

CRASHCHAMPIONS
COLLISION REPAIR TEAM

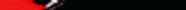


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CRASHCHAMPIONS
COLLISION REPAIR TEAM

PROPOSED BODY SHOP BUILDING FOR:

CRASH CHAMPIONS

451 SE OLDHAM PARKWAY

LEE'S SUMMIT. MISSOURI

COVER SHEET

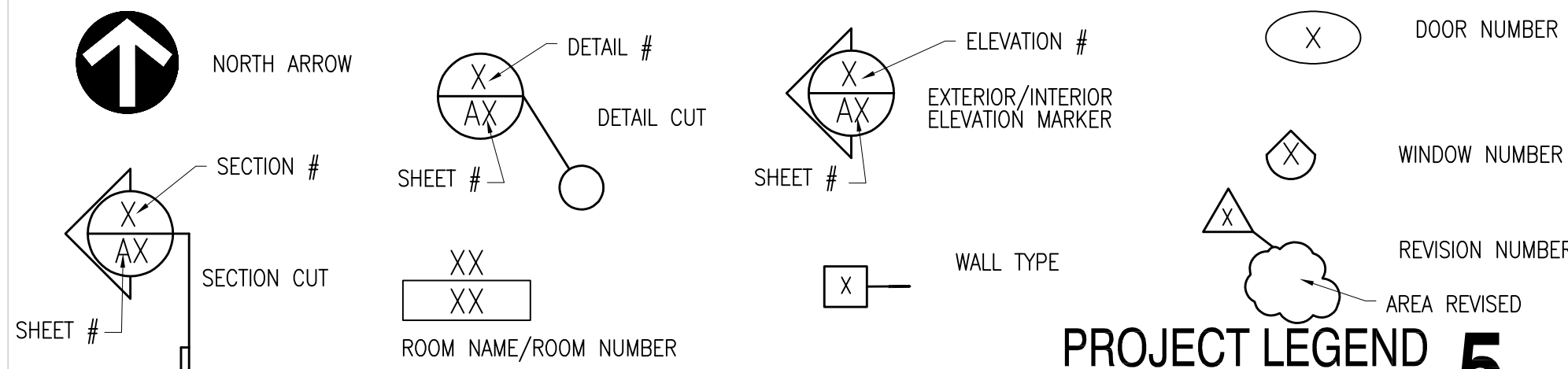
Jun 13, 2022 - 9:09am - USER ChrisB
 \rose\Drawings - Current\2009 Crash Comptions Lees Summit Addition\Production\Planning & Zoning\Architectural\CS COVER SHEET.dwg
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C/C	AIR CONDITIONING	EA	EACH	JB	JUNCTION BOX	RO	ROUGH OPENING
AC	ACCOUSTICAL	EJ	EXPANSION JOINT	JT	JOINT	ROW	RIGHT OF WAY
ACT	ACCOUSTICAL TILE	ELEC	ELECTRIC/ELECTRICAL	LAV	LAVATORY	RTU	ROOF TOP UNIT
AF	ABOVE FINISHED	EMERG	EMERGENCY				SCHED
	FLOOR	EP	ELECTRICAL PANEL	MAX	MAXIMUM	SF	SQUARE FEET
ALT	ALTERNATE	EQUAL	EQUIPMENT	MECH	MECHANICAL	SIM	SIMILAR
ALUM	ALUMINUM	EQ	EQUIPMENT			SPEC	SPECIFICATION
ANOD	ANODIZED	EW	EACH WAY	MTL	METAL	SPK	SPEAKER
APPROX	APPROXIMATELY	EXH	EXHAUST	MFG	MANUFACTURER	STL	STEEL
ARCH	ARCHITECTURAL	EXP	EXPANSION	MIN	MINIMUM	STRUC	STRUCTURAL
ASPH	ASPHALT			MISC	MISCELLANEOUS		
		FD	FLOOR DRAIN				
BD	BOARD	FDN	FOUNDATION			TEMP	TEMPORARY
B.F.F.	BELOW FINISHED	FFE	FINISHED FLOOR	NIC	NOT IN CONTRACT	TYP	TYPICAL
	FLOOR		ELEVATION	NOM	NOMINAL		
BLDG	BUILDING	FLR	FLOOR	NTS	NOT TO SCALE	UL	UNDERWRITER
BRG	BEARING	FRP	FIBERGLASS				LABORATORIES
BTU	BRITISH THERMAL UNIT		REINFORCED PLASTIC	OC	ON CENTER	UNO	UNLESS NOTED
		FT	FOOT	OD	OUTSIDE DIAMETER		OTHERWISE
CCT	CIRCUIT			OH	OVERHEAD	UTIL	UTILITIES
CFM	CUBIC FEET/MINUTE	GA	GAUGE				
CJ	CONTROL JOINT	GAL	GALLON	PL	PLATE		
CL	CEILING	GALV	GALVANIZED	PLUMB	PLUMBING	VSTR	VESTIBULE
CLR	CLEAR	GND	GROUND	PLYWD	PLYWOOD	VENT	VENT THROUGH ROOF
CMU	CONCRETE MASONRY	GYP	GYPSONUM	PNL	PANEL		
	UNIT			PREFAB	PREFABRICATED	W/	WITH
CNDT	CONDUIT	HB	HOSE BIBB	PSF	POUNDS/SQUARE FOOT	WC	WATER CLOSET
COL	CLEAN OUT	HDWR	HARDWARE	PSI	POUNDS/SQUARE INCH	WD	WOOD
CONC	CONCRETE	HORZ	HORIZONTAL	PVC	POLYVINYL CHLORIDE		
CONST	CONSTRUCTION	HP	HORSE POWER	QT	QUARRY TILE	WT	WEIGHT
CONT	CONTINUOUS	HR	HOUR			WWF	WELDED WIRE FABRIC
CT	CERAMIC TILE	HTR	HEATING	R/A	RETURN AIR		
CW	COLD WATER	HW	HOT WATER	RD	ROOF DRAIN	YD	YARD
				RCPT	RECEPTACLE		
				RECES	RECESSED		
DIA	DIAMETER			REF	REFERENCE		
DIM	DIMENSION	ID	INSIDE DIAMETER	REIN	REINFORCING		
DISC	DISCONNECT	IN	INCHES	REQD	REQUIRED		
DN	DOWN	INSUL	INSULATION				
DR	DOOR						
DS	DOWNSPOUT						
DTL	DETAIL						

ABBREVIATIONS 6

ABBREVIATIONS 6

- | | |
|---|--|
| 1. CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO ANY WORK. | 6. ALL WORK SHALL COMPLY WITH APPLICABLE CODES AND INDUSTRY STANDARDS. |
| 2. SUB-CONTRACTOR TO VERIFY FIELD CONDITIONS AND MEASUREMENTS, AND TO PROMPTLY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES WITH PLANS. | 7. FRAMING SUBCONTRACTOR IS REQUIRED TO NOTIFY ARCHITECT FOR VERIFICATION & APPROVAL OF LAYOUT PRIOR TO PROCEEDING WITH FRAMING. |
| 3. 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. | 8. MAINTAIN EXISTING UTILITIES INDICATED TO REMAIN, KEEP IN SERVICE, AND PROTECT AGAINST DAMAGE DURING CONSTRUCTION |
| 4. UPON COMPLETION OF WORK, REMOVE TOOLS, EQUIPMENT, AND CONSTRUCTION DEBRIS FROM SITE. REMOVE PROTECTIONS AND LEAVE INTERIOR AREAS BROOM CLEAN | 9. DISPOSE OF ALL DEBRIS TO APPROVED DUMP SITE. |
| 5. 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. | 10. ALL STRUCTURAL WOOD PANELS & WOOD BLOCKING TO BE FIRE TREATED. |
- ## GENERAL NOTES



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general contractor:

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PHelps
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(F) 816.531.8572
www.bdc-engrs.com

DEFERRED SUBMITTALS:
FOLLOWING BUILDING COMPONENTS SHALL BE SUBMITTED TO LEES SUMMIT
FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION

1. ROOF WOOD TRUSSES

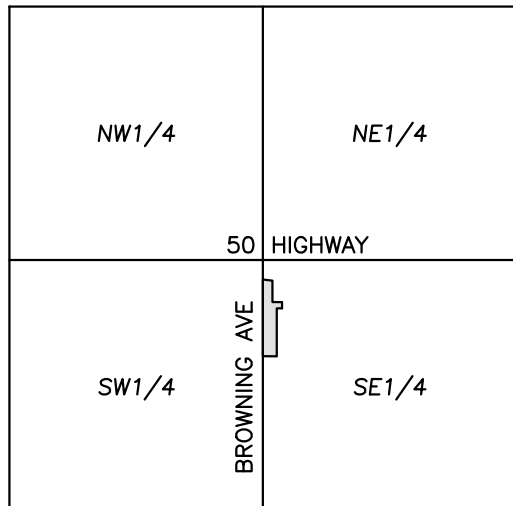
\\phelps-server\projects\p\210229\Draw\permit plans\EXISTING CONDITIONS.dwg Layout:1 May 24, 2022 - 3:03pm Daniel Finn



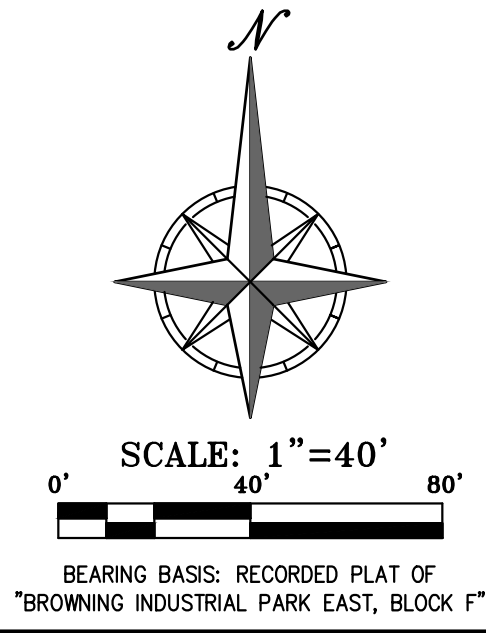
Know what's below.
Call before you dig.

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.

- LEGEND
- = FOUND SURVEY MONUMENT (ORIGIN UNKNOWN UNLESS DESCRIBED)
 - = SET MAG. NAIL & SHINER, UNLESS OTHERWISE NOTED
 - = SET 1/2"x24" REBAR WITH "PHELPS CLS-82" PLASTIC CAP
 - A/CU = AIR CONDITIONING UNIT
 - BM# = BENCHMARK
 - C/O = CLEAN OUT
 - EM = ELECTRIC METER
 - EO = ELECTRIC OUTLET
 - FH = FIRE HYDRANT
 - GM = GAS METER
 - GP = GUARD POST
 - GW = GUY WIRE
 - LP = LIGHT POLE
 - LPP = LIGHT POWER POLE
 - LPTR = LIGHT POWER POLE WITH TRANSFORMER(S)
 - LNS = LANDSCAPE
 - MB = MAIL BOX
 - PP = POWER POLE
 - PPTR = POWER POLE WITH TRANSFORMER(S)
 - PVCR = PVC RISER
 - RD = ROOF DRAIN
 - RWM = RIGHT OF WAY MARKER
 - SSMH = SANITARY SEWER MANHOLE
 - SSMH = STORM SEWER MANHOLE
 - TR = TELEPHONE RISER
 - TVR = TELEVISION RISER
 - WM = WATER METER
 - WV = WATER VALVE
 - YL = YARD LIGHT
 - ✱ = BUSH
 - ☼ = CEDAR OR EVERGREEN TREE
 - ☼ = DECIDUOUS TREE
 - F.F. = FINISH FLOOR
 - U/E = UTILITY EASEMENT
 - R/W = RIGHT-OF-WAY
 - FO = FIBER OPTIC LINE
 - W = WATER LINE
 - G = GAS LINE
 - OHP = OVERHEAD POWER LINE
 - SS = SANITARY SEWER LINE
 - X-X-X-X = FENCE LINE



SE BAILEY STREET
VICINITY MAP
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. / 2.469± ACRES

TITLE NOTE:

TITLE INFORMATION SHOWN HERE WAS TAKEN FROM FIRST AMERICAN TITLE INSURANCE COMPANY OWNER'S POLICY FOR TITLE INSURANCE NO. 5011429-02091234, FILE NO. 227732 DATED JANUARY 5, 2021 AT 08:31 A.M.

EXCEPTIONS FROM COVERAGE:

- TERMS AND PROVISIONS OF THE COVENANTS AND RESTRICTIONS CONTAINED IN THE DEED RECORDED JANUARY 10, 1986 AS DOCUMENT NO. I-667399 IN BOOK I-1500 AT PAGE 2074. [AFFECTS A PORTION OF THE PROPERTY, CONTAINS CERTAIN RESTRICTIONS BLANKET IN NATURE]
- TERMS AND PROVISIONS OF THE EASEMENT RECORDED JANUARY 10, 1986 AS DOCUMENT NO. I-667400 IN BOOK I-1500 AT PAGE 2075, AS MORE FULLY CONTAINED THEREIN. [AFFECTS PROPERTY, AS SHOWN]
- LACK OF DIRECT ACCESS TO U.S. ROUTE 50 FROM THE LAND, SUCH RIGHT OF ACCESS HAVING BEEN GRANTED BY THE DOCUMENT RECORDED AUGUST 4, 1986 AS DOCUMENT NO. 891954 IN BOOK 1843 AT PAGE 662. [AFFECTS PROPERTY, ACCESS GRANTED TO OLDHAM PARKWAY AS BEING AN OUTER ROAD]

SURVEY NOTES:

- THERE IS A TOTAL OF 6 MARKED PARKING SPACES LOCATED ON SUBJECT PROPERTY. PARKING SPACES ARE MARKED WITH STRIPES AS SHOWN HEREON.
- THERE IS NO VISIBLE EVIDENCE OF EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS.
- 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.
- CONTOURS SHOWN HEREON ARE AT 1 FOOT INTERVALS.
- THIS PROPERTY HAS DIRECT PHYSICAL ACCESS SE OLDHAM PARKWAY.
- 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:

- THE NE CORNER OF THE MAIN BUILDING EXTENDS 0.3' 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 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. 2909SC04386, AND DATED JANUARY 20, 2017.

UTILITY NOTE:

UTILITIES SHOWN HEREON WERE TAKEN FROM FIELD LOCATES BY THE UTILITY COMPANIES OR THEIR RESPECTIVE REPRESENTATIVES AND MAPPING PROVIDED BY THE UTILITY COMPANIES AND ARE NOT THE RESULT OF AN ACTUAL DIG. LOCATIONS SHOWN ARE APPROXIMATE AND PEI DOES NOT GUARANTEE THAT ALL UTILITIES ARE SHOWN HEREON. ONE CALL TICKET NO(S) ARE

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.

BENCHMARK:

- 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

JUDD DAVID

REGISTERED PROFESSIONAL ENGINEER

NUMBER

PE-29840

5/24/22

PHILIPS ENGINEERING, INC.

1370 N. Winchester

Olathe, Kansas 66061

(913) 393-1155

Fax (913) 393-1165

www.philipsengineering.com

PLANNING

ENGINEERING

IMPLEMENTATION

PEI

EXISTING CONDITIONS

CRASH CHAMPIONS

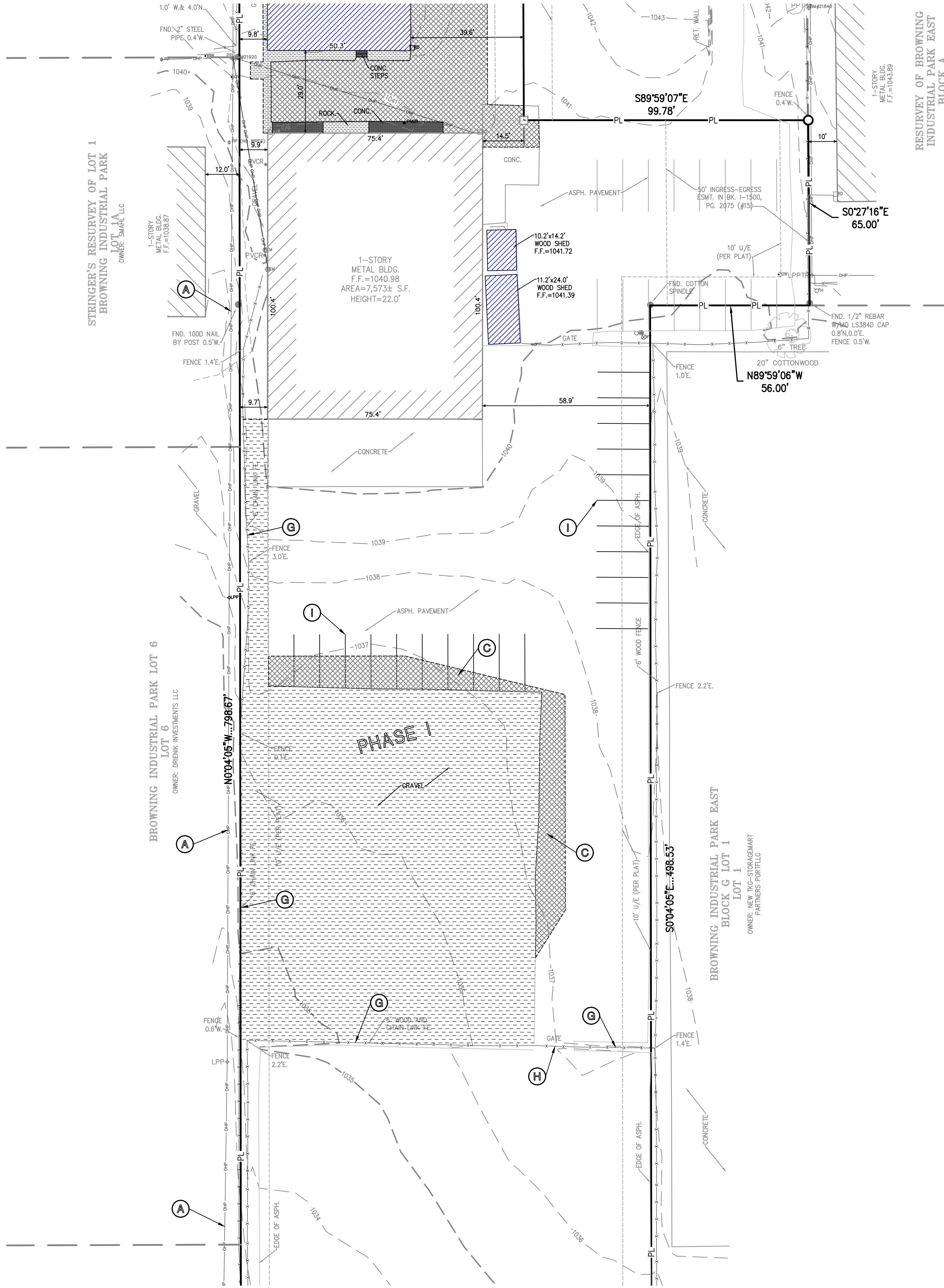
451 S.E. OLDHAM PARKWAY

LEE'S SUMMIT, JACKSON COUNTY, MO

PROJECT NO.	210229	No.		Date	Revisions:	By	App.
DATE	05-24-22						
CHECKED	DAF						
APPROVED	JDC						
CERTIFICATE OF AUTHORIZATION							
LAND SURVEYING - LS-82							
ENGINEERING - E-361							
CERTIFICATE OF AUTHORIZATION							
LAND SURVEYING-200701028							
ENGINEERING-200700209							

SHEET

C0



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DEMOLITION NOTES:

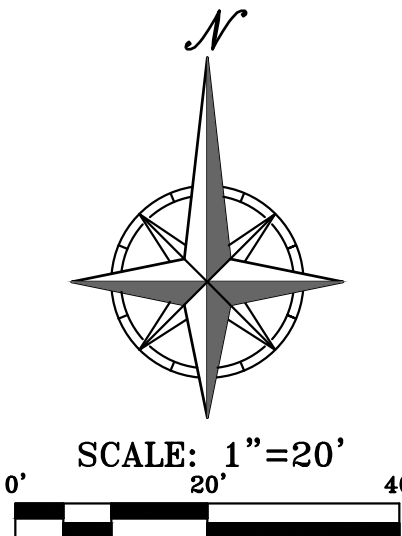
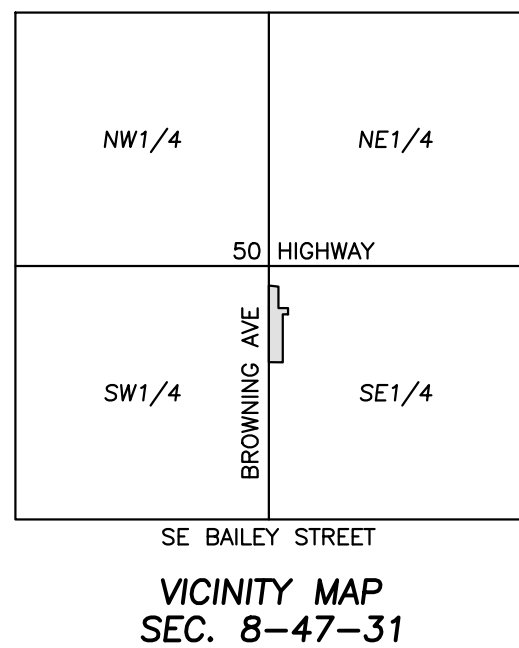
1. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION, REMOVAL, AND DISPOSAL (IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES) ALL CURBS, PARKING, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE REMAINING PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL.
2. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING THE DEBRIS IN A LAWFUL MANNER. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.
3. DAMAGE TO ALL EXISTING CONDITIONS TO REMAIN WILL BE REPLACED AT CONTRACTOR'S EXPENSE.
4. CONTRACTOR MUST COORDINATE WITH OWNER PRIOR TO ANY CONSTRUCTION TO ESTABLISH CUSTOMER ACCESS AND TRAFFIC FLOW DURING ALL PHASES.
5. REFER TO THE BUILDING PLANS FOR SITE LIGHTING ELECTRICAL MODIFICATIONS (IF ANY) TO THE EXISTING SYSTEM.

DEMOLITION KEY NOTES:

- (A)** ALL UTILITIES SERVING STRUCTURES IMMEDIATELY SURROUNDING THE DEMOLITION BOUNDARY SHALL REMAIN IN SERVICE THROUGHOUT THE PROJECT. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT ANY DAMAGE TO SUCH UTILITIES. TYPICAL LOCATION.
- (B)** REMOVE EXISTING TREE (TYPICAL).
- (C)** THE CONTRACTOR SHALL REMOVE EXISTING DRIVE ENTRANCE & EXISTING ASPHALT PARKING LOT. REMOVE EXISTING ASPHALT, CONCRETE, AND THE SUB-BASE GRAVEL TO THE NATURAL SOIL ELEVATION.
- (D)** THE CONTRACTOR SHALL REMOVE ALL PRE-EXISTING STRUCTURES, FOUNDATIONS, FOOTINGS, PIERS, WATER WELLS, SEPTIC TANKS, LATERAL LINES, BURIED DEBRIS, MISCELLANEOUS CONCRETE, ETC. WHICH MAY BE ENCOUNTERED DURING DEMOLITION ACTIVITIES. THE CONTRACTOR SHALL DISPOSE OF THESE MATERIALS IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES.
- SHADED AREAS INDICATE MAIN STRUCTURES AND OUTBUILDINGS TO BE DEMOLISHED. IN ADDITION TO SHADED DEMOLITION AREAS, ALL MISCELLANEOUS CONCRETE, STONE STRUCTURES, OUTBUILDINGS, PRIVATE SIDEWALKS, HAND RAILINGS, RETAINING WALLS, SIGNS, PATIOS, FOUNDATION WALLS AND FOOTINGS ASSOCIATED WITH THE STRUCTURES SHALL BE REMOVED UNLESS OTHERWISE NOTED ON THE PLANS. TYPICAL LOCATION.
- THE CONTRACTOR SHALL BE REQUIRED TO BACKFILL ALL EXCAVATIONS/DEPRESSIONS CREATED BY THE REMOVAL OF STRUCTURES, FOUNDATIONS, FOOTINGS, PAVING, SEPTIC TANKS, WELLS, PIPES, TREE ROOTS, DEBRIS AND UTILITY STRUCTURES, ETC. ALL EXCAVATIONS SHALL BE BACKFILLED TO EXISTING GROUND ELEVATIONS ON ALL SIDES OF THE EXCAVATION.
- (E)** THE CONTRACTOR SHALL REMOVE CONCRETE STOP BLOCKS.
- (F)** REMOVE EXISTING 4" ASPHALT CURB.
- (G)** EXISTING FENCE TO REMAIN.
- (H)** EXISTING GATE TO REMAIN.
- (I)** EXISTING STRIPING TO BE REMOVED.
- (J)** REMOVE & RELOCATE EXISTING POWER SERVICE (SEE UTILITY PLAN).

