

# Norfolk

## LANDSCAPE MASTER PLAN

May 2009

Prepared for: The City of Norfolk, Nebraska

Prepared By:





**City of Norfolk, Mayor Sue Fuchtman**

**Public Works/Planning & Community Development Subcommittee Meeting**

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# EXECUTIVE SUMMARY

norfolk landscape master plan



## Introduction

The City of Norfolk initiated the Landscape Master Plan study to analyze existing landscaping and to prepare recommendations for approximately 15 miles of highly traveled roadways in the community. The goals of the study included improving the appearance of streets, calming or slowing traffic, and promoting economic development.

The consultant team, in conjunction with the city, developed a planning process that accomplished the following tasks:

- Performing data collection and field observation regarding existing landscape and roadways
- Reviewing local and state roadway plans and design guidelines
- Conducting detailed analyses of selected roadway corridors with special attention given to identifying the changing character of the roadway sections
- Developing of recommendations and design guidelines
- Prioritizing recommended projects and opinions of cost

## The Process

The City of Norfolk Landscape Master Plan recommends landscape improvements and design guidelines to enhance the appearance of major roadway corridors in the city. Implementing the recommendations and enacting design guidelines along Highway 81, Highway 275, Norfolk Avenue, and portions of Riverside Boulevard at 4th and 5th streets accomplishes three major goals—enhancing community appearance, calming traffic, and promoting business/economic development.

Implementing the master plan recommendations and design guidelines enhances the appearance of the major roadways in Norfolk. These roadways are the front door to the city, and creating an inviting and attractive front door improves the city's image to visitors and residents. The attractive "gateways" recommended in the master plan invite visitors to come in the front door to Norfolk, creating a lasting first impression and memorable identity for the city.

Streets and roadways are designed primarily to carry traffic safely from origin to destination. The roadways studied while preparing the master plan function properly in this regard. However, some residents think they function too well and that vehicles travel too quickly and easily through the city, by-passing local services, businesses, and amenities. The recommended improvements accomplish a second goal by calming or slowing traffic in portions of the city. Calming traffic also yields safety benefits for both vehicular and pedestrian traffic.

Finally, implementing the master plan recommendations that calm traffic and enhance the appearance of the roadway corridors creates a value added atmosphere for business activity and economic development in Norfolk. Implementing the master plan recommendations is a major civic/public investment in the community. That shows a significant commitment on behalf of local government to business development in the city. This investment should then serve as a catalyst for private investment. Major public investment in streetscape and landscape improvements yields a significant increase in private investment. In fact, a four-to-one ratio of private to public investment was attributed to a streetscape and landscape project in Fargo, North Dakota.

The following summarized the 15 specific recommendations, by roadway, that are detailed in the master plan.

## Highway 81

### Ta Ha Zouka Park to NCRC Railroad Overpass

This section of Highway 81 is still primarily rural in character and should be treated accordingly. The open views outward from the road should be preserved where they are not obscured by development. Some built parcels, however, are light industrial or commercial in nature and should be buffered with shade trees. The south entry sign is beyond the reach of this analysis, but it could be framed with evergreens for emphasis and surrounded with native prairie wildflower plantings. The right-of-way (ROW) at Ta ha Zouka Park, between the pond and the highway, should be densely planted with prairie meadow and it should be mown only sparingly. This will improve aquatic edge habitat, prevent trash from blowing from the road into the pond, and enhance the aesthetics of the pond. Similar treatment with prairie meadow should replace the paved median and buffer the sidewalk along the east side of the highway. This buffer might also include slight berming, by which the sidewalk could be further visually separated from the road. Roadside ornamental trees should begin where the overpass begins to ascend.

### NCRC Railroad Overpass to Pasewalk Avenue

The intersection of Highway 81 and Highway 275 is perhaps the busiest intersection in the city and, therefore, deserves a careful, stylish treatment. Groupings of ornamental trees, shade trees, and shrubs along the overpass will help buffer the adjacent parking lots and the east façade of the IGA plant. The trees will also create a rhythmic passage for drivers arriving from the south and will effectively frame views into this busy commercial district. New planting beds in the wide medians will reduce the perceived scale of the road, help slow traffic, cool the streets, and produce a more elegant first impression for visitors. These beds can be composed of an enhanced landscape treatment that includes shade and



ornamental trees, flowering shrubs, perennials, and ornamental grasses, all of which should be hardy varieties that withstand roadway conditions. Larger planting beds can be sited within the right-of-way at the southwest and southeast corners of this intersection (preserving the sight triangles) to bring needed color and interest across seasons. Along the northwest and northeast corners, the city should pursue added right-of-way to complete this composition and help soften the ROW between the car dealerships.

The commercial district itself presents difficulties due to the lack of ROW. The city should try to collaborate with adjacent land owners where desirable ROW might be increased by easement or purchase. Sheet 2 of this roadway, therefore, presents enlarged ROW landscape buffers in places that appear both desirable and feasible. Clearly, these new ROW easements are speculative and would depend on landowner cooperation. The narrow area between the curb and sidewalk should have a consistent treatment throughout this section. Pavers or stamped colored concrete would be a low maintenance alternative.

## **Pasewalk Avenue to Maple Avenue**

This stretch of Highway 81 is already nicely treated as an historic residential district, and efforts should be made to extend its character both to the north and, where possible, to the south. The existing landscape beds within the median could be expanded to enhance their effects and maximize street shade. The aging plants should be replaced with new shade trees, ornamental trees, shrubs, perennials, and ornamental grasses; where sight distances allow. Street trees should be installed where existing gaps exist, but, due to the high level of variation in ROW width through this district, these installations might require creative solutions. Landowners might be receptive to an agreement where the city installs new plant materials on property street frontage on the condition that the property owner will maintain them. The corner of Highway 81 and Norfolk Avenue is a key intersection, and the

treatment of that corner will be covered in the Norfolk Avenue recommendations.

## **Maple Avenue to Eisenhower Avenue**

This broad, suburban section of roadway has ample space along the ROW, most of which can be enhanced by planting groups of trees. These trees should include conifers, ornamentals, and shade trees and should be sited both to frame desirable views and to screen undesirable views. The east slope of the concrete ditch channel that begins north of Benjamin could be planted with broad swaths of prairie meadow and scattered ornamental trees. The intersection of Benjamin Avenue is another high traffic intersection, and the corners should be enhanced with landscaping. The concrete median should be converted to landscape beds, with an enhanced landscape treatment South of Benjamin Avenue (where sight distances allow) and a basic landscape treatment north of Benjamin Avenue. In addition, a two-foot stamped colored concrete mow strip should be installed around the perimeter of these medians to match the medians to the south. This median treatment should help extend the character of the preceding section, create unity, and decrease the perceived scale of the road. Particularly, this will help slow highway traffic arriving from the north. Coupled with a new entry sign north of Eisenhower Avenue, planting these medians will create a more distinct and recognizable entry into the city.

## **Highway 275**

### **49th Street to Norfolk Avenue**

With the future widening of the roadway from two-lanes to a four-lane divided highway and the future land use plan, this section will become more commercial and medium density residential. Future businesses along this corridor should be encouraged to landscape their properties and screen the parking lots. Street trees should be planted along this corridor 35-50 feet on center where space allows. The north side of the roadway has overhead power lines that will limit the location and height of trees.

The median treatment in this area should be the basic landscape treatment with low native grasses. The two-foot mow strip should match the stamped colored concrete used in sections to the east. The future configuration of the Norfolk Avenue Connector will create a gateway to downtown Norfolk. More emphasis should be placed on landscaping the corner nodes to frame the entryway with seasonal color. Evergreen trees used as a backdrop to ornamental trees, colorful shrub, ornamental grasses, and perennials will help achieve this goal.

### **Norfolk Avenue to Highway 81**

This section of Highway 275 has space available in most areas to continue the street tree plantings 35-50 feet on center. The larger green spaces in the ROW could be enhanced with a variety of evergreen and deciduous trees to break up the views of the big box buildings and parking lots. The medians from Norfolk Avenue to Taylor Avenue should have the basic landscape treatment; medians east of Taylor Avenue should have the enhanced landscape treatment using trees, shrubs, ornamental grasses, and perennials where design standards allow. The stamped colored concrete is already used in some areas of the median, and the new mow strip should match this treatment.



### Highway 81 to Logan Street

The rhythm of the street trees should be continued along this stretch of roadway. Where ROW is available, groupings of evergreens and deciduous trees could be planted to screen the buildings and parking lots. Business owners should be encouraged to screen parking lots with three-foot shrubs; this will help create a corridor effect and enhance the driving experience.

The median treatment in this area should be the enhanced landscape treatment using trees, shrubs, ornamental grasses, and perennials. The stamped colored concrete is already used in some areas; the new mow strip should match this treatment.

### Logan Street to Highway 24

The rhythm of the street trees should continue along the roadway where space is available. Where ROW is sufficient, groupings of evergreens and deciduous trees should be planted to screen the large buildings and their loading docks found in this section. Business owners should be encouraged to screen parking lots with shrubs. A few jug handle intersections provide an opportunity for landscape treatment with ornamental trees and/or shrubs.

The median treatment in this area should be the basic landscape treatment with native grasses. A two-foot mow strip was not built in this section of the roadway; but could be added to match the stamped colored concrete used in sections to the west. Another option would be to stain the existing concrete to match the colored concrete sections.

## Norfolk Avenue

### Highway 275 to 12th Street

This section of Norfolk Avenue is a major entry point into the city from the west. Transitioning from rural to residential, it is highlighted on the west end by the occasional median planting of evergreens and ornamentals and on the east end by mature shade trees. Improving the medians by adding shrubs, perennials, and additional trees will help reduce the scale of the road and will beautify this entrance into the city. Additional street trees should be planted in available ROW to fill in gaps between existing trees, and shrubs should be added to screen parking lots. Plantings added to major intersections would create visual interest where none currently exists.

### 12th Street to 1st Street

New landscape treatments will be installed in 2008 in the downtown district from 1st to 8th Street. Street trees should be planted where space is available, and parking lots should be screened with shrubs. The medians should be enhanced with new landscaping. Several untouched ROW sites, as well as the blocks surrounding the railroad crossing, are available for landscape upgrades. Some of the parcels surrounding the railroad crossing could be acquired by the city to use as pocket parks.

### 1st Street to Victory Road

Predominantly a commercial area, Norfolk Avenue from First Street to Victory Road has a high potential for street tree plantings. The ROW is sufficiently wide enough for adding street trees and should be a priority for this section. As the avenue crosses the flood canal toward Victory Road, a gateway into the city is created. A landscape treatment could be installed to enhance this entry point into Norfolk. The intersection at Victory Road is another gateway into the city and should be enhanced with landscaping.

Trees and shrubs could be planted in the open spaces to frame the entrance and add color and interest to the intersection. The median plantings could also be enhanced with a mix of grasses and wildflowers.

## Riverside Boulevard 4th and 5th:

### Riverside Boulevard - Highway 81 to Syracuse Avenue

This section of Riverside Boulevard is highlighted by the mixed evergreen and deciduous planting of the Norfolk Country Club. This dense planting is a contrast to the wide right-of way (ROW) that lacks street trees. The ROW should be planted with a row of deciduous shade trees to create rhythm and balance along the roadway. Business owners should be encouraged to screen their parking lots and storage areas with a variety of evergreen and deciduous shrubs.

### Syracuse Avenue to Walnut Avenue

Like the previous subdivision of Riverside Boulevard, this section has an ample ROW, which lacks the desired number of street trees. It is recommended that street trees continue to be planted throughout this section. Close attention should be paid to the location of overhead lines and to the width of the ROW, as it varies along Riverside Boulevard. The view of the high school and post office could be partially screened using street tree plantings. A good example of this can be seen at the library, where ash trees partially screen the building from view.



## **4th Street - Walnut Avenue to Norfolk Avenue**

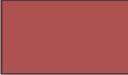
This section could also benefit from continuing the rhythm of the street trees. The street trees should be a combination of deciduous shade trees and ornamental trees. Land near the railroad tracks should be acquired for a small pocket park; this will add much needed green space in this area. Additionally, the loose rock near the tracks can be eliminated and replaced with an aesthetic treatment of brick or concrete pavers. North of Norfolk Avenue to half a block north of Brasch Avenue, the hardscape and landscape should be coordinated with the proposed treatments on Norfolk Avenue. This area should include larger planting beds for the street trees.

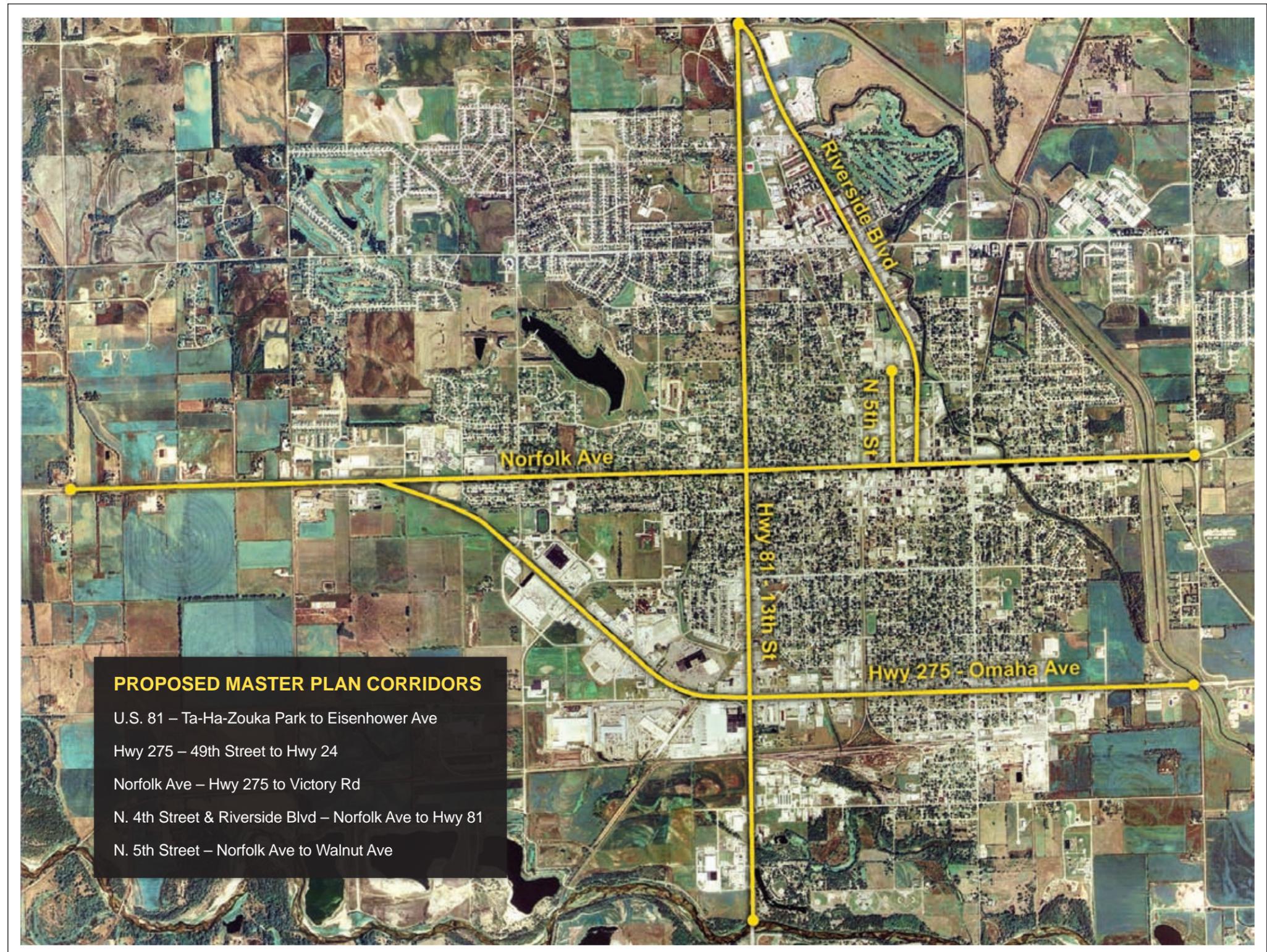
## **5th Street - Walnut Avenue to Norfolk Avenue**

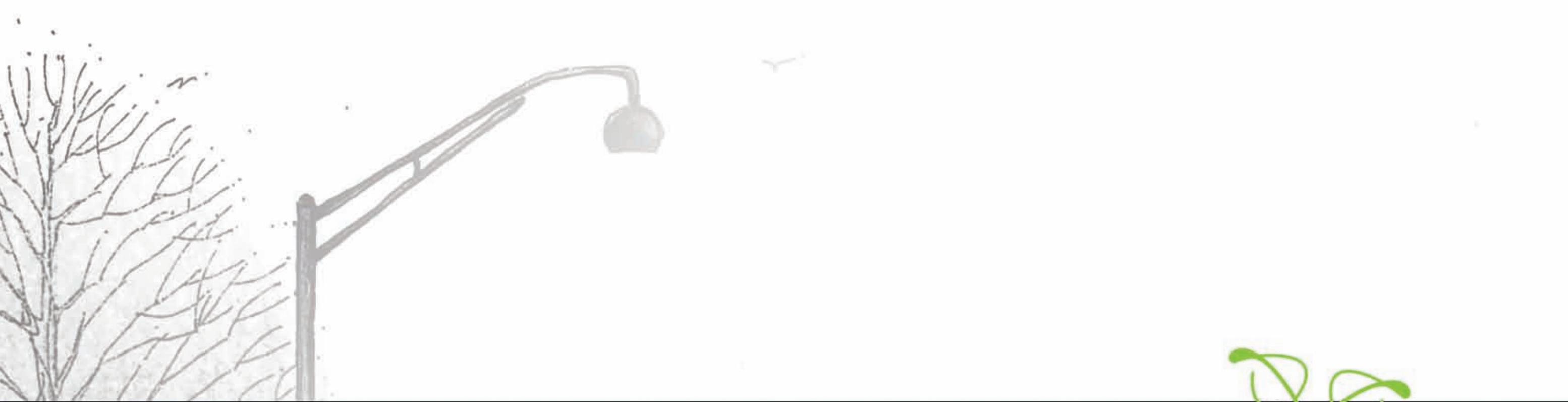
Fifth Street continues the trend from Riverside Boulevard of a wide ROW that lacks the proper amount of street trees. Continuing the honey locusts that are planted at regular intervals along Fifth Street and adding other species of deciduous shade trees could enhance this section. The intersection of the railroad with Fifth Street could be improved by adding green space with landscape plantings that may or may not include berms. Additionally, the loose rock near the tracks can be eliminated and replaced with an aesthetic treatment of brick or concrete pavers.



# Key

-  Roadway
-  Colored Concrete/Brick Accent
-  Turf Grass
-  Native Grasses/Wildflowers
-  Shrubs, Perennials, Grasses
-  Shade Tree
-  Ornamental Tree
-  Evergreen Tree
-  Shrubs





# EXISTING CONDITIONS & RECOMMENDATIONS

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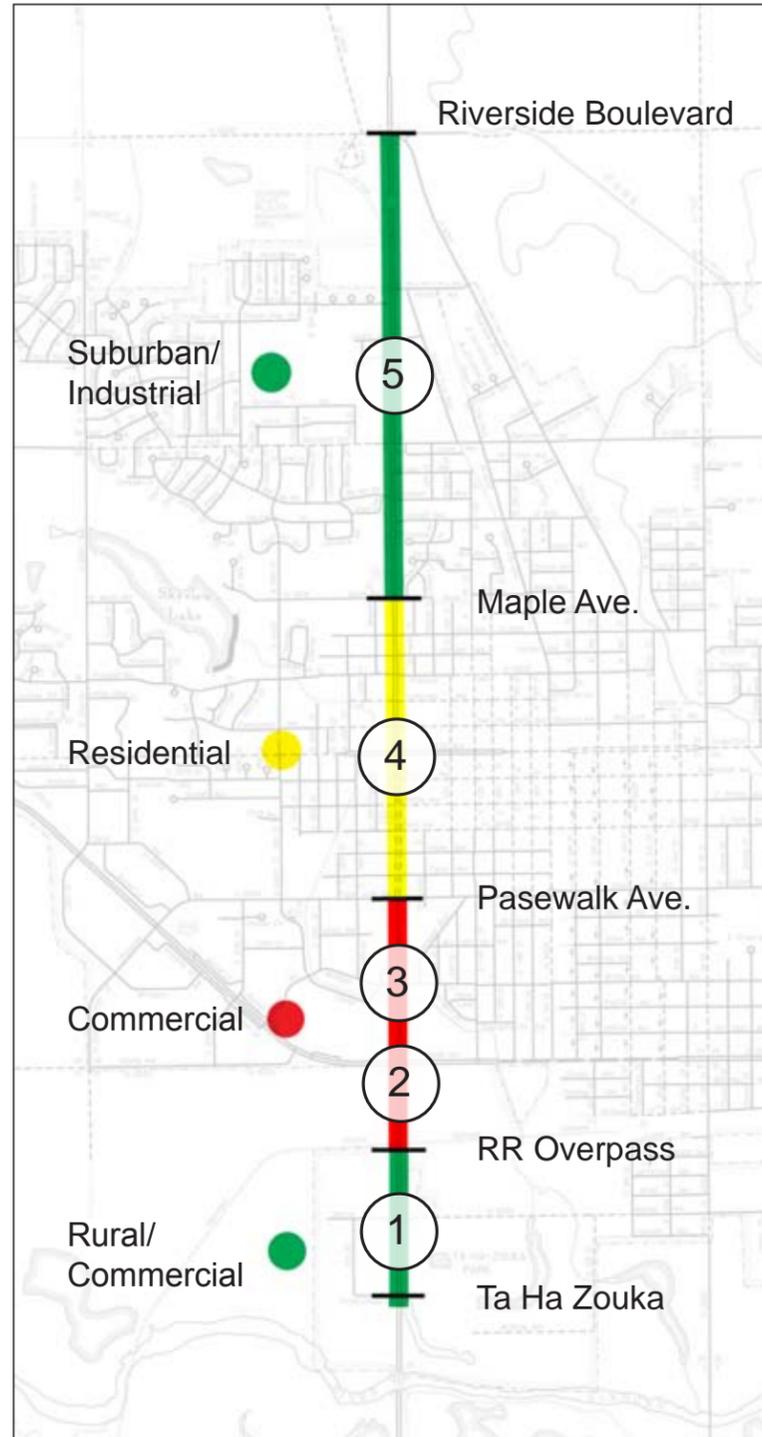




# HIGHWAY 81

norfolk landscape master plan





# indicates the location of each detail sheet

## Overview

Highway 81 is the primary north-south arterial through Norfolk. It is a dynamic corridor, changing character rather distinctly as one travels along it. It currently serves as the “front door” to the city, identifiable as such by the large welcome sign south of the Elkhorn River. The southern extent is transitional in character as new commercial development replaces agricultural fields. North of the NCRC railroad overpass, it becomes a dense commercial strip of eateries, offices, and car dealers. North of Pasewalk Avenue, it shifts toward historic, shady residential district. Then it becomes progressively more suburban north of Maple Avenue.

