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# MISSOURI DEPARTMENT OF TRANSPORTATION

Beaufort Mechanics Building St. Louis District 6697 Highway 185 South, Beaufort, MO 63013 Franklin County

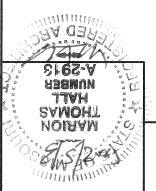
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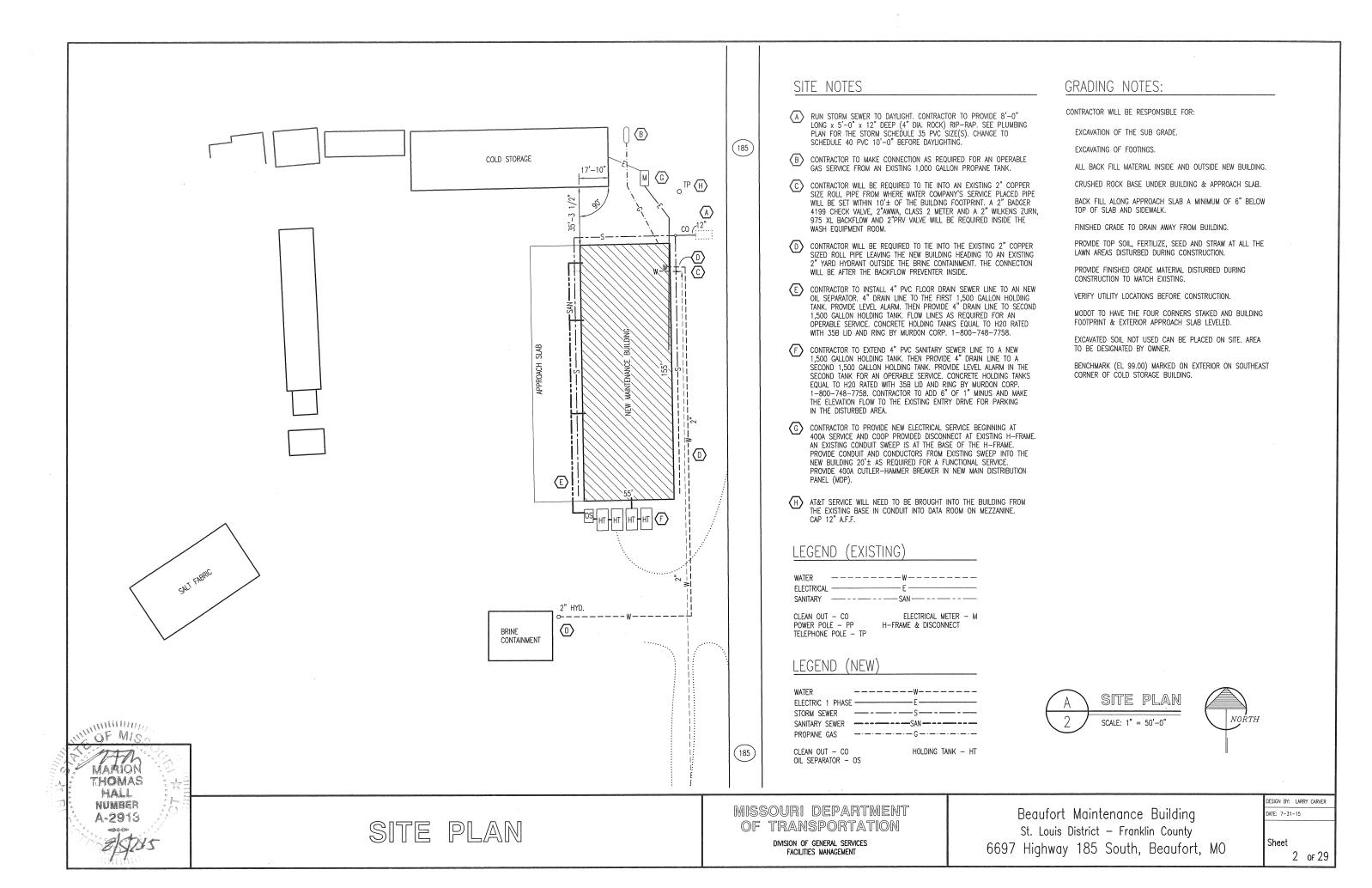
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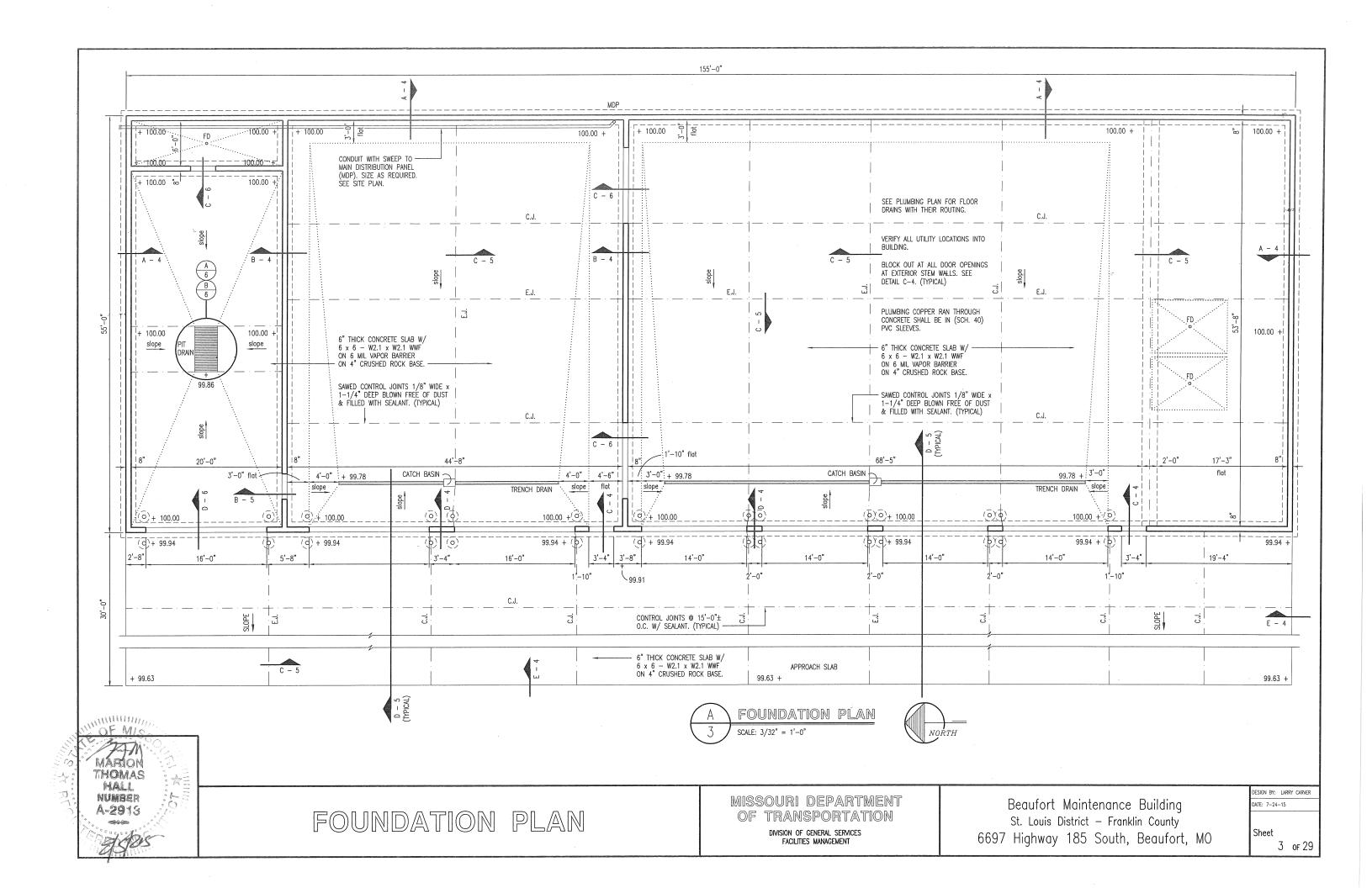
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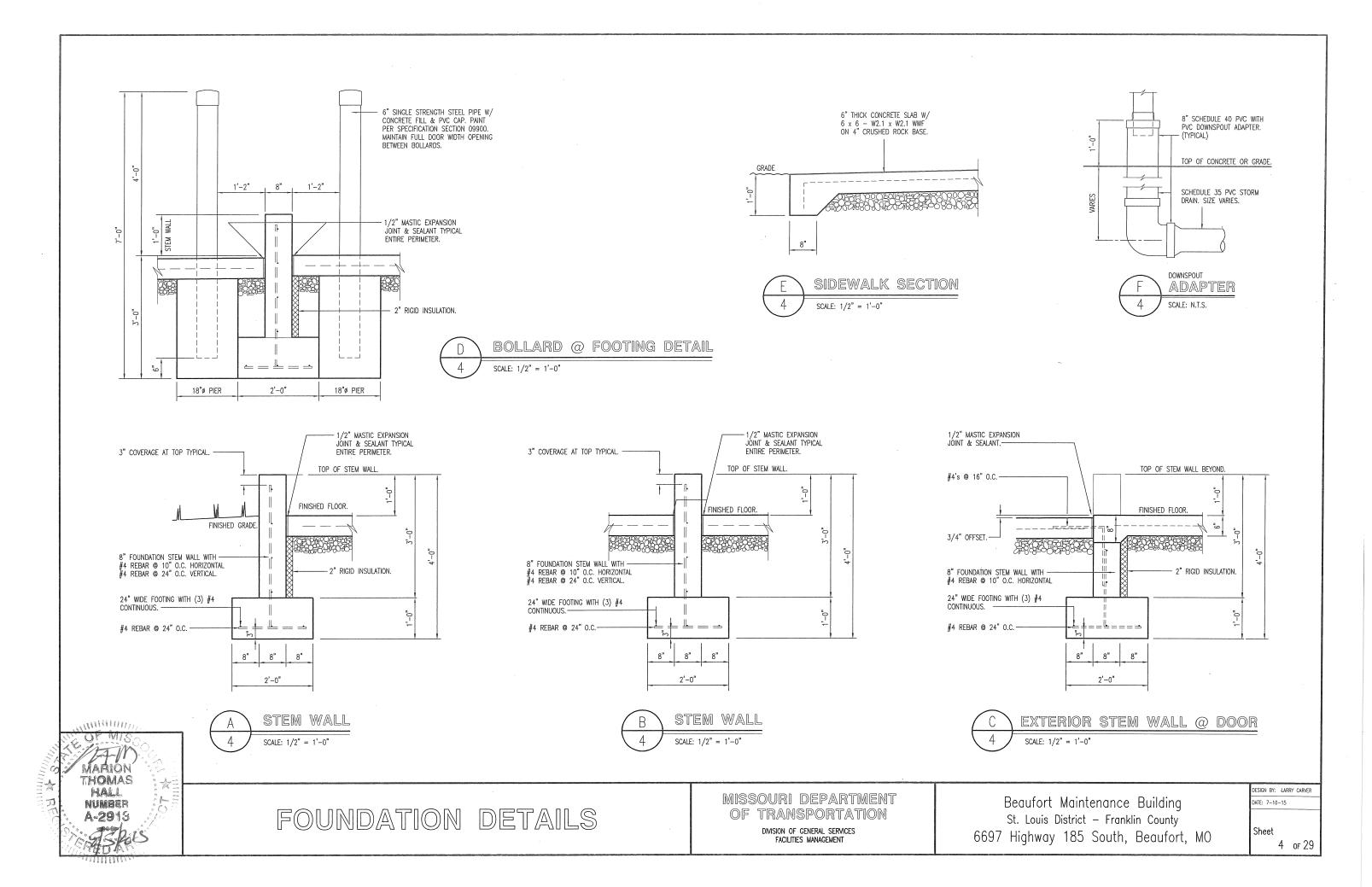
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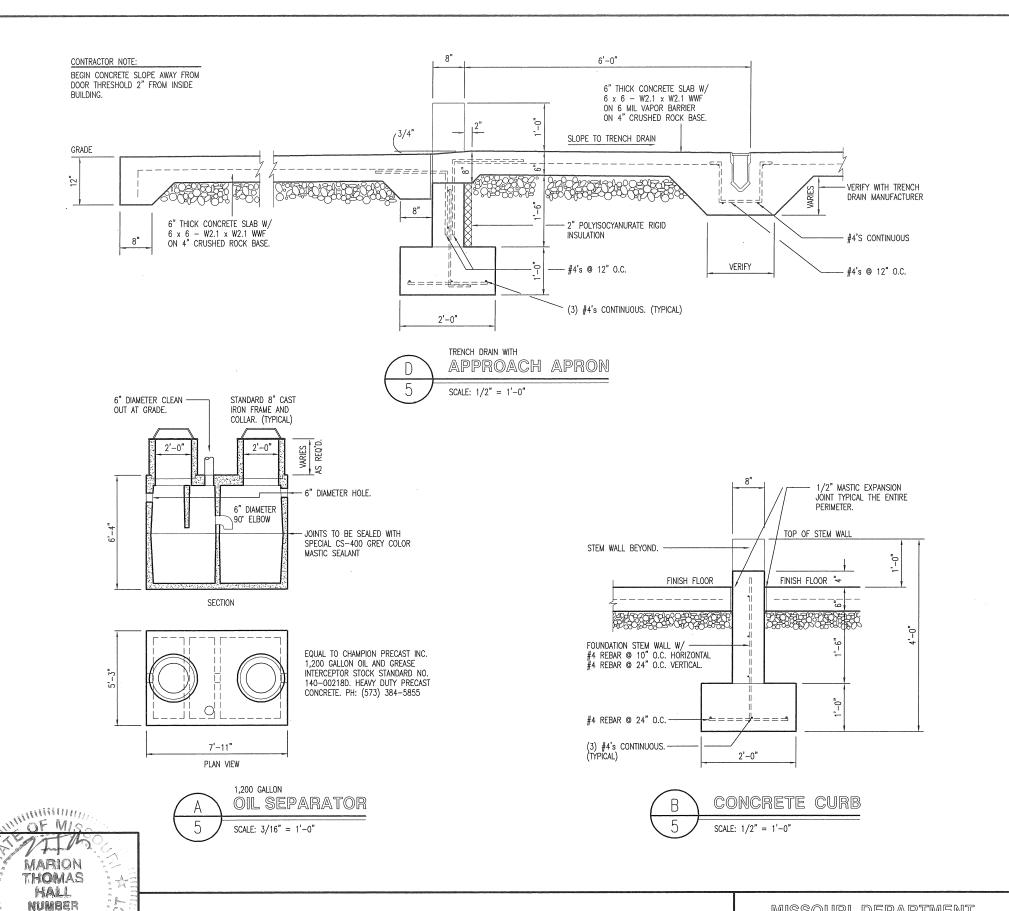
ELECTRICAL CODE - CURRENT N.E.C.





