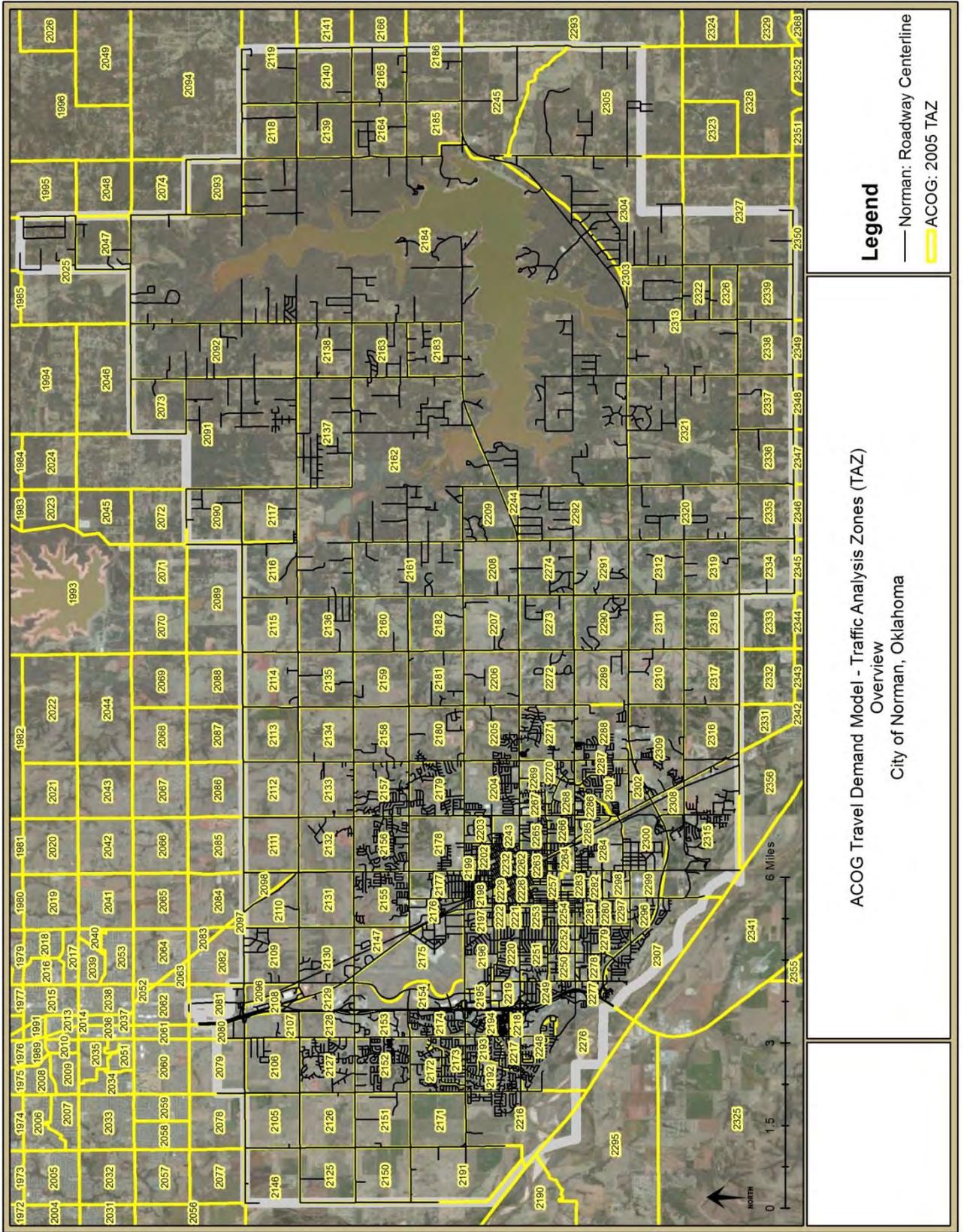


ACOG Travel Demand Model - Network Links  
 Focus on East Norman  
 City of Norman, Oklahoma

**Legend**

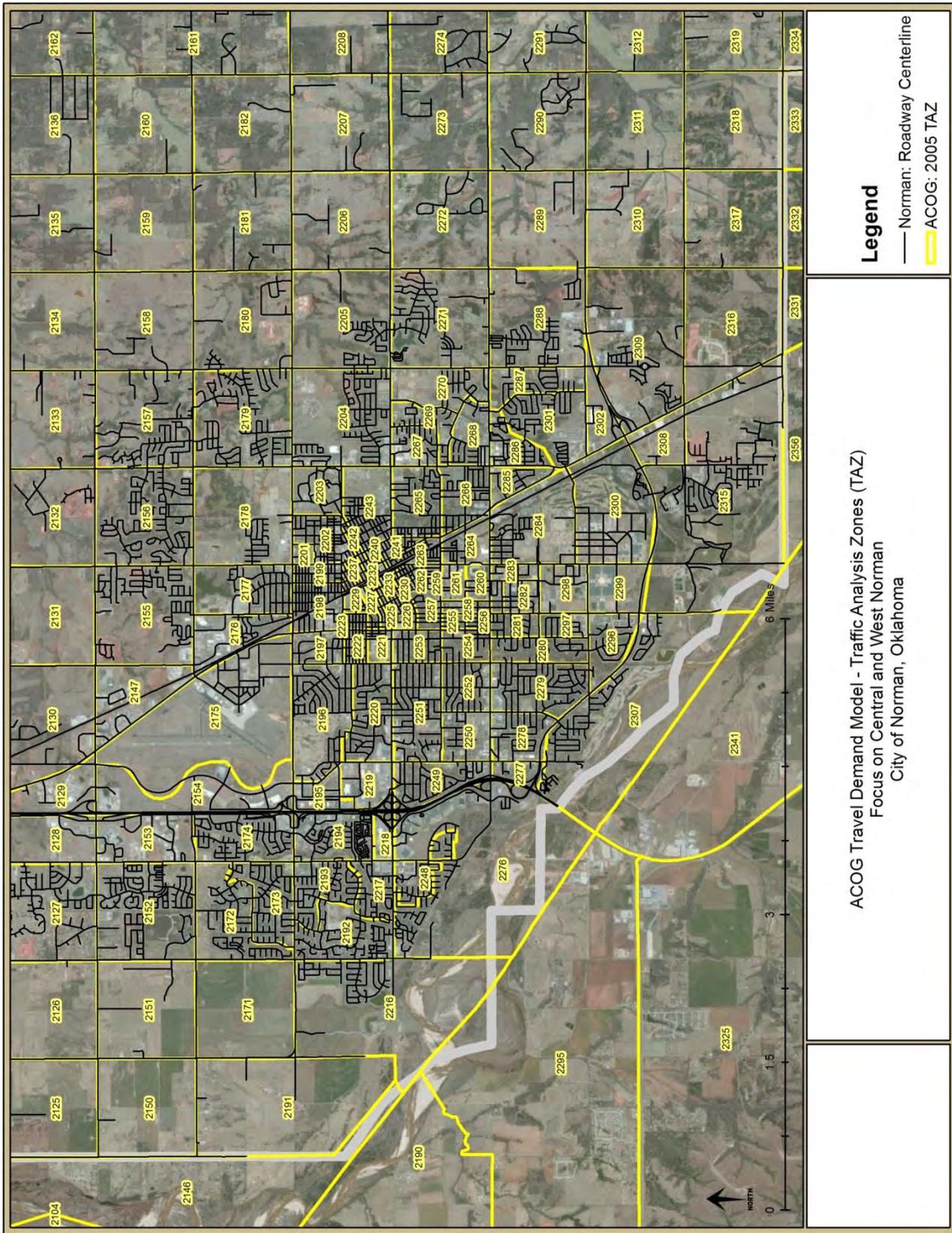
- ACOG: Model Network Links
- Norman: Roadway Centerline

Please note that the model network links represent, but do not always line up with the underlying roadway centerline information.



ACOG Travel Demand Model - Traffic Analysis Zones (TAZ) Overview  
City of Norman, Oklahoma

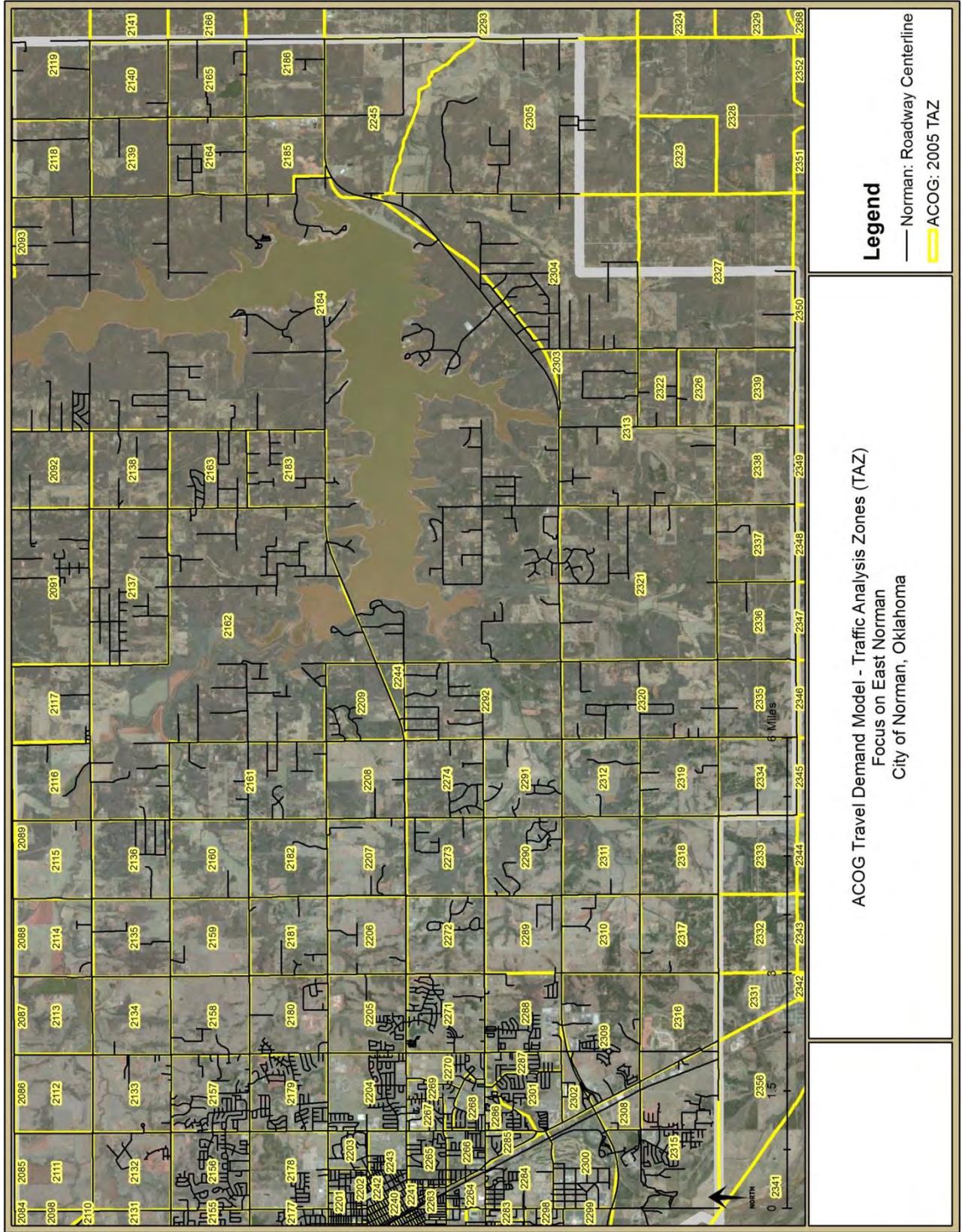
**Legend**  
 — Norman: Roadway Centerline  
 ACOG: 2005 TAZ



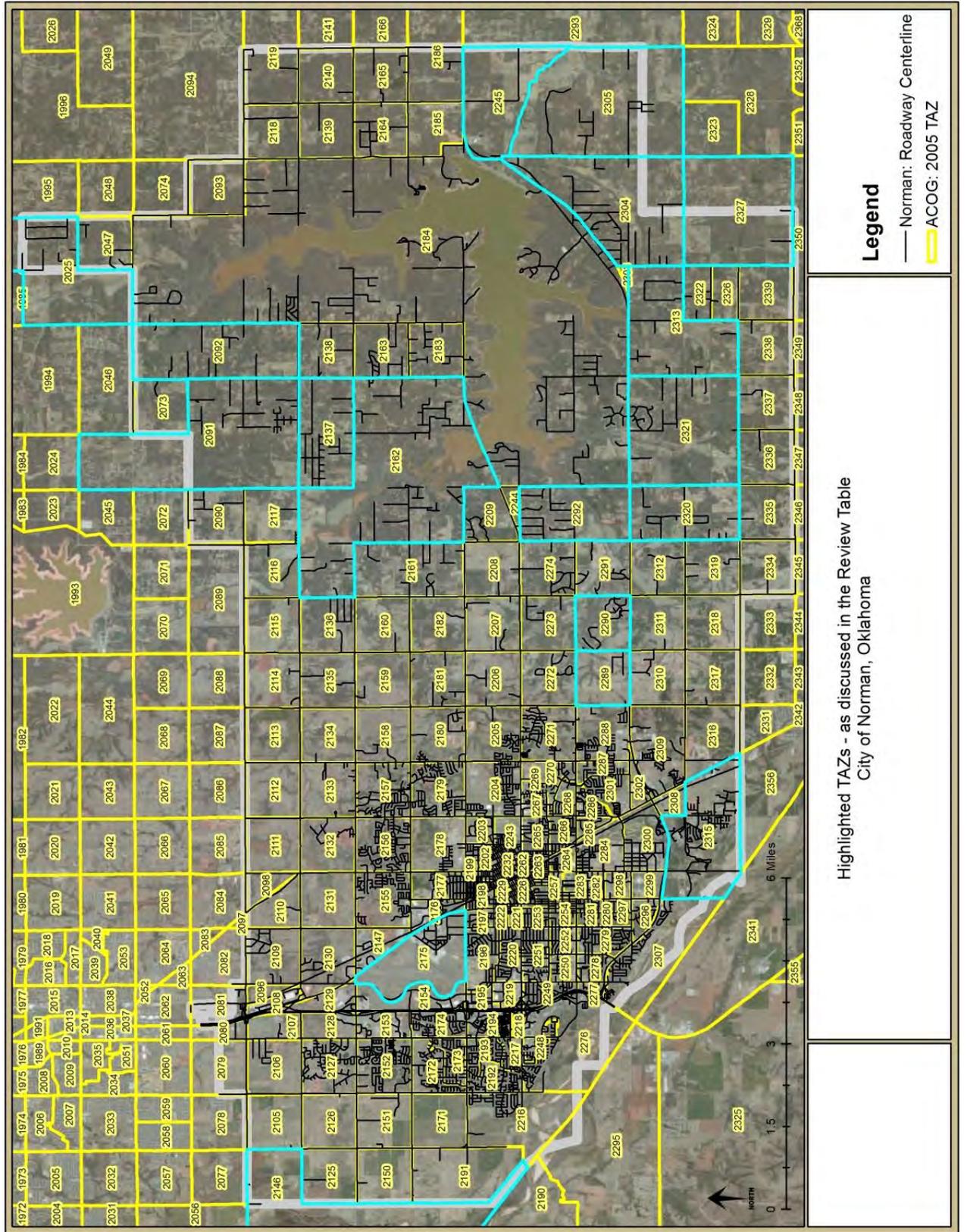
ACOG Travel Demand Model - Traffic Analysis Zones (TAZ)  
 Focus on Central and West Norman  
 City of Norman, Oklahoma

**Legend**

- Norman: Roadway Centerline
- ▬ ACOG: 2005 TAZ



<b>TAZ</b>	<b>Concern</b>	<b>Findings</b>	<b>Recommended Action</b>
2025, 2091, 2146, 2304, 2327	Large TAZ across jurisdictional boundary	Found no continuous section line road	None
2091, 2092, 2137, 2162, 2292, 2305, 2321	Large TAZ	Found no continuous section line road	None
2320	Large TAZ	Continuous section line road found	Consider split
2313	Large TAZ	Contains functionally classified major collector	Split
2315	Large TAZ – considered using Jenkins to split W portion from remainder	Would not benefit the representation of travel patterns	Consider additional centroid connector to 12 <sup>th</sup> Ave SE
2288-2289, 2245-2305	TAZ pairs without a boundary link	Found no continuous section line road – creek locations	None
2175	Link between nodes 7644 and 8488 does not exist	The link is located on airport property (and bisects the runway).	Consider removing



## Appendix D – Design Typical Sections

<b>Need for Street Functional Classification Design Sections .....</b>	<b>1</b>
Freeways .....	1
Regional Highways, Rural.....	1
Principal Arterials, Urban.....	2
Principal Arterials, Rural .....	3
Minor Arterials, Urban .....	4
Minor Arterials, Rural.....	6
Collector Streets, Urban.....	7
Collector Streets, Rural .....	8
Local Streets, Urban.....	9
Local Street, Rural .....	9



## Need for Street Functional Classification Design Sections

Some enhancements to the existing street classifications and typical design standards are proposed to enhance the operational and multimodal functionality of the street network.

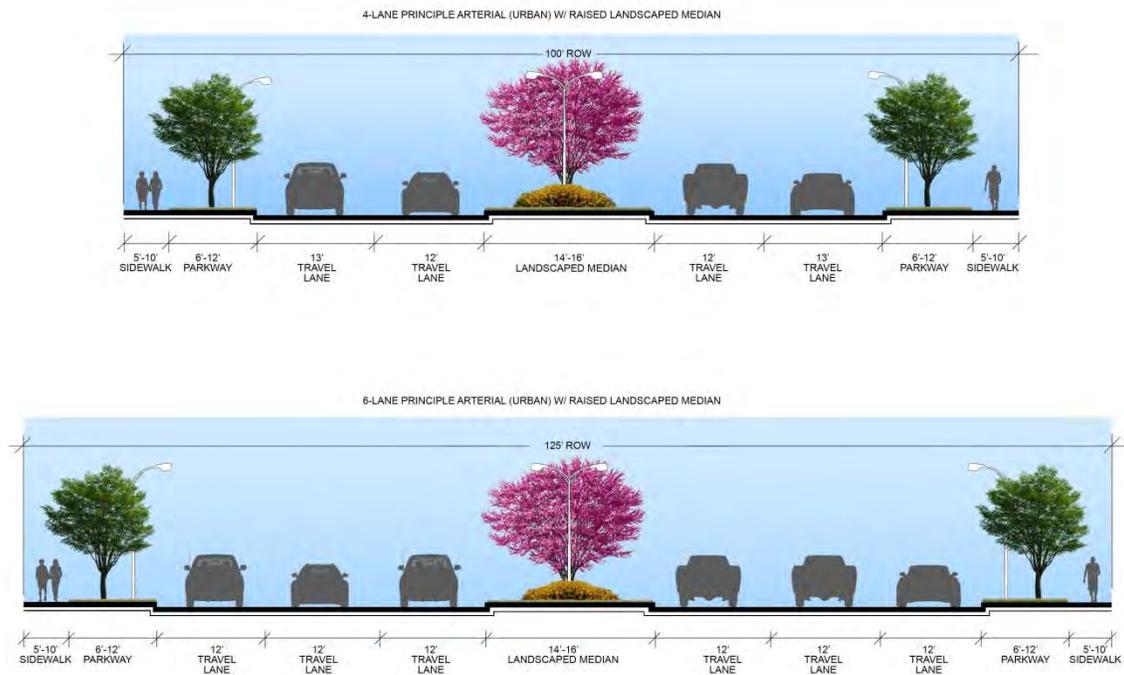
### *Freeways*

The limited access freeway network consists of the interstate, US, and State Highway roadways controlled by ODOT. Limited access roadways are those that control access to the facility at designated locations, typically at other freeways and arterial streets. The freeway is typically uninterrupted with grade separations at intersections and ramped entries and exits to and from the crossroads as on I-35. Freeways typically operate uninterrupted by traffic signals and with grade separations at cross streets, with free flow speeds of 55 MPH or more and have two or more lanes in each travel direction. Freeway directions of travel are typically barrier or median separated, with directional ramps to crossing facilities.

### *Regional Highways, Rural*

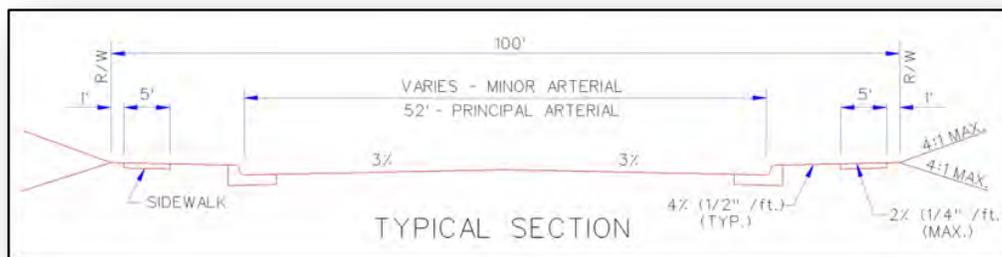
Regional highways consist of US, State, and other regionally significant roadways that extend between communities and across regions, providing for intersections with arterial and collector roadways and, infrequently as needed, allowing for local land access directly to the facility. State Highway 9 is an example of a rural freeway. Intersections with arterial roadways are typically signalized, as warranted, and provisions are often made for left turn lanes and occasionally right turn lanes as well to facilitate the through movements along the freeway. Freeways typically operate at free flow speeds over 55 MPH and have one or more lanes in each travel direction. Access management practices should be employed to minimize the impacts of property access in the rural freeway facility.

