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## **MEETING NOTICE**

*The Platinum Roads Panel of the City of Woodcreek, Texas will conduct a regular meeting at Woodcreek City Hall, located at 41 Champions Circle, Woodcreek, TX. The meeting will be held on October 20, 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 City Hall property.*

*The public may watch this meeting live at the following link:  
<https://meetings.ipvideotalk.com/250718498>. 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:250718498.*

*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**

### **ROLL CALL AND ESTABLISH QUORUM**

### **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*

## CONSENT AGENDA

All the following items are considered self-explanatory by the Panel and may be acted upon with one motion. There will be no separate discussion of these items unless a Councilmember or Citizen so requests. For a Citizen to request removal of an item from the Consent Agenda, a written request must be completed and submitted to the City Manager.

1. Approval of Platinum Roads Panel Meeting Minutes from August 18, 2022.
2. Approval of Platinum Roads Panel Meeting Minutes from September 22, 2022.

## REGULAR AGENDA

3. Discuss and Take Appropriate Action on the Compliance Responsibilities and Procurement Rules for the Drainage Improvement Project Approved by Council and Funded by the APRA
4. Review, Discuss, and Take Appropriate Action on the Draft Request for Proposals for the Small Streets Improvement Project Approved by Council to be Funded From the 2022-23 General Revenue Budget
5. Report by Council Liaison/Mayor Pro Tem Aurora LeBrun on the Adoption of the Comprehensive Plan and the Next Steps for the Platinum Roads Panel Including Developing a Master Transportation Plan

## ADJOURN

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 17th day of October, 2022 at 12:43PM.

By: 

**Suzanne J. MacKenzie, City Secretary**

**PLATINUM ROADS PANEL**  
**August 18, 2022; 5:30 PM**  
**Woodcreek, Texas**

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**MINUTES**

**CALL TO ORDER**

**ROLL CALL AND ESTABLISH QUORUM**

**PRESENT**

Chairperson Linnea Bailey  
Vice-Chair Cody Abney  
Panelist Jill Bloom  
Panelist Ed Fleming  
Council Liaison Aurora F. LeBrun

**ABSENT**

Panelist Joe Green

**STAFF PRESENT**

Administrative Assistant Maureen Mele

**PUBLIC COMMENTS**

No public comments were offered.

**CONSENT AGENDA**

**1. Approval of Platinum Roads Panel Meeting Minutes from July 21, 2022**

A motion was made by Panelist Abney to approve the meeting minutes as written. The motion was seconded by Panelist Fleming.

A roll call vote was held.

Voting Yea: Panelist Fleming, Panelist Bloom, Vice-Chair Abney, Chairperson Bailey

Absent and Not Voting: Panelist Green

The motion carried with a 4-0-0 vote.

**REGULAR AGENDA**

**2. Report from Chairperson Bailey and Council Liaison LeBrun on the City Council Meeting of Aug. 10, 2022 as Pertaining to Financing Road Repair and Drainage Improvement**

A report was given by Council Liaison LeBrun from the Aug. 10, 2022 Special City Council Meeting. Addressing the drainage issue at Westwood Dr. and Brookhollow Dr. was approved by Council and the Platinum Roads Panel can proceed with obtaining recommendations for

this project. The Council approved spending \$227,000 from the Unrestricted Fund Balance contributed by the American Rescue Act for drainage projects; there will need to be a paper trail for this spending.

The Panel will need to obtain bids to request proposals for grants for additional funding. The City Council is going to request proposals for administrative services for writing grants.

The City Council also called for a Nov. 2022 bond election to fund road repaving and repairs.

Council Liaison LeBrun requested a Aug. 25, 2022 meeting of the Platinum Roads Panel to discuss the expectations of the City Council along with a timeline of the expected recommendations.

3. **Establish a Subcommittee to Work with the Engineering Firm of K Friese & Associates as Well as Other Resources to Estimate the Cost of Milling and Resurfacing with Chip & Seal the Low-Traffic Volume Side Streets**

A subcommittee of Chairperson Bailey and Vice-Chair Abney was formed. This committee will meet to estimate the costs as described.

4. **Establish a Subcommittee to Assist the City Council with Estimating the Cost of the Major Street Repair in Anticipation of a General Obligation Bond Election on November 8, 2022**

A motion was made by Panelist Fleming to table agenda items #4 and #5 until the Aug. 25, 2022 Platinum Roads Panel meeting to allow more information to be gathered. The motion was seconded by Vice-Chair Abney.

A roll call vote was held.

Voting Yea: Vice-Chair Abney, Panelist Fleming, Panelist Bloom, Chairperson Bailey

Absent and Not Voting: Panelist Green

The motion carried with a 4-0-0 vote.

