



City of Broken Arrow
Meeting Agenda
Board of Adjustment

City of Broken Arrow
Council Chambers
220 S 1st Street
Broken Arrow OK
74012

Judd Hatch Chairman
Rebecca Hinkle Vice Chair
Kamara Washington Board Member
George Ghesquire Board Member
Michelle Bergwall Board Member

Wednesday, November 13, 2024

5:30 PM

Council Chambers

NOTICE AND AGENDA OF SPECIAL MEETING

1. Call to Order

2. Roll Call

3. Consideration of Consent Agenda

- A. [24-1513](#) Approval of Board of Adjustment meeting minutes of October 14, 2024

Attachments: [10-14-2024 Board of Adjustment Minutes.he](#)

4. Public Hearings

- A. [24-1514](#) Public hearing, consideration, and possible action regarding VAR-001786-2024, 2807 N Lions Drive Variance, 0.21 acres, R-3/PUD130A, request to reduce the front building setback line from 25 feet to 20 feet along the front property line of North Lions Drive, located approximately one-quarter mile north of Albany Street (61st Street), one-quarter mile west of Elm Place (161st East Avenue) at 2807 North Lions Drive

Sponsors: Planning Commission

Attachments: [2 - Case Map](#)
[3 - Aerial](#)
[4 - Exhibit](#)
[5 - APPROVED PUD 130A](#)
[6 - Stone Wood Crossing II Plat](#)

5. General Board Business

6. Remarks, Inquiries, and/or Comments by the Board and/or Staff (No Action)

7. Adjournment

NOTICE:

- 1. IF YOU HAVE A DISABILITY AND NEED ACCOMMODATION IN ORDER TO PARTICIPATE IN THE MEETING, PLEASE CONTACT COMMUNITY DEVELOPMENT AT 918 259 8412 TO MAKE ARRANGEMENTS.**
- 2. EXHIBITS, PETITIONS, PICTURES, ETC. PRESENTED TO THE BOARD OF ADJUSTMENT MAY BE RECEIVED AND DEPOSITED IN CASE FILES TO BE MAINTAINED AT BROKEN ARROW CITY HALL.**
- 3. RINGING/SOUND ON ALL CELL PHONES AND PAGERS MUST BE TURNED OFF DURING THE MEETING.**

A paper copy of this agenda is available upon request.

POSTED this ____ day of _____, _____, at _____ a.m./p.m.

City Clerk



City of Broken Arrow

Request for Action

File #: 24-1513, **Version:** 1

**Broken Arrow Board of Adjustment
11-13-2024**

To: Chairman and Board Members
From: Community Development Department
Title: Approval of Board of Adjustment meeting minutes of October 14, 2024
Background: Minutes recorded for the Broken Arrow Board of Adjustment meeting.
Attachments: 10 14 2024 Board of Adjustment Minutes
Recommendation: Approve minutes of Board of Adjustment meeting held October 14, 2024.
Reviewed By: Amanda Yamaguchi
Approved By: Rocky Henkel



City of Broken Arrow

**Minutes
Board of Adjustment**

City Hall
220 S 1st Street
Broken Arrow OK
74012

*Judd Hatch Chair
Rebecca Hinkle Vice Chair
Kamara Washington Board Member
George Ghesquire Board Member
Michelle Bergwall Board Member*

Monday, October 14, 2024

Time 5:00 p.m.

Council Chambers

1. Call to Order

Chair Judd Hatch called the meeting to order at approximately 5:00 p.m.

2. Roll Call

Present: 4 - Rebecca Hinkle, George Ghesquire, Michelle Bergwall, Judd Hatch
Absent: 1 - Kamara Washington

3. Consideration of Consent Agenda

A. 24-1382 Approval of Board of Adjustment meeting minutes of June 10, 2024

MOTION: A motion was made by Rebecca Hinkle, seconded George Ghesquire.

Move to approve the Consent Agenda

The motion carried by the following vote:

Aye: 4 - Rebecca Hinkle, George Ghesquire, Michelle Bergwall, Judd Hatch

4. Public Hearings

5. General Board Business

A. 24-1287 Consideration, discussion, and possible approval of 2025 Board of Adjustment meeting schedule

MOTION: A motion was made by George Ghesquire, seconded by Rebecca Hinkle.

Move to approve the Consent Agenda

The motion carried by the following vote:

Aye: 4- Rebecca Hinkle, George Ghesquire, Michelle Bergwall, Judd Hatch

6. Remarks, Inquiries and/or Comments by the Board and/or Staff (No Action)

Ms. Yamaguchi recommended individual meetings with board members.

7. Adjournment

The meeting adjourned at approximately 5:05 p.m.

MOTION: A motion was made by Michelle Bergwall, seconded by George Ghesquire.

Move to adjourn

The motion carried by the following vote:

Aye: 4 - Rebecca Hinkle, George Ghesquire, Michelle Bergwall, Judd Hatch



City of Broken Arrow

Request for Action

File #: 24-1514, **Version:** 1

**Broken Arrow Board of Adjustment
11-13-2024**

To: Chairman and Board Members
From: Community Development Department
Title:

Public hearing, consideration, and possible action regarding VAR-001786-2024, 2807 N Lions Drive Variance, 0.21 acres, R-3/PUD130A, request to reduce the front building setback line from 25 feet to 20 feet along the front property line of North Lions Drive, located approximately one-quarter mile north of Albany Street (61st Street), one-quarter mile west of Elm Place (161st East Avenue) at 2807 North Lions Drive

Background:

Applicant: Patrick Delehanty, Villa Homes LLC
Owner: Patrick Delehanty
Developer: NA
Surveyor: N/A
Location: Approximately one-quarter mile north of Albany Street (61st Street), one-quarter mile west of Elm Place (161st East Avenue) at 2807 North Lions Drive
Size of Tract: 0.32 acres
Number of Lots: 1
Present Zoning: R-3/PUD-130A
Comp Plan: Level 2 (Urban Residential)

VAR-001786-2024 involves a request for a variance to reduce the front building setback line from 25 feet to 20 feet along North Lions Drive. The property is located approximately one-quarter mile north of Albany Street (61st Street), one-quarter mile west of Elm Place (161st East Avenue) at 2807 North Lions Drive and is platted as Lot 1, Block 1, Stone Wood Crossing II.

A building permit was issued for this property on 5-29-24, with a 20' setback and a driveway onto North Lions Drive. It was pointed out to staff that the plat has access restricted onto Lions Drive, which means that if a driveway is proposed onto North Lions Drive, the setback is increased to 25', as laid out in PUD 130A (attached). After this was pointed out to the applicant, they were able to rework the plans to show a driveway onto West Elmira Street, which means that the 20' setback was allowed. The house on this property is still under construction, and the builder has requested that a driveway be allowed onto Lions Drive. VAR-001786-2024 is to allow for a driveway onto Lions Drive without this triggering the increase to 25' which is required by the restricted access on the Plat.

For a variance to be granted, there are six conditions that must be found by the Board of Adjustment.

1. There are unique physical circumstances or conditions, such as irregularity, narrowness, or shallowness of lot, or exceptional topographical or other physical conditions peculiar to the affected property.

Analysis:

The property is a corner lot, which requires two front setbacks, but is not drastically different from other lots within the development.

2. The unusual circumstances or conditions do not exist throughout the neighborhood or district in which the property is located.

Analysis:

The unusual circumstance for this building permit is that it was issued with incorrect setbacks initially. This error was not caught until after framing of the house had begun, which means that the builder decided to move the driveway instead of the house. This caused a non-traditional shaped driveway, which is not the preferred solution.

3. Such physical circumstances or conditions were not created by the applicant.

Analysis:

The applicant is not at fault for the house being built with a 20' setback. The city should have caught this during the plan review.

4. Because of such physical circumstances or conditions, the property cannot reasonably be developed in conformity with the provisions of this Ordinance.

Analysis:

This property can be built in conformance with the zoning ordinance. To do so, the property would have a 20' setback, but will have a drive onto Elmira Street. This amended plan is what the city approved to allow construction to continue, but is not the preferred solution.

5. The variance, if granted, will not alter the essential character of the neighborhood or district in which the property is located, nor substantially or permanently impair the appropriate use or development of adjacent property.

Analysis:

A variance on this property would not alter the character of the neighborhood. This house will be finished with a 20' setback either way, and the nontraditional driveway onto Elmira Street would alter the character of the neighborhood.

6. The variance, if granted, would be the minimum variance that will afford relief and is the least modification possible of the provisions of this Ordinance that are in question.

Analysis:

Granting a variance to reduce the building setback line along Lions Drive to accommodate the preferred

driveway location is the minimum variance required.