## Principal Arterials, Urban

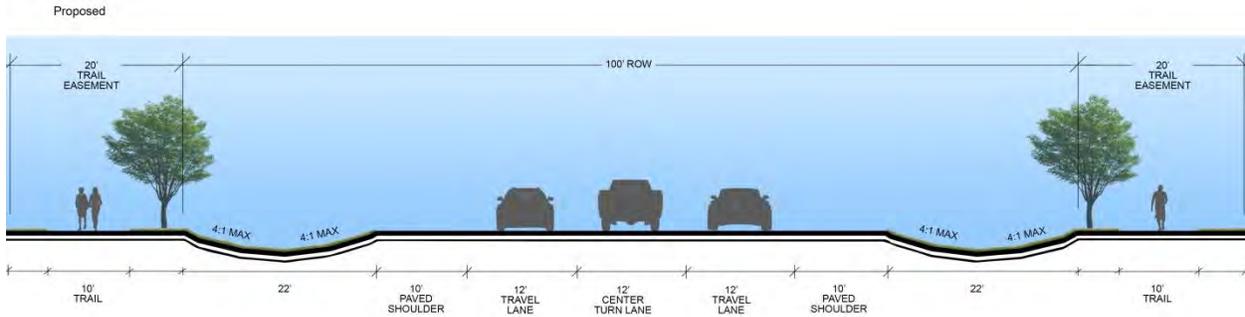


Urban principal arterial roadways provide the predominant passageways through the urbanized portions of the community and connect to the regional freeway network, typically providing for curb and gutter drainage. Intersections are provided at all arterial, collector and local roadways and as needed allowing for local land access directly to the facility. Intersections with arterial roadways are typically signalized and provisions made for left turn lanes and occasionally right turn lanes as well to facilitate the through movements along the arterial. Principal urban arterial roadways are to provide at least two travel lanes in each direction plus a center median area for separations of traffic, provision of left turn lanes, and/or streetscape. Access management practices should be employed to minimize the impacts of property access on the principal arterial facility. Sidewalks, 5-feet to 10-feet in width, should be provided along both sides of the roadway.

**Comparison to Current Design Standards:** The proposed sections are an enhancement to the current city design standards for an urban principal arterial street (see below) by requiring a median for the ultimate section of the roadway. Significant portions of the current principal urban arterials in Norman (US 77, 12<sup>th</sup> Street E, and Robinson, Main and Lindsey Streets) already have either a median or a continuous left turn lane. With concurrence by the city’s Bicycle Advisory Committee (BAC), principal arterials may also incorporate bike lanes within the roadway pavements to enhance the bicycle transportation network, in which case, sidewalks would be limited to 5 feet in width.

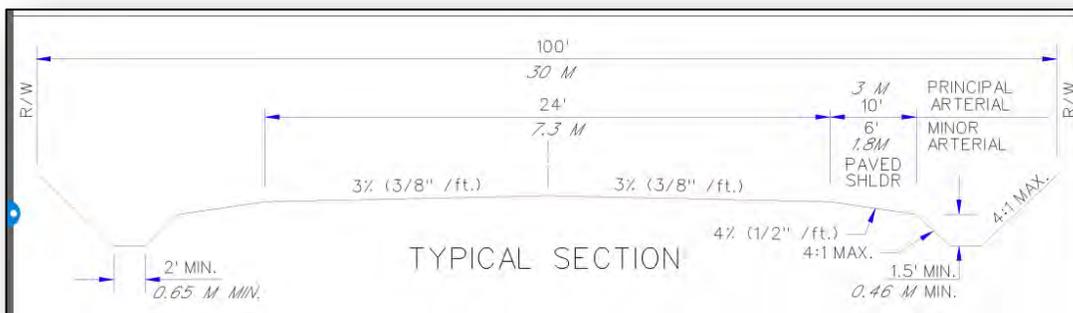


## Principal Arterials, Rural

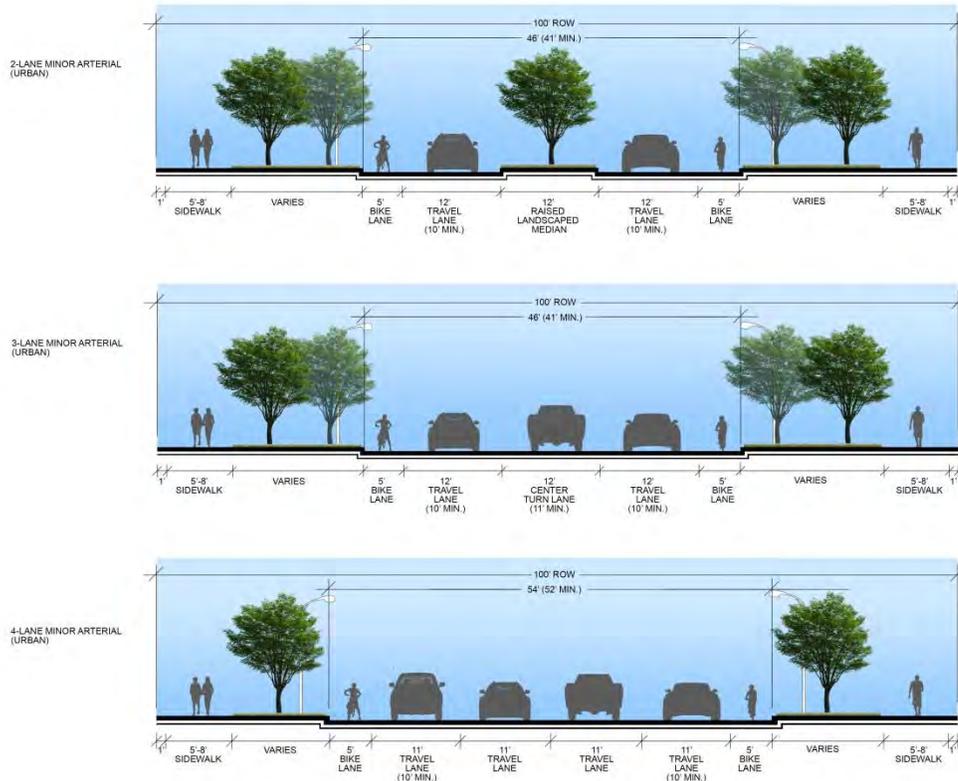


Rural principal arterial roadways provide the predominant passageways through the rural portions of the community and connect to the regional arterial and freeway network, typically providing for open ditch drainage. Intersections are provided at all arterial, collector and local roadways and often allows for local land access directly to the facility. Intersections with arterial roadways may be signalized or stop controlled and provisions should be made for left turn lanes to facilitate the through movements along the arterial. Principal rural arterial roadways are to provide at least one and no more than two travel lanes in each direction plus a center median area for separations of traffic, provision of left turn lanes, and/or streetscape. Access management practices should be employed to minimize the impacts of property access in the rural principal arterial facility. The roadway is to be provided with a 10-foot wide paved shoulder. A 10-foot trail should be provided along one or both sides of the roadway to allow urban trail and side path connections to the rural recreational trails network.

**Comparison to Current Design Standards:** The proposed sections are an enhancement to the current city design standards for a rural principal arterial street (see below) by requiring a landscaped median with optional center turn lane for the ultimate section of the roadway. In addition, a trail easement would be desirable along one or both sides of the rural arterial roadway.



## Minor Arterials, Urban

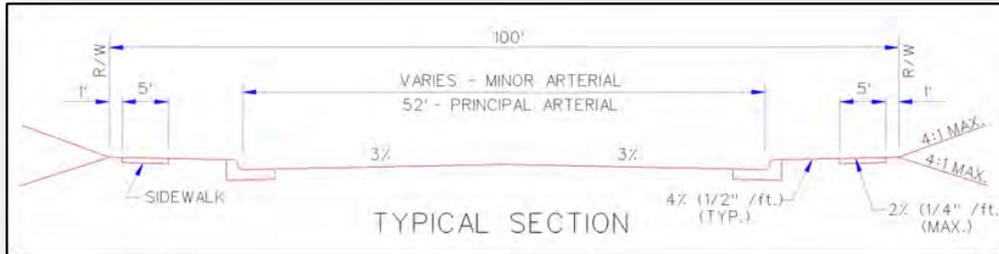


Urban minor arterial roadways provide passageways across segments of the urbanized portions of the community and connect to the regional arterial network, typically providing for curb and gutter drainage. Intersections, signalized as warranted, are provided at all arterial, collector and local roadways and the minor arterial allows for local land access directly to the facility. Intersections with other arterial roadways are typically signalized, as warranted. Minor arterial streets typically have significant local access needs or closely spaced intersecting local streets, and thus three or more optional cross sections may be applied:

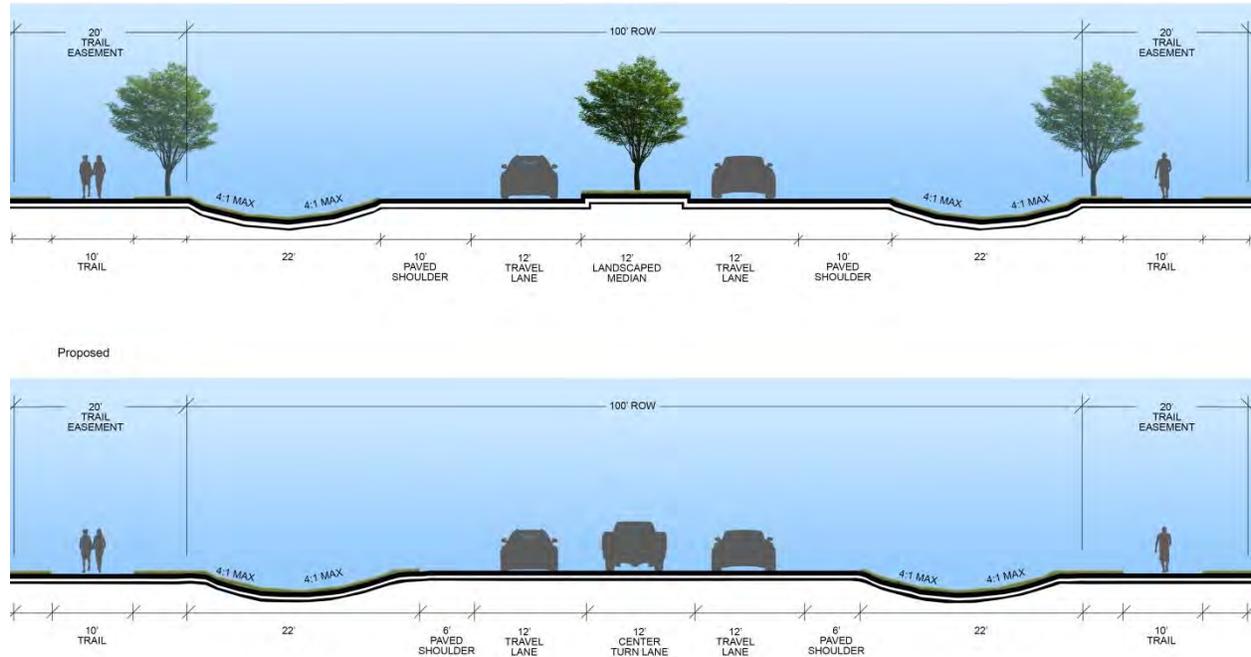
- A four lane section that can accommodate multiple left turns and right turns into adjacent property driveways. At street intersections, the left or right lanes can be dedicated to through lanes or turning lanes as needed for intersection capacity.
- A three-lane section to allow a continuous left turn lane or raised median with left turn lane pockets to facilitate the through movements along the arterial. A special version of this three lane section would have a reversible center lane that can be allocated to the peak direction of travel by special lane markings and overhead signs.
- A two-lane divided section to allow a landscaped median, with channelized left turns as needed at intersections and key driveways. A permutation of this concept would be to create a couplet of two streets with a city block serving as the median.

These are lonely three of a range of permutations that could be considered for application that would be sensitive to the needs of the adjacent development. Bike lanes would typically be provided on any permutation of the minor arterial typical section. Either sidewalks of at least 5-feet in width, or side paths of 8 to 10 feet in width, would be provided along both sides of the roadway.

**Comparison to Current Design Standards:** The proposed four lane section is consistent with the current city design standards for an urban minor arterial street (see below). The addition of the three-lane optional section for an urban minor arterial gives flexibility to city staff to plan for a less intrusive pavement section, midway between a collector and the current minor arterial that serve an arterial function.

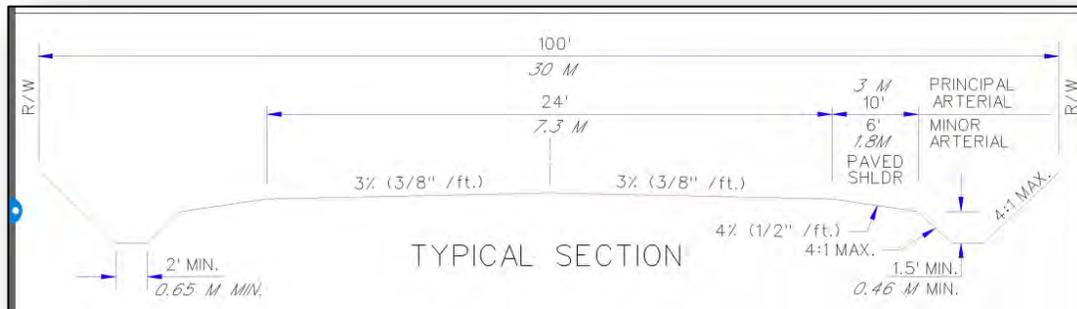


## Minor Arterials, Rural



Rural minor arterial roadways provide passageways across segments of the rural portions of the community and connect to the regional arterial network, typically providing for open ditch drainage. Intersections are provided at all arterial, collector and local roadways and the minor arterial allows for local land access directly to the facility. Intersections with arterial roadways may be signalized or stop controlled. Minor rural arterial roadways are to provide one travel lane and a 6-foot wide shoulder in each direction. Intersections with other arterial roadways may be signalized or stop controlled and provisions should be made for left turn lanes to facilitate the through movements along the arterial. Access management practices should be employed to minimize the impacts of property access in the rural minor arterial facility.

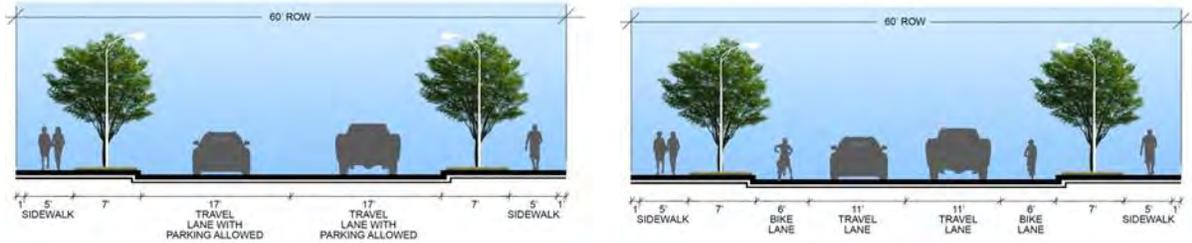
**Comparison to Current Design Standards:** The proposed sections are consistent with the current city design standards for a rural minor arterial street (see below). The center turn lane shown above would only be at the intersections.



### Collector Streets, Urban

Collector streets are an important part of the urban street network. Collector roadways tie neighborhoods together, within the one mile grid of development blocks and across the arterial roadways. The network of collectors provide numerous benefits to the transportation system:

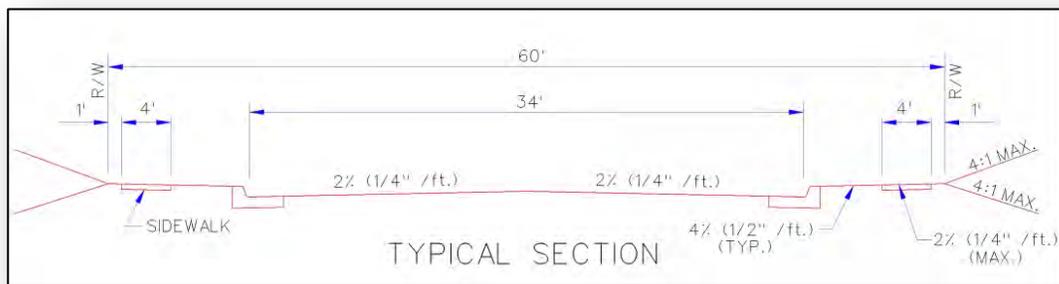
- spread-out the impact of traffic on the arterials;
- allow lower stress roadways for local traffic circulation; and
- provide bicycle friendly connections between the one-mile grid blocks.



Collector streets should be sufficiently wide to allow for one lane of traffic in each direction and either curbside parking or bike lanes (typically not both), suitable to the needs of the neighborhood and the transportation network. At intersections, the corners should be provided with bulb-outs where feasible, and except where bike lanes are provided, to create the appearance of a narrower street as a traffic calming measure.

An alternative section for one-way collector roadways would allow for one lane of traffic and both parking and a bike lane. In industrial and commercial areas, collector streets would have one of the two minor arterial typical sections and a thicker pavement section.

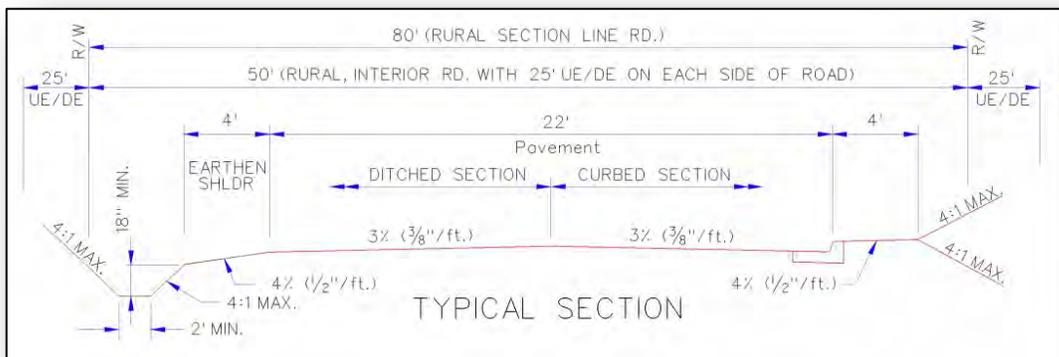
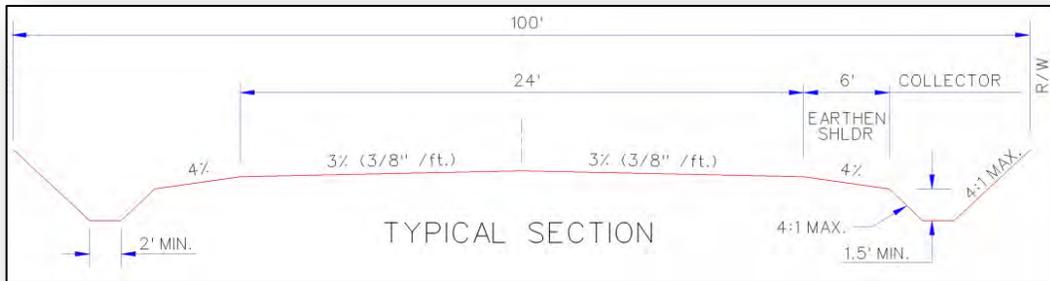
**Comparison to Current Design Standards:** The proposed sections are consistent with the current city design standards for an urban collector street (see below).



### Collector Streets, Rural

Collector streets in the rural areas of Norman can serve as the one-mile grid of streets in the sparsely developed areas near Lake Thunderbird and the Canadian River. Due to the very low traffic volumes, the roadway would consist of the minimal 22-foot width of paved roadway plus a gently graded shoulder area, for safety, that would be unpaved. A 4-foot path, paved or unpaved, should be provided along one or both sides of the roadway. Near the transition between urban and rural development areas, rural collector streets should serve the same function as urban collector streets, to provide connectivity within the one mile grid of development and to tie across arterials between the one-mile grid development blocks.

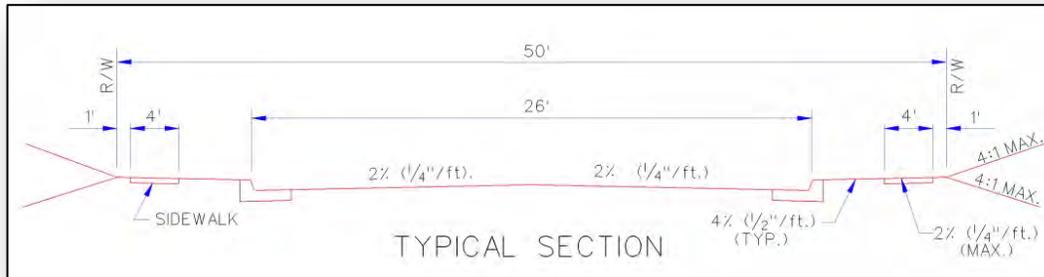
**Comparison to Current Design Standards:** The proposed sections would retain the current city design standards for a rural collector street (see below)



### Local Streets, Urban

The primary function of local streets is to provide access to and from properties. Local streets feed to and from the collector street network, but occasionally may tie directly to arterial streets. The urban local street would be 26 feet in width of pavement with curb and gutter drainage and 4-foot wide sidewalks on each side of the street. The existing city design standard (below) remains applicable.

