

## 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

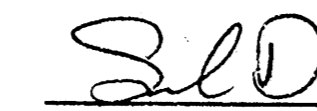
The site is presently occupied by a Bonanza restaurant with the entire site being paved. The on-site drainage is from North to South with minimal off-site drainage onto the site. The site drains via overland sheet flow, to the Pawnee Street curb and gutter, at which point the water travels down the gutter 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

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

Subarea Descr.	Runoff 'C'	Area acres	Tc (min)	Wtd. 'C'	RETURN FREQUENCY = 5 years 'C' adjustment, k = 1 Adj. 'C' = Wtd.'C' x 1			Peak Q (cfs)
					Adj. 'C'	I in/hr	Total acres	
Entire Site	0.980	0.80	15.00	0.980	0.980	4.560	0.80	3.58

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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

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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 Tiloson

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

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

THE CLOTH  
 WORLD  
 F.F. = 1291.29

STORM SEWER MANHOLE AND RUP 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:

- 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.
- CONTACT KANSAS GAS & ELECTRIC FOR COORDINATION OF GAS AND ELECTRIC CONNECTION.
- 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 REGARDS TO SCHEDULING OF CONSTRUCTION, TYPE OF MATERIAL AND ANY RELATED APPEARANCES.

GRADING NOTES:

- 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 ON SLOPES MAY BE STOCKPILED ON SITE. EXCESS TOPSOIL MAY BE WASTED IN FIELD PROVIDED THAT NO TOPSOIL WILL BE WASTED WITHIN 10 FEET OF THE EDGE OF THE BUILDING OR PARKING AREA. BURNING OF TIMBER 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.
- 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.
- 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.
- EARTHWORK UNDER THE BUILDING SHALL COMPLY WITH THE PROJECT SPECIFICATIONS 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 JOBS ARE COMPLETELY FILLED WITH SMALLER STONES, FATH, 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.
- 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.
- 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.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DRIFT RISKS 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.
- ALL SLOPES ARE TO BE 4:1 OR FLATTER UNLESS OTHERWISE INDICATED.
- 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, MULCHED, 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.
- CONTRACTOR SHALL USE BALES OF HAY OR OTHER MEANS OF CONTROLLING EROSION ALONG THE EDGE OF THE PROPERTY OR OTHER BOTTOM OF SLOPE LOCATIONS.
- 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.
- 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.
- 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 OR NEAR THE CONSTRUCTION SITE.
- PIPE LENGTHS ARE CENTER TO CENTER OF STRUCTURE OR TO END OF END SECTIONS.
- 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:

- 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.
- 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.
- LOCATIONS SHOWN FOR PROPOSED WATER LINES ARE APPROXIMATE. VARIATIONS MAY BE MADE, WITH APPROVAL OF THE ENGINEER, TO AVOID CONFLICTS.
- 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.
- 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 THIS 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 CONTEMPORARY 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 FIRST 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, EXIT PORCHES, RAMPS, TRUCK DOORS, PRECISE BUILDING DIMENSIONS, AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.

SEE SHEET NUMBER 5 FOR SITE LIGHTING.

BOSTON CHICKEN  
 PAWNEE AVENUE  
 WICHITA, KANSAS

Revisions

Seal

Engineer

KAW VALLEY  
 ENGINEERING, INC  
 ENGINEERS ARCHITECTS  
 2511 N. Main Street  
 P.O. Box 1808  
 Wichita, Kansas 67202



