

LEGEND			
	CURB		STORM DRAIN INLET
	SIDEWALK		STORM DRAIN PIPE
	CORRIDOR CROSS SECTION LINE		SANITARY SEWER
	WATER LINE		SEWER MANHOLE
	WATER METER		SEWER WYE
	FIRE HYDRANT		SEWER STUB-OUT
	BLOW-OFF ASSEMBLY		EX. SEWER WYE
	GATE VALVE		EX. SEWER STUB-OUT

TOTAL WATERLINE QUANTITIES:
768 LF - 6" C-900 PVC WATERLINE
1224 LF - 4" C-900 PVC WATERLINE
38- 3/4" SHORT SERVICES
16- 3/4" LONG SERVICES

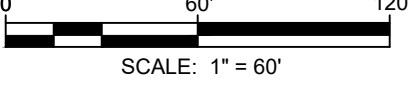
PRESSURES:
STATIC PRESSURE = 64 PSI
RESIDUAL PRESSURE = 55 PSI

WATER AND ELECTRIC NOTES:

- CONTRACTOR SHALL PROVIDE NECESSARY ELECTRICAL CONDUIT & PERMANENT MARKERS W/ GRAY PVC SCH 40 (2") & PVC SCH 40 (4") & 36" RAD ELBOWS FOR RISERS AND A STRING & MOUSE BLOWN IN THE CONDUIT. CONTRACTOR SHALL OBTAIN AN ELECTRICAL PLAN FROM CWL AND INSTALL THE ELECTRICAL CONDUIT AS SPECIFIED BY CWL (CONTRACTOR SHALL OBTAIN CWL SPECIFICATIONS).
- CONTRACTOR SHALL PROVIDE 3/4" METER STOP, TAP, SERVICE LINE & METER BOX AS REQUIRED BY CWL & INSTALL AS REQUIRED BY CWL.
- CONTRACTOR SHALL PROVIDE ENGINEER W/ "AS-BUILT" DIMENSIONS FOR WYES, VALVES, TEES, BENDS, FIRE HYDRANTS, & WATER METERS.
- CONTRACTOR SHALL PROVIDE LABOR AND MATERIALS FOR ALL SEWER, WATER, & ELECTRICAL LINE LATERALS & PROVIDE LABOR & MATERIAL TO BACKFILL ALL SEWER, WATER & ELECTRICAL STREET CUTS WITH SANDY MATERIAL (P.I. <10) TO TOP OF EXCAVATION & COMPACT FILL TO 95% COMPACTION & PROVIDE COMPACTION TESTS AT 2' INTERVALS. CONTRACTOR SHALL PROVIDE LABOR AND MATERIAL FOR ALL SEWER & WATER LINE MAINS THAT CROSS A STREET AND BACKFILL THEM WITH SANDY (P.I. <10) TO TOP OF EXCAVATION & COMPACT FILL TO 95% COMPACTION & PROVIDE MATERIAL COMPACTION TESTS AT 2' INTERVALS.
- A 12 GA SOLID TRACER WIRE SHALL BE INSTALLED WITH WATER LINE MAIN WHERE THERE SHALL BE A PERMANENT WATER LINE MARKER INSTALLED @ 10' INTERVALS IN BETWEEN WHERE THE TRACER WIRE IS INSTALLED. THE TRACER WIRE SHALL BE INSTALLED ABOVE THE WATER LINE AND CONNECTED TO THE PERMANENT MARKERS IN A MANNER THAT WILL INSURE A CONTINUOUS CONNECTION OF THE TRACER LINE.
- CONTRACTOR SHALL CALL FOR LOCATES PRIOR TO CONSTRUCTION.
- CWL SHALL PROVIDE FIRE HYDRANT, 6" D.I. GATE VALVE, VALVE BOX W/ LID, AND 6" BY LINE SIZE D.I. TEE. CONTRACTOR SHALL PROVIDE LABOR FOR INSTALLATION AND CONCRETE BLOCKING. (SEE DETAIL SHEET)
- CONTRACTOR SHALL NOTIFY ENGINEER TO DETERMINE ELEVATIONS FOR MANHOLE TOPS, WATERLINE ELEVATION WHERE IT CROSSES PROPOSED STORM DRAINS, WATER METER BOX ELEVATIONS, VALVE BOX ELEVATIONS, AND FIRE HYDRANT ELEVATIONS. AND WATER LINE LOCATION AROUND INLETS. WATER LINE SHALL BE INSTALLED AT AN ELEVATION WHERE HYDRANTS ARE LOCATED TO ENSURE HYDRANT WILL BE AT PROPER HEIGHT WHEN FINISHED GRADE HAS BEEN OBTAINED.
- CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH PLANS TO INSURE THE WATER LINE DEPTH OF INSTALLATION IS BELOW THE PROPOSED STORM DRAIN ELEVATION. CONTRACTOR WILL BE REQUIRED TO COME BACK AND LOWER WATER LINE (AT THE CONTRACTOR'S EXPENSE) IF IT INTERFERES WITH THE STORM DRAIN INSTALLATION.
- IF CONTRACTOR CAN NOT INSURE WATER LINE INSTALLATION TO BE BELOW STORM DRAIN, THEN THE CONTRACTOR SHALL POSTPONE WATER LINE INSTALLATION UNTIL STORM DRAIN HAS BEEN INSTALLED.
- CONTRACTOR SHALL PROVIDE OWNER WITH ONE YEAR WARRANTY FOR MATERIALS AND WORKMANSHIP.
- CONTRACTOR SHALL PROVIDE ENGINEER WITH LIEN RELEASES FOR MATERIALS AND LABOR; BACTERIAL SAMPLE RESULTS; AND MODEL & YEAR OF WATER LINE VALVES WITHIN 30 DAYS OF COMPLETION OF WORK.
- CONTRACTOR SHALL DRESS UP PROJECT AFTER INSTALLATION TO THE CONDITION IT AS PRIOR TO BEGINNING CONSTRUCTION. MOUND BACKFILL OVER TRENCHES 1' TO 2' TO ALLOW FOR SETTLING IN AREAS OUT OF THE STREET.
- CONTRACTOR SHALL REVIEW DETAIL SHEETS TO ENSURE PROPER INSTALLATION OF VALVES, FIRE HYDRANTS, CONCRETE BLOCKING, SERVICE LINES, MANHOLE INVERTS, AND DROP ASSEMBLIES.
- CONTRACTOR SHALL OBTAIN A PRE-CONSTRUCTION MEETING WITH THE ARKANSAS DEPARTMENT OF HEALTH & HUMAN SERVICES TO DISCUSS THE PROJECT AND REVIEW THEM. CWL SPECIFICATIONS ARE TO BE ADHERED TO AND MADE A PART OF THIS SET OF PLANS. CONTRACTOR SHALL USE CWL SPECIFICATIONS TO INCLUDE ITEMS NOT SHOWN OR REFERRED TO IN THIS SET OF PLANS. ALL STREET EXCAVATION MATERIAL SHALL BE DISPOSED OF BY CONTRACTOR AT THE ADJACENT LOTS OR AS DIRECTED BY OWNER.
- ALL STREET EXCAVATION MATERIAL SHALL BE DISPOSED OF BY CONTRACTOR ON THE ADJACENT LOTS OR AS DIRECTED BY OWNER.
- CONTRACTOR SHALL PLACE 8 MIL POLYWRAP OVER DUCTILE IRON FITTINGS PRIOR TO PLACING CONCRETE BLOCKING TO PREVENT CONCRETE FROM ENCASEING BOLTS & NUTS.
- ALL WATER LINES 4" TO 12" DIAMETER SHALL BE AWWA C-900 PRESSURE GLASS 150 DR 18 ALL 2" AND 3" DIAMETER WATER LINES SHALL BE SDR 21 CLASS 200 (ASTM 2241). ALL SEWER LINES SHALL BE ASTM 2241 SDR-26 OR AS SHOWN.