## Landscape Summary

The southern rural section of this corridor features very little deliberate landscape treatment. The roadsides are primarily tall grasses and turf with few woody specimens. Ta Ha Zouka Park has many mature cottonwoods, and the adjacent riparian corridor is densely wooded. The commercial strip north of the overpass currently lacks sufficient right-of-way for effective landscape treatment, and the narrow space between the curb and sidewalk alternates between turf, rock, and brick. Some business owners in this zone have developed their own landscape designs, the most notable of which are the Affiliate Foods Midwest corner, the Shell station, Ricardo’s, Pasewalk Plaza, and Applebee’s. North of Pasewalk Avenue, raised medians are treated with planting beds, which include hawthorn, juniper, and spirea. This residential zone features many mature street trees as well as small pocket parks; however, gaps in street trees are common. The trees in this zone are primarily hackberry, ash, locust, linden, and silver maple. North of Benjamin Avenue, rural character resumes as curbs and sidewalks end and grassed and concrete roadside ditches begin. This stretch of Highway 81 includes sporadic groups of trees, some parkland, and a private woodlot. Overall, the right-of-way is dominated by large expanses of turf where trees are absent.



Rural section



Wide paved medians



Narrow mixed ROW



Residential district



Suburban section



Pond accumulates road debris, its edge lacks substantial habitat

City sidewalk begins at Ta Ha Zouka on east of road (Figure A)

Parking lots are not screened

Raised concrete medians (Figure B)

Classification: Urban Principal Arterial  
 Section: 4 lanes divided with left turn lane  
 Speed Limit: 50 mph  
 Development Context: Rural; Commercial

Existing Conditions

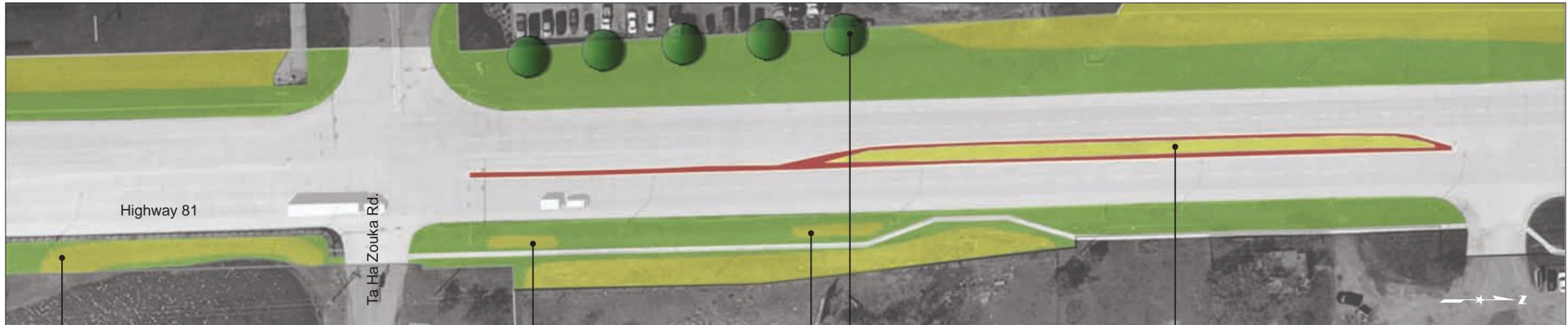
- Right-of-way (ROW) width varies
- Rural section grassed ROW with very few trees
- Overhead lines on east side of road



Figure A. Existing sidewalk lacks landscape treatment.



Figure B. Raised concrete medians, 16' wide.



Prairie meadow plantings provide habitat and buffer pond from road debris

Sidewalk ROW is enhanced with prairie meadow beds within turf (Figure A)

Shade trees screen parking and industrial uses

Medians are treated with native grasses, maintaining 2' concrete mow strip (Figure B)

### Recommendations

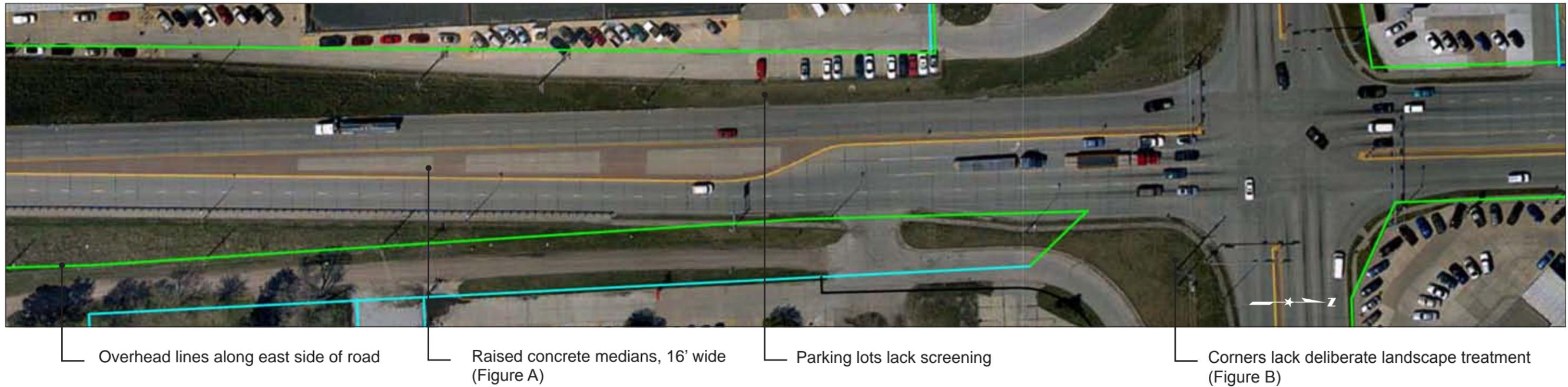
- Maintain rural aesthetic with prairie meadow / native grass mix (maintain existing open views).
- Landscape the medians with native grasses.
- Employ berms and tall grasses where possible to buffer sidewalk from road.
- Screen parking lots & industrial / commercial views.
- Plant groups of ornamental trees on the overpass to frame the entryway into the city.



Figure A. A vision of the tall grass buffer between the roadway and sidewalk.



Figure B. Proposed grasses in median.



Classification: Urban Principal Arterial  
 Section: 4 lanes with shared left turn lane  
 Speed Limit: 35 mph  
 Development Context: Commercial

Existing Conditions

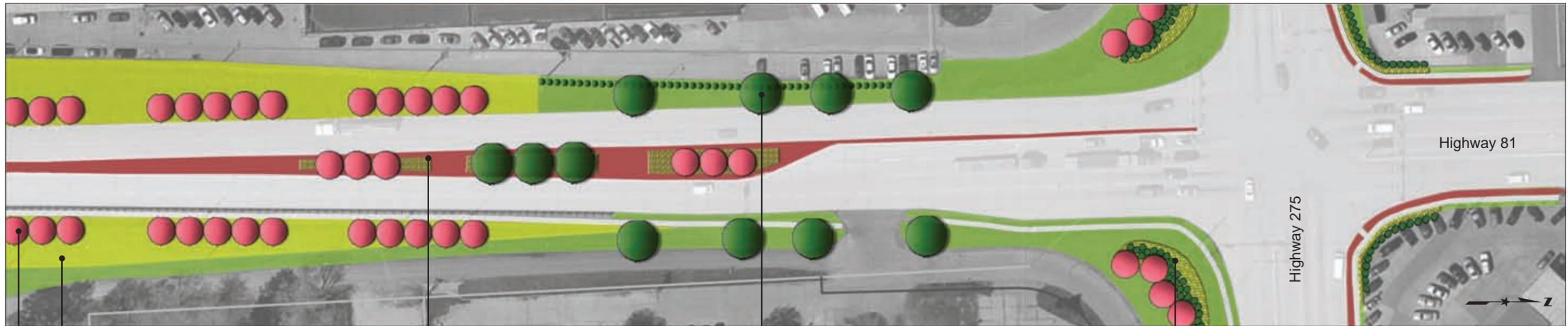
- ROW varies from 80' - 150'
- Sidewalk is on east side only until Hwy 275.
- Curbed section begins north of overpass.
- Entryway is mainly turf; large, green space on the south corners have potential for landscaping.



Figure A. Wide, paved medians are ideal for planting beds.



Figure B. Key intersection lacking landscape treatment.



Slopes seeded with prairie meadow  
 Groups of ornamental trees planted 20'-30' apart

Median planted with trees, shrubs, grasses, and perennials (Enhanced Landscape, Figure A)

Shade trees and shrubs screen parking and industrial uses

Corners enhanced with ornamental trees, shrubs, perennials and ornamental grasses (Figure B)

### Recommendations

- Create strong entry impression crossing overpass with groups of ornamental trees.
- Enhance the south corners of Hwy 81 & Hwy 275 with ornamental trees, shrubs, perennials and ornamental grasses.
- Obtain necessary ROW to design focal plantings at the north corners of Hwy 81 & Hwy 275.
- Plant ornamental and shade trees as well as shrubs and perennials for a colorful, interesting median / ROW.
- Enhance stamped, colored concrete with a new coat of stain or a clear sealer.
- Screen the east facade of the Affiliated Foods Midwest plant.



Figure A. A vision of the new streetscape recommendations. Median trees would be behind the camera.

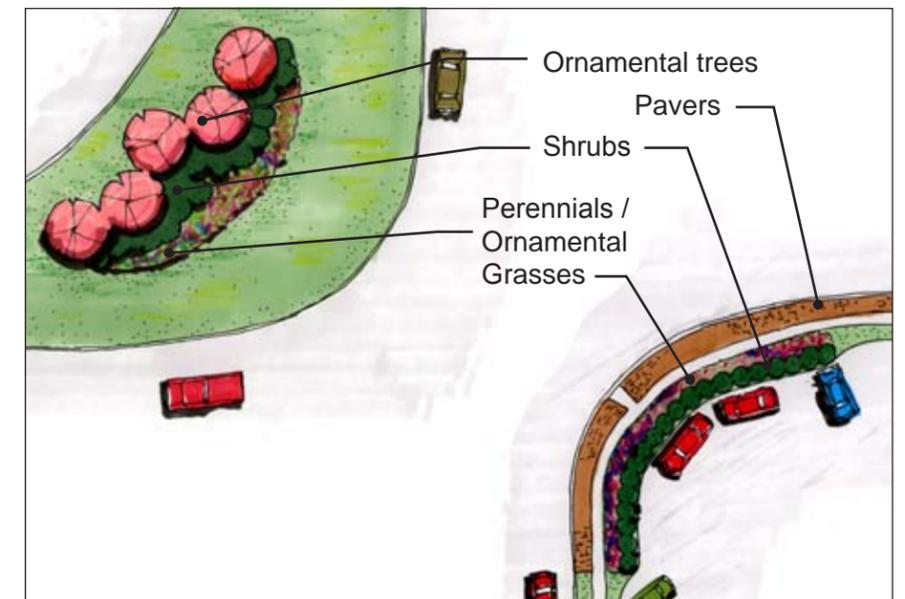
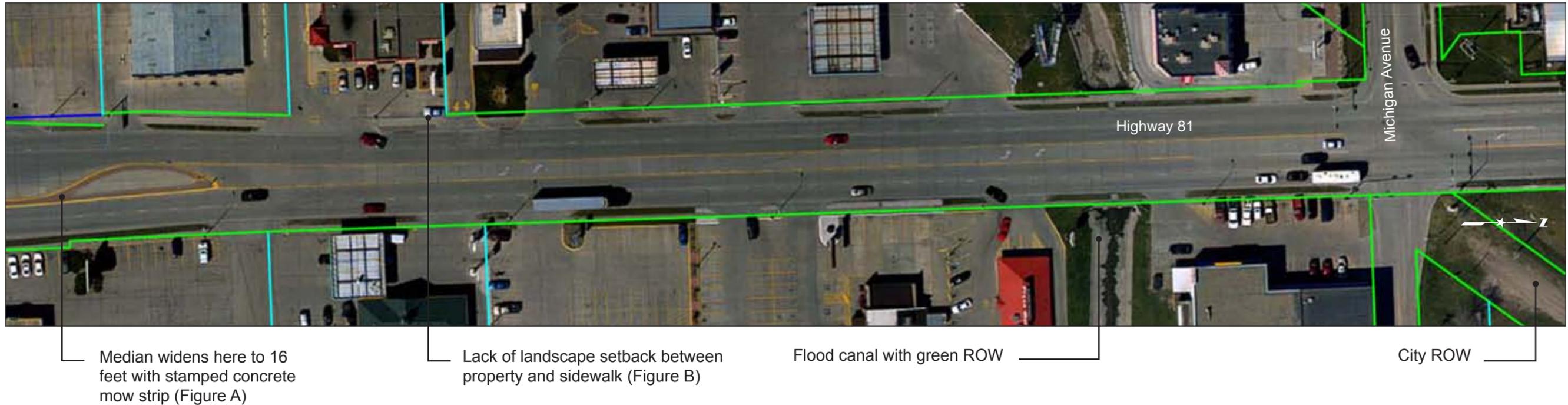


Figure B. Detailed accent plantings at corners.





Classification: Urban Principal Arterial  
 Section: 4 lanes with shared left turn lane  
 Speed Limit: 35 mph  
 Development Context: Commercial

Existing Conditions

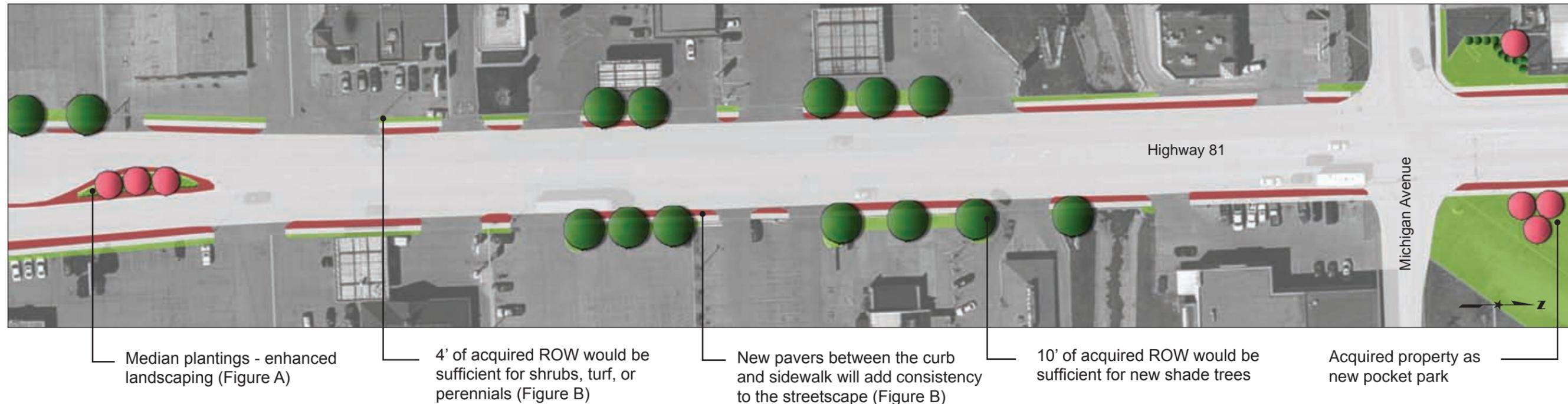
- ROW varies, but generally is limited.
- Many properties include under-used paved areas adjacent to sidewalk.
- Existing ROW treatment is highly variable; some areas are turf, rock, pavers, and concrete, while others are landscaped with shrubs and ornamental plantings.



Figure A. Minimal green space along commercial corridor. This median widens sufficiently for a planting bed.



Figure B. Properties often abut against sidewalk without a landscape buffer. Narrow ROW makes landscape treatment very difficult.



Recommendations

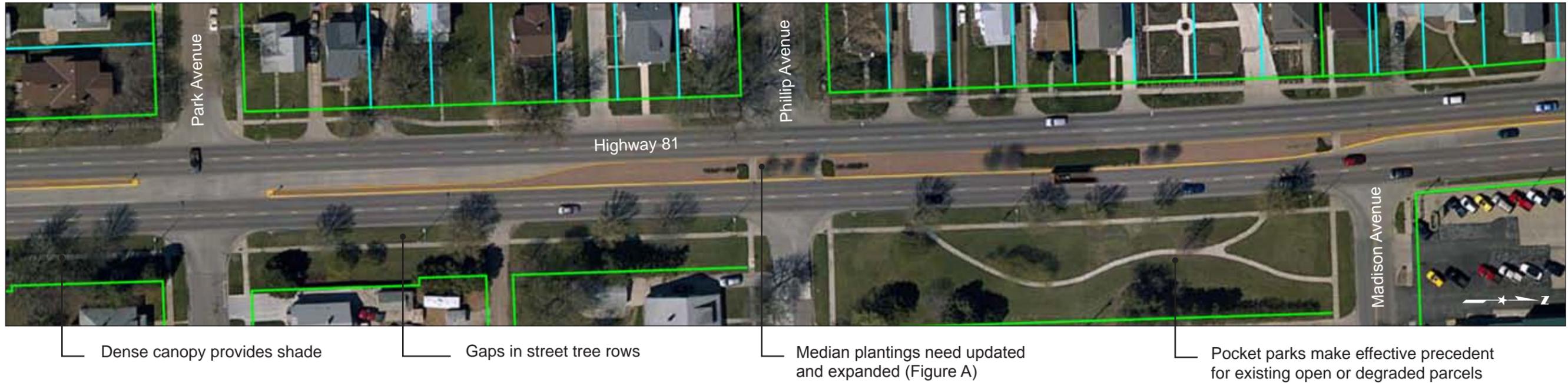
- Landscape the medians with enhanced landscaping: ornamental trees, low- growing shrubs, perennials, and ornamental grasses.
- Enhance mow strip stamped colored concrete with a new coat of stain or clear sealer.
- Area between the curb and sidewalk should be consistent throughout this section. Pavers or stamped colored concrete would be a low-maintenance alternative.
- Acquire 4-10' of ROW or landscape easement where possible to create a green buffer between the sidewalk and parking lots.



Figure A. Enhanced median and ROW edge.



Figure B. A vision of the new streetscape recommendations. New ROW setbacks or landscape easements would need to be acquired from cooperative landowners.



Classification: Urban Principal Arterial  
 Section: 4 lanes divided with left turn lane  
 Speed Limit: 35 mph  
 Development Context: Residential

Existing Conditions

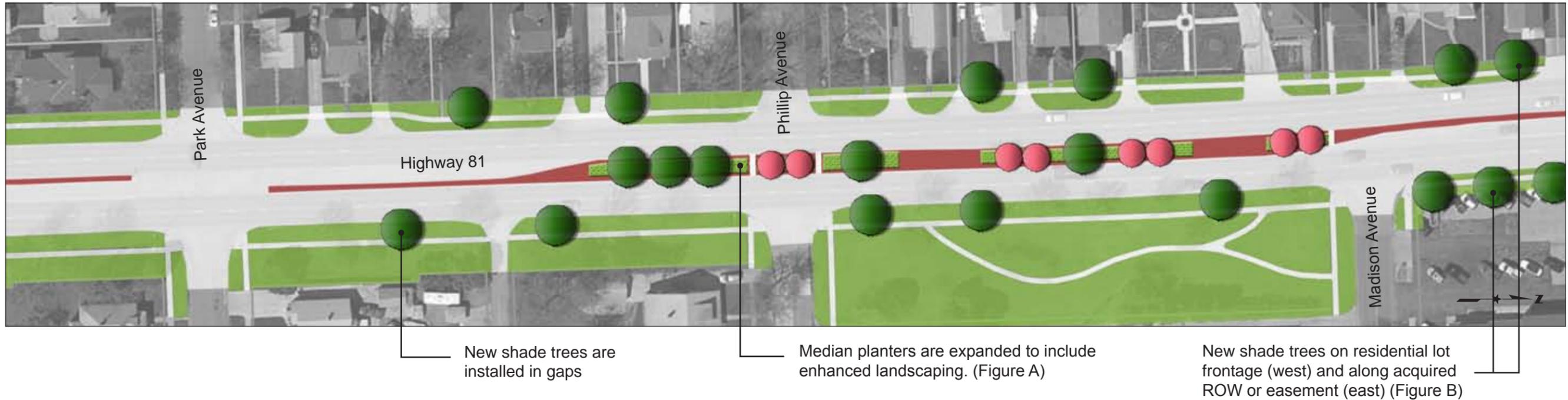
- Most street trees are in good condition and should last 20-30 more years. There are several areas where street trees are missing
- Median plantings are aging and many of the shrubs have died out leaving open areas.



Figure A. Existing median plantings are beginning to fail.



Figure B. The shady, tree-lined character of this district could be extended north and/or south.



### Recommendations

- Extend the shady character of the residential district by adding street trees wherever possible. Do so by creative, flexible agreements with property owners.
- Extend planting beds wherever medians allow, leaving stamped colored concrete sections for rhythm and visibility.
- Encourage property owners to screen parking lots adjacent to the street with 2'-3' tall shrubs.
- (See Norfolk Avenue section for Highway 81 and Norfolk Avenue Intersection recommendations)



Figure A. An example of possible landscape treatment in medians.



Figure B. New street trees and median plantings.



Large expanses of turf ROW with landscaping set back 30' +/- (Figure A)

East sidewalk ended at Maple

West sidewalk & curbs end at Benjamin, ditch section begins. (Figure B)

Raised concrete median

Classification: Urban Principal Arterial  
 Section: 4 lanes divided with left turn lane  
 Speed Limit: 45-55 mph  
 Development Context: Suburban / Rural

Existing Conditions

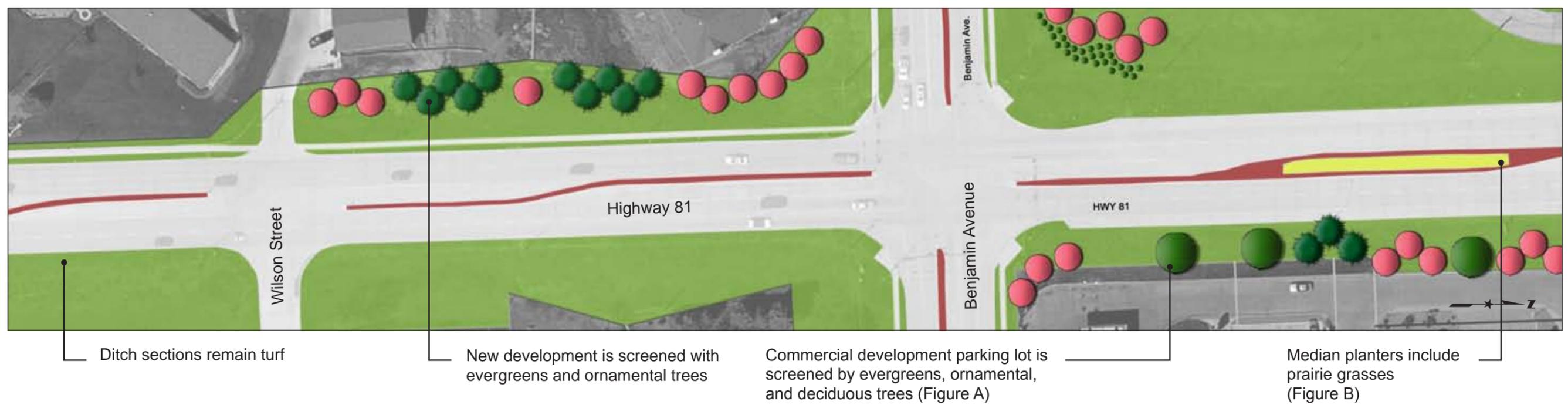
- Mainly open, grassed slopes next to ROW with some evergreens, shade and ornamental trees on the backslopes
- Existing medians are grey concrete and vary from 4' to 16'
- Overhead lines run on the west side from Georgia Avenue to Eisenhower Avenue



Figure A. Suburban section includes some wide concrete medians and ROW screening along east side.



