



**Special Called
City Council Meeting
November 17, 2016**



City of Robinson

111 W. Lyndale, Robinson, TX 76706-5619

Phone (254) 662-1415 ❖ Fax (254) 662-1035

PUBLIC NOTICE SPECIAL CALLED MEETING

THE ROBINSON CITY COUNCIL WILL MEET ON THURSDAY, NOVEMBER 17, 2016 AT 6:00 P.M. IN THE COUNCIL ROOM AT ROBINSON CITY HALL, 111 WEST LYNDALE, ROBINSON, TEXAS TO CONSIDER AND ACT ON THE ITEMS ON THE FOLLOWING AGENDA.

1. Call to order
2. Invocation.
3. Roll call.
4. Citizen comments:
5. Consider and possible action on Resolution No. 2016-007 canvassing returns and declaring the results of the joint general election.
6. Plaque presentation to Doye Baker for his dedicated service to the City of Robinson.
7. Administer Oath of Office to newly elected Councilmembers.
8. Consider and possible action electing Mayor and Mayor Pro Tem for one-year term.
9. Discussion regarding Street Program.
10. Councilmember requests for items to be placed on future agendas.
11. Adjourn.

****The Governing Body reserves the right to go into Executive Session on any of the above items as provided by Government Code Chapter 551.***

**Special Called City Council Meeting Agenda
November 17, 2016
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**Public Hearings will be held in accordance with procedures set forth in Resolution R-95-011, adopted by the City Council on June 13, 1995.*

Note: Persons with disabilities who plan to attend this meeting and who need auxiliary aids or services should contact Jana Lewellen, City Secretary at 254-662-1415 at least twenty-four (24) hours before this meeting so that appropriate arrangements can be made.



COUNCIL AGENDA ITEM MEMORANDUM

Date Submitted: 11/10/2016

Meeting Date: 11/17/2016

Item #3

CALL TO ORDER:

ROLL CALL:

	PRESENT	ABSENT
ROGERS	_____	_____
STIVENER	_____	_____
LEUSCHNER	_____	_____
ECHTERLING	_____	_____
MASTERGEORGE	_____	_____
JANICS	_____	_____
BAKER	_____	_____



COUNCIL AGENDA ITEM MEMORANDUM

Date Submitted: 11/10/2016

Meeting Date: 11/17/2016

Item #4

DEPT./DIVISION SUBMISSION & REVIEW:

Bert Echterling, Mayor

ITEM DESCRIPTION: Citizen Comments.

STAFF RECOMMENDATION:

ITEM SUMMARY: *This is an opportunity for citizens to address the City Council on matters which are not scheduled for consideration. In order to address the Council, please complete a Speaker's Request Form and submit to the City Secretary prior to the start of the Council meeting. All comments must be directed to the Presiding Officer, rather than an individual Council Member or city staff. Comments are limited to three minutes and must pertain to the subject matter listed on the Speaker's Request Form. Council may not comment publicly on issues raised, but may direct the City Manager to resolve or request the matter to be placed on a future agenda. Such public comments shall not include any "deliberation" as defined by Chapter 551 of the Government Code, as now or hereafter amended.*

FISCAL IMPACT: N/A

ATTACHMENTS:



COUNCIL AGENDA ITEM MEMORANDUM

Date Submitted: 11/10/2016

Meeting Date: 11/17/2016

Item #5

DEPT./DIVISION SUBMISSION & REVIEW:

Jana Lewellen, City Secretary

ITEM DESCRIPTION: Consider and possible action on Resolution No. 2016-007 canvassing returns and declaring the results of the joint general election.

STAFF RECOMMENDATION: Approve Resolution as presented in item description.

ITEM SUMMARY: The City of Robinson ordered a Joint Election with McLennan County be held on November 8, 2016, for the purpose of voting in a Local Option Election for the City of Robinson to vote for/against “the legal sale of mixed beverages in restaurants by food and beverage certificate holders only. City Secretary Jana Lewellen has received the election returns and tabulations from the McLennan County Elections Administrator. The returns reflect that at a total of 4920 votes were cast by the registered voters of the municipality, and the Local Option Election received the following votes: 3999 for, and 921 against, with the majority voting for “the legal sale of mixed beverages in restaurants by food and beverage certificate holders only”.

Pursuant to the Texas Election Code, the City Secretary must certify the results to the Secretary of State, and TABC not later than three days after the official canvas.

FISCAL IMPACT: N/A

ATTACHMENTS:

Resolution

Certification Letter

Cumulative Returns

District Returns

Precinct Returns

RESOLUTION NO. 2016-007

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ROBINSON CANVASSING RETURNS AND DECLARING THE RESULTS OF THE JOINT GENERAL ELECTION HELD ON NOVEMBER 8, 2016.

Whereas, the City Council of the City of Robinson, Texas, resolved through Resolution No. 2016-005, ordered that a Joint Election with McLennan County be held on November 8, 2016, for the purpose of voting in a Local Option Election for the City of Robinson to vote for/against “the legal sale of mixed beverages in restaurants by food and beverage certificate holders only;

Whereas, said election was conducted in accordance with the Texas Election Code and there came on to be considered the returns of said election;

Whereas, the City Council has received the election returns and tabulations from the McLennan County Elections Administrator, who has certified the same to be correct, and the City Council finds such to be correct;

Whereas, the election returns and tabulations are attached hereto as **Exhibit “A”** and incorporated by reference herein;

Whereas, the returns of said joint election have been duly canvassed by the City Council, and such returns reflect that at said election a total of 4920 votes were cast by the registered voters of the municipality; and the said Local Option Election received the following votes:

LOCAL OPTION ELECTION

**3999 FOR
921 AGAINST**

THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF ROBINSON, TEXAS THAT:

1. The foregoing recitals are incorporated herein and made findings of fact;
2. The election returns and tabulations attached hereto as Exhibit “A” which have been submitted by the Elections Administrator and reviewed by the City Secretary are approved and adopted;
3. That said election was duly called; that notice of said election was duly posted and published, and that said election was held in accordance with the requirements of the Texas Election Code;
4. That, at said election, the Local Option Election received the majority of votes for “the legal sale of mixed beverages in restaurants by food and beverage certificate holders only” in the City of Robinson;

5. That **“THE LEGAL SALE OF MIXED BEVERAGES IN RESTAURANTS BY FOOD AND BEVERAGE CERTIFICATE HOLDERS ONLY”** is hereby declared approved; and
4. That it is hereby officially found and determined that the meeting at which this resolution is adopted was noticed and has been open to the public as required by law.

