

**PROFESSIONAL
ENGINEERING CONSULTANTS, PA**

1440 E. English
WICHITA, KANSAS 67211

(316) 262-2691

LETTER OF TRANSMITTAL

DATE	Nov. 10, 1988	JOB NO.	36-88335-2051
ATTENTION	Ms. Vicky Huang, P.E.		
RE:	Expressway Center		

TO Mr. Michael E. Lindebak, P.E.
City Engineer
455 North Main
Wichita, KS 67202

WE ARE SENDING YOU Attached Under separate cover via _____ the following items:

- Shop drawings Prints Plans Samples Specifications
 Copy of letter Change order _____

COPIES	DATE	NO.	DESCRIPTION
2	11.10.88		Revised Drainage Plan
2			Calculations for Storm Water Sewer

THESE ARE TRANSMITTED as checked below:

- For approval Approved as submitted Resubmit _____ copies for approval
 For your use Approved as noted Submit _____ copies for distribution
 As requested Returned for corrections Return _____ corrected prints
 For review and comment _____
 FOR BIDS DUE _____ 19 _____ PRINTS RETURNED AFTER LOAN TO US

REMARKS As requested we have revised the proposed
storm water sewer within Expressway
Center as follows:

1. Add manhole at Oliver
2. Add 36" stub (discharge line) north.

COPY TO File

SIGNED: Charles Brown

100 j, 178.5000 99 3 5 4

110 t, expressway center addition

120 t, revised drainage plan

130 t, storm water sewer system analysis

140 i, 103 0.69 2.14 0.00 0.00 6.70 15.00 185.00

150 i, 102 0.69 3.43 0.00 0.00 10.60 15.00 182.00

160 i, 101 0.69 3.05 0.00 0.00 9.50 15.00 181.00

170 m, 100 179.00

180 m, 99 178.50

190 p, 103 102 350.00 18 0.013 0.00 0.00

200 p, 102 101 410.00 27 0.013 0.00 0.00

210 p, 101 100 220.00 36 0.013 0.00 0.00

220 p, 100 99 10.00 36 0.013 0.00 0.00

230 e

SCANNED

Input File: express

expressway center addition
revised drainage plan
storm water sewer system analysis

Storm Frequency = 5-Year

* * * HYDROLOGY * * *

*****												***** Conduit Data *****					
***** Tributary Area *****												***** Hydrology Summation *****					
Node to	C	Area	Slope	Length	TC(0)	I(0)	Q(0)	TC	I	Q	Sum Q	Size	Velocity	Length	TT	TT+TC	
Node		(Ac)	(%)	(Ft)	(Min)	(In/Hr)	(CFS)	(Min)	(In/Hr)	(CFS)	(CFS)	(In)	(Ft/Sec)	(Ft)	(Min)	(Min)	
*****												*****					
103	102	0.69	2.14	0.00	0.0	15.00	5.22	6.70	15.00	5.22	6.70	6.70	18"	3.79	350.00	1.54	16.54
102	101	0.69	3.43	0.00	0.0	15.00	5.22	10.80	16.54	5.02	10.40	17.10	27"	4.30	410.00	1.59	18.13
101	100	0.69	3.05	0.00	0.0	15.00	5.22	9.60	18.13	4.85	8.92	26.01	36"	3.68	220.00	1.00	19.12
100	99	0.00	0.00	0.00	0.0	0.00	0.00	19.12	4.75	0.00	26.01	36"	3.68	10.00	0.05	19.17	
*****												*****					