Attachments: Case map
Aerial
Exhibit
Approved PUD 130A
Stone Wood Crossing II Plat

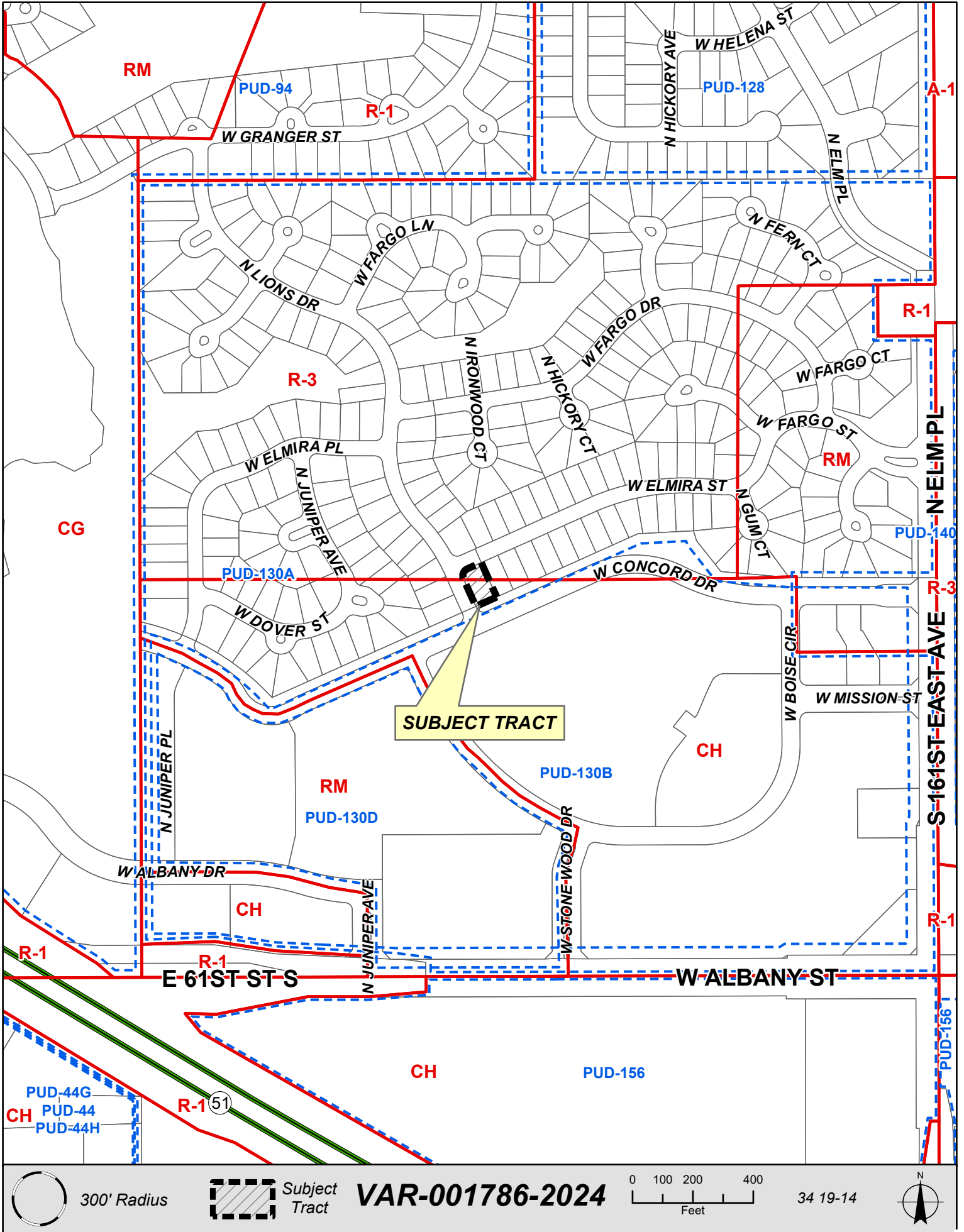
Recommendation:

By State law and by the City of Broken Arrow Zoning Ordinance, for a variance to be granted, all six conditions listed above must be met. In Staff's opinion, the request for a variance to reduce the building setback line for the existing structure at 2807 North Lions Drive meets the six conditions for the Board to grant a variance. Therefore, Staff recommends that VAR-001786-2024 be approved to reduce front setback on Lions Drive from 25' to 20'.

Reviewed by: Amanda Yamaguchi

Approved by: Rocky Henkel

HMB



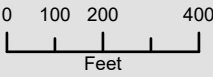
SUBJECT TRACT

VAR-001786-2024

300' Radius



Subject Tract



34 19-14





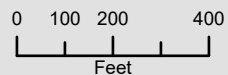
SUBJECT TRACT

Note: Graphic overlays may not precisely align with physical features on the ground.
Aerial Photo Date: 2023



Subject Tract

VAR-001786-2024

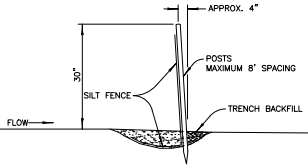


34 19-14



NOTES:

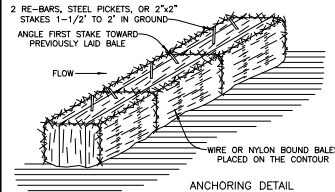
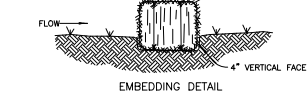
- GRADING AND EROSION CONTROL PLAN**
1. ALL GRADING AND EROSION CONTROL SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT CITY STANDARD CONSTRUCTION SPECIFICATIONS.
 2. ALL EROSION CONTROL CONSTRUCTION SHALL BE INSPECTED BY THE PUBLIC WORKS DEPARTMENT UTILITY INSPECTORS, IN ACCORDANCE WITH CITY POLICY.
 3. EROSION CONTROL SHALL START WITH INITIAL CONSTRUCTION AND BE PRACTICED THROUGHOUT THE PROJECT.
 4. HAY BALE DIKES OR SILT FENCES SHALL BE CONSTRUCTED ADJACENT TO ALL DRAINAGEWAYS, AND IN ALL AREAS THAT WILL ERODE INTO THE STORM SEWER SYSTEM.
 5. WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR 14 DAYS, THE DISTURBED AREAS SHALL BE STABILIZED WITH SEED AND MULCH.
 6. THE CONTRACTOR SHALL RE-SEED ALL AREAS DISTURBED DURING CONSTRUCTION AND CONTRACTOR SHALL BE RESPONSIBLE FOR SEEDED AREAS UNTIL GROWTH IS ESTABLISHED TO A UNIFORM HEIGHT OF TWO(2) INCHES.
 7. THERE ARE NO OFFSITE MATERIAL, WASTE, BORROW, OR EQUIPMENT STORAGE AREAS.
 8. THE STORM WATER POLLUTION PREVENTION PLAN SHALL BE UPDATED AS NECESSARY TO REMAIN CONSISTENT WITH ANY CHANGES APPLICABLE TO PROTECT SURFACE WATER RESOURCES IN SEDIMENT EROSION SITE PLANS OR SITE PERMITS, OR STORM WATER MANAGEMENT SITE PLANS OR SITE PERMITS APPROVED BY STATE OR LOCAL OFFICIALS FOR WHICH THE PERMITEE RECEIVES WRITTEN NOTICE.



1. POSTS SHALL BE ANGLED SLIGHTLY TOWARD RUNOFF SOURCE.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN AND BACKFILLED.
3. THE TRENCH SHOULD BE 6" DEEP BY 3" TO 4" WIDE TO ALLOW SILT FENCE TO BE LAID IN AND BACKFILLED.
4. SILT FENCE SHALL BE FASTENED TO POSTS OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE POSTS.
5. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT PROMPT.
6. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO IMPEDE STORMWATER FLOW.
7. TRAPPED SEDIMENT SHALL BE DISPOSED OF IN AN APPROVED MANNER AND LOCATION WHICH WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.
8. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6" TO 9" AND DISPOSED OF AS INDICATED IN NOTE 7 ABOVE.

3 SILT FENCE DETAIL

SCALE: NONE

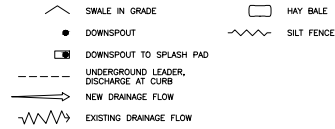


1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF FOUR INCHES, WHERE POSSIBLE.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED BY CONTRACTOR.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
6. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6 INCHES.

