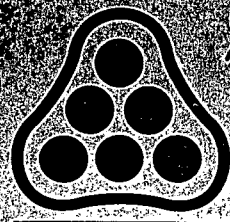


445  
File HMC RDP



**P**ROFESSIONAL  
**E**NGINEERING  
**C**ONSULTANTS  
PROFESSIONAL ASSOCIATION



March 15, 1995

Reflection Ridge, Inc.  
7926 W. 21st St.  
Wichita, KS 67205

Attention: Mr. Marvin Schellenberg, VP

Reference: Sanitary Sewer Capacity Study  
PEC Project No. 36-94511-2273 <sup>3114</sup>

Dear Mr. Schellenberg:

In accordance with the agreement between Reflection Ridge and Professional Engineering Consultants, P.A. dated July 13, 1994, this letter serves as a report of findings for sanitary sewer capacity to serve the SW 1/4, Section 33, Township 26S, Range 1W, (Woodard property). The study has since been expanded to include the analysis of sewer capacity to serve the NW 1/4, Section 4, Township 27S, Range 1W, (Kastens property). Please note the available capacity in the Reflection Ridge Pump Station.

**PURPOSE**

The purpose of the study is to determine if sanitary sewer capacity is available in downstream sewer lines and lift stations, where applicable. The factors considered in the study include the design capacities of the main sewer system, identification of planned development influencing the study area, and projected wastewater flows from each area.

**STUDY AREA**

The study area consists of approximately 1,200 acres located in Sections 3, 4, and 5 of T27S, R1W, and Section 33, T26S, R1W (Map 1). The study area is approximately 90% residential or proposed residential. The remainder is commercial and Industrial. The average residential density of this area ranges from 1.75 dwelling units (DU) per acre to 2.4 DU per acre.

DIRECTORS: / D.E. MALTBY, P.E. / W.H. KELTNER, P.E. / R.D. PLETCHER, P.E. / M.D. SCHOMAKER, P.E. / G.D. SCHOCK, P.E.  
J.H. BAILEY, P.E., PH.D. / D.I. NORTON, P.E. / B.E. REMSERG, P.E. / G.K. GREENWOOD, P.E. / D.E. HAGER, P.E.  
ASSOCIATE DIRECTORS: / G.L. ADAMS, P.E.

303 S. TOPEKA  
WICHITA, KANSAS 67202  
(316) 262-2691  
FAX (316) 262-3003

## EXISTING SYSTEM

Line 1, Main 15, SWI (Map 1) provides sanitary sewer service to existing Reflection Ridge, Mere Ridge, Lakeside Industrial Park, Forest Lakes Addition, and the western half of Lake Ridge Addition. This portion of the study area encompasses approximately 1040 acres. North of 21st Street, Line 1 is a 21 inch pipe with 0.1% gradient.

Main 4, Westlink Sewer (Map 1) provides sanitary sewer service to the existing Sterling Farms and Bradford South Additions as well as planned development for the remainder of the NE 1/4, Section 5, north of Bradford South. Line 5 extends to the north from Main 4 to provide service to the east half of Sterling Farms and Bradford South service areas. This portion of the study area encompasses approximately 160 acres. Line 5 is a 10 inch pipe that increases to 12 inches as it approaches Main 4 of the Westlink Sewer.

## PROJECTED WASTEWATER FLOWS

For purposes of this study and consistency with previous studies, commercial lots were converted to residential equivalents by applying a factor of 3.0 DU/acre. Existing residential wastewater flow rates were calculated based on platted lots while estimated residential density of proposed development was estimated to be 1.75 DU/acre in accordance with preliminary plats within the study area.

To develop flow rates to compare with sewer system capacity, the number of DU for the service area was calculated. Table 1 "Service Area Dwelling Unit Estimate" was prepared by either an actual count based on plats or estimates based on the assumptions noted above. The flow rates expected for each area were then calculated based on the number of DU as noted below.

$$\begin{aligned} \text{Flow Rate/DU} &= 3.5 \text{ P.E./DU} \times 100 \text{ gallons/PE} \times 3.0 \text{ peaking factor} \\ &= 1,050 \text{ gpd/DU} \end{aligned}$$

**TABLE 1**  
**SERVICE AREA DWELLING UNITS**

| <u>AREA</u>              | <u>DU</u> |
|--------------------------|-----------|
| Reflection Ridge         |           |
| Area 1                   | 493       |
| Area 2                   | 158       |
| Area 3                   | 212       |
| Forest Lakes             |           |
| Area 4                   | 283       |
| Lake Ridge               | 55        |
| Mere Ridge               | 16        |
| Lakeside Industrial Park | 126*      |
| Area 5                   |           |
| Sterling Farms           | 246       |
| Bradford South           | 61        |
| North of Bradford South  | 146       |
| Area 6                   | 280**     |
| Area 7                   | 350**     |

\* Based on allotted amount established in previous studies.

