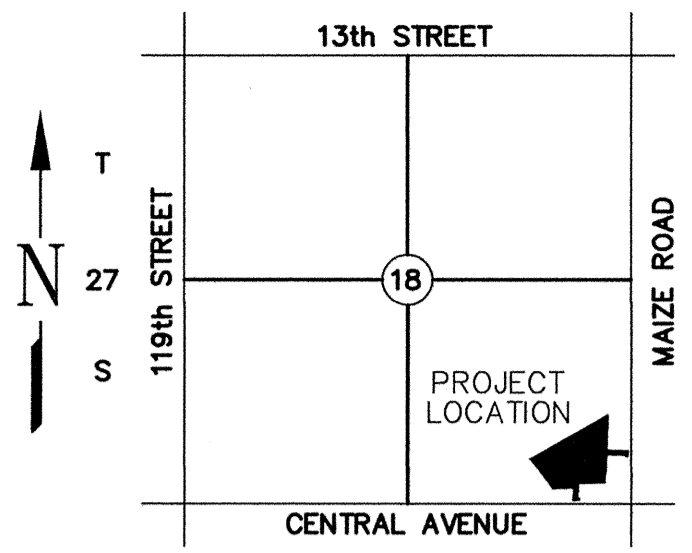


R 1 W

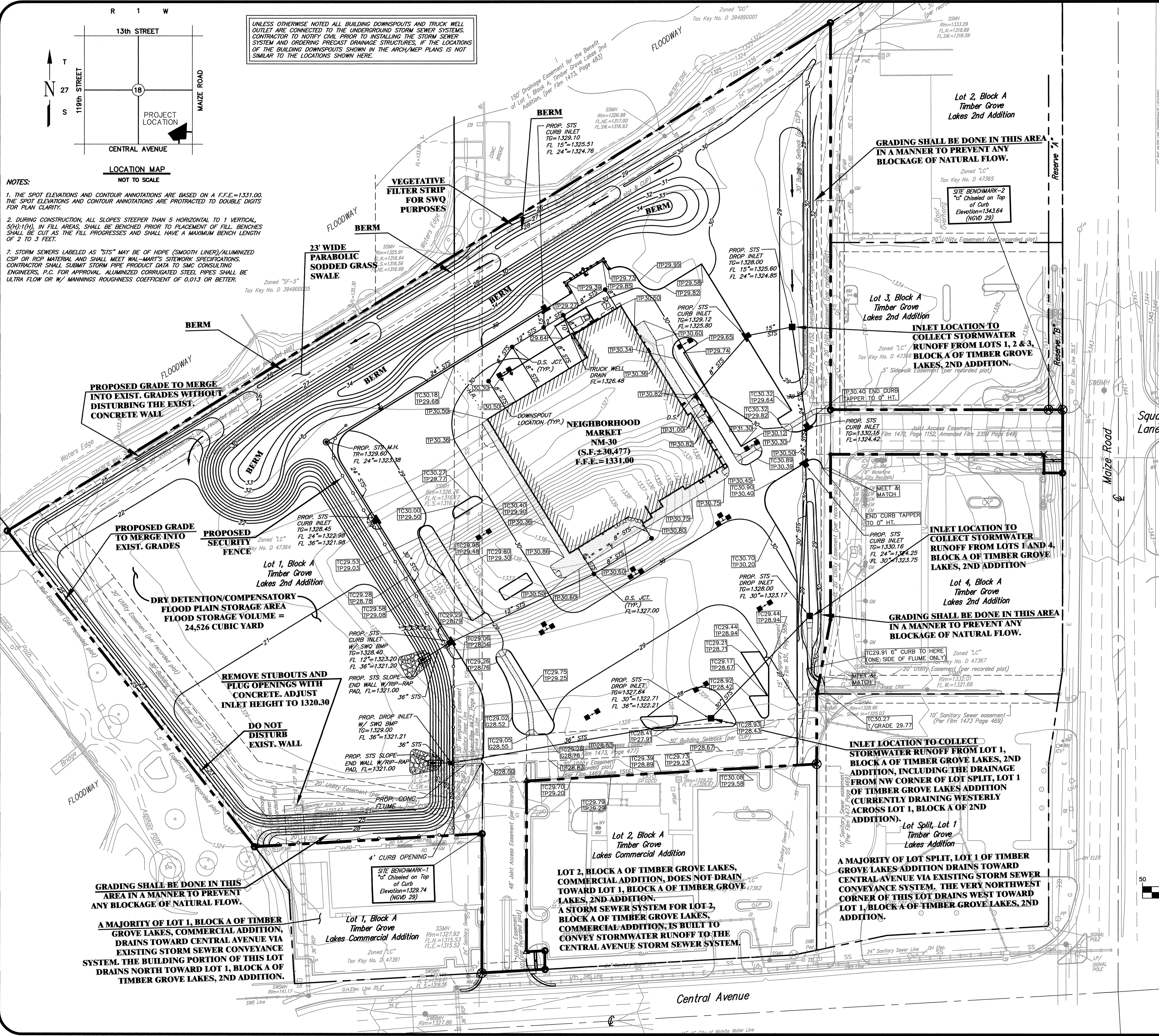


LOCATION MAP NOT TO SCALE

NOTES:

1. THE SPOT ELEVATIONS AND CONTOUR ANNOTATIONS ARE BASED ON A F.F.E.=1331.00. THE SPOT ELEVATIONS AND CONTOUR ANNOTATIONS ARE PROTRACTED TO DOUBLE DIGITS FOR PLAN CLARITY.
2. DURING CONSTRUCTION, ALL SLOPES STEEPER THAN 5 HORIZONTAL TO 1 VERTICAL, 5(H):1(V), IN FILL AREAS, SHALL BE BENCHMARKED PRIOR TO PLACEMENT OF FILL. BENCHES SHALL BE CUT AS THE FILL PROGRESSES AND SHALL HAVE A MAXIMUM BENCH LENGTH OF 2 TO 3 FEET.
3. STORM SEWERS LABELED AS "STS" MAY BE OF HDPE (SMOOTH LINER)/ALUMINIZED CSP OR RCP MATERIAL AND