Figure B. Ditch section begins north of Benjamin Avenue.



### Recommendations

- Evergreen, shade and ornamental trees should be added along the ROW in open areas to buffer adjacent uses from the roadway.
- Maintain a 2' concrete mow strip in the median, this can be stained to match the median treatment to the south.
- Remove concrete from the medians and add landscaping.
- South of Benjamin Avenue use enhanced median treatment, north of Benjamin use basic median treatment.
- Enhance the Benjamin Avenue intersection with landscaping where space is available.



Figure A. Screening of parking lot.



Figure B. Median landscaping.

### Ta Ha Zouka Park to NCRC Railroad Overpass

This section of Highway 81 is still primarily rural in character and should be treated accordingly. The open views outward from the road should be preserved where they are not obscured by development. Some built parcels, however, are light industrial or commercial in nature and should be buffered with shade trees. The south entry sign is beyond the reach of this analysis, but it could be framed with evergreens for emphasis and surrounded with native prairie wildflower plantings. The right of way (ROW) at Ta ha Zouka Park, between the pond and the highway, should be densely planted with prairie meadow and it should be mown only sparingly. This will improve aquatic edge habitat, prevent trash from blowing from the road into the pond, and enhance the aesthetic of the pond. Similar treatment with prairie meadow should replace the paved median and buffer the sidewalk along the east side of the highway. This buffer might also include slight berming, by which the sidewalk could be further visually separated from the road. Roadside ornamental trees should begin where the overpass begins to ascend.

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produce a more elegant first impression for visitors. These beds can be composed of an enhanced landscape treatment which includes shade and ornamental trees, flowering shrubs, perennials and ornamental grasses, all of which should be hardy varieties that withstand roadway conditions. Larger planting beds can be sited within the right of way at the southwest and southeast corners of this intersection (preserving the sight triangles), to bring needed color and interest across seasons. Along the northwest and northeast corners, the City should pursue added right of way in order to complete this composition and help soften the right of way between the car dealerships.

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### Pasewalk Avenue to Maple Avenue

This stretch of Highway 81 already is nicely treated as an historic residential district and efforts should be made to extend its character both to the north and, where possible, to the south. The existing landscape beds within the median could be expanded to enhance their effect and maximize street shade. The aging plants should be replaced with new shade trees, ornamental trees, shrubs, perennials and ornamental grasses; where sight distances

allow. Street trees should be installed where existing gaps exist, but due to the high level of variation in ROW width through this district, these installations might require creative solutions. Landowners might be receptive to an agreement wherein the City installs new plant materials on property street frontage on condition that the property owner will provide maintenance. The corner of Highway 81 and Norfolk Avenue is a key intersection and the treatment of that corner will be covered in the Norfolk Avenue recommendations.

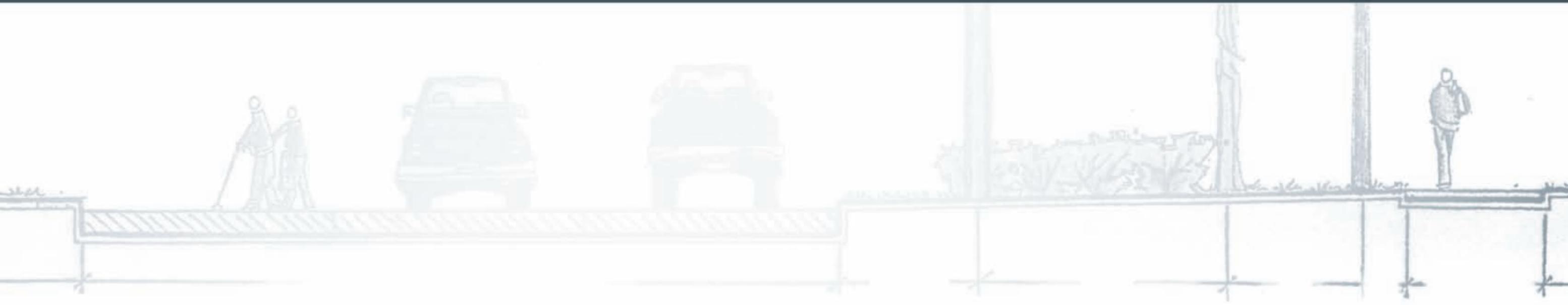
### Maple Avenue to Riverside Boulevard

This broad, suburban section of roadway has ample space along the ROW, most of which can be enhanced by planting groups of trees. These should include conifers, ornamentals, and shade trees and should be sited both to frame desirable views and to screen undesirable views. The east slope of the concrete ditch channel that begins north of Benjamin could be planted with broad swaths of prairie meadow and scattered ornamental trees. The intersection of Benjamin Avenue is another high traffic intersection and the corners should be enhanced with landscaping. The concrete median should be converted to landscape beds with an enhanced landscape treatment South of Benjamin Avenue (where sight distances allow) and a basic landscape treatment north of Benjamin Avenue. In addition, a 2' stamped colored concrete mow strip should be installed around the perimeter of these medians to match the medians to the south. This median treatment should help extend the character of the preceding section, create unity, and decrease the perceived scale of the road. Particularly, this will help slow highway traffic arriving from the north. Coupled with a new entry sign north of Riverside Boulevard, planting these medians will create a more distinct and recognizable entry into the City.

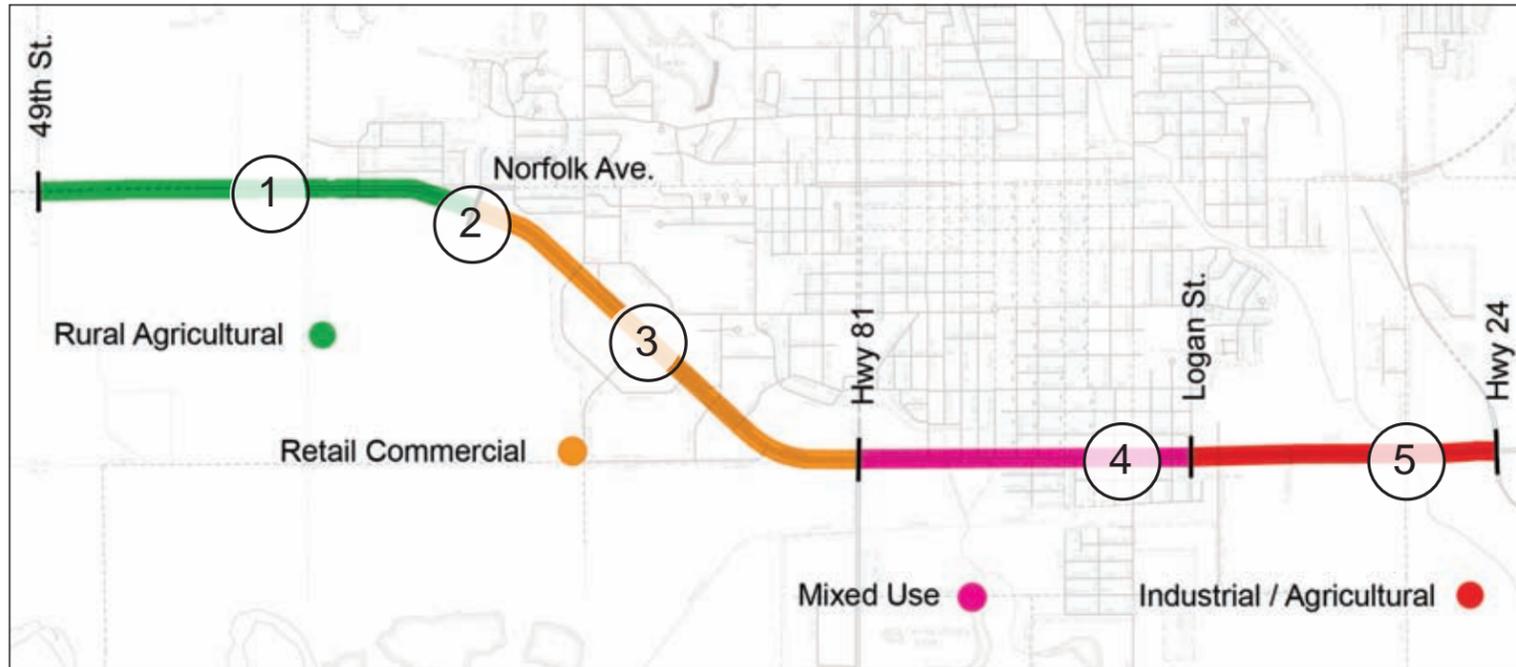


# HIGHWAY 275

norfolk landscape master plan







# indicates the location of each detail sheet

## Overview

Highway 275 is the principal arterial of a thriving commercial district running the southern length of Norfolk. It is also a primary route of entry from the west and east. It is rapidly developing at the western edge of town, where agricultural fields are for sale and many large retail centers have been built. From 49th Street to Norfolk Avenue the area is still rural in character, and agriculture is still the dominant land use. From Norfolk Avenue to Highway 81 is dominated by low-density commercial retail with wide setbacks and stormwater swales. East of Highway 81, the

use is a mix of industrial, commercial, and residential. From Logan Street to Highway 24, the area becomes rural industrial with large building setbacks.

## Landscape Summary

The western section of this roadway is still rural in character with open fields and roadside ditches; some are mowed, and others are filled with tall grasses. A widening project is under construction, which will create areas for future landscaping. A few willows, cottonwood, and elms are scattered

in groups just off the right-of-way (ROW). The commercial areas to the east of Norfolk Avenue have large, open green spaces with a few honey locusts and other trees to break up the expanse. The mall on the north side of the highway uses a variety of plant materials to effectively screen the parking lot and create interest along the roadway. East of Highway 81, large open green spaces still exist with some ash trees and accent plantings at the corner of Ninth Street. East of the railroad tracks, the green space is limited due to building setbacks; very few trees and shrubs exist along this stretch of roadway. West of Logan Street, the green space areas are wider but still lack landscaping.



Rural section



Rural section under construction



Commercial area

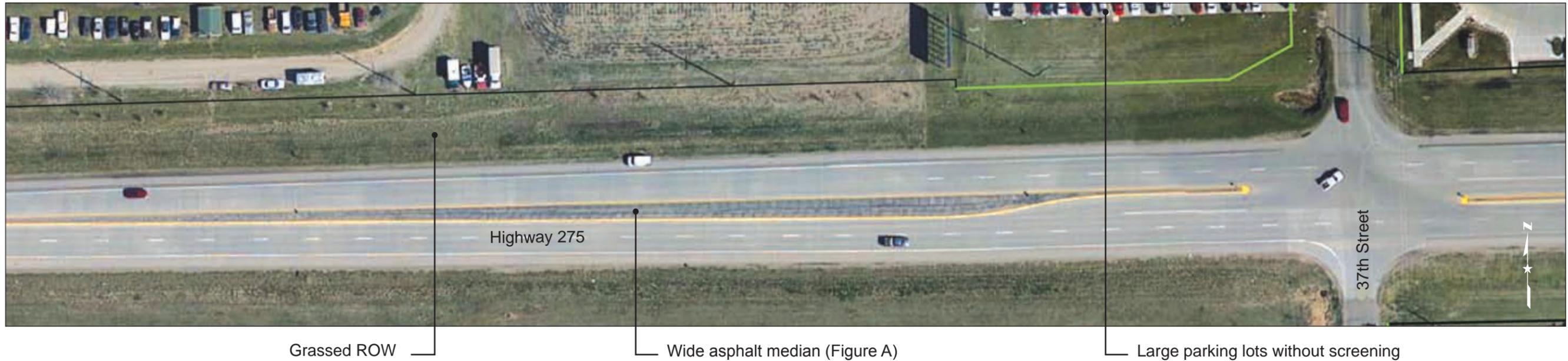


Residential section



Industrial area





Classification: CBD Principal Arterial

Section: 2 lanes / 4 lanes divided with left turn lane

Speed Limit: 55 mph

Development Context: Agricultural / Open Space

Existing Conditions

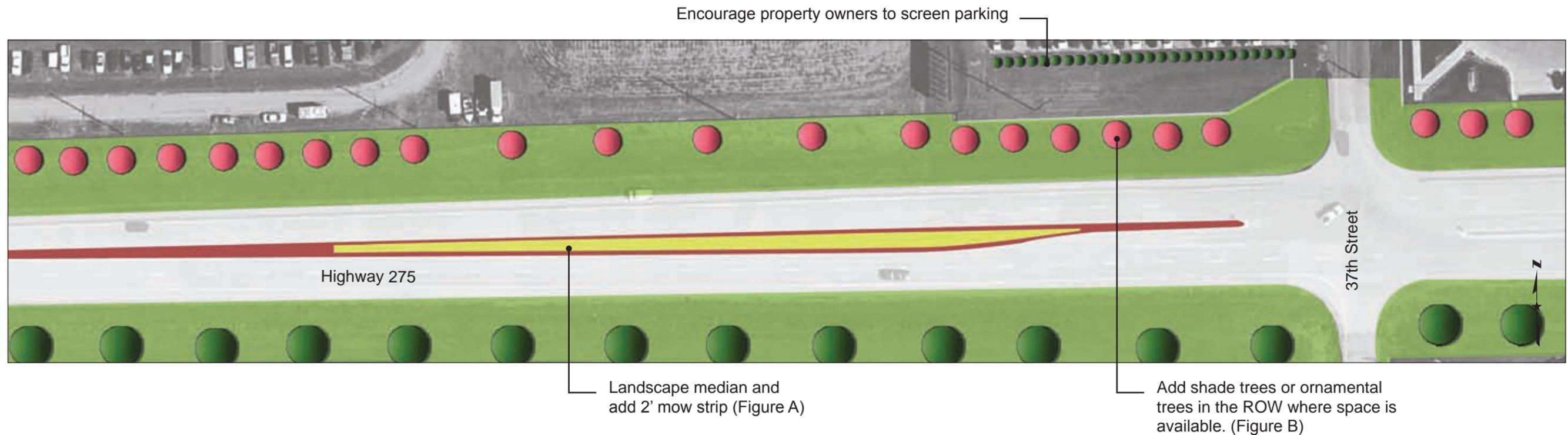
- Rural section of the roadway with grassed ROW
- Existing overhead lines on the north side of the roadway
- Roadway being widened to four lanes west of 37th Street
- Wide asphalt medians



Figure A. Wide asphalt medians.



Figure B. Open grassed ROW.



### Recommendations

- Add shade and/or ornamental trees on the back slope along the highway, planted 35-50-feet on center.
- Remove the asphalt median, and enhance it with 2-foot wide stamped colored concrete mow strip.
- Landscape median with prairie grasses or buffalo grass.

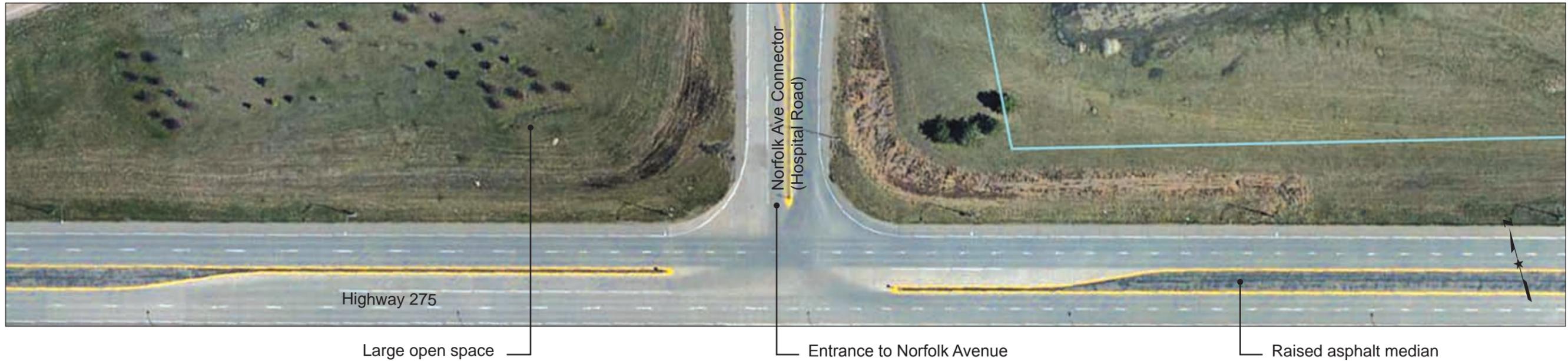


Figure A. New median landscaping (Example from Hwy. 81)



Figure B. New ornamental trees will help screen parking lots.





Classification: CBD Principal Arterial

Section: 2 lanes / 4 lanes divided with left turn lane

Speed Limit: 55 mph

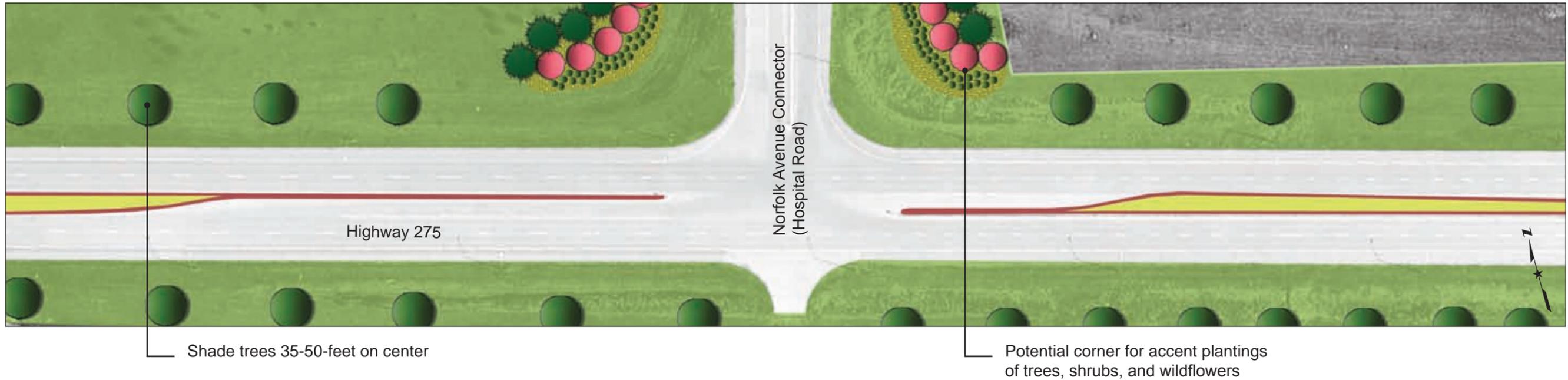
Development Context: Agricultural / Open Space

### Existing Conditions

- The Norfolk Avenue connector is an entryway to downtown Norfolk.
- Large open fields with groups of trees exist on either side of the intersection.
- Transportation Plan 2030 calls for the intersection to be reconstructed in the future.



Figure A. Existing landscaping at intersection of Hospital Road and Highway 275.

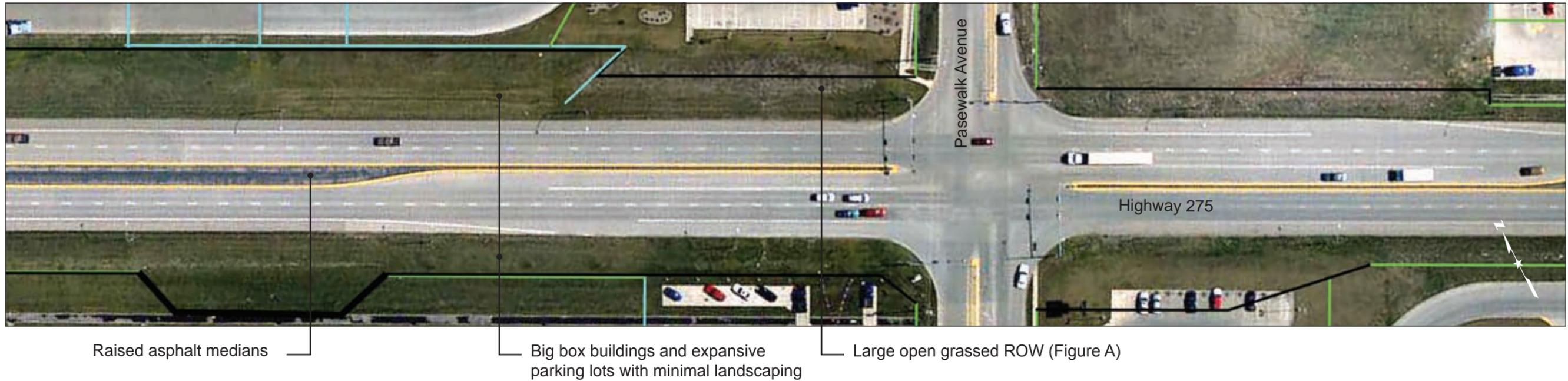


### Recommendations

- Plant shade and/or ornamental trees on backslope along highway, 35-50' on center and on Norfolk Avenue connector
- Enhance corners of Norfolk Avenue connector with evergreens, ornamental trees, shrubs and wildflowers
- Landscape median with prairie grasses



Figure A. Accent plantings at intersection.



Classification: Urban Principal Arterial

Section: 4 lanes, divided with left turn lane

Speed Limit: 45 mph

Development Context: Retail Commercial

### Existing Conditions

- Very little landscaping exists along the roadway except for a few honey locusts, river birches, and crabapples.
- A raised asphalt median exists to 20th Street where it changes to stamped color concrete.
- The 120-foot +/- ROW is mainly grassed with drainage ditches between the highway and frontage roads or parking lots.

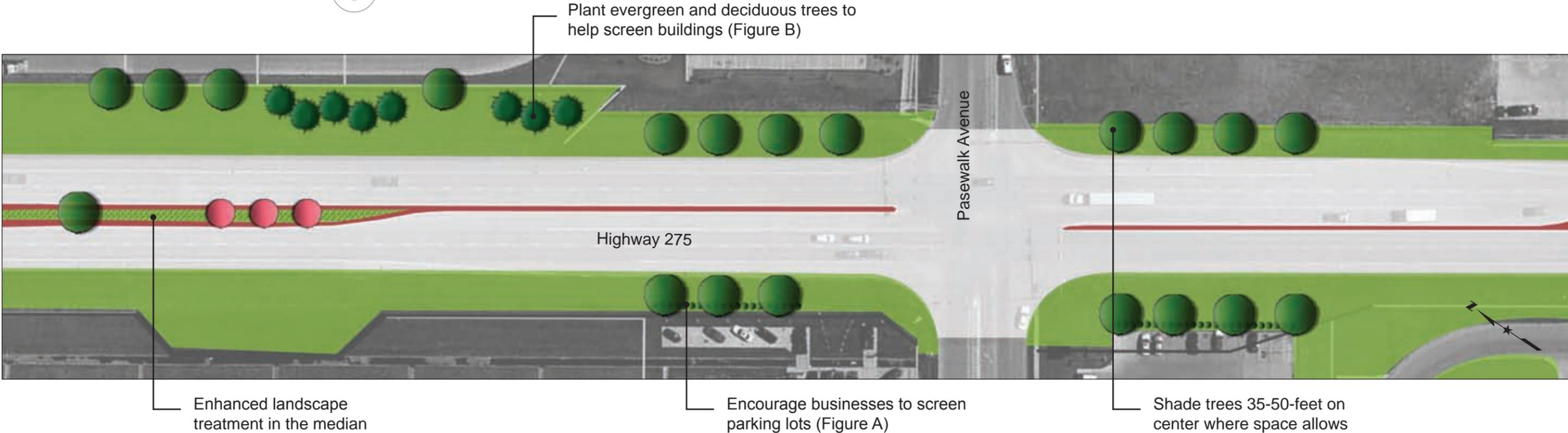


Figure A. Grassed ROW between Market Lane and Highway 275.



