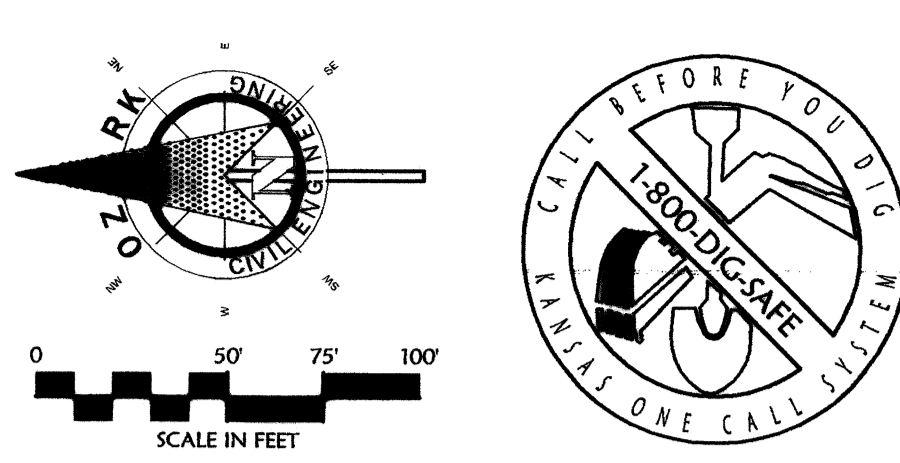
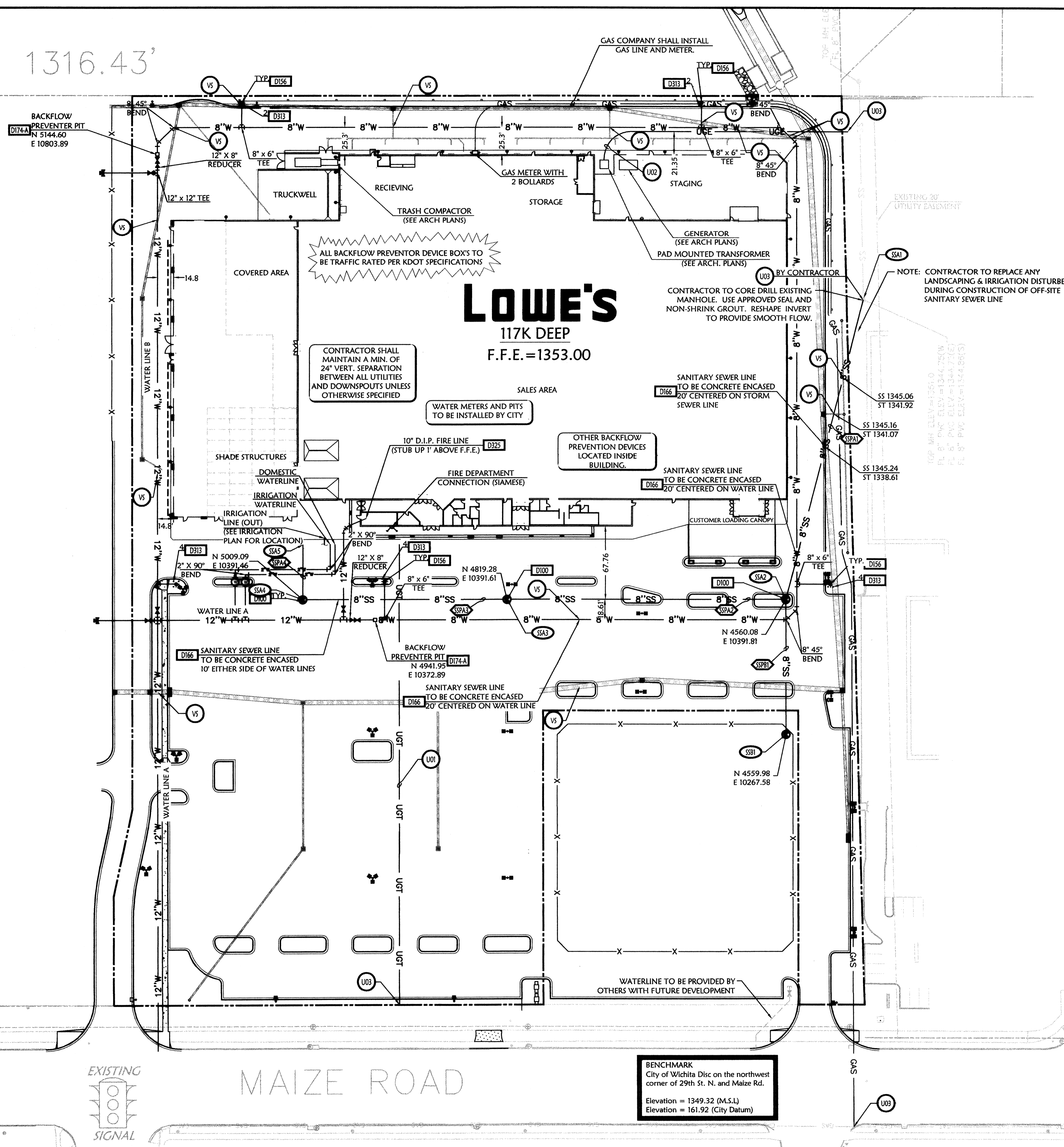


3' W 1316.43'



**UTILITY PROPOSED FEATURES**

|     |                                         |
|-----|-----------------------------------------|
| --- | BOUNDARY LINE                           |
| --- | RIGHT OF WAY LINE                       |
| --- | EASEMENT LINE                           |
| --- | CONCRETE CURB AND GUTTER                |
| X   | FENCE                                   |
| --- | GUARD RAIL                              |
| --- | RETAINING WALL                          |
| --- | STORM DRAIN (SEE GRADING PLAN FOR SIZE) |
| --- | SANITARY SEWER SERVICE                  |
| --- | WATER SERVICE                           |
| --- | UNDERGROUND ELECTRIC SERVICE            |
| --- | UNDERGROUND TELEPHONE SERVICE           |
| --- | OVERHEAD ELECTRIC SERVICE               |
| --- | OVERHEAD TELEPHONE SERVICE              |
| --- | FIBER OPTIC CABLE SERVICE               |
| --- | GAS SERVICE                             |
| --- | DROP INLETS (SEE GRADING PLAN FOR TYPE) |

**UTILITY GENERAL NOTES:**

ALL WATER LINES SHALL HAVE A MINIMUM OF 3'-0" COVER ABOVE TOP OF PIPE.  
 ALL SANITARY SEWER LINES SHALL HAVE A MINIMUM COVER OF 3'-0" COVER ABOVE TOP OF PIPE.  
 PROPOSED UTILITIES TO BE BURIED IN THE SAME TRENCH INSTALLATION SHALL BE COORDINATED AND APPROVED BY LOCAL UTILITY COMPANIES.  
 VERIFY LOCATION AND DEPTH OF EXISTING UTILITY BEFORE CONSTRUCTING PROPOSED UTILITY.  
 CONTRACTOR SHALL COORDINATE ANY DISRUPTIONS TO EXISTING UTILITY SERVICES WITH ADJACENT PROPERTY OWNERS.  
 ALL ELECTRIC, TELEPHONE AND GAS EXTENSIONS INCLUDING SERVICE LINES SHALL BE CONSTRUCTED TO THE APPROPRIATE UTILITY COMPANY SPECIFICATIONS. ALL UTILITY DISCONNECTIONS SHALL BE COORDINATED WITH THE DESIGNATED UTILITY COMPANIES.  
 CONSTRUCTION SHALL NOT START ON ANY PUBLIC UTILITY SYSTEM UNTIL WRITTEN APPROVAL HAS BEEN RECEIVED BY THE ENGINEER FROM THE APPROPRIATE GOVERNING AUTHORITY AND CONTRACTOR HAS BEEN NOTIFIED BY THE ENGINEER.  
 THE MINIMUM HORIZONTAL SEPARATION BETWEEN THE CLOSEST TWO POINTS OF THE WATER AND SEWER LINE IS TEN FEET (10'). THE MINIMUM VERTICAL SEPARATION BETWEEN THE CLOSEST TWO POINTS OF THE WATER AND SEWER LINE IS TWENTY FOUR INCHES (24") PER SEWER. IF WATER IS NOT 24" ABOVE SEWER, THE SEWER SHALL BE CONCRETE ENCASED BY EACH DIRECTION FROM WATERLINE.  
 ALL TRENCHING, PIPE LAYING, AND BACK FILLING PROCEDURES SHALL BE IN ACCORDANCE WITH FEDERAL OSHA REGULATIONS.  
 PRIOR TO THE CONSTRUCTION OF OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, WATER MAIN OR ANY OF THE DRY UTILITIES, THE CONTRACTOR SHALL LOCATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND FROM COARK CIVIL ENGINEERING AND THE OWNER/DEVELOPER OF ANY CONDUIT OR REQUIRED NOTIFICATIONS FROM THE PLAN. NOTIFICATION SHALL BE MADE A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION. COARK CIVIL ENGINEERING AND ITS CLIENTS SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION.  
 ALL WATER LINE FITTINGS SHALL BE INSTALLED WITH THRU-BOLT BLOCKING PER DETAIL D128-ASCE DETAIL SHEETS). OR APPROVED EQUIVALENT ANCHOR.  
 ALL WATER LINE PIPE BEDDING SHALL BE INSTALLED PER DETAIL D126 (SEE DETAIL SHEETS)  
 ALL SANITARY SEWER PIPE BEDDING SHALL BE INSTALLED PER DETAIL D126 (SEE DETAIL SHEETS)  
 CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE CITY CONSTRUCTION DIVISION TO SCHEDULE A PRE-CONSTRUCTION MEETING AND FOR OBTAINING ALL NECESSARY PERMITS.  
 EXISTING UTILITIES ACROSS OR ALONG THE LINE OF THE PROPOSED WORK ARE SHOWN ONLY IN AN APPROXIMATE LOCATION ON THESE PLANS. CONTRACTOR SHALL CALL THE STATE ONE-CALL SYSTEM OR DESIGNATED UTILITY COMPANY PRIOR TO CONSTRUCTION. CONTRACTOR SHALL ON HIS OWN INITIATIVE AND AT HIS OWN ADDITIONAL COST, LOCATE ALL UNDERGROUND LINES AND STRUCTURES AS NECESSARY. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND LINES OR STRUCTURES.  
 FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY'S UTILITY DEPARTMENT STANDARD OR PER DETAIL D156-A. (SEE DETAIL SHEETS)  
 CONTRACTOR SHALL NOT TAP OR OTHERWISE PENETRATE EXISTING WATER AND SEWER MAIN LINES WITHOUT PRIOR APPROVAL FROM THE CITY INSPECTOR. CONTRACTOR RESPONSIBLE FOR ANCHORING SPILLAGE OF RAW SEWAGE. CONTRACTOR SHALL PROVIDE ALL SEWER PLEGGING AND PUMPING EQUIPMENT NECESSARY TO AVOID SPILLAGE. CONTRACTOR SHALL NOT OPERATE VALVES ON EXISTING WATER MAINS.  
 THE EXISTING UTILITIES AND OBSTRUCTIONS SHOWN ARE FROM THE BEST AVAILABLE RECORDS AND SHALL BE VERIFIED BY THE CONTRACTOR TO HIS SATISFACTION PRIOR TO CONSTRUCTION. NECESSARY REPAIRS SHALL BE MADE BY THE CONTRACTOR TO PROTECT EXISTING SERVICE AND MAINS, AND ANY DAMAGE TO THEM SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.  
 IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO SPECIFICALLY MENTION WORK WHICH IS REQUIRED TO COMPLETE THE PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM SUCH WORK.  
 CONTRACTOR SHALL MATCH TOP OF PROPOSED SANITARY SEWER MANHOLE TO PROPOSED GRADE. IF A DISCREPANCY OCCURS BETWEEN PROPOSED GRADES AND PROPOSED STRUCTURE TOP, THE GRADING SHALL GOVERN. IF THE DISCREPANCY IS MORE THAN 4" INCHES THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD.  