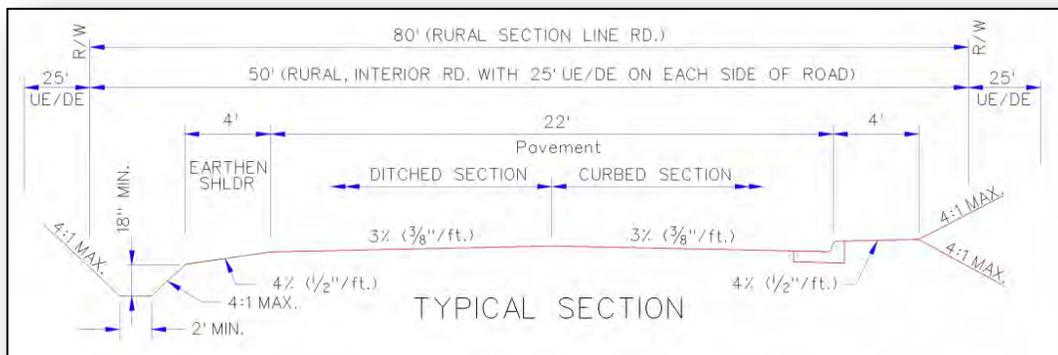
**Comparison to Current Design Standards:** The proposed sections would retain the current city design standards for an urban local street (see below)



### Local Street, Rural

Local streets in the rural areas of Norman serve access to development in the sparsely developed areas near Lake Thunderbird and the Canadian River. Due to the very low traffic volumes, the roadway would consist of the minimal 22-foot width of paved roadway plus a gently graded shoulder area, for safety, that would be unpaved. In a rural estate setting, the 22 feet of pavement may be framed by curb and gutter. The existing city design standard (below) remains applicable, with the additional requirement for a 4-foot path, paved or unpaved, which should be provided along one or both sides of the roadway.

**Comparison to Current Design Standards:** The proposed sections are consistent with the current city design standards for a rural local street (see below)





## Appendix E: Special Corridor Concepts

<b>Special Corridors</b> .....	<b>1</b>
Complete Streets .....	1
Context Sensitive Solutions.....	1
Special Context Sensitive Corridors .....	1
<b>Lindsey Street</b> .....	<b>2</b>
Lindsey Street, between Berry Road and Jenkins Avenue.....	2
Lindsey Street, between Jenkins Avenue and Classen Boulevard .....	2
<b>Porter Avenue</b> .....	<b>10</b>
Porter Avenue, between Robinson Street and Alameda Street .....	10
<b>James Garner</b> .....	<b>17</b>
James Garner extension, between Robinson Street and Acres Street .....	17
Bridge the Legacy Trail Over Robinson Street .....	17
James Garner/Jenkins Avenue, between Acres Street to Boyd Street .....	17
<b>Flood Avenue</b> .....	<b>23</b>
Flood Avenue, between Robinson Street and Main Street .....	23
<b>Berry Road</b> .....	<b>29</b>
Berry Road, between Robinson Street and Imhoff Road.....	29







## Special Corridors

In Chapter 3, the concepts of Complete Streets and Context Sensitive Solutions are presented as essential elements of roadway corridor planning and design.

### *Complete Streets*

The focus of a complete streets initiative is to consider all modes during the planning, design, construction, operation and maintenance of the city's street network. Effective complete streets policies help communities routinely create safe and inviting road networks for everyone, including bicyclists, drivers, transit operators and users, and pedestrians of all ages and abilities. For the Complete Streets policy to be effective, a program of supporting policies and procedures need to be put in place in all City departments, including a program of land use planning guidelines, a series of project development checklists, established responsibilities for addressing modal issues, and design and operating standards for implementation and maintenance.

### *Context Sensitive Solutions*

Though a roadway corridor on the Thoroughfare Plan may be of a particular classification designation - principal arterial, minor arterial or collector - its typical section may transition along its corridor depending upon the traffic volumes and relation to the adjacent land uses. In many cases, an arterial roadway may pass through rural into urban and sequentially commercial into residential settings and back again within a segment of the corridor. The typical sections to be considered for these roadways should be sufficiently adaptable to the context of its current surroundings and potential development. Similarly, the development of land adjacent to arterial roadways should be sensitive to the mobility function of the corridor. Thus, for each of the roadway classifications in the Thoroughfare Plan, multiple typical sections are proposed for potential application to the corridor context, with innumerable permutations possible.

### *Special Context Sensitive Corridors*

Every corridor should be designed with complete streets principles and context sensitive solutions in mind. Certain corridors, in particular, are identified for heightened attention to such special considerations. These corridors are special because of the significance of their immediate surroundings and are in need of greater attention to detail to mitigate the potential impacts of traffic on the corridor's sense of place, livability and economic vitality. Four corridors in particular are included as special corridors that are particularly sensitive to the existing and potential impacts of traffic operations:

- Lindsey Street, between Berry Road and Classen Boulevard
- Porter Avenue, between Robinson Street and Alameda Street
- James Garner Avenue, between Flood Avenue/Robinson Street and Boyd Street
- Flood Avenue, between Robinson Street and Main Street
- Berry Road, between Robinson Street and Imhoff Road

During the working meetings with the CVC modal Subcommittees, concepts for some of these context sensitive solutions were prepared and discussed amongst a mixed grouping of the modal Subcommittee members. The following project descriptions and illustrative diagrams were developed for discussion purposes only, and do not represent actual design concepts by the City of Norman nor do they represent any concurrence by any group within the city regarding the elements of the concepts. The corridors will require further study and collaboration with stakeholders to identify all relevant issues.

## Lindsey Street

### *Lindsey Street, between Berry Road and Jenkins Avenue*

(Implementation Action S3a)

### *Lindsey Street, between Jenkins Avenue and Classen Boulevard*

(Implementation Action S5a)

**Purpose: Relieve congestion along Lindsey Street west of OU and create a Complete Street to provide walking and bicycling connections from OU to nearby commercial/retail destinations**

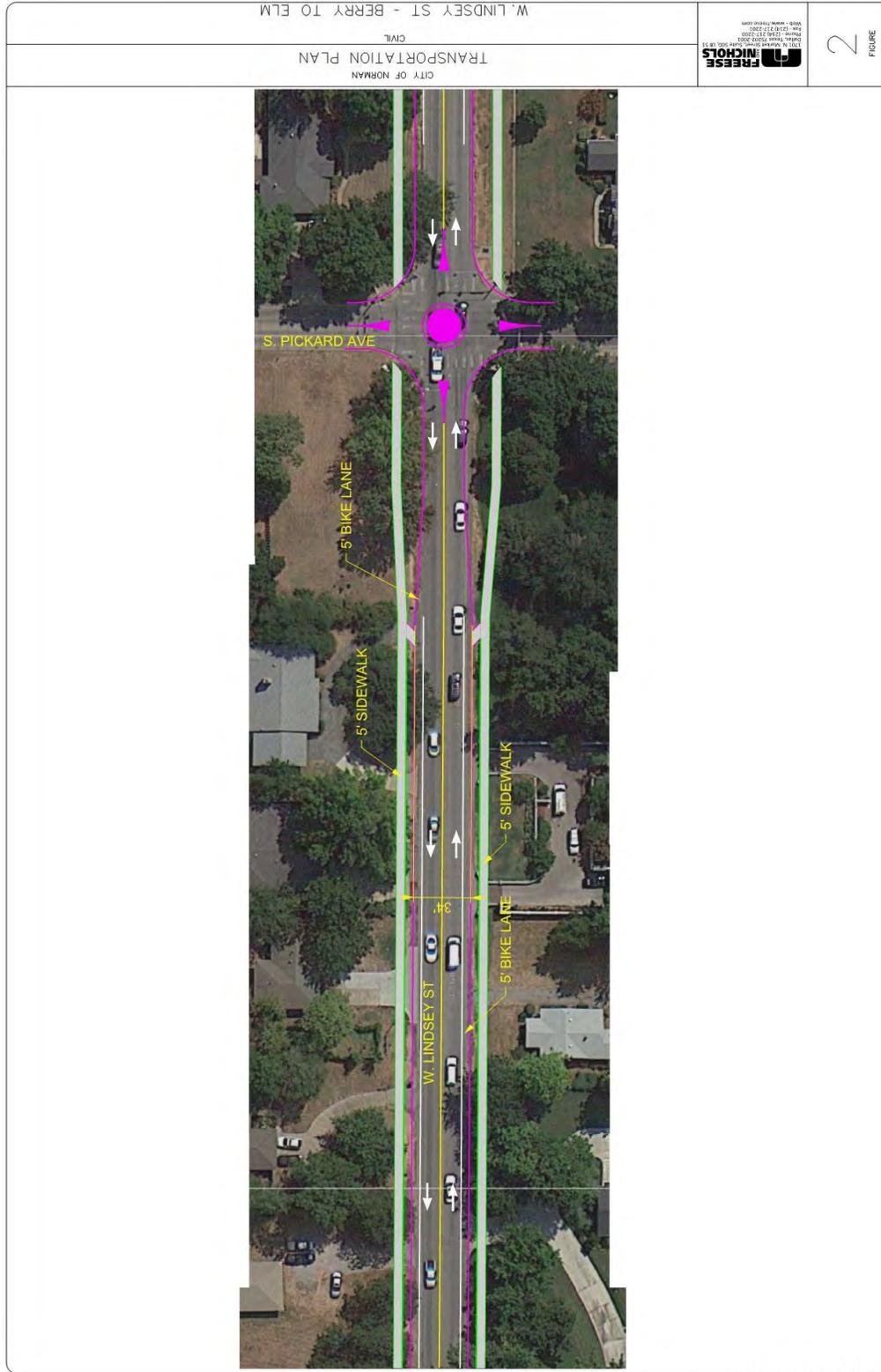
Significant dialogue and conceptual concepts have been exchanged between City staff and representatives of the University of Oklahoma (OU) regarding the desired characteristics of Lindsey Street as it approaches and passes through the university campus. Lindsey Street from Classen Boulevard to Jenkins Avenue has been constructed as a 4-lane roadway with sidepaths to accommodate multimodal access to campus from the east, as well as access and circulation during sporting events. Between Jenkins Avenue and Elm Avenue, Lindsey Street is a 3-lane roadway with adjacent sidepaths to accommodate multimodal cross circulation through the campus. West of Berry Road, the City will be improving Lindsey Street to a 4-lane divided cross section with landscaped median, bike lanes, and wide sidewalks for a consistent section approaching I-35.

Between Elm Avenue and Berry Road, Lindsey Street is a two lane open drainage tree-lined roadway with some sidewalks that generally dissipate west of Lahoma Avenue. This section of roadway is proposed to have sidewalks and bike lanes connecting the OU Campus pedestrian and bicycling network to the commercial development west of Berry Road. A context sensitive roadway typical section would be to retain one travel lane plus bike lanes in each direction, with intersection treatments, such as roundabouts, to facilitate cross street access. This typical section would be refined to fit the context of the adjacent land uses, including minimizing pavement width, considerations for driveways, and preservation of significant trees where feasible.

The existing roadway segment between Elm Avenue and Jenkins Avenue would be evaluated for enhancements that may better serve OU local traffic while serving the minor arterial roadway function of Lindsey Street. Note that a concept is not presented herein.

East of Jenkins Avenue, the sidepaths would be extended full width to Classen Boulevard. Potentially, a grade separation of Lindsey Street at the existing railroad tracks would be created, carrying the travel lanes and side paths under the railroad.















## Porter Avenue

### *Porter Avenue, between Robinson Street and Alameda Street* (Implementation Action S3b)

**Purpose:** Facilitate the planned enhancements to the Porter Avenue corridor near Downtown

A Porter Avenue Corridor Study was conducted in 2009 to assess the potential enhancement of the Porter Avenue corridor, from Robinson Street to Alameda Street. The Porter Avenue Corridor Plan presents a concept for a revitalized retail corridor to expand upon the successful retail development along Main Street just west of Porter Avenue.

One recommendation of the study suggested that Porter Avenue could be reduced to a three lane typical section so that sidewalks could be enhanced to facilitate the redevelopment of adjacent properties. As part of this CTP preparation effort, the consultant worked with city staff to prepare Synchro modeling of an enhanced three-lane section. Various iterations were prepared and found that, with four lanes between Main and Gray, the three-lane section would operate about as well as a four lane section with existing levels of traffic. Conditions with a growth of 25% and 50% were examined and still found that both the modified three-lane and the existing four-lane section would operate well with up to a 50% growth. Beyond 50% growth, both scenarios experienced significant congestion predominantly due to the crossing traffic at Main and Gray Streets.

However, there is also a desire by the CART system planners, and echoed by members of the CVC Transit Subcommittee, to introduce transit service into the Porter Avenue corridor. For the introduction of bus operations into Porter Avenue, a four-lane section would have the flexibility to allow transit stops in the rightmost lane, with cars allowed to pass in the adjacent lane. If a three-lane section were implemented, the transit stops would need to be pull-overs protruding into the widen sidewalk areas, in order to keep buses from blocking the flow of the one lane of traffic.

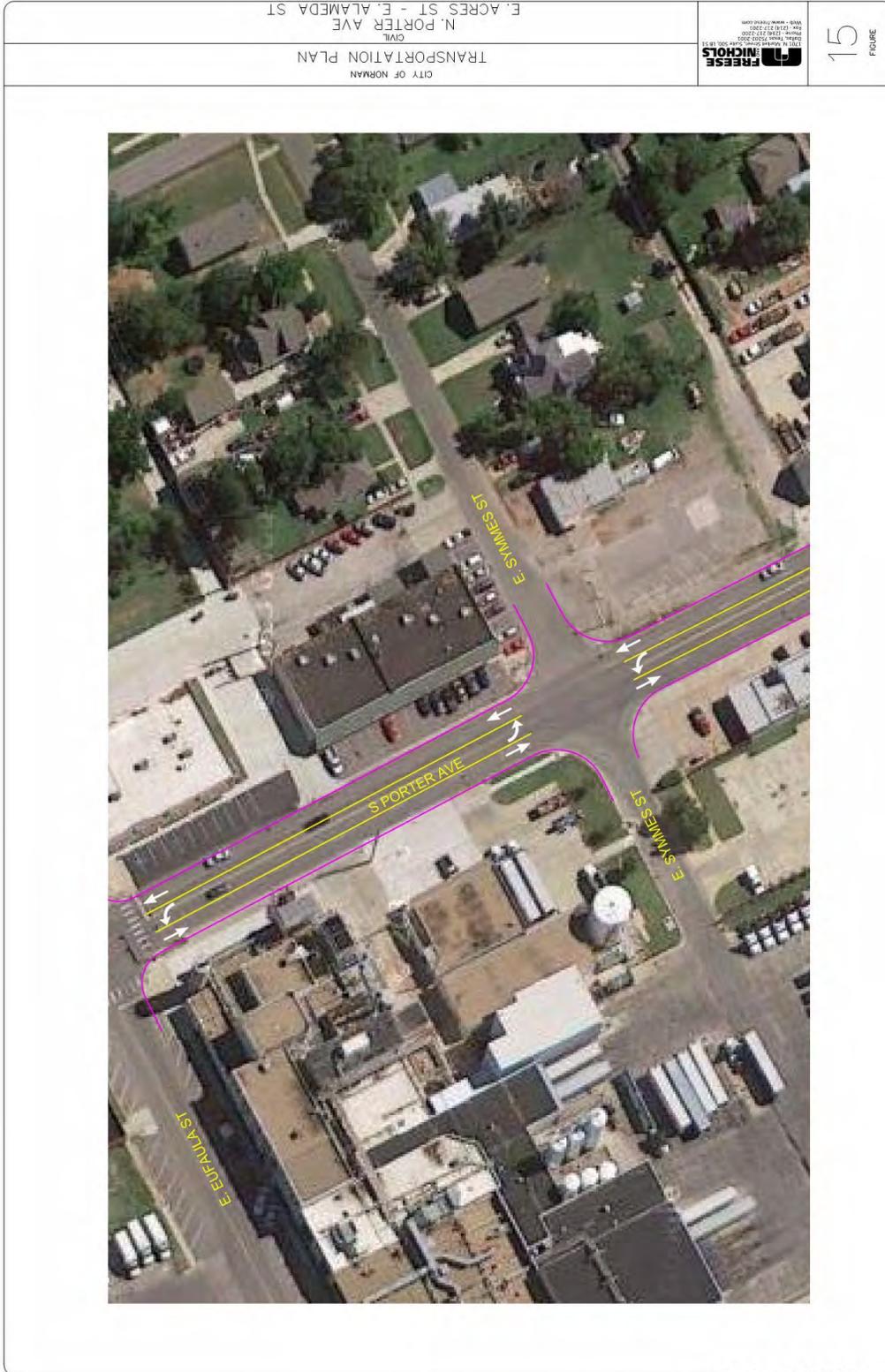
The Porter Avenue Corridor Plan draft report, containing the proposed corridor enhancements and transportation recommendations, can be found on the city's website, under the Planning and Development tab.













## James Garner

### *James Garner extension, between Robinson Street and Acres Street* (Implementation Action M3a)

### *Bridge the Legacy Trail Over Robinson Street* (Implementation Action M6b)

### *James Garner/Jenkins Avenue, between Acres Street to Boyd Street* (Implementation Action S3c)

**Purpose: Create a more direct access way between Downtown Norman and I-35/US 77 to the north.**

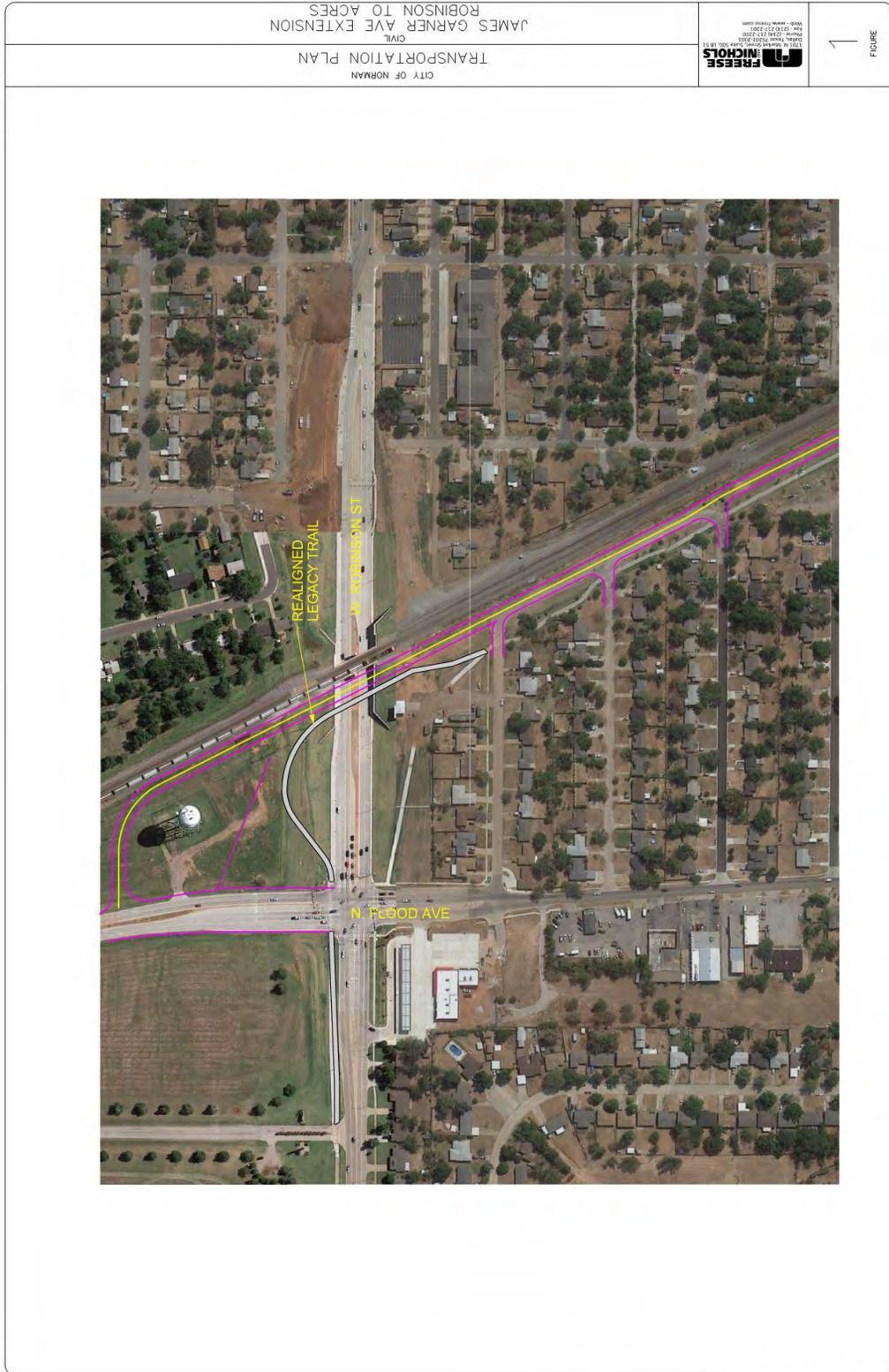
Extend the existing James Garner Avenue as a two-lane roadway from Acres Street northward to a crossing over the depressed Robinson Street, using the already provided abutments created for the Robinson Street underpass of the Railroad. Create a connection to Flood Avenue north of Robinson Street. Truncate the local streets north of Acres Street to not intersect with James Garner Avenue extension.

