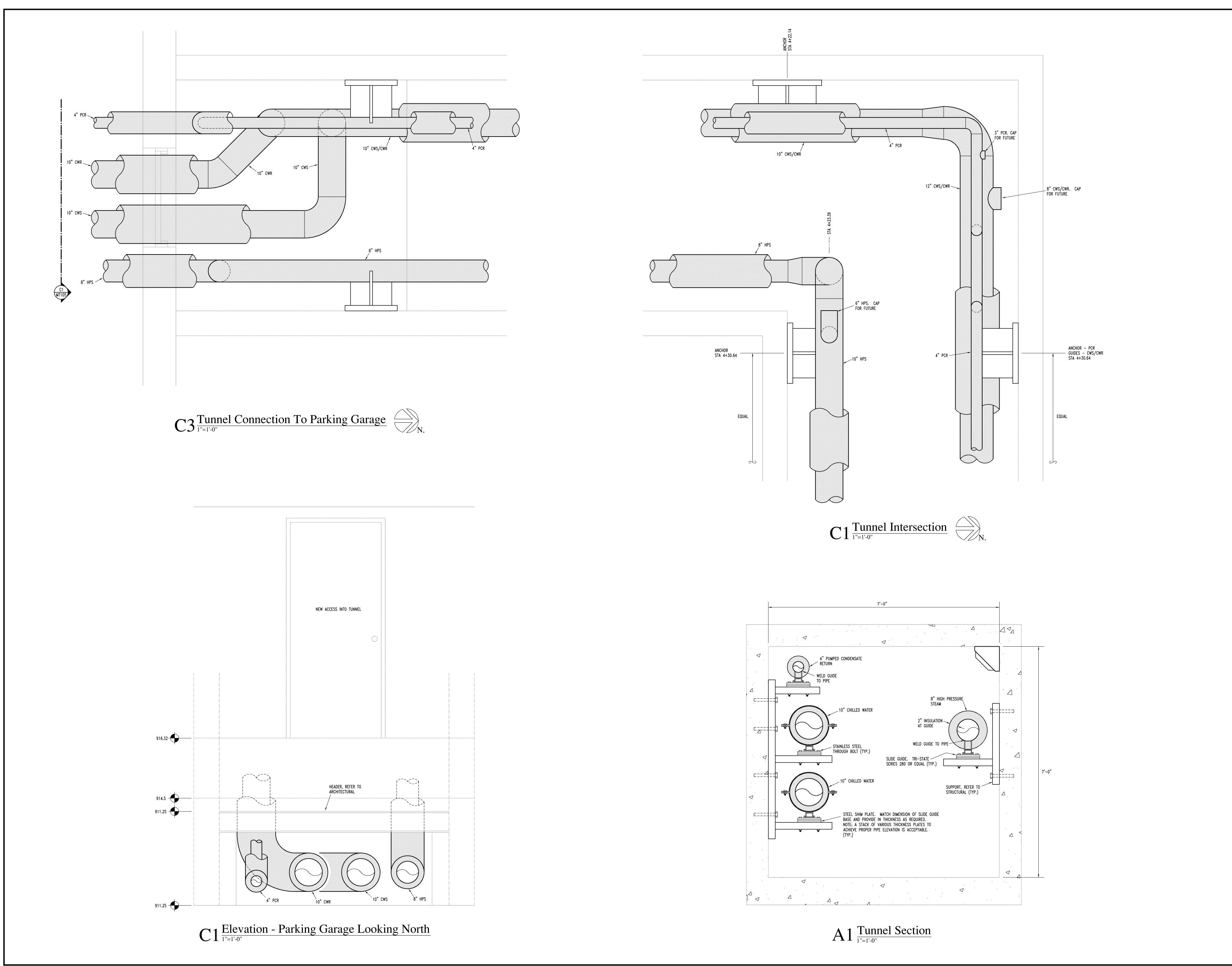
MT101

CONSTRUCTION DOCUMENTS









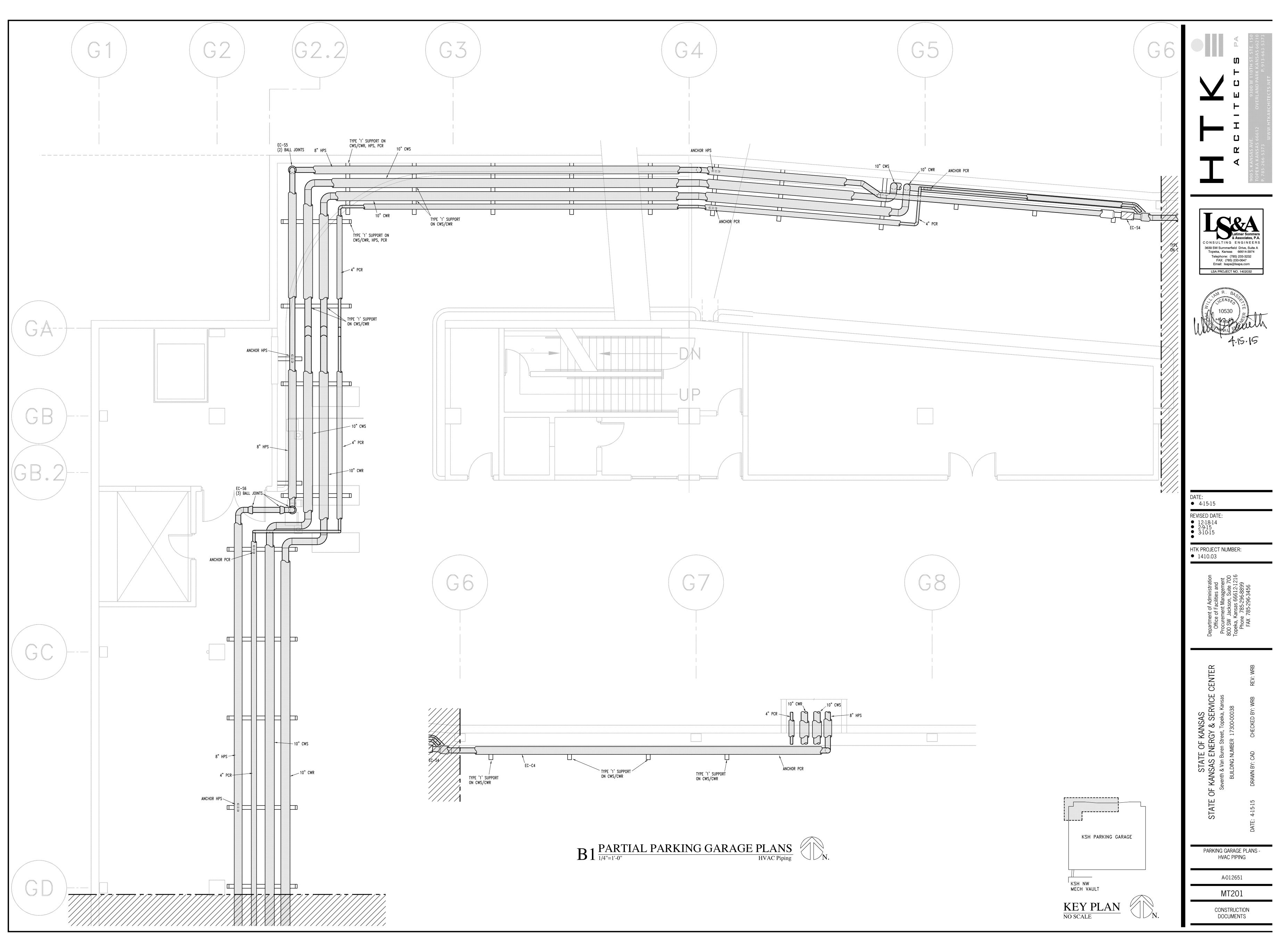




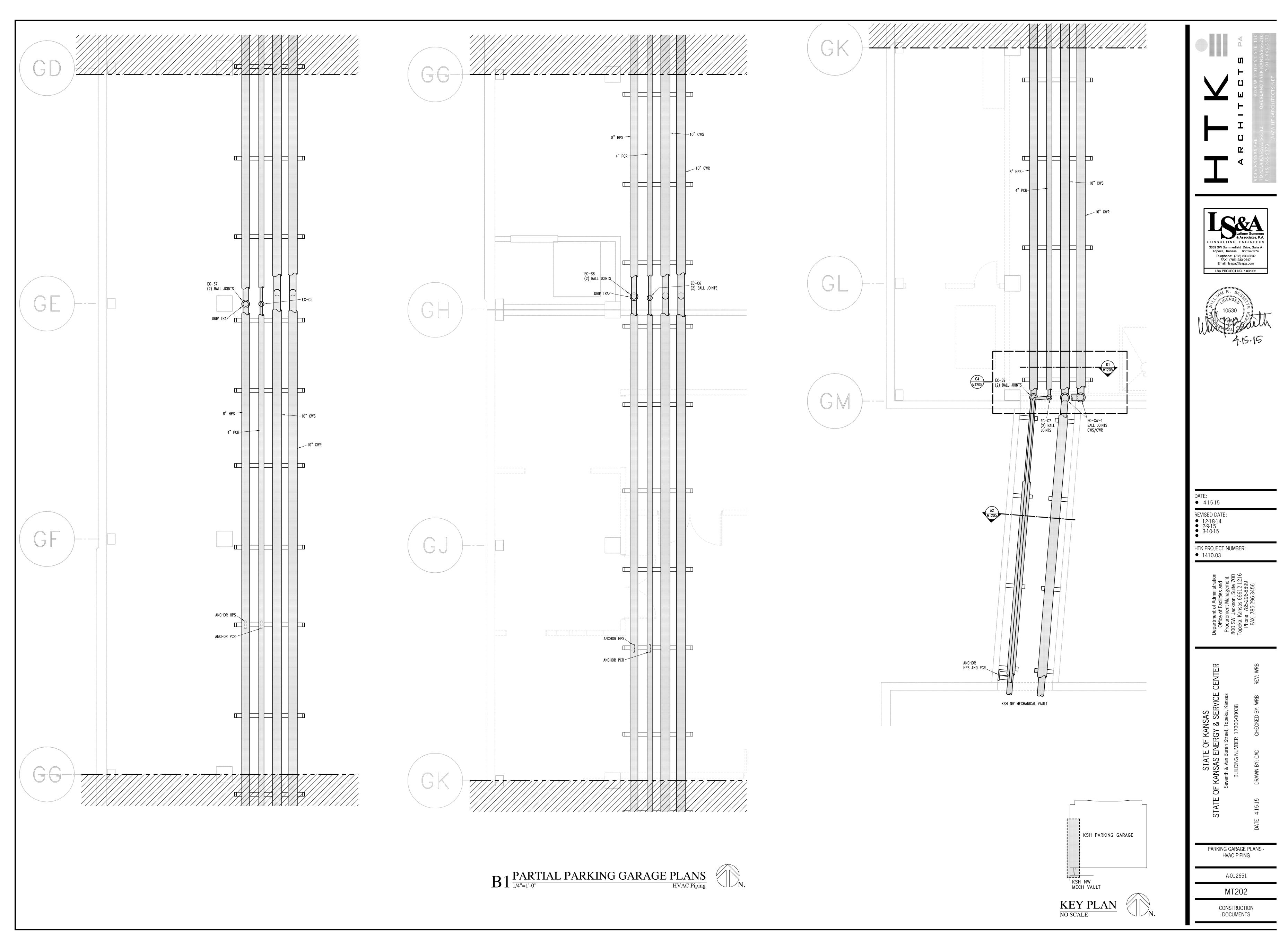
