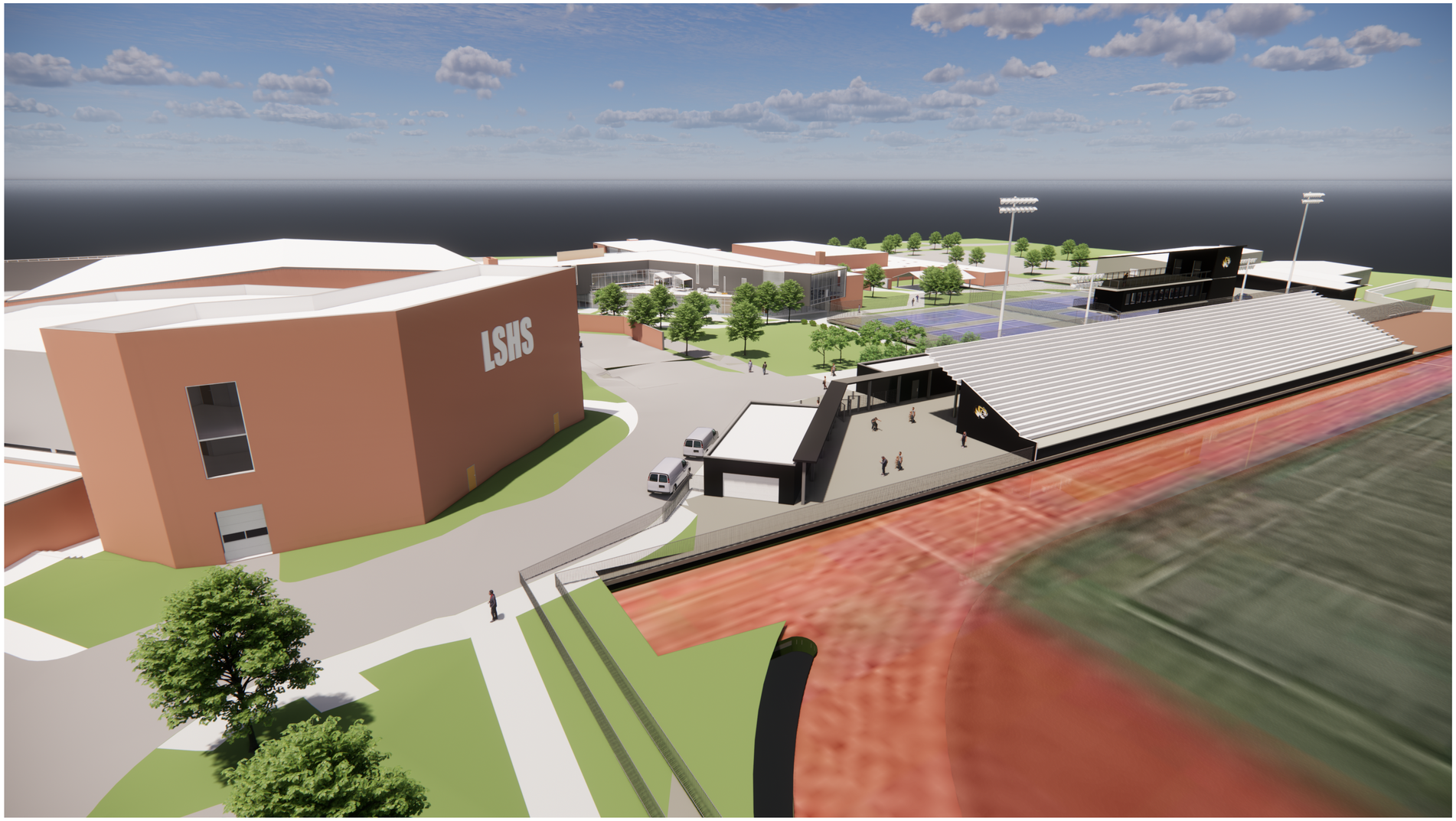

Lee's Summit R7 District Athletics Facilities

Lee's Summit High School
400 SW Blue Parkway
Lee's Summit, MO 64063

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September 28, 2020

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BID SET

0119-0101

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x_Unused
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SITE LOCATION MAP

General Notes:

1. THE INTENT OF THE CONTRACT DOCUMENTS IS TO INCLUDE ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK BY THE CONTRACTOR. THE CONTRACT DOCUMENTS ARE COMPLEMENTARY, AND WHAT IS REQUIRED BY ONE SHALL BE AS BINDING AS IF REQUIRED BY ALL; PERFORMANCE BY THE CONTRACTOR SHALL BE REQUIRED ONLY TO THE EXTENT CONSISTENT WITH THE CONTRACT DOCUMENTS AND REASONABLY INFERABLE FROM THEM AS BEING NECESSARY TO PRODUCE THE INDICATED RESULTS.
2. ORGANIZATION OF THE SPECIFICATIONS INTO DIVISIONS, SECTIONS AND ARTICLES, AND ARRANGEMENT OF DRAWINGS SHALL NOT CONTROL THE CONTRACTOR IN DIVIDING THE WORK AMONG SUBCONTRACTORS OR IN ESTABLISHING THE EXTENT OF WORK TO BE PERFORMED BY ANY TRADE.
3. DRAWINGS, SPECIFICATIONS, GENERAL AND SUPPLEMENTARY CONDITIONS ARE ESSENTIAL PARTS OF THE CONTRACT. IN THE EVENT OF ANY DISCREPANCY BETWEEN A DRAWING AND FIGURES WRITTEN THEREON, THE FIGURES, UNLESS OBVIOUSLY INCORRECT, ARE TO GOVERN OVER SCALED DIMENSIONS. IN THE CASE OF ANY DISCREPANCY BETWEEN THE DRAWINGS AND THE SPECIFICATIONS, THE SPECIFICATIONS ARE TO GOVERN. IF THERE IS A DISCREPANCY BETWEEN LARGE AND SMALL SCALE DETAILS, THE LARGER SCALE DETAILS ARE TO GOVERN. SUPPLEMENTARY CONDITIONS SHALL GOVERN OVER SPECIFICATIONS, DRAWINGS AND GENERAL CONDITIONS. THE CONTRACTOR SHALL ADVISE THE ARCHITECT OF ANY DISCREPANCIES OR CONFLICTS BETWEEN CONTRACT DOCUMENTS AS SOON AS THEY ARE DISCOVERED.
4. NOTWITHSTANDING THE ABOVE, IN THE CASE OF INCONSISTENCY BETWEEN DRAWINGS AND SPECIFICATIONS, OR WITHIN EITHER DOCUMENT NOT CLARIFIED BY ADDENDUM OR BY ARCHITECT'S SUPPLEMENTAL INSTRUCTION, THE BETTER QUALITY OR GREATER QUANTITY SHALL BE PROVIDED.
5. DRAWINGS SHALL NOT BE SCALED TO DETERMINE DIMENSIONS. IF DIMENSIONS APPEAR TO BE INSUFFICIENT OR INCORRECT, THE CONTRACTOR SHALL REQUEST CLARIFICATION FROM THE ARCHITECT.
6. WHENEVER CONTRACT DOCUMENTS REASONABLY IMPLY MATERIALS OR INSTALLATION AS NECESSARY TO PRODUCE THE INTENDED RESULTS, BUT DO NOT FULLY DETAIL OR SPECIFY SUCH MATERIALS, THE CONTRACTOR SHALL PROVIDE THE MATERIALS AND LABOR REQUIRED FOR INSTALLATION NONETHELESS.
7. PROVIDE ALL WORK INDICATED UNLESS SPECIFICALLY INDICATED AS "NOT IN CONTRACT" (NIC), "FURNISHED BY OTHERS" (FBO) OR "EXISTING".
8. CONTRACT DOCUMENTS ARE INTENDED TO CONVEY DESIGN INTENT ONLY. PROVIDE PRODUCTS COMPLETE WITH ACCESSORIES, TRIM, FINISH, FASTENERS, AND OTHER ITEMS NEEDED FOR A COMPLETE INSTALLATION AND INDICATED USE AND EFFECT.
9. THESE NOTES ARE NOT INTENDED TO LIMIT THE RESPONSIBILITIES OF THE CONTRACTOR AS DEFINED ELSEWHERE IN THE CONTRACT DOCUMENTS

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Lee's Summit R7 District Athletics Facilities

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ARCHITECT
11.3.20

Architectural Corporation
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Jay Browning Date: 11/03/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE
ADD02	Addendum 02	10/20/20

PROJECT NO: 0119-0101
DATE: September 28, 2020

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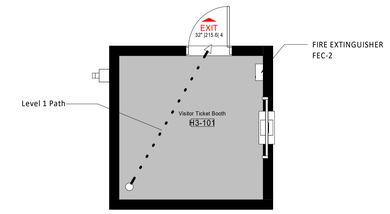
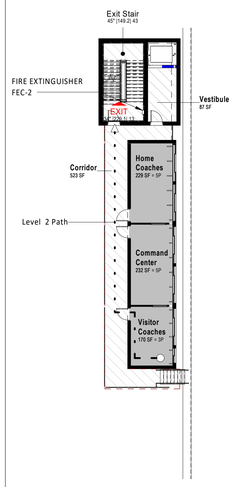


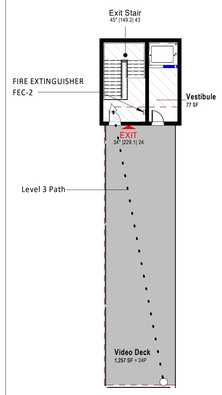
Code Plan - Visitor Ticket Booth M5

1/4" = 1'-0"



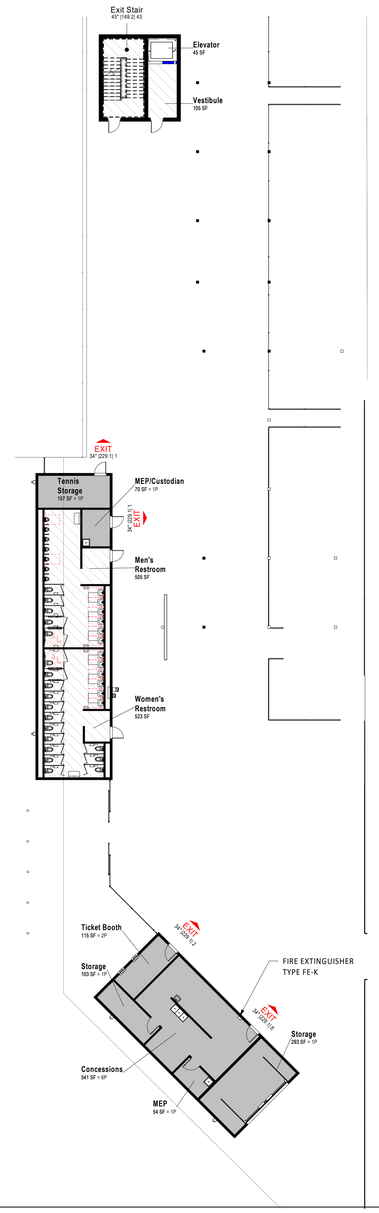
Code Plan - Press Box G7

1/16" = 1'-0"



Code Plan - Video Deck G5

1/16" = 1'-0"



Code Plan - Home Gateway A9

1/16" = 1'-0"

Description

CONSTRUCTION OF NEW RESTROOMS, CONCESSIONS, AND TICKET BOOTHS; AND CONSTRUCTION OF NEW BLEACHER SEATING.

Applicable Codes

2018 International Building Code
2018 International Existing Building Code
2018 International Fire Code
2017 National Electric Code
2018 International Mechanical Code
2018 International Plumbing Code
2018 International Enery Conservation Code
2009 Accessible and Usable Buildings and Facilities

Building complies with all applicable codes.

Occupancy Classifications

A-5 Assembly

Type of Construction

Type II-B

Allowable Height

A5: 55'; Unlimited stories (unsprinklered)

Building Height

Press Box: Approximately 51'

Allowable Area

A-5: Unlimited

Building Area

Press Box Building: 3,850 SF
Concessions Building: 1,250 SF
Restrooms Building: 1,600 SF
Visitor Ticket Booth: 70 SF

Total Building Area: 6,770 SF

Passive Fire Requirements

Exterior Bearing Walls: **0 HR**

Interior Bearing Walls: **0 HR**

Exterior Non-Bearing Walls: **0 HR**
(>30' FROM C.L. OF PROPERTY LINE, TABLE 602)

Opening Protection at Exterior Walls: **0 HR**
(>30' FROM C.L. OF PROPERTY LINE, TABLE 705.8)

Structural Frame: **0 HR**

Roof Supports: **0 HR**

Non-Bearing Walls & Interior Partitions: **0 HR**

Corridors: **0 HR**

Floor Construction: **0 HR**

Active Fire Resistance Requirements

Automatic Sprinkler System: Not Required (Section 903)

Standpipes: Non Required (Section 905)

Fire Alarm System: Not Required Due to Occupant Load (Section 907.2.1)

Smoke Detection: Not Required

Exit Signs: Not Required in Rooms with One Exit. (Section 1013)

Emergency Lighting: 1 FC at Walking Surface, Minimum (Section 1008.2.1)

Portable Fire Extinguishers: Required (Section 906.1)

Means of Egress

Common Path of Egress Travel:

Common path of egress travel should not exceed 75 feet for use group a in non-sprinkled buildings (IBC table 1006.2.1). The maximum occupant load of space is 49. Two exits or exit access doorways from any space shall be provided where the design occupant load or common path of egress travel distance exceeds the values listed in table 1006.2.1 (IBC section 1006.2.1)

Dead End Corridors:

Dead end corridors should not exceed 20 feet in length for use group a (IBC section 1020.4). Dead end corridors in an existing condition should not exceed 35' (IEBC section 805.6)

Travel Dictance:

The maximum travel distance to an exit should not exceed 200 feet for use group a occupancies (IBC table 1017.2)

Door Swing:

Door swing is required to swing in the direction of travel when the occupant load is more than 50 (IBC section 1010.1.2.1)

Occupant Loads:

(BASED ON 2018 IBC TABLE 1004.5)

Storage/Mechanical:	300 Gross
Assembly:	15 Gross
Mercantile:	60 Gross
Press Box - Level 2:	12 Occupants
Press Box - Level 3:	24 Occupants
Concessions Building:	9 Occupants
Restroom Building:	3 Occupants
Visitor Ticket Booth:	2 Occupants
Total Occupants:	**50 Occupants**

Exiting Requirements

Exit Widths Doors, Ramps, etc (excluding bleachers):
60 people/foot; 0.2" per occupant (SECTION 1005.3.2)

Stairs (excluding bleachers):
40 people per foot; 0.3" per occupant

Travel distance: (SECTION 1005.3.1)
Allowed: 200' (non-sprinkled)
Actual: See Code Plan

Common path of travel: (TABLE 1017.2)
75' (A5 occupancy)

Number of exits required: (SECTION 1006.2.1)
Rooms with OL 49 or less: 1 Exit
Rooms with OL 50-500: 2 Exits
Rooms with OL 501-1,000: 3 Exits
Rooms with OL 1,001 or more: 4 Exits

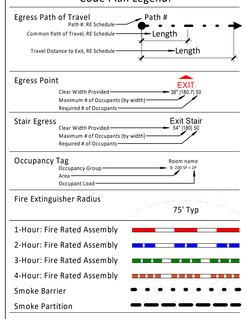
Panic hardware: (TABLE 1006.2.1, SECTION 1006.2.1.1)
Not required due to Occupant Loads

Required exit width: **50 x 0.2" = 10"** (SECTION 1010.1.10)
Actual exit width: **204"**
Total egress capacity: **680**
Actual occupancy: **50**

General Notes (Code Plans):

1. ALL WORK, MATERIALS, AND METHODS SHALL BE IN CONFORMANCE WITH THE CODES, ORDINANCES AND REGULATIONS OF ALL GOVERNMENTAL AGENCIES HAVING JURISDICTION AT THE PROJECT LOCATION.
2. CONTRACTOR SHALL PROVIDE AND IS SOLELY RESPONSIBLE AND LIABLE FOR PUBLIC AND EMPLOYEE PROTECTION AS NECESSARY AND AS REQUIRED BY THE CODES, INCLUDING EXTERIOR PEDESTRIAN AND TRAFFIC BARRIERS. ALL WORK SHALL CONFORM TO ORDINANCES AND REGULATIONS OF GOVERNMENTAL AGENCIES HAVING JURISDICTION AT THE PROJECT LOCATION.
3. THE SIZE, TYPE, QUANTITY, AND LOCATION OF ALL TEMPORARY FIRE EXTINGUISHERS SHALL BE DETERMINED BY THE AUTHORITY HAVING JUISDICTION.
4. COORDINATE LOCATION OF KNOX BOX WITH ARCHITECT, OWNER'S REPRESENTATIVE, AND THE AUTHORITY HAVING JUISDICTION IN THE FIELD.

Code Plan Legend:



Common Path of Travel	
Mark	Path of Egress
Level 1 Path	10' - 2 23/128"
Level 3 Path	71' - 9 153/256"
Level 2 Path	70' - 10 77/256"

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Lee's Summit R7 District Athletics Facilities

Lee's Summit High School
400 SW Blue Parkway
Lee's Summit, MO 64063

owner:
Lee's Summit R-7 School District
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Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 09/28/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

Code Plan - Level 1

H-G101

BID SET

PRINT DATE/TIME:
9/29/2020 1:08:37 PM

LEE'S SUMMIT HIGH SCHOOL
SITE PLAN
400 SE BLUE PARKWAY, LEE'S SUMMIT, MO 64063
SECTION 8 - TOWNSHIP 47 N - RANGE 31 W

PREPARED FOR:
LEE'S SUMMIT SCHOOL DISTRICT
302 SE TRANSPORT RD,
LEE'S SUMMIT, MO 64081
PHONE: (816) 986-2421
CONTACT: KYLE GORRELL
EMAIL: kyle.gorrell@lsr7.net

PREPARED BY:
KAW VALLEY ENGINEERING, INC.
14700 W 114TH TERR.
LENEXA, KANSAS 66215
PHONE: (913) 894-5150
CONTACT: DAVID WOOD
EMAIL: wood@kveng.com

LEGEND:

	AIR CONDITIONER	DIP	DUCTILE IRON PIPE
	WALL MOUNTED ELECTRICAL OUTLET	HDPE	HIGH DENSITY POLYETHYLENE
—G—	UNDERGROUND GAS		WALL MOUNTED LIGHT
	GAS METER		WALL MOUNTED CAMERA
	CONTROL POINT		GAS VALVE
	BENCHMARK		GAS RISER
	GATE POST		GAS LINE SIGN
	CHAIN LINK FENCE	DE	DOOR ELEVATION AT THRESHOLD
	WOOD FENCE	FF	FINISH FLOOR ELEVATION
	BOLLARD	BHE	BUILDING HEIGHT/ELEVATION
	STREET/TRAFFIC SIGN	B/B	BACK TO BACK OF CURB MEASUREMENT
	PAINTED DIRECTIONAL ARROW	E/E	EDGE TO EDGE OF ASPHALT
	TURN LANE DIRECTION	—W—	WATER LINE
	HANDICAP SYMBOL		WATER METER
	PARKING STALL COUNT		WATER LINE GATE VALVE
	HANDICAP SIGN		FIRE HYDRANT
HRMP	HANDICAP RAMP		SPRINKLER CONTROL BOX
	WHEEL STOP		WATER MANHOLE
—FOC—	UNDERGROUND FIBER OPTIC CABLE		SPRINKLER VALVE
—FOC(R)—	UNDERGROUND FIBER OPTIC (FROM RECORDS)		SIAMESE FIRE CONNECTOR
	TELEPHONE PEDESTAL		CANOPY SUPPORT
	SANITARY SEWER MANHOLE		MAIL BOX
	STORM SEWER MANHOLE		CONCRETE JOINT/CUT LINE
	AREA INLET		BUSH
	CURB INLET		DECIDUOUS TREE
	SANITARY SEWER CLEAN OUT	T/E	TRASH ENCLOSURE
	DOWN SPOUT	L/S	LANDSCAPING AREA
	FLOOR DRAIN	CONC	CONCRETE
	FLARED END SECTION	LW	LOWEST WIRE HEIGHT
—S—	SANITARY SEWER LINE		FLAG POLE
—D—	STORM SEWER LINE		ELECTRIC METER
CMP	CORRUGATED METAL PIPE		UNDERGROUND ELECTRIC PEDESTAL
RCP	REINFORCED CONCRETE PIPE		SPEAKER BOX
VCP	VITRIFIED CLAY PIPE		BREAKER BOX
—E—	UNDERGROUND ELECTRIC	—G(R)—	UNDERGROUND GAS PER RECORD
—(2)OU—	OVERHEAD UTILITY LINE (# OF LINES)	—S(R)—	SANITARY SEWER LINE PER RECORD
	PULL BOX	—D(R)—	STORM SEWER LINE PER RECORD
	LIGHT POLE		OVERLAY
	UTILITY POLE		GRAVEL SURFACE (ESC-01)
	UTILITY POLE W/ LIGHT		CONCRETE SIDEWALK (055)
	UTILITY POLE W/ TRANSFORMER		CONCRETE CURB AND GUTTER
	GUY ANCHOR		CONCRETE CURB AND GUTTER WITH REVERSE FLOW
—W(R)—	WATER LINE PER RECORD	L	LANDING
—E(R)—	UNDERGROUND ELECTRIC PER RECORD	R	RAMP
	CONIFEROUS TREE	T	TRANSITION
	TREE LINE		

SITE BENCHMARKS:

BM-60
FOUND CUT SQUARE AT THE WEST NORTHWEST CONCRETE HEADWALL ON THE WEST SIDE OF THE EAST ENTRY DRIVE TO LEE'S SUMMIT HIGH SCHOOL.
ELEVATION= 1042.70

BM-61
SET CUT SQUARE WITH PUNCH IN THE SOUTHWEST EDGE ON A CONCRETE LIGHT BASE ON THE NORTH SIDE OF THE DRIVE LANE AT THE HIGH SCHOOL ADMINISTRATION CENTER ENTRY.
ELEVATION= 1042.74

BM-62
SET CUT SQUARE AT THE NORTHEAST CORNER OF THE FIRST STEP UP OF A CONCRETE WALK ON THE NORTH SIDE OF THE EAST MAIN WING.
ELEVATION= 1040.51

BM-63
SET CUT SQUARE AT THE TOP NORTHEAST CORNER OF A CONCRETE PATIO WITH COVERED TABLES ON THE EAST SIDE OF BUILDING "B".
ELEVATION= 1015.74

BM-64
SET CUT SQUARE AT THE TOP NORTHEAST CORNER OF STEPS TO THE NORTH ENTRY TO BUILDING "B" ON THE WEST SIDE.
ELEVATION= 1015.34

PROJECT CONTROL:

CP #200 1/2" REBAR W/ ORANGE KVE CAP NORTHING: 996572.06 (GROUND) EASTING: 2827438.76 (GROUND) ELEV = 1049.49	996470.24 (GRID) 2827149.83 (GRID)	
CP #201 1/2" REBAR W/ ORANGE KVE CAP NORTHING: 996570.39 (GROUND) EASTING: 2827055.45 (GROUND) ELEV = 1048.24	996468.55 (GRID) 2826766.55 (GRID)	
CP #202 1/2" REBAR W/ ORANGE KVE CAP NORTHING: 996569.25 (GROUND) EASTING: 2826689.97 (GROUND) ELEV = 1042.52	996467.41 (GRID) 2826401.11 (GRID)	
CP #203 MAG NAIL NORTHING: 996957.62 (GROUND) EASTING: 2826712.48 (GROUND) ELEV = 1039.43	996855.74 (GRID) 2826423.62 (GRID)	
CP #204 1/2" REBAR W/ ORANGE KVE CAP NORTHING: 997397.36 (GROUND) EASTING: 2826684.55 (GROUND) ELEV = 1023.04	997295.43 (GRID) 2826395.70 (GRID)	
CP #205 1/2" REBAR W/ ORANGE KVE CAP NORTHING: 997403.51 (GROUND) EASTING: 2826495.31 (GROUND) ELEV = 1018.15	997301.59 (GRID) 2826206.47 (GRID)	
CP #206 1/2" REBAR W/ ORANGE KVE CAP NORTHING: 997985.93 (GROUND) EASTING: 2826567.03 (GROUND) ELEV = 1012.56	997883.94 (GRID) 2826278.18 (GRID)	
CP #207 1/2" REBAR W/ ORANGE KVE CAP NORTHING: 997970.64 (GROUND) EASTING: 2826860.58 (GROUND) ELEV = 1014.79	997868.66 (GRID) 2826571.70 (GRID)	

HORIZONTAL AND VERTICAL DATUM:
UNLESS OTHERWISE NOTED THE COORDINATES SHOWN HEREON ARE GROUND COORDINATES BASED ON THE MISSOURI STATE PLANE (1983) WEST ZONE (NAD 1983) (NAVD 1988)
CAF: 0.9998978
SCALED AROUND 0,0

JA-25 (PID: 095025)
NORTHING: 303646.030 (GRID/METERS) 996313.829 (GROUND/FEET)
EASTING: 860950.475 (GRID/METERS) 2824923.692 (GROUND/FEET)
ELEVATION: 321.8 (METERS) 1055.77 (FEET)

NOTES:
6 DISTURBED AREA SHALL BE FERTILIZED, MULCHED AND SEEDED WITH A THREE WAY BLEND OF TALL TURF TYPE FESCUE. (REFER TO SEEDING REQUIREMENTS ON SHEET W-C900.) ALL SEEDED AREAS WITHIN 10' OF SIDEWALKS AND BUILDING, WITHIN 5' OF STORM OUTFALLS AND ON SLOPES STEEPER THAN 4:1 SHALL BE PROTECTED WITH A TYPE 2 EROSION CONTROL BLANKET (NORTH AMERICAN GREEN S75BN OR APPROVED EQUAL.)
7 CONCRETE STOOP (REFERENCE STRUCTURAL PLANS)
9 PROPOSED FENCING (REFERENCE ARCHITECTURAL PLANS FOR DETAILS AND FENCING OUTSIDE DRAWING LIMITS)
12 WHITE PARKING LOT STRIPING (SEE SPECIFICATIONS THIS SHEET)
12D GORE AREA. 4" WHITE STRIPE AT 45 TO DIRECTION OF TRAVEL. SPACE AT 2'.
13 PAINT CURB YELLOW TO DENOTE FIRE LANE. CONFIRM LIMITS WITH FIRE DEPARTMENT. (SEE SPECIFICATIONS THIS SHEET)
54 CAST IN PLACE CONCRETE WALL. (REFER TO ARCHITECTURAL AND STRUCTURAL PLAN SHEETS FOR DETAILS AND H-C350 FOR LINE AND GRADE)
60 STORM SEWER STRUCTURE (SEE C600 SERIES SHEETS)
70 SANITARY SEWER STRUCTURE (SEE SHEET C500 SERIES SHEETS)
95 PROPOSED TRANSFORMER ON HOUSE KEEPING PAD/ELECTRICAL APPURTENANCE. COORDINATE WITH MEP PLANS.

DETAILS – SEE DETAIL SHEETS H-C190 AND H-C195 FOR THE FOLLOWING DETAILS
001 CONCRETE CURB AND GUTTER
002 ZERO HEIGHT CURB
003 STRAIGHT CURB
005 INTEGRAL CURB AND SIDEWALK
030 EDGE MILL AND OVERLAY
040 ASPHALT PAVEMENT
055 CONCRETE SIDEWALK
056 CONCRETE RAMP
060 SIDEWALK RAMP
ESC-01 CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT

MARKING MATERIALS: APWA 2306.7G
PARKING STALLS STRIPING AND SYMBOLS
ALL SURFACES – TRAFFIC MARKING PAINT. COLOR AS INDICATED.

PAVEMENT MARKING SPECIFICATIONS:
PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF KANSAS CITY, MISSOURI CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION SPECIFICATIONS SECTION 2306 AS ADOPTED AND AMENDED BY THE CITY OF LEE'S SUMMIT.

STORM WATER MANAGEMENT:
STORM WATER MANAGEMENT IS PROPOSED AS PART OF THE OVERALL LEE'S SUMMIT HIGH SCHOOL PROJECT AND COMPLIES WITH THE KC METROPOLITAN CHAPTER OF APWA DESIGN CRITERIA SECTION 5600. PROPOSED STORM WATER MANAGEMENT SYSTEM WILL MITIGATE INCREASES IN RUNOFF FOR THE STORM EVENTS ANALYZED TO A RATE AT OR LESS THAN THE EXISTING CONDITIONS.

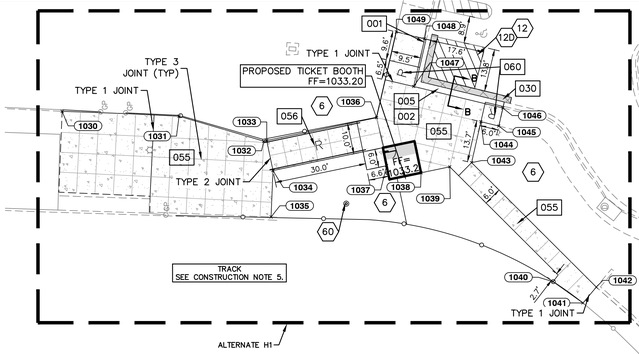
UNDERGROUND UTILITY STATEMENT:
THE UNDERGROUND UTILITIES SHOWN HEREON ARE DEPICTED FROM FIELD SURVEY INFORMATION OF ONE-CALL LOCATED UTILITIES AND/OR THE SCALING AND PLOTTING OF EXISTING UTILITY MAPS AND DRAWINGS MADE AVAILABLE TO THE SURVEYOR AT THE TIME OF SURVEY. THE SURVEYOR DOES NOT CERTIFY THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL UNDERGROUND UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHERMORE, THE SURVEYOR DOES NOT CERTIFY THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION DEPICTED ALTHOUGH HE DOES CERTIFY THAT THEY ARE DEPICTED AS ACCURATELY AS POSSIBLE FROM INFORMATION MADE AVAILABLE TO THE SURVEYOR AT THE TIME OF SURVEY. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES SHOWN HEREON BY EXCAVATION UNLESS OTHERWISE NOTED ON THIS SURVEY.
MISSOURI ONE CALL TICKET NUMBER: #200431409, 200431440, 200431475, 200440745.

WARRANTY / DISCLAIMER
THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER KAW VALLEY ENGINEERING, INC NOR ITS PERSONNEL CAN OR DO WARRANTY THESE DESIGNS OR PLANS AS CONSTRUCTED, EXCEPT IN THE SPECIFIC CASES WHERE KAW VALLEY ENGINEERING PERSONNEL INSPECT AND CONTROL THE PHYSICAL CONSTRUCTION ON A CONTEMPORARY BASIS AT THE SITE.

CAUTION – NOTICE TO CONTRACTOR
THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICTS PRIOR TO ANY CONSTRUCTION.

SAFETY NOTICE TO CONTRACTOR
IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

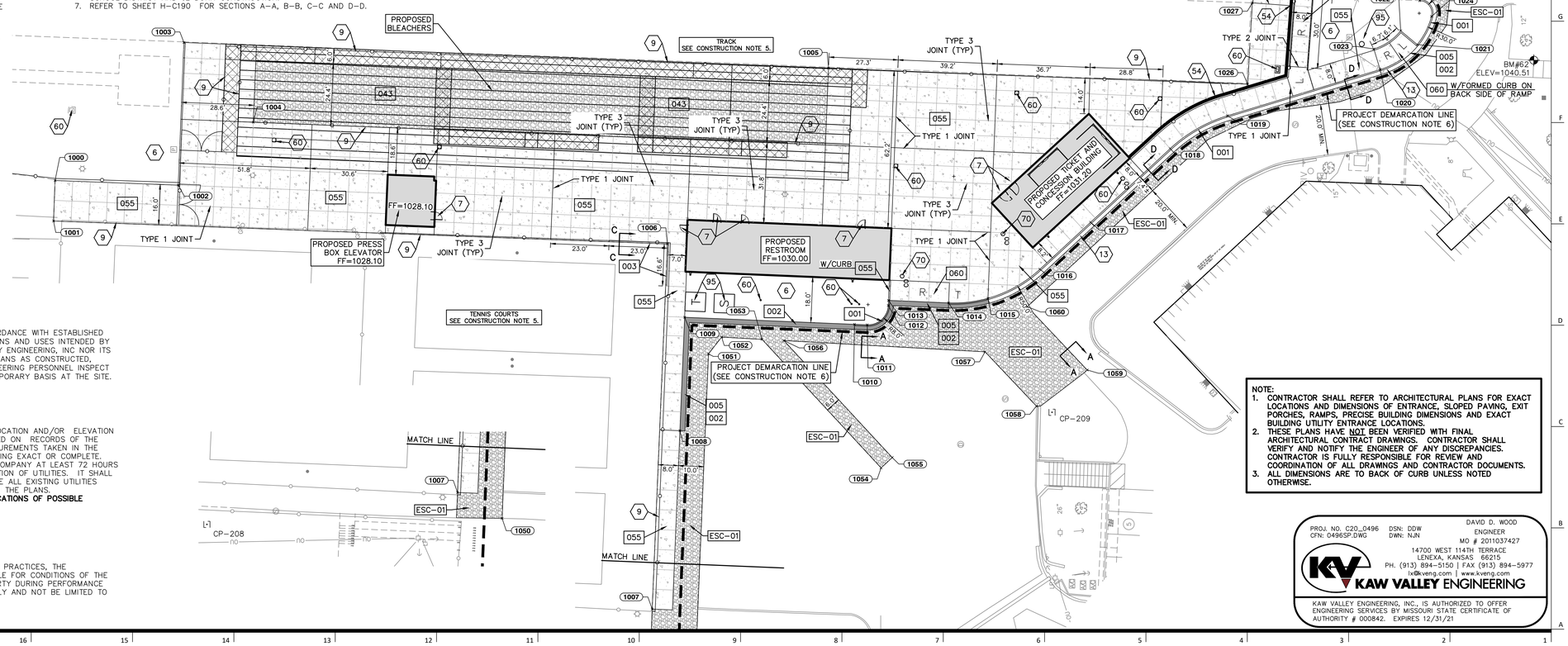
CONSTRUCTION NOTES:
1. COORDINATE START-UP AND ALL CONSTRUCTION ACTIVITIES WITH THE ARCHITECT.
2. CONSTRUCTION METHODS AND MATERIALS NOT SPECIFIED IN THESE PLANS ARE TO MEET OR EXCEED THE KANSAS CITY METROPOLITAN CHAPTER OF APWA STANDARD SPECIFICATIONS AS ADOPTED AND AMENDED BY THE CITY OF LEE'S SUMMIT.
3. ALL CONSTRUCTION WORK AND UTILITY WORK OUTSIDE OF PROPERTY BOUNDARIES SHALL BE PERFORMED IN COOPERATION WITH AND IN ACCORDANCE WITH REGULATIONS OF THE AUTHORITIES CONCERNED.
4. PUBLIC CONVENIENCE AND SAFETY: THE CONTRACTOR SHALL CONDUCT THE WORK IN A MANNER THAT WILL INSURE, AS FAR AS PRACTICABLE, THE LEAST OBSTRUCTION TO TRAFFIC, AND SHALL PROVIDE FOR THE CONVENIENCE AND SAFETY OF THE GENERAL PUBLIC, ALONG AND ADJACENT TO CONSTRUCTION AREA.
5. CONTRACTOR IS REQUIRED TO PROTECT TRACK AND TENNIS COURTS DURING CONSTRUCTION. STAGE WORK AND ACCESS ACCORDINGLY. DAMAGE TO TRACK PAVING OR SURFACING CAUSED BY CONSTRUCTION ACTIVITIES WILL BE REPAIRED AT CONTRACTORS EXPENSE. TEMPORARY FENCING MAY BE REQUIRED AROUND TENNIS COURT AND TRACK IF WORK SCHEDULE CONFLICTS WITH LSHS ATHLETICS SCHEDULE. COORDINATE WITH SCHOOL DISTRICT.
6. WORK SOUTH AND WEST OF DEMARCATION LINE IS LIMITED TO THE EXTENTS NECESSARY TO EXCAVATE AND INSTALL UTILITIES AND TIE-OUT GRADE TO EXISTING PAVING. UPON COMPLETION, PAVING SHALL SLOPE TO WEST. COORDINATE CONSTRUCTION SCHEDULE WITH LEE'S SUMMIT SCHOOL DISTRICT AND JE DUNN CONSTRUCTION.
7. REFER TO SHEET H-C190 FOR SECTIONS A-A, B-B, C-C AND D-D.



VICINITY MAP
SEC 8 – TWP 47N – RNG 31W
NOT TO SCALE

Know what's below. Call before you dig.

SCALE: 1" = 20'



NOTE:
1. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRANCE, SLOPED PAVING, EXIT PORCHES, RAMPS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
2. THESE PLANS HAVE NOT BEEN VERIFIED WITH FINAL ARCHITECTURAL CONTRACT DRAWINGS. CONTRACTOR SHALL VERIFY AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES. CONTRACTOR IS FULLY RESPONSIBLE FOR REVIEW AND COORDINATION OF ALL DRAWINGS AND CONTRACTOR DOCUMENTS.
3. ALL DIMENSIONS ARE TO BACK OF CURB UNLESS NOTED OTHERWISE.

COORDINATE TABLE

◇	NORTHING	EASTING	DESCRIPTION
1000	997666.29	2827157.98	SW
1001	997666.89	2827141.99	SW
1002	997617.66	2827156.15	SW
1003	997615.44	2827212.45	SW
1004	997588.06	2827180.98	SW
1005	997361.01	2827202.33	SW
1006	997424.60	2827132.94	SW
1007	997430.60	2826988.79	SW
1008	997419.66	2827059.22	BC
1009	997417.80	2827103.99	BC
1010	997350.74	2827101.20	BC
1011	997345.75	2827100.99	BC
1012	997337.42	2827108.65	BC
1013	997337.34	2827110.65	BC
1014	997313.61	2827109.66	BC
1015	997298.07	2827111.47	BC
1016	997277.56	2827122.94	BC
1017	997257.55	2827141.47	BC
1018	997226.13	2827170.57	BC
1019	997203.52	2827183.53	BC
1020	997143.29	2827201.76	BC
1021	997128.65	2827211.62	BC
1022	997135.17	2827217.07	BC
1023	997145.76	2827209.90	BC
1024	997123.01	2827222.69	BC
1025	997127.63	2827228.95	BC
1026	997195.56	2827196.02	SW
1027	997193.73	2827228.10	SW
1028	997172.65	2827298.09	SW
1029	997164.67	2827297.49	SW
1030	997393.86	2827504.33	SW

COORDINATE TABLE

◇	NORTHING	EASTING	DESCRIPTION
1031	997355.75	2827502.73	SW
1032	997328.13	2827494.60	SW
1033	997327.15	2827494.80	SW
1034	997325.11	2827485.01	SW
1035	997325.74	2827469.88	SW
1036	997291.33	2827502.25	SW
1037	997288.07	2827486.59	SW
1038	997276.83	2827484.29	SW
1039	997267.46	2827486.24	SW
1040	997233.78	2827448.79	SW
1041	997224.03	2827441.84	SW
1042	997219.68	2827447.02	SW
1043	997260.34	2827487.61	SW
1044	997257.31	2827500.96	SW
1045	997251.48	2827499.53	SW
1046	997250.14	2827505.41	BC
1047	997279.23	2827512.43	BC
1048	997275.77	2827527.99	BC
1049	997284.88	2827530.23	SW
1050	997413.01	2826978.58	SAWCUT
1051	997408.39	2827089.54	SAWCUT
1052	997403.18	2827096.17	SAWCUT
1053	997387.25	2827095.28	SAWCUT
1054	997340.26	2827044.54	SAWCUT
1055	997335.86	2827048.61	SAWCUT
1056	997378.63	2827094.79	SAWCUT
1057	997299.22	2827090.36	SAWCUT
1058	997278.96	2827068.92	SAWCUT
1059	997258.92	2827083.19	SAWCUT
1060	997282.55	2827108.18	SAWCUT

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kansas city • lawrence • new orleans
phoenix • san francisco

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Lee's Summit R7 District Athletics Facilities

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Lee's Summit, MO 64063

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STATE OF MISSOURI — DAVID D. WOOD — NUMBER PE-2011037427 — PROFESSIONAL ENGINEER

Kaw Valley Engineering, Inc.
Missouri Certificate of Authority: 000842
David Wood Date: 09/28/2020
Engineer License No. PE-2011037427

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0100
DATE: SEPTEMBER 28, 2020

PROJ. NO. C20_0496 DSN: DDW
CFN: 0496SP.DWG DWN: NJN
DAVID D. WOOD
ENGINEER
MO # 2011037427
14700 WEST 114TH TERRACE
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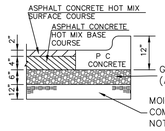
PH. (913) 894-5150 | FAX (913) 894-5977
kv@kveng.com | www.kveng.com
KAW VALLEY ENGINEERING
KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/21

SITE AND DIMENSION PLAN

H-C100

BID SET

PRINT DATE/TIME: 3/17/2020 4:49:21 PM



LD ASPHALT PAVEMENT 040

1. FLEXIBLE PAVEMENT SHALL BE IN ACCORDANCE WITH THE LATEST (FEBRUARY 2017) EDITION OF THE KANSAS CITY METROPOLITAN CHAPTER OF APWA SECTION 2200 AS AMENDED BY PROJECT SPECIFICATIONS.

   ASPHALT SURFACE COURSE – APWA TYPE 3–01

   ASPHALT BASE COURSE – APWA TYPE 2–01
2. TYPE 3–01 SURFACE COURSE SHALL BE VIRGIN ASPHALT. RECYCLED MIXES MEETING APWA SPECIFICATIONS MAY BE CONSIDERED FOR BASE COURSE.
3. PORTLAND CEMENT CONCRETE SHALL BE A KCMMB4K MIX AND SHALL MEET THE LATEST EDITION OF THE KANSAS CITY METROPOLITAN CHAPTER OF APWA SECTION 2200.
4. HEAVY DUTY CONCRETE IS AN OPTIONAL PAVEMENT FOR DETAIL 041 HEAVY DUTY ASPHALT. WHEN PLANS SPECIFY DETAIL 042 NO ALTERNATES ARE ALLOWED.
5. ONSITE CLAY SOILS SHALL BE STABILIZED WITH 5% PORTLAND CEMENT AS OUTLINED IN THE PROJECT GEOTECHNICAL REPORT

PAVING DETAILS

ASPHALT MILL AND OVERLAY NOTES:

PAVING SHALL BE IN ACCORDANCE WITH APWA TECHNICAL SPECIFICATIONS SECTION 2200 AS AMENDED BELOW.

MILLING FOR THE DRIVES AND PARKING LOTS SHALL BE COLD MILLED AS FOLLOWS:

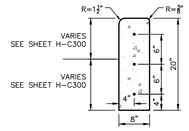
1. EQUIPMENT: MILLING THE SURFACE OF PAVEMENTS SHALL BE COMPLETED BY USE OF A MILLING MACHINE CONFORMING TO THE FOLLOWING.
   A. MACHINE: THE COLD MILLING MACHINE SHALL BE SELF–PROPELLED AND SHALL HAVE IN COMBINATION THE MEANS OF MILLING AND CUTTING, WITHOUT SOFTENING THE OLD SURFACE AND BLADING THE CUTTING INTO A SINGLE WINDROW, OR DEPOSITING THEM DIRECTLY INTO A TRUCK.
   B. AIR POLLUTION: THE MACHINE SHALL BE EQUIPPED WITH A DUST SUPPRESSION SYSTEM INCLUDING WATER STORAGE TANKS AND HIGH PRESSURE SPRAY BARS.
   C. OPERATING WIDTH: IT IS DESIRABLE THAT THE CUTTING WIDTH BE GREATER THAN 6 FEET (2 m). IN THE EVENT THE CUTTING WIDTH IS LESS THAN 6 FEET (2 m) CONTRACTOR IS RESPONSIBLE FOR ENSURING GRADE CONTROL AS NOTED ON PLANS.
   D. CUTTING DRUM: THE CUTTING DRUM SHALL BE TOTALLY ENCLOSED TO PREVENT DISCHARGE OF ANY LOOSENED MATERIAL ADJACENT TO WORK AREAS.
2. CONSTRUCTION DETAILS
   A. METHODS OF OPERATIONS FOR MILLING:
      a. OPERATOR: THE MILLING MACHINE SHALL BE OPERATED BY AN EXPERIENCED AND CAPABLE OPERATOR.
      b. UTILITIES: STREET SURFACES ADJACENT TO MANHOLE, WATER VALVES AND OTHER UTILITY EXTENSIONS, SHALL BE COMPLETELY REMOVED TO THE FULL DEPTH THE CUT SPECIFIED FOR THE STREET UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.
      c. MATERIAL DISPOSAL: THE MATERIAL WITHDREW BY THE MACHINE SHALL BE REMOVED FROM THE SURFACE OF THE PAVEMENT AND PROPERLY DISPOSED OF BY THE CONTRACTOR.
      d. SURFACE CONDITIONS: THE DRUM LACING PATTERNS SHALL PRODUCE A SMOOTH SURFACE AFTER MILLING WITH GROOVE DEPTHS NOT TO EXCEED 1/4 INCH (0.64 cm) AND GROOVE SPACING NOT TO EXCEED 1 INCH (2.54 cm) UNLESS OTHERWISE APPROVED BY THE ENGINEER.
   B. TYPES OF CUTS TO BE MADE BY MILLING:
      a. LEVELING: SUFFICIENT PASSES SHALL BE MADE SUCH THAT ALL IRREGULARITIES OR HIGH SPOTS ARE ELIMINATED, AND THAT 100% OF THE SURFACE IS MILLED.
      b. AVERAGE DEPTH: SUFFICIENT PASSES, OR CUTS, SHALL BE MADE IN ORDER TO REMOVE A SPECIFIED DEPTH OVER THE ENTIRE STREET SECTION. THESE DEPTHS WILL BE DESIGNATED ON THE PLANS.
      c. CURB CUT: SUFFICIENT PASSES, OR CUTS, SHALL BE MADE IN ORDER TO REMOVE A SPECIFIED DEPTH AT THE CURB FOR A SPECIFIED WIDTH. THE DEPTH AT THE WIDTH FURTHEST FROM THE CURB IS 0. THESE DIMENSIONS WILL BE DESIGNATED ON THE PLANS.
   C. CLEANUP: ALL LOOSE ASPHALT AND DEBRIS SHALL BE REMOVED FROM THE STREET SURFACE AND CURB AND GUTTER. ANY MATERIAL AND DEBRIS THAT ADHERES TO THE CURB AND GUTTER SHALL BE REMOVED.

CRACKS: AFTER SURFACE MILLING DETERIORATED (FATIGUE CRACKED OR RAVELED) BLOCK CRACKS AND TRANSVERSE CRACKS THAT HAVE A WIDTH GREATER THAN 1.5–INCHES SHALL BE MILLED OR MECHANICALLY ROUTED OUT TO A MINIMUM DEPTH OF 2–INCHES AND PATCHED WITH A HOT MIX ASPHALT PRIOR TO OVERLAY. UNDETERIORATED PAVEMENT CRACKS WITH WIDTHS BETWEEN 1.5–INCHES AND 0.25–INCHES WIDE SHALL BE BLOWN OUT WITH PRESSURIZED AIR OR CLEANED AND DRIED PRIOR TO FILLING WITH AN APPROVED CRACK SEALING MATERIAL SUCH AS CRAFCO ROADSAVER 514, 515, PARKING LOT SEALANT TYPE 1 OR APPROVED EQUAL.

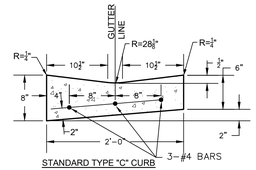
AREAS OF THE PAVEMENT REQUIRING PATCHING WILL BE DESIGNATED ON THE PLANS OR MARKED BY THE ENGINEER AFTER COMPLETION OF MILLING OPERATIONS FOR THE SECTION OF PAVEMENT UNDER CONSTRUCTION. THE DETERIORATED PAVEMENT WILL BE REMOVED TO THE LIMITS DESIGNATED BY THE ENGINEER. THE SUBGRADE SHALL BE ADJUSTED TO PERMIT THE THICKNESS OF ASPHALT INDICATED ON THE PLANS. THE SUBGRADE SHALL CONSIST OF AB–3/MODOT TYPES AGGREGATE AND SHALL BE UNIFORMLY COMPACTED BY HAND TAMPING OR ROLLING. REFERENCE PAVING DETAILS FOR BITUMINOUS MIX FOR PATCHING. AT THE TIME OF PLACING ASPHALT THE EDGE OF THE AREA TO BE PATCHED WILL BE COATED WITH SS–1H EMULSIFIED ASPHALT OR APPROVED EQUAL. THE ASPHALT IN THE PATCH SHALL BE PLACED IN TWO EQUAL LIFTS WITH EACH LIFT THOROUGHLY COMPACTED PRIOR TO PLACEMENT OF THE SUBSEQUENT LIFT.

CONSTRUCTION OF THE OVERLAY WILL BE PERFORMED IN ACCORDANCE WITH APWA SPECIFICATIONS:

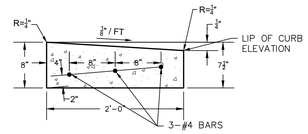
1. MEASURED DENSITY OF THE COMPLETED OVERLAY SHALL HAVE A COMPACTED DENSITY OF 92% TO 97% OF THE DAILY THEORETICAL MAXIMUM SPECIFIC GRAVITY (GMM) OF THE MIX SUPPLIED TO THE PROJECT.
2. AREAS OF THE PAVEMENT SURFACE ON THE DRIVES AND PARKING LOTS THAT ARE SHOWN TO HAVE SEGREGATION UPON COMPLETION OF FINAL ROLLING SHALL RECEIVE AN ADDITIONAL SURFACE TREATMENT TO CLOSE THE SURFACE VOIDS. THE SURFACE TREATMENT SHALL CONSIST OF MANUFACTURED SAND COATED WITH SS–1H EMULSION WORKED INTO THE SURFACE VOIDS TO YIELD A UNIFORM APPEARING SURFACE.
3. SEE DETAIL 040/041 FOR SURFACE MIX.



STRAIGHT CURB 003

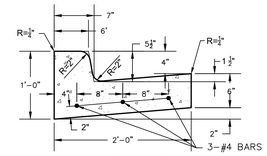


STANDARD TYPE "C" CURB

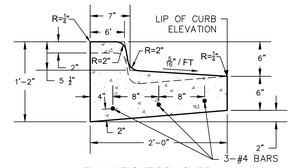


STANDARD TYPE "C" DRY CURB AND AT RAMPS

ZERO HEIGHT CURB 002



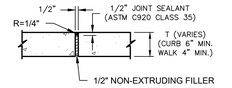
FULL HEIGHT TYPE "B" CURB



FULL HEIGHT DRY CURB

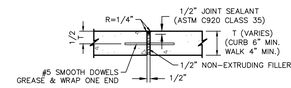
FULL HEIGHT CURB 001

*GUTTER DEPTH MAY VARY TO IMPROVE DRAINAGE



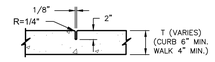
NOTE:
1. TYPE 1 JOINTS SHALL BE PLACED WHERE NEW CONCRETE ABUTS EXISTING CONCRETE AND IN AREAS WHERE CONCRETE ABUTS BUILDINGS. UNLESS NOTED OTHERWISE.

EXPANSION JOINT - TYPE 1



TYPE 2

NOTE:
1. TYPE 2 JOINTS SHALL BE PLACED AS NOTED AND AT ALL P.C.'S, P.T.'S AND TRANSITIONS, AND WHERE NEW CURB OR CONCRETE PAVEMENT TIES INTO EXISTING CURB OR CONCRETE PAVEMENT.
2. SMOOTH BARS SHALL BE 24" LONG



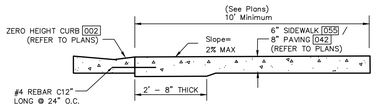
CONTRACTION JOINT - TYPE 3

CURB & GUTTER NOTES:

1. ¾" PREMOLDED EXPANSION JOINTS SHALL BE PLACED AT POINTS OF CURVATURE, CURB RETURNS, CURB INLETS AND AT 250' CENTERS. THE EXPANSION JOINTS SHALL BE DOWELED IN ACCORDANCE WITH THE SPECIFICATIONS. CONTRACTION JOINTS SHALL BE 2" DEEP AND PLACED AT 15' INTERVALS EQUALLY SPACED BETWEEN EXPANSION JOINTS.
2. ALL CONCRETE USED IN THIS WORK SHALL MEET THE LATEST EDITION OF THE KANSAS CITY METROPOLITAN CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION. KCMMB4K CONCRETE SHALL BE USED THROUGHOUT.
3. ALL REINFORCING STEEL SHALL BE SUPPORTED ON FABRICATED STEEL BAR SUPPORTS @ 3'–0" MAXIMUM SPACING.
4. SEE SIDEWALK RAMP DETAILS FOR TYPICAL SIDEWALK RAMP CURB & GUTTER SECTIONS.
5. DETAILS AS SHOWN FOR CONCRETE AND ASPHALT PAVING, WHEN USED WITH CONCRETE PAVING POURED MONOLITHICALLY WITH CURB NO MODIFICATIONS ARE REQUIRED. WHEN CURB AND CONCRETE PAVING ARE TO BE POURED SEPARATELY #4 BARS, 24" LONG ARE TO BE PROVIDED TO TIE CURB TOGETHER WITH CONCRETE PAVING.
6. ALL REINFORCING SHALL BE 60 GRADE 60 DEFORMED BARS AND COMPLY WITH ASTM A615.
7. CURBS TO BE CONSTRUCTED ON MINIMUM 6 INCHES OF COMPACTED WELL GRADED BASE ROCK.

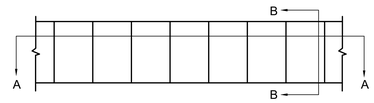
CURB & GUTTER

N.T.S

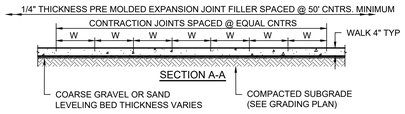


INTEGRAL CURB AND SIDEWALK 005

Note:
Install 18" tie bars #4 epoxy coated @18" o.c. and through wings as shown.



PLAN VIEW

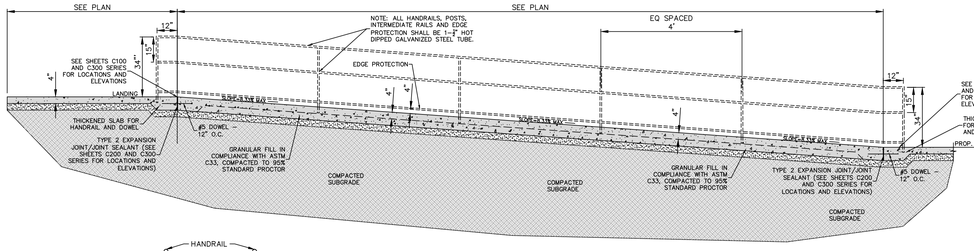


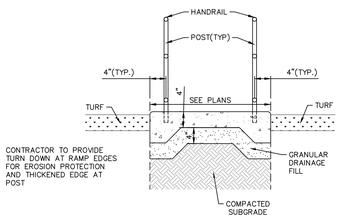
SECTION A-A

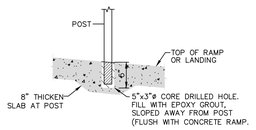
SECTION B-B

CONCRETE SIDEWALK 055

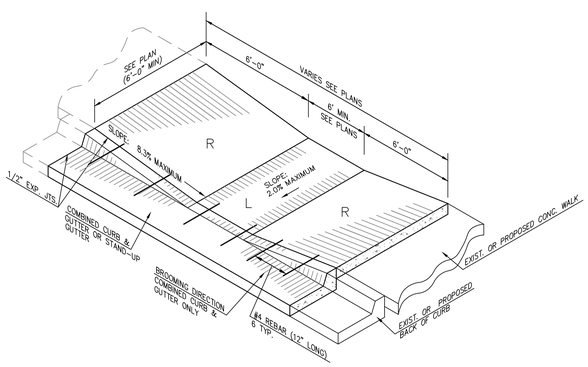
NOTE:
1. CONTRACTOR SHALL BACKFILL SIDEWALKS WITH TOPSOIL AND SEED/SOD IN ACCORDANCE WITH LANDSCAPE PLAN AND PROJECT SPECIFICATIONS.



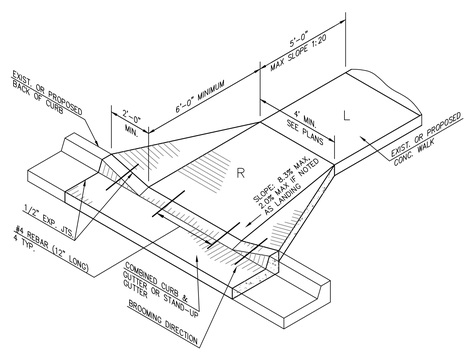




CONCRETE RAMP DETAIL 056



ISOMETRIC OF RAMP WITH LANDING

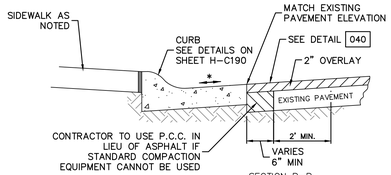


ISOMETRIC OF RAMP WITH PERPENDICULAR WALK SHOWN

CONCRETE AND SIDEWALK NOTES:

1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AND COMPLY WITH KCMMB SPECIFICATIONS. ALL CONCRETE SHALL BE PLACED IN ACCORDANCE WITH APWA SECTION 2200.
2. REINFORCING STEEL SHALL BE GRADE 60 EPOXY COATED AND COMPLY WITH ASTM A615. ALL CUT ENDS OR DAMAGED AREAS SHALL BE FIELD REPAIRED WITH EPOXY COATING.
3. SIDEWALKS TO BE BROOM FINISHED.
4. SUBGRADE TO BE COMPACTED TO 90% MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698. MOISTURE CONTENT TO BE WITHIN A RANGE OF 2% BELOW TO 2% ABOVE OPTIMUM MOISTURE AS DEFINED BY ASTM D698.
5. SIDEWALK JOINTS MAY BE SAWN UNLESS SHOWN OTHERWISE ON ARCHITECT/LANDSCAPE ARCHITECT PLANS.

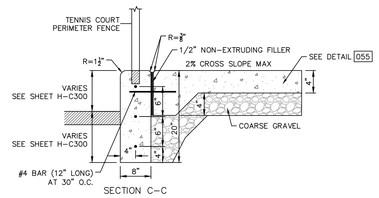
SIDEWALK RAMPS 060



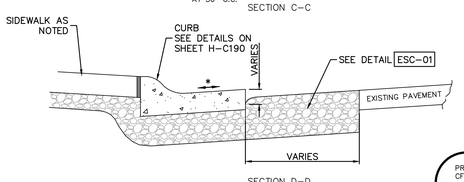
SECTION A–A

SECTION B–B

* REFERENCE SHEET C300 FOR SLOPE DIRECTION



SECTION C–C



SECTION D–D

* REFERENCE SHEET C300 FOR SLOPE DIRECTION

EDGE MILL AND OVERLAY 030

PRINT DATE/TIME: 3/17/2020 4:49:21 PM

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KAW VALLEY ENGINEERING

PROJ. NO. C20_0496 DSN: DDW
CFN: 0496DET.DWG DWN: NJN

KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/21

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Lee's Summit R7 District Athletics Facilities

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Lee's Summit, MO 64063

owner:
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Kansas City, MO 64108
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STATE OF MISSOURI — DAVID D. WOOD — NUMBER PE-2011037427 — PROFESSIONAL ENGINEER — 9.28.2020

Kaw Valley Engineering, Inc.
Missouri Certificate of Authority: 000842
David Wood Date: 09/28/2020
Engineer License No. PE-2011037427

REVISIONS

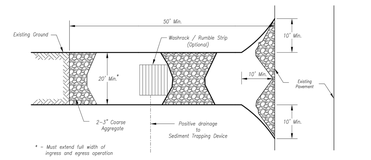
Number	DESCRIPTION	DATE

PROJECT NO: 0119-0100
DATE: SEPTEMBER 28, 2020

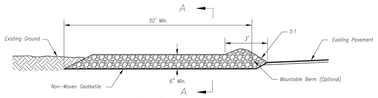
SITE DETAILS

H-C190

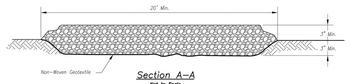
BID SET



Plan View
Not to Scale



Side Elevation
Not to Scale



Section A–A
Not to Scale

Notes for Construction Entrance:

1. *Avoid loading on steep slopes, at curves on public roads, or downhill of disturbed area.*
2. *Remove all vegetation and other unsuitable material from the foundation area, grade, and crown for positive drainage.*
3. *If slope towards the public road exceeds 2%, construct a 6– to 8–inch high ridge with 3H:1V side slopes across the foundation approximately 15 feet from the edge of the public road to divert runoff from it.*
4. *Install pipe under the entrance if needed to maintain drainage ditches along public roads.*
5. *Place stone to dimensions and grade as shown on plans. Leave surface sloped for drainage.*
6. *Divert all surface runoff and drainage from the entrance to a sediment control device.*
7. *If conditions warrant, place geotextile fabric on the graded foundation to improve stability.*

Maintenance for Construction Entrance:

1. *Reshape entrance as needed to maintain function and integrity of installation. Top dress with clean aggregate as needed.*

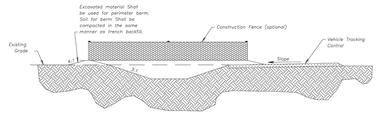
CONSTRUCTION ENTRANCE

Notes for Concrete Washout:

1. *Concrete washout areas shall be installed prior to any concrete placement on site.*
2. *Concrete washout area shall include a flat subsurface pit sized relative to the amount of concrete to be placed on site. The slopes leading out of the subsurface pit shall be 3:1. The vehicle tracking pad shall be sloped towards the concrete washout area.*
3. *Vehicle tracking control is required at the access point to all concrete washout areas.*
4. *Signs shall be placed at the construction site entrance, washout area and elsewhere as necessary to clearly indicate the location(s) of the concrete washout area(s) to operators of concrete truck and pump rigs.*
5. *A one–piece impervious liner may be required along the bottom and sides of the subsurface pit in sandy or gravely soils.*

Maintenance for Concrete Washout:

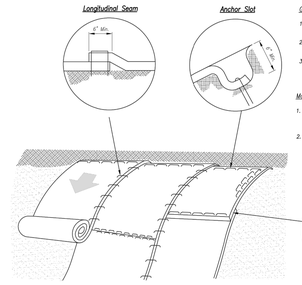
1. *Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.*
2. *Concrete washout areas shall be enlarged as necessary to maintain capacity for wasted concrete.*
3. *Concrete washout water, wasted pieces of concrete and all other debris in the subsurface pit shall be transported from the job site in a water–tight container and disposed of properly.*
4. *Concrete washout areas shall remain in place until all concrete for the project is placed.*
5. *When concrete washout areas are removed, excavations shall be filled with suitable compacted backfill and topsoil, any disturbed areas associated with the installation, maintenance, and/or removal of the concrete washout areas shall be stabilized.*



CONCRETE WASHOUT

Construction Entrance modified from 2015 Overland Park Standard Details for Erosion and Sediment Control; Concrete Washout modified from 2009 City of Great Bend Standard Drawings.

AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER
CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT
STANDARD DRAWING NUMBER ESC–01
ADOPTED: 10/24/2016



Installation on Slopes

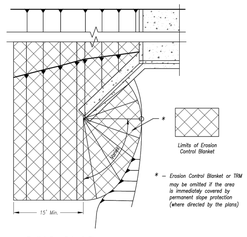
Splice Seam

General Notes:

1. *APWA Specifications 2150 and Design Guidance 5100 shall be referenced to select type of blanket or mat to be used.*
2. *Typical anchors and pattern/spacing shall be installed according to the manufacturers instructions.*
3. *LONGITUDINAL SEAMS: The edges of the blanket or mat should overlap each other a minimum of 6 inches, with anchors catching the edges of both blankets.*

Maintenance:

1. *Torn or degraded product shall be repaired or replaced, unless such degradation is within the functional longevity specified by the manufacturer.*
2. *Edges or seams that are loose or frayed shall be secured.*

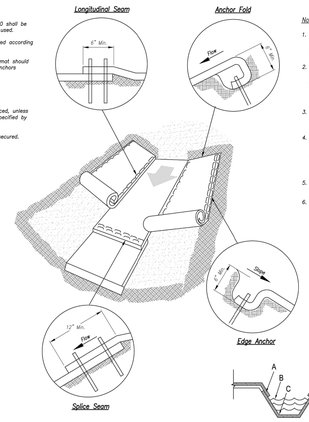


Partial Box Culvert Plan
Not to Scale

Installation Around Culvert Slope

Notes for Installation on Slopes:

1. *Erosion Control Blankets and TRMs shall be laid in the direction of the slope. In order for blanket to be in contact with the soil, lay blanket loosely, avoiding stretching.*
2. *ANCHOR SLOTS: The top of the blanket should be "slotted in" at the top of the slope and anchored in place with anchors 6 inches apart. The slots should be 6 inches wide x 6 inches deep with the blanket anchored in the bottom of the slot, then backfilled, tamped and seeded.*
3. *SPLICE SEAM: When splices are necessary, overlap and a minimum of 8 inches in direction of water flow. Stagger splice seams.*
4. *TERMINAL FOLD: The bottom edge of the blanket shall be turned under a minimum of 4 inches, then anchored in place with anchors 9 inches apart.*

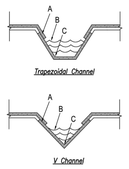


Splice Seam

Edge Anchor

Notes for Installation in Channels:

1. *Erosion Control Blankets and TRMs shall be laid in the direction of the flow, with the first course at the centerline of channel, where applicable. In order for the mat to be in contact with the soil, lay the mat loosely, avoiding stretching.*
2. *ANCHOR FOLD: The top of the mat should be folded under, buried and secured with wood or other approved anchors placed 6 inches apart. The top edge of the mat should be buried in a slot 6 inches wide x 6 inches deep, anchored in the bottom of the slot, backfilled, and the mat folded over the top as shown in detail.*
3. *SPLICE SEAM: When splices are necessary, overlap and a minimum of 12 inches in direction of water flow. Stagger splice seams.*
4. *CHECK SLOTS: Establish check slots transverse to slope every 30 feet. The slots should be 6 inches wide x 6 inches deep. The mat shall be cut to a length 12 inches beyond the slot. The top of the downstream mat shall be slotted in, secured and buried similar to the edge anchor fold. The upstream mat shall then cover the slot and be anchored as shown.*
5. *EDGE ANCHORS: Lay outside edge of mat into trench at top of the slope and anchor.*
6. *TERMINUS: The bottom edge of the mat shall be anchored.*



Trapezoidal Channel

V Channel

Critical Points:

A – *Overlaps and seams;*

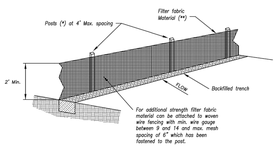
B – *Projected water line;*

C – *Channel bottom / side slope vertices;*

Installation in Channels

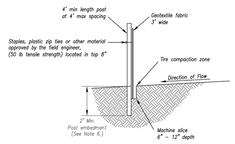
Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER
EROSION CONTROL BLANKETS AND TURF REINFORMENT MATS
STANDARD DRAWING NUMBER ESC–02
ADOPTED: 10/24/2016



(*) *POSTS*
- MIN. LENGTH 4'
- HARDWOOD 1 ½" x 1 ½"
- MCP SOUTHERN PINE 1 ½" x 2 ½"
- STEEL 1.33 LB/FT

(**) – Geotextile Fabric shall meet the requirements of AASHTO M288



Notes:

1. *In order to contain water, the ends of the silt fence must be turned uphill (Figure A).*
2. *Long perimeter runs of silt fence must be limited to 100'. Runs should be broken up into several smaller segments to minimize water concentrations (Figure A).*
3. *Long slopes should be broken up with intermediate rows of silt fence to slow runoff velocities.*
4. *Attach fabric to upstream side of post.*
5. *Install posts a minimum of 2' into the ground.*
6. *Trenching will only be allowed for small or difficult installation, where slicing machine cannot be reasonably used.*

Maintenance:

1. *Remove and dispose of sediment deposits when the deposit approaches ½ the height of silt fence.*
2. *Repair as necessary to maintain function and structure.*

SILT FENCE DETAILS
Not to Scale

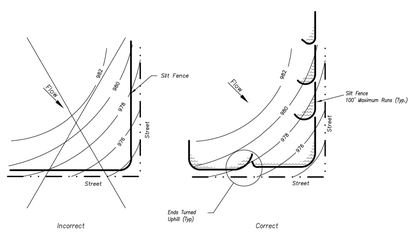
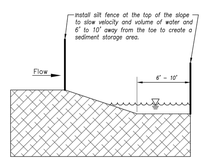
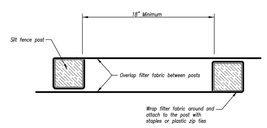


Figure A

SILT FENCE LAYOUT
Not to Scale

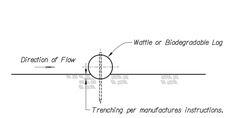




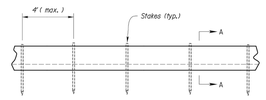
JOINING FENCE SECTIONS
Not to Scale

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER
SILT FENCE
STANDARD DRAWING NUMBER ESC–03
ADOPTED: 10/24/2016



Section A–A



Typical Elevation

WATTLES AND BIODEGRADABLE LOG

Notes for Wattles and Biodegradable Log Slope Protection:

1. *The Slope barriers shall be placed along contour lines, with a short section turned upgrade at each end of the barrier. The maximum length of the slope barrier shall not exceed 250 feet, and the barrier ends need to be staggered.*
2. *Install wattles and biodegradable logs per manufacturer's instructions.*
3. *Spacing of stakes per manufacturer's instructions with 4' max. spacing. Length of stakes shall be a minimum of 2 times the diameter of the log with minimum of 24".*

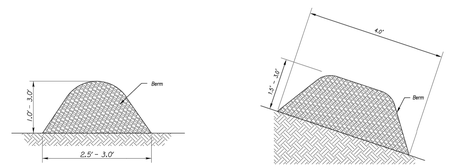


Figure 1
(Perimeter Control)

Figure 2
(Steep Slopes)

MULCH OR COMPOST FILTER BERMS

Notes for Mulch and Compost Filter Beam:

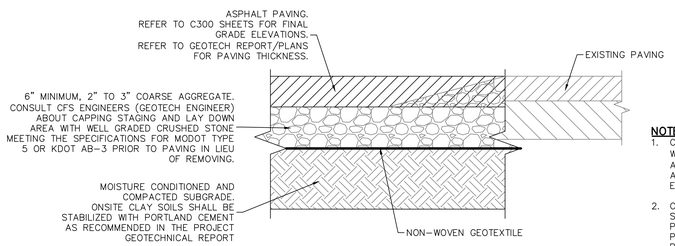
1. *The sediment control berm shall be placed uncompacted in a windrow at locations shown on the plans or as directed by the engineer.*
2. *Parallel to the base of the slope, or around the perimeter of other affected areas, construct a 1 to 3 foot high by 2.5 to 3 foot wide berm (see Figure 1). For maximum water treatment ability or for steep slopes, construct a 1.5 to 3 foot high trapezoidal berm that is a minimum of 4 feet wide at the base (see Figure 2). In extreme conditions, or where specified by the engineer, a second berm shall be constructed at the top of the slope. Engineer will specify berm requirements.*
3. *If berm is to be left as permanent or part of the natural landscape, the compost berm may be seeded during application for permanent vegetation.*
4. *Do not use compost or wood mulch berms in any runoff channels or concentrated flow areas.*
5. *Wood mulch shall consist of tree and shrub debris resulting from clearing and grubbing and shall be ground by the mechanical means such as a chipper, hammermill, tub grinder or other approved method. Mulch sizing varies with a maximum width of 2" and a maximum length of 10".*

Maintenance for Mulch and Compost Filter Beam:

1. *Berm shall be reshaped and material added as necessary to maintain function and dimensions.*
2. *Breaches in the berm shall be repaired promptly.*

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

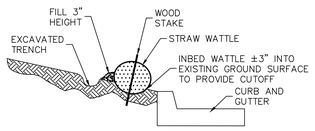
AMERICAN PUBLIC WORKS ASSOCIATION
KANSAS CITY METRO CHAPTER
WATTLES/BIODEGRADABLE LOG AND MULCH/COMPOST FILTER BERM
STANDARD DRAWING NUMBER ESC–04
ADOPTED: 10/24/2016



CONTRACTOR STAGING AND LAYDOWN ESC–01

NOTES:

1. CONTRACTOR TO COORDINATE ACTUAL LIMITS WITH CM'S SITE LOGISTICS PLAN. AT MINIMUM A 20'x50' SECTION SHALL BE PROVIDED AT ALL CONSTRUCTION ACCESS POINTS FORM EXISTING PAVING.
2. CONTRACTOR SHALL VERIFY GRADE OF STAGING AND LAYDOWN PAD PRIOR TO PAVING. CONTRACTOR IS RESPONSIBLE TO PLACE ADDITIONAL CRUSHED STONE AS REQUIRED TO ACHIEVE SUBGRADE ELEVATIONS.



STRAW WATTLE DETAIL 830

TEMPORARY SEEDING
APPLY SEED IN ACCORDANCE WITH APWA TECHNICAL SPECIFICATIONS SECTION 2153.5 A TRHU D.

SEEDING AND SODDING:
DISTURBED AREAS ARE TO BE SEEDED OR SODDED (AS NOTED ON PLANS) WITH TALL TURF TYPE FESCUE. SEEDING AND SODDING SHALL BE COMPLETED IN ACCORDANCE WITH THE APWA TECHNICAL SPECIFICATION SECTIONS 2401 AND 2402, RESPECTIVELY. SOD SHALL BE WATERED IMMEDIATELY AND WATERED TWICE A DAY FOR A MINIMUM OF 21 DAYS.

PREPARATION OF THE SEED BED
REMAINING AREAS SHALL BE SEEDED. THE AREA TO BE SEEDED SHALL BE THOROUGHLY TILLED TO A DEPTH OF AT LEAST THREE (3) INCHES BY DISCING, HARROWING OR OTHER APPROVED METHODS UNTIL THE SOIL IS WELL PULVERIZED. AFTER COMPLETION OF THE TILLING OPERATION, THE SURFACE SHALL BE CLEARED OF ALL STONES, STUMPS, OR OTHER OBJECTS LARGER THAN 1–1/2 INCHES IN DIAMETER, AND OF ROOTS, WIRE, GRADE STAKES, AND OTHER OBJECTS THAT MIGHT HINDER MAINTENANCE OPERATIONS.

PLACEMENT OF SEED
SEEDING MAY BE ACCOMPLISHED BY HYDRAULIC TYPE SEEDERS OR BROADCAST–TYPE SEEDERS. ALL SEED SOWN BY BROADCAST–TYPE SEEDERS SHALL BE "RAKED IN" OR OTHERWISE COVERED WITH SOIL TO A DEPTH OF AT LEAST ONE–QUARTER (1/4) INCH AND ROLLED TO OBTAIN A FIRM SEED BED. WATER SHALL BE APPLIED WHEN NECESSARY. SEEDED AREAS SHALL BE COMPACTED AND MULCHED IN ACCORDANCE WITH APWA SPECIFICATION SECTION 2401.3 D & E.

SEEDED ON ALL SLOPES 4:1 OR STEEPER SHALL BE PROTECTED WITH A SHORT TERM DEGRADABLE EROSION CONTROL BLANKET CONSISTING OF SINGLE NET AND STRAW BLANKET. BLANKET SHALL BE SECURED TO SURFACE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

CONTRACTOR IS RESPONSIBLE FOR ONGOING MAINTENANCE, PROTECTION AND REPAIR OF TEMPORARY AND PERMANENT SEED AREAS, REFERENCE APWA SECTION 2401.4. COORDINATE PLACEMENT OF INTERMEDIATE EROSION CONTROL MEASURES AS REQUIRED TO REDUCE CONCENTRATED FLOWS FROM RUNOFF.

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DWN: NJN
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KAW VALLEY ENGINEERING
KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/21

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architect:
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structural engineer:
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4338 Belleview
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civil engineer:
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mechanical/electrical engineer:
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STATE OF MISSOURI
DAVID D. WOOD
NUMBER PE-2011037427
9 28 20
PROFESSIONAL ENGINEER

Kaw Valley Engineering, Inc.
Missouri Certificate of Authority: 000842
David Wood — Date: 09/28/2020
Engineer — License No. PE-2011037427

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0100
DATE: SEPTEMBER 28, 2020

EROSION CONTROL DETAILS

H-C195

BID SET

PRINT DATE/TIME: 3/17/2020 4:49:21 PM

LEGEND:

- AIR CONDITIONER
- WALL MOUNTED ELECTRICAL OUTLET
- UNDERGROUND GAS
- GAS METER
- CONTROL POINT
- BENCHMARK
- GATE POST
- CHAIN LINK FENCE
- WOOD FENCE
- BOLLARD
- STREET/TRAFFIC SIGN
- PAINTED DIRECTIONAL ARROW
- TURN LANE DIRECTION
- HANDICAP SYMBOL
- PARKING STALL COUNT
- HANDICAP SIGN
- HRMP HANDICAP RAMP
- WHEEL STOP
- FOC UNDERGROUND FIBER OPTIC CABLE
- FOC(R) UNDERGROUND FIBER OPTIC (FROM RECORDS)
- TELEPHONE PEDESTAL
- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- AI AREA INLET
- CI CURB INLET
- CO SANITARY SEWER CLEAN OUT
- DS DOWN SPOUT
- FD FLOOR DRAIN
- FES FLARED END SECTION
- S SANITARY SEWER LINE
- D STORM SEWER LINE
- CMP CORRUGATED METAL PIPE
- RCP REINFORCED CONCRETE PIPE
- VCP VITRIFIED CLAY PIPE
- E UNDERGROUND ELECTRIC
- (2) OH OVERHEAD UTILITY LINE (# OF LINES)
- P PULL BOX
- LIGHT POLE
- UTILITY POLE
- UP UTILITY POLE W/ LIGHT
- UTILITY POLE W/ TRANSFORMER
- GUY ANCHOR
- W(R) WATER LINE PER RECORD
- E(R) UNDERGROUND ELECTRIC PER RECORD
- CONIFEROUS TREE
- TREE LINE
- DIP DUCTILE IRON PIPE
- HDPE HIGH DENSITY POLYETHYLENE
- WALL MOUNTED LIGHT
- WALL MOUNTED CAMERA
- GAS VALVE
- GR GAS RISER
- GAS LINE SIGN
- DE DOOR ELEVATION AT THRESHOLD
- FF FINISH FLOOR ELEVATION
- BHE BUILDING HEIGHT/ELEVATION
- B/B BACK TO BACK OF CURB MEASUREMENT
- E/E EDGE TO EDGE OF ASPHALT
- W WATER LINE
- WM WATER METER
- WV WATER LINE GATE VALVE
- FIRE HYDRANT
- SCB SPRINKLER CONTROL BOX
- WATER MANHOLE
- SV SPRINKLER VALVE
- SIAMESE FIRE CONNECTOR
- CANOPY SUPPORT
- MB MAIL BOX
- CONCRETE JOINT/CUT LINE
- BUSH
- DECIDUOUS TREE
- T/E TRASH ENCLOSURE
- L/S LANDSCAPING AREA
- CONC CONCRETE
- LW LOWEST WIRE HEIGHT
- FP FLAG POLE
- ELECTRIC METER
- UNDERGROUND ELECTRIC PEDESTAL
- SPEAKER BOX
- BB BREAKER BOX
- G(R) UNDERGROUND GAS PER RECORD
- S(R) SANITARY SEWER LINE PER RECORD
- D(R) STORM SEWER LINE PER RECORD
- ASPHALT PAVING TO BE REMOVED
- CONCRETE PAVING/SIDEWALKS TO BE REMOVED

DEMOLITION

1	TO REMAIN.
8	REMOVE BUILDING AND BUILDING EQUIPMENT. (COORDINATE WITH ARCHITECTURAL AND MEP PLAN)
8A	REMOVE EXISTING BLEACHERS AND BLEACHER EQUIPMENT.
9	BOLLARD TO BE REMOVED.
10	FENCE AND FENCE POST TO BE REMOVED AS NECESSARY TO CONSTRUCT IMPROVEMENTS.
12	RETAINING WALL TO BE REMOVED.
15	SAW CUT LINE (FOR CONCRETE SAW CUT AT NEAREST CONTROL JOINT. FOR ASPHALT SAW CUT MINIMUM OF 6" FROM NEW CURB LINE). SEE SHEET H-C100 FOR APPROXIMATE LIMITS.
30	CONTRACTOR TO REMOVE CONCRETE CURBS TO CONSTRUCT IMPROVEMENTS. SEE SHEET C100 FOR LIMITS.
35	CONTRACTOR TO REMOVE MODULAR BLOCK RETAINING WALL AS REQUIRED TO CONSTRUCT IMPROVMENTS.
40	CONTRACTOR TO REMOVE ASPHALT PAVING AS REQUIRED TO CONSTRUCT IMPROVEMENTS.
41	CONTRACTOR TO MILL ASPHALT SURFACE, 2' OUTSIDE ASPHALT REMOVAL. REFER TO SECTIONS A-A AND B-B ON SHEETS C190
55	CONTRACTOR TO REMOVE CONCRETE PAVING AND WALKS.
60	CONTRACTOR TO MODIFY, REMOVE AND/OR REROUTE STORM SEWER. REFER TO H-C600 SHEETS FOR ADDITIONAL INFORMATION.
70	CONTRACTOR TO MODIFY, REMOVE AND/OR REROUTE EXISTING SANITARY SEWER PRIOR TO CONSTRUCTING ADDITION. REFER TO C500 AND P SERIES SHEETS FOR ADDITIONAL INFORMATION.
82	CONTRACTOR TO DISCONNECT AND REMOVE EXISTING DOMESTIC SERVICE LINE ROUTED EXTERIOR TO THE BUILDING AS NECESSARY TO CONSTRUCT THE PROPOSED BUILDING. REMAINING PIPE MAY BE ABANDONED AS APPLICABLE. REFER TO H-C500 SHEETS AND MEP PLANS FOR ADDITIONAL INFORMATION.
90	REMOVE OVERHEAD ELECTRIC AND POLES. REFER TO SITE ELECTRICAL PLAN AS APPLICABLE.
91	REMOVE/REPLACE SITE LIGHTING AND ELECTRICAL FEEDS AS REQUIRED (ROUTING UNKNOWN). REFER TO SITE ELECTRICAL PLAN.

NOTE:
THIS EROSION CONTROL PLAN HAS BEEN PLACED IN THE CITY'S FILE FOR THIS PROJECT. THE PLAN APPEARS TO FULFILL THE MISSOURI DEPARTMENT OF NATURAL RESOURCES TECHNICAL CRITERIA AND THE CRITERIA FOR EROSION CONTROL AND REQUIREMENTS OF THE CITY. I UNDERSTAND THAT ADDITIONAL EROSION CONTROL MEASURES MAY BE NEEDED IF UNFORESEEN EROSION PROBLEMS ARISE OR IF THE SUBMITTED PLAN DOES NOT FUNCTION AS INTENDED. THE REQUIREMENTS OF THIS PLAN SHALL RUN WITH THE LAND AND BE THE OBLIGATION OF THE LAND OWNER UNTIL SUCH TIME AS THE PLAN IS PROPERLY COMPLETED, MODIFIED OR VOIDED.

CONSTRUCTION NOTES:

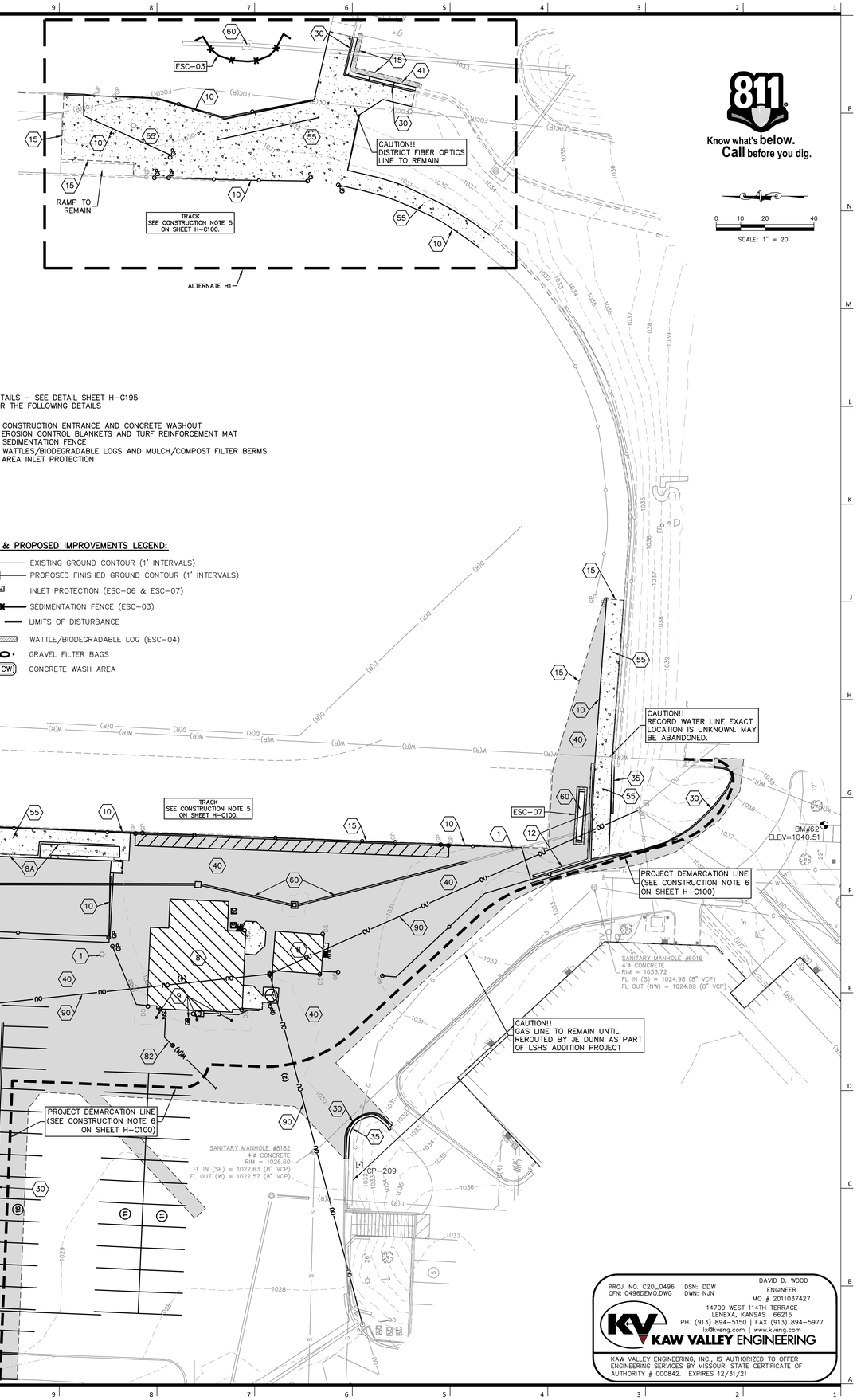
1. CONTRACTOR SHALL VERIFY SITE CONDITIONS PRIOR TO BIDDING. CONTRACTOR SHALL REMOVE ALL BUILDINGS, UTILITIES, PAVEMENT, FOUNDATIONS, FENCES, CURBS AND ALL OTHER STRUCTURES FROM WITHIN PROPERTY LINES EXCEPT AS DESIGNATED "TO REMAIN" OR "TO BE REMOVED BY OTHERS", IN ACCORDANCE WITH THE SPECIFICATIONS AND THE CITY OF LEE'S SUMMIT AND STATE REGULATIONS. SITE CONDITIONS SHOWN WERE AS OF MARCH 19, 2020.
2. ALL UTILITY PIPE LINES TO BE ABANDONED SHALL BE PLUGGED PER CITY AND STATE REGULATIONS.
3. DRIVES, PAVING AND OTHER STRUCTURES SHALL BE REMOVED AS NECESSARY TO CONSTRUCT IMPROVEMENTS SHOWN ON THESE PLANS. REMOVAL AND DISPOSAL SHALL BE IN CONFORMANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
4. ALL EXISTING UTILITIES ETC. LOCATED WITHIN THE BOUNDARIES OF THE PROPOSED BUILDING SHALL BE COMPLETELY REMOVED TO 10 FEET OUTSIDE OF BUILDING LINE.
5. ALL HAZARDOUS ASBESTOS AND OTHER HAZARDOUS MATERIALS MUST BE IDENTIFIED AND REMOVED PRIOR TO ANY BUILDING DEMOLITION, IN STRICT CONFORMANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
6. CONTRACTOR SHALL VERIFY THAT ALL UTILITIES TO EXISTING STRUCTURES HAVE BEEN DISCONNECTED PRIOR TO COMMENCING DEMOLITION.
7. EXISTING POWER LINES AND APPURTENANCES TO BE RELOCATED. COORDINATE WITH SITE ELECTRICAL PLAN.
8. ALL SLOPES THAT ARE 4:1 OR STEEPER MUST BE FULLY OR PERMANENTLY STABILIZED WITHIN TWO WEEKS OF FINAL GRADING.
9. PROVIDE CONSTRUCTION FENCING AS NOTED ON CM'S SITE LOGISTIC PLAN.
10. WORK ON WEST SIDE OF THE PROJECT DEMARCATION LINE TO BE SCHEDULED TO MAINTAIN ACCESS TO RECEIVING DOOR AND TRASH PICK UP. PAVING REMOVAL MAY NEED TO BE STAGED. COORDINATE WITH LEE'S SUMMIT SCHOOL DISTRICT AND JE DUNN'S CONSTRUCTION SCHEDULE.
11. CONTRACTOR TO PROVIDE CONCRETE WASHOUT AND CONSTRUCTION ENTRANCE FOR PROJECT. COORDINATE FINAL LOCATION INFIELD WITH SCHOOL DISTRICT TO AVOID DISRUPTION TO PEDESTRIAN TRACK ACCESS (SEE CONSTRUCTION NOTE 5 ON SHEET H-C100).

DETAILS – SEE DETAIL SHEET H-C195 FOR THE FOLLOWING DETAILS

ESC-01	CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT
ESC-02	EROSION CONTROL BLANKETS AND TURF REINFORCEMENT MAT
ESC-03	SEDIMENTATION FENCE
ESC-04	WATTLES/BIODEGRADABLE LOGS AND MULCH/COMPOST FILTER BERMS
ESC-07	AREA INLET PROTECTION

EROSION & PROPOSED IMPROVEMENTS LEGEND:

- 1218 EXISTING GROUND CONTOUR (1' INTERVALS)
- 1218 PROPOSED FINISHED GROUND CONTOUR (1' INTERVALS)
- INLET PROTECTION (ESC-06 & ESC-07)
- SEDIMENTATION FENCE (ESC-03)
- LIMITS OF DISTURBANCE
- WATTLE/BIODEGRADABLE LOG (ESC-04)
- GRAVEL FILTER BAGS
- CW CONCRETE WASH AREA



Know what's below. Call before you dig.

SCALE: 1" = 20'

WARRANTY / DISCLAIMER

THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER KAW VALLEY ENGINEERING, INC NOR ITS PERSONNEL CAN OR DO WARRANTY THESE DESIGNS OR PLANS AS CONSTRUCTED, EXCEPT IN THE SPECIFIC CASES WHERE KAW VALLEY ENGINEERING PERSONNEL INSPECT AND CONTROL THE PHYSICAL CONSTRUCTION ON A CONTEMPORARY BASIS AT THE SITE.

CAUTION – NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICTS PRIOR TO ANY CONSTRUCTION.

SAFETY NOTICE TO CONTRACTOR

IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

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CFN: 0496DEMO.DWG DWN: NJN
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KAW VALLEY ENGINEERING
KAW VALLEY ENGINEERING, INC. IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/21

PRINT DATE/TIME: 3/17/2020 4:49:21 PM

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Lee's Summit R7 District Athletics Facilities

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mechanical/electrical engineer:
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STATE OF MISSOURI DAVID D. WOOD NUMBER PE-2011037427 PROFESSIONAL ENGINEER
9.28.2020

Kaw Valley Engineering, Inc.
Missouri Certificate of Authority: 000842
David Wood Date: 09/28/2020
Engineer License No. PE-2011037427

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0100
DATE: SEPTEMBER 28, 2020

DEMOLITION AND EROSION CONTROL PLAN

H-C200

BID SET

GRADING NOTES:

1. THE CONSTRUCTION AREA SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL AND ORGANIC MATTER FROM ALL AREAS TO BE OCCUPIED BY BUILDING AND PAVING. TOPSOIL FOR REPLACEMENT ON SLOPES MAY BE STOCKPILED ON SITE. EXCESS TOPSOIL MAY BE WASTED IN FILL SLOPES PROVIDED THAT NO TOPSOIL WILL BE WASTED WITHIN 10 FEET OF THE EDGE OF THE BUILDING OR PARKING AREA. BURNING OF TIMBER WILL NOT BE PERMITTED UNLESS APPROVAL IS OBTAINED FROM GOVERNING OFFICIALS. STRIPPING EXISTING TOPSOIL AND ORGANIC MATTER SHALL BE TO A MINIMUM DEPTH OF 6 INCHES. CONSTRUCTION MANAGER SHALL DESIGNATE LOCATION OF STOCKPILE AREAS DURING CONSTRUCTION. ANY UNAUTHORIZED STOCKPILE SHALL BE REMOVED/RELOCATED AT THE CONTRACTORS EXPENSE.

2. AREAS TO RECEIVE FILL SHALL BE SCARIFIED AND THE TOP 12-INCH DEPTH COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 698 WITH A MOISTURE CONTENT OF +/-3% OF OPTIMUM FOR SOILS WITH A LIQUID LIMIT OF LESS THAN 40 AND 0 TO +4% FOR SOILS WITH A LIQUID LIMIT GREATER THAN 40. ANY UNSUITABLE AREAS SHALL BE UNDERCUT AND REPLACED WITH SUITABLE MATERIAL BEFORE ANY FILL MATERIAL CAN BE APPLIED.

3. OFF-SITE SOIL MATERIAL FOR USE UNDER BUILDING AND PAVED AREAS SHALL HAVE A PLASTICITY INDEX OF 25 OR LESS, A LIQUID LIMIT OF 45 OR LESS AND CONTAIN NO ROCK LARGER THAN THREE INCHES. OFF-SITE FILL MATERIAL SHALL BE APPROVED BY THE OWNER'S TESTING AGENCY PRIOR TO BRINGING ON SITE.

4. EARTHWORK UNDER THE BUILDING, PAVING AND LIGHTLY LOADED STRUCTURAL FEATURES SHALL COMPLY WITH THE CONTRACT DOCUMENTS AND PROJECT GEOTECHNICAL REPORT. THE BUILDING PAD SHALL BE EXCAVATED AS REQUIRED TO ALLOW THE PLACEMENT OF LOW VOLUME CHANGE MATERIAL. REFER TO GEOTECHNICAL REPORT FOR PREPARING BUILDING PAD AND LOW VOLUME CHANGE THICKNESS REQUIREMENTS. OTHER FILL MATERIAL SHALL BE MADE IN LIFTS NOT TO EXCEED EIGHT INCHES DEPTH COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 698. LVC SOILS SHALL BE COMPACTED AT A MOISTURE CONTENT OF 0 TO +4% OF OPTIMUM FOR SOILS WITH A LIQUID LIMIT GREATER THAN 40 AND +/-3% OF OPTIMUM FOR SOILS WITH A LIQUID LIMIT LESS THAN 40. NO ROCK LARGER THAN THREE INCHES IN ANY DIMENSION NOR ANY SHALE SHALL BE PLACED IN THE TOP 24 INCHES OF EMBANKMENT.

5. AREAS THAT ARE TO BE CUT TO SUBGRADE LEVELS SHALL BE PROOF ROLLED WITH A LOADED DUMP TRUCK OR SIMILAR APPROVED CONSTRUCTION EQUIPMENT TO DETECT UNSUITABLE SOIL CONDITIONS.

6. IN ALL AREAS OF EXCAVATION, IF UNSUITABLE SOIL CONDITIONS ARE ENCOUNTERED, THE OWNER'S ENGINEER SHALL RECOMMEND TO THE OWNER THE METHODS OF UNDERCUTTING AND REPLACEMENT OF PROPERLY COMPACTED, APPROVED FILL MATERIAL. ALL PROOFROLLING AND UNDERCUTTING SHOULD BE PERFORMED DURING A PERIOD OF DRY WEATHER.

7. **ALL EXCAVATIONS SHALL BE CONSIDERED AS UNCLASSIFIED. REFER TO PROJECT GEOTECHNICAL REPORT.**

8. ALL DISTURBED SLOPES ARE TO BE 3:1 OR FLATTER.

9. ALL SLOPES DISTURBED EXCEEDING 4:1 SHALL BE HYDROSEEDED, SODDED OR PROTECTED BY EROSION CONTROL BLANKETS THAT WILL PREVENT EROSION AND PLACED SUCH THAT THE SURFACE IS FLUSH WITH SURROUNDING GROUND AND SHAPED TO CHANNEL WATER IN DIRECTIONS INDICATED. SEE GENERAL NOTES ON THIS SHEETS.

10. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH AND A MINIMUM OF FOUR INCHES OF TOPSOIL APPLIED. IF ADEQUATE TOPSOIL IS NOT AVAILABLE ON-SITE, THE CONTRACTOR SHALL PROVIDE TOPSOIL, APPROVED BY THE OWNER, AS NEEDED. THE AREA SHALL THEN BE SODDED OR SEEDED, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER PRIOR TO FINAL ACCEPTANCE OF THE PROJECT. REFER TO THE NOTES ON THIS SHEET FOR TEMPORARY SEEDING SPECIFICATIONS. REFER TO PROJECT SITE PLAN FOR FINAL STABILIZATION TREATMENTS.

11. CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS.

12. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT.

13. IT IS NOT THE DUTY OF THE ENGINEER OR THE OWNER TO REVIEW THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE AT ANY TIME DURING CONSTRUCTION.

14. IF ANY OF THESE NOTES CONFLICT WITH THE PROJECT GEOTECHNICAL REPORT (CFS PROJECT 20-1075) AND ALL ADDENDUMS PREPARED BY CFS ENGINEERS DATED JUNE 12, 2020, RECOMMENDATIONS IN GEOTECHNICAL REPORT SHALL GOVERN.

GENERAL NOTES:

1. PROJECT AREA IS APPROXIMATE LIMITS OF CONSTRUCTION.
2. THE CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE DRAWINGS PRIOR TO BEGINNING EARTHWORK OPERATIONS.
3. THE CONTRACTOR SHALL MAINTAIN ALL SILT CONTROL MEASURES DURING CONSTRUCTION.
4. ALL SILT SHALL REMAIN WITHIN THE CONSTRUCTION LIMITS. SURROUNDING PARKING LOTS AND PLAYGROUNDS SHALL BE KEPT CLEAR OF ALL MUD AND DEBRIS.
5. A SEDIMENTATION BARRIER IS TO BE INSTALLED AS SHOWN.
6. ACCUMULATED SEDIMENT SHALL BE REMOVED AND THE SEDIMENTATION BARRIERS MAINTAINED AS NEEDED TO PREVENT SEDIMENTATION BYPASS OF THE BARRIER.
7. SLOPES ARE TO BE LEFT IN A ROUGH CONDITION DURING GRADING.
8. CURB INLET SEDIMENTATION BARRIERS ARE TO BE INSTALLED AROUND INLETS WHERE SEDIMENTATION IS A CONCERN. INLET BARRIERS SHALL BE FILTER BAGS.
9. SEDIMENT IS TO BE REMOVED FROM STORM WATER DRAINAGE SYSTEMS.
10. CONTRACTOR IS RESPONSIBLE FOR INSTALLING ANY ADDITIONAL EROSION CONTROL AS HE/SHE DEEMS NECESSARY.
11. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, TOOLS, EQUIPMENT AND LABOR AS NECESSARY TO INSTALL AND MAINTAIN ADEQUATE EROSION AND SILTATION CONTROLS REQUIRED TO PREVENT SOIL EROSION FROM LEAVING THE PROJECT SITE. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO ENSURE THAT METHODS UTILIZED ARE ADEQUATE AND COMPLY WITH REQUIREMENTS OF THE SPECIFICATIONS AND GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK.
12. TEMPORARY SEDIMENT FENCE/STRAW WATTLES TO REMAIN UNTIL ADEQUATE VEGETATION IS ESTABLISHED.
13. MUD AND DEBRIS SHALL BE CLEANED UP AT THE CONCLUSION OF EACH WORKING DAY, OR AFTER EACH RAINFALL IF SILT IS PRESENT.
14. INSPECTION, MAINTENANCE AND REPAIR OF EROSION CONTROL DEVICES SHALL BE ON GOING THROUGHOUT THE LIFE OF BUILDING CONSTRUCTION TO KEEP THE DEVICES IN OPERABLE CONDITION AT ALL TIMES. ADDITIONAL MEASURES SHALL BE INSTALLED AS REQUIRED BY ACTUAL FIELD CONDITIONS AND/OR GOVERNING INSPECTION AGENCIES.
15. INSTALL CONSTRUCTION ENTRANCE AS NOTED.
16. AT COMPLETION OF SITE GRADING AND OTHER RELATED CONSTRUCTION ACTIVITIES, ALL DISTURBED AREAS WITHIN THE PROJECT SITE SHALL BE SEEDED, SODDED, OR LANDSCAPED AS SHOWN ON THE SITE. IF GRADING ACTIVITIES CEASE ON AN AREA OF THE SITE DISTURBED SLOPES SHALL BE TEMPORARILY SEEDED IN ACCORDANCE WITH PLANS.
17. TOPSOIL IS TO BE PLACED IN AREAS UNSUITABLE FOR VEGETATIVE GROWTH.
18. STRIP TOPSOIL PRIOR TO EXCAVATION, STOCKPILE AND SPREAD ONTO DISKED SUBGRADE (4" MIN) A THICKNESS OF 4 INCHES.
19. THE CONTRACTOR SHALL HAVE THE RESPONSIBILITY FOR RESOLVING COMPLAINTS IN THE EVENT THAT COMPLAINTS OR DAMAGE CLAIMS ARE FILED DUE TO DAMAGES OCCURRING ADJACENT TO OR DOWNSTREAM FROM PROPERTY BY SEDIMENT RESULTING FROM EROSION ON THE PROJECT SITE.
20. GOOD HOUSEKEEPING PRACTICES SHALL BE MAINTAINED ON SITE TO KEEP SOLID WASTE FROM ENTRY INTO WATERS.
21. ALL FUELING FACILITIES PRESENT ON SITE SHALL ADHERE TO APPLICABLE FEDERAL AND STATE REQUIREMENTS CONCERNING UNDERGROUND STORAGE, ABOVE GROUND STORAGE AND DISPENSERS, INCLUDING SPILL PREVENTION, CONTROL, AND COUNTER MEASURES.
22. EROSION CONTROL IS TO BE PLACED IN PHASING AS CONSTRUCTION PROGRESSES.
23. MINIMAL WASHING OF CONCRETE EQUIPMENT ALLOWED, CHUTE ETC. CONCRETE WASHOUT OF THE DRUM IS NOT ALLOWED. ANY PIT/WASHOUT AREA NEEDS TO BE MAINTAINED IN A NON-DISCHARGING MANNER AND ANY WASTE RESIDUE WILL NEED TO BE CLEANED OUT AND REMOVED AT THE END OF PROJECT.
24. EROSION CONTROL SEMENT FENCE OR STRAW WATTLE SHALL BE INSTALLED 1'-0" BEHIND CURB & GUTTER OR SIDEWALK UPON COMPLETION OF BACKFILL OF CURB IN ALL AREAS WHERE SLOPES FROM DISTURBED AREAS DRAIN TOWARDS CURB OR SIDEWALK. UPON COMPLETION OF FINAL GRADING THE TOES OF ALL EMBANKMENTS IN EXCESS OF TWO FEET IN HEIGHT WILL HAVE EROSION CONTROL SEDIMENT FENCE INSTALLED.

EROSION AND SEDIMENT CONTROL INSPECTION PROCEDURES

THE FOLLOWING PROCEDURES WILL BE USED TO MAINTAIN EROSION AND SEDIMENTATION CONTROLS.

1. ALL CONTROL MEASURES WILL BE INSPECTED AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL EVENT PRODUCING RUNOFF AND DAILY DURING PROLONGED RAINFALL PERIODS.
2. ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER. IF A REPAIR IS NECESSARY, IT WILL BE MADE WITHIN 24 HOURS OF THE INSPECTION.
3. SEDIMENT WILL BE REMOVED FROM THE SILT BARRIERS WHEN IT HAS REACHED ONE-THIRD OF THE HEIGHT OF THE BARRIER.
4. SILT BARRIERS WILL BE INSPECTED FOR DEPTH OF ACCUMULATED SEDIMENT, TEARS, ATTACHMENT TO POSTS, AND STABILITY ON A WEEKLY BASIS.
5. TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.
6. THE CONSTRUCTION MANAGER WILL SELECT INDIVIDUALS TO BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE, REPAIRS, AND REPORTING. THE DESIGNATED INDIVIDUALS WILL RECEIVE THE NECESSARY TRAINING FROM THE CONSTRUCTION MANAGER TO PROPERLY INSPECT AND MAINTAIN THE CONTROLS IN GOOD WORKING ORDER.

UNDERGROUND UTILITY STATEMENT:

THE UNDERGROUND UTILITIES SHOWN HEREON ARE DEPICTED FROM FIELD SURVEY INFORMATION OF ONE-CALL LOCATED UTILITIES AND/OR THE SCALING AND PLOTTING OF EXISTING UTILITY MAPS AND DRAWINGS MADE AVAILABLE TO THE SURVEYOR AT THE TIME OF SURVEY. THE SURVEYOR DOES NOT CERTIFY THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL UNDERGROUND UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHERMORE, THE SURVEYOR DOES NOT CERTIFY THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION DEPICTED ALTHOUGH HE DOES CERTIFY THAT THEY ARE DEPICTED AS ACCURATELY AS POSSIBLE FROM INFORMATION MADE AVAILABLE TO THE SURVEYOR AT THE TIME OF SURVEY. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES SHOWN HEREON BY EXCAVATION UNLESS OTHERWISE NOTED ON THIS SURVEY.
MISSOURI ONE CALL TICKET NUMBER: #200431409, 200431440, 200431475, 200440745.

WARRANTY / DISCLAIMER

THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER KAW VALLEY ENGINEERING, INC NOR ITS PERSONNEL CAN OR DO WARRANTY THESE DESIGNS OR PLANS AS CONSTRUCTED, EXCEPT IN THE SPECIFIC CASES WHERE KAW VALLEY ENGINEERING PERSONNEL INSPECT AND CONTROL THE PHYSICAL CONSTRUCTION ON A CONTEMPORARY BASIS AT THE SITE.

CAUTION – NOTICE TO CONTRACTOR

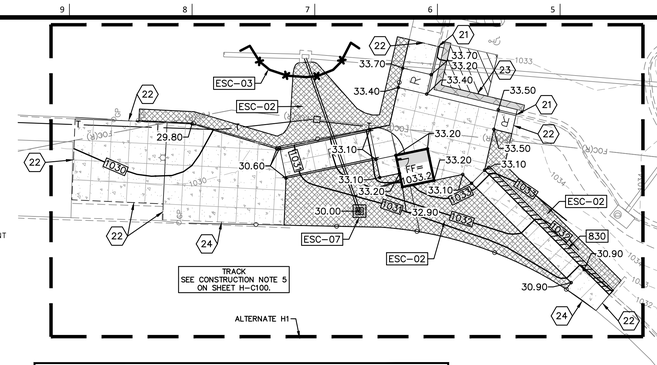
THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICTS PRIOR TO ANY CONSTRUCTION.

SAFETY NOTICE TO CONTRACTOR

IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

LEGEND:

	AIR CONDITIONER	DIP	DUCTILE IRON PIPE
	WALL MOUNTED ELECTRICAL OUTLET	HDPE	HIGH DENSITY POLYETHYLENE
—G—	UNDERGROUND GAS		WALL MOUNTED LIGHT
	GAS METER		WALL MOUNTED CAMERA
	CONTROL POINT		GAS VALVE
	BENCHMARK		GAS RISER
	GATE POST		GAS LINE SIGN
	CHAIN LINK FENCE		ENCROACHMENT IDENTIFIER
	WOOD FENCE		EXISTING SPOT ELEVATION
	BOLLARD	950	EXISTING GRADE 5' CONTOUR
	STREET/TRAFFIC SIGN	939	EXISTING GRADE 1' CONTOUR
	PAINTED DIRECTIONAL ARROW	DE	DOOR ELEVATION AT THRESHOLD
	TURN LANE DIRECTION		
	HANDICAP SYMBOL	FF	FINISH FLOOR ELEVATION
	PARKING STALL COUNT	BHE	BUILDING HEIGHT/ELEVATION
	HANDICAP SIGN	B/B	BACK TO BACK OF CURB MEASUREMENT
HRMP	HANDICAP RAMP	E/E	EDGE TO EDGE OF ASPHALT
	WHEEL STOP	—W—	WATER LINE
—FOC—	UNDERGROUND FIBER OPTIC CABLE		WATER METER
—FOC(R)—	UNDERGROUND FIBER OPTIC (FROM RECORDS)		WATER LINE GATE VALVE
	TELEPHONE PEDESTAL		FIRE HYDRANT
	SANITARY SEWER MANHOLE		SPRINKLER CONTROL BOX
	STORM SEWER MANHOLE		WATER MANHOLE
AI	AREA INLET	SV	SPRINKLER VALVE
CI	CURB INLET		SIAMESE FIRE CONNECTOR
CO	SANITARY SEWER CLEAN OUT		CANOPY SUPPORT
DS	DOWN SPOUT	MB	MAIL BOX
FD	FLOOR DRAIN		CONCRETE JOINT/CUT LINE
	FLARED END SECTION		BUSH
—S—	SANITARY SEWER LINE		DECIDUOUS TREE
—D—	STORM SEWER LINE	T/E	TRASH ENCLOSURE
CMP	CORRUGATED METAL PIPE	L/S	LANDSCAPING AREA
RCP	REINFORCED CONCRETE PIPE	CONC	CONCRETE
VCP	VITRIFIED CLAY PIPE	LW	LOWEST WIRE HEIGHT
—E—	UNDERGROUND ELECTRIC	BB	BREAKER BOX
—(X)—	OVERHEAD UTILITY LINE (# OF LINES)	—G(R)—	UNDERGROUND GAS PER RECORD
P	PULL BOX	—S(R)—	SANITARY SEWER LINE PER RECORD
	LIGHT POLE	—D(R)—	STORM SEWER LINE PER RECORD
	UTILITY POLE		OVERLAY
	UTILITY POLE W/ LIGHT		GRAVEL SURFACE (ESC-01)
	UTILITY POLE W/ TRANSFORMER		CONCRETE SIDEWALK (055)
	GUY ANCHOR		
—W(R)—	WATER LINE PER RECORD		CONCRETE CURB AND GUTTER
—E(R)—	UNDERGROUND ELECTRIC PER RECORD		CONCRETE CURB AND GUTTER WITH REVERSE FLOW
	CONIFEROUS TREE		
	TREE LINE	L	LANDING
FP	FLAG POLE	R	RAMP
E	ELECTRIC METER	T	TRANSITION
	UNDERGROUND ELECTRIC PEDESTAL		
	SPEAKER BOX		



NOTE:
1. **CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRANCE, SLOPED PAVING, EXIT PORCHES, RAMPS. PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.**
2. **THESE PLANS HAVE NOT BEEN VERIFIED WITH FINAL ARCHITECTURAL CONTRACT DRAWINGS. CONTRACTOR SHALL VERIFY AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES. CONTRACTOR IS FULLY RESPONSIBLE FOR REVIEW AND COORDINATION OF ALL DRAWINGS AND CONTRACTOR DOCUMENTS.**
3. **ALL DIMENSIONS ARE TO BACK OF CURB UNLESS NOTED OTHERWISE.**

EROSION & PROPOSED IMPROVEMENTS LEGEND:

1218	EXISTING GROUND CONTOUR (1' INTERVALS)
1218	PROPOSED FINISHED GROUND CONTOUR (1' INTERVALS)
	SEDIMENTATION FENCE (ESC-03)
	LIMITS OF DISTURBANCE
	INLET PROTECTION (42)
	STRAW WATTLE
CW	CONCRETE WASH AREA
	EROSION CONTROL BLANKET/ TURF REINFORCEMENT MAT (ESC-02)

LEGEND (PROPOSED)

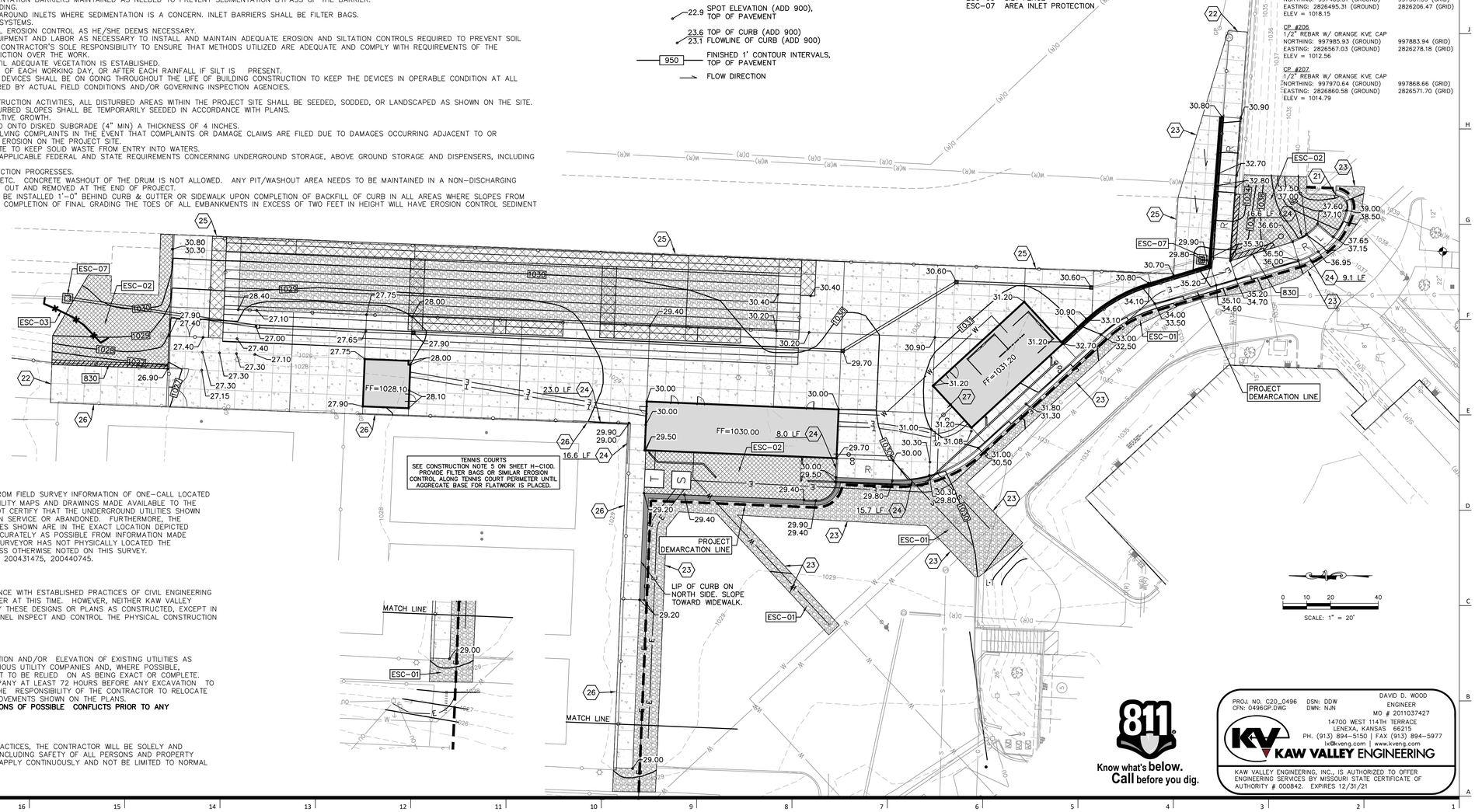
22.9	SPOT ELEVATION (ADD 900), TOP OF PAVEMENT
23.6 / 23.1	TOP OF CURB (ADD 900) / FLOWLINE OF CURB (ADD 900)
950	FINISHED 1' CONTOUR INTERVALS, TOP OF PAVEMENT
	FLOW DIRECTION

NOTES:

21 MATCH EXISTING CURB ELEVATION.
22 MATCH EXISTING SIDEWALK ELEVATION.
23 MATCH EXISTING PAVEMENT ELEVATION.
24 TRANSITION FROM ZERO HEIGHT CURB TO FULL HEIGHT CURB.
25 MATCH EXISTING TRACK CURB ELEVATION.
26 MATCH EXISTING TENNIS COURT ELEVATION
27 2% SLOPE IN ALL DIRECTIONS TO BE PROVIDED WITHIN 10' OF TICKET WINDOW.

