

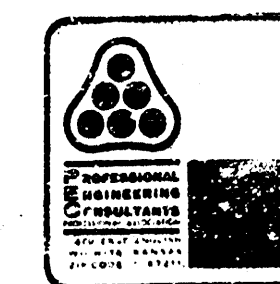
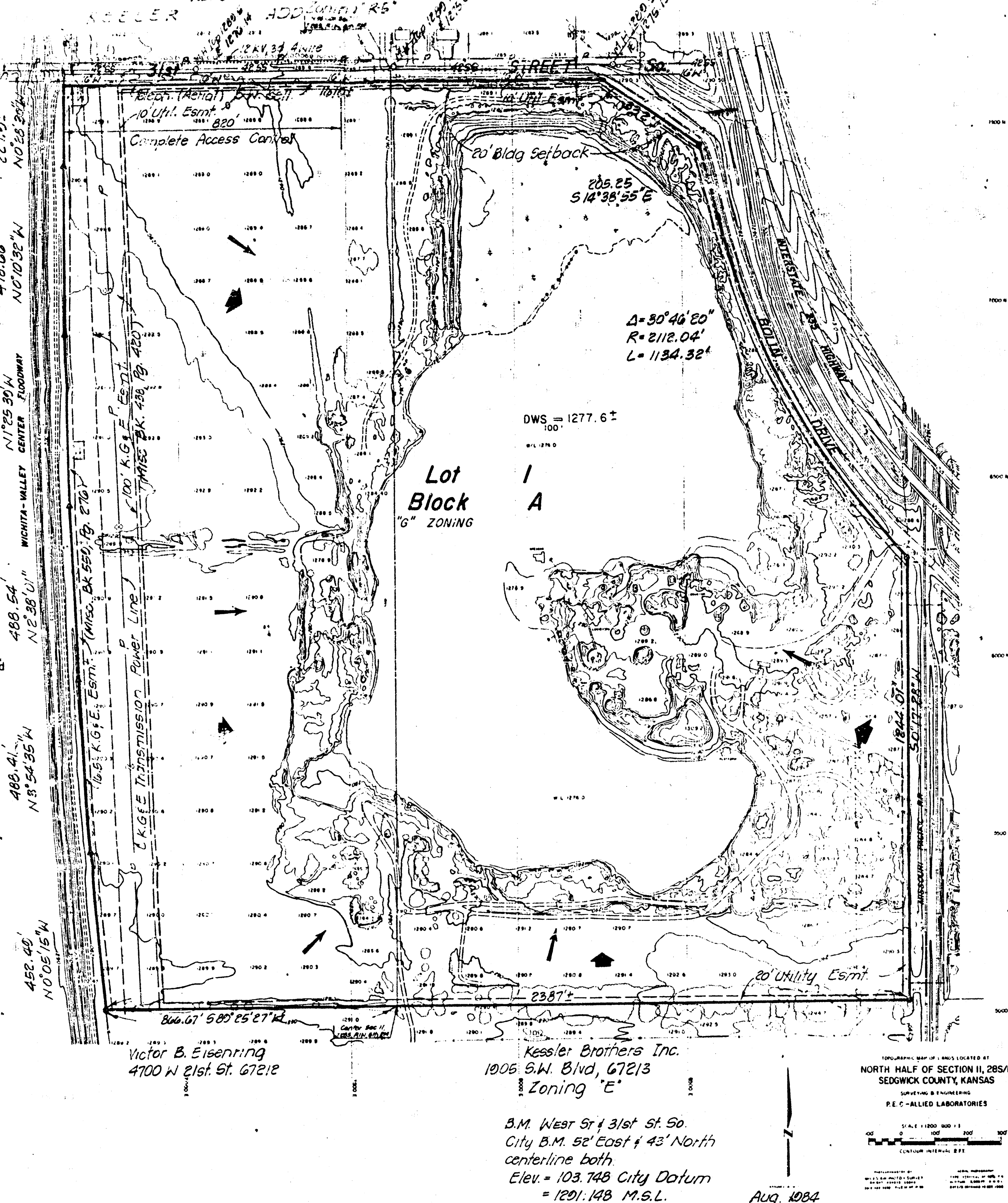
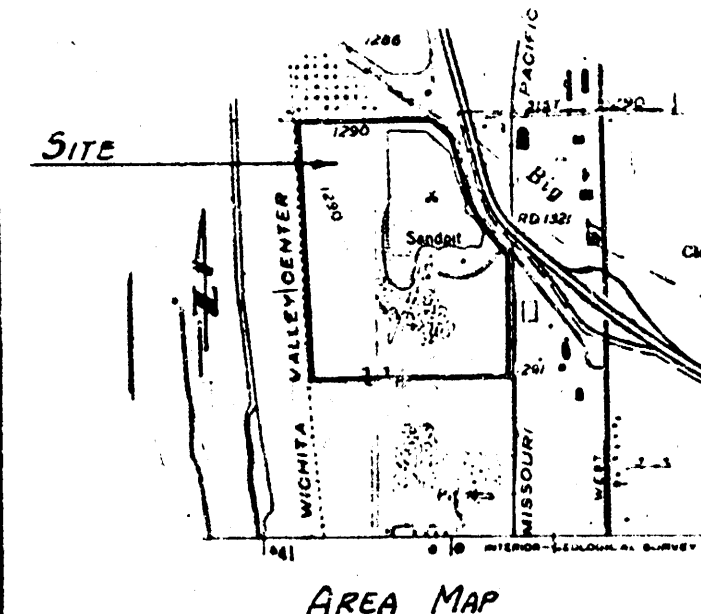
DRAINAGE PLAN **BIG LAKE ADDITION** WICHITA, SEDGWICK COUNTY, KANSAS.

