

STAFF REPORT
(Preliminary Plat)

CASE NUMBER: S/D 87-114 - KOCH OFFICE PARK SECOND ADDITION

OWNER/APPLICANT: Koch Industries, Inc.

SURVEYOR/ENGINEER: Mid-Kansas Engineering Consultants, P.A.

LOCATION: South side of 37th Street North, in an area west of Oliver.

SITE SIZE: 87.28 Acres

NUMBER OF LOTS:

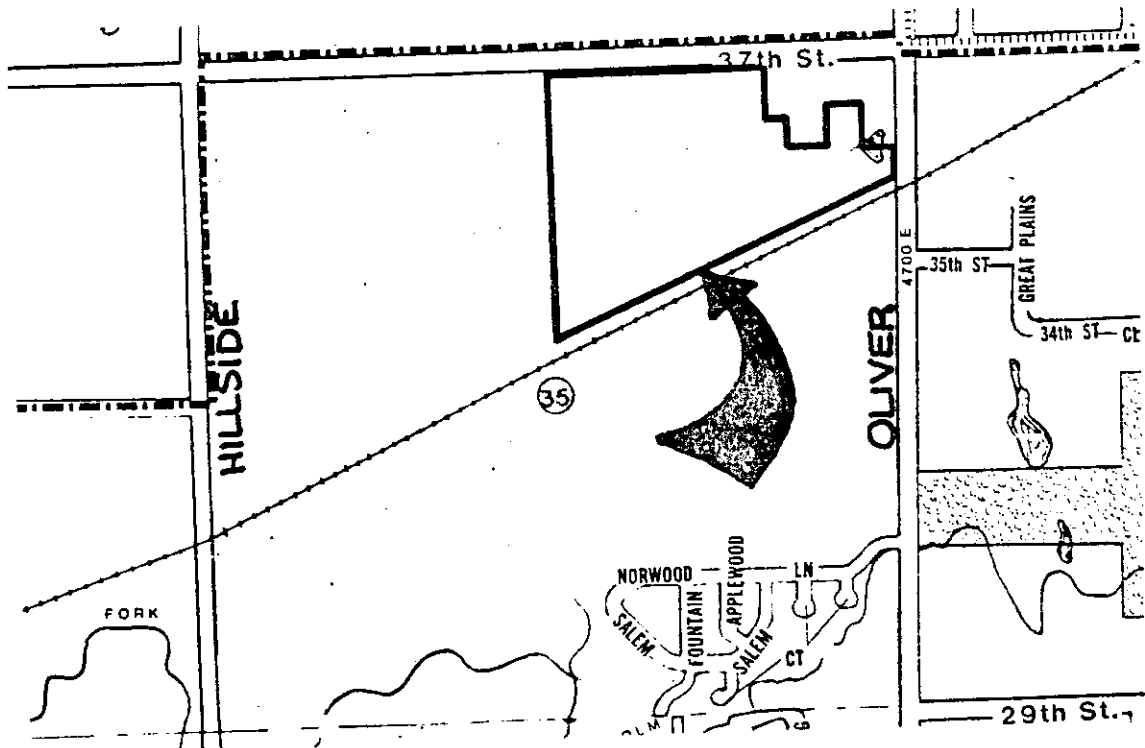
Residential:	
Office:	
Commercial:	
Industrial:	1
Total:	1

MINIMUM LOT AREA: 3,801,833.72 Sq. Ft.

CURRENT ZONING: "E", "AA" and "LC"

PROPOSED ZONING: "E" (Z-2858)

VICINITY MAP:



KOCH OFFICE PARK SECOND ADDITION
Page 2

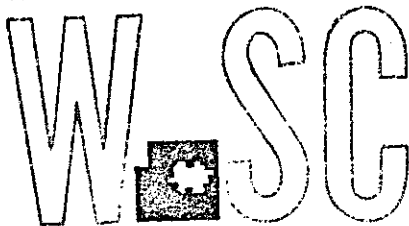
STAFF COMMENTS:

NOTE: The applicant's associated zone case (Z-2858) requesting "E" (light industrial) zoning for all of this tract, has been approved subject to platting.

The first Koch Office Park Subdivision was recorded in 1980.

