



# NOLANVILLE ROAD MAINTENANCE PLAN 2023

Department of Public Works



## Abstract

This document provides a guide for assessing and prioritizing road maintenance activities in the City of Nolanville for the purpose of budgeting and ensuring equitable improvement of infrastructure.

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## Background

The Nolanville Comprehensive Plan 2015-2030, Action 1.2.2, calls for a prioritized list of Nolanville roads and a schedule for their maintenance and improvement. This task was initially performed by TRC Engineering in August 2013, as an update to their August 2007 draft plan. An enhanced list was completed in 2017 to include Active Daily Travel classification and Surface Conditions, and updated again in June 2020. This current version was updated December 2022 for calendar year 2023 decisions.

## Comprehensive Road List (Alphabetical)

| Name                   | Area      | Street Classification             | Curb & Gutter | Length (ft.) | Last Treatment   |
|------------------------|-----------|-----------------------------------|---------------|--------------|--|
| 1st Street             | RDT       | Good<br>Poor elevation transition | No            | 3,240        | Chip/Seal 2015   |
| 2 <sup>nd</sup> Street | RDT       | Fair                              | No            | 264          | UNK  |
| 3rd Street             | RDT       | Good                              | No            | 2,100        | Chip/Seal 2015   |
| 4th Street             | RDT       | Good                              | No            | 2,050        | Chip/Seal 2015   |
| 5th Street             | RDT       | Good                              | No            | 1,200        | Chip/Seal 2015;<br>Repaired 2020   |
| 6th Street             | RDT       | Good                              | No            | 964          | Chip/Seal 2015   |
| 8th Street             | RDT       | Good                              | No            | 1,005        | Chip/Seal 2015 235'<br>Overlay 2014 750'   |
| 10th Street            | Collector | Excellent                         | Yes           | 4,080        | Recon 2009   |
| Ash Street             | P         | Excellent                         | Yes           | 841          | Recon 2020   |
| Ashley Drive           | RDT       | Good                              | Yes           | 510          | Micro 2019   |
| Avenue G               | RDT       | Poor                              | No            | 1130         | UNK  |
| Avenue H               | Collector | Excellent / Good                  | Yes           | 4,129        | Recon 2015-<br>Main to 10 <sup>th</sup><br>Unknown 10 <sup>th</sup> –<br>City Limit<br>Sealed 2016 |
| Avenue I               | RDT       | Fair                              | No            | 825          | Milled 400ft   |
| Avenue J               | RDT       | Fair                              | No            | 1,585        | Chip/Seal 2015   |
| Avenue K               | RDT       | Fair                              | No            | 1,905        | Chip/Seal 2015   |
| Bald Eagle Drive       | BC        | Excellent                         | Yes           | 1557         | ~2008  |
| Barberry Drive         | WW IV     | Excellent                         | Yes           | 465          | 2022   |
| Bella Charca Parkway   | BC        | Excellent                         | Yes           | 2640 3901    | 2013   |
| Bent Tree Drive        | BC        | Excellent                         | Yes           | 774          | ~2008  |
| Bella Vita Dr          | BC        | Excellent                         | Yes           | 2100 3622    | 2018 (New)   |
| Birch Street           | P         | Excellent                         | Yes           | 844          | Recon 2022   |