\*\* Estimated based on 1.75 DU/acre.

To determine the number of DU that can be added to each service area, existing wastewater flows into each segment of the sewer system are subtracted from the calculated capacity of each respective sewer segment. The sewer capacities were calculated by applying record data for pipe sizes and pipe gradients to Manning's equation for open-channel flow. City records indicate that the sewer mains were installed during 1988 and that all pipe is PVC. A Manning n-factor of 0.010 was used in the calculations for PVC pipe capacity. The reserve capacity in terms of DU was then calculated as noted below.

$$\text{Reserve Capacity in DU} = (\text{Pipe Capacity} - \text{Existing Flows}) / 1,050 \text{ gpd/DU}$$

The calculated available capacity for each sewer is summarized in Table 2.

**TABLE 2**  
**Existing System Reserve Capacity**

| Component         | Existing DU | Existing Peak Flow, gpd | Receiving Capacity, gpd | Reserve Capacity, gpd | Reserve Capacity, DU |
|-------------------|-------------|-------------------------|-------------------------|-----------------------|----------------------|
| Line 1<br>21 Inch | 858         | 1,760,900*              | 3,280,000               | 1,519,100             | 1,447                |
| Line 1<br>15 Inch | 229         | 1,100,450*              | 1,342,300               | 241,850               | 230                  |
| Line 2<br>8 Inch  | 294         | 308,700                 | 376,470                 | 67,770                | 65                   |
| Line 3            | 158         | 165,900                 | 376,470                 | 210,570               | 200                  |
| Line 4            | 212         | 222,600                 | 376,470                 | 153,870               | 147                  |
| Line 5            | 301         | 316,050                 | 528,592                 | 212,542               | 202                  |
| Line 6            | 453         | 415,650                 | 528,592                 | 52,942                | 50                   |

\* Includes pump station flow of 860,000 gpd.

## POTENTIAL DEVELOPMENT AREAS

Two areas are targeted for potential development: the Woodard property, SW 1/4, Section 33, T26S, R1W (Area 7), which lies adjacent to and directly north of the Kasten property NW 1/4, Section 4, T27S, R1W (Area 6). By inspection it appears that if possible, sanitary sewer service for development on Kasten property must be provided from Lines 2, 3, and 6. If capacity in the pump station is available, Lines 4 and 5 may provide sanitary sewer service to potential development on Woodard property.

### AREA 1

Area 1 is served by Line 2. Flow into Line 2 from potential development Area 6 in the NW 1/4 of Section 4 will be limited by Line 2 to 67,770 gpd. This results in a maximum of 65 DU that may be added to Line 2. Line 1 has adequate capacity for the additional 65 DU including flows from the Reflection Ridge 6th Pump Station.

### AREA 2

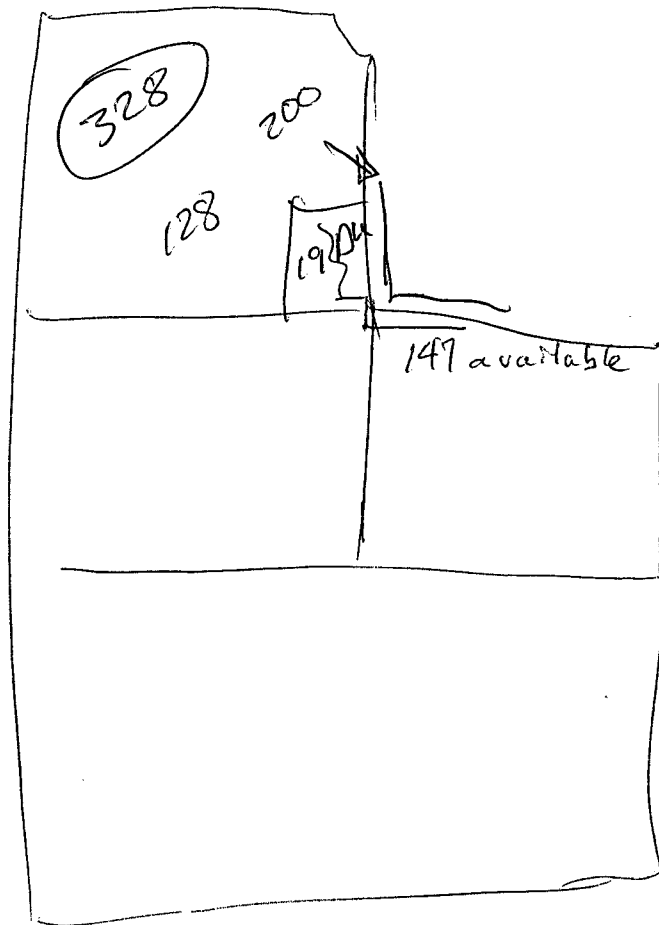
Area 2 is served by Line 3. Flow into Line 3 from potential development Area 6 in the NW 1/4 of Section 4 will be limited by Line 3 to 210,570 gpd. This results in a maximum of 200 DU that may be added to Line 3. Line 1 has adequate capacity for the additional 200 DU including flows from the Reflection Ridge 6th Pump Station.

