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## **MEETING NOTICE**

*The Platinum Roads Panel of the City of Woodcreek, Texas will conduct a meeting at City Hall, 41 Champions Circle, Woodcreek, TX. The meeting will be held on September 1, 2022 at 5:30 PM.*

*All attendees are encouraged to wear face coverings when a minimum of six-foot social distancing cannot be maintained. Smoking is not allowed anywhere on the property of City Hall.*

*The public may watch this meeting live at the following link:*

*<https://meetings.ipvideotalk.com/119590665>. The public may listen to this meeting by dialing one of the following numbers: 1(617) 315- 8088 or toll free at 1(866) 948-0772. When prompted enter Meeting ID:119590665.*

*A recording of the meeting will be made and will be available to the public in accordance with the Texas Public Information Act upon written request. This notice, as amended, is posted pursuant to the Texas Open Meetings Act (Vernon's Texas Codes Ann. Gov. Code Chapter 551).*

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## **AGENDA**

### **CALL TO ORDER AND ESTABLISH QUORUM**

### **ROLL CALL**

### **PUBLIC COMMENTS**

*Any citizen shall have a reasonable opportunity to be heard at any and all meetings of the Platinum Roads Panel in regard to: (1) any and all matters to be considered at any such meeting, or (2) any matter a citizen may wish to bring to the Panel's attention. No member of the Governing Body may discuss or comment on any citizen public comment, except to make: (1) a statement of specific factual information given in response to the inquiry, or (2) a recitation of existing policy in response to the inquiry. Any deliberation of or decision about the subject of the inquiry shall be limited to a proposal to place the subject on the agenda for a subsequent meeting per Texas Local Government code Sec. 551.042.*

*Citizen comments will be allowed at the beginning of every meeting, or alternatively, before an item on the agenda on which the citizen wishes to speak is to be considered. All citizens will be allowed to comment for three (3) minutes per person and shall be allowed more time at the Chairperson's discretion. In addition, citizens may pool their allotted speaking time. To pool time, a speaker must present the names of three (3) individuals present in the audience who wish to yield their three minutes. Citizens may present materials regarding any agenda item to the City Secretary at or before a meeting, citizens attending any meeting are requested to complete a form providing their name, address, and agenda item/concern, but are not required to do so before speaking and presenting it to the City Secretary prior to the beginning of such meeting. Comments may only be disallowed and/or limited as per Government Code § 551.007(e).*

*Submit written comments by email to [woodcreek@woodcreektx.gov](mailto:woodcreek@woodcreektx.gov) by noon on the day prior to the meeting. Please include your full name, home or work address, and agenda item number. Written comments will be part of the official written record only. A recording of the meeting will be made and will be available to the public in accordance with the Texas Public Information Act upon written request*

## REGULAR AGENDA

1. Presentation by Representatives of the City Engineering firm, K. Friese: Brandon Melland and Abe Salinas to include a review of K. Friese's Contractual Responsibilities with the City of Woodcreek and Their Role in Roads Projects Requiring Engineering Input
2. Discuss and Take Appropriate Action on the Panel's Role to Support the Bond Election Scheduled for November 8, 2022 Authorizing the City to Issue Bonds Not to Exceed \$3,495,000 for the Purpose of Making Permanent Public Improvements
3. Discuss and Take Appropriate Action on Next Steps for the Process to Schedule Repairs Covered from the Transfer of \$227,000 in Reserve Funds for the 2022-23 Fiscal Year
4. Discuss and Take Appropriate Action on the Panel's Task to Create a Master Transportation Plan for the City

## ADJOURN

*The Platinum Roads Panel may retire to executive session any time between the meeting's opening and adjournment for the purpose of consultation with legal counsel pursuant to Chapter 551.071 of the Texas Government Code; discussion of personnel matters pursuant to Chapter 551.074 of the Texas Government Code; deliberation regarding real property pursuant to Chapter 551.072 of the Texas Government Code; deliberation regarding economic development negotiations pursuant to Chapter 551.087 of the Texas Government Code; and/or deliberation regarding the deployment, or specific occasions for implementation of security personnel or devices pursuant to Chapter 551.076 of the Texas Government Code. Action, if any, will be taken in open session.*

*This agenda has been reviewed and approved by the City's legal counsel and the presence of any subject in any Executive Session portion of the agenda constitutes a written interpretation of Texas Government Code Chapter 551 by legal counsel for the governmental body and constitutes an opinion by the attorney that the items discussed therein may be legally discussed in the closed portion of the meeting considering available opinions of a court of record and opinions of the Texas Attorney General known to the attorney. This provision has been added to this agenda with the intent to meet all elements necessary to satisfy Texas Government Code Chapter 551.144(c) and the meeting is conducted by all participants in reliance on this opinion.*

### **Attendance by Other Elected or Appointed Officials:**

*It is anticipated that members of other city board, commissions and/or committees may attend the meeting in numbers that may constitute a quorum of the other city boards, commissions and/or committees. Notice is hereby given that the meeting, to the extent required by law, is also noticed as a meeting of the other boards, commissions and/or committees of the City, whose members may be in attendance. The members of the boards, commissions and/or committees may participate in discussions on the same items listed on the agenda, which occur at the meeting, but no action will be taken by such in attendance unless such item and action is specifically provided for on an agenda for that board, commission or committee subject to the Texas Open Meetings Act.*

*The City of Woodcreek is committed to compliance with the Americans with Disabilities Act. Reasonable modifications and equal access to communications will be provided upon request. Please call the City Secretary's Office at 512-847-9390 for information. Hearing-impaired or speech disabled persons equipped with telecommunications devices for the deaf may call 7-1-1 or may utilize the statewide Relay Texas program at 1-800-735-2988.*

*Pursuant to Section 30.07, Penal Code (trespass by license holder with an openly carried handgun), a person licensed under Subchapter H, Chapter 411, Government Code (handgun licensing law), may not enter this property with a handgun that is carried openly.*

I certify that the above notice was posted on the 23rd day of August, 2022 at 12:46PM.

By:   
**Suzanne J. MacKenzie, City Secretary**

**ORDINANCE NO. 22-314**

**AN ORDINANCE CALLING A BOND ELECTION TO BE HELD WITHIN THE CITY OF WOODCREEK, TEXAS; MAKING PROVISIONS FOR THE CONDUCT AND THE GIVING OF NOTICE OF THE ELECTION; AND CONTAINING OTHER PROVISIONS RELATED THERETO**

STATE OF TEXAS                   §  
COUNTY OF HAYS               §  
CITY OF WOODCREEK           §

WHEREAS, the City Council (the “City Council”) of the City of Woodcreek, Texas (the “City”) is authorized and has determined to call an election to submit a proposition to voters in the City to determine whether the City Council shall be authorized to issue bonds of the City in the amount and for the purpose hereinafter set forth; and

WHEREAS, the City will enter into one or more Election Agreements (collectively, the “Election Agreement”) with Hays County, Texas (the “County”), by and through the county election officer (the “Administrator”), and possibly other political subdivisions, in accordance with the laws of the State of Texas (the “State”) and applicable federal law; and

WHEREAS, the City Council finds and declares that the meeting at which this Ordinance is considered is open to the public, and that the public notice of the time, place and purpose of the meeting was given, as required by Chapter 551, Texas Government Code, as amended;

**NOW THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF WOODCREEK, TEXAS:**

Section 1. Findings. The statements contained in the preamble of this Ordinance are true and correct and are hereby adopted as findings of fact and as a part of the operative provisions hereof.

Section 2. Election Ordered; Date; Proposition. An election (the “Election”) shall be held for and within the City on Tuesday, November 8, 2022 (“Election Day”), in accordance with the Texas Election Code (the “Code”) and other applicable law. At the Election, the following proposition (the “Proposition”) shall be submitted to the qualified voters of the City in accordance with law:

**CITY OF WOODCREEK, TEXAS - PROPOSITION A**

Shall the City Council of the City of Woodcreek, Texas (the “City”) be authorized to issue bonds, in one or more series, in a principal amount not to exceed \$[3,495,000] maturing serially or otherwise over a period of years (not to exceed the lesser of 40 years or the maximum prescribed by law) and bearing interest at such rate or rates (fixed, floating, variable or otherwise), not to exceed the respective limits prescribed by law at the time of issuance, as shall be determined within the discretion of the City Council at the time of issuance, and to levy, impose and pledge a tax upon all taxable property in the City sufficient to pay the interest

on the bonds, and to provide a sinking fund for the payment of the bonds as they mature, for the purpose of making permanent public improvements, to wit: constructing, acquiring, improving, renovating, expanding, developing and equipping street improvements in the City, and all matters incident or necessary thereto?

Section 3. Official Ballot. The official ballot for the Election shall be prepared in accordance with and conform to the requirements of the Code so as to permit the electors to vote “FOR” or “AGAINST” the aforesaid Proposition which shall be set forth on the ballot substantially in the following forms:

**CITY OF WOODCREEK, TEXAS - PROPOSITION A**

- FOR ) The issuance of bonds in the amount of \$[3,495,000] and the
- ) imposition of taxes sufficient to pay the principal of and
- ) interest on the bonds for street improvements, and all
- AGAINST ) matters incident or necessary thereto.

Section 4. Persons Qualified to Vote. All resident, qualified electors of the City shall be eligible to vote at the Election.

Section 5. Election Precincts, Voting Locations and Voting Hours on Election Day. Except as otherwise provided herein, the boundaries and territories of the County election precincts that are wholly or partially within the territorial boundaries of the City are hereby designated as the voting precincts of the City for the Election and the precinct numbers for the City’s election precincts shall be the corresponding County precinct number of each precinct. The Election Day polling places shall be as shown in Exhibit A to this Ordinance. Exhibit A shall be modified to reflect any alterations or changes in or additions to polling places required to conform to the Code or the Election Agreement or as directed by the Administrator. On Election Day the polls shall be open from 7:00 a.m. to 7:00 p.m.

Section 6. Early Voting Locations, Dates and Times. Early voting by personal appearance for all election precincts shall be held at the locations, at the times and on the days set forth in Exhibit B, or at such other locations as hereafter may be designated by the Administrator. Exhibit B shall be modified to reflect any alterations or changes in or additions to early voting polling places or times for early voting required to conform to the Code or the Election Agreement or as directed by the Administrator.

The Administrator is hereby designated as the Early Voting Clerk. The Administrator’s contact information/delivery addresses for applications for ballots to be voted by mail and other matters related to the Election is as follows:

Jennifer Doinoff  
Official Mailing Address/Physical Address:  
Hays County Elections  
712 South Stagecoach Trail, Suite 1012  
San Marcos, Texas 78666-6294

E-mail Address: elections@co.hays.tx.us (general)  
Phone Number: (512) 393-7310  
Website Address: https://hayscountytexas.com/departments/elections/

Section 7. Appointment of Election Officers. Prior to the Election Day, the election judges, alternate judges, clerks and other personnel necessary for conducting the Election will be appointed by the Administrator, and the election judges and alternate judges may be changed, and the polling places may be combined for some precincts, pursuant to decisions of the Administrator. The Administrator shall also be responsible for establishing the central counting station for the ballots cast in such election and appointing the personnel necessary for such station. The City Council hereby authorizes each of the Mayor, City Administrator, City Manager, City Secretary and/or any of their designees (collectively, the “Authorized Representatives”) to appoint any such other officials not designated herein or appointed by the Administrator as are necessary and appropriate to conduct the Election in accordance with the Code.

Section 8. Notice of Election; Voter Information Document. Notice of the Election shall be given in the manner required by the Code and other applicable law. A voter information document for the Proposition in the form attached hereto as **Exhibit C** is hereby approved, together with such revisions as may be approved by the Authorized Representatives, and shall be posted in accordance with law. To the extent required by law, the notice of the Election shall include the City’s internet website address, which is woodcreektx.gov.

Section 9. Bilingual Election Materials. All notices, instructions, and ballots pertaining to the Election shall be furnished to voters in both English and Spanish and persons capable of acting as translators in both English and Spanish shall be made available to assist Spanish language speaking voters in understanding and participating in the election process.

Section 10. Conduct of Election. The Election shall be conducted by election officers, including the precinct judges and alternate judges or clerks appointed by the Administrator or the Authorized Representatives, in accordance with the Election Agreements, the Code and the Constitution and laws of the State and the United States of America. The Authorized Representatives are authorized to enter into, execute and deliver one or more Election Agreements, in accordance with applicable provisions of the Code. The terms and provisions of each Election Agreement are hereby incorporated into this Ordinance. To the extent of any conflict between this Ordinance and an Election Agreement, the terms and provisions of the Election Agreement shall prevail, and the Authorized Representatives are authorized to make such corrections, changes, revisions and modifications to this Ordinance, including the exhibits hereto, as are deemed necessary or appropriate to conform to the Election Agreement, to comply with applicable State and federal law and to carry out the intent of the City Council, as evidenced by this Ordinance. The Administrator shall be responsible for establishing the central counting station for the ballots cast in the Election and appointing the personnel necessary for such station.

Section 11. Necessary Actions. The Mayor and City Council of the City, in consultation with the City’s attorney and bond counsel are hereby authorized and directed to take any and all actions necessary to comply with the provisions of the Code and the Federal Voting Rights Act in carrying out and conducting the Election, whether or not expressly authorized herein.

Section 12. Mandatory Disclosure of Information.

