HDR Engineering, Inc | CA0443AE
HDR Office Street Address
HDR Office City, State & ZIP
HDR Phone Number

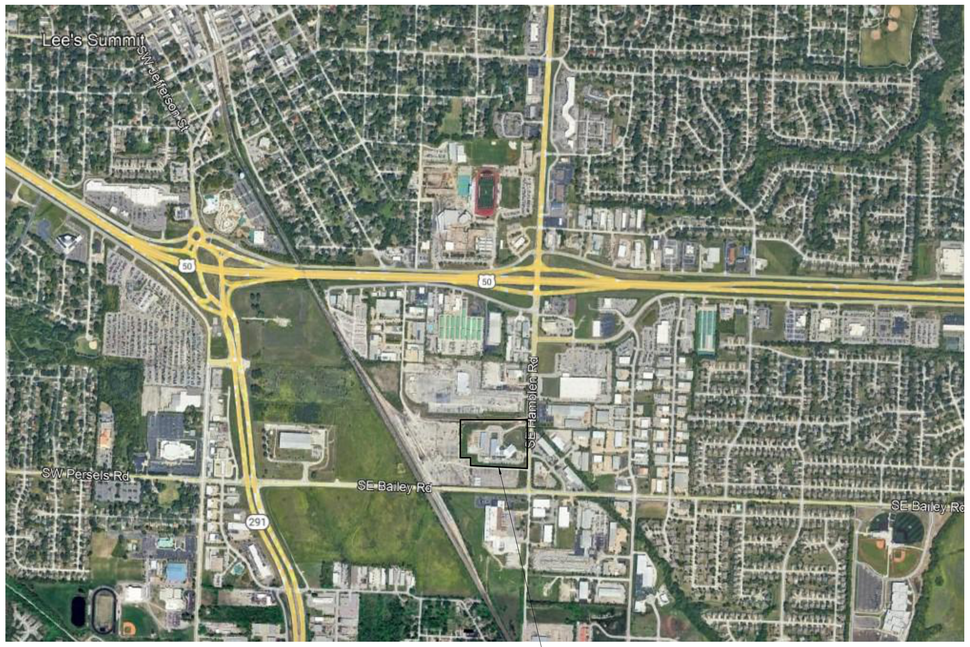
RELEASED FOR CONSTRUCTION
As Noted on Plan Review

Development Services Department
Lee's Summit, Missouri

04/28/2025

Grant White
Digitally signed by Grant White
DN: CN=Grant White, OU=Development, OU=LS Users, DC=COLS, DC=LOC
Reason: I am approving this document
Date: 2025.04.28 11:36:29-05'00'

PRCOM20251719



Contract Drawings For

City of Lee's Summit, MO

Water Utilities Facility & Parking Lot Expansion
Final Development Plan

Project No. 10417754
1200 SE Hamblen Rd, Lee's Summit, MO 64081

Date: 04/18/2025

CITY GENERAL NOTES:

1. ALL CONSTRUCTION SHALL FOLLOW THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ODRINANCE 5813. WHERE DISCREPANCIES EXIST BETWEEN THESE PLANS AND THE DESIGN AND CONSTRUCTION MANUAL, THE DESIGN AND CONSTRUCTION MANUAL SHALL PREVAIL.
2. 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.

STATE OF MISSOURI
JERRY KEVAN
PRINTED
NUMBER
PE-2013000614
PROFESSIONAL ENGINEER

2025.04.21 12:12:14-05'00'

Autodesk Docs://10417754_LSMO_WUF_Expansion_Study_2024/10417754_GENERAL_2024.rvt
4/21/2025 10:56:49 AM

SHEET INDEX

SHEET #	DESCRIPTION
00-GENERAL	
00G000	COVER SHEET
00G001	SHEET INDEX
00G002	ABBREVIATIONS
00G003	GENERAL LEGEND
00G004	CIVIL LEGEND
00G005	MECHANICAL LEGEND
01-CIVIL	
01V101	SURVEY CONTROL
01X101	DEMOLITION PLAN
01C101	OVERALL SITE PLAN
01C102	ENLARGED SITE PLAN
01C103	GRADING AND EROSION CONTROL PLAN
01C501	CIVIL DETAILS
01C502	CIVIL DETAILS
01C801	RETAINING WALL PROFILE
10-MAINTENANCE BAY	
10A101	ARCHITECTURE OVERALL PLAN
10A102	ARCHITECTURE PLAN
10A201	ARCHITECTURE EXTERIOR ELEVATIONS
10A202	ARCHITECTURE EXTERIOR ELEVATIONS

HDR
MISSOURI CERTIFICATE OF AUTHORITY #000856
10450 HOLMES ROAD, SUITE 600
KANSAS CITY, MO 64131
816-360-2700

ISSUE	DATE	DESCRIPTION
1	04/18/2025	FDP WITH CITY COMMENTS INCORPORATED
0	03/07/2025	FINAL DEVELOPMENT PLAN

PROJECT MANAGER	K. PRINDS
CIVIL	M. WIEBELHAUS
ARCHITECTURAL	E. BUTTMAN
MECHANICAL	M. WARRICK
PROJECT NUMBER	10417754

STATE OF MISSOURI
JERRY KEVAN BENTLEY III
PE-2013000614
PROFESSIONAL ENGINEER
2025.04.21 12:13:29-05'00'

City of Lee's Summit, MO
Water Utilities Facility & Parking Lot Expansion

SHEET INDEX

FILE NAME FileName
SCALE 0 1" 2"

SHEET
00G001

A/C	AIR CONDITIONING
A/E	ARCHITECT/ENGINEER
A	AMPERE
AB	ANCHOR BOLT
ABAN	ABANDON
ABC	AGGREGATE BASE COURSE
ABT	ABOUT
AC	ALTERNATING CURRENT
ACK	ACKNOWLEDGE
ACP	ACOUSTIC CEILING PANEL, ASPHALTIC CONCRETE PAVEMENT
ACST	ACOUSTIC
AD	ADDENDUM, AREA DRAIN
ADDL	ADDITIONAL
ADH	ADHESIVE
ADJ	ADJUSTABLE, ADJACENT
AF	AMP FRAME, AMP FUSE
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AGGR	AGGREGATE
AI	AREA INLET, ANALOG INPUT
AIC	AMPS INTERRUPTING CAPACITY
ALIG	ALIGNMENT
ALT	ALTERNATE, ALTITUDE
ALUM	ALUMINUM
AM	ACOUSTICAL MATERIAL
AMB	AMBIENT
ANC	ANCHOR
AO	ANALOG OUTPUT
AP	ACCESS PANEL
APRX	APPROXIMATE
APVD	APPROVED
ARCH	ARCHITECTURAL
ASSY	ASSEMBLY
AT	ACOUSTICAL TILE, AMP TRIP
ATC	ACOUSTICAL TILE CEILING
ATM	ATMOSPHERE AUTO AUTOMATIC
AUX	AUXILIARY
AVE	AVENUE
AVG	AVERAGE
AWG	AMERICAN WIRE GAGE
AWT	ACOUSTICAL WALL TILE
B TO B	BACK-TO-BACK
BAL	BALANCE
BBD	BULLETIN BOARD
BC	BASE CABINET, BOTTOM CHORD, BOLT CENTER, BOLT CIRCLE
BD	BOARD
BE	BOTH ENDS, BELL END
BF	BOTH FACES, BOTTOM FACE, BLIND FLANGE, BOARD FEET
BITUM	BITUMINOUS
BKG	BACKING
BL	BASE LINE
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BENCHMARK, BEAM
BOC	BACK OF CURB
BOD	BOTTOM OF DUCT
BOG	BOTTOM OF GRILLE
BOL	BOTTOM OF LOUVER, BOLLARD
BOP	BOTTOM OF PIPE
BOR	BOTTOM OF REGISTER
BOT	BOTTOM
BOU	BOTTOM OF UNIT
BP	BASE PLATE
BRG	BEARING
BRGP	BEARING PLATE
BRKT	BRACKET
BS	BOTH SIDES
BTU	BRITISH THERMAL UNIT
BTW	BETWEEN
BTWLD	BUTT WELD
BU	BELL UP, BUILT-UP
BUR	BUILT-UP ROOFING
BW	BOTH WAYS
BYP	BYPASS
CTOC	CENTER TO CENTER
C&G	CURB AND GUTTER
C	CHANNEL SHAPE, CENTIGRADE, CONDUIT
CAB	CABINET
CAP	CAPACITY
CAT	CATALOG, CATALOGIORY
CAV	CAVITY
CB	CATCH BASIN
CCB	CONCRETE BLOCK
CCW	COUNTER CLOCKWISE
CDF	CONTROLLED-DENSITY FILL
CE	CONCRETE EDGE
CER	CERAMIC
CF	CUBIC FEET (FOOT)
CFL	COUNTER FLASHING
CHBD	CHALKBOARD
CHD	CHORD
CHFR	CHAMFER
CHH	COMMUNICATION HANDHOLE
CI	CURB INLET
CIP	CAST-IN-PLACE
CIPB	CONCRETE INTERLOCKING PAVER BALLAST
CIRC	CIRCULATION, CIRCULAR
CJ	CONSTRUCTION JOINT
CKT	CIRCUIT
CL	CENTERLINE, CLASS, CLOSE
CLG	CEILING
CLKG	CAULKING
CLR	CLEAR
CMH	COMMUNICATION MANHOLE
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CO	CLEANOUT, CONCRETE OPENING
COL	COLUMN
COM	COMMON
COMB	COMBINATION
COMM	COMMUNICATION
COMP	COMPOSITION, COMPRESSIBLE, COMPOSITE
CON	CONCENTRIC

CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
COOR	COORDINATE
CORR	CORROSIVE, CORRUGATED
CP	CHECKER PLATE, CONTROL POINT
CPLG	COUPLING
CRL	CORROSION-RESISTANT LINING
CSC	COMPRESSION SLEEVE COUPLING
CSK	COUNTERSINK
CSS	CLINIC SERVICE SINK
CT	CERAMIC TILE
CTJ	CONTRACTION JOINT
CTR	CENTER
CTRL	CONTROL
CVT	CULVERT
CU	COPPER, CUBIC
CW	CLOCKWISE
CY	CUBIC YARD
d	PENNY (NAIL MEASURE)
D	DEEP, DIFFUSER, DRAIN
DB	DUCT BANK, DECIBEL, DRY BULB
DBA	DEFORMED BAR ANCHOR
DBL	DOUBLE
DC	DIRECT CURRENT
DEG	DEGREE
DEG C	DEGREE CENTIGRADE
DEG F	DEGREE FAHRENHEIT
DEMO	DEMOLITION
DEP	DEPRESSED
DEPT	DEPARTMENT
DET	DETAIL
DI	DROP INLET, DUCTILE IRON, DIGITAL INPUT
DIA	DIAMETER
DIAG	DIAGONAL, DIAGRAM
DIFF	DIFFERENTIAL, DIFFERENCE
DIM	DIMENSION
DISCH	DISCHARGE
DIST	DISTANCE, DISTRIBUTION
DIV	DIVISION
DL	DEAD LOAD
DMJ	DOUBLE MECHANICAL JOINT
DMPF	DAMP PROOFING
DN	DOWN
DO	DISSOLVED OXYGEN, DIGITAL OUTPUT, DITTO
DP	DEPTH
DPDT	DOUBLE POLE, DOUBLE THROW
DPST	DOUBLE POLE, SINGLE THROW
DS	DOWN SPOUT
DT	DOUBLE TEE, DRIP TRAP ASSEMBLY
DUP	DUPLICATE
DWG	DRAWING
DWL	DOWEL
DWR	DRAWER
E	EAST
EA	EACH, EXHAUST AIR
EC	ELECTRICAL CONTRACTOR
ECC	ECCENTRIC
ED	EQUIPMENT DRAIN
EDB	ELECTRICAL DUCT BANK
EE	EACH END
EF	EACH FACE
EFF	EFFLUENT, EFFICIENCY
EHH	ELECTRICAL HANDHOLE
EIFS	EXTERIOR INSULATION & FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELBOW, ELEVATION
ELEC	ELECTRICAL
EMBD	EMBEDDED
EMER	EMERGENCY
EMH	ELECTRICAL MANHOLE
ENCL	ENCLOSURE
ENGR	ENGINEER
ENTR	ENTRANCE
EOP	EDGE OF PAVEMENT
EQ	EQUAL, EQUIP EQUIPMENT
EQUIV	EQUIVALENT
ES	EACH SIDE, EQUAL SPACE, EMERGENCY SHOWER
ESEW	EMERGENCY SHOWER AND EYE WASH
EST	ESTIMATE
EW	EACH WAY, EMERGENCY EYE/FACE WASH
EWC	ELECTRIC WATER COOLER
EWEF	EACH WAY, EACH FACE
EWTB	EACH WAY, TOP AND BOTTOM
EXC	EXCAVATION
EXH	EXHAUST
EXP	EXPANSION, EXPOSED
EXST	EXISTING
EXT	EXTERIOR, EXTERNAL, EXTENSION
F TO F	FACE TO FACE
F&B	FACE AND BYPASS
FAB	FABRICATE
FB	FLOOR BEAM
FBD	FIBERBOARD
FBG	FIBERGLASS
FBM	BOARD FOOT MEASURE
FBO	FURNISHED BY OWNER
FC	FLUSHING CONNECTION
FCA	FLANGED COUPLING ADAPTER
FD	FLOOR DRAIN
FDC	FLEXIBLE DUCT CONNECTION
FDR	FEEDER
FDTN	FOUNDATION
FE	FLANGED END
FEC	FIRE EXTINGUISHER CABINET
FES	FLARED END SECTION
FEXT	FIRE EXTINGUISHER
FF	FAR FACE, FACTORY FINISH, FLAT FACE
FG	FINISHED GRADE
FH	FIRE HYDRANT
FIG	FIGURE
FIN	FINISH
FJT	FLUSH JOINT
FL	FLOW, FLOW LINE

FV	FIELD VERIFY
FLEX	FLEXIBLE
FLG	FLANGE
FLOR	FLUORESCENT
FLR	FLOOR
FLS	FLASHING, FLUSH
FN	FENCE
FO	FINISHED OPENING
FOB	FLAT ON BOTTOM
FOC	FACE OF CONCRETE, FACE OF CURB
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF STUDS
FOT	FLAT ON TOP
FPT	FEMALE PIPE THREAD
FR	FRAME
FRP	FIBERGLASS REINFORCED PLASTIC
FRTM	FIRE RETARDANT TREATED MATERIAL
FS	FLOOR SINK, FAR SIDE
FT	FEET, FOOT
FTG	FOOTING, FITTING
FUR	FURRED, FURRING
FURN	FURNITURE, FURNISH
FUT	FUTURE
FV	FACE VELOCITY
FW	FIELD WELD, FIRE WALL
FWD	FORWARD
FWE	FURNISHED WITH EQUIPMENT
FXTR	FIXTURE
G	GRILLE, GROUND
GA	GAUGE (METAL THICKNESS)
GAL	GALLON
GALV	GALVANIZED
GB	GRAB BAR, GRADE BREAK
GC	GROOVED COUPLING
GD	GUARD
GEN	GENERAL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFMU	GROUND FACE MASONRY UNIT
GG	GUTTER GRADE
GJ	GROOVED JOINT
GL	GLASS
GLB	GLASS BLOCK, GLULAM BEAM
GND	GROUND
GP	GUY POLE
GR	GRADE
GRTG	GRATING
GSB	GYPSUM SHEATHING BOARD
GT	GREASE TRAP
GVL	GRAVEL
GW	GUY WIRE
GWB	GYPSUM WALLBOARD
GYP	GYPSUM HARDBOARD
H	HIGH
HB	HOSE BIBB
HBD	HARDBOARD
HC	HANDICAPPED, HOLLOW CORE, HORIZONTAL CURVE, HORIZONTAL CENTERLINE
HD	HEAD, HOT DIP
HDR	HEADER
HDW	HARDWARE
HEX	HEXAGONAL
HGR	HANGER
HH	HANDHOLE
HID	HIGH-INTENSITY DISCHARGE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HIGH POINT, HORSEPOWER
HPC	HORIZONTAL POINT OF CURVATURE
HPS	HIGH-PRESSURE SODIUM
HPT	HORIZONTAL POINT OF TANGENCY
HR	HOSE REEL, HOUR
HS	HEADED STUD, HIGH STRENGTH
HSS	HOLLOW STRUCTURAL SHAPE
HT	HEIGHT
HTG	HEATING
HV	HIGH VOLTAGE
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
HWD	HARDWOOD
HWL	HIGH WATER LEVEL
HYD	HYDRAULIC
HZ	HERTZ, CYCLES PER SECOND
ID	INSIDE DIAMETER, INTERIOR DIMENSION
IE	INVERT ELEVATION, FOR EXAMPLE
IF	INSIDE FACE
IH	INTAKE HOOD
IMP	IMPACT
IN	INCH
INC	INCLUDE, INCANDESCENT
INF	INFLUENT
INSTR	INSTRUMENTATION
INSUL	INSULATION
INT	INTERIOR, INTERSECTION
INTR	INTERMEDIATE, INTERIOR
INV	INVERT
IPS	IRON PIPE SIZE
IPT	INTERNAL PIPE THREAD
IR	INSIDE RADIUS, IRON ROD
IRR	IRRIGATION
ISO	ISOMETRIC
JB	JUNCTION BOX
JCT	JUNCTION
JF	JOINT FILLER
JST	JOIST
JT	JOINT
K	KIP
KB	KNEE BRACE
KCMIL	THOUSAND CIRCULAR MILS
KD	KNOCK DOWN
KO	KNOCK OUT
KSI	KIPS PER SQUARE INCH
KW	KILOWATT