Figure B. Big box building front (Affiliated Foods.)

3



Recommendations

- Plant shade and ornamental trees on the backslope along the highway. Plant trees 35-50-feet on center where space is available.
- Encourage businesses to screen parking lots with 3-foot tall shrubs.
- Evergreens and deciduous trees should be planted in groupings to help screen large buildings from view. (Affiliated Foods Midwest, Menards, WalMart etc.).
- Landscape beds should be added to the medians; basic treatment from Norfolk to Taylor and enhanced landscape treatment from Taylor to Highway 81 should be installed.
- Use trees in the median east of Taylor Avenue if allowed by design standards.

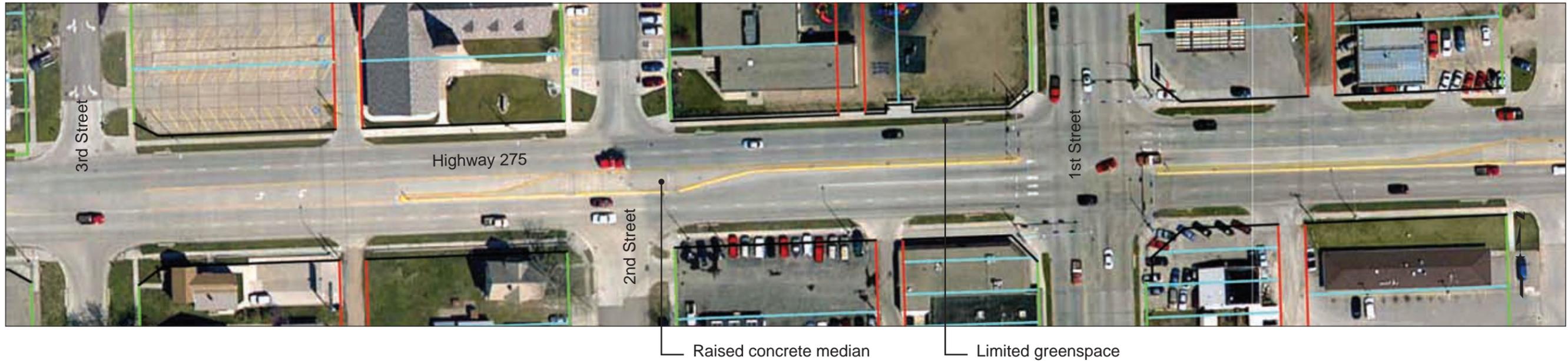


Figure A. Screen parked cars from view with shrubs.



Figure B. Evergreens and deciduous trees to break up the expanse of the big box buildings.





Classification: Urban Principal Arterial  
 Section: 4 lanes, divided with left turn lane  
 Speed Limit: 35 mph  
 Development Context: Mixed Commercial / Residential

Existing Conditions

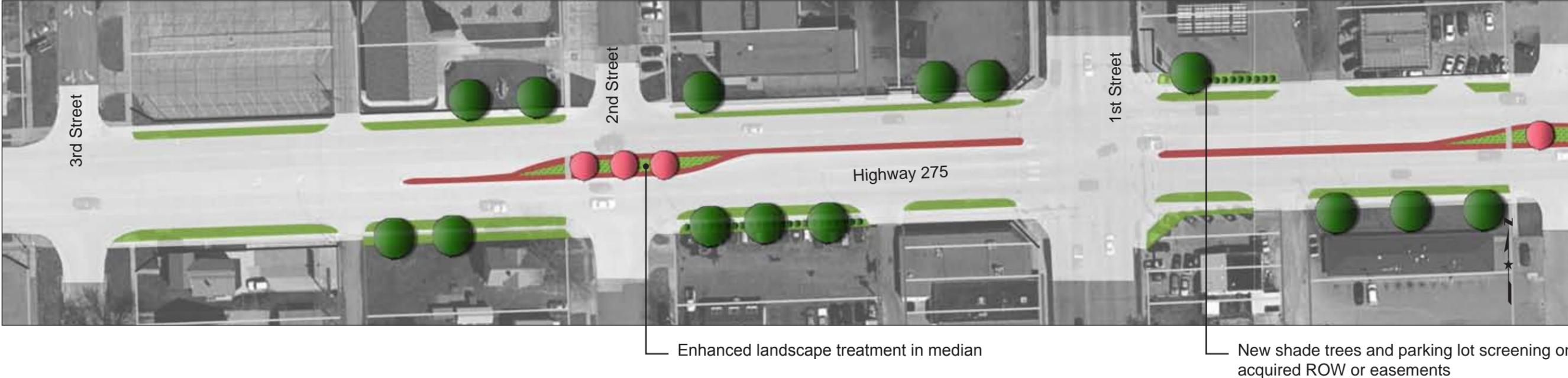
- From Highway 81 to 7th Street, sufficient, yet very little, ROW exists for landscaping. ROW narrows between 7th and Logan Streets.
- Raised concrete medians exist
- Parking lots are located next to sidewalks with little or no green space.
- Overhead lines exist on north side of the roadway from Highway 81 to 6th Street.



Figure A. Parking lots lack street trees and screening.



Figure B. Limited ROW with parking lots next to sidewalk.



Recommendations

- Encourage businesses to provide green space for trees and shrubs between sidewalks and parking lots.
- The rhythm of street trees along 275 should be continued where space allows.
- Landscape beds should be added to the median and enhanced landscape treatment should be installed.



Figure A. Larger setbacks allow for more green space and street trees.



Figure B. Street trees shade parking lots, and evergreen shrubs screen cars from view.





Grassed ROW with very few trees

Large buildings visible from roadway

Existing grassed medians

Classification: Urban Principal Arterial

Section: 4 lanes, divided with left turn lane

Speed Limit: 35-55 mph

Development Context: Industrial / Agriculture

### Existing Conditions

- A grassed median begins east of Industrial Road.
- Extensive ROW is available for landscaping.
- A large industrial building, loading docks, and parking lots are visible from the roadway.
- Overhead lines exist on the north side of the highway.



Figure A. Building and loading dock visible from roadway.



Figure B. Wide ROW available for landscaping.



Recommendations

- The rhythm of the street trees should be continued where space allows.
- Encourage businesses to screen parking lots with 3-foot tall shrubs.
- Provide accent landscaping at jug-handle intersections.
- Screen large buildings from the view of the roadway with groupings of evergreens and deciduous trees.
- Medians should be landscaped with basic treatment, and trees should be added where design standards allow.



Figure A. Accent landscaping at intersection.



Figure B. Evergreen and deciduous trees screening building walls.

### 49th Street to Norfolk Avenue

With the future widening of the roadway from two lanes to a four-lane divided highway and the future land use plan, this section will become a more commercial and medium density residential area. Future businesses along this corridor should be encouraged to landscape their properties and screen the parking lots. Street trees should be planted along this corridor 35-50-feet on center where space allows. The north side of the roadway has overhead power lines, which will limit the locations and heights of trees.

The median treatment in this area should be the basic landscape treatment with low native grasses. The 2-foot mow strip should match the stamped colored concrete used in sections to the east. The future configuration of the Norfolk Avenue Connector will create a gateway to downtown Norfolk. More emphasis should be placed on landscaping the corner nodes to frame the entryway with seasonal color. Evergreen trees used as a backdrop to ornamental trees, colorful shrubs, ornamental grasses, and perennials will help achieve this goal.

### Norfolk Avenue to Highway 81

This section of Highway 275 has space available in most areas to continue the street tree plantings 35-50-feet on center. The larger green spaces in the right-of-way (ROW) could be enhanced with a variety of evergreen and deciduous trees to break up the views of the big box buildings and parking lots. The medians from Norfolk Avenue to Taylor Avenue should have the basic landscape treatment; medians east of Taylor Avenue should have the enhanced landscape treatment using trees, shrubs, ornamental grasses, and perennials where design standards allow. The stamped colored concrete is already used in some areas of the median, and the new mow strip should match this treatment.

### Highway 81 to Logan Street

The rhythm of the street trees should be continued along this stretch of roadway. Where ROW is available, groupings of evergreens and deciduous trees could be planted to screen the buildings and parking lots. Business owners should be encouraged to screen parking lots with shrubs; this will help create a corridor effect and enhance the driver's experience. The median treatment in this area should be the enhanced landscape treatment using trees, shrubs, ornamental grasses, and perennials. The stamped colored concrete is already used in some areas; the new mow strip should match this treatment.

### Logan Street to Highway 24

The rhythm of the street trees should continue along the roadway where space is available. Where ROW is sufficient, groupings of evergreens and deciduous trees should be planted to screen the large buildings and their loading docks found in this section. Business owners should be encouraged to screen parking lots with shrubs. A few jug-handle intersections provide an opportunity for landscape treatment with ornamental trees and/or shrubs.

The median treatment in this area should be the basic landscape treatment with native grasses. A 2-foot mow strip was not built in this section of the roadway; but could be added to match the stamped colored concrete used in sections to the west. Another option would be to stain the existing concrete to match the colored concrete sections.

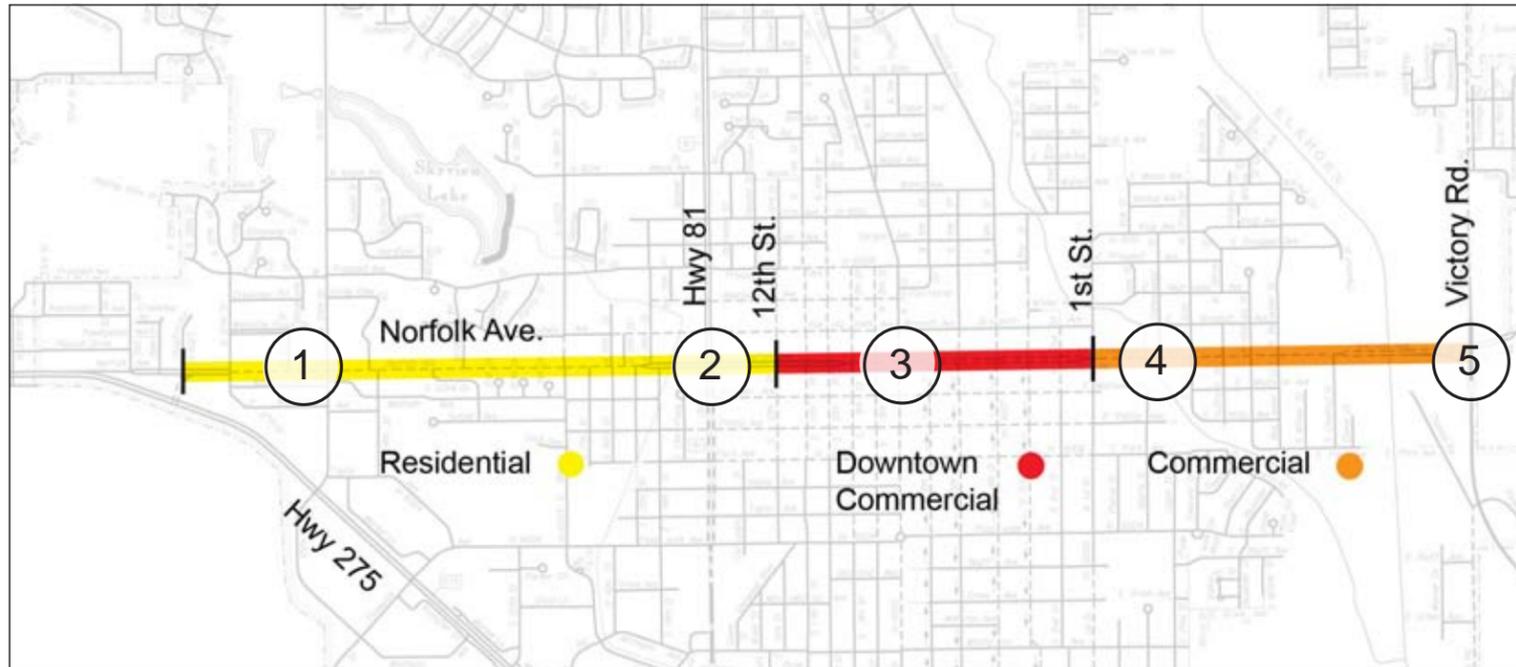


# NORFOLK AVENUE

norfolk landscape master plan







# indicates the location of each detail sheet

## Overview

Norfolk Avenue, the namesake east-west arterial of the city, is another road with diverse uses and patterns. From Highway 275 to Tenth Street, it is primarily residential, moving through shady old neighborhoods with churches, a school, and occasional commercial uses. Before it nears Highway 81, the roadway sections cut through a slope. Properties along the north of the road are above street grade, while the south properties are below street grade. At Tenth Street, it nears the downtown business district and becomes densely commercial. At First Street, the commercial density decreases, the right-of-way (ROW) increases, and the overall character changes to that of a more suburban commercial district. Norfolk Avenue is an important point of entry into the city from the

west and the east; it is, therefore, well traveled and must be carefully considered.

## Landscape Summary

At its junction with Highway 275, Norfolk Avenue is still somewhat rural, flanked on both sides by agricultural fields and ditches. Some groups of conifers and ornamentals have been planted in the right-of-way island between these two roads. The proceeding residential district is characterized by dense landscape screens on the south and many mature shade trees on adjacent properties. Despite sufficient ROW, street trees along this stretch are sporadic. Following the Highway 81 intersection, many potential ROW sites remain open. The blocks flanking the railroad crossing west of downtown have

high potential for landscape improvements, perhaps even new parcel acquisitions for pocket parks. The downtown district from Eighth Street to First Street will have new landscape treatments installed in 2008. The Alco site at First Street, flanking both Norfolk Avenue and the Elkhorn River, would be an ideal site for redevelopment with expanded green space along the river. At First Street the ROW substantially widens; however, street trees are almost entirely absent. Between First Street and Boxelder, a high potential to enhance street tree installation. The remaining section, crossing the flood canal toward Victory Road, is an important gateway into the city and should be treated as such.



Residential section



Norfolk Avenue & 13th Street intersection



Downtown - Norfolk Avenue



Commercial section



Rural section



ROW slopes down to residential backyards; area is heavily landscaped



Classification: CBD Principal Arterial

Section: 2 lanes with shared turn lane / 4 lanes divided with shared left turn lane

Speed Limit: 35-45 mph

Development Context: Residential

Open green space with limited landscaping

Existing overhead lines

Narrow ROW

### Existing Conditions

- Raised asphalt median near the intersection of 275; raised, stamped, colored concrete from 14th Street to 9th Street.
- Overhead lines on the north from Highway 275 to 27th Street, move to the south side and end at 18th Street.
- Sidewalks on the north side from 26th Street to 18th Street and on both sides to 10th Street.
- The south side of the roadway slopes down into residential backyards until 18th Street and is heavily landscaped. East of 18th Street, lots front onto Norfolk Avenue.
- Large ROW west of 25th Street, which narrows to the east.
- Silver maples, ash, ems and crabapples trees found throughout the corridor.

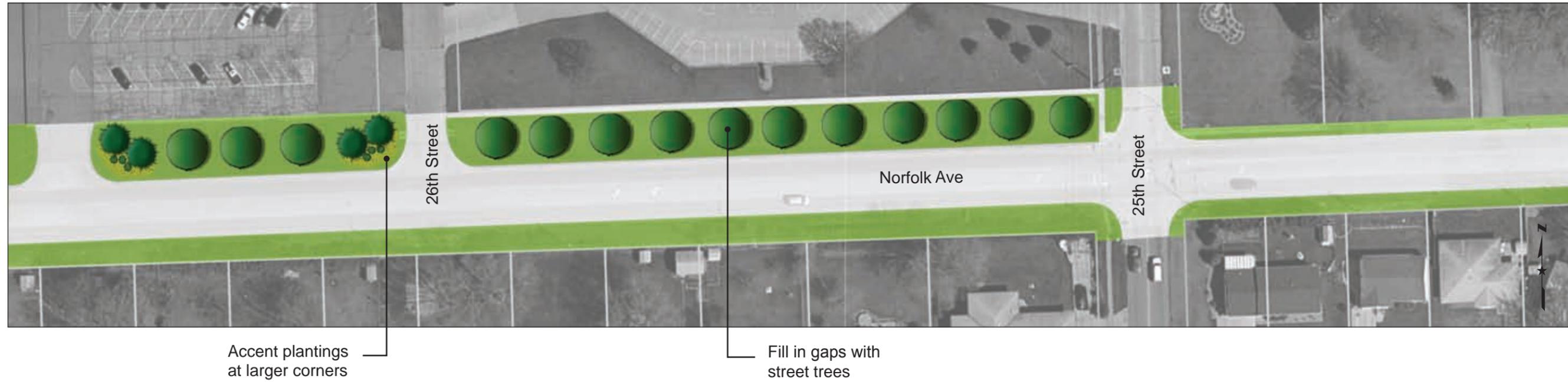


Figure A. Open parking lots.



Figure B. Gap in street trees.





## Recommendations

- Plant street trees to fill in open spaces where possible.
- Add accent plantings at larger corners.
- Encourage business owners, churches, and schools to screen parking lots with 2-3-foot tall shrubs and plant trees.
- Consider using pavers between the back of the curb and the sidewalk where the area is too narrow for turf.
- Plant shrubs behind the guard rail section on the south side.

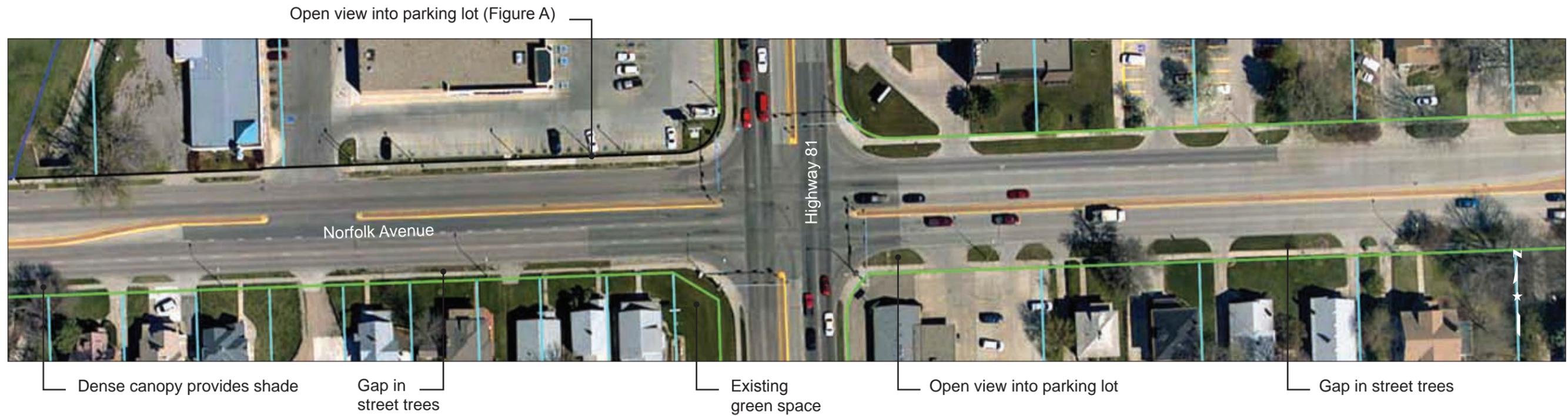


Figure A. Plant street trees to fill in open spaces. (Example from Hwy.81)



Figure B. Low shrubs behind guard rail.





Classification: CBD Principal Arterial

Section: 2 lanes with shared left turn lane;

4 lanes divided with shared left turn lane

Speed Limit: 35-45 mph

Development Context: Residential

### Existing Conditions

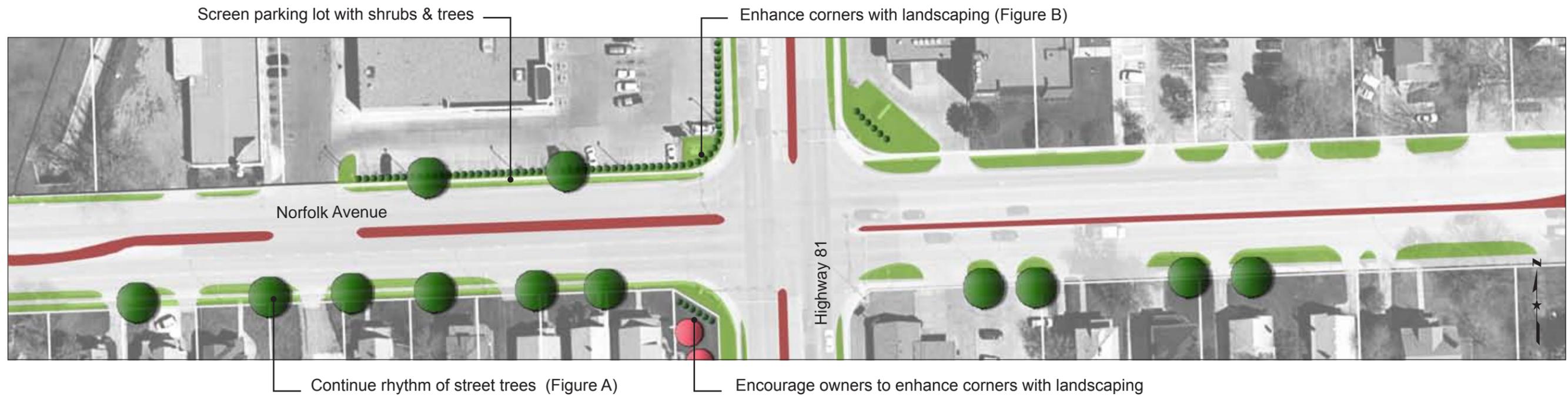
- The corners of this major intersection are lacking in landscape treatments.
- Existing concrete median
- Limited ROW for planting



Figure A. Norfolk Avenue and 13th Street.



Figure B. Norfolk Avenue and 13th Street.



## Recommendations

- Continue ROW shade trees to frame the roadway.
- Encourage property owners to screen parking lots adjacent to the street with 2-3-foot tall shrubs.
- Enhance the corners of Norfolk Avenue and Highway 81 with landscaping.

