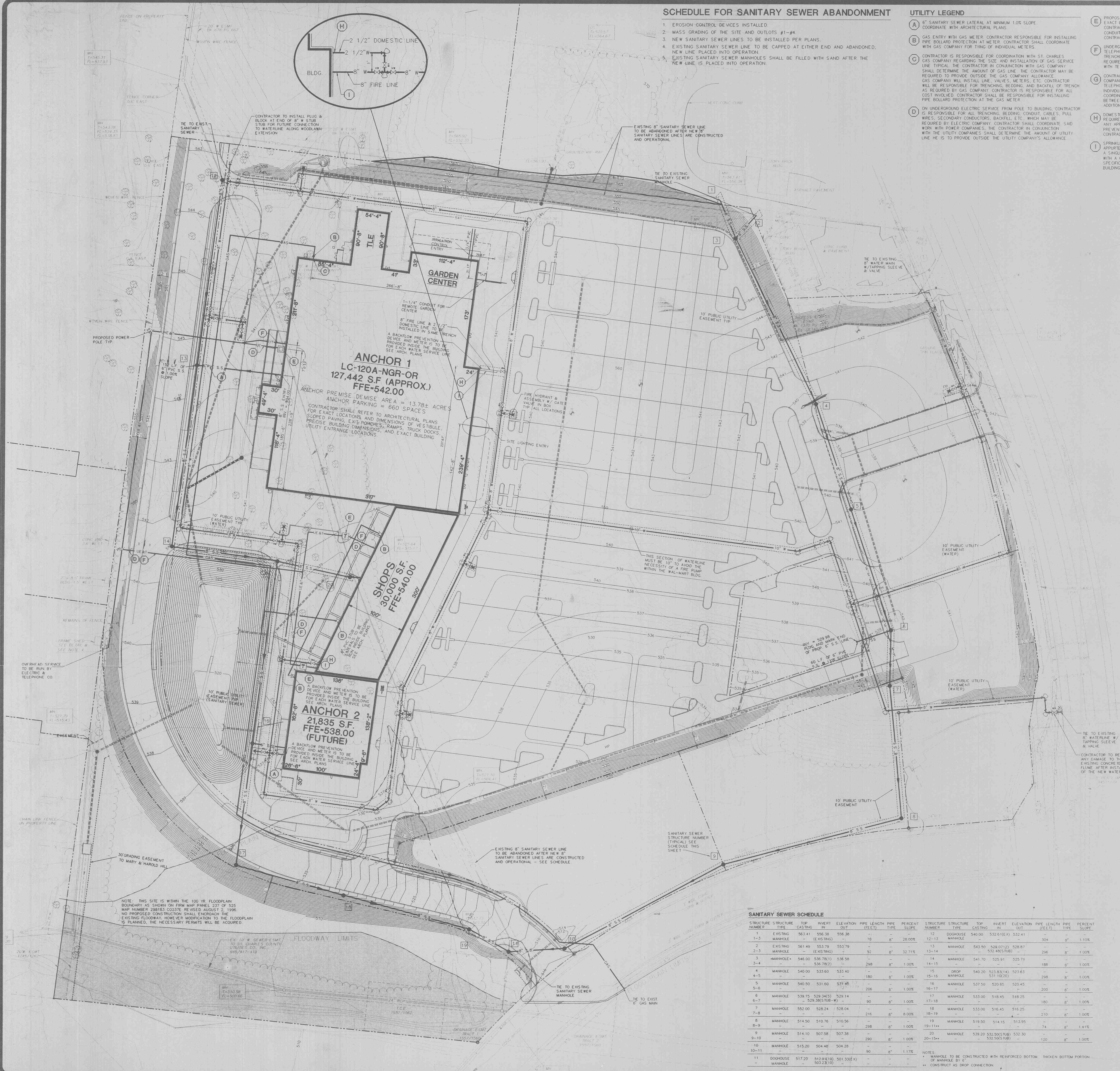


SCHEDULE FOR SANITARY SEWER ABANDONMENT

1. EROSION CONTROL DEVICES INSTALLED.
2. MASS GRADING OF THE SITE AND OUTLOTS #1-#4.
3. NEW SANITARY SEWER LINES TO BE INSTALLED PER PLANS.
4. EXISTING SANITARY SEWER LINE TO BE CAPPED AT EITHER END AND ABANDONED; NEW LINE PLACED INTO OPERATION.
5. EXISTING SANITARY SEWER MANHOLES SHALL BE FILLED WITH SAND AFTER THE NEW LINE IS PLACED INTO OPERATION.