In conjunction with, and due to, the extension of James Garner Avenue north of Acres Street, realign the existing legacy trail north of Acres Street. Consider whether to cul-de-sac the side streets to not connect to the James Garner extension to enhance the safety of the Legacy Trail. Extend the Legacy Trail over the grade separated Robinson Street to eliminate the potential safety hazards of the existing at-grade trail crossing of Robinson Street. Develop design plans for the trail in conjunction with a potential bridge over Robinson Street for the James Garner Avenue extension. Consider the costs and potential safety and utility benefits of including a grade-separated crossing of the Legacy Trail over Flood Avenue just north of Robinson to eliminate the need for the majority of trail users to cross through the busy intersection of Robinson Street at Flood Avenue.

The proposed extension of James Garner Avenue northward to tie directly to Flood Avenue will bring a component of through traffic to the segment of James Garner Avenue south of Acres Street. This section of James Garner Avenue is currently a meandering two lane roadway with on-street parking to Boyd Street. A concept is proposed for modifications to the roadway to:

- add pockets of left turn lanes to facilitate traffic movement while retaining essentially a two-lane roadway through downtown
- remove various areas of curbside parking and create pockets of off-street parking in the public right-of-way
- enhance the intersections of James Garner at Acres, Gray and Main Street to facilitate north south movement along James Garner while blending its movements into the fabric of the Downtown Streets

Potential densification of development along James Garner/Jenkins Avenue, between Main Street and Boyd Street, will increase the significance of the need for good access and circulation, off-street parking, and increased accommodations for bicycle and pedestrian mobility. Design the travel lanes, bike lanes, bus accommodations, sidewalks and corridor parking provisions will need to support higher density development and transit oriented development.



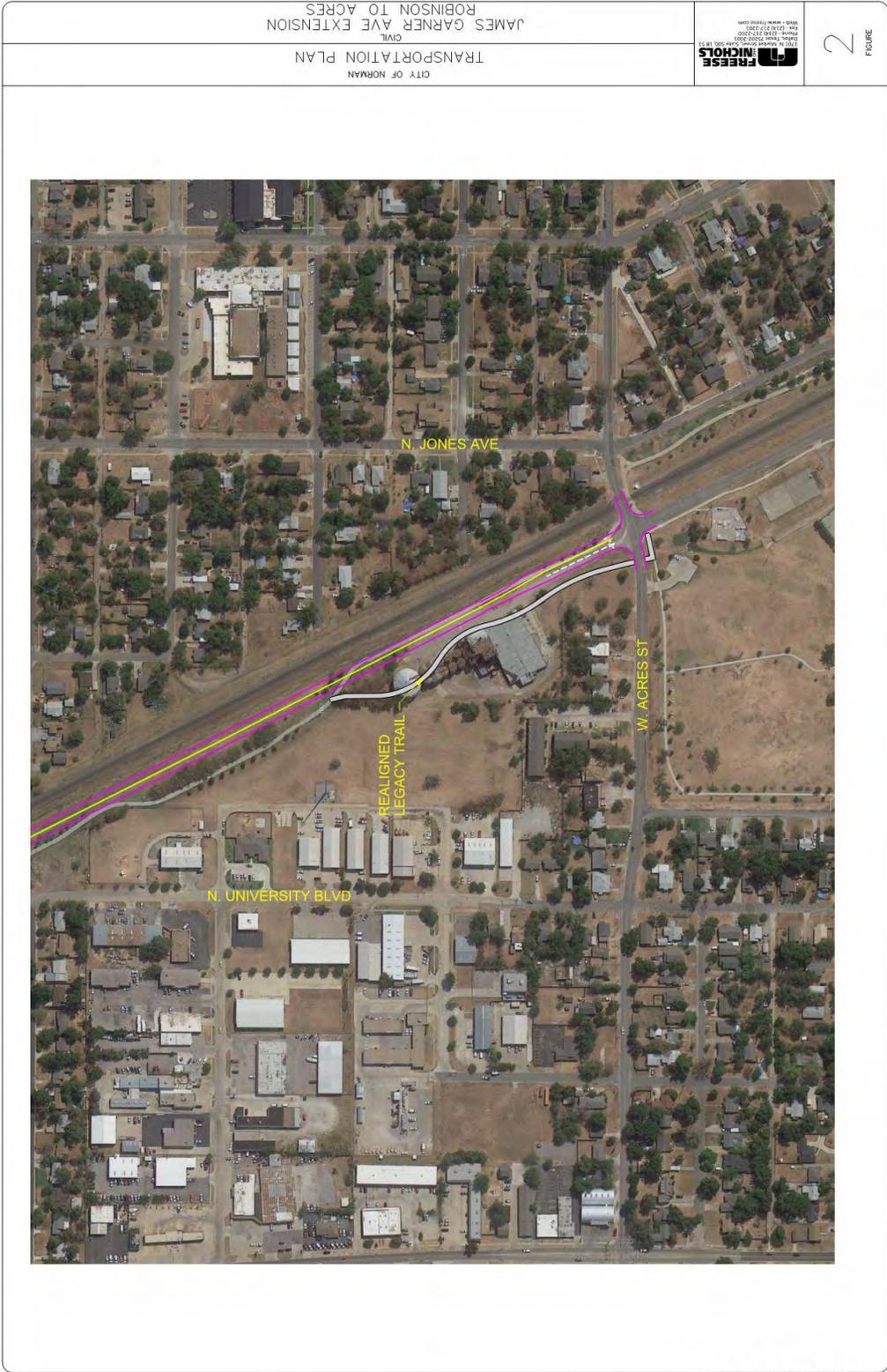
CITY OF NORMAN  
 TRANSPORTATION PLAN  
 CIVIL  
 JAMES GARNER AVE EXTENSION  
 ROBINSON TO ACRES



FIGURE 1

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 Date: [unreadable]  
 Scale: [unreadable]  
 Project: [unreadable]

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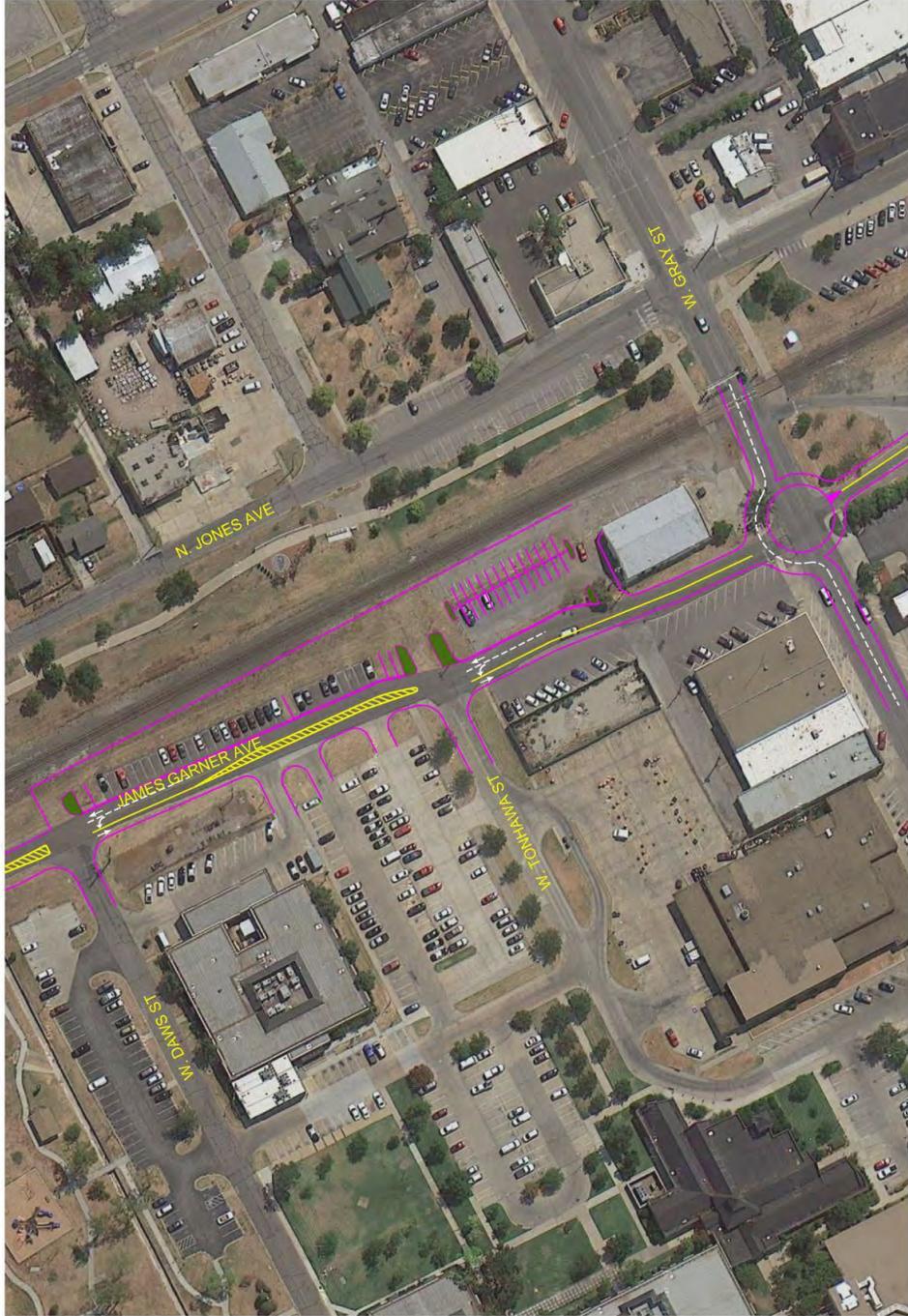
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 User: jgarcia  
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CITY OF NORMAN  
 TRANSPORTATION PLAN  
 CIVIL  
 JAMES GARNER AVE EXTENSION  
 ROBINSON TO ACRES



2  
 FIGURE





City of Norman, Oklahoma  
 Norman Comprehensive Transportation Plan  
 Transportation Planning and Design  
 1000 West Main Street, Suite 100  
 Norman, Oklahoma 73061  
 Phone: 405.321.2121  
 Fax: 405.321.2122  
 www.normanok.gov

Office: 405.321.2121  
 Date: 06/04/2014  
 File: 1000 West Main Street, Suite 100, Norman, Oklahoma 73061

CITY OF NORMAN  
 TRANSPORTATION PLAN  
 JAMES GARNER AVE EXTENSION  
 ACRES TO EUFALIA



4  
 FIGURE



CITY OF NORMAN  
TRANSPORTATION PLAN  
JAMES GARNER AVE EXTENSION  
GIVEL  
ACRES TO EUFALIA



FIGURE  
5

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## Flood Avenue

### *Flood Avenue, between Robinson Street and Main Street* (Implementation Action S3d)

**Purpose: Relieve existing and future congestion along Flood Avenue south of Robinson Street**

US 77/Flood Avenue forms a direct conduit from the core of Norman to and from I-35 to the north. Traffic on Flood Avenue south of Robinson Street currently experiences moderate congestion during the AM and PM peak hours due to the capacity constraints of the two lane section just north of Acres Street, exacerbated by the driveway activity in and out of adjacent development.

Simulation of the 2035 travel demand and roadway network with the proposed James Garner Extension in place from Acres Street to Flood Avenue north of Robinson Street indicates that the extension will relieve some of the traffic demand from Flood Avenue south of Robinson Street, reducing future congestion on Flood Avenue to a less severe condition.

To alleviate the remaining congestion on Flood Avenue, once the James Garner Extension is in place, operational improvements could be assessed that would be supportive of the adjacent land uses. Such improvements could possibly consist of:

- Widening to a three-lane section north of Acres Street would improve throughput on Flood Avenue by allowing left turns a place to get out of the flow of traffic.
- Alternatively, a four-lane section could be assessed, allowing off-peak parking along the street curb, while greatly increasing the throughput capacity during peak hours.
- Access management of driveways along the roadway by the provision of cross access among adjacent parking lots that would allow consolidation of driveways, increasing net available off-street parking and further improving the throughput capacity of the roadway.
- Provision of sidewalks continuously along both sides of Flood Avenue to facilitate walking between neighborhoods and retail

The segment between Robinson and Acres Streets would receive one treatment concept, while the segment between Acres and Main Streets would receive another more residential set of treatments.





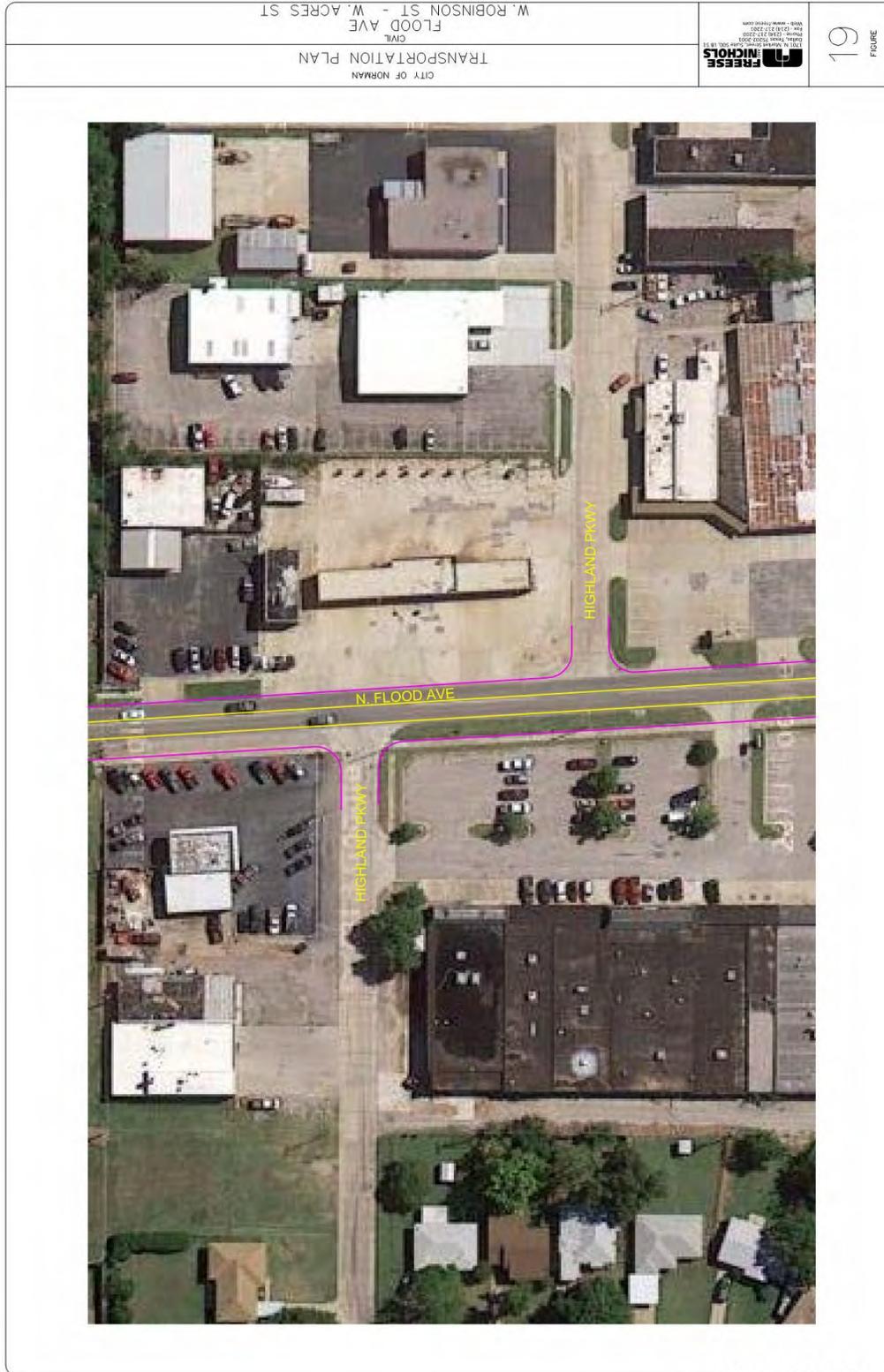


FIGURE 19

TRANSPORTATION PLAN  
 CITY OF NORMAN  
 CIVIL  
 FLOOD AVE  
 W. ROBINSON ST - W. ACRES ST

**FRESE**  
**MICHOLES**  
 1000 N. UNIVERSITY AVENUE, SUITE 100  
 NORMAN, OKLAHOMA 73069  
 PHONE: (405) 221-2000  
 FAX: (405) 221-2001  
 WWW: WWW.FRESE.COM

08/11/2014 10:58:13 AM  
 User: user  
 File: W:\Projects\Norman\Transp\_Aerial.apx





## Berry Road

### *Berry Road, between Robinson Street and Imhoff Road* (Implementation Action M3f)

**Purpose: Create a Multimodal Corridor**

Berry Road is predominantly a two-lane roadway, with auxiliary lanes provided at major intersections. The development along Berry Road can be characterized as predominantly residential, with commercial development at the major intersections of Robinson Street, Main Street and Lindsey. Norman High School lies at the northeast corner of Berry Road at Main Street. South of Lindsey Street, adjacent development is single family homes. Some parallel parking provisions have been installed, with financial participation by adjacent residents, along Berry Road between Dakota and Dorchester Streets. Travel demand modeling for 2035 estimates that Berry Road will operate at acceptable levels of service as a two-lane roadway with auxiliary lanes at major intersections. As such it would make a good bicycling corridor given a few more feet of width. The Pavement Condition Index along the majority of Berry Road is below acceptable standards. Future reconstruction of Berry Road will allow the opportunity to provide a two-lane corridor with bike lanes along its length from Robinson Street to Imhoff Road. Roundabouts may be considered for intersection traffic control treatments in lieu of traffic signals at all except Robinson, Main and Lindsey Streets to affect corridor traffic calming. Other considerations for this roadway may include constructing a three-lane roadway with bike lanes between Robinson Street and Lindsey Street that could be re-striped to a four-lane roadway if needed in the future to serve as a north-south circulator roadway to provide an alternative to 24<sup>th</sup> Avenue W. and Flood Avenue as traffic volumes increase over time. Also, CART has identified Berry Road as a corridor of interest for a future bus route, which may indicate the need for providing bus pullover bays at the bus stops, which may be combined with the space allocated for bike lanes as needed to conserve right-of-way.



## Appendix F: Other Corridor Treatment Concepts

<b>Corridor Treatment Concepts .....</b>	<b>1</b>
Main/Gray Streets One-way Couplet, Porter Avenue to the Roundabout at Carter Avenue .....	2
Road Diet for Main and Gray Streets from Flood Avenue to Jones Avenue,.....	6
and Modify the Western End of the Couplet.....	7
Create a One-Way Couplet of Peters and Crawford Avenues, from Acres Street to Alameda Street ...	12
Bike Lanes on University and Webster .....	17



## Corridor Treatment Concepts

During the working meetings with the CVC modal Subcommittees, concepts for some context sensitive solutions were prepared and discussed amongst a mixed grouping of the modal Subcommittee members. Some of the special corridor concepts were presented in Appendix E. This appendix contains many of the remaining concepts that were shared with the modal subcommittees.

The corridors will require further study and collaboration with stakeholders to identify all relevant issues and develop and design concept for each corridor. Three corridors in particular are included as special corridors that are particularly sensitive to the context of their surroundings:

- Main Street/Gray Street Couplet East of Porter Avenue
- Main/Gray Streets One-way Couplet, Porter Avenue to the Roundabout at Carter Avenue
- Create a One-Way Couplet of Peters and Crawford Avenues, from Acres Street to Alameda Street
- Bike Lanes on University and Webster

The following project descriptions and illustrative diagrams were developed for discussion purposes only during the formation of the CTP, and do not represent actual design concepts by the City of Norman nor do they represent any concurrence by any group within the city regarding the elements of the concepts.

## ***Main/Gray Streets One-way Couplet, Porter Avenue to the Roundabout at Carter Avenue***

### **(Implementation Action M3b)**

**Purpose: Enhance the neighborhood atmosphere of the two streets by reducing to one travel lane, adding bike lanes and potentially adding parking along the street, while simplifying the intersections at Porter Avenue**

Both Main Street and Gray Street east of Porter Avenue to the roundabout at Carter Avenue would be converted to provide just one lane plus a bike lane in each direction. Conversion of the two lanes of traffic to one lane of traffic would allow for the provision of a buffer area between the travel lane and bike lane. Alternatively, the width could be used to provide parking along both Main and Gray Streets.