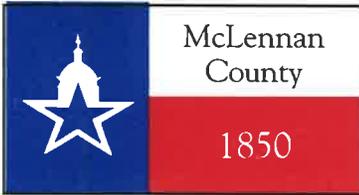
PASSED, ADOPTED AND APPROVED this the 17th day of November, 2016

CITY OF ROBINSON

Bert Echterling, Mayor

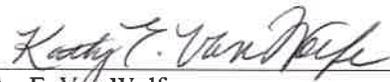
ATTEST:

Jana Lewellen, City Secretary



KATHY E. VAN WOLFE
Elections Administrator

I, Kathy E. Van Wolfe, McLennan County Elections Administrator do hereby confirm that the November 8, 2016 Joint General Election is completed. I hereby certify that all of the ballots for this election have been counted by the Hart Intercivic tabulating equipment. The tallies are a true and correct accounting of the results.



Kathy E. Van Wolfe
McLennan County Elections Administrator
November 15, 2016

**City of Robinson Cumulative Report — Official
McLennan County — JOINT GENERAL ELECTION — November 08, 2016**

Total Number of Voters : 80,544 of 136,333 = 59.08%

Number of District Voters: 5,184 of 7,899 = 65.63%

Precincts Reporting 91 of 91 = 100.00%

District Precincts Reporting 5 of 5 = 100.00%

Party	Candidate	Early		Election		Total	
Local Option Election for the City of Robinson Robinson, Vote For 1							
	FOR	3,169	80.90%	830	82.75%	3,999	81.28%
	AGAINST	748	19.10%	173	17.25%	921	18.72%
	Cast Votes:	3,917	95.07%	1,003	94.27%	4,920	94.91%
	Over Votes:	1	0.02%	0	0.00%	1	0.02%
	Under Votes:	202	4.90%	61	5.73%	263	5.07%

**City of Robinson District Report — Total Voters — Official
McLennan County — JOINT GENERAL ELECTION — November 08, 2016**

Total Number of Voters : 80,544 of 136,333 = 59.08%

Precincts Reporting 91 of 91 = 100.00%

Number of District Voters: 5,184 of 7,899 = 65.63%

District Precincts Reporting 5 of 5 = 100.00%

Local Option Election for the City of Robinson Robinson

Precinct	Early Ballots Cast	Election Ballots Cast	Total Ballots Cast	Registered Voters	Percent Turnout	FOR	AGAINST	Totals
015	119	34	153	253	60.47%	102	35	137
059	1947	467	2414	3632	66.46%	1858	444	2302
016	213	72	285	470	60.64%	229	40	269
060	1758	455	2213	3337	66.32%	1725	376	2101
057	83	36	119	207	57.49%	85	26	111
Totals	4120	1064	5184	7899		3999	921	4920

**City of Robinson Precinct Report — Official
McLennan County — JOINT GENERAL ELECTION — November 08, 2016**

Total Number of Voters : 80,544 of 136,333 = 59.08%

Precincts Reporting 91 of 91 = 100.00%

Number of District Voters: 5,184 of 7,899 = 65.63%

District Precincts Reporting 5 of 5 = 100.00%

Party	Candidate	Early	Election	Total			
Precinct 015 (Ballots Cast: 153)							
Local Option Election for the City of Robinson	Robinson, Vote For 1						
FOR		80	74.07%	22	75.86%	102	74.45%
AGAINST		28	25.93%	7	24.14%	35	25.55%
	Cast Votes:	108	90.76%	29	85.29%	137	89.54%
	Over Votes:	0	0.00%	0	0.00%	0	0.00%
	Under Votes:	11	9.24%	5	14.71%	16	10.46%

**City of Robinson Precinct Report — Official
McLennan County — JOINT GENERAL ELECTION — November 08, 2016**

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Total Number of Voters : 80,544 of 136,333 = 59.08%

Precincts Reporting 91 of 91 = 100.00%

Number of District Voters: 5,184 of 7,899 = 65.63%

District Precincts Reporting 5 of 5 = 100.00%

Party	Candidate	Early	Election	Total			
Precinct 059 (Ballots Cast: 2,414)							
Local Option Election for the City of Robinson Robinson, Vote For 1							
	FOR	1,498	80.71%	360	80.72%	1,858	80.71%
	AGAINST	358	19.29%	86	19.28%	444	19.29%
	Cast Votes:	1,856	95.33%	446	95.50%	2,302	95.36%
	Over Votes:	0	0.00%	0	0.00%	0	0.00%
	Under Votes:	91	4.67%	21	4.50%	112	4.64%

**City of Robinson Precinct Report — Official
McLennan County — JOINT GENERAL ELECTION — November 08, 2016**

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Total Number of Voters : 80,544 of 136,333 = 59.08%

Precincts Reporting 91 of 91 = 100.00%

Number of District Voters: 5,184 of 7,899 = 65.63%

District Precincts Reporting 5 of 5 = 100.00%

Party	Candidate	Early	Election	Total	
Precinct 016 (Ballots Cast: 285)					
Local Option Election for the City of Robinson Robinson, Vote For 1					
	FOR	164	81.59%	65 95.59%	229 85.13%
	AGAINST	37	18.41%	3 4.41%	40 14.87%
	Cast Votes:	201	94.37%	68 94.44%	269 94.39%
	Over Votes:	0	0.00%	0 0.00%	0 0.00%
	Under Votes:	12	5.63%	4 5.56%	16 5.61%

**City of Robinson Precinct Report — Official
McLennan County — JOINT GENERAL ELECTION — November 08, 2016**

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Total Number of Voters : 80,544 of 136,333 = 59.08%

