

CHEROKEE PARK LIFT STATION

CONSTRUCTION PLANS FOR CITYWIDE LIFT STATION IMPROVEMENTS CHEROKEE PARK LIFT STATION PROJECT NO. TMUA ES 2024-17 WATER AND SEWER DEPARTMENT CITY OF TULSA, OKLAHOMA

PLANS PREPARED BY

Holloway, Updike and Bellen, Inc.



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ENGINEERS (C.A. No. 219, EXP. 6-30-27)



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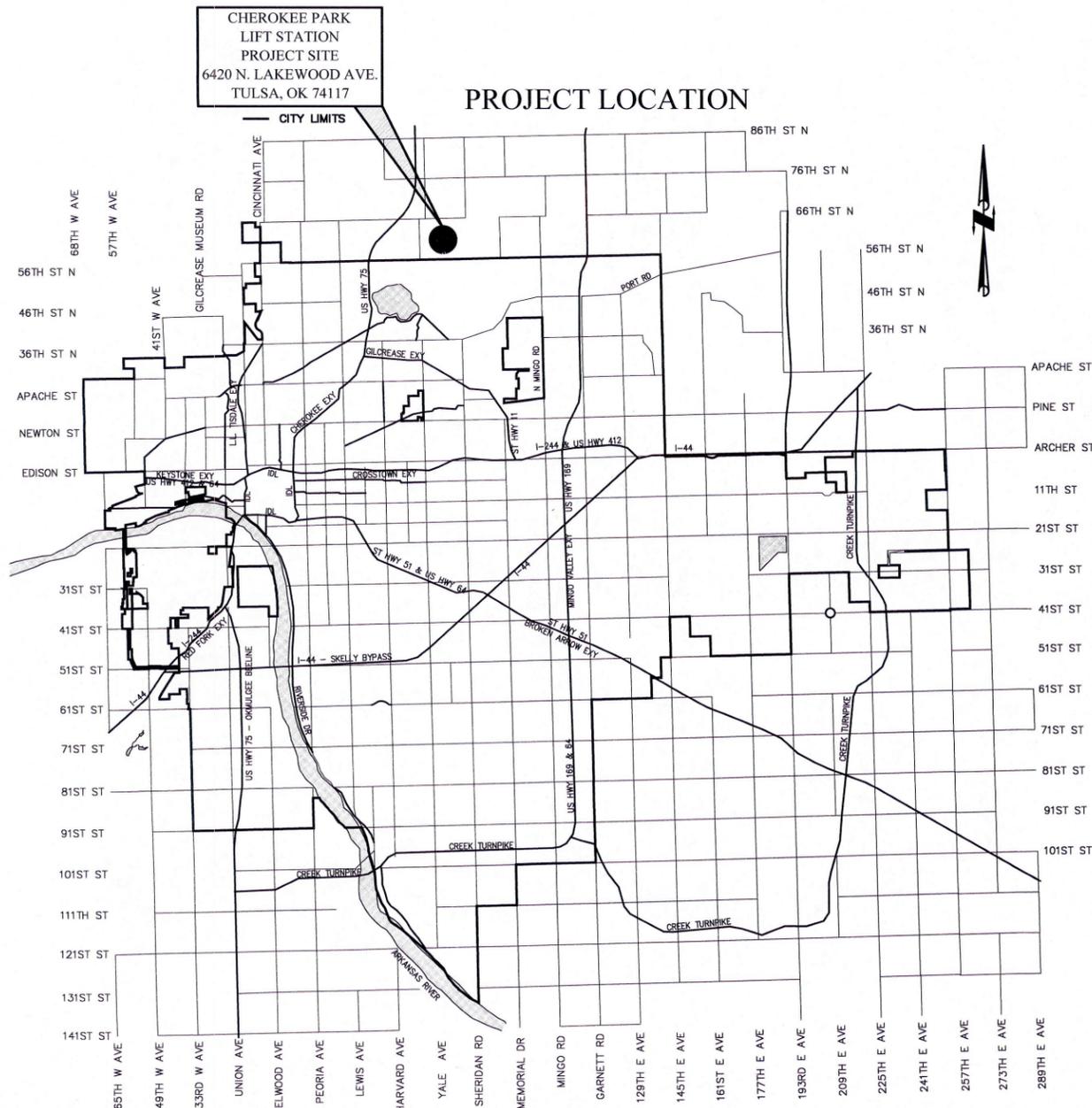
ENGINEER'S STATEMENT:

- 1) CURRENT CITY OF TULSA STANDARD SPECIFICATIONS AND STANDARD DETAILS GOVERN.
- 2) ALL OTHER CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE OKLAHOMA DEPARTMENT OF TRANSPORTATION 2019 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
- 3) THIS PROJECT COMPLIES WITH ALL OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ) REQUIREMENTS.
- 4) ENTIRE PROJECT IS WITHIN THE CORPORATE LIMITS OF CITY OF TULSA (COT).

UTILITY COORDINATION INFORMATION INSIDE OF RIGHT OF WAY		
COMPANY	CONTACT	OFFICE
City of Tulsa	Tony Glenn	918-596-9245
AEP/PSO	Emergency	888-216-3523
ONG	Emergency	800-664-5463
AT&T	Emergency	800-288-2020
Cox	Customer Service	918-806-6000
Verizon	Customer Service	888-294-6804
Windstream	Customer Service	800-347-1991
MTTA	Customer Service	918-830-0024

UTILITY COORDINATION INFORMATION TULSA ENGINEERING SERVICES DEPARTMENT	
WATER DESIGN	918-596-9580
WASTEWATER DESIGN	918-596-9564
TRANSPORTATION DESIGN	918-596-9636
TRAFFIC ENGINEERING DESIGN	918-596-9741
STORMWATER DESIGN	918-596-9498

SURVEY DATUM:
HORIZONTAL - OKLAHOMA STATE PLANE COORDINATE (NAD 1983)
VERTICAL - (NAVD 1988)



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CITY OF TULSA STANDARD DETAILS

STD 713	PAVEMENT REMOVAL & REPLACEMENT
STD 714	STD. DETAIL FOR PAVEMENT CUTS
STD 730	STD. ASPHALT PAVEMENT CUT AND REPAIR



APPROVED BY

WATER AND SEWER DIRECTOR

STEPHEN TOLAR, P.E., S.E.

HOLLOWAY, UPDIKE & BELLEN INC.

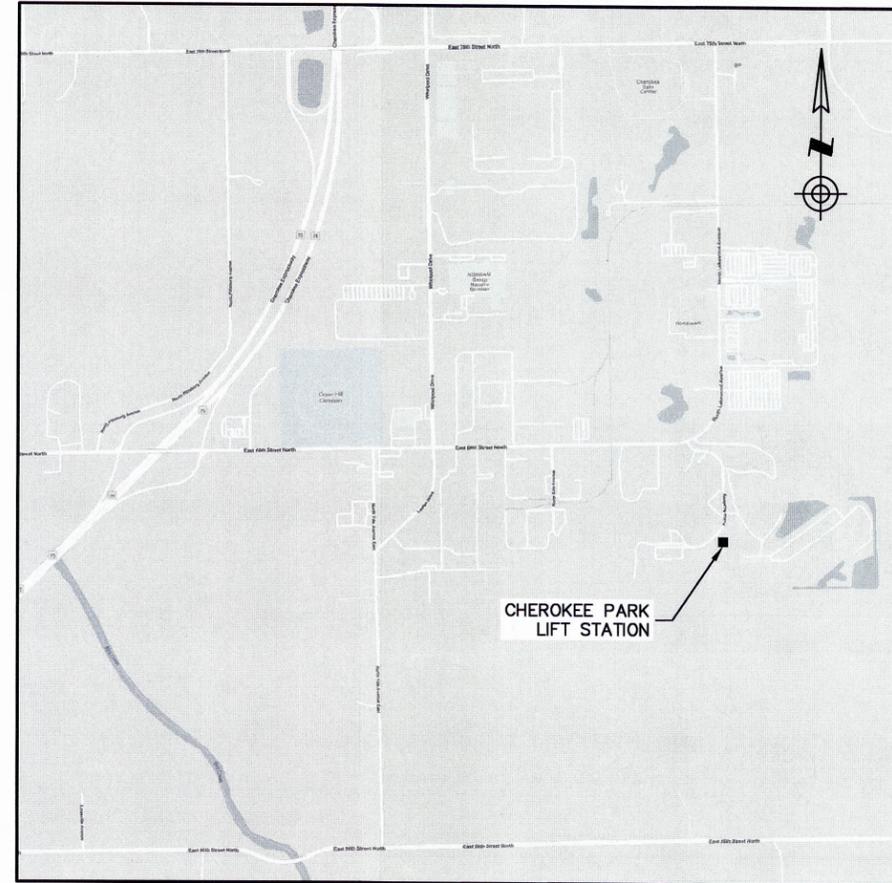
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DATE

SANITARY SEWER QUANTITIES					
ITEM	SPEC NUMBER	ITEM DESCRIPTION	PAY NOTES	UNIT	QUANTITY
1	220	SWPPP	6	EA	1
2	221(C)	TEMPORARY SILT FENCE		LF	638
3	230(A)	SOLID SLAB SODDING	5	SY	25
4	303(A)	AGGREGATE BASE PARKING SURFACE		CY	166
5	334	CONTRACTOR AS-BUILT		EA	1
6	335	CONTRACTOR QUALITY CONTROL		LSUM	1
7	414(A)	P.C. CONCRETE PAVEMENT (PLACEMENT)		SY	73
8	641	MOBILIZATION		EA	1
9	642	CONSTRUCTION STAKING	1	EA	1
10	ODOT 602	CONCRETE SIDEWALK		SY	48
11		CHEROKEE LIFT STATION IMPROVEMENTS	3,7,8	LSUM	1
12	SP1.1	OWNER'S ALLOWANCE	4	ALLOW	25,000
ADDITIVE ALTERNATE NO. 1					
13		PUMP #4 AND APPURTENANCES, COMPLETE	2	EA	1



1 CHEROKEE PARK LIFT STATION
2 NTS

PAY ITEM NOTES – LIFT STATION REHABILITATION:

1. INCLUDES THE COST OF ALL SURVEYING AND STAKING NECESSARY TO COMPLETE THE ENTIRE PROJECT. WORK SHALL BE PERFORMED BY AN OKLAHOMA REGISTERED LAND SURVEYOR.
2. INCLUDES ALL COSTS FOR FURNISHING AND INSTALLATION OF PUMP #4 INCLUDING BUT NOT LIMITED TO PUMP, PIPING, VALVES, SUPPORTS, ELECTRICAL AND INSTRUMENTATION. SEE PLANS FOR ADDITIONAL INFORMATION..
3. ALL SANITARY SEWER DUCTILE IRON PIPE AND FITTINGS 6 INCHES DIAMETER AND LARGER SHALL BE PROTECTED 401 LINED.
4. REFER TO SPECIFICATION SECTION SP1.1 – ALLOWANCE FOR REQUIREMENTS.
5. PLACEMENT OF SOD WILL BE AS DIRECTED BY OWNER AND/OR OWNER'S REPRESENTATIVE..
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROL AND MAINTENANCE OF THE STORM WATER DRAINAGE FROM THE CONSTRUCTION SITE. STORM WATER PONDING ON THE CONSTRUCTION SITE THAT IS THE RESULT OF CONSTRUCTION WILL NOT BE ALLOWED. ALL COSTS ASSOCIATED WITH STORM WATER MANAGEMENT AS WELL AS REMOVAL OF ALL SILT AND DEBRIS FROM ALL DRAINAGE STRUCTURES, STORM SEWER PIPES AND APPURTENANCES WITHIN THE PROJECT LIMITS AT END OF THE PROJECT, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM.
7. INCLUDES COST FOR ALL WORK REQUIRED BY THE CONTRACT DOCUMENTS THAT ARE NOT ADDRESSED BY A SEPARATE PAY ITEM OR ADDITIVE ALTERNATE BID ITEM.
8. CONTRACTOR SHALL INCLUDE ALL COSTS TO FULLY COMPLY WITH APPLICABLE REQUIREMENTS OF THE DIVISION 7 – WATER AND SEWER DEPARTMENT STANDARDS INCLUDING:
 - A. 701 – SPECIAL REQUIREMENTS
 - B. 702 – PREFERRED MANUFACTURERS AND NEW EQUIPMENT PURCHASES
 - C. 730 – SCADA STANDARDS



REVISION	BY	DATE

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LOCATION MAP & QUANTITIES SUMMARY

CITYWIDE LIFT STATION IMPROVEMENTS
CHEROKEE PARK LIFT STATION

CITY OF TULSA, OKLAHOMA
TULSA METROPOLITAN UTILITY AUTHORITY
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY: HOLLOWAY, UPDIKE + BELLEN, Inc.
2001 N WILLOW AVE, BREWSTER AVENUE, OKLAHOMA 74102
918-258-0770, FAX 918-258-0264

PLAN SCALE:	DRAWN	CMW	APPROVED:
	DESIGNED	LST	 DESIGN ENGINEERING MANAGER
	SURVEY		
PROFILE SCALE:	PROJ. MGR.	2/26	
HORIZONTAL:	LEAD ENGR.	2/26	
	FIELD MGR.	2/26	
VERTICAL:			

FILE: DRAWING: DATE: 2026
ATLAS PAGE NO: 720 SHEET 2 OF 21 SHEETS



GENERAL NOTES

- THE CONTRACTOR SHALL CALL OKIE AT 1-800-522-6543 PRIOR TO ANY EXCAVATION TO DETERMINE LOCATION OF EXISTING UTILITIES.
- THE CONTRACTOR SHALL, AT HIS EXPENSE, UNCOVER AND DETERMINE THE DEPTH OF PIPE LINES AND OTHER UTILITIES WHICH, IN HIS OPINION, COULD INTERFERE WITH THE CONSTRUCTION.
- THE CITY OF TULSA STANDARD SPECIFICATIONS AND STANDARD DETAILS, CURRENT VERSION, ARE HEREBY ADOPTED AS PART OF THESE SPECIFICATIONS WHERE REFERENCE IS MADE. SAID SPECIFICATIONS WILL BE HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS".
- CONTRACTOR SHALL HAVE ONE (1) EXECUTED COPY OF THE CONTRACT DOCUMENTS, SPECIFICATIONS AND DRAWINGS AT THE JOBS SITE AT ALL TIMES.
- CONTRACTOR SHALL MAINTAIN SANITARY FACILITIES FOR THE CONSTRUCTION WORKERS AND OTHER ON-SITE VISITORS AT THE PROJECT SITE AT ALL TIMES.
- CONTRACTOR SHALL MAINTAIN A CLEAN CONSTRUCTION SITE AT ALL TIMES. TRASH, SPENT PALLETS, CONTAINER REMNANTS, BINDINGS, ETC. SHALL BE PICKED UP WHEN NO LONGER IN USE AND DEPOSITED IN TRASH CONTAINERS.
- CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL CLEARED DEBRIS, BRUSH AND TIMBER AT CONTRACTOR'S EXPENSE.
- ALL STAINLESS STEEL SHALL BE MINIMUM TYPE 316 SUITABLE FOR SANITARY APPLICATIONS, UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS SHOWN WITH ± SHALL BE CONFIRMED BY THE CONTRACTOR ACCORDING TO ACTUAL FIELD CONDITIONS OR EQUIPMENT REQUIREMENTS.
- DISSIMILAR METALS SHALL BE SEPARATED BY GASKETS OR OTHER MATERIAL SELECTION TO PREVENT GALVANIC CORROSION.
- ANY EXISTING ITEMS, EQUIPMENT, STRUCTURES OR SURFACES DISTURBED OR DAMAGED BY CONTRACTOR SHALL BE REPAIRED OR REPLACED TO ORIGINAL CONDITION OR BETTER AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL VERIFY EXISTING UTILITIES IN THE VICINITY OF PROPOSED CONSTRUCTION PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF DISCREPANCIES FROM DRAWINGS.
- CONTRACTOR SHALL CONFIRM ALL DIMENSIONS WITH EQUIPMENT SUPPLIERS PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF DISCREPANCIES FROM DRAWINGS.
- CONSTRUCTION STAKING SHALL BE PROVIDED BY THE CONTRACTOR.
- THE IMPROVEMENTS SET FORTH IN THE PLANS SHALL NOT PROHIBIT ON-SITE TRAFFIC AND/OR RELATED TASKS REQUIRED IN THE TREATMENT AND DISCHARGE OF WASTEWATER.
- TOPSOIL (MINIMUM 6-INCH) IN THE DISTURBED AREAS SHALL BE REMOVED, STOCKPILED AND REPLACED AFTER CONSTRUCTION OPERATIONS. ALL WASTE SOILS AND DEBRIS BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE HAULED OFFSITE AND DISPOSED OF PROPERLY.
- ALL CONSTRUCTION TO BE IN STRICT ACCORDANCE WITH CURRENT CITY OF TULSA STANDARDS AND SPECIFICATIONS.
- ALL WORKMANSHIP SHALL BE NEAT, PLUMB, SQUARE AND CONSTRUCTED IN A PROFESSIONAL MANNER.
- ALL ELECTRICAL CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH ALL N.E.C. AND CITY OF TULSA ELECTRICAL CODES. ELECTRICAL, MECHANICAL, AND PLUMBING INSPECTIONS ARE REQUIRED AT BOTH ROUGH AND FINAL STAGES OF THE PROJECT.
- COMPILE ALL PRODUCT AND DATA SHEETS, OF ANY AND ALL EQUIPMENT INSTALLED IN EACH LIFT STATION, TO FORM A USABLE O&M MANUAL. PROVIDE THE CITY OF TULSA (3) THREE HARD COPIES AND (2) TWO DIGITAL COPIES IN PDF FORMAT OF THESE O&M MANUALS (10) TEN DAYS PRIOR TO THE REQUESTED FINAL ACCEPTANCE DATE. MANUALS SHALL BE TABBED AND AN INDEX SHEET PROVIDED TO ALLOW OWNER TO QUICKLY FIND INDIVIDUAL SECTIONS AND EQUIPMENT. COPIES OF ALL ELECTRICAL START UP REPORTS AND EQUIPMENT TESTING INFORMATION SHALL BE INCLUDED IN THE O&M MANUALS. PRELIMINARY O&M'S SHALL BE SUBMITTED PRIOR TO EQUIPMENT START UP AND TRAVELING.
- SHUT DOWN TIMES SHALL BE LIMITED TO (4) FOUR HOURS DURING LOW FLOW PERIODS (8 P.M. TO 4 A.M.). ALL SHUT DOWNS SHALL BE COORDINATED WITH CITY OF TULSA SEWER OPERATIONS AND MAINTENANCE GROUP, AT LEAST (48) FORTY EIGHT HOURS IN ADVANCE OF SHUT DOWN. LONGER SHUT DOWN PERIODS WILL REQUIRE BYPASS PUMPING TO BE PROVIDED AND OPERATED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CITY. CONTACT NUMBER FOR JOSH DRYBREAD IS 918-586-6958 (WORK).
- CONTRACTOR MUST ENSURE PROPER PROTOCOLS IN PLACE FOR 24-HOUR MONITORED BYPASS PUMPING AND THE CONTRACTOR MUST COMPLETE A SOM BYPASS PUMPING FORM BEFORE COMPLETING ANY BYPASS PUMPING.
- ANY BYPASS PUMPING AND/OR BYPASS PIPING INSTALLED SHALL BE OPERATED AND MAINTAINED BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING UNAUTHORIZED DISCHARGES.
- CONTRACTOR IS RESPONSIBLE FOR ANY DEWATERING REQUIRED TO CONSTRUCT FOUNDATIONS IN DRY CONDITIONS AND TO PROTECT EXCAVATION SIDE SLOPES.
- ALL BURIED CONSTRUCTION, INCLUDING BUT NOT LIMITED TO PIPE AND CONDUIT, SHALL BE PHOTOGRAPHED PRIOR TO COVER. EQUIPMENT DATA TAGS SHALL ALSO BE PHOTOGRAPHED WITH EQUIPMENT. SUBMIT IN A DIGITAL JPEG FORMAT ON USB DRIVE AS PART OF CONTRACTORS CONSTRUCTION PHOTOGRAPHIC RECORD. CONTRACTOR SHALL SUBMIT GPS COORDINATES AND ELEVATIONS OF THE CL OF ALL PIPING AT BENDS, FITTINGS, VALVES AND OTHER BURIED ITEMS.
- CONTRACTOR SHALL SUBMIT A PROFESSIONAL ENGINEERED TRENCH AND EXCAVATION PLAN FOR ALL EXCAVATIONS IN EXCESS OF 20 FEET.
- ALL ELECTRICAL WORK SHALL BE DONE BY A LICENSED ELECTRICAL CONTRACTOR.

- CONTRACTOR SHALL COMPLETE THE INSTALLATION OF FINAL STABILIZATION MEASURES WITHIN 14 DAYS OF PROJECT COMPLETION COMPLETE THE INSTALLATION OF FINAL STABILIZATION MEASURES WITHIN 7 DAYS OF PROJECT COMPLETION FOR PROJECTS GREATER THAN 40 ACRES, DISCHARGE TO AN APPROVED RECEIVING CHANNEL OR ARE WITHIN ONE (1) MILE OF AN IMPAIRED/TMDL WATERBODY.
- CONSTRUCTION VEHICLE WASH WATERS ARE NOT TO BE DISCHARGED INTO THE CITY OF TULSA WATERS OR WATERS OF THE STATE.

GENERAL PIPING NOTES

- LAY PIPE TO UNIFORM GRADE BETWEEN INDICATED ELEVATION POINTS.
- SIZE OF FITTINGS SHOWN ON THE PLANS SHALL CORRESPOND TO ADJACENT STRAIGHT RUN OF PIPE, UNLESS OTHERWISE INDICATED.
- ALL BURIED D.I.P., C.I.P. AND PVC PIPE SHALL UTILIZE D.I. MECHANICAL JOINT FITTINGS AT ALL CONNECTIONS UNLESS OTHERWISE DEPICTED ON THE PLANS. PUSH ON JOINTS SHALL BE UTILIZED ONLY FOR STRAIGHT SEGMENTS UNLESS OTHERWISE NOTED.
- ALL BURIED FITTINGS SUCH AS BENDS, TEES, WYES, ETC. SHALL BE BLOCKED FOR THRUST BLOCKS AS SHOWN ON STANDARD DETAILS. THIS REQUIREMENT INCLUDES BOTH GRAVITY AND PRESSURE PIPING.
- A MINIMUM OF 10 FEET OF HORIZONTAL SEPARATION (FOR PARALLEL LINES) AND 2 FEET OF VERTICAL SEPARATION (FOR LINES CROSSING) SHALL BE MAINTAINED BETWEEN WATER AND SANITARY SEWER LINES IN ACCORDANCE WITH OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY.
- CONTRACTOR SHALL REMOVE AND RECONSTRUCT INVERTS WHERE NEW CONNECTIONS ARE MADE TO EXISTING MANHOLES.
- ALL FLANGE COUPLING ADAPTERS SHOWN ON THE CONSTRUCTION DRAWINGS SHALL BE RESTRAINED TYPE, MEGAFLANGE SERIES 2100, OR EQUAL.
- CONTRACTOR IS REQUIRED TO VACUUM TEST ALL MANHOLES ACCORDING TO CITY OF TULSA, WATER AND SEWER STANDARDS AND SPECIFICATIONS.

SPECIAL PROJECT NOTES AND REQUIREMENTS:

- ALL UNISTRUT, BRACKETS, SUPPORTS AND RELATED DEVICES SHALL BE 316 STAINLESS STEEL UNLESS SPECIFICALLY NOTED OTHERWISE. ALL ANCHOR BOLTS, BOLTS, SCREWS, CLIPS, NAILS, BRADS, RIVETS, WASHERS AND OTHER FASTENING DEVICES SHALL BE 316 STAINLESS STEEL UNLESS SPECIFICALLY NOTED OTHERWISE.
- IF NOT WALL MOUNTED, ALL NEW DISCONNECTS, ELECTRICAL PANELS, CONTROL PANELS AND DISPLAY DEVICES SHALL BE MOUNTED ON THE PLANT STANDARD CUSTOM ALUMINUM PANEL SUPPORT DETAIL 4/19 UNLESS SPECIFICALLY NOTED OTHERWISE PER PLAN SHEET NOTES.
- ALL NEW PIPING AND MODIFIED PIPING SHALL BE PAINTED, STANDARD COLOR CODED WITH DIRECTION ARROWS AND SIGNAGE AS PART OF THE NEW WORK. SEE ODEQ STANDARDS FOR STANDARD COLORS AS APPLICABLE AND SUBMIT FOR APPROVAL WITH PAINT/COATINGS SUBMITTAL(S). COST SHALL BE IN OTHER AREAS OF WORK.
- ALL AREAS OF NEW WORK AND DEMOLITION SHALL INCLUDE REPAIRS TO THE WALLS, CEILING, ROOF, FLOORING, CONCRETE PAD OR OTHER AREAS. INCLUDE TOUCH UP PAINTING TO MATCH THE EXISTING AND CONCRETE REPAIR DETAIL 3/19 AS REQUIRED. SEE SPECIFICATIONS AND SPECIFIC PLAN SHEETS FOR ADDITIONAL DETAILS.
- ALL ELECTRICAL AND CONTROLS DEMOLITION FOR BIDDING PURPOSES, UNLESS SPECIFICALLY NOTED OTHERWISE, SHALL BE REMOVED COMPLETELY BACK TO CLOSEST POINT OF TERMINATION. CONTRACTOR SHALL SUBMIT WRITTEN SKETCHES, DETAILS AND A WORK PLAN TO FURTHER DEFINE EXTENT OF EACH AREA OF DEMOLITION AND NEW WORK.
- SEE SPECIFICATIONS AND CITY OF TULSA STANDARDS AND DETAILS FOR ADDITIONAL REQUIREMENTS. ALL FACILITY'S ROADS, PARKING AND PAVED AREAS ARE CONSIDERED CITY OF TULSA ROADS AND CITY OF TULSA STANDARDS APPLY.
- CONTRACTOR SHALL PAY CLOSE ATTENTION AND PROVIDE DETAILS TO MINIMIZE CORROSION IN ALL AREAS OF WORK. EVERY EFFORT SHALL BE MADE TO MINIMIZE DISSIMILAR METALS, ALUMINUM COATED IN CONTACT WITH CONCRETE AND OTHER MATERIAL SELECTION FOR WASTEWATER APPLICATIONS.
- ALL EXPOSED COPPER PIPING, TUBING OR LINES SHALL BE OPTIONED FOR CORROSION RESISTANT COATINGS BY THE MANUFACTURER IF AVAILABLE. IF A FACTORY COATING OPTION IS NOT AVAILABLE, APPLY A SPRAY COATING ONSITE WITH HERESITE COATING OR EQUAL PRIOR TO ASSEMBLY/INSTALLATION. REQUIREMENTS APPLY TO ALL HVAC MECHANICAL EQUIPMENT AND PLUMBING SYSTEMS WITHIN ALL FACILITY GROUNDS, EXTERIOR EQUIPMENT, SERVICES, INSIDE OF BUILDINGS, MANHOLES, VAULTS, SHEDS OR OTHER AREAS. OCCUPIED SPACES SUCH AS OPERATIONS BUILDING, OFFICE SPACE OR ADMINISTRATION BUILDINGS ARE EXEMPT FROM ADDITIONAL COPPER COATING REQUIREMENTS, UNLESS SPECIFICALLY NOTED OTHERWISE. BURIED COPPER WATERLINES ARE ALSO EXEMPT.