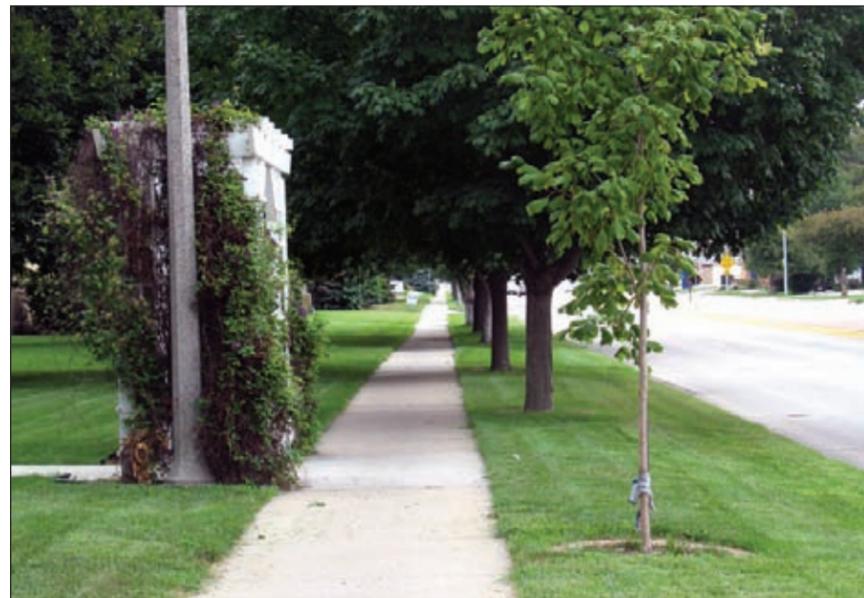


Figure A. *New street trees.*



Figure B. *Corner treatment.*





Classification: CBD Principal Arterial

Section: 2 lanes divided with shared left turn lane and diagonal parking

Speed Limit: 25 mph

Development Context: Commercial Business District

### Existing Conditions

- A variety of shade trees line the streets: elm, ash, crabapple, silver maple, catalpa, and locust. A few younger trees have been planted to fill the gaps.
- 100-foot ROW allows room for street trees.
- Existing stamped color concrete median with aging plant materials.



Figure A. Median.



Figure B. Businesses lack landscaping.



## Recommendations

- Continue the rhythm of the street trees by filling in gaps where possible.
- Add more landscaping beds in the median, and enhance the landscaping.
- Encourage business owners to screen parking lots with 3-foot tall shrubs and to add shade trees.
- Improvements from Eighth Street to First Street are under construction.



Figure A. An example of possible landscape treatment in medians.



Figure B. Add 4-10-feet of green space and street trees.





Classification: CBD Principal Arterial  
 Section: 4 lanes undivided  
 Speed Limit: 35-45 mph  
 Development Context: Commercial

## Existing Conditions

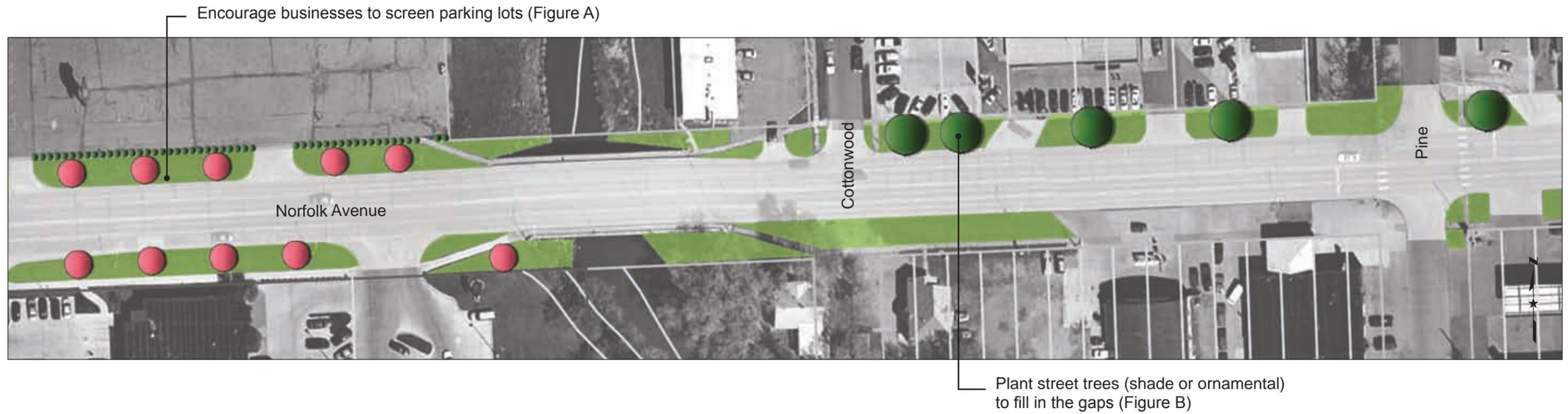
- Existing ROW varies from 80-feet to 100-feet.
- Overhead lines run on both sides of the street to about Chestnut Street.
- The North Fork of the Elkhorn River provides a pocket of greenspace along the street.
- Existing street trees are fairly old with a few newly planted trees; open gaps exist.
- Parking lots are open to view from the roadway.



Figure A. Large open ROW.



Figure B. Sidewalk and park space are indistinguishable in this area.



## Recommendations

- Continue the rhythm of the street trees by filling in gaps where possible.
- Encourage business owners to screen parking lots with 3-foot tall shrubs and to add shade trees.
- Encourage businesses to provide 4-10-foot wide green space between the sidewalk and the parking lots.



Figure A. *Parking lot screening.*



Figure B. *New street trees enhance businesses.*





Classification: CBD Principal Arterial  
 Section: 4 lanes undivided / 4 lanes divided  
 Speed Limit: 35-45 mph  
 Development Context: Commercial

**Existing Conditions**

- Large grassed open spaces
- Raised grassed medians

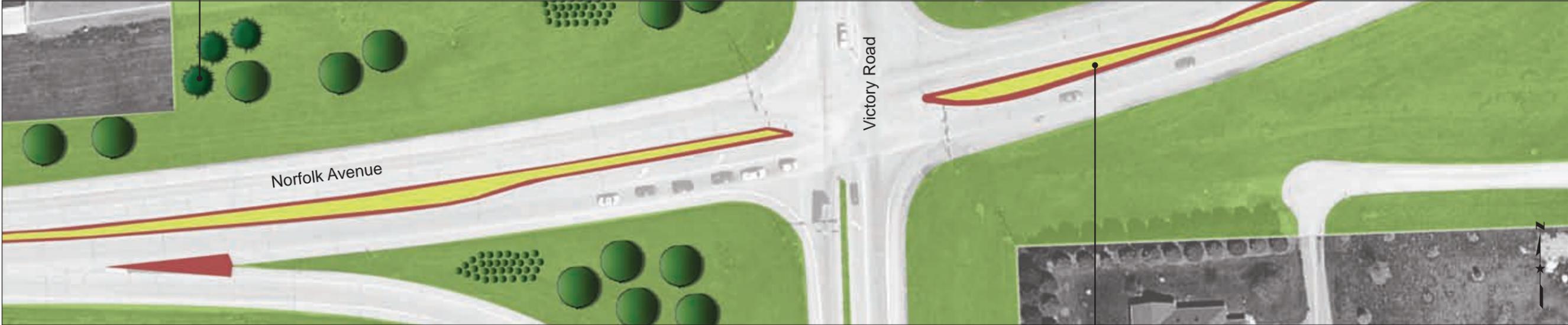


Figure A. Open space at intersection.



Figure B. Grass median.

Plant evergreen and deciduous trees and shrubs to enhance corners (Figure A)



Enhance medians by adding wild flowers to the grasses

Recommendations

- Enhance the intersection with trees and shrubs at the corners.
- Add a colored concrete 2-foot mow strip, and enhance the medians with wild flowers and prairie grasses.



Figure A. Shade trees and shrubs.



Figure B. Potential median wildflowers.



### Highway 275 to 12th Street

This section of Norfolk Avenue is a major entry point into the city from the west. Transitioning from rural to residential, it is highlighted on the west end by the occasional median planting of evergreens and ornamentals and on the east end by mature shade trees. Improving the medians by adding shrubs, perennials, and additional trees will help reduce the scale of the road, and will beautify this entrance into the city. Additional street trees should be planted in available ROW to fill in gaps between existing trees, and shrubs should be added to screen parking lots. Adding plantings to major intersections would create visual interest where none currently exists.

### 12th Street to 1st Street

New landscape treatments will be installed in 2008 in the downtown district from 1st to 8th Street. Street trees should be planted where space is available, and parking lots should be screened with shrubs. The medians should be enhanced with new landscaping. There are several untouched ROW sites and the blocks surrounding the railroad crossing are available for landscape upgrades. Some of the parcels surrounding the railroad crossing could be acquired by the city to use as pocket parks.

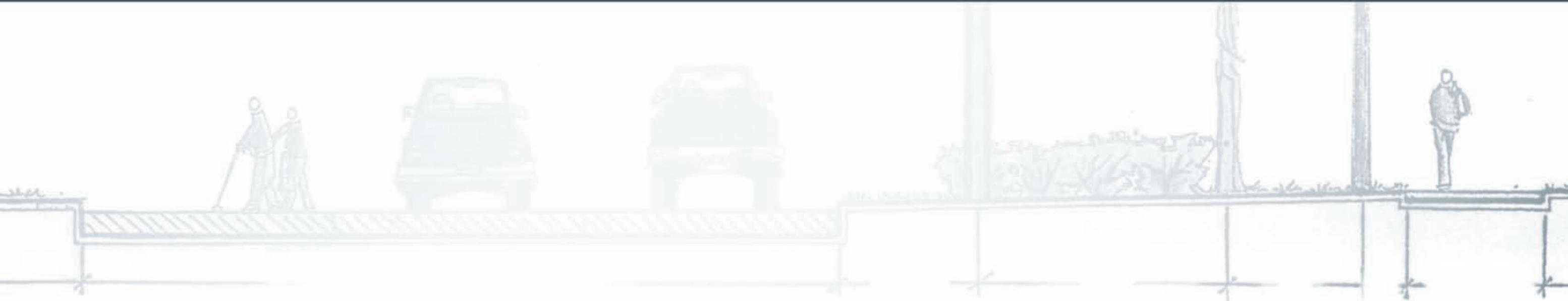
### 1st Street to Victory Road

Predominant a commercial area, Norfolk Avenue from First Street to Victory Road has a high potential for street tree plantings. The ROW is sufficiently wide enough to add street trees and should be a priority for this section. As the avenue crosses the flood canal toward Victory Road, a gateway into the city is created. A landscape treatment could be installed to enhance this entry point into Norfolk. The intersection at Victory Road, another gateway into the city, should be enhanced with landscaping. Trees and shrubs could be planted in the open spaces to frame the entrance and add color and interest to the intersection. The median plantings could also be enhanced with a mix of grasses and wildflowers.

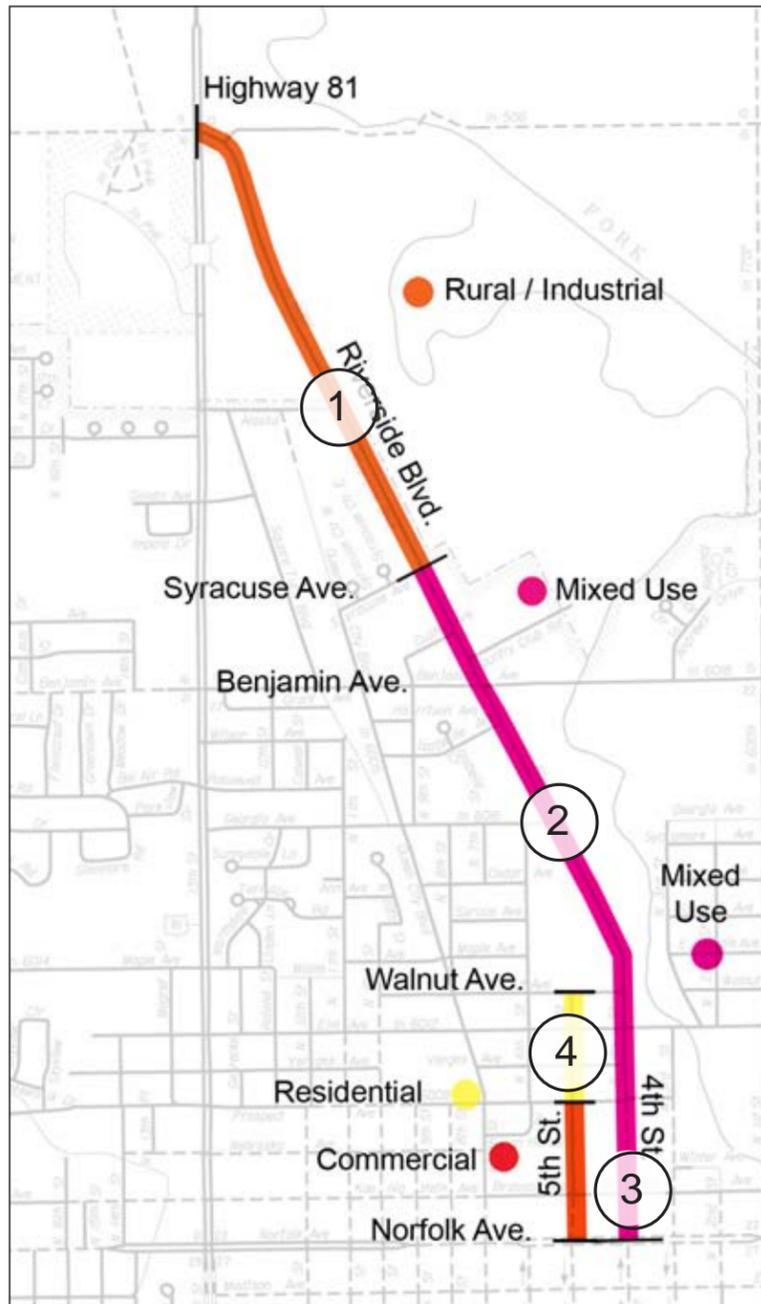


# RIVERSIDE BOULEVARD 4<sup>TH</sup> & 5<sup>TH</sup> STREETS

norfolk landscape master plan







# indicates the location of each detail sheet

## Overview

Riverside Boulevard is characterized by a broad mix of different uses. It is the most direct route into downtown for those entering Norfolk from the north on Highway 81. As such, this corridor serves as a gateway into the heart of Norfolk. Beginning at the north side of Norfolk's corporate limits, at Highway 81, Riverside Boulevard extends southward through light industrial uses and a patchwork of agricultural fields and the Norfolk Country Club. South of the Country Club, between Syracuse Avenue and Walnut Avenue, the use becomes mixed and is composed of multi-family, commercial/retail, and civic uses.

Riverside Boulevard transitions into Fourth Street near the Walnut Avenue intersection, and commercial / retail becomes the dominant land use leading up to Norfolk Avenue. At Braasch Avenue, the use becomes more urban in nature and corresponds to the downtown character along Norfolk Avenue.

Fifth Street is split between commercial and residential. The five blocks north of Norfolk Avenue are mainly mixed commercial uses. At Verges Avenue, the use changes to residential, ending at the high school (Walnut Avenue). The proximity of Fifth Street to the commercial business district provides an urban feel. Included along its length is the Norfolk Arts Center, the west face of the U.S. Post Office, and, at its north terminus, Norfolk High School. The view north from downtown toward the high school has been identified as a priority for enhancement.

## Landscape Summary

At its northern extent, Riverside Boulevard is very open, and the right-of-way (ROW) is generous; however, very few trees have been planted. The Norfolk Country Club maintains a dense screen of mixed evergreen and deciduous trees along its entire frontage, and, where the residential properties begin, they, too, feature some specimen trees. In short, the ROW between Benjamin Avenue and Highway 81 is almost exclusively open turf. The commercial area south of Benjamin Avenue is sporadically treated at property frontages, although street trees are mostly absent. The high school and post office along the west frontage include generous turf ROW but street trees. On the east, a row of mature hackberry lines the ROW. The library south of the park is also screened with mature ash trees. Between the senior center and Norfolk Avenue, the ROW varies and entirely lacks street trees.

For two blocks north of Norfolk Avenue, Fifth Street maintains the downtown aesthetic, using brick pavers through which (on the east side) honey locusts appear at regular intervals. A small corner park helps maintain pedestrian appeal at Fifth Street and Braasch Avenue, just south of the railroad tracks. The rest of the street is residential in character. The absence of street trees, despite a generous right-of-way, provides an overpowering impression along this street. After the brick margins end at the Norfolk Arts Center, the ROW is consistently rich green turf.



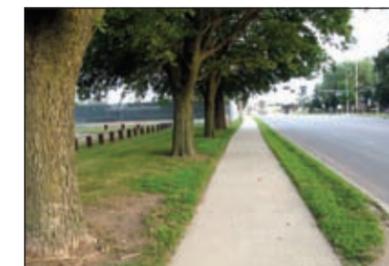
Rural section near Highway 81



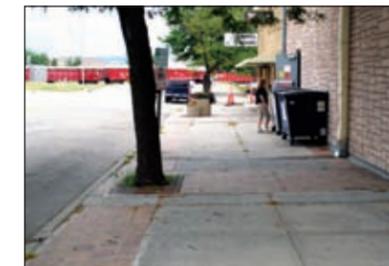
Norfolk Country Club screen on left



ROW at high school sports field

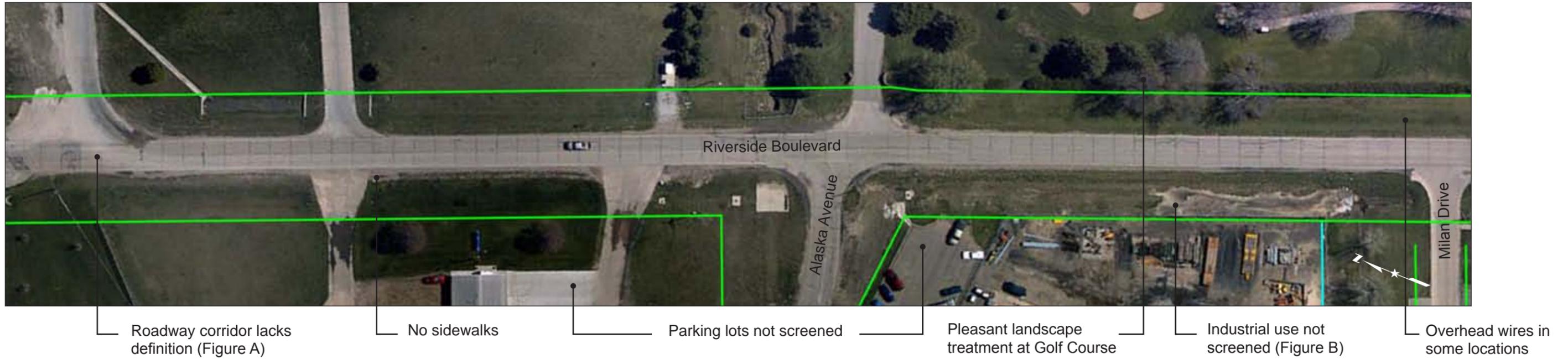


Hackberry street trees



Downtown sidewalk





Classification: Suburban Minor Arterial  
 Section: 2 lanes  
 Speed Limit: 40 mph  
 Development Context: Agricultural / Industrial

Existing Conditions

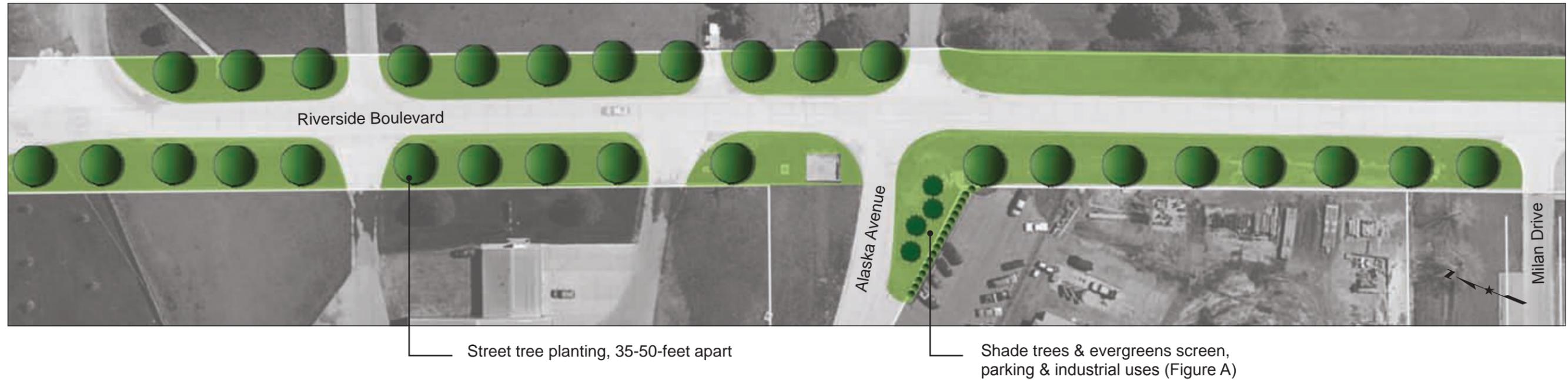
- Consistent ROW width
- Rural section, grassed ROW with few trees
- Land use transitions from agriculture to light / heavy industrial



Figure A. Existing roadway section lacks visual definition.



Figure B. Unsightly storage yard.



## Recommendations

- Reference the design section for entry signage at Highway 81 and Riverside.
- Add street trees to create rhythm, balance, and definition.
- Add shrubs with the street trees to screen parking or industrial sites.
- Add street trees or other screening as necessary when agricultural parcels are developed.



Figure A. Typical light industrial screen.



Figure B. Street trees / screening along storage area.