2 HAY BALE DIKE DETAIL

SCALE: NONE

EROSION CONTROL LEGEND

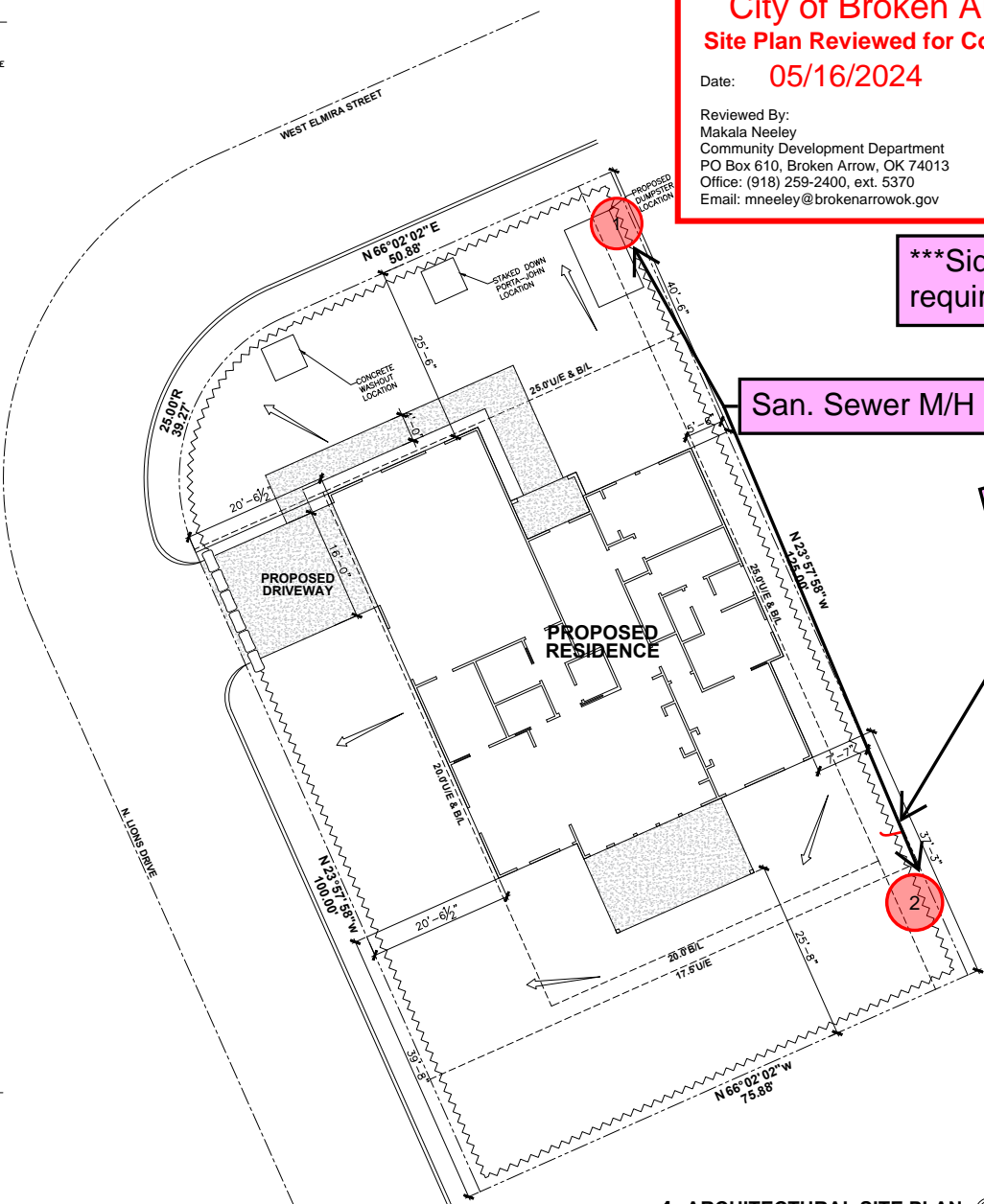


LEGAL DESCRIPTION

- LOT 1, BLOCK 1
- STONE WOOD CROSSING II
- BROKEN ARROW, OK

LIVABILITY SPACE

- ZONING = PUD 130A
- LOT SIZE = 9,351 SQ.FT.
- STRUCTURE HEIGHT = ± 34'-11"
- FIRST FLOOR FRAMED = 1,825 SQ.FT.
- SECOND FLOOR FRAMED = 904 SQ.FT.
- TOTAL FRAMED = 2,829 SQ.FT.
- GARAGE = 697 SQ.FT.
- PORCH = 320 SQ.FT.
- DRIVEWAY = 363 SQ.FT.



City of Broken Arrow
Site Plan Reviewed for Compliance

Date: **05/16/2024**

Reviewed By:
 Makala Neeley
 Community Development Department
 PO Box 610, Broken Arrow, OK 74013
 Office: (918) 259-2400, ext. 5370
 Email: mneeley@brokenarrowok.gov

***Sidewalk is required.

San. Sewer M/H

Sanitary Sewer Tap.

1 ARCHITECTURAL SITE PLAN
 SCALE: 3/32" = 1'-0"

REVISION SCHEDULE

NO.	DESCRIPTION	DATE

SHEET NAME
ARCHITECTURAL SITE PLAN

SHEET NUMBER
SP

ELM CREEK
COMMUNITY DEVELOPMENT

Submission for:
PLANNED UNIT DEVELOPMENT (PUD# 130-A)
and
REZONING (BAZ #1445)

Submitted to:
CITY OF BROKEN ARROW, OKLAHOMA

Prepared by:
PITTMAN POE & ASSOCIATES, INC.
1709 W. GRANGER ST.
BROKEN ARROW, OK 74012
918/355-8552

May 24, 2004

APPROVED <i>by City Council</i>
DATE <i>June 7, 2004</i>
BROKEN ARROW PLANNING DEPT.

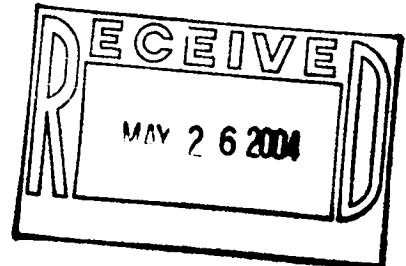


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DEVELOPMENT CONCEPT

The ElmCreek Community Development is a proposed mixed-use Planned Unit Development (PUD) located in northwestern Broken Arrow, north of Albany Street and west of Elm Plans. This ±154.9 acre development is situated on relatively flat to rolling terrain that features a tree-lined creek/drainage ways and scattered farm ponds. The site has excellent development possibilities.

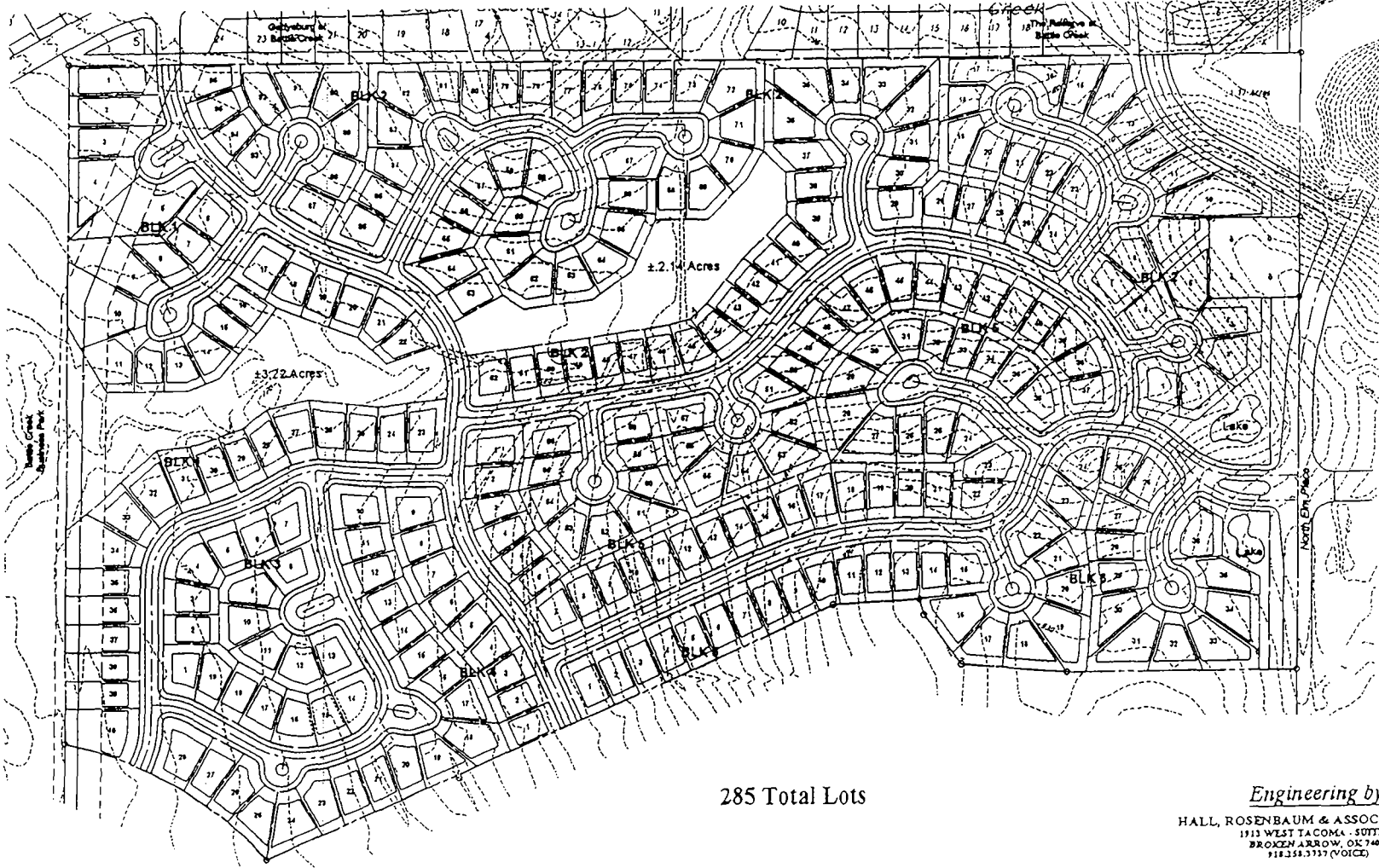
The property was originally approved for development as PUD 101 on November 18, 1996, however the PUD expired after no development had taken place in the allotted amount of time. The differences between the new Elm Creek PUD and the original Elm Creek PUD 101 are minor and are as follows: the original Tracts F and I are now combined into a single tract, Tract E; the original multi-family has been eliminated.