(a) Pursuant to Section 3.009, Texas Election Code: (i) the proposition language that will appear on the ballot is set forth in Section 3 of this Ordinance, (ii) the purposes for which the bonds are to be authorized are set forth in Section 2 of this Ordinance, (iii) the principal amount of bonds to be authorized is set forth in Section 2 of this Ordinance, (iv) if the issuance of bonds is authorized by voters, taxes sufficient, within the limits prescribed by law, to pay the principal of and interest on the bonds may be imposed, as set forth in Section 2 of this Ordinance, (v) bonds authorized pursuant to this Ordinance may be issued to mature over a specified number of years not to exceed the lesser of 40 years or the maximum number of years authorized by law and bearing interest at the rate or rates (not to exceed 15%), as authorized by law and determined by the City Council, (vi) as of the date of the adoption of this Ordinance, the aggregate amount of outstanding principal of the City’s debt obligations is \$436,838, and the aggregate amount of outstanding interest on the City’s debt obligations is \$11,587 and (vii) the City’s ad valorem debt service tax rate as of the date of adoption of this Ordinance is \$0.0780 per \$100 of taxable property.

(b) Based upon market conditions as of the date of this Ordinance, the maximum interest rate for any series of the bonds is estimated to be 4.50%. Such estimated maximum interest rate is provided as a matter of information but is not a limitation on the interest rate at which the bonds, or any series thereof, may be sold. In addition, the estimate contained in this subsection (b) is (i) based on certain assumptions (including assumptions concerning prevailing market and economic conditions at the time(s) of issuance of the bonds) and derived from projections obtained from the City’s financial advisor, (ii) subject to change to the extent that actual facts, circumstances and conditions prevailing at the time that the bonds are issued differ from such assumptions and projections, (iii) provided solely in satisfaction of the requirements of Section 3.009, Texas Election Code, and for no other purpose, without any assurance that such projections will be realized, and (iv) not intended to give rise to a contract with voters or limit the authority of the City Council to issue bonds in accordance with the Proposition submitted by this Ordinance.

Section 13. Severability. If for any reason any section, paragraph, subdivision, clause, phrase, word, or provision of this Ordinance shall be held invalid or unconstitutional by final judgment of a court of competent jurisdiction, it shall not affect any other section, paragraph, subdivision, clause, phrase, word, or provision of this Ordinance, for it is the definite intent of the City Council that every section, paragraph, subdivision, clause, phrase, work, or provision hereof be given full force and effect for its purpose.

Section 14. Effective Date. Pursuant to the provisions of Section 1201.028, Texas Government Code, this Ordinance shall be effective immediately upon adoption.

*[Signature page follows.]*

PASSED AND APPROVED this August 17, 2022.

\_\_\_\_\_  
Jeff Rasco, Mayor  
City of Woodcreek, Texas

ATTEST:

\_\_\_\_\_  
Suzanne J. Mac Kenzie, City Secretary  
City of Woodcreek, Texas

(SEAL)



**EXHIBIT A**

**ELECTION DAY POLLING LOCATIONS  
(Between the hours of 7:00 a.m. and 7:00 p.m.)**

*[Polling location information shall be incorporated upon its approval by  
the Hays County Commissioners Court]*

**EXHIBIT B**

**EARLY VOTING POLLING LOCATIONS AND TIMES**

*[Polling location information shall be incorporated upon its approval by  
the Hays County Commissioners Court]*

**EXHIBIT C**

**VOTER INFORMATION DOCUMENT**

**CITY OF WOODCREEK, TEXAS - PROPOSITION A**

- [ ] FOR ) The issuance of bonds in the amount of \$[3,495,000] and the  
 ) imposition of taxes sufficient to pay the principal of and  
 ) interest on the bonds for street improvements, and all  
 [ ] AGAINST ) matters incident or necessary thereto.

1. Principal of the debt obligations to be authorized	<b>\$[3,495,000]</b>
2. Estimated interest for the debt obligations to be authorized	\$[_____]
3. Estimated combined principal and interest required to pay on time and in full the debt obligations to be authorized	\$[_____]
4. Principal of all outstanding debt obligations of the City*	\$[_____]
5. Estimated remaining interest on all outstanding debt obligations of the City*	\$[_____]
6. Estimated combined principal and interest required to pay on time and in full all outstanding debt obligations of the City*	\$[_____]
7. Estimated maximum annual increase in the amount of taxes that would be imposed on a residence homestead in the City with an appraised value of \$100,000 to repay the debt obligations to be authorized, if approved, based upon assumptions made by the governing body of the City	\$[_____]
8. Other information that the City considers relevant or necessary to explain the foregoing information	<b>See major assumptions listed below.</b>

\* As of the date of adoption of the City’s Bond Election Ordinance.

**Major assumptions for statements above, including statement 7:**

(1) Assumed amortization of the City’s debt obligations, including outstanding debt obligations and the proposed debt obligations:

<b>Term</b>	<b>Principal</b>	<b>Interest</b>	<b>Total Proposed Debt Service</b>	<b>Total Debt Service + Existing Debt</b>
[_] Years	\$[_____]	\$[_____]	\$[_____]	\$[_____]

(2) Assumed changes in estimated future appraised values within the City: [\_\_\_\_\_].

(3) Assumed interest rate on the debt obligations to be issued: [\_\_\_\_\_] %.

(4) Assumes that the City will [not] grant any optional homestead or other property tax exemptions.

(5) Assumes homestead will not qualify for idiosyncratic exemptions, including, but not limited to, the state-mandated homestead exemption for disabled veterans and their families, surviving spouses of members of the armed services killed in action and surviving spouses of first responders killed or fatally wounded in the line of duty.

(6) Assumes that applicable law will not change to provide for mandatory property tax exemptions or property tax freezes that are not available under current law.

(7) Assumes municipal bond insurance will not be obtained for the proposed debt obligations.

(8) As required by Section 1251.052, Texas Government Code, this Voter Information Document has been prepared for the proposition set forth in this Voter Information Document (the “Proposition”), which is being submitted to voters pursuant to an Ordinance Calling a Bond Election to be Held Within the City of Woodcreek, Texas; Making Provisions for the Conduct and the Giving of Notice of the Election; and Containing Other Provisions Related Thereto (the “Bond Election Ordinance”).

The estimates contained in this Voter Information Document are (i) based on certain assumptions (including the major assumptions listed above and assumptions concerning prevailing market and economic conditions at the time(s) of issuance of the bonds) and derived from projections obtained from the City’s financial advisor, (ii) subject to change to the extent that actual facts, circumstances and conditions prevailing at the time that the bonds are issued differ from such assumptions and projections, (iii) provided solely in satisfaction of the requirements of Section 1251.052, Texas Government Code, and for no other purpose, without any assurance that such projections will be realized, and (iv) not intended to (and expressly do not) give rise to a contract with voters or limit the authority of the City to issue bonds in accordance with the Proposition submitted by the City’s Bond Election Ordinance.

**City of Woodcreek, Texas**

**General Obligation Refunding & Improvement Bonds  
(2 Cent Increase - Project Fund = \$4,000,000)**

Funding of Streets Projects and Restructuring of Existing Debt

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>I</u>
Fiscal Year Ending 30-Sep	Tax Base Growth Factor	Taxable Assessed Valuation <sup>(1)</sup>	I&S Tax Supported D/S	Less: Refinanced Tax Note Series 2017 D/S	GO Refunding & Improvement Bonds, Series 2023 <sup>(2)</sup>	Less: Debt Service Funds on Hand	NET Projected I&S Tax Supported D/S	Projected Debt Service Tax Rate <sup>(3)</sup>
2022		\$ 262,935,463	\$ 216,195	\$ -	\$ -	\$ -	\$ 216,195	\$ 0.0780
2023	21.24%	318,770,728	224,793	1,982	-	-	222,811	0.0687
2024	0.00%	318,770,728	219,820	219,820	326,444	-	326,444	0.1034
2025	0.00%	318,770,728	-	-	328,119	-	328,119	0.1040
2026	0.00%	318,770,728	-	-	328,428	-	328,428	0.1041
2027	0.00%	318,770,728	-	-	323,540	-	323,540	0.1025
2028	0.00%	318,770,728	-	-	323,406	-	323,406	0.1025
2029	0.00%	318,770,728	-	-	327,778	-	327,778	0.1039
2030	0.00%	318,770,728	-	-	326,730	-	326,730	0.1035
2031	0.00%	318,770,728	-	-	325,425	-	325,425	0.1031
2032	0.00%	318,770,728	-	-	323,708	-	323,708	0.1026
2033	0.00%	318,770,728	-	-	326,428	-	326,428	0.1034
2034	0.00%	318,770,728	-	-	323,563	-	323,563	0.1025
2035	0.00%	318,770,728	-	-	325,090	-	325,090	0.1030
2036	0.00%	318,770,728	-	-	326,003	-	326,003	0.1033
2037	0.00%	318,770,728	-	-	326,219	-	326,219	0.1034
2038	0.00%	318,770,728	-	-	325,653	-	325,653	0.1032
2039	0.00%	318,770,728	-	-	324,473	-	324,473	0.1028
2040	0.00%	318,770,728	-	-	327,475	-	327,475	0.1038
2041	0.00%	318,770,728	-	-	324,650	-	324,650	0.1029
2042	0.00%	318,770,728	-	-	326,263	-	326,263	0.1034
2043	0.00%	318,770,728	-	-	327,200	-	327,200	0.1037
			\$ 660,808	\$ 221,802	\$ 6,516,590	\$ -	\$ 6,955,596	

Assumptions:

- (1) Source: Hays County Appraisal District. Actual for Fiscal Year 2022 & 2023.
- (2) Assumes investment grade interest rates as of 8/10/2022 + 0.50%.  
True Interest Cost calculated at 4.37%. Subject to Change.
- (3) Actual Tax Rate Fiscal Year 2022. Calculated thereafter.  
Assumes 97.8% collections.

USES OF FUNDS

Project Fund Deposit	\$ 4,000,000
Tax Notes, 2017 Payoff	218,168
Budgeted Financing Costs	166,832
<b>Total Par Amount</b>	<b>\$ 4,385,000</b>

**City of Woodcreek, Texas**

**General Obligation Refunding & Improvement Bonds  
(2 Cent Increase - Debt Capacity)**

Funding of Streets Projects and Restructuring of Existing Debt

<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>G</u>	<u>H</u>	<u>I</u>
Fiscal Year Ending 30-Sep	Tax Base Growth Factor	Taxable Assessed Valuation <sup>(1)</sup>	I&S Tax Supported D/S	Less: Refinanced Tax Note Series 2017 D/S	GO Refunding & Improvement Bonds, Series 2023 <sup>(2)</sup>	Less: Debt Service Funds on Hand	NET Projected I&S Tax Supported D/S	Projected Debt Service Tax Rate <sup>(3)</sup>
2022		\$ 262,935,463	\$ 216,195	\$ -	\$ -	\$ -	\$ 216,195	\$ 0.0780
2023	21.24%	318,770,728	224,793	1,982	-	-	222,811	0.0687
2024	0.00%	318,770,728	219,820	219,820	275,896	-	275,896	0.0885
2025	0.00%	318,770,728	-	-	278,623	-	278,623	0.0894
2026	0.00%	318,770,728	-	-	279,631	-	279,631	0.0897
2027	0.00%	318,770,728	-	-	275,463	-	275,463	0.0884
2028	0.00%	318,770,728	-	-	276,073	-	276,073	0.0886
2029	0.00%	318,770,728	-	-	276,305	-	276,305	0.0886
2030	0.00%	318,770,728	-	-	276,225	-	276,225	0.0886
2031	0.00%	318,770,728	-	-	275,903	-	275,903	0.0885
2032	0.00%	318,770,728	-	-	275,205	-	275,205	0.0883
2033	0.00%	318,770,728	-	-	278,990	-	278,990	0.0895
2034	0.00%	318,770,728	-	-	277,235	-	277,235	0.0889
2035	0.00%	318,770,728	-	-	275,015	-	275,015	0.0882
2036	0.00%	318,770,728	-	-	277,310	-	277,310	0.0890
2037	0.00%	318,770,728	-	-	278,953	-	278,953	0.0895
2038	0.00%	318,770,728	-	-	274,973	-	274,973	0.0882
2039	0.00%	318,770,728	-	-	275,513	-	275,513	0.0884
2040	0.00%	318,770,728	-	-	275,388	-	275,388	0.0883
2041	0.00%	318,770,728	-	-	279,475	-	279,475	0.0896
2042	0.00%	318,770,728	-	-	278,000	-	278,000	0.0892
2043	0.00%	318,770,728	-	-	276,075	-	276,075	0.0886
			\$ 660,808	\$ 221,802	\$ 5,536,248	\$ -	\$ 5,975,254	

Assumptions:

- (1) Source: Hays County Appraisal District. Actual for Fiscal Year 2022 & 2023.
- (2) Assumes investment grade interest rates as of 8/10/2022 + 0.50%.  
True Interest Cost calculated at 4.23%. Subject to Change.
- (3) Actual Tax Rate Fiscal Year 2022. Calculated thereafter.  
Assumes 97.8% collections.