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GENERAL NOTES

**CITYWIDE LIFT STATION IMPROVEMENTS
CHEROKEE PARK LIFT STATION**

**CITY OF TULSA, OKLAHOMA
TULSA METROPOLITAN UTILITY AUTHORITY
WATER AND SEWER DEPARTMENT**

PLANS AND ESTIMATES PREPARED BY: **HOLLOWAY, UPDIKE + BELLEN, Inc.**
2020 N HOLLOWAY AVE, OKEMOS AVENUE OKLAHOMA 74105
918-586-0777 FAX 918-586-0784

PLAN SCALE:	DRAWN	CMW	APPROVED:
	DESIGNED	LST	
	SURVEY		
PROFILE SCALE:	PROJ. MGR.	2/26	
	LEAD ENGR.	2/26	
HORIZONTAL:	FIELD MGR.	2/26	
VERTICAL:			
FILE:	DRAWING:	DATE: 2026	
ATLAS PAGE NO: 720		SHEET 3 OF 21 SHEETS	



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STANDARD ABBREVIATIONS

AC	ASBESTOS CEMENT PIPE	LS	LUMP SUM
ASP	ASPHALT	LT	LEFT
AWWA	AMERICAN WATER WORKS ASSOC.	MAX	MAXIMUM
BM	BENCH MARK - ELEVATION	MIN	MINIMUM
CI	CAST IRON INLET	MJ	MECHANICAL JOINT PIPE FITTING
C-C	CENTER TO CENTER	MSL	MEAN SEA LEVEL
CFS	CUBIC FEET PER SECOND	O.C.	ON CENTER
CIP	CAST IRON PIPE	OD	OUTSIDE DIAMETER
CL	CENTER LINE	ODEQ	OK. DEPT. OF ENV. QUALITY
CMP	CORRUGATED METAL PIPE	ODOT	OK. DEPT. OF TRANSPORTATION
CMPA	CORRUGATED METAL PIPE - ARCH	PE	POLYETHYLENE PIPE
CONC	CONCRETE	PL	PROPERTY LINE
CP	SURVEY CONTROL POINT	PP	POWER POLE
CPVC	CHLORINATED POLYVINYL CHLORIDE PIPE	PSI	POUNDS PER SQUARE INCH
CY	CUBIC YARD	PVC	POLYVINYL CHLORIDE PIPE
D/E	DRAINAGE EASEMENT	Q100	100 YR FLOW
DIP	DUCTILE IRON PIPE	RCB	REINFORCED CONCRETE BOX
EA	EACH	RCP	REINFORCED CONCRETE PIPE
EL	ELEVATION	RJ	RESTRAINED JOINT - PIPE
E-W	EACH WAY	RT	RIGHT
FG	FINISHED GROUND ELEVATION	RW	RIGHT OF WAY LINE
FH	FIRE HYDRANT	SS	SANITARY SEWER
FL	FLOW LINE	STA	STATION
FM	FORCE MAIN (SEWER)	STM	STORM SEWER LINE
GV	GATE VALVE	SY	SQUARE YARD
HW	HEADWALL	TYP	TYPICAL
HYD	FIRE HYDRANT	TG	TOP OF GRATE
ID	INSIDE DIAMETER	U/E	UTILITY EASEMENT
IP	IRON PIN	WL	WATER LINE
LF	LINEAL FEET		

MISCELLANEOUS SYMBOLS AND ABBREVIATIONS

SYMBOL	ABBREV.	DESCRIPTION	SYMBOL	DESCRIPTION
021 S 12	PF	PARSHALL FLUME	—X—	FENCE
	LL	LINE LABELS	— —	SECTION LINE
	FM	FLOW METER	—P—	PROPERTY LINE
	GV	GATE VALVE	∅	POWER POLE
	BFV	BUTTERFLY VALVE	⊥	TRAFFIC SIGN
	BV	BALL VALVE	☀	LIGHT POLE
	BCV	BALL CHECK VALVE	—700—	PROPOSED CONTOUR
	CV	CHECK VALVE	—700—	EXIST. CONTOUR
	PV	PLUG VALVE	OOO	TREES
	PRV	PRESSURE RELIEF VALVE	→	Q SWALE & FLOW
	PCV	PRESSURE CONTROL VALVE	— —	CREEK OR DITCH SWALE
		VALVE w/ MECHANICAL OPERATOR	— —	DRIVES & MINOR ROADS
	DV	DIAPHRAGM VALVE	+++++	RAILROAD
	BFP	BACK FLOW PREVENTER	— —	EXIST. RIGHT OF WAY
	ARV	AIR RELIEF VALVE	△	REFERENCE POINT
	SW	STRUCTURE WALL	▲ B-3	BORING LOCATION
	ES	EXISTING STRUCTURE	— —	SURVEY BASE LINE
	B	BLOWER	— —	PROPOSED LINE
	P	PUMPS	— —	CONDUIT
	MV	MUD VALVE	— —	IRON PIN
	FC	FLEXIBLE COUPLING	— —	EXISTING TREE LINE
	FC	FLEXIBLE METAL COUPLING	— —	PROPOSED CLEARING LIMIT
		SAMPLER	#####	PIPING (TO BE ABANDONED)
	TV	TELESCOPIC VALVE	— —	MATCHLINE
		MOTOR OPERATOR	— —	SECTION NUMBER OR DETAIL LETTER
		PRESSURE GAUGE	— —	SHEET NUMBER WHERE SECTION OR DETAIL APPEARS
		TEMPERATURE GAUGE		
	SA	SURFACE AERATOR		
	PT	PRESSURE TRANSDUCER		
	BF	BLIND FLANGE		
		HOSE CONNECTION		
		"Y" TYPE STRAINER		
		EXPANSION JOINT		
		AIR RELEASE VALVE		

PIPE FITTINGS AND PLUMBING ITEMS

DOUBLE LINE	SINGLE LINE	DESCRIPTION	ABBREV.
		WELDED JOINT	
		GROOVED END JOINT	
		BELL & SPIGOT JOINT	
		FLANGED COUPLING ADAPTER WITH THRUST TIES	
		FLEXIBLE COUPLING	FLW. CPLG.
		FLEXIBLE COUPLING WITH THRUST TIES	
		ELASTOMETER BELLOW EXP. JOINT	EXP. JT.
		ELBOW UP	ELL
		ELBOW DOWN	ELL
		ELBOW 90 DEGREE	ELL
		ELBOW 45 DEGREE	
		LATERAL	
		TEE	TEE
		TEE UP	TEE
		TEE DOWN	TEE
		CROSS	CROSS
		Y-STRAINER	YS
		COUPLING	CPLG

SURVEY SYMBOLS

SYMBOL	DESCRIPTION
	WATER METER
	WATER VALVE
	FIRE HYDRANT
	IRON PIN FOUND
	SANITARY SEWER MANHOLE
	TELEPHONE PEDESTAL
	FIBER OPTIC PEDESTAL
	ELECTRICAL BOX
	BENCH MARK
	POWER POLE
	GUY WIRE
	LIGHT POLE
	STORM SEWER MANHOLE
	TRAFFIC SIGN
	SANITARY SEWER CLEANOUT

EXISTING UTILITY LINE SYMBOLS

SYMBOL	DESCRIPTION
—WL—	WATER LINE
—SS—	SANITARY SEWER LINE
—FM—	SANITARY SEWER FORCE MAIN
—STM—	STORM SEWER
—UGE—	UNDERGROUND ELECTRIC
—GAS—	GAS LINE
—OHE—	OVERHEAD ELECTRIC
—TUG—	UNDERGROUND TELEPHONE
—FOC—	FIBER OPTIC CABLE
—PL—	PROPERTY LINE

EROSION CONTROL SYMBOLS

SYMBOL	DESCRIPTION
	SILT FENCE

FLOW STREAM IDENTIFICATION

ALP - AIR, LOW PRESSURE
CGP - CHLORINE GAS, PRESSURE
CGV - CHLORINE GAS, VACUUM
CS - CHLORINE SOLUTION
DR - DRAIN (PLANT PROCESS)
DS - DIGESTED SLUDGE
GR - GRIT
MLSS - MIXED LIQUOR SUSPENDED SOLIDS
NPW - NONPOTABLE WATER (SAME AS W3)
PEW - PLANT EFFLUENT WATER (NONPOTABLE)
PLE - PLANT EFFLUENT
PO - LIQUID POLYMER
PSW - PLANT SERVICE WATER (NONPOTABLE)
PW - POTABLE WATER
RS - RAW SEWAGE
RAS/WAS - RETURN/WASTE ACITVATED SLUDGE
RAS - RETURN ACTIVATED SLUDGE
SCUM - SCUM
SDS - SULFUR DIOXIDE SOLUTION
SE - SECONDARY EFFLUENT
SHX - SODIUM HYDROXIDE
SS - SANITARY SEWER
STM - STORMWATER
W3 - EQUIPMENT WATER (NONPOTABLE)
WAS - WASTE ACTIVATED SLUDGE

PIPE FITTINGS AND PLUMBING ITEMS

DOUBLE LINE	SINGLE LINE	DESCRIPTION	ABBREV.
		LATERAL UP	
		LATERAL DOWN	
		CONCENTRIC REDUCER	CONC. RED.
		ECCENTRIC REDUCER	ECC. RED.
		UNION	UN
		CAP	
		FLANGED JOINT	FLG
		FLANGED COUPLING ADAPTER	FCA
		MECHANICAL JOINT	MJ
		MJ w/ RETAINER GLAND	RJ



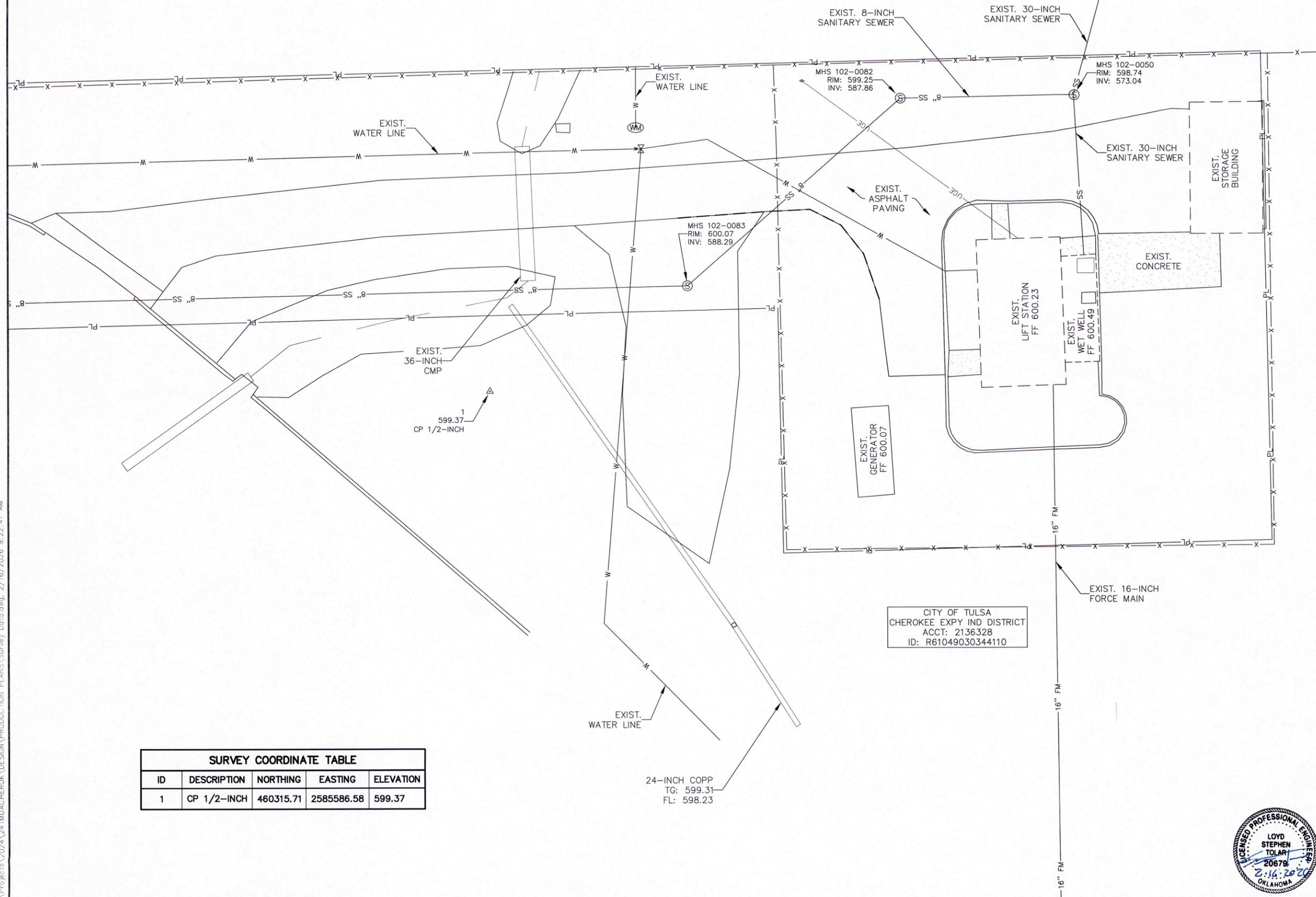
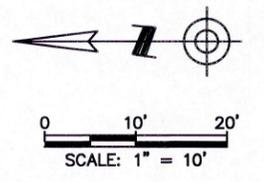
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SYMBOLS & LEGEND		
CITYWIDE LIFT STATION IMPROVEMENTS CHEROKEE PARK LIFT STATION		
CITY OF TULSA, OKLAHOMA TULSA METROPOLITAN UTILITY AUTHORITY WATER AND SEWER DEPARTMENT		
PLANS AND ESTIMATES PREPARED BY: HOLLOWAY, UPDIKE + BELLEN, Inc. 2001 N WILLOW AVE., BROKEN ARROW, OKLAHOMA 74002 (918)834-1070, FAX (918)834-1054		
PLAN SCALE: DRAWN CMW DESIGNED LST SURVEY	PROFILE SCALE: PROJ. MGR. SV 2/26 LEAD ENGR. AZ 2/26 FIELD MGR. JAW 2/26	APPROVED: DESIGN ENGINEERING MANAGER
FILE:	DRAWING:	DATE: 2026
ATLAS PAGE NO: 720		SHEET 4 OF 21 SHEETS



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SECTION 3
T-20-N, R-13-E

2001 USSA LP
C/O KAREN NEWMAN
ACCT: 2226836
ID: R90303030328035



CITY OF TULSA
CHEROKEE EXPY IND DISTRICT
ACCT: 2136328
ID: R61049030344110

SURVEY COORDINATE TABLE				
ID	DESCRIPTION	NORTHING	EASTING	ELEVATION
1	CP 1/2-INCH	460315.71	2585586.58	599.37



REVISION	BY	DATE

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SURVEY DATA

CITYWIDE LIFT STATION IMPROVEMENTS
CHEROKEE PARK LIFT STATION

CITY OF TULSA, OKLAHOMA
TULSA METROPOLITAN UTILITY AUTHORITY
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY: HOLLOWAY, UPDIKE + BELLEN, Inc.
2001 N WILLOW AVE. BREKIDG APPROX. OKLAHOMA 74002
PH: 918-472-1100 FAX: 918-472-0294

PLAN SCALE: 1"=10'	DRAWN DESIGNED SURVEY	CMW LST	APPROVED:
PROFILE SCALE:	PROJ. MGR. LEAD ENGR. FIELD MGR.	g/ 2/26 g/ 2/26 g/ 2/26	
HORIZONTAL:	FIELD MGR.	g/ 2/26	
VERTICAL:			DESIGN ENGINEERING MANAGER
FILE:	DRAWING:	DATE: 2026	
ATLAS PAGE NO: 720			SHEET 5 OF 21 SHEETS



STORMWATER MANAGEMENT PLAN

SITE DESCRIPTION

EROSION AND SEDIMENT CONTROLS

PROJECT LIMITS: CHEROKEE PARK LIFT STATION @ 6420 N. LAKEWOOD AVE.

PROJECT DESCRIPTION: LIFT STATION DEMOLITION, EQUIPMENT INSTALLATION AND CONSTRUCTION OF A NEW ELECTRICAL AND CONTROL BUILDING

SUGGESTED SEQUENCE OF EROSION CONTROL ACTIVITIES:

1. CLEAR AND GRUB AREA FROM 2' BACK OF EXISTING CURB
2. STRIP, STOCKPILE AND STABILIZE TOPSOIL
3. REPLACE SALVAGED TOPSOIL AND DEVICES PRIOR TO INSTALLATION OF PERMANENT SOD AND SEEDING
4. AS SITE CONDITIONS WARRANT, THE CONTRACTOR MAY CHOOSE TO MODIFY THE TYPE OR ARRANGEMENT OF SPECIFIED PRACTICES TO IMPROVE THEIR EFFECTIVENESS AS APPROVED BY THE ENGINEER
5. THE CONTRACTOR SHALL MAINTAIN A LOG OF DATES OF MAJOR SOIL DISTURBANCE ACTIVITIES, THE DATES OF INSTALLATION OF EROSION CONTROL MEASURES, RAINFALL EVENTS, ETC. AS PER OKR10.

SOIL TYPE: DENNIS SILT LOAM 3% - 5% SLOPES

TOTAL AREA OF THE CONSTRUCTION SITE: 0.28 ACRES

ESTIMATED AREA TO BE DISTURBED: 0.10 ACRES

OFFSITE AREA TO BE DISTURBED (FOR CONTRACTOR USE): N/A

TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 0.08 ACRES

TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: 0.12 ACRES

POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: 0.70

LATITUDE & LONGITUDE OF CENTER OF PROJECT: 36°14'45.55"N, 95°54'25.40"W

PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS: BIRD CREEK

SENSITIVE WATERS OR WATERSHEDS: YES NO

303(D) IMPAIRED WATERS: YES NO

IF YES, LIST IMPAIRMENT: TURBIDITY

SENSITIVE WATERS OR WATERSHEDS: YES NO

YES NO

YES NO

IF YES, LOCATION: CITY OF TULSA, OKLAHOMA

NOTE: THIS SHEET SHOULD BE USED IN CONJUNCTION WITH A DRAINAGE MAP THAT ILLUSTRATES THE DRAINAGE PATTERNS/PATHWAYS AND RECEIVING WATERS FOR THIS PROJECT. THIS SHEET SHOULD ALSO BE USED WITH THE EROSION CONTROL SUMMARIES, PAY ITEMS, & NOTES.

SOIL STABILIZATION PRACTICES:

- TEMPORARY SEEDING
- PERMANENT SODDING, SPRIGGING OR SEEDING
- VEGETATIVE MULCHING
- SOIL RETENTION BLANKET
- PRESERVATION OF EXISTING VEGETATION

NOTE: TEMPORARY EROSION CONTROL METHODS MUST BE USED ON ALL DISTURBED AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR OVER 21 DAYS. METHODS USED WILL BE AS SHOWN ON DRAWINGS, OR AS DIRECTED BY THE ENGINEER.

STRUCTURAL PRACTICES:

- TEMPORARY BRUSH SEDIMENT BARRIERS
- TEMPORARY SILT FENCE
- TEMPORARY SILT DIKES
- TEMPORARY BALE BARRIERS
- DIVERSION, INTERCEPTOR OR PERIMETER DIKES
- DIVERSION, INTERCEPTOR OR PERIMETER SWALES
- SANDBAG BERMS
- ROCK FILTER DAMS
- TEMPORARY SLOPE DRAIN
- PAVED DITCH W/ DITCH LINER PROTECTION
- TEMPORARY DIVERSION CHANNELS
- RIP RAP
- TEMPORARY STREAM CROSSINGS
- TEMPORARY SEDIMENT BASINS
- TEMPORARY SEDIMENT TRAPS
- TEMPORARY SEDIMENT FILTERS
- TEMPORARY SEDIMENT REMOVAL
- INLET SEDIMENT FILTER
- STABILIZED CONSTRUCTION EXIT

OFFSITE VEHICLE TRACKING:

- HAUL ROADS DAMPENED FOR DUST CONTROL
- LOADED HAUL TRUCKS TO BE COVERED WITH TARP
- EXCESS DIRT ON ROAD REMOVED DAILY

NOTES:

1. THERE ARE NO ENDANGERED OR THREATENED SPECIES OR CRITICAL HABITAT FOUND IN THE PROXIMITY OF THE PROJECT. CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF SUCH SPECIES LISTED ON THE U.S. FISH AND WILDLIFE'S LIST OF THREATENED OR ENDANGERED SPECIES ARE ENCOUNTERED.

2. THERE ARE NO PROTECTED PROPERTIES SUCH AS FEDERAL, STATE OR LOCAL HISTORIC PRESERVATION SITES IMPACTED BY THIS PROJECT.

GENERAL NOTES:

A STORMWATER POLLUTION PREVENTION PLAN (SW3P) IS REQUIRED TO COMPLY WITH THE OKLAHOMA POLLUTION DISCHARGE ELIMINATION SYSTEM (OPDES) REGULATIONS. THIS PLAN IS INITIATED DURING THE DESIGN PHASE, CONFIRMED IN THE PRE-WORK MEETINGS AND AVAILABLE ON THE JOB SITE ALONG WITH COPIES OF THE NOTICE OF INTENT (NOI) FORMS THAT HAVE BEEN FILED WITH THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ). THE PLAN MUST BE KEPT CURRENT WITH UP-TO-DATE AMENDMENTS DURING THE PROGRESSION OF THE PROJECT. THE BASIC GOAL OF STORMWATER MANAGEMENT IS TO IMPROVE WATER QUALITY BY REDUCING POLLUTANTS IN STORM WATER DISCHARGES. RUNOFF FROM CONSTRUCTION SITES HAS A POTENTIAL FOR POLLUTION DUE TO EXPOSED SOILS AND THE PRESENCE OF HAZARDOUS MATERIALS USED IN THE CONSTRUCTION PROCESS. THE PREVENTION OF SOIL EROSION, CONTAINMENT OF HAZARDOUS MATERIALS AND/OR THE INTERCEPTION OF THESE POLLUTANTS BEFORE LEAVING THE CONSTRUCTION SITE ARE THE BEST PRACTICES FOR CONTROLLING STORMWATER POLLUTION.

THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE FOLLOWING:

MAINTENANCE AND INSPECTION:

ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINED IN GOOD WORKING ORDER FROM THE BEGINNING OF CONSTRUCTION UNTIL AN ACCEPTABLE VEGETATIVE COVER IS ESTABLISHED. INSPECTION BY THE CONTRACTOR AND ANY NECESSARY REPAIRS SHALL BE PERFORMED ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 IN (1.25 CM) AS RECORDED BY A NON-FREEZING RAIN GAUGE TO BE LOCATED ON SITE. POTENTIALLY ERODIBLE AREAS, DRAINAGEWAYS, MATERIAL STORAGE, STRUCTURAL DEVICES, CONSTRUCTION ENTRANCES AND EXITS ALONG WITH EROSION AND SEDIMENT CONTROL LOCATIONS ARE EXAMPLES OF SITES THAT NEED TO BE INSPECTED.

WASTE MATERIALS:

PROPER MANAGEMENT AND DISPOSAL OF CONSTRUCTION WASTE MATERIAL IS REQUIRED BY THE CONTRACTOR. MATERIALS INCLUDE STOCKPILES, SURPLUS, DEBRIS AND ALL OTHER BY-PRODUCTS FROM THE CONSTRUCTION PROCESS. PRACTICES INCLUDE DISPOSAL, PROPER MATERIALS HANDLING, SPILL PREVENTION AND CLEANUP MEASURES. CONTROLS AND PRACTICES SHALL MEET THE REQUIREMENTS OF ALL FEDERAL, STATE AND LOCAL AGENCIES.

HAZARDOUS MATERIALS:

PROPER MANAGEMENT AND DISPOSAL OF HAZARDOUS WASTE MATERIALS IS REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING MANUFACTURER'S RECOMMENDATIONS, STATE AND FEDERAL REGULATIONS TO ENSURE CORRECT HANDLING, DISPOSAL, SPILL PREVENTION AND CLEANUP MEASURES. EXAMPLES INCLUDE BUT ARE NOT LIMITED TO: PAINTS, ACIDS, CLEANING SOLVENTS, CHEMICAL ADDITIVES, CONCRETE CURING COMPOUNDS AND CONTAMINATED SOILS.

THE FOLLOWING SUBSECTIONS OF ODOT'S STANDARD SPECIFICATIONS BOOK SHOULD BE NOTED:

- 104.10 FINAL CLEANING UP
- 104.14 CONTRACTOR'S RESPONSIBILITY FOR WORK
- 106.08 STORAGE OF MATERIALS
- 107.01 LAWS TO BE OBSERVED
- 107.15 STORMWATER MANAGEMENT
- 220.01-05 TEMPORARY EROSION, SEDIMENTATION AND STORMWATER POLLUTION PREVENTION AND CONTROL

IN ADDITION: ODOT SPECIAL PROVISION 220-1 MANAGEMENT OF EROSION SEDIMENTATION, AND STORMWATER POLLUTION PREVENTION AND CONTROL.

"ODEQ GENERAL PERMIT (OKR10) FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES WITHIN THE STATE OF OKLAHOMA." ODEQ, WATER QUALITY DIVISION, NOVEMBER 1, 2023.



REVISION	BY	DATE

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STORMWATER MANAGEMENT PLAN

CITYWIDE LIFT STATION IMPROVEMENTS CHEROKEE PARK LIFT STATION

CITY OF TULSA, OKLAHOMA TULSA METROPOLITAN UTILITY AUTHORITY WATER AND SEWER DEPARTMENT

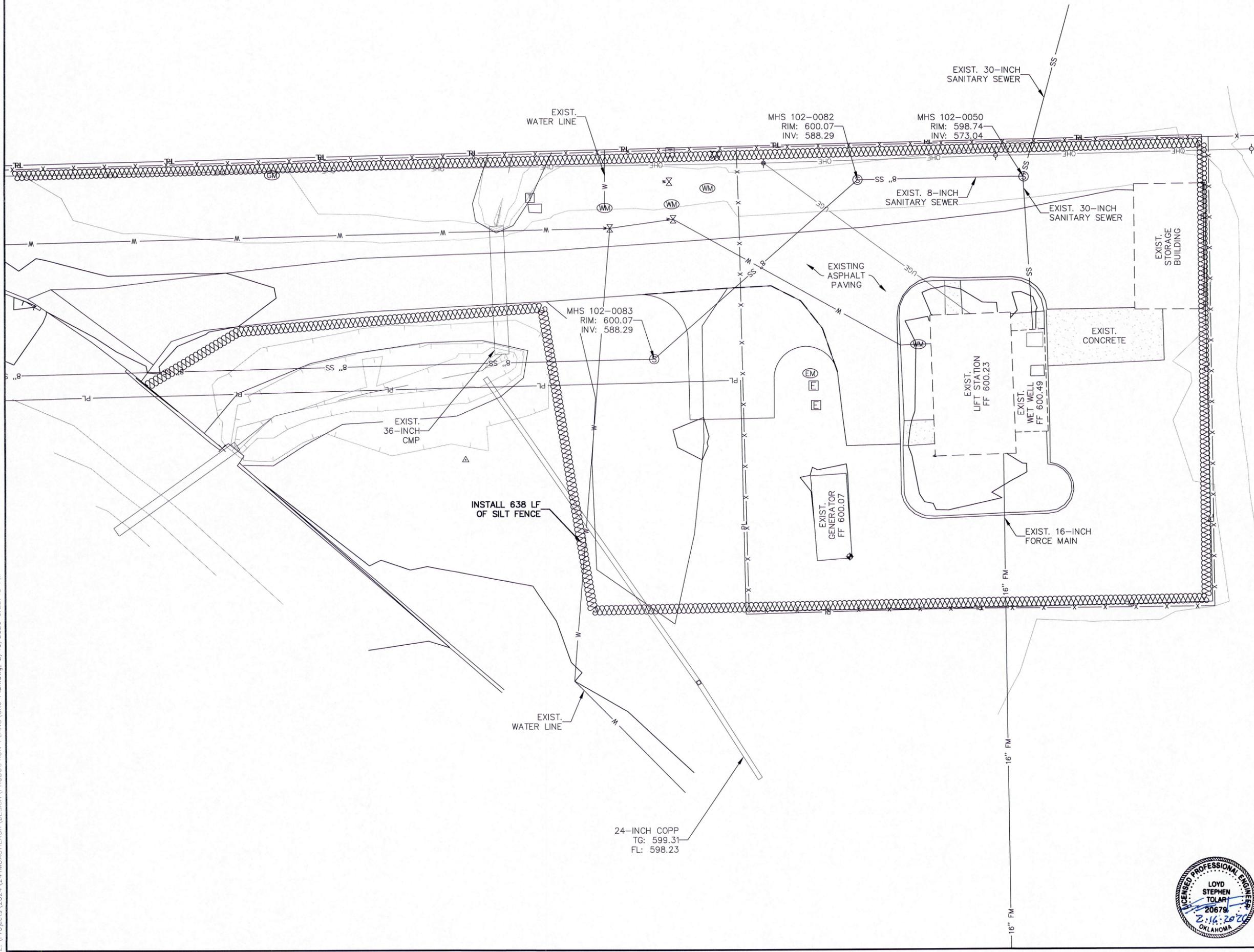
PLANS AND ESTIMATES PREPARED BY: HOLLOWAY, UPDIKE + BELLEN, Inc. 2001 N WILLOW AVE. OKLAHOMA CITY, OKLAHOMA 74102 405-235-0702, FAX 405-235-0294

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	DESIGNED	LST	
	SURVEY		
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ATLAS PAGE NO: 720			SHEET 6 OF 21 SHEETS



John S. My
DESIGN ENGINEERING MANAGER

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EROSION CONTROL PLAN

**CITYWIDE LIFT STATION IMPROVEMENTS
CHEROKEE PARK LIFT STATION**

**CITY OF TULSA, OKLAHOMA
TULSA METROPOLITAN UTILITY AUTHORITY
WATER AND SEWER DEPARTMENT**

PLANS AND ESTIMATES PREPARED BY: HOLLOWAY, UPDIKE + BELLEN, Inc.
2803 N HOLLOWAY AVE, BRENDA AVE, OKLAHOMA 74108
(918) 281-0770, FAX (918) 281-0764

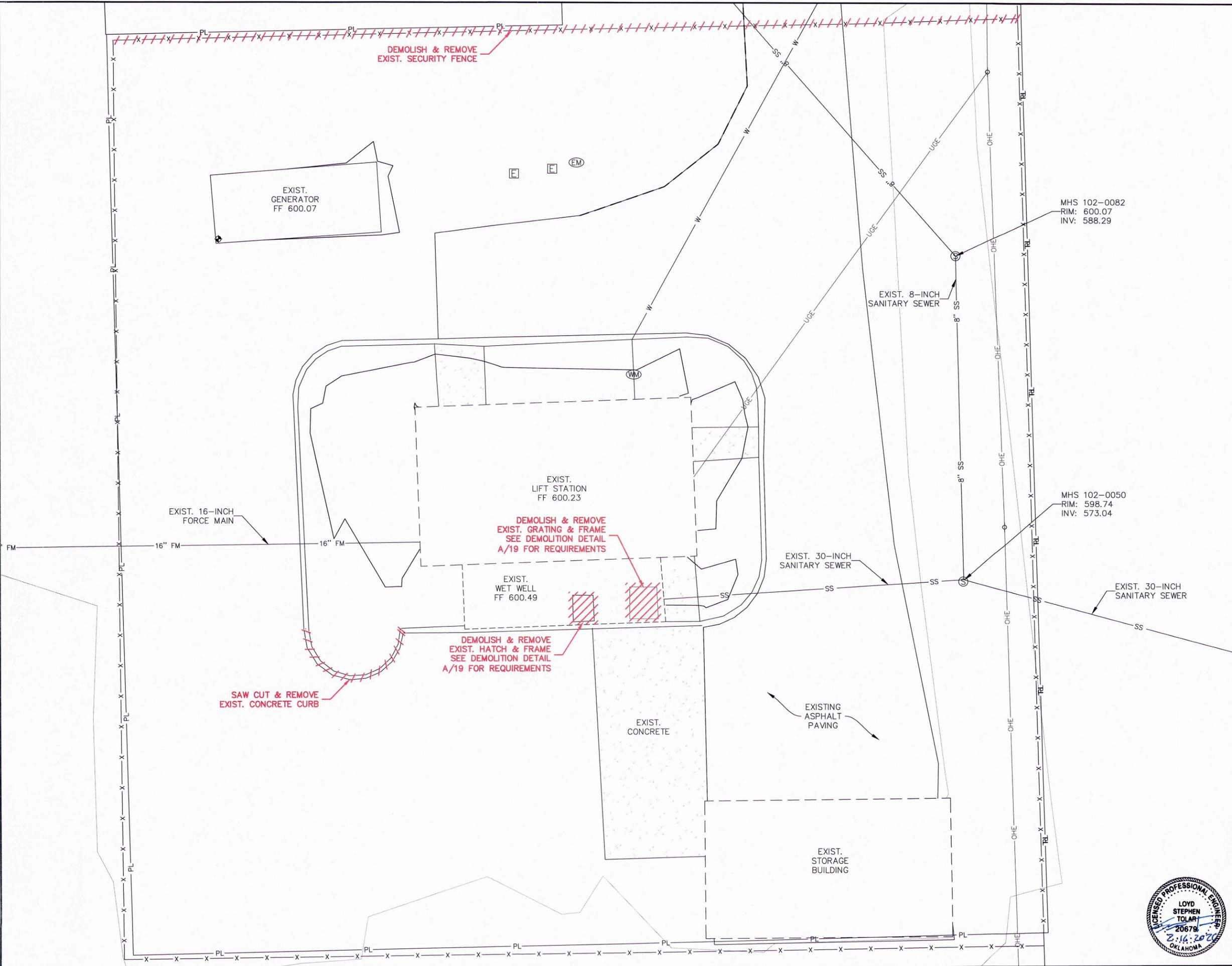
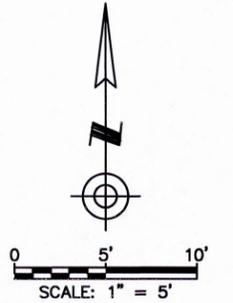
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DEMOLITION PLAN

