Environmental Assessment

Covell Road Widening Project

from

Oklahoma County

City of Edmond

February 2006

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

AND

OKLAHOMA DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL ASSESSMENT

AND

PROGRAMMATIC SECTION 4(F) STATEMENT

ON

COVELL ROAD WIDENING PROJECT

OKLAHOMA COUNTY

The proposed project is described as widening of Covell Road in the City of Edmond, Oklahoma, Oklahoma County, from State Highway 74 to Sooner Road.

This highway project is proposed for funding under Title 23, United States Code. This statement for the improvement has been developed in consultation with the Federal Highway Administration and is submitted pursuant to 42 USC-4332(2) (C) and 49 USC 303.

Submitted:

Date 3/07/2006

Planning & Research Division Engineer
Oklahoma Department of Transportation

Concur:

Date 3/22/06

for Division Administrator
Federal Highway Administration

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APPENDICES

I. LOCATION AND INTRODUCTION

This Environmental Assessment examines the anticipated social, economic, and environmental effects of the widening of Covell Road also known as North 206th Street in Oklahoma County The proposed project extends approximately 9.25 miles from roughly State Highway 74 to I-35. The I-35/Covell Road interchange was recently built as a result of a study that determined Covell Road would be the most appropriate and logical east/west arterial in the north part of the City of Edmond and in Oklahoma County. The safety and operation of the I-35/Covell Road interchange will not be impacted by the proposed Covell Road project. The proposed project segment located within the Corporate Limits of the City of Edmond (7.25-miles) includes widening the existing two-lane Covell Road facility to a four-lane separated boulevard with ADA compliant multipurpose paths on both sides. The proposed project segment located within the unincorporated area of Oklahoma County (2.0-miles) includes widening the existing roadway to a four-lane undivided curb and gutter facility. The proposed project location is illustrated in Figure 1.

This document was developed to assist in meeting federal program requirements and was completed by the Oklahoma Department of Transportation (ODOT) in conformance with DOT ORDER 5610.1C, DEQ REGULATIONS dated November 29, 1978 and the policy directives of the Federal-aid Policy Guide of the Federal Highway Administration (FHWA). Assessment of the social, economic and environmental effects of the proposed project was developed in consultation with FHWA and has been coordinated with other federal, state and local agencies or organizations.

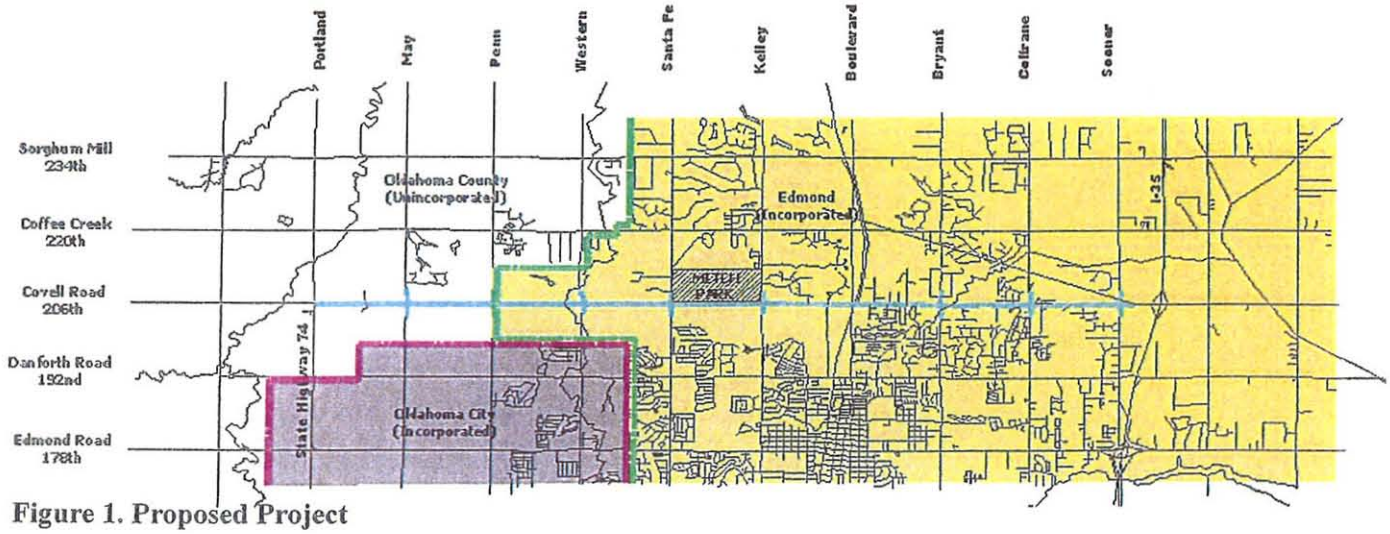

Figure 1. Proposed Project

I. NEED FOR PROJECT

In the late 1980's, ODOT studied several locations along the I-35 corridor and determined Covell Road and I-35 was the best location for construction of a new interchange based on needs of the traveling public, traffic patterns, forecasted traffic volumes, and the surrounding terrain. In the interchange justification study at Covell Road and I-35 dated 1988, ODOT identified improved accessibility to Central State University (University of Central Oklahoma), north Edmond, and the downtown business district of Edmond as improvement considerations. ODOT also stated that upgrading Covell Road to a

4-lane, major east-west traffic facility will relieve traffic congestion problems on Edmond Road (SH 66). Construction of the interchange was completed in the mid-1990's.

In the mid-1990's, ODOT also identified SH 74 as a major north/south traffic corridor that would be improved to accommodate the increased traffic growth and need of the traveling public for mobility and local access due to continued growth and development in the north part of Oklahoma City and Oklahoma County.

The City of Edmond along with Oklahoma County District 3 recognized the need for an east-west route that would connect I-35 with SH 74. A major east/west corridor in the north part of Edmond and Oklahoma County is needed to provide a safe and efficient route to accommodate the existing traffic as well as the anticipated traffic growth in the area. Both entities reviewed many corridors before identifying Covell Road as the most logical corridor. A few of the issues that support Covell Road are: the new interchange at I-35 and Covell Road; Cheyenne Middle School (Edmond Public School) on Covell Road; Mitch Regional Park on Covell Road; and the lack of residential, commercial, and industrial development on Covell Road. In addition, the Association of Central Oklahoma Governments (ACOG) identifies Covell Road in their Oklahoma City Area Regional Transportation Study 2025 (OCARTS) to be the main east/west route in this portion of Edmond/Oklahoma County to facilitate anticipate future growth and development.

In 1998, improvements to Covell Road began to be closely examined by the City of Edmond and Oklahoma County. A grade separation at the Burlington Northern Santa Fe Railroad crossing was proposed. A safe and efficient means of crossing the railroad, not only for the general public but also for emergency vehicles in this part of the City of Edmond and Oklahoma County had become a priority for local government officials. In February of 2002, environmental clearance was given by FHWA to begin these improvements, which include an upgraded intersection with Broadway Avenue and a railroad underpass.

Moreover, the safe and efficient movement of vehicles along Covell Road is a major concern of federal, state and local governmental authorities directing the future growth of this area. In the traffic study conducted in 2003, current traffic data along with projected traffic conditions were developed. Current traffic average daily traffic (ADT) on Covell Road ranges from 1300 to 6500 vehicles per day. The projected ADT for 2023 was 15,000 vehicles along the corridor. With the projected traffic applied to the existing two-lane Covell Road, a level-of-service of "E" is produced for each mile on the corridor. With the projected traffic applied to the proposed four-lane improvements on Covell Road, the projected traffic is expected to operate at a level-of-service of "C". A level-of-service of "E" is unacceptable while a level-of-service of "C" is acceptable. The proposed improvements of Covell Road will provide citizens traveling this roadway a much safer, more efficient transportation facility.

In ODOT's 1988 Interchange Justification Study at Covell Road and I-35, ODOT recognized improving Covell Road to a 4-lane facility. Construction of the 4-lane improvements to Covell Road will not adversely impact the operation and safety of the I-35 and Covell interchange.

III. ALTERNATIVES

A preliminary list of alternatives was developed along with the "No-Build" Alternative (Alternative 3) after the initial round of environmental review and interagency coordination (See Appendices A and D). The initial design concept for Alternatives 1, 2 and 4 was determined based on future traffic volumes and corridor continuity. Alternatives 1 and 4 meet the design requirements for a divided boulevard section with landscaped median and multiuse paths on either side of the alignment. Table III.1 provides a matrix of impacts associated with each alternative.

Eliminated Alternatives

The following is a description of the three alternatives that have been **eliminated** from further consideration for the reasons cited.

Alternative 1: Build along existing centerline. (Boulevard Section)

This alternative consists of constructing a four-lane curb and gutter facility for 2.0-miles, from State Highway 74 to Pennsylvania Avenue, with channelized intersections at each section line road. In addition, constructing four-lane separated boulevard with ADA compliant multipurpose paths on both sides for 7.25-miles, from Pennsylvania Avenue to approximately 1500' east of Sooner Road, with channelized intersections at each section line road. Within this alternative the boulevard section median width would vary.

Benefits associated with this alternative:

- This alternative allows for minimal impact to public areas as addressed in the attached Programmatic Section 4(f) Statement (Appendix 1).
- This alternative is consistent with the OCARTS long-range plan for projected improvements and growth in this area.
- This alternative will provide a safe and aesthetically pleasing boulevard section facility with ADA compliant multipurpose paths in order to meet alternative transportation needs.

Problems associated with this alternative:

- Constructing the facility along this alignment would result in approximately forty (40) home relocation impacts.

Alternative 2: Build along existing centerline. (Curb and Gutter Section)

This alternative consists of constructing a four-lane curb and gutter facility throughout the entire corridor, with channelized intersections at each section line road.

Benefits associated with this alternative:

- This alternative allows for minimal impact to residential areas.
- This alternative allows for minimal impact to public areas as addressed in the attached Programmatic Section 4(f) Statement (Appendix 1).
- This alternative is consistent with the OCARTS long-range plan for projected improvements and growth in this area.

Problems associated with this alternative:

- This alternative is not consistent with the City of Edmond's desire to provide an aesthetically pleasing boulevard section facility with ADA compliant multipurpose paths in order to meet alternative transportation needs.

- This alternative would result in approximately five (5) home relocation impacts.

Alternative 3: No-Build

The "No Build" alternative would maintain the roadway in the existing location with no improvements.

This alternative was eliminated due to the following:

- The existing road design is inadequate for 2023 forecasted traffic volumes, resulting in increased safety hazards, restricted traffic flow, and restriction of projected growth for the area.
- This alternative is not consistent with long-range plans for this area of Edmond and Oklahoma County.

Preferred Alternative

Following the public meeting on April 10, 2003, a proposed alternative was studied in more depth and the environmental issues associated with this alternative are discussed in the remainder of this document.

Alternative 4: Build along existing centerline with occasional horizontal shift to minimize impact to residences.

This alternative consists of constructing a four-lane curb and gutter facility for 2.0-miles, from State Highway 74 to Pennsylvania Avenue, with channelized intersections at each section line road. In addition, a four-lane separated boulevard with ADA compliant multipurpose paths on both sides for 7.25-miles, from Pennsylvania Avenue to approximately 1500' east of Sooner Road, with channelized intersections at each section line road would be constructed. Within this alternative the boulevard section median width would vary.

Benefits associated with this alternative:

- This alternative allows for minimal impact to residential areas.
- This alternative allows for minimal impact to public areas as addressed in the attached Programmatic Section 4(f) Statement (Appendix 1).
- This alternative is consistent with the Oklahoma City Area Regional Transportation Study (OCARTS) long-range plan for projected improvements and growth in this area.
- This alternative is consistent with the City of Edmond's desire to provide a safe and aesthetically pleasing boulevard section facility with ADA compliant multipurpose paths in order to meet alternative transportation needs.

Problems associated with this alternative:

- This alternative would result in approximately six (6) home relocation impacts.

Table III.1
Matrix of Considered Alternatives

Alternative	Does this Alternative match the Need for Project?	Does this Alternative create a Traffic Noise Impact?	Does this Alternative create a Wetland Impact?	Does this Alternative create a Cultural Resource Impact?	Does this Alternative create any other Impact?	Estimated Project Cost	Impact to Section 4(f) Resource
Alternative 1	Yes	Not specifically studied due to infeasibility of alternative.	No	No	Yes Creates a greater potential for residential relocation. (Approx. 40 homes)	$54,795,000	Yes 2.5 Acres of parkland taken for ROW
Alternative 2	Yes	Not specifically studied due to infeasibility of alternative.	No	No	Yes Creates a need for some residential relocation. (Approx. 5 homes)	$36,856,000	No
Alternative 3	No	No	No	No	Yes Continues unsafe and inadequate road conditions and interferes with future development of the area.	$0.00	No
Alternative 4 (Preferred)	Yes	Yes Impacts on one receiver.	No	No	Yes Creates a need for some residential relocation. (Approx. 6 homes)	$45,510,000	Yes 2.5 Acres of parkland taken for ROW

IV. SOCIAL, ECONOMIC AND ENVIRONMENTAL IMPACTS

Appendix 8 contains a list of the social, economic and environmental issues reviewed in the development of this project. Based on this review, the following areas are the major consequences of the Preferred Alternative.

Relocation Impacts and Right-of-Way

On-site field review and aerial photo review were used to determine the location and habitation status of houses and mobile homes within the project area. Based on this review, there will be six (6) relocation impacts. Proposed right-of-way will be secured in accordance with the uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970, as amended.

Noise Impacts

A Traffic Noise Analysis Report (TNAR) was performed within the proposed corridor limits of approximately 200' both north and south of the existing centerline and an additional 800' north and south at all section line intersections. Noise impacts were determined by projecting future noise levels for the preferred alignment and comparing these levels with existing noise levels and the noise abatement criteria (NAC) established in 23 CFR 772 and the ODOT Noise Policy Directive "Highway Noise Abatement" Appendix A. The traffic noise analysis was accomplished by utilizing the FHWA approved Noise Model (TNM 2.0). According to the comparison between existing and future traffic levels, the identified traffic-induced noise level difference does not result in a substantial increase of 15 dBA for any of the selected receivers. Additionally, the existing traffic condition noise levels obtained for the selected receivers do not exceed the NAC. However, levels derived from the proposed roadway design and future traffic volume indicate 1 of the 53 selected receivers, would experience future traffic induced noise levels that approach by 1 dBA, meet or exceed the NAC identified for Activity Category B. The 1 impacted selected receiver is representative of approximately 7 primary residential receivers.

Mitigation of noise is considered for all impacted receivers. Mitigation that is determined to be feasible and reasonable will be recommended for inclusion in the project. According to the results of the sound barriers analysis, the installation of sound walls according or similar to the presented design meets the feasibility criteria specified in the ODOT Noise Policy Directive. However it does not meet the reasonable criteria specified in the ODOT Noise Policy Directive, due to the date of development, low overall magnitude of the noise levels and projected cost of mitigation. The Traffic Noise Impact Assessment is included in Appendix 3.

Wetland and Waters of the United States Impacts

Onsite investigations within proposed corridor limits of approximately 200' both north and south of the existing centerline and an additional 800' north and south at all section line intersections. These investigations were to identify and demarcate all potential wetland and waterway areas located therein. Surveys were conducted during the months of May and June 2003, and were performed in an effort to identify potentially sensitive aquatic ecosystems during the project-planning phase in order to avoid wetland and waterway impacts to the maximum extent possible.

Each prospective wetland area was evaluated according to the National Academy of Science definition, the United States Army Corps of Engineers (COE) 1987 Wetland Delineation Manual, associated policy statements, and field indicator interpretation guidance. The scientific criterion specified by the National Academy of Science requires positive identification of three (3) onsite parameters. The criteria for

verification of wetlands are as follows: a dominance of hydrophytic vegetation, presence of hydric soils, and wetland hydrology.

As a result of these project site investigations, no areas exhibited the required wetland parameters for inclusion in a wetland findings report. However, at least seven relatively large drainage systems and/or tributaries and main channel creeks traverse the corridor. Appropriate consideration during the project development and design phase is warranted in order to evaluate these channel crossings according to Section 404 of the Clean Water Act and secure all applicable permits through the COE. The project memorandum explaining these findings can be found in Appendix 2.

Endangered Species Impacts

According to the United States Fish and Wildlife Service's response to solicitation, dated April 17, 2003, the proposed project will have no adverse affect on federally listed or proposed species or their habitats.

Floodplain Impacts and Rechannelization

The Federal Emergency Management Agency's Flood Insurance Rate Maps were reviewed to determine the locations of 100-Year floodplain areas within the project corridor. Stream crossings, utilizing reinforced concrete bridge boxes and culverts, will conform to COE requirements. Bridge and culvert design will comply with floodplain regulations and will not increase the base 100-year flood elevation by more than one foot. All proper floodplain and Section 404 permits for channelization will be obtained prior to construction of any structures.

Historic and Archaeological Resource Impacts

A Phase I Cultural Resources inventory of the project site was completed and is included in Appendix 4. The inventory methodology included review of background files at the University of Oklahoma, Oklahoma Archaeological Survey State Archaeologist office. A preliminary windshield survey and detailed pedestrian survey with limited shovel probes were conducted for the project. The total inventory area width was 400ft. along the corridor with an additional 800ft at the section line roads beginning 200 ft east and ending 200 ft west of the intersection.

No archaeological sites or significant cultural resources eligible for the National Register of Historic Places were located and recorded during the field survey that will be adversely affected by the preferred alignment. As part of the solicitation for comment process the Bureau of Indian Affairs suggested a letter be sent to the Wichita and Affiliated Tribes. No response was received from the tribe. A copy of the Cultural Resources Report was also provided to the Wichita and Affiliated Tribes.

The findings of the Phase I study were concurred by the State Archaeologist on July 2, 2003 and the Oklahoma Historical Society, State Historic Preservation Office on July 21, 2003. The concurrence correspondence from these agencies is included in Appendix 4.

Hazardous Waste Sites/Underground Storage Tanks

Comprehensive research was completed to aid in the avoidance of any hazardous waste sites and /or underground storage tanks and ensure health and safety considerations. The sources examined include the National Priority List, Oklahoma RCRA Corrective Actions List, RCRA Permitted Treatment, Storage, and Disposal Facilities List, RCRA Violations and Enforcement Actions List, Oklahoma CERCLIS List, EPA's RCRA Registered Small or Large Generators of Hazardous Waste List and the Oklahoma Corporation Commission's Leaking Underground and Above Ground Storage Tanks List. This review provided no information sources that listed any known hazardous underground storage tank contamination issues as well as no hazardous waste disposal sites located within the extents of the preferred alternative and affected areas, nor does there appear to be any health or safety issues associated with this alternative.

Air Quality

Air quality impacts were also considered for this proposal. Micro-scale air quality analyses on similar arterial street improvements in the Oklahoma City metropolitan area indicate that no appreciable increase in carbon monoxide will result and Federal Ambient Air Quality Standards will not be exceeded. Therefore, no adverse air quality impacts are anticipated as a result of the proposed improvement.

V. COMMENTS AND COORDINATION

A letter, soliciting comments related to the anticipated social, economic and environmental effects was mailed to 48 local, cities, county, state and federal agencies, organizations and individuals on February 28, 2003. (Appendix 5). Seven substantive replies were received with comments as follows:

- Association of Central Oklahoma Governments (ACOG) indicated that the 2025 OCARTS Plan called for future development in this area of the City of Edmond as well as the unincorporated areas of Oklahoma County. ACOG did indicate the absence of three (3) miles of the proposed project length that was not included on the long-range plan. They articulated that it would be necessary for the sponsoring entity to request an amendment to the OCARTS Plan to include the missing 3 miles if federal funds are to be expended on this project.
  Response: Both the City of Edmond and Oklahoma County will take the appropriate measures to ensure an amendment to the OCARTS Plan is completed for the missing three (3) miles.

- United States Fish and Wildlife Service indicated the proposed project would have no effect on listed species, wetlands, or other important wildlife resources.
  Response: The comment is noted.

- Department of the Army, Tulsa District, Corps of Engineers noted that construction activities within waters of the United States require a wetland determination and wetland permit. They also expressed that the project must not increase flood hazard and care should be taken to minimize hazards from local drainage to the subject properties.

Response: Bridge and culvert designs will comply with the flood plain regulations and will not increase the base 100-year flood elevation by more than one foot. In addition, the proper section 404 permits will be obtained for the project prior to construction.

- Oklahoma Archaeological Survey noted that archaeological sites are recorded for the project area and additional sites are likely based on topographic and hydrologic settings. The Survey considers a field inspection necessary prior to project construction to identify significant archeological resources.
  Response: An initial archaeological field inspection of the corridor was conducted and it was determined that no cultural resources are present within the proposed project limits. The OAS concurred with these findings on July 2, 2003. Any archaeological resources uncovered during construction will be mitigated according to Department guidelines and consultation with the State Archaeologist, SHPO and other appropriate consulting parties.

- Oklahoma Department of Tourism and Recreation indicated concern for any loss of public parkland that would occur as a result of additional right-of-way acquisition.
  Response: Mitch Park will be minimally affected as a result of the additional right-of-way acquisition. However, these concerns along with measures to minimize the impact to parkland are addressed in the attached Programmatic Section 4(f) Statement (Appendix 1)

- Bureau of Land Management indicated, "No BLM interests will be affected by this proposed action.
  Response: The comment is noted.

- Oklahoma State Water Resources Board stated that portions of the proposed project do fall within flood plain boundaries. The requested that the appropriate local flood plain administrators be contacted about the proposed project.
  Response: A solicitation for comment was sent to the two appropriate local floodplain managers (Oklahoma County and City of Edmond). Both parties expressed the requirement, by the Oklahoma County Floodplain Regulations and FEMA regulations, for a HEC II study of the area to be performed and reviewed by the governing bodies.

- Bureau of Indian Affairs found that their office has no issues regarding the proposed project. However, they did suggest that the Wichita and Affiliated Tribes be consulted regarding any concerns they might have with the proposed project.
  Response: Solicitation for Comment was sent to the Wichita and Affiliated Tribes. No response was received from the tribe.

- Oklahoma Historical Society requested that a Historic Preservation Resource Identification Form with appropriate documentation and photographs of structures that would be affected.
  Response: An initial field inspection of the corridor was conducted and it was determined that no significant historic resources are present within the proposed project limits. All appropriate documentation was supplied to the State Historic Preservation Office in order to comply with policies in order to ensure preservation of historic resources. The SHPO concurred with these findings on July 21, 2003.

VII. PUBLIC INVOLVEMENT

PUBLIC MEETING

A public meeting to involve concerned citizens in the developoment of the proposed widening project was held at 7:00 pm, Thursday, April 10, 2003 at Cheyenne Middle School in Edmond, Oklahoma. Representatives from the City, County, FHWA, ODOT and Triad Design Group were in attendance. Concerned citizens had the opportunity to comment on the potential social, economic, and environmental impacts associated with the project. Seventeen (17) people registered at the meeting. A summary of the meeting, copies of the letters and written comments are included in Appendix 7.

Design considerations discussed at the Public Meeting:

- Safe roadway design
- Aesthetic roadway design

Environmental considerations discussed at the Public Meeting:

- Cultural Resource Impacts
- Traffic Noise Impacts
- Wetland Impacts

Public Concerns stated at Public Meeting:

- Funding of project
- Safety concerns for neighborhoods
- Relocation impacts
- Neighborhood access impacts
- Traffic Noise Impacts

PUBLIC HEARING *TO FOLLOW FUTURE HEARING DATE*

Appendix 1

Programmatic Section 4(f) Statement

Programmatic Section 4(f) Statement on J. L. Mitch Park
Covell Road Widening Project,
City of Edmond, Oklahoma, Oklahoma County

City of Edmond

June 2005

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PROGRAMMATIC SECTION 4(f) STATEMENT ON J. L. MITCH PARK, COVELL ROAD WIDENING PROJECT, CITY OF EDMOND, OKLAHOMA COUNTY

NTRODUCTION

Section 4(f) of the Department of Transportation Act of 1966 required special consideration if land from any publicly-owned park, wildlife or waterfowl refuge, recreation area or significant historic site was to be used in federally-funded transportation projects. Since that time, Section 4(f) has been recodified (presently 49 U.S.C. 303) but documents evaluating the effects of transportation projects on such lands are still referred to as "Section 4(f) Statements". Section 4(f) states, in part:

> "the Secretary shall not approve any program or project which requires the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance as determined by the Federal, State, or local officials having jurisdiction thereof, ...unless; (1) there is no feasible or prudent alternative to the use of such land, and (2) such program includes all possible planning to minimize harm to such park, recreational area, wildlife and waterfowl refuge, or historic site resulting from such use."

A Section 4(f) Statement is required due to right-of-way involvement with J. L. Mitch Park from the Covell Road widening project. This park is publicly owned under the jurisdiction of the City of Edmond and merit special consideration under the Section 4(f) provision. This document presents effects of the proposed widening project on J. L. Mitch Park and mitigation measures for these effects.

DESCRIPTION OF J. L. MITCH PARK

The Section 4(f) resource affected by the proposed Covell Road widening project is J. L. Mitch Park. This park is located in the Northwest portion of Edmond (see Figure 1). The park constitutes a regional public recreation facility available to the estimated 70,000 residents of the Edmond area.

J. L. Mitch Park is located on 280 acres north of Covell Road in Section 15, T14N, R3W, Oklahoma County. A list of facilities, uses and their locations are shown in Figure 2. Currently, it has been estimated that approximately 200 people per day utilize the park facility, with a future estimation of approximately 300 people per day. The primary entrance access point for the park is north off of Covell Road through two separate entrances. There is a secondary entrance east off of Santa Fe Road.

This park was constructed with City of Edmond funds. Funds from the Land and Water Conservation Fund (LWCF) have not been used on the portion of the park adjacent to Covell Road. The skate park located in the northern half of Mitch Park was developed with assistance through the LWCF program. No impacts to this portion of the park will occur.

PROPOSED ACTION

The proposed project consists of widening the existing two-lane open section facility to a four-lane boulevard section with ADA compliant multi-use paths on both sides. Included in the proposed design will be a landscaped median and earthen berm on either side of the facility to separate the roadway from

Covell Road Widening Project

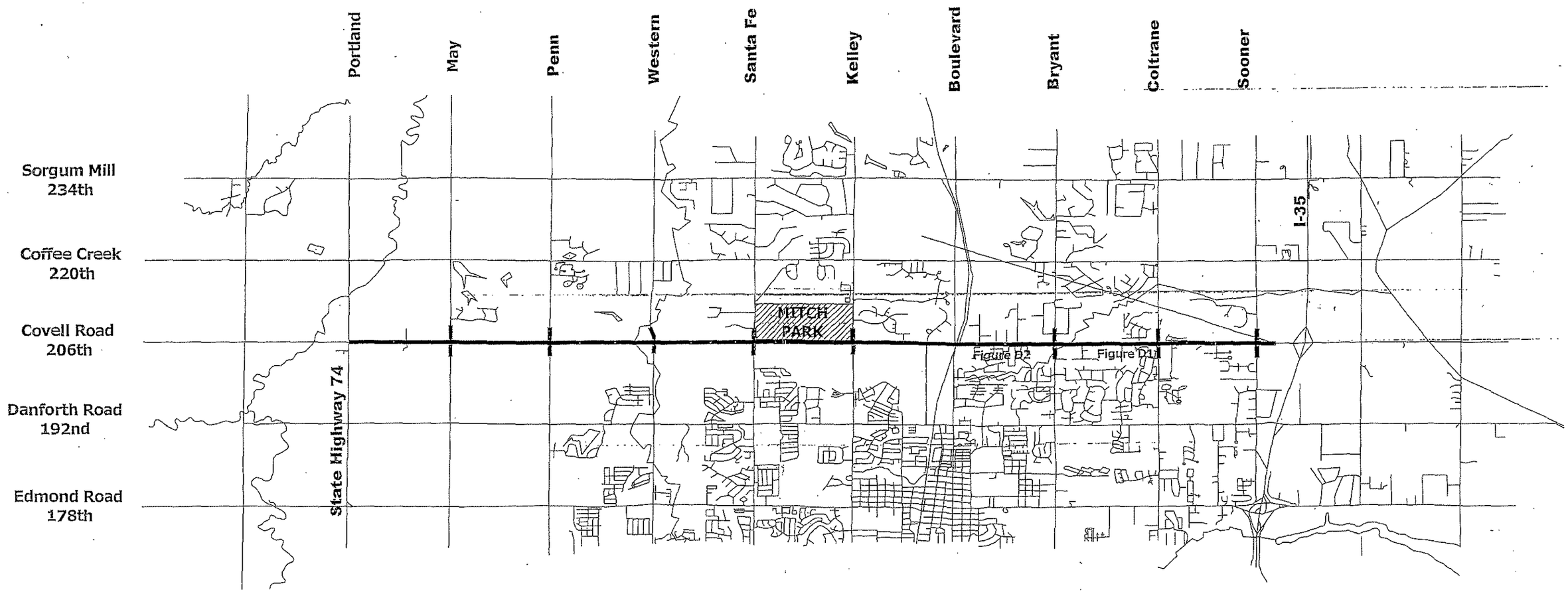
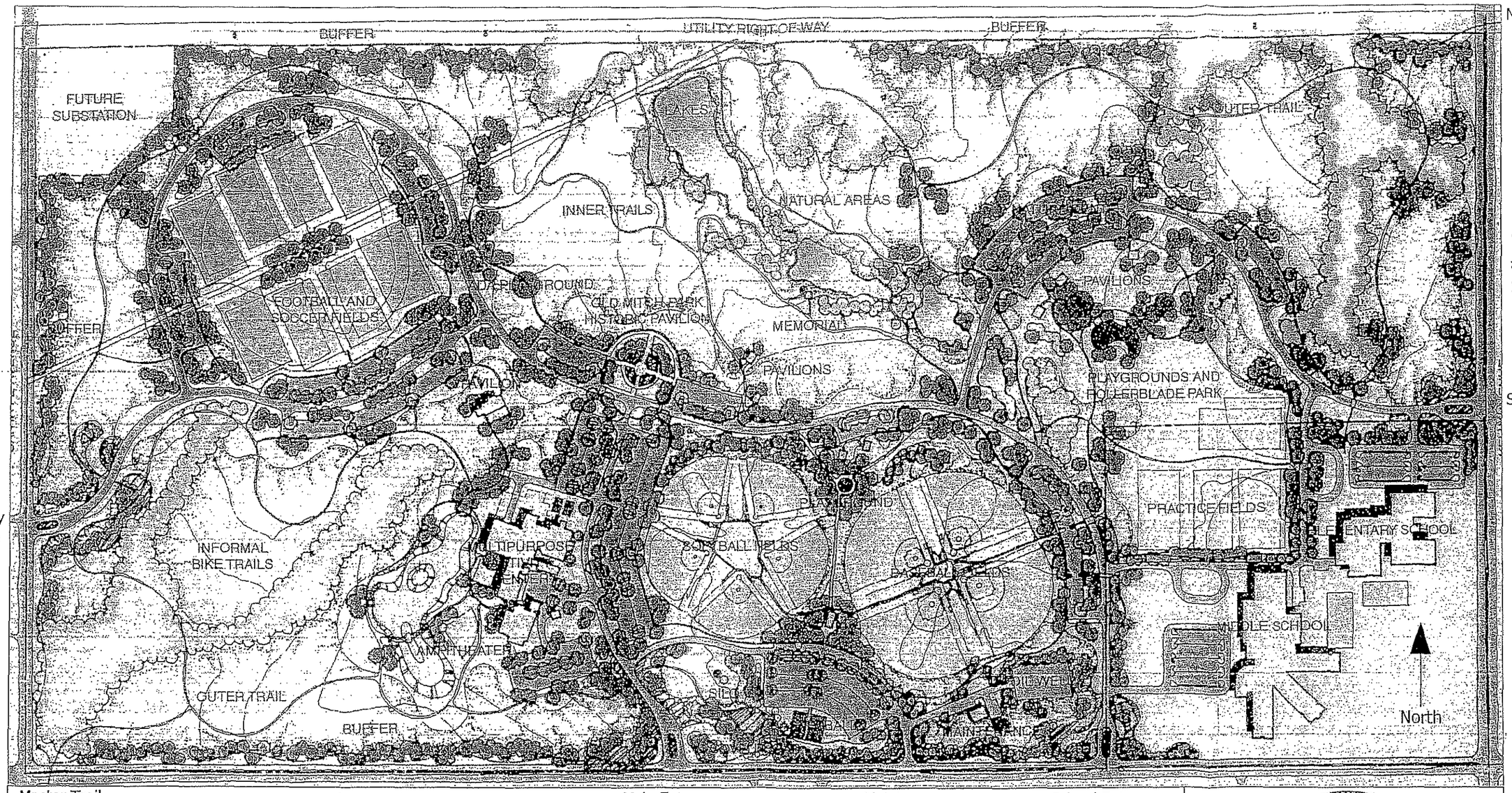


Figure 1:

Mitch Park Location Map

J. L. MITCH PARK



Master Trail Linkage | Covell Road | Main Entrance | Maintenance Entrance | School Entrance

MITCH PARK PUBLIC FACILITIES

Acreage: 280 Acres

Existing:			Future:		
- Softball Fields	- Walking Trail	- Picnic Pavillion	- Soccer Fields	- Walking Trail	- Activity Center
- Baseball Fields	- Skate Park	- Maintenance Warehouse	- Football Fields	- Nature Center	- Picnic Pavillion
- Basketball Courts	- Grass Buffered Areas	- Paved Parking	- Amphitheater	- Grass Buffered Areas	- Paved Parking
- Playgrounds	- Restrooms	- 3 Access Points	- Playgrounds	- Bike Trail	- 2 Access Points

Figure 2: Mitch Park Master Plan

the ADA compliant multi-use paths. Separation of roadway from the ADA compliant multi-use paths will create a safer trail for pedestrian and alternative transportation use. The Edmond Trails and Sidewalk Master Plan prepared in 1999 (see Figure 3) identified the Covell corridor as a linkage route to connect destinations and allow greater access to the overall Edmond trail system. The proposed project, which is consistent with the City's long range plan, will provide a safe and efficient transportation facility for current and future traffic volumes in this area of the City of Edmond in Northern Oklahoma County. Current traffic volumes in front of the park are 5,440 vehicles per day; future (2023) traffic volumes are projected to be 8,980 vehicles per day.

The project is included in the City of Edmond's Mitch Park Master Plan and is consistent with the Oklahoma City Area Regional Transportation Study Plan 2025. Covell Road is a major east/west arterial road due to an interchange at Interstate 35. Traffic is projected to increase on Covell Road following the improvement of the Broadway Avenue intersection, which includes a grade separation at the Santa Fe railroad crossing.

An Environmental Assessment has been prepared for this project and there is no significant environmental impacts anticipated from the proposed project. The project is sponsored by the City of Edmond utilizing Federal-aid highway funds administered by the Oklahoma Department of Transportation. Estimated project cost for the entire parkway is $45,510,000.

IMPACTS ON J. L. MITCH PARK

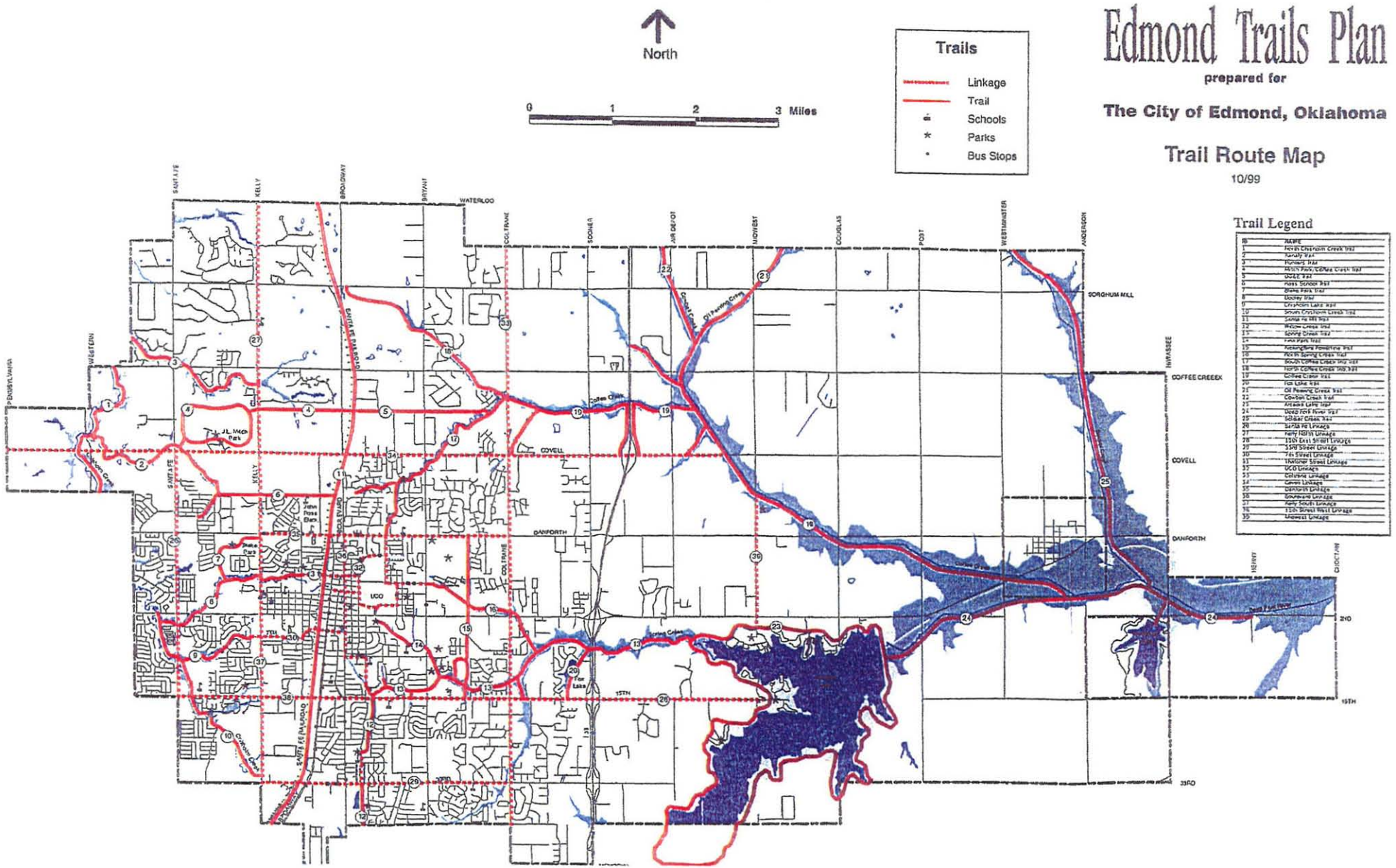
The proposed Covell Road widening project will require approximately 2.51 acres or 0.89% of the 280 acres parkland. No permanent park facilities such as restrooms, picnic tables, ball fields, etc. will be affected by the proposed project. Construction will require removal of the 4' wide sidewalk adjacent to Covell Road; however, the proposed project includes replacement and improvements of a 10' wide ADA compliant multi-use path in the same general location. There may be some temporary inconvenience imposed on the access to the park (Two existing access points along Covell Road shown on attached map as "Main Entrance" and Maintenance Entrance") during construction of the proposed project. However, steps will be taken through phasing and temporary paving materials to provide access to the park at all times and minimize this inconvenience. Once construction is complete, access will be provided by a four-lane, divided roadway including east-bound left turn lanes and an ADA compliant multi-use path providing better access for both vehicular and non-vehicular traffic.

AVOIDANCE ALTERNATIVES AND THEIR IMPACTS

A list of three alternatives was examined in the development of this Programmatic Section 4(f) Statement.

Alternative 1 - "no-build" alternate:

A "no build" alternative has been considered to avoid any impacts to Mitch Park. This alternative would continue use of the existing amount of parkland and the current sidewalk facility adjacent to Covell Road by leaving the "existing" roadway section in front of the park. No impact to Mitch Park would occur under this alternate. However, other impacts could result from the no-build alternate. As traffic levels increase due to the Covell Road widening project, the existing roadway facility would become inadequate and create unsafe conditions due to the interruption in traffic flow from the rest of the boulevard facility. Also, the existing sidewalk facility adjacent to Covell Road would become inadequate for capacity of


North
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Trails
Linkage
Trail
Schools
Parks
Bus Stops
Edmond Trails Plan
prepared for
The City of Edmond, Oklahoma
Trail Route Map
10/99
Trail Legend
WATERLOO
KELLY
BROADWAY
BOULEVARD
COLTRANE
SOONER
AIR DEPOT
MIDWEST
DOUGLAS
POST
WESTMINSTER
ANDERSON
COFFEE CREEK
COVELL
DANFORTH
SORGHUM MILL
SANTA FE RAILROAD
UCO
15TH
2ND
3RD

Figure 3

pedestrian and alternative transportation use and possibly create unsafe condition. This facility will also eventually connect to and become part of the City's Trails and Sidewalk Master Plan. The Master Plan is presented in Figure 1. In addition, the "no-build" alternate would be inconsistent with the City's long range plan for safe transportation facilities.

Alternative 2 - Avoidance alternate:

An "avoidance" alternative has been developed which includes road improvements to help meet the transportation need and avoid any impacts to Mitch Park. This alternate would include constructing a four-lane curb and gutter section of Covell Road in front of the park, as well as shifting the centerline to the south in order to avoid taking any parkland. This alternate would not create impacts to parkland but would still potentially create some temporary disruption and inconvenience imposed on the access to the park during construction of the proposed project. However, steps will be taken through phasing and temporary paving materials to provide access to the park at all times and minimize this inconvenience.

In order to accomplish this alternate the boulevard median and the earthen berm ranging from 4' to 16' in width separating the ADA compliant multiuse path from the roadway would need to be excluded from the section. Removing the earthen berm would potentially create unsafe conditions for pedestrian and alternative transportation use on the new ADA compliant multiuse alternative transportation path adjacent to Covell Road. By eliminating the boulevard median, eastbound traffic will not have a protected left turning lane into Mitch Park. Shifting the alignment further south also imposes significant right-of-way impacts on existing residential development south of the park along Covell Road. Ten existing 2500-3000 S.F. residences would be impacted. The houses range from three years old to new. One additional house is under construction. The water feature/retention pond for the residential development would be impacted. As the alignment continues west to Santa Fe Road, the roadway requires a significant shift to the south. Due to the existing stream located at Santa Fe Road and Covell Road, roadway drainage improvements in this area dictate a significant southerly shift of the alignment. The engineering consultant for the City of Edmond has estimated a cost of $3,820,000.00 for this alternative.

The following table presents comparison information for the alternatives discussed in this Section 4(f) Statement.

Criteria	Alternate 1	Alternate 2	Proposed Action
Impact to Park	None	Low - (Temporary access inconveniences)	Low - (Removal of existing 4' sidewalk and replacement of 10' ADA compliant multi-use path)
Construction Costs	$ 0	$3,820,000.00	$3,266,000.00
Fulfills Transportation Need for Project	No	Doesn't provide dedicated left turning lanes.	Yes
Adverse community impacts to adjacent homes.	None	Impacts 10 new 2500-3000 S.F. houses plus one under construction. Impacts water feature/retention pond for neighborhood.	None.

Unique engineering, traffic, and safety issues.	Does not meet the need for protected left turn lane into park.	Due to roadway drainage requirements at Santa Fe Road, a significant shift in roadway alignment to the south would be required. Would not adequately meet need for protected left turn lane into park for the senior citizen center and ball fields.	Park R/W required for roadway drainage improvements east of Santa Fe with proposed alignment, Provides protected left turn lane into park for the senior citizen center (MAC) and ball fields.
Substantial missed opportunity to benefit Mitch Park.	Yes Does not provide pedestrian trail.	Yes Does not provide pedestrian trail.	No - Provides pedestrian trail consistent with planning for the City's Trails and Sidewalk Master Plan.

MEASURES TO MINIMIZE HARM

Selection of the proposed action as the most feasible and prudent alternative will result in a net loss of 2.51 acres (0.89%) of parkland, removal and replacement of sidewalk and temporary access disruption along Covell Road. The temporary access disruption is not considered a major or permanent impact since the disruption will be temporary in nature and there are at least two other access points for the park.

