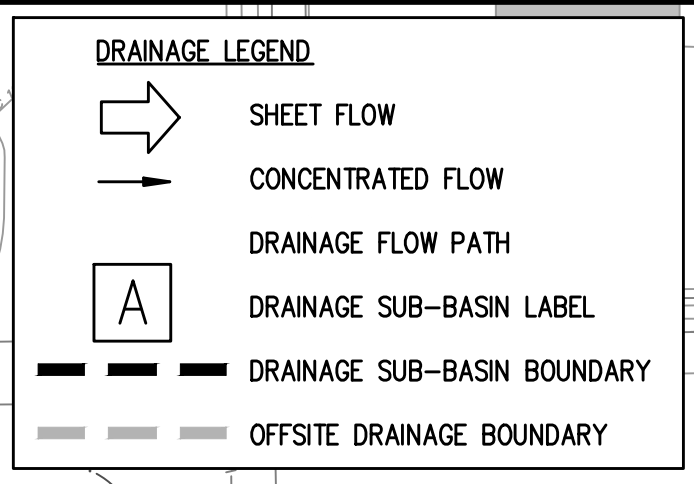
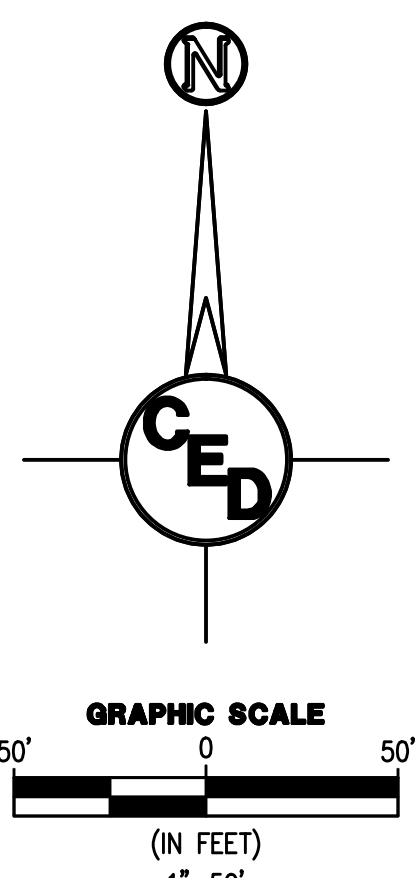


FILE LOCATION: S:\Drawing Files\Project_AMG 9-16-13\LOT_#035669\QuikTrip_16th_ADD\DWG\LOT_16TH_ADD\DRAINAGE_PLAN.dwg TAB NAME: DRAINAGE PLAN USER: cec2 SAVES: 8/29/2014 11:01 AM PLOTTED: 8/29/2014 11:14 AM



