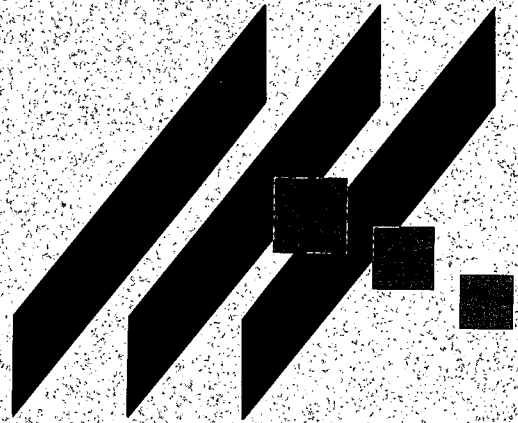


M K E C E N G I N E E R I N G C O N S U L T A N T S , I N C



DRAINAGE REPORT

FOR

THE WICHITA CLINIC ADDITION

AUGUST 2003

Drainage Report for the Wichita Clinic Addition Wichita, Sedgwick County, Kansas

Location

The subject property is in Wichita, Sedgwick County, Kansas. The proposed development is located south of 21st Street North and east of the K-96 Expressway. The Collective Addition is north of the site, Trinity Academy is East of the site, and an abandoned railroad track is south of the site. The site lies in the Northeast Quarter of Section 10, Township 27 South, Range 2 East. The dimensions of the property are approximately 1710 feet north to south and 860 feet east to west at the widest point. The area of the plat is 31.1 acres. The site is shown on the Andover, Kansas Quadrangle, located in Appendix A.

Soils

According to the NRCS (SCS) Sedgwick County Soil Survey in Appendix B, the soil on the site is silty loam. The site is comprised Irwin Silty Clay Loam, 1-6% slopes (1a & 1c - HSG "D") and a small portion of Elandco silt loam, occasionally flooded (Ec - HSG "B"). The Hydrological Soil Group (HSG) used to select runoff coefficients is "D".

Pre-developed Conditions

Current Development

The site is now zoned as residential. There are three houses on the site along with garages, gardens, ponds, and lagoons.

Current Landform and Slope

Slopes vary from 0.5% to 3.5%. The site drains to the south and west into the K-96 right-of-way. Elevations vary from 1372' in the northeast corner of the site to 1352' near the dense trees surrounding Fourmile Creek in southwest corner.

Current Drainage Conditions

According to the Federal Emergency Management Agency (FEMA), most of the site is in Zone C - areas of minimal flooding. Fourmile creek crosses the southwest corner of the site. Around Fourmile creek is Zone A5 (area of 100-year flooding with base flood elevation determined) and Zone B (Areas between 100-year flooding and 500-year flooding) (FIRM Panel 150, Wichita, Sedgwick County, Kansas, June 3, 1986) (shown in Appendix C).

Current Runoff Characteristics

Fourmile creek crosses the southwest corner of the site. Existing drainage patterns are shown in the drawing in Appendix D. The site is in a 52-acre watershed that drains to

the southwest into Fourmile Creek. The flow of Fourmile Creek is 5,470 cfs where the site enters the creek. The 31.1-acre site was analyzed under existing conditions using the rational method. The time of concentration (t_c) was calculated to be 15 minutes using the FAA method. Runoff coefficients were selected assuming 10% impervious area. Hydraflow Hydrographs by Intelisolve was used to calculate the runoff from the site under existing conditions using the rational method. Output is found in Appendix E. The total runoff from the site is 189.7 cfs in the 100-year event. Existing runoff values are found in Table 1.

Table 1. Existing Runoff.

| | 2-Year (cfs) | 5-Year (cfs) | 10-Year (cfs) | 100-Year (cfs) |
|-------------------------|-----------------|-----------------|------------------|-------------------|
| Wichita Clinic Addition | 57.7 | 143.0 | 167.8 | 189.7 |

Developed Conditions

Proposed Development

The site will develop as a medical office facility. There will be office buildings, parking lots, and a pond with a surface area of approximately 2.5 acres. The southwest corner of the site will be designated as a floodway reserve. The proposed site is shown in the Drainage and Utility Plan in Appendix F.

Proposed Landform and Slope

Final slopes in the development have not been determined, but the minimum will be 0.5%. The lot-grading plan is shown in Appendix G.

Proposed Runoff Characteristics

The 31.1-acre site was again analyzed using the rational method for proposed conditions. The time of concentration (t_c) was calculated to be 15 minutes for the medical facility using the FAA method. Runoff curve numbers were selected assuming 85% impervious area. Hydraflow Hydrographs used the rational method to determine runoff from the developed site, output is in Appendix E. The total runoff from the site is 226.8 cfs in the 100-year event. Proposed runoff values are found in Table 2. A proposed pond will be designed to detain excess runoff generated by the development. A proposed pond was modeled in Hydraflow Hydrographs to determine the storage necessary to reduce the peak 100-year outflow to match existing conditions. The pond provides 2.526 ac-ft of storage and reduces the peak 100-year flow to 183.9 cfs. Runoff from the site after routing through the pond is shown in Table 2.

Underground storm sewer will be required to capture runoff in parking lot areas. The storm sewer will convey runoff into the proposed detention pond. Final storm sewer location and size has not yet been determined. Storm sewer will be sized to contain the 5-year design storm.

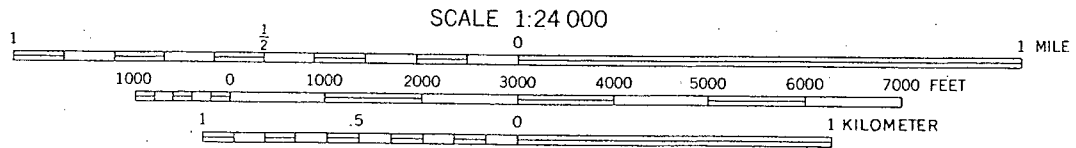
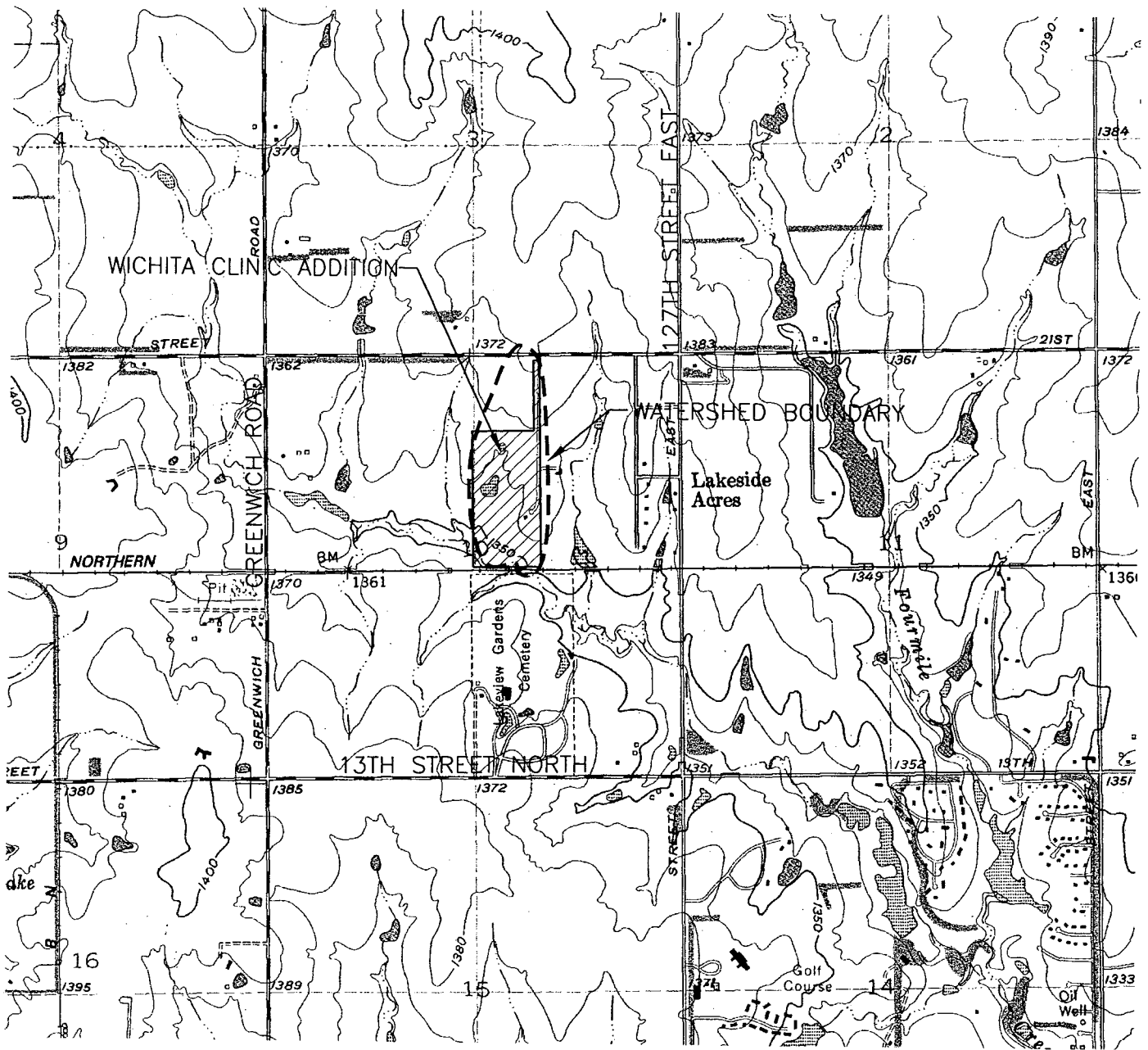
Table 2. Developed Runoff.

| | 2-Year (cfs) | 5-Year (cfs) | 10-Year (cfs) | 100-Year (cfs) |
|----------------------------------|-----------------|-----------------|------------------|-------------------|
| Wichita Clinic Addition | 96.2 | 181.7 | 205.8 | 226.8 |
| Detained Wichita Clinic Addition | 72.0 | 145.0 | 165.7 | 183.9 |

Summary

Wichita Clinic Addition is a proposed medical facility located at 21st Street North and K-96. The site will cover 31 acres and consist of buildings, parking lots, and a pond. Peak runoff will increase from 189.7 to 226 cfs during the 100-year design event. The proposed pond will provide detention for the site. Approximately 2.5 ac-ft of storage will provide the necessary detention to reduce the peak outflow below existing conditions. After routing through the pond, peak runoff will be 183.9 cfs in the 100-year design event.

APPENDIX A
QUADRANGLE MAP



CONTOUR INTERVAL 5 FEET
 NATIONAL GEODETIC VERTICAL DATUM OF 1929



MKEC
 ENGINEERING
 CONSULTANTS
 411 N. WEBB ROAD
 WICHITA, KS. 67206
 316 - 264 - 6400

WICHITA CLINIC ADDITION
 PROJECT NAME

ANDOVER, KANSAS QUADRANGLE
 SHEET TITLE

KLA DESIGN BY: **DMU** DRAWN BY: **GJA** CHECKED BY:

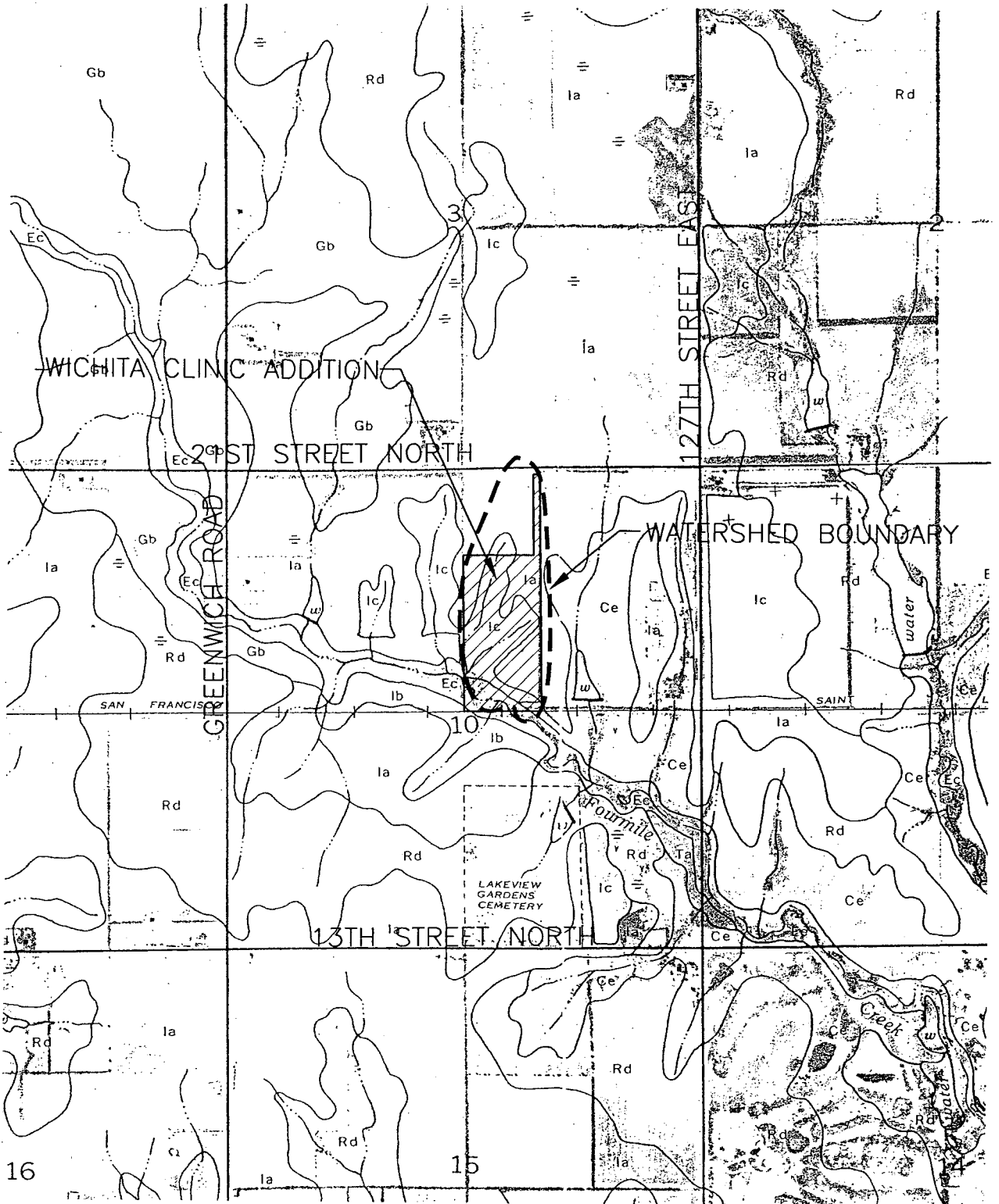
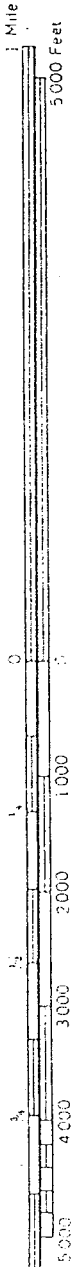
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APPENDIX B