LEGEND

— PL —	PROPERTY LINE
— LL —	LOT LINE
— R/W —	RIGHT-OF-WAY
~~~~~	REMOVE EXISTING CURB & GUTTER
	EXISTING BUILDING TO BE REMOVED
	EXISTING ASPHALT PAVEMENT TO BE REMOVED
	EXISTING CONCRETE PAVEMENT/SIDEWALK TO BE REMOVED
	EXISTING GRAVEL TO BE REMOVED
	EXISTING TREE TO REMAIN
	REMOVE TREE
— BT —	EXISTING BURIED TELEPHONE
— CATV —	EXISTING CABLE TELEVISION LINE
— FO —	EXISTING FIBER OPTIC LINE
— W —	EXISTING WATER LINE
— G —	EXISTING GAS LINE
— BE —	EXISTING BURIED ELECTRIC
— OHP —	EXISTING OVERHEAD POWER LINE
— SS —	EXISTING SANITARY SEWER
---	EXISTING STORM SEWER
	EXISTING FIRE HYDRANT
LP	EXISTING LIGHT POLE
— X — X —	EXISTING CHAIN LINK FENCE



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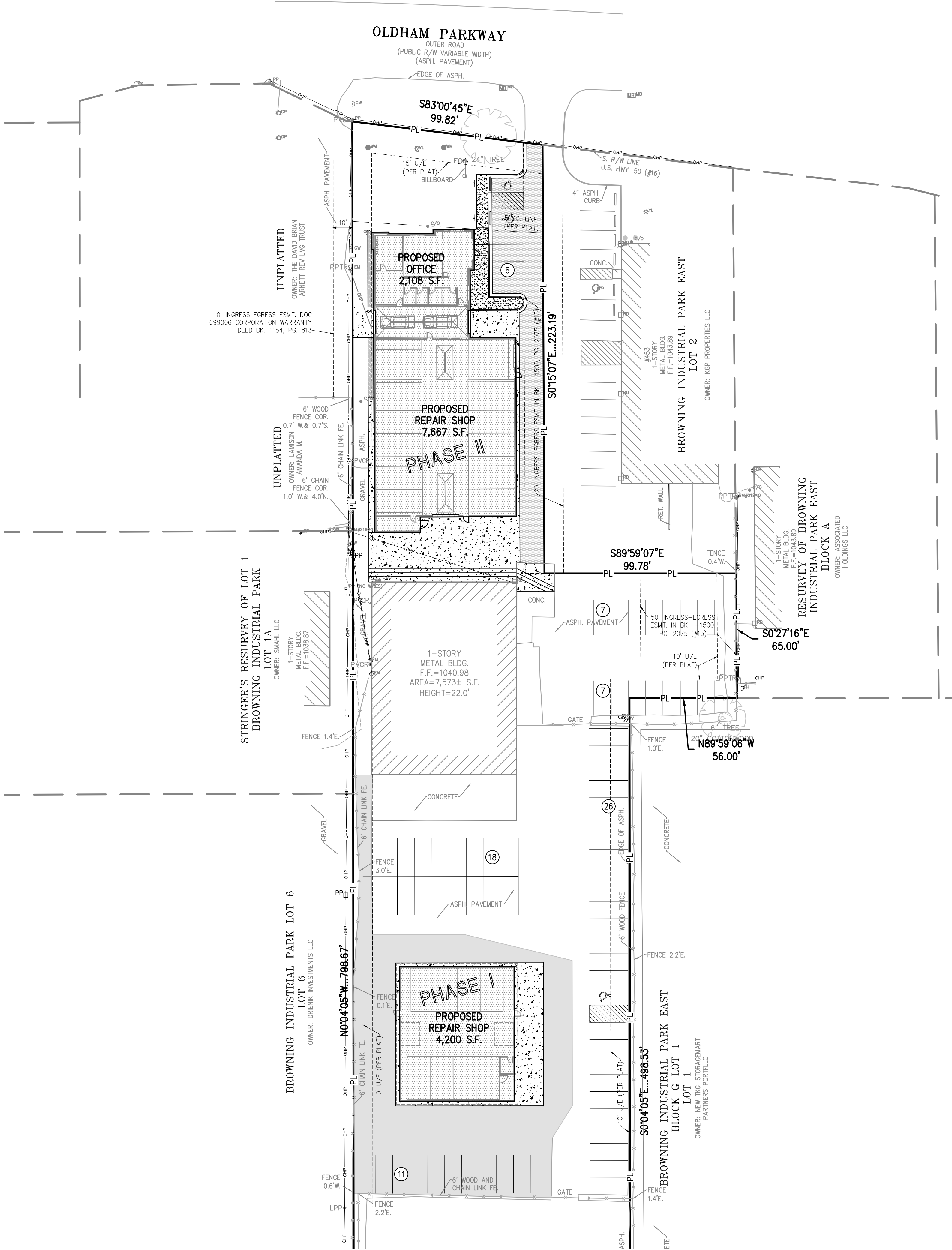


**DEMOLITION PLAN**  
CRASH CHAMPIONS  
451 S.E. OLDHAM PARKWAY  
LEE'S SUMMIT, JACKSON COUNTY, MO

PROJECT NO.	210229	DATE	210229	BY	App.
DATE	05-24-22	DRAWN	SNH	CHECKED	DAF
CERTIFICATE OF AUTHORIZATION					
LAND SURVEYING - LS-82					
ENGINEERING - E-361					
CERTIFICATE OF AUTHORIZATION					
LAND SURVEYING - LS-82					
ENGINEERING - E-361					
CERTIFICATE OF AUTHORIZATION					
LAND SURVEYING - LS-82					
ENGINEERING - E-361					

SHEET  
**C0.2**





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#### 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 (North)	7,667 S.F.
Proposed Repair Shop (South)	4,200 S.F.
Total	21,548 S.F.
Floor Area Ratio (FAR)	0.2003

#### PARKING SUMMARY

Parking Required	
Automobile Service (3 per service bay, 19 service bays)	57 Spaces
Parking Provided	
Standard Parking Provided	72 Spaces
Handicap Accessible Parking Spaces Provided	3 Spaces
Total Parking Provided	75 Spaces

#### 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**

#### PRE-CONSTRUCTION MEETING NOTE:

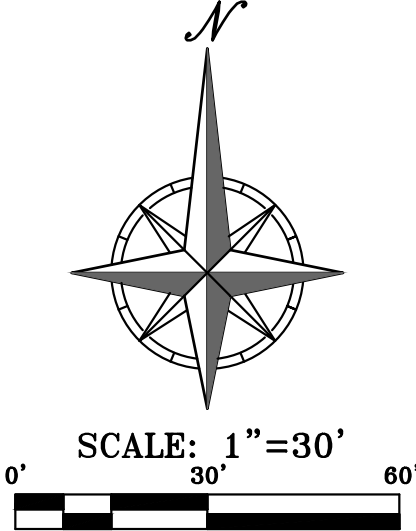
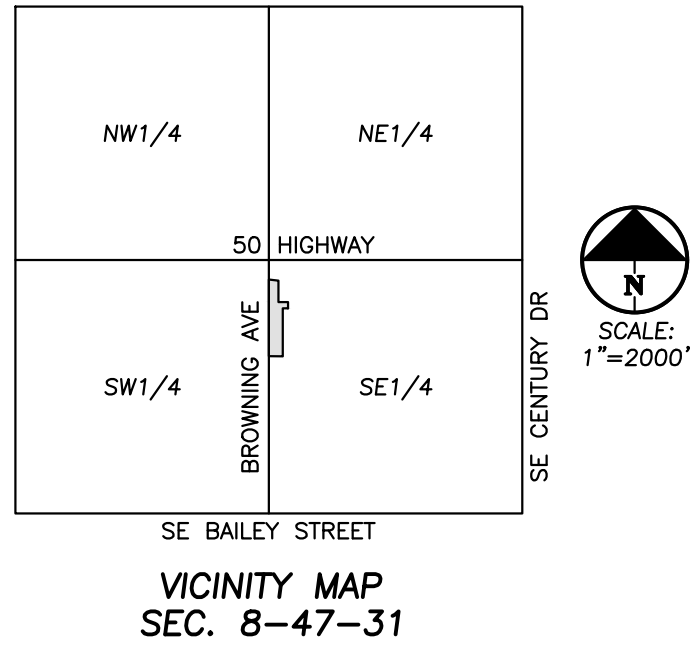
THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTION TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH A FIELD ENGINEERING INSPECTOR PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969-1200.

#### OIL-GAS WELLS:

ACCORDING TO THE MISSOURI DEPARTMENT OF NATURAL RESOURCES STATE OIL & GAS COUNCIL WELLS, LOCATED AT [www.dnr.mo.gov/geology/geosrv/oilandgas.htm](http://www.dnr.mo.gov/geology/geosrv/oilandgas.htm), THERE ARE NO OIL OR GAS WELLS ON THE PROPERTY SHOWN HEREON.

#### 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
	ASPHALT PAVEMENT
	CONCRETE PAVEMENT
	CONCRETE SIDEWALK
	PROPOSED 2" ASPHALT MILL & OVERLAY
	ROCK STRIP



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www.philipsengineering.com



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

PROJECT NO.	210229	DATE	24-22	CHECKER	DAF	APPROVED	JDC	CERTIFICATE OF AUTHORIZATION	LAND SURVEYING - LS-82	ENGINEERING - E-361	CERTIFICATE OF AUTHORIZATION	LAND SURVEYING-20070128	ENGINEERING-20070028
By													
App.													
Revisions:													

SHEET  
**C1**



\\phelps-engineering\server\projects\210229\Drawings\ENLARGED SITE.dwg Layout3 May 24, 2022 - 3:06pm Daniel Finn

UNPLATTED

OWNER: THE DAVID BRIAN  
ARNETT REV LUG 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.

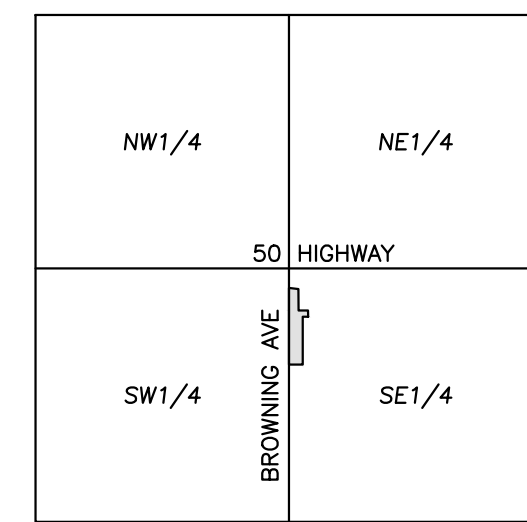
PROPOSED  
REPAIR SHOP  
7,667 S.F.

#### SITE KEY NOTES:

- (A) CONSTRUCT PRIVATE 2' TYPE "B" CONCRETE 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" MONOLITHIC 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) PROPOSED POWER POLE (RE: UTILITY PLAN).
- (M) INSTALL 3' CONCRETE APRON.
- (N) INSTALL 3' ROCK STRIP.
- (O) STRIPE WHITE (PAINT) PARKING LOT PER LEE'S SUMMIT SPECIFICATIONS (TYPICAL).

#### 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
- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- CONCRETE SIDEWALK
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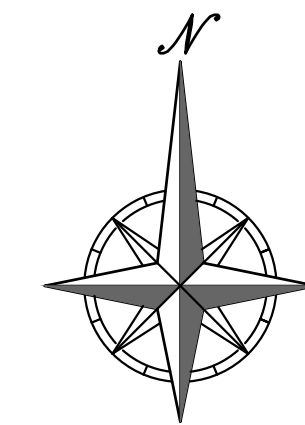


SE. BAILEY STREET  
VICINITY MAP  
SEC. 8-47-31



Know what's below.  
Call before you dig.

UTILITY NOTES:  
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LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN  
THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL  
FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.



SCALE: 1"=10'  
0' 10' 20'



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

PROJECT NO.	210229	DATE	24-22	DRAWN/CHK	DAF	APPROVED	JDC
CHECKED							
CERTIFICATE OF AUTHORIZATION							
LAND SURVEYING - LS-82							
ENGINEERING - E-361							
CERTIFICATE OF AUTHORIZATION							
LAND SURVEYING-20070128							
ENGINEERING-20070028							

SHEET

C1.1



## C1.2

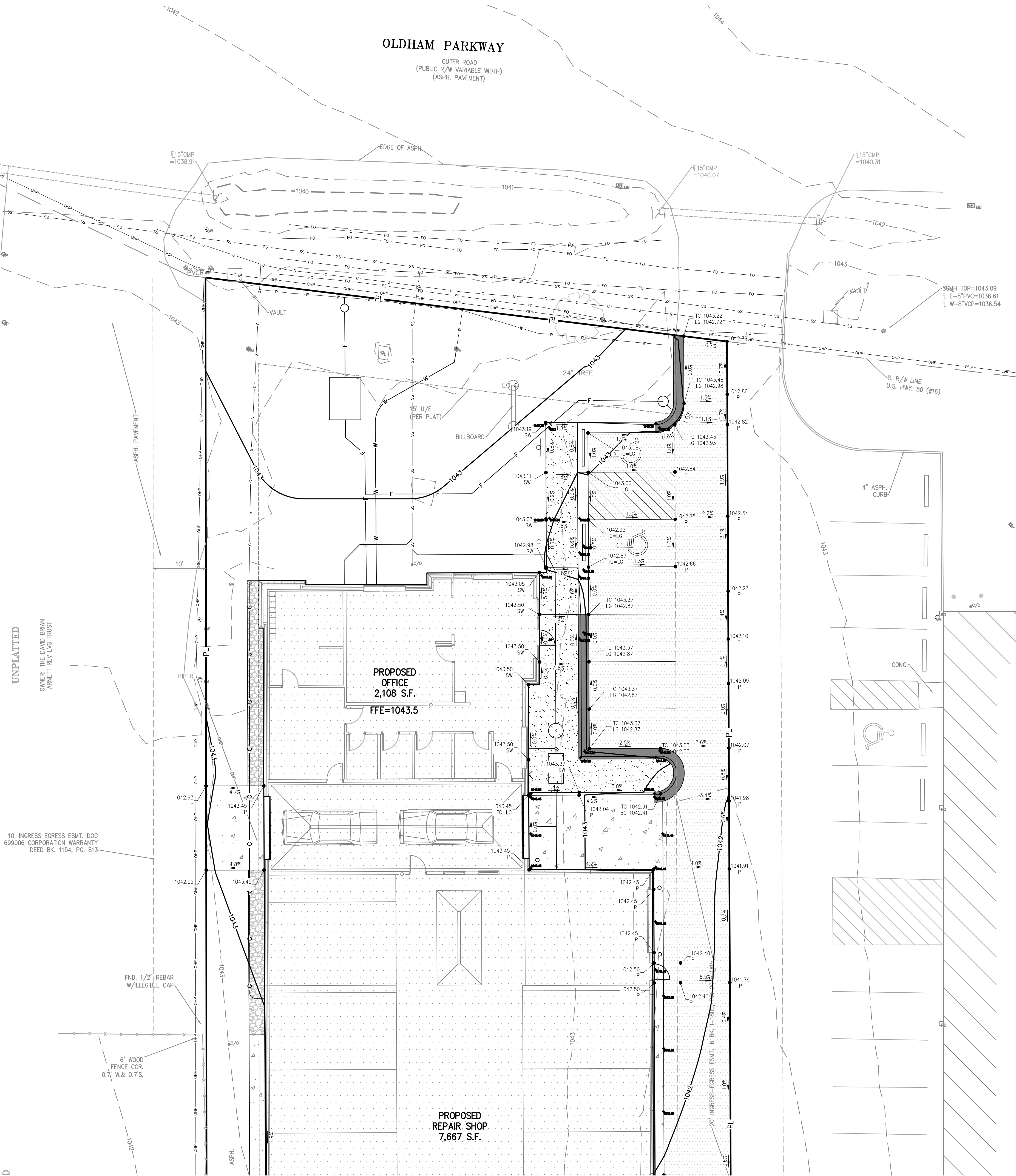
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\\phelps-server\projects\p\210229\Draw\permit plans\GRADING.dwg Layout:3 May 24, 2022 - 3:06pm David Finn



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#### BENCHMARK:

VERTICAL DATUM = NAVD88 BASED ON GPS OBSERVATION USING MDOOT VRS

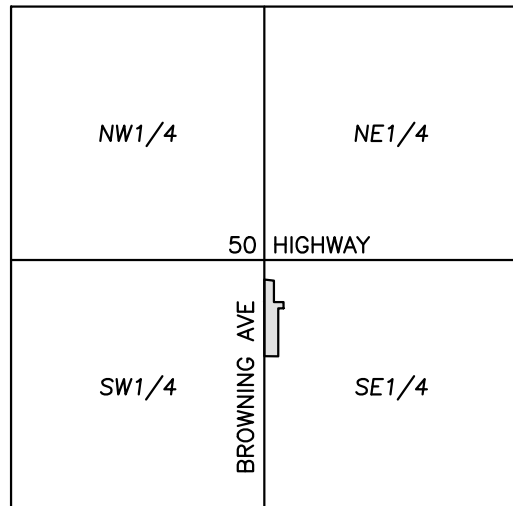
- R.R. SPIKE IN W. FACE POWER POLE NEAR SE COR. #453 BLDG.  
ELEVATION = 1043.66
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ELEVATION = 1043.33

#### FLOOD NOTE:

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. 29095C0438G, AND DATED JANUARY 20, 2017.

#### LEGEND

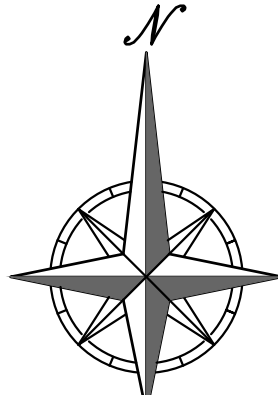
- PL PROPERTY LINE
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- R/W RIGHT-OF-WAY
- 2' CURB & GUTTER
- EXISTING CONTOURS
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- PROPOSED STORM PIPE
- PROPOSED WET CURB & GUTTER
- PROPOSED DRY CURB & GUTTER



VICINITY MAP  
SEC. 8-47-31



SCALE: 1"=2000'

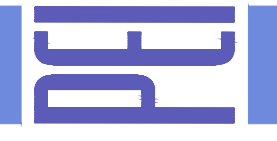


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ENLARGED GRADING PLAN  
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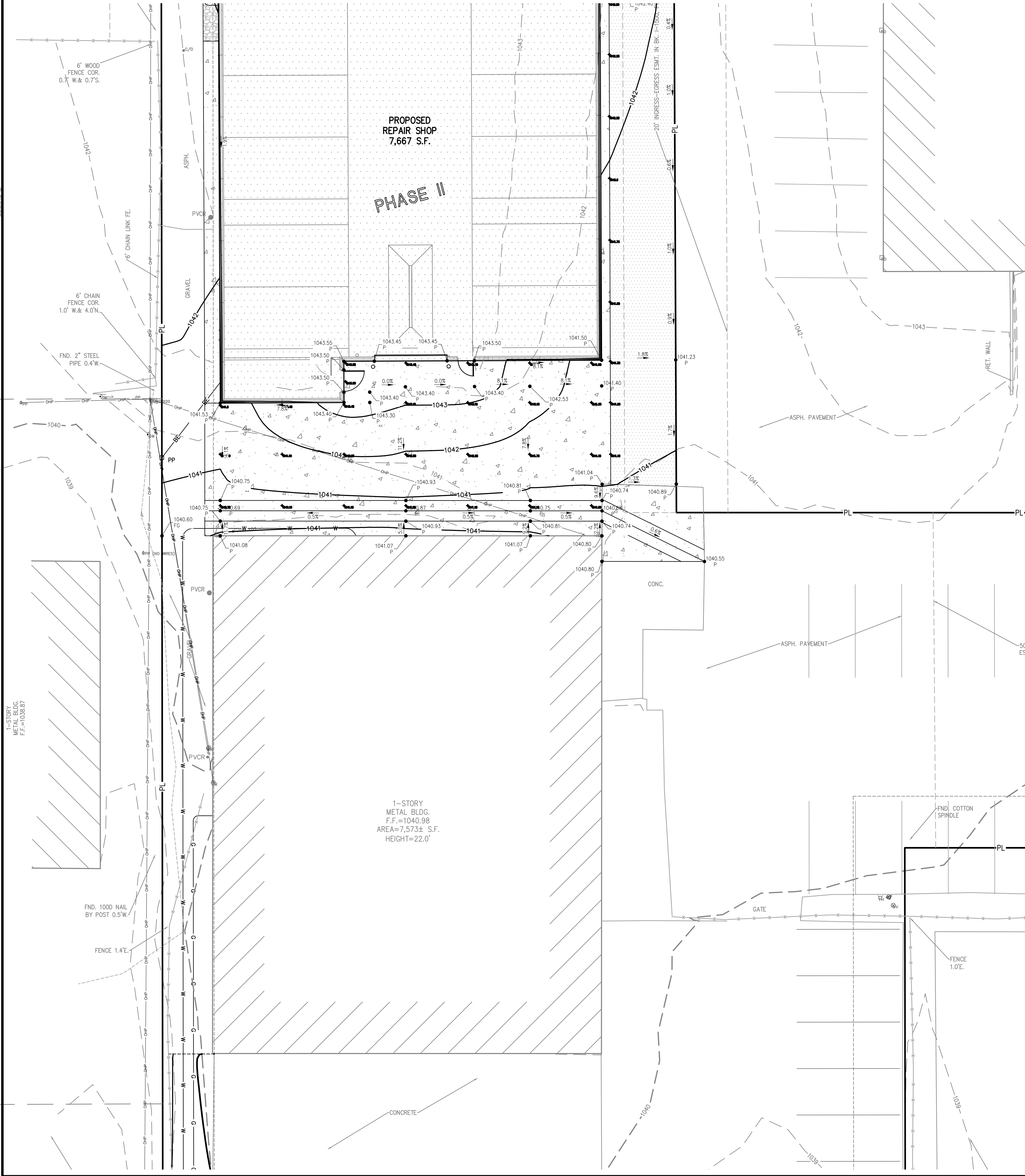
PROJECT NO.	210229	DATE	2022-05-24	CHECKED	DAF	APPROVED	JDC	DATE OF AUTHORIZATION	2022-05-24	LAND SURVEYING	LS-82	ENGINEERING	E-361	DATE OF AUTHORIZATION	2022-05-24	LAND SURVEYING	LS-82	ENGINEERING	E-361
Revisions:																			
By																			
App.																			

SHEET

C2



\\phelps-servers\projects\p\210229\Draw\permit plans\GRADING.dwg Layout:2 May 24, 2022 - 3:04pm David Finn



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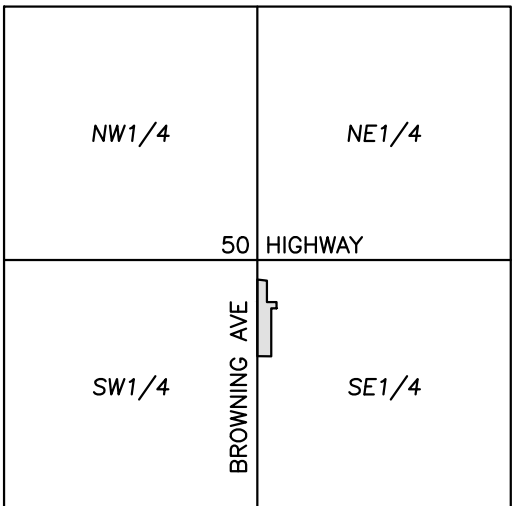
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### LEGEND

- |              |                            |
|--------------|----------------------------|
| — PL —       | PROPERTY LINE              |
| — LL —       | LOT LINE                   |
| — R/W —      | RIGHT-OF-WAY               |
| =====        | 2' CURB & GUTTER           |
| — 920 —      | EXISTING CONTOURS          |
| — 920 —      | PROPOSED CONTOURS          |
| — 918 —      |                            |
| XXX.XX<br>TW | PROPOSED SPOT ELEVATION    |
| LG           | LIP OF GUTTER              |
| TC           | TOP OF CURB                |
| SW           | SIDEWALK                   |
| ME           | MATCH EXISTING             |
| HP           | HIGH POINT                 |
| LP           | LOW POINT                  |
| P            | TOP OF PAVEMENT            |
| TE           | 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       |
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| =====        | PROPOSED DRY CURB & GUTTER |



VICINITY MAP  
SEC. 8-47-31



SCALE: 1"=2000'

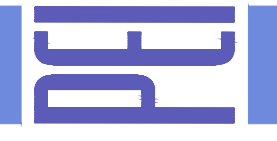


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PLANNING  
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IMPLEMENTATION



ENLARGED GRADING PLAN  
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LEE'S SUMMIT, JACKSON COUNTY, MO

PROJECT NO.	DATE	BY	APP.	REVISIONS:
210229	2022-05-24	DAVID FINN		
CHECKER	DAVID FINN			
DATE	2022-05-24			
CERTIFICATE OF AUTHORIZATION				
LAND SURVEYING - LS-82				
ENGINEERING - E-361				
CERTIFICATE OF AUTHORIZATION				
LAND SURVEYING-200701028				
ENGINEERING-200701028				

SHEET

C2.1



**SITE GRADING NOTES:**

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 subgrade 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 by a registered land surveyor and submit it 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 topsoil, vegetation, large rock fragments (greater than 6 inches in any dimension) and any other deleterious material. The actual stripping depth should be based on visual examination during construction and the results of proof-rolling operations. The root systems of all trees (not designated 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 stockpiled at a location or on adjacent to the site 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 stripped 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 ITL.
5. Contractor shall adjust and/or cut existing pavement as necessary to assure a smooth fill and continuous grade. Contractor shall assure 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 proofrolled and approved under the direction of the Geotechnical Engineer or his representative.
7. **PROOFROLLING:** Subsequent to completion of stripping and over-excavation, all building and pavement areas to receive engineered fill shall be systematically proof-rolled using a tandem axle dump truck loaded to approximately 20,000 pounds per axle. Also, any finished subgrade areas to receive paving shall be proof-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 shall 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 be 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 area 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 upon as a basis for construction. 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.



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.

### BENCHMARK:

VERTICAL DATUM = NAVD88 BASED ON GPS OBSERVATION USING MODOT VRS

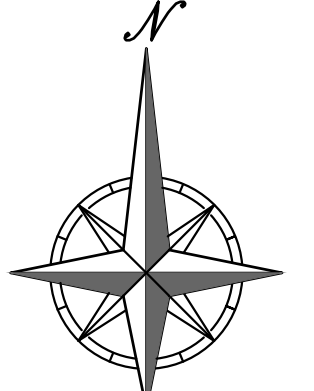
1. R.R. SPIKE IN W. FACE POWER POLE NEAR SE COR. #453 BLDG.  
ELEVATION = 1043.66
2. R.R. SPIKE IN E. FACE POWER POLE ON W. PROPERTY LINE NEAR SW COR. #451 BLDG.  
ELEVATION = 1043.33

**FLOOD NOTE:**

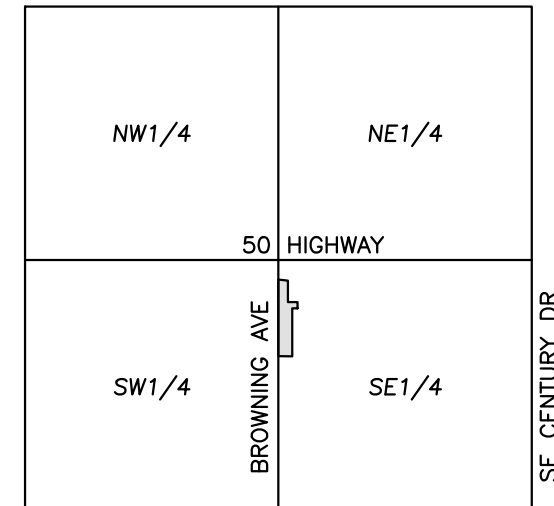