DETAILS – SEE DETAIL SHEET NO. H-C195

830	STRAW WATTLES
ESC-01	CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT
ESC-02	EROSION CONTROL BLANKETS AND TURF REINFORCEMENT MAT
ESC-03	SILT FENCE
ESC-07	AREA INLET PROTECTION



SITE BENCHMARKS:

BM-60
FOUND CUT SQUARE AT THE WEST NORTHWEST CONCRETE HEADWALL ON THE WEST SIDE OF THE EAST ENTRY DRIVE TO LEE'S SUMMIT HIGH SCHOOL
ELEVATION= 1042.70

BM-61
SET CUT SQUARE WITH PUNCH IN THE SOUTHWEST EDGE ON A CONCRETE LIGHT BASE ON THE NORTH SIDE OF THE DRIVE LANE AT THE HIGH SCHOOL ADMINISTRATION CENTER ENTRY.
ELEVATION= 1042.74

BM-62
SET CUT SQUARE AT THE NORTHEAST CORNER OF THE FIRST STEP UP OF A CONCRETE WALK ON THE NORTH SIDE OF THE EAST MAIN WING.
ELEVATION= 1040.51

BM-63
SET CUT SQUARE AT THE TOP NORTHEAST CORNER OF A CONCRETE PATIO WITH COVERED TABLES ON THE EAST SIDE OF BUILDING "B".
ELEVATION= 1015.74

BM-64
SET CUT SQUARE AT THE TOP NORTHEAST CORNER OF STEPS TO THE NORTH ENTRY TO BUILDING "B" ON THE WEST SIDE.
ELEVATION= 1015.34

HORIZONTAL AND VERTICAL DATUM:

UNLESS OTHERWISE NOTED THE COORDINATES SHOWN HEREON ARE GROUND COORDINATES BASED ON THE MISSOURI STATE PLANE (1983) WEST ZONE (NAD 1983) (NAVD 1988)
CAF: 0.9998978
SCALED AROUND 0,0

JA-25 (PID: 095025)

NORTHING:	303646.030 (GRID/METERS)	996313.829 (GROUND/FEET)
EASTING:	860950.475 (GRID/METERS)	2824923.692 (GROUND/FEET)
ELEVATION:	321.8 (METERS)	1055.77 (FEET)

PROJECT CONTROL:

CP #200
1/2" REBAR W/ ORANGE KVE CAP
NORTHING: 996572.06 (GROUND) 996470.24 (GRID)
EASTING: 2827438.76 (GROUND) 2827149.83 (GRID)
ELEV = 1049.49

CP #201
1/2" REBAR W/ ORANGE KVE CAP
NORTHING: 996570.39 (GROUND) 996468.55 (GRID)
EASTING: 2827055.45 (GROUND) 2826766.55 (GRID)
ELEV = 1048.24

CP #202
1/2" REBAR W/ ORANGE KVE CAP
NORTHING: 996569.25 (GROUND) 996467.41 (GRID)
EASTING: 2826689.97 (GROUND) 2826401.11 (GRID)
ELEV = 1042.52

CP #203
MAG NAIL
NORTHING: 996957.62 (GROUND) 996855.74 (GRID)
EASTING: 2826712.48 (GROUND) 2826423.62 (GRID)
ELEV = 1039.43

CP #204
1/2" REBAR W/ ORANGE KVE CAP
NORTHING: 997397.36 (GROUND) 997295.43 (GRID)
EASTING: 2826684.55 (GROUND) 2826395.70 (GRID)
ELEV = 1023.04

CP #205
1/2" REBAR W/ ORANGE KVE CAP
NORTHING: 997403.51 (GROUND) 997301.59 (GRID)
EASTING: 2826495.31 (GROUND) 2826206.47 (GRID)
ELEV = 1018.15

CP #206
1/2" REBAR W/ ORANGE KVE CAP
NORTHING: 997985.93 (GROUND) 997883.94 (GRID)
EASTING: 2826567.03 (GROUND) 2826278.18 (GRID)
ELEV = 1012.56

CP #207
1/2" REBAR W/ ORANGE KVE CAP
NORTHING: 997970.64 (GROUND) 997868.66 (GRID)
EASTING: 2826860.58 (GROUND) 2826571.70 (GRID)
ELEV = 1014.79

Know what's below. Call before you dig.

PROJ. NO. C20_0496 DSN: DDW DAVID D. WOOD
CFN: 0496GP.DWG DWN: NJN ENGINEER
MO # 2011037427
14700 WEST 114TH TERRACE
LENEXA, KANSAS 66215
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kv@kveng.com | www.kveng.com
KAW VALLEY ENGINEERING
KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/21

PRINT DATE/TIME: 3/17/2020 4:49:21 PM

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Lee's Summit R7 District Athletics Facilities

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816.663.8700

UNLESS A PROFESSIONAL SEAL WITH SIGNATURE AND DATE IS AFFIXED, THIS DOCUMENT IS PRELIMINARY AND IS NOT INTENDED FOR CONSTRUCTION, RECORDING PURPOSES OR IMPLEMENTATION

STATE OF MISSOURI — DAVID D. WOOD — NUMBER PE-2011037427 — PROFESSIONAL ENGINEER — 7/28/2020

Kaw Valley Engineering, Inc.
Missouri Certificate of Authority: 000842
David Wood Date: 09/28/2020
Engineer License No. PE-2011037427

REVISIONS

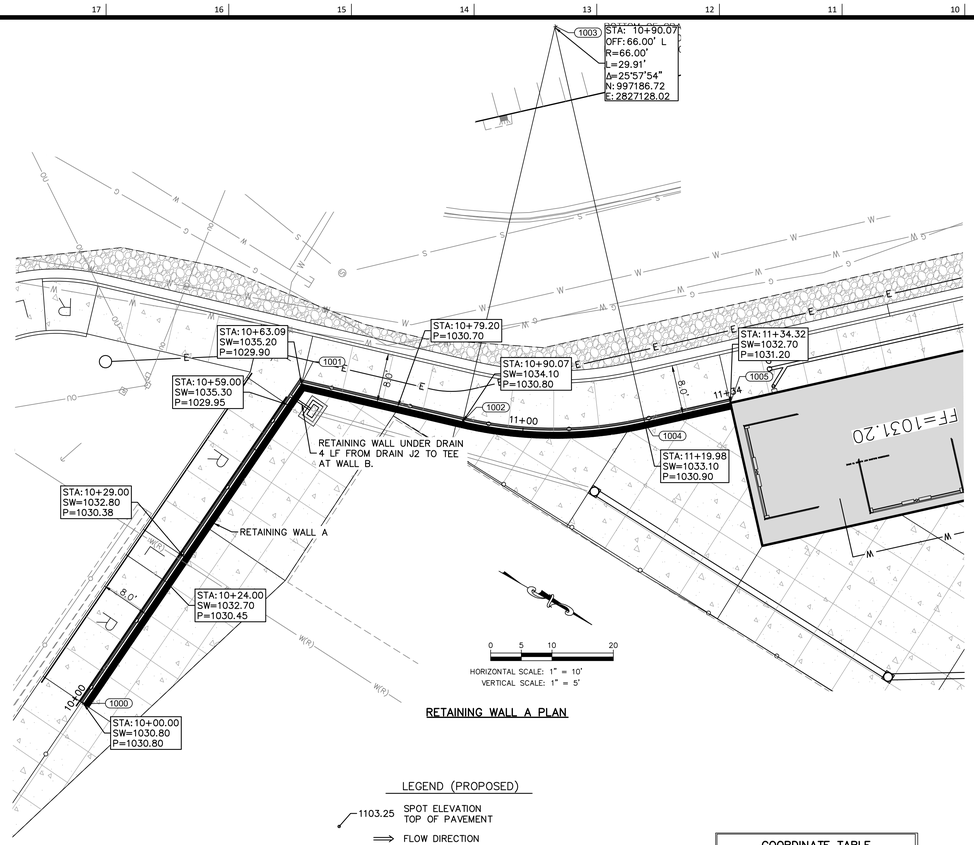
Number	DESCRIPTION	DATE

PROJECT NO: 0119-0100
DATE: SEPTEMBER 28, 2020

GRADING AND EROSION CONTROL PLAN

H-C300

BID SET



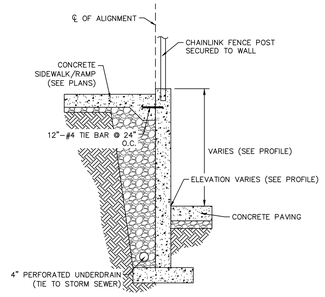
RETAINING WALL A PLAN

LEGEND (PROPOSED)

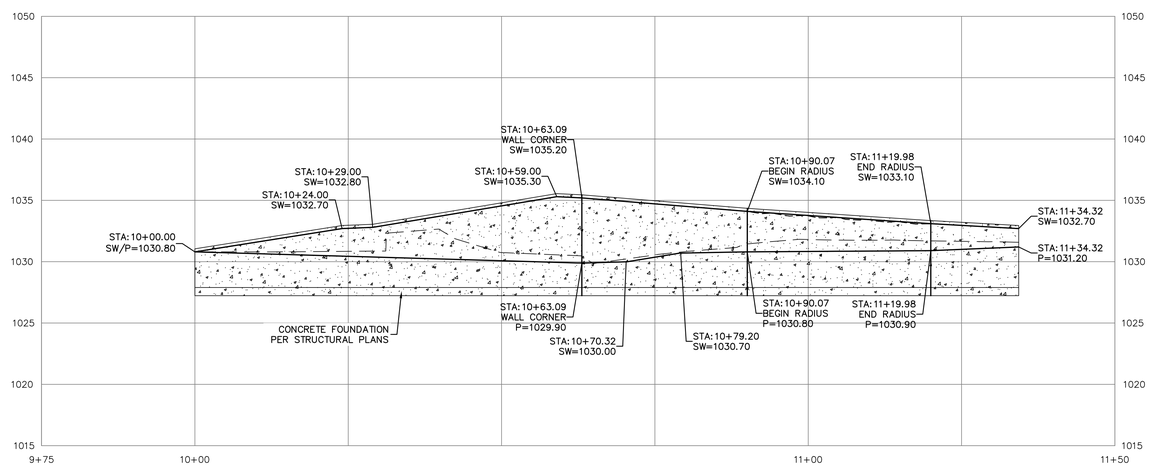
- 1103.25 — SPOT ELEVATION TOP OF PAVEMENT
- ⟹ FLOW DIRECTION
- 1104 — FINISHED 1' CONTOUR INTERVALS
- FW — FACE OF WALL GROUND ELEVATION
- MS — MOW STRIP ELEVATION AT TOP OF WALL
- SW — SIDEWALK ELEVATION
- TC — TOP OF CURB ELEVATION
- P — PAVEMENT ELEVATION
- HP — HIGH POINT

COORDINATE TABLE

◇	NORTHING	EASTING	DESCRIPTION
1000	997175.34	2827261.92	WALL A
1001	997180.01	2827199.01	WALL A
1002	997205.84	2827191.19	WALL A
1003	997186.72	2827127.81	WALL B
1004	997231.57	2827176.44	WALL B
1005	997242.10	2827166.72	WALL B



TYPICAL WALL SECTION
SEE STRUCTURAL PLANS



RETAINING WALL A PROFILE

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Lee's Summit R7 District
Athletics Facilities

Lee's Summit High School
400 SE Blue Parkway
Lee's Summit, MO 64063

owner:
Lee's Summit R-7 School District
301 NE Tudor Road
Lee's Summit, MO 64086

architect:
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Kansas City, MO 64111
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Bob D. Campbell & Company, Inc.
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STATE OF MISSOURI — DAVID D. WOOD — NUMBER PE-2011037427 — PROFESSIONAL ENGINEER

Kaw Valley Engineering, Inc.
Missouri Certificate of Authority: 000842
David Wood — Date: 09/28/2020
Engineer — License No. PE-2011037427

REVISIONS

Number	DESCRIPTION	DATE

PROJ. NO. C20_0496 DSN: DDW
CFN: 0496WALL.DWG DWN: NJN

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KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/21

PROJECT NO: 0119-0100
DATE: SEPTEMBER 28, 2020

RETAINING WALL PLAN AND PROFILE

H-C350

BID SET

WATER LINE MATERIALS AND CONSTRUCTION NOTES:

1. ALL WORK SHALL BE IN ACCORDANCE WITH SECTION 3900 WATER MAINS OF THE CITY OF LEE'S SUMMIT, MISSOURI STANDARD SPECIFICATIONS, CURRENT EDITION.
2. CONTRACTOR SHALL NOT OPEN, TURN OFF, INTERFERE WITH, OR ATTACH ANY PIPE OR HOSE TO OR TAP ANY WATER MAIN BELONGING TO CITY OF LEE'S SUMMIT UTILITIES DEPARTMENT UNLESS DULY AUTHORIZED TO DO SO BY THE WATER DISTRICT. ANY ADVERSE CONSEQUENCE OF ANY SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE TO BE THE LIABILITY OF THE CONTRACTOR. KAW VALLEY ENGINEERING AND OWNER ARE TO BE HELD HARMLESS. CONTRACTOR SHALL PROVIDE A MINIMUM OF 48 HOURS NOTICE TO THE CITY OF LEE'S SUMMIT WATER UTILITIES OPERATIONS DEPARTMENT PRIOR TO STARTING ANY WORK.
3. THE UTILITIES AS SHOWN ON THESE DRAWINGS WERE DEVELOPED FROM THE BEST INFORMATION AVAILABLE, IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL UTILITIES (WHETHER SHOWN OR NOT) AND PROTECT SAID UTILITIES FROM ANY DAMAGE. CONTRACTOR SHALL POTHOLE AND EXPOSE ALL UTILITIES AT LEAST 500 FEET IN ADVANCE OF WATER MAIN CONSTRUCTION, DETERMINING THE DEPTH, SIZE, AND MATERIAL OF THE UTILITIES IN PROXIMITY TO THE PROPOSED WATER MAIN ALIGNMENT. DEFLECT PIPE TO MAINTAIN MINIMUM 5 FEET HORIZONTAL AND 18 INCH VERTICAL CLEARANCES BETWEEN PROPOSED WATER MAIN AND EXISTING UTILITIES. SEPARATION WITH NON-POTABLE LINES REQUIRES 18 INCH VERTICAL CLEARANCE, SEE CONST. NOTE 8.
4. THE CONTRACTOR SHALL FURNISH AND INSTALL, AT NO EXTRA COST, ALL FITTINGS AND RESTRAINING DEVICES REQUIRED TO PROVIDE PROPER HORIZONTAL AND VERTICAL ALIGNMENT FOR THE NEW WATER SERVICE, CONNECTING TO EXISTING WATER MAIN, AND INSTALLATION OF FIRE HYDRANTS AT THE PROPER LOCATION AND ELEVATION, WHETHER OR NOT THE FITTINGS ARE CALLED OUT ON THESE PLANS.
5. THE CONTRACTOR SHALL FURNISH AND INSTALL, AT NO EXTRA COST, ALL TEMPORARY BLOW-OFF ASSEMBLIES, FITTINGS, AND RESTRAINING DEVICES NECESSARY FOR TEMPORARY CONNECTIONS FOR PRESSURE TESTING, CHLORINATING, DE-CHLORINATING, AND FLUSHING THE NEW WATER MAINS AND SERVICE LINES. THE CONTRACTOR SHALL REMOVE ANY CORPORATION COCKS USED FOR TESTING OR CHLORINATION AND REPLACE THEM WITH TAPERED BRASS PLUGS PRIOR TO PLACING NEW MAINS IN SERVICE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING REQUIRED PERMITS, PAYING ALL FEES AND FOR OTHERWISE COMPLYING WITH ALL APPLICABLE REGULATIONS GOVERNING THE WORK.
7. ALL DISTURBED AREAS SHALL BE SEEDED OR STABILIZED AS NOTED ON PLANS.
8. WHEN WATER MAINS AND SANITARY SEWERS CROSS, A MINIMUM OF 18 INCHES OF CLEARANCE SHALL BE MAINTAINED BETWEEN THE BOTTOM OF THE WATER MAIN AND THE TOP OF SANITARY SEWER. WHEN 18 INCHES OF CLEARANCE CANNOT BE MAINTAINED OR WHEN A WATER MAIN MUST CROSS UNDER A SANITARY SEWER, THE SANITARY SEWER SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE, PVC PRESSURE PIPE OR PRE-STRESSED CONCRETE CYLINDER PIPE FOR A DISTANCE OF 10.0 FEET ON EACH SIDE OF THE CROSSING. WHEN A WATER MAIN IS CONSTRUCTED PARALLEL TO A SANITARY SEWER, THE HORIZONTAL SEPARATION SHALL BE 10.0 FEET MEASURED FROM THE OUTSIDE OF THE PIPE OR STRUCTURE. IF A VERTICAL SEPARATION OF 18 INCHES CANNOT BE MAINTAINED AND IF THE WATER MAIN IS CONSTRUCTED CLOSER THAN 10.0 FEET TO THE SANITARY SEWER, THE SANITARY SEWER SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE, PVC PRESSURE PIPE OR PRE-STRESSED CONCRETE CYLINDER PIPE, AND SHALL BE PRESSURE TESTED FOR WATER TIGHTNESS.
9. CONTRACTOR SHALL FIELD CHECK ALL DIMENSIONS, COORDINATES AND ELEVATIONS BEFORE PROCEEDING WITH NEW WORK AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES IMMEDIATELY. NO NEW CONSTRUCTION SHOULD BE PERFORMED BY "SCALING" FROM THE PLANS.
10. ALL EXCAVATION AND BACKFILL SHALL MEET OR EXCEED THE PROJECT SPECIFICATION. ALL TRENCHES SHALL BE BACKFILLED IN UNIFORM LIFTS NOT TO EXCEED 8 INCHES IN LOOSE MEASUREMENT. EACH LIFT SHALL BE COMPACTED TO THE REQUIRED DENSITY PRIOR TO THE NEXT LIFT BEING PLACED. THE BACKFILL MATERIAL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY WITH A MOISTURE CONTENT OF WITHIN A RANGE OF OPTIMUM TO BE 4 PERCENT ABOVE OPTIMUM MOISTURE CONTENT FOR SOILS WITH A LIQUID LIMIT OF GREATER THAN 40 AND +/-3% OF OPTIMUM FOR SOILS WITH A LIQUID LIMIT LESS THAN 40 AS DEFINED BY THE STANDARD PROCTOR (ASTM-D698) UNDER AREAS TO BE PAVED. THE BACKFILL MATERIAL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY AT OPTIMUM MOISTURE, PLUS 4%, IN AREAS NOT TO BE DEVELOPED. COMPACTION TESTS SHALL BE TAKEN AT EACH PAVEMENT CROSSING AND AT LOCATIONS DESIGNATED BY THE ENGINEER. ALL TRENCH BACKFILL WHICH DOES NOT MEET THE REQUIRED DENSITY, SHALL BE RE-EXCAVATED AND RE-COMPACTED UNTIL THE REQUIRED DENSITY IS OBTAINED. COPIES OF ALL COMPACTION TEST REPORTS SHALL BE PROVIDED TO THE ENGINEER.
11. NO ROCK LARGER THAN FOUR INCHES MAXIMUM DIMENSION SHALL BE PLACED WITHIN TWO FEET OF THE TOP OF THE PIPE. NO ROCK GREATER THAN ONE FOOT SHALL BE PLACED IN ANY EXCAVATION AS A BACKFILL.
12. LOCATIONS SHOWN FOR PROPOSED WATER LINES ARE APPROXIMATE. VARIATIONS MAY BE MADE, WITH APPROVAL OF THE ENGINEER TO AVOID CONFLICTS.
13. TAPS 1-1/2" AND LARGER AT EXISTING MAIN WILL BE RESPONSIBILITY OF THE CONTRACTOR. WORK WILL BE COORDINATED WITH THE WATER DISTRICT.
14. ALL DUCTILE IRON PIPE AND FITTINGS SHALL COMPLY WITH SECTIONS 3901 B & C OF THE CITY OF LEE'S SUMMIT, MISSOURI STANDARDS SPECIFICATIONS SUBJECT TO THE CITY'S CURRENTLY ADOPTED FIRE CODE. THICKNESS SHALL BE SPECIAL THICKNESS CLASS 50.
15. ALL POLYVINYL CHLORIDE PIPE AND FITTINGS SHALL COMPLY WITH SECTION 3901.B & D OF THE CITY OF LEE'S SUMMIT, MISSOURI STANDARDS SPECIFICATIONS SUBJECT TO RESTRICTION OF THE CITY'S CURRENTLY ADOPTED FIRE CODE. THE MINIMUM PRESSURE CLASS SHALL BE CLASS 235.
16. SERVICE LINES 2 INCHES IN DIAMETER AND SMALLER SHALL BE MADE OF TYPE K SOFT COPPER, COMPLYING WITH ASTM B88.
17. ALL VALVES AND OTHER MATERIALS SHALL CONFORM TO SECTIONS 3901 E THRU S. REFER TO THE CITY'S APPROVED MATERIALS LIST.
18. CONSTRUCTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 3902 OF THE CITY OF LEE'S SUMMIT, MISSOURI STANDARD SPECIFICATIONS.
19. WATER LINES SHALL HAVE A MINIMUM COVER OF 42". DEEPER EXCAVATIONS FOR CLEARANCE AT EXISTING PROPOSED UTILITIES IS ACCEPTABLE. REFERENCE CONST. NOTES 3 AND 8. FOR WATER MAINS CONSTRUCTED UNDER DRIVES OR PARKING AREAS THE DRIVES OR PARKING AREAS ARE TO BE TO SUBGRADE PRIOR TO WATER MAIN CONSTRUCTION.
20. WHERE FIRE HYDRANTS ARE NOT LOCATED AT THE END OF LINES, THE CONTRACTOR SHALL FURNISH A FLUSHING DEVICE.
21. FIRE HYDRANTS SHALL BE INSTALLED SO THAT THE CENTERLINE OF THE OUTLET NOZZLE IS BETWEEN EIGHTEEN INCHES ABOVE FINISHED GRADE, AND SO THAT THERE IS A MINIMUM CLEAR AREA OF 5' IN EACH DIRECTION TO ALLOW OPERATION OF THE HYDRANT. ALL FIRE HYDRANTS ARE TO BE SET WITH THE BASE 2" TO 6" ABOVE THE TOP OF CURB OR GRADE, AS RECOMMENDED BY THE HYDRANT'S MANUFACTURER. HYDRANTS SHALL BE PAINTED AS NOTE IN SECTION 3901 Q.9.
22. ALL TREES SHALL BE SPARED UNLESS MARKED. REFERENCE PROJECT LAND DISTURBANCE PLANS.
23. THRUST BLOCKS OR APPROVED JOINT RESTRAINTS SHALL BE PROVIDED AT TEES, BENDS, AND HYDRANT ASSEMBLIES.
24. CONSTRUCTION INSPECTION WILL BE PROVIDED BY OWNER.
25. CONTRACTOR SHALL INSTALL PIPE, BENDS AND FITTINGS A NECESSARY TO MAKE A COMPLETE OPERATIONAL SYSTEM. LINE IS TO BE AS-BUILT. CONTRACTOR SHALL MAINTAIN "AS CONSTRUCTED DRAWINGS" TO BE SUPPLIED TO LEE'S SUMMIT SCHOOL DISTRICT NOTING VALVE AND FITTING LOCATIONS AT THE END PROJECT.
26. THE ABANDONMENT OF ALL WATER MAINS SHALL BE IN ACCORDANCE WITH SECTION 3902 B.12 OF THE CITY OF LEE'S SUMMIT, MISSOURI STANDARD SPECIFICATIONS.
27. THE CONTRACTOR SHALL VERIFY THE OUTSIDE DIAMETER (O.D.) OF THE EXISTING WATER MAIN PRIOR TO SCHEDULING CONNECTION. PROVIDE SOLID SLEEVES AS REQUIRED.
28. THE CONTRACTOR SHALL FLUSH, DISINFECT AND COMPLETE HYDROSTATIC AND LEAKAGE TESTS ON WATER MAINS IN ACCORDANCE WITH SECTIONS 3902 C & D OF THE CITY OF LEE'S SUMMIT, MISSOURI STANDARD SPECIFICATIONS.

UTILITY NOTES:

1. EXCAVATION, TRENCHING AND BACKFILL SHALL BE COMPLETED IN ACCORDANCE WITH SECTION 2100 GRADING AND SITE PREPARATION OF THE KANSAS CITY METROPOLITAN CHAPTER OF APWA SPECIFICATIONS AS ADOPTED AND AMENDED BY THE CITY OF LEE'S SUMMIT.
2. ALL BACKFILL SHALL BE TAMPED. BACKFILL WITHIN THE RIGHT-OF-WAY AND UNDER PARKING AREAS AND SLABS SHALL BE 95% COMPACTION OF OPTIMUM MOISTURE.
3. CONTRACTOR SHALL NOT OPEN, TURN OFF, INTERFERE WITH, OR ATTACH ANY PIPE OR HOSE TO OR TAP ANY WATER MAIN BELONGING TO THE CITY OF LEE'S SUMMIT UTILITIES DEPARTMENT UNLESS DULY AUTHORIZED TO DO SO. ANY ADVERSE CONSEQUENCE OF ANY SCHEDULED OR UNSCHEDULED DISRUPTIONS OF SERVICE TO THE PUBLIC ARE TO BE THE LIABILITY OF THE CONTRACTOR. **KAW VALLEY ENGINEERING AND OWNER ARE TO BE HELD HARMLESS.** CONTRACTOR SHALL NOTIFY THE UTILITIES DEPARTMENT 48 HOURS MINIMUM.
4. CONTRACTOR TO INSTALL TRACING TAPE ALONG ALL NON-METALLIC SERVICE LINES PER SPECIFICATIONS.
5. CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF NEW UTILITIES.
6. A MINIMUM HORIZONTAL DISTANCE SHALL BE MAINTAINED BETWEEN PARALLEL WATER AND SANITARY SEWER LINES. REFERENCE LEE'S SUMMIT SPECIFICATIONS. SECTIONS 3500 AND 3900
7. CONTRACTOR TO SCHEDULE ALL INSPECTIONS FOR SEWER MAIN CONNECTIONS THROUGH THE PUBLIC WORKS DEPARTMENT.

SANITARY SEWER MATERIALS AND CONSTRUCTION NOTES:

1. ALL WORK RELATED TO SANITARY SEWER SHALL BE COMPLETED IN ACCORDANCE WITH SECTION 3500 SANITARY SEWERS OF THE CITY OF LEE'S SUMMIT, MISSOURI STANDARD SPECIFICATIONS.
2. ALL PIPE USED FOR SANITARY SEWER SHALL BE PVC (SDR 26) OR DIP (CL 50) AS NOTED ON PLANS. MATERIAL SHALL CONFORM TO SECTION 3501 C & D OF THE CITY OF LEE'S SUMMIT, MISSOURI STANDARD SPECIFICATIONS.
3. ALL EXISTING UTILITIES INDICATED ON THE DRAWINGS ARE ACCORDING TO THE BEST INFORMATION AVAILABLE TO THE ENGINEER; HOWEVER, ALL UTILITIES ACTUALLY EXISTING MAY NOT BE SHOWN. UTILITIES DAMAGED THROUGH THE NEGLIGENCE OF THE CONTRACTOR TO OBTAIN THE LOCATION OF SAME SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT HIS EXPENSE.
4. ALL INSTALLATION SHALL BE COMPLETED IN ACCORDANCE WITH SECTION 3502 OF THE CITY OF LEE'S SUMMIT, MISSOURI STANDARD SPECIFICATIONS. REFER TO SECTION 3502.C FOR TESTING AND ACCEPTANCE REQUIREMENTS.
5. EXCAVATION, TRENCHING AND BACKFILL SHALL BE COMPLETED IN ACCORDANCE WITH SECTION 2100 GRADING AND SITE PREPARATION OF THE KANSAS CITY METROPOLITAN CHAPTER OF APWA SPECIFICATIONS AS ADOPTED AND AMENDED BY THE CITY OF LEE'S SUMMIT. ALL EXCAVATIONS SHALL BE CONSIDERED UNCLASSIFIED. REFER TO PROJECT GEOTECHNICAL REPORT.
6. ALL BACKFILL SHALL BE TAMPED. BACKFILL WITHIN THE RIGHT-OF-WAY AND UNDER PARKING AREAS AND SLABS SHALL BE 95% COMPACTION OF OPTIMUM MOISTURE.
7. ALL STUB LINES SHALL BE LAID ON 1.00% GRADE FOR 6" PIPE AND 2.00% GRADE FOR 4" PIPE, UNLESS NOTED OTHERWISE.
8. RELOCATION OF ANY WATER LINE, SEWER LINE OR SERVICE LINE THEREOF REQUIRED FOR THE CONSTRUCTION OF THIS PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE AT HIS EXPENSE. REFER TO PLANS FOR ADDITIONAL INFORMATION.

CAUTION – NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICTS PRIOR TO ANY CONSTRUCTION.

SAFETY NOTICE TO CONTRACTOR

IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

LEGEND:

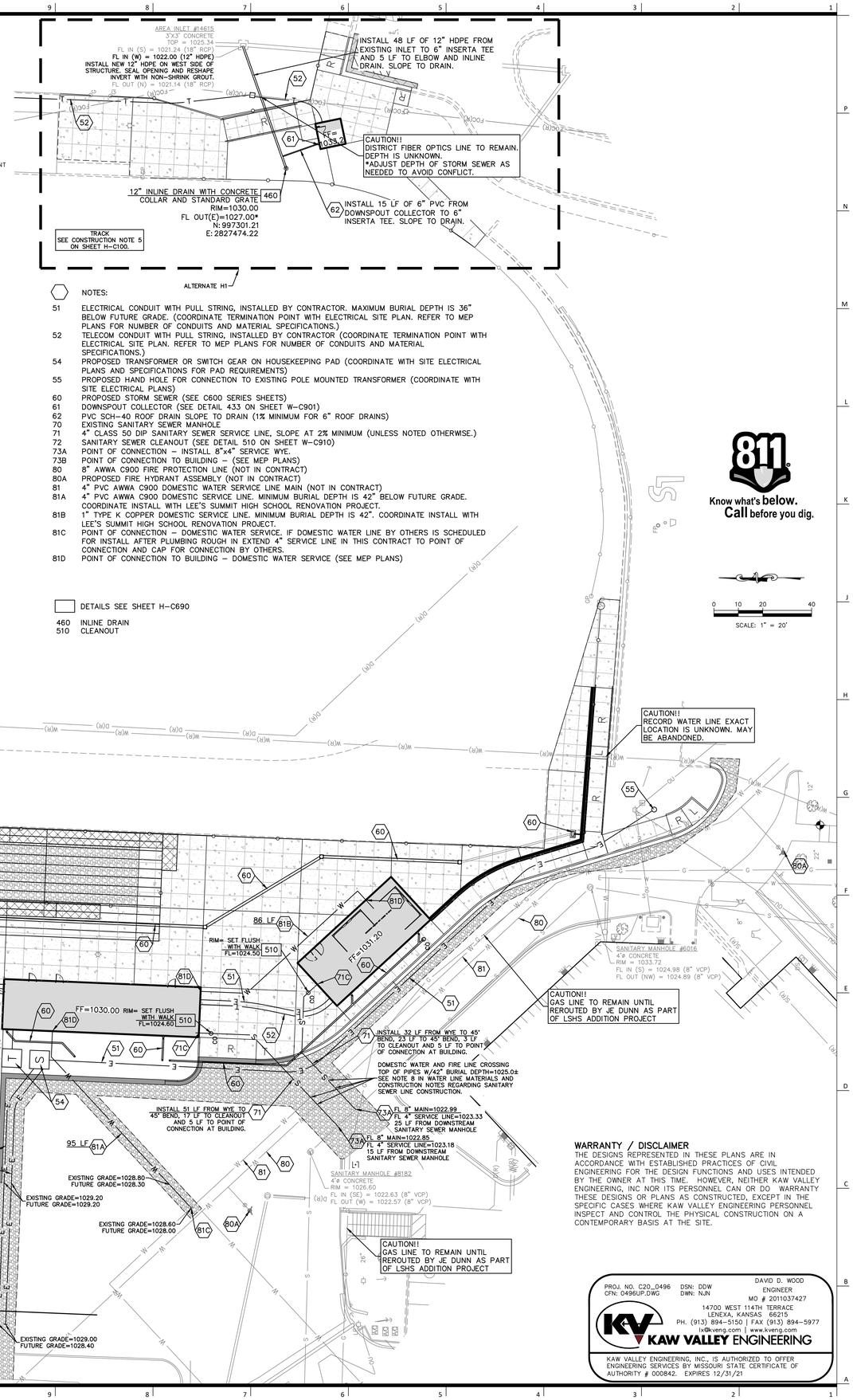
AIR CONDITIONER
WALL MOUNTED ELECTRICAL OUTLET
UNDERGROUND GAS
GAS METER
CONTROL POINT
BENCHMARK
GATE POST
CHAIN LINK FENCE
WOOD FENCE
BOLLARD
STREET/TRAFFIC SIGN
PAINTED DIRECTIONAL ARROW
TURN LANE DIRECTION
HANDICAP SYMBOL
PARKING STALL COUNT
HANDICAP SIGN
HANDICAP RAMP
WHEEL STOP
UNDERGROUND FIBER OPTIC CABLE
UNDERGROUND FIBER OPTIC (FROM RECORDS)
TELEPHONE PEDESTAL
SANITARY SEWER MANHOLE
STORM SEWER MANHOLE
AREA INLET
CURB INLET
SANITARY SEWER CLEAN OUT
DOWN SPOUT
FLOOR DRAIN
FLARED END SECTION
SANITARY SEWER LINE
STORM SEWER LINE
CORRUGATED METAL PIPE
REINFORCED CONCRETE PIPE
VITRIFIED CLAY PIPE
UNDERGROUND ELECTRIC
OVERHEAD UTILITY LINE (# OF LINES)
PULL BOX
LIGHT POLE
UTILITY POLE
UTILITY POLE W/ LIGHT
UTILITY POLE W/ TRANSFORMER
GUY ANCHOR
WATER LINE PER RECORD
UNDERGROUND ELECTRIC PER RECORD
CONIFEROUS TREE
TREE LINE
DUCTILE IRON PIPE
HIGH DENSITY POLYETHYLENE
WALL MOUNTED LIGHT
WALL MOUNTED CAMERA
GAS VALVE
GAS RISER
GAS LINE SIGN
DOOR ELEVATION AT THRESHOLD
FINISH FLOOR ELEVATION
BUILDING HEIGHT/ELEVATION
BACK TO BACK OF CURB MEASUREMENT
EDGE TO EDGE OF ASPHALT
WATER LINE
WATER METER
WATER LINE GATE VALVE
FIRE HYDRANT
SPRINKLER CONTROL BOX
WATER MANHOLE
SPRINKLER VALVE
SIAMESE FIRE CONNECTOR
CANOPY SUPPORT
MAIL BOX
CONCRETE JOINT/CUT LINE
BUSH
DECIDUOUS TREE
TRASH ENCLOSURE
LANDSCAPING AREA
LOWEST WIRE HEIGHT
FLAG POLE
ELECTRIC METER
UNDERGROUND ELECTRIC PEDESTAL
SPEAKER BOX
BREAKER BOX
UNDERGROUND GAS PER RECORD
SANITARY SEWER LINE PER RECORD
STORM SEWER LINE PER RECORD
OVERLAY
GRAVEL SURFACE (043)
CONCRETE SIDEWALK (055)
CONCRETE CURB AND GUTTER
CONCRETE CURB AND GUTTER WITH REVERSE FLOW

NOTE:
1. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRANCE, SLOPED PAVING, EXIT PORCHES, RAMPS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.

2. THESE PLANS HAVE NOT BEEN VERIFIED WITH FINAL ARCHITECTURAL CONTRACT DRAWINGS. CONTRACTOR SHALL VERIFY AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES. CONTRACTOR IS FULLY RESPONSIBLE FOR REVIEW AND COORDINATION OF ALL DRAWINGS AND CONTRACTOR DOCUMENTS.

NOTE:
1. REFER TO SHEETS H-E001 AND H-E002 FOR ADDITIONAL SITE ELECTRICAL AND TELECOM REQUIREMENTS FOR SITE LIGHTING AND SIGNAGE.

2. ALL WATER SERVICE INSTALLATIONS INCLUDING BACKFLOW DEVICES ARE SUBJECT TO FIELD VERIFICATION AND APPROVAL BY THE WATER DEPARTMENT INSPECTOR.



NOTES:

51 ELECTRICAL CONDUIT WITH PULL STRING, INSTALLED BY CONTRACTOR. MAXIMUM BURIAL DEPTH IS 36" BELOW FUTURE GRADE. (COORDINATE TERMINATION POINT WITH ELECTRICAL SITE PLAN. REFER TO MEP PLANS FOR NUMBER OF CONDUITS AND MATERIAL SPECIFICATIONS.)
52 TELECOM CONDUIT WITH PULL STRING, INSTALLED BY CONTRACTOR (COORDINATE TERMINATION POINT WITH ELECTRICAL SITE PLAN. REFER TO MEP PLANS FOR NUMBER OF CONDUITS AND MATERIAL SPECIFICATIONS.)
54 PROPOSED TRANSFORMER OR SWITCH GEAR ON HOUSEKEEPING PAD (COORDINATE WITH SITE ELECTRICAL PLANS AND SPECIFICATIONS FOR PAD REQUIREMENTS)
55 PROPOSED HAND HOLE FOR CONNECTION TO EXISTING POLE MOUNTED TRANSFORMER (COORDINATE WITH SITE ELECTRICAL PLANS)
60 PROPOSED STORM SEWER (SEE C600 SERIES SHEETS)
61 DOWNSPOUT COLLECTOR (SEE DETAIL 433 ON SHEET W-C901)
62 PVC SCH-40 ROOF DRAIN SLOPE TO DRAIN (1% MINIMUM FOR 6" ROOF DRAINS)
70 EXISTING SANITARY SEWER MANHOLE
71 4" CLASS 50 DIP SANITARY SEWER SERVICE LINE, SLOPE AT 2% MINIMUM (UNLESS NOTED OTHERWISE.)
72 SANITARY SEWER CLEANOUT (SEE DETAIL 510 ON SHEET W-C910)
73A POINT OF CONNECTION – INSTALL 8"x4" SERVICE WYE.
73B POINT OF CONNECTION TO BUILDING – (SEE MEP PLANS)
80 8" AWWA C900 FIRE PROTECTION LINE (NOT IN CONTRACT)
80A PROPOSED FIRE HYDRANT ASSEMBLY (NOT IN CONTRACT)
81 4" PVC AWWA C900 DOMESTIC WATER SERVICE LINE MAIN (NOT IN CONTRACT)
81A 4" PVC AWWA C900 DOMESTIC SERVICE LINE. MINIMUM BURIAL DEPTH IS 42" BELOW FUTURE GRADE. COORDINATE INSTALL WITH LEE'S SUMMIT HIGH SCHOOL RENOVATION PROJECT.
81B 1" TYPE K COPPER DOMESTIC SERVICE LINE. MINIMUM BURIAL DEPTH IS 42". COORDINATE INSTALL WITH LEE'S SUMMIT HIGH SCHOOL RENOVATION PROJECT.
81C POINT OF CONNECTION – DOMESTIC WATER SERVICE. IF DOMESTIC WATER LINE BY OTHERS IS SCHEDULED FOR INSTALL AFTER PLUMBING ROUGH IN EXTEND 4" SERVICE LINE IN THIS CONTRACT TO POINT OF CONNECTION AND CAP FOR CONNECTION BY OTHERS.
81D POINT OF CONNECTION TO BUILDING – DOMESTIC WATER SERVICE (SEE MEP PLANS)

DETAILS SEE SHEET H-C690
460 INLINE DRAIN
510 CLEANOUT

SCALE: 1" = 20'

WARRANTY / DISCLAIMER

THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER KAW VALLEY ENGINEERING, INC NOR ITS PERSONNEL CAN OR DO WARRANTY THESE DESIGNS OR PLANS AS CONSTRUCTED, EXCEPT IN THE SPECIFIC CASES WHERE KAW VALLEY ENGINEERING PERSONNEL INSPECT AND CONTROL THE PHYSICAL CONSTRUCTION ON A CONTEMPORARY BASIS AT THE SITE.

PROJ. NO. C20_0496 DSN: DDW
CFN: 0496UP.DWG DWN: NJN

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KAW VALLEY ENGINEERING

KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/21

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Know what's below. Call before you dig.

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STATE OF MISSOURI
DAVID D. WOOD
NUMBER PE-2011037427
PROFESSIONAL ENGINEER

Kaw Valley Engineering, Inc.	
Missouri Certificate of Authority: 000842	
David Wood	Date: 09/28/2020
Engineer	License No. PE-2011037427

REVISIONS

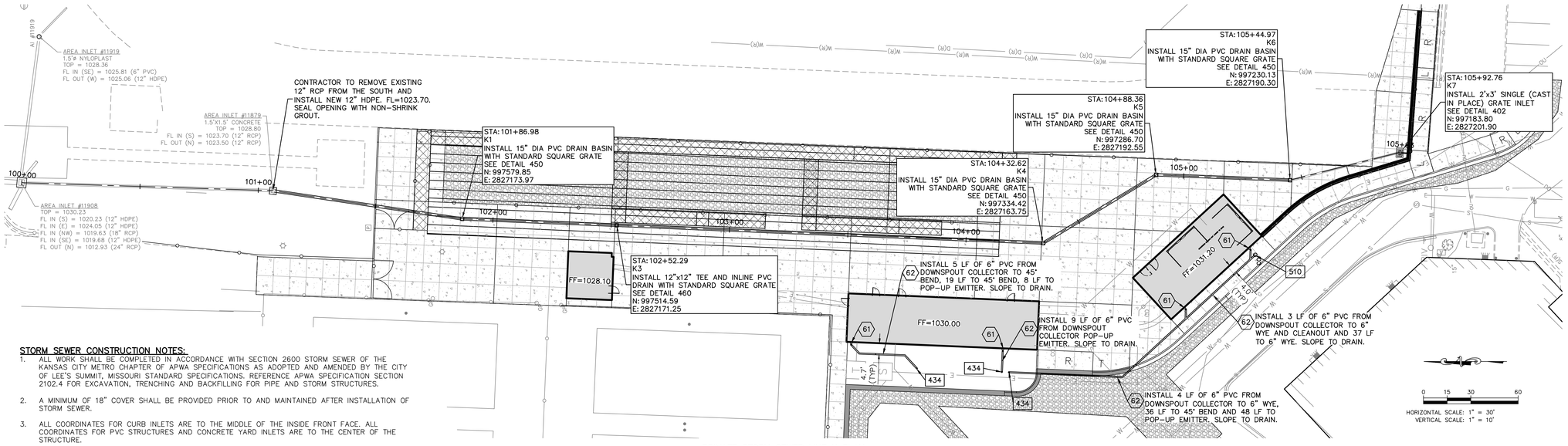
Number	DESCRIPTION	DATE

PROJECT NO: 0119-0100
DATE: SEPTEMBER 28, 2020

UTILITY PLAN

H-C500

BID SET



PRIVATE STORM SEWER LINE K PLAN

STORM SEWER CONSTRUCTION NOTES:

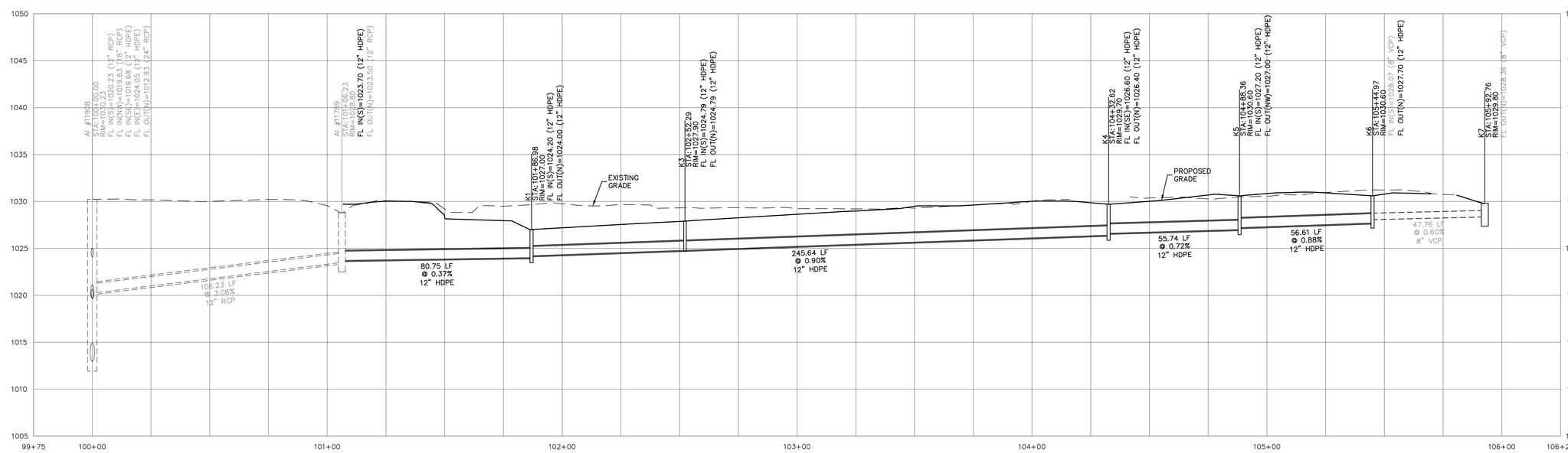
1. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH SECTION 2600 STORM SEWER OF THE KANSAS CITY METRO CHAPTER OF APWA SPECIFICATIONS AS ADOPTED AND AMENDED BY THE CITY OF LEE'S SUMMIT, MISSOURI STANDARD SPECIFICATIONS. REFERENCE APWA SPECIFICATION SECTION 2102.4 FOR EXCAVATION, TRENCHING AND BACKFILLING FOR PIPE AND STORM STRUCTURES.
2. A MINIMUM OF 18" COVER SHALL BE PROVIDED PRIOR TO AND MAINTAINED AFTER INSTALLATION OF STORM SEWER.
3. ALL COORDINATES FOR CURB INLETS ARE TO THE MIDDLE OF THE INSIDE FRONT FACE. ALL COORDINATES FOR PVC STRUCTURES AND CONCRETE YARD INLETS ARE TO THE CENTER OF THE STRUCTURE.
4. ALL JUNCTION BOXES/AREA INLETS HAVE ONE COORDINATE PROVIDED AT THE CENTER OF STRUCTURE. SEE PLAN FOR CLARIFICATION. ORIENT STRUCTURES PARALLEL TO ADJACENT CURB, BUILDING OR WALL FACE, UNLESS NOTED OTHERWISE.
5. RIM ELEVATION IS PROVIDED AT COORDINATE, UNLESS NOTED OTHERWISE. CONTRACTOR TO ADJUST ELEVATION OF RIM AS REQUIRED TO MATCH SLOPE OF ADJACENT CURB LINE. REFER TO GRADING PLAN (C300 SERIES SHEETS).
6. ALL EXISTING UTILITIES INDICATED ON THE DRAWING ARE ACCORDING TO THE BEST INFORMATION AVAILABLE TO THE ENGINEER; HOWEVER, ALL UTILITIES ACTUALLY EXISTING MAY NOT BE SHOWN. UTILITIES DAMAGED THROUGH THE NEGLIGENCE OF THE CONTRACTOR TO OBTAIN THE LOCATION OF SAME SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT THEIR EXPENSE.
7. ALL BACKFILL SHALL BE COMPACTED TO 95 PERCENT STANDARD DENSITY AT OPTIMUM MOISTURE.
8. ALL EXCAVATION BENEATH THE STREETS AND PARKING LOTS FOR DRAINAGE PIPE LESS THAN 4'-0" IN DIAMETER SHALL BE BACKFILLED WITH AGGREGATE TO FOUR FEET (4') PAST BACK OF CURB IN ACCORDANCE WITH APWA SPECIFICATIONS SECTION 2102.4J.
9. RELOCATION OF ANY WATER LINE, SEWER LINE OR SERVICE LINE THEREOF REQUIRED FOR THE CONSTRUCTION OF THIS PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE AT THEIR EXPENSE.
10. IF PRECAST STORM STRUCTURES ARE TO BE USED ON THIS PROJECT, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND HAVE THEM APPROVED BY THE ENGINEER PRIOR TO FABRICATION OF THE STRUCTURES. FAILURE TO DO SO SHALL BE CAUSE FOR REJECTION.
11. ALL HDPE PIPE JOINTS SHALL BE WATER TIGHT.

DETAILS SEE SHEET C690 AND C691

402 SINGLE GRATE INLET
433 DOWNSPOUT COLLECTOR
434 POP-UP EMITTER
450 PVC DRAIN BASIN – CONTRACTOR TO ORDER INLETS ONE FOOT TALLER THAN PLAN ELEVATION SO INLET CAN BE FIELD ADJUSTED
460 INLINE DRAIN
510 CLEANOUT

NOTES

61 DOWNSPOUT COLLECTOR (SEE DETAIL 433 ON SHEET W-C901)
62 PVC SCH-40 ROOF DRAIN SLOPE TO DRAIN (1% MINIMUM FOR 6" ROOF DRAINS)



PRIVATE STORM SEWER LINE K PROFILE

SAFETY NOTICE TO CONTRACTOR

IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

WARRANTY / DISCLAIMER

THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER KAW VALLEY ENGINEERING, INC NOR ITS PERSONNEL CAN OR DO WARRANTY THESE DESIGNS OR PLANS AS CONSTRUCTED, EXCEPT IN THE SPECIFIC CASES WHERE KAW VALLEY ENGINEERING PERSONNEL INSPECT AND CONTROL THE PHYSICAL CONSTRUCTION ON A CONTEMPORARY BASIS AT THE SITE.

CAUTION – NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICTS PRIOR TO ANY CONSTRUCTION.

811 Know what's below. Call before you dig.

DAVID D. WOOD
ENGINEER
MO # 2011037427
14700 WEST 114TH TERRACE
LENEXA, KANSAS 66215
PH. (913) 894-5150 | FAX (913) 894-5977
lx@kveng.com | www.kveng.com
KAW VALLEY ENGINEERING

PROJ. NO. C20_0496 DSN: DDW
CFN: 0496DPP.DWG DWN: NJN

KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/21

PRINT DATE/TIME: 3/17/2020 4:49:21 PM

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Lee's Summit R7 District Athletics Facilities

Lee's Summit High School
400 SE Blue Parkway
Lee's Summit, MO 64063

owner:
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301 NE Tudor Road
Lee's Summit, MO 64086

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structural engineer:
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14700 West 114th Terrace
Lenexa, KS 66215
913.485.0318

mechanical/electrical engineer:
Henderson Engineers
1801 Main St.
Kansas City, MO 64108
816.663.8700

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STATE OF MISSOURI
DAVID D. WOOD
NUMBER PE-2011037427
PROFESSIONAL ENGINEER
9/28/2020

Kaw Valley Engineering, Inc.
Missouri Certificate of Authority: 000842
David Wood Date: 09/28/2020
Engineer License No. PE-2011037427

REVISIONS

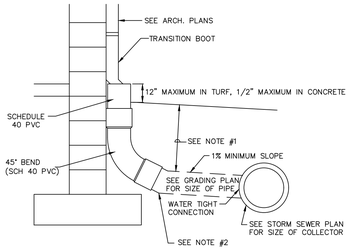
Number	DESCRIPTION	DATE

PROJECT NO: 0119-0100
DATE: SEPTEMBER 28, 2020

STORM SEWER PLAN AND PROFILE

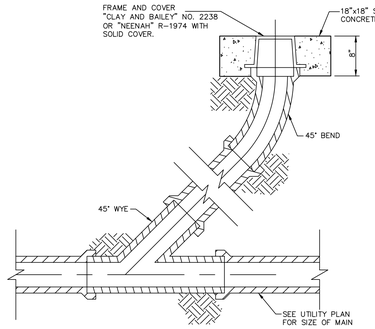
H-C600

BID SET



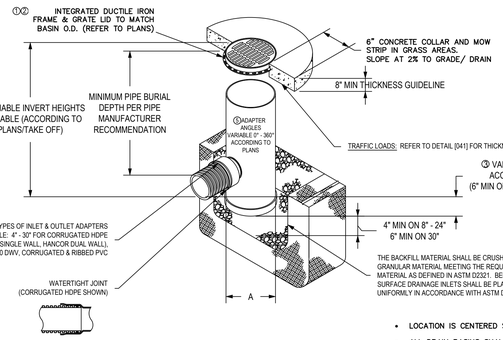
NOTES:
1) FOR ALL DEPTHS OF COVER LESS THAN TWO (2) FEET, PIPE MUST BE SCHEDULE 40 PVC. FOR DEPTHS OF COVER GREATER THAN TWO (2) FEET, FLEXIBLE PIPE MAY BE USED. REFER TO SPECIFICATIONS FOR ALLOWABLE PIPE TYPES.
2) A WATERTIGHT CONNECTION SHALL BE MAINTAINED WITH ANY TRANSITION FROM SCHEDULE 40 PVC PIPE TO ANY OTHER PIPE TYPE.
3) THE DOWNSPOUT COLLECTOR DRAIN SHALL BE INSTALLED BEFORE THE DOWNSPOUTS ARE INSTALLED ON THE BUILDING. SITEWORK CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK TO AND INCLUDING THE RODENT SCREEN. BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONNECTION AT THE POINT OF THE RODENT SCREEN.

DOWNSPOUT COLLECTOR 433



CLEAN-OUT 510

PVC DRAIN BASIN 450



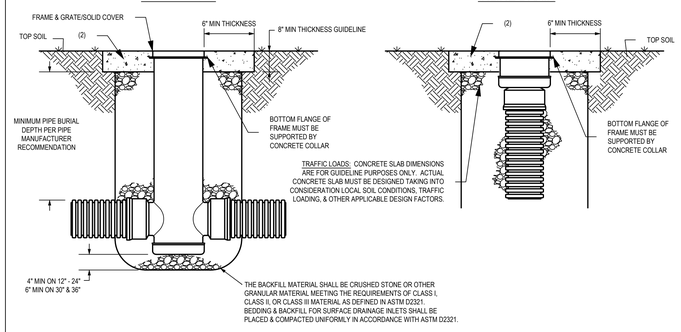
- LOCATION IS CENTERED STRUCTURE
- ALL DRAIN BASINS SHALL BE ORDERED A MINIMUM 1' TALLER THAN PLAN ELEVATION AND SHALL BE FIELD ADJUSTED TO GRADE UPON COMPLETED OF CONSTRUCTION

①- 8" - 30" GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE 8" - 15" BRONZE GRATES
②- 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
③- DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065
④- DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
⑤- ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012, 7001-110-013, & 7001-110-014.
6 - GRATES SHALL MEET H-10 LOAD RATING FOR 12" - 24" PED
7 - GRATES SHALL MEET H-20 LOAD RATING FOR 30" PED & 12" - 30" STD & SOLID
8 - ALL BRONZE GRATES, DROP IN GRATES, & 8" & 10" PEDISTD GRATES & SOLID COVERS ARE RATED FOR LIGHT DUTY APPLICATIONS ONLY
9 - DOME GRATES HAVE NO LOAD RATING

NYLOPLAST BASIN IS THE BASIS OF DESIGN

DRAWN BY EBC	MATERIAL	Nyloplast 3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com	
DATE 1-23-06			
APPD BY CJA	PROJECT NO./NAME	TITLE DRAIN BASIN WITH STANDARD GRATE QUICK SPEC INSTALLATION DETAIL	
DATE 1-23-06			
DWG SIZE A	SCALE 1:40 SHEET 1 OF 1	DWG NO. 7001-110-144	REV D

DRAIN BASIN / INLINE DRAIN 460



1. GRATES/SOLID COVERS SHALL MEET H-20 LOAD RATING FOR 30" PEDESTRIAN & 12" - 30" STANDARD & SOLID
2. DESIGN SHOULD ACCOUNT FOR ROOT DEPTH TO ALLOW TURF TO GROW AND PREVENT EROSION AROUND GRATE SO THAT HAZARDS DO NOT FORM.

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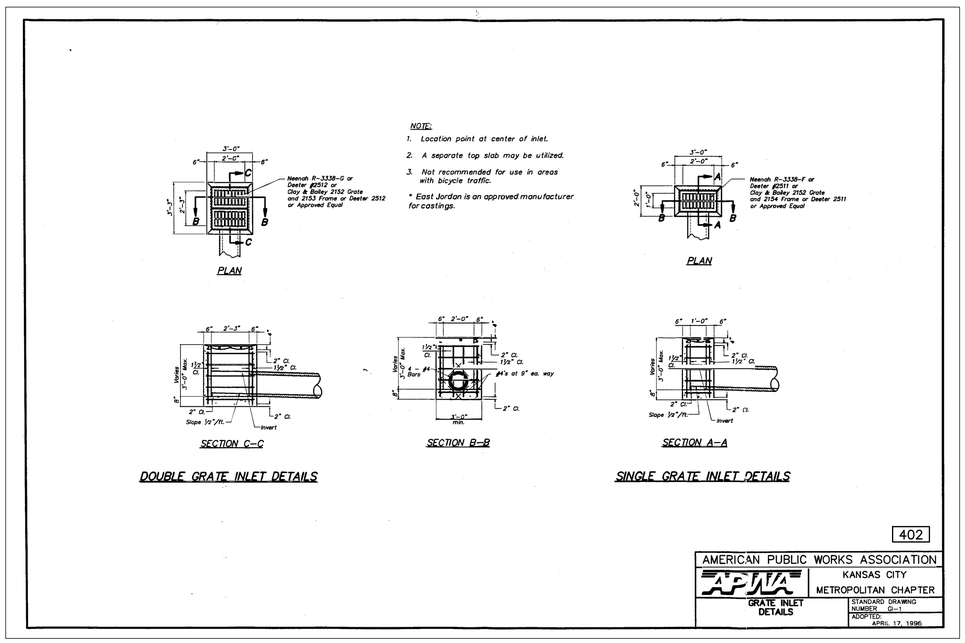
DRAWN BY EBC	MATERIAL	Nyloplast 3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com	
DATE 01-05-09			
REVISED BY NMH	PROJECT NO./NAME	TITLE DRAIN BASIN & INLINE DRAIN TURF TRAFFIC INSTALLATION	
DATE 06-12-18			
DWG SIZE A	SCALE 1:25 SHEET 1 OF 1	DWG NO. 7001-110-340	REV G



INLET NOTES

GENERAL
1. ALL STORM SEWER STRUCTURES SHALL BE POURED IN PLACE.
2. DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.
3. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION. THE CONCRETE THICKNESS AND REINFORCEMENT SHOWN IS FOR BOXES WITH ("L"+"H") AND ("W"+"H") LESS THEN OR EQUAL TO 20. FOR BOXES WITH EITHER OF THESE CALCULATIONS GREATER THAN 20, A SPECIAL DESIGN IS REQUIRED. PRECASTER SHALL PROVIDE DESIGN CALCULATIONS FOR DEEP STRUCTURES TO ENGINEER PRIOR TO CONSTRUCTING BOX.

CONCRETE
4. CONCRETE USED IN THIS WORK SHALL BE CLASS "A" CONCRETE (AE) THROUGHOUT, AND SHALL MEET THE REQUIREMENTS OF THE KANSAS CITY METROPOLITAN CHAPTER OF THE APWA TECHNICAL SPECIFICATIONS.
5. CONCRETE CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF STANDARD SPECIFICATIONS FOR MCIB, LATEST EDITION, EXCEPT AS MODIFIED IN THE APWA TECHNICAL SPECIFICATIONS.
6. INLET FLOORS SHALL BE SHAPED WITH NON-REINFORCED CONCRETE INVERTS TO PROVIDE SMOOTH FLOW.
7. BEVEL ALL EXPOSED EDGES WITH ¾" TRIANGULAR MOLDING.
8. 8" SOLID CONCRETE BLOCK OR BRICK MAY BE USED IN WALLS IN LIEU OF POURED CONCRETE WHERE NEITHER "H"+"L" NOR "H"+"W" (IN FEET) EXCEED FOURTEEN. BLOCK OR BRICK MAY BE USED IN ANY BOX WHERE "H" IS 5' OR LESS.
9. ALL CRUSHED STONE USED AS AGGREGATE FOR CONCRETE CONSTRUCTION SHALL BE OBTAINED FROM QUARRIES AND BEDS DESIGNATED BY THE MISSOURI DEPARTMENT OF TRANSPORTATION AS MEETING DURABILITY REQUIREMENTS OF KANSAS CITY METROPOLITAN CHAPTER OF THE APWA TECHNICAL SPECIFICATIONS.

REINFORCING STEEL
10. REINFORCING STEEL SHALL BE NEW BILLET, MINIMUM GRADE 60 AS PER ASTM A615, AND SHALL BE BENT COLD.
11. ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. TOLERANCE OF +/- ⅛" SHALL BE PERMITTED.
12. ALL LAP SPLICES NOT SHOWN SHALL BE A MINIMUM OF 40 BAR DIAMETERS IN LENGTH.
13. ALL REINFORCING STEEL SHALL BE SUPPORTED ON FABRICATED STEEL BAR SUPPORTS @ 3'-0" MAXIMUM SPACING.
14. ALL DOWELS SHALL BE ACCURATELY PLACED AND SECURELY TIED IN PLACE PRIOR TO PLACEMENT OF BOTTOM SLAB CONCRETE. STICKING OF DOWELS INTO FRESH OR PARTIALLY HARDENED CONCRETE WILL NOT BE ACCEPTABLE.

CONSTRUCTION
15. THE BOTTOM SLAB SHALL BE AT LEAST 24 HOURS OLD BEFORE PLACING SIDEWALL CONCRETE. ALL SIDEWALL FORMS SHALL REMAIN IN PLACE A MINIMUM OF 24 HOURS AFTER SIDEWALLS ARE POURED BEFORE REMOVAL, AND AFTER REMOVAL SHALL BE IMMEDIATELY TREATED WITH MEMBRANE CURING COMPOUND.
16. MATERIAL SELECTION AND COMPACTION REQUIREMENTS FOR BACKFILL AROUND STRUCTURES SHALL BE AS SPECIFIED IN THE KANSAS CITY METROPOLITAN CHAPTER OF THE APWA TECHNICAL SPECIFICATIONS.

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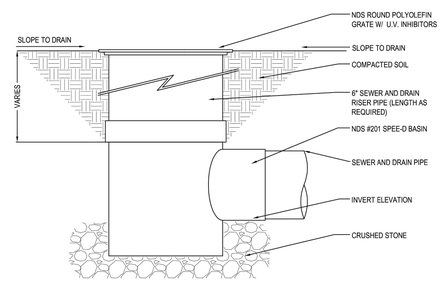
NDS, INC.
851 NORTH HARVARD AVE.
LINDSAY, CA 93247
TOLL FREE: 1-800-726-1994
PHONE: (559) 562-9888
FAX: (559) 562-4488
www.ndspro.com



SECTION

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.
3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY.
4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.

ROUND SPEE-D BASINS
ROUND GRATE WITH SPEE-D BASIN

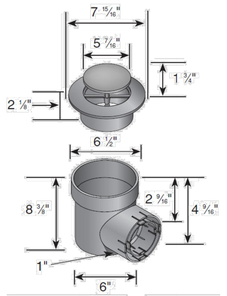
NDS S5 KEY COMPONENT www.ndspro.com/s5

REVISION DATE 8-24-2015

NDS™ WE PUT WATER IN ITS PLACE

TECHNICAL SPECIFICATIONS

6" Pop Up Emitter with 6" Basin



Part #: 625 - Center Spring Loaded
Material: High Density Polypropylene (HDPE)
Colors: Pop Up (Green) Basin (Black)
Fits: 3" and 4" sewer, drain, triple wall, corrugated and sch. 40 pipe
Spring: Stainless Steel Grade 302
Opening Pressure: 1 PSI
Open Surface Area: 28.8 Sq. Inches
Flow Rate
1" Head: 124.60 GPM
0.5" Head: 88.10 GPM
Basin: 6" NDS Spee-D Basin
Weight Per Each: 2.14 lbs.
UV inhibitor

Load Recommendation Guide

Class A
- Loads of 1-60 psi.
- Recommended for pedestrians, bicycles and wheel chair traffic.

851 N. Harvard Avenue
Lindsay, CA 93247
800-726-1994

Visit ndspro.com for specs, detail drawings, and case studies

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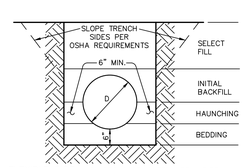

FLEXIBLE PIPE: INCLUDES CORRUGATED METAL PIPE, CORRUGATED POLYETHELENE PIPE AND/OR POLYVINYL CHLORIDE PIPE.

1. BEDDING SHALL BE COMPACTED CRUSHED STONE AND SHALL BE SHAPED TO THE BOTTOM OF THE PIPE.
2. HAUNCHING AND INITIAL BACKFILL MATERIAL SHALL BE CLASS I OR II (REF. ASTM D2321) GRANULAR MATERIAL AND SHALL BE COMPACTED TO 95% STANDARD PROCTOR.

TRENCH AND BEDDING DETAILS
REFER TO KANSAS CITY METROPOLITAN CHAPTER OF APWA SPECIFICATIONS SECTION 2102.4

POP-UP EMITTER 434

PROJ. NO. C20_0496
CFN: 0496DET.DWG
DSN: DDW
DWN: NJN
DAVID D. WOOD
ENGINEER
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14700 WEST 114TH TERRACE
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Lee's Summit R-7 District Athletics Facilities

Lee's Summit High School
400 SE Blue Parkway
Lee's Summit, MO 64063

owner:
Lee's Summit R-7 School District
301 NE Tudor Road
Lee's Summit, MO 64086

architect:
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structural engineer:
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mechanical/electrical engineer:
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Kansas City, MO 64108
816.663.8700

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STATE OF MISSOURI — DAVID D. WOOD — NUMBER PE-2011037427 — PROFESSIONAL ENGINEER — 9/28/2020

Kaw Valley Engineering, Inc.
Missouri Certificate of Authority: 000842
David Wood Date: 09/28/2020
Engineer License No. PE-2011037427

REVISIONS

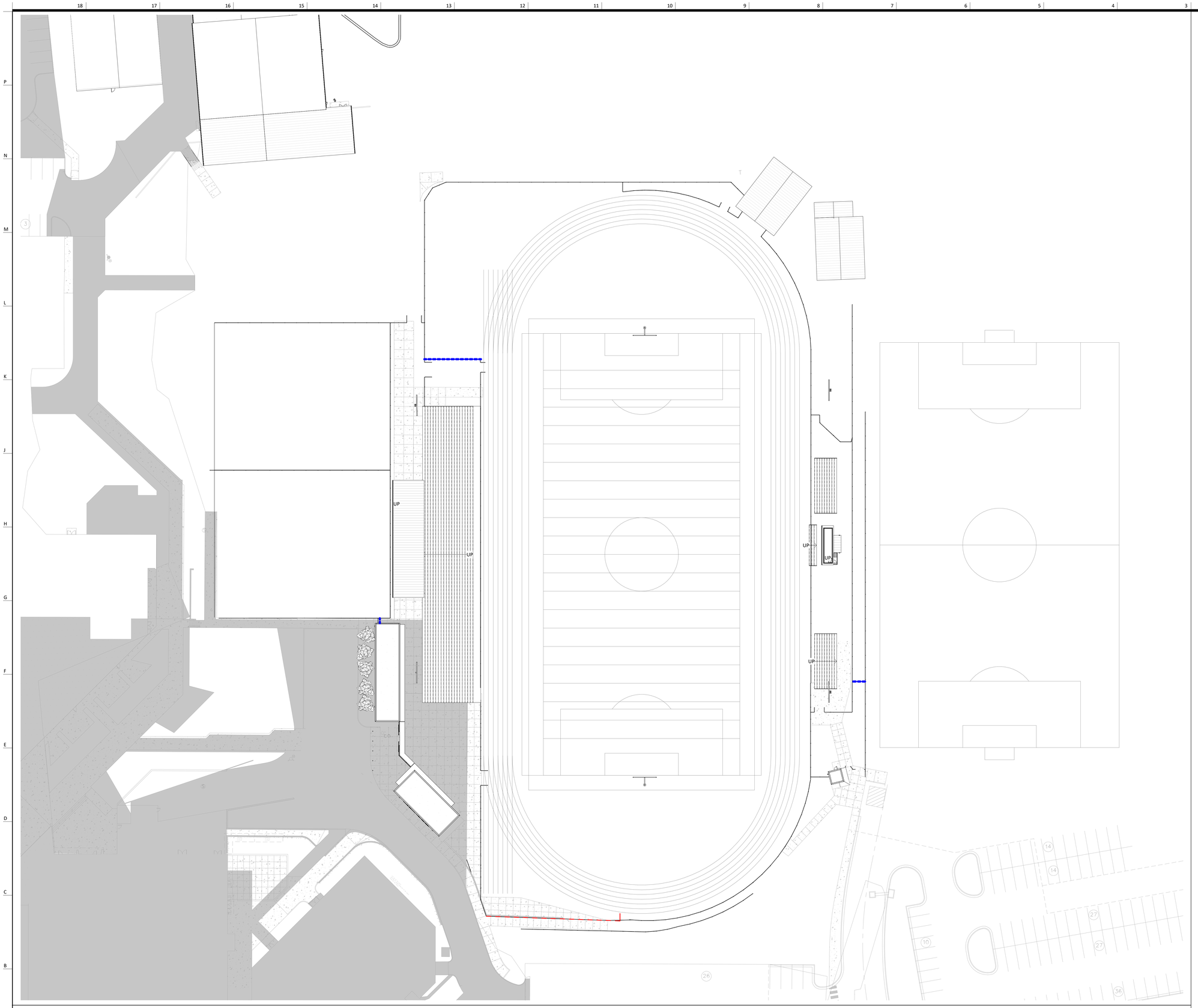
Number	DESCRIPTION	DATE

PROJECT NO: 0119-0100
DATE: SEPTEMBER 28, 2020

STORM DETAILS

H-C690

BID SET



Overall Site Plan A3
1" = 30'-0"

General Notes (Site Plan):

1. COORDINATE ALL SPOT ELEVATIONS AND DIMENSIONS WITH CIVIL/LANDSCAPE/STRUCTURAL DRAWINGS
2. PROVIDE POSITIVE DRAINAGE OF 1% MINIMUM / 2% MAXIMUM AT ALL EXTERIOR PAVED PEDESTRIAN AREAS SUCH AS SIDEWALKS, PATIOS, STAIRS, ETC. UNLESS NOTED OTHERWISE
3. PROVIDE POSITIVE DRAINAGE AWAY FROM THE
4. BUILDING OF 5% FOR A DISTANCE OF 10 FEET UNLESS NOTED OTHERWISE.
5. FINISH GRADE SLOPES SHALL BE NO STEEPER THAN 1 FOOT VERTICAL IN 3 FEET HORIZONTAL UNLESS NOTED OTHERWISE.
6. ALL LOCATIONS OF NEW AND REPLACED FENCE TO BE VERIFIED IN FIELD. CONFIRM NO DISTURBANCES TO EXISTING SITE ELEMENTS TO REMAIN.
7. EXISTING GATES ASSOCIATED WITH FENCE TO BE REPLACED SHALL ALSO BE REPLACED.
8. NEW GATES LOCATED UNDER THE STADIUM BLEACHERS SHALL BE PLACED TO AVOID INTERFERENCE OF GATE FUNCTION WITH STRUCTURAL COLUMNS AND VOMITORIES OF STADIUM BLEACHERS. VERIFY GATE LOCATIONS WITH OWNER.
9. (323113) PROVIDE MESH PRIVACY SCREEN AT ALL NEW FENCE & GATE LOCATIONS UNDER THE STADIUM BLEACHERS.

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Lee's Summit R7 District Athletics Facilities

Lee's Summit High School
400 SW Blue Parkway
Lee's Summit, MO 64063

owner:
Lee's Summit R-7 School District
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Lee's Summit, MO 64086

architect:
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816.742.5000

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STATE OF MISSOURI
JAY DARREN BROWNING
NUMBER A-2009027279
ARCHITECT
9.28.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 09/28/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

Architectural Site Plan

H-AS002

BID SET

PRINT DATE/TIME:
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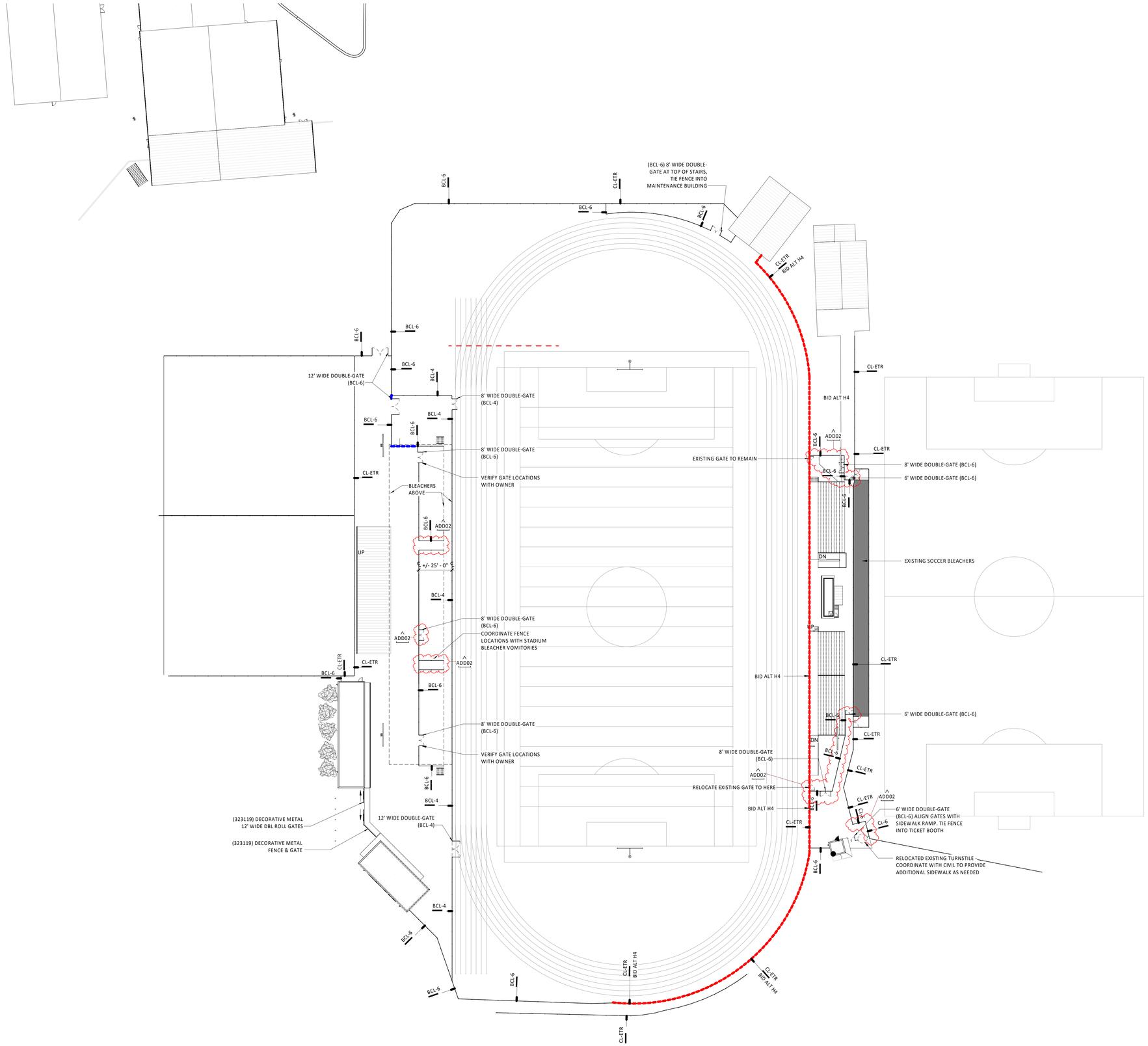

General Notes (Site Plan):

1. COORDINATE ALL SPOT ELEVATIONS AND DIMENSIONS WITH CIVIL/LANDSCAPE/STRUCTURAL DRAWINGS
2. PROVIDE POSITIVE DRAINAGE OF 1% MINIMUM / 2% MAXIMUM AT ALL EXTERIOR PAVED PEDESTRIAN AREAS SUCH AS SIDEWALKS, PATIOS, STAIRS, ETC. UNLESS NOTED OTHERWISE
3. PROVIDE POSITIVE DRAINAGE AWAY FROM THE
4. BUILDING OF 5% FOR A DISTANCE OF 10 FEET UNLESS NOTED OTHERWISE.
5. FINISH GRADE SLOPES SHALL BE NO STEEPER THAN 1 FOOT VERTICAL IN 3 FEET HORIZONTAL UNLESS NOTED OTHERWISE.
6. ALL LOCATIONS OF NEW AND REPLACED FENCE TO BE VERIFIED IN FIELD. CONFIRM NO DISTURBANCES TO EXISTING SITE ELEMENTS TO REMAIN.
7. EXISTING GATES ASSOCIATED WITH FENCE TO BE REPLACED SHALL ALSO BE REPLACED.
8. NEW GATES LOCATED UNDER THE STADIUM BLEACHERS SHALL BE PLACED TO AVOID INTERFERENCE OF GATE FUNCTION WITH STRUCTURAL COLUMNS AND VOMITORIES OF STADIUM BLEACHERS. VERIFY GATE LOCATIONS WITH OWNER.
9. (323113) PROVIDE MESH PRIVACY SCREEN AT ALL NEW FENCE & GATE LOCATIONS UNDER THE STADIUM BLEACHERS.

Fencing Types

Mark	Type Comments
BCL-4	(323113) 4'H BLACK VINYL COATED CHAIN LINK FENCE & GATES
BCL-6	(323113) 6'H BLACK VINYL COATED CHAIN LINK FENCE & GATES
CL-6	
CL-ETR	CHAINL LINK FENCE & GATES - EXISTING TO VERIFY IN FIELD - LENGTH AND LOCATIONS OF NEW FENCE

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Lee's Summit R7 District Athletics Facilities

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400 SE Blue Parkway
Lee's Summit, MO 64063

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Lee's Summit R-7 School District
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civil engineer:
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Lenexa, KS 66215
913.485.0318

mechanical/electrical engineer:
Henderson Engineers
8345 Lenexa Drive | Suite 300
Lenexa, KS 66214
816.742.5000

UNLESS A PROFESSIONAL SEAL WITH SIGNATURE AND DATE IS AFFIXED, THIS DOCUMENT IS PRELIMINARY AND IS NOT INTENDED FOR CONSTRUCTION, RECORDING PURPOSES OR IMPLEMENTATION

STATE OF MISSOURI
JAY DARREN BROWNING
NUMBER A-2009027279
ARCHITECT
11.3.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 11/03/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE
ADD02	Addendum 02	10/20/20

PROJECT NO: 0119-0101
DATE: September 28, 2020

Fencing and Hardscape Plans

H-AS201

BID SET

Fencing and Hardscape Plan A1

1" = 30'-0"

PRINT DATE/TIME:
11/4/2020 8:22:22 AM

GENERAL NOTES - STRUCTURAL

1. General Information

A. The contractor shall verify dimensions and conditions before construction and notify the engineer of any discrepancies, inconsistencies, or difficulties affecting the work before proceeding.
B. The contractor shall coordinate all disciplines, verifying size and location of all openings, whether shown on structural drawings or not, as called for on architectural, mechanical, or electrical drawings. In the case of work in an existing building the contractor shall scan existing structure to locate all rebar in the area of the new core/opening using ground penetrating radar and notify the engineer of record for review prior to coring/cutting. Conflicts, inconsistencies, or other difficulties affecting structural work shall be called to the architect or engineer's attention for direction before proceeding.
C. All design and construction work for this project shall conform to the requirements of the following governing design codes:
1.) International Building Code (IBC **2018**) as amended by the city of Lee's Summit, MO
2.) Minimum Design Loads for Buildings and Other Structures (ASCE**7-16**)
3.) Specification for Structural Steel Buildings (AISC 360-**16**) Member Design Basis is Allowable Stress Design (ASD) Connection Design Basis is Allowable Stress Design (ASD)
4.) Structural Welding Code (AWS D1.4-2017)
5.) Building Code Requirements for Structural Concrete (ACI 318-**14**)
6.) Building Code Requirements for Masonry Structures (ACI 530-**13**/TMS 402-**16**)
7.) North American Specification for the Design of Cold-Formed Steel Structural Members (AISI S100-16)
8.) National Design Specification (NDS) for Wood Construction with 2018 Supplements (ANSI/AWC NDS-2018)
9.) Special Design Provisions for Wind and Seismic (AWC SDPWS-2015)
D. These drawings are for this specific project and no other use is authorized.

2. Structural Load Design Criteria

A. Floor Live = 100 psf
B. Roof Live = **20** psf
C. Snow: Pg = **20**psf, Pf =14psf, Is = 1.0, Ce = 1.0, Ct = 1.0, Drift per ASCE/SEI 7
D. Lateral Loads:
1.) Wind: V = 109 mph, Exposure B
Occupancy [Risk] Category **II**, Iw=1.0 GCpi=+/-0.18
Design wind pressures to be used for the design of exterior component and cladding materials on the designated zones of wall and roof surfaces shall be per section 30.7 and Table 30.7-2 of ASCE/SEI 7. Tabulated pressures shall be multiplied by effective area reduction factors, exposure adjustment factors, and topographic factors where applicable
2.) Seismic: Ss = 0.114, S1 = 0.067
Occupancy [Risk] Category **II**, Ie=1.0,
Site Classification D; Sds = 0.121; Sd1 = 0.107
Seismic Design Category B
Basic Seismic Force-resisting System:
Bearing Wall Systems - Ordinary reinforced masonry shear walls
Equivalent Lateral Force Procedure
R = 2; V = 0.0605W; Omega = 2½; Cd=1¾
E. This project is designed to resist the most critical effects resulting from the load combinations of section 1605.3 of the International Building Code.

3. Concrete

A. All concrete for foundations (walls, grade beams, footings and piers) shall develop minimum ultimate compressive design strength of 3500 psi in 28 days, but not less than 500 pounds of cement shall be used per cubic yard of concrete regardless of strengths obtained, not over 6 gallons of water per 100 pounds of cement and not over 4 inches of slump.
B. All concrete for interior flatwork **(without floor covering)** shall develop minimum ultimate compressive design strength of 4000 psi in 28 days, but not less than 525 pounds of cement shall be used per cubic yard of concrete regardless of strengths obtained, not over 5.75 gallons of water per 100 pounds of cement and not over 4 inches of slump. Concrete mix shop drawing shall contain testing data proving concrete design mix shrinkage is less than 0.034% at 28 days when tested according to ASTM C157 (air drying method only).
C. All concrete for interior flatwork **(with floor covering)** shall develop minimum ultimate compressive design strength of 4000 psi in 28 days, but not less than 540 pounds of cement shall be used per cubic yard of concrete regardless of strengths obtained, not over 5.40 gallons of water per 100 pounds of cement and not over 4 inches of slump. Concrete mix shop drawing shall contain testing data proving concrete design mix shrinkage is less than 0.034% at 28 days when tested according to ASTM C157 (air drying method only).
D. All concrete for exterior flatwork shall have a minimum design compressive strength of 4500 psi in 28 days, with not less than 560 pounds of cement per cubic yard of concrete, not over 5 gallons of water per 100 pounds of cement, with 6% +/- 1% air entrainment, and a maximum of 4 inches of slump.
F. The preceding minimum mix requirements may have water-reducing admixtures conforming to ASTM C494 added to the mix at manufacturer's dosage rates for improved workability.
G. The preceding minimum mix requirements may have up to 15% maximum of the cement content replaced with an approved ASTM C618 Class C fly ash, provided the total minimum cementitious content is not reduced.
H. Combined aggregate (coarse plus fine) for all concrete shall be well graded from coarsest to finest with no more than 18 percent and not less than 8 percent retained on an individual sieve, except that less than 8 percent may be retained on coarsest sieve and on No. 50 and finer sieves. Submit this gradation report with the concrete mix design shop drawings.
I. All interior concrete slabs on grade shall be placed over 15 mil, Class A Vapor Barrier per ASTM E1745 with less than 0.01 perms, tested after mandatory conditioning. All joints shall be lapped and sealed per manufacturer's recommendations. All penetrations, as well as damaged vapor barrier material shall also be sealed per manufacturer's recommendation prior to concrete placement. Install barrier per manufacturer recommended details at all discontinuous edges (at interior columns, exterior edge of slab, etc.) to ensure terms of warranty are followed. The vapor barrier shall be placed over free-draining granular material as prescribed by the project soils report.
J. All concrete is reinforced concrete unless specifically called out as unreinforced. Reinforce all concrete not otherwise shown with same steel as in similar sections or areas. Any details not shown shall be detailed per ACI 315 and meet requirements of ACI 318, current editions.
K. Control joints in dirt formed slab to be as shown on plans. Where not shown, limit controlled areas to not more than 144 square feet, or 12 feet on any side. Slab panel side ratio shall not exceed 1 1/2 to 1.
L. Contractor shall verify that all concrete inserts, reinforcing and embedded items are correctly located and rigidly secured prior to concrete placement.
M. Construction joints in beams, slabs, and grade beams shall occur at midspan (middle third) unless noted otherwise. Provide 2 x 4 horizontal keys at construction joints for shear transfer.
N. No aluminum items shall be embedded in any concrete.

4. Reinforcing Steel

A. All reinforcing steel shall conform to the requirements of ASTM A615 or A706 grade 60 steel. Welded plain wire fabric shall be supplied in sheets and conform to the requirements of ASTM A185.
B. Clear minimum coverage of concrete over reinforcing steel shall be as follows:
1.) Concrete placed against earth: 3"
2.) Formed concrete against earth: 2"
3.) Slabs: 1"
4.) Beams or Columns: 1-1/2"
5.) Other 2"
All coverage shall be nominal bar diameter minimum.
C. All dowels shall be the same size and spacing as adjoining main bars (splice lap 48 bar diameters or 24" minimum unless noted otherwise).
D. At corners of all walls, beams, and grade beams supply corner bars (minimum 2'-0" in each direction or 48 bar diameters) in outside face of wall, matching size and spacing of horizontal bars. Where there are no vertical bars in outside face of wall, supply 3 - #4 vertical support bars for corner bars.
E. Bars marked continuous and all vertical steel shall be lapped 48 bar diameters (2'-0" minimum) at splices and embedments, unless shown otherwise. Splice top bars near midspan and splice bottom bars over supports, unless noted otherwise.
F. At all holes in concrete walls and slabs, add 2 - #5 bars (opening dimension plus 96 diameters long) at each of four sides and add 2 - #5 x 5'-0" diagonally at each of four corners of hole. Openings in 8" thick walls are reinforced similar, but with 1 - #5 instead of 2 - #5, respectively.
G. Unless otherwise covered on architectural plans or specifications, vertical control joints in concrete wall shall be spaced at a maximum of 20'-0" on center and coordinated with the architect. Every other horizontal wall reinforcing bar shall be discontinuous at control joints except heavy top and bottom bars unless noted otherwise. Provide base seal waterstop style number 772 (by Greenstreak Inc. or approved equal) on dirt face side of wall at all walls below grade.
H. Accessories shall be as specified in latest edition of the ACI Detailing Handbook and the concrete Reinforcing Steel Institute Design Handbook. Maximum accessory spacing shall be 4'-0" on center, and all accessories on exposed surfaces are to have plastic coated feet.
I. All slabs and stairs not shown otherwise shall be 6" thick with #4 bars at 12" on center each way. All exterior porches and stoops not otherwise detailed may be constructed in any standard manner, solid or hollow, but must be reinforced with #4 bars at 12" on center each way minimum. Porches shall be doweled to adjacent walls or grade beams with #4 bars at 12" on center, hooked or embedded 48 diameters into both members. Slope porches 1/8" per foot for drainage unless noted otherwise.
J. Allow ½ ton of reinforcing bars #4 or larger to be used as directed in the field for special conditions by the engineer of record (labor for placing same to be included).

5. Structural Steel

A. All structural steel beams and columns shall be ASTM A992, grade 50 steel and all miscellaneous steel shall be ASTM A36 grade steel (except at moment connections where plates shall be ASTM A572, grade 50). Hollow Structural Sections (HSS) shall be ASTM A500, grade B. Fabrication and erection shall be in accordance with AISC 303-05 "Code of Standard Practice for Steel Buildings and Bridges" in the 13th Edition of the AISC Steel Construction Manual.
B. All welding shall conform to the recommendations of the AWS.
C. All exterior steel and connections, and brick relief angles shall be hot-dip galvanized.
D. All bolts not otherwise specified shall be 3/4" diameter high strength (ASTM A325-N). All bolts shall be fully pretensioned. All beam connections shall be designed per the AISC Manual of Steel Construction "Framed Beam Connections" for the indicated reactions shown in the beam shear connection table on sheet H-S300; and, shall account for eccentricity when the bolt line is more than 2" from the center of the support.
All connections must be two bolt minimum. Additional connection elements may not be specifically shown in the conceptual details in this set but may be required by the final connection design, such as stiffener plates, doubler plates, supplement/reinforcing plates or other connection material. Connection design and shop drawing preparation shall be completed under the direct supervision of a professional engineer licensed in the state the project is located and shop drawings and connection calculations shall bear his/her seal.
E. All anchor bolts shall be 3/4" diameter, ASTM F1554, Grade 36 unless noted otherwise. Washers of minimum size and thickness for the given anchor diameter in Table 14-2 of the AISC Steel Construction Manual shall be provided at every column anchor bolt. Washers shall have a standard size hole for the anchor bolt. At braced frames washers shall be welded all around to the column base plate with 3/16" fillet weld.
F. Design, fabrication and erection of all open-web bar joists shall comply with the recommendations of the Steel Joist Institute (SJI). Joists shall be designed to support loads given in the standard load tables of SJI Specs and Tables plus an additional point load of 200 lbs. on the top or bottom chord at any location without additional web reinforcing.
G. All K-series joists shall bear 2-1/2" minimum on structural steel beams and be welded to the beams with 1 1/2" of 1/8" fillet weld each side (minimum).
H. All K-series joists bearing on masonry walls shall have 6" x 3/8" x 6" bearing plates set in bond beams. Bearing plates shall be located not more than 1/2" from the face of the wall on the bearing side. Joists shall bear 4" minimum on bearing plates and be welded to beams or bearing plates with 1-1/2" of 1/8" fillet weld each side (minimum).
I. All steel joists shall have horizontal bar or angle bridging per Steel Joist Institute Specifications. Provide rigid x-bridging in addition to and matching horizontal bridging where joists are discontinuous unless horizontal bridging is anchored to wall top and bottom. Joist sweep allowance shall comply with AISC Standard Practice.
J. Steel joists shall be designed for uplift per Components & Cladding Roof Uplift Pressures Table on this sheet.
K. All openings in steel joist roof to have 3x3x1/4 angle frame set between joists. Support mechanical equipment with 4x4x5/16 angles laid between joists framed to 4x4x5/16 angles (length equals mechanical unit dimension plus distance each end to next panel point) laid parallel to and welded to top and/or bottom cord of joists to distribute load to joist panel points.
L. All steel joists shall have a midspan camber approximately equal to that recommended by the Steel Joist Institute Specifications.
M. Design and installation of steel decking shall comply with the recommendations of the Steel Deck Institute (SDI). All decking shall be galvanized unless noted otherwise.
N. Allow **1.0** tons structural steel to be used as directed in field for special conditions by the engineer of record. Cost for shop drawings, fabrication, delivery, detailing, and erection to be included. 50% of structural steel allowance shall be bid as miscellaneous galvanized angle and plate.

6. Post Installed Anchors

A. Post-installed anchors shall be used only where specified on the drawings unless approved in writing by the engineer of record. See drawings for anchor diameter, spacing and embedment. Performance values of the anchors shall be obtained for specified products using appropriate design procedures and/or standards as required by the governing building code. Anchors installed in concrete shall have an ICC-ES Evaluation Service Report. Special inspection is required for all post installed anchors. The contractor shall coordinate an on-site meeting with the post installed anchor manufacturer field representative to educate the construction team on the anchor installation guidelines and requirements.
B. Mechanical anchors used in cracked and uncracked concrete shall have been tested and qualified for use in accordance with ACI 355.2 and ICC-ES AC193. All anchors shall be installed per the anchor manufacturer's written instructions.
C. Adhesive anchors used in cracked and uncracked concrete shall have been tested and qualified for use in accordance with ICC-ES AC308. All anchors shall be installed per the anchor manufacturer's written instructions.
D. Mechanical anchors used in solid grouted masonry shall have been tested and qualified for use in accordance with ICC-ES AC01. All anchors shall be installed per the anchor manufacturer's written instructions.
E. Adhesive anchors used in solid grouted masonry shall have been tested and qualified for use in accordance with ICC-ES AC58. All anchors shall be installed per the anchor manufacturer's written instructions.
F. Anchors used in hollow concrete masonry shall have been tested and qualified in accordance with ICC-ES AC106 or ICC-ES AC58 as appropriate. All anchors shall be installed per the anchor manufacturer's written instructions with appropriate screen tubes used for adhesives.

7. Foundations

A. The soil investigation was prepared by CFS Engineers, the report number is 20-1229, and the telephone number is 913-627-9040.
B. Spread footings, grade beams, and retaining walls are designed to bear on engineered fill or undisturbed soil capable of safely sustaining 2500psf.
C. Retaining walls are designed for an active lateral load of 55pcf equivalent fluid pressure.
D. Contractor shall provide for dewatering at excavations from either surface water or seepage.
E. All foundation excavations shall be inspected by a qualified soil engineer, approved by the architect and/or structural engineer, prior to placement of steel or concrete. This inspection shall be at the owner's expense.
F. All concrete in the structural portion retaining the backfill shall have attained its design strength prior to being backfilled.
G. Moisture content in soils beneath building locations should not be allowed to change after footing excavations and after grading for slabs on grade are completed. If subgrade materials become desiccated or softened by water or other conditions, recompact materials to the density and water content specified for engineered fill. Do not place concrete on frozen ground.

8. Concrete Masonry Units

A. Concrete block used in exterior walls or load bearing walls shall meet the requirements of ASTM C90 and have a minimum net compressive strength of 2650 psi and laid up using type N mortar such that f'm equals 2000 psi. Mortar shall be volume proportion based cement lime mortar. Proportioning shall be completed by box measure. Any block in contact with earth shall be normal weight units, laid using type "S" mortar and grouted solid.
B. The contractor shall provide adequate temporary bracing for all masonry walls during construction.
C. All concrete block shall have 9 gage (or larger) horizontal joint reinforcing (ladder or truss) per architectural drawings and specifications (16" maximum vertical spacing).
D. Cavity wall construction shall be reinforced as designed for specific concrete block used. The horizontal joint reinforcing shall be of the ladder or truss style per specification and continuous between brick and block, as prescribed by the architectural drawings.
E. Concrete block shall be reinforced as indicated on Sheet H-S002
F. Grout, where noted above, shall have a minimum design ultimate compressive strength of 2500 psi at 28 day test and 3/8" maximum aggregate size.
G. Non-load bearing concrete block walls shall be isolated from adjacent structural elements with vertical 3/8" control joints and at the top of the wall with 1" air space or compressible material and support per architectural detail.
H. Unless otherwise covered on architectural plans or specifications, vertical control joints in masonry construction shall be 3/8" wide, full height of wall. Joints shall be spaced at a maximum of 24'-0" on center and coordinated with the architect. All horizontal joint reinforcing shall be discontinuous at control joints in masonry. All bond beam horizontal reinforcing shall be continuous through control joints.
I. Lintels over all openings up to 8'-0" wide in new and existing masonry walls not otherwise covered shall be one 6x3 1/2x5/16 angle for each 4" width of masonry. All exterior lintels to be galvanized.
J. Walls shall be anchored top and bottom by dowels matching wall vertical reinforcing(unless noted otherwise) from floor slab bottom and bracing angles at the top, per details on the drawings.

9. Light Gage Metal Structural Framing

A. All load bearing, light gage structural studs, track, and bridging shall be of the type, size, gage, and spacing as shown on the plans, minimum.
B. All materials shall be 33,000 psi minimum yield, except studs of 16 gage or heavier shall have a minimum yield of 50,000 psi.
C. All properties, fabrication, and erection shall be in accordance with latest editions of the AISI "Specifications for the Design of Cold-Formed Structural Members."
D. All framing components shall be cut squarely or at an angle to fit squarely against abutting members. Splicing of axially loaded members is not permitted. Members shall be held firmly in place until properly fastened. Attachments of similar components shall be by welding, screw attachment, or bolting. Wire tying of components is not permitted.
E. Tracks shall be securely anchored to floor and overhead members. Special anchorage requirements required for wind bracing shall be as shown on the plans.
F. Prior to fabrication and/or erection, the contractor shall submit shop drawings complete with detail of erection, fabrication, attachments, anchorages, lintels, etc., for review by the architect/engineer.

10. Shop Drawing Review

A. Bob D. Campbell and Company, Inc. will review the General Contractor's (GC) shop drawings and related submittals (as indicated below) with respect to the ability of the detailed work, when complete, to be a properly functioning integral element of the overall structural system designed by
Bob D. Campbell and Company, Inc.
B. Prior to submittal of a shop drawing or any related material to
Bob D. Campbell and Company, Inc., the GC shall:
1.) Review each submission for conformance with the means, methods, techniques, sequences and operations of construction and safety precautions and programs incidental thereto, all of which are the sole responsibility of the GC.
2.) Review and approve each submission.
3.) Stamp each submission as approved.
C. Bob D. Campbell and Company, Inc. shall assume that no submission comprises a variation unless the GC advises Bob D. Campbell and Company, Inc. with written documentation.
D. Bob D. Campbell and Company, Inc. shall review shop drawings and related materials with comments provided that each submission has met the above requirements. Bob D. Campbell and Company, Inc. shall return without comment unreviewed material or submissions without GC approval stamp.
E. Shop drawings and related material (if any) required are indicated below. Should Bob D. Campbell and Company, Inc. require more than ten (10) working days to perform the review, Bob D. Campbell and Company, Inc. shall so notify the GC.
1.) Concrete mix designs and material certificates including admixtures and compounds applied to the concrete after placement.
2.) Reinforcing steel shop drawings including erection drawings and bending details. Bar list will not be reviewed for correct quantities.
3.) Elevations of all reinforced concrete masonry walls at a scale no smaller than 3/8" = 1'-0" showing all required reinforcing.
4.) Grout mix designs (for CMU).
5.) Construction and control joint plans and/or elevations.
6.) Structural steel shop drawings including erection drawings and piece details. Include joist, decking and connector submittals. Include miscellaneous framing specified on the structural drawings, but do not submit framing specified on non-structural drawings for Bob D. Campbell and Company, Inc. review.
7.) Structural steel connection design calculations submitted concurrently withstructural steel shop drawings.
8.) Miscellaneous anchors shown on the structural drawings.
9.) Standard details and bridging information for light gage metal framing. Erection plans and details for light gage metal joists and lintels spanning more than 6'-0" shall be submitted. Standard wall framing need not be submitted.

11. Statement of Structural Special Inspections

A. The structural design for this project is based on completion of special inspections during construction in accordance with section 1704 of the International Building Code. The owner shall employ one or more qualified special inspectors to provide the required special inspections.
B. The special inspector shall furnish inspection reports to the building official, owner, architect and structural engineer, and any other designated person.
C. All discrepancies shall be brought to the immediate attention of the contractor for correction, then, if uncorrected, to the proper design authority, building official and structural engineer.
D. The special inspector shall submit a final signed report stating that the work requiring special inspection was, to the best of the inspector's knowledge, in conformance with the approved plans and specifications and the applicable workmanship provisions of the building code.
E. The following inspections and tests are required with the frequency (continuous or periodic) as defined within the referenced section or standard listed below. The General Contractor shall provide notification to the inspector when items requiring inspection are ready to be inspected and provide access for those inspections.
1. Shop Fabrication – structural steel and steel bar joist per Section 1704.2.5 unless AISC certified shop
2. Shop Fabrication – pre-engineered wood trusses per Section 1704.2.5 unless TPI certified shop
3. Steel Construction per Section 1705.2 and the quality assurance requirements of AISC 341 Chapter J (as referenced by AISC 360)
4. Cold-Formed Steel Deck per Section 1705.2.2 and the quality assurance requirements of SDI QA/QC
5. Concrete Construction per Section 1705.3 and Table 1705.3
a. Reinforcing Steel Placement
b. Reinforcing Steel Welding
c. Cast in Place Anchors
d. Post Installed Anchors
e. Design Mix Verification
f. Concrete Sampling and Testing
g. Concrete Placement
h. Concrete Curing
6. Masonry Construction per Section 1705.4 and the quality assurance requirements of TMS 402/ACI530/ASCE5 and TMS602/A530.1/ASCE6 **[Level B]**

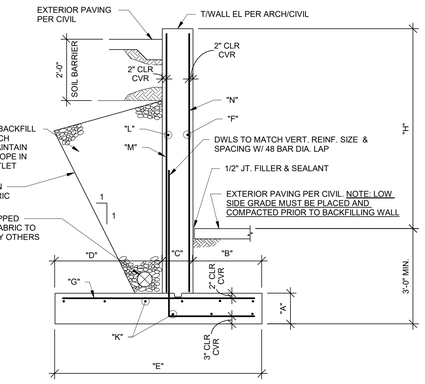
12. Copyright and Disclaimer

A. All drawings in the structural set (S-series drawings) are the copyrighted work of Bob D. Campbell and company, Inc. These drawings may not be photographed, traced, or copies in any manner without the written permission of Bob D. Campbell and Company, Inc. Exception: Original drawings may be printed for distribution to the owner, architect, and general contractor for coordination, bidding, and construction. Subcontractors may not reproduce these drawings for any purpose or in any manner.
B. I, Richard C. Crabtree, P.E., registered engineer and a representative of Bob D. Campbell and Company, Inc., do hereby accept professional responsibility as required by the professional registration laws of this state for the structural design drawings consisting of S-series drawings. I hereby disclaim responsibility for all other drawings in the construction document package, they being the responsibility of other design professionals whose seals and signed statements may appear elsewhere in the construction document package.

COMPONENTS & CLADDING ROOF UPLIFT PRESSURES

BUILDING LOCATION	BUILDING / ROOF TYPE	DIMENSION 'a'	ULTIMATE UPLIFT PRESSURE		
			ZONE 1	ZONE 2	ZONE 3
		[ft]	[psf]	[psf]	[psf]
Press Box Roof	Open Building, Monosloped Roof	4 ft	53.0	81.0	105.0
Other Structures	Enclosed Building, Flat Roof	3 ft	37.0	57.0	78.0

NOTES:
1. REFER TO GENERAL NOTE 2.D. FOR WIND LOAD DESIGN CRITERIA
2. WIND PRESSURES SHOWN ARE ULTIMATE (LRFD). FOR ASD WIND PRESSURES, MULTIPLY VALUES BY 0.6
3. WIND PRESSURES SHOWN ARE BASE ON AN EFFECTIVE WIND AREA OF 50 SQUARE FEET



ALLOWABLE SOIL BEARING PRESSURE= 2,500 PSF
EQUIVALENT FLUID PRESSURE = 50 PCF
COEFFICIENT OF FRICTION= 0.30
SURCHARGE= 100PSF MAX

CONCRETE DIMENSIONS

"H"	"A"	"B"	"C"	"D"	"E"
0'-0" TO 3'-0"	1'-0"	1'-4"	8"	2'-8"	4'-8"
3'-1" TO 6'-0"	1'-0"	1'-8"	8"	4'-0"	6'-4"

REINFORCEMENT

"H"	"M"	"L"	"N"	"F"	"G"	"K"
0'-0" TO 3'-0"	#4@12"oc	#4@16"oc	-	-	#4@12"oc	#4@12"oc
3'-1" TO 6'-0"	#6@10"oc	#4@16"oc	-	-	#5@10"oc	#4@12"oc

1 TYPICAL RETAINING WALL
1/2" = 1'-0"

NOTES:
1. REFER TO CIVIL DRAWINGS FOR WALL LOCATIONS AND ELEVATIONS

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Lee's Summit R7 District Athletics Facilities

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STATE OF MISSOURI
RICHARD C. CRABTREE
NUMBER E-027441
9/28/20

Architectural Corporation
Missouri License No.: 2018022991
Richard C. Crabtree — Date: 09/28/2020
Engineer — License No. E-027441

REVISIONS

Number	DESCRIPTION	DATE
1	ADD02	10.20.2020
3	ADD04	10.26.2020

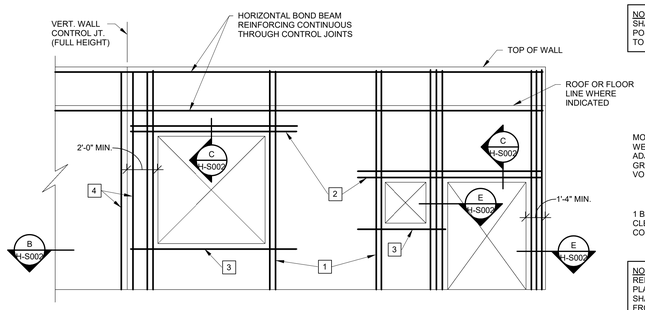
PROJECT NO: 0119-0101
DATE: September 28, 2020

General Notes

H-S001

BID SET

PRINT DATE/TIME:
11/5/2020 11:16:45 AM



TYPICAL CMU WALL REINFORCING AT OPENINGS

LEGEND:

1. FULL HEIGHT VERTICAL BARS AS JAMB REINFORCING IN FIRST 2 CELLS ADJACENT TO OPENING. REINFORCE EACH CELL WITH SIZE & QUANTITY OF BAR TO MATCH WALL REINFORCING (1 BAR TYPICAL IN 8" WALLS AND 2 BARS TYPICAL IN 12" WALLS).
2. LINTEL REINFORCING PER SECTION C. EXTEND 2'-0" PAST EDGE OF OPENING ON EACH SIDE (TYPICAL).
3. 2-#5 CONTINUOUS HORIZONTAL BARS AS SILL REINFORCING IN 8" COURSE BELOW OPENING (U.N.O.). EXTEND 2'-0" PAST EDGE OF OPENING ON EACH SIDE (TYPICAL).
4. FULL HEIGHT VERTICAL BARS PER MASONRY VERTICAL REINFORCING SCHEDULE LOCATED IN END CELL AT EACH SIDE OF VERTICAL WALL CONTROL JOINTS.

GENERAL CRITERIA: (SECTION A CONTINUED):

1. VERTICAL REINFORCING BARS SHALL BE DOWELED TO FOUNDATION WITH A DOWEL OF MATCHING SIZE AND SPACING.
2. CONTRACTOR SHALL COORDINATE AND VERIFY OPENINGS IN MASONRY WALLS. OPENINGS SHALL BE DETAILED ON REINFORCING STEEL SHOP DRAWING ELEVATIONS.
3. VERTICAL CONTROL JOINTS IN MASONRY WALLS SHALL BE 3/8" WIDE, FULL HEIGHT OF WALL. JOINTS SHALL BE SPACED AT A MAXIMUM OF 24'-0" ON CENTER AND NOT LESS THAN 2'-0" FROM THE EDGE OF ANY OPENING. ALL HORIZONTAL JOINT REINFORCING SHALL BE DISCONTINUOUS AT CONTROL JOINTS. ALL BOND BEAM HORIZONTAL REINFORCING SHALL BE CONTINUOUS THROUGH CONTROL JOINTS. CONTRACTOR SHALL COORDINATE AND VERIFY ALL CONTROL JOINT LOCATIONS.

MASONRY REINFORCING SCHEDULE
FOR LOAD BEARING MASONRY (CMU) WALLS

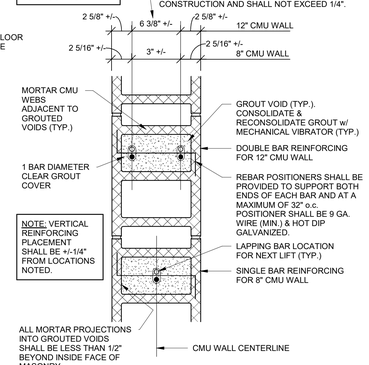
WALL THICKNESS	LOCATION	VERTICAL REINF. (IN GROUTED CELLS)	HORIZ. REINF. (IN BOND BEAMS)
8"	ALL 8" WALLS (U.N.O.)	1- #5 @ 32"oc	PER SECTIONS
12"	ALL 12" WALLS (U.N.O.)	2- #5 @ 48"oc	RE: NOTE 3

NOTES:
1. IN ADDITION TO SPACING SHOWN IN SCHEDULE, VERTICAL REINFORCING SHALL BE PROVIDED IN GROUTED CELLS AT THE FOLLOWING LOCATIONS
   A.) IN THE FIRST 2 CELLS ADJACENT TO EACH OPENING
   B.) IN THE END CELLS ON EACH SIDE OF VERTICAL CONTROL JOINTS
   C.) IN THE END CELLS OF EACH LENGTH OF WALL
   D.) AT EACH CORNER OF WALLS
   E.) UNDER BEAM BEARING PER S/H-S005
2. ALL MASONRY VOIDS AND BOND BEAMS TO BE GROUTED SHALL BE FREE OF DEBRIS AND MORTAR DROPPINGS PRIOR TO GROUTING. ANY MASONRY w/ DROPPINGS OR DEBRIS OBSERVED IN VOIDS SHALL BE REJECTED.
3. IN 12" CMU, PROVIDE BOND BEAMS W/ (2) #6 HORIZ. IN 12" CMU @ ALL FLOOR AND ROOF LEVELS AND @ MID-HEIGHT BETWEEN LEVELS.

A CMU WALL ELEVATION
1 1/2" = 1'-0"

NOTE: REINFORCING SHALL BE PLACED IN POSITIONEERS PRIOR TO GROUTING.

ADJUSTMENTS TO DIMENSIONS TO PROVIDE DEFINED CLEAR GROUT COVER ARE ACCEPTABLE, BUT ALL ADJUSTMENTS SHALL BE APPROVED BY ENGINEER PRIOR TO CONSTRUCTION AND SHALL NOT EXCEED 1/4".

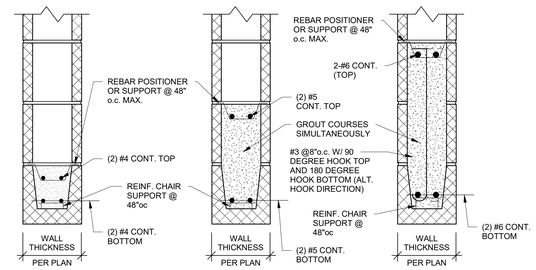


NOTE: VERTICAL REINFORCING PLACEMENT SHALL BE +/-1/4" FROM LOCATIONS NOTED.

