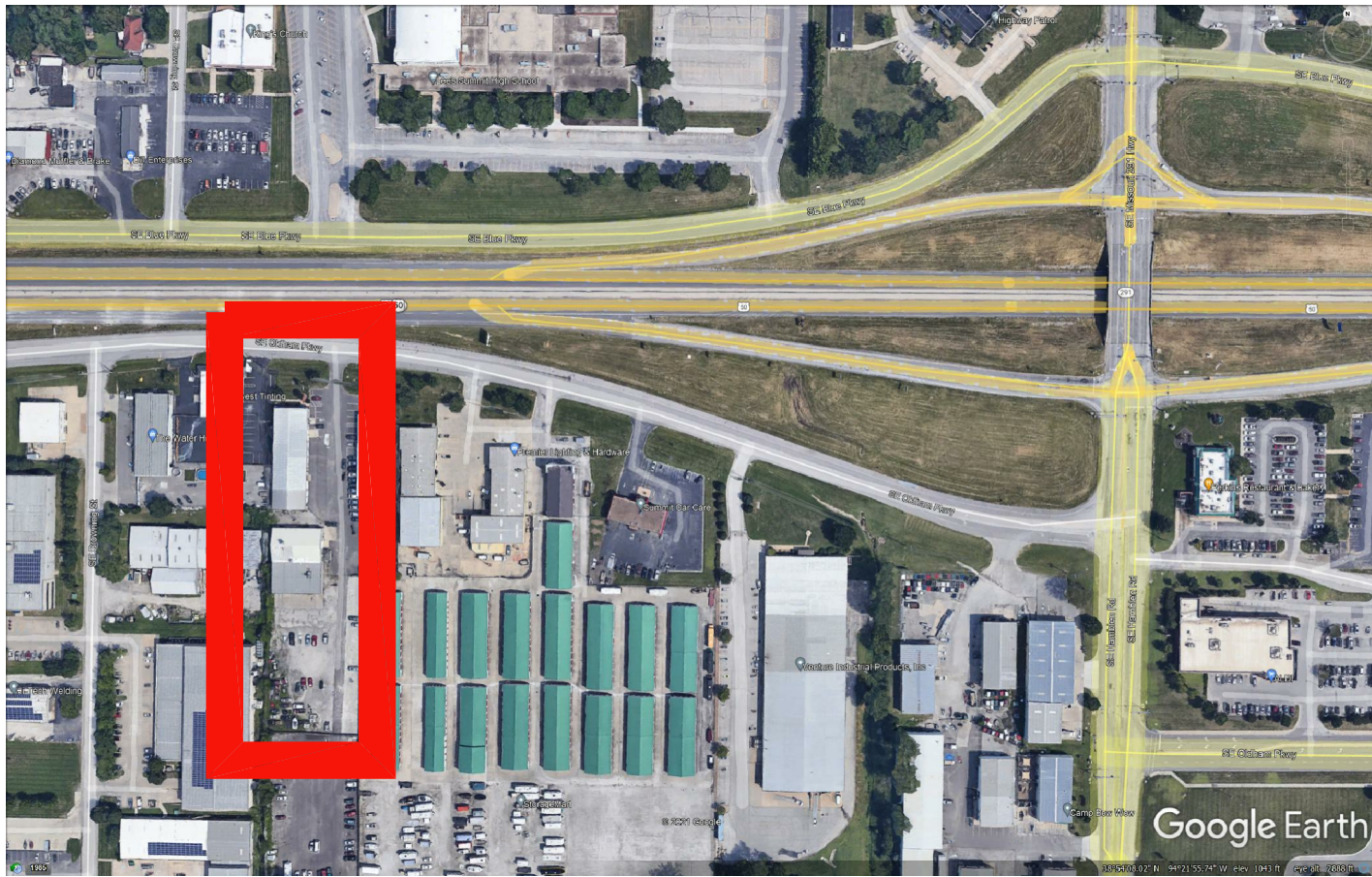


Oct 22, 2021 - 12:00pm - USER: ChrisB  
T:\Rose\Drawings-Current\21009 Crash Champions Lee's Summit\Production\Planning & Zoning\Architectural\CS COVER SHEET.dwg  
CONFIDENTIAL - PROPRIETARY: THIS DOCUMENT IS THE PROPERTY OF ROSE DESIGN GROUP, INC. AND IS LOANED IN CONFIDENCE WITH THE UNDERSTANDING THAT IT IS NOT TO BE COPIED OR REPRODUCED WITHOUT THE EXPRESS WRITTEN PERMISSION OF, AND THAT NEITHER THE DOCUMENT NOR THE INFORMATION CONTAINED THEREIN WILL BE USED ADVERSELY TO ROSE DESIGN GROUP, INC. ALL PATENT RIGHTS ARE RESERVED.

# PROPOSED BUILDING FOR: CRASH CHAMPIONS

## 451 SE OLDHAM PARKWAY LEE'S SUMMIT MISSOURI

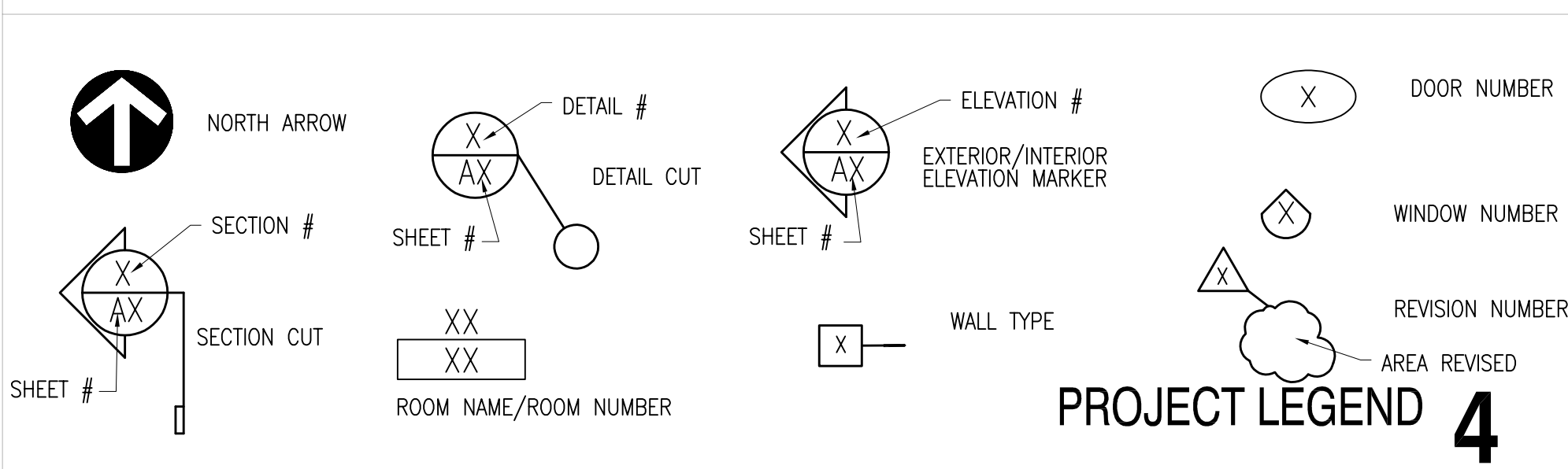


### LOCATION MAP 2

N.T.S.

### GENERAL NOTES 5

- CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO ANY WORK.
- SUB-CONTRACTOR TO VERIFY FIELD CONDITIONS AND MEASUREMENTS, AND TO PROMPTLY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES WITH PLANS.
- REMOVE DEBRIS, RUBBISH, AND OTHER MATERIALS RESULTING FROM CONSTRUCTION OPERATIONS FROM THE BUILDING SITE. PROVIDE AN ON-SITE DUMPSTER FOR DISPOSAL OF DEMOLISHED AND RUINED MATERIALS.
- UPON COMPLETION OF WORK, REMOVE TOOLS, EQUIPMENT, AND CONSTRUCTION DEBRIS FROM SITE. REMOVE PROTECTIONS AND LEAVE INTERIOR AREAS BROOM CLEAN.
- PROVIDE TEMPORARY BARRICADES AND OTHER FORMS OF PROTECTION AS REQUIRED TO PROTECT GENERAL PUBLIC FROM INJURY DUE TO CONSTRUCTION. PROVIDE PROTECTIVE MEASURES AS REQUIRED TO PROVIDE FREE AND SAFE PASSAGE OF OWNER'S PERSONNEL.
- ALL WORK SHALL COMPLY WITH APPLICABLE CODES AND INDUSTRY STANDARDS.
- FRAMING SUBCONTRACTOR IS REQUIRED TO NOTIFY ARCHITECT FOR VERIFICATION & APPROVAL OF LAYOUT PRIOR TO PROCEEDING WITH FRAMING.
- MAINTAIN EXISTING UTILITIES INDICATED TO REMAIN, KEEP IN SERVICE, AND PROTECT AGAINST DAMAGE DURING CONSTRUCTION.
- DISPOSE OF ALL DEBRIS TO APPROVED DUMP SITE.
- ALL STRUCTURAL WOOD PANELS & WOOD BLOCKING TO BE FIRE TREATED.



### ABBREVIATIONS 6

A/C	AIR CONDITIONING	EA	EACH	JB	JUNCTION BOX	RO	ROUGH OPENING
AC	ACCOUSTICAL	EJ	EXPANSION JOINT	JT	JOINT	ROW	RIGHT OF WAY
ACT	ACCOUSTICAL TILE	ELEC	ELECTRIC/ELECTRICAL			RTU	ROOF TOP UNIT
AFF	ABOVE FINISHED FLOOR	EMERG	EMERGENCY ELECTRICAL PANEL	LAV	LAVATORY	SCHED	SCHEDULE
ALT	ALTERNATE	EQ	EQUAL EQUIPMENT	MAX	MAXIMUM MECHANICAL	SF	SQUARE FEET
ALUM	ALUMINUM	EW	EACH WAY EXHAUST	MECH	METAL MANUFACTURER	SIM	SIMILAR
ANOD	ANODIZED	EXP	EXPANSION	MFG	MINIMUM MISCELLANEOUS	SPEC	SPECIFICATION
APPROX	APPROXIMATELY	FD	FLOOR DRAIN FOUNDATION	MIN	MISCELLANEOUS	SPK	SPEAKER
ARCH	ARCHITECTURAL	FFD	FINISHED FLOOR ELEVATION	MISC	MISCELLANEOUS	STL	STEEL
ASPH	ASPHALT	FRP	FIBERGLASS REINFORCED PLASTIC	NIC	NOT IN CONTRACT NOMINAL	STRUC	STRUCTURAL
BD	BOARD	FT	FOOT	NTS	NOT TO SCALE	TEMP	TEMPORARY
B.F.F.	BELOW FINISHED FLOOR	FLR	FLOOR	OD	OUTSIDE DIAMETER	TYP	TYPICAL
BLDG	BUILDING	FRP	FIBERGLASS REINFORCED PLASTIC	OH	OVERHEAD	UL	UNDERWRITER
BRG	BEARING	GA	GAUGE	OC	ON CENTER	UNO	UNLESS NOTED OTHERWISE
BTU	BRITISH THERMAL UNIT	GALV	GALVANIZED	OH	OVERHEAD	UTIL	UTILITIES
CCT	CIRCUIT	GND	GROUND	PL	PLATE	VEST	VESTIBULE
CFM	CUBIC FEET/MINUTE	GYP	GYPSONUM	PLYWD	PLYWOOD	VTR	VENT THROUGH ROOF
CJ	CONTROL JOINT	HB	HOSE BIBB	PNL	PANEL	W/	WITH
CLG	CEILING	HDWR	HARDWARE	PSF	POUNDS/SQUARE FOOT	WC	WATER CLOSET
CLR	CLEAR	HORZ	HORIZONTAL	PSI	POUNDS/SQUARE INCH	WD	WOOD
CMU	CONCRETE MASONRY UNIT	HP	HORSE POWER	PVC	POLYVINYL CHLORIDE	WT	WEIGHT
CNDT	CONDUIT	HR	HOUR	QT	QUARRY TILE	WWF	WELDED WIRE FABRIC
CO	CLEAN OUT	HTG	HEATING	R/A	RETURN AIR	YD	YARD
COL	COLUMN	HTR	HEATER	RD	ROOF DRAIN		
CONC	CONCRETE	HW	HOT WATER	RCPT	RECESSED		
CONST	CONSTRUCTION	ID	INSIDE DIAMETER	REF	REFERENCE		
CONT	CONTINUOUS	IN	INCHES	REINF	REINFORCING		
CT	CERAMIC TILE	INSUL	INSULATION	REQD	REQUIRED		
CW	COLD WATER						
DIA	DIAMETER						
DIM	DIMENSION						
DISC	DISCONNECT						
DN	DOWN						
DR	DOOR						
DS	DOWNSPOUT						
DTL	DETAIL						

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architect:  
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structural engineer:  
BOB D. CAMPBELL & CO., INC.  
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Kansas City, Missouri 64111  
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(F) 816.531.8572  
www.bdc-engr.com

### PROJECT TEAM 3

DEFERRED SUBMITTALS:  
FOLLOWING BUILDING COMPONENTS SHALL BE SUBMITTED TO LEES SUMMIT FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION  
1. FIRE SPRINKLER SYSTEM  
2. PRECAST CONCRETE  
3. FIRE ALARM SYSTEM, W/O MANUAL PULL BOXES

NOTE:  
MONUMENT SIGN & BUILDING SIGNAGE IS NOT IN PERMIT DOCUMENTS WILL BE SUBMITTED AS SEPARATE PERMIT(S)

### SHEET INDEX

#### CIVIL:

S1	SITE SURVEY
C0	DEMOLITION PLAN
C1	SITE PLAN
C1.1	ENLARGED SITE PLAN
C1.2	ENLARGED SITE PLAN
C2	ENLARGED GRADING PLAN
C2.1	ENLARGED GRADING PLAN
C3	UTILITY PLAN
C4	EROSION CONTROL PLAN
C4.1	EROSION CONTROL DETAILS
C5	PAVEMENT DETAILS
C5.1	PAVEMENT DETAILS
C5.2	SANITARY & WATER DETAILS
LS-1	LANDSCAPE PLAN

#### ARCHITECTURAL:

CS	COVER SHEET
C1.0	CODE REVIEW
A1.0	SITE PLAN
A1.1	SITE PLAN PHASES
A2.0	FLOOR PLAN
A2.1	PHASED FLOOR PLANS
A2.2	ROOF PLAN
A3.0	BUILDING ELEVATIONS
A4.0	WALL SECTIONS
A4.1	WALL SECTIONS
A4.2	WALL SECTIONS
A4.3	WALL SECTIONS
A4.4	WALL SECTIONS
A5.0	SCHEDULES
A5.1	INTERIOR ELEVATIONS

#### STRUCTURAL:

S1	GENERAL NOTES FOUNDATION PLAN
S2	ROOF FRAMING PLAN & SECTIONS
S3	FOUNDATION SECTIONS

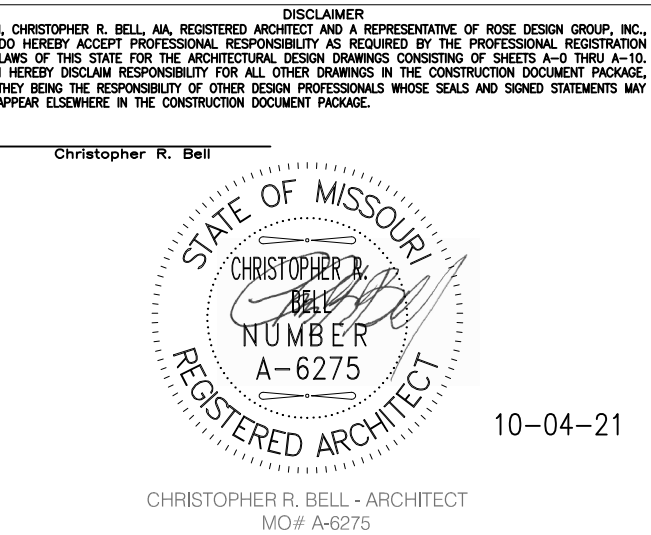
#### MP DESIGN:

M1.0	MECHANICAL PLANS
M2.0	MECHANICAL SCHEDULES
P1.0	PLUMBING PLANS
P1.1	PLUMBING ENLARGED PLANS
P2.0	PLUMBING SCHEDULES & DETAILS

#### ELECTRICAL DESIGN:

E1.0	ELECTRICAL POWER PLAN
E2.0	ELECTRICAL LIGHTING PLAN2
E3.0	ELECTRICAL DETAILS
E4.0	ELECTRICAL SCHEDULES
E4.1	ELECTRICAL SCHEDULES
E5.1.0	ELECTRICAL SITE PLAN

### SHEET INDEX 1



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PROPOSED BUILDING FOR:  
**CRASH CHAMPIONS**  
451 SE OLDHAM PARKWAY  
LEE'S SUMMIT, MISSOURI

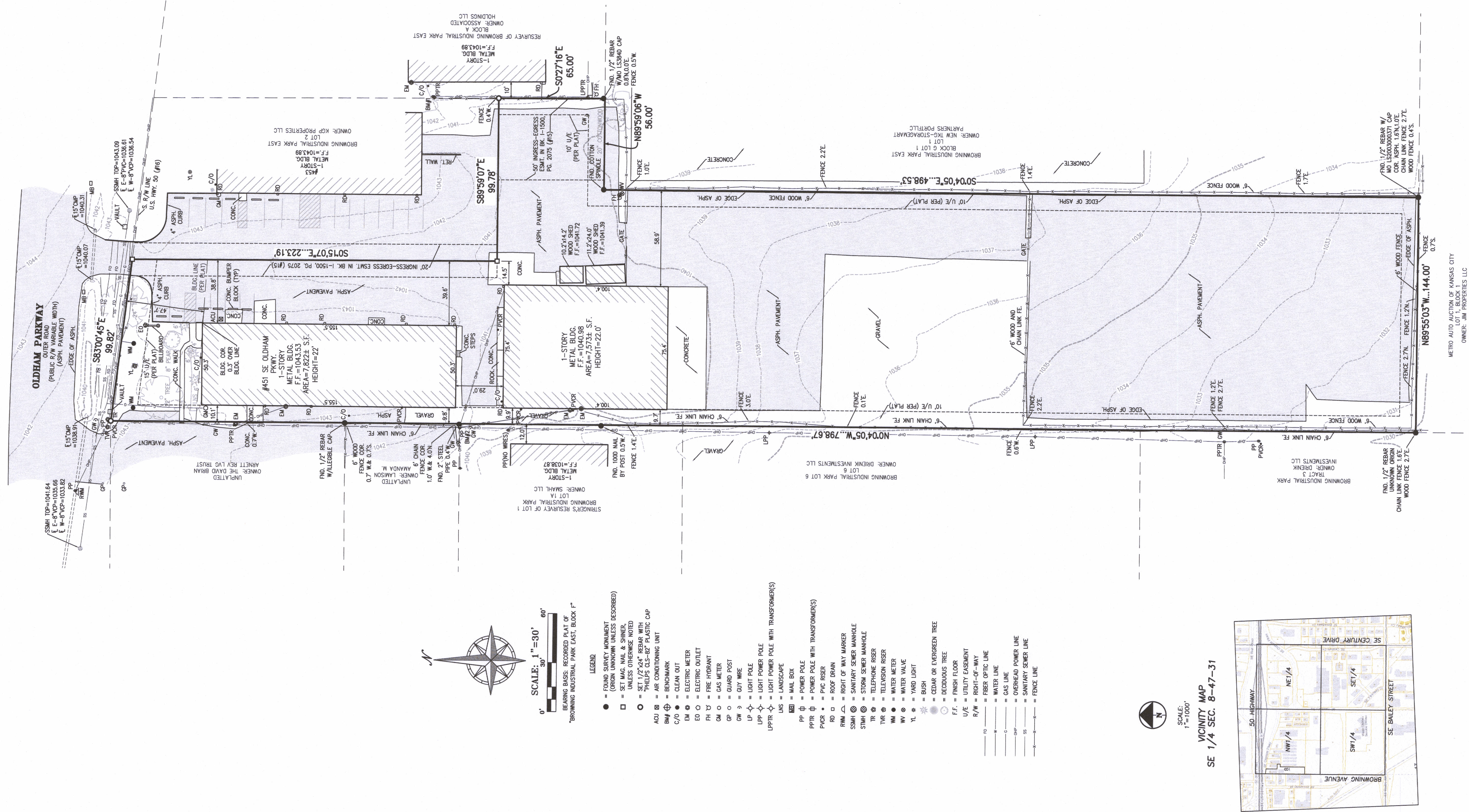
NO.	DESCRIPTION	DATE

PROJECT NUMBER 21009  
DATE ISSUED: 10 / 04 / 21  
SHEET NUMBER

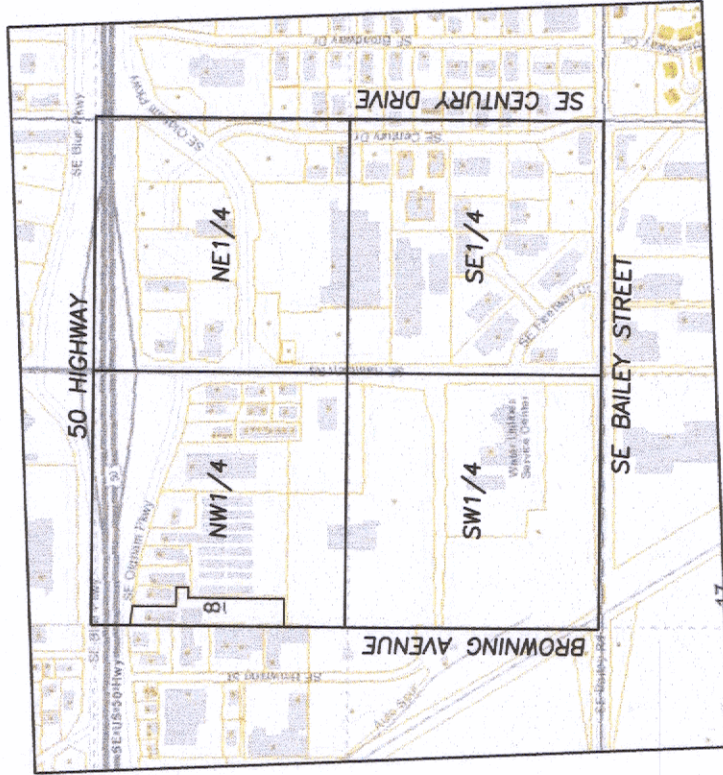
**CS**

COVER SHEET





SE 1/4 SEC. 8-47-31



LEGAL DESCRIPTION:  
ALL OF BLOCK F, BROWNING INDUSTRIAL PARK EAST, BLOCK F, A SUBDIVISION IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, ACCORDING TO THE RECORDED PLAT THEREOF.

AREA = 107,552± SQ.FT. / 2.489± ACRES

TITLE NOTE.

TITLE INFORMATION SHOWN HEREIN WAS TAKEN FROM FIRST AMERICAN TITLE INSURANCE COMPANY OWNER'S POLICY FOR TITLE INSURANCE NO. 5011429-0208024, FILE NO. 227732 DATED JANUARY 3, 2021 AT 08:31 A.M.

EXCEPTIONS FROM COVERAGE:

14. TERMS AND PROVISIONS OF THE COVENANTS AND RESTRICTIONS CONTAINED IN THE REED RECORDED PLAT, BLOCK F, BROWNING INDUSTRIAL PARK EAST, BLOCK F, A SUBDIVISION IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, ACCORDING TO THE RECORDED PLAT THEREOF.

15. TERMS AND PROVISIONS OF THE EASEMENT RECORDED JANUARY 10, 1986 AS DOCUMENT NO. 227732, BLOCK F, BROWNING INDUSTRIAL PARK EAST, BLOCK F, A SUBDIVISION IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, ACCORDING TO THE RECORDED PLAT THEREOF.

16. LACK OF DIRECT ACCESS TO U.S. ROUTE 50 FROM THE LAND, SUCH RIGHT OF ACCESS HAVING BEEN GRANTED TO U.S. ROUTE 50 BY DEED NO. 227732, BLOCK F, BROWNING INDUSTRIAL PARK EAST, BLOCK F, A SUBDIVISION IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, ACCORDING TO THE RECORDED PLAT THEREOF.

17. ACCESS GRANTED TO OLDHAM PARKWAY AS SHOWN ON THE RECORDED PLAT THEREOF.

SURVEY NOTES:

1. THERE IS A TOTAL OF 6 MARKED PARKING SPACES LOCATED ON SUBJECT PROPERTY, PARKING SPACES ARE MARKED WITH STRIPS AS SHOWN HEREON.
2. THERE IS NO VISIBLE EVIDENCE OF EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS.
3. THERE IS NO VISIBLE EVIDENCE OF CHANGES IN STREET RIGHT OF WAY LINES. THERE IS NO VISIBLE EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELDWORK.
4. CONTOURS SHOWN HEREON ARE AT 1 FOOT INTERVALS.
5. THIS PROPERTY HAS DIRECT PHYSICAL ACCESS SE OLDHAM PARKWAY.
6. THERE ARE NO VISIBLE ENCROACHMENTS ONTO THE SUBJECT PROPERTY BY STREETS, ALLEYS, BUILDINGS, STRUCTURES OR OTHER IMPROVEMENTS, EXCEPT AS SHOWN ON THIS SURVEY.

APPARENT ENCROACHMENTS:

1. THE NE CORNER OF THE MAIN BUILDING EXTENDS 0.7' ACROSS THE BUILDING SETBACK LINE.

FLOOD NOTE:

THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD ZONE. FLOOD ELEVATIONS WERE DETERMINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT COMMUNITY, 28074, JACKSON COUNTY, MISSOURI, MAP NO. 28095004386, AND DATED JANUARY 20, 2017.

UTILITY NOTE:

UTILITIES SHOWN HEREON WERE TAKEN FROM FIELD LOCATES BY THE UTILITY COMPANIES OR THEIR RESPECTIVE REPRESENTATIVES. ANY DEPTHS OR LOCATIONS SHOWN ARE APPROXIMATE AND ARE NOT THE RESULT OF AN ACTUAL DIG. LOCATIONS SHOWN ARE APPROXIMATE AND ARE NOT GUARANTEED THAT ALL UTILITIES ARE SHOWN HEREON. ONE CALL TICKET NO(S) ARE GUARANTEED. BEFORE DIGGING, CONTACT THE MISSOURI ONE CALL SYSTEM AT 1 800 DIG-RITE OR 811 FOR UTILITY LOCATES.

ZONING:

NOTE: THIS SURVEYOR WAS NOT SUPPLIED A ZONING REPORT OR LETTER FOR THIS SURVEY.

- BENCHMARKS: VERTICAL DATUM = NAVD83 BASED ON GPS OBSERVATION USING MDOOT VMS
1. R.R. SPIKE IN W. FACE POWER POLE NEAR SE COR. #453 BLDG.  
ELEVATION = 1043.66
  2. R.R. SPIKE IN E. FACE POWER POLE ON W. PROPERTY LINE NEAR SW COR. #451 BLDG.  
ELEVATION = 1043.33

CERTIFICATION:

TO: MSE PROPERTY HOLDINGS GROUP, LLC - 451 SE OLDHAM PARKWAY, AN LLNDS LIMITED LIABILITY SERIES AND FIRST AMERICAN TITLE INSURANCE COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 "MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA NSPS LAND TITLE SURVEYS," JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES TERMS 1, 2, 3, 4, 5, 6(A), 7(A)(1), 8, 9, 11(B), 13 AND 16 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON MARCH 28, 2021.



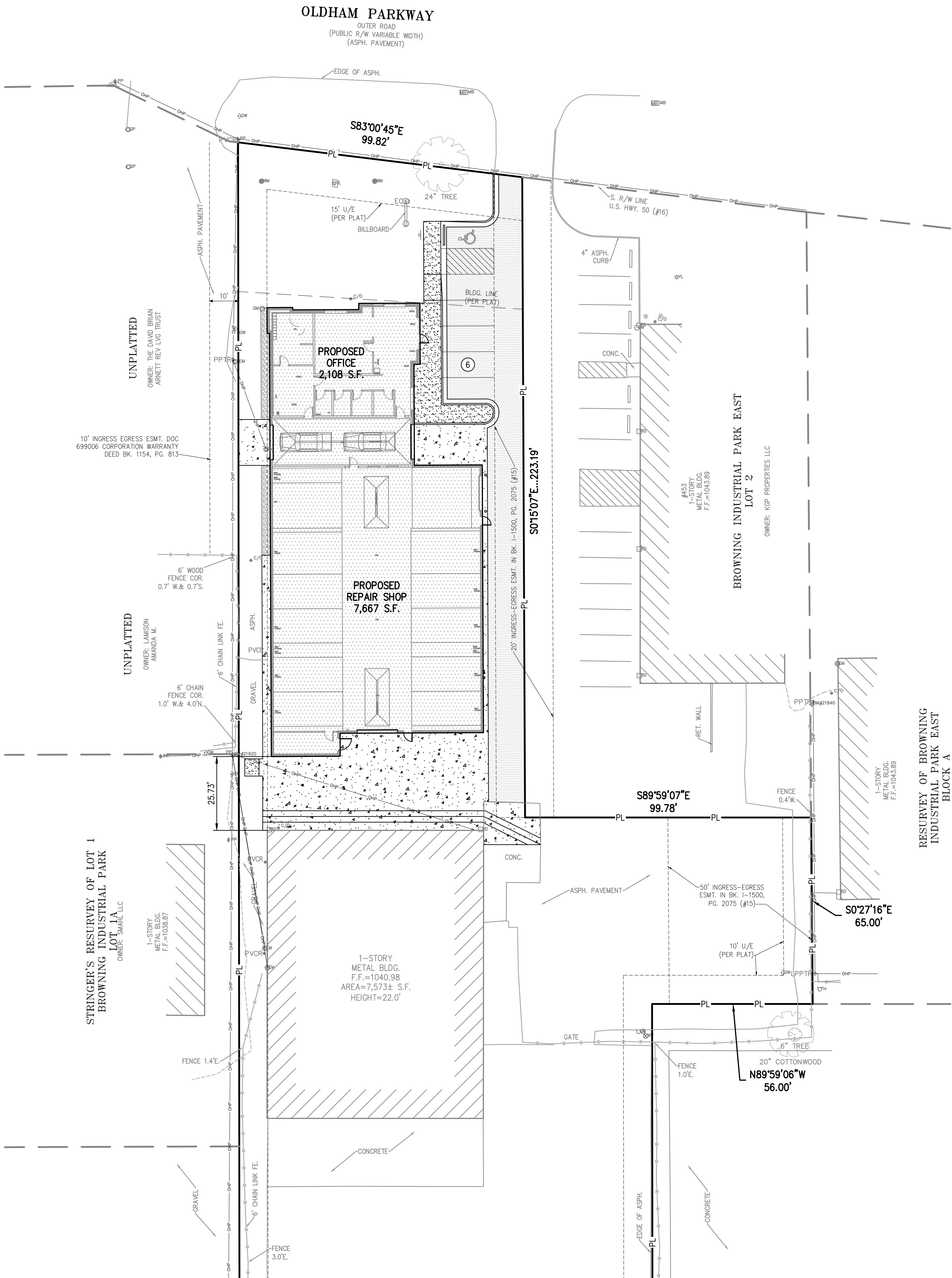
BY: DAVID WAYNE JONES, JR., MO. LS-2021004164

PROJECT NO.	210229	No.	Date
DATE:	3-30-21		
DRAWN:	sdc		
CERTIFICATE OF AUTHORIZATION			
LAND SURVEYING - LS-82			
ENGINEERING - E-361			
CERTIFICATE OF AUTHORIZATION			
LAND SURVEYING - 2021001128			
ENGINEERING - 202100258			









UTILITY NOTES:  
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN.  
UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.

#### BUILDING & LOT DATA

Site Area	107,552 S.F./2.47 Ac.
Zoning	PI (Planned Industrial)
Proposed Building No. of Stories	1 Story
Total Building S.F.	
Existing Building	7,573 S.F.
Proposed Office	2,108 S.F.
Proposed Repair Shop	7,667 S.F.
Total	17,348 S.F.
Floor Area Ratio (FAR)	0.1613

#### SITE PLAN NOTES:

- All construction materials and procedures on this project shall conform to the latest revision of the following governing requirements, incorporated herein by reference:
  - City ordinances & O.S.H.A. Regulations.
  - The City of Lee's Summit Technical Specifications and Municipal Code.All construction shall follow the City of Lee's Summit Design and Construction Manual as adopted by Ordinance 5813. Where discrepancies exist between these plans and the Design and Construction Manual, the Design and Construction Manual shall prevail.
- The contractor shall have one (1) signed copy of the plans (approved by the City) and one (1) copy of the appropriate Design and Construction Standards and Specifications at the job site at all times.
- The contractor will be responsible for securing all permits, bonds and insurance required by the contract documents, City of Lee's Summit, Missouri, and all other governing agencies (including local, county, state and federal authorities) having jurisdiction over the work proposed by these construction documents. The cost for all permits, bonds and insurance shall be the contractor's responsibility and shall be included in the bid for the work.
- The contractor is responsible for coordination of his and his sub-contractor's work. The contractor shall assume all responsibility for protecting and maintaining his work during the construction period and between the various trades/sub-contractors constructing the work.
- The demolition and removal(or relocation) of existing pavement, curbs, structures, utilities, and all other features necessary to construct the proposed improvements, shall be performed by the contractor. All waste material removed during construction shall be disposed off the project site. The contractor shall be responsible for all permits for hauling and disposing of waste material. The disposal of waste material shall be in accordance with all local, state and federal regulations.
- Contractor shall be responsible for all relocations, including but not limited to, all utilities, storm drainage, sanitary sewer services, signs, traffic signals & poles, etc. as required. All work shall be in accordance with governing authorities specifications and shall be approved by such. All cost shall be included in base bid.
- 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. The contractor shall be responsible for contacting all utility companies for an exact field location of each utility prior to any construction. All underground utilities shall be protected at the contractor's expense. All utilities, shown and unshown, damaged through the negligence of the contractor shall be repaired or replaced by the contractor at his expense.
- The contractor will be responsible for all damage to existing utilities, pavement, fences, structures and other features not designated for removal. The contractor shall repair all damages at his expense.
- The contractor shall verify the flow lines of all existing storm or sanitary sewer connections and utility crossings prior to the start of construction. Notify the engineer of any discrepancies.
- SAFETY NOTICE TO CONTRACTOR:** In accordance with generally accepted construction practices, the contractor shall 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. Any construction observation by the engineer of the contractor's performance is not intended to include review of the adequacy of the contractor's safety measures, in, on or near the construction site.
- All site concrete (curbs, pavements, sidewalks, etc.) shall meet kansas city materials metro board (kcmmb) mix design specifications for 4,000 p.s.i. air entrained concrete. APWA detail references are provided for all geometrical and other design information.
- Refer to the building plans for site lighting electrical requirements, including conduits, pole bases, pull boxes, etc.

#### SITE DIMENSION NOTES:

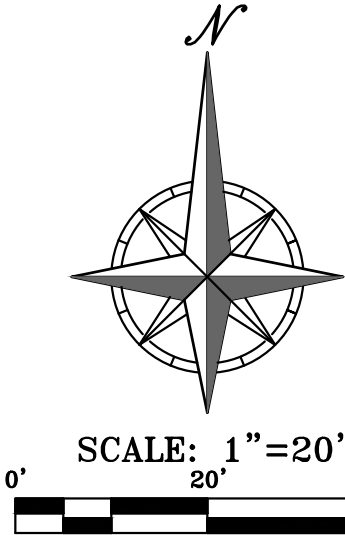
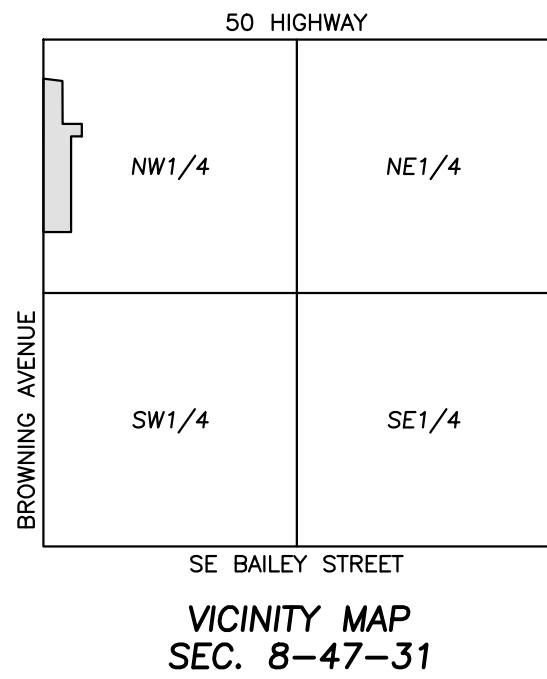
- BUILDING TIES SHOWN ARE TO THE OUTSIDE FACE OF PROPOSED WALLS. THE SUBCONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR SPECIFIC DIMENSIONS AND LAYOUT INFORMATION FOR THE BUILDINGS.
  - ALL DIMENSIONS SHOWN FOR THE PARKING LOT AND CURBS ARE MEASURED FORM BACK OF CURB TO BACK OF CURB.
- #### PAVEMENT MARKING AND SIGNAGE NOTES:
- PARKING STALL MARKING STRIPES SHALL BE FOUR INCH (4") WIDE WHITE STRIPES. DIRECTIONAL ARROW AND HANDICAP STALL MARKINGS SHALL BE FURNISHED AT LOCATIONS SHOWN ON PLANS.
  - HANDICAP PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO ALL FEDERAL (AMERICANS WITH DISABILITIES ACT) AND STATE LAWS AND REGULATIONS.
  - TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS SHALL CONFORM TO THE REQUIREMENTS OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
  - STOP SIGNS SHALL BE PROVIDED AT ALL LOCATIONS AS SHOWN ON PLANS AND SHALL CONFORM TO THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES". SIGNS SHALL BE 18" X 12", 18 GAUGE STEEL AND SHALL BE ENGINEER GRADE REFLECTIVE.
  - TRAFFIC CONTROL AND PAVEMENT MARKINGS SHALL BE PAINTED WITH A WHITE SHERWIN WILLIAMS S-W TRAFFIC MARKING SERIES B-2912 OR APPROVED EQUAL. THE PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. APPLY ON A CLEAN, DRY SURFACE AND AT A SURFACE TEMPERATURE OF NOT LESS THAN 70°F AND THE AMBIENT AIR TEMPERATURE SHALL NOT BE LESS THAN 60°F AND RISING. TWO COATS SHALL BE APPLIED.

#### LEGAL DESCRIPTION:

ALL OF BLOCK F, BROWNING INDUSTRIAL PARK EAST, BLOCK F, A SUBDIVISION IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, ACCORDING TO THE RECORDED PLAT THEREOF.  
**AREA = 107,552± SQ.FT. / 2.469± ACRES**

#### LEGEND

- |             |                                    |
|-------------|------------------------------------|
| — PL —      | PROPERTY LINE                      |
| - - LL - -  | LOT LINE                           |
| - - R/W - - | RIGHT-OF-WAY                       |
| =====       | 2' CURB & GUTTER                   |
| =====       | 6" CURB                            |
| — B/L —     | BUILDING SETBACK LINE              |
| — P/S —     | PARKING SETBACK LINE               |
| — L/S —     | LANDSCAPE SETBACK LINE             |
| [Pattern]   | PROPOSED BUILDING                  |
| [Pattern]   | CONCRETE PAVEMENT                  |
| [Pattern]   | CONCRETE SIDEWALK                  |
| [Pattern]   | PROPOSED 2" ASPHALT MILL & OVERLAY |
| [Pattern]   | ROCK STRIP                         |



PHILIPS ENGINEERING, INC.  
1320 N. Winchester  
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(913) 993-1155  
Fax: (913) 993-1145  
www.philipsengineering.com

PLANNING  
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IMPLEMENTATION



**SITE PLAN**  
CRASH CHAMPIONS  
451 S.E. OLDHAM PARKWAY  
LEE'S SUMMIT, JACKSON COUNTY, MO

PROJECT NO.	210229	DATE	10-12-21	CHECKED	DAF	APPROVED	JDC
CERTIFICATE OF AUTHORIZATION		LAND SURVEYING <td>LS-82</td> <td>ENGINEERING<td>E-361</td><td></td><td></td></td>	LS-82	ENGINEERING <td>E-361</td> <td></td> <td></td>	E-361		
CERTIFICATE OF AUTHORIZATION		LAND SURVEYING <td>200701028</td> <td>ENGINEERING<td>200703039</td><td></td><td></td></td>	200701028	ENGINEERING <td>200703039</td> <td></td> <td></td>	200703039		

SHEET














C1

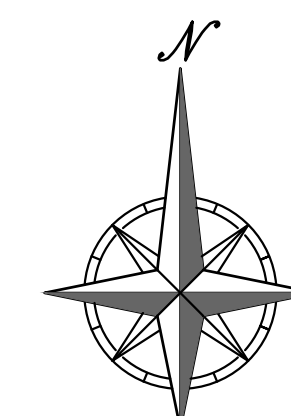
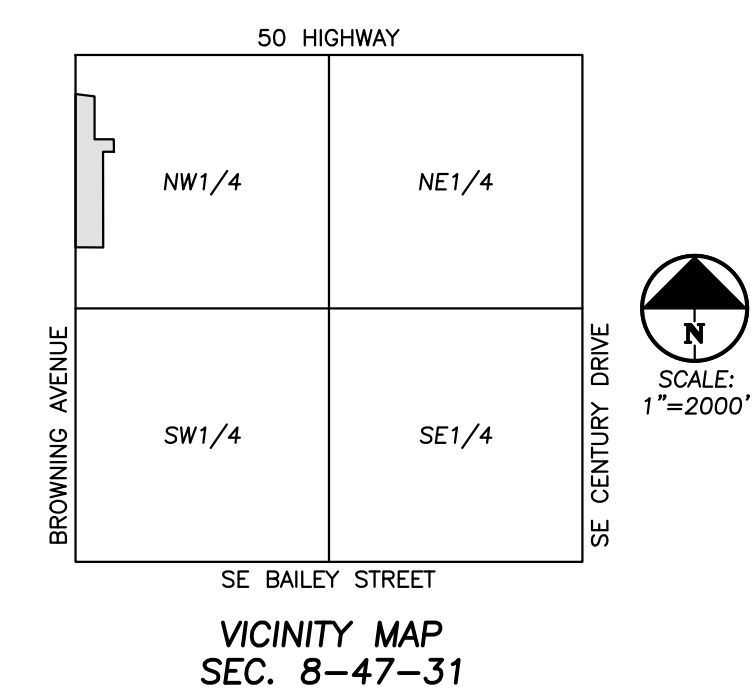





- (A) CONSTRUCT PRIVATE 2' CURB & GUTTER (TYPICAL).
- (B) CONSTRUCT PRIVATE CONCRETE SIDEWALK (TYPICAL).
- (C) CONSTRUCT ACCESSIBLE PARKING STALL, STRIPING & SIGNAGE W/ LAYDOWN CURB AND CONC. WHEEL STOP PER STANDARD DETAIL.
- (D) INSTALL VAN ACCESSIBLE PARKING SIGN.
- (E) CONSTRUCT 6" CONCRETE CURB (TYPICAL).
- (F) INSTALL CONCRETE PAVEMENT.
- (G) INSTALL BOLLARDS (RE: ARCHITECT PLANS).
- (H) EDGE MILL & ASPHALT OVERLAY.
- (I) PROPOSED OVERHEAD DOOR (RE: ARCH PLANS).
- (J) INSTALL CONC. PILOT CHANNEL.
- (K) EX. SIGN TO REMAIN.
- (L) PROP. TRANSFORMER PAD (RE: UTILITY PLAN).
- (M) INSTALL 3' CONCRETE APRON.
- (N) INSTALL 3" ROCK STRIP.