The proposed PUD currently being considered for approval is a mixed use development with provisions for residential, commercial shopping, office and hotel/conference land uses.

In determining which areas lend themselves to specific land uses, sensitivity to topography, vegetation, surrounding land uses and other critical factors are of primary importance. Careful planning and execution of the development will help fulfill the present and future needs of the community. Through the utilization of sound and proper planning techniques, the need for different land uses can be met while minimizing the effect and impact on the unique natural features that exist on the land today. These varying land uses are anticipated to be developed in such a way that the less intense land uses will be buffered from the more intense land uses by means of screening, landscape buffers and/or through a hierarchy of more intense to less intense land uses. The architectural design of buildings will create individuality within a development area while simultaneously maintaining the overall unity of this community.

There are several factors that will drive the development of this property as well as dictate what the appropriate land uses will be. Three of the most important of these factors would be the close proximity of the Broken Arrow Expressway, the Battle Creek Development, and the Broken Arrow Comprehensive Plan which this PUD was developed in accordance with. These items indicate that a significant portion of the subject tract will need to be developed in higher intensity types of land uses. The PUD submittal reflects that need as well as the need to be compatible with the surrounding land uses. To that end, this PUD requires commercial shopping, corporate office and hotel/conference center land uses south of the centrally located east/west roadway and residential uses to the north. The location types and intensity of uses will relate well to the Battle Creek development which shares this property's north and west boundaries. These will be at least two points of access between Elm Creek and Battle Creek, and one collector street point of access to the Reserve at Battle Creek development to the north. The development possibilities and benefits that this property has for the city of Broken Arrow are significant and the implementation of this PUD will help guarantee that this project is developed in the appropriate and best manner possible.

There shall be no more than six points of access to Albany Street (61st Street) and no more than three points to Elm Place (161st and East Avenue). All access points on Albany and Elm Place shall be spaced at least 300 feet apart, centerline to centerline. A 60' collector street is proposed in the south portion of the Elm Creek development. Between the proposed single family area and the commercial shopping/corporate office areas. It will connect Elm Place to the collector street stub from the Reserve at Battle Creek. Single-family lots will back or side to all collector streets. No single-family lot shall have direct access to a collector street or an arterial street. Right-of-way will be provided for Albany and Elm Place along the south and east boundaries of Elm Creek in accordance with the subdivision regulations. This right-of-way will be provided at the time of platting.



285 Total Lots

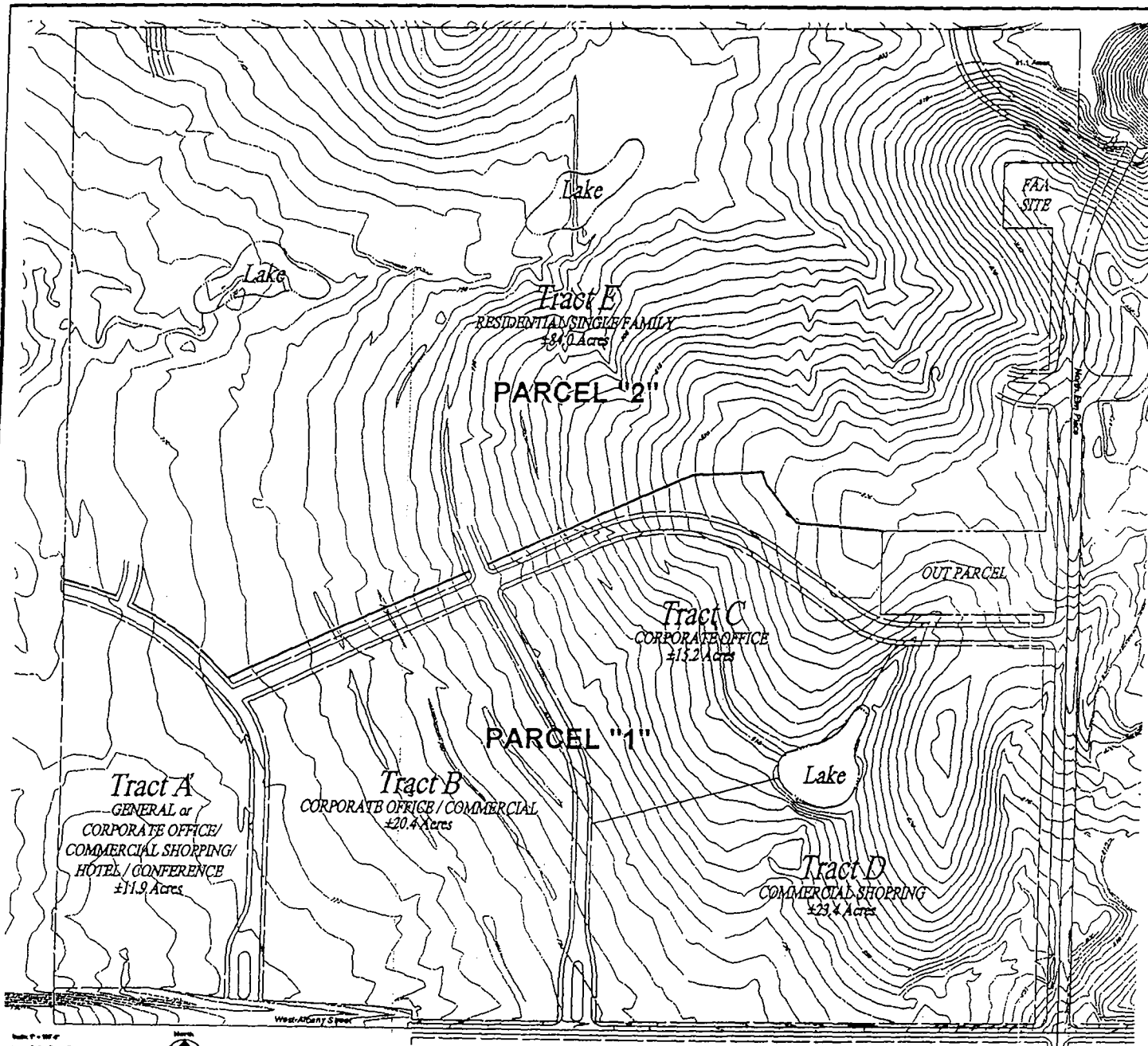
Engineering by:

HALL, ROSENBAUM & ASSOCIATES, LLC
 1913 WEST TACOMA - SUITE C
 BROKEN ARROW, OK 74011
 918.258.5737 (VOICE)

Land Planning by:

Pittman Poe & ASSOCIATES, INC.
 Call or Email: Commercial Land Planning
 2000 E. 6th Avenue, Suite 100
 Broken Arrow, Oklahoma, OK 74011
 Phone: 918.258.5737 FAX: 918.258.5737
 Website: www.pittmanpoe.com
 12/2/2008
 A/C/V: G/S/W





