



July 9, 1996

Vicky Huang, P.E.
City of Wichita Engineering
455 N. Main - 7th Floor
Wichita, KS 67202

Re: Woodland Lakes Estates
Site Grading- Lots 1-16, Block 5

Dear Vicky,

Enclosed are two copies of the site grading plan for a portion of the referenced addition. We are submitting only a portion of the grading as design for the rest of the improvements are being completed. This is the area that the developer will concentrate on first. We will submit an overall site grading plan at a later date.

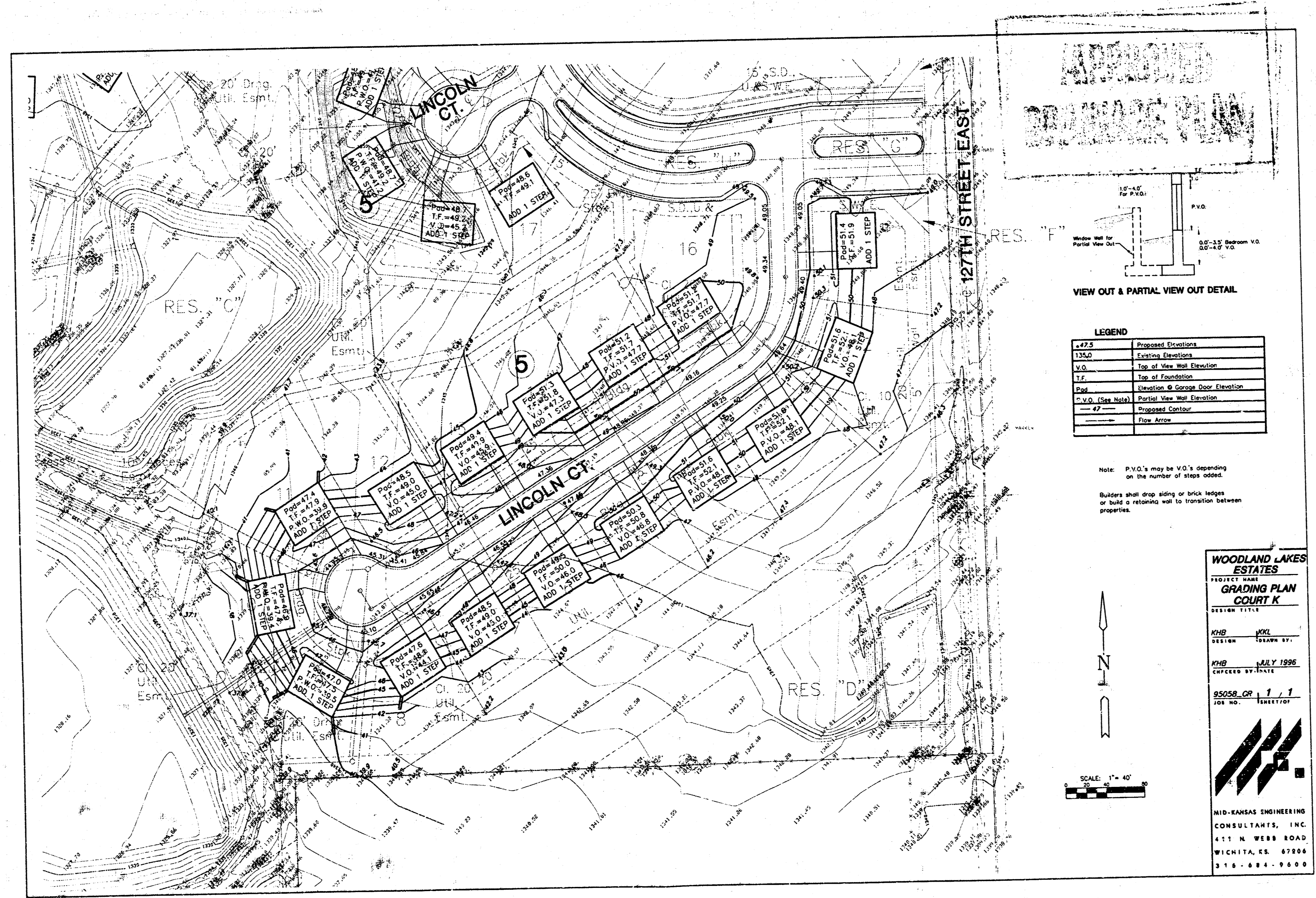
Sincerely,

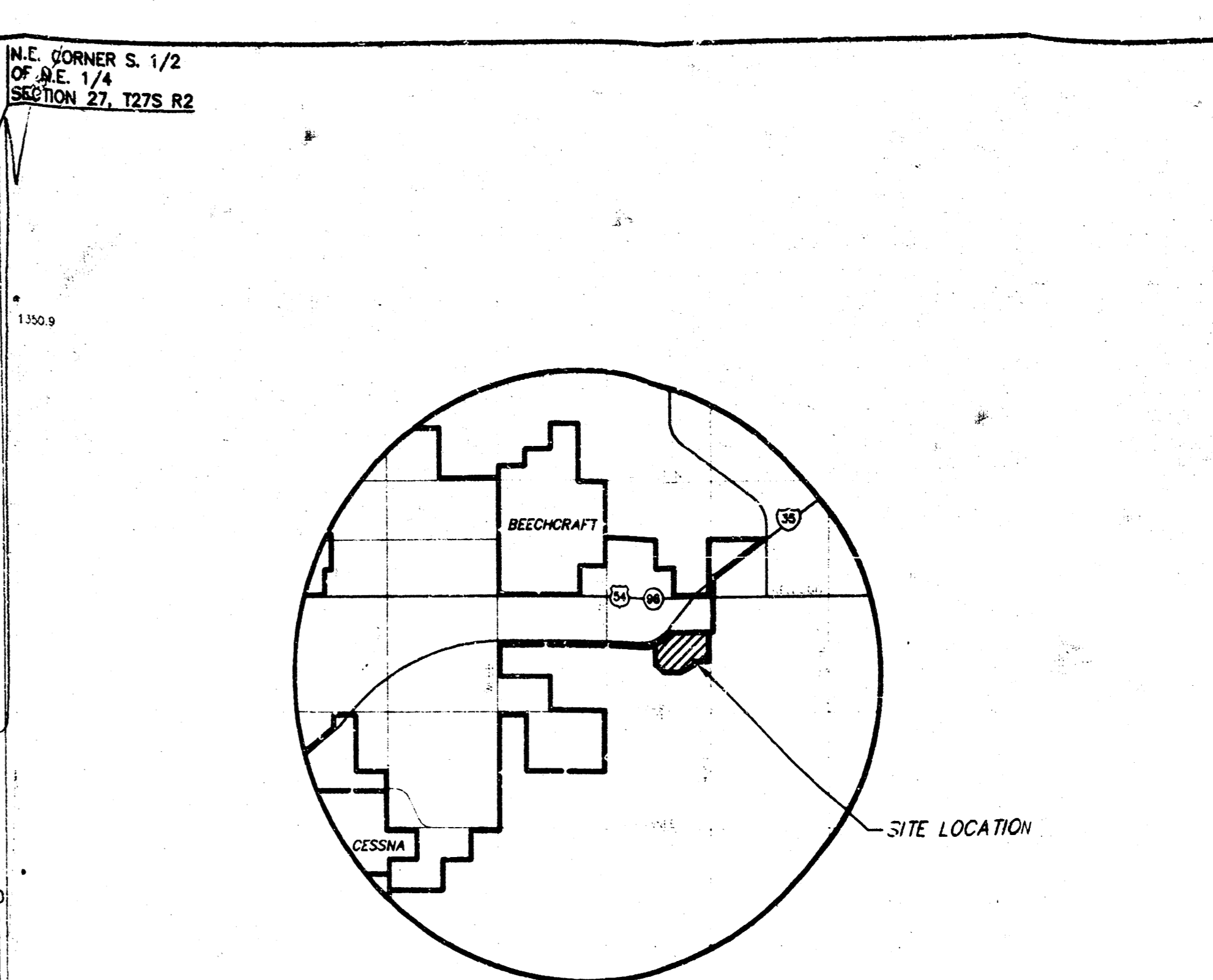
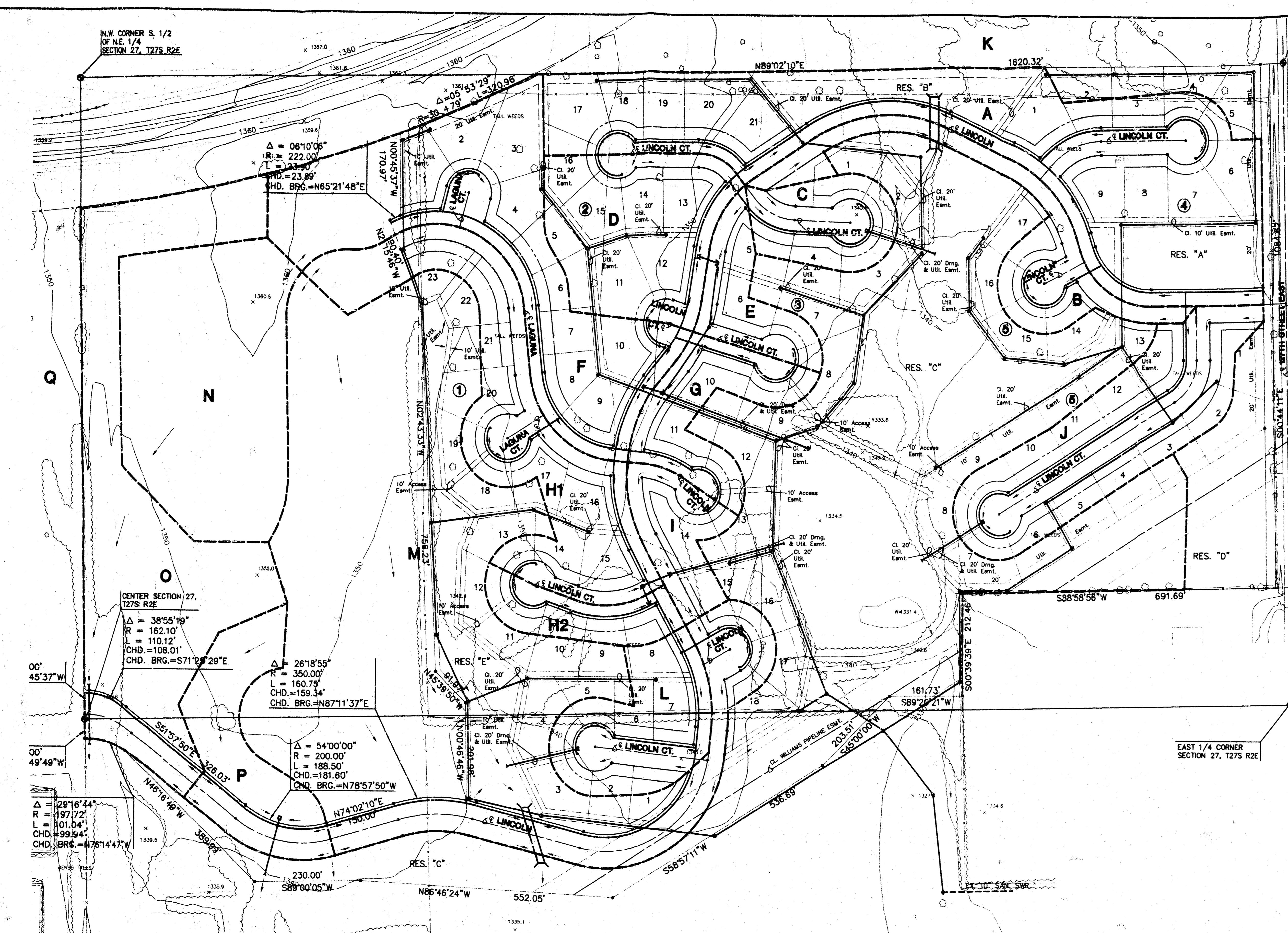
MID-KANSAS ENGINEERING CONSULTANTS, INC.