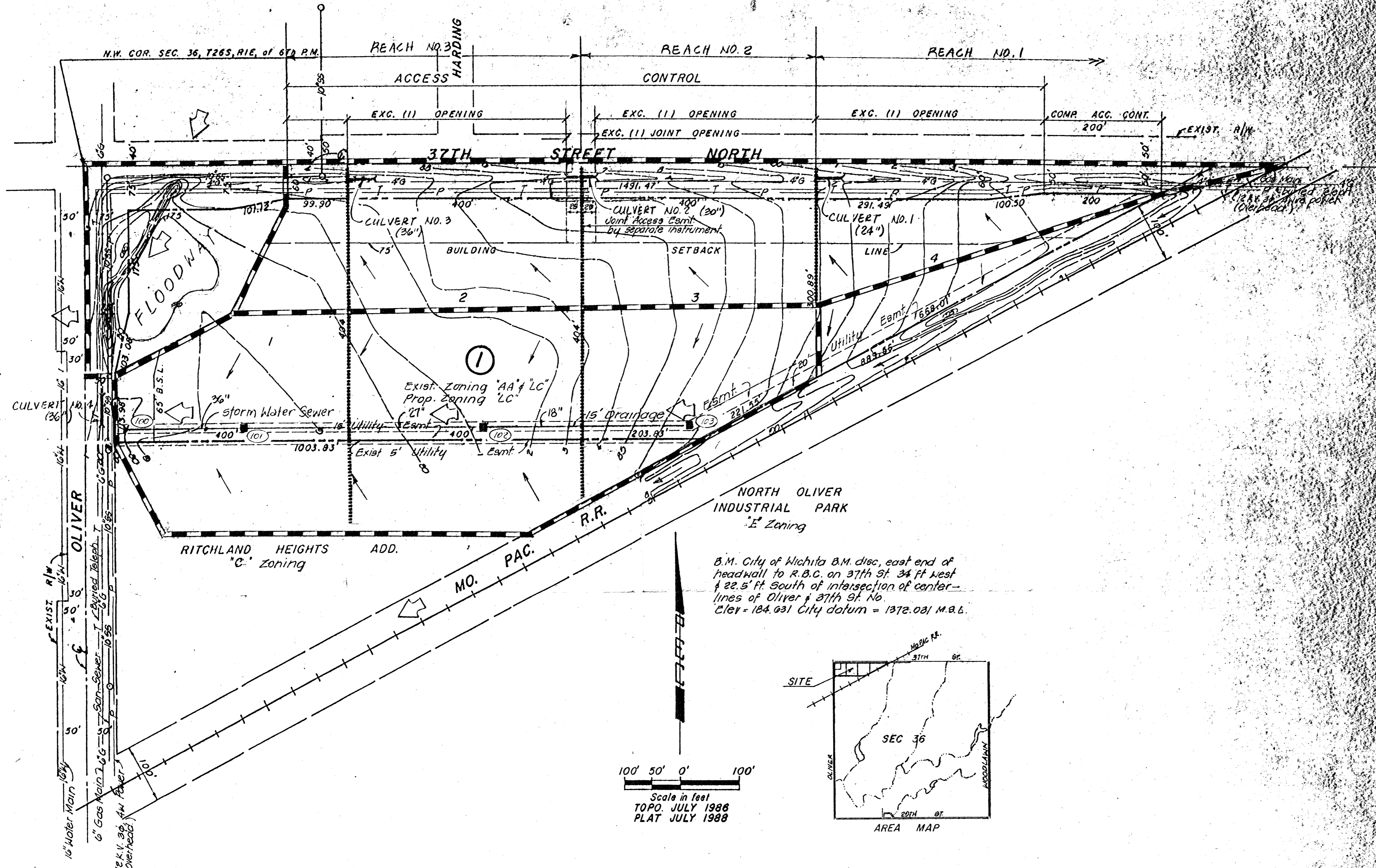
Input File: express

expressway center addition
revised drainage plan
storm water sewer system analysis