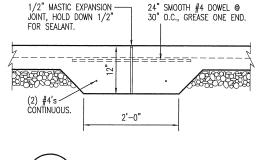






#### CONCRETE NOTES

- CONCRETE WORK SHALL BE EXECUTED IN STRICT COMPLIANCE WITH THE LATEST EDITION OF THE AMERICAN CONCRETE INSTITUTE (A.C.I.) MANUAL OF CONCRETE PRACTICE.
- FOUNDATION DESIGN IS BASED UPON AN ASSUMED SOIL BEARING CAPACITY OF 2,000 PSF.
  IF WET OR UNUSUAL SOIL CONDITIONS ARE ENCOUNTERED, NOTIFY THE DESIGNER AND
  CONSTRUCTION INSPECTOR BEFORE PROCEEDING WITH THE WORK.
- 3. IF CONDITIONS REQUIRING ROCK EXCAVATION ARE ENCOUNTERED, NOTIFY THE DESIGNER AND CONSTRUCTION INSPECTOR BEFORE PROCEEDING WITH THE WORK.
- ALL CONCRETE SHALL BE TYPE 1 CEMENT WITH A COMPRESSIVE STRENGTH OF 4,000 PSI
   28 DAYS AND NOT TO EXCEED 4" SLUMP.
- FOUNDATION PIERS AND FOOTINGS SHALL BEAR A MINIMUM OF 12 INCHES INTO UNDISTURBED SOIL AND 36 INCHES MINIMUM BELOW FINISH GRADE.
- 6. DEFORMED STEEL REINFORCING BARS SHALL BE: #4 AND LARGER ASTM A615 GRADE 60.
- 7. SEE SPECIFICATION SECTION 03300 CONCRETE FOR ADDITIONAL INFORMATION.
- 8. CONCRETE EXPOSED TO THE EXTERIOR SHALL RECEIVE AIR ENTRAINMENT 6% +/-2%.
- PROVIDE CORNER REINFORCING BARS WITH 12" MINIMUM LAP EQUAL IN SIZE AND GRADE TO CONNECTING BARS.
- 10. EXTERIOR CONCRETE FLATWORK SHALL HAVE A LIGHT BROOM FINISH.
- COORDINATE WORK OF OTHER TRADES REQUIRED TO BE INSTALLED IN, UNDER, OR THROUGH CONCRETE PRIOR TO PLACEMENT OF CONCRETE. INSTALL ALL ANCHORAGES AND SLEEVES REQUIRED FOR THE INSTALLATION OF WORK BY OTHER TRADES.
- 12. ENTIRE PERIMETER OF BUILDING TO RECEIVE 2" POLYISOCYANURATE RIGID INSULATION BOARD.
- SAWED CONTROL JOINTS SHALL BE CLEANED FREE OF ALL DEBRIS AND FILLED WITH SEALANT. SEE SECTION 07900.
- 14. ALL EXPOSED INTERIOR CONCRETE FLOORS SHALL RECEIVE A CURING/SEALING FINISH PER SPECIFICATION SECTION 03346.
- 15. COPPER PIPING RUN THROUGH CONCRETE WORK SHALL BE RUN THROUGH PVC SLEEVES.
- 16. PROVIDE PRECAST TRENCH DRAIN & CATCH BASIN AS SPECIFIED. INSTALL AS RECOMMENDED BY THE MANUFACTURER. ACTUAL CONSTRUCTION AND INSTALLATION MAY REQUIRE SOME FIELD MODIFICATIONS. ANY DEVIATION FROM THE DRAWINGS AND SPECIFICATIONS SHALL HAVE PRIOR APPROVAL FROM THE ARCHITECT OR BUILDING INSPECTOR.
- 17. ALL CONCRETE STEM WALLS TO MONOLITHICALLY POURED.





FOUNDATION DETAILS

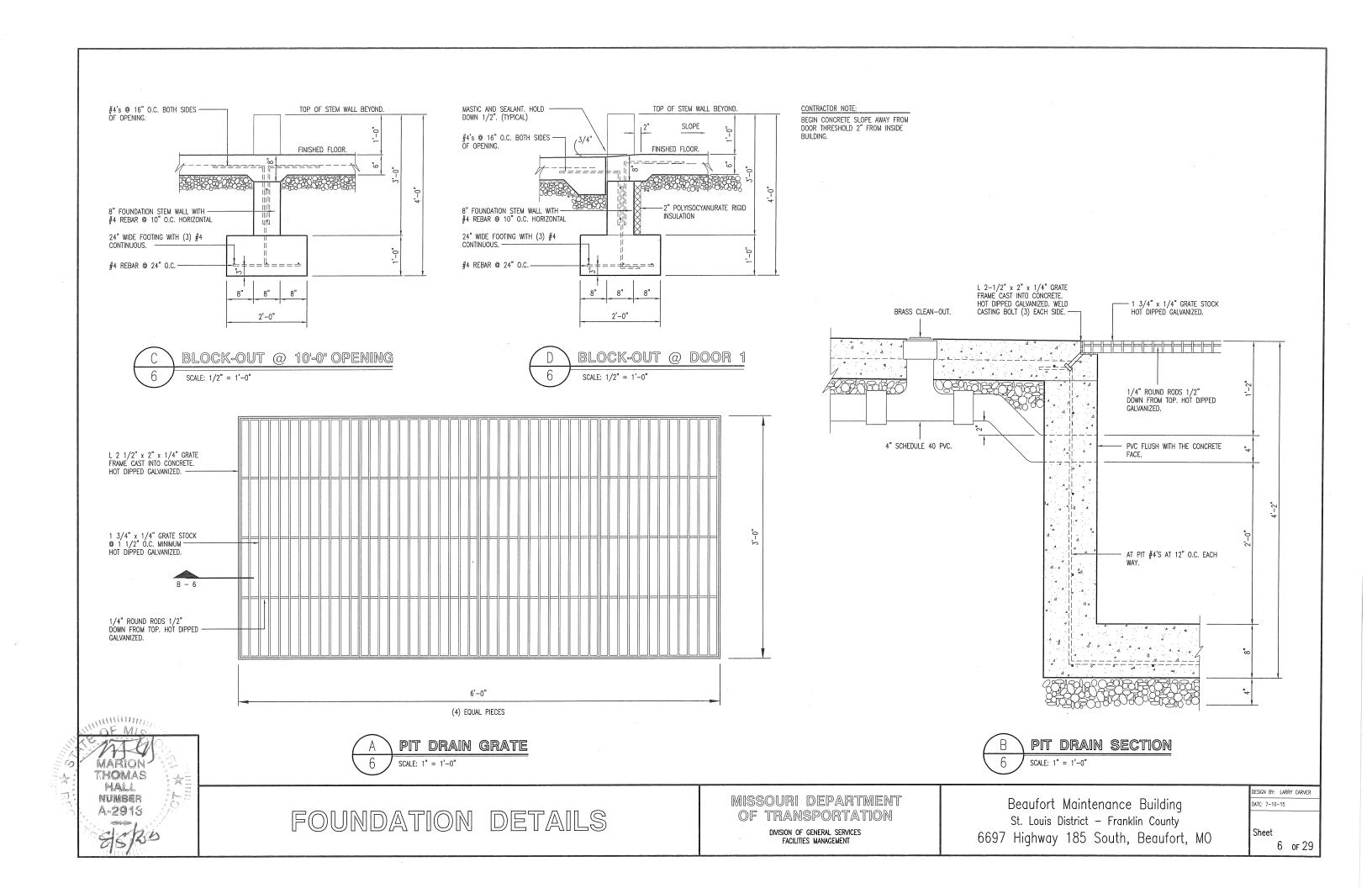
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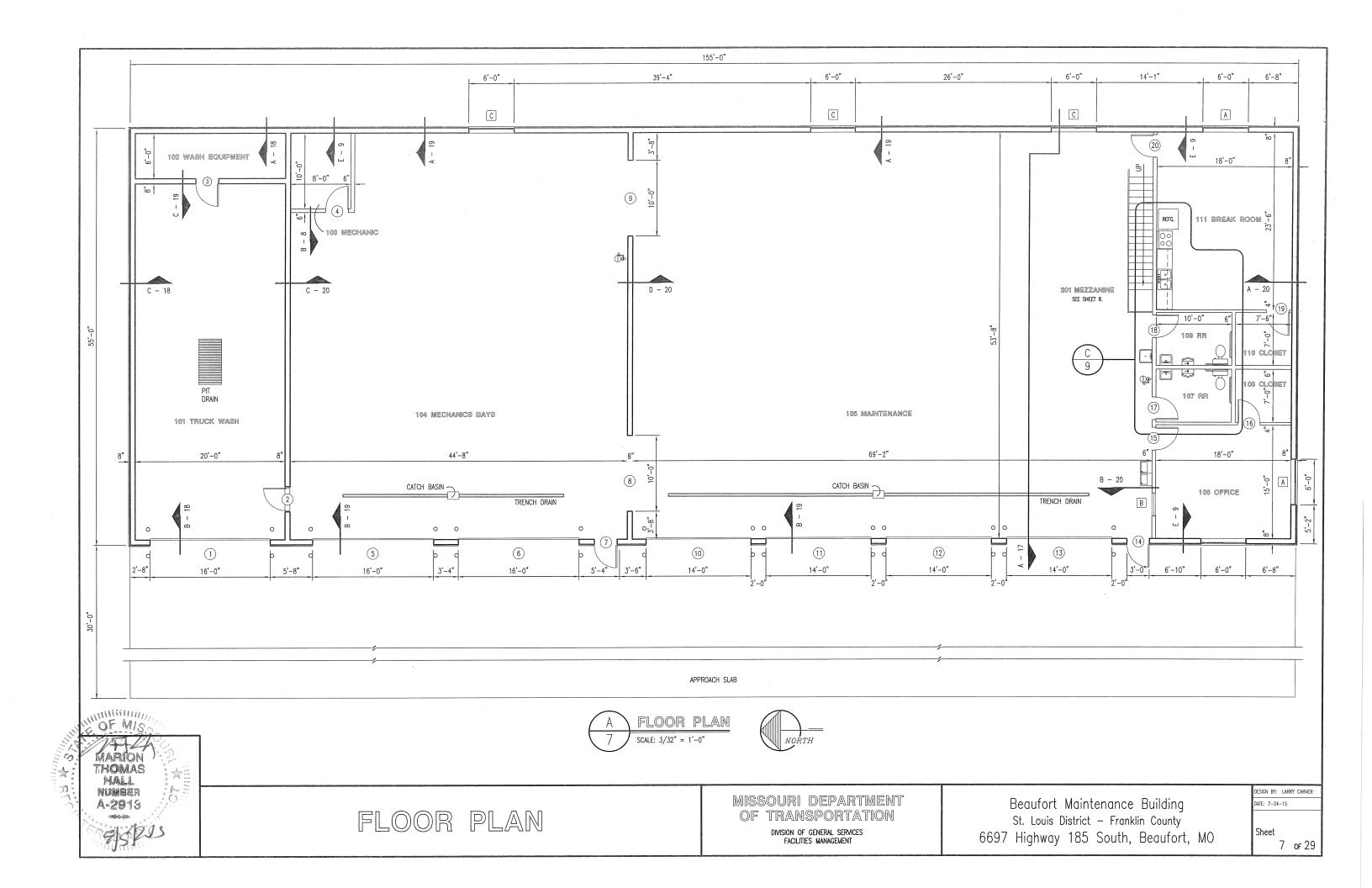
MISSOURI DEPARTMENT OF TRANSPORTATION

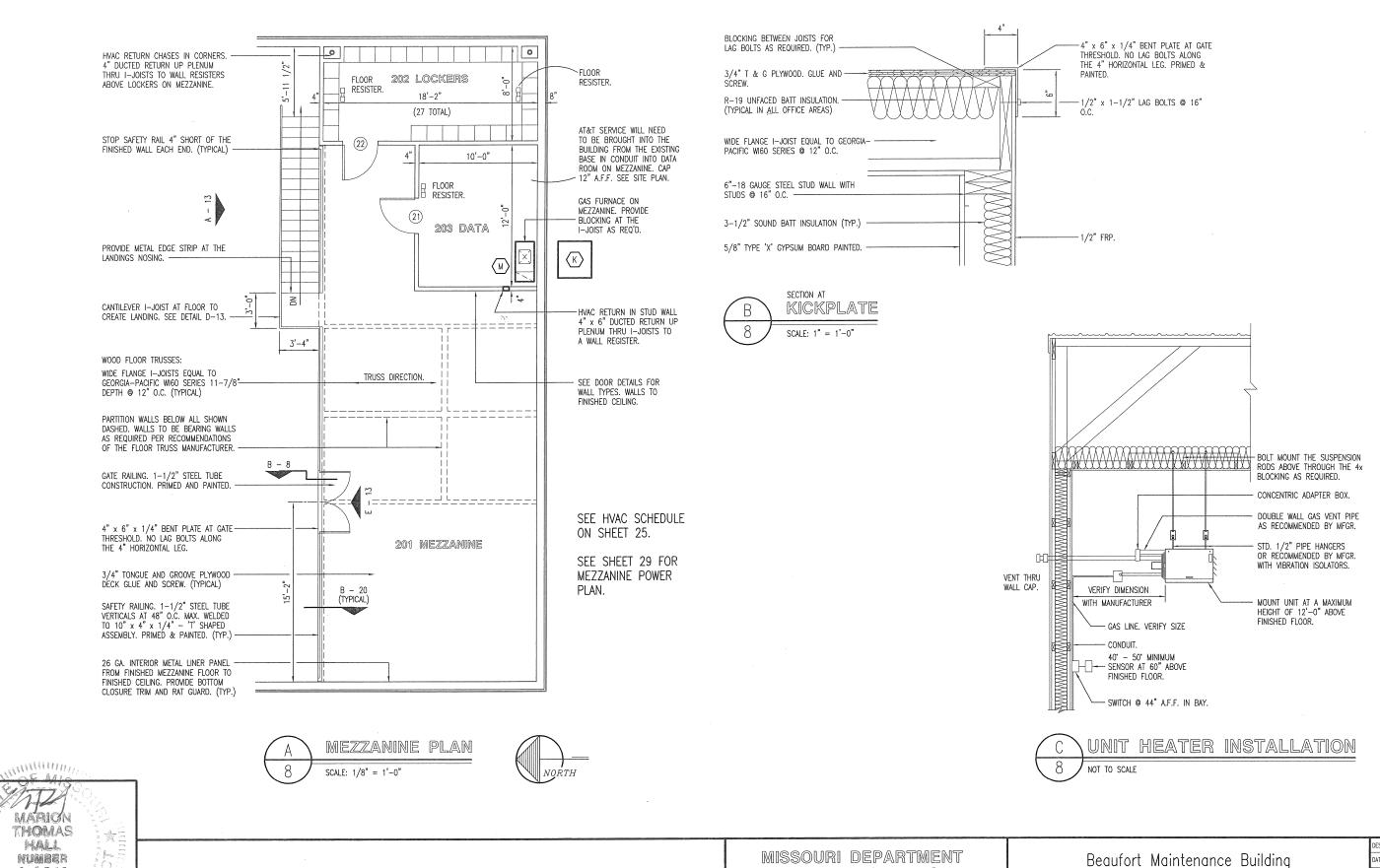
DIVISION OF GENERAL SERVICES FACILITIES MANAGEMENT

Beaufort Maintenance Building St. Louis District — Franklin County 6697 Highway 185 South, Beaufort, MO DESIGN BY: LARRY CARVER
DATE: 7-10-15