| Name              | Area   | Street Classification | Curb & Gutter    | Length (ft.)                     | Last Treatment                         |
|-------------------|--------|-----------------------|------------------|----------------------------------|--|
| Black Gum Ct      | WW I   | Good                  | Yes              | 370                              | ~2006                                  |
| Black Walnut Ct   | WW I   | Good & Fair           | Yes              | G-930<br>F-280                   | ~2006                                  |
| Bluebonnet        | PV     | Fair                  | Yes              | 862                              | UNK                                    |
| Bluff Drive       | BX X   | Excellent             | Yes              | 976                              | 2022                                   |
| Bobcat Circle     | BC IX  | Excellent             |                  | 345                              | 2021                                   |
| Box Canyon        | BC VII | Excellent             | Yes              | 1150                             | 2018 (New)                             |
| Boxer Street      | CH     | Excellent/Good        | Yes              | Excellent -<br>900 Good -<br>900 | Phase I 2003-2007;<br>II 2016          |
| Brandy Drive      | BC VII | Excellent             | Yes              | 3,303                            | 2018 (New)                             |
| Button Bush       | WW II  | Excellent             | Yes              | 320                              | 2018 (New)                             |
| Bristolcone Drive | WW IV  | Excellent             | Yes              | 520                              | 2022                                   |
| Cedar Ridge Drive | R      | Good                  | Yes              | 3,264                            | ~2003                                  |
| Cedar Street      | P      | Excellent             | Yes              | 850                              | Recon 2022                             |
| Chimney Hill      | BC I   | Excellent             | Yes              | 3068                             | ~2008<br>Mill/Overlay 2019<br>(600 ft) |
| Cindy Lane        | RDT    | Good                  | Yes              | 755                              | Micro 2019                             |
| Coffee Tree Ct    | WW I   | Good & Poor           | Yes              | Good – 333<br>Poor – 37          | 2006                                   |
| Dale Avenue       | RDT    | Excellent & Fair      | 45% Y /<br>55% N | Excellent -<br>495 Fair - 605    | ~2006                                  |
| Dober Street      | CH     | Excellent & Good      | Yes              | Excellent -<br>900 Good -<br>900 | Phase I 2003; II<br>2016               |
| Dogwood Street    | P      | Excellent             | Yes              | 851                              | Recon 2022                             |
| Elm Street        | P      | Excellent             | Yes              | 856                              | Recon 2018                             |
| Fawn Trail        | BC IV  | Excellent             | Yes              | 317                              | 2013                                   |
| Fence Line        | BC IX  | Excellent             | Yes              | 175                              | 2021                                   |
| Fieldwood         | BC I   | Excellent             | Yes              | 753                              | ~2004                                  |
| Fir Street        | P      | Fair                  | No               | 843                              | Chip Seal 2022                         |
| Freedom Circle    | LS     | Excellent             | Yes              | 1948                             | 2022                                   |
| Fossil Ridge      | BC VII | Excellent             | Yes              | 2020                             | 2018 (New)                             |
| Gehler Circle     | RDT    | Excellent             | Yes              | 1,500                            | ~2003                                  |
| Gray Fox Drive    | BC X   | Excellent             | Yes              | 173                              | 2022                                   |
| Green Street      | WL I   | Excellent             | Yes              | 925                              | 2020 (New)                             |
| Harvest Street    | BC     | Excellent             | Yes              | 4,256                            | ~2004 & 2012                           |
| Heritage Loop     | BC V   | Excellent             | Edging           | 1056                             | 2018                                   |

| Name                | Area      | Street Classification                  | Curb & Gutter    | Length (ft.)                  | Last Treatment   |
|---------------------|-----------|--|------------------|-------------------------------|--|
| Hickory Ridge       | R         | Excellent                              | Yes              | 1,500                         | ~2003  |
| High Plains Drive   | BC X      | Excellent                              | Yes              | 554                           | 2022   |
| Horatio Street      | WL I      | Excellent                              | Yes              | 1880                          | 2020 (New)   |
| Jack Rabbit Road    | Collector | Fair                                   | No               | 5439                          | Point Repairs 2020                                     |
| Jordan Loop         | RDT       | Fair                                   | Yes              | 1,491                         | ~1983<br>Micro 2019                                    |
| Lazy Brook          | BC        | Excellent                              | Yes              | 808                           | ~2004  |
| Levy Crossing Road  | Myers     | Excellent                              | Yes              | 2334                          | County Road for now                                    |
| Live Oak Street     | P         | Fair                                   | No               | 847                           | Chip Seal 2016   |
| Lonesome Oak        | WW I      | Good & Fair                            | Yes              | G – 1072<br>F – 460<br>E- 500 | ~2006-Present  |
| Lonita Avenue       | RDT       | Fair                                   | No               | 1100                          | Point Repairs 2020                                     |
| Lorrie Avenue       | RDT       | Fair                                   | No               | 1,300                         | 50% 1.5” Overlay 2017 325’<br>50% Chip Seal 2015 975’  |
| Manhattan Drive     | RDT       | Excellent                              | Yes              | 581                           | ~2006  |
| Main Street         | RDT       | Good & Fair                            | No               | Good - 1,363<br>Fair - 1,363  | Chip/Seal 2015   |
| Mac Dougal Street   | WL I      | Excellent                              | Yes              | 620                           | 2020 (New)   |
| Meadow Oaks         | PV        | Excellent                              | Yes              | 800                           | ~2004  |
| Mercer Street       | WL        | Excellent                              | Yes              | 1020                          | 2020 (New)   |
| Mesquite Boulevard  | P         | Excellent                              | No               | 2152                          | North End 2” Overlay 2017<br>South End 2” Overlay 2015 |
| Morningside         | PV        | Fair                                   | Yes              | 2,200                         | UNK  |
| Moss Road           | RDT       | Fair                                   | Yes              | 488                           | >1970<br>Micro 2019                                    |
| Mountain Ridge      | BC I?     | Excellent                              | Yes              | 189                           | ~2004  |
| Nolan Ridge Drive   | R         | Excellent                              | Yes              | 3,300                         | ~2003  |
| North Drive         | RDT       | Good & Poor                            | Yes              | 563                           | UNK  |
| Oak Ridge Drive     | R         | Excellent                              | Yes              | 2,083                         | ~2003  |
| Old Glory Road      | LS        | Excellent                              | Yes              | 998                           | 2022   |
| Old Nolanville Road | Collector | Excellent, Good & Fair<br>*Edging Poor | 60% Y /<br>40% N | Excellent - 5,852<br>Good -   | Bridge to East of School- Recon 2018                   |