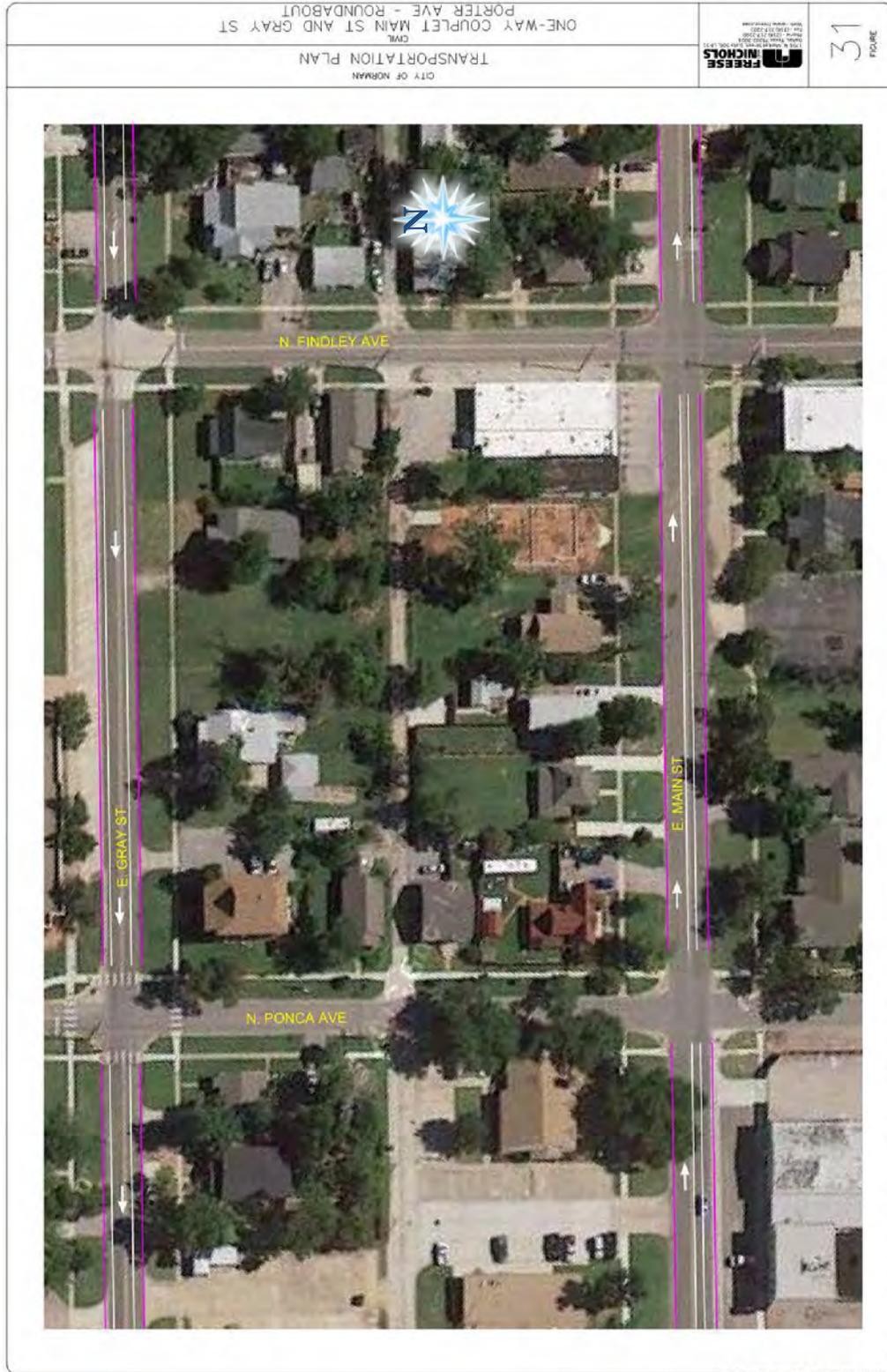
Continuing the one-way couplet of Main and Gray Streets to the east of Porter Avenue will provide many benefits, including:

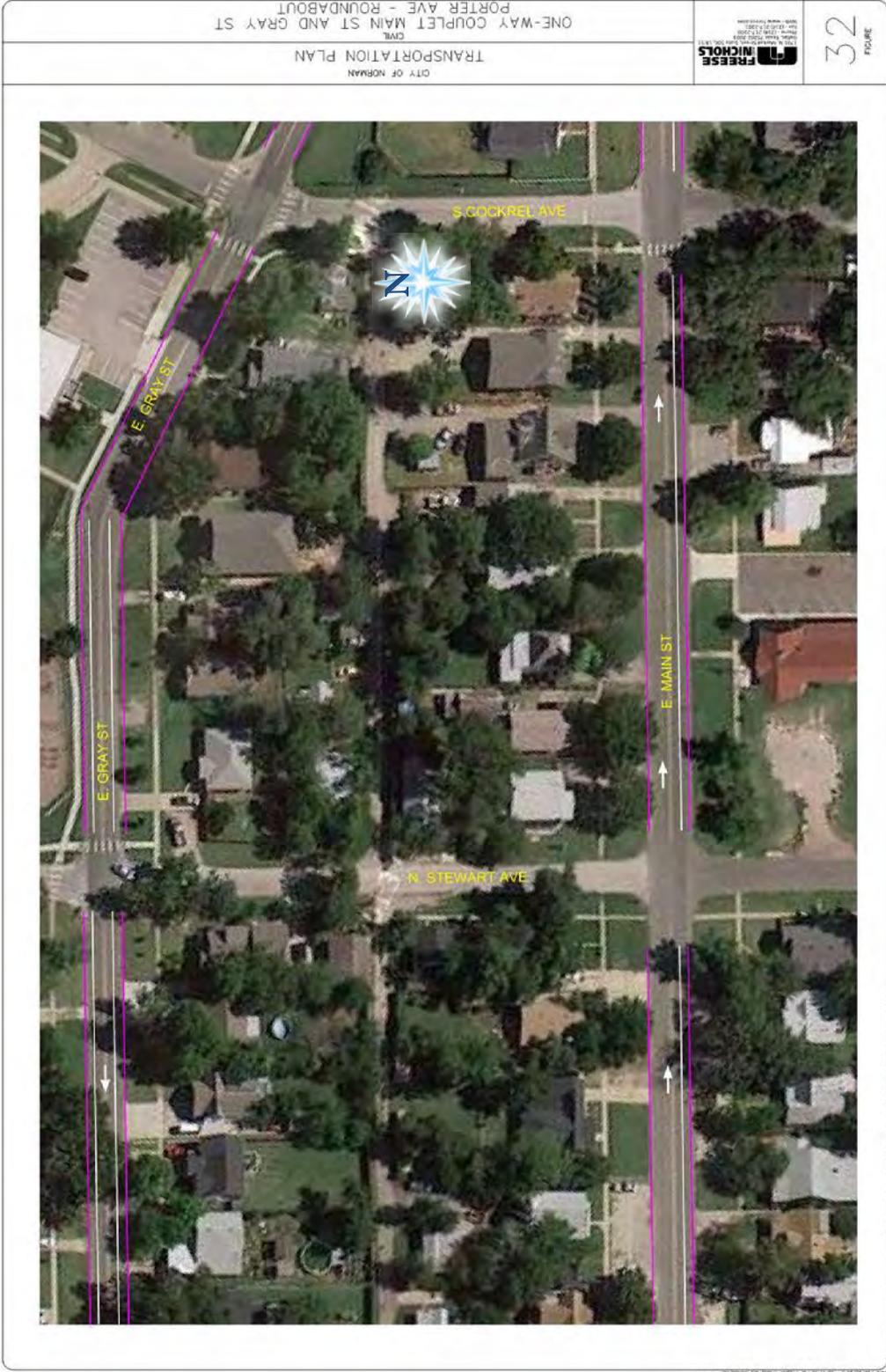
- Provide for a bicycling corridor connecting the trails alongside Main Street east of the roundabout to Porter Avenue and Downtown
- Optionally provide curbside parking along one side of Main and Gray Streets through the residential section east of Porter Avenue
- Reducing the number of directional movements that need to be accommodated at the Main and Gray Street signal operations on Porter Avenue, freeing up much needed signal green time along Porter Avenue.

Implementation will be accomplished predominantly by re-striping the street and associated modifications to traffic control. Some minor physical channelization may be needed to create a U-turn from Main Street to Gray Street at the western edge of the roundabout.

Special lane designation treatment will be needed to provide for an emergency vehicle contraflow lane for the one block from the fire station to Porter Avenue.









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## ***Road Diet for Main and Gray Streets from Flood Avenue to Jones Avenue, and Modify the Western End of the Couplet***

**(Implementation Action S3e)**

**Purpose: Reduce the footprint of the traffic lanes through downtown and provide enhanced safety for parking maneuvers while allowing for conveyance of bicycles**

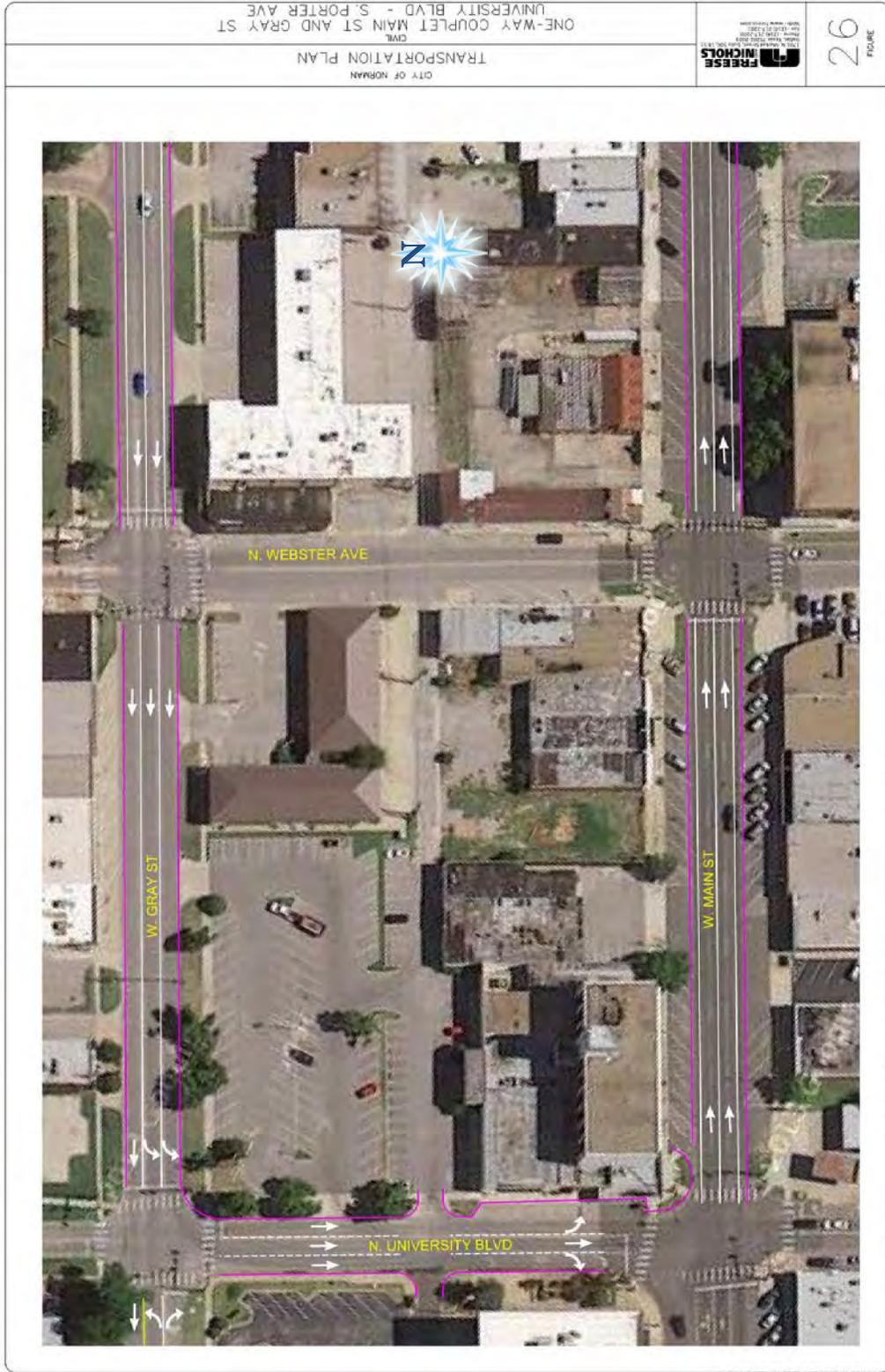
The context for the Main/Gray Street couplet is to both bring traffic into the Downtown and provide access and circulation to the businesses along the Downtown streets. With the offset network of streets near Downtown, Main and Gray Streets allow movement through the Downtown for origins and destinations surrounding Downtown, and thus serve as Minor Arterials through Downtown.

A concept was envisioned that would reduce both Main Street (eastbound) and Gray Street (westbound) to two lanes each west of the railroad crossing.

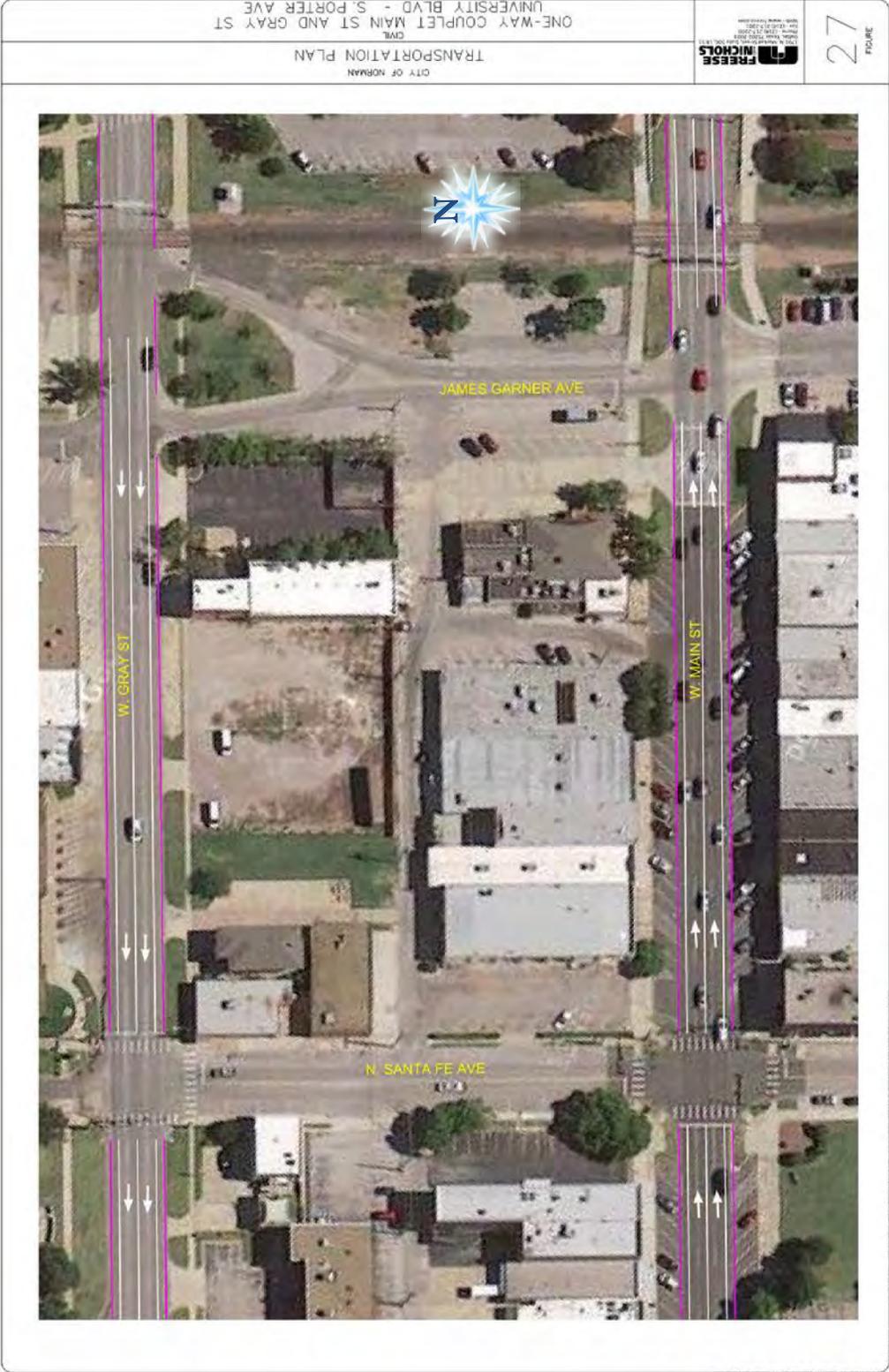
- Main Street west of the railroad – three eastbound lanes would be reduced to two eastbound lanes and the lane width split along each side of the travel lanes to provide space between the travel lanes and the angled parking lanes. This treatment will enhance the safety of the backing-out maneuvers from the parking stalls and will also provide space for bicyclists to ride along Main Street from Webster Avenue into Downtown
- Main Street east of the railroad – two lanes west of the railroad will transition to the existing three lanes east of Jones Street
- Gray Street east of the railroad – three westbound lanes would be reduced to two westbound lanes and the lane width split along each side of the travel lanes to provide space between the travel lanes and the angled parking lanes. This treatment will enhance the safety of the backing-out maneuvers from the parking stalls and will also provide space for bicyclists to ride along Gray Street from east of Porter Avenue into Downtown
- Gray Street west of the railroad - two lanes east of the railroad will continue as two lanes west of the railroad, then transition to three lanes between Webster Avenue and University Boulevard

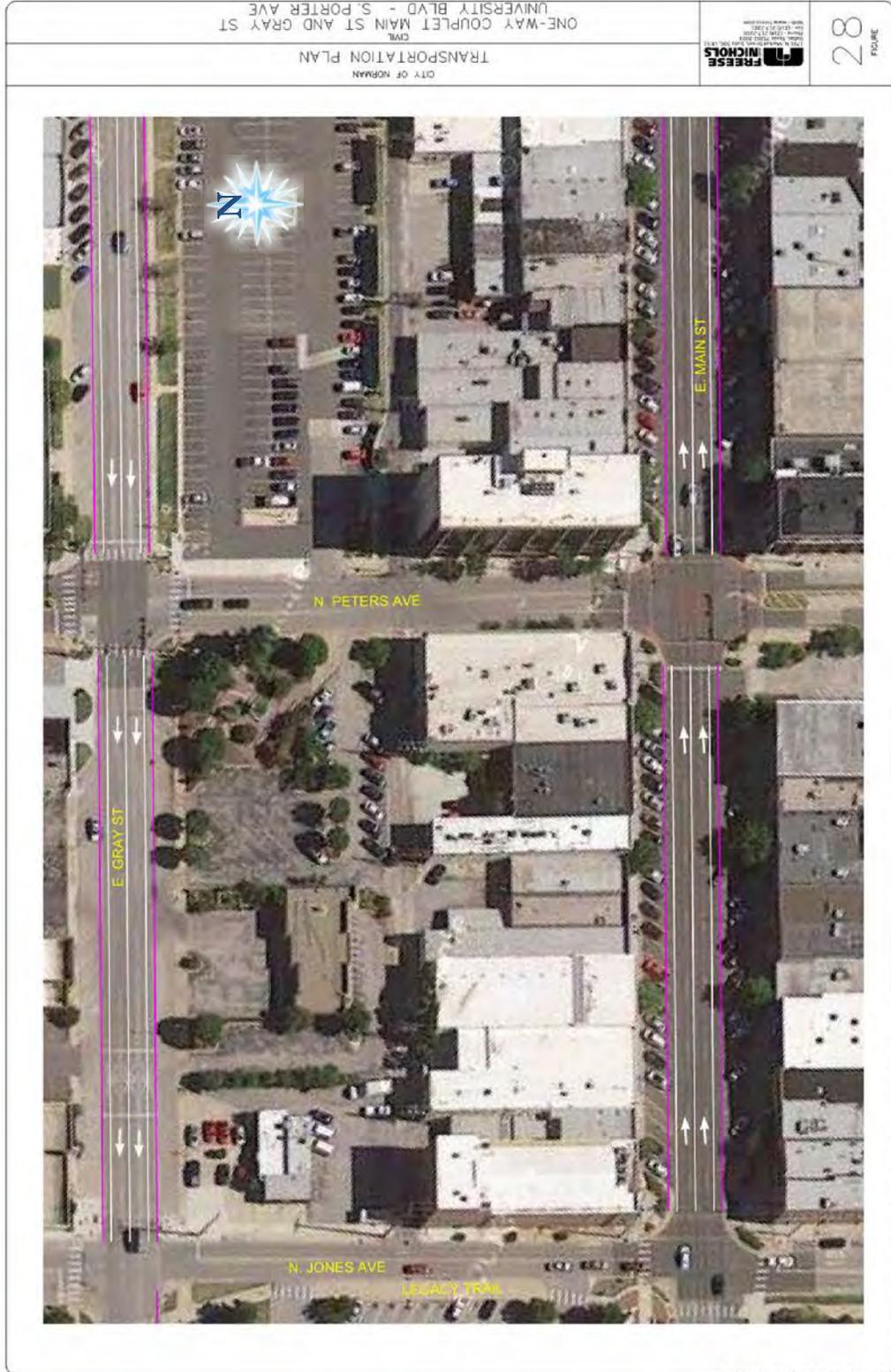
The concept also included enhancements to the western transition of the couplet by strengthening the transition of the westbound traffic flow back to two-way Main Street at University Boulevard. This is accomplished by converting the one block of University Boulevard between Gray and Main Streets to three one-way southbound lanes, with a double left turn from Gray Street to University Boulevard and a double right turn from University Street to the westbound lanes of Main Street.