Sheet







MEZZANINE PLAN

MARION

HALL

NUMBER

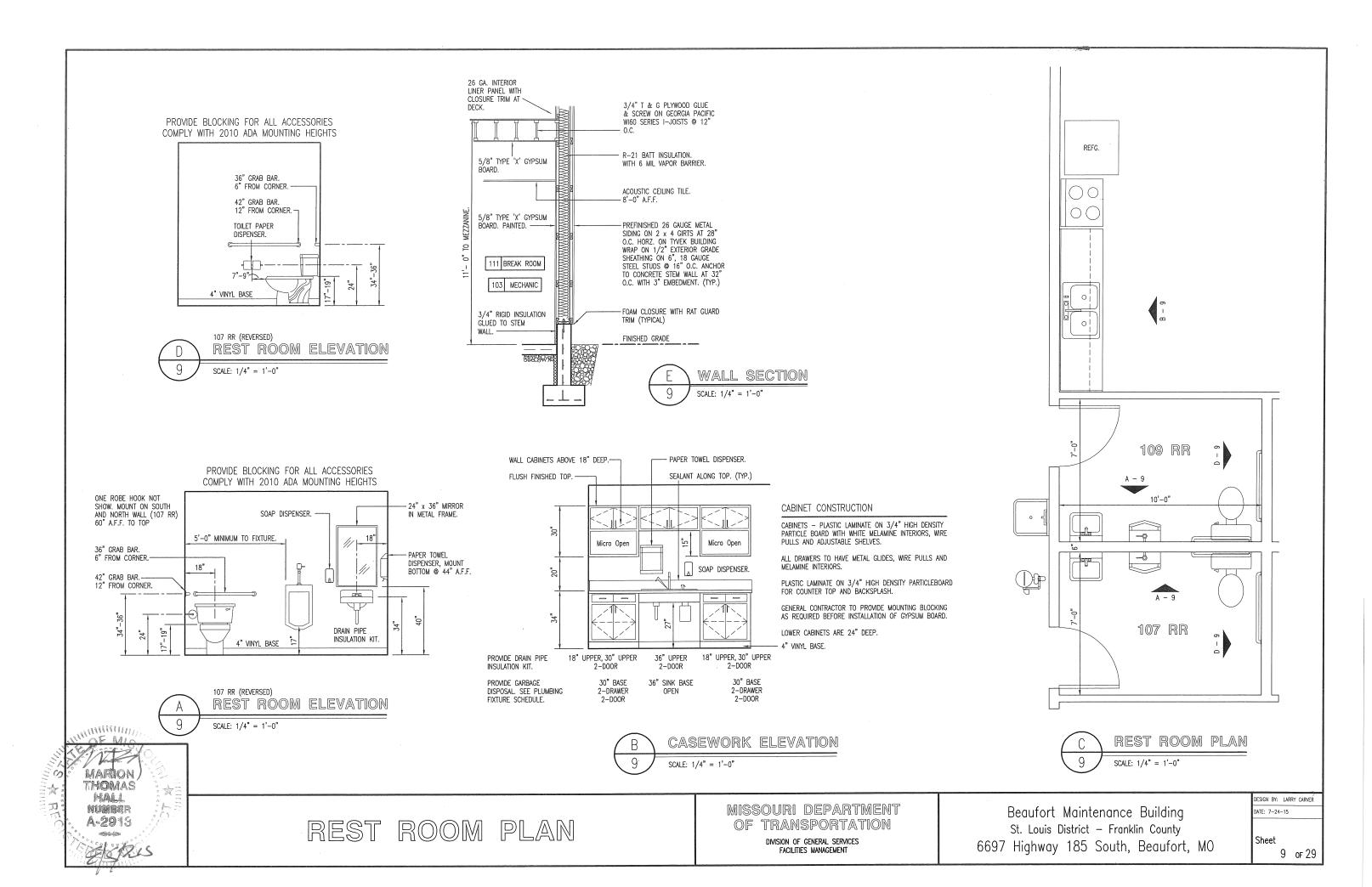
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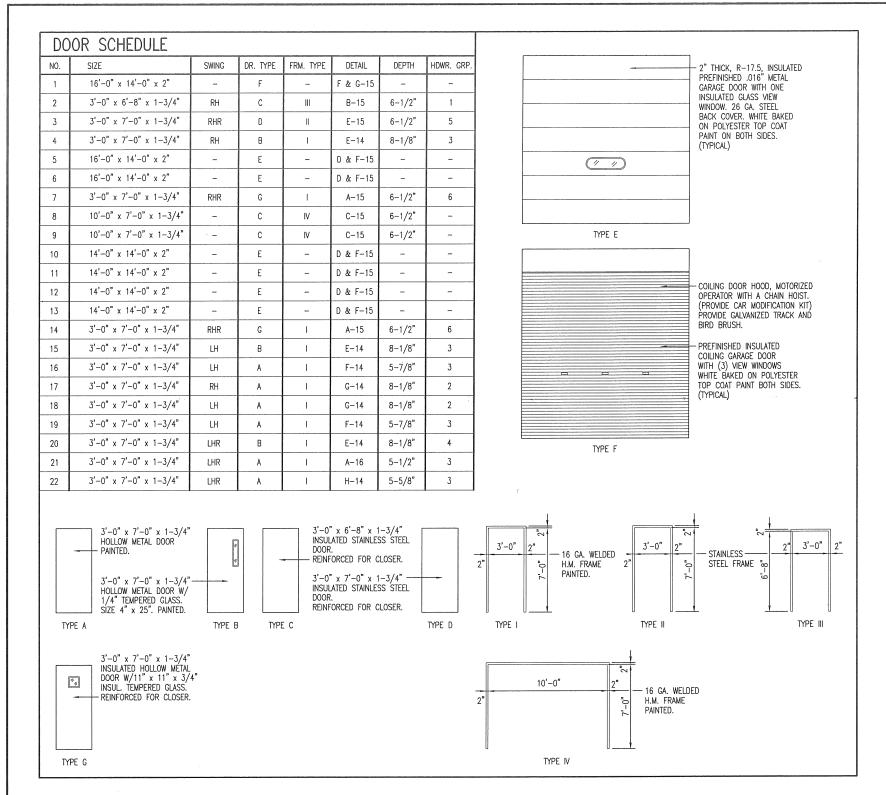
OF TRANSPORTATION

DIVISION OF GENERAL SERVICES FACILITIES MANAGEMENT

St. Louis District - Franklin County 6697 Highway 185 South, Beaufort, MO DESIGN BY: LARRY CARVER DATE: 7-24-15

Sheet





FIN	NISH SCHEDULE														
NO.	ROOM	FI	LOOR			WALLS						BASE		CEI	LING
		3/4" T & G PLYWOOD.	CURE AND SEALER ON CONCRETE.	7/16" FIBER—CORR FIBERGLASS PANEL.	26 GA. INTERIOR PANELS	1/2" FRP ON EXTERIOR SIDE OF OFFICE WALL.	5/8" GYPSUM BOARD.	5/8" GREEN GYP. BD.	PAINTED.	1/2" AC PLYWOOD	4" VINYL.	4" VINYL ON EXTERIOR SIDE OF OFFICE WALL.	NONE	26 GA. CEILING PANELS.	ACOUSTICAL CEILING TILE @ 8'-0" A.F.F.
101	TRUCK WASH		•	•									•	•	
102	WASH EQUIPMENT		•						•	•			•	•	
103	MECHANIC		•				•		•		•				•
104	MECHANICS BAYS		•		•	•						•	0	•	
105	MAINTENANCE		•		•	•						•	•	•	
106	OFFICE		•				•		•		•				
107	REST ROOM (RR)		•					•	0		•				•
108	CLOSET		•				•		0		•				•
109	REST ROOM (RR)		•					•	•		•				•
110	CLOSET		•				•		•						•
111	BREAK ROOM		•				•		•		•				•
201	MEZZANINE	•			•								•	•	
202	LOCKERS	•					•		•		•			•	
203	DATA	•							•	•	•			•	

WIN	WINDOW SCHEDULE								
SYMBOL	SIZE	WINDOW TYPE	MFGR. & CATALOG NO.	GLAZING	REMARKS				
А	6'-0" x 3'-0"	DOUBLE HORIZONTAL SLIDING	QUAKER 200K SERIES WITH (.028) SECURITY SCREEN	1/8" DUAL GLAZED	SEE DETAILS A & B-14 SILL HEIGHT: 4'-0" A.F.F.				
В	3'-0" x 4'-2"	DOUBLE HORIZONTAL SLIDING	QUAKER 200K SERIES NO SECURITY SCREEN	1/8" DUAL GLAZED	SEE DETAILS C & D-14. SILL HEIGHT: 34" A.F.F.				
С	6'-0" x 3'-0"	DOUBLE HORIZONTAL SLIDING	QUAKER 200K SERIES WITH (.028) SECURITY SCREEN	1/8" DUAL GLAZED	SEE DETAIL B-16. SILL HEIGHT: 4'-0" A.F.F.				

#### **GENERAL NOTES:**

CONTRACTOR TO FURNISH ALL NECESSARY FLASHING AND TRIM TO PROVIDE A NEAT, WEATHERPROOF FIT AT ALL DOORS, COLUMNS AND ANY LOCATION WHERE THE METAL PANELS MAY BE CUT.

MARION THOMAS HALL NUMBER A-2913

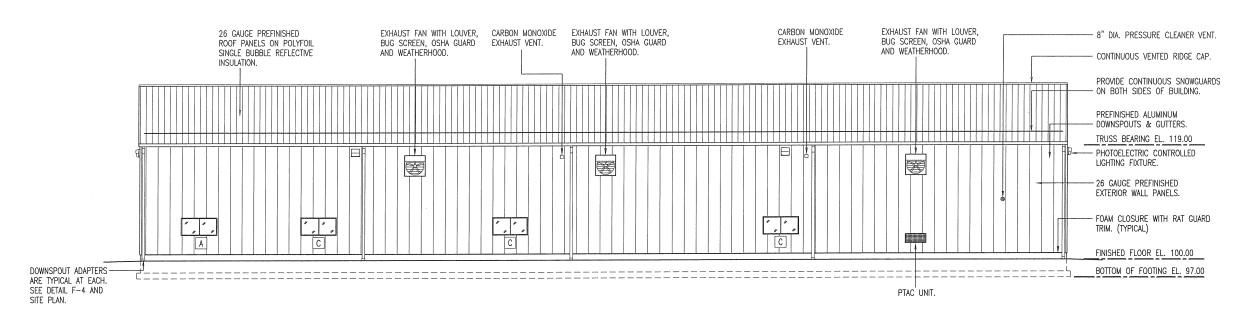
MISSOURI DEPARTMENT OF TRANSPORTATION

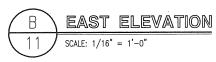
DIVISION OF GENERAL SERVICES FACILITIES MANAGEMENT

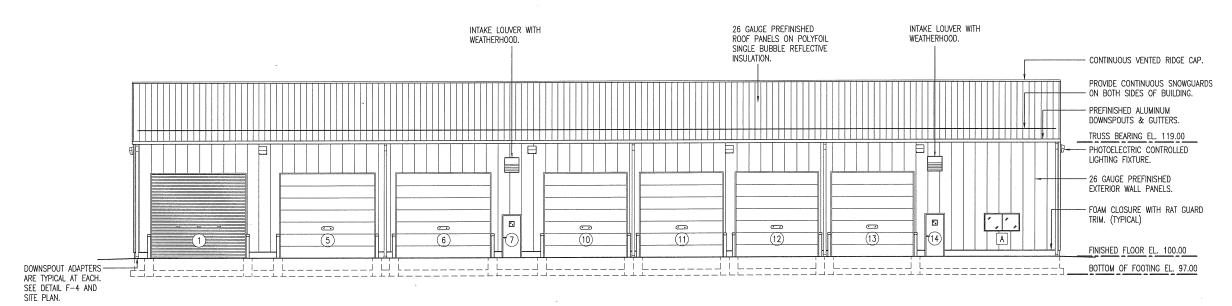
Beaufort Maintenance Building St. Louis District — Franklin County 6697 Highway 185 South, Beaufort, MO DESIGN BY: LARRY CARVER

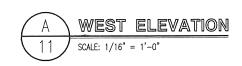
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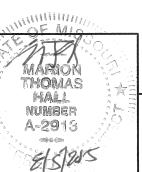
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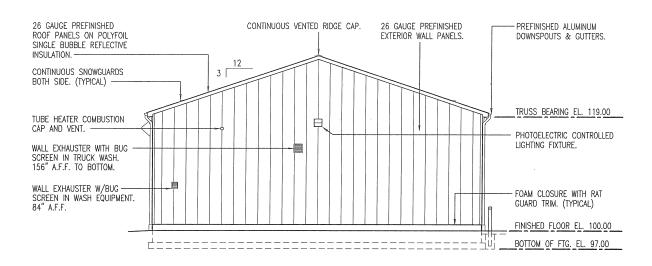
EAST & WEST ELEVATIONS

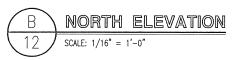
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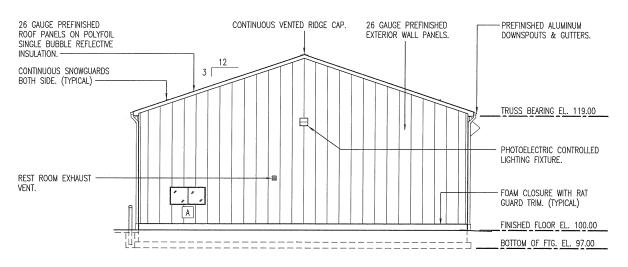
DIVISION OF GENERAL SERVICES FACILITIES MANAGEMENT

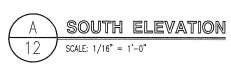
Beaufort Maintenance Building St. Louis District — Franklin County 6697 Highway 185 South, Beaufort, MO DESIGN BY: LARRY CARVER
DATE: 7-24-15

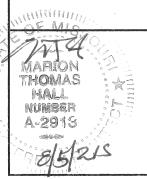
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NORTH & SOUTH ELEVATIONS

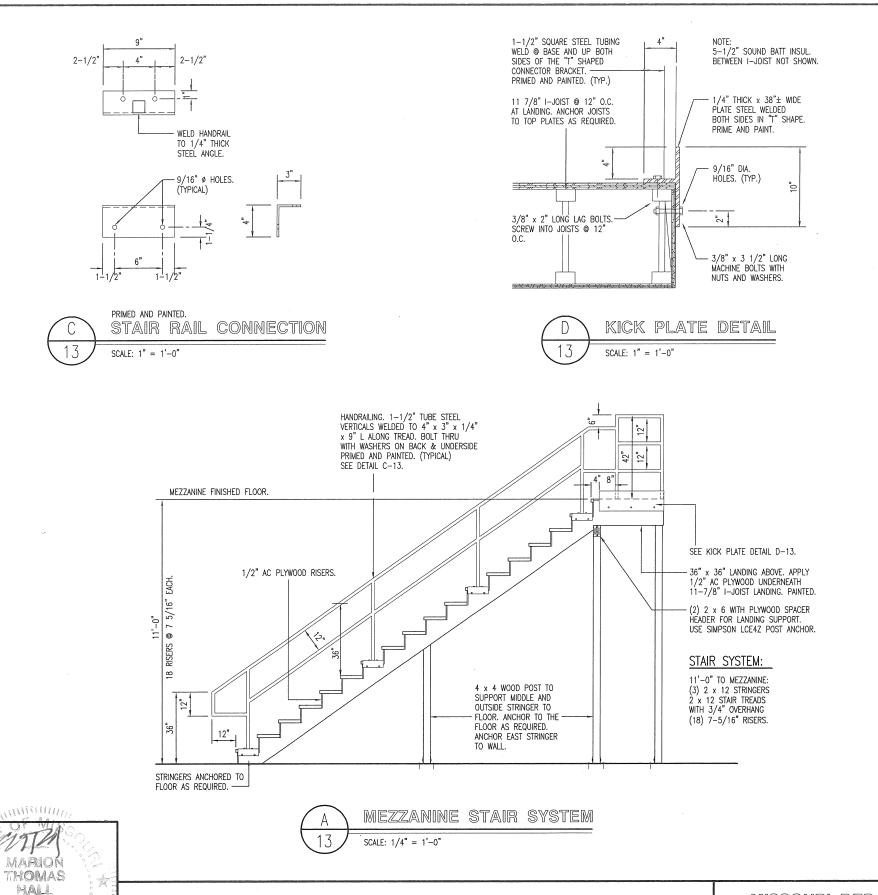
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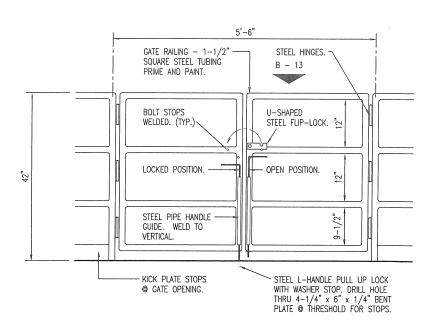
DIVISION OF GENERAL SERVICES FACILITIES MANAGEMENT Beaufort Maintenance Building St. Louis District — Franklin County 6697 Highway 185 South, Beaufort, MO DESIGN BY: LARRY CARVER