The impact to the park from the proposed project comes from reduction of 2.51 acres of parkland and the loss of the existing sidewalk along Covell Road on the south side of Mitch Park. The proposed project will replace the existing 4-foot wide sidewalk with a 10-foot wide ADA compliant multipurpose path. The City of Edmond's Acting Park Director (see letter and map in appendix) stated that this project would actually improve the safety of bicycles and pedestrians trying to access the park and that the impacts stated above have been anticipated and incorporated into the Mitch Park Master Plan.

COORDINATION

The attached appendix presents correspondence between the Federal Highway Administration, Oklahoma Department of Transportation, City of Edmond and the City's consultant on this project on this project and effects on Mitch Park.

CONCLUSIONS

The City of Edmond has proposed a widening project for Covell Road from I-35 to Pennsylvania Avenue that will affect on publicly owned park, Mitch Park. Two alternatives to this project have been evaluated which would avoid direct impacts to the park from any road construction. Due to increasing traffic, the do nothing approach in Alternate 1 is not prudent. Considering traffic issues, the elimination of left turn lanes in Alternate 2 is not prudent and does not meet the purpose and need of the proposed project. Alternate 2 significantly impacts ten (10) current residential properties. The proposed project, which is consistent with the City's long range plan, will provide a safe and efficient transportation facility for current and future traffic volumes. The major impacts from this project will be a net loss of 2.51 acres of parkland (0.89% reduction) and the loss of the existing sidewalk along Covell Road on the south side of Mitch Park. In order to mitigate the loss, the proposed project will replace the existing 4-foot wide sidewalk with a 10-foot wide ADA compliant multipurpose path. This will create a safer trail for pedestrian and alternative transportation use.

Based upon the above considerations, it is determined there is no feasible and prudent alternative to the proposed Covell Road widening project adjacent to Mitch Park and the proposed action includes all possible planning to minimize harm to the park from the proposed project.

APPENDIX

COORDINATION

TRIAD DESIGN GROUP

May 6, 2003

Steve Manek, PE
City Engineer
City of Edmond
10 S. Littler
Edmond, OK 73034

Re: Covell Road Widening Project; Programmatic Section 4(f) Statement for Mitch Park.

Dear Mr. Manek:

Preliminary project plans and design criteria indicate use of land from Mitch Park, a publicly owned park. Due to this involvement with parkland, a Programmatic Section 4(f) Statement will be necessary for this project and considerable time will be required for preparation and approval of this document. In order to begin preparation of the 4(f) Statement, the following information is needed. Triad Design Group will be supplying information for the 4(f) Statement regarding design considerations and alternatives to using the parkland (items 1-4).

1. Are there any alternatives to taking of parkland? Please provide data on an alternative to miss the parkland. This data must contain information on location, construction costs, any relocations involved, special environmental problems, traffic characteristics and neighborhoods impacted. This alternative must be a reasonable alternative.

2. What are the impacts of doing nothing, or the "no-build" alternative, to the existing Covell Road facility adjacent to the park? Information on the existing facility, such as traffic handling capacity, safety and alignment deficiencies is required. Both short term and long term impacts should be addressed.

3. Please provide the amount and location of parkland to be used for the proposed project.

4. What are the measures to minimize harm to Mitch Park from the proposed project as preliminarily designed?

5. What is the size, in acres, of Mitch Park?

14313 N. May Avenue • Oklahoma City, Oklahoma 73134 • 405/752-1122 • Fax 405/752-8855

6. Would you please provide a detailed map or drawing of Mitch Park noting park boundaries and where various park activities occur?

7. Were any Land and Water Conservation Funds from the Department of the Interior used in Mitch Park?

8. A description of the park's present and future land uses is required.

9. What is the approximate number of present and future users?

10. Who are the owners of record of the land and are there any deed or lease restrictions (clauses such as covenants or forfeitures)?

11. A map or description of the existing access points to Mitch Park is needed.

12. A written statement from the official having jurisdiction over the park is needed on the proposed project effects on the park.

Should you desire additional information about the Programmatic Section 4(f) Statement or the project in general, please contact me at (405) 752-2266 ext. 223, or by email at rmaxey@triaddesigngroup.com.

Sincerely,
Triad Design Group

Randy Maxey
Environmental Compliance Coordinator

cc: EO10.5

rwm

City of EDMOND

June 24, 2003

Randy Maxey – Environmental Compliance Coordinator
Triad Design Group
14313 North May Avenue
Oklahoma City, Oklahoma 73134

RE: Impact of Covell Parkway on Mitch Park

Dear Mr. Maxey:

The construction of Covell Parkway will not impact Mitch Park operations because the proposed Parkway is incorporated into the Mitch Park Master Plan. Mitch Park has three access points from Covell Parkway and as the traffic increases it improves the safety of park patrons that are turning left into the park.

The parkland adjoining the Parkway is a treed buffer area. Construction of the median will improve the safety of bicycles and pedestrians trying to access Mitch Park since they will only have to cross two lanes of pavement. The median also will provide a visual buffer for park patrons and it will improve the aesthetics of Mitch Park.

Sincerely,

Troy Powell
Acting Park Director

Appendix 2

Wetland Findings Project Memorandum

PROJECT MEMORANDUM

Date: July 24, 2003

To: City of Edmond
Mr. Steve Manek, City Engineer
10 South Littler
Edmond, OK 73034

Oklahoma County District #3
Mr. Gerald Wright, Superintendent
320 Robert S. Kerr, Suite 621
Oklahoma City, OK 73102

From: Triad Design Group
Randy Maxey, Environmental Compliance Coordinator
14313 North May Avenue
Oklahoma City, OK 73134

Re: Covell Road Widening Project: Wetland Findings

Dear Gentleman:

The wetland investigation and potential waters of the United States identification service has been completed for the above referenced project in Edmond, Oklahoma, Oklahoma County.

I performed onsite investigations within the proposed corridor limits of approximately 200' both north and south of the existing centerline and an additional 800' north and south at all section line intersections. Surveys were conducted during the months of May and June 2003, and were performed in an effort to identify potentially sensitive aquatic ecosystems during the project-planning phase in order to avoid wetland and waterway impacts to the maximum extent possible.

Each prospective wetland area was evaluated according to the National Academy of Science definition, the United States Army Corps of Engineers (COE) 1987 Wetland Delineation Manual, associated policy statements, and field indicator interpretation guidance. The scientific criterion specified by the National Academy of Science requires positive identification of three (3) onsite parameters. The criteria for verification of wetlands are as follows: a dominance of hydrophytic vegetation, presence of hydric soils, and wetland hydrology.

As a result of these project site investigations, no areas exhibited the required wetland parameters for inclusion in a wetland findings report. However, at least seven relatively large drainage systems and/or tributaries and main channel creeks traverse the corridor. Appropriate consideration during the project development and design phase is warranted in order to evaluate these channel crossings according to Section 404 of the Clean Water Act and secure all applicable permits through the COE.

If you have any questions regarding these findings or should require any additional information pertaining to the channel crossings please do not hesitate to contact my office.

Sincerely,

Randy Maxey

cc: Steve Cilberg, ODOT Planning and Research / Environmental Studies
Paul Goddard, ODOT Local Government Division

Appendix 3

Traffic Noise Impact Assessment

Traffic Noise Assessment Report
for
Covell Road Widening Project
Edmond, Oklahoma

Prepared for
City of Edmond
and
Oklahoma County

June 2003

By

TRIAD DESIGN GROUP

14313 North May Avenue
Oklahoma City, Oklahoma 73134

Table of Contents

I. Introduction

This Traffic Noise Assessment Report (TNAR) investigates the noise impacts that could result from the proposed reconstruction and widening of Covell Road from State Highway 74 to Interstate 35. This project consists of a four-lane divided boulevard style facility with multi-use paths on both sides. The project location is depicted in **Figure 1.** The purpose for this document is to determine the noise impacts and the possible mitigation of these impacts from this roadway project. This will be achieved by field study, examining aerial photographs of the area, the conceptual plans and proposed grades for the project and computer modeling future noise levels given the traffic projections for the design year.

This report relies on concepts provided by Traffic Engineering Consultants (TEC) and design traffic data from Triad Design Group. The noise analysis was performed using the Transportation Noise Model (TNM 2.0), a computer program produced for Federal Highway Administration (FHWA), and complies with the Oklahoma Department of Transportation (ODOT) Policy Directive "Highway Noise Abatement."

II. Terminology and Sound Theory

This noise analysis will discuss noise levels as Leq(h). Leq is the equivalent steady-state sound level that, in a stated period, contains the same acoustic energy as the time varying sound level during the same period. Leq(h), the hourly value of Leq, is based on the more commonly known decibel (dB) and the "A-weighted" decibel unit (dBA). Sound consists of different frequencies, each of which is perceived differently by the human ear. Since human hearing is not sensitive to low and very high frequencies, the A-weighted scale is used to approximate the response of the human ear by compensating for high and low end frequency insensitivity and renders noise level readings more meaningful. The A-weighted decibel (dBA) unit measures perceptible sound energy and factors out the fringe frequencies.

Decibels are logarithmic units as opposed to the more common linear units. For example, temperature units of Fahrenheit and Celsius are linear. A two-degree increase is twice as much as a one-degree increase. However, in decibels, a three-decibel increase from a noise source results in a doubling of sound energy, but not in the human perception of sound. Research shows that to an average listener, a 10-dBA increase is perceived as twice as loud. One dBA is the smallest change in sound level that an average person can detect under ideal conditions. Usually an observer cannot detect an increase of three to four decibels if the increase takes place over several years.

III. Methodology

Traffic noise analysis consists of a comparison of computer modeled noise levels for existing conditions with computer modeled noise levels for future conditions. FHWA's software, TNM 2.0, is used to model noise levels based on traffic data, roadway geometry, and receiver site locations. A receiver is a location, usually a residence, where exterior human activity occurs. Receivers are modeled for noise levels and evaluated for noise impacts.

The FHWA has five noise activity categories based on land-use and sound levels, each of which has its own Noise Abatement Criteria (NAC). These levels are presented in **Table 1.** Noise Impacts are determined in two ways. A noise impact occurs when either the "absolute criterion" or the "relative criterion" are met. Under the absolute criterion, a noise impact occurs when predicted future noise

levels approach by one dBA, meet or exceed the FHWA NAC at a given receiver for its activity category. Under the relative criterion, noise impact occurs when the future noise levels exceed existing noise levels by 15 dBA or more at a given receiver. For locations with no outside human activity (i.e., churches), interior noise levels can be determined by applying adjustment factors to predicted future exterior noise levels and compared with the NAC for Activity Category E to determine impacts. Once impact is identified, then noise abatement is considered for the impacted area. Only those areas for which abatement is determined to be feasible and reasonable as defined by ODOT Policy Directive "Highway Noise Abatement" will be recommended for inclusion in the project.

Table 1.
Federal Highway Administration Noise Abatement Criteria

Activity Category	Leq Noise Level	Description of Activity Category
A	57 (Exterior)	Tracts of land in which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of these qualities is essential if the area is to continue to serve its intended purpose. Such areas include amphitheaters, particular parks, open spaces, or historic districts which are dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet.
B	67 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, and parks which are not included in Category A and residences, motels, hotels, public meeting rooms, schools, churches, libraries, and hospitals.
C	72 (Exterior)	Developed lands, properties or activities not included in Categories A or B above.
D	--	Undeveloped lands.
E	52 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Source: FHWA 23 CFR Part 772 and FHP 7-3-7

IV. Identification of Receivers

The existing and proposed transportation corridors were examined to identify areas that may be affected by traffic noise. The noise sensitive areas were assigned representative receptors corresponding to individual dwellings adjacent to the identified roadways.

Single receivers were placed in the appropriate exterior human use areas to determine the extent of traffic noise representative for these residences and/or first row housing additions. Secondary receivers were not utilized during this initial assessment. In the event that construction of noise barriers is required, additional benefited receivers may need to be identified. This information would be used in determining the cost per benefited receiver and utilized in the noise barrier justification analysis.

Additionally, no churches, schools, or libraries were identified in the assessment area. The location of the receivers in the transportation corridor is presented in **Appendix D.**

V. Traffic Data

A typical unit of measurement for traffic on a highway or roadway is the average daily traffic (ADT). ADT is defined as the total volume of vehicles during a given time period (greater than one day and less than a year), divided by the number of days in that time period.

The design year ADT is the volume of traffic that is anticipated for the designed vehicular capacity of the subject roadway at the future date identified. The current ADT information was used to determine the traffic induced noise levels for the present roadway/intersection design at the selected receiver locations and was based on the data derived from the year 2003. The design year traffic information used to determine the traffic noise levels for the proposed realignment project is 2023.

The traffic data provided for this noise impact assessment was expressed in terms of "peak hour" traffic volumes for both the morning and the evening, when the traffic volume is at its highest flow. This assessment report utilized data provided for the evening peak hour for traffic volume in view of the fact that this is the most likely time of day that human annoyance would occur. TNM utilizes the Design Hourly Volume (DHV) to determine the existing traffic noise levels and calculate the future traffic noise impacts. DHV data is based on the percentage of hourly traffic present on the facility at the design capacity.

Accurate modeling of roadway traffic requires the evaluation of traffic noise induced by cars, medium trucks, and heavy trucks according to the roadway speed limitations. Other vehicle types, such as busses and/or motorcycles, can be potentially included in traffic noise assessments.

Both the current posted and proposed-design speed limit utilized for this study was based on 45 miles per hour (mph) and was incorporated in the existing and future design modeling effort and the assumed vehicle speed. Neither busses nor motorcycles were included in either of the traffic noise model evaluations.

Existing Traffic Conditions

Currently Covell Road serves as an east/west arterial facility for public traffic movement. There are several factors that lead to Covell Road serving as a major arterial collector, including the presence of

a city park, middle school, post office and an interchange at Interstate 35. The majority of traffic comes from passenger automobiles with a small percentage of heavy and medium truck traffic. This report applied a percentage rate of three percent for both medium trucks and heavy trucks for traffic movement on Covell Road as well as all the north/south section line facilities. The traffic volume breakdown according to vehicle type and corresponding number is presented in **Appendix A, Tables A1 and A2.**

Future Traffic Conditions

For the year 2023 traffic noise impact assessment, the volume of traffic was increased based upon projected growth for the City of Edmond and the surrounding area. As with existing traffic conditions, the majority of traffic comes from passenger automobiles with a small percentage of heavy and medium truck traffic. This report applied a percentage rate of three percent for both medium trucks and heavy trucks for traffic movement on Covell Road as well as all the north/south section line facilities. The future traffic volume breakdown according to vehicle type and corresponding number is presented in **Appendix A, Tables A3 and A4.**

VI. Traffic Noise Analysis Results

The existing and predicted traffic noise levels were modeled along the assessment area at the identified locations shown in **Appendix D.** The selected receivers represented the closest, non-commercial, residential dwellings to the transportation corridor. These residences were selected based on the assumption that traffic noise levels would be greatest at these locations. Further evaluation of additional receivers, primarily as benefited receptors resulting from sound barrier installation, would be performed during a sound barrier analysis and design phase, if required. All of the selected receiver locations had facilities, dwellings, or structures that involved exterior human use areas. Therefore, the evaluation of Activity Categories A, C, D, or E were not required, modeled, or applied. Secondary receivers were not included in this assessment.

Based on the current traffic data, existing roadway geometry, and selected receiver locations, the calculated LAeq1h traffic induced noise levels did not exceed the NAC at any of the receivers. It is important to note that previous ODOT studies have shown that privacy fencing, even in poor conditions, provides at least a 3-6 dBA shielding effect. Conservatively, a 3-decibel adjustment was made to account for this effect in determining impacted receivers. The traffic noise levels corresponding to the existing roadways are presented in **Table 2.**

Table 2.
Existing Traffic Noise Levels

Receiver	Dwelling Type	Noise Levels (dBA)
R-1	Single Family Residential	46
R-2	Single Family Residential	59
R-3	Single Family Residential	45
R-4	Single Family Residential	55
R-5	Single Family Residential	60
R-6	Single Family Residential	60
R-7	Single Family Residential	55

R-8	Single Family Residential	56
R-9	Single Family Residential	60
R-10	Single Family Residential	47
R-11	Single Family Residential	47
R-12	Single Family Residential	61
R-13	Single Family Residential	57
R-14	Single Family Residential	58
R-15	Single Family Residential	59
R-16	Single Family Residential	58
R-17	Single Family Residential	62
R-18	Single Family Residential	58
R-19	Single Family Residential	60
R-20	Single Family Residential	60
R-21	Single Family Residential	57
R-22	Single Family Residential	61
R-23	Single Family Residential	59
R-24	Single Family Residential	62
R-25	Single Family Residential	57
R-26	Single Family Residential	58
R-27	Single Family Residential	57
R-28	Single Family Residential	49
R-29	Single Family Residential	56
R-30	Single Family Residential	55
R-31	Single Family Residential	61
R-32	Single Family Residential	54
R-33	Single Family Residential	55
R-34	Single Family Residential	52
R-35	Single Family Residential	56
R-36	Single Family Residential	54
R-37	Single Family Residential	55
R-39	Single Family Residential	57
R-41	Single Family Residential	53
R-43	Single Family Residential	57
R-45	Single Family Residential	55
R-47	Single Family Residential	55
R-49	Single Family Residential	54
R-51	Single Family Residential	51
R-c1	Single Family Residential	57
R-c2	Single Family Residential	58
R-b1	Single Family Residential	61
R-b3	Single Family Residential	62
R-k1	Single Family Residential	55
R-sf1	Single Family Residential	59
R-sf2	Single Family Residential	49
R-m1	Single Family Residential	54
R-m2	Single Family Residential	51

The LAeq1h noise levels associated with the first row receivers ranged from 45 to 62 dBA according to the existing traffic volume data **(Appendix A)**. None of the receivers appear to be experiencing traffic noise levels that approach by 1 dBA, meet or exceed the noise abatement criteria specified in the ODOT noise directive policy. The existing noise levels associated with the present-condition traffic volume were generated using the existing roadway profile and adjacent property topography.

Using the predicted traffic data for the design year 2023, proposed roadway design, and selected receiver locations, the calculated LAeq1h traffic induced noise levels resulted in an impact at 4 of the 53 selected receivers. The traffic noise levels corresponding to the proposed Covell Road widening project are presented in **Table 3.**

The predicted noise levels obtained based on the future traffic levels were derived using the proposed roadway design geometry and corresponding topographical modifications. To ensure consistency, the same receiver locations selected for the existing traffic assessment were utilized to model the noise levels associated with the predicted traffic volume. Under future traffic conditions, the LAeq1h noise levels associated with the first row receivers ranged from 51 to 69 dBA according to the projected traffic volume data **(Appendix A)**. According to the model only one (1) receiver would experience noise levels that approach the NAC by 1 dBA. This receiver is representative of approximately 7 total primary receivers. Furthermore, no receivers experience traffic-induced noise levels that meet or exceed the NAC of 67 dBA. Moreover, substantial noise level impacts of 15 dBA did not occur at any of the identified receivers.

Table 3.
Future Traffic Noise Levels

Receiver	Dwelling Type	Noise Levels (dBA)	Increase from Existing (dBA)
R-1	Single Family Residential	53	7
R-2	Single Family Residential	59	0
R-3	Single Family Residential	58	13
R-4	Single Family Residential	61	6
R-5	Single Family Residential	65	5
R-6	Single Family Residential	64	4
R-7	Single Family Residential	61	6
R-8	Single Family Residential	60	4
R-9	Single Family Residential	60	0
R-10	Single Family Residential	52	5
R-11	Single Family Residential	51	4
R-12	Single Family Residential	58	-3
R-13	Single Family Residential	60	3
R-14	Single Family Residential	63	5
R-15	Single Family Residential	62	3
R-16	Single Family Residential	63	5
R-17	Single Family Residential	63	1
R-18	Single Family Residential	64	6
R-19	Single Family Residential	63	3
R-20	**Single Family Residential**	**66**	**6**
R-21	Single Family Residential	61	4

R-22	Single Family Residential	65	4
R-23	Single Family Residential	62	3
R-24	Single Family Residential	62	0
R-25	Single Family Residential	60	3
R-26	Single Family Residential	60	2
R-27	Single Family Residential	62	5
R-28	Single Family Residential	52	3
R-29	Single Family Residential	61	5
R-30	Single Family Residential	54	-1
R-31	Single Family Residential	58	4
R-32	Single Family Residential	54	2
R-33	Single Family Residential	60	5
R-34	Single Family Residential	54	2
R-35	Single Family Residential	56	0
R-36	Single Family Residential	53	-1
R-37	Single Family Residential	56	1
R-39	Single Family Residential	58	1
R-41	Single Family Residential	54	1
R-43	Single Family Residential	55	-2
R-45	Single Family Residential	58	3
R-47	Single Family Residential	59	4
R-49	Single Family Residential	58	4
R-51	Single Family Residential	55	4
R-c1	Single Family Residential	62	5
R-c2	Single Family Residential	65	7
R-b1	Single Family Residential	65	4
R-b3	Single Family Residential	64	2
R-k1	Single Family Residential	59	4
R-sf1	Single Family Residential	65	6
R-sf2	Single Family Residential	52	3
R-m1	Single Family Residential	62	8
R-m2	Single Family Residential	60	9

VII. Sound Barrier Analysis and Justification

The LAeq1h levels associated with the traffic noise attributable to the future design volume for the primary receivers were evaluated under preliminary barrier designs. These proposed sound barriers were positioned generally along proposed rights-of-way along the primary roadway. Barrier location constraints included utility easements, residential driveways, drainage channels and future interchange reconstruction. Variance from the selected locations to evaluate any traffic noise level changes may be limited. Modification of barrier design or location could alter the overall effectiveness of any such installed barrier.

Based on the dwelling location for the receiver R-20, roadway geometry and topography, the required 7-dBA-insertion loss goal was specifically achieved for five (5) of the seven (7) primary receivers represented. Practical analysis of the identified results is discussed in the following section. The

insertion loss goals for any secondary receivers, even though there were no impacted secondary receivers identified, would likely be achieved based on the fact that other primary receivers in the direct vicinity achieved the reduction goal.

Barrier height modifications ranging from 0 feet to 16 feet in height were utilized to identify a potential design that would maximize traffic noise reduction, be cost effective, and maintain compatibility with future roadway modification and/or reconstruction. Based on these modifications a preliminary barrier design was established for each identified receiver that exhibited the needed noise reduction analysis. The predicted noise level calculations for these preliminary barrier designs are presented in **Table 4.**

Table 4.
Insertion Loss According to Receiver (7 dBA Goal)

Primary Receiver Number	No Barrier LAeq1h (dBA)	With Barrier, LAeq1h (dBA)	Insertion Loss (dBA)
R-20	66	59	7

VIII. Traffic Noise Impact Mitigation Analysis

Mitigation is typically considered where only frequent outside human use occurs that would benefit from decreased noise levels. Such measures must also be considered reasonable and feasible. If the traffic-induced noise calculated for the identified receivers meet, exceed, or approach by 1 dBA the NAC, or if there is a substantial increase of 15 dBA, noise mitigation measures must be considered for the affected areas. This determination must include an evaluation of sound level reduction that accomplishes at least a 7 dBA insertion loss based on the design year traffic volume for the first row or primary receivers. Additionally, the insertion loss goal of 5 dBA is applied for secondary receivers.

The estimated costs associated with construction of the sound wall along with the cost per benefited receiver are presented in **Table 5**, but do not necessarily include the costs attributed to the installation of support footing or any other extra-ordinary techniques that could possibly be required to facilitate any such barrier installation (i.e. excavation or fill material, lateral support, etc.). Noise mitigation must meet two requirements to be recommended for design and construction: feasibility and reasonableness. Analysis based upon these two requirements is exhibited in **Appendix C, Table C1.** These matrix style tables analyze each impacted receiver according to the ODOT Policy Directive "Highway Noise Abatement."

Table 5.
Preliminary Barrier Design and Cost
(based on $25.00 sq. ft.)

Primary Receiver Number	Barrier Length (feet)	Barrier Height (feet)	Cost of Barrier Wall	Potential Number of Benefited Primary Receivers	Cost of Barrier per Benefited Receiver
R-20	876	8	$175,290	5	$35,058

Feasibility

"Feasibility" refers to the engineering considerations that determine if (1) the required insertion loss can be achieved for the identified receivers adjacent to the roadway in the design year when compared to the design year without mitigation. Factors that may limit the ability to achieve the specified noise reduction goals include topography, residential access, frontage roads, cross streets, drainage concerns, utility easements, driveways, and other noise sources in the area. Any of the considered mitigation measures must also (2) be "constructible" without using extraordinary construction techniques and (3) not create drainage, maintenance, and access or safety problems. A determination of feasibility is based primarily on engineering-related concerns pertaining to the ability to install sound barriers without excessive measures to facilitate construction. Based on the results from a sound barrier analysis, the decision rationale regarding a feasibility determination is as follows:

- Receiver R-20 is representative of approximately seven (7) primary residential receptors. The barrier design presented would provide the required insertion loss for five (5) of those receptors.
- According to the preliminary design elements the barrier design presented should be constructible without using extraordinary construction techniques.
- Location of barrier walls may present safety concerns due to traffic visibility.

Reasonableness

"Reasonableness" refers to the many factors that must be considered to determine if mitigation is fair and affordable. There are six (6) specific criteria specified in the ODOT Noise Policy Directive to determine reasonableness. No single factor would guarantee or deny mitigation absolutely, but all would be considered to determine if mitigation is reasonable.

1. The area's resident's desire for mitigation. Higher considerations will be given to first row receivers adjacent to the transportation facility.

2. The overall magnitude of the future noise levels without mitigation.

3. The magnitude of the future noise levels when compared to existing noise levels.

4. The date of development or construction of the residential area compared to the date of initial roadway construction. Higher consideration will be given to mitigate impacts in an area that pre-dated the roadway.

5. The cost is not to exceed $30,000 per benefited receptor. A benefited residential receptor receives the minimum reduction when compared to no mitigation and includes both primary and secondary residential receptors.

6. The existing land use, zoning, potential for land use change in the area, and actions taken by local officials to control incompatible growth and development adjacent to roadways.

Based on the results from a sound barrier analysis, the decision rationale regarding a reasonableness determination is as follows:

- Magnitude of overall future noise levels without mitigation measures is not substantial.
- Magnitude of future noise levels compared to the existing noise levels is not substantial.
- Date of development is subsequent to the initial roadway construction. A portion of the area is currently not developed.
- Based upon the preliminary barrier design, the cost of barrier wall, alone, per benefited receiver will exceed $30,000.00.
- Mitigation measures should not alter existing land use, zoning or potential for land use change in the area.

IX. Conclusions

This Traffic Noise Assessment Report was undertaken to determine the extent of traffic noise impact and evaluate the reasonableness and feasibility of potential mitigation measures in the event impact did occur regarding the proposed widening of Covell Road from Portland Avenue to Sooner Road. This project evaluation did not involve, include, or evaluate any traffic-induced noise levels for any facility or structure such as a school, church, library, hospital, or commercial property. Only non-commercial single-family residences and/or dwellings were utilized as receivers during this TNAR and were evaluated according to Activity Category B of the FHWA's NAC.

The ODOT Noise Policy Directive was used as the traffic-noise impact guideline for this study. The policy states that a predicted noise level attributed to roadway modifications resulting in a level of service increase requires an evaluation of noise mitigation measures. According to the comparison between existing and future traffic levels, the identified traffic-induced noise level difference does not result in a substantial increase of 15 dBA for any of the selected receivers. Additionally, the existing traffic condition noise levels obtained for the selected receivers do not exceed the NAC. However, levels derived from the proposed roadway design and future traffic volume indicate 4 (R-c2, R-16, R-18, R-20) of the 53 selected receivers would experience future traffic induced noise levels that approach by 1 dBA, meet or exceed the NAC identified for Activity Category B.

According to the results of the sound barriers analysis, the installation of sound walls according or similar to the presented design meets the feasibility criteria specified in the ODOT Noise Policy Directive. However, it does not meet the reasonable criteria specified in the ODOT Noise Policy Directive, thus no mitigation is recommended for inclusion in the project.

References Cited

Oklahoma Department of Transportation. 1996. ODOT Policy Directive for Highway Noise Abatement. No. C-201-3.

Traffic Engineering Consultants. 2003. Traffic Study for Proposed Covell Road Widening.

U. S. Department of Transportation. Federal Highway Administration Noise Abatement Criteria. 23 CFR Part 772, FHP 7-3-7.

APPENDIX A

TRAFFIC DATA REPORT

Table A1.
Existing Roadway Traffic Data for Covell Road

Covell Road Roadway Segment	Peak Hour 4:30 – 5:30 pm	Heavy Trucks	Medium Trucks	Automobiles
West of Portland				
Eastbound	100	3	3	94
Westbound	60	2	2	56
Portland to May				
Eastbound	150	5	5	141
Westbound	100	3	3	94
May to Penn				
Eastbound	170	5	5	160
Westbound	110	3	3	103
Penn to Western				
Eastbound	170	5	5	160
Westbound	110	3	3	103
Western to Santa Fe				
Eastbound	230	7	7	216
Westbound	150	5	5	141
Santa Fe to Kelly				
Eastbound	240	7	7	226
Westbound	360	11	11	338
Kelly to Broadway				
Eastbound	300	9	9	282
Westbound	450	14	14	423
Broadway to Bryant				
Eastbound	420	13	13	395
Westbound	280	8	8	263
Bryant to Coltrane				
Eastbound	250	8	8	235
Westbound	370	11	11	348
Coltrane to Sooner				
Eastbound	330	10	10	310
Westbound	220	7	7	207
Sooner to EOP				
Eastbound	310	9	9	291
Westbound	460	14	14	432

Source: Traffic Engineering Consultants, Traffic Study for Proposed Covell Road Widening, April, 2003.

Table A2.
Existing Roadway Traffic Data for Arterial North/South Roads

Roadway Segment	Peak Hour 4:30 – 5:30 pm	Heavy Trucks	Medium Trucks	Automobiles
Portland Avenue				
Northbound	985	30	30	926
Southbound	475	14	14	447
May Avenue				
Northbound	245	7	7	230
Southbound	105	3	3	99
Pennsylvania Avenue				
Northbound	320	10	10	301
Southbound	140	4	4	132
Western Avenue				
Northbound	290	9	9	273
Southbound	230	7	7	216
Santa Fe Road				
Northbound	695	21	21	653
Southbound	425	13	13	400
Kelly Road				
Northbound	1175	35	35	1105
Southbound	715	21	21	672
Broadway Road				
Northbound	1010	30	30	949
Southbound	470	14	14	442
Bryant Avenue				
Northbound	835	25	25	785
Southbound	565	17	17	531
Coltrane Road				
Northbound	460	14	14	432
Southbound	340	10	10	320
Sooner Road				
Northbound	285	9	9	268
Southbound	135	4	4	127

Source: Traffic Engineering Consultants, Traffic Study for Proposed Covell Road Widening, April, 2003.

Table A3.
Future Roadway Traffic Data for Covell Road

Covell Road Roadway Segment	Peak Hour 4:30 – 5:30 pm	Heavy Trucks	Medium Trucks	Automobiles
West of Portland				
Eastbound	160	5	5	150
Westbound	100	3	3	94
Portland to May				
Eastbound	240	7	7	226
Westbound	160	5	5	150
May to Penn				
Eastbound	280	8	8	263
Westbound	190	6	6	179
Penn to Western				
Eastbound	280	8	8	263
Westbound	190	6	6	179
Western to Santa Fe				
Eastbound	370	11	11	348
Westbound	250	8	8	235
Santa Fe to Kelly				
Eastbound	400	12	12	376
Westbound	590	18	18	555
Kelly to Broadway				
Eastbound	540	16	16	508
Westbound	820	25	25	771
Broadway to Bryant				
Eastbound	750	23	23	705
Westbound	500	15	15	470
Bryant to Coltrane				
Eastbound	450	14	14	423
Westbound	670	20	20	630
Coltrane to Sooner				
Eastbound	600	18	18	564
Westbound	400	12	12	376
East of Sooner				
Eastbound	550	17	17	517
Westbound	830	25	25	780

Source: Traffic Engineering Consultants, Traffic Study for Proposed Covell Road Widening, April, 2003.

Table A4.
Future Roadway Traffic Data for Arterial North/South Roads

Roadway Segment	Peak Hour 4:30 – 5:30 pm	Heavy Trucks	Medium Trucks	Automobiles
Portland Avenue				
Northbound	2865	86	86	2693
Southbound	1395	42	42	1311
May Avenue				
Northbound	1045	31	31	982
Southbound	695	21	21	653
Pennsylvania Avenue				
Northbound	1320	40	40	1241
Southbound	890	27	27	837
Western Avenue				
Northbound	1155	35	35	1086
Southbound	1095	33	33	1029
Santa Fe Road				
Northbound	1600	48	48	1504
Southbound	1020	31	31	959
Kelly Road				
Northbound	2060	62	62	1936
Southbound	1350	41	41	1269
Broadway Road				
Northbound	2450	74	74	2303
Southbound	1595	48	48	1499
Bryant Avenue				
Northbound	1850	56	56	1739
Southbound	1330	40	40	1250
Coltrane Road				
Northbound	1275	38	38	1199
Southbound	940	28	28	884
Sooner Road				
Northbound	805	24	24	757
Southbound	655	20	20	616

Source: Traffic Engineering Consultants, Traffic Study for Proposed Covell Road Widening. April, 2003.

APPENDIX B

MODELED TRAFFIC NOISE RESULTS

Triad Design Group
Randy Maxey

15 July 2004
TNM 2.1
Calculated with TNM 2.1

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: E010.5 / E040.0 Covell Road Widening
RUN: Existing Covell Road
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier					With Barrier			
				LAeq1h		Increase over existing		Type Impact	Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
R-2	73	1	0.0	58.9	66	58.9	15	----	58.9	0.0	7	-7.0
R-4	74	1	0.0	55.2	66	55.2	15	----	55.2	0.0	7	-7.0
R-1	75	1	0.0	45.7	66	45.7	15	----	45.7	0.0	7	-7.0
R-3	76	1	0.0	44.7	66	44.7	15	----	44.7	0.0	7	-7.0
R-6	77	1	0.0	60.0	66	60.0	15	----	60.0	0.0	7	-7.0
R-5	78	1	0.0	60.2	66	60.2	15	----	60.2	0.0	7	-7.0
R-7	79	1	0.0	55.1	66	55.1	15	----	55.1	0.0	7	-7.0
R-c1	80	1	0.0	56.9	66	56.9	15	----	56.9	0.0	7	-7.0
R-c2	81	1	0.0	58.3	66	58.3	15	----	58.3	0.0	7	-7.0
R-9	82	1	0.0	59.5	66	59.5	15	----	59.5	0.0	7	-7.0
R-8	83	1	0.0	56.0	66	56.0	15	----	56.0	0.0	7	-7.0
R-10	84	1	0.0	47.3	66	47.3	15	----	47.3	0.0	7	-7.0
R-11	85	1	0.0	46.5	66	46.5	15	----	46.5	0.0	7	-7.0
R-12	87	1	0.0	61.2	66	61.2	15	----	61.2	0.0	7	-7.0
R-13	88	1	0.0	56.7	66	56.7	15	----	56.7	0.0	7	-7.0
R-14	89	1	0.0	57.7	66	57.7	15	----	57.7	0.0	7	-7.0
R-b1	90	1	0.0	60.5	66	60.5	15	----	60.5	0.0	7	-7.0
R-b3	91	1	0.0	61.6	66	61.6	15	----	61.6	0.0	7	-7.0
R-15	92	1	0.0	58.8	66	58.8	15	----	58.8	0.0	7	-7.0
R-17	93	1	0.0	61.9	66	61.9	15	----	61.9	0.0	7	-7.0
R-16	94	1	0.0	57.8	66	57.8	15	----	57.8	0.0	7	-7.0
R-19	95	1	0.0	60.2	66	60.2	15	----	60.2	0.0	7	-7.0
R-18	96	1	0.0	58.2	66	58.2	15	----	58.2	0.0	7	-7.0
R-21	97	1	0.0	57.4	66	57.4	15	----	57.4	0.0	7	-7.0
R-20	98	1	0.0	59.8	66	59.8	15	----	59.8	0.0	7	-7.0
R-22	99	1	0.0	60.6	66	60.6	15	----	60.6	0.0	7	-7.0
R-23	100	1	0.0	58.5	66	58.5	15	----	58.5	0.0	7	-7.0
R-25	105	1	0.0	56.8	66	56.8	15	----	56.8	0.0	7	-7.0
R-27	106	1	0.0	57.4	66	57.4	15	----	57.4	0.0	7	-7.0

R-29	107	1	0.0	56.4	66	56.4	15	----	56.4	0.0	7	-7.0
R-k1	108	1	0.0	54.6	66	54.6	15	----	54.6	0.0	7	-7.0
R-24	109	1	0.0	62.4	66	62.4	15	----	62.4	0.0	7	-7.0
R-26	110	1	0.0	58.4	66	58.4	15	----	58.4	0.0	7	-7.0
R-sf1	111	1	0.0	58.7	66	58.7	15	----	58.7	0.0	7	-7.0
R-sf2	112	1	0.0	48.5	66	48.5	15	----	48.5	0.0	7	-7.0
R-31	113	1	0.0	61.1	66	61.1	15	----	61.1	0.0	7	-7.0
R-28	114	1	0.0	48.6	66	48.6	15	----	48.6	0.0	7	-7.0
R-33	115	1	0.0	54.6	66	54.6	15	----	54.6	0.0	7	-7.0
R-30	116	1	0.0	54.9	66	54.9	15	----	54.9	0.0	7	-7.0
R-35	117	1	0.0	56.2	66	56.2	15	----	56.2	0.0	7	-7.0
R-37	118	1	0.0	54.7	66	54.7	15	----	54.7	0.0	7	-7.0
R-32	119	1	0.0	53.6	66	53.6	15	----	53.6	0.0	7	-7.0
R-39	120	1	0.0	56.9	66	56.9	15	----	56.9	0.0	7	-7.0
R-41	121	1	0.0	53.0	66	53.0	15	----	53.0	0.0	7	-7.0
R-43	122	1	0.0	56.5	66	56.5	15	----	56.5	0.0	7	-7.0
R-45	123	1	0.0	54.5	66	54.5	15	----	54.5	0.0	7	-7.0
R-m1	124	1	0.0	53.9	66	53.9	15	----	53.9	0.0	7	-7.0
R-m2	125	1	0.0	50.7	66	50.7	15	----	50.7	0.0	7	-7.0
R-47	127	1	0.0	54.6	66	54.6	15	----	54.6	0.0	7	-7.0
R-49	128	1	0.0	53.5	66	53.5	15	----	53.5	0.0	7	-7.0
R-51	130	1	0.0	51.4	66	51.4	15	----	51.4	0.0	7	-7.0
R-34	131	1	0.0	51.5	66	51.5	15	----	51.5	0.0	7	-7.0
R-36	132	1	0.0	53.6	66	53.6	15	----	53.6	0.0	7	-7.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	53	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Triad Design Group
Randy Maxey

15 July 2004
TNM 2.1
Calculated with TNM 2.1

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: E010.5 / E040.0 Covell Road Widening
RUN: Proposed Covell Road
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier					With Barrier			
				LAeq1h		Increase over existing		Type Impact	Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
R-2	73	1	58.9	59.4	66	0.5	15	----	59.4	0.0	7	-7.0
R-4	74	1	55.2	60.6	66	5.4	15	----	60.6	0.0	7	-7.0
R-1	75	1	45.7	53.1	66	7.4	15	----	53.1	0.0	7	-7.0
R-3	76	1	44.7	58.2	66	13.5	15	----	58.2	0.0	7	-7.0
R-6	77	1	60.0	63.6	66	3.6	15	----	63.6	0.0	7	-7.0
R-5	78	1	60.2	65.2	66	5.0	15	----	65.2	0.0	7	-7.0
R-7	79	1	55.1	60.5	66	5.4	15	----	60.5	0.0	7	-7.0
R-c1	80	1	56.9	62.1	66	5.2	15	----	62.1	0.0	7	-7.0
R-c2	81	1	61.0	65.0	66	4.0	15	----	65.0	0.0	7	-7.0
R-9	82	1	59.5	59.7	66	0.2	15	----	59.6	0.1	7	-6.9
R-8	83	1	56.0	60.3	66	4.3	15	----	60.2	0.1	7	-6.9
R-10	84	1	47.3	52.3	66	5.0	15	----	52.2	0.1	7	-6.9
R-11	85	1	46.5	50.7	66	4.2	15	----	50.6	0.1	7	-6.9
R-12	87	1	61.2	58.2	66	-3.0	15	----	58.2	0.0	7	-7.0
R-13	88	1	56.7	59.6	66	2.9	15	----	59.6	0.0	7	-7.0
R-14	89	1	57.7	63.0	66	5.3	15	----	63.0	0.0	7	-7.0
R-b1	90	1	60.5	65.0	66	4.5	15	----	65.0	0.0	7	-7.0
R-b3	91	1	61.6	64.3	66	2.7	15	----	64.3	0.0	7	-7.0
R-15	92	1	58.8	62.4	66	3.6	15	----	62.4	0.0	7	-7.0
R-17	93	1	61.9	63.0	66	1.1	15	----	63.0	0.0	7	-7.0
R-16	94	1	60.7	62.8	66	2.1	15	----	52.5	10.3	7	3.3
R-19	95	1	60.2	63.3	66	3.1	15	----	63.3	0.0	7	-7.0
R-18	96	1	61.1	63.8	66	2.7	15	----	56.8	7.0	7	0.0
R-21	97	1	57.4	60.8	66	3.4	15	----	60.8	0.0	7	-7.0
R-20	98	1	62.7	66.3	66	3.6	15	Snd Lvl	58.6	7.7	7	0.7
R-22	99	1	60.6	64.8	66	4.2	15	----	59.8	5.0	7	-2.0
R-23	100	1	58.5	61.8	66	3.3	15	----	61.8	0.0	7	-7.0
R-25	105	1	56.8	60.3	66	3.5	15	----	60.3	0.0	7	-7.0
R-27	106	1	57.4	61.7	66	4.3	15	----	61.7	0.0	7	-7.0

R-29	107	1	56.4	61.3	66	4.9	15	----	61.3	0.0	7	-7.0
R-k1	108	1	54.6	58.6	66	4.0	15	----	58.6	0.0	7	-7.0
R-24	109	1	62.4	61.9	66	-0.5	15	----	61.9	0.0	7	-7.0
R-26	110	1	58.4	60.3	66	1.9	15	----	60.3	0.0	7	-7.0
R-sf1	111	1	58.7	65.0	66	6.3	15	----	65.0	0.0	7	-7.0
R-sf2	112	1	48.5	52.1	66	3.6	15	----	52.1	0.0	7	-7.0
R-31	113	1	61.1	59.6	66	-1.5	15	----	59.6	0.0	7	-7.0
R-28	114	1	48.6	51.6	66	3.0	15	----	51.6	0.0	7	-7.0
R-33	115	1	54.6	59.9	66	5.3	15	----	59.9	0.0	7	-7.0
R-30	116	1	54.9	54.0	66	-0.9	15	----	54.0	0.0	7	-7.0
R-35	117	1	56.2	55.8	66	-0.4	15	----	55.8	0.0	7	-7.0
R-37	118	1	54.7	56.3	66	1.6	15	----	56.3	0.0	7	-7.0
R-32	119	1	53.6	57.6	66	4.0	15	----	57.6	0.0	7	-7.0
R-39	120	1	56.9	57.8	66	0.9	15	----	57.8	0.0	7	-7.0
R-41	121	1	53.0	53.9	66	0.9	15	----	53.9	0.0	7	-7.0
R-43	122	1	56.5	55.2	66	-1.3	15	----	55.2	0.0	7	-7.0
R-45	123	1	54.5	58.0	66	3.5	15	----	58.0	0.0	7	-7.0
R-m1	124	1	53.9	62.0	66	8.1	15	----	62.0	0.0	7	-7.0
R-m2	125	1	50.7	59.8	66	9.1	15	----	59.8	0.0	7	-7.0
R-47	127	1	54.6	59.4	66	4.8	15	----	59.4	0.0	7	-7.0
R-49	128	1	53.5	58.0	66	4.5	15	----	58.0	0.0	7	-7.0
R-51	130	1	51.4	54.5	66	3.1	15	----	54.5	0.0	7	-7.0
R-34	131	1	51.5	54.0	66	2.5	15	----	54.0	0.0	7	-7.0
R-36	132	1	53.6	52.8	66	-0.8	15	----	52.8	0.0	7	-7.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	53	0.0	0.6	10.3
All Impacted	1	7.7	7.7	7.7
All that meet NR Goal	3	7.0	8.3	10.3