Greg Ansoff, P.E.

GJA/ay

111 N. WEBB ROAD • WICHITA, KS 67202 • 316-684-9600 • FAX 316-584-5100





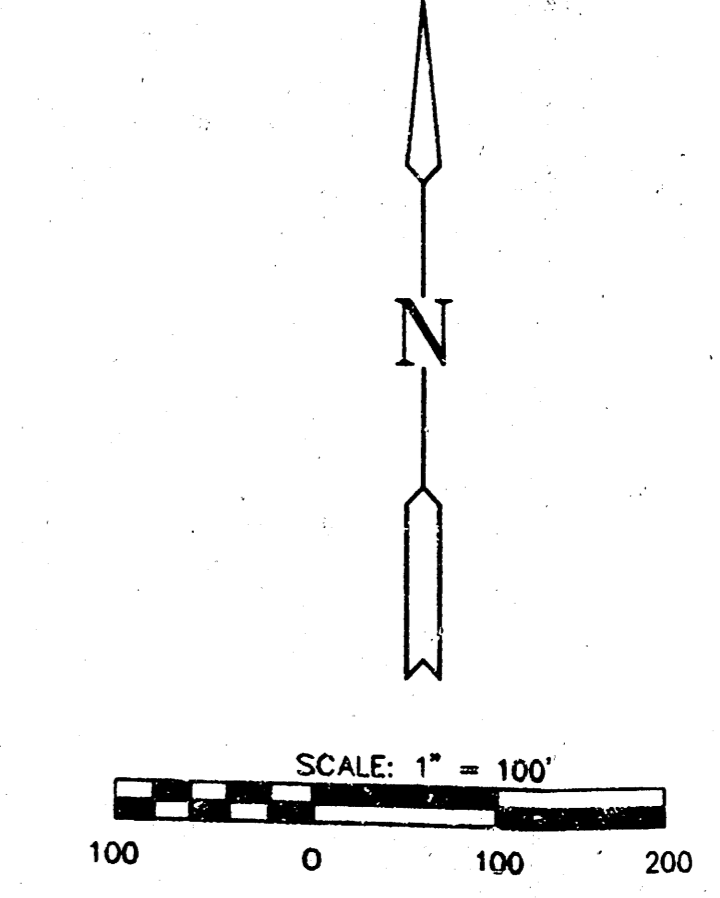
Center Section 27, 27's R2E
 $\Delta = 38^{\circ}55'19''$
 $R = 162.10'$
 $L = 110.12'$
 $CHD. BRG. = 108.01'$

$\Delta = 26^{\circ}18'55''$
 $R = 350.00'$
 $L = 160.75'$
 $CHD. BRG. = 159.34'$

$\Delta = 54^{\circ}00'00''$
 $R = 200.00'$
 $L = 188.50'$
 $CHD. BRG. = 181.60'$

$\Delta = 29^{\circ}16'44''$
 $R = 197.72'$
 $L = 101.04'$
 $CHD. BRG. = 99.64'$

Drainage Area	Area	Adj. Area	C2	C100	T2	T100	I2	I100	Q2	Q100	PIPE SIZE	PIPE SLOPE	INLET	NOTES
TYPE C & D SOIL RESIDENTIAL (SINGLE FAMILY)	8.2	0.48	0.73	44	28	2.11	5.58	8.0	33.5				L(1) = 30'	2 yr. storm
TYPE C & D SOIL RESIDENTIAL (SINGLE FAMILY)	1.8		0.48	0.73	24	18	3.03	7.18	2.5	9.4			L(1) = 10'	2 yr. storm
TYPE C & D SOIL RESIDENTIAL (SINGLE FAMILY)	87		0.31	0.68	45	35	2.08	5	102.8	334.7	30 Sq. Ft.	min. slope		100 yr. storm
TYPE C & D SOIL RESIDENTIAL (SINGLE FAMILY)	1.2		0.48	0.73	18	15	3.51	7.37	1.9	6.5		min. slope		100 yr. storm
TYPE C & D SOIL RESIDENTIAL (SINGLE FAMILY)	2.8		0.50	0.78	33	19	2.52	6.68	3.5	14.2			L(1) = 15'	100 yr. storm
TYPE C & D SOIL RESIDENTIAL (SINGLE FAMILY)	1.0		0.48	0.73	21	15	3.25	7.37	1.5	5.4			L(1) = 5'	100 yr. storm
TYPE C & D SOIL RESIDENTIAL (SINGLE FAMILY)	5.4	3.6	0.50	0.78	38	25	2.32	5.90	6.3	24.2	24" RCP	min. slope		100 yr. storm
TYPE C & D SOIL RESIDENTIAL (SINGLE FAMILY)	1.5		0.48	0.73	21	15	3.25	7.37	2.2	8.1			L(1) = 10'	100 yr. storm
TYPE C & D SOIL RESIDENTIAL (SINGLE FAMILY)	10.7	10.7	0.49	0.75	36	30	2.28	5.4	12.0	43.3	36" Dia.	min. slope		100 yr. storm
TYPE C & D SOIL RESIDENTIAL (SINGLE FAMILY)	0.9		0.50	0.78	20	15	3.33	7.37	1.5	5.0	18" Dia.	min. slope		100 yr. storm
TYPE C & D SOIL RESIDENTIAL (SINGLE FAMILY)	3.8		0.50	0.78	33	22	2.52	6.28	4.9	18.4			L(1) = 20'	100 yr. storm
TYPE C & D SOIL RESIDENTIAL (SINGLE FAMILY)	1.0	4.6	0.50	0.78	33	22	2.52	6.28	6.0	22.8	27" Dia.	min. slope		100 yr. storm
TYPE C & D SOIL RESIDENTIAL (SINGLE FAMILY)	1.0		0.48	0.73	22	15	3.17	7.37	1.5	5.4			L(1) = 10'	100 yr. storm