Overhead wires | 5 lane street section | Existing evergreen planting | Chain link fence at back of sidewalk (Figure A) | Scattered shade trees with no parking lot screening (Figure B) | Green area inside fence - opportunity for planting | Narrow grass strip

Classification: Urban Minor Arterial  
 Section: 5 lanes  
 Speed Limit: 35 mph  
 Development Context: Mixed use

Existing Conditions

- Multiple overhead lines on east side of street
- Street lighting on both sides
- Curb and gutter section with few trees in ROW

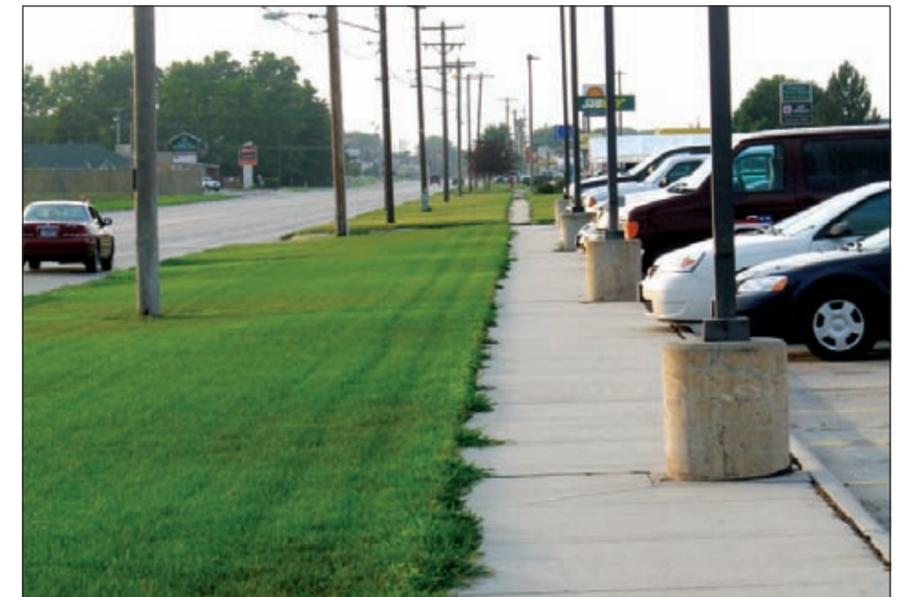
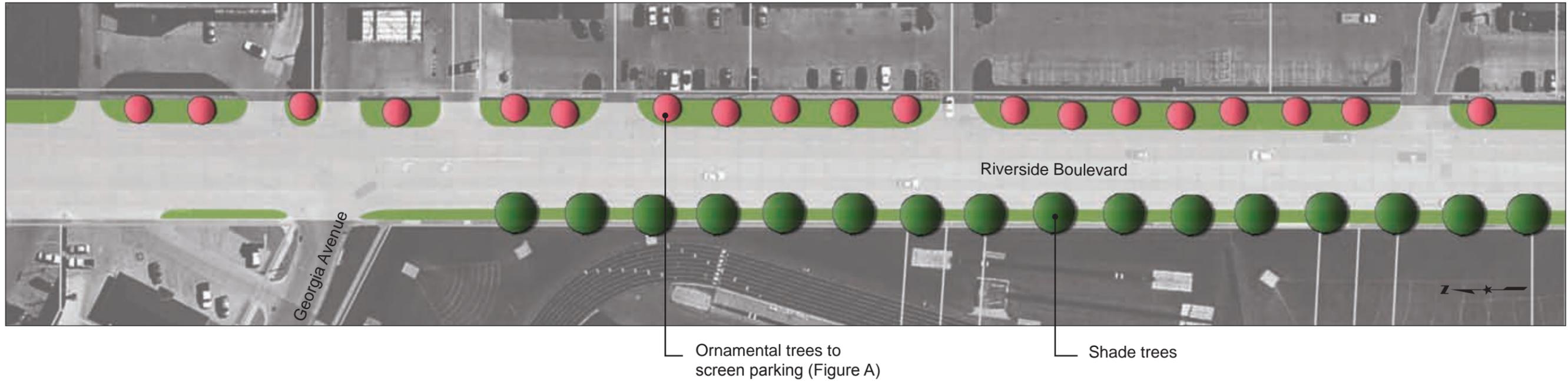


Figure A. Chain link fence with limited green area to provide screening. Figure B. Unscreened parking area.



## Recommendations

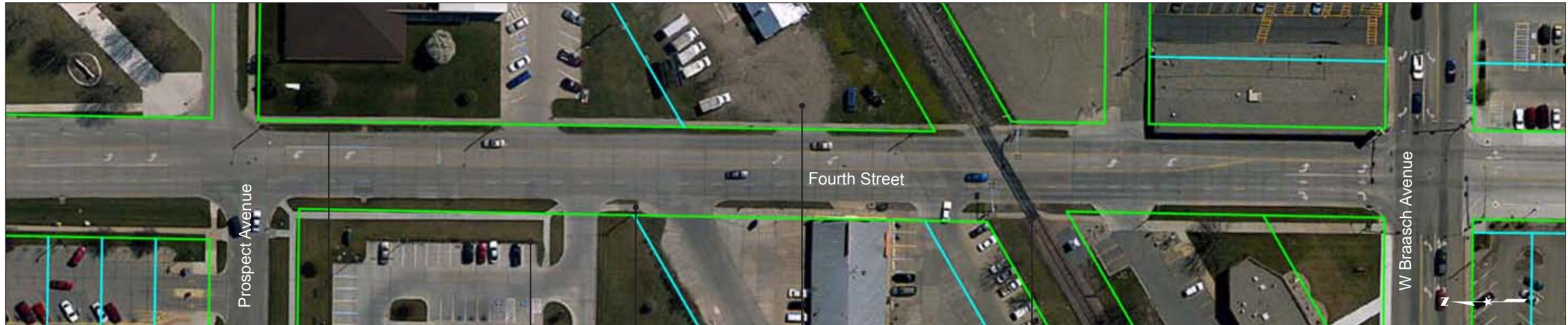
- Plant ornamental trees or small shade trees below the power wires on the east side - groupings should be informal.
- Add shade trees inside the fence along the track perimeter to help define the site boundary and soften the chain link fence.
- Add shade trees within the right-of-way, space permitting, to help define and scale the street.



Figure A. Proposed trees along parking area.



Figure B. Street trees to help define and scale roadway.



Street lights and overhead wires

Limited screening of parking lots (Figure A)

Limited ROW for landscape improvements

Unscreened light industrial use

Poor views at railroad crossing (Figure B)

Deteriorated sidewalks at railroad crossing

Classification: Urban Minor Arterial / CBD Minor Arterial

Section: 4 lanes with shared left turn

Speed Limit: 25-35 mph

Development Context: Commercial / Civic

### Existing Conditions

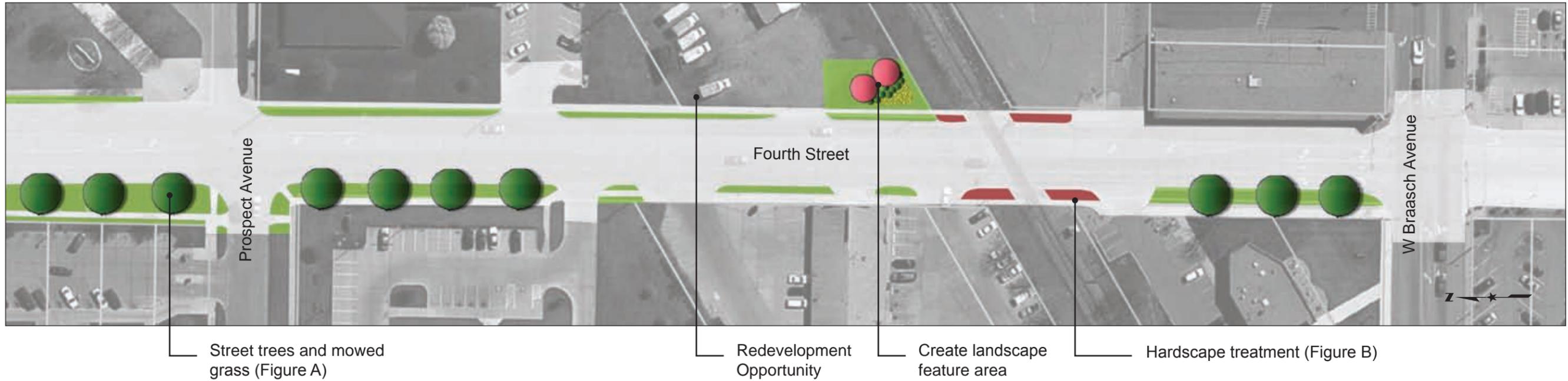
- Very few street trees have been planted
- Planting beds near downtown are too small to support shade trees
- Most parking lots are not screened



Figure A. Existing ROW lacks street trees and has minimal parking lot screening.



Figure B. This section near the railroad crossing lacks landscape treatment.



## Recommendations

- Plant street trees where ROW allows; encourage property owners to plant street trees where ROW is limited.
- Acquire ROW to create a landscape area near the railroad crossing.
- Incorporate a hardscape treatment in the open areas at the railroad crossing.
- Coordinate with streetscape improvements on Norfolk Avenue and extend north on Fourth Street to Braasch Avenue. Enlarge the planting beds for the street trees.



Figure A. Plant street trees where possible.



Figure B. Add hardscape treatment near the railroad tracks.





Parking lots are not screened

Street trees are lacking in some areas (Figure A)

View at end of street into parking lot and mechanical equipment (Figure B)

Classification: Connector

Section: 2 lanes

Speed Limit: 25 mph

Development Context: Commercial / Residential

### Existing Conditions

- ROW varies from 66-feet to 80-feet.
- Sidewalks from Norfolk Avenue north 1.5 blocks are wide and have a brick treatment on the east side. North of Prospect Avenue the walk is not continuous, and ends at Elm Street.
- Overhead lines exist on the south end of 5th Street on the west side.
- The existing landscaping consists of honey locust trees on the east side of the road from Norfolk Avenue to the railroad tracks. Maple and locust trees continue on both sides of the street further north.

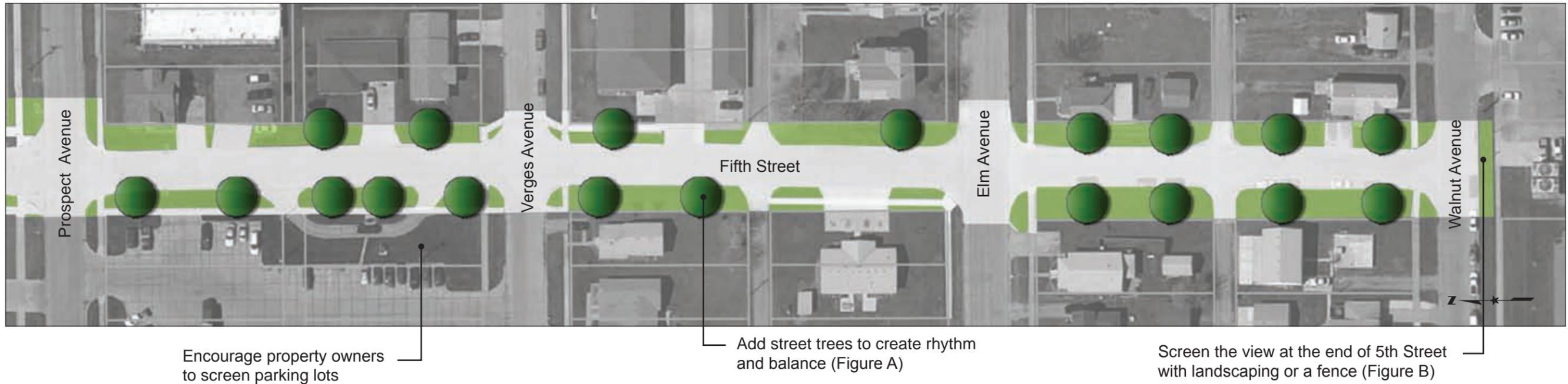


Figure A. Existing street trees are minimal.



Figure B. View of the north end of 5th Street.





## Recommendations

- Coordinate with streetscape improvements on Norfolk Ave. and extend north on 5th Street to the one-half block north of Braasch Ave. Enlarge the planting beds for the street trees.
- Continue the rhythm of the street trees by planting trees where ROW allows; encourage property owners to plant street trees where ROW is limited.
- Enhance green space at the railroad with berms and screening.
- Update planting in the pocket park.
- Create a focal point at the north end of the street with landscaping and/or a fence. This will also screen the parking lot.



Figure A. Street trees along residential street.



Figure B. Screen parking lot and utilities.



### **Riverside Boulevard - Highway 81 to Syracuse Avenue**

This section of Riverside Boulevard is highlighted by the mixed evergreen and deciduous planting of the Norfolk Country Club. This dense planting contrasts with the wide right-of way (ROW), which lacks street trees. The ROW should be planted with a row of deciduous shade trees to create rhythm and balance along the roadway. Business owners should be encouraged to screen their parking lots and storage areas with a variety of evergreen and deciduous shrubs.

### **Syracuse Avenue to Walnut Avenue**

Like the previous subdivision of Riverside Boulevard, this section has an ample ROW, which lacks the desired number of street trees. It is recommended that street trees continue to be planted throughout this section. Close attention should be paid to the location of overhead lines and to the width of the ROW, as it varies along Riverside Boulevard. The view of the high school and post office could be partially screened using street tree plantings. A good example of this can be seen at the library, where ash trees partially screen the building from view.

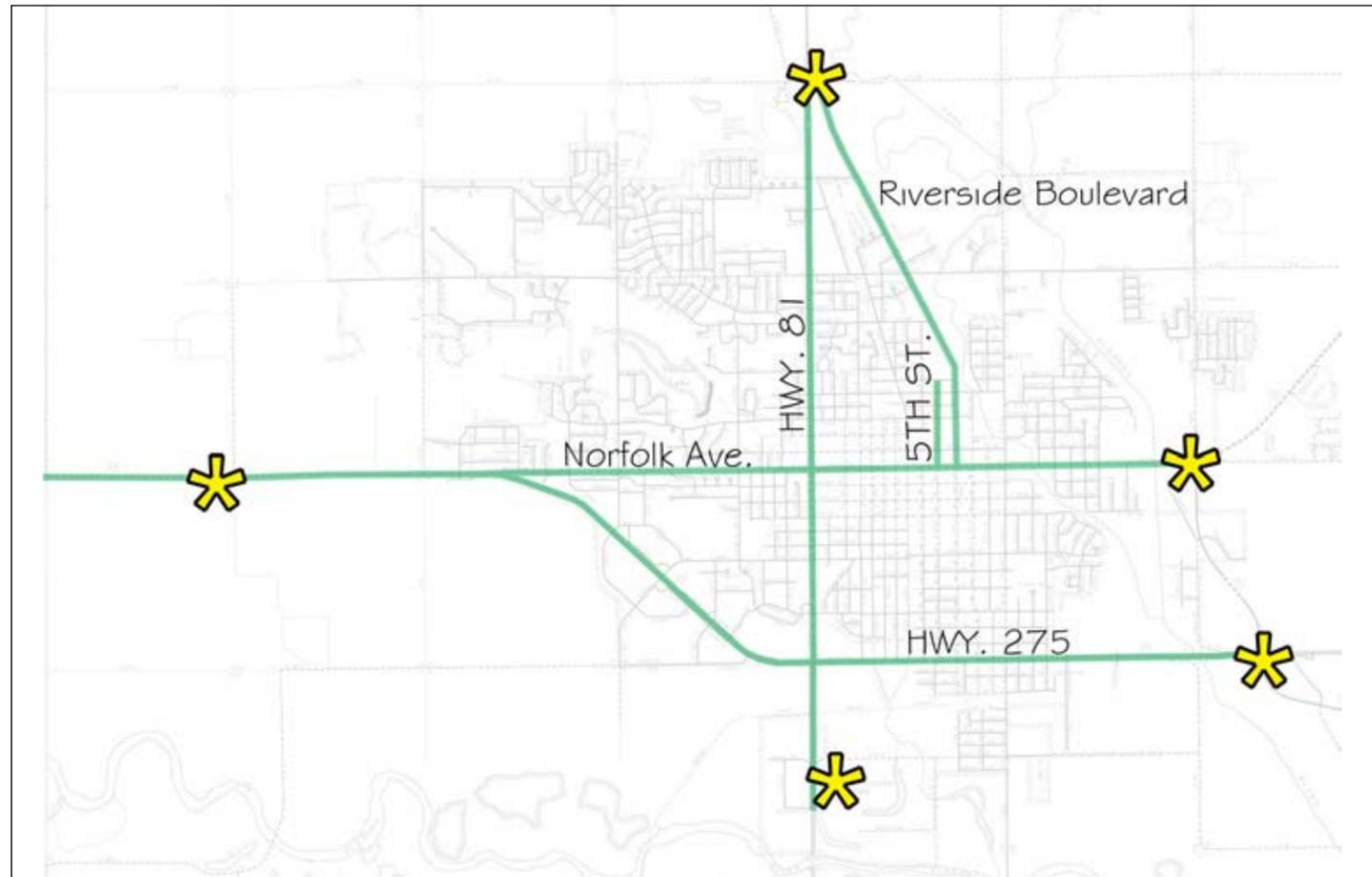
### **4th Street - Walnut Avenue to Norfolk Avenue**

This section could also benefit from continuing the rhythm of the street trees. The street trees should be a combination of deciduous shade trees and ornamental trees. Land near the railroad tracks should be acquired for a small pocket park; this will add much needed green space in this area. Additionally, the loose rock near the tracks can be eliminated and replaced with an aesthetic treatment of brick or concrete pavers. North of Norfolk Avenue to half a block north of Braasch Avenue, the hardscape and landscape should be coordinated with the proposed treatments on Norfolk Avenue. This area should include larger planting beds for the street trees.

### **5th Street - Walnut Avenue to Norfolk Avenue**

Fifth Street continues the trend (from Riverside Boulevard) of a wide ROW that lacks the proper amount of street trees. Continuing the honey locusts that are planted at regular intervals along Fifth Street and adding other species of deciduous shade trees could enhance this section. The intersection of the railroad with Fifth Street could be improved by adding green space with landscape plantings that may or may not include berms. Additionally, the loose rock near the tracks can be eliminated and replaced with an aesthetic treatment of brick or concrete pavers. North of Norfolk Avenue to half a block north of Braasch Avenue, the hardscape and landscape should coordinate with the proposed treatments on Norfolk Avenue. This area should include larger planting beds for the street trees.

# Norfolk ENTRYWAYS



This plan identifies five main entrances into the City of Norfolk. These locations are approximate locations for entryway elements, which should stand out and “welcome” visitors and residents to the City of Norfolk. This can be accomplished by using a sign similar to the one located on the south end of Highway 81 or a smaller version of the sign. The sign can be accentuated with landscaping, using evergreens or ornamental trees as a backdrop and shrubs, ornamental grasses, or perennials in front of the signs. Plant materials with seasonal color will help accentuate the signs.



Figure A. Accent plantings around sign



Figure B. Evergreen backdrop to sign







# DESIGN GUIDELINES & DETAILS

norfolk landscape master plan



## Landscape Design Considerations

- The landscape design must be in accordance with the AASHTO manual A Guide for Landscape and Environmental Design and Nebraska Minimum Design Standards.
- Sight distance is the unobstructed visual distance required for a motorist to safely operate his vehicle as required by the highway design.
- The lateral obstacle clearance (clear zone) will vary depending on the design standard for each corridor.
- Sight Triangle: All plant materials located in the sight triangle shall be no higher than 30 inches from the top of the curb, and trees should be trimmed up to the recommended height.
- Drainage: Adjust planting areas to avoid low spots and drainageways.
- Plant selection and placement shall be designed to avoid conflicting with traffic lights, traffic signs, street lights, fire hydrants, crosswalks, intersections, sidewalks and trails, overhead utility wires, utility easements, and underground utilities.
- Consideration should be given to snow drifting and snow removal operations during final landscaping design.

## Roadway – Plan View

- Roadway Right-of-Way: From property line to property line, ROW contains the roadway and usually carries utilities in the park space area.
- Roadway: The roadway is the area between the curbs or edges of the pavement, with ways for traffic moving in opposite directions.
- Parkspace: This area between and back of the curb to the edge of the sidewalk separates vehicles and pedestrians makes pedestrians feel more comfortable.
- Sidewalk to Right-of-Way: This area will contain greenspace for trees and shrubs, with an ideal width of 10 feet for shrubs.
- Sight Triangle: All plant materials located in the sight triangle shall be no higher than 30 inches.
- Median: This portion of the divided highway separates the traveled way.
- Mow Strip: This two-foot wide sloped concrete edge in the median protects planting beds from roadway salt and gravel.

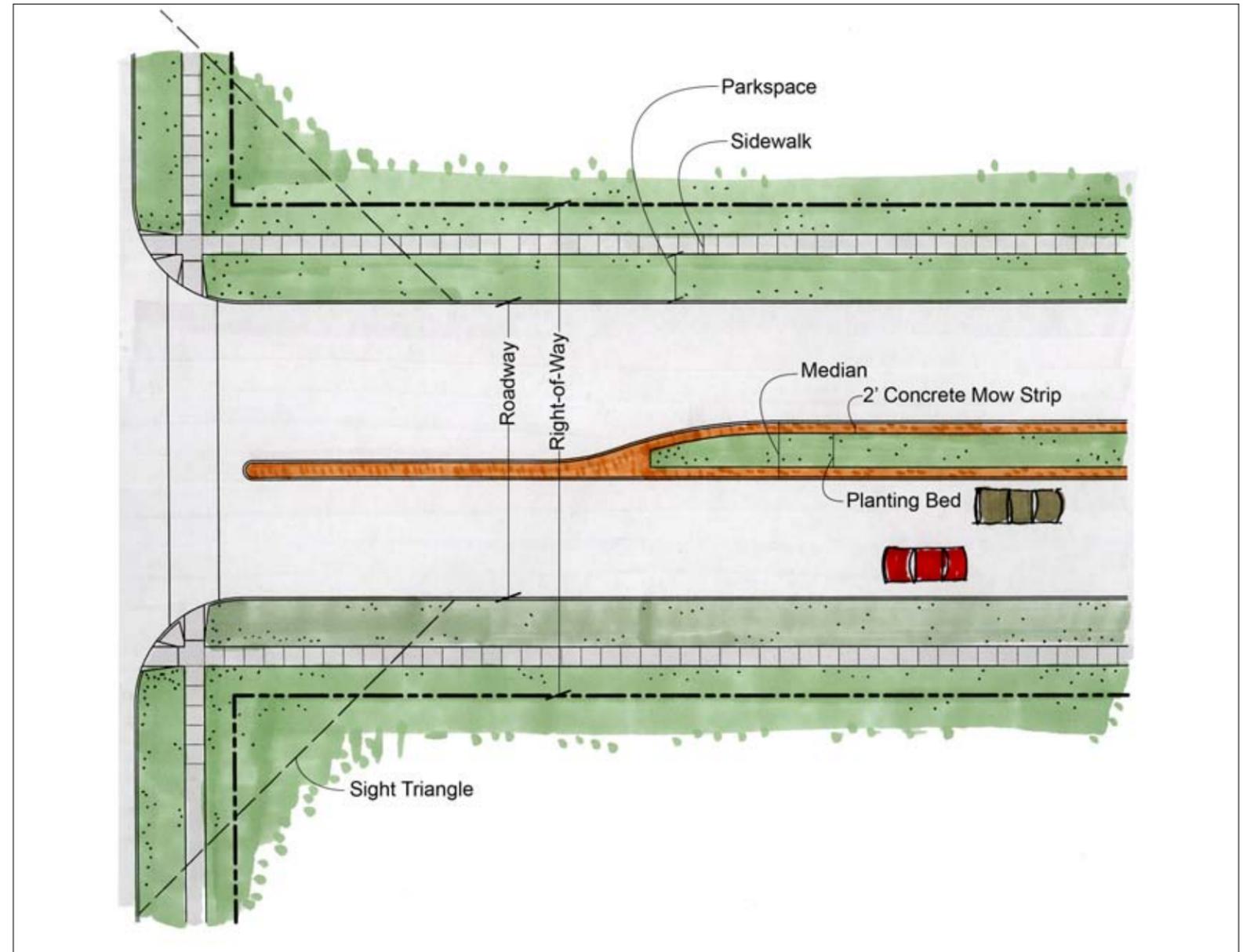


Figure A. Roadway plan view



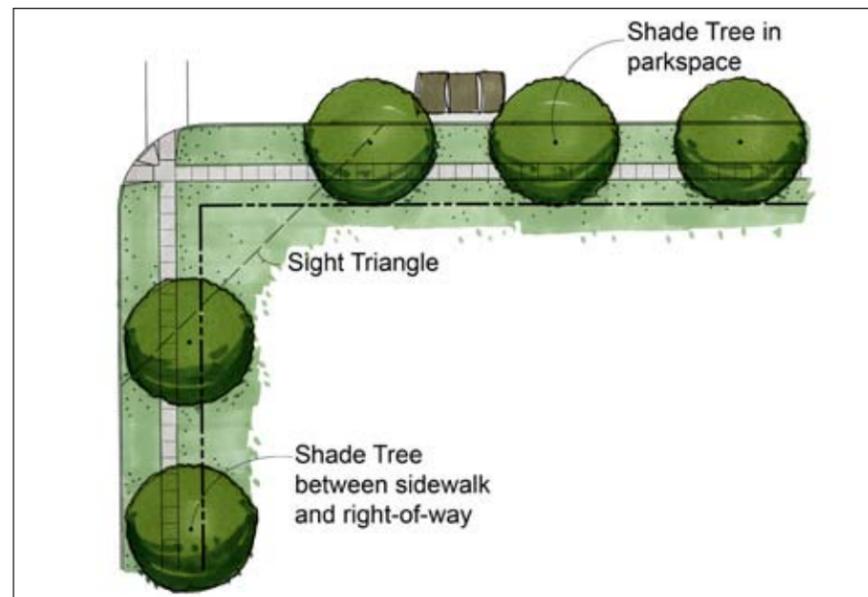


Figure B. Street trees plan view

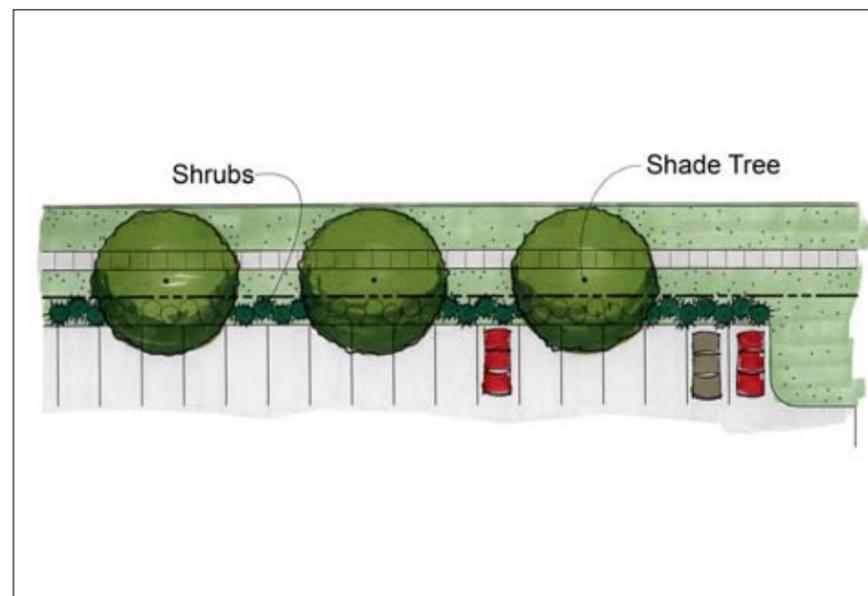


Figure C. Parking lot screening plan view

## Street Trees – Plan View

- Locate street trees in the park space if the space is eight-feet wide or more. Trees should be located six-feet back of the curb.
- Locate street trees between the sidewalk and the right-of-way line if the park space is less than eight-feet wide.
- Maintain a continuous row of street trees and fill in areas where trees are missing.
- Space trees 35-50 feet on the center, depending on space available and sight distance requirements.
- Locate trees outside of the sight triangle.