L	ANGLE, LENGTH, LAVATORY, LINTEL
LAD	LADDER
LAM	LAMINATE
LATL	LATERAL
LB	LAG BOLT, POUND
LCTB	LIQUID CHALK AND TACK BOARD
LDG	LANDING
LDR	LEADER
LE	LIFTING EYE
LF	LINEAR FOOT
LG	LONG
LH	LEFT HAND
LIN	LINEAR
LIQ	LIQUID
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LMLU	LIQUID MARKER LECTURE UNIT
LNG	LONGITUDINAL
LOC	LOCATION
LP	LOW POINT
LPS	LOW-PRESSURE SODIUM
LR	LONG RADIUS
LT	LEFT
LTD	LIMITED
LTG	LIGHTING
LTL	LINTEL
LTNG	LIGHTNING
LV	LOW VOLTAGE
LVL	LAMINATED VENEER LUMBER
LVR	LOUVER
LW	LIGHTWEIGHT
LWC	LIGHTWEIGHT CONCRETE
LWL	LOW WATER LEVEL
MA	MIXED AIR
MACH	MACHINED
MAINT	MAINTENANCE
MAN	MANUAL
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MBR	MEMBER
MC	MECHANICAL CONTRACTOR, MECHANICAL COUPLING, MOMENT CONNECTION
MCB	METAL CORNER BEAD
MCJ	MASONRY CONTROL JOINT
MDMJ	MODIFIED DOUBLE MECHANICAL JOINT
MECH	MECHANICAL
MED	MEDIUM
MFR	MANUFACTURER
MH	MANHOLE, METAL HALIDE
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
ML	MASONRY LINTEL
MLO	MAIN LUGS ONLY
MMB	MEMBRANE
MO	MASONRY OPENING
MOD	MODULAR, MODIFY
MON	MONUMENT
MPT	MALE PIPE THREAD
MRGWB	MOISTURE-RESISTANT GYPSUM WALLBOARD
MS	MOP SINK
MSL	MEAN SEA LEVEL
MT	MOUNT
MU	MASONRY UNIT
MULL	MULLION
MV	MEDIUM VOLTAGE
MW	MONITORING WELL
N	NORTH, NEUTRAL
NA	NOT APPLICABLE
NAT	NATURAL, NATIONAL
NC	NORMALLY CLOSED
NEG	NEGATIVE
NF	NEAR FACE, NON-FUSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN, NUMBER
NOM	NOMINAL
NPS	NOMINAL PIPE SIZE
NPT	NATIONAL PIPE THREAD
NS	NEAR SIDE
NTS	NOT TO SCALE
NWL	NORMAL WATER LEVEL
O TO O	OUT TO OUT
OA	OUTSIDE AIR, OVERALL
OC	ON CENTER
OCPD	OVER CURRENT PROTECTION DEVICE
OD	OUTSIDE DIAMETER
OED	OPEN END DUCT
OF	OUTSIDE FACE, OFFICE FURNISHING
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
OG	ORIGINAL GROUND
OH	OVERHEAD
OPNG	OPENING
OPP	OPPOSITE
OPT	OPTIONAL
OR	OUTSIDE RADIUS
ORD	OVERFLOW ROOF DRAIN
ORIG	ORIGINAL
OVFL	OVERFLOW
OVHG	OVERHANG
OZ	OUNCE
P	PAINT
PA	PUBLIC ADDRESS
PAR	PARALLEL, PARAPET
PB	PANIC BAR, PULL BOX
PBD	PARTICLE BOARD
PC	POINT OF CURVE, PIECE, PRECAST
PCC	POINT OF COMPOUND CURVATURE
PCF	POUNDS PER CUBIC FOOT
PCT	PERCENT
PE	PLAIN END
PED	PEDESTAL

PEN	PENETRATION
PERF	PERFORATED
PERM	PERMANENT
PERP	PERPENDICULAR
PF	POWER FACTOR
PFMU	PREFACED MASONRY UNIT
PH	PHASE
PI	POINT OF INTERSECTION
PKG	PACKAGE
PL	PLATE, PROPERTY LINE, PRECAST LINTEL
PLAS	PLASTER
PLAT	PLATFORM
PLBG	PLUMBING
PLF	POUNDS PER LINEAR FOOT
PNEU	PNEUMATIC
POL	POLISH POS POSITIVE, POSITION
PP	POLYPROPYLENE, POWER POLE
PRC	POINT OF REVERSE CURVATURE
PREF	PREFINISHED
PREFAB	PREFABRICATED
PRELIM	PRELIMINARY
PREP	PREPARE
PRES	PRESSURE
PRI	PRIMARY
PROP	PROPERTY, PROPOSED
PROT	PROTECTION
PS	PIPE SUPPORT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAGE
PST	PRESTRESSED
PT	POINT, POINT OF TANGENCY
PTN	PARTITION
PVC	POLYVINYL CHLORIDE, POINT OF VERTICAL CURVE
PVMT	PAVEMENT
PWD	PLYWOOD
PWJ	PLYWOOD WEB JOIST
PZ	PIEZOMETER
Q	RATE OF FLOW
QT	QUARRY TILE
QTR	QUARTER
QTY	QUANTITY
QUAL	QUALITY
R&R	REMOVE AND REPLACE
R&S	REMOVE AND SALVAGE
R	RADIUS, REGISTER, RISER
RA	RETURN AIR
RB	RESILIENT BASE, ROCK BERM
RCPT	RECEPTACLE
RD	ROOF DRAIN
REC	RECESS
RECD	RECEIVED
RECT	RECTANGULAR
RED	REDUCER
REF	REFERENCE
REINF	REINFORCING
REM	REMOVE
REQD	REQUIRED
RESIL	RESILIENT
RET	RETAINING, RETURN
REV	REVISION, REVERSE
RF	RESILIENT FLOORING
RFG	ROOFING
RFL	REFLECTED, REFLECTOR
RGH	ROUGH
RGS	RIGID GALVANIZED STEEL
RGS-PVC	PVC COATED RGS
RH	RELIEF HOOD, RIGHT HAND, RELATIVE HUMIDITY
RL	REQUIRED LAP
RLFA	RELIEF AIR
RND	ROUND
RNG	RUNNING
RO	ROUGH OPENING
ROW	RIGHT-OF-WAY
RPM	REVOLUTIONS PER MINUTE
RR	RAILROAD
RSP	ROCK SLOPE PROTECTION
RT	RIGHT
RVT	RESILIENT VINYL TILE
RY	READY
S	SOUTH, SINK
SA	SUPPLY AIR
SAMU	SOUND-ABSORBING MASONRY UNIT
SAN	SANITARY
SB	SPLASH BLOCK
SC	SOLID CORE
SCH	SCHEDULE
SCHEM	SCHEMATIC
SCN	SCREEN
SE	STEEL/ALUMINUM EDGE
SEC	SECONDARY, SECONDS
SECT	SECTION
SEP	SEPARATE
SF	SQUARE FOOT, SILT FENCE
SG	SHEET GLASS, SEALANT GROOVE
SH	SHOWER
SHT	SHEET
SHTG	SHEATHING
SIL	SILENCE
SIM	SIMILAR
SJ	SLAB JOINT
SL	SLOPE, STEEL LINTEL
SLTD	SLOTTED
SLV	SLEEVE
SMLS	SEAMLESS
SOG	SLAB ON GRADE
SP	SOUNDPROOF, STANDPIPE
SPA	SPACING
SPEC	SPECIFICATION
SPLY	SUPPLY
SPST	SINGLE POLE SINGLE THROW
SPT	SET POINT
SQ	SQUARE
SR	SHORT RADIUS

SS	SERVICE SINK
SST	STAINLESS STEEL
ST	STREET
STA	STATION
STD	STANDARD
STIF	STIFFENER
STIR	STIRRUP
STL	STEEL
STOR	STORAGE
STR	STRUCTURAL, STRAIGHT
SUB	SUBSTITUTE
SUC	SUCTION
SUSP	SUSPENDED
SY	SQUARE YARD
SYM	SYMBOL
SYMM	SYMMETRICAL
SYN	SYNTHETIC
SYS	SYSTEM
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
T	TILE, TREAD
TA	TOILET ACCESSORY, TEMPERED AIR
TAN	TANGENT
TBM	TEMPORARY BENCHMARK
TCE	TEMPORARY CONSTRUCTION EASEMENT
TEF	TROWELED EPOXY FLOORING
TEMP	TEMPORARY, TEMPERATURE
THD	THREAD
THK	THICK THRESH THRESHOLD
TKBD	TACK BOARD
TOB	TOP OF BOLT, TOP OF BANK, TOP OF BEAM, TOP OF BERM
TOC	TOP OF CURB, TOP OF CONCRETE
TOD	TOP OF DUCT
TOF	TOP OF FOOTING
TOG	TOP OF GRATING
TOL	TOLERANCE, TOP OF LEDGER
TOM	TOP OF MASONRY
TOP	TOP OF PLATE
TOPO	TOPOGRAPHY
TOS	TOP OF SLAB, TOP OF STEEL, TOE OF SLOPE
TOW	TOP OF WALL
TP	TOILET PARTITION, TELEPHONE POLE, TOE PLATE, TRAP PRIMER
TPD	TOILET PAPER DISPENSER
TPG	TOPPING, THROUGH PLATE GIRDER
TR	TRANSOM
TRANS	TRANSITION
TRD	TRENCH DRAIN
TYP	TYPICAL
U	URINAL
UG	UNDERGROUND
ULT	ULTIMATE
UNFN	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UTIL	UTILITY
V	VENT, VELOCITY, VOLT
VA	VOLT AMPERE
VAC	VACUUM
VAR	VARNISH, VARIABLE, VOLT AMPERES REACTIVE
VB	VAPOR BARRIER, VINYL BASE, VALVE BOX
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
VCT	VINYL COMPOSITION TILE, VERTICAL CENTERLINE
VEL	VELOCITY
VENT	VENTILATION
VERT	VERTICAL
VERTS	VERTICAL REINFORCING
VG	VERTICAL GRAIN
VIF	VERIFY IN FIELD
VIN	VINYL
VOL	VOLUME
VPC	VERTICAL POINT OF CURVATURE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
VS	VERSUS, VAPOR SEAL
VTR	VENT THROUGH ROOF
VWC	VINYL WALL COVERING
W/	WITH
W/O	WITHOUT
W	WATT, WEST, WIDE, WINDOW, WIRE, WIDE FLANGE BEAM
WB	WOOD BASE
WC	WATER CLOSET, WATER COLUMN
WD	WOOD, WIDTH
WF	WIDE FLANGE, WASH FOUNTAIN
WG	WIRE GLASS, WATER GAGE
WH	WALL HYDRANT, WEEP HOLE
WI	WROUGHT IRON
WL	WATER LEVEL
WLD	WELDED
WM	WIRE MESH
WP	WEATHERPROOF
WS	WATERSTOP, WATER SURFACE
WSCT	WAINSCOT
WT	WEIGHT, WATER TIGHT
WTHP	WATERPROOF, WORKING POINT
WWF	WELDED WIRE FABRIC
XP	EXPLOSION-PROOF
XS	EXTRA STRONG
XSECT	CROSS SECTION
XXS	DOUBLE EXTRA STRONG
YH	YARD HYDRANT
YS	YIELD STRENGTH

GENERAL NOTES

1. THESE ABBREVIATIONS APPLY TO THE ENTIRE SET OF CONTRACT DRAWINGS.
2. LISTING OF ABBREVIATIONS DOES NOT IMPLY THAT ALL ABBREVIATIONS ARE USED IN THE CONTRACT DRAWINGS.
3. ABBREVIATIONS SHOWN ON THIS SHEET INCLUDE VARIATIONS OF A WORD. FOR EXAMPLE, "MOD" MAY MEAN MODIFY OR MODIFICATION, "INC" MAY MEAN INCLUDED OR INCLUDING, AND "REINF" MAY MEAN REINFORCE OR REINFORCING.
4. SEE INSTRUMENTATION AND GENERAL LEGEND SHEETS FOR PROJECT-SPECIFIC EQUIPMENT AND PIPING SYSTEM ABBREVIATIONS.

Autodesk Docs://10417754_LSMO_WUF_Expansion_Study_2024/10417754_GENERAL_2024.rvt
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HDR
MISSOURI CERTIFICATE OF AUTHORITY #000856
10450 HOLMES ROAD, SUITE 600
KANSAS CITY, MO 64131
816-360-2700

ISSUE	DATE	DESCRIPTION
1	04/18/2025	FDP WITH CITY COMMENTS INCORPORATED
0	03/07/2025	FINAL DEVELOPMENT PLAN

PROJECT MANAGER	K. PRINDS
CIVIL	M. WIEBELHAUS
ARCHITECTURAL	E. BUTTMAN
MECHANICAL	M. WARRICK
PROJECT NUMBER	10417754

STATE OF MISSOURI
JERRY KEVAN
RENTFRO
NUMBER
PE-2013006614
PROFESSIONAL ENGINEER
2025.04.21 12:13:32-05'00'

City of Lee's Summit, MO
Water Utilities Facility & Parking Lot Expansion

ABBREVIATIONS

FILE NAME FileName
SCALE 12" = 1'-0"
0 1" 2"

SHEET
00G002

MATERIALS IN PLAN/SECTION

FILLED REGIONS - MATERIALS
"MATERIAL" FILLED REGIONS ARE DRAFTING HATCH PATTERNS THAT REPRESENTS AN ACTUAL MATERIAL OR PRODUCT.

- MATERIAL - BITUMINOUS PAVING (ASPHALT)
- MATERIAL - CONCRETE - ARCHITECTURE PRECAST WALL PANEL
- MATERIAL - CONCRETE - ARCHITECTURAL PRECAST WALL PANEL
- MATERIAL - CONCRETE - CAST-IN-PLACE
- MATERIAL - CONCRETE - GLASS FIBER REINFORCED
- MATERIAL - CONCRETE - LIGHTWEIGHT
- MATERIAL - CONCRETE - STRUCTURAL
- MATERIAL - EFIS
- MATERIAL - FILL - COURSE - CRUSHED STONE
- MATERIAL - FILL - FINE - GRAVEL
- MATERIAL - FILL - FINE - SAND
- MATERIAL - FILL - MEDIUM - GRAVEL
- MATERIAL - FILTER POINT MAT - PLAN
- MATERIAL - FIREPROOFING - MINERAL WOOL
- MATERIAL - FIREPROOFING - SEALANT
- MATERIAL - FIREPROOFING - SPRAY-APPLIED
- MATERIAL - FLOOR - CARPET - STYLE 1
- MATERIAL - FLOOR - CARPET - STYLE 2
- MATERIAL - FLOOR - TERRAZZO - STYLE 1
- MATERIAL - FLOOR - TERRAZZO - STYLE 2
- MATERIAL - GLAZING
- MATERIAL - GLAZING - SPANDREL
- MATERIAL GRATING - PLAN
- MATERIAL GRATING - SECTION
- MATERIAL - GROUT
- MATERIAL - GYPSUM - PLASTER
- MATERIAL - GYPSUM - WALLBOARD
- MATERIAL - INSULATION - BATTING - SECTION
- MATERIAL - INSULATION - RIGID FOAM
- MATERIAL - MASONRY - BRICK
- MATERIAL - MASONRY - CMU
- MATERIAL - MASONRY - DOLMITE
- MATERIAL - MASONRY - MORTAR
- MATERIAL - MASONRY - STRUCTURAL CLAY TILE
- MATERIAL - METAL - ALUMINUM
- MATERIAL - METAL - CHECKERED PLATE - PLAN
- MATERIAL - METAL - ORNAMENTAL
- MATERIAL - METAL - STEEL
- MATERIAL - PLASTER STUCCO
- MATERIAL - PLASTIC
- MATERIAL - RESILIENT TILE
- MATERIAL - RIPRAP - PLAN AND/OR SECTION
- MATERIAL - SEALANT - ACOUSTICAL
- MATERIAL - SEALANT - FIRE SEALANT
- MATERIAL - SOD - SECTION
- MATERIAL - SOIL - COMPACTED - EARTH
- MATERIAL - SOIL - COMPACTED - FINE
- MATERIAL - SOIL - UNDISTURBED - FINE
- MATERIAL - SOIL - UNDISTURBED - EARTH
- MATERIAL - STONE - CAST
- MATERIAL - STONE - CUT FINISHED
- MATERIAL - SYSTEM - DRAINABLE EXTERIOR INSULATION AND FINISH
- MATERIAL - TERRAZZO - 1
- MATERIAL - TERRAZZO - 2
- MATERIAL - TILE - PORCELAIN
- MATERIAL - WEEP JOINT MORTAR PROTECTION SYSTEM - SECTION
- MATERIAL - WOOD - FINISH - COURSE GRAIN
- MATERIAL - WOOD - FINISH - FINE GRAIN
- MATERIAL - WOOD - FINISH VERTICAL GRAIN
- MATERIAL - WOOD FLOORING
- MATERIAL - WOOD - GLULAM
- MATERIAL - WOOD - MDF
- MATERIAL - WOOD - PARTICLE BOARD
- MATERIAL - WOOD - PLYWOOD
- MATERIAL - WOOD - CONTINUOUS - SECTION
- MATERIAL - WOOD - BLOCKING - SECTION

FILLED REGIONS - GRAPHICS
GRAPHIC FILLED REGIONS ARE DRAFTING HATCH PATTERNS THAT ARE A SIMPLE GRAPHIC PATTERN AND DOES NOT REPRESENT A MATERIAL OR PRODUCT.

- GRAPHIC - CONTRACT LIMIT - NOT-IN-CONTRACT
- GRAPHIC - DEMOLITION
- MATERIAL - RESILIENT SHEET

FILLED REGIONS - SURFACE
SURFACE FILLED REGIONS ARE MODELING HATCH PATTERNS THAT REPRESENT A MATERIAL OR PRODUCT AS REPRESENTED ON A VERTICAL OR HORIZONTAL SURFACE.