OWNER:
RIVERSIDE MOBILE HOME PARK INC.
BOX 9090
WICHITA, KS. 67277

ENGINEER:
P.E.C. p.a.
1440 ENGLISH
WICHITA, KS. 67211

LEGEND
Drainage direction - Minor Storm
Drainage direction - Major Storm

NOTE: All internal run-off from Big Lake Addition shall be drained into the lake via private streets, flumes and/or storm sewer systems.
A 33" RCP Storm Sewer to be constructed in the south side of 31st St. beginning approximately 950' east of the NW corner of Big Lake Addition draining eastward to a point east of Bolin Drive.



MEMO

TO: The City of Wichita
Engineering Department
7th Floor - City Hall
455 North Main
Wichita, Kansas 67202

PROJECT NO. 36-84145-1738
PROJECT: Seneca Hills 2nd
DATE: November 3, 1984

COPIES TO:
Forrest Hagley, MAPD
File

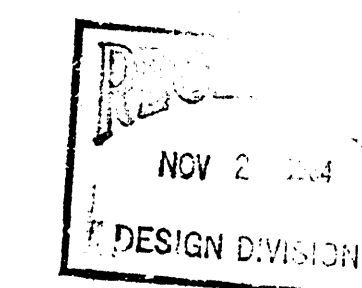
ATTN: Mr. Chris Breitenstein, P.E.
FROM: Charles S. Brown, P.E.
REFERENCE: Drainage Plan

PLEASE ADVISE IMMEDIATELY OF ANY MISCONCEPTIONS OR OMISSIONS YOU BELIEVE TO BE CONTAINED HEREIN.

Transmitted herewith are two (2) copies of the Drainage Plan for proposed Seneca Hills 2nd Addition to Wichita.

The Preliminary Plat was submitted on October 26, 1984, for hearing by the Subdivision Committee on November 8, 1984.

If you have any questions, please advise.



SENECA HILLS 2ND ADDITION
(Drainage)



Date: Dec 2, 1984 Page 1 of 1
Project: Seneca Hills 2nd Add'n
Item: Drainage

I. DETERMINE RISE IN POND WATER LEVEL
DUE TO 100 YR. STORM

ASSUME 1) 100YR - 24HR. STORM - RAINFALL = 7.8"
2) 100% RUNOFF & FLOODWAY
3) 70% RUNOFF ON DEVELOPABLE AREA OF LOT

VOLUME OF RUNOFF = $100\% \times 0.65' \times 7.8" = 4.81 \text{ AC-FT.}$
+ $70\% \times 0.65' \times 2.0" = 5.46 \text{ AC-FT.}$
TOTAL 10.27 AC-FT.

AREA OF POND = 7.4 AC

RISE IN WATER LEVEL = $\frac{10.27 \text{ AC-FT.}}{7.4 \text{ AC}} = 1.39'$

THIS RISE IS ACCEPTABLE SINCE THERE IS APPROXIMATELY 3' OF FREEBOARD FROM STATIC POOL TO TOP BANK.