Triad Design Group
Randy Maxey

15 July 2004
TNM 2.1
Calculated with TNM 2.1

RESULTS: BARRIER DESIGN
PROJECT/CONTRACT: E010.5 / E040.0 Covell Road Widening
RUN: Proposed Covell Road
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Selected Receivers

Name	No.	Calc	Noise Reduction			Barrier Reviewed	Important Segments			Partial
		LAeq1h	Calc	Goal	Calc-Goal		Name	No.	Height	LAeq1h
		dBA	dB	dB	dB				ft	dBA
R-2	73	59.4	-0.0	7	-7.0					
R-4	74	60.6	0.0	7	-7.0					
R-1	75	53.1	-0.0	7	-7.0	West Side Coltrane	point6	6	8.0	20.8
R-3	76	58.2	0.0	7	-7.0					
R-6	77	63.6	-0.0	7	-7.0					
R-5	78	65.2	-0.0	7	-7.0					
R-7	79	60.5	0.0	7	-7.0					
R-c1	80	62.1	-0.0	7	-7.0					
R-c2	81	65.0	0.0	7	-7.0	West Side Coltrane	point4	4	8.0	64.3
						West Side Coltrane	point5	5	8.0	54.2
						West Side Coltrane	point3	3	8.0	52.3
						West Side Coltrane	point6	6	8.0	46.2
R-9	82	59.6	0.1	7	-6.9	West Side Coltrane	point4	4	8.0	34.0
						West Side Coltrane	point6	6	8.0	32.7
						West Side Coltrane	point5	5	8.0	32.6
						West Side Coltrane	point3	3	8.0	30.4
R-8	83	60.2	0.1	7	-6.9	West Side Coltrane	point4	4	8.0	33.1
						West Side Coltrane	point5	5	8.0	32.0
						West Side Coltrane	point6	6	8.0	31.4
						West Side Coltrane	point3	3	8.0	30.0
R-10	84	52.2	0.1	7	-6.9	West Side Coltrane	point4	4	8.0	26.3
						West Side Coltrane	point3	3	8.0	24.7
						West Side Coltrane	point5	5	8.0	24.5
						West Side Coltrane	point6	6	8.0	24.1
						Brookhaven North east wall	point15	15	8.0	17.7
						Brookhaven North east wall	point9	9	8.0	15.3
						Brookhaven North east wall	point12	12	8.0	11.1
						Brookhaven North east wall	point11	11	8.0	10.5
						Brookhaven North east wall	point13	13	8.0	9.1
						Brookhaven North east wall	point10	10	8.0	7.0
R-11	85	50.6	0.1	7	-6.9	West Side Coltrane	point4	4	8.0	28.4

						West Side Coltrane	point3	3	8.0	26.5
						West Side Coltrane	point5	5	8.0	25.6
						West Side Coltrane	point6	6	8.0	25.5
						Brookhaven North east wall	point16	16	8.0	2.3
						Brookhaven North east wall	point15	15	8.0	0.5
						Brookhaven North east wall	point8	8	8.0	-1.7
						Brookhaven North west wall	point32	32	8.0	-2.1
						Rock Hollow wall	point34	34	8.0	-2.7
						Brookhaven North west wall	point18	18	8.0	-3.3
R-12	87	58.2	-0.0	7	-7.0	Brookhaven North east wall	point15	15	8.0	22.4
						Brookhaven North east wall	point16	16	8.0	17.5
						Brookhaven North east wall	point14	14	8.0	17.5
						West Side Coltrane	point4	4	8.0	16.9
						Brookhaven North east wall	point12	12	8.0	16.8
						Brookhaven North east wall	point9	9	8.0	16.5
						Brookhaven North east wall	point11	11	8.0	16.2
						West Side Coltrane	point3	3	8.0	15.7
						West Side Coltrane	point5	5	8.0	15.2
						West Side Coltrane	point6	6	8.0	14.7
R-13	88	59.6	0.0	7	-7.0					
R-14	89	63.0	0.0	7	-7.0					
R-b1	90	65.0	-0.0	7	-7.0					
R-b3	91	64.3	0.0	7	-7.0	Brookhaven North east wall	point16	16	8.0	12.6
R-15	92	62.4	0.0	7	-7.0					
R-17	93	63.0	-0.0	7	-7.0	Brookhaven North east wall	point14	14	8.0	26.4
						Brookhaven North east wall	point13	13	8.0	24.1
						Brookhaven North east wall	point15	15	8.0	21.5
						Brookhaven North east wall	point16	16	8.0	9.3
R-16	94	52.5	10.3	7	3.3	Brookhaven North east wall	point11	11	8.0	49.0
						Brookhaven North east wall	point12	12	8.0	44.5
						Brookhaven North east wall	point10	10	8.0	41.6
						Brookhaven North east wall	point16	16	8.0	40.4
						Brookhaven North east wall	point13	13	8.0	38.6
						Brookhaven North east wall	point15	15	8.0	38.4
						Brookhaven North east wall	point9	9	8.0	38.0
						Brookhaven North east wall	point8	8	8.0	37.8
						Brookhaven North east wall	point14	14	8.0	36.3
						Brookhaven North west wall	point30	30	8.0	32.8
R-19	95	63.3	0.0	7	-7.0					
R-18	96	56.8	7.0	7	-0.0	Brookhaven North west wall	point24	24	8.0	55.0
						Brookhaven North west wall	point25	25	8.0	48.7
						Brookhaven North west wall	point23	23	8.0	45.5
						Brookhaven North west wall	point26	26	8.0	41.2
						Brookhaven North west wall	point22	22	8.0	38.2
						Brookhaven North west wall	point27	27	8.0	36.5
						Brookhaven North west wall	point21	21	8.0	33.6
						Rock Hollow wall	point34	34	8.0	32.4

						Brookhaven North west wall	point28	28	8.0	32.1
						Brookhaven North east wall	point15	15	8.0	31.5
R-21	97	60.8	-0.0	7	-7.0	Brookhaven North west wall	point24	24	8.0	18.6
						Brookhaven North west wall	point25	25	8.0	17.5
						Brookhaven North west wall	point23	23	8.0	16.2
						Brookhaven North west wall	point26	26	8.0	15.6
R-20	98	58.6	7.7	7	0.7	Rock Hollow wall	point35	35	8.0	56.8
						Rock Hollow wall	point34	34	8.0	50.6
						Rock Hollow wall	point36	36	8.0	47.4
						Rock Hollow wall	point37	37	8.0	43.5
						Rock Hollow wall	point38	38	8.0	42.0
						Rock Hollow wall	point39	39	8.0	41.2
						Brookhaven North west wall	point18	18	8.0	38.1
						Rock Hollow wall	point40	40	8.0	38.0
						Rock Hollow wall	point41	41	8.0	35.3
						Brookhaven North west wall	point20	20	8.0	35.2
R-22	99	59.8	5.0	7	-2.0	Rock Hollow wall	point40	40	8.0	57.2
						Rock Hollow wall	point39	39	8.0	52.5
						Rock Hollow wall	point41	41	8.0	50.3
						Rock Hollow wall	point38	38	8.0	45.9
						Rock Hollow wall	point42	42	8.0	42.6
						Rock Hollow wall	point37	37	8.0	41.3
						Rock Hollow wall	point36	36	8.0	37.6
						Rock Hollow wall	point43	43	8.0	36.2
						Rock Hollow wall	point35	35	8.0	34.1
						Rock Hollow wall	point34	34	8.0	31.5
R-23	100	61.8	-0.0	7	-7.0					
R-25	105	60.3	0.0	7	-7.0					
R-27	106	61.7	0.0	7	-7.0					
R-29	107	61.3	0.0	7	-7.0					
R-k1	108	58.6	-0.0	7	-7.0					
R-24	109	61.9	0.0	7	-7.0					
R-26	110	60.3	0.0	7	-7.0					
R-sf1	111	65.0	0.0	7	-7.0					
R-sf2	112	52.1	0.0	7	-7.0					
R-31	113	59.6	-0.0	7	-7.0					
R-28	114	51.6	0.0	7	-7.0					
R-33	115	59.9	-0.0	7	-7.0					
R-30	116	54.0	-0.0	7	-7.0					
R-35	117	55.8	0.0	7	-7.0					
R-37	118	56.3	0.0	7	-7.0					
R-32	119	57.6	-0.0	7	-7.0					
R-39	120	57.8	0.0	7	-7.0					
R-41	121	53.9	0.0	7	-7.0					
R-43	122	55.2	0.0	7	-7.0					
R-45	123	58.0	0.0	7	-7.0					
R-m1	124	62.0	-0.0	7	-7.0					

R-m2	125	59.8	-0.0	7	-7.0					
R-47	127	59.4	0.0	7	-7.0					
R-49	128	58.0	-0.0	7	-7.0					
R-51	130	54.5	-0.0	7	-7.0					
R-34	131	54.0	0.0	7	-7.0					
R-36	132	52.8	-0.0	7	-7.0					
Total Cost, All Barriers (including additional cost(s))					$718093					

APPENDIX C

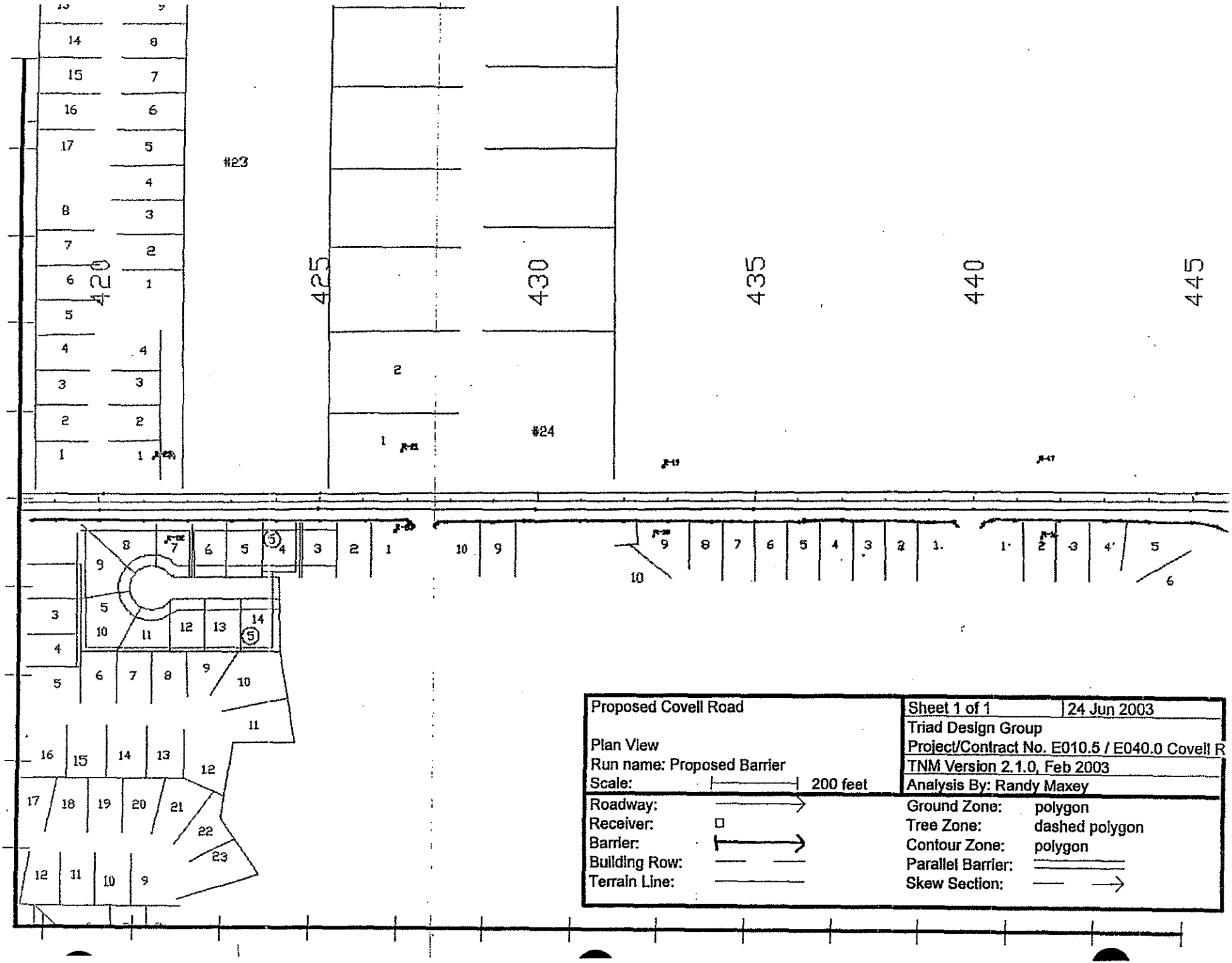
MITIGATION ANALYSIS

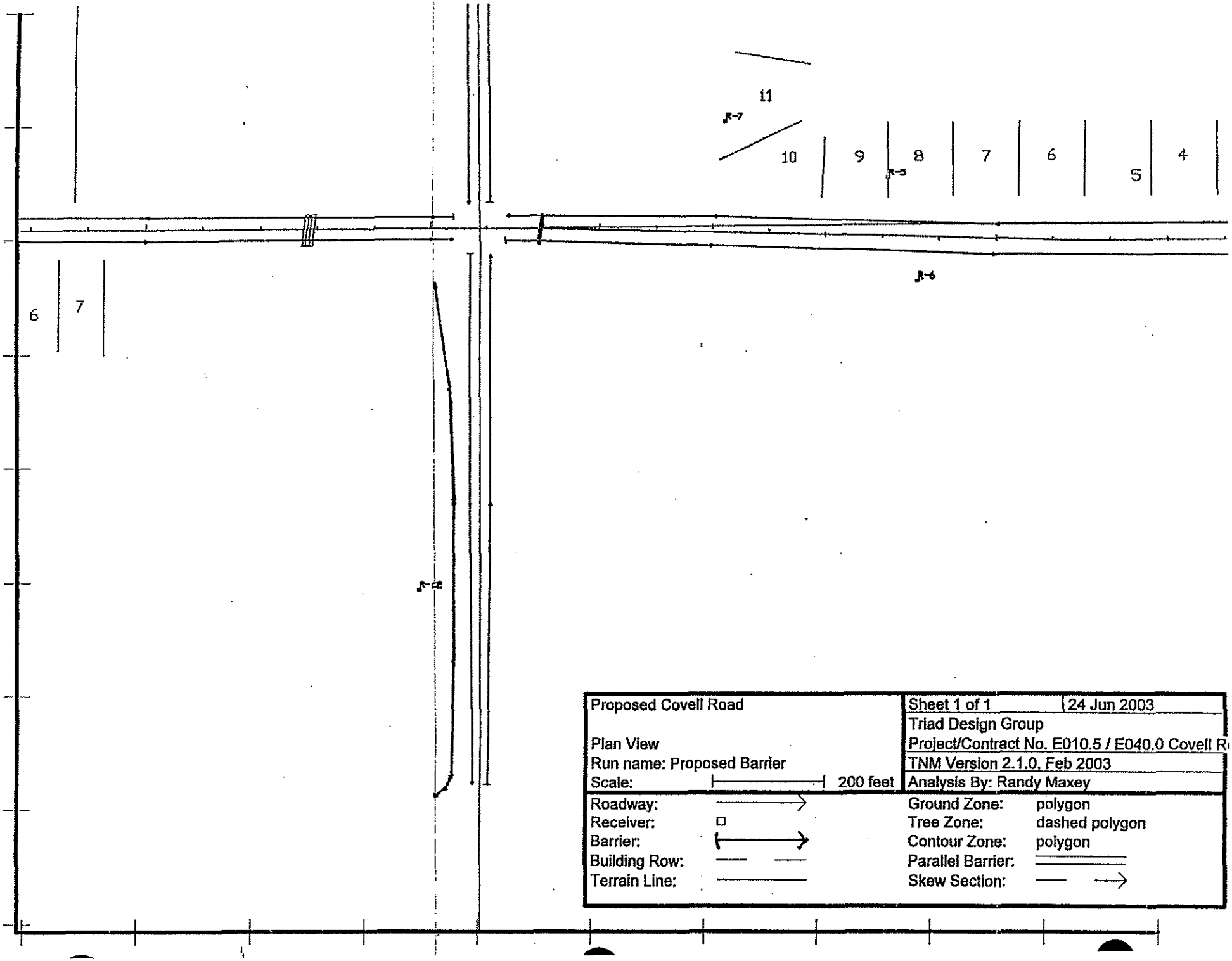
REASONABLENESS MATRIX					
Receiver	**Magnitude of overall future noise level without mitigation?**	**Magnitude of future noise level compared to existing?**	**Date of initial roadway project compared to receivers?**	**Does the cost of mitigation exceed $30,000 per benefited receiver?**	**Impact to zoning or potential land use change?**
R-20	Not substantial; Approaches NAC by 1 dBA: 66 dBA	Not substantial; increase over existing of 6 dBA	Covell Road was constructed before any of this development.	Yes. The cost per benefited receiver would be approximately $35,000 for the barrier wall alone.	No.

FEASIBILITY MATRIX			
Receiver	**Does mitgation measure achieve the desired noise reduction goal?**	**Is the mitigation measure easily constructable?**	**Does the mitigation measure create any drainage, access or safety problems?**
R-20	Yes. With the placement of the preliminary barrier design, a reduction of 7 dBA occurs.	Yes, according to the preliminary design.	Possibility of low traffic visibility with the barrier design presented.

APPENDIX D

LOCATION MAPS


#23
#24
420
425
430
435
440
445
Proposed Covell Road
Plan View
Run name: Proposed Barrier
Scale: 200 feet
Roadway:
Receiver:
Barrier:
Building Row:
Terrain Line:
Sheet 1 of 1
24 Jun 2003
Triad Design Group
Project/Contract No. E010.5 / E040.0 Covell R
TNM Version 2.1.0, Feb 2003
Analysis By: Randy Maxey
Ground Zone: polygon
Tree Zone: dashed polygon
Contour Zone: polygon
Parallel Barrier:
Skew Section:



Proposed Covell Road	Sheet 1 of 1 | 24 Jun 2003
	Triad Design Group
Plan View	Project/Contract No. E010.5 / E040.0 Covell R
Run name: Proposed Barrier	TNM Version 2.1.0, Feb 2003
Scale: 200 feet	Analysis By: Randy Maxey

Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

APPENDIX D

LOCATION MAPS

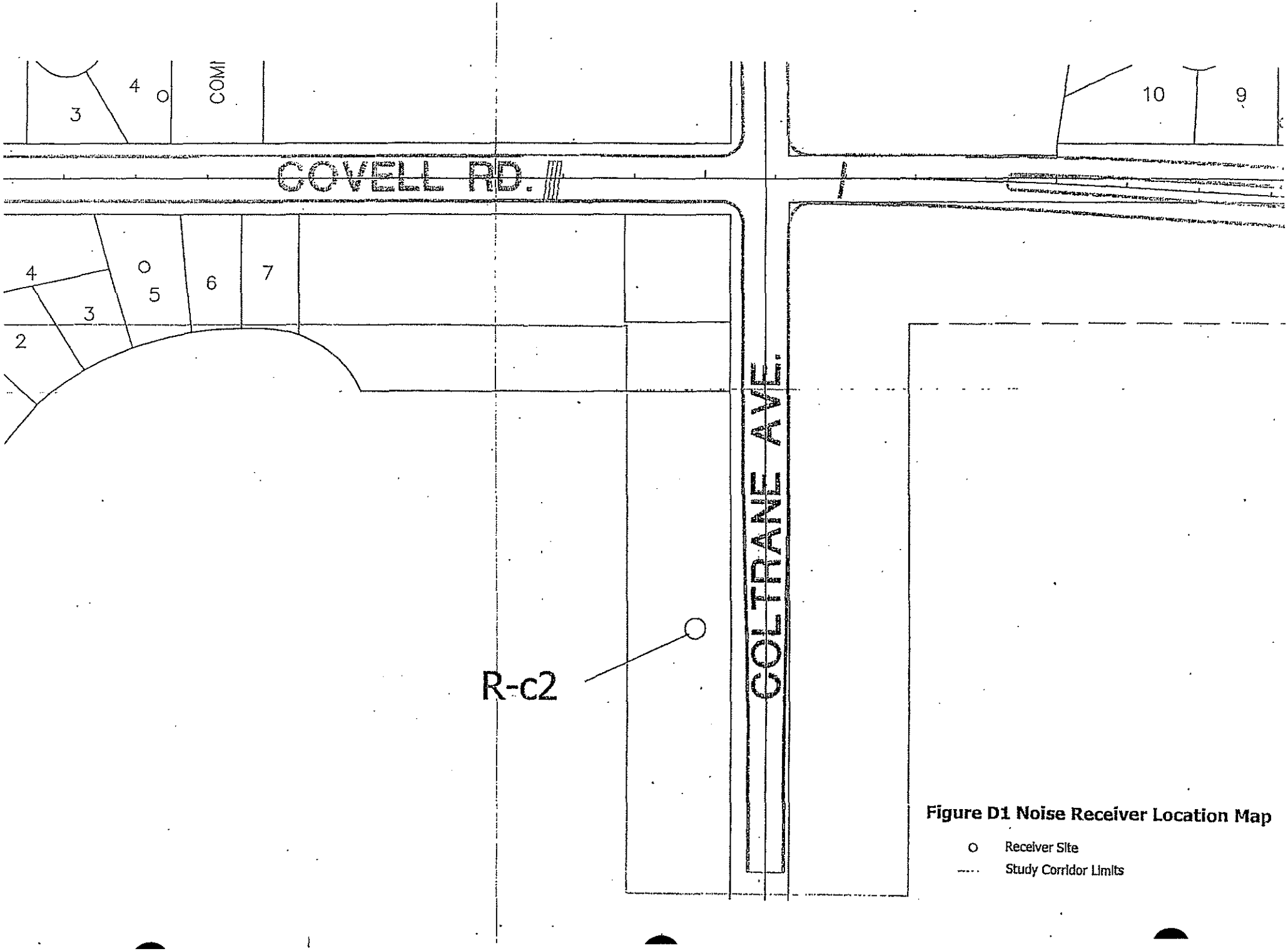


Figure D1 Noise Receiver Location Map

- Receiver Site
- Study Corridor Limits

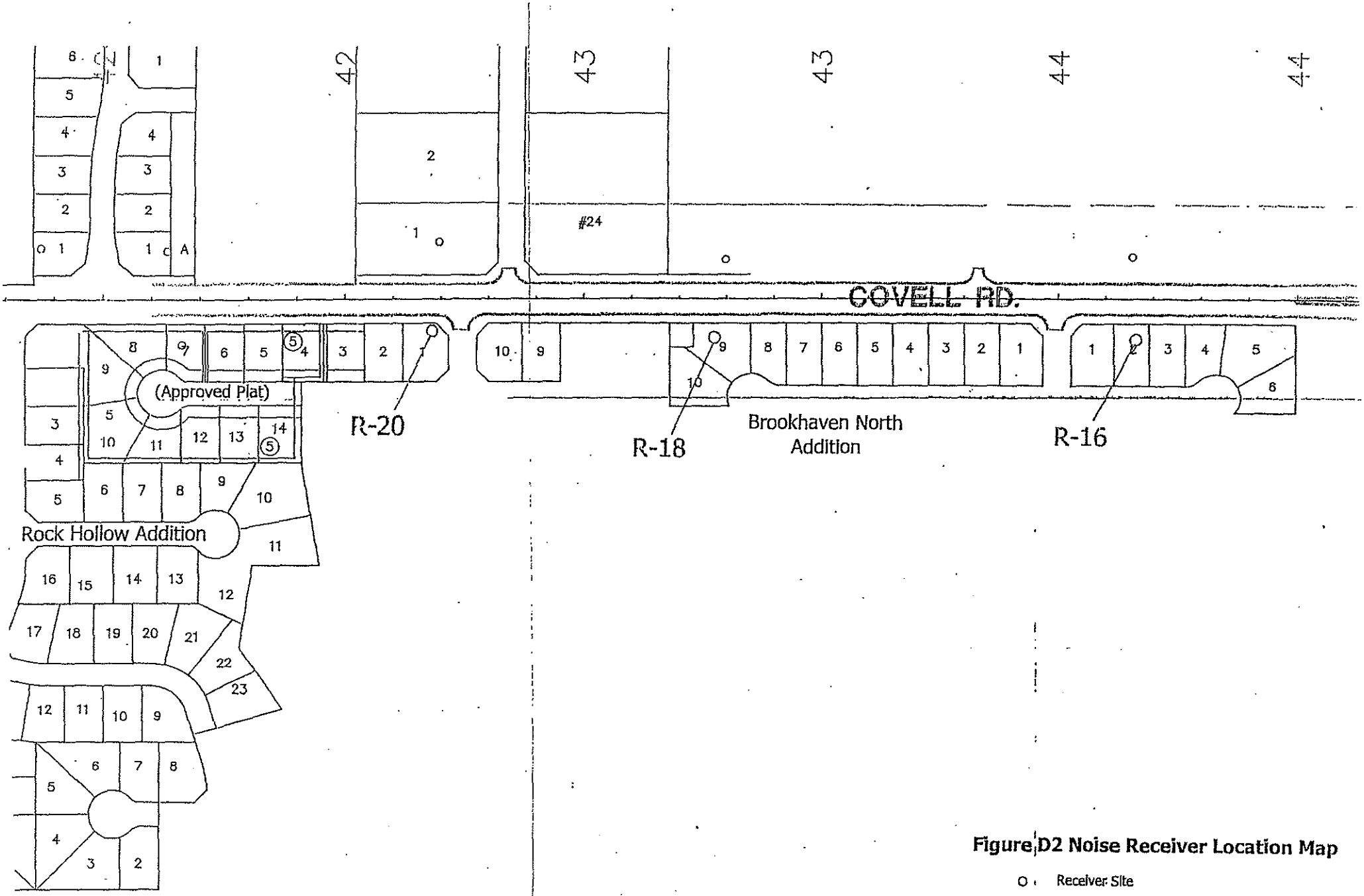


Figure D2 Noise Receiver Location Map

o Receiver Site

—— Study Corridor Limits

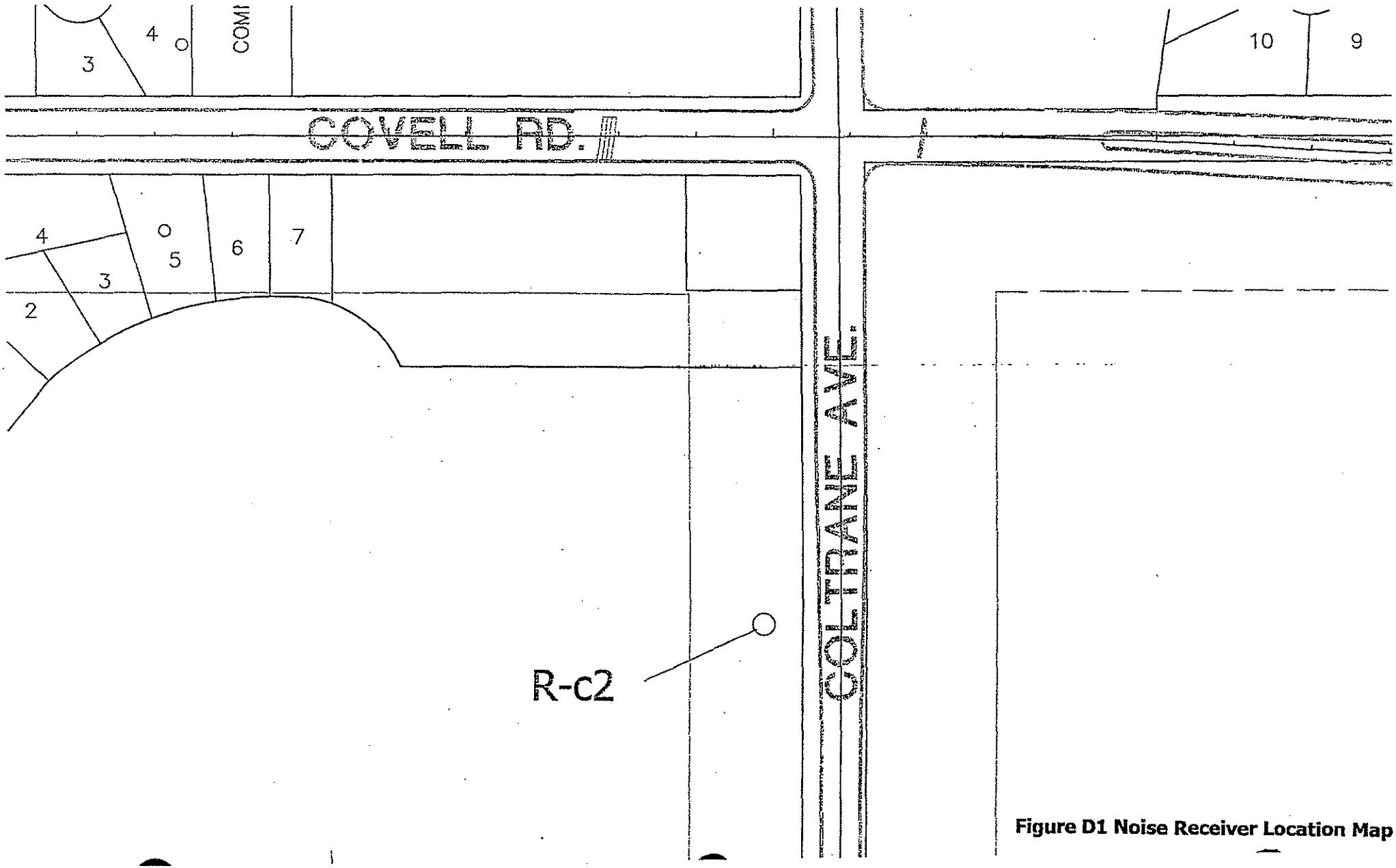


Figure D1 Noise Receiver Location Map

Appendix 4

Cultural Resources Report

OKLAHOMA DEPARTMENT OF TRANSPORTATION
200 N. E. 21st Street
Oklahoma City, OK 73105-3204

June 20, 2003

Ms. Melvena Heisch
Deputy State Historic Preservation Officer
2704 Villa Prom, Shepherd Mall
Oklahoma City, Oklahoma 73107

Dear Ms. Heisch:

Re: Oklahoma County; Reconstruction of Covell Road from I-35 to SH-74

Attached is a cultural resources report for the referenced project performed by Cojeen Archaeological Services This study resulted in the recording and documentation of 6 standing structures, the reevaluation of 2 previously recorded archaeological sites, and the documentation of 5 newly recorded archaeological sites. It is our preliminary assessment that few if any of the cultural resources recorded in this survey warrant inclusion in the NRHP.

Please note that the survey area for this project is significantly larger than the actual direct impact zone of the finalized construction design. Several of the properties identified in this study are probably well outside of the direct impact area of construction. Should any properties be determined eligible for inclusion in the NRHP, the Department will assess potential impacts in consultation with your office when more detailed plans for the appropriate design alternatives are available.

If you have any questions, please contact me at 521-3050.

Sincerely,

John D. Hartley
Manager-Environmental Studies/Cultural Resources Coordinator

cc: State Archaeologist

TRIAD DESIGN GROUP

August 21, 2003

Mr. John Hartley
Oklahoma Department of Transportation
Environmental Studies
200 Northeast 21st Street
Oklahoma City, OK 73105

Re: E010.5 – Covell Road Widening Project

Dear Mr. Hartley,

As you are aware, Cojeen Archaeological Services (CAS) was retained by Triad Design Group to provide a Cultural Resources Inventory Report of the above referenced project. The Oklahoma Archaeological Survey (OAS) and the State Historic Preservation Office (SHPO) have reviewed the report and forwarded their responses to your office.

The response from SHPO received by your office on 23 July 2003, states that "we (SHPO) cannot determine whether or not historic archaeological site 34OK181 is within the area of potential affect (APE) nor can we (SHPO) assess its eligibility for the National Register of Historic Places." In addition SHPO comments, that they should be advised if site 34OK181 is outside the APE or if the site location will be avoided. According to preliminary plans for the preferred alignment, as well as all alternatives, the site is located outside the APE and will be avoided by the project.

I respectfully request your assistance in this matter, by forwarding this information to SHPO. Should you desire additional information, please do not hesitate to contact me at (405) 752-2266 x223 or by email at rmaxey@triaddesigngroup.com.

Sincerely,
Triad Design Group

Randy Maxey
Environmental Compliance Coordinator

cc: E010.5
Steve Cilberg, ODOT Environmental Studies

rwm

OKLAHOMA DEPARTMENT OF TRANSPORTATION
200 N. E. 21st Street
Oklahoma City, OK 73105-3204

August 26, 2002

Ms. Melvena Heisch
Deputy State Historic Preservation Officer
2704 Villa Prom, Shepherd Mall
Oklahoma City, Oklahoma 73107

Dear Ms. Heisch:

Re: SHPO File # 1018-03; Oklahoma County Reconstruction and widening of Covell Road in Edmond.

We have discussed the situation regarding site 34OK181 with the design/environmental consultant for this project. The portion of 34OK181 closest to the project area is approximately 200 feet outside of the proposed edge of R/W. In addition, notes will be added to appropriate plan sheets to ensure that the site is avoided for borrow, spoil dumping, equipment staging, storage, and any other project-related offsite activity. Thus, this site will not be affected by the proposed project.

If you have any questions, please contact me at 521-3050.

Sincerely,

John D. Hartley
Manager-Environmental Studies/Cultural Resources Coordinator

cc: Local Government Environmental Coordinator
Triad Design Group

Oklahoma Historical Society

Founded May 27, 1893

State Historic Preservation Office • 2704 Villa Prom • Shepherd Mall • Oklahoma City, OK 73107-2441
Telephone 405/521-6249 • Fax 405/947-2918

September 15, 2003

Mr. John D. Hartley
Cultural Resources Coordinator/Manager
Dept. of Transportation - Environmental Studies
200 Northeast 21st Street
Oklahoma City, OK 73105-3204

RE: File #1018-03; Edmond Covell Road Project, 34OK181

Dear Mr. Hartley:

We have reviewed the latest documentation submitted for the referenced project in Oklahoma County. An opinion on the National Register of Historic Places eligibility of archeological site 34OK181 discussed in the documentation is not presented. There is not sufficient documentation in the report for us to assess the eligibility of this site.

Recommendations consist of "avoidance" of specific areas. In the case of the "avoidance" recommendations, we consider the project area to be redefined. We find that there are no properties eligible for the National Register of Historic Places within the newly defined areas. We reserve the right to review and render an opinion on National Register eligibility of site 34OK181 should any activities take place at this location in the future.

Please reference the above underlined file number when responding. If you have any questions, please contact Charles Wallis, RPA, Historical Archaeologist, at 405/521-6381. Thank you.

Sincerely,

Melvena Heisch

Melvena Heisch
Deputy State Historic
Preservation Officer

MH:pm

Oklahoma Historical Society *Founded May 27, 1893*

State Historic Preservation Office • 2704 Villa Prom • Shepherd Mall • Oklahoma City, OK 73107-2441
Telephone 405/521-6249 • Fax 405/947-2918

RECEIVED
ODOT-PLANNING
2003 JUL 23 AM 9:24

July 21, 2003

Mr. John D. Hartley
Cultural Resources Coordinator/Manager
Dept. of Transportation - Environmental Studies
200 Northeast 21st Street
Oklahoma City, OK 73105-3204

RE: File #1018-03; Edmond Improvements to Covell Road, Oklahoma County

Dear Mr. Hartley:

We have reviewed Cojeen Archaeological Services' report concerning the above project. We concur with their findings that historic archeological sites 34OK160, 34OK177, 34OK178 and 34OK180 and the standing structures identified in the report as Houses A-F are not eligible for listing in the National Register of Historic Places.

Based on the documentation submitted to our office, we cannot determine whether or not historic archeological site 34OK181 is within the area of potential affect (APE) nor can we assess its eligibility for the National Register of Historic Places. Additional information concerning past occupants and site integrity is needed before eligibility can be addressed. Or if site 34OK181 is outside the APE or if you plan to avoid the site location, please advise us so we can issue our final comment on this project.

Two sites (34OK165 and 34OK179) date from the prehistoric period. We defer to Dr. Robert Brooks, State Archeologist, for assessment of eligibility for these two locations.

Thank you for the opportunity to review this project. If you have any questions, please call Charles Wallis, Historical Archeologist, at 405/521-6381. Please reference the above underlined file number when responding. Thank you.

Sincerely,

Melvena Heisch
Deputy State Historic
Preservation Officer

MH:pm

Oklahoma Archeological Survey
THE UNIVERSITY OF OKLAHOMA

July 2, 2003

John D. Hartley
Manager- Environmental Studies
Cultural Resource Coordinator
200 NE 21st Street
Oklahoma City, OK 73105-3204

Re: Proposed road improvements to Covell Road from I-35 west to SH-74. Legal Description: Origin Point – Sections 16/21 T14N R2W; Termination Point – Sections 13/24 T14N R4W, Oklahoma County, Oklahoma.

Dear Mr. Hartley:

I have received a report documenting the results of a cultural resource inventory performed for the above referenced action. This work was accomplished by Mr. Christoper Cojeen and associates on March 7-10, 2003. The field inspection of some 497 acres representing the area of potential effect resulted in the documentation of six standing structures and the recording or reexamination of seven archaeological sites (34OK160, 165, 177-181). Sites 34OK165 and 34OK179 are prehistoric lithic scatters. I concur with Mr. Cojeen's assessment that these sites do not hold the content or context meriting further eligibility consideration for the National Register of Historic Places. It is my opinion that these two sites require no further treatment measures. **I defer comment on the eligibility of the six standing structures and historic archaeological sites 34OK160, 177, 178, 180, and 181 as well as project effect to the State Historic Preservation Office.**

This review has been conducted in cooperation with the State Historic Preservation Office, Oklahoma Historical Society.

Sincerely,

Robert L. Brooks
State Archaeologist

Cc: SHPO
Wichita and Affiliated Tribes

Christopher A. Cojeen
Principal Investigator

Archaeology
Research
History

"Specializing in Energy Related Archaeological Consulting"

REPORT ON THE CULTURAL RESOURCES INVENTORY OF COVELL ROAD IMPROVEMENTS FROM I-35 TO SH-74 OKLAHOMA COUNTY, OKLAHOMA

Project Name: Covell Road Improvements from I-35 to SH-74
Oklahoma County, Oklahoma
Prepared For: Oklahoma Department of Transportation.
Project Number:
Project Location: Portions of Oklahoma County, Oklahoma
Map Reference: Edmond (1966/1983) and Bethany NE (1966/1983), Oklahoma 7.5' USGS quads.

Principal Investigator:	Christopher Cojeen
Surveyed by:	Christopher Cojeen, Roger J. Burkhaler, Amy Cojeen, David Boling, Jill Langenburg and Kreta Chambers
Survey Dates:	March 7-10, 2003
Authors:	Christopher Cojeen and Roger J. Burkhalter
Report Date:	June 16, 2003

P.O. Box 1186 | Norman, Oklahoma 73070 | (405) 360-9996

ABSTRACT

A Phase I Cultural Resources inventory of the Oklahoma Department of Transportation (ODOT) improvements to Covell Road, beginning near the Interstate Highway 35 junction and extending west to SH-74, was performed March 7 through 10, 2003, by Cojeen Archeological Services (CAS), of Norman, Oklahoma. Triad Design Group contracted this work for submission to ODOT. The inventory included background file searches at the University of Oklahoma, Oklahoma Archeological Survey (OU, OAS) and the State Archeologist, and pedestrian field survey and limited shovel probes in the proposed highway right-of-way (r/w) route in portions of Oklahoma County, Oklahoma. Two previously recorded archeological sites were identified as being in the study area.

The proposed Covell Road improvements begin near the I-35 junction and extend west approximately 9.5 miles (15.3 kilometers) to SH-74 junction west of Edmond, Oklahoma (Appendix A). The proposed r/w corridor extends approximately 200 feet ([ft] 61 meters [m]) either side of the current Covell Road centerline, and broadens out to 800 ft (122 m) at major intersections, beginning 200 ft east and ending 200 ft west of the intersection. The inventory area includes approximately 497 acres. The r/w route was not staked prior to the archeological survey, however, the route followed an existing road route and CAS was provided with large scale (approximately 12.5 inches equal 1 mile) recent aerial photographs and maps that aided in the location of the r/w corridor. The archeological survey consisted of a pedestrian coverage of the r/w corridor route. Five archeological sites were located and recorded during the survey. Both of the two previously recorded archeological sites were visited during the survey. Six historic standing structures were identified during a windshield survey of the project corridor.

Detailed construction plans for the Covell Road Improvements project indicating which standing houses will be removed or archeological sites impacted were not available during the survey. Historic standing structures that may be impacted or removed may need further research on the original occupants to determine if it meets any of the criteria of significance of the NRHP. This includes houses B, C, E and F. A summary of recommendations is as follows:

Historic Standing Structures

Name	Type	Location	Distance	Recommendations
House A	Abandoned house	NW/NW/NW Sec 20 T14N, R2W	375ft south Covell Road C/L 150ft east of Coltrane Ave C/L	Potentially outside of construction and actual r/w, potentially no impacts
House B	Occupied house	SW/SW Sec 13 T14N, R3W	140ft north Covell Road C/L	Potentially within the construction r/w. Potential impacts need to be determined based on engineering plans. Further research may be needed to determine NRHP eligibility if impacted.

House C	Occupied house	SE/SE/NE Sec 35 T15N, R4W	125ft north Covell Road C/L	Potentially within the actual and construction r/w. Due to extensive modifications, it does not appear to meet any of the criteria of significance for inclusion in the NRHP.
House D	Occupied house	SE/SE/SE Sec 14 T15N, R4W	175ft north Covell Road C/L	Potentially outside of construction and actual r/w, potentially no impacts
House E	Occupied house	NE/SE/SE Sec 35 T16N, R4W	100ft north Covell Road C/L	Potentially within the actual and construction r/w. Potential impacts need to be determined based on engineering plans. Further research may be needed to determine NRHP eligibility if impacted.
House F	Occupied house	NE/SE/SE Sec 35 T16N, R4W	500ft north Covell Road C/L 75ft east of May Ave C/L	Potentially within the construction r/w. Potential impacts need to be determined based on engineering plans. Further research may be needed to determine NRHP eligibility if impacted.
Previously Recorded Archeological Sites				
34OK160	Historic farmstead	NE/SE/SE Sec 14, T14N, R4W	700ft north Covell Road C/L 75ft west Portland Ave (Hwy 74) C/L	no further archeological concern, razed farmstead
34OK165	Prehistoric lithic scatter	NW/NW Sec 24 T14N, R3W	100ft south Covell Road C/L	no further archeological concern, previous impacts of a surface only sparse lithic scatter
Newly Recorded Archeological Sites				
34OK177	Razed historic	NW/NW/NE Sec 20, T14N, R3W	200ft south Covell Road C/L	Mostly outside survey corridor, no further archeological concern
34OK178	Razed historic	SE/SW/SE Sec 14, T14N, R3W	75-175ft north Covell Road C/L	Totally razed, no intact features, no further archeological concern
34OK179	Prehistoric lithic scatter	NW/NE/NE Sec 24, T14N, R3W	50ft south Covell Road C/L	no further archeological concern, previous impacts of a surface only sparse lithic scatter
34OK180	Razed historic	NE/NE/NE Sec 20, T14N, R2W	200ft south Covell Road C/L	Mostly outside survey corridor, no further archeological concern
34OK181	Historic farmstead	SW/SW/SW Sec 16, T14N, R2W	400-500ft north Covell Road C/L 175ft east Sooner Road C/L	Avoidance recommended, potential buried features, potentially outside of construction and actual r/w

Survey inventory area maps including plotted sites are contained in Appendix A and Oklahoma Archeological Survey Site Forms are located in Appendix B.

1. INTRODUCTION

PROPOSED ACTION

ODOT proposes to make improvements to Covell Road beginning near the I-35 junction and extending west approximately 9.5 miles (15.3 kilometers) to SH-74 junction west of Edmond, Oklahoma (Appendix A). The proposed r/w corridor extends approximately 200 feet ([ft] 61 meters [m]) either side of the current Covell Road centerline, and broadens out to 800 ft (122 m) at major intersections, beginning 200 ft east and ending 200 ft west of the intersection. The proposed project involves the widening of Covell Road from its present two-lane with a narrow shoulder, to a four-lane configuration. The proposed r/w will follow the existing Covell Road r/w route along the entire length.