| Name                   | Area      | Street Classification                                 | Curb & Gutter    | Length (ft.)             | Last Treatment                                |
|------------------------|-----------|---|------------------|--------------------------|---|
|                        |           |   |                  | 1,950 Fair -<br>1,951    | PV to State Maint.<br>Chip Seal 2015          |
| Parkridge Road         | BC        | Good  | Yes              | 703                      | ~2004   |
| Pheasant Drive         | BC X      | Excellent   | Yes              | 988                      | 2021  |
| Pine Street            | P         | Fair  | No               | 868                      | Chip Seal 2016                                |
| Pleasant Hill Cemetery | Collector | Good & Fair<br>*Edging Poor after<br>tracks           | No               | 3,000                    | UNK<br>Mill/Overlay RR to<br>Access Road 2019 |
| Pointer                | P         | Excellent & Fair                                      | Yes              | Excellent –<br>1848      | I 2007; II2016<br>Point Repair 2018           |
| Pririe Drive           | BC IX     | Excellent   | Yes              | 1247                     | 2020  |
| Quail Drive            | BC VIII   | Excellent   | Yes              | 568                      | 2020  |
| Red Bud                | BC        | Good  | Yes              | 937                      | ~2008   |
| Red Fox                | BC        | Excellent   | Yes              | 419                      | ~2008   |
| Red Leaf               | BC I-II   | Excellent<br>*300 ft damage from<br>constant drainage | Yes              | 2150                     | 04-08   |
| Riata Drive            | BC IX     | Excellent   | Yes              | 1806                     | 2021  |
| Ridgeback Street       | CH        | Good  | Yes              | 634                      | 2004  |
| Ridgeway Court         | BC        | Excellent   | Yes              | 317                      | 2004  |
| Rocky Creek Drive      | BC VIII   | Excellent   | Yes              | 898                      | 2020  |
| Ryan Circle            | RDT       | Good  | Yes              | 581                      | 2006  |
| Setter Street          | CH        | Good  | Yes              | 634                      | ~2007   |
| Shadebush Drive        | WW IV     | Excellent   | Yes              | 968                      | 2022  |
| Shady Hollow           | BC II     | Excellent   | Yes              | 457                      | ~2004   |
| Sims Ridge Drive       | R         | Excellent   | Yes              | 2,303                    | ~2003   |
| Slippery Elm           | WW II     | Excellent   | Yes              | 1685                     | 2018 (New)                                    |
| South Drive            | RDT       | Fair  | Conc.<br>Edging  | 563                      | UNK   |
| St. John Avenue        | RDT       | Good & Fair   | 40% Y /<br>60% N | Good - 400<br>Fair - 600 | ~2006<br>Point Repairs 2020                   |
| Stonecrest             | BC I      | Excellent   | Yes              | 700                      | ~2004   |
| Sugar Maple Court      | WW I      | Good & Poor   | Yes              | Good – 523<br>Poor – 60  | 2006  |
| Sunset                 | PV        | Good  | Yes              | 443                      | UNK   |
| Sweet Gum Court        | WW I      | Good  | Yes              | 106                      | 2006  |
| Tanglewood Court       | BC I      | Excellent   | Yes              | 108                      | ~2004   |