SOIL SURVEY

36



MKEC
ENGINEERING
CONSULTANTS
411 N. WEBB ROAD
WICHITA, KS. 67206
316 - 684 - 0000

WICHITA CLINIC ADDITION

PROJECT NAME

**SOIL SURVEY
SEDGWICK COUNTY, KANSAS**

SHEET TITLE

KLA

DESIGN BY:

DMU

DRAWN BY:

GJA

CHECKED BY:

AUGUST 2003

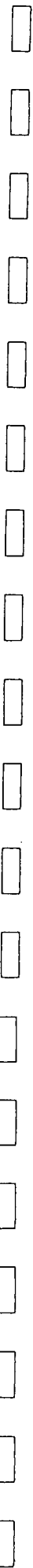
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APPENDIX C

FIRM



APPENDIX D

EXISTING DRAINAGE CONDITIONS

APPENDIX E

HYDRAFLOW HYDROGRAPH OUTPUT

Hydrograph Return Period Recap

| Hyd. No. | Hydrograph type (origin) | Inflow Hyd(s) | Peak Outflow (cfs) | | | | | | | | Hydrograph description | |
|----------|--------------------------|---------------|--------------------|-------|------|------|-------|-------|--------|--------|------------------------|-------------------------|
| | | | 1-Yr | 2-Yr | 3-Yr | 5-Yr | 10-Yr | 25-Yr | 50-Yr | 100-Yr | | |
| 1 | SCS Runoff | --- | --- | 57.69 | --- | --- | --- | --- | 142.95 | 167.84 | 189.66 | Existing Wichita Clinic |
| 2 | SCS Runoff | --- | --- | 96.15 | --- | --- | --- | --- | 181.73 | 205.78 | 226.77 | Proposed Wichita Clinic |
| 3 | Reservoir | 2 | --- | 72.02 | --- | --- | --- | --- | 144.99 | 165.73 | 183.89 | Pond Wizard Design |

Hydrograph Summary Report

| Hyd. No. | Hydrograph type (origin) | Peak flow (cfs) | Time interval (min) | Time to peak (min) | Volume (acft) | Inflow hyd(s) | Maximum elevation (ft) | Maximum storage (acft) | Hydrograph description |
|----------|--------------------------|-----------------|---------------------|--------------------|---------------|---------------|------------------------|------------------------|-------------------------|
| 1 | SCS Runoff | 189.66 | 6 | 720 | 13.494 | --- | --- | --- | Existing Wichita Clinic |
| 2 | SCS Runoff | 226.77 | 6 | 720 | 17.499 | --- | --- | --- | Proposed Wichita Clinic |
| 3 | Reservoir | 183.89 | 6 | 726 | 17.499 | 2 | 3.12 | 2.526 | Pond Wizard Design |

Hydrograph Report

Hyd. No. 1

Existing Wichita Clinic

| | | | |
|-----------------|--------------|--------------------|--------------|
| Hydrograph type | = SCS Runoff | Peak discharge | = 189.66 cfs |
| Storm frequency | = 100 yrs | Time interval | = 6 min |
| Drainage area | = 31.10 ac | Curve number | = 81 |
| Basin Slope | = 0.0 % | Hydraulic length | = 0 ft |
| Tc method | = USER | Time of conc. (Tc) | = 15 min |
| Total precip. | = 7.80 in | Distribution | = Type II |
| Storm duration | = 24 hrs | Shape factor | = 484 |

Hydrograph Volume = 13.494 acft

Hydrograph Discharge Table

| Time -- Outflow (hrs cfs) | Time -- Outflow (hrs cfs) | Time -- Outflow (hrs cfs) | Time -- Outflow (hrs cfs) |
|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| 8.50 1.92 | 11.90 132.76 | 15.30 6.19 | 18.70 3.58 |
| 8.60 2.05 | 12.00 189.66 << | 15.40 6.04 | 18.80 3.53 |
| 8.70 2.19 | 12.10 172.17 | 15.50 5.90 | 18.90 3.47 |
| 8.80 2.33 | 12.20 108.29 | 15.60 5.75 | 19.00 3.42 |
| 8.90 2.48 | 12.30 55.47 | 15.70 5.60 | 19.10 3.37 |
| 9.00 2.63 | 12.40 31.19 | 15.80 5.46 | 19.20 3.31 |
| 9.10 2.78 | 12.50 26.59 | 15.90 5.31 | 19.30 3.26 |
| 9.20 2.90 | 12.60 22.31 | 16.00 5.16 | 19.40 3.21 |
| 9.30 3.00 | 12.70 19.09 | 16.10 5.03 | 19.50 3.15 |
| 9.40 3.07 | 12.80 17.07 | 16.20 4.92 | 19.60 3.10 |
| 9.50 3.14 | 12.90 15.77 | 16.30 4.84 | 19.70 3.05 |
| 9.60 3.23 | 13.00 14.71 | 16.40 4.78 | 19.80 3.00 |
| 9.70 3.36 | 13.10 13.69 | 16.50 4.73 | 19.90 2.94 |
| 9.80 3.55 | 13.20 12.83 | 16.60 4.68 | 20.00 2.89 |
| 9.90 3.78 | 13.30 12.12 | 16.70 4.63 | 20.10 2.84 |
| 10.00 4.03 | 13.40 11.51 | 16.80 4.57 | 20.20 2.80 |
| 10.10 4.30 | 13.50 10.94 | 16.90 4.52 | 20.30 2.78 |
| 10.20 4.60 | 13.60 10.37 | 17.00 4.47 | 20.40 2.77 |
| 10.30 4.95 | 13.70 9.86 | 17.10 4.42 | 20.50 2.76 |
| 10.40 5.32 | 13.80 9.41 | 17.20 4.37 | 20.60 2.75 |
| 10.50 5.72 | 13.90 8.98 | 17.30 4.31 | 20.70 2.74 |
| 10.60 6.14 | 14.00 8.56 | 17.40 4.26 | 20.80 2.73 |
| 10.70 6.65 | 14.10 8.18 | 17.50 4.21 | 20.90 2.72 |
| 10.80 7.24 | 14.20 7.87 | 17.60 4.16 | 21.00 2.71 |
| 10.90 7.89 | 14.30 7.65 | 17.70 4.10 | 21.10 2.70 |
| 11.00 8.59 | 14.40 7.49 | 17.80 4.05 | 21.20 2.69 |
| 11.10 9.10 | 14.50 7.35 | 17.90 4.00 | 21.30 2.68 |
| 11.20 9.88 | 14.60 7.20 | 18.00 3.95 | 21.40 2.67 |
| 11.30 11.43 | 14.70 7.06 | 18.10 3.89 | 21.50 2.66 |
| 11.40 13.20 | 14.80 6.92 | 18.20 3.84 | 21.60 2.64 |
| 11.50 15.10 | 14.90 6.77 | 18.30 3.79 | 21.70 2.63 |
| 11.60 20.81 | 15.00 6.63 | 18.40 3.74 | 21.80 2.62 |
| 11.70 38.07 | 15.10 6.48 | 18.50 3.68 | 21.90 2.61 |
| 11.80 71.29 | 15.20 6.34 | 18.60 3.63 | 22.00 2.60 |

Continues on next page...

Hydrograph Discharge Table

**Time -- Outflow
(hrs cfs)**

| | |
|-------|------|
| 22.10 | 2.59 |
| 22.20 | 2.58 |
| 22.30 | 2.57 |
| 22.40 | 2.56 |
| 22.50 | 2.55 |
| 22.60 | 2.54 |
| 22.70 | 2.53 |
| 22.80 | 2.52 |
| 22.90 | 2.51 |
| 23.00 | 2.50 |
| 23.10 | 2.49 |
| 23.20 | 2.48 |
| 23.30 | 2.47 |
| 23.40 | 2.46 |
| 23.50 | 2.45 |
| 23.60 | 2.44 |
| 23.70 | 2.43 |
| 23.80 | 2.41 |
| 23.90 | 2.40 |
| 24.00 | 2.39 |
| 24.10 | 1.91 |

...End

Hydrograph Report

Hyd. No. 2

Proposed Wichita Clinic

| | | | |
|-----------------|--------------|--------------------|--------------|
| Hydrograph type | = SCS Runoff | Peak discharge | = 226.77 cfs |
| Storm frequency | = 100 yrs | Time interval | = 6 min |
| Drainage area | = 31.10 ac | Curve number | = 95 |
| Basin Slope | = 0.0 % | Hydraulic length | = 0 ft |
| Tc method | = USER | Time of conc. (Tc) | = 15 min |
| Total precip. | = 7.80 in | Distribution | = Type II |
| Storm duration | = 24 hrs | Shape factor | = 484 |

Hydrograph Volume = 17.499 acft

Hydrograph Discharge Table

| Time -- Outflow | Time -- Outflow | Time -- Outflow | Time -- Outflow |
|-----------------|-----------------|---------------------|-----------------|
| (hrs cfs) | (hrs cfs) | (hrs cfs) | (hrs cfs) |
| 5.00 2.33 | 8.40 4.75 | 11.80 94.45 | 15.20 6.81 |
| 5.10 2.39 | 8.50 4.97 | 11.90 165.83 | 15.30 6.66 |
| 5.20 2.46 | 8.60 5.19 | 12.00 226.77 << | 15.40 6.50 |
| 5.30 2.52 | 8.70 5.42 | 12.10 200.41 | 15.50 6.34 |
| 5.40 2.59 | 8.80 5.64 | 12.20 123.72 | 15.60 6.18 |
| 5.50 2.65 | 8.90 5.87 | 12.30 62.02 | 15.70 6.02 |
| 5.60 2.71 | 9.00 6.09 | 12.40 34.48 | 15.80 5.86 |
| 5.70 2.78 | 9.10 6.30 | 12.50 29.31 | 15.90 5.70 |
| 5.80 2.84 | 9.20 6.45 | 12.60 24.53 | 16.00 5.54 |
| 5.90 2.90 | 9.30 6.53 | 12.70 20.94 | 16.10 5.39 |
| 6.00 2.97 | 9.40 6.56 | 12.80 18.69 | 16.20 5.27 |
| 6.10 3.03 | 9.50 6.59 | 12.90 17.24 | 16.30 5.19 |
| 6.20 3.09 | 9.60 6.64 | 13.00 16.06 | 16.40 5.12 |
| 6.30 3.15 | 9.70 6.80 | 13.10 14.94 | 16.50 5.07 |
| 6.40 3.22 | 9.80 7.06 | 13.20 13.97 | 16.60 5.01 |
| 6.50 3.28 | 9.90 7.40 | 13.30 13.19 | 16.70 4.95 |
| 6.60 3.34 | 10.00 7.76 | 13.40 12.52 | 16.80 4.90 |
| 6.70 3.40 | 10.10 8.13 | 13.50 11.88 | 16.90 4.84 |
| 6.80 3.46 | 10.20 8.56 | 13.60 11.26 | 17.00 4.78 |
| 6.90 3.52 | 10.30 9.05 | 13.70 10.70 | 17.10 4.72 |
| 7.00 3.58 | 10.40 9.58 | 13.80 10.19 | 17.20 4.67 |
| 7.10 3.64 | 10.50 10.11 | 13.90 9.72 | 17.30 4.61 |
| 7.20 3.70 | 10.60 10.69 | 14.00 9.27 | 17.40 4.55 |
| 7.30 3.76 | 10.70 11.37 | 14.10 8.84 | 17.50 4.50 |
| 7.40 3.82 | 10.80 12.17 | 14.20 8.51 | 17.60 4.44 |
| 7.50 3.88 | 10.90 13.05 | 14.30 8.27 | 17.70 4.38 |
| 7.60 3.94 | 11.00 13.95 | 14.40 8.09 | 17.80 4.33 |
| 7.70 4.00 | 11.10 14.54 | 14.50 7.93 | 17.90 4.27 |
| 7.80 4.06 | 11.20 15.50 | 14.60 7.77 | 18.00 4.21 |
| 7.90 4.12 | 11.30 17.60 | 14.70 7.61 | 18.10 4.16 |
| 8.00 4.18 | 11.40 19.96 | 14.80 7.45 | 18.20 4.10 |
| 8.10 4.25 | 11.50 22.41 | 14.90 7.29 | 18.30 4.04 |
| 8.20 4.37 | 11.60 30.05 | 15.00 7.13 | 18.40 3.98 |
| 8.30 4.55 | 11.70 52.88 | 15.10 6.97 | 18.50 3.93 |

Continues on next page...

Hydrograph Discharge Table

| Time -- | Outflow | Time -- | Outflow |
|----------------|----------------|----------------|----------------|
| (hrs | cfs) | (hrs | cfs) |
| 18.60 | 3.87 | 23.70 | 2.57 |
| 18.70 | 3.81 | 23.80 | 2.56 |
| 18.80 | 3.76 | 23.90 | 2.54 |
| 18.90 | 3.70 | 24.00 | 2.53 |
| 19.00 | 3.64 | | |
| 19.10 | 3.59 | | |
| 19.20 | 3.53 | ...End | |
| 19.30 | 3.47 | | |
| 19.40 | 3.41 | | |
| 19.50 | 3.36 | | |
| 19.60 | 3.30 | | |
| 19.70 | 3.24 | | |
| 19.80 | 3.19 | | |
| 19.90 | 3.13 | | |
| 20.00 | 3.07 | | |
| 20.10 | 3.02 | | |
| 20.20 | 2.98 | | |
| 20.30 | 2.96 | | |
| 20.40 | 2.94 | | |
| 20.50 | 2.93 | | |
| 20.60 | 2.92 | | |
| 20.70 | 2.91 | | |
| 20.80 | 2.90 | | |
| 20.90 | 2.89 | | |
| 21.00 | 2.87 | | |
| 21.10 | 2.86 | | |
| 21.20 | 2.85 | | |
| 21.30 | 2.84 | | |
| 21.40 | 2.83 | | |
| 21.50 | 2.82 | | |
| 21.60 | 2.81 | | |
| 21.70 | 2.79 | | |
| 21.80 | 2.78 | | |
| 21.90 | 2.77 | | |
| 22.00 | 2.76 | | |
| 22.10 | 2.75 | | |
| 22.20 | 2.74 | | |
| 22.30 | 2.73 | | |
| 22.40 | 2.72 | | |
| 22.50 | 2.70 | | |
| 22.60 | 2.69 | | |
| 22.70 | 2.68 | | |
| 22.80 | 2.67 | | |
| 22.90 | 2.66 | | |
| 23.00 | 2.65 | | |
| 23.10 | 2.64 | | |
| 23.20 | 2.62 | | |
| 23.30 | 2.61 | | |
| 23.40 | 2.60 | | |
| 23.50 | 2.59 | | |
| 23.60 | 2.58 | | |

Hydrograph Report

Hyd. No. 3

Pond Wizard Design

Hydrograph type = Reservoir
 Storm frequency = 100 yrs
 Inflow hyd. No. = 2
 Max. Elevation = 3.12 ft

Peak discharge = 183.89 cfs
 Time interval = 6 min
 Reservoir name = Pond Wizard Desig
 Max. Storage = 2.526 acft

Storage Indication method used.