## Parking Lot Screening – Plan View

- Screen parking lots from view with three-feet tall evergreen and deciduous shrubs.
- Plant shade or ornamental trees to help screen parking lots.
- Screen utility boxes and undesirable views of big box buildings, loading docks, and trash receptacles.



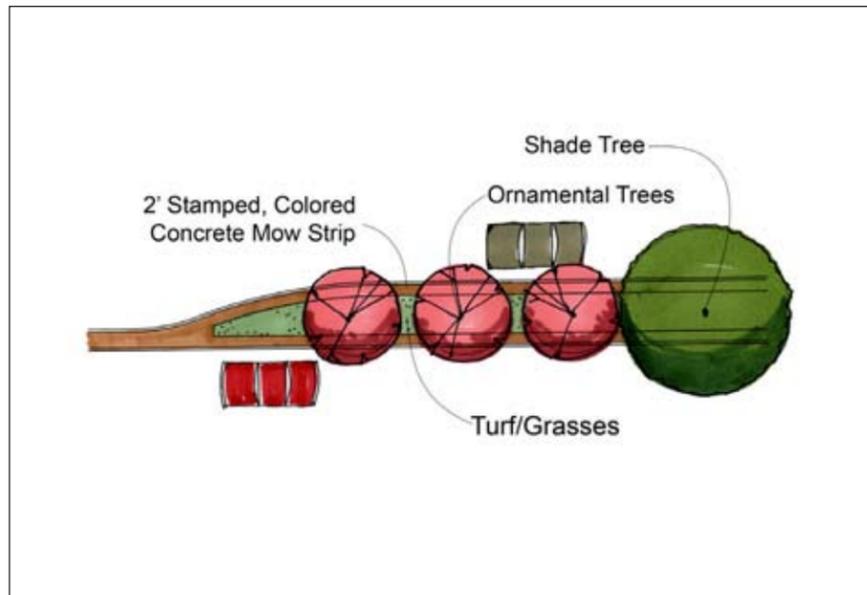


Figure D. Basic median landscaping plan view

## Basic Median Landscaping – Plan View

- Basic landscaping includes low-growing, drought-tolerant turf or prairie grasses and wildflowers.
- Shade or ornamental trees can be included in the median where roadway design standards allow.
- Sample Plant List:
  - Turf: *Buffalograss Sod*
  - Ornamental Tree: *Amur Maple*
  - Shade Tree: *Autumn Blaze Maple*
- Irrigation should be installed in the medians for establishing the landscaping and for maintaining the plant materials during drought. Drip or spray irrigation and quick couplers are recommended.

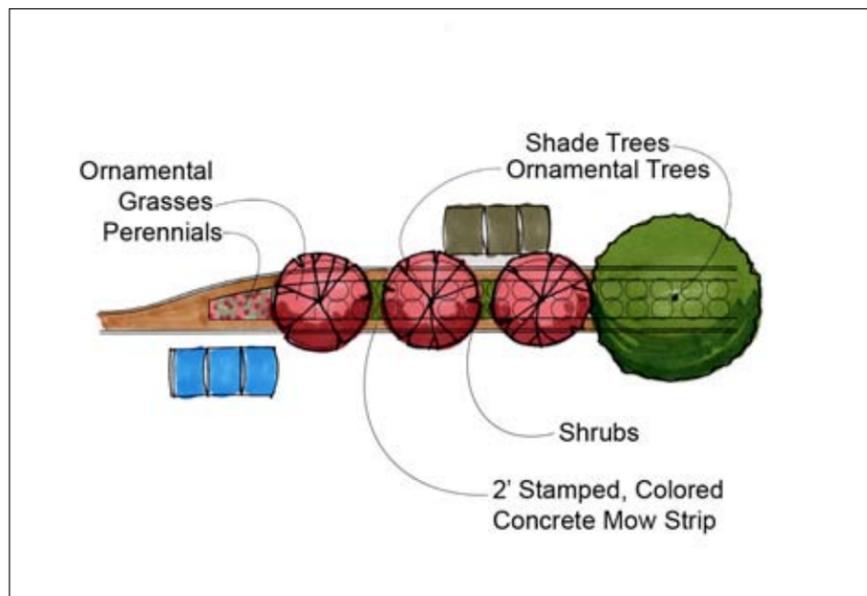


Figure E. Enhanced median landscaping Norfolk Ave. or Highway 81 plan view

## Enhanced Median Landscaping – Norfolk Avenue or Highway 81- Plan View

- Enhanced landscaping includes groupings of perennials, ornamental grasses, shrubs, and trees.
- Plants should be low maintenance, drought tolerant, and selected to withstand the harsh environment of the medians.
- Sample Plant List:
  - Perennials: *Pardon Me Daylily*
  - Ornamental Grass: *Blaze Little Bluestem*
  - Shrubs: *Gro-Low Sumac, Home Run Rose*
  - Ornamental Tree: *Prairiefire Crabapple*
  - Shade Tree: *Littleleaf Linden*



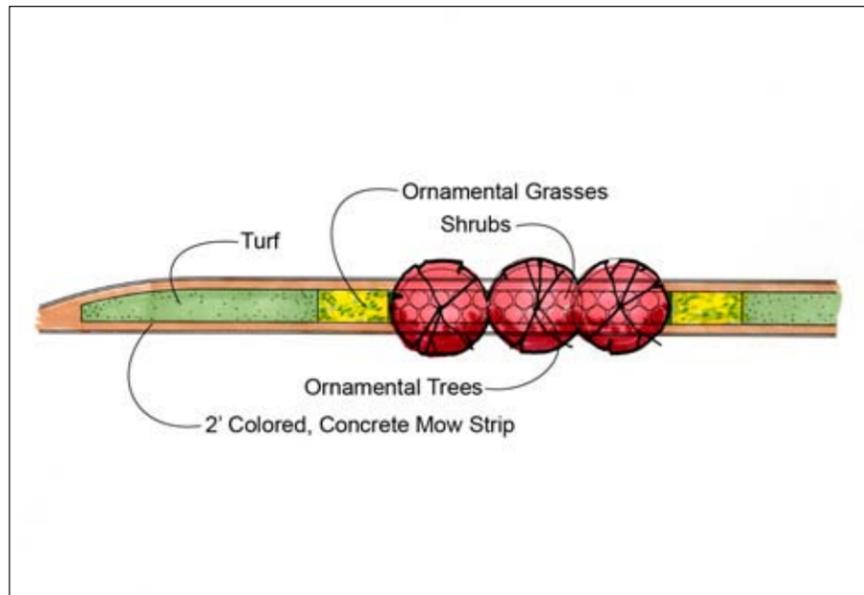


Figure F. Enhanced median Highway 275 plan view

## Enhanced Median Landscaping – Highway 275 – Plan View

- Enhanced landscaping includes groupings of perennials, ornamental grasses, shrubs, ornamental trees, and shade trees.
- Plants should be low maintenance, drought tolerant, and selected to withstand the harsh environment of the medians.
- Sample Plant List:
  - o Turf: *Buffalograss*
  - o Ornamental Grass: *Sideoats Grama*
  - o Shrubs: *Hancock Coralberry, Gro-Low Sumac*
  - o Ornamental Tree: *Amur Maple*
  - o Shade Tree: *Honeylocust*

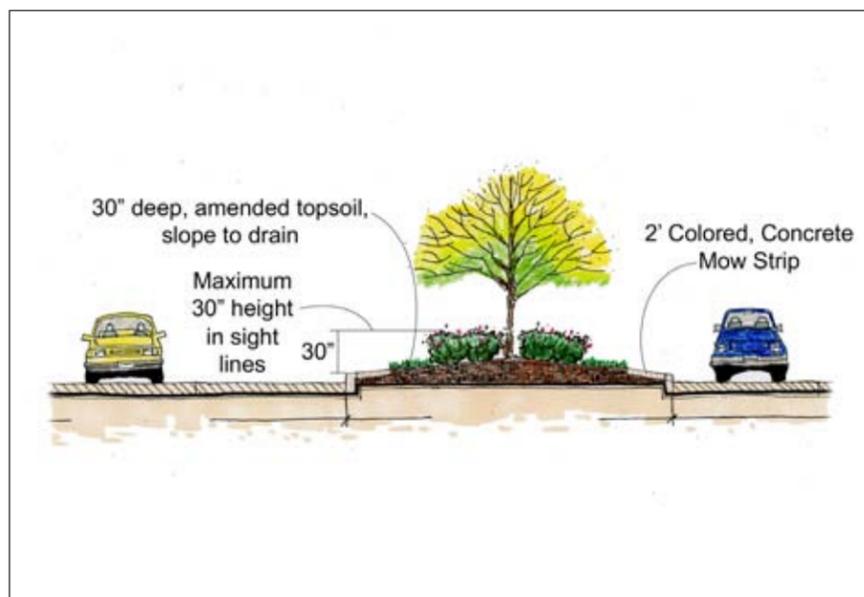


Figure G. Enhanced median section view

## Enhanced Median Landscaping – Section

- Landscaped medians screen the view of oncoming traffic and break up the expanse of concrete.
- Amended topsoil, 30 inches deep, should be added to medians.
- Plant materials located in the sight triangles shall be no higher than 30 inches from the top of the curb and shall meet the sight distance requirements for the designed speed of the roadway.
- Incorporate a two-foot wide mow strip to protect the landscape beds from roadway salt and gravel.
- Where concrete exists in the medians saw cut concrete two-foot mow strip – stain to match new median color or remove all concrete and pour a new mow strip (stamped, colored concrete).



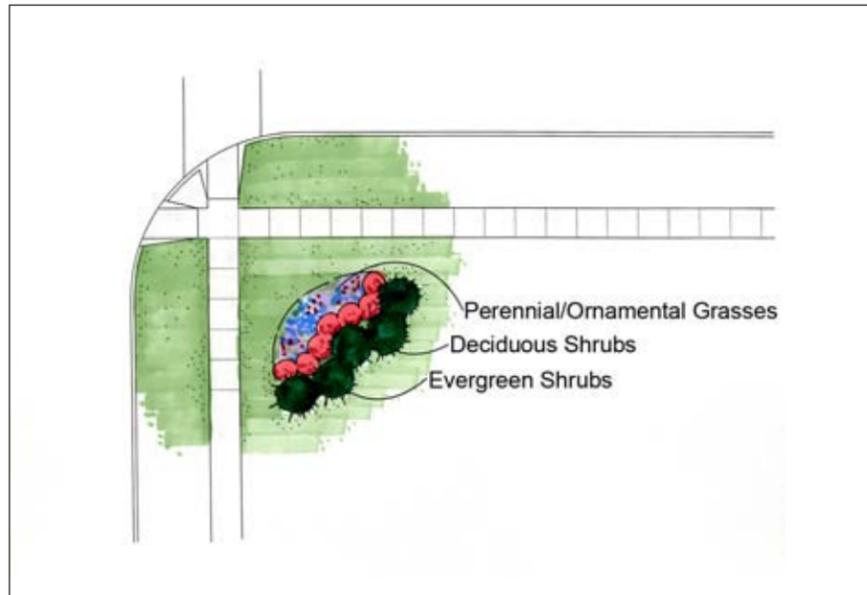


Figure H. Small corner treatment - 1 plan view

## Small Corner Treatment – 1

- On corners with limited right-of-way, ornamental trees with a row of shrubs at the base can be planted as a backdrop to perennials and ornamental grasses.
- Plant materials should be selected to add seasonal interest and color.
- Sample Plant List:
  - o Perennials: *Commanche Campfire Primrose*, *Purple Rain Salvia*
  - o Ornamental Grass: *Prairie Dropseed*
  - o Evergreen Shrubs: *Sea Green Juniper*

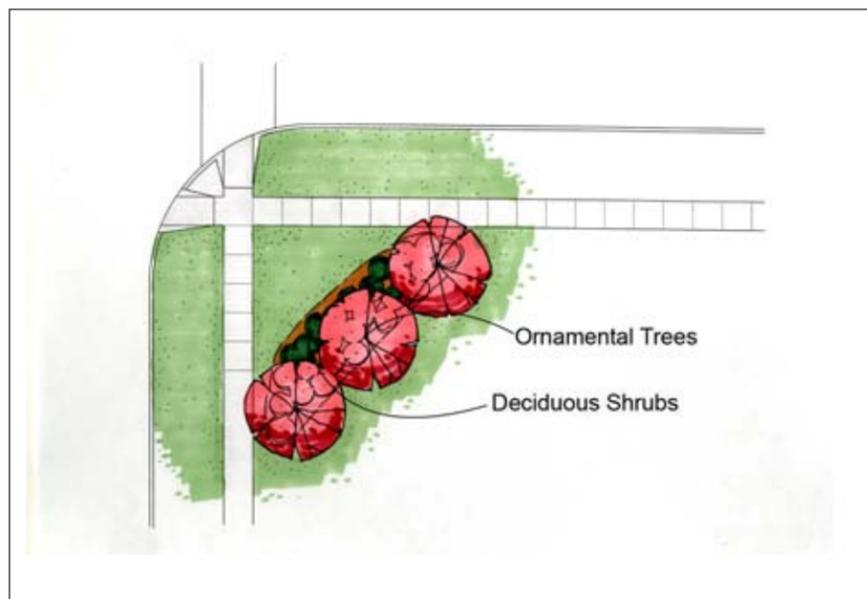


Figure I. Small corner treatment - 2 plan view

## Small Corner Treatment – 2

- Sample Plant List:
  - o Shrubs: *Iroquois Beauty Chokeberry*
  - o Ornamental Trees: *Autumn Blaze Pear*



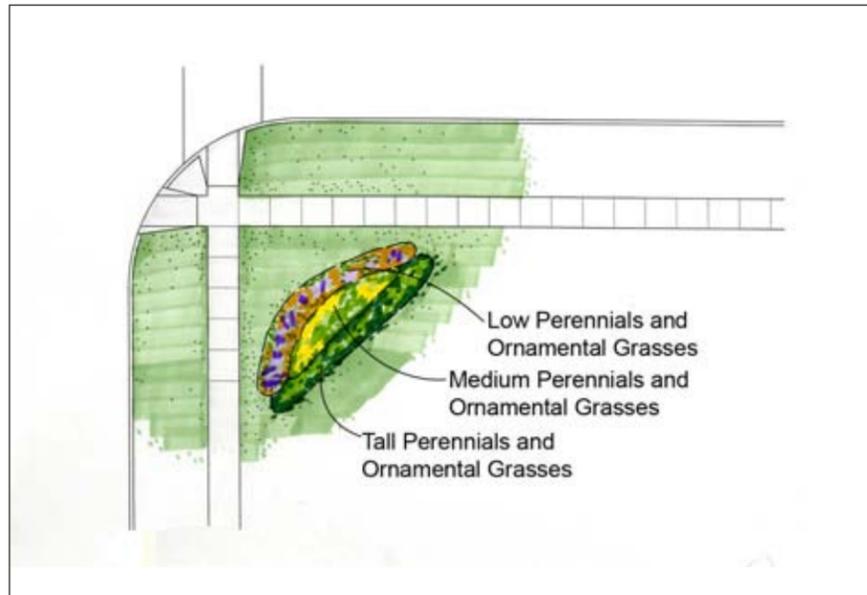


Figure J. Small corner treatment - 3 plan view

## Small Corner Treatment - 3

- Sample Plant List:
  - o Low: *Daylily, Golden Baby Goldenrod*
  - o Medium: *Hello Yellow Milkweed, New England Asters, Blaze Little Bluestem*
  - o Tall: *Northwind Switchgrass*

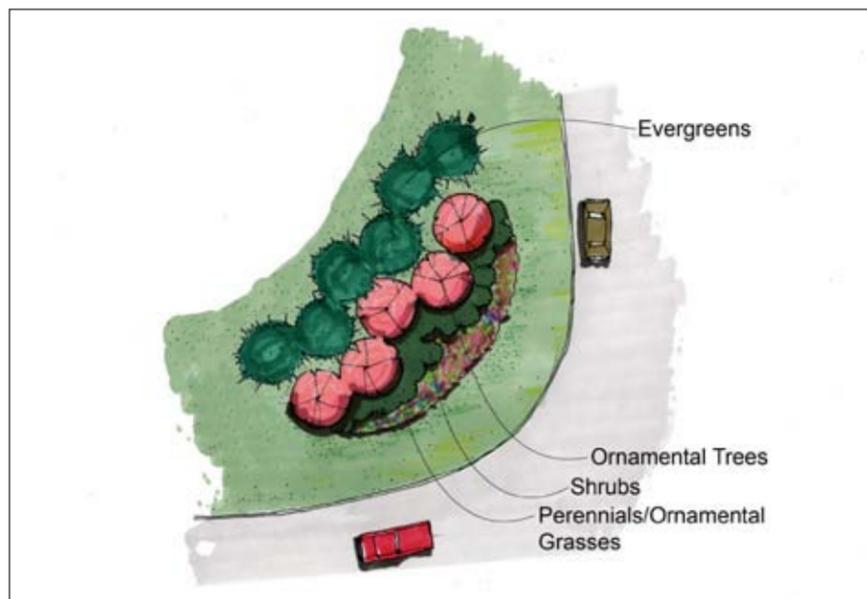


Figure K. Large corner treatment plan view

## Large Corner Treatment

- On corners with sufficient right-of-way, evergreen trees can be planted as a backdrop to flowering trees and shrubs. Masses of perennials and ornamental grasses can be planted in front of the shrubs to add seasonal interest and accent the corner.
- Typical plant materials might include the following:
  - o Evergreen Tree: *Colorado Green Spruce*
  - o Ornamental tree: *Crusader Hawthorn*
  - o Shrub: *Alfredo Viburnum*
  - o Perennials: *Daylily*
  - o Ornamental grasses: *Blaze Little Bluestem*







# PLANT MATERIALS

norfolk landscape master plan





## Recommended Plant Materials

The following plant materials have been selected for the Norfolk area roadways. Other plant materials and varieties may be used if they are zone hardy, low maintenance, and require minimal watering.

### Trees:

The following trees are recommended for use within the right-of-way. This list is provided as a guideline, and other varieties of trees may be acceptable. Each roadway corridor or section should use several species of trees with similar characteristics to provide visual continuity. The following groupings are recommended:

- Locust, Kentucky Coffeetree, Ginkgo
- Linden, Pear
- Oak, Maple, Hackberry, Elm
- Crabapple, Hawthorn, Amur Maple, Japanese Tree Lilac

### Parking Lot Screening and Corner Treatments:

Shade trees		Height	Spread
<i>Acer x freemanii</i> 'Jeffersred'	Autumn Blaze Maple	50'	40'
<i>Celtis occidentalis</i> 'Prairie Pride'	Prairie Pride Hackberry	50'	50'
<i>Celtis occidentalis</i> 'Chicago Land'	Chicago Land Hackberry	50'	50'
<i>Celtis occidentalis</i> 'Windy City'	Windy City Hackberry	50'	50'
<i>Ginkgo biloba</i> 'Autumn Gold'	Autumn Gold Ginkgo	50'	30'
<i>Gleditsia tricanthos inermis</i> 'Imperial'	Imperial Honeylocust	35'	35'
<i>Gleditsia tricanthos inermis</i> 'Sunburst'	Sunburst Honeylocust	40'	30'
<i>Gleditsia tricanthos inermis</i> 'Skyline'	Skyline Honeylocust	35'	35'
<i>Gymnocladus dioicus</i>	Kentucky Coffeetree	50'	30'
<i>Ostrya virginiana</i>	Eastern Hophornbeam	40'	25'
<i>Quercus bicolor</i>	Swamp White Oak	50'	50'
<i>Quercus macrocarpa</i>	Bur Oak	70'	50'
<i>Tilia cordata</i> 'Greenspire'	Greenspire Littleleaf Linden	40'	30'
<i>Tilia cordata</i> 'Baileyi'	Shamrock Linden	40'	30'
<i>Ulmus</i> 'Regal'	Regal Elm	55'	30'
<i>Ulmus</i> 'Morton'	Accolade Elm	60'	50'

### Trees continued:

Ornamental Trees		Height	Spread
<i>Acer ginnala</i> 'Flame' (single stem)	Flame Amur Maple	20'	15'
<i>Malus</i> 'Sugartyme'	Sugartyme Crabapple	18'	15'
<i>Malus</i> 'Prairiefire'	Prairiefire Crabapple	20'	15'
<i>Malus</i> 'Indian Summer'	Indian Summer Crabapple	20'	18'
<i>Crataegus crusgalli</i> 'Cruzam'	Crusader Hawthorn	15'	15'
<i>Pyrus calleryana</i> 'Autumn Blaze'	Autumn Blaze Pear	35'	20'
<i>Syringa reticulata</i> 'Ivory Silk' (single stem)	Ivory Silk Lilac	25'	20'
<i>Syringa reticulata</i> 'Summer Snow' (single stem)	Summer Snow Lilac	30'	25'

Following is a list of recommended plant materials for parking lot screening and corner treatments at intersections.