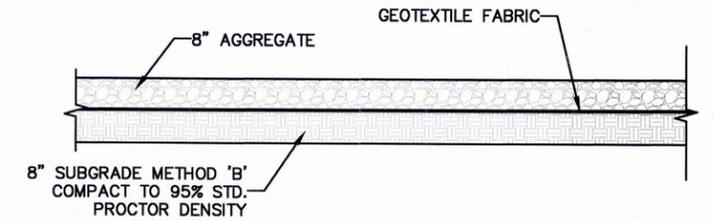
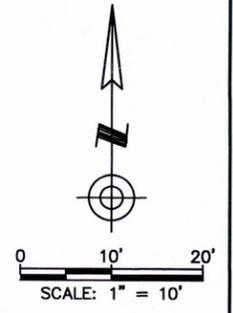
**CITYWIDE LIFT STATION IMPROVEMENTS
CHEROKEE PARK LIFT STATION**

**CITY OF TULSA, OKLAHOMA
TULSA METROPOLITAN UTILITY AUTHORITY
WATER AND SEWER DEPARTMENT**

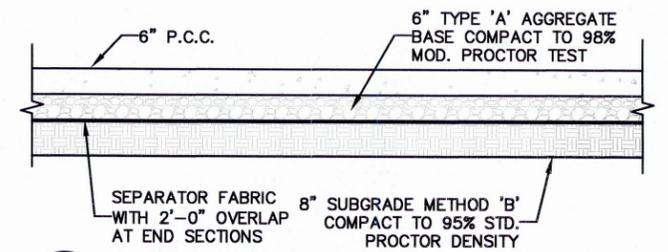
PLANS AND ESTIMATES PREPARED BY: **HOLLOWAY, UPDIKE + BELLEN, Inc.**
2001 N WILLOW AVE. BRISTOL ARIZONA OKLAHOMA 74002
(918) 762-0700 FAX (918) 762-0704

PLAN SCALE: 1"=5'	DRAWN DESIGNED SURVEY	CMW LST	APPROVED:
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FILE:	DRAWING:	DATE: 2026	
ATLAS PAGE NO: 720		SHEET 8 OF 21 SHEETS	





1 TYPICAL GRAVEL SECTION
SCALE: 1/2" = 1'-0"



2 TYPICAL CONCRETE SECTION
SCALE: 1/2" = 1'-0"



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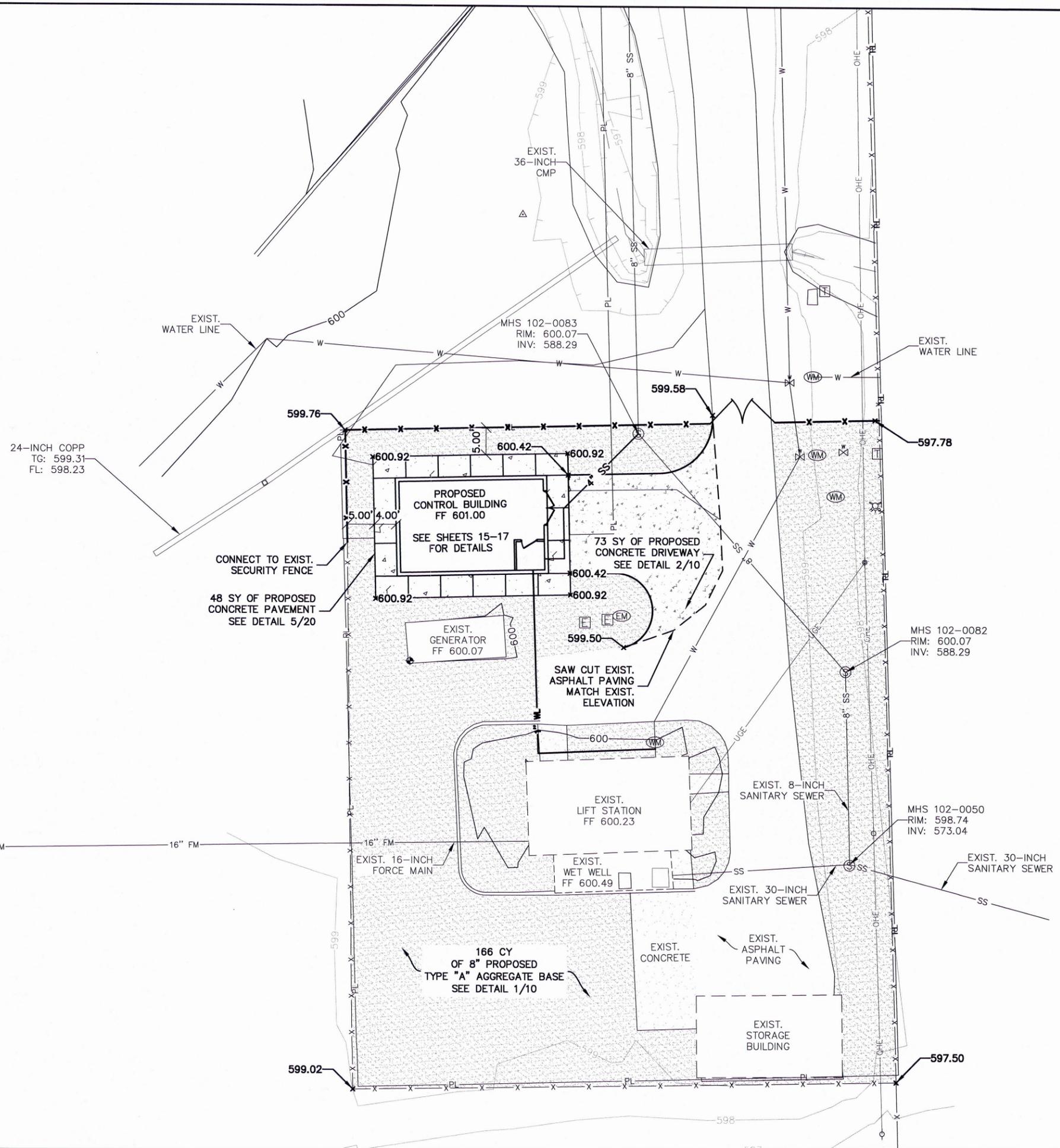
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PAVING & GRADING IMPROVEMENTS PLAN
CITYWIDE LIFT STATION IMPROVEMENTS
CHEROKEE PARK LIFT STATION

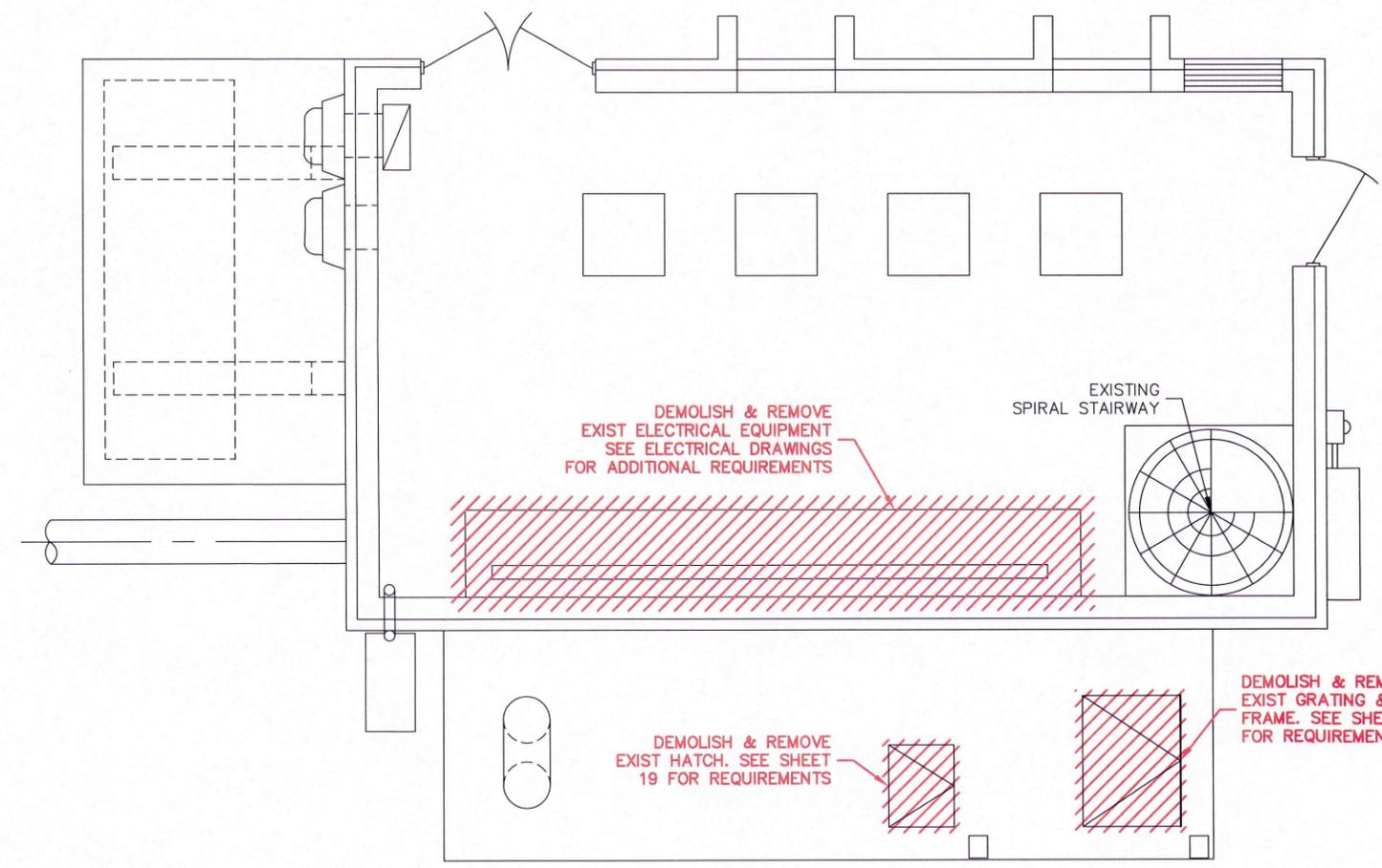
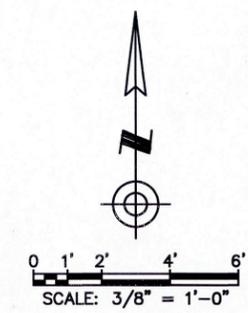
CITY OF TULSA, OKLAHOMA
TULSA METROPOLITAN UTILITY AUTHORITY
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY: HOLLOWAY, UPDKE + BELLEN, Inc.
2001 N WILLOW AVE. DESIGN CENTER, OKLAHOMA 74102
918-258-0772, FAX 918-258-0754

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1
11 LIFT STATION DEMOLITION PLAN
SCALE: 3/8" = 1'-0"



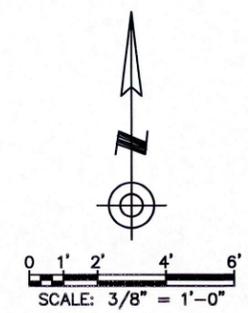
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LIFT STATION DEMOLITION PLAN										
CITYWIDE LIFT STATION IMPROVEMENTS CHEROKEE PARK LIFT STATION										
CITY OF TULSA, OKLAHOMA TULSA METROPOLITAN UTILITY AUTHORITY WATER AND SEWER DEPARTMENT										
PLANS AND ESTIMATES PREPARED BY:		HOLLOWAY, UPDIKE + BELLEN, Inc. 2001 N WILLOW AVE. BROKEN ARROW, OKLAHOMA 74012 (918) 259-0777 FAX (918) 259-0754								
PLAN SCALE: 3/8" = 1'-0"	<table border="1"> <tr> <td>DRAWN</td> <td>CMW</td> <td>APPROVED:</td> </tr> <tr> <td>DESIGNED</td> <td>LST</td> <td rowspan="3"> DESIGN ENGINEERING MANAGER </td> </tr> <tr> <td>SURVEY</td> <td> </td> </tr> </table>	DRAWN	CMW	APPROVED:	DESIGNED	LST	DESIGN ENGINEERING MANAGER	SURVEY		
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LEAD ENGR.	AK 2/26									
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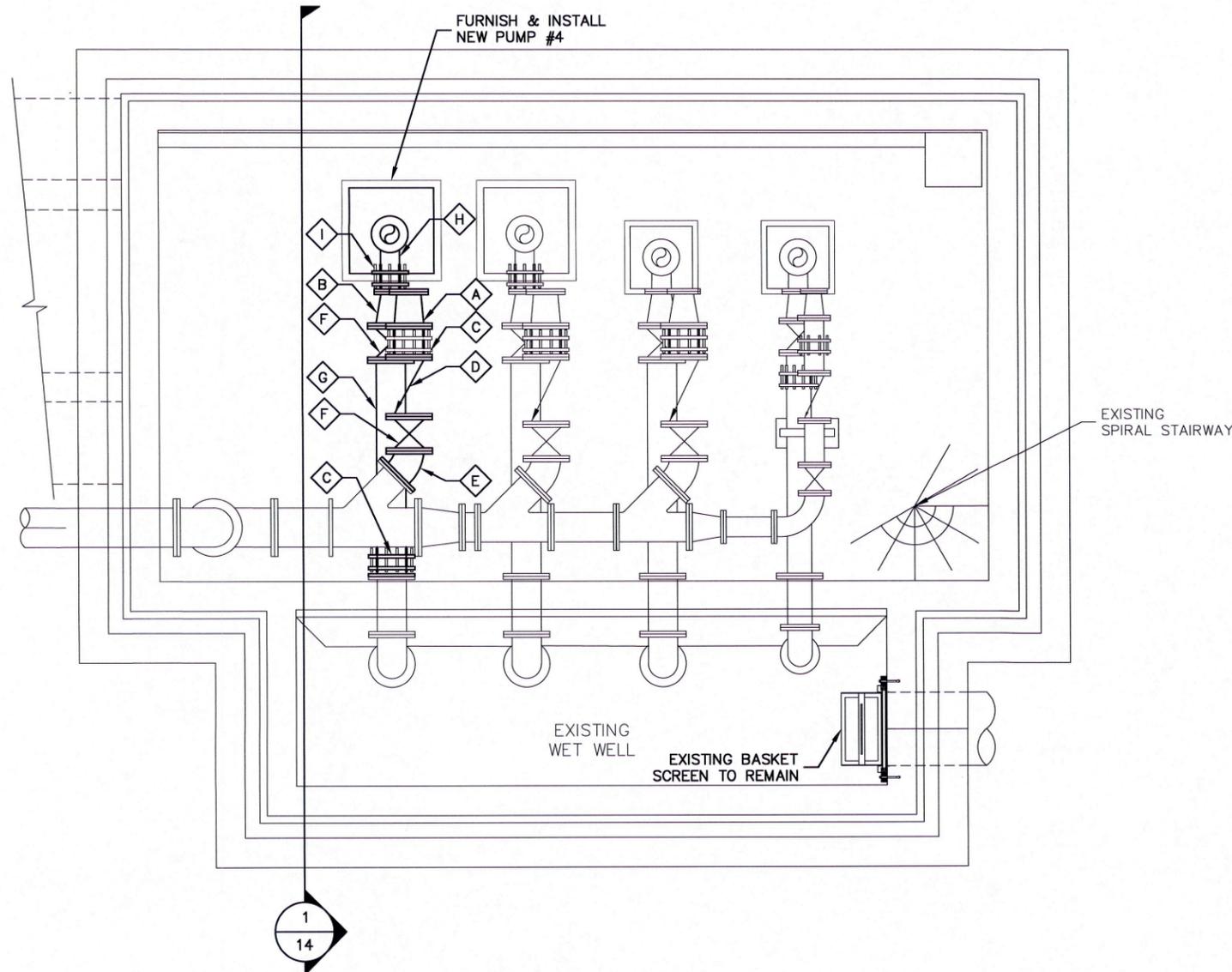
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PUMP DESIGN CAPACITIES & HEADS						
PUMP	CAPACITY(GPM)	TOTAL DYNAMIC HEAD (FT)	HORSEPOWER	SPEED	VOLTAGE	PHASE
1	1400	34	20HP	1200	230/460	3
2	2400	42	40HP	900	230/460	3
3	3700	55	75HP	900	230/460	3
4	3700	55	75HP	900	230/460	3

PUMP COMBINATIONS AND CAPACITIES					
Pump(s)	GPM	MGD	TDH	NOTES:	
1	1400	2.0	34	DO NOT OPERATE PUMP 1 IN COMBINATION WITH PUMPS 3 OR 4	
2	2400	3.4	42	DO NOT OPERATE PUMP 2 IN COMBINATION WITH BOTH PUMPS 3 & 4	
1&2	3500	5.0	42		
3	3700	5.3	55		
2&3	4900	7.0	56	FIRM CAPACITY (7.7 FT/S FM VELOCITY)	
4	3700	5.3	55		
3&4	5850	8.4	61	PEAK CAPACITY (9.3 FT/S FM VELOCITY)	



PIPING SCHEDULE	
ID	DESCRIPTION
A	12"x10" ECCENTRIC REDUCER
B	12"x8" ECCENTRIC REDUCER
C	12" FLANGE COUPLING ADAPTER
D	12" SWING CHECK VALVE
E	12" 45° BEND
F	12" GATE VALVE
G	12" DIP SPOOL
H	8" DIP SPOOL
I	8" FLANGE COUPLING ADAPTER



1
13 PIPING PLAN
SCALE: 3/8" = 1'-0"



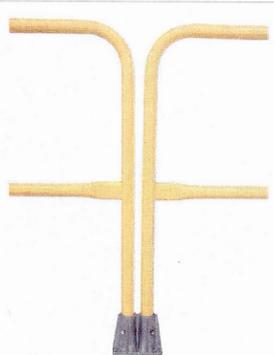
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LIFT STATION PIPING PLAN		
CITYWIDE LIFT STATION IMPROVEMENTS CHEROKEE PARK LIFT STATION		
CITY OF TULSA, OKLAHOMA TULSA METROPOLITAN UTILITY AUTHORITY WATER AND SEWER DEPARTMENT		
PLANS AND ESTIMATES PREPARED BY:		HOLLOWAY, UPDIKE + BELLEN, Inc. <small>2001 N WILLOW AVE, BROKEN ARROW, OKLAHOMA 74012 (918) 257-0772 FAX (918) 257-0784</small>
PLAN SCALE: 3/8" = 1'-0"	DRAWN: CMW DESIGNED: LST SURVEY:	APPROVED:
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HORIZONTAL:	VERTICAL:	DATE: 2026
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ALL WORK SHOWN ON THIS SHEET IS INCLUDED IN ADDITIVE ALTERNATE NO.1



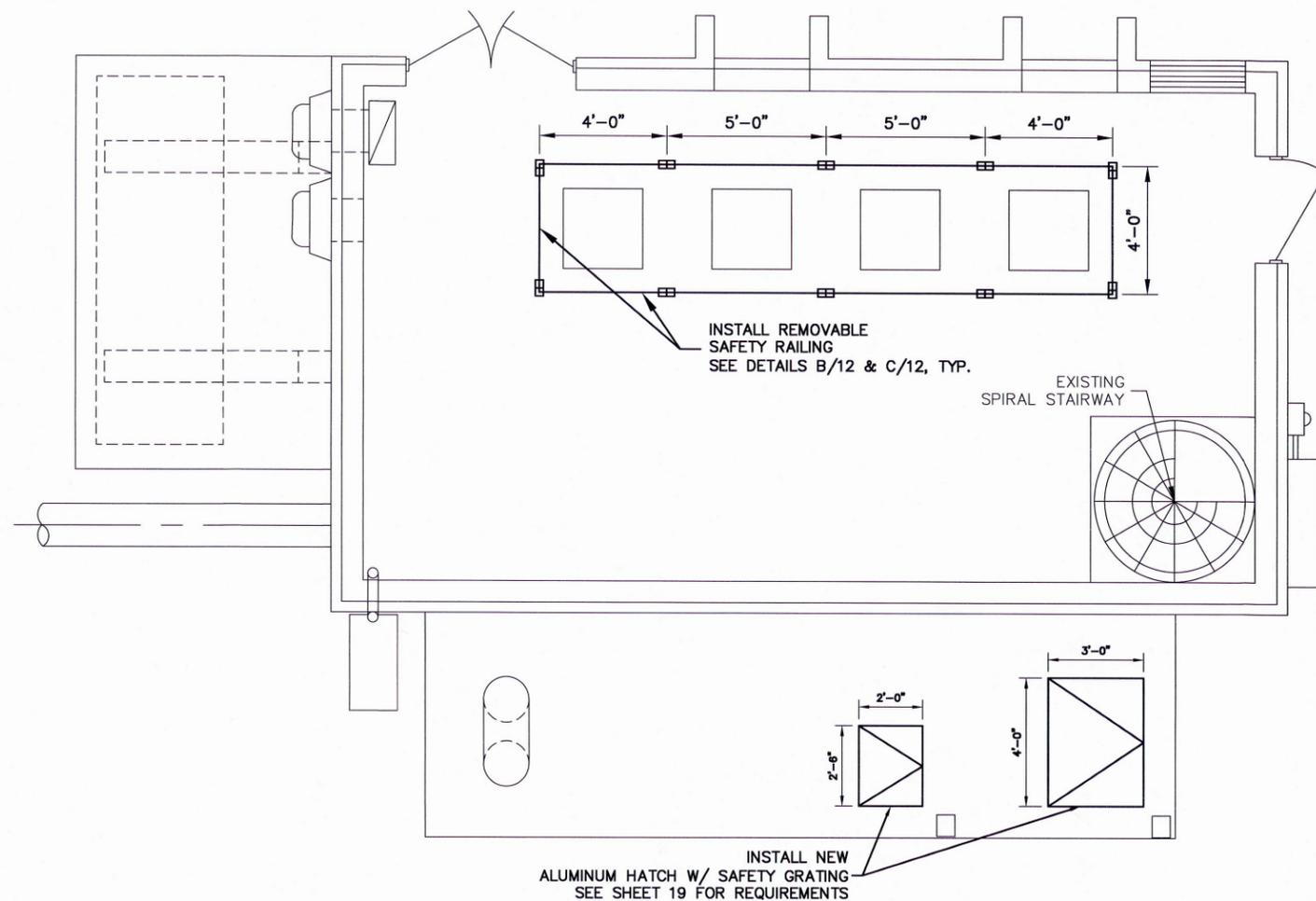
A DOUBLE SOCKET BASE
12 NTS



B STRAIGHT CONNECTION
12 NTS



C CORNER CONNECTION
12 NTS



1 LIFT STATION FLOOR PLAN
12 SCALE: 3/8" = 1'-0"

NOTES:

1. SAFETY RAILING SHALL BE PRE-MANUFACTURED, SAFETY YELLOW, 1-5/8" SCHEDULE 40 PIPE BARRIERS AS MANUFACTURED BY GLOBAL INDUSTRIES, ULINE, OR APPROVED EQUAL.
2. DOUBLE SOCKET MOUNTING BASES SHALL BE OF STEEL CONSTRUCTION WITH FOUR BASE MOUNTING LOCATIONS AND SET SCREWS TO SECURE RAILING. PROVIDE AND INSTALL 316 SS 1/2"x3" SLEEVE ANCHORS TO AFFIX TO EXISTING CONCRETE SLAB. BASES SHALL BE MANUFACTURED BY GLOBAL INDUSTRIES, ULINE, OR APPROVED EQUAL.
3. CONTRACTOR TO VERIFY DIMENSIONS PRIOR TO PREPARING SUBMITTALS.



REVISION	BY	DATE

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LIFT STATION FLOOR PLAN

CITYWIDE LIFT STATION IMPROVEMENTS
CHEROKEE PARK LIFT STATION

CITY OF TULSA, OKLAHOMA
TULSA METROPOLITAN UTILITY AUTHORITY
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY: HOLLOWAY, UPDIKE + BELLEN, Inc.
2001 N WILLOW AVE, BOKERLYN AVENUE, OKLAHOMA 74108
918-281-0777, FAX 918-281-0754

PLAN SCALE: AS SHOWN	DRAWN: SURVEY	CMW: LST	APPROVED:
PROFILE SCALE:	PROJ. MGR. <i>SW 2/26</i>	LEAD ENGR. <i>LS 2/26</i>	DESIGN ENGINEERING MANAGER <i>Thomas J. Py</i>
HORIZONTAL:	FIELD MGR. <i>SW 2/26</i>	DATE: 2026	
VERTICAL:			



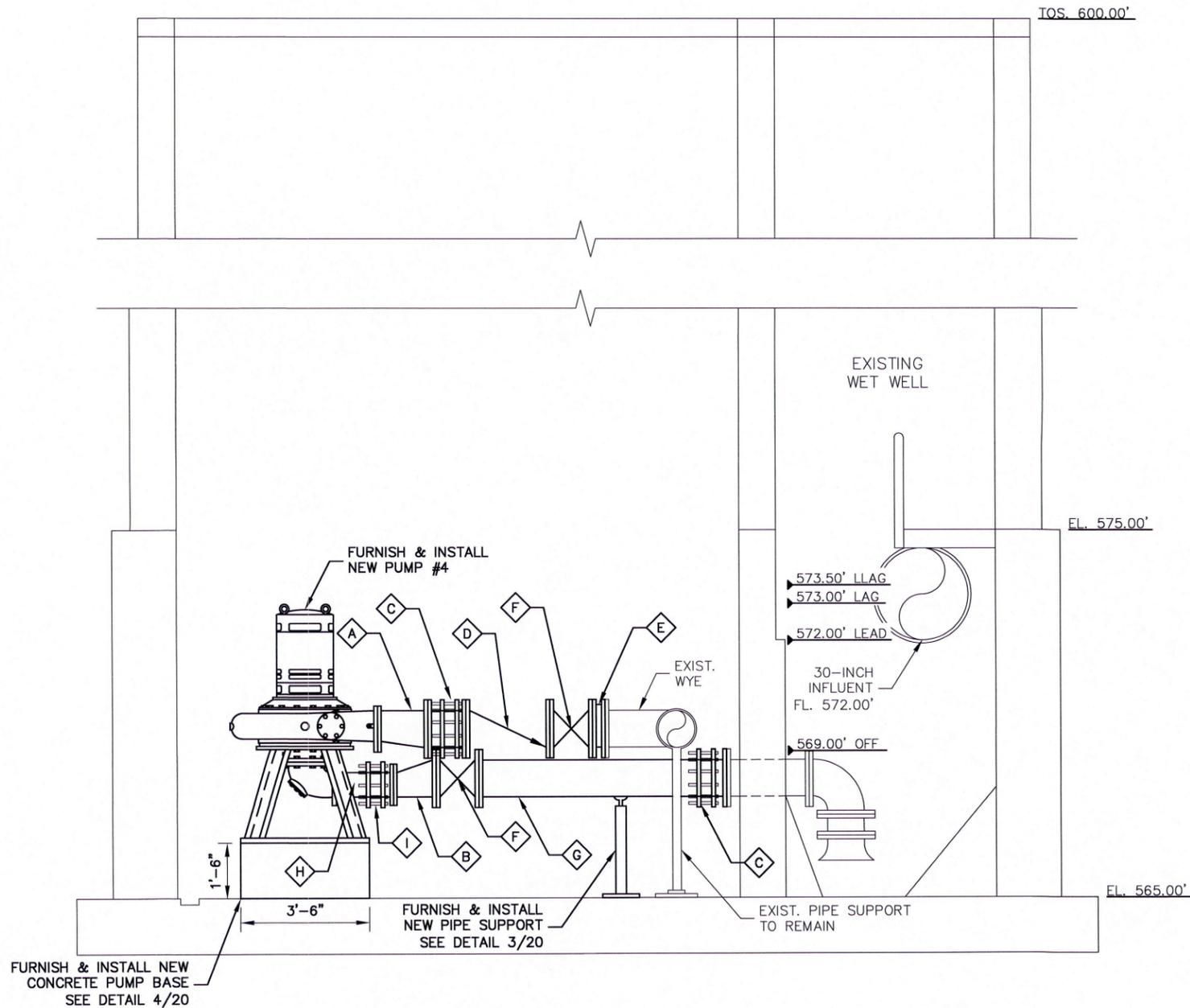
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0 1' 2' 4'
SCALE: 1/2" = 1'-0"

PIPING SCHEDULE	
ID	DESCRIPTION
A	12"x10" ECCENTRIC REDUCER
B	12"x8" ECCENTRIC REDUCER
C	12" FLANGE COUPLING ADAPTER
D	12" SWING CHECK VALVE
E	12" 45° BEND
F	12" GATE VALVE
G	12" DIP SPOOL
H	8" DIP SPOOL
I	8" FLANGE COUPLING ADAPTER



