

250-GPM WELL NO. 1
AND 50,000-GALLON
ELEVATED STORAGE TANK

250-GPM WELL NO. 2

Tillar
Airport

Tillar

Crooked Bayou

S RAILROAD ST

Reed

SCALE: 1" = 300' WHEN PRINTED AT 24" x 36"
0' 300' 600' 900' 1200' 1500'

GAUNT ENGINEERS, INC.
ENGINEERS, SURVEYORS AND PLANNERS
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TOWN OF TILLAR
STORAGE TANK REHABILITATION
GENERATOR & WELL IMPROVEMENTS
LOCATION MAP

DESIGNED BY	WRG	CHECKED BY	
DRAWN BY	JKD	APPROVED BY	
DATE: 12-2022	JOB NO:	ITEM NO:	
SCALE	DRAWING NUMBER	REV.	
1" = 300'	1	0	

GENERAL NOTES

- LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES, AFFECTING THIS WORK, PRIOR TO CONSTRUCTION.
- PRIOR TO THE INITIATION OF SITE CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ANY EXISTING UTILITIES INCLUDING GAS, WATER, ELECTRIC, COMMUNICATIONS, CABLE TV, SANITARY, AND STORM SEWERS ON AND/OR ADJACENT TO THE SITE.
- THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN AREAS OF BURIED UTILITIES AND SHALL CALL "ONE CALL" OR UTILITY COMPANY AT LEAST 48 HOURS PRIOR TO CONSTRUCTION TO ARRANGE FOR FIELD LOCATIONS OF BURIED UTILITIES.
- THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED BY THE CONTRACTOR OR SUBCONTRACTORS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS SPECIFIED BY THE VARIOUS GOVERNMENTAL AGENCIES AND THE ENGINEER. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION AND SCHEDULE INSPECTIONS ACCORDING TO AGENCY INSTRUCTIONS/REQUIREMENTS. THESE PLANS AND ANY SUBSEQUENT REVISIONS TO THESE PLANS, THAT ARE ISSUED BY THE ENGINEER, WILL BE SUBJECT TO THE APPROVAL CONDITIONS OF THESE PERMITS.
- SAFETY:
 - DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, ALL SAFETY REGULATIONS ARE TO BE ENFORCED. THE CONTRACTOR, OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF HIS/HER PERSONNEL.
 - LABOR SAFETY REGULATIONS SHALL CONFORM TO THE PROVISIONS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF TRANSPORTATION.
 - THE MINIMUM STANDARDS AS SET FOR THE STATE HIGHWAY DEPARTMENT SHALL BE FOLLOWED IN THE DESIGN, APPLICATION, INSTALLATION, MAINTENANCE, AND REMOVAL OF ALL TRAFFIC CONTROL DEVICES, WARNING DEVICES, AND BARRIERS NECESSARY TO PROTECT THE PUBLIC AND CONSTRUCTION PERSONNEL FROM HAZARDS WITHIN THE PROJECT LIMITS.
 - ALL TRAFFIC CONTROL MARKINGS AND DEVICES SHALL CONFORM TO THE PROVISIONS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION.
 - ALL SUBSURFACE CONSTRUCTION SHALL COMPLY WITH THE "TRENCH SAFETY ACT". THE CONTRACTOR SHALL INSURE THAT THE METHOD OF TRENCH PROTECTION AND CONSTRUCTION IS IN COMPLIANCE WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS.
- IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS. THE ABOVE INFORMATION HAS BEEN PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY AND DOES NOT IMPLY THAT THE OWNER OR ENGINEER WILL INSPECT AND/OR ENFORCE SAFETY REGULATIONS.
- TO REITERATE: CONTRACTOR TO UNCOVER & VERIFY SIZE AND TYPE OF EXISTING LINE AT THE INS BEFORE LAYING ANY LINES.