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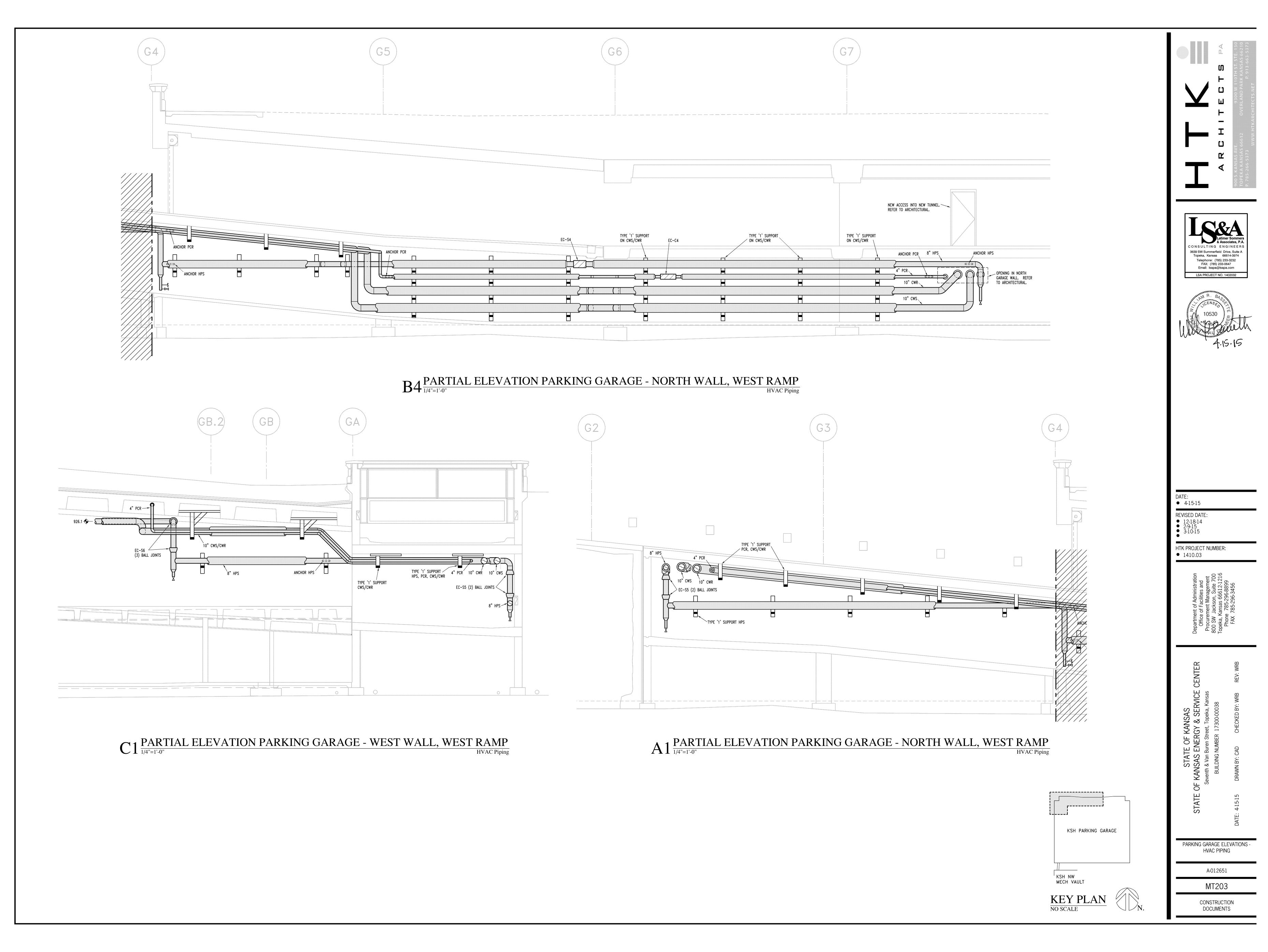
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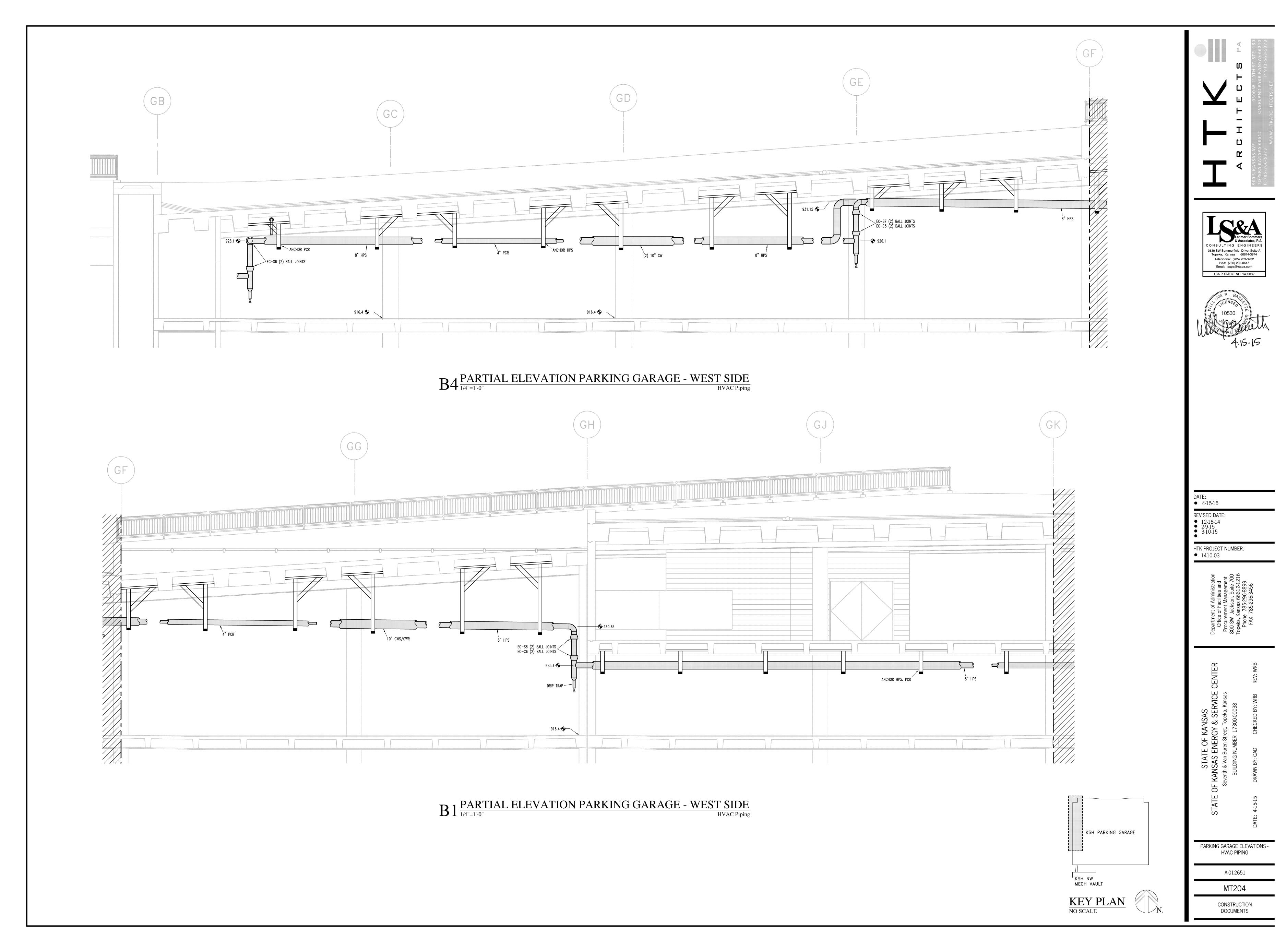