5. **Establish a Subcommittee to Assess the Management and Treatment of Repairs Covered by the American Rescue Act of 2021 (ARA) for Stormwater and/or Subsurface Drainage Water at Approximately 11 Brookhollow Drive**

See agenda item #4.

6. **Discuss and Take Appropriate Action Regarding Installing a Stop Sign at the South Intersection of Brookhollow Drive and Augusta Drive**

A motion was made by Panelist Bloom to table agenda item #6 until this issue can be discussed with the city's engineering firm. The motion was seconded by Panelist Fleming.

A roll call vote was held.

Voting Yea: Panelist Bloom, Vice-Chair Abney, Chairperson Bailey, Panelist Fleming

Absent and Not Voting: Panelist Green

The motion carried with a 4-0-0 vote.



7. **Discuss and Take Appropriate Action Regarding Installing a Stop Sign at the Exit of Camp Young Judaea**

A motion was made by Panelist Bloom to recommend to City Council that a sign be added saying "Cross Traffic Does Not Stop" below the stop sign at the exit of Camp Young Judaea. The motion was seconded by Panelist Fleming.

A roll call vote was held.

Voting Yea: Chairperson Bailey, Panelist Fleming, Panelist Bloom, Vice-Chair Abney

Absent and Not Voting: Panelist Green

The motion carried with a 4-0-0 vote.

**ADJOURN**

Chairperson Bailey adjourned the meeting at 6:09PM.

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**Linnea Bailey, Chairperson**

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**Suzanne Mac Kenzie, City Secretary**

**PLATINUM ROADS PANEL**  
**September 22, 2022; 5:30 PM**  
**Woodcreek, Texas**

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**MINUTES**

**CALL TO ORDER**

Chairperson Bailey called the meeting to order at 5:30PM

**ROLL CALL AND ESTABLISH QUORUM**

**PRESENT**

Chairperson Linnea Bailey  
Vice-Chair Cody Abney  
Panelist Jill Bloom  
Panelist Ed Fleming  
Panelist Joe Green  
Council Liaison, Aurora F. LeBrun

**STAFF PRESENT**

City Secretary, Suzanne Mac Kenzie

**CONSENT AGENDA**

**1. Approval of Platinum Roads Panel Meeting Minutes from August 18, 2022.**

A motion was made by Chair Bailey to approve the Platinum Roads Panel Meeting Minutes from August 18, 2022. The motion was not seconded.

**2. Approval of Platinum Roads Panel Meeting Minutes from September 1, 2022.**

A motion was made by Panelist Fleming to approve the Platinum Roads Panel Meeting Minutes from September 1, 2022. The motion was seconded by Vice-Chair Abney.

A roll call vote was held.

Voting Yea: Panelist Bloom, Panelist Fleming, Panelist Green, Chair Bailey, Vice-Chair Abney,

Motion carried with a 5-0-0 vote.

**PUBLIC COMMENTS**

No Public Comments were offered.

## REGULAR AGENDA

### 3. **Report from Council Liaison on Road and Drainage Funding Sources and Their Proper Uses.**

Report was given by Council Liaison, Aurora LeBrun on the road and drainage funding sources and their proper uses.

Woodcreek received two grants that were related to the COVID-19 Event.

**Grant #1:** The \$425,000 grant awarded to the City of Woodcreek issued through the Coronavirus State and Local Fiscal Recovery Funds was actually unclaimed funds distributed to previously non-eligible cities by the U.S. Department of Treasury. The monies can be used by cities to: (1) replace lost public sector revenue due to COVID-19; (2) respond to public health and negative economic impacts of the pandemic; (3) provide payment to essential workers during the pandemic; or (4) invest in water, sewer and broadband infrastructure projects.

This grant does not require a match and reporting the expenditure of funds is required once the project(s) begin. Monies must be obligated to projects by the end of 2024.

**Grant #2:** Monies were received for the Respite Center for COVID Workers that was operated in conjunction with Camp Young Judaea during the COVID event. Other sources of income can be used in conjunction with Grant #1 from the Treasury, as long as the project is related to one of the items listed under the Grant, for example Reserve Funds, the Community Development Block Grant or potentially the Bond. Discussion was held on the creation of a flowchart of funding sources.

### 4. **Report on Low-Traffic Side Street Audit from K Friese.**

A report of four interim street repair options was provided by K.Friese and Associates.

### 5. **Report and Take Appropriate Action on K Friese Priority Low-Traffic Streets Recommendation For Repair to be Covered by the \$227,000 Budget Item.**

Items 5 and 6 were combined into discussion regarding the streets with drainage issues within the City of Woodcreek and their potential funding sources to address those issues.