PRELIMINARY DRAINAGE PLAN FOR PLAT PURPOSE TO PETITION AND MUST BE UPDATED OR REFINED DURING DESIGN PROCESS.

WOODLAND LAKE ESTATES
 PROJECT NAME

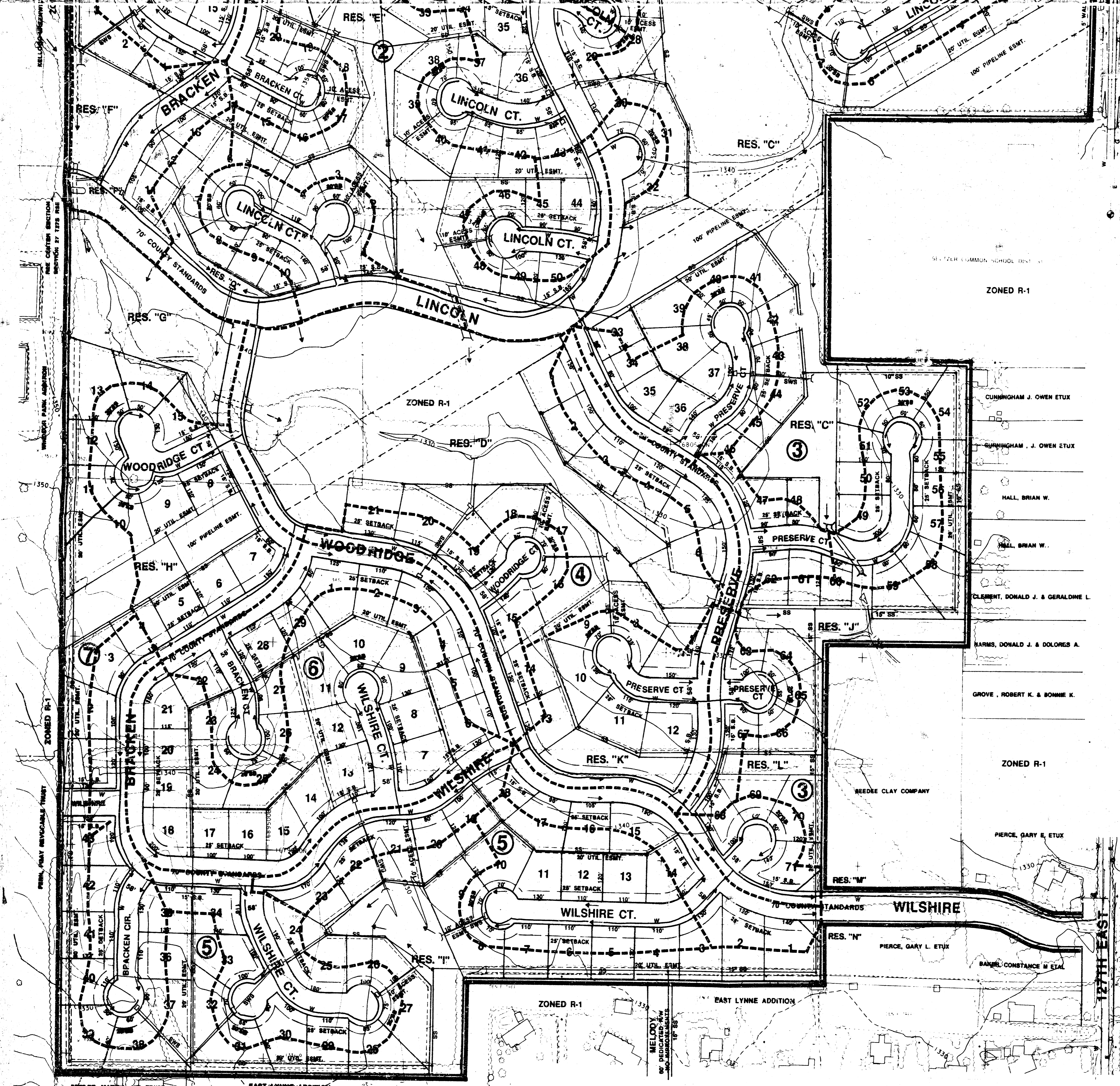
DRAINAGE & UTILITY PLAN
 SHEET TITLE

WIS KANSAS ENGINEERING CONSULTANTS, INC.
 411 N. WEBB ROAD
 WICHITA, KS. 67206
 316-684-9600

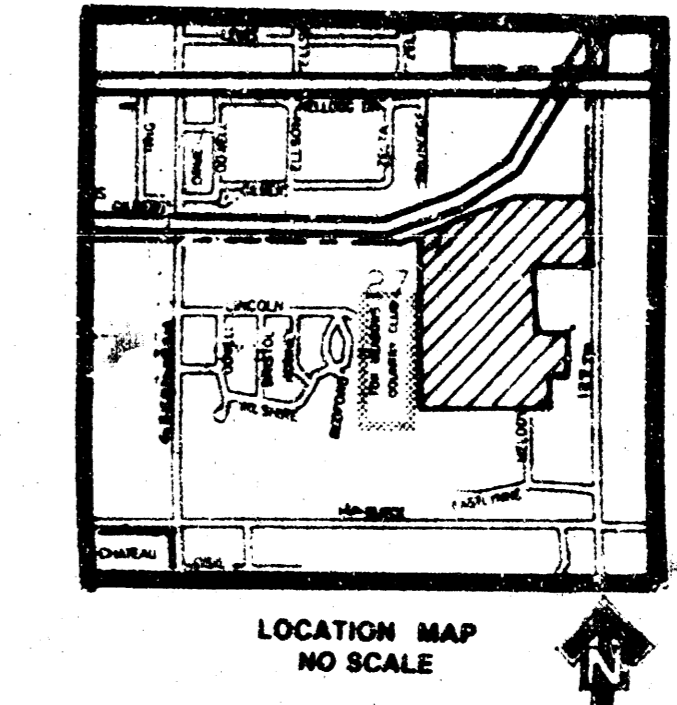
DATE: 11/22/95

DESIGNED BY: G.V.A.
 DRAWN BY: S.G.O.S.B.
 CHECKED BY: G.V.A./D.S.S.

SHEET NO: 1/1



- NOTES:**
- RESERVES J - L AND Q ALLOW DRAINAGE STRUCTURES, LAKE, RECREATIONAL EQUIPMENT, SWIMMING POOLS, GAZEBOS, CLUBHOUSE, WALKS, LIGHTING, LANDSCAPING, IRRIGATION, ENTRY AND PRIVATE WALKS AND UTILITIES CONFINED TO EASEMENTS.
 - RESERVES M - P ALLOW ENTRY WALLS, PROJECT SIGNS, LIGHTING, LANDSCAPING, IRRIGATION, AND UTILITIES CONFINED TO EASEMENTS.
 - MID-KANSAS ENGINEERING CORP. WILL PREPARE DRAINAGE PLANS AND UTILITY PLANS AND PROVIDE ENGINEERING.
 - SUGGESTED UTILITY EASEMENTS ARE SHOWN ON PLAN. FINAL LOCATION WILL BE INDICATED ON THE FINAL PLAN WHEN THE UTILITY SYSTEM IS DEFINED THROUGHOUT THE RESERVES AT FINAL PLAT.
 - TOPOGRAPHY PROVIDED BY M. J. HANCOCK ASSOCIATES, INC. DATE OF PHOTOGRAPHY - FEBRUARY 4, 1994 AT TWO FOOT CONTOUR INTERVALS.
 - FRONT YARD SETBACKS AT THE CURBLINE CUL-DE-SAC SHALL BE 20'. ALL OTHER FRONT YARD SETBACKS SHALL BE 25'. CORNER LOTS SHALL HAVE ONE (1) SIDE YARD SETBACK.