Outflow hydrograph volume = 17.499 acft

Hydrograph Discharge Table

| Time (hrs) | Inflow cfs | Elevation ft | Clv A cfs | Clv B cfs | Clv C cfs | Clv D cfs | Wr A cfs | Wr B cfs | Wr C cfs | Wr D cfs | Exfil cfs | Outflow cfs |
|------------|------------|--------------|-----------|-----------|-----------|-----------|----------|----------|----------|----------|-----------|-------------|
| 4.80 | 2.20 | 0.15 | ---- | ---- | ---- | ---- | 1.90 | ---- | ---- | ---- | ---- | 1.90 |
| 4.90 | 2.27 | 0.15 | ---- | ---- | ---- | ---- | 1.96 | ---- | ---- | ---- | ---- | 1.96 |
| 5.00 | 2.33 | 0.15 | ---- | ---- | ---- | ---- | 2.03 | ---- | ---- | ---- | ---- | 2.03 |
| 5.10 | 2.39 | 0.16 | ---- | ---- | ---- | ---- | 2.09 | ---- | ---- | ---- | ---- | 2.09 |
| 5.20 | 2.46 | 0.16 | ---- | ---- | ---- | ---- | 2.16 | ---- | ---- | ---- | ---- | 2.16 |
| 5.30 | 2.52 | 0.16 | ---- | ---- | ---- | ---- | 2.23 | ---- | ---- | ---- | ---- | 2.23 |
| 5.40 | 2.59 | 0.17 | ---- | ---- | ---- | ---- | 2.30 | ---- | ---- | ---- | ---- | 2.30 |
| 5.50 | 2.65 | 0.17 | ---- | ---- | ---- | ---- | 2.37 | ---- | ---- | ---- | ---- | 2.37 |
| 5.60 | 2.71 | 0.17 | ---- | ---- | ---- | ---- | 2.44 | ---- | ---- | ---- | ---- | 2.44 |
| 5.70 | 2.78 | 0.18 | ---- | ---- | ---- | ---- | 2.51 | ---- | ---- | ---- | ---- | 2.51 |
| 5.80 | 2.84 | 0.18 | ---- | ---- | ---- | ---- | 2.57 | ---- | ---- | ---- | ---- | 2.57 |
| 5.90 | 2.90 | 0.18 | ---- | ---- | ---- | ---- | 2.64 | ---- | ---- | ---- | ---- | 2.64 |
| 6.00 | 2.97 | 0.19 | ---- | ---- | ---- | ---- | 2.70 | ---- | ---- | ---- | ---- | 2.70 |
| 6.10 | 3.03 | 0.19 | ---- | ---- | ---- | ---- | 2.77 | ---- | ---- | ---- | ---- | 2.77 |
| 6.20 | 3.09 | 0.19 | ---- | ---- | ---- | ---- | 2.83 | ---- | ---- | ---- | ---- | 2.83 |
| 6.30 | 3.15 | 0.20 | ---- | ---- | ---- | ---- | 2.89 | ---- | ---- | ---- | ---- | 2.89 |
| 6.40 | 3.22 | 0.20 | ---- | ---- | ---- | ---- | 2.96 | ---- | ---- | ---- | ---- | 2.96 |
| 6.50 | 3.28 | 0.20 | ---- | ---- | ---- | ---- | 3.02 | ---- | ---- | ---- | ---- | 3.02 |
| 6.60 | 3.34 | 0.20 | ---- | ---- | ---- | ---- | 3.09 | ---- | ---- | ---- | ---- | 3.09 |
| 6.70 | 3.40 | 0.21 | ---- | ---- | ---- | ---- | 3.16 | ---- | ---- | ---- | ---- | 3.16 |
| 6.80 | 3.46 | 0.21 | ---- | ---- | ---- | ---- | 3.22 | ---- | ---- | ---- | ---- | 3.22 |
| 6.90 | 3.52 | 0.21 | ---- | ---- | ---- | ---- | 3.29 | ---- | ---- | ---- | ---- | 3.29 |
| 7.00 | 3.58 | 0.22 | ---- | ---- | ---- | ---- | 3.35 | ---- | ---- | ---- | ---- | 3.35 |
| 7.10 | 3.64 | 0.22 | ---- | ---- | ---- | ---- | 3.41 | ---- | ---- | ---- | ---- | 3.41 |
| 7.20 | 3.70 | 0.22 | ---- | ---- | ---- | ---- | 3.47 | ---- | ---- | ---- | ---- | 3.47 |
| 7.30 | 3.76 | 0.22 | ---- | ---- | ---- | ---- | 3.54 | ---- | ---- | ---- | ---- | 3.54 |
| 7.40 | 3.82 | 0.23 | ---- | ---- | ---- | ---- | 3.60 | ---- | ---- | ---- | ---- | 3.60 |
| 7.50 | 3.88 | 0.23 | ---- | ---- | ---- | ---- | 3.66 | ---- | ---- | ---- | ---- | 3.66 |
| 7.60 | 3.94 | 0.23 | ---- | ---- | ---- | ---- | 3.72 | ---- | ---- | ---- | ---- | 3.72 |
| 7.70 | 4.00 | 0.23 | ---- | ---- | ---- | ---- | 3.78 | ---- | ---- | ---- | ---- | 3.78 |
| 7.80 | 4.06 | 0.24 | ---- | ---- | ---- | ---- | 3.84 | ---- | ---- | ---- | ---- | 3.84 |
| 7.90 | 4.12 | 0.24 | ---- | ---- | ---- | ---- | 3.90 | ---- | ---- | ---- | ---- | 3.90 |
| 8.00 | 4.18 | 0.24 | ---- | ---- | ---- | ---- | 3.96 | ---- | ---- | ---- | ---- | 3.96 |
| 8.10 | 4.25 | 0.24 | ---- | ---- | ---- | ---- | 4.03 | ---- | ---- | ---- | ---- | 4.03 |
| 8.20 | 4.37 | 0.25 | ---- | ---- | ---- | ---- | 4.10 | ---- | ---- | ---- | ---- | 4.10 |
| 8.30 | 4.55 | 0.25 | ---- | ---- | ---- | ---- | 4.19 | ---- | ---- | ---- | ---- | 4.19 |
| 8.40 | 4.75 | 0.26 | ---- | ---- | ---- | ---- | 4.31 | ---- | ---- | ---- | ---- | 4.31 |
| 8.50 | 4.97 | 0.26 | ---- | ---- | ---- | ---- | 4.45 | ---- | ---- | ---- | ---- | 4.45 |

Continues on next page...

Hydrograph Discharge Table

| Time (hrs) | Inflow cfs | Elevation ft | Clv A cfs | Clv B cfs | Clv C cfs | Clv D cfs | Wr A cfs | Wr B cfs | Wr C cfs | Wr D cfs | Exfil cfs | Outflow cfs |
|------------|------------|--------------|-----------|-----------|-----------|-----------|----------|----------|----------|----------|-----------|-------------|
| 8.60 | 5.19 | 0.27 | ---- | ---- | ---- | ---- | 4.61 | ---- | ---- | ---- | ---- | 4.61 |
| 8.70 | 5.42 | 0.27 | ---- | ---- | ---- | ---- | 4.79 | ---- | ---- | ---- | ---- | 4.79 |
| 8.80 | 5.64 | 0.28 | ---- | ---- | ---- | ---- | 4.98 | ---- | ---- | ---- | ---- | 4.98 |
| 8.90 | 5.87 | 0.29 | ---- | ---- | ---- | ---- | 5.19 | ---- | ---- | ---- | ---- | 5.19 |
| 9.00 | 6.09 | 0.30 | ---- | ---- | ---- | ---- | 5.41 | ---- | ---- | ---- | ---- | 5.41 |
| 9.10 | 6.30 | 0.31 | ---- | ---- | ---- | ---- | 5.62 | ---- | ---- | ---- | ---- | 5.62 |
| 9.20 | 6.45 | 0.31 | ---- | ---- | ---- | ---- | 5.83 | ---- | ---- | ---- | ---- | 5.83 |
| 9.30 | 6.53 | 0.32 | ---- | ---- | ---- | ---- | 6.01 | ---- | ---- | ---- | ---- | 6.01 |
| 9.40 | 6.56 | 0.32 | ---- | ---- | ---- | ---- | 6.16 | ---- | ---- | ---- | ---- | 6.16 |
| 9.50 | 6.59 | 0.33 | ---- | ---- | ---- | ---- | 6.28 | ---- | ---- | ---- | ---- | 6.28 |
| 9.60 | 6.64 | 0.33 | ---- | ---- | ---- | ---- | 6.38 | ---- | ---- | ---- | ---- | 6.38 |
| 9.70 | 6.80 | 0.34 | ---- | ---- | ---- | ---- | 6.48 | ---- | ---- | ---- | ---- | 6.48 |
| 9.80 | 7.06 | 0.34 | ---- | ---- | ---- | ---- | 6.61 | ---- | ---- | ---- | ---- | 6.61 |
| 9.90 | 7.40 | 0.35 | ---- | ---- | ---- | ---- | 6.79 | ---- | ---- | ---- | ---- | 6.79 |
| 10.00 | 7.76 | 0.35 | ---- | ---- | ---- | ---- | 7.01 | ---- | ---- | ---- | ---- | 7.01 |
| 10.10 | 8.13 | 0.36 | ---- | ---- | ---- | ---- | 7.29 | ---- | ---- | ---- | ---- | 7.29 |
| 10.20 | 8.56 | 0.37 | ---- | ---- | ---- | ---- | 7.61 | ---- | ---- | ---- | ---- | 7.61 |
| 10.30 | 9.05 | 0.39 | ---- | ---- | ---- | ---- | 7.97 | ---- | ---- | ---- | ---- | 7.97 |
| 10.40 | 9.58 | 0.40 | ---- | ---- | ---- | ---- | 8.37 | ---- | ---- | ---- | ---- | 8.37 |
| 10.50 | 10.11 | 0.41 | ---- | ---- | ---- | ---- | 8.82 | ---- | ---- | ---- | ---- | 8.82 |
| 10.60 | 10.69 | 0.43 | ---- | ---- | ---- | ---- | 9.31 | ---- | ---- | ---- | ---- | 9.31 |
| 10.70 | 11.37 | 0.44 | ---- | ---- | ---- | ---- | 9.84 | ---- | ---- | ---- | ---- | 9.84 |
| 10.80 | 12.17 | 0.46 | ---- | ---- | ---- | ---- | 10.45 | ---- | ---- | ---- | ---- | 10.45 |
| 10.90 | 13.05 | 0.48 | ---- | ---- | ---- | ---- | 11.14 | ---- | ---- | ---- | ---- | 11.14 |
| 11.00 | 13.95 | 0.50 | ---- | ---- | ---- | ---- | 11.91 | ---- | ---- | ---- | ---- | 11.91 |
| 11.10 | 14.54 | 0.53 | ---- | ---- | ---- | ---- | 12.69 | ---- | ---- | ---- | ---- | 12.69 |
| 11.20 | 15.50 | 0.55 | ---- | ---- | ---- | ---- | 13.48 | ---- | ---- | ---- | ---- | 13.48 |
| 11.30 | 17.60 | 0.58 | ---- | ---- | ---- | ---- | 14.54 | ---- | ---- | ---- | ---- | 14.54 |
| 11.40 | 19.96 | 0.61 | ---- | ---- | ---- | ---- | 16.04 | ---- | ---- | ---- | ---- | 16.04 |
| 11.50 | 22.41 | 0.66 | ---- | ---- | ---- | ---- | 17.91 | ---- | ---- | ---- | ---- | 17.91 |
| 11.60 | 30.05 | 0.74 | ---- | ---- | ---- | ---- | 21.05 | ---- | ---- | ---- | ---- | 21.05 |
| 11.70 | 52.88 | 0.91 | ---- | ---- | ---- | ---- | 29.13 | ---- | ---- | ---- | ---- | 29.13 |
| 11.80 | 94.45 | 1.29 | ---- | ---- | ---- | ---- | 48.56 | ---- | ---- | ---- | ---- | 48.56 |
| 11.90 | 165.83 | 1.92 | ---- | ---- | ---- | ---- | 88.30 | ---- | ---- | ---- | ---- | 88.30 |
| 12.00 | 226.77 << | 2.68 | ---- | ---- | ---- | ---- | 145.91 | ---- | ---- | ---- | ---- | 145.91 |
| 12.10 | 200.41 | 3.12 << | ---- | ---- | ---- | ---- | 183.89 | ---- | ---- | ---- | ---- | 183.89 << |
| 12.20 | 123.72 | 2.98 | ---- | ---- | ---- | ---- | 171.50 | ---- | ---- | ---- | ---- | 171.50 |
| 12.30 | 62.02 | 2.45 | ---- | ---- | ---- | ---- | 128.02 | ---- | ---- | ---- | ---- | 128.02 |
| 12.40 | 34.48 | 1.88 | ---- | ---- | ---- | ---- | 85.97 | ---- | ---- | ---- | ---- | 85.97 |
| 12.50 | 29.31 | 1.47 | ---- | ---- | ---- | ---- | 59.28 | ---- | ---- | ---- | ---- | 59.28 |
| 12.60 | 24.53 | 1.21 | ---- | ---- | ---- | ---- | 44.34 | ---- | ---- | ---- | ---- | 44.34 |
| 12.70 | 20.94 | 1.03 | ---- | ---- | ---- | ---- | 34.80 | ---- | ---- | ---- | ---- | 34.80 |
| 12.80 | 18.69 | 0.90 | ---- | ---- | ---- | ---- | 28.54 | ---- | ---- | ---- | ---- | 28.54 |
| 12.90 | 17.24 | 0.81 | ---- | ---- | ---- | ---- | 24.33 | ---- | ---- | ---- | ---- | 24.33 |
| 13.00 | 16.06 | 0.74 | ---- | ---- | ---- | ---- | 21.33 | ---- | ---- | ---- | ---- | 21.33 |
| 13.10 | 14.94 | 0.69 | ---- | ---- | ---- | ---- | 19.10 | ---- | ---- | ---- | ---- | 19.10 |
| 13.20 | 13.97 | 0.65 | ---- | ---- | ---- | ---- | 17.38 | ---- | ---- | ---- | ---- | 17.38 |
| 13.30 | 13.19 | 0.61 | ---- | ---- | ---- | ---- | 16.01 | ---- | ---- | ---- | ---- | 16.01 |
| 13.40 | 12.52 | 0.58 | ---- | ---- | ---- | ---- | 14.89 | ---- | ---- | ---- | ---- | 14.89 |
| 13.50 | 11.88 | 0.56 | ---- | ---- | ---- | ---- | 13.95 | ---- | ---- | ---- | ---- | 13.95 |
| 13.60 | 11.26 | 0.54 | ---- | ---- | ---- | ---- | 13.14 | ---- | ---- | ---- | ---- | 13.14 |

Continues on next page...