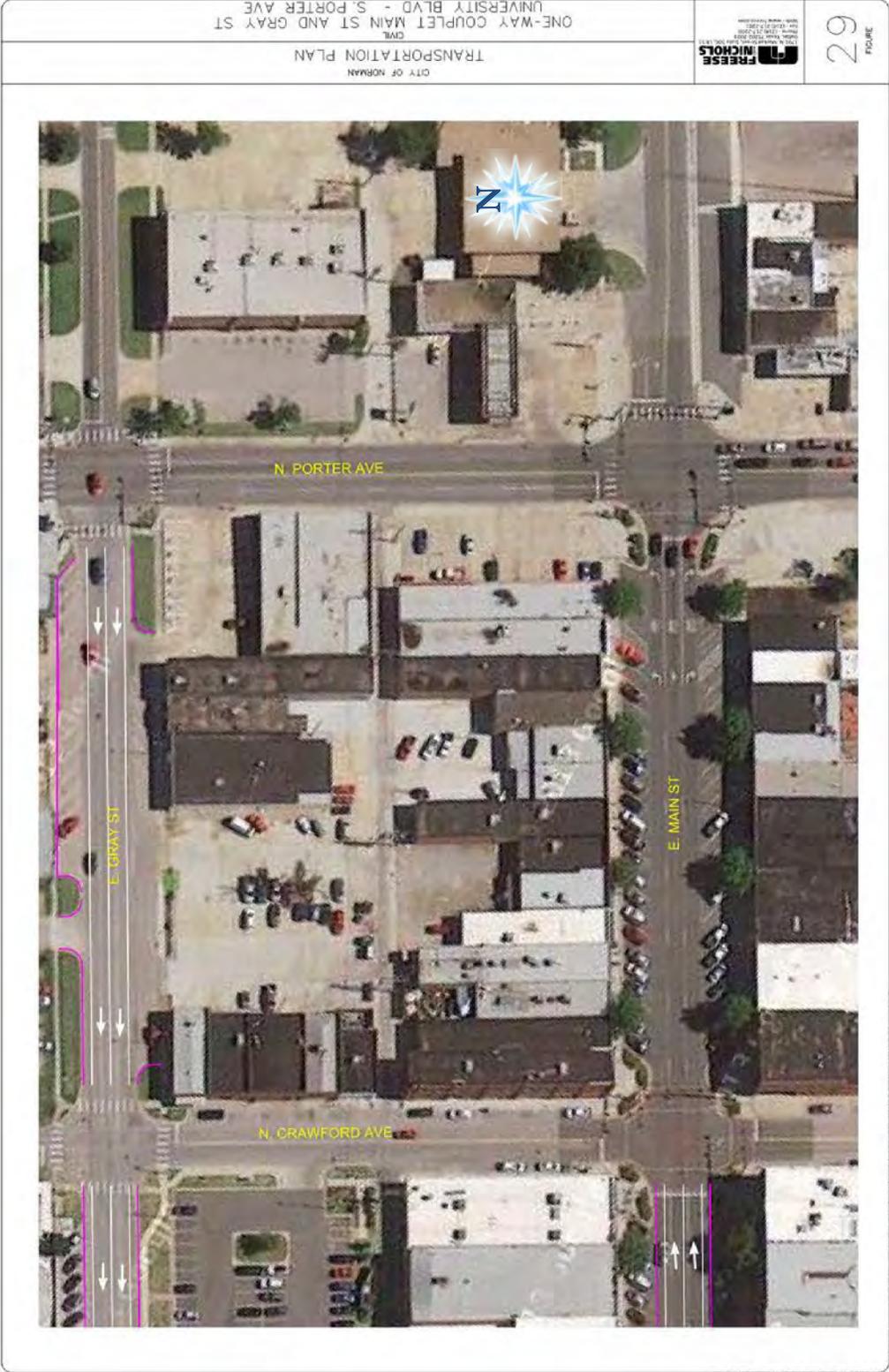
Gray Street west of University Boulevard would be converted to a collector street, reduce traffic feeding onto Flood Avenue, and allow localized redevelopment along Gray Street between University Boulevard and Flood Avenue.



Source: Google Earth, 10/12/2010 10:10:10 AM. Photo taken 10/12/2010 10:10:10 AM. Photo taken 10/12/2010 10:10:10 AM. Photo taken 10/12/2010 10:10:10 AM.







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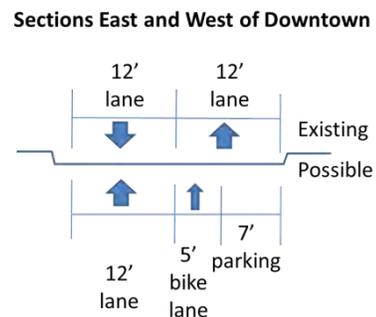
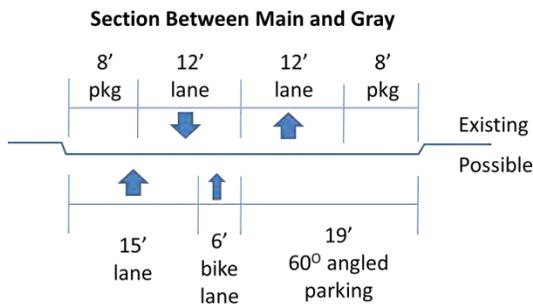
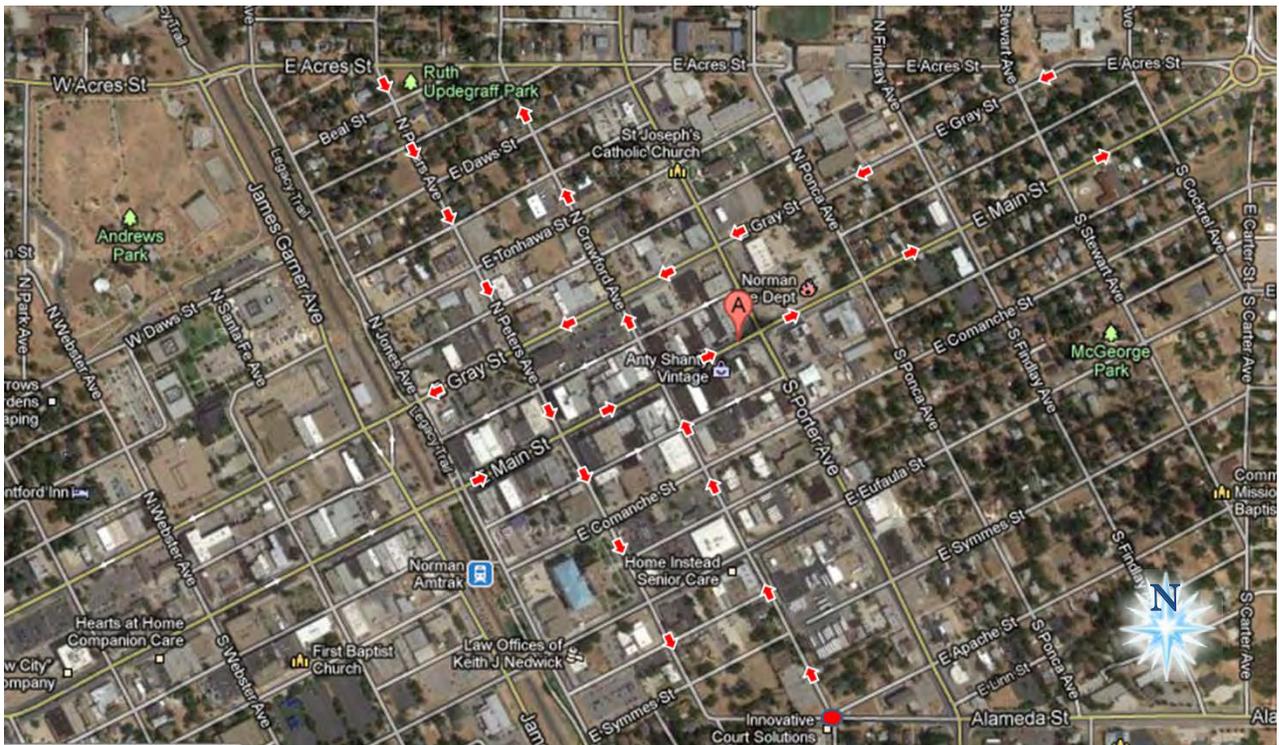
29  
FIGURE

Other Corridor Concepts

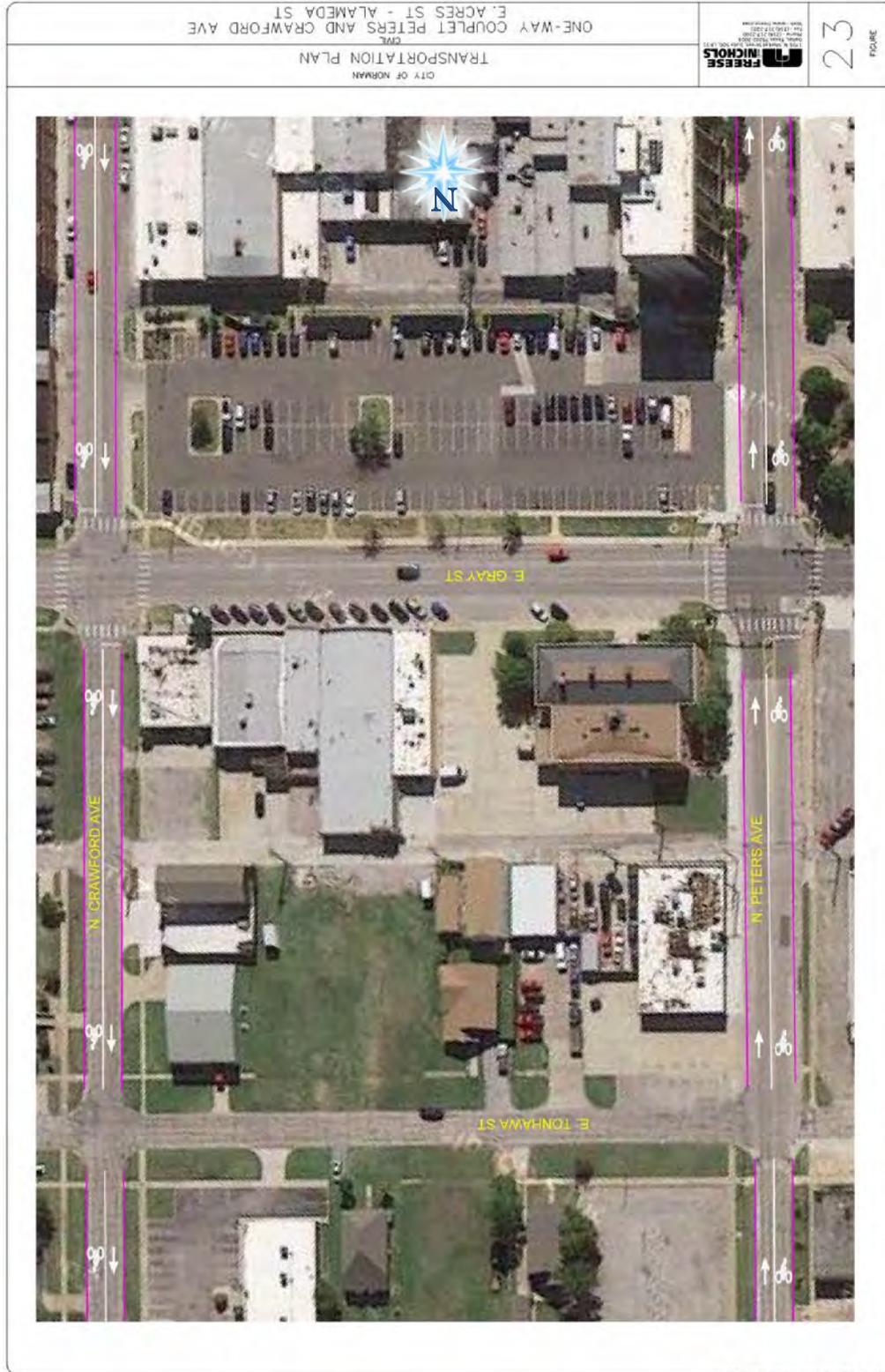
## Create a One-Way Couplet of Peters and Crawford Avenues, from Acres Street to Alameda Street (Implementation Action M3c)

**Purpose:** Simplify the intersections with Main and Gray Streets and provide for bicycle conveyance through Downtown, while providing enhanced traffic patterns parallel to Porter Avenue

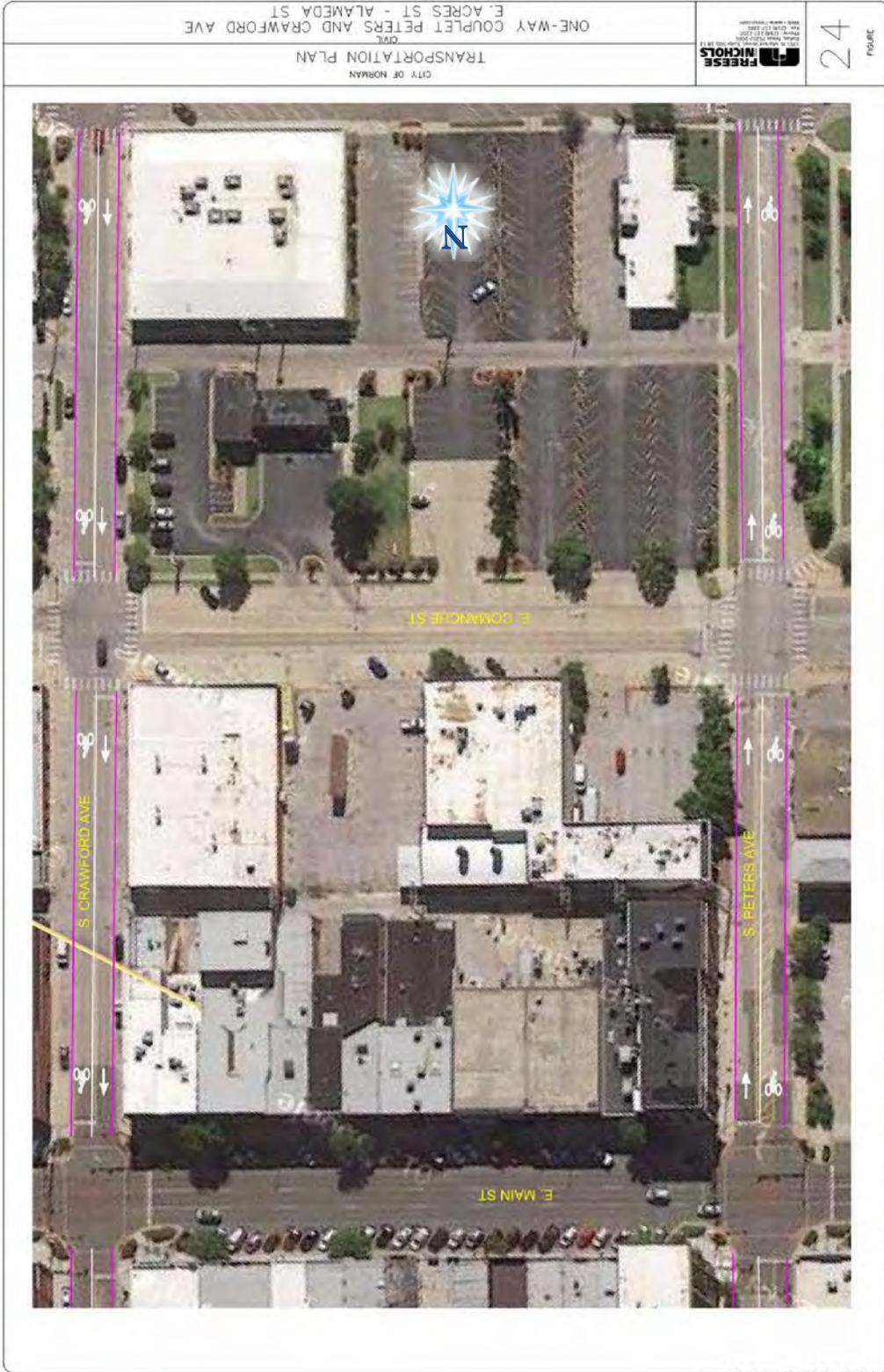
Working with the existing roadway pavement, designate Peters Avenue as a southbound one-way street and Crawford Avenue as a northbound one-way street between Acres and Alameda Streets. West of Gray Street, Peters and Crawford Avenues would each consist of one through lane with a parking lane and a bike lane. Between Main and Gray Streets, each street would have two lanes in one direction with curbside parking on one or both sides. South of Main Street, each street would have one or two lanes in one direction with curbside parking on one or both sides, depending on the width of the existing roadway. To complete the couplet, the section of Alameda Street between Peters and Crawford Avenues would be converted to one-way eastbound, with a roundabout or other traffic control measure at the intersection of Alameda Street at Crawford Avenue.







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CITY OF NORMAN  
TRANSPORTATION PLAN  
ONE-WAY COUPLET PETERS AND CRAWFORD AVE  
E. ACRES ST - ALAMEDA ST



24  
FIGURE



### ***Bike Lanes on University and Webster***

**(part of Implementation Action M6a – Restripe Identified Existing Streets to Add Bike Lanes)**

**Purpose: Provide for enhanced bicycle conveyance between the northern edge of OU and Downtown**

Several streets in the Bicycle and Pedestrian Plan are proposed along streets that are currently of sufficient width to allow striping or re-striping to add 5-foot wide bike lanes . The OU bicycle Plan indicates that bike lanes are proposed along the entry drive south of the intersection of University Boulevard at Boyd Street.

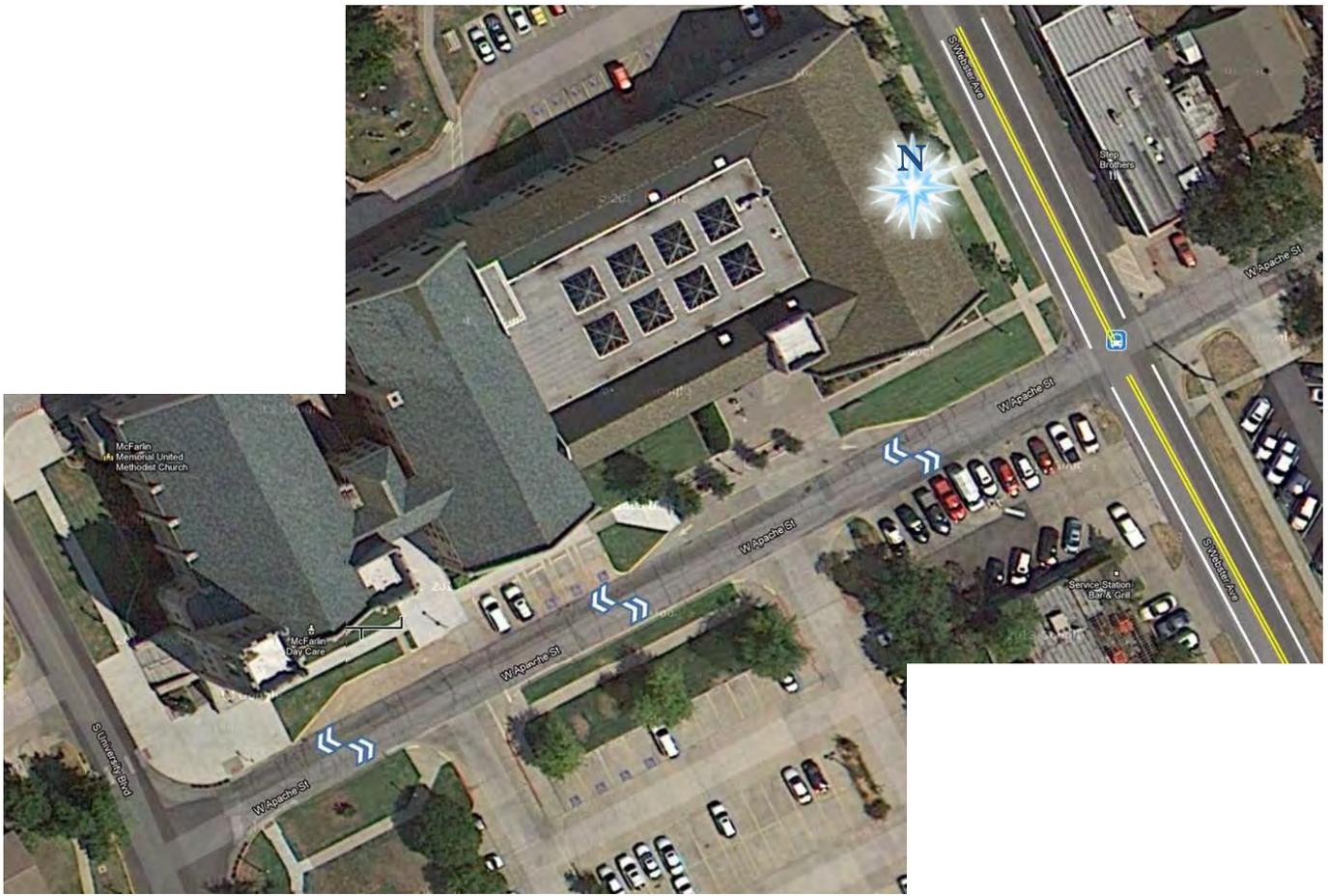
As part of the City’s Bike Plan, the existing streets between Boyd Street and the Main/Gray Street couplet would receive treatments to enhance the attraction and safety of bicycle travel as follows:

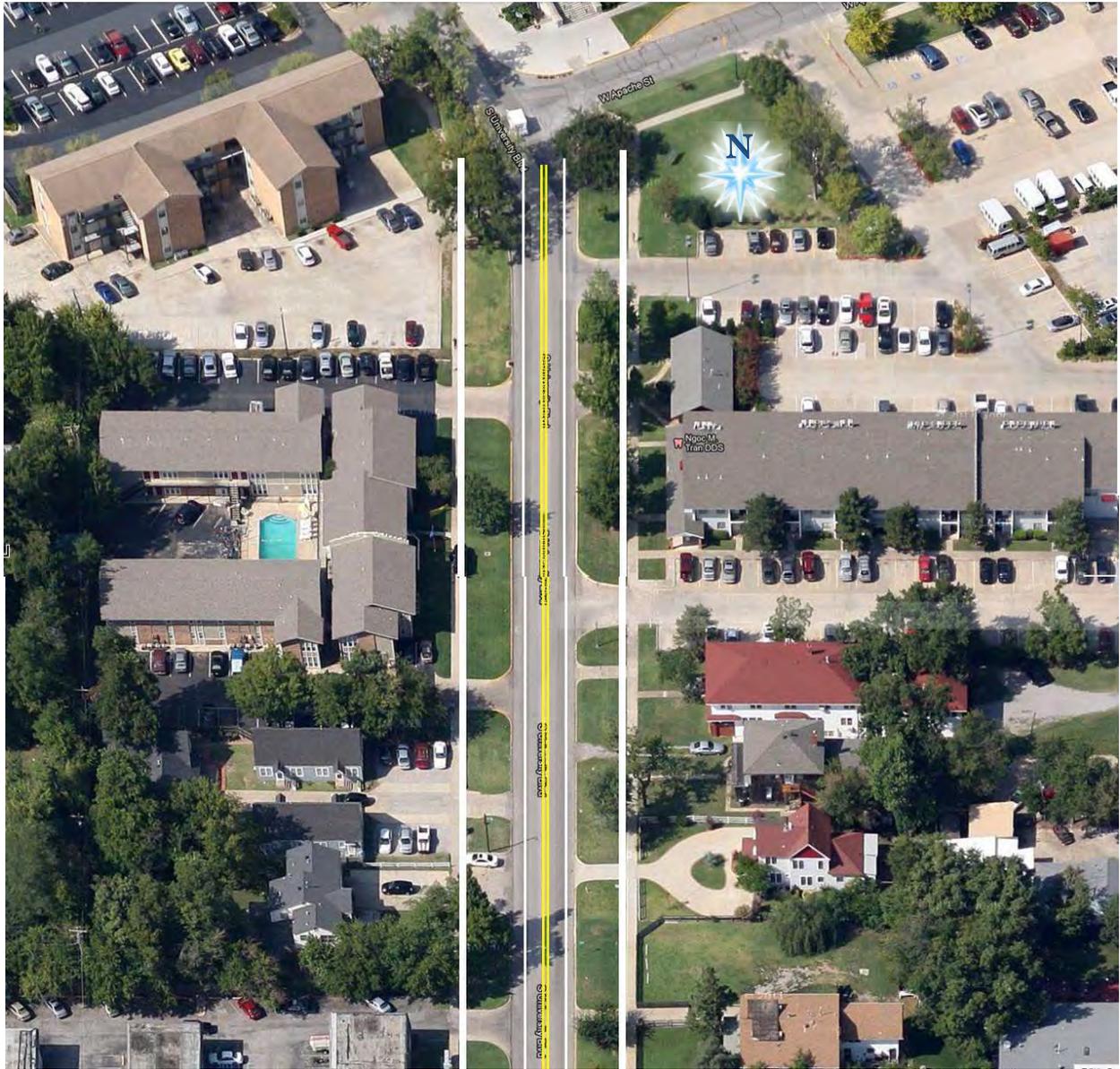
- On S. University Boulevard, between Boyd Street to W. Apache Street - re-stripe the existing two 15-foot through lanes to 10-foot through lanes and stripe a 5-foot bike lane next to the curb in each direction
- On Apache Street between University boulevard and Webster Avenue – add sharrows to the pavement and designate as a bike route
- On Webster Avenue, between Duffy Street to Daws Street - re-stripe the existing two 15-foot through lanes to 10-foot through lanes and stripe a 5-foot bike lane next to the curb in each direction.













Other Corridor Concepts



## **Appendix G: Complete Streets Policy for Norman**

<b>Draft Complete Streets Policy Statement .....</b>	<b>1</b>
<b>Draft Complete Streets Program Manual .....</b>	<b>3</b>



## Draft Complete Streets Policy Statement

The following is a complete Streets Policy Statement that could be adopted by the City of Norman.

<appropriate heading titles and statements>

A RESOLUTION IN SUPPORT OF A POLICY TO CREATE A COMPREHENSIVE, INTEGRATED, AND INTERCONNECTED MULTIMODAL NETWORK OF COMPLETE STREETS FOR THE CITY OF NORMAN THAT SUPPORTS SUSTAINABLE DEVELOPMENT AND BALANCES THE NEEDS OF ALL USERS IN ORDER TO ACHIEVE MAXIMUM FUNCTIONALITY AND EFFICIENCY OF THE TRANSPORTATION SYSTEM OF FACILITIES AND SERVICES. THE PURPOSE OF THIS POLICY IS TO SET FORTH PLANNING AND DESIGN GUIDING PRINCIPLES TO BE CONSIDERED IN ALL TRANSPORTATION PROJECTS, WHERE PRACTICABLE, ECONOMICALLY FEASIBLE, AND IN ACCORDANCE WITH APPLICABLE LAWS AND ORDINANCES, SO AS TO PROVIDE ACCOMMODATION FOR WALKING, BICYCLING, AND OTHER NONMOTORIZED FORMS OF TRANSPORTATION, IN ADDITION TO MOTORIZED TRANSPORT, INCLUDING PERSONAL, FREIGHT, AND PUBLIC TRANSIT VEHICLES.

WHEREAS, Norman’s Comprehensive Transportation Plan recommends the adoption of a Complete Streets Policy; and

WHEREAS, Complete Streets are defined as those that provide safe, accessible and convenient transportation facilities for multiple modes of travel and accommodate all users including pedestrians, bicyclists, public transit riders, freight providers, emergency responders and motorists, as appropriate to the context of the roadway corridor and its adjacent development that are safe and accessible for users of all mobility levels; and

WHEREAS, Complete Streets may enhance economic vitality by providing convenient pedestrian, bicycle, and public transit facilities that help create a sense of place in and around retail districts and provide connection between places of residence to centers of recreation, retail, education, and places of work; and

WHEREAS, the Context Sensitive Solutions process, as described in the Comprehensive Transportation Plan, and further detailed in the recommended best practices document by the Institute of Transportation Engineers entitled *Designing Walkable Urban Thoroughfares: A Context Sensitive Approach*, is the preferred method for achieving Complete Streets; and,

WHEREAS, Context Sensitive Solutions is a flexible problem solving process that results in a wide variety of solutions, and can be tailored to support surrounding land use while providing adequate multi-modal capacity; and,

WHEREAS, the City Council, after due study and deliberation, deems it advisable and in keeping with the recommendations and purpose of the Comprehensive Transportation Plan, to adopt a Complete Streets Policy.

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF NORMAN, OKLAHOMA:

Section 1. That in the interest of fully implementing the transportation elements of the Comprehensive Transportation Plan, it is the consensus of this Council and the advice of this Council, that future street projects in the City of Norman should be planned, designed, and operated, when possible, in accordance with accepted recommended best practices for Context Sensitive Solutions, as outlined by the Institute of Transportation Engineers in *Designing Walkable Urban Thoroughfares: A Context Sensitive Approach*, as amended and/or updated, to provide for a balanced, responsible, and equitable way to accommodate all users including pedestrians, bicyclists, public transit riders, freight providers, emergency responders and motorists.

Section 2. That in the interest of sustaining our commitment to the Complete Streets concept, the Mayor will direct city staff responsible for the implementation of the comprehensive plan, and in particular those responsible for the planning, finance, design, and development of city streets, to be accountable for the following, including but not limited to:

- A. Developing a Complete Streets Program Manual that would provide guidance for future transportation capital improvement projects and programs, including the public space management methods needed to establish the preferred street context.
- B. Context Sensitive Solutions shall be utilized in the planning, design and development of projects wherever possible.
- C. Attendance of staff at training on transportation issues and professional development related to Complete Streets and Context Sensitive Design through conferences, classes, seminars, webinars, and workshops when available, appropriate, and monetarily feasible to ensure the use of the latest and best practices, policies and guidelines.

Section 3. That upon adoption by the City Council, this Resolution shall be transmitted and submitted to the Mayor of Norman for consideration, action and requested approval.

<appropriate ending statements and signatures>

## Draft Complete Streets Program Manual

There are several good examples of Complete Streets Program Manuals in the United States that could be adapted by the City of Norman to use as guidelines for the planning and design of complete streets within the **urbanized** areas Norman.

One in particular, the Los Angeles County Model Design Manual for Living Streets, is available for any jurisdiction to use. Jurisdictions may adopt, customize, or modify the manual to meet their needs. The manual's sponsors ask only two things:

1. That jurisdictions maintain the acknowledgements to credit the individuals who worked so hard to produce the manual.
2. That they notify the manual's website ([www.modelstreetdesignmanual.com](http://www.modelstreetdesignmanual.com)) to allow the sponsors to track which communities have adopted the manual at least in substantial part.

It is recommended that the City of Norman utilize the chapters from the Los Angeles County Model Design Manual of Living Streets as follows:

- Acknowledgements – to be fully included
- Chapter 1. Introduction – In the section entitled “Legal Standing of Street Manuals” replace the references to California standards and guides with the appropriate Oklahoma references.
- Chapter 2. Vision, Goals, Policies, and Benchmarks – Omit chapter as these are stated in the CTP
- Chapter 3. Street Networks and Classifications– Adopt in full
- Chapter 4. Traveled Way Design– Adopt in full
- Chapter 5. Intersection Design – Adopt in full
- Chapter 6. Universal Pedestrian Access – Adopt in full
- Chapter 7. Pedestrian Crossings – Adopt in full
- Chapter 8. Bikeway Design – Adopt in full
- Chapter 9. Transit Accommodations – Adopt in full
- Chapter 10. Traffic Calming – Adopt in full
- Chapter 11. Streetscape Ecosystem – Adopt in full
- Chapter 12. Replacing Streets: Putting the Place Back in Streets – Adopt in full
- Chapter 13. Designing Land Use Along Living Streets – Adopt in full
- Chapter 14. Retrofitting Suburbia – Adopt in full
- Chapter 15. Community Engagement for Street Design – Adopt in full



## Appendix H – Capital Project Evaluations

<b>Prioritization of Roadway Infrastructure Projects</b> .....	1
Project Evaluation Criteria .....	1
Project Evaluations and Scoring Summary .....	1
Short Range Thoroughfare Improvements .....	3
Medium Range Thoroughfare Improvements .....	3
Long Range Thoroughfare Improvements .....	3
<b>Project Evaluations and Scoring</b> .....	5



## Prioritization of Roadway Infrastructure Projects

The Comprehensive Transportation Plan Report, Chapter 4: Implementation of the Plan contains over 100 action items, some with recommendations for capital projects to be designed and constructed. To orderly implement these recommended projects, and allocate scarce local resources, it is necessary to identify which projects are ready to be designed and constructed in the near term and which will be more important as the city grows. The more immediate needs must then be assessed as to their importance relative to the costs and benefits anticipated from the project and/or the implications of not implementing them in terms of congestion and safety. The evaluation criteria and related project ranking system were developed to assist Policy Makers with the selection and prioritization of future projects.

To facilitate implementation of the transportation plan infrastructure improvements, projects were evaluated and then categorized by their desired horizon year for implementation, based on the evaluation criteria listed below. Three implementation horizons are identified, with the latter two consistent with the horizon years established in the ACOG Encompass 2035 Plan:

- Short Range (first 5 years of the plan);
- Medium Range (by the year 2025); and
- Long Range (by the year 2035).

Some of the Action Item projects in the Norman CTP are already in the ACOG Encompass 2035 long range transportation plan as either medium or long range projects. As opportunities for funding and partnerships arise, the relative importance of any one project may move within these relative priorities. Similarly, other local decisions or changes within the City may be cause for projects to be added, deleted, or moved within these relative priorities. The implementation plan should be flexible to allow such instances.

## Project Evaluation Criteria

In order to assign of Short and Medium Range attributes to these items indicate the relative importance of their implementation, based on the following factors:

- Urgency of need, either to alleviate barriers or safety issues
- Alleviation of existing or pending traffic congestion
- Completion of gaps in the network of facilities
- Implementation of strategic elements of the transportation system
- Cost of the improvement in relation to its anticipated benefit

For consideration of state and federal funding, these evaluation criteria were selected to be in keeping with the regional prioritization of roadway projects, for which ACOG has established the a set of evaluation criteria, including: Average Daily Traffic , Volume/Capacity Ratio, Accident Severity Rate, Air Quality, Surface Condition, CMP Congestion Corridor, and Project Readiness. In addition to these seven evaluation criteria which are applicable to most roadway projects, ACOG sets forth additional criteria for other types of transportation improvements including bridges, independent bicycle and pedestrian Improvements, and safety improvements.

## Project Evaluations and Scoring Summary

The evaluations of the capital projects that are recommended in the CTP are included in the tables at the end of this appendix. The evaluation scores are summarized in **Table H-1**.

**Table H-1**  
**Roadway Project Assessments for Prioritization**  
**Norman Comprehensive Transportation Plan**

		Evaluation Criteria (Each Criteria Score from 0 to 20, Total Max = 100)							Total Score
Action #	Project	Alleviate Barriers or Improve Safety	Alleviate Traffic Congestion	Complete Gaps in Network	Strategic Element in System	Expected Benefits vs Expected Cost			
S3a	Lindsey, Berry to Jenkins	10	20	20	15	10		75	
S3f	Neighborhood Imp' mt Plans	20	5	20	10	15		70	
M2h	Robinson, west of I-35	15	20	10	10	15		70	
M2i	Rock Creek, 48th to 36th	10	10	10	5	10		45	
M3b	Main/Gray east of Porter	10	10	10	5	20		55	
M3c	Peters/Crawford one-way pair	5	10	5	5	20		45	
S3b	Porter, Acres to Alameda	10	10	5	10	5		40	
S3c	Garner/Jenkins Acres to Boyd	10	10	5	10	15		50	
S3e	Main/Gray, Flood to Jones	10	15	0	10	10		45	
S5a	RR Grade Sep'n at Lindsey	20	0	0	10	10		40	
M2a	Chautauqua, Imhoff - Lindsey	5	10	10	5	10		40	
M2b	Jenkins, Const. to Lindsey	5	10	10	5	10		40	
M2c	SH 9, 24th W to 12th E.	5	15	0	10	10		40	
M2d	12th W, Rock Cr. To Tecumseh	10	15	5	10	5		45	
M2l	Imhoff, Classen to 24th E	10	5	15	5	15		50	
M2p	12th Avenue E. Access Mgmt	10	10	0	5	15		40	
M2q	I-35 Access to Univ. No. Park	5	20	5	10	5		45	
M3a	James Garner Ext'n to Flood	0	15	5	20	5		45	
M3d	Acres Street, Berry to Porter	10	5	5	10	5		35	
M3f	Berry Road, Rob'n to Lindsey	10	5	10	10	5		40	
M3g	Classen, Lindsey to 12th E	5	15	5	5	10		40	
S3d	Flood, Robinson to Main	5	15	5	10	5		40	
M2e	Porter, Indian H to Tec.	5	10	0	5	5		25	
M2f	Realign B'way @ Porter	10	5	0	5	5		25	
M2g	Indian H, 48th W-24th W	10	5	0	5	5		25	
M2j	Franklin, 48th W to N.Int.	10	5	10	5	5		35	
M2k	Lindsey, 24th E – 36th E	5	5	10	5	5		30	
M2m	48th E, Franklin to SH 9	5	5	10	10	5		35	
M2n	SH 9, 72nd E to 148th E	5	10	5	5	5		30	
M2o	48th W, Ind. H to Rob'n	5	5	10	5	5		30	

Based upon the evaluation and scoring of the recommended improvements using the prescribed evaluation criteria, the projects were identified as either Short, Medium or Long Range in its priority or its readiness for implementation.

### Short Range Thoroughfare Improvements

- Action S3a: Context Sensitive Roadway Improvements on Lindsey Street, Berry Road to Jenkins Avenue
- Action S3f: Implement the Transportation Enhancements Recommended in Core Norman Neighborhood Plans
- Action M2h: Improve the West Side of the Interchange of Robinson Street at I-35
- Action M2i: Improve Rock Creek Road, 48<sup>th</sup> Avenue W. to 36<sup>th</sup> Avenue W.
- Action M3b: Main/Gray Streets One-way Couplet, Porter Avenue to the Roundabout at Carter Avenue
- Action M3c: Create a One-way Couplet of Peters and Crawford Streets, from Acres Street to Alameda Street

### Medium Range Thoroughfare Improvements

- Action S3b: Context Sensitive Roadway Improvements on Porter Avenue, Acres Street to Alameda Street
- Action S3c: Context Sensitive Improvements on James Garner/Jenkins Avenue, Acres Street to Boyd Street
- Action S3e: Context Sensitive Improvements on Main and Gray Streets from Flood Avenue to Jones Avenue and Modify the Western End of the Couplet
- Action S5a: Create a Railroad Grade Separation at Lindsey Street
- Action M2a: Improve Chautauqua Avenue, from Imhoff Road to Lindsey Street
- Action M2b: Improve Jenkins Avenue, from Constitution Street to Lindsey Street
- Action M2c: Improve SH 9 from 24<sup>th</sup> Avenue W to 12<sup>th</sup> Avenue E.
- Action M2d: Widen 12<sup>th</sup> Avenue W. from Rock Creek Road to Tecumseh Road
- Action M2l: Improve Imhoff Road, from Classen Boulevard to 24<sup>th</sup> Avenue E.
- Action M2p: Access Management Improvements on 12<sup>th</sup> Avenue E., from Robinson Street to Classen Boulevard
- Action M2q: Provide Access to and from I-35 and the Development along the West Side of 24<sup>th</sup> Avenue W. between Robinson Street and Tecumseh Road
- Action M3a: James Garner Avenue Extension, Flood Avenue to Acres Street
- Action M3f: Improve Berry Road, Robinson Street to Lindsey Street
- Action M3g: Improve Classen Boulevard, Lindsey Street to 12<sup>th</sup> Avenue E.
- Action F1e: Seek FRA Funding for Lindsey Street Railroad Grade Separation

### Long Range Thoroughfare Improvements

- Action S3d: Context Sensitive Improvements on Flood Avenue, Robinson Street to Main Street
- Action M2e: Improve Porter Avenue, from Indian Hills Road to Tecumseh Road
- Action M2f: Realign the Southeastern end of Broadway at Porter Avenue
- Action M2g: Widen Indian Hills Road, 48<sup>th</sup> Avenue W. to 24<sup>th</sup> Avenue W. and Improve the Interchange with I-35
- Action M2j: Improve Franklin Road, from 60<sup>th</sup> Avenue W. to N. Interstate Drive
- Action M2k: Improve Lindsey Street, from 24<sup>th</sup> Avenue E. to 36<sup>th</sup> Avenue E.
- Action M2m: Improve 48<sup>th</sup> Avenue E, from Franklin Road to SH 9

- Action M2n: Improve SH 9, from 72nd Avenue E. to 168th Avenue E.
- Action M2o: Improve 48th Avenue W., from Indian Hills Road to Main Street
- Action M3d: Improve Acres Street, Berry Road to Porter Avenue

Projects often require multiple stages and multiple years to accomplish, so even though a project may be listed as Long Range in its implementation, there may be many steps that need to be taken earlier in the planning horizon to advance the project toward completion.