- WATER LINE AND SANITARY SEWER LINE SHALL MAINTAIN 18" MINIMUM VERTICAL SEPARATION. WATER/SEWER LINE AND STORM DRAIN SHALL MAINTAIN 36" MINIMUM HORIZONTAL SEPARATION & 18" VERTICAL SEPARATION TO PREVENT FREEZING. MAINTAIN AS MUCH DISTANCE BETWEEN WATER AND SEWER LINE AS POSSIBLE, BUT NOT LESS THAN 10" HORIZONTAL SEPARATION. SEPARATION BETWEEN WATER AND SEWER LINES ARE UNAVOIDABLE OR IN LOCATIONS WHERE WATER MUST UNAVOIDABLY CROSS UNDER SANITARY SEWER LINE, REGARDLESS OF VERTICAL SPACING, THEN WATER LINE AND/OR SEWER LINE MUST BE ENCASED 10 FEET EITHER SIDE OF THE CROSSING LOCATION. ANY JOINT IN THE ENCASEMENT PIPE SHALL BE MECHANICALLY RESTRAINED. EXCEPTIONS TO THIS REQUIREMENT MUST BE APPROVED IN WRITING BY THE ARKANSAS DEPARTMENT OF HEALTH. SEE SECTION XIV.A. OF THE PUBLIC WATER SYSTEMS MANUAL FOR THE STATE OF ARKANSAS FOR FULL TEXT OF SPECIFICATIONS.
- CONSTRUCTION SHALL BEGIN ONLY AFTER APPROVED PLANS FROM THE ARKANSAS DEPARTMENT OF HEALTH ARE SUBMITTED TO CWL AND NECESSARY FEES ARE PAID IN FULL. CONSTRUCTION BY CONTRACTORS SHALL THEN BEGIN ONLY AFTER THE RIGHT OF WAY HAS BEEN CLEARED, THE ENTIRE SECTION STAKED, THE ELEVATIONS CAREFULLY CHECKED, AND A PRE-CONSTRUCTION MEETING HAS BEEN HELD. A POST CONSTRUCTION MEETING WILL BE HELD W/ CONTRACTOR PRESENT TO VERIFY ALL CONSTRUCTION IS ACCEPTABLE TO CWL PRIOR TO THE INSTALLATION OF ELECTRICAL WIRE.
- DEVELOPER MUST SHOW PROOF OF ADEQUATE INSURANCE COVERAGE. (ARKANSAS WORKERS COMPENSATION, \$1,000,000.00 MINIMUM AUTO LIABILITY, CONTRACTOR MUST HAVE A STATE CONTRACTORS LICENSE. CONTRACTOR MUST HAVE A COMPETENT PERSON AT THE JOB SITE AS DEFINED BY OSHA.
- FINAL CLEANUP OF THE SITE SHALL INCLUDE THE REMOVAL AND DISPOSAL OFF-SITE OF ALL CONSTRUCTION DEBRIS, AND SURPLUS MATERIALS.
- DURING CONSTRUCTION, WORK SHALL BE INSPECTED BY THE DEVELOPER'S CONSULTING ENGINEER FOR NECESSARY SAFETY PRACTICES, PROPER MATERIALS, AND WORKMANSHIP. CWL WILL PROVIDE RANDOM INSPECTIONS TO INSURE THAT THE PLANS APPROVED BY THE ARKANSAS DEPARTMENT OF HEALTH AND CWL ARE FOLLOWED CONCERNING WORKMANSHIP AND MATERIALS.
- IF SEWER AND WATER LINES HAVE NOT BEEN ACCEPTED BY CWL WITHIN 360 DAYS AFTER MANDREL TESTS, LOW PRESSURE AIR TESTS, HYDROSTATIC TESTS AND BACTERIAL TESTS, ALL TESTS WILL BE REQUIRED TO BE REPEATED AND RE-CERTIFIED.
- INSTALLATION OF DOMESTIC WATER METER TAPS ARE REQUIRED TO BE MADE DURING THE INSTALLATION OF THE NEW WATER MAINS.
- OBSTRUCTING DRAINAGE PIPES, SHALL BE REMOVED. IF IN SOUND, UNDAMAGED CONDITION, THEY MAY BE CLEANED AND RE-INSTALLED. IF UNSOUND OR DAMAGED, THEY SHALL BE REPLACED WITH THE SAME TYPE OF MATERIAL, WHEN THE ANGLE BETWEEN CENTER LINES OF A DRAINAGE PIPE AND WATER MAIN WILL PERMIT. THE WATER MAIN MAY BE INSTALLED BY TUNNELING, PROVIDED THE DRAINAGE PIPE IS NOT DAMAGED AND THE WATER MAIN IS LAID PROPERLY, AS AN ALTERNATIVE IN THE CASE OF CORRUGATED METAL PIPE, A SECTION MAY BE CUT FROM THE DRAINAGE PIPE, AND RESTORATION ACCOMPLISHED WITH NEW PIPE AND COUPLING BANDS.