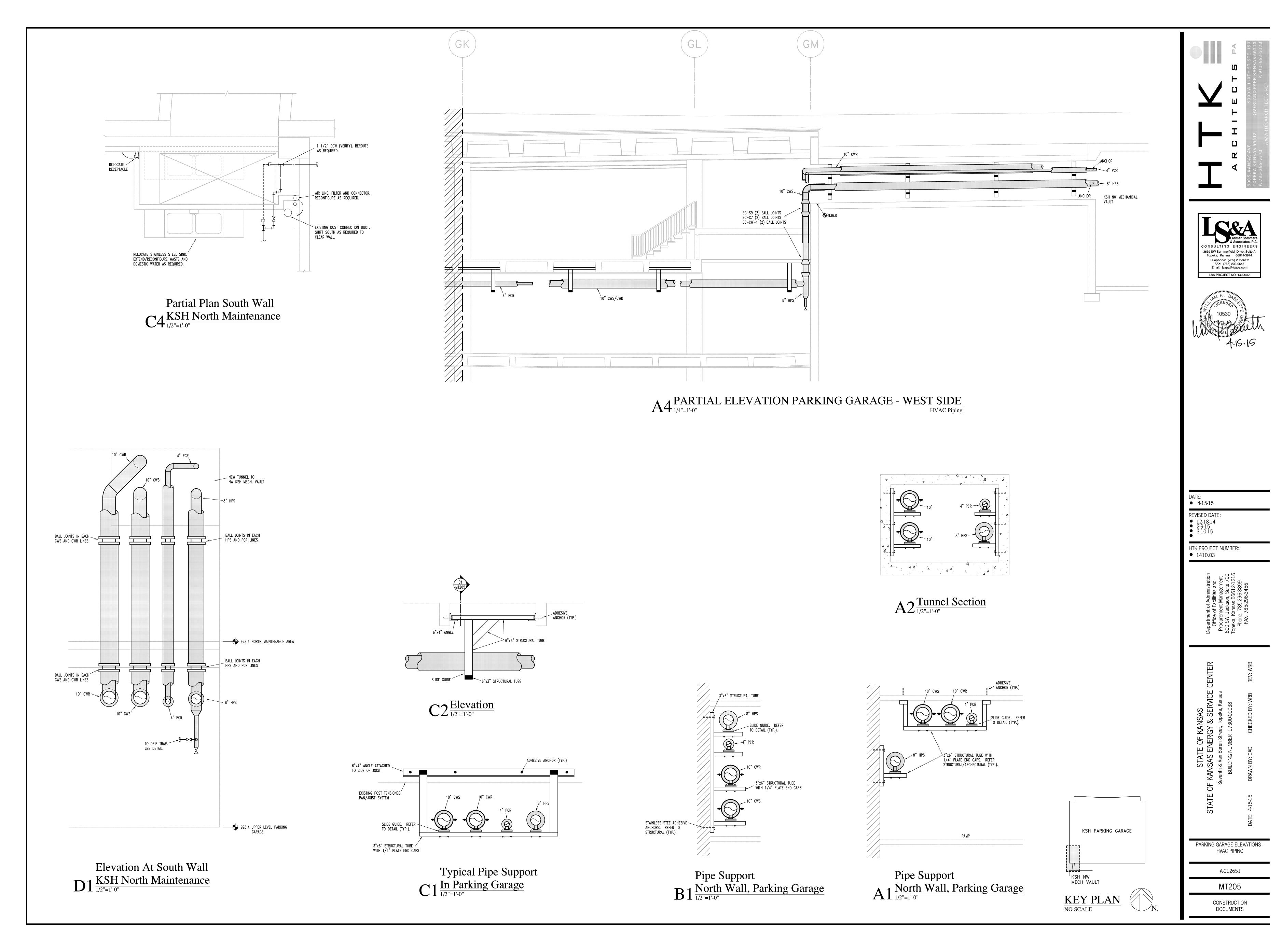


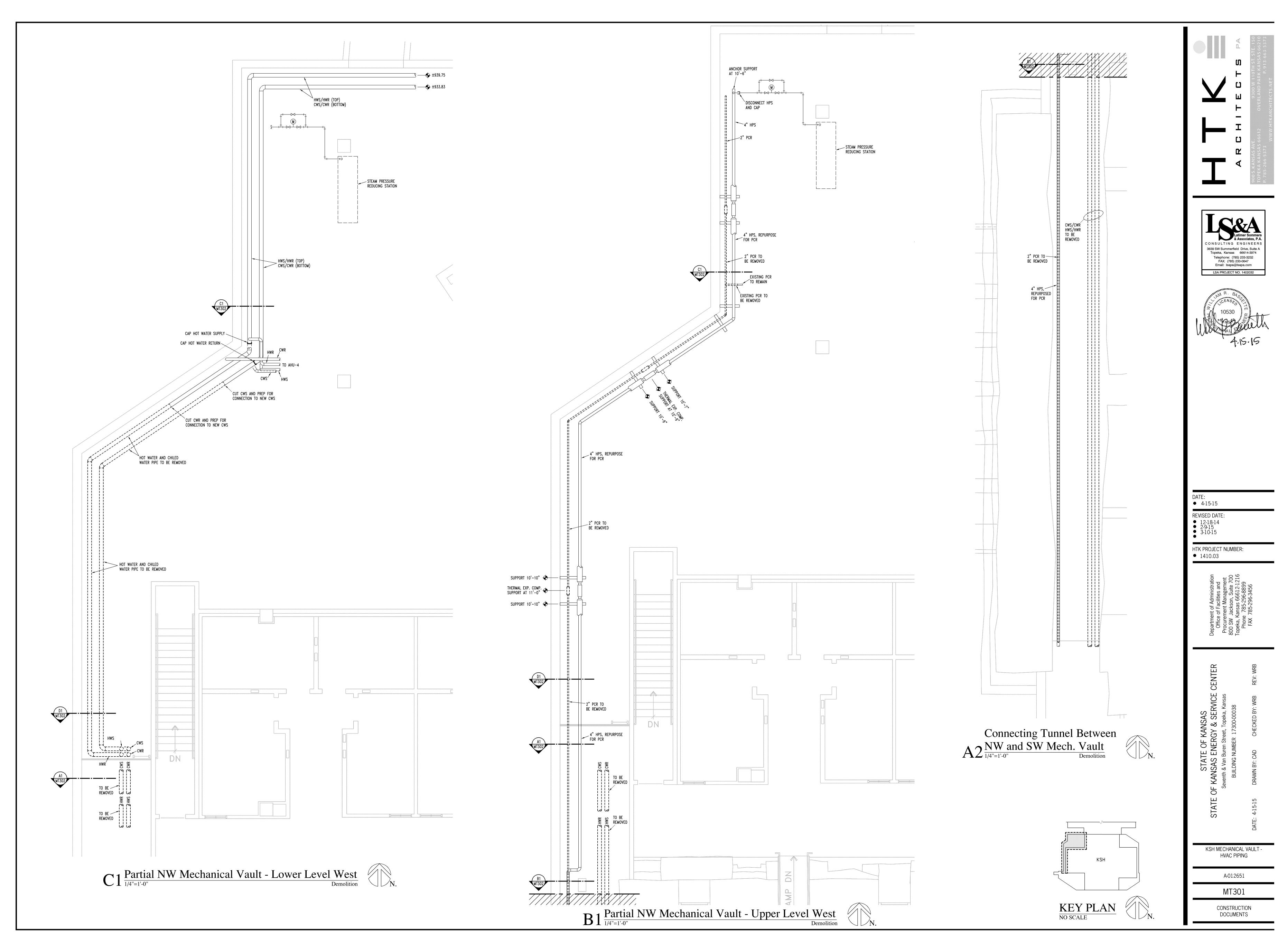




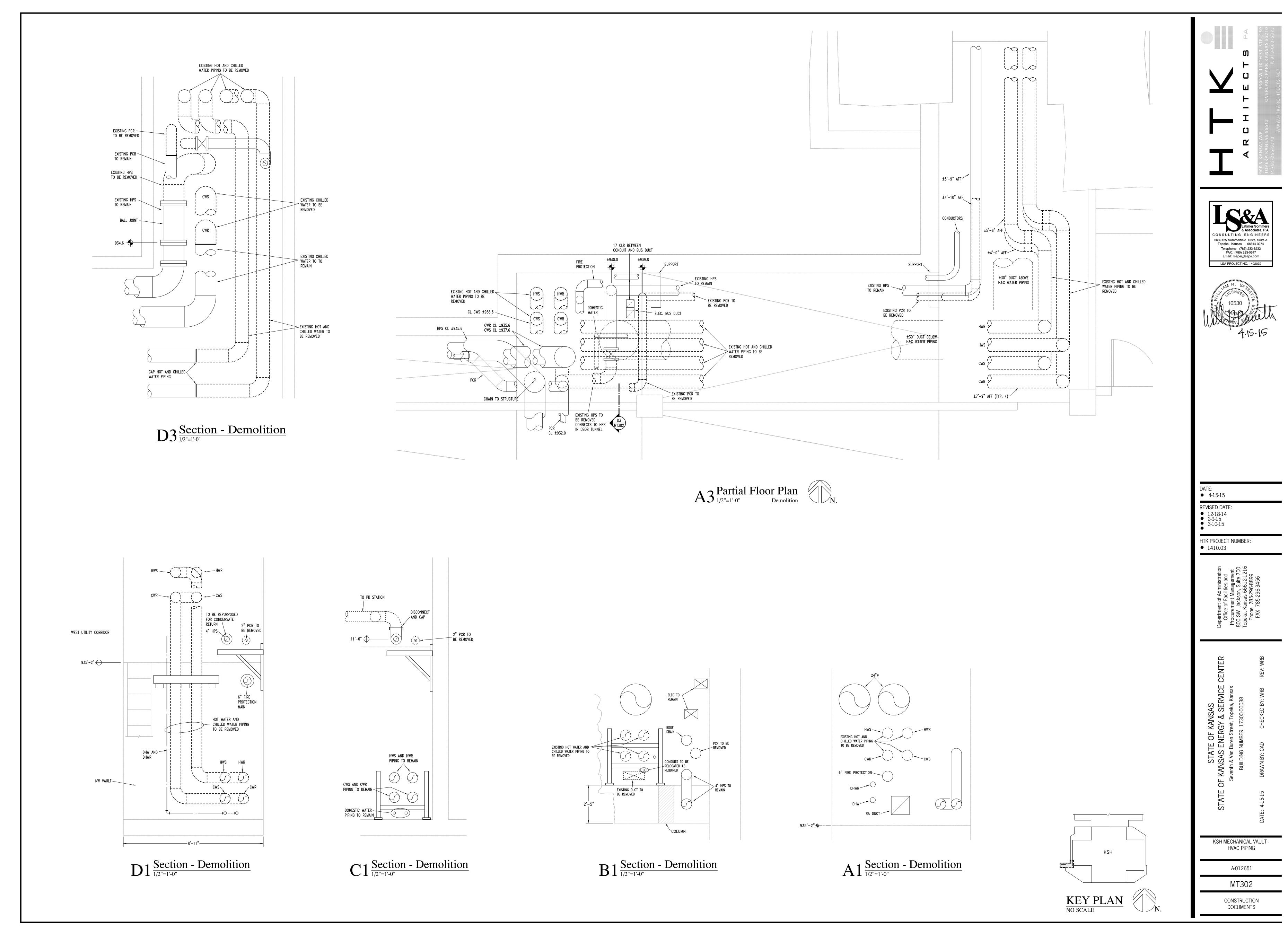


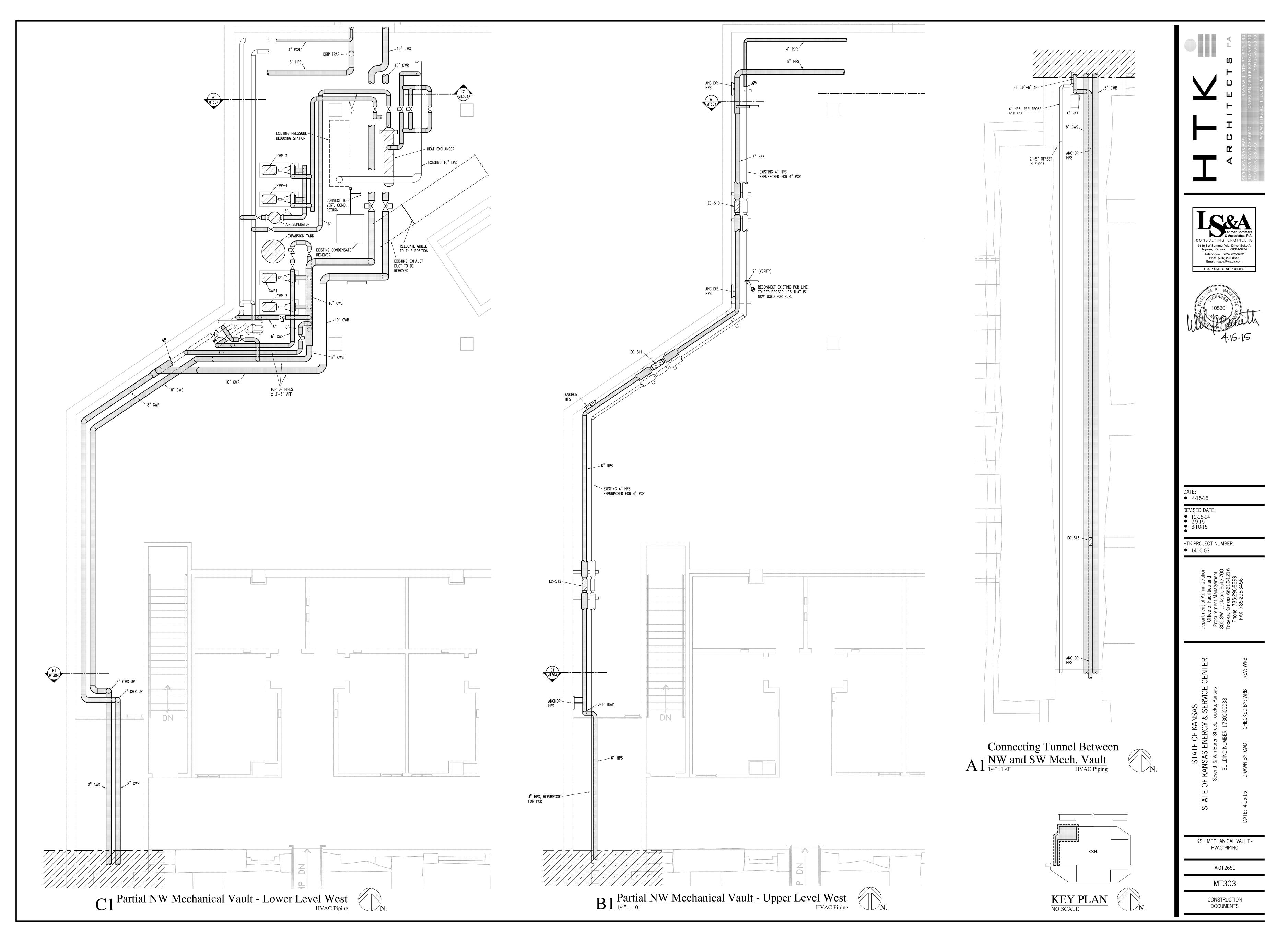




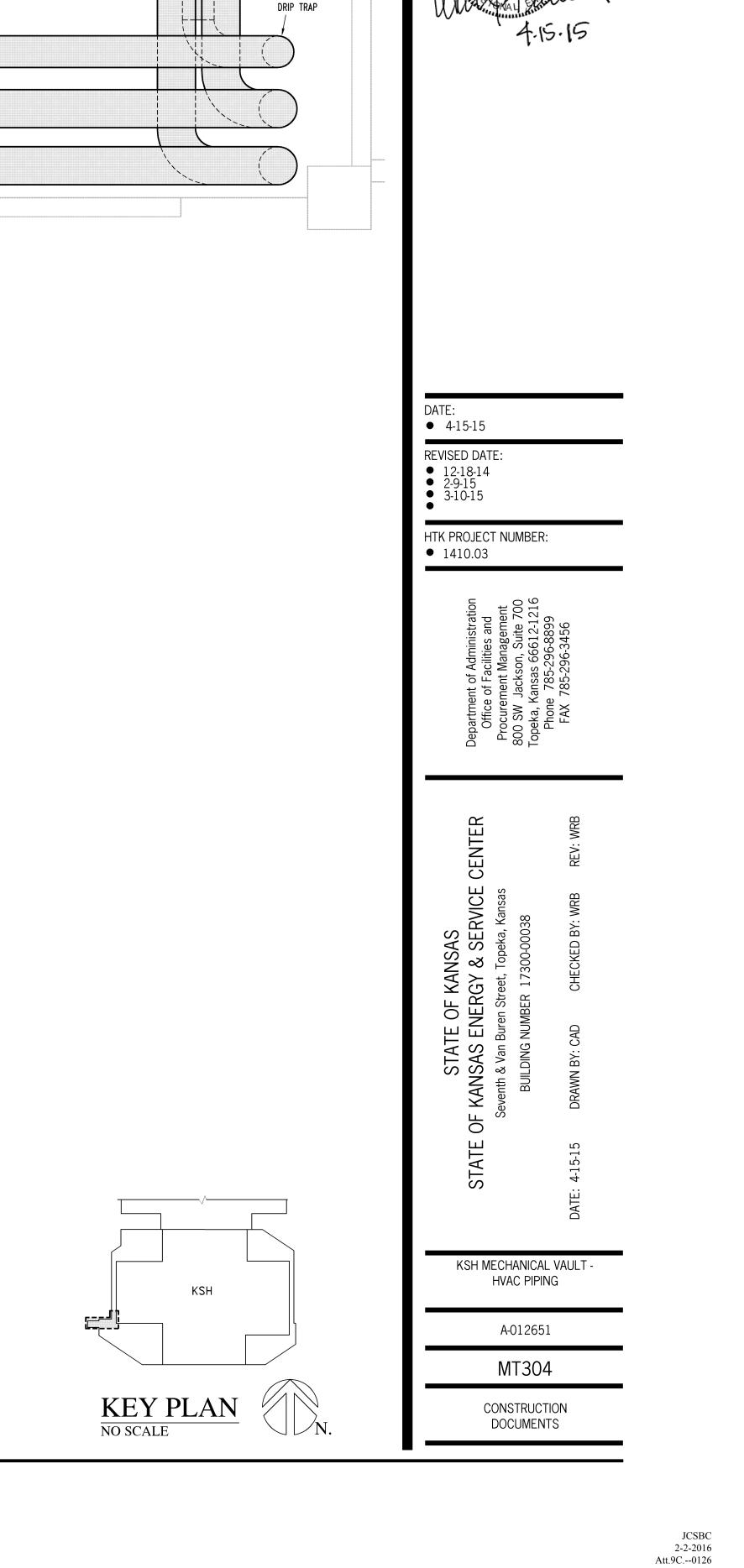


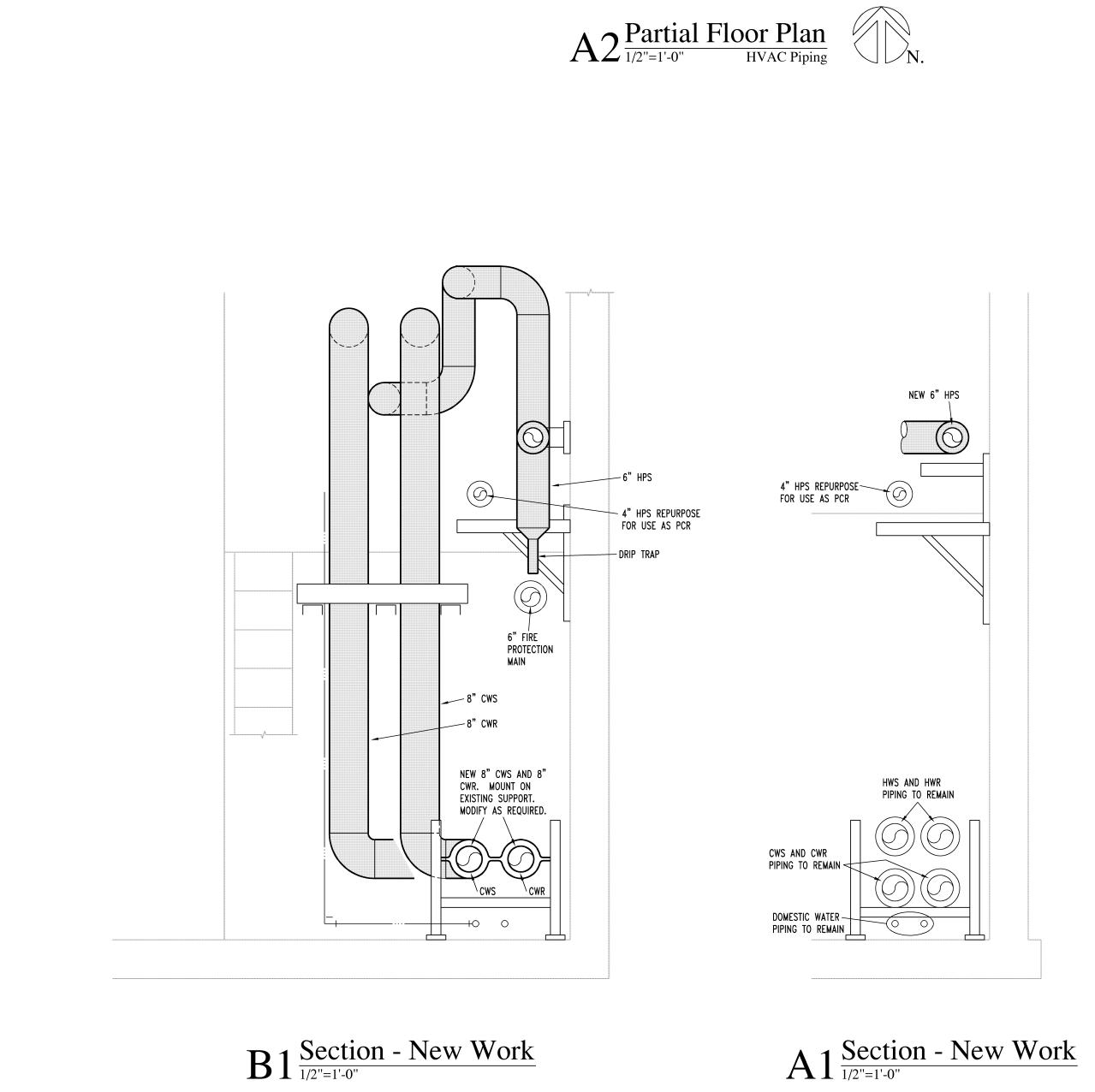