USES OF FUNDS

Project Fund Deposit	\$ 3,348,750
Tax Notes, 2017 Payoff	218,168
Budgeted Financing Costs	158,082
<b>Total Par Amount</b>	<b>\$ 3,725,000</b>

## IMPACT OF BONDS on WOODCREEK

Home Values	2023 Debt Service Current Rate 0.0687	M&O voted by Council .1152	Total Expected Taxes due 2022-2023 (.1839)	2 cent Increase to debt service to .0885	Total Taxes due with a 2 cent increase Bond (.2037)	Total Taxes due for a 4 mill Bond Total (.1034 to debt service)	What you paid in 2021-2022 (.2071 rate)
250,000	171.75	288	459.75	221.25	509.25	546.5	517.75
350,000	240.45	403.2	643.65	309.75	712.95	765.1	724.85
450,000	309.15	518.4	827.55	398.25	916.65	983.7	931.95
550,000	377.85	633.6	1011.45	486.75	1120.35	1202.3	1139.05
650,000	446.55	748.8	1195.35	575.25	1324.05	1420.9	1346.15
750,000	515.25	864	1379.25	663.75	1527.75	1639.5	1553.25

## MEETING NOTICE

The City Council of the City of Woodcreek, Texas will conduct a meeting at City Hall, 41 Champions Circle, Woodcreek, TX. The meeting will be held on August 10, 2022 at 6:30 PM.

All attendees are encouraged to wear face coverings when a minimum of six-foot social distancing cannot be maintained. Smoking is not allowed anywhere on the property of City Hall.

The public may watch this meeting live at the following link:

<https://meetings.ipvideotalk.com/139981754>. The public may listen to this meeting by dialing one of the following numbers: 1(617) 315- 8088 or toll free at 1(866) 948-0772. When prompted enter Meeting ID:139981754.

A recording of the meeting will be made and will be available to the public in accordance with the Texas Public Information Act upon written request. This notice, as amended, is posted pursuant to the Texas Open Meetings Act (Vernon's Texas Codes Ann. Gov. Code Chapter 551).

## AGENDA

### CALL TO ORDER

### MOMENT OF SILENCE

### PLEDGES

### ROLL CALL AND ESTABLISH QUORUM

### PUBLIC COMMENTS

Any citizen shall have a reasonable opportunity to be heard at any and all meetings of the City Council in regard to: (1) any and all matters to be considered at any such meeting, or (2) any matter a citizen may wish to bring to the Council's attention. No member of the Governing Body may discuss or comment on any citizen public comment, except to make: (1) a statement of specific factual information given in response to the inquiry, or (2) a recitation of existing policy in response to the inquiry. Any deliberation of or decision about the subject of the inquiry shall be limited to a proposal to place the subject on the agenda for a subsequent meeting per Texas Local Government code Sec. 551.042.

Citizen comments will be allowed at the beginning of every meeting, or alternatively, before an item on the agenda on which the citizen wishes to speak is to be considered. All citizens will be allowed to comment for three (3) minutes per person and shall be allowed more time at the Mayor's discretion. In addition, citizens may pool their allotted speaking time. To pool time, a speaker must present the names of three (3) individuals present in the audience who wish to yield their three minutes. Citizens may present materials regarding any agenda item to the City Secretary at or before a meeting, citizens attending any meeting are requested to complete a form providing their name, address, and agenda item/concern, but are not required to do so before speaking and presenting it to the City Secretary prior to the beginning of such meeting. Comments may only be disallowed and/or limited as per Government Code § 551.007(e).

Submit written comments by email to [woodcreek@woodcreektx.gov](mailto:woodcreek@woodcreektx.gov) by noon on the day prior to the meeting. Please include your full name, home or work address, and agenda item number. Written comments will be part of the official written record only. A recording of the meeting will be made and will be available to the public in accordance with the Texas Public Information Act upon written request.



## REGULAR AGENDA

1. Presentation by Robin Gary, Managing Director of the Wimberley Valley Watershed Association on Drought Overview and Conservation Efforts (Grummert)
2. Discussion and Possible Action Regarding Current Drought Conditions, Water Usage and HTGCD Restrictions (Pulley)
3. Budget Workshop - Presentation, Review, and Discussion on Third Draft of Proposed Budget for Fiscal Year 2022-2023
4. Discussion of the No-New-Revenue Tax Rate and Voter-Approval Tax Rate and the Impact on Taxpayers
5. Discussion and Take Appropriate Action on Setting the Proposed Tax Rate for 2022
6. Discuss and Take Appropriate Action on the Recommendations from the Platinum Roads Panel on Projects to be covered by the American Rescue Act of 2021 (ARA) Funds Received for the Management and Treatment of Stormwater or Subsurface Drainage Water. This item is a follow up to Agenda Item # 3, City Council Meeting of May 25, 2022 (LeBrun)
7. Discuss and Take Appropriate Action on the Report and Recommendations from the Platinum Roads Panel for Priority Street Repairs, Including: Streets to be Addressed, Recommended Repair Treatment, Cost Estimates, and Suggested Financing Methodology for These Repairs (LeBrun)
8. Discuss and Take Appropriate Action on the Fund Balance Policy (Hines)
9. Discuss and Take Appropriate Action on an Ordinance Amending the City of Woodcreek, Texas, Code of Ordinances at Title III ("Administration"), Chapter 30 ("Officials, Employees, and Organizations") to Establish a Tree Board (Hines)
10. Discuss and Take Appropriate Action on a Proposed Ordinance Amending the Code of Ordinances at Title XV ("Land Usage"), Chapter 156 ("Zoning") to Allow Building Across Adjacent Lot Lines with Unified Ownership (Hines)
11. Discuss and Take Appropriate Action on the Proposed Ordinance to Replace Title IX ("General Regulations"), Chapter 91 ("Trees") (Hines)
12. Discuss and Take Appropriate Action on the City of Woodcreek Authorization to Issue Requests for Proposals for Administrative Services (RFP) and Requests for Qualifications (RFQ) for the Texas Community Development Block Grant Administered by the Texas Department of Agriculture (Grummert)
13. Discuss and Take Appropriate Action on an Authorization to Issue Requests for Proposals (RFP) for Application Preparation and Administrative Services and Requests for Qualifications (RFQs) for Engineering Services Related to the Hazard Mitigation Assistance (HMA) Grant Programs with Building Resilient Infrastructure & Communities (BRIC) (Grummert)
14. Discuss and Take Appropriate Action on Authorization to Issue Requests for Proposals (RFP) for Application Preparation and Administrative Services and Requests for Qualifications (RFQs) for Engineering Services Related to the American Rescue Plan Act (ARPA) Grant Programs (Grummert)

## ADJOURN

*The City Council may retire to executive session any time between the meeting's opening and adjournment for the purpose of consultation with legal counsel pursuant to Chapter 551.071 of the Texas Government Code; discussion of personnel matters pursuant to Chapter 551.074 of the Texas Government Code; deliberation regarding real property pursuant to Chapter 551.072 of the Texas Government Code; deliberation regarding economic development negotiations pursuant to Chapter 551.087 of the Texas Government Code; and/or deliberation regarding the deployment, or specific occasions for implementation of security personnel or devices pursuant to Chapter 551.076 of the Texas Government Code. Action, if any, will be taken in open session.*

This agenda has been reviewed and approved by the City's legal counsel and the presence of any subject in any Executive Session portion of the agenda constitutes a written interpretation of Texas Government Code Chapter 551 by legal counsel for the governmental body and constitutes an opinion by the attorney that the items discussed therein may be legally discussed in the closed portion of the meeting considering available opinions of a court of record and opinions of the Texas Attorney General known to the attorney. This provision has been added to this agenda with the intent to meet all elements necessary to satisfy Texas Government Code Chapter 551.144(c) and the meeting is conducted by all participants in reliance on this opinion.

**Attendance by Other Elected or Appointed Officials:**

It is anticipated that members of other city board, commissions and/or committees may attend the meeting in numbers that may constitute a quorum of the other city boards, commissions and/or committees. Notice is hereby given that the meeting, to the extent required by law, is also noticed as a meeting of the other boards, commissions and/or committees of the City, whose members may be in attendance. The members of the boards, commissions and/or committees may participate in discussions on the same items listed on the agenda, which occur at the meeting, but no action will be taken by such in attendance unless such item and action is specifically provided for on an agenda for that board, commission or committee subject to the Texas Open Meetings Act.

The City of Woodcreek is committed to compliance with the Americans with Disabilities Act. Reasonable modifications and equal access to communications will be provided upon request. Please call the City Secretary's Office at 512-847-9390 for information. Hearing-impaired or speech disabled persons equipped with telecommunications devices for the deaf may call 7-1-1 or may utilize the statewide Relay Texas program at 1-800-735-2988.

Pursuant to Section 30.07, Penal Code (trespass by license holder with an openly carried handgun), a person licensed under Subchapter H, Chapter 411, Government Code (handgun licensing law), may not enter this property with a handgun that is carried openly.

I certify that the above notice was posted on the 5th day of August, 2022 at 4:13PM.

By: Suzanne J. MacKenzie

**Suzanne J. MacKenzie, City Secretary**

LIMITED ACCESS STREETS ESTIMATE OF LAST PAVING - Estimates

LIMITED ACCESS Item 3.

Street Name	Ext	Homes	length	width	2022	2021	20	19	18	17	16	15	14	13	2012	2011	2010	2009	2008	2006	2005	length	# Hor	Pave	# yrs
Augusta	Drive	112	6,100	18											3000			3,300							
Augusta	Lane	18	1,500	18											1,500										
Brookhollow	Drive	74	4,460	20		4,460																			
Brookmeadow	Drive	31	4,100	20															??						
Brookside	Drive	13	910	16																910					
Canyon	Circle	6	250	20																250	250	6	2006	16	
Canyon Creek	Drive	39	1,960	18														1,960							
Champions	Circle	92	8,200	20														4000	4100						
Champions	Court	4	248	20														248							
Country	Lane	19	1,200	18																		1,200	19	1998	24
Country	Court	3	200	20																		200	3	1998	24
Cypress	Point	59	1,700	18															??						
Deerfield	Drive	19	1,200	18																1,200					
Doolittle	Drive	31	2,800	18															2,800						
Elmbrook	Drive	8	400	18													400				400	8	2010	12	
Garrison	Trail	3	200	20																200	200	3	2006	16	
Jack Miller	Drive	0	620	18											620										
McGregor	Circle	5	250	15																	250	5	2008	14	
Overbrook	Court	12	770	18																	770	12	2004	18	
Palmer	Lane	34	1,750	18														1,750							
Par	Circle	5	290	16												290				290					
Par	View	20	1,200	16												1,200									
Pebblebrook	Lane	48	2,070	18																					
Shady Grove	Lane	22	1,260	18														1,260		1,260	1,260	22	2008	14	
Spalding	Circle	14	400	15																		400	14	1995	27
Stonehouse	Circle	22	800	18														800		800					
Tremont	Trace	11	600	16																600	600	11	2006	16	
Westwood	Drive	17	1,065	18											??										
Wildwood	Circle	16	880	18																	880	16	2008	14	
Wilson	Circle	8	1,060	18																	1,060	8	1995	27	
Woodridge	Circle	7	720	18																720	720	7	2008	14	
Woodcreek	Drive	78	5,000	20		5,000																			
Woodview	Court	8	340	18																	340	340	8	2008	14
		858	54,503		5,000	4,460									5,120	1,490	2,460	9,298	8,860	6,570		8,530	142		
			10.32																			Miles	1.6	10	av

Council Meeting Date: February 10, 2016

### AGENDA ITEM COVER SHEET

Subject/Title: Report and Action on the City's Transportation Improvement Plan (TIP)

Item Summary: This report is the product of several years of work involving the community, transportation committee, and the elected body. The purpose of the TIP was to create a plan to address the condition of the city's roads in a systematic and financially prudent manner.

Financial Impact/Financial Information:

- 2016 - \$25, 560 for Engineering and Design
- 2017 – 2017 - See report

Comments/Recommendation:

- It is staff's recommendation to have the City Council approve and accept the TIP.
- There is a companion item on the City Council agenda authorizing the expenditure of \$25,500 from the capital fund in order to conduct the design and engineering in 2016, for the subsequent road projects identified in the TIP for 2017.