THIS PROPERTY LIES WITHIN ZONE X, DEFINED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FLOOD INSURANCE RATE MAP PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FOR THE CITY OF LEE'S SUMMIT, COMMUNITY NO. 290174, JACKSON COUNTY, MISSOURI, MAP NO. 29095C0438G, AND DATED JANUARY 20, 2017.

### LEGEND

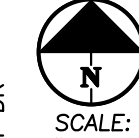
- |           |                            |
|-----------|----------------------------|
| == PL ==  | PROPERTY LINE              |
| -- LL --  | LOT LINE                   |
| -- R/W -- | RIGHT-OF-WAY               |
| =====     | 2' CURB & GUTTER           |
| == 920 == | EXISTING CONTOURS          |
| == 916 == |                            |
| == 920 == | PROPOSED CONTOURS          |
| == 918 == |                            |
|           | PROPOSED SPOT ELEVATION    |
| XXXX.XX   | LG LIP OF GUTTER           |
| TW        | TC TOP OF CURB             |
|           | SW SIDEWALK                |
|           | ME MATCH EXISTING          |
|           | HP HIGH POINT              |
|           | LP LOW POINT               |
|           | P TOP OF PAVEMENT          |
|           | TE 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'

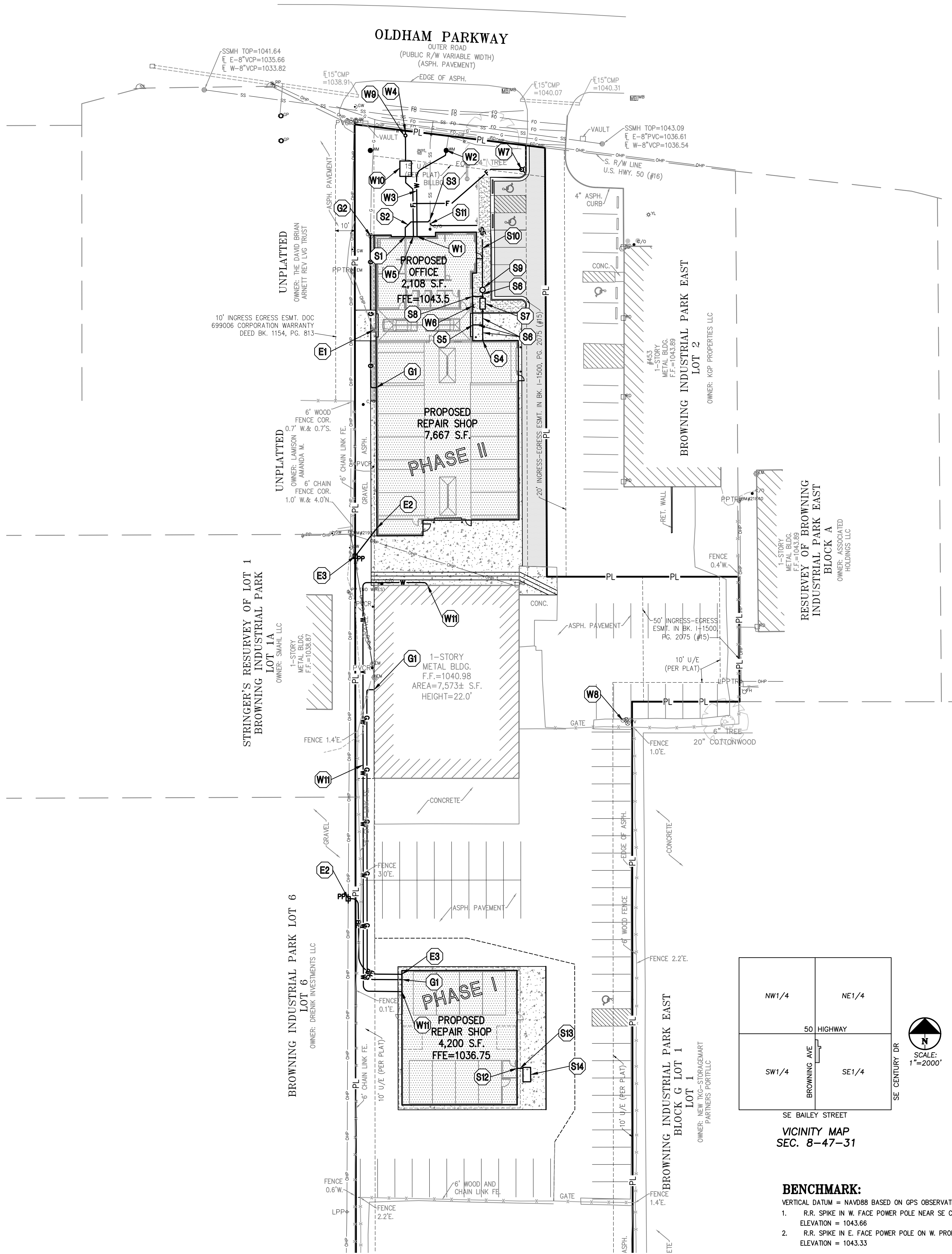


SE BAILEY STREET  
VICINITY MAP  
SEC. 8-47-31



SCALE:  
1"=2000'





Know what's below.  
Call before you dig.

#### 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 GAS 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 NEW POWER POLE AND POLE MOUNTED TRANSFORMER. CONTRACTOR TO VERIFY EXACT LOCATION WITH JPL PRIOR TO CONSTRUCTION. 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". 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 CONNECTION TO EXISTING MAIN VIA CUT-IN TEE 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.
- W6** FIRE DEPARTMENT CONNECTION (RE: MEP PLANS).
- W7** INSTALL PRIVATE FIRE HYDRANT ASSEMBLY.
- W8** EXISTING PRIVATE FIRE HYDRANT TO REMAIN.
- W9** INSTALL 6" RESTRAINED VALVE AT CONNECTION TO MAIN PER CITY OF LEE'S SUMMIT STANDARDS AND REQUIREMENTS.
- W10** INSTALL BACKFLOW VAULT CONTAINING DOUBLE CHECK DETECTOR ASSEMBLY FOR 6" FIRE LINE PER CITY OF LEE'S SUMMIT STANDARD DETAIL WAT-12.
- W11** INSTALL 1-1/2" SOFT TYPE K COPPER DOMESTIC WATER LINE FROM EXISTING BUILDING PLUMBING TO NEW REPAIR SHOP (SOUTH BUILDING). RE: MEP PLANS.
- S1** CONNECT TO BLDG. INTERIOR PLUMBING SANITARY SEWER LINE (RE: MEP PLANS)  
F0=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)  
F0=1043.45  
FL 4"=1040.35
- S5** CONNECT TO BLDG. INTERIOR PLUMBING SAND/OIL LINE (RE: MEP PLANS)  
F0=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±
- S12** CONNECT TO BLDG. INTERIOR PLUMBING SANITARY SEWER LINE (RE: MEP PLANS)  
F0=1036.75  
FL 4"=1032.75
- S13** INSTALL 3 L.F. 4" PVC SANITARY SEWER SERVICE LINE (SDR-26) @ 2.0% MIN. SLOPE.
- S14** INSTALL 1,000 GALLON HOLDING TANK. CONTRACTOR TO PROVIDE SPECIFICATION TO CIVIL ENGINEER FOR APPROVAL.  
TE=1036.70  
FL 4" IN=1032.65

#### 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 be 6-inches above finished ground elevations in non-paved areas. No separate or additional compensation will be made to the contractor for making final 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 the 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, 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, on 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
- SS — 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 — PROPOSED WATER LINE (& SIZE)



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

PLANNING  
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IMPLEMENTATION



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

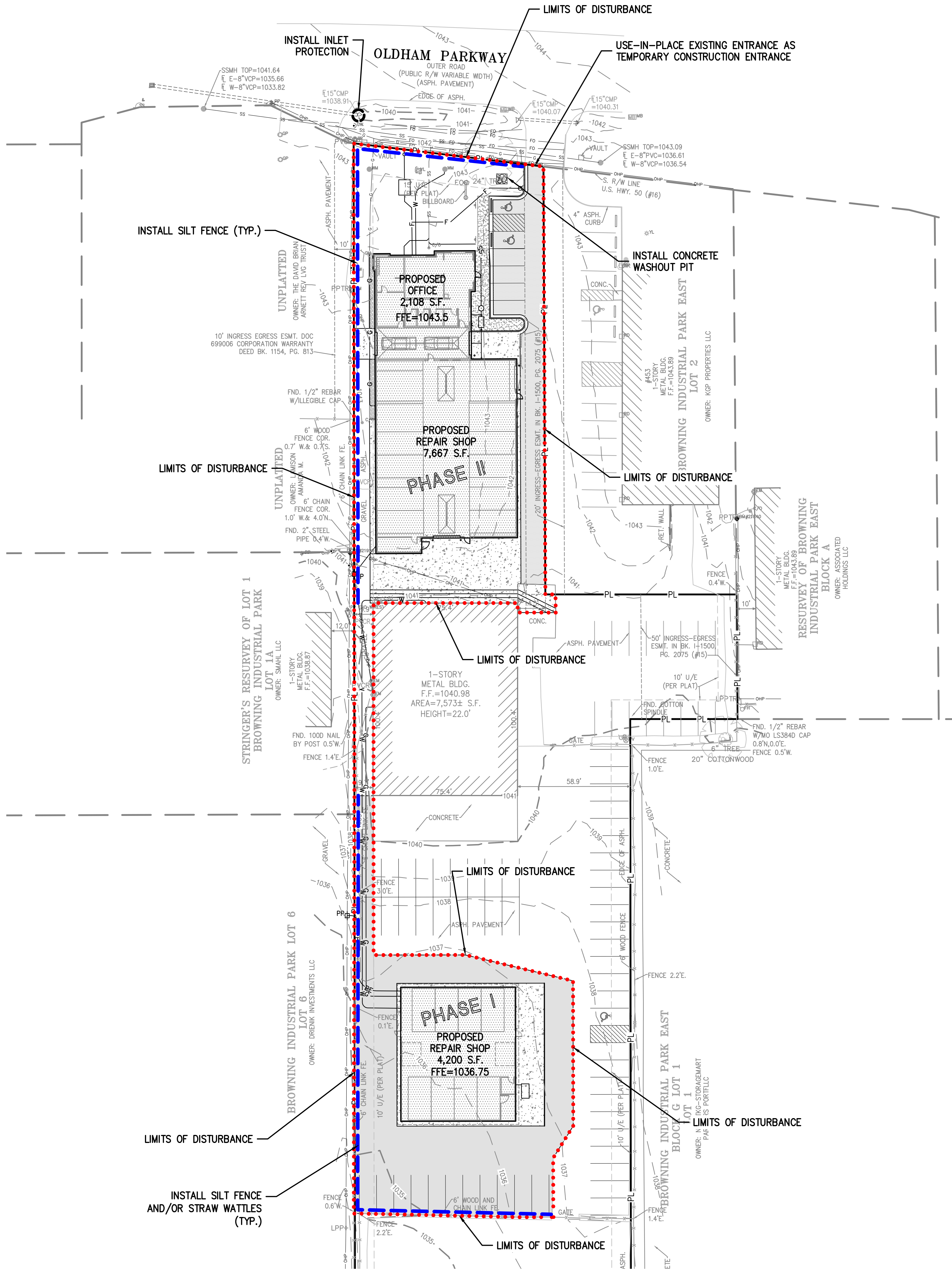
PROJECT NO.	DATE	BY	APP.	REVISIONS
210229	5/24/22			
DATE	05-24-22	DRAWN	SNH	
CHECKED	DAF	APPROVED	JDC	
CERTIFICATE OF AUTHORIZATION				
LAND SURVEYING - LS-82				
ENGINEERING - E-361				
CERTIFICATE OF AUTHORIZATION				
LAND SURVEYING-20070128				
ENGINEERING-20070528				

SHEET

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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.

#### EROSION AND SEDIMENT CONTROL GENERAL NOTES:

- Prior to Land Disturbance activities, the contractor shall:
  - Delineate the outer limits of any tree or stream preservation designated to remain with construction fencing.
  - Construct a stabilized entrance/parking/delivery area and install all perimeter sediment controls on the site.
  - Install and request the inspection of the preconstruction erosion and sediment control measures designated on the approved erosion and sediment control plan.Land disturbance work shall not proceed until there is a satisfactory inspection.
  - Identify the limits of construction on the ground with easily recognizable indications such as construction staking, construction fencing, placement of physical barriers or other means acceptable to the contractor and the City inspector.
- Erosion and sediment control devices protecting the public right-of-way shall be installed as soon as the right-of-way has been backfilled and graded.
- The contractor shall comply with all requirements of City Ordinances or State permit requirements, such as:
  - The contractor shall seed, mulch, or otherwise stabilize any disturbed area where the land disturbance activity has ceased for more than 14 days.
  - The contractor shall perform inspections of erosion and sediment control measures at least once a every 14 days and within 24 hours following each rainfall event of  $\frac{1}{2}$ " or more within any 24-hour period.
  - The contractor shall maintain an inspection log including the inspector's name, date of inspection, observations as to the effectiveness of the erosion and sediment control measures, actions necessary to correct deficiencies, when the deficiencies were corrected, and the signature of the person performing the inspection. The log shall be available for review by the City, the State of Missouri, or other authorities having jurisdiction.
- The contractor shall maintain installed erosion and sediment control devices on a manner that preserves their effectiveness for preventing sediment from leaving the site or entering a sensitive area such as a natural stream corridor, tree preservation areas of the site intended to be left undisturbed, a storm sewer, or an on-site drainage channel. Failure to do so is a violation of the provisions of City Ordinances and State permit requirements.
- The contractor is responsible for providing erosion and sediment control for the duration of a project. If the City determines that the BMP's in place do not provide adequate erosion and sediment control at any time during the project, the contractor shall install additional or alternate measures that provide effective control.
- Concrete wash or rinsewater from concrete mixing equipment, tools and/or ready-mix trucks, tools, etc., may not be discharged into or be allowed to run directly into any existing water body or storm inlet. One or more locations for concrete wash out will be designated on site, such that discharges during concrete washout will be contained in a small area where waste concrete can solidify in place and excess water evaporated or infiltrated into the ground.
- Chemicals or materials capable of causing pollution may only be stored onsite in their original container. Materials store outside must be in closed and sealed water-proof containers and located outside of drainageways or areas subject to flooding. Locks and other means to prevent or reduce vandalism shall be used. Spills will be reported as required by law and immediate actions taken to contain them.

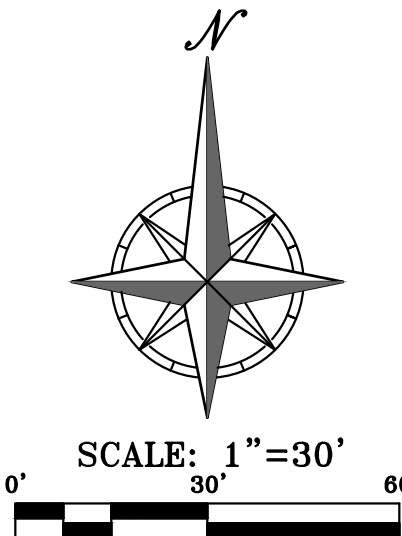
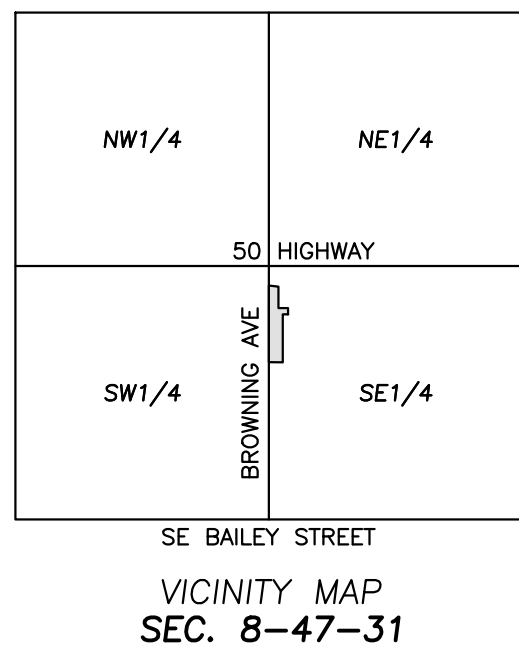
MAINTENANCE: ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL 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:

- INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.
- ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
- 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.
- 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.
- 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.

DISTURBED AREA = 0.9± ACRES

#### LEGEND

- STABILIZED ROCK ENTRANCE
- LIMITS OF DISTURBED AREA
- PROPOSED SILT FENCE
- CULVERT INLET PROTECTION



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#### EROSION CONTROL PLAN

CRASH CHAMPIONS

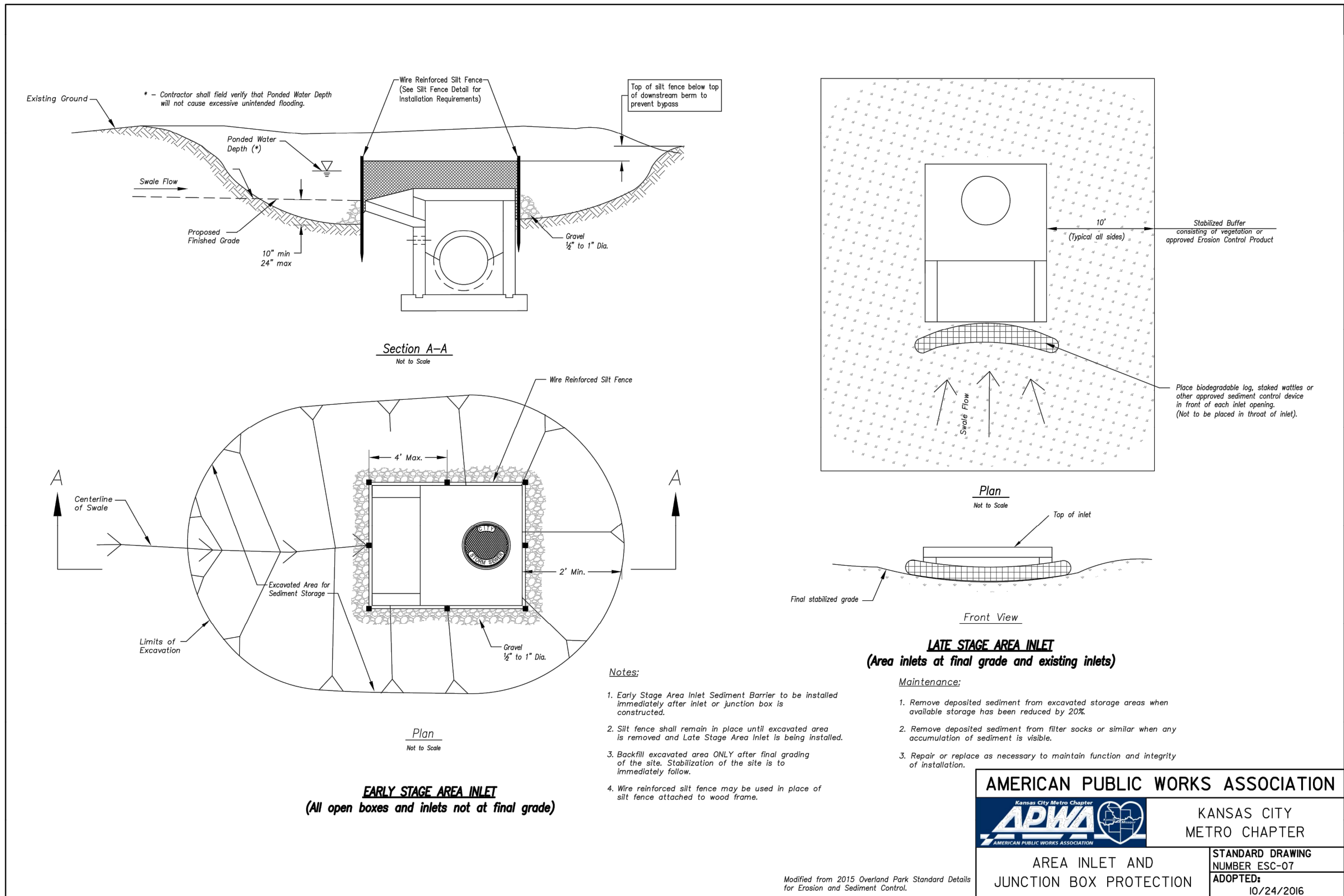
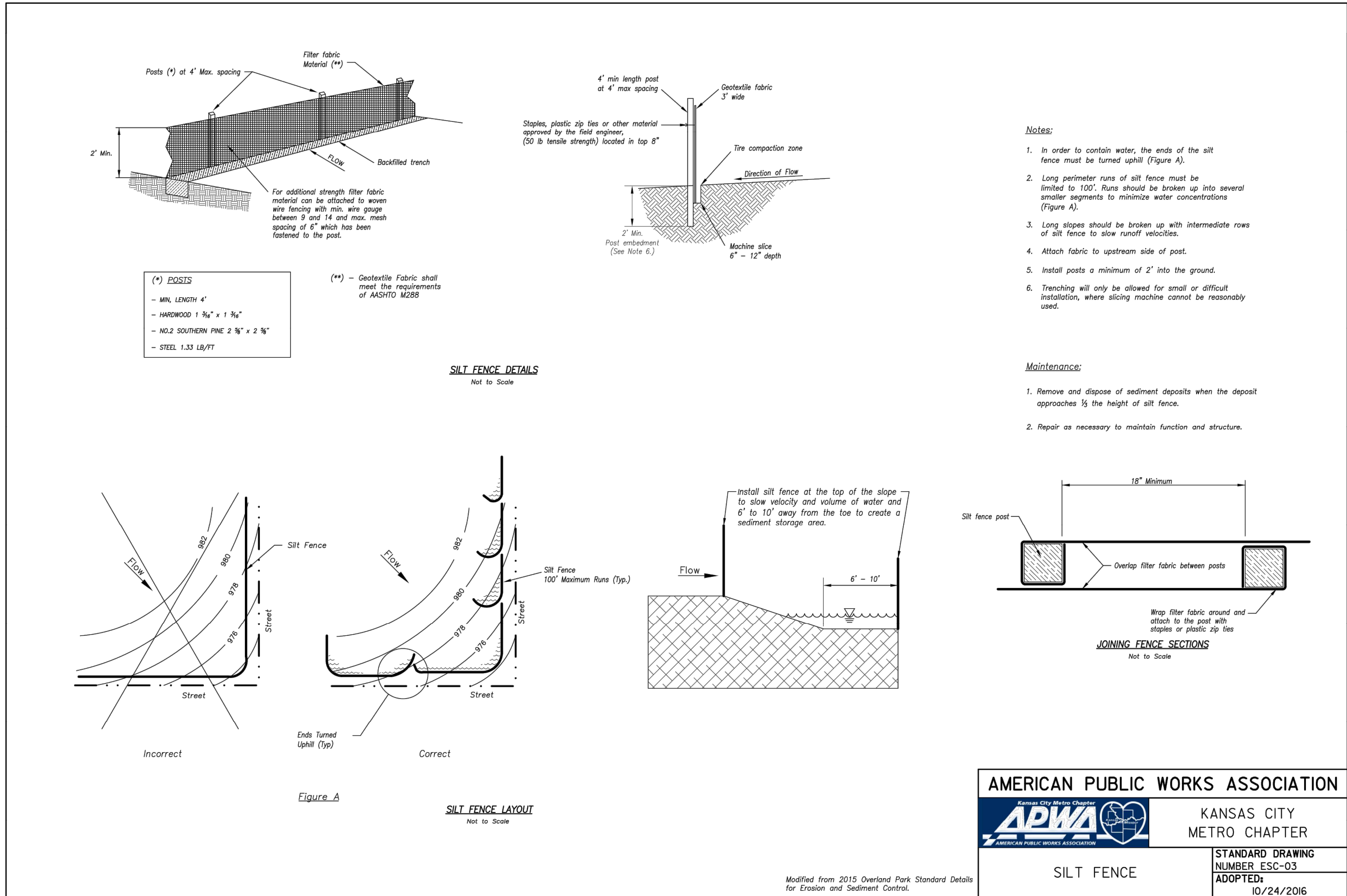
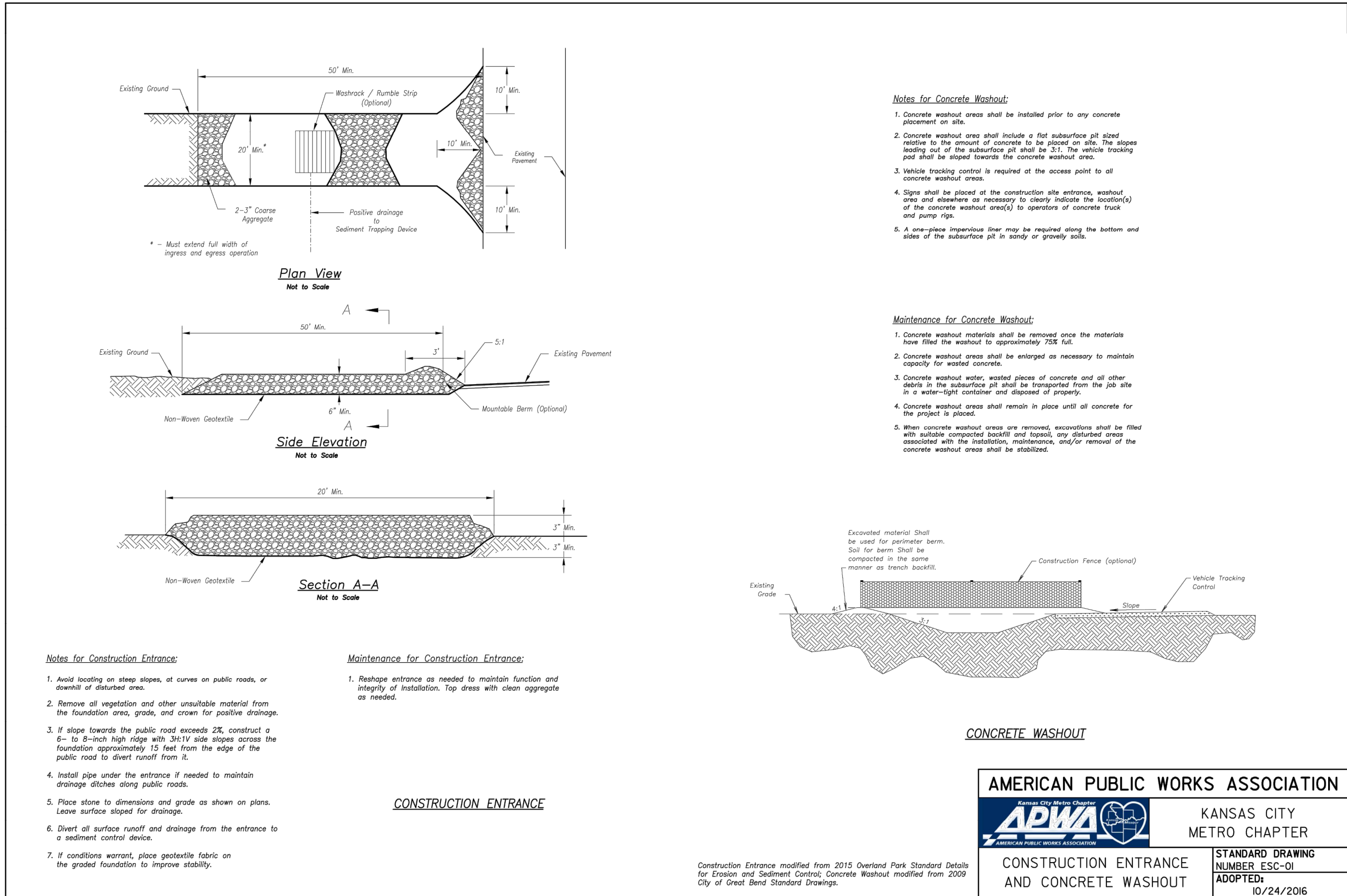
451 S.E. OLDHAM PARKWAY  
LEE'S SUMMIT, JACKSON COUNTY, MO

PROJECT NO.	210229	No.	Date	Revisions:	By	App.
DATE: 05-24-22	DRAWN: SNH					
CHECKER: DAF	APPROVED: JDC					
CERTIFICATE OF AUTHORIZATION						
LAND SURVEYING - LS-82						
ENGINEERING - E-361						
CERTIFICATE OF AUTHORIZATION						
LAND SURVEYING - 20070128						
ENGINEERING - 20070028						

SHEET

C4



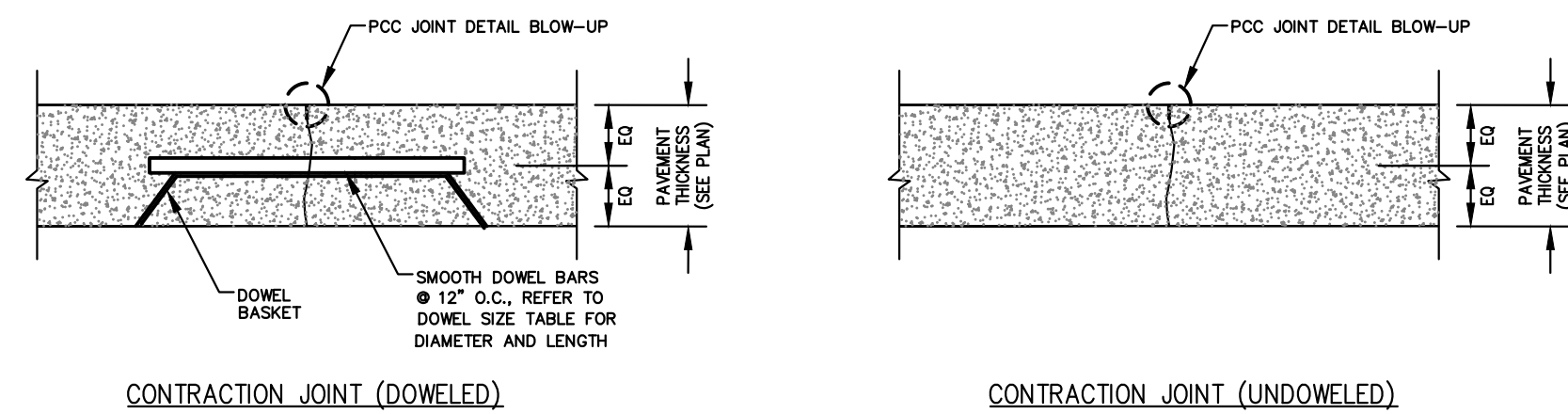
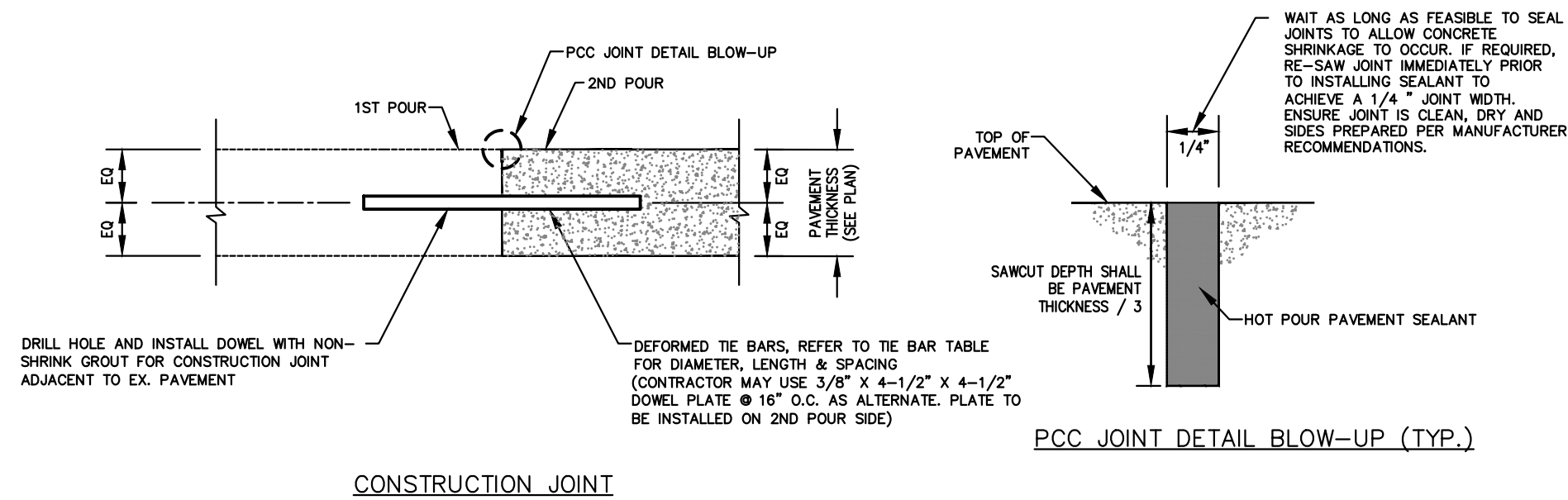




Dowel size*			
Slab depth, in. (mm)	Dowel diameter, in. (mm)	Dowel embedment, in. (mm) ¹	Total dowel length, in. (mm) ²
5 (125)	3/8 (16)	5 (125)	12 (300)
6 (150)	3/4 (19)	6 (150)	14 (360)
7 (180)	7/8 (22)	6 (150)	14 (360)
8 (200)	1 (25)	6 (150)	14 (360)
9 (230)	1-1/8 (29)	7 (180)	16 (400)

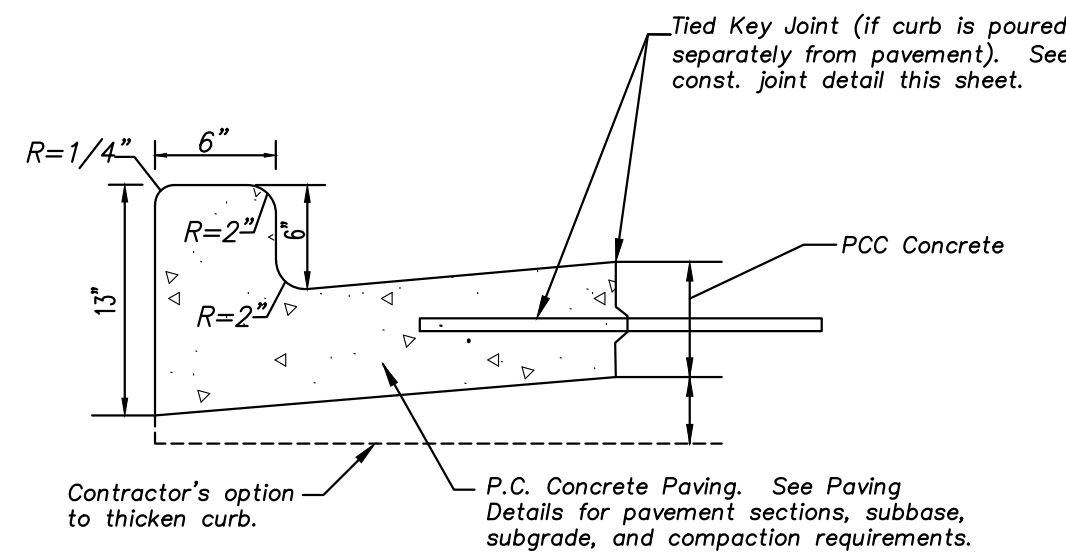
*All dowels spaced at 12 in. (300 mm) centers.  
¹On each side of joint.  
²Allowance made for joint openings and for minor errors in positioning dowels.

Tie bar dimensions		Tiebar spacing			
Slab depth, in. (mm)	Tiebar size, in. (mm)	Distance to nearest free edge or to nearest joint where movement can occur			
		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)

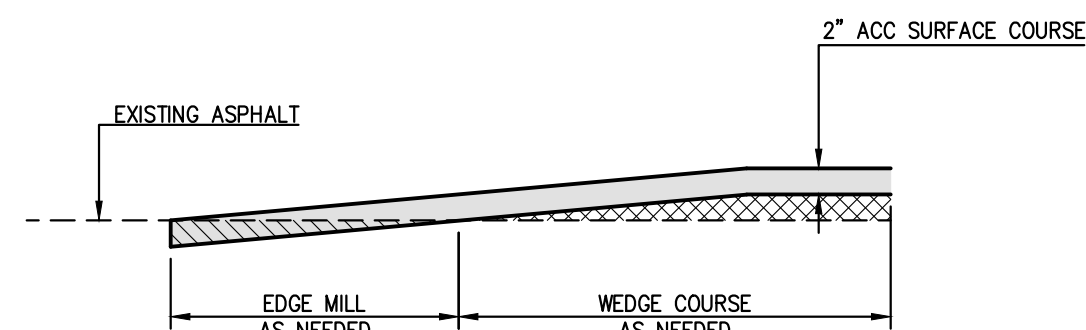


### CONCRETE JOINT DETAILS

SCALE: N.T.S.

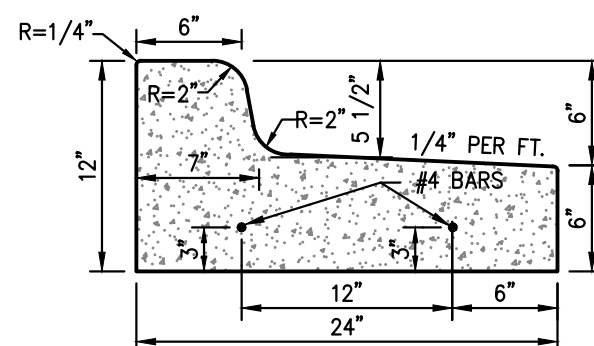
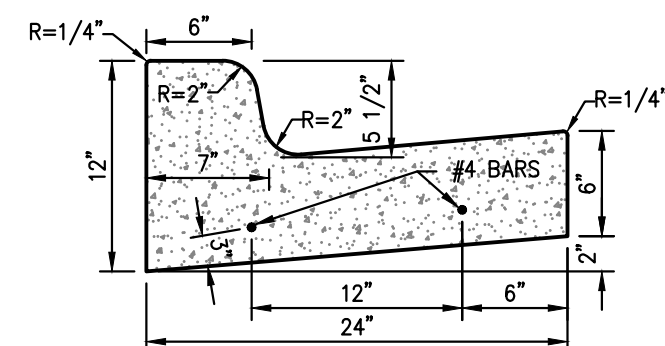
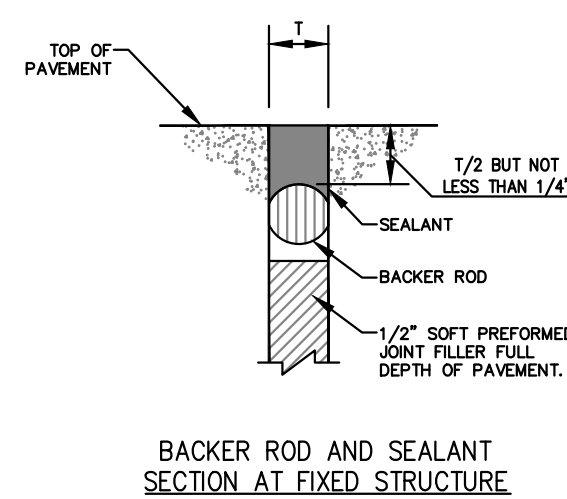
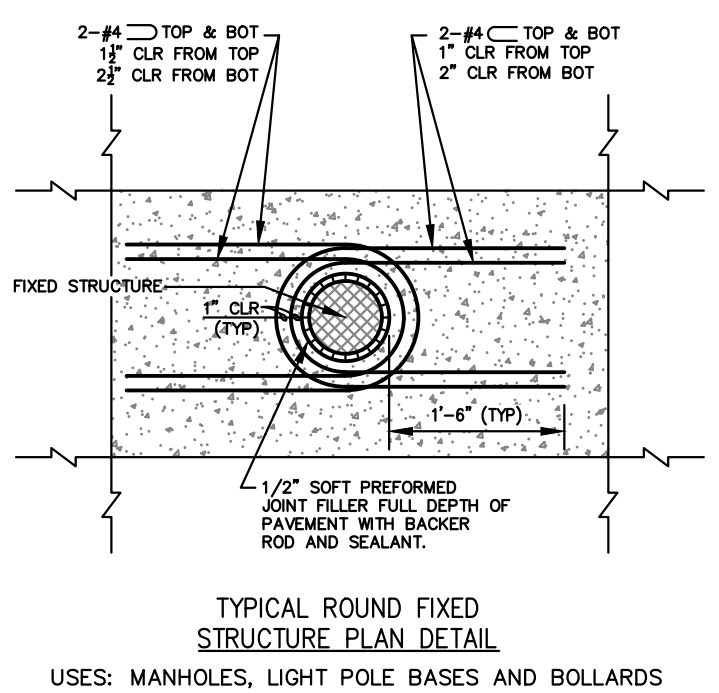


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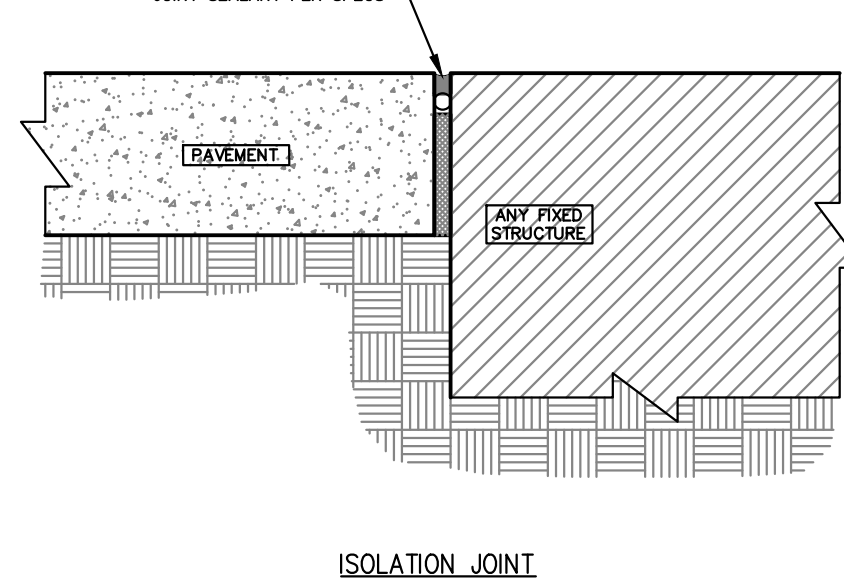
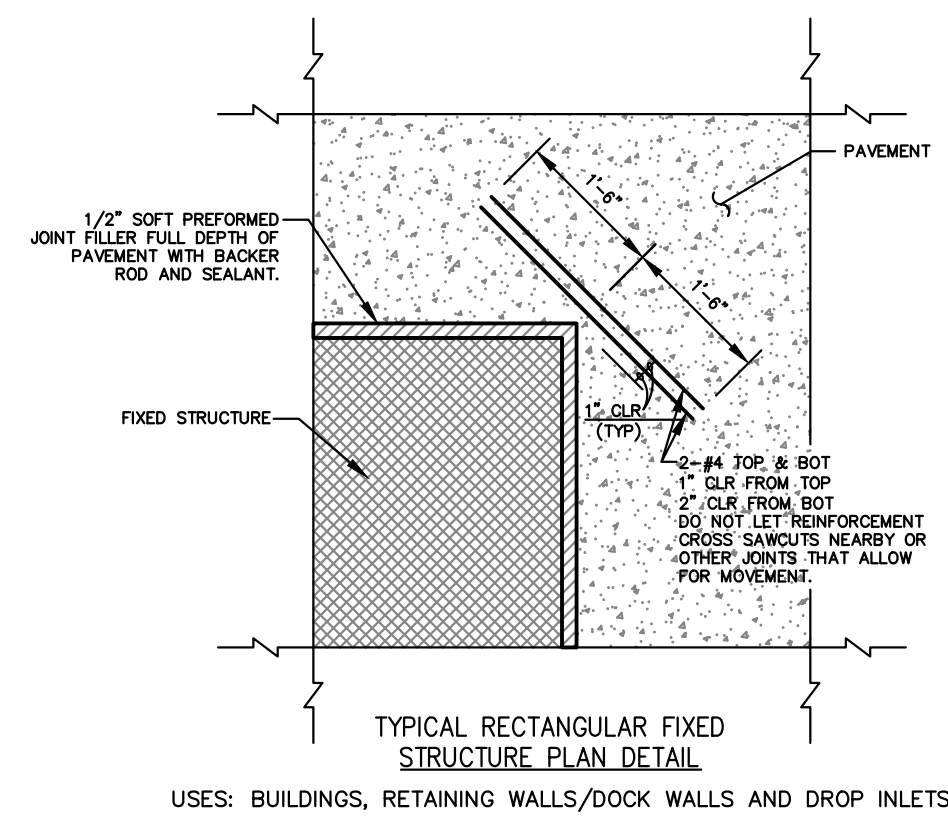
### ASPHALT MILL & OVERLAY DETAIL

SCALE: N.T.S.



### PRIVATE TYPE "B" CONCRETE CURB & GUTTER DETAILS

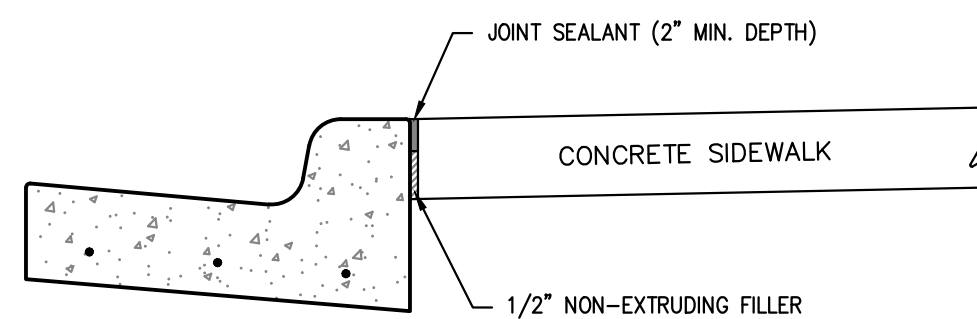