Evergreen Trees		Height	Spread
<i>Abies concolor</i>	White Fir	40'	25'
<i>Picea pungens</i>	Colorado Spruce	45'	30'
Deciduous Shrubs			
<i>Aronia melanocarpa</i> 'Iroquois Beauty'	Iroquois Beauty Chokeberry	3'	5'
<i>Cornus sericea</i>	Redosier Dogwood	6'	6'
<i>Prunus besseyi</i>	Western Sandcherry	5'	6'
<i>Prunus besseyi</i> 'Pawnee Buttes'	Pawnee Buttes Sandcherry	18"	6'
<i>Rhus aromatia</i>	Fragrant Sumac	5'	6'
<i>Rhus aromatica</i> 'Gro-Low'	Gro-Low Sumac	3'	6'
<i>Rhus trilobata</i>	Skunkbush Sumac	5'	4'
<i>Ribes alpinum</i> 'Green Mound'	Green Mound Alpine Current	3'	3'
<i>Rosa</i> 'Pink Knockout'	Pink Knockout Rose	3'	3'
<i>Rosa</i> 'Home Run'	Home Run Rose	3'	3'
<i>Symphoricarpos x doorenbosii</i> 'Ariso'	Marleen Coralberry	3'	3'
<i>Syringa meyeri</i> 'Palibin'	Dwarf Korean Lilac	4'	5'
<i>Viburnum opulus</i> 'Nanum'	Dwarf European Cranberrybush	3'	4'
<i>Viburnum trilobum</i> 'Alfredo'	Alfredo Viburnum	5'	5'



Parking Lot Screening and Corner Treatments continued:

Evergreen Shrubs		Height	Spread
<i>Juniperus chinensis pfitzeriana</i> 'Compacta'	Compact Pfitzer Juniper	3'	6'
<i>Juniperus chinensis</i> 'Kallay's Compacta'	Kallay's Compact Juniper	30"	6'
<i>Juniperus sabina</i> 'Broadmoor'	Broadmoor Juniper	3'	8'
<i>Juniperus x pfitzeriana</i> 'Sea Green'	Sea Green Juniper	6'	8'
Perennials		Height	Spread
<i>Asclepias tuberosa</i> 'Hello Yellow'	Hello Yellow Milkweed	3'	1'
<i>Aster novae-angliae</i>	New England Aster	4'	3'
<i>Callirhoe involucrata</i>	Purple Poppy Mallow	12"	18"
<i>Hemerocallis</i> 'Cranberry Baby'	Cranberry Baby Daylily	12"	3'
<i>Hemerocallis</i> 'Happy Returns'	Happy Returns Daylily	18"	24"
<i>Hemerocallis</i> 'Pardon Me'	Pardon Me Daylily	18"	18"
<i>Hemerocallis</i> 'Stella de Oro'	Stella de Oro Daylily	12"	24"
<i>Oenothera macrocarpa</i> 'Comanche Campfire'	Comanche Campfire Primrose	12"	18"
<i>Penstemon digitalis</i> 'Husker Red'	Husker Red Penstemon	3'	2'
<i>Rudbeckia fulgida</i> 'Goldstrum'	Goldstrum Rudbeckia	2'	2'
<i>Salvia verticillata</i> 'Purple Rain'	Purple Rain Salvia	18"	18"
<i>Solidago canadensis</i> 'Golden Baby'	Golden Baby Goldenrod	18"	18"

Median Plantings:

Plant materials used in the roadway medians should be selected to withstand the harsh environment found in the medians. Following is a list of plant materials recommended for use in the medians.

Deciduous Shrubs		Height	Spread
<i>Prunus besseyi</i> 'Pawnee Buttes'	Pawnee Buttes Sandcherry	18"	6'
<i>Rhus aromatica</i> 'Gro-Low'	Gro-Low Sumac	3'	6'
<i>Ribes alpinum</i> 'Green Mound'	Green Mound Alpine Current	3'	3'
<i>Rosa</i> 'Pink Knockout'	Pink Knockout Rose	3'	3'
<i>Rosa</i> 'Home Run'	Home Run Rose	3'	3'
<i>Spiraea japonica</i> 'Neon Flash'	Neon Flash Spirea	3'	3'
Perennials		Height	Spread
<i>Asclepias tuberosa</i> 'Hello Yellow'	Hello Yellow Milkweed	3'	1'
<i>Aster novae-angliae</i>	New England Aster	4'	3'
<i>Callirhoe involucrata</i>	Purple Poppy Mallow	12"	18"
<i>Hemerocallis</i> 'Cranberry Baby'	Cranberry Baby Daylily	12"	3'
<i>Hemerocallis</i> 'Happy Returns'	Happy Returns Daylily	18"	24"
<i>Hemerocallis</i> 'Pardon Me'	Pardon Me Daylily	18"	18"
<i>Hemerocallis</i> 'Stella de Oro'	Stella de Oro Daylily	12"	24"
<i>Oenothera macrocarpa</i> 'Comanche Campfire'	Comanche Campfire Primrose	12"	18"
<i>Penstemon digitalis</i> 'Husker Red'	Husker Red Penstemon	3'	2'
<i>Rudbeckia fulgida</i> 'Goldstrum'	Goldstrum Rudbeckia	2'	2'
<i>Salvia verticillata</i> 'Purple Rain'	Purple Rain Salvia	18"	18"
<i>Solidago canadensis</i> 'Golden Baby'	Golden Baby Goldenrod	18"	18"
Ornamental Grasses		Height	Spread
<i>Bouteloua curtipendula</i> 'Trailway'	Sideoats Grama	18"	18"
<i>Eragrostis trichodes</i>	Sand Lovegrass	4'	4'
<i>Miscanthus sinensis</i> 'Adagio'	Adiago Maiden Grass	4'	2'
<i>Miscanthus sinensis</i> 'Purpurascens'	Red Flame Maiden Grass	5'	3'
<i>Panicum virgatum</i> 'North Wind'	North Wind Switchgrass	4-5'	3'
<i>Schizachyrium scoparium</i> 'Blaze'	Blaze Little Bluestem	3'	2'
<i>Sporobolus heterolepis</i>	Prairie dropseed	2'	1'



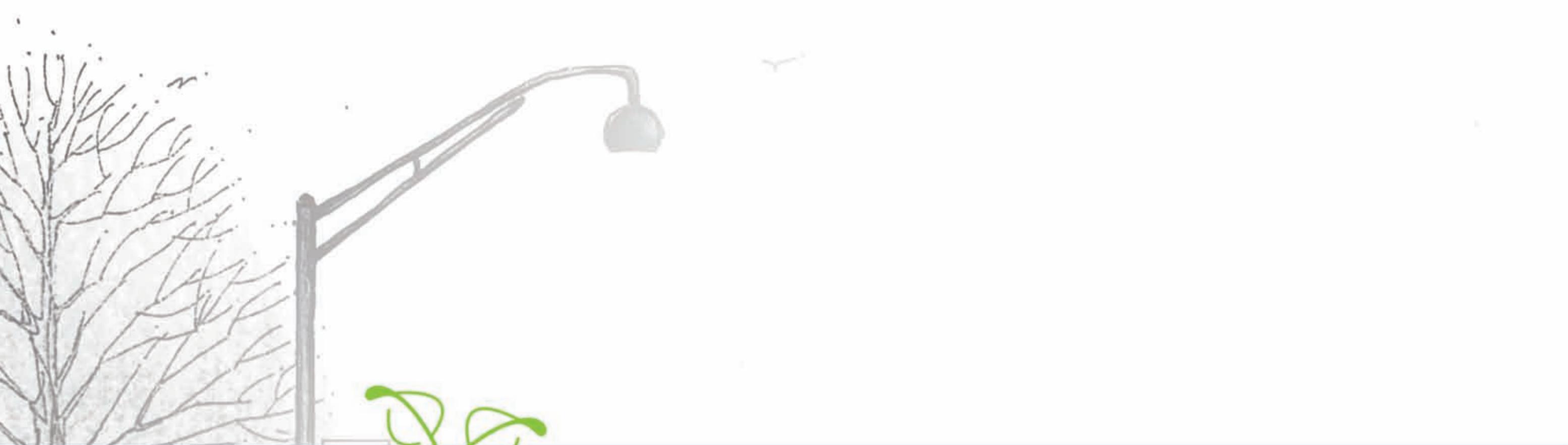
## Prairie Grasses and Wildflowers:

Following is a list of recommended grasses and wildflowers for the medians. A more extensive list of grasses and wildflowers for the sideslopes is available from the Nebraska Department of Roads.

Prairie Grasses		Height	Spread
<i>Bouteloua curtipendula</i>	Sideoats Grama	18"	18"
<i>Bouteloua gracilis</i>	Blue Grama	2'	2'
<i>Buchloe Dactyloides</i>	Buffalograss	n/a	n/a
<i>Chamaechrista fasciculata</i>	Partridge Pea	3'	3'
<i>Echinacea angustifolia</i>	Black Sampson	2'	18"
<i>Festuca arundinacea</i>	Kentucky Fescue	n/a	n/a
<i>Lolium perenne</i>	Perennial Ryegrass - Linn	n/a	n/a
<i>Pascopyrum smithii</i>	Western Wheatgrass	3'	2'
<i>Schizachyrium scoparium 'Blaze'</i>	Blaze Little Bluestem	3'	2'
<i>Sporobolus cryptandrus</i>	Sand dropseed	3'	18"
Wildflowers			
<i>Chamaechrista fasciculata</i>	Partridge Pea	3'	3'
<i>Echinacea angustifolia</i>	Black Sampson	2'	18"
<i>Gaillardia aristata 'Arizona Sun'</i>	Arizona Sun Blanket Flower	12'	2'
<i>Penstemon grandiflorus</i>	Shell-leaf Penstemon	4'	18"
<i>Ratibida columnifera</i>	Upright Prairie Coneflower	30"	12"
<i>Rudbeckia hirta</i>	Black Eyed Susan	30"	2'







# PHASING & OPINION OF COST

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# PHASING & OPINION OF COST

## PHASE ONE

### Highway 275 - Phase 1A 37th to Norfolk Ave

Street Trees	EA	30	\$275.00	\$8,250.00
Ornamental Trees	EA	35	\$200.00	\$7,000.00
Evergreen Trees	EA	12	\$250.00	\$3,000.00

#### Median Landscaping - Basic

Buffalograss/prairie grasses	SF	7000	\$1.00	\$7,000.00
Irrigation	Allow	1	\$38,000.00	\$38,000.00

**Construction Subtotal \$63,250.00**

**Contingency 10% \$6,325.00**

**Construction Total \$69,575.00**

**Design Fees 10% \$6,957.50**

**Phase 1A Total \$76,532.50**

### Phase 1B 37th west 2.5 Miles

Street Trees	EA	40	\$275.00	\$11,000.00
Ornamental Trees	EA	50	\$200.00	\$10,000.00

#### Median Landscaping - Basic

Buffalograss/prairie grasses	Allow	1	\$60,000.00	\$60,000.00
Irrigation	Allow	1	\$50,000.00	\$50,000.00

**Construction Subtotal \$131,000.00**

**Contingency 10% \$13,100.00**

**Construction Total \$144,100.00**

**Design Fees 10% \$14,410.00**

**Phase 1B Total \$158,510.00**

## PHASE TWO

### Highway 81 - Intersection - Hwy 81 and Hwy 275

Shade Trees	EA	8	\$275.00	\$2,200.00
Ornamental Trees	EA	45	\$200.00	\$9,000.00

#### Median Landscaping - Enhanced

Shade Trees	EA	3	\$275.00	\$825.00
Ornamental Trees	EA	6	\$200.00	\$1,200.00
Shrubs/Perennials/Turf	SF	5400	\$3.00	\$16,200.00
Mow Strip	Allow	stain/seal	\$8,500.00	\$8,500.00

#### North Corner Planting

Shrubs/Perennials	SF	1800	\$3.00	\$5,400.00
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#### South Corner Planting

Shrubs/Perennials	SF	1350	\$3.00	\$4,050.00
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<b>Irrigation</b>	Allow	1	\$45,000.00	\$45,000.00
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**\$92,375.00**

### Highway 275 - Norfolk Connector Intersection

Ornamental Trees	EA	10	\$200.00	\$2,000.00
Evergreen Trees	EA	10	\$250.00	\$2,500.00
Landscape beds (shrubs/perennials)	SF	800	\$5.00	\$4,000.00

**\$8,500.00**

**Construction Subtotal \$100,875.00**

**Contingency 10% \$10,087.50**

**Construction Total \$110,962.50**

**Design Fees 10% \$11,096.25**

**Phase Total \$122,058.75**



## PHASE THREE

### Highway 81 - Railroad Overpass to Pasewalk Ave.

Street Trees	EA	15	\$275.00	\$4,125.00
<b>Median Landscaping - Enhanced</b>				
Ornamental Trees	EA	3	\$200.00	\$600.00
Shrubs/Perennials/Turf	SF	400	\$3.00	\$1,200.00
Irrigation	LS	1	\$35,000.00	\$35,000.00
Paving (Mow Strip)	Allow	1	\$8,500.00	\$8,500.00
<b>ROW Pavers</b>				
East	SF	8600	\$9.00	\$77,400.00
West	SF	9100	\$9.00	\$81,900.00
<b>Construction Subtotal</b>				<b>\$208,725.00</b>
<b>Contingency 10%</b>				<b>\$20,872.50</b>
<b>Construction Total</b>				<b>\$229,597.50</b>
<b>Design Fees 8%</b>				<b>\$18,367.80</b>
<b>Phase Total</b>				<b>\$247,965.30</b>

## PHASE FOUR

### Norfolk Avenue - Intersection - Hwy 81

Street Trees	EA	12	\$275.00	\$3,300.00
Ornamental Trees	EA	3	\$200.00	\$600.00
Landscape beds	SF	100	\$3.00	\$300.00
Irrigation <small>(shrubs/perennials)</small>	Allow	1	\$15,000.00	\$15,000.00
				<b>\$19,200.00</b>

### Riverside Blvd., 4th & 5th Streets - 4th St., Walnut Ave. to Norfolk Ave.

Street Trees	EA	23	\$275.00	\$6,325.00
Ornamental Trees	EA	6	\$200.00	\$1,200.00
Pavers (ROW)	SF	840	\$9.00	\$7,560.00
<b>Landscape Feature</b>				
Ornamental Trees	EA	12	\$200.00	\$2,400.00
Shrubs/Perennials	SF	500	\$3.00	\$1,500.00
Irrigation	Allow	1	\$25,000.00	\$25,000.00
				<b>\$43,985.00</b>

### Riverside Blvd., 4th & 5th Streets - 5th., Walnut Ave. to Norfolk Ave.

Street Trees	EA	34	\$275.00	\$9,350.00
Ornamental Trees	EA	36	\$200.00	\$7,200.00
<b>Walnut Ave. Screening</b>				
Shrubs/Perennials/Turf	SF	500	\$3.00	\$1,500.00
				<b>\$18,050.00</b>

### Norfolk Avenue - Intersection - Norfolk Ave. and Victory Rd.

Street Trees	EA	20	\$275.00	\$5,500.00
Evergreen Trees	EA	10	\$250.00	\$2,500.00
Shrubs	SF	400	\$3.00	\$1,200.00
<b>Median Landscaping - Basic</b>				
Prairie Grasses/Wildflowers	SF	13000	\$1.00	\$13,000.00
Irrigation	Allow	1	\$15,000.00	\$15,000.00
Mow Strip	SF	7200	\$3.50	\$25,200.00
				<b>\$62,400.00</b>
<b>Construction Subtotal</b>				<b>\$143,635.00</b>
<b>Contingency 10%</b>				<b>\$14,363.50</b>
<b>Construction Total</b>				<b>\$157,998.50</b>
<b>Design Fees 10%</b>				<b>\$15,799.85</b>
<b>Phase Total</b>				<b>\$173,798.35</b>



## PHASE FIVE

### Norfolk Avenue - 12th St. to 1st St.

Street Trees	EA	5	\$275.00	\$1,375.00
<b>Median Landscaping - Enhanced</b>				
Ornamental Trees	EA	3	\$200.00	\$600.00
Shrubs/Perennials/Turf	SF	960	\$3.00	\$2,880.00
Irrigation	Allow	1	\$25,000.00	\$25,000.00
				<b>\$29,855.00</b>

### Norfolk Avenue - Hwy 275 to 12th St.

Street Trees	EA	20	\$275.00	\$5,500.00
Ornamental Trees	EA	6	\$200.00	\$1,200.00
Evergreen Trees	EA	4	\$250.00	\$1,000.00
Shrubs (Guard Rail Screen)	SF	500	\$3.00	\$1,500.00
<b>Median Landscaping - Enhanced</b>				
Shrubs/Perennials/Turf	SF	600	\$3.00	\$1,800.00
Irrigation	Allow	1	\$25,000.00	\$25,000.00
				<b>\$36,000.00</b>

### Norfolk Avenue - 1st St. to Victory Rd.

Street Trees	EA	10	\$275.00	\$2,750.00
Ornamental Trees	EA	12	\$200.00	\$2,400.00
				<b>\$5,150.00</b>

### Highway 81 - Ta Ha Zouka to RR Overpass

Street Trees	EA	17	\$275.00	\$4,675.00
Ornamental Trees	EA	5	\$200.00	\$1,000.00
Prairie/Meadow Beds (overseed)	Allow	1	\$750.00	\$750.00
<b>Median Landscaping - Basic</b>				
Prairie grasses/wildflowers	Allow	1	\$1,000.00	\$1,000.00
Paving (Mow Strip)	SF	3400	\$3.50	\$11,900.00
				<b>\$19,325.00</b>
<b>Construction Subtotal</b>				<b>\$90,330.00</b>
<b>Contingency 10%</b>				<b>\$9,033.00</b>
<b>Construction Total</b>				<b>\$99,363.00</b>
<b>Design Fees 12%</b>				<b>\$11,923.56</b>
<b>Phase Total</b>				<b>\$111,286.56</b>



PHASE SIX

Highway 81 - Pasewalk Ave. to Maple Ave.

Street Trees	EA	109	\$275.00	\$29,975.00
<b>Median Landscaping - Enhanced</b>				
Shade Trees	EA	10	\$275.00	\$2,750.00
Ornamental Trees	EA	11	\$200.00	\$2,200.00
Shrubs/Perennials/Turf	SF	10000	\$3.00	\$30,000.00
Irrigation	Allow	1	\$38,000.00	\$38,000.00
Paving (Mow Strip)	Allow	stain/seal	\$8,500.00	\$8,500.00
<b>Construction Subtotal</b>				<b>\$111,425.00</b>
<b>Contingency 10%</b>				<b>\$11,142.50</b>
<b>Construction Total</b>				<b>\$122,567.50</b>
<b>Design Fees 10%</b>				<b>\$12,256.75</b>
<b>Phase Total</b>				<b>\$134,824.25</b>

PHASE SEVEN

Highway 81 - Maple Ave. to Eisenhower Ave.

Street Trees	EA	73	\$275.00	\$20,075.00
Ornamental Trees	EA	58	\$200.00	\$11,600.00
Evergreen Trees	EA	13	\$250.00	\$3,250.00
<b>Median Landscaping - Basic</b>				
Buffalograss/prairie grasses	SF	25680	\$1.00	\$25,680.00
Irrigation	Allow	1	\$45,000.00	\$45,000.00
<b>Median Landscaping - Enhanced</b>				
Shade Trees	EA	6	\$275.00	\$1,650.00
Ornamental Trees	EA	4	\$200.00	\$800.00
Shrubs/Perennials/Turf	EA	5200	\$3.00	\$15,600.00
Mow Strip	SF	18000	\$3.50	\$63,000.00
<b>Construction Subtotal</b>				<b>\$186,655.00</b>
<b>Contingency 10%</b>				<b>\$18,665.50</b>
<b>Construction Total</b>				<b>\$205,320.50</b>
<b>Design Fees 8%</b>				<b>\$16,425.64</b>
<b>Phase Total</b>				<b>\$221,746.14</b>



## PHASE EIGHT

### Highway 275 - Norfolk Ave to Highway 81

Street Trees	EA	140	\$275.00	\$38,500.00
Ornamental Trees	EA	140	\$200.00	\$28,000.00
Evergreen Trees	EA	30	\$250.00	\$7,500.00
<b>Median Landscaping - Enhanced</b>				
Shade Trees	EA	28	\$275.00	\$7,700.00
Ornamental Trees	EA	12	\$200.00	\$2,400.00
Shrubs/Perennials/Turf	SF	1200	\$3.00	\$3,600.00
Irrigation	Allow	1	\$45,000.00	\$45,000.00
<b>Median Landscaping - Basic</b>				
Buffalograss/prairie grasses	EA	18000	\$1.00	\$18,000.00
<b>Construction Subtotal</b>				<b>\$150,700.00</b>
<b>Contingency 10%</b>				<b>\$15,070.00</b>
<b>Construction Total</b>				<b>\$165,770.00</b>
<b>Design Fees 10%</b>				<b>\$16,577.00</b>
<b>Phase Total</b>				<b>\$182,347.00</b>

## PHASE NINE

### Riverside Blvd., 4th & 5th Streets - Hwy 81 to Syracuse Ave.

Street Trees	EA	130	\$275.00	\$35,750.00
Evergreen Trees	EA	4	\$250.00	\$1,000.00
Shrubs	SF	450	\$3.00	\$1,350.00
				<b>\$38,100.00</b>

### Riverside Blvd., 4th & 5th Streets - Syracuse Ave. to Walnut Ave.

Street Trees	EA	60	\$275.00	\$16,500.00
Ornamental Trees	EA	64	\$200.00	\$12,800.00
				<b>\$29,300.00</b>

### Highway 275 - Highway 81 to Logan

Street Trees	EA	34	\$275.00	\$9,350.00
Ornamental Trees	EA	28	\$200.00	\$5,600.00
<b>Median Landscaping - Enhanced</b>				
Ornamental Trees	EA	8	\$200.00	\$1,600.00
Shrubs/Perennials/Turf	SF	4000	\$3.00	\$12,000.00
				<b>\$13,600.00</b>

### Highway 275 - Logan to Highway 24

Street Trees	EA	60	\$275.00	\$16,500.00
Ornamental Trees	EA	10	\$200.00	\$2,000.00
Evergreen Trees	EA	12	\$250.00	\$3,000.00
				<b>\$21,500.00</b>
Irrigation for Phase	Allow	1	\$60,000.00	\$60,000.00
				<b>\$60,000.00</b>
<b>Construction Subtotal</b>				<b>\$169,975.00</b>
<b>Contingency 10%</b>				<b>\$16,997.50</b>
<b>Construction Total</b>				<b>\$186,972.50</b>
<b>Design Fees 10%</b>				<b>\$18,697.25</b>
<b>Phase Total</b>				<b>\$205,669.75</b>