Hydrograph Discharge Table

| Time (hrs) | Inflow cfs | Elevation ft | Clv A cfs | Clv B cfs | Clv C cfs | Clv D cfs | Wr A cfs | Wr B cfs | Wr C cfs | Wr D cfs | Exfil cfs | Outflow cfs |
|------------|------------|--------------|-----------|-----------|-----------|-----------|----------|----------|----------|----------|-----------|-------------|
| 13.70 | 10.70 | 0.52 | ---- | ---- | ---- | ---- | 12.41 | ---- | ---- | ---- | ---- | 12.41 |
| 13.80 | 10.19 | 0.50 | ---- | ---- | ---- | ---- | 11.76 | ---- | ---- | ---- | ---- | 11.76 |
| 13.90 | 9.72 | 0.48 | ---- | ---- | ---- | ---- | 11.17 | ---- | ---- | ---- | ---- | 11.17 |
| 14.00 | 9.27 | 0.47 | ---- | ---- | ---- | ---- | 10.64 | ---- | ---- | ---- | ---- | 10.64 |
| 14.10 | 8.84 | 0.45 | ---- | ---- | ---- | ---- | 10.13 | ---- | ---- | ---- | ---- | 10.13 |
| 14.20 | 8.51 | 0.44 | ---- | ---- | ---- | ---- | 9.67 | ---- | ---- | ---- | ---- | 9.67 |
| 14.30 | 8.27 | 0.43 | ---- | ---- | ---- | ---- | 9.28 | ---- | ---- | ---- | ---- | 9.28 |
| 14.40 | 8.09 | 0.42 | ---- | ---- | ---- | ---- | 8.94 | ---- | ---- | ---- | ---- | 8.94 |
| 14.50 | 7.93 | 0.41 | ---- | ---- | ---- | ---- | 8.66 | ---- | ---- | ---- | ---- | 8.66 |
| 14.60 | 7.77 | 0.40 | ---- | ---- | ---- | ---- | 8.41 | ---- | ---- | ---- | ---- | 8.41 |
| 14.70 | 7.61 | 0.39 | ---- | ---- | ---- | ---- | 8.19 | ---- | ---- | ---- | ---- | 8.19 |
| 14.80 | 7.45 | 0.39 | ---- | ---- | ---- | ---- | 7.99 | ---- | ---- | ---- | ---- | 7.99 |
| 14.90 | 7.29 | 0.38 | ---- | ---- | ---- | ---- | 7.81 | ---- | ---- | ---- | ---- | 7.81 |
| 15.00 | 7.13 | 0.37 | ---- | ---- | ---- | ---- | 7.63 | ---- | ---- | ---- | ---- | 7.63 |
| 15.10 | 6.97 | 0.37 | ---- | ---- | ---- | ---- | 7.45 | ---- | ---- | ---- | ---- | 7.45 |
| 15.20 | 6.81 | 0.36 | ---- | ---- | ---- | ---- | 7.29 | ---- | ---- | ---- | ---- | 7.29 |
| 15.30 | 6.66 | 0.36 | ---- | ---- | ---- | ---- | 7.12 | ---- | ---- | ---- | ---- | 7.12 |
| 15.40 | 6.50 | 0.35 | ---- | ---- | ---- | ---- | 6.97 | ---- | ---- | ---- | ---- | 6.97 |
| 15.50 | 6.34 | 0.35 | ---- | ---- | ---- | ---- | 6.81 | ---- | ---- | ---- | ---- | 6.81 |
| 15.60 | 6.18 | 0.34 | ---- | ---- | ---- | ---- | 6.65 | ---- | ---- | ---- | ---- | 6.65 |
| 15.70 | 6.02 | 0.34 | ---- | ---- | ---- | ---- | 6.49 | ---- | ---- | ---- | ---- | 6.49 |
| 15.80 | 5.86 | 0.33 | ---- | ---- | ---- | ---- | 6.33 | ---- | ---- | ---- | ---- | 6.33 |
| 15.90 | 5.70 | 0.32 | ---- | ---- | ---- | ---- | 6.17 | ---- | ---- | ---- | ---- | 6.17 |
| 16.00 | 5.54 | 0.32 | ---- | ---- | ---- | ---- | 6.01 | ---- | ---- | ---- | ---- | 6.01 |
| 16.10 | 5.39 | 0.31 | ---- | ---- | ---- | ---- | 5.86 | ---- | ---- | ---- | ---- | 5.86 |
| 16.20 | 5.27 | 0.31 | ---- | ---- | ---- | ---- | 5.72 | ---- | ---- | ---- | ---- | 5.72 |
| 16.30 | 5.19 | 0.30 | ---- | ---- | ---- | ---- | 5.59 | ---- | ---- | ---- | ---- | 5.59 |
| 16.40 | 5.12 | 0.30 | ---- | ---- | ---- | ---- | 5.47 | ---- | ---- | ---- | ---- | 5.47 |
| 16.50 | 5.07 | 0.30 | ---- | ---- | ---- | ---- | 5.37 | ---- | ---- | ---- | ---- | 5.37 |
| 16.60 | 5.01 | 0.29 | ---- | ---- | ---- | ---- | 5.28 | ---- | ---- | ---- | ---- | 5.28 |
| 16.70 | 4.95 | 0.29 | ---- | ---- | ---- | ---- | 5.20 | ---- | ---- | ---- | ---- | 5.20 |
| 16.80 | 4.90 | 0.29 | ---- | ---- | ---- | ---- | 5.12 | ---- | ---- | ---- | ---- | 5.12 |
| 16.90 | 4.84 | 0.28 | ---- | ---- | ---- | ---- | 5.05 | ---- | ---- | ---- | ---- | 5.05 |
| 17.00 | 4.78 | 0.28 | ---- | ---- | ---- | ---- | 4.99 | ---- | ---- | ---- | ---- | 4.99 |
| 17.10 | 4.72 | 0.28 | ---- | ---- | ---- | ---- | 4.92 | ---- | ---- | ---- | ---- | 4.92 |
| 17.20 | 4.67 | 0.28 | ---- | ---- | ---- | ---- | 4.87 | ---- | ---- | ---- | ---- | 4.87 |
| 17.30 | 4.61 | 0.28 | ---- | ---- | ---- | ---- | 4.81 | ---- | ---- | ---- | ---- | 4.81 |
| 17.40 | 4.55 | 0.27 | ---- | ---- | ---- | ---- | 4.75 | ---- | ---- | ---- | ---- | 4.75 |
| 17.50 | 4.50 | 0.27 | ---- | ---- | ---- | ---- | 4.69 | ---- | ---- | ---- | ---- | 4.69 |
| 17.60 | 4.44 | 0.27 | ---- | ---- | ---- | ---- | 4.64 | ---- | ---- | ---- | ---- | 4.64 |
| 17.70 | 4.38 | 0.27 | ---- | ---- | ---- | ---- | 4.58 | ---- | ---- | ---- | ---- | 4.58 |
| 17.80 | 4.33 | 0.26 | ---- | ---- | ---- | ---- | 4.52 | ---- | ---- | ---- | ---- | 4.52 |
| 17.90 | 4.27 | 0.26 | ---- | ---- | ---- | ---- | 4.46 | ---- | ---- | ---- | ---- | 4.46 |
| 18.00 | 4.21 | 0.26 | ---- | ---- | ---- | ---- | 4.41 | ---- | ---- | ---- | ---- | 4.41 |
| 18.10 | 4.16 | 0.26 | ---- | ---- | ---- | ---- | 4.35 | ---- | ---- | ---- | ---- | 4.35 |
| 18.20 | 4.10 | 0.25 | ---- | ---- | ---- | ---- | 4.29 | ---- | ---- | ---- | ---- | 4.29 |
| 18.30 | 4.04 | 0.25 | ---- | ---- | ---- | ---- | 4.24 | ---- | ---- | ---- | ---- | 4.24 |
| 18.40 | 3.98 | 0.25 | ---- | ---- | ---- | ---- | 4.18 | ---- | ---- | ---- | ---- | 4.18 |
| 18.50 | 3.93 | 0.25 | ---- | ---- | ---- | ---- | 4.12 | ---- | ---- | ---- | ---- | 4.12 |
| 18.60 | 3.87 | 0.25 | ---- | ---- | ---- | ---- | 4.06 | ---- | ---- | ---- | ---- | 4.06 |
| 18.70 | 3.81 | 0.24 | ---- | ---- | ---- | ---- | 4.01 | ---- | ---- | ---- | ---- | 4.01 |

Continues on next page...

Hydrograph Discharge Table

| Time (hrs) | Inflow cfs | Elevation ft | Clv A cfs | Clv B cfs | Clv C cfs | Clv D cfs | Wr A cfs | Wr B cfs | Wr C cfs | Wr D cfs | Exfil cfs | Outflow cfs |
|------------|------------|--------------|-----------|-----------|-----------|-----------|----------|----------|----------|----------|-----------|-------------|
| 18.80 | 3.76 | 0.24 | ---- | ---- | ---- | ---- | 3.95 | ---- | ---- | ---- | ---- | 3.95 |
| 18.90 | 3.70 | 0.24 | ---- | ---- | ---- | ---- | 3.89 | ---- | ---- | ---- | ---- | 3.89 |
| 19.00 | 3.64 | 0.24 | ---- | ---- | ---- | ---- | 3.84 | ---- | ---- | ---- | ---- | 3.84 |
| 19.10 | 3.59 | 0.23 | ---- | ---- | ---- | ---- | 3.79 | ---- | ---- | ---- | ---- | 3.79 |
| 19.20 | 3.53 | 0.23 | ---- | ---- | ---- | ---- | 3.73 | ---- | ---- | ---- | ---- | 3.73 |
| 19.30 | 3.47 | 0.23 | ---- | ---- | ---- | ---- | 3.68 | ---- | ---- | ---- | ---- | 3.68 |
| 19.40 | 3.41 | 0.23 | ---- | ---- | ---- | ---- | 3.62 | ---- | ---- | ---- | ---- | 3.62 |
| 19.50 | 3.36 | 0.23 | ---- | ---- | ---- | ---- | 3.57 | ---- | ---- | ---- | ---- | 3.57 |
| 19.60 | 3.30 | 0.22 | ---- | ---- | ---- | ---- | 3.51 | ---- | ---- | ---- | ---- | 3.51 |
| 19.70 | 3.24 | 0.22 | ---- | ---- | ---- | ---- | 3.45 | ---- | ---- | ---- | ---- | 3.45 |
| 19.80 | 3.19 | 0.22 | ---- | ---- | ---- | ---- | 3.40 | ---- | ---- | ---- | ---- | 3.40 |
| 19.90 | 3.13 | 0.22 | ---- | ---- | ---- | ---- | 3.34 | ---- | ---- | ---- | ---- | 3.34 |
| 20.00 | 3.07 | 0.21 | ---- | ---- | ---- | ---- | 3.28 | ---- | ---- | ---- | ---- | 3.28 |
| 20.10 | 3.02 | 0.21 | ---- | ---- | ---- | ---- | 3.23 | ---- | ---- | ---- | ---- | 3.23 |
| 20.20 | 2.98 | 0.21 | ---- | ---- | ---- | ---- | 3.17 | ---- | ---- | ---- | ---- | 3.17 |
| 20.30 | 2.96 | 0.21 | ---- | ---- | ---- | ---- | 3.12 | ---- | ---- | ---- | ---- | 3.12 |
| 20.40 | 2.94 | 0.20 | ---- | ---- | ---- | ---- | 3.08 | ---- | ---- | ---- | ---- | 3.08 |
| 20.50 | 2.93 | 0.20 | ---- | ---- | ---- | ---- | 3.05 | ---- | ---- | ---- | ---- | 3.05 |
| 20.60 | 2.92 | 0.20 | ---- | ---- | ---- | ---- | 3.02 | ---- | ---- | ---- | ---- | 3.02 |
| 20.70 | 2.91 | 0.20 | ---- | ---- | ---- | ---- | 2.99 | ---- | ---- | ---- | ---- | 2.99 |
| 20.80 | 2.90 | 0.20 | ---- | ---- | ---- | ---- | 2.97 | ---- | ---- | ---- | ---- | 2.97 |
| 20.90 | 2.89 | 0.20 | ---- | ---- | ---- | ---- | 2.96 | ---- | ---- | ---- | ---- | 2.96 |
| 21.00 | 2.87 | 0.20 | ---- | ---- | ---- | ---- | 2.94 | ---- | ---- | ---- | ---- | 2.94 |
| 21.10 | 2.86 | 0.20 | ---- | ---- | ---- | ---- | 2.92 | ---- | ---- | ---- | ---- | 2.92 |
| 21.20 | 2.85 | 0.20 | ---- | ---- | ---- | ---- | 2.91 | ---- | ---- | ---- | ---- | 2.91 |
| 21.30 | 2.84 | 0.20 | ---- | ---- | ---- | ---- | 2.90 | ---- | ---- | ---- | ---- | 2.90 |
| 21.40 | 2.83 | 0.20 | ---- | ---- | ---- | ---- | 2.88 | ---- | ---- | ---- | ---- | 2.88 |
| 21.50 | 2.82 | 0.19 | ---- | ---- | ---- | ---- | 2.87 | ---- | ---- | ---- | ---- | 2.87 |
| 21.60 | 2.81 | 0.19 | ---- | ---- | ---- | ---- | 2.86 | ---- | ---- | ---- | ---- | 2.86 |
| 21.70 | 2.79 | 0.19 | ---- | ---- | ---- | ---- | 2.84 | ---- | ---- | ---- | ---- | 2.84 |
| 21.80 | 2.78 | 0.19 | ---- | ---- | ---- | ---- | 2.83 | ---- | ---- | ---- | ---- | 2.83 |
| 21.90 | 2.77 | 0.19 | ---- | ---- | ---- | ---- | 2.82 | ---- | ---- | ---- | ---- | 2.82 |
| 22.00 | 2.76 | 0.19 | ---- | ---- | ---- | ---- | 2.81 | ---- | ---- | ---- | ---- | 2.81 |
| 22.10 | 2.75 | 0.19 | ---- | ---- | ---- | ---- | 2.80 | ---- | ---- | ---- | ---- | 2.80 |
| 22.20 | 2.74 | 0.19 | ---- | ---- | ---- | ---- | 2.79 | ---- | ---- | ---- | ---- | 2.79 |
| 22.30 | 2.73 | 0.19 | ---- | ---- | ---- | ---- | 2.77 | ---- | ---- | ---- | ---- | 2.77 |
| 22.40 | 2.72 | 0.19 | ---- | ---- | ---- | ---- | 2.76 | ---- | ---- | ---- | ---- | 2.76 |
| 22.50 | 2.70 | 0.19 | ---- | ---- | ---- | ---- | 2.75 | ---- | ---- | ---- | ---- | 2.75 |
| 22.60 | 2.69 | 0.19 | ---- | ---- | ---- | ---- | 2.74 | ---- | ---- | ---- | ---- | 2.74 |
| 22.70 | 2.68 | 0.19 | ---- | ---- | ---- | ---- | 2.73 | ---- | ---- | ---- | ---- | 2.73 |
| 22.80 | 2.67 | 0.19 | ---- | ---- | ---- | ---- | 2.72 | ---- | ---- | ---- | ---- | 2.72 |
| 22.90 | 2.66 | 0.19 | ---- | ---- | ---- | ---- | 2.71 | ---- | ---- | ---- | ---- | 2.71 |
| 23.00 | 2.65 | 0.19 | ---- | ---- | ---- | ---- | 2.69 | ---- | ---- | ---- | ---- | 2.69 |
| 23.10 | 2.64 | 0.19 | ---- | ---- | ---- | ---- | 2.68 | ---- | ---- | ---- | ---- | 2.68 |
| 23.20 | 2.62 | 0.19 | ---- | ---- | ---- | ---- | 2.67 | ---- | ---- | ---- | ---- | 2.67 |
| 23.30 | 2.61 | 0.18 | ---- | ---- | ---- | ---- | 2.66 | ---- | ---- | ---- | ---- | 2.66 |
| 23.40 | 2.60 | 0.18 | ---- | ---- | ---- | ---- | 2.65 | ---- | ---- | ---- | ---- | 2.65 |
| 23.50 | 2.59 | 0.18 | ---- | ---- | ---- | ---- | 2.64 | ---- | ---- | ---- | ---- | 2.64 |
| 23.60 | 2.58 | 0.18 | ---- | ---- | ---- | ---- | 2.63 | ---- | ---- | ---- | ---- | 2.63 |
| 23.70 | 2.57 | 0.18 | ---- | ---- | ---- | ---- | 2.61 | ---- | ---- | ---- | ---- | 2.61 |
| 23.80 | 2.56 | 0.18 | ---- | ---- | ---- | ---- | 2.60 | ---- | ---- | ---- | ---- | 2.60 |