Attachments

- City of Woodcreek Transportation Improvement Plan prepared by Engineer Dan Rogers and dated and stamped January 26, 2016

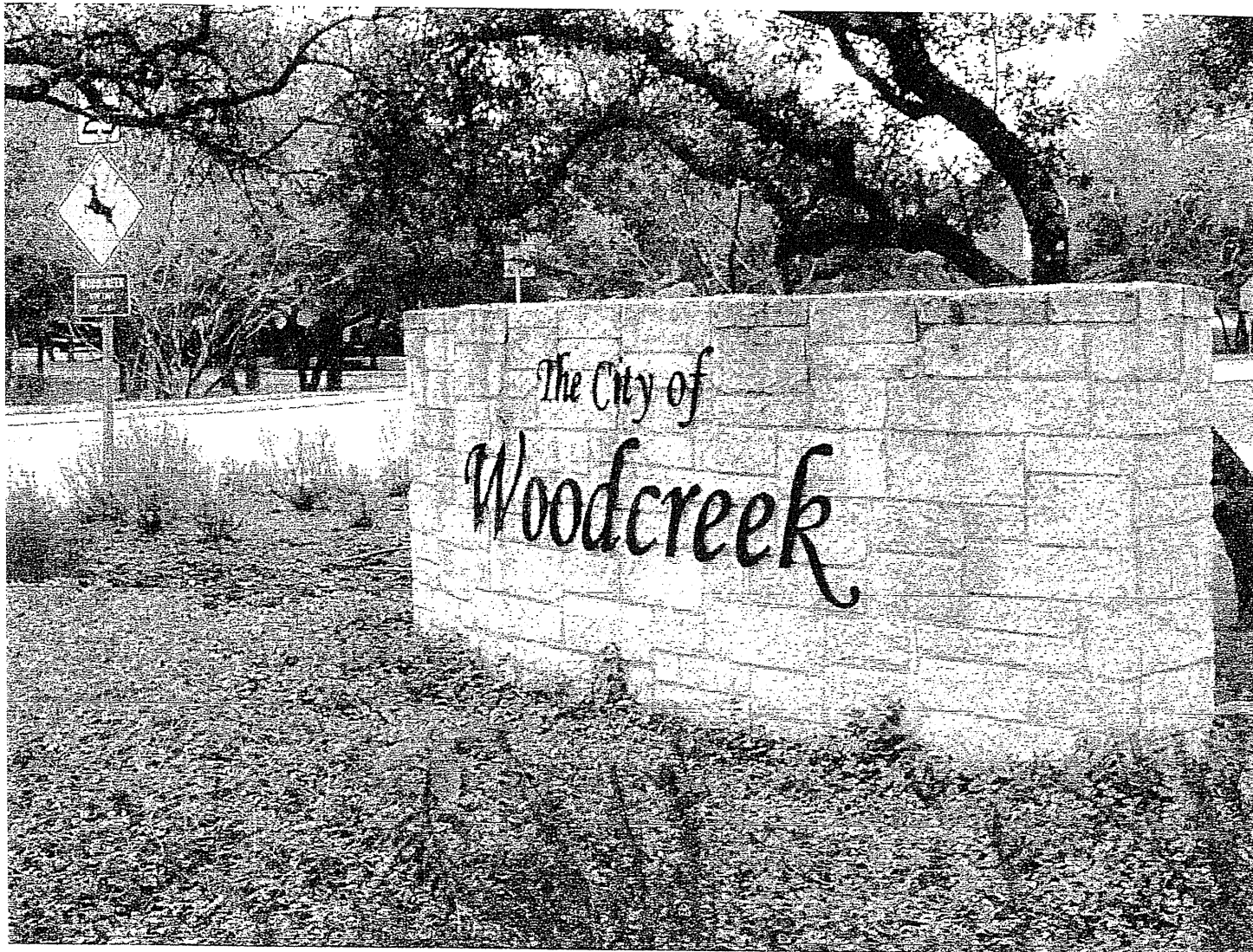
Submitted By:

Paul E. Brandenburg

City Manager



City of Woodcreek  
Transportation Improvement Plan



Prepared by:  
Dan Rogers  
January 26, 2016



*Daniel G. Rogers*

**Purpose:** The City of Woodcreek (City) has an extensive road network (network) that has been maintained at City expense. The network was constructed in conjunction with the Woodcreek Subdivision. As the network has aged, the maintenance expense has increased to the point that it consumes a substantial portion of the City budget. In order to proactively control future maintenance expenses, the City has contracted with Dan Rogers of Rogers Design Services to develop a long range Transportation Improvement Plan (TIP).

The City is aware that much of the maintenance effort to date is directly related to the modest pavement structure and drainage facilities provided by the Subdivision developer. By improving pavement structure and drainage facilities, network maintenance expenses can be reduced. The purpose of this TIP development effort is to determine what combination of maintenance and repair on the network will provide the better financial outlook for future City network maintenance expenditures. In addition, the study considered other network improvements that should be considered as part of this effort.

**Process:** Mr. Rogers collected data on all the roads in the network. Data was collected related to road condition, drainage features, and safety features. The data collection sheets are included in this document as an appendix. After collecting this data, Mr. Rogers reported the results of the findings to the Transportation Committee (the Committee) at a meeting on 12/1/14. Based on the discussion at this meeting, there were several recommendations that began to be implemented into the TIP. Mr. Rogers developed a preliminary plan for network improvements and shared it with the committee at the meeting on 1/12/15. Based on comments received at this meeting, Mr. Rogers updated the plan, and submitted it to the Committee on 2/9/15. The Committee agreed with the revisions and directed Mr. Rogers to develop a draft TIP including the preliminary plan for network improvements for review and discussion at the Committee meeting of 3/16/15. Based on comments at the meeting of 3/16/15, Mr. Rogers updated the TIP. After reviewing the TIP, the Committee transmitted the TIP to the City Council for review and approval.

**Findings:** Based on field data collected, the following findings and recommendations were developed:  
**Roadway Geometrics / Safety data:** Of the 33 roads in the network, 18 appear to have a potential fixed object in the clear zone; 8 appear to have sight distance deficiencies at intersections, and 7 appear to have stopping sight distance deficiencies. I recommend that the Committee and the City develop a set of design criteria based on the roadway functional classification. The committee has already developed a classification system for the network and developing criteria related to that designation is recommended. After developing these criteria, I recommend taking steps to resolve the deficiencies as feasible. Where fixed objects are currently located in the clear zone of a road, The City should consider developing policy of how to address that related to both the existing condition and related to proposed conditions. If the object is a tree, the City should determine if the object warrants removal, protection, or notification. The City should develop policies related to new and replacement mailbox structures that accommodate break-away features if they are in the clear zone of the roadway. Where intersection sight distances are restricted by vegetation that is in ROW, the vegetation should be cleared to allow proper sight distance. The City should consider developing policy to regulate the use of certain types of landscaping in locations where that landscaping might create a safety issue in the future. Where

stopping sight distance is deficient for the roadway, the City should determine what alternative resolutions are available including notification and other speed reduction strategies.

**Pavement Condition data:** There is a need for maintenance on many of the roads in the network; however the roads are in relatively good shape from a structural standpoint. Much of the maintenance relates to substandard drainage, and as drainage issues are resolved, maintenance costs will decrease from current levels. In addition, some maintenance costs are related to substandard pavement structure. As roadways are repaired, if there are substandard pavement structures, they should be improved.

The Committee has identified four roads as falling under the classification of collectors including Woodcreek Drive, Brookhollow Drive, Brookmeadow Drive, and Champions Circle. Sixteen roads were classified as local roads, and fifteen roads were classified as ultra low volume roads. A Roadway Classification Map is included as an appendix to this TIP.

It is the desire of the Committee that the collector roads (Woodcreek Drive, Brookhollow Drive, Brookmeadow Drive, and Champions Circle) be upgraded to a Hot Mix Asphaltic Concrete Pavement (HMACP) surface. As commonly implemented, this would be a 2" thick mat over the existing roadway. Previous studies have identified that the flexible base (flex base) used in Woodcreek Drive is 2.5" to 3" thick. This is much lower than usual. It would be common to have 6" of flex base on a roadway with this level of traffic. Accordingly, the TIP recommends reconstructing the existing roadway on Woodcreek to address this deficiency prior to installing HMACP. In addition, drainage of Woodcreek should also be considered and repaired as part of the construction effort. Since the cost of an HMACP overlay is high, it is prudent to determine the thickness of the other two roads that are candidates for the HMACP overlay. If the pavement structures are found to be deficient, that should be resolved as part of the construction of that road. The TIP has an allowance for additional testing, but does not provide for any additional reconstruction (other than Woodcreek). If the testing reveals that additional reconstruction is required, the TIP should be updated to reflect that.

The Committee indicated a preference to develop a TIP based on the following approach: There are three ways to approach improvements.

- A silver approach would provide for the minimum level of maintenance needed to maintain the network as-is. It would not include addressing any drainage or structural issues.
- A gold approach would provide for a silver level of maintenance, but would also include addressing structural and drainage deficiencies as part of the effort. Only those deficiencies that be expected to reduce long term maintenance costs will be implemented. Improvements will be measured with respect to providing the most "bang for the buck".
- A platinum approach will provide for a silver level of maintenance and would also address structural and drainage deficiencies. All deficiencies would be addressed regardless of benefit and cost implications. Improvements will not be measured with respect to cost and benefits, but will be implemented on a network wide basis.

Based on discussions with the Committee, it was determined that the gold approach was the best for the City. This approach would provide for an HMACP surface on the four collector level roadways, and a chip and seal surface on all other roadways. Improvements to the pavement structure on the collectors would be provided to protect the investment into the HMACP surface. In addition, drainage improvements would be implemented as part of the construction effort. The drainage improvements would be implemented on both collectors as part of the construction project and on the local roads as part of the maintenance efforts.



\$50,000 - 25,000

\$117,240 → contingency reserve

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Based on feedback from the Committee, the preference is for providing construction/reconstruction by a contractor every other year (even years starting in 2016). In the odd years, starting in 2017, the City would contract with Hays County to procure county-force based maintenance services. Additionally, in odd years funds are proposed to be set aside for development of construction and drainage plans for use in the successive years. The duration of the TIP was set to occur over a 12 year cycle. This approach will accomplish all the goals related to implementation of a gold plan in 12 years. The average annual cost of implementation is \$141K. The odd (maintenance) years have an average annual cost of \$93K, and the even years have an average annual cost of \$209K. It is projected that after this TIP is completed, the annual maintenance expense will be reduced to \$50K to \$60K per year with little to no additional construction needed. The summary of annual expense allocations is detailed in the following table:

**Table 1 – Proposed Annual Allocations and Expenses**

Allocation /Year	Maintenance	HMACP Overlay	Drainage	Safety	Construction Total	Engineering/ investigation	Contingency	Total Annual Expense
Allocation	100%	0%	0%	0%				
2016	\$11,000	\$0	\$0	\$0	\$11,000	\$25,500	\$0	\$36,500
Allocation	11%	75%	11%	2%				
2017	\$20,000	\$130,500	\$19,500	\$4000	\$174,000	\$10,000	\$18,000	\$202,000
Allocation	95%	0%	0%	5%				
2018	\$72,081			\$4000	\$76,081	\$26,440	\$9,852	\$112,373
Allocation	9%	79%	9%	2%				
2019	\$20,000	\$168,000	\$20,000	\$4000	\$212,000	\$10,000	\$21,800	\$243,800
Allocation	95%	0%	0%	5%				
2020	\$79,337			\$4000	\$83,337	\$26,600	\$10,594	\$120,530
Allocation	9%	82%	9%	0%				
2021	\$20,000	\$182,000	\$20,000		\$222,000	\$10,000	\$23,200	\$255,200
Allocation	100%	0%	0%	0%				
2022	\$76,752				\$76,752	\$25,000	\$10,175	\$111,927
Allocation	9%	82%	9%	0%				
2023	\$20,000	\$181,500	\$20,000		\$221,500	\$10,000	\$23,150	\$254,650
Allocation	100%	0%	0%	0%				

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2024	\$73,058				\$73,058	\$25,000	\$9,806	\$107,864
Allocation	12%	77%	12%	0%				
2025	\$20,000	\$132,000	\$20,000		\$172,000	\$10,000	\$18,200	\$200,200
Allocation	100%	0%	0%	0%				
2026	\$74,241		\$0		\$74,241	\$0	\$8,136	\$82,377
Allocation	84%		16%	0%				
2027	\$52,735		\$10,000		\$62,735	\$0	\$0	\$62,735

In table 1, the proposed annual expense and related allocation breakdown per expense category are summarized for each year from 2016 through 2026. By year 2027 under this plan, all Local and Collector functional classes of road will have been improved to include drainage and surfacing improvements as indicated. After these improvements are in place, the annual maintenance expense will be reduced to something on the order of the expenses shown in year 2026. This should be the expectation for maintenance expenses for the foreseeable future. The basis of the costs identified in Table 1 is shown in Table 2:

**Table 2 – Proposed Annual Expenses**

Activity	L	W	Unit cost	Exp
2016				
Design Engineering for 2016				\$25,000
Pavement boring on Champions Cir and Brookmeadow				\$500
2017				
Brookhollow from Woodcreek to Augusta	HMACP	4350	20	1.5 \$130,500
Drainage				\$19,500
Maintenance				\$20,000
Contract Administration / Construction Inspection				\$10,000



Activity	L	W	Unit cost	Exp	
Contingency (10%)				\$18,000	
total allocation				\$198,000	
2018					
Augusta Drive from Brookhollow to Brookhollow	Chip Seal	3700	18	0.73	\$48,618
Augusta Lane	Chip Seal	1500	18	0.73	\$19,710
Jack Miller	Crack Seal	620	18	0.15	\$1,674
Overbrook Ct	Crack Seal	770	18	0.15	\$2,079
Design Engineering					\$25,000
Utility investigation (36 lots @ \$40/lot)					\$1,440
Contingency (10%)					\$9,852
total allocation					\$108,373
2019					
Woodcreek from Champions Circle to Brookhollow	reconstruct	2400	20	2	\$96,000
Woodcreek from Champions Circle to Brookhollow	HMACP	2400	20	1.5	\$72,000
Drainage					\$20,000
Maintenance					\$20,000
Contract Administration / Construction Inspection					\$10,000
Contingency (10%)					\$21,800
total allocation					\$239,800

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	Activity	L	W	Unit cost	Exp
2020					
Augusta Drive from Brookhollow to end	Chip Seal	2400	18	0.73	\$31,536
Dolittle Dr	Chip Seal	2800	18	0.73	\$36,792
Jack Miller	Chip Seal	620	18	0.73	\$8,147
Wilson Circle	crack Seal	1060	18	0.15	\$2,862
Design Engineering					\$25,000
Utility investigation (40 lots @ \$40/lot)					\$1,600
Contingency (10%)					\$10,594
total allocation					\$116,530
2021					
Woodcreek from Brookhollow to Champions Circle	reconstruct	2600	20	2	\$104,000
Woodcreek from Brookhollow to Champions Circle	HMACP	2600	20	1.5	\$78,000
Drainage					\$20,000
Maintenance					\$20,000
Contract Administration / Construction Inspection					\$10,000
Contingency (10%)					\$23,200
total allocation					\$255,200