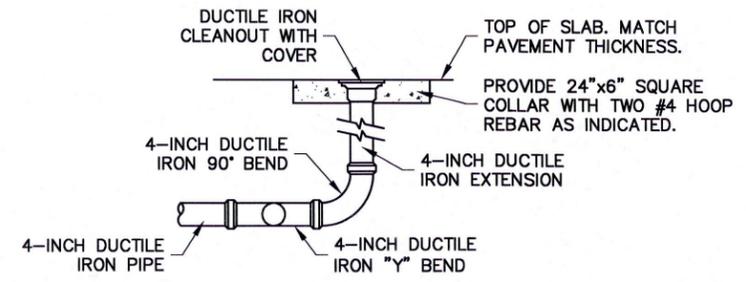
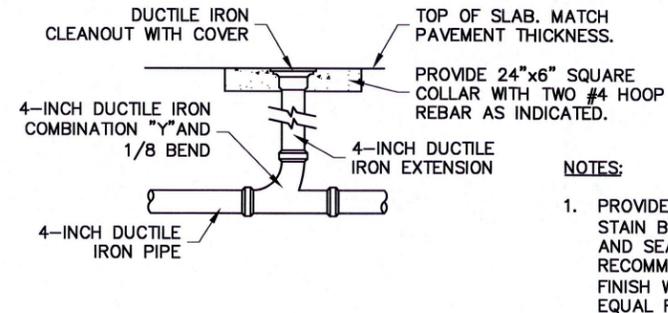
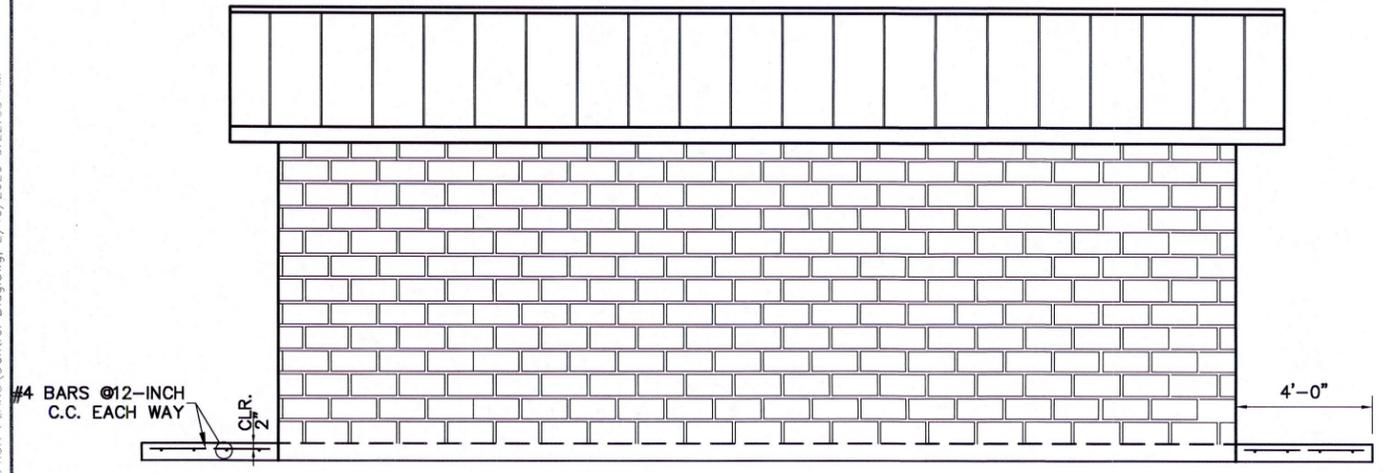
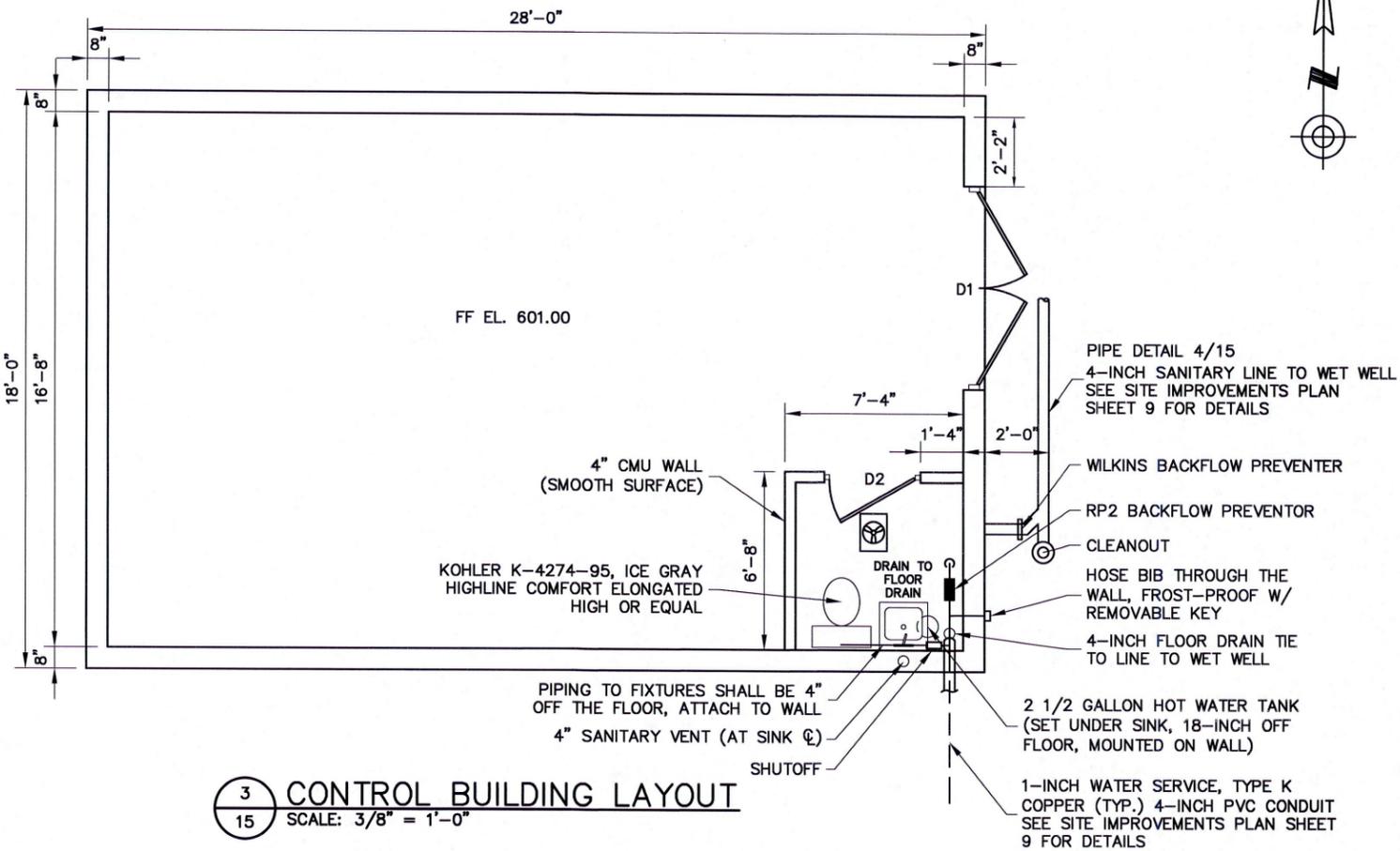
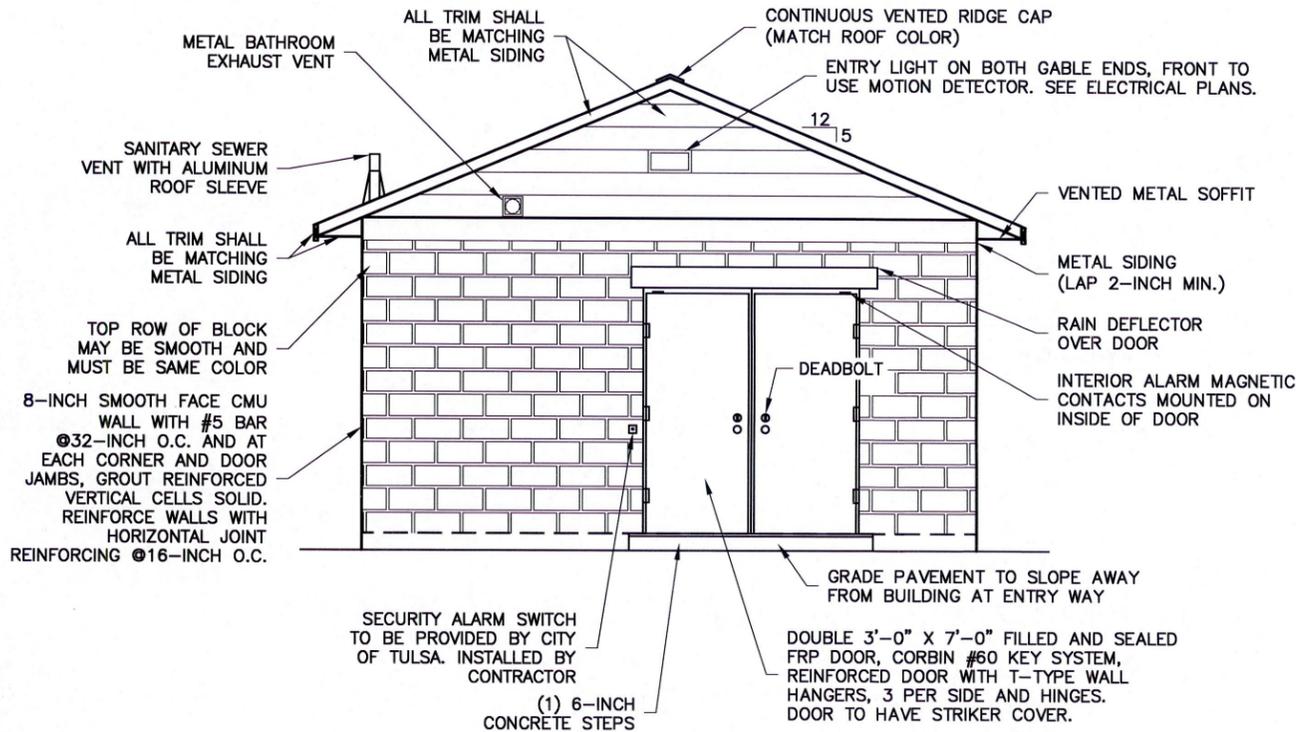
1
14 PIPING SECTION
SCALE: 1/2" = 1'-0"



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LIFT STATION PIPING SECTION		
CITYWIDE LIFT STATION IMPROVEMENTS CHEROKEE PARK LIFT STATION		
CITY OF TULSA, OKLAHOMA TULSA METROPOLITAN UTILITY AUTHORITY WATER AND SEWER DEPARTMENT		
PLANS AND ESTIMATES PREPARED BY:		HOLLOWAY, UPDIKE + BELLEN, Inc. 2001 N WILLOW AVE, BROKEN ARROW, OKLAHOMA 74012 (918) 251-0772 FAX (918) 251-0784
PLAN SCALE: 1/2"=1'-0"	DRAWN DESIGNED SURVEY	CMW LST
PROFILE SCALE:	PROJ. MGR. LEAD ENGR. FIELD MGR.	SV 2/26 LST 2/26 LST 2/26
HORIZONTAL:		
VERTICAL:		
FILE:	DRAWING:	DATE: 2026
ATLAS PAGE NO: 720		SHEET 14 OF 21 SHEETS



ALL WORK SHOWN ON THIS SHEET IS INCLUDED IN ADDITIVE ALTERNATE NO.1



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CONTROL BUILDING
CITYWIDE LIFT STATION IMPROVEMENTS
CHEROKEE PARK LIFT STATION

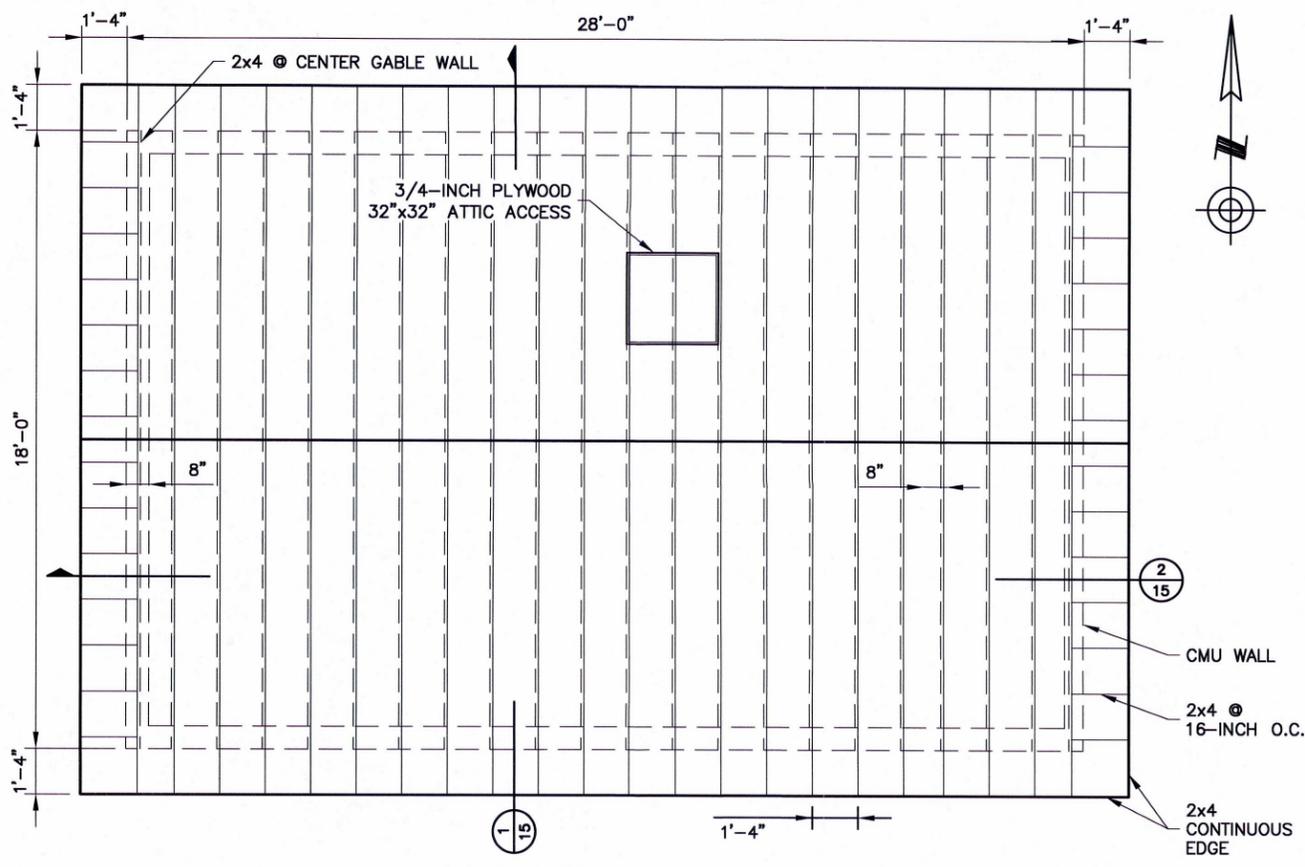
CITY OF TULSA, OKLAHOMA
TULSA METROPOLITAN UTILITY AUTHORITY
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY: HOLLOWAY, UPDIKE + BELLEN, Inc.
2001 W WILLOW AVE, SPENCER, OKLAHOMA 74066
918-686-0770, FAX 918-686-0784

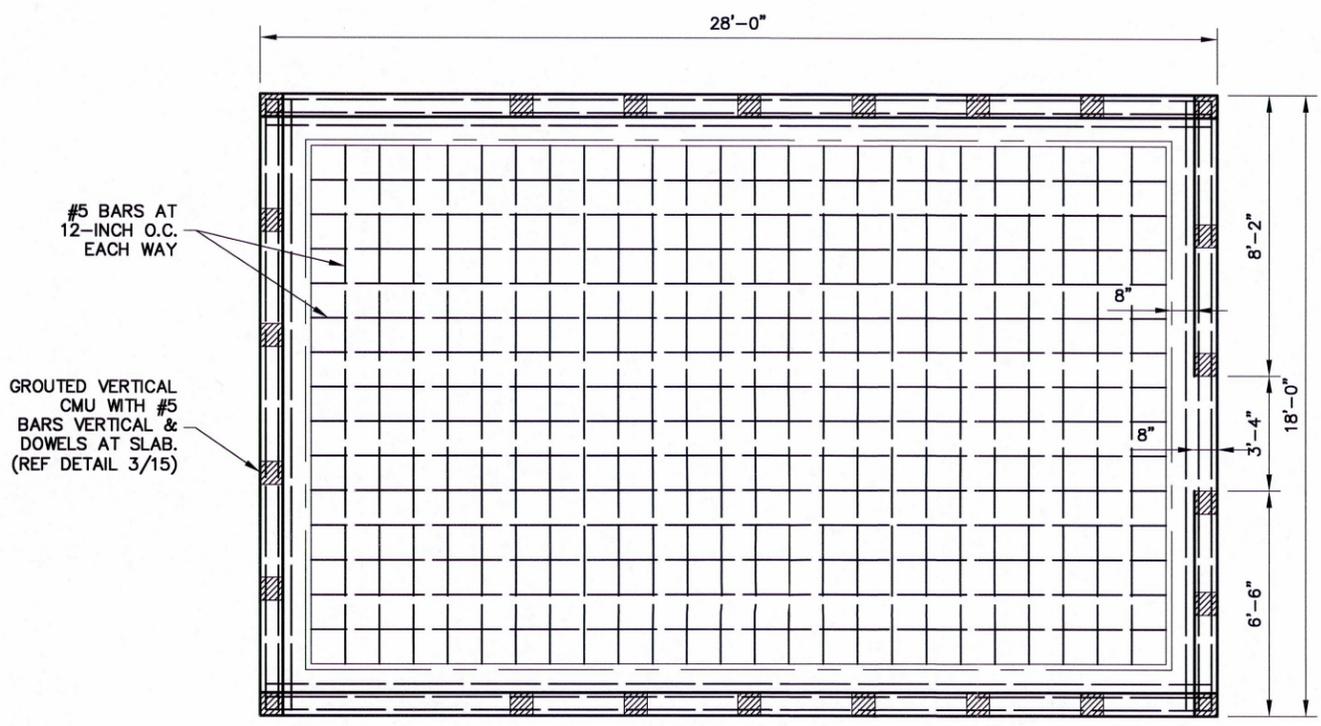
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VERTICAL: NONE			DATE: 2026
FILE:	DRAWING:		
ATLAS PAGE NO: 720	SHEET 15 OF 21 SHEETS		



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1 ROOF FRAMING PLAN
SCALE: 3/8" = 1'-0"



2 FOUNDATION & WALL PLAN
SCALE: 3/8" = 1'-0"



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CONTROL BUILDING LAYOUT

CITYWIDE LIFT STATION IMPROVEMENTS
CHEROKEE PARK LIFT STATION

CITY OF TULSA, OKLAHOMA
TULSA METROPOLITAN UTILITY AUTHORITY
WATER AND SEWER DEPARTMENT

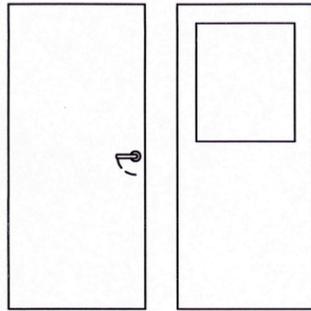
PLANS AND ESTIMATES
PREPARED BY: HOLLOWAY, UPDIKE + BELLEN, Inc.
2001 N WILLOW AVE, BROOKSHIRE AVENUE, OKLAHOMA 74108
(918)228-0777, FAX (918)228-0754

PLAN SCALE: 3/8"=1'-0"	DRAWN DESIGNED SURVEY	CMW LST	APPROVED:
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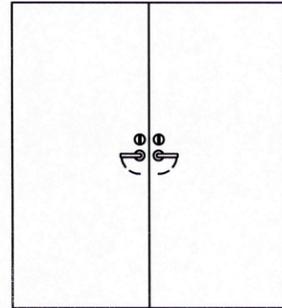
ATLAS PAGE NO: 720 SHEET 16 OF 21 SHEETS

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STYLE F

STYLE G2



STYLE DF

DOOR SCHEDULE																
MARK	LOCATION	QTY	EXTERIOR GRADE	LH	RH	DOOR/FRAME				INSULATED	HARDWARE	FRAME			REMARKS	
						WIDTH	HEIGHT	THICK	STYLE			GAUGE	DEPTH	GAUGE		ANCHOR
D1	CONTROL BLDG	1	YES	LH	RH	3'-0"	7'-0"	0'-1 3/4"	DF	16 MIN	YES	PANIC BAR, KEYED LOCKSET, CLOSER	0'-7 3/4"	16 MIN	M	SEE NOTES 1-8
D2	CTRL BLDG RESTROOM	1	NO		RH	3'-0"	7'-0"	0'-1 3/4"	F	16 MIN	NO	KEYED LOCKSET, CLOSER	0'-7 3/4"	16 MIN		SEE NOTES 1-8

DOOR NOTES:

- PASSAGE DOORS SHALL MEET ANSI 240.4 AND ANSI 250.8. DOORS SHALL BE PAINTED, HEAVY DUTY INDUSTRIAL METAL DOORS. SEE SPECIFICATION FOR ADDITIONAL REQUIREMENTS.
- ALL HINGES STRIKER & HARDWARE TO BE LEVER ACTION W/ STAINLESS STEEL (US32D) GRADE 1, MORTISE W/ MASTER KEY SYSTEM. MATCHED TO CITY OF TULSA SYSTEM. ALL OTHER AREAS SHALL HAVE SOLID STAINLESS STEEL DOOR HARDWARE,, HANDLE, HINGES & COMPONENT.
- ALL CLOSERS TO BE ADA COMPLIANT. DOORS SHALL HAVE PANIC BARS.
- DOOR MANUFACTURERS SHALL BE DKS, PIONEER, KARPEN OR EQUAL.
- COORDINATE AND PROVIDE DOOR DRIP EDGE AT APPLICABLE LOCATIONS.
- PROVIDE UV STABLE SIGN ON OR AT EACH DOOR FOR ROOM OR BUILDING SIGNAGE LETTERING TO BE 2" TALL. SUBMIT WORDING & SIGN INFORMATION FOR APPROVAL.
- ALL FRP DOORS & FRAMES SHALL BE FACTORY FINISH FINISH (BRONZE).
- SEE PLAN SHEETS FOR ADDITIONAL REQUIREMENTS AND WALL DETAILS.

ROOM FINISH SCHEDULE					
MARK	ROOM	FLOORING:	WALLS:	CEILING:	NOTES
A	LIFT STATION BUILDING	NON-SLIP TEXTURED AND SEALED CONCRETE	BLOCK FILLER PRIMED AND PAINTED CMU	PAINTED	1

FINISH NOTES:

- PAINT SHALL BE OIL BASED SATIN FINISH (WHITE).



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LIFT STATION SCHEDULES

CITYWIDE LIFT STATION IMPROVEMENTS
CHEROKEE PARK LIFT STATION

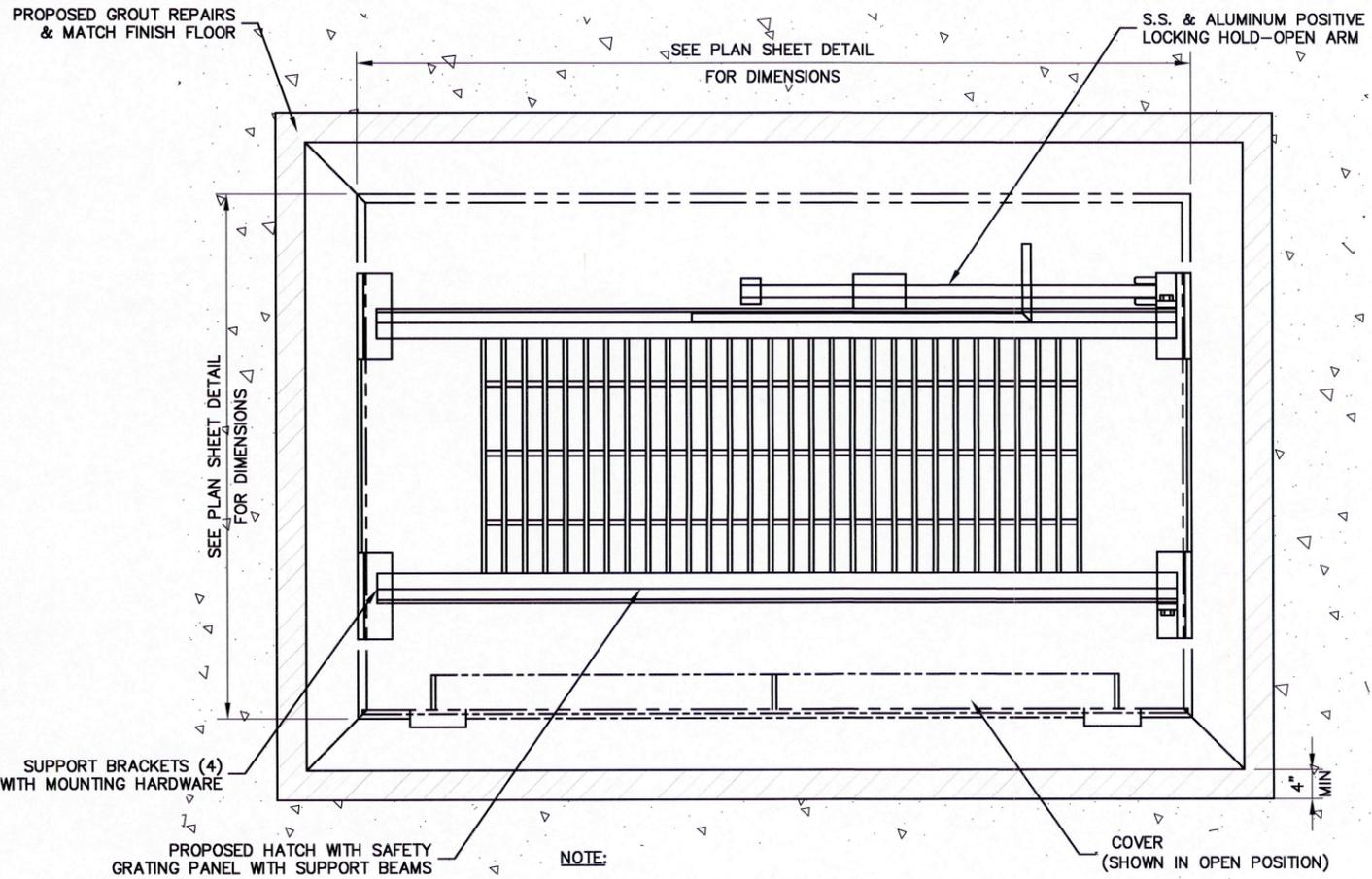
CITY OF TULSA, OKLAHOMA
TULSA METROPOLITAN UTILITY AUTHORITY
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY: HOLLOWAY, UPDIKE + BELLEN, Inc.
2001 N WILLOW AVE, BROKEN ARROW, OKLAHOMA 74806
(918) 251-0772 FAX (918) 251-0784

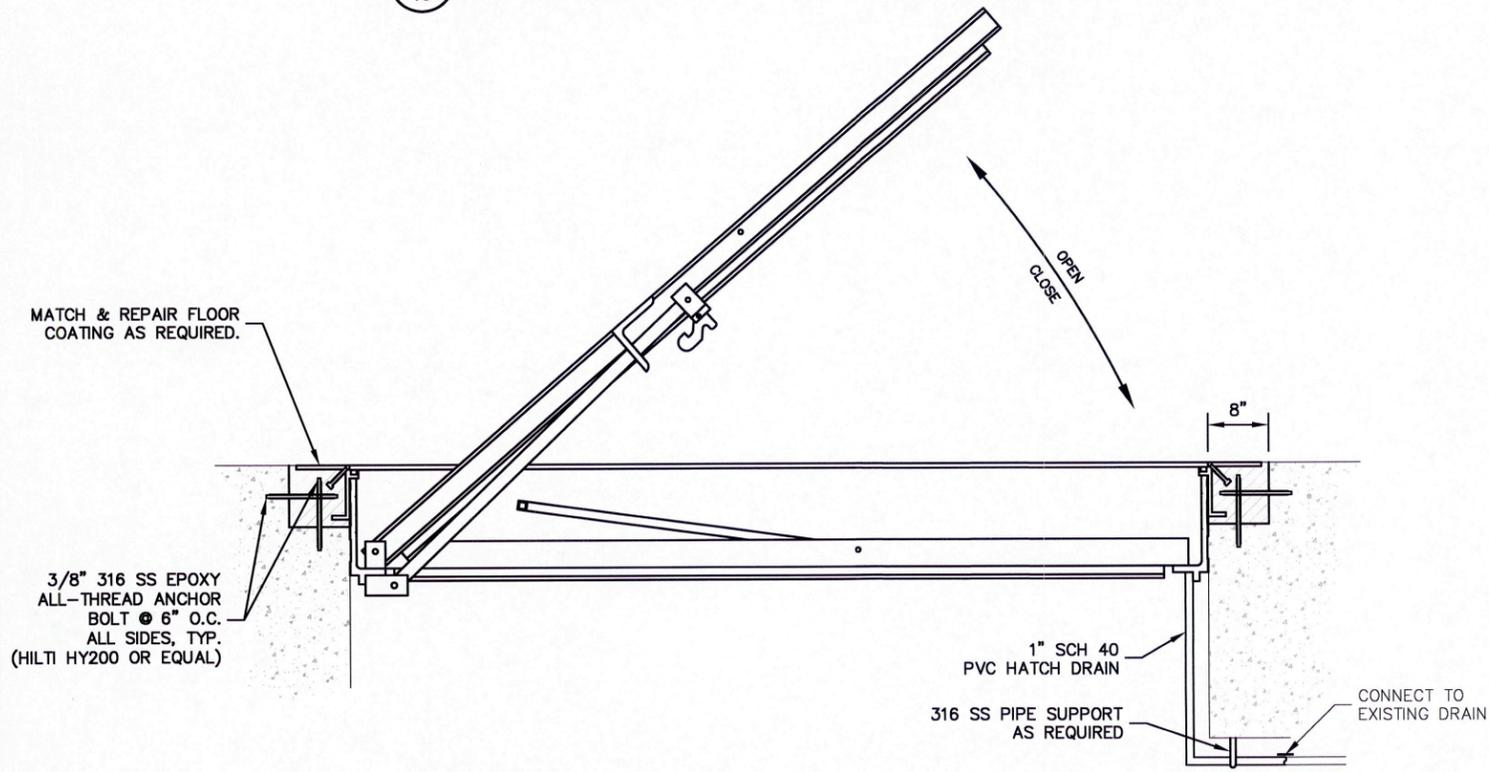
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PROFILE SCALE:	PROJ. MGR.	sw 2/26	
HORIZONTAL:	LEAD ENGR.	KZ 2/26	
	FIELD MGR.	sw 2/26	
VERTICAL:			