PROJECT LOCATION

The Covell Road Improvements project is located in parts of Oklahoma County and extends from near the I-35 junction and extending west to the SH-74 junction west of Edmond, Oklahoma (Appendix A). The r/w route is located mostly in the uplands areas south of the Cimarron River. The highway r/w route crosses Coffee Creek, Chisholm Creek, and Bluff Creek and several minor drainages. Approximately 497 acres were examined during the survey.

USGS MAP SOURCES

The project is on the Edmond (1966, photorevised 1983) and Bethany NE (1966, photorevised 1983), Oklahoma 7.5 minute USGS quadrangles.

LAND JURISDICTION

The project area is located on private unrestricted lands.

2. NATURAL SETTING

GEOLOGY AND GEOMORPHOLOGY

The project lies within the Central Redbed Plains Geomorphic Province of the Great Plains province of the Interior Plains geomorphic division (Fenneman 1946) and the Mixed Grass Plains Vegetational Region (Risser ed. 1974). The proposed Covell Road improvements route trends in an east/west direction.

Soils in the project area are derived mostly from local Permian bedrock material with some Quaternary and Recent fluvial deposits along nearby drainages. Soils are mostly sand, silt, and clay based and are shallow, reddish-orange in the upland areas and deep, reddish-brown colored soils in lowland areas.

CLIMATE AND HYDROLOGY

At present, the study area has a temperate, subhumid climate, typical of the central part of Oklahoma. Seasonal changes vary in intensity, but the changes between seasons are gradual. Summer is usually the wettest season. Average annual precipitation varies from 60 cm to 90 cm. Elevation in the project area varies from 1,010 to 1,190 ft (308 to 363 m) above sea level.

Current land use in the area consists primarily of residential, business, recreation, cultivated crop and pasture lands. Shovel probes indicate that the level uplands, rolling uplands, and the bottom land terraces that are currently in pasture appear to have been cultivated. The dissected uplands appear to have been used only as pasture or rangeland.

FLORA AND FAUNAL RESOURCES

Vegetation in the project area is associated with the Mixed Grass Prairie Plains, dominated by a combination of species found in the tall grass and short grass prairies, with the lower layer of grasses and forbs usually denser than the taller one. Low needle-leaf evergreen trees are scattered over the prairie, creating a savanna-like vegetation community. The dominant plants on the uplands are red cedar (*Juniperous virginiana*), big and little bluestem, sideoats grama, blue grama, and hairy grama (*Bouteloua hirsuta*). Small groves of low broadleaf deciduous trees and shrubs occur in valley bottoms and on north-facing slopes. The dominant species in these groves are hackberry (*Celtis occidentalis*), cottonwood, burr oak, plum (*Prunus* sp.), and coralberry (*Symphoricarpos orbicultus*).

The wooded areas in the bluestem-grama prairie have fewer arboreal species and smaller trees as compared to forested areas to the east. Cottonwoods, junipers (*Juniperus virginiana*), and burr oaks are widely spaced along streams and rivers, and very few herbs are present in the understory.

According to Weaver and Albertson (1956), the origin of the Plains grasslands probably dates back 25 million years to Tertiary times. In the Eocene period, the Plains climate was warm and moist, and a temperate forest covered the area. As the Rocky Mountains rose, beginning in the upper Oligocene, they intercepted moisture-laden winds from the Pacific Ocean. Very little rainfall reached the eastern side of the mountains. In response, grasses which are well adapted to periods of drought became the dominant plants, except in stream bottoms. The grasslands probably were well established by the Miocene.

Shelford (1963) describes typical animal populations and their changes through relatively recent time. Historically, the major grazing animals in the area were bison and pronghorn. Major predators were the wolf, coyote, and kit fox. Woodlands along streams supported wapiti, deer, and cottontail. Additionally, there were many burrowing animals (prairie dogs, pocket mice, kangaroo rats, etc.) and their predators (badger, black-footed ferret, etc.). At the time of the survey, deer, rodent burrows, snakes, lizards, frogs, and several species of birds were the only obvious evidence of the local animals. A more comprehensive list is included in Hofman (1989a).

Dahlquest and Schultz (1992) believe that maintenance of the southern Plains as a grassland is a result of the brush-clearing effectiveness of the association of Plains rodents such as prairie dogs, ground squirrels, pocket gophers, pocket mice, etc., and dominant large grazers. At present, range cattle fill the niche of dominant large grazers; earlier, it was bison. Bison (*Bison priscus*) first appeared in the area about 35,000 years ago, but prairie dogs and other rodents occur in local faunas as early as 1.2 or 1.3 million years ago, suggesting that there were earlier dominant large grazers before the bison (Dahlquest and Schultz 1992).

The majority of the survey route crossed cultivated lands and pasture lands with vegetation consistent with the Mixed Grass Prairie Plains. Cultivated lands contained crops of alfalfa, cotton, soy beans, maize, and recently harvested wheat. Mixed hardwoods line area streams. Red cedar and Hackberry are common on uplands. Soils are mostly deep, dark brown to brown silty clay loams.

3. CULTURAL SETTING

INTRODUCTION

The proposed Covell Road Improvements project lies within the Southern Great Plains archeological province (Hofman et al. 1989), in the Central Plains habitat of Oklahoma. Numerous archeological projects and research have been conducted in the Central Great Plains area since the early 1900s (Hofman et al. 1989). The discussion below will be restricted primarily to research conducted in the project area and the immediate surrounding area of central Oklahoma.

PREFIELD INVESTIGATIONS AND RECORDS CHECK

CAS personnel contacted the OU, OAS in March 2003 to review information on previously recorded cultural resources in the pipeline vicinity. There were two previously recorded archeological sites located within the proposed corridor.

According to the most recent listings, there are no NRHP properties within the project area.

Previously recorded archeological sites located within the proposed corridor are:

34OK160 NE/SE/SE Section 14, T14N, R4W

This site is a historic artifact scatter and well with associated water storage tank and a light scatter of historic artifacts. The site area is located in a pasture area on a ridge overlooking the east bank of Deer Creek. No depressions, aligned trenches, or other evidence of the foundation was observed at this site. Artifacts observed at this site were a light scatter of historic artifacts including 20+ glass fragments (12 clear pane, 4 brown bottle, 3 aqua bottle, and 1 clear bottle), 12+ ceramics (all plain white stoneware), 7+ brick bats, 5 fragments of concrete rubble, and miscellaneous metal, mostly from a windmill above the water well. Standing at the site was a water well windmill frame and the metal legs and rusted tank of a water storage tank. This site does not appear to meet any of the criteria of significance of the NRHP and no further archeological concern is warranted for this site. This site was recorded during the CAS SH-74 survey in 1998.

34OK165 NW/NW Section 24 T14N, R3W

This site was recorded as a broad, thin prehistoric lithic scatter located in an eroded pasture approximately setting on a high terrace slope above an unnamed seasonal drainage. The site covers approximately 110 by 400 meters. Materials noted at the site include tested cobbles and decortication flakes of Ogallala quartzite. The site area was recorded by CAS in 2000 during a survey rail bridge grade separation along Covell Road.

PREVIOUS ARCHEOLOGICAL RESEARCH

Recent research in the project vicinity in Oklahoma County has focused on transportation modifications and development, and waste water treatment projects.

Individuals ranging in expertise from untrained, but interested, hobbyists to professional archeologists filled out archeological survey forms in or near the project. For that reason, the value of individual forms as information sources varies considerably. Interpretations of cultural or temporal affiliation are especially variable, as taxonomic systems become more refined through time.

RESEARCH GOALS

The investigations documented in this report were undertaken to record the surface expression of any cultural resources located in the proposed Covell Road Improvements r/w located in parts of Oklahoma County, Oklahoma. This was intended to be only an inventory of archeological sites visible on the ground surface or discovered through shovel probes excavated to depths of less than one meter. The major goals of this survey were: (a) identify both prehistoric and historic archeological sites within the project area; (b) to determine the eligibility of the identified sites for inclusion in the NRHP; and (c) to provide recommendations for the treatment of these sites.

Given the limited scope of the project, no attempt was made to produce detailed models of site settlement or to provide in-depth analysis of the limited artifact assemblage observed during the course of the project. Interpretation of cultural resources found has followed standard local practices. By strict definition, cultural resources are any evidence of human use or occupation, but for this project, the term was restricted to cultural remains that were at least 50 years in age.

RESEARCH METHODS

PREFIELD RESEARCH

Prior to the initiation of fieldwork, archeological site records from the OU, OAS office were examined and pertinent literature was examined concerning known cultural resources in the project area. Two previously recorded archeological sites were identified in the project area.

WINDSHIELD SURVEY

CAS performed a windshield survey of potential historic resources in March of 2003. During this windshield survey, potential historic houses and other structures were identified by visual inspection in an expanded potential r/w corridor from the existing Covell Road r/w or by cursory examination.

PEDESTRIAN SURVEY

The pedestrian survey was conducted to document the surface and limited subsurface expression of any cultural resources located in the proposed Covell Road r/w corridor.

The inventory area was defined by paced distances and landmark orientation observed in the field and comparison to recent, large-scale aerial photographs. The r/w was not staked prior to the cultural resources survey. The field methodology involved pedestrian transects, walked in a zigzag fashion, at intervals of approximately 30 m (100 ft) in the proposed r/w area, for a total surveyed corridor of 61 m (200 ft) width. These areas were expanded to an 800 ft (122 m) at major intersections, beginning 200 ft east and ending 200 ft west of the intersection.

Shovel probes were dug in areas of reduced visibility and at located archeological resources to determine the extent of the site and if subsurface materials or features were present. Upon locating an archeological site, the surface perimeter of the site was determined by the surface artifact scatter. Surface features, if any, were noted and a series of 30 cm by 30 cm shovel probes were excavated in the project corridor, carefully avoiding any surface features. These shovel probes were screened through ¼-in mesh hardware cloth and were back-filled after excavation. This probe was used to determine if any subsurface materials or intact features are present at the site.

Small amounts of recent historic trash were noted in the project area during the course of the survey, including barbed wire, cartridge casings, and abandoned fence posts, as well as oil and gas development activities. These materials and surface modifications were discounted as cultural resources for the purposes of this report.

ARTIFACT ANALYSIS

No collections of artifacts were made. Diagnostic artifacts were sketched and left at the site. Lithic materials of stone artifacts were noted on the sketch as was size information. Historic artifacts were inventoried on field notes by type and diagnostic attributes. The locations of diagnostic artifacts and features were added to the site map.

SURVEY CONDITIONS

Most of the inventory area yielded good to excellent surface visibility. In the uplands areas, surface visibility was approximately 10 to 100 percent and averaged around 70 percent while the lowlands afforded surface visibility of approximately 20 to 100 percent, averaging 75 percent. Much of the inventory area in the eastern portion of the survey route was in developed urban or developed recreational setting. Short tracts in this area were wooded. The western portion of the survey route was mostly in cultivated fields or pasture with some rural urban tracts.

5. RESEARCH RESULTS

HISTORIC STANDING STRUCTURES

A total of six standing historic structures were located in an expanded survey corridor by CAS in March 2003.

House A NW/NW/NW Section 20 T14N, R2W

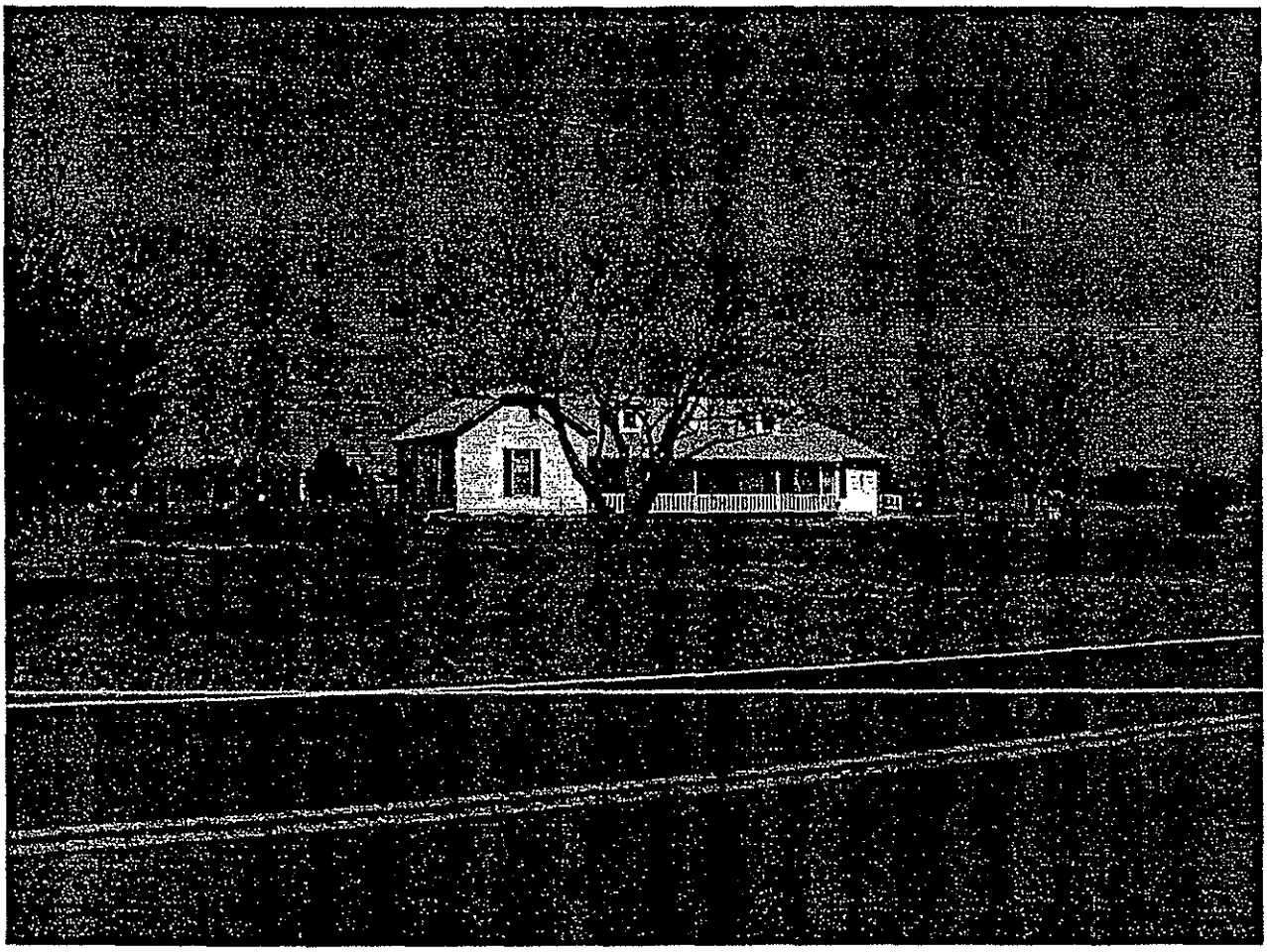
This is a vacant farmstead consisting of a single story dwelling and associated agricultural outbuildings. The house is accessed off Coltrane Avenue and is located about 375 feet south of Covell Road C/L and 150 feet east of Coltrane Ave C/L. The existing historic structures include a Mass Plan Style house building with a gable end roof and composition shingles. The house has wood clapboard siding and extensive modifications to the south front. The house also has a half basement on the west side. Two wood frame garage/workshops are located southeast and east of the house. A small cattle/horse shed is located north of the house. Trash debris is scattered around the site area although no diagnostic artifacts were observed. Based on the house style, this farmstead was probably occupied after World War II.

Based on the physical outward condition and appearance, this standing house site appears to have limited architectural integrity. The house may be located outside of any construction r/w and is probably located outside of the actual r/w and may not be impacted by this project.

House B SW/SW Section 13 T14N, R3W

This is an occupied single dwelling house building. This house is accessed from Covell Road and is located about 140 feet north of the Covell Road C/L. The house building is a single story of National Folk Style, hip on side gable roof with a cross-gable end. The house has two hipped dormers and a single chimney. No outbuildings were observed. A nearly full-length porch with simple columns and a wood railing are located on the front of the house.

Based on the physical outward condition and appearance, this farmstead was probably occupied after 1920. The house appears to have some architectural integrity, however, it may be located outside of the actual r/w but within the construction r/w. Potential impacts to this house will need to be determined based on engineering plans. If this house will be impacted, further research into the historic nature of the structure, including past ownership, will be necessary to determine if it will meet any of the criteria of significance for inclusion in the NRHP.



House C

SE1/4 of the SE1/4 of the NE1/4 of Section 35 T15N, R4W

This is an occupied and extensively modified house building constructed of native sandstone. The house is located only about 125 feet north of the Covell Road C/L, which provides access to the property. The original portion of the house is a single story single dwelling. A large, modern addition has been grafted to the rear (north) and west sides of the house obscuring any additional elements. The windows are double hung, wood windows and the door is glazed and paneled wood. The original portion of the house is in good shape and is well cared for. A large corrugated sheet metal barn is located northeast of the house and immediately north of the house is a native rock shed with a shallow pitch sheet metal roof.

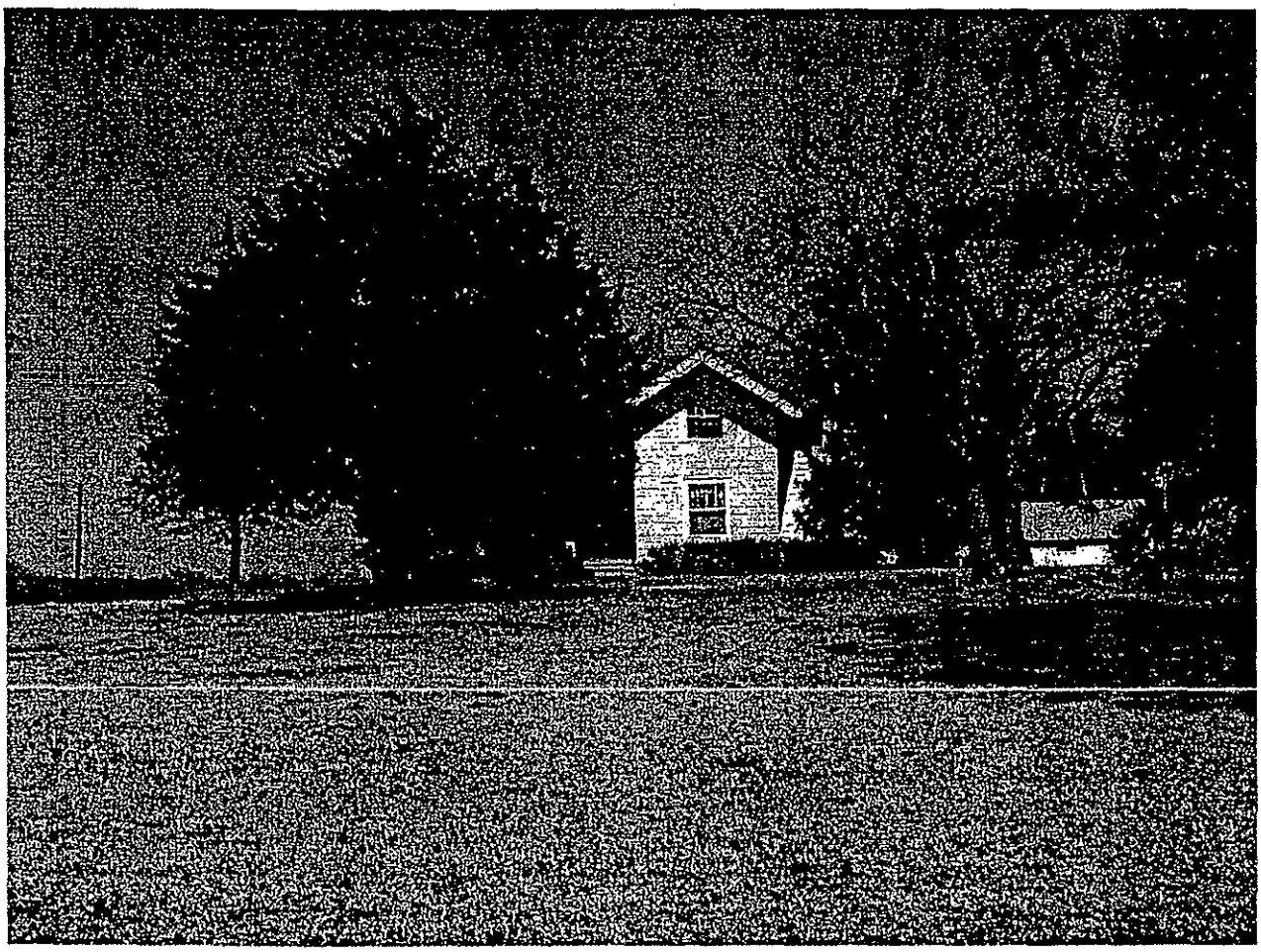
Based on the house style, this farmstead was probably occupied after 1890. Based on the physical outward condition and appearance, this site has limited architectural integrity due to extensive modifications to the structure. This house may be impacted by construction r/w and actual physical r/w, however, the house does not appear to meet any of the criteria of significance for inclusion in the NRHP.

House D

SE1/4 of the SE1/4 of the SE1/4 of Section 14 T15N, R4W

This is an occupied single dwelling house building located on a level uplands. The house is accessed from Covell Road and is located about 175 feet north of the C/L of Covell Road. The house building is an east/west oriented two story, cross-gable, National Folk Style building with clapboard walls and a composition-shingled roof. A single central brick chimney is located on the main house ridge. Outbuildings include a gable front barn and a gable front shed both located west of the main house building. The house building probably dates to the 1910's.

Based on the physical outward condition and appearance, this site appears to have some architectural integrity, however, it may be located outside of any construction r/w and is probably located outside of the actual r/w and may not be impacted by this project.



House E

NE1/4 of the SE1/4 of the SE1/4 of Section 35 T16N, R4W

This house is a two story, gable-front-and-wing National Folk Style building with a gable ends. This house is located about 100 feet north of the Covell Road C/L. The house has two chimneys and has modern replacement windows and siding. The roof has composition shingles and an open deck has replaced the porch area. Outbuildings include a low gable end shed and a metal barn.

Based on the house style, this farmstead was probably occupied after 1900. Based on the physical outward condition and appearance, this may have limited architectural integrity. The house may be located outside of the actual r/w but may be located within the construction r/w. Potential impacts to this house will need to be determined based on engineering plans. If this house will be impacted, further research into the historic nature of the structure, including past ownership, will be necessary to determine if it will meet any of the criteria of significance for inclusion in the NRHP.

House F

NE1/4 of the SE1/4 of the SE1/4 of Section 35 T16N, R4W

This house is a north/south oriented single story, front gable Craftsman Style building with native stone siding located at 20800 North May Avenue. The house is accessed off May Ave. and is located about 500 feet north of the C/L of Covell Road and 75 feet east of the C/L of May Avenue. A small, flat roof covers the porch on the south end of the house. Outbuildings include a newer metal barn located east of the house. The yard of the house has a 7-foot chain link fence.

Based on the house style, this farmstead was probably occupied after 1920. This house does appear to be fairly intact without much outward modification. Based on the physical outward condition and appearance, this site appears to have some architectural integrity. The house may be located outside of the actual r/w but may be located within the construction r/w. Potential impacts to this house will need to be determined based on engineering plans. If this house will be impacted, further research into the historic nature of the structure, including past ownership, will be necessary to determine if it will meet any of the criteria of significance for inclusion in the NRHP.

PREVIOUSLY RECORDED ARCHEOLOGICAL SITES

A total of two previously recorded archeological sites are located in the project area. During the course of field investigations, an attempt was made to relocate these sites.

SITE 34OK160

Location

This site is located in the NE1/4 of the SE1/4 of the SE1/4 of Section 14, T14N, R4W

Discussion

This site is a historic artifact scatter and well with associated water storage tank. According to a 1951 aerial photograph (0N-2H-65, dated 3-21-51), a simple gable end house with 2 chimneys and a single shed outbuilding were also present at this site. No depressions, aligned trenches, or other evidence of the foundation was observed at this site.

Observed at this site was a light scatter of historic artifacts including 20+ glass fragments (12 clear pane, 4 brown bottle, 3 aqua bottle, and 1 clear bottle), 12+ ceramics (all plain white stoneware), 7+ brick bats, 5 fragments of concrete rubble, and miscellaneous metal, mostly from a windmill above the water well. Standing at the site were a water well windmill frame and the metal legs and rusted tank of a water storage tank.

Historic Artifacts

This site was briefly revisited and no additional artifacts were observed. The site does not appear any different than it was when previously recorded.

Summary

This site is a razed farmstead with no intact architectural features. A light scatter of historic artifacts is located surrounding the farmstead. The site area is located in a pasture area on a ridge overlooking the east bank of the Deer Creek. The site is located about 700 feet north of the Covell Road C/L and 75 feet west of the Portland Ave (Hwy 74) C/L and is surrounded by pasture. This site does not appear to meet any of the criteria of significance of the NRHP and no further archeological concern is warranted for this site.

SITE 34OK165

Location

This site is located in the NW1/4 of the NW1/4 of Section 24 T14N, R3W

Discussion

This site was recorded as a broad, thin prehistoric lithic scatter located in an eroded pasture approximately setting on a high terrace slope above an unnamed seasonal drainage. The site covers approximately 110 by 400 meters. Materials noted at the site include tested cobbles and decortication flakes of Ogallala quartzite. The site area was recorded by CAS in 2000 during a survey rail bridge grade separation along Covell Road.

Prehistoric Artifacts

No artifacts were observed on the site surface.

Summary

This site is located in an eroded pasture setting on a high terrace slope above an unnamed seasonal drainage. The site is in an area bounded by a housing development to the east and railroad tracks to the west and is located about 100 feet south of the Covell Road C/L extending to outside of the survey area. It is in a mostly wooded area used for informal recreational purposes including golf and is cut by numerous motorcycle trails. The site is a shallow surface manifestation of a lithic scatter with shallow to no soils and limited research potential. This site does not appear to meet any of the criteria of significance of the NRHP and no further archeological concern is warranted for this site.

NEWLY RECORDED ARCHEOLOGICAL SITES

SITE 34OK177

Location

This site is located in the NW1/4 of the NW1/4 of the NE1/4 of Section 20, T14N, R3W

Discussion

This is a razed large farmstead located on a ridge overlooking the west side of Chisholm Creek. Observed at this site were bulldozer push piles of wood, concrete and stone representing a house and two sheds, bisected by a two track road. The sheds had corrugated metal roofs. A stone lined cellar is located south of the house location. No evidence of a well, cistern or privy were observed at this site. According to a 1957 aerial photograph (0N-1T-9, dated 7-10-57) the house was a gable end National Folk style house with several outbuildings present, including a barn. Evidence of some of the outbuildings shown in the photograph were not observed in the field. Surrounding the site area is a light scatter of historic debris including domestic, architectural, and agricultural items

Historic Artifacts

Observed at this site were bulldozer push piles of wood, concrete and stone and a light artifact scatter.

Summary

This site is a razed farmstead and historic artifact scatter located about 200 feet south of the Covell Road C/L and extends outside of the survey area. The site area is located in a pasture area on a rise overlooking the west bank of Chisholm Creek. This site is mostly located outside of the survey corridor, has no intact features within the corridor and does not appear to meet any of the criteria of significance of the NRHP. No further archeological concern is warranted for this site.

SITE 34OK178

Location

This site is located in the SE1/4 of the SW1/4 of the SE1/4 of Section 14, T14N, R3W

Discussion

This is a razed farmstead located on nearly level uplands. Observed at this site were two bulldozer push piles of concrete and stone, an electric pole and a standing metal-frame water windmill. An arced drive enters the site area and a windbreak of cedar trees is located south of the site. One fragment of earthenware crockery was observed in the drive. No additional artifacts was observed. The a standing metal-frame water windmill has no windvanes and is inoperable. The windmill is located approximately 200 feet west of the drive apex. According to a 1957 aerial photograph (0N-2T-88, dated 7-11-57) a small farmstead stood in this location. The farmstead appears to have had a small barn and house and one small shed. No foundations, depressions, or evidence other than the bulldozer push piles were observed.

Historic Artifacts

Observed at this site was a singe fragment of earthenware crockery and possible foundation stones and concrete in bulldozer push piles.

Summary

This site is a razed house, outbuildings, and remains of a farmstead with no observable surface features. This site is located about 75 feet and extending to 175 feet north of the Covell Road C/L. Although within the construction r/w impacts for this project, this site does not have any remaining integrity and does not appear to meet any of the criteria of significance of the NRHP and no further archeological concern is warranted for this site.

SITE 34OK179

Location

This site is located in the NW1/4 of the NE1/4 of the NE1/4 of Section 24, T14N, R3W

Discussion

This is an unassigned prehistoric lithic scatter located on a small rise west of Coffee Creek. No diagnostic artifacts were observed at this site. Observed at this site were lithic flakes, tested and broken cobbles, and fire cracked rocks scattered over a 50 by 80 foot area of gravel outcrop. Shovel probes at the site indicate that this site is a surface only manifestation.

Prehistoric Artifacts

No diagnostic artifacts were observed at this site. Observed at this site were 10+ flakes (all Ogallala), 10 broken or tested cobbles (all Ogallala), and 8 fire cracked rocks.

Summary

This site is a surface only manifestation of an unassigned prehistoric lithic scatter that has been previously impacted. The site area is located in a pasture on a rise overlooking the west bank of Coffee Creek. This site is located within 50 feet of the C/L of Covell Road and extends outside of the survey corridor. Pasture and a residential area surround the site. A recently installed utility line runs through the northern portion of the site. Although possibly within the actual r/w and construction r/w, this site does not appear to meet any of the criteria of significance of the NRHP and no further archeological concern is warranted for this site.

SITE 34OK180

Location

This site is located in the NE1/4 of the NE1/4 of the NE1/4 of Section 20, T14N, R2W

Discussion

This is a historic farmstead site consisting of a foundation, two depressions and a light scatter of historic artifacts. The foundation is a concrete stem-wall in an overgrown area and is approximately 30 by 40 feet oriented north/south. One depression is located adjacent to the south of the foundation and is approximately 3 by 6 feet in size. The second depression is located about 15 feet south of the foundation and is about 10 foot in diameter. A very light scatter of domestic artifacts is located between the elements of the site and a pile of paver bricks is located near the southwest corner of the foundation. According to a 1957 aerial photograph (0N-4T-55, dated 7-16-57), this farmstead was in ruins before 1957 and no additional information about this site is known.

Historic Artifacts

Observed at this site was one foundation, two depressions and a light scatter of historic artifacts. Observed in the artifact scatter was about 15 unmarked paver bricks, 3 fragments of clear pane glass and 1 fragment of plain white stoneware.

Summary

This site is a razed house and remains of a farmstead with depression features located outside of the proposed r/w. A light scatter of historic artifacts is located surrounding the farmstead. The site area is located in a pasture area on a rise overlooking a small tributary to Coffee Creek. The site is surrounded by pasture and is located about 200 feet from the C/L of Covell Road and extends beyond the survey corridor. This site does not appear to meet any of the criteria of significance of the NRHP and no further archeological concern is warranted for this site.

SITE 34OK181

Location

This site is located in the SW1/4 of the SW1/4 of the SW1/4 of Section 16, T14N, R2W

Discussion

This is a historic farmstead site in a wooded setting consisting of two foundations, a horse water trough, and a corral located east of a small tributary to Coffee Creek. The foundations are constructed mostly of native sandstone with a few unmarked paver bricks. The larger foundation has a built-in cellar on the north side. A large sandstone block (cornerstone) is inscribed Bob Bir? Above and 1932? below. This foundation occupies a relatively flat area approximately 20 by 20 feet in size. East of the larger foundation is a half foundation and short walls built into a terrace bank wall. This foundation is small, measuring approximately 10 by 12 feet and probably is a cellar or storage area. Some sheet metal (uncorrugated) is present in this and the cellar area of the house foundation. No additional artifact scatter was observed. Approximately 40 meters north of the foundations is a concrete horse trough located in a meander of the small unnamed drainage to Coffee Creek. It is made of poured concrete about 4 inches thick, about 3 by 3 by 6 feet and has no other distinguishing characters. East of the horse trough is the remains of a corral with modern gates that may receive intermittent use. A 1957 aerial photograph of the site area (0N-4T-43, dated 7-16-57) shows a wooded area with no indication of the site. The wooded area is dense enough to obscure the site area.

Historic Artifacts

This site consists of two foundations, a horse water trough, and a corral. No artifact scatter was observed, however a dense cover of leaf litter obscures the ground surface in most areas.

Summary

This site is a historic farmstead dating at least to 1932. The site consists of two foundations and associated farm infrastructure elements. The site area is located in a wooded area on sloping terrain and is located about 400 to 500 feet north of the C/L of Covell Road and 175 feet east of the Sooner Road C/L. The site is surrounded by pasture to the west and north. Although this site may be outside of the construction and actual r/w impact area, this site may have intact buried deposits and should be avoided. Further testing of this site, including archival research, further cartographic review and limited subsurface testing will be needed to determine if it meets any of the criteria of significance of the NRHP.

6. SUMMARY OF RECOMMENDATIONS

Six historic standing buildings, two previously known archeological sites and five newly recorded archeological sites are located within the Covell Road project area in Oklahoma County, Oklahoma.

Detailed construction plans for the Covell Road Improvements project indicating which standing houses will be removed or archeological sites impacted were not available during the survey. Historic standing structures that may be impacted or removed may need further research on the original occupants to determine if it meets any of the criteria of significance of the NRHP. This includes houses B, C, E and F. A summary of recommendations is as follows:

Historic Standing Structures

Name	Type	Location	Distance	Recommendations
House A	Abandoned house	NW/NW/NW Sec 20 T14N, R2W	375ft south Covell Road C/L 150ft east of Coltrane Ave C/L	Potentially outside of construction and actual r/w, potentially no impacts
House B	Occupied house	SW/SW Sec 13 T14N, R3W	140ft north Covell Road C/L	Potentially within the construction r/w. Potential impacts need to be determined based on engineering plans. Further research may be needed to determine NRHP eligibility if impacted.
House C	Occupied house	SE/SE/NE Sec 35 T15N, R4W	125ft north Covell Road C/L	Potentially within the actual and construction r/w. Due to extensive modifications, it does not appear to meet any of the criteria of significance for inclusion in the NRHP.
House D	Occupied house	SE/SE/SE Sec 14 T15N, R4W	175ft north Covell Road C/L	Potentially outside of construction and actual r/w, potentially no impacts
House E	Occupied house	NE/SE/SE Sec 35 T16N, R4W	100ft north Covell Road C/L	Potentially within the actual and construction r/w. Potential impacts need to be determined based on engineering plans. Further research may be needed to determine NRHP eligibility if impacted.
House F	Occupied house	NE/SE/SE Sec 35 T16N, R4W	500ft north Covell Road C/L 75ft east of May Ave C/L	Potentially within the construction r/w. Potential impacts need to be determined based on engineering plans. Further research may be needed

				to determine NRHP eligibility if impacted.
Previously Recorded Archeological Sites				
34OK160	Historic farmstead	NE/SE/SE Sec 14, T14N, R4W	700ft north Covell Road C/L 75ft west Portland Ave (Hwy 74) C/L	no further archeological concern, razed farmstead
34OK165	Prehistoric lithic scatter	NW/NW Sec 24 T14N, R3W	100ft south Covell Road C/L	no further archeological concern, previous impacts of a surface only sparse lithic scatter
Newly Recorded Archeological Sites				
34OK177	Razed historic	NW/NW/NE Sec 20, T14N, R3W	200ft south Covell Road C/L	Mostly outside survey corridor, no further archeological concern
34OK178	Razed historic	SE/SW/SE Sec 14, T14N, R3W	75-175ft north Covell Road C/L	Totally razed, no intact features, no further archeological concern
34OK179	Prehistoric lithic scatter	NW/NE/NE Sec 24, T14N, R3W	50ft south Covell Road C/L	no further archeological concern, previous impacts of a surface only sparse lithic scatter
34OK180	Razed historic	NE/NE/NE Sec 20, T14N, R2W	200ft south Covell Road C/L	Mostly outside survey corridor, no further archeological concern
34OK181	Historic farmstead	SW/SW/SW Sec 16, T14N, R2W	400-500ft north Covell Road C/L 175ft east Sooner Road C/L	Avoidance recommended, potential buried features, potentially outside of construction and actual r/w

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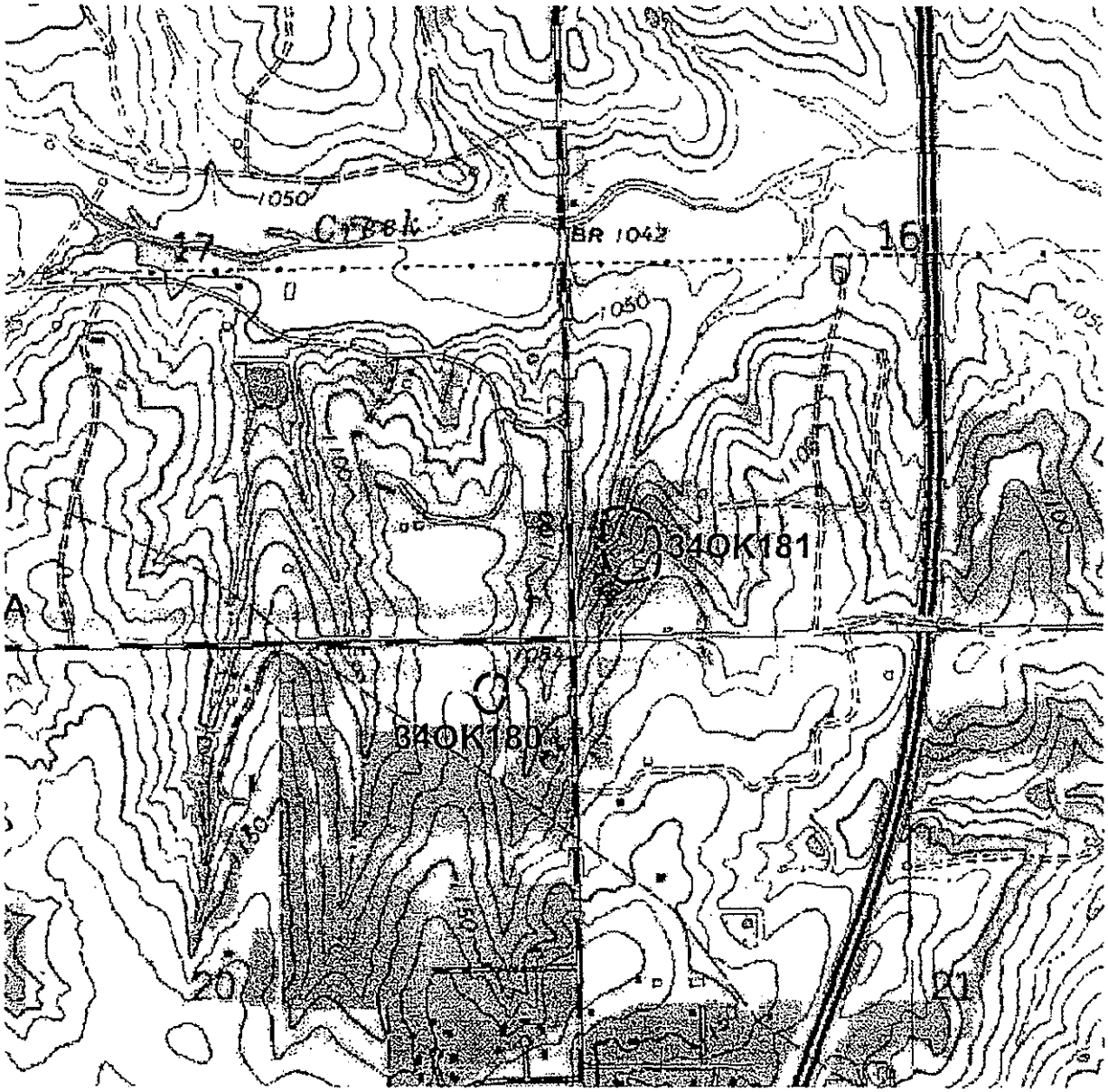
Appendix A

Survey Maps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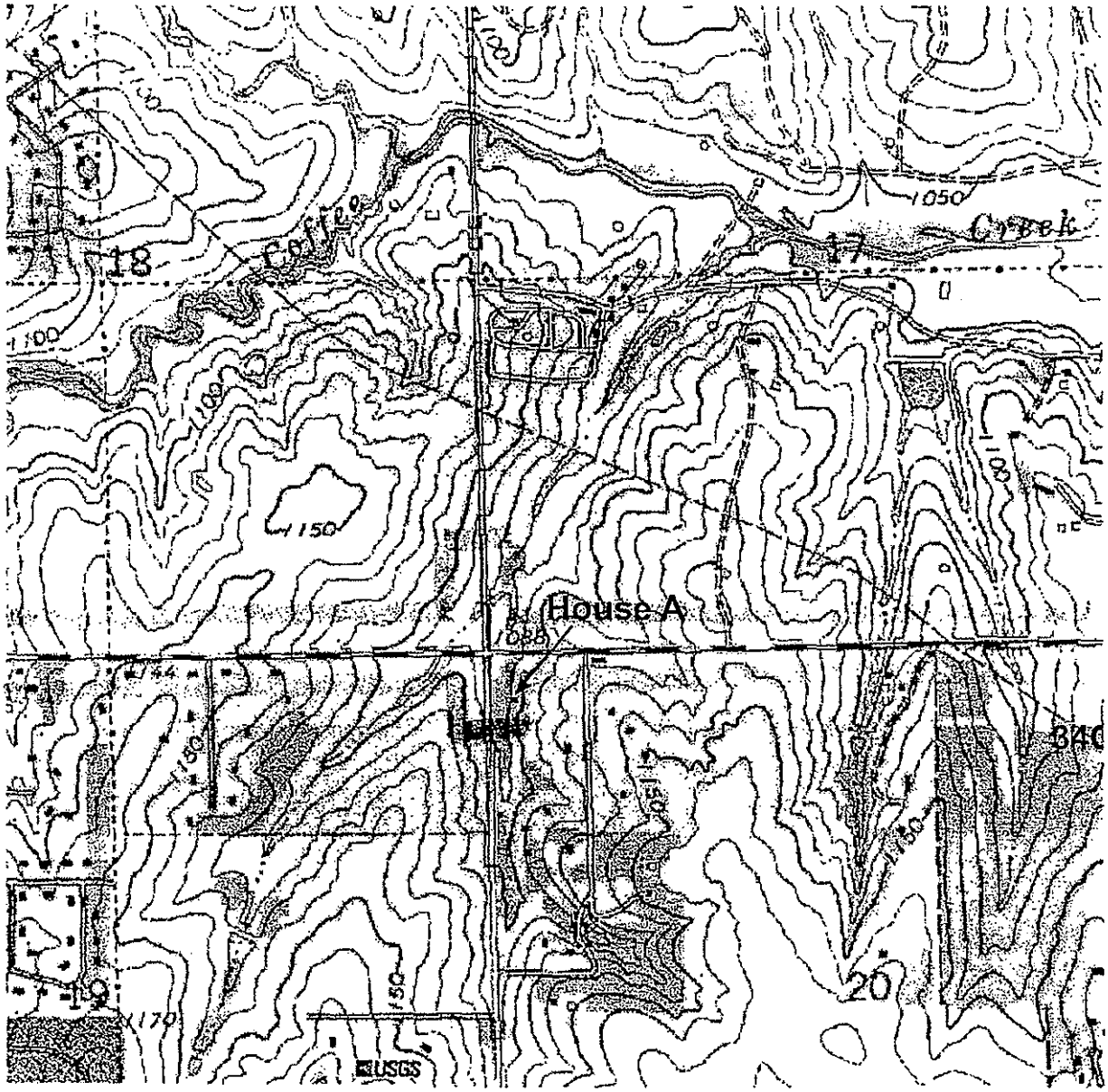
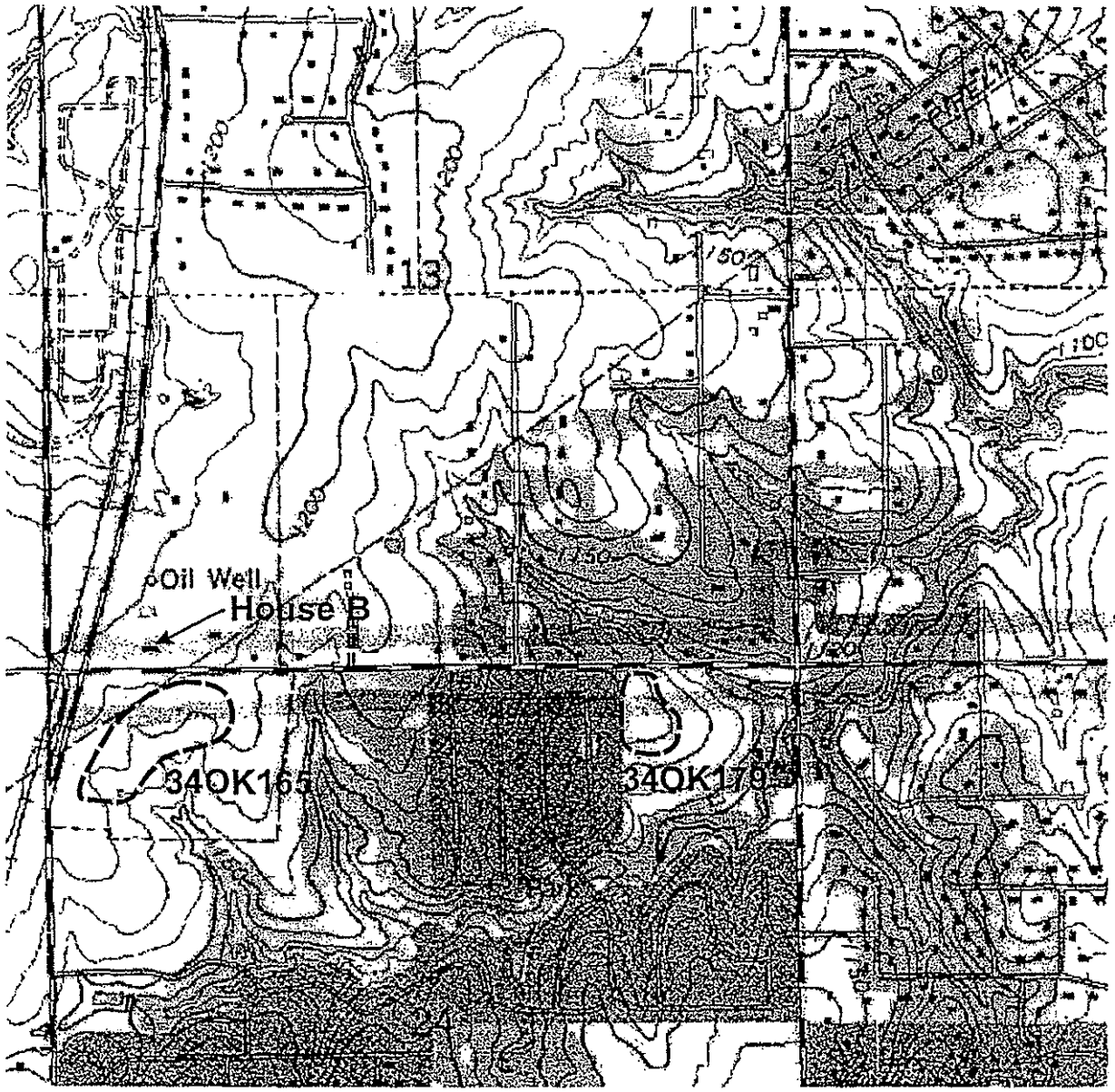
Creek
BR 1042
16
1050
340K181
A
340K180
20
21