### AREA 3

Area 3 is served by Line 4. Flow into Line 4 will be limited by Line 4 to 153,870 gpd. This results in a maximum of 147 DU that may be added to Line 4. Line 4 discharges into the Reflection Ridge 6th Pump Station. The Pump Station has adequate capacity for the additional 147 DU. Note that the maximum DU that can be added to the Pump Station service area without modifications to the pump station or force main is 200 DU.

### AREA 4

The Area 4 service area is served by Line 5. Flow into Line 5 from the potential development area in the SW 1/4 of Section 33 will be limited by the remaining available capacity of the Reflection Ridge 6th Pump Station. The Pump Station has capacity for only 200 DU, some of which may be designated to additional flows from Line 4. If modifications are made to the pump station, Line 5 will have capacity for an additional 200 DU.



## AREA 5

Area 5 is served by Line 6. Flow into Line 6 from the potential development area in the NW 1/4 of Section 4 will be limited by Line 6 to 52,940 gpd. This results in a maximum of 50 DU that may be added to Line 6. It was estimated that 146 DU will contribute to Area 2 from the planned development area north of Bradford South.

## POTENTIAL DEVELOPMENT: AREA 6

Area 6 is located in the NW 1/4 of Section 4, formerly the Kasten property. A preliminary plat with 140 DU has been developed for the south half of this area. The assumed residential density of Area 6 is 1.75 DU/acre. Doubling this to include the entire quarter section brings the total dwelling units planned for this area to 280 DU. Due to the limited available capacity of the pump station and its service area, as much flow as possible should be directed to Lines 2, 3, and 6. Line 2 can accommodate 65 DU, Line 3 can accommodate 200 DU, and Line 6 can accommodate 50 DU. For the purpose of this study, it will be assumed that Lines 2 and 6 will be used to their maximum capacity and that Line 3 will receive flow from the remaining 165 DU. This allows the entire quarter section to be served by Line 1 apart from the pump station service area. Preliminary inspection indicates that there is enough grade to provide basement depth service as described for the majority of Area 6 with the exception of approximately 6 acres in the northwest corner of the area. The entire Area 6 can be developed at 280 DU's with the proposed sewer service configuration.

## POTENTIAL DEVELOPMENT: AREA 7

Area 7 is approximately 200 acres and at the assumed residential density of 1.75 DU/acre would include 350 DU. However, Area 7 must be served by the pump station which has an available capacity of only 200 DU. Therefore, the amount of land that can be developed in Area 7 without modification to the pump station is approximately 115 acres. To develop Area 7 to its maximum (350 DU's), the Reflection Ridge 6th Pump Station and force main must be reconstructed. If the pump station is reconstructed to provide the required capacity, Area 7 could be served by Lines 4 and 5. Line 4 has capacity for an additional 147 DU and Line 5 has capacity for an additional 200 DU. Combining the available flow in both these sewers provides the needed capacity to service all of Area 7. The 15 inch portion of Line 1 does not have capacity for the additional flow created by Areas 6 and 7 indicating that the force main must be extended to the 21 inch line. Preliminary inspection indicates that there is enough grade to provide basement depth service as described with the exception of approximately 10 acres in the northwest corner of the area.

## REFLECTION RIDGE PUMP STATION

The existing Reflection Ridge Pump Station was originally constructed with a capacity of 250 gpm. In September, 1992, the pump station was expanded to a capacity of 600 gpm, or 860,000 gpd. The existing service area contributes 652,050 gpd. The additional flow from 350 DU in area 7 would increase the service area flow to 1,019,550 gpd.

To accommodate development of Area 7, the Pump Station would be reconstructed to a capacity of approximately 710 gpm, the 6 inch force main would be increased to 8 inches, and the force main would be extended to the 21 inch portion of Line 1. The estimated cost of the pump station/force main is summarized in Table 3.