Date 1-23-95

Drawn By JK

Checked By LDO

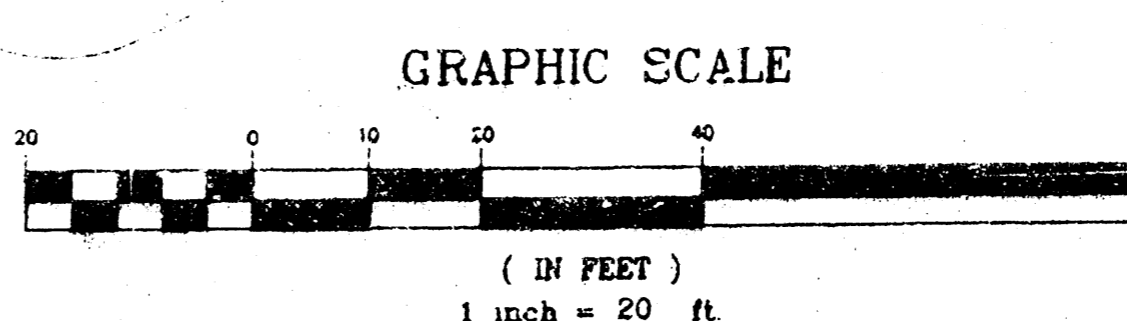
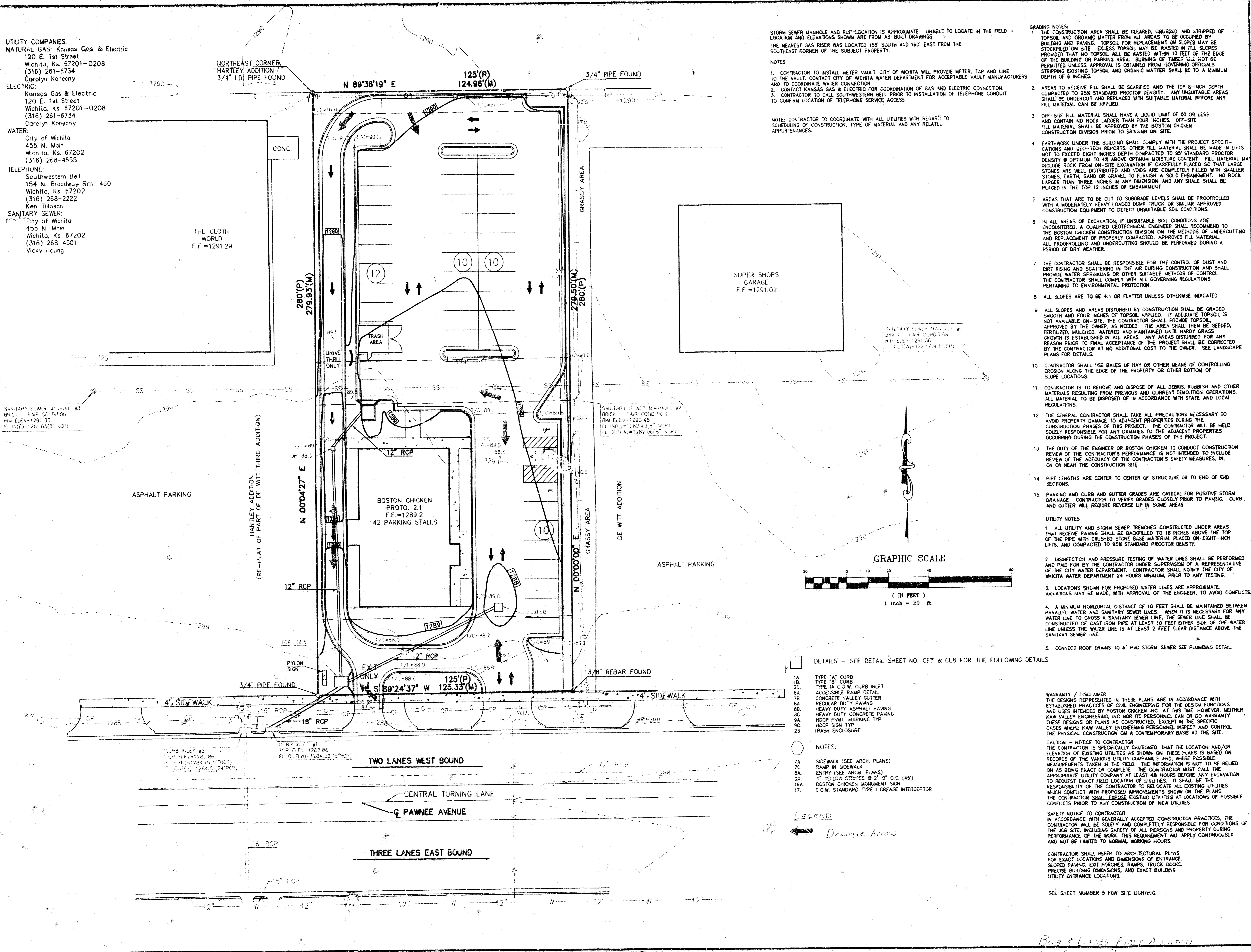
Issued By (BCI)

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 DETAIL
  - 6A ACCESSIBLE RAMP DETAIL
  - 7B CONCRETE VALLEY GUTTER
  - 8A REGULAR DUTY PAVING
  - 8B HEAVY DUTY ASPHALT PAVING
  - 8C HEAVY DUTY CONCRETE PAVING
  - 8D HOOP PAVT. MARKING TYP.
  - 9C HOOP SIGN TYP.
  - 9D TRASH ENCLOSURE
- NOTES:
- 7A SIDEWALK (SEE ARCH. PLANS)
  - 7C RAMP IN SIDEWALK (SEE ARCH. PLANS)
  - 8A ENTRY (SEE ARCH. PLANS)
  - 8A 4" YELLOW STRIPES @ 2'-0" O.C. (45°)
  - 8A BOSTON CHICKEN MONUMENT SIGN
  - 15A C.O.W. STANDARD TYPE I GREASE INTERCEPTOR

LEGEND  
 Drainage Arrow

Prop & Dimes First Addition  
 Lot Grading Plan