House A
18
17
20
1050
1100
1150
1200
USGS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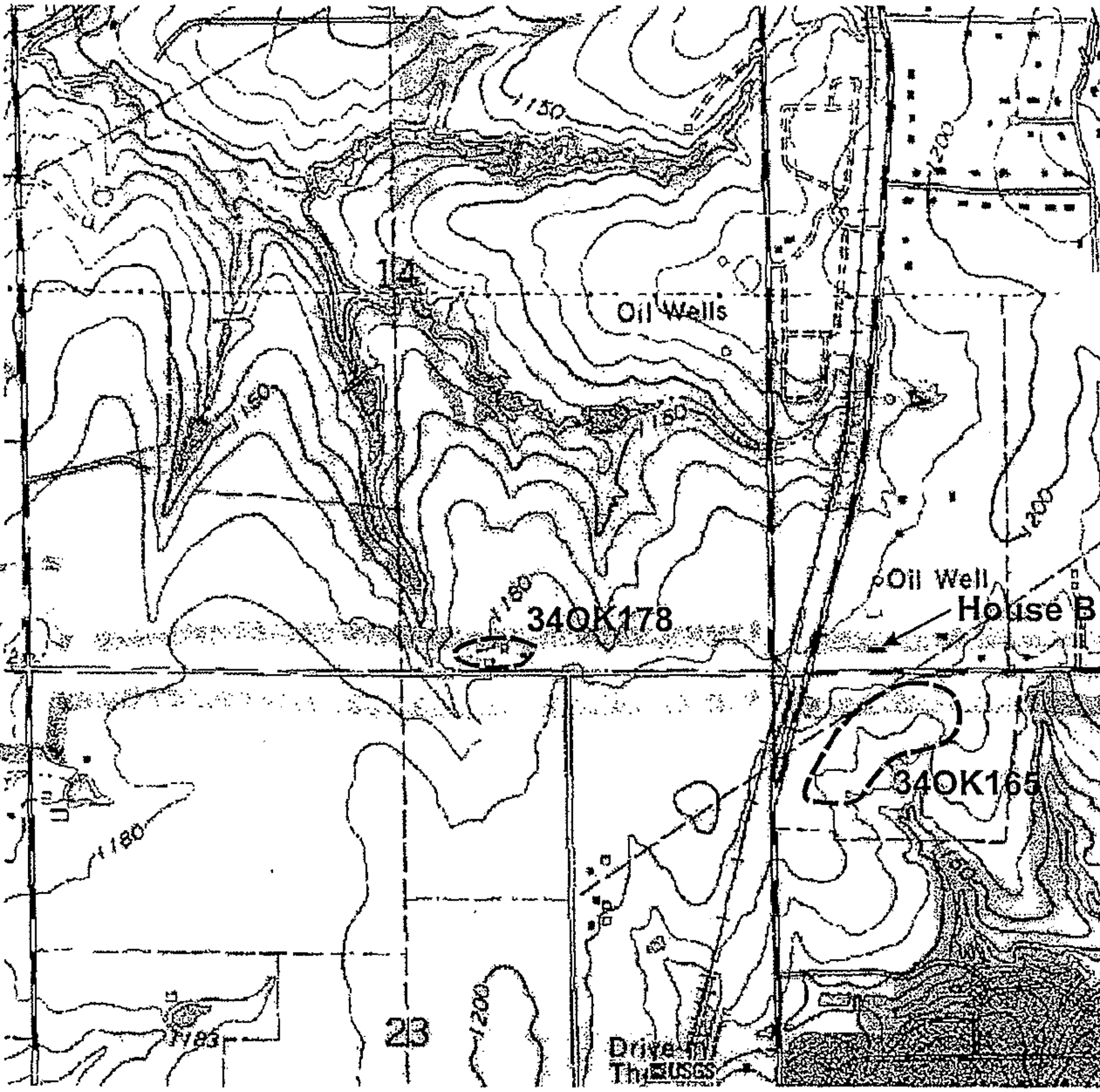
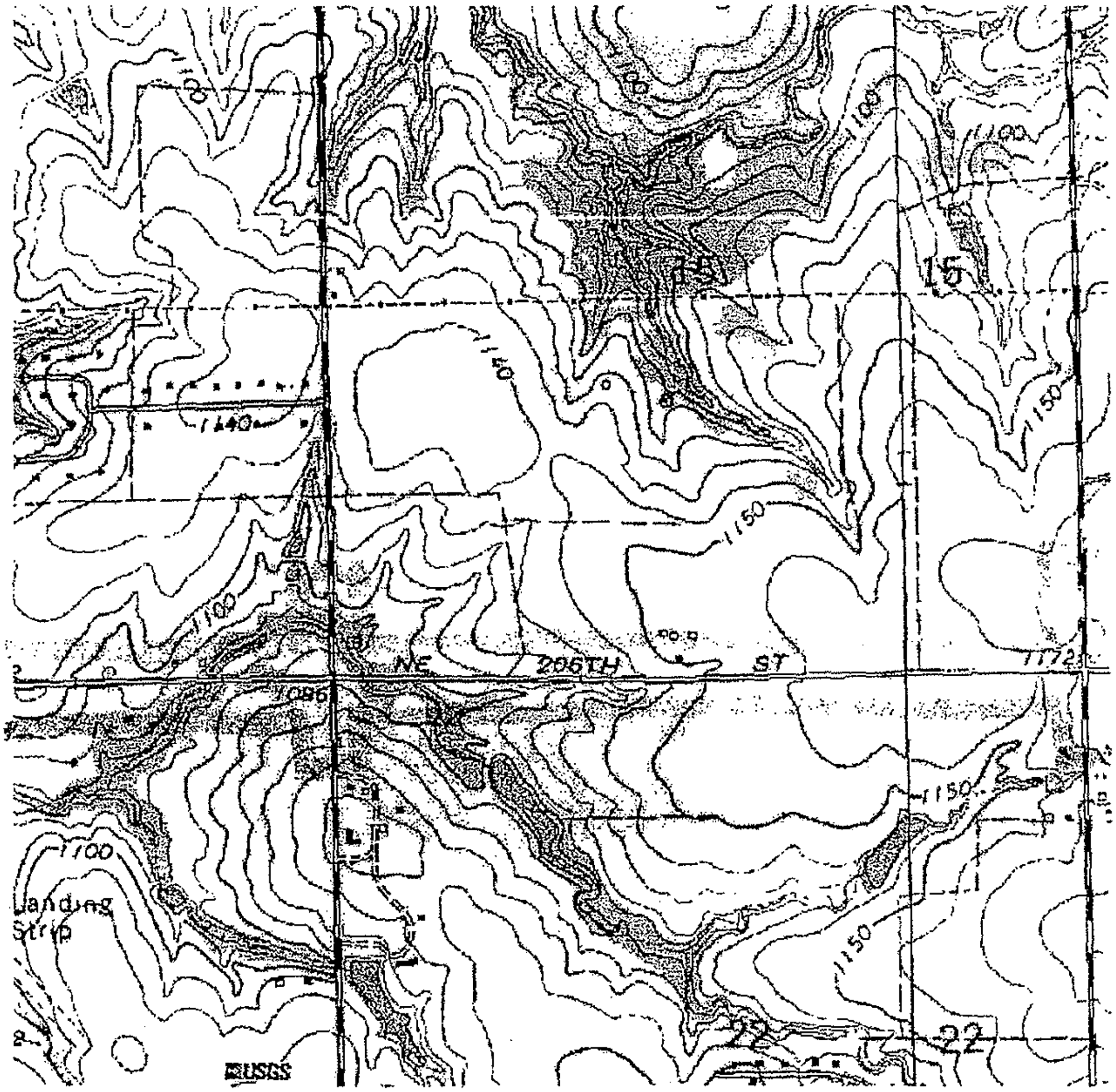
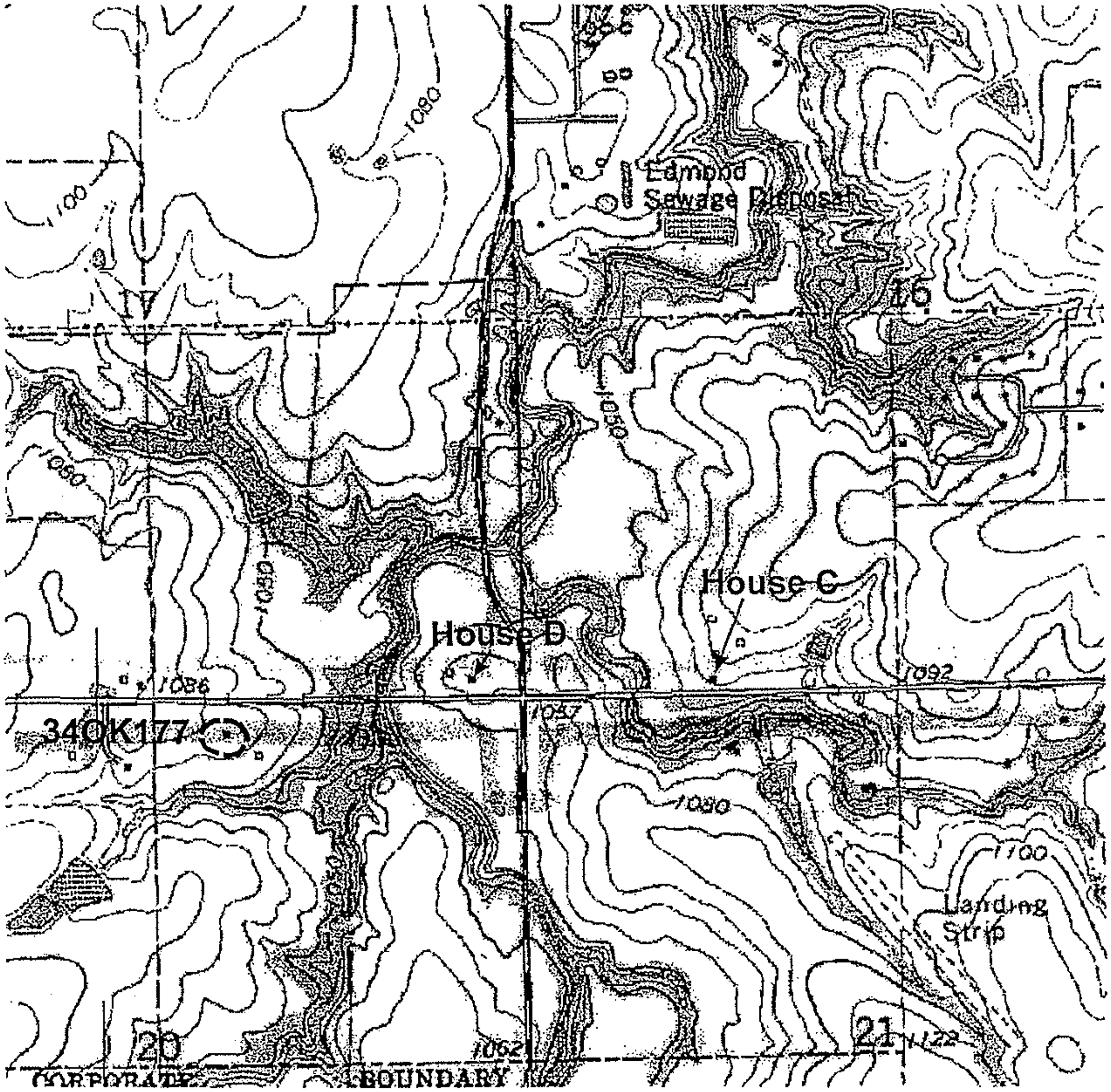
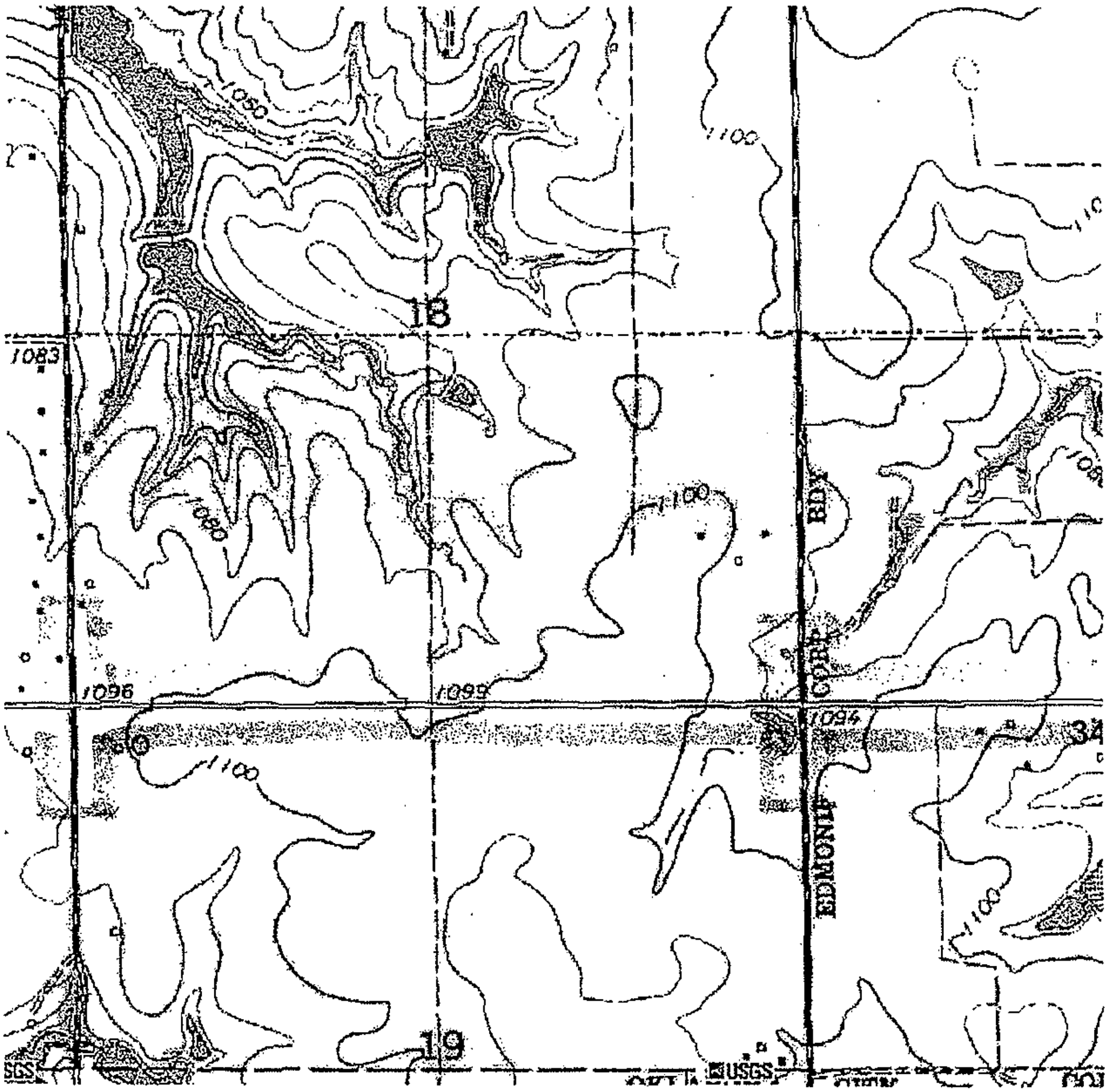
Oil Well
House B
34OK165
34OK179


1150
1200
14
Oil Wells
1150
1150
1180
34OK178
Oil Well
House B
1200
34OK165
1180
1200
23
Drive-In
1183


1140
1140
1150
1150
1100
1096
NE 206TH ST
1172
1150
1100
1150
15
15
Landing
Strip
22
22
USGS



Edmond
Sewage Disposal
1090
1100
17
16
1080
1050
House C
House D
1086
34OK177
1092
1037
1080
1100
Landing
Strip
20
21
1062
1122
CORPORATE
BOUNDARY


1050
1100
18
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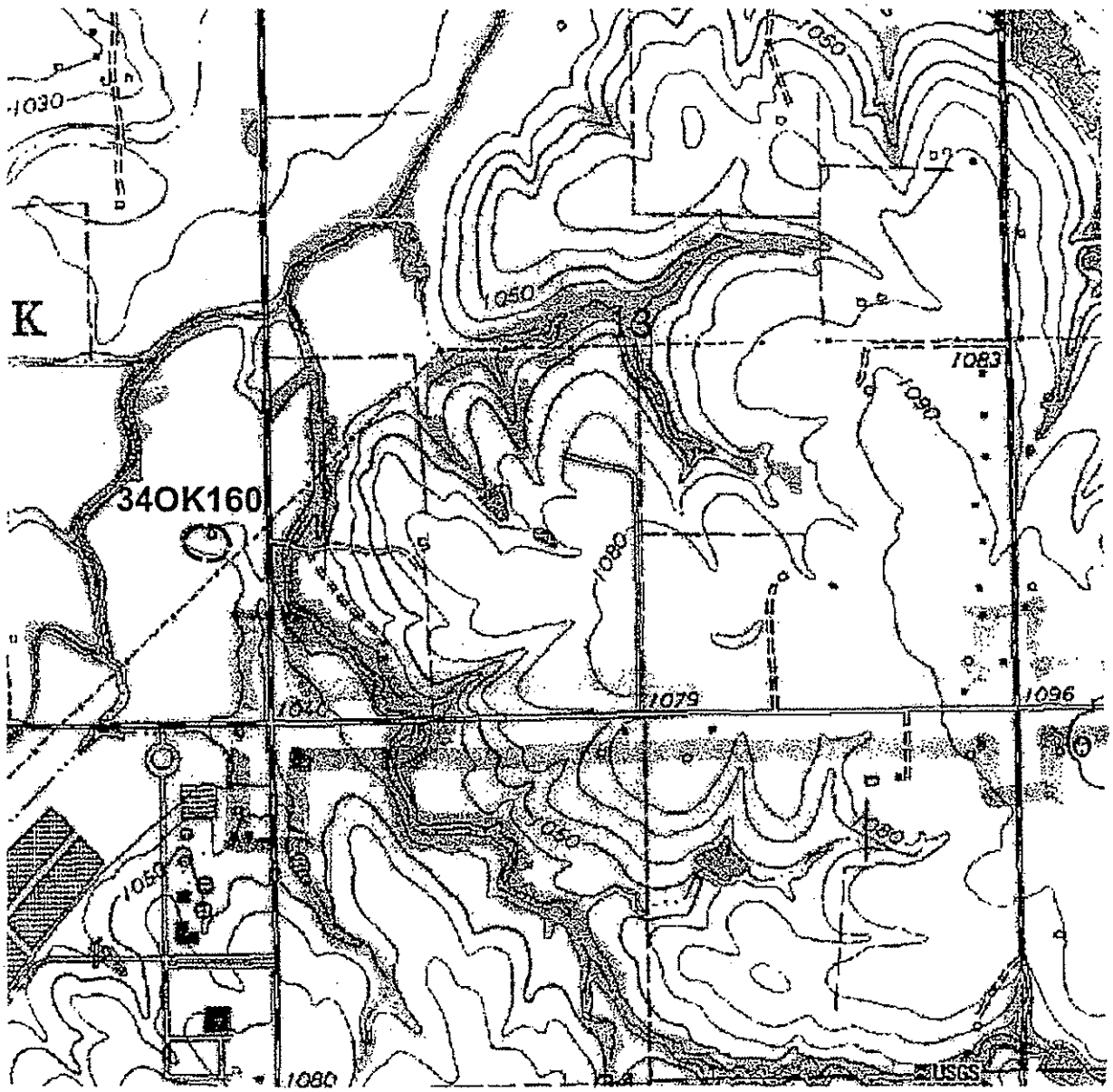
1080
1100
1096
1099
1094
1100
1100
BDY
CORP
EDMOND
34
19
USGS


K
34OK160
1030
1050
1083
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1080
1079
1096
1060
1080
USGS

Appendix B

Site Forms

Oklahoma
Archeological Site Survey Form

Site # OK 178

County Oklahoma

Complete All Sections

ite Number and Name
Site Name _____
(derived from owner's name, etc.)

Project No. _____
(temporary number or name assigned during project)

For Office Use

ocational Information

J.T.M. Reference

Zone	Northing	Easting
14	3949467	638982

.egal Description

SE 1/4 of SW 1/4 of SE 1/4 of Section 14 Township 14N Range 3W

J.S.G.S. Quad Name: Bethany NE

Quad Date (revised): 1966 (1983)

Other Locational References (i.e., benchmarks, road intersection, bridges, etc. please give distance and bearing to site)

On Covell Road in Edmond, to west of Broadway Ave. approx 3/5 mile, the north about 150 feet.

wner(s) of Property
ame(s)

treet and Number

ity and Town

State

Zip Code

ite Surveyed By:
lame
. Burkhalter/C. Cojeen

Reported by: (if different)
Name

ate Recorded
/4/2003

Time spent at site and time of day
1 hr morning

ultural Affiliation

Cultural Periods

Unassigned Prehistoric				[ ]	Village Farming/Mississippian
Paleoindian	[ ] Early	[ ] Middle	[ ] Late	[ ]	Plains Village
Archaic	[ ] Early	[ ] Middle	[ ] Late	[ ]	Protohistoric/Historic Ind.
Woodland	[ ] Eastern	[ ] Plains		[ ]	Historic non-Indian

Archeological Cultures, Phases, etc. Represented

_____

_____

How was cultural affiliation determined (diagnostic artifacts, radiocarbon dates, etc.)

_____

istoric Phase Identification (Ethnic)

Circle appropriate group

1. Choctaw	11. Pawnee	21. Creek
2. Cherokee	12. Arapaho	22. Dakotas
3. Sauc-Fox	13. Ottawas	23. Chickasaw
4. Pottawatomie	14. Wichita	24. 12 & 17
5. Seminole	15. Quapaw	25. Missouri-Otos
6. Comanche	16. Osage	26. Iowa
7. Apache	17. Cheyenne	27. Anglo-American
8. Kiowa	18. Caddo	28. French
9. Kiowa-Apache	19. Shawnee	29. Spanish
10. Kickapoo	20. Delaware	30. _____ Other

How was historic identification determined?

_____

istoric Site Range 9

0. Missing data; unknown	5. 1890 - 1929
1. pre - 1800	6. 1930 - 1950
2. 1800 - 1830	7. 1800 - 1900
3. 1830 - 1859	8. 1800 - present
4. 1860 - 1889	9. 1900 - present

Inferred Site Type (can be more than one category)

- [ ] open habitation w/o mounds
- [ ] open habitation with mounds
- [ ] earth mound (not midden mound)
- [ ] mound complex
- [ ] stone mounds/rock piles
- [ ] burned rock concentrations
- [ ] non - mound earthworks
- [ ] rock shelter
- [ ] cave
- [ ] quarry/workshop
- [ ] petroglyph - pictograph
- [ ] isolated burials (<2)
- [ ] cemetery (>2)
- [ ] specialized activity sites
- [ ] rock alignments (tepee rings, etc.)
- [ ] historic farmstead
- [ ] historic mill/industrial
- [ ] historic fort
- [ ] dugout
- [ ] historic trash dump

Midden at site

- [x] don't know
- [ ] absent
- [ ] present, earth
- [ ] present, shell
- [ ] present, rock

Materials Collected

Type	Number	Type	Number
[ ] ceramics	_____	[ ] scrapers (unshafted)	_____
[ ] projectile points/ base frags.	_____	[ ] debitage (flkes, cores, chunks)	_____
[ ] hafted scrapers	_____	[ ] ground/pecked/battered stone	_____
[ ] drills	_____	[ ] worked bone/shell	_____
[ ] bifaces/biface frags.	_____	[ ] human bone	_____
[ ] unifaces	_____	[ ] faunal remains	_____
[ ] perforators/gravers	_____	[ ] floral remains	_____
[ ] spokeshaves	_____	[ ] other prehistoric	_____
		[ ] historic (describe)	_____

Total items _____

Briefly describe diagnostic artifacts including type names. Attach outine drawings

---

Materials observed but not collected.

1 fragment earhenware, bulldozer push piles of rock and concrete, metal winmill

Name and address of other collections from site

---

rtifact Repository

Name of institution where artifacts are to be stored

Photos

[ ] black and white ____ no. of pictures

[X] color 5 no. of pictures

Name and address of institution where photos are filed

CAS/ Norman, OK

Evidence of Recent Vandalism Observed: [X] no [ ] yes

Site Condition: 5

1. apparently undisturbed
2. <25% disturbed
3. 26 - 50% disturbed
4. 51 - 75% disturbed
5. 76 - 99% disturbed
6. totally destroyed
7. disturbed, % unknown

Major Land Use:

[ ] cultivated field	[ ] modern cemetery	[ ] commercial
[ ] pasture	[ ] mining	[ ] military
[ ] woods, forest	[ ] inundated	[ ] logging/fire break
[ ] road/trail	[ ] industrial	[ ] scrub/secondary growth/ old field
[ ] ditch/dike/barrow pit	[ ] residential	
[ ] landfill	[ ] recreation	[ ] modern dump

Other

---

5. Amount of Ground Surface Visible: 5

1. <10%
2. 11 - 25%
3. 26 - 50%
4. 51 - 75%
5. 76 - 90%
6. 91 - 100%

Survey Conditions (wet, dry, sunny, ground coverage, etc.):

sunny and dry, surface visiblity 60 to 90 percent

6. Physiographic Division: 4

1. High Plains
2. Gypsum Hills
3. Wichita Mtns.
4. Red Bed Plains
5. Arbuckle Mtns.
6. Sandstone Hills
7. Prairie Plains
8. Ozark Plateau
9. Ouachita Mtns.
10. Red River Plains

7. Landform Type: 5

1. Floodplain
2. Terrace
3. Hillside - Valley wall
4. Dissicated Uplands
5. Undissecated Uplands

8. Locality Type (specific site setting) : 1

1. Level
2. Knoll - low land
3. Blowout
4. Ridge - Upland
5. Mesa
6. Slope
7. Bluff Crest
8. Bluff Base

9. Soils (if known)

_____ Association, _____ Series _____ Type

10. 1180 Elevation amsl 0 Slope (degrees); _____ slope facing direction

11. Natural Vegetation: 2

1. short grasses
2. mixed grasses
3. tall grasses
4. cross - timber
5. shin - oak
6. mesquite
7. juniper - pinion
8. oak - hickory forest
9. oak - pine
10. Loblolly pine forest

12. Site Area 20 by 60 meters (1200 sq m) (square meters)

Basis for area estimate: 2

1. Taped
2. paced
3. guessed
4. range - finder
5. alidade/transit

Confident of site boundaries ☒ yes ☐ no

Description of Site:

Give physical description of site and its setting, including dimensions, features, nature of materials and artifact concentrations. Include copy of U.S.G.S. topographic map with site location and boundaries marked.

This is a razed farmstead located on nearly level uplands. Observed at this site were two bulldozer push piles of concrete and stone, an electric pole and a standing metal-frame water windmill. An arced drive enters the site area and a windbreak of cedar trees is located south of the site. One fragment of earthenware crockery was observed in the drive. No additional artifacts was observed. The a standing metal-frame water windmill has no windvanes and is inoperable. The windmill is located approximately 60 meters west of the drive apex. According to a 1957 aerial photograph (0N-2T-88, dated 7-11-57) a small farmstead stood in this location. The farmstead appears to have had a small barn and house and one small shed. No foundations, depressions, or evidence other than the bulldozer push piles were observed.

4. Drainage: 5

1. Arkansas
2. Beaver - N. Canadian
3. Canadian
4. Caney
5. Cimarron
6. Deep Fork
7. Illinois
8. Kiamichi
9. Little R. (McCurtain Co.)
10. Muddy Boggy
11. Neosho
12. North Fork Red
13. Poteau
14. Red
15. Salt Fork Arkansas
16. Salt Fork Red
17. Verdigris
18. Washita

5. Nearest Natural Source of Water: 2

1. Permanent stream/creek
2. Intermittent stream
3. Permanent spring
4. Intermittant spring/seep/bog
6. River
7. Slough or oxbow lake
8. Relic stream channel (if observable)
9. Also consider wells if site is historic

6. Distance to Water (in 10's of meters) 20

7. Investigation Type : 1

1. Reconnaissance (survey)
2. Intensive (survey & testing)
3. Excavated
4. Volunteered report

Significance Status:

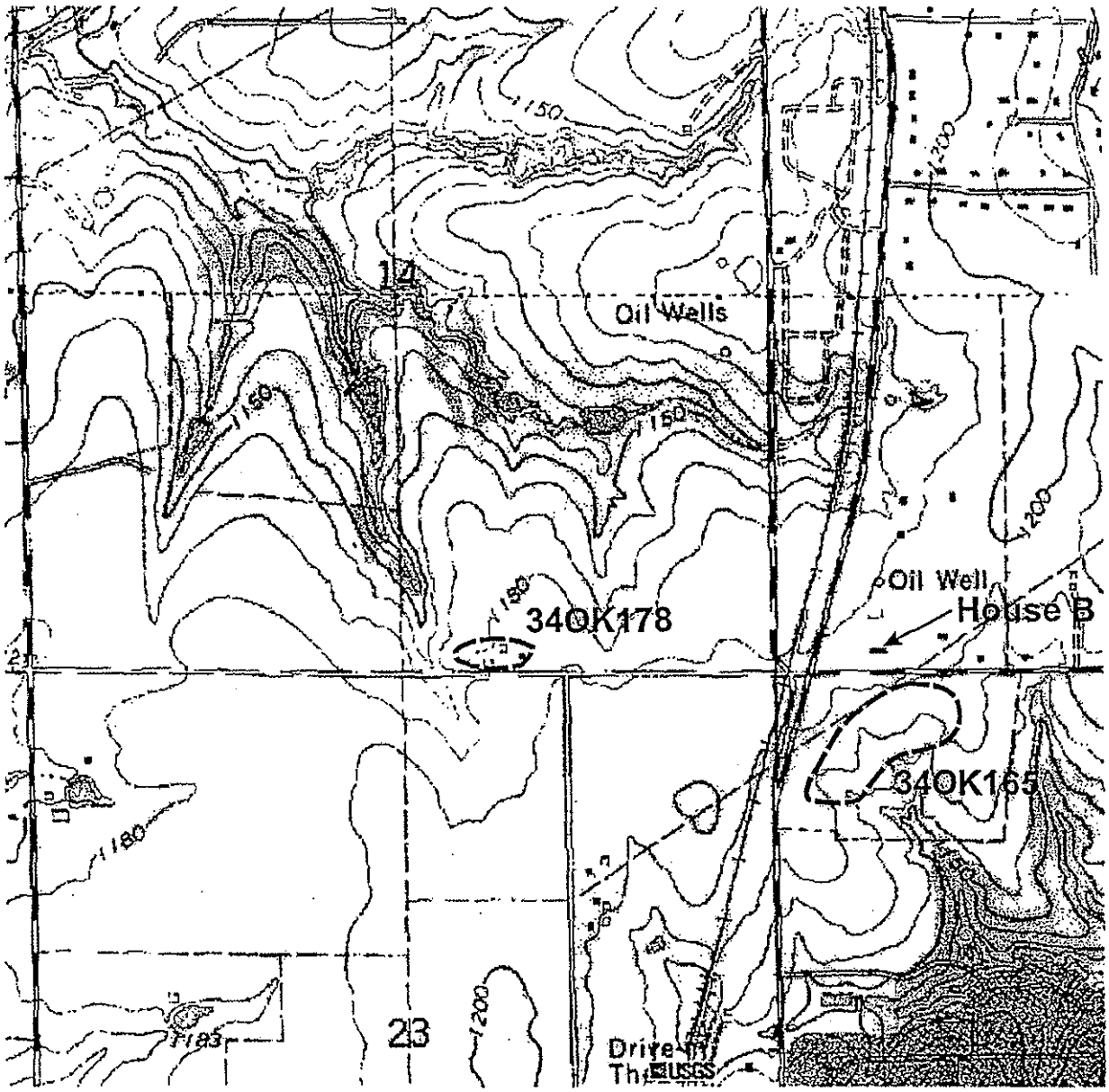
[ ] National Register Property
[ ] Eligible for National Register
[ ] Nominated to National Register by SHPO
[ ] Considered eligible but not nominated by SHPO
[x] Inventory Site
[ ] National Register status not assessed

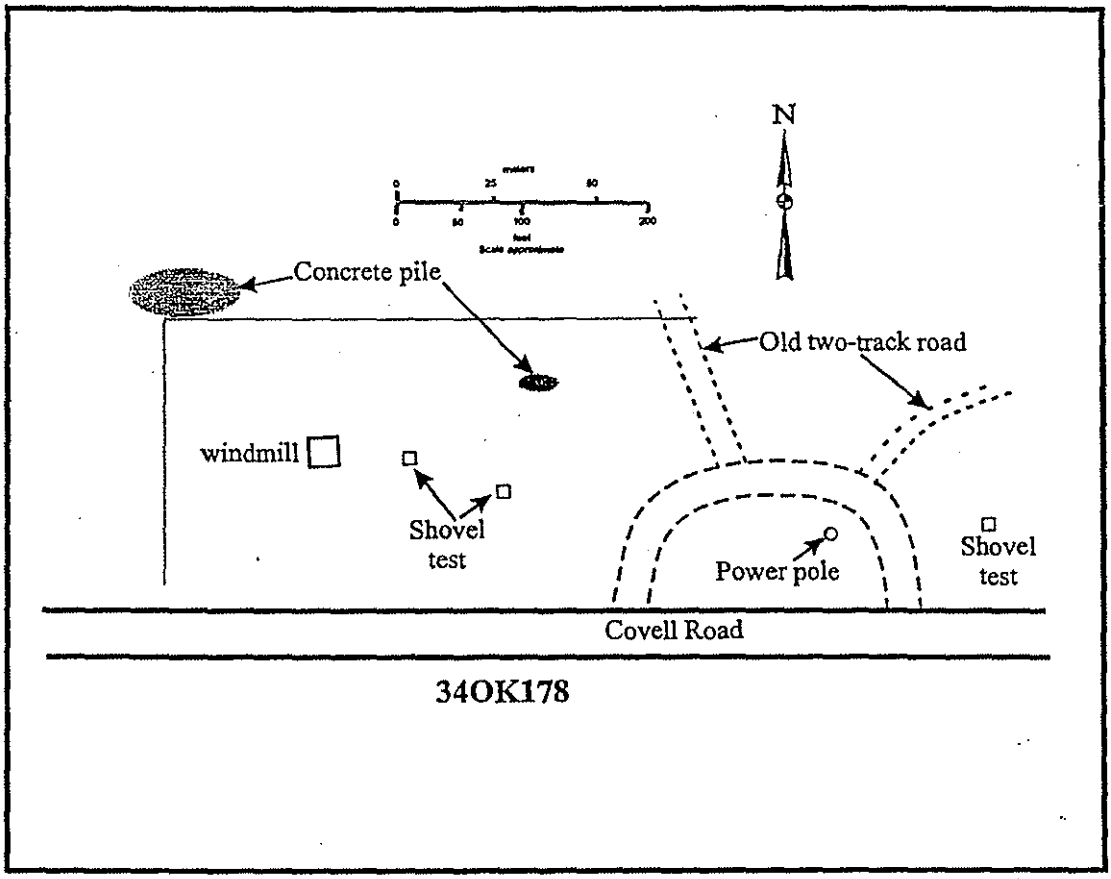
9. Discuss the Potential Significance of the Site

This site does not have any remaining integrity and has limited research potential

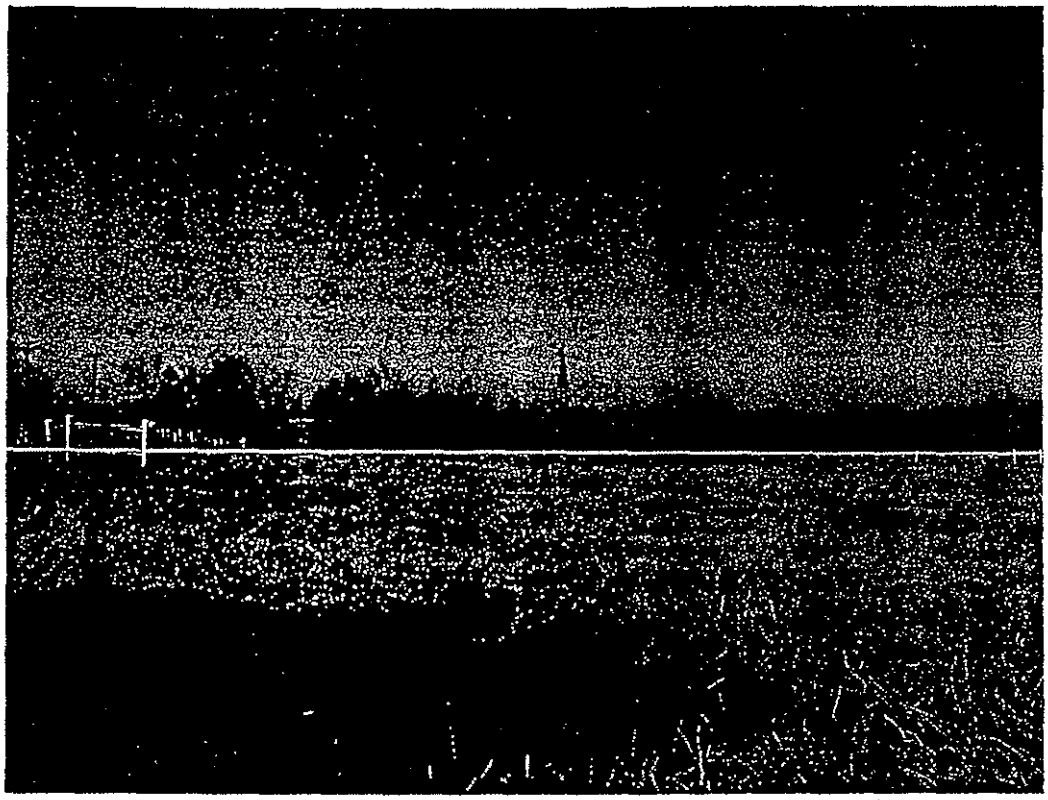
10. Published or Forthcoming Reports on the Site

CAS Covell Road Improvements, 2003

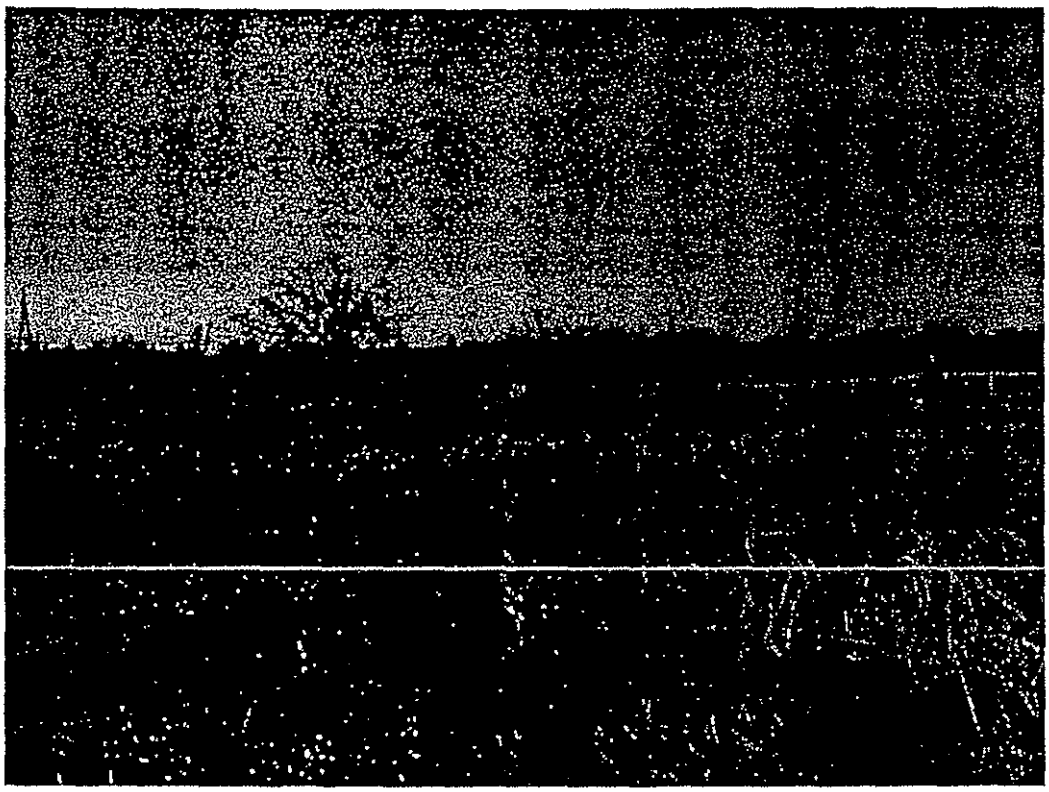

Oil Wells
Oil Well
House B
34OK178
34OK165
1150
1200
1180
23
Drive
USGS


N
Concrete pile
Old two-track road
windmill
Shovel test
Shovel test
Power pole
Covell Road

34OK178



Site 34OK178, windmill area



Site 34OK178, bulldozer push pile by tree

Oklahoma
Archeological Site Survey Form

Site # Ok-179

County Oklahoma

Complete All Sections

te Number and Name
Site Name
(derived from owner's name, etc.)