CEILING TILES

- SURFACE - CEILING TILE - 24" x 24"
- SURFACE - CEILING TILE - 24" x 24" - DEMO
- SURFACE - CEILING TILE - 24" x 48"
- SURFACE - CEILING TILE - 24" x 48" - DEMO
- SURFACE - CEILING TILE - 24" x 72"
- SURFACE - CEILING TILE - 24" x 72" - DEMO
- SURFACE - CEILING TILE - 48" x 48"
- SURFACE - CEILING TILE - 48" x 48" - DEMO
- SURFACE - CEILING - ACOUSTICAL TILE - SECTION

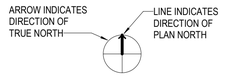
MASONRY

- SURFACE - MASONRY - BRICK - MODULAR - RUNNING BOND
- SURFACE - MASONRY - CMU - 8" x 16" - RUNNING BOND
- SURFACE - MASONRY - CMU - 8" x 16" - STACKED BOND

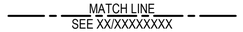
METALS

- SURFACE - ENTRANCE GRID - 65 MM

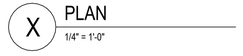
GENERAL SYMBOLOGY



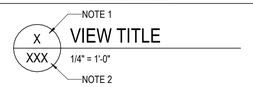
NORTH ARROW



MATCH LINE



PLAN TITLE ON SHEET



DETAIL

FOR REFERENCING DETAILS INCLUDED IN DRAWING SET.
1. DETAIL NUMBER
2. SHEET WHERE DETAIL IS LOCATED *

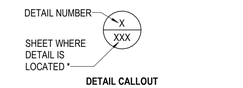
SECTION

1. SECTION LETTER
2. SHEET WHERE SECTION VIEW IS FIRST CUT *

ELEVATION

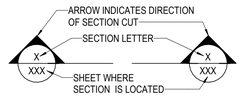
1. ELEVATION IDENTIFICATION NUMBER
2. SHEET WHERE POINT OF VIEW MARKER CAN BE FOUND *

SECTION, DETAIL, ELEVATION TITLE

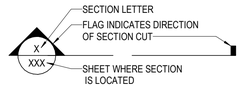


DETAIL CALLOUT

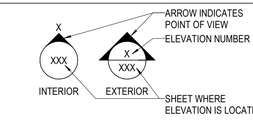
FOR REFERENCING DETAILS INCLUDED IN DRAWING SET



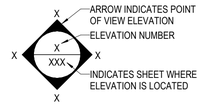
FULL BUILDING SECTION CUT MARKER



SECTION CUT MARKER



SINGLE ELEVATION OR PHOTO MARKER



MULTIPLE ELEVATION OR PHOTO MARKER

TARGET ELEVATION MARKER

* EXCEPTIONS WHERE SHEET NUMBER IS REPLACED BY A DASH (-)

1. FOR COMMON DETAILS, SECTIONS, ELEVATIONS OR DETAILS THAT ARE CUT OR CALLED OUT ON MULTIPLE SHEETS.
2. SECTIONS, ELEVATIONS OR DETAILS THAT ARE LOCATED ON THE SAME SHEET THEY ARE CUT OR CALLED OUT ON.

GENERAL TAGGING

ROOM/SPACE NAME
XX-XX — ROOM OR SPACE

XXX — DOOR

DOOR MARK | STAIR
XXX | XXX
XXXX | XXXX — FIRE DOOR/STAIR

A — NEW COLUMN GRID BUBBLE

A — EXISTING COLUMN GRID BUBBLE

X — WALL TYPE

X — CURTAIN WALL

X — WINDOW TYPE

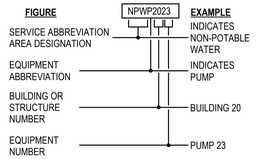
X — ACCESSORY, FURNITURE, AND MISCELLANEOUS EQUIPMENT IDENTIFIER

KEYNOTE NUMBER
X — LOUVER TYPE
— SHEET KEYNOTE

— REVISION DELTA

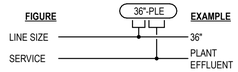
EQUIPMENT IDENTIFICATION

NOTE: THE BELOW EQUIPMENT TAG IS AN EXAMPLE ONLY. MODIFY FIELDS AS REQUIRED PER THE PROJECT STANDARD.

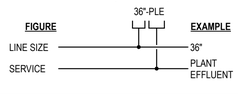


PIPING

NOTE: THE BELOW PIPE TAG IS AN EXAMPLE ONLY. MODIFY FIELDS AS REQUIRED PER THE PROJECT STANDARD.



PIPING (ALTERNATE)



GENERAL LINE STYLES

- 4-HOUR FIRE RATED WALL
- 3-HOUR FIRE RATED WALL
- 2-HOUR FIRE RATED WALL
- 1-HOUR FIRE RATED WALL
- COLUMN GRID LINE
- CENTERLINE
- CONTRACT LIMIT
- ELEVATION LINE
- PROPERTY LINE

SHEET NAMING CONVENTION

EXAMPLE:
00 GENERAL
01 SITE PLANNING
10 MAINTENANCE BAY

SINGLE DISCIPLINE DESIGNATOR & DISCIPLINE ORDER*

G	GENERAL
X	DEMOLITION/HAZARDOUS MATERIAL
V	SURVEYING/MAPPING
B	GEOTECHNICAL
C	CIVIL
L	LANDSCAPE
S	STRUCTURAL
A	ARCHITECTURAL
I	INTERIORS
Q	EQUIPMENT
F	FIRE PROTECTION
P	PLUMBING
D	PROCESS
M	MECHANICAL
E	ELECTRICAL
W	DISTRIBUTED ENERGY
T	TELECOMMUNICATIONS
R	RESOURCE
U	UNIVERSAL/OTHER DISCIPLINES
Y	INSTRUMENTATION & CONTROLS
Z	CONTRACTOR/SHOP DRAWINGS
O	OPERATIONS

SHEET TYPE DESIGNATOR

0	GENERAL (SYMBOLS, LEGENDS)
1	PLANS
2	ELEVATIONS
3	SECTIONS
4	LARGE SCALE VIEWS
5	DETAILS
6	SCHEDULES AND DIAGRAMS
7	OTHER VIEWS

*NCS ALLOWS THE COMBINED USE OF BOTH SINGLE AND DOUBLE LETTER DISCIPLINE DESIGNATORS WITHIN A PROJECT.

EXAMPLE 1 (WITH BUILDING SERIES, SINGLE LETTER DESIGNATOR)

GRAVITY THICKENER STRUCTURAL FOUNDATION PLAN, DRAWING 01

0	2						BUILDING OR AREA 02
		S	-				STRUCTURAL
				1			PLAN
					0	1	SHEET 01
0	2	S	-	1	0	1	EXAMPLE

BUILDING OR AREA DESIGNATION
DISCIPLINE DESIGNATOR
SHEET TYPE DESIGNATOR
SHEET NUMBER

FIRE & LIFE SAFETY

GENERAL NOTES

1. THIS IS A STANDARD SHEET SHOWING COMMON SYMBOLOGY. ALL SYMBOLS ARE NOT NECESSARILY USED ON THIS PROJECT.
2. SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.

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ISSUE	DATE	DESCRIPTION
1	04/18/2025	FDP WITH CITY COMMENTS INCORPORATED
0	03/07/2025	FINAL DEVELOPMENT PLAN

PROJECT MANAGER	K. PRINDS
CIVIL	M. WIEBELHAUS
ARCHITECTURAL	E. BUTTMAN
MECHANICAL	M. WARRICK
PROJECT NUMBER	10417754

STATE OF MISSOURI — JERRY KEVIN PRINDS — PE-2013000614 — PROFESSIONAL ENGINEER
2025.04.21 12:13:33-05'00'

City of Lee's Summit, MO
Water Utilities Facility & Parking Lot Expansion

GENERAL LEGEND

FILE NAME: FileName
SCALE: 12" = 1'-0" (0, 1", 2")

SHEET
00G003

CIVIL MAPPING SYMBOLOGY

- EMBANKMENT SLOPE (CUT)
- EMBANKMENT SLOPE (FILL)
- H:V — EMBANKMENT SLOPE RIGHT ARROW RIGHT
- H:V — EMBANKMENT SLOPE LEFT ARROW LEFT
- 123 — SPOT ELEVATION/POINT #
- SURVEY BENCHMARK
- CP-X — SURVEY CONTROL POINT
- HORIZONTAL CONTROL POINT
- VERTICAL CONTROL POINT
- SECTION CORNER MONUMENT
- SECTION CORNER NO MONUMENT
- X — IDENTIFICATION AND APPROXIMATE LOCATION OF SOIL TEST HOLE
- TP X — TEST PIT
- X — SOIL BORING
- BUOY
- FLOW ARROW
- WATER LEVEL IN SECTION/PROFILE
- TIDE GAUGE
- EXISTING UTILITY POLE
- DOWNGUY
- J X — EXTERIOR UTILITY JUNCTION BOX
- XXX — INTERSTATE HIGHWAY SYMBOL
- XXX — US HIGHWAY SYMBOL
- XXX — STATE HIGHWAY SYMBOL
- HAY BALE SILT CHECK
- TEMPORARY SEDIMENT TRAP
- X — PIEZOMETER
- RAIL SIGNAL
- RAIL SWITCH
- SIGN
- In — TIRE TREDDLE
- TRAFFIC ARM WITH CARD READER
- TRAFFIC ARM MECHANICAL SWING

- CO — CLEANOUT
- CULVERT END SYMBOL (WITH CULVERT SHOWN BETWEEN SYMBOLS)
- X — FIRE HYDRANT
- F — FUEL OIL METER
- F — FUEL OIL MANHOLE
- F — FUEL OIL VAULT
- GT — GREASE TRAP
- GC — GRIT CHAMBER
- HEADWALL
- I — INDUSTRIAL WASTE WATER METER
- I — INDUSTRIAL WASTE WATER MANHOLE
- G — NATURAL GAS METER
- G — NATURAL GAS RECEIVER
- G — NATURAL GAS TRAP
- G — NATURAL GAS LINE VAULT
- MW — MONITORING WELL
- X — POST INDICATOR VALVE
- PS X — PUMP STATION
- S — SANITARY MANHOLE
- ST — SEPTIC TANK
- X — TANK BELOW GROUND
- X — TANK HORIZONTAL ABOVE GROUND
- X — TANK VERTICAL ABOVE GROUND

- CB — STORM CATCH BASIN
- CB — STORM ROUND CATCH BASIN
- D — STORM DRAINAGE MANHOLE
- WATER/AIR VENT
- W — WATER BACKFLOW PREVENTER
- WATER BLOWOFF
- W — WATER METER
- WATER SHUTOFF
- WS — WATER SOFTENER
- W — WATER VALVE VAULT
- VALVE

UTILITY/CIVIL LINE SYMBOLOGY

- PIPELINE
- LARGE PIPELINE
- UTILITY BENEATH STRUCTURE
- RAILROAD
- CENTERLINE
- BOTTOM OF DITCH
- PROPERTY LINE
- EASEMENT
- LIMITS OF CONSTRUCTION
- ROW
- EXISTING CONTOUR (MINOR)
- 25 — EXISTING CONTOUR W/ELEVATION (MAJOR)
- X X X — EXISTING FENCE
- EXISTING VEGETATION/BRUSH LINE
- X — FENCE - BARB WIRE
- FENCE - CHAIN LINK
- X — FENCE - FIELD
- X X X — FENCE - OTHER
- FENCE - WOOD
- XX — FENCE - WOVEN WIRE
- 25 YEAR — FLOOD LIMIT (25 YEAR)
- 50 YEAR — FLOOD LIMIT (50 YEAR)
- 100 YEAR — FLOOD LIMIT (100 YEAR)
- 500 YEAR — FLOOD LIMIT (500 YEAR)
- HIGHWAY GUARDRAIL
- LEVEE TOP
- LEVEE TOE
- NEW CONTOUR (MINOR)
- 25 — NEW CONTOUR (MAJOR)
- RB RB RB RB — ROCK BERM
- SF SF SF SF — SILT FENCE
- LOD LOD LOD — LIMITS OF DISTURBANCE
- TOE OF SLOPE
- TOP OF SLOPE

- FO FO — FIBER OPTIC
- FOS FOS — FUEL OIL
- G G — NATURAL GAS
- IW IW — INDUSTRIAL WASTE WATER
- SS SS — SANITARY SEWER
- SD SD — STORM SEWER
- W W — DOMESTIC WATER
- NPW NPW — DOMESTIC WATER NON-POTABLE

GENERAL NOTES:

1. THIS IS A STANDARD CIVIL SYMBOLOGY SHEET. ALL SYMBOLS ARE NOT NECESSARILY USED ON THIS PROJECT.
2. SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.

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KANSAS CITY, MO 64131
(816) 360-2600
MO CERTIFICATE OF AUTHORITY #: 000856

ISSUE	DATE	DESCRIPTION
1	04/18/2025	FDP WITH CITY COMMENTS INCORPORATED
0	03/07/2025	FINAL DEVELOPMENT PLAN

PROJECT MANAGER	K. PRINDS
CIVIL	M. WIEBELHAUS
ARCHITECTURAL	E. BUTTMAN
MECHANICAL	M. WARRICK
PROJECT NUMBER	10417754

STATE OF MISSOURI
MITCHELL WIEBELHAUS
NUMBER PE-2019011804
04/18/2025
PROFESSIONAL ENGINEER

City of Lee's Summit, MO
Water Utilities Facility & Parking Lot Expansion

CIVIL LEGEND

FILE NAME: 10417754-00G-004.DWG
SCALE: ---- (0, 1", 2")

SHEET # 00G004

PIPING SYSTEMS

- COLD WATER, POTABLE (CW)
- HOT WATER, POTABLE (HW)
- HOT WATER RECIRCULATING, POTABLE (HWC)
- NPW — NON POTABLE COLD WATER
- 140 — HOT WATER - TEMPERATURE, POTABLE
- TW — TEPID WATER, POTABLE
- TWR — TEPID WATER RETURN, POTABLE
- SAN — SANITARY SEWER BELOW GRADE
- SAN — SANITARY SEWER ABOVE GRADE
- V — SANITARY VENT
- AW — ACID WASTE
- AV — ACID VENT
- CWV — COMBINATION WASTE AND VENT
- PD — PRESSURE DRAINAGE
- SD — STORM DRAIN ABOVE GRADE
- SD — STORM DRAIN BELOW GRADE
- OD — STORM DRAIN OVERFLOW
- NG — NATURAL GAS
- LP — LIQUEFIED PROPANE
- CA — COMPRESSED AIR
- HWS — HEATING HOT WATER SUPPLY
- HWR — HEATING HOT WATER RETURN
- GHWS — GLYCOL HEATING HOT WATER SUPPLY
- GHWR — GLYCOL HEATING HOT WATER RETURN
- CHWS — CHILLED WATER SUPPLY
- CHWR — CHILLED WATER RETURN
- GCWS — GLYCOL CHILLED WATER SUPPLY
- GCWR — GLYCOL CHILLED WATER RETURN
- CWS — CONDENSER WATER SUPPLY
- CWR — CONDENSER WATER RETURN
- RL — REFRIGERANT LIQUID
- RS — REFRIGERANT SUCTION
- CD — CONDENSATE DRAIN
- CPD — CONDENSATE PUMP DISCHARGE
- STM -15 — STEAM SUPPLY - PSI
- BBD — BOILER BLOW DOWN
- BF — BOILER FEED
- SV — STEAM VENT
- MU — MAKE-UP WATER

PIPING SYMBOLOGY

- PIPE ANCHOR
- PIPE GUIDE
- EXPANSION JOINT
- PT — PRESSURE/ TEMPERATURE PORT
- THERMOMETER
- THERMOWELL
- PRESSURE GAUGE
- T — TEMPERATURE GAUGE
- FLEXIBLE PIPING CONNECTION
- WYE STRAINER
- MANUAL AIR VENT
- A — AUTOMATIC AIR VENT
- M — METER (WATER, GAS, OTHER)
- FCO — FLOOR CLEANOUT
- CO — CLEANOUT
- WCO — WALL CLEANOUT
- GCO — DOUBLE GRADE CLEANOUT
- WATER HAMMER ARRESTOR
- E — EARTHQUAKE VALVE
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER, FLAT ON BOTTOM
- ECCENTRIC REDUCER, FLAT ON TOP
- ELBOW, 90° TURN DOWN
- ELBOW, 90° TURN UP
- TEE, OUTLET UP
- TEE, OUTLET DOWN
- TEE, OUTLET UP W/ 90° TURN
- TEE, OUTLET DOWN W/ 90° TURN
- PIPE BREAK
- PIPE CAP
- BLIND FLANGE
- UNION
- FLOW ARROW
- SHUTOFF VALVE (NORMALLY OPEN)
- SHUTOFF VALVE (NORMALLY CLOSED)
- DRAIN VALVE
- CHECK VALVE
- VB — VACUUM BREAKER
- AUTOMATIC FLOW CONTROL VALVE
- CALIBRATED MANUAL BALANCING VALVE
- OR — PRESSURE-RELIEF VALVE
- PRESSURE-REDUCING VALVE (PRV)
- AUTOMATIC CONTROL VALVE, 2-WAY
- AUTOMATIC CONTROL VALVE, 3-WAY
- BFP — BACKFLOW PREVENTER
- XX-1 — PLUMBING FIXTURE

HVAC SYMBOLOGY

- 24x18 — SUPPLY AIR OR OUTSIDE AIR DUCT UP (SECTION CUT, FIRST DIMENSION DUCT WIDTH)
- SUPPLY AIR OR OUTSIDE AIR DUCT DOWN (NO SECTION CUT)
- RETURN AIR DUCT UP (SECTION CUT)
- RETURN AIR DUCT DOWN (NO SECTION CUT)
- EXHAUST AIR DUCT UP (NO SECTION CUT)
- EXHAUST AIR DUCT DOWN (NO SECTION CUT)
- ROUND ELBOW UP
- ROUND ELBOW DOWN
- TRANSITION - RECTANGULAR TO ROUND DUCT
- STANDARD BRANCH
- ELBOW - W/TURNING VANE (RECTANGULAR)
- ELBOW - (RECTANGULAR), SMOOTH RADIUS
- 18x24 — RECTANGULAR DUCT OR OPENING SIZE FIRST NUMBER INDICATES SIZE OF SIDE SHOWN
- 18 ⌀ — ROUND DUCT SIZE
- R OR D — RECTANGULAR DUCT INCLINE - RISE OR DROP IN RESPECT TO THE AIR FLOW
- R OR D — ROUND DUCT INCLINE - RISE OR DROP IN RESPECT TO THE AIR FLOW
- 18x24 — HIDDEN DUCT
- T 9'-10" B 9'-0" / 18x10 — DUCT/PIPE ELEVATION TAG ABOVE FINISH FLOOR
- VOLUME DAMPER
- M — MOTOR OPERATED DAMPER
- FIRE DAMPER
- S — SMOKE DAMPER
- S — SMOKE AND FIRE DAMPER
- FLEXIBLE CONNECTION
- FLEXIBLE DUCT - TWO LINE
- FLEXIBLE DUCT - ONE LINE
- ACOUSTICAL LINING - DUCT DIMENSIONS FOR NET FREE AREA
- UC — UNDERCUT DOOR
- NEW TO EXISTING CONNECTION
- REMOVE EXISTING UP TO THIS POINT
- HVAC EMERGENCY SHUTDOWN SWITCH

- TAG-SIZE CFM — SUPPLY AIR REGISTER
- TAG-SIZE CFM — EXHAUST AIR OR RETURN AIR GRILLE
- TAG CFM — EXHAUST AIR OR RETURN AIR GRILLE
- TAG CFM — SUPPLY AIR ASSEMBLY SQUARE DIFFUSER
- TAG CFM — SUPPLY AIR ASSEMBLY ROUND DIFFUSER