- A. The applicant shall guarantee any drainage improvements required by the platting of this property.
- B. If improvements are guaranteed by petition, a notarized certificate listing the petitions shall be submitted to the Planning Department for recording.
- C. The applicant shall guarantee any medial or other roadway improvements required by the platting of this property. City and County Engineering should be prepared to comment on this matter.
- D. The final plat shall indicate the platting of 35-foot building setbacks from both 37th Street North and Oliver.
- E. The final plat shall indicate the following access controls:
 1. "Complete access control" to Oliver, across the east line of the plat, from a point 150 feet north of the center of the adjacent railroad track.
 2. "Access control except for one opening", to Oliver Street, from the lot's remaining frontage to that street.
 3. "Access control except for three (3) openings" to 37th Street North across the north line of the plat.
- F. Prior to, or at the time of submitting the final plat, the applicant shall submit a drainage plan to City Engineering for review and approval.
- G. The applicant's engineer is advised that the Register of Deeds is requiring the name(s) of the notary public, who acknowledges the signatures on this plat, to be printed beneath the notary's signature.
- H. The applicant shall install or guarantee the installation of all utilities and facilities which are applicable and described in Article 8 of the MAPC Subdivision Regulations.
- I. Requirements for a final plat (see pages 20-25, Part 4, Article 5 of the MAPC Subdivision Regulations).
- J. The representative from City Engineering should be prepared to comment on the status of the applicant's drainage concept.

WICHITA - SEDGWICK COUNTY



METROPOLITAN AREA PLANNING
DEPARTMENT

CITY HALL — TENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1688
(316) 268-4561

November 19, 1987

Mid-Kansas Engineering Consultants, P.A.
3500 N. Rock Road #800
Wichita, KS 67226

Re: Preliminary Plat S/D 87-114 - KOCH OFFICE PARK
SECOND ADDITION

Dear Gentlemen:

At the regular meeting of the Subdivision Committee of the Metropolitan Area Planning Commission on Thursday, November 19, 1987, the above-captioned plat was considered. The action of the Committee was to approve the preliminary and authorize preparation of the final plat, subject to the following:

- A. The applicant shall guarantee any drainage improvements required by the platting of this property.
- B. If improvements are guaranteed by petition, a notarized certificate listing the petitions shall be submitted to the Planning Department for recording.
- C. The applicant shall guarantee any medial or other roadway improvements required by the platting of this property. Prior to filing a final plat, the applicant shall meet with the Traffic Engineer.
- D. The final plat shall indicate the platting of 35-foot building setbacks from both 37th Street North and Oliver.
- E. The final plat shall indicate the following access controls:
 1. "Complete access control" to Oliver, across the east line of the plat, from a point 150 feet north of the center of the adjacent railroad track.
 2. "Access control except for one opening", to Oliver Street, from the lot's remaining frontage to that street.

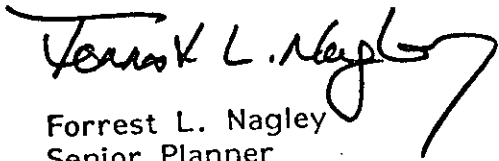
WICHITA - SEDGWICK COUNTY

Preliminary Plat S/D 87-114 - KOCH OFFICE PARK SECOND ADDITION
Page 2

3. "Access control except for three (3) openings" to 37th Street North across the north line of the plat.
- F. Prior to, or at the time of submitting the final plat, the applicant shall submit a drainage plan to City Engineering for review and approval.
- G. As required by the drainage plan for this property, the applicant shall obtain, by separate instrument, the off-site drainage agreement necessary to allow this property to drain onto the lot to the west. Also, the applicant shall establish, by separate instrument, a drainage agreement which provides for this property to continue to accept drainage from the properties to the north.
- H. The applicant's engineer is advised that the Register of Deeds is requiring the name(s) of the notary public, who acknowledges the signatures on this plat, to be printed beneath the notary's signature.
- I. The applicant shall install or guarantee the installation of all utilities and facilities which are applicable and described in Article 8 of the MAPC Subdivision Regulations.
- J. Requirements for a final plat (see pages 20-25, Part 4, Article 5 of the MAPC Subdivision Regulations).

The enclosed "marked" copy of the plat is for your information and files. If you should have any questions, please call.

Sincerely,



Forrest L. Nagley
Senior Planner

FLN:dlk

Enclosure

cc: Koch Industries, Inc., 4111 E. 37th St. N., Wichita, KS 67220
Jim Weber, County Bureau of Public Services
Bill McKinley, Traffic Engineering
/ Mike Lindebak, City Engineer

STAFF REPORT
(Final Plat; Preliminary Approved 11/19/87)

CASE NUMBER: S/D 87-114 - KOCH OFFICE PARK SECOND ADDITION

OWNER/APPLICANT: Koch Industries, Inc.