Precincts Reporting 91 of 91 = 100.00%

Number of District Voters: 5,184 of 7,899 = 65.63%

District Precincts Reporting 5 of 5 = 100.00%

Party	Candidate	Early	Election	Total			
Precinct 060 (Ballots Cast: 2,213)							
Local Option Election for the City of Robinson Robinson, Vote For 1							
	FOR	1,368	81.72%	357	83.61%	1,725	82.10%
	AGAINST	306	18.28%	70	16.39%	376	17.90%
	Cast Votes:	1,674	95.22%	427	93.85%	2,101	94.94%
	Over Votes:	1	0.06%	0	0.00%	1	0.05%
	Under Votes:	83	4.72%	28	6.15%	111	5.02%

**City of Robinson Precinct Report — Official
McLennan County — JOINT GENERAL ELECTION — November 08, 2016**

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Total Number of Voters : 80,544 of 136,333 = 59.08%

Precincts Reporting 91 of 91 = 100.00%

Number of District Voters: 5,184 of 7,899 = 65.63%

District Precincts Reporting 5 of 5 = 100.00%

Party	Candidate	Early		Election		Total	
Precinct 057 (Ballots Cast: 119)							
Local Option Election for the City of Robinson Robinson, Vote For 1							
	FOR	59	75.64%	26	78.79%	85	76.58%
	AGAINST	19	24.36%	7	21.21%	26	23.42%
	Cast Votes:	78	93.98%	33	91.67%	111	93.28%
	Over Votes:	0	0.00%	0	0.00%	0	0.00%
	Under Votes:	5	6.02%	3	8.33%	8	6.72%



COUNCIL AGENDA ITEM MEMORANDUM

Date Submitted: 11/10/2016

Meeting Date: 11/17/2016

Item #6

DEPT./DIVISION SUBMISSION & REVIEW:

Bert Echterling, Mayor

ITEM DESCRIPTION: Plaque presentation to Doye Baker for his dedicated service to the City of Robinson.

STAFF RECOMMENDATION: N/A

ITEM SUMMARY: N/A

FISCAL IMPACT: N/A

ATTACHMENTS: N/A



COUNCIL AGENDA ITEM MEMORANDUM

Date Submitted: 11/10/2016

Meeting Date: 11/17/2016

Item #7

DEPT./DIVISION SUBMISSION & REVIEW:

Jana Lewellen, City Secretary

ITEM DESCRIPTION: Administer Oath of Office to newly elected Councilmembers.

STAFF RECOMMENDATION: City Secretary Jana Lewellen will administer the Oath of Office.

ITEM SUMMARY: The Robinson City Council approved Ordinance 2016-008 canceling the General Election portion of the November 8, 2016 Joint Election, and declaring unopposed candidates elected.

The following candidates, who were unopposed in the November 8, 2016, General Election, are declared elected to office, and shall be issued certificates of election following the time the election would have been canvassed:

<u>Candidate</u>	<u>Office Sought</u>
Bert Echterling	Councilmember
Jim Mastergeorge	Councilmember
Jeremy Stivener	Councilmember
Steven Tindell	Councilmember

FISCAL IMPACT: N/A

ATTACHMENTS: N/A



COUNCIL AGENDA ITEM MEMORANDUM

Date Submitted: 11/10/2016

Meeting Date: 11/17/2016

Item #8

DEPT./DIVISION SUBMISSION & REVIEW:

Craig Lemin, City Manager

ITEM DESCRIPTION: Consider and possible action electing Mayor and Mayor Pro Tem for one-year term.

STAFF RECOMMENDATION: Elect Mayor and Mayor Pro Tem as presented in item description.

ITEM SUMMARY: Pursuant to Section 2.02 of the City Charter, the Council shall by election designate one of its members as Mayor and another of its member as Mayor Pro Tem, each of whom shall serve in such capacity for a term of one year. The Mayor shall preside at all meetings of the Council and shall be recognized as head of the City government for all ceremonial proposes, for the purpose of receiving service of civil process and emergency purposes, and for military or police purposes, but shall have no administrative duties. The Mayor, as member of the Council shall be entitled to vote upon all affairs considered by the Council, but shall have no veto power. The Mayor Pro Tem shall act as Mayor during the absence or disability of the Mayor, and shall have power to perform every act the Mayor could perform if present.

FISCAL IMPACT: N/A

ATTACHMENTS: N/A



COUNCIL AGENDA ITEM MEMORANDUM

Date Submitted: 11/10/2016

Meeting Date: 11/17/2016

Agenda Item #9

DEPT./DIVISION SUBMISSION & REVIEW:

Craig Lemin, City Manager

ITEM DESCRIPTION: Discussion regarding street program.

STAFF RECOMMENDATION: N/A

ITEM SUMMARY: Staff and our engineers have been working on developing a comprehensive street program that addresses not only those streets that are most in need of upgrading, but also maintaining those streets that are in fair to good condition to keep them from deteriorating to a point where reclamation or reconstruction are necessary in the near future. We have established a framework for the program and would like council input before we proceed with finalizing the program and recommending projects for the next few years.

FISCAL IMPACT: N/A

ATTACHMENTS:

A draft copy of the program guidelines is attached.

DRAFT

Project Name: City of Robinson 2017-2018 Street Program

Project No.: 1-02179

Re: Program Outline

Date: November 9, 2016

CITY OF ROBINSON STREET PROGRAM

Background

The condition of the streets in a city is normally the most noticed item by its citizens. Additionally, street maintenance and construction generally represents an extremely large expenditure for an entity due to the fact that roadway problems are frequently complex. The current condition of a street can be influenced by many factors: the quality of the original road base and pavement surface, the historical annual (routine) maintenance activities carried out on the street, underlying soil conditions, drainage conditions along the roadway section (related to topography), and the City's previous ability to afford necessary preventative maintenance activities or reclamation / reconstruction improvements. In order to adequately address substandard roadways, many times streets must be raised or lowered to improve drainage, have additional right-of-way purchased, have improved drainage structures installed and have adequate road materials incorporated into the pavement sections. Each of these items involves both time and money.