C.S.B.
12-6-84



MEMO

TO: City of Wichita
455 N. Main
Wichita, KS 67202

PROJECT NO. 36-82381-1494
PROJECT: Big Lake Addition
DATE: November 27, 1984

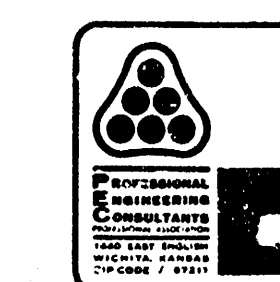
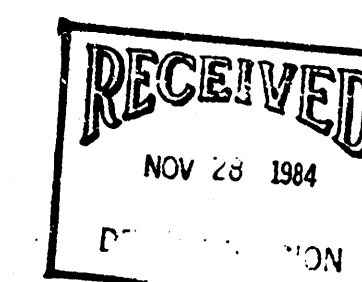
COPIES TO:
Forrest Hagley, MAPD
File

ATTN: Chris Breitenstein, P.E.
FROM: Charles S. Brown, P.E.
REFERENCE: Drainage Plan

PLEASE ADVISE IMMEDIATELY OF ANY MISCONCEPTIONS OR OMISSIONS YOU BELIEVE TO BE CONTAINED HEREIN.

Enclosed are two (2) copies of the Drainage Plan and supporting calculations for proposed Big Lake Addition to the City of Wichita, Kansas.

The Final Plat was submitted on November 21, 1984 for hearing by the Subdivision Committee on December 6, 1984.



Date: Nov. 26 '84 Page 1 of 2
Project: Big Lake Add'n
Item: Drainage

I. DETERMINE DWS₁₀₀ @ LAKE

Assume 50% runoff from residential area
100% runoff from lake

100 yr rainfall - 24 hr. duration = 7.8" = 0.65'
(from Tech. Paper No. 40 - U.S. Weather Bureau)

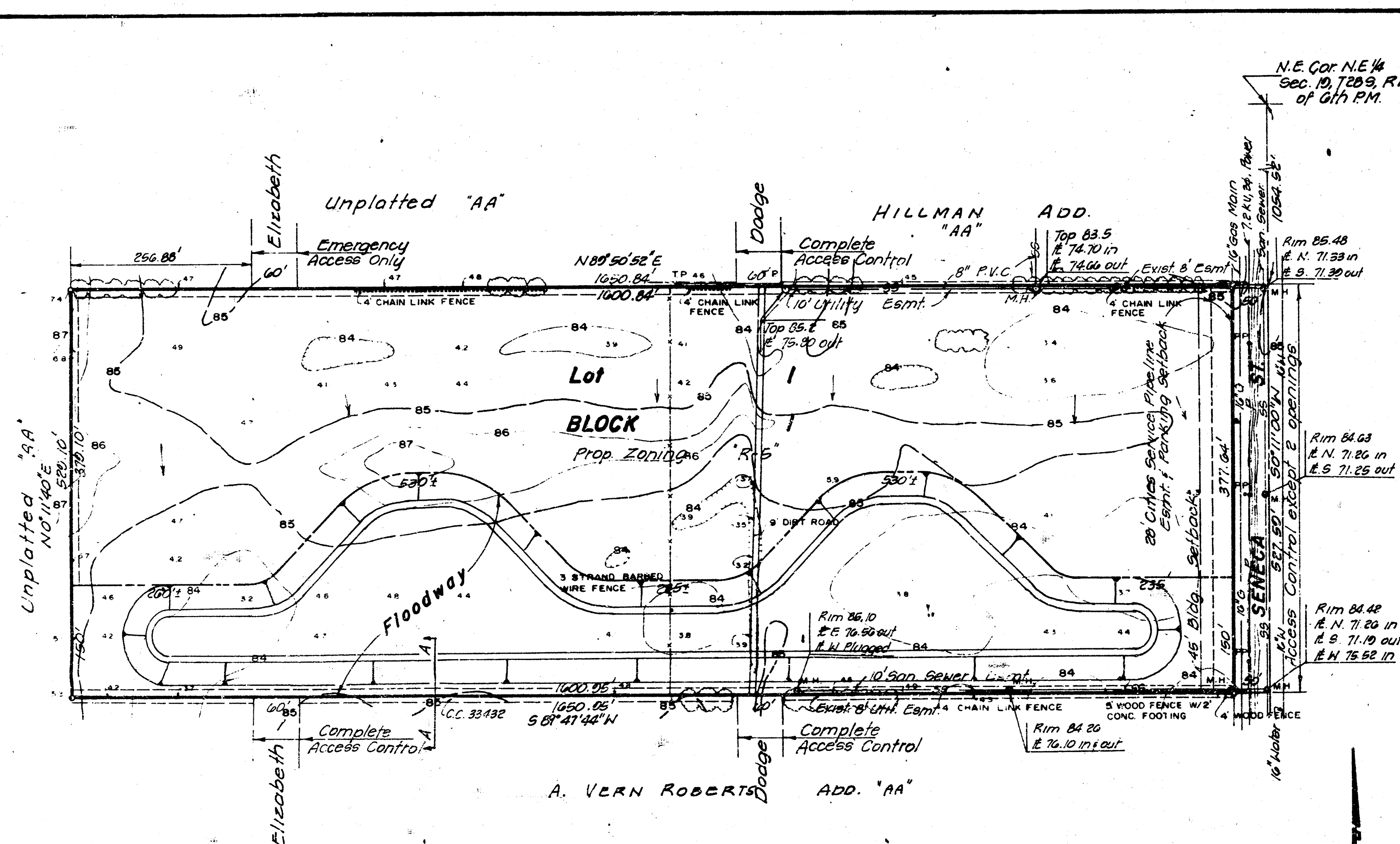
Total Volume of Runoff = $0.5 \times 0.65' \times 91.1 \text{ A} = 32.4'$
+ $1.0 \times 0.65' \times 35.8 \text{ A} = 23.2'$
135.74 55.74