TABLE 3

| QUANTITY   | DESCRIPTION                               | UNIT PRICE   | INSTALLATION | AMOUNT    | TOTAL            |
|------------|---|--------------|--------------|-----------|------------------|
| 1. 1 LS    | PUMP STATION                              | \$140,000 LS | 1.0          | \$140,000 |                  |
| 2. 3100 LF | 10 INCH FORCE MAIN                        | \$20 LF      | 1.0          | \$62,000  |                  |
|            | <b>ESTIMATED CONSTRUCTION TOTAL</b>       |              |              |           | <b>\$202,000</b> |
|            | <b>CONTINGENCY</b>                        | <b>20%</b>   |              |           | <b>\$40,400</b>  |
|            | <b>ENGINEERING</b>                        |              |              |           | <b>\$20,200</b>  |
|            | <b>ADMINISTRATION</b>                     |              |              |           | <b>\$4,000</b>   |
|            | <b>INSPECTION</b>                         |              |              |           | <b>\$14,200</b>  |
|            | <b>OPINION OF TOTAL PUMP STATION COST</b> |              |              |           | <b>\$280,800</b> |

## FUTURE AREAS NORTH AND WEST OF AREA 7

Recent questions have arisen concerning sewerability to the north and west of Area 7. As stated previously, the existing pump station and force main do not have available capacity. Even with the construction of a new pump station at the Reflection Ridge 6th location, Lines 4 and 5 have just enough capacity to service Area 7. Therefore, the only alternative remaining to provide service to the north or west of Area 7 is construction of a pump station located near the area to be served. If this pump station is constructed, the only limiting factor for development is the capacity of the 21 inch diameter Line 1. After complete development of Area 6, Line 1 will have a reserve capacity of 1167 DU.

For residential densities of 1.75 DU/acre and 2.4 DU/acre, there would be 667 acres and 486 acres, respectively, available for development. The pump station capacity

would be 1,225,500 gpd. The estimated cost of the pump station and force main is summarized in Table 4.

**Table 4**

| QUANTITY                             | DESCRIPTION        | UNIT PRICE   | INSTALLATION | AMOUNT    | TOTAL            |
|--------------------------------------|--------------------|--------------|--------------|-----------|------------------|
| 1. 1 LS                              | PUMP STATION       | \$165,000 LS | 1.0          | \$165,000 |                  |
| 2. 11,500 LF                         | 10 INCH FORCE MAIN | \$22 LF      | 1.0          | 253,000   |                  |
| <b>ESTIMATED CONSTRUCTION TOTAL</b>  |                    |              |              |           | <b>\$418,000</b> |
| <b>CONTINGENCY</b>                   |                    | <b>20%</b>   |              |           | <b>\$83,600</b>  |
| <b>ENGINEERING</b>                   |                    |              |              |           | <b>\$41,800</b>  |
| <b>ADMINISTRATION</b>                |                    |              |              |           | <b>\$8,400</b>   |
| <b>INSPECTION</b>                    |                    |              |              |           | <b>\$29,300</b>  |
| <b>OPINION OF TOTAL PUMP STATION</b> |                    |              |              |           | <b>\$581,100</b> |

\* At 1167 Du, the estimated cost per lot is approximately \$500.

**SUMMARY OF FINDINGS**

- Area 6 can be provided sanitary sewer service from Lines 2, 3, and 6. The combined capacity of these lines is 315 DU. Area 6 will contribute 280 DU.
- Approximately 115 acres of Area 7 can be provided sanitary sewer service without modification to the existing system.
- In order to develop all of Area 7, a new pump station would be constructed at a pumping capacity of 710 gpm. A new 8 inch force main would also be constructed from the pump station to the 21 inch pipe north of 21st Street and Ridge Road. Development in Area 7 would then be limited by the existing gravity sewer system to 347 DU. The estimated number for the area is 350 DU based on a residential density of 1.75 DU/acre.
- The estimated cost of the pump station and force main construction is \$280,800.
- Basement depth sewer service appears to be available for all but about 16 acres in Areas 6 and 7.

- To provide sanitary sewer service to the north or west of Area 7, a new pump station and force main must be constructed in this area.
- The pump station could be sized for 1,225,500 gpd to service 1167 DU. Based on residential densities in the area, this would allow 486 to 667 acres to be developed.
- The estimated cost of the Area 7 pump station is \$581,100 or roughly \$500/DU.

Please call if you have any questions or comments.

Very truly yours,

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.



Michael D. Hughes, E.I.T.  
Design Engineer

MDH:sjb

March 6, 1997

**STAFF REPORT**  
**(Preliminary Plat)**

**CASE NUMBER:** S/D 97-3 - FOREST LAKES WEST

**OWNER/APPLICANT:** Forest Lakes, Inc. (Contract Purchaser), 7926 West 21st Street North, Wichita, KS 67205

**SURVEYOR/ENGINEER:** Rob Hartman, c/o P.E.C., P.A., 303 S. Topeka, Wichita, KS 67202

**LOCATION:** North of 29th street North and east of Tyler Road

**SITE SIZE:** 70.5 ± Acres

**NUMBER OF LOTS**

|              |            |
|--------------|------------|
| Residential: | 133        |
| Office:      |            |
| Commercial:  |            |
| Industrial:  |            |
| Total:       | <u>133</u> |