The condition of a street is impacted by several factors:

- Traffic patterns and loading;
- Structural section;
- Characteristics of the underlying soil (high clay content, sandy, gravelly);
- Drainage (excessive runoff, puddling, etc.);
- Previous maintenance;
- Quality of utility trenching and related repairs

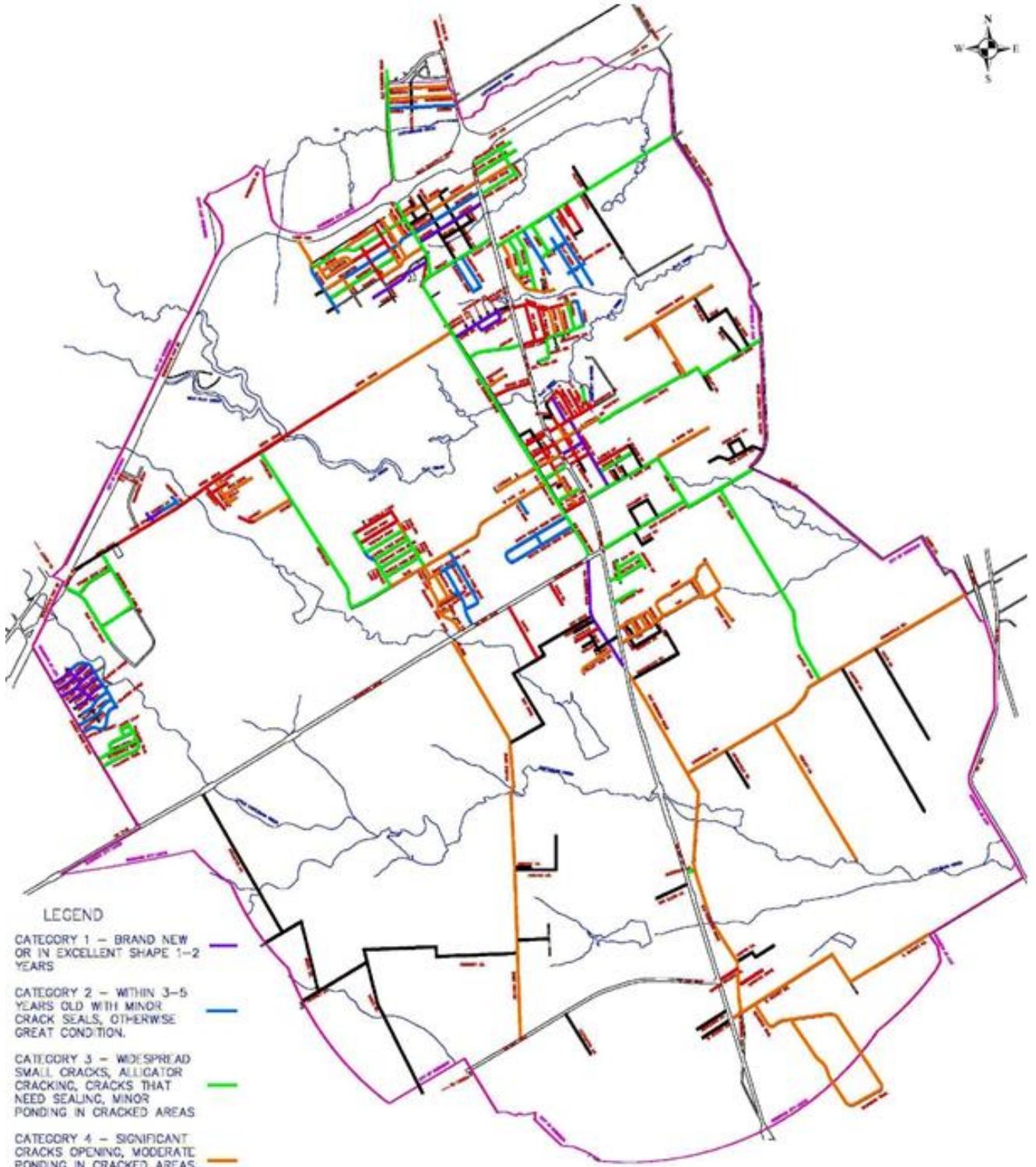
Each of the above items contribute to the overall pavement condition and lifespan of a street.

Based upon prior City of Robinson staff efforts, it is understood that the City's street network is composed of approximately 80 miles of roadways. In October 2013, Robinson City staff prepared an inventory of the city's street network (reference Community Visions 2034: Chapter 16). The summary of the Community Visions 2034 inventory is shown in Table 1 as well as the corresponding Community Visions 2034 map that's shown on the following page:

Table 1: October 2013 Inventory of Street Sections

Category 1.	Brand new streets in excellent shape, 1-2 years old	5.4%	4.3 Miles
Category 2.	Streets 3-5 years old with minor cracks, great condition	9.1%	7.3 Miles
Category 3.	Widespread small cracks, sealing required, minor ponding	26.2%	21.0 Miles
Category 4.	Significant crack openings, potential resurfacing	29.9%	24.0 Miles
Category 5.	Major crack opened, unacceptable driving conditions	11.4%	9.1 Miles
Category 6.	Non-existing asphalt, gravel, needs to be removed and replaced	17.9%	14.4 Miles

80.3 Miles



LEGEND

CATEGORY 1 - BRAND NEW OR IN EXCELLENT SHAPE 1-2 YEARS

CATEGORY 2 - WITHIN 3-5 YEARS OLD WITH MINOR CRACK SEALS, OTHERWISE GREAT CONDITION.

CATEGORY 3 - WIDESPREAD SMALL CRACKS, ALLIGATOR CRACKING, CRACKS THAT NEED SEALING, MINOR PONDING IN CRACKED AREAS

CATEGORY 4 - SIGNIFICANT CRACKS OPENING, MODERATE PONDING IN CRACKED AREAS, POTENTIAL RESURFACE SOON.

CATEGORY 5 - MAJOR CRACKS OPENED UNACCEPTABLE DRIVING CONDITIONS, REPLACE ENTIRE SECTION

CATEGORY 6 - NON-EXISTING ASPHALT, GRAVEL DRIVE, COMPLETE REMOVE AND REPLACE.