SCALE: N.T.S.



NOTES:  
 ISOLATION JOINT TO BE USED FOR FIXED STRUCTURES SUCH AS BUILDINGS, RETAINING WALLS/DOCK WALLS, DROP INLETS, MANHOLES, LIGHT POLE BASES AND BOLLARDS.  
 PAVEMENT IS NOT CONSIDERED A FIXED STRUCTURE.

### ISOLATION JOINT DETAILS

SCALE: N.T.S.



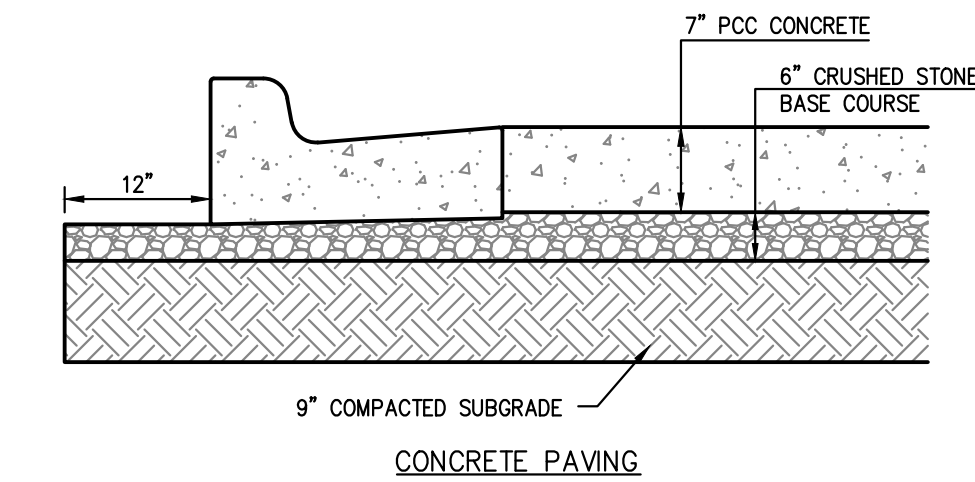
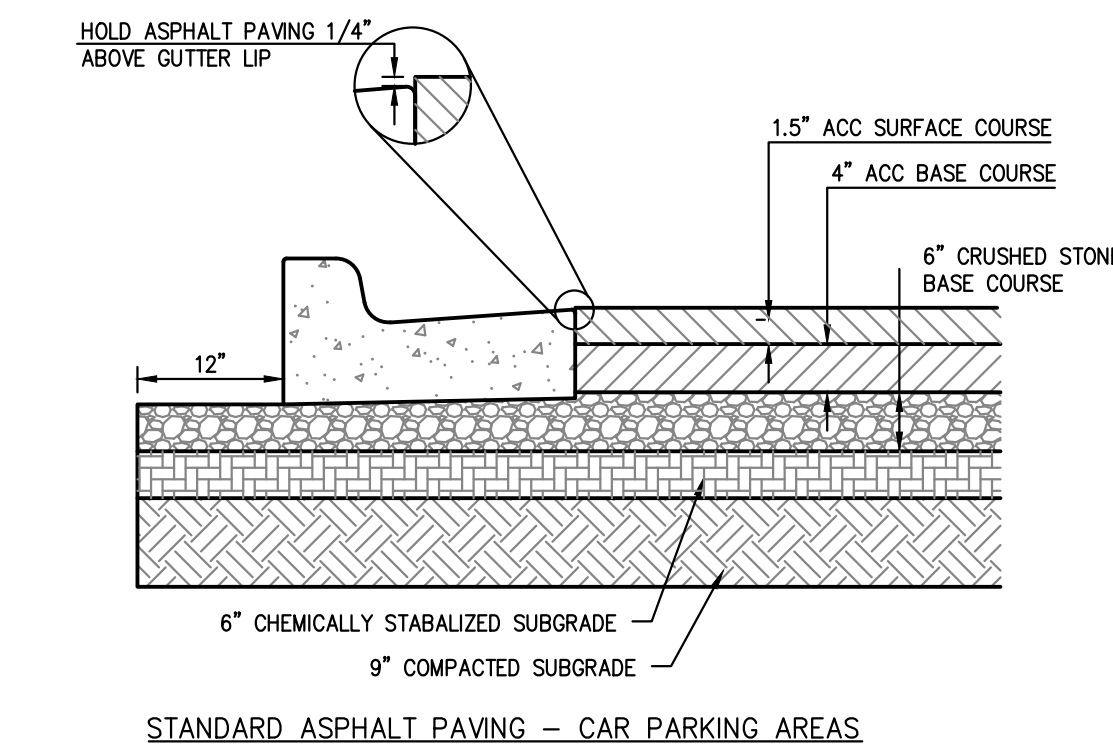
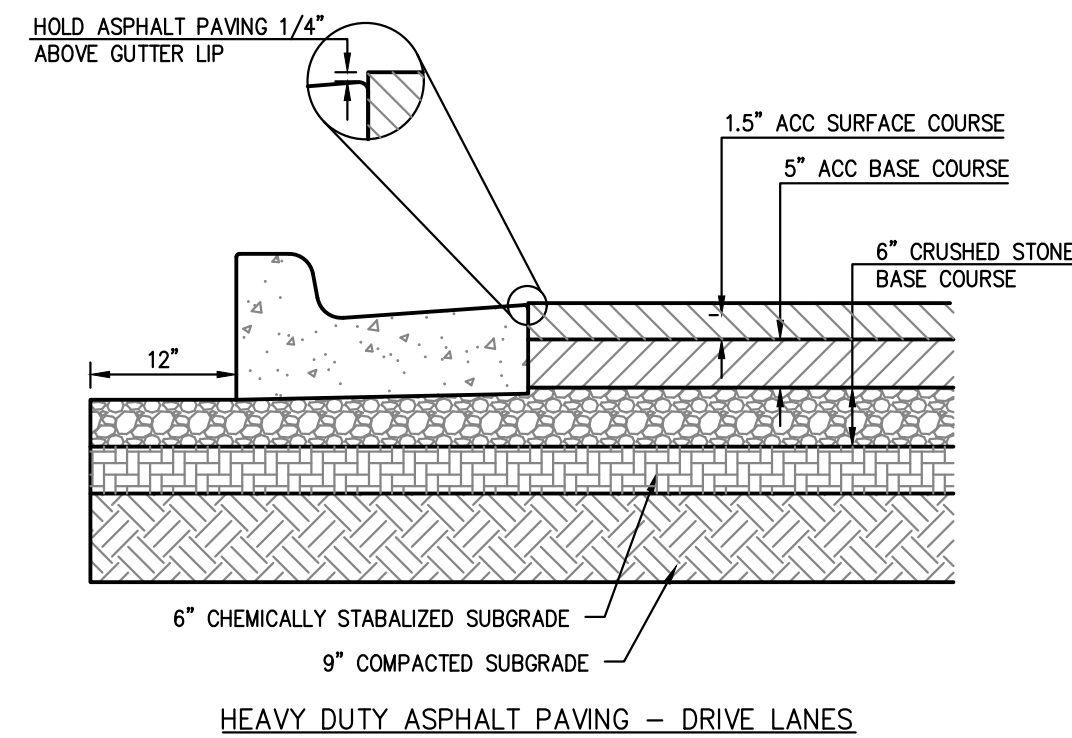
ALL OTHER DETAILS SAME AS SHOWN PER THIS SHEET.

### SIDEWALK AT CURB DETAIL

SCALE: N.T.S.

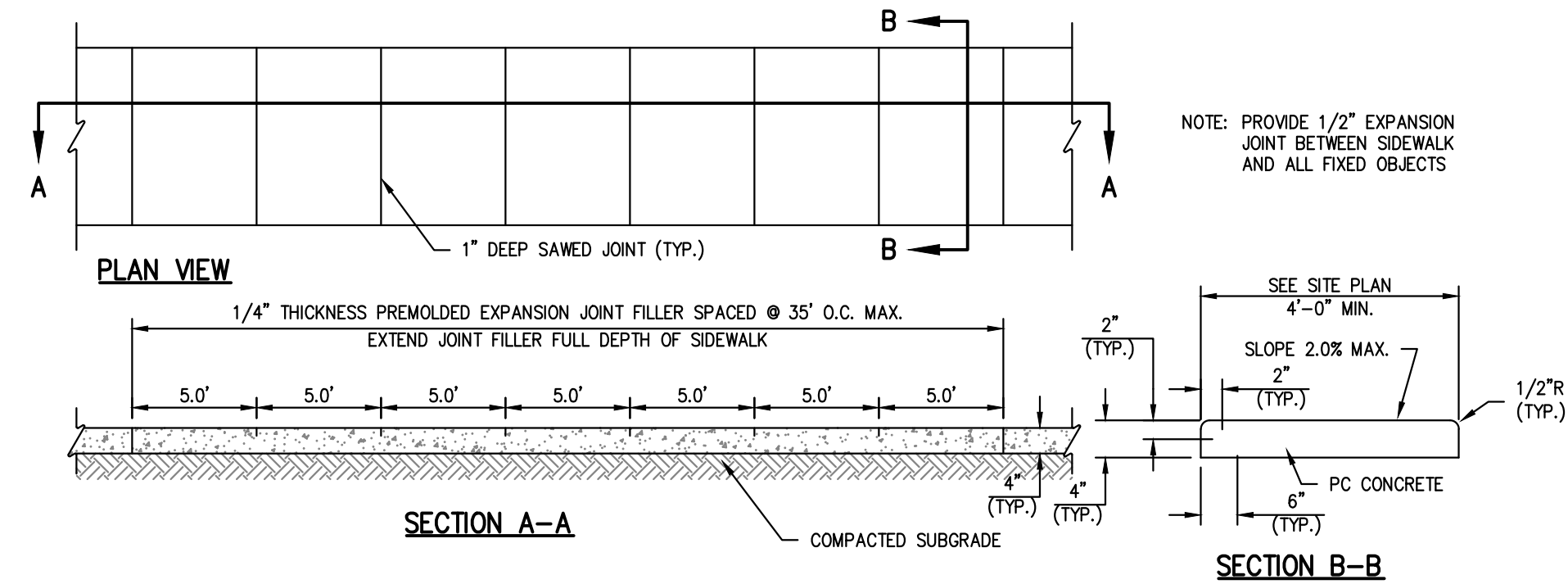
### GENERAL PAVING NOTES:

- 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 - +1/2 - 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 KDOT 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

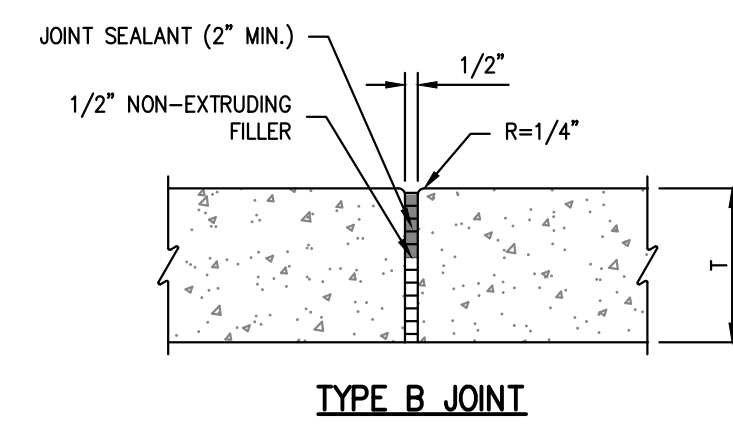
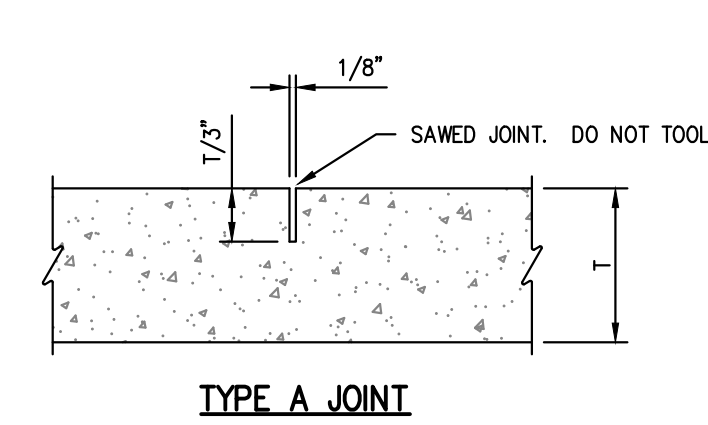
SCALE: N.T.S.



NOTE:  
 1. USE KANSAS CITY MATERIALS METRO BOARD (KCMMB) MIX DESIGN SPECIFICATIONS FOR 4,000 P.S.I. AIR ENTRAINED CONCRETE FOR ALL PRIVATE SIDEWALKS.

### PRIVATE CONCRETE SIDEWALKS (NON REINFORCED)

SCALE: N.T.S.



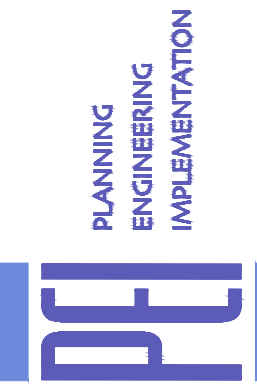
NOTE: TYPE A JOINTS SHALL NOT EXCEED 20 TIMES THE PAVEMENT THICKNESS (T).

### CONCRETE SIDEWALK JOINT DETAILS

SCALE: N.T.S.



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 1370 N. Winchester  
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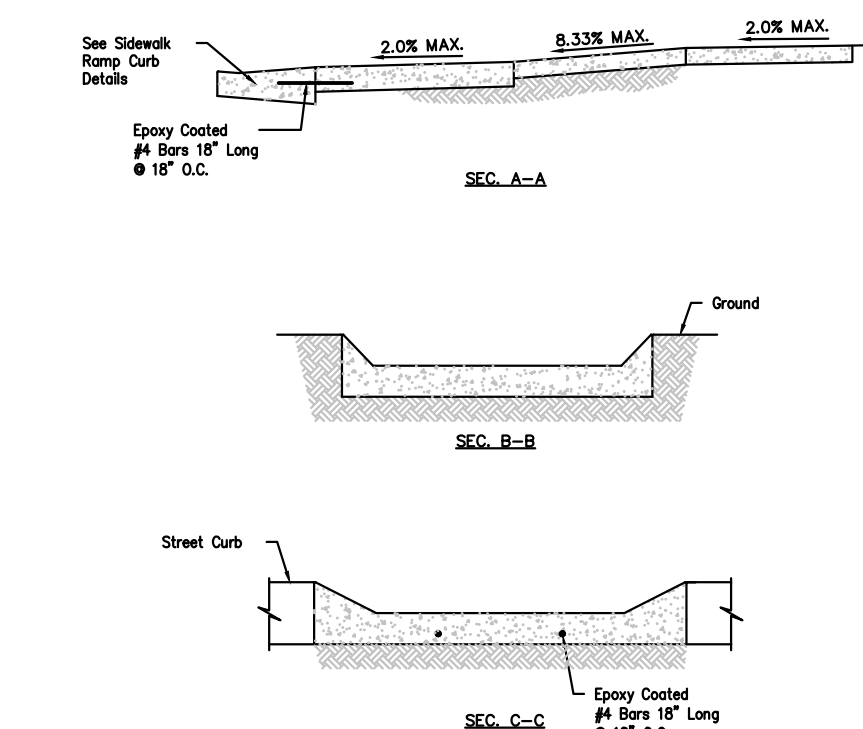
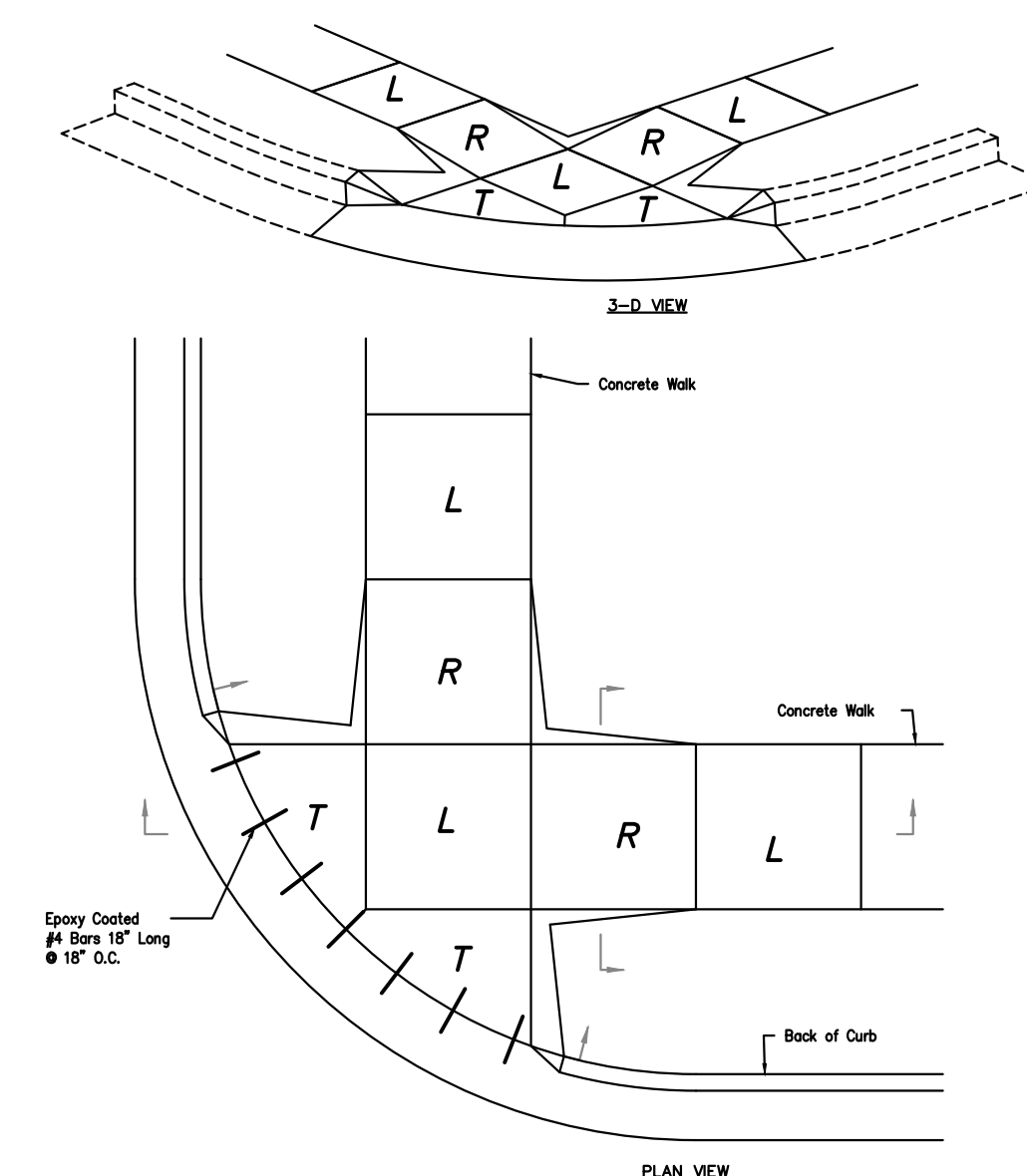
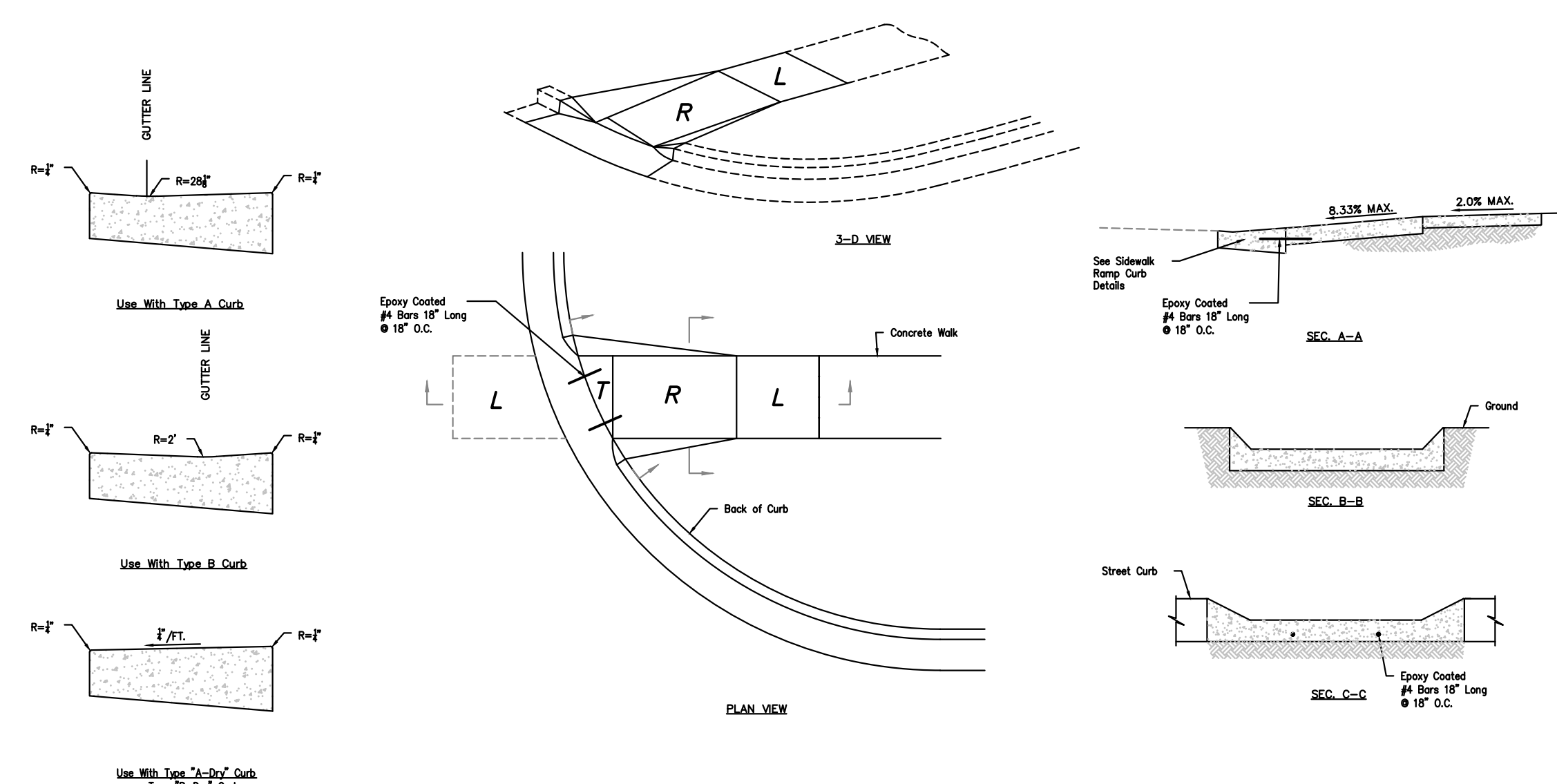
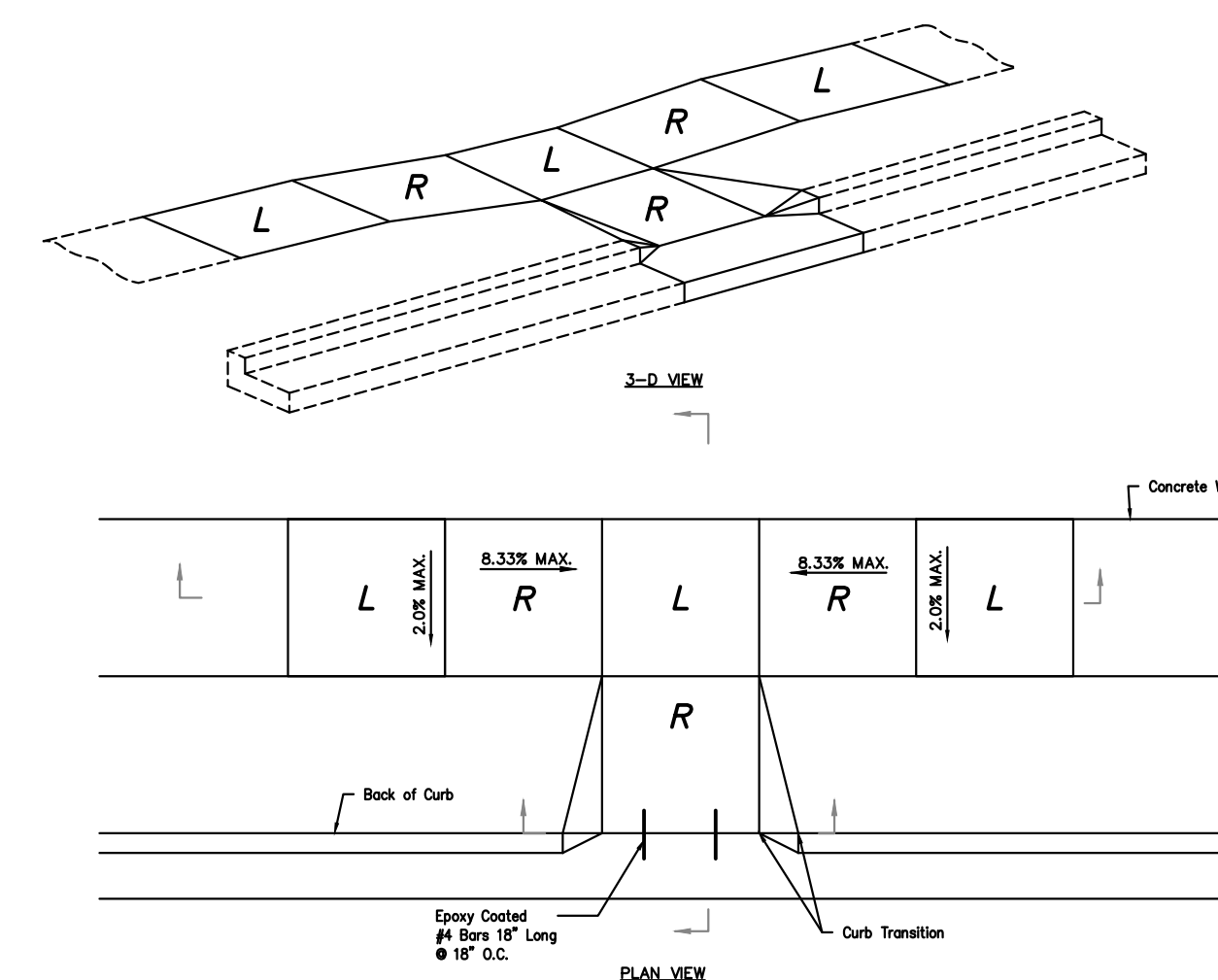
PAVEMENT DETAILS  
 CRASH CHAMPIONS  
 451 S.E. OLDHAM PARKWAY  
 LEE'S SUMMIT, JACKSON COUNTY, MO

PROJECT NO.	DATE	BY	APP.	REVISIONS
210229	2/10/22	DAW/NSH		
DATE: 05-24-22	CHECKED: DAF	APPROVED: JDC		
CERTIFICATE OF AUTHORIZATION				
LAND SURVEYING - LS-82				
ENGINEERING - E-361				
CERTIFICATE OF AUTHORIZATION				
LAND SURVEYING-200701028				
LAND SURVEYING-200700208				

SHEET

C5

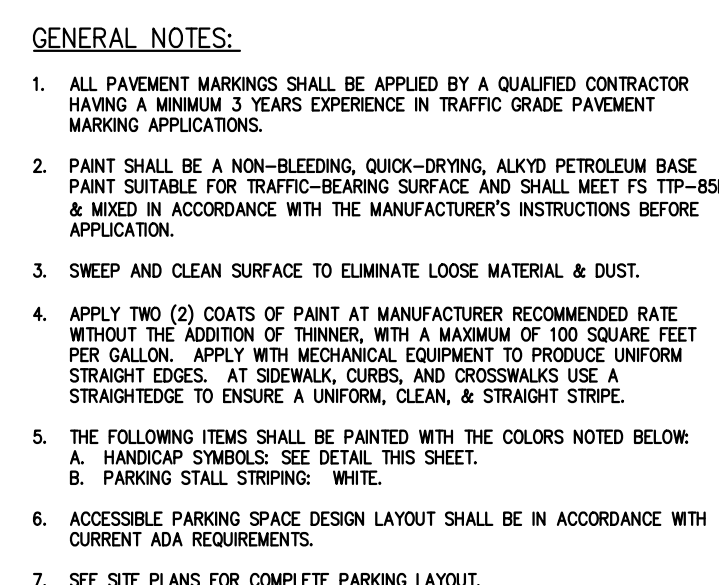




RAMP (Required to transition elevation): Max. Longitudinal Slope - 8.33%  
Max. Cross Slope - 2.00%  
Min. Width - 5'  
Min. Length - 5'

LANDING (Required to change direction of travel): Max. Longitudinal Slope - 2.00%  
Max. Cross Slope - 2.00%  
Min. Width - 5'

SCALE: N.T.S.



### ACCESSIBLE PARKING SPACE DETAIL

SCALE: N.T.S.



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

Project No.	Date	Revisions:	By	App.
PROJECT NO. 210229				
DATE: 05-24-22				
CHECKED: DAF				
APPROVED: JDC				
GENERATOR OF AUTHORIZATION				
DATE: 05-24-22				
BY: JDC				
DATE: 05-24-22				
BY: JDC				
CERTIFICATE OF AUTHORIZATION				
DATE: 05-24-22				
BY: JDC				
CERTIFICATE OF AUTHORIZATION				
DATE: 05-24-22				
BY: JDC				



# WH101F/WR101F

## General Features

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.

- Rated for flows of 700 gpd (2650 lpd)
- 70 gallons (265 liters) of capacity
- Standard outdoor heights range from 60 inches to 160 inches

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

The WR101F is the "radio frequency identification" (RFID), or "wireless," model that uses wireless technology to communicate between the level controls and the motor controls.

## Operational Information

### Motor

1 hp, 1,725 rpm, high torque, capacitor start, thermally protected, 120/240V, 60 Hz, 1 phase

### Inlet Connections

4" PVC inlet flange for Schedule 40 pipe

### Discharge Connections

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.

### Discharge

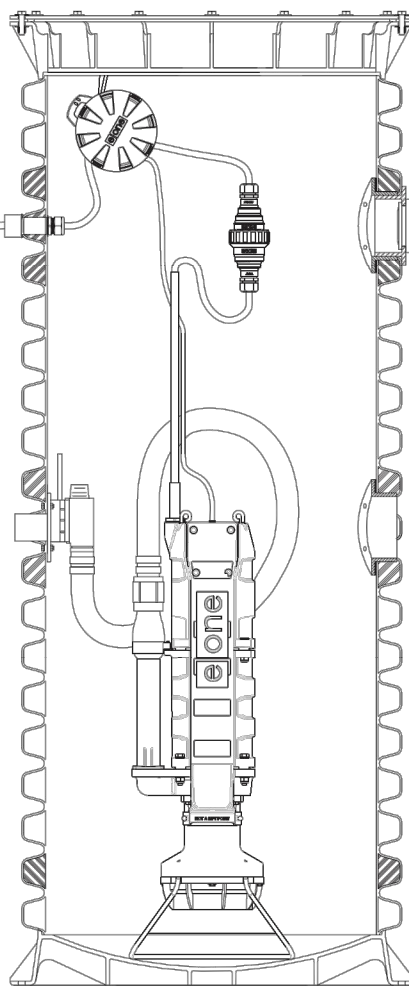
15 gpm at 0 psig (0.95 lps at 0 m)  
11 gpm at 40 psig (0.69 lps at 28 m)  
7.8 gpm at 80 psig (0.49 lps at 56 m)

## Accessories

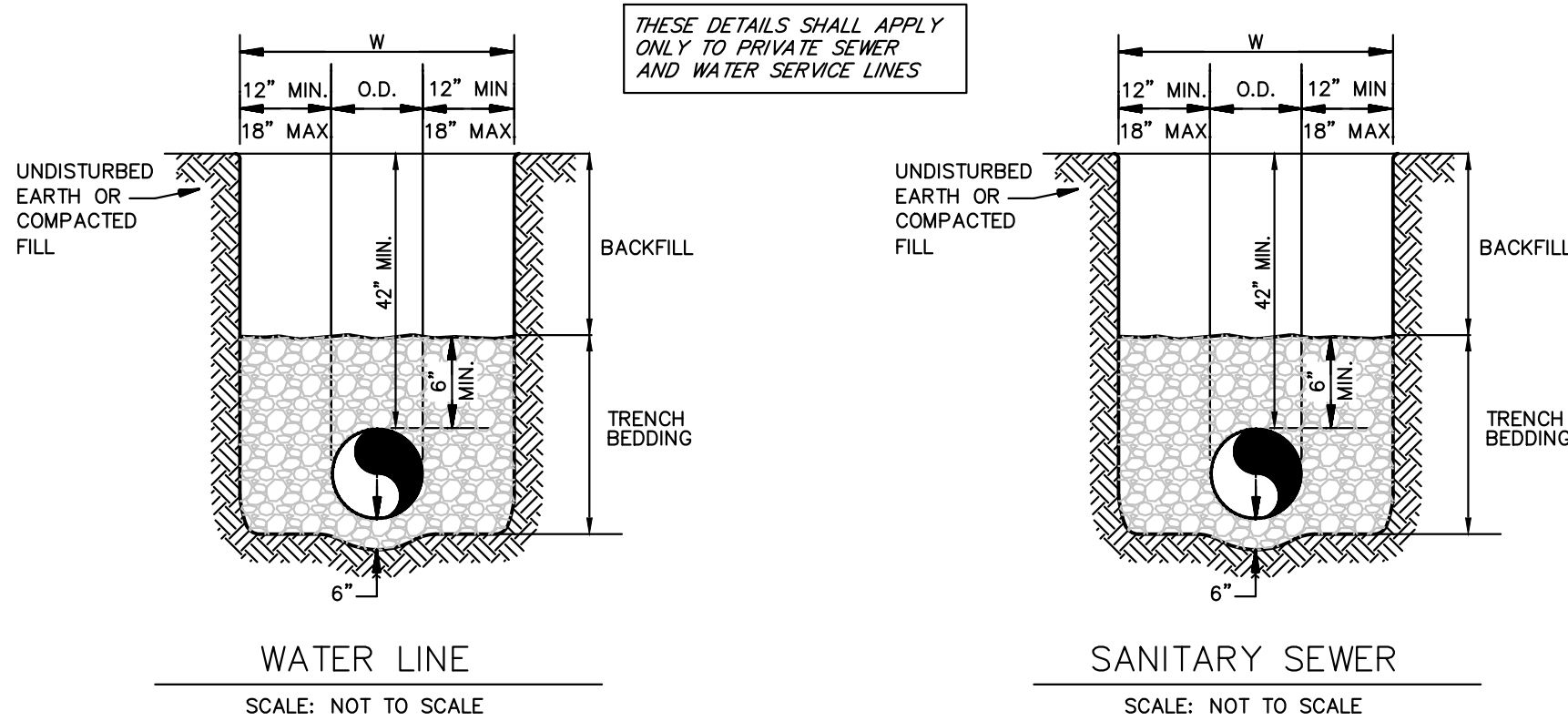
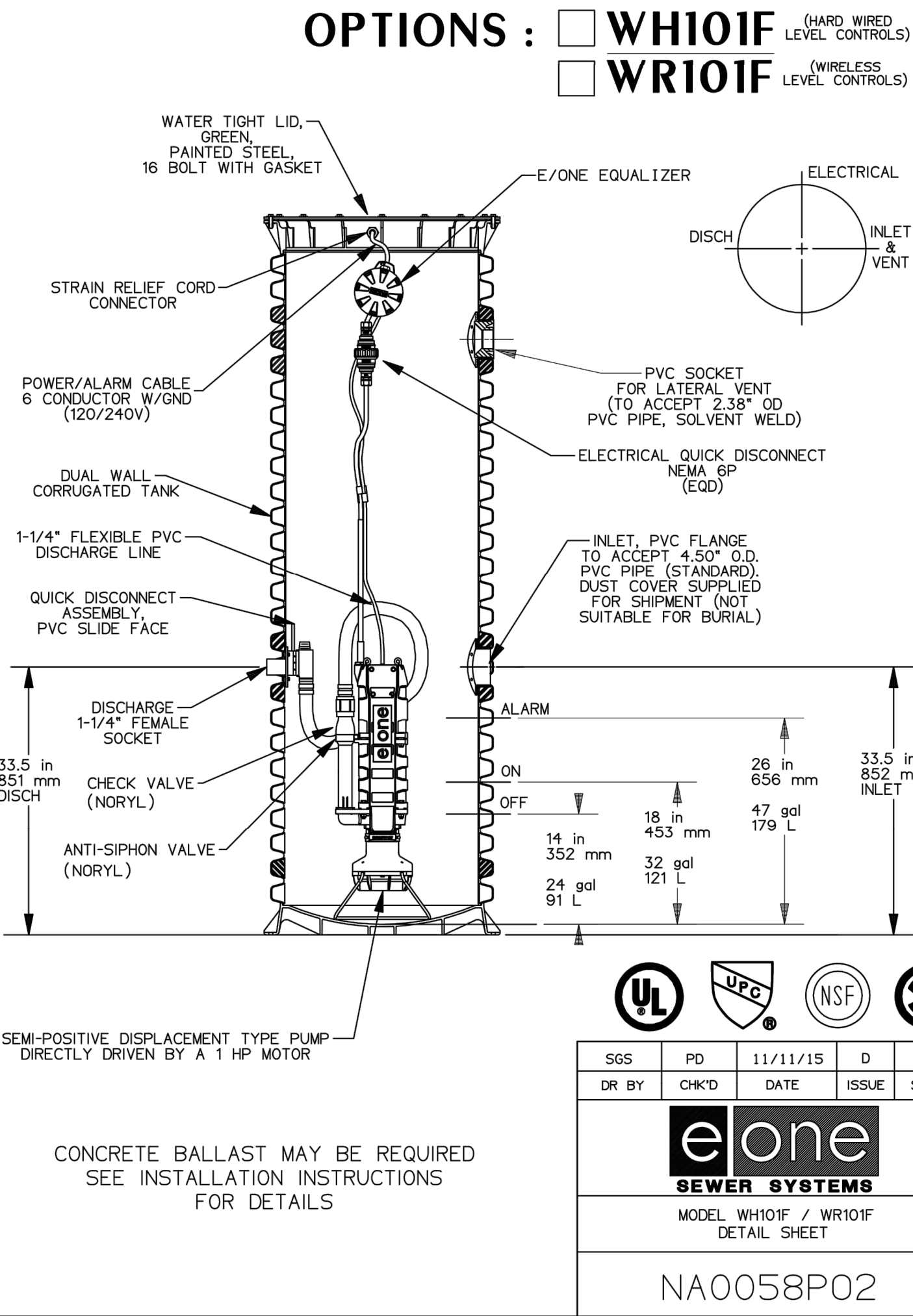
E/One requires that the Uni-Lateral, E/One's own stainless steel check valve, be installed between the grinder pump station and the street main for added protection against backflow.

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.



NA0058P01 Rev C



REQUIREMENTS PER APWA 2100 AS FOLLOWS:

Sanitary Sewer Bedding Material Gradation Limits (% Passing)	
Sieve Size	3/4"
1"	100
3/4"	90 - 100
3/8"	20 - 55
No. 4	0 - 5
No. 8	0 - 2

Storm Sewer Bedding Material Gradation Limits (% Passing)			
Sieve Size	3/4"	1 1/2"	3/8"
1"	100		
3/4"	90 - 100	100	
1 1/2"		80 - 100	
3/8"	20 - 55	40 - 77	100
No. 4	0 - 10	0 - 15	30 - 40
No. 8	0 - 5	0 - 5	0 - 4

Waterline Bedding Material Gradation (% Passing)			
Sieve Size	Type 1 (1/2")	Type 2 (Buckshot)	Type 3 (Man. Sand)
3/4"	95 - 100		
3/8"	40 - 60	100	
1 1/2"		80 - 100	
No. 4	60 - 80	85 - 90	100
No. 50	0 - 5	10 - 25	
No. 200		0 - 10	0 - 10

Trench Backfill

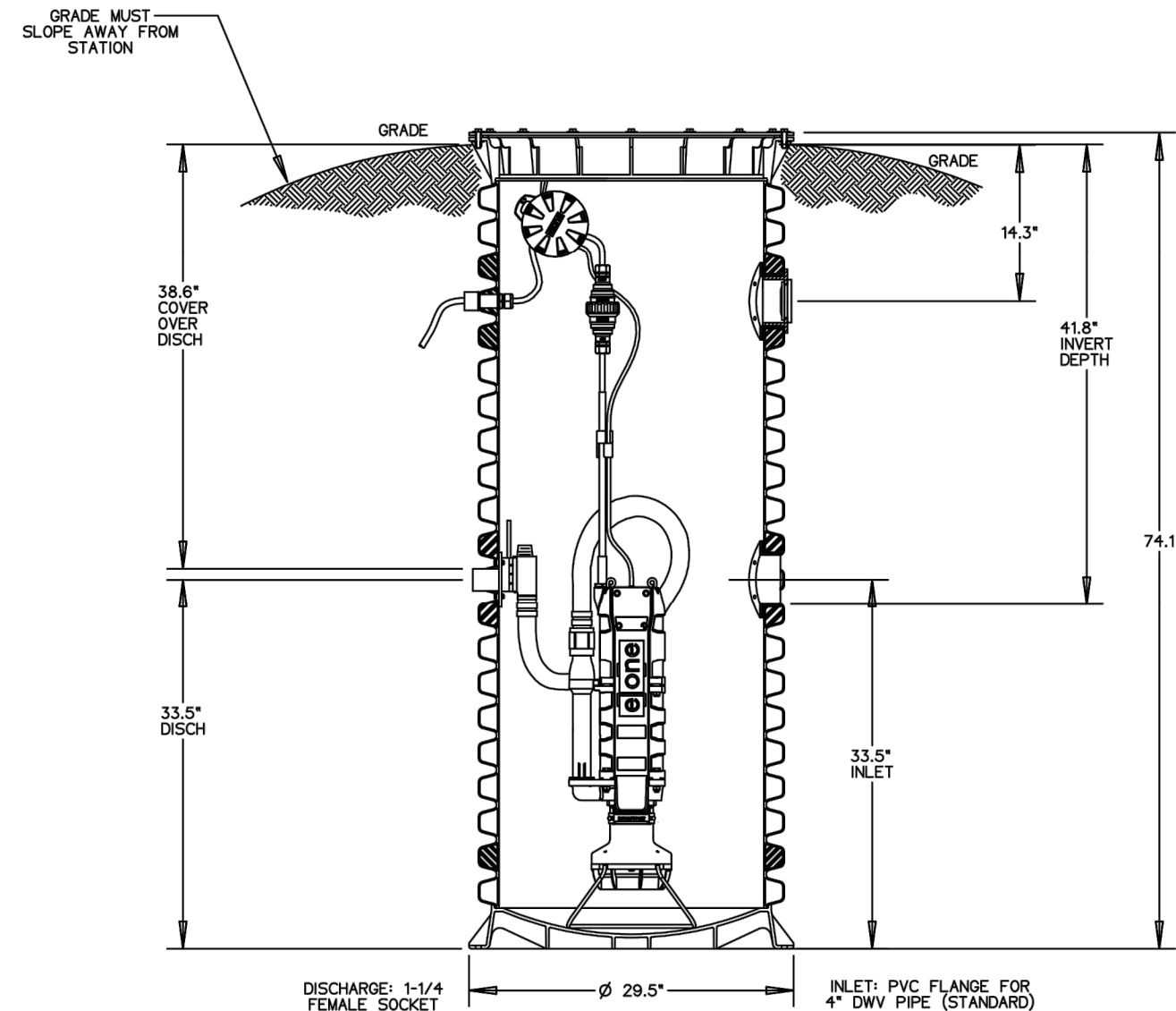
- Backfill shall not be placed when material contains frost, is frozen, or a blanket of snow prevents proper compaction.
- The Contractor shall remove from the project site waste material, trees, organic material, rubbish, or other deleterious materials.
- All trash and debris shall be removed from the pipeline excavation prior to backfilling.
- Backfill material shall be carefully placed to avoid damage to or displacement of the pipe, other utilities or structures.
- Unless otherwise specified, all trenches and excavations around structures shall be backfilled to the original ground surface.
- Outside of paved areas, the backfill material shall be placed in layers not exceeding 8-inches in loose thickness and be compacted to at least 90% of maximum density. Compaction testing shall be at the discretion of the Engineer.
- The method of compaction and the equipment used shall be appropriate for the material to be compacted and shall not transmit damaging shocks to the pipe.
- The combination of the thickness of the layer, the method of compaction and the type of compaction equipment used shall be at the discretion of the Contractor subject to obtaining the required densities.

Pipe Embedment: All water, sanitary sewer, and storm sewer pipe shall be bedded in bedding aggregate as specified herein.

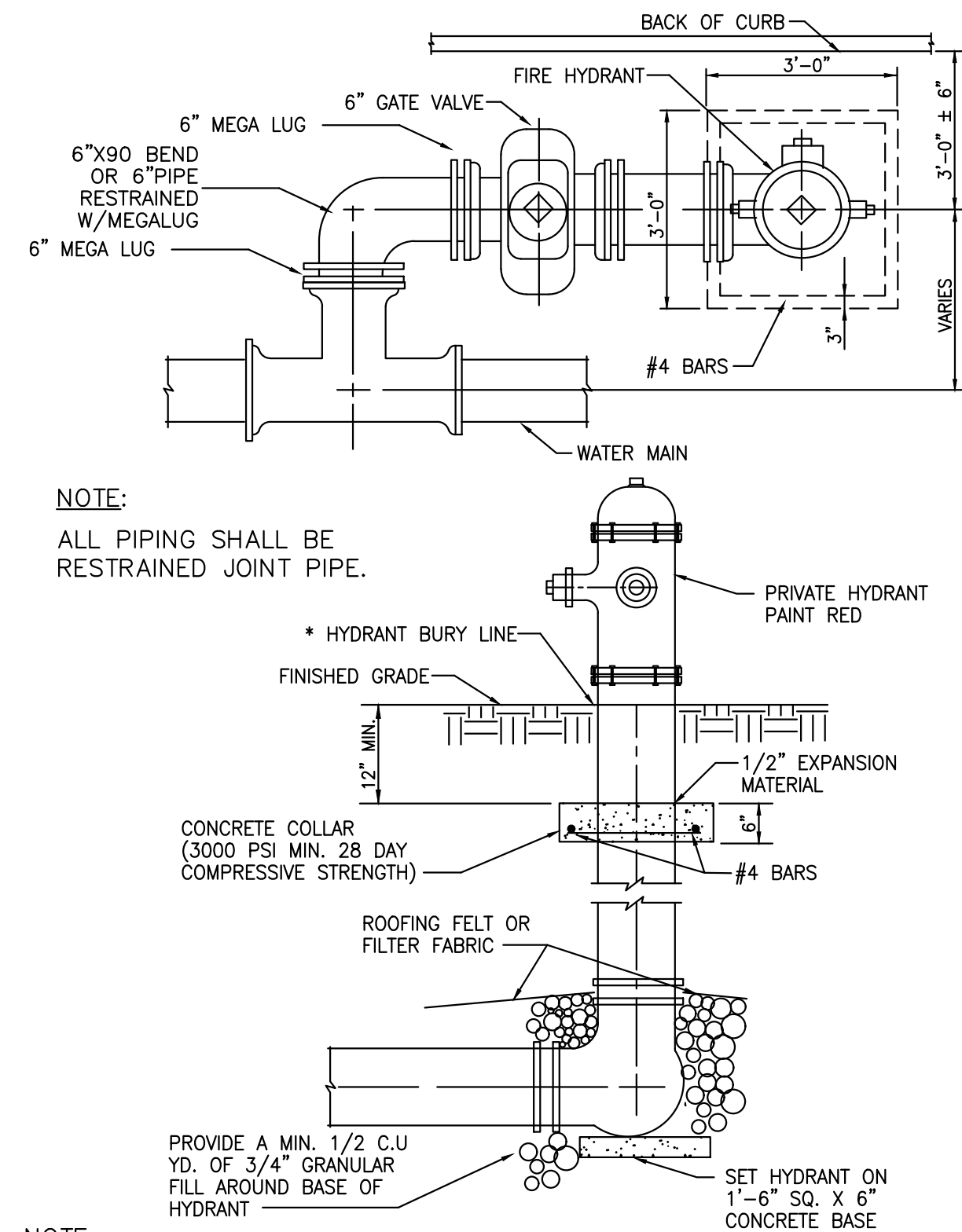
- Bedding shall cover the entire width of trench.
- The first layer of bedding placed on the bottom of excavation shall be in accordance with Figures 1 through 3.
- Bedding at bottom of trench, in the middle 1/3 of trench under the pipe shall be loose.
- After pipe is placed, bedding material shall be placed in layers in accordance with manufacturer's recommendations.
- Second layer of bedding material shall be placed under the lower haunches of the pipe up to the springline (center of pipe). Material shall be spaced to be placed under haunches and compacted at the springline elevation prior to placing additional bedding material.
- The third layer of bedding material shall be placed to 12 inches over the top of pipe.
- Contractor shall take measures to prevent pipe from floating during placement of bedding material so that pipe maintains proper rise and grade as shown on the Plans.

## UTILITY TRENCH AND BEDDING

OPTIONS : ☒ WH101F -74 (HARD WIRED LEVEL CONTROLS)  
☐ WR101F -74 (WIRELESS LEVEL CONTROLS)



CONCRETE BALLAST MAY BE REQUIRED SEE INSTALLATION INSTRUCTIONS FOR DETAILS



NOTE: WHEN FIRE HYDRANT'S GATE VALVE EXCEEDS THE DISTANCE OF 5'-0" FROM CENTER OF GATE VALE TO CENTERLINE OF TEE. GATE VALVE SHALL BE ASSEMBLED TO WATER MAIN'S TEE.

## TYPICAL FIRE HYDRANT INSTALLATION DETAIL



PHILIPS ENGINEERING, INC.  
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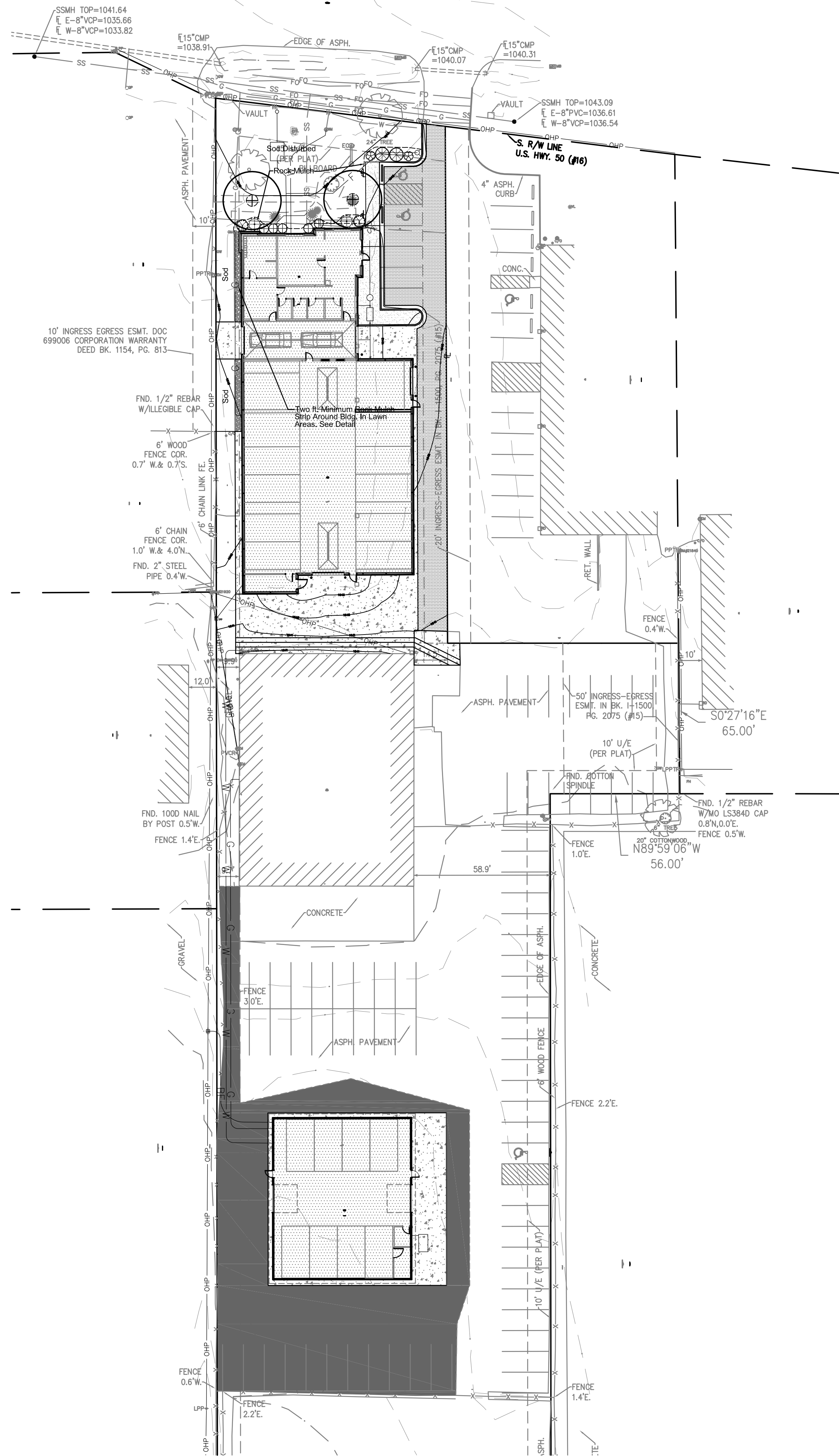
**SANITARY & WATER DETAILS**  
CRASH CHAMPIONS  
451 S.E. OLDHAM PARKWAY  
LEE'S SUMMIT, JACKSON COUNTY, MO

PROJECT NO.	210229	DATE	21/02/29	NO.	210229	DATE	21/02/29	NO.	210229
CHECKER	DAF	APPROVED	JDC	CERTIFICATE OF AUTHORIZATION	LAND SURVEYING	LS-82	ENGINEERING	E-361	CERTIFICATE OF AUTHORIZATION
DATE	05-24-22	DATE	07-16-07	DATE	05-24-22	DATE	07-16-07	DATE	05-24-22

SHEET

C5.2



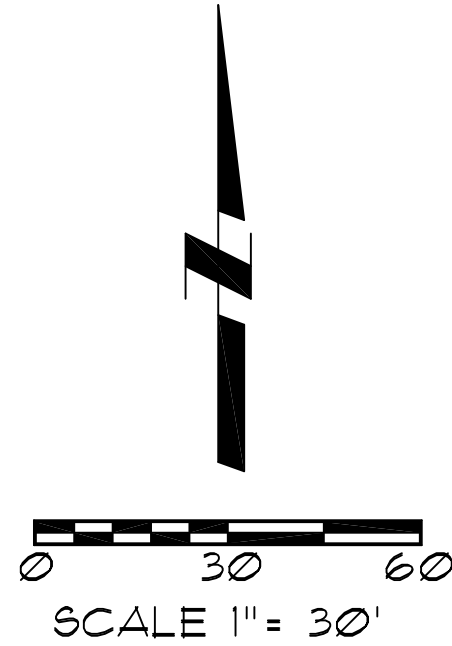
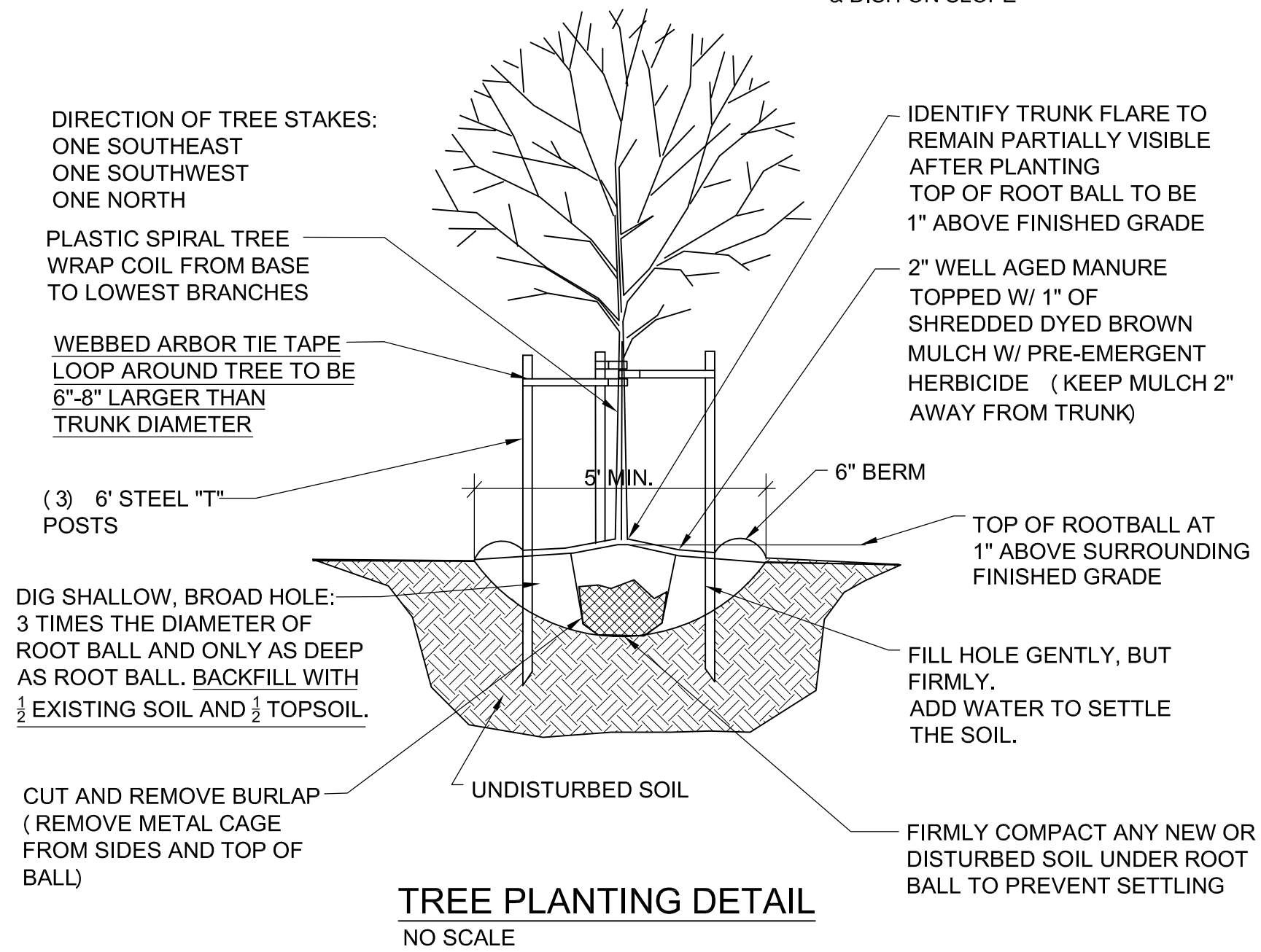
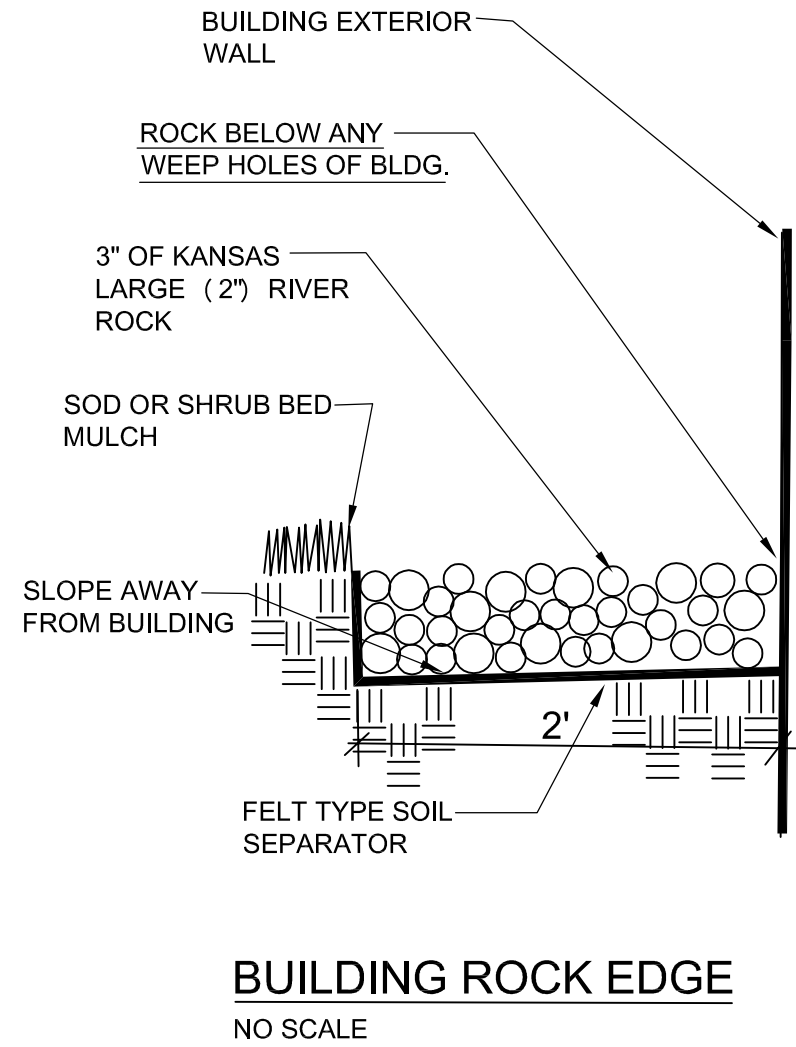
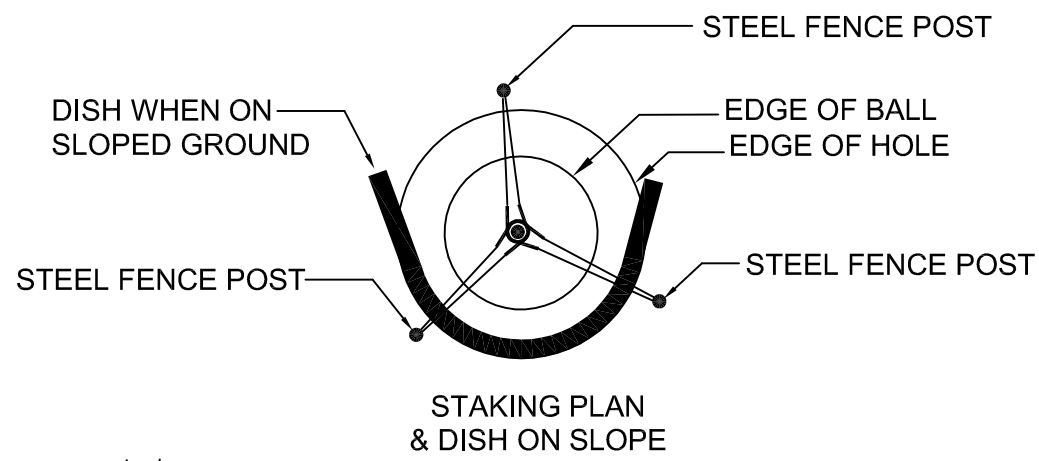
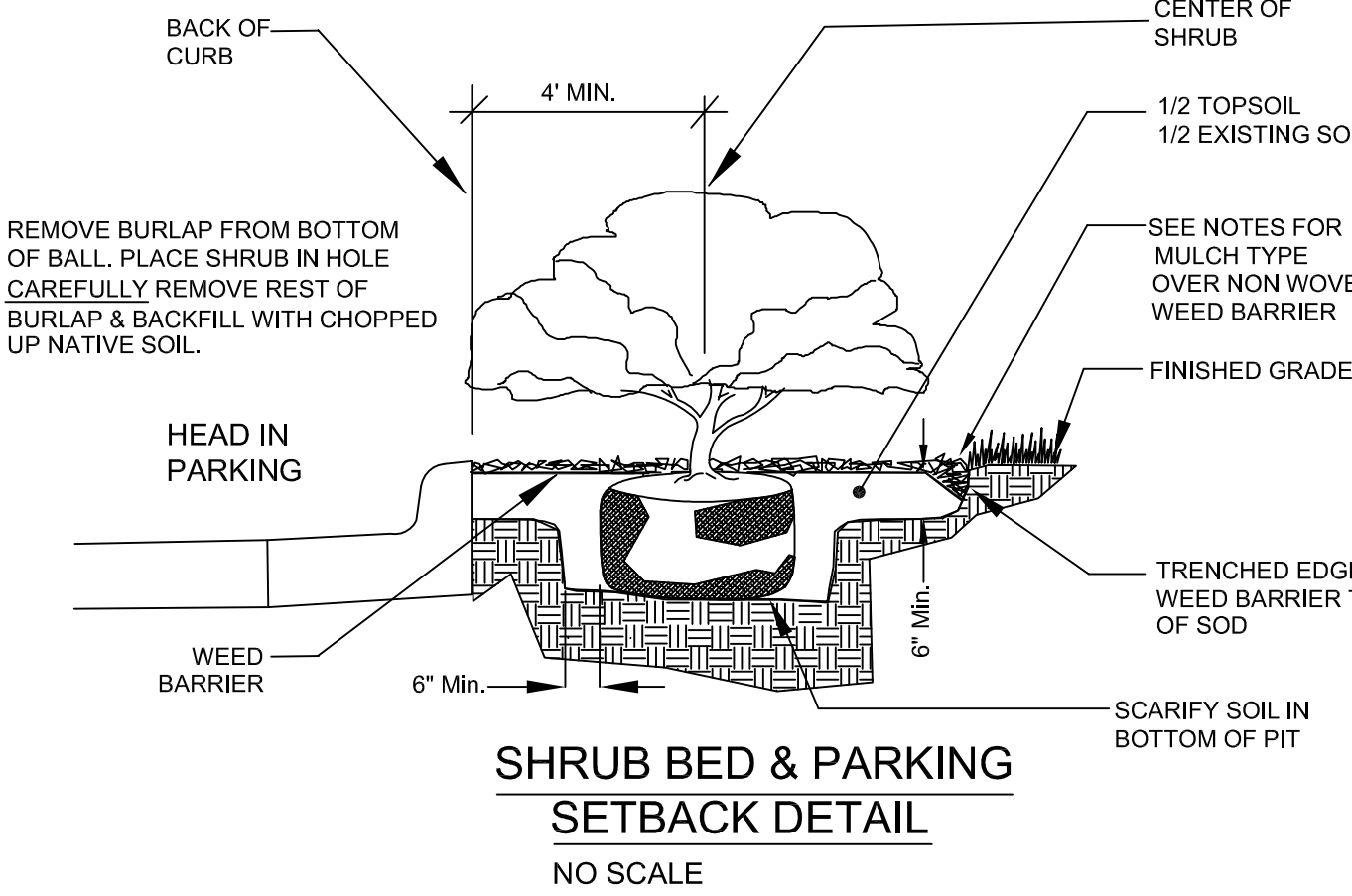


PLANT SCHEDULE

TREES	QTY	BOTANICAL / COMMON NAME	CONT	CAL
	2	Gleditsia triacanthos 'Skyline' / 'Skyline' Honey Locust	B & B	2.5" Cal
SHRUBS	QTY	BOTANICAL / COMMON NAME	CONT	
	2	Juniperus chinensis 'Sea Green' / Sea Green Juniper	5 gal	
	2	Juniperus virginiana 'Grey Owl' / Grey Owl Juniper	3 gal	
	2	Physocarpus opulifolius 'Center Glow' / Center Glow Ninebark	3 gal	
	2	Spiraea x bumalda 'Anthony Waterer' / Anthony Waterer Spiraea	3 gal	
	5	Spiraea x bumalda 'Gold Flame' / Gold Flame Spirea	3 gal	

GENERAL LANDSCAPE NOTES:

- CONTRACTOR SHALL VERIFY THE EXISTENCE AND LOCATION OF ALL UTILITIES BEFORE STARTING ANY WORK.
- CONTRACTOR SHALL VERIFY ALL LANDSCAPE MATERIAL QUANTITIES AND SHALL REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- CONTRACTOR SHALL MAKE NO SUBSTITUTIONS WITHOUT THE APPROVAL OF THE LANDSCAPE ARCHITECT.
- CONTRACTOR SHALL STAKE LAYOUT PLAN IN THE FIELD AND SHALL HAVE THE LAYOUT APPROVED BY THE LANDSCAPE ARCHITECT BEFORE PROCEEDING WITH THE INSTALLATION.
- ALL LANDSCAPE BEDS SHALL BE TREATED WITH THE PRE-EMERGENT HERBICIDE PRE M 60 DG (GRANULAR) OR AN APPROVED EQUAL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- ALL LANDSCAPE BEDS SHALL RECEIVE A TRENCHED EDGE. SEE SHRUB PLANTING DETAIL.
- FERTILIZER FOR FESCUE SODDED LAWN, TREES AND CONTAINER STOCK AREAS SHALL BE A BALANCED FERTILIZER BASED ON RECOMMENDATIONS FROM A SOIL TEST SUPPLIED BY THE LANDSCAPE CONTRACTOR FROM AN APPROVED TESTING LAB.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE PLANTS UNTIL COMPLETION OF THE JOB AND ACCEPTANCE BY THE OWNER.
- CONTRACTOR SHALL WARRANTY ALL LANDSCAPE WORK AND PLANT MATERIAL FOR A PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE OF THE WORK BY THE OWNER.
- CONTRACTOR SHALL PROVIDE MAINTENANCE OF ALL TREES AND SHRUBS FOR A PERIOD OF ONE YEAR AFTER THE DATE OF SUBSTANTIAL COMPLETION IF CONTRACTED BY THE OWNER.
- ANY PLANT MATERIAL WHICH DIES DURING THE ONE YEAR WARRANTY PERIOD SHALL BE REPLACED BY THE CONTRACTOR DURING NORMAL PLANTING SEASONS.