TEMPERATURE CONTROL DIAGRAM SYMBOLOGY

MISCELLANEOUS DEVICE IDENTIFIER

CO	SPACE CARBON MONOXIDE SENSOR
CO2	SPACE CARBON DIOXIDE SENSOR
H	SPACE HUMIDITY SENSOR
NO2	SPACE NITROGEN DIOXIDE SENSOR
S	SPACE TEMPERATURE SENSOR
T	THERMOSTAT

CONTROL DEVICE IDENTIFIER

AFS	AIRFLOW MEASURING STATION
AM	AIRFLOW MEASURING SENSOR
CO	CARBON MONOXIDE SENSOR
CO2	CARBON DIOXIDE SENSOR
F	FLOW SWITCH
FRZ	FREEZE STAT
H	HUMIDITY SENSOR
HS	HIGH STATIC SWITCH
LS	LOW STATIC SWITCH
NO2	NITROGEN DIOXIDE SENSOR
P	PRESSURE SENSOR
S	SPACE TEMPERATURE SENSOR
SD	SMOKE DETECTOR
T	TEMPERATURE SENSOR
TS	TEMPERATURE SWITCH
ΔP	DIFFERENTIAL PRESSURE SENSOR

CONTROL INPUT/OUTPUT IDENTIFIER

AI	ANALOG INPUT
AO	ANALOG OUTPUT
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT

COIL IDENTIFIERS

CC	CHILLED WATER COOLING COIL
DG	DIRECT FIRED GAS BURNER
DX	DIRECT EXPANSION COOLING COIL
EH	ELECTRIC HEATING COIL
ER	DIRECT EVAPORATIVE COIL
FC	FACE AND BYPASS COOLING COIL
FH	FACE AND BYPASS HEATING COIL
HC	HEATING HOT WATER HEATING COIL
IG	INDIRECT FIRED GAS BURNER
ST	STEAM HEATING COIL

CONTROL ABBREVIATIONS

BTU	BTU METER
COMM	COMMUNICATION
CT	CURRENT TRANSMITTER
EC	ELECTRONICALLY COMMUTATED
EF	EXHAUST FAN
FM	FLOW METER
M	MOTOR ACTUATOR
MA	MIXED AIR
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
OA	OUTDOOR AIR
RA	RETURN AIR
RF	RETURN FAN
RL	RELIEF FAN
SA	SUPPLY AIR
SF	SUPPLY FAN
TCC	TEMPERATURE CONTROL CONTRACTOR
VFD	VARIABLE FREQUENCY DRIVE

- S — DUCT MOUNTED SMOKE DETECTOR
- T — TEMPERATURE AVERAGING SENSOR
- M — MOTOR OPERATED DAMPER
- M — MOTOR OPERATED SINGLE BLADE DAMPER
- BACKDRAFT DAMPER
- HUMIDIFIER
- AFS — AIRFLOW MEASURING STATION
- INTAKE/ EXHAUST LOUVER
- FILTER
- FRZ — FREEZE STAT
- SEE CONTROL ABBREVIATIONS (TYP)
- XX / M — FAN
- XX / EC — FAN WITH EC MOTOR
- PUMP
- EC — PUMP WITH EC MOTOR

ABBREVIATIONS

AD	ACCESS DOOR
AFR	ABOVE FINISHED ROOF
AHU	AIR HANDLING UNIT
APD	AIR PRESSURE DROP
ARF	ABOVE RAISED FLOOR
AV	AIR VALVE
BAS	BUILDING AUTOMATION SYSTEM
BDD	BACK DRAFT DAMPER
BHP	BRAKE HORSE POWER
BOE	BOTTOM OF EQUIPMENT
BTUH	BRITISH THERMAL UNITS PER HOUR
CAV	CONSTANT AIR VOLUME
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
COP	COEFFICIENT OF PERFORMANCE
COR	CONTRACTING OFFICER'S REPRESENTATIVE
CRAC	COMPUTER ROOM AIR CONDITIONER
CU	CONDENSING UNIT
DB	DRY BULB
DDC	DIRECT DIGITAL CONTROL
DH	DEHUMIDIFIER
DX	DIRECT EXPANSION
EAT	ENTERING AIR TEMPERATURE
EDH	ELECTRIC DUCT HEATER
EER	ENERGY EFFICIENCY RATIO
EMCS	ENERGY MANAGEMENT CONTROL SYSTEM
ERU	ENERGY RECOVERY UNIT
ESP	EXTERNAL STATIC PRESSURE
ESS	EMERGENCY SHUTOFF SWITCH
EWT	ENTERING WATER TEMPERATURE
F	FUTURE
FA	FREE AREA
FCP	FAN CONTROL PANEL
FCU	FAN COIL UNIT
FDBK	FEEDBACK
FLA	FULL LOAD AMPS
FLT	FILTER
FPB	FAN POWERED BOX
FPM	FEET PER MINUTE
GC	GENERAL CONTRACTOR
GE	GRAVITY EXHAUST
GI	GRAVITY INTAKE
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
I/O	INPUT/OUTPUT
I/P	CURRENT TO PNEUMATIC
IAQ	INDOOR AIR QUALITY
IPLV	INTEGRATED PART LOAD VALUE
LAT	LEAVING AIR TEMPERATURE
LVR	LOUVER
LWT	LEAVING WATER TEMPERATURE
MAU	MAKE-UP AIR UNIT
MBH	THOUSAND BTUH
MCC	MOTOR CONTROL CENTER
NC	NOISE CRITERIA
NO	NUMBER
NRC	NOISE REDUCTION COEFFICIENT
OS&Y	OUTSIDE SCREW AND YOKE
PD	PRESSURE DROP
PPH	POUNDS PER HOUR
RH	RELATIVE HUMIDITY
RTU	ROOFTOP UNIT
S	SIGNAL PORT
SCFM	STANDARD CUBIC FEET PER MINUTE
SEER	SEASONAL ENERGY EFFICIENCY RATIO
SP	STATIC PRESSURE
TC	TECHNOLOGY CONTRACTOR
TCP	TEMPERATURE CONTROL PANEL
TD	TEMPERATURE DIFFERENTIAL
TES	THERMAL ENERGY STORAGE
TSP	TOTAL STATIC PRESSURE
UH	UNIT HEATER
V&C	VALVE AND CAP
VAV	VARIABLE AIR VOLUME
VRF	VARIABLE REFRIGERANT FLOW
VTR	VENT THROUGH ROOF
WB	WET BULB
WC	WATER COLUMN
WPD	WATER PRESSURE DROP

GENERAL NOTES

GENERAL MECHANICAL DEMOLITION NOTES

1. THE CONTRACTOR SHALL COMPLETELY REMOVE ALL PIPING, DUCTWORK, COILS, EQUIPMENT, TERMINAL UNITS, ASSOCIATED CONTROLS, WIRING, AND OTHER ITEMS SHOWN BOLD AND/OR BOLD DASHED LINES UNLESS SPECIFICALLY NOTED OTHERWISE. THE ITEMS INDICATED ON THE DRAWINGS TO BE REMOVED ARE ONLY TO INDICATE IN GENERAL THE AMOUNT OF DEMOLITION WORK INVOLVED. A SITE INVESTIGATION BY THE CONTRACTOR MUST BE PERFORMED TO AID IN DETERMINING THE COMPLETE EXTENT OF WORK INVOLVED.
2. PIPING AND DUCTWORK EMBEDDED IN FLOORS, WALLS, AND CEILINGS MAY REMAIN IF SUCH MATERIALS DO NOT INTERFERE WITH NEW INSTALLATIONS. REMOVE MATERIALS ABOVE ACCESSIBLE CEILINGS. REMAINING PIPING SHALL BE DRAINED AND CAPPED WITHOUT CREATING DEAD LEGS IN THE SYSTEM. REMAINING DUCTWORK SHALL BE CAPPED.
3. LOCATE, IDENTIFY, AND PROTECT MECHANICAL SERVICES PASSING THROUGH DEMOLITION AREA AND SERVING OTHER AREAS OUTSIDE THE DEMOLITION LIMITS. MAINTAIN SERVICES TO AREAS OUTSIDE DEMOLITION LIMITS. WHEN SERVICES MUST BE INTERRUPTED, NOTIFY OWNER AND INSTALL TEMPORARY SERVICES FOR AFFECTED AREAS.
4. EXISTING EQUIPMENT BEING REMOVED AND CONSIDERED SALVAGEABLE BY THE OWNER SHALL BE TURNED OVER TO THE OWNER.
5. CONTRACTORS SHALL COORDINATE AND SCHEDULE ALL NECESSARY UTILITY SHUT-OFFS WITH OWNER PRIOR TO PROCEEDING WITH SUCH WORK.
6. COORDINATE SAW-CUTTING OF THE FLOOR OR WALL WITH OTHER TRADES.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING, PAINTING, REPAIRING OR REPLACEMENT OF ALL WALLS, FLOORS, CEILINGS, OR OTHER BUILDING ELEMENTS THAT ARE DISTURBED AS PART OF THE DEMOLITION OR INSTALLATION OF MECHANICAL WORK. SUCH WORK SHALL MATCH THE EXISTING CONSTRUCTION, FINISH, AND RATING. FIRE SEAL WALL OPENINGS AS REQUIRED.
8. REPLACE/REPAIR DAMAGED PIPING AND/OR DUCTWORK INSULATION TO MATCH EXISTING.
9. CONTRACTOR SHALL PROVIDE WORK IN PHASES AS REQUIRED BY THE CONTRACT DOCUMENTS WHILE MINIMIZING POTENTIAL WORK DELAYS AND UTILITY SHUT-DOWNS. COORDINATE ALL WORK WITH PROJECT PHASING PLAN AND WORK SHOWN ON DEMOLITION AND NEW PLANS. ALL EXISTING AREAS OF THE BUILDING NOT A PART OF A CURRENT PHASE OF WORK SHALL REMAIN OPERATIONAL WHILE WORK IN EACH INDIVIDUAL PHASE IS COMPLETED.

GENERAL MECHANICAL NOTES

1. THESE NOTES ARE NOT ALL INCLUSIVE. REFER TO DRAWINGS AND SPECIFICATION FOR ADDITIONAL REQUIREMENTS.
2. THIS IS A STANDARD MECHANICAL (HVAC AND PLUMBING) SYMBOLOGY AND ABBREVIATIONS SHEET. LISTING OF SYMBOLS AND ABBREVIATIONS DOES NOT IMPLY ALL SYMBOLS AND ABBREVIATIONS HAVE BEEN USED ON THIS PROJECT.
3. VALVE SYMBOLS SHOWN HERE ARE APPLICABLE ONLY TO MECHANICAL SHEETS.
4. PROVIDE ALL MATERIALS, LABOR, AND EQUIPMENT FOR COMPLETE AND OPERABLE SYSTEMS AS INDICATED ON THE DRAWINGS AS SPECIFIED, OR AS REQUIRED BY CODE.
5. MECHANICAL INSTALLATION SHALL COMPLY WITH THE ADA/ABA ACCESSIBILITY GUIDELINES.
6. DETAILS APPLY TO THE ENTIRE PROJECT AND ARE ONLY REFERENCED TO PROVIDE CLARITY IF THERE ARE MULTIPLE DETAILS THAT COULD APPLY TO A PARTICULAR PROJECT CONDITION.
7. COORDINATE LOCATION OF ALL MECHANICAL EQUIPMENT, DUCTWORK, AND PIPING WITH OTHER TRADES BEFORE PROCEEDING WITH WORK. DO NOT INSTALL MECHANICAL EQUIPMENT, DUCTWORK, OR PIPING ABOVE ELECTRICAL EQUIPMENT WHERE PROHIBITED BY ELECTRICAL CODES (SWITCHBOARDS, PANELS, ETC.).
8. LIGHT LINE WEIGHT INDICATES EXISTING PIPING, DUCTWORK, AND/OR EQUIPMENT TO REMAIN. BOLD LINE WEIGHT INDICATES NEW WORK TO BE INSTALLED AS WORK OF THIS CONTRACT.
9. COORDINATE INSTALLATION OF OUTSIDE AIR INTAKE WITH INSTALLATION OF PLUMBING VENTS, FLUES AND EXHAUST/RELIEF OUTLETS TO MAINTAIN 10' SEPARATION.
10. ALL WORK IN FINISHED SPACES SHALL BE LOCATED ABOVE CEILINGS, IN CHASES OR OTHER CONCEALED ACCESSIBLE LOCATIONS UNLESS NOTED OTHERWISE. LOCATE AND ARRANGE VALVES, DRAIN FITTINGS, ETC. TO BE ACCESSIBLE THROUGH LAY-IN CEILINGS, ACCESS PANELS OR ACCESS DOORS. PROVIDE AN ACCESS PANEL OR DOOR FOR ALL NON-ACCESSIBLE INSTALLATIONS. COORDINATE LOCATION OF ACCESS PANELS OR DOORS WITH THE ARCHITECT/ENGINEER AND OTHER TRADES.
11. ALL MATERIALS LOCATED IN PLENUM SHALL BE RATED FOR PLENUM INSTALLATION.
12. ALL DUCTWORK, PIPING, AND EQUIPMENT SUPPORTED FROM STRUCTURAL STEEL SHALL BE COORDINATED WITH ALL TRADES. ALL ATTACHMENTS TO STEEL BAR JOISTS, TRUSSES, OR JOIST GIRDERS SHALL BE AT PANEL POINTS OR AS SHOWN ON THE MECHANICAL OR STRUCTURAL DRAWINGS. WELDING TO STRUCTURAL MEMBERS SHALL NOT BE PERMITTED.
13. ALL MISCELLANEOUS METALS AND MATERIALS REQUIRED TO ENSURE PROPER INSTALLATION AND AS SHOWN IN DETAILS FOR PIPING, DUCTWORK, AND EQUIPMENT (UNLESS OTHERWISE NOTED) SHALL BE PROVIDED BY THE INSTALLING CONTRACTOR.
14. PROVIDE DIELECTRIC UNIONS AT ALL CONNECTIONS OF DISSIMILAR METALS (SUCH AS COPPER TO GALVANIZED STEEL).
15. PROVIDE ISOLATION VALVES AT EACH PIECE OF EQUIPMENT. ALSO PROVIDE ISOLATION VALVES ON EACH BRANCH AND/OR RISER SERVING MULTIPLE PIECES OF EQUIPMENT OR FIXTURES AND ELSEWHERE AS INDICATED. INSTALL VALVES AS CLOSE TO MAIN AS POSSIBLE.

GENERAL HVAC NOTES

1. DUCTWORK DIMENSIONS: FIRST NUMBER INDICATES SIDE OF DUCTWORK SHOWN. ALL DIMENSIONS ARE IN INCHES AND ARE INSIDE CLEAR DIMENSIONS.
2. VOLUME DAMPERS ABOVE PLASTER OR GYPBOARD CEILINGS SHALL HAVE EXTENSION RODS AND CHROME-PLATED ESCUTCHEON PLATES.
3. COORDINATE ALL GRILLE, REGISTER AND DIFFUSER LOCATIONS WITH REFLECTED CEILING PLAN, LIGHTING, AND ALL OTHER CEILING MOUNTED DEVICES.
4. PROVIDE FLEXIBLE CONNECTIONS IN ALL DUCTWORK AND PIPING SYSTEMS CONNECTED TO FANS, PUMPS AND OTHER EQUIPMENT WHICH REQUIRE VIBRATION ISOLATION.
5. PROVIDE ACCESSIBLE VOLUME DAMPERS OR OTHER MEANS OF AIRFLOW ADJUSTMENT AT ALL DUCT RUN-OUTS TO DIFFUSERS AND GRILLES.
6. PROVIDE DUCT ACCESS DOORS AT OUTSIDE AIR INTAKE PLENUMS.
7. ALL DUCT RUN-OUTS TO DIFFUSERS AND GRILLES SHALL BE THE SAME AS THE DIFFUSER OR GRILLE NECK SIZE UNLESS NOTED OTHERWISE.
8. ALL PIPING RUNOUTS SHALL BE 3/4" UNLESS NOTED OTHERWISE.

GENERAL PLUMBING NOTES

1. SANITARY SEWER PIPING SMALLER THAN 3" SHALL BE SLOPED AT 1/4" PER FOOT, 3" AND LARGER SHALL BE SLOPED AT 1/8" PER FOOT.
2. WALL HYDRANTS SHALL BE INSTALLED BETWEEN 18" MIN AND 24" MAX ABOVE FINISH GRADE. COORDINATE ELEVATIONS OF FINISH FLOOR OR FINISH EXTERIOR GRADE. PROVIDE ACCESSIBLE INSIDE SHUTOFF VALVE FOR EACH WALL HYDRANT.
3. INSTALL WALL CLEANOUTS (WCO) ON ALL SANITARY AND STORM RISERS AT 30" ABOVE FINISH FLOOR UNLESS NOTED OTHERWISE. COORDINATE EXACT HEIGHT WITH OTHER TRADES TO ENSURE ACCESSIBILITY.
4. ROUTE ALL STORM PIPING AS HIGH AS POSSIBLE AND SLOPE AT 1/8" PER FOOT UNLESS NOTED OTHERWISE. OVERFLOW DOWN SPOUT NOZZLES SHALL BE INSTALLED AT 12" ABOVE FINISH EXTERIOR GRADE UNLESS NOTED OTHERWISE.
5. PROVIDE BACKFLOW PREVENTERS IN ACCORDANCE WITH THE LOCAL CODES. PROVIDE AIR GAP FITTINGS FOR ALL RPZ BACKFLOW PREVENTERS AND ROUTE DISCHARGE PIPING TO NEAREST FLOOR DRAIN OR FLOOR SINK OR AS SHOWN ON DRAWINGS.
6. PROVIDE GAS REGULATORS, REGULATOR VENT PIPING, SHUTOFF VALVES, DIRT LEGS, AND UNIONS ON ALL GAS FIRED EQUIPMENT. REGULATE GAS PRESSURE AS REQUIRED FOR EACH SPECIFIC PIECE OF GAS FIRED EQUIPMENT.