Elm Creek

Data Summary:

Total Project Area	1154.9 Acres
Development Areas	
-Single Family Residential	184.0 Acres
-Corporate Office	115.2 Acres
-Commercial Shopping	123.4 Acres
-Corporate Office / Commercial	120.4 Acres
-Corporate Office / Comm. Shopping / Hotel / Conference	111.9 Acres
Total Number of Dwelling Units	290
Single Family	290
Maximum Office Floor Area	725,927 SF
Maximum Commercial Floor Area	544,500 SF



Pittman Poe & ASSOCIATES, INC.
 614 N. Main Street, Suite 100, Raleigh, NC 27601
 919-781-1111
 FAX 919-781-1112
 www.pittmanpoe.com

STATISTICAL SUMMARY

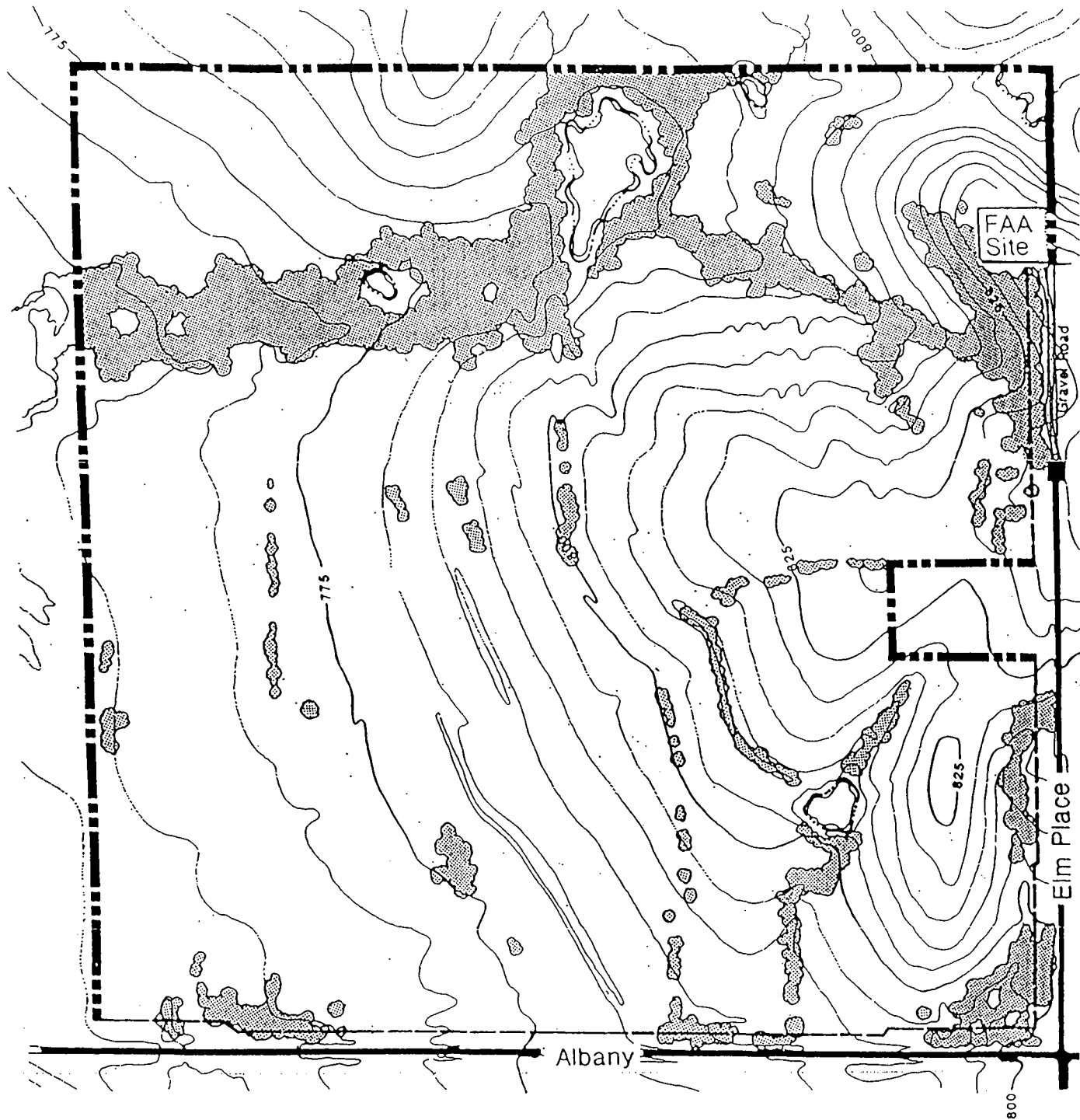
Project Area	±154.9 acres
Total Number of Dwelling Units	290
Total Office Floor Area	725,927 sq.ft.
Total Commercial Floor Area	544,500 sq.ft.
Development Areas:	
<i>Parcel 1:</i>	
<i>Tract A: General or Corporate Office/Commercial Shopping/Hotel Conference</i>	
Total Tract Area	±11.1 acres
Corporate Office Floor Area	75,000 sq.ft.
Commercial Shopping Floor Area	75,000 sq.ft.
Hotel/Conference Floor Area	175,000 sq.ft.
<i>Tract B: Corporate Office/Commercial</i>	
Total Area	±21.5 acres
Corporate Office Floor Area	270,427 sq.ft.
Commercial Floor Area	100,000 sq.ft.
Floor Area Ratio (combined)	.39
<i>Tract C: Commercial Shopping</i>	
Total Area	±22.5 acres
Commercial Shopping Floor Area	250,000 sq.ft.
Floor Area Ratio	.36
<i>Tract D: Commercial Shopping</i>	
Total Area	±15.8 acres
<i>Parcel 2:</i>	
<i>Tract E: Residential Single-Family Attached</i>	
Total Area	±84 acres
Total Number of Dwelling Units	290 DUs
Density	3.5 DU/ac.

EXISTING CONDITIONS

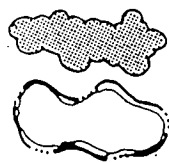
The Elm Creek Community Development is a ±154.9 acre site located in the northwestern corner of the City of Broken Arrow, Oklahoma. The site is generally bounded by Albany Street (61st Street South) and the Broken Arrow Expressway on the south, Elm Place (161st East Avenue) on the east, and the Battle Creek development on the north and west. The site abuts on three sides by the Federal Aviation Administration complex on Elm Place. The majority of the Elm Creek site is characterized by generally flat to rolling terrain with scattered groupings of mature trees and a variety of small farm ponds. The elevation ranges from 760 feet at the site's low point located along the southwestern boundary at Albany Street and the Broken Arrow Expressway to 838 feet situated in the northeast corner of the site. A vertical difference of 78 feet in elevation across the project area will have minimal developmental impact. The on-site slopes consist mainly of 0%-5% slopes with lesser amounts of 5%-10% and 10%-20% slopes. The areas of steepest slopes are generally located in the northeast corner of the site along the side slopes of one of the project's three ridgelines.

The wooded areas of the site are generally located along the creeks/drainage ways and fence lines. One of the more concentrated areas of existing trees is situated in the northwestern portion of the development along a creek that will ultimately become a major feature of the project's open space/greenbelt/park system.

Vehicular access to the site is excellent and will be provided by one of several primary and secondary arterials. The most predominant point of access to Elm Creek will be the Broken Arrow Expressway/State Highway 51 which allows quick and easy access to the cities of Broken Arrow and Tulsa as well as the overall local freeway system. Access will also be provided by Albany Street and Elm Place.