Activity	L	W	Unit cost	Exp
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## 2022

Westwood Dr from Brookhollow to Pebblebrook	Chip Seal	1060	18	0.73	\$13,928
Pebblebrook from end to end	Chip Seal	2070	18	0.73	\$27,200
Stonehouse from woodcreek to end	Chip Seal	800	18	0.73	\$10,512
Treemont Trace from Woodcreek to end	Chip Seal	600	16	0.73	\$7,008
Par Circle	Chip Seal	350	16	0.73	\$4,088
Par View	Chip Seal	1200	16	0.73	\$14,016
Design Engineering					\$25,000
Utility investigation (0 lots @ \$40/lot)					\$0
Contingency (10%)					\$10,175
total allocation					\$111,927

## 2023

Champions from Woodcreek to Overlook	HMACP	1950	20	1.5	\$58,500
Brookmeadow	HMACP	4100	20	1.5	\$123,000
Drainage					\$20,000
Maintenance					\$20,000
Contract Administration / Construction Inspection					\$10,000
Contingency (10%)					\$23,150
total allocation					\$254,650

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	Activity	L	W	Unit cost	Exp
2024					
Cypress Point	Chip Seal	1700	18	0.73	\$22,338
Deerfield	Chip Seal	1200	18	0.73	\$15,768
Country Lane	Chip Seal	1400	18	0.73	\$18,396
Shady Grove	Chip Seal	1260	18	0.73	\$16,556
Design Engineering					\$25,000
Utility investigation (0 lots @ \$40/lot)					\$0
Contingency (10%)					\$9,806
total allocation					\$107,864
2025					
Champions from Overlook to Champions CT	HMACP	3400	20	1.5	\$102,000
Champions CT	HMACP	1000	20	1.5	\$30,000
Drainage					\$20,000
Maintenance					\$20,000
Contract Administration / Construction Inspection					\$10,000
Contingency (10%)					\$18,200
total allocation					\$200,200

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Activity                      L                      W                      Unit cost                      Exp

2026

Canyon Creek	Chip Seal	1960	18	0.73	\$25,754
Palmer Lane	Chip Seal	1750	18	0.73	\$22,995
Wilson Circle	Chip Seal	1060	18	0.73	\$13,928
Wildwood Circle	Chip Seal	880	18	0.73	\$11,563
Spalding Circle	Chip Seal	400	15	0.73	\$4,380
McGregor Circle	Chip Seal	250	15	0.73	\$2,738
Design Engineering					\$0
Utility investigation (0 lots @ \$40/lot)					\$0
Contingency (10%)					\$8,136
total allocation					\$89,494

2027

Annual Chip Seal	\$48,160
Annualized Chip Seal expense based on 10 year occurrence	\$52,735

Assumptions/notes:

1. All costs were developed on a baseline 1/1/2015 budget.
2. Reconstruction costs were based on statewide averages.
3. County force expenses were based on data provided by Hays County.
4. Over the life of the TIP, costs will rise and fall. As the changes in price affect the implementation schedule, the TIP should be updated to reflect those revisions.

## SUMMARY

A program based on maintenance and improvement of transportation facilities should include the following components:

**Roadway Classification:** It is critical to planning to separate infrastructure by purpose. Local roads provide access while collector roads collect traffic from local roads and connect to arterials. It is recommended that City streets be classified as Low Volume Local, Local, and Collector. For the purposes of this study, Brookhollow Drive, Woodcreek Drive, Brookmeadow Drive, and Champions Circle have been designated as Collector facilities. No criteria to segregate Low Volume Local from Local have been established. The City should develop these criteria as part of further transportation improvement efforts.

**Safety:** It is recommended that the City develop and adopt policies addressing potential safety hazards in City ROW, including: fixed objects – mailboxes, landscaping structures, large trees, etc.; landscaping – Maintenance required to maintain clear intersections, installation of new landscaping in intersection sight triangles. In areas where these safety concerns are not readily resolved, warning signage may be warranted.

**Maintenance:** All local and low volume local facilities are programmed to have maintenance over the 10 year transportation plan. Maintenance efforts will include overlaying the road with a seal coat (or chip seal), sealing cracks, re-establishing pavement edge (where the edge of pavement is eroding), and potentially widening the facility to an acceptable minimum width. This maintenance is presumed to be performed by Hays County forces. Minimum roadway acceptable widths will need to be defined as part of the roadway classification effort. As the classification process has not been completed, no widening efforts have been included in maintenance efforts. In addition, there is no current plan for drainage improvements related to maintenance efforts. However, there are drainage improvements needed on several of the Low Volume Local and Local roads. It is recommended that the City consider adding City wide drainage maintenance and improvement to the Transportation Plan efforts.

**Improvement:** City streets identified as Collectors are programmed to have improvements including restoration of minimum width, restoration of roadway crown, improved drainage features, warranted safety improvements, development of a pavement structure (with strength sufficient for expected traffic volumes), and Hot Mix Asphaltic Concrete Pavement overlay. In order to accomplish these improvements, the City will need to contract with an Engineer to develop construction plans, assist with contract procurement, and confirm contract compliance. The engineer should address safety, drainage, and roadway design elements as part of the design. As part of this design effort, additional geotechnical investigations and pavement design efforts will likely be required. The current approach to improvements is based on beginning improvement efforts in locations where water line restoration has been completed. Woodcreek Drive has need for maintenance and improvement. Apparently, there is a water line located longitudinally in Woodcreek Drive that will need to be restored. Improvements to Woodcreek Drive have been delayed in the program in order to allow water line restoration prior to roadway reconstruction. While the current state of Woodcreek Drive is not optimal, if waterline restoration can be accomplished within the three years currently identified, no interim maintenance should be needed. However, if improvements to Woodcreek Drive are delayed by waterline improvements, this assumption may need review.

The City has committed substantial resources to studying the roadway network. This Transportation Plan has been developed as part of that effort. Moving forward, the City should review this plan, propose any revisions desired, and then begin Plan implementation. Implementation will require the development of Transportation Facility Policy. The effort to develop and implement appropriate policy will reduce City risk and provide a safer transportation network. Policy issues to address include Safety policies, Drainage



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policies, and Maintenance policies. In addition to policy development, the City will need to monitor the progress of this plan and adjust the plan as unforeseen issues arise and affect the Plan.

TA 17.3  
SUMMARY OF HAYS COUNTY ROAD STANDARDS\*

Average Daily Traffic (one-way trips)**	Not more than 100	101-1000	1001-2500	2501-5000	5001-15000	More than 15000
Functional Classification	Country Lane	Local Street	Minor Collector	Major Collector	Minor Arterial	Major Arterial
Design Speed	25 mph	25 mph	35 mph	45 mph	55mph	
Number of Lanes	2	2	2	2	4	All elements
ROW Width	50'	60'	60'	70'	100'	including
Width of Traveled way	18'	20'	22'	24'	48'	geometric
Width of Shoulders	2'	4'	5'	6'	8'	layout and
Minimum Centerline Radius	200'	300'	375'	675'	975'	cross-section
Minimum Tangent Length between Reverse Curves or Compound Curves	50'	100'	150'	300'	500'	shall be approved
Minimum Radius for Edge of Pavement at Intersections	25'	25'	25'	25'	25'	by the
Intersection Street Angle	80-100	80-100	80-100	80-100	80-100	Road Director
Maximum Grade:	11%	11%	10%	9%	8%	on a case-by-case
Minimum Street Centerline Offset at Adjacent Intersections	125'	125'	125'	125'	125'	basis.
Minimum Stopping Sight Distance	175'	175'	250'	350'	550'	
Minimum Intersection Sight Distance	250'	250'	350'	450'	550'	
Ditch Foreslope Grade	4:01	4:01	5:01	5:01	6:01	
Ditch Backslope Grade	3:01	3:01	4:01	4:01	4:01	
Minimum Cul-de-sac ROW Radius	60'	65'	65'	65'	65'	
Minimum Cul-de-sac Pavement Radius	35'	45'	45'	45'		
<b>Notes:</b>						
) Any deviation from these standards must be the subject of an approved variance.						
) Lots that are restricted by plat note to one single-family residence shall be presumed to generate 10 one-way trips per day. Average daily traffic for all other lots shall be determined on a case-by-case basis by the Road Director.						
) Occasional short runs between intersections may exceed the amounts shown, but maximum grades through intersections may not exceed the amounts shown.						
) The entire side ditch shall be totally contained within the road right-of-way or a dedicated drainage easement. Guardrails will be required.						
) No cul-de-sac shall have a cross slope that exceeds 6 percent.						
) Revegetation of disturbed areas within new road rights of way is required where the ditch depth exceeds 8' - 0" from the edge of shoulder to bottom of ditch on Country Lanes and Local Streets, -0" from edge of shoulder to bottom of ditch on Minor Collectors, and 4'-0" from edge of shoulder to bottom of ditch on Major Collectors and Minor Arterials.						
) Individual driveway entrances, if not shown on the approved construction plans, must be approved by the Road Director. Maximum spacing between commercial driveways or curb cuts is 150 ft.						
) Safety-end treatments required on all driveways. (Minimum 6:1 slope)						
) All design standards may be modified on a case-by-case basis as each project merits depending upon topography and other pertinent features. This is to include possible wider ROWs when assigned back-slopes will not fit within standard ROW.						
) Utility construction & design, if intended to be underground, will need to be coordinated with the County Road Dept. If placement of utilities is to be in County ROW, an additional 10' of ROW will be required.						
) No road and drainage construction may begin until a set of construction and drainage plans have been approved by the County Road Department.						
) Seventy-Two (72) hours before construction is to begin a preconstruction meeting is required to be held. Contact the County Road Department for scheduling information.						

# CITY OF WOODCREEK, TEXAS STREET EVALUATION

Submitted to:  
Department of Public Works  
City of Woodcreek, Texas



4201 Freidrich Lane, Suite 110  
Austin, Texas 78744

REPORT NO. AP-12-16841  
October 27, 2014

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### 1. INTRODUCTION

Road deterioration is a constant force that causes road quality to decline based on constant traffic and environmental loads. HVJ Associates, Inc. (HVJ) was contracted to conduct pavement ratings and evaluate the current needs of the City of Woodcreek, Texas. All pavements sections in the City have been evaluated using HVJ pavement condition rating procedures [Ref. 1]. The following project tasks have been completed:

- Collect visual condition survey data on all street sections within the maintenance responsibility of the City of Woodcreek, Texas to obtain individual pavement distress ratings for determining an overall Pavement Condition Rating (PCR).
- Provide condition assessment report with summary statistics of our findings.
- Estimate maintenance and rehabilitation costs.

Based on the City maintenance responsibility and Google Earth, it is estimated that the City of Woodcreek is composed of approximately 85 sections and approximately 10 centerline miles. HVJ staff completed a 100% visual pavement condition survey of the City of Woodcreek maintained streets to determine the Pavement Condition Rating (PCR) of each section. The surveys were conducted by trained HVJ staff using the HVJ condition survey procedures used in multiple Texas cities. Surveys will provide the City with information regarding the current condition of the streets and the potential repairs that will need to be performed. HVJ's assessment included in this report of the streets within the system will improve the City's ability to estimate future repair requirements, plan maintenance and rehabilitation programs and to estimate street funding needs. The City of Woodcreek network average condition assessment score yielded a value of 83 on a scale of 0 to 100.

### 2. PAVEMENT NETWORK INVENTORY

Currently the City of Woodcreek street inventory consists of approximately 10 centerline miles, which are maintained by the city. The pavement network inventory was based on the city website and a field visit with city staff. Based on the listing, HVJ Associates, Inc. identified and surveyed 159 street sections. Based on the field surveys and length estimations from Google Earth, the following network inventory was determined; quantities, functional classification area, number of sections, and section length:

Quantities

Table 1: Inventory Quantities

Item	Collector	Local	Total
Total Center Line Miles	2.0	8.0	10.0
Total Lane Miles	4.0	16.0	20.0

### 3. VISUAL CONDITION SURVEYS

Visual pavement condition surveys were collected the on September 26, 2014. Trained field raters used the pavement rating process to perform the field surveys of each individual street segment. The number of lanes and roadway width were collected and measured for each segment, as well.

All surveys were performed in accordance with the HVJ Visual Condition Survey Guidelines (Ref 1). The city network predominantly has flexible streets with a few areas patched with rigid Portland cement concrete (PCC), thus the following distresses were evaluated:

### Flexible or Composite Pavements

- Wheelpath Rutting
- Fatigue (Alligator) Cracking
- Transverse Cracking
- Longitudinal Cracking
- Pavement Failures (Patches and Potholes)
- Utility Cut Patches,
- Edge Cracking
- Raveling (Weathering) and
- Ride Quality

For each of the individual pavement distresses identified for flexible pavements, the surveyor rates severity and extent. The following is a typical description from the Condition Survey Rating Guide for surface deterioration distress:

Alligator cracking is a series of interconnecting cracks caused by fatigue failure of the asphalt pavement under repeated traffic loading. The cracks initiate at the bottom of the asphalt surface and propagate to the surface, initially as one or more longitudinal parallel cracks. After repeated traffic loading, the cracks interconnect; and form many-sided, sharp angled pieces which are usually less than 1 ft. on the longest side. Alligator cracking commonly occurs in areas subjected to repeated traffic loading, such as the wheel paths. The distress is rated based on its severity and extent within a length of pavement. Rate the most prevalent severity level.