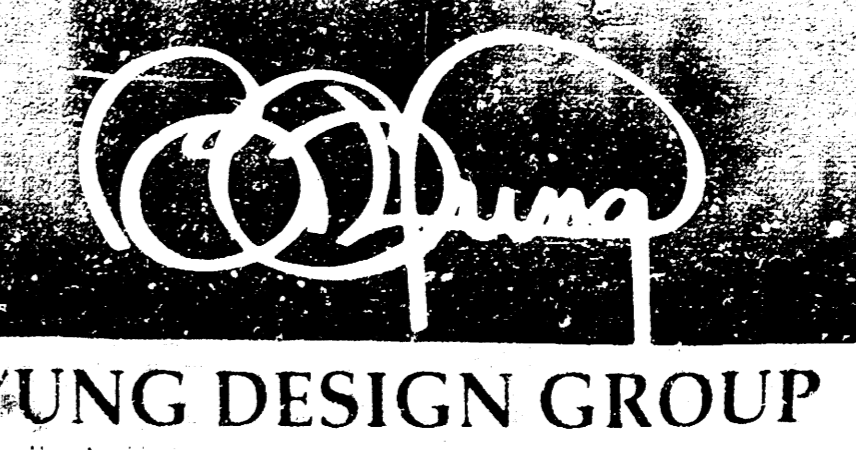


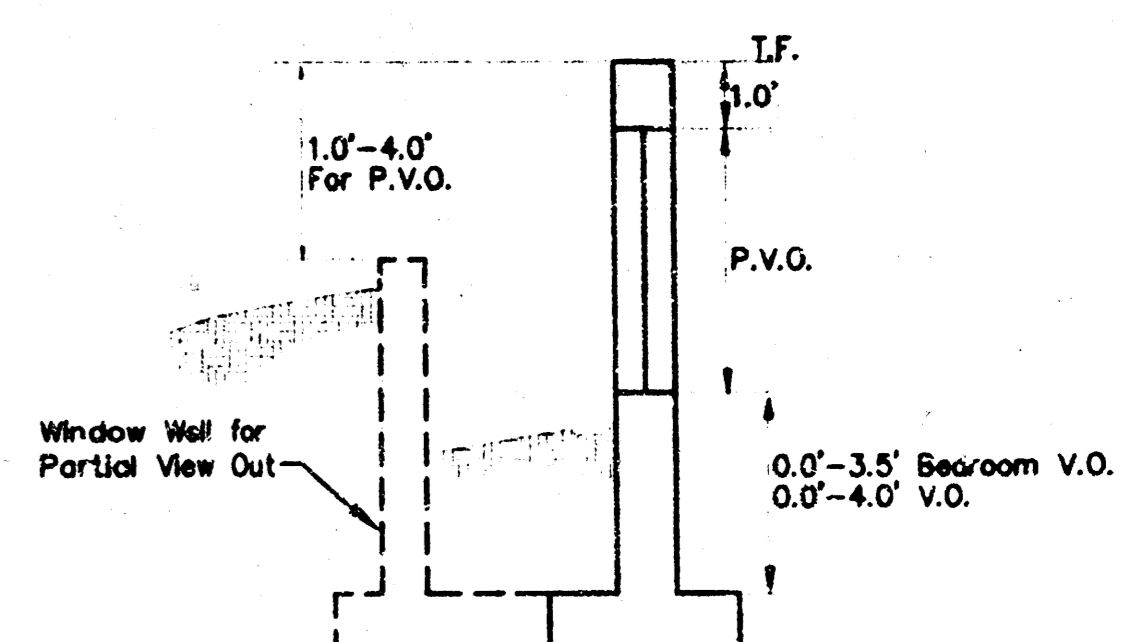
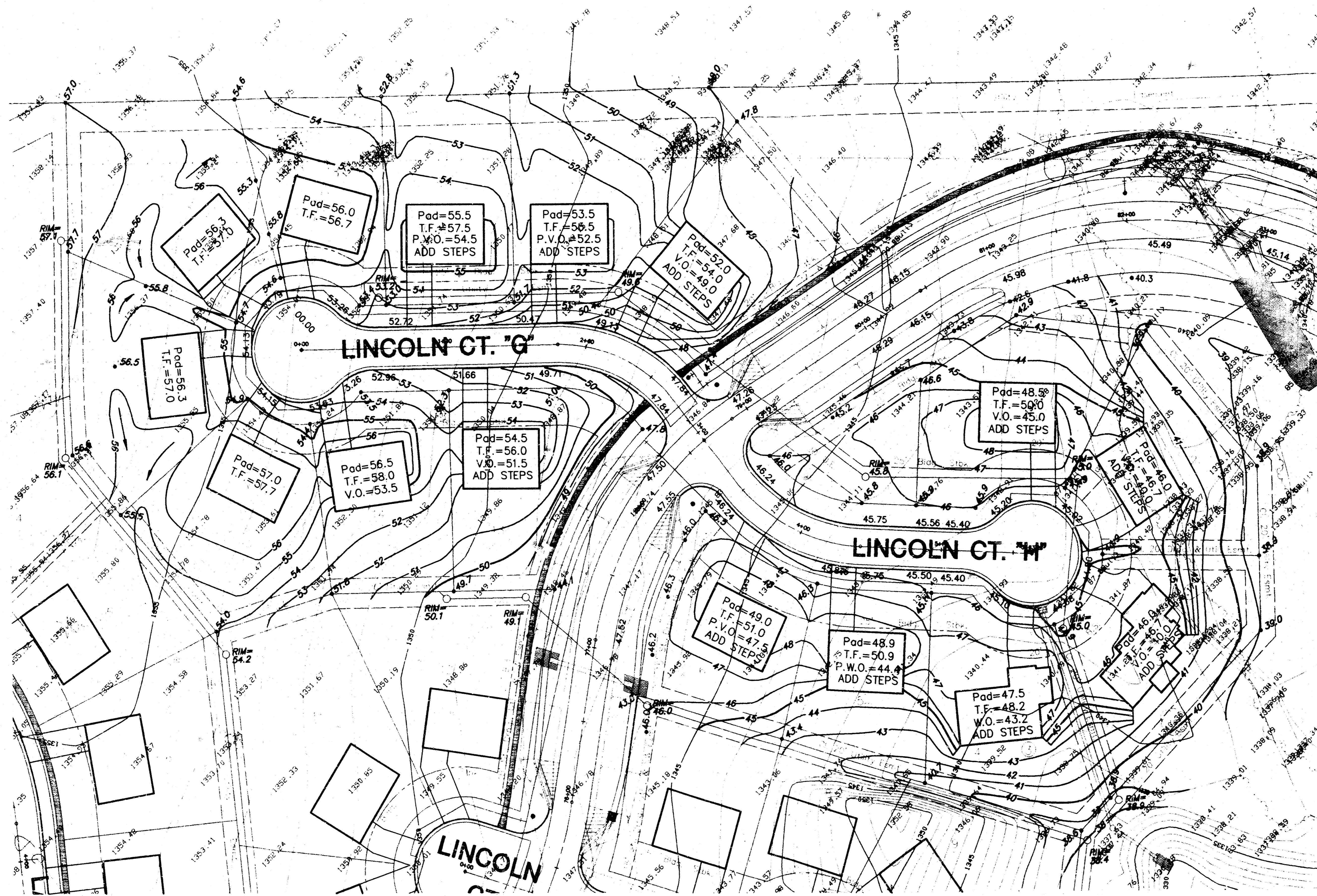
SCALE: 1" = 100'
CONTOUR INTERVAL = 2'
DATE: OCT. 19, 1995