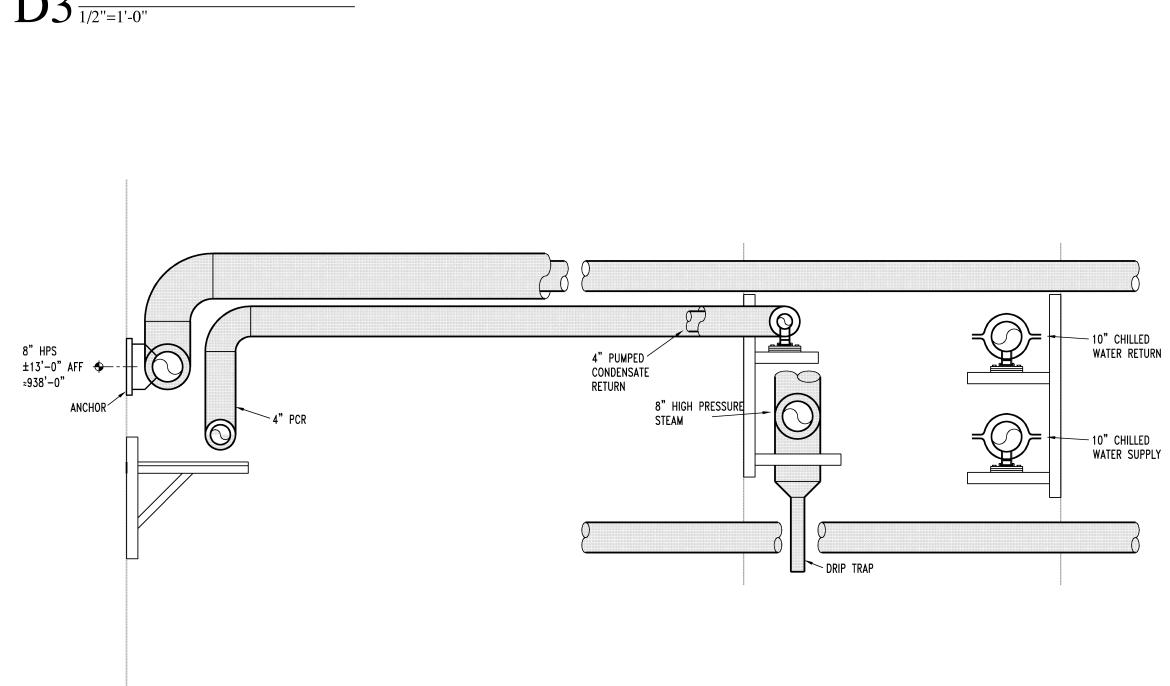




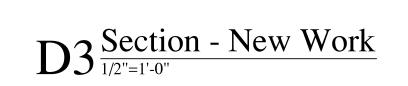


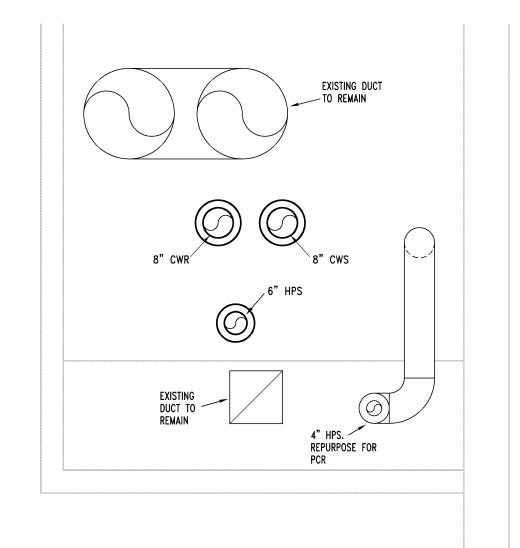






 $C1\frac{Section - New Work}{1/2"=1'-0"}$ 



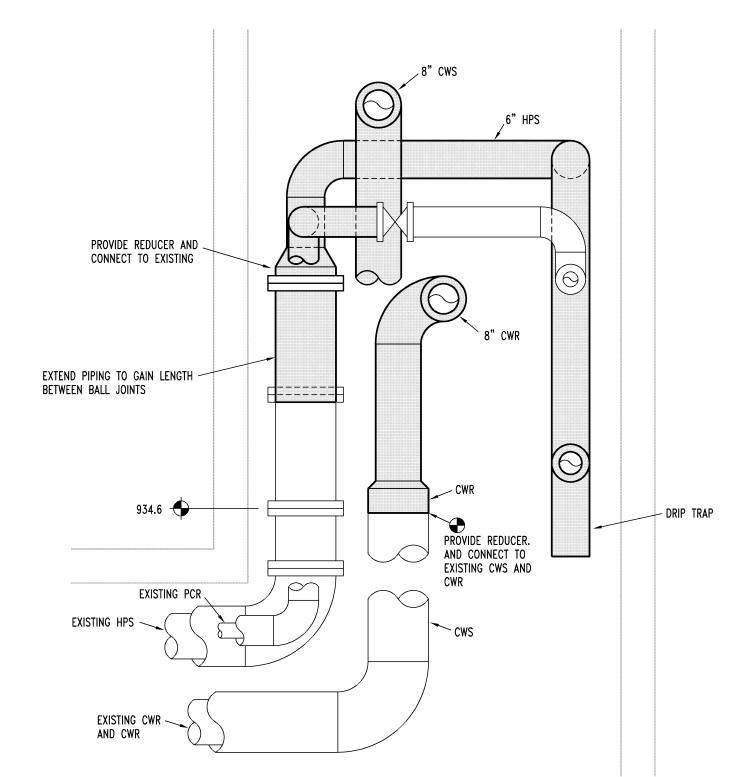


MOUNT ON EXISTING
—SUPPORT. MODIFY AS