Discussion was held that the \$227,000 in Reserve Funds would be used to address the drainage on low traffic streets and the \$425,000 grant awarded to the City of Woodcreek issued through the Coronavirus State and Local Fiscal Recovery Funds would be used to address the drainage issues on Westwood Drive.

No official action was taken.

Discussion was to accept Option #3 on the report provided by K.Friese with revisions, adding GMP (Guaranteed Maximum Pricing) and not allowing Change Orders.

Motion was made by Vice-Chair Abney to recommend that an RFP is to be prepared by K.Friese to use Option #3, removing Wilson Circle, McGregor Circle and Spalding Circle; adding Country Lane, Country Court, Wildwood Circle, Overbrook Court, and Tremont Trace, with "Add Alternates" as Wilson Circle and Canyon Creek Drive to get a price using GMP (Guaranteed Maximum Pricing) with no Change Orders and bring the RFP to Council to vote. Motion was seconded by Panelist Fleming.

A roll call vote was held.

Voting Yea: Panelist Green, Chair Bailey, Vice-Chair Abney, Panelist Bloom, Panelist Fleming

Motion carried with a 5-0-0 vote.

**6. Discuss and Take Appropriate Action on the Recommendation to City Council of the Priority List of Projects to be Covered by the \$227,000 Grant.**

Items #5 and #6 were combined (above) into discussion regarding the streets with drainage issues within the City of Woodcreek and their potential funding sources to address those issues.

**7. Discuss and Take Appropriate Action on Recommending to City Council that K Friese & Associates, Inc. Formulate a Request For Proposal (RFP) for a Grant.**

Item #7 was rolled into the motion made under Item #5.

**ADJOURN**

Chairperson Bailey adjourned the meeting at 6:25PM.

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**Linnea Bailey, Chairperson**

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**Suzanne Mac Kenzie, City Secretary**

Platinum Roads Panel  
October 20, 2022

Compliance Responsibilities –  
Activities Relevant to the Drainage Project(s)  
Funded by the American Rescue Plan Act

Eligible Uses:

The drainage improvement project(s) falls within the fourth statutory category of eligible uses for funds received under the State and Local Fiscal Recovery Funds (SLFRF): “To make necessary investments in water, sewer, or broadband infrastructure.”

Eligible Costs Timeframe:

- The SLFRF award funds may be used to cover eligible costs incurred during the period beginning March 3, 2021 and ending on December 31, 2024.
- Funds must be spent by December 31, 2026.
- Any funds not obligated or spent by these timelines must be returned to the U.S. Treasury.

Eligible Costs Principles:

- SLFRF funds may be used, but are not required to be, used along with other funding sources for an eligible project.
- SLFRF funds may be used for administering the program, including costs for consultants

Other Requirements:

- The City must develop procedures, and retain records, to ensure funds are used for eligible purposes.
- The City must also develop and implement internal controls for the use of these fund.
- Reporting is required (this task will be assigned to the Office Administrator)

Specific to the Request for Proposals and Contract Award:

- Formal statement of mission, values, principles, and professional standards. This may include a code of conduct for contractors and subcontractors.
- Risk-based compliance monitoring. Periodic monitoring of projects funded by the SLFRF funds.
- Records maintenance: Records and financial documents relevant to this project and funds must be retained for a period of five (5) years after all funds have been spent.

### Civil Rights Compliance:

- The City, its consultants, and its contractors relevant to this project are required to meet all legal requirements relating to nondiscrimination.
  - The City must ensure its consultants, contractors, and subcontractors do not deny benefits, services, or opportunities on the basis of race, color, national origin (including limited English proficiency), disability, age, or sex (including sexual orientation and gender identity).
  - Procurement contracts must include a provision to this effect.

### Project and Expenditure Reports:

- As a non-eligible unit (NEU) the City of Woodcreek is not required to produce quarterly reports.
- There are required reporting periods – the City’s Administrator will be the primary responsible party for reporting, data entry, and interaction with the Treasury Portal.

### Project Expenditures – Required Information:

- Reporting Schedule – Once a project is entered, the report must include
  - Obligations and Expenditures.
    - Current period obligation
    - Cumulative obligation
    - Current period expenditure
    - Cumulative Expenditure
  - Project Status:
    - Not Started
    - Completed less than 50 percent
    - Completed 50 percent or more
    - Completed

### Awards, Contracts, Grants, Loans, Transfers, Direct Payments Reporting:

- Contracts, Awards, Subawards, Transfers, Loans, Grants
  - For contracts equal; to or greater than \$50,000
    - Identifying and demographic information (UEI/TIN and location)
    - Contract Number
    - Contract date, type, amount, and description
    - Payment method
    - Place of performance
    - Period of performance
    - Quarterly expenditures
    - Quarterly obligations



- Note: We are not required to provide monthly reports – once the Office Administrator has the opportunity to review the Treasury Portal, we will have more information on report timelines.