HDR
MISSOURI CERTIFICATE OF AUTHORITY #000856
10450 HOLMES ROAD, SUITE 600
KANSAS CITY, MO 64131
816-360-2700

ISSUE	DATE	DESCRIPTION
1	04/18/2025	FDP WITH CITY COMMENTS INCORPORATED
0	03/07/2025	FINAL DEVELOPMENT PLAN

PROJECT MANAGER	K. PRINDS
CIVIL	M. WIEBELHAUS
ARCHITECTURAL	E. BUTTMAN
MECHANICAL	M. WARRICK
PROJECT NUMBER	10417754

STATE OF MISSOURI — JERRY KEVIN PRINDS — PE-2013000614 — PROFESSIONAL ENGINEER
2025.04.21 12:13:30-05'00'

City of Lee's Summit, MO
Water Utilities Facility & Parking Lot Expansion

MECHANICAL LEGEND

FILE NAME: FileName
SCALE: 12" = 1'-0" (0, 1", 2")

SHEET 00G005

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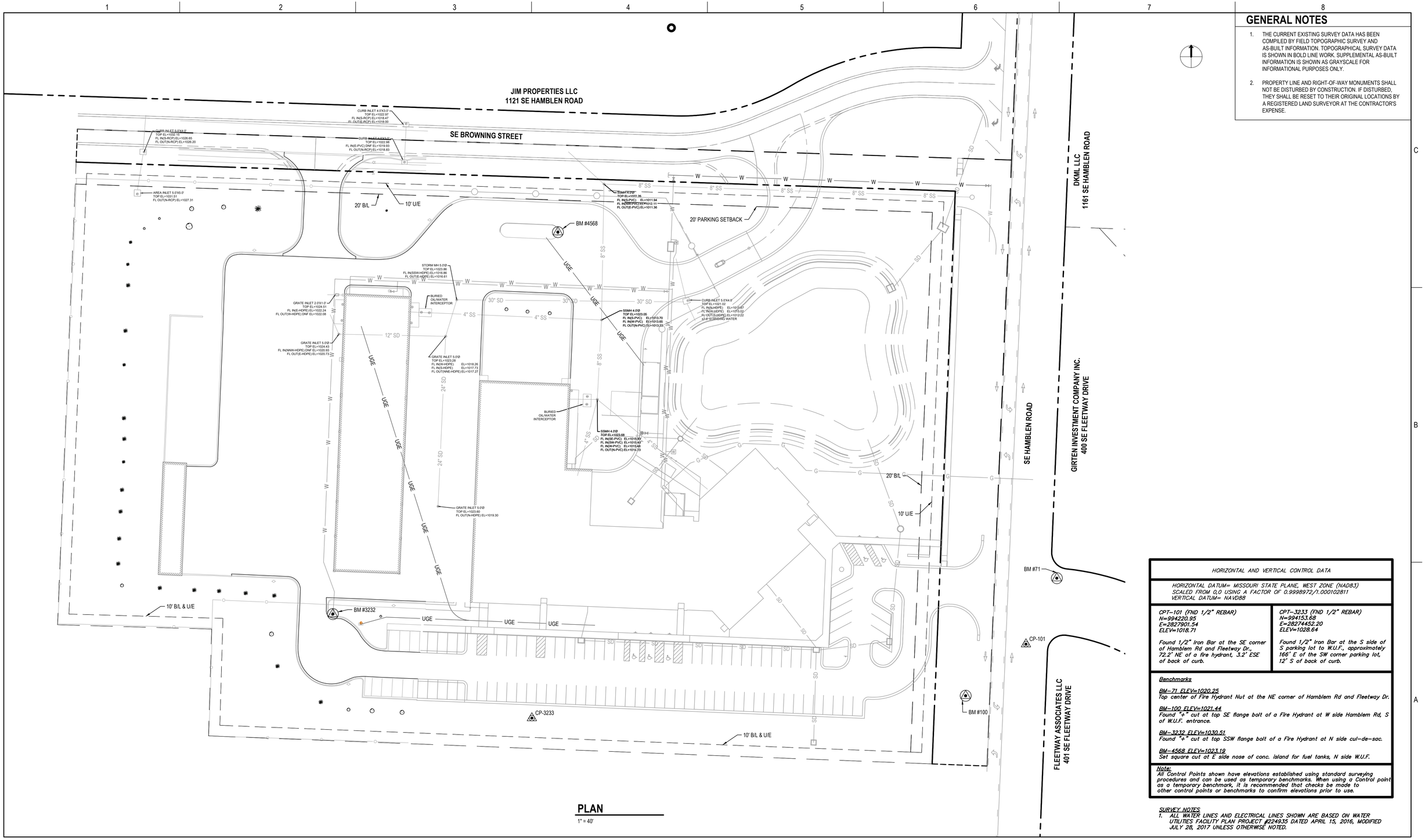

PLAN

1" = 40'

GENERAL NOTES

1. THE CURRENT EXISTING SURVEY DATA HAS BEEN COMPILED BY FIELD TOPOGRAPHIC SURVEY AND AS-BUILT INFORMATION. TOPOGRAPHICAL SURVEY DATA IS SHOWN IN BOLD LINE WORK. SUPPLEMENTAL AS-BUILT INFORMATION IS SHOWN AS GRAYSCALE FOR INFORMATIONAL PURPOSES ONLY.
2. PROPERTY LINE AND RIGHT-OF-WAY MONUMENTS SHALL NOT BE DISTURBED BY CONSTRUCTION. IF DISTURBED, THEY SHALL BE RESET TO THEIR ORIGINAL LOCATIONS BY A REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.

HORIZONTAL AND VERTICAL CONTROL DATA

HORIZONTAL DATUM= MISSOURI STATE PLANE, WEST ZONE (NAD83)
SCALED FROM 0,0 USING A FACTOR OF 0.9998972/1.000102811
VERTICAL DATUM= NAVD88

CPT-101 (FND 1/2" REBAR)	CPT-3233 (FND 1/2" REBAR)
N=994220.95 E=2827901.54 ELEV=1018.71	N=994153.68 E=28274452.20 ELEV=1028.64
Found 1/2" Iron Bar at the SE corner of Hamblem Rd and Fleetway Dr., 72.2' NE of a fire hydrant, 3.2' ESE of back of curb.	Found 1/2" Iron Bar at the S side of S parking lot to W.U.F., approximately 166' E of the SW corner parking lot, 12' S of back of curb.

Benchmarks

BM-71 ELEV=1020.25
Top center of Fire Hydrant Nut at the NE corner of Hamblem Rd and Fleetway Dr.

BM-100 ELEV=1021.44
Found "+" cut at top SE flange bolt of a Fire Hydrant at W side Hamblem Rd, S of W.U.F. entrance.

BM-3232 ELEV=1030.51
Found "+" cut at top SSW flange bolt of a Fire Hydrant at N side cul-de-sac.

BM-4568 ELEV=1023.19
Set square cut at E side nose of conc. island for fuel tanks, N side W.U.F.

Note:
All Control Points shown have elevations established using standard surveying procedures and can be used as temporary benchmarks. When using a Control point as a temporary benchmark, it is recommended that checks be made to other control points or benchmarks to confirm elevations prior to use.

SURVEY NOTES:
1. ALL WATER LINES AND ELECTRICAL LINES SHOWN ARE BASED ON WATER UTILITIES FACILITY PLAN PROJECT #224935 DATED APRIL 15, 2016, MODIFIED JULY 28, 2017 UNLESS OTHERWISE NOTED.

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HDR ENGINEERING, INC. | CA0443AE
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MO CERTIFICATE OF AUTHORITY #: 000856

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STATE OF MISSOURI
MITCHELL WIEBELHAUS
NUMBER PE-2019011804
04/18/2025
PROFESSIONAL ENGINEER

City of Lee's Summit, MO
Water Utilities Facility & Parking Lot Expansion

SURVEY CONTROL

FILE NAME: 10417754-01V-101.DWG
SCALE: 1"=40'
0 1" 2"

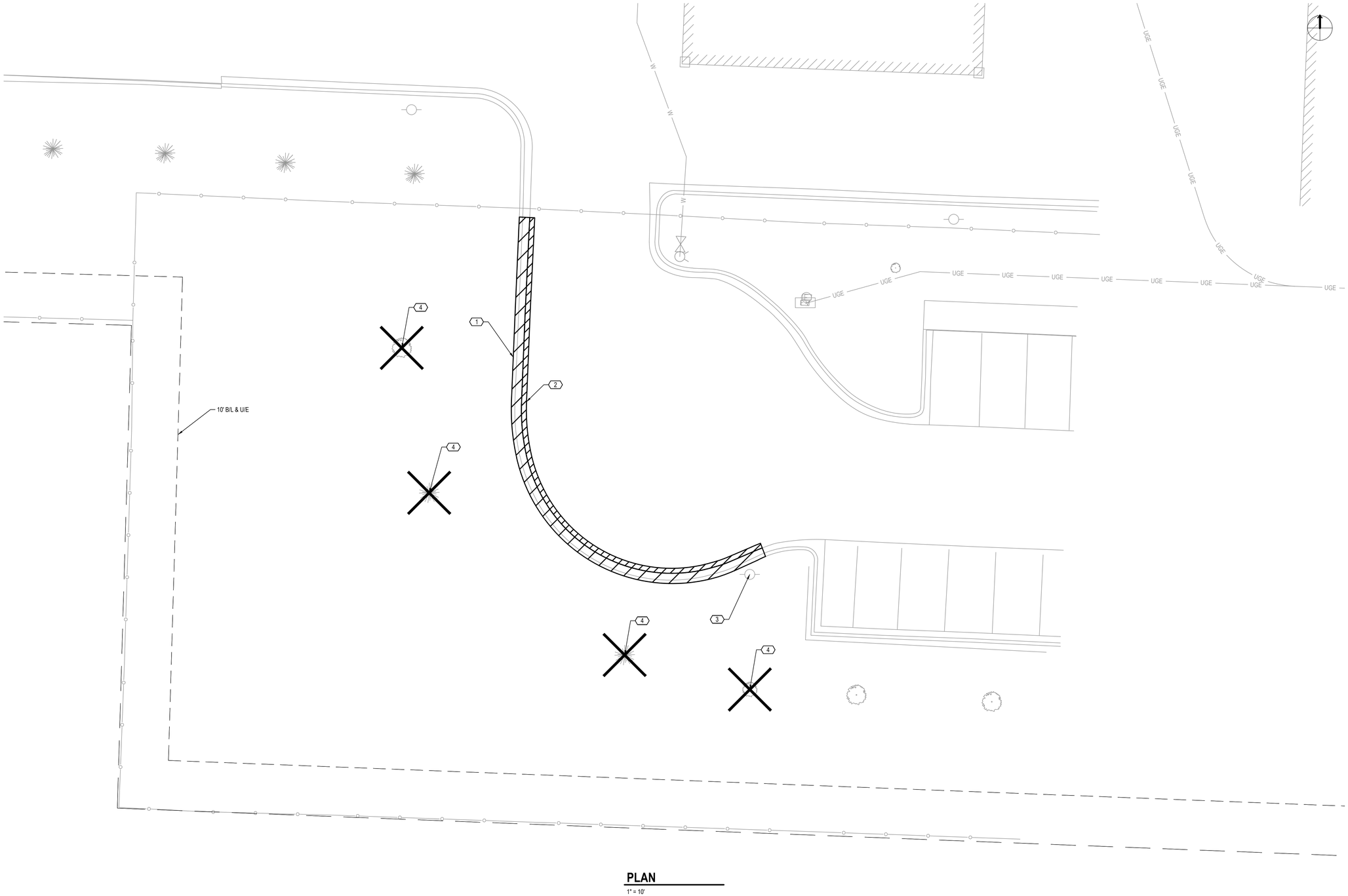
SHEET # 01V101

GENERAL NOTES

1. ALL EXISTING PAVEMENT, ROAD BASE, CURB, AND SIDEWALKS NOT DESIGNATED TO BE REMOVED THAT ARE DAMAGED DURING CONSTRUCTION MUST BE REPAIRED OR REPLACED TO PRE-CONSTRUCTION CONDITION.
2. REMOVAL OF MATERIALS FROM THE SITE SHALL BE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.

KEYNOTES (##)

1. REMOVE CONCRETE CURB AND GUTTER.
2. REMOVE PAVEMENT SURFACE.
3. REMOVE AND LIGHT CONCRETE FOUNDATION AND SALVAGE LUMINAIRE AND POLE.
4. REMOVE TREE.



PLAN
1" = 10'

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MECHANICAL	M. WARRICK
PROJECT NUMBER	10417754

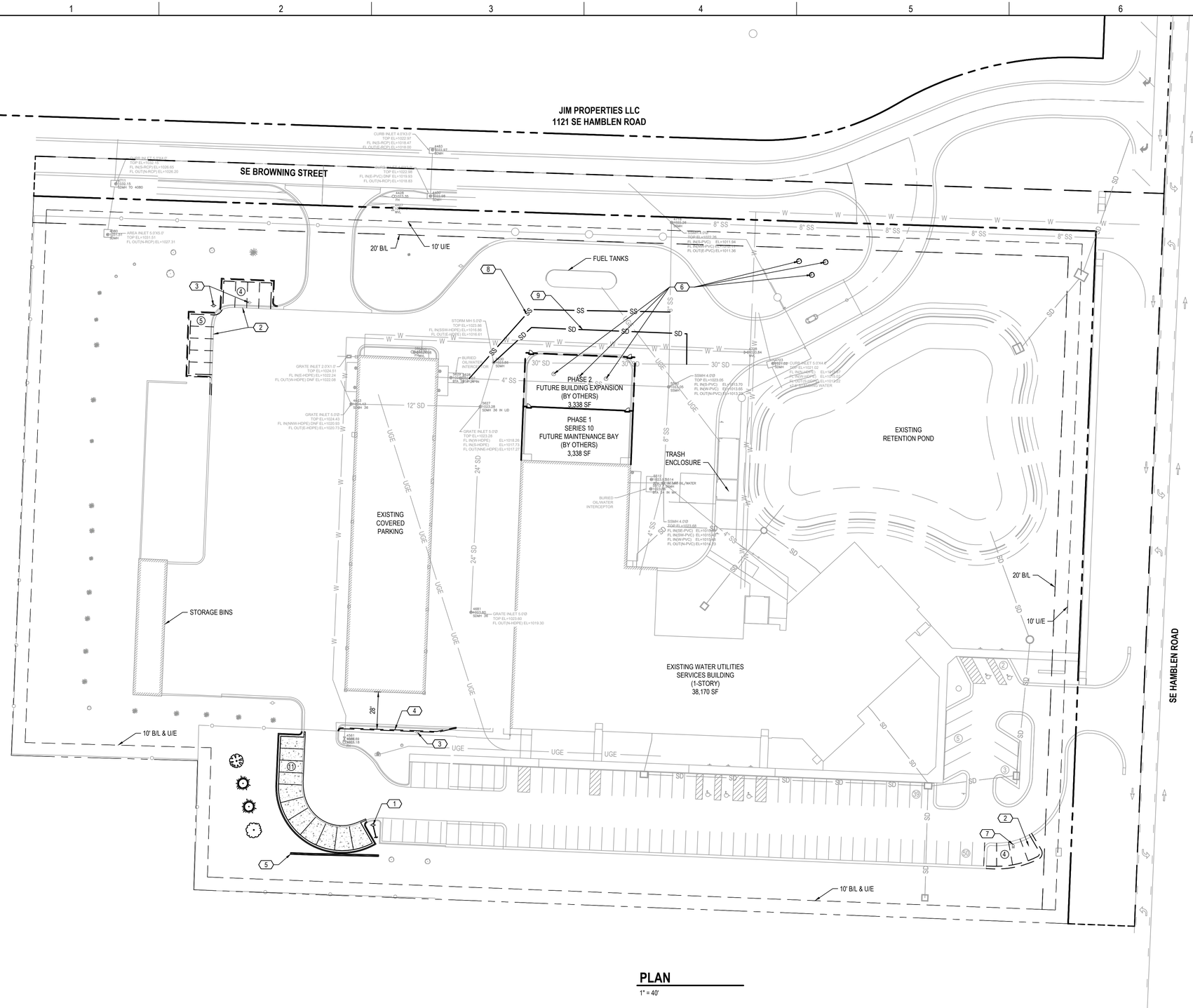
STATE OF MISSOURI
MITCHELL WIEBELHAUS
NUMBER PE-2019011804
04/18/2025
PROFESSIONAL ENGINEER

City of Lee's Summit, MO
Water Utilities Facility & Parking Lot Expansion

DEMOLITION PLAN

FILE NAME: 10417754-01CX-101.DWG
SCALE: 1"=10'
0 1" 2"

SHEET # 01X101



PLAN

1" = 40'

GENERAL NOTES

1. THE PROJECT IS LOCATED IN THE FEMA FIRM PANEL 29095C0438G AND IS NOT LOCATED WITHIN THE LIMITS OF THE 100-YEAR OR 500-YEAR FLOODPLAIN LIMITS.

KEYNOTES (##)

1. RELOCATE SITE LIGHT (RE: 4/00C501).
2. FUTURE PARKING STALLS (BY OTHERS).
3. FUTURE SALVAGE AND RELOCATE LIGHT POLE (BY OTHERS).
4. FUTURE REMOVE AND REPLACE EXISTING CURB (BY OTHERS).
5. RETAINING WALL (RE: 01C801).
6. FUTURE REMOVE AND REPLACE TREES (BY OTHERS).
7. FUTURE RELOCATE EXISTING MAILBOX (BY OTHERS).
8. APPROXIMATE RELOCATION OF FUTURE SANITARY SEWER. (DESIGNED AND BUILT BY OTHERS).
9. APPROXIMATE RELOCATION OF FUTURE STORM SEWER. (DESIGNED AND BUILT BY OTHERS).