**LEGEND**

- |                                                                                       |         |                                    |
|---------------------------------------------------------------------------------------|---------|------------------------------------|
|  | — PL —  | PROPERTY LINE                      |
|  | — LL —  | LOT LINE                           |
|  | — R/W — | RIGHT-OF-WAY                       |
|  |         | 2' CURB & GUTTER                   |
|  |         | 6" CURB                            |
|  | — B/L — | BUILDING SETBACK LINE              |
|  | — P/S — | PARKING SETBACK LINE               |
|  | — L/S — | LANDSCAPE SETBACK LINE             |
|  |         | PROPOSED BUILDING                  |
|  |         | CONCRETE PAVEMENT                  |
|  |         | CONCRETE SIDEWALK                  |
|  |         | PROPOSED 2" ASPHALT MILL & OVERLAY |
|  |         | ROCK STRIP                         |



SCALE: 1"=10'

A horizontal graphic scale bar. It is divided into three segments: the first segment from 0 to 10 feet is black, the second segment from 10 to 15 feet is white, and the third segment from 15 to 20 feet is black. The numbers 0', 10', and 20 are placed above the bar at their respective positions.

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

UTILITY NOTES:  
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN.  
UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR  
LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN  
THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL  
FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.

[illegible]



\\PHILIPS-SERVER\Projects\210229\Drawings\Permit Plans\ENLARGED SITE.dwg Layout:2 Oct 15, 2021 11:27am Daniel Finn

TTED

AMSON  
A.M.

UNPLATTED

OWNER: THE DAVID BRIAN  
ARNETT REV LVC TRUST

10' INGRESS EGRESS ESMT. DOC  
699006 CORPORATION WARRANTY  
DEED BK. 1154, PG. 813

6" WOOD  
FENCE COR.  
0.7' W. & 0.7' S.

OLDHAM PARKWAY

OUTER ROAD  
(PUBLIC R/W VARIABLE WIDTH)  
(ASPH. PAVEMENT)

PROPOSED  
OFFICE  
2,108 S.F.

PROPOSED  
REPAIR SHOP  
7,667 S.F.

20' INGRESS-EGRESS ESMT. IN BK. 1-1500, PG. 2075 (#13)

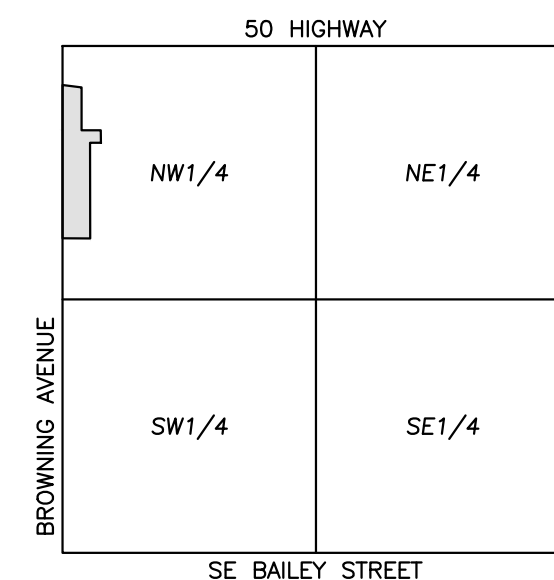
PLANS  
1-STORY  
METAL BLDG.  
F.F. = 1043.89

#### SITE KEY NOTES:

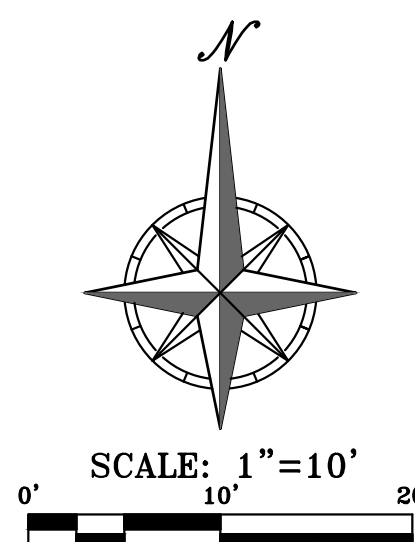
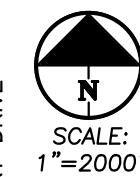
- (A) CONSTRUCT PRIVATE 2' CURB & GUTTER (TYPICAL).  
(B) CONSTRUCT PRIVATE CONCRETE SIDEWALK (TYPICAL).  
(C) CONSTRUCT ACCESSIBLE PARKING STALL, STRIPING & SIGNAGE W/  
LAYDOWN CURB AND CONC. WHEEL STOP PER STANDARD DETAIL.  
(D) INSTALL VAN ACCESSIBLE PARKING SIGN.  
(E) CONSTRUCT 6" CONCRETE CURB (TYPICAL).  
(F) INSTALL CONCRETE PAVEMENT.  
(G) INSTALL BOLLARDS (RE: ARCHITECT PLANS).  
(H) EDGE MILL & ASPHALT OVERLAY.  
(I) PROPOSED OVERHEAD DOOR (RE: ARCH PLANS).  
(J) INSTALL CONC. PILOT CHANNEL.  
(K) EX. SIGN TO REMAIN.  
(L) PROP. TRANSFORMER PAD (RE: UTILITY PLAN).  
(M) INSTALL 3' CONCRETE APRON.  
(N) INSTALL 3' ROCK STRIP.

#### LEGEND

- PL — PROPERTY LINE  
— LL — LOT LINE  
— R/W — RIGHT-OF-WAY  
— 2' CURB & GUTTER  
— 6" CURB  
— B/L — BUILDING SETBACK LINE  
— P/S — PARKING SETBACK LINE  
— L/S — LANDSCAPE SETBACK LINE  
PROPOSED BUILDING  
CONCRETE PAVEMENT  
CONCRETE SIDEWALK  
PROPOSED 2" ASPHALT MILL & OVERLAY  
ROCK STRIP



SE BAILEY STREET  
VICINITY MAP  
SEC. 8-47-31



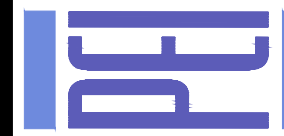
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PHILIPS ENGINEERING, INC.  
1270 N. Winchester  
Olathe, Kansas 66061  
(913) 393-1155  
Fax (913) 393-1165  
www.philipsengineering.com

PLANNING  
ENGINEERING  
IMPLEMENTATION



ENLARGED SITE PLAN  
CRASH CHAMPIONS  
451 S.E. OLDHAM PARKWAY  
LEE'S SUMMIT, JACKSON COUNTY, MO

PROJECT NO.	210229	No.	Date	Revisions:	By	App.
DATE: 10-12-21	DRAWN: SNH					
CHECKED: DAF	APPROVED: JDC					
CERTIFICATE OF AUTHORIZATION						
LAND SURVEYING - LS-82						
ENGINEERING - E-361						
CERTIFICATE OF AUTHORIZATION						
LAND SURVEYING - 200701028						
ENGINEERING - 200700209						

SHEET

C1.2





1. **CONTOURS AND ELEVATIONS:** Existing and proposed contours are shown on plans at one foot (1') contour intervals, unless otherwise noted. Proposed contours and elevations shown represent approximate finish grade. Contractor shall hold down subgrades to allow for pavement and sub-base thicknesses.
2. If the contractor does not accept existing topography as shown on the plans, without exception, he shall have made at his expense a topographic survey of the project (gravel storage) and submit it all to the owner for review.
3. **CLEARING AND GRUBBING:** Prior to beginning preparation of subgrade, all areas under pavements or building shall be stripped of all vegetation and trees. A topographic survey of the site shall be made in all dimensions and of other relevant features. The actual stripping of trees should be based on visual examination during construction and the results of post-rolling operations. The root systems of all trees (not designed to remain) shall be removed in their entirety. Stripping materials shall not be incorporated into structural fills.
4. **TOPSOIL STRIPPING:** Prior to the start of site grading, the contractor shall strip all topsoil from areas to be graded, and shall establish a location for the stockpile of site grade as directed by the owner. At completion of grading operations and related construction, the contractor will be responsible for redistribution of topsoil over all areas disturbed by the construction activities. Topsoil shall be placed to a minimum depth of six inches (6") and in accordance with specifications for landscaping. At that time, and prior to the installation of landscaping or irrigation, all topsoil graded areas shall be visually inspected and accepted by the owner and ILL.
5. Contractor shall adjust and/or cut existing pavement as necessary to assure a smooth fit and continuous grade. Contractor shall ensure positive drainage away from buildings for all natural and paved areas.
6. **SUBGRADE PREPARATION:** Prior to placement of new fill material, the existing subgrade shall be profiled and approved under the direct supervision of the Geotechnical Engineer or his representative.
7. **PROFILING:** Subsequent to completion of stripping and over-excavation, all building and pavement areas to receive structural fill should be profiled using a tandem axle dump truck loaded to approximately 20,000 pounds per axle. Also, any finished subgrade areas to receive paving shall be post-rolled within 48 hours of paving. Unsuitable soils that are detected and that can not be recompacted should be over-excavated and replaced with controlled structural fill.
8. **EARTHWORK:**

A) **GEOTECHNICAL:** All earthwork shall conform to the recommendations of the Geotechnical report. Said report and its recommendations are herein incorporated into the project requirements by reference. Prior to beginning construction, the contractor shall obtain a copy of and become familiar with the geotechnical report. Unless specifically noted on the plans, the recommendations in the geotechnical report are hereby incorporated into the project requirements and specifications.

B) **SURFACE WATER:** Surface water shall be intercepted and diverted during the placement of fill.

C) **FILLS:** All fills shall be considered controlled or structural fill and shall be free of vegetation, organic matter, topsoil and debris. In areas where the thickness of the engineered fill is greater than five feet building and pavement construction should not commence until so authorized by the on-site geotechnical engineer to allow for consolidation.

D) BUILDING SUBGRADE: As specified in the Geotechnical Engineering Report, the upper section of building subgrade shall consist of Low Volume Change (LVC) material defined as approved, compacted granular fill or low to moderate plasticity cohesive soil materials stabilized with Class C Flyash. Granular fill shall consist of compacted granular materials with a maximum particle size of two (2) inches or less, such as limestone screenings. Refer to geotechnical report for complete requirements.

E) EXISTING SLOPES: Where fill material is to be placed on existing slopes greater than 5:1 (horizontal to vertical), existing slope shall be benched providing a minimum vertical face of twelve inches (12"). The benches should be cut wide enough to accommodate the compaction equipment. Fill material shall be placed and compacted in horizontal lifts not exceeding nine inches (9") (loose lift measurement), unless otherwise approved by the Geotechnical Engineer.

F) COMPACTION REQUIREMENTS: The upper 9 inches of pavement subgrade areas shall be compacted to a minimum density of ninety five percent (95%) of the material's maximum dry density as determined by ASTM D698 (standard proctor compaction). The moisture content at the time of placement and compaction shall within a range of 0% below to 4% above optimum moisture content as defined by the standard proctor compaction procedure. The moisture contents shall be maintained within this range until completion of the work. Where compaction of earth fill by a large roller is impractical or undesirable, the earth fill shall be hand compacted with small vibrating rollers or mechanical tampers.

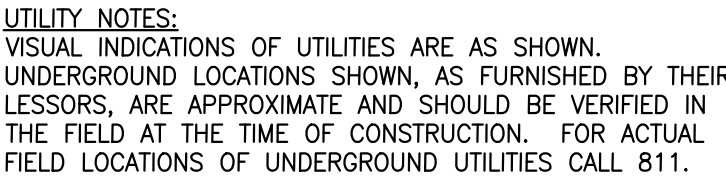
9. All cut or fill slopes shall be 3:1 or flatter. All asphalt parking areas shall be a minimum of 1% slope but not more than 5% slope unless otherwise noted. All pavements within ADA parking areas shall not exceed 2% total slope. All grades around building shall be held down 6" from finish floor and slope away another 6" in 10 feet. Contractor shall notify engineer prior to final subgrade construction of any areas not within this slope requirement.

10. TESTING AND INSPECTION: Owner's Independent Testing Laboratory (ITL) shall make tests of earthwork during construction and observe the placement of fills and other work performed on this project to verify that work has been completed in accordance with Geotechnical Engineering Report, Project Specifications and within industry standards. The ITL will be selected by the owner and the cost of testing will be the owner's responsibility.

11. **CLASSIFICATION:** All excavation shall be considered unclassified. No separate or additional payments shall be made for rock excavation.
12. **PERMANENT RESTORATION:** All areas disturbed by earthwork operations shall be sodded, unless shown otherwise by the landscaping plan or erosion control plan.

13. UTILITIES: 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 companies at least 48 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 the proposed improvements shown on the plans.

14. **LAND DISTURBANCE:** The contractor shall adhere to all terms & conditions as outlined in the EPA or applicable state N.P.D.E.S. permit for storm water discharge associated with construction activities. Refer to project S.W.P.P. requirements.



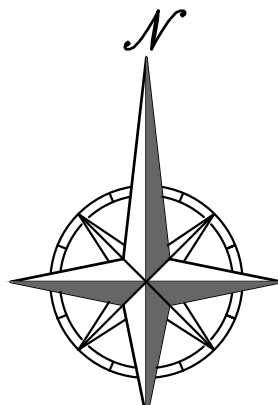
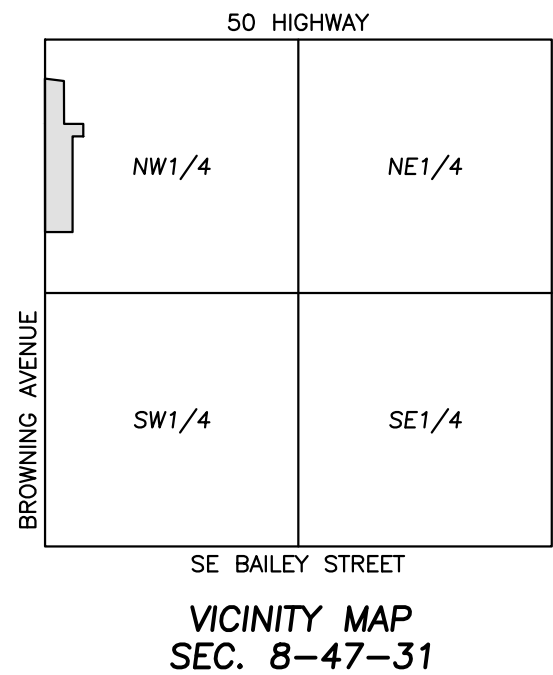
## BENCHMARK:

VERTICAL DATUM = NAVD88 BASED ON GPS OBSERVATION USING MODOT VRS


1. R.R. SPIKE IN W. FACE POWER POLE NEAR SE COR. #453 BLDG.  
ELEVATION = 1043.66
2. R.R. SPIKE IN E. FACE POWER POLE ON W. PROPERTY LINE NEAR SW COR. #451 BLDG.  
ELEVATION = 1043.33

THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT, COMMUNITY NO. 290174, JACKSON COUNTY, MISSOURI, MAP NO. 2909SC0438G, AND DATED JANUARY 20, 2017.

== PL ==	PROPERTY LINE
== LL ==	LOT LINE
== R/W ==	RIGHT-OF-WAY
=====	2' CURB & GUTTER
== 920 ==	EXISTING CONTOURS
== 918 ==	
== 920 ==	PROPOSED CONTOURS
== 918 ==	
=====	PROPOSED SPOT ELEVATION
LG	LINE OF GUTTER
TC	TOP OF CURB
SW	SIDEWALK
ME	MATCH EXISTING
HP	HIGH POINT
LP	LOW POINT
TP	TOP OF PAVEMENT
TS	TOP OF STRUCTURE
GR	GROUND ELEVATION
BS	BOTTOM OF STEPS
TS	TOP OF STEPS
BW	BOTTOM OF WALL
TW	TOP OF WALL
=====	EXISTING STORM SEWER
=====	PROPOSED STORM PIPE
=====	PROPOSED WET CURB & GUTTER
=====	PROPOSED DRY CURB & GUTTER



SCALE: 1"=10'

A horizontal scale bar with alternating black and white segments. It is marked with '0'' at the left end, '10'' at the first major tick, and '20'' at the right end.

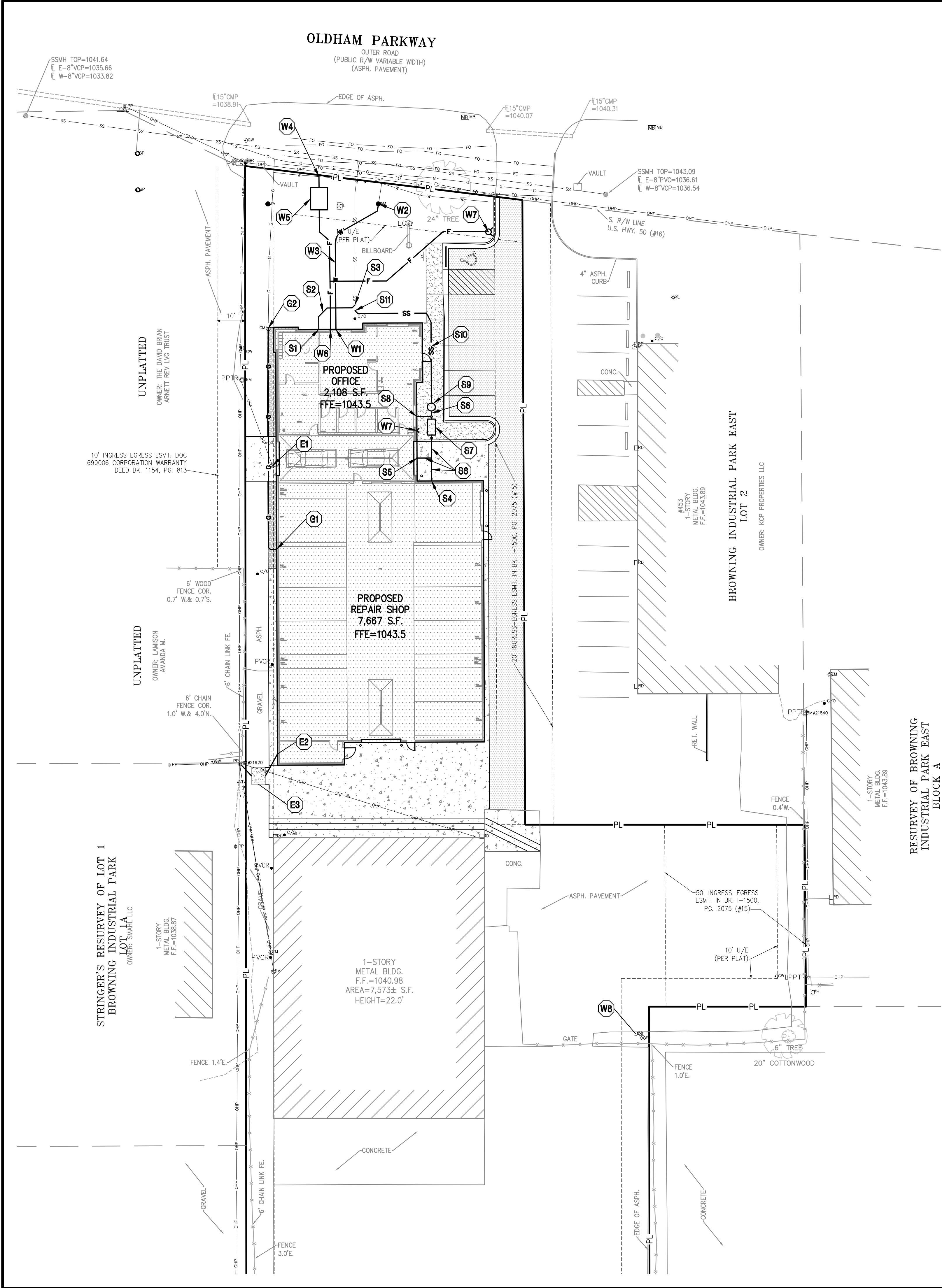
App.	Revisions:	Date	No.	Project No.
			210229	DATE:10-12-21
				PROJECT: DRWNSH
				CHECKED: DAF
				CERTIFICATE OF AUTHORIZATION
				LAND SURVEYING - LS-82
				ENGINEERING - E-381
				DESIGNATION OF AUTHORIZATION
				LAND SURVEYING-2027001128
				LAND SURVEYING-2027001128





## C2.1





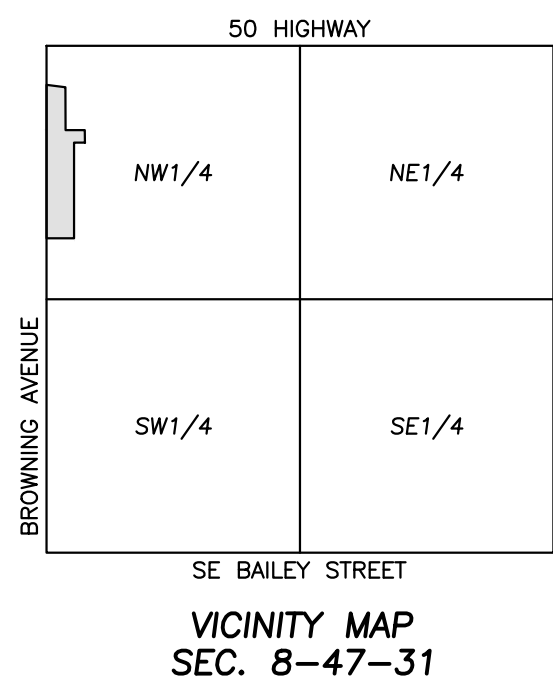
Know what's below.  
Call before you dig.

#### UTILITY KEY NOTES:

- UTILITY NOTES:**  
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN. UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.
- UTILITY KEY NOTES:**
- G1** GAS ENTRY WITH GAS METER. CONTRACTOR SHALL COORDINATE WITH GAS COMPANY FOR TYPING OF INDIVIDUAL METER. SIZE OF GAS MAIN SHALL BE AS DETERMINED BY UTILITY OR AS SHOWN ON BUILDING PLANS. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH GAS COMPANY REGARDING THE SIZE & INSTALLATION OF GAS SERVICE LINE.
  - G2** CONTRACTOR TO COORDINATE REMOVAL OF EXISTING GAS METER AND CONNECTION TO EXISTING AS LINE FOR EXTENSION TO NEW GAS METER LOCATION (RE: MEP PLANS) WITH LOCAL UTILITY PROVIDER.
  - E1** CONTRACTOR TO COORDINATE RELOCATION OF EXISTING POWER SERVICE WITH LOCAL UTILITY PROVIDER.
  - E2** ELECTRIC ENTRY INTO BUILDING. FOLLOW LOCAL UTILITY PROVIDER REQUIREMENTS (RE: BUILDING ELECTRIC PLAN.)
  - E3** PROPOSED LOCATION OF CONCRETE TRANSFORMER PAD. CONTRACTOR TO VERIFY EXACT LOCATION & SIZE WITH IPL PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF CONCRETE PAD & CONDUIT AS REQUIRED BY THE ELECTRIC COMPANY. CONTRACTOR SHALL COORDINATE SAID WORK WITH THE ELECTRIC COMPANY.
  - W1** 1-1/2" DOMESTIC WATER LINE ENTRY TO BUILDING. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ANY APPURTENANCES ON THE DOMESTIC LINE SUCH AS BACKFLOW PREVENTION DEVICES (RE: BUILDING PLANS), GATE VALVES, REDUCERS, BENDS, TEES, ETC., WHICH MAY BE REQUIRED. CONTRACTOR TO COORDINATE WITH WATER UTILITY.
  - W2** CONTRACTOR TO USE IN PLACE EXISTING WATER METER (COORDINATE WITH LOCAL UTILITY PROVIDER). CONTRACTOR TO VERIFY EXISTING METER SIZE AND CONTACT ENGINEER IF METER IS LESS THAN 1-1/2". CONTRACTOR TO COORDINATE AND PAY ALL FEES. ALL LABOR AND MATERIALS SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR'S PLUMBER IN ACCORDANCE WITH WATER UTILITY STANDARDS.
  - W3** INSTALL 1-1/2" SOFT TYPE K COPPER DOMESTIC WATER LINE FROM THE EXISTING WATER METER CONNECTION TO THE BUILDING ENTRY.
  - W4** CONTRACTOR TO PERFORM & COORDINATE 6" TAP ON EXISTING MAIN FOR PROPOSED 6" C900 FIRE LINE. CONTACT WATER UTILITY FOR TAPPING REQUIREMENTS. CONTRACTOR TO PAY ALL FEES FOR WATER MAIN TAP. OWNER WILL REIMBURSE CONTRACTOR FOR ACTUAL METER & SYSTEM DEVELOPMENT FEES ASSESSED BY WATER UTILITY.
  - W5** 6" SPRINKLER ENTRY TO BUILDING. CONTRACTOR SHALL BE REQUIRED TO INSTALL ANY APPURTENANCES ON THE SPRINKLER LINE SUCH AS, BUT NOT LIMITED TO GATE VALVES, REDUCERS, BENDS, TEES, ETC. (RE: BUILDING PLANS FOR BUILDING), WHICH MAY BE REQUIRED. CONTRACTOR TO COORDINATE WITH WATER UTILITY. BACKFLOW PREVENTION DEVICE FOR PRIVATE FIRE LINE TO BE LOCATED INSIDE BUILDING (RE: MEP PLANS).
  - W6** FIRE DEPARTMENT CONNECTION (RE: MEP PLANS).
  - W7** INSTALL PRIVATE FIRE HYDRANT ASSEMBLY.
  - W8** EXISTING PRIVATE FIRE HYDRANT TO REMAIN.
  - S1** CONNECT TO BLDG. INTERIOR PLUMBING SANITARY SEWER LINE (RE: MEP PLANS)  
FG=1043.40  
FL 4"=1040.80
  - S2** INSTALL 19 L.F. 4" PVC SANITARY SEWER SERVICE LINE (SDR-26) @ 2.0% MIN. SLOPE.
  - S3** INSTALL WYE CONNECTION DOWNSTREAM OF EXISTING CLEANOUT (EXISTING CLEANOUT TO REMAIN)  
EX. 4" FL = 1040.40±
  - S4** CONNECT TO BLDG. INTERIOR PLUMBING SAND/OIL LINE (RE: MEP PLANS)  
FG=1043.45  
FL 4"=1040.35
  - S5** CONNECT TO BLDG. INTERIOR PLUMBING SAND/OIL LINE (RE: MEP PLANS)  
FG=1043.30  
FL 4"=1040.35
  - S6** INSTALL 4" PVC SANITARY SEWER SERVICE LINE (SDR-26) @ 2.0% MIN. SLOPE.
  - S7** INSTALL SAND OIL INTERCEPTOR (RE: MEP PLANS FOR SPECIFICATION)  
TE=1043.43  
FL 4" IN=1040.03  
FL 4" OUT=1040.03
  - S8** INSTALL 2" PVC VENT LINE (SDR-26) TO BUILDING (RE: MEP PLANS).
  - S9** INSTALL E1 GRINDER PUMP (WH101F-74) & HDPE PUMP BASIN.  
TE=1043.43  
FL 4" IN=1039.93  
FL 2" OUT=1040.23
  - S10** INSTALL 2" HDPE FORCE MAIN FROM E-ONE PUMP TO EXISTING 4" SANITARY SEWER LINE.
  - S11** INSTALL WYE CONNECTION DOWNSTREAM OF EXISTING CLEANOUT (EXISTING CLEANOUT TO REMAIN)  
EX. 4" FL = 1040.45±

#### BENCHMARK:

- VERTICAL DATUM = NAVD88 BASED ON GPS OBSERVATION USING MODOT VRS
- R.R. SPIKE IN W. FACE POWER POLE NEAR SE COR. #453 BLDG.  
ELEVATION = 1043.66
  - R.R. SPIKE IN E. FACE POWER POLE ON W. PROPERTY LINE NEAR SW COR. #451 BLDG.  
ELEVATION = 1043.33



#### UTILITY NOTES:

- 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 companies at least 48 hours before any excavation to request exact field location of utilities. It shall be the responsibility of the contractor to coordinate with and relocate &/or remove all existing utilities which conflict with the proposed improvements shown on the plans.
  - The construction of storm sewers on this project shall conform to the requirements of the City's Technical Specifications and Design Criteria.
  - The contractor shall field verify the exact location and elevation of the existing storm sewer lines and the existing elevation at locations where the proposed storm sewer collects or releases to existing ground. If discrepancies are encountered from the information shown on the plans, the contractor shall contact the design engineer. No pipes shall be laid until direction is received from the design engineer.
  - It will be the contractors responsibility to field adjust the top of all manholes and boxes as necessary to match the grade of the adjacent area. Tops of existing manholes shall be raised as necessary to flush with proposed pavement elevations, and to be 6-inches above finished ground elevations in non-paved areas. No separate or additional compensation will be made to the contractor for making field adjustments to the manholes and boxes.
  - Inlet locations, horizontal pipe information and vertical pipe information is shown to the center of the structure. Deflection angles shown for storm sewer pipes are measured from the center of curb inlets and manholes. The contractor shall adjust the horizontal location of the pipes to go to the face of the boxes. All roof drains shall be connected to storm sewer structures. Provide cleanouts on roof drain lines at 100' max. Spacing and at all bend points. Do not connect roof drains directly to storm sewer pipe.
  - The contractor shall be responsible for furnishing and installing all fire and domestic water lines, meters, backflow devices, pits, valves and all other incidentals required for a complete operable fire protection and domestic water system. All costs associated with the complete water system for the buildings shall be the responsibility of the contractor. All work shall conform to the requirements of City.
  - The contractor shall be responsible for furnishing and installing all sanitary sewer service lines from the buildings to the public line. All work shall conform to the requirements of the City.
  - The contractor will be responsible for securing all permits, bonds and insurance required by the contract documents, City, and all other governing agencies (including local, county, state and federal authorities) having jurisdiction over the work proposed by these construction documents. The cost for all permits bonds and insurance shall be the contractors responsibility and shall be included in the bid for the work.
  - By the use of these construction documents the contractor hereby agrees that he/she shall be solely responsible for the safety of the construction workers and the public. The contractor agrees to hold the engineer and owner harmless for any and all injuries, claims, losses or damages related to the project.
  - The Contractor shall be responsible for furnishing all materials, tools and equipment and installation of electrical power, telephone and gas service from a point of connection from the public utility lines to the building structures. This will include all conduits, service lines, meters, concrete pads and all other incidentals required for a complete and operational system as required by the owner and the public utilities. Refer to building plans for exact tie-in locations of all utilities. Contractor shall verify connection points prior to installation of utility line.
  - All fill material is to be in place, compacted, and consolidated before installation of proposed utilities. On-site geotechnical engineer shall provide written confirmation that this requirement has been met and that utilities may proceed in the fill areas. All utilities are to be placed in trench conditions.
  - Contractor shall notify the utility authorities inspectors 48 hours before connecting to any existing line.
  - Water lines shall be as follows (unless otherwise shown on plans):
    - Pipe sizes less than 3-inches that are installed below grade and outside building shall comply with the following:
      - Seamless Copper Tubing: Type "K" soft copper, ASTM B88.
      - Fittings: Wrought copper (95.5 Tin Antimony solder joint), ASME B 16.22.
    - Pipe sizes 3-inches Through 48-inches that are installed below grade and outside building shall comply with one of the following:
      - Gray Cast Iron Water Pipe: ANSI A21.6, thickness class 52.
      - Fittings: Either mechanical joint or push-on joint, AWWA C110 or AWWA C111.
      - Elastomeric gaskets and lubricant: ASTM F477.
      - Cement Mortar Lining, AWWA C104.
    - Ductile Iron Water Pipe: AWWA C151, thickness class 50.
    - Fittings: Either mechanical joint or push-on joint, AWWA C110 or AWWA C111.
    - Elastomeric gaskets and lubricant: ASTM F477.
    - Cement Mortar Lining, AWWA C104.
  - Polyvinyl Chloride (PVC) Water Pipe: Pipe, AWWA C900, rated DR 18 (Class 150), continually marked as required.
  - Elastomeric gaskets and lubricant: ASTM F477 for smaller pipes.
  - Pipe joints: Integrally molded bell ends, ASTM D3139.
  - Trace wire: Magnetic detectable conductor, (#12 Copper) brightly colored plastic covering imprinted with "Water Service" in large letters
- Minimum trench width shall be 2 feet.
- Contractor shall maintain a minimum of 42" cover on all waterlines. All water line joints are to be mechanical joints with thrust blocking as called out in specifications and construction plans. Water mains and service lines shall be constructed in accordance to waterone's specifications for commercial services.
- All waterlines shall be kept min. ten (10') apart (parallel) from sanitary sewer lines or manholes. Or when crossing, an 24" vertical clearance (outside edge of pipe to outside edge of pipe) of the water line above the sewer line is required.
- Sanitary conflicts will be resolved prior to permit issuance.
- In the event of a vertical conflict between waterlines, sanitary lines, storm lines and gas lines (existing and proposed), the sanitary line shall be ductile iron pipe with mechanical joints at least 10 feet on both sides of crossing (or encased in concrete this same distance), the waterline shall have mechanical joints with appropriate thrust blocking as required to provide a minimum of 24" clearance. Meeting requirements of ANSI A21.10 or ANSI 21.11 (AWWA C-151) (CLASS 50).
- All underground storm, sanitary, water and other utility lines shall be installed, inspected and approved before backfilling. Failure to have inspection approval prior to backfill will constitute rejection of work.
- All necessary inspections and/or certifications required by codes and/or utility service companies shall be performed prior to announced building possession and the final connection of service. Contractor shall coordinate with all utility companies for installation requirements and specifications.
- Refer to building plans for site lighting electrical plan, irrigation, parking lot security system and associated conduit requirements. Coordinate with Owner that all required conduits are in place & tested prior to paving.
- When a building utility connection from site utilities leading up to the building cannot be made immediately, temporarily mark all such site utility terminations.
- Refer to the building plans for site lighting electrical requirements, including conduits, pole bases, pull boxes, etc.

#### UTILITY COMPANIES:

MISSOURI GAS ENERGY (816) 969-2218  
LUCAS WALLS (LUCAS.WALLS@SUG.COM)  
3025 SOUTHEAST CLOVER DRIVE  
LEE'S SUMMIT, MO 64082

EVERGY (816) 347-4339  
PHILLIP INGRAM (PHILLIP.INGRAM@KCPL.COM)  
RON DEJARNETTE (RON.DEJARNETTE@KCPL.COM) (816) 347-4316  
1300 HAMBLEN ROAD  
LEE'S SUMMIT, MO 64081

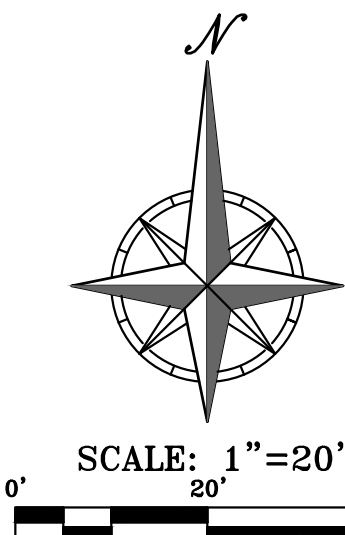
STORM SEWER (PUBLIC WORKS DEPARTMENT) (816) 969-1800  
220 SE GREEN STREET  
LEE'S SUMMIT, MO 64063

SANITARY SEWER & WATER (WATER UTILITIES DEPT.) (816)-969-1900  
1200 SE HAMBLEN ROAD,  
LEE'S SUMMIT, MO 64081

AT&T (913) 383-4929  
MR. CLAYTON ANSPAUGH (CA4089@ATT.COM) (913) 383-4849-FAX  
9444 NALL AVENUE  
OVERLAND PARK, KANSAS 66207

#### LEGEND

- PL PROPERTY LINE
- LL LOT LINE
- R/W RIGHT-OF-WAY
- CATV EXISTING CABLE TELEVISION LINE
- FO EXISTING FIBER OPTIC LINE
- G EXISTING GAS LINE
- BE EXISTING BURIED ELECTRIC LINE
- OHP EXISTING OVERHEAD POWER LINE
- OHT EXISTING OVERHEAD TELEPHONE LINE
- SS EXISTING SANITARY SEWER LINE
- HDPE EXISTING STORM SEWER LINE (& SIZE)
- BT EXISTING BURIED TELEPHONE LINE
- W-6" EXISTING WATER LINE (& SIZE)
- G PROPOSED GAS LINE
- BE PROPOSED BURIED ELECTRIC LINE
- SS PROPOSED SANITARY SEWER LINE
- OHP PROPOSED OVERHEAD POWER LINE
- BT PROPOSED BURIED TELEPHONE LINE
- W EXISTING WATER LINE (& SIZE)



**PHILIPS ENGINEERING, INC.**  
1370 N. Winchester  
Olathe, Kansas 66061  
(913) 393-1155  
Fax: (913) 393-1165  
www.philipsengineering.com

**PLANNING  
ENGINEERING  
IMPLEMENTATION**

**UTILITY PLAN**  
CRASH CHAMPIONS  
451 S.E. OLDHAM PARKWAY  
LEE'S SUMMIT, JACKSON COUNTY, MO

PROJECT NO.	210229	No.	Date	Revisions:
DATE: 10-12-21	CHECKER: DAF	APPROVED: JDC		
CERTIFICATE OF AUTHORIZATION				
LAND SURVEYING - LS-82				
ENGINEERING - E-SF				
CERTIFICATE OF AUTHORIZATION				
LAND SURVEYING-200701028				
LAND SURVEYING-200700208				

SHEET

**C3**





**EROSION AND SEDIMENT CONTROL GENERAL NOTES:**

- MAINTENANCE: ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLANATION, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:
1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.
  2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
  3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-THIRD THE HEIGHT OF THE SILT FENCE.
  4. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
  5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.