Storm Frequency = 5-Year

* * * HYDRAULICS * * *

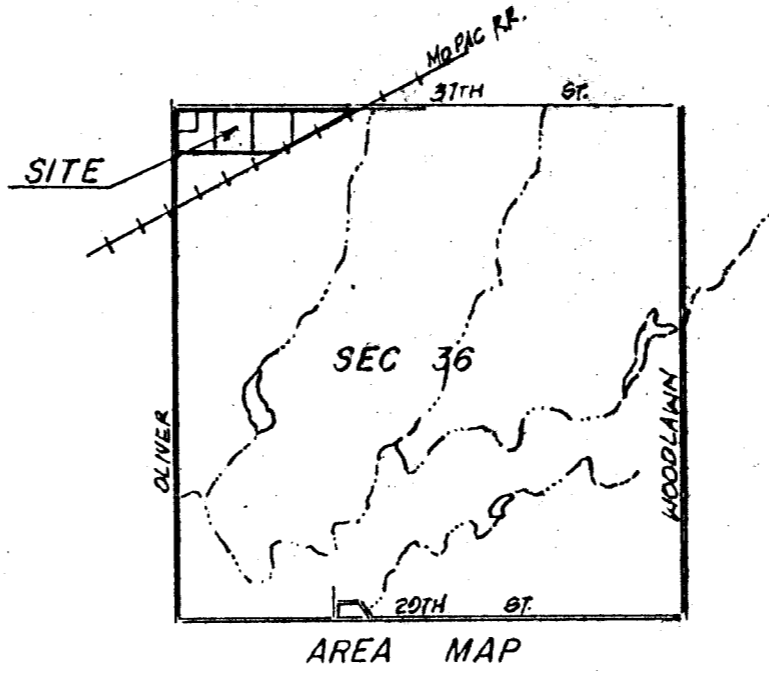
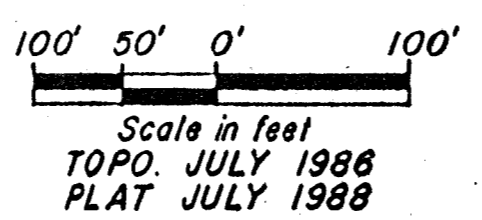
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*****  
Node      Hyd-Slope  Friction   Bend      Transition  Manhole  Deflection  Junction  Total  Hyd-61  Desired  Diff.  
          (Ft/Ft)   (Ft)      (Ft)      (Ft)        (Ft)     (Ft)       (Ft)     (Ft)   Elevation Elevation (Ft)  
*****  
103      0.00407   1.4239    0.0000    0.0000     0.0000    0.0000    0.0000    1.4239  182.3438  185.0000  2.66  
102      0.00305   1.2494    0.0000    0.0064     0.0000    0.0000    0.5390    1.7948  180.5199  182.0000  1.08  
101      0.00152   0.3346    0.0000    0.0154     0.0000    0.0000    0.1366    0.4866  179.1251  181.0000  1.87  
100      0.00152   0.0152    0.0000    0.0000     0.0105    0.1051    0.0076    0.1385  178.4385  179.0000  0.36  
99       0.00000   0.0000    0.0000    0.0000     0.0000    0.0000    0.0000    0.0000  178.5000  178.5000  0.00  
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NORTH OLIVER INDUSTRIAL PARK
"E" Zoning

RITCHLAND HEIGHTS ADD.
"C" Zoning

B.M. City of Wichita B.M. disc, east end of headwall to R.B.C. on 37th St. 34 ft west & 22.5 ft south of intersection of center-lines of Oliver & 37th St. No. Elev = 184.031 City datum = 1372.031 M.A.S.



SCANNED

DRAINAGE PLAN 10/21/88

EXPRESSWAY CENTER

Owner:
McArthur Beach Properties
c/o Jack Ritchie
8100 E. 22nd St. No. Bldg. 500
Wichita, Ks. 67226

Engr.
P. E. C. p.a.
1440 English
Wichita, Ks. 67211

NOTE:

Lots 1 through 4, Block 1 shall be graded to drain to existing ditches, streams, etc. via drives, flumes, private storm water sewers and/or other approved drainage facilities.

LEGEND:

- Drainage Direction - Minor Storm
- Drainage Direction - Major Storm
- Drainage Basin Boundary
- Proposed Storm Water Sewer & Inlet & Pipe Size
- Proposed Culvert
- Node Identification Point
- Drainage Sub-Basin Boundary