Project No.
(temporary number or name assigned during project)

For Office Use

ocational Information

U.T.M. Reference

Zone	Northing	Easting
14	3949467	638982

egal Description

NW 1/4 of NE 1/4 of NE 1/4 of Section 24 Township 14N Range 3W

U.S.G.S. Quad Name

Edmond

Quad Date (revised)

1966(1983)

Other Locational References (i.e., benchmarks, road intersection, bridges, etc. please give distance and bearing to site)

On Covell Road in Edmond, from Bryant Ave, 1/4 mile west south side of road

wner(s) of Property
ame(s)

reet and Number

ity and Town

State

Zip Code

te Surveyed By:
ame
Burkhalter/C. Cojeen

Reported by: (if different)
Name

ate Recorded
4/2003

Time spent at site and time of day
1 hr morning

Cultural Affiliation

Cultural Periods

Unassigned Prehistoric				☐ Village Farming/Mississippian
Paleoindian	☐ Early	☐ Middle	☐ Late	☐ Plains Village
Archaic	☐ Early	☐ Middle	☐ Late	☐ Protohistoric/Historic Ind.
Woodland	☐ Eastern	☐ Plains		☐ Historic non-Indian

Archeological Cultures, Phases, etc. Represented

_____

_____

How was cultural affiliation determined (diagnostic artifacts, radiocarbon dates, etc.)

_____

istoric Phase Identification (Ethnic)

Circle appropriate group

1. Choctaw	11. Pawnee	21. Creek
2. Cherokee	12. Arapaho	22. Dakotas
3. Sauc-Fox	13. Ottawas	23. Chickasaw
4. Pottawatomie	14. Wichita	24. 12 & 17
5. Seminole	15. Quapaw	25. Missouri-Otos
6. Comanche	16. Osage	26. Iowa
7. Apache	17. Cheyenne	27. Anglo-American
8. Kiowa	18. Caddo	28. French
9. Kiowa-Apache	19. Shawnee	29. Spanish
10. Kickapoo	20. Delaware	30. _____ Other

How was historic identification determined?

_____

istoric Site Range _____

0. Missing data; unknown	5. 1890 - 1929
1. pre - 1800	6. 1930 - 1950
2. 1800 - 1830	7. 1800 - 1900
3. 1830 - 1859	8. 1800 - present
4. 1860 - 1889	9. 1900 - present

Inferred Site Type (can be more than one category)

- [x] open habitation w/o mounds
- [ ] open habitation with mounds
- [ ] earth mound (not midden mound)
- [ ] mound complex
- [ ] stone mounds/rock piles
- [ ] burned rock concentrations
- [ ] non - mound earthworks
- [ ] rock shelter
- [ ] cave
- [ ] quarry/workshop
- [ ] petroglyph - pictograph
- [ ] isolated burials (<2)
- [ ] cemetery (>2)
- [ ] specialized activity sites
- [ ] rock alignments (tepee rings, etc.)
- [ ] historic farmstead
- [ ] historic mill/industrial
- [ ] historic fort
- [ ] dugout
- [ ] historic trash dump

Midden at site

- [ ] don't know
- [x] absent
- [ ] present, earth
- [ ] present, shell
- [ ] present, rock

Materials Collected

Type	Number	Type	Number
[ ] ceramics	_____	[ ] scrapers (unshafted)	_____
[ ] projectile points/ base frags.	_____	[ ] debitage (flkes, cores, chunks)	_____
[ ] hafted scrapers	_____	[ ] ground/pecked/battered stone	_____
[ ] drills	_____	[ ] worked bone/shell	_____
[ ] bifaces/biface frags.	_____	[ ] human bone	_____
[ ] unifaces	_____	[ ] faunal remains	_____
[ ] perforators/gravers	_____	[ ] floral remains	_____
[ ] spokeshaves	_____	[ ] other prehistoric	_____
		[ ] historic (describe)	_____

Total items _____

Briefly describe diagnostic artifacts including type names. Attach outine drawings

---

Materials observed but not collected.

No diagnostic artifacts were observed at this site. Observed at this site were 10+ flakes (all Ogallala), 10 broken or tested cobbles (all Ogallala), and 8 fire cracked rocks

Name and address of other collections from site

N/A

Artifact Repository

Name of institution where artifacts are to be stored

Photos

[ ] black and white ____ no. of pictures

[X] color 3 no. of pictures

Name and address of institution where photos are filed

CAS/ Norman, OK

Evidence of Recent Vandalism Observed: [X] no [ ] yes

Site Condition: 7

1. apparently undisturbed
2. <25% disturbed
3. 26 - 50% disturbed
4. 51 - 75% disturbed
5. 76 - 99% disturbed
6. totally destroyed
7. disturbed, % unknown

Major Land Use:

[ ] cultivated field
[ ] pasture
[ ] woods, forest
[ ] road/trail
[ ] ditch/dike/barrow pit
[ ] landfill
[ ] modern cemetery
[ ] mining
[ ] inundated
[ ] industrial
[ ] residential
[ ] recreation
[ ] commercial
[ ] military
[ ] logging/fire break
[ ] scrub/secondary growth/ old field
[ ] modern dump

Other

6. Amount of Ground Surface Visible: 4

1. <10%
2. 11 - 25%
3. 26 - 50%
4. 51 - 75%
5. 76 - 90%
6. 91 - 100%

Survey Conditions (wet, dry, sunny, ground coverage, etc.):

sunny and dry, surface vis. from 20 to 100 percent in mixed grasses, shrubs, and a recently installed utility line

5. Physiographic Division: 4

1. High Plains
2. Gypsum Hills
3. Wichita Mtns.
4. Red Bed Plains
5. Arbuckle Mtns.
6. Sandstone Hills
7. Prairie Plains
8. Ozark Plateau
9. Ouachita Mtns.
10. Red River Plains

7. Landform Type: 2

1. Floodplain
2. Terrace
3. Hillside - Valley wall
4. Dissicated Uplands
5. Undissecated Uplands

8. Locality Type (specific site setting) : 6

1. Level
2. Knoll - low land
3. Blowout
4. Ridge - Upland
5. Mesa
6. Slope
7. Bluff Crest
8. Bluff Base

9. Soils (if known)

_____ Association, _____ Series _____ Type

10. 1150 Elevation amsl 10 Slope (degrees); east slope facing direction

11. Natural Vegetation: 2

1. short grasses
2. mixed grasses
3. tall grasses
4. cross - timber
5. shin - oak
6. mesquite
7. juniper - pinion
8. oak - hickory forest
9. oak - pine
10. Loblolly pine forest

12. Site Area 30 by 50 meters (1500 sq m) (square meters)

Basis for area estimate: 2

1. Taped
2. paced
3. guessed
4. range - finder
5. alidade/transit

Confident of site boundaries ☒ yes ☐ no

Description of Site:

Give physical description of site and its setting, including dimensions, features, nature of materials and artifact concentrations. Include copy of U.S.G.S. topographic map with site location and boundaries marked.

This is an unassigned prehistoric lithic scatter located on a small rise west of a Coffee Creek. No diagnostic artifacts were observed at this site. Observed at this site were lithic flakes, tested and broken cobbles, and fire cracked rocks scattered over a 15 m by 25 m area of gravel outcrop. Shovel probes at the site indicate that this site is a surface only manifestation.

4. Drainage: 5

1. Arkansas
2. Beaver - N. Canadian
3. Canadian
4. Caney
5. Cimarron
6. Deep Fork
7. Illinois
8. Kiamichi
9. Little R. (McCurtain Co.)
10. Muddy Boggy
11. Neosho
12. North Fork Red
13. Poteau
14. Red
15. Salt Fork Arkansas
16. Salt Fork Red
17. Verdigris
18. Washita

5. Nearest Natural Source of Water: 1

1. Permanent stream/creek
2. Intermittent stream
3. Permanent spring
4. Intermittant spring/seep/bog
6. River
7. Slough or oxbow lake
8. Relic stream channel (if observable)
9. Also consider wells if site is historic

26. Distance to Water (in 10's of meters) 10

27. Investigation Type : 1

1. Reconnaissance (survey)
2. Intensive (survey & testing)
3. Excavated
4. Volunteered report

28. Significance Status:

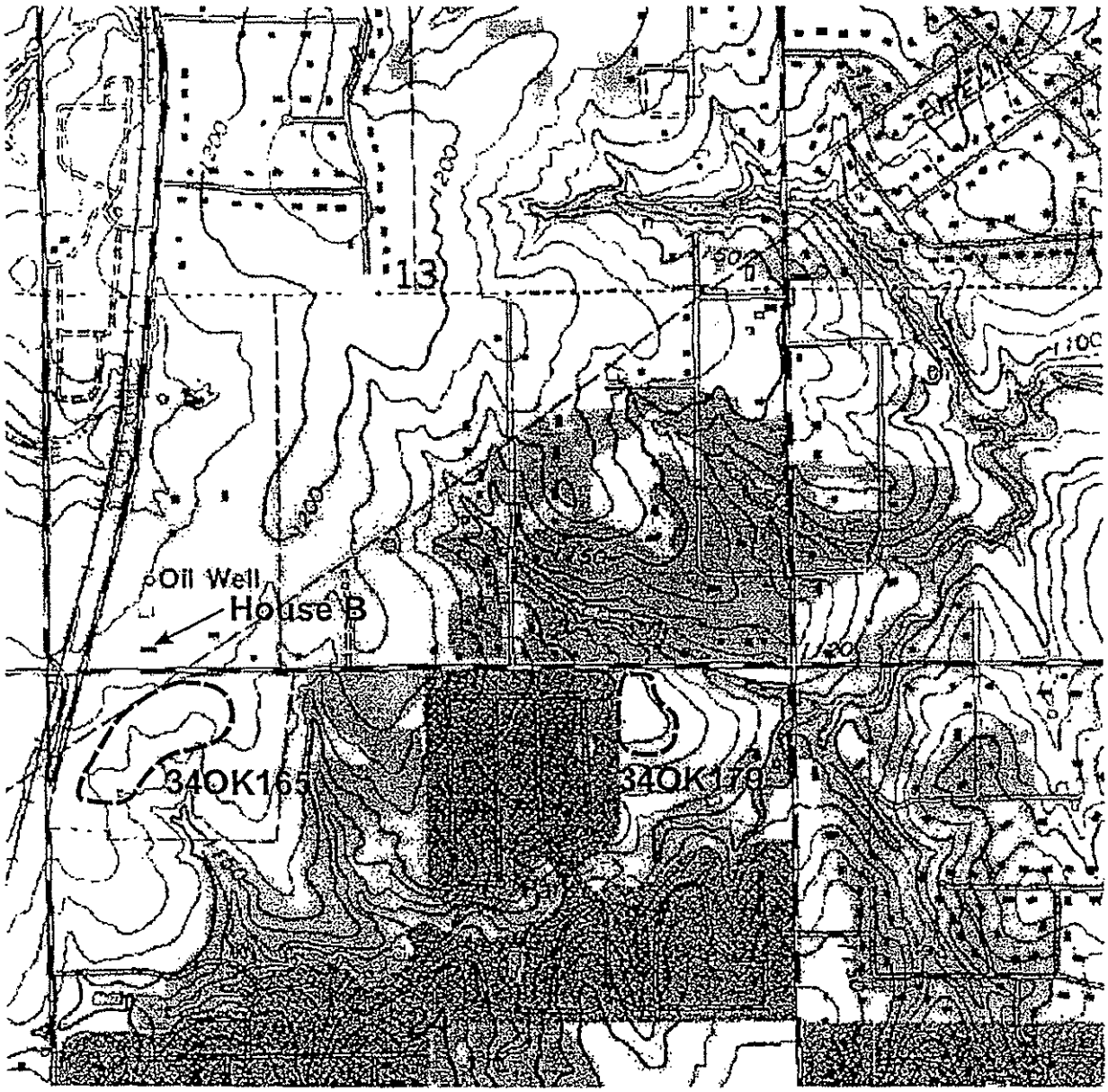
- [ ] National Register Property
- [ ] Eligible for National Register
- [ ] Nominated to National Register by SHPO
- [ ] Considered eligible but not nominated by SHPO
- [ ] Inventory Site
- [ ] National Register status not assessed

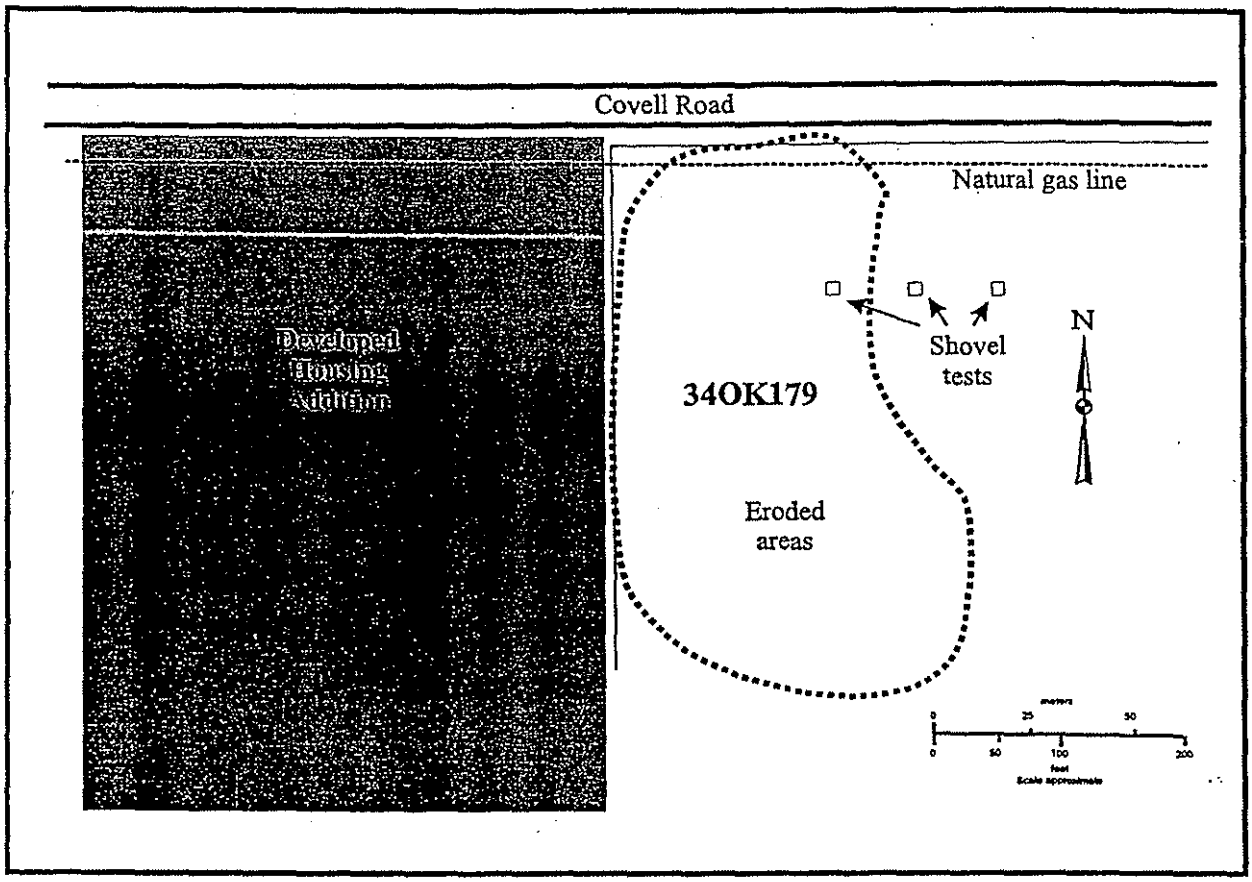
29. Discuss the Potential Significance of the Site

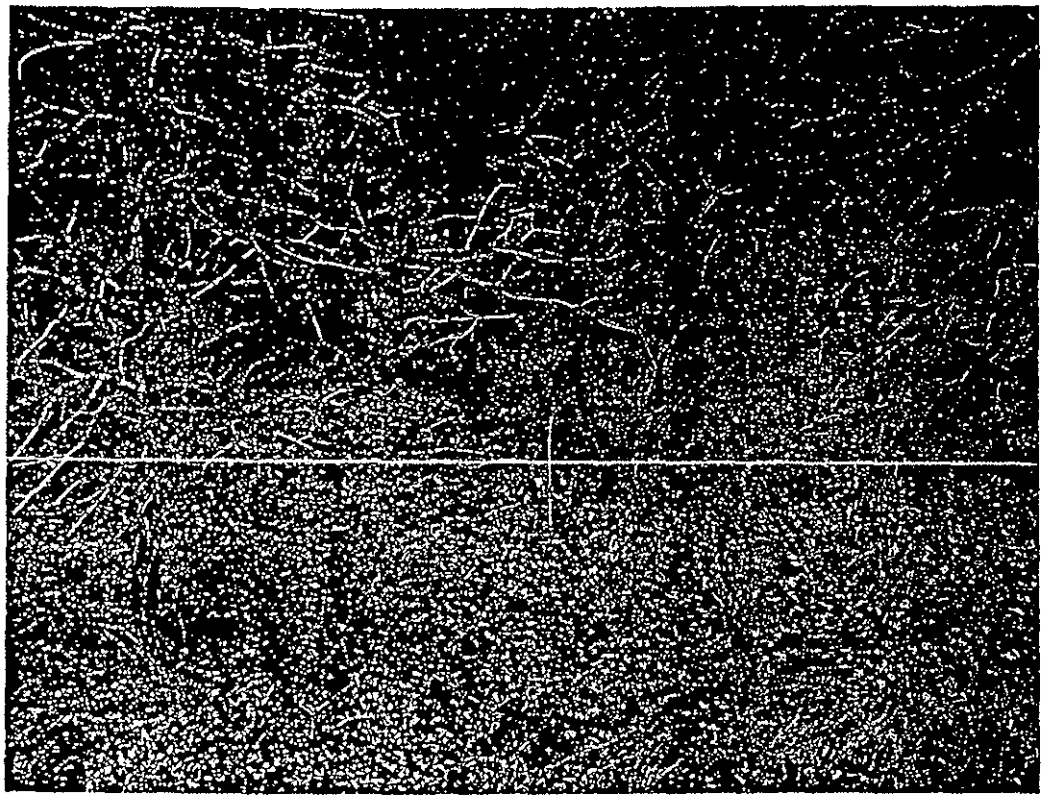
This site is a surface only manifestation of an unassigned prehistoric lithic scatter with limited research potential

30. Published or Forthcoming Reports on the Site

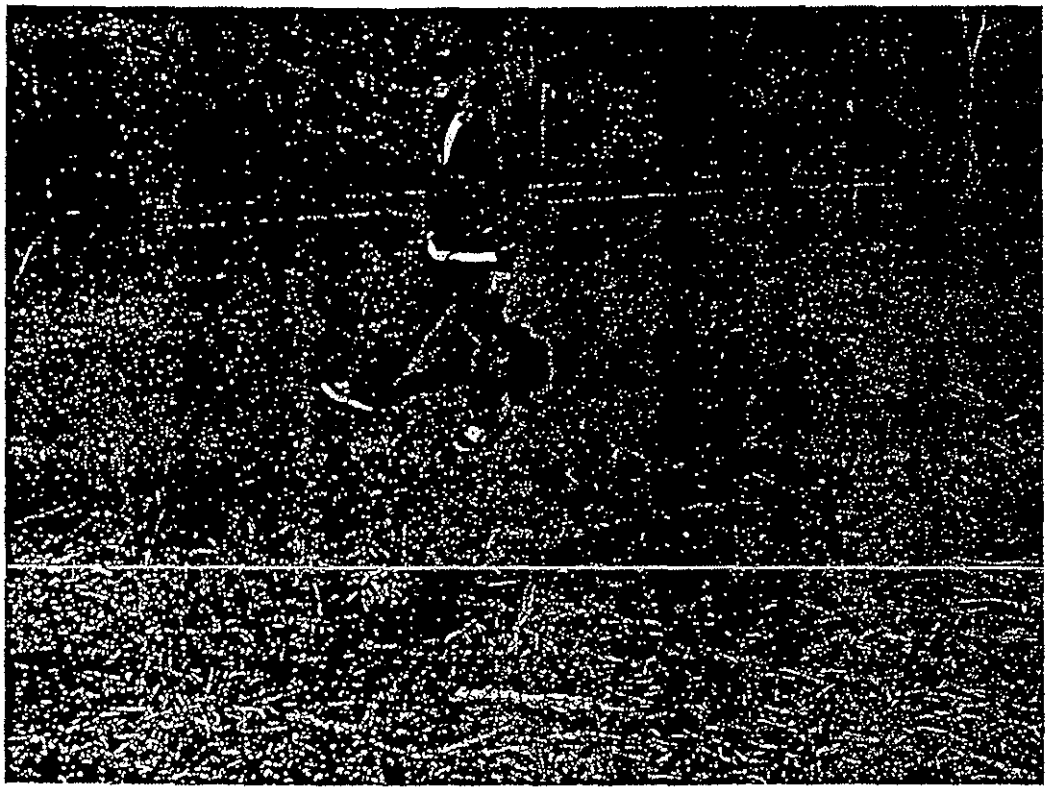
CAS Covell Road Improvements, 2003


13
Oil Well
House B
34OK165
34OK179


Covell Road
Natural gas line
Developed
Housing
Addition
34OK179
Shovel
tests
N
Eroded
areas
meters
0
25
50
0
50
100
200
feet
Scale approximate



Site 34OK179, tree stand near center of site



Site 34OK179, eroded area along utility easment

Oklahoma
rcheological Site Survey Form

Site # Ok 180

County Oklahoma

Complete All Sections

Number and Name
Site Name
(derived from owner's name, etc.)

Project No.
(temporary number or name assigned during project)

For Office Use

cational Information

T.M. Reference

Zone	Northing	Easting
14	3949462	642344

egal Description

NE 1/4 of NE 1/4 of NE 1/4 of Section 20 Township 14N Range 2W

.S.G.S. Quad Name

Edmond

Quad Date (revised)

1966 (1983)

Other Locational References (i.e., benchmarks, road intersection, bridges, etc. please give distance and bearing to site)

On Covell Road in Edmond, about 1/5 mile west of Sooner Road and south about 180 feet

wner(s) of Property
me(s)

reet and Number

ty and Town

State

Zip Code

te Surveyed By:

ame

Burkhalter/C. Cojeen

Reported by: (if different)

Name

te Recorded

/2003

Time spent at site and time of day

1 hr afternoon

ıltural Affiliation

ultural Periods

Unassigned Prehistoric					[ ]	Village Farming/Mississippian
Paleoindian	[ ]	Early	[ ] Middle	[ ] Late	[ ]	Plains Village
Archaic	[ ]	Early	[ ] Middle	[ ] Late	[ ]	Protohistoric/Historic Ind.
Woodland	[ ]	Eastern	[ ] Plains		[ ]	Historic non-Indian

Archeological Cultures, Phases, etc. Represented

How was cultural affiliation determined (diagnostic artifacts, radiocarbon dates, etc.)

storic Phase Identification (Ethnic)

Circle appropriate group

1. Choctaw	11. Pawnee	21. Creek
2. Cherokee	12. Arapaho	22. Dakotas
3. Sauc-Fox	13. Ottawas	23. Chickasaw
4. Pottawatomie	14. Wichita	24. 12 & 17
5. Seminole	15. Quapaw	25. Missouri-Otos
6. Comanche	16. Osage	26. Iowa
7. Apache	17. Cheyenne	27. Anglo-American
8. Kiowa	18. Caddo	28. French
9. Kiowa-Apache	19. Shawnee	29. Spanish
10. Kickapoo	20. Delaware	30. _____ Other

How was historic identification determined?

listoric Site Range 9

0. Missing data; unknown	5. 1890 - 1929
1. pre - 1800	6. 1930 - 1950
2. 1800 - 1830	7. 1800 - 1900
3. 1830 - 1859	8. 1800 - present
4. 1860 - 1889	9. 1900 - present

Inferred Site Type (can be more than one category)

- [ ] open habitation w/o mounds
- [ ] open habitation with mounds
- [ ] earth mound (not midden mound)
- [ ] mound complex
- [ ] stone mounds/rock piles
- [ ] burned rock concentrations
- [ ] non - mound earthworks
- [ ] rock shelter
- [ ] cave
- [ ] quarry/workshop
- [ ] petroglyph - pictograph
- [ ] isolated burials (<2)
- [ ] cemetery (>2)
- [ ] specialized activity sites
- [ ] rock alignments (tepee rings, etc.)
- [ ] historic farmstead
- [ ] historic mill/industrial
- [ ] historic fort
- [ ] dugout
- [ ] historic trash dump

Midden at site

- [ ] don't know
- [x] absent
- [ ] present, earth
- [ ] present, shell
- [ ] present, rock

Materials Collected

Type	Number	Type	Number
[ ] ceramics	_____	[ ] scrapers (unshafted)	_____
[ ] projectile points/ base frags.	_____	[ ] debitage (flkes, cores, chunks)	_____
[ ] hafted scrapers	_____	[ ] ground/pecked/battered stone	_____
[ ] drills	_____	[ ] worked bone/shell	_____
[ ] bifaces/biface frags.	_____	[ ] human bone	_____
[ ] unifaces	_____	[ ] faunal remains	_____
[ ] perforators/gravers	_____	[ ] floral remains	_____
[ ] spokeshaves	_____	[ ] other prehistoric	_____
		[ ] historic (describe)	_____

Total items _____

Briefly describe diagnostic artifacts including type names. Attach outine drawings

---

Materials observed but not collected.

One foundation, two depressions and a light scatter of historic artifacts. Observed in the artifact scatter were about 15 unmarked paver bricks, 3 fragments of clear pane glass and 1 fragment of plain white stoneware

Name and address of other collections from site

N/A

rtifact Repository

Name of institution where artifacts are to be stored

Photos

[ ] black and white ____ no. of pictures

[X] color 5 no. of pictures

Name and address of institution where photos are filed

CAS/ Norman, OK

Evidence of Recent Vandalism Observed: [X] no [ ] yes

Site Condition: 5

1. apparently undisturbed
2. <25% disturbed
3. 26 - 50% disturbed
4. 51 - 75% disturbed
5. 76 - 99% disturbed
6. totally destroyed
7. disturbed, % unknown

Major Land Use:

[ ] cultivated field	[ ] modern cemetery	[ ] commercial
[ ] pasture	[ ] mining	[ ] military
[ ] woods, forest	[ ] inundated	[ ] logging/fire break
[ ] road/trail	[ ] industrial	[ ] scrub/secondary growth/ old field
[ ] ditch/dike/barrow pit	[ ] residential	
[ ] landfill	[ ] recreation	[ ] modern dump

Other

6. Amount of Ground Surface Visible: 4

1. <10%
2. 11 - 25%
3. 26 - 50%
4. 51 - 75%
5. 76 - 90%
6. 91 - 100%

Survey Conditions (wet, dry, sunny, ground coverage, etc.):

sunny and dry, surface vis. ranged from 20 to 80 percent in mixed grasses

5. Physiographic Division: 4

1. High Plains
2. Gypsum Hills
3. Wichita Mtns.
4. Red Bed Plains
5. Arbuckle Mtns.
6. Sandstone Hills
7. Prairie Plains
8. Ozark Plateau
9. Ouachita Mtns.
10. Red River Plains

7. Landform Type: 5

1. Floodplain
2. Terrace
3. Hillside - Valley wall
4. Dissicated Uplands
5. Undissecated Uplands

8. Locality Type (specific site setting) : 1

1. Level
2. Knoll - low land
3. Blowout
4. Ridge - Upland
5. Mesa
6. Slope
7. Bluff Crest
8. Bluff Base

9. Soils (if known)

_____ Association, _____ Series _____ Type

10. 1125 Elevation amsl less than 10 Slope (degrees); east slope facing direction

11. Natural Vegetation: 2

1. short grasses
2. mixed grasses
3. tall grasses
4. cross - timber
5. shin - oak
6. mesquite
7. juniper - pinion
8. oak - hickory forest
9. oak - pine
10. Loblolly pine forest

12. Site Area 20 by 20 meters (400 sq m) (square meters)

Basis for area estimate: 2

1. Taped
2. paced
3. guessed
4. range - finder
5. alidade/transit

Confident of site boundaries ☒ yes ☐ no

Description of Site:

Give physical description of site and its setting, including dimensions, features, nature of materials and artifact concentrations. Include copy of U.S.G.S. topographic map with site location and boundaries marked.

This is a historic farmstead site consisting of a foundation, two depressions and a light scatter of historic artifacts. The foundation is a concrete stem-wall in an overgrown area and is approximately 9 m by 12 m oriented north/south. One depression is located adjacent to the south of the foundation and is approximately 1 by 2 meters in size. The second depression is located about 5 meters south of the foundation and is about 3 meters in diameter. A very light scatter of domestic artifacts is located between the elements of the site and a pile of paver bricks is located near the southwest corner of the foundation. According to a 1957 aerial photograph (0N-4T-55, dated 7-16-57), this farmstead was in ruins before 1957 and no additional information about this site is known.

4. Drainage: 5

1. Arkansas
2. Beaver - N. Canadian
3. Canadian
4. Caney
5. Cimarron
6. Deep Fork
7. Illinois
8. Kiamichi
9. Little R. (McCurtain Co.)
10. Muddy Boggy
11. Neosho
12. North Fork Red
13. Poteau
14. Red
15. Salt Fork Arkansas
16. Salt Fork Red
17. Verdigris
18. Washita

5. Nearest Natural Source of Water: 1

1. Permanent stream/creek
2. Intermittent stream
3. Permanent spring
4. Intermittant spring/seep/bog
6. River
7. Slough or oxbow lake
8. Relic stream channel (if observable)
9. Also consider wells if site is historic

6. Distance to Water (in 10's of meters) 15

7. Investigation Type : 1

1. Reconnaissance (survey)
2. Intensive (survey & testing)
3. Excavated
4. Volunteered report

8. Significance Status:

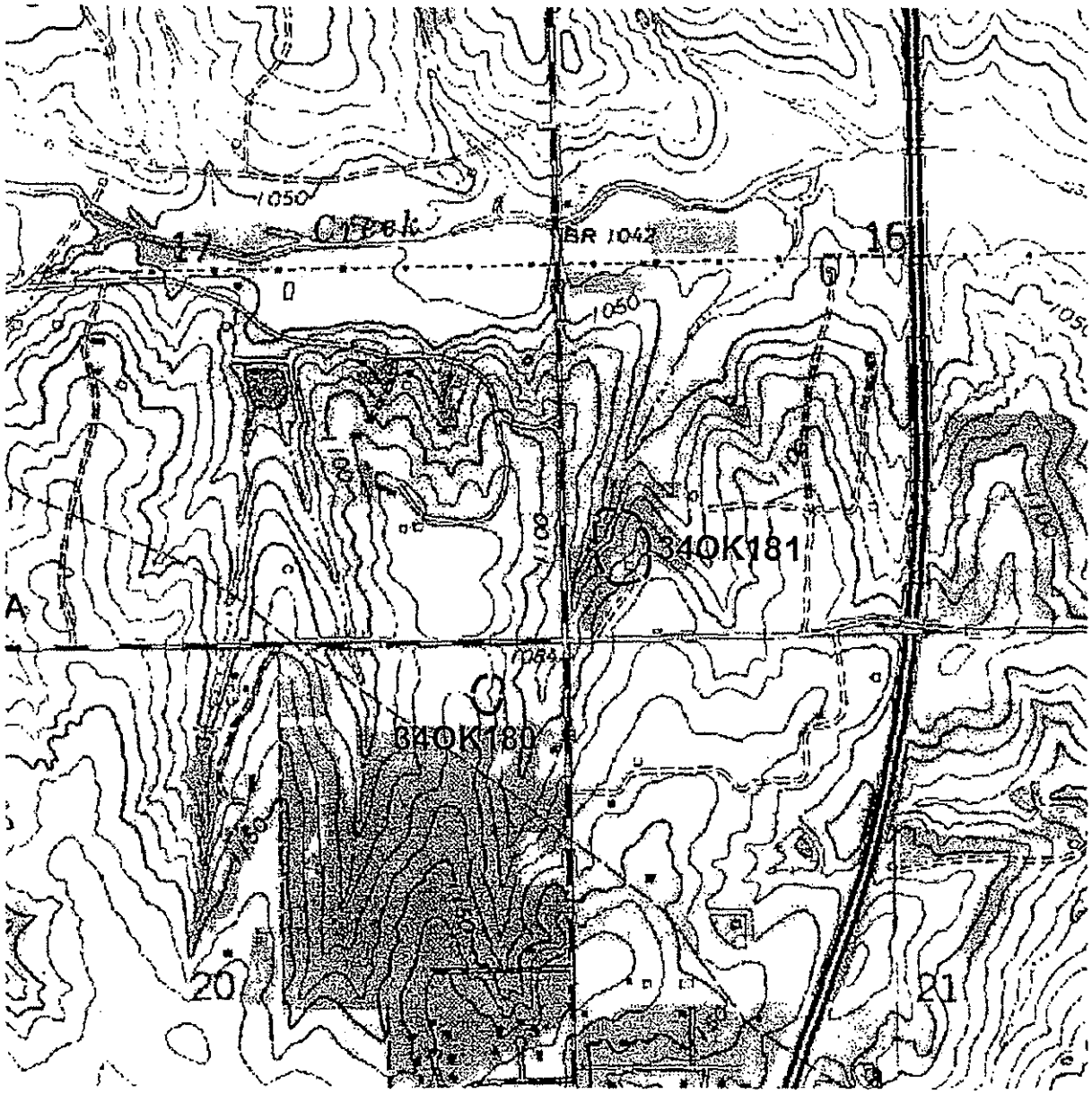
[ ] National Register Property
[ ] Eligible for National Register
[ ] Nominated to National Register by SHPO
[ ] Considered eligible but not nominated by SHPO
[ ] Inventory Site
[ ] National Register status not assessed

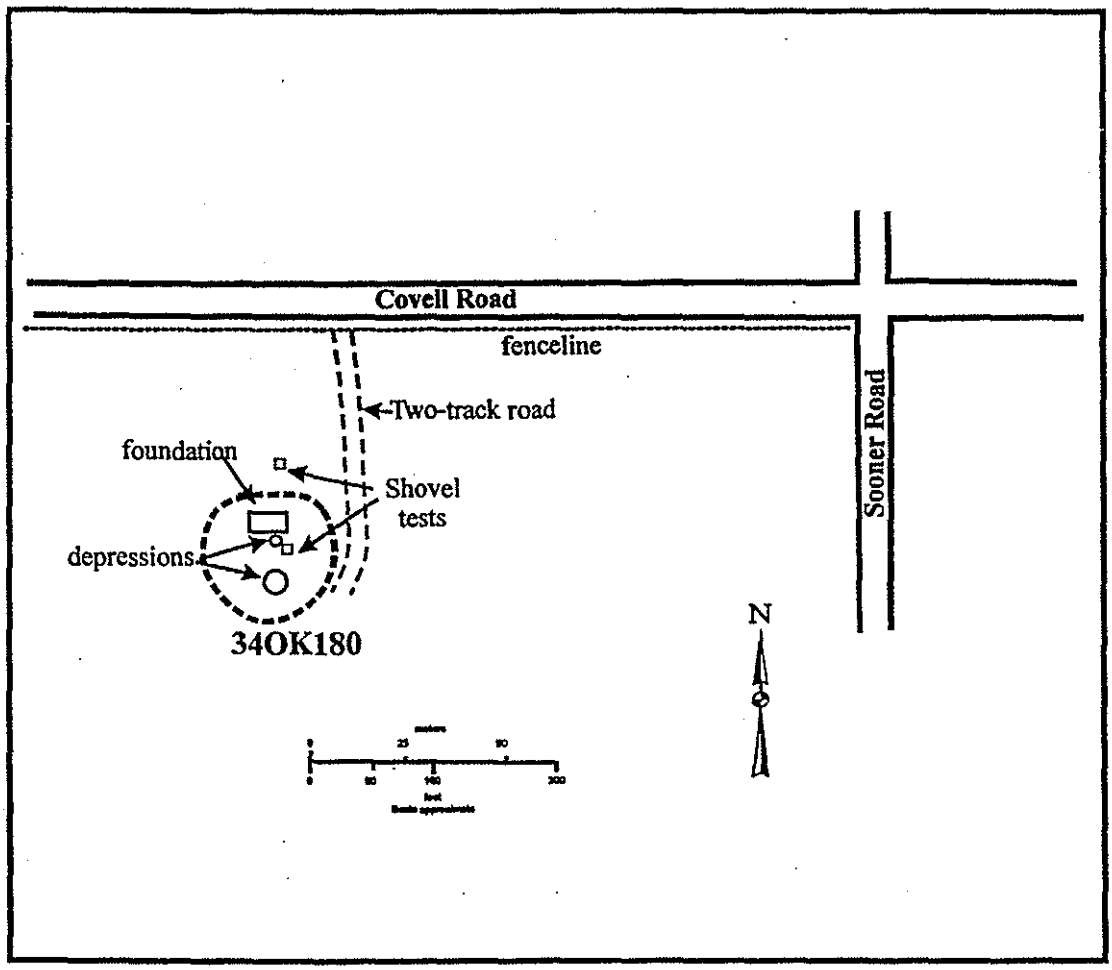
9. Discuss the Potential Significance of the Site

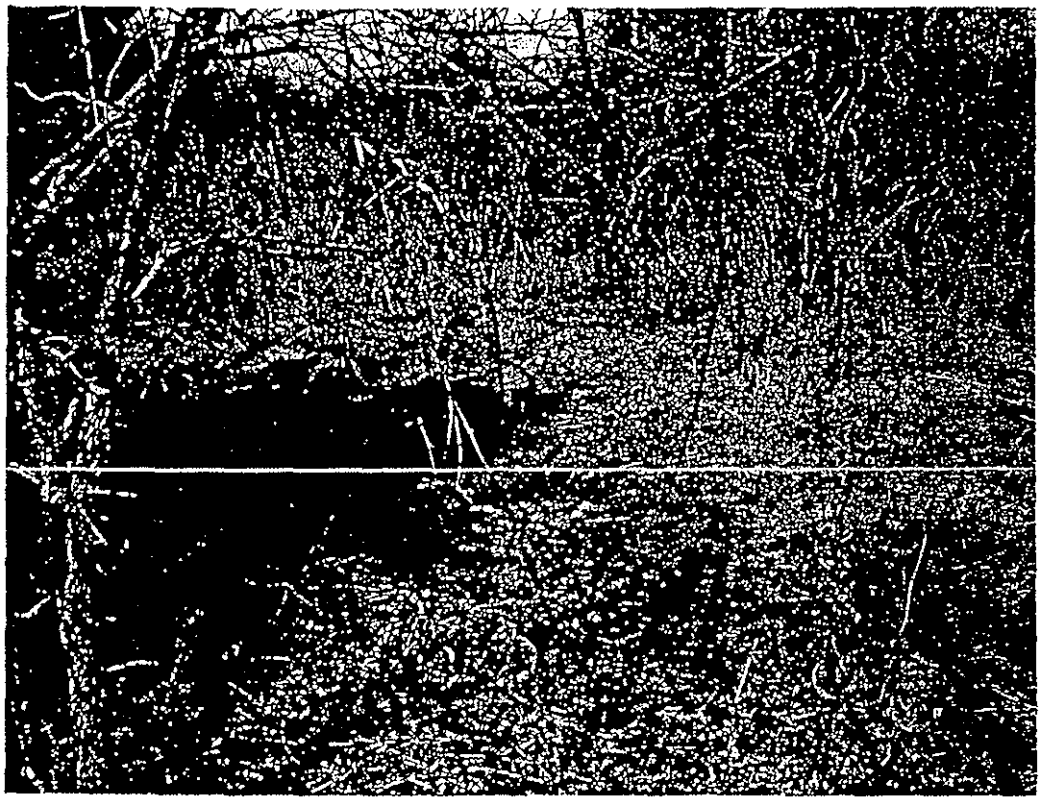
This site is a razed house and remains of a farmstead that has little intact features or research potential

10. Published or Forthcoming Reports on the Site

CAS Covell Road Improvements, 2003


1050
Creek
BR 1042
17
16
8
340K181
340K180
20
21


Covell Road
fenceline
Two-track road
Sooner Road
foundation
Shovel tests
depressions
34OK180
N



Site 34OK180, brick pile by tree

Site 34OK180, large depression

Oklahoma
rcheological Site Survey Form

Site # Ok 181

County Oklahoma

Complete All Sections

e Number and Name
Site Name
(derived from owner's name, etc.)

Project No.
(temporary number or name assigned during project)

cational Information

For Office Use

.T.M. Reference

Zone	Northing	Easting
14	3949771	642626

egal Description

SW 1/4 of SW 1/4 of SW 1/4 of Section 16 Township 14N Range 2W

.S.G.S. Quad Name

Edmond

Quad Date (revised)

1966 (1983)

Other Locational References (i.e., benchmarks, road intersection, bridges, etc. please give distance and bearing to site)

just northeast of the intersection of Covell and Sooner roads in Edmond

ner(s) of Property
ne(s)

eet and Number

y and Town

State

Zip Code

Surveyed By:
me

Burkhalter/C. Cojeen

e Recorded

2003

Reported by: (if different)
Name

Time spent at site and time of day

1 hr afternoon

ultural Affiliation

Cultural Periods

Unassigned Prehistoric						[ ]	Village Farming/Mississippian
Paleoindian	[ ]	Early	[ ]	Middle	[ ]	Late	[ ] Plains Village
Archaic	[ ]	Early	[ ]	Middle	[ ]	Late	[ ] Protohistoric/Historic Ind.
Woodland	[ ]	Eastern	[ ]	Plains			[x] Historic non-Indian

Archeological Cultures, Phases, etc. Represented

How was cultural affiliation determined (diagnostic artifacts, radiocarbon dates, etc.)

istoric Phase Identification (Ethnic)

Circle appropriate group

1. Choctaw	11. Pawnee	21. Creek
2. Cherokee	12. Arapaho	22. Dakotas
3. Sauc-Fox	13. Ottawas	23. Chickasaw
4. Pottawatomie	14. Wichita	24. 12 & 17
5. Seminole	15. Quapaw	25. Missouri-Otos
6. Comanche	16. Osage	26. Iowa
7. Apache	17. Cheyenne	27. Anglo-American
8. Kiowa	18. Caddo	28. French
9. Kiowa-Apache	19. Shawnee	29. Spanish
10. Kickapoo	20. Delaware	30. _____ Other

How was historic identification determined?

listoric Site Range 9

0. Missing data; unknown	5. 1890 - 1929
1. pre - 1800	6. 1930 - 1950
2. 1800 - 1830	7. 1800 - 1900
3. 1830 - 1859	8. 1800 - present
4. 1860 - 1889	9. 1900 - present

Inferred Site Type (can be more than one category)

- [ ] open habitation w/o mounds
- [ ] open habitation with mounds
- [ ] earth mound (not midden mound)
- [ ] mound complex
- [ ] stone mounds/rock piles
- [ ] burned rock concentrations
- [ ] non - mound earthworks
- [ ] rock shelter
- [ ] cave
- [ ] quarry/workshop
- [ ] petroglyph - pictograph
- [ ] isolated burials (<2)
- [ ] cemetery (>2)
- [ ] specialized activity sites
- [ ] rock alignments (tepee rings, etc.)
- [ ] historic farmstead
- [ ] historic mill/industrial
- [ ] historic fort
- [ ] dugout
- [ ] historic trash dump

---

lidden at site

- [ ] don't know
- [ ] absent
- [ ] present, earth
- [ ] present, shell
- [ ] present, rock

Materials Collected

Type	Number	Type	Number
[ ] ceramics	_____	[ ] scrapers (unshafted)	_____
[ ] projectile points/ base frags.	_____	[ ] debitage (flkes, cores, chunks)	_____
[ ] hafted scrapers	_____	[ ] ground/pecked/battered stone	_____
[ ] drills	_____	[ ] worked bone/shell	_____
[ ] bifaces/biface frags.	_____	[ ] human bone	_____
[ ] unifaces	_____	[ ] faunal remains	_____
[ ] perforators/gravers	_____	[ ] floral remains	_____
[ ] spokeshaves	_____	[ ] other prehistoric	_____
		[ ] historic (describe)	_____

Total items _____

Briefly describe diagnostic artifacts including type names. Attach outine drawings

---

Materials observed but not collected.

two foundations, a horse water trough, and a corral

Name and address of other collections from site

N/A

rtifact Repository

Name of institution where artifacts are to be stored

Photos

| | black and white ____ no. of pictures

|X| color 6 no. of pictures

Name and address of institution where photos are filed

CAS Norman, OK

vidence of Recent Vandalism Observed: ☒ no ☐ yes

ite Condition: 7

1. apparently undisturbed
2. <25% disturbed
3. 26 - 50% disturbed
4. 51 - 75% disturbed
5. 76 - 99% disturbed
6. totally destroyed
7. disturbed, % unknown

lajor Land Use:

| | cultivated field
| | pasture
| | woods, forest
| | road/trail
| | ditch/dike/barrow pit
| | landfill
| | modern cemetery
| | mining
| | inundated
| | industrial
| | residential
| | recreation
| | commercial
| | military
| | logging/fire break
| | scrub/secondary growth/ old field
| | modern dump

Other

Amount of Ground Surface Visible: 2

1. <10%
2. 11 - 25%
3. 26 - 50%
4. 51 - 75%
5. 76 - 90%
6. 91 - 100%

Survey Conditions (wet, dry, sunny, ground coverage, etc.):

sunny and dry, surface visibility obscured by leaf litter

Physiographic Division: 4

1. High Plains
2. Gypsum Hills
3. Wichita Mtns.
4. Red Bed Plains
5. Arbuckle Mtns.
6. Sandstone Hills
7. Prairie Plains
8. Ozark Plateau
9. Ouachita Mtns.
10. Red River Plains

Landform Type: 4

1. Floodplain
2. Terrace
3. Hillside - Valley wall
4. Dissicated Uplands
5. Undissecated Uplands

Locality Type (specific site setting) : 6

1. Level
2. Knoll - low land
3. Blowout
4. Ridge - Upland
5. Mesa
6. Slope
7. Bluff Crest
8. Bluff Base

Soils (if known)

_____ Association, _____ Series _____ Type

1100 Elevation amsl 5 to 15 Slope (degrees); west slope facing direction

Natural Vegetation: 2

1. short grasses
2. mixed grasses
3. tall grasses
4. cross - timber
5. shin - oak
6. mesquite
7. juniper - pinion
8. oak - hickory forest
9. oak - pine
10. Loblolly pine forest

Site Area 20 by 60 meters (1200 sq m) (square meters)

Basis for area estimate: 2

1. Taped
2. paced
3. guessed
4. range - finder
5. alidade/transit

Confident of site boundaries ☒ yes ☐ no

Description of Site:

Give physical description of site and its setting, including dimensions, features, nature of materials and artifact concentrations. Include copy of U.S.G.S. topographic map with site location and boundaries marked.