DATE: 7-24-15

DATE: 7-24-15

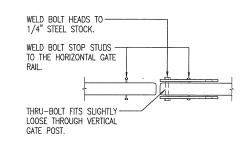
Sheet 12 of 29

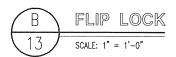




VIEW FROM MEZZANINE
SWING GATE DETAIL

13 SCALE: 1/2" = 1'-0"





STAIR DETAILS

NUMBER

A-2913

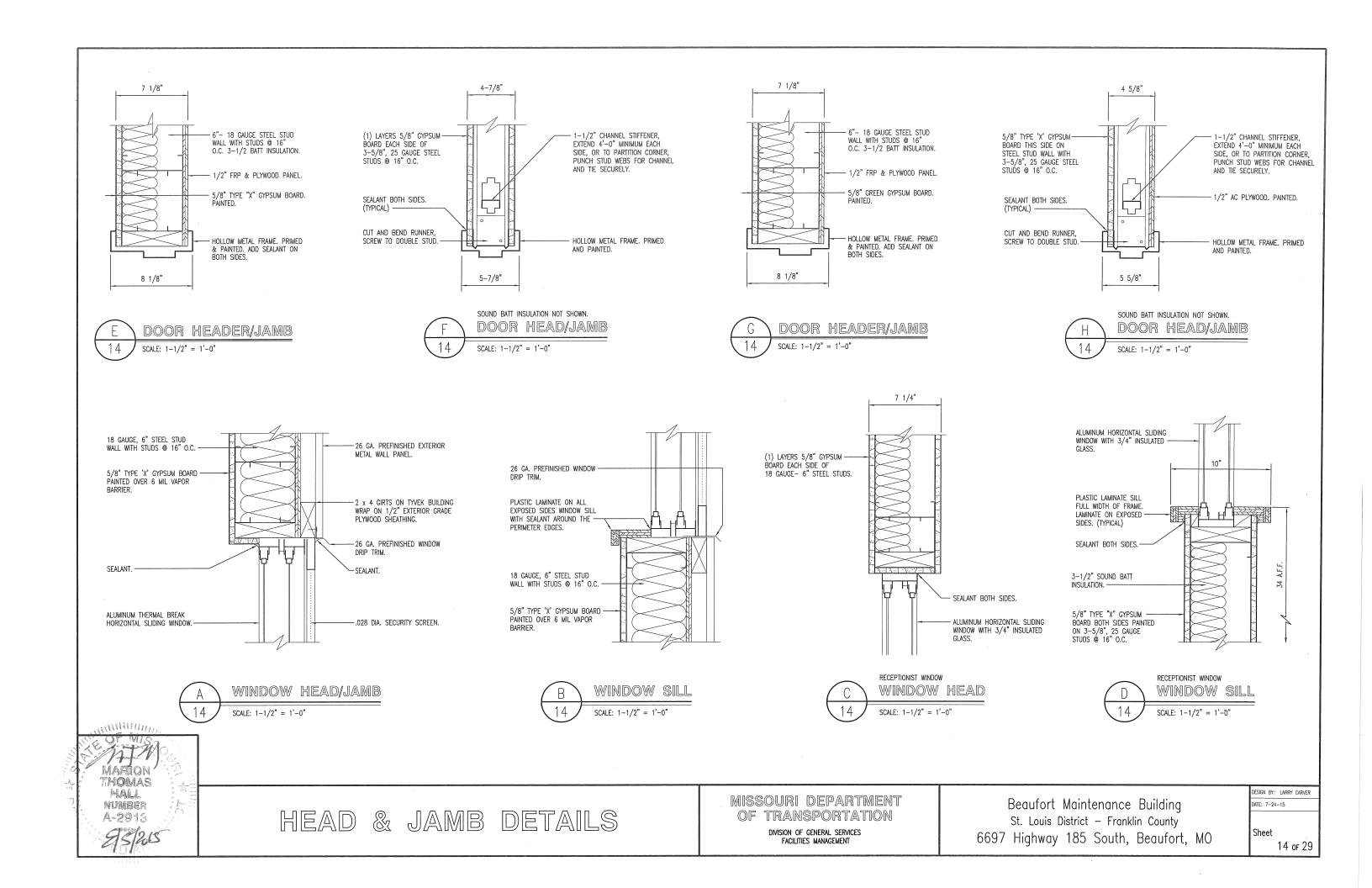
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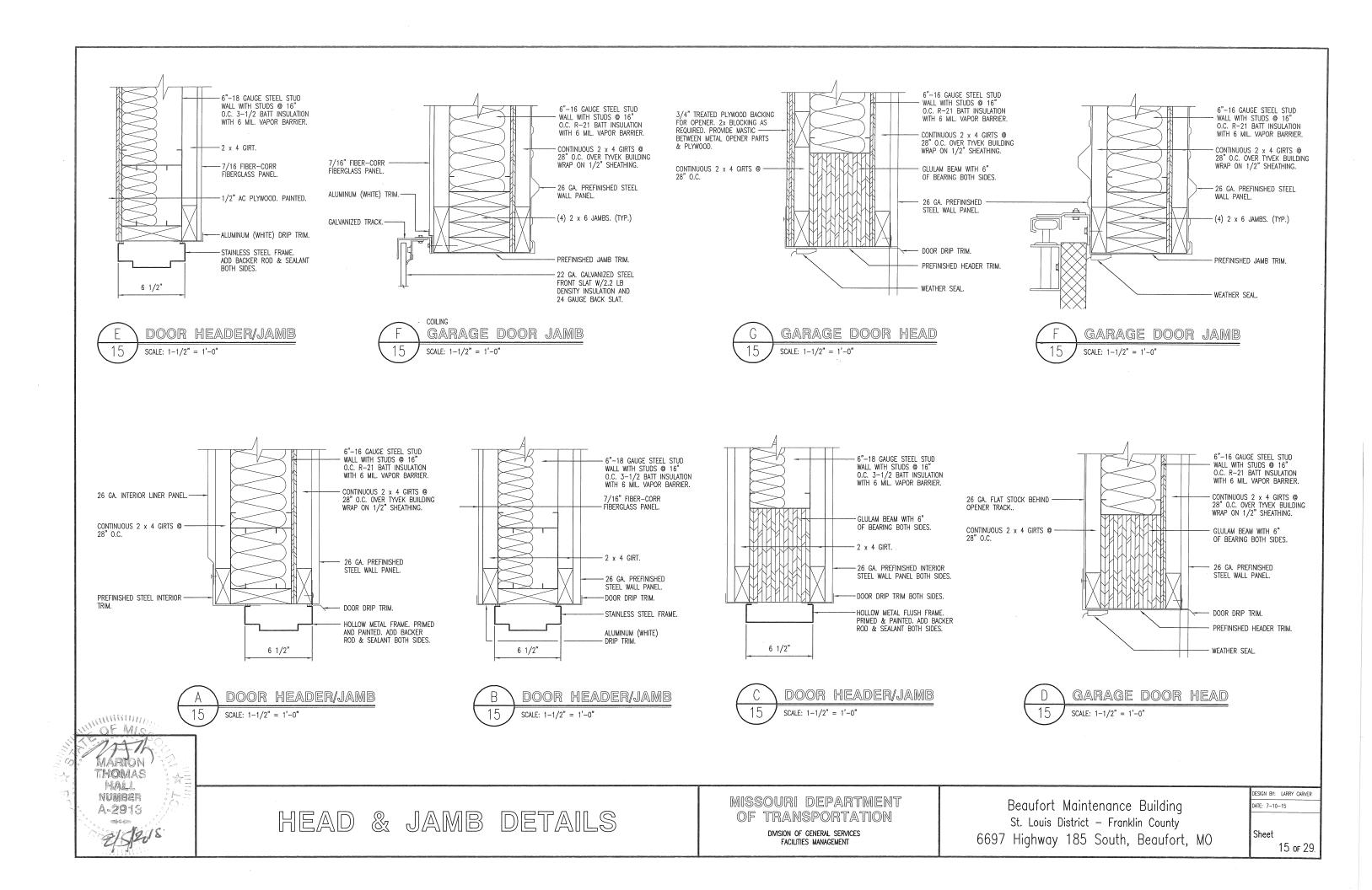
DIVISION OF GENERAL SERVICES FACILITIES MANAGEMENT

Beaufort Maintenance Building St. Louis District — Franklin County 6697 Highway 185 South, Beaufort, MO DESIGN BY: LARRY CARVER

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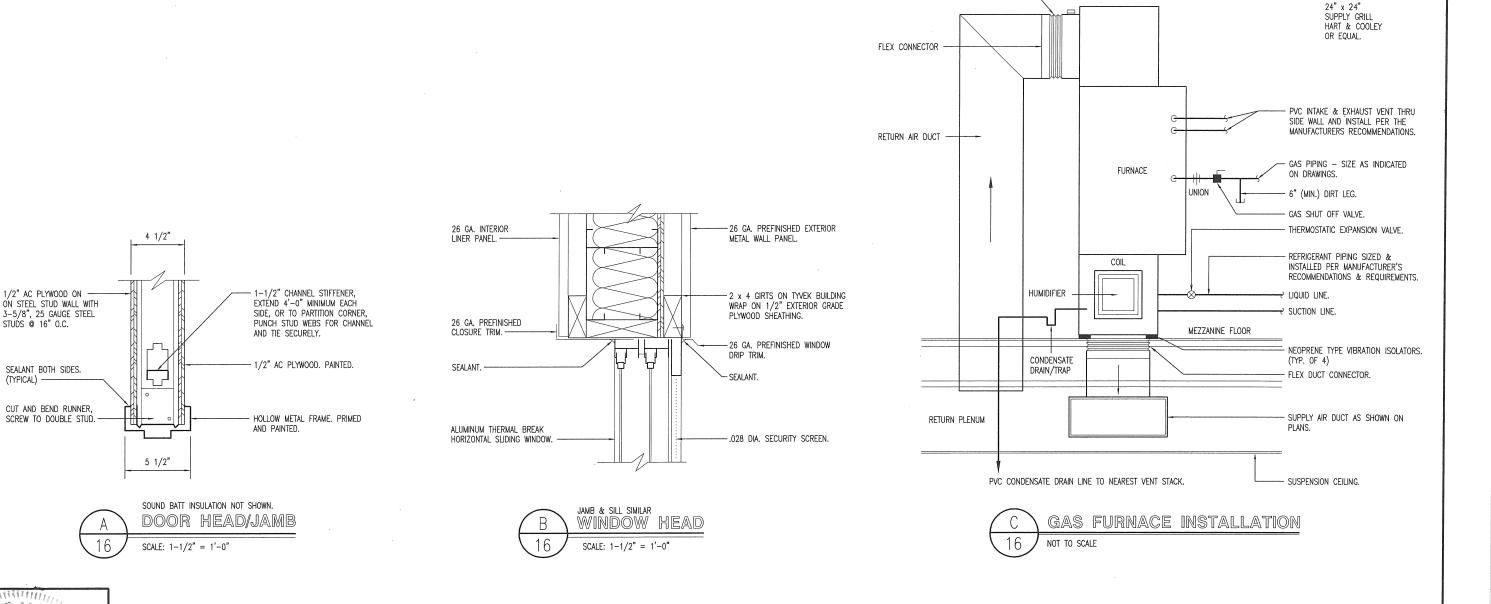
13 of 29







24" x 24" RETURN GRILL HART & COOLEY OR EQUAL.



ELECTRONIC AIR FILTER -

1/2" AC PLYWOOD ON -

3-5/8", 25 GAUGE STEEL

SEALANT BOTH SIDES.

CUT AND BEND RUNNER,

SCREW TO DOUBLE STUD.

(TYPICAL) -

THOMAS

HALL

NUMBER

A-2913

HEAD & JAMB DETAILS

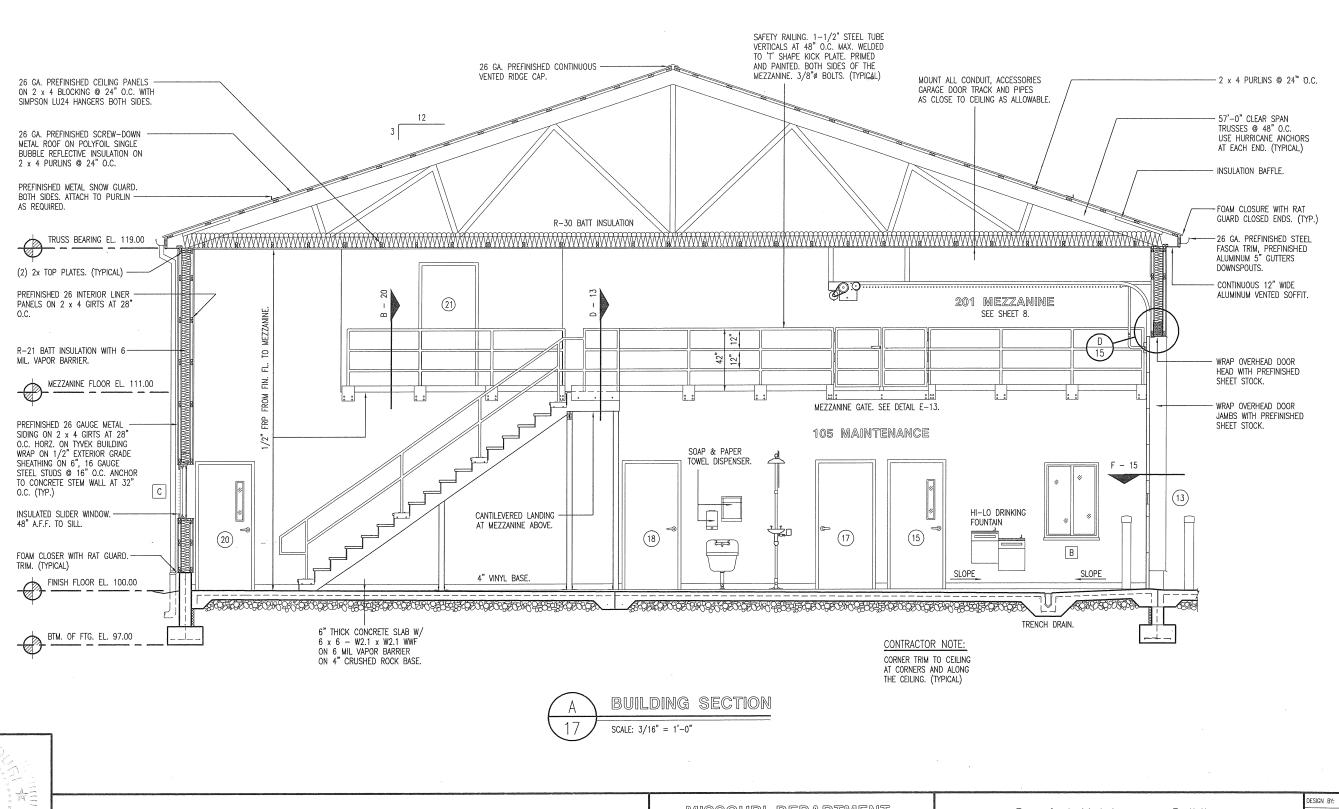
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Beaufort Maintenance Building St. Louis District - Franklin County 6697 Highway 185 South, Beaufort, MO