**MINIMUM LOT AREA:** 6,000 sq. ft.

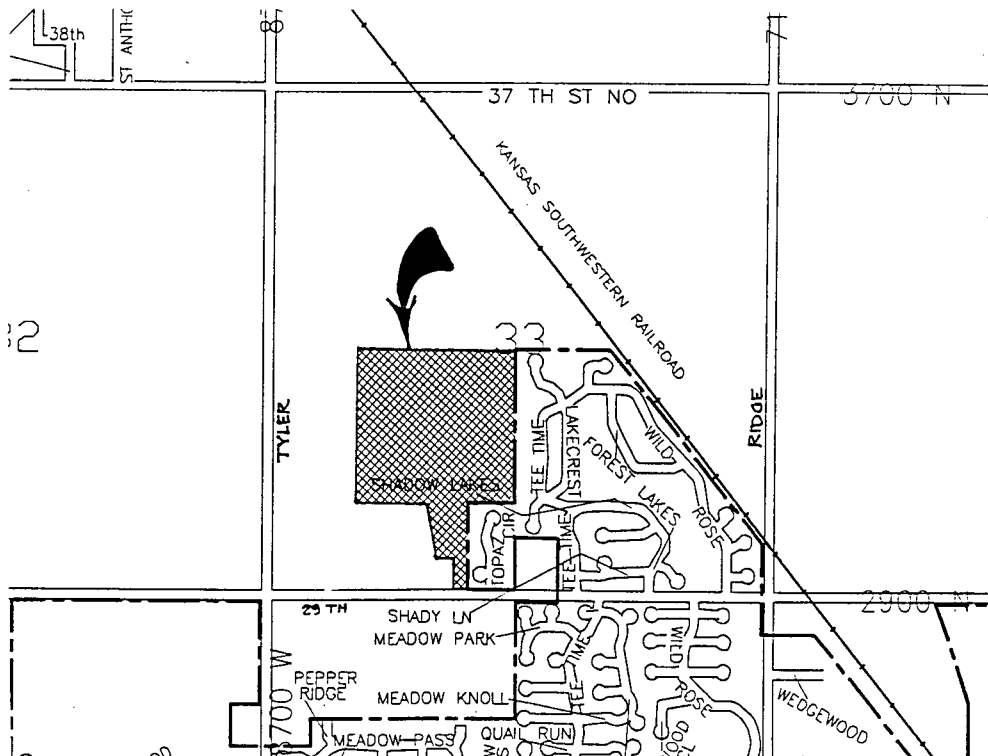
**CURRENT ZONING:** "SF-20"

**PROPOSED ZONING:** "SF-6" (Upon annexation)

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**VICINITY MAP:**



NOTE: This site is presently in the County, under SF-20 zoning. Lot sizes, however, are generally under 20,000 square feet and range down to as small as 6,000 square feet. The site is adjacent to Wichita's City limits and consequently annexation will be required, thereby allowing the lot sizes shown on the plat. Approximately the western half of 29th Street West is unpaved. Although under a separate ownership, the site south of this plat and adjacent to 29th Street North, out to Tyler Road, is also being platted at this time. The paving of the entire length of 29th Street North, westward to Tyler Road would be nice, given these two plats are being platted simultaneously; however, court policy only requires this plat to provide paving between the entrance of Shadow Lakes and the first paving encountered eastward (either Tee Time or Forest Lakes). Also in regards to these two plats, it appears that some overlapping of the Additions (Lots 30, 31, 32 and Reserve G, Block 1 of this plat) may be occurring. Finally, City services to this area, particularly for sanitary sewer services, is somewhat in question. Sewer line capacities and/or natural flow patterns are potentially not adequate at this time.

STAFF COMMENTS:

- A. Prior to this plat being scheduled for City Council review, this site shall have been annexed to the City of Wichita. This annexation will then allow for the lot sizes being platted.
- B. The applicant shall guarantee the extension of sanitary sewer to serve the lots being platted. This guarantee shall provide for any needed off-site extensions, other improvements, and easements. City Engineering needs to indicate the situation in regards to sanitary sewer in this area.
- C. The applicant shall guarantee the extension of City water to serve the lots being platted. This guarantee shall provide for any needed off-site extensions, other improvements, and easements. City Engineering needs to indicate the situation in regards to water in this area.
- D. The applicant shall guarantee the paving of the proposed interior streets. This guarantee shall also provide for sidewalks along at least one-side of all non-cul-de-sac streets, including the street connections involving Shadow Lakes, and Pepper Ridge at both the north and south portions of the site.
- E. The applicant shall guarantee any drainage improvements required by the platting of this property.
- F. The applicant shall guarantee construction of the storm sewers required by this plat.
- G. Along with the associated plat (Oakridge 2nd), this Addition shall participate in the paving of 29th Street North from the present terminus of paving, westward to Tyler Road.
- H. If improvements are guaranteed by petition, a notarized certificate listing the petitions shall be submitted to the Planning Department for recording.
- I. The applicant's agent needs to explain any overlapping conflicts with this plat and the proposed immediately to the south (Oak Ridge 2nd). In particular, Reserve G and Lots 30 thru 33, Block 1 appear to be extending into an area being platted by this other Addition.