SHALL MEET WAL-MART'S SITEMARK SPECIFICATIONS. CONTRACTOR SHALL SUBMIT STORM PIPE PRODUCT DATA TO SMC CONSULTING ENGINEERS, P.C. FOR APPROVAL. ALUMINIZED CORRUGATED STEEL PIPES SHALL BE ULTRA FLOW OR W/ MANNINGS ROUGHNESS COEFFICIENT OF 0.013 OR BETTER.

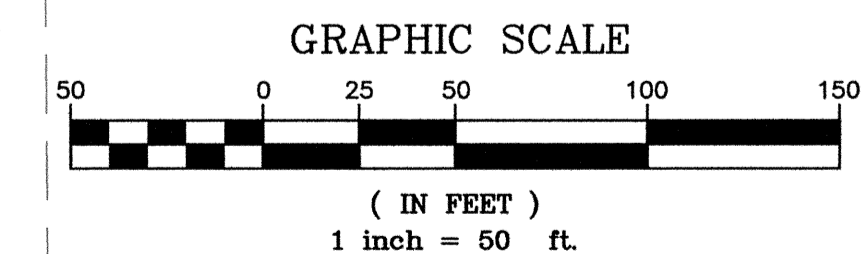
UNLESS OTHERWISE NOTED ALL BUILDING DOWNSPOUTS AND TRUCK WELL OUTLET ARE CONNECTED TO THE UNDERGROUND STORM SEWER SYSTEMS. CONTRACTOR TO NOTIFY CIVIL PRIOR TO INSTALLING THE STORM SEWER SYSTEM AND ORDERING PRECAST DRAINAGE STRUCTURES. IF THE LOCATIONS OF THE BUILDING DOWNSPOUTS SHOWN IN THE ARCH/MEP PLANS IS NOT SIMILAR TO THE LOCATIONS SHOWN HERE.