Community Visions 2034

"A Comprehensive Plan for the City of Robinson, Texas"

Existing Street Condition Categories



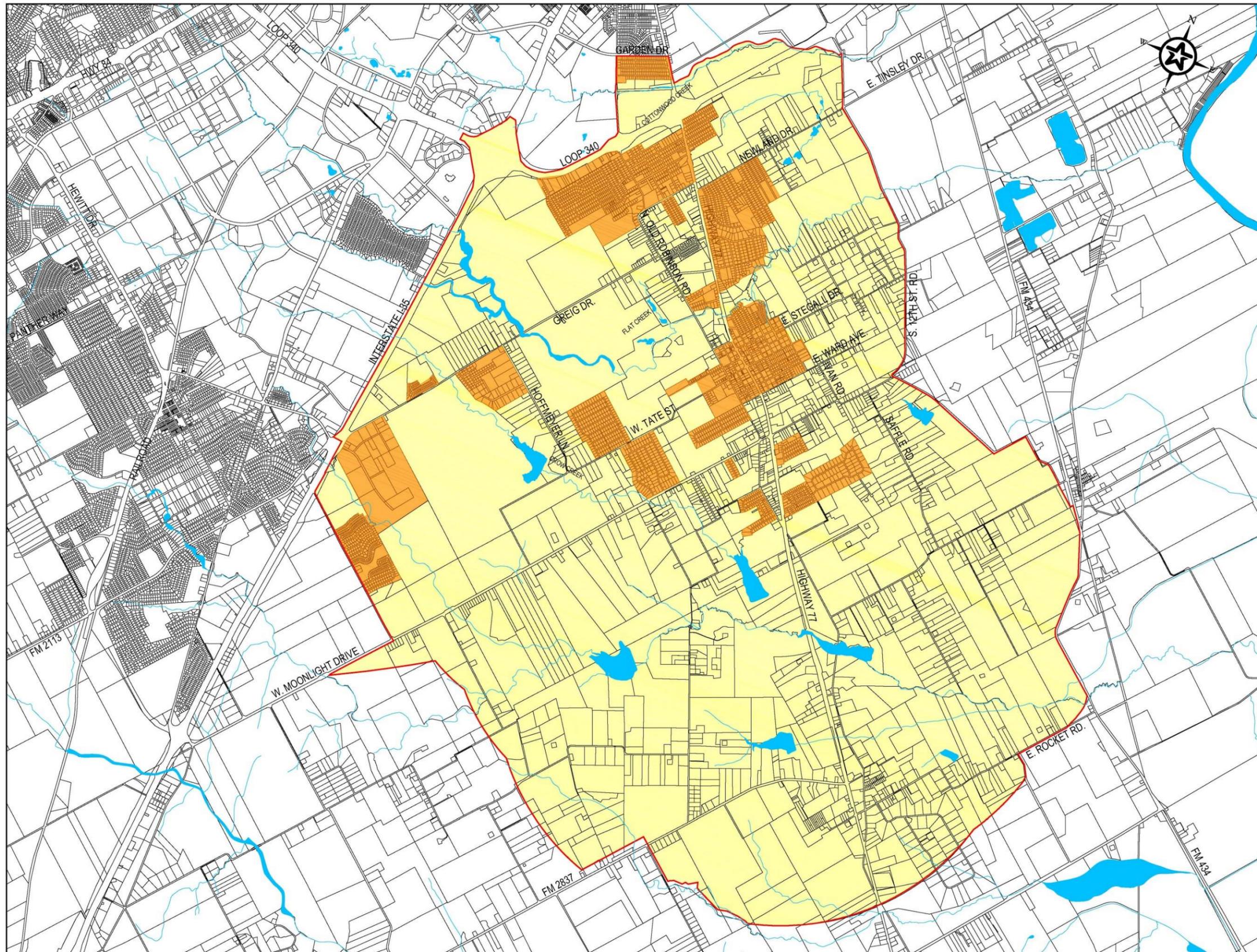
The summary tables as part of the Community Visions 2034 effort are additionally included within Appendix A. The existing streets within the street network are in varying structural condition (ranging from very good condition, good condition, fair condition, poor condition to very poor condition). City staff identified a plan within the Community Visions 2034 that involved the full depth reclamation of all streets that were categorized to be in poor to unacceptable condition, thus identifying a need to address approximately 60% (47.5 miles) of the entire street network.

It is understood that a majority of Robinson's existing streets (pavements) were not originally constructed with a proper base structure. The base materials generally consist of various thicknesses (2-inches to 8-inches) of road gravel, crushed rock, flexible base or cement stabilized base. Over the years, a number of the roadway sections have received sporadic maintenance to include patching of potholes or other similar type activities. Solid waste trucks and school buses have generated detrimental deterioration to the pavement sections. Other roads have been improperly maintained over decades and have not received either routine (annual) maintenance or preventative maintenance activities in order to prevent water intrusion that over time has deteriorated the underlying pavement structures. Poor drainage in many areas allows water to collect and erode the road base and cause sections of roads to fail.

Robinson's street network is composed of streets that function in different capacities (arterial, collector, or local (residential)). Each of these categories of streets should be addressed as part of the overall street program and should be addressed by different methods.

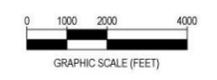
Exhibit 1 illustrates the City's overall street network showing how the system can be generally divided into two "areas" or "types" of streets.