Continues on next page...

Hydrograph Discharge Table

| Time (hrs) | Inflow cfs | Elevation ft | Clv A cfs | Clv B cfs | Clv C cfs | Clv D cfs | Wr A cfs | Wr B cfs | Wr C cfs | Wr D cfs | Exfil cfs | Outflow cfs |
|------------|------------|--------------|-----------|-----------|-----------|-----------|----------|----------|----------|----------|-----------|-------------|
| 23.90 | 2.54 | 0.18 | ---- | ---- | ---- | ---- | 2.59 | ---- | ---- | ---- | ---- | 2.59 |
| 24.00 | 2.53 | 0.18 | ---- | ---- | ---- | ---- | 2.58 | ---- | ---- | ---- | ---- | 2.58 |
| 24.10 | 2.02 | 0.18 | ---- | ---- | ---- | ---- | 2.51 | ---- | ---- | ---- | ---- | 2.51 |
| 24.20 | 1.01 | 0.17 | ---- | ---- | ---- | ---- | 2.30 | ---- | ---- | ---- | ---- | 2.30 |
| 24.30 | 0.34 | 0.15 | ---- | ---- | ---- | ---- | 1.96 | ---- | ---- | ---- | ---- | 1.96 |

...End

Reservoir Report

Reservoir No. 1 - Pond Wizard Design

Hydraflow Hydrographs by Intellisolve

Pond Data

Bottom LxW = 175.0 x 175.0 ft Side slope = 4.0:1 Bottom elev. = 0.00 ft Depth = 8.00 ft

Stage / Storage Table

| Stage (ft) | Elevation (ft) | Contour area (sqft) | Incr. Storage (acft) | Total storage (acft) |
|------------|----------------|---------------------|----------------------|----------------------|
| 0.00 | 0.00 | 30,625 | 0.000 | 0.000 |
| 0.40 | 0.40 | 31,755 | 0.286 | 0.286 |
| 0.80 | 0.80 | 32,906 | 0.297 | 0.583 |
| 1.20 | 1.20 | 34,077 | 0.308 | 0.891 |
| 1.60 | 1.60 | 35,269 | 0.318 | 1.209 |
| 2.00 | 2.00 | 36,481 | 0.329 | 1.539 |
| 2.40 | 2.40 | 37,714 | 0.341 | 1.879 |
| 2.80 | 2.80 | 38,967 | 0.352 | 2.231 |
| 3.20 | 3.20 | 40,240 | 0.364 | 2.595 |
| 3.60 | 3.60 | 41,534 | 0.375 | 2.970 |
| 4.00 | 4.00 | 42,849 | 0.387 | 3.358 |
| 4.40 | 4.40 | 44,184 | 0.400 | 3.757 |
| 4.80 | 4.80 | 45,540 | 0.412 | 4.169 |
| 5.20 | 5.20 | 46,916 | 0.424 | 4.594 |
| 5.60 | 5.60 | 48,312 | 0.437 | 5.031 |
| 6.00 | 6.00 | 49,729 | 0.450 | 5.481 |
| 6.40 | 6.40 | 51,166 | 0.463 | 5.944 |
| 6.80 | 6.80 | 52,624 | 0.477 | 6.421 |
| 7.20 | 7.20 | 54,103 | 0.490 | 6.911 |
| 7.60 | 7.60 | 55,602 | 0.504 | 7.415 |
| 8.00 | 8.00 | 57,121 | 0.518 | 7.932 |

Culvert / Orifice Structures

| | [A] | [B] | [C] | [D] |
|---------------|--------|------|------|------|
| Rise in | = 0.0 | 0.0 | 0.0 | 0.0 |
| Span in | = 0.0 | 0.0 | 0.0 | 0.0 |
| No. Barrels | = 0 | 0 | 0 | 0 |
| Invert El. ft | = 0.00 | 0.00 | 0.00 | 0.00 |
| Length ft | = 0.0 | 0.0 | 0.0 | 0.0 |
| Slope % | = 0.00 | 0.00 | 0.00 | 0.00 |
| N-Value | = .013 | .013 | .000 | .000 |
| Orif. Coeff. | = 0.60 | 0.60 | 0.00 | 0.00 |
| Multi-Stage | = n/a | No | No | No |

Weir Structures

| | [A] | [B] | [C] | [D] |
|--------------|---------|------|------|------|
| Crest Len ft | = 10.00 | 0.00 | 0.00 | 0.00 |
| Crest El. ft | = 0.00 | 0.00 | 0.00 | 0.00 |
| Weir Coeff. | = 3.33 | 0.00 | 0.00 | 0.00 |
| Weir Type | = Rect | --- | --- | --- |
| Multi-Stage | = No | No | No | No |

Exfiltration Rate = 0.00 in/hr/sqft Tailwater Elev. = 0.00 ft

Stage / Storage / Discharge Table

Note: All outflows have been analyzed under inlet and outlet control.

| Stage ft | Storage acft | Elevation ft | Civ A cfs | Civ B cfs | Civ C cfs | Civ D cfs | Wr A cfs | Wr B cfs | Wr C cfs | Wr D cfs | Exfil cfs | Total cfs |
|----------|--------------|--------------|-----------|-----------|-----------|-----------|----------|----------|----------|----------|-----------|-----------|
| 0.00 | 0.000 | 0.00 | --- | --- | --- | --- | 0.00 | --- | --- | --- | --- | 0.00 |
| 0.04 | 0.029 | 0.04 | --- | --- | --- | --- | 0.27 | --- | --- | --- | --- | 0.27 |
| 0.08 | 0.057 | 0.08 | --- | --- | --- | --- | 0.75 | --- | --- | --- | --- | 0.75 |
| 0.12 | 0.086 | 0.12 | --- | --- | --- | --- | 1.38 | --- | --- | --- | --- | 1.38 |
| 0.16 | 0.115 | 0.16 | --- | --- | --- | --- | 2.13 | --- | --- | --- | --- | 2.13 |
| 0.20 | 0.143 | 0.20 | --- | --- | --- | --- | 2.98 | --- | --- | --- | --- | 2.98 |
| 0.24 | 0.172 | 0.24 | --- | --- | --- | --- | 3.92 | --- | --- | --- | --- | 3.92 |
| 0.28 | 0.200 | 0.28 | --- | --- | --- | --- | 4.93 | --- | --- | --- | --- | 4.93 |
| 0.32 | 0.229 | 0.32 | --- | --- | --- | --- | 6.03 | --- | --- | --- | --- | 6.03 |
| 0.36 | 0.258 | 0.36 | --- | --- | --- | --- | 7.19 | --- | --- | --- | --- | 7.19 |
| 0.40 | 0.286 | 0.40 | --- | --- | --- | --- | 8.42 | --- | --- | --- | --- | 8.42 |
| 0.44 | 0.316 | 0.44 | --- | --- | --- | --- | 9.72 | --- | --- | --- | --- | 9.72 |
| 0.48 | 0.346 | 0.48 | --- | --- | --- | --- | 11.07 | --- | --- | --- | --- | 11.07 |
| 0.52 | 0.375 | 0.52 | --- | --- | --- | --- | 12.49 | --- | --- | --- | --- | 12.49 |
| 0.56 | 0.405 | 0.56 | --- | --- | --- | --- | 13.95 | --- | --- | --- | --- | 13.95 |
| 0.60 | 0.435 | 0.60 | --- | --- | --- | --- | 15.48 | --- | --- | --- | --- | 15.48 |
| 0.64 | 0.465 | 0.64 | --- | --- | --- | --- | 17.05 | --- | --- | --- | --- | 17.05 |

Continues on next page...