### LEGEND



50 HIGHWAY

NW1/4

NE1/4

SW1/4

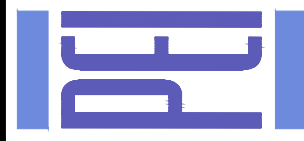
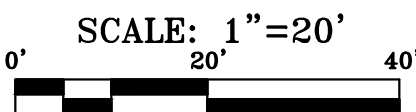
SE1/4

BROWNING AVENUE

SE BAILEY STREET

VICINITY MAP

SEC. 8-47-31



# EROSION CONTROL PLAN

# CRASH CHAMPIONS

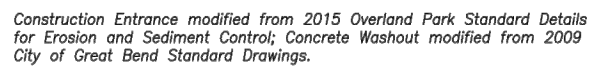
451 S.E. OLDHAM PARKWAY  
LEE'S SUMMIT, JACKSON COUNTY, MO

App	Revisions	Date	No.	PROJECT NO. 2102259 DATE 11-19-21 JPM/SMH CHECKED: DAF APPROVED: JOC CERTIFICATE OF AUTHORIZATION LAD SIGNING — LS-62 LAD SIGNING — LS-62 CERTIFICATE OF AUTHORIZATION MASON SIGNING—200701128 ENGINEER—200705058
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SHEET

C4





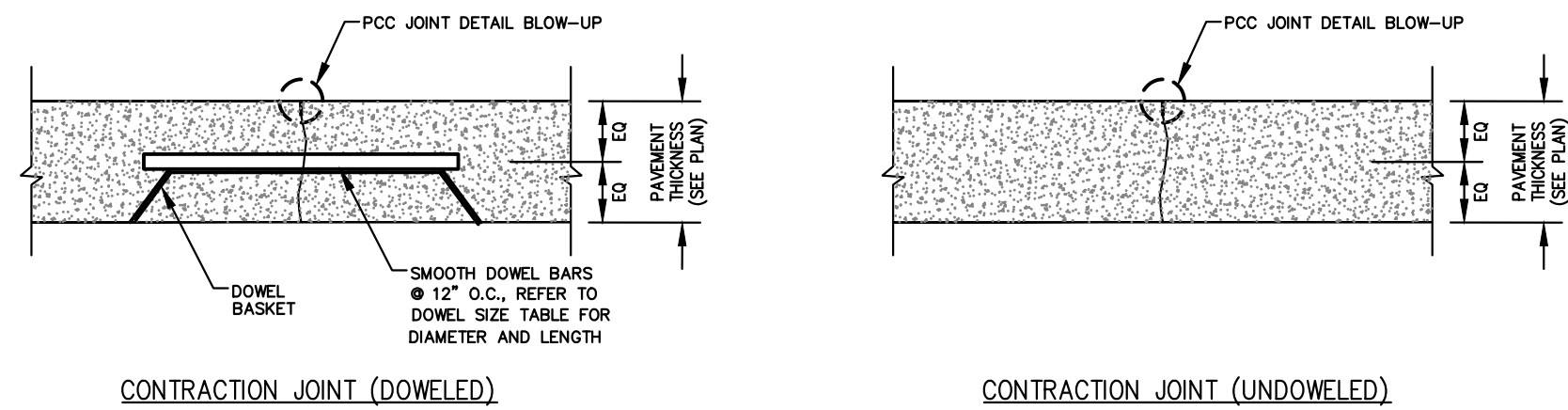
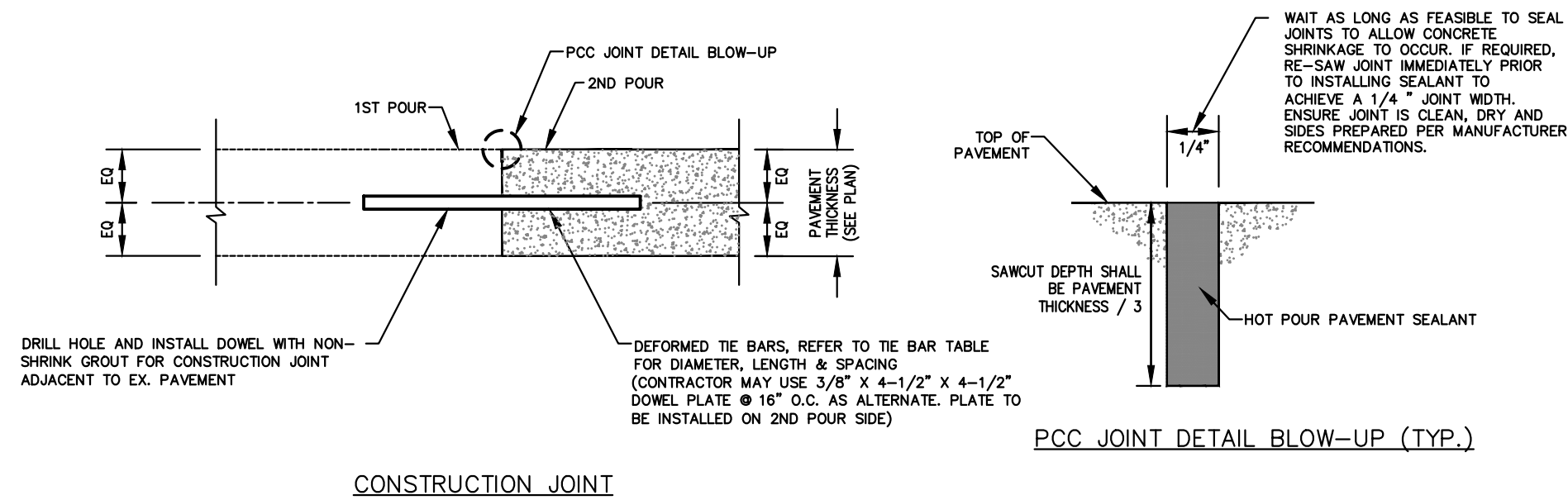


\\PHILIPS-SERVER\Projects\210229\Draw\Details Plans\DETAILS - PRIVATE.dwg Layout:PAVE 1 Oct 15, 2021 11:25am Daniel Finn

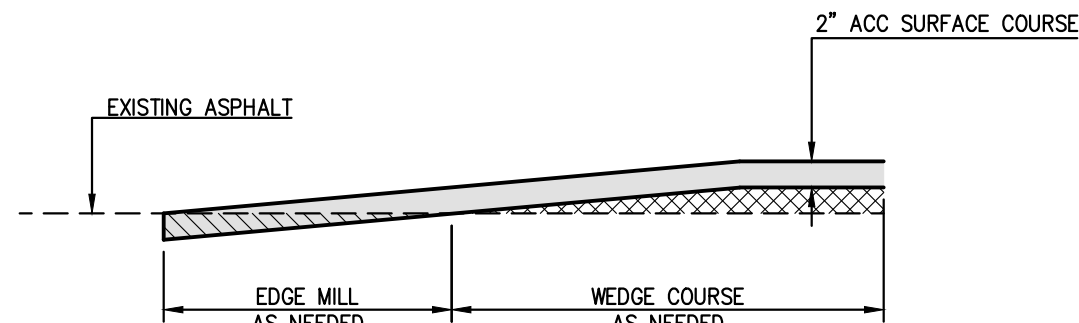
Dowel size*			
Slab depth, in. (mm)	Dowel diameter, in. (mm)	Dowel embedment, in. (mm) <sup>1</sup>	Total dowel length, in. (mm) <sup>2</sup>
5 (125)	3/8 (16)	5 (125)	12 (300)
6 (150)	3/4 (19)	6 (150)	14 (360)
7 (180)	7/8 (22)	6 (150)	14 (360)
8 (200)	1 (25)	6 (150)	14 (360)
9 (230)	1-1/8 (29)	7 (180)	16 (400)

\*All dowels spaced at 12 in. (300 mm) centers.  
<sup>1</sup>On each side of joint.  
<sup>2</sup>Allowance made for joint openings and for minor errors in positioning dowels.

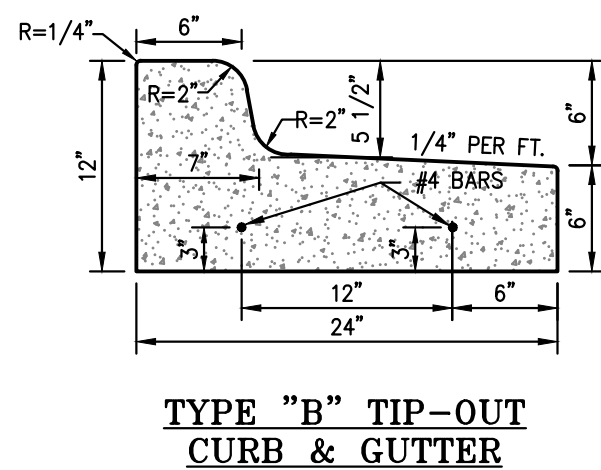
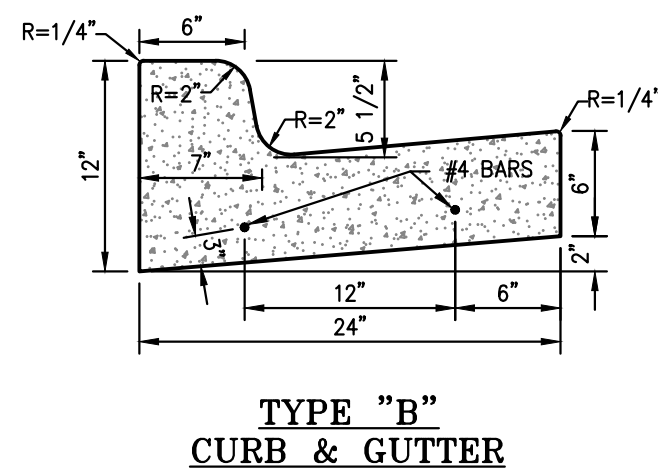
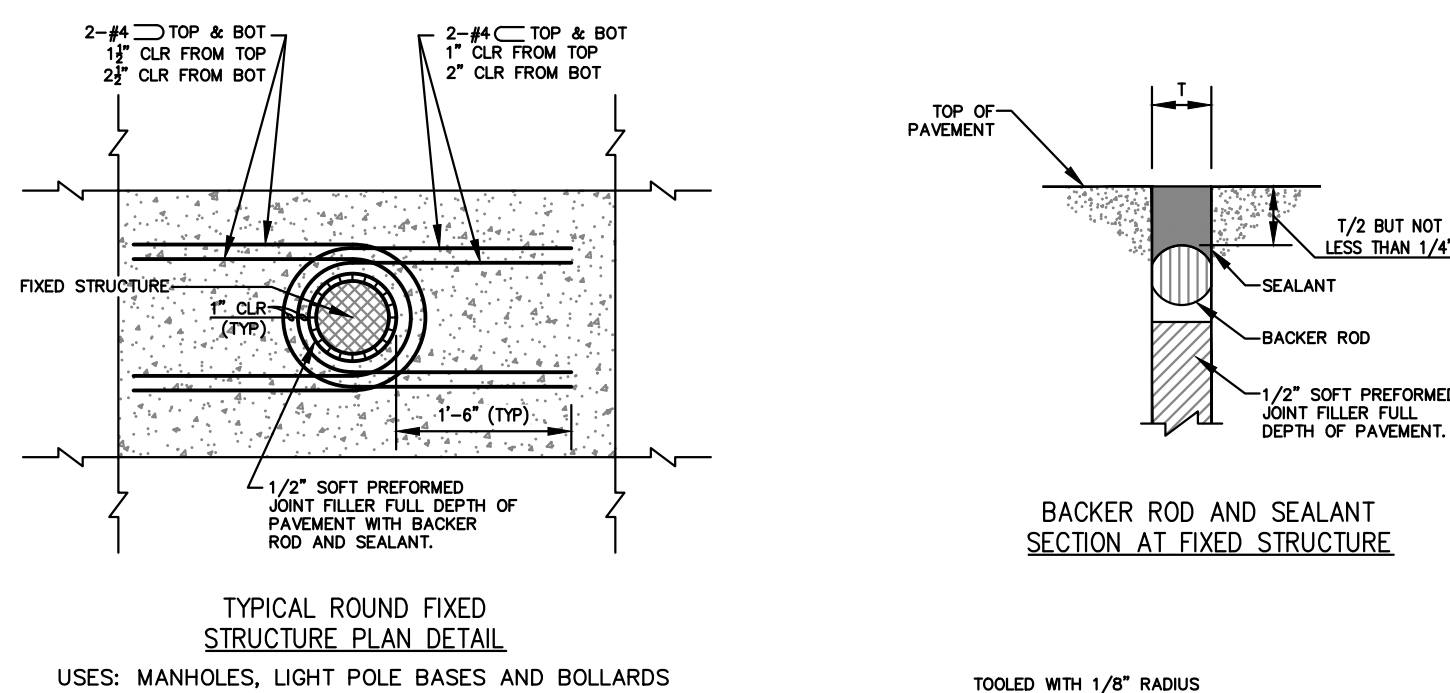
Tie bar dimensions		Tiebar spacing			
		Distance to nearest free edge or to nearest joint where movement can occur			
Slab depth, in. (mm)	Tiebar size, in. (mm)	10 ft. in. (mm)	12 ft. in. (mm)	14 ft. in. (mm)	24 ft. in. (mm)
5 (125)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	30 (760)	28 (710)
5-1/2 (140)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	30 (760)	25 (630)
6 (150)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	30 (760)	23 (580)
6-1/2 (165)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	30 (760)	21 (530)
7 (180)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	30 (760)	20 (510)
7-1/2 (190)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	30 (760)	18 (460)
8 (200)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	28 (710)	17 (430)
8-1/2 (215)	1/2 x 24 (13 x 610)	30 (760)	30 (760)	36 (910)	16 (410)
9 (230)	1/2 x 30 (13 x 760)	36 (910)	36 (910)	—	24 (610)



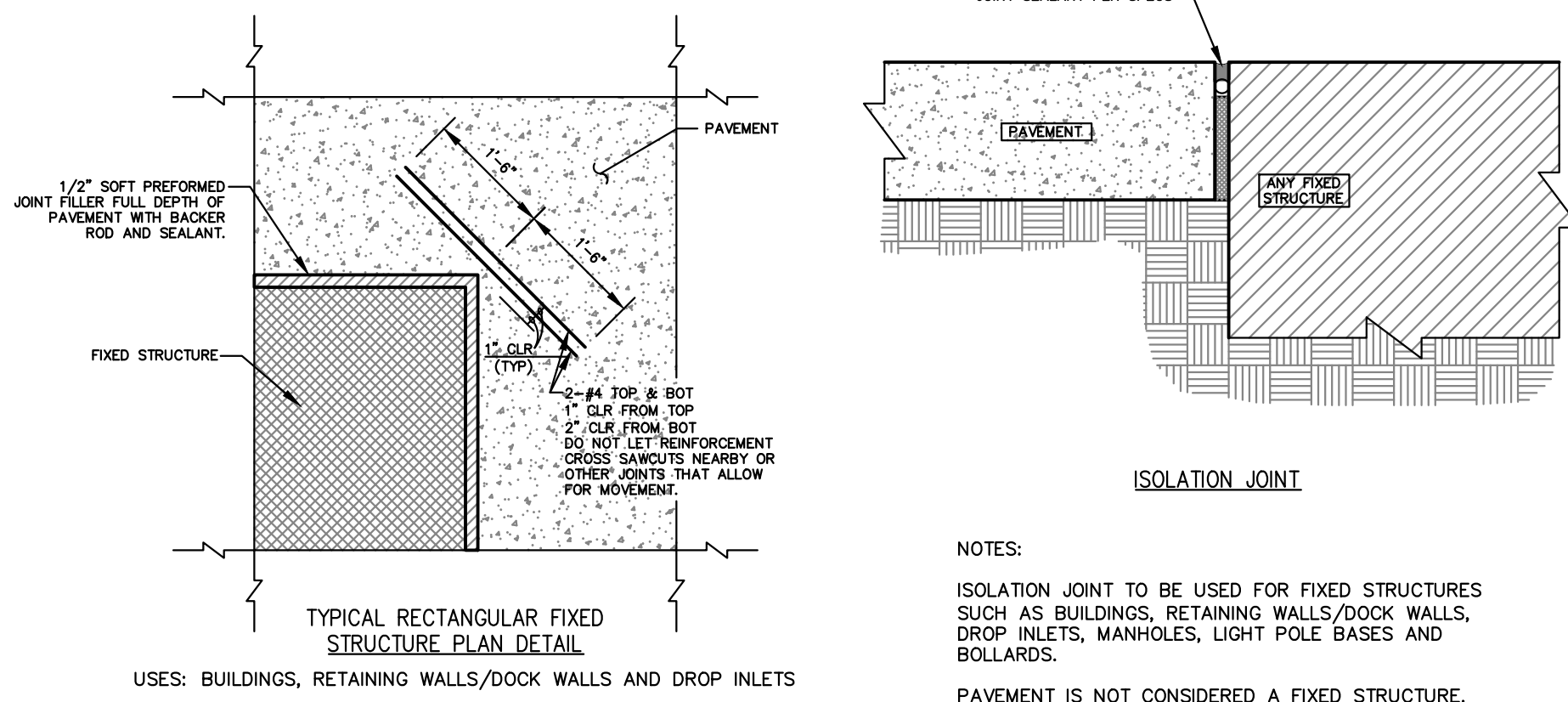
CONCRETE JOINT DETAILS  
SCALE: N.T.S.



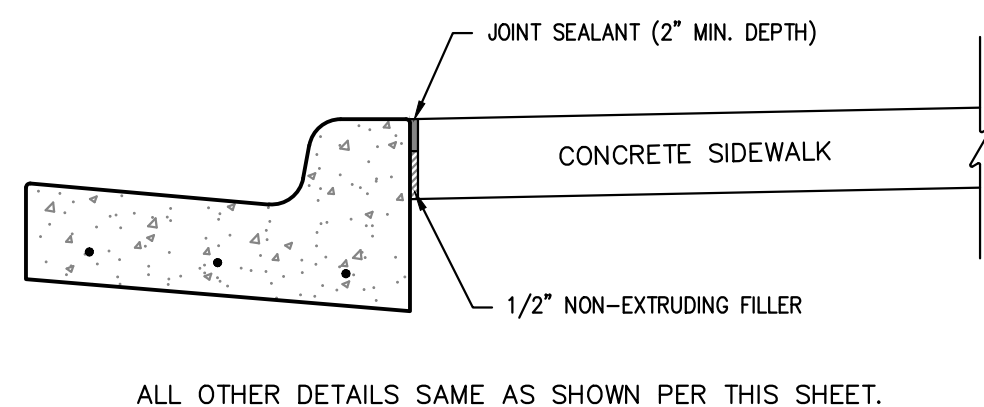
ASPHALT MILL & OVERLAY DETAIL  
SCALE: N.T.S.



PRIVATE CURB & GUTTER DETAILS  
SCALE: N.T.S.



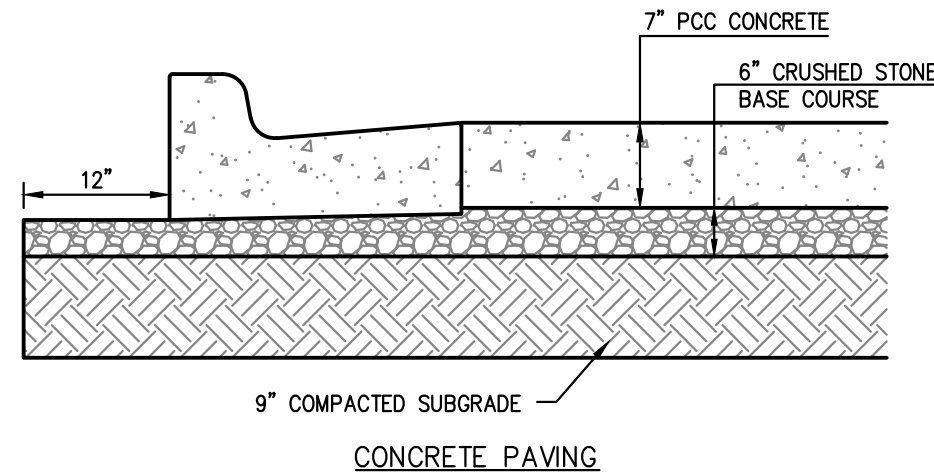
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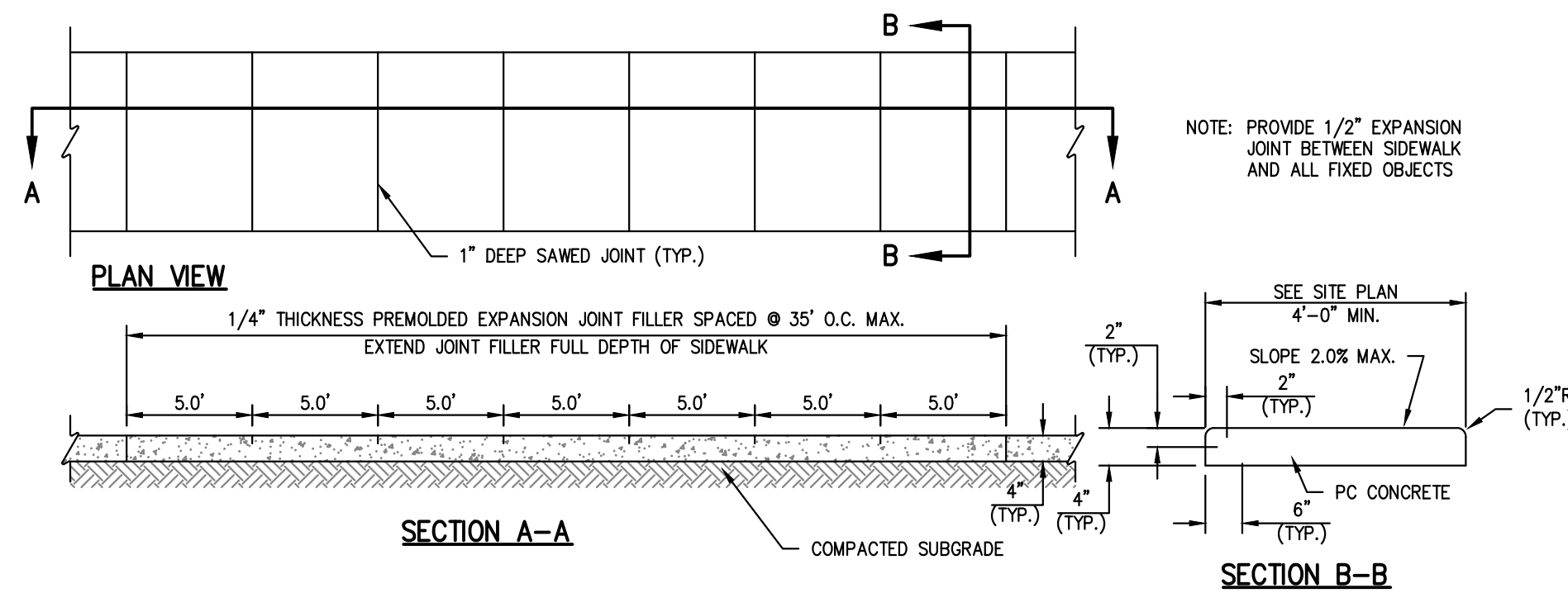
SIDEWALK AT CURB DETAIL  
SCALE: N.T.S.

GENERAL PAVING NOTES:

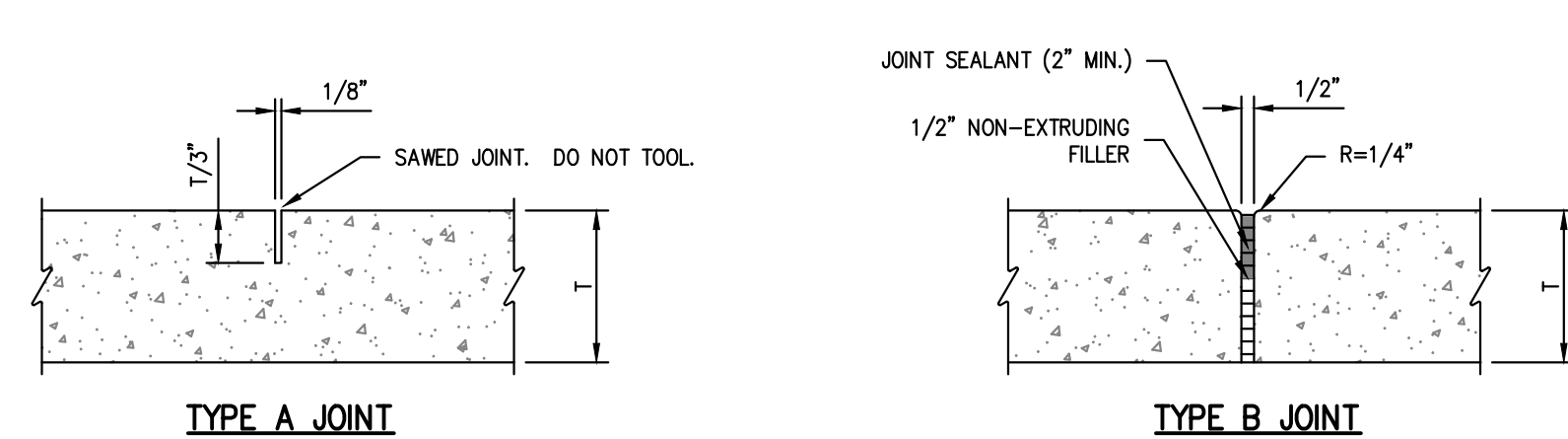
- PRIOR TO PLACEMENT OF GRANULAR BASE OR ASPHALT, PROOF ROLL AND RE-COMPACT THE EXPOSED SURFACES UP TO A MINIMUM LATERAL DISTANCE OF TWO (2) FEET OUTSIDE THE PAVEMENT. ANY LOCALIZED SOFT, WET, OR LOOSE AREAS IDENTIFIED DURING THE PROOF ROLLING SHOULD BE REPAIRED PRIOR TO PAVING. FILL MATERIAL SHOULD BE PLACED IN LOOSE LIFTS UP TO A MAXIMUM OF EIGHT (8) INCHES IN THICKNESS AND COMPACTED TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D698 AT MOISTURE CONTENTS WITHIN 0% AND +4% OF THE OPTIMUM FOR SOILS WITH A LIQUID LIMIT OF GREATER THAN 40, AND - +3% OF THE OPTIMUM FOR SOILS WITH A LIQUID LIMIT OF LESS THAN 40. MAXIMUM DRY DENSITY AND OPTIMUM MOISTURE CONTENT SHOULD BE DETERMINED BY THE STANDARD PROCTOR TEST (ASTM D 698).
- PROOFROLL WITH A 25 TON RUBBER TIRE VEHICLE AND REPAIR SUBGRADE DEFICIENCIES. IF ANY SIGNIFICANT EVENT, SUCH AS PRECIPITATION, OCCURS AFTER PROOFROLLING, THE SUBGRADE SHOULD BE REVIEWED BY QUALIFIED PERSONNEL IMMEDIATELY PRIOR TO PLACING THE PAVEMENT.
- CRUSHED STONE BASE COURSE USED BENEATH CONCRETE PAVING SHALL BE COMPACTED AB-3 OR EQUIVALENT.
- ASPHALTIC SURFACE COURSE SHALL BE APWA TYPE 3. THE SURFACE COURSE SHOULD BE COMPACTED TO A MINIMUM OF 97% MARSHALL DENSITY (ASTM SPECIFICATION D 1559). 30% RAP IS ALLOWED.
- ASPHALTIC BASE COURSE SHALL BE APWA TYPE 1. THE BASE COURSE SHOULD BE COMPACTED TO A MINIMUM OF 95% MARSHALL DENSITY (ASTM SPECIFICATION D 1559). 30% RAP IS ALLOWED.
- THE CONTRACTOR SHALL PROVIDE A TACK COAT BETWEEN LIFTS OF ASPHALT.
- ALL SITE CONCRETE (CURBS, PAVEMENTS, SIDEWALKS, ETC.) SHALL MEET KANSAS CITY MATERIALS METRO BOARD (KCMMB) MIX DESIGN SPECIFICATIONS FOR 4,000 P.S.I. AIR ENTRAINED CONCRETE.
- IN NEW PAVEMENT AREAS, CONTRACTOR SHALL OVER EXCAVATE AS REQUIRED TO ESTABLISH NEW COMPACTED SUBGRADE ELEVATIONS.
- CONTRACTOR IS RESPONSIBLE FOR ALL PAVEMENT AND SUBGRADE MATERIALS TESTING.



PAVING SECTIONS  
SCALE: N.T.S.



PRIVATE CONCRETE SIDEWALKS (NON REINFORCED)  
SCALE: N.T.S.



NOTE: TYPE A JOINTS SHALL NOT EXCEED 20 TIMES THE PAVEMENT THICKNESS (T).

CONCRETE SIDEWALK JOINT DETAILS  
SCALE: N.T.S.



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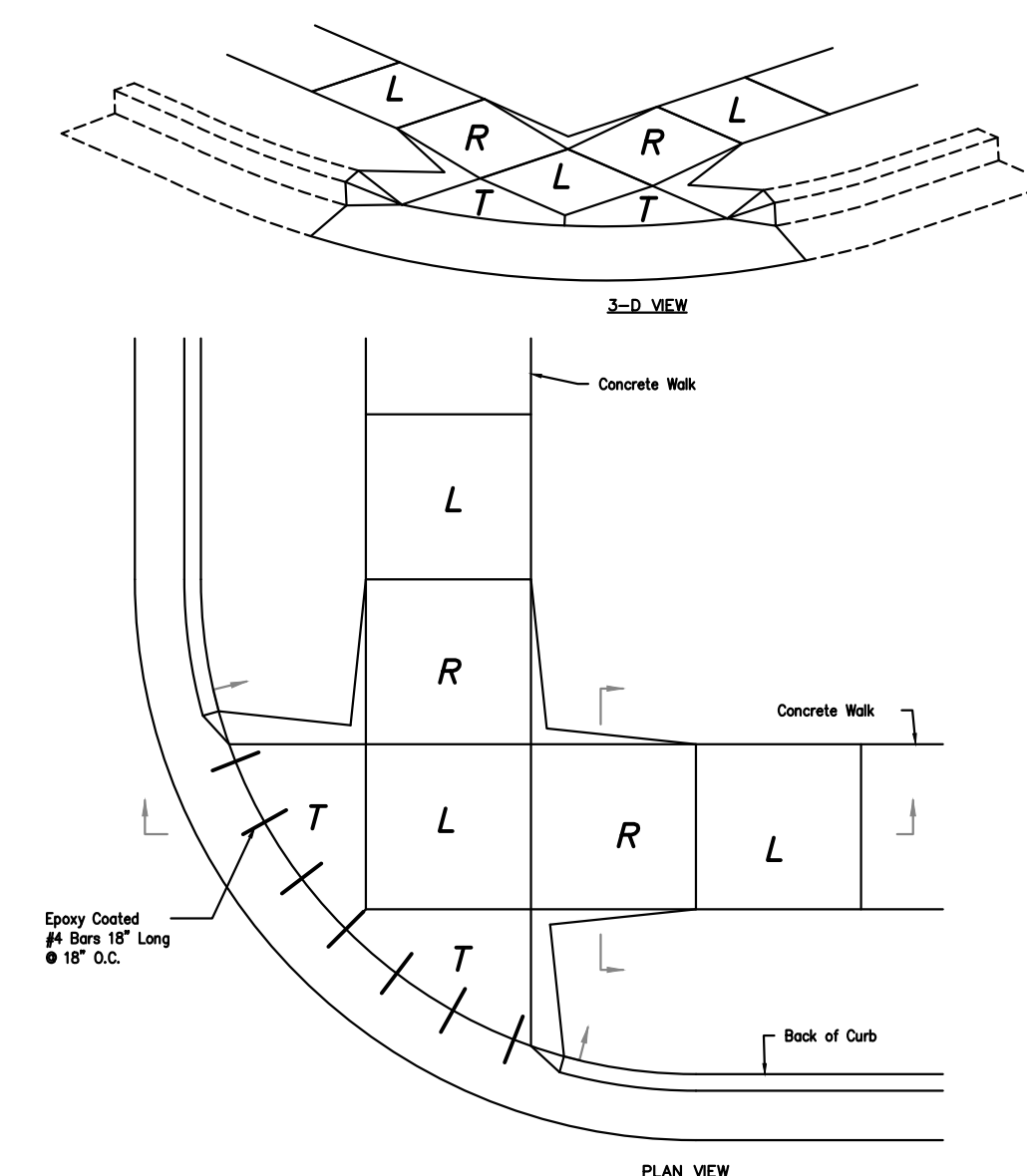
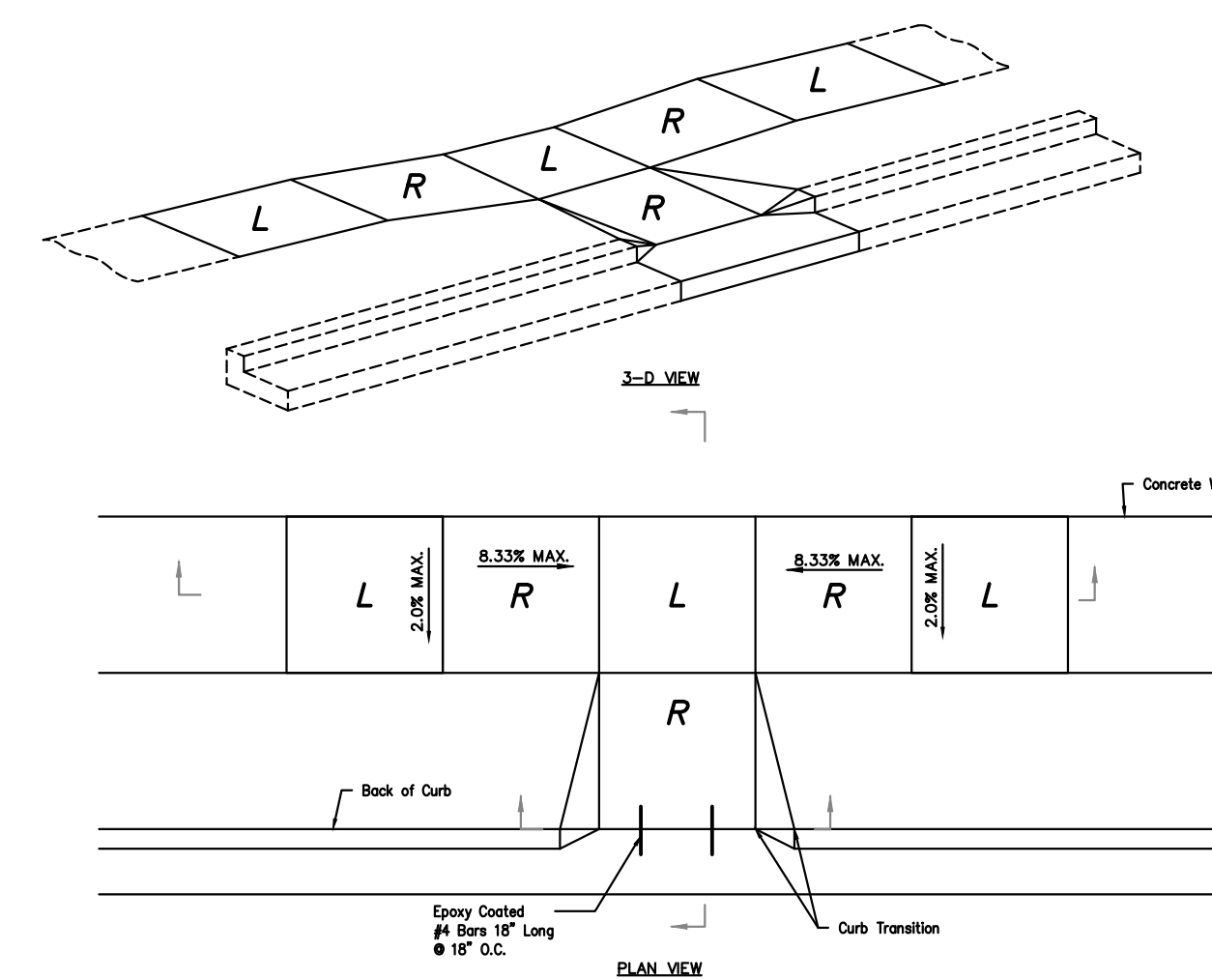
PAVEMENT DETAILS  
CRASH CHAMPIONS  
451 S.E. OLDHAM PARKWAY  
LEE'S SUMMIT, JACKSON COUNTY, MO

PROJECT NO.	210229	DATE	10-12-21	CHECKED	DAF	APPROVED	JDC	DATE OF AUTHORIZATION	10-12-21	DESIGNED	LS-82	LAND SURVEYING	E-SBT	CERTIFICATE OF AUTHORIZATION	200701028	LAND SURVEYING	200701028	REVISIONS	200701028
By																			
App.																			
Revisions:																			

SHEET

C5





## C5.1





The model WH101F or WR101F grinder pump station is a complete unit that includes: the grinder pump, check valve, HDPE (high density polyethylene) tank, controls, and alarm panel. This station is designed for areas where high floodplain conditions occur. The WH101F or WR101F is a watertight, sealed station capable of sustaining a 15-foot flood above the top of the station. This type of flood condition will not affect the continued operation of the pump; the homeowner should rely on uninterrupted service.

- The WH101F is the “hardwired,” or “wired,” model where a cable connects the motor controls to the level controls through watertight penetrations.

4" PVC inlet flange for Schedule 40 pipe

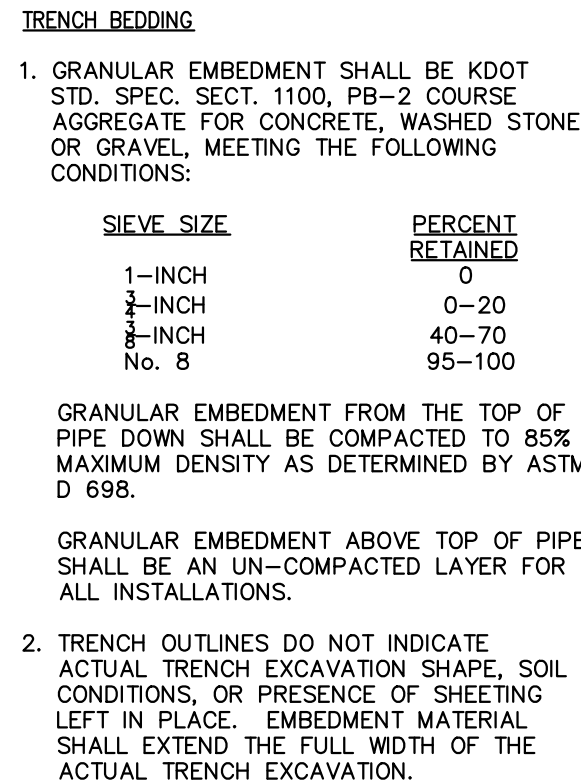
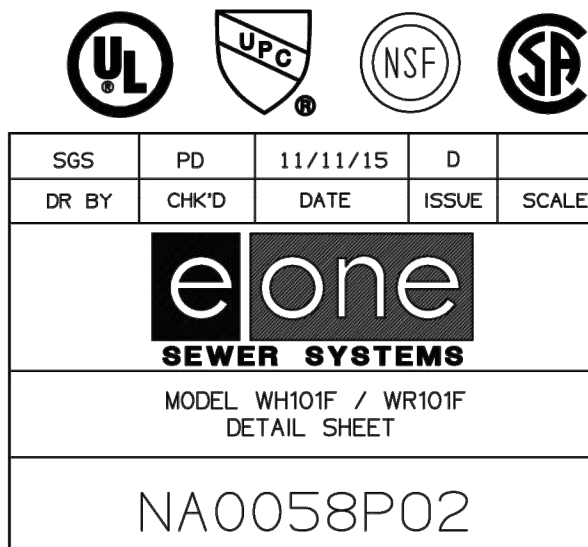
Pump discharge terminates in 1.25-inch NPT female thread. Can easily be adapted to 1.25-inch PVC pipe or any other material required by local codes

15 gpm at 0 psig (0.95 lps at 0 m)  
11 gpm at 40 psig (0.69 lps at 28 m)  
7.8 gpm at 80 psig (0.49 lps at 56 m)

E/One requires that the Uni-Lateral, E/One's own stainless steel check valve, be installed between the grinder pump station and the street main for added protection against backflow.

Alarm panels are available with a variety of options, from basic monitoring to advanced notice of service requirements.

The Remote Sentry is ideal for installations where the alarm panel may be hidden from view.



PLAN VIEW

1. Structures shall be pre-cast or poured in place.
2. Pre-cast shop drawings are to be approved by the Engineer
3. 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.

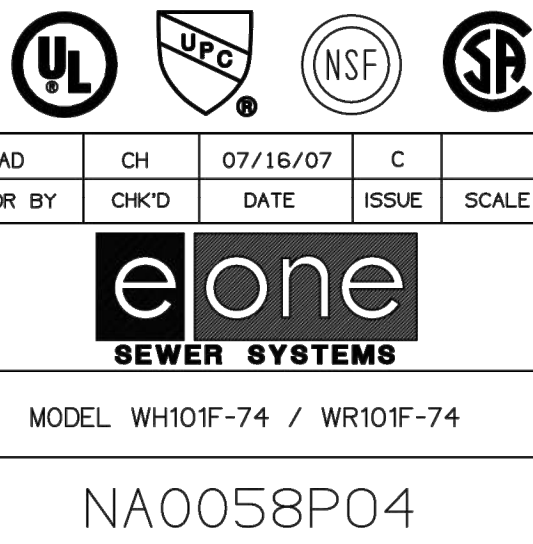
4. Concrete used in this work shall be KCMMB4K.

5. Concrete construction shall meet the applicable requirements of Standard Specifications for State Road and Bridge Construction, Kansas Department of Transportation, latest edition.
6. Bevel all exposed edges with  $\frac{3}{4}$ " triangular molding.

7. Reinforcing steel shall be new billet, minimum Grade 60 as per ASTM A615M, and shall be bent cold.

8. All dimensions relative to reinforcing steel are to centerline of bars. 2" clearance shall be provided throughout unless noted otherwise. Tolerance of  $\pm \frac{1}{8}$ " shall be permitted.
9. All lap splices not shown shall be a minimum of 40 bar diameters in length.
10. All reinforcing steel shall be supported on fabricated steel bar supports  $\approx 3"-0"$  maximum spacing.
11. 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.

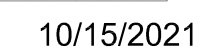
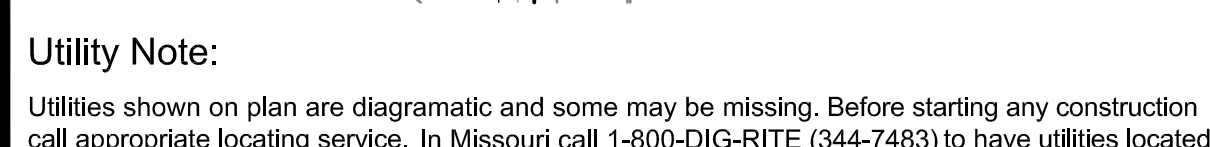
12. The bottom footing shall be at least 24 hours old before placing sidewall concrete. All sidewall forms shall remain in place a minimum of 24 hours after sidewalls are poured before removal, and after removal shall be immediately treated with membrane curing compound.