COMPENSATORY FLOOD STORAGE VOLUME CALCULATIONS FOR LOT 1, BLK A, TIMBER GROVE LAKES, 2ND ADDITION (SITE)

1	PROJECT LOCATION	LOT 1, BLOCK A, TIMBER GROVE LAKES, 2ND ADDITION WITHIN DRAINAGE BASIN OF COWSKIN CREEK
2	FLOODING SOURCE	COWSKIN CREEK
3	FEMA FLOOD INSURANCE RATE MAP NUMBER	20173C033CE
4	MAP EFFECTIVE DATE	2/22/2007
5	FEMA EFFECTIVE BASE FLOOD ELEVATION, 100-YEAR (1% PROBABILITY EVENT)	1328.00 MSL (NGVD 29) FOR SITE NEAR TO THE RIVER REACH CROSS SECTION-BD
6	THE AMOUNT OF FILL AUTHORIZED UNDER KANSAS DIVISION OF WATER RESOURCES PERMIT NO. LSG-0239-FF, DATE NOVEMBER 21, 2002, WITHIN FLOODWAY FRINGE OF THE SITE	47,000 CUBIC YARD TO AN ELEVATION OF 1329.56 MSL
7	THE AMOUNT OF FILL PLACED BELOW BASE FLOOD ELEVATION WITHIN FLOODWAY FRINGE OF THE SITE	21,784 CUBIC YARD FROM AN ELEVATION OF 1322.40 MSL TO 1328.00 MSL
8	FINISHED FLOOR ELEVATION OF THE PROPOSED WAL-MART NEIGHBORHOOD MARKET #5855-00	1331.00 MSL (NGVD 29)
9	EXISTING PERVIOUS AREA OF THE SITE	10.59 ACRES
10	EXISTING IMPERVIOUS AREA OF THE SITE	0.650 ACRES
11	PROPOSED PERVIOUS AREA OF THE SITE	6.261 ACRES
12	PROPOSED IMPERVIOUS AREA OF THE SITE	4.979 ACRES
13	NET ADDITIONAL IMPERVIOUS AREA ADDED TO THE SITE PER PAVING SITE PLAN OF THE PROPOSED NEIGHBORHOOD MARKET #5855-00 PROJECT	4.329 ACRES
14	SOIL DESCRIPTION OF THE SITE (USDA, NRCS WEB SOIL SURVEY FOR SEDGWICK COUNTY, KANSAS)	ELANDCO SILT LOAM
15	HYDROLOGIC SOIL GROUP (WEB SOIL SURVEY)	GROUP 'B' (SOILS HAVING A MODERATE INFILTRATION RATE WHEN THOROUGHLY WET. THESE SOILS HAVE A MODERATE RATE OF WATER TRANSMISSION)
16	RUNOFF CURVE NUMBER FOR IMPERVIOUS AREAS (TABLE -2, TECHNICAL RELEASE-55, URBAN HYDROLOGY FOR SMALL WATERSHEDS, USDA PUBLICATION)	98
17	RUNOFF CURVE NUMBER FOR PERVIOUS AREAS, OPEN SPACES WITH FAIR CONDITION (TABLE -2, TECHNICAL RELEASE-55, URBAN HYDROLOGY FOR SMALL WATERSHEDS, USDA PUBLICATION)	69
18	WEIGHTED RUNOFF CURVE NUMBER OF THE SITE UNDER EXISTING CONDITIONS	70.68, SAY 70
19	WEIGHTED RUNOFF CURVE NUMBER OF THE SITE UNDER PROPOSED CONDITIONS	81.85, SAY 82
20	100-YEAR, 24 HOUR RAINFALL (CITY OF WICHITA)	7.90 INCHES
21	RUNOFF DEPTH AND THE VOLUME OF RUNOFF GENERATE BY THE SITE UNDER EXISTING CONDITIONS USING PRECIPITATION DEPTH OF 7.90 INCHES WITH A WEIGHTED CURVE NUMBER OF 70 (TABLE 2-1, USDA TECHNICAL RELEASE-55)	4.367 INCHES AND 6,606 CUBIC YARD, RESPECTIVELY
22	RUNOFF DEPTH AND THE VOLUME OF RUNOFF GENERATE BY THE SITE UNDER PROPOSED CONDITIONS USING PRECIPITATION DEPTH OF 7.90 INCHES WITH A WEIGHTED CURVE NUMBER OF 82 (TABLE 2-1, USDA TECHNICAL RELEASE-55)	5.767 INCHES AND 8,715 CUBIC YARD, RESPECTIVELY
23	NET ADDITIONAL RUNOFF VOLUME GENERATED BY THE SITE UNDER PROPOSED CONDITIONS WOULD DISPLACE FLOOD STORAGE VOLUME IN FLOODWAY FRINGE AREA	8715 - 6600 = 2,115 CUBIC YARD
24	TOTAL FLOOD STORAGE VOLUME DISPLACED IN FLOODWAY FRINGE OF THE SITE	23,899 CUBIC YARD (SUM OF LINES 7 & 23)
25	AMOUNT OF CUT PROVIDED BELOW BASE FLOOD ELEVATION WITHIN COMPENSATORY FLOOD PLAIN STORAGE AREA OF THE SITE TO MITIGATE THE FLOOD STORAGE VOLUME DISPLACED	24,526 CUBIC YARD
26	AMOUNT OF CUT PROVIDED BELOW BASE FLOOD ELEVATION IS HIGHER THAN THE TOTAL VOLUME OF FLOOD STORAGE DISPLACED WITHIN FLOODWAY FRINGE AREA OF THE SITE	24,526 - 23,899 = 627 CUBIC YARD. SINCE THE VOLUME OF FLOOD STORAGE PROVIDED EXCEEDS THE VOLUME OF FLOOD STORAGE DISPLACED, THEREFORE, THE PROPOSED DEVELOPMENT OF THE WAL-MART NEIGHBORHOOD MARKET #5855-00 WOULD NOT CAUSE REDUCTION OF THE FLOOD STORAGE VOLUME WITHIN FLOODWAY FRINGE OF THE SITE