FILE: DRAWING: DATE: 2026
ATLAS PAGE NO: 720 SHEET 18 OF 21 SHEETS

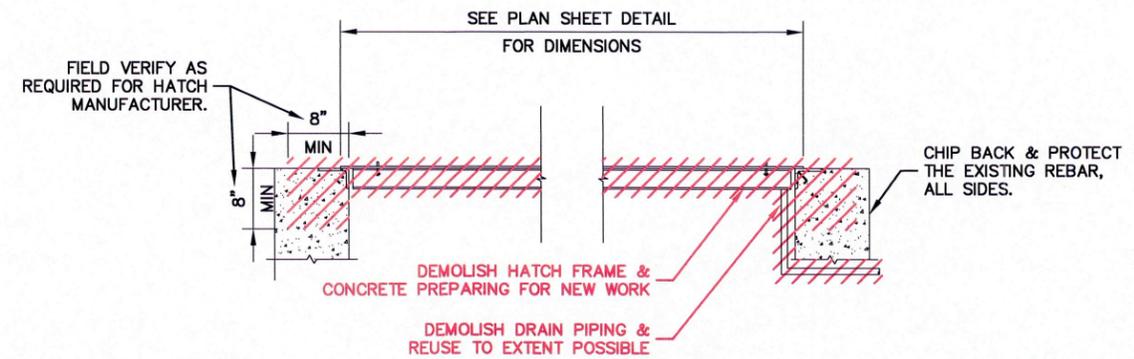




1 ALUMINUM HATCH WITH SAFETY GRATING
NTS

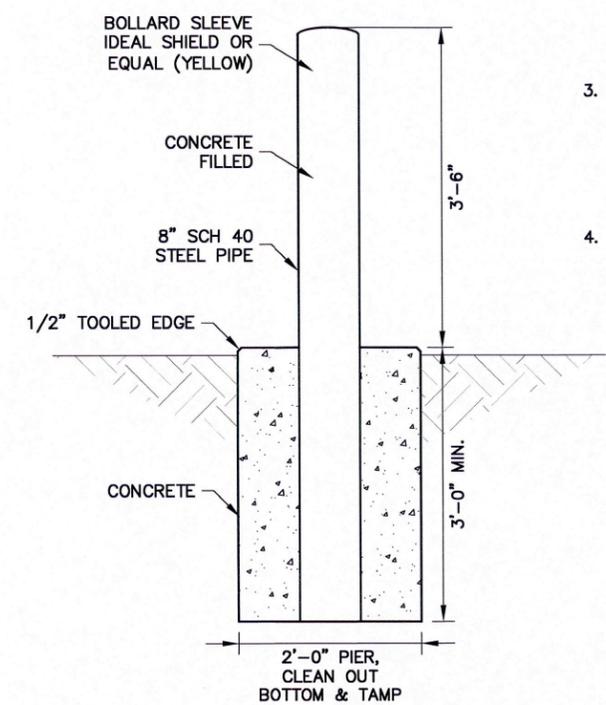


B ALUMINUM HATCH WITH SAFETY GRATING SECTION
NTS



A HATCH DEMOLITION DETAIL
SCALE: 1" = 1'-0"

- NOTES:
- ALUMINUM HATCHES SHALL BE MODEL(S) S1R (SINGLE LEAF) AND S2R (DOUBLE LEAF) SERIES ACCESS FRAMES AND COVERS AS MANUFACTURED BY HALLIDAY PRODUCTS, INC. OF ORLANDO, FLORIDA.
 - HATCHES(S) SHALL HAVE A 1/4 INCH (7MM) THICK ONE-PIECE, MILL FINISH, EXTRUDED ALUMINUM FRAME, INCORPORATING A CONTINUOUS CONCRETE ANCHOR. DOOR PANELS SHALL BE 1/4 INCH (7MM) ALUMINUM DIAMOND PLATE, REINFORCED TO WITHSTAND A LIVE LOAD OF 300 LBS. PSF (1464 KG. PSM), UNIFORM LIVE LOAD.
 - DOORS SHALL OPEN TO 90 DEGREES AND AUTOMATICALLY LOCK WITH T-316 STAINLESS STEEL HOLD OPEN ARMS WITH ALUMINUM RELEASE HANDLES. DOORS SHALL CLOSE FLUSH WITH THE FRAME. HINGES AND ALL FASTENING HARDWARE SHALL BE T-316 STAINLESS STEEL. UNIT SHALL LOCK WITH A NON-CORROSIVE LOCKING BAR AND HAVE A NON-CORROSIVE HANDLE.
 - UNIT SHALL CARRY A LIFETIME GUARANTEE AGAINST DEFECTS IN MATERIAL AND/OR WORKMANSHIP.



2 BOLLARD DETAIL
SCALE: 1" = 1'-0"



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MISCELLANEOUS DETAILS

CITYWIDE LIFT STATION IMPROVEMENTS
CHEROKEE PARK LIFT STATION

CITY OF TULSA, OKLAHOMA
TULSA METROPOLITAN UTILITY AUTHORITY
WATER AND SEWER DEPARTMENT

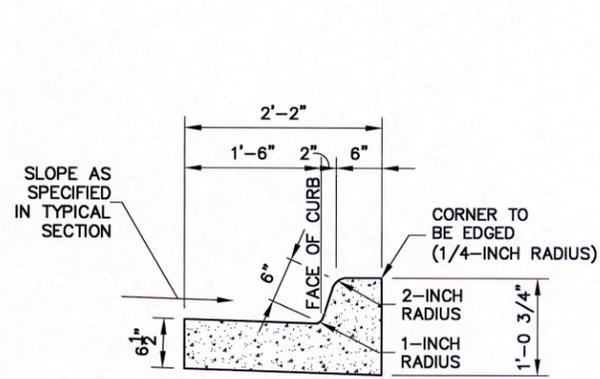
PLANS AND ESTIMATES
PREPARED BY: HOLLOWAY, UPDIKE + BELLEN, Inc.
2001 N WILLOW AVE, BROKEN ARROW, OKLAHOMA 74612
918-258-0772 FAX 918-258-0784

PLAN SCALE:	DRAWN	CMW	APPROVED:
AS SHOWN	DESIGNED	LST	 DESIGN ENGINEERING MANAGER
PROFILE SCALE:	PROJ. MGR.	SV 2/26	
HORIZONTAL:	LEAD ENGR.	LST 2/26	
VERTICAL:	FIELD MGR.	Tom J. M.	DATE: 2026

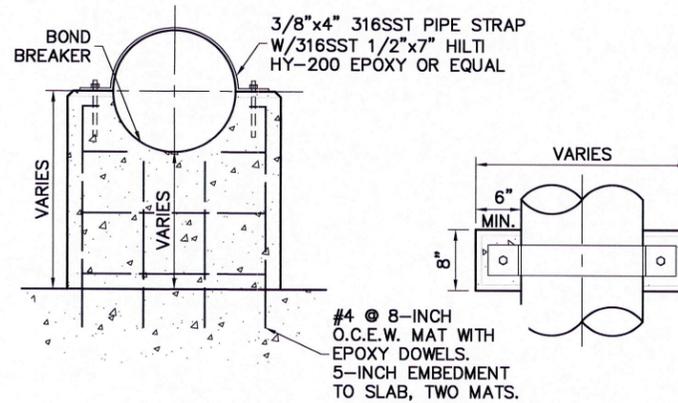
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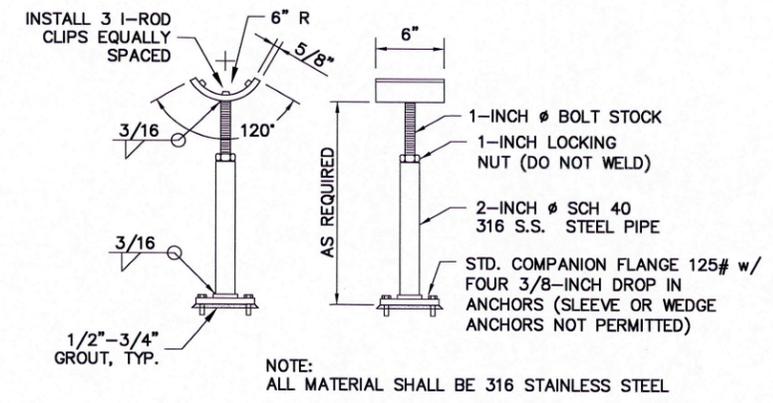
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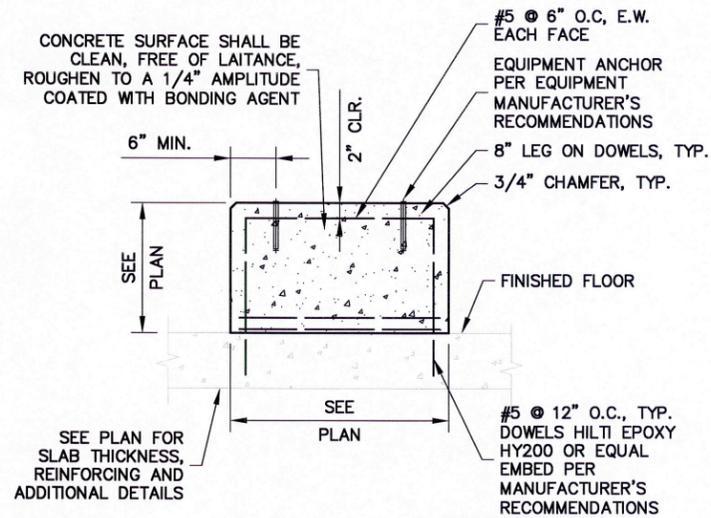
1 CURB & GUTTER
20 6-INCH BARRIER TYPE



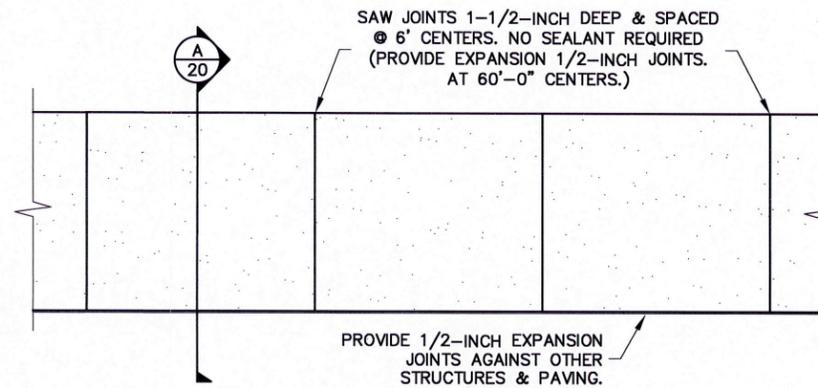
2 CONCRETE PIPE SUPPORT DETAIL
20 SCALE: 1" = 1'-0"



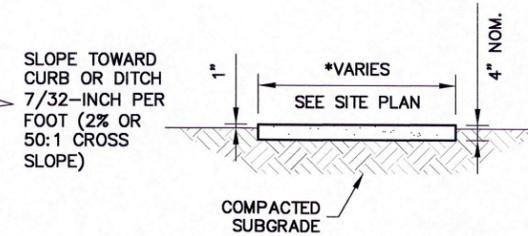
3 ADJUSTABLE PIPE SUPPORT DETAIL
20 NTS



4 PUMP BASE DETAIL
20 SCALE: 1" = 1'-0"



5 SIDEWALK/MOW STRIP PLAN
20 SCALE: 1/2" = 1'-0"



A SIDEWALK/MOW STRIP SECTION
20 SCALE: 1/2" = 1'-0"



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MISCELLANEOUS DETAILS

CITYWIDE LIFT STATION IMPROVEMENTS
CHEROKEE PARK LIFT STATION

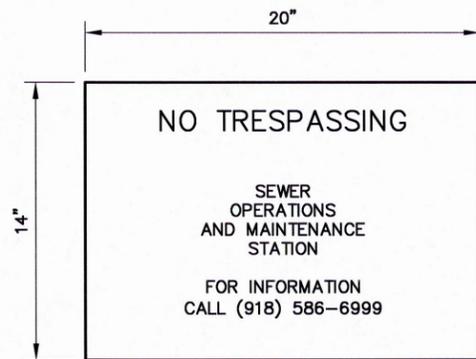
CITY OF TULSA, OKLAHOMA
TULSA METROPOLITAN UTILITY AUTHORITY
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY: HOLLOWAY, UPDIKE + BELLEN, Inc. 2001 N WILLOW AVE, BROKEN ARROW, OKLAHOMA 74012 (918)225-0777, FAX (918)225-0754

PLAN SCALE:	DRAWN	CMW	APPROVED:
AS SHOWN	DESIGNED	LST	 DESIGN ENGINEERING MANAGER
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HORIZONTAL:	LEAD ENGR.	2/16/26	
VERTICAL:	FIELD MGR.	2/16/26	DATE: 2026



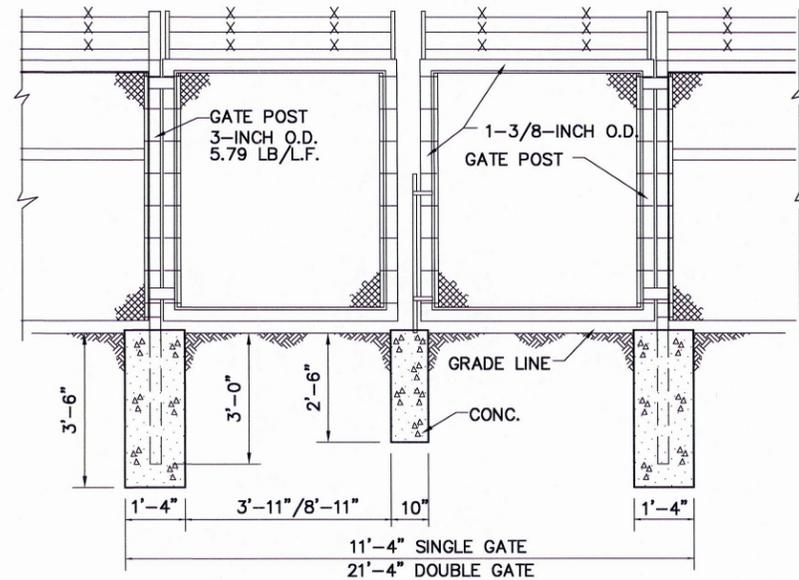
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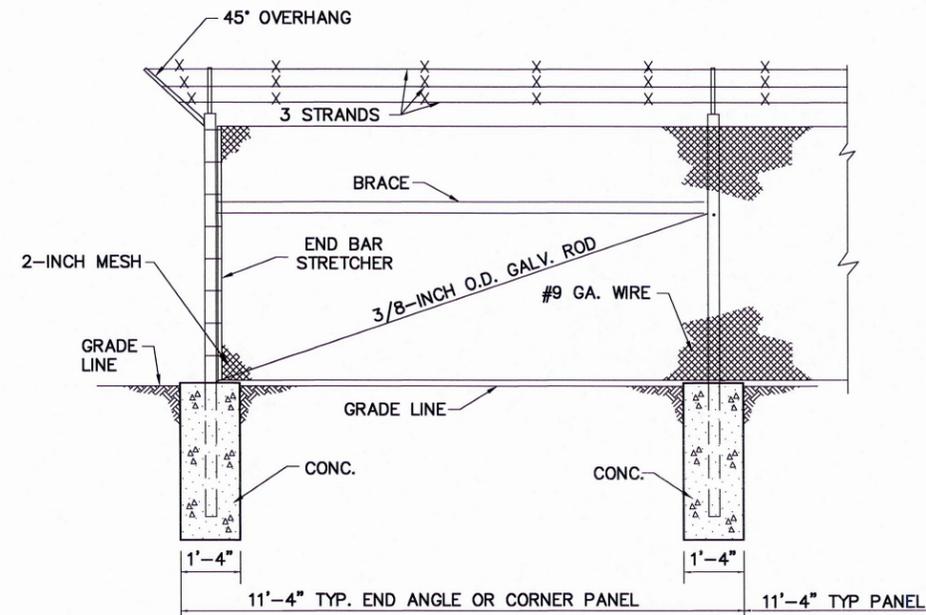
NOTES:

1. SIGNS SHALL BE UV RESISTANT SCREEN PRINTED 0.08" ALUMINUM.
2. CONTRACTOR SHALL INSTALL SIGN A MINIMUM OF EVERY 50 LF ALONG EXTERIOR PERIMETER OF PROPOSED SECURITY FENCE.
3. SIGNS SHALL BE SECURED AT ALL FOUR CORNERS USING DRILLED HOLES AND STAINLESS WIRE TIES.

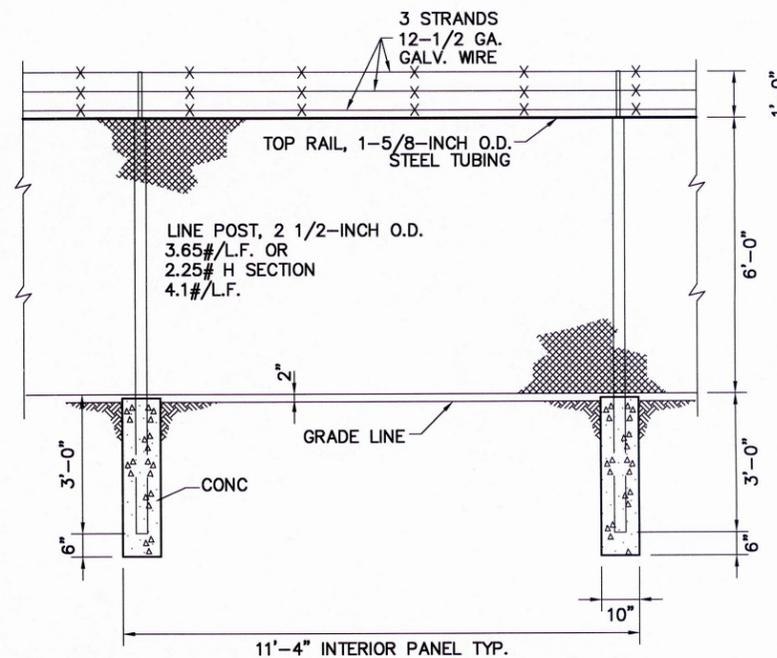
1 WARNING SIGN DETAIL
21 NTS



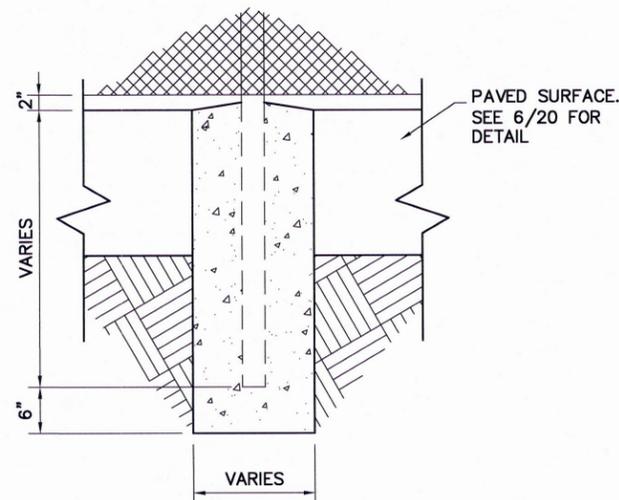
2 VEHICLE ACCESS SWING GATE
21 NTS



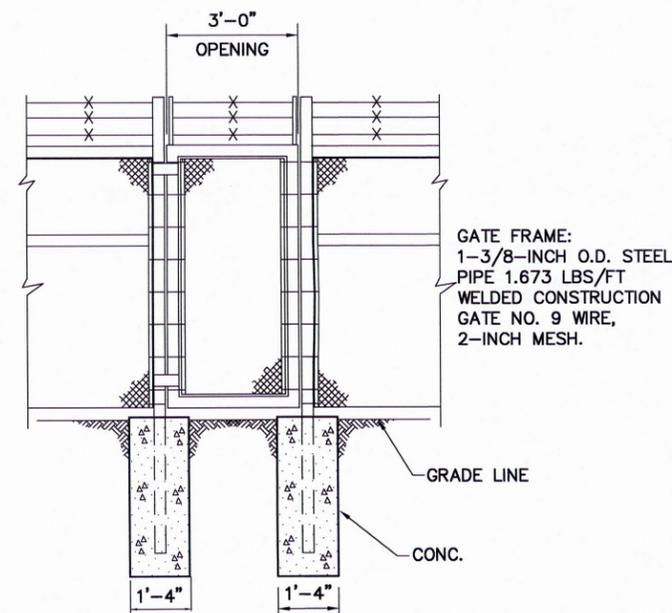
3 TYPICAL END OR CORNER PANEL
21 NTS



4 TYPICAL INTERIOR PANEL
21 NTS



5 POST DETAIL AT PAVED SURFACE
21 NTS
NOTE: 3000 PSI CONCRETE.



6 MAN ACCESS SWING GATE
21 NTS



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SECURITY FENCE DETAILS		
CITYWIDE LIFT STATION IMPROVEMENTS CHEROKEE PARK LIFT STATION		
CITY OF TULSA, OKLAHOMA TULSA METROPOLITAN UTILITY AUTHORITY WATER AND SEWER DEPARTMENT		
PLANS AND ESTIMATES PREPARED BY:		HOLLOWAY, UPDIKE + BELLEN, Inc. 2001 N WELLS AVE. SPENCER ARROW, OKLAHOMA 74126 (918) 477-1772 FAX (918) 477-1054
PLAN SCALE: AS SHOWN	DRAWN: CMW	APPROVED:
	DESIGNED: LST	LLOYD STEPHEN TOLAR 20678 2-16-2026 OKLAHOMA
PROFILE SCALE:	SURVEY:	
HORIZONTAL:	PROJ. MGR. <i>SW 2/26</i> LEAD ENGR. <i>LT 2/26</i> FIELD MGR. <i>STW 2/26</i>	
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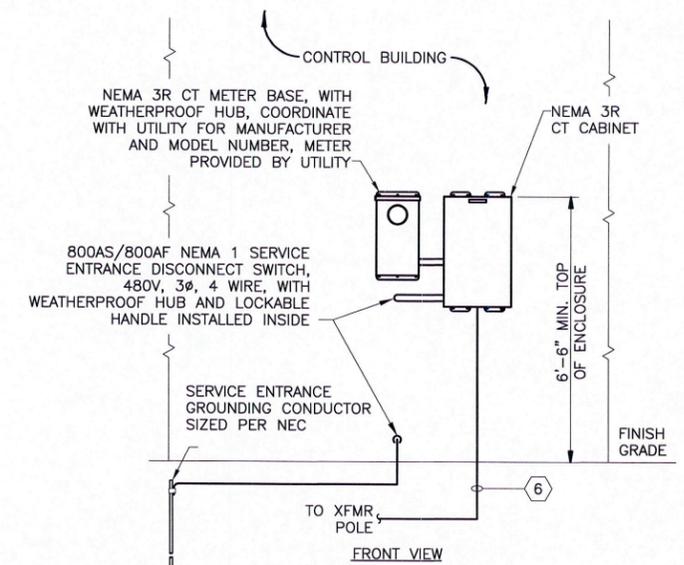
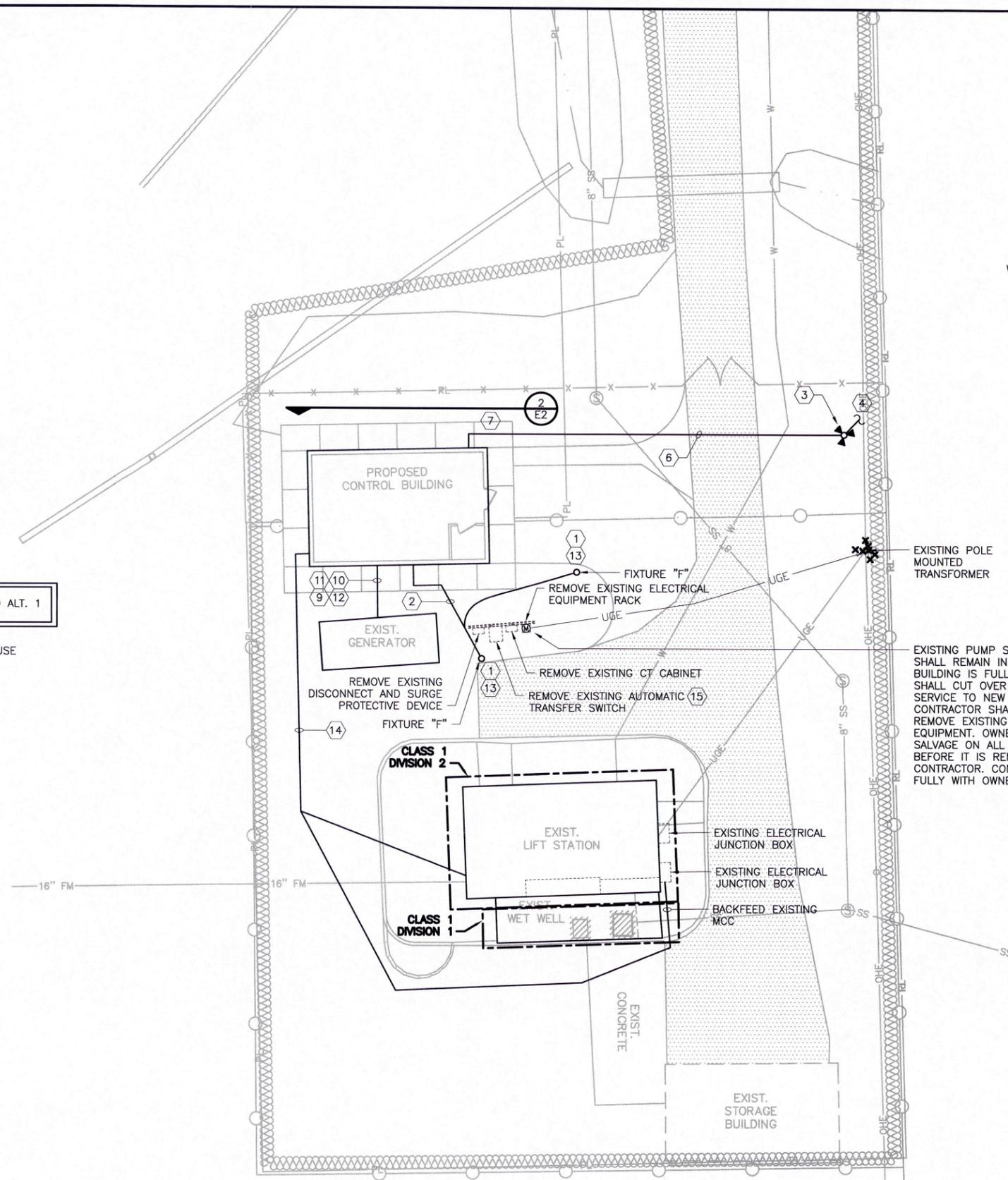
KEYED NOTES:

1. FURNISH AND INSTALL POLE/LIGHT FIXTURE AND CONCRETE BASE.
2. BUILD (2#10+1#10EG)1" C MINIMUM 24" BELOW FINISHED GRADE.
3. NEW TRANSFORMER POLE BY PSO/AEP.
4. CONTRACTOR SHALL COORDINATE WITH PSO TO INTERCEPT EXISTING OVERHEAD ELECTRICAL LINES.
5. NOT USED.
6. NEW UNDERGROUND SECONDARY. BUILD (4) PARALLEL 4" C CONDUITS 36" BELOW GRADE. TWO SHALL BE EMPTY SPARE, TWO CONDUIT SHALL CONTAIN (3#500+1#500N).
7. FURNISH AND INSTALL NEW METER, AND METER BASE ON EAST EXTERIOR WALL OF CONTROL BUILDING.
8. NOT USED.
9. (MODBUS)1" C
10. BUILD (4) PARALLEL 4" C 36" BELOW GRADE. TWO CONDUIT SHALL BE EMPTY SPARE, TWO CONDUIT SHALL CONTAIN (3#500+1#500N+ #1/0 ECG).
11. (12#4)1" C
12. BUILD (3#12)1" C+(3#12)1" C FOR BATTERY CHARGER AND BLOCK HEATER.
13. CONTRACTOR SHALL PROVIDE ANCHOR BOLTS SIZE AND DETAILS AS REQUIRED BY CONTRACTOR'S SELECTED POLE MANUFACTURER AND AS DESIGNED BY AN OKLAHOMA LICENSED ENGINEER.
14. PUMP 1 POWER - (3#10+1#10EG)2-1/2" C - VFD CABLE
 PUMP 1 VFD ESTOP - (3#14)1" C
 PUMP 1 VIBRATION SWITCH - (4#14)1" C
 PUMP 2 POWER - (3#6+1#6EG)2-1/2" - VFD CABLE
 PUMP 2 VFD ESTOP - (3#14)1" C
 PUMP 2 VIBRATION SWITCH - (4#14)1" C
 PUMP 3 POWER - (3#1+1#6EG)2-1/2" C - VFD CABLE
 PUMP 3 VFD ESTOP - (3#14)1" C
 PUMP 3 VIBRATION SWITCH - (4#14)1" C
 PUMP 4 POWER - (3#1+1#6EG)2-1/2" - VFD CABLE - ADD ALT.1
 PUMP 4 VFD ESTOP - (3#14)1" C - ADD ALT.1
 PUMP 4 VIBRATION SWITCH - (4#14)1" C - ADD ALT.1
 HIGH LEVEL FLOAT SWITCH - (2#16)3/4" C
 BACKUP FLOAT SWITCH - (2#16)3/4" C
 MULTI TRODE - (VENDOR CABLE)1" C
 TRANSDUCER - (VENDOR CABLE)3/4" C
 SECURITY NORTH - (2#14)1" C
 SECURITY SOUTH - (2#14)1" C
 EX. MCC - (F600N)]-INSTALL AS SPARE FOR FUTURE USE
15. CONTRACTOR SHALL LEAVE SURGE PROTECTIVE DEVICE, DISCONNECT SWITCH, AND AUTOMATIC TRANSFER SWITCH IN SERVICE UNTIL NEW ELECTRICAL SERVICE IS ESTABLISHED AND FULLY IN-SERVICE. CONTRACTOR SHALL CAREFULLY REMOVE SURGE PROTECTIVE DEVICE, DISCONNECT SWITCH, AND AUTOMATIC TRANSFER SWITCH FROM SERVICE AND RETURN TO OWNER UPON COMPLETION OF PLACING NEW CONTROL BUILDING AND ASSOCIATED ELECTRICAL INFRASTRUCTURE IN SERVICE.