Legend:



Existing Tree Masses

Existing Lake/Pond

Existing Conditions

EXISTING UTILITIES ANALYSIS

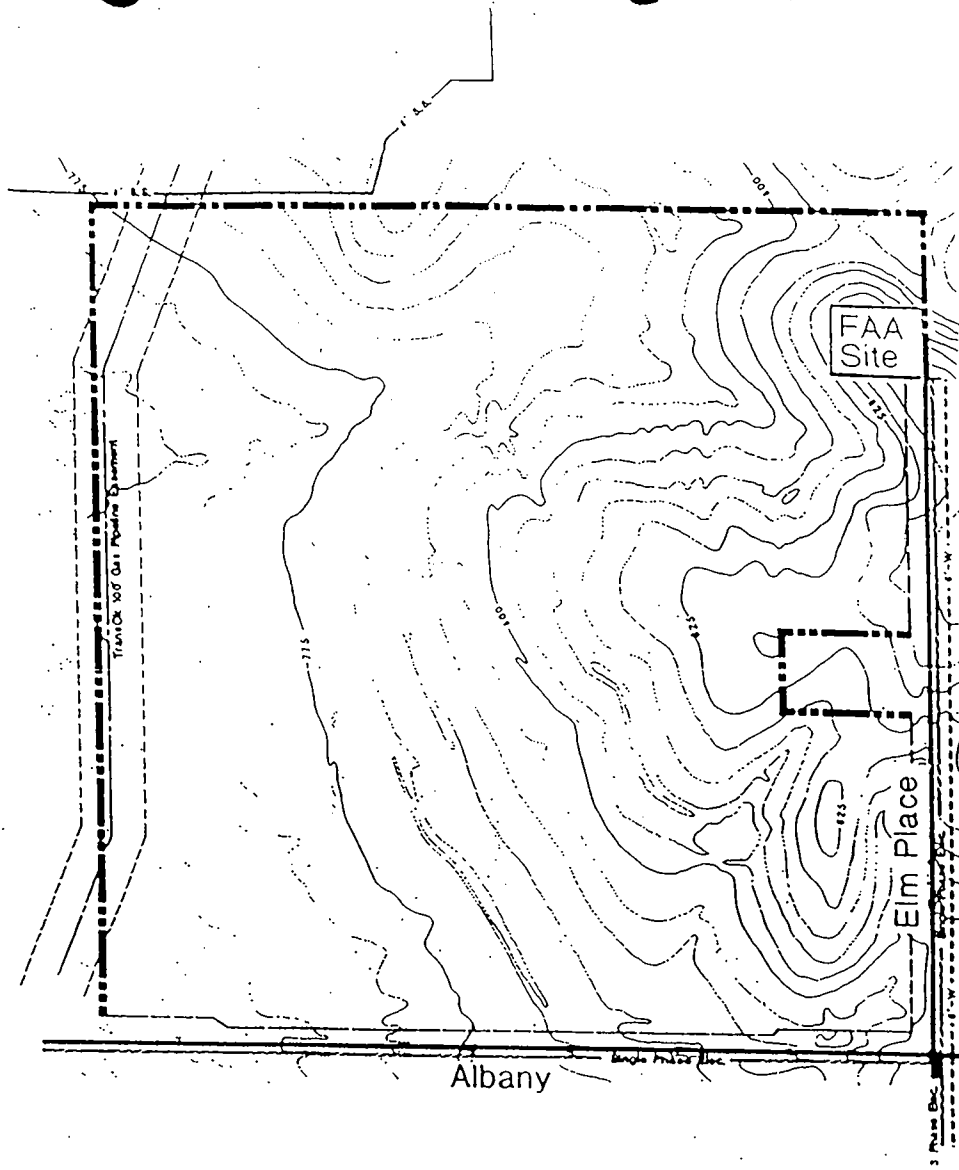
All major utilities except natural gas, water, sewer and electric have direct access to the project site at one or more points. While there appears to be no significant problem in servicing all portions of the project, utility extensions for the provision of service to different sections of the site need to be analyzed as these parcels become developed.

Water will be provided primarily by the City of Broken Arrow which has a 6 inch existing waterline located east of Elm Place.

Sanitary sewer is provided by the City of Broken Arrow. The city has a sanitary sewer line located just north of the site in the Battle Creek development. The capacity of this sewer line should have no problem in handling the development's waste.

Public Service Company of Oklahoma (PSO) furnishes electricity to the entire area. As with the other aforementioned utilities, electric service is available and is located on the south side of Albany and the east side of Elm Place.

Oklahoma Natural Gas (ONG) is the supplier of natural gas to the project. The gas lines with the closest access to the project site are 18 and 24 inch line located approximately ¼ mile south on Elm Place just south of the Broken Arrow Expressway. There is a 4 inch gas line on the south side of Albany west of the Broken Arrow Expressway.



Legend:

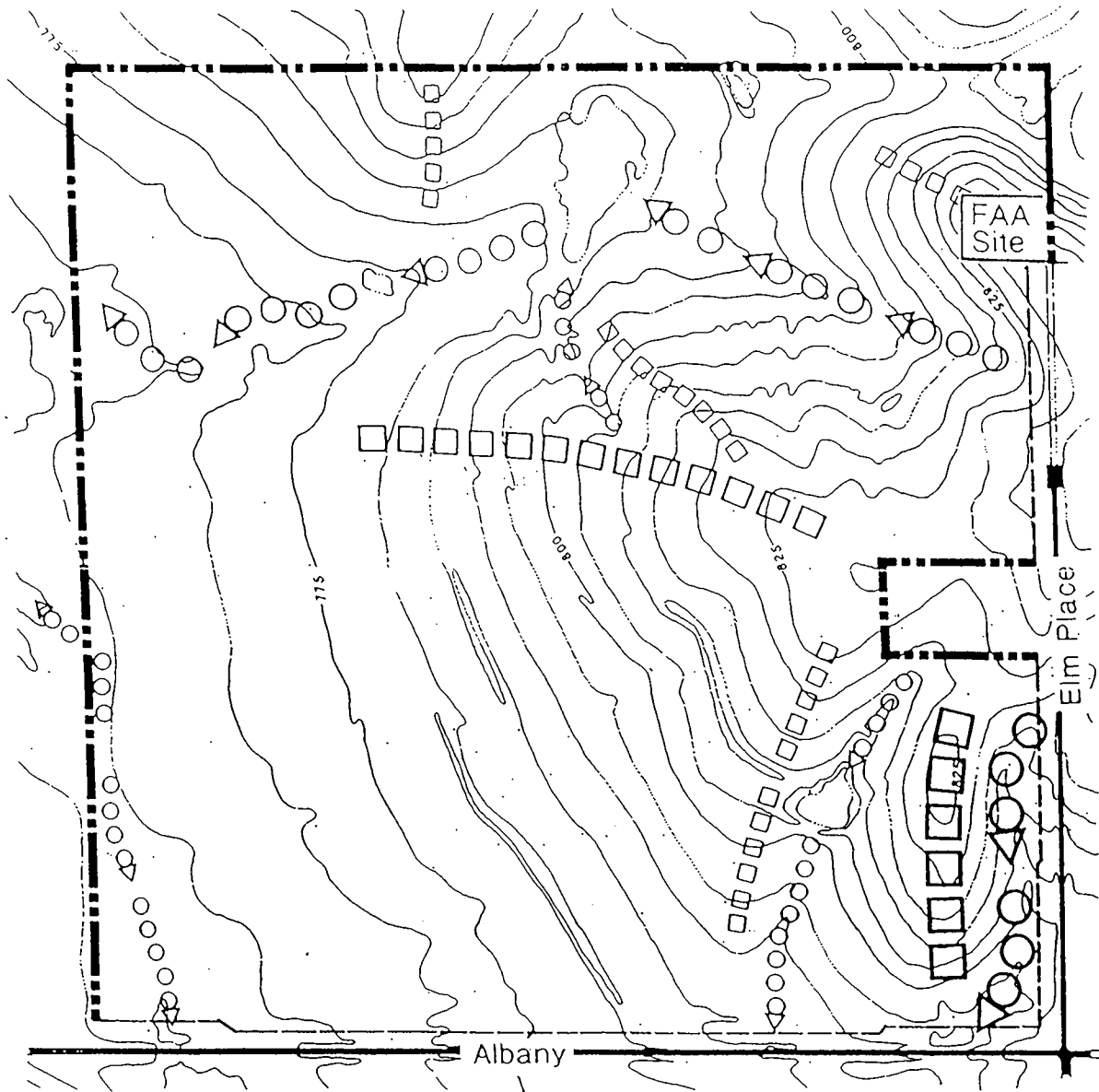
- Electric Line—Public Service of Oklahoma
- Sanitary Sewer Line
- - - - Water Line

Existing Utilities

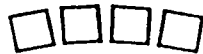
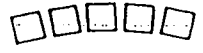


HYDROLOGY ANALYSIS

One of a project's most desirable aesthetic elements can also be on of the more challenging areas to deal with, these areas being the site's ridgelines and drainage ways. While most of the project's ridgelines and drainage ways are not restrictive, from a development point of view, they do function well in helping to define the project's drainage basins as well as specific development areas that will be located throughout the project. The ridgelines assist in determining where roadways and views will be established. In addition to the drainage ways helping to separate and define specific parcels of land, they also help to separate and buffer differing land uses.

Much of the on-site storm water drainage generally flows from east to west: Storm water detention will be provided in accordance with current policies and requirements of the City of Broken Arrow. Specific locations and capacities of these facilities will be determined at the time of platting.