REQUIRED.

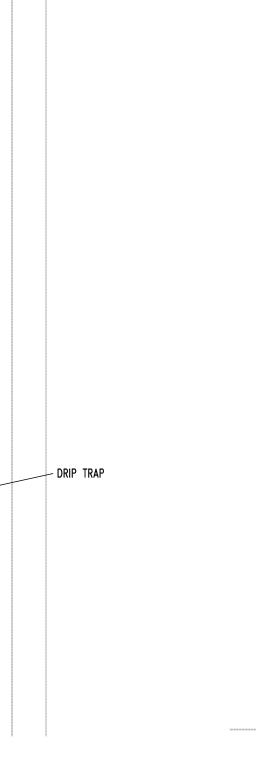
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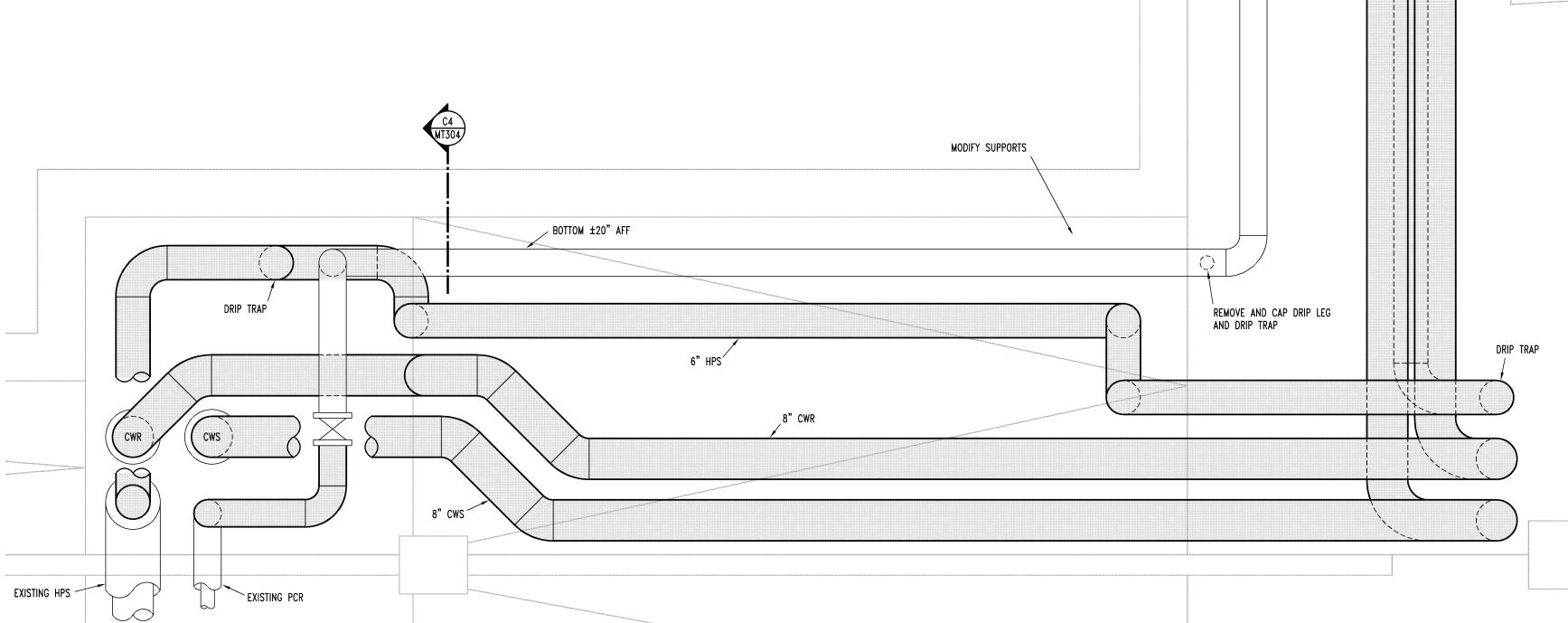
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 $C4\frac{Section - New Work}{\frac{1}{2} = 1' - 0''}$ 