| Name                | Area    | Street Classification | Curb & Gutter | Length (ft.) | Last Treatment |
|---------------------|---------|-----------------------|---------------|--------------|----------------|
| Timber Ridge Drive  | R       | Excellent             | Yes           | 2,057        | ~2003          |
| Topeka Court        | WW I    | Excellent             | Yes           | 475          | 2006           |
| Turning Leaf Drive  | BC VIII | Excellent             | Yes           | 2323         | 2020           |
| Via Toscana         | WW II   | Excellent             | Yes           | 285          | 2018 (New)     |
| Walking Stick Drive | WW IV   | Excellent             | Yes           | 1077         | 2022           |
| Wayne Drive         | PH      | Good                  | Edging        | 1268         | 2003           |
| Weeping Willow      | WW I    | Good                  | Yes           | 390          | 2006           |
| Wilderness Basin    | BC I    | Excellent             | Yes           | 1,268        | 2004           |
| Willow Street       | P       | Fair                  | No            | 843          | Chip Seal 2016 |
| Winchester Drive    | BC IX   | Excellent             | Yes           | 1763         | 2021           |
| Whitetail Trail     | BC II   | Excellent             | Yes           | 317          | 2013           |
| Wilderness Court    | BC I    | Excellent             | Yes           | 317          | 2004           |
| Woodhaven Drive     | BC III? | Excellent             | Yes           | 650          | ~2008          |
| Wooster Street      | WL      | Excellent             | Yes           | 2700         | 2020 (New)     |
|                     |         |                       | Total:        | ~176,382 Ft  |                |
|                     |         |                       |               |              |                |
|                     |         |                       |               |              |                |

## Area Abbreviations

BC Bella Charca  
CH Cedar Heights  
P Plaza  
WL Warriors Legacy

PV Pecan Village  
R Ridges  
RDT Residential Downtown  
WW Wildwood Estates

**Ends with Bella Charca X, Warriors Legacy II, and Wildwood IV**

## Road Repair Evaluation

Road repairs are prioritized when there is evidence of base failure or public safety is an issue. Cracks that compromise the base, and especially wet cracks, accelerate base failures. Repairs are evaluated by Active Daily Travel (ADT), Surface Condition and Square Feet of Area Affected and given a score. The score determines the priority for repair and helps decide whether Nolanville Public Works will service the road or hire a contractor.

| Road ID  | ADT | Surface | Area | Score |
|--|-----|---------|------|-------|
| Old Nolanville Road (ONR)<br>(State Maint. to Pecan Village) | 5   | 4       | 5    | 14    |
| Woodland Side Streets  | 2   | 5       | 5    | 12    |
| Jackrabbit Road  | 4   | 3       | 5    | 12    |
| Residential- RDT   | 3   | 4       | 5    | 12    |
| North/South Str  | 4   | 3       | 5    | 12    |

Score 1-5 = Low priority, city crew doing work

Score 6-9 = Medium priority with city crew doing work or contractor doing specialty type work

Score 10 or above = High priority, possibly hiring contractor

ADT - <20 = 1, 20-50 = 2, 51-100 = 3, 101-500 = 4, >500 = 5

Surface - Good = 0, Cracking <20 = 1, Cracking 20-50% = 2, Cracking >50% = 3

Loose cracking, failing base = 4, Wet, open cracking, failing base = 5

Problem area observed < 400 sf = 0,

area observed > 400 sf = 5

## Preventive Maintenance

In contrast to repair activities, preventive maintenance reduces the amount spent in the long run, if performed prior to base failures. The price rate for base failure repairs is nearly five times the cost of a seal coat — a commonly used process that lays a thin, new surface on roads in moderate condition.