1. Urban Areas (Urban Sections)
2. Rural Areas (Rural Sections)



LEGEND

- URBAN AREAS
- RURAL AREAS
- CITY LIMITS
- STREAM
- SURFACE WATER



REV.	DESCRIPTION	DATE



CITY OF ROBINSON

STREET PROGRAM

OVERALL MAP

PRELIMINARY
FOR REVIEW ONLY

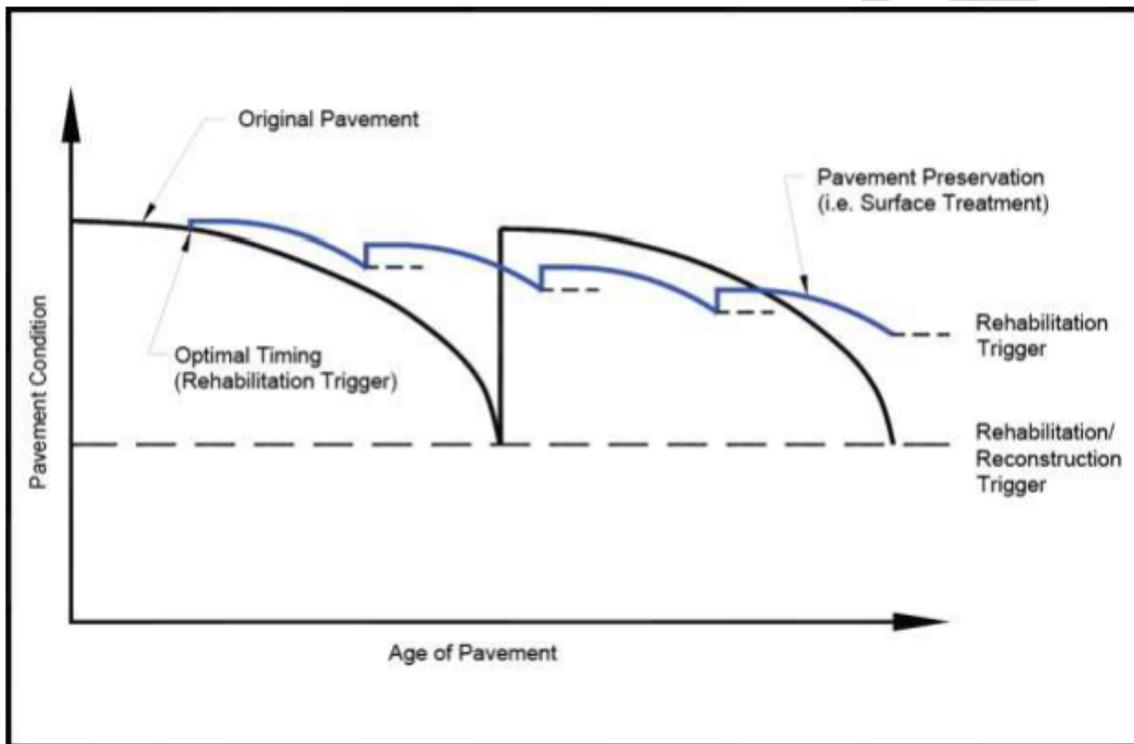
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF PROFESSIONAL ENGINEER CLARK W. GAUER #80599 ON THE DATE SHOWN ON THE DATE STAMP. IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES.	DESIGNED: CWG
	DRAWN: CWG
	CHECKED: KJIB
	PROJECT NO: 1-02179
DRAWING NO. EXH.1	

Street Program Strategy

Before beginning major improvements to the City's road system, it is important that the City have a well vetted Street Program Strategy in place. It is only through an appropriately thought out plan that street projects (as well as necessary utility projects) will provide maximum benefits and assist in the elimination of duplicate expenditures.

A comprehensive Street Program Strategy is comprised of a number of various strategies that include Annual (Routine) Maintenance, Preventative Maintenance, Reclamation and Reconstruction (Rehabilitation) activities. Annual (Routine) and Preventative Maintenance activities are critical to extending the life of streets (pavements). The Pavement Preservation Concept provided in Figure 1 illustrates how implementing rightly timed activities will extend the life of pavements, thus decreasing the overall cost to the owner; in this case, the City's citizens.

Figure 1: Pavement Preservation Concept



In a typical life cycle of pavement, the condition deteriorates slowly at first, then at a continually increasing rate. In general, a street's condition will deteriorate approximately 40% over the first 75% of its lifespan. After 75% of the lifespan has passed, streets will deteriorate an additional 40% over the next 10-15% of the lifespan. An astute city's aim is to slow the rate of deterioration of the existing road network by using pavement preservation and rehabilitation treatments. A comprehensive Street Program Strategy assists in determining the most cost effective treatments to apply on a given street segment at a given time.

It is fiscally prudent to maintain roads that are in relatively good condition. This is generally accomplished using low cost treatment methods to prevent them from deteriorating into a more damaged condition. Quite a bit of research exists that substantiates that for every \$1 that an entity spends on pavement preservation (i.e. preventative maintenance) can save \$7 - \$10 of deterioration in lieu of choosing to defer and subsequently having to fully rehabilitate that same pavement.

Below is a brief description of the various strategies that are included within a comprehensive street program.

- **Annual (Routine) Maintenance** – these yearly activities primarily include tree removal/trimming, drainage/ditch improvements, pothole patching, and crack sealing efforts in order to prevent streets from degrading prematurely. If these items are not continually addressed in a timely manner, a street will deteriorate at an accelerated rate.
- **Preventative Maintenance** – Preventative maintenance activities performed systematically during the first 75% of the lifespan are key to providing the most cost effective method for extending the life of a paved surface. These activities include chip sealing, fog sealing, slurry sealing, thin overlays and pavement repair/blade on hot mix at isolated locations. A mill and overlay can additionally be used at times for roads with stable, undamaged base in which the pavement section is slightly alligatored and/or severely weathered. Preventative maintenance activities are a critical component of a healthy overall street program. These activities are targeted to be implemented at a time that will allow full depth reclamation or reconstruction efforts to be postponed for some period of time. Protecting the road subgrade from the negative impacts of water intrusion is normally considered to be the most cost effective means of extending the life of the pavement.

For Robinson, it is assumed that chip sealing will be the primary preventative maintenance strategy for rural roads as it seals cracks and helps to extend the life of the roadway. It is generally recommended that streets that are in good or fair structural condition receive a chip seal on average every 6- 8 years. Chip seals are not recommended to be applied to streets that are in poor to very poor structural condition. Ideally, some means of preventative maintenance should be performed on a road surface every 5-10 years depending on condition of the road.

- **Reclamation** – the full depth reclamation process processes the existing asphalt pavement section (if the existing road has an asphalt surface) and a portion of the underlying materials to produce a stabilized base course. A stabilizer (lime, lime-fly ash, cement, emulsion or other equally effective product) is added to the mixture to bond the remixed materials together. Generally, the remixed section will receive a one-course chip seal and fog seal. A chip seal (and fog seal) surface treatment may be considered undesirable for urban sections within residential neighborhoods. However, a hot mix asphaltic concrete (HMAC) overlay is generally expensive, is generally not recommended to be placed over a reclaimed pavement section due to budget restraints, and is generally not recommended because the reclamation process can have so many variables that cannot guarantee success. This method is considered to be similar to the process that City crews attempted to utilize as part of their 2013 through 2015 efforts. Based upon current economic conditions, it makes logical sense to reclaim a portion of the City's street system, thus allowing the City to stretch its overall street program budget. City staff has initiated contact with County Commissioner Kelly Snell to discuss the possibility of County forces completing a portion of the City's rural reclamation roadways. It is understood that the County does not use stabilizers to the stabilized section as they mix the roadway sections.
- **Reconstruction (Rehabilitation)** – the reconstruction process typically requires the removal and replacement of the existing roadway surface and base courses. In Robinson's case, reconstruction often times also requires addressing/amending the highly plastic subgrade clays that lie under the base layer(s). Generally, full reconstruction of a roadway costs anywhere from 2.5 to 3.5 times more than a comparable roadway that receives a full-depth reclamation.