- Severity: Based on the worst alligator cracking encountered, the severity is defined as follows:
- Slight – Fine, longitudinal cracks running parallel to each other with none or only a few interconnecting cracks. Most cracks are less than 1/4" wide.
- Moderate – Progression of cracks into chicken wire or alligator skin pattern. Cracks may be up to 1/2" wide but pieces are still intact.
- Extreme – Further progression of cracking in such a way that widths are generally more than 1/2" wide. Cracks may be spalled, or flaked, at the edges. Pavement pieces may be loosened, shift or rock under traffic, or may be missing.
- Extent: Estimate the extent of surface deterioration in the worst area of the segment.
- Localized – 1-15% of section length is affected.
- Intermittent – 16-30% of section length is affected.
- Prevalent – > 30% of section length is affected.

The rater selects the appropriate description entry based on the severity and extent present.

Table 2: Severity and Extent Levels

		EXTENT		
		Localized 1-15%	Intermittent 16-30%	Prevalent >30%
SEVERITY	Slight	1	2	3
	Moderate	4	5	6
	Extreme	7	8	9

Once all the data are recorded for each distress, the information is used to calculate the current pavement condition rating (PCR values).

Calculation of PCR

Based on the level of severity and extent of each distress identified as present on the street, a number of deduct points are assigned. The summation of these deduct points is subtracted from a perfect score of 100 to estimate the current pavement condition rating (PCR). This PCR value provides a relative condition assessment for each pavement section. The deduction points assigned to each distress at each severity/extent level are provided in Appendix A.

The pavement condition rating (PCR) value provides a uniform and systematic method to describe the overall condition of a street's pavement. The following is are the ranges are typically used for Collector and Local streets.

Table 3: PCR Ranges for Local and Minor Collector Sections

Collector	Condition	Local
0-50	Very Poor	0-30
51-65	Poor	31-50
66-80	Fair	51-65
81- 90	Good	66-80
91-100	Very Good	81-100

The PCR value is on a scale of 0 to 100, with a newly constructed pavement having a score of 100, while a score of 0 indicates a pavement with many severe distress conditions.

Pavement Condition Rating (PCR) Distribution

The current average network PCR score for the City of Woodcreek is 83 indicating an overall good condition. The overall distribution of PCR ratings for local sections is provided in Table 4 and Figure 1. The overall distribution of PCR ratings for collector streets is provided in Table 5 and Figure 2. While these statistics show a majority of the pavements are in good condition, there are poor and very poor streets, which currently need rehabilitation. Also, the pavements which are in fair condition will continue to deteriorate at an increased rate if rehabilitation is not performed.

Table 4: PCR Distribution for Local Streets in Centerline Miles

Condition	PCR Range	Local-HMAC	% of TOTAL
Very Poor	0-30	0.0	0.0%
Poor	31-50	0.3	3.7%
Fair	51-65	0.4	5.2%
Good	66-80	2.5	30.4%
Very Good	81-100	4.9	60.7%
<b>TOTAL</b>		<b>8.1</b>	

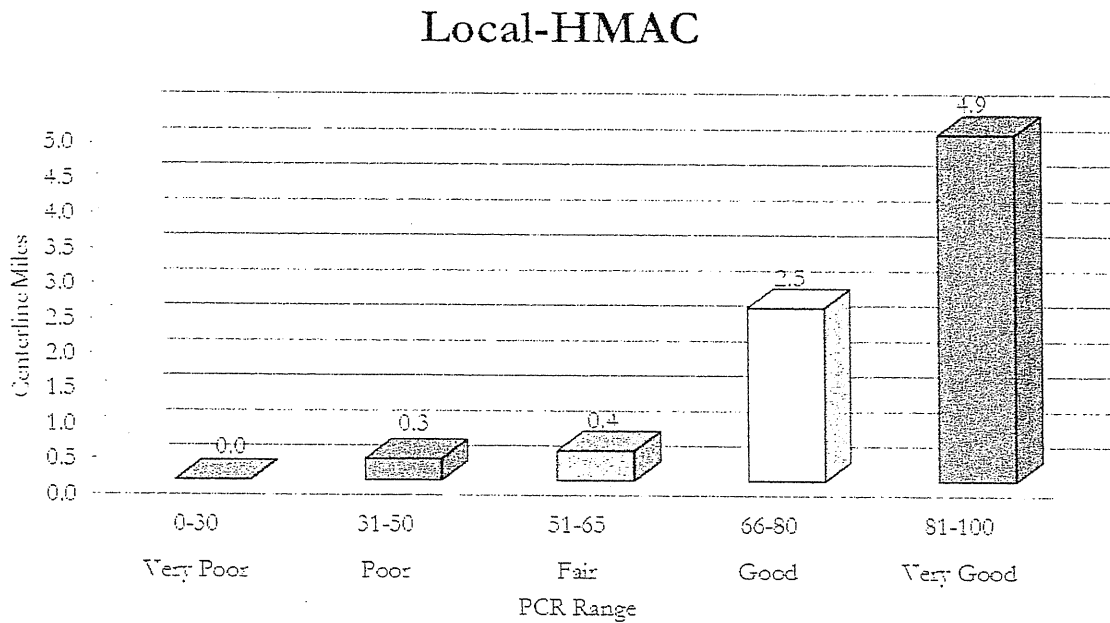


Figure 1: PCR Distribution for Local Streets



Streets classified at Collectors include, Brookhollow Dr., and Woodcreek Dr.

Table 5: PCR Distribution for Minor Collectors in Centerline Miles

Condition	PCR Range	Collector-HMAC	% of TOTAL
Very Poor	0-50	0.0	0.0%
Poor	51-65	0.0	0.0%
Fair	66-80	0.2	12.2%
Good	81-90	1.1	55.8%
Very Good	91-100	0.6	32.0%
TOTAL		1.9	

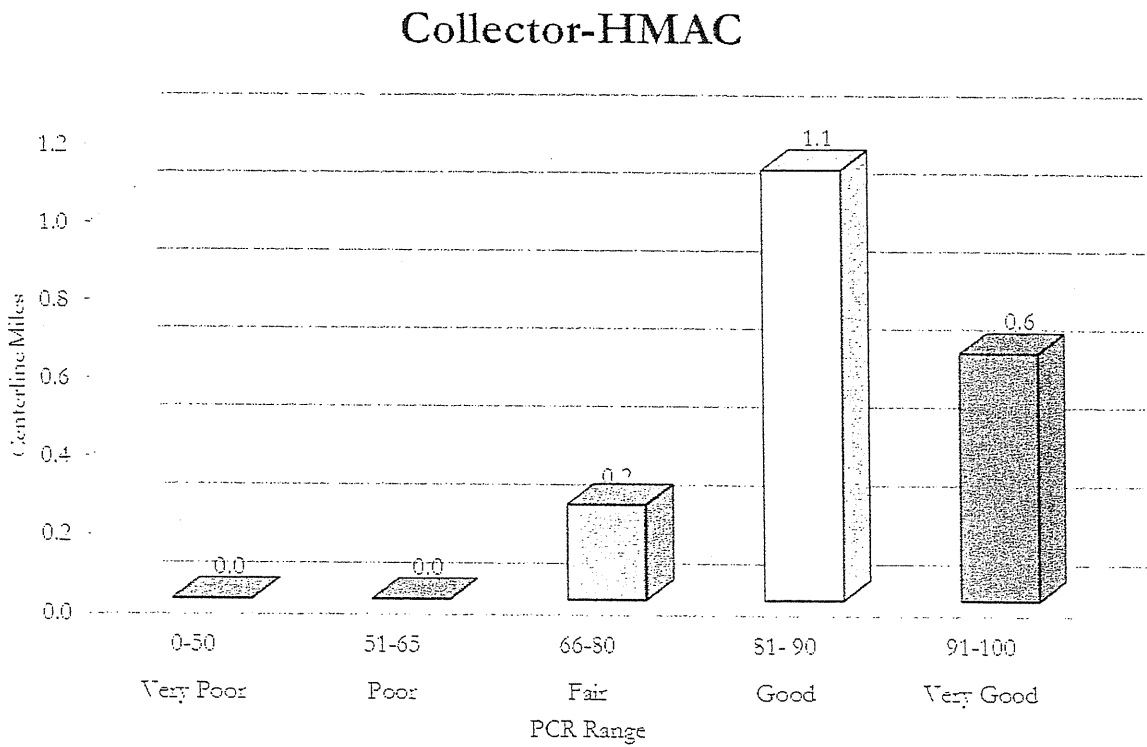


Figure 2: PCR Distribution for Collectors

**4. MAINTENANCE, REHABILITATION & RECONSTRUCTION PLANS**

MR&R Estimate Methodology

The visual condition survey PCR value is used to assign a recommended repair method for each street section within the street network of the City of Woodcreek based on the individual distresses. Projects should be evaluated on a detailed level prior to repairs/reconstruction. Due to funding availability, Hot Mix Asphalt Concrete (HMAC) surface is not a viable reconstruction option and therefore HVJ recommends a two-course and one-course surface treatment be used in the case of reconstruction of collector and local reconstruction, respectively. Additionally, a one-course treatment is recommended as a treatment option for the streets in poor condition that have not yet reached the very poor, reconstruction stage. Edge cracking and fatigue cracking were the major distresses noted throughout the city. It is recommended that before any treatment is performed, crack sealing and edge repair be performed to protect the integrity of the repairs.

Previous Repairs performed by the City include reconstruction and resurfacing.

The final recommended repair for each segment is selected based on the existing PCR score and the pavement functional classification (Collector or Local) using the following assignments for the City of Woodcreek.

A summary of the individual scores and recommended treatments can be found in Appendix B.

**Table 6: Flexible Pavement Repair Table Based on Pavement Condition Rating (PCR) Score**

PCR Range	Treatment Category	Improved PCR After Funding of Treatment
<b>HMAC Minor Collector</b>		
0-50	RECONSTRUCTION WITH TWO-COURSE SURFACE TREATMENT & EDGE REPAIR	100
51-65	CRACK SEAL AND ONE-COURSE SURFACE TREATMENT AND EDGE REPAIR	100
66-80	CRACK SEAL AND EDGE REPAIR	95
81- 90	CRACK SEAL	90
91-100	DO NOTHING	n/a
<b>HMAC Local</b>		
0-30	RECONSTRUCTION WITH TWO-COURSE SURFACE TREATMENT & EDGE REPAIR	100
31-50	CRACK SEAL AND ONE-COURSE SURFACE TREATMENT AND EDGE REPAIR	100
51-65	CRACK SEAL AND EDGE REPAIR	95
66-80	CRACK SEAL	85
81-100	DO NOTHING	n/a

### Existing Strength Values

Non-destructive deflection testing was also performed on all streets in the City of Woodcreek to evaluate the relative strength of the existing pavement layers. These measurements provide relative information regarding variations in the subgrade soil and the existing flexible base and asphalt pavement layers. HVJ tested at 200 ft. spacing along the collector streets Brookhollow Dr. and Woodcreek Dr. and every 400 ft. on the remaining local streets with at least one point per street.

Deflection profiles and a summary of the average subgrade (W1) and surface (W7) deflection values for each street are included in Appendix C.

Woodcreek and Brookhollow Drives indicated surface modulus values of 70,000 to 74,300 psi for the asphalt surface, a base modulus of 25,500 to 47,000 psi for the flexible base and a subgrade modulus of 29,600 to 37,200 psi. The surface and base moduli fall within the typical ranges for the material types. The subgrade modulus indicates a very strong subgrade giving good support to the pavement layers above. Outputs from the analysis program MODULUS are given in Appendix D.

The remaining local streets demonstrate a relatively high level of variation in the deflection along the existing pavement on most of the streets which can be due to a number of conditions, such as: varying cross section thickness and layer materials, varying depth of the harder limestone layer, weak areas in the underlying subgrade, existing pavement cracking, etc. Analysis of the average surface and subgrade deflections in comparison to Brookhollow and Woodcreek indicate that the majority of the streets demonstrate comparable characteristics to the main streets. The exceptions to this are Canyon Cir., Elmbrook, Garrison Trl., Palmer, Woodview Ct., and Brookside (PCC section) which show higher subgrade deflections and Canyon Cir., Country Ct., Elmbrook, Garrison Trl., and Wildwood Cir. which demonstrate higher surface deflections indicating weaker areas. A summary of the average subgrade (W1) and surface (W7) deflection values for each street are included in Appendix C.

## **5. CONCLUSIONS AND RECOMMENDATIONS**

Based on the rated condition, post repair PCR and the classification (collector or local) of the sections, HVJ has assigned a priority ranking to each street with 1 being the highest priority. It is recommended that repairs be done on a street by street basis, or by combining multiple nearby smaller streets to potentially aid in the reduction of construction mobilization and cost. Recommended priority by street is shown in Appendix B.