NOTE: ALL MASONRY VOIDS AND BOND BEAMS TO BE GROUTED SHALL BE FREE OF DEBRIS AND MORTAR DROPPINGS PRIOR TO GROUTING. ANY MASONRY w/ DROPPINGS OR DEBRIS OBSERVED IN VOIDS SHALL BE REJECTED.

TYPICAL REBAR POSITIONING DETAIL

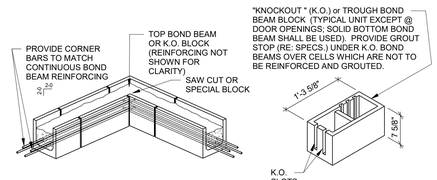
B SECTION
1 1/2" = 1'-0"



OPENINGS UP TO 4'-0" | OPENINGS 4'-0" TO 7'-4" | OPENINGS 7'-4" TO 12'-0"

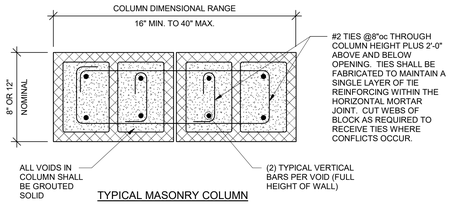
TYPICAL LINTELS AT ALL CMU WALLS (U.N.O.)

C SECTION
1 1/2" = 1'-0"



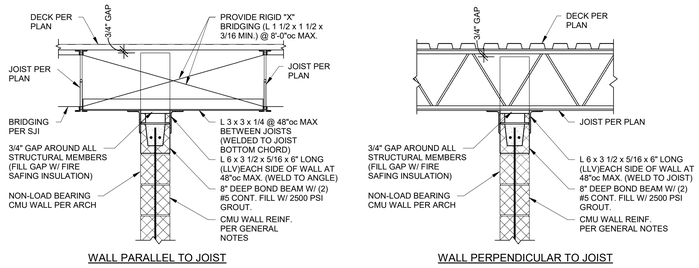
TYPICAL BOND BEAM DETAIL AT CORNER OF CMU WALL

D DETAIL
3/4" = 1'-0"



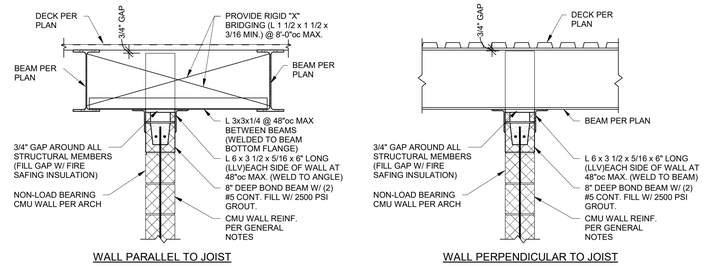
TYPICAL MASONRY COLUMN

E SECTION
1 1/2" = 1'-0"



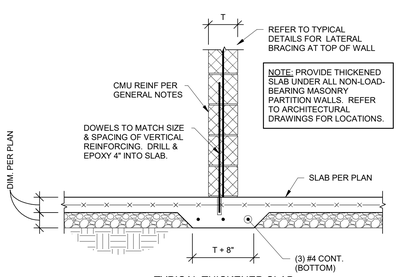
TYPICAL BRACING DETAILS FOR NON-LOAD-BEARING CMU WALLS THAT EXTEND TO DECK
(REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION)

1 SECTION
3/4" = 1'-0"



TYPICAL BRACING DETAILS FOR NON-LOAD-BEARING CMU WALLS THAT EXTEND TO DECK
(REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION)

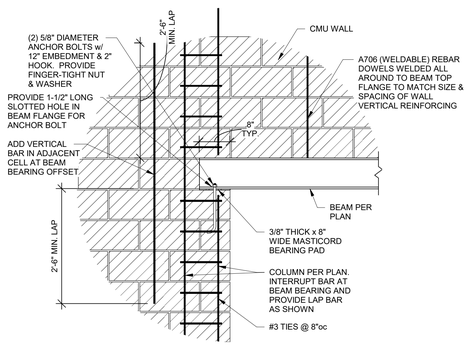
2 SECTION
3/4" = 1'-0"



NOTE: PROVIDE THICKENED SLAB UNDER ALL NON-LOAD-BEARING MASONRY PARTITION WALLS. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS.

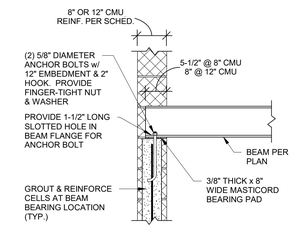
TYPICAL THICKENED SLAB
(UNDER NON-LOAD-BEARING MASONRY)

3 SECTION
3/4" = 1'-0"



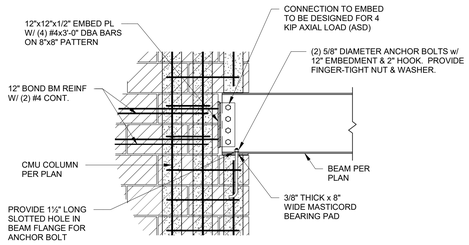
TYPICAL STEEL LINTEL DETAIL AT CMU WALL

4 SECTION
3/4" = 1'-0"



TYPICAL WIDE FLANGE BEAM BEARING ON CMU (U.N.O.)

5 SECTION
3/4" = 1'-0"



TYPICAL WIDE FLANGE BEAM POCKET @ CMU SHEAR WALL

6 SECTION
3/4" = 1'-0"

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Lee's Summit R7 District Athletics Facilities

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400 SE Blue Parkway
Lee's Summit, MO 64063

owner:
Lee's Summit R-7 School District
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STATE OF MISSOURI
RICHARD C. CRABTREE
NUMBER E-027441
9/28/20

Architectural Corporation
Missouri License No.: 2018022991
Jane Doe — Date: MM/DD/2018
Architect — License No. A-0000000

REVISIONS

Number	DESCRIPTION	DATE

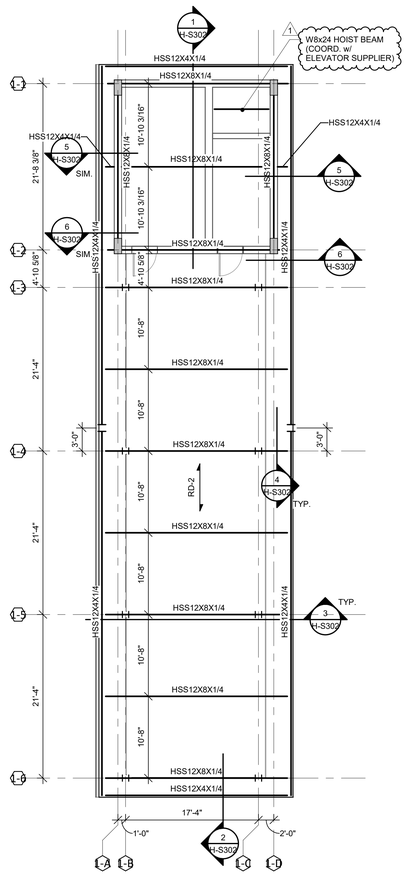
PROJECT NO: 0119-0101
DATE: September 28, 2020

CMU Details

H-S002

BID SET

PRINT DATE/TIME:
9/29/2020 3:11:55 PM

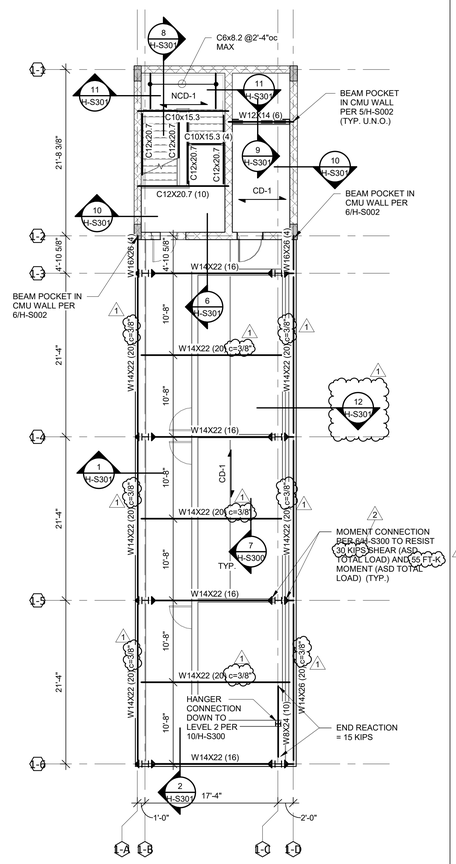


4 Roof Framing Plan - Home Press Box

1/8" = 1'-0"

NOTES:

1. REFER TO GENERAL NOTES ON SHEET S001.
2. RD-2 INDICATES 3½"x20ga GALV. EPICORE ER3.5 ROOF DECK. ATTACH TO FRAMING w/ 3/4"Ø PUDDLE WELDS ON 24/3 PATTERN w/ #12 TEK SCREW SIDELAP FASTENERS @ 24"oc

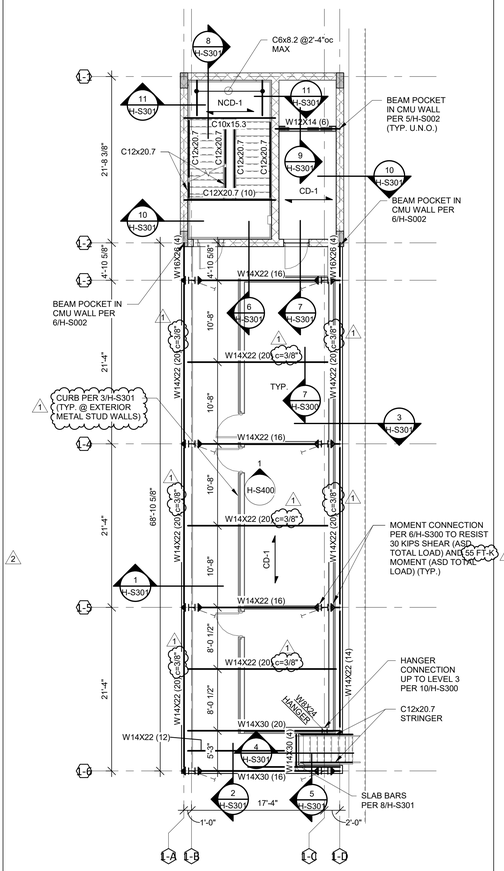


3 Level 3 Framing Plan - Home Press Box

1/8" = 1'-0"

NOTES:

1. REFER TO GENERAL NOTES ON SHEET S001.
2. CD-1 INDICATES 2" (MIN.) CONC. SLAB ON 3½"x20ga GALV. EPICORE 3.5 COMPOSITE FLOOR DECK. REINF SLAB W/ 6x6-6/6 WWF. T/SLAB EL VARIES PER ARCH. ATTACH TO FRAMING w/ 5/8" PUDDLE WELDS ON 24/4 PATTERN w/ #10 TEK SCEW SIDELAP FASTENERS @ 36"oc
3. NCD-1 INDICATES 2-7/16" CONC. SLAB ON 9/16"x26ga METAL FORM DECK. REINF SLAB W/ 6x6-6/6 WWF. T/SLAB EL PER ARCH.
4. W14X22 (20) c=3/8"
   - CAMBER AT MID-SPAN
   - QUANTITY OF 3/4"Øx4" HEADED STUDS
   - BEAM SIZE

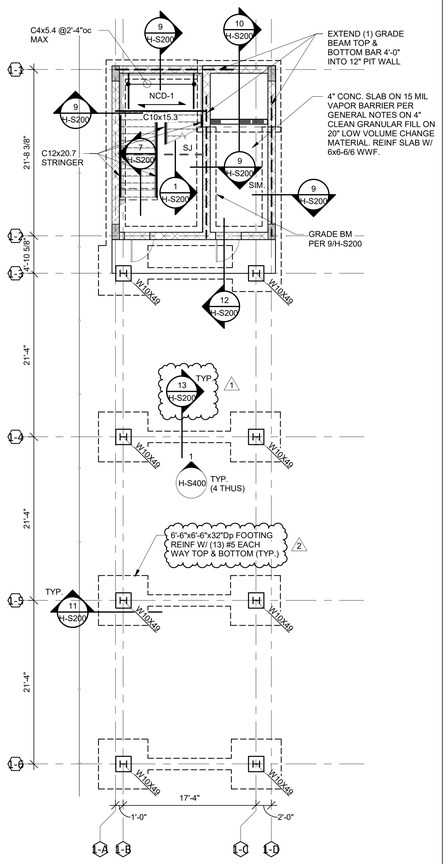


2 Level 2 Framing Plan - Home Press Box

1/8" = 1'-0"

NOTES:

1. REFER TO GENERAL NOTES ON SHEET S001.
2. CD-1 INDICATES 2" (MIN.) CONC. SLAB ON 3½"x20ga GALV. EPICORE 3.5 COMPOSITE FLOOR DECK. REINF SLAB W/ 6x6-6/6 WWF. T/SLAB EL VARIES PER ARCH. ATTACH TO FRAMING w/ 5/8" PUDDLE WELDS ON 24/4 PATTERN w/ #10 TEK SCEW SIDELAP FASTENERS @ 36"oc
3. NCD-1 INDICATES 2-7/16" CONC. SLAB ON 9/16"x26ga METAL FORM DECK. REINF SLAB W/ 6x6-6/6 WWF. T/SLAB EL PER ARCH.
4. W14X22 (20) c=3/8"
   - CAMBER AT MID-SPAN
   - QUANTITY OF 3/4"Øx4" HEADED STUDS
   - BEAM SIZE



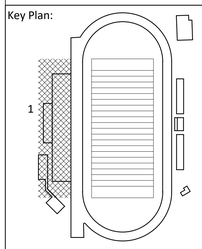
1 Level 1 Foundation Plan - Home Press Box

1/8" = 1'-0"

NOTES:

1. REFER TO GENERAL NOTES ON SHEET S001.
2. ▭ INDICATES 12"x24" CMU COLUMNS REINF. W/ (6) #6 VERTS & #3 TIES @8"oc.
3. NCD-1 INDICATES 2-7/16" CONC. SLAB ON 9/16"x26ga METAL FORM DECK. REINF SLAB W/ 6x6-6/6 WWF. T/SLAB EL PER ARCH.

Key Plan:



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Lee's Summit R7 District Athletics Facilities

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RICHARD C. CRABTREE
NUMBER E-027441
9/28/20

Architectural Corporation	
Missouri License No.: 2018022991	
Richard C. Crabtree	Date: 09/28/2020
Engineer	License No. E-027441

REVISIONS

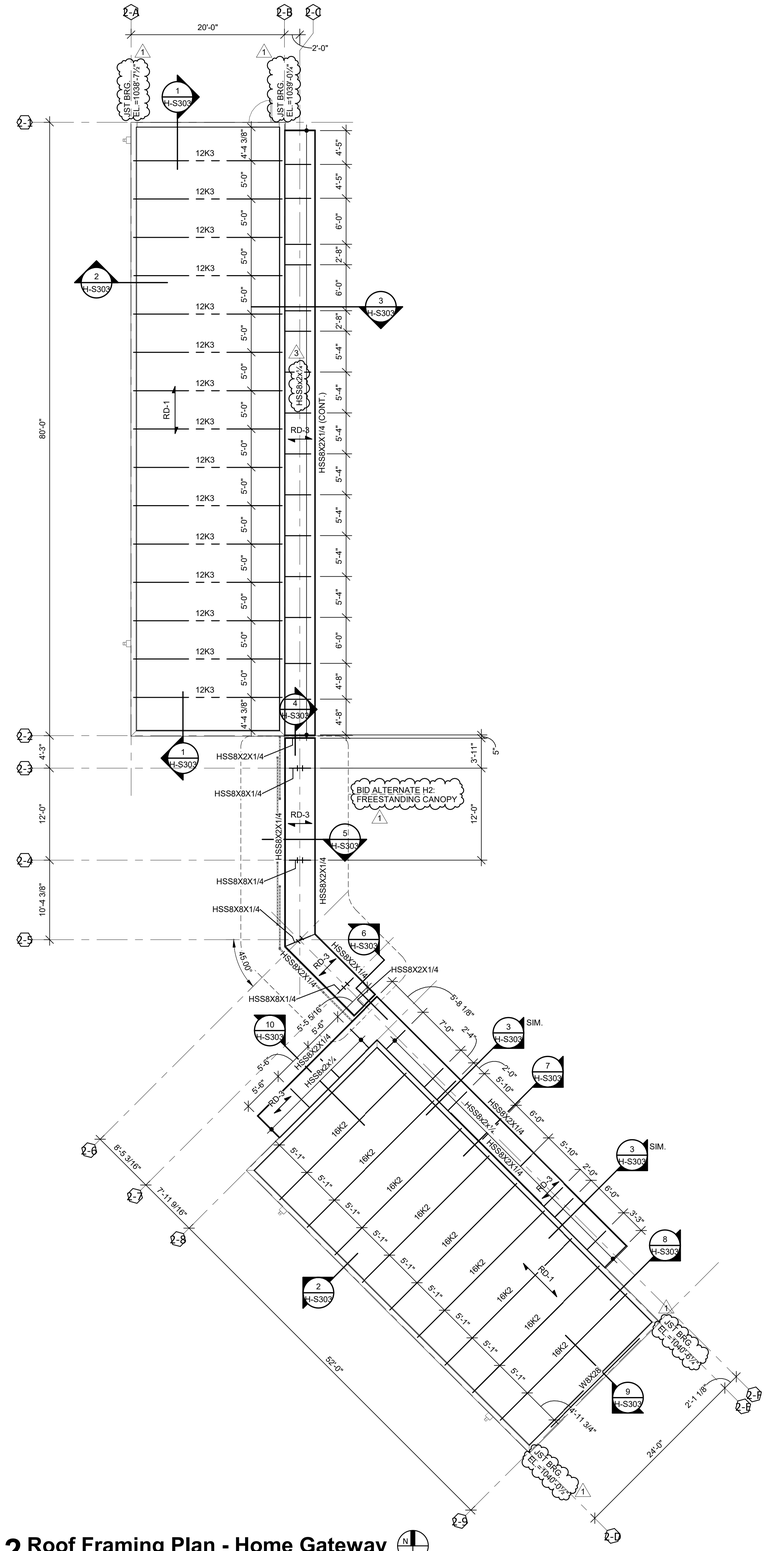
Number	DESCRIPTION	DATE
1	ADD02	10.20.2020
2	ADD03	10.23.2020

PROJECT NO: 0119-0101
DATE: September 28, 2020

Home Press Box Plans

H-S111

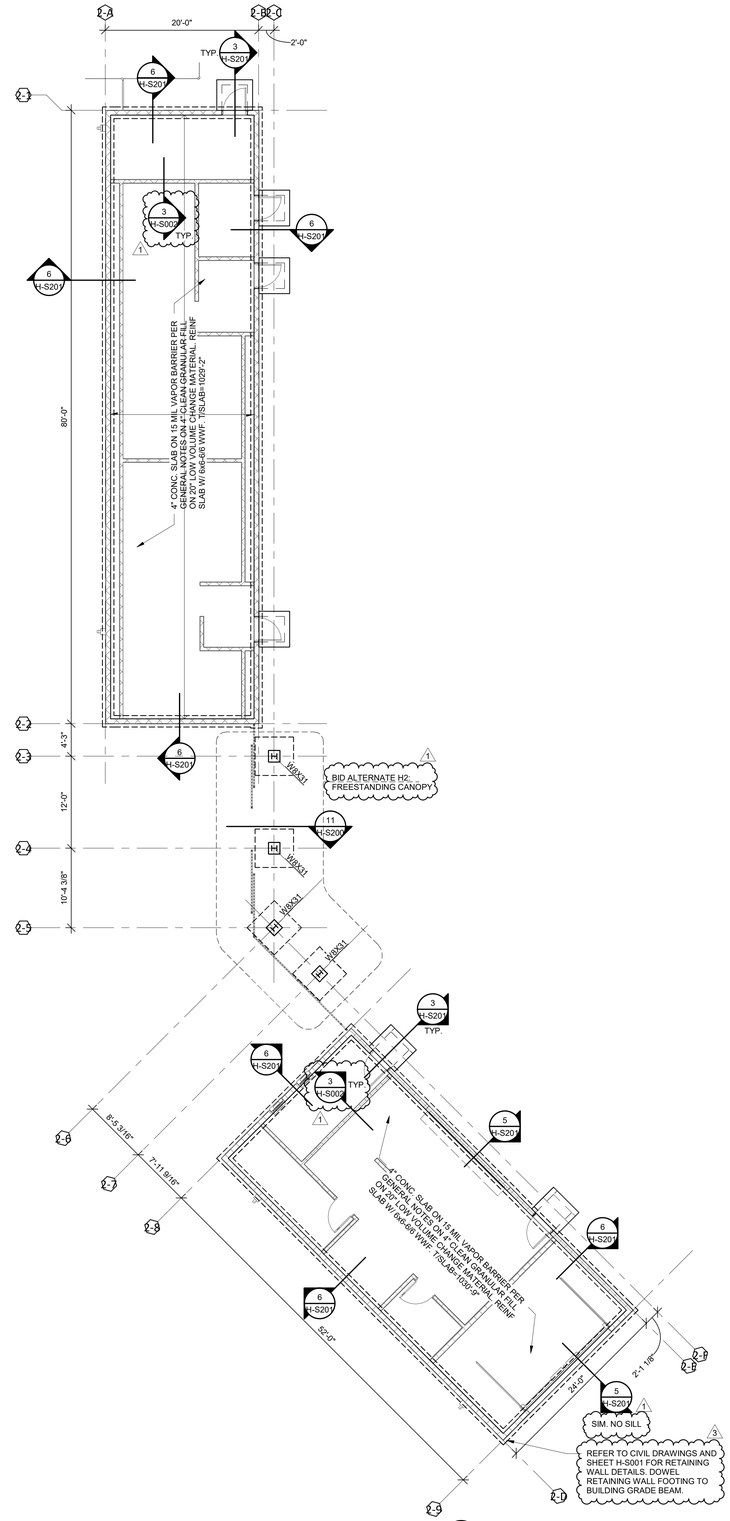
BID SET



2 Roof Framing Plan - Home Gateway

1/8" = 1'-0"

NOTES:
1. ~~REFER TO GENERAL NOTES ON SHEET S001.~~
2. RD-1 INDICATES 1½"x22ga GALV. WIDE RIB METAL ROOF DECK. PROVIDE 5/8" PUDDLE WELDS ON 36/7 PATTERN AND #10 TEK SCREW SIDELAP FASTENERS @ 36"oc.
3. RD-3 INDICATES 2"x20ga GALV. EPICORE ER2R ROOF DECK. PROVIDE 5/8" PUDDLE WELDS ON 24/4 PATTERN AND #10 TEK SCREW SIDELAP FASTENERS @ 36"oc.

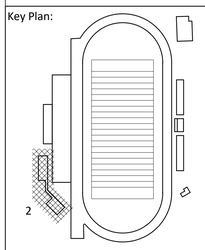


1 Level 1 Foundation Plan - Home Gateway

1/8" = 1'-0"

NOTES:
1. REFER TO GENERAL NOTES ON SHEET S001.

Key Plan:



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Lee's Summit R7 District Athletics Facilities

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STATE OF MISSOURI
RICHARD C. CRABTREE
NUMBER E-027441
REGISTERED PROFESSIONAL ENGINEER
9/28/20

Architectural Corporation	
Missouri License No.: 2018022991	
Richard C. Crabtree	Date: 09/28/2020
Engineer	License No. E-027441

REVISIONS

Number	DESCRIPTION	DATE
1	AD002	10.20.2020
3	AD004	10.26.2020

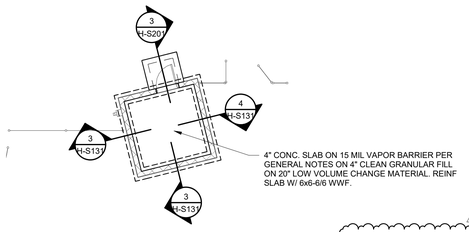
PROJECT NO: 0119-0101
DATE: September 28, 2020

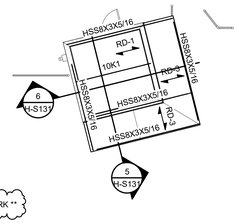
Home Gateway Plans

H-S121

BID SET

PRINT DATE/TIME:
11/5/2020 11:16:56 AM





** BID ALTERNATE H1: ALL VISITOR TICKET BOOTH WORK **

1 Level 1 Foundation Plan -Visitor Ticket Booth

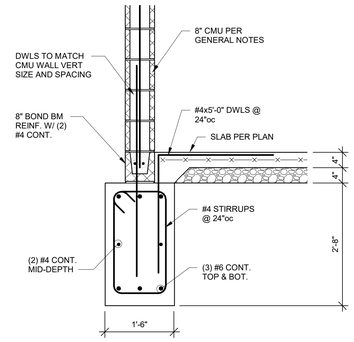
1/8" = 1'-0"

NOTES:
1. REFER TO GENERAL NOTES ON SHEET S001.

2 Roof Framing Plan - Visitor Ticket Booth

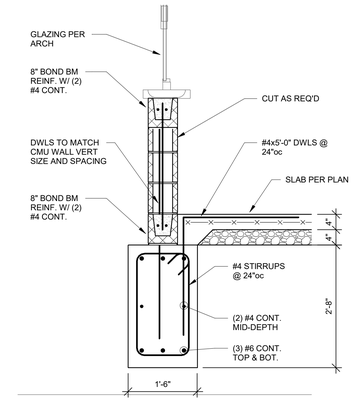
1/8" = 1'-0"

NOTES:
1. REFER TO GENERAL NOTES ON SHEET S001.
2. RD-1 INDICATES 1½"x22ga GALV. WIDE RIB METAL ROOF DECK. PROVIDE 5/8" PUDDLE WELDS ON 36/7 PATTERN AND #10 TEK SCREW SIDELAP FASTENERS @ 36"oc
3. RD-3 INDICATES 2"x20ga GALV. EPICORE ER2R ROOF DECK. PROVIDE 5/8" PUDDLE WELDS ON 24/4 PATTERN AND #10 TEK SCREW SIDELAP FASTENERS @ 36"oc



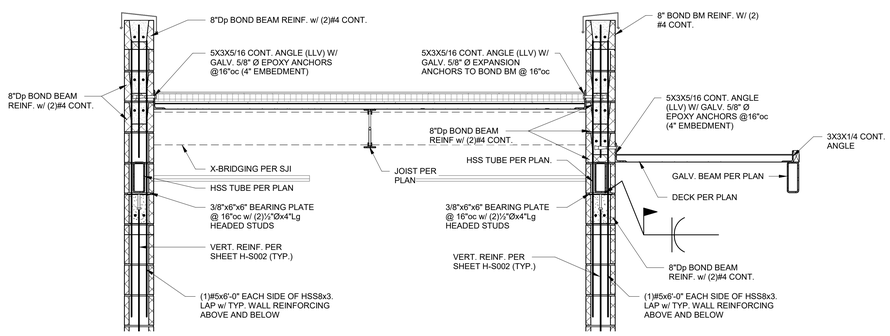
3 SECTION

3/4" = 1'-0"



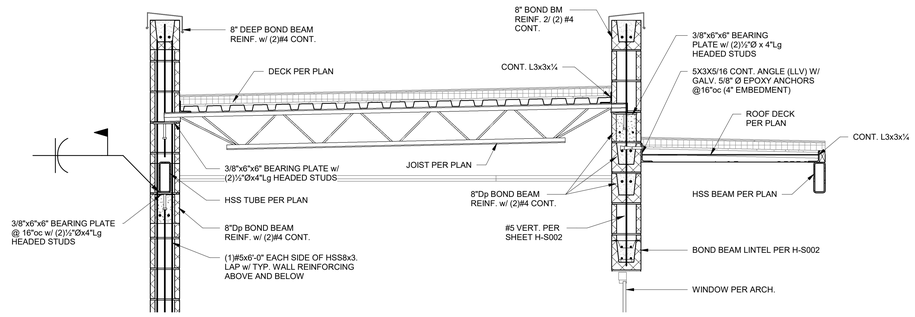
4 SECTION

3/4" = 1'-0"



5 SECTION

3/4" = 1'-0"



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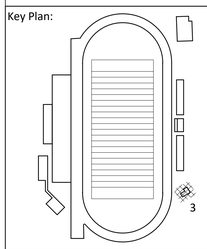
3/4" = 1'-0"

Key Plan:



PRINT DATE/TIME:
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Lee's Summit R7 District Athletics Facilities

Lee's Summit High School
400 SE Blue Parkway
Lee's Summit, MO 64063

owner:
Lee's Summit R-7 School District
301 NE Tudor Road
Lee's Summit, MO 64086

architect:
Gould Evans
4200 Pennsylvania Avenue
Kansas City, MO 64111
816.931.6655 voice
www.gouldevans.com

structural engineer:
Bob D. Campbell & Company, Inc.
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STATE OF MISSOURI
RICHARD C. CRABTREE
NUMBER E-027441
9/28/20

Architectural Corporation
Missouri License No.: 2018022991
Richard C. Crabtree — Date: 09/28/2020
Engineer — License No. E-027441

REVISIONS

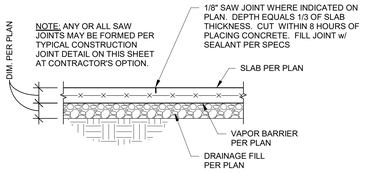
Number	DESCRIPTION	DATE
1	ADD002	10.20.2020

PROJECT NO: 0119-0101
DATE: September 28, 2020

Visitor Ticket Booth Plans

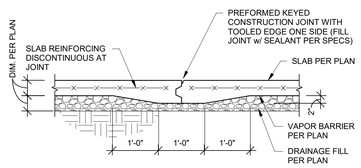
H-S131

BID SET



TYPICAL SAW JOINT
NOTED "SJ" ON PLAN

1 SECTION
3/4" = 1'-0"



TYPICAL CONSTRUCTION JOINT
NOTED "CJ" ON PLAN

2 SECTION
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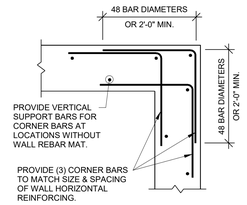
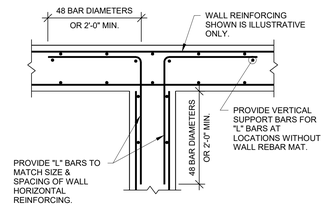
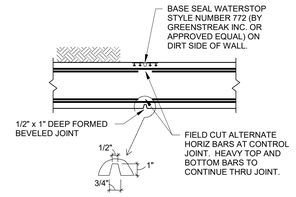


TYPICAL CORNER BARS AT
CONCRETE WALLS & FOUNDATIONS

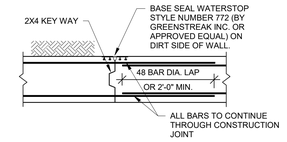


TYPICAL T-INTERSECTION REINFORCING
AT CONCRETE WALLS & FOUNDATIONS

3 TYPICAL INTERSECTING CONCRETE WALL REINFORCING
3/4" = 1'-0"

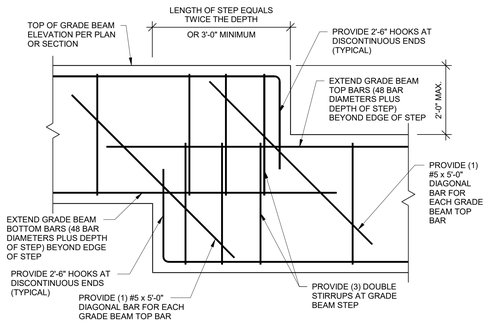


VERTICAL WALL CONTROL JOINT
MAXIMUM SPACING = 25'-0"
(COORDINATE LOCATIONS WITH ARCHITECT/ALIGN WITH MASONRY CONTROL/EXPANSION JOINTS ABOVE)

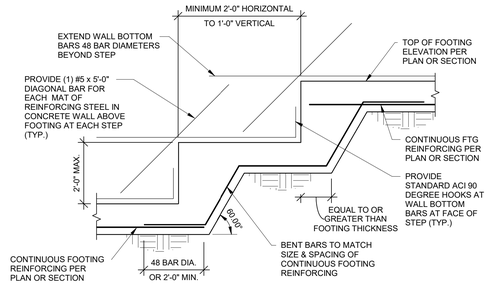


VERTICAL WALL CONSTRUCTION JOINT
MAXIMUM SPACING = 100'-0"

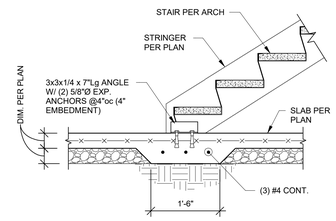
4 VERTICAL WALL CONTROL JOINT
3/4" = 1'-0"



5 TYPICAL GRADE BEAM STEP
3/4" = 1'-0"

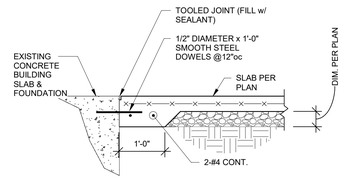


6 TYPICAL FOOTING STEP
1/2" = 1'-0"



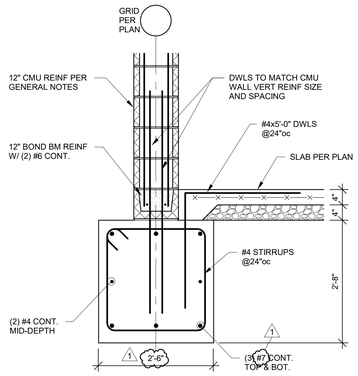
TYPICAL THICKENED SLAB AT BASE OF STAIR

7 SECTION
3/4" = 1'-0"

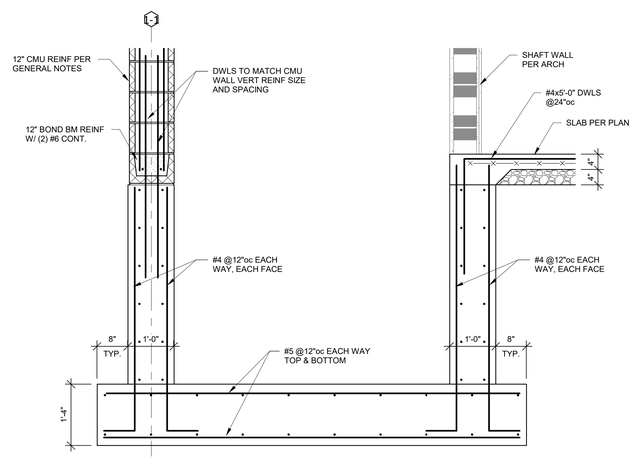


TYPICAL SLAB EDGE DETAIL AT EXISTING
BUILDING SLAB THRESHOLD

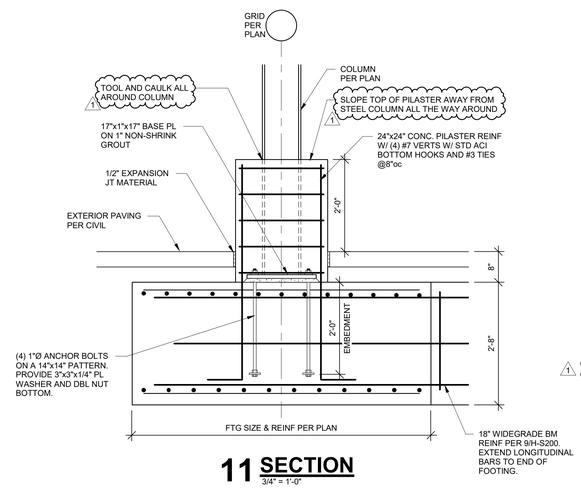
8 SECTION
3/4" = 1'-0"



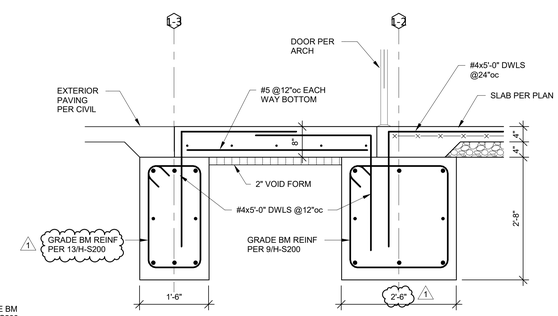
9 SECTION
3/4" = 1'-0"



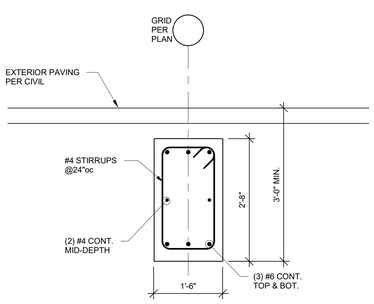
10 SECTION
3/4" = 1'-0"



11 SECTION
3/4" = 1'-0"



12 SECTION
3/4" = 1'-0"



13 SECTION
3/4" = 1'-0"

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STATE OF MISSOURI
RICHARD C. CRABTREE
NUMBER E-027441
REGISTERED PROFESSIONAL ENGINEER
9/28/20

Architectural Corporation
Missouri License No.: 2018022991
Richard C. Crabtree Date: 09/28/2020
Engineer License No. E-027441

REVISIONS

Number	DESCRIPTION	DATE
1	ADD02	10.20.2020

PROJECT NO: 0119-0101
DATE: September 28, 2020

Foundation Sections

H-S200

BID SET

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11/5/2020 11:17:02 AM

NOT USED 1

1 SECTION
3/4" = 1'-0"

NOT USED 1

2 SECTION
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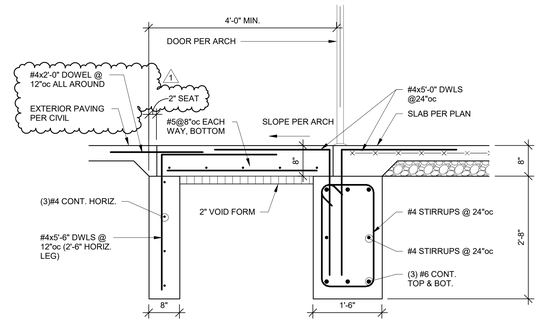
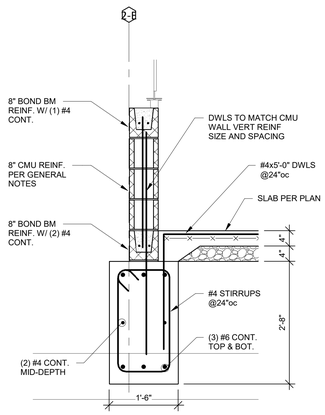


3 SECTION
3/4" = 1'-0"

NOT USED 1

4 SECTION
3/4" = 1'-0"



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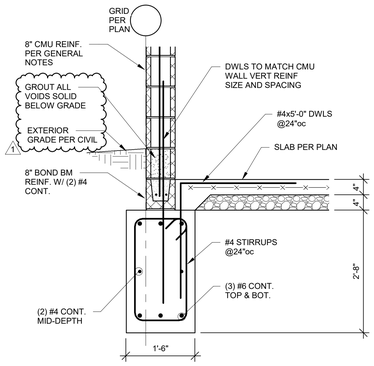

6 SECTION
3/4" = 1'-0"

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9/28/20

Architectural Corporation
Missouri License No.: 2018022991
Richard C. Crabtree Date: 09/28/2020
Engineer License No. E-027441

REVISIONS

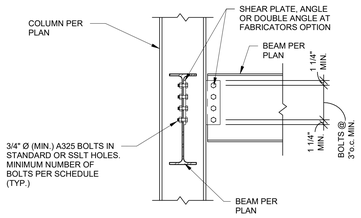
Number	DESCRIPTION	DATE
1	AD002	10.20.2020

PROJECT NO: 0119-0101
DATE: September 28, 2020

Foundation Sections

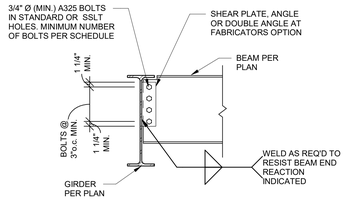
H-S201

BID SET



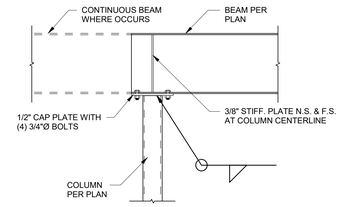
TYPICAL BEAM TO COLUMN SHEAR CONNECTION

1 DETAIL
3/4" = 1'-0"



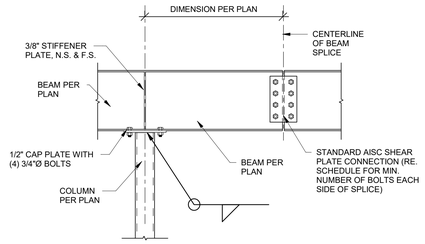
TYPICAL BEAM TO GIRDER CONNECTION

2 DETAIL
3/4" = 1'-0"



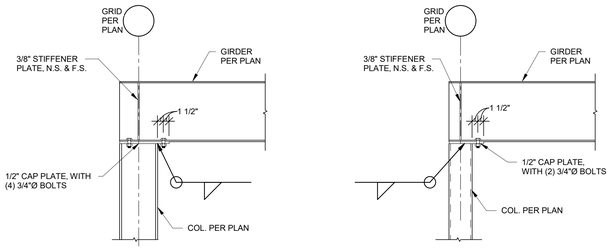
TYPICAL BEAM TO COLUMN CONNECTION

3 DETAIL
3/4" = 1'-0"



TYPICAL BEAM SPLICE

4 DETAIL
3/4" = 1'-0"

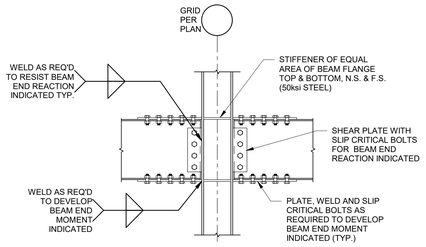


@ WIDE FLANGE COLUMN

@ HSS COLUMN

TYPICAL ROOF BEAM TO COLUMN CONNECTION AT EXTERIOR WALL

5 SECTION
3/4" = 1'-0"



TYP. BEAM TO WIDE FLANGE COL. MOMENT CONNECTIONS

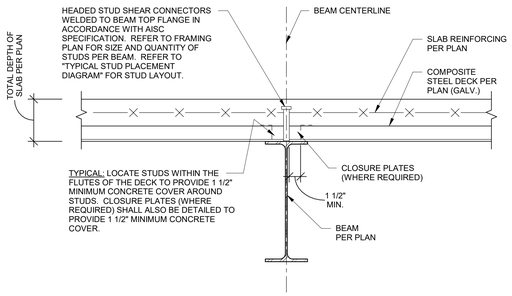
NOTE: FLANGE PLATES MAY BE FULL PENETRATION WELDED TO COLUMN AT CONTRACTORS OPTION

6 SECTION
3/4" = 1'-0"

BEAM SHEAR CONNECTION SCHEDULE		
BEAM SIZE	MINIMUM ROWS OF BOLTS	END REACTION (U.N.O.)
W8,C8,HSS8 W10,C10	2	10 KIPS
W12,C12,HSS12	2	15 KIPS
W14, W16	3	30 KIPS

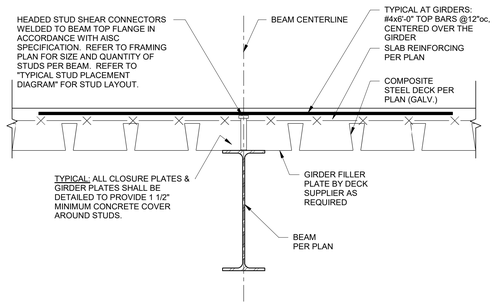
STEEL CONNECTION NOTES:

1. REFER TO GENERAL NOTES ON SHEET H-S001.
2. CONNECTIONS SHOWN IN THESE DETAILS ARE MINIMUM REQUIREMENTS.
3. FABRICATOR SHALL BE RESPONSIBLE FOR THE ENGINEERING, DESIGNING, AND DETAILING OF EACH CONNECTION FOR LOADS SHOWN ON THE DRAWINGS IN ACCORDANCE WITH THE SPECIFICATIONS AND THE STRUCTURAL GENERAL NOTES.
4. SUGGESTED CONNECTION DETAILS ARE SHOWN. FINAL CONNECTION CONFIGURATION AND DESIGN SHALL BE COMPLETED BY THE CONNECTION ENGINEER. CONNECTION DESIGN SHALL INCLUDE COLUMN OR BEAM CONTINUITY PLATES, WEB STIFFENERS, AND/OR DOUBLER PLATES AS REQUIRED FOR THE FORCES INDICATED.
5. FABRICATOR MAY OPT TO USE OTHER AISC APPROVED CONNECTIONS IN LIEU OF THESE SHOWN HEREIN TO MEET END REACTION REQUIREMENTS (i.e. DOUBLE ANGLE CONNECTION).
6. CONNECTION DETAILING SHALL COMPLY WITH THE STANDARD DETAILS SHOWN IN THE LATEST EDITION OF THE AISC MANUAL OF STEEL CONSTRUCTION.
7. ALL BOLTS SHALL BE 3/4" Ø ASTM A325 MINIMUM.
8. ALL BOLTS SHALL BE SPACED AT 3"o.c. MINIMUM.
9. ALL BOLTS SHALL HAVE HEAVY HEX NUTS.
10. ALL BOLTS SHALL BE FULLY PRE-TENSIONED.
11. BOLT SPACING AND EDGE DISTANCES SHALL BE ADJUSTED PER AISC MANUAL FOR BOLTS LARGER THAN 3/4" DIAMETER.
12. CLIP ANGLES MAY BE SHOP WELDED TO BEAM WEB PER AISC.
13. FOR BEAMS WITH AXIAL LOADS PER DRAWINGS, BOLTS AND CONNECTIONS SHALL BE SLIP-CRITICAL PER AISC GUIDELINES. INCREASE NUMBER OF BOLTS AND/OR PROVIDE EXTENDED SHEAR PLATE CONNECTION W/ AN ADDITIONAL COLUMN OF BOLTS TO ACCOMODATE COMBINED FORCES.
14. PROVIDE ASTM A490 BOLTS IF REQUIRED TO MEET END REACTION LOAD REQUIREMENTS.
15. REFER TO ELEVATIONS ON SHEET H-S400 FOR BRACE FORCES. REFER TO PLANS FOR ADDITIONAL BEAM AXIAL FORCES. BRACE AND BEAM FORCES INDICATED ARE UNFACTORED (ASD) LOADS AND SHALL BE CONSIDERED CONCURRENT W/ BEAM SHEAR DESIGN FORCES LISTED IN THE BEAM SHEAR CONNECTION SCHEDULE.
16. COORDINATE BRACED FRAME CONNECTION W/ ARCHITECTURAL WALLS AS REQUIRED TO AVOID CONFLICT OR EXPOSURE OUTSIDE OF WALL OR FINISH.
17. ALL END REACTIONS INDICATED ARE UNFACTORED (ASD) LOADS.



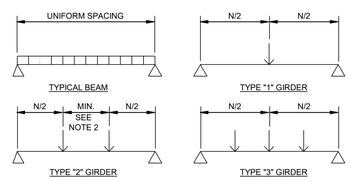
TYPICAL COMPOSITE BEAM DETAIL
(DECK SPAN PERPENDICULAR TO BEAM)

7 SECTION
1 1/2" = 1'-0"



TYPICAL COMPOSITE BEAM/GIRDER DETAIL
(DECK SPAN PARALLEL TO BEAM)

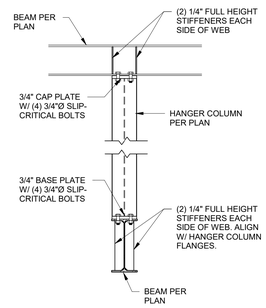
8 SECTION
1 1/2" = 1'-0"



TYPICAL STUD PLACEMENT DIAGRAM

1. ALL DIAGRAMS REPRESENT IDEALIZED CONDITIONS. ACTUAL FRAMING CONFIGURATIONS MAY REQUIRE ADDITIONAL INTERPRETATION.
2. MAXIMUM SPACING OF STUDS SHALL BE 36"o.c. IF STUD SPACING EXCEEDS 12" o.c. PROVIDE 5/8" DIA. PUDDLE WELD ATTACHMENT SUCH THAT THE MAXIMUM AVERAGE SPACING OF STUD/WELD ATTACHMENT IS 12"o.c., AND MAXIMUM SPACING BETWEEN ATTACHMENTS IS 18".
3. THE NUMBER OF STUDS PER BEAM SHOWN ON THE DRAWINGS IS BASED ON AN ASSUMED DESIGN VALUE OF 13.3 KIPS/STUD. THE ACTUAL NUMBER OF STUDS PER BEAM [N] MAY VARY BASED WIDTH, DECK DEPTH, NUMBER OF STUDS PER CELL, DECK RIB ORIENTATION, ETC. AS PER AISC SPECIFICATIONS FOR COMPOSITE CONSTRUCTION. METAL DECK CONTRACTOR SHALL SUBMIT ALL CALCULATIONS VERIFYING THE HORIZONTAL SHEAR CAPACITY OF SHEAR STUDS DETAILED ON SHOP DRAWINGS AND PROVIDE THE STUDS REQUIRED.
4. SHEAR CONNECTOR PLACEMENT SHALL BE FULLY DETAILED ON THE METAL DECK SHOP DRAWINGS.

9 TYPICAL STUD PLACEMENT
3/4" = 1'-0"



10 SECTION
3/4" = 1'-0"

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NUMBER E-027441
PROFESSIONAL ENGINEER
9/28/20

Architectural Corporation	
Missouri License No.: 2018022991	
Jane Doe	Date: MM/DD/2018
Architect	License No. A-0000000

REVISIONS

Number	DESCRIPTION	DATE

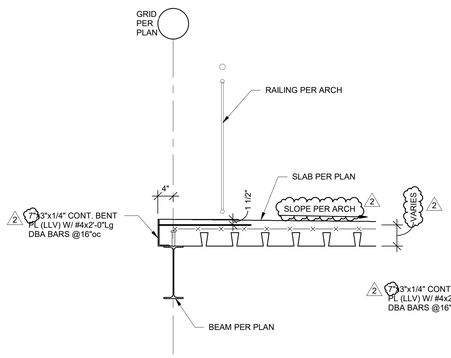
PROJECT NO: 0119-0101
DATE: September 28, 2020

Framing Sections

H-S300

BID SET

PRINT DATE/TIME:
9/29/2020 3:12:21 PM



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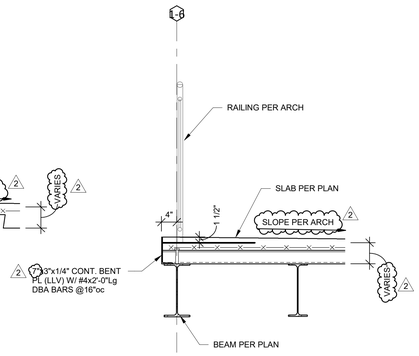

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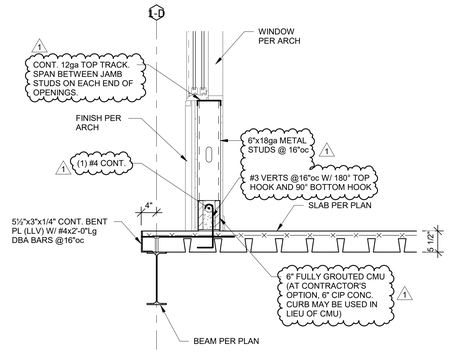

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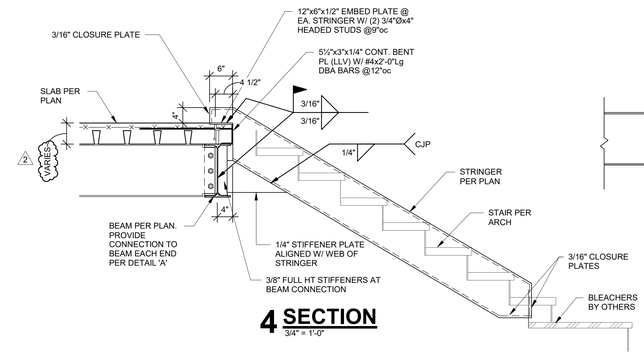

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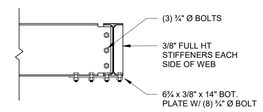
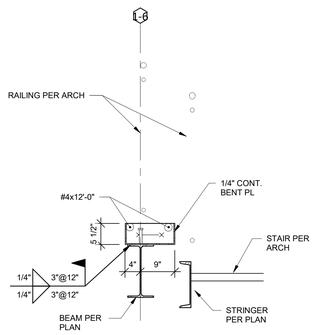


DETAIL A



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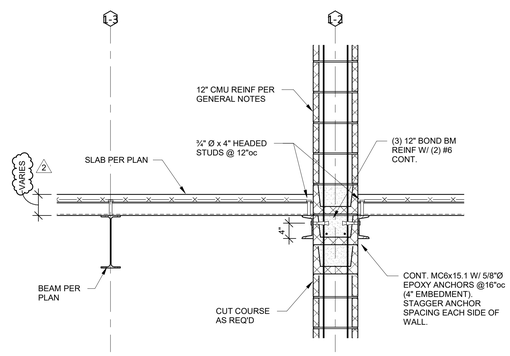

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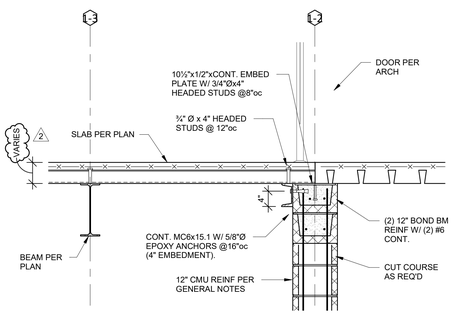

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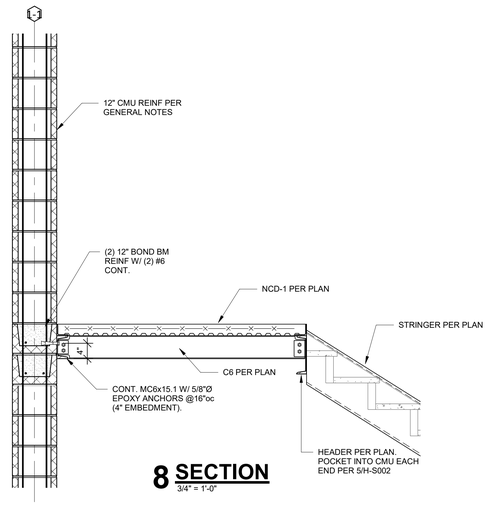

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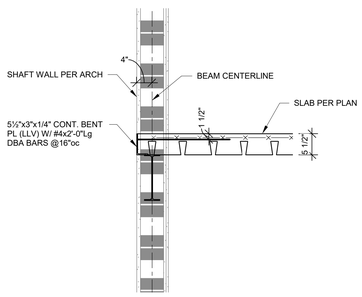

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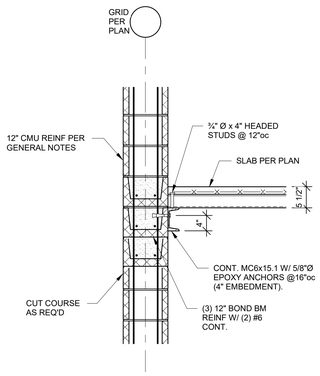

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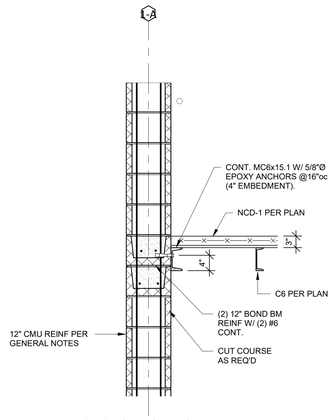

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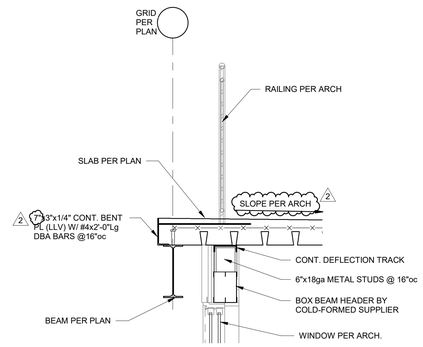

12 SECTION
3/4" = 1'-0"

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Lee's Summit R7 District Athletics Facilities

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Lee's Summit, MO 64063

owner:
Lee's Summit R-7 School District
301 NE Tudor Road
Lee's Summit, MO 64086

architect:
Gould Evans
4200 Pennsylvania Avenue
Kansas City, MO 64111
816.931.6655 voice
www.gouldevans.com

structural engineer:
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4338 Belleview Avenue
Kansas City, MO 64111
816.531.4144

civil engineer:
Kaw Valley Engineering
14700 West 114th Terrace
Lenexa, KS 66215
913.485.0318

mechanical/electrical engineer:
Henderson Engineers
8345 Lenexa Drive | Suite 300
Lenexa, KS 66214
816.742.5000

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STATE OF MISSOURI
RICHARD C. CRABTREE
NUMBER E-027441
REGISTERED PROFESSIONAL ENGINEER
9/28/20

Architectural Corporation	
Missouri License No.: 2018022991	
Richard C. Crabtree	Date: 09/28/2020
Engineer	License No. E-027441

REVISIONS

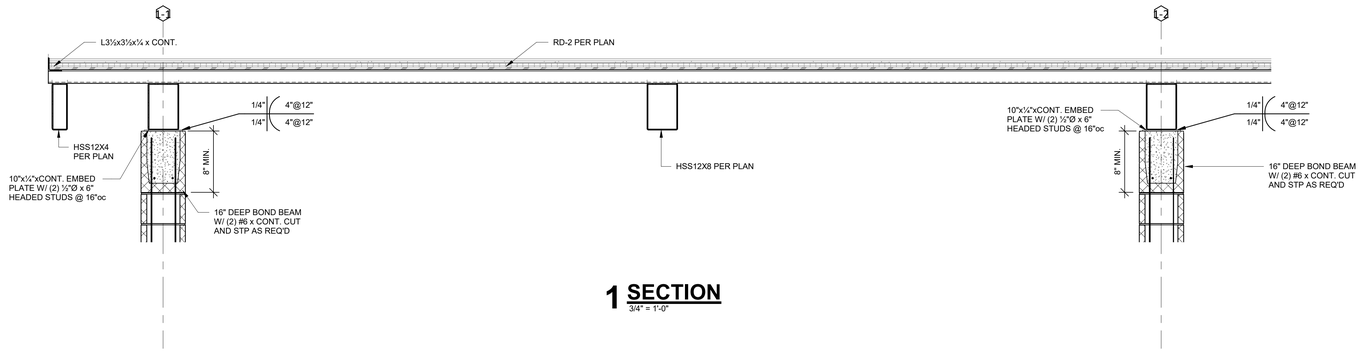
Number	DESCRIPTION	DATE
1	AD002	10.20.2020
2	AD003	10.23.2020

PROJECT NO: 0119-0101
DATE: September 28, 2020

Framing Sections

H-S301

BID SET



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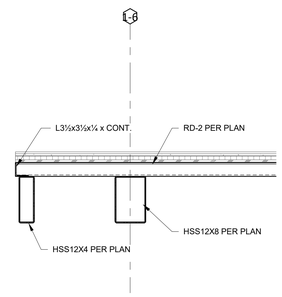

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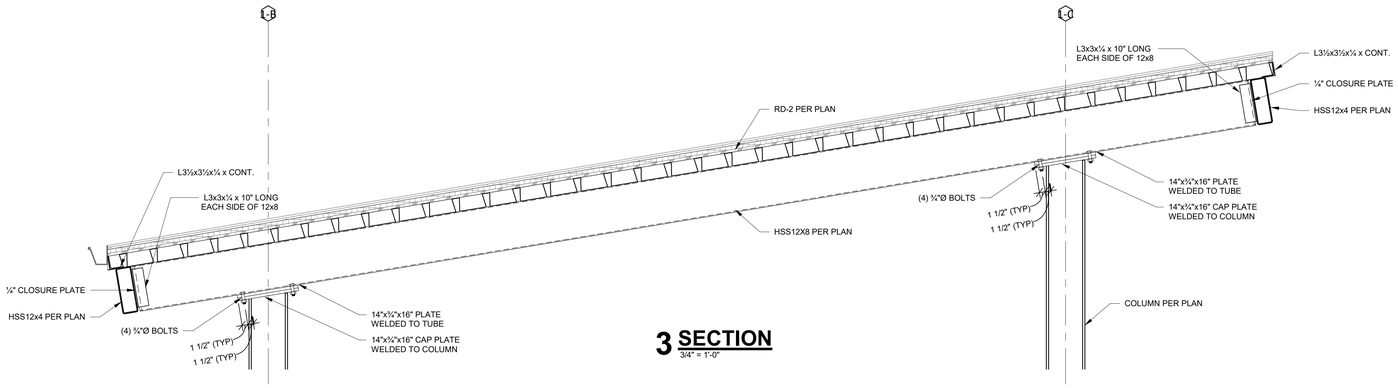

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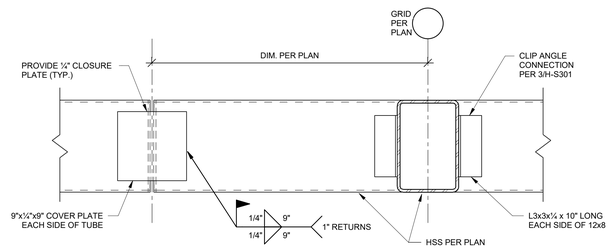
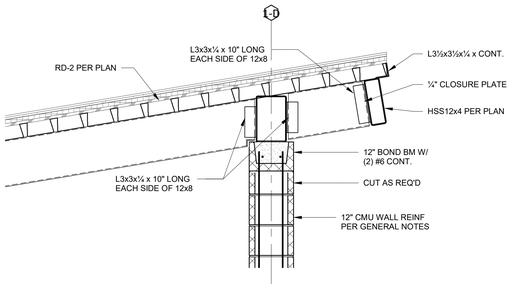


4 SECTION
1 1/2" = 1'-0"



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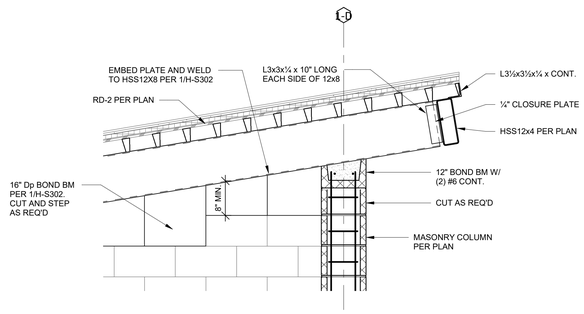

6 SECTION
3/4" = 1'-0"

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Lee's Summit R7 District
Athletics Facilities

Lee's Summit High School
400 SE Blue Parkway
Lee's Summit, MO 64063

owner:
Lee's Summit R-7 School District
301 NE Tudor Road
Lee's Summit, MO 64086

architect:
Gould Evans
4200 Pennsylvania Avenue
Kansas City, MO 64111
816.931.6655 voice
www.gouldevans.com

structural engineer:
Bob D. Campbell & Company, Inc.
4338 Belleview Avenue
Kansas City, MO 64111
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civil engineer:
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14700 West 114th Terrace
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mechanical/electrical engineer:
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816.742.5000

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STATE OF MISSOURI
RICHARD
C. CRABTREE
NUMBER
E-027441
9/28/20

Architectural Corporation
Missouri License No.: 2018022991
Jane Doe Date: MM/DD/2018
Architect License No. A-0000000

REVISIONS

Number	DESCRIPTION	DATE

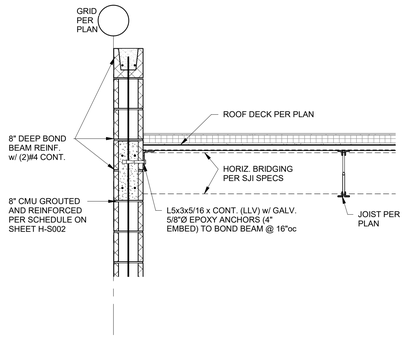
PROJECT NO: 0119-0101
DATE: September 28, 2020

Framing Sections

H-S302

BID SET

PRINT DATE/TIME:
9/29/2020 3:12:28 PM



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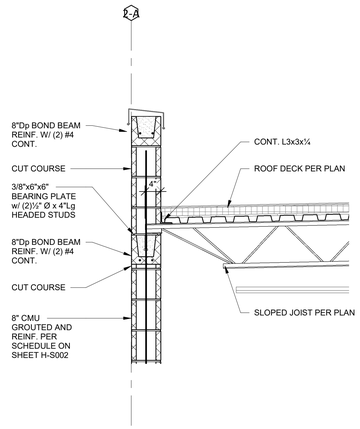

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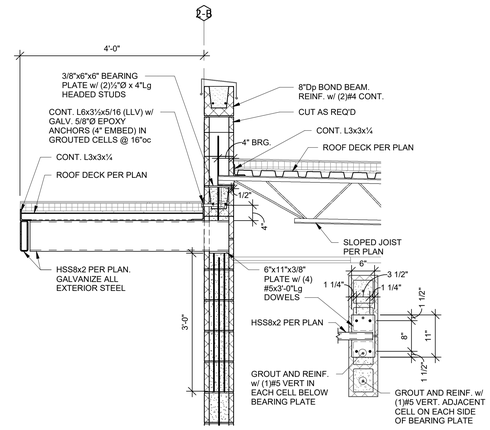

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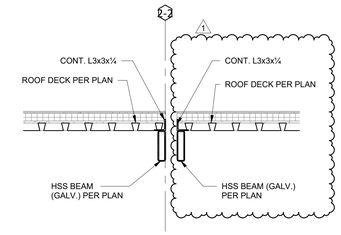

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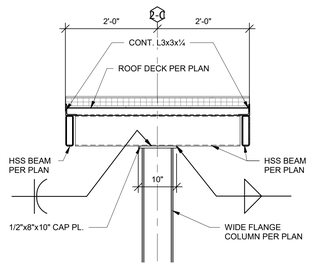

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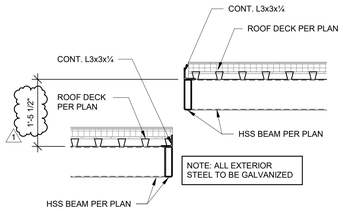
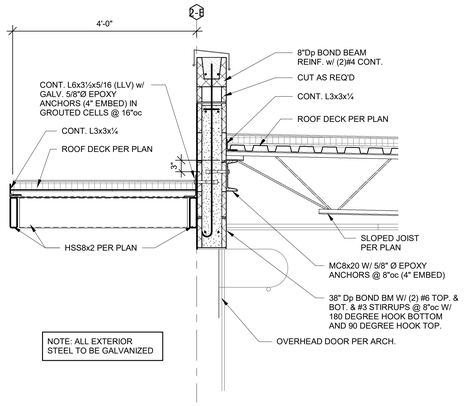


NOTE: ALL EXTERIOR STEEL TO BE GALVANIZED

6 SECTION
3/4" = 1'-0"



NOTE: ALL EXTERIOR STEEL TO BE GALVANIZED

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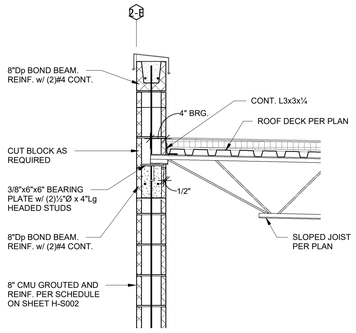

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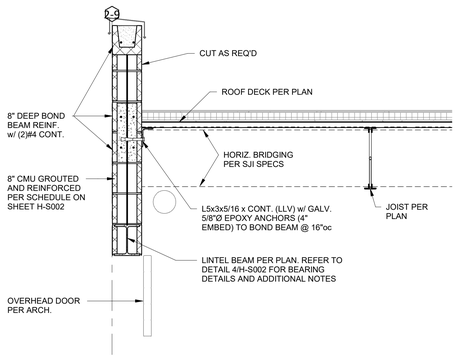

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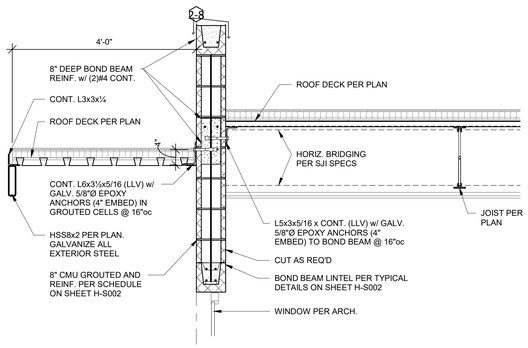

10 SECTION
3/4" = 1'-0"

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Lee's Summit R7 District Athletics Facilities

Lee's Summit High School
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architect:
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Kansas City, MO 64111
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www.gouldevans.com

structural engineer:
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civil engineer:
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14700 West 114th Terrace
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913.485.0318

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STATE OF MISSOURI
RICHARD C. CRABTREE
NUMBER E-027441
9/28/20

Architectural Corporation	
Missouri License No.: 2018022991	
Richard C. Crabtree	Date: 09/28/2020
Engineer	License No. E-027441

REVISIONS

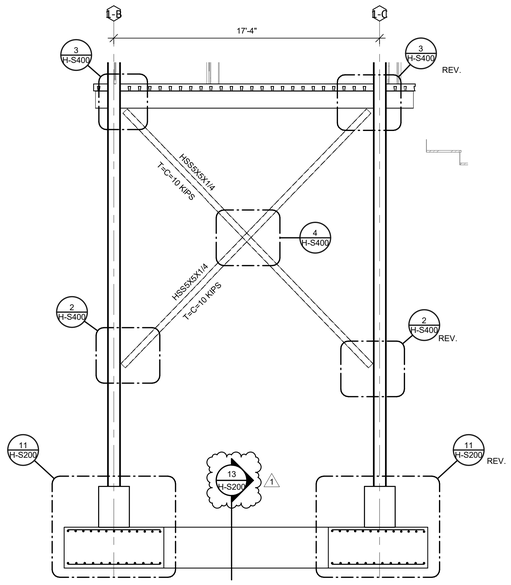
Number	DESCRIPTION	DATE
1	ADD02	10.20.2020

PROJECT NO: 0119-0101
DATE: September 28, 2020

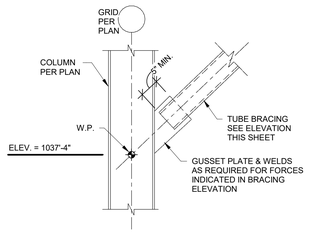
Framing Sections

H-S303

BID SET



1 ELEVATION
1/4" = 1'-0"



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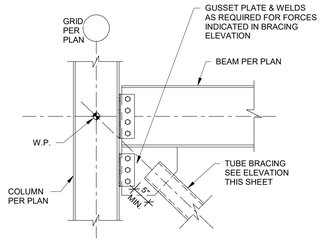

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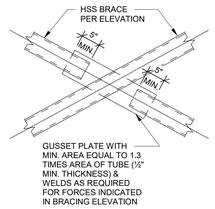

4 DETAIL
3/4" = 1'-0"

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STATE OF MISSOURI
RICHARD C. CRABTREE
NUMBER E-027441
9/28/20

Architectural Corporation
Missouri License No.: 2018022991
Richard C. Crabtree Date: 09/28/2020
Engineer License No. E-027441

REVISIONS

Number	DESCRIPTION	DATE
1	ADD02	10.20.2020

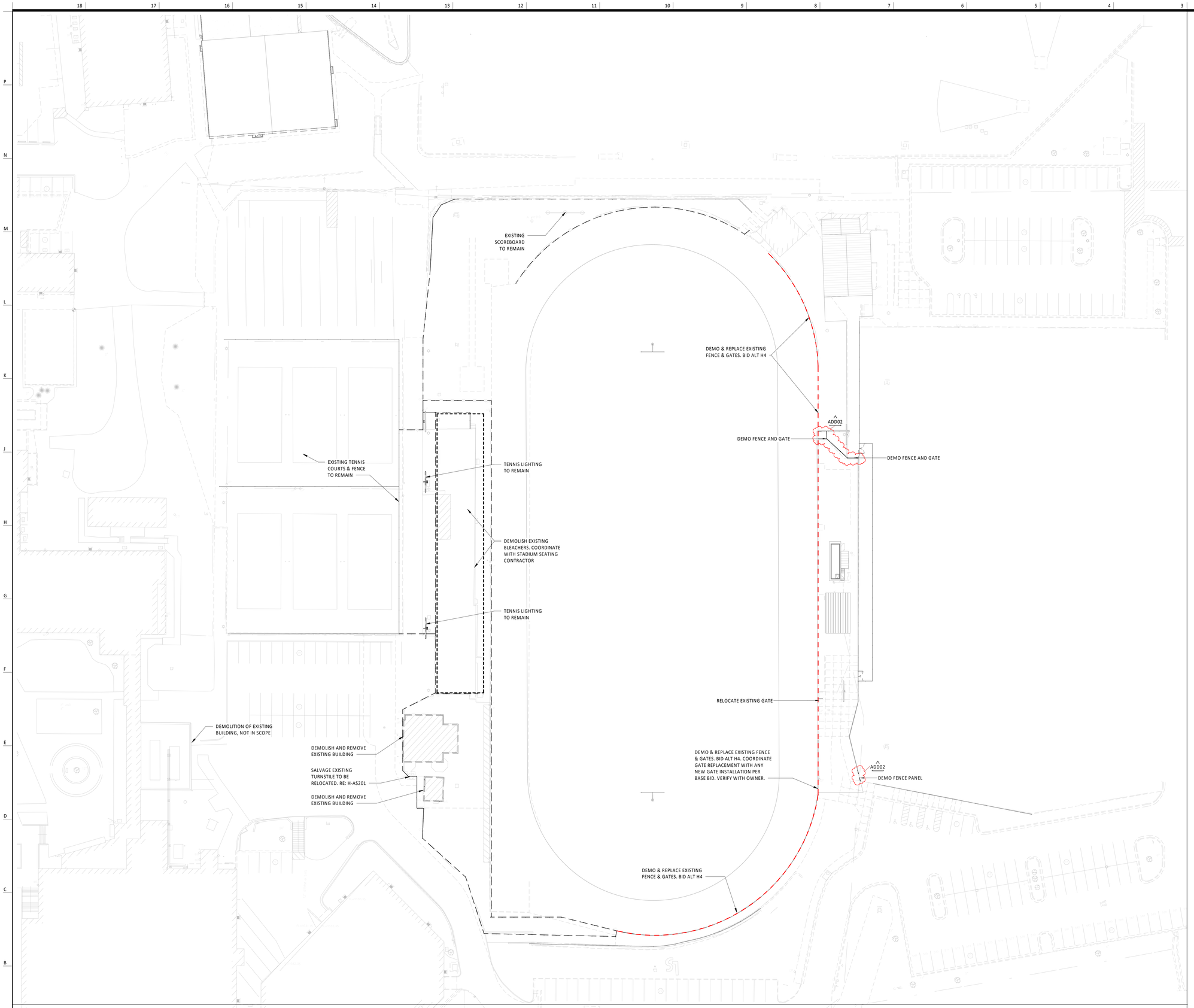
PROJECT NO: 0119-0101
DATE: September 28, 2020

Framing Elevations

H-S400

BID SET

PRINT DATE/TIME:
11/5/2020 11:17:15 AM



General Notes (Demo Site Plan):

1. DEMOLITION OF ELEMENTS ON THIS PLAN ARE LOCATED TO THE BEST OF OUR KNOWLEDGE AND SHOULD BE VERIFIED IN FIELD BEFORE BEGINNING DEMOLITION.
2. PROTECT SITE ELEMENTS THAT ARE EXISTING TO REMAIN FROM DAMAGE. INCLUDING BUT NOT LIMITED TO, EXISTING FENCE & GATES, EXISTING BLEACHERS, EXISTING ATHLETICS TRACK, EXISTING SCOREBOARD, ETC.
3. ALL GATES ASSOCIATED WITH FENCE TO BE DEMOLISHED SHALL ALSO BE DEMOLISHED, VERIFY IN FIELD.
4. ALL FENCE TO BE REPLACED IN PLACE SHALL ALSO HAVE ANY CORRESPONDING GATES REPLACED. RE: H-AS201, VERIFY IN FIELD.
5. FILL ALL POST HOLES AFTER DEMOLITION OF FENCE POSTS.

Overall Site Demolition Plan A1

1" = 30'-0"

PRINT DATE/TIME:
11/4/2020 8:20:48 AM

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STATE OF MISSOURI
JAY
BARRIEN
BROWNING
NUMBER
2009027279
ARCHITECT
11.3.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 11/03/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE
AD002	Addendum 02	10/20/20

PROJECT NO: 0119-0101
DATE: September 28, 2020

Overall (Site)
Demolition Plans

H-AD100

BID SET

Abbreviations

A	
@	AT
A/C	AIR CONDITION(ING) (ED)
A/C UNIT	AIR CONDITIONING UNIT
AB	ANCHOR BOLT
ABBVR	
ACC	ACCESSIBLE
ACCU	AIR COOLED CONDENSING UNIT
ACI	AMERICAN CONCRETE INSTITUTE
ACOUS INSUL	ACOUSTICAL INSULATION
ACOUS PNL	ACOUSTICAL PANEL
ACST	ACOUSTIC
ACT	ACOUSTICAL CEILING TILE
ADA	AMERICANS WITH DISABILITIES ACT
ADDL	ADDITIONAL
ADDM	ADDENDUM
ADH	ADHESIVE
ADJ	ADJUSTABLE, ADJACENT
AE	ARCHITECT/ ENGINEER
AFF	ABOVE FINISHED FLOOR
AGGR	AGGREGATE
AHJ	AUTHORITIY HAVING JURISDICTION
AHU	AIR HANDLING UNIT
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT	ALTERNATE
ALUM	ALUMINUM
ANOD	ANNODIZED
APC	ACOUSTICAL PANEL CEILING
ARCH	ARCHITECT(URAL)
ASL	ABOVE STRUCTURAL LEVEL
AWT	ACOUSTICAL WALL TREATMENT
B	
B BD	BASE BOARD
B/B	BACK-TO-BACK
BAT	BATTEN
BD	BOARD
BDRM	BEDROOM
BITUM	BITUMINOUS
BLDG	BUILDING
BLKG	BLOCKING
BM	BENCHMARK, BEAM
BOT	BOTTOM
BRG	BEARING
BRZ	BRONZE
BSMT	BASEMENT
BTWN	BETWEEN
BUR	BUILT-UP ROOFING
BW	BOTH WAYS
C	
CAB	CABINET
CB	CARRIAGE BOLT, CATCH BASIN
CCTV	CLOSED-CIRCUIT TELEVISION
CD	CONSTRUCTION DOCUMENTS, CONTRACT DOCUMENTS
CEM	CEMENT
CERT	CERTIFY, CERTIFICATE, CERTIFICATION
CF/CI	CONRACTOR FURNISHED/ CONTRACTOR INSTALLED
CF/OI	CONTRACTOR FURNISHED/ OWNER INSTALLED
CG	CORNER GUARD
CH	COAT HOOK
CHBD	CHALK BOARD
CHEM	CHEMICAL
CI	CAST IRON
CIP	CAST-IN-PLACE
CJ	CONTROL JOINT, CONSTRUCTION JOINT
CL	CENTER LINE
CLG	CEILING
CLO	CLOSET
CLR	CLEAR
CLRM	CLASSROOM
CMU	CONCRETE MASONRY UNIT
CNR	CORNER
CNTR	COUNTER
COL	COLUMN
CONC	CONCRETE
CONF	CONFERENCE
CONN	CONNECT(ION)
CONSTR	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRCT(OR)
COORD	COORDINATE, COORDINATION
CORR	CORRIDOR
CPT	CARPET
CSK	COUNTERSINK
CSWK	CASEWORK
CT	CERAMIC TILE
CTR	CENTER
CTRL	CONTROL
CU	CUBIC
CUH	CABINET UNIT HEATER
CUST	CUSTODIAL
CW	COLD WATER, CASEMENT WINDOW
D	
D	DEEP, DEPTH
DBL	DOUBLE
DEG	DEGREE
DEMO	DEMOLITION
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DH	DOUBLE HUNG
DIA or Ø	DIAMETER
DIFF	DIFFERENCE
DIM	DIMENSION
DIR	DIRECTION
DISP	DISPENSER
DIST	DISTANCE
DIV	DIVIDE, DIVISION
DL	DEAD LOAD
DMPF	DAMPPROOFING
DMPR	DAMPER
DN	DOWN
DO	DITTO
DOC	DOCUMENT
DOZ	DOZEN
DR	DOOR
DS	DOWNSPOUT
DSGN	DESIGN
DT	DRAIN TILE
DW	DISH WASHER
DWG	DRAWING
E	
E	EAST
EA	EACH
EC	ELECTRICAL CONTRACTOR
EF	EACH FACE
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRIC(AL)
ELEM	ELEMENTARY
ELEV	ELEVATOR
ENAM	ENAMEL
ENCL	ENCLOSURE
ENGR	ENGINEER
ENVIR	ENVIRONMENT
EOS	EDGE OF SLAB
EP	ELECTRIC PANEL
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EPS	EXPANDED POLYSTYRENE BOARD
EQ	EQUAL
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ETC	ET CETERA
ETR	EXISTING TO REMAIN
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EXC	EXCAVATE
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPAND, EXPANSION
EXT	EXTERIOR
F	
F/F	FACE-TO-FACE
FA	FIRE ALARM
FAAP	FIRA ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FIN	FINISH
FIXT	FIXTURE
FLOUR	FLOURESCENT
FLR	FLOOR
FNDN	FOUNDATION
FO	FINISHED OPENING
FRJS	FIRE RESISTIVE JOINT SYSTEM
FRP	FIBERGLASS REINFORCED PLASTIC
FRTW	FIRE RETARDANT TREATED WOOD
FT	FOOT, FEET
FTG	FOOTING
FURN	FURNITURE
FW	FIRE WALL
FWC	FABRIC WALL COVERING
G	
GA	GAGE
GAL	GALLON
GALV	GALVANIZED
GALV STL	GALVANIZED STEEL
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GEN	GENERAL, GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFRC	GLASS FIBER RINFORCED CONCRETE
GFRG	GLASS FIBER REINFORCED GYPSUM
GL	GLASS, GROUND LEVEL
GL BLK	GLASS BLOCK
GLU LAM	GLUED LAMINATED BEAM
GLZ	GLAZING
GWT	GLAZED WALL TILE
GYM	GYMNASIUM
GYP	GYPSUM
GYP BD	GYPSUM BOARD
GYP PLAS	GYPSUM PLASTER
H	
HB	HOSE BIBB
HC	HANDICAP, HOLLOW CORE
HCP	HANDICAPPED
HD	HEAVY DUTY
HDW	HARDWARE
HDWD	HARDWOOD
HM	HOLLOW METAL
HO	HOLD OPEN
HORIZ	HORIZON
HR	HOUR
HSS	HOLLOW STRUCTURAL SECTION
HT	HEIGHT
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
HW	HOT WATER
HYD	HYDRANT
I	
ID	INSIDE DIAMETER
IN	INCHES
INCAND	INCANDESCENT
INCL	INCLUDE
INFO	INFORMATION
INSUL	INSULATION
INT	INTERIOR
INTERM	INTERMEDIATE
J	
JAN	JANITOR
JAN CLO	JANITOR CLOSET
JNT	JOINT
JR	JUNIOR
JST	JOIST
K	
KD	KNOCK DOWN
KIP	1000 POUNDS
KIT	KITCHEN
KO	KNOCK OUT
KPL	KICK PLATE
L	
L	LITER, ANGLE
LAB	LABORATORY
LAM	LAMINATE(D)
LAV	LAVATORY
LBL	LABEL
LBS	POUND
LD	LOAD
LF	LINEAR FEET
LH	LATENT HEAT, LEFT HAND
LIB	LIBRARY
LIN	LINEAR
LKR	LOCKER
LKR RM	LOCKER ROOM
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LT	LINOLEUM TILE, LIGHT
LTG	LIGHTING
M	
MACH	MATCHLINE
MACH RM	MACHINE ROOM
MAHOG	MAHOGANY
MAINT	MAINTENANCE
MATL	MATERIAL
MAX	MAXIMUM
MB or MKR BD	MARKERBOARD
MC	MECHANICAL CONTRACTOR
MDF	MEDIUM DENSITY FIBERBAORD
MDO	MEDIUM DENSITY OVERLAY
ME	MATCH EXISTING
MECH	MECHANICAL
MECH RM	MECHANICAL ROOM
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MM	MILIMETER
MO	MASONRY OPENING
MOD BIT	MODIFIED BITUMEN
MTD	MOUNTED
MTL	METAL, MATERIAL
MULL	MULLION
N	
N	NORTH
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NO or #	NUMBER
NOM	NOMINAL
NORM	NORMAL
NTS	NOT TO SCALE
O	
O/A	OVERALL
O/O	OUT TO OUT
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF/ OI	OWNER FURNISHED/ OWNER INSTALLED
OF/CI	OWNER FURNISEHD/ CONTRACTOR INSTALLED
OFF	OFFICE
OH	OVERHANG
OH DR	OVERHEAD DOOR
OPH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OPT	OPTIONAL, OPTIMUM
P	
PA	PUBLIC ADDRESS
PAR	PARALLEL
PART	PARTIAL
PAT	PATTERN
PC	PLUMBING CONTRACTOR
PERF	PERFORATED
PERIM	PERIMETER
PL	PLATE, PROPERTY LINE
PL GL	PLATE GLASS
PLAM	PLASTIC LAMINATE
PLAS	PLASTER, PLASTIC
PLBG	PLUMBING
PLYWD	PLYWOOD
PNL	PANEL
POL	POLISHED
POLY	POLYETHYLENE (PLASTIC)
PORC	PORCELAIN
PORT	PORTABLE
POS	POSITIVE
PR	PAIR
PRCST	PRECAST
PREFAB	PREFABRICATED
PREFIN	PREFINISHED
PRELIM	PRELIMINARY
PRKG	PARKING
PROJ	PROJECT
PROP	PROPERTY
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POST TENSIONED
PTD	PAPER TOWER DISPENSER
PTN	PARTITION
PVC	POLYVINYL CHLORIDE (PLASTIC)
PWR	POWER
Q	
QT	QUARRY TILE
QTR	QUARTER
QTY	QUANTITY
R	
R	RISER, RADIUS, HEAT RESISTANCE
RA	RETURN AIR
RAD	RADIATOR
RB	RUBBER BASE, RESILIENT BASE
RC	ROOFING CONTRACTOR
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REC	RECESSED
REC RM	RECREATION ROOM
REF	REFRIGERATOR
REG	REGISTER, REGULATION
REINF	REINFORCE
REQD	REQUIRED
RESIL	RESILIENT
REV	REVISION
RFG	ROOFING
RFI	REQUEST FOR INFORMATION
RFP	REQUEST FOR PROPOSAL
RH	RIGHT HAND, ROOF HATCH
RM	ROOM
RO	ROUGH OPENING
ROW	RIGHT OF WAY
RTF	RUBBER TILE FLOOR
RTU	ROOF TOP UNIT
RV	ROOF VENT
RW	RESCUE WINDOW
RWB	RUBBER WALL BASE
S	
S	SOUTH
SAB	SOUND ATTENUATION BATTS
SAN	SANITARY
SC	SOLID CORE, SHADING COEFFICIENT
SCHED	SCHEDULE
SD	SOAP DISPENSER
SECT	SECTION
SF	SQUARE FOOT, SAFETY FACTOR
SGT	STRUCTURAL GLAZED TILE
SHR	SHOWER
SHT	SHEET
SIM	SIMILAR
SND	SANITARY NAPKIN DISPENSER
SOG	SLAB ON GRADE
SPC	SUSPENDED SPLASTER CEILING
SPEC	SPECIFICATION(S)
SPKR	SPEAKER
SQ	SQUARE
SST	STAINLESS STEEL
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STOR	STORAGE
STRM	STOREROOM
STRUCT	STRUCTURAL
SUB	UBSTITUTE
SUB FL	SUBFLOOR
SUSP	SUSPENDED
SUSP CLG	SUSPENDED CEILING
SV	SAFETY VALVE, SHEET VINYL
SWBD	SWITCHBOARD
SY	SQUARE YARD
SYM	SYMBOL
SYS	SYSTEM
T	
T	TREAD
T & B	TOP AND BOTTOM
T & G	TONGUE AND GROOVE
TB	THROUGH BOLT, TOWEL BAR
TECH	TECHNICAL, TECHNOLOGY
TEL	TELEPHONE
TEMP	TEMPORARY, TEMPERATURE
TERR	TERRAZZO
THERM	THERMAL
THK	THICKNESS
THRU	THROUGH
TK BD	TACK BOARD
TMPD	TEMPERED
TMPD GL	TEMPERED GLASS
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING, TOP OF FLOOR, TOP OF FRAME
TOM	TOP OF MASONRY
TOPO	TOPOGRAPHY
TOS	TOP OF STEEL
TPD	TOILET PAPER DISPENSER
TV	TELEVISION
TYP	TYPICAL
U	
U	HEAT TRANSFER COEFFICIENT
UC	UNDERCUT
UGND	UNDERGROUND
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORIES
UNFIN	UNFINISH(ED)
UNO	UNLESS NOTED OTHERWISE
UTIL	UTILITY
UV	UNIT VENTILATOR
V	
V	VOLT
VAR	VARIES, VARIATION
VB	VINYL BASE
VCT	VINYL COMPOSITE TILE
VENT	VENTILATION
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
VOC	VOLATILE ORGANIC COMPOUND
VOL	VOLUME
VR	VAPOR RETARDER
VUH	VERTICAL UNIT HEATER
VWC	VERTICAL WALL COVERING
W	
W	WATT, WEST
W/	WITH
W/O	WITHOUT
W/W	WALL TO WALL
WB	WOOD BASE
WC	WALL COVERING, WATER CLOSET
WD	WOOD
WDW	WINDOW
WF	WIDE FLANGE
WH	WATER HEATER, WALL HUNG
WI	WROUGHT IRON
WM	WIRE MESH
WP	WATER PROOFING, WEATHERPROOF
WR	WATER REPELENT, WEATHER RESISTANT
WSCT	WAINSCOT
WT	WEIGHT
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH
X	
X	BY
Y	
Y	YD

Graphic Symbols

01 GENERAL

	NEW WALL
	EXISTING WALL TO BE REMOVED
	EXISTING WALL
1 A101 SIM	BUILDING SECTION
1 A101 SIM	WALL SECTION
1 A101 SIM	DETAIL SECTION
1 A101 SIM	DETAIL REFERENCE
A1/A101	EXTERIOR ELEVATION TAG
1 (Ref) A101 1 (Ref) 1 (Ref) 1 (Ref)	INTERIOR ELEVATION TAG
	BREAK LINE
Room name 101	ROOM TAG
##.#	INTERIOR PARTITION TYPE SYMBOL
Type	WINDOW TYPE SYMBOL
	BENCHMARK/SPOT ELEV. SYMBOL
XX	COLUMN LINE/GRID INDICATOR
#-#	REVISION INDICATOR
101A	DOOR TAG
ELEVATION LEVEL NAME	FLOOR LEVEL SYMBOL
1t 1'-0"A.F.F.	CEILING HEIGHT SYMBOL
PLAN NORTH N	NORTH ARROWS
TRUE NORTH 1 1/2"	DIMENSION
ALIGN	ALIGN TWO WALLS OR OBJECTS

Materials Graphics

02 SITE CONSTRUCTION

- EARTH (existing)
- EARTH (backfill)
- DRAINAGE FILL

03 CONCRETE

- CAST-IN-PLACE CONCRETE
- PRECAST CONCRETE

04 MASONRY

- BRICK
- CONCRETE MASONRY UNITS
- GLASS BLOCK
- STONE
- CAST STONE
- GROUT

05 METALS

- ALUMINUM
- STEEL

06 WOODS AND PLASTICS

- CONTINUOUS WOOD
- INTERMITTENT WOOD
- FINISH WOOD
- HARDBOARD
- MEDIUM DENSITY FIBER BOARD (MDF)
- PARTICLE BOARD
- PLYWOOD
- SOLID SURFACE MATERIAL

07 THERMAL & MOISTURE PROTECTION

- BATT INSULATION
- LOOSE FILL INSULATION
- RIGID INSULATION

08 GLAZING

- GLASS

09 FINISHES

- LATH AND PLASTER
- GYPSUM BOARD

General Architectural Drawing Notes:

1. VERIFY DIMENSIONS AND EXISTING CONDITIONS BEFORE COMMENCING WORK. REPORT DISCREPANCIES TO THE ARCHITECT PRIOR TO PROCEEDING WITH AFFECTED WORK.
2. BUILDING FLOOR PLAN DIMENSIONS ARE REFERENCED FROM STRUCTURAL GRID, FACE OF CONCRETE, FACE OF MASONRY, OR FACE OF FINISHED SURFACE, UNLESS NOTED OTHERWISE.
3. REFLECTED CEILING PLAN DIMENSIONS ARE REFERENCED FROM FINISHED SURFACES UNLESS NOTED OTHERWISE. CEILING HEIGHTS ARE DIMENSIONED FROM FLOOR TO FINISHED CEILING HEIGHT.
4. CASEWORK, PLUMBING FIXTURES, TOILET PARTITIONS, AND OTHER FIXTURES AND EQUIPMENT ARE DIMENSIONED FROM FINISHED SURFACES UNLESS NOTED OTHERWISE.
5. DIMENSIONS NOTED AS "FIELD VERIFY" SHALL BE CHECKED AT THE SITE BY THE CONTRACTOR AND REVIEWED WITH THE ARCHITECT BEFORE INCORPORATING INTO THE WORK.
6. DIMENSIONS NOTED AS "CLEAR" REQUIRE SPECIFIC COORDINATION BETWEEN DISCIPLINES AND/OR MANUFACTURERS.
7. DRAWINGS NOTED AT "N.T.S." ARE NOT TO SCALE.
8. DO NOT SCALE DRAWING. WRITTEN DIMENSIONS TAKE PRECEDENCE. IF CLARIFICATION IS REQUIRED IN ORDER TO DETERMINE THE INTENT OF THE CONTRACT DOCUMENTS, CONTACT THE ARCHITECT.
9. NOTES OR DIMENSIONS LABELED "TYPICAL" SHALL APPLY TO SITUATIONS THAT ARE THE SAME OR SIMILAR.

General Materials & Equipment Notes:

1. PROVIDE GALVANIC PROTECTION BETWEEN DISSIMILAR METALS.
2. INSTALL PIPING AND CONDUIT TIGHT TO WALLS, COLUMNS AND ROOF DECK.
3. SEAL ALL PIPE OR CONDUIT PENETRATIONS WITH APPROPRIATE SEALANT. PROVIDE FIRE SEALANT AT RATED PARTITIONS.
4. PLYWOOD AND WOOD BLOCKING SHALL BE FIRE RESISTANT.
5. DO NOT CUT OR DRILL ANY STRUCTURAL MEMBER, OTHER THAN DESCRIBED ON THE STRUCTURAL DRAWINGS, WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.

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913.485.0318

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Lenexa, KS 66214
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UNLESS A PROFESSIONAL SEAL WITH SIGNATURE AND DATE IS AFFIXED, THIS DOCUMENT IS PRELIMINARY AND IS NOT INTENDED FOR CONSTRUCTION, RECORDING PURPOSES OR IMPLEMENTATION

STATE OF MISSOURI
JAY DARREN BROWNING
NUMBER A-2009027279
ARCHITECT
9.28.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 09/28/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

Graphic Symbols, Abbreviations, and General Information

H-A001

BID SET

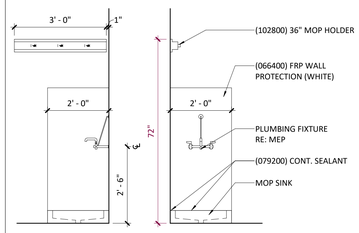
PRINT DATE/TIME:
9/28/2020 8:11:46 AM

Specialty Equipment Schedule

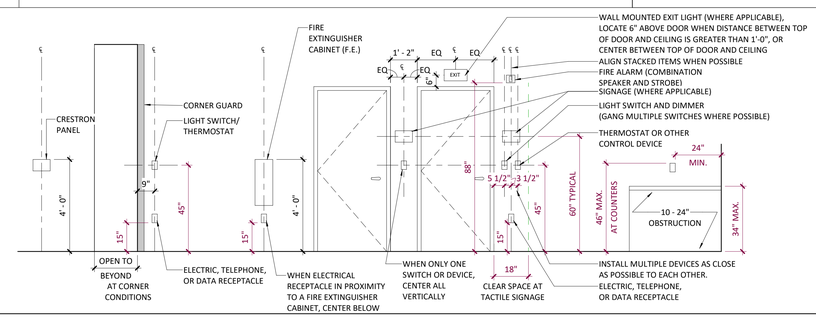
ID#	Description	Manufacturer	Model Number	Comments	Latest Revision
Bath & Toilet Accessories					
BC01					
GB-18	STRAIGHT GRAB BAR	BOBRICK	B-6806		
GB-36	STRAIGHT GRAB BAR	BOBRICK	B-6806		
GB-42	STRAIGHT GRAB BAR	BOBRICK	B-6806		
Bath & Toilet Accessories - Commercial					
ND1	Surface Mounted Sanitary Napkin Disposal	Bobrick Washroom Equipment, Inc.	B-254		
TSCD	Surface-Mounted Seat-Cover Dispenser	Bobrick Washroom Equipment, Inc.	B-221		
Fire Extinguisher Cabinets					
FE-1					

Specialty Equipment Notes:

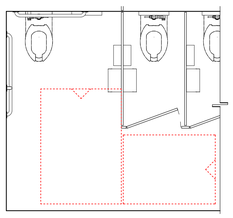
1. THIS PROJECT WILL COMPLY WITH ALL AMERICAN WITH DISABILITIES REGULATIONS AND ALL LOCAL ACCESSIBILITY CODE REQUIREMENTS.
2. ALL MOUNTING HEIGHTS ARE TO COMPLY WITH ICC/ANSI-A117.1 REFER TO FIXTURE HEIGHT GUIDELINES FOR TYPICAL MOUNTING HEIGHTS. COORDINATE WITH OWNER/ARCHITECT FOR ANY ITEMS IN CONFLICT OR NOT EXPLICITLY INDICATED.
3. PROVIDE WOOD BLOCKING AT ALL EQUIPMENT FIXTURES, AND ACCESSORIES INCLUDED OWNER PROVIDED ITEMS WHETHER OR NOT SUCH BLOCKING IS NOTED OR SPECIFIED.
4. ACCESSORIES SHOWN ARE GENERIC. REFER TO SCHEDULE SPECIFIED MODEL.
5. FIXTURES ACCESSORIES SHOWN ARE GENERIC. REFER TO PLUMBING DRAWINGS FOR SCHEDULED FIXTURES.



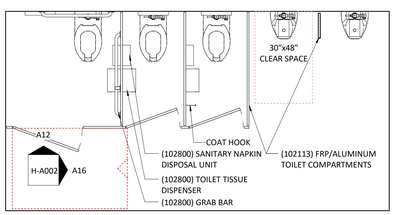
Typical Janitor Closet G9
1/2" = 1'-0"



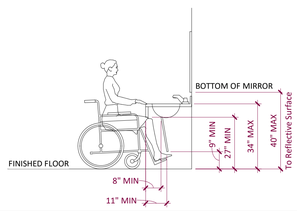
Miscellaneous Heights G1
3/8" = 1'-0"



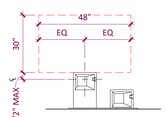
Alternate Accessible Stall D16
3/8" = 1'-0"



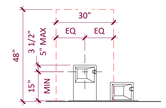
Floor Plan - Toilet Fixture Standard D12
3/8" = 1'-0"



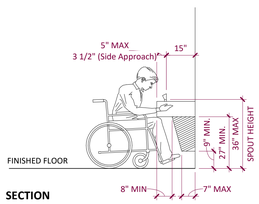
Lavatory Guidelines D9
3/8" = 1'-0"



PLAN (Side Approach)



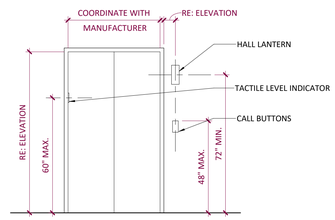
PLAN (Front Approach)



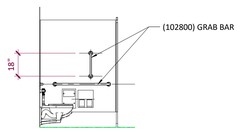
SECTION

Drinking Fountain Guidelines D5
3/8" = 1'-0"

COORDINATE WITH BUILDING ELEVATIONS

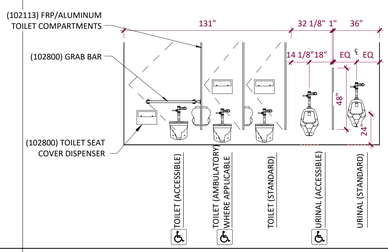


Typical Elevator Door D1
3/8" = 1'-0"

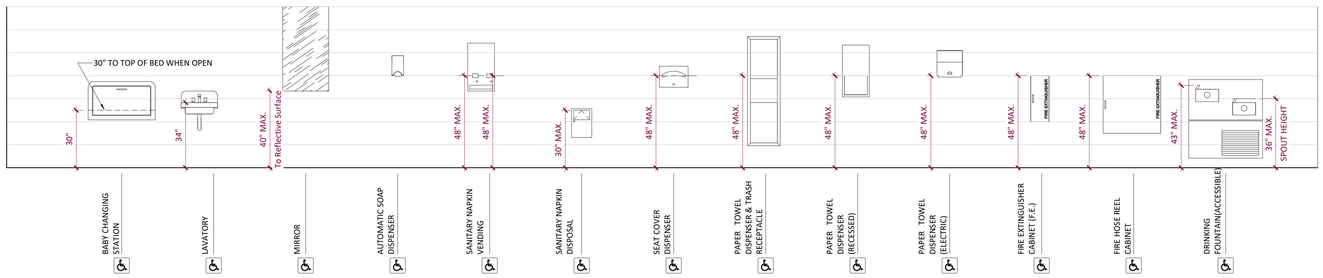


* 12 INCH ONLY REQUIRED WHERE USED FOR ACCESSIBLE TOECLEARANCE

ADA Stall A16
1/4" = 1'-0"



Interior Elevation - Toilet Fixture Standards A12
1/4" = 1'-0"



Fixture Height Guidelines A1
3/8" = 1'-0"

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Lee's Summit R7 District Athletics Facilities

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STATE OF MISSOURI
JAY DARREN BROWNING
NUMBER A-2009027279
ARCHITECT
9.28.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 09/28/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

Accessibility Standards & Mounting Heights

H-A002

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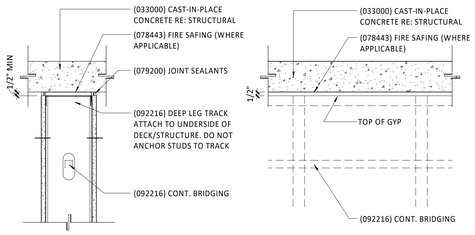
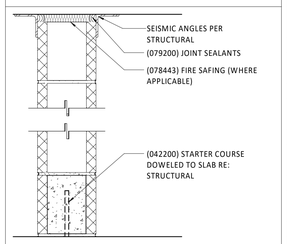


Partition to Underside of Deck - Non-Rated 4

1 1/2" = 1'-0"

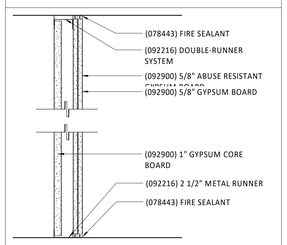
NOTES:
1. REFER TO STRUCTURAL FOR ADDITIONAL INFORMATION



PARTITION SYSTEM:
CONCRETE MASONRY UNIT PARTITION **M**

PARTITION IDENTIFICATION PLAN SYMBOL	M6	M8	M12
BASE PARTITION THICKNESS	5 5/8"	7 5/8"	11 5/8"
MASONRY MATERIAL	CMU	CMU	CMU
MASONRY SIZE (NOMINAL)	6X8X16	8X8X16	12X8X16
BEARING WALL	-	-	-
FIRE RATING (HRS)	-	-	-
FIRE TEST NUMBER	-	-	-
FIRE TEST NUMBER (HEAD OF WALL)	-	-	-
(078443) FIRE RESISTIVE JOINTS	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
TO 6" ABOVE CEILING	NO	NO	NO
TO STRUCTURE ABOVE	YES	YES	YES
REMARKES:			

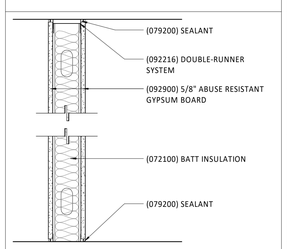
NOTES:
1. REFER TO GYPSUM BOARD SCHEDULE FOR MORE INFORMATION
2. USE TYPE "X" GWB FOR ALL FIRE RATED PARTITIONS



PARTITION SYSTEM:
GYPSUM SEPARATION PARTITION **S**

PARTITION IDENTIFICATION PLAN SYMBOL	S6
BASE PARTITION THICKNESS	5 1/4"
STUD SPACING (O.C.)	16"
STUD SIZE	4" CH
GWB THICKNESS	(2) 5/8"
SHAFT LINER THICKNESS	
	-
	-
FIRE RATING (HRS)	2
FIRE TEST NUMBER	UL -U438
FIRE TEST NUMBER (HEAD OF WALL)	-
(078443) FIRE RESISTIVE JOINTS	YES
	-
	-
	-
	-
	NO
TO STRUCTURE ABOVE	NO
TO STRUCTURE ABOVE	YES
REMARKES:	

NOTES:
1. CONFIRM STUD SPACING WITH STRUCTURAL
2. PROVIDE MOISTURE RESISTANT GWB IN WET AREAS
3. EXTEND ALL FIRE RATED WALLS STRUCTURE TO STRUCTURE.
4. USE TYPE "X" GWB FOR ALL FIRE RATED PARTITIONS

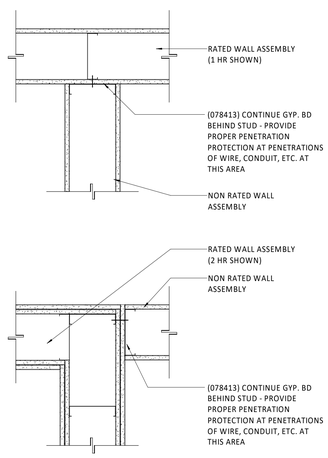


PARTITION SYSTEM:
GYPSUM WALL BOARD PARTITION **G**

PARTITION IDENTIFICATION PLAN SYMBOL	G4a
BASE PARTITION THICKNESS	4 7/8"
STUD SPACING (O.C.)	16"
STUD SIZE	3 5/8"
GWB THICKNESS	5/8"
	-
FIRE RATING (HRS)	-
FIRE TEST NUMBER	-
FIRE TEST NUMBER (HEAD OF WALL)	-
(078443) FIRE RESISTIVE JOINTS	-
ACOUSTIC RATING (STC)	44
ACOUSTICAL TEST NUMBER	NGC2514
RESILIENT CHANNELS	NO
INSULATION THICKNES	2 1/2"
ACOUSTICAL JOINTS (079219)	YES
TO 6" ABOVE CEILING	NO
GWB STRUCTURE ABOVE	YES
STUDS TO STRUCTURE ABOVE	YES
REMARKES:	

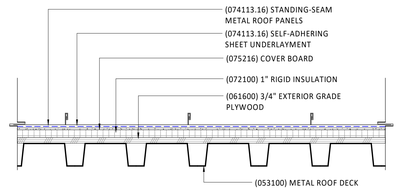
Interior Partition Types A14

1 1/2" = 1'-0"

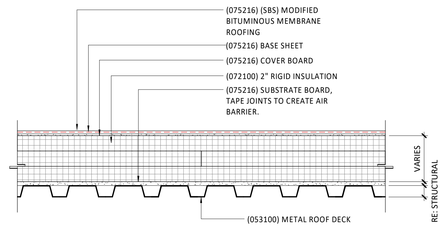


Wall Intersections A11

1 1/2" = 1'-0"



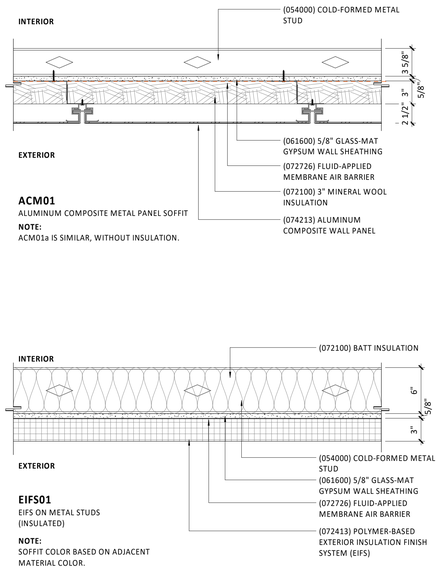
ROOF02
STANDING SEAM ROOFING OVER METAL DECK



ROOF01
(SBS) MODIFIED BITUMINOUS ROOFING (INSULATED R30 MINIMUM) OVER METAL DECK

Roof Types G7

1 1/2" = 1'-0"

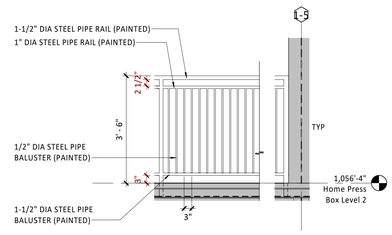


ACM01
ALUMINUM COMPOSITE METAL PANEL SOFFIT
NOTE:
ACM01a IS SIMILAR, WITHOUT INSULATION.

EIFS01
EIFS ON METAL STUDS (INSULATED)
NOTE:
SOFFIT COLOR BASED ON ADJACENT MATERIAL COLOR.

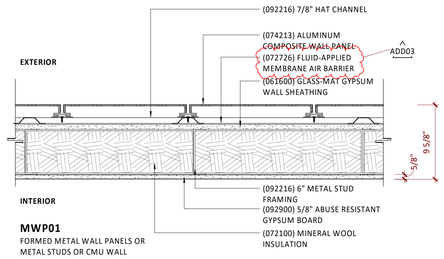
Exterior Soffit Types A7

1 1/2" = 1'-0"



Typical Railing Elevation D3

1/2" = 1'-0"



MWP01
FORMED METAL WALL PANELS OR METAL STUDS OR CMU WALL (NOT SHOWN)

Exterior Wall Types A3

1 1/2" = 1'-0"

General Notes (Exterior Enclosure):

1. ALL OPENINGS, FLASHING, COUNTER FLASHING, AND EXPANSION JOINTS SHALL BE WATERTIGHT.
2. ALL OPEN JOINTS, PENETRATIONS, AND OTHER OPENINGS IN THE ENVELOPE SHALL BE SEALED, GASKETED, OR WEATHER-STRIPPED TO LIMIT AIR LEAKAGE.
3. PROVIDE MOLD RESISTANT GYPSUM BOARD AT ALL EXTERIOR WALLS.

General Notes (Interior Partitions):

1. REFER TO PLANS/CODE PLANS FOR PARTITION TYPE LOCATIONS.
2. PARTITION TYPES DESIGNATED ON PLANS SHALL RUN FROM CORNER TO CORNER UNLESS OTHERWISE NOTED.
3. PARTITIONS SHALL EXTEND TO STRUCTURE ABOVE AND SHALL BE CONSTRUCTED TO ACCOMMODATE DEFLECTION UNLESS NOTED OTHERWISE.
4. FIRE-RESISTANCE-RATED PARTITIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REFERENCED ASSEMBLY DESCRIPTION. REFER TO CODE PLANS FOR MORE INFORMATION.
5. FIRE-RATED WALLS REQUIRED TO HAVE PROTECTED OPENINGS SHALL BE PERMANENTLY IDENTIFIED WITH SIGNS OR STENCILING ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION. SUCH SIGNAGE SHOULD BE ABOVE ACCESSIBLE CEILINGS AND/OR BELOW ACCESSIBLE FLOORS.
6. WHERE DIFFERENT PARTITION TYPES INTERSECT, THE PARTITION TYPE WITH THE GREATER FIRE-RESISTANCE RATING SHALL CONTINUE WITHOUT INTERRUPTION.
7. PENETRATIONS OF FIRE-RESISTANCE-RATED ASSEMBLIES SHALL BE PROVIDED WITH FIRE-RATED PENETRATION PROTECTION IN ACCORDANCE WITH AN APPROVED UNDERWRITERS LABORATORY SYSTEM.
8. FIRE DAMPERS OR FIRE DOORS SHALL BE PROVIDED WHERE AIR DUCTS OR OPENINGS PENETRATE FIRE-RATED PARTITIONS.
9. AT ALL WET AREAS AND LOCATIONS TO RECEIVE TILE. COORDINATE THE SUBSTRATE MATERIAL WITH PROJECT MANUAL. EXTEND THE SUBSTRATE A MINIMUM OF 4'-0" BEYOND THE WET AREA.
10. USE ACOUSTICAL SEALANT AROUND ALL PIPES, DUCTS, CONDUIT, JUNCTION BOXES, ETC. ON BOTH SIDES OF CROSSING / PENETRATING WALLS WITH ACOUSTICAL RATINGS. COLOR MATCH SEALANT TO THE ADJACENT WALL COLOR.
11. PROVIDE IMPACT RESISTANT TRIM OR CASING AT ALL EDGES OF PLASTER AND GYPSUM BOARD SURFACES WHERE IT TERMINATES OR MEETS ANY OTHER MATERIAL, UNLESS NOTED OTHERWISE
12. PROVIDE IMPACT RESISTANT CORNER BEADS AT ALL OUTSIDE CORNERS OF PLASTER AND GYPSUM BOARD SURFACES, UNLESS NOTED OTHERWISE.
13. CONTRACTOR TO PROVIDE WOOD BLOCKING BEHIND ALL TOILET ROOM ACCESSORIES, GRAB BARS, HANDRAILS, WOOD TRIM, AND WALL MOUNTED FIXTURES.
14. INSTALL CONTROL JOINTS IN GYPSUM BOARD CONSTRUCTION AS SHOWN ON THE DRAWINGS AND IN PARTITIONS AND WALL FURRING RUNS EXCEEDING 30 FEET, SPACING CONTROL JOINTS NOT MORE THAN 30 FEET O.C. VERIFY LOCATIONS WITH ARCHITECT. INSTALL CONTROL JOINTS IN FURRED ASSEMBLIES WHERE CONTROL JOINTS OCCUR IN BASE EXTERIOR WALL.