- ALL PLANT NAMES ON THE PLANT LIST CONFORM TO THE STANDARDIZED PLANT NAMES PREPARED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE OR TO NAMES GENERALLY ACCEPTED IN THE NURSERY TRADE.
- ALL PLANT MATERIAL SHALL BE SPECIMEN QUALITY STOCK AS DETERMINED IN THE "AMERICAN STANDARDS FOR NURSERY STOCK" PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, FREE OF PLANT DISEASES AND PESTS, OF TYPICAL GROWTH OF THE SPECIES AND HAVING A HEALTHY, NORMAL ROOT SYSTEM.
- SIZES INDICATED ON THE PLANT LIST ARE THE MINIMUM, ACCEPTABLE SIZE. IN NO CASE WILL SIZES LESS THAN THE SPECIFIED SIZES BE ACCEPTED.
- PLANTS SHALL NOT BE PRUNED PRIOR TO DELIVERY TO THE SITE OR AFTER INSTALLATION EXCEPT FOR THOSE BRANCHES THAT HAVE BEEN DAMAGED IN SOME WAY.
- PLANTS SHALL NOT HAVE NAME TAGS REMOVED PRIOR TO FINAL INSPECTION.
- ALL PLANTINGS SHALL RECEIVE A COMMERCIAL TRANSPLANT ADDITIVE PER MANUFACTURER'S RECOMMENDED RATES AND INSTRUCTIONS FOR APPLICATION.
- MULCH SHALL BE 3" DEPTH OF KANSAS LARGE 2" SIZE AVAILABLE FROM STURGIS MATERIALS OR APPROVED EQUAL. OVER A FELT TYPE SOIL SEPARATOR CUT INTO THE GROUND WITH A TRENCHED EDGE. SEE TREE DETAIL FOR DIFFERENT MULCH AROUND TREES.
- SEE PLANTING DETAILS FOR SOIL MIX IN PLANTING HOLES.
- SOD SHALL BE A TURF-TYPE-TALL FESCUE GRASS BLEND. CONTRACTOR SHALL BE RESPONSIBLE FOR AN ACCEPTABLE STAND OF TURF TO BE APPROVED BY THE OWNER AND/OR LANDSCAPE ARCHITECT.
- SUCCESSFUL LANDSCAPE BIDDER SHALL BE RESPONSIBLE FOR THE MODIFICATION OF ANY EXISTING IRRIGATION SYSTEM, OR THE DESIGN AND INSTALLATION OF A NEW IRRIGATION SYSTEM TO BE APPROVED BY THE OWNER PRIOR TO CONSTRUCTION IF THE OWNER DESIRES AN IRRIGATION SYSTEM.
- WOOD MULCH FOR TREES SHALL BE A DYED BROWN SHREDDED HARDWOOD.



**Landscape Plan  
Crash Champions**  
451 SE Oldham Parkway  
Lee's Summit, MO

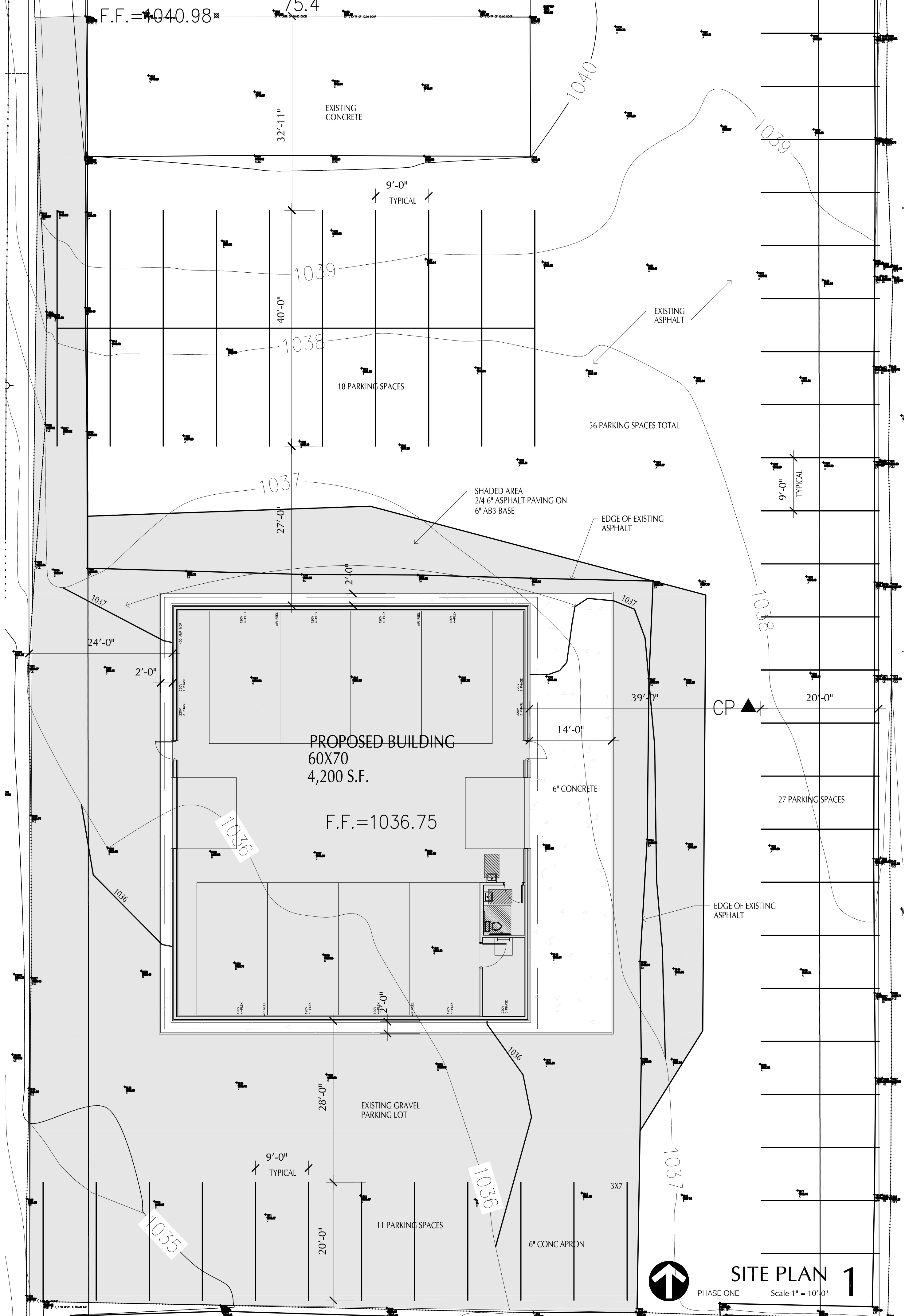
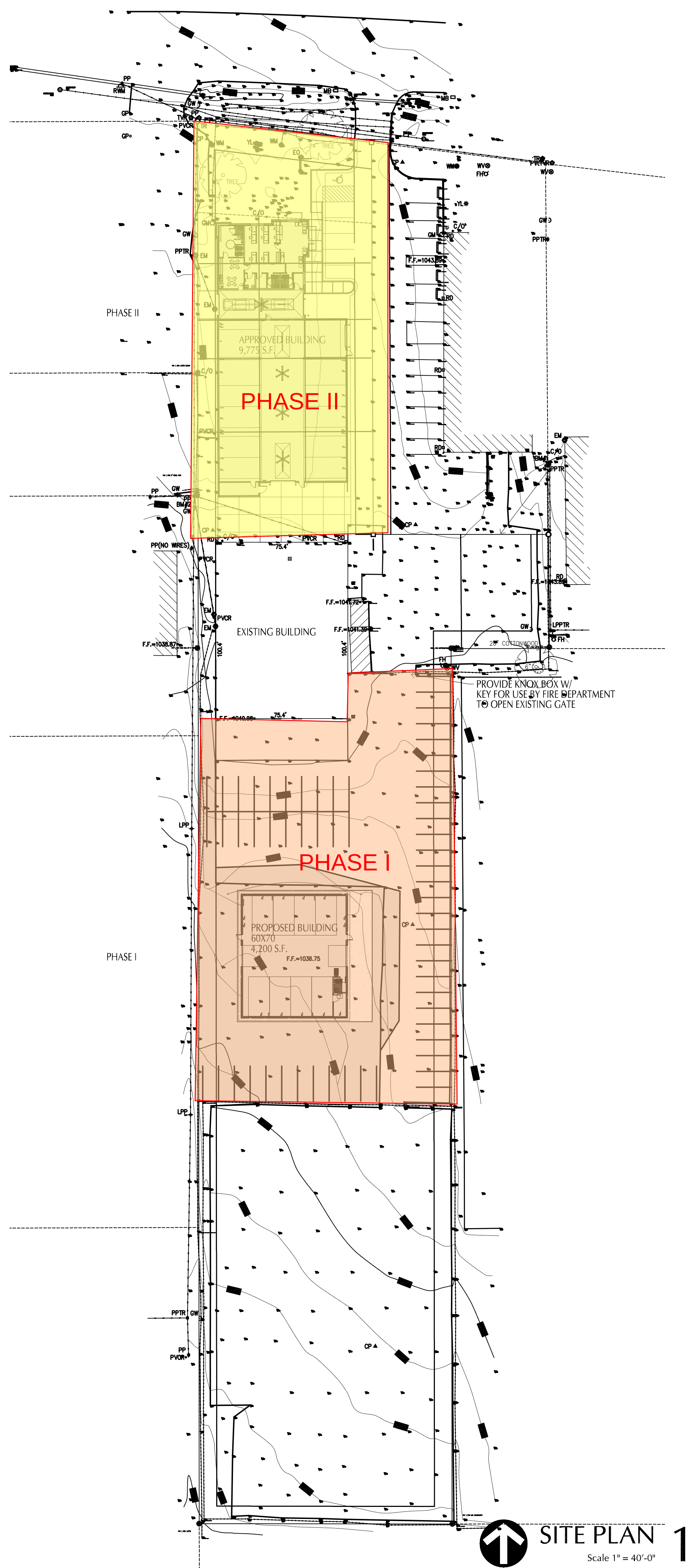
**Oppermann LandDesign, LLC**  
Land Planning & Landscape Architecture  
22 Debra Lane  
New Windsor, New York 12553  
pete@opperland.com  
913.592.5598

**Utility Note:**  
Utilities shown on plan are diagrammatic and some may be missing. Before starting any construction call appropriate locating service. In Missouri call 1-800-DIG-RITE (344-7483) to have utilities located.

05/24/2022



Jun 13, 2022 - 9:12am - USER ChrisB  
T:\Rose\Drawings-Current\22009 Crash Champions Lees Summit Addition\Production\Planning & Zoning\Architectural\A1.0 SITE PLAN.dwg  
COMPETENT: The document is the property of ROSE DESIGN GROUP, INC. AND IS LOANED IN CONFIDENCE WITH THE UNDERSTANDING  
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Christopher R. Bell

STATE OF MISSOURI  
REGISTERED ARCHITECT  
NUMBER  
A-6275

06-14-22

CHRISTOPHER R. BELL - ARCHITECT  
A-6275

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A Division of Rose Design Build

913-782-0777 FAX: 913-782-0998  
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KANSAS STATE CERTIFICATE OF AUTHORITY # A-63 www.BuiltWithRose.com

**CRASH CHAMPIONS**  
COLLISION REPAIR TEAM

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

NO.	DESCRIPTION	DATE

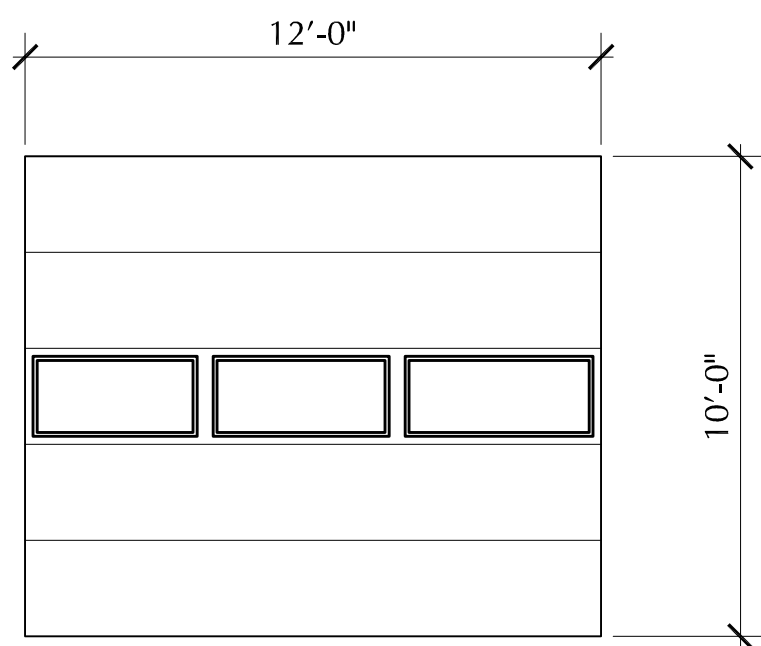
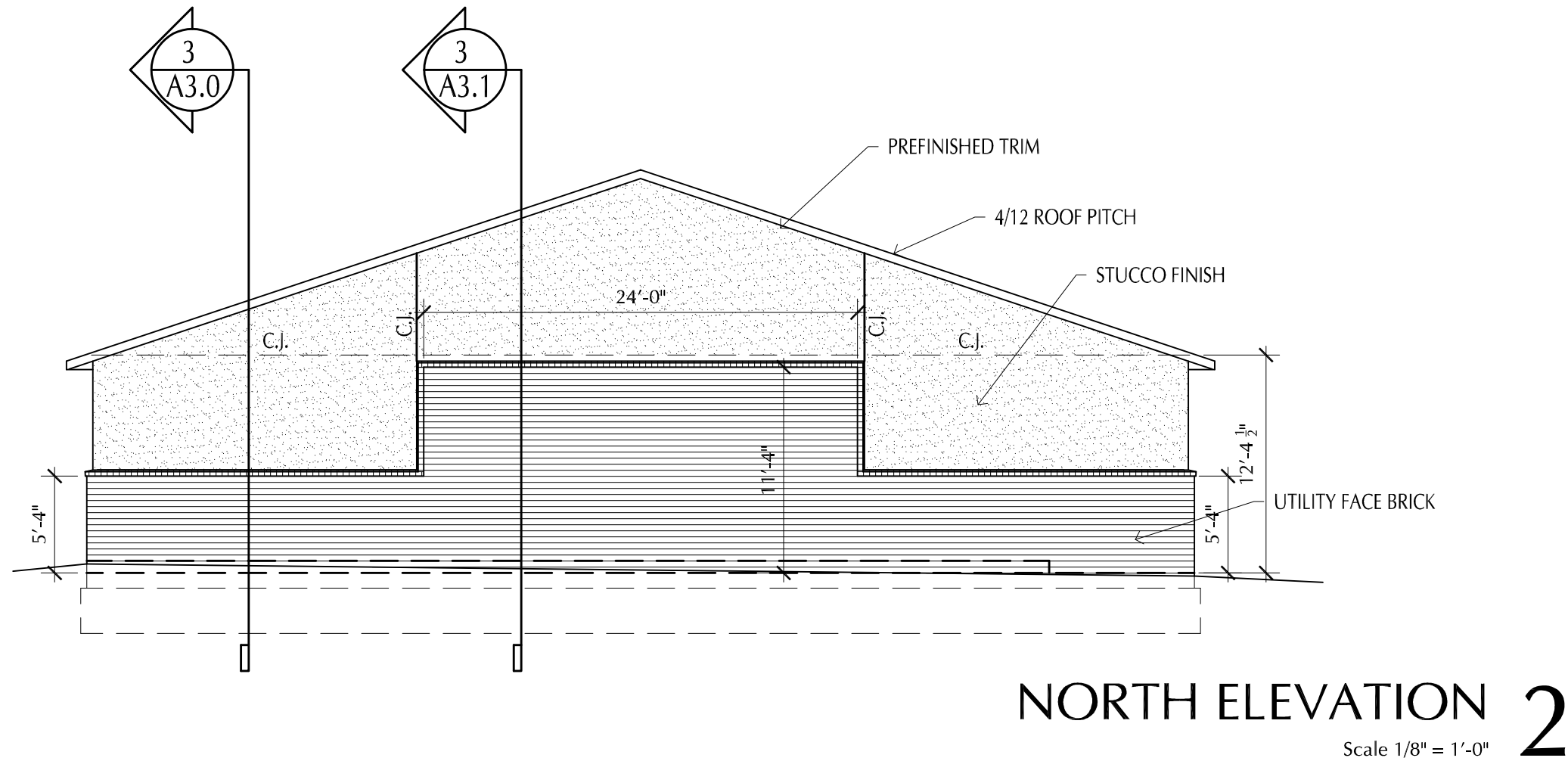
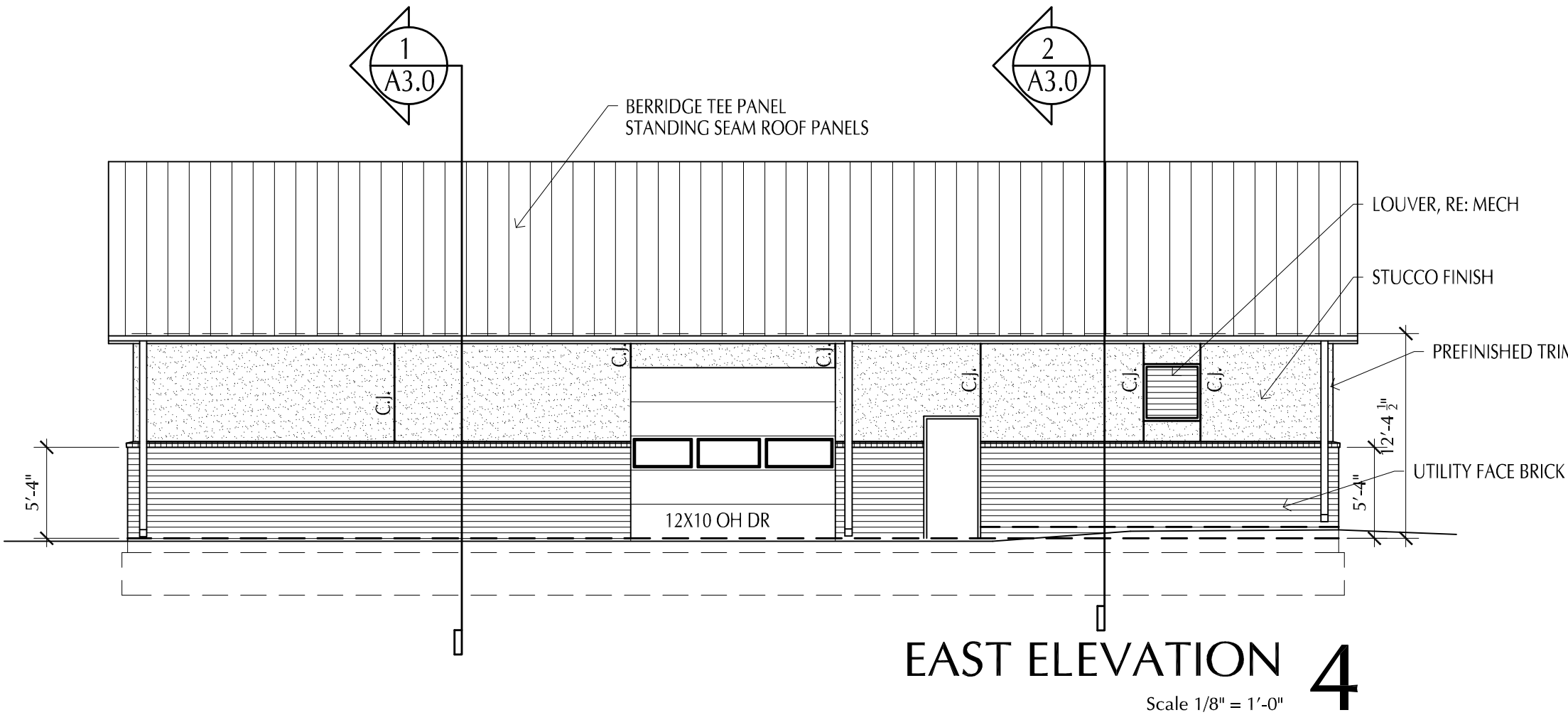
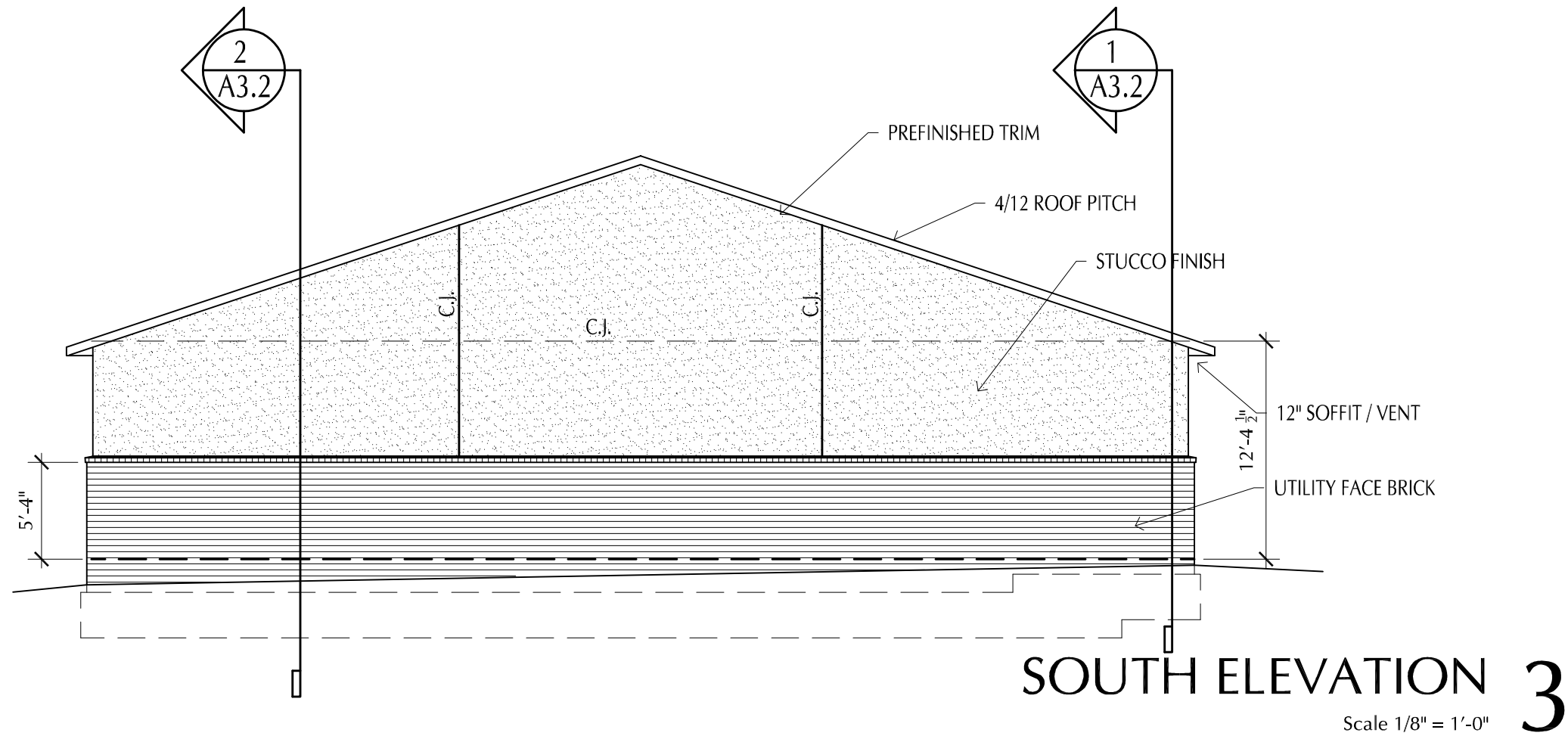
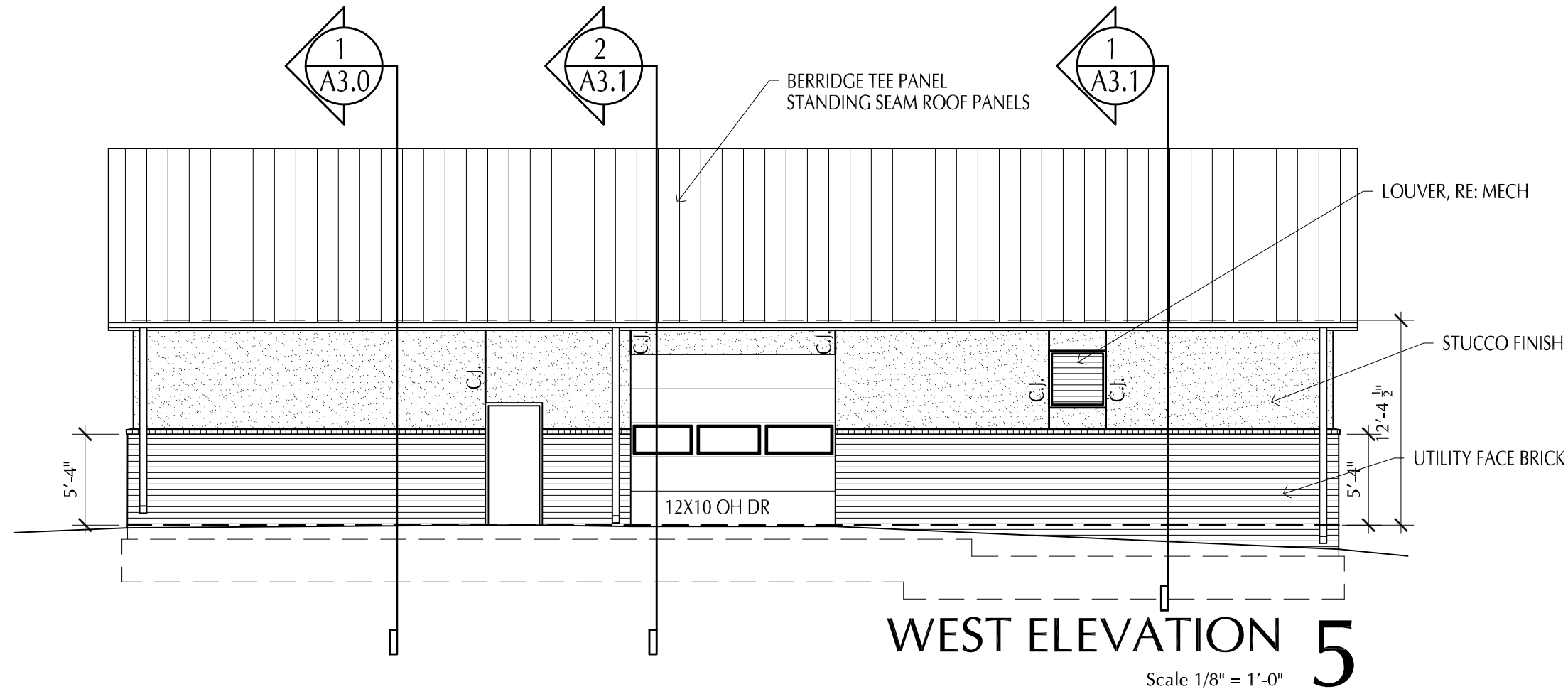
PROJECT NUMBER 22009  
DATE ISSUED: 06 / 14 / 22  
SHEET NUMBER

**A1.0**

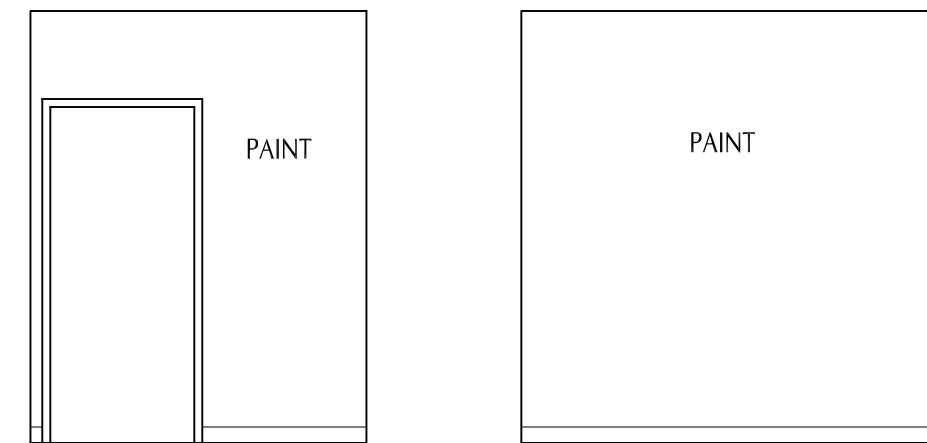
SITE PLAN



Jun 13, 2022 - 11:38am - USER ChrisB  
T:\Rose\Drawings-Current\22009 Crash Champions Lees Summit Addition\Production\Planning & Zoning\Architectural\A2.0 FLOOR PLAN.dwg  
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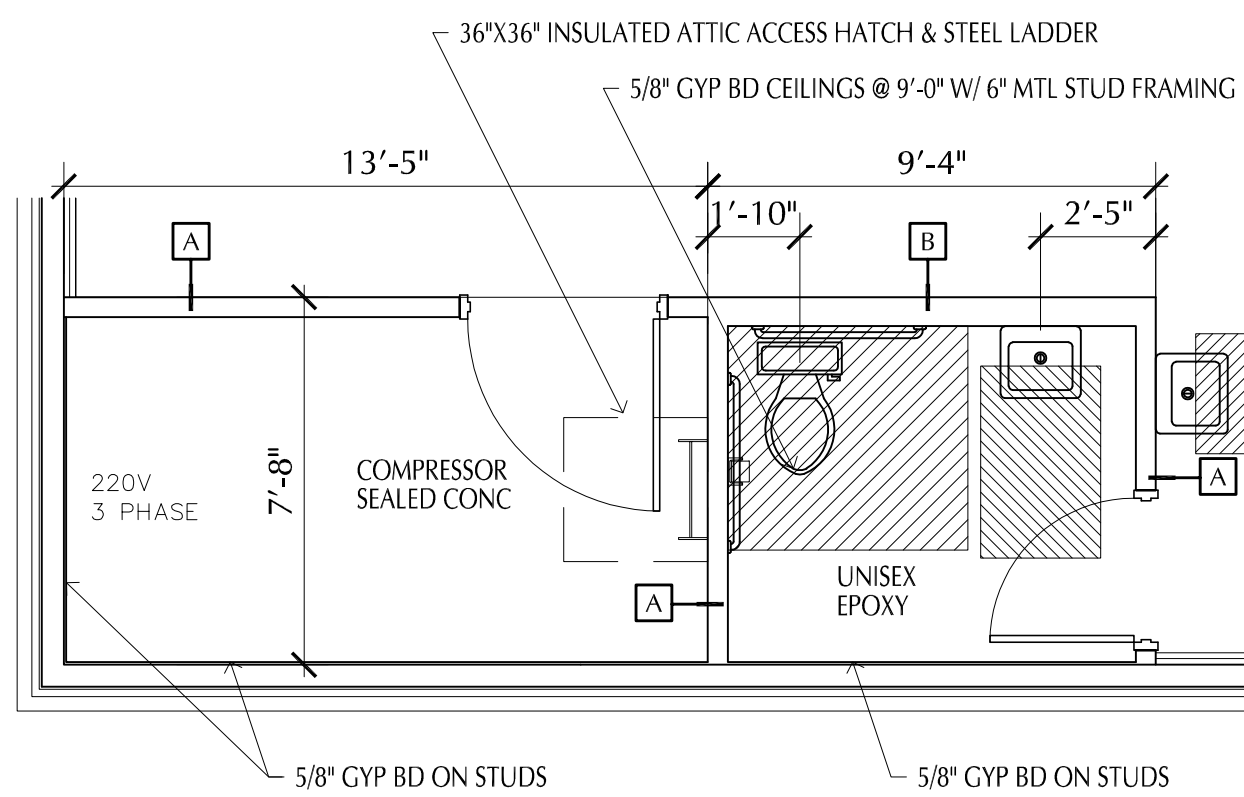


PREFINISHED STEEL INSULATED DOOR  
2" 20GA STEEL PANEL R 7.35  
OVERHEAD DOOR COMPANY MODEL NO 422  
W/ ELECTRIC OPERATOR & BOTTOM SENSING EDGE  
OR APPROVED EQUAL  
2 TOTAL



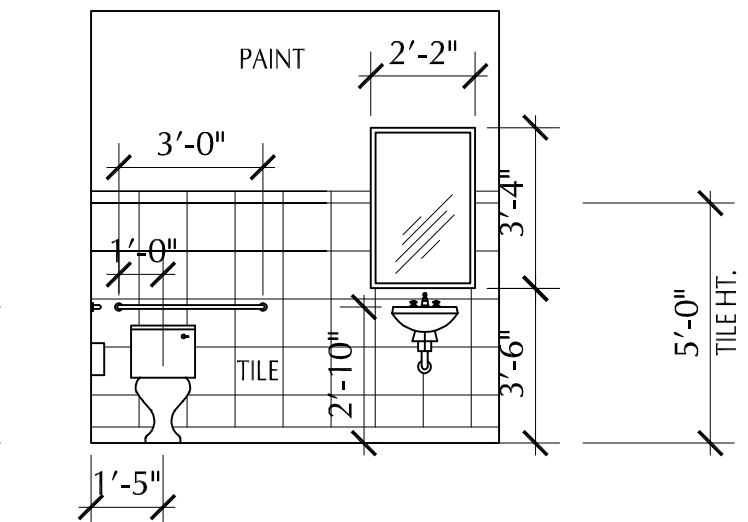
NOTES:

1. PROVIDE WOOD BLOCKING IN WALLS FOR ALL RESTROOM GRAB BARS & ACCESSORIES
2. PROVIDE INSULATION WRAPS / COVERS FOR ALL EXPOSED LAVATORY WATER & DRAIN LINES

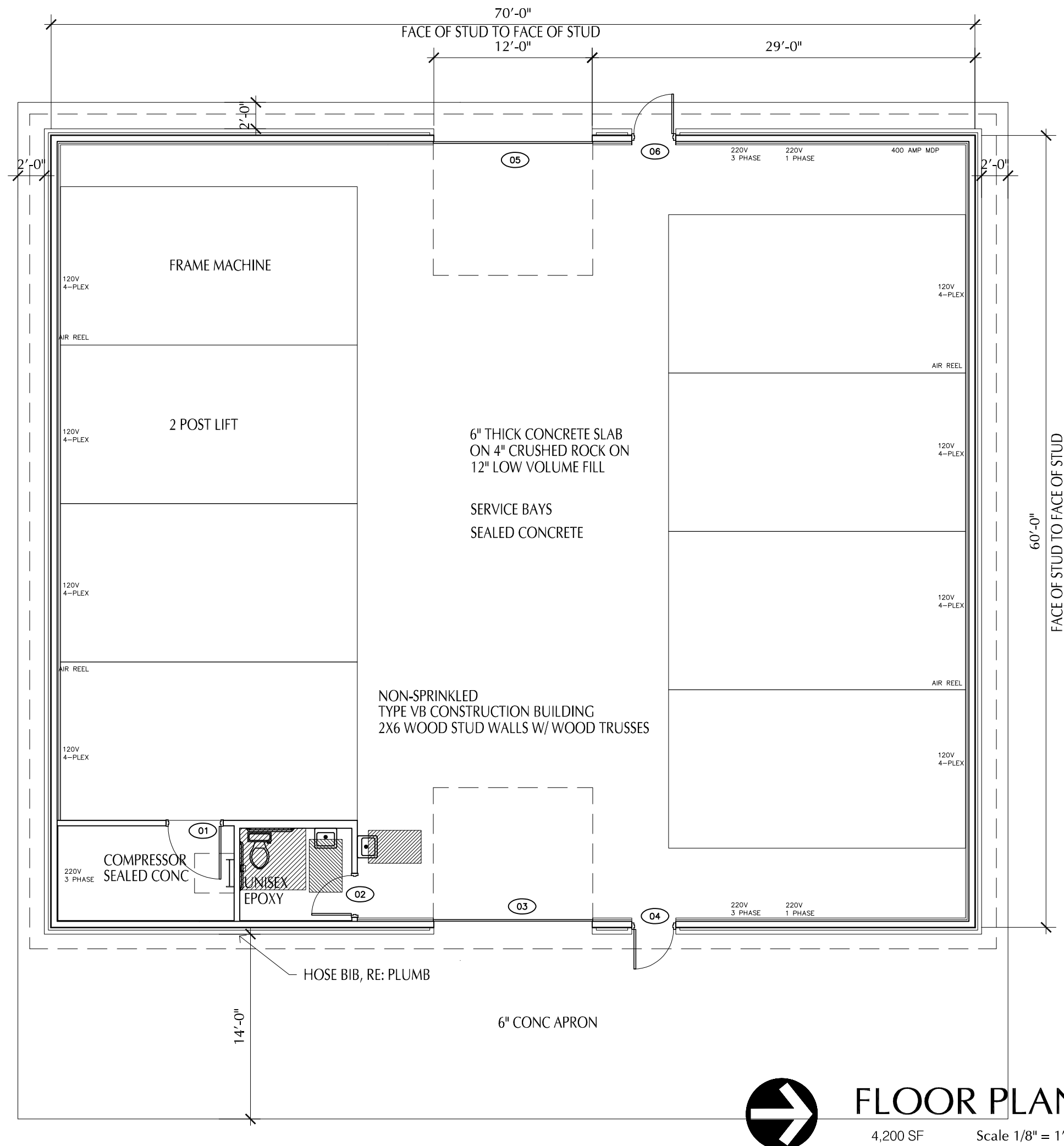


ENLARGED FLOOR PLAN 7  
Scale 1/4" = 1'-0"

- TOILET ACCESSORIES (BOBRICK)
1. CHANNEL-FRAME MIRRORS
  2. GRAB BARS: 1.5" DIA 18 GA TYPE 304 STAINLESS STEEL
  3. PAPER TOWEL DISPENSERS (1) B-2620 & (1) B-2860
  4. SOAP DISPENSERS (1) B-2111 & B-5050 (1)



UNISEX ELEVATIONS 6  
Scale 1/4" = 1'-0"



FLOOR PLAN 1  
4,200 SF  
Scale 1/8" = 1'-0"

PLAN NOTES

Gray Screen SW 7071

COLOR: SW 7071 GRAY SCREEN

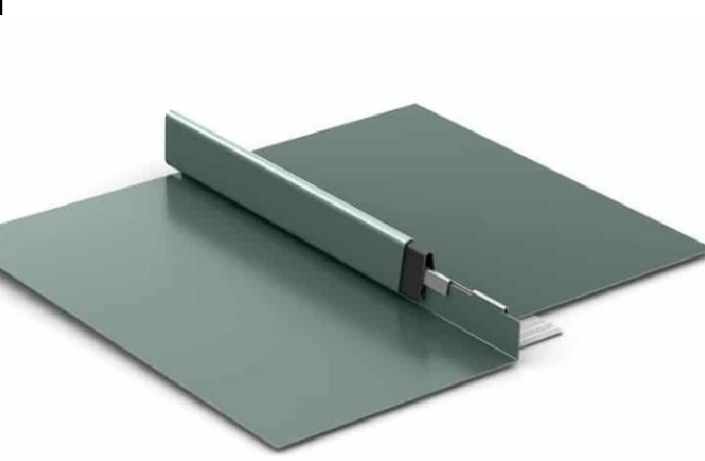


KNOCK DOWN TROWEL FINISH

STUCCO WALL ONE COAT SYSTEM



UTILITY FACE BRICK  
GLEN GERRY BRICK COMPANY  
EBONITE SMOOTH  
UTILITY SIZE



BERRIDGE TEE PANEL  
STANDING SEAM ROOF PANELS  
COLOR CHARCOAL GREY

WALL TYPES

- A 5/8" GYP BD ON 3 5/8" 20 GA. METAL STUDS @ 16" O.C. TO STRUCTURE ABOVE W/SOUND BATT INSULATION
- B 5/8" GYP BD ON 6" 20 GA. METAL STUDS @ 16" O.C. TO STRUCTURE ABOVE W/SOUND BATT INSULATION

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CHRISTOPHER R. BELL - ARCHITECT  
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KANSAS STATE CERTIFICATE OF AUTHORITY # A-63 www.BuiltWithRose.com



PROPOSED BODY SHOP BUILDING FOR:

CRASH CHAMPIONS

451 SE OLDHAM PARKWAY

LEE'S SUMMIT, MISSOURI

NO.	DESCRIPTION	DATE

PROJECT NUMBER 22009  
DATE ISSUED: 06 / 14 / 22

SHEET NUMBER

A2.0

PHASE I  
FLOOR PLAN



FINISH SCHEDULE									NOTES
ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS				CLG	CEILING HEIGHT
				NORTH	SOUTH	EAST	WEST		
01	COMPRESSOR	F2	B1	W4	W4	W4	W4		
02	SHOP	F2	B1	W1	W1	W1	W1		
03	UNISEX	F1	B2	W3	W3	W3	W3	C1	9'-0"
FINISH LEGEND									
SYMBOL	PRODUCT	MANUFACTURER				PRODUCT / COLOR			NOTES
FLOORING									
F1	EPOXY FLOORING	DUR-A-FLEX SHOP FLOOR				DOUBLE BROADCAST - GRAY SPECKLED			3
F2	SEALED CONCRETE	PROSOCO				CONSOLDECK-SB & LS SYSTEMS W/ JOINT FILLER			
WALLS									
W1	PAINT	S.W. PROMAR 400 EGGSHELL				SW CUSTOM SHOP COLOR			2
W2	PAINT	S.W. PROMAR 400 EGGSHELL				SW CUSTOM SHOP COLOR & SW 7005 PURE WHITE			5
W3	CERAMIC TILE & PAINT	S.W. PROMAR 400 EGGSHELL				SW 7653- SILVERPOINTE			1
W4	PAINT	S.W. PROMAR 400 EGGSHELL				SW 7653- SILVERPOINTE			
BASE									
B1	4" RUBBER BASE	ROPPE				700 SERIES, 129 DOLPHIN			
B2	6" EPOXY BASE								
CEILING									
C1	2X2 ACOUSTICAL TILE	ARMSTRONG				ULTIMA BEVELED TEGULAR 1911A			

NOTES:

1. CERAMIC WALL TILE SIZE: 12" X 24" X 1/4",TROVATA - DIARY, MANUF: EMSEER, PAINT ABOVE, GROUT: MAPEI, COLOR: T.B.D.
2. 60" TALL WAINSCOT FOR CUSTOM COLOR
3. PROVIDE TRANSITION STRIPS WHERE REQUIRED
4. DOOR FRAME COLOR: SW MATCH RUBBER BASE - DOLPHIN - EGGSHELL
5. PAINT COMBO COLOR ON SHOP SIDE OF GYP BD WALLS

SHERWIN-WILLIAMS 703265 08/29/21  
815-469-7557 Order# 0321217

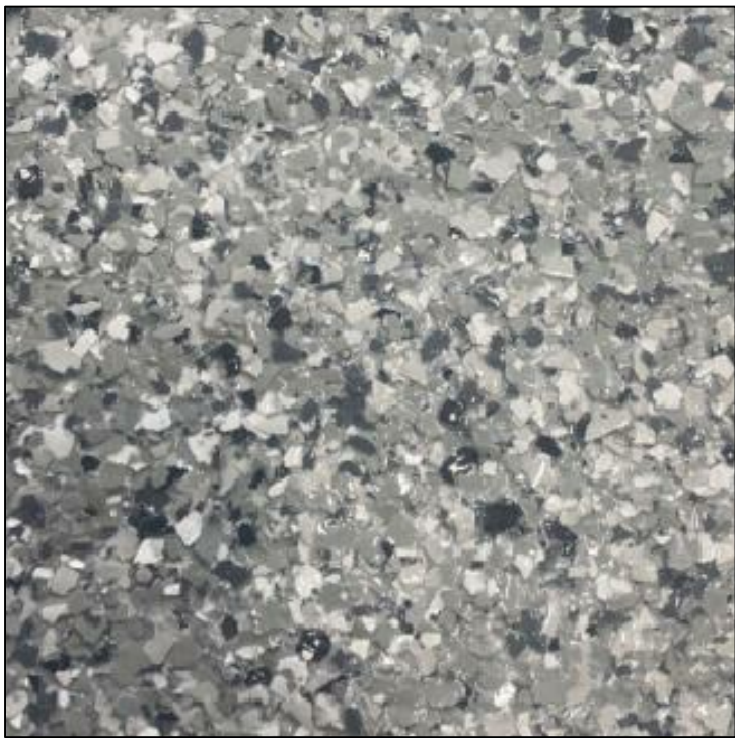
INTERIOR ARCHITECTURAL  
PROMAR 200 ZERO VOC LATEX  
SEMI-GLOSS IFC 6012NP

INTERIOR SHOP GRAY  
CUSTOM MANUAL MATCH

CCE=COLORANT	0Z	32	64	128
W1-White	4	48	-	1
B1-Black	30	13	1	1
R2-Maroon	-	38	1	1
R3-Magenta	10	-	-	-
Y1-Yellow	12	27	-	1

FIVE GALLON DEEP  
B31M02653 650187230

SW CUSTOM SHOP COLOR



EPOXY COLOR SAMPLE

DOOR SCHEDULE								
DOOR NO.	DOOR SIZE	DETAILS		DOOR TYPE	FRAME TYPE	RATING MIN.	HDDW	REMARKS
		HEAD	JAMB					
01	4' X 7' X 1 3/4"			1	A		2	
02	3' X 7' X 1 3/4"			1	A		3	
04	5' X 7' X 1 3/4"			1	A		1	
06	3' X 7' X 1 3/4"			1	A		1	

## HARDWARE SCHEDULE

HARDWARE SET 1 US32D  
3 EA BB NRP HINGES (4.5X4.5)  
1 EA PANIC HARDWARE  
1 EA THRESHOLD 3/0  
1 EA SWEEP  
1 EA WEATHERSTRIP 3/0 X 7/0  
1 EA ALUM CLOSER

HARDWARE SET 2 US32D  
3 EA HINGES (4.5X4.5) US32D  
1 EA PASSAGE SET  
1 WALL STOP

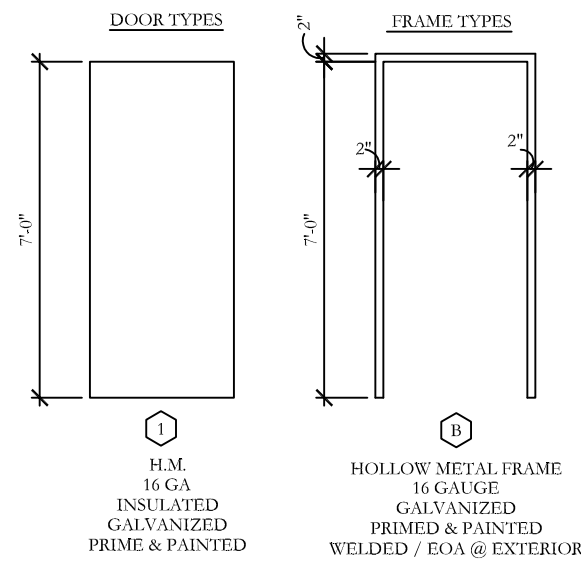
HARDWARE SET 3 US32D  
3 EA HINGES (4.5X4.5)  
1 EA LEVER PRIVACY  
1 WALL STOP

HARDWARE SPECS:  
DOOR LEVER: CAL-ROYAL PIONEER SL SERIES (SL)  
OR APPROVED EQUAL  
CLOSURES: LCN 4040 SERIES  
APPROVED EQUAL: CAL-ROYAL 900 SERIES  
PANIC HARDWARE: VON DUPRIN #9848  
APPROVED EQUAL: CAL-ROYAL 9800 RIM TYPE  
SHALL MEET REQUIREMENTS PER IBC SECTION 1008.1.10

INTERIOR HINGES:  
STANDARD WEIGHT BALL BEARING CONCEALED

EXTERIOR HINGES:  
HEAVY WEIGHT BALL BEARING CONCEALED

ALL COMMERCIAL HARDWARE GRADE LEVEL 1



## PLAN NOTES

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

06-14-22

CHRISTOPHER R. BELL - ARCHITECT  
MO# 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 written in white capital letters on a dark gray rectangular background, followed by "INC." in smaller white capital letters.

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A Division of Rose Design Build

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

KANSAS STATE CERTIFICATE OF AUTHORITY # A-83 [www.BuildWithRose.com](http://www.BuildWithRose.com)



# PROPOSED BODY SHOP BUILDING FOR:

# CRASH CHAMPIONS

# 451 SE OLDHAM PARKWAY

# LEE'S SUMMIT, MISSOURI

[illegible]

PROJECT NUMBER 22009  
DATE ISSUED: 06 / 14 / 22

SHEET NUMBER

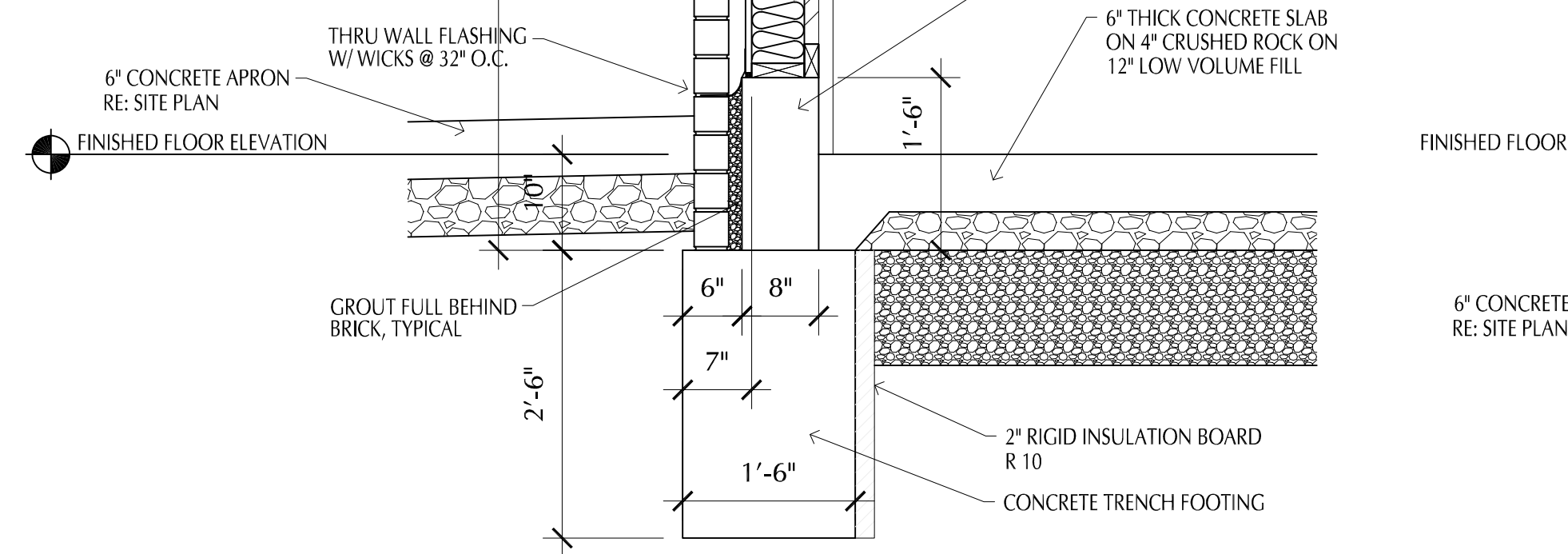
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## FINISH SCHEDULES

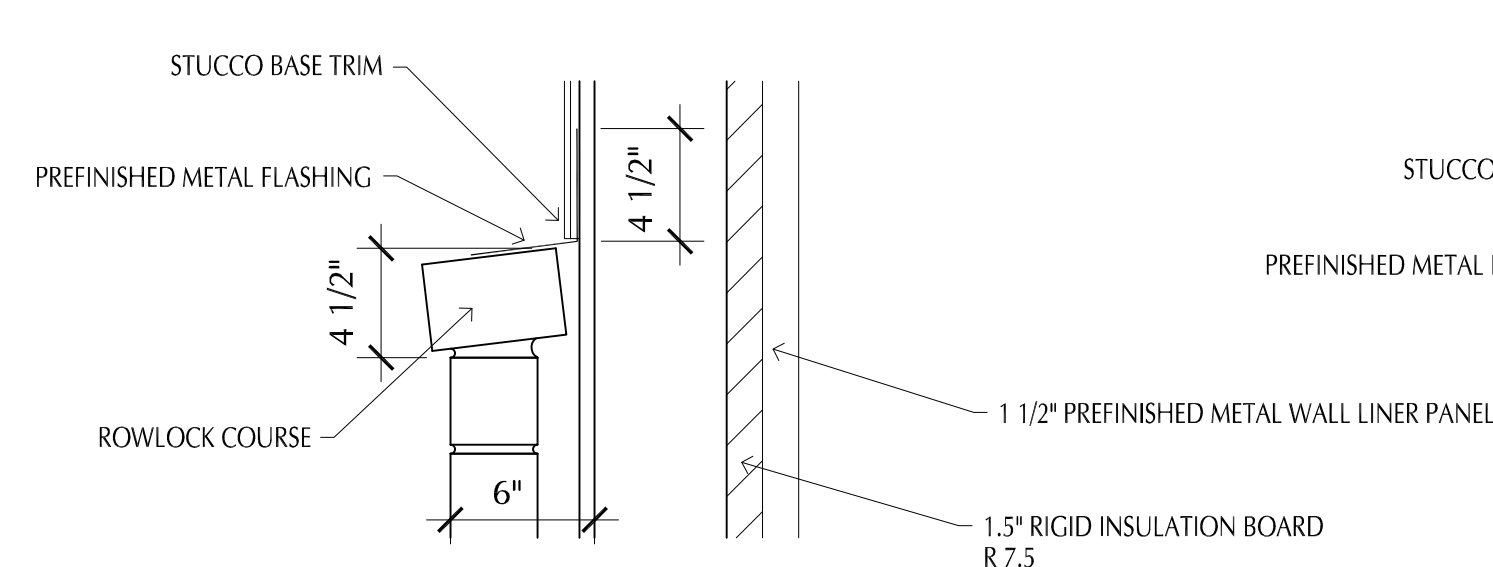




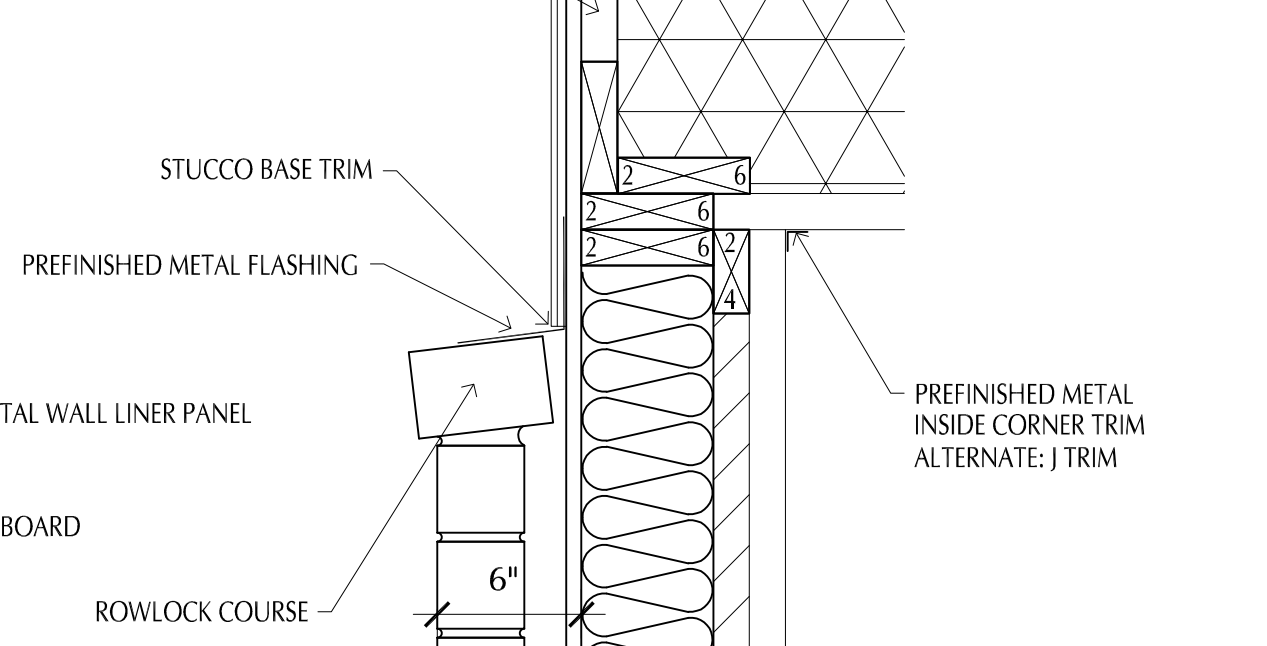




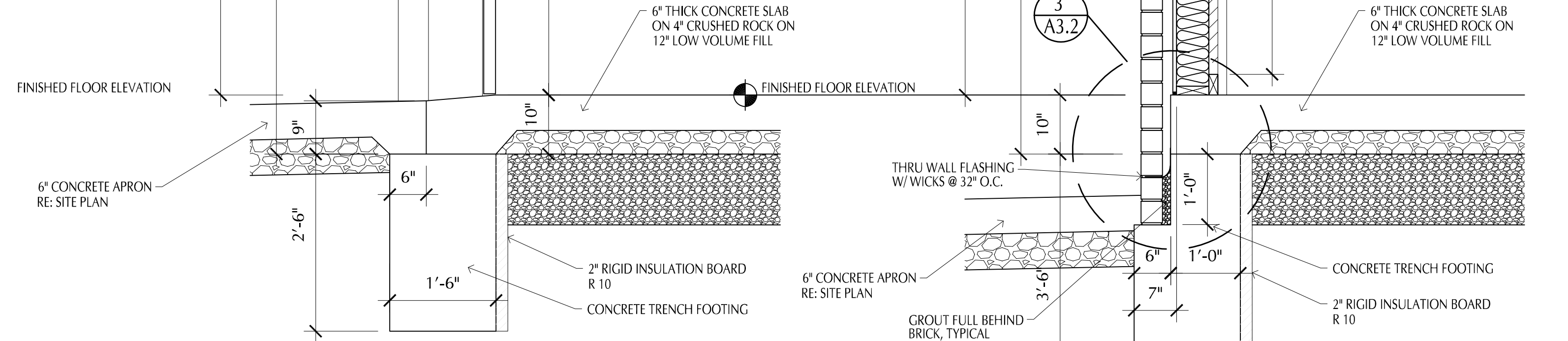
# WALL SECTION 3



## SECTION DETAIL 5

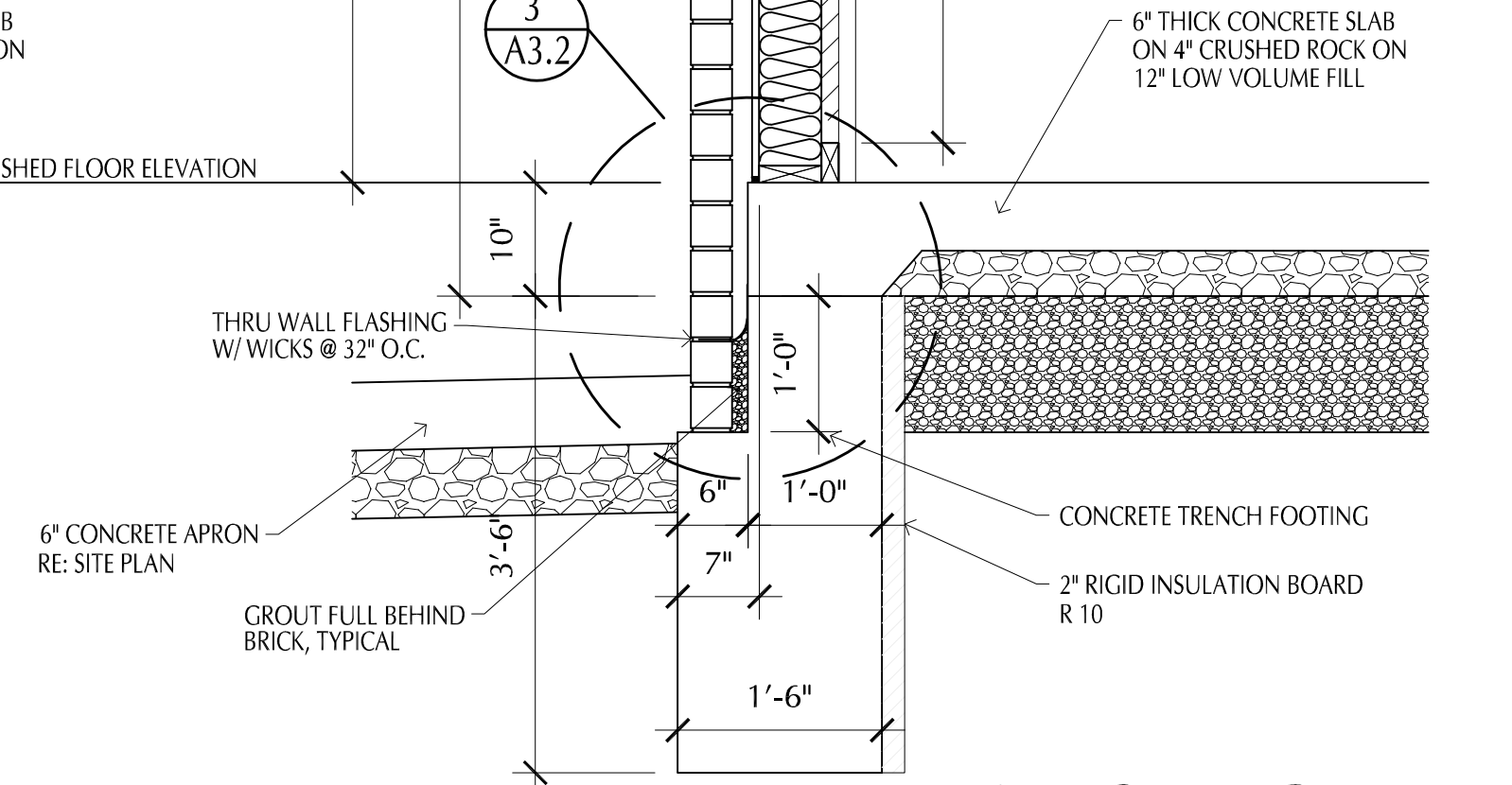


SECTION DETAIL **4**  
Scale 1 1/2" = 1'-0"



# WALL SECTION 2

Scale 3/4" = 1'-0"



# WALL SECTION 1

Scale 3/4" = 1'-0"

## PLAN NOTES

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CHRISTOPHER R. BELL  
ARCHITECT  
NUMBER  
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06-14-22

CHRISTOPHER R. BELL, ARCHITECT  
MO# A-6275

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**CRASH CHAMPIONS**  
COLLISION REPAIR TEAM

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

[illegible]

PROJECT NUMBER	22009
DATE ISSUED:	06 / 14 / 22
SHEET NUMBER	

**A3.1**

## WALL SECTIONS





## PLAN NOTES

**ROSE**  
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P.O. BOX 100 OLATHE, KS 66051  
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AUTHORITY # A-83 [www.BulkMailRose.com](http://www.BulkMailRose.com)



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[illegible]