Seal Coat, sometimes referred to as Chip Seal or Aggregate Sealing, is Nolanville's primary street maintenance activity for residential streets. This preventive maintenance activity is necessary to prolong the life of an asphalt street. Without a seal coat every 8-10 years, the asphalt would oxidize, dry out and lose flexibility. Loss of asphalt flexibility leads to cracking, water infiltration, potholes and failure of the structural components of the roadbed. Seal coating may consist of several different types of material applicators, all designed to be quick and economical and rejuvenating to the existing asphaltic wearing surface. Seal coating can be used to rejuvenate asphalt surfaces that are severely oxidized and dry, but still have structurally sound base courses. Grade 5 or Grade 6 aggregate with AC-5 or RC-2 is generally used in the warm summer months to seal coat suitable surfaces. Cracks up to 1/4" width can be covered, but any base failures and potholes should be repaired prior to seal coating.

Hot Mix Overlays may also be considered as maintenance, even though they are more expensive. An overlay can be used over any existing asphaltic surface to fill shrinkage cracks and level up small depressions and irregularities. An overlay will not bridge over any base failure.

Scarifying and Reconstruction of existing pavement may be used as a repair or maintenance procedure if sufficient base material exists. The subgrade should be determined satisfactory before consideration of this procedure. Scarifying and reconstruction involves scarifying the asphaltic wearing surface and the full depth of the base course, mixing the pulverized asphalt with the base material, re-compacting the combined material into a "new" base course, and coating with asphaltic prime coat and a new asphaltic wearing course.

Road preventive maintenance activities are prioritized based on the last known treatment and current condition. Consideration is also given to grouping roads that require similar surface treatment to reduce mobilization and bid costs.



## Street Condition Classification System

| Condition | Description   |
|-----------|---|
| Excellent | New.  |
| Good      | Small amounts of oxidation, cracking, raveling, and no base failures; good maintenance has been practiced.            |
| Fair      | Oxidized and inactive; moderate surface cracking and scattered failures.  |
| Poor      | Numerous base failures, cross-hatched cracking; unpaved streets, very narrow driving surfaces, bad drainage problems. |



Total City Road Lengths within the City Limits is ~176,382 linear feet of City Road Treatment recommended every 7-8 years, approximately 4.8 miles per year. Collector streets identified in the chart and the Thoroughfare Plan, included in this document, will require a different treatment application and additional budget considerations.

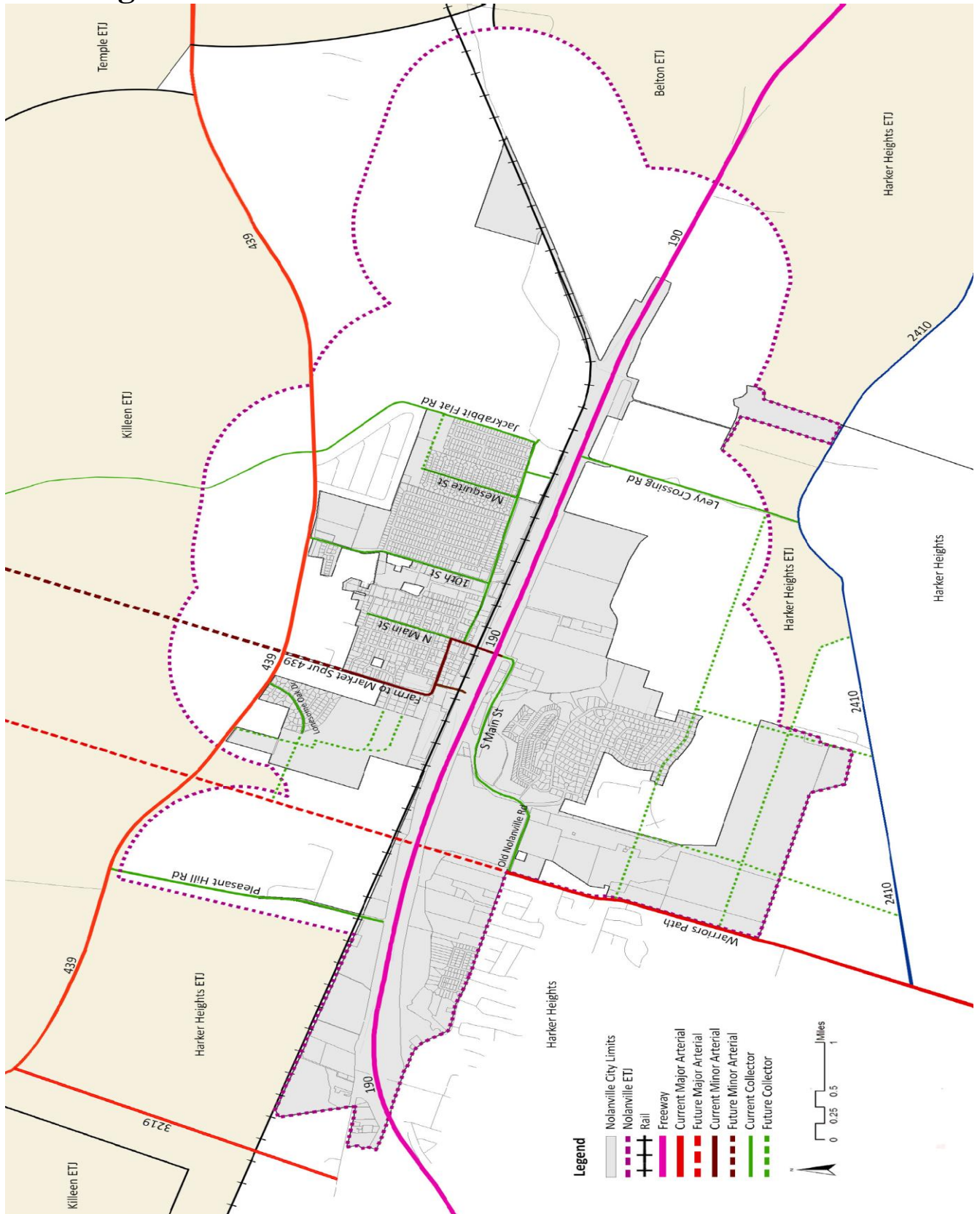
**Budget Note:** the city added 46,000 of linear feet since 2020, the cost of construction is nearly 20% times more since 2020.