SURVEYOR/ENGINEER: Mid-Kansas Engineering Consultants, P.A.

LOCATION: South side of 37th Street North, in an area west of Oliver.

SITE SIZE: 87.28 Acres

NUMBER OF LOTS:

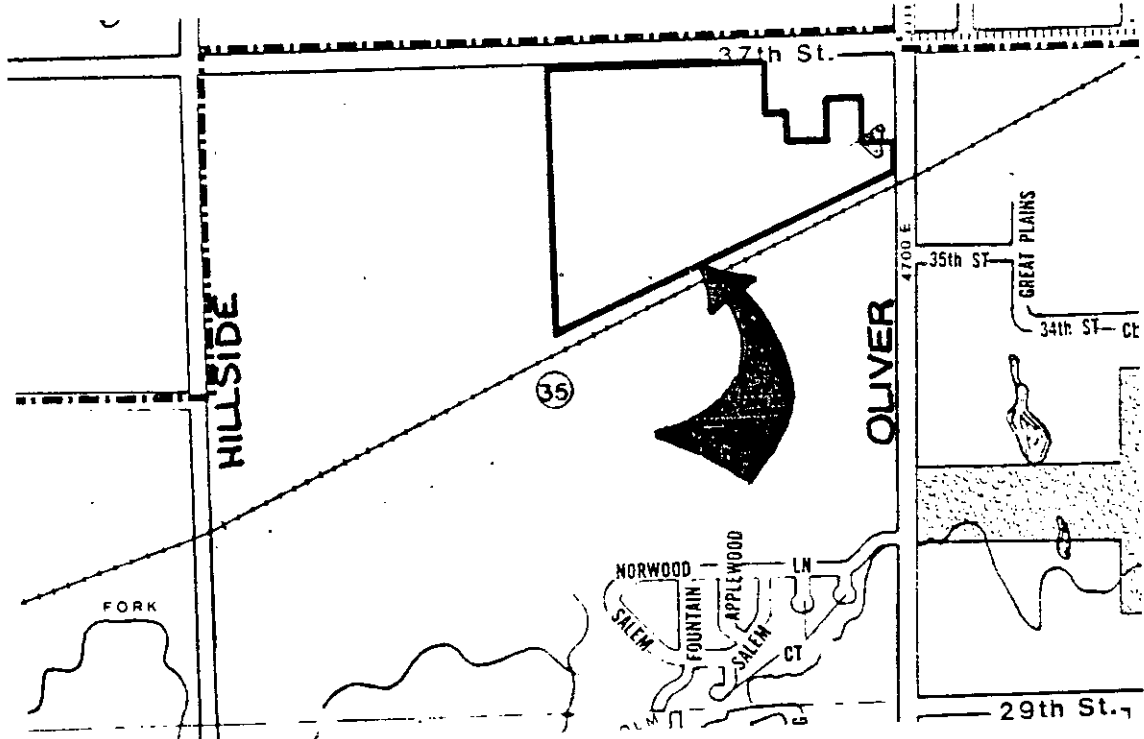
Residential:	
Office:	
Commercial:	
Industrial:	1
Total:	1

MINIMUM LOT AREA: 3,801,833.72 Sq. Ft.

CURRENT ZONING: "E", "AA" and "LC"

PROPOSED ZONING: "E" (Z-2858)

VICINITY MAP:



KOCH OFFICE PARK SECOND ADDITION

Page 2

STAFF COMMENTS:

NOTE: The applicant's associated zone case (Z-2858) requesting "E" (light industrial) zoning for all of this tract, has been approved subject to platting.

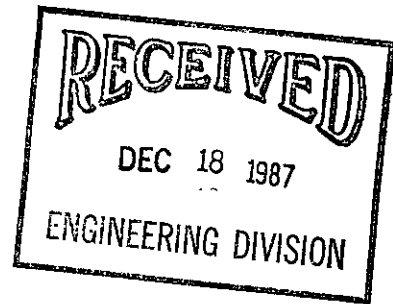
The first Koch Office Park Subdivision was recorded in 1980.