PROJECT NUMBER	22009
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SHEET NUMBER	

# A3.2

WALL SECTIONS



- grade (visually graded) lumber with an allowable fiber stress in compression parallel grain of 900 psi and an elastic modulus of 1,200,000 psi.
- Blocking of stud bearing walls and shear walls shall be solid, matching sheathing joints.
- Wood members and sheathing shall be fastened with number and size of fasteners not less than that set forth in Table 2304.4.1 of the 2018 International Building Code. Sheathing of shear walls or roof diaphragms shall be edge nailed with 8d common nails at 6" on center and nailed to intermediate framing and/or blocking members with 8d common nails at 12" on center unless otherwise noted on the drawings.
- Sill plates shall be bolted to concrete walls or steel beams with 1/2" diameter galvanized bolts at 32" on center. Plates in direct contact with concrete shall be treated lumber.
- Service condition - dry with moisture content at or below 18% in service.
- Laminated veneer lumber (LVL) shall have an allowable flexural stress of 2400 psi (reduced by size factor) and an elastic modulus (E) of 1,900,000 psi.
- Pre-erected wood trusses shall be designed in accordance with the Truss Plate Institute's national design standard for metal-plate connected wood truss construction (ANSI/TPI-1 latest edition). Trusses shall be designed and manufactured by an authorized member of the Wood Truss Council of America (WTCA). Truss design shall conform to specified codes, allowable stress increases, deflection limits and other criteria of the governing code.
- Shop drawings showing complete erection and fabrication details and calculations (including connections) shall be submitted to the project architect / engineer for review prior to fabrication and/or erection. Such drawings shall bear the seal of a professional engineer, registered in the state of the project location. Shop drawings shall also be submitted to the local government controlling agency when requested by that agency.
- All trusses shall be securely braced both during erection and permanently, in accordance with the approved truss design drawings and in accordance with TPI's commentary and recommendations for handling, installing and bracing metal-plate connected wood trusses (HB-41, booklet) and the latest edition of ANSI/TPI-1.
- The truss manufacturer shall supply all hardware and fasteners for joining members together. The fastening truss members to their supports. Metal connector plates shall be manufactured by a member of the Wood Truss Council of America (WTCA) and shall be 20 gauge minimum. Connector plates shall meet or exceed ASTM A653, grade 33, with ASTM A924 galvanized coating designation G60.
- Storage, handling, and erection of trusses shall be by experienced, qualified persons and shall be performed in a manner so as not to endanger life or property. Apparent truss damage shall be reported to the truss manufacturer for evaluation prior to erection. Cutting or alteration of trusses is not permitted.
- Pre-erected roof truss design load and deflection criteria are as follows:
- Top Chord Dead Loads = 15psf
  - Top Chord Live Loads = 25psf
  - Bottom Chord Dead Loads = 10psf
  - Add mechanical unit weight to truss loads
  - Add 20 psf Live Load at Flat Roof Area.
  - Uplift due to wind applied to truss top chord shall be calculated per the governing building code listed in General Note 3 and using the design criteria listed in General Note 5.
  - Superimposed Roof Dead Load listed in General Note 5 shall not be included in wind uplift load combinations.
  - Allowable Total Load Deflection= L/360
  - Allowable Live Load Deflection= L/800
- Top 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:
- 1) Review each submittal for conformance with the means, methods, techniques, sequences and operations of construction and safety precautions and programs incidental thereto, all of which are the sole responsibility of the GC.
  - 2) Review and approve each submittal.
  - 3) Stamp each submittal as approved.
- Bob D. Campbell and Company, Inc. shall assume that no submittal 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 the above listed items, they must inform the review, Bob D. Campbell and Company, Inc. shall so notify the GC.
- 1) Concrete mix designs and material certificates including admixtures and compounds applied to the concrete after placement.
  - 2) Reinforcing steel shop drawings including erection drawings and bending details. Bar list will not be reviewed for correctness.
  - 3) Wood truss design calculations and detailed erection and fabrication drawings. Standard stick framing shop drawings need not be submitted.
- Bob D. Campbell and Company, Inc. shall review shop drawings and related materials with comments provided that each submittal has met the above requirements. Bob D. Campbell and Company, Inc. shall not be responsible for any unrequired material or submittals without GC approval stamp.
- 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.
- Special inspections shall be required for the items indicated below. The General Contractor shall provide notification to the inspector who will, upon inspection, be ready to be inspected and provide access for those inspections.
- 1) Placement of Concrete
  - 2) Testing of Concrete
  - 3) Bolts in Concrete
  - 4) Placement of Reinforcing Steel
  - 5) Verification of Nail Bearing Capacities
- 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 (5-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,

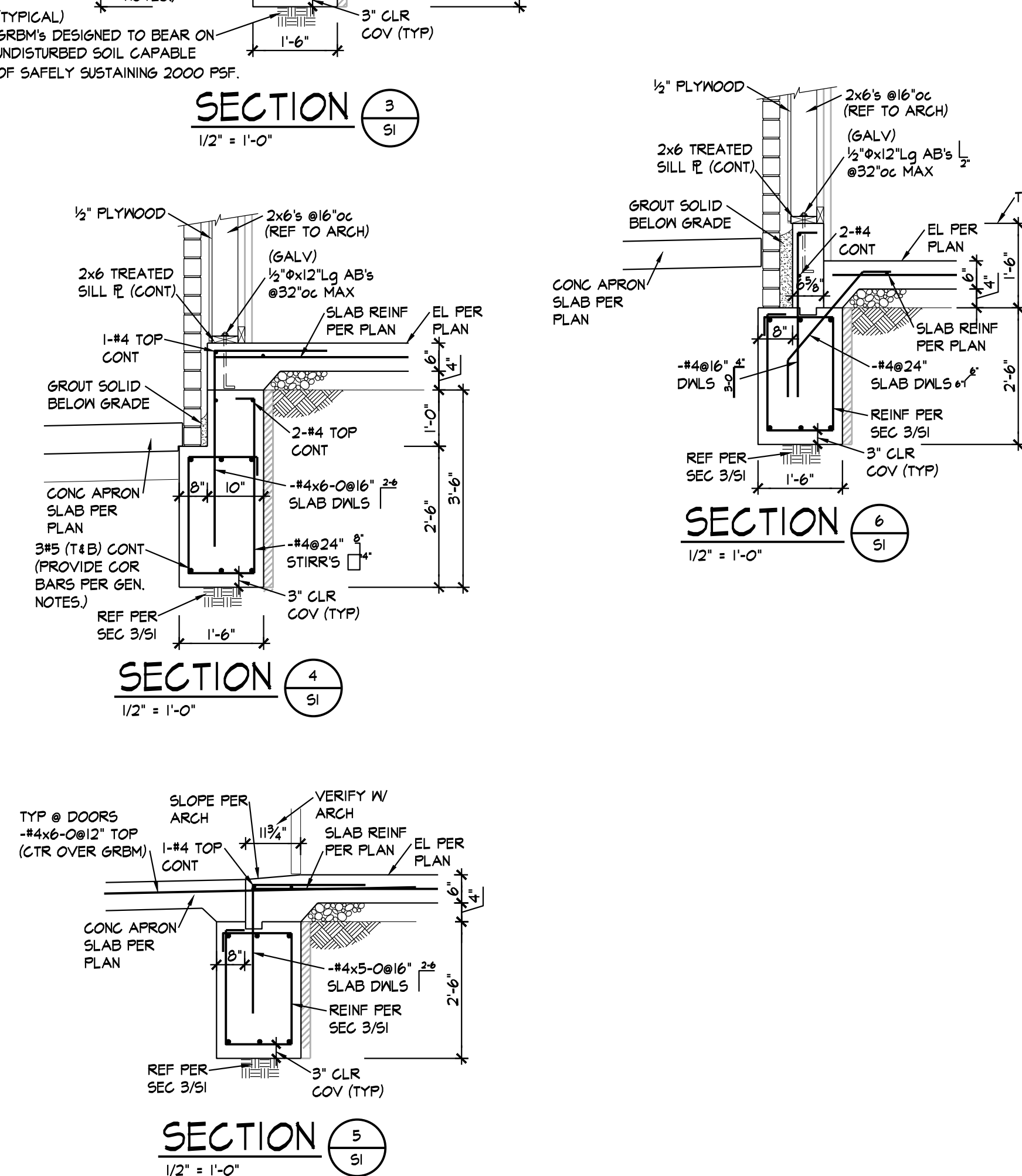
**SECTION 1**  
3/4" = 1'-0"

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

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

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

**SECTION 5**  
1/2" = 1'-0"



## Foundation & Floor Plan, General Notes





NOTE: REFER TO 4/S2 FOR TYPICAL HEADER DETAIL

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.

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**LEE'S SUMMIT. MISSOURI**

PROJECT NUMBER	22009
DATE ISSUED:	06 / 14 / 22
SHEET NUMBER	

S2

## Roof Framing Plan & Sections



Jun 15, 2022 - 7:42am - USER ScottGroshans

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

	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

☐ E/A OR R/A GRILLE

 AIR DEVICE WITH HARD DUCT CONNECTION

 DUCT BREAK/CONTINUATION  
 MANUAL BALANCING DAMPER



MOTOR-OPERATED DAMPER

 BACKDRAFT DAMPER

 FIRE DAMPER

 FIRE/SMOKE DAMPER

 SMOKE DAMPER

④ THERMOSTAT

**CO** CARBON MONOXIDE SENSOR

**CTRL** CONTROLLER

**[N02]** NITROGEN DIOXIDE SENSOR

ABC-1 EQUIPMENT / FIXTURE TAG

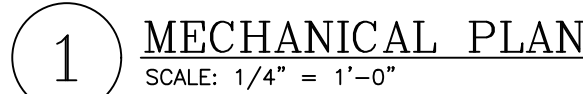
⊖ PLAN NOTE

 CONNECT TO EXISTING

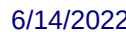
→ AIR FLOW DIRECTION

S-1	G/R/D TAG
8ø	NECK SIZE
300	AIR FLOW (CFM)

AF	ABOVE FINISHED FLOOR
APD	AIR PRESSURE DROP
CFM	CUBIC FEET PER MINUTE
EA	EXHAUST AIR
EF	EXHAUST FAN
ESP	EXTERNAL STATIC PRESSURE
FBM	FEET PER MINUTE
HC	HEATING CAPACITY
HP	HORSEPOWER
IN.WG	INCHES WATER GAUGE
MAX	MAXIMUM
MBH	1,000 BTUH
MIN	MINIMUM
NC	NOISE CRITERIA
OA	OUTDOOR AIR
QTY	QUANTITY
TSP	TOTAL STATIC PRESSURE
VEL	VELOCITY



1. ROUTE EXHAUST DUCT OF SIZE INDICATED ON PLAN FROM EXHAUST FAN THROUGH WALL AS SHOWN. PROVIDE WALL PENETRATION AND VENT CAP PER MANUFACTURER'S RECOMMENDATIONS. LOCATE DISCHARGE AT MINIMUM OF 10'-0" FROM ANY BUILDING OPENINGS OR OUTDOOR AIR INTAKES.
2. SUSPEND INLINE EXHAUST FAN FROM STRUCTURE. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS.
3. PROVIDE CARBON MONOXIDE / NITROGEN DIOXIDE DETECTION SYSTEM, MONOXVENT MODEL # FDS-SA-CO-NO OR EQUAL, WITH CONTROLLER AND QUANTITY OR SENSORS AS RECOMMENDED BY THE MANUFACTURER. COORDINATE POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR.
4. PROVIDE 4ø COMBUSTION AIR INTAKE THROUGH WALL. TERMINATE WITH KIT FURNISHED WITH TUBE HEATER. REFER TO TUBE HEATER MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR INTAKE MATERIAL REQUIREMENTS.
5. PROVIDE 4ø COMBUSTION AIR EXHAUST THROUGH WALL. TERMINATE WITH KIT FURNISHED WITH TUBE HEATER. REFER TO TUBE HEATER MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR COMBUSTION EXHAUST MATERIAL REQUIREMENTS.
6. PROVIDE MOTOR OPERATED DAMPER IN LOUVER AS SHOWN. MATCH DAMPER SIZE TO LOUVER FACE DIMENSIONS. ACTUATOR TO BE 120 VOLT, SPRING CLOSED. INTERLOCK DAMPER WITH GAS DETECTION SYSTEM.
7. INSTALL INDICATED EQUIPMENT AS HIGH AS POSSIBLE ON EXTERIOR WALL.
8. INSTALL RADIANT TUBE HEATER WITH DEFLECTOR SHIELD DIRECTED AT 30° ANGLE TOWARDS EXTERIOR WALL.
9. COORDINATE INSTALLATION OF HVLS FAN WITH OTHER TRADES. MAINTAIN OPERATIONAL AND MAINTENANCE CLEARANCES AS REQUIRED BY MANUFACTURER.
10. LOCATE UNIT HEATER ON WALL WHERE SHOWN, MIN 1'-0" AFF. INSTALL PER MANUFACTURER'S REQUIREMENTS.



SCOTT D. GROSHANS  
MO LICENSE # PE-2019012798

**DESIGN GROUP^{INC}**

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# PROPOSED BODY SHOP BUILDING FOR:

# CRASH CHAMPIONS

# 451 SE OLDHAM PARKWAY

**LEE'S SUMMIT.MISSOURI**

NO.	DESCRIPTION	DATE
---	FOR PERMIT	06 / 14 / 2022

PROJECT NUMBER 22009  
DATE ISSUED: 06 / 14 / 2022

SHEET NUMBER

# M1.0

## MECHANICAL PLAN

# 5BY5

## ENGINEERS

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MECHANICAL GENERAL NOTES:

- DRAWINGS ARE SCHEMATIC IN NATURE. COORDINATE ALL MECHANICAL WORK WITH ARCHITECTURAL DRAWINGS AND OTHER TRADES PRIOR TO START OF WORK.
- MECHANICAL WORK SHALL CONFORM TO APPLICABLE CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
- COORDINATE WITH ELECTRICAL CONTRACTOR FOR REQUIRED ELECTRICAL POWER WIRING AND ROUGH-IN FOR LOW-VOLTAGE CONTROL WIRING. PROVIDE ALL CONTROL WIRING AND FINAL CONTROL DEVICE (E.G. THERMOSTATS).
- FABRICATE AND INSTALL DUCTWORK PER SMACNA RECOMMENDATIONS FOR THE PRESSURE CLASSIFICATIONS ENCOUNTERED.
  - EXHAUST AIR (UPSTREAM OF FAN): -2.0 IN.WG
  - EXHAUST AIR (DOWNSTREAM OF FAN): +1.0 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, EXCEPT FOR RETURN AIR TRANSFER DUCTS.
- FLEXIBLE DUCTWORK SHALL HAVE 2" THICK, MINIMUM R-6.0 INSULATION. FLEXIBLE DUCTWORK SHALL NOT EXCEED 3'-0" IN LENGTH FOR EXHAUST AIR APPLICATIONS.