ADD ALT. 1

ALL WORK ASSOCIATED WITH PUMP 4 IS ADD ALT. 1

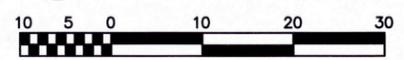
FURNISH AND INSTALL NEW CONDUIT AND CONDUCTORS AS REQUIRED FROM THE EXISTING WETWELL CONTROL SYSTEM (VEGA) AND THE NEW OWNER FURNISHED CONTROL PANEL. QUANTITY OF CONDUCTORS SHALL BE SUFFICIENT TO EXTEND ALL EXISTING CONDUCTORS TO NEW LOCATION. FINAL TERMINATION AND COMMISSIONING SHALL BE BY OWNER.



2 WALL ELEVATION
SCALE: NONE



1 ELECTRICAL SITE PLAN
SCALE: 1" = 10'-0"



REVISION	BY	DATE

BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

**CITYWIDE LIFT STATION IMPROVEMENTS
CHEROKEE PARK LIFT STATION**

ELECTRICAL SITE PLAN

CITY OF TULSA, OKLAHOMA
TULSA METROPOLITAN UTILITY AUTHORITY
WATER AND SEWER DEPARTMENT

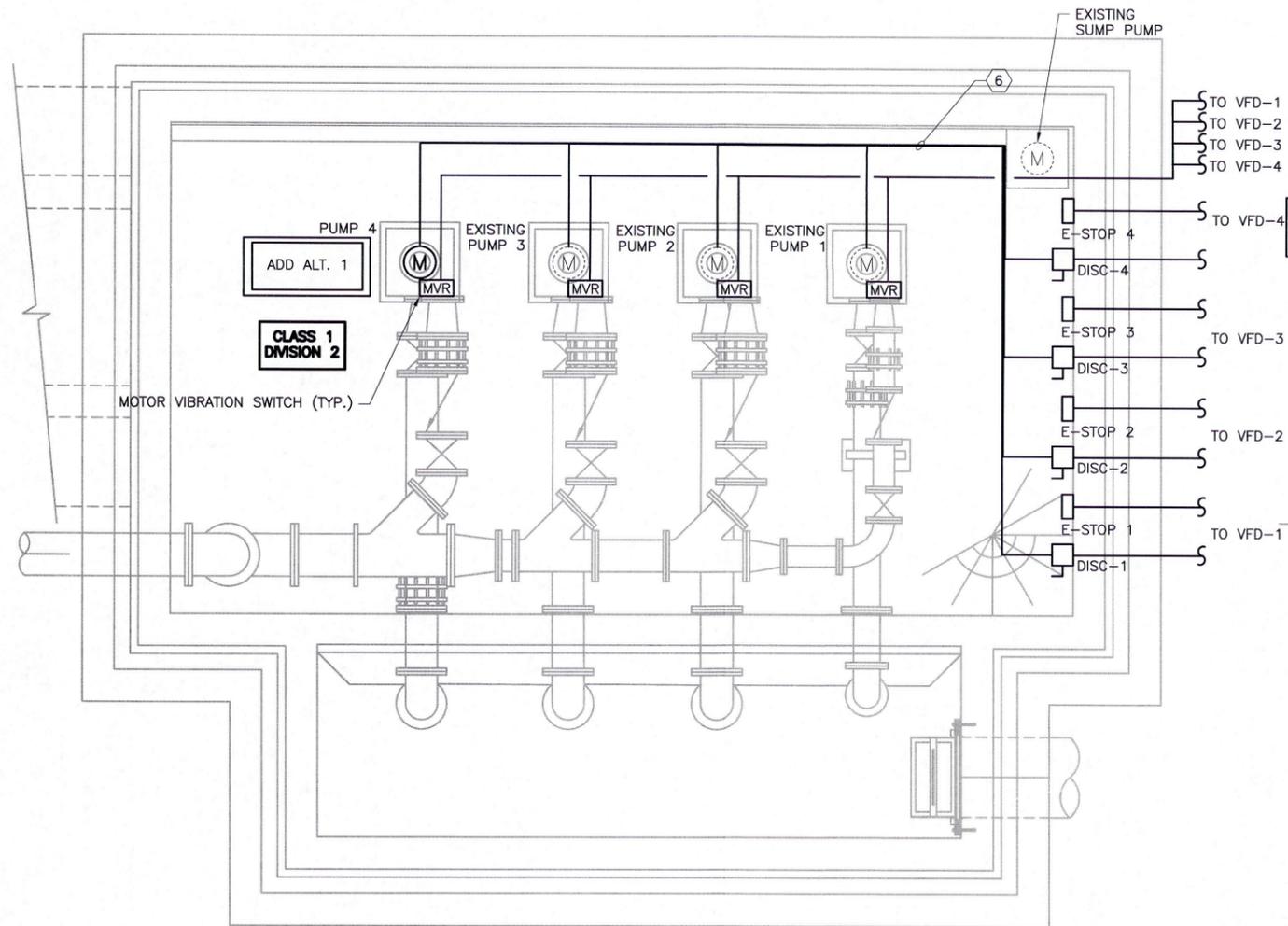
PLANS AND ESTIMATES PREPARED BY: **HOLLOWAY, UPDIKE + BELLEN, Inc.**
2001 N WILLOW AVE, BROKEN ARROW, OKLAHOMA 74012
(918)228-0717, FAX (918)221-0754

PLAN SCALE: AS SHOWN	DRAWN: EL	APPROVED:
DESIGNED: AL	SURVEY:	 CITY ENGINEER
PROFILE SCALE: PROJ. MGR. SW 2/26	LEAD ENGR. 6/2 2/26	
HORIZONTAL: FIELD MGR. 6/2 2/26	RECOMMENDED:	
VERTICAL: DESIGN MANAGER	DATE: DECEMBER 2025	
HUB PROJECT NO: 24TMUACHEROK	ATLAS PAGE NO: 452	SHEET E2 OF 10 SHEETS

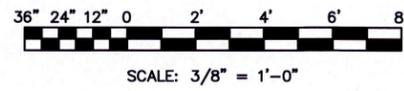


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12/4/2025 8:46 AM



1 LIFT STATION ELECTRICAL PLAN - LOWER
SCALE: 3/8" = 1'-0"

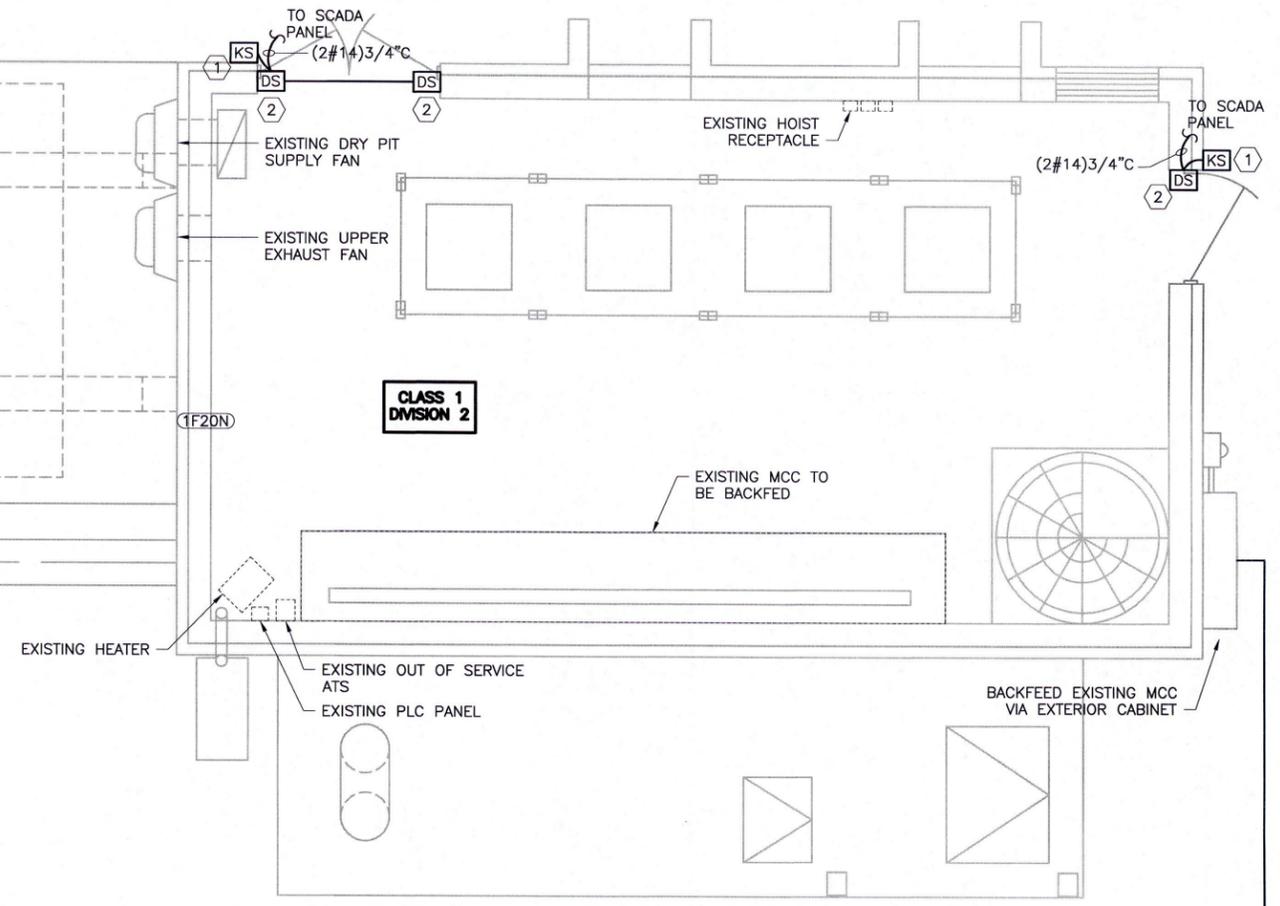


KEYED NOTES:

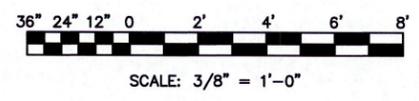
1. INSTALL SECURITY KEYSWITCH AND DOOR SWITCH. KEYSWITCH PROVIDED BY THE CITY OF TULSA. MOUNT KEYSWITCH AT SAME ELEVATION AS DOOR KNOB. KEYSWITCH SHALL OVERRIDE ALARM
2. INTERIOR ALARM MAGNETIC CONTACTS MOUNTED ON INSIDE OF DOOR.
3. BACKUP FLOAT SWITCH (NOT USED)
4. HIGH WET WELL FLOAT SWITCH (NOT USED)
5. MULTI TRODE PROBE (NOT USED)
6. ROUTE CONDUIT ALONG WALL AND THEN OVERHEAD TO EACH PUMP. SUPPORT CONDUIT AS APPROPRIATE.

GENERAL NOTES:

1. NOT USED.
2. ONLY INSULATED FITTINGS ALLOWED.
3. EMT COMPRESSION FITTINGS SHALL NOT BE USED.
4. EMT LOK CONNECTOR SHALL NOT BE USED.
5. EMT DIE CAST ZINC SHALL NOT BE USED, SET SCREW OR COMPRESSION.
6. ALL ENCLOSURES SHALL HAVE BUCKLE TYPE QUICK LATCHES.
7. ALL STAINLESS STEEL 316.
8. CONCRETE ANCHORS AND T-BOLTS SHALL BE 316 S.S. WEDGE ANCHORS NOT ALLOWED.
9. OUTDOOR RECEPTACLES SHALL BE GFCI AND WEATHER RESISTANT. ALL WEATHERPROOF COVERS SHALL BE WEATHERPROOF WHILE IN USE, HEAVY DUTY, LOCKABLE.
10. CONTRACTOR SHALL NOT INSTALL CONDUIT WITHIN WETWELL OR ROUTE CONDUIT ON TOP OF WETWELL THUS CREATING A TRIP HAZARD. CONDUIT SHALL BE BURIED AND INSTALLED AROUND PERIMETER OF WETWELL TO CONTROL PANEL.
11. CONTRACTOR SHALL DEMOLISH AND REMOVE ALL EXISTING CONDUIT, WIRE, LIGHT SWITCHES, LIGHT FIXTURES, AND RECEPTACLES INSIDE AND OUTSIDE EXISTING LIFT STATION EXCEPT FOR WHAT IS SHOWN TO BE BACKFED ON PLANS. OWNER SHALL HAVE FIRST RIGHT TO SALVAGE ON ALL ELECTRICAL EQUIPMENT BEFORE IT IS REMOVED FROM THE SITE BY CONTRACTOR. CONTRACTOR SHALL COORDINATE FULLY WITH OWNER.
12. NO USED.
13. NOT USED.
14. FURNISH AND INSTALL SEAL-OFF FITTING. DO NOT INSTALL SEALING COMPOUND UNTIL FINAL INSPECTIONS ARE COMPLETE.



2 LIFT STATION ELECTRICAL PLAN - UPPER
SCALE: 3/8" = 1'-0"



REVISION	BY	DATE

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**CITYWIDE LIFT STATION IMPROVEMENTS
CHEROKEE PARK LIFT STATION**

ELECTRICAL LIFT STATION PLAN

CITY OF TULSA, OKLAHOMA
TULSA METROPOLITAN UTILITY AUTHORITY
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY: **HOLLOWAY, UPDIKE + BELLEN, Inc.**
3001 N WILLOW AVE. SPENCER, OKLAHOMA 74062
(918)225-0717, FAX (918)225-0754

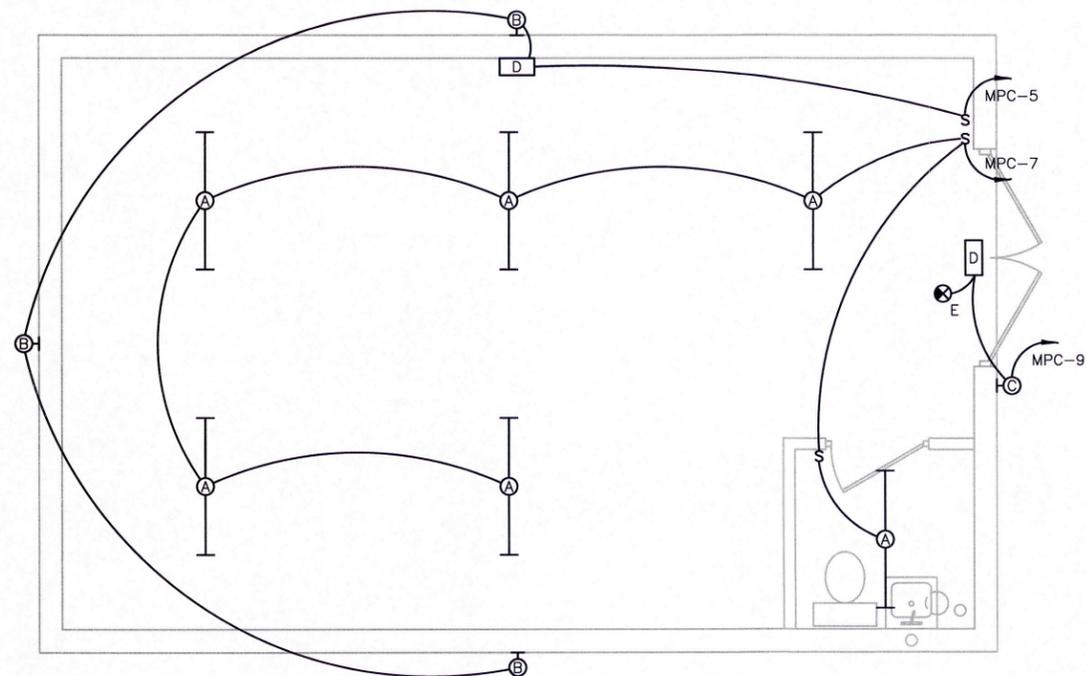
PLAN SCALE: AS SHOWN	DRAWN: EL	EL	APPROVED:
DESIGNED: AL	AL		
SURVEY:			
PROFILE SCALE:	PROJ. MGR. <i>SV 2/26</i>		
HORIZONTAL:	LEAD ENGR. <i>AV 2/26</i>		
	FIELD MGR. <i>ana/26</i>		
	RECOMMENDED:		
	DESIGN MANAGER:		

HUB PROJECT NO: 24TMUACHEROK DATE: DECEMBER 2025
ATLAS PAGE NO: 452 SHEET E3 OF 10 SHEETS

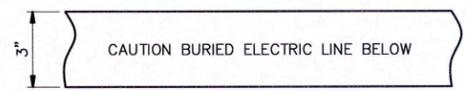
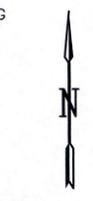
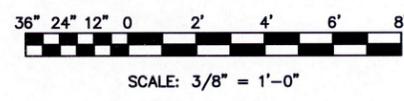


John D. M...
CITY ENGINEER

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12/4/2025 9:19 AM



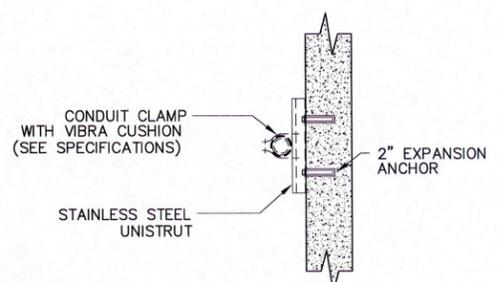
1 CONTROL BUILDING LIGHTING PLAN
SCALE: 3/8" = 1'-0"



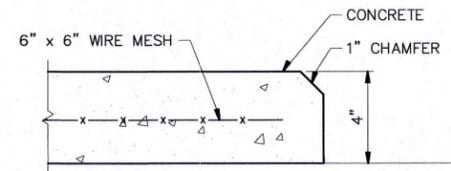
GENERAL NOTES:

- POWER MARKING TAPES SHALL BE DETECTABLE TYPE CONSTRUCTION WITH RED BACKGROUND AND BLACK LETTERING.
- COMMUNICATION MARKING TAPES SHALL BE DETECTABLE TYPE CONSTRUCTION WITH ORANGE BACKGROUND AND BLACK LETTERING, "TELEPHONE LINE" OR "FIBER OPTIC LINE" RESPECTIVELY.
- TAPE SHALL BE DETECTABLE, DURABLE, HIGHLY VISIBLE, RESISTANT TO ELEMENTS, MEETING AND/OR EXCEEDING ALL INDUSTRY STANDARDS.

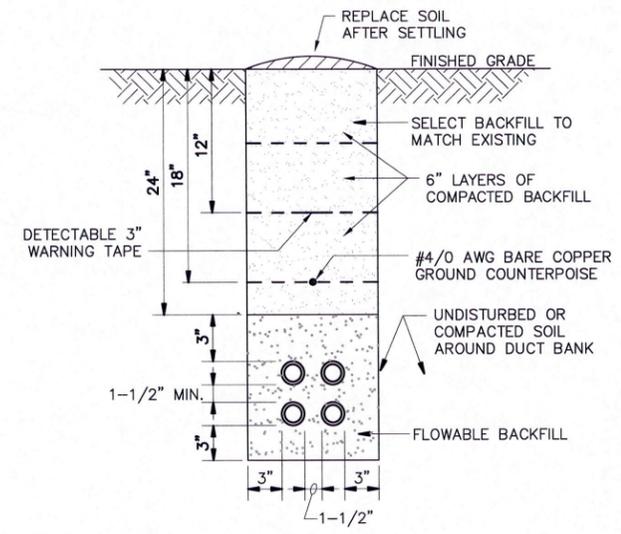
2 UNDERGROUND DETECTABLE WARNING TAPE
SCALE: NONE



3 CONDUIT SUPPORT DETAIL (SINGLE CONDUIT SHOWN, MULTIPLE CONDUIT SIMILAR)
SCALE: NONE



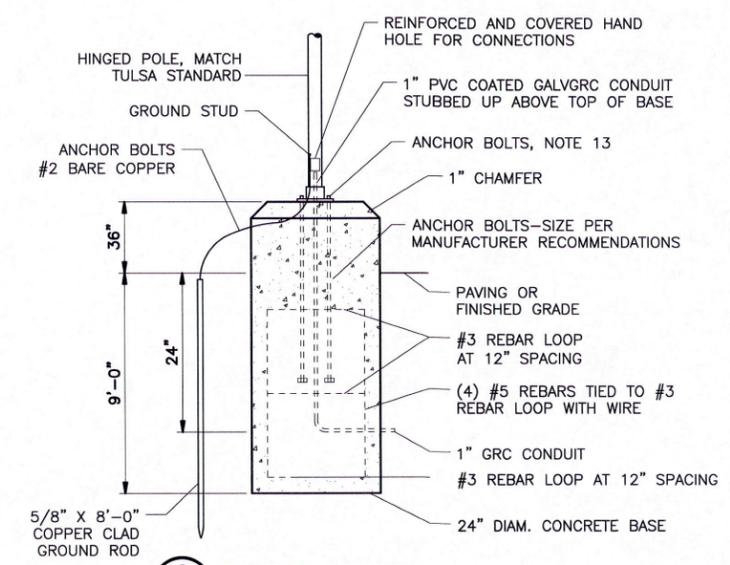
4 HOUSEKEEPING PAD (TYPICAL)
SCALE: NTS



5 TRENCH DETAIL
SCALE: NONE

LIGHT FIXTURE SCHEDULE						
MARK	MANUFACTURER	MODEL	LAMPS	FINISH	MOUNTING	REMARKS
A	LITHONIA	2ACLX472LEZ1LP840	LED	WHITE	CEILING SURFACE	2X4 SURFACE MOUNT
B	GENERAL ELECTRIC	EWNA1F35507NDABZFH	5000K, 13000LU LED	BRONZE	WALL SURFACE	MOUNT FIXTURE TO SURFACE MOUNTED BELL BOX
C	GENERAL ELECTRIC	EWNA1F35507NDABZFH	5000K, 13000LU LED	BRONZE	WALL SURFACE	MOUNT FIXTURE TO SURFACE MOUNTED BELL BOX. MOUNT LEVITON PS200-10-BLACK MOTION SENSOR ON BELL BOX ABOVE FIXTURE AND USE SENSOR TO CONTROL FIXTURE
D	LITHONIA	LHGMELEDR	LED	---	---	---
E	LITHONIA	ELM2	(2) 5000K, 30,000 LU LED	WHITE	CEILING SURFACE	WITH EMERGENCY BALLAST, TEST SWITCH AND PILOT LIGHT
F	GENERAL ELECTRIC	EASB1U5N7504SDKBZF	(2) 5000K, 30,000 LU LED	BRONZE	HINGED STEEL POLE VALMONT "20 FEET" WITH WINCHDSF10400F20P7FPGBKFCAB2180A	SWITCH TO BE LOCATED INSIDE CONTROL BUILDING. NO PHOTO CELL

COORDINATE FINAL FIXTURE SELECTION WITH CITY OF TULSA STANDARDS FOR MODEL AND VOLTAGE



6 POLE BASE DETAIL
SCALE: NONE

ELECTRICAL DUCT NOTES:

- CONTRACTOR SHALL STAKE THE DUCT INSTALLATION IN PLAN AND ELEVATION FOR NEW ELECTRICAL DUCTS TO AVOID EXISTING UTILITIES.
- CONTRACTOR SHALL ADJUST THE DEPTH OF THE ELECTRICAL DUCTS AS REQUIRED TO MAINTAIN THE MINIMUM COVER REQUIREMENT INDICATED AND AVOID EXISTING UTILITIES.
- SIMILAR CONSTRUCTION FOR OTHER DUCT SIZES. SEE DUCT BANK SCHEDULE FOR QUANTITY AND SIZES.
- INSTALL DUCT CONDUIT SUPPORTS AT 5'-0" O.C. MAXIMUM SPACING (TYPICAL ALL DUCTS).
- OFFSETS AND BENDS OVER 10 DEGREES AND ELBOWS IN PVC CONDUIT RUNS SHALL BE PVC COATED GALVANIZED RIGID STEEL CONDUIT.
- NO PVC SHALL EMERGE FROM THE GROUND OR CONCRETE SLAB OR ENCASEMENT, PVC SHALL CONVERT TO PVC COATED GALVANIZED RIGID STEEL CONDUIT PRIOR TO ITS EMERGENCE.
- INSTALL GROUND RODS AT ENDS OF ELECTRICAL DUCT OR CONNECT TO GROUND RING.
- INSTALL CONDUCTORS AND CABLES AS NOTED ON DRAWING. INSTALL PULLWIRE IN ALL SPARE DUCTS.
- MINIMUM COVER REQUIREMENT FOR DUCT BANKS UNDER ROADS, DRIVEWAYS AND PARKING LOTS SHALL BE 24".
- MINIMUM COVER REQUIREMENTS FOR ELECTRICAL SECONDARY SERVICE DUCT BANKS SHALL BE 30".
- MINIMUM COVER REQUIREMENTS FOR ELECTRICAL PRIMARY SERVICE DUCT BANKS SHALL BE 36".

REVISION	BY	DATE

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**CITYWIDE LIFT STATION IMPROVEMENTS
CHEROKEE PARK LIFT STATION**

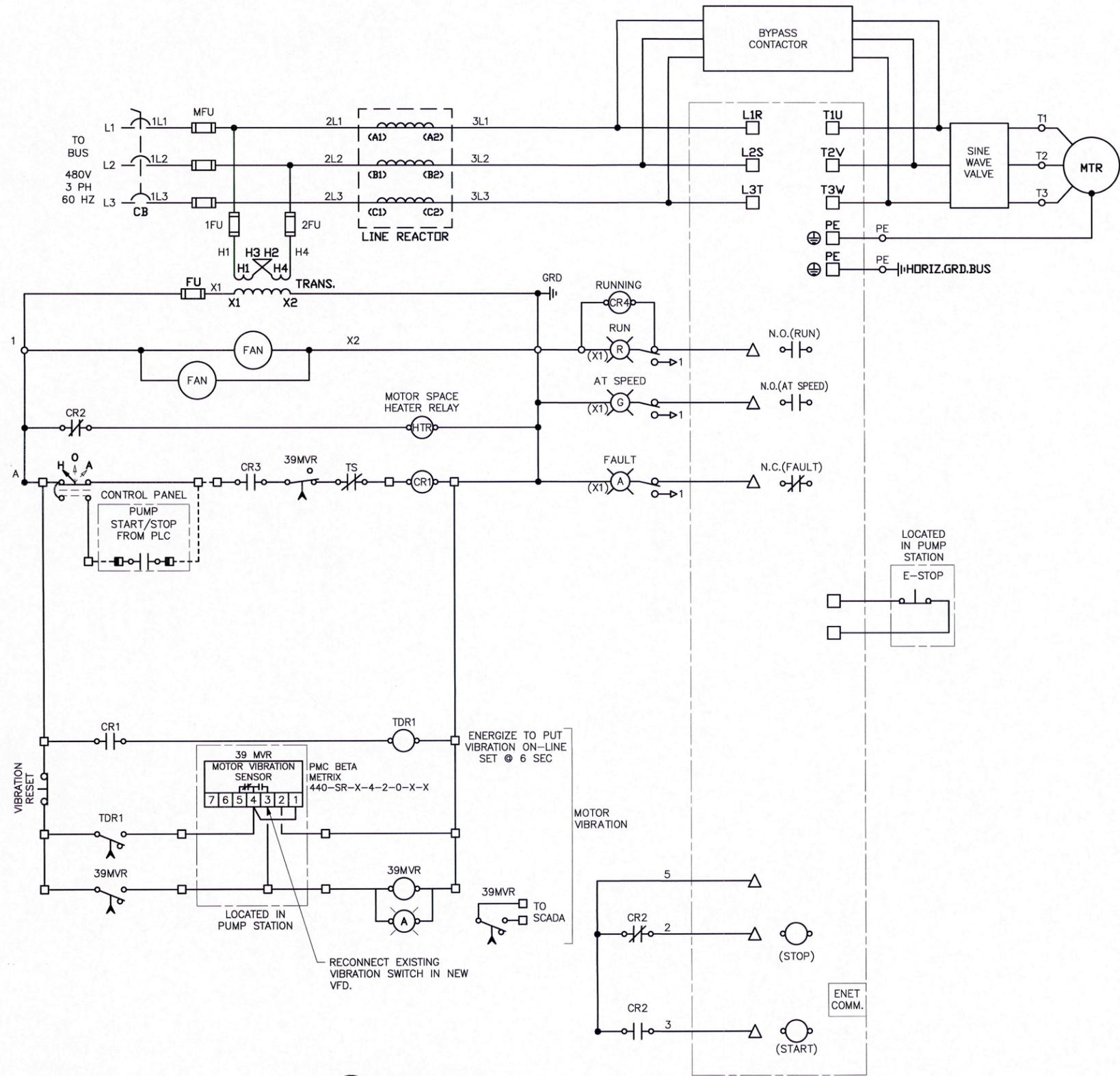
CONTROL BUILDING LIGHTING PLAN

CITY OF TULSA, OKLAHOMA
TULSA METROPOLITAN UTILITY AUTHORITY
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY: HOLLOWAY, UPDIKE + BELLEN, Inc.
2001 N WILLOW AVE, BROKEN ARROW, OKLAHOMA 74022
(918) 252-0777 FAX (918) 252-0254

PLAN SCALE:	DRAWN	EL	APPROVED:
AS SHOWN	DESIGNED	AL	 36138 2015-12-02 HUB-314 OKLAHOMA
PROFILE SCALE:	SURVEY		
HORIZONTAL:	PROJ. MGR.	8/1 2/26	
	LEAD ENGR.	6/2 2/26	
	FIELD MGR.	7/1 2/26	
VERTICAL:	RECOMMENDED:		
	DESIGN MANAGER		CITY ENGINEER
HUB PROJECT NO:	24TMUACHEROK		DATE: DECEMBER 2025
ATLAS PAGE NO:	452		SHEET E5 OF 10 SHEETS