DESIGN BY: LARRY CARVER DATE: 7-17-15

Sheet



BUILDING SECTION

MINIMINI

THOMAS

MALL

NUMBER

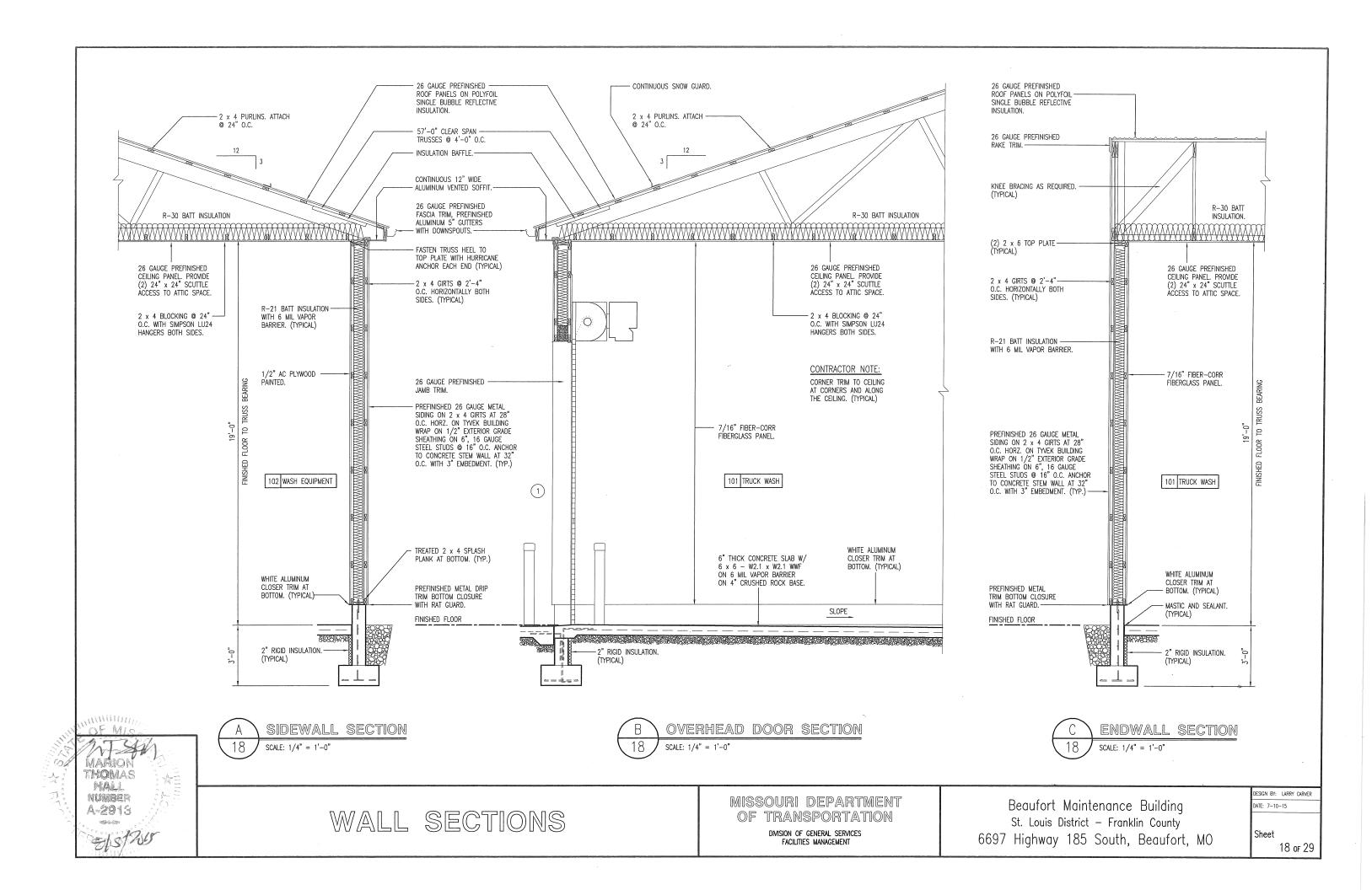
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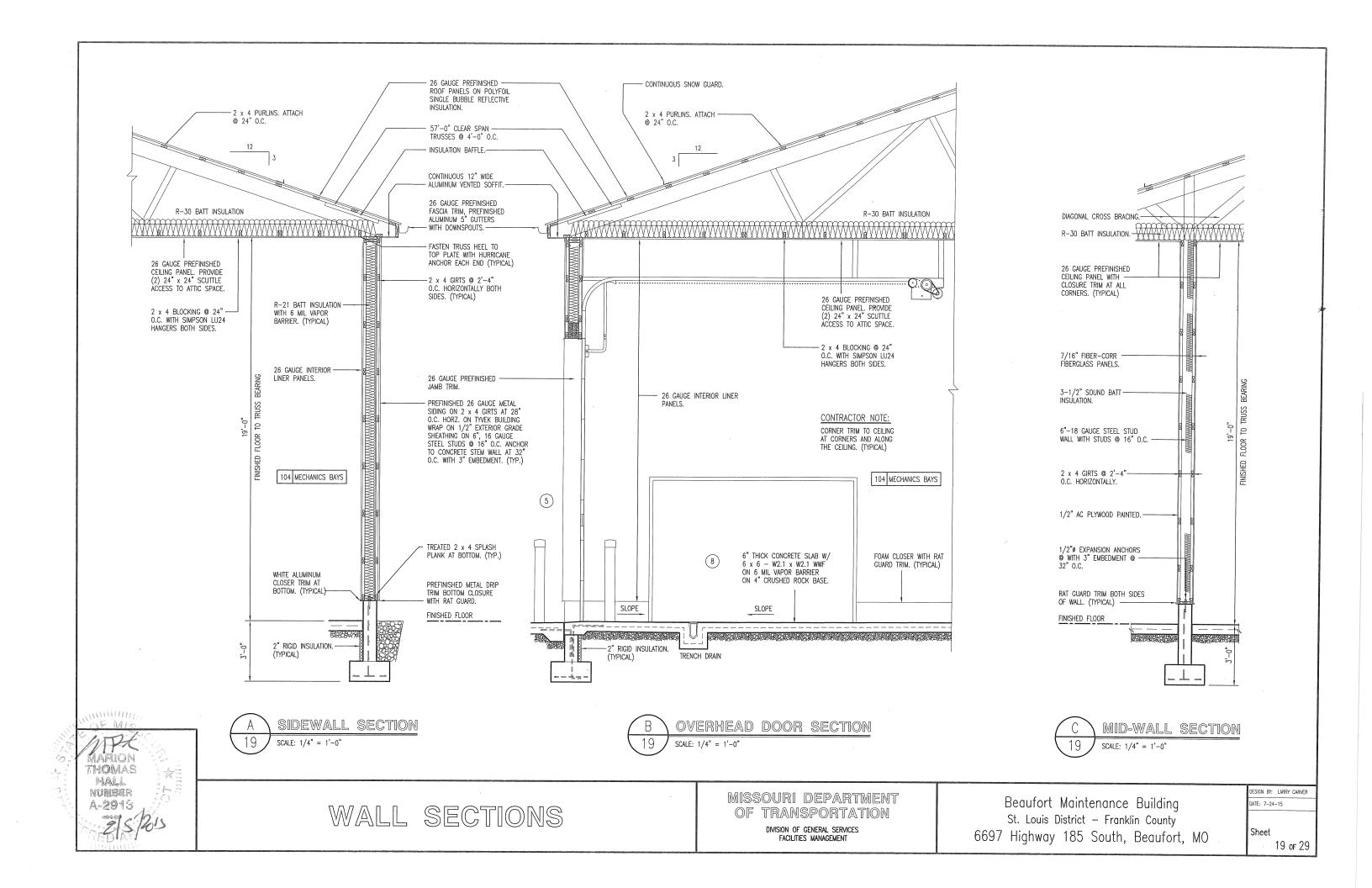
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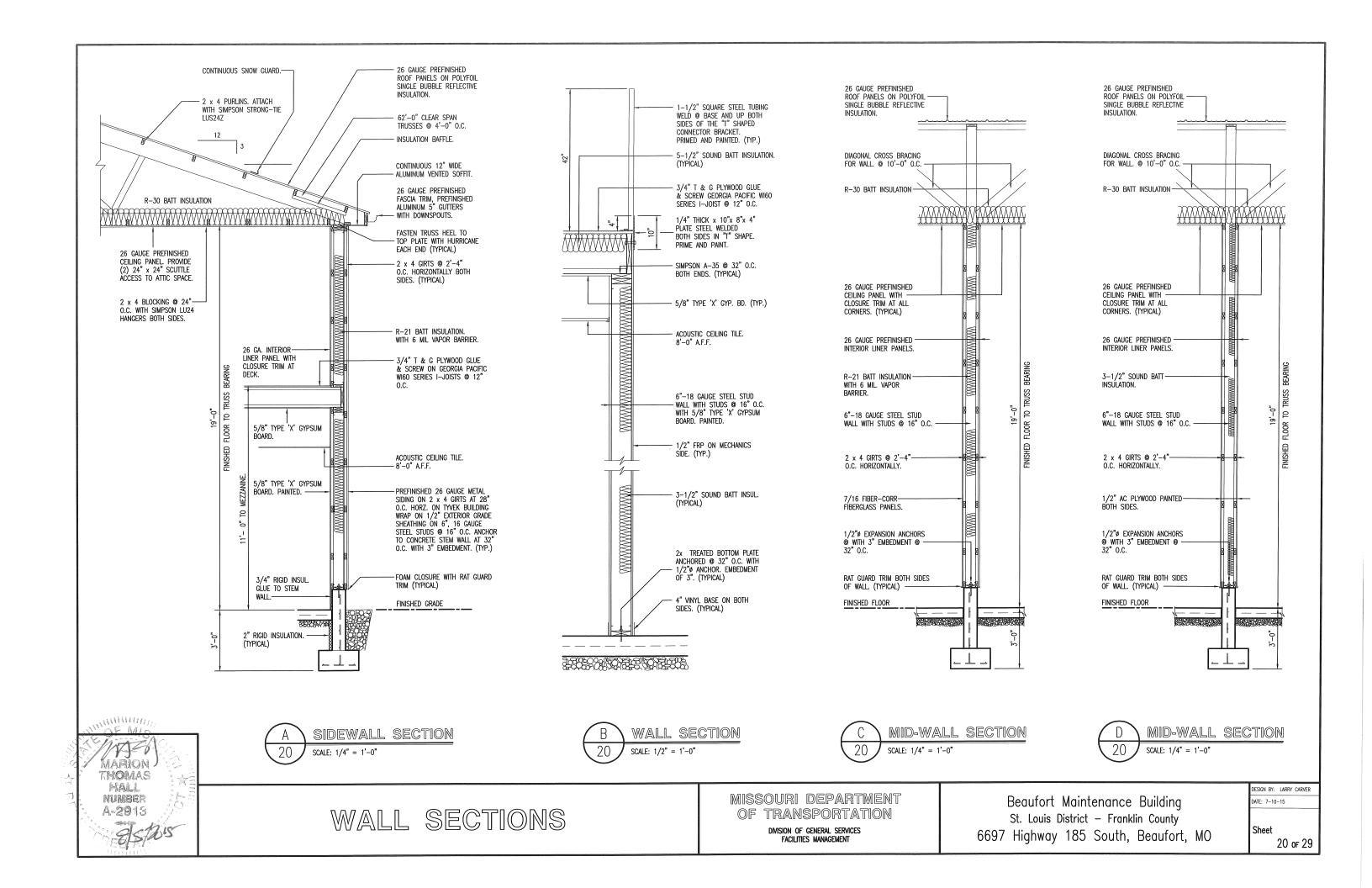
DIVISION OF GENERAL SERVICES FACILITIES MANAGEMENT

Beaufort Maintenance Building St. Louis District — Franklin County 6697 Highway 185 South, Beaufort, MO DESIGN BY: LARRY CARVER
DATE: 7-24-15

Sheet







155'-0" SEE HEAD & JAMB DETAILS OF WINDOW AND DOOR HEADERS. (DGB) (DGB) (DGB) (DGB) CROSS BRACING AS REQUIRED. CROSS | BRACING | CROSS | BRACING | AS REQUIRED. AS REQUIRED. (DGB) DIAGONAL GABLE BRACING AS REQUIRED. (DGB) (DGB) (DGB) (DGB) SEE HEAD & JAMB DETAILS OF WINDOW AND DOOR ROOF FRAMING NOTES 1. DESIGN LOADING FOR ROOF TRUSSES SHALL MEET THE FOLLOWING CRITERIA: ROOF FRAMING PLAN ROOF LIVE LOAD 25 PSF ROOF DEAD LOAD 4 PSF BOTTOM CORD DEAD LOAD 5 PSF 25 PSF SCALE: 3/32" = 1'-0"EARTHQUAKE ZONE 1, LATEST EDITION IBC 90 MPH, EXPOSURE B L/360 48" O.C. MAXIMUM DEFLECTION SPACING TRUSS DESIGN SUBMITTALS SHALL BE SEALED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MISSOURI. OF MIC 3. ROOF TRUSSES AND RAFTERS SHALL BE ANCHORED TO THE TOP PLATE OF LOAD BEARING WALLS WITH SEISMIC AND HURRICANE ANCHORS EQUAL TO SIMPSON MARION THOMAS STRONG-TIE LUS24Z ANCHORS.