- TOILET ROOM EXHAUST FANS SHALL BE AS SCHEDULED. PROVIDE A MINIMUM OF 75 CFM EXHAUST PER FLUSH FIXTURE.
- ALL DIMENSIONS SHOWN ON PLAN ARE IN INCHES, UNLESS EXPLICITLY LABELED OTHERWISE.
- PROVIDE ACCESS PANELS AND ADEQUATE CLEARANCE FOR ACCESS TO ALL EQUIPMENT, VALVES, DAMPERS AND DEVICES.

DESTRATIFICATION FAN SCHEDULE										
TAG	AREA SERVED	MANUFACTURER	MODEL	FAN DIAMETER	MOTOR POWER	DRIVE TYPE	V/PH	WEIGHT (LBS)	NOTES	
DF-1	SHOP	HUNTER	XP	7'-0"	5/8 HP	DIRECT EC	120/1	100	ALL	
DF-2	SHOP	HUNTER	XP	7'-0"	5/8 HP	DIRECT EC	120/1	100	ALL	

NOTES:

A. COORDINATE FINISH COLOR WITH ARCHITECT, PRIOR TO ORDER.

B. FURNISH WITH WALL CONTROLLER. REFER TO PLAN FOR MULTIPLE FANS TO BE CONTROLLED BY ONE CONTROLLER.

UNIT HEATER SCHEDULE									
TAG	LOCATION	MANUFACTURER	MODEL	MOUNTING	OUTPUT	INPUT	VOLT/PHASE	AMP	NOTES
UH-1	COMPRESSOR RM	QMARK	CWH1201	WALL	6.1 MBH	1,800 WATTS	120/1/60	15	A,B
UH-2	RESTROOM	QMARK	CWH1201	WALL	6.1 MBH	1,800 WATTS	120/1/60	15	A,B
NOTES: A. PROVIDE WITH UNIT MOUNTED THERMOSTAT AND DISCONNECT SWITCH. B. PROVIDE WITH MANUFACTURER'S STANDARD TRIM FOR WALL MOUNTING.									

LOUVER SCHEDULE							
TAG	MANUFACTURER	MODEL	SIZE (W"xH")	FREE AREA	MAX VELOCITY (FPM)	MAX DP	NOTES
L-1	RUSKIN	ELF375DX	40x40	5.97 SQ/FT	502	0.05	A-D
NOTES: A. PROVIDE WITH MANUFACTURER'S STANDARD ALUMINUM BIRDSCREEN. B. PROVIDE WITH STANDARD MILL FINISH. COLOR TO BE SELECTED BY THE ARCHITECT. C. FRAME TYPE SHALL MATCH WALL CONSTRUCTION. COORDINATE WITH ARCHITECT FOR EXACT FRAME TYPE. D. PROVIDE WITH INTEGRAL MOTORIZED DAMPER, RUSKIN MODEL CD356 OR EQUAL. INTERLOCK MOTORIZED DAMPER WITH GAS DETECTION SYSTEM. COORDINATE WITH ELECTRICAL CONTRACTOR.							

RADIANT TUBE HEATER SCHEDULE														
TAG	AREA SERVED	MANUFACTURER	MODEL	HEATER LENGTH	NOM INPUT (MBH)		MIN EFF (%)	NG PRESS (IN.WG)		STAGES	V/PH	FLA	WEIGHT (LBS)	NOTES
				(MIN)	(MAX)		(MIN)	(MAX)						
RT-1	SHOP	DETROIT RADIANT	HL3-50-150	50'-9"	100	150	80	5.0	14.0	2	120/1	4.8	235	ALL
RT-2	SHOP	DETROIT RADIANT	HL3-50-150	50'-9"	100	150	80	5.0	14.0	2	120/1	4.8	235	ALL
NOTES: A. PROVIDE WITH MANUFACTURER'S STANDARD WALL-MOUNTED THERMOSTAT B. COORDINATE WITH ELECTRICAL CONTRACTOR FOR PROVIDE DISCONNECT SWITCH. C. FURNISH INFRARED HEATER WITH COMBUSTION AIR INTAKE KIT AND WALL VENT KIT. D. FURNISH WITH SINGLE MOUNT BRACKETS AND CHAIN HANGING SETS.														

FAN SCHEDULE										
TAG	AREA SERVED	MANUFACTURER	MODEL	MOUNTING	AIR FLOW (CFM)	ESP (IN.WG)	MOTOR POWER	DRIVE TYPE	V/PH	NOTES
EF-1	RESTROOM	COOK	GC-146	CEILING	75	0.25	0.04 HP	DIRECT	120/1	A-D,H
EF-2	SHOP	COOK	18XP29D132	WALL	3000	0.2	0.75 HP	DIRECT	120/1	C,E,G
EF-3	SHOP	COOK	GC-342	INLINE	200	0.2	0.063 HP	DIRECT	120/1	C,D,F,H
NOTES: A. PROVIDE WITH MANUFACTURER'S STANDARD HANGING KIT AND CEILING MOUNT TRIM. B. INTERLOCK FAN WITH ASSOCIATED RESTROOM LIGHT SWITCH. C. PROVIDE WITH DISCONNECT SWITCH. D. PROVIDE WITH BACKDRAFT DAMPER. E. PROVIDE WITH MANUFACTURER'S STANDARD WALL MOUNT TRIM KIT AND DISCHARGE SHUTTERS. F. FAN TO OPERATE AT ALL TIMES. COORDINATE WITH ELECTRICAL CONTRACTOR. G. FAN TO OPERATE SUBJECT TO GAS DETECTION SYSTEM STATE. COORDINATE WITH ELECTRICAL CONTRACTOR. H. FURNISH WITH MANUFACTURER'S STANDARD WALL DISCHARGE CAP.										

OUTDOOR AIR CALCULATIONS (MECHANICAL VENTILATION)							
TAG	LOCATION	OCCUPANCY CLASSIFICATION	AREA (FT ² )	R _a (CFM/FT ² )	MIN REQ'D O/A FLOW (CFM)	PROVIDED MIN O/A FLOW (CFM)	NOTES
EF-2	SHOP 03 RM	REPAIR GARAGE	3,851	0.75	2,889	3,000	A
EF-3		PARKING GARAGE		0.05	193	200	
NOTES: A. R _a REPRESENTS AREA OUTDOOR AIRFLOW RATE IN BREATHING ZONE PER TABLE 403.3.							

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KANSAS STATE CERTIFICATE OF AUTHORITY # A-83 www.BuildWithRose.com



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

NO.	DESCRIPTION	DATE
---	FOR PERMIT	06 / 14 / 2022

PROJECT NUMBER 22009  
DATE ISSUED: 06 / 14 / 2022

SHEET NUMBER

M2.0

MECHANICAL SCHEDULES  
AND DETAILS



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**LINETYPES LEGEND:**

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

**PIPING LEGEND:**

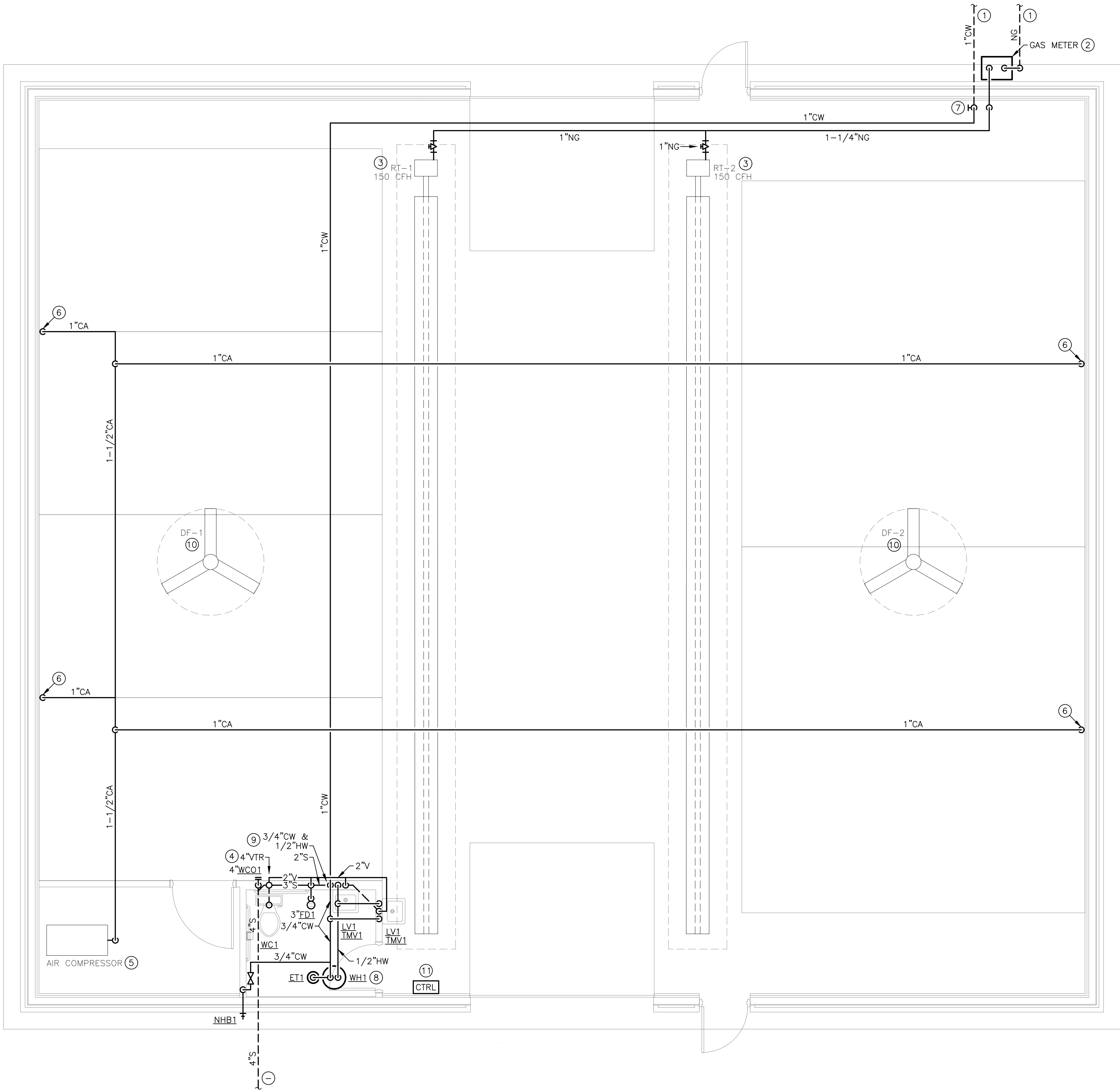
↪ ELBOW DOWN  
↪ ELBOW UP  
↪ P-TRAP  
↪ TEE DOWN  
↪ ELBOW UP  
↪ SHUT-OFF VALVE (GENERIC)  
↪ BALL VALVE  
↪ GLOBE VALVE  
↪ BUTTERFLY VALVE  
↪ GATE VALVE  
↪ CHECK VALVE  
↪ BALANCING VALVE  
↪ PRESSURE REDUCING VALVE  
↪ GAS COCK  
↪ WYE-STRAINER  
↪ UNION  
↪ FLANGE  
↪ RELIEF VALVE  
↪ AIR VENT (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  
CO CLEANOUT  
CW DOMESTIC COLD WATER  
ET EXPANSION TANK  
FCO FLOOR CLEANOUT  
FD FLOOR DRAIN  
GPM GALLONS PER MINUTE  
HB HOSE BIBB  
IE INVERT ELEVATION  
IN.WG INCHES WATER GAUGE  
LV LAVATORY  
MAX MAXIMUM  
MBH 1,000 BTUH  
MIN MINIMUM  
NG NATURAL GAS  
NHB NON-FREEZE HOSE BIBB  
QTY QUANTITY  
S SANITARY WASTE  
TMV THERMOSTATIC MIXING VALVE  
TRA TO ROOF ABOVE  
V VENT  
WC WATER CLOSET  
WH WATER HEATER  
WCO WALL CLEANOUT



1 PLUMBING PLAN  
SCALE: 1/4" = 1'-0"

**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 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 4" 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
- 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.
- 1" DOMESTIC WATER SERVICE ENTRANCE, FED BY ADJACENT BUILDING. PROVIDE SHUTOFF VALVE AT 4'-0" AFF.
- INSTALL WATER ABOVE CEILING WHERE SHOWN ON PLAN. CONNECT WATER PIPING, VALVES, AND EXPANSION TANK TO WATER HEATER SYSTEM PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND DETAIL 1/P2.0.
- PROVIDE COLD WATER AND HOT WATER PIPING OF SIZES INDICATED ON PLAN DOWN IN WALL. ROUTE PIPING IN WALL CAVITY AND CONNECT TO PLUMBING FIXTURES ALONG WET WALL PER FIXTURE CONNECTION SCHEDULE ON P2.0.
- COORDINATE ALL PIPE ROUTING WITH CLEARANCE REQUIREMENTS OF DESTRATIFICATION FAN.
- PROVIDE HIGH LEVEL ALARM SYSTEM WITH MECHANICAL ALARM FLOAT FOR SANITARY HOLDING TANK, SEPTIC PRODUCTS INC "OBSERVER 200" OR EQUAL. INSTALL CONTROLLER WHERE INDICATED ON PLAN. COORDINATE POWER REQUIREMENTS WITH ELECTRICAL CONTRACTOR.

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**PROPOSED BODY SHOP BUILDING FOR:**  
**CRASH CHAMPIONS**  
451 SE OLDHAM PARKWAY  
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NO.	DESCRIPTION	DATE
---	FOR PERMIT	06 / 14 / 2022

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**P1.0**

PLUMBING PLAN



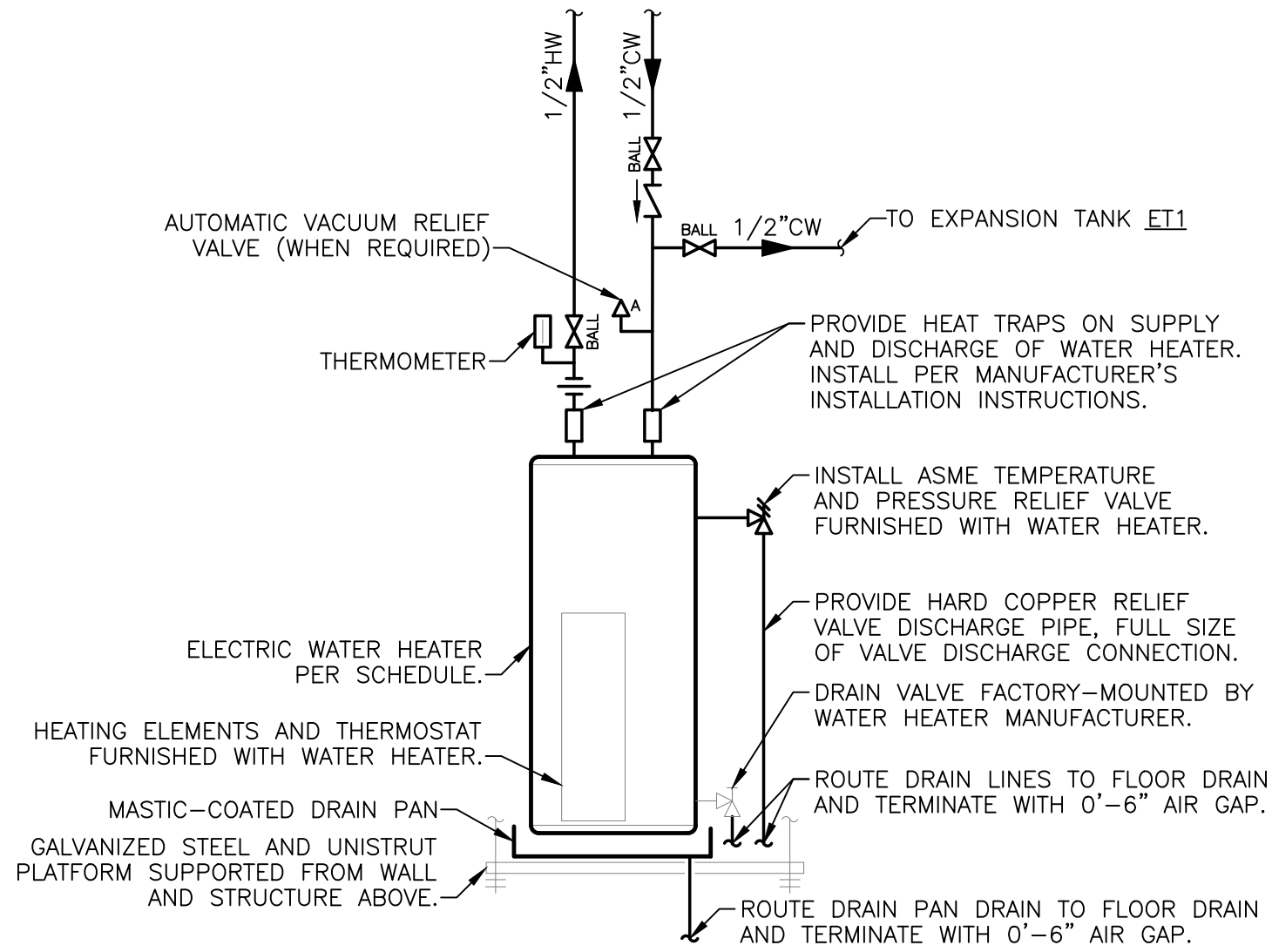
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FIXTURE CONNECTION SCHEDULE					
FIXTURE	WASTE	VENT	COLD	HOT	NOTES
FLOOR DRAIN	SEE PLAN	2"	---	---	---
HOSE BIBBS	---	---	3/4"	---	VB
LAVATORY - PUBLIC	2"	1-1/2"	1/2"	1/2"	TMV
WATER CLOSET (TANK TYPE)	4"	2"	1/2"	---	---

NOTES:  
TMV: POINT OF USE TYPE THERMOSTATIC MIXING VALVE CONFORMING TO ASSE 1070.  
VB: ATMOSPHERIC TYPE VACUUM BREAKER CONFORMING TO ASSE 1020.

NATURAL GAS LOAD SCHEDULE				
EQUIPMENT TAG	QTY	DESCRIPTION	CFH INPUT (EACH)	TOTAL CFH
RT-1	1	RADIANT TUBE HEATER	150	150
RT-2	1	RADIANT TUBE HEATER	150	150

SYSTEM TOTAL = 300  
NOTES:  
A. METER DISCHARGE PRESSURE: 11 IN. WG.  
B. TOTAL DEVELOPED LENGTH: 100 FT.  
C. DESIGN NATURAL GAS PIPING SYSTEM PRESSURE DROP: 0.5 IN. WG.  
D. INLET PRESSURE FOR ALL GAS-FIRED EQUIPMENT: 7 TO 11 IN. WG.



NOTES:  
• STRUCTURE AND PLATFORM SHALL BE DESIGNED TO HOLD THE MAXIMUM WEIGHT OF THE WATER HEATER. CONFIRM CAPACITY OF SHELF WITH MANUFACTURER PRIOR TO INSTALLATION.

1 WATER HEATER DETAIL  
SCALE: NTS

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, 2.0-GALLON CAPACITY, 0.45 MAXIMUM ACCEPTANCE FACTOR, AND 3/4" PIPE CONNECTION. SET THE AIR CHARGE PRESSURE TO MATCH EXISTING WATER SYSTEM PRESSURE.

- 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.

- HB1
- HOSE BIBB: ROUGH CHROME-PLATED BRASS, 3/4" FEMALE INLET, 3/4" THREADED HOSE CONNECTION, QUARTER-TURN WHEEL HANDLE, AND INTEGRAL VACUUM BREAKER.

- 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.

- TMV1
- THERMOSTATIC MIXING VALVE: SOLID BRASS BODY, THERMOSTATIC WAX ELEMENT, CORROSION RESISTANT INTERNAL PARTS, AND INTEGRAL CHECKS, ASSE 1070 COMPLIANT, CAPABLE OF 2.2 GPM WITH A 20 PSI DIFFERENTIAL AND A MINIMUM FLOW RATE OF 0.5 GPM. MAXIMUM TEMPERATURE STOP SET FOR 110°F. MOUNT BELOW THE PLUMBING FIXTURE WHERE INDICATED ON PLANS.

- WC1
- FLOOR-MOUNTED WATER CLOSET (ADA ACCESSIBLE): TANK TYPE WHITE VITREOUS CHINA FIXTURE WITH ELONGATED BOWL, 1.6 GALLON PER FLUSH, SIPHON FLUSH ACTION, AND CLOSE-COUPLED TANK WITH TRIP LEVER ON THE WIDE SIDE OF THE STALL.
  - TRIM: WHITE OPEN-FRONT CONTOURED, SOLID PLASTIC, HEAVY-DUTY, SEAT-LESS-COVER WITH SELF-SUSTAINING HINGES AND STAINLESS STEEL BOLTS; QUARTER-TURN BALL TYPE ANGLE STOP VALVE WITH RISER AND CHROME-PLATED ESCUTCHEON.

- WC01
- WALL CLEANOUT: CAST IRON CLEANOUT TEE, COUNTER-SUNK CAST IRON PLUG WITH GASKET SEAL, AND STAINLESS STEEL ROUND COVER WITH SCREW.

- WH1
- WATER HEATER: ELECTRIC, 10 GALLON, 1.5 KW INPUT, 8 GALLON PER HOUR RECOVERY AT 80°F TEMPERATURE RISE AND 120°F OPERATING TEMPERATURE. PROVIDE ALL WATER CONNECTIONS, VALVES, AND SPECIALS PER MANUFACTURER'S INSTALLATION REQUIREMENTS.
  - ELECTRICAL REQUIREMENTS: 120-VOLT, SINGLE PHASE, 13 FULL LOAD AMPS.
  - BASIS OF DESIGN: A.O. SMITH MODEL # DEL-10.

PLUMBING GENERAL NOTES:

- DRAWINGS ARE SCHEMATIC IN NATURE. COORDINATE ALL PLUMBING WORK WITH ARCHITECTURAL DRAWINGS AND OTHER TRADES PRIOR TO BID OR START OF WORK.
- PLUMBING WORK SHALL CONFORM TO APPLICABLE CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
- EXACT LOCATION AND ELEVATIONS OF ALL UTILITIES SHALL BE VERIFIED PRIOR TO ANY INSTALLATION OF CONNECTIONS THEREOF. ALL CONNECTIONS TO UTILITIES (E.G. DOMESTIC WATER, SEWER, 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. SCHEDULE 40 PVC PIPING WITH SOLVENT WELDED JOINTS 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.

- 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.

- PROVIDE STOP VALVES ON ALL INDIVIDUAL PLUMBING FIXTURE SUPPLIES.
- 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.

- INSULATE NEW DOMESTIC COLD WATER AND HOT WATER PIPING WITH MINIMUM 1" FIBERGLASS INSULATION (MINIMUM R-4.0) WITH PAPER COVERING.

- NATURAL GAS AND COMPRESSED AIR PIPING SHALL BE SCHEDULE 40 BLACK STEEL WITH THREADED FITTINGS.