[illegible]

SHEET

C5.2

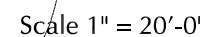
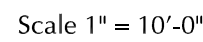








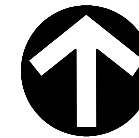




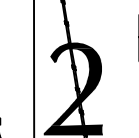
## SITE PLAN



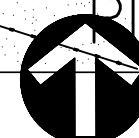
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Scale 1" = 10'-0"



### EXISTING BUILDING

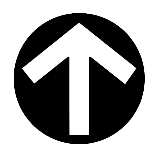
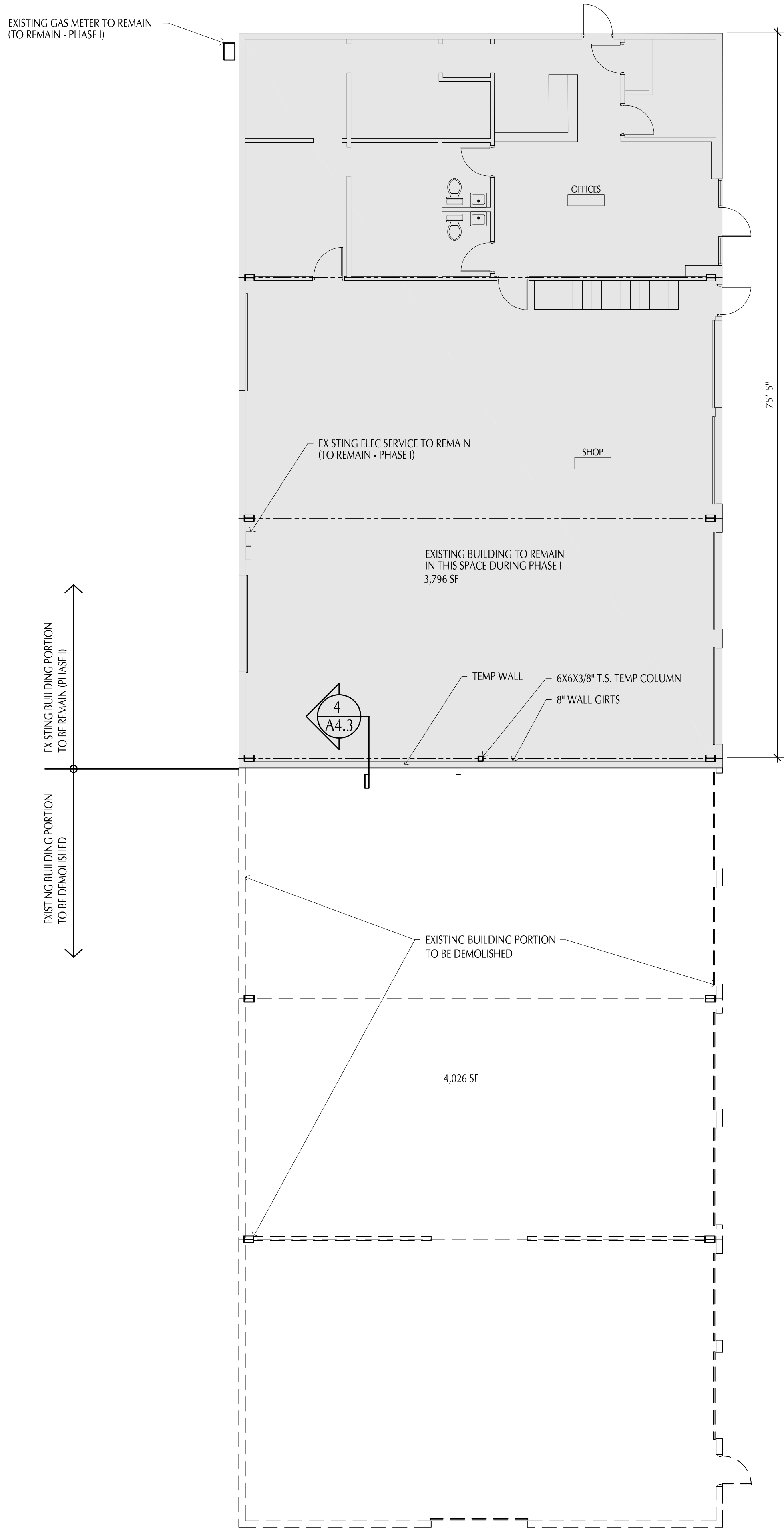


Scale 1" = 10'-0"

## SITE PLAN PHASES

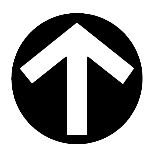
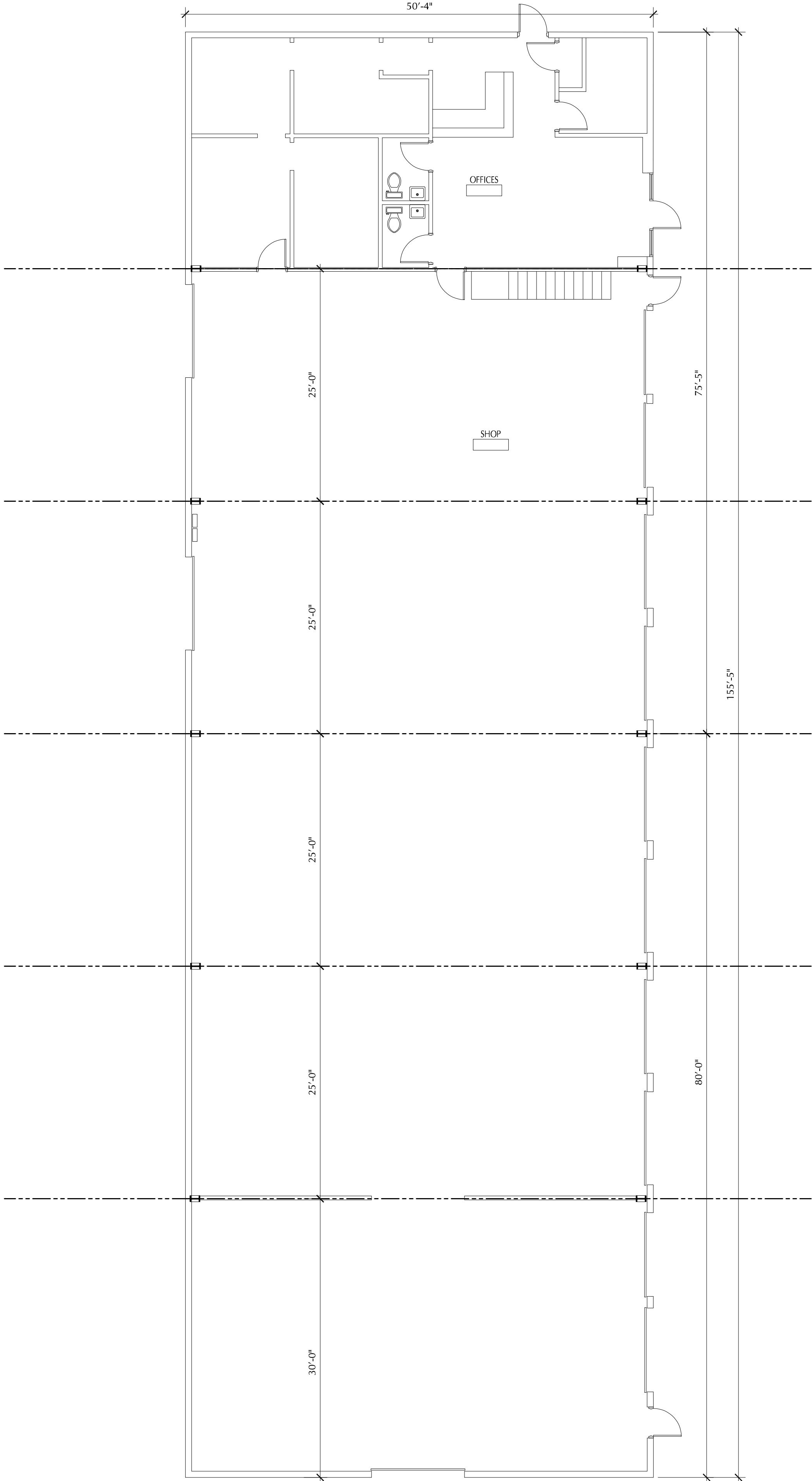


Oct 11, 2021 -- 9:56am -- USER ChrisB  
T:\Rose\Drawings-Current\21009 Crash Champions Lee's Summit\Production\Planning & Zoning\Architectural\D1.0 EXISTING FLOOR PLAN.dwg  
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PHASE ONE DEMOLITION FLOOR PLAN 2

Scale 1/8" = 1'-0"



EXISTING FLOOR PLAN 1

7,822 SF

Scale 1/8" = 1'-0"

PLAN NOTES

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Christopher R. Bell



10/04/2021

CHRISTOPHER R. BELL - ARCHITECT  
NOV. 24-2025



ARCHITECTS ■ PLANNERS

A Division of Rose Design Build

913-782-0777 FAX: 913-782-0998  
P.O. BOX 100 OLATHE, KS 66051

MISSOURI STATE CERTIFICATE OF AUTHORITY # 2008034845 www.BuildWithRose.com



PROPOSED BUILDING FOR:  
**CRASH CHAMPIONS**  
451 SE OLDHAM PARKWAY  
LEE'S SUMMIT, MISSOURI

NO.	DESCRIPTION	DATE

PROJECT NUMBER 21009  
DATE ISSUED: 10 / 04 / 21

SHEET NUMBER

D1.0

DEMOLITION  
FLOOR PLAN



Oct 11, 2021 - 9:58am - USER ChrisB



1

## WALL TYPES

- |   |                                                                                                                      |
|---|----------------------------------------------------------------------------------------------------------------------|
| D | 5/8" GYP BD ON 6" GA. METAL STUDS 16" O.C. W/ SOUND ATTENUATION INSULATION TO STRUCTURE ABOVE                        |
| E | 5/8" GYP BD (ONE SIDE ONLY) ON 3 5/8" 20 GA. METAL STUDS @ 16" O.C. TO 12" O.A.F.F.                                  |
| F | 5/8" GYP BD (ONE SIDE ONLY) ON 3 5/8" 20 GA. METAL STUDS @ 16" O.C. TO 15" O.A.F.F.                                  |
| G | 5/8" SOUND REDUCTION GYP BD ON 3 5/8" 20 GA. METAL STUDS 16" O.C. W/ SOUND ATTENUATION INSULATION TO STRUCTURE ABOVE |
| H | 5/8" GYP BD ON 3 5/8" 20 GA. METAL STUDS @ 16" O.C. TO 3'-6" A.F.F. W/ P.I.LAM CAP                                   |

10/04/2021

913-782-0777 FAX: 913-782-0998  
P.O. BOX 100 OLATHE, KS 66051

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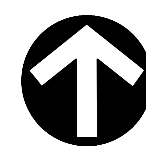
MISSOURI STATE CERTIFICATE OF [www.BuildWithRose.com](http://www.BuildWithRose.com)  
AUTHORITY # 2008034845



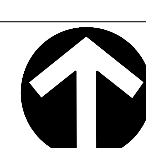
**LEE'S SUMMIT, MISSOURI**

## FLOOR PLAN





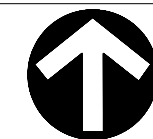
4,400 S.F.      Scale 1/8" = 1'-0"



5,375 S.F.      Scale 1/8" = 1'-0"

## FLOOR PLAN PHASES





# ROOF PLAN 1

Scale 1/8" = 1'-0"

Scale 1/8" = 1'-0"

## PLAN NOTES

RIGID FOAM INSULATION BOARD SPEC:  
GAF  
ENERGYGUARD, 25 PSI  
POLYISO INSULATION  
GLASS FIBER-REINFORCED CELLULSIC  
FELT FACERS  
OR APPROVED EQUAL

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\_\_\_\_\_  
er R. Bell

STATE OF MISSOURI  
REGISTERED ARCHITECT

CHRISTOPHER A. BELL  
A-6275  
NUMBER  
A-6275

10/04/2021

CHRISTOPHER A. BELL - ARCHITECT  
MO# A-6275

10/04/2021

CHRISTOPHER R. BELL - ARCHITECT  
MO# A-6275



**ROSE**  
DESIGN GROUP INC.

ARCHITECTS ■ PLANNERS

A Division of Rose Design Build

913-782-0777 FAX: 913-782-0998  
P.O. BOX 100 OLATHE, KS 66051

MISSOURI STATE CERTIFICATE OF AUTHORITY # 2008034845 [www.BuildWithRose.com](http://www.BuildWithRose.com)



**PROPOSED BUILDING FOR:  
CRASH CHAMPIONS  
451 SE OLDHAM PARKWAY  
LEE'S SUMMIT, MISSOURI**

[illegible]

PROJECT NUMBER	21009
DATE ISSUED:	10 / 04 / 21

SHEET NUMBER

# A2.2

## ROOF PLAN



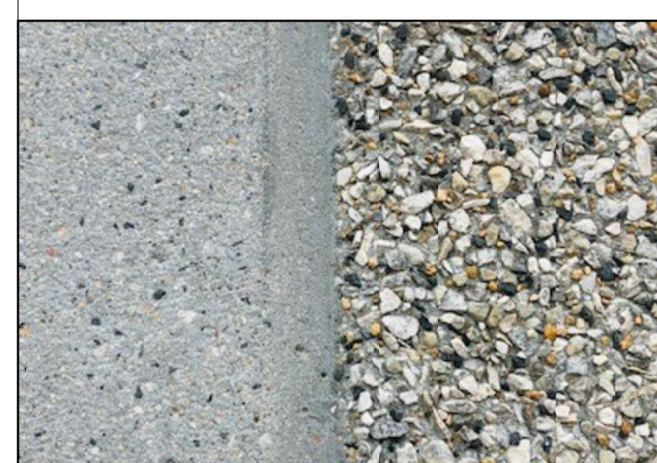
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## PLAN NOTES



EXPOSED AGGREGATE  
OMEGA CONCRETE PRECAST INSULATED WALL PANEL  
COLOR: BLACK GRANITE



SANDBLAST

EXPOSED AGGREGATE  
OMEGA CONCRETE PRECAST INSULATED WALL PANEL  
COLOR: GREY



UTILITY SIZE THINBRICK  
ENDICOTT BRICK COMAPNY  
VC8 - GLAZED BLACK  
VELOUR TEXTURE

- NOTES:  
1. PAINT EXTERIOR SIDE OF OVERHEAD SECTIONAL DOORS ONLY, MATCH COLOR OF PRECAST  
2. PAINT EXTERIOR H.M. DOORS AND FRAMES MATCH COLOR OF PRECAST

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Christopher R. Bell  
STATE OF MISSOURI  
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NUMBER  
A-6275  
10/04/2021  
CHRISTOPHER R. BELL - ARCHITECT  
NOV A-6275

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PROPOSED BUILDING FOR:  
**CRASH CHAMPIONS**  
451 SE OLDHAM PARKWAY  
LEE'S SUMMIT, MISSOURI

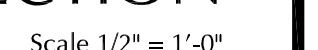
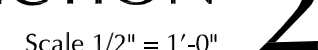
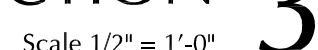
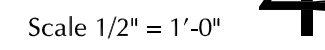
NO.	DESCRIPTION	DATE

PROJECT NUMBER 21009  
DATE ISSUED: 10 / 04 / 21

SHEET NUMBER  
**A3.0**

BUILDING ELEVATIONS






## PLAN NOTES

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\_\_\_\_\_  
Christopher R. Bell



10/04/2002

CHRISTOPHER R. BELL - ARCHITECT  
307-645-1100



**ROSE**  
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ARCHITECTS ■ PLANNERS

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913-782-0777      FAX: 913-782-0998

MISSOURI STATE CERTIFICATE OF AUTHORITY # 2008034845 www.BuildWithRose.com



**PROPOSED BUILDING FOR:  
CRASH CHAMPIONS  
451 SE OLDHAM PARKWAY  
LEE'S SUMMIT, MISSOURI**

[illegible]

PROJECT NUMBER	21009
DATE ISSUED:	10 / 04 / 21

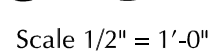
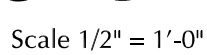
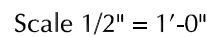
SHEET NUMBER

# A4.0

WALL SECTIONS



Oct 01, 2021 - 4:12pm - USER ChrisB  
T:\Rose\Drawings-Current\21009 Crash C



Scale 1 1/2" = 1'-0"

## PLAN NOTES

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R. Bell

STATE OF MISSOURI  
 CHRISTOPHER R. BELL  
 LICENSE NUMBER  
 A-6275  
 REGISTERED ARCHITECT

10/04/2021

CHRISTOPHER R. BELL - ARCHITECT  
 MOf A-6275

The logo for Rose Design Group Inc. features the word "ROSE" in large, bold, red capital letters with a white outline. Below it, the words "DESIGN GROUP" are in a smaller, grey sans-serif font, followed by "INC." in a smaller red font.

ARCHITECTS ■ PLANNERS

A Division of Rose Design Build

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**PROPOSED BUILDING FOR:  
CRASH CHAMPIONS  
451 SE OLDHAM PARKWAY  
LEE'S SUMMIT, MISSOURI**

[illegible]

PROJECT NUMBER	2100
DATE ISSUED:	10 / 04 / 2010

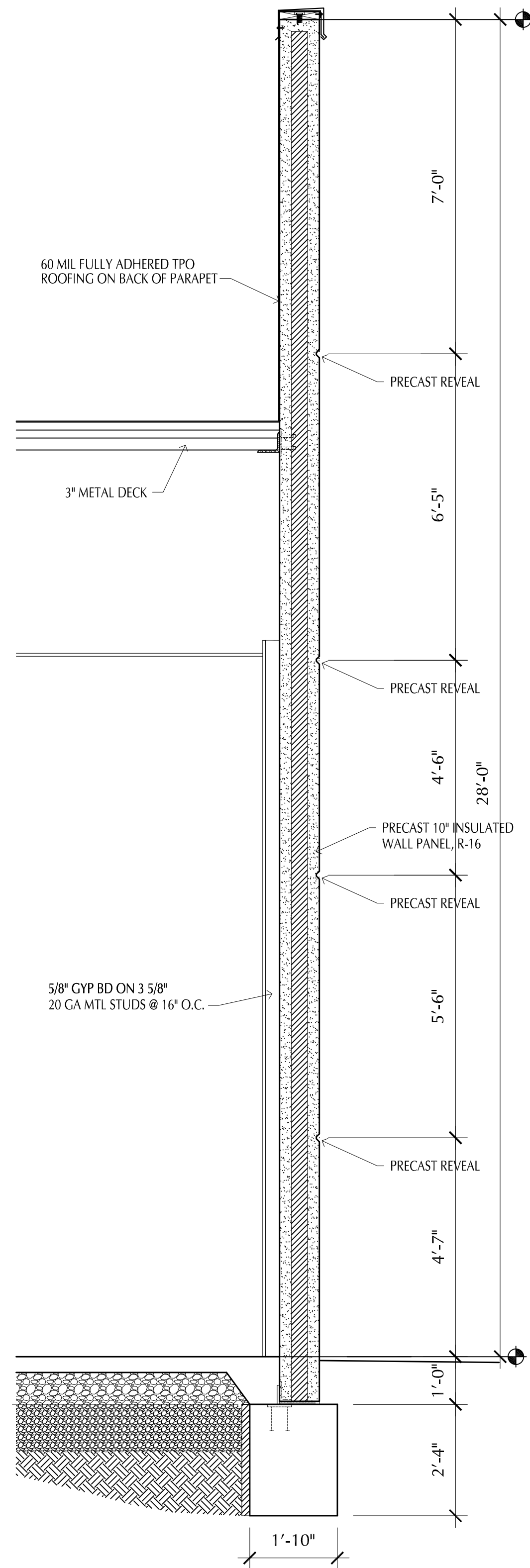
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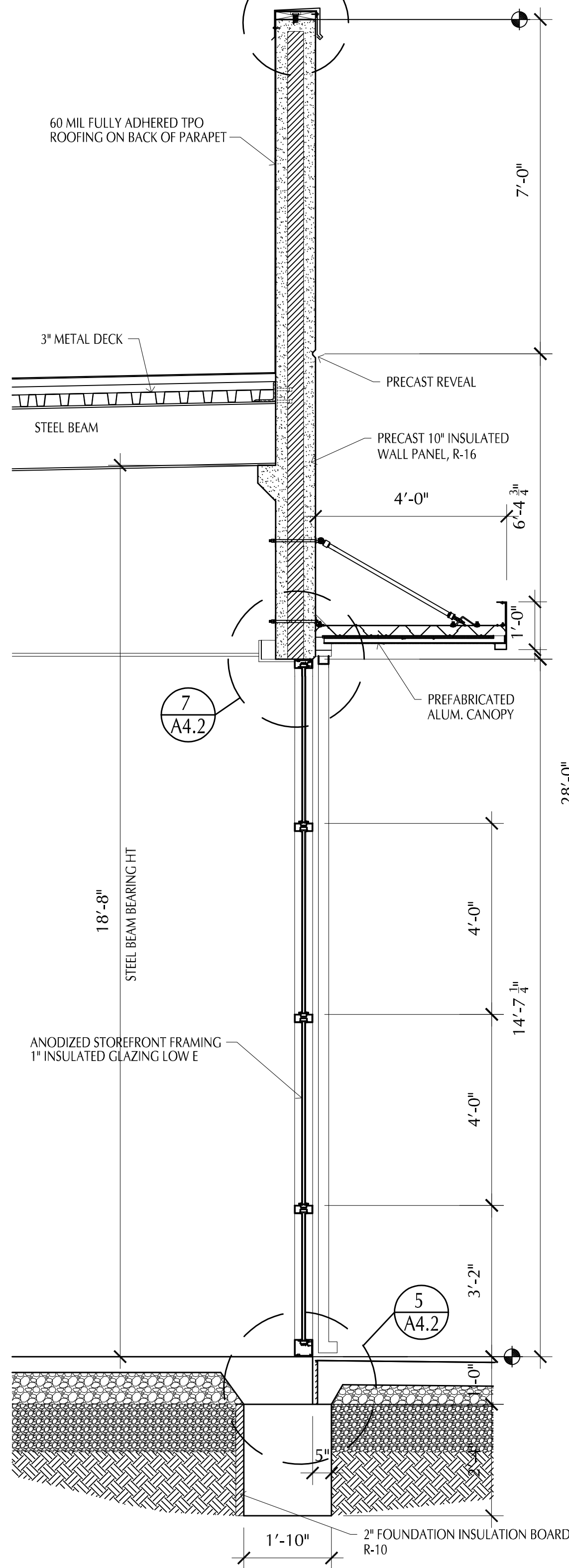
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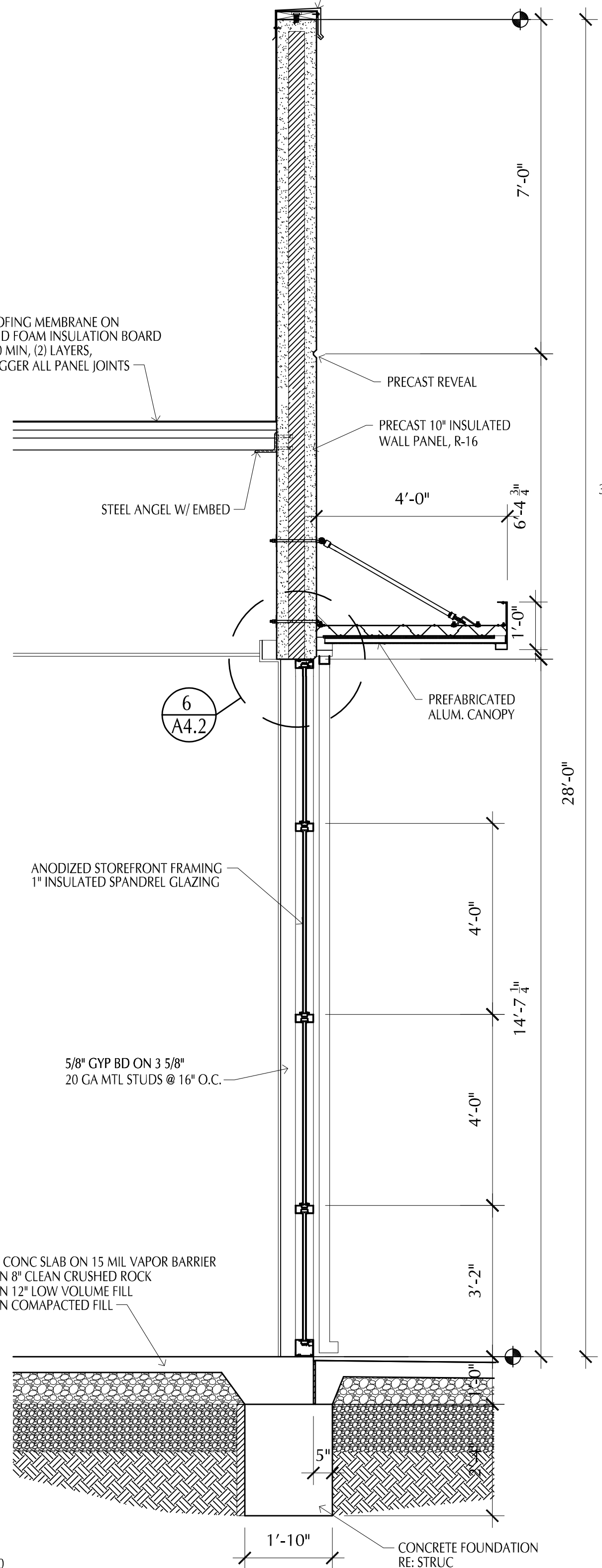
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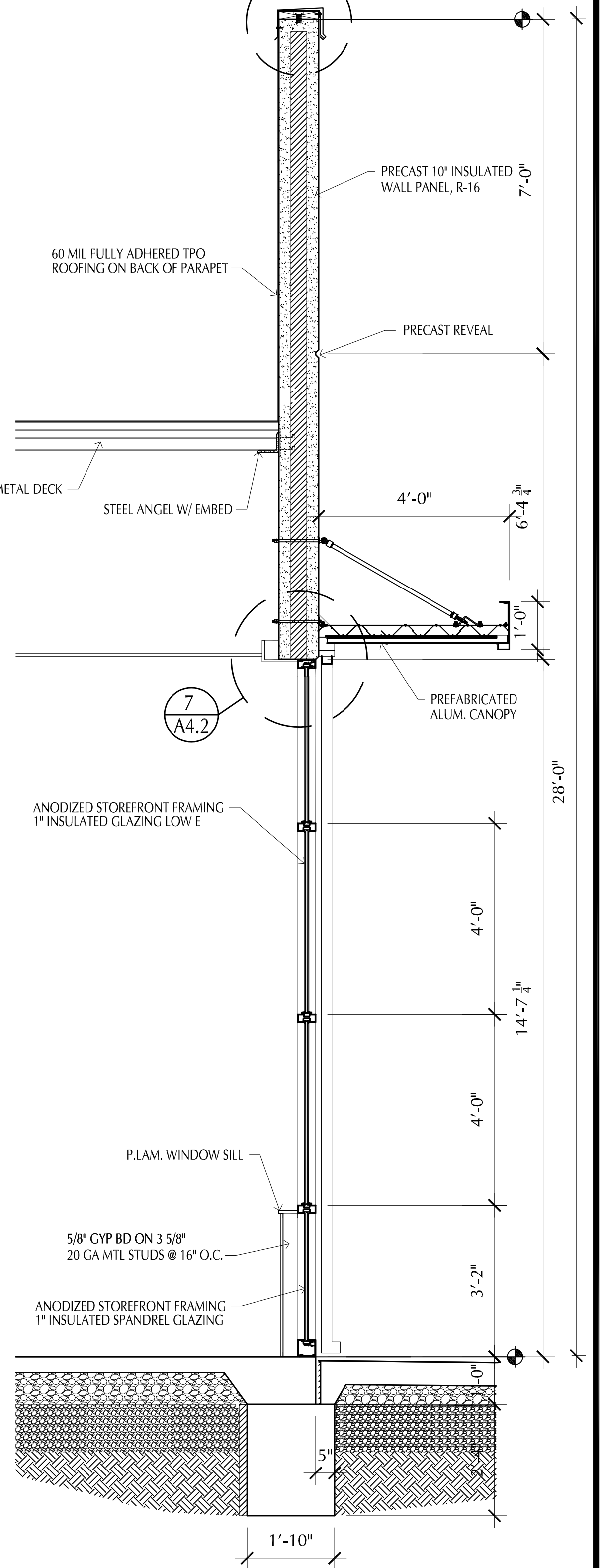
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Scale 1/2" = 1'-0"



WALL SECTION 3  
Scale 1/2" = 1'-0"



WALL SECTION 2  
Scale 1/2" = 1'-0"



WALL SECTION 1  
Scale 1/2" = 1'-0"

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

SECTION DETAILS 6  
Scale 1 1/2" = 1'-0"

SECTION DETAILS 5  
Scale 1 1/2" = 1'-0"

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Christopher R. Bell  
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10/04/2021  
CHRISTOPHER R. BELL - ARCHITECT  
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P.O. BOX 100 OLATHE, KS 66051  
MISSOURI STATE CERTIFICATE OF AUTHORITY # 2008034845 www.BuildWithRose.com

**CRASH CHAMPIONS**  
COLLISION REPAIR TEAM

PROPOSED BUILDING FOR:  
**CRASH CHAMPIONS**  
451 SE OLDHAM PARKWAY  
LEE'S SUMMIT, MISSOURI

NO.	DESCRIPTION	DATE

PROJECT NUMBER 21009  
DATE ISSUED: 10 / 04 / 21  
SHEET NUMBER

**A4.2**

WALL SECTIONS



Oct 15, 2021 - 12:20pm - USER ChrisB



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CHRISTOPHER R. BELL

STATE OF MISSOURI  
CHRISTOPHER R. BELL  
NUMBER  
A-6275  
REGISTERED ARCHITECT

10/04/2021

CHRISTOPHER R. BELL - ARCHITECT  
MO# A-6275

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**DESIGN GROUP INC.**

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AUTHORITY # 2008034845 [www.builtbythRose.com](http://www.builtbythRose.com)



**PROPOSED BUILDING FOR:  
CRASH CHAMPIONS  
451 SE OLDHAM PARKWAY  
LEE'S SUMMIT, MISSOURI**

[illegible]

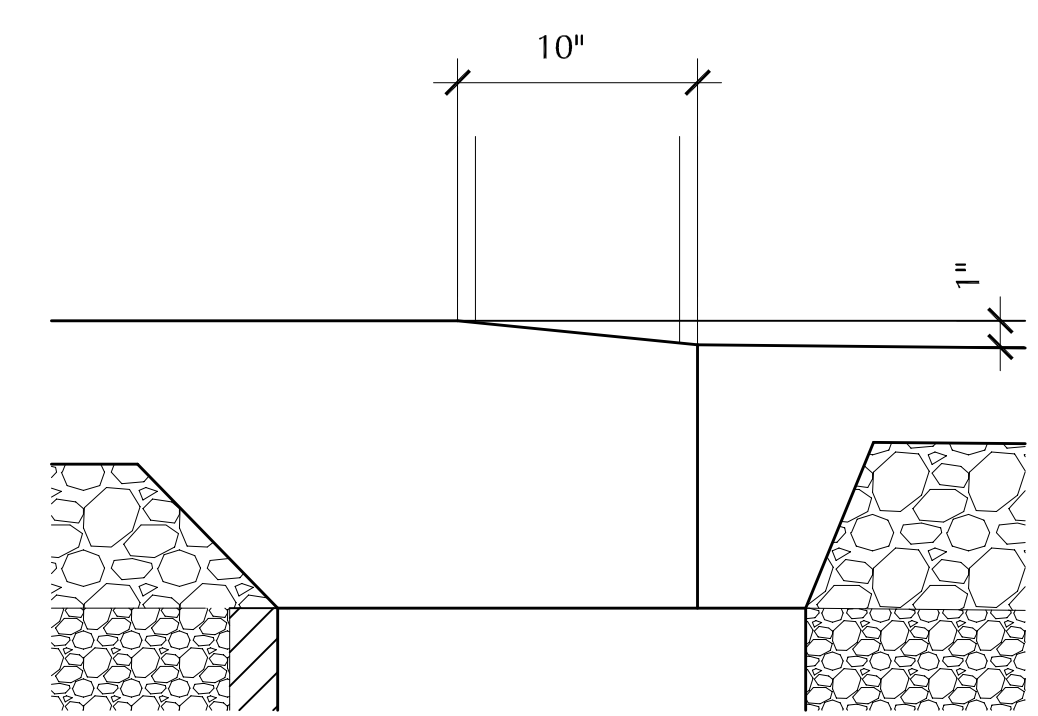
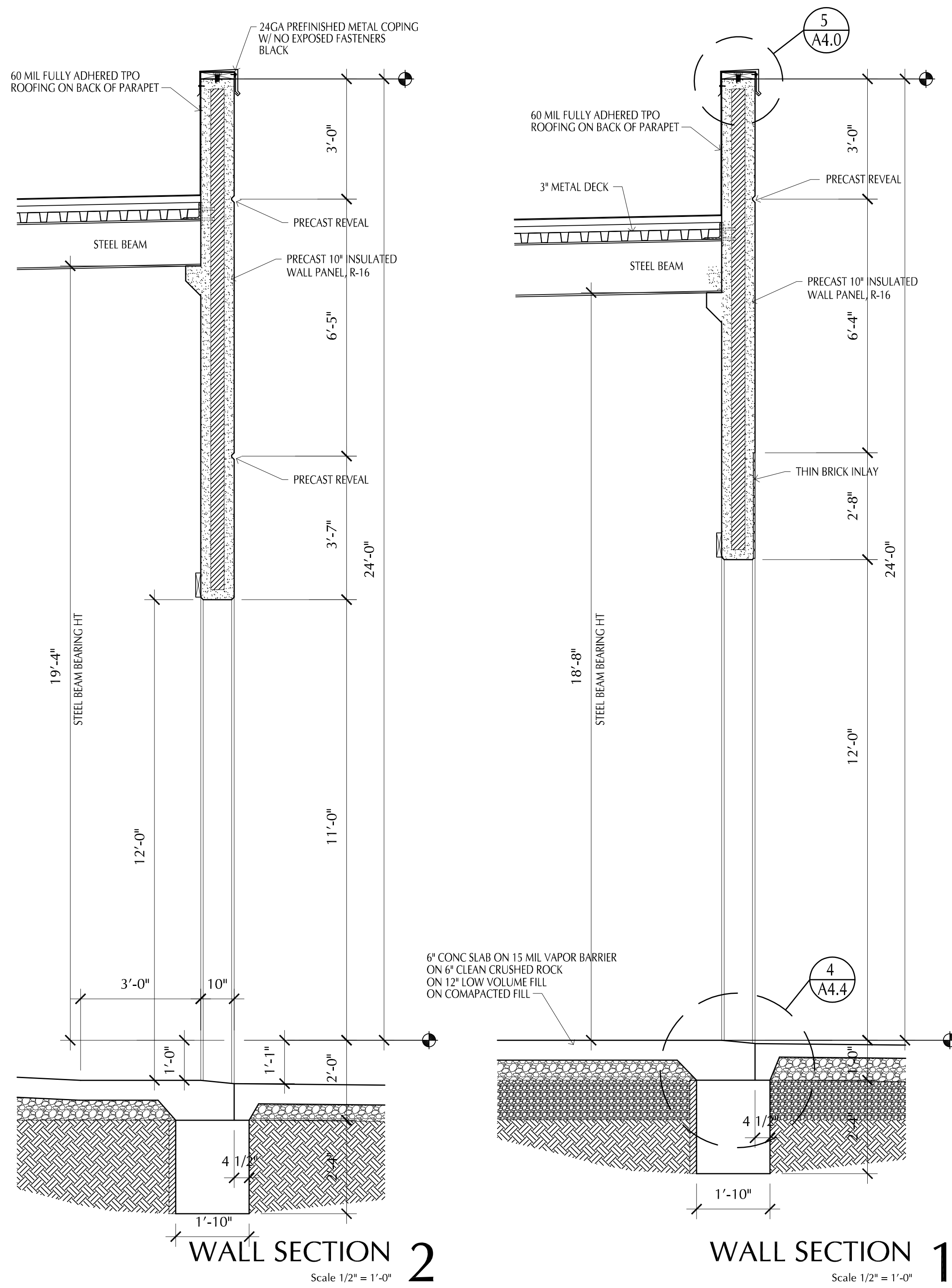
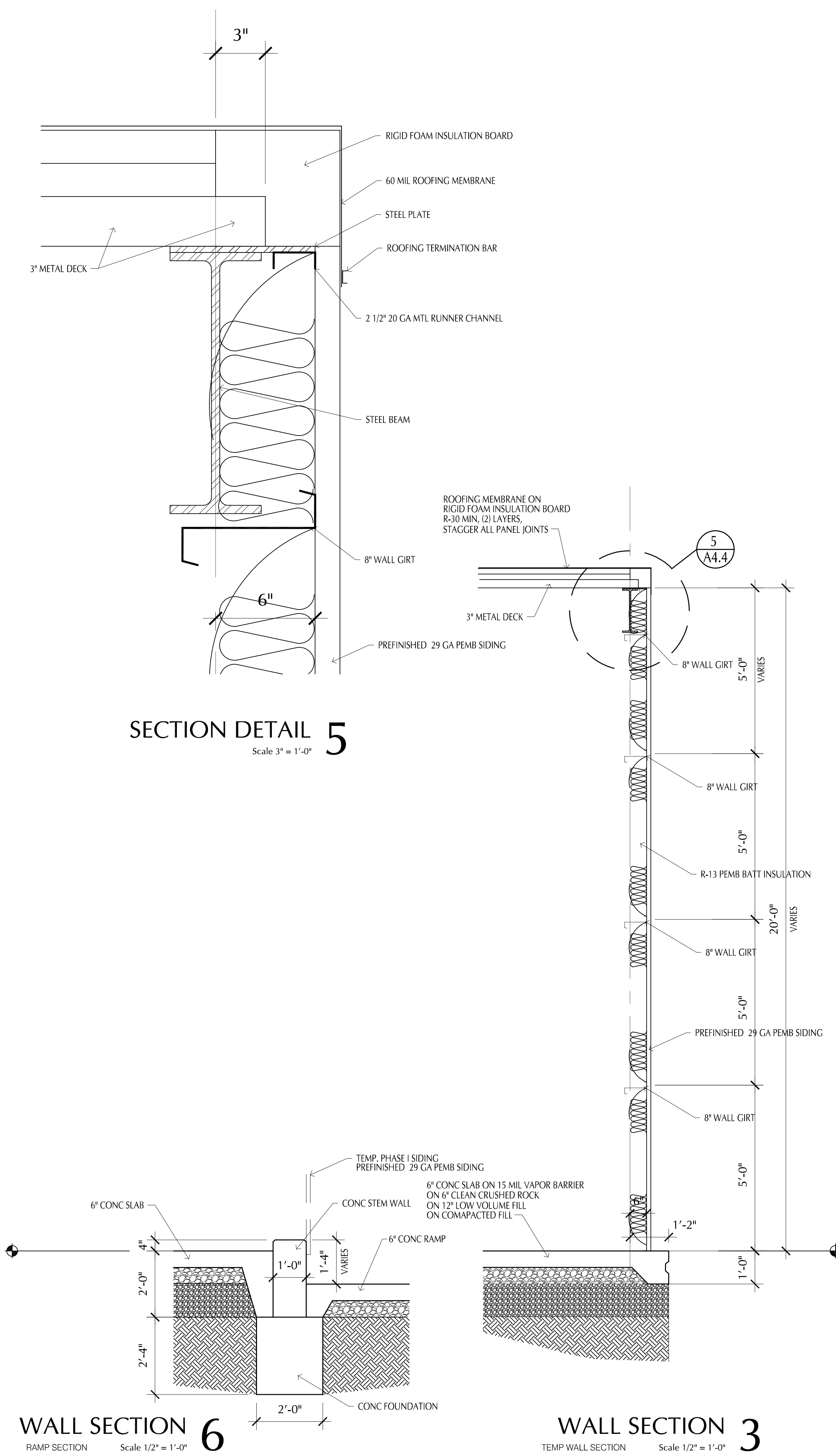
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DATE ISSUED:	10 / 04 / 21
SHEET NUMBER	

**A4.3**

WALL SECTIONS



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10/04/2021  
CHRISTOPHER R. BELL - ARCHITECT  
A-6275

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**PROPOSED BUILDING FOR:**  
**CRASH CHAMPIONS**  
451 SE OLDHAM PARKWAY  
LEE'S SUMMIT, MISSOURI