- A. The applicant shall guarantee any drainage improvements required by the platting of this property.
- B. If improvements are guaranteed by petition, a notarized certificate listing the petitions shall be submitted to the Planning Department for recording.
- C. The applicant shall guarantee any medial or other roadway improvements required by the platting of this property.
- D. As required by the drainage plan for this property, the applicant shall obtain, by separate instrument, the off-site drainage agreement necessary to allow this property to drain onto the lot to the west. Also, the applicant shall establish, by separate instrument, a drainage agreement which provides for this property to continue to accept drainage from the properties to the north.
- E. The final plat tracing shall indicate the existing half-street rights-of-way for Oliver and 37th Street North adjacent to this property.
- F. The platlor's text shall be amended to state that the access controls are being dedicated to the City of Wichita.
- G. Since easements for street, drainage and parking are not being granted by this plat, such references to these types of easements shall be removed from the platlor's text.
- H. On the final plat tracing, the wording in the platlor's text regarding access controls, shall be rewritten to clearly state that the access controls are dedicated. The way the text presently reads, there seems to be a line missing. Also, the "complete access control" to Oliver from the lot shall be established on the south 100 feet of the lot rather than reference the centerline of the railroad track as a beginning point.
- I. The applicant's engineer is advised that the Register of Deeds is requiring the name(s) of the notary public, who acknowledges the signatures on this plat, to be printed beneath the notary's signature.
- J. The applicant shall install or guarantee the installation of all utilities and facilities which are applicable and described in Article 8 of the MAPC Subdivision Regulations.
- K. Perimeter closure computations shall be submitted with the final plat tracing. Section 5-101(C).
- L. Recording of the plat within 30 days after approval by the City Council.
- M. The representative from City Engineering should be prepared to comment on the status of the applicant's drainage plan. Also, Engineering should be prepared to comment on any needed medial or perimeter roadway improvements.



METROPOLITAN AREA PLANNING
DEPARTMENT

CITY HALL — TENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1688
(316) 268-4561



December 17, 1987

Mid-Kansas Engineering Consultants, P.A.
1440 E. English
Wichita, KS 67211

Re: Final Plat S/D 87-114 - KOCH OFFICE PARK SECOND ADDITION

Dear Gentlemen:

At the regular meeting of the Subdivision Committee of the Metropolitan Area Planning Commission on Thursday, December 17, 1987, the above-captioned plat was considered. The action of the Committee was to recommend that this plat be approved subject to:

- A. As required by the drainage plan for this property, the applicant shall obtain, by separate instrument, the off-site drainage agreement necessary to allow this property to drain onto the lot to the west. Also, the applicant shall establish, by separate instrument, a drainage agreement which provides for this property to continue to accept drainage from the properties to the north.
- B. The final plat tracing shall indicate a floodway adjacent to Oliver Street. The configuration of the floodway shall be approved by City Engineering prior to submitting the plat for scheduling before the City Council. The plat's text shall be amended to include the standard floodway language.
- C. The final plat tracing shall indicate the existing half-street rights-of-way for Oliver and 37th Street North adjacent to this property.
- D. The plat's text shall be amended to state that the access controls are being dedicated to the City of Wichita.
- E. Since easements for street, drainage and parking are not being granted by this plat, such references to these types of easements shall be removed from the plat's text.

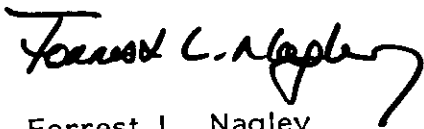
Final Plat S/D 87-114 - KOCH OFFICE PARK SECOND ADDITION
Page 2

- F. On the final plat tracing, the wording in the plat's text regarding access controls, shall be rewritten to clearly state that the access controls are dedicated. The way the text presently reads, there seems to be a line missing. Also, the "complete access control" to Oliver from the lot shall be established on the south 100 feet of the lot rather than reference the centerline of the railroad track as a beginning point.
- G. The applicant's engineer is advised that the Register of Deeds is requiring the name(s) of the notary public, who acknowledges the signatures on this plat, to be printed beneath the notary's signature.
- H. The applicant shall install or guarantee the installation of all utilities and facilities which are applicable and described in Article 8 of the MAPC Subdivision Regulations.
- I. Perimeter closure computations shall be submitted with the final plat tracing. Section 5-101(C).
- J. Recording of the plat within 30 days after approval by the City Council.

The enclosed "marked" copy of the final plat is for your information and files.

This matter will be forwarded to the Planning Commission for its consideration on Monday, December 21, 1987. If you have any questions concerning this matter, please call.