Stage / Storage / Discharge Table

| Stage ft | Storage acft | Elevation ft | Civ A cfs | Civ B cfs | Civ C cfs | Civ D cfs | Wr A cfs | Wr B cfs | Wr C cfs | Wr D cfs | Exfil cfs | Total cfs |
|-------------|-----------------|-----------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|--------------|--------------|
| 0.68 | 0.494 | 0.68 | -- | -- | -- | -- | 18.67 | -- | -- | -- | -- | 18.67 |
| 0.72 | 0.524 | 0.72 | -- | -- | -- | -- | 20.34 | -- | -- | -- | -- | 20.34 |
| 0.76 | 0.554 | 0.76 | -- | -- | -- | -- | 22.06 | -- | -- | -- | -- | 22.06 |
| 0.80 | 0.583 | 0.80 | -- | -- | -- | -- | 23.83 | -- | -- | -- | -- | 23.83 |
| 0.84 | 0.614 | 0.84 | -- | -- | -- | -- | 25.64 | -- | -- | -- | -- | 25.64 |
| 0.88 | 0.645 | 0.88 | -- | -- | -- | -- | 27.49 | -- | -- | -- | -- | 27.49 |
| 0.92 | 0.676 | 0.92 | -- | -- | -- | -- | 29.39 | -- | -- | -- | -- | 29.39 |
| 0.96 | 0.706 | 0.96 | -- | -- | -- | -- | 31.32 | -- | -- | -- | -- | 31.32 |
| 1.00 | 0.737 | 1.00 | -- | -- | -- | -- | 33.30 | -- | -- | -- | -- | 33.30 |
| 1.04 | 0.768 | 1.04 | -- | -- | -- | -- | 35.32 | -- | -- | -- | -- | 35.32 |
| 1.08 | 0.799 | 1.08 | -- | -- | -- | -- | 37.37 | -- | -- | -- | -- | 37.37 |
| 1.12 | 0.829 | 1.12 | -- | -- | -- | -- | 39.47 | -- | -- | -- | -- | 39.47 |
| 1.16 | 0.860 | 1.16 | -- | -- | -- | -- | 41.60 | -- | -- | -- | -- | 41.60 |
| 1.20 | 0.891 | 1.20 | -- | -- | -- | -- | 43.77 | -- | -- | -- | -- | 43.77 |
| 1.24 | 0.923 | 1.24 | -- | -- | -- | -- | 45.98 | -- | -- | -- | -- | 45.98 |
| 1.28 | 0.954 | 1.28 | -- | -- | -- | -- | 48.22 | -- | -- | -- | -- | 48.22 |
| 1.32 | 0.986 | 1.32 | -- | -- | -- | -- | 50.50 | -- | -- | -- | -- | 50.50 |
| 1.36 | 1.018 | 1.36 | -- | -- | -- | -- | 52.81 | -- | -- | -- | -- | 52.81 |
| 1.40 | 1.050 | 1.40 | -- | -- | -- | -- | 55.16 | -- | -- | -- | -- | 55.16 |
| 1.44 | 1.082 | 1.44 | -- | -- | -- | -- | 57.54 | -- | -- | -- | -- | 57.54 |
| 1.48 | 1.114 | 1.48 | -- | -- | -- | -- | 59.96 | -- | -- | -- | -- | 59.96 |
| 1.52 | 1.145 | 1.52 | -- | -- | -- | -- | 62.40 | -- | -- | -- | -- | 62.40 |
| 1.56 | 1.177 | 1.56 | -- | -- | -- | -- | 64.88 | -- | -- | -- | -- | 64.88 |
| 1.60 | 1.209 | 1.60 | -- | -- | -- | -- | 67.39 | -- | -- | -- | -- | 67.39 |
| 1.64 | 1.242 | 1.64 | -- | -- | -- | -- | 69.94 | -- | -- | -- | -- | 69.94 |
| 1.68 | 1.275 | 1.68 | -- | -- | -- | -- | 72.51 | -- | -- | -- | -- | 72.51 |
| 1.72 | 1.308 | 1.72 | -- | -- | -- | -- | 75.12 | -- | -- | -- | -- | 75.12 |
| 1.76 | 1.341 | 1.76 | -- | -- | -- | -- | 77.75 | -- | -- | -- | -- | 77.75 |
| 1.80 | 1.374 | 1.80 | -- | -- | -- | -- | 80.42 | -- | -- | -- | -- | 80.42 |
| 1.84 | 1.407 | 1.84 | -- | -- | -- | -- | 83.11 | -- | -- | -- | -- | 83.11 |
| 1.88 | 1.440 | 1.88 | -- | -- | -- | -- | 85.84 | -- | -- | -- | -- | 85.84 |
| 1.92 | 1.473 | 1.92 | -- | -- | -- | -- | 88.59 | -- | -- | -- | -- | 88.59 |
| 1.96 | 1.506 | 1.96 | -- | -- | -- | -- | 91.38 | -- | -- | -- | -- | 91.38 |
| 2.00 | 1.539 | 2.00 | -- | -- | -- | -- | 94.19 | -- | -- | -- | -- | 94.19 |
| 2.04 | 1.573 | 2.04 | -- | -- | -- | -- | 97.03 | -- | -- | -- | -- | 97.03 |
| 2.08 | 1.607 | 2.08 | -- | -- | -- | -- | 99.89 | -- | -- | -- | -- | 99.89 |
| 2.12 | 1.641 | 2.12 | -- | -- | -- | -- | 102.79 | -- | -- | -- | -- | 102.79 |
| 2.16 | 1.675 | 2.16 | -- | -- | -- | -- | 105.71 | -- | -- | -- | -- | 105.71 |
| 2.20 | 1.709 | 2.20 | -- | -- | -- | -- | 108.66 | -- | -- | -- | -- | 108.66 |
| 2.24 | 1.743 | 2.24 | -- | -- | -- | -- | 111.64 | -- | -- | -- | -- | 111.64 |
| 2.28 | 1.777 | 2.28 | -- | -- | -- | -- | 114.64 | -- | -- | -- | -- | 114.64 |
| 2.32 | 1.811 | 2.32 | -- | -- | -- | -- | 117.67 | -- | -- | -- | -- | 117.67 |
| 2.36 | 1.845 | 2.36 | -- | -- | -- | -- | 120.73 | -- | -- | -- | -- | 120.73 |
| 2.40 | 1.879 | 2.40 | -- | -- | -- | -- | 123.81 | -- | -- | -- | -- | 123.81 |
| 2.44 | 1.914 | 2.44 | -- | -- | -- | -- | 126.92 | -- | -- | -- | -- | 126.92 |
| 2.48 | 1.950 | 2.48 | -- | -- | -- | -- | 130.05 | -- | -- | -- | -- | 130.05 |
| 2.52 | 1.985 | 2.52 | -- | -- | -- | -- | 133.21 | -- | -- | -- | -- | 133.21 |
| 2.56 | 2.020 | 2.56 | -- | -- | -- | -- | 136.40 | -- | -- | -- | -- | 136.40 |
| 2.60 | 2.055 | 2.60 | -- | -- | -- | -- | 139.61 | -- | -- | -- | -- | 139.61 |
| 2.64 | 2.090 | 2.64 | -- | -- | -- | -- | 142.84 | -- | -- | -- | -- | 142.84 |
| 2.68 | 2.126 | 2.68 | -- | -- | -- | -- | 146.10 | -- | -- | -- | -- | 146.10 |
| 2.72 | 2.161 | 2.72 | -- | -- | -- | -- | 149.38 | -- | -- | -- | -- | 149.38 |
| 2.76 | 2.196 | 2.76 | -- | -- | -- | -- | 152.69 | -- | -- | -- | -- | 152.69 |
| 2.80 | 2.231 | 2.80 | -- | -- | -- | -- | 156.02 | -- | -- | -- | -- | 156.02 |
| 2.84 | 2.268 | 2.84 | -- | -- | -- | -- | 159.38 | -- | -- | -- | -- | 159.38 |
| 2.88 | 2.304 | 2.88 | -- | -- | -- | -- | 162.75 | -- | -- | -- | -- | 162.75 |
| 2.92 | 2.340 | 2.92 | -- | -- | -- | -- | 166.16 | -- | -- | -- | -- | 166.16 |
| 2.96 | 2.377 | 2.96 | -- | -- | -- | -- | 169.58 | -- | -- | -- | -- | 169.58 |
| 3.00 | 2.413 | 3.00 | -- | -- | -- | -- | 173.03 | -- | -- | -- | -- | 173.03 |
| 3.04 | 2.449 | 3.04 | -- | -- | -- | -- | 176.50 | -- | -- | -- | -- | 176.50 |
| 3.08 | 2.486 | 3.08 | -- | -- | -- | -- | 180.00 | -- | -- | -- | -- | 180.00 |
| 3.12 | 2.522 | 3.12 | -- | -- | -- | -- | 183.52 | -- | -- | -- | -- | 183.52 |
| 3.16 | 2.559 | 3.16 | -- | -- | -- | -- | 187.06 | -- | -- | -- | -- | 187.06 |
| 3.20 | 2.595 | 3.20 | -- | -- | -- | -- | 190.62 | -- | -- | -- | -- | 190.62 |
| 3.24 | 2.632 | 3.24 | -- | -- | -- | -- | 194.21 | -- | -- | -- | -- | 194.21 |
| 3.28 | 2.670 | 3.28 | -- | -- | -- | -- | 197.81 | -- | -- | -- | -- | 197.81 |
| 3.32 | 2.708 | 3.32 | -- | -- | -- | -- | 201.44 | -- | -- | -- | -- | 201.44 |
| 3.36 | 2.745 | 3.36 | -- | -- | -- | -- | 205.09 | -- | -- | -- | -- | 205.09 |
| 3.40 | 2.783 | 3.40 | -- | -- | -- | -- | 208.77 | -- | -- | -- | -- | 208.77 |
| 3.44 | 2.820 | 3.44 | -- | -- | -- | -- | 212.46 | -- | -- | -- | -- | 212.46 |

Stage / Storage / Discharge Table

| Stage ft | Storage acft | Elevation ft | Clv A cfs | Clv B cfs | Clv C cfs | Clv D cfs | Wr A cfs | Wr B cfs | Wr C cfs | Wr D cfs | Exfil cfs | Total cfs |
|-------------|-----------------|-----------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|--------------|--------------|
| 3.48 | 2.858 | 3.48 | --- | --- | --- | --- | 216.18 | --- | --- | --- | --- | 216.18 |
| 3.52 | 2.895 | 3.52 | --- | --- | --- | --- | 219.92 | --- | --- | --- | --- | 219.92 |
| 3.56 | 2.933 | 3.56 | --- | --- | --- | --- | 223.68 | --- | --- | --- | --- | 223.68 |
| 3.60 | 2.970 | 3.60 | --- | --- | --- | --- | 227.46 | --- | --- | --- | --- | 227.46 |
| 3.64 | 3.009 | 3.64 | --- | --- | --- | --- | 231.26 | --- | --- | --- | --- | 231.26 |
| 3.68 | 3.048 | 3.68 | --- | --- | --- | --- | 235.08 | --- | --- | --- | --- | 235.08 |
| 3.72 | 3.087 | 3.72 | --- | --- | --- | --- | 238.92 | --- | --- | --- | --- | 238.92 |
| 3.76 | 3.125 | 3.76 | --- | --- | --- | --- | 242.79 | --- | --- | --- | --- | 242.79 |
| 3.80 | 3.164 | 3.80 | --- | --- | --- | --- | 246.67 | --- | --- | --- | --- | 246.67 |
| 3.84 | 3.203 | 3.84 | --- | --- | --- | --- | 250.58 | --- | --- | --- | --- | 250.58 |
| 3.88 | 3.242 | 3.88 | --- | --- | --- | --- | 254.50 | --- | --- | --- | --- | 254.50 |
| 3.92 | 3.280 | 3.92 | --- | --- | --- | --- | 258.45 | --- | --- | --- | --- | 258.45 |
| 3.96 | 3.319 | 3.96 | --- | --- | --- | --- | 262.41 | --- | --- | --- | --- | 262.41 |
| 4.00 | 3.358 | 4.00 | --- | --- | --- | --- | 266.40 | --- | --- | --- | --- | 266.40 |
| 4.04 | 3.398 | 4.04 | --- | --- | --- | --- | 270.41 | --- | --- | --- | --- | 270.41 |
| 4.08 | 3.438 | 4.08 | --- | --- | --- | --- | 274.43 | --- | --- | --- | --- | 274.43 |
| 4.12 | 3.478 | 4.12 | --- | --- | --- | --- | 278.48 | --- | --- | --- | --- | 278.48 |
| 4.16 | 3.518 | 4.16 | --- | --- | --- | --- | 282.54 | --- | --- | --- | --- | 282.54 |
| 4.20 | 3.558 | 4.20 | --- | --- | --- | --- | 286.63 | --- | --- | --- | --- | 286.63 |
| 4.24 | 3.598 | 4.24 | --- | --- | --- | --- | 290.73 | --- | --- | --- | --- | 290.73 |
| 4.28 | 3.638 | 4.28 | --- | --- | --- | --- | 294.86 | --- | --- | --- | --- | 294.86 |
| 4.32 | 3.677 | 4.32 | --- | --- | --- | --- | 299.00 | --- | --- | --- | --- | 299.00 |
| 4.36 | 3.717 | 4.36 | --- | --- | --- | --- | 303.16 | --- | --- | --- | --- | 303.16 |
| 4.40 | 3.757 | 4.40 | --- | --- | --- | --- | 307.34 | --- | --- | --- | --- | 307.34 |
| 4.44 | 3.799 | 4.44 | --- | --- | --- | --- | 311.54 | --- | --- | --- | --- | 311.54 |
| 4.48 | 3.840 | 4.48 | --- | --- | --- | --- | 315.76 | --- | --- | --- | --- | 315.76 |
| 4.52 | 3.881 | 4.52 | --- | --- | --- | --- | 320.00 | --- | --- | --- | --- | 320.00 |
| 4.56 | 3.922 | 4.56 | --- | --- | --- | --- | 324.26 | --- | --- | --- | --- | 324.26 |
| 4.60 | 3.963 | 4.60 | --- | --- | --- | --- | 328.53 | --- | --- | --- | --- | 328.53 |
| 4.64 | 4.005 | 4.64 | --- | --- | --- | --- | 332.83 | --- | --- | --- | --- | 332.83 |
| 4.68 | 4.046 | 4.68 | --- | --- | --- | --- | 337.14 | --- | --- | --- | --- | 337.14 |
| 4.72 | 4.087 | 4.72 | --- | --- | --- | --- | 341.47 | --- | --- | --- | --- | 341.47 |
| 4.76 | 4.128 | 4.76 | --- | --- | --- | --- | 345.82 | --- | --- | --- | --- | 345.82 |
| 4.80 | 4.169 | 4.80 | --- | --- | --- | --- | 350.19 | --- | --- | --- | --- | 350.19 |
| 4.84 | 4.212 | 4.84 | --- | --- | --- | --- | 354.58 | --- | --- | --- | --- | 354.58 |
| 4.88 | 4.254 | 4.88 | --- | --- | --- | --- | 358.98 | --- | --- | --- | --- | 358.98 |
| 4.92 | 4.297 | 4.92 | --- | --- | --- | --- | 363.41 | --- | --- | --- | --- | 363.41 |
| 4.96 | 4.339 | 4.96 | --- | --- | --- | --- | 367.85 | --- | --- | --- | --- | 367.85 |
| 5.00 | 4.382 | 5.00 | --- | --- | --- | --- | 372.31 | --- | --- | --- | --- | 372.31 |
| 5.04 | 4.424 | 5.04 | --- | --- | --- | --- | 376.78 | --- | --- | --- | --- | 376.78 |
| 5.08 | 4.466 | 5.08 | --- | --- | --- | --- | 381.28 | --- | --- | --- | --- | 381.28 |
| 5.12 | 4.509 | 5.12 | --- | --- | --- | --- | 385.79 | --- | --- | --- | --- | 385.79 |
| 5.16 | 4.551 | 5.16 | --- | --- | --- | --- | 390.32 | --- | --- | --- | --- | 390.32 |
| 5.20 | 4.594 | 5.20 | --- | --- | --- | --- | 394.87 | --- | --- | --- | --- | 394.87 |
| 5.24 | 4.638 | 5.24 | --- | --- | --- | --- | 399.43 | --- | --- | --- | --- | 399.43 |
| 5.28 | 4.681 | 5.28 | --- | --- | --- | --- | 404.01 | --- | --- | --- | --- | 404.01 |
| 5.32 | 4.725 | 5.32 | --- | --- | --- | --- | 408.61 | --- | --- | --- | --- | 408.61 |
| 5.36 | 4.769 | 5.36 | --- | --- | --- | --- | 413.23 | --- | --- | --- | --- | 413.23 |
| 5.40 | 4.812 | 5.40 | --- | --- | --- | --- | 417.86 | --- | --- | --- | --- | 417.86 |
| 5.44 | 4.856 | 5.44 | --- | --- | --- | --- | 422.52 | --- | --- | --- | --- | 422.52 |
| 5.48 | 4.900 | 5.48 | --- | --- | --- | --- | 427.18 | --- | --- | --- | --- | 427.18 |
| 5.52 | 4.944 | 5.52 | --- | --- | --- | --- | 431.87 | --- | --- | --- | --- | 431.87 |
| 5.56 | 4.987 | 5.56 | --- | --- | --- | --- | 436.57 | --- | --- | --- | --- | 436.57 |
| 5.60 | 5.031 | 5.60 | --- | --- | --- | --- | 441.29 | --- | --- | --- | --- | 441.29 |
| 5.64 | 5.076 | 5.64 | --- | --- | --- | --- | 446.03 | --- | --- | --- | --- | 446.03 |
| 5.68 | 5.121 | 5.68 | --- | --- | --- | --- | 450.78 | --- | --- | --- | --- | 450.78 |
| 5.72 | 5.166 | 5.72 | --- | --- | --- | --- | 455.55 | --- | --- | --- | --- | 455.55 |
| 5.76 | 5.211 | 5.76 | --- | --- | --- | --- | 460.34 | --- | --- | --- | --- | 460.34 |
| 5.80 | 5.256 | 5.80 | --- | --- | --- | --- | 465.14 | --- | --- | --- | --- | 465.14 |
| 5.84 | 5.301 | 5.84 | --- | --- | --- | --- | 469.96 | --- | --- | --- | --- | 469.96 |
| 5.88 | 5.346 | 5.88 | --- | --- | --- | --- | 474.80 | --- | --- | --- | --- | 474.80 |
| 5.92 | 5.391 | 5.92 | --- | --- | --- | --- | 479.65 | --- | --- | --- | --- | 479.65 |
| 5.96 | 5.436 | 5.96 | --- | --- | --- | --- | 484.52 | --- | --- | --- | --- | 484.52 |
| 6.00 | 5.481 | 6.00 | --- | --- | --- | --- | 489.41 | --- | --- | --- | --- | 489.41 |
| 6.04 | 5.527 | 6.04 | --- | --- | --- | --- | 494.31 | --- | --- | --- | --- | 494.31 |
| 6.08 | 5.574 | 6.08 | --- | --- | --- | --- | 499.23 | --- | --- | --- | --- | 499.23 |
| 6.12 | 5.620 | 6.12 | --- | --- | --- | --- | 504.16 | --- | --- | --- | --- | 504.16 |
| 6.16 | 5.666 | 6.16 | --- | --- | --- | --- | 509.11 | --- | --- | --- | --- | 509.11 |
| 6.20 | 5.713 | 6.20 | --- | --- | --- | --- | 514.08 | --- | --- | --- | --- | 514.08 |
| 6.24 | 5.759 | 6.24 | --- | --- | --- | --- | 519.06 | --- | --- | --- | --- | 519.06 |