## 6. REFERENCES

1. *Street Surface Condition and Inventory Rating Guidelines*

APPENDIX A  
DEDUCTION VALUES

Table A-1 PCR Deduct Values for Determining Pavement Condition Rating (PCR) Score

Surface Type	Distress Type	Deduct Values by Distress Type and Distress Severity / Extent Level <sup>A</sup>								
		1	2	3	4	5	6	7	8	9
Flexible	Ride	6	4	2	0	0				
	Rutting	0	2	5	5	7	10	10	12	15
	Raveling	5	8	10	10	12	15	15	18	20
	Edge Cracking	2	3	4	3	4	3	4	5	6
	Alligator Cracking	5	10	15	10	15	20	15	20	25
	Pavement Failure Patches	0	2	5	5	7	10	7	15	20
	Utility Cut Patches	0	2	5	5	7	10	7	15	20
	Transverse / Longitudinal Cracking – Not Sealed	2	3	4	3	4	3	4	5	6
	Transverse / Longitudinal Cracking – Partially Sealed	1	2	3	2	3	4	3	4	5
	Transverse / Longitudinal Cracking – Sealed	0	1	2	1	2	3	2	3	4

A. Distress Severity/Extent Level Key

Severity	Extent		
	Localized 1-15%	Intermittent 16-30%	Prevalent >30%
Slight	1	2	3
Moderate	4	5	6
Extreme	7	8	9

APPENDIX B  
Pavement Condition Scores by Block

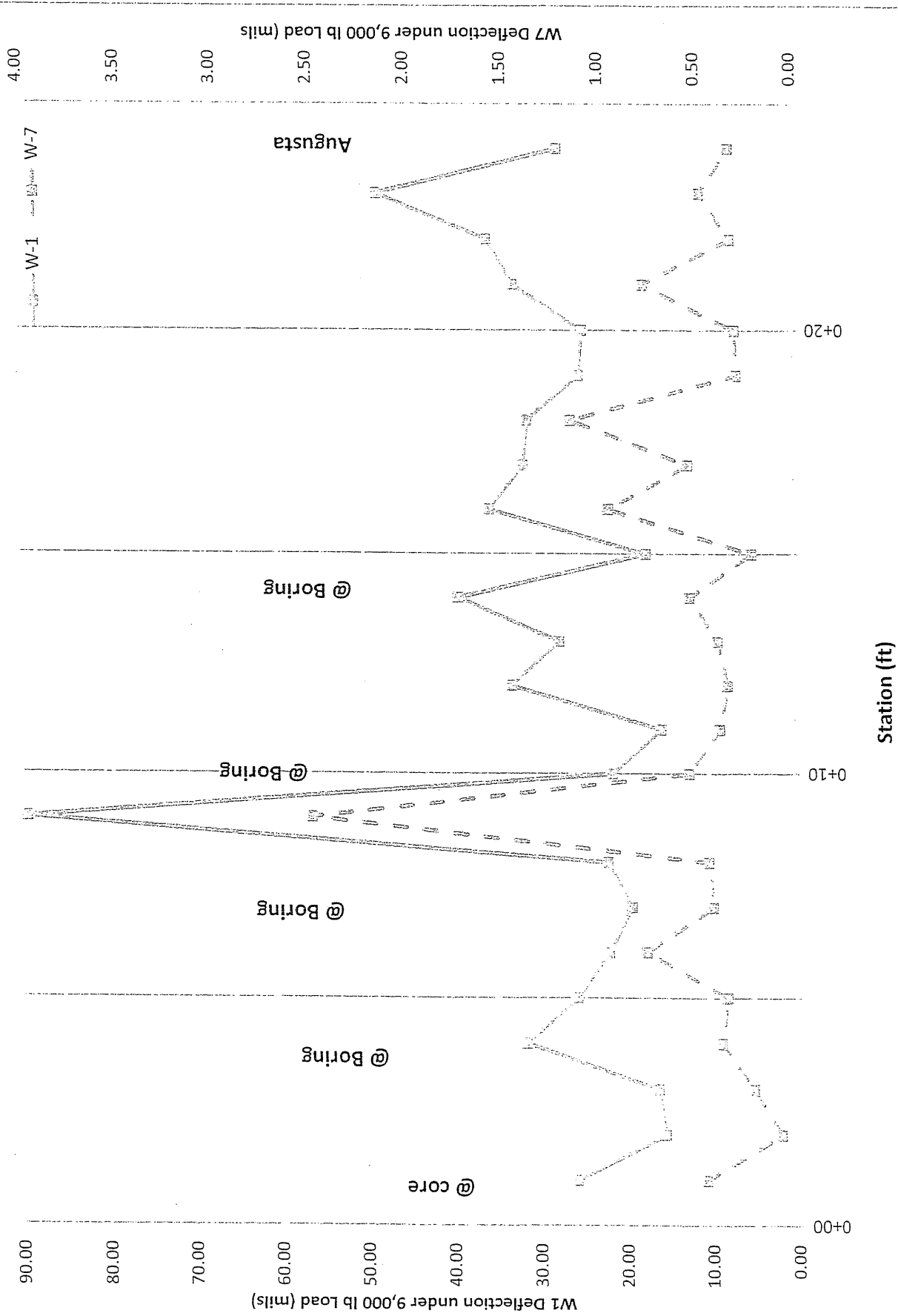
Street	From	To	PCR CLASS	TREATMENT	Priority
Augusta Dr.	End	Brookhollow Dr.	95 L	Do Nothing	
Augusta Dr.	Brookhollow Dr.	Augusta Ln.	98 L	Do Nothing	
Augusta Dr.	Augusta Ln.	Brookmeadow Dr.	98 L	Do Nothing	
Augusta Dr.	Brookmeadow Dr.	Augusta Ln.	98 L	Do Nothing	
Augusta Dr.	Augusta Ln.	Brookhollow Dr.	82 L	Do Nothing	
Augusta Ln.	Augusta Dr.	Augusta Dr.	75 L	Crack Seal	11
Brookhollow Spur	Woodcreek Dr.	Brookhollow Dr.	92 C	Do Nothing	
Brookhollow Dr.	Woodcreek Dr.	Brookhollow Spur	90 C	Do Nothing	
Brookhollow Dr.	Brookhollow Spur	Westwood Dr.	82 C	Crack Seal	
Brookhollow Dr.	Westwood Dr.	Overbrook Ct.	86 C	Crack Seal	
Brookhollow Dr.	Overbrook Ct.	Par Cir.	87 C	Crack Seal	16
Brookhollow Dr.	Par Cir.	Augusta Dr.	88 C	Crack Seal	
Brookhollow Dr.	Augusta Dr.	Jack Miller Dr.	93 C	Do Nothing	
Brookhollow Dr.	Jack Miller Dr.	Country Ln.	87 C	Crack Seal	
Brookhollow Dr.	Country Ln.	Augusta Dr.	85 C	Crack Seal	
Brookmeadow Dr.	Augusta Dr.	Shady Grove Ln.	95 L	Do Nothing	
Brookmeadow Dr.	Shady Grove Ln.	Brookside Dr.	90 L	Do Nothing	
Brookmeadow Dr.	Brookside Dr.	Elmbrook Dr.	93 L	Do Nothing	
Brookmeadow Dr.	Elmbrook Dr.	Villa Meadow	97 L	Do Nothing	
Brookmeadow Dr.	Villa Meadow	SH 12	95 L	Do Nothing	
Brookside Dr.-N	Brookmeadow Dr.	End	86 L	Do Nothing	
Brookside Dr.-S	Brookmeadow Dr.	End	80 L	Crack Seal	19
Canyon Cir.	Canyon Creek Dr.	End	74 L	Crack Seal	10
Canyon Creek Dr.	Champions Cir.	Garrison Trail	83 L	Do Nothing	
Canyon Creek Dr.	Garrison Trail	Woodview Ct.	83 L	Do Nothing	
Canyon Creek Dr.	Woodview Ct.	Woodridge Cir.	81 L	Do Nothing	
Canyon Creek Dr.	Woodridge Cir.	Canyon Cir.	83 L	Do Nothing	
Canyon Creek Dr.	Canyon Cir.	End	83 L	Do Nothing	
Champion Ct.	Champions Cir.	End	82 L	Do Nothing	
Champions Cir.	Woodcreek Dr.	Overlook Ct.	95 L	Do Nothing	
Champions Cir.	Overlook Ct.	Palmer Ln.	95 L	Do Nothing	
Champions Cir.	Palmer Ln.	Palmer Ln.	97 L	Do Nothing	
Champions Cir.	Palmer Ln.	Canyon Creek Dr.	96 L	Do Nothing	
Champions Cir.	Canyon Creek Dr.	Fallbrook Cir.	93 L	Do Nothing	
Champions Cir.	Fallbrook Cir.	Champions Ct.	95 L	Do Nothing	
Champions Cir.	Champions Ct.	Tremont Trce	97 L	Do Nothing	
Champions Cir.	Tremont Trce	Woodcreek Dr.	97 L	Do Nothing	
Country Ct.	Country Ln.	End	85 L	Do Nothing	
Country Ln.	Brookhollow Dr.	Country Ct.	87 L	Do Nothing	
Country Ln.	Country Ct.	End	74 L	Crack Seal	17
Cypress Point	Woodcreek Dr.	Cypress Point	70 L	Crack Seal	
Cypress Point	Cypress Point	Cypress Point	62 L	Crack Seal	
Cypress Point	Cypress Point	Cypress Point	85 L	Do Nothing	12
Cypress Point	Cypress Point	End	70 L	Crack Seal	



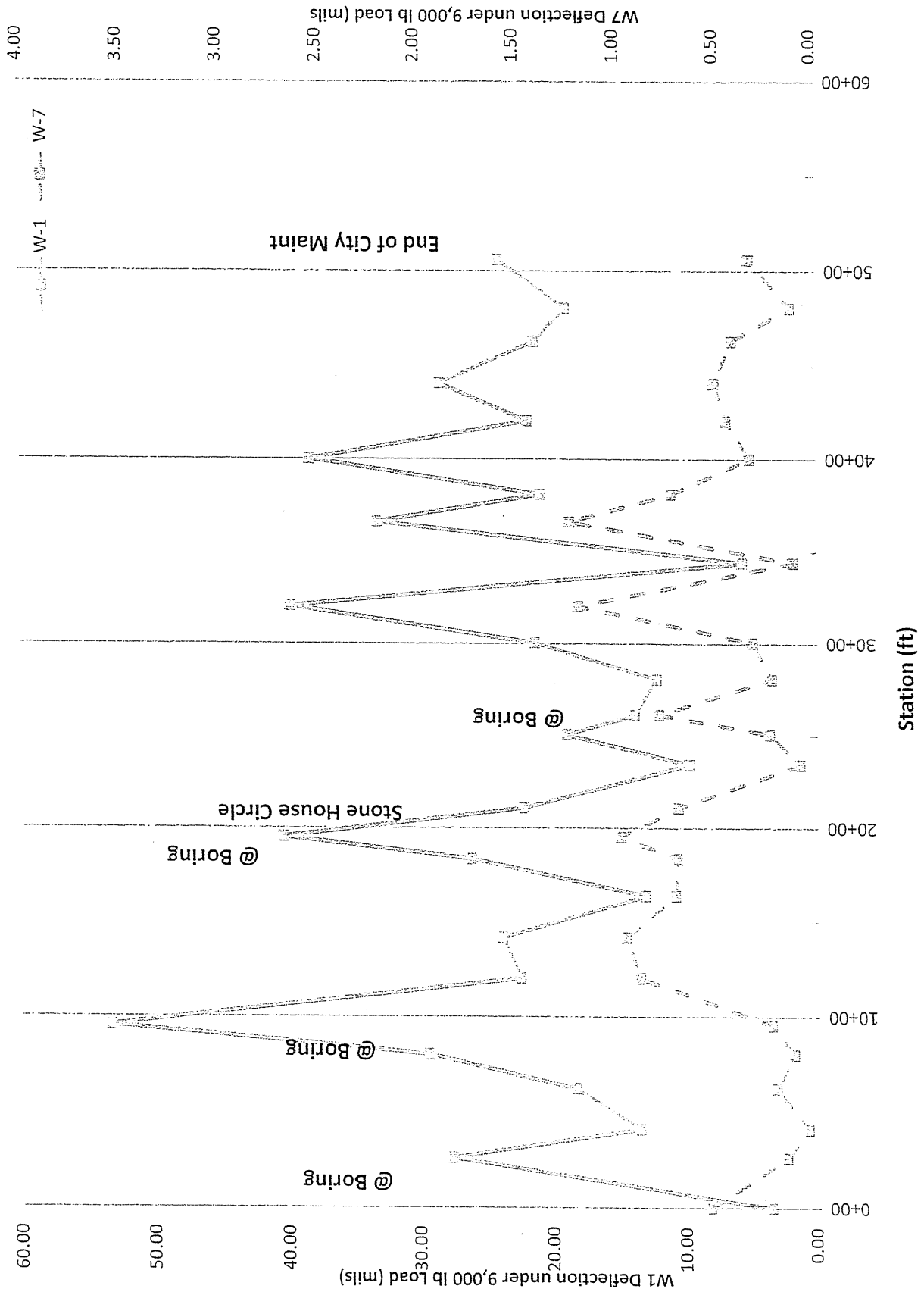
Street	From	To	PCR CLASS	TREATMENT	Priority
Deerfield Dr.	Woodcreek Dr.	End	97 L	Do Nothing	
Doolittle Dr. South	Cypress Point	Jack Miller Dr.	39 L	Crack seal and One-Course Surface Treatment with Edge Repair	3
Doolittle Dr. North	Jack Miller	Wildwood Cir.	75 L	Crack Seal	
Elmbrook Dr.	Brookmeadow Dr.	End	85 L	Do Nothing	
Garrison Trail	Canyon Creek Dr.	End	80 L	Crack Seal	15
Jack Miller Dr.	Doolittle Dr	Brookhollow Dr.	59 L	Crack Seal and Edge Repair	1
McGregor Cir.	Spalding Cir.	End	78 L	Crack Seal	13
Overbrook Ct.	Brookhollow Dr.	End	58 L	Crack Seal and Edge Repair	1
Overlook Ct.	Champions Cir.	Overlook Ct.	72 L	Crack Seal	
Overlook Ct.	End	End	74 L	Crack Seal	8
Palmer Ln.	Champions Cir.	Wilson Cir.	85 L	Do Nothing	
Palmer Ln.	Wilson Cir.	Champions Cir.	85 L	Do Nothing	
Par Cir.	Brookhollow Dr.	End	79 L	Crack Seal	14
Par View Dr.	Woodcreek Dr.	End	74 L	Crack Seal	9
Pebblebrook Ln.-E	End	Westwood Dr.	70 L	Crack Seal	
Pebblebrook Ln.-W	Westwood Dr.	End	73 L	Crack Seal	7
Shady Grove Ln.-S	Brookmeadow Dr.	End	77 L	Crack Seal	
Shady Grove Ln.-N	Brookmeadow Dr.	End	98 L	Do Nothing	12
Spalding Cir.	Wilson Cir.	McGregor Cir.	88 L	Do Nothing	
Spalding Cir.	McGregor Cir.	End	76 L	Crack Seal	18
Stonehouse Cir.	Woodcreek Dr.	End	70 L	Crack Seal	6
Tremont Trace	Champions Cir.	End	68 L	Crack Seal	5
Westwood Dr.	Pebblebrook Ln.	Brookhollow Dr.	77 L	Crack Seal	12
Wildwood Cir.	Doolittle Dr	Doolittle Dr.	81 L	Do Nothing	
Wilson Cir.	Palmer Ln.	Spalding Cir.	65 L	Crack Seal and Edge Repair	
Wilson Cir.	Spalding Cir.	End	74 L	Crack Seal	2
Woodcreek Dr	SH 12	Deerfield Dr.	98 C	Do Nothing	
Woodcreek Dr	Deerfield Dr.	Par View Dr.	97 C	Do Nothing	
Woodcreek Dr	Par View Dr.	Stonehouse Cir.	95 C	Do Nothing	
Woodcreek Dr	Stonehouse Cir.	Brookhollow Dr.	78 C	Crack Seal and Edge Repair	
Woodcreek Dr	Brookhollow Dr.	Brookhollow Dr.	96 C	Do Nothing	4
Woodcreek Dr	Brookhollow Dr.	Pro Ln.	87 C	Crack Seal	
Woodcreek Dr	Pro Ln.	Champions Cir.	93 C	Do Nothing	
Woodcreek Dr	Champions Cir.	Cypress Point	74 C	Crack Seal and Edge Repair	
Woodridge Cir.	Canyon Creek Dr.	End	78 L	Crack Seal	13
Woodview Ct.	Canyon Creek Dr.	End	81 L	Do Nothing	