Sincerely,

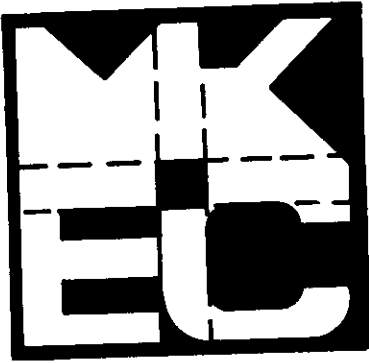


Forrest L. Nagley
Senior Planner

FLN:dik

Enclosure

cc: Koch Industries, Inc., Attn: C.F. Baker, Jr., 4111 E. 27th St. N.,
Wichita, KS 67220
✓ Mike Lindebak, City Engineer



LETTER OF TRANSMITTAL

PROJECT: Koch Office Park 2nd Addition

PROJECT #: _____ DATE: 12/15/87

TO: Vicky Huang
Engineering Department
455 N. Main, 7th Floor
Wichita, KS 67202

MID-KANSAS ENGINEERING
CONSULTANTS, P.A.
3500 N. Rock Road, #800
Wichita, KS 67226

We are sending the following items: Attached
 Under separate cover via _____

- Prints Specifications Legal Descriptions
- Tracings Petitions Correspondence Other

COMMENTS: We are submitting for your review the Drainage & Utility Plan for Koch Office Park 2nd Addition.

- For Your Approval As Requested
- For Your Use For Your Files
- Approved as Noted For Review and Comment

REMARKS:

Signed: J. Neil Jednoralski
J. Neil Jednoralski, P.E.

JNJ/dh

Drainage Area	AREA ACRES	AREA ACCUM.	C _D	C ₁₀₀	T _c	I _D	I ₁₀₀	Q _D	Q ₁₀₀
<u>KOCH OFFICE PARK 2ND ADDITION</u>									
#1									
<u>Main Area Drainage</u>	49.3		D=5 0.85	0.88	21 - (19)	D=5 3.90	6.68	163.4	289.8
To 36" CMP Under R.R.									
#2									
<u>Stream Along West Side of Oliver Street</u>	343.3		D=2 0.46	0.73	114 - (66)	D=2 1.03	3.54	162.7	887.2
<u>Drainage Along 37th Street North</u>									
#3									
1st Culvert from East	1.0		D=5 0.77	0.85	15	D=5 4.56	7.37	3.5	6.3
#4									
2nd Culvert from East	4.6		0.62	0.80	22 - (15)	3.81	7.37	10.9	27.1
		5.6	0.65	0.81	22 - (15)	3.81	7.37	13.9	33.4
#5									
3rd Culvert from East	3.3		0.58	0.78	26 - (16)	3.50	7.18	6.7	18.5
		8.9	0.62	0.80	26 - (16)	3.50	7.18	19.3	51.1

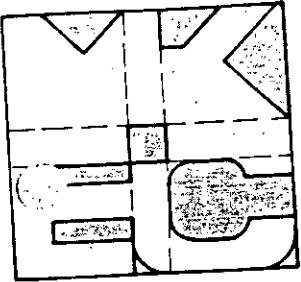
MID-KANSAS ENGINEERING
CONSULTANTS P.A.

Proj. No. 110-01-D
By JNJ Date 15 DEC 87
Chkd By _____ Date _____
Sheet 1 Of _____

CALCULATIONS & SKETCHES

Location KOCH OFFICE PARK - 2nd ADDITION

Reference CHECK EXISTING CULVERT SIZES



MAIN DRAINAGE TO SOUTH TO 36" CMP UNDER MO PAC RR

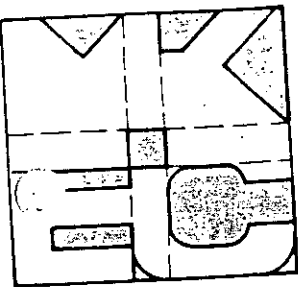
EXISTING 36" CMP $n = 0.027$

@ $s = 0.005\%$

$Q = 22.9$ CFS TOO SMALL

need 66" CMP @ 1% slope }
or
54" RCP @ 0.7% slope } 5-YR

need 66" RCP @ 0.75% slope }
or
72" RCP @ 0.50% slope } 100-YR
(10 gpc)



MID-KANSAS ENGINEERING
CONSULTANTS P.A.