Legend:

- 
Major Ridgeline
- 
Minor Ridgeline
- 
Major Drainageway
- 
Minor Drainageway

Note: Project has no on-site 100 year Floodplain

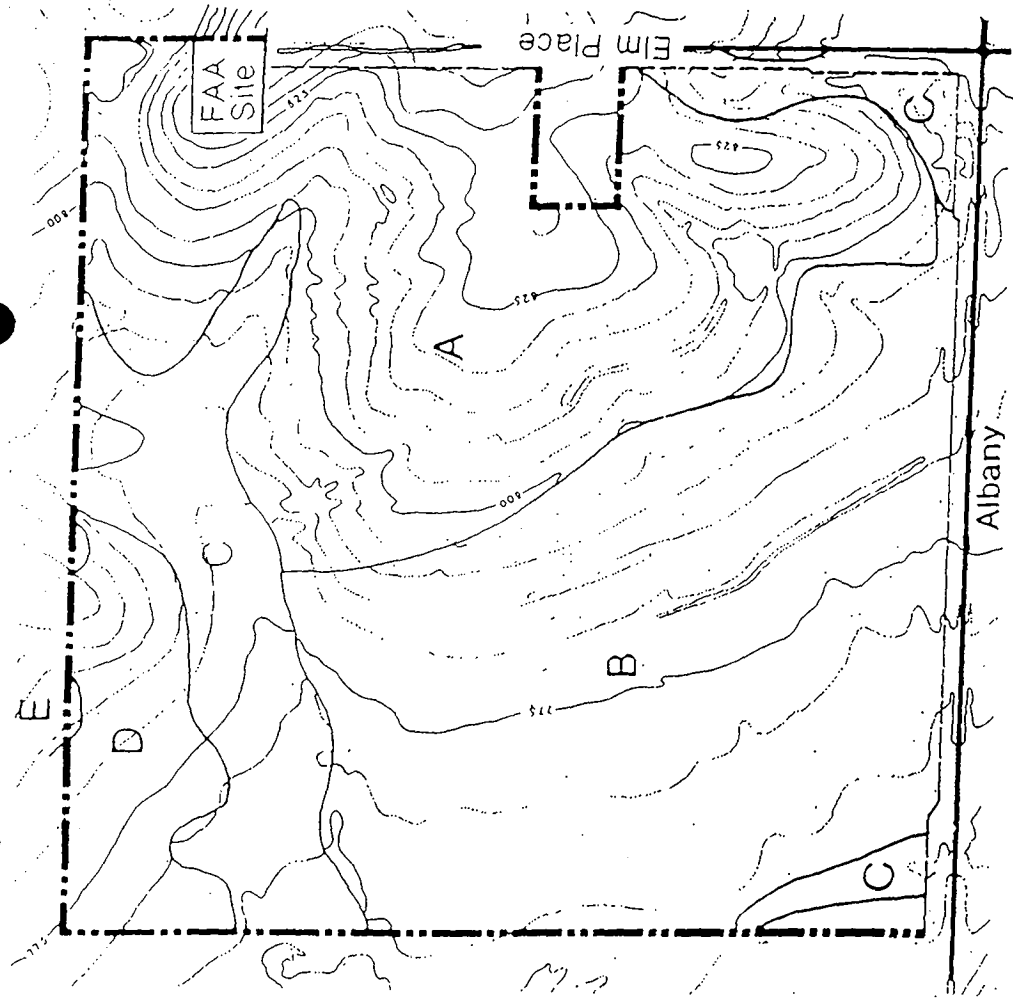
Hydrology Analysis

SOILS ANALYSIS

The soil types found on the Elm Creek site are typical for this part of the state. The bulk of the soil types have some problems with shrink/swell potential and somewhat low strength. In addition there is a certain amount of rock on site that will have to be considered when some areas are developed. These soils should create no unusual developmental problems that are not commonly encountered in most other area developments. Proper structural design will be needed to compensate for the shrink swell potential and low strength. Detailed soil test will need to be performed as parcels become developed.

The specific soil types found on the project are:

- Coweta-Bates complex 2-6% slopes
- Dennis-Carytown complex 1-3% slopes
- Dennis-Radley complex 0-12% slopes
- Niotaze-Darnell complex 3-15% slopes
- Okemah silt loam 0-1% slopes



Legend:

- A Coweta-Bates Complex, 2-6% Slopes
- B Dennis-Carytown Complex, 1-3% Slopes
- C Dennis-Radley Complex, 0-12% Slopes
- D Notaze-Dameil Complex, 3-15% Slopes
- E Okemah Silt Loam, 0-1% Slopes

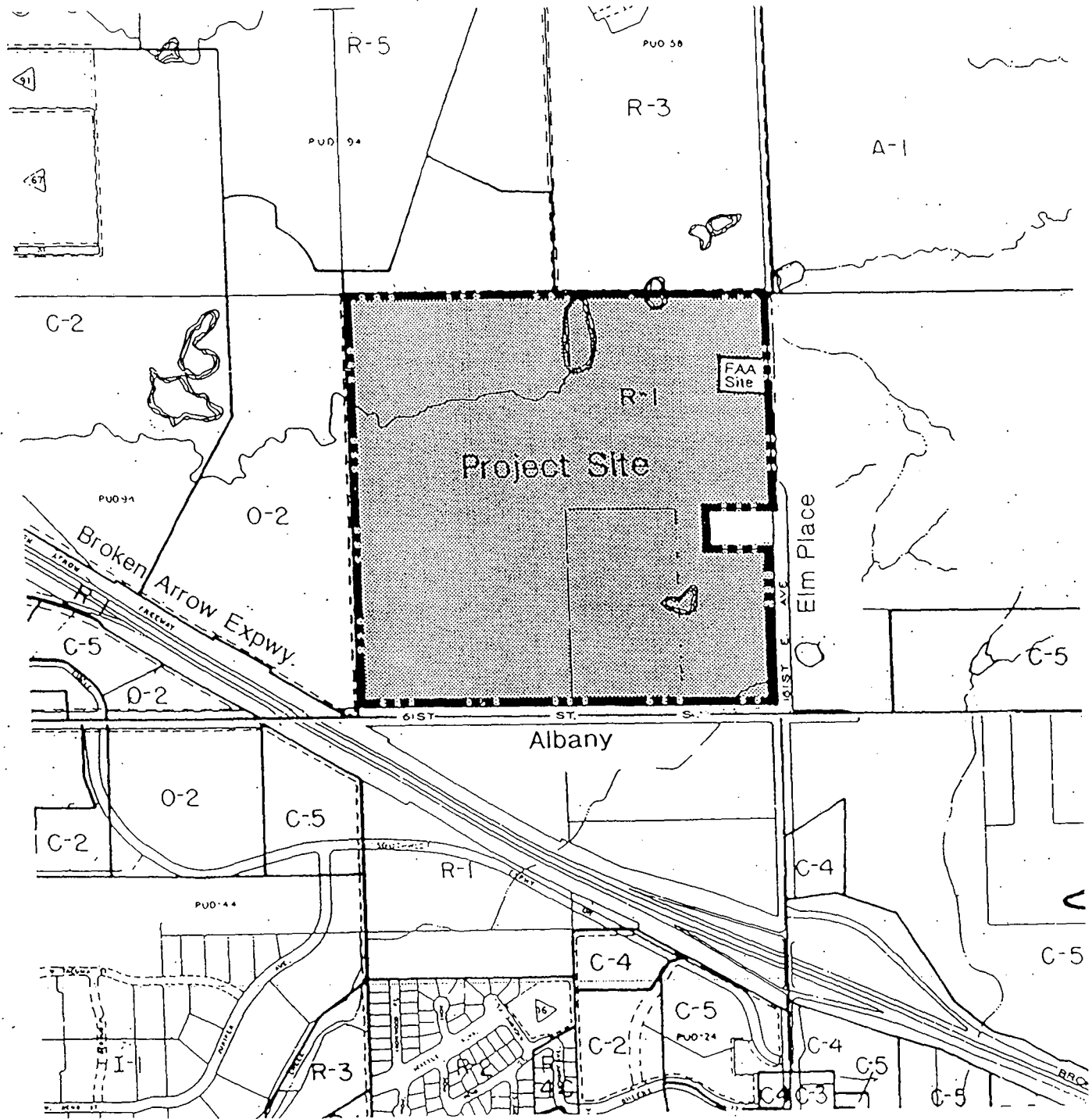
Soils Analysis

SURROUNDING ZONING ANALYSIS

The Broken Arrow Comprehensive Plan shows the Elm Creek PUD area to have three Land Use Intensity Classifications: Level 2 – Urban Residential, in the northern half of the property; Level 3 – Transition Area, in the west central portion of the development; and Level 6 – Regional Employment/Commercial, in the south half of the PUD. The vast majority of the land south, east and west of Elm Creek has Level 3 – Transition Area, and Level 6 – Regional Employment/Commercial land use intensity classifications.