| REV. | DESCRIPTION | DATE |
|------|-------------|------|
| | | |
| | | |
| | | |



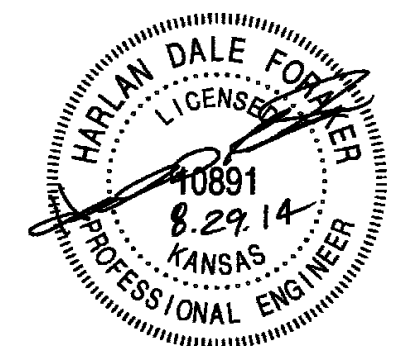
QUIKTRIP 16TH ADDITION

A PORTION OF THE NE 1/4,
S21-T28S-R1E
WICHITA, SEDGWICK COUNTY, KS

CERTIFIED ENGINEERING DESIGN, P.A.
CIVIL ENGINEERING SERVICES



1935 WEST MAPLE STREET
WICHITA, KANSAS 67213
PH. (316) 262-8808 FAX. (316) 262-1669



PROJECT NO.: 20142168
ISSUE DATE: 08/29/14
CONTACT: H. FORAKER / L. MILLS
CHECKED BY: H. FORAKER

DRAINAGE PLAN

- ENGINEERING NOTES:**
- The SCS method was used to compute the peak discharges for existing conditions. Curve numbers were assigned to the existing site from the City of Wichita Storm Water Manual.
 - Soil Types were determined from the Natural Resource Conservation Soil Survey website. All soils located within the plot boundary are Canadian Fine Sandy Loams (SCS Type B Soils).
 - The property is not located in a floodplain on the FEMA flood map. (FIRM #20173C0505E)
 - The Kansas Water Wells database has groundwater depths in the area of this property at approximately 10-15 ft.
 - A site specific drainage plan shall be submitted to the city engineer prior to development. The plan shall comply with Chapter 16.32 of the City Code, which includes storm water detention and water quality treatment. Developed peak discharge values shall be detained below existing peak discharge values shown in the Existing Drainage Summary Chart.
 - The detention pond located within "Reserve A" is only sized for Lot 1 drainage, and no other area(s) shall drain to this pond.
 - Any future pond areas to meet detention/water quality requirements shall be located and sized at the time of development. The reserve areas for any future ponds will be recorded by separate instrument.
 - Channel protection will not be required.

Existing Drainage Summary Chart - SCS Method

| Drainage Area Basin | Drainage Area (Acres) | Impervious Area (%) | SCS Soil Type (%) | CN | Tc (min.) | Discharge (cfs) | | | | |
|---------------------|-----------------------|---------------------|-------------------|----|-----------|-----------------|-------|--------|--------|---------|
| | | | | | | 2 yr. | 5 yr. | 10 yr. | 25 yr. | 100 yr. |
| Ex A | 0.46 | 100 | B(0) | 88 | 15 | 1.63 | 2.04 | 2.41 | 2.92 | 3.80 |
| Ex B | 4.49 | 0 | B(100) | 71 | 25 | 4.00 | 6.57 | 8.99 | 12.68 | 19.38 |
| Ex C | 1.26 | 50 | B(50) | 89 | 15 | 3.55 | 4.74 | 5.78 | 7.25 | 9.75 |

BENCHMARK:
BM#: Chiseled Square Cut Top of Curb Southwest Corner of 47th Street and Victoria Street.
Elev. = 1272.28 (NAVD 88)

SURVEY DISCLAIMER:
TOPOGRAPHIC SURVEY AND CONTOUR MAP USED IN PREPARING PLANS WAS PROVIDED BY MKEC, 411 N. WEBB ROAD, WICHITA, KS (316-684-9600). CED DOES NOT GUARANTEE SURVEY ELEVATIONS FOR ACCURACY.

DETENTION AND WATER QUALITY SHALL BE DESIGNED AT THE TIME OF PROPOSED SITE DEVELOPMENT FOR LOTS 2, 3, & 4 USING, BUT NOT LIMITED TO, THE POSSIBLE POND OUTLET LOCATIONS DEPICTED ON THIS DRAINAGE PLAN.

EXISTING WILLIAMS PIPELINE. ENGINEER SHALL VERIFY LOCATION AND DEPTH BEFORE DESIGNING PROPOSED DETENTION POND OUTLET

POSSIBLE POND OUTLET #2*
EXISTING PUBLIC SWS CURB INLET
15" RCP FL (OUT) = 1265.75
(LOCATION AND ELEVATION APPROXIMATE, FROM CITY OF WICHITA STORM SEWER DATA)

POSSIBLE POND OUTLET #1*
EXISTING PRIVATE SWS CURB INLET
24" RCP FL (OUT) = 1265.64
(LOCATION AND ELEVATION APPROXIMATE, FROM CITY OF WICHITA STORM SEWER DATA)
*WOULD REQUIRE DRAINAGE AGREEMENT FROM ADJACENT PROPERTY OWNER SINCE IT IS A PRIVATE STORM SEWER

LOT 1 IS EXCLUDED FROM THIS DRAINAGE PLAN. THIS LOT HAS ALREADY PROVIDED DETENTION (RESERVE A) AND WATER QUALITY. SEE 0257 PPD FOR DETENTION AND WATER QUALITY CALCULATIONS.