NO.	DESCRIPTION	DATE

PROJECT NUMBER 21009  
DATE ISSUED: 10 / 04 / 21  
SHEET NUMBER

# A4.4

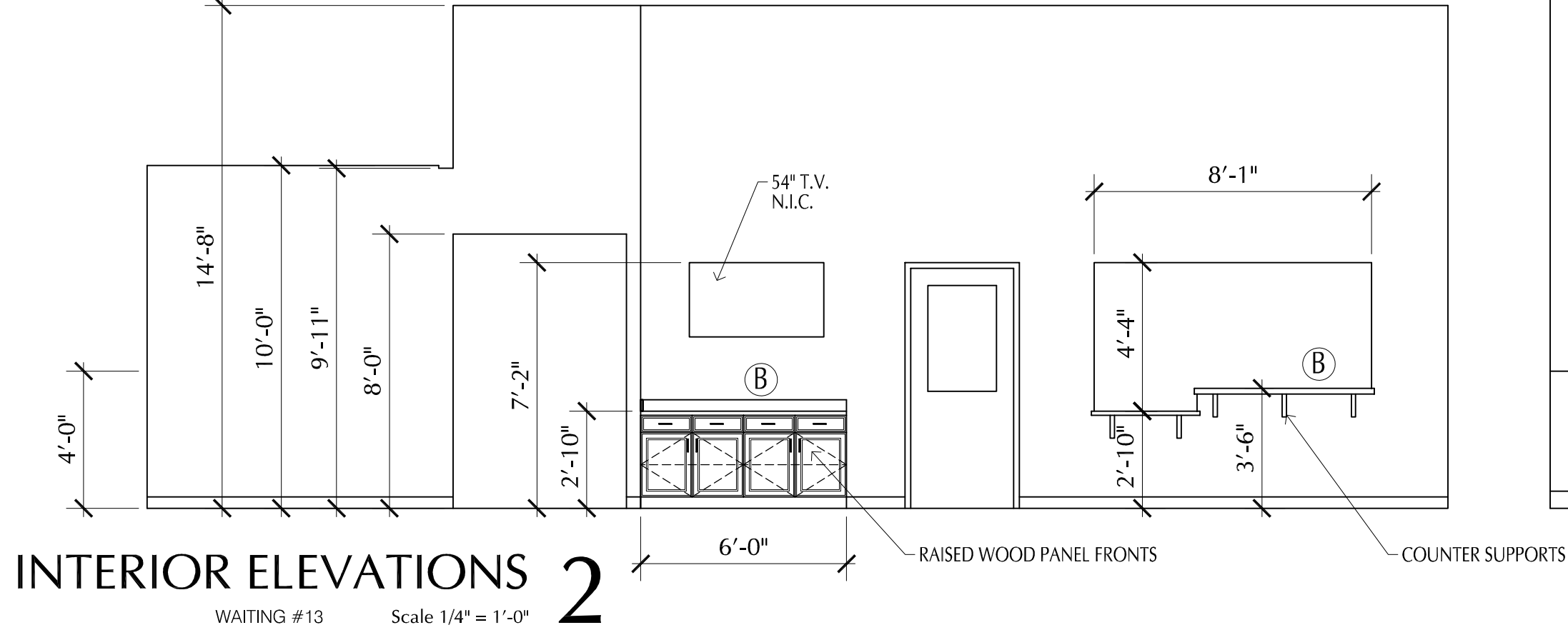
WALL SECTIONS



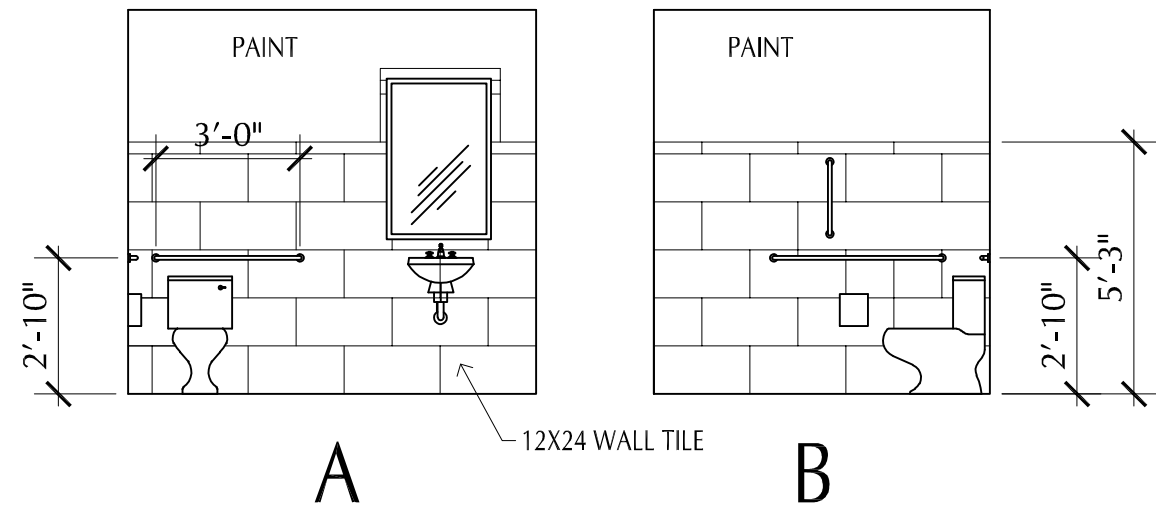




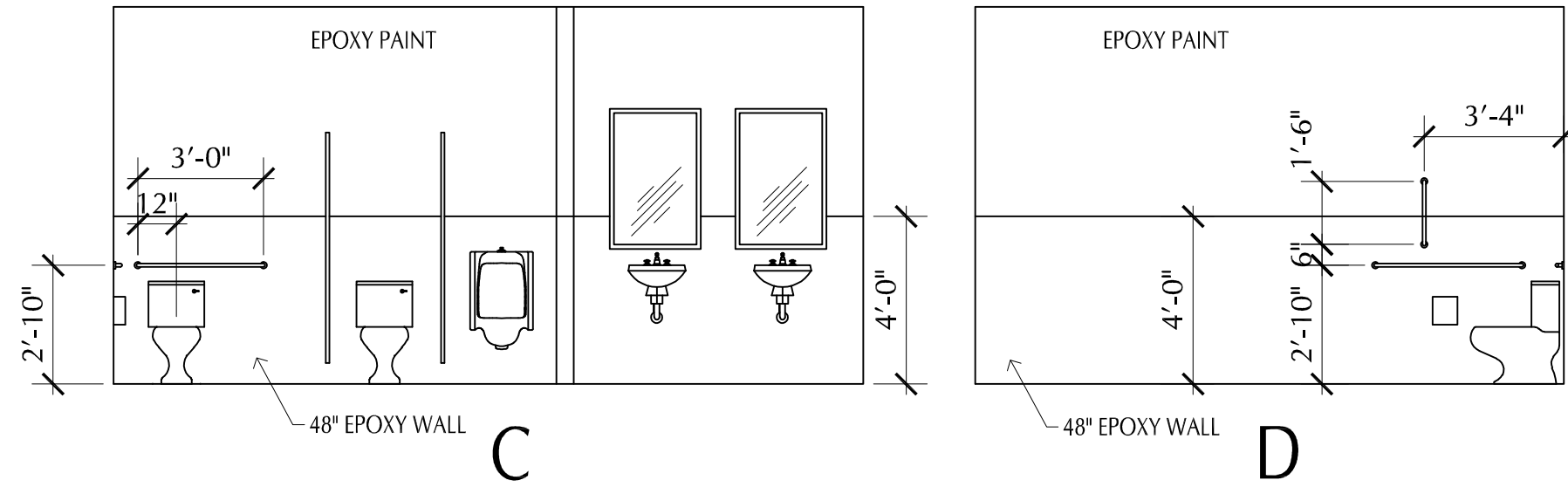
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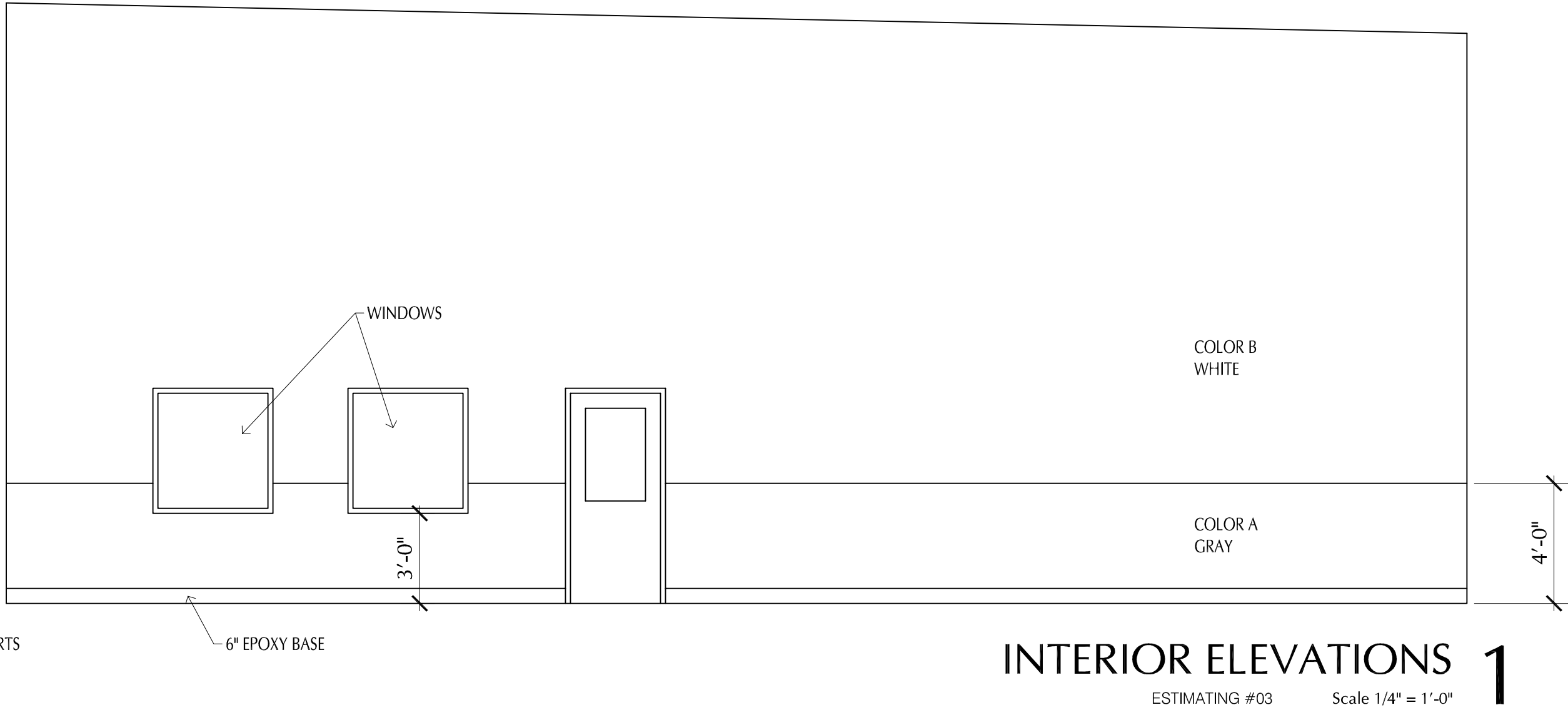
INTERIOR ELEVATIONS 2  
WAITING #13 Scale 1/4" = 1'-0"



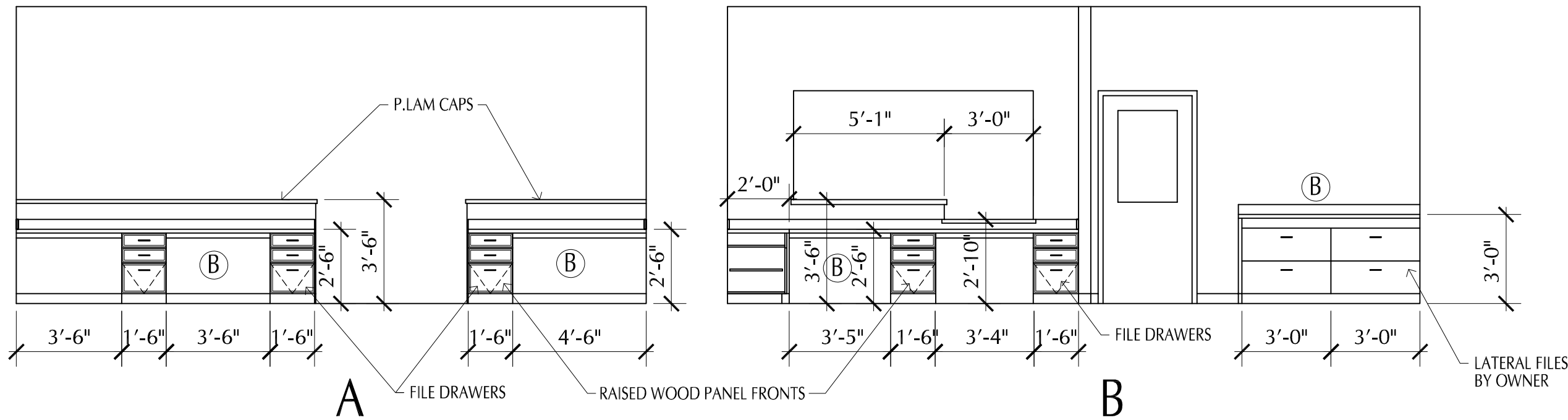
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MEN'S & WOMEN'S #07 & 08 Scale 1/4" = 1'-0"



INTERIOR ELEVATIONS 4  
SHOP RESTROOM #11 Scale 1/4" = 1'-0"



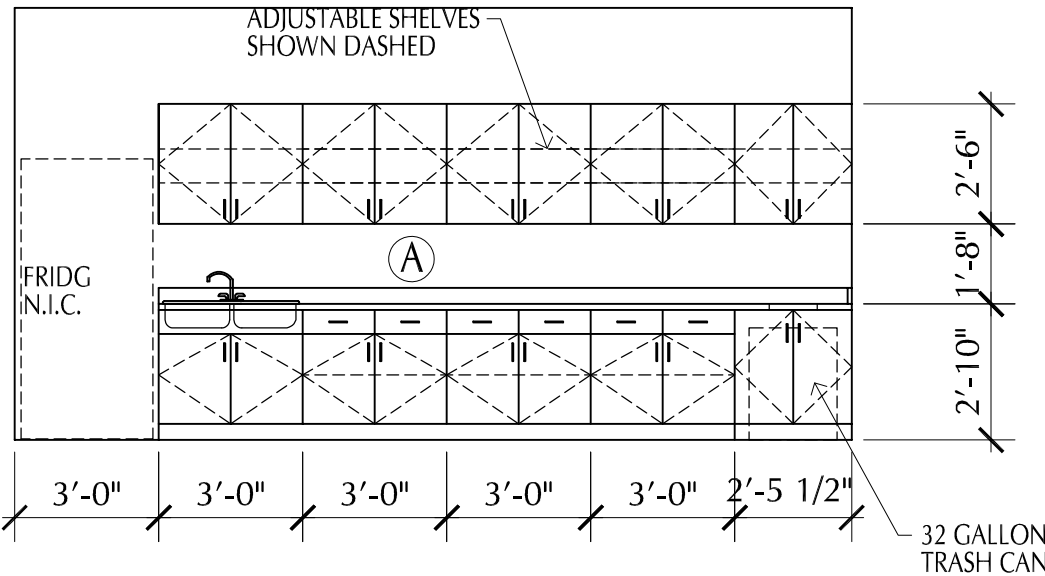
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ESTIMATING #03 Scale 1/4" = 1'-0"



INTERIOR ELEVATIONS 6  
SALES #12 Scale 1/4" = 1'-0"



INTERIOR ELEVATIONS 7  
TYP. SHOP #02 ELEVATION Scale 1/4" = 1'-0"



INTERIOR ELEVATIONS 3  
BREAK ROOM #04 Scale 1/4" = 1'-0"

## PLAN NOTES

- TOILET ACCESSORIES (BOBRICK) SPECS:
1. HAND DRYER, B-7128, SURFACE MOUNTED, 2 TOTAL
  2. CHANNEL-FRAME MIRRORS
  3. GRAB BARS: 1.5" DIA 18 GA TYPE 304 STAINLESS STEEL
  4. TOILET PARTITIONS: COMPACT LAMINATE DURALINE SERIES 1080, FLOOR ANCHORED, W/ STANDARD CONCEALED STAINLESS STEEL HARDWARE

- NOTES:
1. OWNER TO PROVIDE ALL SOAP & PAPER TOWEL DISPENSERS FOR RESTROOMS
  2. PROVIDE WOOD BLOCKING IN WALLS FOR ALL RESTROOM GRAB BARS & ACCESSORIES
  3. PROVIDE INSULATION WRAPS / COVERS FOR ALL EXPOSED LAVATORY WATER & DRAIN LINES

### MILLWORK SPECIFICATIONS LISTINGS

- (A) TOPS & BACKSPLASH: P.LAM, WILSONART PEARL SOAPSTONE WILSONART PEARL SOAPSTONE 4886  
FRONTS: P.LAM, WILSONART NIGHT FALL 5023  
INTERIOR: WHITE MELLAMINE  
PULLS: HANDEL PULL, BRUSH SATIN NICHOL  
HINGES: CONCEALED, STANDARD GRADE  
GLIDES: STANDARD BALL BEARING

- (B) TOPS & BACKSPLASH: FORMICA MINERAL JETT#3450-58MATTE FRONTS: P.LAM, WOOD BIRCH, STAINED TO MATCH DOORS  
INTERIOR: WHITE MELLAMINE  
PULLS: HANDEL PULL, BRUSH SATIN NICHOL  
HINGES: CONCEALED, STANDARD GRADE  
GLIDES: STANDARD BALL BEARING

- NOTES:
1. PROVIDE WOOD BACKING IN WALLS FOR ATTACHMENT OF ALL LOWER & UPPER CABINETS

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Christopher R. Bell

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**CRASH CHAMPIONS**  
COLLISION REPAIR TEAM

PROPOSED BUILDING FOR:

**CRASH CHAMPIONS**

451 SE OLDHAM PARKWAY  
LEE'S SUMMIT, MISSOURI

NO.	DESCRIPTION	DATE

PROJECT NUMBER 21009  
DATE ISSUED: 10 / 04 / 21

SHEET NUMBER  
**A5.1**

INTERIOR  
ELEVATIONS



Sep 29, 2021 - 2:30pm - USER ged  
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IT:\V0-S\VC\Projects\VR02112 - Lee's Summit\CRASH Champions - Lee's Summit\VR02112 Dwg\VS-1.dwg  
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## GENERAL NOTES - STRUCTURAL

- The contractor shall verify dimensions and conditions before construction and notify the engineer of any discrepancies, inconsistencies, or difficulties affecting the work before proceeding.
- 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. Conflicts, inconsistencies, or other difficulties affecting structural work shall be called to the architect or engineer's attention for direction before proceeding.

- All design and construction work for this project shall conform to the requirements of the 2018 International Building Code, as amended by the City of Lee's Summit, Mo.

- These drawings are for this specific project and no other use is authorized.

### Structural Design Load Criteria:

- Roof Live= 20psf
- Snow = Pg + 20psf, Ps=14psf, Is = I.O  
G=1.0, C1=1.0, D=1.0 per ASCE/SEI T-10
- Lateral Loads:
  - Wind V = 115 mph Exposure 'C'  
Occupancy [Risk] Category II, Iw=I.O  
Gcpi=I.O.B  
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 301.2 and Table 301.2-2 of ASCE/SEI T-10. Tabulated pressures shall be multiplied by effective area reduction factors, exposure adjustment factors, and topographic factors where applicable.
  - Seismic: Ss = 0.12, S1 = 0.065  
Occupancy [Risk] Category II, Ie = I.O,  
Site Classification C, Sds = 0.04, Sdi = 0.014  
Seismic Design Category:  
Basic Seismic Force-Resisting System:  
Precast Concrete Shear Walls
- This project is designed to resist the most critical effects resulting from the load combinations of section 1605.3 of the 2018 International Building Code.

### Concrete:

- All concrete for foundations (grade beams and footings) shall develop minimum ultimate compressive design strength of 5500 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.
- All concrete for interior flat work 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).
- 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.
- 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.
- 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.
- Combined aggregate (coarse plus fine) for all concrete shall be well graded from coarsest to finest with no more than 10 percent and not less than 0 percent retained on an individual sieve, except that less than 0 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.
- 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.
- 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 cross. Any details not shown shall be detailed per ACI 315 and meet requirements of ACI 318, current editions.
- Contractor shall verify that all concrete inserts, reinforcing and embedded items are correctly located and rigidly secured prior to concrete placement.
- No aluminum items shall be embedded in any concrete.

### Reinforcing Steel:

- All reinforcing steel shall conform to the requirements of ASTM A615 or A106 grade 60 steel. Welded plain wire fabric shall be supplied in sheets and conform to the requirements of ASTM A1064.
- Clear coverage of concrete over reinforcing steel shall be as follows:

Concrete placed against earth	3"
Formed concrete against earth	2"
Slabs	1"
Other	2"

All coverage shall be nominal bar diameter minimum.
- At corners of all grade beams supply corner bars (minimum 2'-6" in each direction or 40 bar diameters) in outside face of wall, matching size and spacing of horizontal bars.
- Bars marked continuous shall be lapped 40 bar diameters (2'-6" minimum) at splices, unless shown otherwise.
- 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.
- All slabs not shown otherwise shall be 6" thick with #4 bars at 12" on center each way.

### Structural Steel:

- All structural steel beams shall be ASTM A992, grade 50 steel and all miscellaneous steel shall be ASTM A36 grade steel. 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.
- All welding shall conform to the recommendations of the AWS.
- 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 Steel Construction Manual "Framed Beam Connections" for the indicated reactions or at least 0.4 x beam total shear capacity, whichever is greater, shown in the maximum total uniform load tables, whichever is greater, and shall account for eccentricity when the bolt line is more than 24" from the center of the

support. All connections must be two bolt minimum. The above loading information is given at the service-load level. Allowable Stress Design is to be used in the selection and completion of the connection design and details.

- 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.

### Post-Installed Anchors:

- 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 general contractor shall coordinate an on-site meeting with the post-installed anchor manufacturer field representative and subcontractor performing the anchor installation to educate the construction team on the anchor installation guidelines and requirements. The contractor shall send a record copy of the meeting minutes to the design team.
- Mechanical anchors used in cracked and uncracked concrete shall have been tested and qualified for use in accordance with ACI 308.2 and ICC-ES AC108. All anchors shall be installed per the anchor manufacturer's written instructions.
- 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.
- Adhesive anchors used in solid grouted masonry shall have been tested and qualified for use in accordance with ICC-ES AC508. All anchors shall be installed per the anchor manufacturer's written instructions.
- Anchors used in hollow concrete masonry shall have been tested and qualified in accordance with ICC-ES AC108 or ICC-ES AC508 as appropriate. All anchors shall be installed per the anchor manufacturer's written instructions with appropriate screen tubes used for adhesives.

### Foundations:

- Spread footings, grade beams, and retaining walls are designed to bear on engineered fill or undisturbed soil capable of safely sustaining 2000 psf.
- Contractor shall provide for dewatering at excavations from either surface water or seepage.
- 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.
- Moisture content in soils beneath building locations should not be allowed to change after foundation 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.

### Precast Concrete Members:

- The contractor/supplier is responsible for the design of all the precast members and connection between them and other structural members. Submit design calculations, sealed by an engineer licensed in the state of the project location, for review by the architect/engineer of record.
- All precast members are to be designed in accordance with ACI 318-14, 2018 IBC and other applicable codes, standards (see specs) and design criteria shown on design documents.
- Precast concrete members shall conform to the 2018 IBC for the required fire ratings (refer to architect's documents).
- All wall panels should be designed for building wind loads, seismic loads, gravity loads, and transmit these loads to the foundation through properly designed connections.
- Provide blockouts and openings for mechanical/electrical equipment. Refer to mechanical/electrical documents.
- Shop drawings shall be complete and shall include a layout plan, fabrication details, estimated camber, connection and anchorage details and member identification marks. Identification marks shall appear on manufactured units to facilitate correct field placement.

### Shop Drawing Review:

- 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.
- Prior to submittal of a shop drawing or any related material to Bob D. Campbell and Company, Inc., the GC shall:
  - 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.
  - Review and approve each submission.
  - Stamp each submission as approved.
- 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.
- 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.
  - Reinforcing steel shop drawings including erection drawings and bending details. Bar list will not be reviewed for correct quantities.
  - Structural steel shop drawings including erection drawings and piece details. Include 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.
  - Precast concrete shop drawings including erection drawings and connection details.
  - Precast concrete connection design calculations.
- 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 unrequired material or submissions without GC approval stamp.

### Statement of Structural Special Inspection:

- The structural design for this project is based on completion of special inspections during construction in accordance with section 1704 of the 2018 International Building Code. The owner shall employ one or more qualified special inspectors to provide the required special inspections.
- 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.
  - Shop Fabrication - structural steel per Section 1704.2.5 unless AISC certified shop
  - Shop Fabrication - precast concrete per Section 1704.2.5 unless PCI certified shop
  - Steel Construction per Section 1705.2 and the quality

assurance requirements of AISC 341 Chapter J (as referenced by AISC 360)

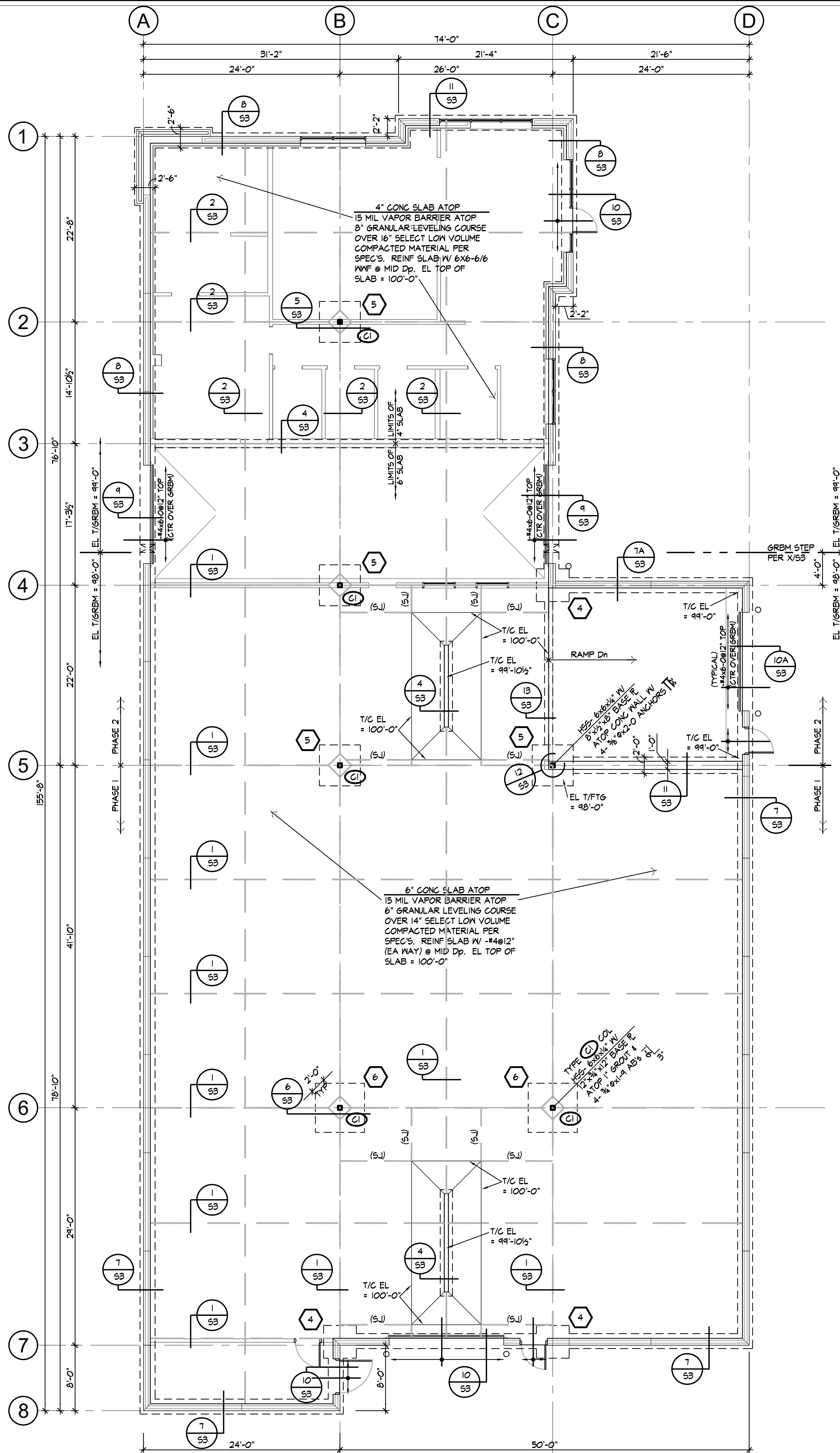
- Concrete Construction per Section 1705.3 and Table 1705.3
  - Reinforcing Steel Placement
  - Cast in Place Anchors
  - Post Installed Anchors
  - Design Mix Verification
  - Concrete Sampling and Testing
  - Erection of Precast
- Verification of Soils per Table 1705.6
- The special inspector shall furnish inspection reports to the building official, owner, architect and structural engineer, and any other designated person.
- 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.
- 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.

### Copyright and Disclaimer:

- 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.
- I, Michael J. Falba, 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.

FOOTING SCHEDULE		
FOOTING TYPE	FOOTING SIZE	REINFORCING (EA MAT) (BOT)
4	4'-0"x4'-0"x36"Dp	-#5@12"
5	5'-0"x5'-0"x18"Dp	-#4@6"
6	6'-0"x6'-0"x20"Dp	-#4@6"

NOTE: FOOTINGS ARE CENTERED ON COLUMN & (U.N.O.)



## FOUNDATION & FLOOR PLAN

1/8" = 1'-0"  
NOTE:  
1) REFER TO GENERAL NOTES ON THIS SHEET



# ROSE

DESIGN GROUP INC.

ARCHITECTS ■ PLANNERS

A Division of Rose Design Build

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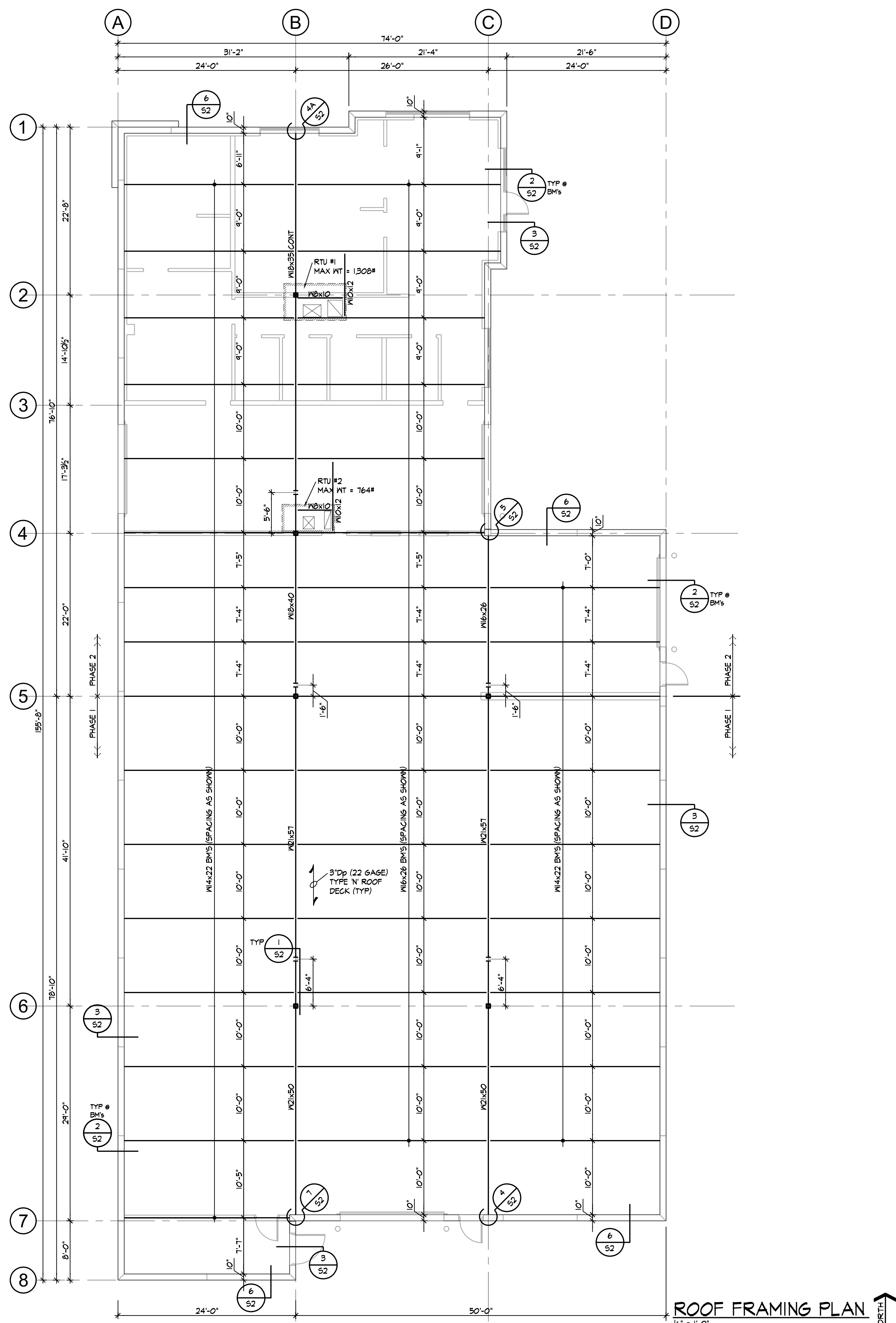
PROPOSED BUILDING FOR:  
**CRASH CHAMPIONS**  
451 SE OLDHAM PARKWAY  
LEE'S SUMMIT, MISSOURI

NO.	DESCRIPTION	DATE

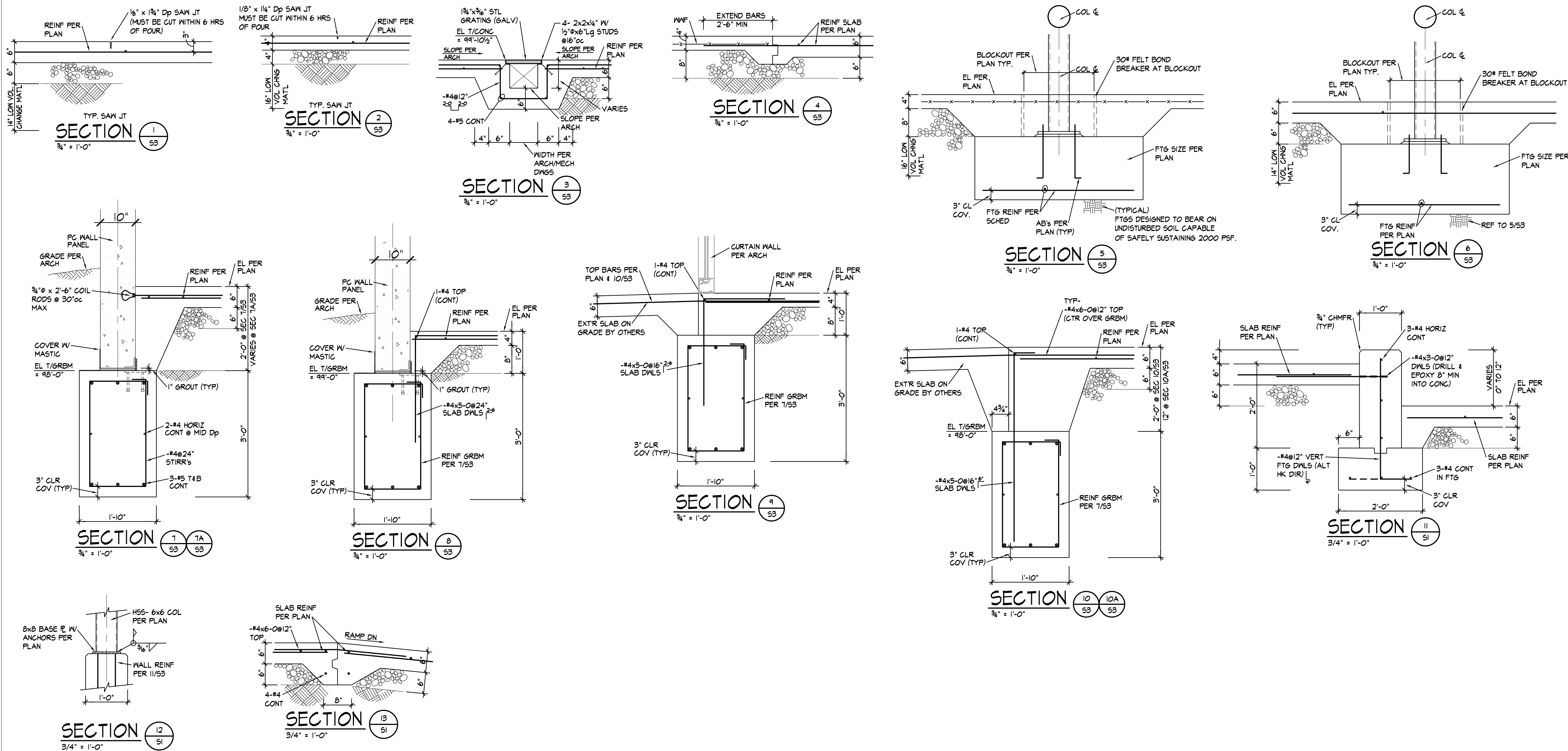
PROJECT NUMBER 21009  
DATE ISSUED: 09 / 29 / 21  
SHEET NUMBER

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PROPOSED BUILDING FOR:

CRASH CHAMPIONS

451 SE OLDHAM PARKWAY

LEE'S SUMMIT, MISSOURI

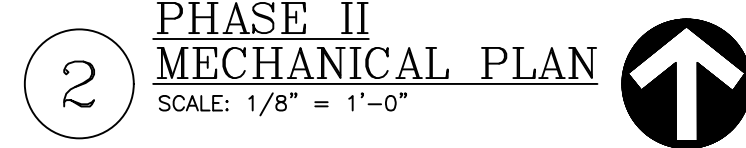
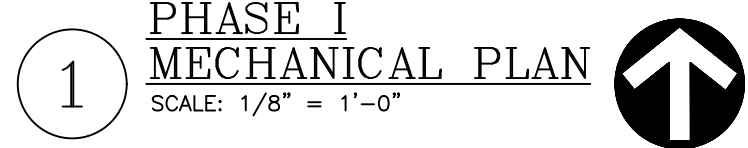
NO.	DESCRIPTION	DATE

PROJECT NUMBER 21009  
DATE ISSUED: 09 / 29 / 21  
SHEET NUMBER

S3



Oct 22, 2021 - 1:15am - USER Scott Groshans



**5BY5**  
**ENGINEERS**

**PROPOSED BUILDING FOR:  
CRASH CHAMPIONS  
451 SE OLDHAM PARKWAY  
LEE'S SUMMIT, MISSOURI**

PROJECT NUMBER	21009
DATE ISSUED:	10 / 22 / 21
SHEET NUMBER	

# M1.0

MECHANICAL PLANS



SCOTT D. GROSHANS  
LICENSE # PE-2019012798

10/22/2021

The logo for Rose Design Group Inc. features the word "ROSE" in large, bold, red capital letters with a white outline. Below it, the words "DESIGN GROUP" are written in a smaller, grey, sans-serif font, followed by "INC." in a smaller red font. The entire logo is set against a white background.

ARCHITECTS ■ PLANNERS

A Division of Rose Design Build

913-782-0777 FAX: 913-782-0998  
P.O. BOX 100 OLATHE, KS 66051

MISSOURI STATE CERTIFICATE OF AUTHORITY # 2008034845 [www.BuildWithRose.com](http://www.BuildWithRose.com)





Oct 22, 2021 -- 1:15am -- USER Scott Groshans  
C:\Users\Scott Groshans\Dropbox (5by5 Engineers)\5BY5 ACTIVE PROJECTS\202100051 Crash Champions Lee Summit -- Rose\Rose-CAN\202100051 MECH.dwg  
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LINETYPES LEGEND:

- NEW
- NEW -- ON ROOF
- EXISTING
- EXISTING -- ON ROOF
- DEMOLITION

DUCTWORK LEGEND:

- DUCT (SINGLE LINE)
- DUCT (DOUBLE LINE)
- ROUND O/A OR S/A DOWN
- ROUND O/A OR S/A UP
- ROUND E/A OR R/A DOWN
- ROUND E/A OR R/A UP
- RECTANGULAR O/A OR S/A DOWN
- RECTANGULAR O/A OR S/A UP
- RECTANGULAR E/A OR R/A DOWN
- RECTANGULAR E/A OR R/A UP
- O/A OR S/A DIFFUSER
- E/A OR R/A GRILLE

- AIR DEVICE WITH FLEX DUCT CONNECTION
- AIR DEVICE WITH HARD DUCT CONNECTION
- FLEXIBLE CONNECTION TO EQUIPMENT
- DUCT BREAK/CONTINUATION
- MANUAL BALANCING DAMPER
- MOTOR--OPERATED DAMPER
- BACKDRAFT DAMPER
- FIRE DAMPER
- FIRE/SMOKE DAMPER
- SMOKE DAMPER
- THERMOSTAT

ANNOTATION LEGEND:

- ABC-1 EQUIPMENT / FIXTURE TAG
- PLAN NOTE
- CONNECT TO EXISTING
- AIR FLOW DIRECTION
- G/R/D TAG
- NECK SIZE
- AIR FLOW (CFM)

ABBREVIATIONS LEGEND:

- AFF ABOVE FINISHED FLOOR
- APD AIR PRESSURE DROP
- BOD BOTTOM OF DUCT
- BOP BOTTOM OF PIPE
- CAV CONSTANT AIR VOLUME
- CFM CUBIC FEET PER MINUTE
- CU CONDENSING UNIT
- EA EXHAUST AIR
- EAT ENTERING AIR TEMPERATURE
- EF EXHAUST FAN
- EG EXHAUST GRILLE
- ESP EXTERNAL STATIC PRESSURE
- FCU FAN COIL UNIT
- FPM FEET PER MINUTE
- HC HEATING CAPACITY
- HP HORSEPOWER
- IN.WG INCHES WATER GAUGE
- LAT LEAVING AIR TEMPERATURE
- MAX MAXIMUM
- MBH 1,000 BTUH
- MIN MINIMUM
- NC NOISE CRITERIA
- OA OUTDOOR AIR
- PSC PUMPED STEAM CONDENSATE
- QTY QUANTITY
- RA RETURN AIR
- REA RELIEF AIR
- REFR REFRIGERANT
- RG RETURN GRILLE
- RTU ROOFTOP UNIT
- SA SUPPLY AIR
- SC SENSIBLE COOLING CAPACITY
- SD SUPPLY DIFFUSER
- TC TOTAL COOLING CAPACITY
- TRA TO ROOF ABOVE
- TSP TOTAL STATIC PRESSURE
- VEL VELOCITY

ROOFTOP UNIT SCHEDULE																															
TAG	AREA SERVED	MANUFACTURER	MODEL	SUPPLY FAN					OA MIN FLOW (CFM)	COOLING COIL (DX)										HEATING COIL (NATURAL GAS)					ELECTRICAL			WEIGHT (LBS)	NOTES		
				FAN CONTROL	S/A FLOW (CFM)	MOTOR (HP)	ESP (IN. WG)	TSP (IN. WG)		NOM TONS	REFR TYPE	TC (MBH)	SC (MBH)	EAT ("F DB)	LAT ("F WB)	MIN EFF (EER)	(SEER)	STAGES (QTY)	NOM INPUT (MBH)	HC (MBH)	EAT ("F DB)	LAT ("F DB)	MIN EFF (%)	STAGES (QTY)	V/PH	MCA	MOCF				
RTU-1	OFFICE	LENNOX	KGB0925	MSAV	2,400	2.0	0.75	1.20	600	7.5	R-410A	84.5	60.0	79.8	65.5	56.7	55.2	11.0	---	2	130	104.0	50.3	90.2	80	2	208/3	42	50	1,350	1-4,6-12
RTU-2	ESTIMATING	LENNOX	KGB0485	CAV	1,400	0.5	0.50	0.75	280	4	R-410A	46.7	33.2	78.6	64.8	56.8	55.3	11.5	14.0	1	108	86.0	53.6	110.2	80	2	208/3	20	30	800	1-3,5-12

NOTES:

1. PROVIDE WITH CONTROLLER AND CONTROL DEVICES BY MANUFACTURER. REFER TO SEQUENCES OF OPERATION.
2. PROVIDE WITH 7-DAY PROGRAMMABLE THERMOSTAT. COORDINATE DESIRED FEATURES WITH OWNER, PRIOR TO ORDER (E.G. WIFI CAPABILITY).
3. PROVIDE WITH FIXED DRY BULB TYPE ECONOMIZER ASSEMBLY.
4. PROVIDE WITH MANUFACTURER'S STANDARD POWER EXHAUST FAN.
5. PROVIDE WITH MANUFACTURER'S STANDARD BAROMETRIC RELIEF DAMPER AND HOOD.
6. PROVIDE WITH MANUFACTURER'S STANDARD INSULATED ROOF CURB WITH 1'-2" MINIMUM HEIGHT.
7. PROVIDE WITH NON-POWERED WEATHER-PROOF DUPLEX RECEPTACLE.
8. PROVIDE WITH 2" THICK, MINIMUM MERV-8 FILTERS.
9. PROVIDE WITH FACTORY-MOUNTED RETURN AIR SMOKE DETECTOR.
10. PROVIDE WITH CONDENSER COIL GUARDS.
11. ELECTRICAL CONTRACTOR SHALL PROVIDE DISCONNECT SWITCH.
12. UNIT SIZED FOR 100°F AMBIENT CONDENSING TEMPERATURE.

MINI-SPLIT HEAT PUMP SCHEDULE																									
TAGS		AREA SERVED	MANUFACTURER	MODEL NUMBERS		UNIT TYPE	REFR TYPE	FCU SUPPLY FAN			COOLING				HEATING			ELECTRICAL					NOTES		
INDOOR UNIT	OUTDOOR UNIT			INDOOR UNIT	OUTDOOR UNIT			S/A FLOW (CFM)	O/A FLOW (CFM)	ESP (IN.WG)	NOM TONS	TC (MBH)	EAT (°F DB)	EFF (°F WB)	(EER)	(SEER)	HC (MBH)	EAT (°F DB)	EFF (HSPF)	FCU V/PH	MCA	V/PH		MCA	MOCP
FCU-1	CU-1	IT ROOM	LENNOX	MWMB024S4	MPB024S4S	SINGLE ZONE	R-410A	700	0	0	2.0	24.0	80.0	67.0	13.7	20.7	25.0	70.0	11.5	208/1	1.0	208/1	18	25	ALL
APPROVED EQUIVALENT MANUFACTURERS: CARRIER, DAIKIN, LENNOX, LG, MITSUBISHI.																									
NOTES:																									
1. PROVIDE WITH MANUFACTURER'S STANDARD MICROPROCESSOR CONTROLS.																									
2. FURNISH WITH WALL-MOUNT PROGRAMMABLE THERMOSTAT.																									
3. PROVIDE INDOOR UNIT WITH MANUFACTURER'S STANDARD CLEANABLE AIR FILTER.																									
4. PROVIDE WITH CONDENSER HAIL GUARDS.																									
5. PROVIDE WITH LOW AMBIENT KIT DOWN TO -10°F.																									