- CWL ENGINEERING DEPT. MUST APPROVE ANY WATER OR SEWER LINES THAT WILL BE INSTALLED CLOSER THAN 5' PARALLEL WITH EDGE OF PAVED STREET SURFACE.
- REPAIRS SHALL BE MADE IN ACCORDANCE WITH AWWA. IF VALVE IS CLOSED BY THE CONTRACTOR WITHOUT CWL'S KNOWLEDGE, THE NEW SECTION MUST BE TESTED FOR WATER QUALITY AND FLUSHED. THE CWL INSPECTOR WILL WITNESS ALL REPAIRS.
- WATER LINE FITTINGS SHALL BE CLASS 350 DUCTILE IRON OR CAST IRON.
- TRENCH DEPTH WILL BE SUCH AS TO ALLOW A MINIMUM COVER OF 42" OVER WATER MAIN.
- LEAKAGE TESTS SHALL BE MADE PRIOR TO STERILIZATION OPERATIONS. THE TEST PERIOD SHALL BE TWO (2) HOURS. TEST PRESSURE SHALL BE 1.5 TIMES THE CALCULATED WORKING PRESSURE OF THE MAIN, BUT NOT LESS THAN 100 PSI. THE LINE WILL NOT BE ACCEPTED UNLESS OR UNTIL THE TOTAL IS LESS THAN THAT SPECIFIED IN AWWA C-600-93 FOR DUCTILE IRON AND AWWA C-605-94 FOR PVC PIPE.
- ALL WATER LINES SHALL BE STERILIZED IN ACCORDANCE WITH AWWA C-651-94. ANY NEW CONSTRUCTION OR REPAIRED WATER MAIN MUST BE THOROUGHLY CLEANED (FLUSHED), DISINFECTED, AND TESTED FOR BACTERIOLOGICAL QUALITY BEFORE IT CAN BE PLACED IN SERVICE. FOLLOWING A CONTACT PERIOD OF NOT LESS THAN 24 HOURS, THE CHLORINATED WATER SHALL BE FLUSHED FROM THE SYSTEM, AND THE SYSTEM FILLED WITH WATER OF NORMAL CHLORINE CONTENT. SAMPLES OF WATER THEN SHALL BE TAKEN ON TWO CONSECUTIVE DAYS FROM THE LINES AND DELIVERED TO THE CWL - LABORATORY FOR BACTERIAL ANALYSIS. THIS PROCESS SHALL BE CONTINUED UNTIL THE SAMPLES SHOW THE WATER IS SAFE FOR DOMESTIC REQUIREMENTS. FLUSHING DEVICES SHOULD BE SIZED TO PROVIDE FLOWS WHICH WILL GIVE A VELOCITY OF AT LEAST 2.5 FEET PER SECOND IN THE WATER MAIN BEING FLUSHED. NO FLUSHING DEVICE SHALL BE DIRECTLY CONNECTED TO ANY SEWER. IF THE LINE HAS SET FOR A ONE MONTH OR LONGER BEFORE FINAL ACCEPTANCE, IT SHALL BE RESTERILIZED, FLUSHED, AND BACTERIAL TESTED.
- THE DEVELOPER AND ENGINEER ARE RESPONSIBLE FOR METER BOX LOCATIONS. ANY CONFLICTS THAT REQUIRE PLASTIC BOX(S) TO BE CHANGED OUT TO CONCRETE BOX(S) WILL BE AT THE EXPENSE OF THE DEVELOPER AND/OR CONTRACTOR.
- IF UNSAFE PRACTICES ARE DISCOVERED BY CWL DURING INSPECTIONS OF WORKMANSHIP AND MATERIALS, CWL WILL NOTIFY OSHA. THIS PROCEDURE IN NO WAY OBLIGATES CWL FOR THE RESPONSIBILITY OF THE CONTRACTOR'S SAFETY PRACTICES.
- DURING CONSTRUCTION, WORK SHALL BE INSPECTED DAILY BY THE ENGINEER OF RECORD FOR PROPER MATERIALS, WORKMANSHIP, AND INSTALLATION IN ACCORDANCE WITH THE APPROVED ARKANSAS DEPARTMENT OF HEALTH AND CITY WATER AND LIGHT APPROVED PLANS.