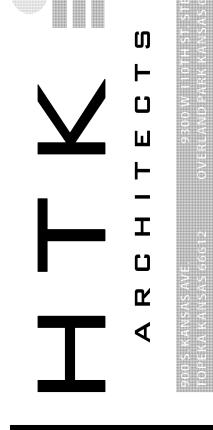




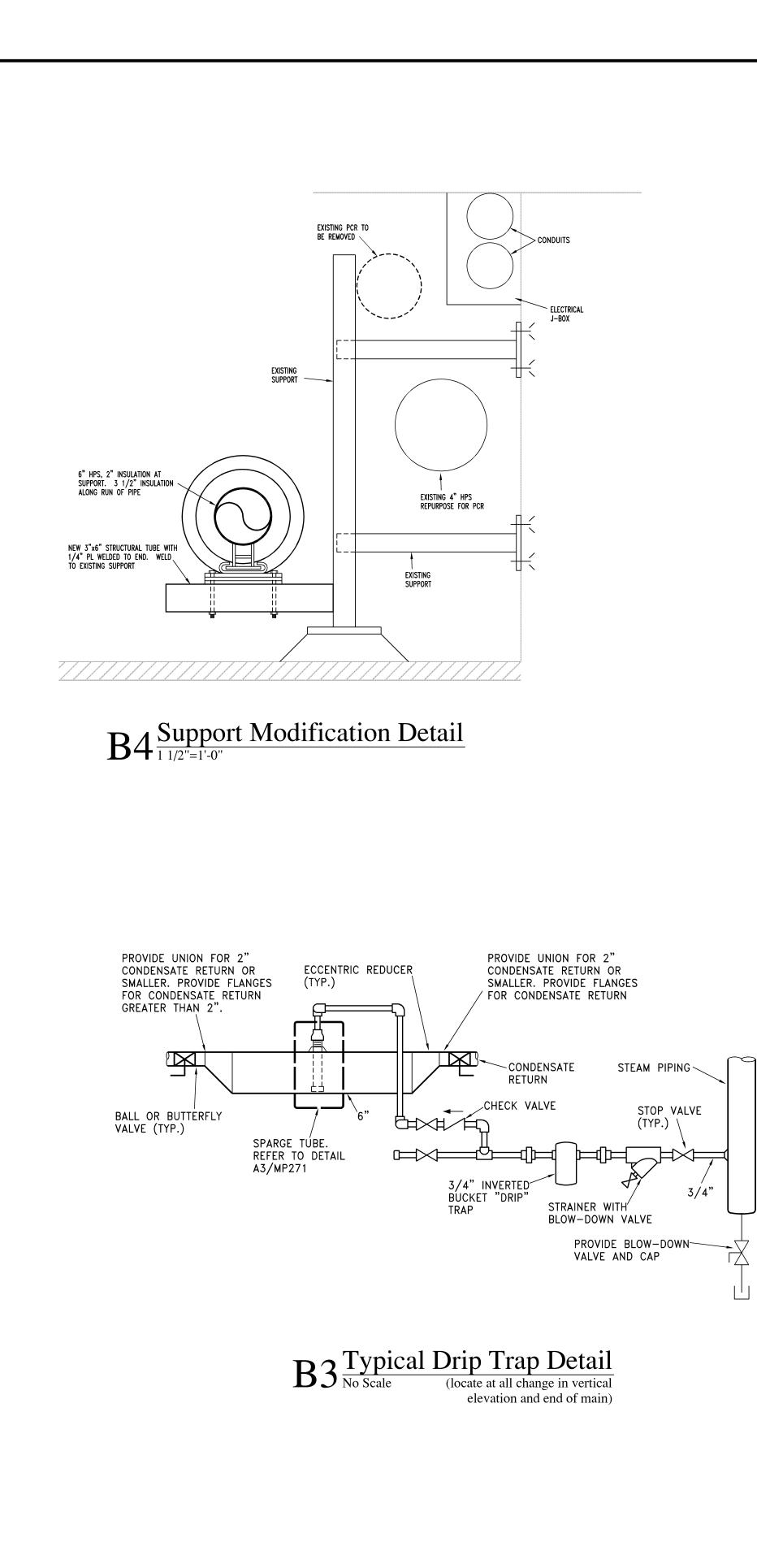


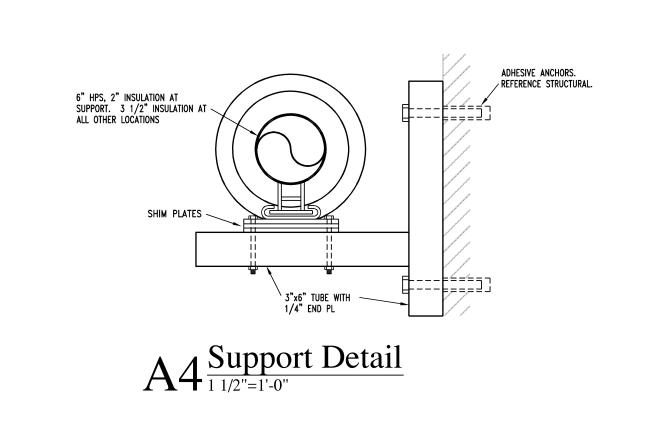


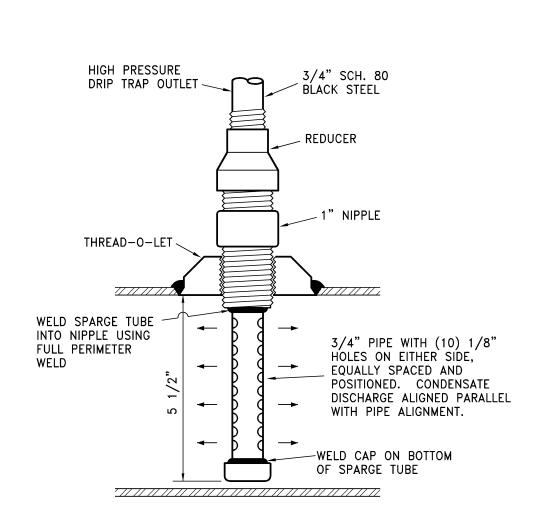




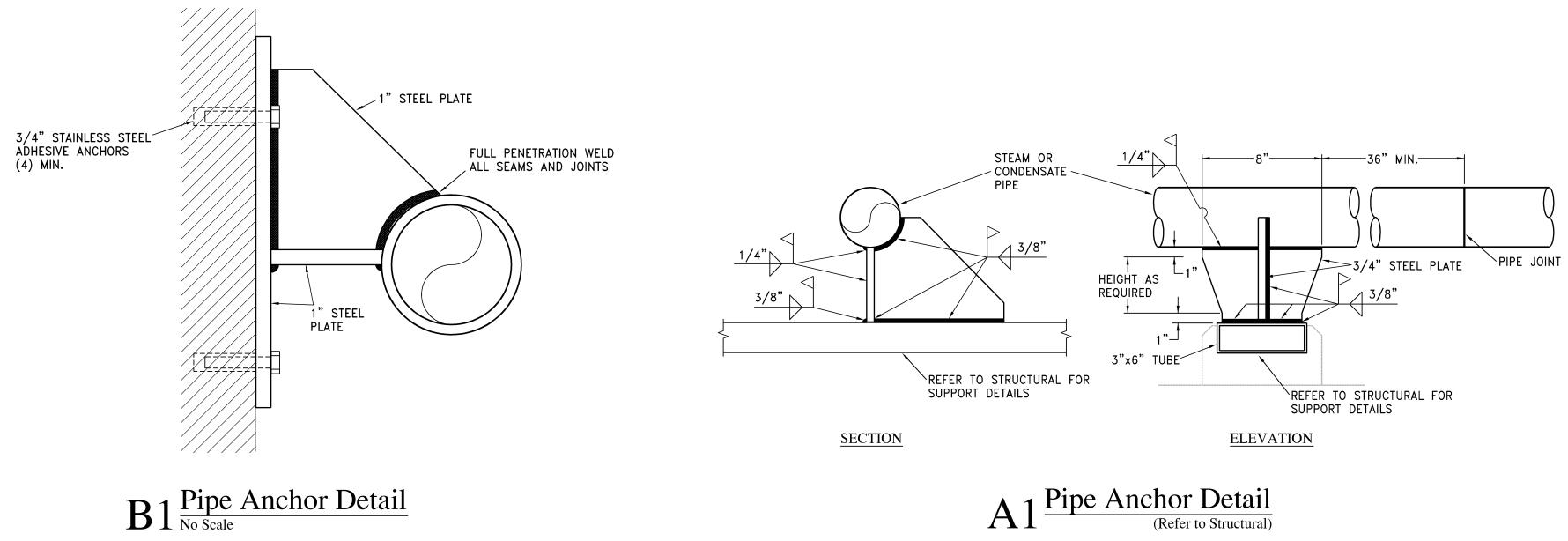
EXISTING 4" HPS.
REPURPOSE FOR PCR







 $A3 \frac{Sparge\ Tube\ Detail}{No\ Scale}$ 







DATE: 4-15-15 REVISED DATE: HTK PROJECT NUMBER:

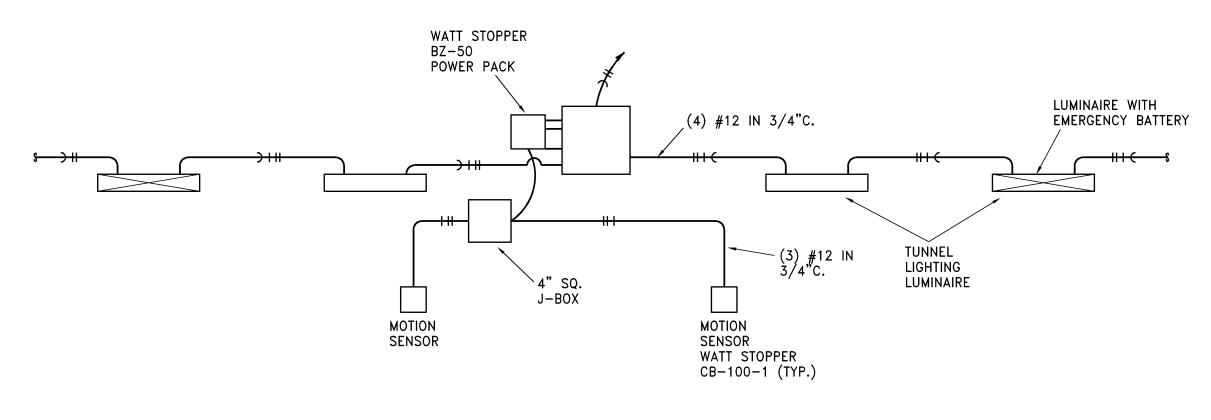
• 1410.03

STATE OF KANSAS
F KANSAS ENERGY & SERVICE C
Seventh & Van Buren Street, Topeka, Kansas
BUILDING NUMBER 17300-00038

KSH MECHANICAL VAULT -HVAC PIPING

A-012651 MT305

CONSTRUCTION DOCUMENTS



3639 SW Summerfield Drive, Suite A Topeka, Kansas 66614-3974 Telephone: (785) 233-3232 FAX: (785) 233-0647 Email: Isapa@Isapa.com

LSA PROJECT NO. 1402032

HTK PROJECT NUMBER:

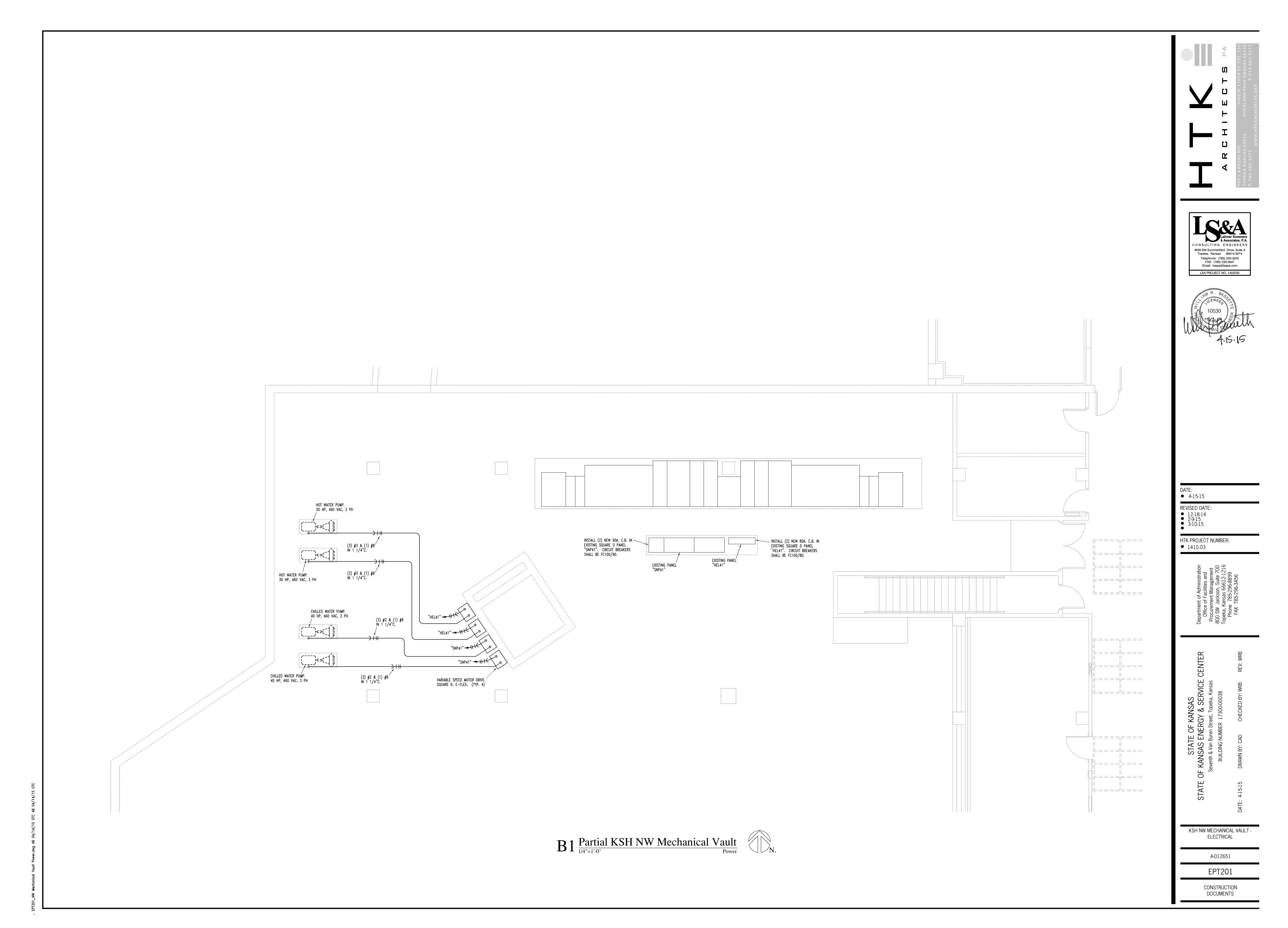
KEC UTILITY TUNNEL -ELECTRICAL

A-012651

EPT101

CONSTRUCTION DOCUMENTS

• 1410.03



PROJECT SPECIFICATIONS Project No. A-012651 April 2015

PROJECT State of Kansas Energy & Service Center 211 SW 7<sup>th</sup> Street Topeka, Kansas 66612

OWNER Kansas Department of Administration 800 SW Jackson, Suite 700 Topeka, Kansas 66612

ARCHITECT Horst, Terrill & Karst, Architects, P.A. 900 S Kansas Ave., Suite 200 Topeka, Kansas 66612 (785) 266-5373 Fax: (785) 266-5270

STRUCTURAL ENGINEER Bob D. Campbell & Co. 4338 Belleview Kansas City, Mo. 64111 (816) 531-4144

CIVIL ENGINEER Schmidt, Beck & Boyd Engineering, LLC 1415 SW Topeka, Blvd. Topeka, Kansas 66612 (785) 215-8630

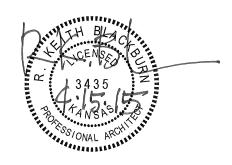
MEP ENGINEERS Latiment Sommers & Associates, P.A. 3639 SW Summerfield Drive, Suite A Topeka, Kansas 66614 (785) 233-3232

# TITLE PAGE

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# ARCHITECT'S PROFESSIONAL SEAL

The drawings, specifications, and other documents referenced in the enclosed Table of Contents for this project (identified in the header above) have been prepared by or under the direct supervision of the following licensed architect(s), with the exception of the following: portions of Divisions 3, 5, 11, and 31-33 specifications, the entire Divisions 21-28 specifications, and the drawings identified as "Civil", "Structural", "Mechanical" and "Electrical". Those documents pertain directly to the work of the consultants involved with this project, who will separately identify and seal the work for which they are responsible.





# CIVIL ENGINEER'S PROFESSIONAL SEAL

The drawings, specifications, and other documents referenced below have been prepared by or under the direct supervision of the following licensed civil engineer.

# Civil Construction Drawings:

C050 - Demolition & Construction Phasing Plan - Phase IA & IB

C051 - Demolition & Construction Phasing Plan - Phase II

C052 - Historical Drawing

C100 - Site Plan

C101 - Tunnel Plan & Profile

C102 - Site Details I

C103 - Site Details II

C200 - Grading Plan

C300 - Utility Plan

C301 - Sewer Details

C302 - Manhole Details

C303 - Water Details

C400 - Traffic Control Plan - Phase IA & IB

C401 - Traffic Control Plan - Phase II

C402 - Traffic Control Details I

C403 - Traffic Control Details II

C404 - Traffic Control Details III

C500 - Erosion Control Plan

C501 - Erosion Control Details I

# Civil Specifications:

221113 - Facility Water Distribution Piping

221313 - Facility Sanitary Sewers

311000 - Site Clearing

312000 - Earth Moving

312319 – Dewatering

315000 - Excavation & Support

321216 – Asphalt Paving

321313 - Concrete Paving

321373 - Concrete Paving Joint Sealants

334100 - Storm Utility Drainage Piping



# STRUCTURAL ENGINEER'S PROFESSIONAL SEAL



# MECHANICAL/ELECTRICAL ENGINEER'S PROFESSIONAL SEAL

10530 10530 4.15.15

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### SECTION 012500 - SUBSTITUTION PROCEDURES

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions.
- B. Related Requirements:
  - 1. Section 012300 "Alternates" for products selected under an alternate.
  - 2. Section 016000 "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.