This is a historic farmstead site in a wooded setting consisting of two foundations, a horse water trough, and a corral located east of a small tributary to Coffee Creek. The foundations are constructed mostly of native sandstone with a few unmarked paver bricks. The larger foundation has a built-in cellar on the north side. A large sandstone block (cornerstone) is inscribed Bob Bir? Above and ? 1932 below. This foundation occupies a relatively flat area approximately 20 by 20 feet in size. East of the larger foundation is a half foundation and short walls built into a terrace bank wall. This foundation is small, measuring approximately 10 by 12 feet and probably is a cellar or storage area. Some sheet metal (uncorrugated) is present in this and the cellar area of the house foundation. No additional artifact scatter was observed. Approximately 40 meters north of the foundations is a concrete horse trough located in a meander of the small unnamed drainage to Coffee Creek. It is made of poured concrete about 4 inches thick, about 3 by 3 by 6 feet and has no other distinguishing characters. East of the horse trough is a remains of a corral with modern gates that may receive intermittent use. A 1957 aerial photograph of the site area (0N-4T-43, dated 7-16-57) shows a wooded area with no indication of the site. The wooded area is dense enough to obscure the site area.

. Drainage: 5

1. Arkansas
2. Beaver - N. Canadian
3. Canadian
4. Caney
5. Cimarron
6. Deep Fork
7. Illinois
8. Kiamichi
9. Little R. (McCurtain Co.)
10. Muddy Boggy
11. Neosho
12. North Fork Red
13. Poteau
14. Red
15. Salt Fork Arkansas
16. Salt Fork Red
17. Verdigris
18. Washita

-Nearest Natural Source of Water: 1

1. Permanent stream/creek
2. Intermittent stream
3. Permanent spring
4. Intermittant spring/seep/bog
6. River
7. Slough or oxbow lake
8. Relic stream channel (if observable)
9. Also consider wells if site is historic

. Distance to Water (in 10's of meters) 4

. Investigation Type : 1

1. Reconnaissance (survey)
2. Intensive (survey & testing)
3. Excavated
4. Volunteered report

Significance Status:

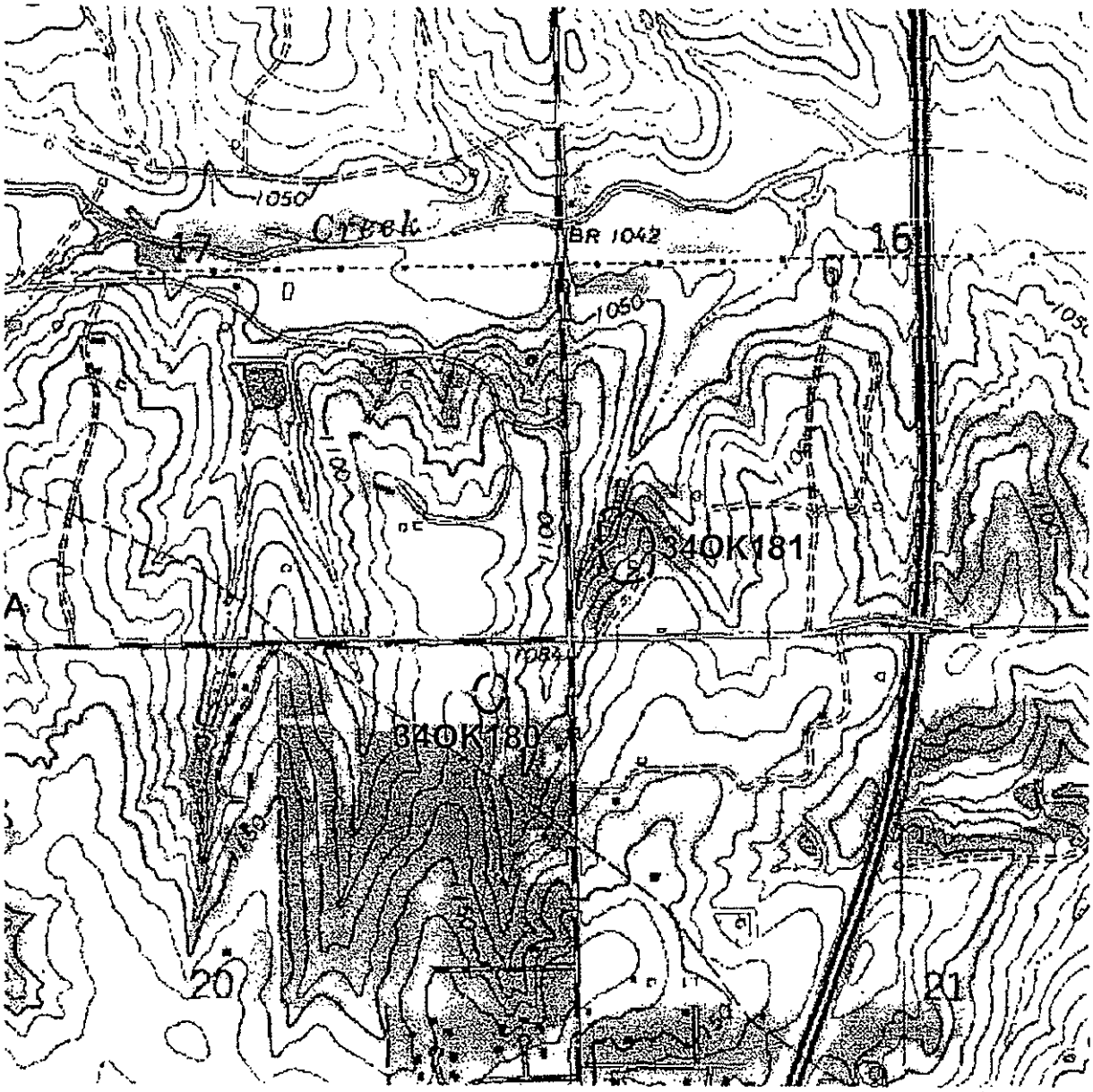
- [ ] National Register Property
- [ ] Eligible for National Register
- [ ] Nominated to National Register by SHPO
- [ ] Considered eligible but not nominated by SHPO
- [x] Inventory Site
- [ ] National Register status not assessed

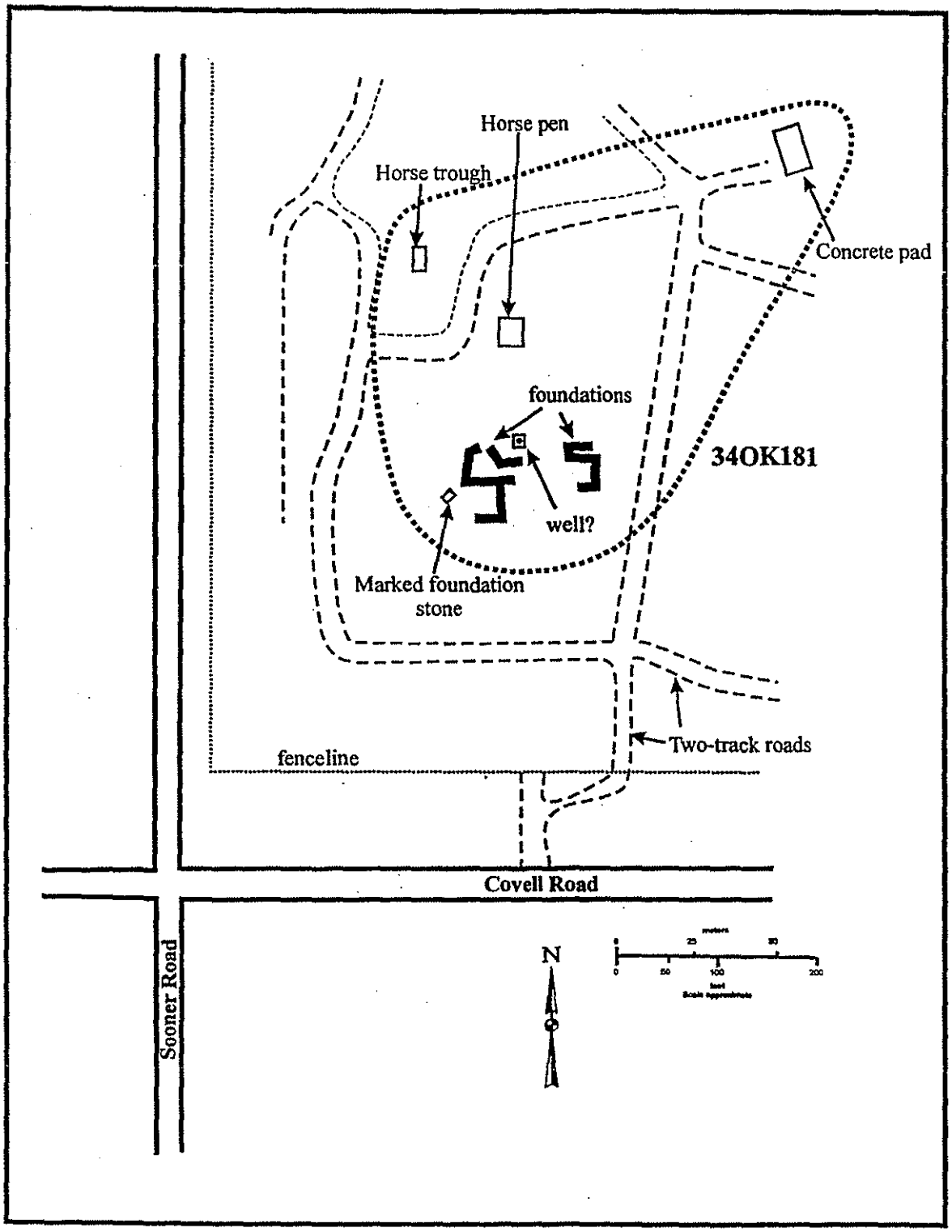
. Discuss the Potential Significance of the Site

This site may have intact buried features, it does not appear to have been razed.

. Published or Forthcoming Reports on the Site

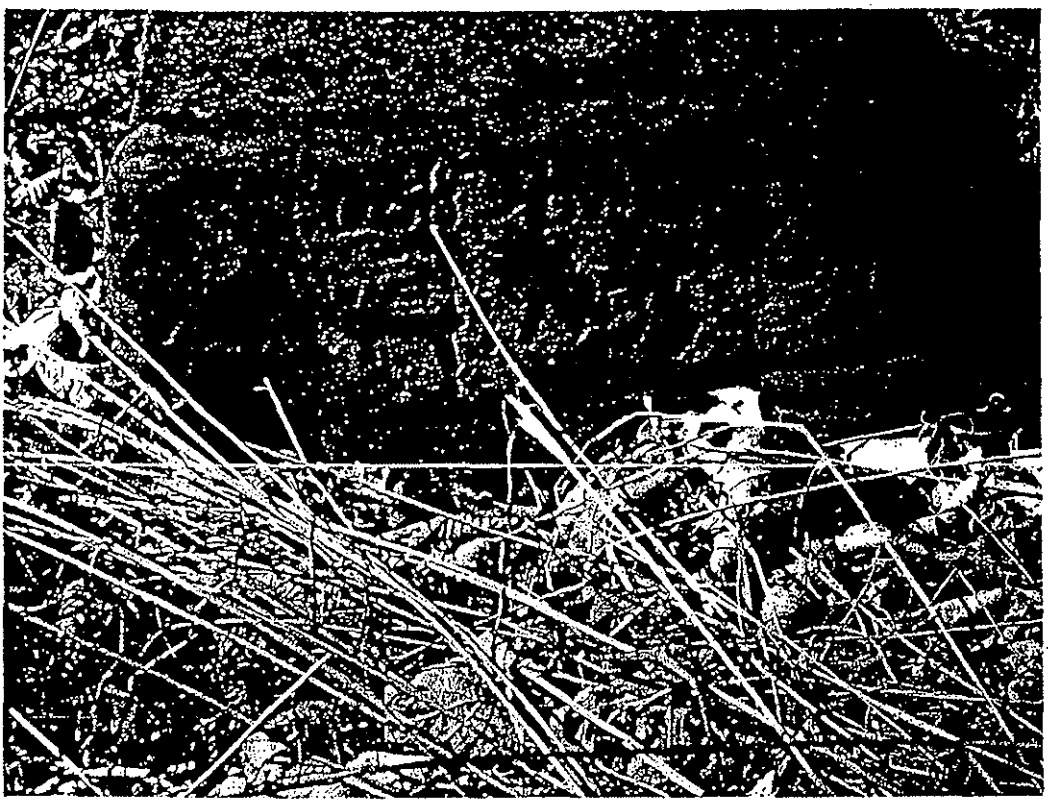
CAS Covell Road Improvements, 2003


1050
Creek
BR 1042
17
16
1050
1050
340K181
A
340K180
20
21


Horse pen
Horse trough
Concrete pad
foundations
34OK181
well?
Marked foundation stone
Two-track roads
fenceline
Covell Road
Sooner Road
N

Site 34OK181, main foundation area

Site 34OK181, cellar foundation



Site 34OK181, close-up of cornerstone in main foundation

Site 34OK181, horse trough in creek

HISTORIC PRESERVATION RESOURCE IDENTIFICATION FORM

TYPE ALL ENTRIES:

1. PROPERTY NAME: HOUSE A
2. RESOURCE NAME: HOUSE A
3. ADDRESS: COLTRANE AVENUE
4. CITY: EDMOND
5. VICINITY:
6. COUNTY: OKLAHOMA
7. COUNTY CODE: 109
8. LOT:
9. BLOCK:
10. PLAT NAME:
11. SECTION: 20
12. TOWNSHIP: T14N
13. RANGE: R2W

==========

14. RESOURCE TYPE: B BUILDING
15. HISTORIC FUNCTION: 01A SINGLE DWELLING
16. CURRENT FUNCTION: 98 VACANT/NOT IN USE
17. AREA OF SIGNIFICANCE, PRIMARY: 030 ARCHITECTURE
18. AREA OF SIGNIFICANCE, SECONDARY:
19. DESCRIPTION OF SIGNIFICANCE: TYPICAL POST WORLD WARII HOUSE
20. DOCUMENTATION SOURCES:

==========

21. NAME OF PREPARER: ROGER J. BURKHALTER
22. THEMATIC SURVEY PROJECT: NO PROJECT NAME:
23. DATE OF PREPARATION: 30 MAY 2003
24. PHOTOGRAPHS: YES YEAR: 2003

BUILDING CONSTRUCTION DESCRIPTION,

25. ARCHITECT/BUILDER: UNKNOWN

26. YEAR BUILT: C. 1946

27. ORIGINAL SITE? Y DATE MOVED: _____

28. ACCESSIBLE? Y

29. ARCHITECTURAL STYLE: 81 NATIONAL FOLK

30. FOUNDATION MATERIAL: 65 CONCRETE

31. ROOF TYPE: SIDE GABLE

32. ROOF MATERIAL: 63 ASPHALT

33. WALL MATERIAL, PRIMARY: 20 WOOD

34. WALL MATERIAL, SECONDARY: 20 WOOD

35. WINDOW TYPE: 1/1 HUNG

36. WINDOW MATERIAL: 20 WOOD

37. DOOR TYPE: SLAB

38. DOOR MATERIAL: 20 WOOD

39. EXTERIOR FEATURES: WRAP AROUND DECK

40. INTERIOR FEATURES: _____

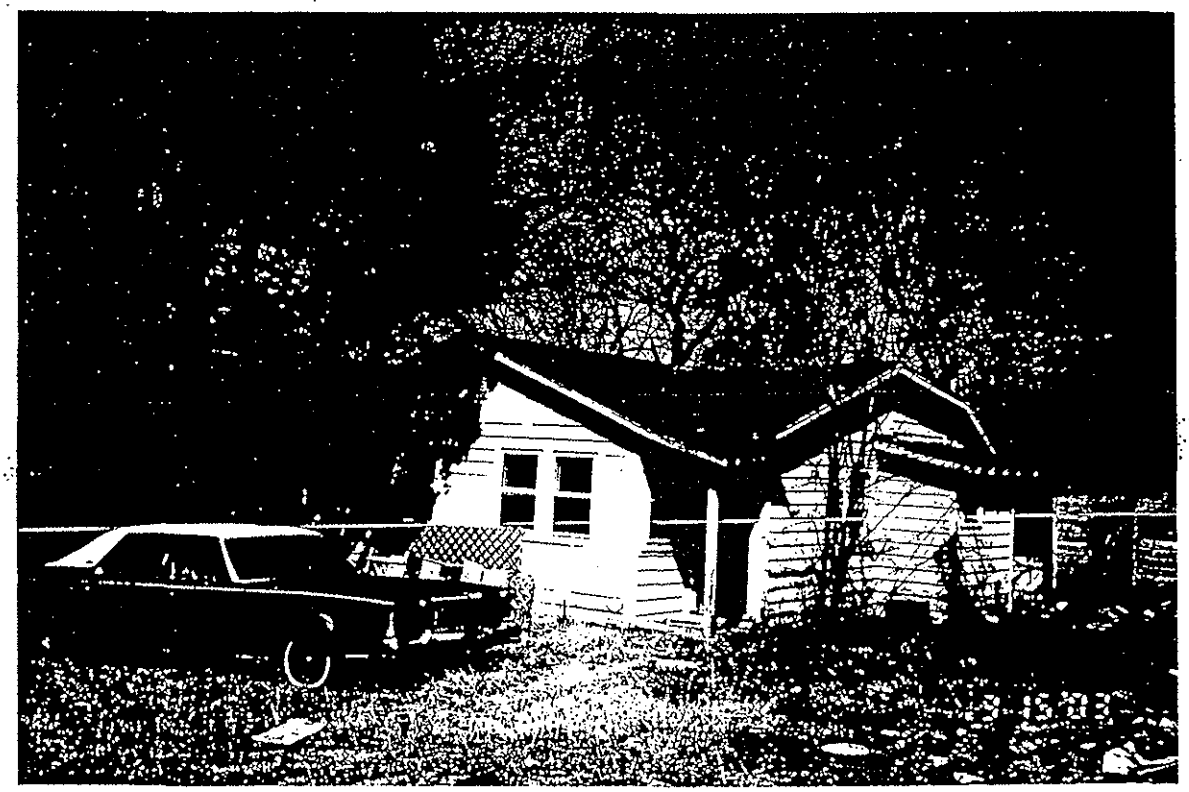
41. DECORATIVE DETAILS: _____

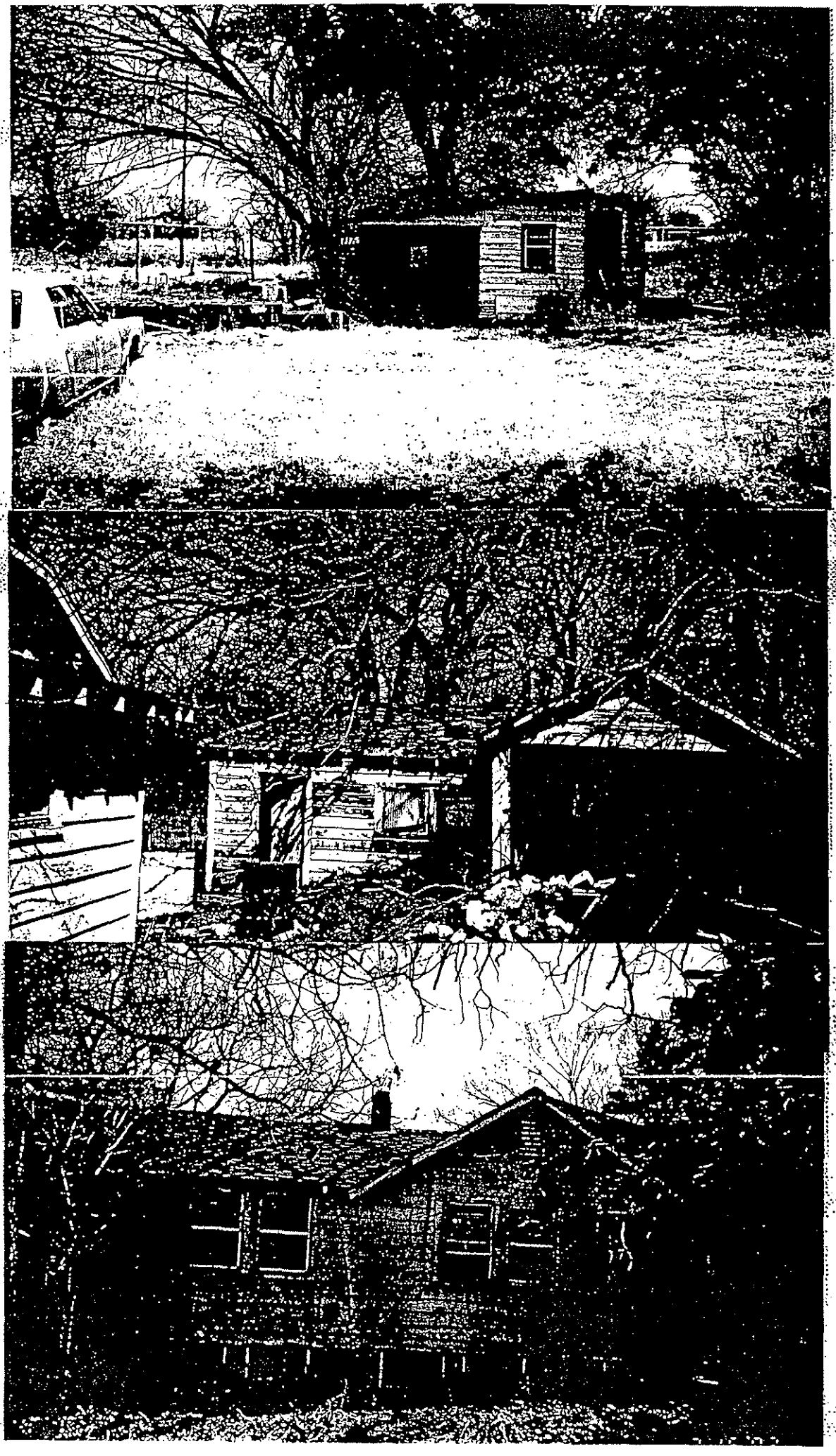
42. CONDITION OF RESOURCE: 04 POOR

43. DESCRIPTION OF RESOURCE (Present and Historic):
EXTENSIVE ADDITIONS ON NORTH AND SOUTH ENDS OF HOUSE, ALUMINUM STORM WINDOWS, GREENHOUSE WINDOW ON SW SIDE.

44. COMMENTS:

45. PLACEMENT:





HISTORIC PRESERVATION RESOURCE IDENTIFICATION FORM

TYPE ALL ENTRIES:

1. PROPERTY NAME: HOUSE B
2. RESOURCE NAME: HOUSE B
3. ADDRESS: COVELL ROAD
4. CITY: EDMOND
5. VICINITY:
6. COUNTY: OKLAHOMA
7. COUNTY CODE: 109
8. LOT:
9. BLOCK:
10. PLAT NAME:
11. SECTION: 13
12. TOWNSHIP: T14N
13. RANGE: R3W

==========

14. RESOURCE TYPE: B BUILDING
15. HISTORIC FUNCTION: 01A SINGLE DWELLING
16. CURRENT FUNCTION: 01A SINGLE DWELLING
17. AREA OF SIGNIFICANCE, PRIMARY: 030 ARCHITECTURE
18. AREA OF SIGNIFICANCE, SECONDARY:
19. DESCRIPTION OF SIGNIFICANCE: 1920'S FARM? HOUSE
20. DOCUMENTATION SOURCES:

==========

21. NAME OF PREPARER: ROGER J. BURKHALTER
22. THEMATIC SURVEY PROJECT: NO PROJECT NAME:
23. DATE OF PREPARATION: 30 MAY 2003
24. PHOTOGRAPHS: YES YEAR: 2003

BUILDING CONSTRUCTION DESCRIPTION,

25. ARCHITECT/BUILDER: UNKNOWN

26. YEAR BUILT: C. 1923

27. ORIGINAL SITE? Y DATE MOVED:

28. ACCESSIBLE? Y

29. ARCHITECTURAL STYLE: 81 NATIONAL FOLK

30. FOUNDATION MATERIAL: 65 CONCRETE

31. ROOF TYPE: SIDE GABLE AND WING

32. ROOF MATERIAL: 63 ASPHALT

33. WALL MATERIAL, PRIMARY: 72 VINYL

34. WALL MATERIAL, SECONDARY: 20 WOOD

35. WINDOW TYPE: 1/1 HUNG

36. WINDOW MATERIAL: 20 WOOD

37. DOOR TYPE: SLAB

38. DOOR MATERIAL: 20 WOOD

39. EXTERIOR FEATURES: FULL WIDTH FRONT PORCH

40. INTERIOR FEATURES:

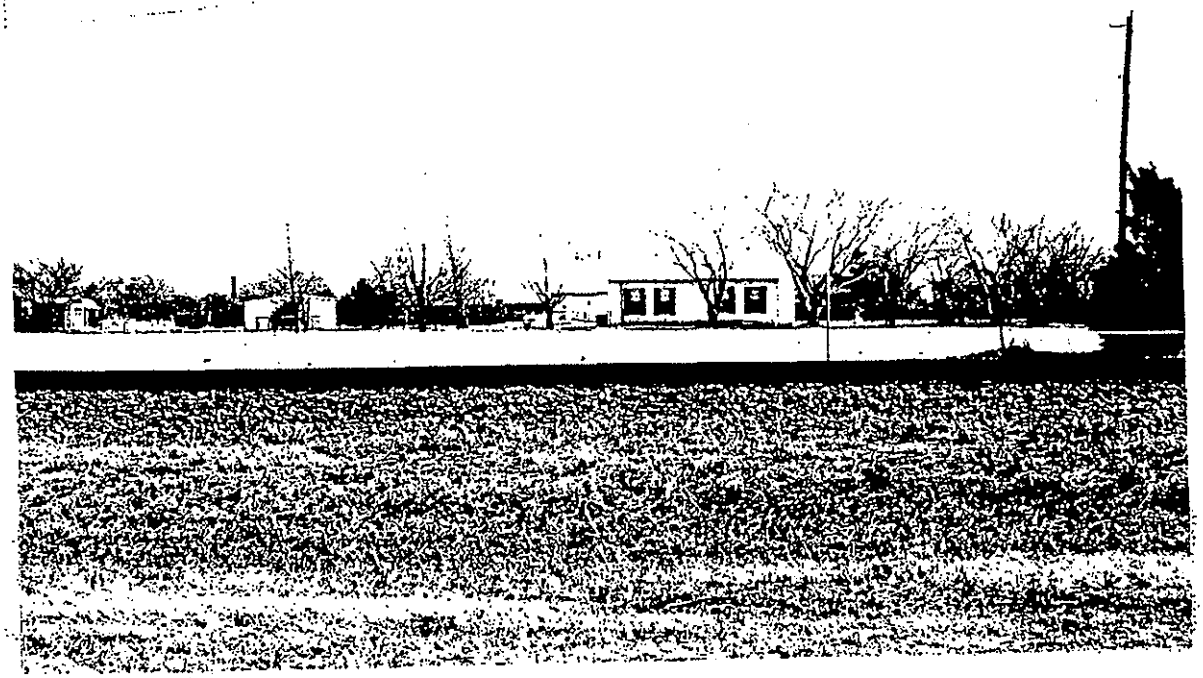
41. DECORATIVE DETAILS: HIPPED GABLE ENDS

42. CONDITION OF RESOURCE: 01 EXCELLENT

43. DESCRIPTION OF RESOURCE (Present and Historic):
VINYL SIDING AND ALUMINUM STORM WINDOWS. 2 SMALL DORMERS ON SECOND? FLOOR/ATTIC. VINYL FACED CHIMNEY. PARED WINDOWS ON WEST SIDE.

44. COMMENTS:

45. PLACEMENT:




3 15 '03

HISTORIC PRESERVATION RESOURCE IDENTIFICATION FORM

TYPE ALL ENTRIES:

1. PROPERTY NAME: HOUSE C
2. RESOURCE NAME: HOUSE C
3. ADDRESS: COVELL ROAD
4. CITY: EDMOND
5. VICINITY:
6. COUNTY: OKLAHOMA
7. COUNTY CODE: 109
8. LOT:
9. BLOCK:
10. PLAT NAME:
11. SECTION: 35
12. TOWNSHIP: T15N
13. RANGE: R4W

==========

14. RESOURCE TYPE: B BUILDING
15. HISTORIC FUNCTION: 01A SINGLE DWELLING
16. CURRENT FUNCTION: 01A SINGLE DWELLING
17. AREA OF SIGNIFICANCE, PRIMARY: 030 ARCHITECTURE
18. AREA OF SIGNIFICANCE, SECONDARY:
19. DESCRIPTION OF SIGNIFICANCE: HIGHLY MODIFIED HOUSE
20. DOCUMENTATION SOURCES:

==========

21. NAME OF PREPARER: ROGER J. BURKHALTER
22. THEMATIC SURVEY PROJECT: NO PROJECT NAME:
23. DATE OF PREPARATION: 30 MAY 2003
24. PHOTOGRAPHS: YES YEAR: 2003

BUILDING CONSTRUCTION DESCRIPTION,

25. ARCHITECT/BUILDER: UNKNOWN

26. YEAR BUILT: C. 1898

27. ORIGINAL SITE? Y DATE MOVED:

28. ACCESSIBLE? Y

29. ARCHITECTURAL STYLE: 81 NATIONAL FOLK

30. FOUNDATION MATERIAL: 65 CONCRETE

31. ROOF TYPE: GABLE END

32. ROOF MATERIAL: 63 ASPHALT

33. WALL MATERIAL, PRIMARY: 40 STONE

34. WALL MATERIAL, SECONDARY: 20 WOOD

35. WINDOW TYPE: 1/1 HUNG

36. WINDOW MATERIAL: 20 WOOD

37. DOOR TYPE: SLAB

38. DOOR MATERIAL: 20 WOOD

39. EXTERIOR FEATURES: EXTENSIVE MODERN ADDITION

40. INTERIOR FEATURES:

41. DECORATIVE DETAILS:

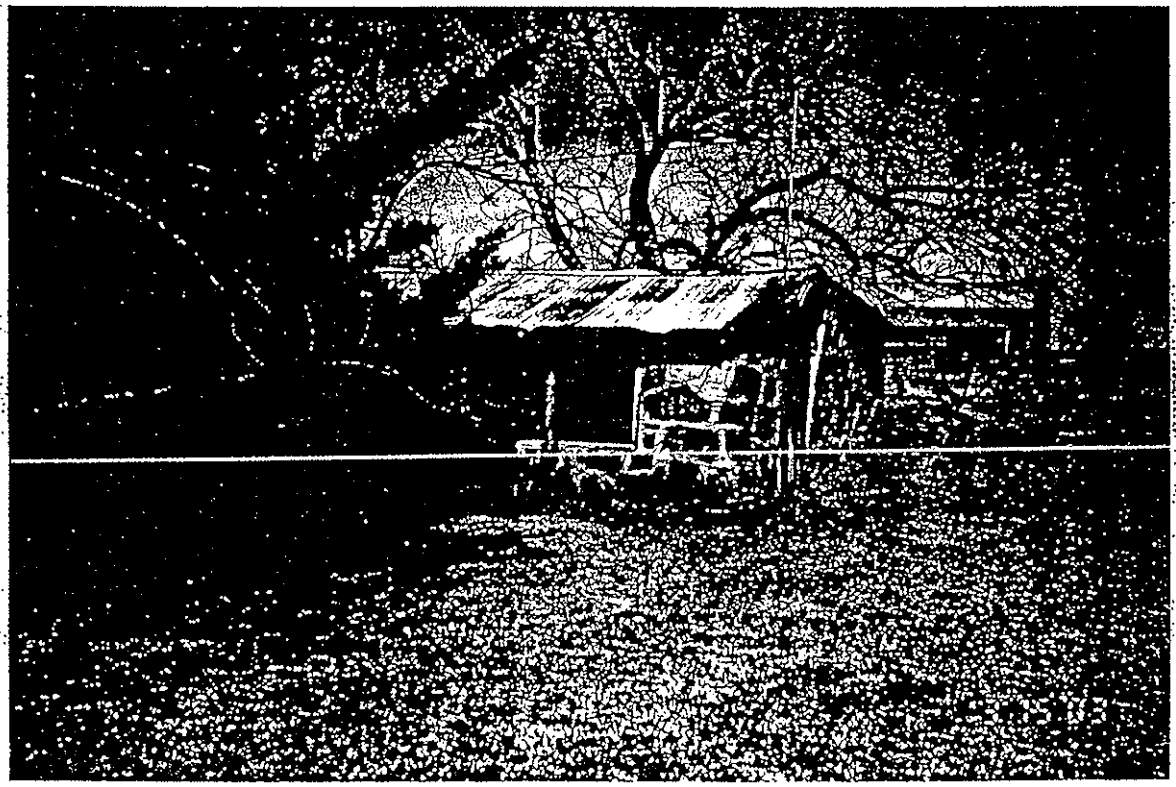
42. CONDITION OF RESOURCE: 01 EXCELLENT

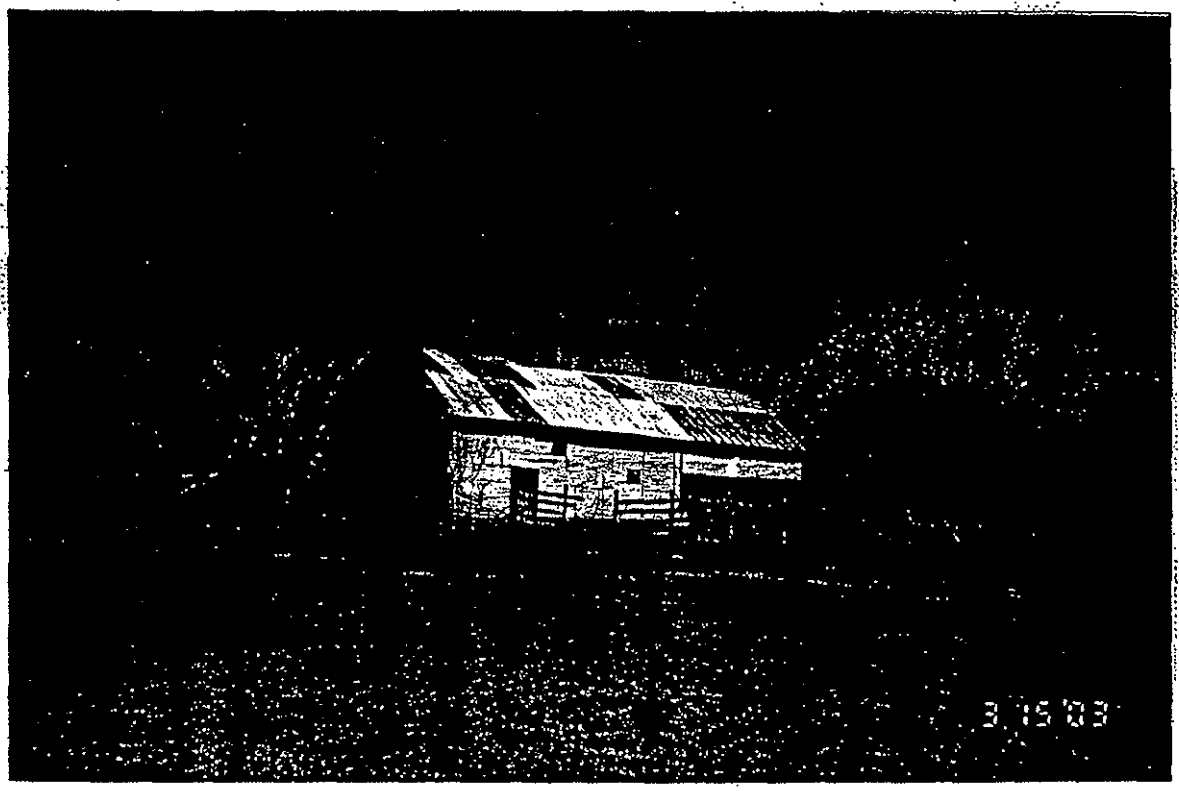
43. DESCRIPTION OF RESOURCE (Present and Historic):
THIS IS AN EXTENSIVELY MODIFIED HOUSE WITH A 2 STORY, MODERN STYLE ADDITION MATED TO THE NORTH SIDE OF THE HOUSE. OUTBUILDINGS INCLUDE A BARN AND WELLHOUSE IN ORIGINAL COND.

44. COMMENTS:

45. PLACEMENT:


3 15 03




3 15 03

HISTORIC PRESERVATION RESOURCE IDENTIFICATION FORM

TYPE ALL ENTRIES:

1. PROPERTY NAME: HOUSE D
2. RESOURCE NAME: HOUSE D
3. ADDRESS: COVELL ROAD
4. CITY: EDMOND
5. VICINITY:
6. COUNTY: OKLAHOMA
7. COUNTY CODE: 109
8. LOT:
9. BLOCK:
10. PLAT NAME:
11. SECTION: 14
12. TOWNSHIP: T15N
13. RANGE: R4W

==========

14. RESOURCE TYPE: B BUILDING
15. HISTORIC FUNCTION: 01A SINGLE DWELLING
16. CURRENT FUNCTION: 01A SINGLE DWELLING
17. AREA OF SIGNIFICANCE, PRIMARY: 030 ARCHITECTURE
18. AREA OF SIGNIFICANCE, SECONDARY:
19. DESCRIPTION OF SIGNIFICANCE: 1910'S FARM HOUSE
20. DOCUMENTATION SOURCES:

==========

21. NAME OF PREPARER: ROGER J. BURKHALTER
22. THEMATIC SURVEY PROJECT: NO PROJECT NAME:
23. DATE OF PREPARATION: 30 MAY 2003
24. PHOTOGRAPHS: YES YEAR: 2003

BUILDING CONSTRUCTION DESCRIPTION,

25. ARCHITECT/BUILDER: UNKNOWN

26. YEAR BUILT: C. 1915

27. ORIGINAL SITE? Y DATE MOVED:

28. ACCESSIBLE? Y

29. ARCHITECTURAL STYLE: 81 NATIONAL FOLK

30. FOUNDATION MATERIAL: 65 CONCRETE

31. ROOF TYPE: SIDE GABLE AND WING

32. ROOF MATERIAL: 63 ASPHALT

33. WALL MATERIAL, PRIMARY: 21 WEATHERBOARD

34. WALL MATERIAL, SECONDARY: 20 WOOD

35. WINDOW TYPE: 12/12 HUNG

36. WINDOW MATERIAL: 20 WOOD

37. DOOR TYPE: SLAB

38. DOOR MATERIAL: 20 WOOD

39. EXTERIOR FEATURES: SHED ROOF OVER PORCH

40. INTERIOR FEATURES:

41. DECORATIVE DETAILS: EXPOSED RAFTER TAILS

42. CONDITION OF RESOURCE: 01 EXCELLENT

43. DESCRIPTION OF RESOURCE (Present and Historic):
SMALLER WINDOWS 6/6. MAY HAVE REPLACEMENT WINDOWS. BRICK SINGLE CHIMNEY. OUTBUILDINGS INCLUDE WELL HOUSE, BARN, SILO.