MID-KANSAS ENGINEERING CONSULTANTS, INC.
411 N. WEBB ROAD
WICHITA, KS. 67206
316 - 684 - 9600

OWNER/SUBDIVIDER: LEEWOOD HOMES 3500 N. ROCK RD WICHITA, KS 67226
ENGINEER: MID-KANSAS ENGINEERING CONSULTANTS 411 N. WEBB RD WICHITA, KS 67206

PRELIMINARY PLAT DRAINAGE / UTILITY CONCEPT WOODLAND LAKES ESTATES





VIEW OUT & PARTIAL VIEW OUT DETAIL

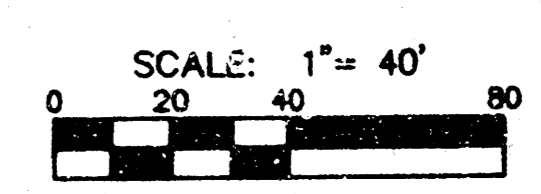
LEGEND

+47.5	Proposed Elevations
135.0	Existing Elevations
V.O.	Top of View Wall Elevation
T.F.	Top of Foundation
Pad	Elevation @ Garage Door Elevation
P.V.O. (See Note)	Partial View Wall Elevation
— 47 —	Proposed Contour
→	Flow Arrow

Note: P.V.O.'s may be V.O.'s depending on the number of steps added.

Builders shall drop siding or brick ledges or build a retaining wall to transition between properties.

APPROVED
GRADING PLAN



MINIMUM PAD ELEVATIONS			
Lowest opening			
Lot	Block	City Datum	USGS Datum
1	3	154.6	1342.0
2	3	154.6	1342.0
3	3	153.1	1340.5
4	3	153.1	1340.5