ROOF FRAMING PLAN

HALL

NUMBER

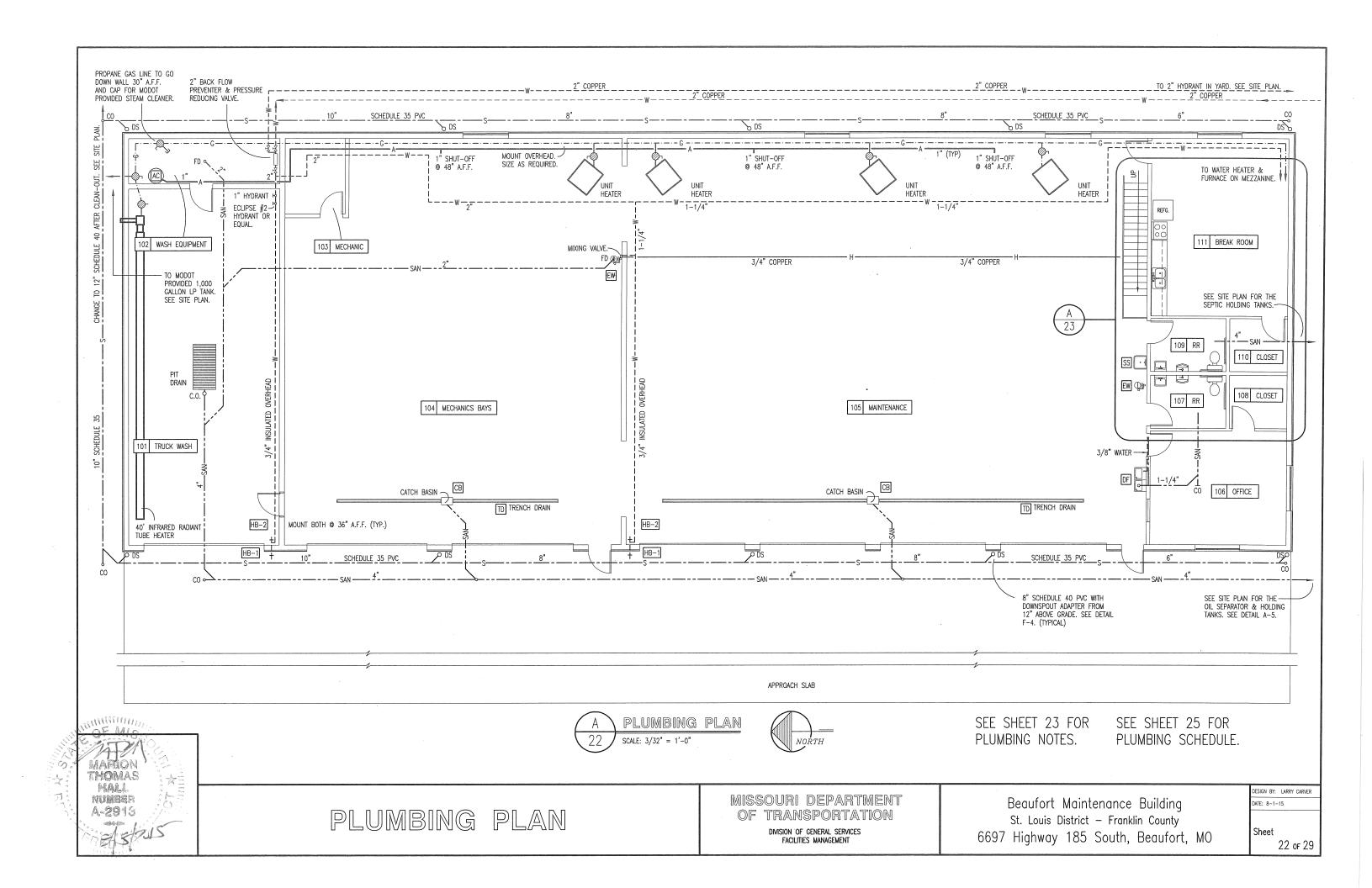
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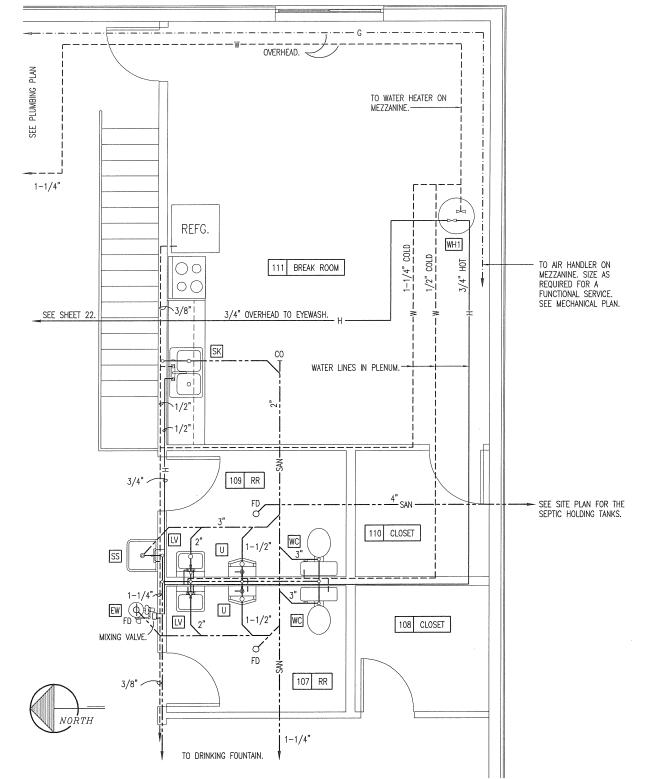
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DIVISION OF GENERAL SERVICES FACILITIES MANAGEMENT

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DATE: 7-24-15

Sheet





#### PLUMBING NOTES

- 1. DRAWINGS AND DIAGRAMS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS.
- 2. PLUMBING SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE LATEST EDITION OF THE INTERNATIONAL PLUMBING CODE.
- 3. PLUMBING SHALL BE LOCATED AND PLACED UNDER THE SLAB PRIOR TO POURING OF CONCRETE. PIPING SHALL BE RUN IN SAND FILLED TRENCH UNDER THE BASE ROCK AND SLEEVED WITH PVC WHENEVER RUN THROUGH
- 4. PROVIDE PLUMBING EQUIPMENT AND ACCESSORIES REQUIRED FOR COMPLETE AND OPERATIONAL PLUMBING SYSTEMS AS REQUIRED BY MANUFACTURER'S INSTRUCTIONS AND DIRECTIONS FOR SYSTEMS SPECIFIED.
- 5. PLUMBING VENTS ARE NOT SHOWN ON THE PLANS. ALL FIXTURES SHALL BE PROPERLY VENTED AS PER IBC PLUMBING CODE.
- 6. ROOF VENTS SHALL BE COMBINED WHEREVER IN COMPLIANCE WITH THE NATIONAL PLUMBING CODE TO MINIMIZE ROOF PENETRATIONS.
- 7. PROVIDE SHUT OFF VALVES AT EACH FIXTURE.
- 8. PROVIDE SHOCK ABSORBERS AS REQUIRED AT EACH FAUCET.
- 9. SEE MECHANICAL PLAN FOR GAS PIPING AND MECHANICAL REQUIREMENTS.
- 10. CONTRACTOR TO PROVIDE CAST IRON VENT PIPING IN PLENUM AS REQUIRED BY CODE. SECURE AS REQUIRED.
- 11. EXTERIOR BELOW GROUND WATER DISTRIBUTION PIPING SHALL RUN A MINIMUM OF 36" BELOW FINISH GRADE.
- 12. CONTRACTOR TO PROVIDE 2" BACK FLOW PREVENTER & PRESSURE REDUCING VALVE IN 102 WASH EQUIPMENT AS REQUIRED.
- 13. PROVIDE BLOCKING TO ALL FIXTURES AS REQUIRED FOR A SECURE APPLICATION.
- PROVIDE 3/8" COPPER WATER LINE TO REFRIGERATOR WITH SHUT-OFF AS REQ'D. FOR THE REFRICERATOR'S ICE MAKER. SHUT-OFF TO BE INSIDE WALL COVERED BY KARP BRAND 8" x 8" HANDI-ACCESS PLASTIC ACCESS PANEL. WATER LINE TO BE THROUGH FINISHED WALL WITH CHROME ESCUTCHEON.
- 15. PROVIDE CONDENSATION DRAIN LINES FOR AIR HANDLER AND THE WATER HEATER PAN AS REQUIRED FOR A FUNCTIONAL SERVICE.

SEE SHEET 25 FOR PLUMBING SCHEDULE & NOTES.

#### LEGEND

HOT WATER CLEANOUT C.O. F-GAS VALVE rØ

REST ROOM PLUMBING PLAN SCALE: 3/16" = 1'-0"

William Co.

THOMAS HALL

NUMBER

A-2913

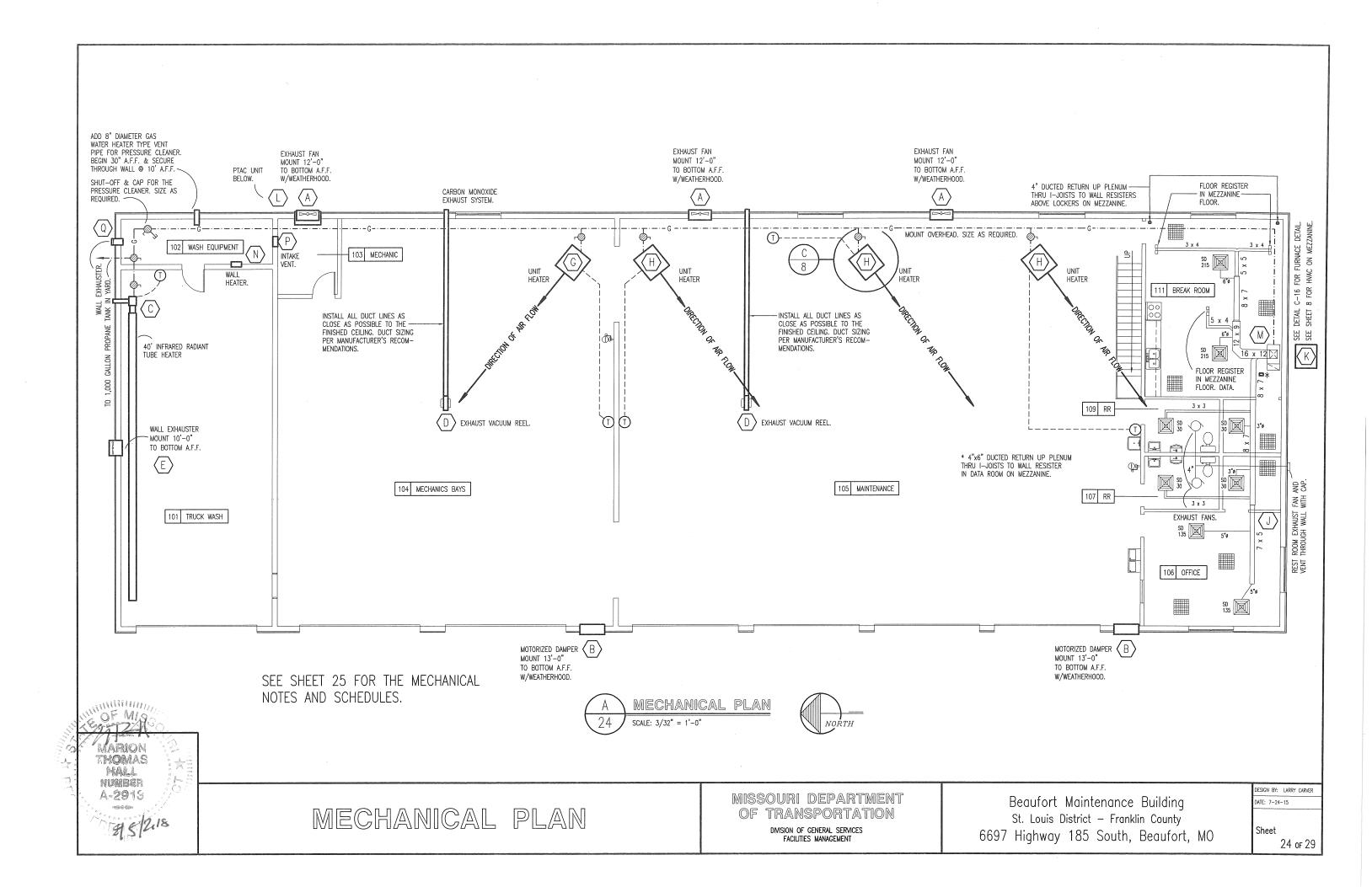
REST ROOM PLUMBING PLAN

MISSOURI DEPARTMENT OF TRANSPORTATION

> DIVISION OF GENERAL SERVICES FACILITIES MANAGEMENT

Beaufort Maintenance Building St. Louis District - Franklin County 6697 Highway 185 South, Beaufort, MO DESIGN BY: LARRY CARVER DATE: 7-24-15

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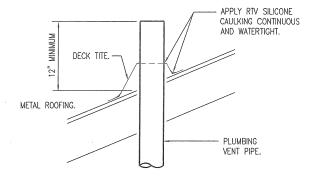


Р	LUMBIN	G S	CHE	DUL	-	
		PIP	E CO	NNECT	ION	
SYM.	FIXTURE	CW	HW	S&W	VENT	REMARKS
WC	WATER CLOSET	1/2"		3"	2"	EQUAL TO AMERICAN STANDARD #2377.100 FLOOR MOUNT. PRESSURE ASSISTED, ELONGATED WATER—SAVER "CADET" WATER CLOSET. 16–1/2" HIGH 3109.016 BOWL, 4098.100 TANK. INCLUDE OPEN FRONT SEAT WITH LID. (WHITE)
U	URINAL	3/4"		1-1/2"	1-1/2"	EQUAL TO AMERICAN STANDARD #6601.021 "LYNBROOK" 1.0 GALLON URINAL WITH SLOAN ROYAL 180-1 FLUSH VALVE.
LV	LAVATORY	1/2"	1/2"	2"	2"	EQUAL TO AMERICAN STANDARD #4867.024, 20" x 18" ENAMELED, CAST IRON "REGALYN" WALL MOUNT LAVATORY WITH 4" CENTERSET SYMMONS SYMMETRIX S-20-2-BH SINGLE LEVER LAVATORY FAUCET. INCLUDE AN ADA APPROVED INSULATION KIT.
SS	SERVICE SINK	1/2"	1/2"	3"	2"	EQUAL TO AMERICAN STANDARD #7692.049, 22" x 18" ENAMELED, CAST IRON "LAKEWELL" SERVICE SINK W/ 8340.242 HERITAGE LEVEL HANDLE FAUCET, AND 7798.176 P-TRAP.
EW	EMERGENCY EYE WASH	1-1/4"	3/4"	2"	2"	EQUAL TO BRADLEY "MODEL S19-310" DRENCH SHOWER/EYE WASH UNIT SAFETY YELLOW. S19-2100 THERMOSTATIC MIXING VALVE.
WH1	WATER HEATER	3/4"	3/4"			A.O. SMITH MODEL NUMBER EES-30 (2) 4500 WATT, 240 VOLT ELEMENTS, 30 GALLON ELECTRIC WITH PRESSURE RELIEF VALVE OR EQUAL. MOUNT ON MEZZANINE WITH DRAIN PAN.
HB-1	HOSE BIBB	3/4"				EXTERIOR — EQUAL TO WOODFORD MODEL 67 FREEZLESS WALL HYDRANT WITH 3/4" H.P.T. OUTLET, INTEGRAL VACUUM BREAKER— BACK FLOW PREVENTER. (N.I.C.)
HB-2	HOSE BIBB	3/4"				INTERIOR — EQUAL TO WOODFORD MODEL 26 WALL FAUCET WITH 3/4" H.P.T. OUTLET, INTEGRAL VACUUM BREAKER—BACKFLOW PREVENTER.
FD	FLOOR DRAIN			2"		PVC FLOOR DRAIN WITH P-TRAP, 6-1/2" DIA. NICKLE-BRONZE STRAINER, 2" FIP THREADED THROAT-BALL BACKWATER DEVICE. 1-1/2" PRE-INSTALLED FIP CLEAN-OUT THREADS.
C0	CLEAN OUT					BRASS WITH ADAPTER AND CAP EQUAL TO PIPE SIZE SHOWN.
AC	AIR COMPRESSOR					EQUAL TO INCERSOLL—RAND MODEL #2340, 28A, 5 HP, 60 GALLON VERTICAL, 2—STAGE. PROVIDE RUBBERIZED WASHERS AT EACH FLOOR MOUNT TO ACT AS A SHOCK ABSORBER. SIZE MOUNT AS REQUIRED. PROVIDE LINE FILTERS AS REQUIRED. 30A BREAKER.
SK	SINK	1/2"	1/2"	2"	2"	EQUAL TO ELKAY MODEL PSR-3321 DOUBLE BOWL SINK WITH STANDARD 4 HOLE PATTERN AND ELKAY MODEL LK-4301-F CHROME FAUCET, SPOUT, SWIVEL AERATOR AND SPRAY. PROVIDE INSINKERATOR EVOLUTION 3/4 HP, 8.1 AMP, GARBAGE DISPOSAL.
Œ	TRENCH DRAIN			4"		EQUAL TO ACO K100 CHANNEL SLOPE TRENCH DRAIN SYSTEM WITH TYPE 461Q DUCTILE QUICKLOC CAST IRON GRATE.
СВ	CATCH BASIN			4"		EQUAL TO ACO K900 CATCH BASIN, WITH PLASTIC TRASH BUCKET WITH TYPE 461Q DUCTILE QUICKLOC CAST IRON GRATE FOR LID.
DF	DRINKING FOUNTAIN	3/8"		1-1/4"		ELKAY, TWO STATION WALL MOUNT BARRIER-FREE MODEL VRCGRNTL8C OR EQUAL.
OS	OIL SEPARATOR			4"		EQUAL TO CHAMPION PRECAST INC. 1,200 GALLON OIL & GREASE INTERCEPTOR STOCK STANDARD NO. 140–002180. HEAVY DUTY PRECAST CONCRETE. STANDARD 8" CAST IRON FRAME, LID AND COLLAR. PH: (573)384–5855.