- PROVIDE RUST-INHIBITOR ON PAINT ALL NATURAL GAS PIPING LOCATED EXTERIOR TO THE BUILDING.

- 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.



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6/14/2022



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KANSAS STATE CERTIFICATE OF AUTHORITY # A-83 www.BuildWithRose.com



PROPOSED BODY SHOP BUILDING FOR:

CRASH CHAMPIONS

451 SE OLDHAM PARKWAY

LEE'S SUMMIT, MISSOURI

NO.	DESCRIPTION	DATE
---	FOR PERMIT	06 / 14 / 2022

PROJECT NUMBER 22009  
DATE ISSUED: 06 / 14 / 2022

SHEET NUMBER

P2.0

PLUMBING DETAILS  
& SCHEDULES

5BY5  
ENGINEERS

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Jun 15, 2022 -- 7:42am -- USER ScottGroshans  
C:\Users\ScottGroshans\Dropbox (5by5 Engineers)\5BY5 ACTIVE PROJECTS\202200038 Crash Champions Lees Summit  
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NEW UTILITY POLE MOUNT  
TRANSFORMERS (3) 37.5kva  
ESTIMATED AVAILABLE  
FCA ~ 15,139A

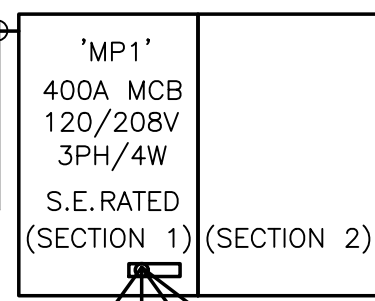
NOTE: FINAL AVAILABLE FAULT  
CURRENT SHALL BE DETERMINED BY  
EVERGY.

ALL SERVICE ENTRANCE AND  
DISTRIBUTION EQUIPMENT SHALL BE  
RATED TO ACCOMMODATE AND SAFELY  
INTERRUPT AVAILABLE FAULT CURRENT.  
SERIES RATED EQUIPMENT PER NEC,  
UL AND MANUFACTURERS  
REQUIREMENTS IS ACCEPTABLE.

ELECTRICAL CONTRACTOR SHALL  
PROVIDE ENOUGH CONDUCTOR AND  
PVC CONDUIT TO EXTEND UP THE  
POLE. ALL WORK SHALL BE PER  
EVERGY STANDARDS.

METER PER EVERGY  
STANDARDS.

(2) 2" CONDUITS, EACH  
WITH (4) 250kcmil AL.



#1/0 CU (OR #3/0 AL) GROUND IN 3/4" C. TO  
BOND TO BUILDING STEEL, BUILDING WATER SERVICE, AND  
CONCRETE ENCASED ELECTRODE (FOOTING REBAR). ALSO  
PROVIDE (1) #6 CU CONNECTION TO DRIVEN GROUND ROD.

2

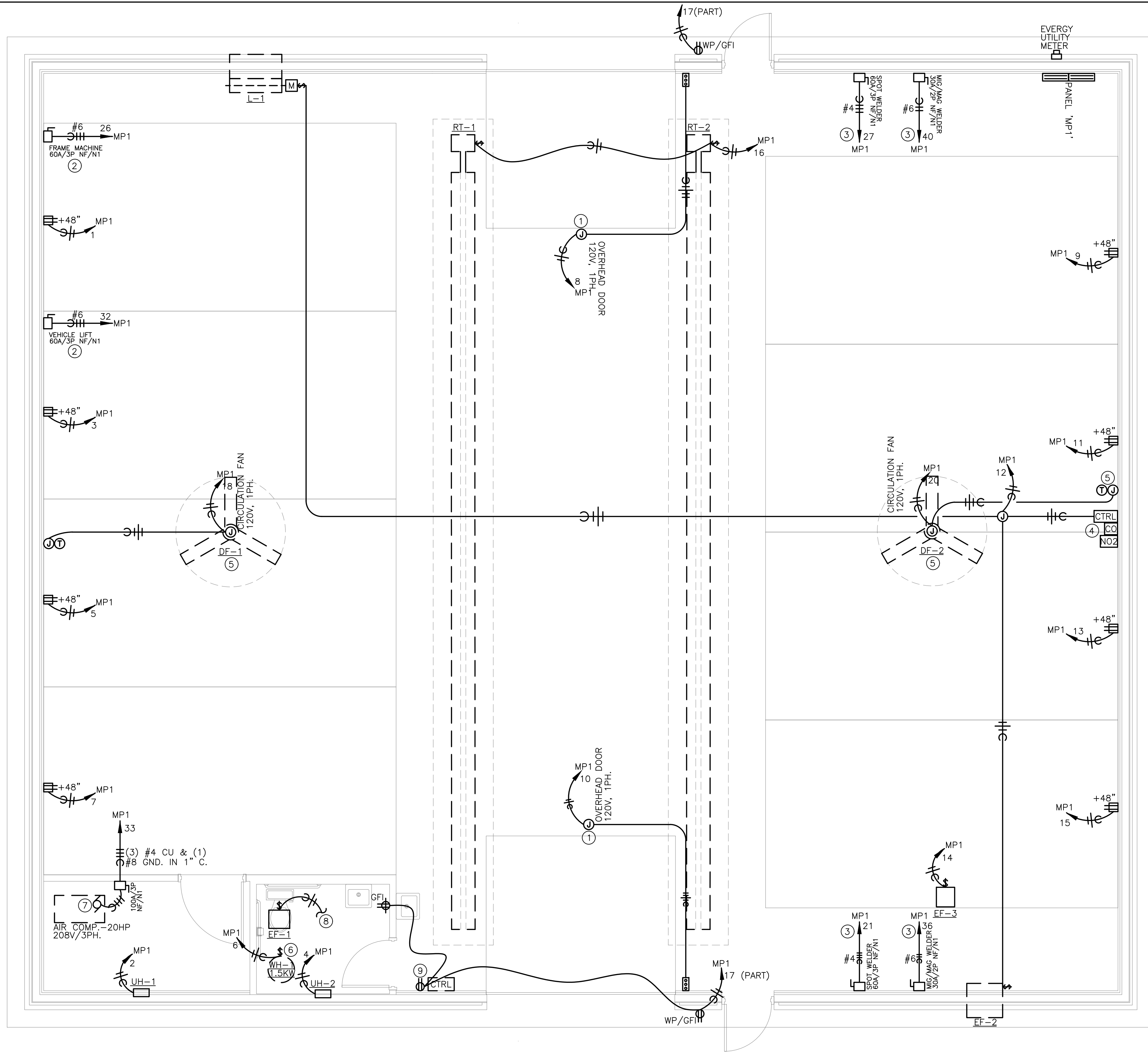
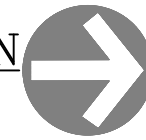
## ELECTRICAL RISER PLAN

NO SCALE:

1

## ELECTRICAL POWER PLAN

SCALE: 1/4" = 1'-0"



### ELECTRICAL GENERAL NOTES:

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

### ELECTRICAL PLAN NOTES:

- PROVIDE 120V CONNECTION TO OVERHEAD DOOR OPERATOR. MOUNT CONTROL STATION PROVIDED WITH DOOR IN LOCATION APPROVED BY OWNER ADJACENT TO OVERHEAD DOOR FOR PUSH-BUTTON CONTROLS. PROVIDE CONDUIT AND WIRING BETWEEN CONTROLLER AND OPERATOR. COORDINATE WITH DOOR INSTALLER FOR SPECIFIC ELECTRICAL REQUIREMENTS.
- PROVIDE DISCONNECT AND FLEX CONNECTION TO BODY SHOP EQUIPMENT. VERIFY EXACT LOCATION AND SPECIFIC REQUIREMENTS PRIOR TO ROUGH IN. COORDINATE WITH OWNER LOCATION AND PHASING TO RELOCATE EQUIPMENT.
- PROVIDE DISCONNECT AND FLEXIBLE CONNECTION TO SHOP WELDING EQUIPMENT. CONFIRM ACTUAL REQUIREMENTS WITH SHOP OWNER PRIOR TO ROUGH-IN.
- MOUNT 'CO' CONTROL PANEL ON WALL, AND ROUTE POWER WIRING TO EXHAUST FAN 'EF-2' AND MOTORIZED LOUVER 'L-1'. COORDINATE INSTALL WITH MECHANICAL CONTRACTOR. ALL FANS, LOUVERS & CONTROL DEVICES SHALL BE FURNISHED BY MECHANICAL. MOUNTING OF CONTROL PANEL AND ALL WIRING SHALL BE BY ELECTRICAL CONTRACTOR.
- PROVIDE JUNCTION BOX FOR POWER TO CIRCULATION FAN, AND INSTALL FAN CONTROL DEVICE. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR. ALL FANS & CONTROL DEVICES SHALL BE FURNISHED BY MECHANICAL. MOUNTING OF CONTROL PANEL AND ALL WIRING SHALL BE BY ELECTRICAL CONTRACTOR.
- PROVIDE CONNECTION TO 1500 WATT 120V ELECTRIC WATER HEATER MOUNTED ABOVE THE CEILING. PROVIDE TOGGLE SWITCH DISCONNECT SWITCH.
- PROVIDE DISCONNECT AND FLEXIBLE CONNECTION TO AIR COMPRESSOR. COORDINATE HOOK-UP AND EXACT REQUIREMENTS WITH OWNER.
- CONNECT BATHROOM EXHAUST FAN ON TO SWITCHED BATHROOM LIGHTS.
- DUPLEX RECEPTACLE FOR SEPTIC TANK LEVEL MONITORING PANEL. COORDINATE EXACT LOCATION WITH PLUMBING CONTRACTOR.

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PROPOSED BODY SHOP BUILDING FOR:

**CRASH CHAMPIONS**

451 SE OLDHAM PARKWAY

LEE'S SUMMIT, MISSOURI

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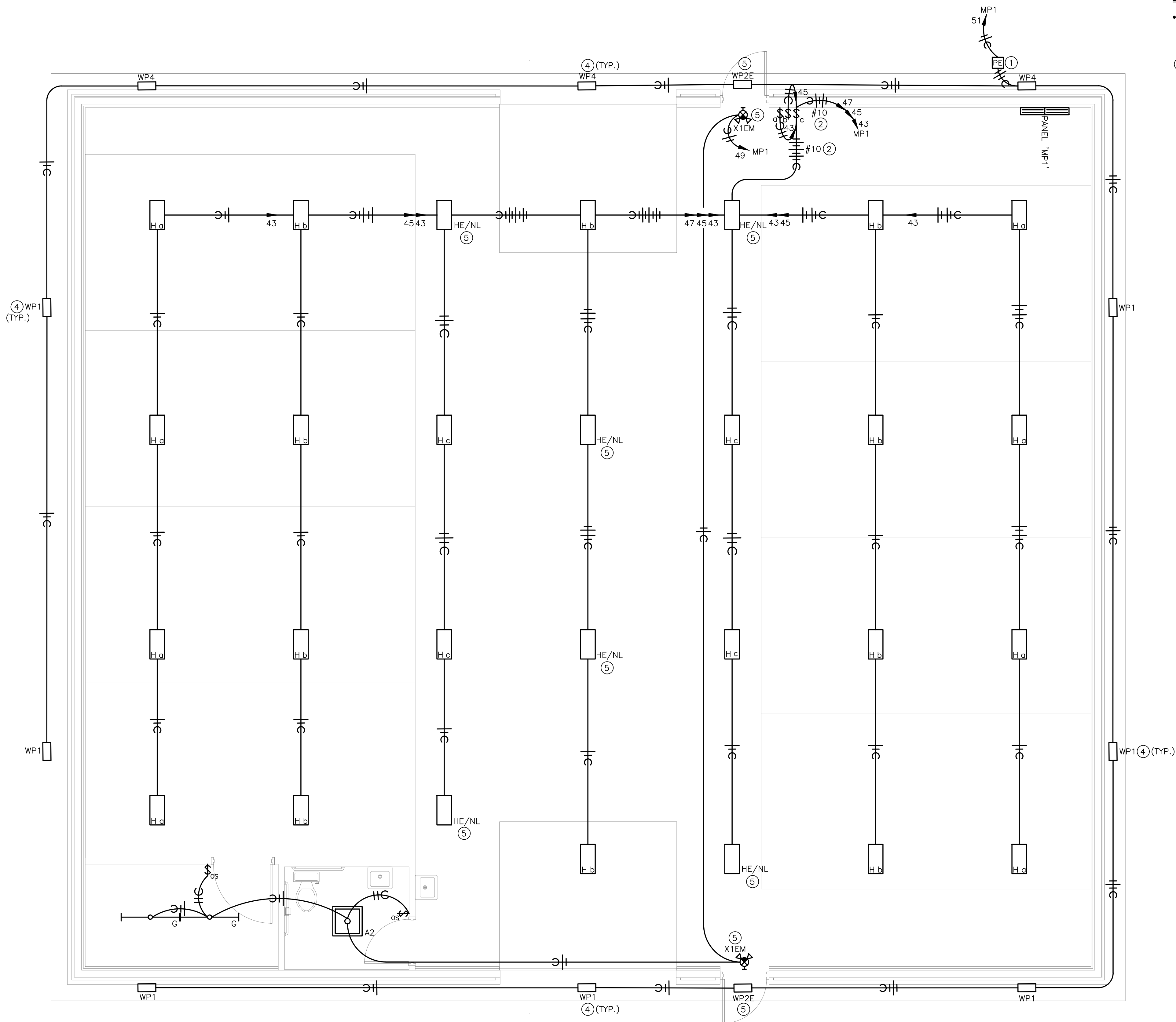
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**E1.0**

ELECTRICAL POWER PLAN



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- ELECTRICAL GENERAL NOTES:**
- REFER TO E3.0 FOR ELECTRICAL GENERAL NOTES.
- ELECTRICAL LIGHTING PLAN NOTES:**
- PROVIDE BOX MOUNTED LINE VOLTAGE PHOTO-CELL FOR CONTROL OF EXTERIOR LIGHTING. ADJUST TO BRING LIGHTING ON AT DUSK AND OFF AT DAWN.
  - WALL SWITCHES FOR CONTROL OF SHOP LIGHTING. LIGHT FIXTURES SHALL BE ALTERNATELY SWITCHED TO PROVIDE BI-LEVEL LIGHTING. LOWER CASE LETTER INDICATES SWITCHING CONFIGURATION. UPSIZE HOME-RUN PORTION OF CIRCUIT TO MINIMIZE VOLTAGE DROP.
  - MOUNT SHOP HI-BAY FIXTURES AS HIGH AS POSSIBLE TO STRUCTURE.
  - CONFIRM ALL MOUNTING HEIGHTS WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
  - CONNECT EXIT AND EMERGENCY FIXTURES TO CONTINUOUS HOT UN-SWITCHED LIGHTING CIRCUIT. HIGH-BAY SHOP NIGHT/EMERGENCY LIGHTING SHALL BE ON CIRCUIT 'HP1-47'.

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**PROPOSED BODY SHOP BUILDING FOR:**  
**CRASH CHAMPIONS**  
451 SE OLDHAM PARKWAY  
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**E2.0**

ELECTRICAL LIGHTING PLAN



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.
- GROUNDING CONDUCTOR.
- CONDUIT OR CIRCUIT BREAK/CONTINUATION.
- CONDUIT WITH ENDCAP FOR FUTURE USE.
- GROUNDING SOURCE.

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

LIGHT FIXTURE SCHEDULE											
TYPE	MANUFACTURER AND MODEL #	LIGHT SOURCE	WATT S	MINIMUM LUMENS	VOLTAGE	CRI	COLOR TEMP	DIMMABLE	FINISH	DESCRIPTION	NOTES
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
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-L6S-8-40-DMA-DIM-UNV	INTEGRAL LED	43	6500	UNV	80	4000	0-10V / 10%	WHITE	LED LINEAR RIGID CHAIN OR AIRCRAFT CABLE SUSPENDED TO 10'-0" AFF.	1-5
WP1	MCGRAW EDISON - GLEON-SA3D-740-U-SL4	INTEGRAL LED	95	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
WP4	MCGRAW EDISON - GLEON-SA3D-740-U-SL2-HSS	INTEGRAL LED	95	19,600	UNV	80	4000	NA	DARK BRONZE	LED ARCHITECTURAL SITE WALL MOUNTED FIXTURE. PROVIDE WITH HOUSE SHIELD.	1-5
X1EM	SURELITE SLX70RWH	INTEGRAL LED	10.3	-	UNV	NA	NA	NA	WHITE	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.											

PANELBOARD MP1													
BUS AMPS: 400A				LOCATION: ELECTRICAL ROOM				GROUND BUS: YES					
MAIN SIZE / TYPE: MCB				NEMA RATING: NEMA 1				ISOL. GROUND BUS: NO					
VOLTS/PHASE: 208Y/120V, 3PH, 4W				AFC VALUE:				FEED THRU LUGS: YES					
MOUNTING: SURFACE				AIC RATING: 22K				SECTIONS: 1 OF 2					
CKT #	CIRCUIT DESCRIPTION	BREAKER AMPS	WIRE SIZE	LOAD (VA)	CONNECTED PER PHASE (VA)			LOAD (VA)	WIRE SIZE	BREAKER P	AMPS	CIRCUIT DESCRIPTION	CKT #
1	RECEPTACLES - SERVICE BAY	20	1	360	2,160			1,800		1	20	UNIT HEATER 'UH-1'	2
3	RECEPTACLES - SERVICE BAY	20	1	360		2,160		1,800		1	20	UNIT HEATER 'UH-2'	4
5	RECEPTACLES - SERVICE BAY	20	1	360			1,860	1,500		1	20	WATER HEATER 'WH-1'	6
7	RECEPTACLES - SERVICE BAY	20	1	360	1,360			1,000		1	20	OVERHEAD DOOR	8
9	RECEPTACLES - SERVICE BAY	20	1	360		1,360		1,000		1	20	OVERHEAD DOOR	10
11	RECEPTACLES - SERVICE BAY	20	1	360			1,110	750		1	20	EXHAUST FAN 'EF-2'	12
13	RECEPTACLES - SERVICE BAY	20	1	360	610			250		1	20	EXHAUST FAN 'EF-3'	14
15	RECEPTACLES - SERVICE BAY	20	1	360		1,460		1,100		1	20	RADIANT HEATERS	16
17	RECEPTACLES	20	1	360			1,110	750		1	20	CEILING FAN 'DF-1'	18
19				5,000	5,750			750		1	20	CEILING FAN 'DF-2'	20
21	SPOT WELDER	60	3	#4	5,000		5,000	0		1	20	SPARE	22
23				5,000			9,000	4,000		-	-		24
25				5,000	9,000			4,000	#6	3	60	FRAME MACHINE	26
27	SPOT WELDER	60	3	#4	5,000		9,000	4,000		-	-		28
29				5,000			9,000	4,000		-	-		30
31				7,000	11,000			4,000	#6	3	60	VEHICLE LIFT	32
33	AIR COMPRESSOR	100	3	#4	7,000		11,000	4,000		-	-		34
35				7,000			9,600	2,600	#6	2	30	MG/MAG WELDER	36
37	SPARE	20	1		0	2,600		2,600					38
39	SPARE	20	1		0	2,600		2,600	#6	2	30	MG/MAG WELDER	40
41	SPARE	20	1		0	2,600		2,600					42
PER PHASE SUB-TOTALS					32,480	32,580	34,280	LEGEND:					
TOTAL CONNECTED PANELBOARD (VA)					99,340			TS - VIA TIME SWITCH					
TOTAL CONNECTED PANELBOARD (AMPS)					276			GF - GROUND FAULT INTERRUPTER					
TOTAL PANELBOARD DEMAND (VA)					104,840			FA - FIRE ALARM / RED / LOCKING TAB					
TOTAL PANELBOARD DEMAND (AMPS)					291			EM - EMERGENCY LTG. / LOCKING TAB					
								ST - SHUNT TRIP					
								LCK - LOCKING TAB					
								IG - ISOLATED GROUND					
								OL - RE: ONE-LINE DIAGRAM					

PANELBOARD MP1														
BUS AMPS: MAIN SIZE / TYPE: VOLTS/PHASE: MOUNTING:				400A MLO 208Y/120V, 3PH, 4W SURFACE		LOCATION: NEMA RATING: AFC VALUE: AIC RATING:		ELECTRICAL ROOM NEMA 1		GROUND BUS: ISOL. GROUND BUS: FEED THRU LUGS: SECTIONS:		YES NO NO 2 OF 2		
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						
43	LIGHTING - SHOP AREA	20	1		1,320	1,320			0		1	20	SPARE	44
45	LIGHTING - SHOP AREA	20	1		1,650		1,650		0		1	20	SPARE	46
47	LIGHTING - SHOP AREA	20	1		1,650			1,650	0		1	20	SPARE	48
49	LIGHTING - RR, EXITS & COMP. RM.	20	1		950	950			0		1	20	SPARE	50
51	LIGHTING - EXTERIOR	20	1		0		0		0		1	20	SPARE	52
53	SPARE	20	1		0			0	0		1	20	SPARE	54
55	SPARE	20	1		0	0			0		1	20	SPARE	56
57	SPARE	20	1		0		0		0		1	20	SPARE	58
59	SPARE	20	1		0			0	0		1	20	SPARE	60
61	SPARE	20	1		0	0			0		1	20	SPARE	62
63	SPARE	20	1		0		0		0		1	20	SPARE	64
65	SPARE	20	1		0			0	0		1	20	SPARE	66
67	SPACE ONLY				0	0			0				SPACE ONLY	68
69	SPACE ONLY				0		0		0				SPACE ONLY	70
71	SPACE ONLY				0			0	0				SPACE ONLY	72
73	SPACE ONLY				0	0			0				SPACE ONLY	74
75	SPACE ONLY				0		0		0				SPACE ONLY	76
77	SPACE ONLY				0			0	0				SPACE ONLY	78
79	SPACE ONLY				0	0			0				SPACE ONLY	80
81	SPACE ONLY				0		0		0				SPACE ONLY	82
83	SPACE ONLY				0			0	0				SPACE ONLY	84
PER PHASE SUB-TOTALS						2,270	1,650	1,650	LEGEND:					
TOTAL CONNECTED PANELBOARD (VA)						5,570			TS - VIA TIME SWITCH					
TOTAL CONNECTED PANELBOARD (AMPS)						15			GF - GROUND FAULT INTERRUPTER					
TOTAL PANELBOARD DEMAND (VA)						6,963			FA - FIRE ALARM / RED / LOCKING TAB					
TOTAL PANELBOARD DEMAND (AMPS)						19			EM - EMERGENCY LTG. / LOCKING TAB					
									ST - SHUNT TRIP					
									LCK - LOCKING TAB					
									IG - ISOLATED GROUND					
									OL - RE: ONE-LINE DIAGRAM					