- LEGEND**
- SIGN (i.e. STOP, YIELD, etc...)
 - ASLE INDICATOR SIGN
 - LIGHT POLE AND FIXTURE TYPE
 - TRAFFIC FLOW ARROW
 - STRAIGHT ARROW
 - ↪ LEFT TURN ARROW
 - ↩ RIGHT TURN ARROW
 - CANT CORNERS
 - TC TOP OF CURB
 - TP TOP OF PAVEMENT
 - TW TOP OF WALK
 - TG TOP OF GUTTER
 - SW SIDEWALK
 - R RADIUS
 - U/E UTILITY EASEMENT
 - U.C.S. UNDERGROUND COLLECTION SYSTEM
 - W.L. WATER LINE
 - SWQ STORM WATER QUALITY BMP
 - XX— PROPOSED CONTOUR & CONTOUR ELEVATION
 - STORM SEWER INLET
 - STORM SEWER CURB INLET
 - ⊙ STORM SEWER MANHOLE (STS M.H.)
 - S.S. MANHOLE
 - CLEANOUTS
 - - - FUTURE CURB & GUTTER (BY OTHERS)
 - POWER UNDERGROUND BY CONTRACTOR
 - TELEPHONE UNDERGROUND (PER CITY STDS)
 - POWER OVERHEAD
 - GAS LINE
 - TCXX.XX SPOT ELEVATION
 - TPXX.XX FLOW DIRECTION
 - U/E UTILITY EASEMENT
 - U.C.S. UNDERGROUND COLLECTION SYSTEM
 - W.L. WATER LINE
 - SWQ STORM WATER QUALITY BMP
 - S.S. SANITARY SEWER



DRAINAGE PLAN

WALMART NEIGHBORHOOD MARKET #5855-00

CENTRAL AVE. & MAIZE RD. WICHITA, KANSAS

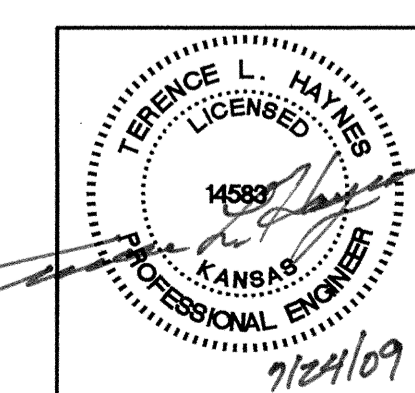
SMC Consulting Engineers, P.C.
815 West Main - Oklahoma City, OK 73106
PH: 405-232-7715 Fax: 405-232-7859
KANSAS CERTIFICATE OF AUTHORIZATION NO. E-335 EXP. DEC. 31, 2009

SMC

No.	Revision	By	Date

DATE: 07/20/09 SCALE: 1"=50' SHEET NO. A

ENGINEER: TERENCE L. HAYNES, P.E. #14583



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