#### MECHANICAL NOTES

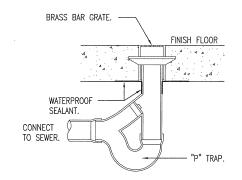
- 1. DRAWINGS AND DIAGRAMS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS.
- 2. MECHANICAL WORK SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE LATEST EDITION OF THE IBC MECHANICAL CODE.
- 3. PROVIDE EQUIPMENT AND APPURTENANCES NOT NECESSARILY SHOWN OR SPECIFIED BUT NEEDED FOR COMPLETE AND PROPER INSTALLATION.
- ALL EQUIPMENT AND MATERIALS, IN PARTICULAR VALVES, FILTERS, MOTORS, AND CONTROLS SHALL BE ARRANGED TO PROVIDE PROPER CLEARANCE FOR SERVICE, MAINTENANCE AND INSPECTION.
- MECHANICAL SUBCONTRACTOR SHALL FULLY COORDINATE ALL WORK WITH PLUMBING AND ELECTRICAL WORKERS PRIOR TO COMMENCING OF THE MECHANICAL INSTALLATION.
- 6. PROVIDE BLOCKING TO HVAC DEVICES AS REQUIRED FOR A SECURE APPLICATION.
- 7. MECHANICAL CONTRACTOR TO PROVIDE ALL DEVICES REQUIRED FOR A FUNCTIONAL SYSTEM.

HV	AC SCHEDUL	E				
SYM.	UNIT	MANUFACTURER	BTU OUTPUT	FUEL	VOLTAGE	REMARKS
$\langle A \rangle$	36" X 36" SHUTTER MOUNT EXHAUST FAN W/WEATHERHOOD	DAYTON 1HLB6 & 1WBW2 OR EQUAL 6.4 AMPS	6,480 CFM	ELECTRIC	120	COMMERCIAL TYPE BELT DRIVE WALL EXHAUST FAN INCLUDING OSHA GUARD AND SHUTTER.
B	MOTORIZED DAMPER WITH WEATHERHOOD	DAYTON MODEL 3C728 & 1WBW1 OR EQUAL .37 AMPS		ELECTRIC	115	30" MEDIUM GRADE, MOTORIZED, GALVANIZED STEEL DAMPER WITH 1HP MOTOR. WIRE TO OPEN WHEN EXHAUST FAN IS TURNED ON.
(C)	40'-0" INFRARED RADIANT TUBE HEATER	SUNSTAR SPS 100 40 TG OR EQUAL	100,000	PROPANE	115 1.8 AMPS	INCLUDE VENT CAP 30297040 COMBUSTION CAP 410 000 20 HIGH HUMIDITY THERMOSTAT 305 25 000 MOUNT 12" FROM WALL & 24" FROM CEILING
	CARBON MONOXIDE EXHAUST SYSTEM	CAR-MON MODELS SERIES BA AND CMW-9 OR EQUAL		ELECTRIC	115	INCLUDE HOSE, BALANCER, DUCTING, EXTERIO WALL HOOD AND FLANGE MOUNTED EXHAUST FAN, 3/4 HP MOTOR, 13.8 AMPS.
Œ	24" DIA. CORROSION RESISTANT SHUTTER FAN	DAYTON 1BLJ7 OSHA GUARD OR EQUAL	4876 CFM	ELECTRIC	120	FIBERGLASS SHUTTER & BLADES. 6.7 AMPS.
(G)	GAS FIRED UNIT HEATER	REZNOR MODEL UDAP 175 OR EQUAL	145,250	PROPANE	115	SINGLE BURNER COMBUSTION, 3.8 AMPS, DITECT SPARK IGNITION, 100% LOCK-OUT & CL-1 STANDARD HEATING ONLY THERMOSTAT.
$\bigcirc$	GAS FIRED UNIT HEATER	REZNOR MODEL UDAP 100 OR EQUAL	87,150	PROPANE	115	SINGLE BURNER COMBUSTION, 3.9 AMPS, DITECT SPARK IGNITION, 100% LOCK-OUT & CL-1 STANDARD HEATING ONLY THERMOSTAT.
	THERMOSTAT TCONT802AS32DA	TRANE OR EQUAL				7 DAY PROGRAMMABLE.
(K)	CONDENSING UNIT	TRANE MODEL 4TTR6024B1000A OR EQUAL	24,000	ELECTRIC	208/230	3-TON, PURON 208/1-PHASE. 16 SEER 6.8-38.6RL-LR AMPS, 15A BREAKER
	PTAC UNIT	FRIEDRICH MODEL PDH07K OR EQUAL	COOL 6.3K HEAT 7.7K	ELECTRIC	208/230	EER 12. INCLUDE PDXWSA WALL SLEEVE, PDXDEA LATERAL DUCT KIT & PXGA EXTERIOR GRILL.
$\langle M \rangle$	GAS FURNACE/ FORCED AIR	TRANE MODEL TUH1B040A9241A OR EQUAL	40,000	GAS/ ELECTRIC	120	COOLING COIL—4TXCB025BC3HC 3" COMBINED TERMINATION KIT. BAYAIR30AVENTA — 1.14 FL. A, 15A BREAKER
$\langle \mathbb{N} \rangle$	ELECTRIC UNIT HEATER	QMARK MODEL CWH-1101DSF OR EQUAL	1,706	ELECTRIC	120	INCLUDE CWHS2 FOR SEMI RECESSED, INCLUDE LOUVER GRILLE, WITH A BUILT-IN THERMOSTAT. 4.2 AMPS.
P	RETURN AIR FILTER GRILLE	HART & COOLEY MODEL 672 & 673 OR EQUAL				1/2" SPACED FINS, RETURN GRILLE + 1" THICK FILTER, DOVER WHITE GRILLE. FRAME & INSTALL 12" ABOVE MEZZANINE.
Q	10" DIA. CORROSION RESISTANT SHUTTER FAN	DAYTON 1BLH6 OSHA GUARD OR EQUAL	524 CFM	ELECTRIC	120	FIBERGLASS SHUTTER & BLADES. 1.9 AMPS.



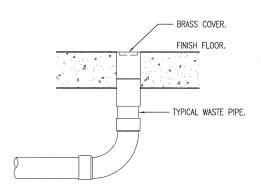
## VENT THROUGH ROOF DETAIL

SCALE: NONE



## FLOOR DRAIN DETAIL

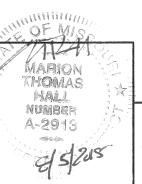
SCALE: NONE



## FLOOR CLEANOUT DETAIL

SCALE: NONE





Plumbing & Mechanical Notes

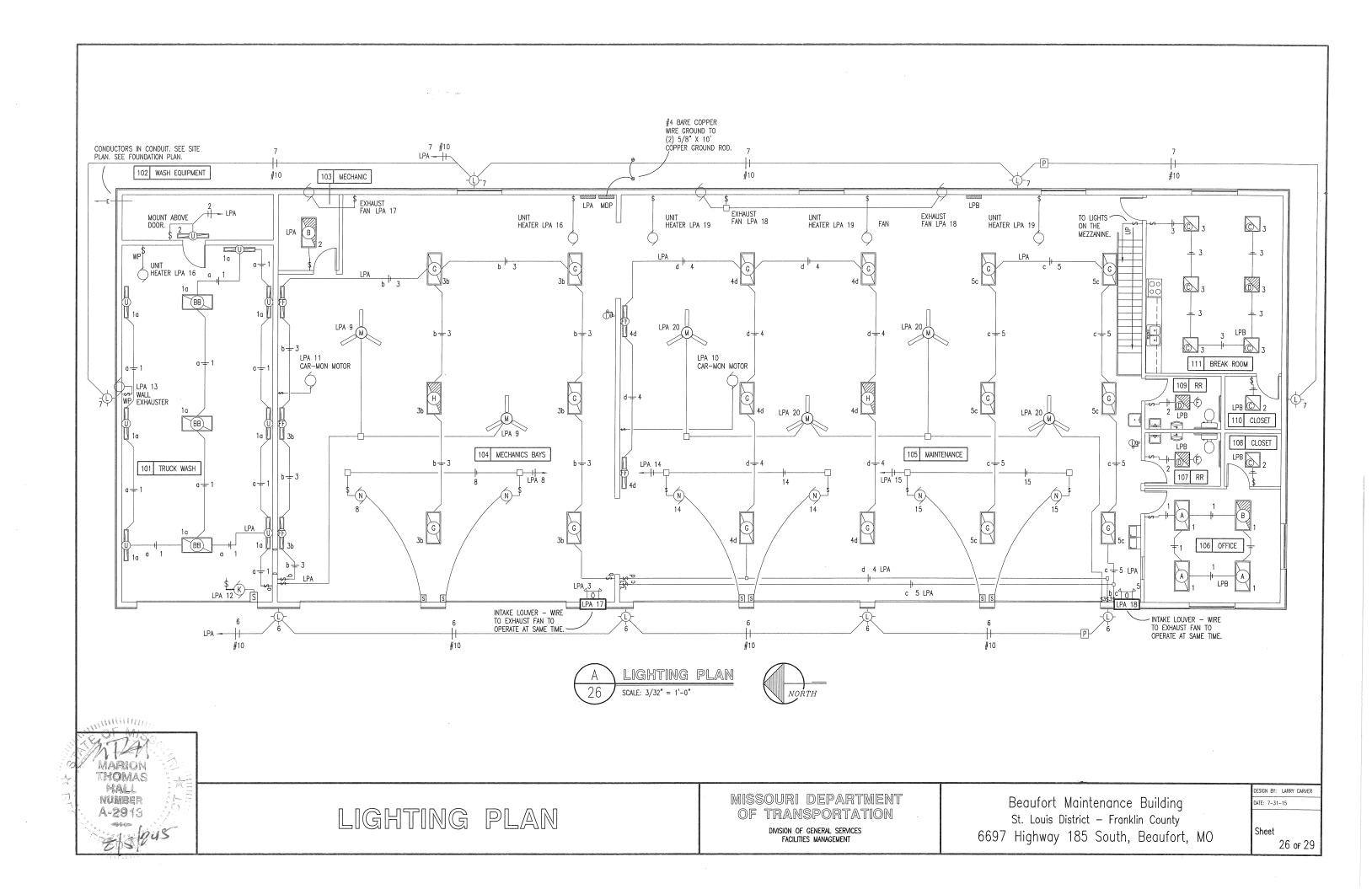
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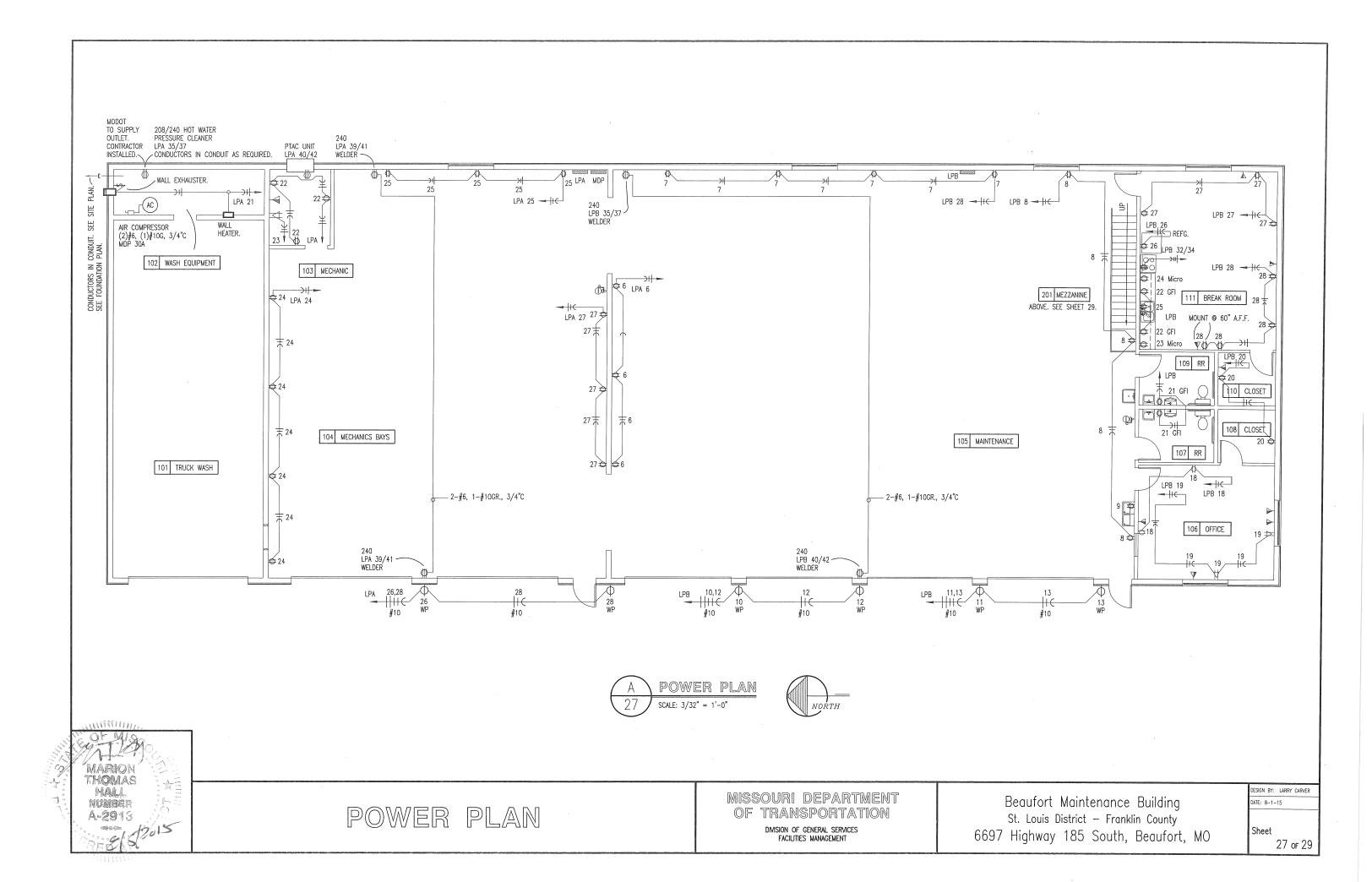
DIVISION OF GENERAL SERVICES FACILITIES MANAGEMENT

Beaufort Maintenance Building St. Louis District — Franklin County 6697 Highway 185 South, Beaufort, MO DESIGN BY: LARRY CARVER
DATE: 8-1-15