The above described street program strategies are summarized in Table 2:

Table 2: Street Identification Summary

Strategy Identification	Strategy Type and Description
A	Annual (Routine) Maintenance - Crack and Joint Maintenance
B	Annual (Routine) Maintenance – Drainage/Ditch Improvements, Tree Removal, Pothole Patching, etc.
C1	Preventative Maintenance - Chip Seal, Fog Seal, Slurry Seal, Overlay
C2	Preventative Maintenance - Chip Seal (to include pavement repair / surface replacement / blade on mix at identified locations)
D	Rural Reclamation – Reclaim existing pavement section (using stabilizing agent of lime, lime-fly ash, or cement).
E	Urban Reclamation – Reclaim existing pavement section (using stabilizing agent of lime, lime-fly ash, cement or emulsion).
F	Rural Reconstruction (Rehabilitation) – Reconstruct roadway section.
G	Urban Reconstruction (Rehabilitation) – Reconstruct roadway section.

Table 3: Street Program – Means and Methods of Completing Work As Part of Various Strategies

Strategy	City Forces	By Contract
Annual (Routine) Maintenance (A & B)	✓	
Preventative Maintenance (C1 & C2)	✓	
Rural Reclamation (D)	✓ *	✓
Urban Reclamation (E)		✓ **
Rural Reconstruction (Rehabilitation) (F)		✓
Urban Reconstruction (Rehabilitation) (G)		✓

ASSUMPTIONS:

- * McLennan County forces able to adequately complete a small percentage of rural sections. For these sections, City forces should be able to complete all preparation work items (ditches, tree removal, driveway replacements, etc.) as well as performing subsequent chip seal and fog seals work items.
- ** Urban reclamation sections to be completed by Contract. For sections completed by Contract, City forces can complete all preparation work items (ditches, tree removal, driveway replacement, etc.) as well as performing subsequent chip seal and fog seal work items.

It is recommended that the Annual (Routine) Maintenance and Preventative Maintenance Strategies be elevated in importance and that City forces be freed up so they can be utilized to perform these activities along with the various preparation work items (ditches, tree removal, driveway replacements, chip sealing, fog sealing, etc.) for reclamation and reconstruction (rehabilitation) projects that will be bid out by contract.

Planning

A fully developed planning process is critical to a successful street program. It is believed that the following step-by-step process would serve the City well:

- **Prioritization:** The City shall develop methodology to prioritize streets within the street program. As part of this effort, it is recommended that City staff, Council, and Engineer participate in one or more “field trips” to observe streets completed in previous years, as well as streets planned for the current year, in order to fully understand City Council’s expectations and desires and arrive at a consensus as to what does and does not meet the expectations of the Council.
- **Street Evaluation and Inventory:** Survey of streets to include physically driving and inspecting each street to help in determining the present physical condition of the paved surface, base, shoulders, culverts/headwalls, etc. as well as the ride quality, safety, trees and drainage. Each roadway component is rated to assist in the prioritization of the street segments and assist in determining the remaining projected life cycle of each street. The best scenario would be for Robinson to have a City employee that was competent and could evaluate every street within an on-going 2-year recurrence interval.
- **Drainage Investigation:** Survey to determine if there historical drainage problems exist that would affect the long-term viability of reclaiming or reconstructing the street. Again, a competent City employee would provide the biggest benefit to the City for this item.
- **Water System and Sanitary Sewer Coordination:** A well thought out street program incorporates thorough consideration of the existing water and wastewater systems. Existing underground utilities should be in acceptable condition prior to moving forward with any reclamation or reconstruction (rehabilitation) activities, thus eliminating (or minimizing) the possibility of completing a street, only to have to come back a year later and dig the street up as part of a water or sewer line break.
- **Geotechnical Investigation:** obtain shallow borings at appropriate intervals along each street in order to:
 - i. Determine the depth and quality of the base material.
 - ii. Determine the degree of expansiveness of the soil subgrade.
 - iii. Make recommendations for the materials and methods used to stabilize, rehabilitate, and improve the streets. Note: one method of street rehabilitation does not work for every condition.

The City’s effort to prioritize the streets may likely be the most challenging due to public requests. Over the course of the last several years, a lot of citizens have received feedback that the street they live on was on a list to be reclaimed within the next couple of years. These expectations of completion will likely need to be moderated moving forward.

Ultimately, prioritization efforts should be based upon sound scoring criteria and not be based upon a “squeaky wheel gets the grease” methodology. A variety of possible criteria can be considered. This could include:

- **Average daily traffic (ADT) levels** – Streets with higher ADT volumes receive higher priority (the City has a traffic counter that could assist with this effort)
- **Street Type** – Major streets have a greater priority than Minor streets, which have greater priority than Local streets.
- **Bus Routes** – Streets that currently serve as bus routes have an increase in priority over streets that do not.
- **School Facilities** – Streets within ½ mile radius of a school facility will receive an increase in priority.
- **Commercial Property** – Streets next to commercial and retail centers receive priority based upon immediate proximity.

- Surrounding population density – Streets within areas of higher population density are given priority over streets that are within areas of low population density.
- Pothole – Streets that have a high number of customer-serviced based calls will be given a higher priority than streets that have not received custom-generated calls.
- Utilities – Streets requiring water/wastewater replacement will be given a higher priority than streets that do not require utility replacement.

With the City developing the above criteria, it would result in a long-term, “big-picture” approach that graphically shows roads that warrant treatments based on function, location, and condition of the road surface. Judgement is required to process the various priorities into a scope of work for a specific maintenance, reclamation and/or reconstruction project.