Gypsum Board Schedule

5/8" GYPSUM BOARD	ALL LOCATIONS UNLESS NOTED BELOW OR DETAILED OTHERWISE.
5/8" ABUSE RESISTANT GYPSUM	HIGH TRAFFIC AREAS SUCH AS LOBBIES, PUBLIC CORRIDORS AND WORK ROOMS SUCH AS: JANITOR, HOUSEKEEPING, MECHANICAL, ETC.
5/8" GLASS MAT BACKING BOARD	"WET" WALLS NON-RATED WITH PLUMBING FIXTURES, DRINKING FOUNTAINS, TOILETS, LAVATORIES, URINALS, ETC.
1/2" FIBER CEMENT BACKING PANELS	WALLS EXPOSED DIRECTLY TO RUNNING WATER AND SCHEDULE TO RECIEVE TILE. BATHTUBS, SHOWERS, ETC.

Interior Partition Naming Convention

G6.1
- PARTITION MATERIAL TYPE
- NOMINAL STUD/PARTITION THICKNESS
- FIRE RATING OR OTHER MODIFIER

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STATE OF MISSOURI — JAY DARREN BROWNING — NUMBER A-2009027279 — ARCHITECT — 11.3.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 11/03/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE
ADD03	Addendum 03	10/23/20

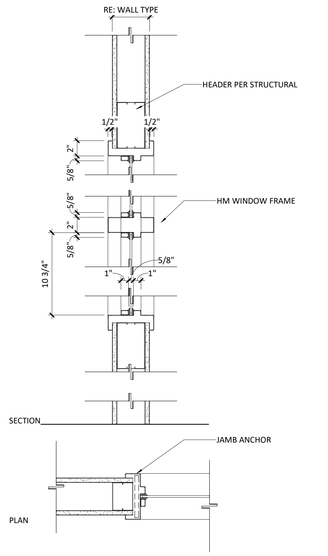
PROJECT NO: 0119-0101
DATE: September 28, 2020

Exterior Enclosure Types & Interior Partition Types

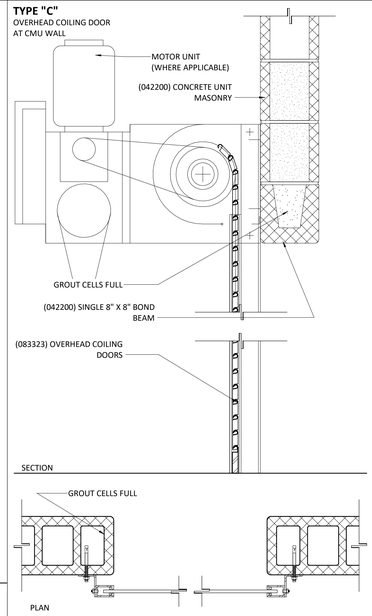
H-A020

BID SET

PRINT DATE/TIME:
11/4/2020 8:19:29 AM



Borrowed Light Detail K6
1 1/2" = 1'-0"



General Notes (Door Schedule):

1. THRESHOLDS SHALL COMPLY WITH ACCESSIBILITY REGULATIONS.
2. ALL DOOR FRAMES ARE TO BE WELDED.
3. EDGE CLEARANCES IN ACCORDANCE WITH AWI QUALITY STANDARDS.
4. DOORS LOCATED IN CORNERS ARE TO HAVE THE INSIDE FACE OF JAMB LOCATED 4 INCHES FROM THE ADJACENT WALL FINISH (8 INCHES IN MASONRY WALLS) UNLESS NOTED OTHERWISE.
5. PROVIDE BLOCKING AT ALL WALL MOUNTED DOOR STOPS.
6. GLAZING STOPS IN WOOD DOORS: SAME SPECIES AS DOOR FACE, MITERED CORNERS, CONCEALED FASTENERS.
7. FACTORY FINISH WOOD DOORS.
8. ALL EXIT DOORS SHALL BE OPERABLE FROM INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT AND SHALL BE LABELED "THIS DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS." THIS SIGN SHALL BE IN LETTERS NOT LESS THAN ONE INCH HIGH ON A CONTRASTING BACKGROUND. SPECIAL LOCKING DEVICES SHALL BE OF AN APPROVED TYPE, MANUALLY OPERATED. FLUSH BOLTS OR SURFACE BOLTS ARE PROHIBITED.
9. DOORS LOCATED IN CORNERS ARE TO HAVE THE INSIDE FACE OF JAMB LOCATED 4 INCHES FROM THE ADJACENT WALL FINISH (8 INCHES IN MASONRY WALLS) UNLESS NOTED OTHERWISE.
10. PROVIDE CLOSERS AT ALL FIRE RATED AND EXTERIOR DOORS. COORDINATE WITH HARDWARE SETS.
11. PROVIDE SAFETY GLAZING IN ALL DOORS AND ASSOCIATED ACTIVE/FIXED PANELS.
12. PROVIDE SAFETY GLAZING IN FIXED OR OPERABLE PANELS WHERE WITHIN 24 INCHES OF EITHER EDGE OF A OPERABLE DOOR.
13. PROVIDE SAFETY GLAZING IN FIXED OR OPERABLE PANELS WHERE WITHIN 18 INCHES FROM AND RAMP/STAIR LANDING OR HAND/GUARDRAIL.
14. ANY DOOR CARRYING A U.L. RATING SHALL BE INSTALLED IN A U.L. RATED FRAME CARRYING THE SAME DESIGNATION.
15. PROVIDE FIRE RATED GLAZING IN PANELS LOCATED WITHIN A RATED WALL.
16. CONTRACTOR TO COORDINATE SILL HEIGHTS WITH ELEVATIONS AND WALL SECTIONS.
17. PAINT METAL DOORS AND FRAMES TO MATCH ADJACENT WALLS UNLESS OTHERWISE NOTED. REFER TO FINISH LEGEND FOR ADDITIONAL INFORMATION.
18. REFER TO "PROJECT MANUAL" FOR HARDWARE SETS AND ADDITIONAL DOOR REQUIREMENTS.

DOOR LEGEND:

AL	ALUMINUM
CA	CARD ACCESS DEVICE
CL	CLOSER
FRP	FIBERGLASS
GL	GLASS
HC	HOLLOW CORE
HM	HOLLOW METAL
L	LOUVER
PF	PRE-FINISHED/FACTORY FINISHED
PH	PANIC HARDWARE
PR	PAIR
PTD	PAINTED
SD	SMOKE & DRAFT CONTROL
SS	STAINLESS STEEL
STL	STEEL
T	TEMPERED GLASS
V	VISION
WD	WOOD

HARDWARE/OPERATION:

1. CARD READER TYPE 01
2. DOOR MONITOR
3. ELECTRIC LOCK & MONITOR - EACH LEAF IF PAIR
4. VIDEO MONITOR - DOOR STATION WALL MOUNT
5. ADA PUSH BUTTON ON PEDESTAL
6. ADA PUSH BUTTON ON MULLION
7. ADA PUSH BUTTON ON WALL
8. ACOUSTICAL DOOR AND FRAME
9. AUTOMATIC DOOR OPENER BOTH SIDES

MATERIALS/FINISHES:

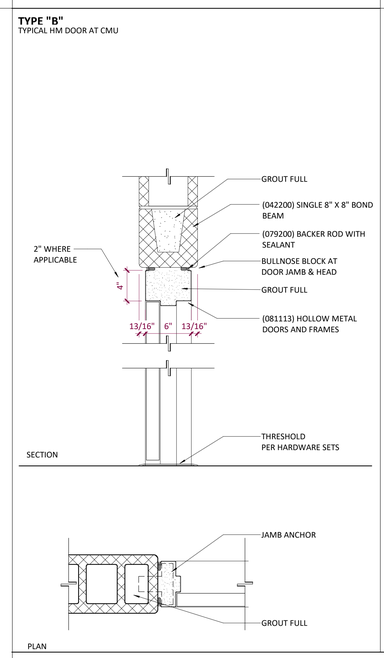
A. PAINT FRAME TO MATCH ADJACENT WALL
B. PAINT DOOR AND FRAME TO MATCH ADJACENT WALL

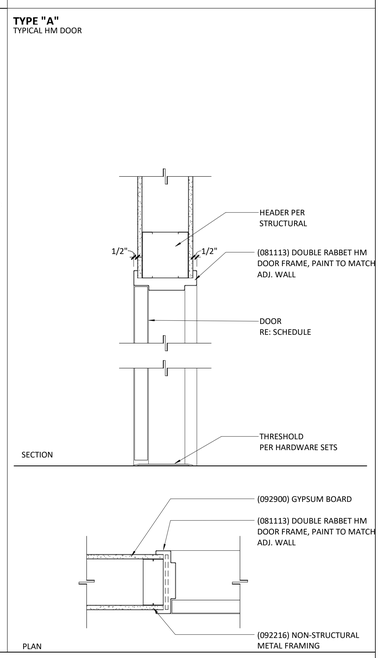
Window Schedule

Mark	Size: Width	Size: Height	Sill Height	Comments
A	9' - 8 1/2"	5' - 5 1/2"	2' - 10"	
A	3' - 11 1/2"	5' - 5 1/2"	2' - 10"	
A	9' - 8 1/2"	5' - 5 1/2"	2' - 10"	
A	9' - 8 1/2"	5' - 5 1/2"	2' - 10"	
A	9' - 8 1/2"	5' - 5 1/2"	2' - 10"	
A	9' - 8 1/2"	5' - 5 1/2"	2' - 10"	
B	3' - 11 1/2"	5' - 5 1/2"	2' - 10"	
B	3' - 11 1/2"	5' - 5 1/2"	2' - 10"	
C	4' - 0"	4' - 0"	2' - 6"	
C	2' - 1 3/4"	3' - 6"	2' - 8"	
C	2' - 1 3/4"	3' - 6"	2' - 8"	

Door Schedule

lege	Room: From:	Room: To:	Assembly: Type	Assembly: Fire Rating	Assembly: Hardware Set	Assembly: Detail Type	Door Size: Width	Door Size: Height	Door: Thickness	Door: Material	Door: Finish	Frame: Frame Type	Frame: Finish	Comments
Home Press Box Level 1														
1-101		H1-101	F	90 Min.	07	B	3' - 0"	7' - 0"	1 3/4"	HM	PT	HM2	PT	FRAME FINISH PT TO MATCH ADJACENT WALL
1-102	H1-1		F	90 Min.	10	B	3' - 0"	7' - 0"	1 3/4"	HM	PT	HM2	PT	FRAME FINISH PT TO MATCH ADJACENT WALL
Restrooms														
2-101	H2-101		F	NR	03	B	3' - 0"	7' - 0"	1 3/4"	HM	PT	HM2	PT	FRAME FINISH PT TO MATCH ADJACENT WALL
2-103		H2-103	F	NR	11	B	3' - 0"	7' - 0"	1 3/4"	HM	PT	HM2	PT	FRAME FINISH PT TO MATCH ADJACENT WALL
2-104		H2-104	F	NR	11	B	3' - 0"	7' - 0"	1 3/4"	HM	PT	HM2	PT	FRAME FINISH PT TO MATCH ADJACENT WALL
Visitor Press Box Level 1														
2-106		H2-106	F	NR	04	B	3' - 0"	7' - 0"	1 3/4"	HM	PT	BY MANUFACTURER	PT	FRAME FINISH PT TO MATCH ADJACENT WALL
Concessions														
2-105		H2-105	F	NR	04	B	3' - 0"	7' - 0"	1 3/4"	HM	PT	HM2	PT	FRAME FINISH PT TO MATCH ADJACENT WALL
2-106B	H2-106		CD	NR	18	C	15' - 0"	5' - 2"			PT	HM2	PT	OVERHEAD COILING DOOR - FRAME FINISH PT TO MATCH ADJACENT WALL
2-107	H2-106	H2-107	N	NR	14	B	3' - 0"	7' - 0"	1 3/4"	HM	PT	HM2	PT	FRAME FINISH PT TO MATCH ADJACENT WALL
2-108	H2-106	H2-108	N	NR	14	B	3' - 0"	7' - 0"	1 3/4"	HM	PT	HM2	PT	FRAME FINISH PT TO MATCH ADJACENT WALL
2-109	H2-109		CD	NR	18	C	15' - 0"	7' - 0"	2"		PT	HM2	PT	OVERHEAD COILING DOOR - FRAME FINISH PT TO MATCH ADJACENT WALL
Ticket Booth														
3-101		H3-101	F	NR	02	B	2' - 8"	7' - 0"	1 3/4"		PT	BY MANUFACTURER	PT	FRAME FINISH PT TO MATCH ADJACENT WALL
Home Press Box Level 2														
1-201	H1-106	H1-101	F	90 Min.	06	B	3' - 0"	7' - 0"	1 3/4"	HM	PT	HM2	PT	FRAME FINISH PT TO MATCH ADJACENT WALL
1-202	H1-106	H1-1	F	90 Min.	09	B	3' - 0"	7' - 0"	1 3/4"	HM	PT	HM2	PT	FRAME FINISH PT TO MATCH ADJACENT WALL
1-203	H1-203	H1-106	F	NR	08	A	3' - 0"	7' - 0"	1 3/4"	HM	PT	HM1	PT	FRAME FINISH PT TO MATCH ADJACENT WALL
1-204	H1-106	H1-204	F	NR	08	A	3' - 0"	7' - 0"	1 3/4"	HM	PT	HM1	PT	FRAME FINISH PT TO MATCH ADJACENT WALL
1-205	H1-106	H1-205	F	NR	08	A	3' - 0"	7' - 0"	1 3/4"	HM	PT	HM1	PT	FRAME FINISH PT TO MATCH ADJACENT WALL
Home Press Box Level 3														
1-301	H1-303		F	90 Min.	06	B	3' - 0"	7' - 0"	1 3/4"	HM	PT	HM2	PT	FRAME FINISH PT TO MATCH ADJACENT WALL
1-302	H1-303	H1-1	F	90 Min.	09	B	3' - 0"	7' - 0"	1 3/4"	HM	PT	HM2	PT	FRAME FINISH PT TO MATCH ADJACENT WALL

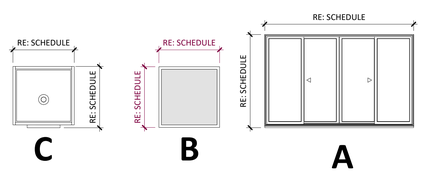




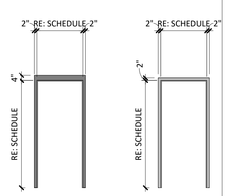
Door Details D3
1 1/2" = 1'-0"

Glazing Schedule - Basic

Mark	Description
GL01	1/4" CLEAR (Tempered)
IGU01	1" INSULATED GLASS



Window Types (Interior) A15
1/4" = 1'-0"



Frame Types A12
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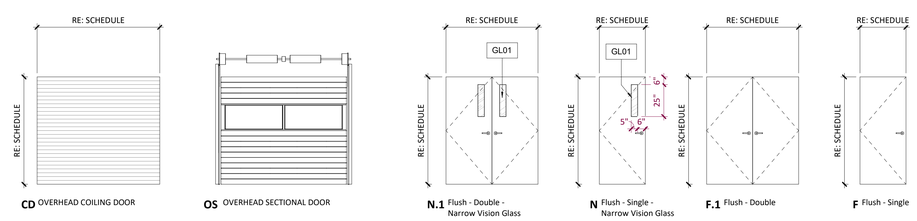

Door Types A3
1/4" = 1'-0"

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Lee's Summit R7 District Athletics Facilities

Lee's Summit High School
400 SW Blue Parkway
Lee's Summit, MO 64063

owner:
Lee's Summit R-7 School District
301 NE Tudor Road
Lee's Summit, MO 64086

architect:
Gould Evans
4200 Pennsylvania Avenue
Kansas City, MO 64111
816.931.6655 voice
www.gouldevans.com

structural engineer:
Bob D. Campbell & Company, Inc.
4338 Belleview Avenue
Kansas City, MO 64111
816.531.4144

civil engineer:
Kaw Valley Engineering
14700 West 114th Terrace
Lenexa, KS 66215
913.485.0318

mechanical/electrical engineer:
Henderson Engineers
8345 Lenexa Drive | Suite 300
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816.742.5000

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STATE OF MISSOURI
JAY
BARREN
BROWNING
NUMBER
2009027279
ARCHITECT
9.28.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 09/28/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

Door & Window Types & Details

H-A080

BID SET

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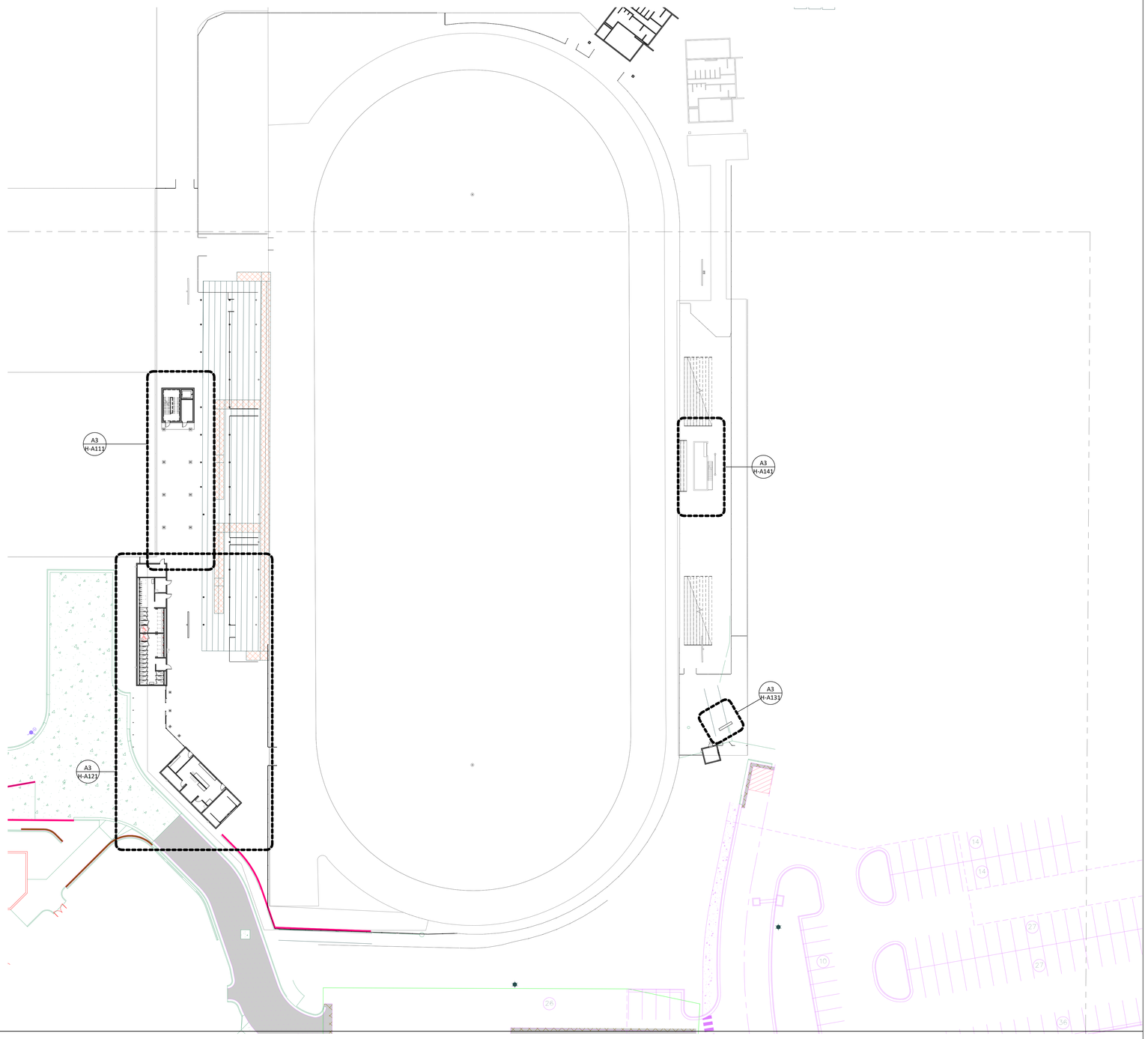
9/28/2020 9:27:26 AM



Overall Floor Plan A3
1" = 30'-0"

General Notes (Floor Plans):

1. ALL WALL TYPES TO BE M6 UNLESS OTHERWISE NOTED.
2. ALL WALL DIMENSIONS ARE TO FACE OF WALL UNLESS OTHERWISE NOTED.
3. MASONRY WALLS ARE ALIGNED WITH THE INTERIOR FACE ON GRID LINES AND MASONRY DIMENSIONS ARE NOMINAL UNLESS OTHERWISE NOTED
4. DOORS IN STUD WALLS NEAR PERPENDICULAR WALLS ARE LOCATED 4" OFF FACE OF PERPENDICULAR WALL UNLESS OTHERWISE NOTED.
5. DOORS IN MASONRY WALLS ARE LOCATED IN ROUGH OPENINGS DIMENSIONED ON SHEET
6. SEE GENERAL ACCESSIBILITY SHEET FOR HEIGHTS AND LOCATIONS OF TOILET ACCESSORIES NOT SHOWN ON ELSEWHERE.
7. CONTRACTOR TO FIELD VERIFY ALL MEASUREMENTS AND CONDITIONS NEW AND EXISTING. NOTIFY THE ARCHITECT/OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES.
8. ENLARGED PLANS MAY BE ROTATED OR MIRRORED COORDINATE WITH MAIN FLOOR PLAN.
9. CONTRACTOR TO PROVIDE 4'-0" HIGH PLYWOOD BACKER BOARD IN ALL MECHANICAL AND ELECTRICAL ROOMS MOUNTED 3'-6" A.F.F. FOR PERIMETER OF ROOM

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Lee's Summit R7 District Athletics Facilities

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structural engineer:
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civil engineer:
Kaw Valley Engineering
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Lenexa, KS 66215
913.485.0318

mechanical/electrical engineer:
Henderson Engineers
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Lenexa, KS 66214
816.742.5000

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STATE OF MISSOURI
JAY DARREN BROWNING
NUMBER
A-2009027279
ARCHITECT
9.28.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 09/28/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

Overall Floor Plan

H-A101

BID SET

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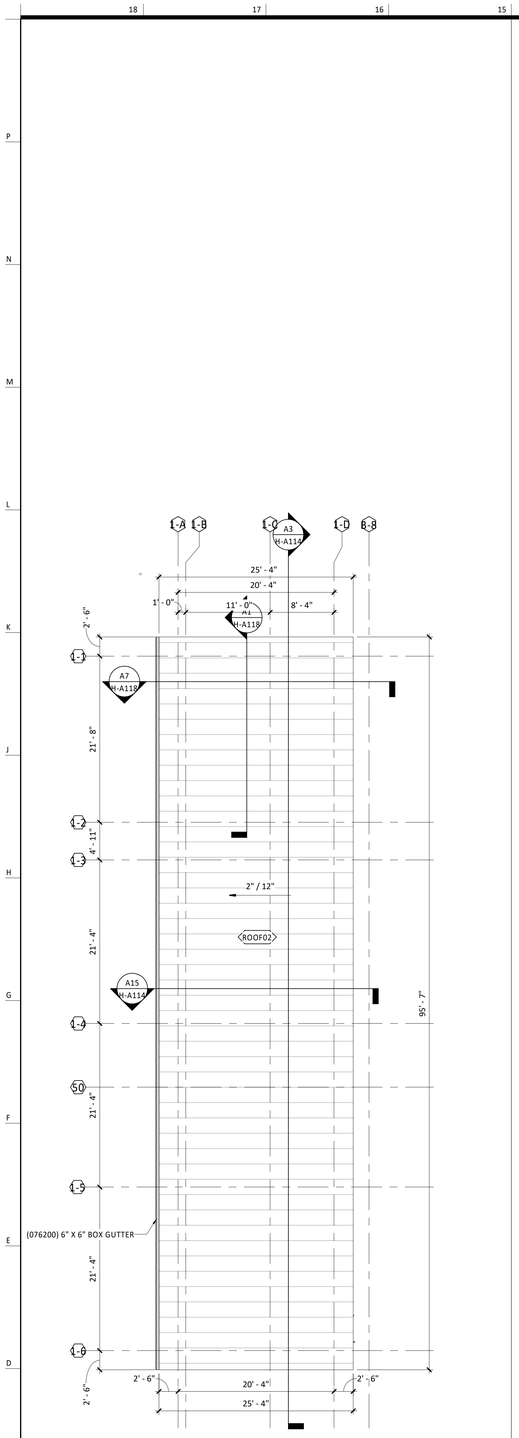
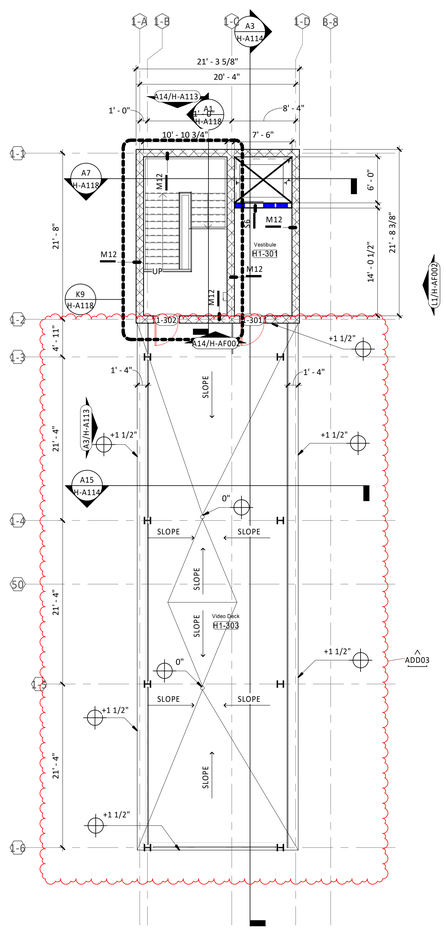


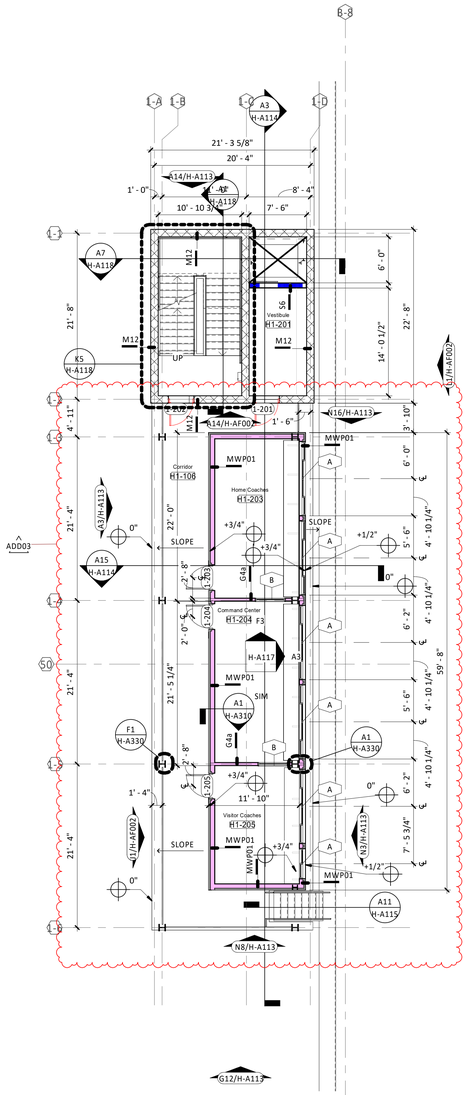
Roof Plan - Home Press Box A15

1/8" = 1'-0"



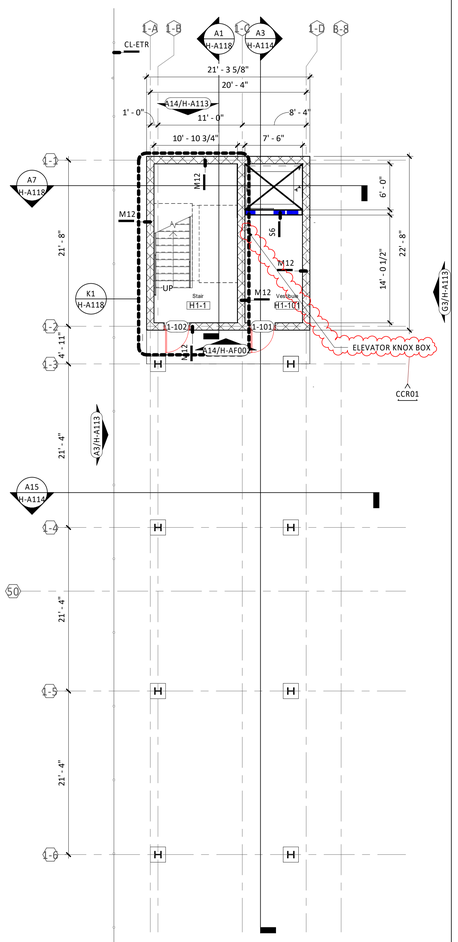
Level 3 Plan - Home Press Box A11

1/8" = 1'-0"



Level 2 Plan - Home Press Box A9

1/8" = 1'-0"



Level 1 Plan - Home Press Box A3

1/8" = 1'-0"

General Notes (Floor Plans):

1. ALL WALL TYPES TO BE M6 UNLESS OTHERWISE NOTED.
2. ALL WALL DIMENSIONS ARE TO FACE OF WALL UNLESS OTHERWISE NOTED.
3. MASONRY WALLS ARE ALIGNED WITH THE INTERIOR FACE ON GRID LINES AND MASONRY DIMENSIONS ARE NOMINAL UNLESS OTHERWISE NOTED
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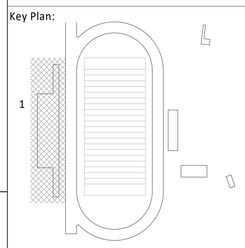
8. ENLARGED PLANS MAY BE ROTATED OR MIRRORED COORDINATE WITH MAIN FLOOR PLAN.
9. CONTRACTOR TO PROVIDE 4'-0" HIGH PLYWOOD BACKER BOARD IN ALL MECHANICAL AND ELECTRICAL ROOMS MOUNTED 3'-6" A.F.F. FOR PERIMETER OF ROOM

General Notes: (Roof Plan)

1. REFER TO EXTERIOR ENCLOSURE TYPES FOR ROOF DETAILS.
2. MINIMUM SLOPES ON ROOF SHALL BE 1/4" PER FOOT IN DIRECTION OF DRAINS OR ROOF EDGE
3. ELEVATION ABBREVIATIONS AS FOLLOWS: **BOD** = BOTTOM OF DECK, **TOS** = TOP OF STEEL, **TOP** = TOP OF PARAPET
4. OBJECT ABBREVIATIONS AS FOLLOWS: **RD** = ROOF DRAIN, **RTU** = ROOFTOP UNIT, **RH** = ROOF HATCH
5. PROVIDE ALL ROOFING DETAILS BY MANUFACTURERS WARRANTED SYSTEMS.
6. PROVIDE WALKWAY PADS AT ALL ROOF LADDERS AND AT ALL ROOFTOP EQUIPMENT WORKING AREAS.
7. PROVIDE CRICKETS AT ALL ROOFTOP EQUIPMENT TO FACILITATE DRAINAGE.

Key Plan:



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Lee's Summit R7 District Athletics Facilities

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STATE OF MISSOURI · JAY DARREN BROWNING · NUMBER A-2009027279 · ARCHITECT

11.3.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 11/03/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE
ADD03	Addendum 03	10/23/20
CCR01	Code Comment Response 1	10/28/20

PROJECT NO: 0119-0101
DATE: September 28, 2020

Home Press Box - Floor/Roof Plans

H-A111

BID SET

PRINT DATE/TIME:
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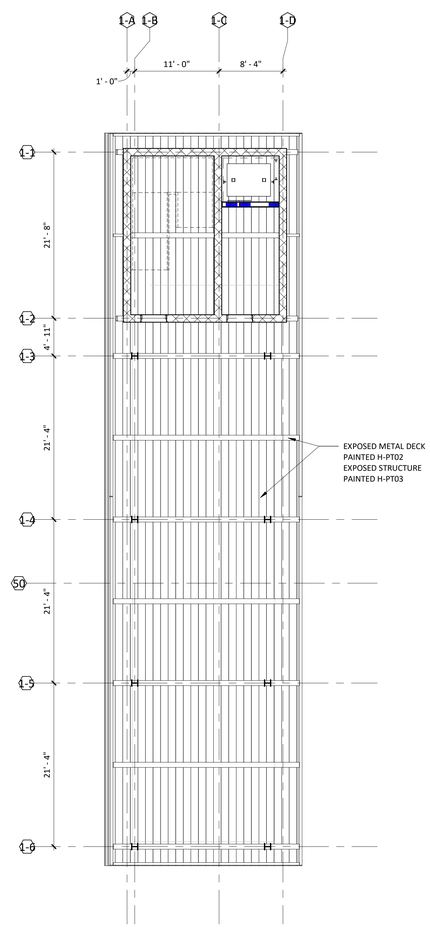
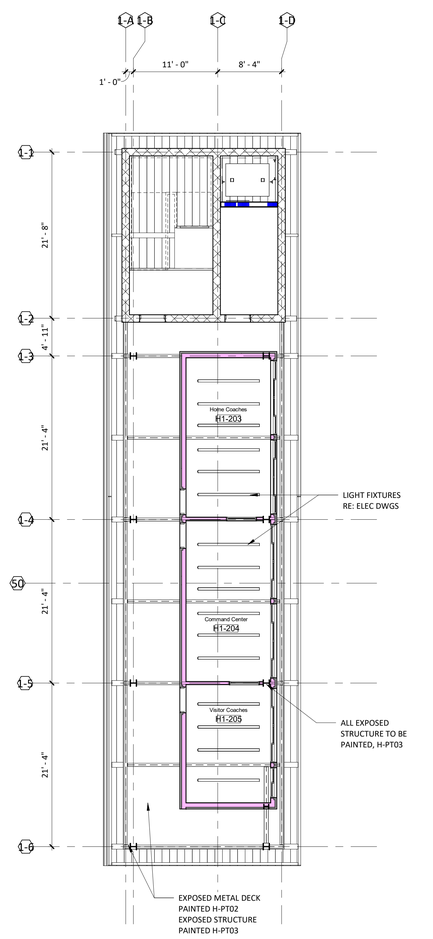
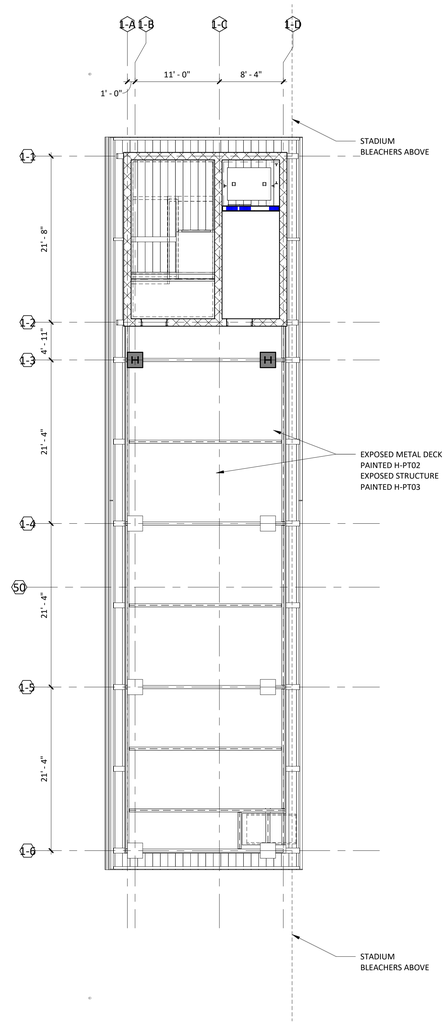


Level 3 RCP - Home Press Box A11
1/8" = 1'-0"



Level 2 RCP - Home Press Box A7
1/8" = 1'-0"

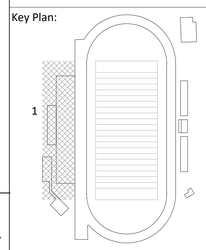


Level 1 RCP - Home Press Box A3
1/8" = 1'-0"

General Notes (Reflected Ceiling Plans):

1. ALL CEILING AND SOFFIT HEIGHTS ARE GIVEN ABOVE FINISHED FLOOR ELEVATION (EL. 0'-0")
2. GENERALLY ONLY CEILING MOUNTED FIXTURES ARE SHOWN ON THIS PLAN. COORDINATE WITH MEP PLANS FOR ADDITIONAL INFORMATION.
3. VERIFY LOCATIONS OF ALL CEILING ACCESS PANELS WITH MEP DRAWINGS. COORDINATE LOCATIONS OF PANELS WITH ARCHITECT PRIOR TO INSTALLATION. ACCESS PANEL FIRE RATINGS MUST MATCH CEILING ASSEMBLY FIRE RATINGS.
4. LIGHTING FIXTURES TO BE CENTERED AND SPACED EQUALLY UNLESS NOTED OTHERWISE.
5. LIGHT FIXTURES ARE SHOWN FOR DIMENSIONAL PURPOSES ONLY COORDINATE WITH ELECTRICAL DRAWINGS FOR FIXTURE DESIGNATIONS.
6. IF PROJECT INCLUDES FIRE RATED CEILINGS, LIGHT FIXTURES LOCATED IN RATED CEILING ASSEMBLIES ARE TO BE TENTED OR OTHERWISE RATED TO MATCH THE CEILING.

Key Plan:



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Lee's Summit R7 District Athletics Facilities

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Lee's Summit, MO 64063

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Lee's Summit, MO 64086

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www.gouldevans.com

structural engineer:
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civil engineer:
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Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 09/28/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE

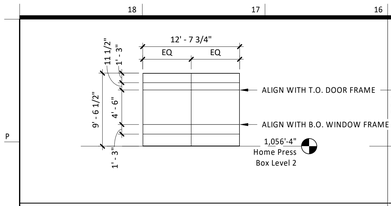
PROJECT NO: 0119-0101
DATE: September 28, 2020

Home Press Box - Reflected Ceiling Plans

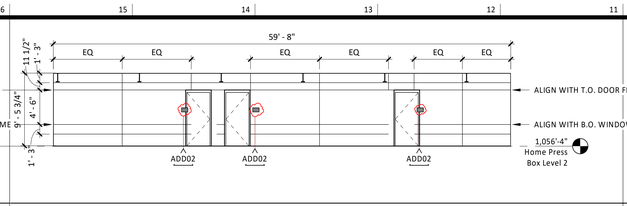
H-A112

BID SET

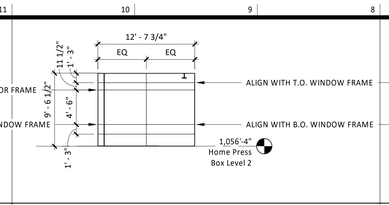
PRINT DATE/TIME:
9/28/2020 8:12:12 AM



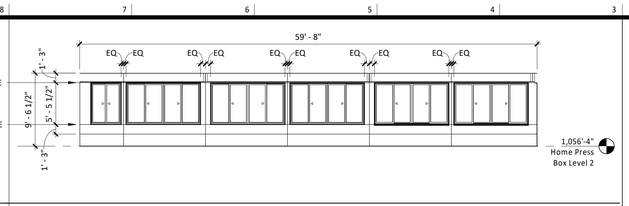
North Elevation Press Box - Wall Panel Joint Detail N16
1/8" = 1'-0"



West Elevation Press Box - Wall Panel Joint Detail N11
1/8" = 1'-0"



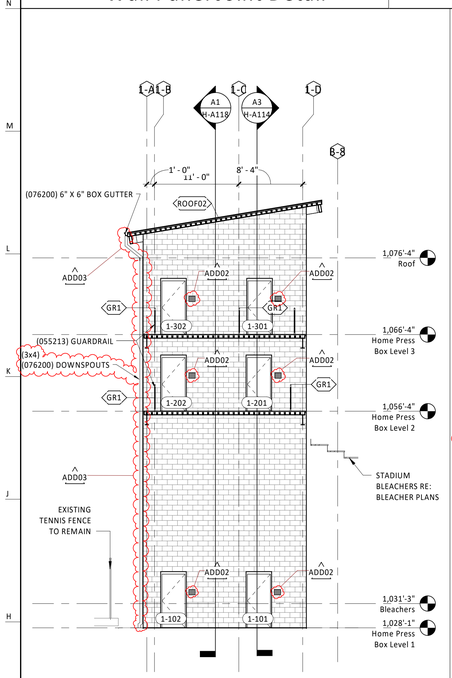
South Elevation Press Box - Wall Panel Joint Detail N8
1/8" = 1'-0"



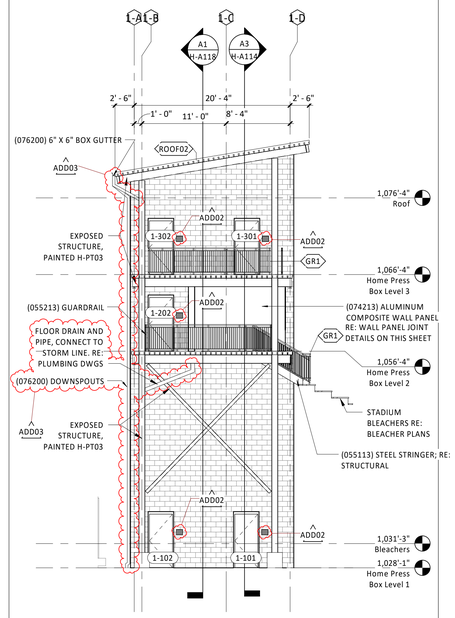
East Elevation Press Box - Wall Panel Joint Detail N3
1/8" = 1'-0"

General Notes (Exterior Elevations):

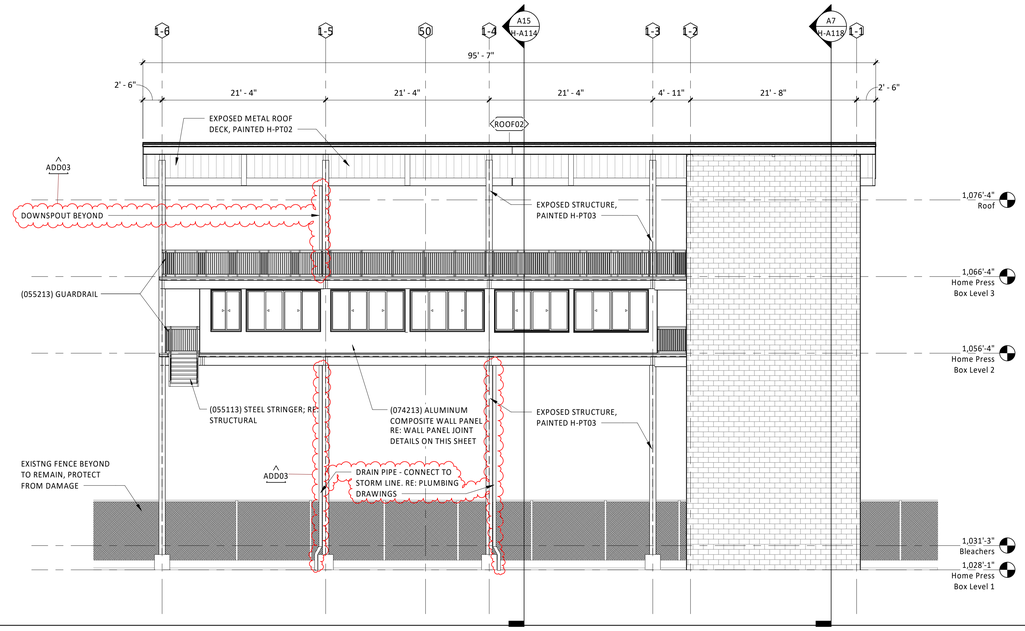
1. MATERIALS AND FINISHES INDICATED APPLY TO ALL SIMILAR ELEMENTS.
2. COORDINATE EXTERIOR LIGHTING FIXTURE TYPES AND LOCATIONS WITH ELECTRICAL DRAWINGS.



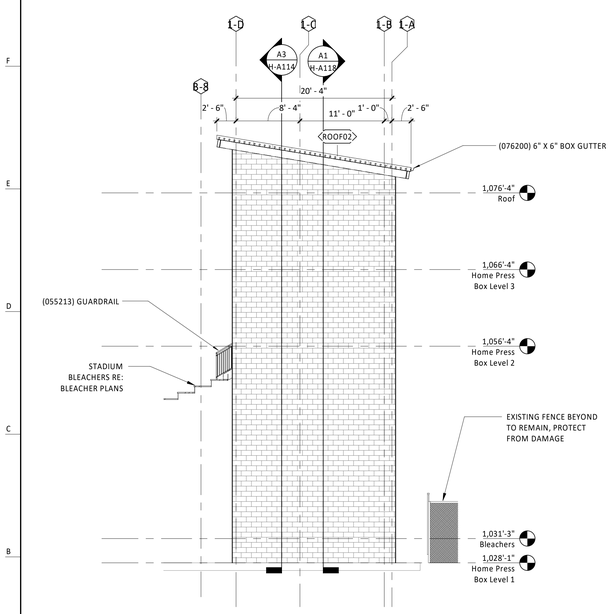
South Elevation - Home Press Box Core G15
1/8" = 1'-0"



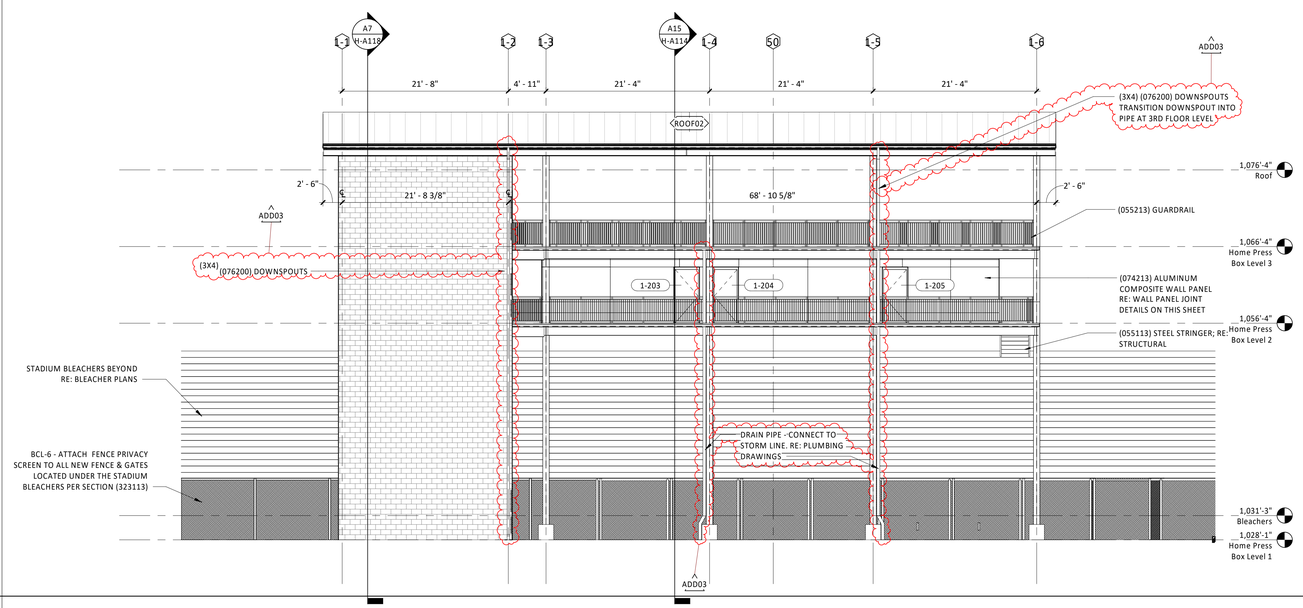
South Elevation - Home Press Box G12
1/8" = 1'-0"



East Elevation - Home Press Box G3
1/8" = 1'-0"

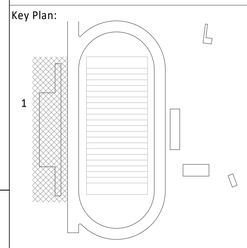


North Elevation - Home Press Box A14
1/8" = 1'-0"



West Elevation - Home Press Box A3
1/8" = 1'-0"

Key Plan:



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STATE OF MISSOURI
JAY
DARREN
BROWNING
NUMBER
2009027279
ARCHITECT
11.3.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 11/03/2020
Architect License No. A-2009027279

REVISIONS

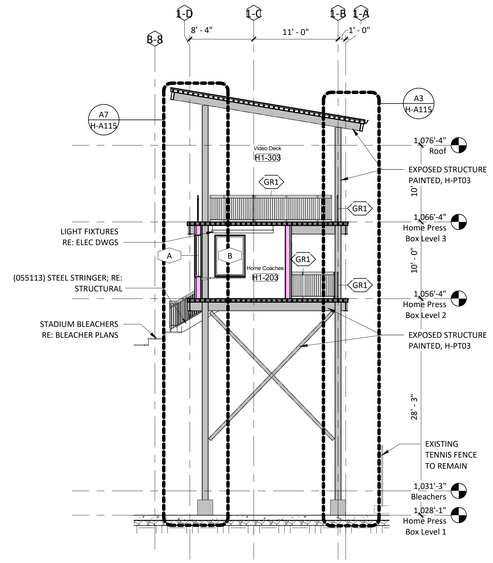
Number	DESCRIPTION	DATE
ADD02	Addendum 02	10/20/20
ADD03	Addendum 03	10/23/20

PROJECT NO: 0119-0101
DATE: September 28, 2020

Home Press Box - Exterior Elevations

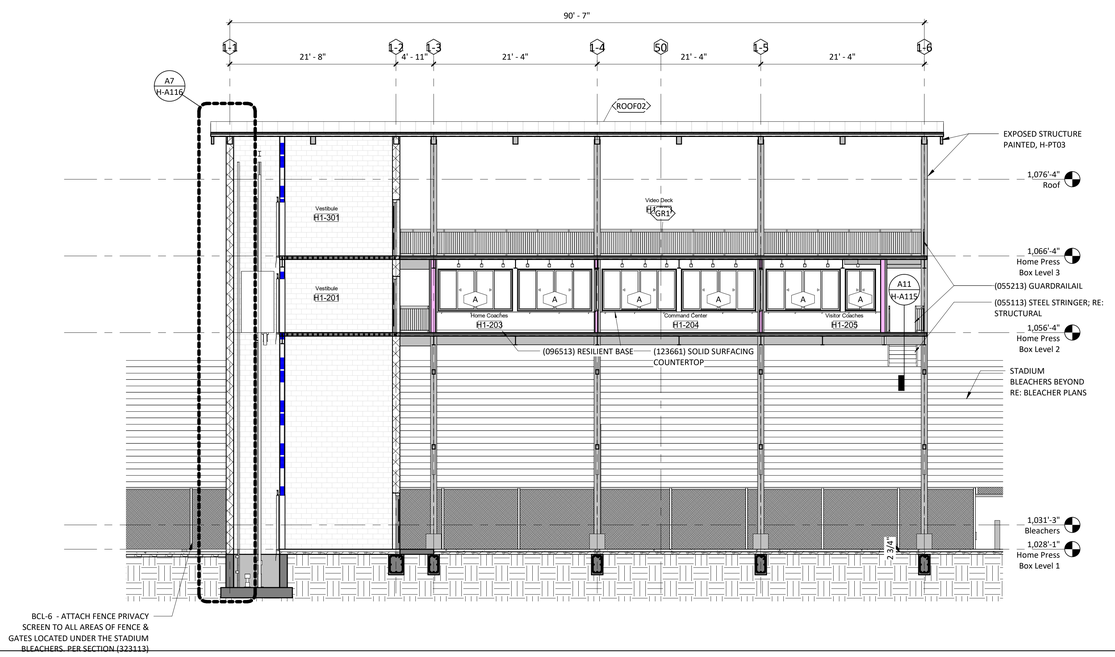
H-A113

BID SET



E/W Building Section - Home Press Box @ Video Deck A15

1/8" = 1'-0"



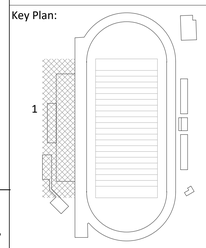
N/S Building Section @ Home Press Box A3

1/8" = 1'-0"

General Notes (Building Sections):

1. BUILDING SECTIONS SHOWN FOR ORIENTATION AND CONTEXT. REFER TO WALL SECTIONS FOR CONSTRUCTION DETAILING AND REFERENCES.

Key Plan:



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Lee's Summit R7 District Athletics Facilities

Lee's Summit High School
400 SW Blue Parkway
Lee's Summit, MO 64063

owner:
Lee's Summit R-7 School District
301 NE Tudor Road
Lee's Summit, MO 64086

architect:
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4200 Pennsylvania Avenue
Kansas City, MO 64111
816.931.6655 voice
www.gouldevans.com

structural engineer:
Bob D. Campbell & Company, Inc.
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civil engineer:
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913.485.0318

mechanical/electrical engineer:
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8345 Lenexa Drive | Suite 300
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816.742.5000

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Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 09/28/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

Home Press Box - Building Sections

H-A114

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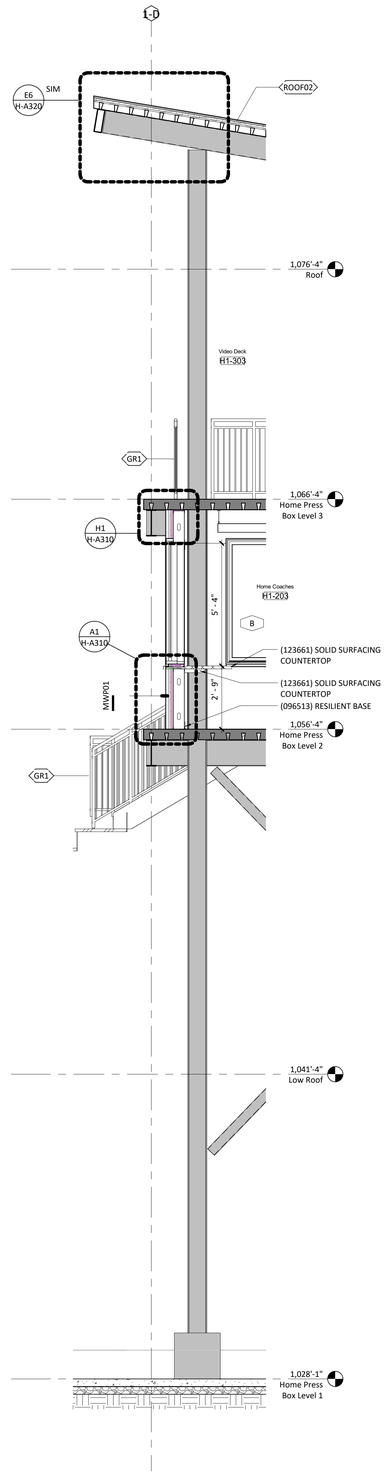
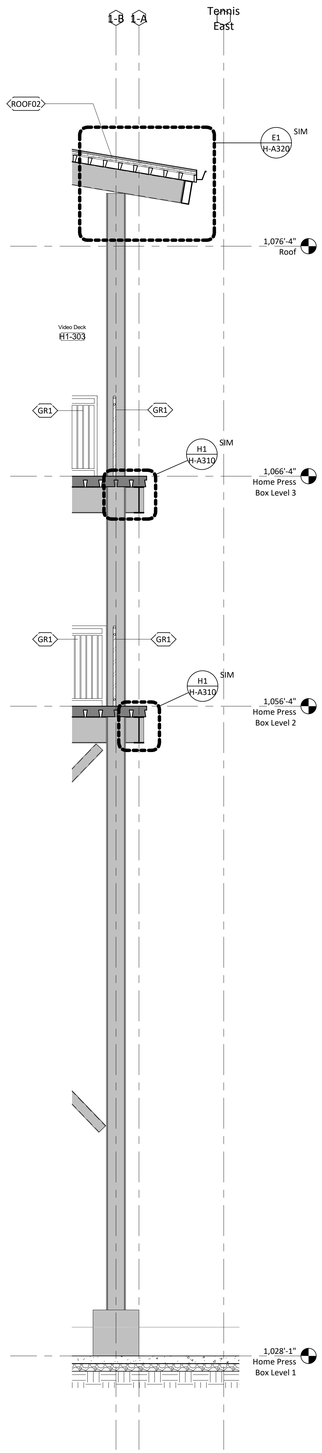
PRINT DATE/TIME:
9/28/2020 8:12:25 AM

Detail Section - Bleacher Stair A11
3/4" = 1'-0"

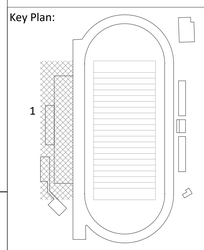


Wall Section - East Side @ Press Box A7
3/8" = 1'-0"



Wall Section - West Side @ Press Box A3
3/8" = 1'-0"

Key Plan:



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Lee's Summit R7 District Athletics Facilities

Lee's Summit High School
400 SW Blue Parkway
Lee's Summit, MO 64063

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Missouri License No. 2018022991
Jay Browning Date: 09/28/2020
Architect License No. A-2009027279

REVISIONS

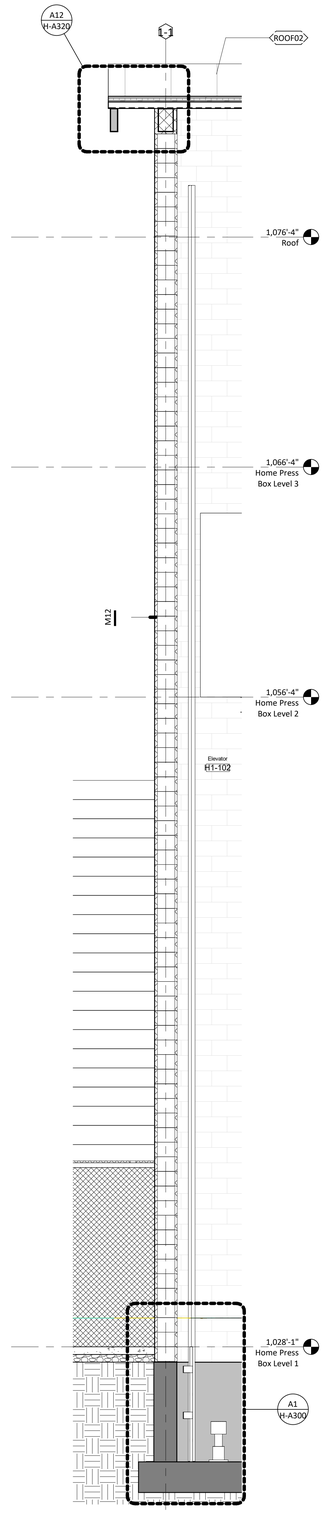
Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

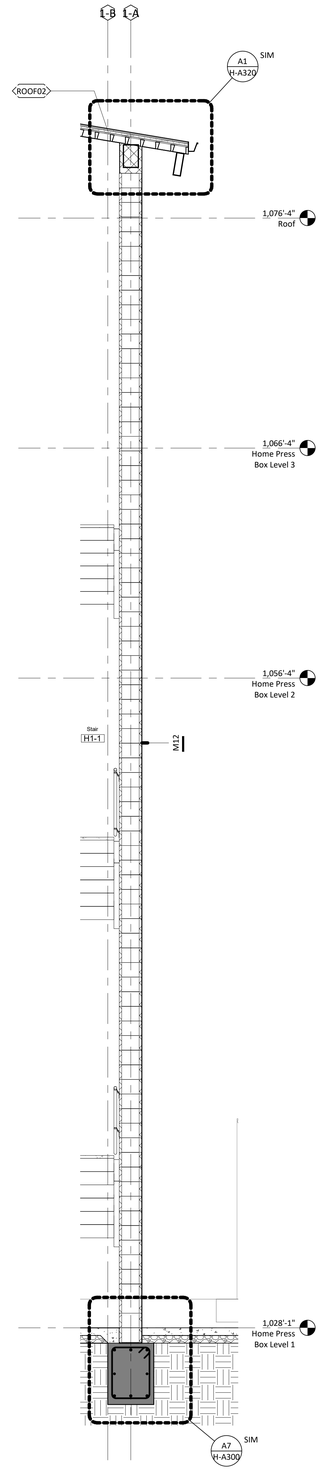
Home Press Box - Wall Sections

H-A115

BID SET

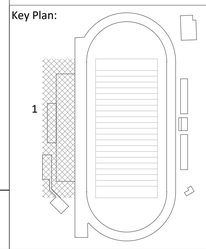


Wall Section @ Elevator Core A7
3/8" = 1'-0"



Wall Section - West Side @ Stair Core A3
3/8" = 1'-0"

Key Plan:



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Lee's Summit R7 District Athletics Facilities

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STATE OF MISSOURI
JAY DARREN BROWNING
NUMBER A-2009027279
ARCHITECT
9.28.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 09/28/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

Home Press Box - Wall Sections

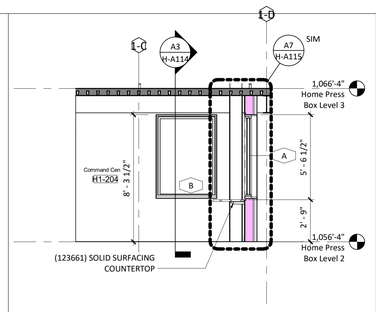
H-A116

BID SET

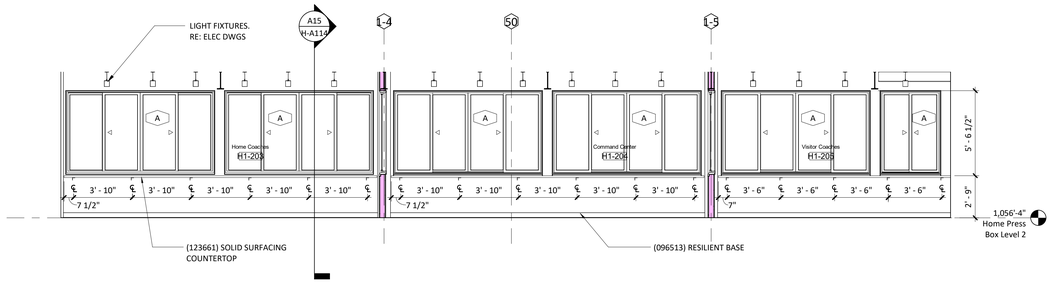
PRINT DATE/TIME:
9/28/2020 8:12:32 AM

General Notes (Interior Elevations):

1. REFER TO FINISH LEGEND/SCHEDULE FOR COMPLETE LISTING OF FINISHES
2. REFER TO PROJECT STANDARDS FOR INSTALLATION INFORMATION FOR ACCESSORIES, TOILET FIXTURES, ETC.
3. REFER TO PROJECT STANDARDS FOR DEVICES FOR TYPICAL INSTALLATION INFORMATION.
4. AT GYP SOFFIT CONTROL JOINTS, CONTINUE CONTROL JOINT UP BOTH VERTICAL FACES OF SOFFIT.

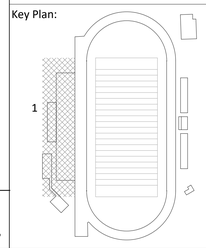


Pressbox Typical Interior Wall F3
1/4" = 1'-0"



East Interior Elevation - Home Press Box A3
1/4" = 1'-0"

Key Plan:



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Lee's Summit R7 District Athletics Facilities

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400 SW Blue Parkway
Lee's Summit, MO 64063

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Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 09/28/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE

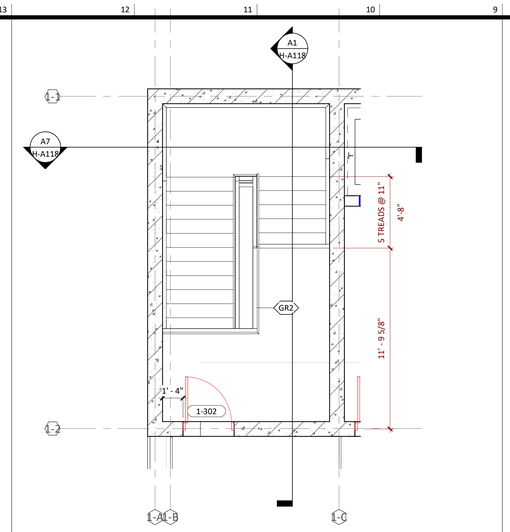
PROJECT NO: 0119-0101
DATE: September 28, 2020

Home Press Box - Interior Elevations

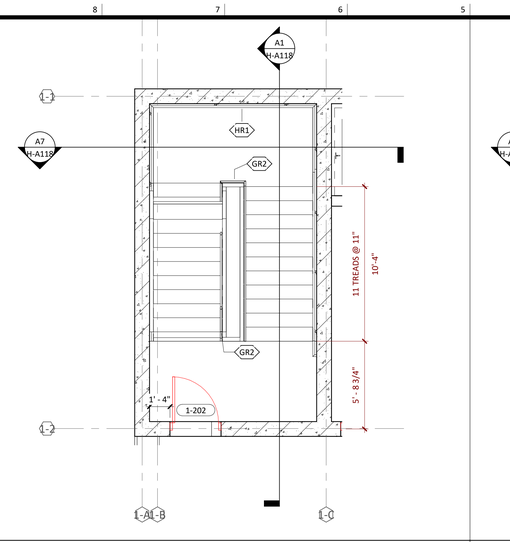
H-A117

BID SET

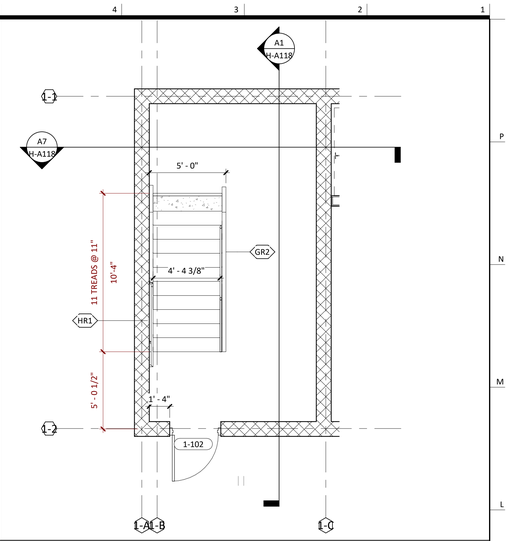
PRINT DATE/TIME:
9/28/2020 8:12:35 AM



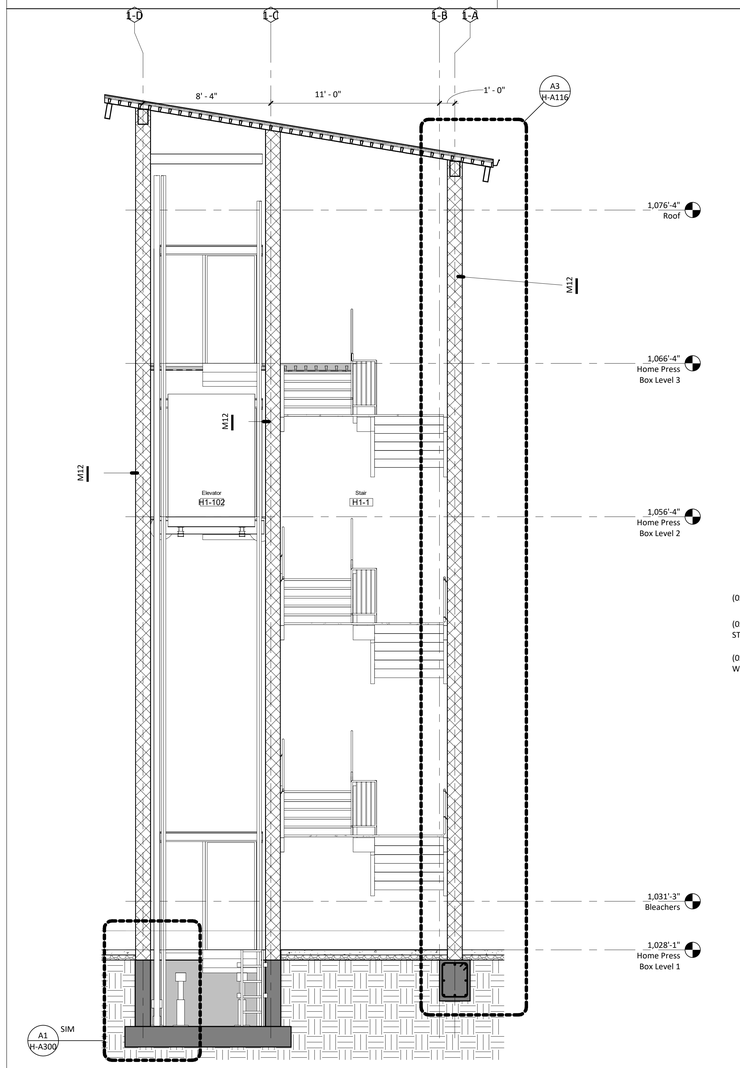
Level 3 Plan - Press Box - Stair K9
1/4" = 1'-0"



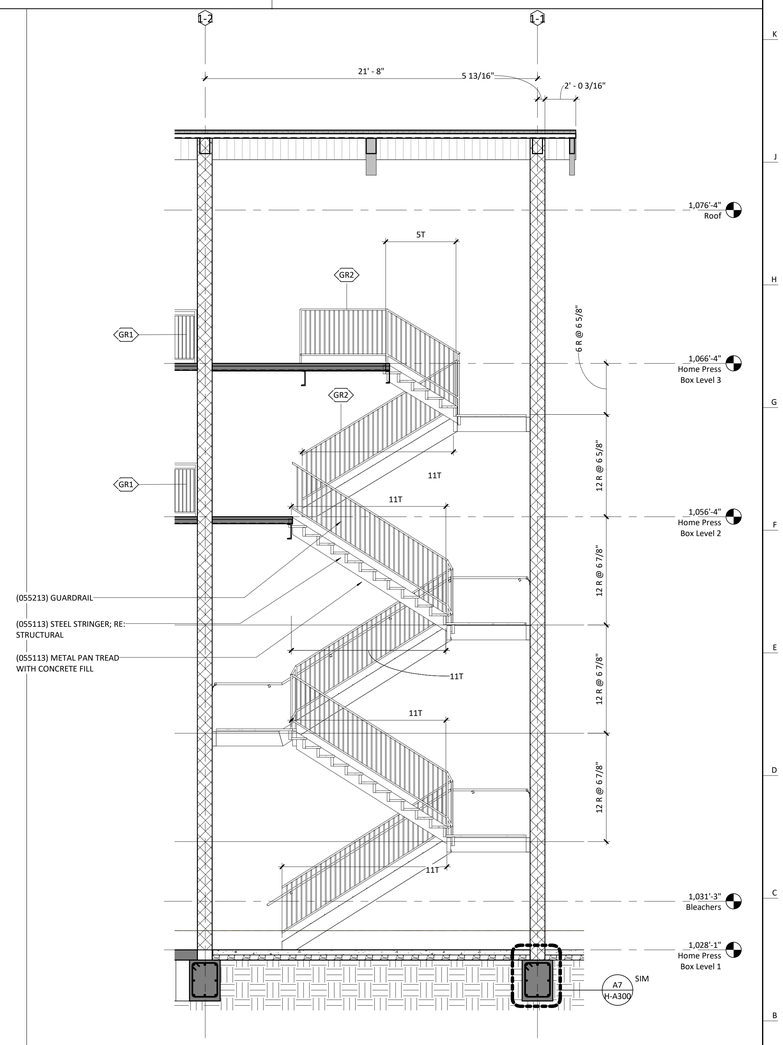
Level 2 Plan - Press Box - Stair K5
1/4" = 1'-0"



Level 1 Plan - Press Box - Stair K1
1/4" = 1'-0"



E/W Building Section @ Stair & Elevator Core A7
1/4" = 1'-0"



N/S Building Section @ Stair Core A1
1/4" = 1'-0"

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Lee's Summit R7 District Athletics Facilities

Lee's Summit High School
400 SW Blue Parkway
Lee's Summit, MO 64063

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Missouri License No. 2018022991
Jay Browning Date: 09/28/2020
Architect License No. A-2009027279

REVISIONS

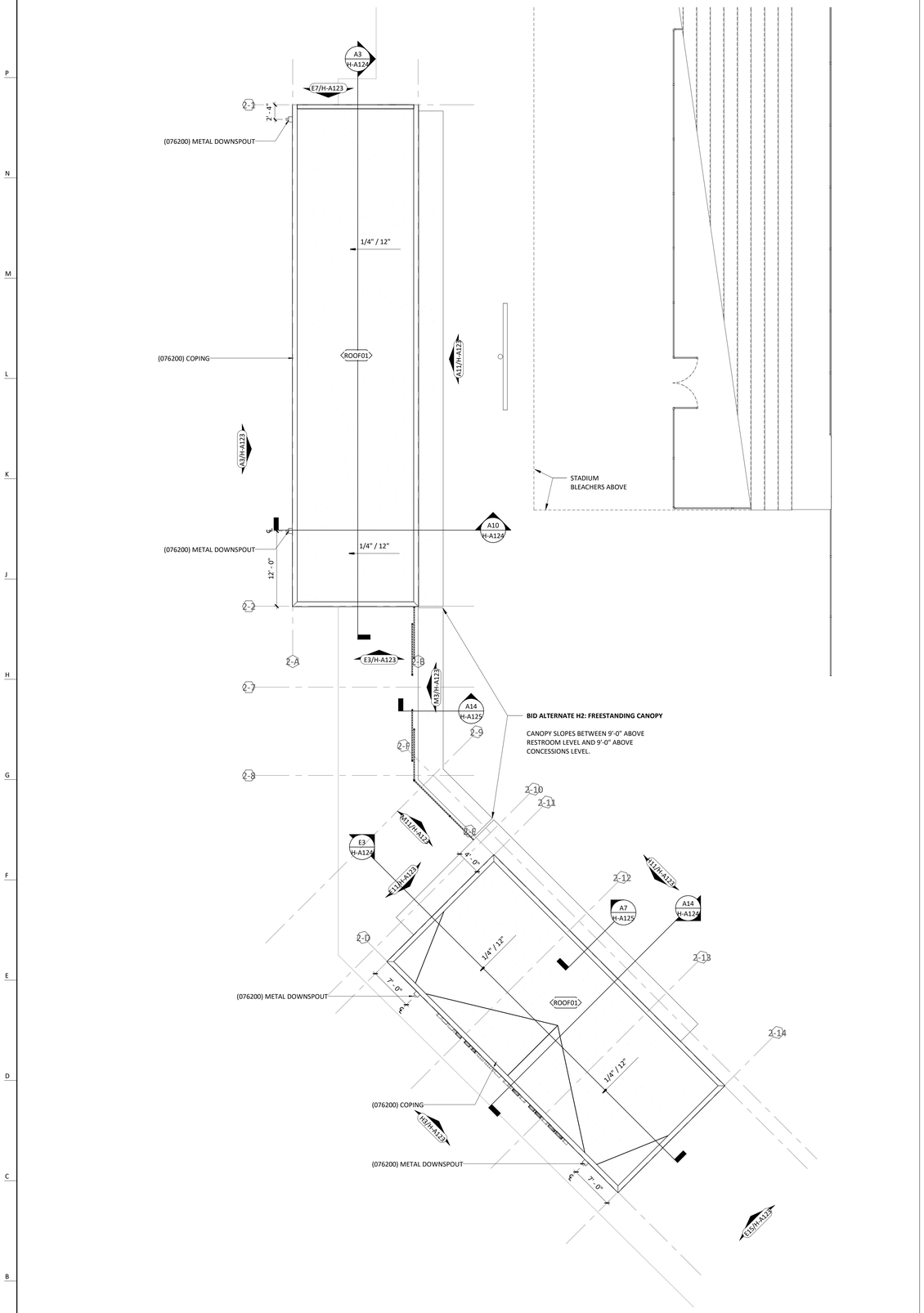
Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

Home Press Box - Vertical Circulation

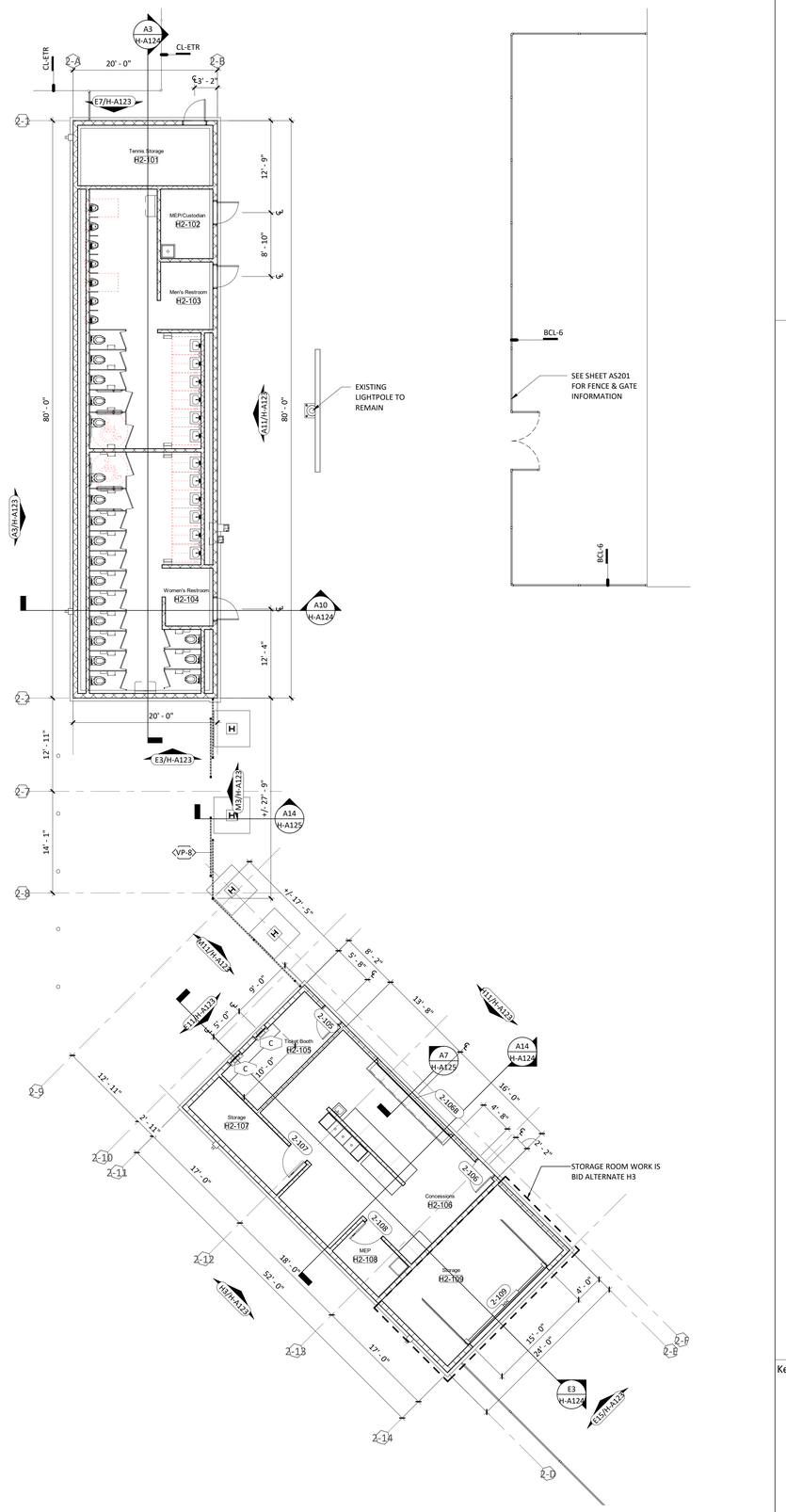
H-A118

BID SET



Roof Plan - Home Gateway A9

1/8" = 1'-0"



Level 1 Plan - Home Gateway A3

1/8" = 1'-0"

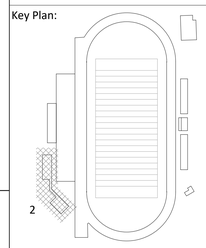
General Notes (Floor Plans):

1. ALL WALL TYPES TO BE M6 UNLESS OTHERWISE NOTED.
2. ALL WALL DIMENSIONS ARE TO FACE OF WALL UNLESS OTHERWISE NOTED.
3. MASONRY WALLS ARE ALIGNED WITH THE INTERIOR FACE ON GRID LINES AND MASONRY DIMENSIONS ARE NOMINAL UNLESS OTHERWISE NOTED
4. DOORS IN STUD WALLS NEAR PERPENDICULAR WALLS ARE LOCATED 4" OFF FACE OF PERPENDICULAR WALL UNLESS OTHERWISE NOTED.
5. DOORS IN MASONRY WALLS ARE LOCATED IN ROUGH OPENINGS DIMENSIONED ON SHEET
6. SEE GENERAL ACCESSIBILITY SHEET FOR HEIGHTS AND LOCATIONS OF TOILET ACCESSORIES NOT SHOWN ON ELSEWHERE.
7. CONTRACTOR TO FIELD VERIFY ALL MEASUREMENTS AND CONDITIONS NEW AND EXISTING. NOTIFY THE ARCHITECT/OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES.
8. ENLARGED PLANS MAY BE ROTATED OR MIRRORED COORDINATE WITH MAIN FLOOR PLAN.
9. CONTRACTOR TO PROVIDE 4'-0" HIGH PLYWOOD BACKER BOARD IN ALL MECHANICAL AND ELECTRICAL ROOMS MOUNTED 3'-6" A.F.F. FOR PERIMETER OF ROOM

General Notes: (Roof Plan)

1. REFER TO EXTERIOR ENCLOSURE TYPES FOR ROOF DETAILS.
2. MINIMUM SLOPES ON ROOF SHALL BE 1/4" PER FOOT IN DIRECTION OF DRAINS OR ROOF EDGE
3. ELEVATION ABBREVIATIONS AS FOLLOWS: **BOD** = BOTTOM OF DECK, **TOS** = TOP OF STEEL, **TOP** = TOP OF PARAPET
4. OBJECT ABBREVIATIONS AS FOLLOWS: **RD** = ROOF DRAIN, **RTU** = ROOFTOP UNIT, **RH** = ROOF HATCH
5. PROVIDE ALL ROOFING DETAILS BY MANUFACTURERS WARRANTED SYSTEMS.
6. PROVIDE WALKWAY PADS AT ALL ROOF LADDERS AND AT ALL ROOFTOP EQUIPMENT WORKING AREAS.
7. PROVIDE CRICKETS AT ALL ROOFTOP EQUIPMENT TO FACILITATE DRAINAGE.

Key Plan:



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STATE OF MISSOURI
JAY
WARREN
BROWNING
NUMBER
A-2009027279
ARCHITECT
9.28.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 09/28/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

Home Gateway - Floor/Roof/Plans

H-A121

BID SET

PRINT DATE/TIME:
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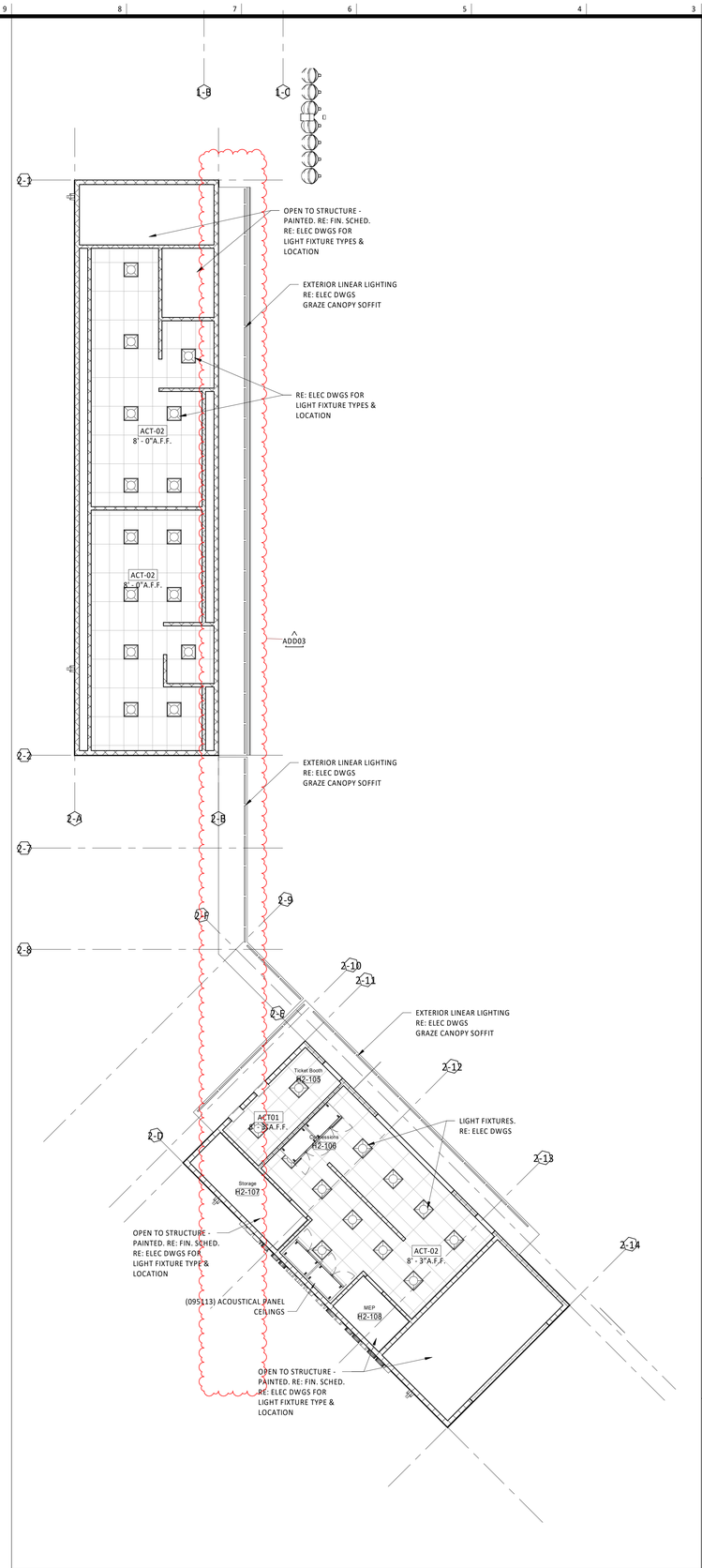


RCP - Home Gateway A3

1/8" = 1'-0"

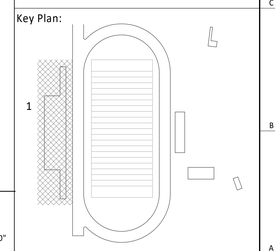
General Notes (Floor Plans):

1. ALL WALL TYPES TO BE M6 UNLESS OTHERWISE NOTED.
2. ALL WALL DIMENSIONS ARE TO FACE OF WALL UNLESS OTHERWISE NOTED.
3. MASONRY WALLS ARE ALIGNED WITH THE INTERIOR FACE ON GRID LINES AND MASONRY DIMENSIONS ARE NOMINAL UNLESS OTHERWISE NOTED
4. DOORS IN STUD WALLS NEAR PERPENDICULAR WALLS ARE LOCATED 4" OFF FACE OF PERPENDICULAR WALL UNLESS OTHERWISE NOTED.
5. DOORS IN MASONRY WALLS ARE LOCATED IN ROUGH OPENINGS DIMENSIONED ON SHEET
6. SEE GENERAL ACCESSIBILITY SHEET FOR HEIGHTS AND LOCATIONS OF TOILET ACCESSORIES NOT SHOWN ON ELSEWHERE.
7. CONTRACTOR TO FIELD VERIFY ALL MEASUREMENTS AND CONDITIONS NEW AND EXISTING. NOTIFY THE ARCHITECT/OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES.
8. ENLARGED PLANS MAY BE ROTATED OR MIRRORED COORDINATE WITH MAIN FLOOR PLAN.
9. CONTRACTOR TO PROVIDE 4'-0" HIGH PLYWOOD BACKER BOARD IN ALL MECHANICAL AND ELECTRICAL ROOMS MOUNTED 3'-6" A.F.F. FOR PERIMETER OF ROOM

General Notes (Reflected Ceiling Plans):

1. ALL CEILING AND SOFFIT HEIGHTS ARE GIVEN ABOVE FINISHED FLOOR ELEVATION (EL. 0'-0")
2. GENERALLY ONLY CEILING MOUNTED FIXTURES ARE SHOWN ON THIS PLAN. COORDINATE WITH MEP PLANS FOR ADDITIONAL INFORMATION.
3. VERIFY LOCATIONS OF ALL CEILING ACCESS PANELS WITH MEP DRAWINGS. COORDINATE LOCATIONS OF PANELS WITH ARCHITECT PRIOR TO INSTALLATION. ACCESS PANEL FIRE RATINGS MUST MATCH CEILING ASSEMBLY FIRE RATINGS.
4. LIGHTING FIXTURES TO BE CENTERED AND SPACED EQUALLY UNLESS NOTED OTHERWISE.
5. LIGHT FIXTURES ARE SHOWN FOR DIMENSIONAL PURPOSES ONLY COORDINATE WITH ELECTRICAL DRAWINGS FOR FIXTURE DESIGNATIONS.
6. IF PROJECT INCLUDES FIRE RATED CEILINGS, LIGHT FIXTURES LOCATED IN RATED CEILING ASSEMBLIES ARE TO BE TENTED OR OTHERWISE RATED TO MATCH THE CEILING.

Key Plan:



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STATE OF MISSOURI
JAY BARREN BROWNING
NUMBER A-2009027279
ARCHITECT
11.3.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 11/03/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE
ADD03	Addendum 03	10/23/20

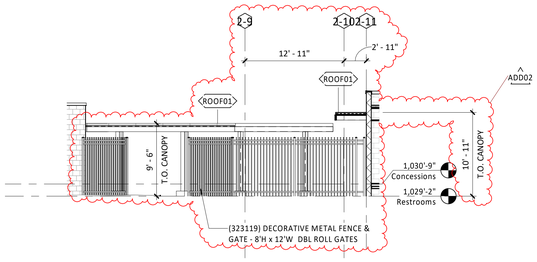
PROJECT NO: 0119-0101
DATE: September 28, 2020

Home Gateway - Reflected Ceiling Plans

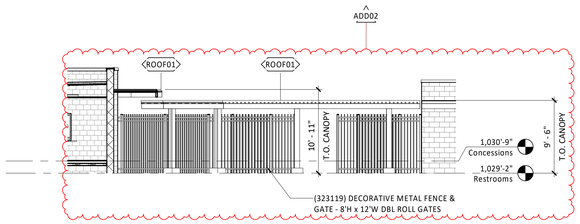
H-A122

BID SET

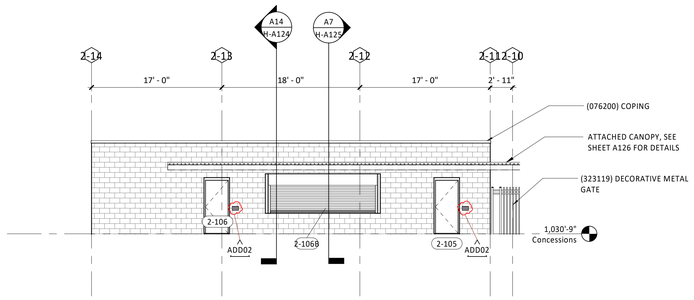
PRINT DATE/TIME:
11/4/2020 8:19:54 AM



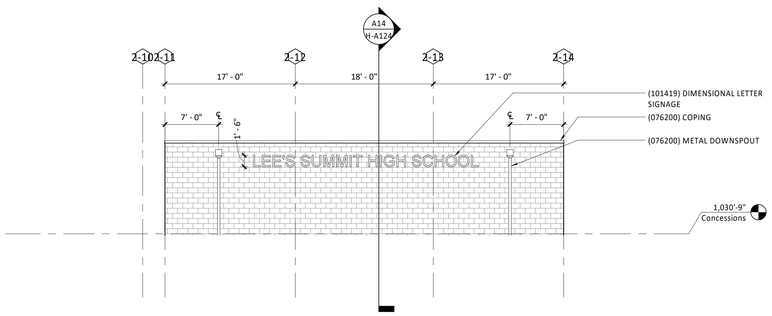
West Elevation - Canopy Alternate H2 M11
1/8" = 1'-0"



East Elevation - Canopy Alternate H2 M3
1/8" = 1'-0"



NE Elevation - Ticket Booth & Concessions H11
1/8" = 1'-0"



SW Elevation - Ticket Booth & Concessions H3
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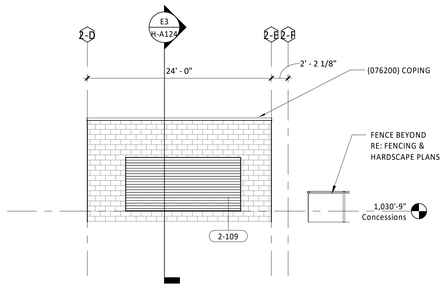
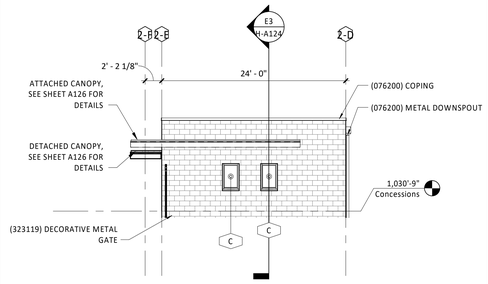
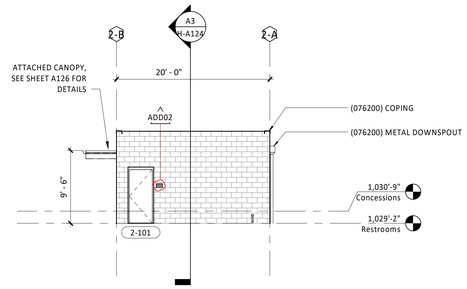


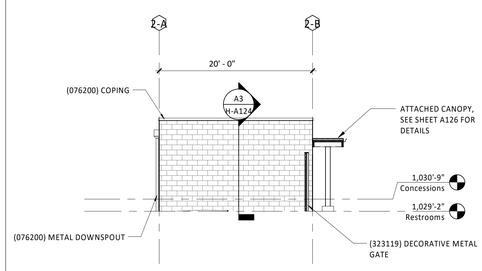
SE Elevation - Ticket Booth & Concessions E15
1/8" = 1'-0"



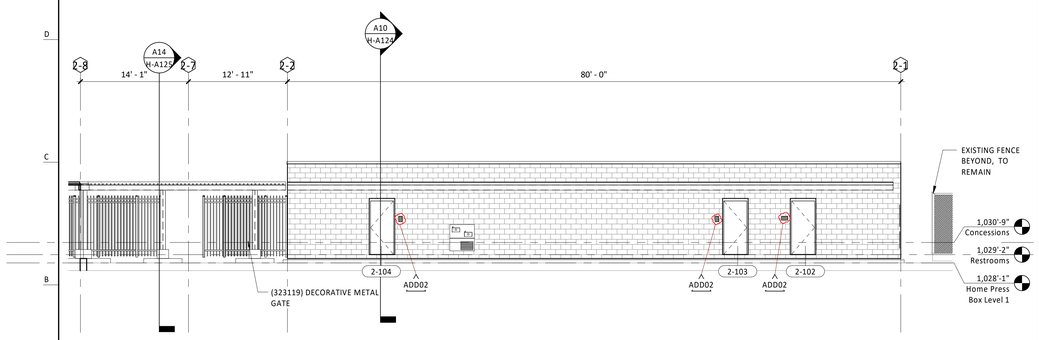
NW Elevation - Ticket Booth & Concessions E11
1/8" = 1'-0"



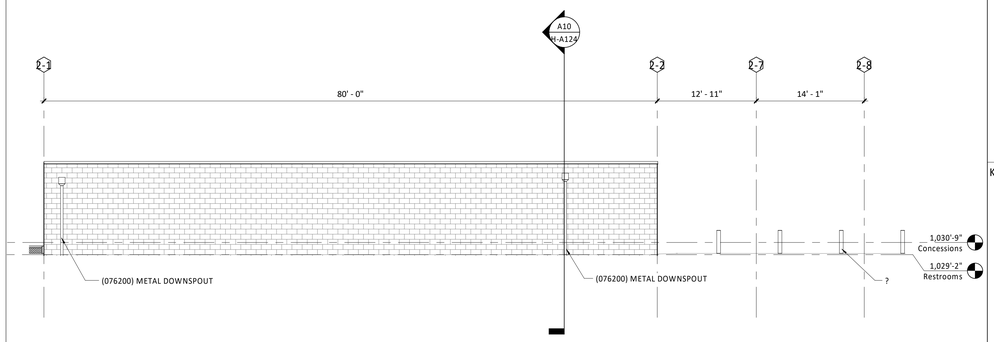
North Elevation - Restrooms E7
1/8" = 1'-0"



South Elevation - Restrooms E3
1/8" = 1'-0"



East Elevation - Restrooms A11
1/8" = 1'-0"



West Elevation - Restrooms A3
1/8" = 1'-0"

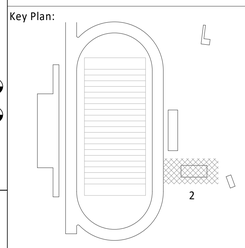
General Notes (Exterior Elevations):

1. MATERIALS AND FINISHES INDICATED APPLY TO ALL SIMILAR ELEMENTS.
2. COORDINATE EXTERIOR LIGHTING FIXTURE TYPES AND LOCATIONS WITH ELECTRICAL DRAWINGS.

Finish Legend - Exterior

MARK	MODEL
074113 STANDING SEAM METAL ROOF	
H-MR01	SNAP-CLAD-CITYSCAPE
074113 Standing Seam Metal Roof	
MR01	
074213.23 METAL COMPOSITE MATERIAL WALL PANELS	
ACMS01a	
H-MWP1	PAC-3000 RS COMPOSITE WALL PANEL
088000 GLAZING	
IGU01	1" INSULATED GLASS

Key Plan:



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Lee's Summit R7 District Athletics Facilities

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Lee's Summit, MO 64063

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816.931.6655 voice
www.gouldevans.com

structural engineer:
Bob D. Campbell & Company, Inc.
4338 Belleview Avenue
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civil engineer:
Kaw Valley Engineering
14700 West 114th Terrace
Lenexa, KS 66215
913.485.0318

mechanical/electrical engineer:
Henderson Engineers
8345 Lenexa Drive | Suite 300
Lenexa, KS 66214
816.742.5000

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STATE OF MISSOURI
JAY DARREN BROWNING
NUMBER A-2009027279
ARCHITECT
11.3.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 11/03/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE
ADD02	Addendum 02	10/20/20

PROJECT NO: 0119-0101
DATE: September 28, 2020

Home Gateway - Exterior Elevations

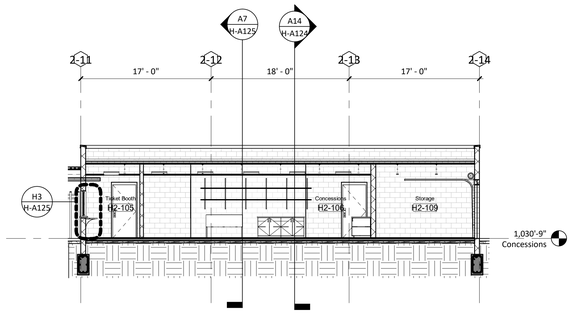
H-A123

BID SET

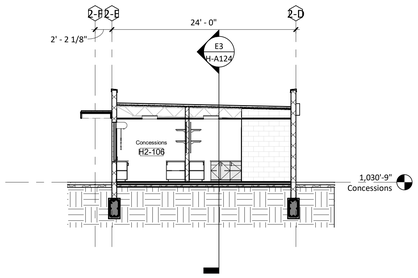
PRINT DATE/TIME:
11/4/2020 8:20:10 AM

General Notes (Building Sections):

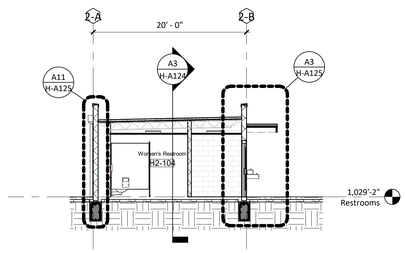
1. BUILDING SECTIONS SHOWN FOR ORIENTATION AND CONTEXT. REFER TO WALL SECTIONS FOR CONSTRUCTION DETAILING AND REFERENCES.



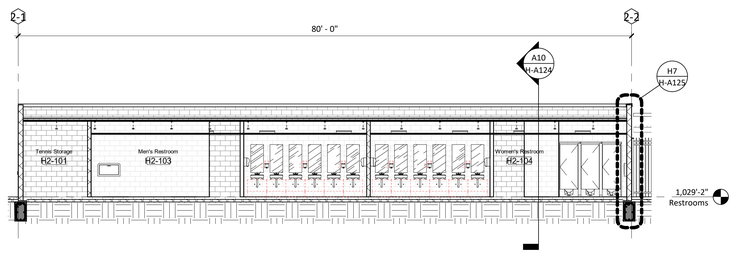
Building Section - Ticket Booth & Concessions E3
1/8" = 1'-0"



Building Section - Concessions A14
1/8" = 1'-0"

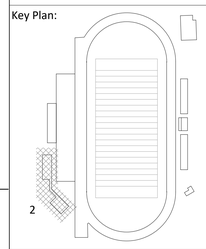


EW Building Section - Restrooms A10
1/8" = 1'-0"
REFER TO H-A002 FOR TOILET ACCESSORIES, TYPE & LOCATION



N/S Building Section - Restrooms A3
1/8" = 1'-0"
REFER TO H-A002 FOR TOILET ACCESSORIES, TYPE & LOCATION

Key Plan:



PRINT DATE/TIME:
9/28/2020 8:12:59 AM

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Lee's Summit R7 District Athletics Facilities

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Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 09/28/2020
Architect License No. A-2009027279

REVISIONS

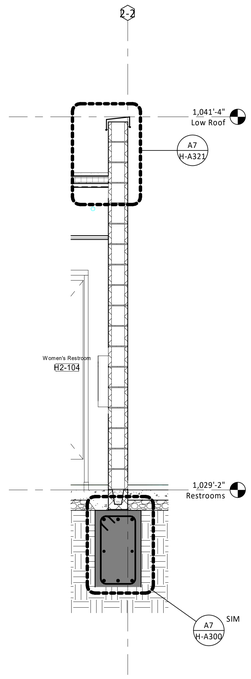
Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

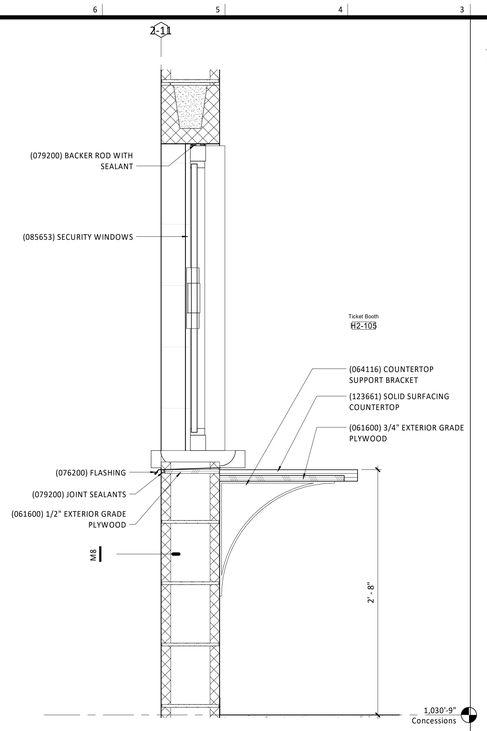
Home Gateway - Building Sections

H-A124

BID SET



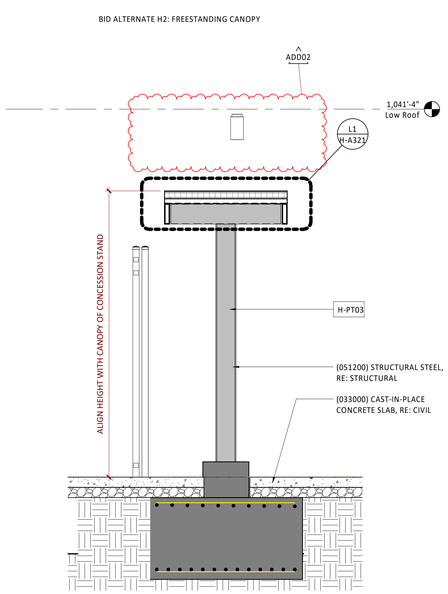
Wall Section - South Side @ Restrooms H7
1/2" = 1'-0"



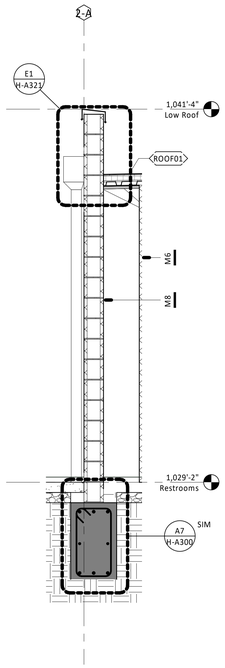
Section Detail - Ticket Booth Window H3
1 1/2" = 1'-0"

General Notes (Wall Sections):

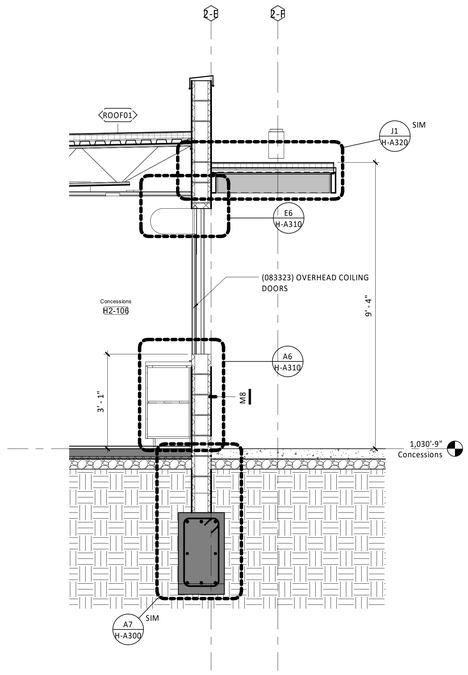
1. SEE STRUCTURAL DRAWINGS FOR ADDITIONAL FOUNDATIONS NOT SHOWN ON WALL SECTIONS AND FOR DIMENSIONS AND REINFORCING OF FOUNDATIONS
2. ALL OPENINGS, FLASHING, COUNTER FLASHING, AND EXPANSION JOINTS SHALL BE WATERTIGHT.
3. ALL OPEN JOINTS, PENETRATIONS, AND OTHER OPENINGS IN THE ENVELOPE SHALL BE SEALED, GASKETED, OR WEATHER-STRIPPED TO LIMIT AIR LEAKAGE.
4. PROVIDE MOLD RESISTANT GYPSUM BOARD AT ALL EXTERIOR WALLS.



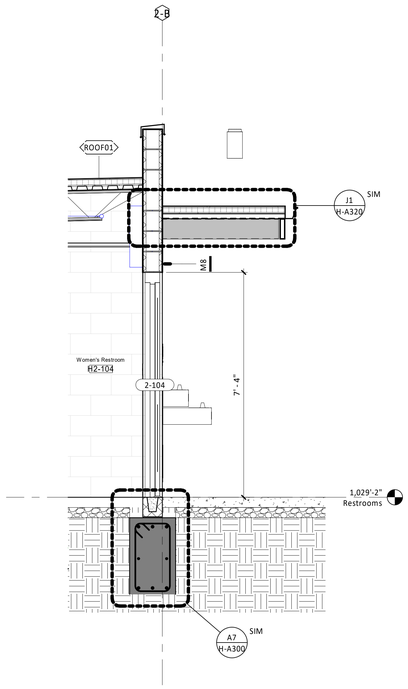
Freestanding Canopy Section A14
1/2" = 1'-0"



Typical CMU Wall Section A11
1/2" = 1'-0"

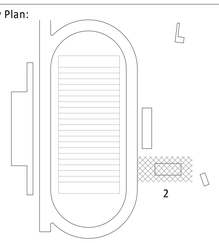


Wall Section - East Side @ Concessions Window A7
1/2" = 1'-0"



Wall Section - East Side @ Canopy A3
1/2" = 1'-0"

Key Plan:



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Lee's Summit R7 District Athletics Facilities

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structural engineer:
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JAY DARREN BROWNING
NUMBER A-2009027279
ARCHITECT
11.3.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 11/03/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE
ADD02	Addendum 02	10/20/20

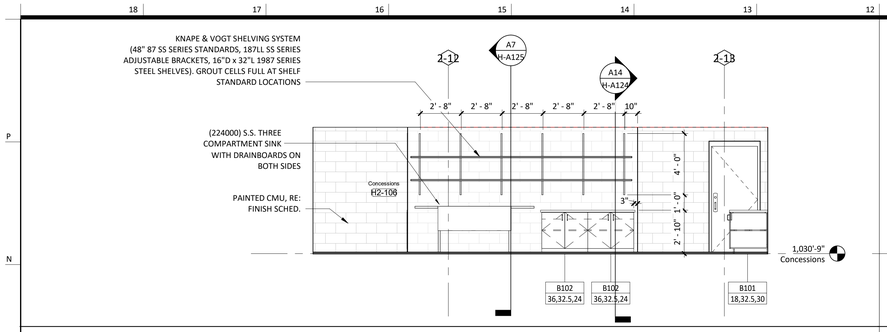
PROJECT NO: 0119-0101
DATE: September 28, 2020

Home Gateway - Wall Sections & Details

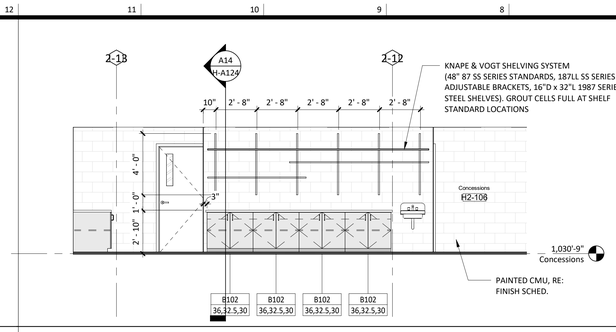
H-A125

BID SET

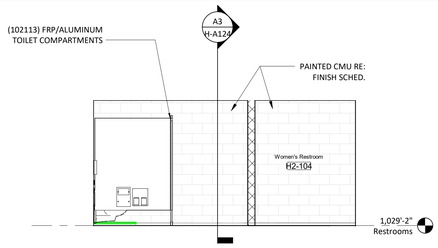
PRINT DATE/TIME:
11/4/2020 8:20:22 AM



SW Wall Concessions M12
1/4" = 1'-0"



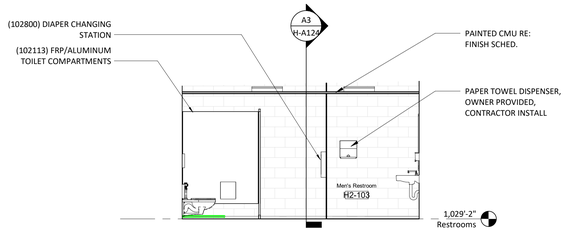
NE Wall Concessions - Front of House M7
1/4" = 1'-0"



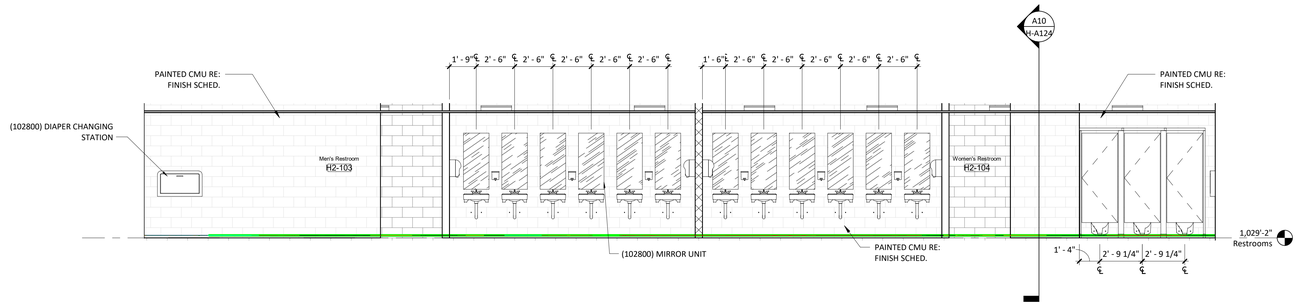
North Wall Women's Restroom M3
REFER TO H-A002 FOR TOILET ACCESSORIES, TYPE & LOCATION
1/4" = 1'-0"

General Notes (Interior Elevations):

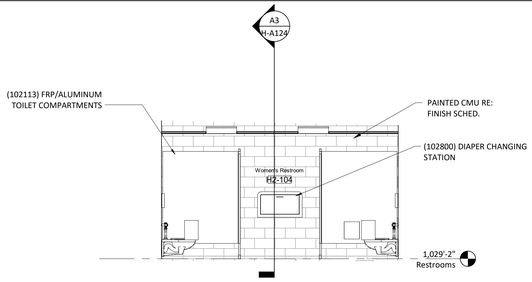
1. REFER TO FINISH LEGEND/SCHEDULE FOR COMPLETE LISTING OF FINISHES
2. REFER TO PROJECT STANDARDS FOR INSTALLATION INFORMATION FOR ACCESSORIES, TOILET FIXTURES, ETC.
3. REFER TO PROJECT STANDARDS FOR DEVICES FOR TYPICAL INSTALLATION INFORMATION.
4. AT GYP SOFFIT CONTROL JOINTS, CONTINUE CONTROL JOINT UP BOTH VERTICAL FACES OF SOFFIT.