 ALL UTILITIES, INCLUDING STORM SEWER, SHOWN WITHIN PUBLIC EASEMENTS OR RIGHT OF WAYS SHALL BE CONSTRUCTED TO THE GOVERNING AGENCY'S SPECIFICATIONS. ALL OTHER UTILITIES SHALL BE CONSTRUCTED TO THE CLIENT'S OR THE GOVERNING AGENCY'S SPECIFICATIONS, WHICHEVER IS MORE STRINGENT. IF THERE IS A QUESTION AS TO WHICH SPECIFICATIONS SHOULD APPLY THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD.  
 IF SANITARY SEWER MANHOLE IS LOCATED IN A GRASS AREA OR SLOPE, CONTRACTOR SHALL CONSTRUCT MANHOLE TOP TO AN ELEVATION 6" INCHES HIGHER THAN THE PROPOSED GRADE. IF THIS CANNOT BE ACHIEVED THEN CONTRACTOR SHALL USE A WATER TIGHT MANHOLE COVER THAT MEETS OR EXCEEDS THE OWNER'S/DEVELOPER'S STANDARD SITE SPECIFICATIONS.  
 ALL WATER MAINS SHALL BE HYDROSTATICALLY TESTED AND DISINFECTED BEFORE ACCEPTANCE. SEE SITE WORK SPECIFICATIONS.  
 CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES ON ADJUSTING EXISTING UTILITY LINE AS REQUIRED BY CUT AND FILL AT NO ADDITIONAL COST TO THE OWNER.  
 CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD AND ARCHITECT SHOULD ANY LIGHT POLE OR SIGN FOUNDATIONS CONFLICT WITH ANY UTILITY AND/OR STORM SEWER SYSTEM.  
 GENERAL CONTRACTOR SHALL PROVIDE 2" x 2" x 6" THICK CONCRETE APRON AT ALL CLEANOUTS, GATE VALVES, AND METER BODIES ETC. OUTSIDE OF BUILDING AND IN PARKED AREA.  
 GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR ALL TAP AND TIE ON FEES REQUIRED, AS WELL AS COST OF UNDERGROUND SERVICE CONNECTIONS TO THE BUILDING.  
 ELECTRICAL SERVICE TO PAD MOUNTED TRANSFORMER SHALL BE RUN UNDERGROUND, FROM ROAD RIGHT-OF-WAY TO TRANSFORMER LOCATION. ASSOCIATED COST BY GENERAL CONTRACTOR.  
 UTILITY CONTRACTOR SHALL FURNISH (2) 4" TELEPHONE CONDUITS AS SHOWN ON PLAN VERIFY LOCATION OF TIE IN AT TELEPHONE COMPANIES SERVICE LINE. PROVIDE NYLON RAIL CORD INSIDE CONDUIT.  
 DIMENSIONS SHOWN ARE TO CENTERLINE OF PIPE OR FITTING UNLESS OTHERWISE NOTED.  
 ALL WATER AND SANITARY LEADS TO BUILDING SHALL END\* OUTSIDE THE BUILDING LIMITS AS SHOWN ON PLAN AND SHALL BE PROVIDED WITH A TEMPORARY PLUG AT END. EXCEPT THE FIRE LINE SHOULD BE STUBBED UP 1' ABOVE F.F.E.  
 ALL FIRE HYDRANTS SHALL BE PROVIDED WITH AN APPROVED GATE VALVE ANCHORED AT MAIN PER CITY DETAIL.  
 REFER TO FIRE PROTECTION SHEETS FOR LOCATION AND DETAIL OF FIRE LINE LEAD IN FIRE LINE SHALL BE STUBBED UP 1' ABOVE F.F.E. IN SPRINKLER ROOM.  
 REFER TO PLUMBING SHEETS FOR LOCATION OF SEWER, DOMESTIC, AND IRRIGATION CONNECTIONS  
 ALL WORK TO BE DONE IN STRICT ACCORDANCE WITH DIVISION 2 OF LOWE'S STANDARD SITE SPECIFICATIONS.

**UTILITY DETAILS**

Items labeled by the following symbols are shown on this sheet and referenced on detail sheets, which are included as a part of this set of plans.

|        |                                         |
|--------|-----------------------------------------|
| D100   | TYPICAL PRE-CAST SANITARY SEWER MANHOLE |
| D156-A | FIRE HYDRANT ASSEMBLY                   |
| D166   | UTILITY PIPE CONCRETE ENCASEMENT        |
| D174-A | BACKFLOW PREVENTION ASSEMBLY AND VALVE  |
| D313   | BOLLARD DETAIL (See sheet for quantity) |
| D319   | CLEANOUT DETAIL                         |
| D325   | UNDERGROUND RESTRAINT DETAIL            |

NOTE: SEE ATTACHED CITY DETAILS FOR WATER & SEWER FITTINGS

**UTILITY NOTES**

- Items labeled by the following symbols are shown on this sheet.
- DWH Items labeled by the following symbols are shown on this sheet and referenced on detail sheets, which are included as a part of this set of plans.
  - VS MAINTAIN MINIMUM 24" VERTICAL SEPARATION
  - U01 (2) 4" TELEPHONE CONDUIT (PVC SCHEDULE 40)
  - U02 INSTALL (2) 4" SCHEDULE 40 PVC CONDUITS
  - U03 POINT OF CONNECTION (PER LOCAL CODES)

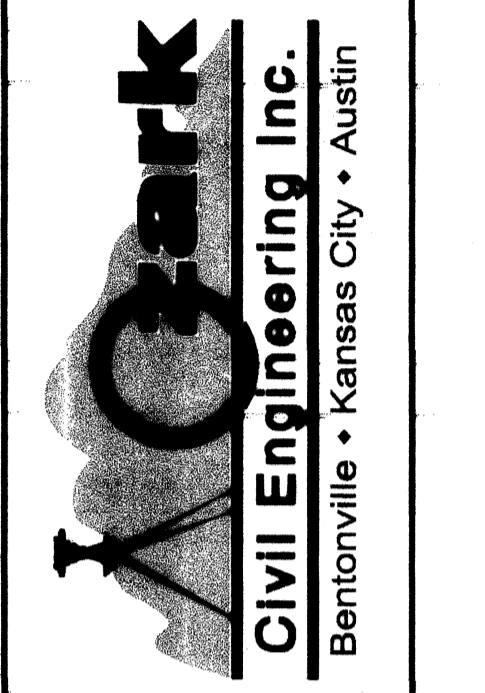
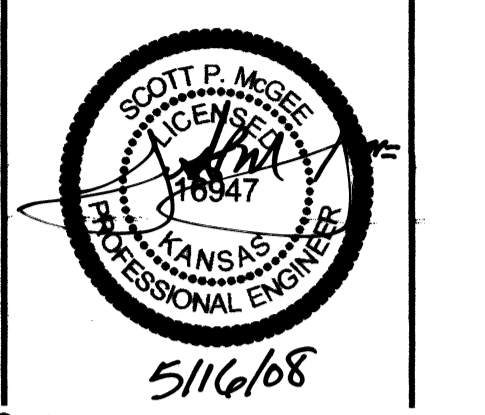
**SANITARY SEWER SCHEDULE**