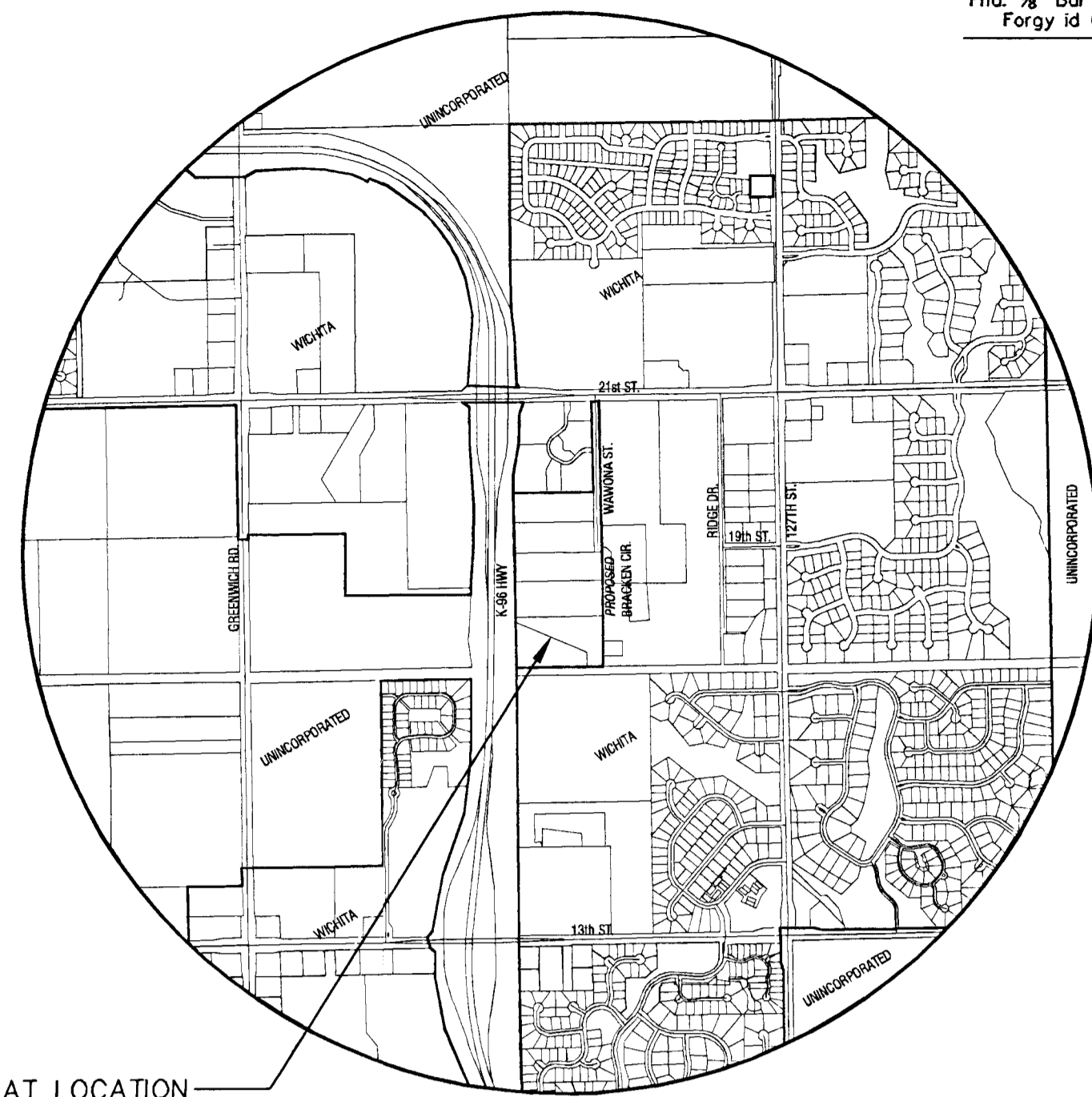
Stage / Storage / Discharge Table

| Stage ft | Storage acft | Elevation ft | Civ A cfs | Civ B cfs | Civ C cfs | Civ D cfs | Wr A cfs | Wr B cfs | Wr C cfs | Wr D cfs | Exfil cfs | Total cfs |
|-------------|-----------------|-----------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|--------------|--------------|
| 6.28 | 5.805 | 6.28 | -- | -- | -- | -- | 524.06 | -- | -- | -- | -- | 524.06 |
| 6.32 | 5.852 | 6.32 | -- | -- | -- | -- | 529.08 | -- | -- | -- | -- | 529.08 |
| 6.36 | 5.898 | 6.36 | -- | -- | -- | -- | 534.11 | -- | -- | -- | -- | 534.11 |
| 6.40 | 5.944 | 6.40 | -- | -- | -- | -- | 539.16 | -- | -- | -- | -- | 539.16 |
| 6.44 | 5.992 | 6.44 | -- | -- | -- | -- | 544.22 | -- | -- | -- | -- | 544.22 |
| 6.48 | 6.040 | 6.48 | -- | -- | -- | -- | 549.30 | -- | -- | -- | -- | 549.30 |
| 6.52 | 6.087 | 6.52 | -- | -- | -- | -- | 554.39 | -- | -- | -- | -- | 554.39 |
| 6.56 | 6.135 | 6.56 | -- | -- | -- | -- | 559.50 | -- | -- | -- | -- | 559.50 |
| 6.60 | 6.183 | 6.60 | -- | -- | -- | -- | 564.63 | -- | -- | -- | -- | 564.63 |
| 6.64 | 6.230 | 6.64 | -- | -- | -- | -- | 569.77 | -- | -- | -- | -- | 569.77 |
| 6.68 | 6.278 | 6.68 | -- | -- | -- | -- | 574.92 | -- | -- | -- | -- | 574.92 |
| 6.72 | 6.326 | 6.72 | -- | -- | -- | -- | 580.09 | -- | -- | -- | -- | 580.09 |
| 6.76 | 6.373 | 6.76 | -- | -- | -- | -- | 585.28 | -- | -- | -- | -- | 585.28 |
| 6.80 | 6.421 | 6.80 | -- | -- | -- | -- | 590.48 | -- | -- | -- | -- | 590.48 |
| 6.84 | 6.470 | 6.84 | -- | -- | -- | -- | 595.70 | -- | -- | -- | -- | 595.70 |
| 6.88 | 6.519 | 6.88 | -- | -- | -- | -- | 600.93 | -- | -- | -- | -- | 600.93 |
| 6.92 | 6.568 | 6.92 | -- | -- | -- | -- | 606.18 | -- | -- | -- | -- | 606.18 |
| 6.96 | 6.617 | 6.96 | -- | -- | -- | -- | 611.45 | -- | -- | -- | -- | 611.45 |
| 7.00 | 6.666 | 7.00 | -- | -- | -- | -- | 616.72 | -- | -- | -- | -- | 616.72 |
| 7.04 | 6.715 | 7.04 | -- | -- | -- | -- | 622.02 | -- | -- | -- | -- | 622.02 |
| 7.08 | 6.764 | 7.08 | -- | -- | -- | -- | 627.33 | -- | -- | -- | -- | 627.33 |
| 7.12 | 6.813 | 7.12 | -- | -- | -- | -- | 632.65 | -- | -- | -- | -- | 632.65 |
| 7.16 | 6.862 | 7.16 | -- | -- | -- | -- | 637.99 | -- | -- | -- | -- | 637.99 |
| 7.20 | 6.911 | 7.20 | -- | -- | -- | -- | 643.34 | -- | -- | -- | -- | 643.34 |
| 7.24 | 6.961 | 7.24 | -- | -- | -- | -- | 648.71 | -- | -- | -- | -- | 648.71 |
| 7.28 | 7.012 | 7.28 | -- | -- | -- | -- | 654.10 | -- | -- | -- | -- | 654.10 |
| 7.32 | 7.062 | 7.32 | -- | -- | -- | -- | 659.49 | -- | -- | -- | -- | 659.49 |
| 7.36 | 7.112 | 7.36 | -- | -- | -- | -- | 664.91 | -- | -- | -- | -- | 664.91 |
| 7.40 | 7.163 | 7.40 | -- | -- | -- | -- | 670.34 | -- | -- | -- | -- | 670.34 |
| 7.44 | 7.213 | 7.44 | -- | -- | -- | -- | 675.78 | -- | -- | -- | -- | 675.78 |
| 7.48 | 7.263 | 7.48 | -- | -- | -- | -- | 681.23 | -- | -- | -- | -- | 681.23 |
| 7.52 | 7.314 | 7.52 | -- | -- | -- | -- | 686.71 | -- | -- | -- | -- | 686.71 |
| 7.56 | 7.364 | 7.56 | -- | -- | -- | -- | 692.19 | -- | -- | -- | -- | 692.19 |
| 7.60 | 7.415 | 7.60 | -- | -- | -- | -- | 697.69 | -- | -- | -- | -- | 697.69 |
| 7.64 | 7.466 | 7.64 | -- | -- | -- | -- | 703.21 | -- | -- | -- | -- | 703.21 |
| 7.68 | 7.518 | 7.68 | -- | -- | -- | -- | 708.74 | -- | -- | -- | -- | 708.74 |
| 7.72 | 7.570 | 7.72 | -- | -- | -- | -- | 714.28 | -- | -- | -- | -- | 714.28 |
| 7.76 | 7.622 | 7.76 | -- | -- | -- | -- | 719.84 | -- | -- | -- | -- | 719.84 |
| 7.80 | 7.673 | 7.80 | -- | -- | -- | -- | 725.41 | -- | -- | -- | -- | 725.41 |
| 7.84 | 7.725 | 7.84 | -- | -- | -- | -- | 731.00 | -- | -- | -- | -- | 731.00 |
| 7.88 | 7.777 | 7.88 | -- | -- | -- | -- | 736.60 | -- | -- | -- | -- | 736.60 |
| 7.92 | 7.829 | 7.92 | -- | -- | -- | -- | 742.22 | -- | -- | -- | -- | 742.22 |
| 7.96 | 7.880 | 7.96 | -- | -- | -- | -- | 747.85 | -- | -- | -- | -- | 747.85 |
| 8.00 | 7.932 | 8.00 | -- | -- | -- | -- | 753.49 | -- | -- | -- | -- | 753.49 |

...End

APPENDIX F
DRAINAGE & UTILITY PLAN

APPENDIX G
LOT GRADING PLAN



VICINITY MAP

NW Cor. NE 1/4
Sec. 10, T27S,
R2E, 6th P.M.
Fnd. 1/4 Bar #1/
Party 18 Cdb

75'
N89°13'29"E

21st ST. N.