UTILITY LEGEND

(A) 6" SANITARY SEWER LATERAL AT MINIMUM 1.0% SLOPE. COORDINATE WITH ARCHITECTURAL PLANS.

(B) GAS ENTRY WITH GAS METER. CONTRACTOR RESPONSIBLE FOR INSTALLING PIPE BOLLARD PROTECTION AT METER. CONTRACTOR SHALL COORDINATE WITH GAS COMPANY FOR TYING OF INDIVIDUAL METERS.

(C) CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH ST. CHARLES GAS COMPANY REGARDING THE SIZE AND INSTALLATION OF GAS SERVICE LINE TYPICAL. THE CONTRACTOR IN CONJUNCTION WITH GAS COMPANY SHALL DETERMINE THE AMOUNT OF GAS LINE. THE CONTRACTOR MAY BE REQUIRED TO PROVIDE OUTSIDE THE GAS COMPANY ALLOWANCE. GAS COMPANY WILL INSTALL LINE, VALVES, METERS, ETC. CONTRACTOR WILL BE RESPONSIBLE FOR TRENCHING, BEDDING, AND BACKFILL OF TRENCH AS REQUIRED BY GAS COMPANY. CONTRACTOR IS RESPONSIBLE FOR ALL COST INVOLVED. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING PIPE BOLLARD PROTECTION AT THE GAS METER.

(D) ON UNDERGROUND ELECTRIC SERVICE FROM POLE TO BUILDING, CONTRACTOR IS RESPONSIBLE FOR ALL TRENCHING, BEDDING, CONDUIT, CABLES, PULL WIRES, SECONDARY CONDUCTORS, BACKFILL, ETC., WHICH MAY BE REQUIRED BY ELECTRIC COMPANY. CONTRACTOR SHALL COORDINATE SAID WORK WITH POWER COMPANIES, THE CONTRACTOR IN CONJUNCTION WITH THE UTILITY COMPANIES SHALL DETERMINE THE AMOUNT OF UTILITY LINE HE IS TO PROVIDE OUTSIDE THE UTILITY COMPANY'S ALLOWANCE.

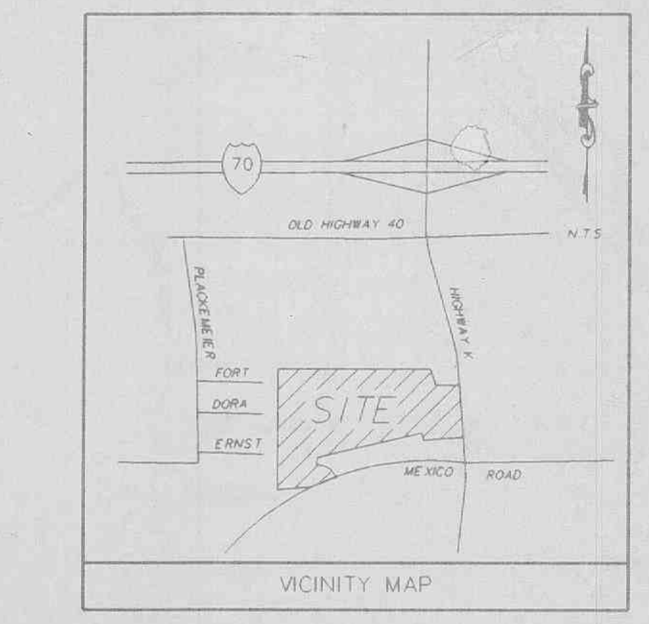
(E) PROPOSED LOCATION OF TRANSFORMER PAD. CONTRACTOR TO VERIFY EXACT LOCATION AND SIZE WITH POWER COMPANY PRIOR TO INSTALLATION. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF CONCRETE PAD, CONDUIT AND PIPE BOLLARDS AS REQUIRED BY THE ELECTRIC COMPANY. CONTRACTOR SHALL COORDINATE SAID WORK WITH THE ELECTRIC COMPANY.