- Q. The applicant shall submit a covenant which provides for four (4) off-street parking spaces per dwelling unit on each lot which abuts a 58-foot or 32-foot street. The covenant shall inventory the affected lots by lot and block number and shall state that the covenant runs with the land and is binding on future owners and assigns.
- R. The **Fire Department representative** needs to comment on the acceptability of this plat's street names. In particular Lakeridge, on plats to the south, has been spelled as two separate parts, i.e. Lake Ridge. Also, of concern is the alignment of Shadow Lakes on this plat with the corresponding street to the east, but also with the Oak Ridge 2nd plat to the south and west being reviewed along with this plat.
- S. Prior to submitting the final plat, the applicant shall meet with Planning Department Land Use staff (Ray Ontiveros) to determine if this site could provide for public park or open space areas or the use of such areas as are being platted by this Addition.
- T. Requirements for a final plat (see pages 5-5 through 5-10, Part 4, Article 5 of the MAPC Subdivision Regulations).
- U. 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.
- V. 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.
- W. To receive mail delivery without delay, and to avoid unnecessary expense, the applicant is advised of the necessity to meet with the U.S. Postal Service Growth Management Coordinator (phone 316-729-0102) prior to development of the plat so that the type of delivery, and the tentative mailbox locations can be determined.
- X. The applicant is advised that various State and Federal requirements [specifically but not limited to the Army Corps of Engineers, Kanopolis Project Office, Rt. 1, Box 30, Marquette, KS 67464 (913-546-2294) or Kansas Department of Wildlife and Parks, P. O. Box 317, Valley Center, KS 67147] for the control of soil and wind erosion and the protection of wetlands may impact how this site can be developed. It is the applicant's responsibility to contact all appropriate agencies to determine any such requirements.
- Y. The representatives from the utility companies should be prepared to comment on the need for utility easements to be platted on this property.
- Z. The representatives from **City Engineering** should be prepared to comment on the status of the applicant's drainage concept. Engineering also needs to indicate any minimum building pad elevation requirements for this plat.

- J. Depending when this and the adjacent plat are actually recorded, but also as to when development actually occurs, a temporary turn around could be needed for Pepper Ridge at this plat's southern line. That is, if this site develops before Oakridge 2nd, a temporary turn around will need to be provided. **City Engineering** needs to indicate if an on-site or off-site turn around would be involved and what type of improvement should be included in the above paving guarantee.
- K. The platting of off-street parking areas, such as is proposed for Reserves J, M and N needs to adhere to "policy statement 13" of the MAPC. While in general, this policy involves the designation of such parking areas through the CUP process, when no CUP is involved as in this plat, the conditions and standards of policy statement 13 is still used as the guidelines to be followed.
- In particular, such areas are to be shown as parking "easements" and need to be referenced in the platter's text. For Reserves M and N, the parking areas shall be changed to such easements and not depicted as street right-of-way. For all three reserves, these easements need to be at least 20-feet deep, but no wider (frontage) than 50-feet. For Reserve J, the parking area needs to be designed so as not to interfere with the 15-foot street-drainage-utility easement requirements for 32-foot streets.
- L. On the final plat, complete access control shall be shown to 29th Street North from Reserves A and B.
- M. The final plat shall state in the platter's text the purposes of the proposed reserves as well as who is to own and maintain the reserves.
- N. Provisions shall be made for ownership and maintenance of the proposed reserves. The applicant shall either form a lot owners' association prior to recording the plat or shall submit a covenant stating when the association will be formed, when the reserves will be deeded to the association and who is to own and maintain the reserves prior to the association taking over those responsibilities. This covenant shall also provide for the lot/homeowners association to maintain the "parking strip" located between this site's southern property line and the driving surface for 29th Street North.
- O. For those reserves being platted for drainage purposes, the required covenant which provides for ownership and maintenance of the reserves shall grant, to the City, the authority to maintain the drainage reserves in the event the owner(s) fail to do so. The covenant shall provide for the cost of such maintenance to be charged back to the owner(s) by a method similar to special assessments.
- P. Since this plat proposes the platting of narrow street right-of-way with adjacent "15-foot street, drainage and utility easements," a restrictive covenant shall be submitted which calls out restrictions for lot-owner use of these easements. Retaining walls and change of grade shall be prohibited within these easements as well as fences, earth berms and mass plantings. Any plantings within the easement shall be reviewed by the City Forestry Division prior to installation.