APPENDIX C  
Deflection Profiles

# Brookhollow Drive Deflections



# Woodcreek Drive Deflections



Local Street	Average Subgrade Deflection (W7), mils
Augusta Dr.	0.62
Augusta Ln.	0.42
Brookhollow Dr.	0.55
Brookmeadow	0.52
Brookside Dr.	0.52
Brookside Dr. PCC	12.54
Canyon Cir.	1.02
Canyon Creek	0.65
Champions Cir.	0.51
Champions Ct.	0.22
Country Ct.	0.60
Country Ln.	0.42
Cypress Point	0.44
Deerfield	0.47
Dolittle Dr.	0.36
Elmbrook	1.18
Garrison Trl.	0.76
Jack Miller	0.25
McGregor Cir	0.79
Overbrook	0.43
Overlook	0.65
Palmer Ln.	0.82
Par Cir.	0.47
Par View	0.53
Pebblebrook	0.48
Shady Grove	0.32
Spalding Cir.	0.60
Stonehouse Cir.	0.41
Tremont Trace	0.35
Westwood	0.37
Wildwood Cir.	0.38
Wilson Cir.	0.65
Woodbridge Cir.	0.37
Woodcreek Dr.	0.49
Woodview Ct.	0.81

Local Street	Average Surface Deflection (W1), mils
Augusta Dr.	27.69
Augusta Ln.	22.67
Brookhollow Dr.	29.63
Brookmeadow	16.70
Brookside Dr.	41.45
Brookside Dr. PCC	28.87
Canyon Cir.	54.33
Canyon Creek	30.12
Champions Cir.	26.15
Champions Ct.	25.25
Country Ct.	65.55
Country Ln.	26.26
Cypress Point	17.00
Deerfield	26.71
Dolittle Dr.	42.29
Elmbrook	46.04
Garrison Trl.	45.41
Jack Miller	35.11
McGregor Cir	42.86
Overbrook	41.74
Overlook	26.40
Palmer Ln.	17.70
Par Cir.	41.40
Par View	29.68
Pebblebrook	24.88
Shady Grove	29.04
Spalding Cir.	43.81
Stonehouse Cir.	29.45
Tremont Trace	23.73
Westwood	24.65
Wildwood Cir.	49.37
Wilson Cir.	38.26
Woodbridge Cir.	43.79
Woodcreek Dr.	22.87
Woodview Ct.	33.21

APPENDIX D  
MODULUS Outputs

BROOKHOLLOW DRIVE

(Version 6.0)

TTI MODULUS ANALYSIS SYSTEM (SUMMARY REPORT)

District:   
 County :   
 Highway/Road:   
 Thickness (in)   
 Pavement: 0.75   
 Base: 6.00   
 Subbase: 0.00   
 Subgrade: 66.52 (by DB)   
 MODULI RANGE (psi)   
 Minimum 50,000   
 Maximum 100,000   
 Poisson Ratio Values   
 H1: v = 0.38   
 H2: v = 0.35   
 H3: v = 0.00   
 H4: v = 0.40   
 10,000

Station	Load (lbs)	Measured Deflection (mils):					R7	Calculated Moduli values (ksi):				Absolute Dpth to		
		R1	R2	R3	R4	R5		R6	R7	SURF(E1)	BASE(E2)	SUBB(E3)	SUBG(E4)	ERR/Sens
0.000	9,047	25.88	7.31	2.74	1.37	1.10	0.87	0.48	100.0	20.5	0.0	57.2	13.38	91.1 *
600.000	8,971	31.36	10.06	4.70	2.70	0.90	0.47	0.39	50.0	18.4	0.0	41.2	23.52	212.8 *
800.000	8,993	25.56	8.93	3.78	1.82	0.74	0.49	0.36	100.0	21.7	0.0	51.1	19.19	140.6 *
1000.000	8,565	20.78	10.96	6.34	4.35	2.30	1.27	0.74	50.0	55.7	0.0	25.7	5.50	56.4 *
1200.000	8,982	19.14	6.78	3.16	1.93	1.12	0.64	0.43	100.0	34.3	0.0	53.5	5.39	55.7 *
1300.000	8,982	21.89	8.19	4.89	3.22	1.57	0.86	0.45	50.0	37.1	0.0	35.5	5.75	52.3 *
1400.000	8,982	88.97	16.29	8.94	5.50	3.49	3.39	2.49	50.0	10.0	0.0	17.0	22.61	59.3 *
1600.000	8,817	20.90	10.81	5.82	3.27	1.26	0.65	0.54	50.0	40.6	0.0	33.0	21.97	102.4 *
1800.000	9,014	15.64	6.22	3.50	2.18	0.95	0.57	0.39	50.0	53.0	0.0	49.4	8.39	59.5 *
2000.000	9,047	33.13	9.79	3.37	1.35	0.71	0.47	0.35	100.0	15.0	0.0	50.1	19.59	90.6 *
2400.000	8,960	38.85	10.45	5.37	3.61	1.55	0.91	0.54	50.0	15.1	0.0	33.4	9.49	55.9 *
2800.000	8,916	35.09	12.98	6.78	4.47	2.60	1.46	0.95	74.9	20.3	0.0	24.6	4.34	64.3
3000.000	9,025	31.55	12.77	6.43	3.39	1.45	0.82	0.55	50.0	21.5	0.0	22.5	16.14	85.0 *
3200.000	9,059	31.23	15.15	8.32	4.56	2.17	1.33	1.16	100.0	26.2	0.0	30.3	10.86	61.7 *
3400.000	8,938	24.81	12.02	7.27	4.36	1.12	0.53	0.29	100.0	29.5	0.0	30.6	42.92	300.0 *
3800.000	9,004	32.55	9.37	4.69	2.87	1.52	1.04	0.78	86.3	18.5	0.0	37.9	8.02	52.1
4000.000	8,982	35.47	11.53	5.32	2.78	0.94	0.51	0.32	100.0	15.1	0.0	38.3	27.15	300.0 *
4200.000	9,025	48.39	15.51	6.36	2.12	0.70	0.61	0.48	100.0	10.0	0.0	33.3	37.48	59.1 *
4400.000	8,905	26.99	8.55	4.61	2.74	1.03	0.46	0.32	50.0	23.1	0.0	42.3	18.32	94.9 *

Mean: 32.01 10.72 5.39 3.08 1.43 0.91 0.63 74.3 25.5 0.0 37.2 16.84 73.3   
 Std. Dev: 15.86 2.89 1.73 1.17 0.74 0.68 0.51 24.4 13.2 0.0 11.2 10.86 31.1   
 Var Coeff(%): 49.54 26.95 32.09 37.92 51.32 73.93 79.90 32.9 51.5 0.0 30.2 64.47 40.4

WOODCREEK DRIVE

(Version 6.0)

TTI MODULUS ANALYSIS SYSTEM (SUMMARY REPORT)

District:

County :

Highway/Road:

MODULI RANGE (psi)

Minimum 50,000  
Maximum 100,000  
10,000 150,000

Thickness (in)

2.75  
3.00  
0.00

Pavement:

Base:

Subbase:

Subgrade:

48.45 (User Input) 5,000

Poisson Ratio Values

H1: v = 0.38

H2: v = 0.35

H3: v = 0.00

H4: v = 0.40

Load (lbs) Measured Deflection (mils): R1 R2 R3 R4 R5 R6 R7 R8 R9 R10 R11 R12 R13 R14 R15 R16 R17 R18 R19 R20 R21 R22 R23 R24 R25 R26 R27 R28 R29 R30 R31 R32 R33 R34 R35 R36 R37 R38 R39 R40 R41 R42 R43 R44 R45 R46 R47 R48 R49 R50 R51 R52 R53 R54 R55 R56 R57 R58 R59 R60 R61 R62 R63 R64 R65 R66 R67 R68 R69 R70 R71 R72 R73 R74 R75 R76 R77 R78 R79 R80 R81 R82 R83 R84 R85 R86 R87 R88 R89 R90 R91 R92 R93 R94 R95 R96 R97 R98 R99 R100

Station	R1	R2	R3	R4	R5	R6	R7	SURF(E1)	BASE(E2)	SUBB(E3)	SUBG(E4)	ERR/Sens	Dpth to Bedrock
1204.000	22.29	10.13	5.40	3.13	1.64	1.16	0.89	55.3	44.5	0.0	26.5	12.04	49.4
1418.000	8,993	23.47	6.63	4.04	2.07	1.37	0.95	77.0	47.9	0.0	21.2	12.18	50.1
1640.000	8,927	12.56	3.72	2.33	1.24	0.84	0.69	100.0	135.5	0.0	37.0	13.66	53.8 *
1836.000	9,004	25.99	8.23	5.62	2.81	1.33	0.70	88.7	88.7	0.0	17.2	12.94	54.1 *
1953.000	9,047	40.44	5.18	2.99	1.92	1.43	0.99	50.0	10.0	0.0	25.6	20.49	69.8 *
2108.000	8,960	21.92	7.59	4.58	1.72	0.98	0.69	100.0	59.9	0.0	20.0	13.01	46.7 *
2506.000	9,004	18.77	3.27	1.44	0.28	0.10	0.22	100.0	16.2	0.0	54.0	55.53	76.4 *
2613.000	8,905	13.51	4.71	3.53	2.41	1.50	0.78	100.0	150.0	0.0	29.9	24.57	66.5 *
3005.000	9,036	21.22	2.67	1.56	0.88	0.43	0.31	52.3	19.4	0.0	52.3	12.17	53.9 *
3204.000	9,004	39.62	9.22	5.46	3.05	1.73	1.19	50.0	17.7	0.0	15.2	12.91	53.6 *
3663.000	8,916	32.71	13.49	6.05	3.04	1.76	1.22	50.0	37.5	0.0	16.2	18.12	53.4 *
3812.000	8,697	19.96	4.86	3.17	1.70	0.98	0.70	50.0	62.0	0.0	27.9	15.19	57.3 *
4003.000	8,982	38.08	7.85	3.37	0.91	0.44	0.32	66.6	10.0	0.0	22.0	26.11	62.2 *
4206.000	8,839	21.18	5.72	2.83	0.85	0.48	0.43	100.0	25.3	0.0	29.0	17.93	54.9 *
4406.000	9,004	28.24	4.70	2.83	1.33	0.77	0.50	50.0	17.5	0.0	31.6	13.32	47.3 *
4629.000	9,004	21.06	5.79	3.33	1.35	0.73	0.41	87.8	41.1	0.0	26.5	11.07	46.5
5060.000	9,014	23.78	3.06	1.70	0.58	0.46	0.32	51.8	15.7	0.0	51.8	21.40	49.4 *

Mean:

Std. Dev:

Var Coeff(%):

24.99	10.67	5.74	3.41	1.63	0.97	0.67	70.0	47.0	0.0	29.6	18.39	53.6
8.33	3.68	2.06	1.37	0.84	0.50	0.31	22.6	42.1	0.0	12.4	10.63	7.0
33.34	34.53	35.84	40.31	51.27	51.32	46.75	32.2	89.6	0.0	41.8	57.82	13.1