Estimated Costs

Currently, the City has approximately \$4.8 million in current certificates of obligation that are dedicated to street construction. The City must leverage their dollars to do more with less. The first item to be established is how to best utilize these funds. As a result of the various factors discussed previously, both reclamation and reconstruction strategies will prove to be a costly undertaking. For initial planning purposes, it is recommended that the following unit costs be utilized as a general benchmarking guide. The estimated unit costs are based upon current dollars and do not reflect any interest or inflation. Unit Costs used at this stage include:

Rural Reclamation

- Full depth utilizing a stabilizer of lime, lime-fly ash, cement or other equally effective product
- 1 course chip seal
- Assume no driveway replacements
- Assume a 22' wide pavement width
- Includes a 20% construction contingency
- \$60.00 / LF

Urban Reclamation

- Full depth utilizing a stabilizer of lime, lime-fly ash, cement, emulsion or other equally effective product
- 1 course chip seal
- Assume existing curb and gutter to remain
- Assume no driveway replacements
- Assume no storm drain improvements
- Assume a 30' wide pavement width
- Includes a 20% construction contingency
- \$80.00 / LF

Rural Reconstruction (Rehabilitation)

- Full depth utilizing a stabilizer of lime, cement, emulsion or other equally effective product
- HMAC surface overlay
- Assume replacement of driveways
- Assume a 22' wide pavement width
- Includes a 25% construction contingency
- \$160.00 / LF

Urban Reconstruction (Rehabilitation)

- Full depth utilizing a stabilizer of lime, cement, emulsion or other equally effective product
- HMAC surface overlay
- Assume replacement of existing curb and gutter
- Assume replacement of driveways
- Assume no storm drain improvements
- Assume a 30' wide pavement width
- Includes a 25% construction contingency
- \$250.00 / LF

Table 4 provides a summary of the above information:

Table 4: “Typical” Construction Costs (Performed by Contract) for a local (residential) street

Strategy	Estimated Construction Cost per mile * & **	Estimated Construction Cost per foot * & **
Typical 22’ Wide Rural Reclamation (D)***	\$300,000.00- \$350,000.00	\$60.00
Typical 30’ Wide Urban Reclamation (E)****	\$400,000.00- \$450,000.00	\$80.00
Typical 22’ Wide Rural Reconstruction (Rehabilitation) (F)*****	\$825,000.00- \$875,000.00	\$160.00
Typical 30’ Wide Urban Reconstruction (Rehabilitation) (G)*****	\$1,300,000.00- \$1,350,000.00	\$250.00

ASSUMPTIONS:

- * No Right-of-Way Acquisition necessary
- ** No Water or Wastewater Utility Replacement costs are included
- *** City forces to perform preparation work items
- **** Existing curb and gutter in acceptable condition and no additional storm drainage items. City forces to perform preparation work items
- ***** Recommend adding 10% to 15% based upon size of project for basic and special services (survey, design, bid phase, construction administration, resident project representation, construction staking, etc. as needed). City forces may perform some or all preparation work items

Table 5: Estimated Reclamation and Reconstruction Street Budget for local (residential) streets

Strategy	Estimated Length (mile) *	Estimated Construction Cost per mile	Estimated Cost
Rural Reclamation	20	\$325,000.00	\$6.5M
Urban Reclamation	10	\$425,000.00	\$4.25M
Rural Reconstruction (Rehabilitation)	7.5	\$850,000.00	\$6.375M
Urban Reconstruction (Rehabilitation)	10	\$1,325,000.00	\$13.25M
TOTAL	47.5**		\$30.375 M

ASSUMPTIONS:

- * Lengths assumed with each strategy are estimated at this time
- ** From Community Visions 2034: Chapter 16: page 16-10: Category 4, Category 5 & Category 6 total

A continuing annual program budget of \$3 million per year (for 10 years) would be necessary to implement a program similar to what has been discussed. This cost does not include any cost for Annual (Routine) Maintenance or Preventative Maintenance strategies for the remaining 32.8 miles of City streets that were judged to be in very good, good and fair condition as of Oct. 2013.

Equipment

Should the City decide that they desire internal City forces to perform portions of the rural full depth reclamation strategy work, it is understood that the City would be required to rent or purchase additional equipment. All associated equipment costs should be included as part of the overall evaluation of future project costs.

Summary

It will continue to be a major challenge for the City's long-term plan to balance the needs between preservation and system management in order to continue to service the community well. The City's Street Program should employ a strategy that prioritizes maintenance activities for streets that are already in a fair condition or better. While it may be tempting to follow a "worst-first" plan in which those roads having the lowest structural condition receiving attention first, regardless of their location or usage, that strategy is generally not cost effective long-term. That type of strategy allows for failed streets to be treated and reconstructed, but the at-risk streets deteriorate into a failed condition, resulting in more backlog of failed roads, not less.

Table 6 provides a simple, but straightforward recommended general plan for the City to utilize moving forward:

Table 6: General Plan

1.	City identify and City forces perform Annual (Routine) Maintenance activities A - Crack and Joint Maintenance B - Drainage Improvements, Tree Removal, Pothole Patching, Etc.
2.	City identify and City forces perform Preventative Maintenance activities C1 - Chip Seal C2 - Chip Seal (to include pavement repair / surface replacement / blade on mix at identified locations)
3.	City Identify (target 1-2 miles per year) of local (residential) streets for D Rural Reclamation to be performed
4.	City Identify (target 1 mile per year) of E, F & G of both local and collector streets for design and bid by construction contract

Street Programs of the scale of Robinson's are generally considered to be long-term plans and are implemented over multiple years (likely 10-15 years or longer).

The reality is the average condition of City streets are far below which is considered desirable and therefore, it will take many years and resources before all streets can be adequately addressed. The decision to utilize the various strategies previously discussed for prioritizing implementation could be directly related to the existing physical condition of each street and availability of resources. However, over time; a well formulated street program can be a viable program with the goal of improving the quality of the streets in a manner that will meet the expectations of the citizens and City's leaders.

APPENDIX A

DRAFT 3



COUNCIL AGENDA ITEM MEMORANDUM

Date Submitted: 11/10/2016

Meeting Date: 11/17/2016

Item #10

DEPT./DIVISION SUBMISSION & REVIEW:

Bert Echterling, Mayor

ITEM DESCRIPTION: Councilmember requests for items to be placed on future agendas.

ROGERS:

STIVENER:

LEUSCHNER:

ECHTERLING:

MASTERGEORGE:

JANICS:

TINDELL: