

KAW VALLEY ENGINEERING, INC.

ENGINEERING • PLANNING • SURVEYING • INSPECTION • TESTING
JUNCTION CITY, KANSAS 66441 • 2319 N. Jackson, P.O. Box 1304 • TEL: (913) 762-5040 FAX: (913) 762-7744

December 16, 1994
94-1653

COMMERCIAL SITE DRAINAGE REPORT 1210 West Pawnee, Wichita Kansas

INTRODUCTION

This drainage report is being prepared in accord with the City of Wichita storm drainage requirements. The subject site is on the north side of Pawnee Street, West of The Super Shops Automotive Performance Center at the Northwest corner of Pawnee and Seneca.

EXISTING CONDITIONS

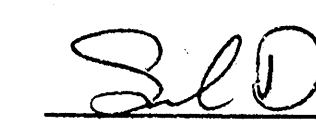
The site is presently occupied by a Bonanza restaurant with the entire site being paved. The on-site drainage is from North to South with minimal off-site drainage onto the site. The site drains, via overland sheet flow, to the Pawnee Street curb and gutter, at which point the water travels down the gutter for 50 feet to an existing curb inlet. This inlet then dumps into a 72" storm sewer pipe running down the center of Pawnee. The existing peak discharge is 3.58 cfs.

DEVELOPMENT PLAN

The proposed development plan calls for the construction of a fast food type restaurant on the referenced site. The existing Bonanza restaurant will be removed and a 3400 square foot building with parking for 40 vehicles will be constructed in its place.

Storm water runoff will be handled in a manner similar to what is existing, via overland sheet flow. The runoff will be from the back of the lot to the front, at which point it will enter the existing underground storm sewer system on Pawnee. Since the peak discharge from the site will not be increased, there is no chance of any additional downstream damage due to flooding.

We invite any questions or comments regarding the subject matter contained in this report.


Samuel D. Malinowsky, P.E.
Project Engineer
SDM:kml

RIVERSIDE, MISSOURI 64150 • 122 Northwest Parkway • TEL: (816) 587-5033 FAX: (816) 587-0129
LENEXA, KANSAS 66215 • 9571 Alden Road • TEL: (913) 894-5150 FAX: (913) 894-5977

KAW VALLEY ENGINEERING, INC.

ENGINEERING • PLANNING • SURVEYING • INSPECTION • TESTING
JUNCTION CITY, KANSAS 66441 • 2319 N. Jackson, P.O. Box 1304 • TEL: (913) 762-5040 FAX: (913) 762-7744

January 24, 1995
94-1653

City of Wichita
ATTN: Vicki Huang
455 North Main Street
7th Floor
Wichita, KS 67202

REF: Bob & Dave's First Addition
Lot Grading Plan

Dear Vicki:

Please find enclosed the lot grading plan for the above mentioned subdivision. We will be submitting storm sewer plans at a later date.

Please feel free to contact me if you have any questions or comments. Thank You!

Sincerely,


Samuel D. Malinowsky, P.E.
Project Engineer

SDM:kml

Enclosures

JAN 25 1995

RIVERSIDE, MISSOURI 64150 • 122 Northwest Parkway • TEL: (816) 587-5033 FAX: (816) 587-0129
LENEXA, KANSAS 66215 • 9571 Alden Road • TEL: (913) 894-5150 FAX: (913) 894-5977

Quick TR-55 Ver.5.46 S/N:
Executed: 09:45:22 12-16-1994

Existing and Developed Conditions
Boston Chicken
West Pawnee

***** SUMMARY OF RATIONAL METHOD PEAK DISCHARGES *****

$Q = \text{adj} \cdot C \cdot I \cdot A$
Where: Q=cfs, C=Weighted Runoff Coefficient, I=in/hour, A=acres
adj = 'C' adjustment factor for each return frequency

RETURN FREQUENCY = 5 years						
'C' adjustment, k = 1						
adj. 'C' = Wtd. 'C' x 1						
Subarea	Runoff	Area	Tc	Wtd.	Adj. I	Total
Descr.	'C'	acres	(min)	'C'	'C' in/hr	acres

Entire Site	0.980	0.80				
			15.00	0.980	0.980	4.560
						0.80
						Peak Q
						(cfs)
						3.58

UTILITY COMPANIES:
NATURAL GAS: Kansas Gas & Electric
120 E. 1st Street
Wichita, Ks. 67201-0208
(316) 261-6734
Carolyn Konecny

ELECTRIC:
Kansas Gas & Electric
120 E. 1st Street
Wichita, Ks. 67201-0208
(316) 261-6734
Carolyn Konecny

WATER:
City of Wichita
455 N. Main
Wichita, Ks. 67202
(316) 268-4555

TELEPHONE:
Southwestern Bell
154 N. Broadway Rm. 460
Wichita, Ks. 67202
(316) 268-2222
Ken Tilson

SANITARY SEWER:
City of Wichita
455 N. Main
Wichita, Ks. 67202
(316) 268-4501
Vicky Houg

NORTHEAST CORNER
HARTLEY ADDITION
3/4" I.D. PIPE FOUND

THE CLOTH
WORLD
F.F. = 1291.29

STORM SEWER MANHOLE AND R.O.P. LOCATION IS APPROXIMATE. UNABLE TO LOCATE IN THE FIELD -
LOCATION AND ELEVATIONS SHOWN ARE FROM AS-BUILT DRAWINGS.
THE NEAREST GAS RISER WAS LOCATED 155' SOUTH AND 160' EAST FROM THE
SOUTHEAST CORNER OF THE SUBJECT PROPERTY.

NOTES:

1. CONTRACTOR TO INSTALL METER VAULT. CITY OF WICHITA WILL PROVIDE METER, TAP AND LINE
TO THE VAULT. CONTACT CITY OF WICHITA WATER DEPARTMENT FOR ACCEPTABLE VAULT MANUFACTURERS
AND TO COORDINATE WATER CONNECTION.
2. CONTACT KANSAS GAS & ELECTRIC FOR COORDINATION OF GAS AND ELECTRIC CONNECTION.
3. CONTRACTOR TO CALL SOUTHWESTERN BELL PRIOR TO INSTALLATION OF TELEPHONE CONDUIT
TO CONFIRM LOCATION OF TELEPHONE SERVICE ACCESS.

NOTE: CONTRACTOR TO COORDINATE WITH ALL UTILITIES WITH REGARD TO
SCHEDULING OF CONSTRUCTION, TYPE OF MATERIAL AND ANY RELATED
APPROPRIATENESS.

GRADING NOTES:

1. THE CONSTRUCTION AREA SHALL BE CLEARED, GRUBBED, AND STRIPPED OF
TOPSOIL AND ORGANIC MATTER FROM ALL AREAS TO BE OCCUPIED BY
BUILDING AND PAVING. TOPSOIL FOR REPLACEMENT OR SLOPES MAY BE
STOCKPILED ON SITE. EXCESS TOPSOIL MAY BE WASTED IN FILL SLOPES
PROVIDED THAT NO TOPSOIL WILL BE WASTED WITHIN 10 FEET OF THE EDGE
OF THE BUILDING OR PARKING AREA. BURNING OF TOPSOIL WILL NOT BE
PERMITTED UNLESS APPROVAL IS OBTAINED FROM GOVERNING OFFICIALS.
STRIPPING EXISTING TOPSOIL AND ORGANIC MATTER SHALL BE TO A MINIMUM
DEPTH OF 6 INCHES.
2. AREAS TO RECEIVE FILL SHALL BE SCARIFIED AND THE TOP 8-INCH DEPTH
COMPACTED TO 95% STANDARD PROCTOR DENSITY. ANY UNSUITABLE AREAS
SHALL BE UNDERCUT AND REPLACED WITH SUITABLE MATERIAL BEFORE ANY
FILL MATERIAL CAN BE APPLIED.
3. OFF-SITE FILL MATERIAL SHALL HAVE A LIQUID LIMIT OF 50 OR LESS,
AND CONTAIN NO ROCK LARGER THAN FOUR INCHES. OFF-SITE
FILL MATERIAL SHALL BE APPROVED BY THE BOSTON CHICKEN
CONSTRUCTION DIVISION PRIOR TO BRINGING ON SITE.
4. EARTHWORK UNDER THE BUILDING SHALL COMPLY WITH THE PROJECT SPECIFI-
CATIONS AND GEO-TECH REPORTS. OTHER FILL MATERIAL SHALL BE MADE IN LIFTS
NOT TO EXCEED EIGHT INCHES DEPTH COMPACTED TO 95% STANDARD PROCTOR
DENSITY @ OPTIMUM TO 4% ABOVE OPTIMUM MOISTURE CONTENT. FILL MATERIAL MAY
INCLUDE ROCK FROM ON-SITE EXCAVATION IF CAREFULLY PLACED SO THAT LARGE
STONES ARE WELL DISTRIBUTED AND JOINTS ARE COMPLETELY FILLED WITH SMALLER
STONES, EARTH, SAND OR GRAVEL TO FURNISH A SOLID EMBANKMENT. NO ROCK
LARGER THAN THREE INCHES IN ANY DIMENSION AND ANY SHALE SHALL BE
PLACED IN THE TOP 12 INCHES OF EMBANKMENT.
5. AREAS THAT ARE TO BE CUT TO SUBGRADE LEVELS SHALL BE PROFFERED
WITH A MODERATELY HEAVY LOADED DUMP TRUCK OR SIMILAR APPROVED
CONSTRUCTION EQUIPMENT TO DETECT UNSUITABLE SOIL CONDITIONS.
6. IN ALL AREAS OF EXCAVATION, IF UNSUITABLE SOIL CONDITIONS ARE
ENCOUNTERED, A QUALIFIED GEOTECHNICAL ENGINEER SHALL RECOMMEND TO
THE BOSTON CHICKEN CONSTRUCTION DIVISION ON THE METHODS OF UNDERCUTTING
AND REPLACEMENT OF PROPERLY COMPACTED, APPROVED FILL MATERIAL.
ALL PROFFERING AND UNDERCUTTING SHOULD BE PERFORMED DURING A
PERIOD OF DRY WEATHER.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND
DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL
PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL.
THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS
PERTAINING TO ENVIRONMENTAL PROTECTION.
8. ALL SLOPES ARE TO BE 4:1 OR FLATTER UNLESS OTHERWISE INDICATED.
9. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED
SMOOTH AND FOUR INCHES OF TOPSOIL APPLIED. IF ADEQUATE TOPSOIL IS
NOT AVAILABLE ON-SITE, THE CONTRACTOR SHALL PROVIDE TOPSOIL,
APPROVED BY THE OWNER, AS NEEDED. THE AREA SHALL THEN BE SEEDED,
FERTILIZED, MOWED, WATERED AND MAINTAINED UNTIL HARDY GRASS
GROWTH IS ESTABLISHED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY
REASON PRIOR TO FINAL ACCEPTANCE OF THE PROJECT SHALL BE CORRECTED
BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. SEE LANDSCAPE
PLANS FOR DETAILS.
10. CONTRACTOR SHALL USE BALES OF HAY OR OTHER MEANS OF CONTROLLING
EROSION ALONG THE EDGE OF THE PROPERTY OR OTHER BOTTOM OF
SLOPE LOCATIONS.
11. CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER
MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS.
ALL MATERIAL TO BE DISPOSED OF IN ACCORDANCE WITH STATE AND LOCAL
REGULATIONS.
12. THE GENERAL CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO
AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE
CONSTRUCTION PHASES OF THIS PROJECT. THE CONTRACTOR WILL BE HELD
SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES
OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT.
13. THE DUTY OF THE ENGINEER OR BOSTON CHICKEN TO CONDUCT CONSTRUCTION
REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE
REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN,
ON OR NEAR THE CONSTRUCTION SITE.
14. PIPE LENGTHS ARE CENTER TO CENTER OF STRUCTURE OR TO END OF END
SECTIONS.
15. PARKING AND CURB AND GUTTER GRADES ARE CRITICAL FOR POSITIVE STORM
DRAINAGE. CONTRACTOR TO VERIFY GRADINGS CLOSELY PRIOR TO PAVING. CURB
AND GUTTER WILL REQUIRE REVERSE LIP IN SOME AREAS.

UTILITY NOTES:

1. ALL UTILITY AND STORM SEWER TRENCHES CONSTRUCTED UNDER AREAS
THAT RECEIVE PAVING SHALL BE BACKFILLED TO 18 INCHES ABOVE THE TOP
OF THE PIPE WITH CRUSHED STONE BASE MATERIAL PLACED ON EIGHT-INCH
LIFTS, AND COMPACTED TO 85% STANDARD PROCTOR DENSITY.
2. DISINFECTION AND PRESSURE TESTING OF WATER LINES SHALL BE PERFORMED
AND PAID FOR BY THE CONTRACTOR UNDER SUPERVISION OF A REPRESENTATIVE
OF THE CITY WATER DEPARTMENT. CONTRACTOR SHALL NOTIFY THE CITY OF
WICHITA WATER DEPARTMENT 24 HOURS MINIMUM PRIOR TO ANY TESTING.
3. LOCATIONS SHOWN FOR PROPOSED WATER LINES ARE APPROXIMATE.
VARIATIONS MAY BE MADE, WITH APPROVAL OF THE ENGINEER, TO AVOID CONFLICTS.
4. A MINIMUM HORIZONTAL DISTANCE OF 10 FEET SHALL BE MAINTAINED BETWEEN
PARALLEL WATER AND SANITARY SEWER LINES. WHEN IT IS NECESSARY FOR ANY
WATER LINE TO CROSS A SANITARY SEWER LINE, THE SEWER LINE SHALL BE
CONSTRUCTED OF CAST IRON PIPE AT LEAST 10 FEET OTHER SIDE OF THE WATER
LINE UNLESS THE WATER LINE IS AT LEAST 2 FEET CLEAR DISTANCE ABOVE THE
SANITARY SEWER LINE.
5. CONNECT ROOF DRAINS TO 6" PVC STORM SEWER SEE PLUMBING DETAIL.

WARRANTY / DISCLAIMER:

THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH
ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS
AND USES INTENDED BY BOSTON CHICKEN INC. AT THE TIME. HOWEVER, NEITHER
KAW VALLEY ENGINEERING, INC. NOR ITS PERSONNEL CAN OR DO WARRANTY
THESE DESIGNS OR PLANS AS CONSTRUCTED, EXCEPT IN THE SPECIFIC
CASES WHERE KAW VALLEY ENGINEERING PERSONNEL INSPECT AND CONTROL
THE PHYSICAL CONSTRUCTION ON A CONTINUING BASIS AT THE SITE.

CAUTION - NOTICE TO CONTRACTOR
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 COMPANY AT LEAST 48 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 PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE
CONFLICTS PRIOR TO ANY CONSTRUCTION OF NEW UTILITIES.

SAFETY NOTICE TO CONTRACTOR
IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE
CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF
THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING
PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY
AND NOT BE LIMITED TO NORMAL WORKING HOURS.

CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS
FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRANCE,
SLOPED PAVING, EXIST PORCHES, RAMPS, TRUCK DOCKS,
PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING
UTILITY ENTRANCE LOCATIONS.

SEE SHEET NUMBER 5 FOR SITE LIGHTING.

BOSTON CHICKEN
PAWNEE AVENUE
WICHITA, KANSAS

Revisions

1.