(F) UNDERGROUND TELEPHONE FROM POLE TO BUILDING TO BE EXTENDED BY TELEPHONE COMPANY. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TRENCHING, BEDDING, PULL WIRES, BACKFILL, ETC., WHICH MAY BE REQUIRED BY TELEPHONE COMPANY. CONTRACTOR SHALL COORDINATE WITH TELEPHONE COMPANY FOR SAID WORK.

(G) CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE UTILITY COMPANIES FOR THE INSTALLATION OF OVERHEAD ELECTRIC AND TELEPHONE LINE TYPICAL. CONTRACTOR SHALL COORDINATE THE TYING OF INDIVIDUAL METERS WITH THE ELECTRIC COMPANY. CONTRACTOR TO COORDINATE WITH UTILITY COMPANY TO INSURE PROPER SEPARATION BETWEEN OVERHEAD LINES AND LIGHT POLES. SEE NOTE D, E, & F FOR ADDITIONAL NOTES PERTAINING TO ELECTRIC AND TELEPHONE LINES.

(H) DOMESTIC WATERLINE ENTRY WITH METER PER LOCAL WATER COMPANY REQUIREMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ANY APPURTENANCES ON THE DOMESTIC LINE SUCH AS BACKFLOW PREVENTION DEVICES, GATE VALVES, ETC., WHICH MAY BE REQUIRED. CONTRACTOR TO COORDINATE WITH WATER COMPANY.

(I) SPRINKLER ENTRY. CONTRACTOR SHALL BE REQUIRED TO INSTALL ANY APPURTENANCES ON THE SPRINKLER LINE SUCH AS, BUT NOT LIMITED TO, A SINGLE DETECTOR CHECK BACKFLOW PREVENTION DEVICE, IN SERIES WITH A CHECK VALVE, GATE VALVES, ETC., MEETING WATER COMPANY SPECIFICATIONS. BACKFLOW PREVENTOR TO BE LOCATED INSIDE THE BUILDING. CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL PLANS.