PARKING INFORMATION

ITEM	REQUIREMENTS	PROVIDED	FUTURE
BUILDING SIZE FAR = FLOOR AREA RATIO	FAR ≤ 1.0 PROVIDED LOT AREA (401,770 SF)	39,897 SF (0.10 FAR)	46,497 SF (0.12 FAR)
PARKING REQUIRED	4 SPACES PER 1,000 SF GROSS FLOOR AREA OFFICE AND 1 SPACE PER 1,000 GROSS FLOOR AREA WAREHOUSE; 100 REQUIRED	110 SPACES	123 SPACES
MIN. PARKING DIM.	9 FT x 17 FT	9 FT x 17.5 FT	9 FT x 17.5 FT
MIN. DRIVEWAY WIDTH (TWO WAY ACCESS)	24 FT AISLE W/ PARKING	24 FT	24 FT
ACCESSIBLE SPACES	5 SPACES	5 SPACES	5 SPACES
ACCESSIBLE LOADING SPACES	1 SPACE, 8-FT WIDE	5 SPACES, 9-FT WIDE	5 SPACES, 9-FT WIDE

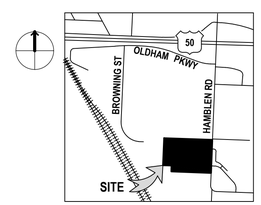
AREA REQUIREMENTS

LOCATION:	SE HAMBLEN ROAD LEE'S SUMMIT, JACKSON COUNTY, MISSOURI
ZONE:	PI - PLANNED INDUSTRIAL ZONING
USE:	INDUSTRIAL
LEGAL:	WATER UTILITIES FACILITY LOT --- LOT 1

ITEM	REQUIREMENTS	PROVIDED
MINIMUM LOT AREA	NONE	401,770 SF (9.22 AC)
MINIMUM LOT FRONTAGE	NONE	521.60 FT
MINIMUM FRONT SETBACK	20 FT	>20 FT
MINIMUM SIDE SETBACK	10 FT	>10 FT
MINIMUM REAR SETBACK	20 FT	>20 FT
MAXIMUM BUILDING HEIGHT	NONE	23 FT
MAXIMUM IMPERVIOUS COVERAGE	80% (321,481 SF)	64% (258,516 SF)

LEGEND

CONCRETE PAVEMENT



VICINITY MAP

NOT TO SCALE

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ARCHITECTURAL	E. BUTTMAN
MECHANICAL	M. WARRICK
PROJECT NUMBER	10417754

STATE OF MISSOURI
MITCHELL WIEBELHAUS
NUMBER PE-2019011804
04/18/2025
PROFESSIONAL ENGINEER

City of Lee's Summit, MO
Water Utilities Facility & Parking Lot Expansion

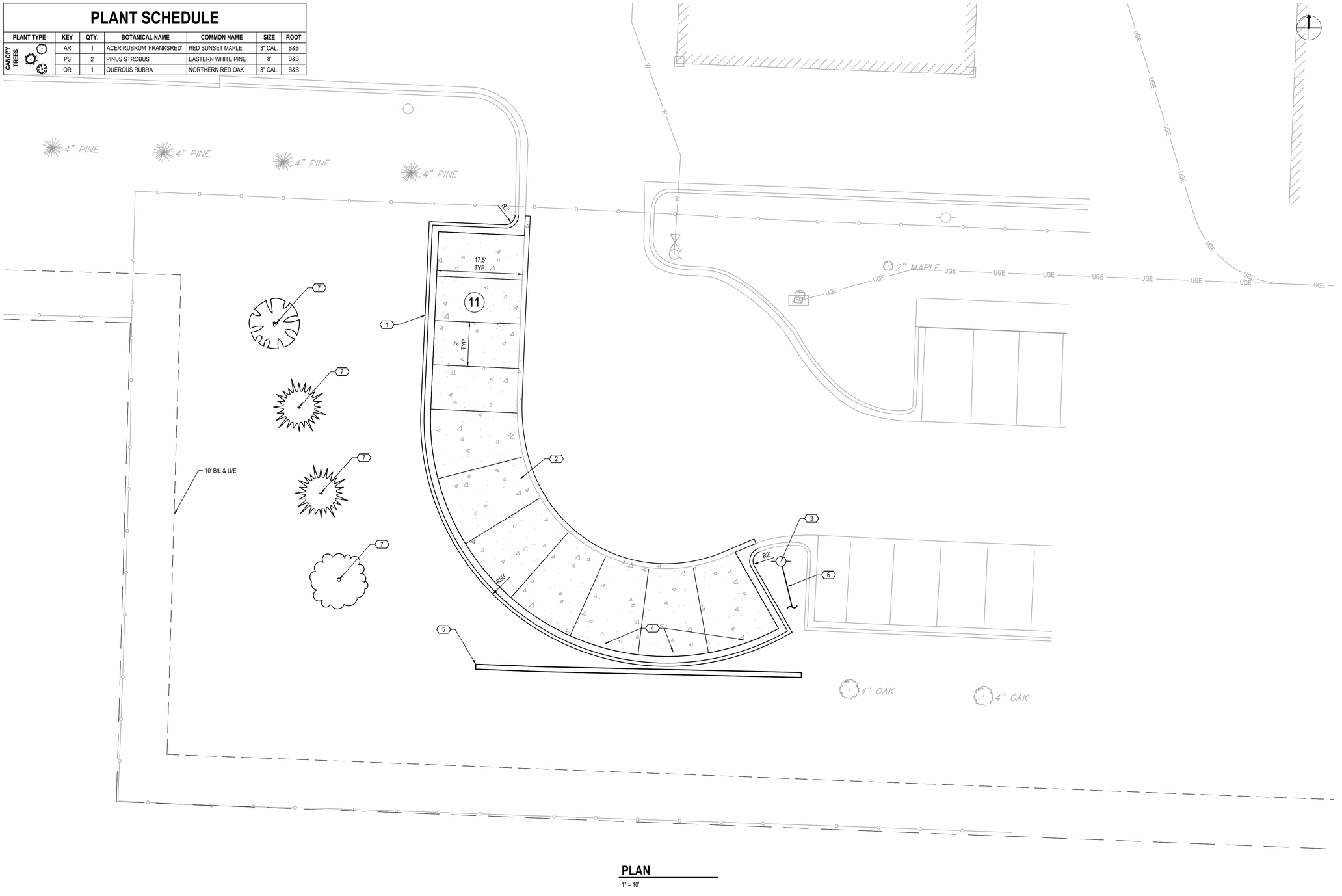
OVERALL SITE PLAN

FILE NAME: 10417754-01C-101.DWG
SCALE: 1"=40'
0 1" 2"

SHEET # 01C101

PLANT SCHEDULE

PLANT TYPE	KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
CANOPY TREES	AR	1	ACER RUBRUM 'FRANKSRED'	RED SUNSET MAPLE	3" CAL.	B&B
	PS	2	PINUS STROBUS	EASTERN WHITE PINE	8'	B&B
	QR	1	QUERCUS RUBRA	NORTHERN RED OAK	3" CAL.	B&B



PLAN

1" = 10'

GENERAL NOTES

1. ADJUST EXISTING MANHOLES, VALVE BOXES, AND STRUCTURES TO MATCH NEW GRADE THAT FALL WITHIN THE LIMITS OF THIS CONTRACT.
2. THE LOCATION OF UNDERGROUND UTILITIES / PROCESS LINES ARE APPROXIMATE. NO EXCAVATION WILL BE PERMITTED UNTIL BURIED UTILITIES HAVE BEEN VISIBLY LOCATED BY THE CONTRACTOR.
3. ALL SITE WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL, LEE'S SUMMIT UNIFIED DEVELOPMENT ORDINANCE (UDO), AND THESE PLANS.
4. THE CONTRACTOR SHALL ADJUST TO GRADE ALL WATER AND PROCESS VALVE BOXES/MANHOLES THAT FALL WITHIN THE LIMITS OF THIS CONTRACT. THE CONTRACTOR SHALL KEEP ALL UTILITIES AND SEWERS FREE OF DEBRIS AND OPERABLE AT ALL TIMES DURING CONSTRUCTION.

KEYNOTES (##)

1. CURB & GUTTER (CG-1 DRY) (RE: 5/00C501).
2. LIGHT DUTY CONCRETE PARKING LOT SECTION (RE: 2/00C501).
3. RELOCATE SITE LIGHT (RE: 4/00C501).
4. INSTALL PRECAST CONCRETE WHEEL STOP (RE: 5/00C501).
5. RETAINING WALL (RE: 01C801).
6. RECONNECT RELOCATED LIGHT TO ITS ORIGINAL CIRCUIT. ROUTE OF UNDERGROUND CIRCUIT IS UNKNOWN. FIELD VERIFY UNDERGROUND CIRCUIT LOCATION PRIOR TO WORK AND NOTIFY ENGINEER. RE-USE EXISTING UNDERGROUND CONDUIT AND WIRE TO THE GREATEST EXTENT POSSIBLE. PROVIDE NEW CONDUIT AND WIRE, IF NECESSARY, AND MATCH EXISTING.
7. PLANT NEW TREE (RE: PLANT SCHEDULE ON THIS SHEET).

LEGEND

CONCRETE PAVEMENT

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HDR ENGINEERING, INC. | CA0443AE
10450 HOLMES ROAD, SUITE 600
KANSAS CITY, MO 64131
(816) 360-2600
MO CERTIFICATE OF AUTHORITY #: 000856

ISSUE	DATE	DESCRIPTION
1	04/18/2025	FDP WITH CITY COMMENTS INCORPORATED
0	03/07/2025	FINAL DEVELOPMENT PLAN

PROJECT MANAGER	K. PRINDS
CIVIL	M. WIEBELHAUS
ARCHITECTURAL	E. BUTTMAN
MECHANICAL	M. WARRICK
PROJECT NUMBER	10417754

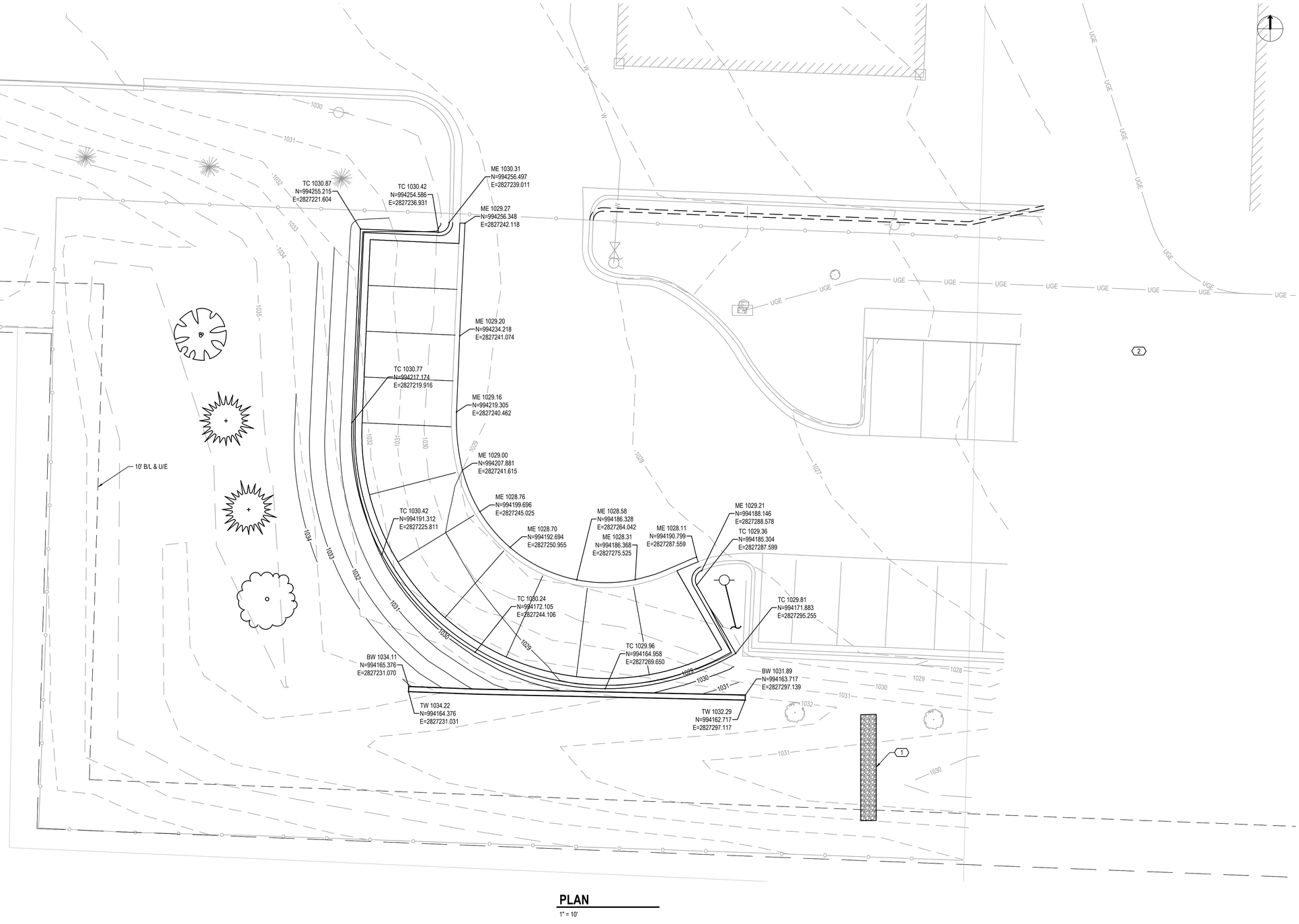
STATE OF MISSOURI
MITCHELL WIEBELHAUS
NUMBER PE-2019011804
04/18/2025
PROFESSIONAL ENGINEER

City of Lee's Summit, MO
Water Utilities Facility & Parking Lot Expansion

ENLARGED SITE PLAN

FILE NAME 10417754-01C-102.DWG
SCALE 1"=10'
0 1" 2"

SHEET # 01C102



PLAN

1" = 10'

GENERAL NOTES

1. GRADING ACTIVITIES SHALL CONFIRM TO THE REQUIREMENTS OF LEE'S SUMMIT SECTION 2100 - GRADING AND SITE PREPARATION AND SECTION 2150 - EROSION AND SEDIMENT CONTROL.
2. GRADED SLOPES SHALL NOT EXCEED 3:1.
3. VERIFY PARKING GRADES TO CONFIRM POSITIVE DRAINAGE IS MAINTAINED WITHOUT THE PRESENCE OF PONDING WATER.
4. THE FINISH GRADING AROUND BUILDINGS SHALL PROVIDE POSITIVE DRAINAGE AWAY AND AVOID PONDING WATER.
5. FINAL GRADING EXTENTS SHALL BE ADJUSTED AS NECESSARY TO ENSURE POSITIVE DRAINAGE.
6. OPEN AREAS NOT COVERED WITH OTHER MATERIALS SHALL BE SEEDED WITH NO MOW LAWN MIX, PRODUCT #50091, PRARUE NURSERY, WESTFIELD, WI TO MATCH THE EXISTING GRASS.

KEYNOTES (##)

1. ROCK DITCH CHECK (RE: 2/00C502).
2. INLET PROTECTION ON DOWNSTREAM COMBINATION GRATE INLET (RE: 3/00C501).

LEGEND

TC-TOP OF CURB
TP-TOP OF PAVEMENT
TW-TOP OF WALL
BW-BOTTOM OF WALL
ME-MATCH EXISTING

C:\PW\WORKING\CENTRAL\D1\D485245\3\10417754-01C-103.DWG
03/08/2024 10:57:56 AM

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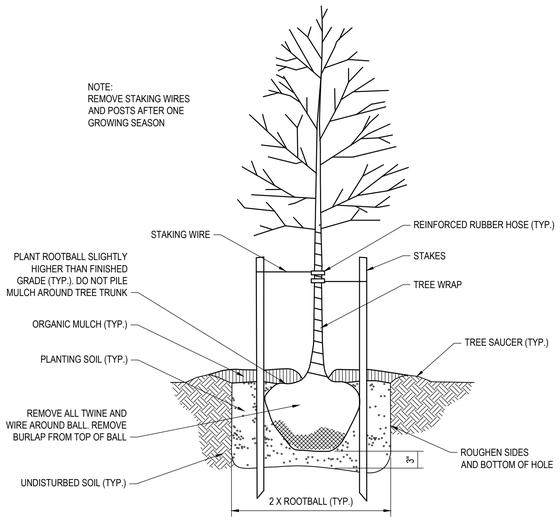
MITCHELL WIEBELHAUS
NUMBER PE-2019011804
04/18/2025
PROFESSIONAL ENGINEER

City of Lee's Summit, MO
Water Utilities Facility & Parking Lot Expansion

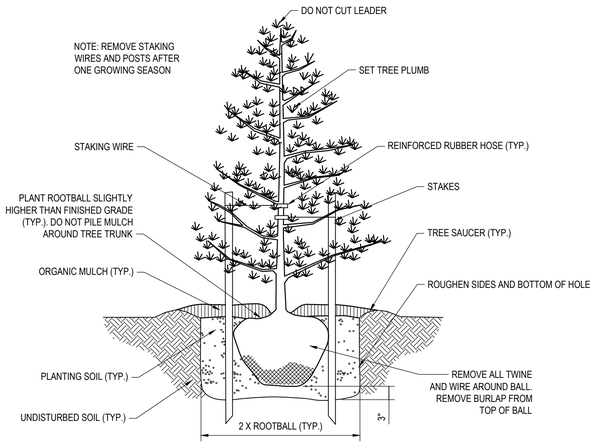
GRADING & EROSION CONTROL PLAN

FILE NAME 10417754-01C-103.DWG
SCALE 1"=10'
0 1" 2"

SHEET # 01C103



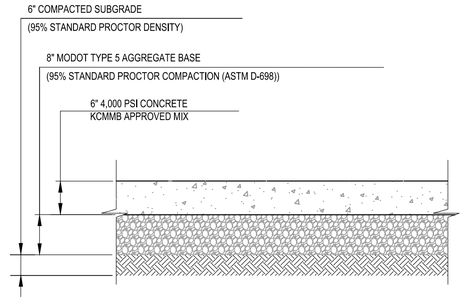
CONIFEROUS TREE



DECIDUOUS TREE

1 TREE PLANTING DETAIL

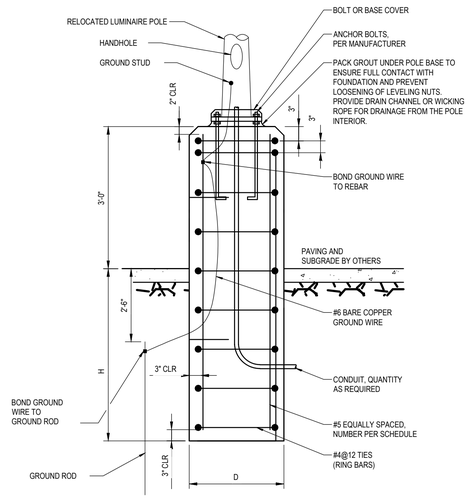
NTS



NOTE:
MAXIMUM CONTRACTION JOINT SPACING IS 12 FEET.