July 10, 1997

**STAFF REPORT**

(Final Plat, Preliminary Plat-Approved 3/6/97)

**CASE NUMBER:** S/D 97-3 - FOREST LAKES WEST ADDITION

**OWNER/APPLICANT:** Forest Lakes, Inc. (Contract Purchaser), 7926 West 21st Street North, Wichita, KS 67205

**SURVEYOR/ENGINEER:** Rob Hartman, c/o P.E.C., P.A., 303 S. Topeka, Wichita, KS 67202

**LOCATION:** North of 29th street North and east of Tyler Road

**SITE SIZE:** 70.5 ± Acres

**NUMBER OF LOTS**

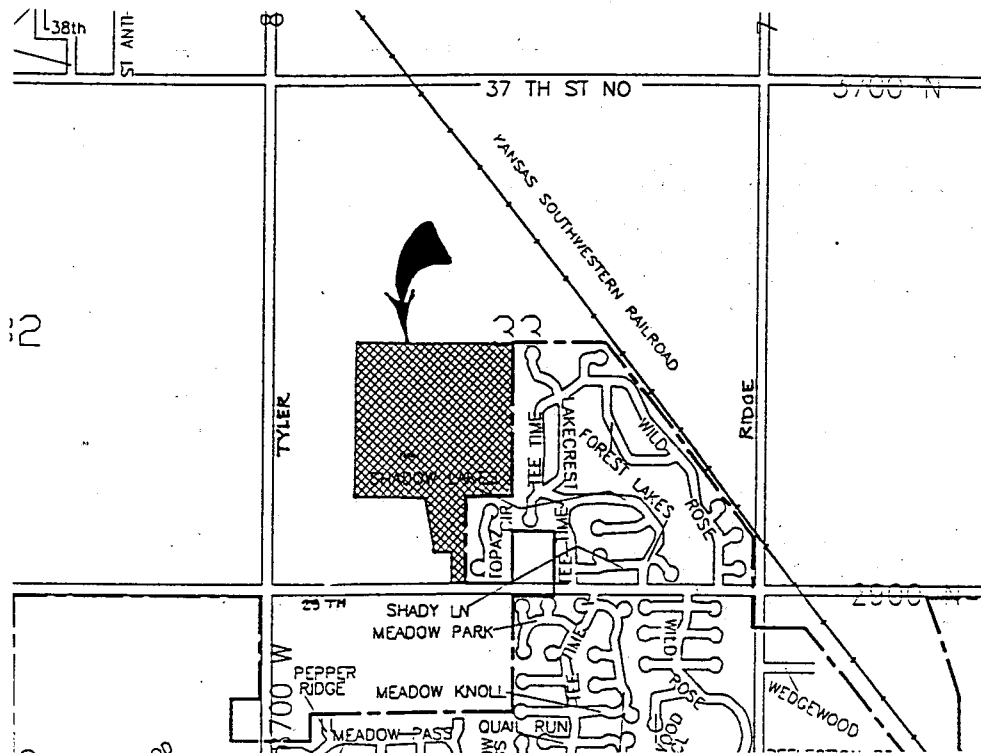
|              |            |
|--------------|------------|
| Residential: | 133        |
| Office:      |            |
| Commercial:  |            |
| Industrial:  |            |
| Total:       | <u>133</u> |

**MINIMUM LOT AREA:** 6,000 sq. ft.

**CURRENT ZONING:** "SF-20"

**PROPOSED ZONING:** "SF-6" (Upon annexation)

**VICINITY MAP:**



NOTE: The site has been annexed by the City of Wichita since the preliminary plat was filed and was annexed April 4, 1997. Approximately the western half of 29th Street West is unpaved. Although under a separate ownership, the site south of this plat and adjacent to 29th Street North, out to Tyler Road, is also being platted at this time (Oak Ridge 2nd). Current paving policy requires this plat to provide paving between the entrance of Forest Lakes West and the first paving encountered eastward (either Tee Time or Forest Lakes). The road way system in the final plat is different from that shown in the preliminary.