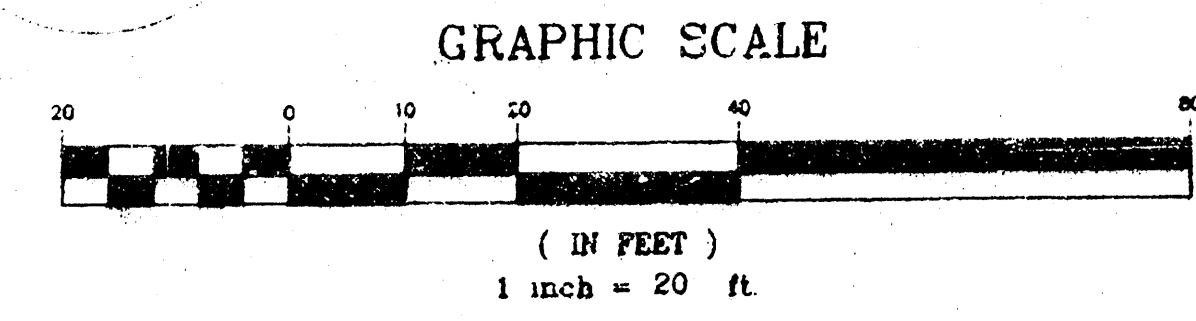
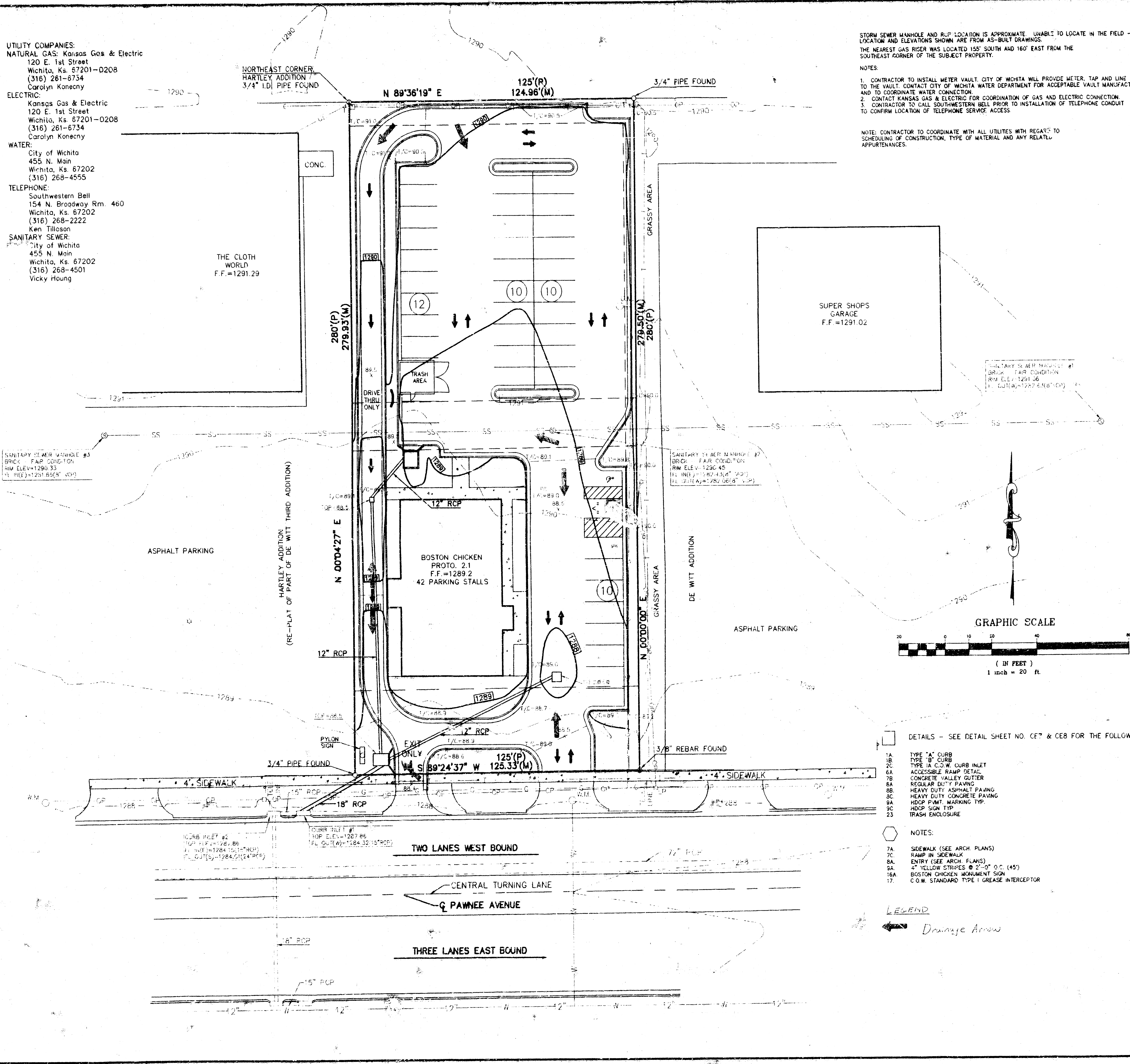
Seal

Engineer

KAW VALLEY
ENGINEERING, INC.
2211 N. MAIN AVENUE
WICHITA, KANSAS 67202
P.O. Box 1284



Date 1-23-95
Drawn By JK
Checked By LDO
Issued By (BCI)
Scale 1"=20'
CFN 1653UPGP
Job No. 94-1653
Sheet No. CE-3



DETAILS - SEE DETAIL SHEET NO. CE7 & CE8 FOR THE FOLLOWING DETAILS

- 1A. TYPE "A" CURB
- 1B. TYPE "B" CURB
- 2C. TYPE "A" C.O.W. CURB INLET
- 6A. ACCESSIBLE RAMP DETAIL
- 7B. CONCRETE VALLEY GUTTER
- 8A. REGULAR DUTY PAVING
- 8B. HEAVY DUTY ASPHALT PAVING
- 8C. HEAVY DUTY CONCRETE PAVING
- 9A. HDOP P.W.T. MARKING TYP.
- 9C. HDOP SIGN TYP.
23. TRASH ENCLOSURE

NOTES:

- 7A. SIDEWALK (SEE ARCH. PLANS)
- 7C. RAMP IN SIDEWALK
- 8A. ENTRY (SEE ARCH. PLANS)
- 9A. 4" YELLOW STRIPES @ 2'-0" O.C. (45°)
- 16A. BOSTON CHICKEN MONUMENT SIGN
17. C.O.W. STANDARD TYPE I GREASE INTERCEPTOR

LEGEND

Drainage Arrow