#### 1.3 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
  - Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
  - Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

#### 1.4 ACTION SUBMITTALS

- A. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
  - 1. Substitution Request Form: Use CSI Form 13.1A (online download)
  - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
    - a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
    - b. Coordination information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
    - Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
    - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
    - e. Samples, where applicable or requested.
    - f. Certificates and qualification data, where applicable or requested.
    - g. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.

01 2500 - 1 SUBSTITUTION PROCEDURES

- h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
- Research reports evidencing compliance with building code in effect for Project, from [ICC-ES] <Insert applicable code organization>.
- j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
- k. Cost information, including a proposal of change, if any, in the Contract Sum.
- Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
- Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
- 3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within [seven] <Insert number> days of receipt of a request for substitution. Architect will notify Contractor[ through Construction Manager] of acceptance or rejection of proposed substitution within [15] <Insert number> days of receipt of request, or [seven] <Insert number> days of receipt of additional information or documentation, whichever is later.
  - a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
  - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

# 1.5 QUALITY ASSURANCE

A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

# 1.6 PROCEDURES

A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.

# PART 2 - PRODUCTS

# 2.1 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than **15** days prior to time required for preparation and review of related submittals.
  - Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
    - Requested substitution is consistent with the Contract Documents and will produce indicated results.
    - b. Requested substitution provides sustainable design characteristics that specified product provided [for achieving LEED prerequisites and credits, if applicable].
    - c. Substitution request is fully documented and properly submitted.
    - d. Requested substitution will not adversely affect Contractor's construction schedule.

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- Requested substitution has received necessary approvals of authorities having jurisdiction.
- f. Requested substitution is compatible with other portions of the Work.
- g. Requested substitution has been coordinated with other portions of the Work.
- h. Requested substitution provides specified warranty.
- i. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
- B. Substitutions for Convenience: Not allowed.

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500

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#### SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

Section includes administrative and procedural requirements for handling and processing Contract modifications.

#### 1.3 MINOR CHANGES IN THE WORK

A. Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on AIA Document G710, "Architect's Supplemental Instructions."

#### 1.4 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
  - 1. Work Change Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.
  - Within time specified in Proposal Request or 20 days, when not otherwise specified after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
    - Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
    - Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
    - c. Include costs of labor and supervision directly attributable to the change.
    - d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
    - e. Quotation Form: Use CSI Form 13.6D, "Proposal Worksheet Summary," and Form 13.6C, "Proposal Worksheet Detail."
- B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Architect.
  - Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
  - Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
  - Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
  - 4. Include costs of labor and supervision directly attributable to the change.

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- Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
- 6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
- 7. Proposal Request Form: Use CSI Form 13.6A, "Change Order Request (Proposal)," with attachments CSI Form 13.6D, "Proposal Worksheet Summary," and Form 13.6C, "Proposal Worksheet Detail."

# 1.5 ADMINISTRATIVE CHANGE ORDERS

A. Unit-Price Adjustment: See Section 012200 "Unit Prices" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect measured scope of unit-price work.

#### 1.6 CHANGE ORDER PROCEDURES

A. On Owner's approval of a Work Changes Proposal Request, Architect will issue a Change Order for signatures of Owner and Contractor on AIA Document G701.

#### 1.7 CONSTRUCTION CHANGE DIRECTIVE

- A. Construction Change Directive: Architect may issue a Construction Change Directive on AIA Document G714. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
  - Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.
  - 1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600

#### SECTION 012900 - PAYMENT PROCEDURES

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

 Section includes administrative and procedural requirements necessary to prepare and process Applications for Payment.

#### 1.3 DEFINITIONS

A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

# 1.4 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule. Cost-loaded Critical Path Method Schedule may serve to satisfy requirements for the schedule of values.
  - Coordinate line items in the schedule of values with other required administrative forms and schedules, including the following:
    - a. Application for Payment forms with continuation sheets.
    - b. Submittal schedule.
    - Items required to be indicated as separate activities in Contractor's construction schedule.
- B. Format and Content: Use Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one line item for each Specification Section.
  - 1. Arrange schedule of values consistent with format of AIA Document G703.
  - Arrange the schedule of values in tabular form with separate columns to indicate the following for each item listed:
    - a. Related Specification Section or Division.
    - b. Description of the Work.
    - c. Name of subcontractor.
    - d. Name of manufacturer or fabricator.
    - e. Name of supplier.
    - f. Change Orders (numbers) that affect value.
    - g. Dollar value of the following, as a percentage of the Contract Sum to nearest onehundredth percent, adjusted to total 100 percent.
      - 1) Labor.
      - 2) Materials.
      - 3) Equipment.
  - Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with Project Manual table of contents. Provide multiple line items for principal subcontract amounts in excess of five percent of the Contract Sum.

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- Include separate line items under Contractor and principal subcontracts for Project closeout requirements in an amount totaling five percent of the Contract Sum and subcontract amount.
- 4. Round amounts to nearest whole dollar; total shall equal the Contract Sum.
- Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
  - Differentiate between items stored on-site and items stored off-site. If required, include evidence of insurance.
- 6. Provide separate line items in the schedule of values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
- 7. Each item in the schedule of values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
  - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the schedule of values or distributed as general overhead expense, at Contractor's option.
- 8. Schedule Updating: Update and resubmit the schedule of values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

#### 1.5 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment following the initial Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.
  - Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- A. Application for Payment Forms: Use forms acceptable to Architect and Owner for Applications for Payment. Submit forms for approval with initial submittal of schedule of values.
- B. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
  - Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
  - Include amounts for work completed following previous Application for Payment, whether
    or not payment has been received. Include only amounts for work completed at time of
    Application for Payment.
  - 3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
  - Indicate separate amounts for work being carried out under Owner-requested project acceleration.
- C. Stored Materials: Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed. Differentiate between items stored on-site and items stored off-site.
  - 1. Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment, for stored materials.

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- Provide supporting documentation that verifies amount requested, such as paid invoices.
   Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
- 3. Provide summary documentation for stored materials indicating the following:
  - Value of materials previously stored and remaining stored as of date of previous Applications for Payment.
  - b. Value of previously stored materials put in place after date of previous Application for Payment and on or before date of current Application for Payment.
  - Value of materials stored since date of previous Application for Payment and remaining stored as of date of current Application for Payment.
- D. Transmittal: Submit **three** signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt **within 24 hours**. One copy shall include waivers of lien and similar attachments if required.
  - 1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

#### SECTION 01 3100 - PROJECT MANAGEMENT AND COORDINATION

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
  - 1. Administrative and supervisory personnel.
  - 2. Requests for Information (RFIs).
  - 3. Project meetings.

#### B. Related Sections:

- Division 01 Section "Construction Progress Documentation" for preparing and submitting Contractor's construction schedule.
- 2. Division 01 Section "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
- 3. Division 01 Section "Closeout Procedures" for coordinating closeout of the Contract

#### 1.3 DEFINITIONS

 RFI: Request to Owner, Architect, or Contractor seeking information from each other during construction.

### 1.4 KEY PERSONNEL

- A. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers and email addresses. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.
  - 1. Post copies of list in project meeting room, in temporary field office, and by each temporary telephone. Keep list current at all times.

# 1.5 REQUESTS FOR INFORMATION (RFIs)

- A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
  - Architect will return RFIs submitted to Architect by other entities controlled by Contractor with no response.
  - Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:

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- 1. Project name.
- 2. Project number.
- 3. Date.
- 4. Name of Contractor.
- 5. Name of Architect.
- 6. RFI number, numbered sequentially.
- 7. RFI subject.
- 8. Specification Section number and title and related paragraphs, as appropriate.
- 9. Drawing number and detail references, as appropriate.
- 10. Field dimensions and conditions, as appropriate.
- 11. Contractor's suggested resolution. If Contractor's solution(s) impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
- 12. Contractor's signature.
- 13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
  - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
- C. RFI Forms: Software-generated form with substantially the same content as indicated above, acceptable to Architect.
- D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow seven working days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.
  - 1. The following RFIs will be returned without action:
    - a. Requests for approval of submittals.
    - b. Requests for approval of substitutions.
    - c. Requests for coordination information already indicated in the Contract Documents.
    - d. Requests for adjustments in the Contract Time or the Contract Sum.
    - e. Requests for interpretation of Architect's actions on submittals.
    - f. Incomplete RFIs or inaccurately prepared RFIs.
  - 2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt of additional information.
  - 3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Division 01 Section "Contract Modification Procedures."
    - If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 10 days of receipt of the RFI response.
- E. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven days if Contractor disagrees with response.
- F. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log monthly at progress meetings. Use CSI Log Form 13.2B or software generated log. Include the following:
  - 1. Project name.

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- Name and address of Contractor.
- 3. Name and address of Architect.
- 4. RFI number including RFIs that were dropped and not submitted.
- 5. RFI description.
- 6. Date the RFI was submitted.
- 7. Date Architect's response was received.
- 8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
- 9. Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate.

#### 1.6 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
  - Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
  - 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
  - 3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within three days of the meeting.
- B. Preconstruction Conference: Schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement.
  - 1. Conduct the conference to review responsibilities and personnel assignments.
  - 2. Attendees: Authorized representatives of Owner, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
  - 3. Agenda: Discuss items of significance that could affect progress, including the following:
    - a. Tentative construction schedule.
    - b. Phasing.
    - c. Critical work sequencing and long-lead items.
    - d. Designation of key personnel and their duties.
    - e. Lines of communications.
    - f. Procedures for processing field decisions and Change Orders.
    - g. Procedures for RFIs.
    - h. Procedures for testing and inspecting.
    - i. Procedures for processing Applications for Payment.
    - j. Distribution of the Contract Documents.
    - k. Submittal procedures.
    - Preparation of record documents.
    - m. Use of the premises and existing building.
    - n. Work restrictions.
    - o. Working hours.
    - p. Owner's occupancy requirements.
    - q. Responsibility for temporary facilities and controls.
    - r. Procedures for disruptions and shutdowns.
    - s. Construction waste management and recycling.
    - Parking availability.

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