| STRUCTURE NUMBER | STRUCTURE TYPE         | TOP OF ID | DETAIL NUMBER | INV. IN (DW/SIZE & DIRECTION) | INV. IN (DW/SIZE & DIRECTION) | INV. OUT (DW/SIZE & DIRECTION) | PIPE NUMBER | PIPE LENGTH & SLOPE |
|------------------|------------------------|-----------|---------------|-------------------------------|-------------------------------|--------------------------------|-------------|---------------------|
| SSA5             | CONNECTION TO BUILDING | -         | -             | -                             | -                             | 1348.00                        | SSPA4       | 51 LF @ 1.00%       |
| SSA4             | PROPOSED MANHOLE       | 1351.68   | D100          | 1347.46                       | 1347.36                       | 1347.36                        | SSPA3       | 190 LF @ 0.50%      |
| SSA3             | PROPOSED MANHOLE       | 1351.68   | D100          | 1346.75                       | 1346.65                       | 1346.65                        | SSPA2       | 299 LF @ 0.50%      |
| SSA2             | PROPOSED MANHOLE       | 1352.18   | D100          | 1345.82                       | 1345.82                       | 1345.72                        | SSPA1       | 286 LF @ 0.50%      |
| SSA1             | EXISTING MANHOLE       | 1351.00   | -             | 1344.82                       | -                             | -                              | -           | -                   |
| SSB1             | PROPOSED MANHOLE       | 1350.46   | D100          | -                             | -                             | 1346.91                        | SSPB1       | 124 LF @ 0.50%      |

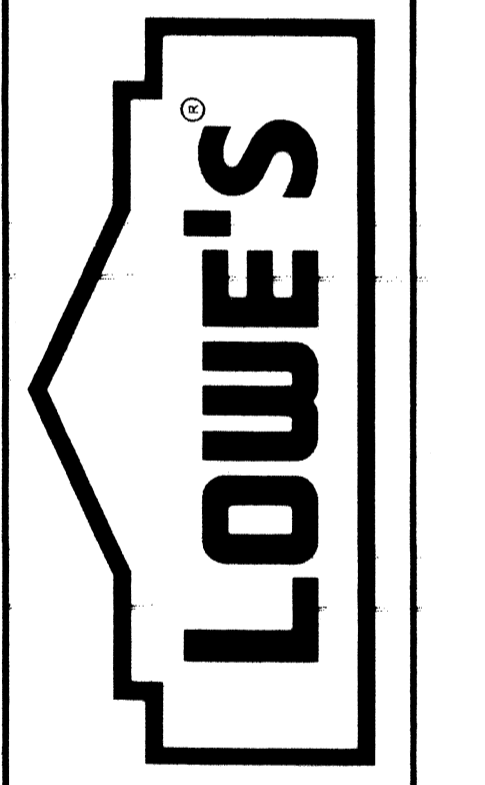
**BENCHMARK**  
 City of Wichita Disc on the northwest corner of 29th St. N. and Maize Rd.  
 Elevation = 1349.32 (M.S.L.)  
 Elevation = 161.92 (City Datum)

**REVISIONS**

| DATE    | DESCRIPTION |
|---------|-------------|
| 4-08-08 | REVISION 2  |



**LOWE'S HOME CENTERS, INC.**  
 1805 CURTIS BRIDGE ROAD  
 REEC DOCK  
 WILKESBORO, NC 28697  
 336.658.4000 (V) 336.658.3257 (F)



UTILITY PLAN  
 LOWE'S OF N.W. WICHITA  
 MAIZE RD. & CENTRAL PARK ST.  
 PROJECT No. 04-0460  
 DRAWN BY: JG  
 CHECKED BY: SM  
 WICHITA, KS.

ORIGINAL ISSUE DATE:  
 PERMIT SET ISSUE DATE:  
 CONSTRUCTION SET ISSUE DATE: 8-17-07  
 DRAWING NUMBER:  
**9**