VICINITY MAP

SITE UTILITY NOTES

1. ALL FILL MATERIAL IS TO BE IN PLACE AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
2. CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES INSPECTORS 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE.
3. ALL SANITARY SEWER LINES ARE TO BE PVC AND SHALL CONFORM TO ASTM SPECIFICATION D 3034. THE MINIMUM WALL THICKNESS SHALL CONFORM TO ASTM D 2321 FOR CLASS I MATERIALS. INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D 2321 AND/OR MANUFACTURER'S RECOMMENDATIONS, WHICHEVER IS MORE STRINGENT. ALL JOINTS FOR PVC PIPE SHALL BE GASKETED JOINTS WITH A GASKET CONFINED IN EITHER THE SPIGOT END OR THE END OF THE PIPE. RUBBER GASKET SHALL CONFORM TO ASTM SPECIFICATION D 1869. GASKETS SHALL BE NEOPRENE OR OTHER SYNTHETIC MATERIAL. NATURAL RUBBER GASKETS WILL NOT BE ACCEPTABLE. ALL FITTINGS SHALL BE SADDLE TYPE FITTINGS WITH STAINLESS STEEL BANDS OR PVC PLASTIC. ALL FITTINGS SHALL BE SUITABLE FOR ASSEMBLY TO (4) FOUR OR (6) SIX INCH BUILDING SEWERS.
4. ALL WATER LINES AND APPERTURES TO MEET THE REQUIREMENT OF THE CITY OF O'FALLON, THE MISSOURI DEPARTMENT OF NATURAL RESOURCES COUNTY PLUMBING CODE.
5. ALL WATER LINES SHALL BE PVC AND SHALL CONFORM TO ASTM SPECIFICATION D 2441. THE MATERIAL USED TO PRODUCE THE PIPE SHALL CONFORM TO ASTM D 1784, TYPE 1 GRADE 1, TWO THOUSAND(2000) POUNDS PER SQUARE INCH(PSI) DESIGN STRESS. ALL WATER MAIN SHALL BE SDR 21 AND SHALL BE RATED FOR TWO HUNDRED(200) PSI WORKING PRESSURE AT 73.4' DEGREES F.
6. ALL WATER MAIN FITTINGS SHALL BE DUCTILE IRON CONFORMING TO THE REQUIREMENTS OF A.S.A. STANDARD A 21.10 WITH A PRESSURE RATING OF THREE HUNDRED FIFTY(350) PSI. THE FITTING SHALL BE CEMENT LINED AND SEAL COATED IN ACCORDANCE WITH A.S.A. 21.4 AND EXTERIOR SHALL BE COATED IN ACCORDANCE WITH A.S.A. STANDARD A 21.10 JOINTING FOR PIPES OR PUSH-ON TYPE. ALL FITTINGS SHALL HAVE MECHANICAL JOINTS. THE JOINTS SHALL CONFORM TO A.S.A. STANDARD A 21.11 AND ALL GASKETS SHALL BE SYNTHETIC RUBBER.
7. ALL GATE VALVES SHALL BE AWWA APPROVED FOR 200 POUNDS WORKING PRESSURE. MUELLER IRON BODY DOUBLE DISC GATE VALVE WITH 2 INCH SQUARE WRENCH NUT; PARALLEL SEATS-BRONZE MOUNTED, WITH ADAPTER AND COUPLINGS FOR PVC PIPE, OR EQUIVALENT.
8. MINIMUM TRENCH WIDTH SHALL BE 2 FEET. ALL TRENCH CONSTRUCTION SHALL BE PER OSHA/ STATE REQUIREMENTS.
9. ALL UTILITIES SHOULD BE KEPT TEN (10') APART (PARALLEL) OR WHEN CROSSING 18" APART (OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE).
10. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 3'-6" COVER ON ALL WATERLINES AND 3'-6" ON ALL SANITARY SEWER LINES.
11. IN THE EVENT OF A VERTICAL CONFLICT BETWEEN WATERLINES, SANITARY LINES, STORM LINES AND GAS LINES (EXISTING AND PROPOSED), THE SANITARY LINE SHALL BE DUCTILE IRON PIPE WITH MECHANICAL JOINTS AT LEAST 10 FEET ON BOTH SIDES OF CROSSING. THE WATERLINE SHALL HAVE MECHANICAL JOINTS WITH APPROPRIATE THRUST BLOCKING AS REQUIRED TO PROVIDE A MINIMUM OF 18" CLEARANCE. MEETING REQUIREMENTS OF ANSI A21.10 OR ANSI 21.11 (AWWA C-151) (CLASS 50).