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1 VFD SCHEMATIC
SCALE: NONE

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**CITYWIDE LIFT STATION IMPROVEMENTS
CHEROKEE PARK LIFT STATION**

SCHEMATIC I

CITY OF TULSA, OKLAHOMA
TULSA METROPOLITAN UTILITY AUTHORITY
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY: HOLLOWAY, UPDIKE + BELLEN, Inc.
2001 N WILLOW AVE, BROKEN ARROW, OKLAHOMA 74012
(918)251-0757, FAX (918)251-0754

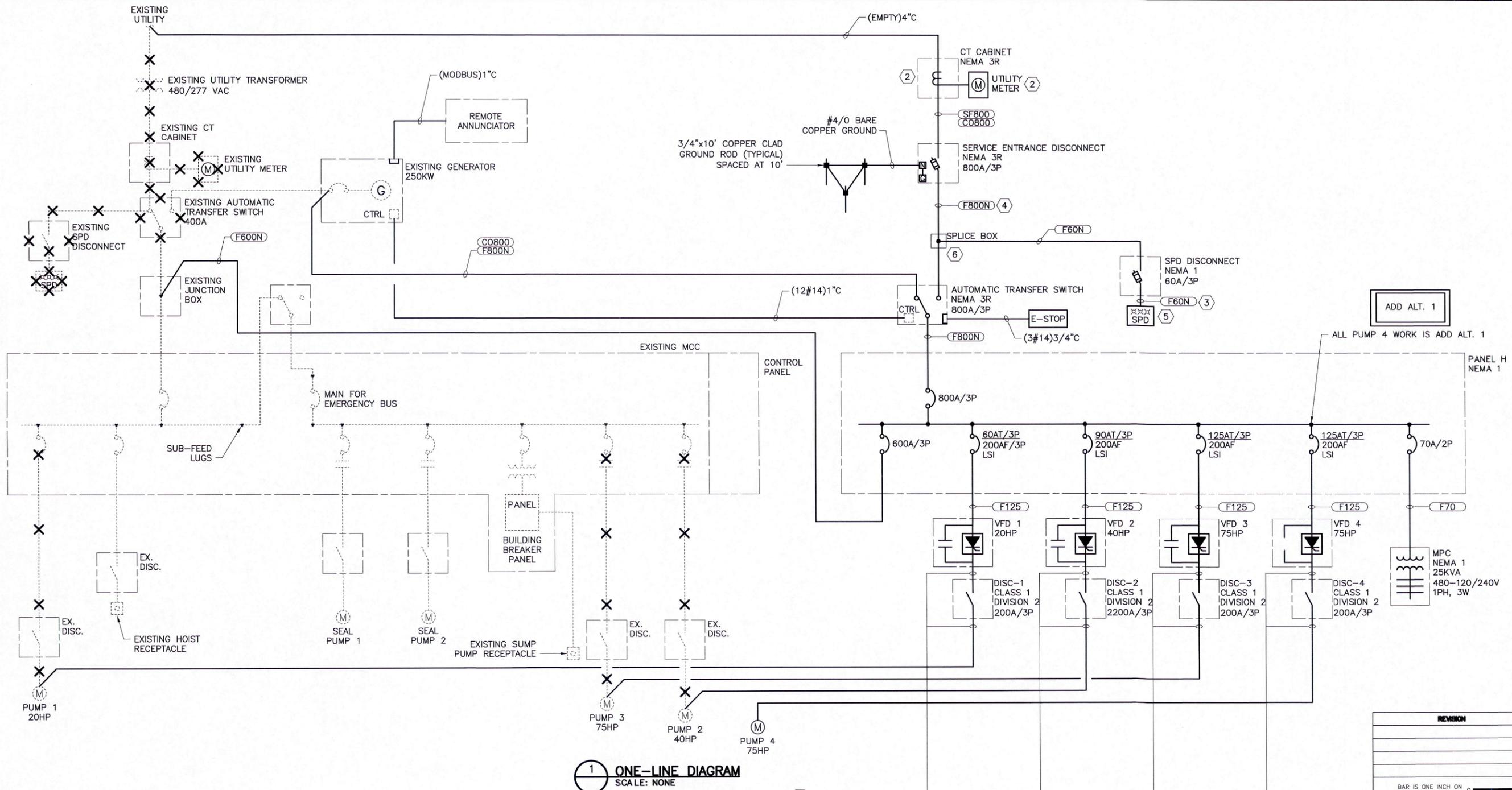
PLAN SCALE: AS SHOWN	DRAWN	EL	APPROVED:
	DESIGNED	AL	
	SURVEY		
PROFILE SCALE:	PROJ. MGR.		
	LEAD ENGR.		
HORIZONTAL:	FIELD MGR.		
	RECOMMENDED:		
	DESIGN MANAGER		

HUB PROJECT NO: 24TMUACHEROK DATE: DECEMBER 2025
ATLAS PAGE NO: 452 SHEET E6 OF 10 SHEETS



Shirley M. M.
CITY ENGINEER

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12/5/2025 3:32 PM



1 ONE-LINE DIAGRAM
SCALE: NONE

LEGEND:

- ELECTRIC POWER MONITORING AND METERING
- UTILITY METER
- LSIG LONG TIME, SHORT TIME, INSTANTANEOUS AND GROUND FAULT ADJUSTABLE ELEMENTS
- ERMS ENERGY REDUCING MAINTENANCE SWITCH
- VFD - SEE NOTES THIS SHEET

VFD NOTES:

1. VFD'S SHALL BE WITH NEMA 1 ENCLOSURES.
2. VFD SHALL BE SIZED AND RATED TO DELIVER APPROVED MOTOR NAMEPLATE FLA AT 50 DEGREE C AMBIENT TEMPERATURE.
3. VFD SHALL BE RATED "HEAVY DUTY".
4. VFD SHALL BE SIZED 125% OF APPROVED MOTOR FLA.

KEYED NOTES:

1. CONTRACTOR SHALL COORDINATE WITH PSO-AEP REQUIREMENTS.
2. CONDUCTORS FROM SERVICE ENTRANCE DISCONNECT TO DISCONNECT SHALL BE CONTINUOUS, WITHOUT SPLICE.
3. 36" LENGTH MAXIMUM.
4. CONTRACTOR SHALL NOT INSTALL IN WIREWAY.
5. FURNISH AND INSTALL RAYCAP TVSS TECHNOLOGY WITH ASCO 500 SERIES - PART NO. 0-51-22Y-B-G-0100-N-0XF (X-120A ALARM BOARD LED'S AND CONTACTS) OR RAYCAP PART NO 277-3Y-M3-4-06-C. CONFIRM WITH SYSTEM VOLTAGE.
6. BUILD 36"W X 12"H X 6"D SPLICE BOX WITH SCREW COVER. USE COMPRESSION "H" OR "C" TAPS. TAP SWITCH #2 CONDUCTORS TO SWITCH #1 CONDUCTORS. SWITCH #1 CONDUCTORS SHALL BE CONTINUOUS, WITHOUT SPLICE, FROM TRANSFER SWITCH TO FUSED SWITCH.

- VFD CABLE
- (3#10+1#10EG)2-1/2"C
 - (3#6+1#6EG)2-1/2"C
 - (3#1+1#6EG)2-1/2"C
 - (3#1+1#6EG)2-1/2"C

REVISION	BY	DATE

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**CITYWIDE LIFT STATION IMPROVEMENTS
CHEROKEE PARK LIFT STATION**

ONE-LINE DIAGRAM

CITY OF TULSA, OKLAHOMA
TULSA METROPOLITAN UTILITY AUTHORITY
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY: HOLLOWAY, UPDIKE + BELLEN, Inc.
2001 N WILLOW AVE. BROKEN ARROW, OKLAHOMA 74002
(918)259-0797, FAX (918)259-0794

PLAN SCALE: AS SHOWN	DRAWN	EL	APPROVED:
	DESIGNED	AL	
	SURVEY		
PROFILE SCALE:	PROJ. MGR.	BY 2/26	
	LEAD ENGR.	BY 2/26	
HORIZONTAL:	FIELD MGR.	BY 2/26	
	RECOMMENDED:		
VERTICAL:	DESIGN MANAGER		

HUB PROJECT NO: 24TMUACHEROK DATE: DECEMBER 2025
ATLAS PAGE NO: 452 SHEET E7 OF 10 SHEETS



NEMA 1

POWER PANEL "H"		800 AMP MAIN CIRCUIT BREAKER						
480 Y / 277 VOLTS, 3 PHASE 4 WIRE		65,000 AIC						
CKT.	DESCRIPTION	LOAD				OVERCURRENT		
		KVA	AMPS	HP	STARTER	TRIP	POLES	FRAME
1	SURGE PROTECTIVE DEVICE	0.000	0.00			60	3	
2	PUMP 1	20.00	24.06	20		60	3	200
3	PUMP 2	40.00	48.11	40		90	3	200
4	PUMP 3	75.00	90.21	75		125	3	200
5	PUMP 4	75.00	90.21	75		125	3	200
6	MPC	12.90	15.52			70	3	
7	SPARE	0.00	0.00			15	3	
8	SPARE	0.00	0.00			15	3	
9	SPARE	0.00	0.00			20	3	
10	SPARE	0.00	0.00			100	3	
11	SPARE	0.00	0.00			100	3	
12	SPARE	0.00	0.00			100	3	
13	SPARE	0.00	0.00			90	3	
14	SPARE	0.00	0.00			125	3	
15	SPARE	0.00	0.00			125	3	
16	TWPU-1	14.05	16.90			25	3	
17	SPARE	0.00	0.00			20	3	
18	SPARE	0.00	0.00			30	3	
19	SPARE	0.00	0.00			20	1	
20	SPARE	0.00	0.00			30	1	
21	EX-MCC	50.00	60.14			600	3	
22		0.00	0.00					
23		0.00	0.00					
24		0.00	0.00					
25		0.00	0.00					
26		0.00	0.00					
27		0.00	0.00					
28		0.00	0.00					
29		0.00	0.00					
CONNECTED LOAD		286.950	KVA					
DESIGN FACTOR		1.2500						
DESIGN LOAD		358.688	KVA					
DESIGN CURRENT		431.45	AMPS					

* PUMP 4 WORK IS ADD ALT 1. CONTRACTOR SHALL FURNISH AND INSTALL BREAKER REGARDLESS IF ADD ALT 1 IS NOT INCLUDED IN CONTRACT.

FEEDER DESIGNATION	AMPERE RATING	CONDUCTOR SIZE		CONDUIT	
		(AWG OF KCML)		NO. RUNS	SIZE
		PH	GND		
F20	20	12	12	1	1"
F30	30	10	10	1	1"
F40	40	8	10	1	1-1/4"
F50	50	6	10	1	1-1/4"
F60	60	6	10	1	1-1/4"
F70	70	4	8	1	1-1/2"
F80	80	4	8	1	1-1/2"
F90	90	2	8	1	2"
F100	100	2	8	1	2"
F110	110	2	6	1	2"
F125	125	1/0	6	1	2-1/2"
F150	150	1/0	6	1	2-1/2"
F175	175	2/0	6	1	2-1/2"
F200	200	3/0	6	1	3"
F225	225	4/0	4	1	3"
F250	250	250	4	1	4"
F300	300	350	4	1	4"
F350	350	500	2	1	4"
F400	400	500	1/0	1	4"
F450	450	4/0	2	2	3"
F500	500	250	2	2	4"
F600	600	350	1/0	2	4"
F700	700	500	1/0	2	4"
F800	800	500	1/0	2	4"
F1000	1000	500	2/0	3	4"
F1200	1200	350	3/0	4	4"
F1600	1600	500	4/0	5	4"
F2000	2000	500	250	6	4"
F2500	2500	500	350	7	4"
F3000	3000	500	500	8	4"
F4000	4000	500	500	11	4"

FEEDER SCHEDULE NOTES:

- "H" SUFFIX INDICATES THAT FEEDER IS TO BE USED ON A 480 VOLT CIRCUIT.
- "L" SUFFIX INDICATES THAT FEEDER IS TO BE USED ON 208/240 VOLT CIRCUIT.
- "N" SUFFIX INDICATES THAT FEEDER CONTAINS A FULL SIZE NEUTRAL CONDUCTOR. OTHERWISE PROVIDE ONLY PHASE AND GROUND CONDUCTORS.
- "1" PREFIX INDICATES A SINGLE PHASE FEEDER (LINE-TO-LINE). OTHERWISE ASSUME 3-PHASE FEEDER.
- "S" PREFIX INDICATES A SERVICE FEEDER CONSISTING OF PHASE CONDUCTORS PLUS A FULL SIZE GROUNDED SERVICE CONDUCTOR (NEUTRAL).
- "CO" MEANS PROVIDE CONDUIT ONLY FOR THAT FEEDER SIZE.

NEMA 1

PANELBOARD SCHEDULE									
PANEL: MPC		VOLTS: 240/120 1PH, 3W			MAIN: 100A MCB			65,000 AIC	
DESCRIPTION	BKR	NO.	A	B	A	B	NO.	BKR	DESCRIPTION
SURGE PROTECTIVE DEVICE	60A/2P	1	0.000		0.180		2	20A/1P	TELEMETRY PANEL
SURGE PROTECTIVE DEVICE	-	3		0.000		1.000	4	20A/2P	GEN BLOCK HEATER
CTRL BLDG EXTERIOR LIGHTS	20A/1P	5	0.000		1.000		6	-	GEN BLOCK HEATER
CTRL BLDG INTERIOR LIGHTS	20A/1P	7		0.000		0.500	8	20A/1P	GEN BATTERY CHARGER
CTRL BLDG EMERGENCY LIGHT	20A/1P	9	0.000		1.080		10	20A/1P	CTRL BLDG RECEPES
SPARE	20A/1P	11		0.000		0.000	12	20A/1P	SPARE
SPARE	20A/1P	13	0.000		0.500		14	20A/1P	LEVEL CONTROL PANEL
SPARE	20A/1P	15		0.000		1.500	16	20A/1P	EXISTING SUMP PUMP
SPARE	20A/2P	17	0.000		0.000		18	40A/2P	SPARE
SPARE	-	19		0.000		0.000	20	-	SPARE
SPARE	40A/1P	21	0.000		1.440		22	20A/1P	WATER HEATER
SPARE	50A/2P	23		0.000		1.500	24	20A/1P	EW-1
SPARE	-	25	0.000		0.000		26	20A/1P	SPARE
		27		0.000		0.000	28	20A/1P	SPARE
		29	0.000		0.000		30		
		31		0.000		0.000	32		
		33	0.000		0.000		34		
		35		0.000		0.000	36		
		37	0.000		0.000		38		
		39		0.050		1.000	40		
		41	0.000		1.000		42		
			0.000	0.050	5.200	5.500			
			5.200	5.550	TOTAL CONNECTED KVA				
			10.750						
			13.438		DESIGN KVA				
			56		DESIGN AMPS				

GENERAL NOTES:

- CARRY CODE SIZE GROUND WIRE IN ALL FEEDER AND BRANCH CONDUITS AND ATTACH TO ALL DEVICES, FIXTURES AND EQUIPMENT.
- RACEWAYS CONTAINING #10 OR SMALLER PHASE CONDUCTORS: DO NOT INSTALL MORE THAN SIX PHASE CONDUCTORS WHICH TO SHARE TWO NEUTRALS MAXIMUM IN A 3/4" OR LARGER RACEWAY UNLESS SO INDICATED ON PLAN.
- FURNISH AND INSTALL MARKED BRADY TYPE PULLSTRING IN ALL EMPTY CONDUITS.
- NOT USED.
- NO CONDUIT SHALL BE LESS THAN 3/4" TRADE SIZE.
- ALL UNDERGROUND BENDS AND ELBOWS SHALL BE LONG SWEEP.
- USE 1-5/8" X 1-5/8" HOT DIPPED GALVANIZED STEEL STRUT WITH LONG SLOTTED HOLES TO SUPPORT ALL PANELS, ENCLOSURES, AND BOXES TO WALLS OF BUILDING.
- ANCHORS IN BLOCK WALLS SHALL BE EXPANSION TYPE WHEN HOLE DOES NOT ENTER BLOCK VOID. USE "T" BOLTS WHERE HOLE ENTERS BLOCK VOID. NO TOGGLE BOLTS ALLOWED.
- PROVIDE 20% SPARE, OR AT LEAST (2)-SPARE CONDUCTORS, WHICHEVER IS GREATER IN ALL CONDUITS CONTAINING #12 OR SMALLER CONDUCTORS THAT ARE INSTALLED UNDERGROUND OR PASS THROUGH A VAPOR SEAL.
- MOUNT ALL ELECTRICAL PANELS, ATS, PUMP CONTROL PANEL, AND SCADA PANEL 6'-6" AFF TO TOP.

REVISION	BY	DATE

BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

**CITYWIDE LIFT STATION IMPROVEMENTS
CHEROKEE PARK LIFT STATION**

ELECTRICAL SCHEDULES I

CITY OF TULSA, OKLAHOMA
TULSA METROPOLITAN UTILITY AUTHORITY
WATER AND SEWER DEPARTMENT

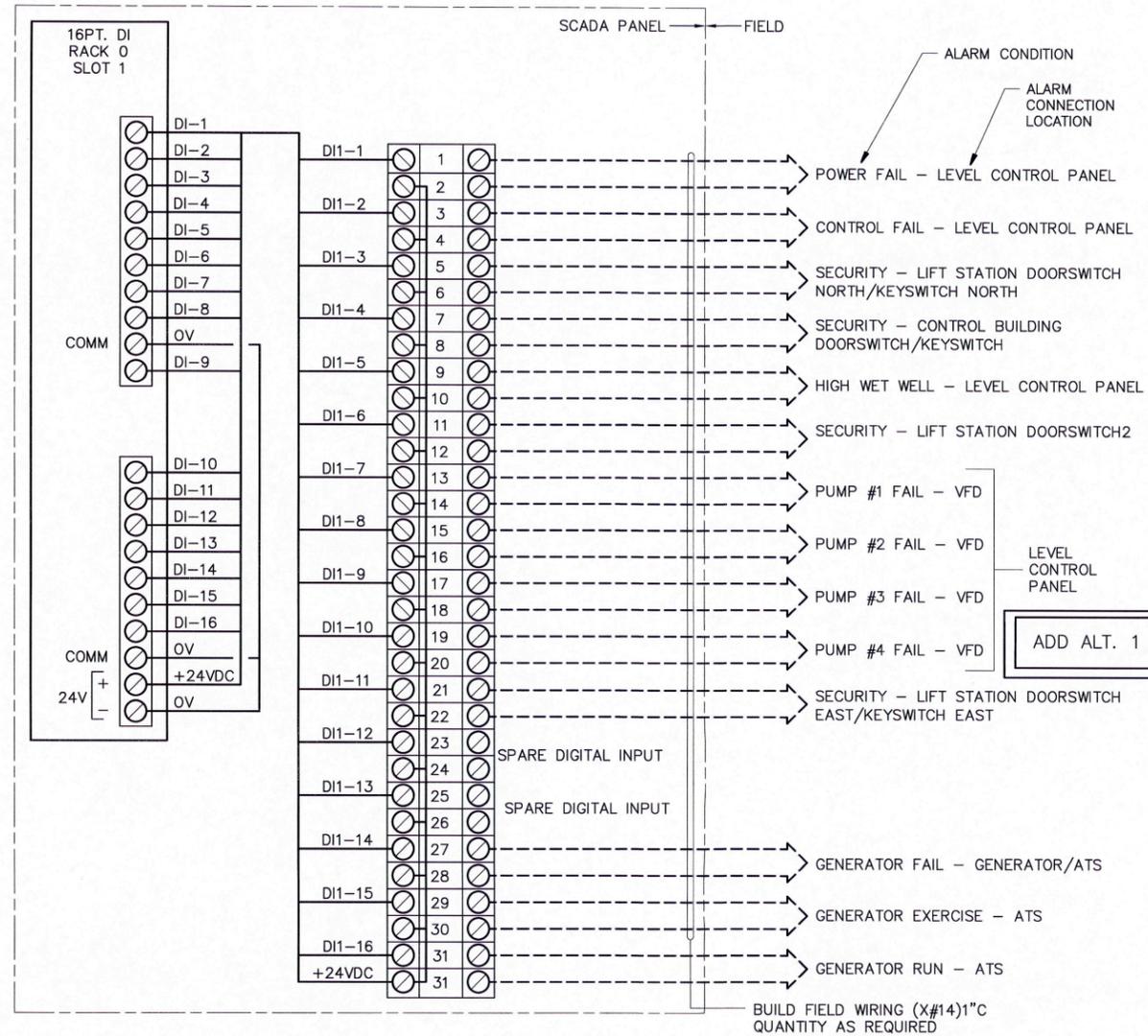
PLANS AND ESTIMATES PREPARED BY:  HOLLOWAY, UPDIKE + BELLEN, Inc.
2001 N WELLS AVE. BROKEN ARROW, OKLAHOMA 74012
(918)225-0707 FAX (918)225-0754

PLAN SCALE: AS SHOWN	DRAWN	EL	APPROVED:
	DESIGNED	AL	
	SURVEY		
PROFILE SCALE:	PROJ. MGR.	SV 2/26	
	LEAD ENGR.	AZ 2/26	
HORIZONTAL:	FIELD MGR.	Paul 2/26	
	RECOMMENDED:		
VERTICAL:	DESIGN MANAGER		



HUB PROJECT NO: 24TMUACHEROK DATE: DECEMBER 2025
ATLAS PAGE NO: 452 SHEET EB OF 10 SHEETS

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SCADA SYSTEM NOTES:

1. NOT USED.
2. LOW VOLTAGE CABLE FOR SCADA FIELD WIRING MAY BE NEATLY RUN, EXPOSED IN CONTROL BUILDING.
3. NOT USED.
4. NOT USED.
5. NOT USED.
6. NOT USED.
7. NOT USED.

FURNISH AND INSTALL NEW CONDUIT AND CONDUCTORS REQUIRED FROM THE EXISTING WETWELL CONTROL SYSTEM (VEGA) AND THE NEW OWNER FURNISHED CONTROL PANEL. QUANTITY OF CONDUCTORS SHALL BE SUFFICIENT TO EXTEND ALL EXISTING CONDUCTORS TO NEW LOCATION. FINAL TERMINATION AND COMMISSIONING SHALL BE BY OWNER.

REVISION	BY	DATE

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CITYWIDE LIFT STATION IMPROVEMENTS
CHEROKEE PARK LIFT STATION

ELECTRICAL SCADA

CITY OF TULSA, OKLAHOMA
TULSA METROPOLITAN UTILITY AUTHORITY
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY: HOLLOWAY, UPDIKE + BELLEN, Inc.
2001 W WILLOW AVE, BROOKSHIRE, OKLAHOMA 74102
(918)285-0777, FAX (918)285-0784

PLAN SCALE: AS SHOWN	DRAWN	EL	APPROVED:
DESIGNED	AL		
SURVEY			

PROFILE SCALE: PROJ. MGR. *BY* 2/26

HORIZONTAL: LEAD ENGR. *RZ* 2/26

FIELD MGR. *Multiple*

RECOMMENDED:

DESIGN MANAGER

HUB PROJECT NO: 24TMUACHEROK

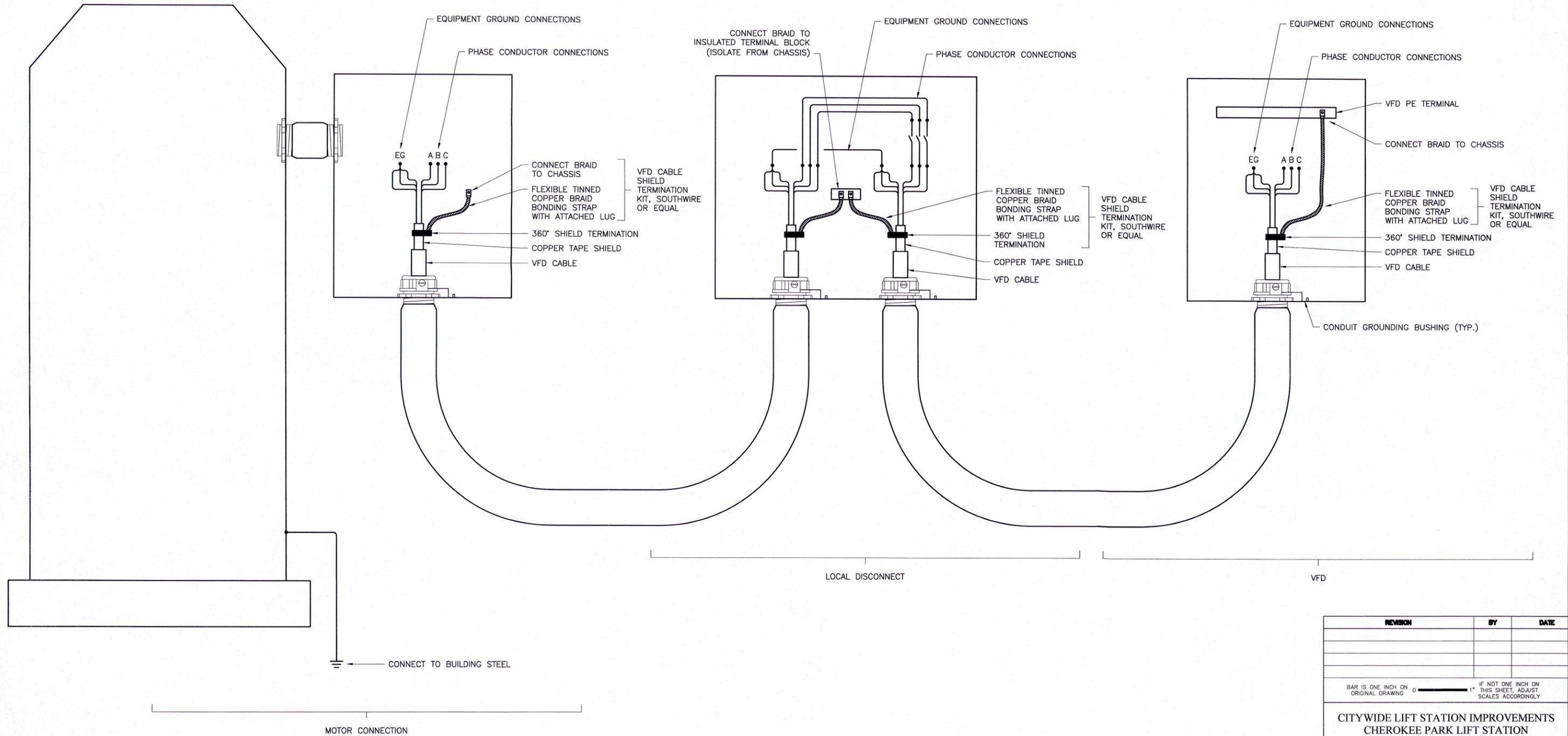
DATE: DECEMBER 2025

ATLAS PAGE NO: 452

SHEET 09 OF 10 SHEETS



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**CITYWIDE LIFT STATION IMPROVEMENTS
CHEROKEE PARK LIFT STATION**

VFD CABLE GROUNDING

CITY OF TULSA, OKLAHOMA
TULSA METROPOLITAN UTILITY AUTHORITY
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY: HOLLOWAY, UPDIKE + BELLEN, Inc.
2001 N WILLOW AVE, BROKEN ARROW, OKLAHOMA 74012
(918) 252-0777 FAX (918) 252-0754

PLAN SCALE: AS SHOWN	DRAWN	EL	APPROVED:
	DESIGNED	AL	
	SURVEY		
PROFILE SCALE:	PROJ. MGR.	SV 2/26	
HORIZONTAL:	LEAD ENGR.	AL 2/26	
	FIELD MGR.	SV 2/26	
VERTICAL:	RECOMMENDED:		
	DESIGN MANAGER		