GRILLE, REGISTER, AND DIFFUSER SCHEDULE									
TAG	SERVICE	MANUFACTURER	MODEL	CONSTRUCTION	MOUNTING		FACE SIZE (IN)	MAX NC	MAX APD (IN.WG)
					(LOCATION)	(BORDER TYPE)			
E-1	E/A	TITUS	PAR	STEEL	CEILING	LAY-IN	24 x 24	30	0.08
R-1	R/A	TITUS	PAR	STEEL	CEILING	LAY-IN	24 x 24	30	0.08
R-2	R/A	TITUS	T-700	STEEL	DOOR	SURFACE MT	NECK + 2-1/8"	30	0.08
S-1	S/A	TITUS	TMS	STEEL	CEILING	LAY-IN	24 x 24	30	0.10
S-2	S/A	TITUS	300RS	STEEL	WALL	SURFACE MT	NECK + 1-1/2"	30	0.10

NOTES:

- NECK SIZE SHOWN ON PLANS.
- PROVIDE WITH 4-WAY THROW, UNLESS INDICATED OTHERWISE ON PLANS.
- PROVIDE WITH WHITE BAKED ENAMEL FINISH.
- PROVIDE WITH FRAME TYPE TO MATCH CEILING / WALL CONSTRUCTION. COORDINATE WITH ARCHITECTURAL PLANS.

ROOF HOOD SCHEDULE							
TAG	SERVICE	MANUFACTURER	MODEL	AIR FLOW (CFM)	THROAT (L" x W")	VEL (FPM)	APD (IN.WG)
RH-1	EF-2 OA INTAKE	GREENHECK	FGI	650	14 x 14	478	0.05
RH-2	EF-4 OA INTAKE	GREENHECK	FGI	5,000	40 x 40	450	0.05

NOTES:

- PROVIDE WITH 1/2" MESH ALUMINUM BIRDSCREEN.
- PROVIDE WITH MANUFACTURER'S STANDARD INSULATED ROOF CURB, WITH MINIMUM 1'-2" HEIGHT. REFER TO ARCHITECTURAL PLANS FOR ROOF SLOPE.

UNIT HEATER SCHEDULE							
TAG	MANUFACTURER	MODEL	MOUNTING	OUTPUT (MBH)	INPUT (W)	V/PH	FLA
UH-1	QMARK	CWH1201	WALL	6.1	1,800	120/1	15

NOTES:

- PROVIDE WITH UNIT MOUNTED THERMOSTAT AND DISCONNECT SWITCH.
- PROVIDE WITH MANUFACTURER'S STANDARD TRIM FOR WALL MOUNTING.

FAN SCHEDULE												
TAG	AREA SERVED	MANUFACTURER	MODEL	MOUNTING	AIR FLOW (CFM)		ESP (IN.WG)	TSP (IN.WG)	MOTOR (HP)	DRIVE TYPE	V/PH	NOTES
					(DESIGN)	(TAB)						
EF-1	OFFICE GENERAL EA	GREENHECK	G-095-D	ROOF	475	375	0.50	0.66	1/6	DIRECT	120/1	1-6
EF-2	ESTIMATING CO/NO2 EA	GREENHECK	G-095-D	ROOF	650	650	0.15	0.25	1/8	DIRECT	120/1	1,2,5,7
EF-3	ESTIMATING MINIMUM EA	GREENHECK	G-060-D	ROOF	150	150	0.15	0.15	1/60	DIRECT	120/1	1-2,5,8
EF-4	SHOP CO/NO2 EA	GREENHECK	G-163-A	ROOF	5,000	5,000	0.15	0.25	2	DIRECT	120/1	1,2,5,7
EF-5	SHOP MINIMUM EA	GREENHECK	G-080-D	ROOF	350	350	0.15	0.15	1/20	DIRECT	120/1	1-2,5,8

NOTES:

- PROVIDE MINIMUM 1'-2" TALL, INSULATED ROOF CURB WITH DAMPER TRAY. FIELD VERIFY EXISTING ROOF SLOPE.
- PROVIDE WITH DISCONNECT SWITCH.
- PROVIDE WITH BACKDRAFT DAMPER.
- PROVIDE FAN WITH EC MOTOR, WITH POTENTIOMETER DIAL ON MOTOR FOR BALANCING PURPOSES.
- PROVIDE WITH ALUMINUM BIRDSCREEN AT FAN DISCHARGE.
- FAN TO OPERATE CONTINUOUSLY DURING OCCUPIED HOURS. COORDINATE WITH ELECTRICAL CONTRACTOR.
- FAN TO OPERATE SUBJECT TO GAS DETECTION SYSTEM STATE. COORDINATE WITH ELECTRICAL CONTRACTOR.
- FAN TO OPERATE AT ALL TIMES. COORDINATE WITH ELECTRICAL CONTRACTOR.

NATURAL GAS-FIRED RADIANT TUBE HEATER SCHEDULE													
TAG	AREA SERVED	MANUFACTURER	MODEL	HEATER LENGTH (MIN)	NOM INPUT (MBH) (MAX)	MIN EFF (%)	NG PRESS (IN.WG)		STAGES	V/PH	FLA	WEIGHT (LBS)	NOTES
							(MIN)	(MAX)					
RT-1	SHOP	DETROIT RADIANT	HL3-20-65	21'-9"	65	50	80	5.0	14.0	2	120/1	4.8	120
RT-2	SHOP	DETROIT RADIANT	HL3-20-65	21'-9"	65	50	80	5.0	14.0	2	120/1	4.8	120
RT-3	SHOP	DETROIT RADIANT	HL3-20-65	21'-9"	65	50	80	5.0	14.0	2	120/1	4.8	120
RT-4	SHOP	DETROIT RADIANT	HL3-20-65	21'-9"	65	50	80	5.0	14.0	2	120/1	4.8	120
RT-5	SHOP	DETROIT RADIANT	HL3-20-65	21'-9"	65	50	80	5.0	14.0	2	120/1	4.8	120
RT-6	SHOP	DETROIT RADIANT	HL3-20-65	21'-9"	65	50	80	5.0	14.0	2	120/1	4.8	120
RT-7	SHOP	DETROIT RADIANT	HL3-20-65	21'-9"	65	50	80	5.0	14.0	2	120/1	4.8	120
RT-8	SHOP	DETROIT RADIANT	HL3-20-65	21'-9"	65	50	80	5.0	14.0	2	120/1	4.8	120

NOTES:

- PROVIDE WITH MANUFACTURER'S STANDARD WALL-MOUNTED THERMOSTAT
- COORDINATE WITH ELECTRICAL CONTRACTOR FOR PROVIDE DISCONNECT SWITCH.
- FURNISH INFRARED HEATER WITH COMBUSTION AIR INTAKE KIT AND ROOF VENT KIT.
- FURNISH WITH SINGLE MOUNT BRACKETS AND CHAIN HANGING SETS.

DESTRATIFICATION FAN SCHEDULE									
TAG	AREA SERVED	MANUFACTURER	MODEL	FAN DIAMETER	MOTOR POWER	DRIVE TYPE	V/PH	WEIGHT (LBS)	NOTES
DF-1	ESTIMATING	BIG ASS FANS	B3213-X3	7'-0"	63.8 W	DIRECT EC	120/1	25	ALL
DF-2	SHOP	BIG ASS FANS	B3213-X3	7'-0"	63.8 W	DIRECT EC	120/1	25	ALL
DF-3	SHOP	BIG ASS FANS	B3213-X3	7'-0"	63.8 W	DIRECT EC	120/1	25	ALL
DF-4	SHOP	BIG ASS FANS	B3213-X3	7'-0"	63.8 W	DIRECT EC	120/1	25	ALL

NOTES:

- COORDINATE FINISH COLOR WITH ARCHITECT, PRIOR TO ORDER.
- FURNISH WITH WALL CONTROLLER. REFER TO PLAN FOR MULTIPLE FANS TO BE CONTROLLED BY ONE CONTROLLER.

MECHANICAL GENERAL NOTES:

- DRAWINGS ARE SCHEMATIC IN NATURE AND BASED ON PRELIMINARY SITE OBSERVATION AND ORIGINAL DESIGN DRAWINGS (WHEN AVAILABLE). PRIOR TO BID, CONTRACTOR SHALL INVESTIGATE THE PROJECT SITE AND BECOME FULLY AWARE OF ALL FIELD CONDITIONS, CURRENT SYSTEM OPERATION, AS WELL AS COORDINATION REQUIREMENTS. COORDINATE ALL MECHANICAL WORK WITH ARCHITECTURAL DRAWINGS, EXISTING CONDITIONS, AND OTHER TRADES PRIOR TO BID OR START OF WORK.
- MECHANICAL WORK SHALL CONFORM TO APPLICABLE CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
- COORDINATE HVAC EQUIPMENT POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR.
- PROVIDE ALL CONTROL WIRING AND FINAL CONTROL DEVICES (E.G. THERMOSTATS). COORDINATE LOW-VOLTAGE WIRING CONDUIT REQUIREMENTS WITH ELECTRICAL CONTRACTOR.
- FABRICATE AND INSTALL DUCTWORK PER SMACNA RECOMMENDATIONS FOR THE PRESSURE CLASSIFICATIONS ENCOUNTERED.
  - LOW PRESSURE SUPPLY AIR: +2.0 IN.WG
  - RETURN AIR: -2.0 IN.WG
  - EXHAUST AIR (UPSTREAM OF FAN): -2.0 IN.WG
- PROVIDE MITERED ELBOWS AT CHANGES IN DIRECTION IN RECTANGULAR DUCTWORK. PROVIDE TURNING VANES IN ALL ELBOWS WHERE AIRFLOW CHANGES DIRECTION AT ANGLES 45° AND GREATER.
- COORDINATE HVAC EQUIPMENT CONDENSATE DRAIN REQUIREMENTS WITH PLUMBING CONTRACTOR.
- PROVIDE DUCT WRAP INSULATION FOR ALL SUPPLY AIR DUCTWORK. DUCT WRAP INSULATION SHALL BE 2" THICK, MINIMUM R-6.0 FIBERGLASS DUCT WRAP WITH VAPOR BARRIER.
- CONTRACTOR OPTION: PROVIDE INTERNAL LINER INSULATION FOR ALL RECTANGULAR SUPPLY AIR DUCTWORK. INTERNAL LINER INSULATION SHALL BE 1" THICK, 2 LB/FT³ ACOUSTICAL DUCT LINER INSULATION WITH MINIMUM R-5.0.
- DUCT DIMENSIONS SHOWN ON THE PLANS INDICATE THE FREE AREA DIMENSIONS. INCREASE SHEET METAL DIMENSIONS AS REQUIRED TO MEET FREE AREA DIMENSIONS WITH LINER INSTALLED.
- FLEXIBLE DUCTWORK SHALL HAVE 2" THICK, MINIMUM R-6.0 INSULATION. FLEXIBLE DUCTWORK SHALL NOT EXCEED 5'-0" IN LENGTH FOR SUPPLY AIR APPLICATIONS AND 3'-0" IN LENGTH FOR RETURN AIR AND EXHAUST AIR APPLICATIONS.
- COORDINATE ROOF PENETRATION REQUIREMENTS WITH ROOFING CONTRACTOR TO AVOID ROOF WARRANTY CONFLICTS.
- VERIFY AVAILABLE SPACE ABOVE ALL CEILINGS PRIOR TO FABRICATION OR INSTALLATION OF ANY DUCTWORK. COORDINATE DUCT INSTALLATION WITH OTHER TRADES.
- ALL DIMENSIONS SHOWN ON PLAN ARE IN INCHES, UNLESS EXPLICITLY LABELED OTHERWISE.
- PROVIDE A COMPLETE TEST AND BALANCE BY A NEBB CERTIFIED TEST AND BALANCE AGENCY.
- PROVIDE ACCESS PANELS AND ADEQUATE CLEARANCE FOR ACCESS OF ALL EQUIPMENT, VALVES, DAMPERS, AND DEVICES.



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10/22/2021



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PROPOSED BUILDING FOR:  
**CRASH CHAMPIONS**  
451 SE OLDHAM PARKWAY  
LEE'S SUMMIT, MISSOURI

NO.	DESCRIPTION	DATE
	FOR PERMIT	10 / 22 / 21

PROJECT NUMBER 21009  
DATE ISSUED: 10 / 22 / 21  
SHEET NUMBER

M2.0

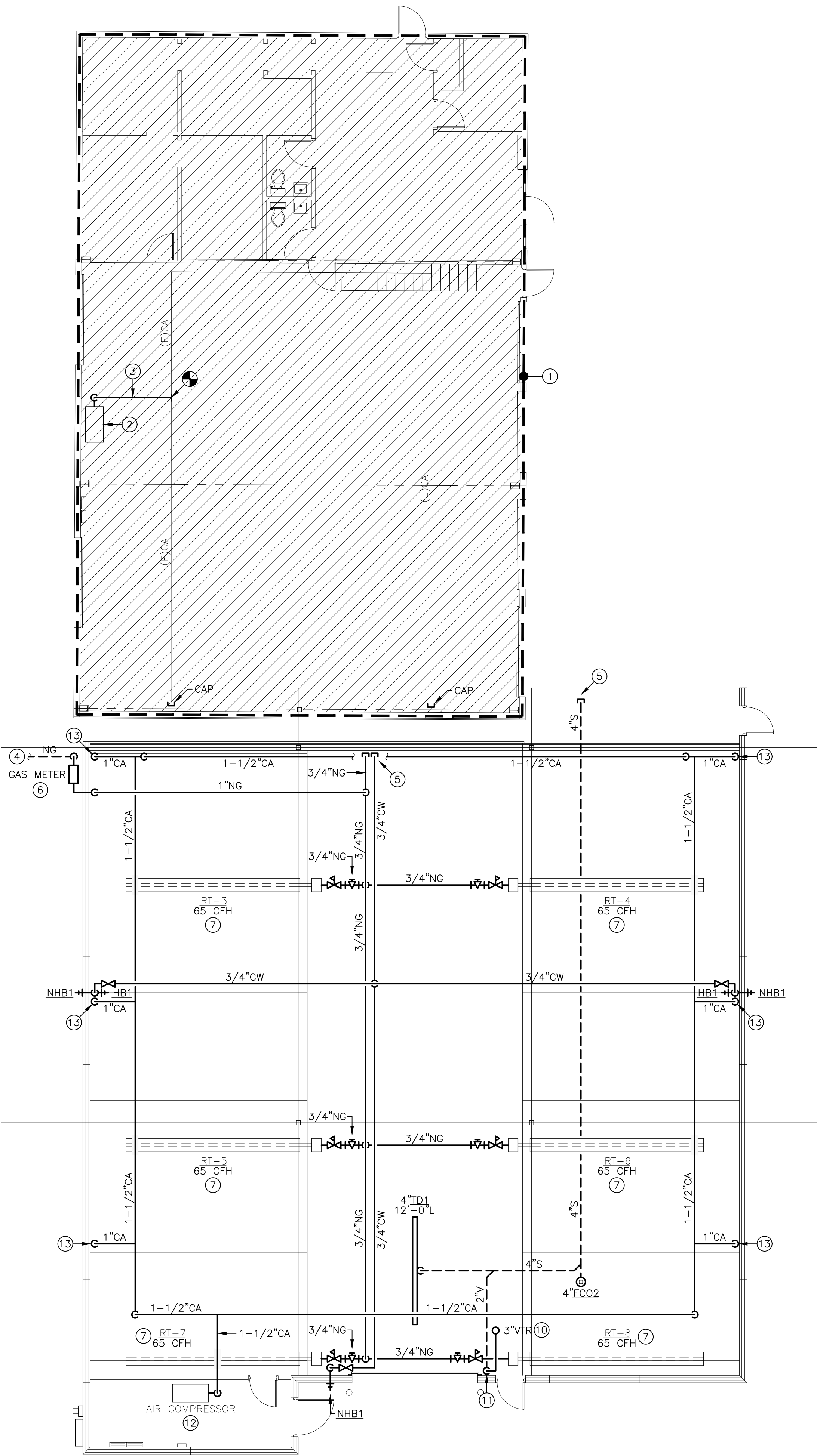
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SCHEDULES

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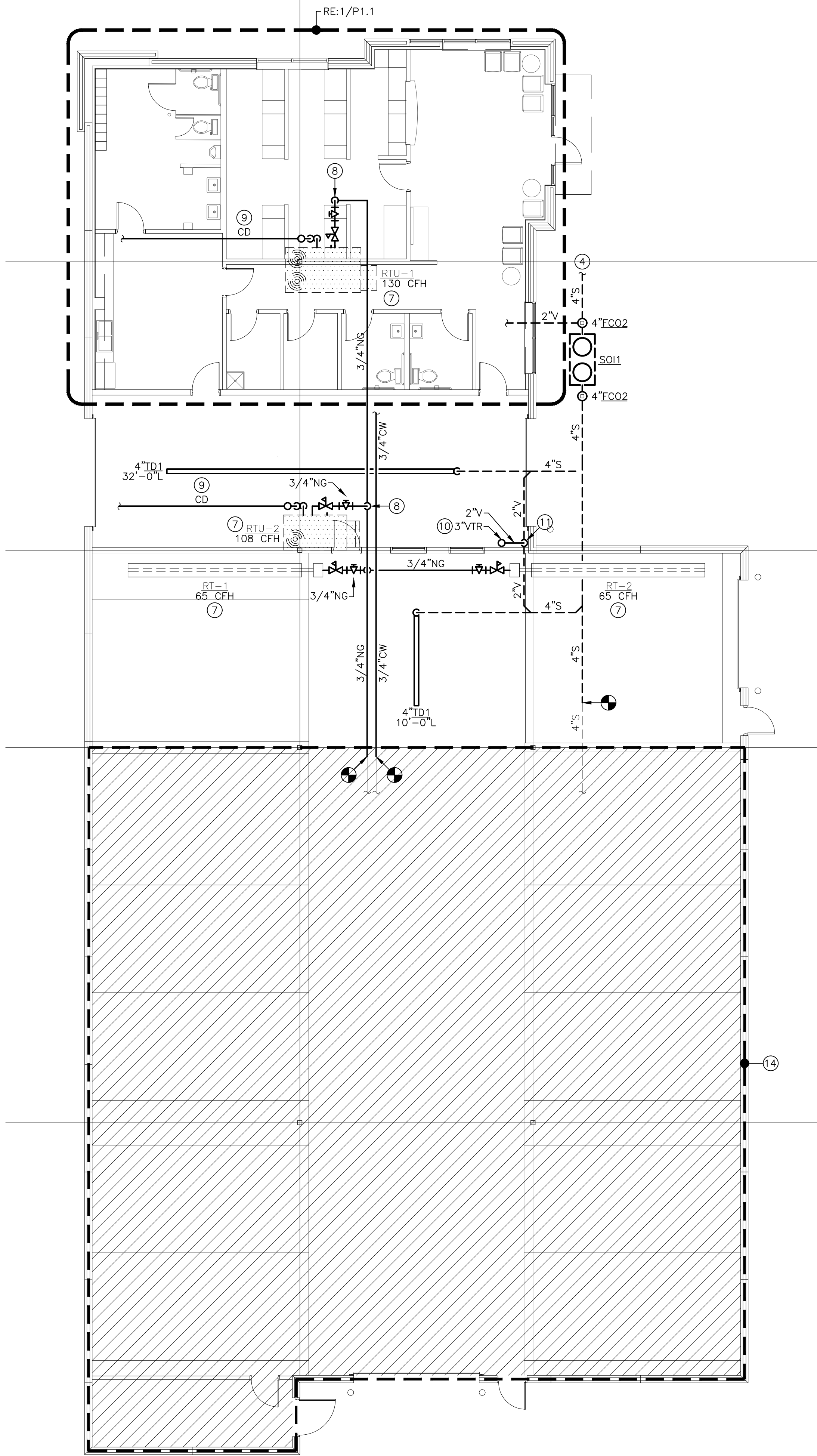
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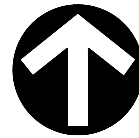
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1 PHASE I PLUMBING PLAN  
SCALE: 1/8" = 1'-0"



2 PHASE II PLUMBING PLAN  
SCALE: 1/8" = 1'-0"



PLUMBING GENERAL NOTES:

- REFER TO P2.0 FOR PLUMBING GENERAL NOTES.

PLUMBING PLAN NOTES:

- EXISTING PLUMBING FIXTURES AND UTILITIES WITHIN INDICATED AREA TO REMAIN ACTIVE FOR DURATION OF PHASE I CONSTRUCTION.
- TEMPORARILY RELOCATE EXISTING AIR COMPRESSOR TO LOCATION SHOWN ON PLAN FOR DURATION OF PHASE I CONSTRUCTION.
- PROVIDE PIPING FROM TEMPORARY AIR COMPRESSOR LOCATION TO TIE INTO EXISTING COMPRESSED AIR MAIN OVERHEAD.
- REFER TO CIVIL UTILITY PLAN FOR CONTINUATION OF PIPING OUTSIDE OF BUILDING FOOTPRINT.
- PROVIDE TEMPORARY CAP. REFER TO PHASE II FOR CONTINUATION.
- PROVIDE NEW NATURAL GAS SERVICE ENTRANCE AND METER WHERE SHOWN ON PLAN. REFER TO NATURAL GAS LOAD SCHEDULE FOR LOAD, TOTAL DEVELOPED LENGTH, AND SIZING DETAILS.
- CONNECT NATURAL GAS TO MECHANICAL EQUIPMENT AS SHOWN. PROVIDE DIRT LEG, GAS COCK, AND REGULATOR. REFER TO MECHANICAL EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR ADDITIONAL REQUIREMENTS. COORDINATE WITH MECHANICAL CONTRACTOR.
- ROUTE NATURAL GAS PIPING UP THROUGH ROOF TO CONNECT TO RTU. COORDINATE ROOF PENETRATION WITH OTHER TRADES.
- PROVIDE CONDENSATE DRAIN WITH P-TRAP, FULL SIZE OF CONNECTION AT ROOFTOP UNIT. ROUTE PIPING ACROSS ROOF DISCHARGE INTO ROOF GUTTER WITH AIR GAP.
- ROUTE 3" VENT UP THROUGH ROOF (VTR). DISCHARGE AT MINIMUM 1'-6" ABOVE FINISHED ROOF. INSTALL AT MINIMUM OF 10'-0" FROM ALL MECHANICAL OUTDOOR AIR INTAKES.
- PROVIDE CAST IRON VENT RISER FROM FLOOR PENETRATION TO MINIMUM 8'-0" ABOVE FINISHED FLOOR.
- AIR COMPRESSOR PROVIDED BY OTHERS. PROVIDE COMPRESSED AIR PIPING CONNECTION WITH VALVES AND SPECIALS PER AIR COMPRESSOR MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE 1"CA DROP DOWN WALL. TERMINATE WITH SHUTOFF VALVE. COORDINATE CONNECTION TO OWNER EQUIPMENT WITH OTHER TRADES.
- ALL PLUMBING FIXTURES AND PIPING WITHIN INDICATED AREA TO BE PROVIDED IN PHASE I.

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LEE'S SUMMIT, MISSOURI

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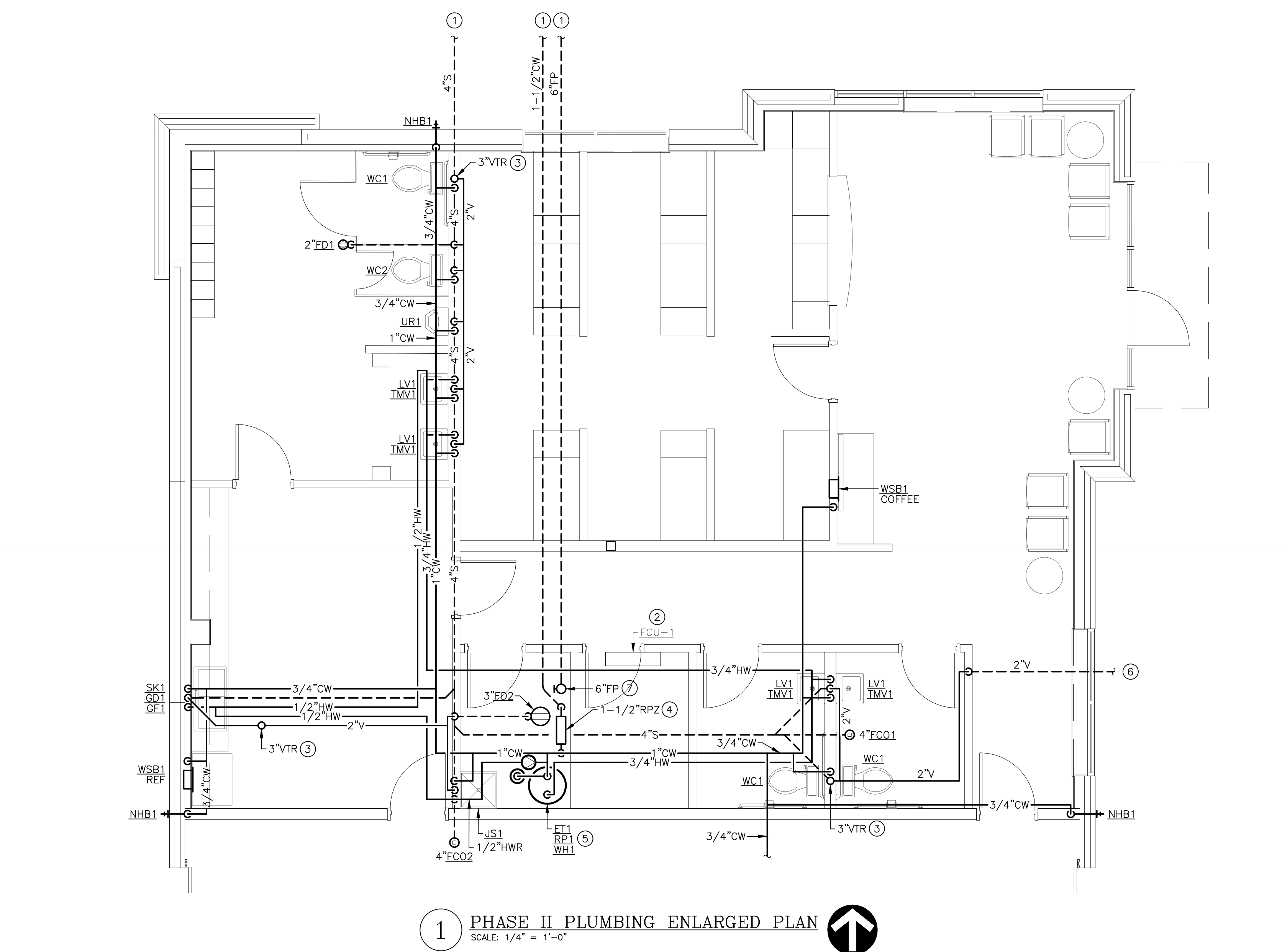
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PLUMBING PLANS



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PLUMBING GENERAL NOTES:

- REFER TO P2.0 FOR PLUMBING GENERAL NOTES.

PLUMBING PLAN NOTES:

- REFER TO CIVIL UTILITY PLAN FOR CONTINUATION OF PIPING OUTSIDE OF BUILDING FOOTPRINT.
- PROVIDE 3/4" CONDENSATE DRAIN FROM FCU-1 CONDENSATE PUMP DISCHARGE TO FLOOR DRAIN IN ADJACENT WATER ENTRANCE ROOM. TERMINATE INTO FLOOR DRAIN WITH AIR GAP. ROUTE PIPING CONCEALED ABOVE CEILING AND IN WALL CAVITY AS MUCH AS POSSIBLE. PROVIDE ESCUTCHEONS AT WALL AND CEILING PENETRATIONS.
- ROUTE 3" VENT UP THROUGH ROOF (VTR). DISCHARGE AT MINIMUM 1'-6" ABOVE FINISHED ROOF. INSTALL AT MINIMUM OF 10'-0" FROM ALL MECHANICAL OUTDOOR AIR INTAKES
- NEW 1-1/2" DOMESTIC WATER SERVICE ENTRANCE. REFER TO DETAIL 1/P2.0 FOR MORE INFORMATION.
- INSTALL WATER HEATER IN MECHANICAL ROOM WHERE SHOWN ON PLAN. CONNECT WATER PIPING, VALVES, RECIRCULATION PUMP, AND EXPANSION TANK TO WATER HEATER SYSTEM PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND DETAIL 2/P2.0.
- 2"V BELOW GRADE FROM SAND/OIL INTERCEPTOR CLEANOUT. REFER TO 2/P1.0 FOR CONTINUATION.
- 6"FP ENTRANCE. PROVIDE BUTTERFLY SHUTOFF VALVE AT 2'-0" ABOVE FINISHED FLOOR WITH BLIND FLANGE. FIRE PROTECTION DOWNSTREAM OF ENTRANCE TO BE DESIGNED AND INSTALLED BY FIRE PROTECTION CONTRACTOR.

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**451 SE OLDHAM PARKWAY**  
**LEE'S SUMMIT, MISSOURI**

NO.	DESCRIPTION	DATE
	FOR PERMIT	10 / 22 / 21

PROJECT NUMBER 21009  
DATE ISSUED: 10 / 22 / 21

SHEET NUMBER

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PLUMBING ENLARGED  
PLAN



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LINETYPES LEGEND:

- NEW — ABOVE SLAB
- NEW --- BELOW SLAB
- EXISTING — ABOVE SLAB
- EXISTING --- BELOW SLAB
- DEMOLITION

PIPING LEGEND:

- ↘ ELBOW DOWN
- ↗ ELBOW UP
- ⊗ P-TRAP
- ⊕ TEE DOWN
- ⊖ ELBOW UP
- ⊗ SHUT-OFF VALVE (GENERIC)
- ⊗ BALL VALVE
- ⊗ GLOBE VALVE
- ⊗ BUTTERFLY VALVE
- ⊗ GATE VALVE
- ⊗ CHECK VALVE
- ⊗ BALANCING VALVE
- ⊗ PRESSURE REDUCING VALVE
- ⊗ GAS COCK
- ⊗ WYE-STRAINER
- ⊗ UNION
- ⊗ FLANGE
- ⊗ RELIEF VALVE
- ⊗ AIR VENT (MANUAL / AUTOMATIC)
- ▶ FLOW DIRECTION
- ⊗ PIPE BREAK / CONTINUATION
- FLOOR DRAIN
- ⊗ FLOOR SINK
- FLOOR CLEANOUT
- ⊗ HOSE BIBB

ANNOTATION LEGEND:

- ABC-1 EQUIPMENT / FIXTURE TAG
- PLAN NOTE
- ⊗ CONNECT TO EXISTING

ABBREVIATIONS LEGEND:

- AFF ABOVE FINISHED FLOOR
- BOP BOTTOM OF PIPE
- CFH CUBIC FEET PER HOUR
- CA COMPRESSED AIR
- CO CLEANOUT
- CW DOMESTIC COLD WATER
- DF DRINKING FOUNTAIN
- ET EXPANSION TANK
- FCO FLOOR CLEANOUT
- FD FLOOR DRAIN
- GPM GALLONS PER MINUTE
- HB HOSE BIBB
- HP HORSEPOWER
- HWR HOT WATER RECIRCULATION
- IE INVERT ELEVATION
- IN.WG INCHES WATER GAUGE
- JS JANITOR SINK
- LV LAVATORY
- MAX MAXIMUM
- MB MOP BASIN
- MBH 1,000 BTUH
- MIN MINIMUM
- NG NATURAL GAS
- NHB NON-FREEZE HOSE BIBB
- QTY QUANTITY
- RP RECIRCULATION PUMP
- RPZ REDUCED PRESSURE ZONE BACKFLOW PREVENTER
- S SANITARY WASTE
- SK SINK
- TD TRENCH DRAIN
- TMV THERMOSTATIC MIXING VALVE
- TRA TO ROOF ABOVE
- UR URINAL
- V VENT
- WC WATER CLOSET
- WH WATER HEATER
- WCO WALL CLEANOUT

FIXTURE CONNECTION SCHEDULE					
FIXTURE	WASTE	VENT	COLD	HOT	NOTES
COFFEE/TEA MACHINES	SEE MANUFACTURER'S INSTALLATION INSTRUCTIONS				DCVB
FLOOR DRAIN / TRENCH DRAIN	SEE PLAN	2"	---	---	---
HOSE BIBBS	---	---	1/2"	---	VB
JANITOR'S SINK	2"	1-1/2"	1/2"	1/2"	VB
LAVATORY - PUBLIC	2"	1-1/2"	1/2"	1/2"	TMV
SINK - BREAKROOM	2"	1-1/2"	1/2"	1/2"	---
URINAL	2"	2"	1"	---	---
WATER CLOSET (TANK TYPE)	4"	2"	1/2"	---	---
NOTES: DCVB: DOUBLE CHECK VALVE ASSEMBLY, LINE SIZED, CONFORMING TO ASSE 1022. TMV: POINT OF USE TYPE THERMOSTATIC MIXING VALVE CONFORMING TO ASSE 1070. VB: ATMOSPHERIC TYPE VACUUM BREAKER CONFORMING TO ASSE 1020.					
INSTALL BACKFLOW PREVENTION DEVICES ON EQUIPMENT AND FIXTURES PER LOCAL WATER COMPANY REQUIREMENTS. ALL BACKFLOW PREVENTERS SHALL BE IN AN ACCESSIBLE LOCATION FOR PERIODIC INSPECTION AND TESTING.					

NATURAL GAS LOAD SCHEDULE				
EQUIPMENT TAG	QTY	DESCRIPTION	CFH INPUT (EACH)	TOTAL CFH
RT-1	1	RADIANT TUBE HEATER	65	65
RT-2	1	RADIANT TUBE HEATER	65	65
RT-3	1	RADIANT TUBE HEATER	65	65
RT-4	1	RADIANT TUBE HEATER	65	65
RT-5	1	RADIANT TUBE HEATER	65	65
RT-6	1	RADIANT TUBE HEATER	65	65
RT-7	1	RADIANT TUBE HEATER	65	65
RT-8	1	RADIANT TUBE HEATER	65	65
RTU-1	1	ROOFTOP UNIT	130	130
RTU-2	1	ROOFTOP UNIT	108	108
SYSTEM TOTAL =			758	

- NOTES:
- METER DISCHARGE PRESSURE: 2.0 PSIG
  - TOTAL DEVELOPED LENGTH: 250 FT
  - DESIGN NATURAL GAS PIPING SYSTEM PRESSURE DROP: 1 PSIG
  - INLET PRESSURE FOR ALL GAS-FIRED EQUIPMENT: 7 TO 11 IN.WG.

PLUMBING FIXTURE SCHEDULE:

INFORMATION BELOW IS FOR GENERAL FIXTURE REQUIREMENTS ONLY. PLUMBING CONTRACTOR SHALL COORDINATE WITH OWNER AND ARCHITECT FOR EXACT FIXTURE REQUIRED FOR THE PROJECT. COORDINATE WITH OWNER FOR INFORMATION ON PROCURING FIXTURES AND ASSOCIATED COSTS. CONTRACTOR SHALL BE CLEAR AS TO WHAT FIXTURES ARE INCLUDED IN THEIR PROPOSED COSTS.

FIXTURES IN THIS SCHEDULE, OR THE APPROVED EQUIVALENT, SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR UNLESS NOTED OTHERWISE. REFER TO SPECIFICATIONS AND MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR FURTHER REQUIREMENTS.

ET1

- EXPANSION TANK: 150 PSIG MAXIMUM WORKING PRESSURE, 4.5-GALLON CAPACITY, 0.45 MAXIMUM ACCEPTANCE FACTOR, AND 3/4" PIPE CONNECTION. SET THE AIR CHARGE PRESSURE TO MATCH EXISTING WATER SYSTEM PRESSURE.

FCO1

- FLOOR CLEANOUT: CAST IRON BODY, FLASHING FLANGE WITH CLAMPING COLLAR, ABS PLUG, AND ADJUSTABLE, ROUND, SECURED, HEAVY-DUTY SCORIATED NICKEL BRONZE TOP. INSTALL PER MANUFACTURER'S REQUIREMENTS BASED ON FLOORING TYPE USED. PROVIDE ACCESSORIES AS REQUIRED FOR PROPER INSTALLATION. COORDINATE FINISH TYPE WITH ARCHITECTURAL PLANS.

FCO2

- HEAVY-DUTY FLOOR CLEANOUT: CAST IRON BODY; FLASHING FLANGE WITH CLAMPING COLLAR; ABS PLUG; AND ADJUSTABLE, ROUND, SECURED, HEAVY-DUTY SCORIATED NICKEL BRONZE TOP.

FD1

- PVC FLOOR DRAIN: FLOOR DRAIN WITH ADJUSTABLE 6" ROUND MEDIUM-DUTY CAST NICKEL STRAINER, WITH FLANGED PVC ADAPTER. CLEAN AND POLISH STRAINER AFTER INSTALLATION, PROVIDE A DEEP SEAL TRAP, FLANGED PVC ADAPTER, AND TRAP GUARD.

FD2

- PVC EQUIPMENT FLOOR DRAIN: 5" DEEP ROUND PVC BODY, WITH PVC SOCKET OUTLET, ANCHOR FLANGE, ROUND PVC DEBRIS BUCKET, 9" ROUND CAST IRON GRATE AND FRAME.

GD1

- GARBAGE DISPOSER: LIGHT COMMERCIAL DISPOSER WITH 1/2 HP AUTOMATIC REVERSING MOTOR WITH POWER CORD, STAINLESS STEEL GRIND CHAMBER, AND CAST NICKEL CHROME CUTTING ELEMENT.
- ELECTRICAL REQUIREMENTS: 120V/1Ø, 5.8 FULL LOAD AMPS.
- TRIM: WASTE DISCHARGE KIT.

GF1

- GLASS FILLER: STAINLESS STEEL GOOSENECK GLASS FILLER WITH PLASTIC PUSH LEVER CONTROL. MOUNT TO DECK OF SINK INDICATED ON PLAN. COORDINATE WATER FILTRATION REQUIREMENTS WITH OWNER, PRIOR TO ORDER.

HB1

- HOSE BIBB: ROUGH CHROME-PLATED BRASS, 3/4" FEMALE INLET, 3/4" THREADED HOSE CONNECTION, QUARTER-TURN WHEEL HANDLE, AND INTEGRAL VACUUM BREAKER.

JS1

- JANITOR'S SINK: 24"W x 24"L x 10"H MOLDED FIBER BASIN WITH INTEGRAL STAINLESS STEEL DRAIN BODY.
- FAUCET: FAUCET WITH WALL BRACE, INTEGRAL VACUUM BREAKER, PAIL HOOK, AND 3/4" MALE HOSE THREADED OUTLET. SECURE FAUCET IN WALL WITH BACKBOARD.
- TRIM: TYPE 304 20-GAUGE STAINLESS STEEL WALL SURROUNDS, 3'-0" LONG REINFORCED HOSE WITH 3/4" CHROME COUPLING AND WALL HOOK, EXTRUDED VINYL BUMPER GUARD, AND 2'-0" STAINLESS STEEL MOP HANGER.

LV1

- WALL-MOUNTED LAVATORY (ADA ACCESSIBLE): RECTANGULAR WALL-MOUNTED WHITE VITREOUS CHINA FIXTURE WITH FAUCET LEDGE AND FRONT OVERFLOW.
- FAUCET: 4" CENTERSET, VANDAL-RESISTANT FAUCET WITH LEVER HANDLES AND 0.5 GPM AERATOR.
- TRIM: GRID DRAIN WITH TAILPIECE, QUARTER-TURN BALL TYPE ANGLE STOP VALVES WITH RISERS AND ESCUTCHEONS, 1-1/4" 17-GAUGE TUBULAR CHROME PLATED BRASS ADJUSTABLE P-TRAP AND WASTE ARM WITH CLEANOUT PLUG AND ESCUTCHEON, CONCEALED ARM CARRIER WITH STANCHIONS TO FLOOR, AND INSULATION KIT FOR WATER AND WASTE PIPES.

RP1

- RECIRCULATION PUMP: WET ROTOR TYPE INLINE PUMP WITH 2,800 RPM MOTOR, LEAD-FREE BRONZE BODY WITH UNION CONNECTIONS, CAPACITY OF 2.0 GPM AT 7.0 FT.WG HEAD. PROVIDE WITH SURFACE-MOUNTED AQUASTAT WITH SINGLE POLE DOUBLE THROW SWITCH FOR CIRCULATOR CONTROL AND ADJUSTABLE DIFFERENTIAL SET TO 10°F. SET AQUASTAT TO SHUT OFF RECIRCULATION PUMP AT WATER HEATER SET POINT AND ON AT 10°F BELOW SET POINT. POWER WITH 120 VOLT CIRCUIT.