2 LIGHT DUTY CONCRETE PARKING LOT SECTION

NTS



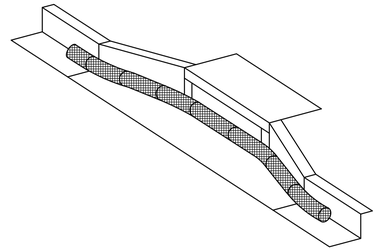
DIMENSION SCHEDULE			
POLE HEIGHT	MINIMUM D	MINIMUM H	VERTICAL REBAR EACH
UP TO 10'	2'-0"	4'-6"	6
11' TO 20'	2'-0"	6'-6"	6
21' TO 30'	2'-0"	8'-6"	6
31' TO 40'	2'-0"	9'-6"	8
41' TO 50'	2'-6"	10'-6"	10

NOTES:

1. CONCRETE AND REINFORCING STEEL: SEE DIVISION 3.

4 36" POLE BASE FOUNDATION

NTS

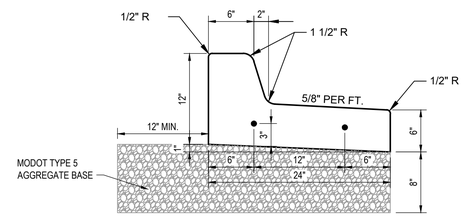


NOTES:

1. THE GUTTERBUDDY© OR APPROVED EQUAL SHALL BE A FILTER MANUFACTURED FROM RECYCLED SYNTHETIC FIBERS OR APPROVED ALTERNATIVE.
2. THE GUTTERBUDDY© WILL BE MANUFACTURED TO BE 9" IN DIAMETER AND SHALL HAVE A MINIMUM LENGTH OF 24" LONGER THAN THE CURB INLET OPENING. THIS WILL ALLOW FOR SUFFICIENT LENGTH TO COVER THE INLET WITH 12" BEYOND THE INLET ON BOTH ENDS.
3. THE GUTTERBUDDY© SHALL BE CLEANED IF A VISUAL INSPECTION SHOWS SILT AND DEBRIS BUILD UP AROUND THE GUTTERBUDDY©.
4. PONDING IS LIKELY IF SEDIMENT IS NOT REMOVED REGULARLY. INSPECTION OF GUTTERBUDDY© SHOULD BE ON A REGULAR BASIS AND IMMEDIATELY AFTER MAJOR RAIN EVENTS.

3 GUTTERBUDDY INLET PROTECTION

NTS GRAVEL FILTER BAG CURB INLET SEDIMENT FILTER MAY BE USED IN LIEU OF GUTTERBUDDY INLET PROTECTION.



STRAIGHT BACK DRY CURB & GUTTER

(TYPE CG-1 DRY)

GENERAL CURB NOTES:

1. 3/4" ISOLATION JOINTS WITH 2 (2'-#5 BAR) SMOOTH DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
2. 3" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
3. CONCRETE FILL SHALL HAVE UNIFORM AND SMOOTH FINISH.
4. KCMMB 4K CONCRETE SHALL BE USED FOR ALL CURB.
5. ASPHALTIC CONCRETE SURFACE COURSE SHALL CONFORM TO STANDARD SPECIFICATIONS SECTION 2205.2.
6. CURBS FOR NEW STREETS SHALL BE BUILT ON ASPHALT OR AGGREGATE BASE AS SHOWN IN TYPICAL SECTION DETAIL.
7. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.
8. ALL DOWELS & TIE BARS SHALL BE EPOXY COATED.

5 CURB AND GUTTER

NTS

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MECHANICAL	M. WARRICK
PROJECT NUMBER	10417754

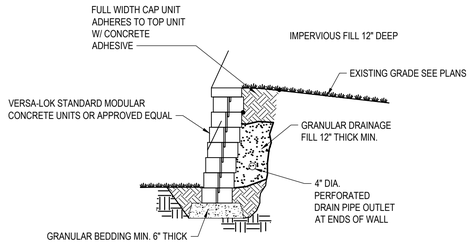
STATE OF MISSOURI
MITCHELL WIEBELHAUS
NUMBER PE-2019011804
04/18/2025
PROFESSIONAL ENGINEER

City of Lee's Summit, MO
Water Utilities Facility & Parking Lot Expansion

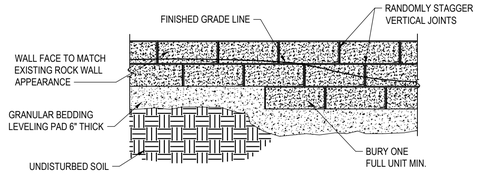
CIVIL DETAILS

FILE NAME 10417754-01C-501.DWG
SCALE ----
0 1" 2"

SHEET # 01C501



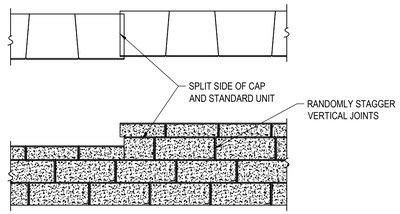
TYPICAL SECTION-UNREINFORCED RETAINING WALL



NOTE:

- LIMIT CHANGES IN BASE ELEVATION TO 6" PER STEP TO AVOID DIFFERENTIAL SETTLEMENT
- STEP AS NEEDED TO MINIMIZE BURIED UNITS AND MAINTAIN MINIMUM REQUIRED EMBEDMENT

STEPPING BASE DETAIL

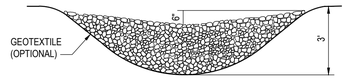


CAPPING DETAIL-PROFILE

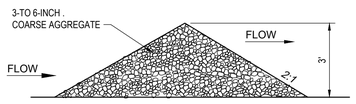
MATERIAL/COLOR-CHARCOAL BLEND

1 MODULAR BLOCK RETAILING WALL DETAIL

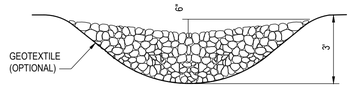
NTS



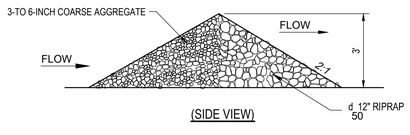
ROCK CHECK DAM
2 ACRES OR LESS OF DRAINAGE AREA



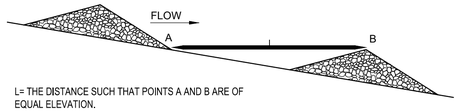
(SIDE VIEW)



ROCK CHECK DAM
2-10 ACRES OF DRAINAGE AREA



(SIDE VIEW)



L= THE DISTANCE SUCH THAT POINTS A AND B ARE OF EQUAL ELEVATION.

SPACING BETWEEN CHECK DAMS

ROCK CHECK DAM NOTES:

A) CONSTRUCTION SPECIFICATIONS & INSTALLATION:

1. THE DRAINAGE AREA OF THE DITCH OR SWALE BEING PROTECTED SHALL NOT EXCEED 2 ACRES WHEN A COARSE AGGREGATE IS USED ALONE AND SHALL NOT EXCEED 10 ACRES WHEN A COMBINATION OF CLASS I RIPRAP AND COARSE AGGREGATE IS USED. AN EFFORT SHOULD BE MADE TO EXTEND THE STONE TO THE TOP OF CHANNEL BANKS.
2. THE MAXIMUM HEIGHT OF THE DAM SHALL BE 3 FEET. THE CENTER OF THE CHECK DAM IS AT THE SAME ELEVATION AS THE TOP OF THE OUTER EDGES.
3. FOR ADDED STABILITY, THE BASE OF THE CHECK DAM CAN BE KEYED INTO THE SOIL APPROXIMATELY 6 INCHES.
4. THE MAXIMUM SPACING BETWEEN DAMS SHOULD BE SUCH THAT THE TOE OF THE UPSTREAM DAM IS AT THE SAME ELEVATION AS THE TOP OF THE DOWNSTREAM DAM.
5. STONE SHOULD BE PLACED ACCORDING TO THE CONFIGURATION TO THE LEFT. HAND OR MECHANICAL PLACEMENT WILL BE NECESSARY TO ACHIEVE COMPLETE COVERAGE OF THE DITCH OR SWALE AND TO INSURE THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES.
6. GEOTEXTILE MAY BE USED UNDER THE STONE TO PROVIDE A STABLE FOUNDATION AND TO FACILITATE REMOVAL OF THE STONE.

B) INSPECTION AND MAINTENANCE:

1. CHECK DAMS SHOULD BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EACH STORM EVENT OF 1/2-INCH OR GREATER. SEDIMENT SHALL BE REMOVED WHEN IT REACHES ONE HALF OF THE ORIGINAL HEIGHT OF THE DAM.
2. REGULAR INSPECTIONS SHOULD BE MADE TO ENSURE THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES. EROSION CAUSED BY HIGH FLOWS AROUND THE EDGES OF THE DAM SHALL BE CORRECTED.

C) REMOVAL OF PRACTICE:

1. UNLESS THEY ARE TO BE PERMANENT, CHECK DAMS MUST BE REMOVED WHEN THEIR USEFUL LIFE HAS BEEN COMPLETED. IN TEMPORARY DITCHES AND SWALES, CHECK DAMS SHOULD BE REMOVED AND THE DITCH FILLED WHEN THEY ARE NO LONGER NEEDED. IN PERMANENT STRUCTURES, CHECK DAMS SHOULD BE REMOVED WHEN A PERMANENT LINING CAN BE INSTALLED. IN THE CASE OF GRASS-LINED DITCHES, CHECK DAMS SHOULD BE REMOVED WHEN THE GRASS HAS MATURED SUFFICIENTLY TO PROTECT THE DITCH OR SWALE. THE AREA BENEATH THE CHECK DAMS SHOULD BE SEEDED AND MULCHED IMMEDIATELY AFTER THEY ARE REMOVED. THE USE OF FILTER CLOTH UNDERNEATH THE STONE WILL MAKE REMOVAL OF THE STONE EASIER.

2 ROCK DITCH CHECK INSTALLATION

NTS

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CIVIL	M. WIEBELHAUS
ARCHITECTURAL	E. BUTTMAN
MECHANICAL	M. WARRICK
PROJECT NUMBER	10417754

STATE OF MISSOURI
MITCHELL WIEBELHAUS
NUMBER PE-2010011804
04/10/2025
PROFESSIONAL ENGINEER

City of Lee's Summit, MO
Water Utilities Facility & Parking Lot Expansion

CIVIL DETAILS

FILE NAME 10417754-01C-501.DWG
SCALE ----
0 1" 2"

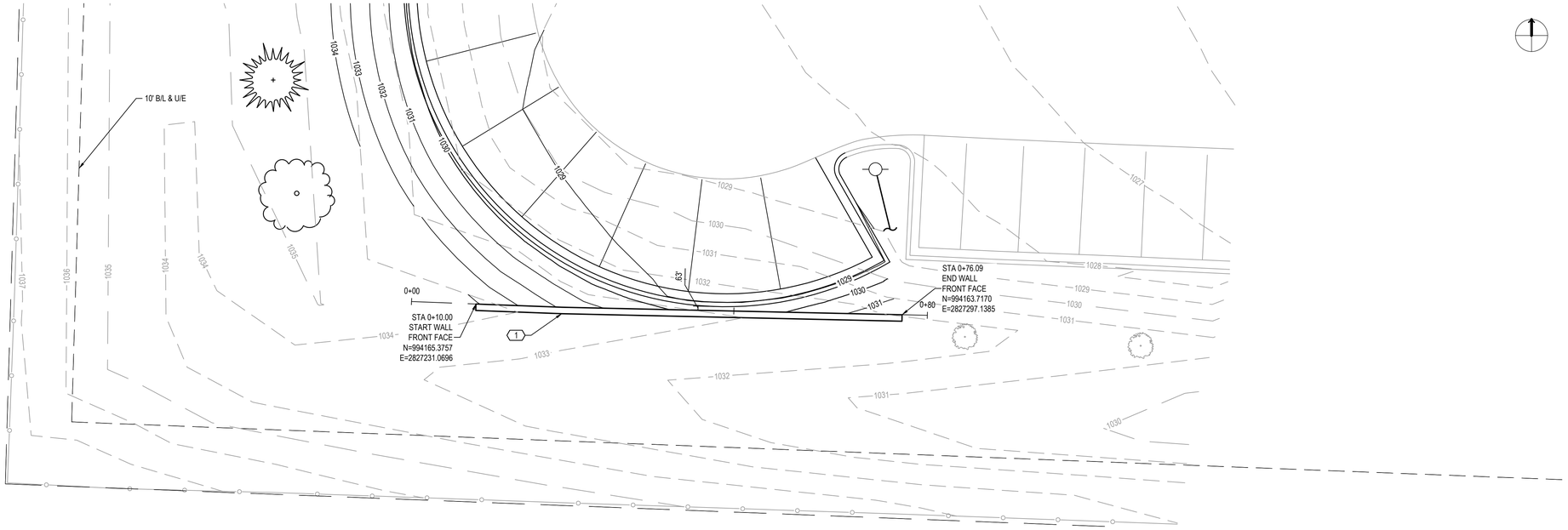
SHEET # 01C502

GENERAL NOTES

1. SPLIT FACE MODULAR CONCRETE BLOCK WALL.

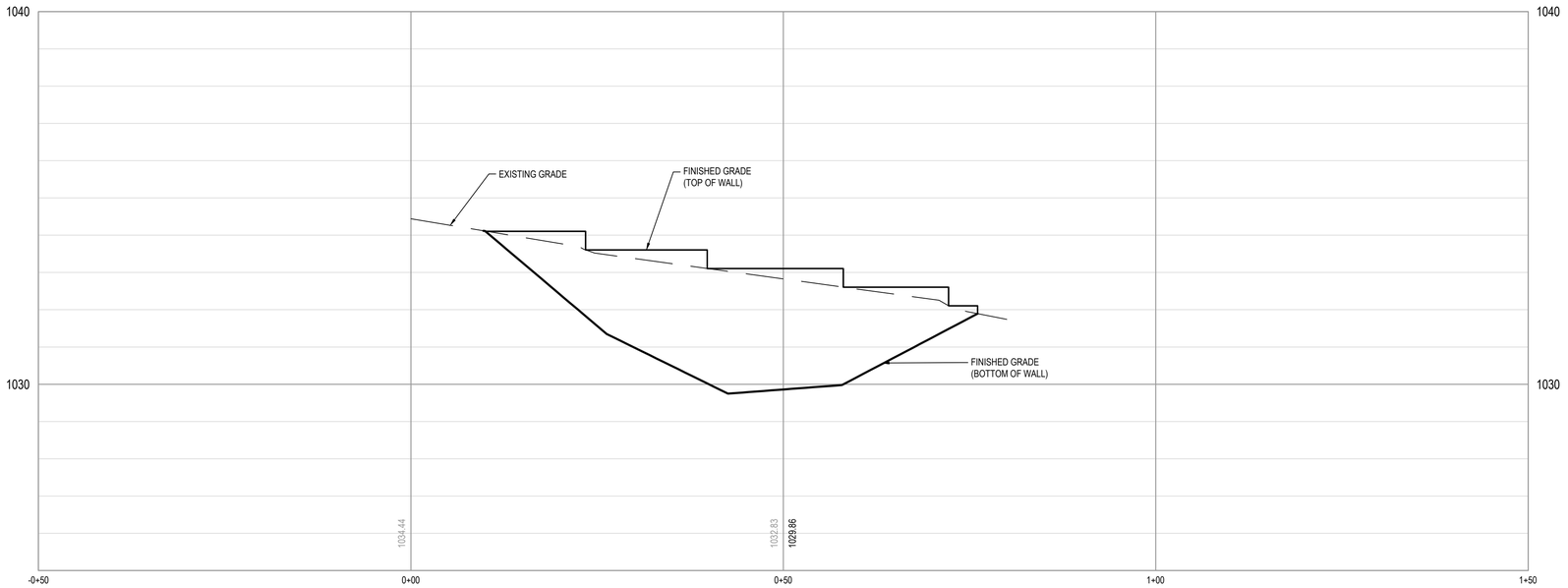
KEYNOTES (##)

1. MODULAR BLOCK WALL. WALL WIDTH AND BATTER TO MEET MANUFACTURES RECOMMENDATIONS (RE: 1/00C502).



PLAN

1" = 10'



PROFILE

1" = 10'

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MITCHELL WIEBELHAUS
NUMBER PE-2019011804
04/18/2025
PROFESSIONAL ENGINEER

City of Lee's Summit, MO
Water Utilities Facility & Parking Lot Expansion

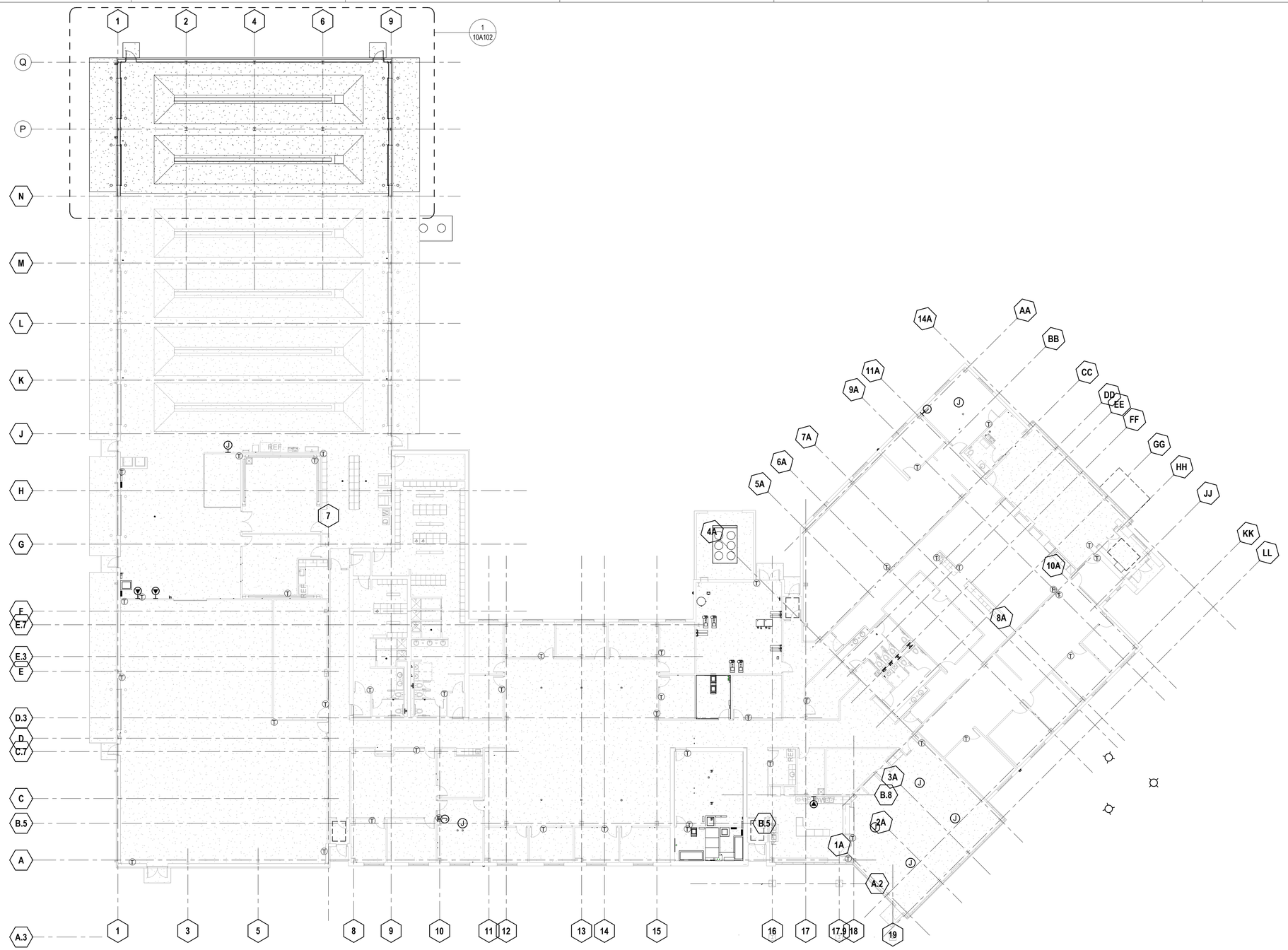
RETAINING WALL PROFILE

FILE NAME: 10417754-01C-801.DWG
SCALE: 1"=10'
0 1" 2"