## Tentative Schedule of Preventive Maintenance

Goal is to improve 4.8 miles of road per Fiscal Year.



# Thoroughfare Plan



## History of Capital Improvements

**Old Nolanville Road Bridge, TxDOT Grant, \$1,925,000, start June 2023** - 10 ft. Shared use path, reconstruction of bridge, addition of pedestrian bridge and road reconstruction from Bluebonnet to State Maintenance.

**439 Spur Connectivity, TxDOT Grant, \$1,000,000, start January 2023** – Connects sidewalk from Liberty Springs to Main Street, overlay for 5<sup>th</sup> Street and reconstruct Avenue G. Involves acquisition of Railroad Property.

**Certificate of Obligation, June 4, 2020 \$1,500,000, Issued for the Following Projects:**

PROJECT INFORMATION: Bond was issued in July 2020 and initial payments are planned into Interest & Sinking (I&S) for FY 20-21.

| Item                                    | Description  | Cost      | Status   |
|---|--|-----------|----------|
| Avenue H & Mesquite Street              | 20% Local Match for Park Connectivity Project                          | \$300,000 | Complete |
| Avenue H (Mesquite to Jackrabbit)       | Re-Construction & add Bike Lanes (Including ONR Bridge Rehabilitation) | \$392,184 | Complete |
| Woodland Roads                          | French Drain or Low Water Crossing                                     | \$738,130 | Complete |
| Channel Improvements (Engineering Only) | East & West Tributaries to include surveys and easements               | \$20,000  | Complete |

**Main Street Livability, TxDOT Grant \$1,500,00 completed April 2019** - 10 ft Shared use path on both sides of the Street, Street Lights, Bus Stops and Curbing.

**Old Nolanville Road Safe Routes to School, XXXX TxDOT Grant completed Summer 2018** – 10 ft. Shared use path, 3” overlay and point repairs.

## **Tax Note March 31, 2017 \$500,000, Issued for the Following Projects:**

PROJECT INFORMATION: Project was awarded in September 2017 and added reconstruction of West Dogwood to enhance drainage improvements along the west side of the Plaza.

| Item                | Description                        | Cost      | Status   |
|---------------------|------------------------------------|-----------|----------|
| Elm Street          | Drainage and Road Reconstruction   | \$250,000 | Complete |
| Park Road Extension | New Construction, Secondary Exit   | \$150,000 | Complete |
| Red Leaf Drainage   | French Drain or Low Water Crossing | \$80,000  | Complete |