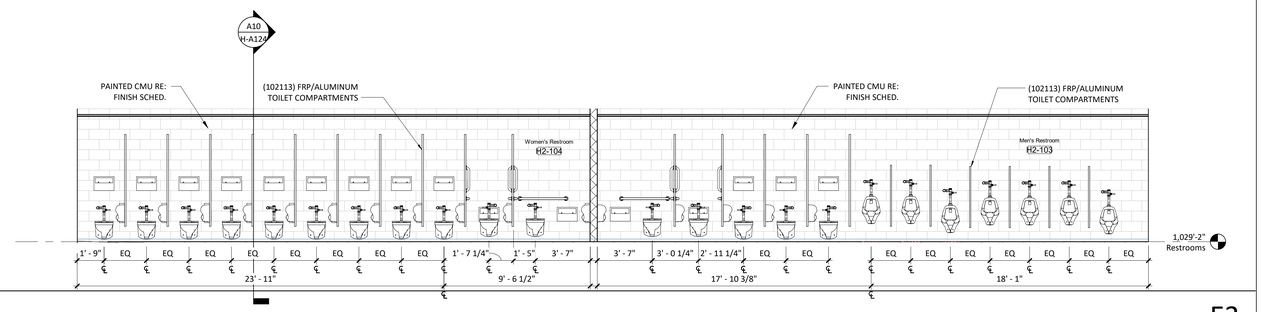
North Wall Men's Restroom H14
REFER TO H-A002 FOR TOILET ACCESSORIES, TYPE & LOCATION
1/4" = 1'-0"



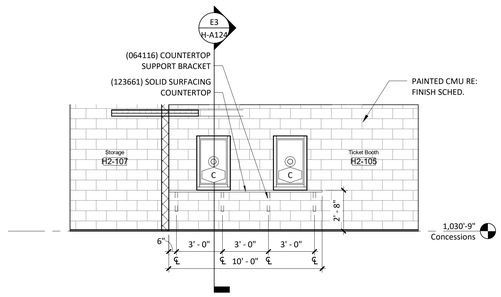
East Wall Restrooms H3
REFER TO H-A002 FOR TOILET ACCESSORIES, TYPE & LOCATION
1/4" = 1'-0"



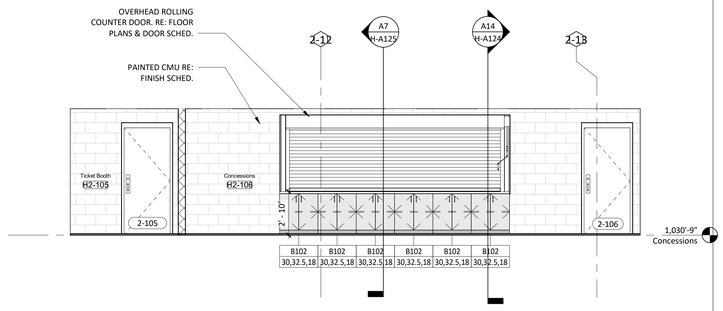
South Wall Women's Restroom E14
REFER TO H-A002 FOR TOILET ACCESSORIES, TYPE & LOCATION
1/4" = 1'-0"



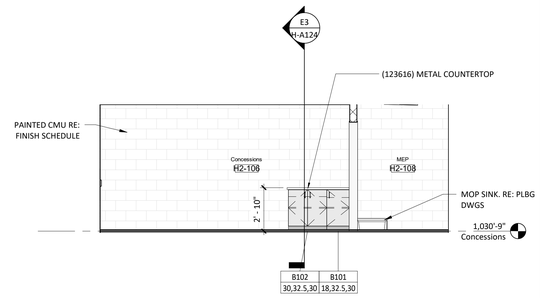
West Wall Restrooms E3
REFER TO H-A002 FOR TOILET ACCESSORIES, TYPE & LOCATION
1/4" = 1'-0"



NW Wall Ticket Booth A14
1/4" = 1'-0"



NE Wall Concessions A8
1/4" = 1'-0"



S Wall Concessions A3
1/4" = 1'-0"

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JAY DARREN BROWNING
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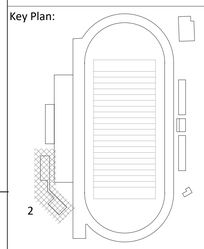
ARCHITECT
9.28.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 09/28/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE

Key Plan:



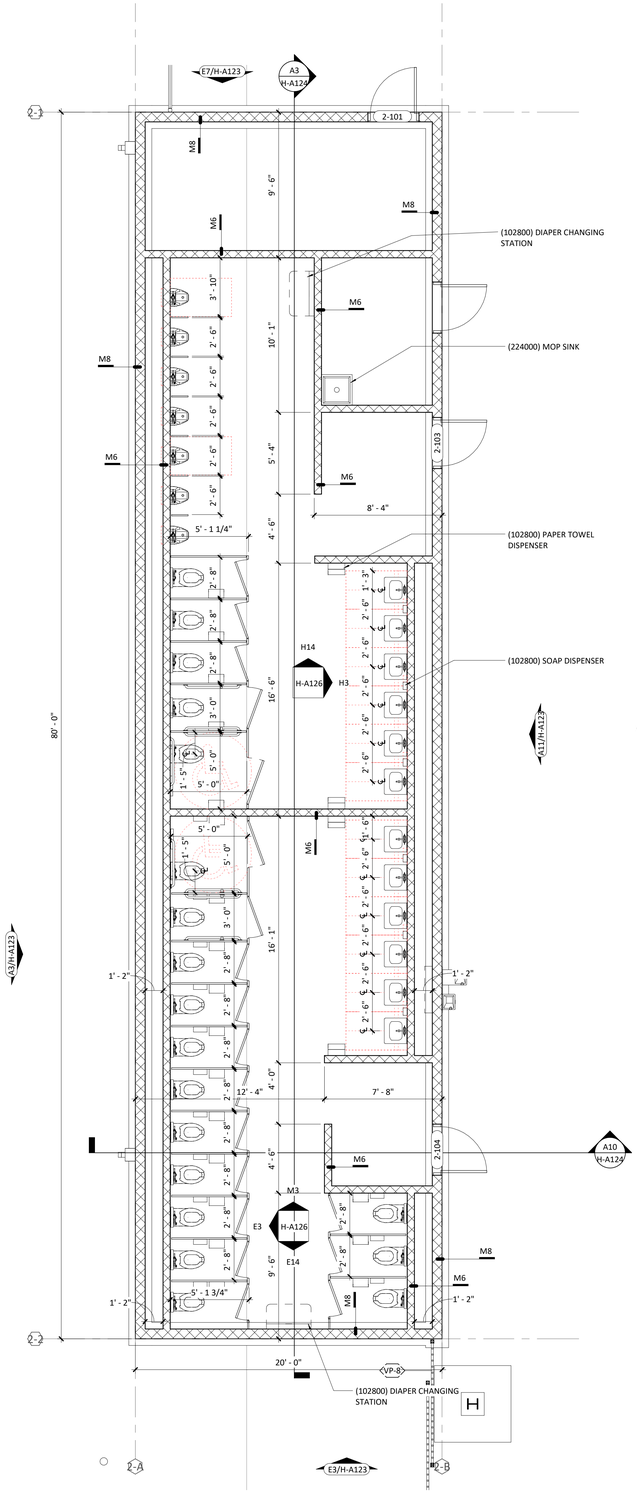
PROJECT NO: 0119-0101
DATE: September 28, 2020

Home Gateway -
Interior Elevations

H-A126

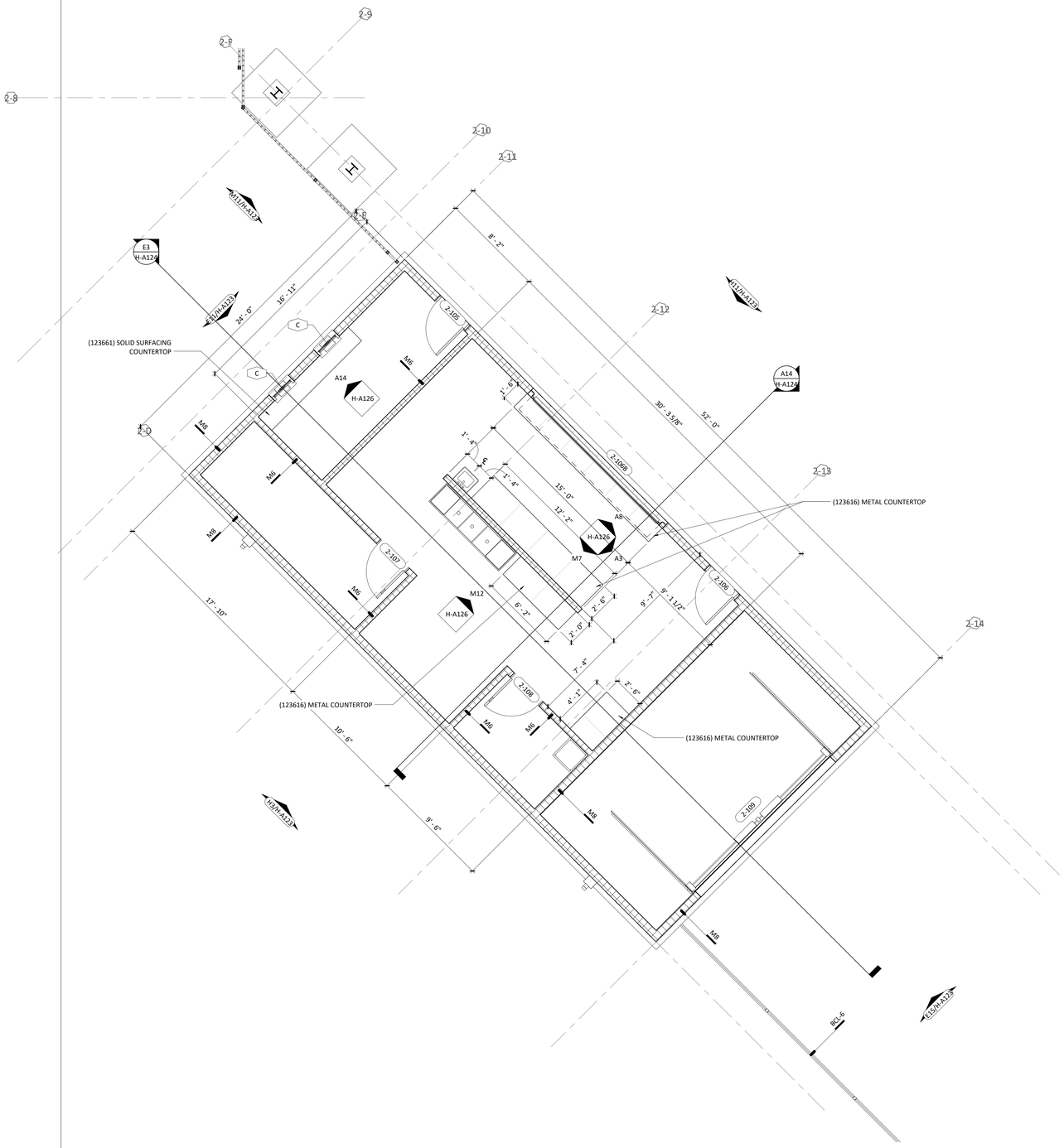
BID SET

PRINT DATE/TIME:
9/28/2020 8:13:15 AM



Level 1 Enlarged Plan - Restrooms A13

1/4" = 1'-0"



Level 1 Enlarged Plan - Concession A3

1/4" = 1'-0"

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Lee's Summit R7 District Athletics Facilities

Lee's Summit High School
400 SW Blue Parkway
Lee's Summit, MO 64063

owner:
Lee's Summit R-7 School District
301 NE Tudor Road
Lee's Summit, MO 64086

architect:
Gould Evans
4200 Pennsylvania Avenue
Kansas City, MO 64111
816.931.6655 voice
www.gouldevans.com

structural engineer:
Bob D. Campbell & Company, Inc.
4338 Belleview Avenue
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civil engineer:
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14700 West 114th Terrace
Lenexa, KS 66215
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mechanical/electrical engineer:
Henderson Engineers
8345 Lenexa Drive | Suite 300
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STATE OF MISSOURI
JAY DARREN BROWNING
NUMBER A-2009027279
ARCHITECT
9.28.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 09/28/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

Home Gateway - Enlarged Plans

H-A127

BID SET

General Notes (Floor Plans):

1. ALL WALL TYPES TO BE M6 UNLESS OTHERWISE NOTED.
2. ALL WALL DIMENSIONS ARE TO FACE OF WALL UNLESS OTHERWISE NOTED.
3. MASONRY WALLS ARE ALIGNED WITH THE INTERIOR FACE ON GRID LINES AND MASONRY DIMENSIONS ARE NOMINAL UNLESS OTHERWISE NOTED
4. DOORS IN STUD WALLS NEAR PERPENDICULAR WALLS ARE LOCATED 4" OFF FACE OF PERPENDICULAR WALL UNLESS OTHERWISE NOTED.
5. DOORS IN MASONRY WALLS ARE LOCATED IN ROUGH OPENINGS DIMENSIONED ON SHEET
6. SEE GENERAL ACCESSIBILITY SHEET FOR HEIGHTS AND LOCATIONS OF TOILET ACCESSORIES NOT SHOWN ON ELSEWHERE.
7. CONTRACTOR TO FIELD VERIFY ALL MEASUREMENTS AND CONDITIONS NEW AND EXISTING. NOTIFY THE ARCHITECT/OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES.
8. ENLARGED PLANS MAY BE ROTATED OR MIRRORED COORDINATE WITH MAIN FLOOR PLAN.
9. CONTRACTOR TO PROVIDE 4'-0" HIGH PLYWOOD BACKER BOARD IN ALL MECHANICAL AND ELECTRICAL ROOMS MOUNTED 3'-6" A.F.F. FOR PERIMETER OF ROOM

General Notes: (Roof Plan)

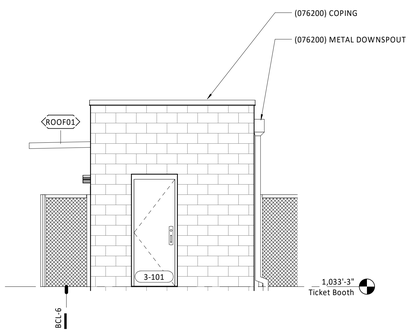
1. REFER TO EXTERIOR ENCLOSURE TYPES FOR ROOF DETAILS.
2. MINIMUM SLOPES ON ROOF SHALL BE 1/4" PER FOOT IN DIRECTION OF DRAINS OR ROOF EDGE
3. ELEVATION ABBREVIATIONS AS FOLLOWS: **BOD** = BOTTOM OF DECK, **TOS** = TOP OF STEEL, **TOP** = TOP OF PARAPET
4. OBJECT ABBREVIATIONS AS FOLLOWS: **RD** = ROOF DRAIN, **RTU** = ROOFTOP UNIT, **RH** = ROOF HATCH
5. PROVIDE ALL ROOFING DETAILS BY MANUFACTURERS WARRANTED SYSTEMS.
6. PROVIDE WALKWAY PADS AT ALL ROOF LADDERS AND AT ALL ROOFTOP EQUIPMENT WORKING AREAS.
7. PROVIDE CRICKETS AT ALL ROOFTOP EQUIPMENT TO FACILITATE DRAINAGE.

General Notes (Reflected Ceiling Plans):

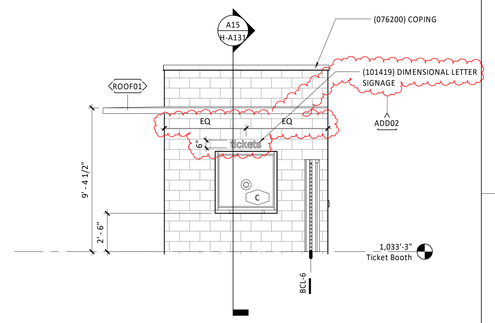
1. ALL CEILING AND SOFFIT HEIGHTS ARE GIVEN ABOVE FINISHED FLOOR ELEVATION (EL. 0'-0")
2. GENERALLY ONLY CEILING MOUNTED FIXTURES ARE SHOWN ON THIS PLAN. COORDINATE WITH MEP PLANS FOR ADDITIONAL INFORMATION.
3. VERIFY LOCATIONS OF ALL CEILING ACCESS PANELS WITH MEP DRAWINGS. COORDINATE LOCATIONS OF PANELS WITH ARCHITECT PRIOR TO INSTALLATION. ACCESS PANEL FIRE RATINGS MUST MATCH CEILING ASSEMBLY FIRE RATINGS.
4. LIGHTING FIXTURES TO BE CENTERED AND SPACED EQUALLY UNLESS NOTED OTHERWISE.
5. LIGHT FIXTURES ARE SHOWN FOR DIMENSIONAL PURPOSES ONLY COORDINATE WITH ELECTRICAL DRAWINGS FOR FIXTURE DESIGNATIONS.
6. IF PROJECT INCLUDES FIRE RATED CEILINGS, LIGHT FIXTURES LOCATED IN RATED CEILING ASSEMBLIES ARE TO BE TENTED OR OTHERWISE RATED TO MATCH THE CEILING.

General Notes (Exterior Elevations):

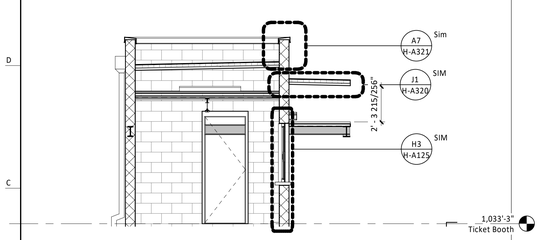
1. MATERIALS AND FINISHES INDICATED APPLY TO ALL SIMILAR ELEMENTS.
2. COORDINATE EXTERIOR LIGHTING FIXTURE TYPES AND LOCATIONS WITH ELECTRICAL DRAWINGS.



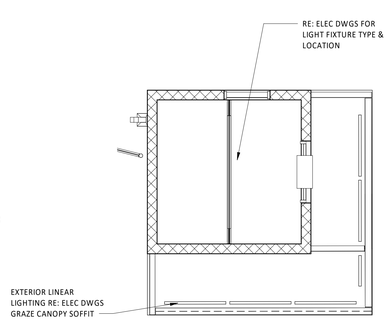
North Elev. Visitor Ticket Booth E7
1/4" = 1'-0"



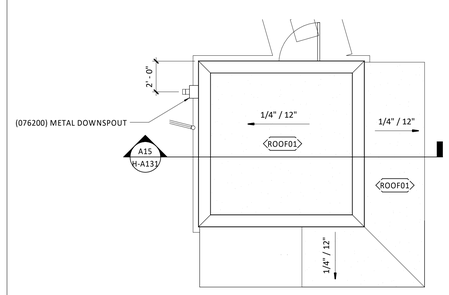
East Elev. Visitor Ticket Booth E3
1/4" = 1'-0"



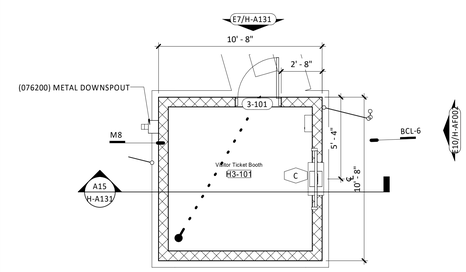
Building Section - Visitor Ticket Booth A15
1/4" = 1'-0"



RCP - Visitor Ticket Booth A11
1/4" = 1'-0"



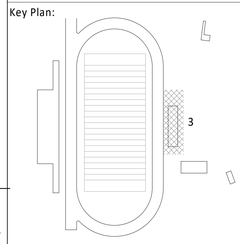
Roof Plan - Visitor Ticket Booth A7
1/4" = 1'-0"



Level 1 Plan - Visitor Ticket Booth A3
1/4" = 1'-0"

NOTE: ALL VISITOR TICKET BOOTH WORK IS BID ALTERNATE H1

Key Plan:



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JAY DARREN BROWNING
NUMBER A-2009027279
ARCHITECT
11.3.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 11/03/2020
Architect License No. A-2009027279

REVISIONS

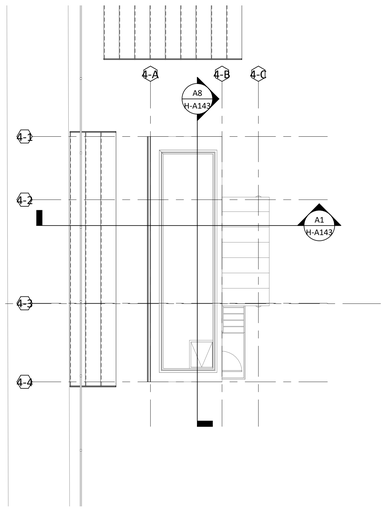
Number	DESCRIPTION	DATE
ADD02	Addendum 02	10/20/20

PROJECT NO: 0119-0101
DATE: September 28, 2020

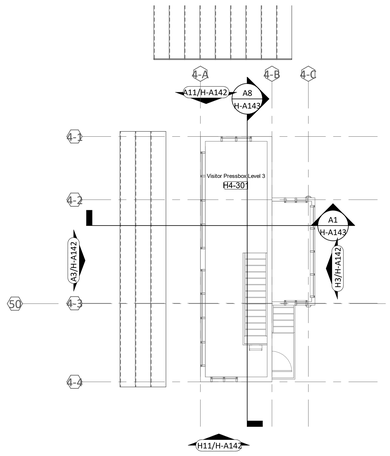
Visitor Ticket Booth - Plans, Exterior Elevations, & Sections

H-A131

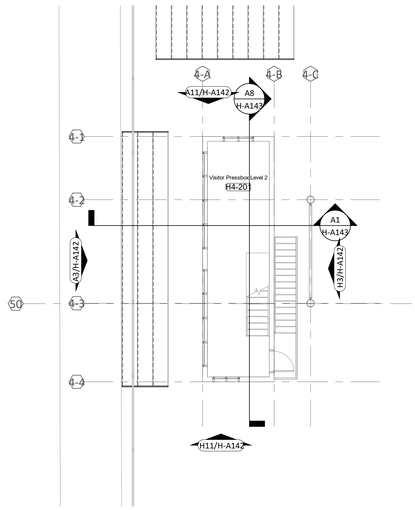
BID SET



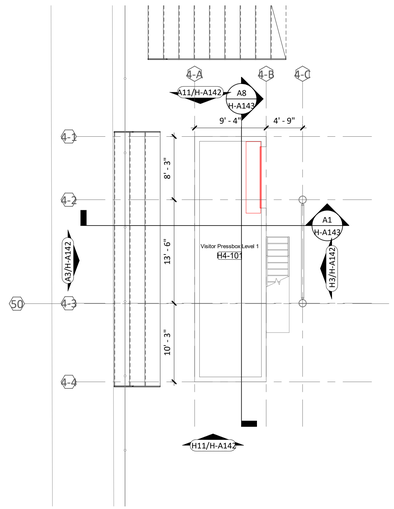
Roof Plan - Visitor Press Box A15
1/8" = 1'-0"



Level 3 - Visitor Press Box A11
1/8" = 1'-0"



Level 2 - Visitor Press Box A7
1/8" = 1'-0"



Level 1 Plan - Visitor Press Box A3
1/8" = 1'-0"

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General Notes: (Roof Plan)

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General Notes (Exterior Elevations):

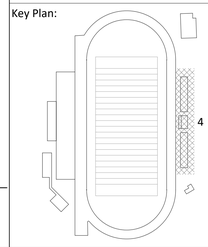
1. MATERIALS AND FINISHES INDICATED APPLY TO ALL SIMILAR ELEMENTS.
2. COORDINATE EXTERIOR LIGHTING FIXTURE TYPES AND LOCATIONS WITH ELECTRICAL DRAWINGS.

General Notes (Building Sections):

1. BUILDING SECTIONS SHOWN FOR ORIENTATION AND CONTEXT. REFER TO WALL SECTIONS FOR CONSTRUCTION DETAILING AND REFERENCES.

NOTE: ALL VISITOR PRESS BOX WORK IS BID ALTERNATE H5

Key Plan:



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Lee's Summit R7 District Athletics Facilities

Lee's Summit High School
400 SW Blue Parkway
Lee's Summit, MO 64063

owner:
Lee's Summit R-7 School District
301 NE Tudor Road
Lee's Summit, MO 64086

architect:
Gould Evans
4200 Pennsylvania Avenue
Kansas City, MO 64111
816.931.6655 voice
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structural engineer:
Bob D. Campbell & Company, Inc.
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civil engineer:
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mechanical/electrical engineer:
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816.742.5000

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STATE OF MISSOURI
JAY DARREN BROWNING
NUMBER A-2009027279
ARCHITECT
9.28.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 09/28/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

Visitor Press Box - Plans, Exterior Elevations, & Sections

H-A141

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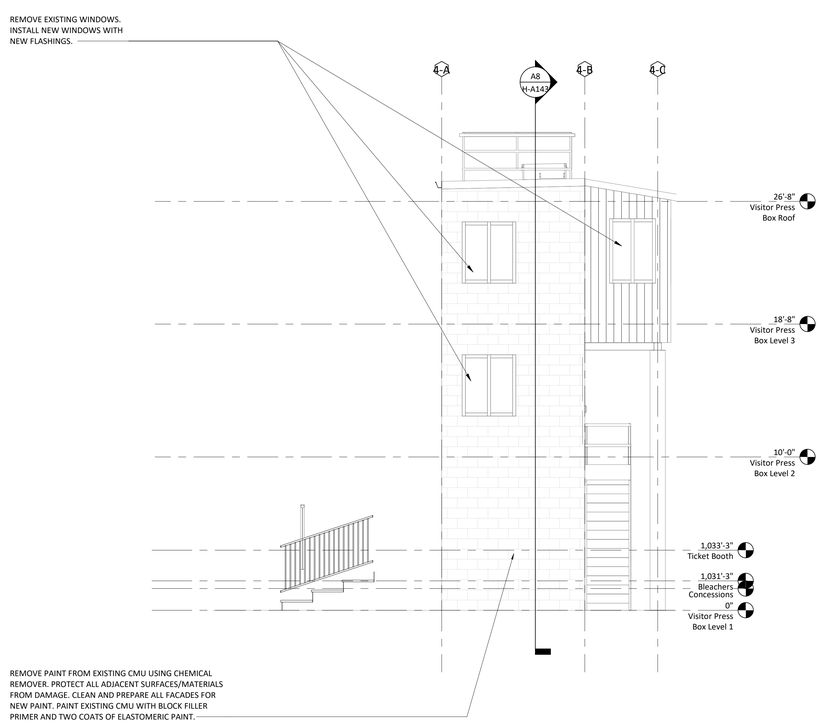
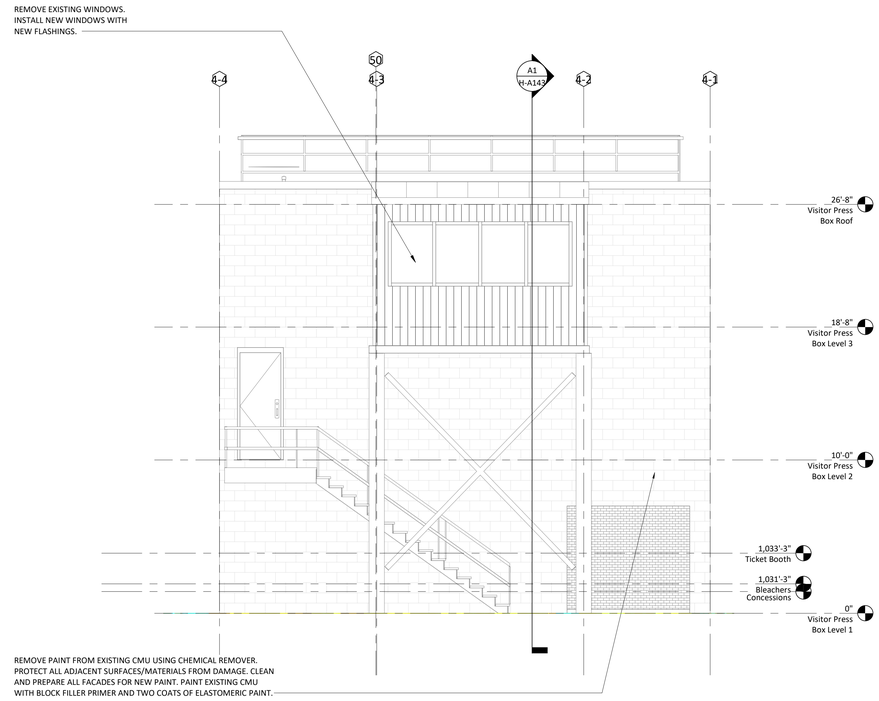
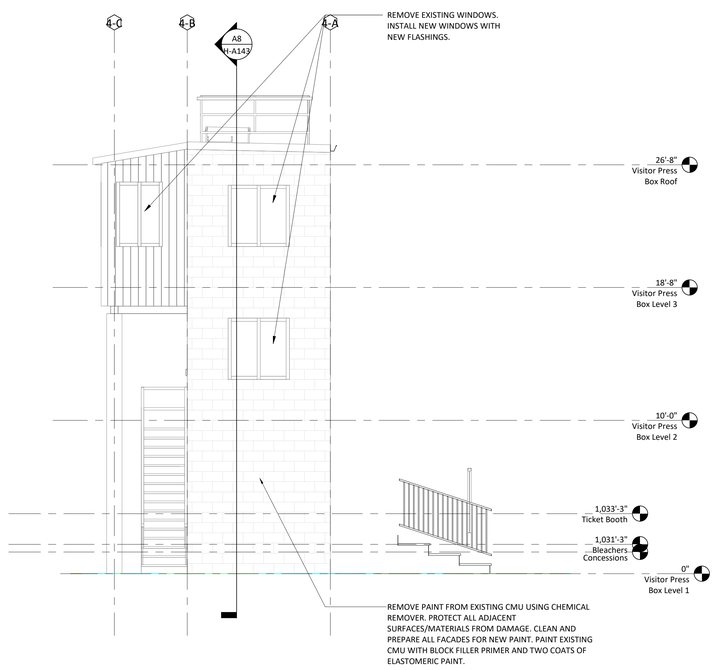


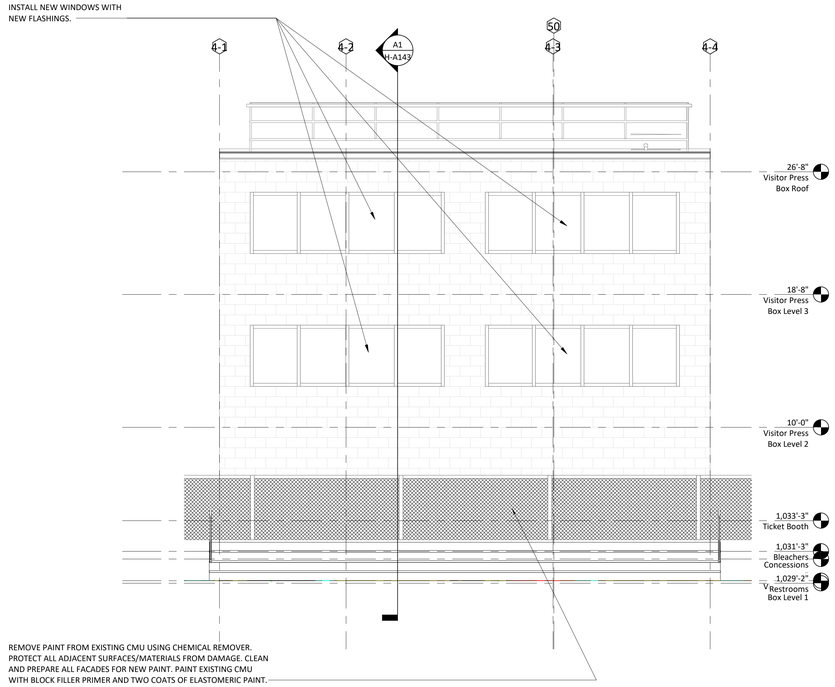
South Elevation - Visitor Press Box H11
1/4" = 1'-0"



East Elevation - Visitor Press Box H3
1/4" = 1'-0"



North Elevation - Visitor Press Box A11
1/4" = 1'-0"



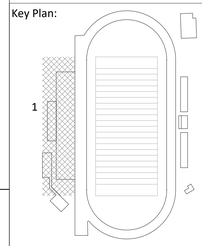
West Elevation - Visitor Press Box A3
1/4" = 1'-0"

General Notes (Exterior Elevations):

1. MATERIALS AND FINISHES INDICATED APPLY TO ALL SIMILAR ELEMENTS.
2. COORDINATE EXTERIOR LIGHTING FIXTURE TYPES AND LOCATIONS WITH ELECTRICAL DRAWINGS.

NOTE: ALL VISITOR PRESS BOX WORK IS BID ALTERNATE H5

Key Plan:



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Jay Browning Date: 09/28/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

Visitor Press Box - Exterior Elevations

H-A142

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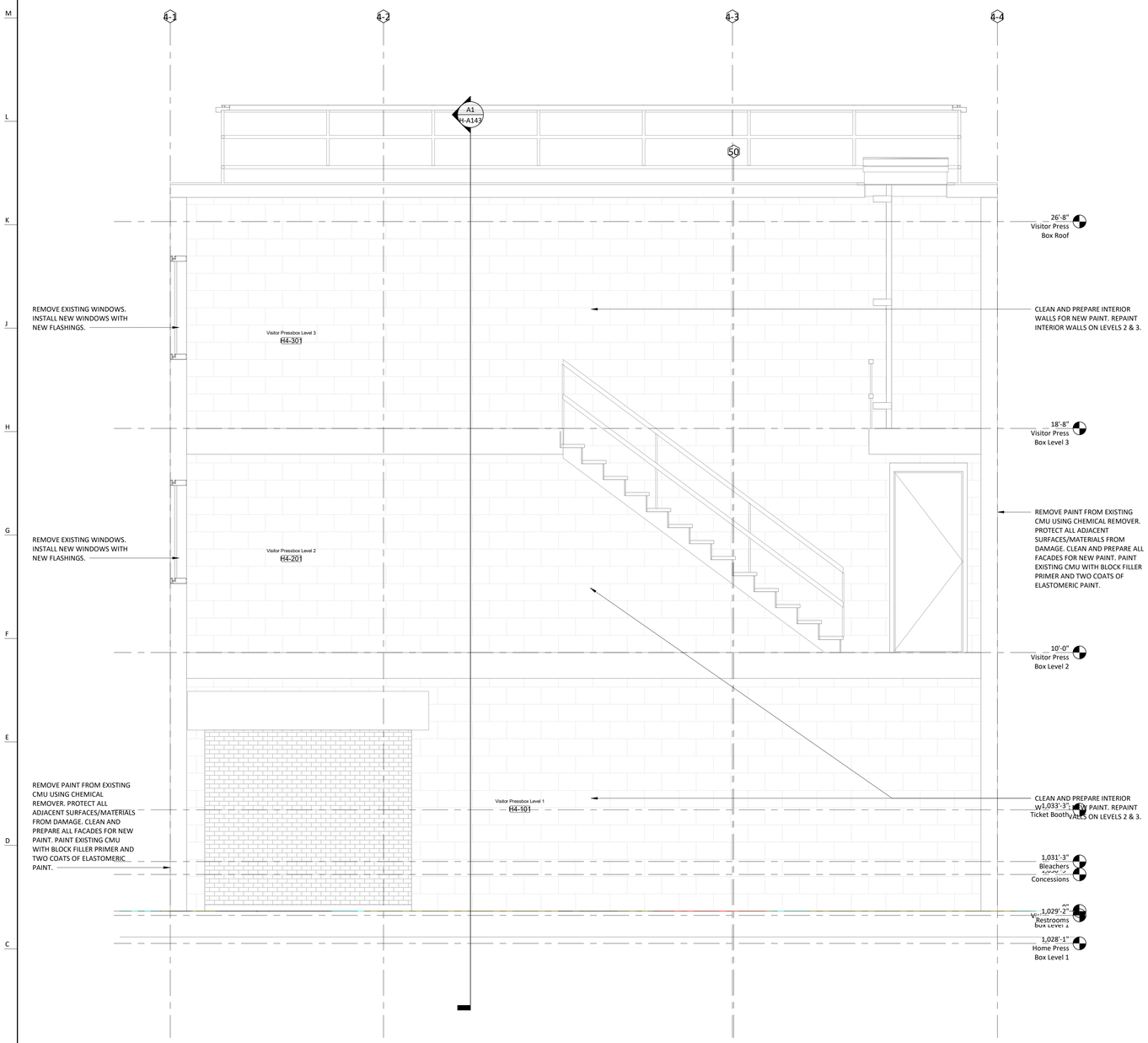
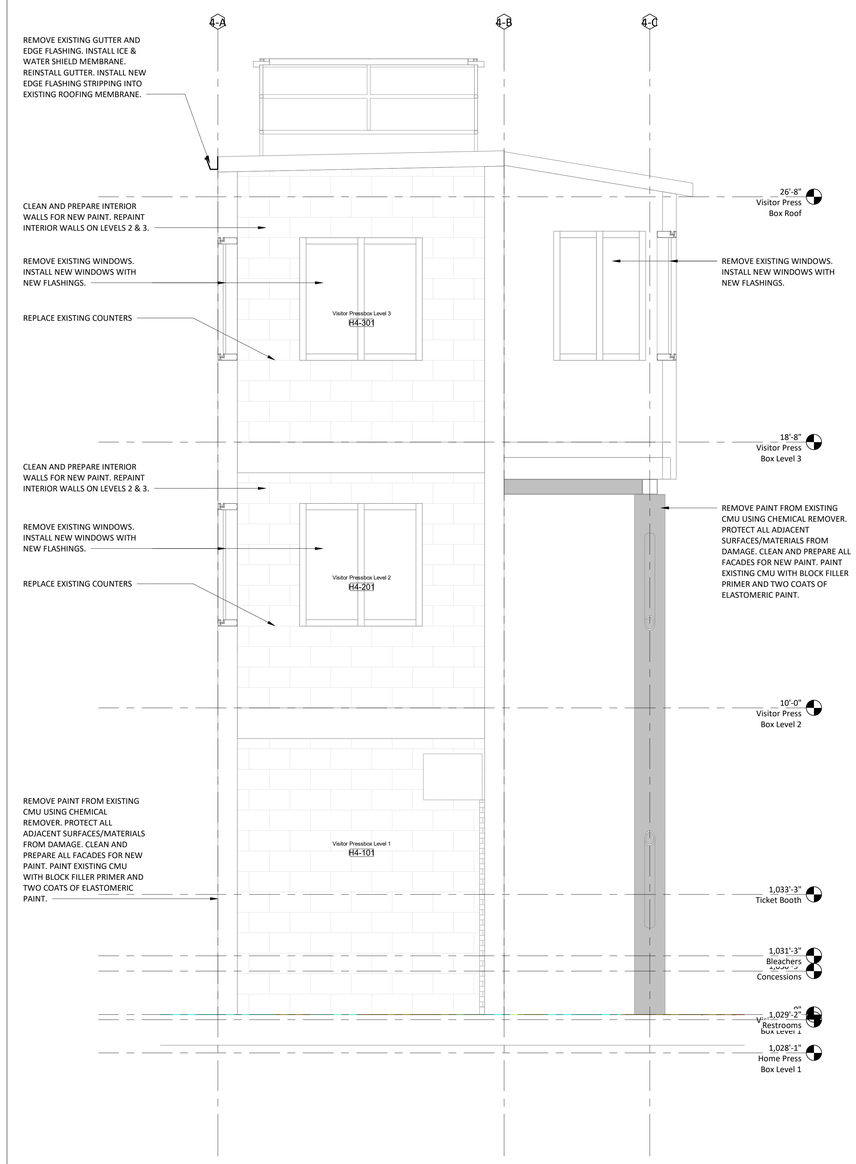


N/S Building Section - Visitor Press Box A8

1/2" = 1'-0"



E/W Building Section - Visitor Press Box A1

1/2" = 1'-0"

NOTE: ALL VISITOR PRESS BOX WORK IS BID ALTERNATE H5

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Jay Browning Date: 09/28/2020
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REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

Visitor Press Box - Building Sections

H-A143

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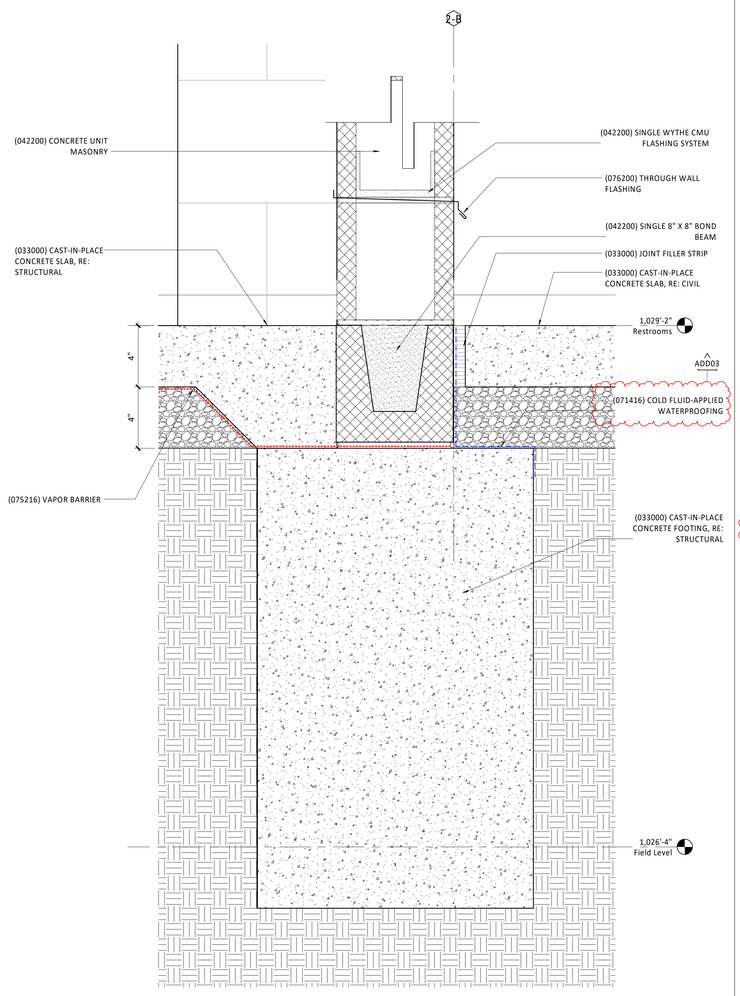
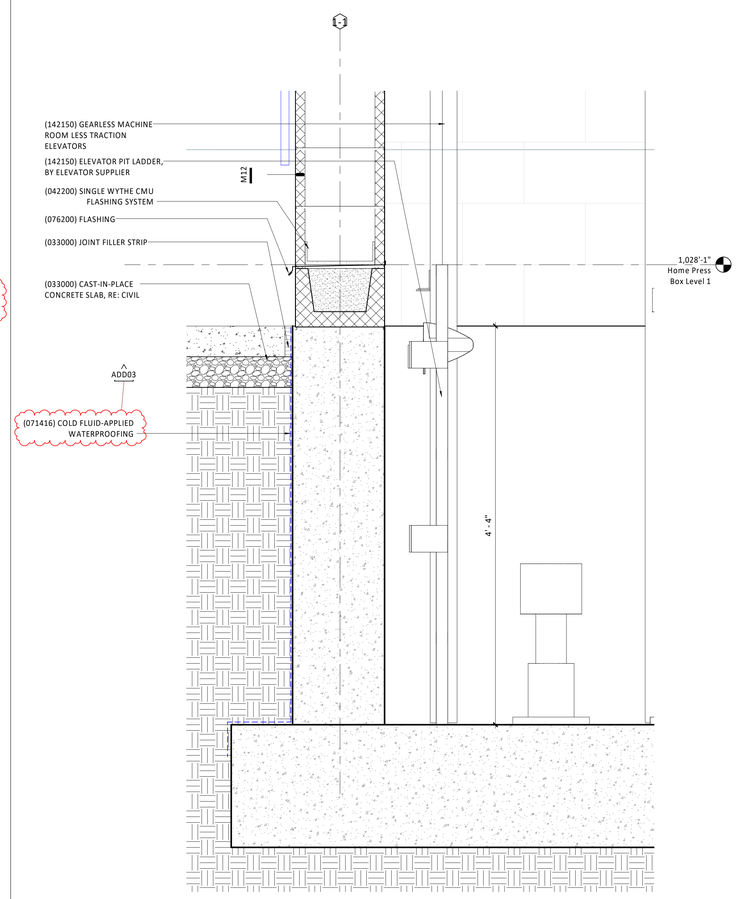


Typical CMU Wall Section Detail @ Foundation A7

3" = 1'-0"



NS Building Section - Home Press Box - Callout 1 - Callout 2 A1

1 1/2" = 1'-0"

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11.3.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 11/03/2020
Architect License No. A-2009027279

REVISIONS

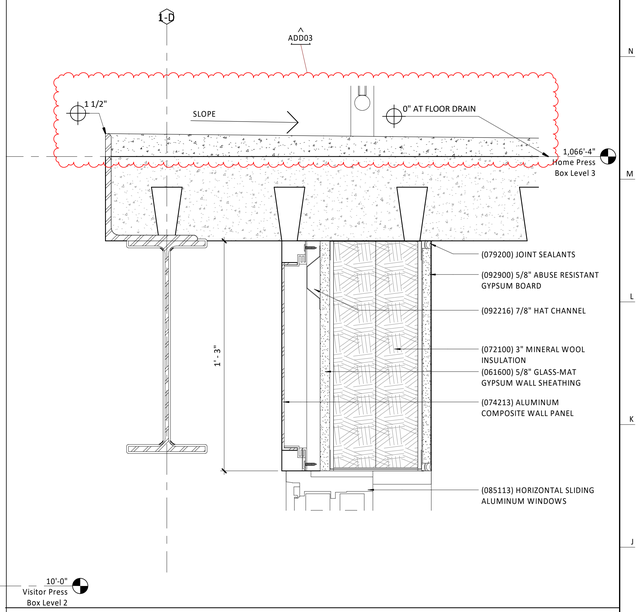
Number	DESCRIPTION	DATE
ADD03	Addendum 03	10/23/20

PROJECT NO: 0119-0101
DATE: September 28, 2020

Exterior Section Details - Foundation

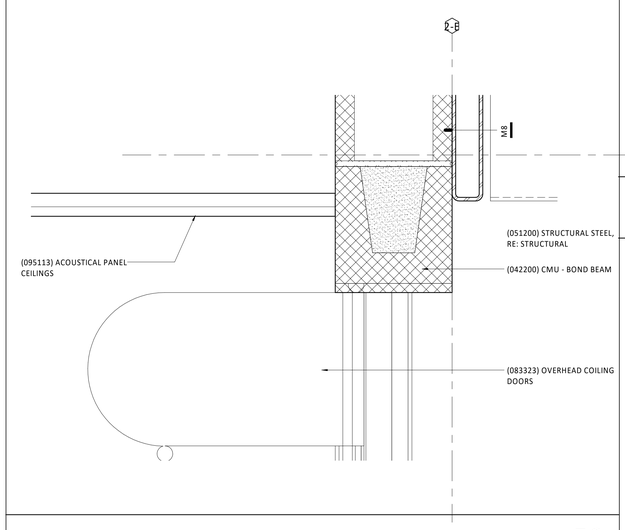
H-A300

BID SET



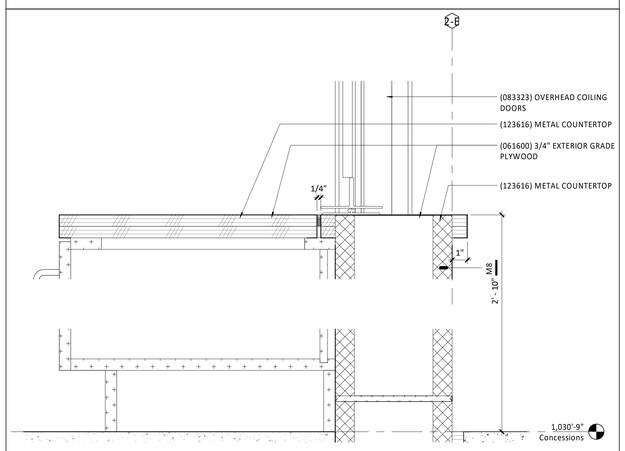
Detail Section - East Wall Press Box -@ Window Head H1

3" = 1'-0"



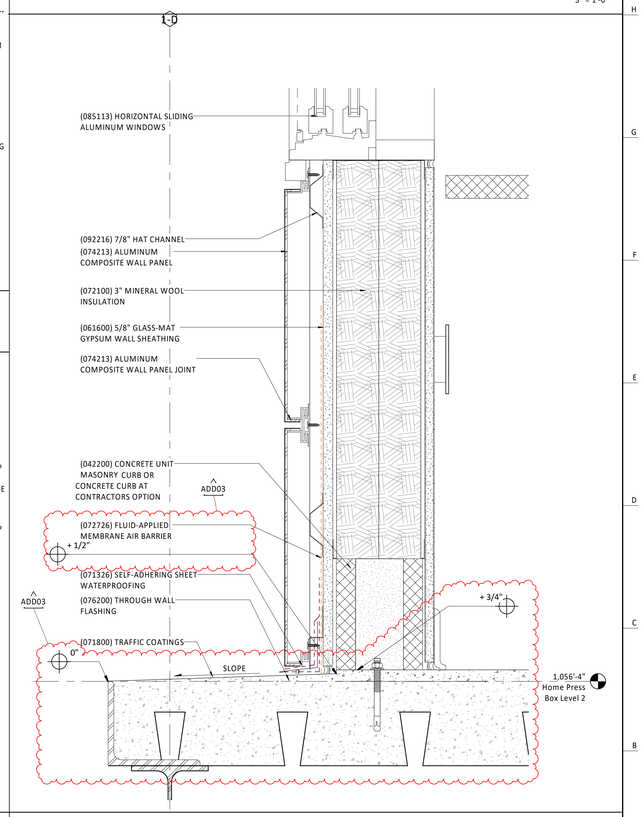
Concessions Window Head E6

3" = 1'-0"



Wall Section - East Side @ Concessions Window A6

3" = 1'-0"



Detail Section - East Wall Press Box @ Window Sill A1

3" = 1'-0"

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Lee's Summit R7 District
Athletics Facilities

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STATE OF MISSOURI
JAY DARREN BROWNING
NUMBER A-2009027279
ARCHITECT
11.3.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 11/03/2020
Architect License No. A-2009027279

REVISIONS

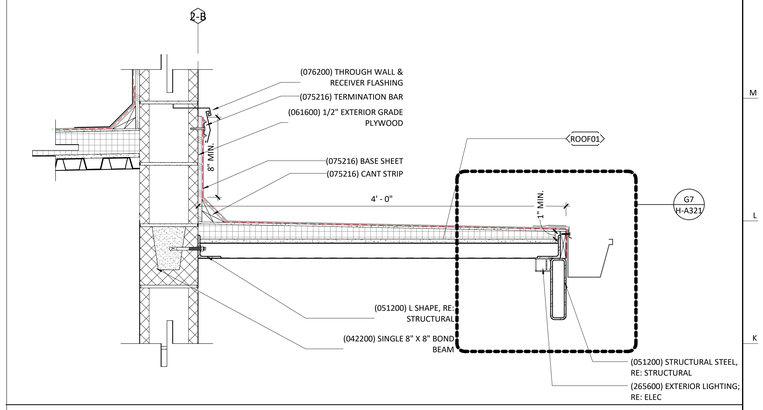
Number	DESCRIPTION	DATE
ADD03	Addendum 03	10/23/20

PROJECT NO: 0119-0101
DATE: September 28, 2020

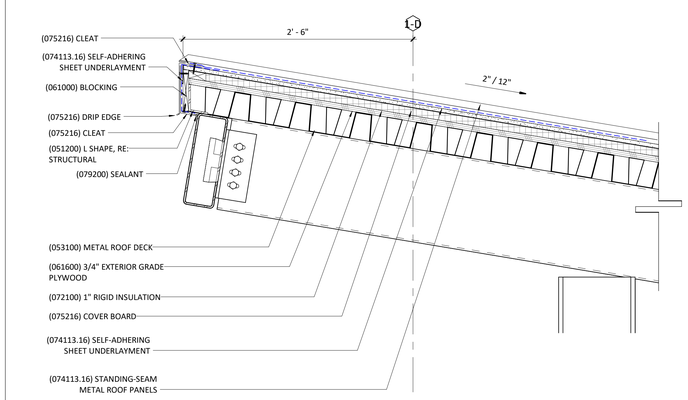
Exterior Section Details
- Intermediate

H-A310

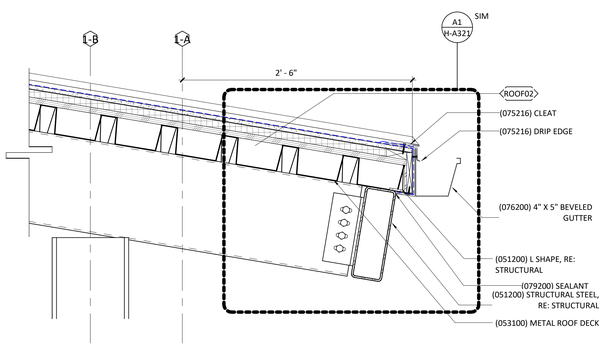
BID SET



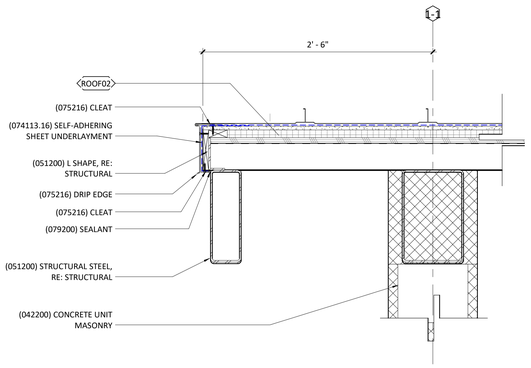
Section Detail @ Parapet **J1**
1 1/2" = 1'-0"



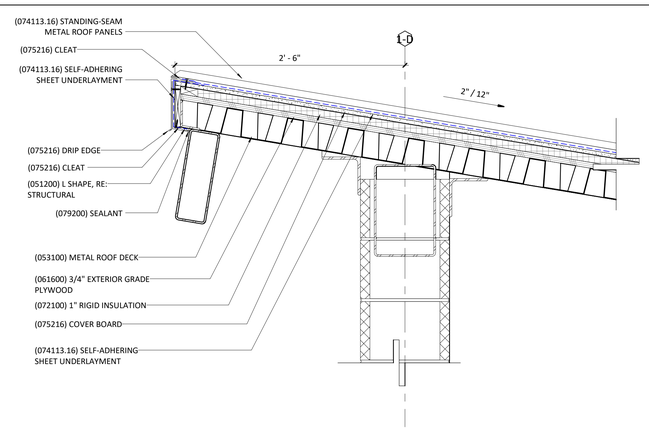
Section Detail - East Roof Edge @ Open Video Deck **E6**
1 1/2" = 1'-0"



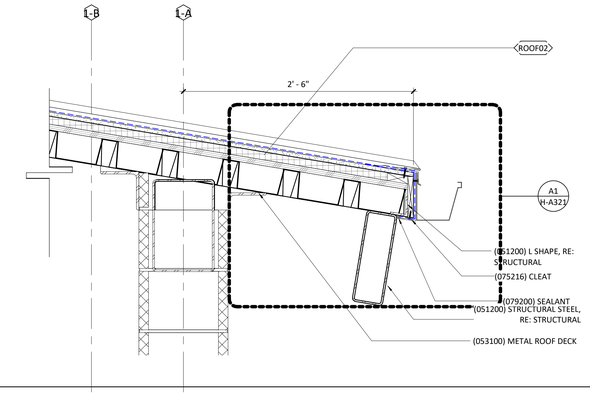
Section Detail - West Roof Edge @ Open Video Deck **E1**
1 1/2" = 1'-0"



Section Detail - Roof @ Press Box **A12**
1 1/2" = 1'-0"



Section Detail - East Roof Edge @ Stair Tower **A6**
1 1/2" = 1'-0"



Section Detail - West Roof Edge @ Stair Tower **A1**
1 1/2" = 1'-0"

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Lee's Summit R7 District Athletics Facilities

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STATE OF MISSOURI
JAY DARREN BROWNING
NUMBER A-2009027279
ARCHITECT
9.28.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 09/28/2020
Architect License No. A-2009027279

REVISIONS

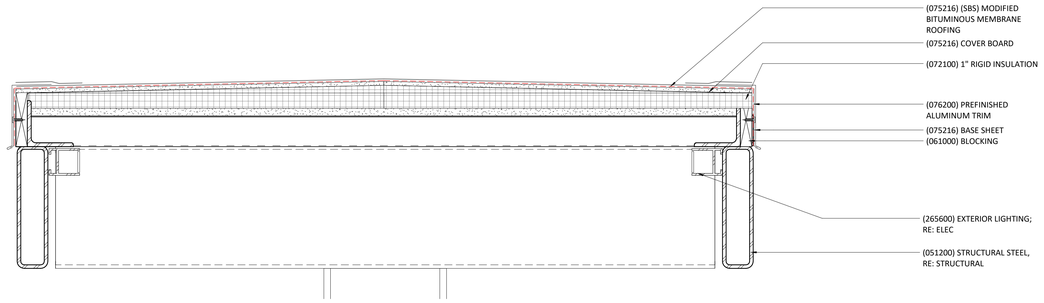
Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

Exterior Section Details - Roof

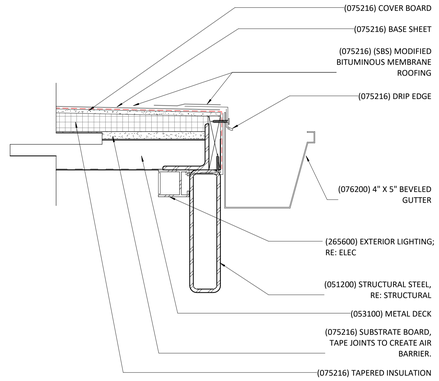
H-A320

BID SET



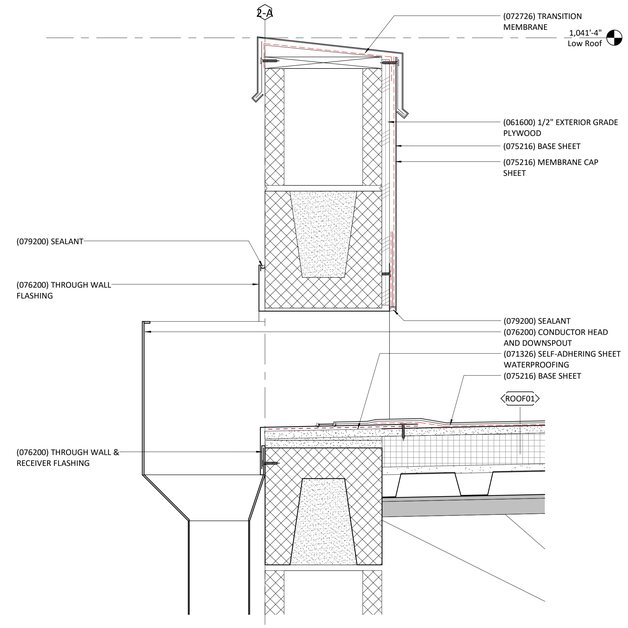
Freestanding Canopy Roof Section L1

3" = 1'-0"



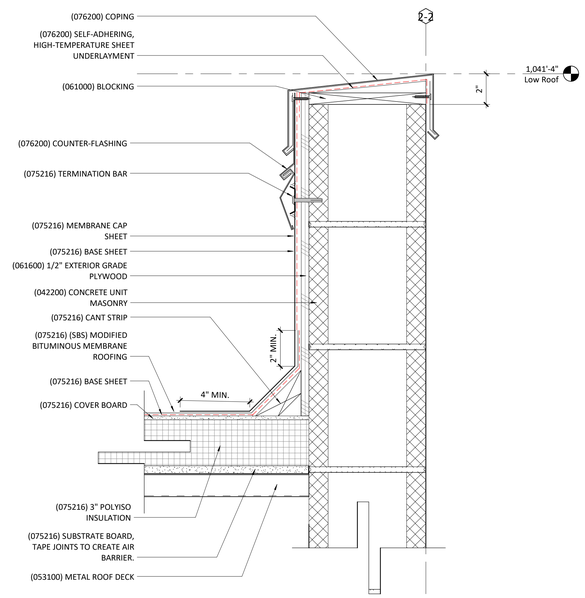
Section Detail @ Mod Bit Eave, Typ. G7

3" = 1'-0"



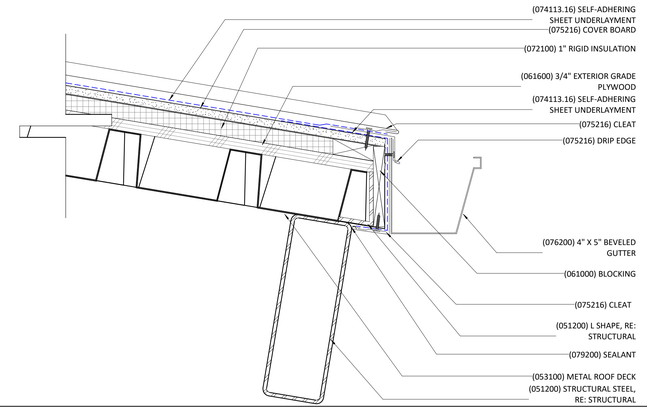
Section Detail @ Parapet Scupper E1

3" = 1'-0"



Section Detail @ Parapet, Typ. A7

3" = 1'-0"



Section Detail @ Standing Seam Eave, Typ. A1

3" = 1'-0"

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Lee's Summit R7 District Athletics Facilities

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ARCHITECT
9.28.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 09/28/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

Exterior Section Details - Roof

H-A321

BID SET

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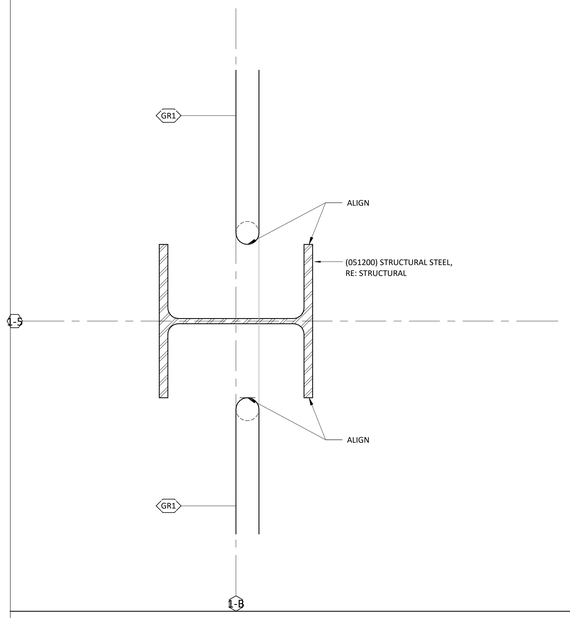
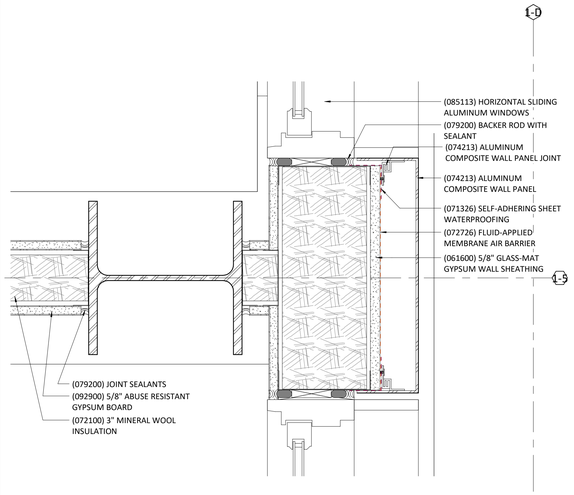


GR1 Guardrail Plan Detail F1

3" = 1'-0"



Press Box Plan Detail A1

3" = 1'-0"

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Jay Browning Date: 09/28/2020
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REVISIONS

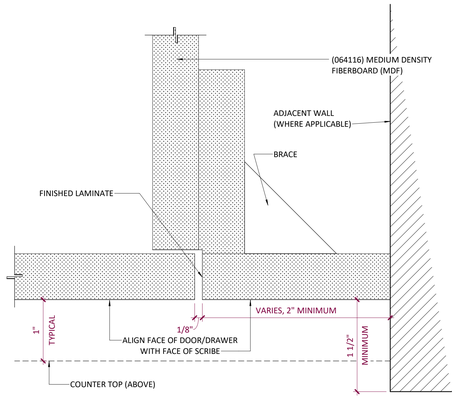
Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

Exterior Plan Details

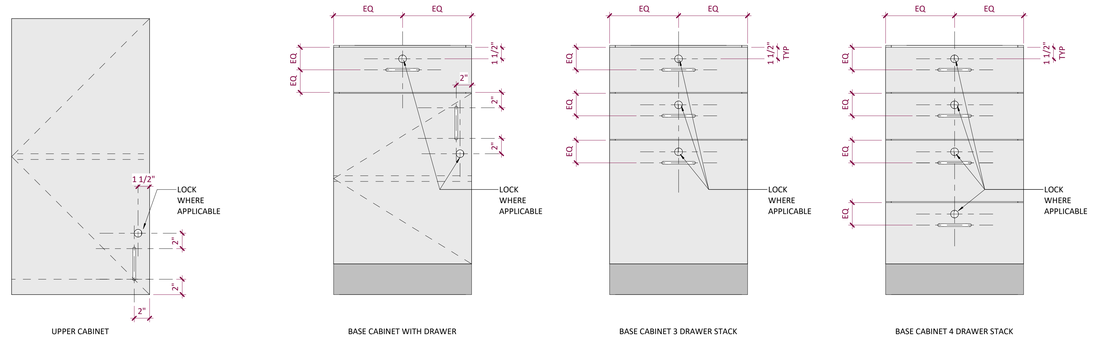
H-A330

BID SET



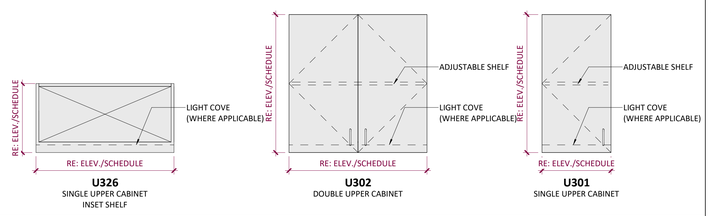
Plan Detail - Typical Scribe L15

12" = 1'-0"



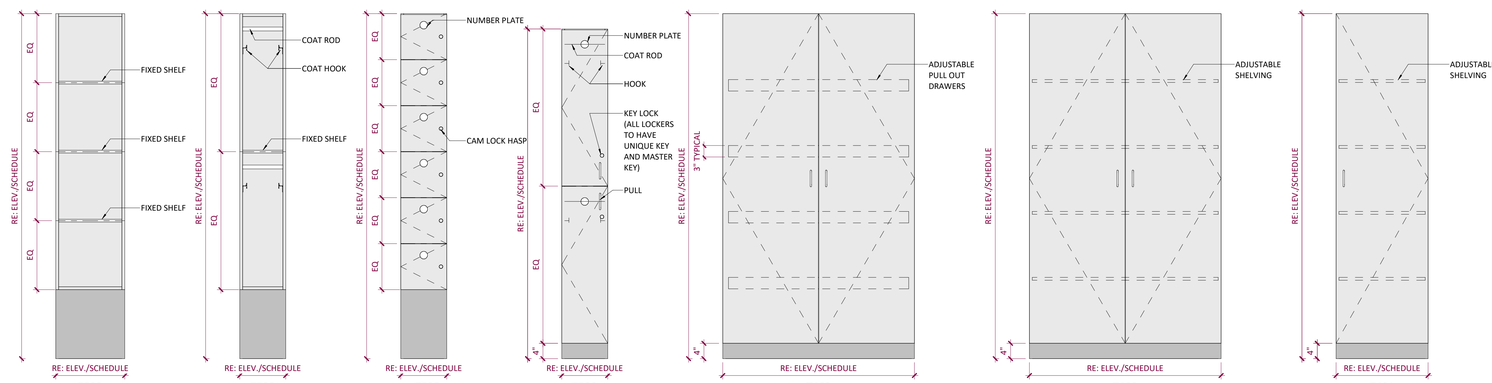
Standard Lock and Pull Locations L3

1 1/2" = 1'-0"



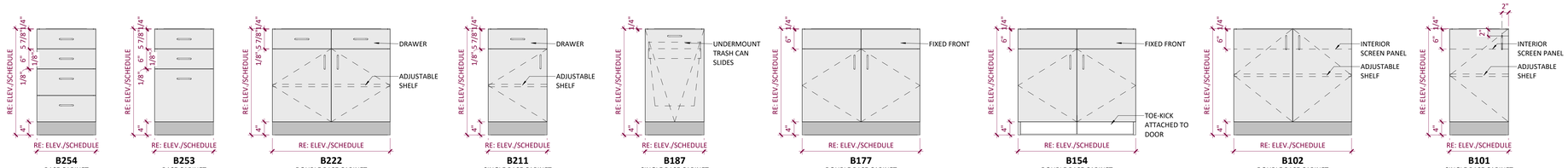
Cabinet Types - Upper H3

3/4" = 1'-0"



Cabinet Types - Tall D3

3/4" = 1'-0"



Cabinet Types - Base A3

3/4" = 1'-0"

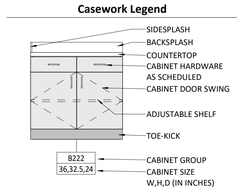
General Notes (Casework Standards):

1. ALL CASEWORK IS TO BE CONSTRUCTED TO MEET OR EXCEED ARCHITECTURAL WOODWORK INSTITUTE (AWI) STANDARDS.
2. FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
3. PROVIDE RUBBER BASE AT ALL CABINET BASES, UNLESS NOTED OTHERWISE.
4. REFER TO INTERIOR ELEVATIONS AND FINISH SCHEDULE FOR SPECIFIC MATERIAL LOCATIONS.
5. PROVIDE MOISTURE RESISTANT PLYWOOD AT COUNTERTOPS WITH SINKS.
6. SINKS SHOWN ON THESE DRAWINGS INDICATE LOCATIONS ONLY AND MAY NOTE REFLECT ACTUAL SIZES OR TYPES.
7. COORDINATE LOCATIONS OF ALL EQUIPMENT AND CONFIRM PROPER CLEARANCES. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
8. CENTER ALL SINKS IN THE ASSOCIATED CASEWORK, UNLESS NOTED OTHERWISE.
9. PROVIDE SIDE SPLASH WHERE COUNTERTOP ABUTS WALL, OR AT COUNTERTOPS WITH DIFFERENT HEIGHTS ABUT.
10. SEAL ALL JOINTS BETWEEN WORK SURFACES/CABINETS AND ADJOINING SURFACES.
11. PROVIDE IN WALL BLOCKING AS REQUIRED FOR UPPER CABINETS.
12. CONTRACTOR WILL BE RESPONSIBLE FOR PROTECTING FINISHED FLOORING SURFACES FROM DAMAGE DURING ALL CONSTRUCTION PHASES.
13. FIELD COORDINATE LOCATIONS OF GROMMETS IN COUNTERTOPS WITH OWNER/ARCHITECT.
14. PROVIDE FINISHED CLOSURE PANELS AT EXPOSED END CONDITIONS.
15. PROVIDE FILLER PANEL/SCRIBE AT ALL LOCATIONS WHERE CASEWORK MEETS A WALL.
16. PROVIDE LOCKS AT ALL CABINET DOORS. FINAL LOCK COORDINATION WILL BE DONE BY OWNER/ARCHITECT DURING SHOP DRAWING PROCESS.
17. ALL PENETRATIONS THROUGH CASEWORK SHALL BE SEALED OR COVERED WITH AN ESCUTCHEON.

CASEWORK CABINET GROUPS:

B	BASE CABINET	U	UPPER CABINET
BS	BASE SCRIBE	US	UPPER SCRIBE
T	TALL CABINET		

Casework Legend



Casework Schedule

Mark	Width	Height	Depth
Base-101-Single			
B101	18"	32 1/2"	30"
Base-102-Double			
B102		32 1/2"	
Counter Top			
		36"	
Wall Bracket - In Wall			
	2"		

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REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

Casework Standards

H-A600

BID SET

PRINT DATE/TIME:
9/28/2020 8:13:57 AM

Finish Legend - Interiors

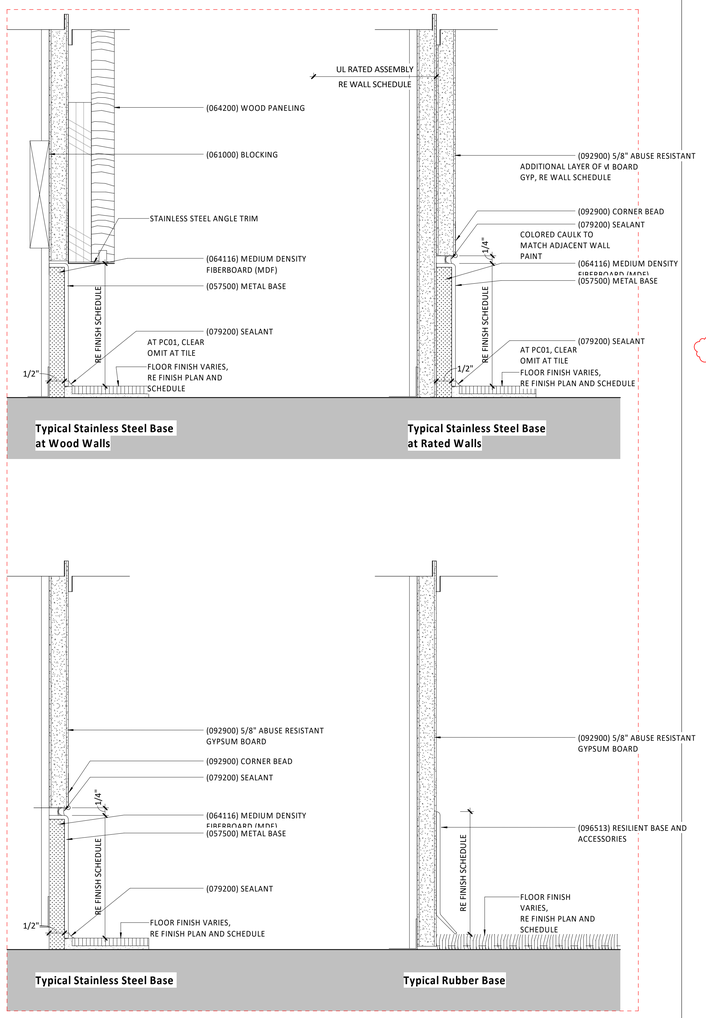
Mark	Manufacturer	Model	Comments	Latest Revision
033000 CAST-IN-PLACE CONCRETE				
CC01	EXPOSED CAST IN PLACE CONCRETE		CONCRETE WITH CURE AND SEALING COMPOUND	
CC02	EXPOSED CAST IN PLACE CONCRETE		CONCRETE WITH (071800) WITH TRAFFIC COATING	
042000 CONCRETE MASONRY UNITS				
H-CMU1	TRENWYTH INDUSTRIES	MIDWEST SLATE - 12" x 8" x 16"	TRENDSTONE, SOLOMON MORTAR COLOR 97X	
H-CMU2	TRENWYTH INDUSTRIES	MIDWEST SLATE - 8" x 8" x 16"	TRENDSTONE, SOLOMON MORTAR COLOR 97X	
064023 INTERIOR ARCHITECTURAL WOODWORK				
ME01		WHITE MELAMINE		
PL01	FORMICA	FORMICA COMPACT - MATTE FINISH - TERRIL 2297		
074113 STANDING SEAM METAL ROOF				
H-MR01	PAC-CLAD	SNAP-CLAD-CITYSCAPE		
074213.23 METAL COMPOSITE MATERIAL WALL PANELS				
H-MWP1	PAC-CLAD	PAC-3000 RS COMPOSITE WALL PANEL	MATCH ARCHITECT'S ZINC METAL SAMPLE, PROVIDE CUSTOM COLOR IF REQUIRED	
088000 GLAZING				
GL01		1/4" CLEAR (Tempered)		
IGU01		1" INSULATED GLASS		
095113 ACOUSTICAL PANEL CEILINGS				
ACT01	USG	ASTRO CLIMAPLUS TREATED WITH AEGIS MICROBE SHIELD	COLOR: WHITE, SIZE: 24" X 48" x 1", EDGE: SQ	
ACT02	USG	KITCHEN LAY-IN PANEL CLIMAPLUS PERFORMANCE	COLOR: WHITE, SIZE: 24" X 24" x 1", EDGE: SQ	
096513 RESILIENT BASE AND ACCESSORIES				
RB01	ROPPE	123 CHARCOAL	6" BASE	
099123 INTERIOR PAINTING				
H-PT01	SHERWIN WILLIAMS	SNOWBOUND 7W7004		
H-PT02	SHERWIN WILLIAMS	RGB - R197 G179 B105	MATCH SCHOOL COLOR - VEGAS GOLD	
H-PT03	SHERWIN WILLIAMS	PEPPERCORN SW7674	ALL EXPOSED STRUCTURE TO PAINTED	
H-PT04	SHERWIN WILLIAMS	SUMMIT GRAY SW7669		
123661 SOLID SURFACE COUNTER TOPS				
SS01	LG HIMACS	GHOST WHITE - ST907	GENERAL COUNTERTOPS	

Finish Schedule

Room Number	Room Name	Finish				Comments
		Floor	Base	Wall	Ceiling	
H1-1	Stair	CC01	None	H-CMU1	OTS/H-PT04	
H1-101	Vestibule	CC01	RB01	H-CMU1	OTS/H-PT04	RB01 on Elevator shaft wall
H1-102	Elevator	N/A	None	N/A	N/A	
H1-106	Corridor	CC02	None	N/A	OTS/H-PT02	Traffic Coating 071800 - Exposed structure to be painted H-PT03
H1-201	Vestibule	CC01	None	H-CMU1	OTS/H-PT04	
H1-203	Home Coaches	CC01	RB01	H-PT01	ACT01	Exposed structure to be painted H-PT03
H1-204	Command Center	CC01	RB01	H-PT01	ACT01	Exposed structure to be painted H-PT03
H1-205	Visitor Coaches	CC01	RB01	H-PT01	ACT01	Exposed structure to be painted H-PT03
H1-301	Vestibule	CC01	None	H-CMU1	OTS/H-PT02	
H1-303	Video Deck	CC02	None	N/A	OTS/H-PT02	Traffic Coating 071800; Underside of roof deck to be painted H-PT02 - Exposed structural beams and columns to be painted H-PT03
H2-101	Tennis Storage	CC01	None	H-CMU1	OTS/H-PT04	
H2-102	MEP/Custodian	CC01	None	H-CMU1	OTS/H-PT04	
H2-103	Men's Restroom	CC01	None	H-PT04	ACT01	
H2-104	Women's Restroom	CC01	None	H-PT04	ACT01	
H2-105	Ticket Booth	CC01	None	H-PT01	ACT01	
H2-106	Concessions	CC01	None	H-PT04	ACT02	
H2-107	Storage	CC01	None	H-CMU1	OTS/H-PT04	
H2-108	MEP	CC01	None	H-CMU1	OTS/H-PT04	
H2-109	Storage	CC01	None	H-CMU1	OTS/H-PT04	
H3-101	Visitor Ticket Booth	CC01	None	H-PT01	ACT01	
H4-101	Visitor Pressbox Level 1	Existing	Existing	Existing	Existing	
H4-201	Visitor Pressbox Level 2	Existing	Existing	Existing	Existing	
H4-301	Visitor Pressbox Level 3	Existing	Existing	Existing	Existing	

NOTE: ALL PAINT LOCATED IN WET AREAS TO BE SEMI-GLOSS EPOXY PAINT.

A
CCR01



Wall Base Details 1

6" = 1'-0"

General Notes (Finishes):

1. ALL FINISH MATERIALS MUST MEET THE FLAME SPREAD RATINGS PER THE BUILDING CODE.
2. REFER TO INTERIOR ELEVATIONS FOR SPECIFIC MATERIAL LOCATIONS.
3. REFERENCED FLOOR/WALL/CEILING TYPES ARE FOR TOP FINISH LAYER DETAILS ONLY. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FLRO FLOOR/WALL CEILING ASSEMBLY DETAILS PER LOCATION.
4. PAINT ALL EXPOSED DUCTWORK, CONDUIT, ELECTRICAL EQUIPMENT, ETC TO MATCH ADJACENT SURFACES.
5. PAINT ALL NON-FACTORY FINISHED EXPOSED METAL.
6. REFER TO TYPICAL FLOORING TRANSITION DETAILS FOR ALL FLOORING MATERIALS.
7. FLOORING TRANSITIONS AT DOORS SHOULD BE LOCATED UNDER THE DOOR IN THE CLOSED POSITION, UNLESS NOTED OTHERWISE.
8. CONTRACTOR WILL BE RESPONSIBLE FOR PROTECTING FINISHED FLOORING SURFACES FROM DAMAGE DURING ALL CONSTRUCTION PHASES.
9. PROVIDE BULLNOSE TRIM AT TRANSITIONS FROM CERAMIC WALL TILE TO OTHER MATERIAL, UNLESS NOTED OTHERWISE.
10. REFER TO REFLECTED CEILING PLANS FOR CEILING HEIGHTS.
11. ALL ELECTRICAL DEVICE COVERS ARE TO BE WHITE UNLESS NOTED OTHERWISE.
12. CARPET PATTERNS TO RUN PARALLEL TO CORRIDOR, UNLESS NOTED OTHERWISE.
13. ALL HOLLOW METAL DOOR FRAMES TO BE PAINTED TO MATCH ADJACENT WALL COLOR.

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JAY DARREN BROWNING
NUMBER A-2009027279
ARCHITECT
11.3.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 11/03/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE
CCR01	Code Comment Response 1	10/28/20

PROJECT NO: 0119-0101
DATE: September 28, 2020

Finish Legend, Schedule & Details

H-AF001

BID SET

PRINT DATE/TIME:
11/4/2020 8:20:50 AM

Signage Schedule

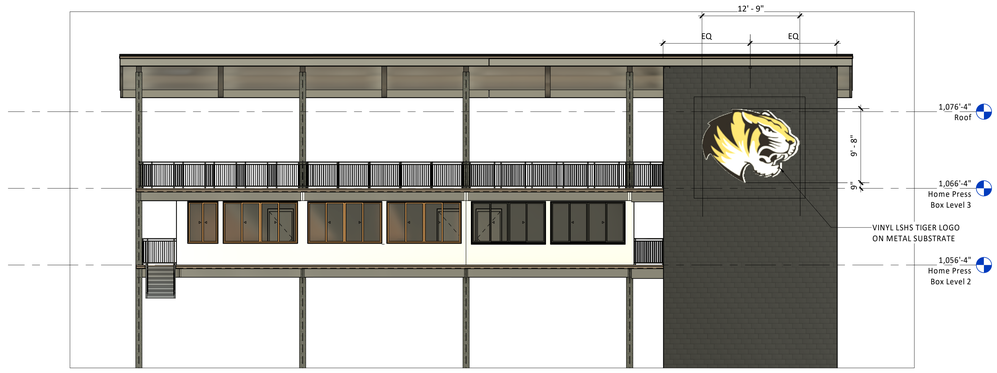
Room: Number	Room: Name	Type Mark	Type Comments	Signage Text
Home Press Box Level 1				
H1-1	Stair	E	Exit Stair	Stair
H1-1	Stair	A	Room ID (Basic)	Ground Level
H1-101	Vestibule	A	Room ID (Basic)	Ground Level
Restrooms				
H2-101	Tennis Storage	A	Room ID (Basic)	Storage
H2-102	MEP/Custodian	A	Room ID (Basic)	Custodian
H2-103	Men's Restroom	R1	Restroom - Men	Men's Restroom
H2-104	Women's Restroom	R2	Restroom - Women	Women's Restroom
Concessions				
H2-105	Ticket Booth	A	Room ID (Basic)	Ticket Booth
H2-106	Concessions	A	Room ID (Basic)	Concessions
Home Press Box Level 2				
H1-106	Corridor	F	In Case of Fire...	In Case of Fire Do Not Use Elevator, Use Stairs
H1-106	Corridor	A	Room ID (Basic)	Stair
H1-106	Corridor	A	Room ID (Basic)	Level 2
H1-106	Corridor	A	Room ID (Basic)	Level 2
H1-203	Home Coaches	A	Room ID (Basic)	Home Coach
H1-204	Command Center	A	Room ID (Basic)	Command Center
H1-205	Visitor Coaches	A	Room ID (Basic)	Visitor Coach
Home Press Box Level 3				
H1-303	Video Deck	F	In Case of Fire...	In Case of Fire Do Not Use Elevator, Use Stairs
H1-303	Video Deck	A	Room ID (Basic)	Stair
H1-303	Video Deck	A	Room ID (Basic)	Video Deck
H1-303	Video Deck	A	Room ID (Basic)	Video Deck

NOTE: Provide room identification signage to all areas listed in schedule. Not all signage locations are elevated on this sheet. See specification section 101419 for all pin-mounted dimensional letter signage.

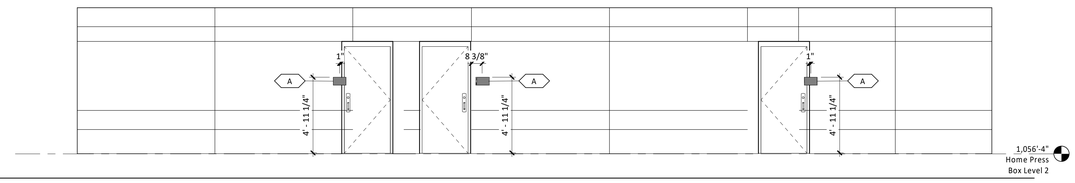
Signage Legend

Type Mark	Type Comments	Count
A	Room ID (Basic)	16
E	Exit Stair	1
F	In Case of Fire...	3
R1	Restroom - Men	1
R2	Restroom - Women	2

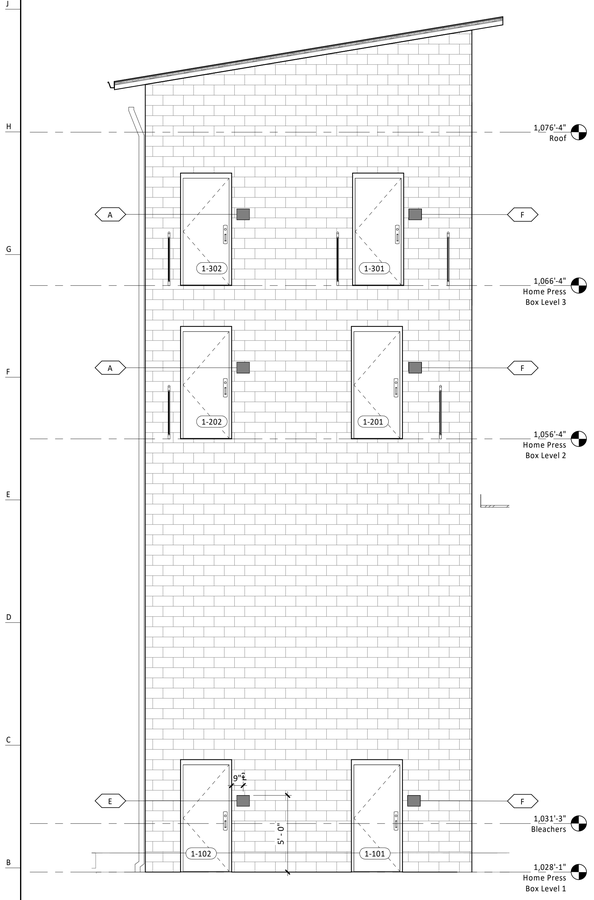
ADD02



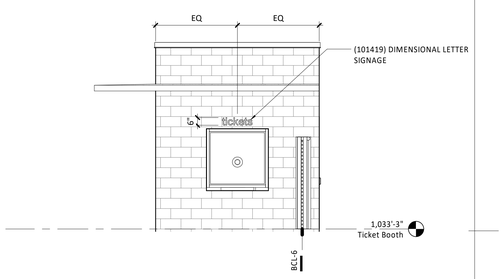
East Elevation - Home Press Box - Signage Details L1
1/8" = 1'-0"



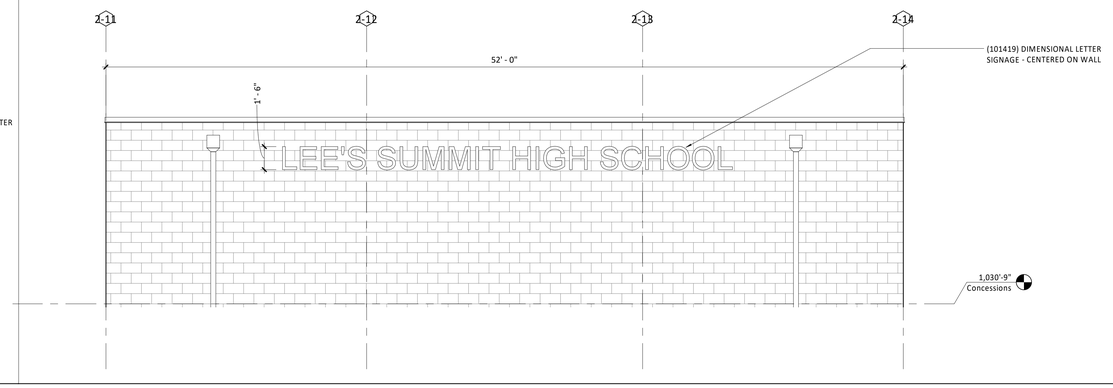
West Elevation Press Box - Signage Details J1
1/4" = 1'-0"



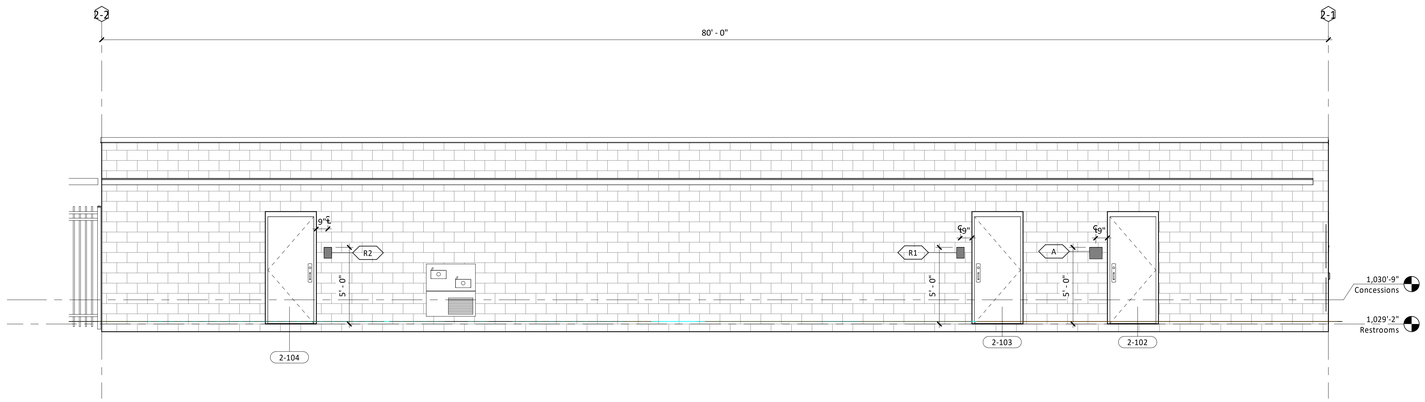
South Elevation - Home Press Box Core - Signage Details A14
1/4" = 1'-0"



East Elev. Visitor Ticket Booth - Signage Details E10
1/4" = 1'-0"



SW Elevation - Ticket Booth & Concessions - Signage Details E1
1/4" = 1'-0"



East Elevation - Restrooms - Signage Details A1
1/4" = 1'-0"

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913.485.0318

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ARCHITECT
11.3.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning — Date: 11/03/2020
Architect — License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE
ADD02	Addendum 02	10/20/20

PROJECT NO: 0119-0101
DATE: September 28, 2020

Signage Types, Schedule & Details

H-AF002

BID SET

PLOT DATE/TIME:
11/4/2020 8:37:15 AM

ADD02

6"W x 9"H x 1/4" D
3/4" RADIUS CORNERS
5/8" HELVETICA TEXT & NUMBER

Restroom - Unisex R3
6" = 1'-0"

6"W x 9"H x 1/4" D
3/4" RADIUS CORNERS
5/8" HELVETICA TEXT & NUMBER

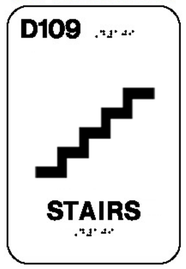
Restroom - Women R2
6" = 1'-0"

6"W x 9"H x 1/4" D
3/4" RADIUS CORNERS
5/8" HELVETICA TEXT & NUMBER

Restroom - Men R1
6" = 1'-0"

6"W x 9"H x 1/4" D
3/4" RADIUS CORNERS
5/8" HELVETICA NUMBER
HELVETICA TEXT - TEXT SIZE TBD

In Case of Fire F
6" = 1'-0"



6"W x 9"H x 1/4" D
3/4" RADIUS CORNERS
5/8" HELVETICA TEXT & NUMBER

Exit Stair E
6" = 1'-0"

6"W x 9"H x 1/4" D
3/4" RADIUS CORNERS
5/8" HELVETICA TEXT & NUMBER

Room ID (Standard) A
6" = 1'-0"

General Notes (Signage):

1. THE ENVIRONMENTAL GRAPHICS PACKAGE CONSISTS OF THE FOLLOWING COMPONENTS: DETAIL DRAWINGS, SIGN LOCATION PLANS, SIGNAGE MESSAGE SCHEDULE, AND SPECIFICATION MANUAL.
2. ALL SIGNS TO BE FABRICATED AND INSTALLED TO COMPLY WITH LOCAL BUILDING CODES, ADAAG, AND ANSI 117.1
3. FABRICATOR TO REVIEW THE STRUCTURAL, MECHANICAL, AND ARCHITECTURAL DRAWINGS AND SITE CONDITIONS TO VERIFY SIZES AND LOCATION OF SIGNAGE RELATED ELEMENTS THAT EXIST. ANY DISCREPANCIES AND/OR CONFLICTS SHALL BE REPORTED TO THE OWNER/ARCHITECT/GENERAL CONTRACTOR IN WRITING BEFORE PROCEEDING WITH FABRICATION OR ORDERING MATERIALS.
4. FABRICATOR SHALL SUBMIT FULLY DETAILED WORKING (SHOP/FABRICATION) DRAWINGS TO ARCHITECT/GENERAL CONTRACTOR FOR ALL SIGNS AND GRAPHICS CONTAINED IN THIS PACKAGE. DRAWINGS SHALL BE REVIEWED AND HAVE SIGNED APPROVAL PRIOR TO FABRICATION OR ORDERING OF MATERIALS.
5. ALL SIGNS ARE TO BE FABRICATED FROM MATERIALS SPECIFIED UNLESS OTHERWISE APPROVED IN WRITING BY THE OWNER/ARCHITECT. NO EXCEPTIONS.
6. DRAWINGS CONTAINED IN THIS PACKAGE ARE FOR AESTHETIC AND FUNCTIONAL DESIGN INTENT ONLY. NO INSTRUCTIONS FOR STRUCTURAL APPROPRIATENESS HAVE BEEN MADE. IT IS THE RESPONSIBILITY OF THE SIGNAGE FABRICATOR TO ENSURE THAT ALL ELEMENTS ARE FABRICATED FOR A STABLE AND DURABLE INSTALLATION WHILE ADHERING TO THE AESTHETIC DETAILS INDICATED.
7. FABRICATOR IS RESPONSIBLE FOR DETERMINING PROPER MOUNTING METHODS FOR SIGNS UNLESS OTHERWISE SPECIFIED. ALL MOUNTING MATERIALS/TECHNIQUES TO BE APPROVED IN WRITING AND HAVE SIGNED APPROVAL PRIOR TO INSTALLATION.
8. ALL FASTENERS ARE TO BE CONCEALED UNLESS NOTED OTHERWISE.
9. FABRICATOR TO COORDINATE THE INSTALLATION OF SITE SIGNAGE AND ASSOCIATED FOOTINGS WITH THE GENERAL CONTRACTOR'S INSTALLATION OF THE SURROUNDING HARDSCAPE.
10. ALL TEXT SHOWN IN DETAIL DRAWINGS IS FOR REFERENCE ONLY. REFER TO SIGNAGE MESSAGE SCHEDULE FOR EXACT TEXT ON EACH SIGN.
11. ALL ROOM IDENTIFICATIONS SIGNS ARE TO BE MOUNTED 9 INCHES FROM THE CENTER OF THE SIGN TO THE LATCH SIDE OF DOOR FRAME.

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ARCHITECT
11.3.20

Architectural Corporation
Missouri License No. 2018022991
Jay Browning Date: 11/03/2020
Architect License No. A-2009027279

REVISIONS

Number	DESCRIPTION	DATE
ADD02	Addendum 02	10/20/20

PROJECT NO: 0119-0101
DATE: September 28, 2020

Signage Types, Schedule & Details

H-AF003

BID SET

PRINT DATE/TIME:
11/4/2020 8:22:17 AM

PLUMBING SYMBOLS

THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED. V2.02

STANDARD MOUNTING HEIGHTS

CLINIC SERVICE SINKS (RIM)	30"
HOSE BIBB (CENTERLINE)	36"
ICE MAKER OUTLET BOX (CENTER OF BOX)	24"
JANITOR'S SINK FAUCET FITTINGS (CENTERLINE)	42"
LAVATORY OR SINK	
STANDARD HEIGHT (RIM)	31"
ADA ACCESSIBLE (RIM)	34"
CHILD HEIGHT (RIM)	24"
NON FREEZE WALL HYDRANT (AFG TO CENTERLINE)	18"
SHOWER HEAD	
MEN (CENTERLINE)	78"
WOMEN (CENTERLINE)	72"
SHOWER VALVE	
STANDARD HEIGHT - MEN (CENTERLINE)	48"
STANDARD HEIGHT - WOMEN (CENTERLINE)	42"
ADA ACCESSIBLE (CENTERLINE)	38" TO 48"
SURGEON'S SCRUB-UP SINK (FRONT RIM)	35"
TUB VALVE	
STANDARD HEIGHT (CENTERLINE)	32"
ADA ACCESSIBLE	CENTER BETWEEN GRAB BAR AND TUB RIM
URINAL	
STANDARD HEIGHT (RIM)	24"
ADA ACCESSIBLE (RIM)	17"
CHILD HEIGHT (RIM)	14"
WASHING MACHINE OUTLET BOX (RIM)	42"
WATER CLOSET	
STANDARD HEIGHT (RIM)	15"
ADA ACCESSIBLE (TOP OF SEAT)	17" TO 19"
CHILD HEIGHT (RIM)	10"
WATER COOLER OR DRINKING FOUNTAIN	
STANDARD HEIGHT (SPOUT)	41"
ADA ACCESSIBLE (SPOUT)	36"
CHILD HEIGHT (SPOUT)	30"

INSTALL PLUMBING FIXTURES AT THE MOUNTING HEIGHTS SHOWN ABOVE UNO IN THE ARCHITECTURAL DRAWINGS OR ELSEWHERE IN THE CONSTRUCTION DOCUMENTS. FINAL APPROVAL OF LOCATIONS BY ARCHITECT. MOUNTING HEIGHTS LISTED ABOVE, OR ELSEWHERE IN THE CONSTRUCTION DOCUMENTS, ARE AFF. UNO. ALL DEVICES SHALL BE INSTALLED IN COMPLIANCE WITH CURRENT ADA AND LOCAL REQUIREMENTS.

ANNOTATION

- 1 — PLUMBING PLAN NOTE CALLOUT
- 1 — PLUMBING EQUIPMENT DESIGNATION. (CONTRACTOR FURNISHED AND INSTALLED). REFER TO PLUMBING FIXTURE OR EQUIPMENT SCHEDULES
- 1 — EQUIPMENT DESIGNATION (OWNER FURNISHED, CONTRACTOR INSTALLED)
- CU 1 — MECHANICAL EQUIPMENT DESIGNATION (CONTRACTOR FURNISHED AND INSTALLED UNLESS NOTED OTHERWISE)
- CONNECTION POINT OF NEW WORK TO EXISTING
- 1 P1 — DETAIL REFERENCE UPPER NUMBER INDICATES DETAIL NUMBER LOWER NUMBER INDICATES SHEET NUMBER
- 1 P1 — SECTION CUT DESIGNATION

ABBREVIATIONS

ADA	AMERICANS WITH DISABILITIES ACT	MIN	MINIMUM
AFF	ABOVE FINISHED FLOOR	N/C	NORMALLY CLOSED
AFG	ABOVE FINISHED GRADE	N/O	NORMALLY OPEN
AHU	AIR HANDLING UNIT	NIC	NOT IN CONTRACT
AP	ACCESS PANEL	ORD	OVERFLOW ROOF DRAIN
BAS	BUILDING AUTOMATION SYSTEM	PDI	PLUMBING DRAINAGE INSTITUTE
BFF	BELOW FINISHED FLOOR	PH/Ø	PHASE
BFG	BELOW FINISHED GRADE	PRV	PRESSURE REDUCING VALVE
BOP	BOTTOM OF PIPE	PVC	POLYVINYL CHLORIDE
BOS	BOTTOM OF STRUCTURE	RCP	REINFORCED CONCRETE PIPE
BTU	BRITISH THERMAL UNIT	RD	ROOF DRAIN
CP	CONDENSATE PUMP	RPM	REVOLUTIONS PER MINUTE
CPVC	CHLORINATED POLYVINYL CHLORIDE	RTU	ROOFTOP UNIT
CU	COPPER	SF	SQUARE FEET
DI	DUCTILE IRON	SP	SUMP
DN	DOWN	SS	STAINLESS STEEL
DFU	DRAINAGE FIXTURE UNIT		SANITARY SEWER, SOIL STACK
DS	DOWNSPOUT	TDH	TOTAL DYNAMIC HEAD
(E)	EXISTING	TFA	TO FLOOR ABOVE
EMS	ENERGY MANAGEMENT SYSTEM	TFB	TO FLOOR BELOW
ETR	EXISTING TO REMAIN	TYP	TYPICAL
EWC	ELECTRIC WATER COOLER	UL	UNDERWRITERS LABORATORIES, INC.
FD	FLOOR DRAIN	UNO	UNLESS NOTED OTHERWISE
FFA	FROM FLOOR ABOVE	UPS	UNINTERRUPTIBLE POWER SUPPLY
FFB	FROM FLOOR BELOW	VCP	VITRIFIED CLAY PIPE
FF	FINISHED FLOOR	VFD	VARIABLE FREQUENCY DRIVE
FL	FLOW LINE	VS	VENT STACK
FLA	FULL LOAD AMPS	VTR	VENT THROUGH ROOF
FLR	FLOOR	W/	WITH
GPM	GALLONS PER MINUTE	W/O	WITHOUT
HD	HEAD, HUB DRAIN	WC	WATER COLUMN
HZ	HERTZ	WS	WASTE STACK
IE	INVERT ELEVATION	WSFU	WATER SUPPLY FIXTURE UNIT
IN WC	INCHES OF WATER COLUMN	WVS	WASTE VENT STACK
JB	JUNCTION BOX		
J-BOX	JUNCTION BOX		
KW	KILOWATT		
MAU	MAKE-UP AIR UNIT		
MAX	MAXIMUM		
MBH	1000 BTU PER HOUR		
MH	MANHOLE		

PIPING SYMBOLS

- OXYGEN OUTLET
- NITROUS OXIDE OUTLET
- MEDICAL AIR OUTLET
- NITROGEN OUTLET
- MEDICAL VACUUM INLET
- FLOOR SINK (FS), SIZE & TYPE
- FLOOR DRAIN (FD), SIZE & TYPE
- ROOF DRAIN (RD), SIZE & TYPE
- BALL VALVE
- CONTROL VALVE
- SHUTOFF VALVE
- CHECK VALVE
- BALANCING VALVE WITH PRESSURE PORTS
- WATER METER
- STRAINER
- STRAINER WITH BLOWOFF
- RELIEF/SAFETY VALVE
- SOLENOID VALVE
- PRESSURE REDUCING VALVE
- GAS PRESSURE REGULATOR
- THERMOSTATIC MIXING VALVE
- PA — PIPE ANCHOR
- EJ — EXPANSION JOINT
- BACKFLOW PREVENTER
- PRESSURE GAUGE
- THERMOMETER
- UNION
- FLANGE CONNECTION
- HOSE BIBB (HB)
- NON-FREEZING WALL HYDRANT (NW)
- MANUAL / AUTOMATIC AIR VENT OR VACUUM RELIEF VALVE
- PRESSURE / VACUUM SWITCH
- CLEANOUT
- CAP
- WALL CLEANOUT (WCO)
- FLOOR CLEANOUT (FCO)
- EXTERIOR CLEANOUT (ECO)
- ELBOW UP
- ELBOW DOWN
- TEE UP
- TEE DOWN
- ELBOW UP WITH SHUT-OFF VALVE (SOV)
- ELBOW DOWN WITH SHUT-OFF VALVE (SOV)
- TEE UP WITH SHUT-OFF VALVE (SOV)
- TEE DOWN WITH SHUT OFF VALVE (SOV)
- "A" — WATER HAMMER ARRESTER (WHA) WITH PDI SIZES (A, B, C, D, & E)
- RECIRCULATION PUMP
- P-TRAP
- GAS COCK
- TRAP PRIMER
- TRAP PRIMER WITH DISTRIBUTION UNIT

LINETYPE LEGEND

THROUGHOUT THE DRAWINGS DIFFERENT LINETYPES ARE USED IN COMBINATION WITH THE SYMBOLS TO INDICATE THE STATUS OF ITEMS AS EXISTING, TO BE DEMOLISHED, TO BE INCLUDED AS PART OF NEW WORK AND/OR ITEMS WHICH ARE ANTICIPATED TO BE PROVIDED IN THE FUTURE. THE STATUS OF ITEMS USING THESE LINETYPES ARE RELATIVE TO THE VIEW IN WHICH THEY APPEAR. PHASING SHOWN IN DRAWINGS IS NOT INTENDED TO FULLY DESCRIBE ALL NECESSARY CONSTRUCTION PHASING, WHICH IS DETERMINED BY THE CONTRACTOR AS PART OF THEIR RESPONSIBILITIES. ANY SUCH PHASES DESCRIBED IN THE CONSTRUCTION DOCUMENTS ARE GENERAL AND ONLY INTENDED TO INDICATE A BROAD ORDER FOR THE SAKE OF DESCRIBING THE PROJECT. THE FOLLOWING LINETYPES MAY BE USED ON ANY DEVICE, EQUIPMENT, NOTE, LINE, SHAPE, ETC.

EXISTING	NEW
DEMOLISH	FUTURE

PIPING LINETYPES

- CW — DOMESTIC COLD WATER (CW)
- SCW — SOFTENED COLD WATER (SCW)
- HW — DOMESTIC HOT WATER (HW)
- HWR — DOMESTIC HOT WATER RECIRC. (HWR)
- 140° — DOMESTIC HOT WATER (140°)
- T — TRAP PRIMER LINE (T)
- S — SOIL PIPING - ABOVE FLOOR (S)
- S — SOIL PIPING - BELOW FLOOR (S)
- W — WASTE PIPING - ABOVE FLOOR (W)
- W — WASTE PIPING - BELOW FLOOR (W)
- GW — GREASE WASTE - ABOVE FLOOR (GW)
- GW — GREASE WASTE - BELOW FLOOR (GW)
- CGWV — COMBINATION GREASE WASTE AND VENT (CGWV)
- CWV — COMBINATION WASTE AND VENT (CWV)
- ST — STORM DRAIN - ABOVE FLOOR (ST)
- ST — STORM DRAIN - BELOW FLOOR (ST)
- OST — OVERFLOW STORM DRAIN - ABOVE FLOOR (OST)
- VBG — VENT BELOW GRADE (VBG)
- VBF — VENT BELOW FLOOR (VBF)
- ID — INDIRECT DRAIN (ID)
- CDH — CONDENSATE DRAIN - HIGH EFFICIENCY RTU (CDH)
- CD — CONDENSATE DRAIN (CD)
- ACD — AUXILIARY CONDENSATE DRAIN (ACD)
- SPD — SUMP OR SEWAGE PUMP DISCHARGE (SPD)
- G — NATURAL GAS (G)
- G — NATURAL GAS ON ROOF (G)
- MPG — MEDIUM PRESSURE NATURAL GAS (MPG)
- MPG — MEDIUM PRESSURE NATURAL GAS ON ROOF (MPG)
- NPW — NON-POTABLE WATER (NPW)
- LPG — LIQUEFIED PETROLEUM GAS (LPG)
- WS — WATER SERVICE (WS)
- FP — FIRE PROTECTION (FP)
- PD — CONDENSATE PUMP DISCHARGE (PD)
- V — VENT PIPING (V)
- AW — ACID WASTE - ABOVE FLOOR (AW)
- AW — ACID WASTE - BELOW FLOOR (AW)
- AV — ACID VENT (AV)
- GWS — GRAY WATER (GWS)
- CA — COMPRESSED AIR (CA)
- MA — MEDICAL AIR (MA)
- MV — MEDICAL VACUUM (VE)
- HE — HELIUM (HE)
- IA — INSTRUMENT AIR (IA)
- IV — INSTRUMENT VACUUM (IV)
- N2 — NITROGEN (N2)
- N2O — NITROUS OXIDE (N20)
- O2 — OXYGEN (O2)
- EV — EVAC/WAGD (EV)
- CO2 — CARBON DIOXIDE (CO2)
- AI — MEDICAL AIR INTAKE (AI)
- VE — MEDICAL VACUUM EXHAUST (VE)
- DA — DENTAL AIR (DA)
- DV — DENTAL VACUUM (DV)
- FW1 — FILTERED WATER (FW1)
- FW2 — FILTERED WATER W/ SCALE INHIBITOR (FW2)
- DA — REVERSE OSMOSIS (RO)
- ROR — REVERSE OSMOSIS REMINERALIZATION (ROR)

GENERAL NOTES:

1. PROVIDE A CONSTRUCTION RECORD SET OF 'AS-BUILT' DOCUMENTS TO THE ARCHITECT REFLECTING ANY VARIANCES OF INSTALLED PIPING LOCATIONS OR EQUIPMENT CONTRARY TO THE CONSTRUCTION DOCUMENTS, REFER TO SPECIFICATIONS.
2. DRAWINGS ARE DIAGRAMMATIC ONLY AND REPRESENT THE GENERAL SCOPE OF THE WORK. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND PLANS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY THE ARCHITECT OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
3. PROVIDE TO THE ARCHITECT A COPY OF INSPECTION REPORTS AND APPROVAL CERTIFICATES FROM LOCAL AND STATE INSPECTIONS, REFER TO SPECIFICATIONS.
4. INSTALLATION SHALL COMPLY WITH LEGALLY CONSTITUTED CODES AND THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION AND ALSO MEET ALL REQUIREMENTS OF THE LANDLORD. OBTAIN A COPY OF THE LANDLORD'S REQUIREMENTS AND REVIEW PRIOR TO SUBMITTING BID.
5. PLANS AND SPECIFICATIONS GOVERN WHERE THEY EXCEED CODE REQUIREMENTS.
6. VERIFY LOCATION AND DEPTH OF UTILITIES AT POINTS OF CONNECTION BEFORE START OF PIPING INSTALLATION.
7. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF PLUMBING FIXTURES.
8. DO NOT SCALE FLOOR PLANS FOR EXACT HORIZONTAL LOCATION OF PIPE ROUTING.
9. INSTALL CONCEALED PIPING TIGHT TO THE STRUCTURE AND AS HIGH AS POSSIBLE.
10. VALVES SHALL BE LINE SIZE UNLESS OTHERWISE NOTED.
11. INSTALL EXPOSED PIPING, WHERE NECESSARY, IN FINISHED AREAS TIGHT TO THE STRUCTURE, WALL OR CEILING AND AS HIGH AS POSSIBLE. INSTALL PIPING PARALLEL AND / OR PERPENDICULAR TO WALLS.
12. INSTALL VALVES AND APPURTENANCES A MAXIMUM OF 24" ABOVE CEILING IN ACCESSIBLE LOCATION WITHIN 24" OF ACCESS DOORS OR ACCESSIBLE CEILING TILES. PROVIDE PIPE AND FITTINGS TO INSTALL VALVES AND APPURTENANCES AT REQUIRED HEIGHT AND WITHIN 24" OF ACCESS DOORS OR ACCESSIBLE CEILING TILES.
13. INSTALL NO PLASTIC PIPE OF ANY KIND ABOVE SLAB INSIDE OR UNDER THE BUILDING. INSTALL NO PLASTIC PIPE IN THE CEILING RETURN AIR PLENUM.
14. COORDINATE ALL WORK WITH OTHER TRADES AND CONTRACTORS.
15. COORDINATE PIPING INSTALLATION WITH STRUCTURAL GRADE BEAMS, FOOTINGS, COLUMN PIERS, ETC. SLEEVE PIPING THROUGH GRADE BEAMS, FOOTING, ETC. WHERE REQUIRED AND AS NOTED ON PLANS. COORDINATE SLEEVE INSTALLATIONS WITH THE ARCHITECT, STRUCTURAL ENGINEER, STRUCTURAL CONTRACTOR AND GENERAL CONTRACTOR BEFORE CONCRETE IS INSTALLED.
16. CLEAN FAUCET AERATORS AND PIPE STRAINERS PRIOR TO TURNING BUILDING OVER TO THE OWNER.
17. COORDINATE PIPE ROUTING AWAY FROM ELECTRICAL PANELS. DO NOT INSTALL PIPING OVER ELECTRICAL PANELS.
18. PAINT ALL EXPOSED WATER PIPING USING RUST INHIBITOR PAINT. PAINT AND COLOR SHALL BE COORDINATED WITH THE ARCHITECT AND / OR OWNER.
19. COORDINATE ALL ROOF PENETRATIONS WITH OTHER TRADES. MAINTAIN 10' MINIMUM CLEARANCE FROM ALL AIR INTAKES. MAINTAIN 2' CLEARANCE FROM ALL OTHER EQUIPMENT.
20. INSULATE PIPING ROUTED IN EXTERIOR BUILDING WALLS WITH MINIMUM 2" BATT INSULATION TO PREVENT FREEZING.
21. PROVIDE "HEAVY-DUTY" NO-HUB COUPLINGS ON SANITARY PIPING 3" AND LARGER. SEE DIVISION 22 SPECIFICATION SECTION "SANITARY DRAINAGE AND VENT AND PIPING SPECIALTIES" FOR MORE INFORMATION.
22. PROVIDE TRANSITION ADAPTER COUPLINGS FOR CONNECTION OF PVC DWV TO CAST IRON SANITARY, WASTE AND VENT PIPE AT SLAB ON GRADE. SEE DIVISION 22 SPECIFICATION SECTION "SANITARY DRAINAGE AND VENT PIPING AND SPECIALTIES" FOR MORE INFORMATION.
23. FLOW CONTROL VALVES SHALL BE SIZE 1/2" AND SET AT 0.5 GPM UNLESS NOTED OTHERWISE.
24. WATER HAMMER ARRESTORS SHALL BE SIZE "A" UNLESS NOTED OTHERWISE.
25. PROVIDE VERTICAL LIFT SPRING LOADED CHECK VALVES IN HOT AND COLD WATER SUPPLIES FOR MOP SINK FAUCETS DOWNSTREAM OF SHUTOFF VALVES.
26. PROVIDE WALL PIPES AT PIPING PENETRATIONS OF ELEVATED WATERPROOF FLOOR SLABS, REFER TO SPECIFICATIONS.
27. PROVIDE SIZE AND LENGTH OF HOT WATER FIXTURE SUPPLY PIPE FROM CIRCULATED HOT WATER BRANCH OR MAIN TO TERMINATION OF HOT WATER FIXTURE SUPPLY PIPE AT EACH FIXTURE PER 2015 INTERNATIONAL ENERGY CONSERVATION CODE, TABLE C404.3.1. FOR ½" HOT WATER FIXTURE SUPPLY PIPE SIZE TO INDIVIDUAL LAVATORIES, PROVIDE MAXIMUM LENGTH OF TWO FEET. FOR ½" HOT WATER FIXTURE SUPPLY PIPE SIZE TO INDIVIDUAL SINKS, PROVIDE MAXIMUM LENGTH OF 43 FEET. FOR 3/4" HOT WATER FIXTURE SUPPLY PIPE SIZE TO INDIVIDUAL SINKS, PROVIDE MAXIMUM LENGTH OF 21 FEET.