SK1

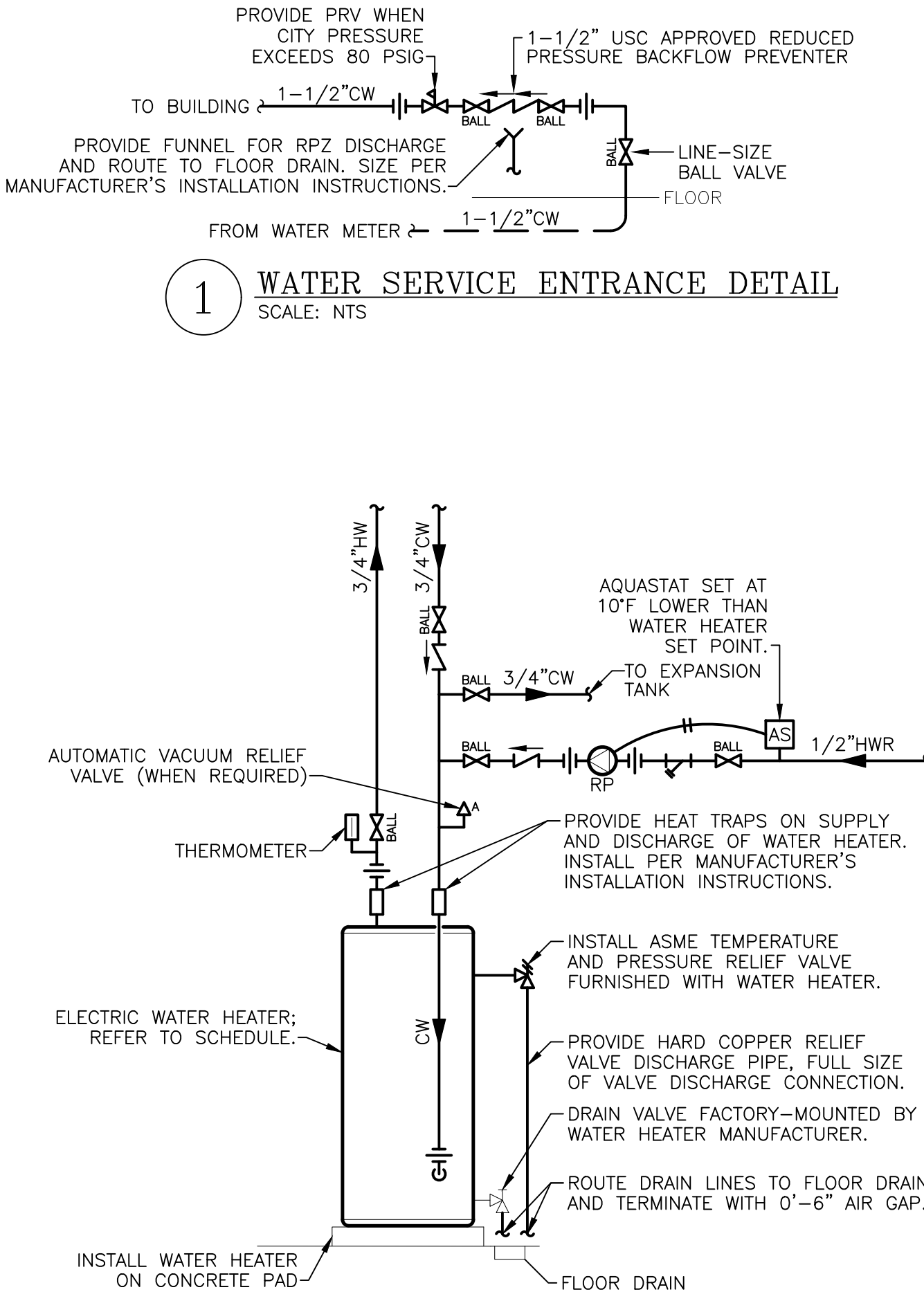
- DOUBLE COMPARTMENT SINK: SIZE TO BE SELECTED BY ARCHITECT, DOUBLE COMPARTMENT, SELF-RIMMING, 18-GAUGE TYPE 302 STAINLESS STEEL, BUILT-IN FLOW FAUCET LEDGE, SET IN BED OF PUTTY.
- FAUCET: SPREAD FAUCET WITH VANDAL-RESISTANT LEVER HANDLES AND 1.5 GPM AERATOR.
- TRIM: QUARTER-TURN BALL TYPE ANGLE STOP VALVES WITH RISERS AND ESCUTCHEONS, CUP STRAINERS WITH 1-1/2" 17-GAUGE TAILPIECE, 1-1/2" 17-GAUGE CONTINUOUS WASTE, 1-1/2" 17-GAUGE TUBULAR CHROME PLATED BRASS ADJUSTABLE P-TRAP WITH BRASS CLEANOUT AND ESCUTCHEON.

SO11

- SAND/OIL INTERCEPTOR: MOLDED POLYETHYLENE INTERCEPTOR FOR BELOW-GRADE INSTALLATION, WITH FIELD-ADJUSTABLE RISER SYSTEM, BUILT-IN FLOW CONTROL, 4" INLET AND 4" OUTLET, 250-GALLON LIQUID CAPACITY, AND 100 GPM MAX FLOW RATE. PROVIDE WITH HIGHWAY-RATED COVERS WITH WATER/GAS-TIGHT SEAL AND A MINIMUM 16,000 LBS LOAD CAPACITY, AND ANCHOR KIT FOR HIGH WATER TABLE AREAS.
- SIZING: ESTIMATING AND SHOP DRAINAGE AREA TOTAL = 2,700 FT². MINIMUM 6 FT³ FOR FIRST 100 FT² AND 1 FT³ FOR EACH ADDITIONAL 100 FT² = 32 FT³

PLUMBING GENERAL NOTES:

- DRAWINGS ARE SCHEMATIC IN NATURE. CONTRACTOR SHALL INVESTIGATE THE PROJECT SITE AND BECOME FULLY AWARE OF ALL FIELD CONDITIONS, CURRENT SYSTEM OPERATION, AS WELL AS COORDINATION REQUIREMENTS. COORDINATE ALL PLUMBING WORK WITH ARCHITECTURAL DRAWINGS, EXISTING CONDITIONS, AND OTHER TRADES PRIOR TO START OF WORK.
- PLUMBING WORK SHALL CONFORM TO APPLICABLE CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
- EXACT LOCATION AND ELEVATIONS OF ALL EXISTING UTILITIES SHALL BE VERIFIED PRIOR TO ANY INSTALLATION OF CONNECTIONS THEREOF. ALL CONNECTIONS TO EXISTING UTILITIES (E.G. DOMESTIC WATER, SEWER, VENT, AND NATURAL GAS) SHALL BE MADE WITH APPROVAL OF THE ADMINISTRATIVE AUTHORITY AND THE RESPECTIVE UTILITY COMPANIES.
- SANITARY WASTE AND VENT PIPING BELOW GRADE SHALL BE SCHEDULE 40 PVC WITH SOLVENT-WELDED JOINTS.
- SANITARY WASTE AND VENT PIPING ABOVE GRADE SHALL BE NO-HUB CAST IRON IN RETURN AIR PLENUM APPLICATIONS. PVC OR ABS PIPING CAN BE USED IN AREAS OTHER THAN RETURN AIR PLENUMS AS ALLOWED BY CODE.
- SLOPE SANITARY PIPING AS FOLLOWS: 1/4" PER FOOT FOR PIPE SIZES 2-1/2" AND SMALLER, AND 1/8" PER FOOT FOR PIPE SIZES 3" AND LARGER.
- COORDINATE WITH MECHANICAL CONTRACTOR FOR HVAC EQUIPMENT CONDENSATE DRAIN REQUIREMENTS.
- CONDENSATE DRAIN PIPING SHALL BE TYPE M COPPER PIPING WITH WROUGHT FITTINGS AND SOLDERED JOINTS IN RETURN AIR PLENUM APPLICATIONS. PVC CAN BE USED IN AREAS OTHER THAN RETURN AIR PLENUMS AS ALLOWED BY CODE.
- SLOPE CONDENSATE DRAIN PIPING AS FOLLOWS: 1/4" PER FOOT FOR ALL PIPE SIZES.
- PROVIDE WATER SUPPLY SHUT-OFF VALVES ON EACH TOILET ROOM GROUP AND TO MISCELLANEOUS EQUIPMENT.
- PROVIDE SIZE "A" WATER HAMMER ARRESTORS ON SUPPLY TO ALL PLUMBING FIXTURES.
- COORDINATE SELECTION OF ALL PLUMBING FIXTURES WITH ARCHITECT AND OWNER. ALL HANDICAPPED FIXTURES (WHERE REQUIRED) SHALL COMPLY WITH A.D.A. REQUIREMENTS.
- DOMESTIC WATER PIPING BELOW GRADE SHALL BE TYPE K SOFT COPPER WITH FLARED FITTINGS OR TYPE K HARD COPPER WITH WROUGHT FITTINGS AND SOLDERED JOINTS.
- DOMESTIC WATER PIPING ABOVE GRADE SHALL BE TYPE L COPPER WITH WROUGHT FITTINGS AND SOLDERED JOINTS.
- WHERE ALLOWED BY CODE, CROSS-LINKED POLYETHYLENE (PEX) PIPING MAY BE USED IN LIEU OF COPPER PIPING. ADJUST SIZING OF PIPING FOR REDUCED FREE AREA OF PEX PIPING. PEX PIPE ROUTED IN RETURN AIR PLENUMS MUST MEET THE FLAME SPREAD RATING AND SMOKE DEVELOPED RATING FOR SUCH APPLICATIONS.
- NATURAL GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL WITH MALLEABLE FITTINGS. SUPPORT PIPING AT INTERVALS NOT TO EXCEED THOSE LISTED IN TABLE 415.1 OF THE INTERNATIONAL FUEL GAS CODE.
- PROVIDE RUST-INHIBITOR PAINT ON NATURAL GAS PIPING LOCATED EXTERIOR TO THE BUILDING. COORDINATE WITH OTHER TRADES.
- PROVIDE A.G.A. APPROVED GAS COCKS AND DIRT LEGS AT CONNECTIONS TO ALL GAS-FIRED EQUIPMENT.
- INSTALL ALL PLUMBING EQUIPMENT, FIXTURES, VALVES, ETC. PER MANUFACTURER'S INSTALLATION REQUIREMENTS. PROVIDE ADDITIONAL APPURTENANCES PER MANUFACTURER'S INSTALLATION REQUIREMENTS.
- INSTALL CLEANOUTS AT EVERY END OF SANITARY PIPING RUNS, AT MINIMUM OF EVERY 100'-0" OF SANITARY PIPING, AND AT EVERY CHANGE IN DIRECTION GREATER THAN 45°. REFER TO SECTION 708 OF THE INTERNATIONAL PLUMBING CODE FOR ADDITIONAL REQUIREMENTS.
- CONTRACTOR SHALL LABEL ALL PIPING, VALVES AND EQUIPMENT WITH MANUFACTURER STANDARD LABELING SYSTEMS. COORDINATE WITH OWNER FOR FINAL EQUIPMENT DESIGNATIONS.



NOTES:

- INSTALL PER MANUFACTURER'S REQUIREMENTS.



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10/22/2021



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MISSOURI STATE CERTIFICATE OF www.BuildWithRose.com  
AUTHORITY # 2008034845



PROPOSED BUILDING FOR:  
**CRASH CHAMPIONS**  
451 SE OLDHAM PARKWAY  
LEE'S SUMMIT, MISSOURI

NO.	DESCRIPTION	DATE
	FOR PERMIT	10/22/21

PROJECT NUMBER 21009  
DATE ISSUED: 10/22/21

SHEET NUMBER

P2.0

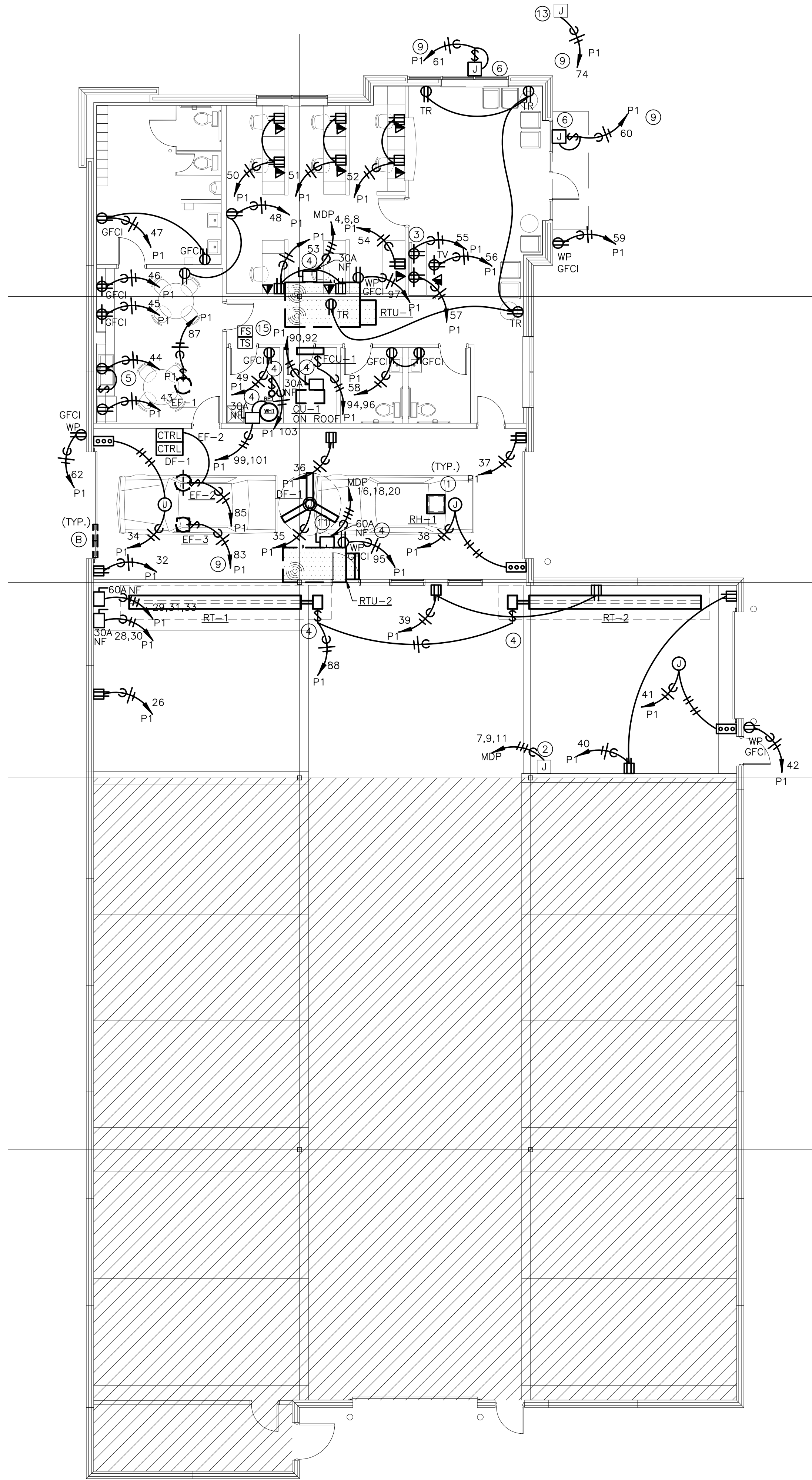
PLUMBING DETAILS  
AND SCHEDULES

5BY5  
ENGINEERS

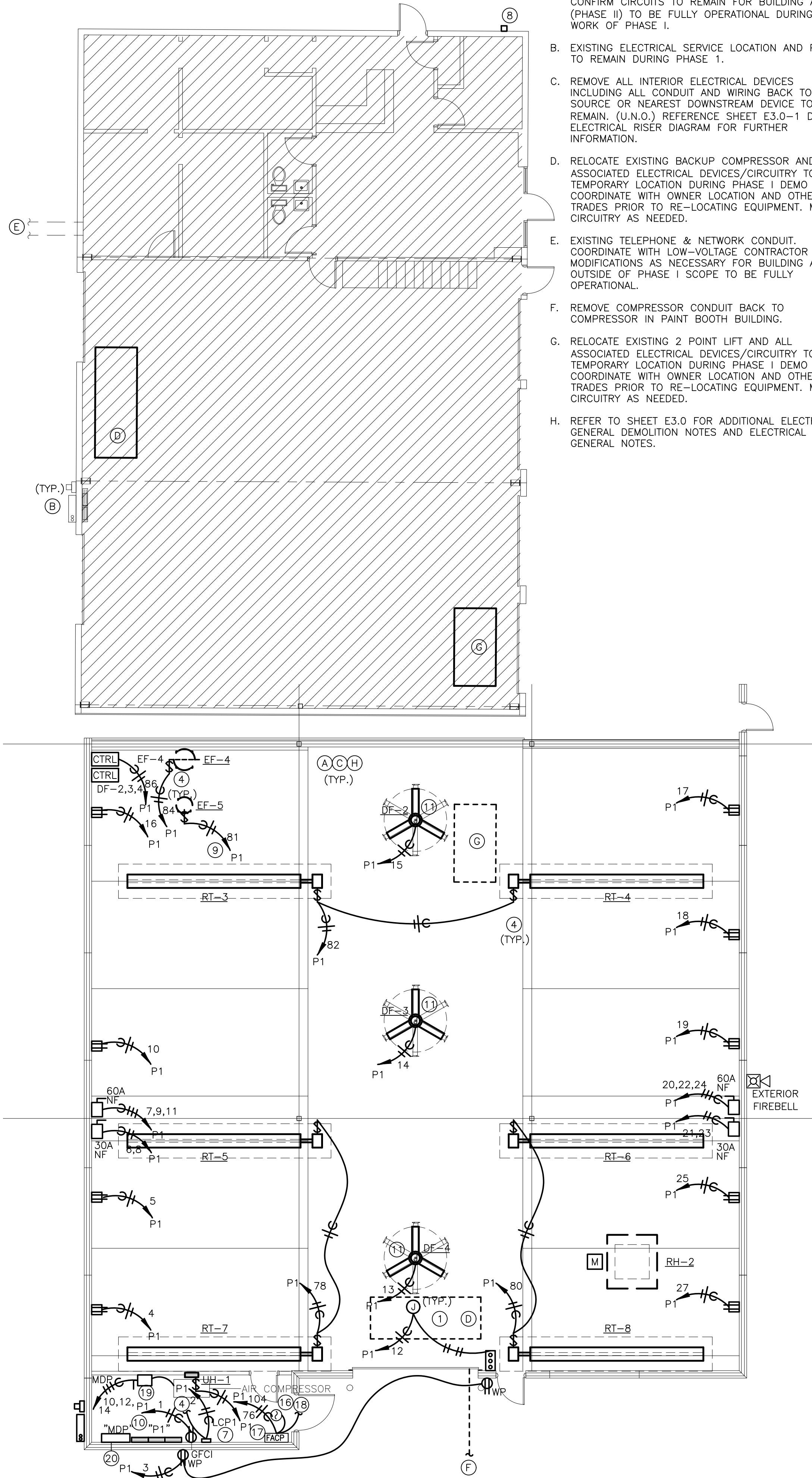
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C:\Users\Scott Groshans\Dropbox (5by5 Engineers)\5BY5 ACTIVE PROJECTS\202100051 Crash Champions Lee's Summit - Rose\Rose-CAD\202100051 ELEC.dwg  
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2 PHASE II ELECTRICAL POWER PLAN  
SCALE: 1/8" = 1'-0"



1 PHASE I ELECTRICAL POWER PLAN  
SCALE: 1/8" = 1'-0"

#### ELECTRICAL POWER DEMOLITION (PER PHASE) NOTES:

- DEMO WORK MUST BE COMPLETED PER PHASE. CONFIRM CIRCUITS TO REMAIN FOR BUILDING AREA (PHASE II) TO BE FULLY OPERATIONAL DURING DEMO WORK OF PHASE I.
- EXISTING ELECTRICAL SERVICE LOCATION AND PANELS TO REMAIN DURING PHASE 1.
- REMOVE ALL INTERIOR ELECTRICAL DEVICES INCLUDING ALL CONDUIT AND WIRING BACK TO SOURCE OR NEAREST DOWNSTREAM DEVICE TO REMAIN. (U.N.O.) REFERENCE SHEET E3.0-1 DEMO ELECTRICAL RISER DIAGRAM FOR FURTHER INFORMATION.
- RELOCATE EXISTING BACKUP COMPRESSOR AND ALL ASSOCIATED ELECTRICAL DEVICES/CIRCUITRY TO TEMPORARY LOCATION DURING PHASE I DEMO WORK. COORDINATE WITH OWNER LOCATION AND OTHER TRADES PRIOR TO RE-LOCATING EQUIPMENT. MODIFY CIRCUITRY AS NEEDED.
- EXISTING TELEPHONE & NETWORK CONDUIT. COORDINATE WITH LOW-VOLTAGE CONTRACTOR MODIFICATIONS AS NECESSARY FOR BUILDING AREA OUTSIDE OF PHASE I SCOPE TO BE FULLY OPERATIONAL.
- REMOVE COMPRESSOR CONDUIT BACK TO COMPRESSOR IN PAINT BOOTH BUILDING.
- RELOCATE EXISTING 2 POINT LIFT AND ALL ASSOCIATED ELECTRICAL DEVICES/CIRCUITRY TO TEMPORARY LOCATION DURING PHASE I DEMO WORK. COORDINATE WITH OWNER LOCATION AND OTHER TRADES PRIOR TO RE-LOCATING EQUIPMENT. MODIFY CIRCUITRY AS NEEDED.
- REFER TO SHEET E3.0 FOR ADDITIONAL ELECTRICAL GENERAL DEMOLITION NOTES AND ELECTRICAL GENERAL NOTES.

#### ELECTRICAL GENERAL NOTES:

- REFER TO SHEET E3.0 FOR ELECTRICAL GENERAL NOTES.

#### FIRE ALARM GENERAL NOTES:

- SYSTEM SHALL MEET ALL LOCAL AND NATIONAL CODES RECOGNIZED BY THE CITY OF LEAWOOD. CONTRACTOR SHALL SUBMIT FIRE ALARM SHOP DRAWINGS TO THE ENGINEER AND CITY THAT INCLUDE BATTERY CALCULATIONS, VOLTAGE DROP CALCULATIONS, CABLE AND DEVICE SPECIFICATIONS AND LOCATIONS.

- REFER TO SHEET E3.0 FOR ADDITIONAL FIRE ALARM GENERAL NOTES.

#### ELECTRICAL PLAN NOTES:

- PROVIDE JUNCTION BOX FOR OVERHEAD DOOR OPERATOR. PROVIDE OUTLET BOX ADJACENT TO OVERHEAD DOOR FOR PUSH-BUTTON CONTROLS. COORDINATE WITH DOOR OPERATOR SUPPLIER FOR EXACT LOCATIONS AND SPECIFIC ELECTRICAL REQUIREMENTS. ELECTRICAL CONTRACTOR SHALL PROVIDE POWER AND CONTROL WIRING AS REQUIRED.
- PROVIDE JUNCTION BOX FOR CONNECTION TO LIFT EQUIPMENT. VERIFY EXACT LOCATION AND SPECIFIC REQUIREMENTS PRIOR TO ROUGH IN. COORDINATE WITH OWNER LOCATION AND PHASING TO RELOCATE LIFT. CONFIRM AMP RATING REQUIRED PRIOR TO ORDERING ELECTRICAL DEVICES FOR NEW CIRCUIT BREAKER INSTALL IN NEW PANELBOARD "P1". PANELBOARD SCHEDULE IS AN ASSUMED CIRCUIT BREAKER FOR LOAD CALCULATIONS ONLY.
- COORDINATE DEVICE LOCATIONS WITH ARCHITECTURAL CASEWORK ELEVATIONS.
- PROVIDE CONNECTION AND DISCONNECT ON MECHANICAL EQUIPMENT. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR. REFER TO SHEET M2.0 FOR ADDITIONAL INFORMATION.
- PROVIDE RECEPTACLE AND TOGGLE SWITCH FOR GARBAGE DISPOSER. CONCEAL RECEPTACLE BEHIND SINK PRIVACY PANEL. MOUNT SWITCH AT SAME HEIGHT AS ADJACENT ABOVE-COUNTER RECEPTACLES. CIRCUIT SWITCH TO CONTROL RECEPTACLE. COORDINATE EXACT LOCATIONS WITH PLUMBING CONTRACTOR.
- PROVIDE JUNCTION BOX AND DISCONNECT SWITCH FOR EXTERIOR SIGNAGE. COORDINATE ALL REQUIREMENTS WITH SIGN MANUFACTURER. COORDINATE FINAL LOCATION WITH OWNER/ARCHITECT PRIOR TO INSTALL.
- PROVIDE NEW LIGHTING CONTROL PANEL "LCP1". REFERENCE SHEET E4.0 LIGHTING CONTROL DEVICE SCHEDULE FOR ADDITIONAL INFORMATION.
- PROVIDE NEW EXTERIOR INTERMATIC PHOTOCELL LEGRAND EM-24A2. MOUNT ON NORTH SIDE EXTERIOR WALL OF SECOND STORY. ROUTE CIRCUIT FROM PHOTOCELL TO "LCP1" PANEL FOR A COMPLETE AND OPERABLE INSTALL.
- ROUTE CIRCUIT FROM PANEL VIA LCP1. REFERENCE LCP1 SCHEDULE FOR CIRCUIT # AND PROGRAMMING SUMMARY ON SHEET E4.0 FOR FURTHER INFORMATION.
- PROVIDE NEW 600A 120/208 V 3 PHASE PANEL IN GENERAL LOCATION SHOWN. REFERENCE SHEET E3.0 FOR ELECTRICAL RISER DIAGRAM AND SHEET E5.0 PANELBOARD SCHEDULES FOR FURTHER INFORMATION.
- PROVIDE JUNCTION BOX FOR BIG ASS FAN. PROVIDE BIG ASS FAN CONTROL DEVICE. COORDINATE EXACT LOCATION WITH OWNER AND POWER REQUIREMENTS PER MANUFACTURER'S SPECIFICATIONS PRIOR TO INSTALL.
- PROVIDE CONNECTION FOR \_\_\_ WATT 280/1 PHASE ELECTRIC/GAS WATER HEATER. PROVIDE NEMA 3R \_\_\_A DISCONNECT SWITCH FOR WATER HEATER. COORDINATE ALL WORK WITH PLUMBING CONTRACTOR AND ENSURE NEC CLEARANCES ARE MAINTAINED. ROUTE CIRCUIT TO DISCONNECT AND FROM DISCONNECT TO WATER HEATER. REFERENCE PLUMBING SHEETS FOR ADDITIONAL INFORMATION.
- EXTEND CIRCUITRY AS NECESSARY FROM PYLON SIGN TO NEW CIRCUIT BREAKER ON PANEL "P1".
- PROVIDE SPRINKLER FLOW AND TAMPER SWITCH. FIELD VERIFY EXACT LOCATION WITH FIRE SPRINKLER CONTRACTOR AND FIRE DEPARTMENT CONNECTION POINT. COORDINATE REQUIREMENTS WITH FIRE SPRINKLER CONTRACTOR.
- PROVIDE SMOKE DETECTION DEVICE IN GENERAL LOCATION SHOWN.
- PROVIDE FIRE CONTROL PANEL IN APPROXIMATE LOCATION SHOWN. FIELD VERIFY EXACT LOCATION WITH FIRE SPRINKLER CONTRACTOR AND FIRE DEPARTMENT CONNECTION POINT.
- PROVIDE POWER FOR FIRE ALARM CONTROL PANEL AND CONNECT TO EXTERIOR FIRE ALARM BELL.
- PROVIDE DISCONNECT AND CONNECTION TO AIR COMPRESSOR PROVIDED BY OTHERS. COORDINATE FINAL LOCATION PRIOR TO INSTALL. CONFIRM POWER REQUIREMENTS PRIOR TO ORDERING DISCONNECT/CIRCUIT BREAKER/WIRING. REFERENCE MANUFACTURER SPECIFICATIONS FOR FURTHER INFORMATION.

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PROPOSED BUILDING FOR:

**CRASH CHAMPIONS**

451 SE OLDHAM PARKWAY

LEE'S SUMMIT, MISSOURI

NO.	DESCRIPTION	DATE
	FOR PERMIT	10/22/21

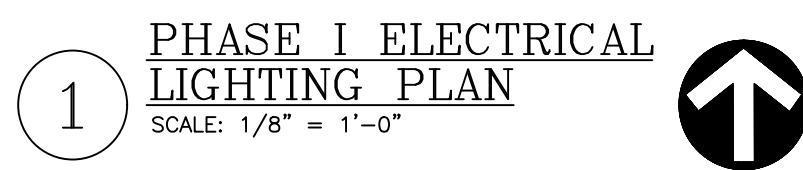
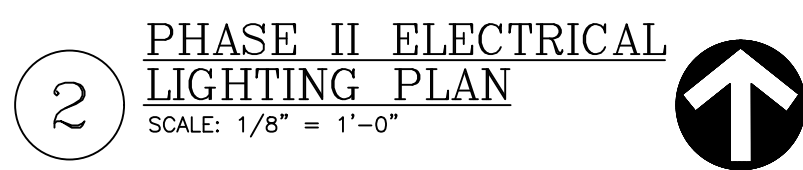
PROJECT NUMBER 21009  
DATE ISSUED: 10/22/21

SHEET NUMBER

**E1.0**

ELECTRICAL  
POWER PLANS

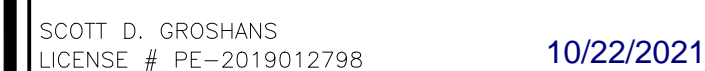




- A. DEMO WORK MUST BE COMPLETED PER PHASE. CONFIRM CIRCUITS TO REMAIN FOR BUILDING AREA (PHASE II) TO BE FULLY OPERATIONAL DURING DEMO WORK OF PHASE I.
- B. REMOVE ALL INTERIOR LIGHT FIXTURES AND CONTROLS INCLUDING ALL CONDUIT AND WIRING BACK TO SOURCE OR NEAREST DOWNSTREAM DEVICE TO REMAIN IN ENTIRE AREA OF WORK. (U.N.O.)
- C. REFER TO SHEET E3.0 FOR ADDITIONAL ELECTRICAL GENERAL DEMOLITION NOTES AND ELECTRICAL GENERAL NOTES.

- REFER TO E3.0 FOR ELECTRICAL GENERAL NOTES.

1. ROUTE CIRCUIT FROM PANEL VIA LCP1. REFERENCE LCP1 SCHEDULE FOR CIRCUIT # AND PROGRAMMING SUMMARY ON SHEET E3.0 FOR FURTHER INFORMATION.
2. ROUTE UNSWITCHED HOT TO ALL EMERGENCY LIGHT FIXTURES AND EXIT SIGNS.
3. PROVIDE AND INSTALL NEW OCCUPANCY SENSING WALL MOUNTED LIGHT SWITCH. REFERENCE LIGHTING CONTROL DEVICE SCHEDULE ON SHEET E3.0 FOR ADDITIONAL INFORMATION.
4. PROVIDE AND INSTALL NEW ROOM CONTROLLER. CONNECT TO CEILING MOUNT SENSORS AND LOW VOLTAGE SWITCHES IN ROOM PER MANUFACTURERS RECOMMENDATIONS AND AS SHOWN ON THE DRAWINGS. REFERENCE LIGHTING CONTROL DEVICE SCHEDULE ON SHEET E3.0 FOR ADDITIONAL INFORMATION.
5. PROVIDE AND INSTALL NEW CEILING MOUNTED OCCUPANCY SENSOR. CONNECT TO ROOM CONTROLLERS AND LOW VOLTAGE SWITCHES PER MANUFACTURERS RECOMMENDATIONS AND AS SHOWN ON DRAWINGS. REFERENCE LIGHTING CONTROL DEVICE SCHEDULE ON SHEET E3.0 FOR ADDITIONAL INFORMATION.
6. PROVIDE LOW VOLTAGE SWITCH FOR LIGHTING CIRCUITS AS SHOWN. CONNECT SWITCH TO ROOM CONTROLLER IN ROOM. REFERENCE SHEET E3.0 FOR LIGHTING CONTROL DEVICE SCHEDULE FOR FURTHER INFORMATION.
7. REFERENCE SHEET E51 FOR SITE LIGHTING FIXTURE SCHEDULE AND SHEET E4.0 FOR LIGHT FIXTURE SCHEDULE FOR FURTHER INFORMATION.



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ARCHITECTS ■ PLANNERS

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**PROPOSED BUILDING FOR:  
CRASH CHAMPIONS  
451 SE OLDHAM PARKWAY  
LEE'S SUMMIT, MISSOURI**

PROJECT NUMBER	21009
DATE ISSUED:	10 / 22 / 21
SHEET NUMBER	

## E2.0

## ELECTRICAL LIGHTING PLANS

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LINETYPES LEGEND:

- NEW
- EXISTING OR BY OTHERS
- DEMOLITION

LIGHTING LEGEND:

- CEILING MOUNTED LIGHT FIXTURE, 2'x2' OR 2'x4'
- CEILING MOUNTED LIGHT FIXTURE, 2'x2' OR 2'x4' (NIGHT LIGHT OR EMERGENCY CIRCUIT)
- STRIP LIGHT FIXTURE. REFER TO FIXTURE SCHEDULE FOR LENGTH.
- WALL-MOUNT SCONCE OR WALL BRACKET LIGHT FIXTURE.
- RECESSED WALL WASH CAN LIGHT FIXTURE.
- RECESSED, SURFACE, OR STEM HUNG LIGHT FIXTURE.
- SINGLE FACE EXIT LIGHT FIXTURE, WALL OR CEILING MOUNT, WITH FIELD CONFIGURABLE ARROWS. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON DRAWINGS. SHADED AREA INDICATES EXIT LIGHT FACE.
- DOUBLE FACE EXIT LIGHT FIXTURE, WALL OR CEILING MOUNT, WITH FIELD CONFIGURABLE ARROWS. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON DRAWINGS. SHADED AREA INDICATES EXIT LIGHT FACE.
- COMBINATION SINGLE FACE EXIT/EMERGENCY LIGHT FIXTURE, WALL OR CEILING MOUNT, WITH FIELD CONFIGURABLE ARROWS. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON DRAWINGS. SHADED AREA INDICATES EXIT LIGHT FACE.
- NOTE: REFER TO LIGHT FIXTURE SCHEDULE AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND MOUNTING HEIGHTS.

POWER LEGEND:

- INDICATES ABOVE COUNTER (TYP)
- DUPLEX RECEPTACLE MOUNTED AT +18" AFF TO CENTER OF RECEPTACLE (UNO). ABOVE COUNTER RECEPTACLES SHALL BE +48" AFF (UNO).
- DUPLEX ISOLATED GROUND RECEPTACLE MOUNTED AT +18" AFF TO CENTER OF RECEPTACLE (UNO). ABOVE COUNTER RECEPTACLES SHALL BE +48" AFF (UNO).
- DUPLEX RECEPTACLE ON STAND-BY GENERATOR POWER, MOUNTED AT +18" AFF TO CENTER OF RECEPTACLE (UNO). RECEPTACLES SHOWN ABOVE COUNTER SHALL BE +48" AFF (UNO).
- FLOOR-MOUNTED DUPLEX OR FOURPLEX RECEPTACLE MOUNTED IN PVC FLOORBOX, OR POKE-THRU
- SPECIAL RECEPTACLE, NUMBER REFERS TO "NEMA" CONFIGURATION. MOUNT AT +18" AFF TO CENTER OF RECEPTACLE (UNO).
- FOURPLEX RECEPTACLE MOUNTED AT +18" AFF TO CENTER OF RECEPTACLE (UNO). RECEPTACLES SHOWN TO BE ABOVE COUNTER SHALL BE +48" AFF (UNO)
- FLUSH MOUNT COMBINATION POWER AND VOICE/DATA FLOORBOX.
- SINGLE POLE WALL MOUNT TOGGLE SWITCH. MOUNT AT +48" AFF TO CENTER OF SWITCH.
- WALL MOUNTED OCCUPANCY SENSOR SWITCH. MOUNT AT +48" AFF TO CENTER OF SWITCH.
- WALL MOUNTED OCCUPANCY SENSOR SWITCH WITH 0-10V DIMMING CONTROL. MOUNT AT +48" AFF TO CENTER OF SWITCH.
- WALL MOUNTED LOW VOLTAGE SWITCH WITH 0-10V DIMMING CONTROL. MOUNT AT +48" AFF TO CENTER OF SWITCH.
- CEILING MOUNTED OCCUPANCY SENSOR.
- ROOM CONTROLLER/POWER PACK FOR LIGHT FIXTURE CONTROL. DEVICE SHALL BE CONCEALED IN CEILING.
- VOICE OPENING. PROVIDE RING WITH STRING TO ABOVE CEILING. DEVICES SHOWN TO BE COUNTER SHALL BE +48" AFF (UNO).
- DATA OPENING. PROVIDE RING WITH STRING TO ABOVE CEILING. DEVICES SHOWN TO BE COUNTER SHALL BE +48" AFF (UNO).
- COMBINATION VOICE/DATA OPENING. PROVIDE RING WITH STRING TO ABOVE CEILING. DEVICES SHOWN TO BE COUNTER SHALL BE +48" AFF (UNO).
- FLUSH FLOOR MOUNT VOICE/DATA OUTLET MOUNTED IN PVC FLOORBOX.
- DISCONNECT SWITCH, STARTER, & COMBINATION STARTER/DISCONNECT SWITCH. SIZE AS INDICATED ON DRAWINGS.
- ELECTRICAL PANEL BOARD, FLUSH OR SURFACE MOUNT
- JUNCTION BOX
- NOTE: LINE THROUGH DEVICE INDICATES TO BE MOUNTED ABOVE COUNTERTOP OR CABINET. REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHTS IF NOT INDICATED ON POWER PLAN.
- REFER TO LIGHTING CONTROL DEVICE SCHEDULE AND ARCHITECTURAL DRAWINGS FOR FURTHER INFORMATION.

WIRING LEGEND:

- HOMERUN TO PANELBOARD WITH NUMBER AND SIZE OF CONDUCTORS INDICATED ON PLANS.
- GROUNDED CONDUCTOR.
- CONDUIT OR CIRCUIT BREAK/CONTINUATION.
- CONDUIT WITH ENDCAP FOR FUTURE USE.
- GROUNDING SOURCE.

FIRE ALARM LEGEND:

- SMOKE DETECTOR
- COMBINATION AUDIO/VISUAL DEVICE, +80" AFF
- VISUAL DEVICE, +80" AFF
- PULL STATION, +48" AFF
- FIRE/SMOKE DAMPER
- SPRINKLER FLOW AND TAMPER SWITCH
- SUPPLY DUCT/PLENUM MOUNT SMOKE DETECTOR
- RETURN DUCT/PLENUM MOUNT SMOKE DETECTOR
- FIRE ALARM CONTROL PANEL
- FIRE ALARM ANNUNCIATOR PANEL
- FIRE ALARM DOOR HOLD
- FIRE ALARM DOOR RELEASE
- FIRE SPRINKLER FLOW/TAMPER SUPERVISORY PANEL. PROVIDE (2) DEDICATED PHONE LINES AS REQUIRED.
- DIGITAL VIDEO RECORDER
- ACCESS CONTROL PANEL
- PAN TILT ZOOM VIDEO CAMERA
- FIXED VIDEO CAMERA
- INTERCOM STATION
- INTERCOM MASTER STATION
- LONG RANGE READER
- REQUEST TO EXIT DEVICE
- PANIC BUTTON
- DOOR CONTACT
- CARD READER
- ELECTRIC STRIKE
- ELECTRIFIED LOCK
- MAGNETIC LOCK

SECURITY AND CONTROLLED ACCESS LEGEND:

- DIGITAL VIDEO RECORDER
- ACCESS CONTROL PANEL
- PAN TILT ZOOM VIDEO CAMERA
- FIXED VIDEO CAMERA
- INTERCOM STATION
- INTERCOM MASTER STATION
- LONG RANGE READER
- REQUEST TO EXIT DEVICE
- PANIC BUTTON
- DOOR CONTACT
- CARD READER
- ELECTRIC STRIKE
- ELECTRIFIED LOCK
- MAGNETIC LOCK

ABBREVIATIONS LEGEND:

- AFF ABOVE FINISHED FLOOR
- ED EXISTING TO BE DEMOLISHED
- EM EMERGENCY
- ER EXISTING TO BE RELOCATED
- ETR EXISTING TO REMAIN
- GFCI GROUND FAULT CURRENT INTERRUPTER
- NL NIGHT LIGHT
- TR TAMPER RESISTANT
- UNO UNLESS NOTED OTHERWISE
- WP WEATHER PROTECTED COVER / GFCI

ELECTRICAL GENERAL DEMOLITION NOTES:

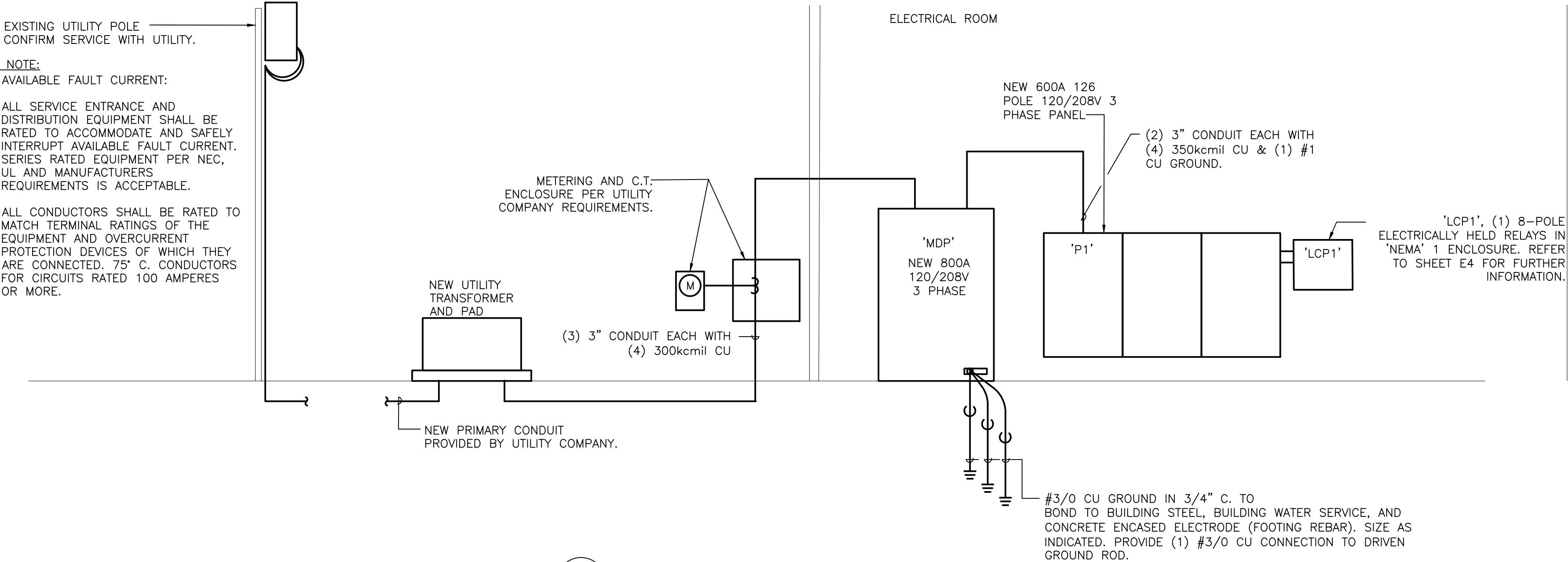
- REFERENCE ARCHITECTURAL DRAWINGS FOR FULL EXTENT OF DEMOLITION WORK AND PHASING. NOTIFY ARCHITECT, ENGINEER, AND/OR OWNER, AS APPLICABLE, OF ANY CONFLICTS OR DISCREPANCIES BETWEEN DRAWINGS AND JOBSITE CONDITIONS PRIOR TO SUBMITTING BID.
- COORDINATE DEMOLITION AND REMOVAL OF EXISTING EQUIPMENT AND LIGHTING SYSTEMS WITH ARCHITECTURAL PHASING DRAWINGS AND OWNER TO ALLOW NECESSARY SYSTEMS TO REMAIN OPERATIONAL DURING CONSTRUCTION.
- UNLESS NOTED OTHERWISE, DISPOSE OF ALL ELECTRICAL EQUIPMENT, LIGHT FIXTURES, AND DEVICES SHOWN TO BE REMOVED. COORDINATE WITH THE OWNER THE ITEMS TO BE SALVAGED, AND THE LOCATION FOR STORAGE. AVOID DAMAGING SALVAGED ITEMS DURING DEMOLITION WORK AND DURING TRANSPORT TO OWNER'S DESIGNATED STORAGE LOCATION.
- WHERE ALTERATION OF ELECTRICAL EQUIPMENT, LIGHT FIXTURES, RACEWAYS, OR WIRING DEVICES AFFECTS EXISTING SURFACES/FINISHES: REPAIR/PAINT AFFECTED SURFACE TO MATCH EXISTING ADJACENT SURFACE IN ACCORDANCE WITH OWNER REQUIREMENTS. MAINTAIN FIRE RATING OF ALL FLOORS, WALLS, AND CEILINGS THAT ARE RATED.
- WHERE DEMOLITION WORK INTERRUPTS ELECTRICAL CONTINUITY OF CIRCUITS THAT ARE TO REMAIN IN USE: PROVIDE NECESSARY DEVICES AND RELATED CIRCUITRY TO MAINTAIN ELECTRICAL CONTINUITY IN ACCORDANCE WITH OWNER REQUIREMENTS. RE-CIRCUIT REUSED ELECTRICAL EQUIPMENT, LIGHT FIXTURES, AND WIRING DEVICES PREVIOUSLY POWERED FROM DEMOLISHED EQUIPMENT TO NEW OR TEMPORARY EQUIPMENT AS NEEDED.
- COORDINATE DISCONNECTION OF POWER TO EQUIPMENT BEING DEMOLISHED / REMOVED / RELOCATED WITH OTHER TRADES PRIOR TO START OF WORK. REMOVE ALL ELECTRICAL EQUIPMENT, LIGHT FIXTURES, RACEWAYS, WIRING DEVICES, AND RELATED CIRCUITRY NOT BEING REUSED IN ALL ACCESSIBLE AREAS INCLUDING FLOORS, WALLS, AND CEILINGS THAT ARE TO BE REMOVED. ELECTRICAL EQUIPMENT, RACEWAYS, AND RELATED CIRCUITRY ABANDONED IN PLACE SHALL BE PERMANENTLY DISCONNECTED FROM ALL POWER SOURCES. INSULATED FROM CONTACT WITH OTHER LIVE ELECTRICAL WIRING/DEVICES, AND IDENTIFIED AT TERMINATIONS AS NO LONGER BEING IN SERVICE. CABLES/WIRING NOT BEING REUSED SHALL BE REMOVED UNLESS IDENTIFIED FOR FUTURE USE. CARE SHOULD BE TAKEN DURING THE REMOVAL PROCESS TO PROTECT THE EXISTING REUSED CABLES/WIRING FROM DAMAGE.