## Project Evaluations and Scoring

**Action # S3a**

**Project: Context Sensitive Roadway Improvements on Lindsey Street, Berry Road to Jenkins Avenue**

The four-lane divided roadway section west of Berry Road will transition east of Berry Road to Elm Avenue to a roadway section consisting of one thru lane in each direction plus auxiliary lanes and/or roundabouts at intersections, bike lanes in each direction and sidewalks or side paths on both sides of the roadway. This typical section would be refined to fit the context of the adjacent land uses. The existing roadway segment between Elm Avenue and Jenkins Avenue would be evaluated for enhancements that better serve University of Oklahoma (OU) local traffic while serving the minor arterial roadway function of Lindsey Street. Develop the context sensitive complete streets design, and arrange funding and schedule for implementation.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	10	
Alleviate Traffic Congestion	20	
Complete Gaps in Network	20	
Strategic Element in System	15	
Expected Benefits vs Expected Cost	10	
Total	75	

**Action # S3f**

**Project: Implement the Transportation Enhancements Recommended in Core Norman Neighborhood Plans**

The city's Neighborhood Planning Program targets Norman's Core Area which is bounded roughly by Robinson Street on the north; 12th Avenue E on the east; Imhoff Road on the south, and Berry Road on the west. The Core Area contains around sixteen neighborhoods, including five lower income neighborhoods eligible for Community Development Block Grant funding. Complete the land use compatibility, parking, circulation, and neighborhood improvements planning for each of these neighborhoods. Design the needed improvements, arrange for funding and schedule the improvements.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	20	
Alleviate Traffic Congestion	5	
Complete Gaps in Network	20	
Strategic Element in System	10	
Expected Benefits vs Expected Cost	15	
Total	70	

**Action # M2h**

**Project: Improve the West Side of the Interchange of Robinson Street at I-35**

A study has recently been conducted of the operations of Robinson Street at the interchange and service road connections on the west side of I-35. Collaborate with ODOT to assemble the funding for the needed improvements, dedicate the City of Norman portion of the funding, ROW, utility adjustments and other cost items, and schedule the improvements for construction.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	15	
Alleviate Traffic Congestion	20	
Complete Gaps in Network	10	
Strategic Element in System	10	
Expected Benefits vs Expected Cost	15	
Total	70	

**Action # M2i**

**Project: Improve Rock Creek Road, 48th Avenue W. to 36th Avenue W.**

In response to growing development west of 36th Avenue, widen the existing two-lane section of Rock Creek Road to a three lane roadway to provide protected left turn storage, and add 5-foot bike lanes westward to Grandview Street. Provide 8-foot side paths on both sides of Rock Creek Road from Grandview Street to 36th Avenue to connect to the Legacy Trail on the other side of 36th Avenue W. Re-stripe the existing 4-lane segment of Rock Creek Road west of Grandview Street to a three-lane roadway with bike lanes. Allocate funding and design and construct the corridor improvements.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	10	
Alleviate Traffic Congestion	10	
Complete Gaps in Network	10	
Strategic Element in System	5	
Expected Benefits vs Expected Cost	10	
Total	45	

**Action # M3b**

**Project: Main/Gray Streets One-way Couplet, Porter Avenue to the Roundabout at Carter Avenue**

Continuing the one-way couplet of Main and Gray Streets to the east of Porter Avenue will simplify the signal operations on Porter Avenue freeing up much needed signal green time, and will allow for the provision of one lane of traffic in each direction plus bike lanes and optional parking through the residential section of each roadway. Implementation will be accomplished predominantly by re-striping the street and associated modifications to traffic control, with special treatments at the fire station and the terminus at the roundabout.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	10	
Alleviate Traffic Congestion	10	
Complete Gaps in Network	10	
Strategic Element in System	5	
Expected Benefits vs Expected Cost	20	
Total	55	

**Action # M3c**

**Project: Create a One-Way Couplet of Peters and Crawford Avenues, from Acres Street to Alameda Street**

Working with the existing roadway pavement, designate Peters Avenue as a southbound one-way street and Crawford Avenue as a northbound one-way street between Acres and Alameda Streets. West of Gray Street, Peters and Crawford Avenues would each consist of one through lane with a parking lane and a bike lane. Between Main and Gray Streets, each street would have two lanes in one direction with curbside parking on one or both sides. South of Main Street, each street would have one or two lanes in one direction with curbside parking on one or both sides, depending on the width of the existing roadway. To complete the couplet, the section of Alameda Street between Peters and Crawford Avenues would be converted to one-way eastbound, with a roundabout or other traffic control measure at the intersection of Alameda Street at Crawford Avenue.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	5	
Alleviate Traffic Congestion	10	
Complete Gaps in Network	5	
Strategic Element in System	5	
Expected Benefits vs Expected Cost	20	
Total	45	

**Action # S3b**

**Project: Context Sensitive Improvements on Porter Avenue, Acres Street to Alameda Street**

A study conducted of the potential enhancement of Porter Avenue, from Acres Street to Alameda Street, suggested that Porter Avenue could be reduced to a three lane typical section so that sidewalks could be enhanced to facilitate the redevelopment. Synchro modeling of an enhanced three-lane section, with four lanes between Main and Gray, indicates that the three-lane section would operate well with existing levels of traffic plus growth of about 25%. The existing four-lane section was likewise modeled, with the finding that the existing four-lane section would operate well with a growth of about 25%. However, there was also a desire to introduce transit service into the Porter Avenue corridor, and a four-lane section would operate well when allow transit stops in the right most lane. For a three-lane section, the transit stops would need to be pull-overs. Develop the context sensitive complete street design, and arrange funding and schedule for implementation.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	10	
Alleviate Traffic Congestion	10	
Complete Gaps in Network	5	
Strategic Element in System	10	
Expected Benefits vs Expected Cost	5	
Total	40	

**Action # S3c**

**Project: Context Sensitive Improvements on James Garner/Jenkins Avenue, Acres Street to Boyd Street**

The proposed extension of James Garner Avenue to the north, across Robinson Street to tie to N. Flood Avenue, will displace the Legacy Trail, pass close to existing neighborhood, and allow various potential connections to Flood Avenue and Robinson Street. The connection to Flood Avenue to the north will bring a component of through traffic to the segment of James Garner Avenue south of Acres Street which currently is a meandering two lane roadway with on-street parking to Boyd Street. Potential densification of development along James Garner/Jenkins Avenue, between Main Street and Boyd Street, will increase the significance of the need for good access and circulation, off-street parking, and increased accommodations for bicycle and pedestrian mobility. Design the travel lanes, bike lanes, bus accommodations, sidewalks and corridor parking provisions to support higher density development and transit oriented development. Develop the context sensitive design with considerations for future development, and arrange funding and schedule for implementation.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	10	
Alleviate Traffic Congestion	10	
Complete Gaps in Network	5	
Strategic Element in System	10	
Expected Benefits vs Expected Cost	15	
Total	50	

**Action # S3e**

**Project: Context Sensitive Improvements on Main and Gray Streets from Flood Avenue to Jones Avenue and Modify the Western End of the Couplet**

The context for the Main/Gray Street couplet is to both bring traffic into the Downtown and provide access and circulation to the businesses along the Downtown streets. With the offset network of streets near Downtown, Main and Gray Streets allow movement through the Downtown for origins and destinations surrounding Downtown, and thus serve as Minor Arterials through Downtown. Prepare a detailed assessment of reducing both Main Street (eastbound) and Gray Street (westbound) to two lanes each west of the railroad crossing. Enhance the western transition of the couplet by strengthening the westbound traffic flow at University Boulevard, potentially converting University Boulevard to three one-way southbound lanes between Gray and Main Streets. Gray Street west of University Boulevard would be converted to a collector street, reduce traffic feeding onto Flood Avenue, and allow localized redevelopment along Gray Street between University Boulevard and Flood Avenue.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	10	
Alleviate Traffic Congestion	15	
Complete Gaps in Network	0	
Strategic Element in System	10	
Expected Benefits vs Expected Cost	10	
Total	45	

**Action # S5a**

**Project: Create a Railroad Grade Crossing at Lindsey Street**

A railroad grade separation study, conducted for the City of Norman in 2003, evaluated grade separations at Robinson Street and at Lindsey Street crossings of the railroad. The Robinson Street grade separation was completed in 2012. Prepare designs, assemble local, state and federal funding and schedule the project for implementation of a railroad grade separated crossing for Lindsey Street.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	20	
Alleviate Traffic Congestion	0	
Complete Gaps in Network	0	
Strategic Element in System	10	
Expected Benefits vs Expected Cost	10	
Total	40	

**Action #** M2a

**Project:** Improve Chautauqua Avenue, from Imhoff Road to Lindsey Street

To facilitate the use of SH 9 for access to OU from I-35, and to facilitate traffic access and circulation on the south side of the OU campus, widen the remaining two-lane section of Chautauqua Avenue to create a four-lane roadway with sidepaths on each side between Imhoff Road and Lindsey Street. Develop the context sensitive design, and arrange funding and schedule for implementation.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	5	
Alleviate Traffic Congestion	10	
Complete Gaps in Network	10	
Strategic Element in System	5	
Expected Benefits vs Expected Cost	10	
Total	40	

**Action # M2b**

**Project: Improve Jenkins Avenue, from Constitution Street to Lindsey Street**

To facilitate the use of SH 9 for access to OU from I-35, and to facilitate traffic access and circulation on the south side of the OU campus, widen the remaining two-lane section of Jenkins Avenue to create a four-lane roadway with sidewalks and/or sidepaths on each side between SH 9 and Lindsey Street. Develop the context sensitive design, and arrange funding and schedule for implementation.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	5	
Alleviate Traffic Congestion	10	
Complete Gaps in Network	10	
Strategic Element in System	5	
Expected Benefits vs Expected Cost	10	
Total	40	

**Action # M2c**

**Project: Improve SH 9 from 24th Avenue W. to 12th Avenue E.**

To facilitate the use of SH 9 for access to OU from I-35, the current delays experienced along SH 9 need to be mitigated. The ACOG Encompass 2035 includes a medium range project for ODOT to improve SH 9, from 24th Avenue W. to 12th Avenue E. (just west of the US 77/Railroad overpass). The improvement is planned for a widening from four lanes to six lanes, but alternative configurations should be examined to include potential grade separations at certain interchanges with the local street network. Collaborate with ODOT to develop the design, assess opportunities for introduction of locally preferred alternatives, arrange for any needed local funding, and collaborate with ODOT regarding the schedule for implementation. Incorporate a trail along the north side of the corridor.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	5	
Alleviate Traffic Congestion	15	
Complete Gaps in Network	0	
Strategic Element in System	10	
Expected Benefits vs Expected Cost	10	
Total	40	

**Action # M2d**

**Project: Widen 12th Avenue W. from Rock Creek Road to Tecumseh Road**

Widen from 2 lanes to 4 lanes plus bike lanes and sidepaths, in anticipation of potential new commercial and light industrial development on the west side near the railroad and residential development along the east side. The sidepaths along 12th Avenue W. will complement the trails within the development east of the roadway and connect to the sidepaths along Rock Creek Road and Tecumseh Road and the western terminus of the proposed trail network along Little River. The roadway will also be in near proximity to the potential commuter rail station near Tecumseh Road and should support such traffic circulation. Develop the context sensitive design, arrange funding, and schedule for implementation.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	10	
Alleviate Traffic Congestion	15	
Complete Gaps in Network	5	
Strategic Element in System	10	
Expected Benefits vs Expected Cost	5	
Total	45	

**Action #** M21

**Project:** Improve Imhoff Road, from Classen Blvd to 24th Avenue E.

Re-stripe existing 4-lane roadway pavement with 3 travel lanes plus on-street bike lanes. Widen existing two-lane section of roadway to three lanes plus bike lanes and provide sidepaths on both sides. Allocate funding, prepare the context sensitive design, and construct the corridor improvements.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	10	
Alleviate Traffic Congestion	5	
Complete Gaps in Network	15	
Strategic Element in System	5	
Expected Benefits vs Expected Cost	15	
Total	50	

**Action #** M2p

**Project:** Access Management Improvements on 12th Avenue E., from Robinson Street to Classen Boulevard

12th Avenue E. could benefit from application of access management principles and treatments to delay the need to widen the roadway to six lanes. Improve the segments of 12th Avenue E that are 4 lanes to 4-lane divided with a raised median to introduce left turn auxiliary lanes to major driveways. Add raised medians to segments of the roadway are 5 lanes wide including a flush two-way center left turn lane to create order to the left turning movements and enhance safety. To the extent feasible at locations of more dense retail development, provide for consolidation of driveways and creation of a primary driveway with deceleration lanes and directions turn lanes at a raised median opening.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	10	
Alleviate Traffic Congestion	10	
Complete Gaps in Network	0	
Strategic Element in System	5	
Expected Benefits vs Expected Cost	15	
Total	40	

**Action # M2q**

**Project: Provide Access to and from I-35 and the Development along the West Side of 24th Avenue W. between Robinson Street and Tecumseh Road**

The planned intensity of development of the University North Park (UNP) and other properties along 24th Avenue W can be expected to overload the intersection of 24th Avenue W at Robinson Street as well as at Tecumseh Road. Collaborate with ODOT and development interests to develop a concept to provide better access from the UNP development to and from northbound I-35 between Robinson Street and Tecumseh Road. Collaborate with ODOT to develop the design, assess opportunities for introduction of locally preferred alternatives, arrange for any needed local funding, and collaborate with ODOT regarding the schedule for implementation. Incorporate a trail along the north side of the corridor.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	5	
Alleviate Traffic Congestion	20	
Complete Gaps in Network	5	
Strategic Element in System	10	
Expected Benefits vs Expected Cost	5	
Total	45	

**Action # M3a**

**Project: James Garner Avenue Extension, from Acres Street to Flood Avenue**

Realign the Legacy trail and extend James Garner Avenue as a two-lane roadway from Acres Street northward to a crossing over the depressed Robinson Street, using the already provided abutments, and create a connection to Flood Avenue north of Robinson Street. Truncate the local streets north of Acres Street to not intersect with James Garner Avenue extension. Allocate funding and design and construct the corridor improvements.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	0	
Alleviate Traffic Congestion	15	
Complete Gaps in Network	5	
Strategic Element in System	20	
Expected Benefits vs Expected Cost	5	
Total	45	

**Action # M3d**

**Project: Improve Acres Street, Berry Road to Porter Avenue**

Acres Street is a collector roadway with a rural two-lane cross section within the urban core of Norman, and is a designated bike route on the city's Bicycle Plan. Improvements are needed on Acres Street, from Berry Road to Porter Avenue, to provide an urban street section with one lane in each direction plus bike lanes. Evaluate roundabouts as an alternative to traffic signals at the collector and minor arterial street crossings. Budget for the improvements, prepare context sensitive designs responsive to the adjacent land uses, access and parking needs, and schedule the project for implementation.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	10	
Alleviate Traffic Congestion	5	
Complete Gaps in Network	5	
Strategic Element in System	10	
Expected Benefits vs Expected Cost	5	
Total	35	

**Action # M3f**

**Project: Improve Berry Road, Robinson Street to Lindsey Street**

A significant portion of the street pavement along Berry Road, from Robinson Street to Imhoff Road, is in need of repair or replacement in the near future, according to the Pavement Conditions Index monitoring conducted for the city. Berry Avenue is currently mostly uncongested, and the 2035 Norman travel demand model indicates that it will not be congested in the 20-year horizon. Berry Road is proposed as a minor arterial and a significant north-south spine for on-street bicycling. Berry Road should be reconstructed, retaining two through lanes plus turn lanes or roundabouts at intersections, with sections of 2-lane divided where appropriate to enhance the aesthetics of the roadway, plus bike lanes and sidewalks on both sides. Consideration should be made for replacement of existing on-street parking with other suitable accommodations. Budget for the improvements, prepare context sensitive designs responsive to the adjacent land uses, access and parking needs, and schedule the project for implementation.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	10	
Alleviate Traffic Congestion	5	
Complete Gaps in Network	10	
Strategic Element in System	10	
Expected Benefits vs Expected Cost	5	
Total	40	

**Action #** M3g

**Project:** Improve Classen Boulevard, from Lindsey Street to 12th Avenue E.

Add one additional lane northbound from 12th Avenue E. to Lindsey Street, and complete the 8-foot wide sidepaths along both sides of the roadway. Develop the design and arrange funding and schedule for implementation.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	5	
Alleviate Traffic Congestion	15	
Complete Gaps in Network	5	
Strategic Element in System	5	
Expected Benefits vs Expected Cost	10	
Total	40	

**Action # S3d**

**Project: Context Sensitive Improvements on Flood Avenue, from Robinson Street to Main Street**

Traffic on Flood Avenue south of Robinson Street currently experiences moderate congestion during the AM and PM peak hours due to the capacity constraints of the two lane section just north of Acres Street, exacerbated by the driveway activity in and out of the adjacent development. Widening to a three-lane section north of Acres Street would improve throughput on Flood Avenue by allowing left turns a place to get out of the flow of traffic. Provision of cross access among adjacent parking lots would allow consolidation of driveways and further improve the throughput capacity of the roadway. Provision of sidewalks along Flood Avenue would facilitate walking and bicycling trips from nearby residential areas. Develop the context sensitive design, and arrange funding and schedule for implementation.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	5	
Alleviate Traffic Congestion	15	
Complete Gaps in Network	5	
Strategic Element in System	10	
Expected Benefits vs Expected Cost	5	
Total	40	

**Action #** M2e

**Project:** Improve Porter Avenue, from Indian Hills Road to Tecumseh Road

Widen Porter Avenue from its current 2 lanes to 4 lanes, plus bike lanes and sidewalks to support anticipated new development along the corridor and to provide connectivity to the Moore roadways and potential bikeways in Moore. Develop the context sensitive design, and arrange funding and schedule for implementation.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	5	
Alleviate Traffic Congestion	10	
Complete Gaps in Network	0	
Strategic Element in System	5	
Expected Benefits vs Expected Cost	5	
Total	25	

**Action #** M2f

**Project:** **Realign the Southeastern Terminus of Broadway at Porter Avenue**

In conjunction with, or independent of, the improvement to Porter Avenue between Indian Hills and Tecumseh, relocate the intersection Broadway with Porter Avenue to a location midway between Franklin and Indian Hills. This treatment will move the intersection to a functionally more efficient distance away from the Franklin Road/Porter Avenue intersection to improve safety and operations. The new intersection of Broadway at Porter Avenue will also create an intersection with the collector street network. Develop the context sensitive design, and arrange funding and schedule for implementation.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	10	
Alleviate Traffic Congestion	5	
Complete Gaps in Network	0	
Strategic Element in System	5	
Expected Benefits vs Expected Cost	5	
Total	25	

**Action # M2g**

**Project: Widen Indian Hills Road, 48th Avenue W to 24th Avenue W and Improve the Interchange with I-35**

The current interchange of Indian Hills Road with I-35 has various on-ramp and off-ramp conflicts and configurations that become increasingly cumbersome with growing traffic levels. The two-lane Indian Hills Road crossing over I-35 will not support significant traffic growth from anticipated development of large undeveloped parcels of land along the corridor. Develop the context sensitive design for the proposed arterial roadway segment in collaboration with ODOT, and arrange for local funding of improvements to Indian Hills Road and desired interchange enhancements, to match and/or supplement the state and federal funding. Facilitate the implementation of the design and implementation of the improvements.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	10	
Alleviate Traffic Congestion	5	
Complete Gaps in Network	5	
Strategic Element in System	10	
Expected Benefits vs Expected Cost	5	
Total	35	

**Action #** M2j

**Project:** Improve Franklin Road, from 48th Avenue W. to N. Interstate Drive

Improve the traffic flow along the roadway in response to growing development by widening to a three lane roadway to provide protected left turn storage to serve the expanding residential development, and add 5-foot bike lanes connecting 48th Avenue W. and N. Interstate Drive. Provide 5-foot sidewalks on both sides of the improved street. Allocate funding and design and construct the corridor improvements.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	10	
Alleviate Traffic Congestion	5	
Complete Gaps in Network	10	
Strategic Element in System	5	
Expected Benefits vs Expected Cost	5	
Total	35	

**Action #** M2k

**Project:** Improve Lindsey Street, from 24th Avenue E. to 36th Avenue E.

Continue the 5-lane urban arterial section from 24th Avenue E. to 36th Avenue E., transitioning to a three-lane rural section at 36th Avenue E. Provide both bike lanes and sidepaths from 24th Avenue E to 36th Avenue E, to complete the bicycle and pedestrian plan for this segment of roadway. Allocate funding and design and construct the corridor improvements.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	5	
Alleviate Traffic Congestion	5	
Complete Gaps in Network	10	
Strategic Element in System	5	
Expected Benefits vs Expected Cost	5	
Total	30	

**Action #** M2m

**Project:** Improve 48th Avenue E., from Franklin Road to SH 9

Accentuate the division between urban and rural development areas of Norman by improving the rural 2-lane section to a rural 3-lane section with shoulder bikeways and adjacent trails on both sides. Allocate funding, prepare the design, and construct the corridor improvements.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	5	
Alleviate Traffic Congestion	5	
Complete Gaps in Network	10	
Strategic Element in System	10	
Expected Benefits vs Expected Cost	5	
Total	35	

**Action # M2n**

**Project: Improve SH 9, from 72nd Avenue E. to 168th Avenue E.**

The ACOG 2035 Encompass Plan includes a long range project for ODOT to widen SH 9 from 2 lanes to 4 lanes to the eastern extent of Norman. Though the Norman area travel demand model did not indicate the improvement was essential for needed capacity of the corridor by 2035, the improvements would have safety benefits and fulfill the longer term purpose of SH 9 for the regional arterial network. This improvement should be accompanied by the creation of a trail along the north side of SH 9 (see Action M6h). Collaborate with ODOT to develop the design, assess opportunities for introduction of locally preferred alternatives, arrange for any needed local funding, and collaborate with ODOT regarding the schedule for implementation. Incorporate a trail along the north side of the corridor.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	5	
Alleviate Traffic Congestion	10	
Complete Gaps in Network	5	
Strategic Element in System	5	
Expected Benefits vs Expected Cost	5	
Total	30	

**Action #** M2o

**Project:** Improve 48th Avenue W., from Indian Hills Road to Main Street

Widen the existing 2-lane roadway to a 3-lane roadway with bike lanes in each direction and an 8-foot wide sidewalk along the eastern side of the roadway. Develop the design and arrange funding and schedule for implementation.

<b>Evaluation Criteria</b>	<b>Score</b>	<b>Notes</b>
Alleviate Barriers or Improve Safety	5	
Alleviate Traffic Congestion	5	
Complete Gaps in Network	10	
Strategic Element in System	5	
Expected Benefits vs Expected Cost	5	
Total	30	