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MO. CORPORATE NO: E-556D
EXPIRES 12/31/2020

STATE OF MISSOURI
KELLEY P. CRAMM
NUMBER E-22323
REGISTERED PROFESSIONAL ENGINEER

Kelley P. Cramm

Sep 25 2020

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

PLUMBING GENERAL NOTES AND LEGEND

H-P000

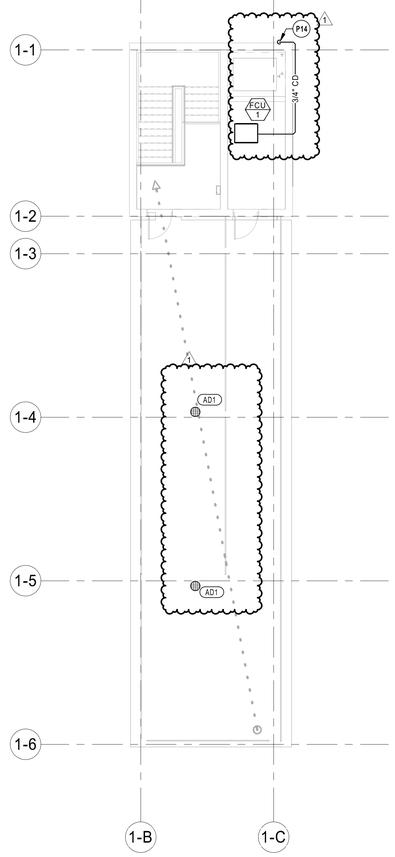
BID SET

PRINT DATE/TIME: 9/25/2020 2:06:05 PM

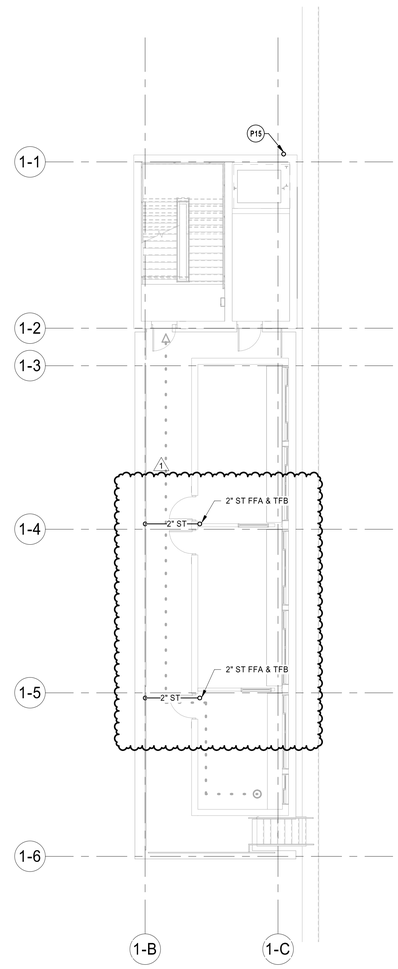
KELLEY P. CRAMM

PLUMBING PLAN NOTES:

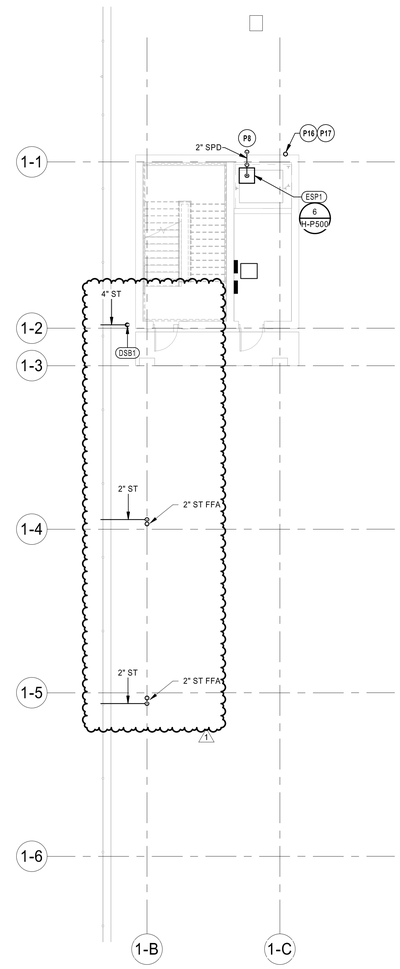
P8 ELEVATOR SUMP PUMP PIPING SHALL DISCHARGE TO GRADE.
P14 3/4" CONDENSATE DRAIN TFB.
P15 3/4" CONDENSATE DRAIN FFA AND TFB.
P16 3/4" CONDENSATE DRAIN FFA.
P17 3/4" CONDENSATE DRAIN SHALL DISCHARGE TO GRADE.



3 HOME PRESS BOX - LEVEL 3 PLUMBING PLAN
1/8" = 1'-0"



2 HOME PRESS BOX - LEVEL 2 PLUMBING PLAN
1/8" = 1'-0"



1 HOME PRESS BOX - PLUMBING PLAN
1/8" = 1'-0"

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MO. CORPORATE NO: E-556D
EXPIRES 12/31/2020

STATE OF MISSOURI
KELLEY P. CRAMM
NUMBER E-22323
REGISTERED PROFESSIONAL ENGINEER

Nov 6 2020

REVISIONS

NUMBER	DESCRIPTION	DATE
1	Addendum 3	10.23.2020

PROJECT NO: 0119-0101
DATE: September 28, 2020

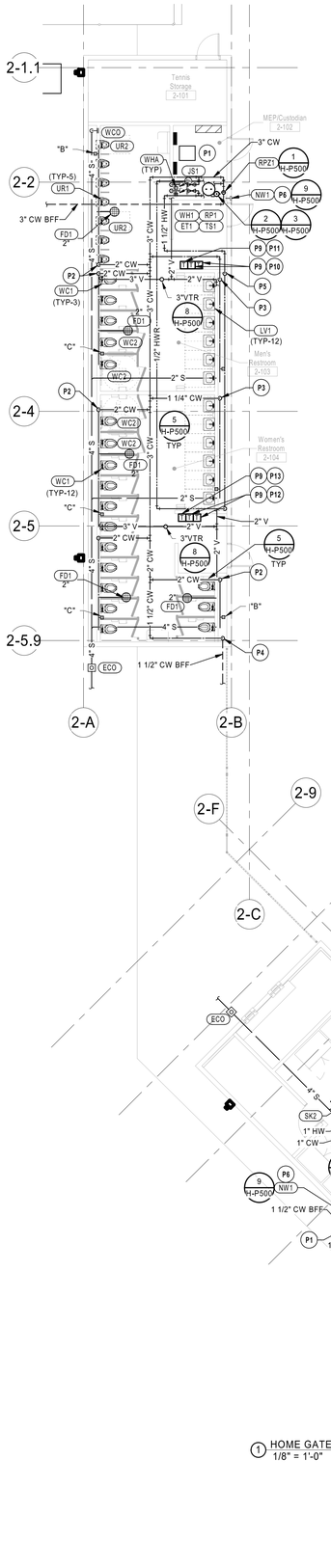
HOME PRESS BOX - PLUMBING PLANS

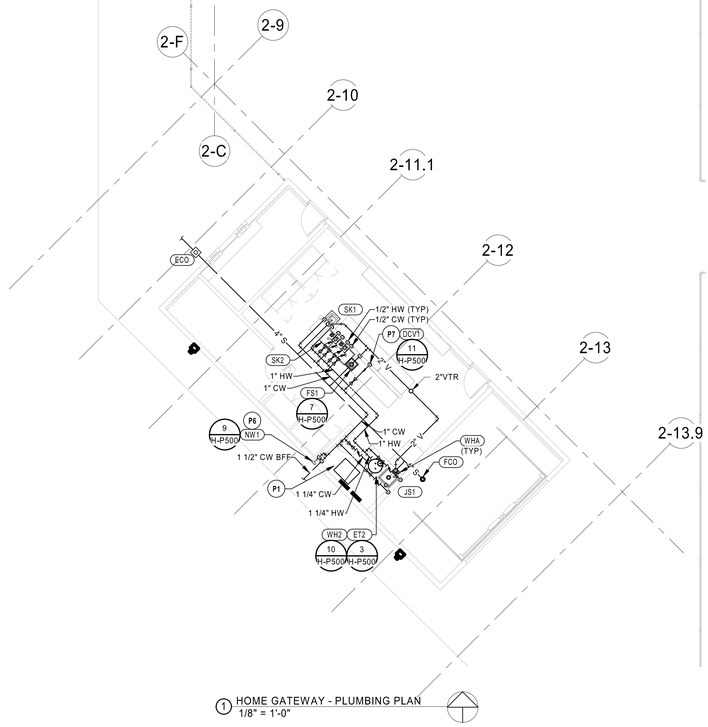
H-P111

BID SET

PRINT DATE/TIME: 11/6/2020 2:33:51 PM

KELLEY P. CRAMM





1 HOME GATEWAY - PLUMBING PLAN
1/8" = 1'-0"

PLUMBING PLAN NOTES:

P1 DO NOT INSTALL PLUMBING PIPING OVER ELECTRICAL PANELS OR EQUIPMENT.
P2 ROUTE 2" COLD WATER DOWN AND HEADER IN WALL.
P3 ROUTE 1-1/4" COLD WATER DOWN AND HEADER IN WALL.
P4 ROUTE 1-1/2" COLD WATER DOWN IN WALL TO BELOW GRADE TO SERVE CONCESSION STAND. REFER TO CIVIL DRAWINGS FOR CONTINUATION.
P5 ROUTE 1-1/4" HOT WATER DOWN AND HEADER IN WALL.
P6 WALL HYDRANT TO BE USED FOR BUILDING DRAIN DOWN.
P7 ROUTE 1/2" COLD WATER DOWN IN WALL FOR HOT CHOCOLATE MAKER CONNECTION.
P9 LOCATE TRANSFORMER "T" ABOVE CEILING IN AN ACCESSIBLE LOCATION. REFER TO ELECTRICAL DRAWINGS FOR INSTALLATION.
P10 TRANSFORMER TO SERVE (2) WC, (2) UR AND (2) LAV IN MEN'S RESTROOM 2-103.
P11 TRANSFORMER TO SERVE (1) WC, (3) UR AND (2) LAV IN MEN'S RESTROOM 2-103.
P12 TRANSFORMER TO SERVE (5) WC AND (2) LAV IN WOMEN'S RESTROOM 2-104.
P13 TRANSFORMER TO SERVE (4) WC AND (2) LAV IN WOMEN'S RESTROOM 2-104.

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STATE OF MISSOURI
KELLEY P. CRAMM
NUMBER E-22323
REGISTERED PROFESSIONAL ENGINEER

Sep 25 2020

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

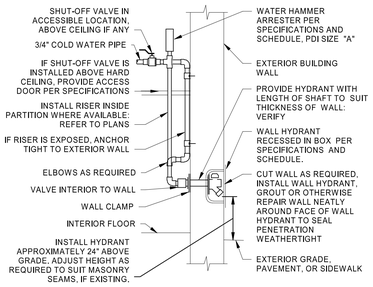
HOME GATEWAY - PLUMBING PLAN

H-P121

BID SET

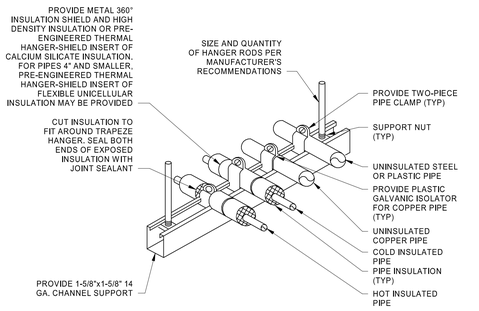
PRINT DATE/TIME: 9/25/2020 2:06:19 PM

KELLEY P. CRAMM



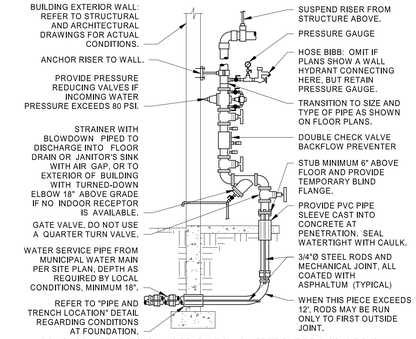
ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST AS REQUIRED TO SUIT FIELD CONDITIONS. INSTALL PER MANUFACTURER'S INSTRUCTIONS. IN NON-FREEZING CLIMATES, PIPE MAY BE INSTALLED CONCEALED IN EXTERIOR WALL RATHER THAN EXTERIOR TO WALL AS SHOWN. REFER TO PLANS FOR LOCATION.

9 WALL HYDRANT INSTALLATION
NTS



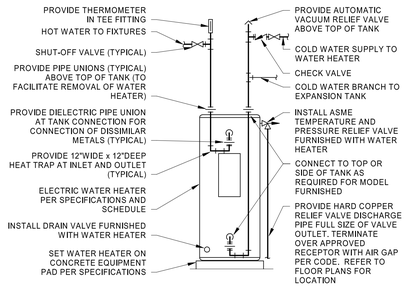
PIPING ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITONS. REFER TO SPECIFICATIONS FOR MORE INFORMATION. PIPE AND CONDUIT OF ALL TRADES MAY BE COMBINED ON THE SAME SUPPORT CHANNEL. COORDINATE SUPPORT CHANNEL LENGTH WITH PIPING AND CONDUIT TO BE SUPPORTED. SUPPORT CHANNEL SPACING SHALL BE DETERMINED BY SMALLEST PIPE TO BE SUPPORTED. CHANNEL SUPPORT MAY BE USED AS A WALL BRACKET, ATTACH TO WALL WITH ANCHOR BOLTS PER SPECIFICATIONS. FOR HORIZONTAL INSULATED PIPING, ATTACH CLAMPS AS INDICATED ABOVE, FOR VERTICAL INSULATED PIPING, ATTACH CLAMPS TO THE PIPE AND SEAL INSULATION AT BOTH CLAMP ENDS.

5 TRAPEZE PIPE HANGER
NTS



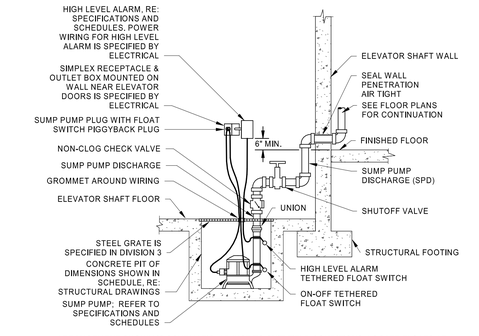
PIPING ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS. ALL ITEMS SHALL BE APPROVED FOR DOMESTIC WATER SERVICE. INSTALL SO THAT THEY CAN BE EASILY SERVICED AND TESTED. PROVIDE DOUBLE CHECK VALVE APPROVED BY LOCAL AUTHORITIES FOR VERTICAL INSTALLATION. INSTALL WITH REQUIRED CLEARANCES. PROVIDE ANY REQUIRED CERTIFICATION OF TEST OF BACKFLOW PREVENTER TO LOCAL AUTHORITIES. REFER TO SPECIFICATIONS AND SCHEDULES FOR FURTHER INFORMATION.

1 DOMESTIC WATER SERVICE ENTRY
NTS



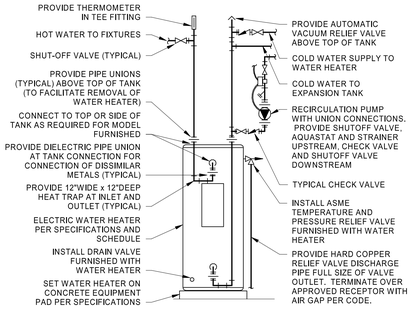
REFER TO SPECIFICATIONS, SCHEDULES, AND NOTES FOR MORE INFORMATION. PIPING ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS. VERIFY CONNECTION SIZES AND LOCATIONS WITH WATER HEATER FURNISHED. REFER TO FLOOR PLANS FOR PIPE SIZES AND CONTINUATIONS. PROVIDE SEISMIC STRAP OR BRACING WHEN REQUIRED BY LOCAL AUTHORITIES. POWER WIRING AND DISCONNECT SWITCH ARE SPECIFIED BY ELECTRICAL.

10 ELECTRIC WATER HEATER
NTS



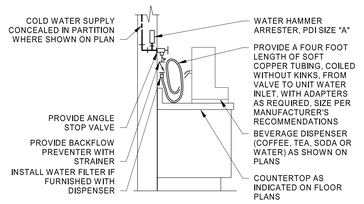
ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS. LOCATE FLOATS AT ELEVATIONS AS RECOMMENDED BY PUMP MANUFACTURER. INTERLOCK OF HIGH LEVEL ALARM WITH ALARM BELL, REFER TO FLOOR PLANS IF PROVIDED, IS SPECIFIED BY ELECTRICAL. INTERLOCK OF HIGH LEVEL ALARM WITH BUILDING AUTOMATION SYSTEM, REFER TO SPECIFICATIONS IF PROVIDED, IS SPECIFIED BY MECHANICAL.

6 ELEVATOR SUMP PUMP
NTS



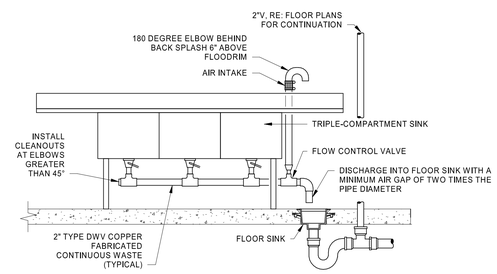
REFER TO SPECIFICATIONS, SCHEDULES, AND NOTES FOR MORE INFORMATION. PIPING ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS. VERIFY CONNECTION SIZES AND LOCATIONS WITH WATER HEATER FURNISHED. REFER TO FLOOR PLANS FOR PIPE SIZES AND CONTINUATIONS. PROVIDE SEISMIC STRAP OR BRACING WHEN REQUIRED BY LOCAL AUTHORITIES. POWER WIRING AND DISCONNECT SWITCH ARE SPECIFIED BY ELECTRICAL. INTERLOCK OF AQUASTAT WITH RECIRCULATION PUMP IS SPECIFIED BY ELECTRICAL.

2 ELECTRIC WATER HEATER AND PUMP
NTS



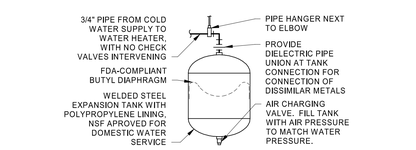
PIPING ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS AND EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS. AIR GAP ON INTERNAL WATER FILL DEVICE PROVIDES BACKFLOW PREVENTION. VERIFY IF LOCAL AUTHORITIES REQUIRE SUPPLEMENTAL PROTECTION.

11 BEVERAGE DISPENSER CONNECTION
NTS



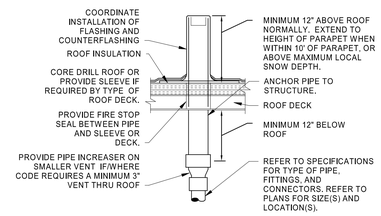
ARRANGEMENT SHOWN IN SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS. NO-HUB CAST IRON PIPE, FITTINGS AND CONNECTORS ALL AROUND SINK AND TRAP.

7 UTILITY SINK AND GREASE TRAP
NTS



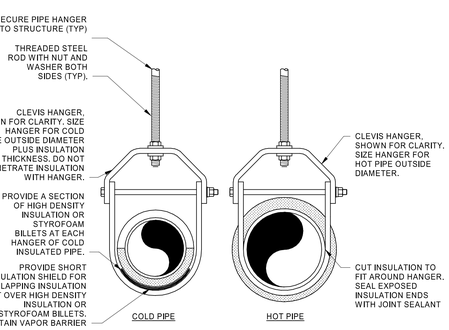
PIPING ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION PROCEDURE. VERIFY PROPER OPERATION WHEN INSTALLED. PROVIDE SEISMIC STRAP OR BRACING WHEN REQUIRED BY LOCAL AUTHORITIES.

3 SMALL EXPANSION TANK
NTS



LOCATE VTR MINIMUM THREE FEET FROM PROPERTY LINE, TEN FEET HORIZONTAL OR THREE FEET VERTICAL ABOVE ANY BUILDING OPENING OR FRESH AIR INTAKE. TWENTY FIVE FEET FROM ANY OPENING OR FRESH AIR INTAKE IN MEDICAL FACILITIES AND ONE FOOT FROM ANY VERTICAL SURFACE. REFER TO LOCAL CODES FOR OTHER VENT TERMINATION REQUIREMENTS. LOCATE VTR MINIMUM 18" FROM ADJACENT WALL, PARAPET, EXPANSION JOINT, ROOF DRAIN, EQUIPMENT CURB, OR OTHER ROOF FEATURE. OFFSET IN CEILING SPACE WHERE REQUIRED TO MEET THESE CONDITIONS. INSULATE LAST SIX FEET OF VENT PIPE INSIDE BUILDING PER SPECIFICATIONS.

8 VENT THRU ROOF
NTS



REFER TO SPECIFICATIONS FOR INSULATION TYPES, INSULATION THICKNESSES, HANGER TYPES, HANGER ROD CONNECTIONS TO STRUCTURE AND HANGER SPACING.

4 PIPE HANGER DETAIL
NTS

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EXPIRES 12/31/2020

STATE OF MISSOURI
KELLEY P. CRAMM
NUMBER E-22323
REGISTERED PROFESSIONAL ENGINEER

Kelley P. Cramm

Sep 25 2020

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

PLUMBING DETAILS

H-P500

BID SET

PRINT DATE/TIME: 9/25/2020 2:06:24 PM

KELLEY P. CRAMM

ELECTRIC STORAGE WATER HEATER SCHEDULE

MARK	MANUFACTURER	MODEL#	AREA SERVED	TANK SIZE (GALLONS)	ELECTRICAL DATA VOLTS	PHASE	KW	RECOVERY (GPH)	WEIGHT (LBS)	NOTES
WH1	A.O. SMITH	#DRE-52	RESTROOM BUILDING	50	480	3	15	66	700	A
WH2	A.O. SMITH	#DRE-52	CONCESSION BUILDING	50	480	3	18	74	700	A

NOTES:

A. 100°F TEMPERATURE RISE WITH 140°F OPERATING TEMPERATURE
B. DUAL ELEMENT WIRED FOR SIMULTANEOUS OPERATION WITH UNBALANCED THREE PHASE CIRCUIT

ELEVATOR SUMP PUMP SCHEDULE (3/4 HP AND SMALLER)

MARK	MANUFACTURER	MODEL	LOCATION	GPM	HEAD (FT.)	DISCHARGE SIZE (IN.)	ELECTRICAL VOLTS	PH	HP	NOTES
ESP1	WEIL	1411-538	ELEVATOR PIT	50	21	2"	120	1	0.5	A-E

NOTES:

A. PROVIDE WEIL #8245 FLOAT SWITCH WITH POWER CORD AND PIGGYBACK PLUG.
B. PROVIDE WITH WEIL #8341K1015 HIGH LEVEL ALARM WITH AUXILIARY CONTACT, REFER TO SPECIFICATIONS.
C. PROVIDE 2" DISCHARGE PIPING, SHUTOFF VALVE AND ZOELLER #30-0030 FLAPPER NON-CLOG CHECK VALVE.
D. REFER TO DETAIL FOR MORE INSTALLATION INFORMATION.
E. INSTALL IN 24"SQUARE x 24" DEEP SUMP PIT LOCATED IN ELEVATOR PIT, SEE ARCHITECTURAL DRAWINGS.

PLUMBING EXPANSION TANK SCHEDULE

MARK	MANUFACTURER	MODEL	TANK SIZE (GALLONS)	MIN. ACCEPTANCE VOLUME (GALLONS)	SERVICE	WEIGHT (LBS)	NOTES
ET1	AMTROL	ST-5	2	0.9	WH1	22	A
ET2	AMTROL	ST-5	2	0.9	WH2	22	A

NOTES:

A. CHARGE TANK WITH AIR TO IDENTICAL PRESSURE AS STATIC DOMESTIC WATER PRESSURE.

RECIRCULATION PUMP SCHEDULE

MARK	MANUFACTURER	MODEL	LOCATION	GPM	HEAD (FT.)	CONNECTION SIZE	ELECTRICAL DATA VOLTS	PH	HP	NOTES
RP1	BELL & GOSSETT	NBF-9U	MEP/CUSTODIAL	1	7	3/4"	120	1	1/18	A, B, C, D

NOTES:

A. ALL LEAD FREE CAST BRONZE BOOSTER.
B. PROVIDE WITH STRAINER UPSTREAM OF PUMP.
C. PROVIDE ADJUSTABLE, SURFACE MOUNTED AQUASTAT - HONEYWELL L6006C.
D. SET AQUASTAT TO SHUT OFF RECIRCULATION PUMP AT WATER HEATER SET POINT AND ON AT 10°F BELOW SET POINT.

FIXTURE BRANCH CONNECTION SCHEDULE

FIXTURE	COLD WATER	HOT WATER	WASTE	VENT
FLOOR DRAIN			2"	2"
JANITOR'S SINK	1/2"	1/2"	3"	2"
LAVATORY/HAND SINK	1/2"	1/2"	2"	1 1/2"
SINK	1/2"	1/2"	2"	2"
URINAL	1"	1"	2"	2"
WATER CLOSET (FLUSH VALVE)	1 1/4"		4"	2"

NOTE: PIPE SIZES SHOWN ARE MINIMUM.

PLUMBING FIXTURE SCHEDULE

FIXTURES IN THIS SCHEDULE OR THEIR APPROVED EQUIVALENT ARE PROVIDED BY THE PLUMBING CONTRACTOR. SUBMIT SHOP DRAWINGS ON EACH OF THESE ITEMS. REFER TO SPECIFICATIONS FOR FURTHER INFORMATION AND INSTALLATION REQUIREMENTS. VERIFY ROUGH-IN REQUIREMENTS WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS. REFER TO THE ARCHITECTURAL DRAWINGS FOR THE PLUMBING FIXTURE MOUNTING HEIGHTS.

PLUMBING FIXTURE SCHEDULE

PLUMBING PLAN MARK	DESCRIPTION
AD1	AREA DRAIN: JAY R. SMITH # 2120L (-M), CAST IRON BODY, HEAVY-DUTY, 8" DIAMETER, DUCTILE IRON GRATE, SEEPAGE PAN, AND MEMBRANE FLASHING CLAMP. USE PUSH-ON JOINT OR CAULK OUTLET OF SIZE AS SHOWN ON PLANS.
DCV1	DUAL CHECK VALVE WITH ATMOSPHERIC PORT: WATTS # SD-3, MEETING ASSE 1022 AND NSF 18, 316 STAINLESS STEEL BODY, 3/8" INLET AND OUTLET, ATMOSPHERIC PORT, AND WYE PATTERN STRAINER. PROVIDE 3/4" INDIRECT DRAIN FROM ATMOSPHERIC PORT AND DISCHARGE TO DRAIN WITH AIR GAP.
DSB1	DOWNSPOUT BOOT: JAY R. SMITH # 1785-24, 24" LONG CAST IRON BODY WITH CAST IRON SECURING STRAPS, 4" x 3" RECTANGULAR INLET, 2" CLEANOUT PLUG, AND 4" DIAMETER OUTLET.
ECO	EXTERIOR CLEANOUT: JAY R. SMITH # 4261L SERIES DUCO CAST IRON DOUBLE FLANGED HOUSING WITH HEAVY DUTY SECURED SCORIATED CAST IRON COVER WITH LIFTING DEVICE AND CLEANOUT BODY WITH ABS PLASTIC PLUG WITH GASKET SEAL AND PUSH-ON JOINT. REFER TO SPECIFICATIONS FOR INSTALLATION.
FCO	FLOOR CLEANOUT: JAY R. SMITH, CAST IRON BODY, FLASHING FLANGE WITH CLAMPING COLLAR, ABS PLUG, AND ADJUSTABLE, ROUND, SECURED, NICKEL BRONZE, TOP. # 4031L (-F-C), SCORIATED TOP FOR EXPOSED, FLUSH WITH FINISHED FLOOR, APPLICATION(S), # 4031L (-F-C-Y), STAINLESS STEEL MARKER FOR INSTALLATION IN CARPETED FLOOR AREA(S), # 4151 (-F-C), 1/8" RECESS FOR INSTALLATION IN TILED FLOOR AREA(S), # 4191 (-F-C), 1/2" RECESS FOR INSTALLATION IN TERRAZZO AND SIMILAR POURED FLOOR AREA(S). REFER TO SPECIFICATIONS FOR INSTALLATION.
FD1	FLOOR DRAIN: JAY R .SMITH # 2005L (-A), CAST IRON BODY AND CLAMPING COLLAR, ADJUSTABLE 6" ROUND NICKEL BRONZE STRAINER. USE PUSH-ON JOINT OF OUTLET SIZE AS SHOWN ON PLANS. TRAP SEAL: PROVIDE TRAP SEAL PER SPECIFICATIONS FOR ACTUAL FLOOR DRAIN MODEL AND SIZE.
FS1	FLOOR SINK: JAY R. SMITH # 3101L (-12), 6" DEEP CAST IRON BODY WITH ACID RESISTING ENAMELED INTERIOR, ANCHOR FLANGE WITH SEEPAGE HOLES, CLAMP COLLAR, WHITE ABS SEDIMENT BUCKET, AND 8-1/2" SQUARE NICKEL BRONZE RIM AND HALF GRATE. USE PUSH-ON JOINT OF OUTLET SIZE AS SHOWN ON PLANS.
JS1	JANITOR'S SINK: STERN-WILLIAMS # MTB-2424, 24" x 24" x 10" HIGH TERRAZZO BASIN WITH INTEGRAL STAINLESS STEEL DRAIN BODY. FAUCET: CHICAGO FAUCET # 897-CP FAUCET WITH WALL BRACE, INTEGRAL VACUUM BREAKER, PAIL HOOK, AND 3/4" MALE HOSE THREADED OUTLET. SECURE FAUCET IN WALL WITH BACKBOARD. TRIM: # BP TYPE 304, 20 GAUGE, STAINLESS STEEL WALL SURROUNDS, # T-35 THREE FOOT LONG REINFORCED HOSE WITH 3/4" CHROME COUPLING AND WALL HOOK, # V-70 EXTRUDED VINYL BUMPER GUARD, AND # T-40 24" STAINLESS STEEL MOP HANGER.
LV1	WALL-MOUNTED LAVATORY: AMERICAN STANDARD # 0355.012 "LUCERNE" 20-1/2" X 18-1/4" RECTANGULAR WALL MOUNTED WHITE VITREOUS CHINA FIXTURE WITH FAUCET LEDGE AND FRONT OVERFLOW. FAUCET: SLOAN "OPTIMA" # EBF-187-0.5 CENTERSET, VANDAL RESISTANT, 4" TRIM PLATE, BATTERY POWERED SENSOR OPERATED FAUCET WITH 0.5 GPM AERATOR. TRIM: McGUIRE # 155A GRID DRAIN WITH TAILPIECE, McGUIRE # 2165CCLK LOOSE KEY COMPRESSION ANGLE STOP VALVES WITH RISERS AND ESCUTCHEONS, McGUIRE # B8872CF 1-1/4" 17 GAUGE CAST CHROME PLATED BRASS ADJUSTABLE P-TRAP AND WASTE ARM WITH CLEANOUT PLUG AND ESCUTCHEON, CONCEALED ARM CARRIER WITH STANCHIONS TO FLOOR. THERMOSTATIC MIXING VALVE: POWERS # LFG480, SOLID LEAD FREE BRASS OR BRONZE BODY, THERMOSTATIC WAX ELEMENT, CORROSION RESISTANT INTERNAL PARTS, AND INTEGRAL CHECKS, ASSE 1070 COMPLIANT, CAPABLE OF 1.6 GPM WITH A 20 PSI DIFFERENTIAL AND A MINIMUM FLOW RATE OF 0.25 GPM. SET TEMPERATURE TO 110F FOR DUAL TEMPERATURE LAVATORIES AND HAND SINKS, 100F FOR SINGLE TEMPERATURE LAVATORIES AND HAND SINKS AND 120F FOR SINKS. MOUNT BELOW THE PLUMBING FIXTURE.
NW1	NON-FREEZE WALL HYDRANT: PRIER PRODUCTS # C-634NBX1, SATIN NICKEL PLATED BRASS 1" MALE INLET BY 3/4" FEMALE INLET, 3/4" THREADED HOSE CONNECTION, LOOSE KEY HANDLE, HYDRANT LENGTH AS REQUIRED FOR INSTALLED WALL THICKNESS, ADJUSTABLE WALL CLAMP, BRASS BOX WITH SATIN NICKEL PLATED FINISH AND INTEGRAL ASSE 1052 DOUBLE CHECK VACUUM BREAKER.
RPZ1	REDUCED PRESSURE ZONE BACKFLOW PREVENTER: WATTS # 957-NRS, MEETING ASSE 1013, 304 STAINLESS STEEL BODY AND SLEEVE, QUARTER TURN TEST COCKS, RESILIENT SEATED NON-RISING STEM GATE VALVES AND WATTS #77F-DI-FDA EPOXY COATED CAST IRON STRAINER AND # 957AG AIR GAP FITTING.
SK1	HAND SINK (ADA ACCESSIBLE): HAND SINK ADA ACCESSIBLE): ELKAY # #CHS-1716, 16-3/4"" X 15-1/2" RECTANGULAR, WALL MOUNTED, 18 GAUGE TYPE 304 STAINLESS STEEL, BACKSPLASH AND SIDE BRACKETS AND WALL MOUNTING BRACKET. FAUCET: CHICAGO FAUCET # 631-218017AB 8" BACK MOUNT FAUCET WITH 7 ¼" – 8 ¾" ADJUSTABLE "G" SUPPLY ARMS, VANDAL RESISTANT #317 WRISTBLADE HANDLES, GN2A GOOSENECK SPOUT, # E61VP .5 GPM VANDAL RESISTANT LAMINAR FLOW AERATOR, QUARTER TURN CERAMIC CARTRIDGES. TRIM: McGUIRE # "PRODRAIN2" GRID DRAIN WITH 1-1/2" 17 GUAGE TAILPIECE, McGUIRE # LF2165CCLK LEAD FREE BRASS LOOSE KEY COMPRESSION ANGLE STOP VALVES WITH RISERS AND ESCUTCHEONS, McGUIRE # B8912CF 1-1/2" 17 GAUGE CAST CHROME PLATED BRASS ADJUSTABLE P-TRAP AND WASTE ARM WITH CLEANOUT PLUG AND ESCUTCHEON, WALL BRACKET, PROVIDE BACKBOARD AND SECURE FIXTURE TO IT, AND PLUMBEREX "PRO-EXTREME"# X-4222 INSULATION KIT FOR WATER AND WASTE PIPES. THERMOSTATIC MIXING VALVE: POWERS # LFG480, SOLID LEAD FREE BRASS OR BRONZE BODY, THERMOSTATIC WAX ELEMENT, CORROSION RESISTANT INTERNAL PARTS, AND INTEGRAL CHECKS, ASSE 1070 COMPLIANT, CAPABLE OF 1.6 GPM WITH A 20 PSI DIFFERENTIAL AND A MINIMUM FLOW RATE OF 0.25 GPM. SET TEMPERATURE TO 110F FOR DUAL TEMPERATURE LAVATORIES AND HAND SINKS, 100F FOR SINGLE TEMPERATURE LAVATORIES AND HAND SINKS AND 120F FOR SINKS. MOUNT BELOW THE PLUMBING FIXTURE.
SK2	SINK: ELKAY # WNSF-8345-LR, THREE 15" x 24" x 14" DEEP COMPARTMENTS, LEFT AND RIGHT DRAINBOARDS, 8" HIGH BACKSPLASH, 14 GAUGE TYPE 304 STAINLESS STEEL, AND 16 GAUGE STAINLESS STEEL ADJUSTABLE LEGS. FAUCET: CHICAGO FAUCET #445-206578AB 3 3/8" BACK MOUNT FAUCET WITH 3" – 3 3/8" ADJUSTABLE "R" ARMS WITH INTEGRAL SHUT OFF, VANDAL RESISTANT # 369 LEVER HANDLES, L9 SWING SPOUT, # E1 FULL FLOW OUTLET, QUARTER TURN CERAMIC CARTRIDGES. TRIM: (3) ELKAY # LK24RT GRID STRAINERS WITH LEVER HANDLE AND 1-1/2" TAILPIECE, AND 1-1/2" HARD COPPER TYPE "DWV" FABRICATED INDIRECT WASTE LINE ROUTED TO FLOOR SINK.
T-1	TRANSFORMER: SLOAN # EL-154 120 VAC / 24 VAC, 50 VA. REFER TO ELECTRICAL DRAWINGS FOR WIRING OF TRANSFORMER.
TS1	TIME SWITCH: INTERMATIC #ET1705CSPST, 7 DAY, ONE CIRCUIT-SINGLE POLE SINGLE THROW, ELECTRONIC TIME SWITCH OR EQUAL BY TORK. TIME SWITCH SHALL BE MOTOR RATED (1 H.P. @ 120 VOLT, SINGLE PHASE), MINIMUM OF 20 SET POINTS (14 ON/OFF CYCLES) AND BATTERY BACK UP. COORDINATE WITH DIVISION 16 FOR INSTALLATION AND INTERLOCK OF TIME SWITCH IN SERIES WITH THE AQUASTAT AND RECIRCULATION PUMP.
UR1	URINAL: AMERICAN STANDARD # 6561.017 "TRIMBROOK" WHITE VITREOUS CHINA FIXTURE WITH FLUSHING RIM, 3/4" TOP SPUD, AND SIPHON FLUSH ACTION. VALVE- SLOAN "OPTIMA – SLOAN MODEL" # 186 ES-S TMO 1.0 GALLON PER FLUSH, EXPOSED, CHROME-PLATED, HARD WIRED, WALL MOUNTED SENSOR OPERATED, DIAPHRAGM TYPE, FLUSH VALVE LESS TRANSFORMER WITH CHLORAMINE RESISTANT DIAPHRAGM AND PROTECTED ORIFICE, MECHANICAL OVERRIDE BUTTON, ESCUTCHEON, INTEGRAL SCREWDRIVER STOP, VACUUM BREAKER, 3/4" FLUSH TUBE, AND SWEAT ADAPTER KIT. TRIM: SUITABLE CARRIER WITH STANCHIONS TO FLOOR.
UR2	URINAL (ADA ACCESSIBLE): AMERICAN STANDARD # 6561.017 "TRIMBROOK" WHITE VITREOUS CHINA FIXTURE WITH FLUSHING RIM, 3/4" TOP SPUD, AND SIPHON FLUSH ACTION. VALVE- SLOAN "OPTIMA – SLOAN MODEL" # 186 ES-S TMO 1.0 GALLON PER FLUSH, EXPOSED, CHROME-PLATED, HARD WIRED, WALL MOUNTED SENSOR OPERATED, DIAPHRAGM TYPE, FLUSH VALVE LESS TRANSFORMER WITH CHLORAMINE RESISTANT DIAPHRAGM AND PROTECTED ORIFICE, MECHANICAL OVERRIDE BUTTON, ESCUTCHEON, INTEGRAL SCREWDRIVER STOP, VACUUM BREAKER, 3/4" FLUSH TUBE, AND SWEAT ADAPTER KIT. TRIM: SUITABLE CARRIER WITH STANCHIONS TO FLOOR.
WC1	WALL-MOUNTED WATER CLOSET: AMERICAN STANDARD # 3351.101 "AFWALL MILLENNIUM FLOWISE" WHITE VITREOUS CHINA FIXTURE WITH ELONGATED UNIVERSAL BOWL AND DIRECT-FED SIPHON JET ACTION. VALVE- SLOAN "OPTIMA – SLOAN MODEL" # 111-1.6 ES-S TMO 1.6 GALLON PER FLUSH, EXPOSED, CHROME-PLATED, HARD WIRED, SENSOR OPERATED, DIAPHRAGM TYPE, FLUSH VALVE LESS TRANSFORMER WITH CHLORAMINE RESISTANT DIAPHRAGM AND PROTECTED ORIFICE, MANUAL OVERRIDE, ESCUTCHEON, INTEGRAL SCREWDRIVER STOP, VACUUM BREAKER, AND SWEAT ADAPTER KIT. TRIM- CHURCH # 9500SSCT WHITE OPEN-FRONT CONTOURED, SOLID PLASTIC, HEAVY DUTY, SEAT LESS COVER WITH SELF-SUSTAINING CHECK HINGES AND STAINLESS STEEL BOLTS. PROVIDE SUITABLE FIXTURE CARRIER.
WC2	WALL-MOUNTED WATER CLOSET (ADA ACCESSIBLE): AMERICAN STANDARD # 3351.101 "AFWALL MILLENNIUM FLOWISE WHITE VITREOUS CHINA FIXTURE WITH ELONGATED UNIVERSAL BOWL AND DIRECT-FED SIPHON JET ACTION. VALVE- SLOAN "OPTIMA – SLOAN MODEL" # 111-1.6 ES-S TMO 1.6 GALLON PER FLUSH, EXPOSED, CHROME-PLATED, HARD WIRED, SENSOR OPERATED, DIAPHRAGM TYPE, FLUSH VALVE LESS TRANSFORMER WITH CHLORAMINE RESISTANT DIAPHRAGM AND PROTECTED ORIFICE, MANUAL OVERRIDE, ESCUTCHEON, INTEGRAL SCREWDRIVER STOP, VACUUM BREAKER, AND SWEAT ADAPTER KIT. INSTALL FLUSH VALVE HANDLE ON THE WIDE SIDE OF THE STALL. TRIM- CHURCH # 9500SSCT WHITE OPEN-FRONT CONTOURED, SOLID PLASTIC, HEAVY DUTY, SEAT LESS COVER WITH SELF-SUSTAINING CHECK HINGES AND STAINLESS STEEL BOLTS. PROVIDE SUITABLE FIXTURE CARRIER.
WCO	WALL CLEANOUT: SIOUX CHIEF #873 SERIES, BRASS COUNTERSUNK PLUG, 20 GAUGE STAINLESS STEEL COVER AND SCREW. CLEANOUT TEE TO BE PROVIDED SEPARATELY. REFER TO SPECIFICATIONS FOR INSTALLATION.
WHA	WATER HAMMER ARRESTER: PRECISION PLUMBING PRODUCTS, HARD DRAWN COPPER BODY WITH WROUGHT COPPER FITTINGS, PISTON TYPE WITH LUBRICATED EPDM "O" RING SEALS, MEETING ASSE 1010 OR PDI WH-201. PROVIDE PDI SIZES "A" THROUGH "F" AS SHOWN ON PLANS. PROVIDE SIZE "A" UNLESS SHOWN OTHERWISE ON THE PLANS.

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Lee's Summit R7 District
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EXPIRES 12/31/2020

STATE OF MISSOURI
KELLEY P. CRAMM
NUMBER
E-22323
REGISTERED PROFESSIONAL ENGINEER

Nov 6 2020

REVISIONS

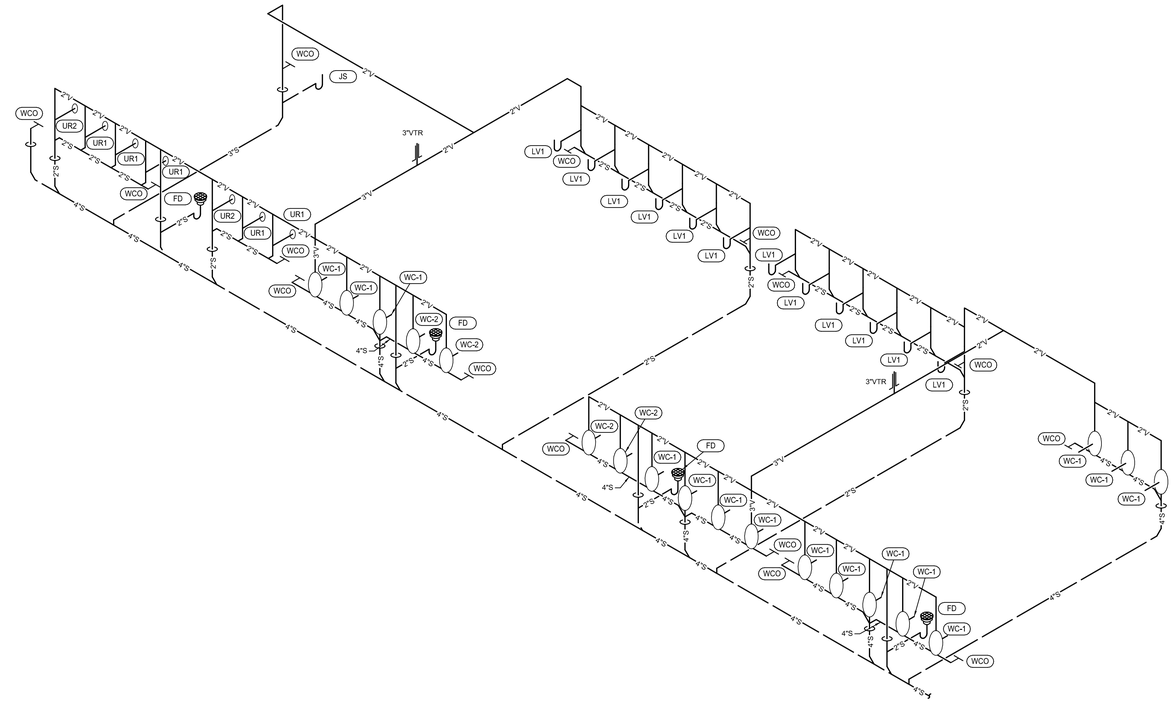
NUMBER	DESCRIPTION	DATE
1	Addendum 3	10.23.2020

PROJECT NO: 0119-0101
DATE: September 28, 2020

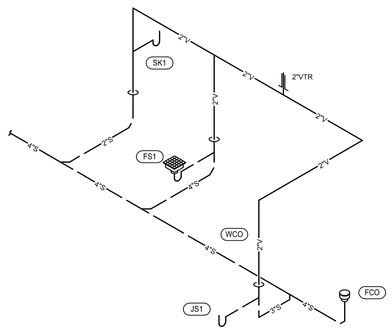
PLUMBING SCHEDULES

H-P600

BID SET



1 PLUMBING RESTROOM WASTE AND VENT RISER
NTS



2 PLUMBING CONCESSION WASTE AND VENT RISER
NTS

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KELLEY P. CRAMM

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EXPIRES 12/31/2020

STATE OF MISSOURI
KELLEY P. CRAMM
NUMBER E-22323
REGISTERED PROFESSIONAL ENGINEER

Sep 25 2020

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

PLUMBING RISERS

H-P700

BID SET

MECHANICAL SYMBOLS

THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED. V2.06

STANDARD MOUNTING HEIGHT

THERMOSTATS (USER ADJUSTABLE)(TOP OF DEVICE)	48"
CONTROLS (TOP OF DEVICE)	48"

INSTALL DEVICES AT THE MOUNTING HEIGHTS SHOWN ABOVE UNO IN THE CONSTRUCTION DOCUMENTS. MOUNTING HEIGHTS LISTED ABOVE OR ELSEWHERE IN THE CONSTRUCTION DOCUMENTS ARE AFF OR AFG TO BOTTOM OF DEVICE UNO. ALL DEVICES SHALL BE INSTALLED IN COMPLIANCE WITH CURRENT ADA AND LOCAL REQUIREMENTS.

ANNOTATION

- 1 — MECHANICAL PLAN NOTE CALLOUT
- CU 1 — MECHANICAL EQUIPMENT DESIGNATION (CONTRACTOR FURNISHED AND INSTALLED UNLESS NOTED OTHERWISE)
- CONNECTION POINT OF NEW WORK TO EXISTING
- 1 M1 — DETAIL REFERENCE. UPPER NUMBER INDICATES DETAIL NUMBER LOWER NUMBER INDICATES SHEET NUMBER
- 1 M1 — SECTION CUT DESIGNATION

ABBREVIATIONS

A/C	AIR CONDITIONING
ACC	AIR COOLED CHILLER
ACCU	AIR COOLED CONDENSING UNIT
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLING UNIT
AI	ANALOG INPUT
AO	ANALOG OUTPUT
AP	ACCESS PANEL
APD	AIR PRESSURE DROP
AWG	AMERICAN WIRE GAUGE
B	BOILER
BAS	BUILDING AUTOMATION SYSTEM
BB	BACKBONE
BD	BACKDRAFT DAMPER
BD	BLOWDOWN
BFC	BELOW FINISHED CEILING
BFF	BELOW FINISHED FLOOR
BFG	BELOW FINISHED GRADE
BFP	BOILER FEED PUMP
BHP	BRAKE HORSEPOWER
BI	BINARY INPUT
BO	BINARY OUTPUT
BOD	BOTTOM OF DUCT
BOS	BOTTOM OF STRUCTURE
BTU	BRITISH THERMAL UNIT
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CLG	COOLING
CP	CONDENSATE PUMP
CPT	CONTROL POWER TRANSFORMER
CRAC	COMPUTER ROOM AIR CONDITIONING UNIT
CRU	COMPUTER ROOM UNIT
CT	COOLING TOWER
CV	CONTROL VALVE
CWP	CONDENSER WATER PUMP
CU	CONDENSING UNIT
CHWP	CHILLED WATER PUMP
DB	DECIBELS
DBA	DECIBEL AVERAGE
DDC	DIRECT DIGITAL CONTROL
DI	DIGITAL INPUT
DISC	DISCONNECT
DN	DOWN
DS	DUCT SILENCER
DX	DIRECT EXPANSION
(E)	EXISTING
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
ED	EXHAUST DUCT
EDB	ENTERING DRY BULB
EF	EXHAUST FAN
EFF	EFFICIENCY
EMS	ENERGY MANAGEMENT SYSTEM
ESP	EXTERNAL STATIC PRESSURE
ETR	EXISTING TO REMAIN
EWB	ENTERING WET BULB
EWT	ENTERING WATER TEMPERATURE
FCU	FAN COIL UNIT
FFA	FROM FLOOR ABOVE
FFB	FROM FLOOR BELOW
FF	FINISHED FLOOR
FPI	FINS PER INCH
FPM	FEET PER MINUTE
GC	GENERAL CONTRACTOR
GPM	GALLONS PER MINUTE
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HTG	HEATING
HWP	HEATING WATER PUMP
IN WC	INCHES OF WATER COLUMN
L	LOUVER
LAT	LEAVING AIR TEMPERATURE
LDB	LEAVING DRY BULB
LP	LOW PRESSURE
LWB	LEAVING WET BULB
LWT	LEAVING WATER TEMPERATURE
MAU	MAKE-UP AIR UNIT
MAX	MAXIMUM
MBH	1000 BTU PER HOUR
MD	MOTORIZED DAMPER
MFR	MANUFACTURER
MIN	MINIMUM
N/A	NOT APPLICABLE
N/C	NORMALLY CLOSED
N/O	NORMALLY OPEN
NOM	NOMINAL
NC	NOISE CRITERIA
NF	NON-FUSED
NIC	NOT IN CONTRACT
OA	OUTSIDE AIR
PICV	PRESSURE INDEP. CONTROL VALVE
PROVIDE	FURNISH AND INSTALL
QTY	QUANTITY
RA	RETURN AIR
RC	ROOM CRITERIA
RD	RETURN DUCT
REA	RELIEF AIR
RF	RETURN FAN
RFR	REFRIGERANT
RH	RELATIVE HUMIDITY
RH	ROOF HOOD
RPM	REVOLUTIONS PER MINUTE
RTU	ROOFTOP UNIT
SA	SUPPLY AIR
SCP	STEAM CONDENSATE PUMP
SD	SMOKE DUCT DETECTOR
SD	SUPPLY DUCT
SF	SUPPLY FAN
SH	SENSIBLE HEAT CAPACITY
SOW	SCOPE OF WORK
SP	STATIC PRESSURE
ST	STEAM TRAP
STM	STEAM
TBD	TO BE DETERMINED
TC/C	TEMPERATURE CONTROLS CONTRACTOR
TCP	TEMPERATURE CONTROL PANEL
TF	TRANSFER FAN
TFA	TO FLOOR ABOVE
TFB	TO FLOOR BELOW
TH	TOTAL HEAT CAPACITY
TSP	TOTAL STATIC PRESSURE
TT	TEMPERATURE TRANSMITTAL
TYP	TYPICAL
U/F	UNDERFLOOR
U/G	UNDERGROUND
U/S	UNDERSLAB
UH	UNIT HEATER
UNO	UNLESS NOTED OTHERWISE
VAV	VARIABLE AIR VOLUME
VEL	VELOCITY
VFD	VARIABLE FREQUENCY DRIVE
VRF	VARIABLE REFRIGERANT FLOW
VRV	VARIABLE REFRIGERANT VOLUME
W/	WITH
W/O	WITHOUT
WB	WET BULB
WC	WATER COLUMN
WPD	WATER PRESSURE DROP
XP	EXPLOSION PROOF

HVAC DUCTWORK AND ACCESSORIES

- LINEAR SLOT DIFFUSER
- INSULATED FLEXIBLE DUCT (MAX. 5'-0" LONG)
- BRANCH DUCT WITH 45° RECTANGLE-ROUND BRANCH FITTING AND MANUAL VOLUME DAMPER
- ELBOW WITH TURNING VANES
- BRANCH DUCT WITH BELL-MOUTH FITTING & MANUAL VOLUME CONTROL DAMPER
- RETURN, EXHAUST, OR OUTSIDE AIR DUCT UP
- RETURN, EXHAUST, OR OUTSIDE AIR DUCT DOWN
- SUPPLY AIR DUCT UP
- SUPPLY AIR DUCT DOWN
- EQUIPMENT WITH FLEXIBLE DUCT CONNECTION
- 10" (NECK SIZE) CSD-1 (TYPE) 300 CFM (CFM OF SUPPLY DIFFUSER OR REGISTER)
- 24x24 (NECK SIZE) CEG-1 (TYPE) 800 CFM (CFM OF EXHAUST GRILLE)
- MANUAL VOLUME DAMPER
- SQUARE TO ROUND TRANSITION
- RD 1 — DUCT MOUNTED SMOKE DETECTOR (SD=SUPPLY/RD=RETURN)
- XX" Ø — ROUND DUCT TAG INDICATING DIAMETER
- XX" x XX" — RECTANGULAR DUCT TAG INDICATING INTERNAL DUCT DIMENSIONS.
- XX" / XX" — FLAT OVAL DUCT TAG INDICATING INTERNAL DUCT DIMENSIONS
- R — RISER DESIGNATION
- FD — FIRE DAMPER
- FSD — FIRE SMOKE DAMPER
- SD — SMOKE DAMPER
- VD — VOLUME DAMPER
- MD — MOTORIZED DAMPER
- BD — BACKDRAFT DAMPER

ALL DUCT DIMENSIONS SHOWN ON DRAWINGS ARE INSIDE DIMENSIONS. REFER TO DUCTWORK SPECIFICATIONS FOR DUCTWORK INSULATION AND LINER INFORMATION.

HVAC CONTROL DEVICES

- H — HUMIDISTAT
- T — THERMOSTAT
- SP — STATIC PRESSURE SENSOR
- TS — TEMPERATURE SENSOR
- CO — CARBON MONOXIDE SENSOR
- CO2 — CARBON DIOXIDE SENSOR
- DP — DIFFERENTIAL PRESSURE SENSOR
- FS — FLOW SWITCH
- HS — HUMIDITY SENSOR
- PS — PULL STATION
- RT — REMOTE TESTING STATION WITH INDICATING LIGHT
- SP — STATIC PRESSURE
- TS — TEMPERATURE SENSOR

PIPING SYMBOLS

- DIRECTION OF FLOW
- CONTROL VALVE
- THREE-WAY CONTROL VALVE
- SHUTOFF VALVE
- CHECK VALVE
- BALANCING VALVE WITH PRESSURE PORTS
- TRIPLE DUTY VALVE WITH PRESSURE PORTS
- STRAINER
- STRAINER WITH BLOWDOWN VALVE
- RELIEF / SAFETY VALVE
- SOLENOID VALVE
- PRESSURE REDUCING VALVE
- GAS PRESSURE REGULATOR
- THERMOSTATIC MIXING VALVE
- PA — PIPE ANCHOR
- EJ — EXPANSION JOINT
- PIPE GUIDE
- PIPING SUPPORT
- F & T TRAP
- BUCKET TRAP
- THERMOSTATIC TRAP
- BACKFLOW PREVENTER
- PRESSURE GAUGE
- THERMOMETER
- PRESSURE AND TEMPERATURE TEST PLUG
- UNION
- FLANGE CONNECTION
- VACUUM RELIEF VALVE
- AV — AUTOMATIC AIR VENT
- MV — MANUAL AIR VENT
- PRESSURE / VACUUM SWITCH
- CLEANOUT
- CAP
- ELBOW UP
- ELBOW DOWN
- TEE UP
- TEE DOWN
- ELBOW UP WITH SHUT-OFF VALVE (SOV)
- ELBOW DOWN WITH SHUT-OFF VALVE (SOV)
- TEE UP WITH SHUT-OFF VALVE (SOV)
- TEE DOWN WITH SHUT-OFF VALVE (SOV)
- REDUCER
- RECIRCULATION PUMP
- P-TRAP
- GAS COCK
- TOP BEAM CLAMP
- TRAPEZE HANGER
- FLEXIBLE CONNECTION

PIPING LINETYPES

- CD — CONDENSATE DRAIN (CD)
- ACD — AUXILIARY CONDENSATE DRAIN (ACD)
- NPW — NON-POTABLE WATER (NPW)
- G — NATURAL GAS (G)
- G — NATURAL GAS ON ROOF (G)
- MPG — MEDIUM PRESSURE NATURAL GAS (MPG)
- MPG — MEDIUM PRESSURE NATURAL GAS ON ROOF (MGP)
- FOS — FUEL OIL SUPPLY (FOS)
- FOR — FUEL OIL RETURN (FOR)
- FOV — FUEL OIL VENT (FOV)
- LPG — LIQUEFIED PETROLEUM GAS (LPG)
- BFW — BOILER FEED WATER (BFW)
- HPS — HIGH PRESSURE STEAM SUPPLY (HPS)
- HPC — HIGH PRESSURE STEAM CONDENSATE (HPC)
- LPS — LOW PRESSURE STEAM SUPPLY (LPS)
- LPC — LOW PRESSURE STEAM CONDENSATE (LPC)
- PD — CONDENSATE PUMP DISCHARGE (PD)
- HWS — HEATING HOT WATER SUPPLY (HWS)
- HWR — HEATING HOT WATER RETURN (HWR)
- CHWS — CHILLED WATER SUPPLY (CHWS)
- CHWR — CHILLED WATER RETURN (CHR)
- HCS — HOT / CHILLED WATER SUPPLY (HCS)
- HCR — HOT / CHILLED WATER SUPPLY (HCR)
- CWS — CONDENSER WATER SUPPLY (CWS)
- CWR — CONDENSER WATER RETURN (CWR)
- HPWS — HEAT PUMP WATER SUPPLY (HPWS)
- HPWR — HEAT PUMP WATER RETURN (HPWR)
- RL — REFRIGERANT LIQUID (RL)
- RD — REFRIGERANT DISCHARGE (HOT GAS) (RD)
- RS — REFRIGERANT SUCTION (RS)
- RDB — REFRIGERANT DISCHARGE BYPASS (RDB)
- RV — REFRIGERANT VENT (RV)

LINETYPE LEGEND

THROUGHOUT THE DRAWINGS DIFFERENT LINETYPES ARE USED IN COMBINATION WITH THE SYMBOLS TO INDICATE THE STATUS OF ITEMS AS EXISTING, TO BE DEMOLISHED, TO BE INCLUDED AS PART OF NEW WORK AND/OR ITEMS WHICH ARE ANTICIPATED TO BE PROVIDED IN THE FUTURE. THE STATUS OF ITEMS USING THESE LINETYPES ARE RELATIVE TO THE VIEW IN WHICH THEY APPEAR. PHASING SHOWN IN DRAWINGS IS NOT INTENDED TO FULLY DESCRIBE ALL NECESSARY CONSTRUCTION PHASING, WHICH IS DETERMINED BY THE CONTRACTOR AS PART OF THEIR RESPONSIBILITIES. ANY SUCH PHASES DESCRIBED IN THE CONSTRUCTION DOCUMENTS ARE GENERAL AND ONLY INTENDED TO INDICATE A BROAD ORDER FOR THE SAKE OF DESCRIBING THE PROJECT. THE FOLLOWING LINETYPES MAY BE USED ON ANY DEVICE, EQUIPMENT, NOTE, LINE, SHAPE, ETC.

EXISTING	NEW
DEMOLISH	FUTURE

GENERAL NEW NOTES:

1. PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS OF THE PROJECT. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND OTHER DRAWINGS FOR ADDITIONAL REQUIREMENTS WHICH MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT, ENGINEER AND/OR OWNER OF CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
2. EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL DRAWINGS AND SITE VISITS AND MAY NOT REFLECT EXACT "AS-BUILT" EXISTING CONDITIONS. FIELD VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING FINAL BIDS. COORDINATE NEW WORK AND DEMOLITION WITH OTHER DISCIPLINES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
3. COORDINATE THE INSTALLATION OF THE MECHANICAL SYSTEMS WITH OTHER TRADES TO ENSURE A NEAT AND ORDERLY INSTALLATION. INSTALL DUCTWORK AND PIPING AS TIGHT TO STRUCTURE AS POSSIBLE. COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS. COORDINATE INSTALLATION OF DUCTWORK AND PIPING TO AVOID CONFLICTS WITH ELECTRICAL PANELS, LIGHTING FIXTURES, ETC. ANY MODIFICATIONS REQUIRED DUE TO LACK OF COORDINATION WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO EXTRA COST TO THE OWNER.
4. WHERE SHUTDOWN OF EXISTING SYSTEMS IS REQUIRED DURING NEW WORK, COORDINATE SHUTDOWN TIME AND DURATION WITH THE OWNER TO MINIMIZE DOWNTIME. NOTIFY OWNER SEVEN (7) DAYS PRIOR TO INTERRUPTION OF SERVICE.
5. DURING INSTALLATION OF NEW WORK, AVOID DAMAGING EXISTING SURFACES AND EQUIPMENT TO REMAIN. REPAIR DAMAGE CAUSED DURING CONSTRUCTION AT NO EXTRA COST TO THE OWNER.
6. PROVIDE TEMPORARY BARRIERS TO CONTAIN DUST AND DEBRIS RESULTING FROM THE PERFORMANCE OF THE WORK TO THE AREA WHERE WORK IS BEING PERFORMED.
7. ALL MECHANICAL EQUIPMENT SHOWN ON THE MECHANICAL PLANS SHALL BE PROVIDED BY DIVISION 23 UNLESS OTHERWISE NOTED.
8. NEW MECHANICAL EQUIPMENT, DUCTWORK AND PIPING ARE SHOWN AT APPROXIMATE LOCATIONS. FIELD MEASURE FINAL DUCTWORK AND PIPING LOCATIONS PRIOR TO FABRICATION AND MAKE ADJUSTMENTS AS REQUIRED TO FIT THE DUCTWORK AND PIPING WITHIN THE AVAILABLE SPACE. VERIFY THAT FINAL EQUIPMENT LOCATIONS MEET MANUFACTURER'S RECOMMENDATIONS REGARDING SERVICE CLEARANCE AND PROPER AIRFLOW CLEARANCE AROUND EQUIPMENT.
9. REFER TO ARCHITECTURAL DRAWINGS FOR RELATED CONSTRUCTION DETAILS AS APPLICABLE TO THE HVAC SYSTEM. VERIFY CHASES AND PENETRATIONS SHOWN ON ARCHITECTURAL DRAWINGS THAT ARE INTENDED FOR DUCTWORK AND PIPING MEET REQUIREMENTS.
10. INDOOR AIR QUALITY MEASURES: PROTECT INSIDE OF (INSTALLED AND DELIVERED) DUCTWORK AND HVAC UNITS FROM EXPOSURE TO DUST, DIRT, PAINT AND MOISTURE. REPLACE INSULATION THAT HAS BECOME WET AT ANY TIME DURING CONSTRUCTION, DRYING THE INSULATION IS NOT ACCEPTABLE. SEAL ANY TEARS OR JOINTS OF INTERNAL FIBERGLASS INSULATION. REMOVE DEBRIS FROM CEILING/RETURN AIR PLENUM INCLUDING DUST. AN INDEPENDENT, PROFESSIONAL DUCT CLEANING COMPANY SHALL VACUUM CLEAN ANY DUCTWORK CONNECTED TO HVAC UNITS THAT WERE OPERATED DURING THE CONSTRUCTION PERIOD AFTER NEW FILTERS ARE INSTALLED AND PRIOR TO TURNING SYSTEM OVER TO THE OWNER. THE INTERNAL SURFACES AND ASSOCIATED COILS OF ANY HVAC UNITS THAT WERE OPERATED SHALL ALSO BE CLEANED.
11. INSTALL DUCTWORK AND PIPING PARALLEL TO BUILDING COLUMN LINES UNLESS OTHERWISE SHOWN OR NOTED.
12. OVERHEAD HANGERS AND SUPPORTS FOR EQUIPMENT, DUCTWORK AND PIPING SHALL BE FASTENED TO BUILDING JOISTS OR BEAMS. DO NOT ATTACH HANGERS AND SUPPORTS TO THE ABOVE FLOOR SLAB OR ROOF EXCEPT WHERE CONCRETE INSERTS IN CONCRETE SLABS ARE ALLOWED BY THE SPECIFICATIONS.
13. COORDINATE LOCATION OF EQUIPMENT SUPPORTS WITH LOCATION OF EQUIPMENT ACCESS PANELS/DOORS TO ENABLE SERVICE OF EQUIPMENT AND/OR FILTER REPLACEMENT.
14. SEAL PENETRATIONS THROUGH THE BUILDING COMPONENTS IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS. FIREPROOF PENETRATIONS THROUGH FIRE RATED COMPONENTS IN ACCORDANCE WITH U.L. REQUIREMENTS.
15. COORDINATE THE EXACT MOUNTING SIZE AND FRAME TYPE OF DIFFUSERS, REGISTERS AND GRILLES WITH THE SUPPLIER TO MEET THE CEILING, WALL AND DUCT INSTALLATION REQUIREMENTS.
16. ADJUST LOCATION OF CEILING DIFFUSERS, REGISTERS AND GRILLES AS REQUIRED TO ACCOMMODATE FINAL CEILING GRID AND LIGHTING LOCATIONS.
17. PAINT PORTIONS OF DUCTWORK AND INSULATION THAT ARE EXPOSED TO VIEW BY THE INSTALLATION OF DIFFUSERS, REGISTERS, AND GRILLES IN CEILINGS OR WALLS FLAT BLACK. PORTIONS INCLUDE BOTH THE INTERIOR OF UNLINED DUCTWORK AND THE EXTERIOR OF DUCTWORK AND INSULATION.
18. DUCTWORK CROSSING FIRE RATED WALLS OR OTHER FIRE RATED ASSEMBLIES SHALL BE MINIMUM 26 GAUGE SHEET METAL.
19. LOCATE AND SET THERMOSTATS AT LOCATIONS SHOWN ON PLANS. VERIFY EXACT LOCATIONS WITH ARCHITECT PRIOR TO INSTALLATION. INSTALL DEVICES WITH TOP OF DEVICE AT MAXIMUM 48" AFF TO MEET ADA REQUIREMENTS UNLESS NOTED OTHERWISE ON PLANS. PROVIDE INSULATED BACKING FOR THERMOSTATS MOUNTED ON EXTERIOR BUILDING WALLS. INSTALL WIRING IN CONDUIT PROVIDED BY DIVISION 26. AT A MINIMUM, PROVIDE CONDUIT IN THE WALL FROM THE JUNCTION BOX TO 6" ABOVE THE CEILING.
20. COORDINATE THE LOCATION AND ELEVATION OF WALL-MOUNTED DEVICES WITH PRESENTATION BOARDS, DISPLAY CABINETS, SHELVES OR OTHER COMPONENTS SHOWN ON THE ARCHITECTURAL DRAWINGS THAT ARE TO BE INSTALLED UNDER OTHER DIVISIONS. CONTRACTOR WILL NOT BE REIMBURSED FOR RELOCATION OF WALL-MOUNTED DEVICES CAUSED BY A LACK OF COORDINATION.
21. PROVIDE A MANUAL BALANCING DAMPER IN EACH DUCT TAKEOFF FROM SUPPLY, RETURN, OUTDOOR AND EXHAUST AIR DUCTS.
22. BRANCH DUCTWORK TO AIR OUTLETS SHALL BE SAME SIZE AS OUTLET NECK SIZE UNLESS OTHERWISE NOTED.
23. REFER TO SPECIFICATIONS FOR DUCTWORK AND PIPING INSULATION REQUIREMENTS. DUCT SIZES ON MECHANICAL PLANS INDICATE CLEAR INSIDE AIRFLOW DIMENSIONS. INCREASE SHEET METAL SIZES ACCORDINGLY TO ACCOUNT FOR THICKNESS OF DUCT LINER.
24. RIGIDLY SUSPEND UNIT HEATER FROM STRUCTURE WITH SUPPORTING ANGLES AND ALL-THREAD HANGING RODS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
25. PROVIDE WALL MOUNTED LOUVERS AND DAMPERS WITH SUITABLE MOUNTING FRAME TO MATCH WALL CONSTRUCTION. COORDINATE WITH ARCHITECTURAL DRAWINGS.
26. PROVIDE A NEW SET OF AIR FILTERS IN UNITS PRIOR TO TESTING, ADJUSTING AND BALANCING AND BEFORE TURNING SYSTEM(S) OVER TO OWNER.

Sheet List - Mechanical

Sheet Number	Sheet Name
H-M000	MECHANICAL GENERAL NOTES AND LEGEND
H-M111	HOME PRESS BOX - HVAC PLANS
H-M121	HOME GATEWAY - HVAC PLANS
H-M131	VISITOR TICKET BOOTH - HVAC PLANS
H-M500	MECHANICAL DETAILS
H-M600	MECHANICAL SCHEDULES & CONTROLS

Grand total: 6

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EXPIRES 12/31/2020

STATE OF MISSOURI — KELLEY P. CRAMM — NUMBER E-22323 — PROFESSIONAL ENGINEER

Sep 25 2020

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

MECHANICAL GENERAL NOTES AND LEGEND

H-M000

BID SET

PRINT DATE/TIME: 9/25/2020 1:51:35 PM

KELLEY P. CRAMM

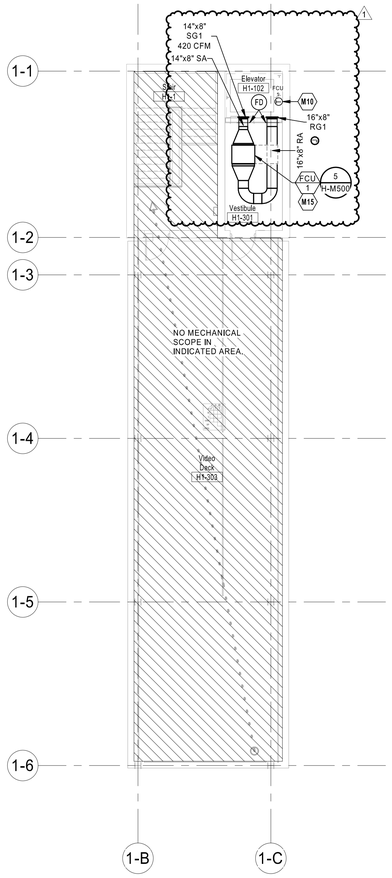
MECHANICAL PLAN NOTES:

M3 INSTALL FAN POWERED TERMINAL HEATER ON FLOOR.

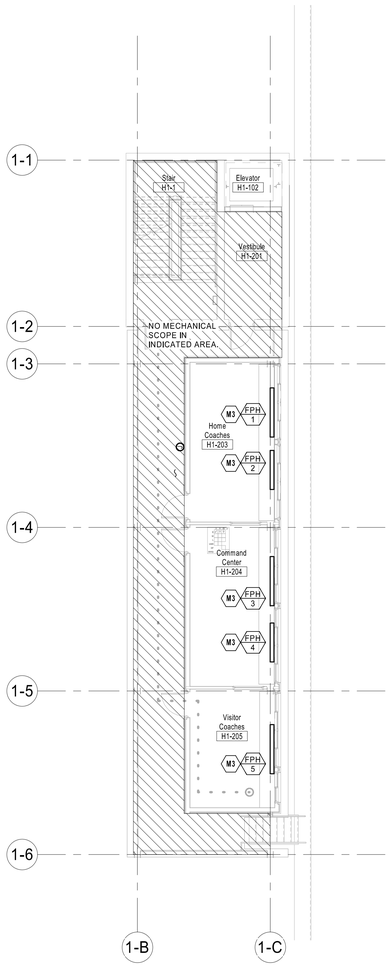
M10 INSTALL THERMOSTAT IN ACCESSIBLE LOCATION WITHIN THE ELEVATOR SHAFT AS CLOSE AS POSSIBLE TO ELEVATOR CONTROLLER.

M14 INSTALL CONDENSING UNIT ON WALL 12"-0" ABOVE FINISHED GRADE. ROUTE REFRIGERANT PIPING INSIDE AND UP THE INTERIOR OF THE BUILDING. REFER TO SPECIFICATIONS AND MANUFACTURER REQUIREMENTS.

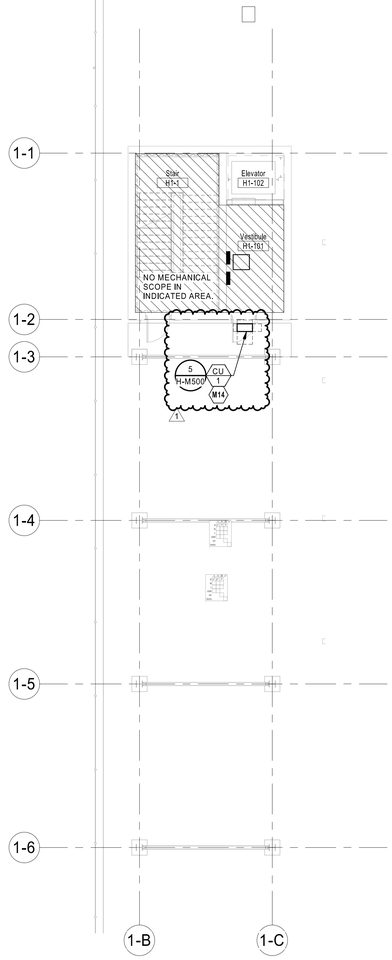
M15 INSTALL FAN COIL UNIT SUSPENDED FROM STRUCTURE. REFER TO SPECIFICATIONS AND MANUFACTURER REQUIREMENTS.



③ HOME PRESS BOX - LEVEL 3 HVAC PLAN
1/8" = 1'-0"

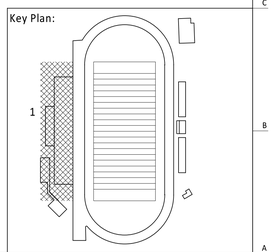


② HOME PRESS BOX - LEVEL 2 HVAC PLAN
1/8" = 1'-0"



① HOME PRESS BOX - HVAC PLAN
1/8" = 1'-0"

Key Plan:



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STATE OF MISSOURI
KELLEY P. CRAMM
NUMBER E-22323
REGISTERED PROFESSIONAL ENGINEER

Nov 6 2020

REVISIONS

NUMBER	DESCRIPTION	DATE
1	Addendum 3	10.23.2020

PROJECT NO: 0119-0101
DATE: September 28, 2020

HOME PRESS BOX - HVAC PLANS

H-M111

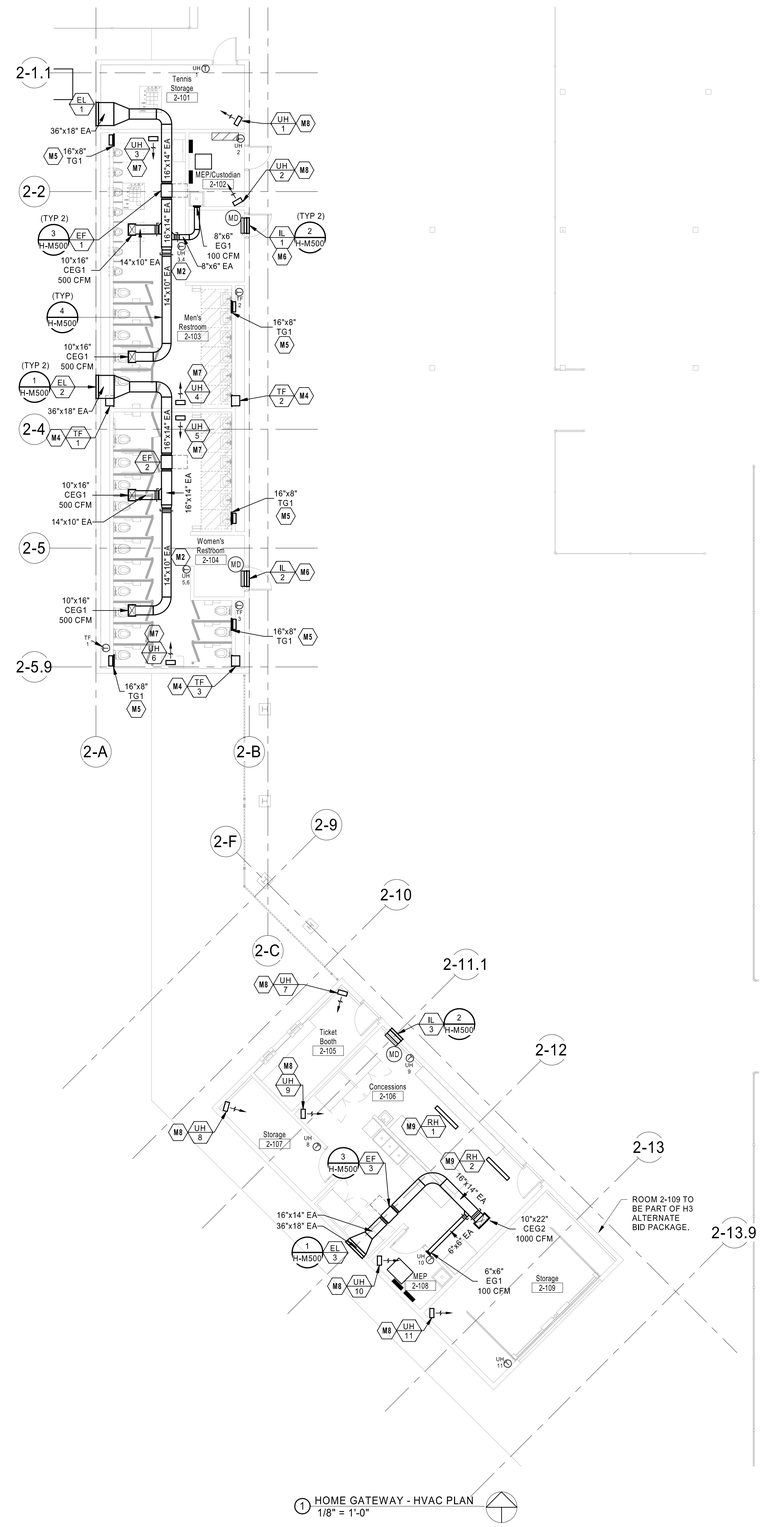
BID SET

PRINT DATE/TIME: 11/6/2020 2:33:38 PM

KELLEY P. CRAMM

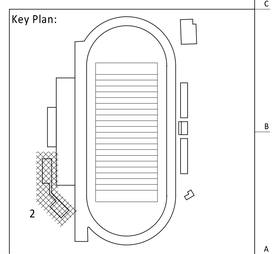
MECHANICAL PLAN NOTES:

M2 PROVIDE VANDAL-PROOF COVER ON THERMOSTAT.
M4 INSTALL TRANSFER FAN IN CMU BLOCK CAVITY HIGH ON WALL.
M5 INSTALL TRANSFER GRILLE LOW AS POSSIBLE ON WALL AS NOT TO INTERFERE WITH PLUMBING FIXTURES OR OTHER DISCIPLINES.
M6 INSTALL INTAKE LOUVER ABOVE DOORWAY.
M7 INSTALL UNIT HEATER ON WALL AT 8'-0" AFF.
M8 SUSPEND UNIT HEATER FROM STRUCTURE ACCORDING TO MANUFACTURER REQUIREMENTS AND SPECIFICATIONS.
M9 INSTALL RADIANT HEATER RECESSED IN CEILING. COORDINATE FINAL LOCATION WITH LIGHTING.



1 HOME GATEWAY - HVAC PLAN
1/8" = 1'-0"

Key Plan:



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STATE OF MISSOURI
KELLEY P. CRAMM
NUMBER E-22323
REGISTERED PROFESSIONAL ENGINEER

Sep 25 2020

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

HOME GATEWAY - HVAC PLANS

H-M121

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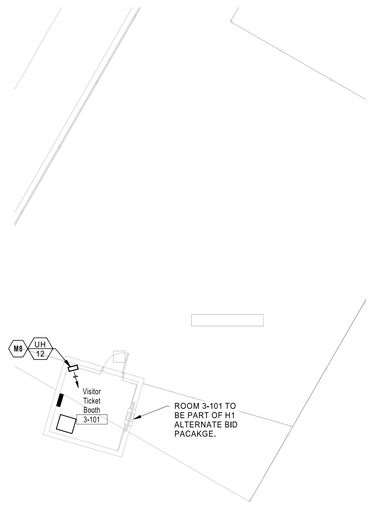
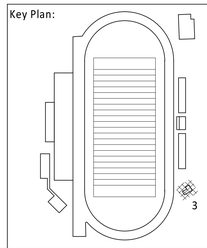
MECHANICAL PLAN NOTES:

M8 SUSPEND UNIT HEATER FROM STRUCTURE ACCORDING TO MANUFACTURER REQUIREMENTS AND SPECIFICATIONS.



1 VISITOR TICKET BOOTH - HVAC PLAN
1/8" = 1'-0"

Key Plan:



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MO. CORPORATE NO: E-556D
EXPIRES 12/31/2020

STATE OF MISSOURI
KELLEY P. CRAMM
NUMBER E-22323
PROFESSIONAL ENGINEER

Sep 25 2020

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

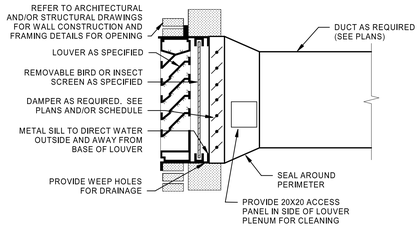
VISITOR TICKET BOOTH - HVAC PLANS

H-M131

BID SET

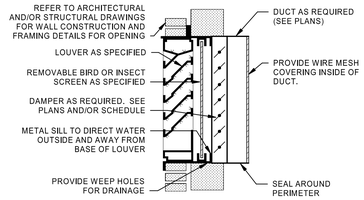
PRINT DATE/TIME: 9/25/2020 1:51:51 PM

KELLEY P. CRAMM



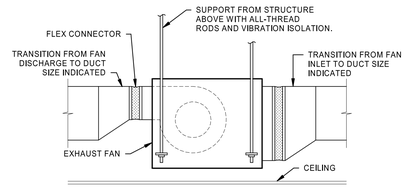
NOTES:
1. SEAL ALL JOINTS AND SEAMS OF PLENUM AND DUCT TO PROVIDE WATER TIGHT CONSTRUCTION. PROVIDE INSULATION FOR PLENUM AND DUCT PER SPECIFICATIONS.

1 EXHAUST LOUVER INSTALLATION DETAIL
NTS

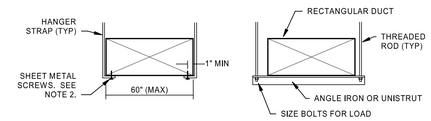


NOTES:
1. SEAL ALL JOINTS AND SEAMS OF PLENUM AND DUCT TO PROVIDE WATER TIGHT CONSTRUCTION. PROVIDE INSULATION FOR PLENUM AND DUCT PER SPECIFICATIONS.

2 INTAKE LOUVER INSTALLATION DETAIL
NTS

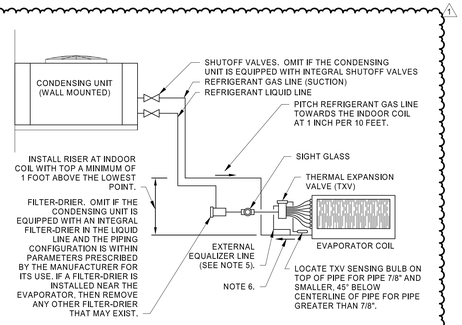


3 IN-LINE CABINET EXHAUST FAN DETAIL
NTS



NOTES:
1. USE THREADED ROD FOR RECTANGULAR DUCTS LARGER THAN 60" WIDE.
2. OMIT SHEET METAL SCREWS IF HANGER STRAP IS CONTINUOUS AND LOOPS UNDER ENTIRE RECTANGULAR DUCT.
3. HANGERS MUST NOT DEFORM DUCT SHAPE.

4 DUCT HANGER LOWER ATTACHMENT DETAILS
NTS



NOTES:
1. INSTALL REFRIGERANT PIPING AND COMPONENTS IN STRICT CONFORMANCE WITH ALL MANUFACTURER'S RECOMMENDATIONS AND REQUIREMENTS, WHICH SHALL TAKE PRECEDENT OVER INFORMATION PRESENTED IN THIS DETAIL.
2. ALL COMPONENTS INSTALLED SHALL BE THE EXACT MODEL RECOMMENDED BY THE MANUFACTURER.
3. CONSULT THE MANUFACTURER REGARDING THE NEED TO INSTALL A SOLENOID VALVE IN THE LIQUID LINE BETWEEN THE FILTER-DRIER AND SITE GLASS.
4. INSTALL REFRIGERATION PIPE SIZES RECOMMENDED BY THE MANUFACTURER AND CONSULT THE MANUFACTURER REGARDING THE NEED FOR INTERMEDIATE TRAPS BASED ON THE RECOMMENDED PIPE SIZES AND PIPING CONFIGURATION.
5. INSTALL THERMAL EXPANSION VALVE WITH BALANCED PORT CONSTRUCTION AND EXTERNAL EQUALIZER LINES FOR ALL EVAPORATOR COILS EQUIPPED WITH A REFRIGERANT DISTRIBUTOR.
6. PITCH REFRIGERANT GAS LINE AWAY FROM INDOOR COIL AT 1 INCH PER 10 FEET.
7. FILTER- DRIER MAY BE OMITTED IF NOT REQUIRED BY MANUFACTURER.
8. SIGHT GLASS MAY BE OMITTED IF NOT REQUIRED BY MANUFACTURER AND SYSTEM IS LESS THAN 5 TONS.

5 SPLIT SYSTEM PIPING DETAIL
NTS

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MO. CORPORATE NO: E-556D
EXPIRES 12/31/2020

Nov 6 2020

REVISIONS

NUMBER	DESCRIPTION	DATE
1	Addendum 3	10.23.2020

PROJECT NO: 0119-0101
DATE: September 28, 2020

MECHANICAL DETAILS

H-M500

BID SET

FAN-POWERED TERMINAL HEATER SCHEDULE (ELECTRIC)

MARK	LOCATION	MANUFACTURER	MODEL	LENGTH (IN)	INPUT (KW)	CFM	INTAKE	OUTLET	MOUNTING TYPE	VOLTS	PH	MCA	DISC TYPE	NOTES
FPH 1	HOME COACHES	SOHO	SoHo-e-06-077	77"	2.0	250 CFM	TOP	TOP	FLOOR	277	1	9.0	NON-FUSED	A,D,E,F,G,H
FPH 2	HOME COACHES	SOHO	SoHo-e-06-061	61"	1.5	185 CFM	TOP	TOP	FLOOR	277	1	6.8	NON-FUSED	A,D,E,F,G,H
FPH 3	COMMAND CENTER	SOHO	SoHo-e-06-077	77"	2.0	250 CFM	TOP	TOP	FLOOR	277	1	9.0	NON-FUSED	A,D,E,F,G,H
FPH 4	COMMAND CENTER	SOHO	SoHo-e-06-061	61"	1.5	185 CFM	TOP	TOP	FLOOR	277	1	6.8	NON-FUSED	A,D,E,F,G,H
FPH 5	VISITOR COACHES	SOHO	SoHo-e-06-077	77"	2.0	250 CFM	TOP	TOP	FLOOR	277	1	9.0	NON-FUSED	A,B,C,F,G,H

MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY.
REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED.
THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.

NOTES:

A. PROVIDE WITH SINGLE POINT POWER CONNECTION.
B. DIVISION 26 TO PROVIDE TIMER SWITCH.
C. DIVISION 26 TO PROVIDE LINE VOLTAGE THROUGH TIMER SWITCH TO UNIT.
D. DIVISION 26 TO PROVIDE SINGLE TIMER SWITCH FOR ROOMS WITH MULTIPLE UNITS.
E. DIVISION 26 TO PROVIDE LINE VOLTAGE THROUGH SINGLE TIMER SWITCH IN ROOMS WITH MULTIPLE UNITS.
F. PROVIDE WITH INTEGRATED THERMOSTAT.
G. PROVIDE NECESSARY MOUNTING BRACKET AND ACCESSORIES FOR EXPOSED FLOOR MOUNTING.
H. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH INSTALLED ON SERVICE SIDE OF UNIT.

GRILLE, REGISTER AND DIFFUSER SCHEDULE

MARK	MANUFACTURER	SERVICE	MODEL	CONSTRUCTION TYPE	FACE TYPE	MOUNTING LOCATION	BORDER TYPE	FACE SIZE (IN)	MAX NC	MAX PRESS DROP (IN W.C.)	NOTES
CEG1	PRICE	EXHAUST	630	ALUMINIUM	LOUVERED	CEILING	SURFACE	16"x10"	30	0.08	A,B,C,D
CEG2	PRICE	EXHAUST	630	ALUMINIUM	LOUVERED	CEILING	SURFACE	24"x12"	30	0.08	A,B,C,D
EG1	PRICE	EXHAUST	630	ALUMINIUM	LOUVERED	WALL	SURFACE	REFER TO PLANS	30	0.08	A,B,C,D
RG1	PRICE	RETURN	630	ALUMINIUM	LOUVERED	WALL	SURFACE	REFER TO PLANS	30	0.05	A,C,D
SG1	PRICE	SUPPLY	630	ALUMINIUM	LOUVERED	WALL	SURFACE	REFER TO PLANS	30	0.08	A,C,D
TG1	PRICE	TRANSFER	630	ALUMINIUM	LOUVERED	WALL	SURFACE	REFER TO PLANS	30	0.08	A,B,C,D

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NOTES:

A. NECK SIZE SHOWN ON DRAWINGS. PROVIDE BRANCH DUCT TO MATCH NECK SIZE UNLESS OTHERWISE SHOWN ON DRAWINGS.
B. BAKED ENAMEL FINISH, WHITE TO MATCH CEILING COLOR.
C. FRONT BLADES PARALLEL TO LONG DIMENSION.
D. FRAME TYPE TO MATCH CEILING/WALL CONSTRUCTION, COORDINATE WITH ARCHITECTURAL REFLECTED CEILING/WALL PLAN.
E. FRONT BLADES PARALLEL TO SHORT DIMENSION.

LOUVER SCHEDULE

MARK	AREA SERVED	SERVICE	MANUFACTURER	MODEL	WIDTH (IN)	LENGTH (IN)	CFM	MIN FREE AREA (SF)	MAX VEL (FPM)	MAX APD (IN W.C.)	NOTES
EL 1	RESTROOMS	EXHAUST	GREENHECK	ESD-635	36"	18"	1100 CFM	1.58	700 FPM	0.05 in-wg	A,B,C,D
EL 2	RESTROOMS	EXHAUST	GREENHECK	ESD-635	36"	18"	1000 CFM	1.43	700 FPM	0.05 in-wg	A,B,C,D
EL 3	CONCESSION	EXHAUST	GREENHECK	ESD-635	36"	18"	1100 CFM	1.58	700 FPM	0.05 in-wg	A,B,C,D
IL 1	MENS RESTROOM	INTAKE	GREENHECK	ESD-635	24"	24"	1000 CFM	1.77	560 FPM	0.01 in-wg	A,B,C,E,F
IL 2	WOMENS RESTROOM	INTAKE	GREENHECK	ESD-635	24"	24"	1000 CFM	1.77	560 FPM	0.01 in-wg	A,B,C,E,F
IL 3	CONCESSION	INTAKE	GREENHECK	ESD-635	24"	24"	1000 CFM	1.77	560 FPM	0.01 in-wg	A,B,C,E,F

MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY.
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THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.

NOTES:

A. PROVIDE 1/2" MESH ALUMINUM BIRD SCREEN.
B. PROVIDE ANNODIZED FINISH WITH COLOR SELECTED BY ARCHIETCT.
C. FRAME TYPE SHALL MATCH WALL CONSTRUCTION, COORDINATE WITH ARCHITECT.
D. PROVIDE WITH INTEGRAL BACKDRAFT DAMPER.
E. PROVIDE WITH INTEGRAL 24 V MOTOR OPERATED DAMPER.
F. INTERLOCK MOTOR-OPERATED DAMPER WITH EXHAUST FAN.

UNIT HEATER SCHEDULE (ELECTRIC)

MARK	AREA SERVED	MANUFACTURER	MODEL	MIN OUT (MBH)	NOM (KW)	MIN NO OF STAGES	CFM	MOTOR HP	THROW (FT)	V/PH	DISC TYPE	NOTES
UH 1	TENNIS STORAGE	QMARK	MUH03-71	10.2	3.0	1	350	0.01	12	277/1	NON-FUSED	A,B,E,F
UH 2	MEP/CUSTODIAL	QMARK	MUH03-71	10.2	3.0	1	350	0.01	12	277/1	NON-FUSED	A,B,E,F
UH 3	MENS RESTROOM	QMARK	MUH-07-4	25.6	7.5	2	650	0.04	18	480/3	NON-FUSED	A,E,F,G
UH 4	MENS RESTROOM	QMARK	MUH05-41	17.0	5.0	2	350	0.01	12	480/3	NON-FUSED	A,E,F,G
UH 5	WOMENS RESTROOM	QMARK	MUH05-41	17.0	5.0	2	350	0.01	12	480/3	NON-FUSED	A,E,F,G
UH 6	WOMENS RESTROOM	QMARK	MUH-07-4	25.6	7.5	2	650	0.04	18	480/3	NON-FUSED	A,E,F,G
UH 7	TICKET BOOTH	QMARK	MUH03-81	10.2	3.0	1	350	0.01	12	277/1	NON-FUSED	A,C,D,E,F,H
UH 8	STORAGE	QMARK	MUH03-71	10.2	3.0	1	350	0.01	12	277/1	NON-FUSED	A,B,E,F
UH 9	CONCESSION	QMARK	MUH-07-4	25.6	7.5	2	650	0.04	18	480/3	NON-FUSED	A,B,E,F
UH 10	MEP	QMARK	MUH03-71	10.2	3.0	1	350	0.01	12	277/1	NON-FUSED	A,B,E,F
UH 11	BAND STORAGE	QMARK	MUH03-71	10.2	3.0	1	350	0.01	12	277/1	NON-FUSED	A,B,E,F
UH 12	VISITOR TICKET BOOTH	QMARK	MUH03-81	10.2	3.0	1	350	0.01	12	208/1	NON-FUSED	A,C,D,E,F,H

MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY.
REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED.
THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.

NOTES:

A. MOUNT 8 FEET ABOVE FINISHED FLOOR WITHOUT OBSTRUCTING AIRFLOW.
B. PROVIDE WITH WALL MOUNTED THERMOSTAT.
C. DIVISION 26 TO PROVIDE TIMER SWITCH.
D. DIVISION 26 TO PROVIDE LINE VOLTAGE THROUGH TIMER SWITCH TO UNIT.
E. PROVIDE NECESSARY MOUNTING BRACKET AND ACCESSORIES FOR HORIZONTAL DISCHARGE MOUNTING.
F. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH INSTALLED ON SERVICE SIDE OF UNIT.
G. PROVIDE WITH SINGLE WALL MOUNTED THERMOSTAT TO CONTROL 2 UNIT HEATERS.
H. PROVIDE WITH FACTORY MOUNTED THERMOSTAT.

SPLIT SYSTEM FAN COIL UNIT SCHEDULE (HEAT PUMP)

MARK	MANUFACTURER	MODEL	SUPPLY FAN CFM	SUPPLY FAN ESP (IN)	SUPPLY FAN NOM HP	COOLING COIL TH (MBH)	COOLING COIL SH (MBH)	COOLING COIL EAT (°F DB)	COOLING COIL EAT (°F WB)	COOLING COIL REFR TYPE	HEAT PUMP HEATING COIL MIN OUT (MBH)	HEAT PUMP HEATING COIL AMBIENT (DB)	HEAT PUMP HEATING COIL EAT (°F DB)	HEAT PUMP HEATING COIL HTG LAT	ELECTRICAL V/PH	ELECTRICAL MCA	ELECTRICAL MOCP	ELECTRICAL DISC TYPE	ELECTRICAL STARTER TYPE	WEIGHT (LBS)	NOTES
FCU 1	MITSUBISHI	PEAD-A12/PUZ-A12	420	0.20	0.01	12.0	10.0	80.0	67.0	R-410A	10.5	5 °F	55 °F	85 °F	208/1	11	28	NON-FUSED	INTEGRAL	58	A-L

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NOTES:

A. EQUIPMENT COMPONENTS SHALL BE BY THE SAME MANUFACTURER.
B. FOR COOLING, EQUIPMENT SIZED FOR 100° F AMBIENT TEMPERATURE.
C. HEAT PUMP HEATING CAPACITY BASED ON AMBIENT TEMPERATURE LISTED.
D. PROVIDE 2" PLEATED THROWAWAY AIR FILTERS.
E. PROVIDE FACTORY MOUNTED STARTER AND DISCONNECT SWITCH.
F. PROVIDE WITH 7-DAY PROGRAMMABLE THERMOSTAT WITH STAGED HEATING AND COOLING CAPABILITY AS REQUIRED FOR OPERATION OF HEATING, COOLING CONTROLS.
G. SUSPEND FAN COIL UNIT FROM STRUCTURE IN HORIZONTAL POSITION WITH ALL -THREAD ROD AND SPRING VIBRATION ISOLATION (2" MINIMUM DEFLECTION).
H. PROVIDE WALL MOUNTING BRACKET FOR CONDENSING UNIT.
J. ROUTE CONDENSATE DRAIN PIPING FROM UNIT TO NEAREST FLOOR DRAIN AND TERMINATE WITH CODE-APPROVED AIR GAP.
K. PROVIDE AUXILIARY DRAIN PAN WITH [FLOOD DETECTOR SWITCH TO SHUT OFF UNIT WHEN WATER IS PRESENT IN DRAIN PAN.] [AUXILIARY DRAIN PROVIDED BY PLUMBING CONTRACTOR.]
L. PROVIDE CUSTOM COLOR FINISH ON CONDENSING UNIT. COORDINATE COLOR WITH ARCHITECT.

RADIANT HEATER SCHEDULE (ELECTRIC)

MARK	LOCATION	MANUFACTURER	MODEL	MOUNTING TYPE	SIZE (L" x W")	INPUT (W)	VOLTS	PHASE	NOTES
RH 1	CONCESSION	QMARK	HRK42027	RECESSED	5.5'x46"	2000.0 W	277 V	1	A,B
RH 2	CONCESSION	QMARK	HRK42027	RECESSED	5.5'x46"	2000.0 W	277 V	1	A,B

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NOTES:

A. DIVISION 26 TO PROVIDE SINGLE TIMER SWITCH TO CONTROL 2 RADIANT HEATERS.
B. DIVISION 26 TO PROVIDE LINE VOLTAGE THROUGH TIMER SWITCH TO UNITS.

FAN SCHEDULE

MARK	LOCATION	SERVICE DESCRIPTION	MANUFACTURER	MOUNTING	MODEL	CFM	ESP (IN)	NOM HP	FAN RPM	DRIVE (BELT/DIRECT)	ELECTRICAL V/PH	ELECTRICAL DISC TYPE	WEIGHT (LBS)	NOTES
EF 1	MENS RESTROOM	EXHAUST	GREENHECK	INLINE	SQ-100-VG	1100	0.25	0.25	1456	DIRECT	115/1	NON-FUSED	45	A,B,C,D
EF 2	WOMENS RESTROOM	EXHAUST	GREENHECK	INLINE	SQ-100-VG	1000	0.25	0.25	1352	DIRECT	115/1	NON-FUSED	45	A,B,C,D
EF 3	CONCESSION	EXHAUST	GREENHECK	INLINE	SQ-100-VG	1100	0.25	0.25	1456	DIRECT	115/1	NON-FUSED	45	A,B,C,D
TF 1	RESTROOMS	TRANSFER	GREENHECK	WALL	CBF	500	0.20	0.05	1050	DIRECT	115/1	NON-FUSED	17	B,C,E
TF 2	RESTROOMS	TRANSFER	GREENHECK	WALL	CBF	500	0.20	0.05	1050	DIRECT	115/1	NON-FUSED	17	B,C,E
TF 3	RESTROOMS	TRANSFER	GREENHECK	WALL	CBF	500	0.20	0.05	1050	DIRECT	115/1	NON-FUSED	17	B,C,E

MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY. REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.

NOTES:

A. PROVIDE RUBBER IN SHEAR ISOLATION AND ALL-THREAD HANGING RODS.
B. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH.
C. PROVIDE WITH MANUFACTURER'S FAN SPEED CONTROLLER FOR BALANCING PURPOSES.
D. PROVIDE WITH MANUFACTURER'S ELECTRONICALLY COMMUTATED (EC) MOTOR.
E. PROVIDE WITH WALL MOUNTED TEMPERATURE SENSOR.

SEQUENCE OF OPERATIONS
MISCELLANEOUS EQUIPMENT

EXHAUST FAN (EF-1,2,3)
OPERATING MODES
OCCUPIED MODE:
The units shall be in occupied mode when the room light switch is turned on.
UNOCCUPIED MODE:
The units shall be in unoccupied mode for all periods when the room light switch is turned off.
COMPONENT CONTROL LOOPS:
The units shall be controlled by the room lighting controls system. A 2 position motorized damper at the intake louver shall be linked with the exhaust fan.
When in occupied mode:
The unit shall run continuously.
2 position motorized damper at intake louver shall be open.
When in unoccupied mode:
The unit shall be off.
2 position motorized damper at intake louver shall be closed.

TRANSFER FAN (TF-1,2,3)
OPERATING MODES
STANDBY MODE:
The units shall be in standby mode when the zone temperature (Z-T) is above space temperature setpoint of 50 F.
TRANSFER MODE:
The units shall be in transfer mode when the zone temperature (Z-T) falls below space temperature setpoint of 50 F.
COMPONENT CONTROL LOOPS:
The units shall operate as an independent system. Each unit shall be controlled by a wall mounted thermostat located within the respective plumbing chase.
When in Standby Mode:
The unit shall remain off.
When in Transfer Mode:
The unit shall be on.
The unit shall remain on until space temperature as sensed by the wall mounted thermostat is above space temperature setpoint of 50 F.

ELECTRIC UNIT HEATER (UH-1,2,3,4,5,6,8,9,10,11)
OPERATING MODES
STANDBY MODE:
The units shall be in standby mode when the zone temperature (Z-T) is above space temperature setpoint.
HEATING MODE:
The units shall be in heating mode when the zone temperature (Z-T) falls below space temperature setpoint.
COMPONENT CONTROL LOOPS
The units shall operate as an independent system. The units shall be controlled by a wall mounted thermostat located within each respective space.
When in Standby Mode:
The unit shall remain off.
When in Heating Mode:
The unit shall be on.
The unit shall stage/cycle heater as required to maintain space temperature setpoint of 68 F as sensed by the wall mounted thermostat.

ELECTRIC UNIT HEATER (UH-7,12)
OPERATING MODES
STANDBY MODE:
The unit shall be in standby mode when the timer switch is off.
HEATING MODE:
The unit shall be in heating mode when the timer switch is on.
COMPONENT CONTROL LOOPS
The units shall operate as an independent system. The units shall be controlled by a timer switch located within each respective room..
When in Standby Mode:
The unit shall remain off.
When in Heating Mode:
The unit shall be on.
The unit shall stage/cycle heater as required to maintain temperature setpoint of 68 F as sensed by the integral thermostat.

FAN-POWERED TERMINAL HEATER (FPH-1,2,3,4,5)
OPERATING MODES
STANDBY MODE:
The unit shall be in standby mode when the timer switch is off.
HEATING MODE:
The unit shall be in heating mode when the timer switch is on..
COMPONENT CONTROL LOOPS
The units shall operate as an indpendent system. The units shall be controlled by a timer switch located within each respective space.
When in Standby Mode:
The unit shall remain off.
When in Heating Mode:
The unit shall be on.
The unit shall stage/cycle heater as required to maintain space temperature setpoint of 68 F as sensed by the integral thermostat.

SPLIT SYSTEM FAN COIL UNIT (FCU-1)
OPERATING MODES
STANDBY MODE:
The unit shall be in standby mode when the zone temperature (Z-T) does not call for heating or cooling.
COOLING MODE:
The unit shall be in cooling mode when the zone temperature (Z-T) falls below space temperature setpoint.
HEATING MODE:
The unit shall be in heating mode when the zone temperature (Z-T) is above space temperature setpoint.
COMPONENT CONTROL LOOPS
The unit shall operate as an independent system. The unit shall be controlled by a wall mounted thermostat located within the space.
When in Standby Mode:
The unit shall remain off.
When in Cooling Mode:
The unit shall be on.
The unit shall stage/cycle cooling as required to maintain space temperature setpoint of 80 F as sensed by the wall mounted thermostat.
When in Heating Mode:
The unit shall be on.
The unit shall stage/cycle heating as required to maintain space temperature setpoint of 68 F as sensed by the wall mounted thermostat.

RADIANT PANEL (RH-1,2)
OPERATING MODES
STANDBY MODE:
The units shall be in standby mode when the timer switch is off.
HEATING MODE:
The units shall be in heating mode when the timer switch is on.
COMPONENT CONTROL LOOPS
The units shall operate as an independent system. The units shall be controlled by a single timer switch located within the room.
When in Standby Mode:
The unit shall remain off.
When in Heating Mode:
The unit shall be on.

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Lee's Summit R7 District
Athletics Facilities

Lee's Summit High School
400 SW Blue Parkway
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EXPIRES 12/31/2020

STATE OF MISSOURI
KELLEY P. CRAMM
NUMBER E-22323
REGISTERED PROFESSIONAL ENGINEER

Nov 6 2020

REVISIONS

NUMBER	DESCRIPTION	DATE
1	Addendum 3	10.23.2020

PROJECT NO: 0119-0101
DATE: September 28, 2020

MECHANICAL SCHEDULES & CONTROLS

H-M600

BID SET

PRINT DATE/TIME: 11/6/2020 2:33:46 PM

KELLEY P. CRAMM

ELECTRICAL SYMBOLS

THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED. V3.00

STANDARD MOUNTING HEIGHTS

AUDIBLE APPLIANCES (CENTERLINE)	84"
ALARMS	48"
ANNUNCIATOR PANELS (DISPLAY)	60"
CONTROLS (TOP OF DEVICE)	48"
EXIT SIGNS (WALL MOUNTED)	80"
FIRE ALARM ANNUNCIATOR PANEL (DISPLAY)	60"
FIRE ALARM BELL (EXTERIOR) (CENTERLINE)	120"
FIRE ALARM CONTROL PANEL/UNIT (DISPLAY)	60"
INTERCOM (AFEA ONLY)	36"
INTERCOMS (TOP OF DEVICE)	48"
PULL STATIONS (TOP OF DEVICE)	48"
PHOTOCELLS	144"
RECEPTACLES	16"
RECEPTACLES (EXTERIOR)	24"
RECEPTACLES (GARAGES)	24"
RECEPTACLES (POOLS)	27"
RECEPTACLES (ABOVE COUNTER) +6" ABOVE BACKSPLASH/COUNTER, 40" MAX	
RECEPTACLES IN EQUIPMENT ROOMS	44"
REMOTE INDICATING LIGHT (EQUIPMENT ROOMS)	48"
REMOTE INDICATING LIGHT (FINISHED AREAS)	CEILING
SAFETY SWITCHES (TOP OF DEVICE)	48"
STARTERS (TOP OF DEVICE)	48"
SWITCHES (TOP OF DEVICE)	44"
TELEPHONE, DATA OUTLETS	SAME AS ADJACENT DEVICE, UNO
TELEPHONE TERMINAL BOARD (BOTTOM)	6"
TELEVISION OUTLETS	REFER TO ARCH DRAWINGS
VISIBLE APPLIANCES (CENTERLINE)	84"

INSTALL OUTLET BOXES AT THE MOUNTING HEIGHTS SHOWN ABOVE UNO IN THE CONSTRUCTION DOCUMENTS. MOUNTING HEIGHTS LISTED ABOVE, OR ELSEWHERE IN THE CONSTRUCTION DOCUMENTS, ARE AFF OR AFG TO BOTTOM OF OUTLET BOX, UNO. ALL DEVICES SHALL BE INSTALLED IN COMPLIANCE WITH CURRENT ADA AND LOCAL REQUIREMENTS.