The Elm Creek project site is located in an area of Broken Arrow that has a variety of zoning types in very close proximity. These zoning districts span the spectrum from the least intense land use, A-1, to one of the most intense, C-5. While there are various residential zoning districts located contiguous to portions of the property, the most predominant zoning classification in the immediate area is office (O-2) and commercial (C-5).

As some of the residentially zoned, undeveloped land around the PUD becomes developed, it is felt that some of these areas will be rezoned into higher intensity non-residential land uses. The fact that this area is a highly traveled section in Broken Arrow, with the Broken Arrow Expressway situated contiguously to the southwest corner of the PUD, it seems logical that the area will continue to develop with highway corridor type land uses and zoning districts.



Surrounding Zoning

NTS

DEVELOPMENT STANDARDS

PARCEL 1: *Office, Commercial, Shopping, Hotel/Conference Center*(Tracts A, B, C and D)
Parcel 1 shall be governed by the use and development regulations of the C-5 Zoning District except as follows:

The following uses are not permitted in Parcel 1:

- Agricultural implements, sales, repair and service
- Amusement Park
- Armored car service, office and garage
- Auctioneer Auditorium
- Auctioneer Office
- Baseball Park
- Bingo Hall/Parlor
- Armory
- Concrete and cement product sales
- Concrete and cement retail (small scale)
- Construction company office with storage and equipment
- Delivery service department/warehouse
- Drygoods and apparel wholesale
- Equipment rental (general light and used equipment)
- Fence sales
- Firewood Retail
- Furniture cleaning, repair and restoration
- Golf driving range
- Miniature golf (indoors/outdoors)
- Kennel and animal training
- Lawn and garden maintenance and installation service
- Machine shop
- Machinery rental
- Min-storage
- Monument sales, including incidental processing but not shaping
- Motor freight terminal
- Open air/flea market
- Recreation vehicles, manufacture and storage
- Sexually oriented businesses
- Souvenirs
- Roadside stand
- Theater, motion picture (drive-in)
- Tractor rental (heavy equipment)
- Trailer rental
- All wholesales uses
- Outdoor storage of non-retail equipment

- Minimum Internal Landscaped Open Space* 15%
- Minimum Building Setbacks:
 - Rear Yards 30 ft.
 - Side Yards 20 ft. minimum for fire lane
- Minimum internal landscaped open space 15% of the net lot area of each lot

*Required internal landscaped open space shall include perimeter landscaping within the development area boundaries, parking islands and landscape plazas, but shall exclude walkways which solely provide minimum pedestrian circulation.

*Applicants submitting site plans to the Broken Arrow Planning Commission shall show the amount and percentages of landscaped open space provided on site.

Sign Standards:

All signs will conform to Article IX of the Zoning Ordinance for the City of Broken Arrow, Oklahoma. Signs on lots containing less than 2.5 acres shall not exceed 14 feet in height. All signs shall have a monument base. No portable signs or banners of any type shall be allowed.

Lighting:

Exterior lighting shall be located outside all utility easements. On lots containing less than 2.5 acres, the top of the light shall not be higher than 16 feet above the parking lot surface. All exterior lights shall be designed so that no light extends beyond the property lines, and light on light poles will be shielded. Lighting plan shall be submitted to and approved by the Planning Department prior to installation.

Landscaping:

Landscaping will be provided in Parcel 1 in accordance with Article VIII, Section 19 of the City of Broken Arrow Zoning Ordinance except as follows:

- A landscape area of at least 20 feet in width shall be provided along Albany Street and along Elm Place. In this landscape area, at least 1 tree shall be planted per 40 lineal feet of frontage.
- Where Parcel 1 directly abuts Parcel 2, a landscaped edge of at least 20 ft. shall be provided. In this 20 ft wide open space area, at least one tree shall be provided for every 25 linear feet. At least 50% of the trees shall be evergreens.

Buffer:

Parcel 1 shall have a 30 ft. perimeter buffer on the west and south sides of the out parcel that fronts onto Elm Place as long as it remains a single-family use.

Other Requirements:

Detailed site plans will be submitted for each development area consistent with the concepts and development standards set forth above. Additional requirements or modifications may be established by the City of Broken Arrow Planning Commission and the Broken Arrow City Council pursuant to its review of the detailed site plan of each development area.

DEVELOPMENT STANDARDS

Parcel 2: Single-Family Detached Dwellings
(Tract E)

Single-family detached structures intended for individual lot ownership. Parcel 2 shall be governed by the use and development regulations of the R-3 zoning district except as follows:

- Maximum Number of Dwelling Units..... 290
- Corner Lot Minimum Side yard on Non-Collector Streets
with limit of no access 20 ft.
- Corner lot minimum side yard on an non collector streets
with access 25 ft.
- Minimum Lot Frontage* 60 ft. (at building line)
- Minimum Lot Depth..... 110 ft.
- Minimum Rear Yard..... 20 ft.
- Minimum Side Yard..... 5/5 ft.
- Minimum Lot Frontage at R.O.W. for Pie Shaped
Or Flag Lots..... 30 ft. at R.O.W.

Other Requirements:

A preliminary and final plat will be submitted for the residential development areas that are consistent with the concepts and development standards set forth above. Additional requirements or modifications may be established by the City of Broken Arrow Planning Commission and the Broken Arrow City Council pursuant to their review.

*On cul-de-sacs, pie shaped lots may have a less than minimum frontage measured at building lines, but will not be less 40 feet wide measured at the building line. Average lot width, measured halfway between the front and rear lot lines will be a minimum of 60 feet.

LANDSCAPING

The landscaping plans for Elm Creek will achieve unity throughout the Planned Unit Development as well as provide an attractive view of the project from surrounding streets and neighborhoods. Areas for storm water drainage and detention will be landscaped to provide areas of visual interest. All landscaping at Elm Creek will be done in accordance with Article VIII, Section 19 of the City of Broken Arrow Zoning Ordinance.

In addition, trees shall be planted along collector streets as tracts become developed that front and/or border the collector street. The number of trees required along the collector street shall be the same as that required along an arterial street in the Zoning Ordinance.

Prior to the issuance of an occupancy permit for a development area, plant materials and any required screening fences shall be installed in conformity with a detailed landscape plan which has been submitted to and approved by the Broken Arrow Planning Commission.

PROPERTY OWNERS' ASSOCIATION

There will be several property owners' associations established at Elm Creek. These different property owners' associations will be based on each individual tract land use. There will be a residential property owners' association that will have as its main objectives the maintenance of the storm water drainage and detention areas as well as entryways into the residential areas, buffers and center islands. These areas will be landscaped with berms and assorted plant materials by the developer and turned over the appropriate property owners' association for maintenance.

The non-residential land uses at Elm Creek (i.e., office, commercial, hotel/conference) will have separate property owners associations with similar responsibilities as the other property owners associations within Elm Creek. Land users for these tracts will be responsible for the proper installation of the required landscaping materials. In any areas where differing land uses join together, the possibility of a joint organization between the differing land uses to maintain any landscaped areas will need to be analyzed and delineated in the covenants and filed with the final plat.

In the event any of the associations fail to maintain the storm water drainage and detention facilities in accordance with the approved plan, the City of Broken Arrow will have the right to maintain these areas and bill the appropriate Elm Creek Community development property owners' association for the cost.

Final documents on the property owners' association at the Elm Creek Community development will be filed with the final plat and will include the maintenance responsibilities and other specific rights and requirements for association members.

SITE PLAN REVIEW

No Building permit shall be issued for the construction of buildings within Elm Creek other than for single-family residential structures in Tract E, until a detailed site plan of the development area has been submitted to and approved by the City of Broken Arrow Planning Commission as being in compliance with the Development Concept and the Development Standards.

PLATTING REQUIREMENT

No building permit shall be issued until the property has been included within a subdivision plat submitted to and approved by the City of Broken Arrow Planning Commission and the Broken Arrow City Council and duly filed of record, provided however, that development areas may be platted separately. Restrictive covenants shall be established implementing of record the planned unit development standards, and the City of Broken Arrow shall be made a beneficiary thereof.

EXPECTED SCHEDULE OF DEVELOPMENT

Development of the Elm Creek Community is anticipated to commence late in 2004 or early 2005 after approval of the first plat and letting of development contracts.