12. LINES UNDERGROUND SHALL BE INSTALLED, INSPECTED AND APPROVED BEFORE BACKFILLING.
13. TOPS OF EXISTING MANHOLES SHALL BE RAISED AS NECESSARY TO BE FLUSH WITH PROPOSED PAVEMENT ELEVATIONS, AND TO BE ONE FOOT ABOVE FINISHED GROUND ELEVATIONS OUTSIDE OF PAVED AREAS.
14. CONTRACTOR SHALL COORDINATE WITH BUILDING ARCHITECT AND TELEPHONE COMPANY FOR EXACT LOCATIONS OF TELEPHONE ENTRIES TO SHOPS. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CONDUITS, PULL WIRES, TRENCHING, ETC. REQUIRED BY SOUTHWESTERN BELL.
15. ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH AT 3000 P.S.I.
16. CONNECTION FROM THE METER TO SITE UTILITYLINES SHALL BE MADE BY BUILDING CONTRACTOR.
17. DRAWINGS DO NOT PURPORT TO SHOW ALL EXISTING UTILITIES.
18. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
19. REFER TO INTERIOR PLUMBING DRAWINGS FOR TIE-IN OF ALL UTILITIES.
20. CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE SPECIFICATIONS OF THE LOCAL AUTHORITIES WITH REGARDS TO MATERIALS AND INSTALLATION OF THE WATER AND SEWER LINES.
21. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
22. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICE.
23. CONTRACTOR SHALL MAINTAIN MINIMUM HORIZONTAL CLEARANCE BETWEEN LIGHT POLES AND OVERHEAD ELECTRICAL LINES AS REQUIRED BY THE ELECTRIC COMPANY.
24. CONTRACTOR SHALL COORDINATE WITH BUILDING ARCHITECT AND ELECTRIC COMPANY FOR EXACT LOCATION OF ELECTRIC ENTRY FOR SHOPS AND MINI ANCHOR. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CONDUITS, TRENCHING, CABLES, ETC. REQUIRED BY ELECTRIC COMPANY. THE SERVICE DROPS FOR THE STRIP STORES WILL BE FROM THE TRANSFORMER TO PRE-BUSSED TERMINAL BOXES. ELECTRIC COMPANY WILL SPECIFY THE NUMBER AND SIZE OF THE CABLES AND CONDUITS TO THE PRE-BUSSED TERMINAL BOXES. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO INSTALL THE CABLES AND CONDUITS, BUT ELECTRIC COMPANY WILL TAKE OVER OWNERSHIP. CONTRACTOR IS RESPONSIBLE FOR ANY NECESSARY TREE TRIMMING FOR THE LINE EXTENSION AND INSTALLING SECONDARY CONDUITS AND CABLES.
25. CONTRACTOR SHALL INSTALL A 5/8" DOMESTIC METER W/ GATE VALVE IN VALVE BOX ON A 3/4" DOMESTIC WATERLINE TO MEET CITY SPECIFICATIONS FOR SERVICE TO SHOPS (TYPICAL). CONTRACTOR SHALL COORDINATE WITH BUILDING ARCHITECT FOR THE EXACT NUMBER AND LOCATION OF WATER CONNECTIONS TO SHOPS.
26. CONTRACTOR SHALL COORDINATE WITH THE BUILDING ARCHITECT FOR THE LOCATION OF SANITARY SEWER LATERALS TO SERVE SHOPS. CONTRACTOR SHALL BE RESPONSIBLE FOR CONNECTION TO SANITARY SEWER LINE, CLEANOUTS, ETC. AS REQUIRED BY CODE.
27. CONTRACTOR SHALL INSTALL A BACKFLOW PREVENTION ASSEMBLY ON EACH WATER SERVICE LINE INSIDE THE BUILDING. THIS SHALL INCLUDE BUT NOT BE LIMITED TO BACKFLOW PREVENTORS, DOUBLE CHECK VALVE ASSEMBLY, GATE VALVES, ETC. TO MEET THE GOVERNING AUTHORITIES SPECIFICATIONS. CONTRACTOR TO COORDINATE WITH ARCH. PLANS.
28. ALL SANITARY SEWER MANHOLES SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48".