Proj. No. 110-01-0
By JNJ Date 15 DEC 1982
Chkd By _____ Date _____
Sheet 1 Of 5

CALCULATIONS & SKETCHES

Location KOCH OFFICE PARK - 2nd ADDITION

Reference TIME OF CONCENTRATION CALCULATIONS

MAIN DRAINAGE TO SOUTH TO 36" CMP UNDER MO PAC RR

ELEV MAX = 1384 FT (NGVD)

ELEV MIN = 1355 FT (NGVD)

ΔELEV = 29 FT $S = 29/2500 = 0.0116''$
 $= 1.16\%$

ASSUME 36" CMP UNDER MO PAC RR:

$F_{IN} = 1354.5$ FT (NGVD)

85 FT LONG @ $0.005''$
 $= 0.425'$

$F_{OUT} = 1354.08$ FT (NGVD)

FLOW LENGTH = 2500 FT

ASSUMPT: TOTAL AREA WILL BE

INDUSTRIAL - HIGHWAY AREAS
&

PARKING LOTS

$C_S = 0.85$

$C_{100} = 0.88$

$$T_c = \frac{1.8(1.1 - C)}{\sqrt{S}}$$

$$= \frac{1.8(1.1 - 0.85)(2500)^{1/2}}{(1.16)^{1/2}}$$

$$= \frac{1.8(0.25)(50)}{(1.0507)}$$

$$= 21.4 \text{ minutes (18.8)}$$

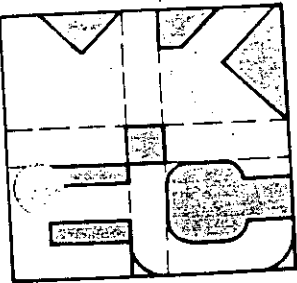
MID-KANSAS ENGINEERING
CONSULTANTS P.A.

Proj. No. 110-01-D
By JNT Date 15 DEC 1992
Chkd By Date
Sheet 2 of 5

CALCULATIONS & SKETCHES

Location KOCH OFFICE PARK - 2nd ADDITION

Reference TIME OF CONCENTRATION CALCULATIONS



STREAM ALONG WEST SIDE OF OLIVER STREET

ELEV MAX = 1432 FT (NGVD)
ELEV MIN = 1361 FT (NGVD) @ RB
DEPTH = 71 FT
S = 71/8600 = 0.0083"
= 0.83%

$$T_c = \frac{1.8(1.1-C)\sqrt{L}}{\sqrt{S}}$$

$$= \frac{(1.8)(1.1 - 0.46)(8600)^{0.73}}{(0.83)^{0.37}}$$

$$= \frac{(1.8)(0.64)(92.7362)}{(0.9398)}$$

$$= 113.7 \text{ minutes (65.7)}$$

FLOW LENGTH = 8600 FT

2- 5'-7" x 5'-3" CMAP

ASSUME FIN = 1364.0 FT (NGVD)

100 FT LONG @ 0.005"
= 0.50'

F_{OUT} = 1363.5 FT (NGVD)

5' x 8' ACB UNDER RR

ASSUME FIN = 1360.5 FT (NGVD)

40 FT LONG @ 0.005"
= 0.20'

F_{OUT} = 1360.3 FT (NGVD)

ASSUME: TOTAL AREA WILL BE

RESIDENTIAL
SINGLE FAMILY (SOIL GROUP D)
1/3 ACRE 30% IMPERVIOUS
(DRAINAGE STORAGE
SEVERAL PONDS)

C₂ = 0.46

C₁₀₀ = 0.73

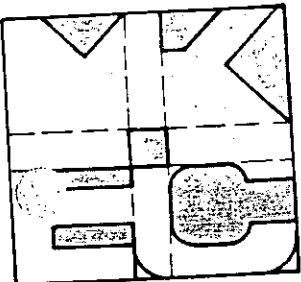
MID-KANSAS ENGINEERING
CONSULTANTS P.A.