DEMOLITION NOTES:

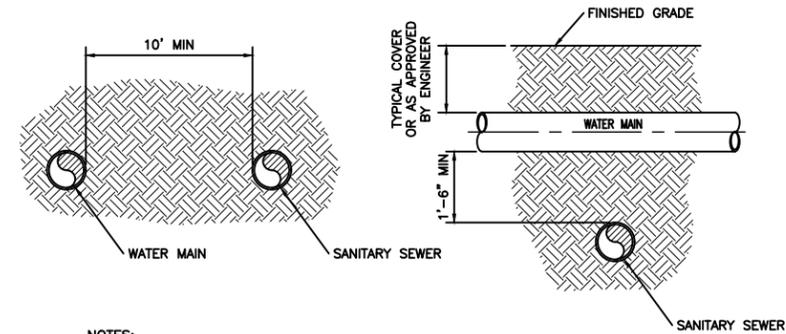
- EXISTING BUILDINGS AND ASSOCIATED STRUCTURES SHALL BE DEMOLISHED AS INDICATED ON THE DRAWINGS AND REMOVED FROM THE SITE. WHERE REQUIRED, ASPHALT OR CONCRETE SHALL BE SAW-CUT TO LEAVE A CLEAN LINE.
- CONTRACTOR SHALL CONFORM TO ALL APPLICABLE CODES (LOCAL, STATE & FEDERAL) FOR DEMOLITION OF STRUCTURES, DUST CONTROL, SOIL EROSION CONTROL, AND DISPOSAL OF DEMOLITION MATERIAL.
- IF REQUIRED BY CITY, CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A SEPARATE DEMOLITION PERMIT FROM THE CITY PRIOR TO DEMOLISHING THE STRUCTURES. CONTRACTOR SHALL PAY FOR ALL COSTS ASSOCIATED WITH DEMOLITION PERMIT.
- ALL EXISTING UNDERGROUND DRAINAGE PIPES AND STRUCTURES TO REMAIN SHALL BE UNDISTURBED UNLESS NOTED OTHERWISE.
- ALL MATERIAL SHALL BE DISPOSED OF IN A PROPER MANNER AT A LOCATION APPROVED BY ENGINEER WHEN DIRECTED BY OWNER.
- ALL EQUIPMENT SHALL BE DELIVERED TO CITY SHOP UNLESS NOT WANTED BY CITY..

EROSION CONTROL NOTES:

- CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION AND MAINTENANCE OF EROSION CONTROL DEVICES TO PROTECT ADJACENT PROPERTY AND TO ENSURE THAT SEDIMENT IS CONFINED TO THE SITE. ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF WORK.
- CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF MUD TRACKED ONTO PUBLIC RIGHT-OF-WAY ON A TIMELY BASIS.
- IF SOIL STOCKPILING IS USED ON THE SITE, SILT FENCES SHALL BE USED TO CONTROL AND CONTAIN THE SEDIMENT.
- TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AND DISPOSED OF WITHIN 30 DAYS AFTER FINAL STABILIZATION. FINAL STABILIZATION HAS OCCURRED WHEN ALL SOIL DISTURBING ACTIVITIES ARE COMPLETED AND A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70% FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES HAS BEEN ESTABLISHED.

WATER AND SEWER GENERAL NOTES:

- CONTRACTOR SHALL NOTIFY ENGINEER, OWNER AND CITY WATER & SEWER DEPARTMENT 48 HOURS PRIOR TO BEGINNING WORK ON ANY NEW SANITARY SEWER OR WATER FACILITIES TO SCHEDULE INSPECTION OF THE WORK.
- CONTRACTOR TO PROVIDE SAFE WORKING CONDITIONS, INCLUDING AIR CIRCULATION/VENTILATION WHEN CONTRACTOR'S PERSONNEL ARE WORKING IN MANHOLES OR OTHER STRUCTURES CONTAINING RAW SEWAGE OR HAZARDOUS MATERIALS.
- SANITARY SEWERS SHOULD ALWAYS CROSS UNDERNEATH WATER MAINS. INSTALLATION OF SANITARY SEWERS AT CROSSINGS OF WATER MAINS SHALL BE PERFORMED SO AS TO PROVIDE A MINIMUM VERTICAL DISTANCE OF EIGHTEEN (18) INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE, WHENEVER POSSIBLE. THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER JOINTS AND WATER JOINTS SHALL BE EQUIDISTANT FROM THE POINT OF CROSSING WITH NO LESS THAN 10 FEET BETWEEN ANY TWO JOINTS. WHERE SANITARY SEWERS, FORCE MAINS AND STORM SEWERS MUST CROSS A WATER MAIN WITH LESS THAN 18 INCHES VERTICAL CLEARANCE, THE WATER MAIN SHALL BE ENCASED IN CONCRETE. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES MUST BE MAINTAINED IN THE CROSSING.
- A MINIMUM 10 FOOT HORIZONTAL SEPARATION SHALL BE MAINTAINED BETWEEN ANY TYPE OF SEWER (INCLUDING FORCE MAINS) AND EXISTING OR PROPOSED WATER MAINS, IN PARALLEL INSTALLATIONS WHENEVER POSSIBLE. THE DISTANCE FOR SEPARATION SHALL BE MEASURED EDGE TO EDGE.
- ALL PVC SEWER PIPE SHALL BE SOLID WALL POLYVINYL CHLORIDE PIPE AND COMPLY WITH ASTM D-3034 AND ALL APPLICABLE ASTM DOCUMENTS AS COVERED IN SECTION NO. 2 OF ASTM D-3034.
- ALL GRAVITY SEWERS MUST BE SDR 35 PVC EXCEPT FOR PIPE DEEPER THAN 14 FEET, IN WHICH CASE SDR 26 PIPE SHALL BE USED. ELASTOMETRIC GASKET JOINTS SHALL BE UTILIZED FOR PVC PIPE AND SHALL COMPLY WITH ASTM F-477, ASTM D-3034 & ASTM F-679. JOINTS SHALL COMPLY WITH ASTM D-3212.
- ALL SANITARY MANHOLES SHALL CONFORM TO THE DETAILS CONTAINED HEREIN, AS WELL AS WITH ASTM C-478.
- PRIOR TO COMMENCING WORK WHICH REQUIRES CONNECTING PROPOSED FACILITIES TO EXISTING LINES OR APPURTENANCES, THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATIONS(S) OF EXISTING CONNECTION POINT(S) AND NOTIFY THE OWNER'S ENGINEER OF ANY CONFLICTS OR DISCREPANCIES.
- ALL GRAVITY SEWER PIPEING SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE OWNER'S ENGINEER. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS IN ADVANCE TO SCHEDULE INSPECTION(S).
- THE CONTRACTOR SHALL PERFORM AN INFILTRATION/EXFILTRATION TEST (LOW PRESSURE AIR) ON THE GRAVITY SEWERS IN ACCORDANCE WITH THE UTILITIES REQUIREMENTS.
- PRESSURE LINES SHALL BE INSTALLED WITH A MINIMUM OF 30" COVER OVER THE TOP OF PIPE. LINES INSTALLED BENEATH ROAD SURFACES SHALL BE A MINIMUM OF 48" BENEATH THE SURFACE OF THE ROAD AND SHALL HAVE NO JOINTS BENEATH THE DRIVING SURFACE.
- ALL PRESSURE LINES (INCLUDING SERVICE TUBING) SHALL BE INSTALLED WITH 10 GA. TYPE TW STRANDED COPPER LOCATOR WIRE. ALL SPLICES IN LOCATOR WIRE SHALL BE MADE WITH COPPER 'JM' BRAND DIRECT BURY SPLICE KIT MODEL DBR.
- ALL NEW PRESSURE MAINS SHALL BE PRESSURE TESTED PRIOR TO THE TIE-IN OPERATIONS. ALL REPAIRS AND RE-TESTING SHALL BE MADE PRIOR TO TIE-IN. PRESSURE TEST SHALL BE IN ACCORDANCE WITH AWWA C605. THE TEST PRESSURE SHALL BE 150 PSI AT THE LOW POINT AND SHALL BE MAINTAINED FOR A MINIMUM OF 4 HOURS. THE CONTRACTOR SHALL FURNISH GAUGES, METERS, WATER, TOOLS, LABOR, EQUIPMENT AND OTHER MATERIALS NECESSARY TO CONDUCT THE TESTS. THE ENGINEER SHALL BE NOTIFIED AT LEAST 48 HOURS IN ADVANCE OF TESTS.
- WATER AND SEWER UTILITY CONSTRUCTION TO BEGIN ONLY AFTER APPROVAL BY THE DEPARTMENT OF HEALTH.
- FOLLOWING THE ACCEPTANCE OF THE HYDROSTATIC TEST, ALL NEW WATER LINES INCLUDING APPURTENANCES SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C651 (LATEST REVISION) AND ANY OTHER STATE REQUIREMENT.
- ALL NEW WATER MAINS AND REPAIRED PORTIONS OF, OR EXTENSIONS TO, EXISTING MAINS SHALL BE CHLORINATED SO THAT A CHLORINE RESIDUAL OF NOT LESS THAN 25 PPM REMAINS IN THE WATER AFTER 24 HOURS STANDING IN THE PIPE. USUALLY, AN APPLICATION RATE OF 50 PPM IS REQUIRED. MAINS SHALL BE THOROUGHLY FLUSHED BEFORE INTRODUCTION OF THE DISINFECTANT.
- WHILE THE DISINFECTANT IS BEING APPLIED TO ANY SECTION OF THE SYSTEM, THE WATER SHALL BE ALLOWED TO ESCAPE AT ALL EXTREMITIES OF THE SECTION UNTIL THE PRESENCE OF CHLORINE IS EVIDENT BY MEASURING WITH AN ORTHOTOLIDIN TEST KIT FURNISHED BY THE CONTRACTOR.
- BACTERIOLOGICAL TESTS SHALL BE CONDUCTED BY A STATE CERTIFIED LABORATORY AND MUST INDICATE NEGATIVE FOR COLIFORM BACTERIA PRIOR TO USE OF THE WATER MAINS TO CONVEY WATER TO THE PUBLIC. IF BACTERIOLOGICAL TESTS INDICATE INSUFFICIENT DISINFECTION AT THE COMPLETION OF THE TESTING AND FLUSHING OF THE SYSTEM, THE PROCEDURE SHALL BE REPEATED UNTIL PROPER DISINFECTION IS ACHIEVED.