Thomas G. My
CITY ENGINEER

MECHANICAL LEGEND

ABBREVIATION OR SYMBOL	DESCRIPTION	ABBREVIATION OR SYMBOL	DESCRIPTION	ABBREVIATION OR SYMBOL	DESCRIPTION	ABBREVIATION OR SYMBOL	DESCRIPTION
AD	AIR DOOR		NEW EQUIPMENT		RECTANGULAR/ROUND TRANSITION		THERMOMETER
AHU	AIR HANDLING UNIT		AIR TERMINAL DESIGNATION		RECTANGULAR/ROUND TRANSITION		GAUGE OR SENSOR WELL
AFB	ABOVE FINISHED FLOOR		EXISTING EQUIPMENT TO REMAIN		DUCT ELBOW WITH TURNING VANES		DIRECTION OF FLOW
BAS	BUILDING AUTOMATION SYSTEM		EXISTING EQUIPMENT TO BE REMOVED		DUCT RADIUS ELBOW		FLEXIBLE PIPE CONNECTION
BHP	BRAKE HORSE POWER		NEW DUCT OR PIPING		FLEXIBLE DUCT CONNECTION		HUMIDIFIER
BTUH	BRITISH THERMAL UNIT PER HOUR		EXISTING DUCT TO REMAIN		(1) FIRE DAMPER		PIPE DOWN
CFM	CUBIC FEET PER MINUTE		EXISTING PIPING TO REMAIN (refer to the designation)		(2) MOTORIZED DAMPER		TEE DOWN
CV	CONSTANT VOLUME		EXISTING TO BE REMOVED (back to point indicated)		(4) COMBINATION FIRE AND SMOKE DAMPER		PIPE UP
DB	DRY BULB TEMPERATURE		CONNECT TO EXISTING		(1) MANUAL BALANCING DAMPER		TEE UP
DP	DIFFERENTIAL PRESSURE		AIR DISTRIBUTION DEVICE DESIGNATION		(2) PARALLEL BLADE DAMPER		BRANCH - BOTTOM OF PIPE
EA	EXHAUST AIR		CEILING SUPPLY DIFFUSER		(3) CONTROL DAMPER		BRANCH - TOP OF PIPE
EAT	ENTERING AIR TEMPERATURE		CEILING RETURN/EXHAUST GRILLE		(4) SMOKE DETECTOR		ELBOW
ESP	EXTERNAL STATIC PRESSURE		LINEAR BAR SUPPLY		(5) SMOKE DETECTOR		TEE
EWI	ENTERING WATER TEMPERATURE		LINEAR BAR RETURN		THERMOSTAT, HUMIDISTAT, OR SWITCH		45° ELBOW
FD	FLAT OVAL		GRILLE OR REGISTER ON BOTTOM OF DUCTWORK		SWITCH OR SWITCH WITH PILOT LIGHT		4-WAY TEE
FFM	FEET PER MINUTE (VELOCITY)		SIDE WALL SUPPLY		KEYED NOTE		CAP
FPS	FEET PER SECOND (VELOCITY)		SIDE WALL RETURN		FIRE ALARM PULL STATION		END FLANGE
FT	FEET		SIDEWALL SUPPLY/RETURN		CONTROLS WIRING		VENT THROUGH ROOF (VTR)
FPS	FEET PER SECOND (VELOCITY)		DUCT SIZE (FOR DOUBLE LINE DUCT) WIDTH/DEPTH		FIRE ALARM PULL STATION		FLOW MEASURING STATION - FIELD KIT
GPM	GALLONS PER MINUTE		TRANSITION UP OR DOWN		FIRE ALARM PULL STATION		FLOW MEASURING STATION WITH CONTINUOUS METER
HP	HORSEPOWER		SUPPLY DUCT UP		FIRE ALARM PULL STATION		TEMPERATURE SENSOR IN PIPE
IN.	INCHES		SUPPLY DUCT DOWN		FIRE ALARM PULL STATION		FLOW SWITCH IN PIPE
KW	KILOWATT		RETURN OR EXHAUST DUCT UP		FIRE ALARM PULL STATION		ELEVATION OF PIPE CENTERLINE ABOVE FINISHED FLOOR OR GRADE
LAT	LEAVING AIR TEMPERATURE		RETURN OR EXHAUST DUCT DOWN		FIRE ALARM PULL STATION		CONDENSATE DRAIN
LBS	POUNDS				FIRE ALARM PULL STATION		CONDENSER WATER RETURN
LRA	LOCKED ROTOR AMPS				FIRE ALARM PULL STATION		CONDENSER WATER SUPPLY
LWT	LEAVING WATER TEMPERATURE				FIRE ALARM PULL STATION		CHILLED WATER RETURN
MAX.	MAXIMUM				FIRE ALARM PULL STATION		CHILLED WATER SUPPLY
MBH	1000 BTUH				FIRE ALARM PULL STATION		HOT WATER RETURN
MCA	MINIMUM CIRCUIT AMPACITY				FIRE ALARM PULL STATION		HOT WATER SUPPLY
MIN.	MINIMUM				FIRE ALARM PULL STATION		REFRIGERANT SUCTION
MHP	MOTOR HORSE POWER				FIRE ALARM PULL STATION		REFRIGERANT LIQUID
MOCP	MAXIMUM OVER CURRENT PROTECTION				FIRE ALARM PULL STATION		PROPANE (GAS)
MU	MAKE-UP				FIRE ALARM PULL STATION		
N/A	NOT APPLICABLE				FIRE ALARM PULL STATION		
NC	NOISE CRITERIA				FIRE ALARM PULL STATION		
N.C.	NORMALLY CLOSED				FIRE ALARM PULL STATION		
NIC	NOT IN CONTRACT				FIRE ALARM PULL STATION		
N.O.	NORMALLY OPEN				FIRE ALARM PULL STATION		
NK	NECK				FIRE ALARM PULL STATION		
NTS	NOT TO SCALE				FIRE ALARM PULL STATION		
OSA	OPPOSED BLADE DAMPER				FIRE ALARM PULL STATION		
PBD	PARALLEL BLADE DAMPER				FIRE ALARM PULL STATION		
PRV	PRESSURE REDUCING VALVE				FIRE ALARM PULL STATION		
PSF	POUNDS PER SQUARE FOOT				FIRE ALARM PULL STATION		
PSI	POUNDS PER SQUARE INCH				FIRE ALARM PULL STATION		
PSIG	POUNDS PER SQUARE INCH GAUGE				FIRE ALARM PULL STATION		
RA	RETURN AIR				FIRE ALARM PULL STATION		
RH	RELATIVE HUMIDITY				FIRE ALARM PULL STATION		
RLA	RUNNING LOAD AMPS				FIRE ALARM PULL STATION		
RLFA	RELIEF AIR				FIRE ALARM PULL STATION		
RPM	REVOLUTION PER MINUTE				FIRE ALARM PULL STATION		
SA	SUPPLY AIR				FIRE ALARM PULL STATION		
SC	SENSIBLE CAPACITY				FIRE ALARM PULL STATION		
SP	STATIC PRESSURE				FIRE ALARM PULL STATION		
SPEC.	SPECIFICATION				FIRE ALARM PULL STATION		
TC	TOTAL CAPACITY				FIRE ALARM PULL STATION		
TSP	TOTAL STATIC PRESSURE				FIRE ALARM PULL STATION		
TYP.	TYPICAL				FIRE ALARM PULL STATION		
VAV	VARIABLE AIR VOLUME				FIRE ALARM PULL STATION		
VSD	VARIABLE SPEED (FREQUENCY) DRIVE				FIRE ALARM PULL STATION		
WB	WET BULB TEMPERATURE				FIRE ALARM PULL STATION		
W/	WITH				FIRE ALARM PULL STATION		
W/O	WITHOUT				FIRE ALARM PULL STATION		
WG	WATER GAUGE				FIRE ALARM PULL STATION		
'	FEET				FIRE ALARM PULL STATION		
"	INCHES				FIRE ALARM PULL STATION		
Ø	ROUND DUCT				FIRE ALARM PULL STATION		

NOT ALL SYMBOLS MAY APPLY TO THIS PROJECT.

GENERAL NOTES:

- ALL MECHANICAL WORK SHALL COMPLY WITH ALL LOCAL CODES, DRAWINGS, SPECIFICATIONS, AND AUTHORITIES HAVING JURISDICTION. IF DISCREPANCIES ARE FOUND, THE MOST STRINGENT REQUIREMENT SHALL GOVERN WORK. WHERE INSPECTIONS ARE REQUIRED BY AUTHORITIES HAVING JURISDICTION, WORK MUST NOT BE CONCEALED UNTIL INSPECTIONS AND TESTING ARE COMPLETE AND WORK IS ACCEPTED.
- REFER TO SPECIFICATIONS AND PROJECT MANUAL FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
- REFER TO ALL PROJECT DRAWINGS FOR DETAILS OF CONSTRUCTION AND INSTALLATION REQUIREMENTS.
- PRIOR TO BID, CONTRACTOR SHALL BECOME THOROUGHLY FAMILIAR WITH THE REQUIREMENTS OF THESE NOTES AS WELL AS OTHER NOTES SHOWN ON THE CONTRACT DOCUMENTS.
- THESE DRAWINGS REFLECT A SYSTEM DESIGNED AROUND SPECIFIED REFERENCE PRODUCTS, THE SELECTION OF WHICH HAS INFLUENCED THE DESIGNS OF OTHER TRADES. IF SUBSTITUTE MANUFACTURERS, SIZES, OR MODEL NUMBERS ARE BID OR SUBMITTED, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL DIFFERENCES PRIOR TO BID. ALL COSTS OF ALL TRADES ASSOCIATED WITH THE SUBSTITUTION SHALL BE INCLUDED IN THE BID.
- COORDINATION OF ALL MODIFICATIONS TO EACH DISCIPLINE WHICH RESULT FROM SUBSTITUTION OF EQUIPMENT OR MATERIALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SUBSTITUTIONS WHICH ARE INSTALLED AND SUBSEQUENTLY ARE PROVEN UNSATISFACTORY BY OWNER AND/OR ENGINEER WITHIN THE WARRANTY PERIOD, SHALL BE REMOVED COMPLETELY BY THE CONTRACTOR AND REPLACED WITH THE ORIGINAL DESIGN OR CORRECTED AS DIRECTED BY THE ENGINEER WITHOUT ADDITIONAL COST TO THE OWNER.
- ALL DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENTS OR GEOMETRICAL RELATIONSHIPS OF EQUIPMENT AND SERVICES. THEY ARE NOT INTENDED TO SPECIFY OR SHOW EVERY OFFSET, SEQUENCE, DEVICE, OPTION, FITTING, OR COMPONENT.
- INFORMATION AND COMPONENTS ON DETAILS OR IN SPECIFICATIONS, BUT NOT SHOWN ON PLANS, AND VICE VERSA, SHALL BE PROVIDED AS IF EXPRESSLY REQUIRED BY BOTH.
- CONTRACTOR SHALL NOT SCALE DRAWINGS. DRAWINGS SPECIFIC TO THIS DISCIPLINE DO NOT LIMIT THE RESPONSIBILITY OF WORK REQUIRED BY THE CONTRACT DOCUMENTS.
- SEE CIVIL AND STRUCTURAL DRAWINGS FOR BUILDING DETAILS AND DIMENSIONS. COORDINATE PLACEMENT OF MECHANICAL SYSTEMS WITH CIVIL AND STRUCTURAL TRADES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL WORK WITH THAT OF OTHER TRADES. REFER TO ALL CONSTRUCTION DOCUMENTS FOR COMPLETE INFORMATION PRIOR TO BID.
- CONTRACTOR SHALL BE RESPONSIBLE FOR FLASHING AND SEALING OF ALL WALL PENETRATIONS AIR AND WATER TIGHT.
- CLOSELY COORDINATE FINAL LOCATIONS OF INSTALLED EQUIPMENT TO ACHIEVE THE GREATEST ACCESSIBILITY FOR MAINTENANCE PURPOSES.
- ALL EQUIPMENT, DEVICES, AND FIXTURES SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATION.
- CONTRACTOR SHALL VERIFY CLOSELY AT SITE TRANSPORTATION OF NEW HVAC EQUIPMENT INTO MECHANICAL AREAS BEFORE BIDDING. PROVIDE COMPLETE DISASSEMBLY AND RE-ASSEMBLY OF NEW EQUIPMENT AS REQUIRED FOR A COMPLETE INSTALLATION.
- COORDINATE FINAL PLACEMENT OF ALL THERMOSTATS WITH WALL-MOUNTED DEVICES AND OWNER'S REPRESENTATIVE. MOUNT PER A.D.A. REQUIREMENTS. ANY THERMOSTAT THAT IS REQUIRED TO BE MOUNTED ON AN EXTERIOR WALL SHALL BE MOUNTED ON AN INSULATED PAD.
- CONTRACTOR SHALL PATCH ALL WALLS, FLOORS, AND CEILINGS TO MATCH NEW FOR ALL OPENINGS CREATED BY INSTALLATION OF EQUIPMENT AND HVAC SERVICE PENETRATIONS.
- ALL HVAC COMPONENTS WITH ELECTRICAL REQUIREMENTS SHALL BE INSTALLED WITH ELECTRICAL INFRASTRUCTURE NECESSARY TO PROVIDE A FULLY FUNCTIONING SYSTEM. IF NOT SPECIFICALLY SHOWN ON ELECTRICAL SCHEDULE, HVAC FIXTURES REQUIRING ELECTRICAL SERVICE SHALL BE FED FROM BREAKER OF ADEQUATE CAPACITY.
- ALL CONTROL WIRING SHALL BE INSTALLED IN CONDUIT.
- ALL EQUIPMENT, DEVICES AND ACCESSORIES SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
- ALL EQUIPMENT, DEVICES, AND ACCESSORIES SHALL NOT BE INSTALLED IN AREAS WHICH INTERFERE WITH OTHER BUILDING SYSTEMS, EQUIPMENT OR PERSONNEL.
- ALL HVAC COMPONENTS WITH ELECTRICAL REQUIREMENTS SHALL BE INSTALLED WITH ELECTRICAL INFRASTRUCTURE NECESSARY TO PROVIDE A FULLY FUNCTIONING SYSTEM. IF NOT SPECIFICALLY SHOWN ON ELECTRICAL SCHEDULE, HVAC EQUIPMENT REQUIRING ELECTRICAL SERVICE SHALL BE FED FROM BREAKER OF ADEQUATE CAPACITY.

REVISION	BY	DATE

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CITYWIDE LIFT STATION IMPROVEMENTS
CHEROKEE PARK LIFT STATION

MECHANICAL NOTES AND LEGEND

CITY OF TULSA, OKLAHOMA
TULSA METROPOLITAN UTILITY AUTHORITY
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY: HOLLOWAY, UPDIKE + BELLEN, Inc.
2001 N WELLS AVE, BROKEN ARROW, OKLAHOMA 74012
(918)228-0770, FAX (918)228-0754

PLAN SCALE: AS SHOWN	DRAWN	EL	APPROVED:
	DESIGNED	AL	
	SURVEY		

PROFILE SCALE: PROJ. MGR. *N 2/26*
LEAD ENGR. *6/2 2/26*

HORIZONTAL: FIELD MGR. *Jan 2/26*

VERTICAL: RECOMMENDED:

DESIGN MANAGER *fol* CITY ENGINEER *James G. M*

HUB PROJECT NO: 24TMUACHEROK DATE: DECEMBER 2025

ATLAS PAGE NO: 452 SHEET M1 OF 10 SHEETS



THROUGH WALL PACKAGE AIR HANDLING UNIT

DESIGNATION	REFERENCE PRODUCT	REFRIGERANT TYPE	AIRFLOW (CFM)	OUTSIDE AIR (CFM)	ESP IN. W.G.	COOLING COIL		HEATING SECTION			ELECTRICAL DATA			REMARKS		
						TOTAL MBH	SENS. MBH	EAT (DB/WB)	AMBIENT (DB)	CAPACITY (kW)	OSA TEMP (DB) °F	HEAT TYPE	VOLTAGE / PHASE		MCA	MCOP
TWPU-1	MARVAIR MGH2072AD060+G\$2G2CAA**1++D+++	R-454B	2,100	0	0.3	54.0	46.5	76/63	110°F	6	10	ELECTRIC HEAT	480/3	16.9	25	1,2,3,4,5

- NOTES:**
- UNIT CLEARANCE IS 36" ON SERVICE SIDE.
 - PROVIDE 2" CONCRETE HOUSEKEEPING PAD BELOW BOTTOM OF UNIT, TO LIMIT GRASS GROWTH. HOUSEKEEPING PAD SHALL EXTEND 6" BEYOND FOOTPRINT OF UNIT ON ALL SIDES.
 - PIPE CONDENSATE WITH TRAP TO DRY WELL.
 - UNIT ELECTRICAL DATA REFLECTS UNIT AND AUXILIARY HEATING LOAD.
 - REQUIRED OPTIONS
 - 2-STAGE COMPRESSOR
 - NO VENTILATION
 - HOT GAS REHEAT
 - MFR'S LEAD-LAG CONTROLLER
 - LOW AMBIENT COOLING WITH FAN CYCLE CONTROL AND EVAPORATOR FREEZE SENSOR
 - DIRTY FILTER SENSOR
 - TOP RETURN, CENTER SUPPLY DUCTING, WITH MANUFACTURER'S SUPPLY AND RETURN GRILLES IN WHITE.
 - 2" PLEATED MERV 8 FILTERS.
 - CORROSION PROTECTION COATING (CONDENSER COIL ONLY)
 - STAINLESS STEEL FASTENERS AND DRAIN PAN.

EXHAUST FAN

MARK	MANUFACTURER/MODEL	FAN PERFORMANCE			MOTOR PERFORMANCE			SOUND POWER (SONES)	NOTES
		CFM	ESP (in. wc)	FAN RPM	VOLT/PHASE	MOTOR RPM	DRIVE		
EF-01	COOK / GC-148	75	0.25"	758	120/1	VARIES	DIRECT	0.9	1,2,3,4

- NOTES:**
- EXHAUST FAN SHALL BE PROVIDED WITH GRAVITY BACKDRAFT DAMPER, STAINLESS STEEL BIRDSCREEN, AND WALL CAP.
 - EXHAUST FAN SHALL BE FURNISHED WITH DISCONNECT SWITCH, COORDINATE WITH ELECTRICAL.
 - EXHAUST FAN SHALL BE FURNISHED WITH WHITE ALUMINUM GRILLE.
 - EXHAUST FAN SHALL BE FURNISHED WITH FAN SPEED CONTROLLER.

ELECTRIC WALL HEATER SCHEDULE

DESIGNATION	REFERENCE PRODUCT	AIRFLOW (CFM)	ELECTRICAL			HEATING BTU	REMARKS
			VOLTS/PHASE	W	AMP		
EWH-01	MARKEL MODEL E4375TRPW	70	120V/1Ø	750	6.25	2,560	1,2

- NOTES:**
- INSTALL PER MANUFACTURER'S RECOMMENDATION.
 - PROVIDE HEATER WITH MANUFACTURER'S INBUILT THERMOSTAT. SET PER NOTES ON PLANS (65°F, TYPICAL).

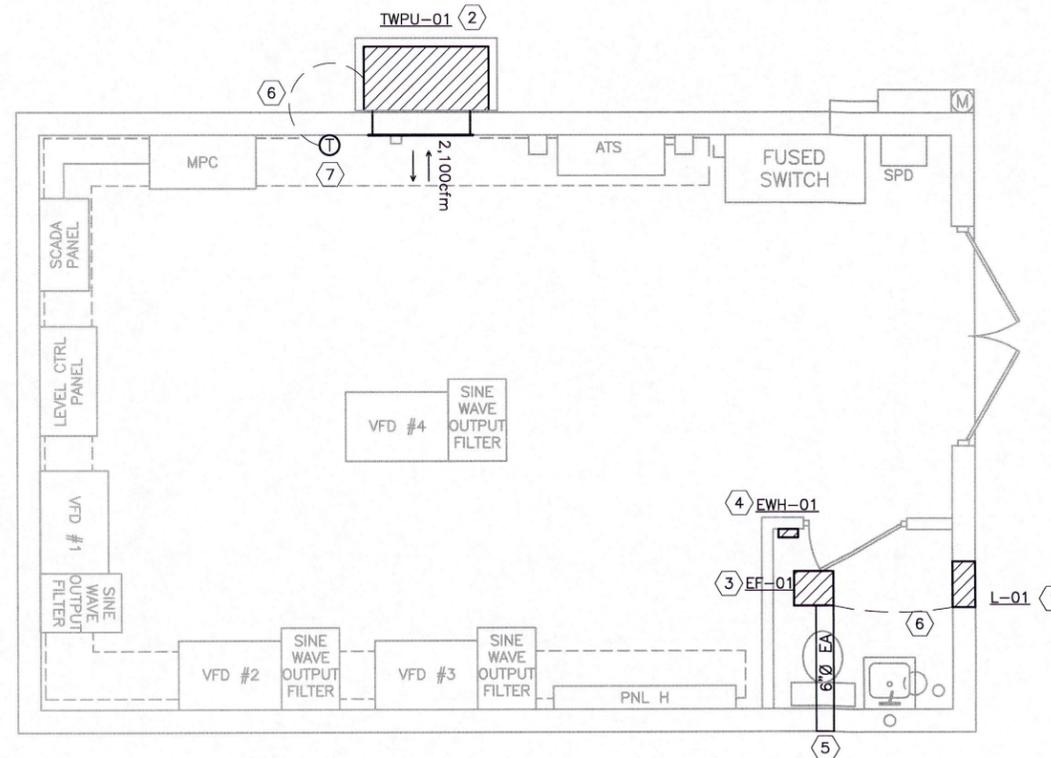
KEYED NOTES:

- PROVIDE 16"L X 16"H COMBINATION LOUVER EQUAL TO POTTORFF EOD-445-CM. PROVIDE LOUVER WITH FILTER RACK OPTION. CONTRACTOR SHALL FURNISH TWO 1" MERV 8 FILTERS, SIZE 16"L X 10"H. COORDINATE FRAMING FOR LOUVER WITH GENERAL CONTRACTOR. MOUNT BOTTOM OF LOUVER 8" ABOVE FINISH FLOOR ELEVATION.
INTERLOCK LOUVER ACTUATOR WITH RESTROOM EXHAUST FAN.
- THROUGH WALL PACKAGED HVAC UNIT. MOUNT BOTTOM OF UNITS 8" ABOVE FINISH GRADE, MINIMUM. PROVIDE EXTERNAL CONDENSATE P-TRAP PER MANUFACTURER'S RECOMMENDED METHODS AND DISCHARGE TO DRY WELL. PROVIDE 2" CONCRETE HOUSEKEEPING PAD BELOW BOTTOM OF UNIT, TO LIMIT GRASS GROWTH. HOUSEKEEPING PAD SHALL EXTEND 6" BEYOND FOOTPRINT OF UNIT ON ALL SIDES.
- INTERLOCK RESTROOM EXHAUST FAN WITH RESTROOM LIGHT.
- MOUNT BOTTOM OF WALL HEATER 12" AFF.
- ROUTE EXHAUST DUCT FROM EXHAUST FAN TO SIDEWALL ABOVE CEILING. TERMINATE WITH MANUFACTURER'S ALUMINUM WALL CAP.
- CONTROL WIRING TYPICAL. ROUTE ALL CONTROL WIRING IN SEALED CONDUIT.
- 7-DAY PROGRAMMABLE THERMOSTAT. COORDINATE FINAL LOCATION WITH ELECTRICAL EQUIPMENT.

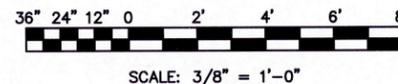
HVAC CONTROLS NOTES:

MOUNT ALL THERMOSTATS AT APPROX. 44" PER ADA REQUIREMENTS. SET ALL THERMOSTATS ASSOCIATED WITH HVAC EQUIPMENT PER THE FOLLOWING:

- TWPU-01:** COOLING SETPOINT: 75°F. HEATING SETPOINT: 68°F. (ADJUSTABLE)
- EWH-01:** HEATING SETPOINT: 65°F.



1 CONTROL BUILDING HVAC PLAN
M2 SCALE: 3/8" = 1'-0"



REVISION	BY	DATE

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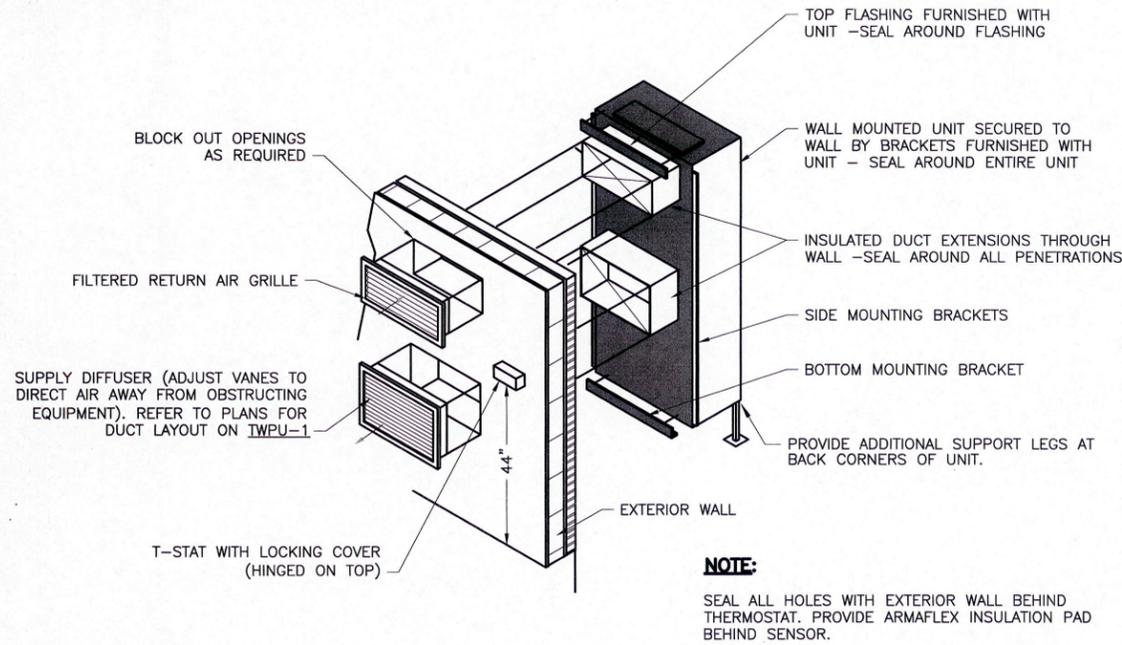
CITYWIDE LIFT STATION IMPROVEMENTS
CHEROKEE PARK LIFT STATION

CONTROL BUILDING HVAC PLAN AND SCHEDULES
CITY OF TULSA, OKLAHOMA
TULSA METROPOLITAN UTILITY AUTHORITY
WATER AND SEWER DEPARTMENT

PLANS AND ESTIMATES PREPARED BY: **HOLLOWAY, UPDIKE + BELLEN, Inc.**
2001 N WILLOW AVE, BROKEN ARROW, OKLAHOMA 74012
(918)259-0777, FAX (918)259-0754

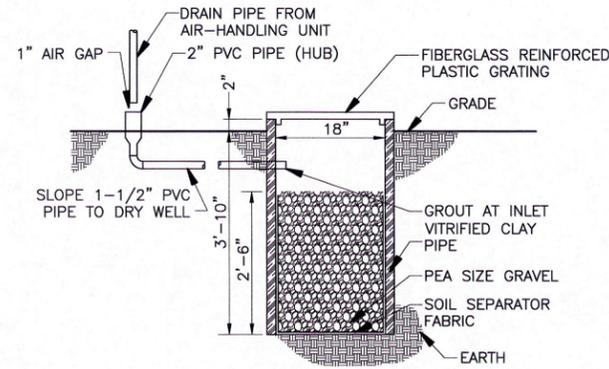
PLAN SCALE: AS SHOWN	DRAWN	EL	APPROVED:
DESIGNED	AL		
SURVEY			
PROFILE SCALE:	PROJ. MGR.	8/ 2/26	
HORIZONTAL:	LEAD ENGR.	8/ 2/26	Jhonny G. Puy CITY ENGINEER
	FIELD MGR.	8/ 2/26	
VERTICAL:	RECOMMENDED:		DESIGN MANAGER CITY ENGINEER
HUB PROJECT NO:	24TMUACHEROK	DATE:	DECEMBER 2025
ATLAS PAGE NO:	452	SHEET	M2 OF 10 SHEETS

Z:\PRODUCTION\PROJECTS\HUB ENGINEERS (HUB)\HUB-314_CHEROKEE PARK LIFT STATION\DWG\M03_HVAC_SCHEDULE AND DETAILS.DWG
12/4/2025 9:57 AM

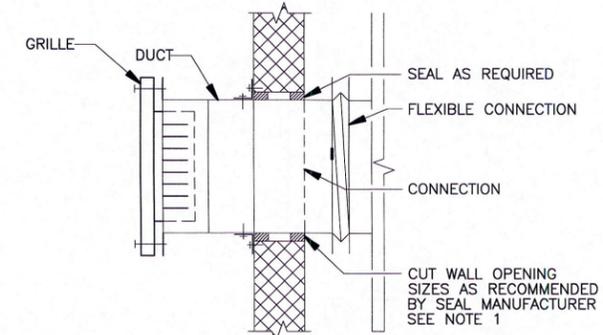


1 THROUGH WALL PACKAGED UNIT
SCALE: NONE

NOTE:
SEAL ALL HOLES WITH EXTERIOR WALL BEHIND THERMOSTAT. PROVIDE ARMAFLEX INSULATION PAD BEHIND SENSOR.

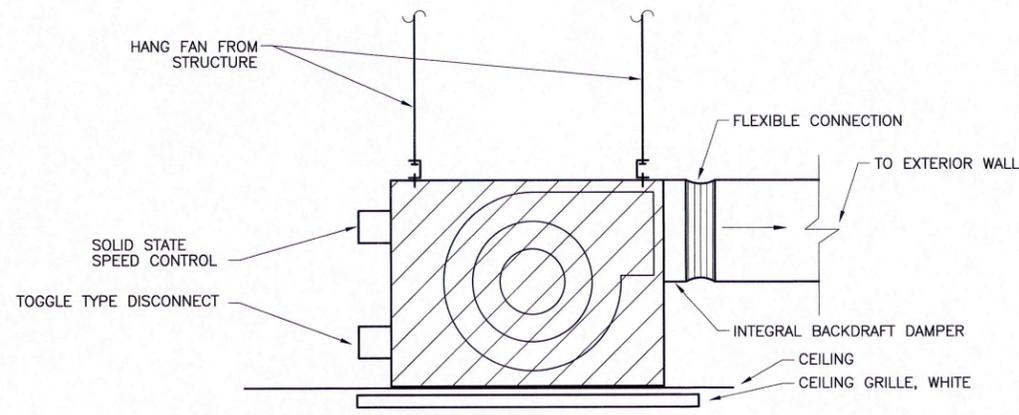


2 DRY WELL DETAIL
SCALE: NONE

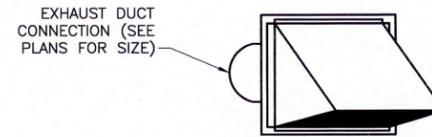


3 SUPPLY/RETURN DUCT WALL PENETRATION DETAIL
SCALE: NONE

NOTES:
1. COORDINATE WALL OPENING SIZES WITH ACTUAL SIZES REQUIRED BY THE UNITS FURNISHED.
2. FLUSH AND SEAL JOINT SIKA NPI OR EQUAL, AIR AND WATERTIGHT.



4 CEILING FAN AND SUPPORT
SCALE: NONE



NOTES:
1. WALL CAP SHALL BE EQUAL TO GREENHECK MODEL WC. FOR USE IN LOW-VOLUME EXHAUST APPLICATIONS (300 CFM OR LESS).
2. WALL CAP SHALL HAVE BIRDSCREEN AND BACKDRAFT DAMPER.
3. PAINT WALL CAP TO MATCH WALL.
4. MAINTAIN ALL CODE REQUIRED CLEARANCES FROM OUTSIDE AIR INTAKES, DOORS, AND OPERABLE WINDOWS.

5 EXHAUST WALL CAP
SCALE: NONE

REVISION	BY	DATE

BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

CITYWIDE LIFT STATION IMPROVEMENTS
CHEROKEE PARK LIFT STATION

MECHANICAL DETAILS

CITY OF TULSA, OKLAHOMA
TULSA METROPOLITAN UTILITY AUTHORITY
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Handwritten signature and initials