44. COMMENTS:

45. PLACEMENT:

HISTORIC PRESERVATION RESOURCE IDENTIFICATION FORM

TYPE ALL ENTRIES:

1. PROPERTY NAME: HOUSE E
2. RESOURCE NAME: HOUSE E
3. ADDRESS: COVELL ROAD
4. CITY: EDMOND
5. VICINITY:
6. COUNTY: OKLAHOMA
7. COUNTY CODE: 109
8. LOT:
9. BLOCK:
10. PLAT NAME:
11. SECTION: 35
12. TOWNSHIP: T16N
13. RANGE: R4W

---

14. RESOURCE TYPE: B BUILDING
15. HISTORIC FUNCTION: 01A SINGLE DWELLING
16. CURRENT FUNCTION: 01A SINGLE DWELLING
17. AREA OF SIGNIFICANCE, PRIMARY: 030 ARCHITECTURE
18. AREA OF SIGNIFICANCE, SECONDARY:
19. DESCRIPTION OF SIGNIFICANCE: 1900'S FARM HOUSE
20. DOCUMENTATION SOURCES:

---

21. NAME OF PREPARER: ROGER J. BURKHALTER
22. THEMATIC SURVEY PROJECT: NO PROJECT NAME:
23. DATE OF PREPARATION: 30 MAY 2003
24. PHOTOGRAPHS: YES YEAR: 2003

BUILDING CONSTRUCTION DESCRIPTION,

25. ARCHITECT/BUILDER: UNKNOWN

26. YEAR BUILT: C. 1909

27. ORIGINAL SITE? Y DATE MOVED: _____

28. ACCESSIBLE? Y

29. ARCHITECTURAL STYLE: 81 NATIONAL FOLK

30. FOUNDATION MATERIAL: 65 CONCRETE

31. ROOF TYPE: SIDE GABLE AND WING

32. ROOF MATERIAL: 63 ASPHALT

33. WALL MATERIAL, PRIMARY: 72 VINYL

34. WALL MATERIAL, SECONDARY: 20 WOOD

35. WINDOW TYPE: 1/1 HUNG

36. WINDOW MATERIAL: 20 WOOD

37. DOOR TYPE: SLAB

38. DOOR MATERIAL: 20 WOOD

39. EXTERIOR FEATURES: SHED ROOF OVER PORCH

40. INTERIOR FEATURES: _____

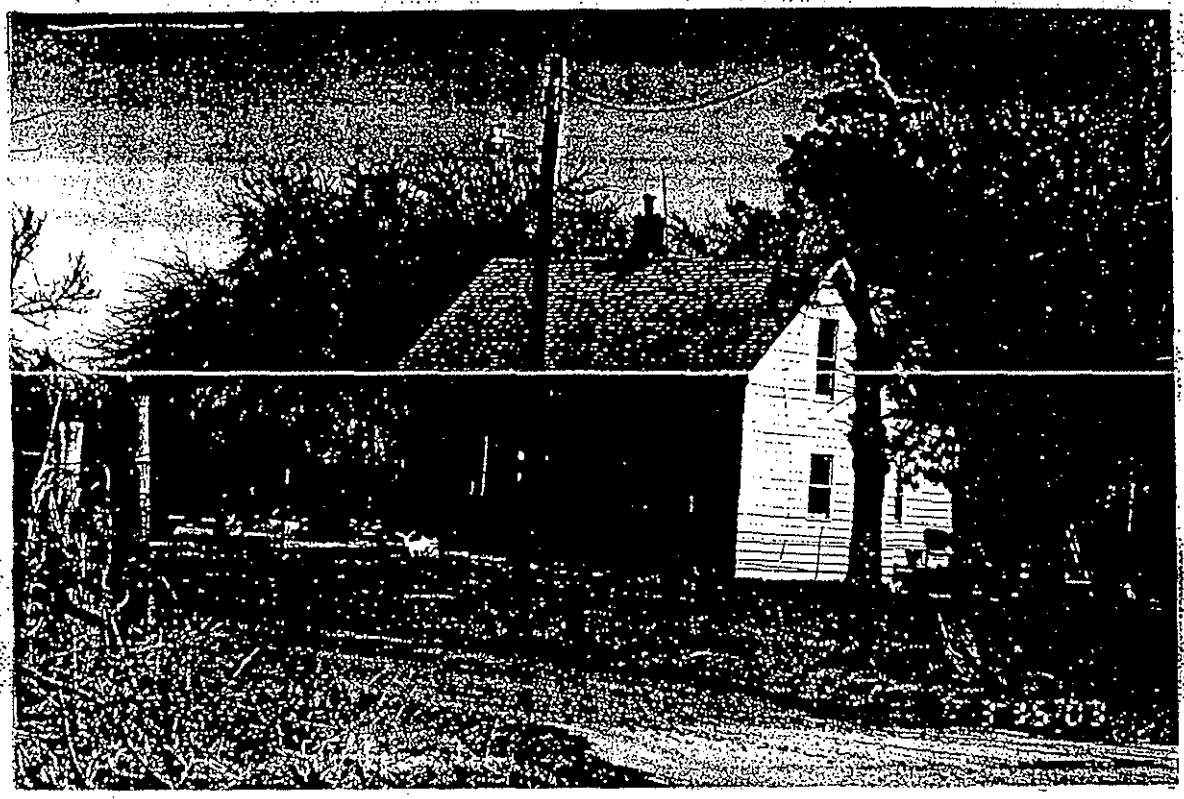
41. DECORATIVE DETAILS: _____

42. CONDITION OF RESOURCE: 01 EXCELLENT

43. DESCRIPTION OF RESOURCE (Present and Historic):
ALUMINUM STORM WINDOWS, WINDOWS SMALL FOR HOUSE AND MAY BE REPLACEMENT. DECK ON BACK OF HOUSE (FACING COVELL ROAD). TWO CHIMNEYS.

44. COMMENTS:

45. PLACEMENT:



HISTORIC PRESERVATION RESOURCE IDENTIFICATION FORM

TYPE ALL ENTRIES:

1. PROPERTY NAME: HOUSE F
2. RESOURCE NAME: HOUSE F
3. ADDRESS: 20800 N MAY AVE
4. CITY: EDMOND
5. VICINITY:
6. COUNTY: OKLAHOMA
7. COUNTY CODE: 109
8. LOT:
9. BLOCK:
10. PLAT NAME:
11. SECTION: 35
12. TOWNSHIP: T16N
13. RANGE: R4W

---

14. RESOURCE TYPE: B BUILDING
15. HISTORIC FUNCTION: 01A SINGLE DWELLING
16. CURRENT FUNCTION: 01A SINGLE DWELLING
17. AREA OF SIGNIFICANCE, PRIMARY: 030 ARCHITECTURE
18. AREA OF SIGNIFICANCE, SECONDARY:
19. DESCRIPTION OF SIGNIFICANCE: 1920'S CRAFTSMAN STYLE FARM HOUSE
20. DOCUMENTATION SOURCES:

---

21. NAME OF PREPARER: ROGER J. BURKHALTER
22. THEMATIC SURVEY PROJECT: NO PROJECT NAME:
23. DATE OF PREPARATION: 30 MAY 2003
24. PHOTOGRAPHS: YES YEAR: 2003

BUILDING CONSTRUCTION DESCRIPTION,

25. ARCHITECT/BUILDER: UNKNOWN

26. YEAR BUILT: C. 1922

27. ORIGINAL SITE? Y DATE MOVED:

28. ACCESSIBLE? Y

29. ARCHITECTURAL STYLE: 65 BUNGALOW/CRAFTSMAN

30. FOUNDATION MATERIAL: 65 CONCRETE

31. ROOF TYPE: SIDE GABLE AND WING

32. ROOF MATERIAL: 63 ASPHALT

33. WALL MATERIAL, PRIMARY: 40 STONE

34. WALL MATERIAL, SECONDARY: 20 WOOD

35. WINDOW TYPE: 4/1 HUNG

36. WINDOW MATERIAL: 20 WOOD

37. DOOR TYPE: SLAB

38. DOOR MATERIAL: 20 WOOD

39. EXTERIOR FEATURES: SHED ROOF OVER PORCH

40. INTERIOR FEATURES:

41. DECORATIVE DETAILS: STARBURST PATTERN IN GABLE

42. CONDITION OF RESOURCE: 01 EXCELLENT

43. DESCRIPTION OF RESOURCE (Present and Historic):
ALUMINUM STORM WINDOWS, VERTICLE DIVIDED LIGHTS IN UPPER SASH OF WINDOW. ROCK SINGLE CHIMNEY.

44. COMMENTS:

45. PLACEMENT:

Appendix 5

Solicitation Letter and Responses

— EXAMPLE —

TRIAD DESIGN GROUP

Mr. Gary McAdams, President
Wichita and Affiliated Tribes
P.O. Box 729
Anadarko, OK 73005

March 11, 2003

Re: Covell Road Improvement Project; Edmond, Oklahoma

Dear President McAdams:

Triad Design Group, acting as agent on behalf of The City of Edmond and Oklahoma County, is soliciting comments on the proposed widening of Covell Road in Oklahoma County, Oklahoma. This project is in the early stages of development and any comments relative to the social, economic, or environmental effect of this proposal will be appreciated.

The project extends approximately 9.25 miles from roughly .25 miles east of Sooner Road to State Highway 74. The project segment located within the Corporate Limits of the City of Edmond (7.25-miles) includes widening the existing two-lane Covell Road facility into a four-lane separated boulevard with multipurpose paths on both sides. The project segment located within the unincorporated area of Oklahoma County (2.0-miles) includes widening the existing roadway to a four-lane open section facility. Additional right-of-way will be required. Enclosed you will find a map showing the project vicinity and environmental corridor extents.

To allow adequate time for evaluation of your comments or suggestions, we would appreciate receiving your comments within 15 days from the date of this letter. Your written comments should be directed to: Randy Maxey at Triad Design Group, 14313 North May Avenue, Oklahoma City, OK 73134.

We sincerely solicit your cooperation in this matter and should you desire additional information, please contact Mr. Maxey by telephone at 405-752-2266 ext. 223 or by email at rmaxey@triaddesigngroup.com.

Sincerely,
Triad Design Group

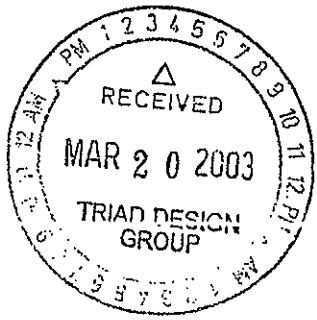
Randy Maxey
Environmental Compliance Coordinator

Enc.

City of EDMOND

OFFICE OF THE MAYOR • 24 East First • P. O. Box 2970 • Edmond, Oklahoma 73083-2970 • (405) 359-4500

March 18, 2003



Triad Design Group
Mr. Randy Maxey
Environmental Compliance coordinator
14313 N. May Avenue
Oklahoma City, OK 73134

Dear Mr. Maxey,

Thank you for the opportunity to comment on the proposed widening of Covell Road in Edmond and Oklahoma County. Population growth has been occurring along this major transportation corridor in Edmond and our forecasts indicate this trend to continue in the future. The city of Edmond and Oklahoma County are partnering in a proactive manner to provide area residents and businesses the best transportation network possible.

The proposed 4-lane separated parkway facility in Edmond city limits will provide for maximum safety of the traveling public with bicycle and pedestrian trails incorporated a safe distance from vehicular traffic. Further, this project will bring an economic benefit to the Covell area by increasing the capacity of this corridor that is served by a full interchange at Interstate 35 on the east end and proposed state improvements to S.H. 74 on the west end. As always, the environment of the existing neighborhoods should be considered in the design process so as to minimize the impact of this project, with appropriate consideration of cost versus benefit.

If I can help you further please do not hesitate to contact me. You can leave a voice mail for me anytime at 359-4760.

Respectfully,

Saundra Naifeh

Saundra Naifeh
Mayor

Oklahoma Historical Society

Founded May 27, 1893

State Historic Preservation Office • 2704 Villa Prom • Shepherd Mall • Oklahoma City, OK 73107-2441
Telephone 405/521-6249 • Fax 405/947-2918

March 26, 2003

Mr. Randy Maxey
Environmental Compliance Coordinator
Triad Design Group
14313 N. May Ave.
Oklahoma City, OK 73134

RE: File #1018-03; Edmond Improvements to Covell Road

Dear Mr. Maxey:

We have received the documentation submitted concerning the above referenced project in Oklahoma County.

We are unable to process your request for review at this time and ask that you supply a completed Historic Preservation Resource Identification Form and appropriate photographs for each of the structures to be affected by the project, OR a letter indicating that there are no structures on the site and that none have been removed in the recent past, in anticipation of this project.

NOTE: If properties within the area of potential affect are less than 45 years old, Historic Preservation Resource Identification Forms and photos are not required. However, your review request must include the address and date of construction of each property.

If properties within the area of potential affect are 45 years old or older, and you do not have Historic Preservation Resource Identification Forms and the Review and Compliance Manual, please call or write to request these from our office.

If you have any questions regarding this request, you may reach me at 405/521-6381. Your response must reference the above underlined file number. Thank you.

Sincerely,

Charles S. Wallis

Charles Wallis, RPA
Historical Archaeologist

CW:bh

United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
Southern Plains Regional Office
P.O. Box 368
Anadarko, Oklahoma 73005

IN REPLY REFER TO:
Natural Resources

MAR 10 2003

RECEIVED
MAR 11 2003
TRIAD DESIGN GROUP

Mr. Randy Maxey
Environmental Compliance Coordinator
Triad Design Group
14313 N. May Avenue
Oklahoma City, Oklahoma 73134

Dear Mr. Maxey:

Thank you for the opportunity to review the proposed widening of Covell Road by the City of Edmond, Oklahoma relative to potential social, economic, or environmental effects. This office has no issues regarding the proposed project.

The Regional Archeologist has reviewed the documentation describing the proposed project and the location map and a topographic map of the project and notes that archeological remains could be encountered at the locations where Covell Road crosses several streams. However, you should rely on the recommendations of the State Archeologist and the State Historic Preservation Officer regarding information needs to comply with the National Historic Preservation Act, if it applies. It is recommended that you also consult with the Wichita and Affiliated Tribes regarding any concerns they might have regarding areas of special concerns regarding their cultural history as the proposed project might affect them.

Sincerely,

Acting
Regional Director

DUANE A. SMITH
EXECUTIVE DIRECTOR

BRAD HENRY
GOVERNOR

STATE OF OKLAHOMA
WATER RESOURCES BOARD

March 10, 2003

Randy Maxey
Triad Design Group
14313 N. May Avenue
Oklahoma City, OK 73134

Re: Widening of Covell Road in Oklahoma County

Dear Mr. Maxey:

The City of Edmond and Oklahoma County participate in the National Flood Insurance Program and are required to enforce a flood loss reduction ordinance. This ordinance requires any proposed development to be reviewed by the official, local floodplain administrator (FPA). Please notify the local official in Edmond and Oklahoma County about these proposed developments. The Edmond FPA is Mrs. Nancy Kennedy, PO Box 2970, Edmond, OK 73083 or by calling (405) 359-4772 and/or Ms. Ruth Walters, 320 Robert S. Kerr, Ste. 101, Oklahoma City, OK 73102 or by calling (405) 713-1357.

Also, if any proposed floodplain development may fall on state owned or operated property in a floodplain a permit from the Oklahoma Water Resources Board is required. Chapter 55, the rules pertaining to this requirement and a permit application for such can be obtained from the OWRB web site at http://www.owrb.state.ok.us. "Development" means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

If you have any questions, please contact me at (405) 530-8800.

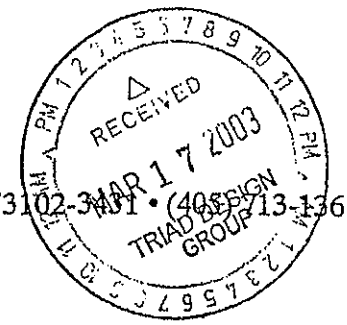
Sincerely,

W. Kenneth Morris, C.F.M.
State Floodplain Manager Coordinator

cc: Nancy Kennedy
Ruth Walters

OKLAHOMA COUNTY PLANNING COMMISSION

320 Robert S. Kerr, Suite 101 • Oklahoma City, Oklahoma 73102-3431 • (405) 713-1361



March 14, 2003

Triad Design Group
Mr. Randy Maxey
Environmental Compliance Coordinator
14313 N. May Avenue
Oklahoma City, Oklahoma 73134

Dear Mr. Maxey:

I received your letter, dated March 12, 2003, concerning the widening of Covell Road between Portland Ave. and Sooner Rd., of which two miles are within unincorporated Oklahoma County. As we discussed today on the telephone, a portion of the above-mentioned two miles is located in a FEMA designated floodplain and floodway. The FEMA map number is 40109C0062G Panel Number 62, effective date July 2, 2002. You will be required by the Oklahoma County Floodplain Regulations and FEMA regulations to perform a HEC II study of the area and present it to the Oklahoma County Floodplain Management Board for approval prior to submitting the study to FEMA for final approval. If FEMA approves your application, we request that you work very closely with the County Engineer and the District #3 Highway Superintendent while making the proposed improvements.

Please contact me if you have any questions.

Sincerely,

Ruth Walters
County Planner and Floodplain Manager

cc: Ray Reaves, County Engineer and Gerald Wright, District #3 Highway Superintendent

TRIAD DESIGN GROUP

Ms. Marylou Drywater, Field Station Manager
Bureau of Land Management
Oklahoma Resouces Area
221 North Service Road
Moore, OK 73160-4946

February 28, 2003

BLM-OKFO-MOORE
2003 MAR -3 P 2:22

Re: Covell Road Improvement Project; Edmond, Oklahoma

Dear Ms. Drywater:

Triad Design Group, acting as agent on behalf of The City of Edmond and Oklahoma County, is soliciting comments on the proposed widening of Covell Road in Oklahoma County, Oklahoma. This project is in the early stages of development and any comments relative to the social, economic, or environmental effect of this proposal will be appreciated.

The project extends approximately 9.25 miles from roughly .25 miles east of Sooner Road to State Highway 74. The project segment located within the Corporate Limits of the City of Edmond (7.25-miles) includes widening the existing two-lane Covell Road facility into a four-lane separated boulevard with multipurpose paths on both sides. The project segment located within the unincorporated area of Oklahoma County (2.0-miles) includes widening the existing roadway to a four-lane open section facility. Additional right-of-way will be required. Enclosed you will find a map showing the project vicinity and environmental corridor extents.

To allow adequate time for evaluation of your comments or suggestions, we would appreciate receiving your comments within 15 days from the date of this letter. Your written comments should be directed to: Randy Maxey at Triad Design Group, 14313 North May Avenue, Oklahoma City, OK 73134.

We sincerely solicit your cooperation in this matter and should you desire additional information, please contact Mr. Maxey by telephone at 405-752-2266 ext. 223 or by email at rmaxey@triaddesigngroup.com.

Sincerely,
Triad Design Group

Randy Maxey

Randy Maxey
Environmental Compliance Coordinator

Enc.

Bureau of Land Management
Oklahoma Field Office
221 N. Service Road
Moore, OK 73160

No BLM resources will be affected by this proposed action.

Thank you for the opportunity to comment.

By Fred Johnson

Date 03-10-03

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101ST EAST AVENUE
TULSA, OKLAHOMA 74128-4609

March 14, 2003

Planning, Environmental, and Regulatory Division
Regulatory Branch

Mr. Randy Maxey
Triad Design Group
14313 North May Avenue
Oklahoma City, OK 73134

Dear Mr. Maxey:

Please reference your letter dated February 28, 2003, soliciting comments on the proposed widening of Covell Road in Oklahoma County, Oklahoma. We have reviewed the submitted data relative to Section 404 of the Clean Water Act (CWA).

There are numerous bridges, reinforced box culverts, and pipe culverts along the corridor of the existing roadway. The placement dredged or fill material associated with widening or replacing of the existing creek crossing would require further review by the Corps of Engineers. Additional information on the project's design, scope, construction methods, and purpose is needed in order to determine what level of Department of the Army (DA) authorization is required.

We have found that it is usually in the applicant's best interest to submit that data in a formal permit application. Should an individual permit be required, we can then begin processing your request immediately.

Enclosed is a packet that contains the information needed to apply for a DA permit. The processing time for noncontroversial applications is approximately 60 to 90 days.

Your request has been assigned Identification Number 12882. Please refer to this number during future correspondence. If further assistance is required, contact Mr. Michael Ware at 918-669-7619.

Sincerely,

David M. Manning, Ch Reg Br

Larry D. Hogue, P.E.
Chief, Planning, Environmental,
and Regulatory Division

DEPARTMENT OF ARMY
CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101ST EAST AVENUE
TULSA, OKLAHOMA 74128-4609

March 19, 2003

Planning, Environmental, and Regulatory Division
Planning Branch

Mr. Randy Maxey
Environmental Compliance Coordinator
Triad Design Group
14313 North May Avenue
Oklahoma City, OK 73134

Dear Mr. Maxey:

This is in response to your February 28, 2003, letter requesting our input regarding flood plain concerns for the proposed widening of 9.25 miles of Covell Road in Oklahoma County. If there are any wetland or Section 404 permit issues to be addressed, that information will come from our Regulatory Branch under separate cover.

The widening project would result in seven creek crossings - six in Edmond and one in Oklahoma County. The project must be designed and constructed so that there is no significant increase in flood hazard and must comply with all local, State, and Federal flood plain ordinances. If there are any other activities, such as temporary fill, this must be done in a manner that would not adversely effect flooding.

Please feel free to contact this office when you have more detailed plans for this project. If you have questions, please call Mr. Joe Remondini, Flood Plain Management Services Program Manager at 918-669-7197.

Sincerely,

for Larry D. Hogue, P.E.
Chief, Planning, Environmental,
and Regulatory Division

Oklahoma Archeological Survey
THE UNIVERSITY OF OKLAHOMA

March 6, 2003

Randy Maxey
Triad Design Group
14313 N. May Avenue
Oklahoma City, OK 73134

RE: Triad Design Group for the City of Edmond and Oklahoma County: proposed Covell Road improvement project (9.25 miles of Covell Road).
Legal Description: Section 13 and 24 T14N R4W; Section 13-24 T14N R3W; Section 17-20 T14N R2W, IM, Oklahoma County, Oklahoma.

Dear Mr. Maxey:

The Community Assistance Program staff of the Oklahoma State Archeological Survey has reviewed the above referenced project in order to identify potential areas that may contain prehistoric or historic archaeological materials (historic properties). The location of your project has been crosschecked with the state site files containing approximately 14,000 archaeological sites which are currently recorded for the state of Oklahoma. **Sites are listed in your project area (34OK165),** and based on the topographic and hydrologic setting of your project, archaeological materials are likely to be encountered. **An archaeological field inspection is therefore considered necessary prior to project construction in order to identify significant archaeological resources that may exist in your area.** Please contact this office at (405) 325-7211 if you require additional information on this project.

This environmental review and evaluation is performed in order to locate, record, and preserve Oklahoma's prehistoric and historic cultural heritage in cooperation with the State Historic Preservation Office, Oklahoma Historical Society. In addition to our review comments, under 36CFR Part 800.3 you are reminded of your responsibility to consult with the appropriate Native American tribe/groups to identify any concerns they may have pertaining to this undertaking and potential impacts to properties of traditional and/or ceremonial value. Thank you for your cooperation.

Sincerely,

Jordan Matney for:
J. W. Smith
Staff Archaeologist

Robert L. Brooks
State Archaeologist

:adb

cc: SHPO

United States Department of Agriculture

NRCS
Natural Resources Conservation Service
Oklahoma City Field Office
1120 NW 63rd St., Suite G101
Oklahoma City, OK 73116-6500
Telephone (405) 843-5031

March 21, 2003

Randy Maxey
Triad Design Group
14313 N. May Avenue
OKC, OK 73134

Dear Mr. Maxey:

Re: Covell Road Improvement Project

The area is considered urban, so therefore no Prime and Unique Farmlands exist in the designated area. The floodplain has already been determined in that area so please contact your local floodplain management board with any proposed construction in this area. During construction please install and maintain proper sediment and erosion control structures.

If you have any questions please feel free to call our office at (405) 843-5031.

Sincerely,

Becky L Ross

Becky L. Ross
District Conservationist

STATE OF OKLAHOMA
OKLAHOMA CONSERVATION COMMISSION

March 21, 2003

Randy Maxey
Environmentl Compliance Coordinator
Triad Design Group
14313 N. may Avenue
Oklahoma City, OK. 73134

RE: Covell Road Improvement Project: Edmond, OK.

Dear Mr. Maxey:

Your request for a wetland determination for the referenced project, as described in your letter of February 28, 2003 has been reviewed using the Soil Survey of Oklahoma County. A Port Loam (between May andPenn) was identified at the site. This is a possible hydric soil. Due to the potential impact on wetland resources, an on-site investigation may be needed. Consequently, your request has been referred to the U.S. Army Corps of Engineers for a determination. Their address and phone number is:

U.S. Army Corps of Engineers
Mr. David Manning
Chief of Regulatory Branch
1645 South 101st East Avenue
Tulsa, OK 74128-4629
918/669-7400

If you have any further questions or concerns, please contact me at 405/810-1022.

Sincerely,

Christopher R. DuBois
Wetlands Program Coordinator
5225 N Shartel, STE 102
Oklahoma City, OK 73118
405/810-1022

CRD/gb

cc: U.S. Army Corps of Engineers
Wetlands File

OKLAHOMA

BRAD HENRY, GOVERNOR

GREG D. DUFFY, DIRECTOR

DEPARTMENT OF WILDLIFE CONSERVATION

1801 N. Lincoln P.O. Box 53465 Oklahoma City, OK 73152 PH. 521-3851

March 28, 2003

Randy Maxey
Triad Design Group
14313 N. May Ave.
Oklahoma City, OK 73134

Dear Mr. Maxey,

This responds to your letter of February 28, 2003 requesting information regarding the possible presence of state threatened or endangered species as well as any environmental impact for the following:

Project: Widening of Covell Road

Location: City of Edmond, Oklahoma

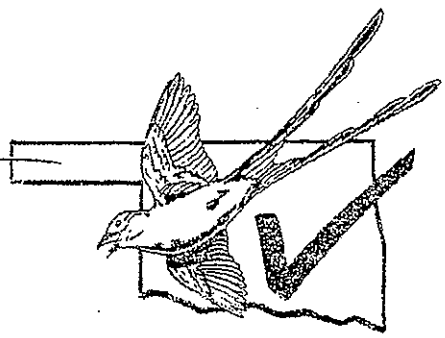
Please understand that due to time and personnel constraints this Department has not conducted an actual field survey of the proposed site. Therefore, we are unable to provide site-specific information. We have reviewed the information provided for this project against our current records of state endangered and threatened species. Our records are compatible with the Oklahoma Natural Heritage Inventory and it appears that no state listed species would be affected.

Please be sure to contact the US Fish and Wildlife Service's Tulsa office (918-581-7458) to determine if any federally-listed species will be affected. For additional information concerning sensitive species, we recommend that you contact the Oklahoma Natural Heritage Inventory, 111 East Chesapeake, Norman, Oklahoma 73019.

Thank you for the opportunity to comment. If we can be of further assistance, please contact our Natural Resources Section at 405-521-4616.

Sincerely,

Thomas Heuer
Natural Resources Biologist



Search for the Scissortail on Your State Tax Form

ACOG

ASSOCIATION OF
CENTRAL
OKLAHOMA
GOVERNMENTS

21 E. Main Street, Suite 100 Oklahoma City, OK 73104-2405
(405) 234-2264 FAX: (405) 234-2200 TTY: (405) 234-2217
www.acogok.org e-mail: acog@acogok.org

March 14, 2003

Randy Maxey
Triad Group
14313 North May Avenue
Oklahoma City, OK 73134

Dear Mr. Maxey:

Thank you for the opportunity to comment on the proposed widening of Covell Road in Oklahoma County. As you know, this area has experienced a tremendous amount of growth in the past several years and forecasts indicate that development is likely to continue into the future. ACOG is encouraged to see that the City of Edmond and Oklahoma County are acting in a proactive manner to provide area residents the best street network possible.

However, the project does reveal some inconsistencies with the 2025 Oklahoma City Area Regional Transportation Study (OCARTS) Plan. The OCARTS Plan calls for the future widening of Covell Road from two to four lanes between Air Depot Boulevard and Western Avenue. The final three miles of this project, from Western Avenue to Portland Avenue, **are not contained in the OCARTS Plan.** At the appropriate time, it will be necessary for the sponsoring entity to request an amendment to the OCARTS Plan to include the missing three miles if federal funds are to be expended on this project.

The proposed project also affects several neighborhoods and careful consideration should be given to preserving their integrity. Particular attention should be given to noise, traffic encroachment, and visual impacts.

Respectfully,

Zach D. Taylor
Executive Director

c: Dawn Sullivan, Oklahoma Department of Transportation
Jerry Smith, City of Edmond
Shannon Dumolt, Federal Highway Administration

02-14-03-I-0636

KC
PF

TRIAD DESIGN GROUP

RECEIVED
MAR 3 2003
US FISH & WILDLIFE SERVICE
TULSA ES

Mr. Jerry Brabander, Field Supervisor
United States Fish and Wildlife Service
222 South Houston, Ste. A
Tulsa, OK 74127

February 28, 2003

Re: Covell Road Improvement Project; Edmond, Oklahoma

Dear Mr. Brabander:

Triad Design Group, acting as agent on behalf of The City of Edmond and Oklahoma County, is soliciting comments on the proposed widening of Covell Road in Oklahoma County, Oklahoma. This project is in the early stages of development and any comments relative to the social, economic, or environmental effect of this proposal will be appreciated.

The project extends approximately 9.25 miles from roughly .25 miles east of Sooner Road to State Highway 74. The project segment located within the Corporate Limits of the City of Edmond (7.25-miles) includes widening the existing two-lane Covell Road facility into a four-lane separated boulevard with multipurpose paths on both sides. The project segment located within the unincorporated area of Oklahoma County (2.0-miles) includes widening the existing roadway to a four-lane open section facility. Additional right-of-way will be required. Enclosed you will find a map showing the project vicinity and environmental corridor extents.

To allow adequate time for evaluation of your comments or suggestions, we would appreciate receiving your comments within 15 days from the date of this letter. Your written comments should be directed to: Randy Maxey at Triad Design Group, 14313 North May Avenue, Oklahoma City, OK 73134.

We sincerely solicit your cooperation in this matter and should you desire additional information, please contact Mr. Maxey by telephone at 405-752-2266 ext. 223 or by email at rmaxey@triaddesigngroup.com.

Sincerely,
Triad Design Group

Randy Maxey
Environmental Compliance Coordinator

Enc.

NO EFFECT FINDING
The described action will have no effect on listed species, wetlands, or other important wildlife resources.
Date 17 April 2003
Consultation # 2-14-03-I-0636
Approved by Daniel Fenner
U.S. FISH and WILDLIFE SERVICE, TULSA, OK

BRAD HENRY
GOVERNOR

JANE A. JAYROE
EXECUTIVE DIRECTOR

OKLAHOMA TOURISM & RECREATION DEPARTMENT

March 12, 2003

Randy Maxey, Environmental Compliance Coordinator
Triad Design Group
14313 N. May Avenue
Oklahoma City, OK 73134

RE: Covell Road Improvement Project--Edmond, OK

Dear Mr. Maxey:

We have received your letter regarding the Covell Road project and have reviewed it relative to the impact on park and recreation properties. There are a number of federally assisted parks within Edmond but only one is located adjacent to Covell Road. The Skate Park at Mitch Park was developed with assistance through the Land and Water Conservation Fund Program. A copy of the 6f-boundary map for the project is attached.

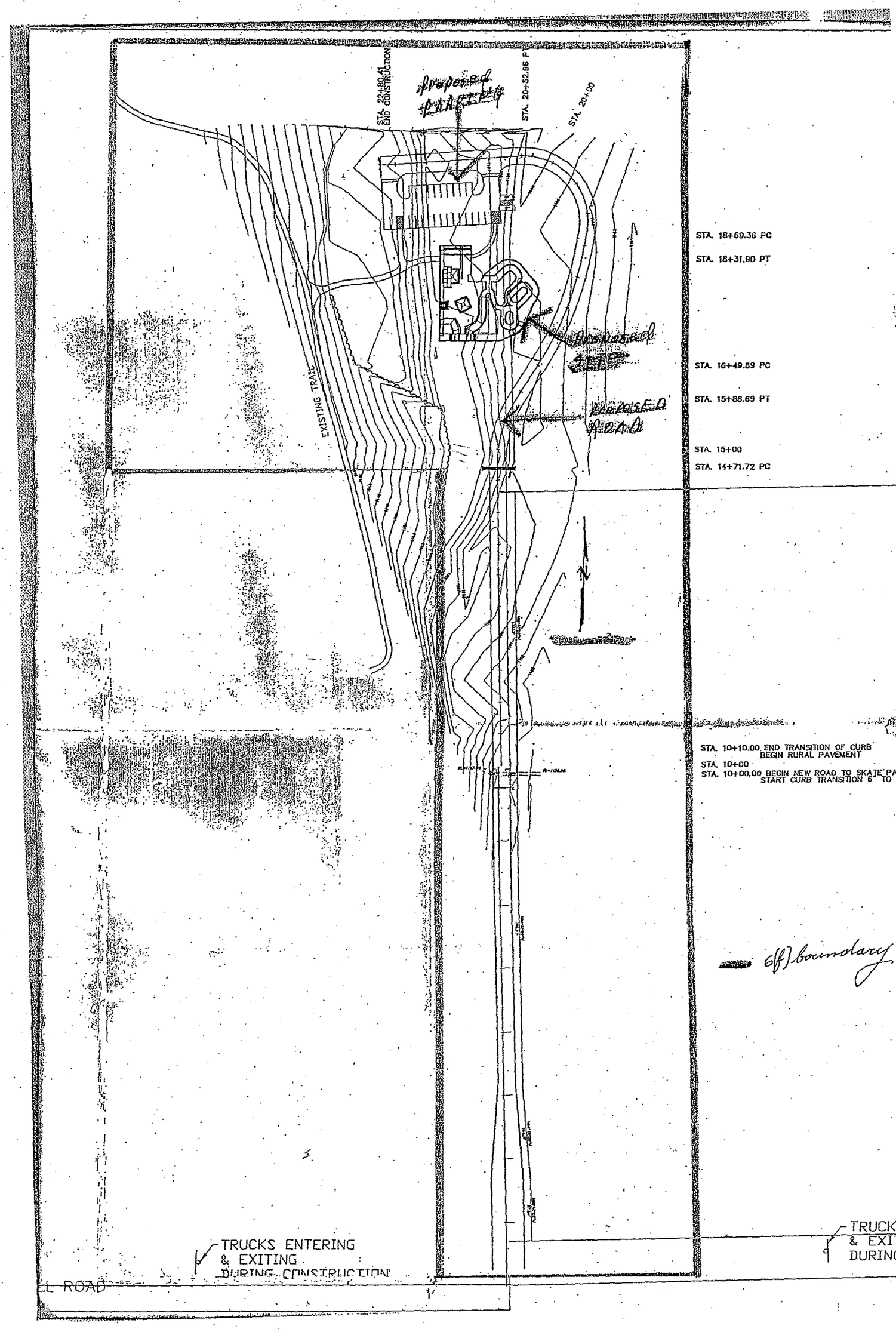
If any land included within the 6f boundary is needed for right of way expansion, it will be considered a conversion and replacement land will need to be identified to mitigate the loss.

Thank you for the opportunity to review this project. If further information is needed, I can be reached at 405-521-6891.

Sincerely,

Kristina S. Marek, Director
Research and Development Division
Alternate State Liaison Officer for the LWCF

Attachment: 1


STA. 22+80.41
END CONSTRUCTION
STA. 20+52.95 PT
STA. 20+00
EXISTING TRAIL
STA. 18+69.36 PC
STA. 18+31.90 PT
STA. 16+49.89 PC
STA. 15+88.69 PT
STA. 15+00
STA. 14+71.72 PC
STA. 10+10.00 END TRANSITION OF CURB
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Appendix 6

Public Hearing Notice, Transcript, and Written Comments

Appendix 7

Public Meeting Materials

TO: Project Files

FROM: Randy Maxey, Triad Design Group

SUBJECT: Summary of Public Meeting held for proposed widening of Covell Road in the City of Edmond and Oklahoma County.

A public meeting to involve concerned citizens in the development of the proposed widening project was held at 7:00 pm, Thursday, April 10, 2003 at Cheyenne Middle School in Edmond, Oklahoma. Representatives from the City of Edmond, Oklahoma County, ODOT and Triad Design Group were in attendance. Seventeen (17) people registered at the meeting.

The following project officials were in attendance:

Commissioner Stan Inman – Oklahoma County
Mr. Gerald Wright – Oklahoma County
Mr. Steve Manek – City of Edmond
Mr. Robert Rodriguez – Federal Highway Administration
Ms. Souzan Bahavar – Federal Highway Administration
Ms. Aaron Adel – Triad Design Group
Mr. Joe Davis – Triad Design Group
Mr. Randy Maxey – Triad Design Group

Ms. Aaron Adel, with Triad Design Group, opened the meeting, introduced Mr. Maxey and Mr. Davis as the other presenters for the public meeting and provided a brief itinerary of how the meeting would be structured. She then introduced Mr. Randy Maxey, with Triad Design Group, who presented the environmental clearance process and those aspects, which will be addressed. Mr. Joe Davis, with Triad Design Group made a presentation of the engineering design considerations associated with the proposed project.

The following is a brief summary of the oral comments and questions received:

- A question was raised about the level of impact the Railroad Underpass will have on the proposed development at the corner of Thomas Drive and Covell Road. Mr. Davis responded by explaining that the underpass cut section does not extend that far west.

- A question was raised about the areas where existing neighborhoods abut Covell Road in a manner that the desired typical section will not logistically fit. Mr. Davis stated that those areas would be addressed and that the facility may have to be narrowed by eliminating or narrowing the median to avoid greater impacts to the residences. Mr. Davis then

explained that in the areas where new residential developments have recently been constructed the developers have been aware of the proposed widening project and have agreed to set aside plenty of right-of-way in order to facilitate the project.

- A question was raised regarding the schedule of the project. Mr. Davis asked Mr. Steve Manek with the City of Edmond to address this question. Mr. Manek stated that after the underpass was completed, according to traffic projections, the section from Santa Fe to Broadway would likely be the first section of Covell to be widened. Then the City would have to examine which areas of the facility would next require improvements.

No written comments were received.

Ms. Adel concluded the meeting by stating that all written comments would be analyzed and taken into consideration for the proposed project. The meeting was adjourned at 9:00 p.m. with City of Oklahoma City and Triad Design Group representatives being made available to answer additional questions.

SIGN-IN-SHEET
COVELL ROAD – APRIL 10, 2003

PLEASE PRINT

NAME	ADDRESS	PHONE
1. Steve Cilberg	ODOT- Planning	521-2676
2. Jerry Smith	City of Edmond	359-4605
3. AARON ADEL	TRIAD DESIGN GROUP	752-1122
4. MARC HADER & LYDIA	@ 11500 N. Hudson, OKC 73114	713-2183
5. JOE DAVIS	TRIAD DESIGN GROUP	752-1122
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SIGN-IN-SHEET
COVELL ROAD – APRIL 10, 2003

PLEASE PRINT

NAME	ADDRESS	PHONE
1. Souzan Behavar	300 N. Meridian (FHWA)	405-605-6166 #327
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SIGN-IN-SHEET
COVELL ROAD – APRIL 10, 2003

PLEASE PRINT

NAME	ADDRESS	PHONE
1. Rep. Wayne Pettygrew	2625 Brenton Dr. Edmond 73003	405-557-7342
2. Robert Rodriguez	FHWA	405-605-6166 Xt. 332
3. Steve Manek	City of Edmond	405-359-4771
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SIGN-IN-SHEET
COVELL ROAD – APRIL 10, 2003

PLEASE PRINT

NAME	ADDRESS	PHONE
1. John Adel	1313 W. May	752-1122
2. Denise Crosswhite Hader [illegible]		773-9998
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SIGN-IN-SHEET
COVELL ROAD – APRIL 10, 2003

PLEASE PRINT

NAME	ADDRESS	PHONE
1. Stan Inman	320 R.S. Kerr Ste 617	713-1503
2. Gerald Wright	11500 N Hudson OKC	713-2180
3. Joe Khatib	200 NE 21ST ODOT	521-3651
4. RANDY MAXEY	TRIAD	752·1122
5. Randel Skadid	P.O. Box 1217, Edmond, ok 73083	341-6741
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NOTICE OF PUBLIC MEETING

All interested parties are hereby given notice that the City of Edmond and Oklahoma County District 3, in cooperation with the Oklahoma Department of Transportation (ODOT), proposes to widen and reconstruct Covell Road from State Highway 74 to Interstate 35. The consulting firm Triad Design Group, hired by the City and County to perform an environmental analysis of the proposed improvements, has scheduled a public meeting to discuss the project.

The project extends approximately 9.25 miles from roughly .25 miles east of Sooner Road to State Highway 74. The project segment located within the Corporate Limits of the City of Edmond (7.25-miles) includes widening the existing two-lane Covell Road facility into a four-lane separated boulevard with multipurpose paths on both sides. The project segment located within the unincorporated area of Oklahoma County (2.0-miles) includes widening the existing roadway to a four-lane open section facility.

The public meeting will be held at 7:00 pm, Thursday April 10, 2003 in the cafeteria of Cheyenne Middle School, located at 1271 West Covell Road in Edmond, Oklahoma. Representatives from the City, County, ODOT and Triad Design Group will be in attendance. Concerned citizens will have the opportunity to comment on the potential social, economic, and environmental impacts associated with the project.

Questions prior to the meeting may be directed to Mr. Randy Maxey at (405) 752-2266 extension 223. Written statements and other exhibits regarding the location and major design features of the proposed project may be submitted through May 10, 2003 to Mr. Maxey at Triad Design Group, 14313 North May Avenue, Oklahoma City, OK 73134.

The City of Edmond, as well as Oklahoma County, strives to accommodate the needs of all citizens, including those who may be disabled. If you would like to attend this meeting but find it difficult because of a disability, architectural barrier, or another special need, please contact Mr. Maxey at the above number. We will make a sincere effort to resolve the problem. If you require a sign-language interpreter at the meeting, please notify Mr. Maxey in writing at Triad Design Group at the above address no later than April 1, 2003.

TRIAD DESIGN GROUP

STATE OF OKLAHOMA, }
COUNTY OF OKLAHOMA } SS.

Affidavit of Publication

Helen L. Boswell, of lawful age, being first duly sworn, upon oath deposes and says that he is the Class. Counter Rep of The Oklahoma Publishing Company, a corporation, which is the publisher of the The Daily Oklahoman (Metro) which is a daily newspaper of general circulation in the State of Oklahoma, and which is a daily newspaper published in Oklahoma County and having paid general circulation therein; that said newspaper has been continuously and uninterruptedly published in said county and state for a period of more than one hundred and four consecutive weeks next prior to the first publication of the notice attached hereto, and that said notice was published in the following issues of said newspaper, namely:

March 27, 2003

Subscribed and sworn to before me this 31st day of March, 20 03

Cathy A. Keller
Notary Public

Helen L. Boswell

My commission expires 9-20-04

1031

00013864

NOTICE OF PUBLIC MEETING

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TRIAD DESIGN GROUP

To be published in the Edmond Sun, Daily Oklahoman, and the Journal Record, on Thursday, March 27, 2003.

Proof Copy

Attn: RANDY MAXEY

FAX: (405) 752-8855 maxey@triaddesigngroup.com

THE EDMOND SUN

From: Patricia (Pat) Wheat
Telephone: (405) 341-2121 Ext. 203
Fax: (405) 340-7363
E-mail: legals@edmondsun.com
Mailing Address: P.O. Box 2470
Edmond, OK 73083

The following is a copy of the legal document you have requested to be published in *The Edmond Sun newspaper*. Please verify the publication date(s), name(s), and numbers.

Customer Number: 04100320-000
Ad Number: 04512671

→ Price of this publication to run on March 27, 2003 is: $40.25

This information is given to you for your records and/or so you may bill your client if you so desire. Invoice will be mailed to you after the 1st of next month.

Please call this office before 1:00 p.m. March 26 2003 if you have any questions or want any changes made before publication.

Thank you.

Published in The Edmond Sun, Edmond, Oklahoma 73034, March 27, 2003.

NOTICE OF PUBLIC MEETING

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TRIAD DESIGN GROUP

mond, Oklahoma 73034, March 27, 2003.

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TRIAD DESIGN GROUP

AFFIDAVIT OF PUBLICATION

State of Oklahoma
SS.
County of Oklahoma

NOTICE OF PUBLIC MEETING

Case: Covell Road

Customer # 04100320-000

Ad # 04512671

Charlotte Klutts, of lawful age, being duly sworn and authorized, says that he/she is a manager with The Edmond Sun, a daily newspaper printed in the City of Edmond, Oklahoma County, Oklahoma, a newspaper qualified to publish legal notices, advertisements and publications as provided in Section 106 of Title 25, Oklahoma Statutes 1961, as amended, and complies with all other requirements of the laws of Oklahoma with reference to Legal Publications.

Attached is a true and correct copy of the content of the notice, as published in the regular edition of said newspaper during the period and time of publication and not in a supplement, on the following dates:

March 27, 2003.

Publishing Fee: $40.25
Words: 355 Tabs: 2

Charlotte Klutts

Subscribed and sworn to before me this 1st day of April, 2003.

Patricia L. Wheat
Notary Public

NOTARY SEAL PUBLIC
PATRICIA L. WHEAT
Oklahoma County
Notary Public in and for
State of Oklahoma
Commission # 02011948 Expires 7/21/06

PUBLISHER'S ADDRESS:
The Edmond Sun
P. O. Box 2470
Edmond, OK 73083-2470
(405) 341-2121

Appendix 8

Environmental Issues Reviewed

ITEMS NORMALLY CONSIDERED DURING PROJECT DEVELOPMENT

- **Purpose and Need for Project**
- **Alternatives**
- **Affected Environment**
- **Possible Environmental Consequences**
  - Airport Impacts
  - Air Quality Impacts
  - Archaeological Sites
  - Consideration Relating to Pedestrians and Bicyclists
  - Construction Impacts
  - Economic Impacts
  - Effects on Public Parks, Wildlife and Waterfowl Refuges and Historic Sites
  - Energy
  - Environmental Justice
  - Farmland Impacts
  - Floodplain Impacts
  - Hazardous Waste / Underground Storage Tanks
  - Irreversible and Irretrievable Commitment of Resources
  - Joint Development
  - Land Use Impacts
  - Noise Impacts
  - Permits
  - Relationship of Local Short-term Uses vs. Long Term Productivity
  - Relocation Impacts / Right-of-way Acquisition
  - Social Impacts
  - Threatened or Endangered Species
  - Visual Impacts
  - Water Body Modification
  - Wetland Impacts
  - Wildlife Impacts
  - Wild and Scenic Rivers
- **Comments and Coordination / Public Involvement**
- **Drainage Concerns**
- **Accidents / Safety Concerns**