STAFF COMMENTS:

- A. Prior to this plat being scheduled for City Council review, this site shall have been annexed to the City of Wichita. This annexation will then allow for the lot sizes being platted. This site has been annexed by the City of Wichita.
- B. The applicant shall guarantee the extension of sanitary sewer to serve the lots being platted. This guarantee shall provide for any needed off-site extensions, other improvements, and easements. City Engineering indicates sanitary sewer services can be extended to the site.
- C. The applicant shall guarantee the extension of City water to serve the lots being platted. This guarantee shall provide for any needed off-site extensions, other improvements, and easements. City Engineering indicates water service can be extended to serve this site.
- D. The applicant shall guarantee the paving of the proposed interior streets. This guarantee shall also provide for sidewalks along at least one-side of all non-cul-de-sac streets.
- E. The applicant shall guarantee any drainage improvements required by the platting of this property.
- F. The applicant shall guarantee construction of the storm sewers required by this plat.
- G. This Addition shall participate in the paving of 29th Street North from the present terminus of paving, westward to "Lakeridge."
- H. If improvements are guaranteed by petition, a notarized certificate listing the petitions shall be submitted to the Planning Department for recording.
- I. Depending when this and the adjacent plat are actually recorded, but also as to when development actually occurs, a temporary turn around could be needed for Pepper Ridge at this plat's southern line. That is, if this site develops before Oakridge 2nd, a temporary turn around will need to be provided. City Engineering needs to indicate if an on-site or off-site turn around would be involved and what type of improvement should be included in the above paving guarantee.
- J. The platting of off-street parking areas, such as is proposed for Reserves K, M and N needs to adhere to "policy statement 13" of the MAPC. While in general, this policy involves the designation of such parking areas through the CUP process, when no CUP is involved as in this plat, the conditions and standards of policy statement 13 is still used as the guidelines to be

followed.

In particular, such areas are to be shown as parking "easements" and need to be referenced in the plat's text. For Reserves M and N, the parking areas shall be changed to such easements and not depicted as street right-of-way. For all three reserves, these easements need to be at least 20-feet deep, but no wider (frontage) than 50-feet. For Reserve J, the parking area needs to be designed so as not to interfere with the 15-foot street-drainage-utility easement requirements for 32-foot streets.

The final plat appears to comply with policy 13 standards.

- K. On the final plat, complete access control shall be shown to 29th Street North from Reserves A and B.
- L. The final plat shall state in the plat's text the purposes of the proposed reserves as well as who is to own and maintain the reserves.
- M. Provisions shall be made for ownership and maintenance of the proposed reserves. The applicant shall either form a lot owners' association prior to recording the plat or shall submit a covenant stating when the association will be formed, when the reserves will be deeded to the association and who is to own and maintain the reserves prior to the association taking over those responsibilities. This covenant shall also provide for the lot/homeowners association to maintain the "parking strip" located between this site's southern property line and the driving surface for 29th Street North.
- N. For those reserves being platted for drainage purposes, the required covenant which provides for ownership and maintenance of the reserves shall grant, to the City, the authority to maintain the drainage reserves in the event the owner(s) fail to do so. The covenant shall provide for the cost of such maintenance to be charged back to the owner(s) by a method similar to special assessments.
- O. Since this plat proposes the platting of narrow street right-of-way with adjacent "15-foot street, drainage and utility easements," a restrictive covenant shall be submitted which calls out restrictions for lot-owner use of these easements. Retaining walls and change of grade shall be prohibited within these easements as well as fences, earth berms and mass plantings. Any plantings within the easement shall be reviewed by the City Forestry Division prior to installation.
- P. The applicant shall submit a covenant which provides for four (4) off-street parking spaces per dwelling unit on each lot which abuts a 58-foot or 32-foot street. The covenant shall inventory the affected lots by lot and block number and shall state that the covenant runs with the land and is binding on future owners and assigns.
- Q. The **Fire Department representative** needs to comment on the acceptability of this plat's street names. In particular Lakeridge, on plats to the south, has been spelled as two separate parts, i.e. Lake Ridge.

- R. Requirements for a final plat (see pages 5-5 through 5-10, Part 4, Article 5 of the MAPC Subdivision Regulations).
- S. 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.
- T. To receive mail delivery without delay, and to avoid unnecessary expense, the applicant is advised of the necessity to meet with the U.S. Postal Service Growth Management Coordinator (phone 316-729-0102) prior to development of the plat so that the type of delivery, and the tentative mailbox locations can be determined.
- U. The applicant is advised that various State and Federal requirements [specifically but not limited to the Army Corps of Engineers, Kanopolis Project Office, Rt. 1, Box 30, Marquette, KS 67464 (913-546-2294) or Kansas Department of Wildlife and Parks, P. O. Box 317, Valley Center, KS 67147] for the control of soil and wind erosion and the protection of wetlands may impact how this site can be developed. It is the applicant's responsibility to contact all appropriate agencies to determine any such requirements.
- V. The representatives from the utility companies should be prepared to comment on the need for utility easements to be platted on this property.
- W. The representatives from City Engineering should be prepared to comment on the status of the applicant's drainage plan. Engineering also needs to indicate any minimum building pad elevation requirements for this plat.