NOTES:

- WATER MAINS AND SANITARY SEWER SHALL BE CONSTRUCTED AS FAR APART AS PRACTICABLE, AND SHALL BE SEPARATED BY UNDISTURBED AND COMPACTED EARTH.
- A MINIMUM HORIZONTAL DISTANCE OF 10 FEET SHALL BE MAINTAINED BETWEEN WATER LINES AND SEWER LINES OR OTHER SOURCES OF CONTAMINATION.
- WATER LINES AND SEWER LINES SHALL NOT BE LAID IN THE SAME TRENCH EXCEPT ON THE WRITTEN APPROVAL OF THE ARKANSAS DEPARTMENT OF HEALTH.
- WATER MAINS NECESSARILY IN CLOSE PROXIMITY TO SEWER MUST BE PLACED SO THAT THE BOTTOM OF THE WATER LINE WILL BE AT LEAST 18" ABOVE THE TOP OF THE SEWER LINE AT ITS HIGHEST POINT. IF THIS DISTANCE MUST UNAVOIDABLY BE REDUCED, THE WATER LINE OR SEWER LINE MUST BE ENCASED IN WATER TIGHT PIPE WITH SEALED WATERTIGHT ENDS EXTENDING AT LEAST TEN FEET EITHER SIDE OF THE CROSSING. ANY JOINT IN THE ENCASEMENT PIPE IS TO BE MECHANICALLY RESTRAINED.
- WHERE A WATER LINE MUST UNAVOIDABLY PASS BENEATH THE SEWER LINE, AT LEAST 18 INCHES OF SEPARATION MUST BE MAINTAINED BETWEEN THE OUTSIDE OF THE TWO PIPES IN THE PRECEDING ENCASEMENT REQUIREMENTS.

MINIMUM WATER/SEWER LINE SEPARATION

RAILROAD CROSSING

NOTES:

- PIPELINES PLACED UNDER RAILROAD TRACKS SHALL BE AT LEAST 5'-6" FROM BASE OF RAIL TO TOP OF PIPE.
- PIPELINE CROSSINGS OF RAILROAD R.O.W. SHALL BE A MINIMUM OF 3' IN DEPTH FROM TOP OF PIPE TO BOTTOM OF DITCH.
- WATER PIPELINES LAID LONGITUDINALLY ACROSS RAILROAD R.O.W. SHALL BE PLACED AT MINIMUM 4' DEPTH FROM TOP OF PIPE TO GROUND SURFACE.
- BORES FOR RAILROAD CROSSINGS SHALL EXTEND 3' BEYOND R.O.W. IN BOTH DIRECTIONS



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**TOWN OF TILLAR
WATER SYSTEM REPLACEMENT**

GENERAL NOTES

DESIGNED BY	CHECKED BY	DATE	JOB NO:	ITEM NO:
DRAWN BY	APPROVED BY			
SCALE	DRAWING NUMBER			REV.
N/A	C1:23, C2:3			0