EXIST. SSMH
TOP=1381.63

EXIST. SSMH
TOP=1376.55

EXIST. SSMH
TOP=1371.91

EXIST. SSMH
TOP=1368.19

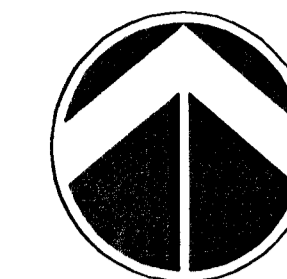
EXIST. SSMH
TOP=1365.45

EXIST. SSMH
TOP=1362.18

EXIST. SSMH
TOP=1357.20

EXIST. SSMH
TOP=1357.20

EXIST. SSMH
TOP=1357.20



SCALE: 1" = 100'
100 0 100 200

BENCHMARKS

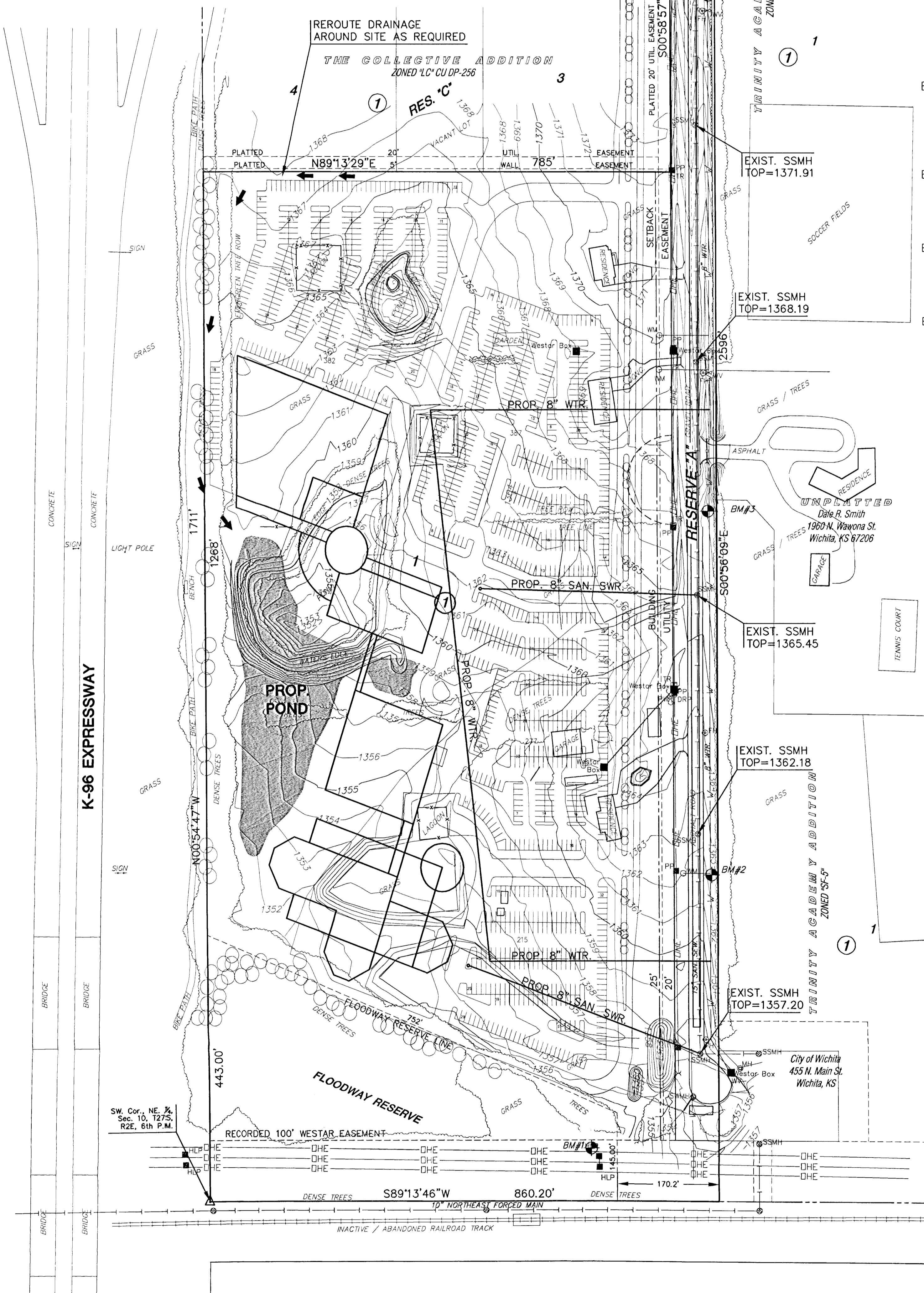
- BM #1 Railroad spike in north leg of the 2nd "H" pole structure east of K-96, 1st "h" pole west of Wawona, 660' east and 75' north of the center corner of Sec. 10-27S-2E. Elev. = 167.17 City Datum
- BM #2 Railroad spike in east side of 18" elm tree 2163' south of NE 1/4 Sec. 10-27S-2E (21st st. N.) & 62' east of the west line of Wawona extended south. Elev. = 176.30 City Datum
- BM #3 Railroad spike in west side of power pole on west side of Wawona, 1531' south of the north of the NE 1/4 Sec. 10-27S-2E. Elev. = 181.24 City Datum
- BM #4 Railroad spike in west side of power pole on the west of Wawona, 654' south of the north line of the NE 1/4 sec. 10-27S-2E. Elev. = 189.75 City Datum
- BM #5 Stepped spike in north side of power pole on SW. corner 21st. & Wawona, 779' east & 48' south of north 1/4 cor. Sec. 10-27S-2E. Elev. = 197.32 City Datum

LEGEND

- - CONIFEROUS TREE & DIAMETER
- - DECIDUOUS TREE & DIAMETER
- - SIGN
- - BUSH
- - POWER POLE AND GUY ANCHOR
- - ELECTRIC BOX
- - EDGE OF TREES
- - FENCE
- - BENCHMARK
- - STORM WATER MANHOLE
- - SANITARY SEWER MANHOLE
- - TELEPHONE MANHOLE
- - SECTION CORNER
- - 5/8" REBAR/MKEC CUS #30 SET
- - PROPERTY CORNER FOUND
- - GATE
- - TRAFFIC SIGNAL MANHOLE
- - SPRINKLER HEAD
- - LIGHT POLE
- - FIRE HYDRANT
- - WATER VALVE
- - WATER METER
- - IRRIGATION CONTROL VALVE
- - TELEPHONE RISER
- - INLET
- - STORM SEWER PIPE
- - WATER LINE
- - SANITARY SEWER LINE
- - GAS LINE
- - TELEPHONE LINE
- - UNDERGROUND ELECTRIC LINE
- - OVERHEAD ELECTRIC

NOTES

1. ZONING:
Existing: Single Family "SF-5"
Proposed: General Office "GO"
2. PLAT AREA: 31.05 acres
35.29 acres with R/W
3. SURVEY DATE: July 18th, 2003
4. EXISTING USE: Residential
PROPOSE USE: Medical Facility
5. LOT TOTAL: 1
6. RESERVE DESIGNATION AND USES:
1.) Irrigation (A)
2.) Landscaping (A)
3.) Berthing (A)
4.) Monuments (A)
5.) Open Space (A)
6.) Signs (A)
7. PROPOSE STREET NAME CHANGE:
Current: Wawona Street
Proposed: Bracken Circle



DRAINAGE AND UTILITY PLAN
WICHITA CLINIC ADDITION

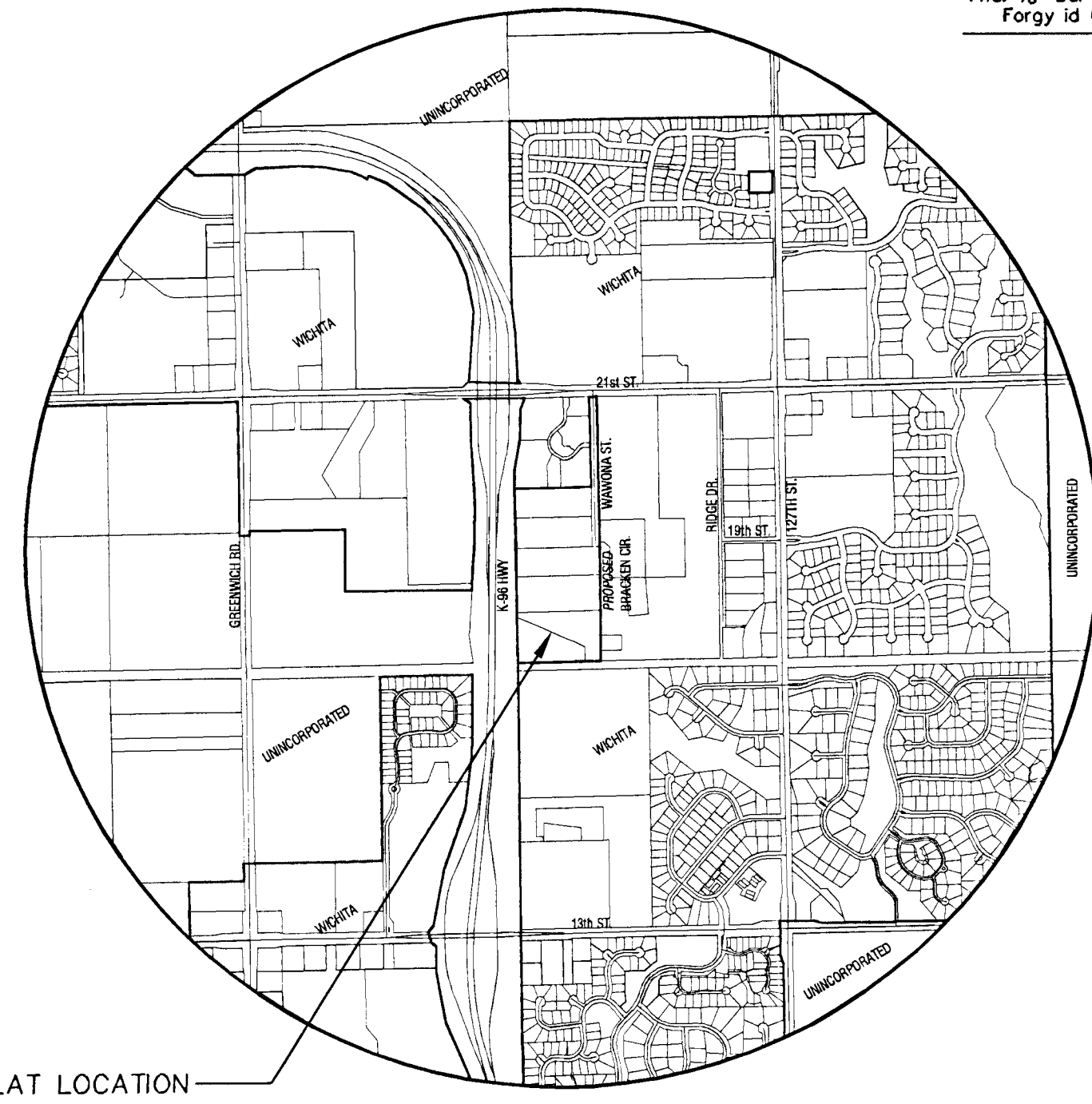
OWNERS: Ralph A. and Mary K. Lanzrath 1857 N. Wawona St. Wichita, KS 67206 316-636-5175
DEVELOPER: Integrated Healthcare Systems Inc. 3311 E. Murdock St. Wichita, KS 67208-3054 316-689-9153

DATE: AUGUST, 2003



MKEC
ENGINEERING
CONSULTANTS
411 N. WEBB ROAD
WICHITA, KS. 67206
316-684-9000

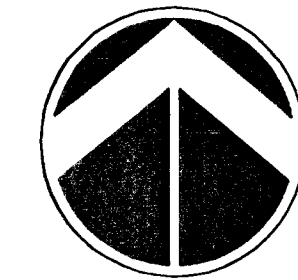
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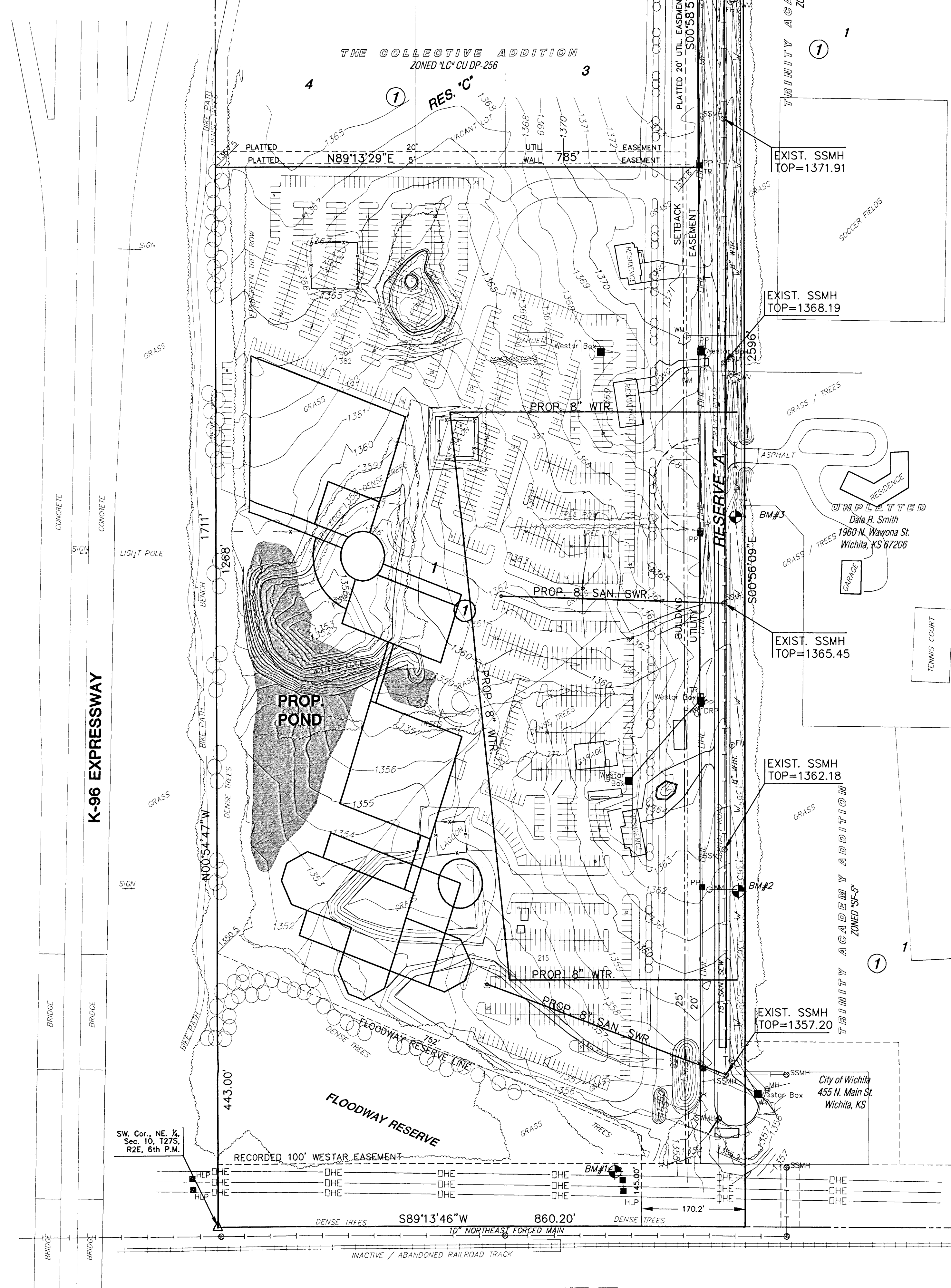
VICINITY MAP

NW Cor. NE 1/4
Sec. 10, T27S
R2E, S11 P.M.
Frd. 1/4 Bar w/
Ferry rd Cop

75'
N89°13'29"E



SCALE: 1" = 100'
100 0 100 200



BENCHMARKS

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- ⊙ - DECIDUOUS TREE & DIAMETER
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PRELIMINARY LOT GRADING PLAN WICHITA CLINIC ADDITION

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