Proj. No. 110-01-D
By JNS Date 15 DEC 1987
Chkd By _____ Date _____
Sheet 3 Of 5

CALCULATIONS & SKETCHES

Location KOCH OFFICE PARK - 2nd ADDITION

Reference TIME OF CONCENTRATION CALCULATIONS



DRAINAGE ALONG 37th STREET NORTH

EAST - 1st CHUVERT

$$T_c = \frac{1.8 (1.1 - C) \sqrt{L}}{\sqrt{S}}$$

$$= \frac{(1.8)(1.1 - 0.77)(220)^{0.85}}{(0.91)^{1/3}}$$

$$= \frac{(1.8)(0.33)(14.8329)}{(0.9691)}$$

$$= 9.1 \text{ minutes (6.9)}$$

ELEV MAX = 1384 FT (NGVD)

ELEV MIN = 1382 FT (NGVD)

ΔELEV = 2 FT

$$S = \frac{2}{220} = 0.0091''$$

$$= 0.91\%$$

FLOW LENGTH = 220 FT

ASSUME 18" CMP UNFRO ENTRANCE

RAIN = 1381.5 FT (NGVD)

140 FT @ 0.005''

$$= 0.70 \text{ FT}$$

Flow = 1380.8 FT (NGVD)

ASSUME : AREA IS

$\frac{2}{3}$ STREETS - PAVED

$\frac{1}{3}$ UNDEVELOPED URBAN

$C_u = 0.77$

$C_{100} = 0.85$

MID-KANSAS ENGINEERING
CONSULTANTS P.A.

Proj. No. 110-01-D
By JNT Date 15 DEC 1987
Chkd By _____ Date _____
Sheet 4 Of 5

CALCULATIONS & SKETCHES

Location KOCH OFFICE PARK - 2nd ADDITION

Reference TIME OF CONCENTRATION CALCULATIONS

DRAINAGE ALONG 37th STREET NORTH

2nd CULVERT FROM EAST

ELEV MAX = 1381 FT (NGVD)

ELEV MIN = 1372 FT (NGVD)

DELTA = 9 FT

S = $\frac{9}{730} = 0.0123 \frac{1}{100}$
= 1.23%

FLOW LENGTH = 730 FT

ASSUME 18" CMP UNDER ENTRANCE

ELEV = 1371.5 FT (NGVD)

50 FT @ 0.005%
= 0.25 FT

ELEV = 1371.2 FT (NGVD)

$$T_c = \frac{1.48 (1.1 - C) L^{0.78}}{\sqrt{S}}$$

$$= \frac{(1.48) (1.1 - 0.62) (730)^{0.78}}{(1.23)^{0.5}}$$

$$= \frac{(1.48) (0.48) (2710185)}{(1.0714)}$$

$$= 21.8 \text{ minutes (13.6)}$$

ASSUME : AREA IS

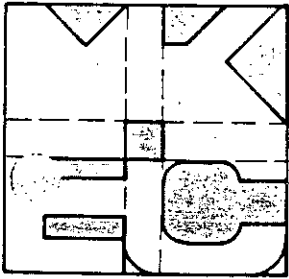
1/2 URBAN LAWN - 'D' SOIL
0.35 0.65

1/4 STREET - PAVED
0.88 0.93

1/4 ROOFS
0.85 0.93

C_S = 0.62

C₁₀₀ = 0.80



**MID-KANSAS ENGINEERING
CONSULTANTS P.A.**

Proj. No. 110-01-D
 By JNJ Date 15 DEC 1997
 Chkd By _____ Date _____
 Sheet 5 Of 5

CALCULATIONS & SKETCHES

Location KOCH OFFICE PARK - 2nd ADDITION
 Reference _____

TIME OF CONCENTRATION CALCULATIONS

DRAINAGE ALONG 37th STREET NORTH

3rd CULVERT FROM EAST

ELEV MAX = 1374 FT (NGVD)

ELEV MIN = 1369 FT (NGVD)

DEPTH = 5 FT

$$T_c = \frac{1.8 (1.1 - C) \sqrt{L}}{\sqrt{S} (\%)}$$

$$= \frac{(1.8)(1.1 - 0.58)(650)^{1/2}}{(0.77)^{1/3}}$$

$$= \frac{(1.8)(0.52)(25.4951)}{(0.9166)}$$

= 26 minutes (16)

$$S = \frac{5}{650} = 0.0077''$$

$$= 0.77\%$$

FLOW LENGTH = 650 FT

ASSUME 18' CMP UNDER ENTRANCE

ELIN = 1369.5 FT (NGVD)

SOFT @ 0.005''
= 0.25 FT

FLOW = 1368.2 FT (NGVD)

ASSUME: AREA 15

2/5 STRAITS - PAVED
0.98 0.93

3/5 GRASSY LAWN - 'D' SOILS
0.35 0.65

C_s = 0.58

C₁₀₀ = 0.78