*** NOTE ***
TO WAL-MART SPRINKLER CONTRACTOR

THE FOLLOWING FLOW AND PRESSURE DATA HAS BEEN CALCULATED AT THE SPRINKLER SERVICE ENTRANCE (542.00) @ THE SPRINKLER RISER SIDE OF ANY REQUIRED BACKFLOW OR CHECKVALVE DEVICES-
STATIC PRESSURE = 68.0 psi
RESIDUAL PRESSURE = 38.0 psi
AT - 1150 - GPM FLOW

SANITARY SEWER SCHEDULE

STRUCTURE NUMBER	STRUCTURE TYPE	TOP CASTING	INVERT IN	ELEVATION OUT	PIPE LENGTH (FEET)	PIPE TYPE	PERCENT SLOPE
1	EXISTING MANHOLE	563.41	556.38	556.38	–	–	–
1-3	–	–	(EXISTING)	–	70	8"	28.00%
2	EXISTING MANHOLE	561.49	553.79	553.79	–	–	–
2-3	–	–	(EXISTING)	–	52	8"	32.71%
3	*MANHOLE*	546.00	536.78(1)	536.58	–	–	–
3-4	–	–	536.78(2)	–	298	8"	1.00%
4	MANHOLE	540.00	533.60	533.40	–	–	–
4-5	–	–	–	–	180	8"	1.00%
5	MANHOLE	540.50	531.60	531.40	–	–	–
5-6	–	–	–	–	206	8"	1.00%
6	MANHOLE	539.75	529.34(5)	529.14	–	–	–
6-7	–	–	529.38(STUB-W)	–	90	8"	1.00%
7	MANHOLE	552.00	528.24	528.04	–	–	–
7-8	–	–	–	–	216	8"	8.00%
8	MANHOLE	514.50	510.76	510.56	–	–	–
8-9	–	–	–	–	298	8"	1.00%
9	MANHOLE	514.10	507.58	507.38	–	–	–
9-10	–	–	–	–	290	8"	1.00%
10	MANHOLE	515.20	504.48	504.28	–	–	–
10-11	–	–	–	–	90	8"	1.17%
11	DOGHOUSE MANHOLE	517.20	512.91(19) 503.23(10)	501.33(EX)	–	–	–
–	–	–	–	–	–	–	–

STRUCTURE NUMBER	STRUCTURE TYPE	TOP CASTING	INVERT IN	ELEVATION OUT	PIPE LENGTH (FEET)	PIPE TYPE	PERCENT SLOPE
12	DOGHOUSE MANHOLE	540.00	532.61(EX)	532.41	–	–	–
12-13	–	–	–	–	304	8"	1.10%
13	MANHOLE	543.50	529.07(12)	528.87	–	–	–
13-14	–	–	532.48(STUB)	–	296	8"	1.00%
14	MANHOLE	541.70	525.91	525.71	–	–	–
14-15	–	–	–	–	188	8"	1.00%
15	DROP MANHOLE	540.20	523.83(14) 531.10(20)	523.63	–	–	–
15-16	–	–	–	–	298	8"	1.00%
16	MANHOLE	537.50	520.65	520.45	–	–	–
16-17	–	–	–	–	200	8"	1.00%
17	MANHOLE	533.00	518.45	518.25	–	–	–
17-18	–	–	–	–	180	8"	1.00%
18	MANHOLE	533.00	516.45	516.25	–	–	–
18-19	–	–	–	–	210	8"	1.00%
19	MANHOLE	519.50	514.15	513.95	–	–	–
19-11**	–	–	–	–	74	8"	1.41%
20	MANHOLE	539.20	532.50(STUB)	532.30	–	–	–
20-15**	–	–	532.50(STUB)	–	120	8"	1.00%

NOTES:
* MANHOLE TO BE CONSTRUCTED WITH REINFORCED BOTTOM. THICKEN BOTTOM PORTION OF MANHOLE BY 6".
** CONSTRUCT AS DROP CONNECTION.

UTILITY PLAN

GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)
1 inch = 60 ft.

REVISIONS | BY

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770 447-8999 PHONE / 770 447-9070 FAX

PROPOSED COMMERCIAL DEVELOPMENT
O'FALLON, MISSOURI
THF-ONTARIO DEVELOPMENT, L.L.C.
ST. LOUIS, MISSOURI

DRAWN	MHE
CHECKED	JCW
DATE	04/22/97
SCALE	1" = 60'
JOB No.	96-137
SHEET	C-3

OF SHEETS

96137V3.DWG