



SITE UTILITY NOTES

- ALL FILL MATERIAL IS TO BE IN PLACE AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
- CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITIES INSPECTORS 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE.
- 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.
- ALL WATER LINES AND APPURTENANCES TO MEET THE REQUIREMENT OF THE DISTRICT II THE MISSOURI DEPARTMENT OF NATURAL RESOURCES COUNTY PLUMBING CODE.
- 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(P.SI) 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.
- 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.
- 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.
- MINIMUM TRENCH WIDTH SHALL BE 2 FEET. ALL TRENCH CONSTRUCTION SHALL BE PER OSHA/ STATE REQUIREMENTS.
- ALL UTILITIES SHOULD BE KEPT TEN (10') APART (PARALLEL) OR WHEN CROSSING 18" APART (OUTSIDE EDGE OF PIPE TO OUTSIDE EDGE OF PIPE).
- CONTRACTOR SHALL MAINTAIN A MINIMUM OF 3'-6" COVER ON ALL WATERLINES AND 3'-6" ON ALL SANITARY SEWER LINES.
- 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 TAKING PRIORITY. 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).
- LINES UNDERGROUND SHALL BE INSTALLED, INSPECTED AND APPROVED BEFORE BACKFILLING.
- 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 PAVED AREAS.
- ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH AT 3000 P.S.I.
- CONNECTION FROM THE METER TO SITE UTILITY LINES SHALL BE MADE BY BUILDING CONTRACTOR.
- DRAWINGS DO NOT PURPORT TO SHOW ALL EXISTING UTILITIES.
- EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
- REFER TO INTERIOR PLUMBING DRAWINGS FOR TIE-IN OF ALL UTILITIES.
- CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE SPECIFICATIONS OF THE LOCAL AUTHORITIES WITH REGARDS TO MATERIALS AND INSTALLATION OF THE WATER AND SEWER LINES.
- 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.
- 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 PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICE.
- CONTRACTOR SHALL MAINTAIN MINIMUM HORIZONTAL CLEARANCE BETWEEN LIGHT POLES AND OVERHEAD ELECTRICAL LINES AS REQUIRED BY THE ELECTRIC COMPANY.
- ALL SANITARY SEWER MANHOLES SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48".

REVISIONS	BY
1	REVISED PER BSW'S COMMENTS 7-21-99

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PROPOSED LONGHORN STEAKHOUSE
O'FALLON, ST. CHARLES COUNTY, MO.
RARE HOSPITALITY
ATLANTA, GEORGIA

DRAWN	RT
CHECKED	JCW
DATE	7/02/99
SCALE	1"=20'
JOB No.	98-173
SHEET	C-3

OF SHEETS

- #### UTILITY LEGEND
- (A)** 4" SANITARY SEWER LATERAL AT MINIMUM 2.0% 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 TING 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 COMPANIES' ALLOWANCE.
 - (E)** 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.
 - (F)** 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.
 - (G)** PROPOSED FIRE HYDRANT WITH ASSEMBLY. SEE DETAILS.