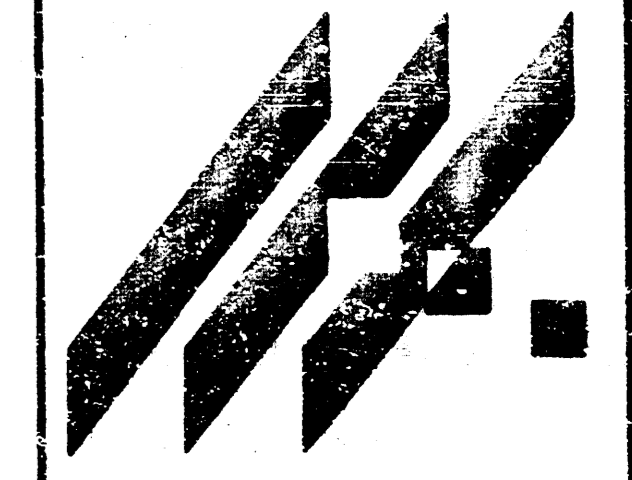
WOODLAND LAKES
ESTATES

PROJECT NAME
**GRADING PLAN
COURTS 'G' & 'H'**
DESIGN TITLE

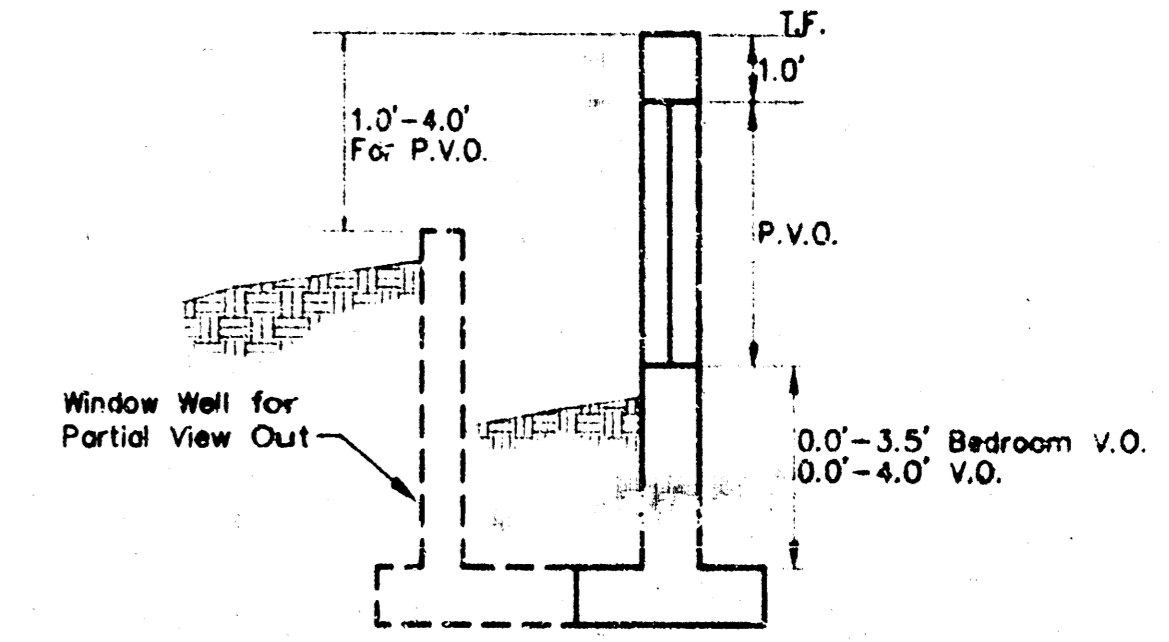
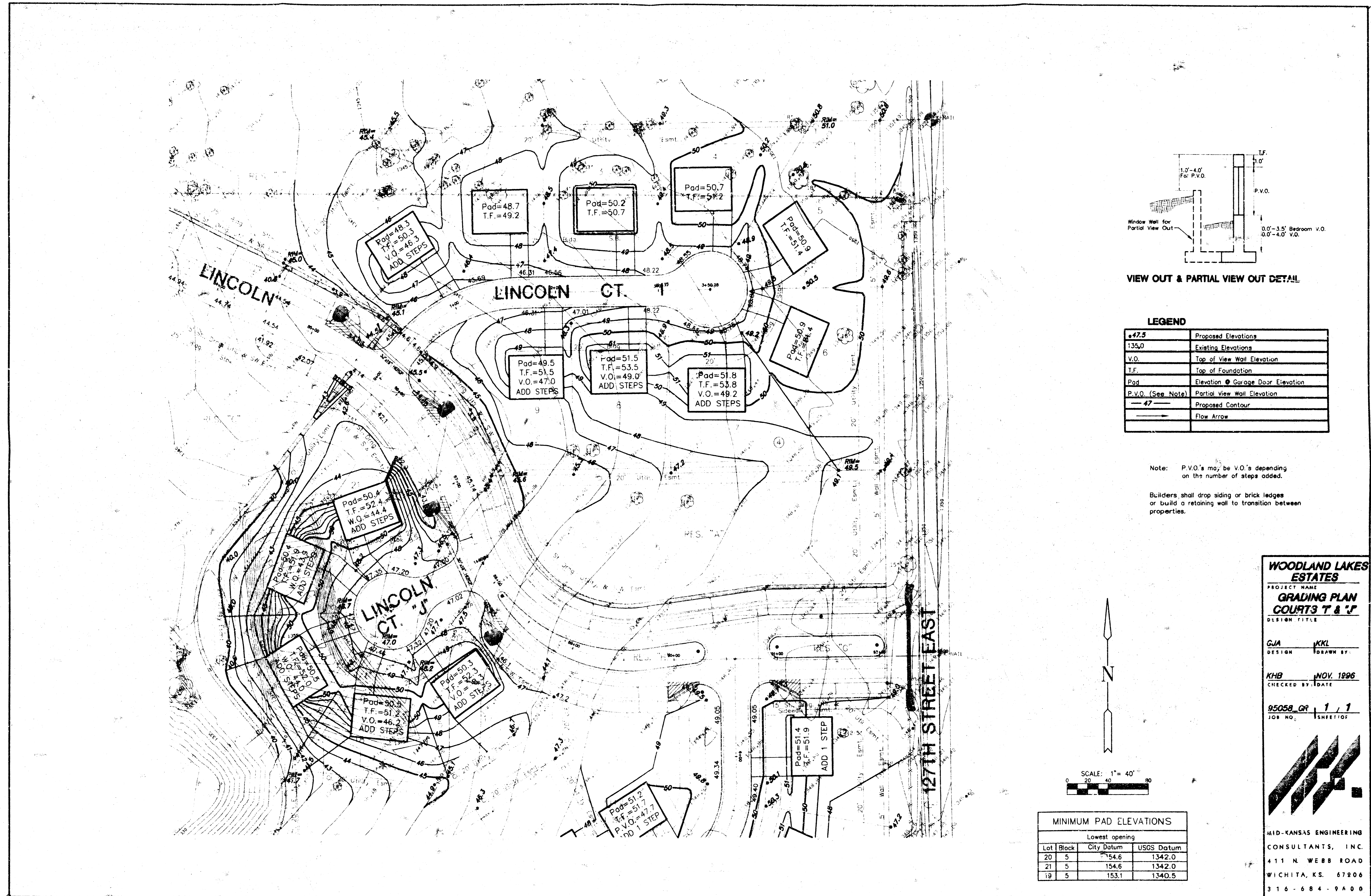
G/A DESIGN: KKL
DRAWN BY:

KHB NOV. 1996
CHECKED BY: DATE

95058 GR 1 / 1
JOB NO. SHEET OF



AID-KANSAS ENGINEERING
CONSULTANTS, INC.
411 N. WEBB ROAD
WICHITA, KS. 67206
316-684-9600



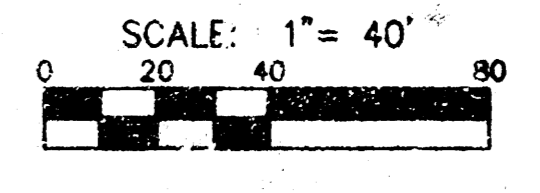
VIEW OUT & PARTIAL VIEW OUT DETAIL

LEGEND

•47.5	Proposed Elevations
135.0	Existing Elevations
V.O.	Top of View Wall Elevation
T.F.	Top of Foundation
Pad	Elevation @ Garage Door Elevation
P.V.O. (See Note)	Partial view Wall Elevation
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→	Flow Arrow

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MINIMUM PAD ELEVATIONS			
Lowest opening			
Lot	Block	City Datum	USGS Datum
20	5	154.6	1342.0
21	5	154.6	1342.0
19	5	153.1	1340.5

WOODLAND LAKES ESTATES
 PROJECT NAME
GRADING PLAN
COURTS T & J
 DESIGN TITLE

GJA DESIGN KKL DRAWN BY

KHB NOV. 1996 CHECKED BY: DATE

95058_OR 1/1 JOB NO. SHEET/OF

MID-KANSAS ENGINEERING CONSULTANTS, INC.
 411 N. WEBB ROAD
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 316-684-9400