ABBREVIATIONS

AF	AMPERE FUSE SIZE
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLING UNIT
AIC	AMPERE INTERRUPTING CAPACITY
AS	AMPERE SWITCH SIZE
AT	AMPERE TRIP SETTING
ATS	AUTOMATIC TRANSFER SWITCH
AV	AUDIO VISUAL
BAS	BUILDING AUTOMATION SYSTEM
BKR	BREAKER
C	CONDUIT
CAT	CATEGORY
CATV	CABLE TELEVISION SYSTEM
CCTV	CLOSED CIRCUIT TELEVISION
CD	CANDELA
CKT	CIRCUIT
CODE	APPLICABLE CODE ADOPTED BY JURISDICTION
CT	CURRENT TRANSFORMER
CTR	CENTER
CVD	CUMULATIVE VOLTAGE DROP
D/DEMO	DEMOLITION
DPDT	DOUBLE-POLE, DOUBLE-THROW
DPST	DOUBLE-POLE, SINGLE-THROW
E/ETR/EX	EXISTING TO REMAIN
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EM	EMERGENCY
EMS	ENERGY MANAGEMENT SYSTEM
ELV	ELECTRONIC LOW-VOLTAGE
EWC	ELECTRIC WATER COOLER
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FCA	FAULT CURRENT AMPS AVAILABLE
FCU	FAN COIL UNIT
FF	FINISHED FLOOR
FLA	FULL LOAD AMPS
FLR	FLOOR
GC	GENERAL CONTRACTOR
GEC	GROUNDING ELECTRODE CONDUCTOR
GES	GROUNDING ELECTRODE SYSTEM
GFR	GROUND FAULT RELAY
G	GROUND
IG	ISOLATED GROUND
ISC	SHORT CIRCUIT CURRENT
JB/J-BOX	JUNCTION BOX
LF	LINEAR FEET
LRA	LOCKED ROTOR AMPS
LTG/LTS	LIGHTING/LIGHTS
MAU	MAKE-UP AIR UNIT
MAX	MAXIMUM
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MFR	MANUFACTURER
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MLV	MAGNETIC LOW-VOLTAGE
MOCP	MAXIMUM OVERCURRENT PROTECTION
MTD	MOUNTED
N/A	NOT APPLICABLE
NF	NON-FUSED
NL	NIGHT LIGHT (24HR ON)
NRTL	NATIONALLY RECOGNIZED TESTING LABORATORY (CSA, ETL, NSF, UL)
NTS	NOT TO SCALE
OS	OCCUPANCY SENSOR
P	POLE
PART	PARTIAL CIRCUIT
PH/Ø	PHASE
PNL	PANEL
PNLBD	PANELBOARD
PROVIDE	FURNISH AND INSTALL
PT	POTENTIAL TRANSFORMER
QTY	QUANTITY
R/REL	RELOCATE
RCPT	RECEPTACLE
RLA	RUNNING LOAD AMPS
RTU	ROOFTOP UNIT
SCCR	SHORT-CIRCUIT CURRENT RATING
SD	SMOKE DUCT DETECTOR
SF	SQUARE FEET
SPDT	SINGLE-POLE, DOUBLE-THROW
SPST	SINGLE-POLE, SINGLE-THROW
SSBJ	SUPPLY-SIDE BONDING JUMPER
ST	SHUNT TRIP
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TBB	TELECOMMUNICATIONS BONDING BACKBONE
TBD	TO BE DETERMINED
TGB	TELECOMMUNICATIONS GROUND BUS BAR
TL	TWISTLOCK
TMGB	TELECOMMUNICATIONS MAIN GROUND BUS BAR
TX/XFMR	TRANSFORMER
TYP	TYPICAL
U/F	UNDERFLOOR
U/G	UNDERGROUND
U/S	UNDERSLAB
UH	UNIT HEATER
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
VD	VOLTAGE DROP
VFD	VARIABLE FREQUENCY DRIVE
VS	VACANCY SENSOR
W	WIRE
W/	WITH
WP	WEATHER PROOF
WR	WEATHER RESISTANT
WT	WATERTIGHT
XP	EXPLOSION PROOF

LINETYPE LEGEND

THROUGHOUT THE DRAWINGS DIFFERENT LINETYPES ARE USED IN COMBINATION WITH THE SYMBOLS TO INDICATE THE STATUS OF ITEMS AS EXISTING, TO BE DEMOLISHED, TO BE INCLUDED AS PART OF NEW WORK AND/OR ITEMS WHICH ARE ANTICIPATED TO BE PROVIDED IN THE FUTURE. THE STATUS OF ITEMS USING THESE LINETYPES ARE RELATIVE TO THE VIEW IN WHICH THEY APPEAR. PHASING SHOWN IN DRAWINGS IS NOT INTENDED TO FULLY DESCRIBE ALL NECESSARY CONSTRUCTION PHASING, WHICH IS DETERMINED BY THE CONTRACTOR AS PART OF THEIR RESPONSIBILITIES. ANY SUCH PHASES DESCRIBED IN THE CONSTRUCTION DOCUMENTS ARE GENERAL AND ONLY INTENDED TO INDICATE A BROAD ORDER FOR THE SAKE OF DESCRIBING THE PROJECT. THE FOLLOWING LINETYPES MAY BE USED ON ANY DEVICE, EQUIPMENT, NOTE, LINE, SHAPE, ETC.

EXISTING — NEW — DEMOLISH — FUTURE

ANNOTATION

- 1 — MECHANICAL OR FIRE PROTECTION PLAN NOTE CALLOUT
- 1 — PLUMBING PLAN NOTE CALLOUT
- 1 — ELECTRICAL OR FIRE ALARM PLAN NOTE CALLOUT
- 1 — TECHNOLOGY PLAN CALLOUT
- 1 — PLUMBING EQUIPMENT DESIGNATION. (CONTRACTOR FURNISHED AND INSTALLED). REFER TO PLUMBING FIXTURE OR EQUIPMENT SCHEDULES
- 1 — EQUIPMENT DESIGNATION (OWNER FURNISHED, CONTRACTOR INSTALLED)
- CU 1 — MECHANICAL EQUIPMENT DESIGNATION (CONTRACTOR FURNISHED AND INSTALLED UNLESS NOTED OTHERWISE)
- CONNECTION POINT OF NEW WORK TO EXISTING
- 1 / E1 — DETAIL REFERENCE UPPER NUMBER INDICATES DETAIL NUMBER LOWER NUMBER INDICATES SHEET NUMBER
- 1 / E1 — SECTION CUT DESIGNATION

CIRCUITING & WIRING

- 7 5 3, OR [R#] P1, P1-3,5,7 — HOMERUN TO PANELBOARD. INFORMATION AT ARROWS ARE CIRCUIT NUMBERS AND PANELBOARD FOR TERMINATION. REFER TO PANELBOARD SCHEDULES FOR BRANCH CIRCUIT CONDUCTOR SIZES.
  - INDICATES RELAY NUMBER
- CIRCUIT CONTINUATION OR PARTIAL CIRCUIT
- CONDUIT CONCEALED
- EM — CONDUIT CONCEALED (EMERGENCY)
- CONDUIT IN/UNDER FLOOR/GROUND CONSTRUCTION
- EXPOSED CONDUIT
- EM — EXPOSED CONDUIT (EMERGENCY)
- FLEXIBLE CONDUIT
- LOW VOLTAGE CABLE (NOT ROUTED IN CONDUIT)
- CONDUIT TURNING DOWN
- CONDUIT TURNING UP
- CONNECTION POINT OR EQUIPMENT TERMINATION
- EQUIPMENT TERMINATION

CONDUCTOR TICK MARK LEGEND

WHERE TICK MARKS ARE SHOWN, THE FOLLOWING SHALL GOVERN:

- SWITCHED HOT (PHASE) CONDUCTORS (SHOWN TRAILING NEUTRAL)
- NEUTRAL (GROUNDED) CONDUCTOR
- UNSWITCHED HOT (PHASE) CONDUCTORS (SHOWN LEADING NEUTRAL)
- NOTE: HASH MARKS INDICATE QUANTITY OF CONDUCTORS
- EQUIPMENT GROUNDING CONDUCTOR IN CONDUIT (GREEN INSULATION OR BARE)
- ISOLATED GROUNDING CONDUCTOR IN CONDUIT (GREEN INSULATION WITH YELLOW TRACER)

BRANCH CIRCUIT CONDUCTOR TABLE

WHERE TICK MARKS ARE NOT SHOWN, THE FOLLOWING SHALL GOVERN:

# OF POLES	HOT (PHASE)*	NEUTRAL (GROUNDED)**	GROUNDING***
1P	(1)	(1) UNO	(1)
2P	(2)	(1) UNO	(1)
3P	(3)	(1) UNO	(1)

* PROVIDE ADDITIONAL CONDUCTORS THROUGH ENTIRE CIRCUIT (SWITCHED, UNSWITCHED/EM, ETC.) AS INDICATED THROUGHOUT CONSTRUCTION DOCUMENTS AND AS REQUIRED FOR A COMPLETE AND WORKING SYSTEM.

** REFER TO SPECIFICATIONS FOR LIMITATIONS ON SHARING NEUTRAL (GROUNDED) CONDUCTORS. DO NOT CIRCUIT AS A MULTI-WIRE BRANCH CIRCUIT, UNO.

*** PROVIDE ADDITIONAL ISOLATED GROUNDING CONDUCTORS WHERE INDICATED.

REFER TO SPECIFICATIONS, PLANS, NOTES, WIRING AND CONTROL DIAGRAMS FOR ADDITIONAL CIRCUITING REQUIREMENTS.

SIGNALING

- B — SIGNALING BELL
- B — SIGNALING BUZZER
- T — LV TRANSFORMER

LIGHTING

- A a — LIGHT FIXTURE
  - a = LOWER CASE LETTER IS SWITCH IDENTIFIER
  - A = UPPER CASE LETTER INDICATES LIGHT FIXTURE TYPE
  - = WALL MOUNT
  - = ARROW INDICATED AIMING DIRECTION
- LIGHT FIXTURE CIRCUITED AS A NIGHT LIGHT (NL)
- EMERGENCY LIGHT FIXTURE WITH EMERGENCY LIGHTING BATTERY PACK OR CONNECTED TO EMERGENCY SOURCE
- NIGHT LIGHT/EMERGENCY LIGHT FIXTURE WITH EMERGENCY BATTERY PACK OR CONNECTED TO EMERGENCY SOURCE
- LIGHT FIXTURE WITH DUAL BALLASTS CIRCUITED SEPARATELY (SHADING IMPLIES EMERGENCY LIGHT FIXTURE)
- [#] — LIGHTING TRACK (# INDICATES RELAY NUMBER)
- MIRROR LIGHTS
- EXTERIOR PARKING LOT LIGHT FIXTURE
- EXTERIOR PEDESTRIAN POST TOP LIGHT FIXTURE
- EXTERIOR LIT BOLLARD LIGHT
- EXIT SIGN - CEILING / WALL MOUNTED, ARROWS AS INDICATED, FACE HATCHED
- EMERGENCY LIGHTING UNIT EQUIPMENT WITH BATTERY PACK - CEILING/WALL MOUNTED
- AFEA (AREA FOR EVACUATION ASSISTANCE) SIGN - CEILING/WALL MOUNTED, ARROWS AS INDICATED

REFER TO LIGHT FIXTURE SCHEDULE FOR MORE INFORMATION

POWER EQUIPMENT & DEVICES

- ELECTRICAL PANELBOARD (SURFACE OR FLUSH MOUNT)
- ELECTRICAL CABINET (SURFACE OR FLUSH MOUNT), TYPE AS NOTED
- PLYWOOD TERMINAL BOARD FOR TELEPHONE SYSTEM, UNO. SIZE AS NOTED
- SWITCHBOARD OR MOTOR CONTROL CENTER ON HOUSEKEEPING PAD
- ELECTRICAL DISTRIBUTION PANELBOARD
- TRANSFORMER
- 200/3/150/3R — DISCONNECT SWITCH - "200/3/150/3R" DENOTES AMPERES/POLE/FUSE/NEMA ENCLOSURE RATING, NF= NON-FUSED, CB= CIRCUIT BREAKER (200/3/CB), NO VALUE (200/3/150) FOR NEMA ENCLOSURE MEANS STANDARD NEMA 1 RATING
- 30/3/15/1/3R — COMBINATION DISCONNECT (SAFETY) SWITCH AND MOTOR STARTER "30/3/15/1/3R" DENOTES AMPERES/POLE/FUSE/NEMA STARTER SIZE/NEMA ENCLOSURE RATING. NF= NON-FUSED, CB= CIRCUIT BREAKER (30/3/CB/1), NO VALUE (200/3/150/1) FOR NEMA ENCLOSURE MEANS STANDARD NEMA 1 ENCLOSURE RATING
- 2 — MAGNETIC MOTOR STARTER, NEMA SIZE AS NOTED. 3-POLE, UNO
- VFD — VARIABLE FREQUENCY DRIVE
- INDICATING LIGHT
- EMERGENCY POWER OFF BUTTON
- STOP-START PUSH BUTTON CONTROL STATION
- HAND-OFF-AUTO PUSH BUTTON CONTROL STATION
- MUSHROOM-TYPE PUSH BUTTON
- OVERHEAD PADDLE FAN

BOXES, LIGHTING CONTROL & WIRING DEVICES

- $# — SWITCH LETTER DESIGNATIONS AS FOLLOWS:
  - BLANK = SINGLE
  - 2 = TWO POLE
  - 3 = THREE-WAY
  - 4 = FOUR-WAY
  - D = DIMMER
  - F = FAN SPEED CONTROL
  - FH = FRACTIONAL HORSEPOWER MANUAL CONTROLLER
  - IH = INTEGRAL HORSEPOWER MANUAL CONTROLLER
  - K = KEYED
  - LV# = LOW VOLTAGE / DIGITAL
  - M = MANUAL MOTOR STARTER DISCONNECT
  - OS# = OCCUPANCY SENSOR
  - P = SPST PILOT LIGHT
  - WP = WEATHER PROOF
  - \# = REFER TO LIGHTING CONTROL DEVICE SCHEDULE
- ALC — AUTOMATIC LOAD CONTROL RELAY
- BTS — BRANCH CIRCUIT TRANSFER SWITCH
- CEILING / WALL MOUNTED OCCUPANCY SENSOR (# INDICATES TYPE PER SCHEDULE)
  - CORNER 90 DEGREE SENSING
  - ONE-DIRECTION SENSING, CEILING/WALL MOUNT
  - CEILING MOUNT, TWO DIRECTION SENSING
  - CEILING MOUNT, FOUR DIRECTION SENSING
- C# — CONTACTOR (SIZE, COIL VOLTAGE AND NUMBER OF POLES AS INDICATED)
- CL## — TRACK-MOUNTED CURRENT LIMITER (## INDICATES AMPERAGE)
- D# — DAYLIGHT SENSOR (# INDICATES TYPE PER SCHEDULE)
- LC — LIGHTING CONTROLS PROCESSOR AND/OR EQUIPMENT
- P# — POWER PACK (# INDICATES TYPE PER SCHEDULE)
- PS# — PHOTOELECTRIC SWITCH
- R## — ROOM CONTROLLER (# INDICATES TYPE PER SCHEDULE)
- TS# — TIME SWITCH
- SIMPLEX RECEPTACLE - NEMA 5-20R, UNO
- DUPLEX RECEPTACLE - NEMA 5-20R, UNO
- DOUBLE DUPLEX RECEPTACLE - NEMA 5-20R, UNO
- SPECIAL RECEPTACLE - NEMA TYPE AS NOTED
- TWIST-LOCK TYPE RECEPTACLE
- G — BLANK FACE GFCI FEED THROUGH DEVICE
- OR GFCI — GFCI TYPE RECEPTACLE*
- OR IG — ISOLATED GROUND TYPE RECEPTACLE*
- OR EM — EMERGENCY RECEPTACLE*
- RECEPTACLE INSTALLED ABOVE COUNTER OR BACKSPLASH*
- RECEPTACLE INSTALLED IN CEILING*
- RECEPTACLE INSTALLED IN FLOOR*
- RECEPTACLE INSTALLED VIA DROP CORD*
- \# — RECEPTACLE LETTER DESIGNATIONS AS FOLLOWS:
  - C = AUTOMATICALLY CONTROLLED
  - CH = CLOCK HANGER TYPE
  - G=RCPT PROTECTED BY GFCI CIRCUIT BREAKER OR UPSTREAM GFCI DEVICE
  - H = HORIZONTALLY MOUNTED
  - S = MANUALLY CONTROLLED
  - SP / TVSS = SURGE PROTECTION
  - TR = TAMPER RESISTANT
  - TV = TELEVISION
  - USB = USB/DUPLEX
  - WP = WEATHER PROOF COVER
  - WR = WEATHER RESISTANT
- MULTI-OUTLET ASSEMBLY
- TELEPHONE OUTLET
- DATA OUTLET
- MULTI-SERVICE OUTLET; TELEPHONE AND DATA
  - ABOVE COUNTER, TYP
  - WALL, TYP
  - FLOOR, TYP
- A — MULTI-SERVICE POWER POLE WITH TELEPHONE, DATA AND POWER OUTLETS A = TYPE, REFER TO PLANS, SCHEDULES AND SPECIFICATIONS
- A — MULTI-SERVICE FLOOR BOX WITH TELEPHONE, DATA AND POWER OUTLETS A = TYPE, REFER TO PLANS, SCHEDULES AND SPECIFICATIONS
- A — POKE THROUGH, A = TYPE, REFER TO PLANS, SCHEDULES AND SPECIFICATIONS
- T — THERMOSTAT
- J — CEILING/FLOOR MOUNT JUNCTION/OUTLET BOX
- J — WALL MOUNT JUNCTION/OUTLET BOX

* SYMBOL DEMONSTRATED WITH DUPLEX RECEPTACLE, WHEN USED IN COMBINATION WITH OTHER DEVICES MEANING IS SIMILAR FOR THOSE DEVICE TYPES.

REFER TO LIGHTING CONTROL DEVICE SCHEDULE FOR MORE INFORMATION.

ELECTRICAL ONE-LINE & RISER DIAGRAM

- ###A 3P — SWITCH (RATING AS INDICATED)
- ###A 3P — DRAWOUT CIRCUIT BREAKER (RATINGS AS INDICATED)
- ###AS 3P ###AF FRS — FUSED SWITCH (RATING, POLES AND FUSE TYPE AS INDICATED)
- ###AS 3P ###AF FRS NEMA # — COMBINATION FUSED SWITCH/STARTER AND STARTER SIZE
- ###AS 3P FRS NEMA # — CIRCUIT BREAKER (RATINGS AS INDICATED)
- ###A 3P NEMA # — COMBINATION CIRCUIT BREAKER/STARTER AND STARTER SIZE
- PANELBOARD, SINGLE OR MULTI-SECTION (REFER TO SCHEDULES)
- ISOLATED POWER PANELBOARD W/ INTEGRAL TRANSFORMER (REFER TO SCHEDULES)
- TX## — TRANSFORMER (TYPE AND RATINGS AS INDICATED)
- TX## — SHIELDED TRANSFORMER (TYPE AND RATINGS AS INDICATED)
- ATS# ###A ATS# (W/BYPASS) — AUTOMATIC TRANSFER SWITCH (RATINGS AS INDICATED)
- ATS# (W/BYPASS) ###A — AUTOMATIC TRANSFER SWITCH WITH BYPASS (RATINGS AS INDICATED)
- ##KW GENERATOR 480Y/277V, 3Ø, 4W ###A, 3P M/G — GENERATOR (RATINGS AS INDICATED)
  - NON-SEPARATELY DERIVED SOURCE OR SEPARATELY DERIVED SOURCE
- MDP SWITCHBOARD ELEC ROOM ### AMPS 480Y/277V 3Ø 4W — SWITCHGEAR, SWITCHBOARD AND/OR DISTRIBUTION PANELBOARD (TYPE, RATING, DEVICES AND ACCESSORIES AS INDICATED)
- DIGITAL VM AM — COMBINATION DIGITAL VOLT METER/AMMETER
- \### — CIRCUIT IDENTIFICATION (REFER TO CIRCUIT SCHEDULE)
- GFR — GROUND FAULT RELAY
- PFR — PHASE FAILURE RELAY
- KK# — KIRK-KEY INTERLOCK (# INDICATES KEY PAIR)
- ST — SHUNT TRIP
- AM — AMMETER (RANGE AS SPECIFIED OR REQUIRED)
- VM — VOLTMETER (RANGE AS SPECIFIED OR REQUIRED)
- UTILITY METER M — UTILITY METER (AS REQUIRED BY UTILITY)
- AS — AMMETER SWITCH
- VS — VOLTMETER SWITCH
- WH D 15 — WATT-HOUR METER, "D" DENOTES DEMAND REGISTER, "15" DENOTES MINUTES OF DEMAND INTERVAL
- CURRENT TRANSFORMER RATING AS SPECIFIED OR REQUIRED
- POTENTIAL TRANSFORMER RATING AS SPECIFIED OR REQUIRED
- SPD — SURGE-PROTECTIVE DEVICE
- GROUND CONNECTION
- GROUND CONNECTION WITH TEST WELL
- GROUND ROD
- LIGHTNING ARRESTER
- CAPACITOR
- CONTACT (OPEN OR CLOSED)
- HEATER
- HP — MOTOR
- \## — BLOCK LOAD KW OR KVA
- ×F# ×FP# — FAULT POINT REFERENCED IN SHORT CIRCUIT CURRENT AND VOLTAGE DROP SPREADSHEET

SPECIAL SYSTEMS SUPPLEMENTAL SPECIFICATIONS:

1. PROVIDE NECESSARY BOXES, CONDUIT AND MAKE FINAL CONNECTIONS TO TEMPERATURE CONTROL DEVICES PER MANUFACTURER'S RECOMMENDATIONS. THIS INCLUDES BUT IS NOT LIMITED TO: MAIN CONTROL PANELS, THERMOSTATS, HUMIDISTATS, AC SOLENOIDS, HEAT RECLAIM WIRING, AHU CONTROL WIRING, DUCT FURNACE CONTROL WIRING, TIMERS, AND SIMILAR CONTROLS. PROVIDE CONDUIT FOR ALL WIRING WITHIN WALLS. PROVIDE CONTROL AND INTERLOCK WIRING WHEN NOT PROVIDED BY OTHER TRADES. COORDINATE REQUIREMENTS WITH EQUIPMENT SUPPLIERS AND OTHER TRADES PRIOR TO ROUGH-IN.
2. PROVIDE LINE VOLTAGE WIRING AND MAKE FINAL CONNECTIONS TO ALL DUCT-MOUNTED SMOKE DETECTORS, FIRE/SMOKE AND SMOKE DAMPERS WHERE APPLICABLE. COORDINATE REQUIREMENTS WITH OTHER TRADES PRIOR TO INSTALLATION.
3. DEVICES MOUNTED ON ACOUSTICAL TILE CEILINGS SHALL BE CENTERED ON THE TILE, UNO.
4. PROVIDE BOX AND **[3/4"]** CONDUIT FROM EACH THERMOSTAT LOCATION TO MECHANICAL EQUIPMENT, (FLUSH MOUNT BOX WHEREVER PRACTICABLE). COORDINATE LOCATION OF ALL THERMOSTAT BOXES WITH MECHANICAL/CONTROLS CONTRACTOR AND OWNER PRIOR TO ROUGH-IN.
5. PROVIDE BOXES AND CONDUITS FOR THE FIRE PROTECTION SYSTEM LOW VOLTAGE WIRING AS REQUIRED. THIS INCLUDES EXPOSED WIRING LESS THAN 96" AFF. AT A MINIMUM, PROVIDE **[3/4"]** CONDUIT, UNLESS NOTED OTHERWISE. COORDINATE REQUIREMENTS AND LOCATIONS WITH SYSTEM INSTALLER AND FIRE ALARM SPECIFICATIONS.
6. AT A MINIMUM, PROVIDE EXTRA DEEP, DOUBLE GANG COMMUNICATION OUTLET BOXES, (FLUSH MOUNTED WHEREVER PRACTICABLE), WITH SINGLE-GANG PLASTER RING AND **[1"]** CONDUIT STUBBED-UP CONCEALED TO ACCESSIBLE CEILING SPACE, UNLESS NOTED OTHERWISE. PROVIDE SURFACE MOUNTED DATA BOXES WITHIN CABINETRY, AND SELECT OTHER LOCATIONS AS INDICATED ON THE DRAWINGS. COORDINATE TELEPHONE/DATA BOX AND CONDUIT LOCATIONS AND SIZES WITH OWNER AND OTHER TRADES PRIOR TO ROUGH-IN.
7. PROVIDE NYLON BUSHINGS FOR ALL COMMUNICATIONS AND LOW VOLTAGE WIRING CONDUITS AND SLEEVES, UNLESS NOTED OTHERWISE.
8. ALL COMMUNICATIONS AND LOW VOLTAGE WIRING CONDUIT SHALL BE INSTALLED WITH AN ACCESSIBLE PULLBOX BETWEEN EVERY 180 DEGREE CHANGE IN DIRECTION AND AT 100' INTERVALS OF CONTINUOUS RUNS.
9. MINIMUM BEND RADIUS FOR COMMUNICATIONS CONDUIT IS 6 TIMES THE INSIDE DIAMETER FOR CONDUITS 2" IN DIAMETER AND SMALLER AND 10 TIMES THE INSIDE DIAMETER FOR CONDUITS GREATER THAN 2" IN DIAMETER, UNLESS NOTED OTHERWISE.
10. LOW VOLTAGE COMMUNICATION, ENERGY MANAGEMENT, SOUND SYSTEM, SECURITY AND RELATED WIRING IS TO BE PERFORMED BY OTHERS UNDER A SEPARATE CONTRACT, UNLESS NOTED OTHERWISE. PROVIDE BOXES AND CONDUIT IN FINISHED AND RATED FLOORS/WALLS/CEILINGS TO ACCESSIBLE LOCATIONS FOR ALL LOW VOLTAGE WIRING. PROVIDE ALL LINE VOLTAGE CIRCUITRY (120V AND HIGHER) TO OWNER FURNISHED EQUIPMENT AND LOW VOLTAGE STEP-DOWN TRANSFORMERS AS REQUIRED. COORDINATE ELECTRICAL REQUIREMENTS AND LOCATIONS WITH SYSTEM INSTALLER AND OWNER.
11. ALL LOW VOLTAGE CLASS 2 OR 3 WIRING NOT IN CONDUIT SHALL BE PLENUM RATED WHERE APPLICABLE.
12. LOW VOLTAGE CABLE SHEATH LABELS AND RELATED MANUFACTURER INFO SHALL REMAIN APPARENT IN ALL EXPOSED APPLICATIONS. PROTECT ALL EXPOSED CABLING FROM PAINTING AND OVERSPRAY (INCLUDES CABLE NOT ROUTED IN CONDUIT AND THAT IS IN CABLE TRAY).
13. CABLES SHALL BE ROUTED THROUGH THE BUILDING CABLE TRAY/RACEWAY SYSTEM, UNLESS NOTED OTHERWISE. EXPOSED CABLING SHALL NOT BE ROUTED IN AREAS EXPOSED TO STRUCTURE UNLESS SPECIFICALLY PERMITTED BY THE OWNER. IN AREAS WHERE EXPOSED CABLES ARE ALLOWED, IT SHALL BE INSTALLED IN A NEAT AND WORKMAN LIKE MANNER IN ACCORDANCE WITH THE OWNER'S REQUIREMENTS. WHERE REQUIRED, PROVIDE CONDUIT TO ROUTE LOW VOLTAGE CABLING TO THE CABLE TRAY OR NEAREST ACCESSIBLE CEILING SPACE.
14. CONDUITS FOR COMMUNICATIONS OUTLETS SERVING ELEVATOR EQUIPMENT ROOMS, FACP, AND SIMILAR CRITICAL EQUIPMENT AS DESIGNATED BY THE OWNER SHALL BE CONTINUOUS ("HOMERUN") FROM OUTLET TO SERVING COMMUNICATIONS ROOM.

APPLICABLE ELECTRICAL CODES:

NOTE: PROJECT IS DESIGNED IN COMPLIANCE WITH THE FOLLOWING CODES. THIS IS NOT AN EXHAUSTIVE LIST. PROJECT SHALL COMPLY WITH ALL APPLICABLE CODES, STANDARDS AND LOCAL REQUIREMENTS. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

ELECTRICAL CODE: **2017 NATIONAL ELECTRICAL CODE, (NFPA 70)**
BUILDING CODE: **2015 INTERNATIONAL BUILDING CODE**
ENERGY CODE: **NOT ADOPTED**

COMMISSIONING / FUNCTIONAL TESTING:

CONTRACTOR'S BID SHALL INCLUDE PROVISIONS TO PROVIDE ALL SERVICES RELATED TO THE CODE REQUIRED BUILDING SYSTEMS COMMISSIONING INCLUDING A COMMISSIONING PLAN, FUNCTIONAL TESTING, AND RELATED DOCUMENTATION, REPORTS AND OWNER TRAINING. THIS INCLUDES RETAINING THE SERVICES OF A 3RD PARTY REGISTERED DESIGN PROFESSIONAL OR APPROVED AGENCY. REFER TO THE LATEST ADOPTED EDITION OF THE APPLICABLE ENERGY CODE FOR MORE INFORMATION. CONTRACTOR SHALL COMPLETE ALL RELATED COMMISSIONING REQUIREMENTS PRIOR TO FINAL INSPECTIONS IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS, CODE AND MANUFACTURER'S INSTRUCTIONS.

ELECTRICAL GENERAL NOTES :

1. EXISTING CONDITIONS WERE TAKEN FROM ORIGINAL DRAWINGS AND SITE VISITS AND MAY NOT REFLECT ACTUAL "AS-BUILT" CONDITIONS. VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING FINAL BID. COORDINATE NEW AND DEMOLITION WORK WITH ALL OTHER TRADES AND EXISTING CONDITIONS.
2. NOTIFY ARCHITECT, ENGINEER AND OWNER, AS APPLICABLE, IF ANY DANGEROUS CONDITIONS EXIST ON JOB SITE BEFORE ANY DEMOLITION OR REMODEL WORK BEGINS.
3. COORDINATE ANY NECESSARY POWER OUTAGES WITH THE OWNER AND MAKE EVERY ATTEMPT TO SCHEDULE DURING NON-SCHOOL OR OFF-PEAK SCHOOL HOURS TO MINIMIZE DISRUPTION TO SCHOOL OPERATIONS. REQUESTS FOR ELECTRICAL SHUTDOWNS OF THE OWNERS EQUIPMENT SHALL BE BROUGHT IN WRITING TO THE ATTENTION OF THE OWNER AT LEAST 7 DAYS IN ADVANCE. SHUTDOWNS SHALL NOT BE PERFORMED WITHOUT WRITTEN APPROVAL FROM THE OWNER.
4. ALL ROOF PENETRATIONS, FLOOR CHASING OR CORE DRILLING SHALL REQUIRE THE SPECIFIC APPROVAL OF THE OWNER. ALL WORK IN COMMON AREAS, SHAFTS OR OTHER OWNER SPACES MUST BE SPECIFICALLY REVIEWED AND APPROVED BY THE OWNER PRIOR TO ANY WORK BEING PERFORMED.
5. FOR AREAS AND EQUIPMENT WITHIN THE SCOPE OF THIS REMODEL: EXISTING ELECTRICAL EQUIPMENT AND CIRCUITRY MAY BE REUSED IF IN GOOD CONDITION AND NEW DESIGN REQUIREMENTS CAN BE MET; OTHERWISE REPLACE
6. FOR AREAS AND EQUIPMENT WITHIN THE SCOPE OF THIS REMODEL: REPAIR OR REPLACE ANY EXISTING DAMAGED OR RECALLED ELECTRICAL EQUIPMENT, LIGHT FIXTURES, WIRING DEVICES AND RELATED CIRCUITRY AND RESTORE ALL ELECTRICAL SYSTEMS TO PROPER WORKING ORDER. THE FINAL ELECTRICAL INSTALLATION SHALL BE FREE FROM ELECTRICAL DEFECTS TO THE SATISFACTION OF THE AHJ, OWNER, ARCHITECT AND ENGINEER.
7. FOR AREAS AND EQUIPMENT WITHIN THE SCOPE OF THIS REMODEL: VERIFY CONDITION AND AGE OF EXISTING REUSED ELECTRICAL EQUIPMENT, LIGHT FIXTURES, CIRCUIT BREAKERS, FUSES, CONDUIT, SWITCHES AND RELATED WIRING. NOTIFY OWNER OF ANY ELECTRICAL EQUIPMENT, LIGHT FIXTURES AND WIRING AGED BEYOND ITS USEFUL LIFE AND REPLACE AS DIRECTED. THE MAXIMUM EXPECTED USEFUL LIFE SHALL NOT EXCEED THE FOLLOWING, (AS DATED FROM THE POINT OF MANUFACTURE), UNLESS APPROVED BY THE ENGINEER, MANUFACTURER AND OWNER: 20 YEARS FOR CIRCUIT BREAKERS, GENERATOR/UPS SYSTEMS AND LIGHT FIXTURES, 30 YEARS FOR TRANSFORMERS AND PANELBOARDS, 40 YEARS FOR SWITCHBOARDS AND OTHER ELECTRICAL EQUIPMENT.
8. FOR AREAS AND EQUIPMENT WITHIN THE SCOPE OF THIS REMODEL: ELECTRICAL EQUIPMENT SHALL BE LOCATED SO THAT THE CODE REQUIRED MINIMUM WORKING CLEARANCE AND DEDICATED ELECTRICAL SPACE ARE MAINTAINED. EXISTING EQUIPMENT NOT MEETING CURRENT CODE CLEARANCE REQUIREMENTS MAY REMAIN IF ALLOWED TO REMAIN BY THE AHJ, ENGINEER AND OWNER.
9. FOR FURNISHED EQUIPMENT AND APPLIANCES: CONFIRM THE ELECTRICAL REQUIREMENTS WITH MANUFACTURER INFORMATION AND OTHER TRADES PRIOR TO ROUGH-IN AND ADJUST ELECTRICAL PROVISIONS AS NECESSARY. THIS INCLUDES BUT IS NOT LIMITED TO: RACEWAY, CONDUCTOR(S), DISCONNECT, CIRCUIT BREAKER, FUSE, WIRING DEVICE AND TERMINATION. WHERE APPLICABLE, REFER TO VENDOR INFORMATION, SUCH AS FOOD SERVICE AND REFRIGERATION DRAWINGS, FOR DEVICE TYPE AND LOCATION.

ELECTRICAL SUPPLEMENTAL SPECIFICATIONS:

1. PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS. AS APPLICABLE, REVIEW THE OWNER CRITERIA, GENERAL NOTES, OTHER TRADE DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO SUBMITTING BID.
2. ALL WORK SHALL CONFORM TO ALL LOCAL CODES AND ORDINANCES AS WELL AS APPLICABLE INDUSTRY STANDARDS. ALL EQUIPMENT SHALL BEAR LABELS FOR THE USE INTENDED BY AN AHJ ACCEPTED NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL), SUCH AS UL OR ETL. THE FINAL ELECTRICAL INSTALLATION OF THE FACILITY OCCUPIED BY OWNER SHALL BE FREE FROM ELECTRICAL DEFECTS TO THE SATISFACTION OF THE AHJ, OWNER, ARCHITECT AND ENGINEER.
3. COORDINATE FINAL LOCATION AND INSTALLATION REQUIREMENTS OF ALL LIGHT FIXTURES, ELECTRICAL EQUIPMENT AND ELECTRICAL DEVICES WITH ARCHITECTURAL DRAWINGS, EXISTING CONDITIONS AND OTHER TRADES PRIOR TO ROUGH-IN. PROVIDE ALL NECESSARY DEVICES, CORDS, PLUGS, DISCONNECTS AND FINAL CONNECTIONS TO ELECTRICAL EQUIPMENT FOR PROPER OPERATION IN ACCORDANCE WITH CODE, OWNER AND MANUFACTURER REQUIREMENTS.
4. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC/SCHEMATIC IN NATURE AND REPRESENT THE GENERAL SCOPE OF WORK. IT IS NOT WITHIN THE SCOPE OF THE ELECTRICAL DRAWINGS TO SHOW ALL NECESSARY RACEWAY ROUTING, BENDS, OFFSETS, PULL BOXES AND OBSTRUCTIONS. CONTRACTOR SHALL COORDINATE THE FINAL LOCATION OF EQUIPMENT AND WIRING DEVICES WITH OTHER TRADES PRIOR TO INSTALLATION AND INSTALL ALL WORK TO CONFORM TO THE OWNER REQUIREMENTS.
5. ALL CONDUCTOR AND CONDUIT LENGTHS SHOWN IN THESE DESIGN DOCUMENTS ARE INTENDED SOLELY FOR USE IN THE DESIGN CALCULATIONS BY THE DESIGN PROFESSIONAL, UNLESS NOTED OTHERWISE. LENGTHS SHOWN SHALL NOT BE USED TO ASSIST IN THE BIDDING TAKEOFF PROCESS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MATERIAL QUANTITIES REQUIRED TO BID AND CONSTRUCT THE COMPLETE PROJECT.
6. PROVIDE PROPER FIRE PROOFING AND SEALANT FOR PENETRATIONS THROUGH FIRE RATED ASSEMBLIES. THE FIRE STOPPING METHOD, MATERIAL AND ITS APPLICATION SHALL BE NRTL LISTED, CODE COMPLIANT AND APPROVED BY AHJ.
7. FOR CAST-IN-PLACE CONCRETE, TILT-UP WALLS, PRECAST OR SIMILAR PRE-ENGINEERED WALL SYSTEMS: COORDINATE THE FINAL LOCATION OF ALL ELECTRICAL DEVICES, RACEWAYS, LIGHT FIXTURES AND PENETRATIONS WITH ARCHITECT, WALL SUPPLIER AND OTHER TRADES PRIOR TO WALL CONSTRUCTION. CONDUIT/RACEWAY IMBEDDED IN CONCRETE WALLS SHALL BE SCHEDULE 80 PVC OR LFMC; OTHER TYPES MAY BE ALLOWED IF APPROVED BY WALL SYSTEM MANUFACTURER AND ENGINEER.
8. WHEN CONCRETE TRENCHING/CORING IS REQUIRED, THE METHODS, DEPTHS, AND LOCATIONS SHALL BE PRE-APPROVED BY OWNER, ARCHITECT, AND STRUCTURAL ENGINEER PRIOR TO THE START OF WORK. X-RAY SLAB AS NECESSARY TO AVOID DAMAGING ANY UNDER-SLAB UTILITIES OR STRUCTURE. SLAB REPLACEMENT SHALL BE INSTALLED WITH DOWELLING AND REINFORCED CONCRETE AS DIRECTED BY THE STRUCTURAL ENGINEER. WHERE SLAB ON GRADE IS SAW-CUT AND REMOVED FOR TRENCHING THE CONTRACTOR SHALL INSTALL MOISTURE BARRIER PER OWNER'S REQUIREMENTS. PROVIDE 3/4" MINIMUM CONDUITS ROUTED THROUGH SLAB AND STUBBED UP INTO DEVICES. FOR SLAB ON DECK, THE FLOOR SHALL BE SLEEVED AND EQUIPPED WITH THE APPROPRIATE LISTED ASSEMBLY. PROVIDE 3/4" MINIMUM CONDUITS ROUTED BELOW SLAB, TIGHT TO STRUCTURE, AND STUBBED UP INTO DEVICES.
9. ALL APPLICABLE SWITCHES, RECEPTACLES, OUTLETS, AND CONTROLS SHALL BE PLACED AT HEIGHTS THAT ARE IN ACCORDANCE WITH ADA ACCESSIBILITY GUIDELINES.
10. COORDINATE FLOOR MOUNTED BOX, RECEPTACLE, AND COVER PLATE TYPES WITH ARCHITECT AND OWNER PRIOR TO ORDER.
11. WIRING DEVICES ADJACENT TO EACH OTHER SHALL BE INSTALLED UNDER A SINGLE COVER PLATE, UNO.
12. WIRING DEVICES SHOWN BACK-TO-BACK ON A COMMON WALL SHALL BE OFFSET A MINIMUM OF 12" HORIZONTALLY TO REDUCE SOUND TRANSMISSION BETWEEN ROOMS, UNO.
13. ALL WP OUTLET BOX HOODS SHALL BE "EXTRA-DUTY" AND "WHILE-IN-USE COVER" TYPE. OUTLET BOX HOODS SHALL BE LOW PROFILE WHEREVER PRACTICABLE, UNLESS NOTED OTHERWISE. THE USE OF LARGE BUBBLE COVERS SHALL BE AVOIDED ON THE EXTERIOR OF THE BUILDING OR BEHIND EQUIPMENT IN ORDER TO PREVENT DAMAGE TO THE COVER AND TO ALLOW THE EQUIPMENT TO BE LOCATED CLOSE TO THE WALL.
14. ALL 120V RECEPTACLES 50A OR LESS, 208V AND 240V RECEPTACLES 100A OR LESS, SHALL BE GFCI PROTECTED IN LOCATIONS REQUIRED BY CODE; THIS INCLUDES BATHROOMS, KITCHENS/FOOD PREP AREAS, EXTERIOR LOCATIONS AND RECEPTACLES WITHIN 6 FEET OF A SINK. GFCI RECEPTACLES SHALL BE READILY ACCESSIBLE AND SHALL NOT BE LOCATED BEHIND STATIONARY EQUIPMENT. GFCI PROTECTION MAY BE VIA A GFCI CIRCUIT BREAKER OR GFCI RECEPTACLE, UNLESS NOTED OTHERWISE. WHERE NECESSARY, GFCI PROTECTION MAY BE ACHIEVED VIA A BLANK FACE GFCI DEVICE LOCATED IN A READILY ACCESSIBLE LOCATION NEAR RECEPTACLE BEING PROTECTED. FOR DOWNSTREAM WIRING DEVICES LOCATED ON THE SAME BRANCH CIRCUIT, THE GFCI PROTECTION MAY BE PROVIDED FOR BY A SINGLE UPSTREAM DEVICE IF ALL PROTECTED DEVICES ARE LABELED PER CODE.
15. PROVIDE TAMPER-RESISTANT (TR) TYPE RECEPTACLES AT ALL CODE REQUIRED LOCATIONS AND AT LOCATIONS WHERE RECEPTACLES ARE MOUNTED LESS THAN 5'-6" AFF AND ARE EASILY ACCESSIBLE BY CHILDREN, UNLESS NOTED OTHERWISE.
16. FLEXIBLE CONDUIT IS ONLY PERMITTED WHERE SPECIFICALLY ALLOWED IN THE CONSTRUCTION DOCUMENTS, WHERE CONCEALED FROM VIEW OR EXPOSED FINAL CONNECTIONS TO LIGHT FIXTURES AND EQUIPMENT IN LENGTHS OF 6'-0" OR LESS.
17. ALL EMPTY CONDUIT/RACEWAY SHALL BE INSTALLED WITH PULL STRINGS. TERMINATE CONDUIT STUB-UP WITH A NYLON BUSHING.
18. EXPOSED CONDUIT/RACEWAY SHALL BE PAINTED TO MATCH ADJACENT SURFACE, UNLESS NOTED OTHERWISE. COORDINATE REQUIREMENTS WITH ARCHITECT AND OWNER PRIOR TO INSTALLATION.
19. CONDUITS/RACEWAYS SHALL BE CONCEALED FROM VIEW WHEREVER PRACTICABLE, UNLESS NOTED OTHERWISE. ROUTE CONDUITS SERVING ROOFTOP EQUIPMENT CONCEALED INSIDE EQUIPMENT CURB AND MINIMIZE ROOF PENETRATIONS AND EXTERIOR CONDUIT RUNS WHERE PRACTICABLE. SUPPORT RACEWAY FROM STRUCTURE, NOT ROOF DECK. MAINTAIN 2" MIN SPACING FROM BOTTOM OF ROOF DECK TO PREVENT ROOFING SCREWS FROM PENETRATING RACEWAY. DO NOT ROUTE CONDUITS ACROSS SKYLIGHTS, ACCESS PANELS, HATCHED TILES, HVAC DIFFUSERS, OR EQUIPMENT WORKING CLEARANCE SPACE. ROUTE ALL EXPOSED NON-FLEXIBLE CONDUITS TIGHT TO STRUCTURE, PARALLEL TO BUILDING LINES AND IN STRUT OR CABLE/PIPE TRAY WHERE PRACTICABLE. INSTALL CONDUITS PLUMB/ LEVEL WHERE EXPOSED TO VIEW. COORDINATE RACEWAY ROUTING AND INSTALLATION WITH OTHER TRADES PRIOR TO ROUGH-IN.
20. WHERE PRACTICABLE, ALL UNDER-FLOOR/UNDER-GROUND CONDUITS/RACEWAY SHALL BE INSTALLED A MINIMUM OF **24"** BELOW BOTTOM OF SLAB/PAVING/GRADE, UNLESS NOTED OTHERWISE. NOTE: THE DESIGN INTENT FOR INSTALLING ELECTRICAL CIRCUITRY AT THIS DEPTH IS TO PROTECT THE ELECTRICAL CIRCUITRY FROM DAMAGE DUE TO FUTURE WORK.
21. PROVIDE LABEL AT EACH RECEPTACLE COVER PLATE WITH THE RESPECTIVE "PNLBD-CKT#" DESIGNATION. COORDINATE LABEL REQUIREMENTS WITH THE OWNER PRIOR TO INSTALLATION. REFER TO THE SPECIFICATIONS FOR MORE INFORMATION.
22. MULTIWIRE BRANCH CIRCUITS ARE NOT ALLOWED, UNLESS NOTED OTHERWISE.
23. PROVIDE INSULATED EQUIPMENT GROUNDING CONDUCTOR FOR ALL CIRCUITS, UNLESS NOTED OTHERWISE.

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MO. CORPORATE NO: E-556D
EXPIRES 12/31/2020

STATE OF MISSOURI
CURTIS A. OLDS
NUMBER PE-2018036640
PROFESSIONAL ENGINEER

Sep 25 2020

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

ELECTRICAL GENERAL NOTES AND LEGEND

H-E000

BID SET

CURTIS A. OLDS

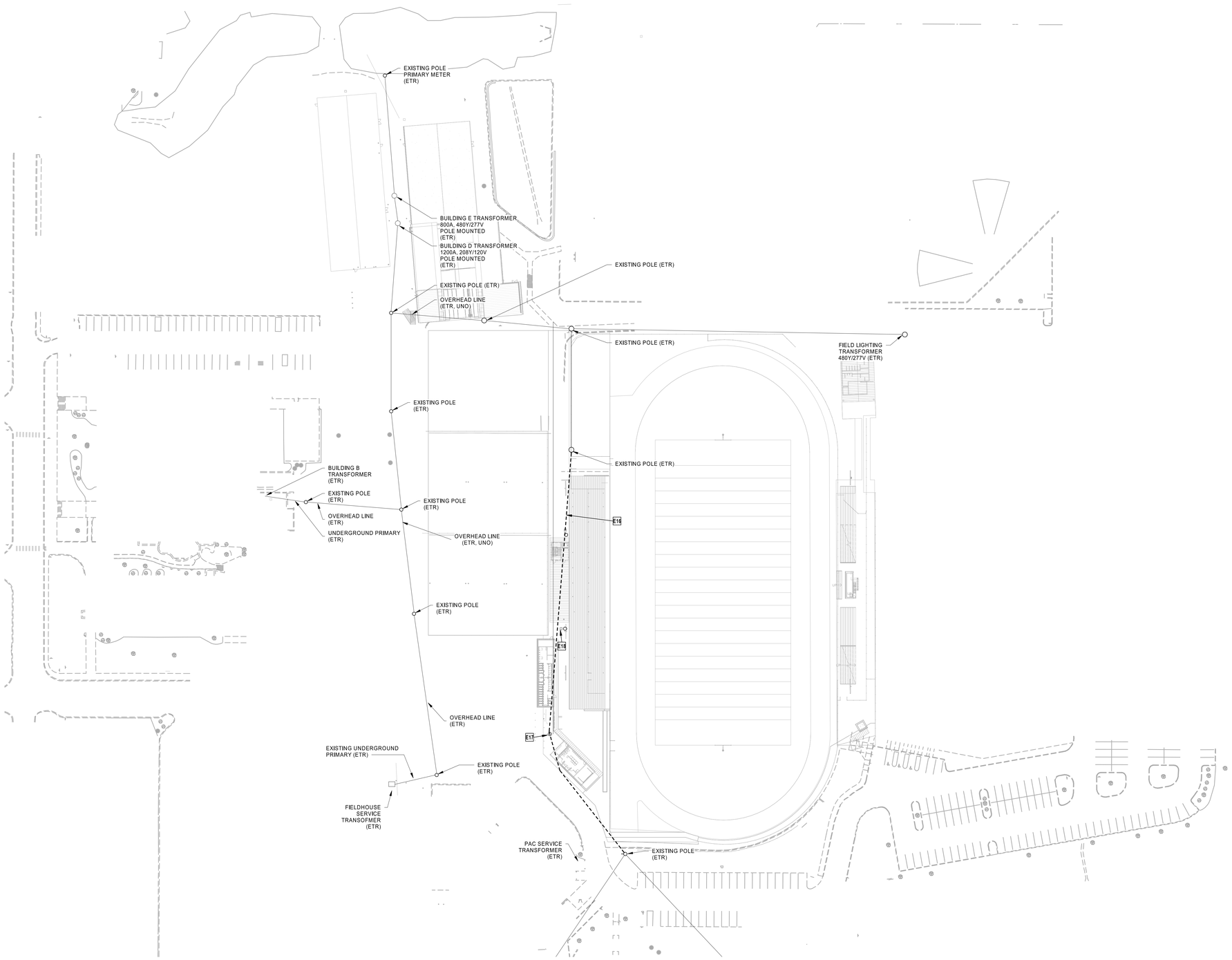
PRINT DATE/TIME: 9/25/2020 1:58:29 PM

ELECTRICAL PLAN NOTES:

E16 DEMOLISH OVERHEAD LINE, POLES, AND TRANSFORMERS ALONG DASHED LINE.

E17 SALVAGE EXISTING 240V/120V SINGLE PHASE TRANSFORMER AND TURN OVER TO OWNER FOR REUSE.

E18 APPROXIMATE LOCATION OF TENNIS COURT LIGHTING CONTROLLER TO BE RELOCATED IN NEW WORK.



1 ELECTRICAL DEMO SITE PLAN
1" = 50'-0"

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EXPIRES 12/31/2020

STATE OF MISSOURI
CURTIS A. OLDS
NUMBER PE-2015036640
PROFESSIONAL ENGINEER

Sep 25 2020

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

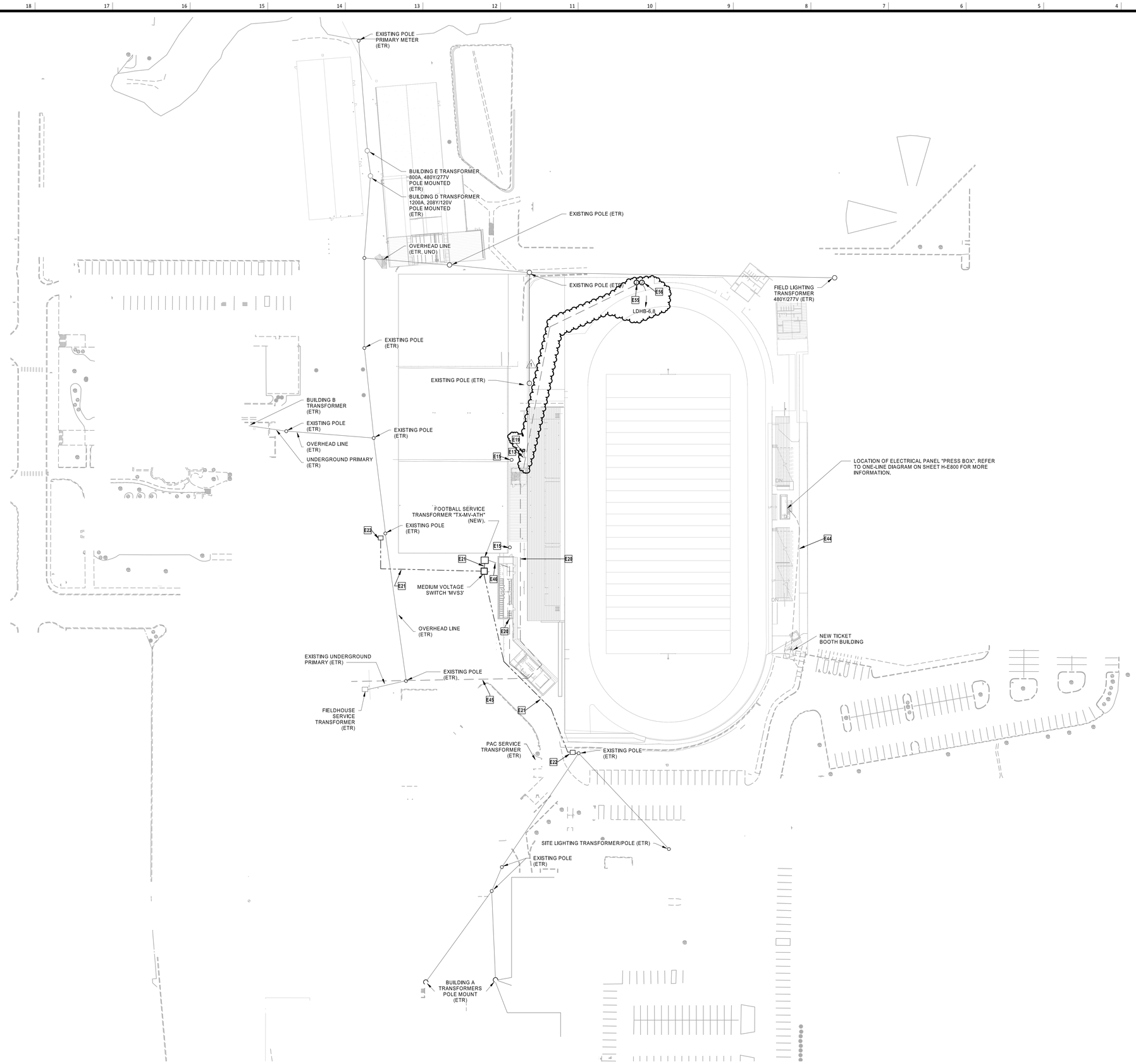
ELECTRICAL SITE PLAN - DEMO

H-E001

BID SET

PRINT DATE/TIME: 9/25/2020 1:58:35 PM

CURTIS A. OLDS



1 ELECTRICAL SITE PLAN
1" = 50'-0"

ELECTRICAL PLAN NOTES:

E13 APPROXIMATE LOCATION OF EXISTING TENNIS COURT LIGHTING CABINET.

E15 NEW LOCATION OF EXISTING TENNIS COURT LIGHT POLES. PROVIDE NEW FEEDER FROM POLE LOCATION TO TENNIS COURT LIGHTING CABINET. NEW FEEDER SHALL MATCH EXISTING SIZE. RE-AIM FIXTURES TO MAINTAIN UNIFORM ILLUMINATION ACROSS THE TENNIS COURTS.

E19 NEW LOCATION OF EXISTING TENNIS COURT LIGHTING CONTROLLER. PROVIDE NEW FEEDER FROM CONTROLLER TO CABINET. NEW FEEDER SHALL MATCH EXISTING.

E20 PROVIDE THE FOLLOWING: 2" CONDUIT FOR TELECOM, CONDUIT FOR ELECTRICAL FEEDER, AND (1) 1" SPARE CONDUIT BETWEEN BUILDINGS AS SHOWN, REFER TO ELECTRICAL ONE-LINE DIAGRAM ON SHEET H-E800 FOR ELECTRICAL FEEDER CONDUIT SIZING. COORDINATE ROUTING WITH CIVIL ENGINEER.

E21 NEW UNDERGROUND PRIMARY ROUTING SHOWN FOR DIAGRAMMATIC PURPOSES. COORDINATE ROUTING AND DEPTH OF MEDIUM VOLTAGE CONDUITS WITH CIVIL DRAWINGS. REFER TO ONE-LINE DIAGRAM FOR CONDUIT AND WIRE SIZES.

E22 HAND HOLE FOR CONNECTION TO EXISTING POLE MOUNTED MEDIUM VOLTAGE INFRASTRUCTURE.

E44 PROVIDE THE FOLLOWING: 2" CONDUIT FOR TELECOM, CONDUIT FOR ELECTRICAL FEEDER, AND (1) 1" SPARE CONDUIT BETWEEN BUILDINGS AS SHOWN, REFER TO ELECTRICAL ONE-LINE DIAGRAM ON SHEET H-E801 FOR ELECTRICAL FEEDER CONDUIT SIZING. COORDINATE ROUTING WITH CIVIL ENGINEER.

E45 PROVIDE (2) 2" CONDUITS FOR TELECOM. ROUTE FROM IDF ROOM AT SCHOOL BUILDING TO CONCESSION BUILDING. COORDINATE ROUTING WITH CIVIL ENGINEER AND OWNER.

E46 REFER TO ELECTRICAL ONE-LINE ON SHEET H-E800 FOR CONDUIT SIZING AND ROUTING.

E55 PROVIDE EMPTY 1-1/4" CONDUIT FROM COMMAND CENTER H1-204 IN PRESS BOX TO EXISTING SCOREBOARD. TERMINATE CONDUIT IN HAND HOLE NEAR SCOREBOARD FOR FUTURE CONNECTION OF LOW VOLTAGE WIRING.

E56 PROVIDE NEW POWER CONNECTION TO EXISTING SCOREBOARD AS SHOWN. NEW CONDUIT SHALL BE ROUTED PARALLEL TO THE EMPTY LOW-VOLTAGE CONDUIT. PULL (4)#10, #10G FOR THIS CIRCUIT. CURRENT SCOREBOARD IS SINGLE PHASE BUT PROPOSED NEW EQUIPMENT WILL BE 3-PHASE.

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STATE OF MISSOURI
CURTIS A. OLDS
NUMBER PE-2018036640
PROFESSIONAL ENGINEER

Nov 9 2020

REVISIONS

NUMBER	DESCRIPTION	DATE
1	Addendum 3	10.23.2020

PROJECT NO: 0119-0101
DATE: September 28, 2020

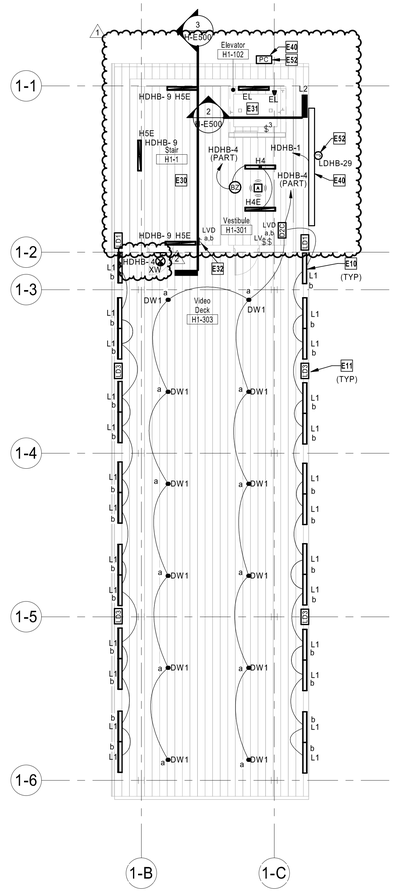
ELECTRICAL SITE PLAN - NEW

H-E002

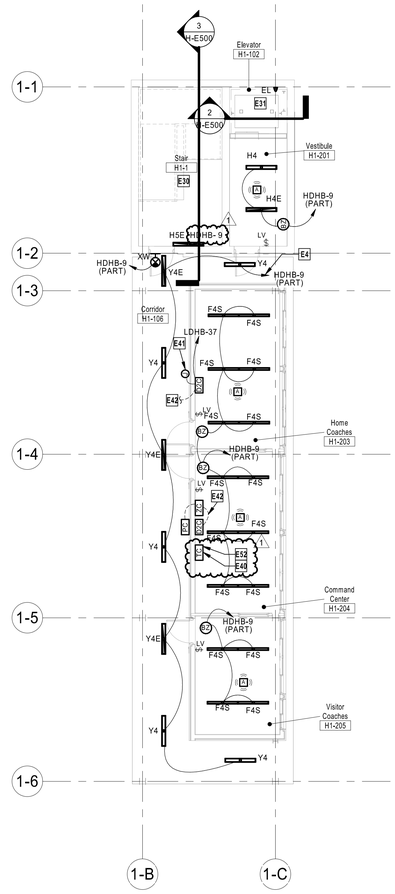
BID SET

PRINT DATE/TIME: 11/6/2020 2:33:03 PM

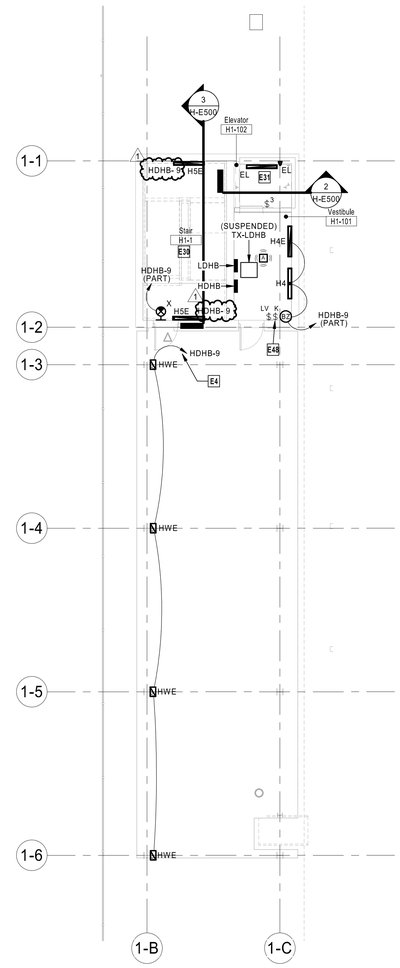
CURTIS A. OLDS



3 HOME PRESS BOX - LEVEL 3 LIGHTING RCPS
1/8" = 1'-0"



2 HOME PRESS BOX - LEVEL 2 LIGHTING RCP
1/8" = 1'-0"



1 HOME PRESS BOX - LIGHTING RCP
1/8" = 1'-0"

ELECTRICAL GENERAL NOTES:

1. LIGHTING IS TO BE CIRCUITED BACK TO 480/277V PANEL LOCATED IN THE SAME BULIDING THE LIGHTING IS LOCATED IN UNLESS OTHERWISE NOTED. CIRCUIT AS NOTED IN FIXTURE TAG.
2. LIGHTING CONTROL DEVICES SHALL CONTROL LIGHTING IN THE ASSOCIATED ROOM. REFER TO DETAIL 1 ON SHEET H-E700.
3. H5/H5E FIXTURES ARE CONTROLLED BY INTEGRAL OCCUPANCY SENSOR.

ELECTRICAL PLAN NOTES:

E4 ROUTE CIRCUIT THROUGH ROOM CONTROLLER LOCATED IN ROOM 1-204.

E10 MOUNT TAPE LIGHT TO THE FACE OF THE STRUCTURAL BEAM. MOUNT AS LOW ON BEAM AS POSSIBLE. FIXTURE INTENDED TO GRAZE THE ROOF. COORDINATE EXACT LOCATION WITH STRUCTURAL MEMBERS.

E11 24V LED TAPE LIGHT TO BE FED FROM NEMA-3R 0-10V DIMMING (1) AND (3) OUTPUT 277/24V 96W LED DRIVERS. REFER TO LIGHT FIXTURE SCHEDULE FOR DRIVER SPECIFICATIONS. COORDINATE PLACEMENT AND NUMBER OF DRIVERS WITH FIXTURE LENGTHS. INSTALL PER MANUFACTURER'S SPECIFICATIONS.

E30 REFER TO SECTION 2 ON SHEET H-E500 FOR CIRCUITING INFORMATION OF STAIRWAY LIGHTING. CONTROL TO BE FROM INTEGRAL OCCUPANCY SENSORS ON EACH LIGHT FIXTURE.

1 E31 REFER TO SECTION 3 ON SHEET H-E500 FOR CIRCUITING INFORMATION OF ELEVATOR SHAFT LIGHTING. ENTIRE SHAFT TO BE CONTROLLED BY 3-WAY SWITCH AT TOP AND BOTTOM OF SHAFT.

E32 LOCATE SWITCH ADJACENT TO DOOR. SHOWN OFFSET FOR DRAWING CLARITY.

E40 FIXTURE TO LIGHT SIGNAGE/GRAPHIC ON FACADE. COORDINATE EXACT MOUNTING LOCATION, EXACT MOUNTING HEIGHT AND INSTALLATION REQUIREMENTS WITH OWNER. SIGNAGE SHOP DRAWINGS, LIGHTING MANUFACTURER'S SPECIFICATIONS AND ARCHITECT/ARCHITECTURAL PLANS PRIOR TO BEGINNING ANY WORK. CONTROL VIA PHOTOCELL AND ASTRONOMICAL TIME CLOCK. TIMECLOCK TO BE LOCATED IN COMMAND CENTER H1-204. COORDINATE PROGRAMMING WITH OWNER.

E41 POWER CONNECTION FOR BACK LIT SIGN. COORDINATE LOCATION AND REQUIREMENTS WITH OWNER AND SIGN MANUFACTURER PRIOR TO ROUGH-IN.

E42 CONNECT LOW VOLTAGE WIRE TO ZONE CONTROLLER IN ROOM 2-104 TO PROVIDE PHOTO CELL AND TIME CLOCK CONTROL. REFER TO DETAIL 1 ON SHEET H-E700 FOR MORE INFORMATION.

1 E48 PROVIDE LINE VOLTAGE KEYED SWITCH AND CONNECT TO HOLD-ON INPUTS OF POWER PACK. PROVIDE PERMANENT TYPEWRITTEN LABEL ON COVERPLATE STATING "PANEL MAINTENANCE LIGHTING".

E52 PRICE AS ALTERNATE: ILLUMINATED SIGN. COORDINATE EXACT MOUNTING LOCATION, EXACT MOUNTING HEIGHT AND INSTALLATION REQUIREMENTS WITH OWNER, SIGNAGE SHOP DRAWINGS, LIGHTING MANUFACTURER'S SPECIFICATIONS AND ARCHITECT/ARCHITECTURAL PLANS PRIOR TO BEGINNING ANY WORK. CONTROL VIA PHOTOCELL AND ASTRONOMICAL TIME CLOCK. TIMECLOCK TO BE LOCATED IN COMMAND CENTER H1-204. COORDINATE PROGRAMMING WITH OWNER.

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mechanical/electrical engineer:
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2050003134
MO. CORPORATE NO: E-556D
EXPIRES 12/31/2020

STATE OF MISSOURI
CURTIS A. OLDS
NUMBER
PE-2010036640
PROFESSIONAL ENGINEER

Nov 9 2020

REVISIONS

NUMBER	DESCRIPTION	DATE
1	Addendum 4	10.24.2020

PROJECT NO: 0119-0101
DATE: September 28, 2020

HOME PRESS BOX - LIGHTING RCPS

H-E111

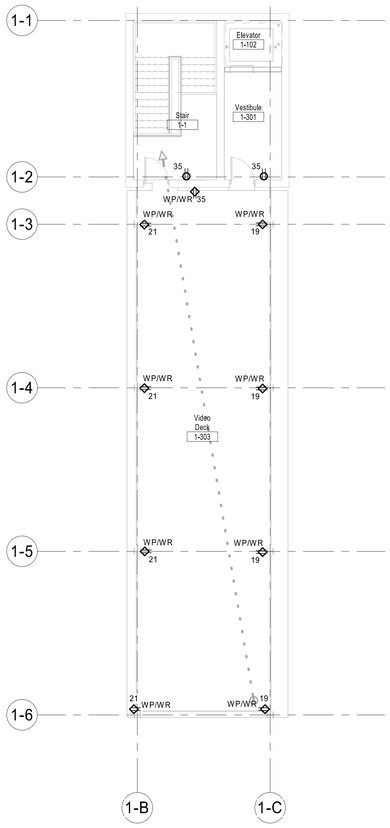
BID SET

ELECTRICAL GENERAL NOTES:

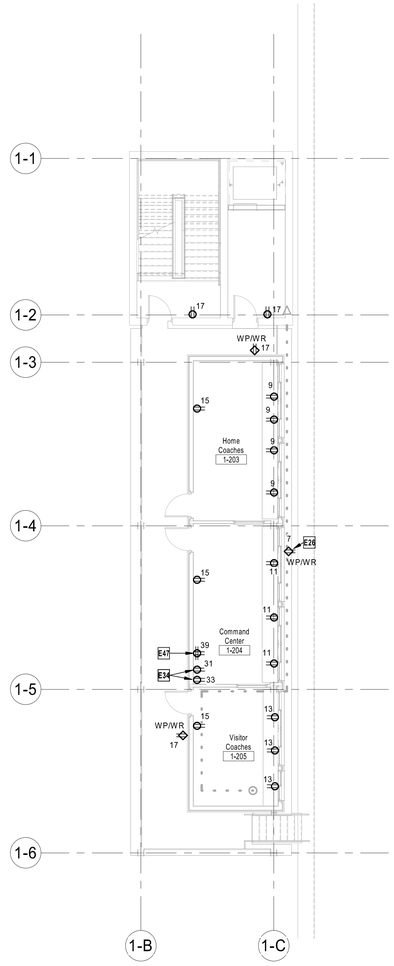
1. ALL WIRING DEVICES ARE CIRCUITED TO 208/120V PANEL IN SAME BUILDING. CIRCUIT AS NOTED BY NUMBER ADJACENT TO DEVICE.

ELECTRICAL PLAN NOTES:

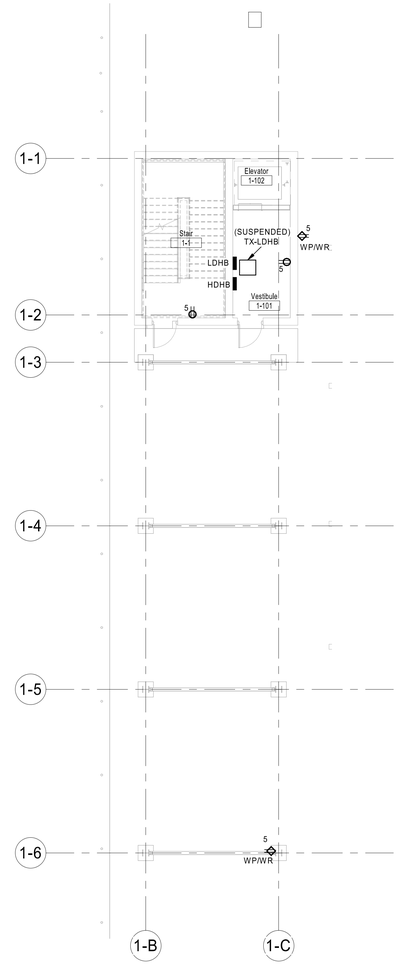
E26 DEDICATED 120V RECEPTACLE FOR HUDL CAMERA.
E34 COORDINATE LOCATION OF PA SYSTEM CIRCUITS WITH OWNER PRIOR TO ROUGH-IN.
E47 POWER CONNECTION FOR IT RACK. COORDINATE FINAL LOCATION WITH IT INSTALLER.



3 HOME PRESS BOX - LEVEL 3 POWER PLAN
1/8" = 1'-0"



2 HOME PRESS BOX - LEVEL 2 POWER PLAN
1/8" = 1'-0"



1 HOME PRESS BOX - POWER PLAN
1/8" = 1'-0"

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Lee's Summit R7 District Athletics Facilities

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EXPIRES 12/31/2020

STATE OF MISSOURI
CURTIS A. OLDS
NUMBER
PE-2018035640
PROFESSIONAL ENGINEER

Sep 25 2020

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

HOME PRESS BOX - POWER PLANS

H-E112

BID SET

PRINT DATE/TIME: 9/25/2020 1:58:57 PM

CURTIS A. OLDS

ELECTRICAL PLAN NOTES:

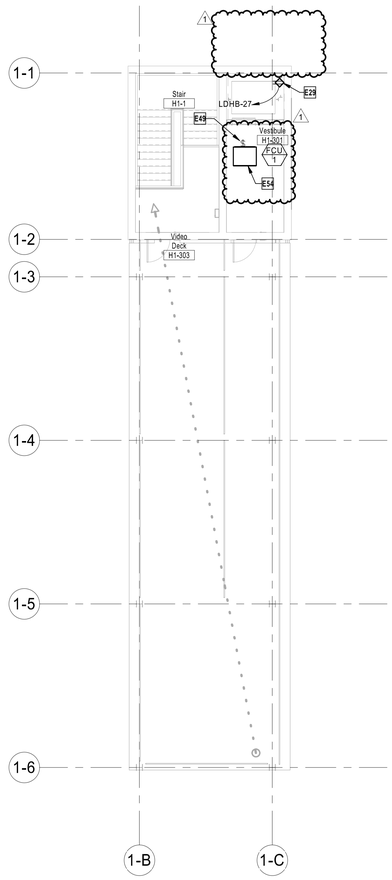
E25 PROVIDE MARKTIME 70AB SERIES HEAVY DUTY TIMER FOR CONTROL OF HEATER. COORDINATE REQUIRED TIMER LENGTH WITH OWNER.

E29 MAINTENANCE RECEPTACLE LOCATED AT TOP OF ELEVATOR SHAFT. COORDINATE EXACT LOCATION WITH ELEVATOR.

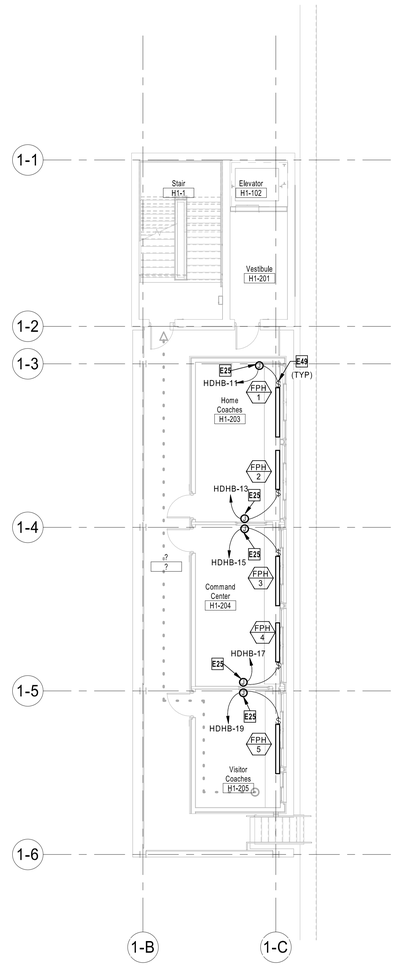
E37 POWER CONNECTION FOR ELEVATOR, CAB LIGHTING, AND CAB HVAC. COORDINATE EXACT LOCATION AND CONNECTION REQUIREMENTS WITH MANUFACTURER PRIOR TO ROUGH-IN.

E49 DISCONNECT SWITCH IS INTEGRAL TO MECHANICAL EQUIPMENT. REFER TO MECHANICAL SCHEDULES ON SHEET H-M910 FOR MORE INFORMATION.

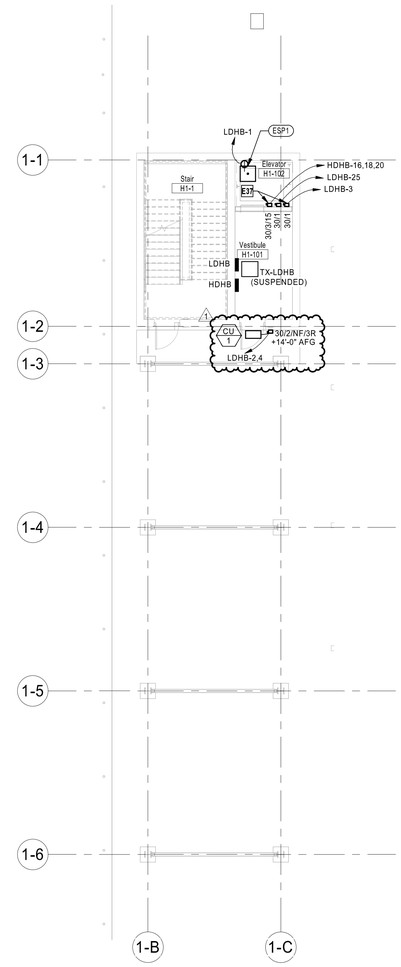
1 E54 CU-1/FCU-1 EQUIPMENT CONTAINS A SINGLE POINT OF CONNECTION AT CU-1. PROVIDE CONDUIT FOR CONNECTION BETWEEN FCU-1 AND CU-1 FOR EQUIPMENT INTERCONNECTION SIZED PER EQUIPMENT MANUFACTURER'S SPECIFICATIONS.



3 EQUIPMENT CONNECTION LEVEL 3 PLAN - HOME PRESS BOX
1/8" = 1'-0"



2 EQUIPMENT CONNECTION LEVEL 2 PLAN - HOME PRESS BOX
1/8" = 1'-0"



1 EQUIPMENT CONNECTION PLAN - HOME PRESS BOX
1/8" = 1'-0"

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STATE OF MISSOURI
CURTIS A. OLDS
NUMBER PE-2010036640
PROFESSIONAL ENGINEER

Nov 9 2020

REVISIONS

NUMBER	DESCRIPTION	DATE
1	Addendum 3	10.23.2020

PROJECT NO: 0119-0101
DATE: September 28, 2020

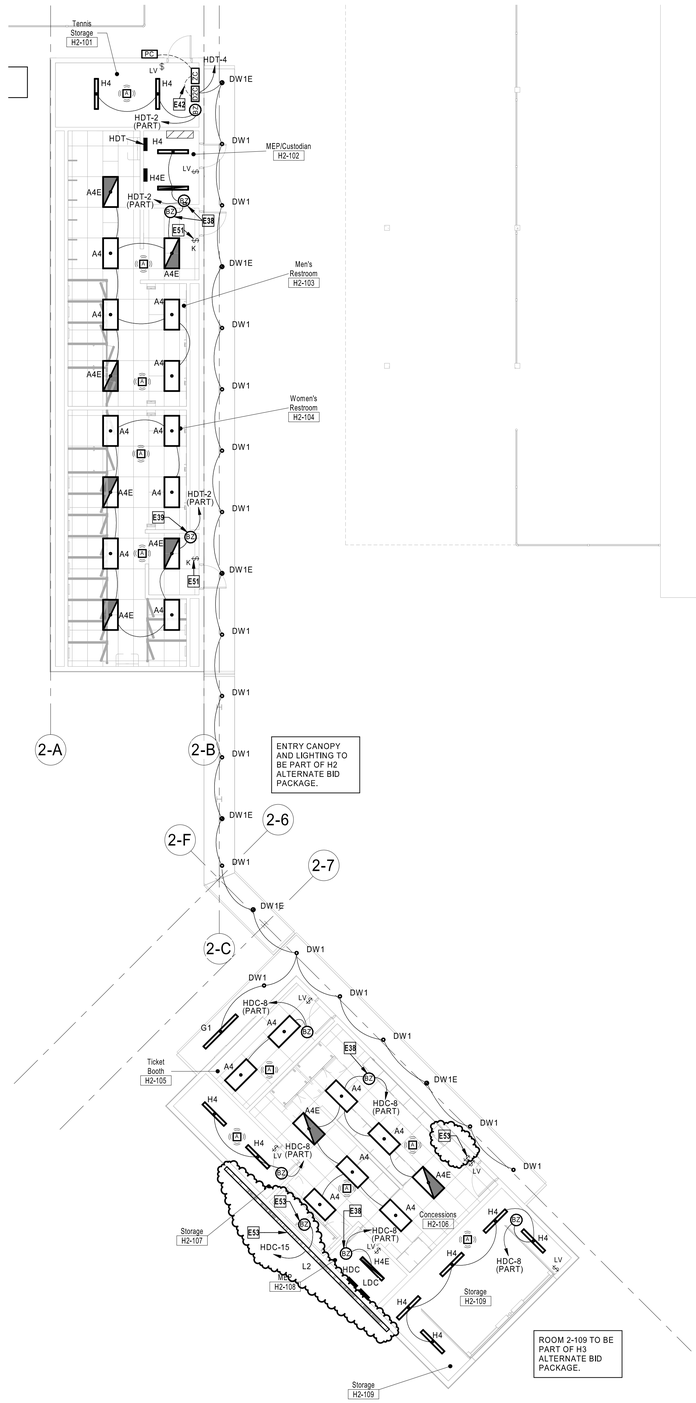
HOME PRESS BOX - EQUIPMENT CONNECTION PLANS

H-E113

BID SET

PRINT DATE/TIME: 11/6/2020 2:33:09 PM

CURTIS A. OLDS



1 HOME GATEWAY - LIGHTING RCP
1/8" = 1'-0"

ELECTRICAL GENERAL NOTES:

1. LIGHTING IS TO BE CIRCUITED BACK TO 480/277V PANEL LOCATED IN THE SAME BULIDING THE LIGHTING IS LOCATED IN UNLESS OTHERWISE NOTED. CIRCUIT AS NOTED IN FIXTURE TAG.
2. LIGHTING CONTROL DEVICES SHALL CONTROL LIGHTING IN THE ASSOCIATED ROOM. REFER TO DETAIL 1 ON SHEET H-E700 UNLESS OTHERWISE NOTED.

☐ ELECTRICAL PLAN NOTES:

E38 LIGHTING CONTROL DEVICES SHALL CONTROL LIGHTING IN THE ASSOCIATED ROOM. REFER TO DETAIL 3 ON SHEET H-E700 FOR LIGHTING CONTROL INFORMATION.

E39 LIGHTING CONTROL DEVICES SHALL CONTROL LIGHTING IN THE ASSOCIATED ROOM. REFER TO DETAIL 2 ON SHEET H-E700 FOR LIGHTING CONTROL INFORMATION.

E42 CONNECT LOW VOLTAGE WIRE TO ZONE CONTROLLER IN ROOM 2-104 TO PROVIDE PHOTO CELL AND TIME CLOCK CONTROL. REFER TO DETAIL 4 ON SHEET H-E700 FOR MORE INFORMATION.

E51 PROVIDE KEYED SWITCH ON LOAD SIDE OF POWER PACK.

1 E53 CONCESSION STAND ILLUMINATED SIGN. COORDINATE EXACT MOUNTING LOCATION, EXACT MOUNTING HEIGHT AND INSTALLATION REQUIREMENTS WITH OWNER, SIGNAGE SHOP DRAWINGS, LIGHTING MANUFACTURER'S SPECIFICATIONS AND ARCHITECT/ARCHITECTURAL PLANS PRIOR TO BEGINNING ANY WORK. CONTROL SIGN VIA SLAVE POWER PACK AND LOW VOLTAGE AND CONCESSIONS ROOM H2-106 OCCUPANCY SENSORS. PROVIDE LINE VOLTAGE SWITCH AFTER POWER PACK IN SERIES WITH ILLUMINATED SIGN TO ACT AS A MASTER OVERRIDE SWITCH.

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STATE OF MISSOURI
CURTIS A. OLDS
NUMBER PE-2010036640
PROFESSIONAL ENGINEER

Nov 9 2020

REVISIONS

NUMBER	DESCRIPTION	DATE
1	Addendum 3	10.23.2020

PROJECT NO: 0119-0101
DATE: September 28, 2020

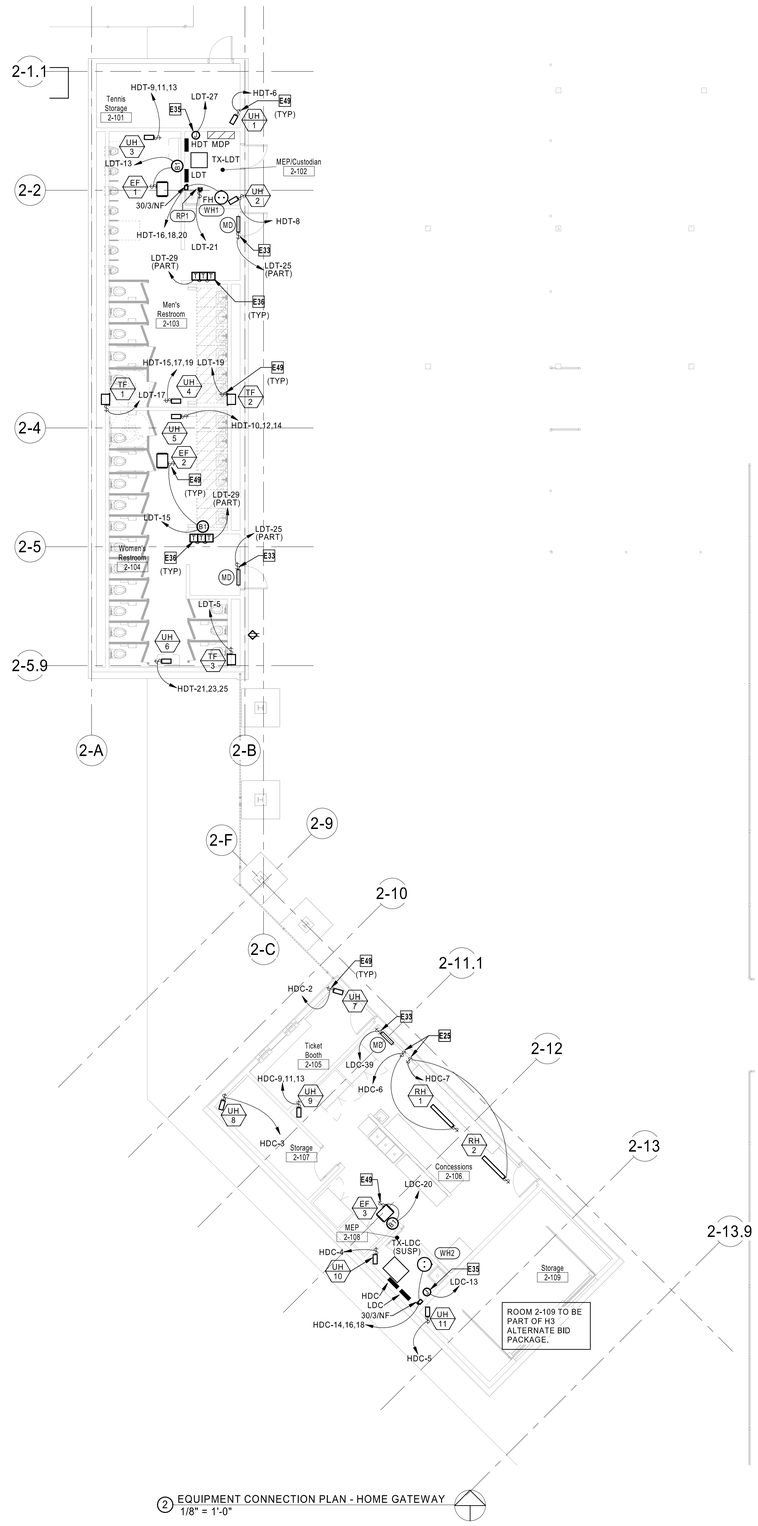
HOME GATEWAY - LIGHTING RCP

H-E121

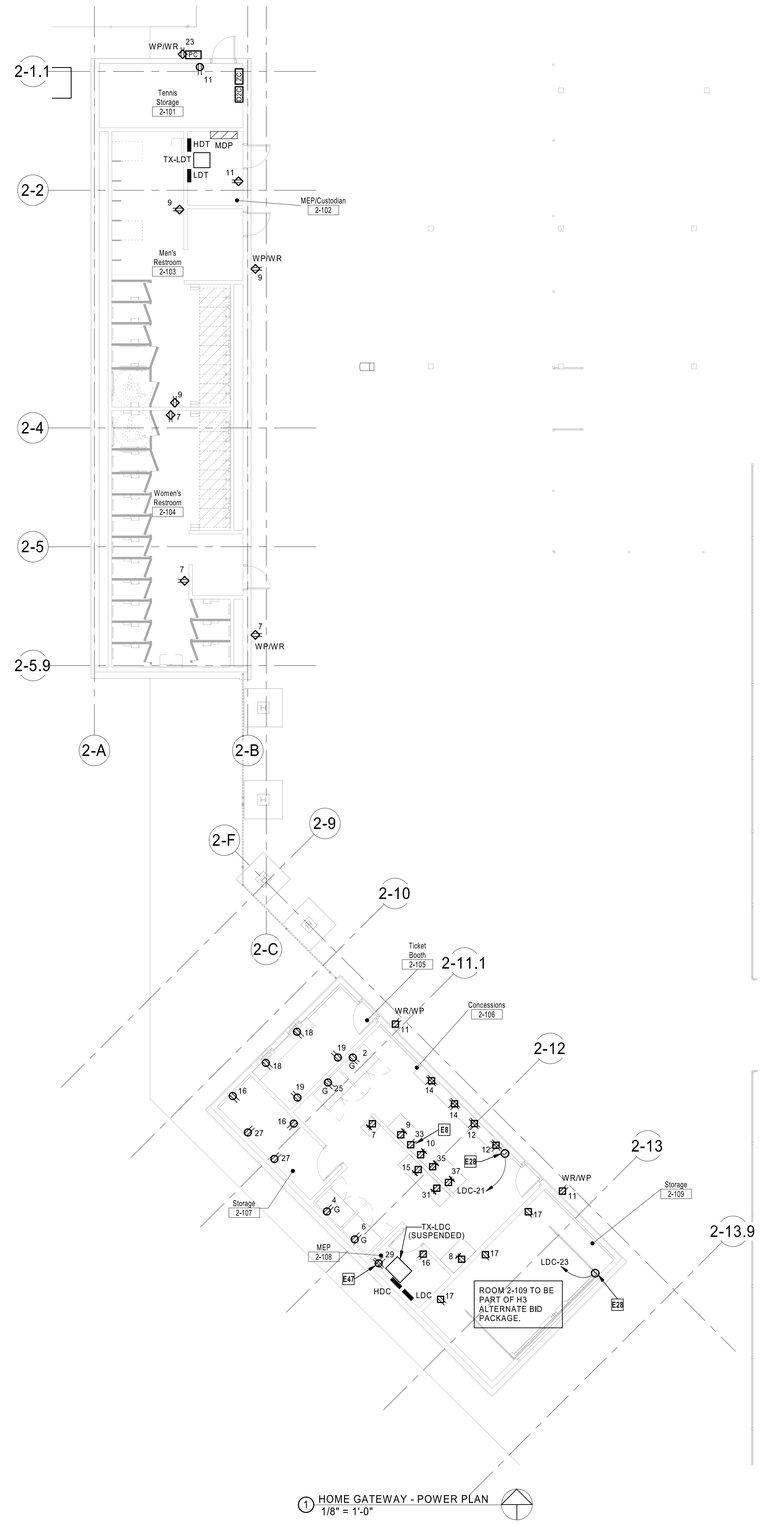
BID SET

PRINT DATE/TIME: 11/6/2020 2:33:15 PM

CURTIS A. OLDS



2 EQUIPMENT CONNECTION PLAN - HOME GATEWAY
1/8" = 1'-0"



1 HOME GATEWAY - POWER PLAN
1/8" = 1'-0"

ELECTRICAL GENERAL NOTES:

1. ALL WIRING DEVICES ARE CIRCUITED TO 208/120V PANEL IN SAME BUILDING. CIRCUIT AS NOTED BY NUMBER ADJACENT TO DEVICE.
2. REFER TO DETAIL 2 AND 3 ON SHEET H-E700 FOR EXHAUST FAN CONTROL DETAILS.

ELECTRICAL PLAN NOTES:

E8 COORDINATE LOCATION OF MICROWAVE RECEPTACLE WITH OWNER PRIOR TO ROUGH-IN.

E25 PROVIDE MARKTIME 70AB SERIES HEAVY DUTY TIMER FOR CONTROL OF HEATER. COORDINATE REQUIRED TIMER LENGTH WITH OWNER.

E28 POWER CONNECTION TO OVERHEAD COILING DOOR. COORDINATE POWER REQUIREMENTS WITH SELECTED MANUFACTURER. COORDINATE CONTROLS WITH OWNER AND MANUFACTURER PRIOR TO ROUGH-IN.

E33 CONTRACTOR TO PROVIDE 120V CONTROL POWER FOR LOUVER MOTOR OPERATED DAMPERS. COORDINATE EXACT LOCATION AND QUANTITY OF CONNECTIONS WITH MECHANICAL CONTRACTOR AND EQUIPMENT MANUFACTURER'S SPECIFICATIONS.

E35 POWER CONNECTION TO DDC CONTROL PANEL. COORDINATE CONNECTION REQUIREMENTS WITH MANUFACTURER. REFER TO SHEET H-M121 FOR EXACT LOCATION.

E36 POWER CONNECTION TO LOW VOLTAGE TRANSFORMER FOR PLUMBING FIXTURE. COORDINATE CONNECTION REQUIREMENTS WITH MANUFACTURER.

E47 POWER CONNECTION FOR IT RACK. COORDINATE FINAL LOCATION WITH IT INSTALLER.

E49 DISCONNECT SWITCH IS INTEGRAL TO MECHANICAL EQUIPMENT. REFER TO MECHANICAL SCHEDULES ON SHEET H-M600 FOR MORE INFORMATION.

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Lee's Summit R7 District Athletics Facilities

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MO. CORPORATE NO: E-556D
EXPIRES 12/31/2020

STATE OF MISSOURI
CURTIS A. OLDS
NUMBER PE-2015035640
PROFESSIONAL ENGINEER

Sep 25 2020

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

HOME GATEWAY - ELECTRICAL PLANS

H-E122

BID SET

PRINT DATE/TIME: 9/25/2020 1:59:19 PM

CURTIS A. OLDS

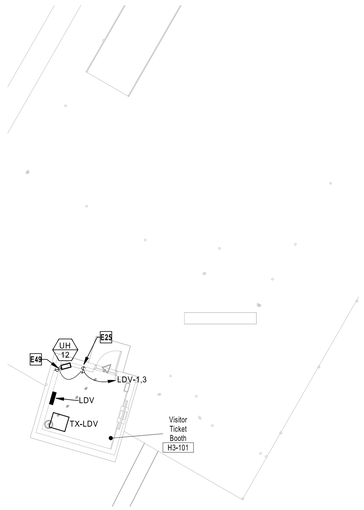
ELECTRICAL GENERAL NOTES:

1. LIGHTING IS TO BE CIRCUITED BACK TO 208/120V PANEL LOCATED IN THE SAME BULIDING THE LIGHTING IS LOCATED IN UNLESS OTHERWISE NOTED. CIRCUIT AS NOTED IN FIXTURE TAG.
2. ALL WIRING DEVICES ARE CIRCUITED TO 208/120V PANEL IN SAME BUILDING. CIRCUIT AS NOTED BY NUMBER ADJACENT TO DEVICE.
3. LIGHTING CONTROL DEVICES SHALL CONTROL ALL LIGHTING ASSOCIATED WITH THE TICKET BOOTH. REFER TO DETAIL 1 ON SHEET H-E700 FOR MORE INFORMATION.

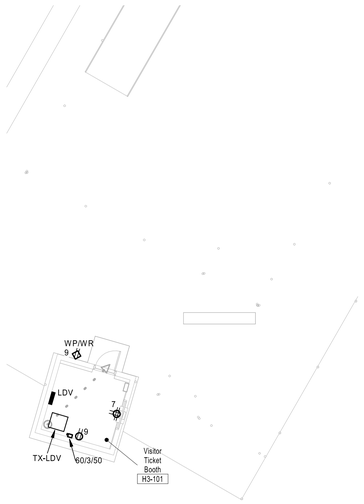
☐ ELECTRICAL PLAN NOTES:

E25 PROVIDE MARKTIME 70AB SERIES HEAVY DUTY TIMER FOR CONTROL OF HEATER. COORDINATE REQUIRED TIMER LENGTH WITH OWNER.

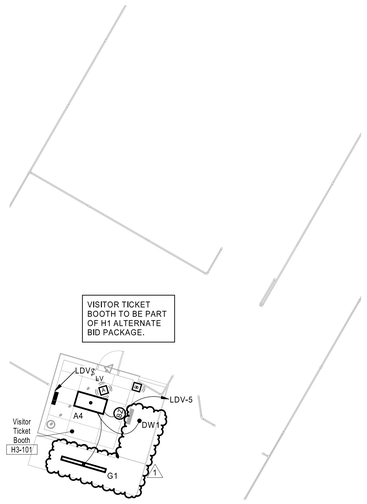
E49 DISCONNECT SWITCH IS INTEGRAL TO MECHANICAL EQUIPMENT. REFER TO MECHANICAL SCHEDULES ON SHEET H-M600 FOR MORE INFORMATION.



3 EQUIPMENT CONNECTION PLAN - VISITOR TICKET BOOTH
1/8" = 1'-0"



2 VISITOR TICKET BOOTH - POWER PLAN
1/8" = 1'-0"



1 VISITOR TICKET BOOTH - LIGHTING RCP
1/8" = 1'-0"

PRINT DATE/TIME: 11/6/2020 2:33:20 PM

CURTIS A. OLDS

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STATE OF MISSOURI
CURTIS A. OLDS
NUMBER PE-2010036640
PROFESSIONAL ENGINEER

Nov 9 2020

REVISIONS

NUMBER	DESCRIPTION	DATE
1	Addendum 3	10.23.2020

PROJECT NO: 0119-0101
DATE: September 28, 2020

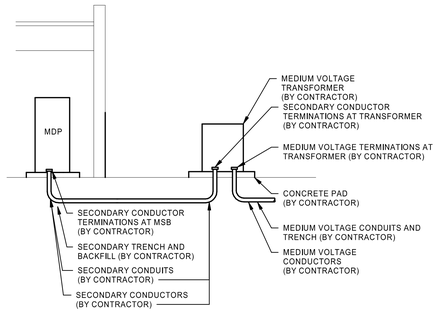
VISITOR TICKET BOOTH - ELECTRICAL PLANS

H-E131

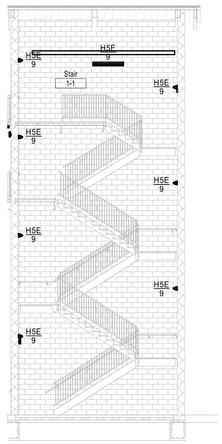
BID SET

ELECTRICAL GENERAL NOTES:

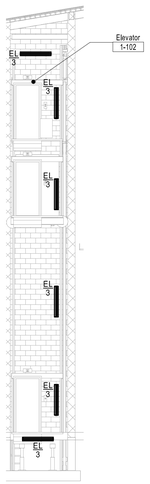
1. LIGHTING IS TO BE CIRCUITED BACK TO 480/277V PANEL LOCATED IN THE SAME BULIDING THE LIGHTING IS LOCATED IN UNLESS OTHERWISE NOTED. CIRCUIT AS NOTED IN FIXTURE TAG.
2. LIGHTING CONTROLS DEVICES SHALL CONTROL LIGHTING IN THE ASSOCIATED ROOM. REFER TO DETAIL 1 ON SHEET H-E700.
3. H5/H5E FIXTURES ARE CONTROLLED BY INTEGRAL OCCUPANCY SENSOR.



1 MEDIUM VOLTAGE COORDINATION DETAIL
NTS



3 STAIR LIGHTING
1/8" = 1'-0"



2 ELEVATOR LIGHTING
1/8" = 1'-0"

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CURTIS A. OLDS
NUMBER PE-2018036640
PROFESSIONAL ENGINEER

Sep 25 2020

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

ELECTRICAL DETAILS

H-E500

BID SET

PRINT DATE/TIME: 9/25/2020 1:59:30 PM

CURTIS A. OLDS

PANELBOARD: HDHB (NEW)

BUS AMPS: 250A
MAIN SIZE/TYPE: 200A M.C.B.
VOLTS/PHASE: 480Y/277 V 3P/4W
SUPPLIED BY: MDP

FAULT CURRENT: REFER TO ONE-LINE DIAGRAM
AIC RATED: FULLY RATED
AIC RATING: FCA +10% MINIMUM
SERVES: HOME BOOTH
MOUNTING: SURFACE
LOCATION: Vestibule H1-101

EQUIPMENT GROUND BUS
LINE-SIDE LUGS: MECHANICAL

CKT NO.	DESCRIPTION	LOAD TYPE	NOTES	WIRE SIZE	BKR AMP	P	PHASE A	PHASE B	PHASE C	P	BKR AMP	WIRE SIZE	NOTES	LOAD TYPE	DESCRIPTION	CKT NO.
1	LTG - SIGNAGE	L		12	20	1	92 0			1	20				SPARE	2
3	LTS - ELEVATOR PIT/SHAFT LIGHTING	L		12	20	1		1200 1397		1	20	12		L Z	LTS - 1-303 ROOF GRAZING	4
5	PWR - TENNIS LIGHTING VIA TX-TN	Z		OL	70	2			9600 0	1	20				SPARE	6
7							9600 0			1	20				SPARE	8
9	LTS - PRESS BOX	L		12	20	1		2470 6789								10
11	PWR - FPH-1	U		12	15	1			2500 6304	3	125	OL		--	TX-LDHB	12
13	PWR - FPH-2	U		12	15	1	1885 4080									14
15	PWR - FPH-3	U		12	15	1		2500 3326								16
17	PWR - FPH-4	U		12	15	1			1885 3326	3	30	OL		M	PWR - ELEVATOR	18
19	PWR - FPH - 5	U		12	15	1	2500 3326									20
21	SPARE				20	1		0 0		1	20				SPARE	22
23	SPARE				20	1			0 0	1	20				SPARE	24
25	SPARE				20	1	0 0			1	20				SPARE	26
27	SPARE				20	1		0 0		1	20				SPARE	28
29	SPARE				20	1			0 0	1	20				SPARE	30
31	SPARE				20	1	0 0			1	20				SPARE	32
33	SPARE				20	1		0 0		1	20				SPARE	34
35	SPARE				20	1			0 0	1	20				SPARE	36
37	SPARE				20	1	0 0			1	20				SPARE	38
39	SPARE				20	1		0 0		1	20				SPARE	40
41	SPARE				20	1			0 0	1	20				SPARE	42
				TOTAL LOAD (VA):			21482 VA	17682 VA	23614 VA							
				TOTAL AMPS:			80 A	64 A	87 A							

LOAD TYPE	CONNECTED LOAD	DEMAND FACTOR	NEC DEMAND
EXISTING LOAD (E)	0 VA	100%	0 VA
COOLING (C)	2288 VA	100%	2288 VA
HEATING (H)	0 VA	0%	0 VA
LIGHTING (L)	7854 VA	125%	9818 VA
RECEPTACLES (R)	6480 VA	100%	6480 VA
MOTORS (M)	2000 VA	100%	2000 VA
SUPPLEMENTAL HEAT (U)	11270 VA	100%	11270 VA
MISC EQUIP (Z)	21710 VA	100%	21710 VA
REFRIGERATION (F)	0 VA	100%	0 VA
SIGN/DISPLAY (D)	1200 VA	125%	1500 VA
KITCHEN (K)	0 VA	100%	0 VA
LARGEST MOTOR	9977 VA	125%	12471 VA
SHOW WINDOW (W)	0 VA	125%	0 VA
TRACK LIGHTING	0 VA	100%	0 VA

PANELBOARD NOTES

PANELBOARD TOTALS	
TOTAL CONNECTED LOAD	62779 VA
TOTAL NEC LOAD	67537 VA
TOTAL CONNECTED CURRENT	76 A
TOTAL NEC DEMAND CURRENT	81 A

PANELBOARD: HDC (NEW)

BUS AMPS: 250A
MAIN SIZE/TYPE: 200A M.C.B.
VOLTS/PHASE: 480Y/277 V 3P/4W
SUPPLIED BY: MDP

FAULT CURRENT: REFER TO ONE-LINE DIAGRAM
AIC RATED: FULLY RATED
AIC RATING: FCA +10% MINIMUM
SERVES: CONCESSIONS
MOUNTING: SURFACE
LOCATION: MEP H2-108

EQUIPMENT GROUND BUS
LINE-SIDE LUGS: MECHANICAL

CKT NO.	DESCRIPTION	LOAD TYPE	NOTES	WIRE SIZE	BKR AMP	P	PHASE A	PHASE B	PHASE C	P	BKR AMP	WIRE SIZE	NOTES	LOAD TYPE	DESCRIPTION	CKT NO.
1	PWR - HOME GATEWAY RH	H		12	20	1	4000 3000			1	20	12		U	PWR - UH-7	2
3	PWR - UH-8	U		12	20	1		3000 3000		1	20	12		U	PWR - UH-10	4
5	PWR - UH-11	U		12	20	1			3000 4000	1	20	12		U	PWR - RH-1	6
7	PWR - RH-2	U		12	20	1	4000 540			1	20	12		L	LTS - CONCESSION LIGHTING	8
9								2500 0		1	20				SPARE	10
11	PWR - UH-9	U		12	20	3			2500 0	1	20				SPARE	12
13							2500 6000									14
15	SIGN LIGHTING			12	20	1		180 6000		3	30	10		U	WH2	16
17	SPARE				20	1			0 6000							18
19	SPARE				20	1	0 0			1	20				SPARE	20
21	SPARE				20	1		0 0		1	20				SPARE	22
23	SPARE				20	1			0 0	1	20				SPARE	24
25	SPARE				20	1	0 0			1	20				SPARE	26
27	SPARE				20	1		0 0		1	20				SPARE	28
29	SPARE				20	1			0 0	1	20				SPARE	30
31	SPARE				20	1	0 0			1	20				SPARE	32
33	SPARE				20	1		0 0		1	20				SPARE	34
35	SPARE				20	1			0 0	1	20				SPARE	36
37	SPARE				20	1	0 6346									38
39	SPARE				20	1		0 5830		3	70	OL		--	TX-LDC	40
41	SPARE				20	1			0 6016							42
				TOTAL LOAD (VA):			26386 VA	20510 VA	21516 VA							
				TOTAL AMPS:			96 A	74 A	78 A							

LOAD TYPE	CONNECTED LOAD	DEMAND FACTOR	NEC DEMAND
EXISTING LOAD (E)	0 VA	100%	0 VA
COOLING (C)	0 VA	0%	0 VA
HEATING (H)	4000 VA	100%	4000 VA
LIGHTING (L)	720 VA	125%	900 VA
RECEPTACLES (R)	4600 VA	100%	4600 VA
MOTORS (M)	2642 VA	100%	2642 VA
SUPPLEMENTAL HEAT (U)	45500 VA	100%	45500 VA
MISC EQUIP (Z)	1750 VA	100%	1750 VA
REFRIGERATION (F)	0 VA	100%	0 VA
SIGN/DISPLAY (D)	0 VA	125%	0 VA
KITCHEN (K)	8000 VA	65%	5200 VA
LARGEST MOTOR	1200 VA	125%	1500 VA
SHOW WINDOW (W)	0 VA	125%	0 VA
TRACK LIGHTING	0 VA	100%	0 VA

PANELBOARD NOTES

PANELBOARD TOTALS	
TOTAL CONNECTED LOAD	68412 VA
TOTAL NEC LOAD	66092 VA
TOTAL CONNECTED CURRENT	82 A
TOTAL NEC DEMAND CURRENT	79 A

PANELBOARD: LDHB (NEW)

BUS AMPS: 225A
MAIN SIZE/TYPE: 225A M.C.B.
VOLTS/PHASE: 208Y/120 V 3P/4W
SUPPLIED BY: HDHB VIA TX-LDHB

FAULT CURRENT: REFER TO ONE-LINE DIAGRAM
AIC RATED: FULLY RATED
AIC RATING: FCA +10% MINIMUM
SERVES: HOME BOOTH
MOUNTING: SURFACE
LOCATION: Vestibule H1-101

EQUIPMENT GROUND BUS
LINE-SIDE LUGS: MECHANICAL

CKT NO.	DESCRIPTION	LOAD TYPE	NOTES	WIRE SIZE	BKR AMP	P	PHASE A	PHASE B	PHASE C	P	BKR AMP	WIRE SIZE	NOTES	LOAD TYPE	DESCRIPTION	CKT NO.
1	RCPT - ELEVATOR SUMP PUMP	M		12	20	1	500 1144			2	20	12		C Z	CU-1/FCU-1 ELEVATOR SHAFT COOLING	2
3	LTS - ELEVATOR COMMS	L		12	20	1		1500 1144								4
5	RCPT - PRESS BOX LEVEL 1	R		12	20	1			900 250	2	20			Z	SCOREBOARD	6
7	RCPT - 1-204 HUDL CAMERA	R		12	20	1	180 250									8
9	RCPT - 1-203 DESK	R		12	20	1		720 0		1	20				SPARE	10
11	RCPT - 1-204 DESK	R		12	20	1			540 0	1	20				SPARE	12
13	RCPT - 1-205 DESK	R		12	20	1	540 0			1	20				SPARE	14
15	RCPT - PRESS LEVEL 2 GENERAL	R		12	20	1		540 0		1	20				SPARE	16
17	RCPT - PRESS LEVEL 2 STAIRS	R		12	20	1			720 0	1	20				SPARE	18
19	RCPT - 1-303 GENERAL A	R		12	20	1	720 0			1	20				SPARE	20
21	RCPT - 1-303 GENERAL B	R		12	20	1		540 0		1	20				SPARE	22
23	RCPT - ELEVATOR PIT	R		12	20	1			180 0	1	20				SPARE	24
25	PWR - ELEVATOR CAB HVAC & LTS	M	LO	12	20	1	1500 0			1	20				SPARE	26
27	RCPT - AV RACK 1	R		12	20	1		180 0		1	20				SPARE	28
29	EXTERIOR SIGN (PRICE AS ALT)	L		12	20	1			1200 0	1	20				SPARE	30
31	RCPT - AV RACK 2	R		12	20	1	1000 0			1	20				SPARE	32
33	RCPT - AV RACK 2	Z		12	20	1		1000 0		1	20				SPARE	34
35	RCPT - 1-303 GENERAL C	R		12	20	1			540 0	1	20				SPARE	36
37	PWR - PRESSBOX SIGNAGE	D Z		12	20	1	1205 0			1	20				SPARE	38
39	RCPT - 1-204 IT RACK	Z		12	20	1		500 0		1	20				SPARE	40
41	SPARE				20	1			0 0	1	20				SPARE	42
				TOTAL LOAD (VA):			7039 VA	6124 VA	4330 VA							
				TOTAL AMPS:			61 A	53 A	36 A							

LOAD TYPE	CONNECTED LOAD	DEMAND FACTOR	NEC DEMAND
EXISTING LOAD (E)	0 VA	100%	0 VA
COOLING (C)	2288 VA	100%	2288 VA
HEATING (H)	0 VA	0%	0 VA
LIGHTING (L)	2700 VA	125%	3375 VA
RECEPTACLES (R)	6300 VA	100%	6300 VA
MOTORS (M)	500 VA	100%	500 VA
SUPPLEMENTAL HEAT (U)	0 VA	100%	0 VA
MISC EQUIP (Z)	3005 VA	100%	3005 VA
REFRIGERATION (F)	0 VA	100%	0 VA
SIGN/DISPLAY (D)	1200 VA	125%	1500 VA
KITCHEN (K)	0 VA	100%	0 VA
LARGEST MOTOR	1500 VA	125%	1875 VA
SHOW WINDOW (W)	0 VA	125%	0 VA
TRACK LIGHTING	0 VA	100%	0 VA

PANELBOARD NOTES

PANELBOARD TOTALS	
TOTAL CONNECTED LOAD	17493 VA
TOTAL NEC LOAD	18843 VA
TOTAL CONNECTED CURRENT	49 A
TOTAL NEC DEMAND CURRENT	52 A

PANELBOARD: LDC (NEW)

BUS AMPS: 225A
MAIN SIZE/TYPE: 150A M.C.B.
VOLTS/PHASE: 208Y/120 V 3P/4W
SUPPLIED BY: HDC VIA TX-LDC

FAULT CURRENT: REFER TO ONE-LINE DIAGRAM
AIC RATED: FULLY RATED
AIC RATING: FCA +10% MINIMUM
SERVES: CONCESSION
MOUNTING: SURFACE
LOCATION: MEP 2-108

EQUIPMENT GROUND BUS
LINE-SIDE LUGS: MECHANICAL

CKT NO.	DESCRIPTION	LOAD TYPE	NOTES	WIRE SIZE	BKR AMP	P	PHASE A	PHASE B	PHASE C	P	BKR AMP	WIRE SIZE	NOTES	LOAD TYPE	DESCRIPTION	CKT NO.
1	SPARE				20	1	0 1000			1	20	12	GF	R	RCPT - 2-106 FIRDGE B	2
3	SPARE				20	1		0 1000		1	20	12	GF	K	RCPT - 2-106 FRIDGE C	4
5	PWR - EF CONCESSION 2-106	M		12	20	1			696 1000	1	20	12	GF	K	RCPT - 2-106 FRIDGE D	6
7	RCPT - 2-106 COUNTER F	K		12	20	1	1000 1000			1	20	12		K	RCPT - 2-106 POPCORN	8
9	RCPT - 2-106 COUNTER A	K		12	20	1		1000 1000		1	20	12		K	RCPT - 2-106 COUNTER B	10
11	RCPT - CONCESSION EXTERIOR	R		12	20	1			360 360	1	20	12		R	RCPT - 2-106 GENERAL F	12
13	PWR - 2-108 DDC CONTROLS	Z		12	20	1	250 360			1	20	12		R	RCPT - 2-106 GENERAL G	14
15	RCPT - 2-106 COUNTER E	Z		12	20	1		500 540		1	20	12		R	RCPT - 2-107/108 GENERAL	16
17	RCPT - 2-109 GENERAL	R		12	20	1			540 360	1	20	12		R	RCPT - 2-105 DESK	18
19	RCPT - 2-105 GENERAL	R		12	20	1	360 696			1	20	12		M	PWR - EF-3	20
21	PWR - COILING DOOR	M		12	20	1		1200 0		1	20				SPARE	22
23	PWR - BAND COILING DOOR	M		12	20	1			1200 0	1	20				SPARE	24
25	RCPT - 2-106 FREEZER A	Z	GF	12	20	1	500 0			1	20				SPARE	26
27	RCPT - 2-107 GENERAL B	R		12	20	1		360 0		1	20				SPARE	28
29	RCPT - 2-108 IT RACK	Z		12	20	1			500 0	1	20				SPARE	30
31	RCPT - 2-106 PREP COUNTER	R		12	20	1	180 0			1	20				SPARE	32
33	RCPT - 2-106 MICROWAVE	R		12	20	1		180 0		1	20				SPARE	34
35	RCPT - 2-106 COUNTER C	K		12	20	1			1000 0	1	20				SPARE	36
37	RCPT - 2-106 COUNTER D	K		12	20	1	1000 0			1	20				SPARE	38
39	PWR - 2-106 MOTORIZED DAMPER	M		12	20	1		50 0		1	20				SPARE	40
41	SPARE				20	1			0 0	1	20				SPARE	42
				TOTAL LOAD (VA):			6346 VA	5830 VA	6016 VA							
				TOTAL AMPS:			53 A	49 A	50 A							

LOAD TYPE	CONNECTED LOAD	DEMAND FACTOR	NEC DEMAND
EXISTING LOAD (E)	0 VA	100%	0 VA
COOLING (C)	0 VA	0%	0 VA
HEATING (H)	0 VA	100%	0 VA
LIGHTING (L)	0 VA	125%	0 VA
RECEPTACLES (R)	4600 VA	100%	4600 VA
MOTORS (M)	2642 VA	100%	2642 VA
SUPPLEMENTAL HEAT (U)	0 VA	100%	0 VA
MISC EQUIP (Z)	1750 VA	100%	1750 VA
REFRIGERATION (F)	0 VA	100%	0 VA
SIGN/DISPLAY (D)	0 VA	125%	0 VA
KITCHEN (K)	8000 VA	65%	5200 VA
LARGEST MOTOR	1200 VA	125%	1500 VA
SHOW WINDOW (W)	0 VA	125%	0 VA
TRACK LIGHTING	0 VA	100%	0 VA

PANELBOARD NOTES

PANELBOARD TOTALS	
TOTAL CONNECTED LOAD	18192 VA
TOTAL NEC LOAD	15692 VA
TOTAL CONNECTED CURRENT	50 A
TOTAL NEC DEMAND CURRENT	44 A

PANELBOARD: LDV (NEW)

BUS AMPS: 100A
MAIN SIZE/TYPE: 100A M.C.B.
VOLTS/PHASE: 208Y/120 V 3P/4W
SUPPLIED BY: PRESS BOX VIA TX-LDV

FAULT CURRENT: REFER TO ONE-LINE DIAGRAM
AIC RATED: FULLY RATED
AIC RATING: FCA +10% MINIMUM
SERVES: TICKET BOOTH
MOUNTING: SURFACE
LOCATION: Visitor Ticket Booth 3-101

EQUIPMENT GROUND BUS
LINE-SIDE LUGS: MECHANICAL

CKT NO.	DESCRIPTION	LOAD TYPE	NOTES	WIRE SIZE	BKR AMP	P	PHASE A	PHASE B	PHASE C	P	BKR AMP	WIRE SIZE	NOTES	LOAD TYPE	DESCRIPTION	CKT NO.
1	PWR - UH VISITOR BOOTH 3-101	U		12	20	2	1500 0			1	20				SPARE	2
3								1500 0		1	20				SPARE	4
5	LTS - TICKET BOOTH	L		12	20	1			81 0	1	20				SPARE	6
7	RCPT - 3-101 QUADS	R		12	20	1	180 0			1	20				SPARE	8
9	RCPT - 3-101 GENERAL	R		12	20	1		360 0		1	20				SPARE	10
11	SPARE				20	1			0 0	1	20				SPARE	12
13	SPARE				20	1	0 0			1	20				SPARE	14
15	SPARE				20	1		0 0		1	20				SPARE	16
17	SPARE				20	1			0 0	1	20				SPARE	18
19	SPARE				20	1	0 0			1	20				SPARE	20
21	SPARE				20	1		0 0		1	20				SPARE	22
23	SPARE				20	1			0 0	1	20				SPARE	24
25	SPARE				20	1	0 0			1	20				SPARE	26
27	SPARE				20	1		0 0		1	20				SPARE	28
29	SPARE				20	1			0 0	1	20				SPARE	30
31	SPARE				20	1	0 0			1	20				SPARE	32
33	SPARE				20	1		0 0		1	20				SPARE	34
35	SPARE				20	1			0 0	1	20				SPARE	36
37	SPARE				20	1	0 0			1	20				SPARE	38
39	SPARE				20	1		0 0		1	20				SPARE	40
41	SPARE				20	1			0 0	1	20				SPARE	42
				TOTAL LOAD (VA):			1680 VA	1860 VA	81 VA							
				TOTAL AMPS:			16 A	18 A	1 A							

LOAD TYPE	CONNECTED LOAD	DEMAND FACTOR	NEC DEMAND
EXISTING LOAD (E)	0 VA	100%	0 VA
COOLING (C)	0 VA	0%	0 VA
HEATING (H)	0 VA	100%	0 VA
LIGHTING (L)	81 VA	125%	101 VA
RECEPTACLES (R)	540 VA	100%	540 VA
MOTORS (M)	0 VA	100%	0 VA
SUPPLEMENTAL HEAT (U)	3000 VA	100%	3000 VA
MISC EQUIP (Z)	0 VA	100%	0 VA
REFRIGERATION (F)	0 VA	100%	0 VA
SIGN/DISPLAY (D)	0 VA	125%	0 VA
KITCHEN (K)	0 VA	100%	0 VA
LARGEST MOTOR	0 VA	125%	0 VA
SHOW WINDOW (W)	0 VA	125%	0 VA
TRACK LIGHTING	0 VA	100%	0 VA

PANELBOARD NOTES

PANELBOARD TOTALS	
TOTAL CONNECTED LOAD	3621 VA
TOTAL NEC LOAD	3641 VA
TOTAL CONNECTED CURRENT	10 A
TOTAL NEC DEMAND CURRENT	10 A

PANELBOARD LEGEND

ABBREVIATIONS V1.00

AF ARC FAULT CIRCUIT INTERRUPTER.
C# CIRCUIT VIA LIGHTING CONTACTOR #.
CL CIRCUIT VIA CURRENT LIMITING DEVICE.
D DISCONNECT CIRCUITRY FOR REMOVED LOAD, UPDATE CIRCUIT DIRECTORY TO SPARE AND TURN OFF.
EM EMERGENCY LIGHTING HANDLE-ON CLAMP.
EX EXISTING.
F FUTURE LOAD; NOTE AS SPARE AND TURN OFF.
FA RED/HANDLE-ON CLAMP.
GF GROUND-FAULT CIRCUIT INTERRUPTER TYPE CIRCUIT BREAKER (5 mA).
GFEP GROUND FAULT EQUIPMENT PROTECTION BREAKER (30 mA).
HT PROVIDE HANDLE-TIE FOR MULTI-WIRE BRANCH CIRCUIT PER CODE.
IG ISOLATED GROUND CIRCUIT.
L# LIGHTING CONTROL SCHEME NUMBER.
LCK HANDLE PADLOCKABLE-OFF DEVICE.
LO HANDLE-ON CLAMP.
N PROVIDE NEW CIRCUIT BREAKER.
OL REFER TO ELECTRICAL ONE-LINE/RISER DIAGRAM.
PS POWER-SWITCHING CIRCUIT BREAKER.
PSE EMERGENCY POWER-SWITCHING CIRCUIT BREAKER.
R REUSE EXISTING CIRCUIT BREAKER FOR NEW/REVISED LOAD.
RP CIRCUIT VIA RELAY PANEL.
ST SHUNT TRIP CIRCUIT BREAKER.
V VERIFY EXISTING LOAD AND UPDATE DIRECTORY, IF UNUSED, NOTE AS SPARE AND TURN OFF.
VD BRANCH CIRCUITRY HAS BEEN UPSIZED TO REDUCE VOLTAGE DROP. ADJUST GROUND WIRE SIZE PER CODE. PROVIDE LUG ADAPTORS IF REQUIRED.
Z CORRECT/REPAIR EXISTING HAZARD TO MAKE CODE COMPLIANT INSTALLATION.