= 55.74 AC-FT.

Area of Lake = 35.8 AC

Rise in Water level = $\frac{55.74 \text{ AC-FT.}}{35.8 \text{ AC}} = 1.6 \text{ FT.}$

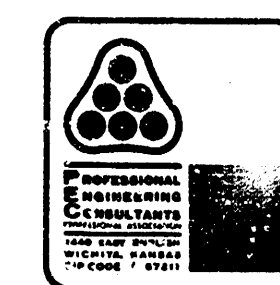
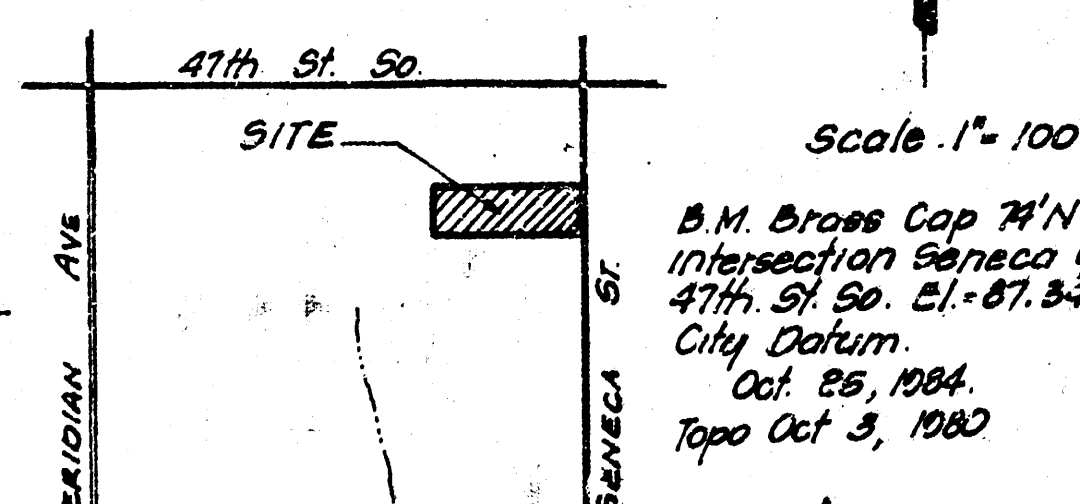
DWS₁₀₀ = Static Pool + 1.6'
= 1276.0 + 1.6
= 1277.6 ±



DRAINAGE PLAN of **SENECA HILLS 2nd ADDITION** WICHITA, SEDGWICK COUNTY, KANSAS.

Engineer: P.E.C. p.a.
1440 English, Wichita, KS. 67211
Owners: J. Boyd, T.W. Boyd & W.D. Wadley
128 So. Dellrose, Wichita, KS. 67218

NOTE: Lot 1 shall be graded to drain to prop floodway or streets, ditches or storm sewers via drives, flumes, private storm sewers and/or other approved drainage facilities.



Date: 11-26-84 Page 2 of 2
Project: Big Lake
Item:

II. Determine size of storm sewer along so. side of 31st St.

All runoff from Big Lake Add'n will drain into lake.

Storm sewer along 31st St. to intercept drainage from Keeler Addition in North. From Baughman & Co. side. $Q_2 = 24 \text{ cfs}$

Approx. street slope = 0.83%
Assume storm sewer slope to parallel st. = 0.3%

From attached graph required pipe = 33" RCP

Outlet pipe size may be refined, depending on actual hydraulics of Keeler Add'n storm sewer.

Existing 24" RCP culvert under Bolin to be abandoned or removed, with new outlet elev. lower to provide cover over new storm sewer.