NOTE: ALL 12" GATE VALVES TO BE BUTTERFLY VALVES

NOTE: TRACER WIRE AND PEDESTAL SHOULD BE INSTALLED WHEN WATER LINE NOT ACCOMPANIED WITH ELECTRIC LINE.



OPERATING NOTE:

THE OPERATING ROUTINE SHALL INCLUDE NECESSARY PROTECTIVE MEASURES TO DETECT AND REMOVE OR DESTROY ANY CONTAMINANT OF CONCERN OR REGULATION THAT MIGHT ENTER THE DISTRIBUTION SYSTEM. EVERY PRECAUTION MUST BE TAKEN AGAINST THE POSSIBILITY OF SEWAGE CONTAMINATION OF THE WATER IN THE DISTRIBUTION SYSTEM. WATER MAINS AND SANITARY SEWERS SHALL BE CONSTRUCTED AS FAR APART AS PRACTICABLE, AND SHALL BE SEPARATED BY UNDISTURBED AND COMPACTED EARTH. A MINIMUM HORIZONTAL DISTANCE OF 10' SHOULD BE MAINTAINED BETWEEN WATER LINES AND SEWER LINE OR OTHER SOURCES OF CONTAMINATION. WATER LINES AND SEWER SHALL NOT BE LAID IN THE SAME TRENCH EXCEPT OF THE WRITTEN APPROVAL OF THE ARKANSAS DEPARTMENT OF HEALTH. WATER MAINS NECESSARILY CLOSE PROXIMITY TO SEWERS MUST BE PLACED SO THAT THE BOTTOM OF THE WATERLINE 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 THE SEWER LINE MUST BE ENCASED IN A WATERTIGHT PIPE WITH SEALED WATERTIGHT ENDS EXTENDING AT LEAST 10' EITHER SIDE OF THE CROSSING. ANY JOINT IN THE ENCASEMENT PIPE IS TO BE MECHANICALLY RESTRAINED. THE ENCASEMENT PIPE MAY BE VENTED TO THE SURFACE IF CARRYING WATER OR SEWER UNDER PRESSURE. WHERE A WATER LINE MUST UNAVOIDABLY PASS BENEATH THE SEWER LINE, AT LEAST 18" OF SEPARATION MUST BE MAINTAINED BETWEEN THE OUTSIDE OF THE TWO PIPES IN ADDITION TO THE PRECEDING ENCASEMENT REQUIREMENTS. EXCEPTIONS TO THIS MUST BE APPROVED IN WRITING BY THE ARKANSAS DEPARTMENT OF HEALTH. A MINIMUM HORIZONTAL DISTANCE OF 3' SHALL BE MAINTAINED BETWEEN WATER LINES AND OTHER UNDERGROUND UTILITIES OF A NON-SANITARY NATURE (GAS, ELECTRIC, ETC.), EXCEPTIONS TO THIS MUST BE APPROVED IN WRITING BY THE ARKANSAS DEPARTMENT OF HEALTH AND HUMAN SERVICES.

TRENCH SETTLEMENT NOTE:

CITY WATER & LIGHT IS NOT RESPONSIBLE FOR ANY SETTLEMENT OVER WATER & SEWER TRENCHES THAT OCCURS BEFORE OR AFTER THE WARRANTY PERIOD.

WATER METER NOTE:

WATER METERS ARE SHOWN PICTORIALLY ONLY. WATER METERS SHALL BE LOCATED AT THE RIGHT OF WAY APPROXIMATELY AT THE CENTER OF THE LOT. THERE SHOULD BE A MINIMUM OF 10 FEET SEPARATION BETWEEN WATER METERS AND SANITARY SEWER SERVICES. THERE SHOULD BE A MINIMUM OF 3 FEET SEPARATION BETWEEN WATER METERS AND PROPERTY LINES.

WATER CONNECTION NOTE:

CONTRACTOR SHALL NOT INITIATE TIE IN CONNECTION TO EXISTING WATER MAIN AFTER 3 P.M. DURING NORMAL WORKING DAYS OR ON FRIDAY AFTER 12 P.M., UNLESS APPROVED BY CITY WATER & LIGHT ENGINEERING DEPT. CONTRACTOR SHALL NOTIFY CWL INSPECTOR OF TENTATIVE TIME FRAME FOR CONNECTION 24 HOURS PRIOR TO ACTIVITY.

ALL SEWER WYES SHALL BE A MINIMUM OF 10' FOOT AWAY FROM PROPERTY CORNERS.

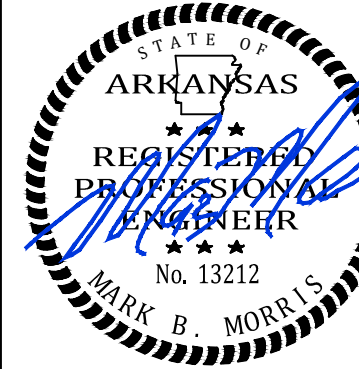
ELECTRICAL CONDUIT NOTE:

ALL ELECTRICAL CONDUIT SHALL HAVE A MINIMUM 48" OF COVER BELOW FINISHED GRADE.

NO TRANSFORMER, JUNCTION BOX, OR PULL BOX TO BE PLACED OVER WATER FITTINGS WITHOUT CITY WATER AND LIGHT APPROVAL.

SARAH CROSSING - PHASE IV

GENERAL WATER PLAN



REVISIONS		
DATE	BY	DESCRIPTION

DRAWING INFO.

DRAWN BY: IMH
DATE: 06/04/2025
SCALE: 1"=60'

SHEET NUMBER:

WT-1

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