NOT ALL ABBREVIATIONS ARE USED.

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EXPIRES 12/31/2020

STATE OF MISSOURI
CURTIS A. OLDS
NUMBER PE-2010036640
PROFESSIONAL ENGINEER

Nov 9 2020

REVISIONS

NUMBER	DESCRIPTION	DATE
1	Addendum 3	10.23.2020

PROJECT NO: 0119-0101
DATE: September 28, 2020

ELECTRICAL SCHEDULES

H-E600

BID SET

PRINT DATE/TIME: 11/6/2020 2:33:28 PM

CURTIS A. OLDS

PANELBOARD: HDT (NEW)

BUS AMPS: 125A
MAIN SIZE/TYPE: 125A M.C.B.
VOLTS/PHASE: 480Y/277 V 3P/4W
SUPPLIED BY: MDP

FAULT CURRENT: REFER TO ONE-LINE DIAGRAM
AIC RATED: FULLY RATED
AIC RATING: FCA +10% MINIMUM
SERVES: TENNIS
MOUNTING: SURFACE
LOCATION: MEP/Custodian 2-102

EQUIPMENT GROUND BUS

LINE-SIDE LUGS: MECHANICAL

CKT NO.	DESCRIPTION	LOAD TYPE	NOTES	WIRE SIZE	BKR AMP	P	PHASE A		PHASE B		PHASE C		P	BKR AMP	WIRE SIZE	NOTES	LOAD TYPE	DESCRIPTION	CKT NO.
1	PWR - UH TENNIS STORAGE 2-101	U		12	20	1	3000	564					1	20	12		L	LTS - RESTROOM BUILDING	2
3									2728	478			1	20	12		L Z	LTS - EXTERIOR LIGHTING	4
5	TX-LDT	R Z M		OL	70	3					2682	3000	1	20	12		U	PWR - UH-1	6
7							2232	3000					1	20	12		U	PWR - UH-2	8
9									2500	1667									10
11	PWR - UH-3	U		12	20	3					2500	1667	3	20	12		U	PWR - UH-5	12
13							2500	1667											14
15									1667	5000									16
17	PWR - UH-4	U		12	20	3					1667	5000	3	25	10		U	WH1	18
19							1667	5000											20
21									2500	0			1	20				SPARE	22
23	PWR - UH-6	U		12	20	3					2500	0	1	20				SPARE	24
25							2500	0					1	20				SPARE	26
27	SPARE				20	1			0	0			1	20				SPARE	28
29	SPARE				20	1					0	0	1	20				SPARE	30
31	SPARE				20	1	0	0					1	20				SPARE	32
33	SPARE				20	1			0	0			1	20				SPARE	34
35	SPARE				20	1					0	0	1	20				SPARE	36
37	SPARE				20	1	0	0					1	20				SPARE	38
39	SPARE				20	1			0	0			1	20				SPARE	40
41	SPARE				20	1					0	0	1	20				SPARE	42
			TOTAL LOAD (VA):				22129 VA		16539 VA		19015 VA								
			TOTAL AMPS:				81 A		60 A		70 A								

LOAD TYPE	CONNECTED LOAD	DEMAND FACTOR	NEC DEMAND
EXISTING LOAD (E)	0 VA	100%	0 VA
COOLING (C)	0 VA	0%	0 VA
HEATING (H)	0 VA	100%	0 VA
LIGHTING (L)	1037 VA	125%	1296 VA
RECEPTACLES (R)	1620 VA	100%	1620 VA
MOTORS (M)	4776 VA	100%	4776 VA
SUPPLEMENTAL HEAT (U)	49000 VA	100%	49000 VA
MISC EQUIP (Z)	555 VA	100%	555 VA
REFRIGERATION (F)	0 VA	100%	0 VA
SIGN/DISPLAY (D)	0 VA	125%	0 VA
KITCHEN (K)	0 VA	100%	0 VA
LARGEST MOTOR	696 VA	125%	870 VA
SHOW WINDOW (W)	0 VA	125%	0 VA
TRACK LIGHTING	0 VA	100%	0 VA

PANELBOARD NOTES

PANELBOARD TOTALS	
TOTAL CONNECTED LOAD	57684 VA
TOTAL NEC LOAD	58117 VA
TOTAL CONNECTED CURRENT	69 A
TOTAL NEC DEMAND CURRENT	70 A

PANELBOARD: LDT (NEW)

BUS AMPS: 225A
MAIN SIZE/TYPE: 150A M.C.B.
VOLTS/PHASE: 208Y/120 V 3P/4W
SUPPLIED BY: HDT VIA TX-LDT

FAULT CURRENT: REFER TO ONE-LINE DIAGRAM
AIC RATED: FULLY RATED
AIC RATING: FCA +10% MINIMUM
SERVES: TENNIS
MOUNTING: SURFACE
LOCATION: MEP/Custodian 2-102

EQUIPMENT GROUND BUS

LINE-SIDE LUGS: MECHANICAL

CKT NO.	DESCRIPTION	LOAD TYPE	NOTES	WIRE SIZE	BKR AMP	P	PHASE A		PHASE B		PHASE C		P	BKR AMP	WIRE SIZE	NOTES	LOAD TYPE	DESCRIPTION	CKT NO.
1	PWR - EF WOMENS RR 2-104	M		12	20	1	696	0					1	20				SPARE	2
3	PWR - EF MENS RR 2-103	M		12	20	1			696	0			1	20				SPARE	4
5	PWR - TF WOMENS RR	M		12	20	1					696	0	1	20				SPARE	6
7	RCPT - 2-104 GENERAL	R		12	20	1	540	0					1	20				SPARE	8
9	RCPT - 2-103 GENERAL	R		12	20	1			540	0			1	20				SPARE	10
11	RCPT - 2-101/102 GENERAL	R		12	20	1					360	0	1	20				SPARE	12
13	PWR - EF-1	M		12	15	1	696	0					1	20				SPARE	14
15	PWR - EF-2	M		12	15	1			696	0			1	20				SPARE	16
17	PWR - TF-1	M		12	15	1					696	0	1	20				SPARE	18
19	PWR - TF-2	M		12	15	1	696	0					1	20				SPARE	20
21	PWR - RECIRC PUMP	M		12	15	1			500	0			1	20				SPARE	22
23	RCPT - 2-101 EXTERIOR	R		12	20	1					180	0	1	20				SPARE	24
25	PWR - RR MOTORIZED DAMPERS	M		12	20	1	100	0					1	20				SPARE	26
27	PWR - 2-102 DDC CONTROLS	Z		12	20	1			250	0			1	20				SPARE	28
29	PWR - RR AUTO FAUCETS	Z		12	20	1					300	0	1	20				SPARE	30
31	SPARE				20	1	0	0					1	20				SPARE	32
33	SPARE				20	1			0	0			1	20				SPARE	34
35	SPARE				20	1					0	0	1	20				SPARE	36
37	SPARE				20	1	0	0					1	20				SPARE	38
39	SPARE				20	1			0	0			1	20				SPARE	40
41	SPARE				20	1					0	0	1	20				SPARE	42
			TOTAL LOAD (VA):				2728 VA		2682 VA		2232 VA								
			TOTAL AMPS:				23 A		23 A		19 A								

LOAD TYPE	CONNECTED LOAD	DEMAND FACTOR	NEC DEMAND
EXISTING LOAD (E)	0 VA	100%	0 VA
COOLING (C)	0 VA	0%	0 VA
HEATING (H)	0 VA	100%	0 VA
LIGHTING (L)	0 VA	125%	0 VA
RECEPTACLES (R)	1620 VA	100%	1620 VA
MOTORS (M)	4776 VA	100%	4776 VA
SUPPLEMENTAL HEAT (U)	0 VA	100%	0 VA
MISC EQUIP (Z)	550 VA	100%	550 VA
REFRIGERATION (F)	0 VA	100%	0 VA
SIGN/DISPLAY (D)	0 VA	125%	0 VA
KITCHEN (K)	0 VA	100%	0 VA
LARGEST MOTOR	696 VA	125%	870 VA
SHOW WINDOW (W)	0 VA	125%	0 VA
TRACK LIGHTING	0 VA	100%	0 VA

PANELBOARD NOTES

PANELBOARD TOTALS	
TOTAL CONNECTED LOAD	7642 VA
TOTAL NEC LOAD	7816 VA
TOTAL CONNECTED CURRENT	21 A
TOTAL NEC DEMAND CURRENT	22 A

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MO. CORPORATE NO: E-556D
EXPIRES 12/31/2020

STATE OF MISSOURI
CURTIS A. OLDS
NUMBER PE-2015035640
PROFESSIONAL ENGINEER

Sep 25 2020

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

ELECTRICAL SCHEDULES

H-E601

BID SET

PRINT DATE/TIME: 9/25/2020 1:59:41 PM

CURTIS A. OLDS

LIGHTING CONTROL DEVICE SCHEDULE

STAND-ALONE LOW-VOLTAGE LIGHTING CONTROL SYSTEMS

STAND-ALONE LOW-VOLTAGE OCCUPANCY SENSORS

SYMBOL TAG	MANUFACTURER MODEL/SERIES	ALTERNATE MANUFACTURER	DEVICE DESCRIPTION	COVERAGE (W X D)	VOLTAGE	NOTES
I OS I	LEGRAND DT-300	ACUITY, COOPER HUBBELL, LEVITON	CEILING MOUNT DUAL TECHNOLOGY OCCUPANCY SENSOR. 360 DEGREE COVERAGE. LOW VOLTAGE. ISOLATED RELAY.	PIR MAJOR 36' Ø PIR MINOR 25' Ø ULT 36' x 36'	24	
OS	LEGRAND CB-100	ACUITY, COOPER HUBBELL	CEILING/WALL MOUNT PASSIVE INFRARED OCCUPANCY SENSOR. 90 DEGREE COVERAGE. LOW VOLTAGE. GASKETED AND WATERTIGHT. RATED FOR -40 DEGREES FAHRENHEIT.	MAJOR 50' Ø MINOR 25' Ø	24	

STAND-ALONE LOW-VOLTAGE PHOTOELECTRIC SWITCHES

SYMBOL TAG	MANUFACTURER MODEL/SERIES	ALTERNATE MANUFACTURER	DEVICE DESCRIPTION	VOLTAGE	NOTES
PC	LEGRAND EM-24D2	ACUITY HUBBELL LEVITON	EXTERIOR LOW-VOLTAGE PHOTOELECTRIC SWITCH, FACE SENSOR NORTH AND ORIENT VERTICALLY. 0-15 FC.	24	

STAND-ALONE LOW-VOLTAGE POWER PACKS

SYMBOL TAG	MANUFACTURER MODEL/SERIES	ALTERNATE MANUFACTURER	DEVICE DESCRIPTION	VOLTAGE	NOTES
B2	LEGRAND BZ-250	ACUITY, COOPER HUBBELL, LEVITON	POWER PACK FOR LOW VOLTAGE OCCUPANCY SENSORS. 20A LOAD. (1) RELAY. MANUAL- AND AUTO-ON MODES. HOLD-ON AND -OFF INPUTS. LOAD: 16A AT 120V OR 277V. OUTPUT: 225mA AT 24V. PLENUM RATED.	120/ 277	
B1	LEGRAND C SERIES	ACUITY, COOPER HUBBELL, LEVITON	POWER PACK FOR LOW VOLTAGE OCCUPANCY SENSORS. 20A LOAD. (2) RELAYS. MANUAL- AND AUTO-ON MODES. HOLD-ON AND -OFF INPUTS. LOAD: 16A AT 120V OR 277V. OUTPUT: 225mA AT 24V. PLENUM RATED. CONTRACTOR TO PROVIDE CORRECT VOLTAGE FOR APPLICATION.	120/ 277	
D2C	LEGRAND LMRC-212	ACUITY, COOPER HUBBELL, LEVITON	ROOM CONTROLLER FOR LOW VOLTAGE OCCUPANCY SENSORS. 20A LOAD. (2) RELAY. MANUAL AND AUTO-ON MODES. HOLD-ON AND -OFF INPUTS. LOAD: 16A AT 120V OR 277V. OUTPUT: 225mA AT 24V. PLENUM RATED. 0-10V DIMMING CONTROL.	120/ 277	

STAND-ALONE LOW-VOLTAGE SWITCHES

SYMBOL TAG	MANUFACTURER MODEL/SERIES	ALTERNATE MANUFACTURER	DEVICE DESCRIPTION	VOLTAGE	NOTES
$LV	LEGRAND DCC2	ACUITY, COOPER HUBBELL, LEVITON	MOMENTARY 1-BUTTON DECORATOR SWITCH FOR MANUAL ON/OFF CONTROL OF STAND-ALONE LOW-VOLTAGE OCCUPANCY SENSORS. INTEGRAL LED ILLUMINATES WHEN LOAD IS ON.	24	
$LVD	LEGRAND LMSW-104	ACUITY, COOPER HUBBELL, LEVITON	4-BUTTON LOW VOLTAGE SWITCH FOR ON/OFF AND DIMMING CONTROL OF 2 RELAYS.	24	

AUXILIARY NETWORK LIGHTING EQUIPMENT

SYMBOL TAG	MANUFACTURER MODEL/SERIES	ALTERNATE MANUFACTURER	DEVICE DESCRIPTION	VOLTAGE	NOTES
ZC	LEGRAND LMCZ-301	ACUITY, CRESTRON ETC, HUBBELL	ZONE CONTROLLER. ASTRONOMIC TIMECLOCK. 99 LIGHTING GROUPS. BACNET MS/TP COMPATIBLE. (2) RJ45 PORTS. SURFACE MOUNTED. PLENUM RATED. PROVIDE DLM 24V POWER BOOSTERS AS REQUIRED PER SYSTEM DESIGN.	120/ 277	

GENERAL NOTES:

A. OCCUPANCY SENSOR LAYOUT DESIGNED FROM BASIS-OF-DESIGN COVERAGE PATTERNS. IF SUBMITTING ALTERNATE PER 'EQUIVALENT MANUFACTURER' COLUMN, ADJUST SENSOR QUANTITIES AND LOCATIONS PER MANUFACTURER-SPECIFIC SPACING CRITERIA.
B. PROVIDE SHOP DRAWINGS FOR ENGINEER AND ARCHITECT REVIEW THAT INCLUDE PRODUCT CUTSHEETS AND PROJECT-SPECIFIC LAYOUTS. LAYOUTS MUST INCLUDE SENSOR LOCATIONS, HEIGHTS, ORIENTATION, AND COVERAGE AREAS, SHOW COORDINATION WITH ALL OTHER CEILING DEVICES INCLUDING BUT NOT LIMITED TO HVAC SUPPLY AND RETURN GRILLES, SPRINKLERS, LIGHT FIXTURES, AND OTHER OWNER-PROVIDED CEILING MOUNTED DEVICES SUCH AS SPEAKERS, SECURITY CAMERAS, PROJECTORS, ETC. (SENSORS MAY BE ADVERSELY AFFECTED IF LOCATED TOO CLOSE TO OTHER CEILING MOUNTED DEVICES). ALSO PROVIDE SCHEMATICS AND SCHEDULES WHEN APPLICABLE.
C. LIGHTING CONTROLS PRICING SHALL BE COMPLETELY SEPARATE OF ANY LIGHT FIXTURE PRICING.
D. VERIFY COLOR(S) FOR ALL WALL AND CEILING MOUNTED DEVICES WITH THE ARCHITECT.
E. ALL WALL SWITCH AND CEILING SENSORS SHALL HAVE AN ADJUSTABLE TIME DELAY RANGE OF 0-30 MIN, UNO. CONFIRM SENSOR SETTINGS WITH SEQUENCE OF OPERATIONS AND OWNER PRIOR TO SYSTEM COMMISSIONING.
F. PROVIDE COPIES OF OPERATION AND MAINTENANCE INSTRUCTIONS FOR ALL DEVICES TO OWNER.
G. PROVIDE A NEUTRAL CONDUCTOR TO ALL WALL SWITCH LOCATIONS PER NEC REQUIREMENTS.
H. DO NOT SHARE NEUTRAL CONDUCTOR ON LOAD SIDE OF DIMMERS.

VERSION: 4.03

LIGHT FIXTURE SCHEDULE

TYPE	MANUFACTURER	MODEL	APPROVED EQUIVALENTS	LAMPING / LIGHT SOURCE	TYPE	VOLTAGE	INPUT WATTS	INPUT VA	DESCRIPTION	NOTES
A4	HE WILLIAMS	50-*CEILING*-2-4-L33-80-35-AF12125-DIM-UNV	COLUMBIA LIGHTING LLT24 SERIES LITHONIA LIGHTING GTL SERIES	LED 3500K 80CRI	0-10V	UNV	25	28	2'x4' RECESSED LED TROFFER. 3300 LUMEN	
A4E	HE WILLIAMS	50-*CEILING*-2-4-L33-80-35-AF12125-EM/10W-DIM-UNV	-	LED 3500K 80CRI	0-10V	UNV	25	28	SAME AS A4 WITH INTEGRAL 10W BATTERY BACK UP TO OPERATE FOR A MINIMUM OF 90 MINUTES.	
DW1	COOPER LIGHTING	LSR2B-15-WFL55-80-35-D010-CANOPY	HUBBELL LIGHTING PRESCOLITE LITC-3RDW GOTHAM 4" INCITO SERIES LITHONIA LIGHTING LDN4CYL SERIES LITHONIA LIGHTING GTL SERIES	LED 3500K 80CRI	0-10V	UNV	18	20	4.5" SURFACE MOUNTED WET LOCATION LISTED DOWNLIGHT. 1500 LUMEN. 3500K. 54° BEAM.	
DW1E	COOPER LIGHTING	LSR2B-15-WFL55-80-35-D010-CANOPY EM DRIVER: ASSURANCE EM LIGHTING L16-C	-	LED 3500K 80CRI	0-10V	UNV	18	20	SAME AS DW1 WITH INTEGRAL 7W BATTERY BACK UP TO OPERATE A MINIMUM OF 90 MINUTES	
EL	HE WILLIAMS	96-4-L62-80-35-HIAFR-EM/10W-WET/1-DRV-UNV	COLUMBIA LIGHTING LXEM LITHONIA LIGHTING FEM LED SERIES	LED 4000K 80CRI	0-10V	UNV	45	50	4' LINEAR FOR ELEVATOR SHAFT. WET LOCATION LISTED. 6200 LUMEN. 4000K	
F4S	FOCAL POINT	SEEM 4 FSM4LS SERIES	LITECONTROL MOD 4 PENDANT LED 4L-P-D SERIES 3G LIGHTING 3G-4PLI-D PINNACLE ARCHITECTURAL LIGHTING EDGE EX4D SERIES	LED 3500K 80 CRI	0-10V	UNV	26	29	4' SUSPENDED LINEAR LED. 2810 LUMEN. BOTTOM OF FIXTURE TO BE 8'-4" AFF.	
G1	LUMENWERX	VIAWETASYS-PYC-HLO-LED-80-500-35-6-UNV-D1-1-GSM-TF-*COLOR*	LITECONTROL MOD 4 PENDANT LED 4L-P-D SERIES AXIS LIGHTING - WET BEAM 4 LED SURFACE SERIES	LED 3500K 80CRI	0-10V	UNV	30	33	6' RECESSED LINEAR WITH 500 LM/FT AND ASYMMETRICAL DISTRIBUTION. SUITABLE FOR WET LOCATION.	
H4	HE WILLIAMS	75L-4-L50-8-35-AF12125-DIM-UNV	COLUMBIA LIGHTING MPS SERIES LITHONIA LIGHTING ZL1D SERIES	LED 3500K 80CRI	0-10V	UNV	32	36	4' LINEAR SUSPENDED/WALL MOUNTED FIXTURE. 5000 LUMEN.	
H4E	HE WILLIAMS	75L-4-L50-8-35-AF12125-EM/10WLP-DIM-UNV	-	LED 3500K 80CRI	0-10V	UNV	32	36	SAME AS H4 WITH INTEGRAL10W BATTERY BACK UP TO OPERATE FOR A MINIMUM OF 90 MINUTES.	
H5E	HE WILLIAMS	75L-4-L50-8-35-AF12125-EM/10WLP-DIM-UNV-OCCWS-FSP-211-L2-120/277	-	LED 3500K 80CRI	0-10V	UNV	32	36	SAME AS H4 WITH INTEGRAL OCCUPANCY SENSOR AND 10W BATTERY BACK UP TO OPERATE FOR A MINIMUM OF 90 MINUTES.	
HWE	HE WILLIAMS	VWP-4-L60-7-30-TFT-FINISH-SDGL-DIM-UNV-EM/10WC VWP-4-L60-7-30-TFT-FINISH-SDGL-DIM-UNV-EM/10WC VWP-4-L60-7-30-TFT-FINISH-SDGL-DIM-UNV-EM/10WC	HUBBELL LIGHTING SLING SERIES LITHONIA LIGHTING WDGE2 LED SERIES	LED 3500K 80CRI	0-10V	UNV	70	77	WALL MOUNTED LED SCONCE. WET LOCATION LISTED. TFT DISTRIBUTION. 6000 LUMEN. INTEGRAL 10W BATTERY BACK UP TO OPERATE A MINIMUM OF 90 MINUTES. MOUNT 20'-0" AFF.	
L1	LUMINII	VWP-4-L60-7-30-TFT-FINISH-SDGL-DIM-UNV DRIVER: PS010V-96-24-LIN	GENLED ACOLYTE RIBBONLYTE 6.0 CALI LLED 8000 SERIES OTRAN SW24/5.0 SERIES	LED 3500K 80CRI	0-10V	UNV	9	10	WET LOCATION RATED 24V LED TAPE LIGHT WITH REMOTE DAMP LOCATION RATED 96WATT, 277 - 24V LED DRIVER. NARROW DISTRIBUTION. 3500K. 706 LUMEN/FT. 9 W/FT. PROVIDE CHANNEL AND ADDITIONAL WET LOCATION RATED FITTINGS FOR A FULLY FUNCTIONING TAPE LIGHTING SYSTEM. PROVIDE LUMINII CLASS 2 0-10V DIMMING DRIVERS WITH 1 AND 3 OUTPUTS AS NEEDED.	
L2	LUMENPULSE	LOGASHRAE-277-48-35K-WWRF-UMAS-DIM-ETE	KIM LIGHTING INT SERIES	LED 3500K 80CRI* LED 3500K 80CRI	0-10V	UNV	5	6	WET LOCATION RATED LINEAR GRADING FAÇADE FIXTURE WITH ASYMMETRICAL DISTRIBUTION AND ADJUSTABLE STANDOFF ARM MOUNT. 5W/FT. PROVIDE END-TO-END CONTINUOUS MOUNTING TO MATCH LENGTH OF SIGN.	
X	HE WILLIAMS	EXIT CA SERIES	DUAL-LITE LE SERIES LITHONIA LE SERIES ISOLITE RL SERIES LITHONIA LE SERIES HE WILLIAMS EXIT SERIES	LED	-	UNV	5	5	UNIVERSAL MOUNT LED EXIT SIGN. RED LETTERS.	
XW	HE WILLIAMS	EXIT/WET/CP	ISOLITE RWL SERIES LITHONIA WLTE SERIES	LED	-		5	5	UNIVERSAL MOUNT LED EXIT SIGN. WET LOCATION LISTED. RED LETTERS.	
Y4	COOPER LIGHTING	4VRVT3-5-G-UNV-L835-CD1	KURTZON WL-SEG-740 SERIES LITHONIA FEM SERIES	LED 3500K 80CRI	0-10V	UNV	44	49	4' VANDAL RESISTANT VAPORTITE LED. 5000 LUMEN. GENERAL DISTRIBUTION.	
Y4E	COOPER LIGHTING	4VRVT3-5-G-UNV-L835-CD1	-	LED 3500K 80CRI	0-10V	UNV	44	49	SAME AS Y4 WITH INTEGRAL 10W BATTERY BACK UP TO OPERATE A MINIMUM OF 90 MINUTES.	

LIGHTING CONTROL SEQUENCE OF OPERATIONS:

GENERAL NOTE: CONFIRM ALL SENSOR TIME DELAYS WITH OWNER PRIOR TO FINAL PROGRAMMING.

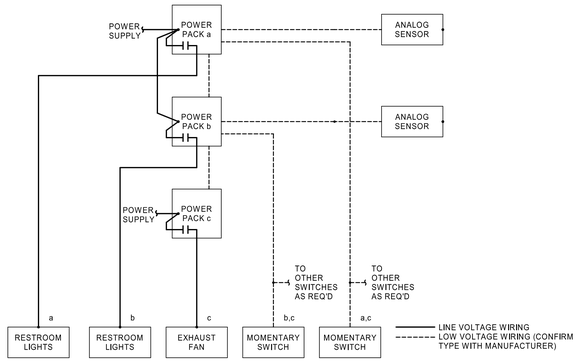
A. GENERAL REQUIREMENTS
1. Emergency Lighting: Emergency egress lighting is powered from emergency battery ballasts and drivers integral to fixtures designated as emergency. Upon loss of power, all lights designated as emergency shall turn on at full emergency battery back-up output.
2. Security Lighting: Night lights, labeled "NL" in building corridor for security purposes.
3. Lighting control type: Occupancy and Vacancy Sensors
4. Corridor, Cafeteria and Gymnasium occupancy sensors set to time out after 30 minutes
5. Offices and Classrooms sensors set to time out after 20 minutes
6. Back of house room type sensors set to time out after 20 minutes
7. All lighting controls in project scope are stand-alone type.

B. POWER PACK B2
1. Manual Control: Occupant can manually control lights via local switch(es). At electrical equipment, keyed switch shall override occupancy sensor function and keep lights on during panel board maintenance.
2. Occupancy: Occupant must manually turn on lights.
3. Vacancy: After 20 minutes, all controlled loads shall turn off.

C. POWER PACK B1
1. Manual Control: Occupant can manually control lights and exhaust fan together via local switch(es).
2. Occupancy: Occupant must manually turn on lights and exhaust fan.
3. Vacancy: After 20 minutes, all controlled loads shall turn off.

D. ROOM CONTROLLER D2C
1. Manual Control: Occupant can manually control lights and dim via local switch(es). Switches shall dim in separate zones as designated as 'a', 'b' etc on plans.
2. Occupancy: Occupant must manually turn on lights.
3. Vacancy: After 20 minutes, all controlled loads shall turn off.

E. SIGNAGE LIGHTING
1. Automatic Control: Fixtures illuminating signs and backlit signage shall be turned on via single photocell and turned off via astronomical timeclock. Route through BAS.
2. Coordinate additional programing requirements with owner.



NOTES:
1. REFER TO LIGHTING CONTROL DEVICE SCHEDULE FOR DEVICE AND EQUIPMENT SPECIFICATIONS.
2. PROVIDE QUANTITY OF POWER PACKS AS REQUIRED BY MANUFACTURER TO SUPPORT QUANTITY OF SENSORS INDICATED ON PLANS.
3. DETAIL IS DIAGRAMMATIC AND IS BASED ON WATTSTOPPER. THIS REPRESENTS THE GENERAL SCOPE OF WORK AND LOCATION OF DEVICES IN RELATION TO EACH OTHER ALONG THE POWER CIRCUIT. DIAGRAMS MAY BE DIFFERENT FOR ALLOWED EQUIVALENT MANUFACTURERS. ELECTRICAL CONTRACTOR SHALL COORDINATE FULL SYSTEM REQUIREMENTS WITH SELECTED MANUFACTURER. PROVIDE ALL PART'S AND PIECES REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. REFER TO FINAL APPROVED MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WIRING DIAGRAMS FOR INSTALLATION.
4. CIRCUITING SHOWN ON THE PLAN CORRESPONDS TO THE LIGHTING CONTROL INTENT. IF CIRCUITING IS CHANGED IN THE FIELD, ENSURE THAT SYSTEM PROGRAMMING WITH REVISED CIRCUITING MEETS THE ORIGINAL LIGHTING CONTROL INTENT. UPDATE LIGHTING CONTROL PANEL SCHEDULES IN RECORD DRAWINGS.
5. PROVIDE SYSTEM COMMISSIONING AS REQUIRED PER ENERGY CODE.

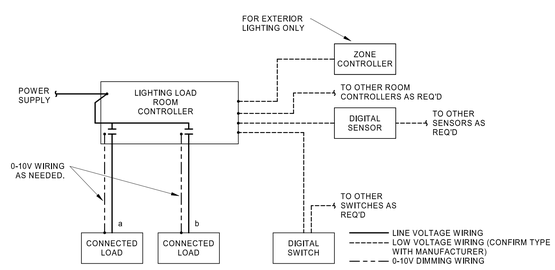
3 OCCUPANCY SENSOR DETAIL - MULTIPLE POWER SUPPLIES AND SWITCHES
NTS

LIGHT FIXTURE SCHEDULE GENERAL NOTES:

1. ALL LIGHT FIXTURES AND RELATED COMPONENTS SHALL BE PROVIDED BY THE CONTRACTOR, UNLESS NOTED OTHERWISE.
2. ALL LIGHT FIXTURES AND RELATED COMPONENTS SHALL BE PROVIDED BY THE CONTRACTOR AS PART OF THE BASE BID, UNLESS NOTED OTHERWISE. CONTRACTOR SHALL PROVIDE AN ALTERNATE BID FOR OWNER FURNISHED LIGHT FIXTURES.
3. THE PARTY SUPPLYING THE LIGHT FIXTURES IS RESPONSIBLE FOR SUPPLYING THE PROPER QUANTITY OF LIGHT FIXTURES.

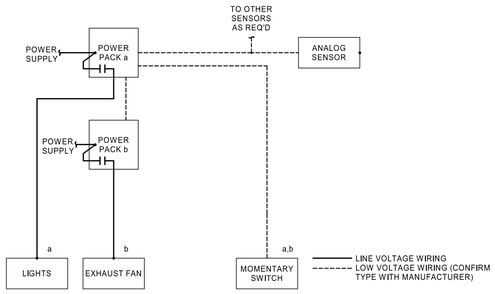
LIGHT FIXTURE SCHEDULE SUPPLEMENTAL SPECIFICATIONS:

1. ANY PROPRIETARY, SOLE-SOURCED LIGHT FIXTURE LISTED IN THE LIGHT FIXTURE SCHEDULE SHALL BE UNIT PRICED ONLY. NO PACKAGING OR LOT PRICING OF THESE LIGHT FIXTURES SHALL BE ALLOWED. UNIT PRICES SHALL BE CLEARLY IDENTIFIED ON THE BID FORM.
2. PACKAGING OF LIGHT FIXTURES WILL NOT BE CONSIDERED OR APPROVED. REPRESENTATIVE AGENTS SHALL BE ALLOWED TO OFFER MINI-LOT PRICING (MLP) FOR LIGHT FIXTURES AS ALLOWED IN ELECTRICAL SPECIFICATIONS.
3. LIGHTING CONTROLS PRICING, INCLUDING BUT NOT LIMITED TO THOSE REFERENCED IN ELECTRICAL SPECIFICATIONS, SHALL BE COMPLETELY SEPARATE OF ANY LIGHT FIXTURE PRICING. ANY LIGHTING CONTROLS PRICING THAT IS SUBMITTED WITH LIGHT FIXTURE PRICING (UNIT OR MINI-LOT) WILL BE IMMEDIATELY REJECTED IN ITS ENTIRETY.
4. CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND CATALOG NUMBERS ONLY. FIRST READ THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS IN CONJUNCTION WITH THE CATALOG NUMBER TO DETERMINE THE MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.
5. FOR SUBSTITUTIONS: PROVIDE PHOTOMETRIC CALCULATIONS AND OTHER NECESSARY INFORMATION FOR ENGINEER REVIEW. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
6. COORDINATE LIGHT FIXTURE MOUNTING HARDWARE AND TRIMS NEEDED TO SUIT CEILING CONDITIONS. LIGHT FIXTURES NEAR OR IN CONTACT WITH INSULATION SHALL COMPLY WITH CODE. MAINTAIN 3" MINIMUM WORKING CLEARANCE BETWEEN NON-IC RATED LIGHT FIXTURE HOUSINGS AND INSULATION ON ALL ADJACENT DUCTWORK, PIPING, WALLS, AND CEILINGS.
7. STRIP LIGHT FIXTURES SUBJECT TO DAMAGE, INCLUDING THOSE MOUNTED ON EQUIPMENT MEZZANINES, STORAGE, RECEIVING AND STOCKROOM AREAS, SHALL BE PROVIDED WITH WIRE GUARDS. PROTECT-A-LAMP COVERS OR EQUIVALENT SHIELDED OR SHATTERPROOF LAMPS/LIGHT SOURCES. COORDINATE REQUIREMENTS AND AFFECTED LIGHT FIXTURES WITH OWNER.



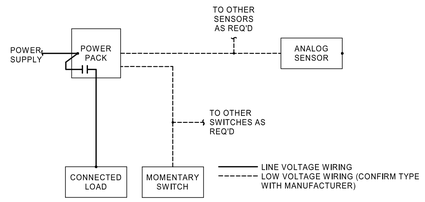
NOTES:
1. REFER TO LIGHTING CONTROL DEVICE SCHEDULE FOR DEVICE AND EQUIPMENT SPECIFICATIONS.
2. QUANTITY OF RELAYS SHOWN IS GENERIC. REFER TO PLANS, LIGHTING CONTROL DEVICE SCHEDULE, AND SHOP DRAWINGS FOR FINAL QUANTITY PER ROOM CONTROLLER.
3. DETAIL IS DIAGRAMMATIC AND IS BASED ON LEGRAND. THIS REPRESENTS THE GENERAL SCOPE OF WORK AND LOCATION OF DEVICES IN RELATION TO EACH OTHER ALONG THE POWER CIRCUIT. DIAGRAMS MAY BE DIFFERENT FOR ALLOWED EQUIVALENT MANUFACTURERS. ELECTRICAL CONTRACTOR SHALL COORDINATE FULL SYSTEM REQUIREMENTS WITH SELECTED MANUFACTURER. PROVIDE ALL PARTS AND PIECES REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. REFER TO FINAL APPROVED MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WIRING DIAGRAMS FOR INSTALLATION.
4. CIRCUITING SHOWN ON THE PLAN CORRESPONDS TO THE LIGHTING CONTROL INTENT. IF CIRCUITING IS CHANGED IN THE FIELD, ENSURE THAT SYSTEM PROGRAMMING WITH REVISED CIRCUITING MEETS THE ORIGINAL LIGHTING CONTROL INTENT. UPDATE LIGHTING CONTROL PANEL SCHEDULES IN RECORD DRAWINGS.
5. PROVIDE SYSTEM COMMISSIONING AS REQUIRED PER ENERGY CODE.

4 ROOM CONTROLLER DETAIL - ON/OFF OR ON/OFF/0-10V DIMMING CONTROL
NTS



NOTES:
1. REFER TO LIGHTING CONTROL DEVICE SCHEDULE FOR DEVICE AND EQUIPMENT SPECIFICATIONS.
2. PROVIDE QUANTITY OF POWER PACKS AS REQUIRED BY MANUFACTURER TO SUPPORT QUANTITY OF SENSORS INDICATED ON PLANS.
3. DETAIL IS DIAGRAMMATIC AND IS BASED ON WATTSTOPPER. THIS REPRESENTS THE GENERAL SCOPE OF WORK AND LOCATION OF DEVICES IN RELATION TO EACH OTHER ALONG THE POWER CIRCUIT. DIAGRAMS MAY BE DIFFERENT FOR ALLOWED EQUIVALENT MANUFACTURERS. ELECTRICAL CONTRACTOR SHALL COORDINATE FULL SYSTEM REQUIREMENTS WITH SELECTED MANUFACTURER. PROVIDE ALL PARTS AND PIECES REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. REFER TO FINAL APPROVED MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WIRING DIAGRAMS FOR INSTALLATION.
4. CIRCUITING SHOWN ON THE PLAN CORRESPONDS TO THE LIGHTING CONTROL INTENT. IF CIRCUITING IS CHANGED IN THE FIELD, ENSURE THAT SYSTEM PROGRAMMING WITH REVISED CIRCUITING MEETS THE ORIGINAL LIGHTING CONTROL INTENT. UPDATE LIGHTING CONTROL PANEL SCHEDULES IN RECORD DRAWINGS.

2 OCCUPANCY SENSOR DETAIL - MULTIPLE POWER SUPPLIES AND SWITCHES
NTS



NOTES:
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1 OCCUPANCY SENSOR DETAIL - SINGLE POWER SUPPY AND SWITCH
NTS

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Lee's Summit R7 District
Athletics Facilities

Lee's Summit High School
400 SW Blue Parkway
Lee's Summit, MO 64063

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Lee's Summit R-7 School District
301 NE Tudor Road
Lee's Summit, MO 64086

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2050003134
MO. CORPORATE NO: E-5560
EXPIRES 12/31/2020

STATE OF MISSOURI
CURTIS A. OLDS
NUMBER PE-2010020640
PROFESSIONAL ENGINEER

Nov 9 2020

REVISIONS

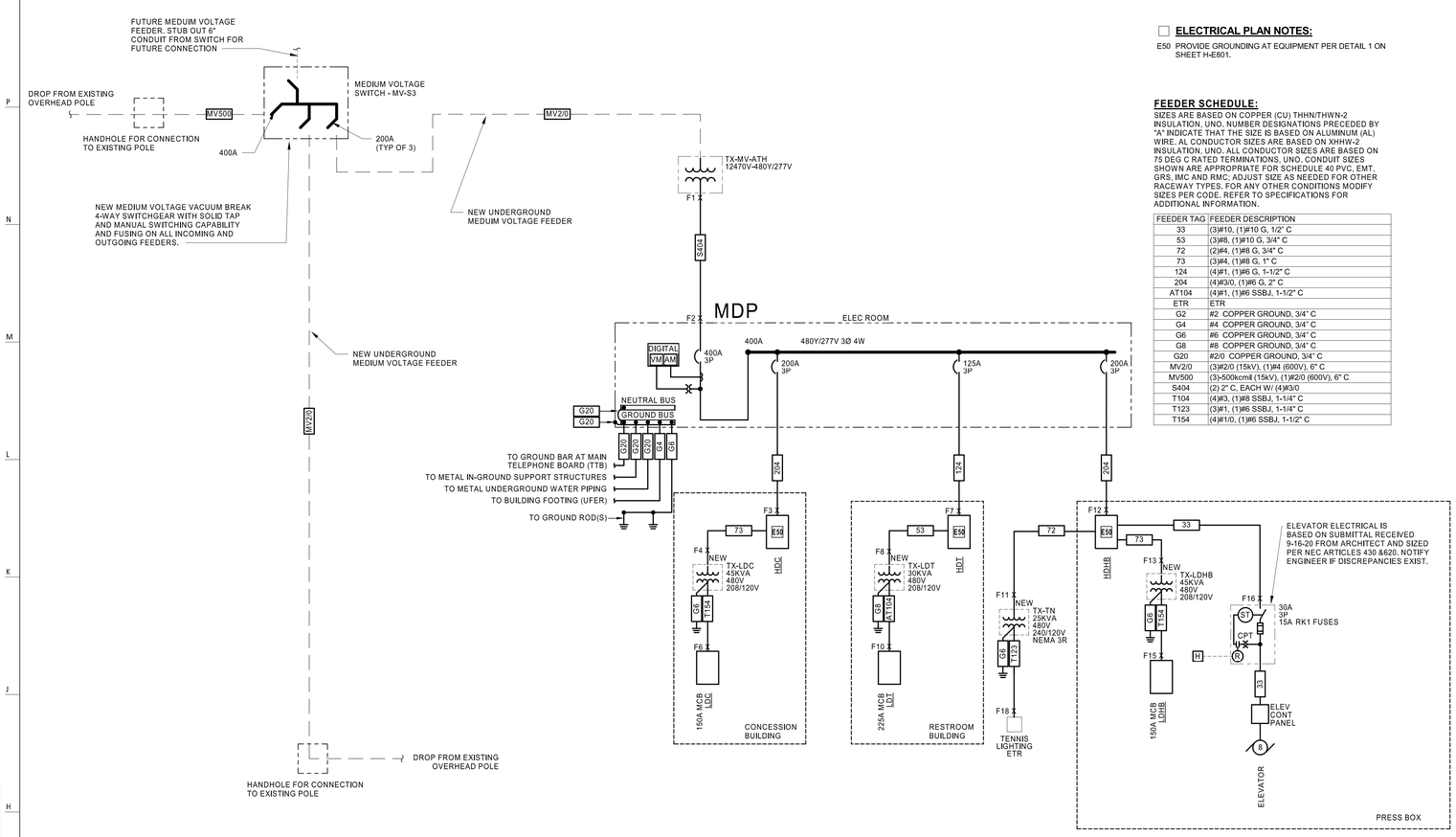
NUMBER	DESCRIPTION	DATE
1	Addendum 3	10.23.2020

PROJECT NO: 0119-0101
DATE: September 28, 2020

LIGHTING SCHEDULES

H-E700

BID SET



2 ELECTRICAL ONELINE - CONCESSIONS
NTS

☐ ELECTRICAL PLAN NOTES:

E50 PROVIDE GROUNDING AT EQUIPMENT PER DETAIL 1 ON SHEET H-E801.

FEEDER SCHEDULE:

SIZES ARE BASED ON COPPER (CU) THHN/THWN-2 INSULATION, UNO. NUMBER DESIGNATIONS PRECEDED BY "A" INDICATE THAT THE SIZE IS BASED ON ALUMINUM (AL) WIRE. AL CONDUCTOR SIZES ARE BASED ON XHHW-2 INSULATION, UNO. ALL CONDUCTOR SIZES ARE BASED ON 75 DEG C RATED TERMINATIONS. UNO. CONDUIT SIZES SHOWN ARE APPROPRIATE FOR SCHEDULE 40 PVC, EMT, GRS, IMC AND RMC; ADJUST SIZE AS NEEDED FOR OTHER RACEWAY TYPES. FOR ANY OTHER CONDITIONS MODIFY SIZES PER CODE. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

FEEDER TAG	FEEDER DESCRIPTION
33	(3)#10, (1)#10 G, 1/2" C
53	(3)#8, (1)#10 G, 3/4" C
72	(2)#4, (1)#8 G, 3/4" C
73	(3)#4, (1)#8 G, 1" C
124	(4)#1, (1)#6 G, 1-1/2" C
204	(4)#3/0, (1)#6 G, 2" C
AT104	(4)#1, (1)#6 SSBJ, 1-1/2" C
ETR	ETR
G2	#2 COPPER GROUND, 3/4" C
G4	#4 COPPER GROUND, 3/4" C
G6	#6 COPPER GROUND, 3/4" C
G8	#8 COPPER GROUND, 3/4" C
G20	#2/0 COPPER GROUND, 3/4" C
MV2/0	(3)#2/0 (15kV), (1)#4 (600V), 6" C
MV500	(3)-500kcmil (15kV), (1)#2/0 (600V), 6" C
S404	(2) 2" C, EACH W/ (4)#3/0
T104	(4)#3, (1)#8 SSBJ, 1-1/4" C
T123	(3)#1, (1)#6 SSBJ, 1-1/4" C
T154	(4)#1/0, (1)#6 SSBJ, 1-1/2" C

ELECTRICAL UTILITY CONTACT NOTE:

UTILITY COMPANY: EVERGY
UTILITY CONTACT: RON DEJARNETTE
EMAIL: ron.dejarnette@evergy.com

FAULT CURRENT GENERAL NOTE (ESTIMATED VALUE):

THE MAXIMUM AVAILABLE 3-PHASE SYMMETRICAL FAULT CURRENT VALUE AT THE UTILITY TRANSFORMER SECONDARY/POINT OF SERVICE COULD NOT BE DETERMINED AT THE TIME OF THIS SUBMITTAL. THE ESTIMATED WORST CASE VALUE OF 18,402 A IS BASED ON AN INFINITE BUS CALCULATION AT THE UTILITY TRANSFORMER. CONTRACTOR SHALL VERIFY ACTUAL AVAILABLE FAULT CURRENT VALUE WITH UTILITY. NOTIFY ENGINEER IF ACTUAL VALUE EXCEEDS ESTIMATED CALCULATED VALUE. ESTIMATED DESIGN VALUE IS BASED ON THE FOLLOWING:

TX-MV-ATH:
MEDIUM VOLTAGE TRANSFORMER PRIMARY VOLTAGE: 12,470V
MEDIUM VOLTAGE TRANSFORMER SECONDARY VOLTAGE:
480Y/277V, 3Ø, 4W
MEDIUM VOLTAGE TRANSFORMER SIZE: **300KVA, Z=2.0%**

BUILDING LOAD SUMMARY (MDP)

BUILDING OCCUPANCY TYPE: OFFICE BUILDING		SERVICE DESCRIPTION:	
BUILDING SQUARE FOOTAGE: 10000		480Y/277 V	
LOAD TYPE	CONNECTED LOAD	DEMAND FACTOR	NEC DEMAND
EXISTING LOAD (E)	0 VA	100%	0 VA
COOLING (C)	1061 VA	0%	0 VA
HEATING (H)	4000 VA	100%	4000 VA
LIGHTING (L) (PER NEC-220)	35000 VA	125%	43750 VA
RECEPTACLES (R)	12700 VA	89%	11350 VA
MOTORS (M)	11314 VA	100%	11314 VA
SUPPLEMENTAL HEAT (U)	105770 VA	100%	105770 VA
MISC EQUIP (Z)	24020 VA	100%	24020 VA
REFRIGERATION (F)	0 VA	100%	0 VA
SIGN/DISPLAY (D)	1200 VA	125%	1500 VA
KITCHEN (K)	8000 VA	65%	5200 VA
LARGEST MOTOR	9977 VA	125%	12471 VA
SHOW WINDOW (W)	0 VA	125%	0 VA
TRACK LIGHTING	0 VA	100%	0 VA
TOTAL LOAD	213042	VA	219375
TOTAL AMPACITY	256	AMPS	264
SERVICE AMPACITY		AMPS	400
SPARE CAPACITY		AMPS	136

ONE-LINE DIAGRAM GENERAL NOTES:

1. THE INFORMATION SHOWN IN THE SHORT-CIRCUIT AND VOLTAGE DROP CALCULATIONS SCHEDULE IS SHOWN FOR CALCULATION PURPOSES ONLY. CONTRACTOR SHALL NOT USE THE CONDUIT TYPES, CONDUCTOR TYPES, SIZES, QUANTITIES OR LENGTHS FOR TAKEOFFS OR BIDDING PURPOSES. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN THIS SCHEDULE AND OTHER PORTIONS OF THE CONSTRUCTION DOCUMENTS. CONTRACTOR SHALL NOTIFY ENGINEER OF AS-BUILT CONDITIONS THAT CONSTITUTE A CHANGE FROM WHAT IS SHOWN BELOW; THIS INCLUDES CONDUCTOR LENGTHS DIFFERING BY MORE THAN 10%.
2. REFER TO THE SHORT-CIRCUIT AND VOLTAGE DROP CALCULATIONS TABLE ON THIS SHEET. AVAILABLE FAULT CURRENT INFORMATION IS LISTED UNDER THE "FAULT CURRENT" COLUMN. VOLTAGE DROP VALUES ARE LISTED UNDER THE "CUMULATIVE VOLTAGE DROP" COLUMN. THE AIC/SCCR RATING OF THE EQUIPMENT SHALL NOT BE LESS THAN THE AVAILABLE 3-PHASE SYMMETRICAL FAULT CURRENT. ALL SERIES RATED EQUIPMENT SHALL BE PROPERLY LISTED AND LABELED PER CODE.
3. FEEDER NUMBER DESIGNATIONS PRECEDED BY "V" INDICATE THAT THE CONDUCTORS ARE UP-SIZED DUE TO VOLT-DROP CONSIDERATIONS. PROVIDE LUG ADAPTERS AS NEEDED IN ORDER TO PROPERLY LAND CONDUCTORS AT TERMINATION(S).
4. FEEDER SIZES ARE BASED ON COPPER (CU) THHN/THWN-2 INSULATION, UNLESS NOTED OTHERWISE. CONDUIT SIZES SHOWN ARE APPROPRIATE FOR SCHEDULE 40 PVC, EMT, GRS, IMC AND RMC; ADJUST SIZE AS NEEDED FOR OTHER RACEWAY TYPES. NUMBER DESIGNATIONS PRECEDED BY "A" INDICATE THAT THE SIZE IS BASED ON ALUMINUM (AL) WIRE. AL CONDUCTOR SIZES ARE BASED ON XHHW-2 INSULATION, UNLESS NOTED OTHERWISE. AL WIRE MAY BE SUBSTITUTED FOR CU FEEDERS AS ALLOWED BY CODE. SPECIFICATIONS AND OWNER, UNLESS NOTED OTHERWISE, AT CONTRACTOR'S OPTION, CU WIRE MAY BE SUBSTITUTED FOR AL, UNLESS NOTED OTHERWISE. ALL CONDUCTOR SIZES ARE BASED ON 75 DEG C RATED TERMINATIONS, UNLESS NOTED OTHERWISE. FOR ANY OTHER CONDITIONS MODIFY SIZES PER CODE. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. BRANCH CIRCUIT SIZES ARE BASED ON COPPER (CU) THHN/THWN-2 INSULATION, UNLESS NOTED OTHERWISE. CONDUIT SIZES SHOWN ARE APPROPRIATE FOR SCHEDULE 40 PVC, EMT, GRS, IMC AND RMC; ADJUST SIZE AS NEEDED FOR OTHER RACEWAY TYPES. ALL CONDUCTOR SIZES ARE BASED ON 60 DEG C RATED TERMINATIONS, UNLESS NOTED OTHERWISE. FOR ANY OTHER CONDITIONS MODIFY SIZES PER CODE. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
6. INSTALL FEEDERS OVERHEAD AS HIGH AS PRACTICABLE AND ORTHOGONALLY ALONG BUILDING STRUCTURE, UNLESS NOTED OTHERWISE. COORDINATE FINAL ROUTING WITH OTHER TRADES.
7. CIRCUIT BREAKERS RATED 1200A OR HIGHER SHALL HAVE APPROPRIATE DOCUMENTATION AND METHOD TO REDUCE CLEARING TIME IN ORDER TO REDUCE ARC FLASH ENERGY PER CODE. PROVIDE ELECTRONIC TRIP UNIT WITH INSTANTANEOUS TRIP AND ENERGY-REDUCING MAINTENANCE SWITCH WITH LOCAL STATUS INDICATOR FOR COMPLIANCE. PROVIDE PROVISIONS TO INTERFACE WITH OWNER ALARM/MONITORING SYSTEM TO INDICATE MAINTENANCE SWITCH STATUS.
8. PROVIDE A PERMANENT LABEL ON FRONT OF EQUIPMENT ENCLOSURE; REFER TO SPECIFICATIONS FOR LABEL REQUIREMENTS. LABEL SHALL READ AS FOLLOWS (INCLUDE RESPECTIVE NAMES IN BLANKS):

   SERVICE EQUIPMENT LABEL:

   EXAMPLE:
   208Y/120V, 60HZ
   800A
   SCCR = 65,000A
   MAX AVAILABLE FAULT CURRENT = 58,815A
   CALCULATED: 01/01/2018

   PANELBOARD/SWITCHBOARD LABEL:
   LINE 1: PANELBOARD "_____" SUPPLIED BY UPSTREAM
   LINE 2: PANELBOARD/SWITCHBOARD "_____"
   LINE 3: LOCATED IN "_____"
   LINE 4: PANELBOARD "_____" SUPPLIES DOWNSTREAM
   LINE 5: PANELBOARD(S) "_____"

   TRANSFORMERS LABEL:
   LINE 1: TRANSFORMER "_____" SUPPLIED BY UPSTREAM
   LINE 2: PANELBOARD/SWITCHBOARD "_____"
   LINE 3: LOCATED IN "_____"
   LINE 4: TRANSFORMER "_____" SUPPLIES DOWNSTREAM
   LINE 5: PANELBOARD(S) "_____"

Short-Circuit and Voltage Drop Calculations

Distances are for calculation purposes only and shall not be used for contractor takeoffs nor bidding - Contractor shall notify Engineer of any field condition that results in a change of 10% or greater circuit distance

The following calculations are based on the "Point-by-Point" method where:

ISC (2) = ISC(1) x M(1) M= 1/(1+f)
ISC (1) = short circuit current at fault point 1
ISC (2) = short circuit current at fault point 2

Feeder: f (3Ø) = 1.732 x L x Isc / C x E
Feeder: f (1Ø)= 2 x L x Isc / C x E

XFMR: f (3Ø) = IP(sca)x Vp x 1.73 x %Z / 100,000 x KVA
XFMR: f (1Ø)= IP(sca)x Vp x %Z / 100,000 x KVA

IS(sca)= Vp x M x IP(sca) / Vs

VOLTAGE DROP (3Ø):
%VD= ((R x cos(arccos(pf)) + X x sin (arccos(pf))) x L/# x I x 1.73) / E
VOLTAGE DROP (1Ø):
%VD= ((R x cos(arccos(pf)) + X x sin(arccos(pf))) x 2 x L/# x I) / E

IP = Primary short circuit current
Vp = Primary voltage
IS= Secondary short circuit current
Vs= Secondary voltage
L = Length of circuit
C = "C" Factor from Bussman table where "C" = 1 / impedance per linear foot
E = Line to line volts

%VD CUM= Cumulative Voltage Drop from Fault Point 1 to Fault Point #
R= resistance in ohms per LF
X= reactances in ohms per LF

Feeder Types =
NM - Non Magnetic Conduit, M - Magnetic Conduit, FB - Feeder Busway, PB - Plug-in Busway, TX - Transformer

Date of Calculations: 09/25/2020
System Voltage: 480Y/277V - 3 phase

Fault Point (F#)	Bus/Feeder Description	Source (Fault Point)	Phase	Source Isc (amps)	Feeder: Conduit Type/ TX	Feeder: Material	Feeder: Quantity of Parallel Sets and Bus/ Phase & Neutral Size			Conductor Value	Busway 'C' Value	L-L Voltage (E)	Circuit Length (L)	Load Power Factor (pf)	Circuit Load (Amperage)	Conductor: Resistance (R)	Conductor: Reactance (X)	Conductor: Arccos (pf) (Radians)	Transformer: Type	Degree Rise	kVA	New Xfmr Z	Existing Xfmr Z	Secondary Voltage	Tap Setting	f	M	Fault Current (amps)	Voltage Drop (%VD)	Cumulative Voltage Drop (%VD)	Fault Point (F#)
1	Utility Service Point			18,402 at the secondary of the utility transformer																					Source Isc + 6X Motor Contribution =			18702			1
	Motor Contribution			50 The connected full load motor amps (includes compressors) on the system																											
2	MDP	1	3	18702	M	CU	2	Set(s) of	3/0	AWG	12844	--	480	45	0.9	250	0.000079	0.000052	0.451027							0.118	0.89	16725	-0.19%	-0.19%	2
3	HDC	2	3	16725	M	CU	1	Set(s) of	1	AWG	7293	--	480	190	0.9	125	0.000160	0.000057	0.451027							1.572	0.39	6502	-1.45%	-1.64%	3
4	TO TX-LDC	3	3	6502	M	CU	1	Set(s) of	4	AWG	3806	--	480	10	0.9	50	0.000310	0.000060	0.451027							0.062	0.94	6124	-0.06%	-1.69%	4
5	TX-LDC	4	3	6124	TX								480							DOE	150	45	3.51		208		3.971	0.20	2843		-1.69%	5
6	LDC	5	3	2843	M	CU	1	Set(s) of	1/0	AWG	8925	--	208	10	0.9	100	0.000120	0.000055	0.451027							0.027	0.97	2769	-0.11%	-1.80%	6
7	HDT	2	3	16725	M	CU	1	Set(s) of	1	AWG	7293	--	480	10	0.9	80	0.000160	0.000057	0.451027							0.083	0.92	15447	-0.05%	-0.24%	7
8	TO TX-LDT	7	3	15447	M	CU	1	Set(s) of	4	AWG	3806	--	480	10	0.9	50	0.000310	0.000060	0.451027							0.146	0.87	13473	-0.06%	-0.29%	8
9	TX-LDT	8	3	13473	TX								480							DOE	150	45	3.51		208		8.737	0.10	3193		-0.29%	9
10	LDT	9	3	3193	M	CU	1	Set(s) of	1/0	AWG	8925	--	208	10	0.9	100	0.000120	0.000055	0.451027							0.030	0.97	3101	-0.11%	-0.40%	10
11	TO TX-TN	12	1	10088	M	CU	1	Set(s) of	4	AWG	3806	--	480	70	0.95	50	0.000310	0.000060	0.317560							0.773	0.56	5690	-0.46%	-1.24%	11
12	HDHB	2	3	16725	M	CU	1	Set(s) of	3/0	AWG	12844	--	480	140	0.9	125	0.000079	0.000052	0.451027							0.658	0.60	10088	-0.59%	-0.78%	12
13	TO TX-LDHB	12	3	10088	M	CU	1	Set(s) of	4		3806	--	480	10	0.9	50	0.000310	0.000060	0.451027							0.096	0.91	9208	-0.06%	-0.84%	13
14	TX-LDHB	13	3	9208	TX								480							DOE	150	45	3.51		208		5.971	0.14	3048		-0.84%	14
15	LDHB	14	3	3048	M	CU	1	Set(s) of	1/0	AWG	8925	--	208	10	0.9	100	0.000120	0.000055	0.451027							0.028	0.97	2964	-0.11%	-0.95%	15
16	ELEVATOR	12	3	10088	M	CU	1	Set(s) of	12	AWG	617	--	480	30	0.8	15	0.002000	0.000068	0.643501							1.770	0.36	3642	-0.27%	-1.05%	16
17	TX-TN	11	1	5690	TX								480							DOE	150	25	4		240		4.370	0.19	2119		-1.24%	17
18	TENNIS LIGHTING	17	1	2119	M	CU	1	Set(s) of	1	AWG	7293	--	240	10	0.95	100	0.000160	0.000057	0.317560							0.024	0.98	2069	-0.14%	-1.38%	18

Fault Point (FE#)	Bus/Feeder Description	Source (Fault Point)	Phase	Source Isc (amps)	Feeder: Conduit Type/ TX	Feeder: Material	Feeder: Quantity of Parallel Sets and Bus/ Phase & Neutral Size			Conductor Value	Busway 'C' Value	L-L Voltage (E)	Circuit Length (L)	Load Power Factor (pf)	Circuit Load (Amperage)	Conductor: Resistance (R)	Conductor: Reactance (X)	Conductor: Arccos (pf) (Radians)	Transformer: Type	Degree Rise	kVA	New Xfmr Z	Existing Xfmr Z	Secondary Voltage	Tap Setting	f	M	Fault Current (amps)	Voltage Drop (%VD)	Cumulative Voltage Drop (%VD)	Fault Point (F#)
1	Utility Service Point			6,766 at the secondary of the utility transformer																					Source Isc + 6X Motor Contribution =			6886			1
	Motor Contribution			20 The connected full load motor amps (includes compressors) on the system																											
2	PRESSBOX	1	3	6886	M	CU	1	Set(s) of	3/0	AWG	12844	--	480	50	0.9	160	0.000079	0.000052	0.451027							0.097	0.91	6279	-0.27%	-0.27%	2
3	TO TX-ETR	2	1	6279	M	CU	1	Set(s) of	4	AWG	3806	--	480	25	0.9	56	0.000310	0.000060	0.451027							0.172	0.85	5358	-0.18%	-0.45%	3
4	TX-ETR	3	1	5358	TX								480							TP-1	150	25	4		240		4.115	0.20	2095		-0.45%	4
5	PANEL ETR	4	3	2095	M	CU	1	Set(s) of	1	AWG	7293	--	208	10	0.9	100	0.000160	0.000057	0.451027							0.024	0.98	2046	-0.14%	-0.59%	5
6	DISC-TX-LDV	1	3	6886	M	CU	1	Set(s) of	8	AWG	1557	--	480	200	0.9	36	0.000780	0.000065	0.451027							3.192	0.24	1643	-1.90%	-1.90%	6
7	TO TX-LDV	6	3	1643	M	CU	1	Set(s) of	8	AWG	1557	--	480	10	0.9	36	0.000780	0.000065	0.451027							0.038	0.96	1583	-0.09%	-1.99%	7
8	TX-LDV	7	3	1583	TX					AWG			480							DOE	150	30	2.44		208		1.070	0.48	1764		-1.99%	8
9	LDV	8	3	1764	M	CU	1	Set(s) of	3		4774	--	208	10	0.9	84	0.000250	0.000059	0.451027							0.031	0.97	1712	-0.18%	-2.17%	9

ONE-LINE DIAGRAM GENERAL NOTES:

1. COORDINATE WORK WITH ARCHITECTURAL PHASING DRAWINGS TO PROPERLY STAGE TRANSITION TO PROVIDE POWER TO EXISTING, NEW AND TEMPORARY LOADS. MONITOR LOADS ON DISTRIBUTION SYSTEM TO MAKE SURE SHIFTING OF LOADS DOES NOT OVERLOAD ELECTRICAL EQUIPMENT.
2. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE EXISTING AIC/SCCR RATING OF EACH PANELBOARD/SWITCHBOARD. ALL NEW AND EXISTING OVER-CURRENT PROTECTION DEVICES (CIRCUIT BREAKERS AND FUSES) MUST HAVE AN AIC/SCCR RATING EXCEEDING THE AVAILABLE FAULT CURRENT AT THAT POINT IN THE SYSTEM. NOTIFY THE OWNER AND THE ENGINEER IF THE EXISTING EQUIPMENT DOES NOT COMPLY WITH THIS REQUIREMENT.
3. VERIFY THE INTEGRITY OF THE EXISTING GROUNDING ELECTRODE SYSTEM AND THAT THE NEUTRAL AND GROUND ARE PROPERLY BONDED TOGETHER AT THE POINT OF SERVICE ENTRANCE. NOTIFY THE OWNER AND THE ENGINEER OF ANY EXISTING DEFICIENCIES.
4. AS APPLICABLE, OBTAIN THE FOLLOWING INFORMATION IN REGARD TO THE EXISTING ELECTRICAL SERVICE AND DISTRIBUTION SYSTEM AND REPORT FINDINGS TO THE ENGINEER FOR ANALYSIS PRIOR TO BEGINNING CONSTRUCTION:
   A. AVAILABLE FAULT CURRENT DELIVERED BY THE UTILITY COMPANY AT THE POINT OF SERVICE. INCLUDE THE AVAILABLE FAULT CURRENT DELIVERED TO THE TENANT SPACE BY THE OWNER'S DISTRIBUTION SYSTEM.
   B. PROVIDE A PLAN SKETCH OF THE OWNER'S DISTRIBUTION EQUIPMENT LOCATION RELATIVE TO THE ENTIRE BUILDING. INCLUDE THE LOCATION OF TENANT SPACE UTILITY METER AND SERVICE DISCONNECT, RELEVANT FEEDER ROUTING AND LENGTHS.
   C. PROVIDE A SKETCH OF THE ONE-LINE SHOWING THE PATH FROM THE UTILITY TRANSFORMER TO THE OWNER EQUIPMENT TO THE TENANT SPACE. INCLUDE FEEDER CONDUCTOR MATERIAL, (AL OR CU), NUMBER AND SIZE OF CONDUCTORS, GROUND, LENGTH, CONDUIT SIZE AND CONDUIT TYPE.
   D. TYPE OF SERVICE DISCONNECT OVER-CURRENT PROTECTION DEVICE, (FUSE OR CIRCUIT BREAKER), AMPERE RATING OF THE DEVICE AND AIC/SCCR RATING OF THE DEVICE.
   E. AIC/SCCR RATING AT EACH EXISTING SWITCHBOARD/PANELBOARD.

ONE-LINE DIAGRAM SUPPLEMENTAL SPECIFICATIONS:

1. GROUNDING ELECTRODE SYSTEM SHALL BE PER LOCAL REQUIREMENTS AND SHALL NOT BE LESS STRINGENT THAN THAT SPECIFIED IN THE CONSTRUCTION DOCUMENTS.
2. PROVIDE PROPERLY SIZED LUGS FOR ALL EQUIPMENT, CIRCUIT BREAKERS, AND OTHER ELECTRICAL DEVICES TO ACCOMMODATE INSTALLED CONDUCTORS. A LARGER FRAME, OVERSIZED LUGS OR NON-STANDARD PRODUCT MAY BE REQUIRED IN SOME INSTANCES. UTILIZE PIN ADAPTERS ONLY IF NECESSARY AND ONLY AS ALLOWED BY MANUFACTURER AND AHJ.
3. PROVIDE ANY AVAILABLE SPACE IN SWITCHBOARDS/PANELBOARDS WITH BUSSING.
4. PROVIDE (4) EMPTY 1" CONDUITS WITH PULL STRINGS FROM EACH RECESSED PANELBOARD UP TO ACCESSIBLE CEILING SPACE. CAP AND LABEL CONDUITS FOR FUTURE USE.
5. PROVIDE TYPED FINAL CIRCUIT DIRECTORY FOR ALL PANELBOARDS TO REFLECT ACTUAL AS-BUILT CONDITIONS. COORDINATE FINAL ROOM NAMES, NUMBERS AND DESCRIPTIONS WITH OWNER PRIOR TO COMPLETION. CIRCUIT DESCRIPTIONS SHALL BE PER CODE AND SHALL BE DISTINGUISHABLE FROM ALL OTHERS.

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MO. CORPORATE NO: E-556D
EXPIRES 12/31/2020

STATE OF MISSOURI
CURTIS A. OLDS
NUMBER PE-2015035640
PROFESSIONAL ENGINEER

Sep 25 2020

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

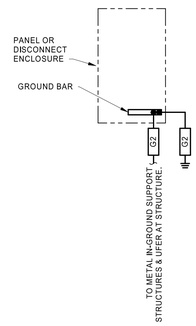
ELECTRICAL ONE-LINE DIAGRAM

H-E800

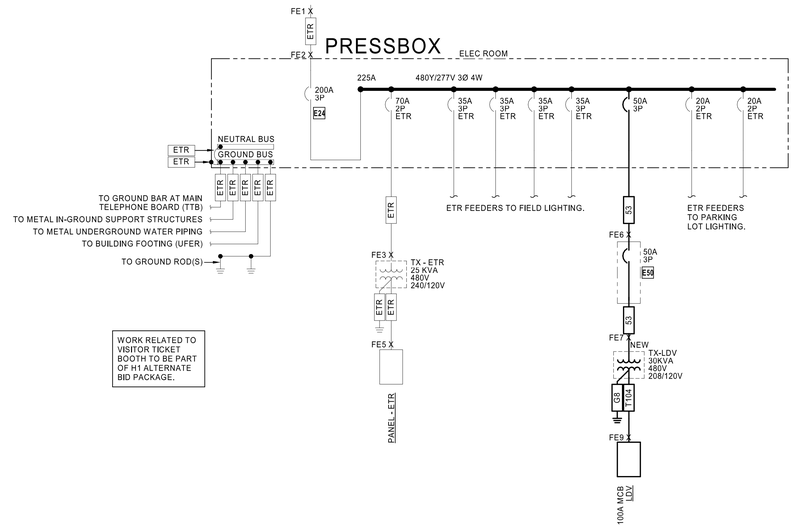
BID SET

PRINT DATE/TIME: 9/25/2020 1:59:51 PM

CURTIS A. OLDS



1 PANEL GROUNDING DETAIL
NTS



WORK RELATED TO VISITOR TICKET BOOTH TO BE PART OF H1 ALTERNATE BID PACKAGE.

2 ELECTRICAL ONELINE - VISITOR'S PRESS BOX
NTS

ONE-LINE DIAGRAM GENERAL NOTES:

1. REFER TO ONE-LINE DIAGRAM GENERAL NOTES ON SHEET H-E800.
2. REFER TO SHORT-CIRCUIT AND VOLTAGE DROP SCHEDULE ON SHEET H-E800 FOR SHORT CIRCUIT AND VOLTAGE DROP INFORMATION.

☐ **ELECTRICAL PLAN NOTES:**

E24 CONTRACTOR TO METER EXISTING LOADS FOR A MINIMUM OF 30 DAYS OF NORMAL USE PER NEC 220.87. STOP WORK AND NOTIFY THE ENGINEER IF THE METERED LOAD EXCEEDS 113 KW.

E50 PROVIDE GROUNDING AT EQUIPMENT PER DETAIL 1 ON SHEET H-E801.

BUILDING LOAD SUMMARY (PRESS BOX)

BUILDING OCCUPANCY TYPE: OFFICE BUILDING BUILDING SQUARE FOOTAGE: 100		SERVICE DESCRIPTION: 480Y/277 V	
LOAD TYPE	CONNECTED LOAD KVA	DEMAND FACTOR	NEC DEMAND KVA
EXISTING PEAK UTILITY (@ 0.9 pf)	N/A	125%	156.94
COOLING (C)	0.00	0%	0.00
HEATING (H)	0.00	100%	0.00
LIGHTING (L) (PER NEC-220)	0.08	125%	0.10
RECEPTACLES (R)	0.54	100%	0.54
MOTORS (M)	0.00	100%	0.00
SUPPLEMENTAL HEAT (U)	3.00	100%	3.00
MISC EQUIP (Z)	0.00	100%	0.00
REFRIGERATION (F)	0.00	100%	0.00
SIGN/DISPLAY (D)	0.00	125%	0.00
KITCHEN (K)	0.00	100%	0.00
LARGEST MOTOR	0.00	125%	0.00
SHOW WINDOW (W)	0.00	125%	0.00
TRACK LIGHTING	0.00	100%	0.00
EXISTING LOAD TO BE DELETED	0.00	100%	0.00
TOTAL LOAD	3.62	KVA	160.59
TOTAL AMPACITY	4.36	AMPS	193.16
SERVICE AMPACITY		AMPS	200.00
SPARE CAPACITY		AMPS	6.84
*PER UTILITY COMPANY BILLING PEAK DEMAND OF:		113.00 KW	

FEEDER SCHEDULE:

SIZES ARE BASED ON COPPER (CU) THHN/THWN-2 INSULATION, UNO. NUMBER DESIGNATIONS PRECEDED BY "A" INDICATE THAT THE SIZE IS BASED ON ALUMINUM (AL) WIRE. AL CONDUCTOR SIZES ARE BASED ON XHHW-2 INSULATION, UNO. ALL CONDUCTOR SIZES ARE BASED ON 75 DEG C RATED TERMINATIONS, UNO. CONDUIT SIZES SHOWN ARE APPROPRIATE FOR SCHEDULE 40 PVC, EMT, GRS, IMC AND RMC; ADJUST SIZE AS NEEDED FOR OTHER RACEWAY TYPES. FOR ANY OTHER CONDITIONS MODIFY SIZES PER CODE. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

FEEDER TAG	FEEDER DESCRIPTION
33	(3)#10, (1)#10 G, 1/2" C
53	(3)#8, (1)#10 G, 3/4" C
72	(2)#4, (1)#8 G, 3/4" C
73	(3)#4, (1)#8 G, 1" C
124	(4)#1, (1)#6 G, 1-1/2" C
204	(4)#3/0, (1)#6 G, 2" C
AT104	(4)#1, (1)#6 SSBJ, 1-1/2" C
ETR	ETR
G2	#2 COPPER GROUND, 3/4" C
G4	#4 COPPER GROUND, 3/4" C
G6	#6 COPPER GROUND, 3/4" C
G8	#8 COPPER GROUND, 3/4" C
G20	#2/0 COPPER GROUND, 3/4" C
MV2/0	(3)#2/0 (15kV), (1)#4 (600V), 6" C
MV500	(3)-500kcmil (15kV), (1)#2/0 (600V), 6" C
S404	(2) 2" C, EACH W/ (4)#3/0
T104	(4)#3, (1)#8 SSBJ, 1-1/4" C
T123	(3)#1, (1)#6 SSBJ, 1-1/4" C
T154	(4)#1/0, (1)#6 SSBJ, 1-1/2" C

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EXPIRES 12/31/2020

Sep 25 2020

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

ELECTRICAL ONE-LINE DIAGRAM

H-E801

BID SET

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CURTIS A. OLDS

TELECOMMUNICATIONS SYMBOLS

THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED.

V2.00

STANDARD MOUNTING HEIGHTS

TELECOM BACKBOARD (BOTTOM OF BACKBOARD)	4"
LADDER RACK IN TELECOM ROOMS (BOTTOM OF DEVICE)	90"
CABLE TRAY / CONDUIT AFC (BOTTOM OF PATHWAY)	3"(MIN)
LIGHT FIXTURE IN TELECOM ROOMS (BOTTOM OF DEVICE)	108"(MIN)
TELEPHONE WALL OUTLET (CENTERLINE)	48"
DATA WALL OUTLET	SAME AS ADJACENT DEVICE, UNO
TELEVISION OUTLET	REFER TO ARCH DRAWINGS
TMGB/TGB (CENTERLINE)	84"
WALL CLOCK (CENTERLINE)	84"
INTERCOM (CENTERLINE)	48"

USE THE DEFAULT MOUNTING HEIGHTS SHOWN ABOVE UNO IN THE CONSTRUCTION DOCUMENTS. MOUNTING HEIGHTS LISTED ARE ABOVE FINISHED FLOOR (AFF) OR ABOVE FINISHED GRADE (AFG) TO BOTTOM OF OUTLET BOX. ALL DEVICES SHALL BE INSTALLED IN COMPLIANCE WITH CURRENT ADA AND LOCAL REQUIREMENTS.

ABBREVIATIONS

A AMPERES
ADA AMERICANS WITH DISABILITIES ACT
AFC ABOVE FINISHED CEILING
AFF ABOVE FINISHED FLOOR
AFG ABOVE FINISHED GRADE
AHJ AUTHORITY HAVING JURISDICTION
ANSI AMERICAN NATIONAL STANDARDS INSTITUTE
AP ACCESS POINT
AV AUDIO-VIDEO
AWG AMERICAN WIRE GAUGE
BAS BUILDING AUTOMATION SYSTEM
BD BUILDING DISTRIBUTOR
BDF BUILDING DISTRIBUTION FRAME
BFC BELOW FINISHED CEILING
C CONDUIT
CAT CATEGORY
CATV COMMUNITY ANTENNA TELEVISION
CCTV CLOSED CIRCUIT TELEVISION
CD CAMPUS DISTRIBUTOR
CMP COMMUNICATIONS PLENUM JACKET
CMR COMMUNICATIONS RISER JACKET
DAS DISTRIBUTED ANTENNA SYSTEM
dB DECIBELS
DEMO DEMOLITION
(E) EXISTING
EC ELECTRICAL CONTRACTOR
ECIA ELECTRONIC COMPONENTS INDUSTRY ASSOCIATION
EMIELECTROMAGNETIC INTERFERENCE
EMS ENERGY MANAGEMENT SYSTEM
EMT ELECTRICAL METALLIC TUBING
ER EQUIPMENT ROOM
ETR EXISTING TO REMAIN
FAAP FIRE ALARM ANNUNCIATOR PANEL
FACP FIRE ALARM CONTROL PANEL
FD FLOOR DISTRIBUTOR
FMC FLEXIBLE METAL CONDUIT
FS FIRE STOP SYSTEM
FLR FLOOR
F/UTP SCREEN TWISTED PAIR (SHIELDED)
GC GENERAL CONTRACTOR
GE GROUNDING EQUALIZER
GYP GYPSUM BOARD
HC HORIZONTAL CROSS- CONNECT
HCM HORIZONTAL CABLE MANAGER
HH HAND HOLE
Hz HERTZ
IMCINTERMEDIATE METAL CONDUIT
IP INTERNET PROTOCOL
ISP INTERNET SERVICE PROVIDER
ISP INSIDE PLANT CABLE
JB JUNCTION BOX
J-BOX JUNCTION BOX
LAN LOCAL AREA NETWORK
LCC LIMITED COMBUSTIBLE CABLE
LEC LOCAL EXCHANGE CARRIER
LED LIGHT-EMITTING DIODE
LF LINEAR FEET
MAN METROPOLITAN AREA NETWORK
MATV MASTER ANTENNA TELEVISION
MC MAIN CROSS-CONNECT
MDF MAIN DISTRIBUTION FRAME
MFR MANUFACTURER
MH MAINTENANCE HOLE
MM MULTIMODE
MPOE MAIN POINT OF ENTRANCE
MPOP MAIN POINT OF PRESENCE
MTD MOUNTED
N/A NOT APPLICABLE
NEC NATIONAL ELECTRICAL CODE
NFPA NATIONAL FIRE PROTECTION ASSOCATION
NIC NOT IN CONTRACT
nm NANOMETER
NRTL NATIONALLY RECOGNIZED TESTING LAB
OC ON CENTER
OSHA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
OSP OUTSIDE PLANT
PBX PRIVATE BRANCH EXCHANGE
POE POWER OVER ETHERNET
PON PASSIVE OPTICAL NETWORK
POTS PLAIN OLD TELEPHONE SERVICE
PSTN PUBLIC SWITCHED TELEPHONE NETWORK
QTY QUANTITY
RCDD REGISTERED COMMUNICATIONS DISTRIBUTION DESIGNER
RMC RIGID METAL CONDUIT
RU RACK UNIT
SCS STRUCTURED CABLING SYSTEM
SF SQUARE FEET
SM SINGLEMODE
SPECS SPECIFICATIONS
TBB TELECOMMUNICATIONS BONDING BACKBONE
TBD TO BE DETERMINED
TIA TELECOMMUNICATIONS INDUSTRY ASSOCIATION
TGB TELECOMMUNICATIONS GROUND BUS BAR
TMGB TELECOMMUNICATIONS MAIN GROUND BUS BAR
TR TELECOMMUNICATIONS ROOM
TYP TYPICAL
UNO UNLESS NOTED OTHERWISE
UL UNDERWRITER LABORATORIES, INC.
UPS UNINTERRUPTIBLE POWER SUPPLY
U/UTP UNSHIELDED TWISTED PAIR
V VOLT(S)
VCM VERTICAL CABLE MANAGER
W WIRE
WAN WIDE AREA NETWORK
WAO WORK AREA OUTLET
WAP WIRELESS ACCESS POINT
WP WEATHER PROOF
WR WEATHER RESISTANT
WT WATERTIGHT
XP EXPLOSION-PROOF

ANNOTATION

- (1) TECHNOLOGY PLAN CALLOUT
- [1] EQUIPMENT DESIGATION (OWNER FURNISHED, CONTRACTOR INSTALLED)
- CONNECTION POINT OF NEW WORK TO EXISTING
- (1 / T1) DETAIL REFERENCE UPPER NUMBER INDICATES DETAIL NUMBER. LOWER NUMBER INDICATES SHEET NUMBER
- (1 / T1) SECTION CUT DESIGNATION

LINETYPE LEGEND

THROUGHOUT THE DRAWINGS DIFFERENT LINE-TYPES ARE USED IN COMBINATION WITH THE SYMBOLS TO INDICATE THE STATUS OF ITEMS AS EXISTING, TO BE DEMOLISHED, TO BE INCLUDED AS PART OF THE NEW WORK AND/OR ITEMS WHICH ARE ANTICIPATED TO BE PROVIDED IN THE FUTURE. THE STATUS OF ITEMS USING THESE LINETYPES ARE RELATIVE TO THE VIEW IN WHICH THEY APPEAR. PHASING SHOWN IN DRAWINGS IS NOT INTENDED TO FULLY DESCRIBE ALL NECESSARY CONSTRUCTION PHASING, WHICH IS DETERMINED BY THE CONTRACTOR AS PART OF THEIR RESPONSIBILITIES. ANY SUCH PHASES DESCRIBED IN THE CONSTRUCTION DOCUMENTS ARE GENERAL AND ONLY INTENDED TO INDICATE A BROAD ORDER FOR THE SAKE OF DESCRIBING THE PROJECT. THE FOLLOWING LINETYPES MAY BE USED ON ANY DEVICE, EQUIPMENT, NOTE, LINE, SHAPE, ETC.

EXISTING	NEW
DEMOLISH	FUTURE

PATHWAYS

- W"xH — WIRE MESH CABLE TRAY (W"=WIDTH, "H"=HEIGHT)
- VERTICAL CABLE TRAY
- (#) D" — UNDERGROUND CONDUIT ("#"=QUANTITY, "D"=CONDUIT DIAMETER)
- (#) D" — CONDUIT ("#"=QUANTITY, "D"=CONDUIT DIAMETER)
- CABLE SUPPORTS OR J-HOOKS
- (#) D" — CONDUIT SLEEVE ("#"=QUANTITY, "D"=CONDUIT DIAMETER)
- FS — UL FIRESTOP SYSTEM ASSEMBLY
- PB L"XW"XH" — PULL BOX ("L"=LENGTH, "W"=WIDTH, "H"=HEIGHT)
- SC — SPLICE

RISER DIAGRAMS

- FIBER OPTIC CROSS CONNECT - DETAIL 5/H-TN500
- COPPER UTP CROSS CONNECT
- P — 110-TYPE PROTECTOR BLOCK
- PATCH PANEL — PATCH PANEL - DETAIL 7/H-TN500
- TGB — TELECOM GROUND BAR (TGB) - DETAIL 9/H-TN500
- TMGB — TELECOM MAIN GROUND BAR (TMGB)
- TELECOMMUNICATIONS BACKBONE CABLING (REFER TO RISER DIAGRAM FOR MORE INFORMATION)

TELECOMMUNICATIONS ROOM

- LADDER RACK
- TMGB — TELECOM MAIN GROUND BAR (TMGB) - WALL ELEVATION VIEW
- TGB — TELECOM GROUND BAR (TGB) - WALL ELEVATION VIEW
- TMGB/TGB - PLAN VIEW
- TELECOM BACKBOARD
- TWO-POST EQUIPMENT RACK
- FOUR-POST EQUIPMENT RACK
- EQUIPMENT CABINET (REFER TO PLAN NOTES ON ENLARGED PLANS FOR MORE INFORMATION)

TELECOMMUNICATIONS OUTLETS

SYMBOL	DESCRIPTION	CABLE(S)	DETAIL
ELEV	ELEVATOR PHONE OUTLET - ANALOG	1	8/H-TN500
1D,TV	DATA WALL OUTLET - DISPLAY	1	2,4,6/H-TN500
2D	DATA WALL OUTLET	2	2,4,6/H-TN500
1D	DATA CEILING OUTLET - WIRELESS ACCESS POINT	1	3,4/H-TN500
1D,PROJ	DATA CEILING OUTLET - PROJECTOR	1	3,4/H-TN500

TELECOMMUNICATIONS RESPONSIBILITY MATRIX

Description	Furnish: Construction Team	Furnish: Owner	Install: Construction Team	Install: Owner	Comments
General Communications					
Grounding and Bonding	X		X		
Hangers and Supports	X		X		
Conduits and Backboxes	X		X		
Underground pathways for utility entrance and floor boxes	X		X		
Firestops, Conduit Sleeves, and Sleeve Seals	X		X		
Structured Cabling					
Telecom Room Cabinets, Racks, Frames, and Enclosures	X		X		
Telecom Room Buildout (ex. backboard and ladder rack)	X		X		
Optical Fiber Backbone Cable and Connectivity	X		X		
Copper Backbone Cable and Connectivity	X		X		
Copper Horizontal Cable and Connectivity	X		X		
Data Communications					
Router / Firewall		X		X	
Core Switch / Edge Switch		X		X	
Wireless Access Points		X		X	
Servers / Storage and Backup		X		X	
Laptops / Desktops / Copiers / Printers / Scanners		X		X	
Software		X		X	
Voice Communications					
VoIP Gateway / Analog handsets		X		X	
VoIP handset wall mount kit		X		X	
VoIP handsets		X		X	
VoIP Network licensing		X		X	

GENERAL NEW WORK NOTES

1. READ THE SPECIFICATIONS AND REVIEW DRAWINGS OF ALL DIVISIONS OF WORK. COORDINATE THIS WORK WITH ALL OTHER DIVISIONS OF WORK AND ALL SUBCONTRACTORS.
2. ALL WORK SHALL CONFORM TO THE APPLICABLE SPECIFICATIONS (DIVISION 26, DIVISION 27, DIVISION 28, ETC.) AND THE CUSTOMER PRE-ESTABLISHED STRUCTURED CABLING STANDARDS; SHOULD DIFFERENCES EXIST IN THE SPECIFICATIONS RELATING TO TECHNOLOGY AND THE CLIENT'S PRE-ESTABLISHED STANDARDS THE CONTRACTOR SHALL CONTACT THE LOW VOLTAGE ENGINEER FOR CLARIFICATION THROUGH THE RFI PROCESS.
3. FULLY COORDINATE ALL CABLE TRAY, FIRE STOP CONDUITS / SLEEVES, AND CONDUIT ROUTING WITH STRUCTURAL ELEMENTS. COORDINATE CABLE TRAY AND CONDUIT INSTALLATIONS WITH ARCHITECT, STRUCTURAL ENGINEER, STRUCTURAL CONTRACTOR, AND GENERAL CONTRACTOR PRIOR TO INSTALLATION. ROUTING IN CONCRETE SLAB OR UNDER SLAB (WHERE CONDUIT WOULD BE ON GRADE) REQUIRES THE USE OF WET LOCATION RATED CABLES.
4. ALL TELECOMMUNICATIONS CONTINUOUS PATHWAYS SHALL BE BONDED TO THE TELECOMMUNICATIONS BONDING BACKBONE; FOR CONDUITS, INSULATION BUSHINGS SHALL BE USED AT THE END OF THE CONDUIT THE FARTHEST AWAY FROM THE SERVING TR; A BONDING BUSHING SHALL BE USED AT THE END CLOSEST TO THE SERVING TR. CONTRACTOR TO REFER TO THE ANSI-STD-J 607 STANDARD FOR ADDITIONAL INFORMATION AS TO THE INSTALLATION OF THE TELECOMMUNICATIONS BONDING BACKBONE.
5. ALL FIRE RATED WALL / FLOOR ASSEMBLIES PENETRATED FOR TELECOMMUNICATIONS CABLING PATHWAYS SHALL BE FIRE STOPPED WITH THE APPROVED FIRE STOP SYSTEMS (F/S). ALL FIRESTOP SYSTEMS SHALL BE INSTALLED AS DIRECTED BY THE MANUFACTURER AND AS SPECIFIED IN DIVISION 07 07 84 00 - "FIRESTOPPING". FIRE STOP ASSEMBLY LOCATIONS ARE TO BE COORDINATED WITH CABLE TRAY PATHWAY TO TELECOMMUNICATIONS ROOM.
6. BACK BOXES AND CONDUIT LOCATIONS IN PRECAST CONCRETE WALLS SHALL BE COORDINATED WITH ARCHITECT, STRUCTURAL ENGINEER, AND GC PRIOR TO ORDERING THE PRECAST WALLS.
7. ROUTING OF CABLES SHALL BE CONCEALED. CABLES SHALL BE ROUTED IN CONDUIT IN EXPOSED AREAS. MINIMIZE AMOUNT OF EXPOSED CONDUIT BY EMBEDDING CONDUIT IN SLAB WHEN POSSIBLE. EMBEDDED CONDUITS AND PENETRATIONS OF STRUCTURE SHALL FOLLOW DETAILS IN STRUCTURAL DRAWINGS. WHEN CONDUITS CAN ONLY BE INSTALLED EXPOSED, NOTIFY ARCHITECT PRIOR TO START OF INSTALLATION OF CONDUITS. CABLES SHALL BE ROUTED IN CONDUIT WHEN ABOVE HARD CEILINGS. CONDUITS FOR ELEVATOR PHONES AND FIRE ALARM CONTROL PANEL SHALL BE CONTINUOUS (HOMERUN) FROM THE TELECOMMUNICATIONS ROOM TO THE APPLICABLE BOX / CABINET. CONTRACTOR SHALL SIZE AND PROVIDE CONDUITS TO MEET TIA-569.
8. TELECOMMUNICATIONS ROOMS SHALL BE DEDICATED FOR INFORMATION TECHNOLOGY USE (I.E. NO SHARED SPACE WITH A JANITOR, FIRE ALARM SYSTEM, ETC.) NO SERVICES SHALL PASS THROUGH THE SPACE UNLESS DEDICATED TO THE SPACE (NO PLUMBING, MECHANICAL, ELECTRICAL, FIRE, ETC.)

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MO. CORPORATE NO: E-556D
EXPIRES 12/31/2020

REVISIONS

Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

TECHNOLOGY GENERAL NOTES AND LEGEND

H-TN000

BID SET

TECHNOLOGY PLAN NOTES:

T1 AV RACK TO BE PROVIDED BY OTHERS.

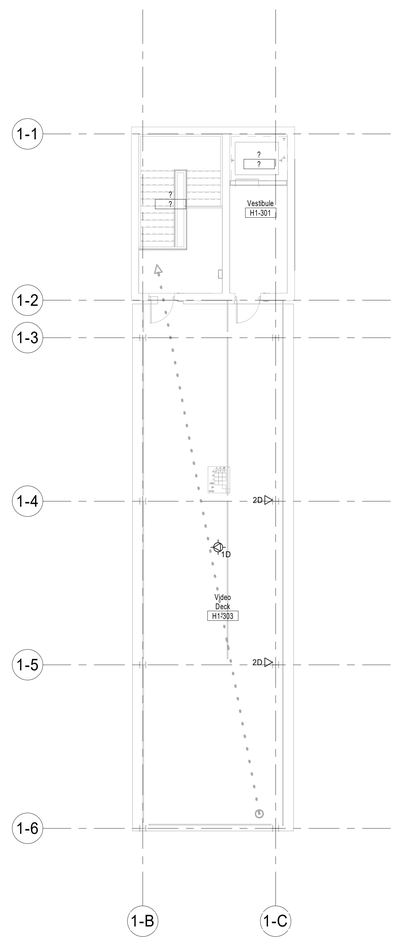
T2 PROVIDE TELECOMMUNICATIONS GROUNDING BUS BAR (TGB) MOUNTED AT 7'-0"AFF. SEE DIVISION 27 SPECIFICATIONS FOR ADDITIONAL INFORMATION.

T3 PROVIDE TELECOMMUNICATIONS BACKBOARD. GRADE A/C 3/4" FIRE RATED PLYWOOD BACKBOARD (UNPAINTED) STARTING AT 4" AFF AND EXTEND UPWARDS 8'-0" ON ALL WALLS AS INDICATED ON DRAWINGS. THE A SIDE SHALL BE EXPOSED TO THE INTERIOR OF THE ROOM AND THE C SIDE PLACED AGAINST THE BUILDING STRUCTURE. SEE DIVISION 27 SPECIFICATIONS FOR ADDITIONAL INFORMATION.

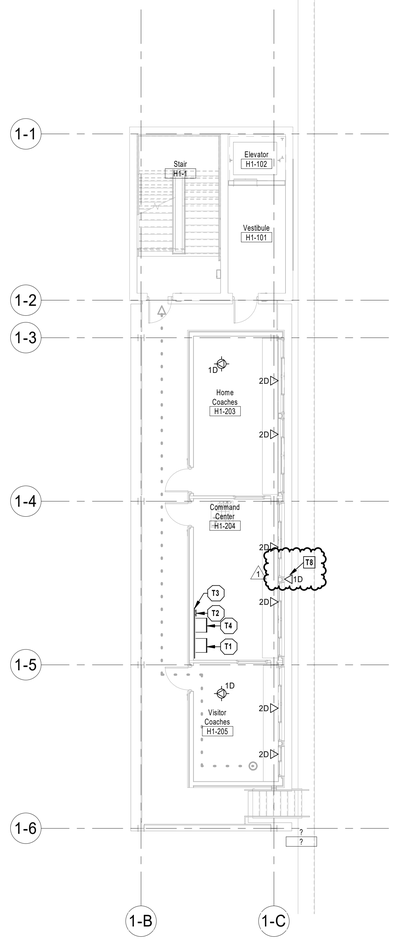
T4 WALL MOUNTED DATA RACK. PROVIDE OPTICAL FIBER PANEL AND PATCH PANELS AS REQUIRED TO SUPPORT DATA OUTLETS PER DIVISION 27 SPECIFICATIONS. INSTALL OWNER FURNISHED EQUIPMENT IN RACK PER MANUFACTURER'S RECOMMENDATIONS.

T7 ELEVATOR PHONE OUTLET. COORDINATE EXACT REQUIREMENTS WITH ELEVATOR PROVIDER.

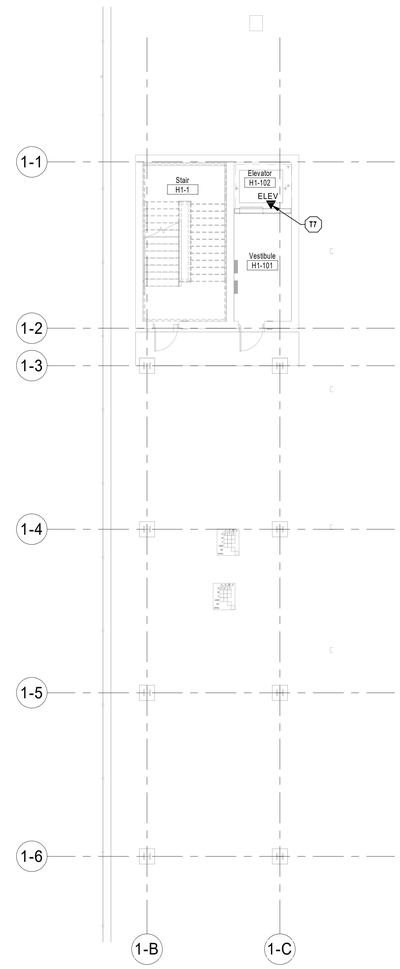
T8 COORDINATE ROUGH-IN LOCATION WITH SECURITY INSTALLER.



3 HOME PRESS BOX - LEVEL 3 TECHNOLOGY PLAN
1/8" = 1'-0"

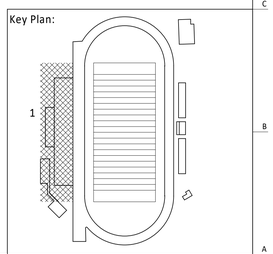


2 HOME PRESS BOX - LEVEL 2 TECHNOLOGY PLAN
1/8" = 1'-0"



1 HOME PRESS BOX - LEVEL 1 TECHNOLOGY PLAN
1/8" = 1'-0"

Key Plan:



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Lee's Summit R7 District Athletics Facilities

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400 SW Blue Parkway
Lee's Summit, MO 64063

owner:
Lee's Summit R-7 School District
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Lee's Summit, MO 64086

architect:
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www.gouldevans.com

structural engineer:
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civil engineer:
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mechanical/electrical engineer:
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2050003134
MO. CORPORATE NO: E-556D
EXPIRES 12/31/2020

REVISIONS

Number	DESCRIPTION	DATE
	Addendum 3	10.23.2020

PROJECT NO: 0119-0101
DATE: September 28, 2020

HOME PRESS BOX - TECHNOLOGY PLANS

H-TN111

BID SET

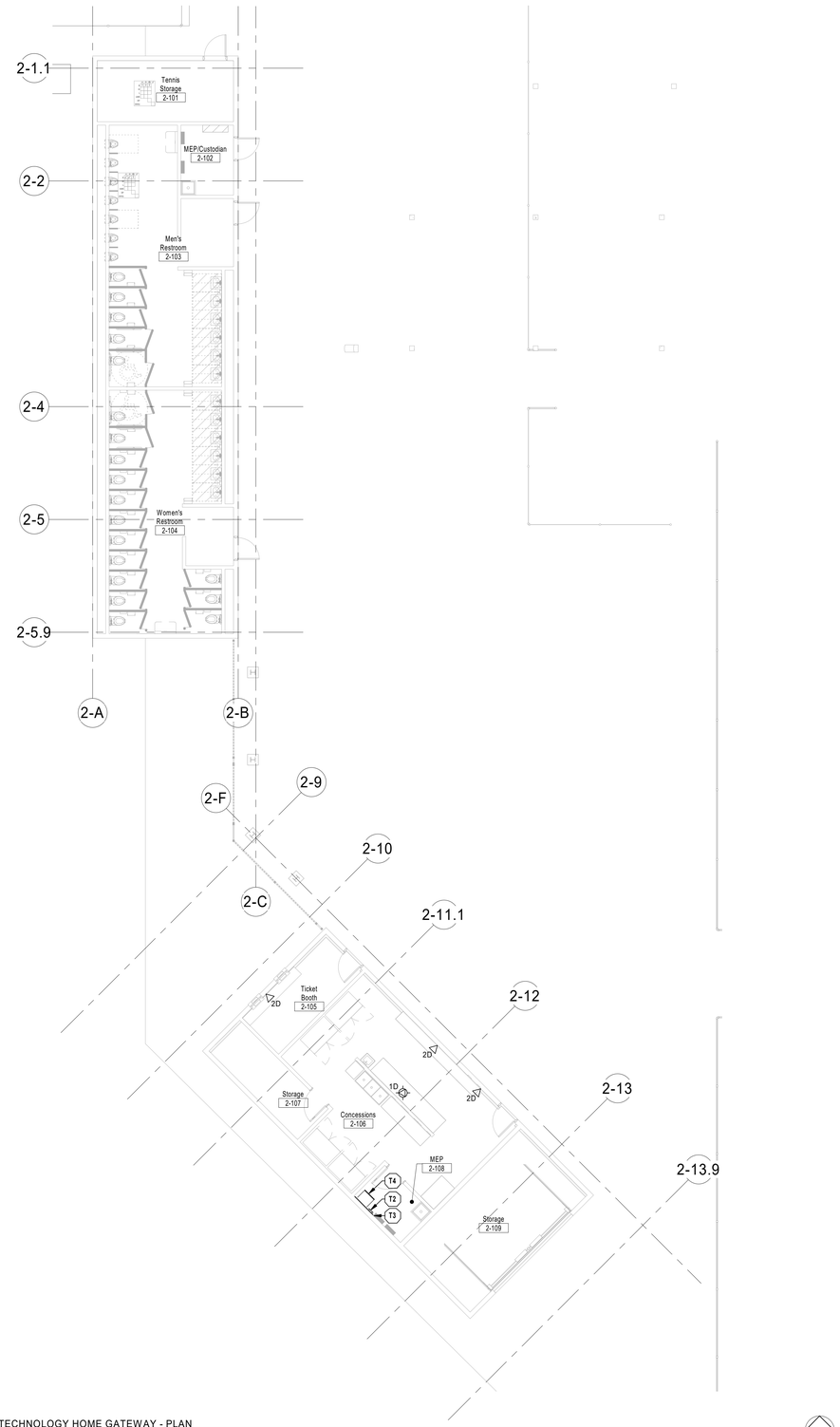
PRINT DATE/TIME: 10/23/2020 5:41:56 PM

TECHNOLOGY PLAN NOTES:

T2 PROVIDE TELECOMMUNICATIONS GROUNDING BUS BAR (TGB) MOUNTED AT 7'-0"AFF. SEE DIVISION 27 SPECIFICATIONS FOR ADDITIONAL INFORMATION.

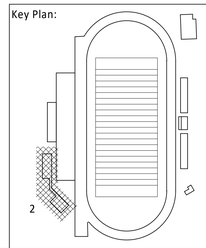
T3 PROVIDE TELECOMMUNICATIONS BACKBOARD. GRADE A/C 3/4" FIRE RATED PLYWOOD BACKBOARD (UNPAINTED) STARTING AT 4" AFF AND EXTEND UPWARDS 8'-0" ON ALL WALLS AS INDICATED ON DRAWINGS. THE A SIDE SHALL BE EXPOSED TO THE INTERIOR OF THE ROOM AND THE C SIDE PLACED AGAINST THE BUILDING STRUCTURE. SEE DIVISION 27 SPECIFICATIONS FOR ADDITIONAL INFORMATION.

T4 WALL MOUNTED DATA RACK. PROVIDE OPTICAL FIBER PANEL AND PATCH PANELS AS REQUIRED TO SUPPORT DATA OUTLETS PER DIVISION 27 SPECIFICATIONS. INSTALL OWNER FURNISHED EQUIPMENT IN RACK PER MANUFACTURER'S RECOMMENDATIONS.



1 TECHNOLOGY HOME GATEWAY - PLAN
1/8" = 1'-0"

Key Plan:



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REVISIONS

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PROJECT NO: 0119-0101
DATE: September 28, 2020

TECHNOLOGY HOME GATEWAY - PLAN

H-TN121

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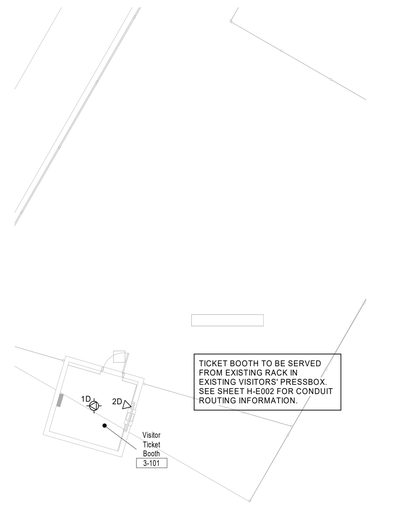
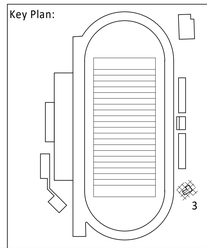


1 TECHNOLOGY VISITOR TICKET BOOTH - PLAN
1/8" = 1'-0"

Key Plan:



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REVISIONS

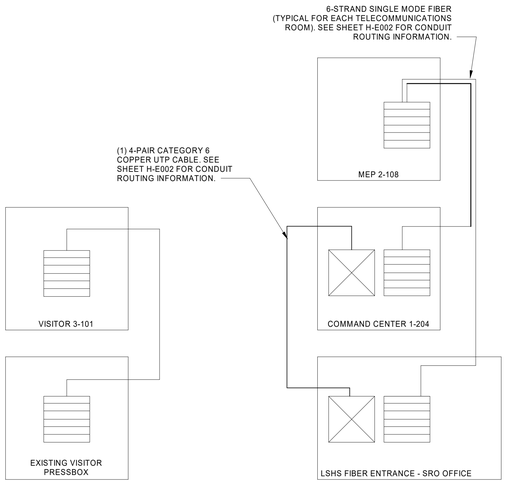
Number	DESCRIPTION	DATE

PROJECT NO: 0119-0101
DATE: September 28, 2020

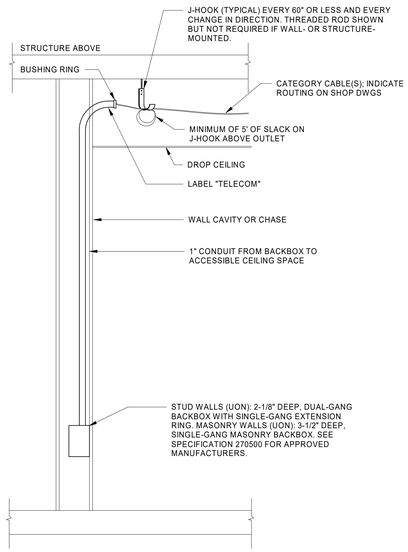
TECHNOLOGY VISITOR TICKET BOOTH - PLAN

H-TN131

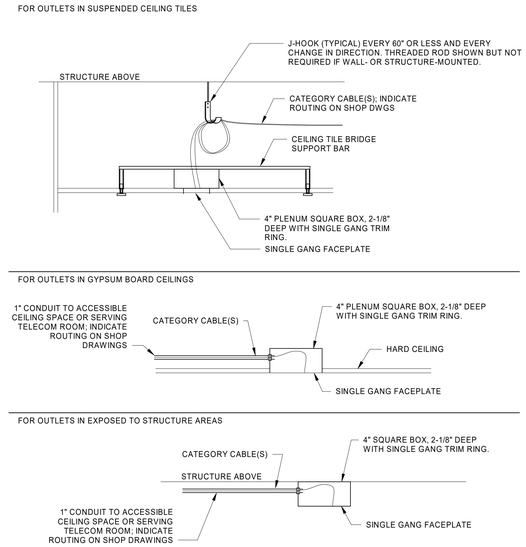
BID SET



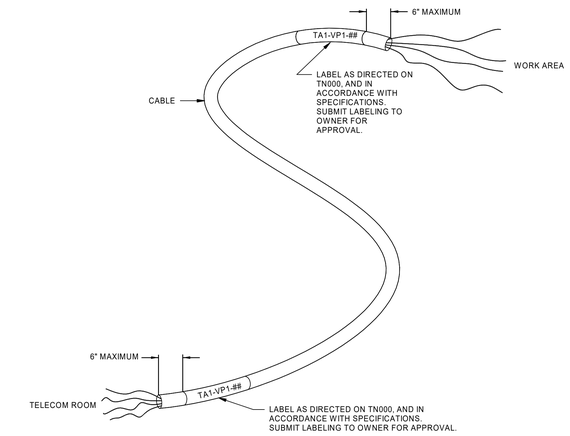
1 RISER DIAGRAM - BACKBONE CABLES
NTS



2 COMMUNICATIONS OUTLET MOUNTING
NTS



3 CEILING COMM OUTLET 2D
NTS



4 LABELING OF HORIZONTAL CABLE
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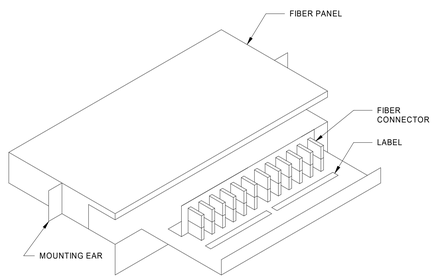
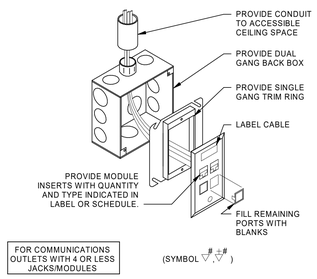
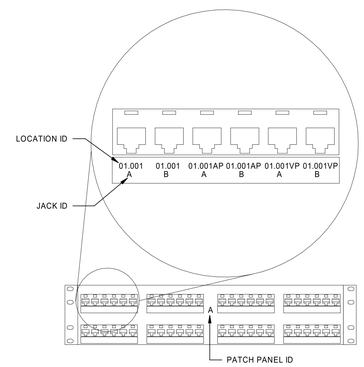


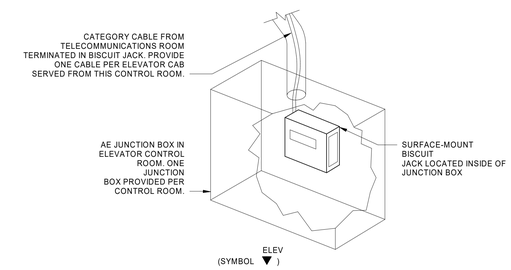
5 FIBER PANEL
NTS



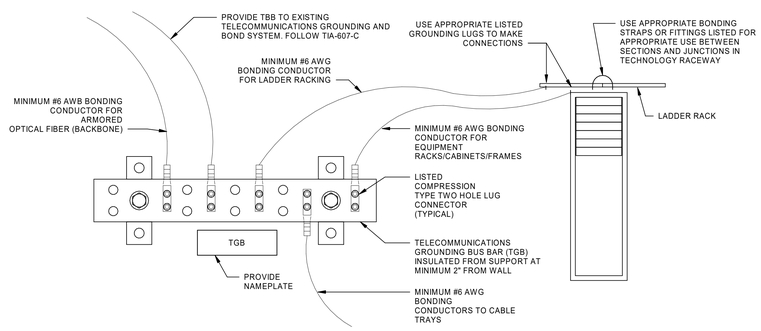
6 SINGLE GANG COMM OUTLET (3D)
NTS



7 TYPICAL PATCH PANEL LABELING DETAIL
NTS



8 COMM OUTLET FOR ELEVATOR - LAND LINE
NTS



9 TGB CONNECTIONS DIAGRAM
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TECHNOLOGY DETAILS

H-TN500

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