ELECTRICAL GENERAL NOTES:

- DRAWINGS ARE SCHEMATIC IN NATURE AND BASED ON PRELIMINARY SITE OBSERVATION AND ORIGINAL DESIGN DRAWINGS (WHEN AVAILABLE). PRIOR TO BID, CONTRACTOR SHALL INVESTIGATE THE PROJECT SITE AND BECOME FULLY AWARE OF ALL FIELD CONDITIONS, CURRENT SYSTEM OPERATION AS WELL AS COORDINATION REQUIREMENTS. COORDINATE ALL MECHANICAL WORK WITH ARCHITECTURAL DRAWINGS, EXISTING CONDITIONS AND OTHER TRADES PRIOR TO BID OR START OF WORK.
- ELECTRICAL WORK SHALL CONFORM TO APPLICABLE CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION. REFER TO ARCHITECTURAL CODE PLANS FOR SPECIFIC CODE REFERENCES.
- COORDINATE ELECTRICAL WORK WITH ALL OTHER PROJECT TRADES (E.G. ARCHITECTURAL, STRUCTURAL, ELECTRICAL, PLUMBING, FIRE SPRINKLER, ETC.).
- COORDINATE EXACT LOCATIONS OF ALL LIGHT FIXTURES AND ELECTRICAL DEVICES WITH ARCHITECTURAL DRAWING AND OTHER TRADES PRIOR TO ROUGH-IN. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRE TO PROPERLY INSTALL ALL SYSTEMS.
- INSTALL PULL STRING IN ALL EMPTY CONDUIT/RACEWAY. TERMINATE CONDUIT STUB-UP WITH A NYLON BUSHING.
- COLOR FOR RECEPTACLES, SWITCHES, NETWORK DEVICES AND COVER PLATES SHALL MATCH. COLOR SHALL MATCH AND BE SELECTED AS BRIGHT WHITE UNLESS NOTED OTHERWISE. CONFIRM EXACT COLOR WITH ARCHITECT PRIOR TO ORDER.
- ELECTRICAL CONTRACTOR SHALL INSPECT ALL ELECTRICAL EQUIPMENT TO REMAIN. REPORT ANY DEFICIENCIES TO OWNER PRIOR TO START OF WORK.
- ALL CONDUCTORS SHALL BE INSTALLED IN ELECTRICAL METALLIC TUBING (EMT) AS REQUIRED BY THE LATEST EDITION OF THE NATIONAL ELECTRIC CODE (NEC). ALL INSTALLATIONS SHALL BE PER NEC REQUIREMENTS.
- AT CONTRACTOR'S OPTION, MC CABLE CAN BE USED FOR CIRCUITING CONNECTIONS TO RECEPTACLES AND LIGHTING. "HOME RUNS" SHALL BE ROUTED IN CONDUIT. ALL INSTALLATIONS SHALL BE PER NEC REQUIREMENTS.
- CONTRACTOR SHALL VERIFY ALL ROUGH-IN LOCATIONS AND QUANTITIES FOR GENERAL USE POWER AND DATA WITH OWNER AND/OR ARCHITECT PRIOR TO INSTALLATION.
- CIRCUITS FOR GENERAL USE POWER SHALL HAVE A MAXIMUM OF 6 RECEPTACLES ON A CIRCUIT (A SINGLE 4-PLEX RECEPTACLE COUNTS FOR 2 OF THE ALLOWED 6 RECEPTACLES).
- ALL WIRE SIZES LISTED ON PLANS ASSUME COPPER CONDUCTORS ARE USED (UNLESS NOTED OTHERWISE).
- CONTRACTOR SHALL LABEL ALL RECEPTACLES, BOXES, PANELBOARDS, ETC. WITH PANEL, CIRCUIT NUMBER, ETC. PER INDUSTRY STANDARDS. COORDINATE WITH OWNER FOR FINAL PANEL AND EQUIPMENT DESIGNATIONS.

FIRE ALARM SYSTEM NOTES:

- CONTRACTOR SHALL PROVIDE ALL ENGINEERING, LABOR, MATERIALS, TRANSPORTATION, TOOLS AND APPLIANCES REQUIRED IN THE PERFORMANCE OF ALL OPERATIONS REQUIRED FOR THE INSTALLATION OF A COMPLETE, FULLY FUNCTIONAL AND CODE COMPLIANT FIRE ALARM SYSTEM OR SYSTEM MODIFICATION IN THE AREAS OF WORK.
- THE FIRE ALARM SYSTEM CONTRACTOR MUST PROVIDE A SYSTEM DESIGN WHICH MEETS ALL APPLICABLE CODES. NOTE THAT ENGINEERING DRAWINGS ARE CONCEPTUAL AND PROVIDE FOR INFRASTRUCTURE AND BASIC LAYOUT OF THE SYSTEM. THE FIRE ALARM SYSTEM CONTRACTOR MUST CHECK THE PROVIDED LAYOUT AND AUGMENT THE DESIGN AS NEEDED TO PROVIDE A COMPLIANT SYSTEM. ANY DESIGN INCONSISTENCIES OR CONFLICTS WITHIN THIS DOCUMENT MUST BE RESOLVED THROUGH THE REQUEST FOR INFORMATION PROCESS.
- THE CONTRACTOR MUST CERTIFY THE DOCUMENTS THEY PRODUCE MEET AND COMPLY WITH ALL APPLICABLE CODES AND THE SYSTEM IS DESIGNED IN ACCORDANCE WITH SAID CODES. NOTING NON-COMPLIANCE ON DRAWINGS OR DOCUMENTS IS NOT ACCEPTABLE. ANY DESIGN INCONSISTENCIES OR CONFLICTS WITHIN THIS DOCUMENT SHALL BE RESOLVED PRIOR TO BID.
- THE APPROXIMATE LOCATIONS OF RELATED DEVICES ARE INDICATED ON ORIGINAL DRAWINGS. THESE DRAWINGS ARE NOT INTENDED TO GIVE COMPLETE AND EXACT DETAILS IN REGARD TO LOCATION OF DEVICES, APPARATUS, ETC. EXACT DEVICE LOCATIONS AND QUANTITY ARE TO BE DETERMINED BY ACTUAL MEASUREMENT AT THE BUILDING AND WILL IN ALL CASES BE SUBJECT TO THE APPROVAL OF THE OWNER. ALL DRAWING LOCATION CHANGES, ADDITIONS OR DELETIONS SHALL BE MADE BY A LICENSED FIRE PROTECTION ENGINEER OR LICENSED FIRE ALARM PLANNER REPRESENTING THE FIRE ALARM SYSTEMS CONTRACTOR, AND APPROVED BY THE OWNER. THE OWNER RESERVES THE RIGHT TO MAKE ANY REASONABLE CHANGES IN THE LOCATIONS INDICATED WITHOUT ADDITIONAL COST. WHEN MAKING CHANGES TO EXISTING SYSTEMS, THE RECORD DRAWING FOR THE AREA MODIFIED SHALL BE UPDATED AND THE UPDATED RECORD DRAWING PROVIDED TO THE OWNER.
- PROVIDE TEMPORARY FIRE ALARM DETECTION AND NOTIFICATION FUNCTIONS IN CONSTRUCTION AREAS AS REQUIRED BY THE PHASING OF THE PROJECT. COORDINATE EXACT REQUIREMENTS WITH OWNER PRIOR TO BID.
- ALL NEW FIRE ALARM EQUIPMENT AND DEVICES SHALL BE COMPATIBLE WITH THE OWNER'S EXISTING FIRE ALARM SYSTEM. ANY VARIANCES FROM THE EXISTING SYSTEM DESIGN STANDARD SHALL BE APPROVED PRIOR TO BID.



1 ELECTRICAL RISER DIAGRAM  
SCALE: N/A

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PROPOSED BUILDING FOR:  
**CRASH CHAMPIONS**  
451 SE OLDHAM PARKWAY  
LEE'S SUMMIT, MISSOURI

NO.	DESCRIPTION	DATE
	FOR PERMIT	10 / 22 / 21

PROJECT NUMBER 21009  
DATE ISSUED: 10 / 22 / 21

SHEET NUMBER

E3.0

ELECTRICAL DETAILS &  
GENERAL NOTES



Oct 22, 2021 -- 10:35am -- USER Scott Groshans  
C:\Users\Scott Groshans\Dropbox (5by5 Engineers)\5BY5 ACTIVE PROJECTS\2021\00051 - Rose\Rose-CAD\2021\00051 ELEC.dwg  
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LIGHT FIXTURE SCHEDULE											
TYPE	MANUFACTURER AND MODEL #	LIGHT SOURCE	WATTS	MINIMUM LUMENS	VOLTAGE	CRI	COLOR TEMP	DIMMABLE	FINISH	DESCRIPTION	NOTES
A1	METALUX 24FR-LD4-65-UNV-L835-CD1	INTEGRAL LED	60	6700	UNV	80	3500	0-10V / 10%	WHITE	2'X4' LED RECESSED TROFFER.	1-5
A2	METALUX 22FR-LD4-32-UNV-L835-CD1	INTEGRAL LED	30	3300	UNV	80	3500	0-10V / 10%	WHITE	2'X2' LED LIGHT TROFFER WITH CENTER BASKET, 3500K COLOR TEMPERATURE DIMMABLE UNIVERSAL VOLTAGE DRIVER.	1-5
C1	PORTFOLIO LD6B-20-DO10-EU810208035-6LBM1LI	INTEGRAL LED	22	2000	UNV	80	3500	0-10V / 10%	WHITE	6" ROUND LED CAN LIGHT FIXTURE WITH LED LIGHT SOURCE, 3500K COLOR TEMPERATURE.	1-5
EM	SURE LITES XR-6/9-C	INTEGRAL LED	6	1100	UNV	80	-	0-10V / 10%	WHITE	EMERGENCY WALL MOUNTED FIXTURE. FIXTURE SHALL BE PROVIDED WITH INTEGRAL EMERGENCY 90 MINUTE BATTERY PACK.	1-5
H	BUILDERS PACK TR08-165W-2FT-40K-PDN	INTEGRAL LED	165	20900	UNV	80	4000	0-10V / 10%	WHITE	LED HIGHBAY CABLE MOUNTED, 20,900 LUMEN PACKAGE. 4000K PROVIDE WITH WIREGUARD. PROVIDE WITH POWER CORD AND AIRCRAFT CABLE. CONFIRM LENGTHS NEEDED PRIOR TO ORDERING.	1-5
HE	BUILDERS PACK TR08-165W-2FT-40K-PDN -EM	INTEGRAL LED	165	20900	UNV	80	4000	0-10V / 10%	WHITE	LED HIGHBAY CABLE MOUNTED, 20,900 LUMEN PACKAGE. 4000K PROVIDE WITH WIREGUARD. PROVIDE WITH POWER CORD AND AIRCRAFT CABLE. CONFIRM LENGTHS NEEDED PRIOR TO ORDERING.FIXTURE SHALL BE PROVIDED WITH INTEGRAL EMERGENCY 90 MINUTE BATTERY PACK.	1-5
G	HE WILLIAMS - 75S-4-L65-8-40-DMA-DIM-UNV	INTEGRAL LED	43	6500	UNV	80	4000	0-10V / 10%	WHITE	LED LINEAR RIGID STEM MOUNTED.	1-5
GE	HE WILLIAMS - 75S-4-L65-8-40-DMA-EM/10WLP-DIM-UNV	INTEGRAL LED	43	6500	UNV	80	4000	0-10V / 10%	WHITE	LED LINEAR RIGID STEM MOUNTED. FIXTURE SHALL BE PROVIDED WITH INTEGRAL EMERGENCY 90 MINUTE BATTERY PACK.	1-5
S	SATCO S21517	INTEGRAL LED	19	1250	UNV	80	4000	0-10V / 10%	WHITE	9" SQUARE SURFACE MOUNT WET RATED EXTERIOR CANOPY FIXTURE.	1-5
X1	SURELITE SLX70RWH	INTEGRAL LED	1	-	UNV	NA	NA	NA	ARCHITECT TO CONFIRM	LED EXIT LIGHT FIXTURE WITH BATTERY PACK, RED LETTERS AND FIELD CONFIGURED ARROWS.	1-5
X1EM	SURELITE SLX70RWH	INTEGRAL LED	10.3	-	UNV	NA	NA	NA	ARCHITECT TO CONFIRM	COMBINATION EMERGENCY EGRESS /SINGLE FACE LED EXIT LIGHT FIXTURE WITH BATTERY PACK, RED LETTERS AND FIELD CONFIGURED ARROWS.	1-5
NOTES: 1. COORDINATE ALL LIGHT FIXTURE SELECTIONS AND/OR SUBSTITUTIONS WITH ARCHITECT, OWNER AND/OR ENGINEER PRIOR TO ORDER. 2. PROVIDE LIGHTING CONTROLS THAT ARE COMPATIBLE WITH FIXTURES PROVIDED. 3. COORDINATE WITH ARCHITECT, OWNER AND/OR ENGINEER FOR DIMMING REQUIREMENTS PRIOR TO INSTALLATION. 4. PROVIDE ALL COMPONENTS AND ACCESSORIES AS REQUIRED FOR A COMPLETE AND OPERABLE INSTALLATION. 5. EQUIVALENTS MUST BE SUBMITTED AND APPROVED PRIOR TO BID.											

LIGHTING CONTROL DEVICE SCHEDULE									
TAG	MANUFACTURER AND MODEL SERIES	SENSOR DESCRIPTION	COVERAGE AREA (WxD OR RADIUS Ø)	VOLTAGE	MODE SETTINGS	TIME DELAY	DEVICE FINISH COLOR	SENSOR NOTES	
WALL SWITCH OCCUPANCY SENSORS									
OS	WATTSTOPPER PW-301	SINGLE-RELAY PASSIVE INFRARED OCCUPANCY SENSOR WALL SWITCH WITH MANUAL OVERRIDE BUTTON.	MAJOR 30' x 35' MINOR 15' x 20'	120/277V	MANUAL ON AUTO OFF	5 MIN	WHITE	1	
OSF	WATTSTOPPER PW-XX	SINGLE-RELAY PASSIVE INFRARED OCCUPANCY SENSOR WALL SWITCH WITH MANUAL OVERRIDE BUTTON. FAN/LIGHTING CONTROL	MAJOR 30' x 35' MINOR 15' x 20'	120/277V	AUTO ON AT 50% AUTO OFF	5 MIN	WHITE	1	
CEILING MOUNTED DAYLIGHT / OCCUPANCY SENSORS									
OS	WATTSTOPPER LMDC-100	CEILING MOUNT ULTRASONIC DIGITAL OCCUPANCY SENSOR. 360 DEGREE COVERAGE. PLUG-AND-PLAY CONFIGURATION, (2) RJ45 PORTS, LCD DISPLAY, IR RECEIVER, CONFIGURATION BUTTONS.	ULT MAJOR 25' X 25' PIR 32' Ø	24V	-	20 MIN	WHITE	2	
POWER SUPPLIES/ROOM CONTROLLERS									
DRC1	WATTSTOPPER LMRC-211	DIGITAL SINGLE-RELAY ON/OFF/DIMMING ROOM CONTROLLER. 0-10V DIMMING. MAXIMUM 20A TOTAL LOAD RATING. PLUG-AND-PLAY CONFIGURATION, (4) RJ45 PORTS, LED STATUS INDICATORS, CONFIGURATION BUTTONS, PLENUM RATED.	-	120/277V LOAD, 24VDC CONTROL OUTPUT	AUTO ON AT 50%, AUTO OFF	-	-		
LOW VOLTAGE SWITCHES									
LVD	WATTSTOPPER LMDM-101	DIGITAL DIMMING WALL SWITCH.	-	24VDC	-	-	WHITE	2,3,4	
LIGHTING CONTROL PANEL									
LCP1	LEGRAND LP8S-8-G-115	8 RELAY CONTROL PANEL WITH DIGITAL TIME CLOCK	-	120V	-	-	-		
GENERAL NOTES: A. SENSOR LAYOUT BASED ON WATTSTOPPER COVERAGE PATTERNS. ADJUST QUANTITIES AND LOCATIONS FOR ALTERNATE MANUFACTURERS LISTED BELOW PER MANUFACTURER SPECIFIC SPACING B. nLIGHT, SENSOR SWITCH, COOPER-GREENGATE, CRESTRON, HUBBELL BUILDING AUTOMATION, AND LEVITON ARE CONSIDERED EQUIVALENT MANUFACTURES FOR SUBMISSION AS AN APPROVED MANUFACTURER, CONTINGENT ON LISTINGS APPROPRIATE FOR THE APPLICATION. C. DURING SHOP DRAWINGS, PROVIDE LIGHTING PLANS SHOWING LOCATION, MOUNTING HEIGHT, ORIENTATION AND COVERAGE AREAS FOR EACH OCCUPANCY SENSOR FOR REVIEW AND APPROVAL BY ENGINEER. ALSO INCLUDE ON PLANS OTHER CEILING MOUNTED SYSTEMS, SHOWING COORDINATION WITH CEILING DEVICES INCLUDING BUT NOT LIMITED TO HVAC SUPPLY AND RETURN GRILLES. D. PROVIDE ALL SENSORS BY THE SAME MANUFACTURER. E. PROVIDE COPIES OF SENSOR AND POWER SUPPLY OPERATION INSTRUCTIONS TO OWNER. F. PROVIDE WALL SWITCH AND CEILING SENSORS WITH AN ADJUSTABLE TIME DELAY RANGE OF 0-30 MIN, UNO. G. DO NOT INSTALL LINE VOLTAGE SENSORS ON GFCI PROTECTED CIRCUITS. H. FIELD-SET DEVICES TO THE ON MODE INDICATED IN TABLE, DISABLE ANY VISIBLE/AUDIBLE ALERT SETTINGS, AND SET SENSITIVITIES TO MAXIMUM LEVELS. I. PROVIDE ALL LOW VOLTAGE WIRING BETWEEN SENSORS, DEVICES, AND POWER SUPPLIES AS REQUIRED AND PER MANUFACTURER RECOMMENDATIONS. J. WHERE OCCUPANCY SENSORS USE BOTH PIR AND ULTRASONIC TECHNOLOGIES, PROGRAM OFF MODES (MAINTAIN OCCUPANCY AND RE-TRIGGER) TO TRIGGER ON A SIGNAL FROM EITHER K. WHERE MULTIPLE LOW VOLTAGE SWITCHES ARE CONNECTED WITHIN THE SAME SPACE, PROGRAM THE SWITCHES TO CONTROL THE LIGHTING IN THE EXACT SAME MANNER, UNO. SENSOR NOTES: 1. CONNECT NEUTRAL CONDUCTOR TO SENSOR. 2. PROVIDE CUSTOM BUTTON ENGRAVING PER ENGINEER'S DIRECTION. 3. PROVIDE POWER SUPPLY WITH UNSWITCHED HOT CONDUCTOR CONNECTION. COORDINATE DEVICE LOCATIONS IN FIELD. 4. +A1-J50 NUMBER DENOTES HOW MANY SWITCHES NEEDED FOR CONTROL. (1) DIMMING SWITCH PER FIXTURE TYPE IN AREA.									

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10/22/2021



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PROPOSED BUILDING FOR:  
**CRASH CHAMPIONS**  
451 SE OLDHAM PARKWAY  
LEE'S SUMMIT, MISSOURI

NO.	DESCRIPTION	DATE
	FOR PERMIT	10 / 22 / 21

PROJECT NUMBER 21009  
DATE ISSUED: 10 / 22 / 21

SHEET NUMBER

E4.0

ELECTRICAL  
SCHEDULES



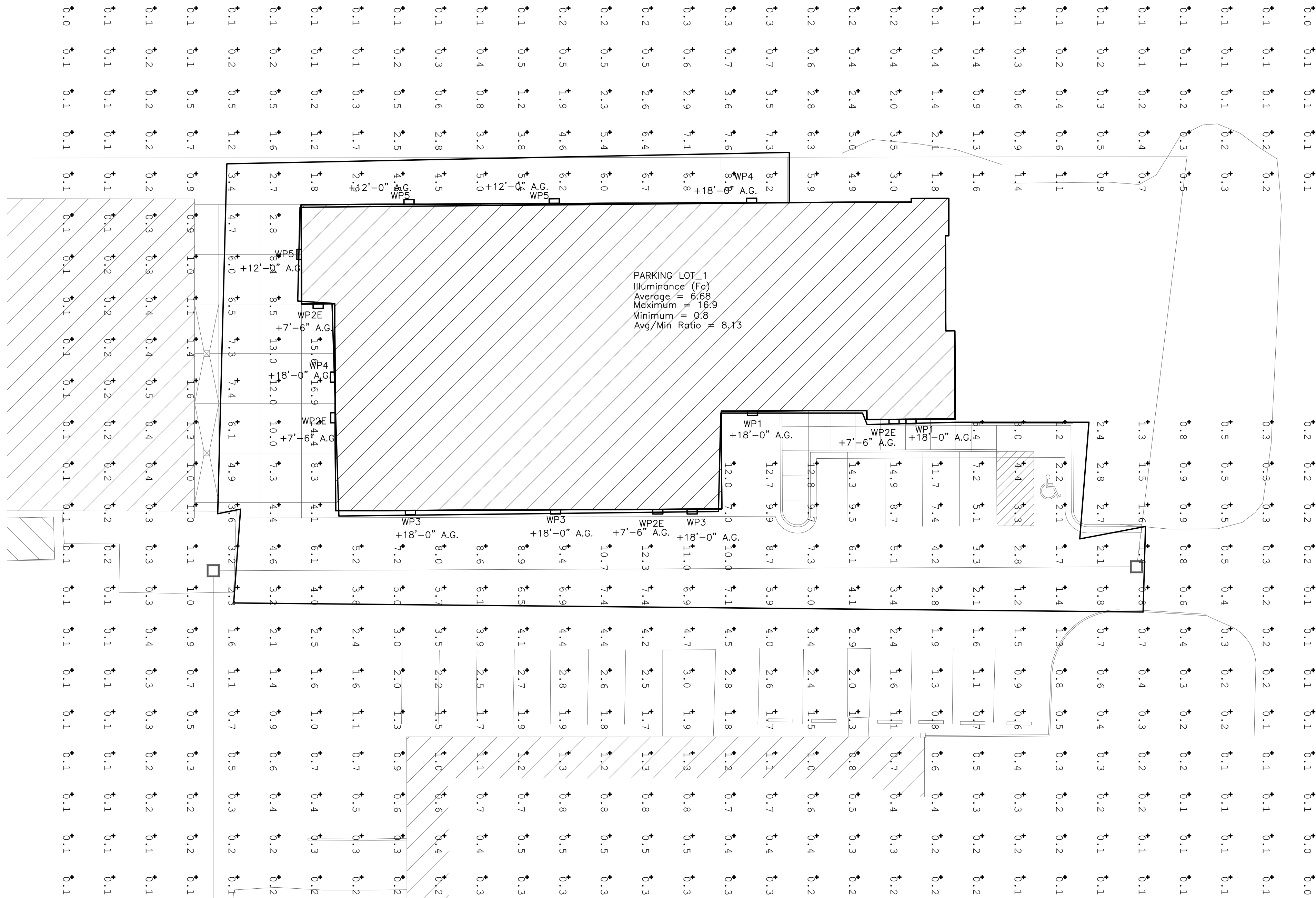
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PANELBOARD MDP																
NOTES	BUS AMPS:			800A		LOCATION:			STORAGE A106			GROUND BUS:			YES	
	MAIN SIZE / TYPE:			MCB		NEMA RATING:			NEMA 1			ISOL. GROUND BUS:			NO	
	VOLTS/PHASE:			208Y/120V, 3PH, 4W		AFC VALUE:			FIELD VERIFY #1			FEED THRU LUGS:			NO	
	MOUNTING:			SURFACE		AIC RATING:			65,000			SECTIONS:			1 OF 1	
NOTES	CKT #	CIRCUIT DESCRIPTION	BREAKER AMPS	P	WIRE SIZE	LOAD (VA)	CONNECTED PER PHASE (VA)			LOAD (VA)	WIRE SIZE	BREAKER P	AMPS	CIRCUIT DESCRIPTION	CKT #	
	1					40,034	40,034			0					2	
	3	PANEL "P1"	600	3	O.L.	43,126	48,176			5,050					4	
	5					45,168	50,218			5,050	#8	3	50	RTU-1	6	
	7					4,810	9,860			5,050					8	
	9	VEHICLE LIFT	50	3	#8	4,810	13,220			8,410					10	
	11					4,810	13,220			8,410	#3	3	100	AIR COMPRESSOR	12	
	13					0	8,410			8,410					14	
	15	SPACE				0	2,400			2,400					16	
	17					0	2,400			2,400	#10	3	30	RTU-2	18	
	19					0	2,400			2,400					20	
	21	SPACE				0	0			0					22	
	23					0	0			0				SPACE	24	
	25					0	0			0					26	
	27	SPACE				0	0			0					28	
	29					0	0			0				SPACE	30	
	31					0	0			0					32	
	33	SPACE				0	0			0					34	
	35					0	0			0				SPACE	36	
	37					0	0			0					38	
	39	SPACE				0	0			0					40	
	41					0	0			0					42	
PER PHASE SUB-TOTALS							60,704	63,796	65,838	LEGEND:						
TOTAL CONNECTED PANELBOARD (VA)							190,338			LCP1- VIA LIGHTING CONTROL PANEL						
TOTAL CONNECTED PANELBOARD (AMPS)							528			GFCI - GROUND FAULT CURRENT INTERRUPTER						
TOTAL PANELBOARD DEMAND (VA)							187,612			EX - EXISTING						
TOTAL PANELBOARD DEMAND (AMPS)							521			OL - RE: ONE-LINE DIAGRAM						
GENERAL NOTES:							WP - WEATHER PROOF ENCLOSURE									
1. CONFIRM FAULT CURRENT RATING WITH EVERY PRIOR TO ORDERING EQUIPMENT.																

PANELBOARD P1																
		BUS AMPS: MAIN SIZE / TYPE: VOLTS/PHASE: MOUNTING:		600A MLO 208Y/120V, 3PH, 4W SURFACE		LOCATION: NEMA RATING: AFC VALUE: AIC RATING:		STORAGE A106 NEMA 1 FIELD VERIFY #1 65,000		GROUND BUS: ISOL. GROUND BUS: FEED THRU LUGS: SECTIONS:		YES NO NO 3				
NOTES														NOTES		
	CKT #	CIRCUIT DESCRIPTION	BREAKER AMPS	P	WIRE SIZE	LOAD (VA)	CONNECTED PER PHASE (VA)			LOAD (VA)	WIRE SIZE	BREAKER P	AMPS	CIRCUIT DESCRIPTION	CKT #	
							A	B	C							
WP,GFCI	1	RECEPT. - ELEC. ROOM	20	1	#12	180	430			250	#12	1	20	LIGHTING CONTROL PANEL 'LCP1'	2	
	3	RECEPT. - EXTERIOR BLDG.	20	1	#12	360		720		360	#12	1	20	RECEPT. - SHOP	4	
	5	RECEPT. - SHOP	20	1	#12	360			2,960	2,600	#6	2	30	MIG/MAG WELDER	6	
	7					5,500	8,100			2,600					8	
#2	9	SPOT WELDER	60	3	#4	5,500		5,860		360	#12	1	20	RECEPT. - SHOP	10	
	11				5,500				6,600	1,100	#12	1	20	OVERHEAD DOOR	12	
	13	BIG ASS FAN - SHOP	20	1	#12	900	1,800			900	#12	1	20	BIG ASS FAN - SHOP	14	
	15	BIG ASS FAN - SHOP	20	1	#12	900		1,260		360	#12	1	20	RECEPT. - SHOP	16	
#2	17	RECEPT. - SHOP	20	1	#12	360			720	360	#12	1	20	RECEPT. - SHOP	18	
	19	RECEPT. - SHOP	20	1	#12	360	360			0					20	
	21	MIG/MAG WELDER	30	2	#6	2,600		8,100		5,500	#4	3	60	SPOT WELDER	22	
	23				2,600				8,100	5,500					24	
	25	RECEPT. - SHOP	20	1	#12	360	6,220			5,860	#12	1	20	RECEPT. - SHOP	26	
	27	RECEPT. - SHOP	20	1	#12	360		2,960		2,600	#6	2	30	MIG/MAG WELDER	28	
	29				5,500				8,100	2,600					30	
	31	SPOT WELDER	60	3	#4	5,500	5,860			360	#12	1	20	RECEPT. - SHOP	32	
	33				5,500				6,600	1,100	#12	1	20	OVERHEAD DOOR	34	
	35	BIG ASS FAN - SHOP	20	1	#12	900			1,260	360	#12	1	20	RECEPT. - SHOP	36	
	37	RECEPT. - SHOP	20	1	#12	360	1,460			1,100	#12	1	20	OVERHEAD DOOR	38	
	39	RECEPT. - SHOP	20	1	#12	1,080		1,800		720	#12	1	20	RECEPT. - SHOP	40	
41	OVERHEAD DOOR	20	1	#12	900			900	0	#12	1	20	RECEPT. - EXTERIOR BLDG.	42		
SECTION: 2																
WP,GFCI LCP1	43	FRIG. - BREAKROOM	20	1	#12	1,000	1,900			900	#12	1	20	RECEPT. - GARBAGE DISPOSAL	44	
	45	MICROWAVE - BREAKROOM	20	1	#12	1,200		1,380		180	#12	1	20	RECEPT. - BREAKROOM	46	
	47	RECEPT. - RESTROOM	20	1	#12	360			720	360	#12	1	20	RECEPT. - BREAK/OFFICE	48	
	49	RECEPT. - JAN. CLOSET	20	1	#12	180	1,260			1,080	#12	1	20	RECEPT. - OFFICE	50	
	51	RECEPT. - OFFICE	20	1	#12	1,080		2,160		1,080	#12	1	20	RECEPT. - OFFICE	52	
	53	RECEPT. - OFFICE	20	1	#12	1,080			2,160	1,080	#12	1	20	RECEPT. - OFFICE	54	
	55	RECEPT. - COFFEE	20	1	#12	900	1,980			1,080	#12	1	20	RECEPT. - TV WAITING AREA	56	
	57	RECEPT. - COFFEE BAR AREA	20	1	#12	180		540		360	#12	1	20	RECEPT. - RESTROOMS	58	
	59	RECEPT. - EXTERIOR BLDG.	20	1	#12	180			1,380	1,200	#12	1	20	EXTERIOR BLDG SIGN	60	
	61	EXTERIOR BLDG. SIGN	20	1	#12	1,200	1,380			180	#12	1	20	RECEPT. - EXTERIOR BLDG	62	
	63	LTG - OFFICE	20	1	#12	1,200		2,400		1,200	#12	1	20	LTG- BREAK/RESTROOMS	64	
	65	LTG - SHOP	20	1	#12	1,200			2,400	1,200	#12	1	20	LTG - SHOP	66	
LCP1	67	LTG - SHOP	20	1	#12	1,200	2,400			1,200	#12	1	20	LTG - SHOP	68	
	69	LTG - SHOP	20	1	#12	1,200		2,400		1,200	#12	1	20	LTG - SHOP	70	
	71	LTG - SHOP	20	1	#12	1,200			1,350	150	#12	1	20	LTG- ELEC. ROOM	72	
	73	LTG - EXTERIOR BLDG	20	1	#12	1,200	2,400			1,200	EX	EX	EX	PYLON SIGNAGE	74	
	75	SPARE	20	1		0		1,800		1,800	#12	1	20	UH-1	76	
	77	SPARE	20	1		0			1,032	1,032	#12	1	20	RT-5 / RT-7	78	
	79	SPARE	20	1		0	1,032			1,032	#12	1	20	RT-6 / RT-8	80	
	81	EF-5	20	1	#12	200		1,232		1,032	#12	1	20	RT-3 / RT-4	82	
	83	EF-3	20	1	#12	200			3,080	2,880	#10	1	30	EF-4	84	
	SECTION: 3															
	85	EF-2	20	1	#12	450	650			200	#12	1	20	EF-4 CONTROLLER	86	
	87	EF-1	20	1	#12	528		1,560		1,032	#12	1	20	RT-1 / RT-2	88	
89	SPACE				0			1,872	1,872	#10	2	25	CU-1	90		
91	SPACE				0	1,872			1,872					92		
93	SPACE				0		104		104	#12	2	15	FCU-1	94		
95	RECEPT. - RTU-1	20	1	#12	180			284	104					96		
97	RECEPT. - RTU-2	20	1	#12	180	430			250	#12	1	20	FACP	98		
99	WH-1	30	2	#10	2,250		2,250		0	--	--	--	SPACE	100		
101					2,250			2,250	0	--	--	--	SPACE	102		
103	RP-1	20	1	#12	500	500			0	--	--	--	SPACE	104		
105	SPACE	--	--	--	0		0		0	--	--	--	SPACE	106		
107	SPACE	--	--	--	0			0	0	--	--	--	SPACE	108		
109	SPACE	--	--	--	0	0			0	--	--	--	SPACE	110		
111	SPACE	--	--	--	0		0		0	--	--	--	SPACE	112		
113	SPACE	--	--	--	0			0	0	--	--	--	SPACE	114		
115	SPACE	--	--	--	0	0			0	--	--	--	SPACE	116		
117	SPACE	--	--	--	0		0		0	--	--	--	SPACE	118		
119	SPACE	--	--	--	0			0	0	--	--	--	SPACE	120		
121	SPACE	--	--	--	0	0			0	--	--	--	SPACE	122		
123	SPACE	--	--	--	0		0		0	--	--	--	SPACE	124		
125	SPACE	--	--	--	0			0	0	--	--	--	SPACE	126		
PER PHASE SUB-TOTALS							40,034	43,126	45,168	LEGEND:						
TOTAL CONNECTED PANELBOARD (VA)							128,328			LCP1- VIA LIGHTING CONTROL PANEL						
TOTAL CONNECTED PANELBOARD (AMPS)							356			GFCI - GROUND FAULT CURRENT INTERRUPTER						
TOTAL PANELBOARD DEMAND (VA)							125,602			EX - EXISTING						
TOTAL PANELBOARD DEMAND (AMPS)							349			OL - RE: ONE-LINE DIAGRAM						
GENERAL NOTES:							WP - WEATHER PROOF ENCLOSURE									
1. CONFIRM FAULT CURRENT RATING WITH EVERY PRIOR TO ORDERING EQUIPMENT.																
2. CONFIRM LENGTH OF CIRCUIT NEEDED TO SIZE WIRE. SIZE SHOWN IS LONGEST LENGTH SIZE PER MANUFACTURER RECOMMENDATIONS.																
3. FIELD VERIFY PYLON SIGNAGE POWER REQUIREMENTS PRIOR TO ORDERING CIRCUIT BREAKER. NOTIFY ENGINEER OF DISCREPANCIES.																



Oct 22, 2021 -- 10:35am -- USER Scott Groshans  
C:\Users\Scott Groshans\Dropbox (5by5 Engineers)\5BY5 ACTIVE PROJECTS\202100051 Crash Champions Lee Summit -- Rose\Rose-CAD\202100051 ELEC.dwg  
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1 ELECTRICAL SITE LIGHTING PHOTOMETRICS PLAN  
SCALE: 1/16" = 1'-0"

SITE LIGHT FIXTURE SCHEDULE											
TYPE	MANUFACTURER AND MODEL #	LIGHT SOURCE	WATTS	MINIMUM LUMENS	VOLTAGE	CRI	COLOR TEMP	DIMMABLE	FINISH	DESCRIPTION	NOTES
WP1	MCGRAW EDISON - GLEON-SA3D-740-U-SL4	INTEGRAL LED	191	22,500	UNV	80	4000	NA	DARK BRONZE	LED ARCHITECTURAL SITE WALL MOUNTED FIXTURE. MOUNT AT 18'-0" A.G.	1-5
WP2E	MCGRAW EDISON - IST-SA1-E-740-U-T4FT-XX-CBP	INTEGRAL LED	25	2200	UNV	80	4000	NA	DARK BRONZE	EXTERIOR LED WALL PACK. FIXTURE SHALL BE PROVIDED WITH INTEGRAL EMERGENCY 90 MINUTE BATTERY PACK.	1-5
WP3	MCGRAW EDISON - GLEON-SA3A-740-U-SL4	INTEGRAL LED	96	13,500	UNV	80	4000	NA	DARK BRONZE	LED ARCHITECTURAL SITE WALL MOUNTED FIXTURE .	1-5
WP4	MCGRAW EDISON - GLEON-SA3D-740-U-SL2-HSS	INTEGRAL LED	191	19,600	UNV	80	4000	NA	DARK BRONZE	LED ARCHITECTURAL SITE WALL MOUNTED FIXTURE. PROVIDE WITH HOUSE SHIELD.	1-5
WP5	MCGRAW EDISON - GLEON-SA1A-740-U-SL2-HSS	INTEGRAL LED	34	4,000	UNV	80	4000	NA	DARK BRONZE	LED ARCHITECTURAL SITE WALL MOUNTED FIXTURE. PROVIDE WITH HOUSE SHIELD.	1-5

- NOTES:
- COORDINATE ALL LIGHT FIXTURE SELECTIONS AND/OR SUBSTITUTIONS WITH ARCHITECT, OWNER AND/OR ENGINEER PRIOR TO ORDER.
  - PROVIDE LIGHTING CONTROLS THAT ARE COMPATIBLE WITH FIXTURES PROVIDED.
  - COORDINATE WITH ARCHITECT, OWNER AND/OR ENGINEER FOR DIMMING REQUIREMENTS PRIOR TO INSTALLATION.
  - PROVIDE ALL COMPONENTS AND ACCESSORIES AS REQUIRED FOR A COMPLETE AND OPERABLE INSTALLATION.
  - EQUIVALENTS MUST BE SUBMITTED AND APPROVED PRIOR TO BID.

ELECTRICAL GENERAL NOTES:

- REFER TO SHEET E3.0 FOR ELECTRICAL GENERAL NOTES.

ELECTRICAL GENERAL DEMOLITION NOTES:

- DEMO WORK MUST BE COMPLETED PER PHASE. CONFIRM CIRCUITS TO REMAIN FOR PHASE II TO BE FULLY OPERATIONAL DURING DEMO WORK OF PHASE I.
- REMOVE ALL INTERIOR ELECTRICAL DEVICES INCLUDING ALL CONDUIT AND WIRING BACK TO SOURCE OR NEAREST DOWNSTREAM DEVICE TO REMAIN. (U.N.O.) REFERENCE SHEET E3.0-1 DEMO ELECTRICAL RISER DIAGRAM FOR FURTHER INFORMATION.
- ABANDON ALL EXISTING FLOOR BOXES IN PLACE.
- REFER TO SHEET E3.0 FOR ADDITIONAL ELECTRICAL GENERAL DEMOLITION NOTES AND ELECTRICAL GENERAL NOTES.

⊖ ELECTRICAL SITE LIGHTING PHOTOMETRIC PLAN NOTES:

- PHOTOMETRICS ARE CALCULATED REFERENCING IES FILES OF SPECIFIED LIGHT FIXTURES ON SCHEDULE. ANY LIGHT FIXTURE ALTERNATIVES AS WELL AS MOUNTING HEIGHTS MAY DIFFER IN PHOTOMETRIC SUMMARY AND SHALL BE CALCULATED AS REQUIRED.
- POLE MOUNTED LIGHT FIXTURE. PROVIDE WITH 20'-0" STEEL SQUARE POLE. POLE SHALL BE PROVIDED WITH A HARMONIC DAMPNER. PROVIDE AND INSTALL POLE PER LIGHT FIXTURE MANUFACTURER RECOMMENDATIONS. REFERENCE LIGHT POLE BASE ON THIS SHEET DETAIL 2. CONFIRM FINISH COLOR WITH ARCHITECT PRIOR TO ORDERING. REFERENCE LIGHT FIXTURE SCHEDULE ON THIS SHEET FOR FURTHER INFORMATION.
- ALL FIXTURES TO BE INSTALLED IN GENERAL LOCATION SHOWN. COORDINATE WITH ALL TRADES PRIOR TO INSTALL.

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LICENSE # PE-2019012798

10/22/2021



ARCHITECTS ■ PLANNERS

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PROPOSED BUILDING FOR:  
**CRASH CHAMPIONS**  
451 SE OLDHAM PARKWAY  
LEE'S SUMMIT, MISSOURI

NO.	DESCRIPTION	DATE
	FOR PERMIT	10 / 22 / 21

PROJECT NUMBER 21009  
DATE ISSUED: 10 / 22 / 21

SHEET NUMBER

ES1.0

ELECTRICAL SITE LIGHTING  
PHOTOMETRICS