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	El	ECTRIC	SC	CHE	DULE
MANUF.	MODEL	LAMPS # TYPE	W	MNT	REMARKS
WILLIAMS	50G-S24-LED*UT 50/835- RPC12125-ED*UT-UNV	LED	51	CLG	24" x 48" STATIC TROFFER FIXTURE, HOUSING: 22 GAUGE DIE FORMED C.R.S. SHIELDING: FROSTED ACRYLIC, PATTERN #12.
WILLIAMS	50G-S24-LED*UT 50/835- RPC12125-EM/BSL310- ED*UT-UNV	LED	51	CLG	24" x 48" STATIC TROFFER FIXTURE, HOUSING: 22 GAUGE DIE FORMED C.R.S. SHIELDING: FROSTED PATTERN #12 & EMERGENCY DRIVER.
WILLIAMS	50G-S22-LED*UT30/85- RPC12125-ED*UT-UNV	LED	25	CLG	24" x 24" STATIC TROFFER FIXTURE, HOUSING: 22 GAUGE DIE FORMED C.R.S. SHIELDING: FROSTED PATTERN #12.
WILLIAMS	50G-S22-LED*UT30/85- RPC12125-EM/BSL310- ED*UT-UNV	LED	25	CLG	24" x 24" STATIC TROFFER FIXTURE, HOUSING: 22 GAUGE DIE FORMED C.R.S. SHIELDING: FROSTED PATTERN #12 & EMERGENCY DRIVER.
BROAN É	GRAINGER #4C772			CLG	80 CFM CEILING MOUNT BATHROOM VENTILATOR.
WILLIAMS	GL-4-L200/840-WG11- DRV-UNV	LED	174	CLG	14-3/16" x 48" DIE-FORMED ALUMINUM HOUSING WITH WIRE GUARD.
WILLIAMS	GL-4-L200/840-EM/ BSL310-WG11-DRV-UNV	LED	174	CLG	14-3/16" x 48" DIE-FORMED ALUMINUM HOUSING WITH WIRE GUARD. BACK MOUNTED EMERGENCY LED DRIVER.
(Ķ)	OVERHEAD DOOR OPERATOR			WALL	115V, 1-PH, HOOD MOUNT TYPE COMMERCIAL IN TRUCK WASH. SEE SPECIFICATION SECTION 08720.
LITHONIA -L)-	TWR1LED 1 40K MVOLT	LED	33	WALL	EXTERIOR, SURFACE MOUNT LIGHT FIXTURE, WITH ALUMINUM HOUSING. PRISMATIC GLASS LENS.
DAYTON	GRAINGER #5NPZ3			CLG	SINGLE-SPEED, 48" THREE-BLADE, HEAVY DUTY COMMERCIAL CEILING FAN.
Ŋ	OVERHEAD DOOR OPERATOR			WALL	115V, 1-PH, TROLLEY TYPE. SEE SPECIFICATION SECTION 08720.
LITHONIA	LHQM P W3 R N			WALL	QUANTUM THERMOPLASTIC EXIT/UNIT COMBO (2) LED 5.4 KRYPTON LAMPS.
TORK P	2001			WALL	120V PHOTO ELECTRIC CONTROL OF EXTERIOR LIGHTS.
S	OVERHEAD DOOR CONTROL			WALL	THREE BUTTON OVERHEAD DOOR CONTROL AS SUPPLIED BY OVERHEAD DOOR MANUF. SEE SPECIFICATION SECTION 08720.
WILLIAMS	96-4-L40/830-HIAFR- WET/2-DRV-UNV	LED	40	WALL	7-3/8" x 48" MOISTURE RESISTANT, FIBERGLASS HOUSING, FROSTED IMPACT-RESISTANT LENS. POLYCARBONATE TOGGLE LATCHES.
WILLIAMS	75L-4-LED*PH50/835- A12125-ED*PH-UNV	LED	51	CLG	2-3/4" x 48" 22 GAUGE DIE-FORMED C.R.S. SHIELDING: ACRYLIC PATTERN #12, .125" THICK.
WILLIAMS	EGL2-4-L145/830-HIAFR- WET/2-SSMRB-DRV-UNV	LED	142	CLG	15" x 48" DAMP LOCATION, FIBERGLASS HOUSING, FROSTED IMPAT—RESISTANT. SECURE LOCKING PLASTIC LATCHES.
CREE	LS4-40L-40K-10V-120	LED	40	WALL	2-5/8" x 48" SURFACE AMBIENT, 22 GAUGE, LOW-GLARE ACRYLIC LENS, WHITE.
LITHONIA	2ALLS233LEZ1LP840	LED	29	SURFACE	24" x 24" x 3–1/2" CONCAVE VISUAL APPEARANCE. COLD ROLLED STEEL WITH POLYESTER COATING.

ELECTRICAL FIXTURES AND EQUIPMENT ARE SCHEDULED BY MANUFACTURER AND MODEL NUMBER FOR DESIGN INTENT ONLY, APPROVED EQUALS MAY BE SUBSTITUTED.

						COLUMN SOLUM				
	SERVICE PANEL LPA									
VOL BUS				SQUARE "D" NGOD OR EQUAL / NEUTRAL BUS & GROUNDING BUS CCUIT BREAKERS BOLT—IN 10000 AIC B PHASE 24477 VA TOTAL 46691 VA 195 A						
CIR	SERVICE	VA	BKR		BKR	VA	SERVICE	CIR		
1	LIGHTS - 101 TRUCK WASH	706	20A1P	A	20A1P	91	LIGHTS - 102 & 103	2		
3	LIGHTS - 104 MECHANICS	1572	20A1P	В	20A1P	1124	LIGHTS - 105	4		
5	LIGHTS - 105		20A1P	A	20A1P	132	EXTERIOR LIGHTS	6		
7	EXTERIOR LIGHTS	132	20A1P	В	30A1P	2162	GARAGE DOOR OPENERS	8		
. 9	CEILING FANS - 104	156	20A1P	A	20A1P	1553	CARBON MONOXIDE - 104	10		
11	CARBON MONOXIDE - 104	1553	20A1P	В	20A1P	1081	OHD - OPENER 101	12		
13	WALL EXHAUSTER	804	20A1P	A	30A1P	2162	GARAGE DOOR OPENERS	14		
15	GARAGE DOOR OPENERS		30A1P	В	20A1P	787	UNIT & TUBE HTR-101 & 104	16		
17	EXHAUST FAN & LOUVER		20A1P	A	20A1P	1581	EXHAUST FANS & LOUVER	18		
19	UNIT HEATERS - 105	1404	20A1P	В	20A1P	312	CEILING FANS - 105	20		
21	WALL HEATER & EXHAUSTER	1236	20A1P	A	20A1P	540	RECEPTACLES - 103	22		
23	DEDICATED RECEPTACLE - 103	180	20A1P	В	20A1P	480	RECEPTACLES - 104   ❷	24		
25	RECEPTACLES - 103	540	20A1P	A	20A1P	1000	EXTERIOR RECEPTACLE	26		
27	RECEPTACLES - 104	540	20A1P	В	20A1P	1000	EXTERIOR RECEPTACLE	28		
-29				A				30		
31				В				32		
33				A				34		
35	PRESSURE CLEANER	3910	50A2P	В				36		
37		3910		A				38		
39	101 - WELDER MECHANICS	4500	50A2P	В	20A2P	1440	PTAC UNIT	40		
41		4500		Α		1440		42		

<b>Ø</b>	CIRCUIT	BREAKER	SHALL	BE	GFI	RATED

				L	1	1.	1	1
7	RECEPTACLES - 105	540	20A1P	В	20A1P	540	RECEPTACLES - 105	8
9	DRINKING FOUNTAIN	480	20A1P	A	20A1P	1000	EXTERIOR RECEPTACLE	10
11	EXTERIOR RECEPTACLE	1000	20A1P	В	20A1P	1000	EXTERIOR RECEPTACLE	12
13	EXTERIOR RECEPTACLE	1000	20A1P	Α			SPACE	14
15	SPACE			В			SPACE	16
17	SPACE			Α	20A1P	360	RECEPTACLES - 106 OFFICE	18
19	DEDICATED RECEPTACLES 106	180	20A1P	В	20A1P	360	RECEPTACLES - CLOSETS	20
21	REST ROOM GFI's	360	20A1P	A	20A1P	360	RECEPTACLES GFI's - CABINETS	22
23	REST ROOM GFI's	360	20A1P	В	20A1P	800	MICROWAVE - EAST	24
25	MICROWAVE - WEST	800	20A1P	Α	20A1P	600	REFRIGERATOR	26
27	RECEPTACLES - BREAK ROOM	540	20A1P	В	20A1P	540	RECEPTACLES - BREAK ROOM	28
29	RECEPTACLES - MEZZANINE	1260	20A1P	A	15A1P	552	AIR HANDLER	30
31	HOLDING TANK ARLARMS	575	15A1P	В				32
33				A				34
35	105 - WELDER MAINTENANCE	4500	50A2P	В				36
37		4500		A				38
39	AIR CONDENSER	1035	15A2P	В	30A2P	2600	WATER HEATER	40
41		1035		A		2600		42

SERVICE PANEL LPB

SQUARE "D" NQOD OR EQUAL

W/ NEUTRAL BUS & GROUNDING BUS

BKR VA

CIRCUIT BREAKERS BOLT-IN 10000 AIC

BKR

204 20A1P

CONNECTED LOAD

TOTAL

SERVICE

A 20A1P 100 LIGHTS - RR's & CLOSETS

150 20A1P B 20A1P 153 LIGHTS - 201 MEZZANINE

109 20A1P A 20A1P 360 RECEPTACLES - 105

A PHASE 15680 VA

B PHASE 14873 VA

30553 VA 127 A

CIRCUIT BREAKER SHALL BE GFI RATED

SQUARE "D" NQOD OR EQUAL

VOLTS: 240/120, 1PH, 3-WIRE

LIGHTS - 106 OFFICE

3 LIGHTS - 111 BREAK ROOM

5 LIGHTS - DATA & LOCKERS

BUS MATERIAL: COPPER

MOUNTING: SURFACE

CIR SERVICE

#### ELECTRICAL NOTES

- DRAWINGS AND DIAGRAMS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS.
- 2. ELECTRICAL WORK SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE (N.E.C.).
- PROVIDE ELECTRICAL EQUIPMENT AND ACCESSORIES REQUIRED FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM AS REQUIRED BY MANUFACTURER'S INSTRUCTIONS AND DIRECTIONS FOR SYSTEMS SPECIFIED.
- 4. SWITCHES AND RECEPTACLES SHALL BE EQUAL TO THE AMPERE RATING SHOWN IN THE PANEL SCHEDULE. RECEPTACLES SHALL BE GROUND-FAULT INTERRUPTION TYPE WHERE SHOWN OR AS REQUIRED BY CODE.
- 5. BATHROOM EXHAUST FAN IS TO BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
- 6. SEE HVAC SCHEDULE FOR EQUIPMENT TO BE HARD WIRED, PROVIDE SERVICE DISCONNECT AT EACH.
- 7. ALL RECEPTACLES IN GARAGE AREA TO BE MOUNTED AT 48" A.F.F.
- 8. COORDINATE WORK WITH OTHER TRADES PRIOR TO COMMENCING WITH ELECTRICAL WORK.
- CONDUCTOR AND BREAKER SIZE MAY VARY PER MANUFACTURER ON THE EQUIPMENT SPECIFIED. ELECTRIC CONTRACTOR TO VERIFY SIZES WITH EXACT EQUIPMENT ORDERED PRIOR TO PURCHASING ELECTRICAL SUPPLIES. USE ONLY COPPER INSIDE BUILDING.
- FIXTURE LOCATIONS ARE APPROXIMATE, EXACT LOCATIONS TO BE DETERMINED AFTER COLLABORATION WITH THE OWNER AND OTHER TRADES.

- 11. CONTRACTOR SHALL PROVIDE SERVICE DISCONNECTS AS REQUIRED AT EXTERIOR OF BUILDING.
- 12. PROVIDE BLOCKING FOR ELECTRICAL DEVICES AS REQUIRED FOR A SECURE APPLICATION.
- 13. PROVIDE CONDUCTORS AND CONDUIT TO POWER POLE IN YARD AS REQUIRED FOR A FUNCTIONAL SERVICE. SEE SITE PLAN.
- CONTRACTOR TO INSTALL HOLDING TANK ALARMS EQUAL TO SJE RHOMBUS PART #1038060, TADUO-01H PH: 1-888-342-5753, PROVIDE CONDUIT AND CONDUCTORS AS REQUIRED FOR A FUNCTIONAL SERVICE. MOUNT WHERE DIRECTED BY OWNER.
- 15. CONTRACTOR TO LABEL ALL DATA, PHONE JACKS WITH SWITCH NUMBER ON THE FRONT COVER PLATE AND ON CATS CABLE AT THE SWITCH. ALL POWER CIRCUITS MUST BE LABELED WITH BREAKER AND PANEL NUMBER ON SWITCH PLATE COVER.



MILLIAN STATES

THOMAS

NUMBER

A-2913

ELECTRICAL PANELS

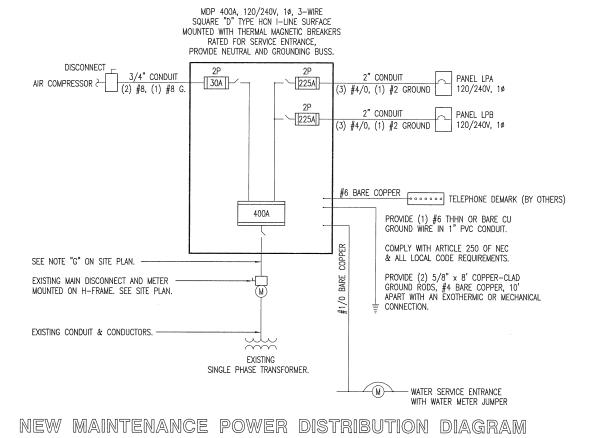
MISSOURI DEPARTMENT OF TRANSPORTATION

DIVISION OF GENERAL SERVICES FACILITIES MANAGEMENT

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DATE: 7-31-15

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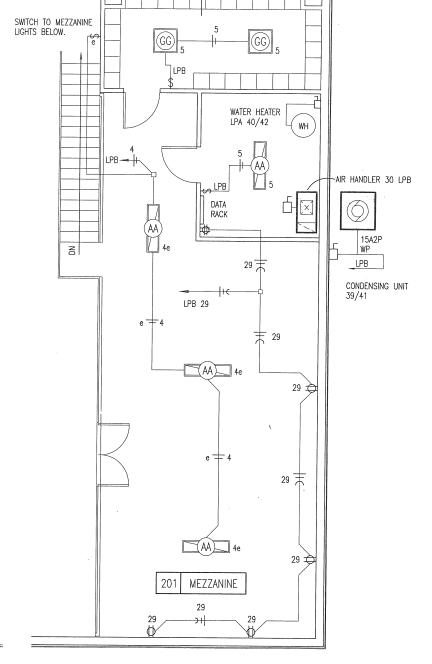


LEGEND

- SINGLE POLE OR 3-WAY SWITCH, MOUNT IN FS BOX WITH HUBBELL HBL7420
- Φ WP DUPLEX RECEPTACLE MOUNTED IN FS BOX WITH HUBBELL HBL5221 COVER.
- SINGLE RECEPTACLE MOUNTED IN FS BOX WITH HUBBELL HBL7423 COVER.
- SINGLE POLE SWITCH, FLUSH MOUNTED IN FINISHED AREAS @ 48" A.F.F.
- 3-WAY SWITCH, SURFACE MOUNTED IN UNFINISHED AREAS @ 48" A.F.F. DUPLEX RECEPTACLE FLUSH MOUNTED IN FINISHED AREAS @ 18" A.F.F. TO
- DUPLEX RECEPTACLE SURFACE MOUNTED IN UNFINISHED AREAS @ 42" A.F.F.
- WELDER RECEPTACLE SURFACE MOUNTED 42" A.F.F., MOUNT IN 4" SQUARE BOX WITH RAISED COVER.
- DUPLEX RECEPTACLE WITH GROUND FAULT INTERRUPTER, PROVIDE SEPARATE GROUND PER CIRCUIT. TYPICAL.
- JUNCTION BOX, SIZE FOR WIRE, FILL ACCORDING TO ARTICLE 314-16 OF THE
- NON FUSED DISCONNECT SWITCH.
- DEDICATED RECEPTACLE FLUSH MOUNTED IN FINISHED AREAS @ 18" A.F.F. TO BOTTOM OF OUTLET.
- VOICE AND DATA OUTLET FLUSH MOUNTED IN FINISHED AREAS @ 18" A.F.F.

- #12 COPPER PHASE CONDUCTORS UNLESS NOTED. - 1/2" EMT UNLESS NOTED.

#12 COPPER NEUTRAL CONDUCTOR UNLESS NOTED. #12 COPPER GROUNDING CONDUCTOR UNLESS NOTED.



LOCKERS

MEZZANINE ELECTRICAL PLAN SCALE: 1/8" = 1'-0"



Millian Milli OF MIS MARION THOMAS HALL NUMBER A-2913 2/5/201S

POWER DISTRIBUTION DIAGRAM

MISSOURI DEPARTMENT OF TRANSPORTATION

DIVISION OF GENERAL SERVICES

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