SHEET # 01C801

GENERAL NOTES

1. INFORMATION SHOWN IS PRELIMINARY AND IS NOT FOR CONSTRUCTION.



1 FIRST FLOOR OVERALL PLAN

1/16" = 1'-0"

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MISSOURI CERTIFICATE OF AUTHORITY #000856
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MECHANICAL	M. WARRICK
PROJECT NUMBER	10417754

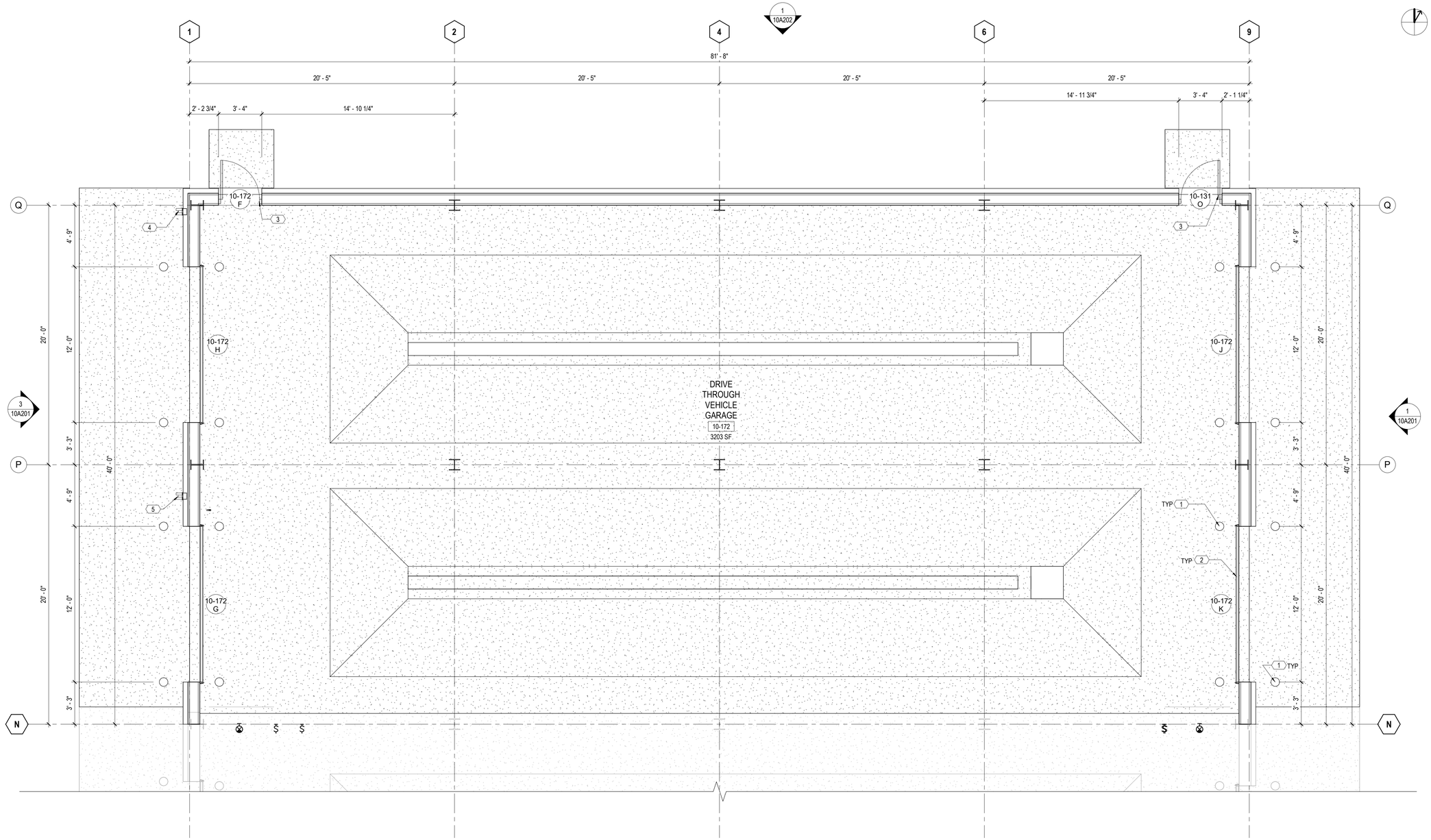
City of Lee's Summit, MO
Water Utilities Facility & Parking Lot Expansion

ARCHITECTURE OVERALL PLAN
(FUTURE BY OTHERS)

FILE NAME
SCALE 1/16" = 1'-0"

0 1" 2"

SHEET
10A101



1 FIRST FLOOR - ENLARGED PLAN

1/4" = 1'-0"

GENERAL NOTES

1. INFORMATION SHOWN IS PRELIMINARY AND IS NOT FOR CONSTRUCTION.
2. ALL DIMENSIONS ARE TO EDGE OF OPENING, TO COLUMN CENTERLINE, OR TO GRIDLINE.

KEYNOTES (##)

1	BOLLARD. HEIGHT AND SIZE TO MATCH EXISTING.
2	OVERHEAD SECTIONAL DOOR. COLOR, SIZE, AND STYLE TO MATCH EXISTING.
3	REINSTALL SALVAGED EXISTING DOOR AND FRAME.
4	DOWNSPOUT. SIZE, FINISH, AND STYLE TO MATCH EXISTING.
5	REINSTALL SALVAGED EXISTING DOWNSPOUT.

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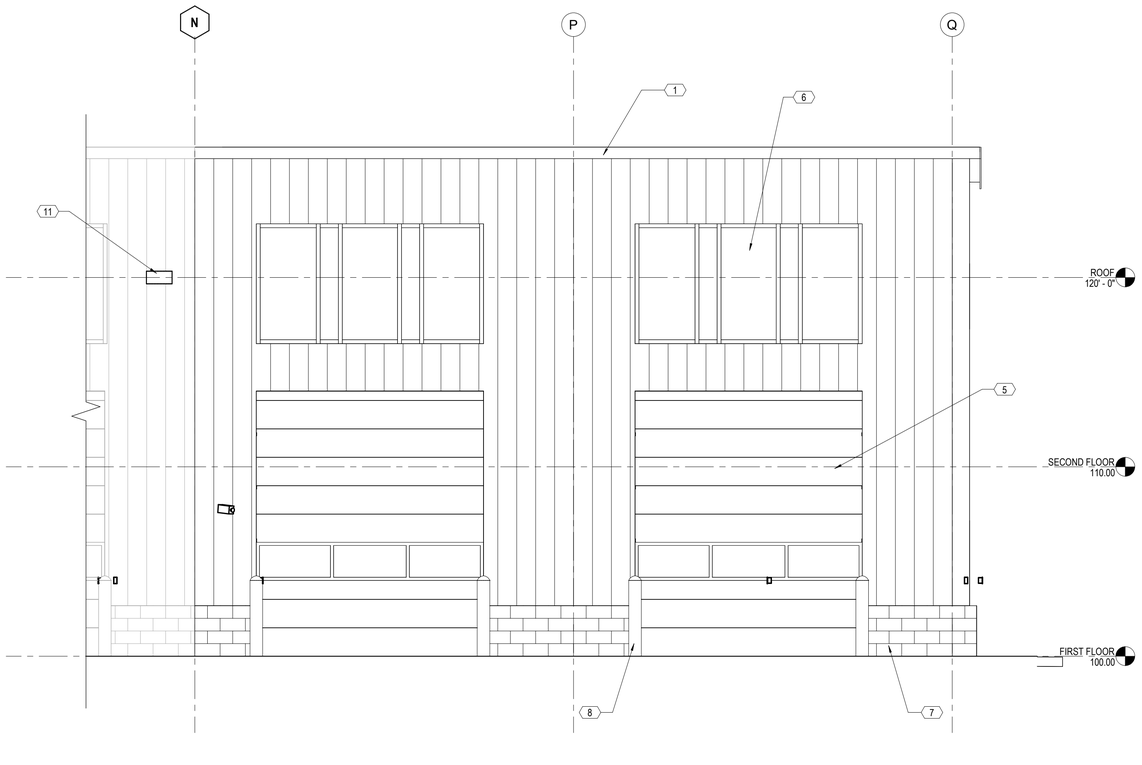
City of Lee's Summit, MO
Water Utilities Facility & Parking Lot Expansion

ARCHITECTURE PLAN
(FUTURE BY OTHERS)

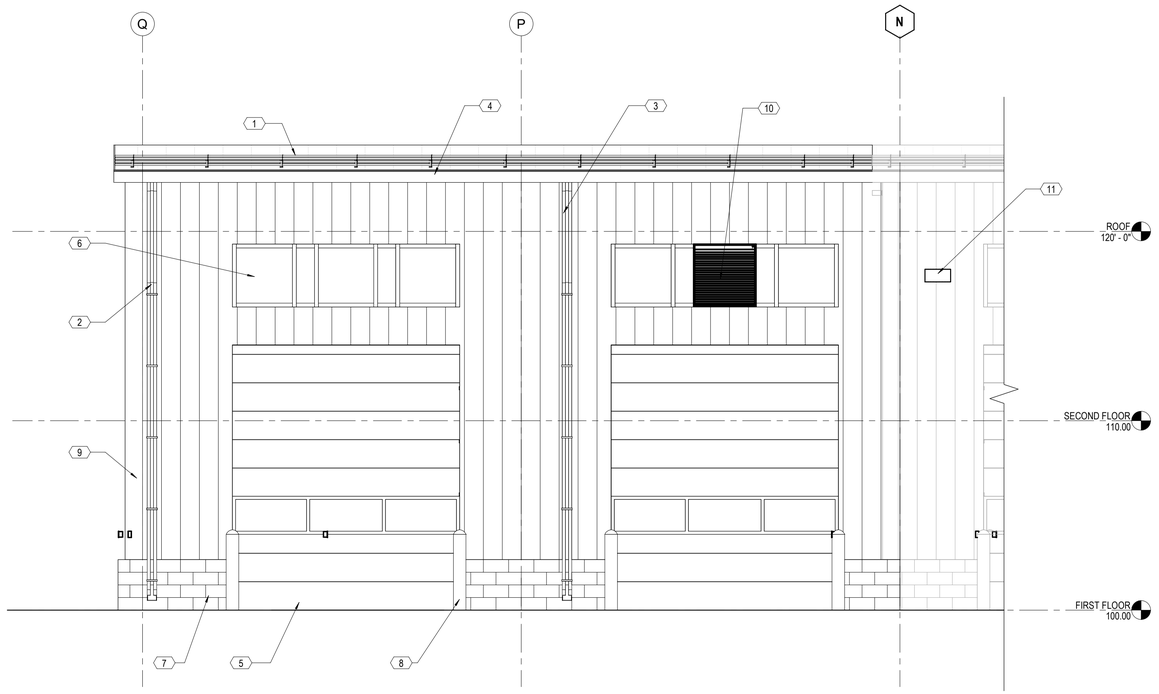
FILE NAME
SCALE 1/4" = 1'-0"

0 1" 2"

SHEET
10A102



1 10A102 EAST ELEVATION
1/4" = 1'-0"



3 10A102 WEST ELEVATION
1/4" = 1'-0"

GENERAL NOTES

1. INFORMATION SHOWN IS PRELIMINARY AND IS NOT FOR CONSTRUCTION.

KEYNOTES (##)

1	STANDING SEAM METAL ROOF AND FASCIA. COLOR, PROFILE, AND STYLE TO MATCH EXISTING.
2	DOWNSPOUT. SIZE, FINISH, AND STYLE TO MATCH EXISTING.
3	REINSTALL SALVAGED EXISTING DOWNSPOUT.
4	EXTEND GUTTER. PROFILE AND COLOR TO MATCH EXISTING.
5	OVERHEAD SECTIONAL DOOR. COLOR, SIZE, AND STYLE TO MATCH EXISTING.
6	TRANSOM WINDOW. FRAME AND SIZE TO MATCH EXISTING.
7	SPLIT-FACE CMU WAINSCOT. COLOR AND TYPE TO MATCH EXISTING .
8	BOLLARD. HEIGHT AND SIZE TO MATCH EXISTING.
9	SIDING. COLOR TO MATCH EXISTING.
10	NEW MECHANICAL LOUVER.
11	NEW LIGHT FIXTURE.

HDR
MISSOURI CERTIFICATE OF AUTHORITY #000856
10450 HOLMES ROAD, SUITE 600
KANSAS CITY, MO 64131
816-360-2700

ISSUE	DATE	DESCRIPTION
1	04/18/2025	FDP WITH CITY COMMENTS INCORPORATED
0	03/07/2025	FINAL DEVELOPMENT PLAN

PROJECT MANAGER	K. PRINDS
CIVIL	M. WIEBELHAUS
ARCHITECTURAL	E. BUTTMAN
MECHANICAL	M. WARRICK
PROJECT NUMBER	10417754

City of Lee's Summit, MO
Water Utilities Facility & Parking Lot Expansion

ARCHITECTURE EXTERIOR ELEVATIONS
(FUTURE BY OTHERS)

FILE NAME
SCALE 1/4" = 1'-0"
0 1" 2"

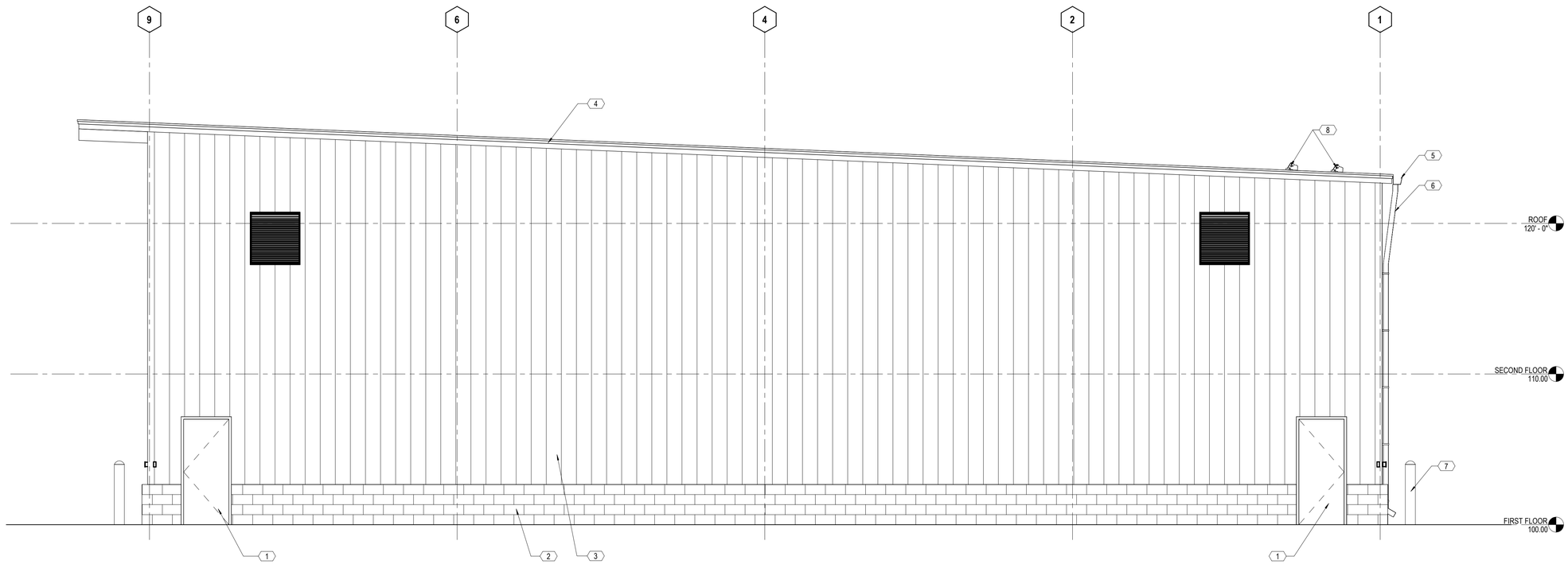
SHEET
10A201

GENERAL NOTES

1. INFORMATION SHOWN IS PRELIMINARY AND IS NOT FOR CONSTRUCTION.

KEYNOTES (##)

1	REMOVE AND SALVAGE EXISTING DOOR AND FRAME.
2	SPLIT-FACE CMU WAINSCOT. COLOR AND TYPE TO MATCH EXISTING .
3	REMOVE AND SALVAGE EXISTING SIDING AND WALL GIRTS.
4	STANDING SEAM METAL ROOF AND FASCIA. COLOR, PROFILE, AND STYLE TO MATCH EXISTING.
5	EXTEND GUTTER. PROFILE AND COLOR TO MATCH EXISTING.
6	DOWNSPOUT. SIZE, FINISH, AND STYLE TO MATCH EXISTING.
7	BOLLARD. HEIGHT AND SIZE TO MATCH EXISTING.
8	SNOW RETENTION SYSTEM TO MATCH EXISTING.



1 / 10A102 NORTH ELEVATION

1/4" = 1'-0"

HDR
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City of Lee's Summit, MO
Water Utilities Facility & Parking Lot Expansion

ARCHITECTURE EXTERIOR ELEVATIONS
(FUTURE BY OTHERS)

FILE NAME
SCALE 1/4" = 1'-0"

0 1" 2"

SHEET
10A202