#### Other Reporting:

- Civil Rights Compliance: The U. S. Department of Treasury will request information on the City's compliance with Title VI of the Civil Rights Act of 1964, as amended, on annual basis.

#### **Required Programmatic Data for Infrastructure Projects:**

Water, Sewer, and Broadband Expenditure Categories have requirements for more detailed project-level information. The project is required to report expenditure data described above, but it is also required to report the following information:

- Projected/actual construction start date (month and year)
- Projected/actual initiation of operations/completion date (month and year)
- Location

Once the project starts there may be additional requirements – the current documents from the U.S. Treasury seem to require information on median household income of service area and lower quintile income of the service area.

#### **Distribution to NEU's**

The City of Woodcreek received the funds of this award through the State of Texas (The Division of Emergency Management) rather than a direct award from the Federal Government. Because of population and rural status, the City was not eligible to participate in the initial award. Once distribution to eligible units was complete, surplus funds were available for distribution, and that responsibility was given to the State of Texas (TDEM).

Once we start reporting, which will be done through our Office Administrator, we will have specific requirements to identify ourselves as an NEU.

# City of Woodcreek, Texas



## RESIDENTIAL STREETS CHIPSEAL PROJECT

This contains engineering information, and the interim submittal requires an interim review stamp by a PE. It will need an Engineer to sign and seal the final version.

Prepared By



**K Friese & Associates, Inc.**  
**1120 S. Capital of Texas Highway**  
**CityView 2 Suite 100**  
**Austin, Texas 78746**

**October 14, 2022**

**CONTRACT DOCUMENTS  
AND TECHNICAL SPECIFICATIONS  
FOR**

**RESIDENTIAL STREETS CHIPSEAL PROJECT**

Prepared For:  
City of Woodcreek

Prepared By:  
K Friese & Associates, Inc.  
Firm #6535  
1120 S. Capital of Texas Highway  
CityView 2 Suite 100  
Austin, Texas 78746

October 14, 2022

**CITY OF WOODCREEK  
CONTRACT DOCUMENTS – TABLE OF CONTENTS  
RESIDENTIAL STREETS CHIPSEAL PROJECT**

**Document  
Number**

**Title**

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BIDDING REQUIREMENTS, CONTRACT FORMS, & CONDITIONS OF THE CONTRACT

**INTRODUCTORY INFORMATION**

Title Page  
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	Form 1295
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C-800	Supplementary Conditions

**SPECIAL SPECIFICATIONS**

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01380	Construction Photographs
02000	Residential Streets Chipseal Project Plans, Details and Notes
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## Invitation to Bid – City of Woodcreek Residential Streets Chipseal

Sealed bids are invited for the **City of Woodcreek Residential Streets Chipseal**, defined in the Contract Documents. The Project is generally described as an asphalt level up and chip seal of up to \$227,000.00 of nine (9) residential streets Canyon Circle, Woodridge Circle, Woodview Court, Garrison Trail, Tremont Trace, Overbrook Court, Country Lane, Country Court, and Wildwood Circle for approximately 1.0 mile in the City of Woodcreek.

Sealed bids in duplicate will be received at the City of Woodcreek at 41 Champions Circle, Woodcreek, TX 78676 Attn: City Secretary by XXXX.

Procedures for submitting bids, bidder qualifications, other pertinent information are contained in the Instructions to Bidders and corresponding Contract Documents. The owner reserves the right to reject any or all bids.

A non-mandatory pre-bid conference will be held at the City of Woodcreek at 41 Champions Circle, Woodcreek, TX 78676 at XXXX, local prevailing time, on XXXX. All questions should be submitted by XXXX via CivCast at XXXX or to Austin Messerli, P.E. at [AMesserli@KFriese.com](mailto:AMesserli@KFriese.com), (512) 338-1784.

Project Manual documents are available online via CivCast at XXXX or Austin Messerli, P.E. at [AMesserli@KFriese.com](mailto:AMesserli@KFriese.com), (512) 338-1784.

**INSTRUCTIONS TO BIDDERS**

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## ARTICLE 1 – DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:
- A. *Issuing Office* – The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.

## ARTICLE 2 – COPIES OF BIDDING DOCUMENTS

- 2.01 Complete sets of the Bidding Documents in the number and for the deposit sum, if any, stated in the advertisement or invitation to bid may be obtained from the Issuing Office. The deposit will be refunded to each document holder of record who returns a complete set of Bidding Documents in good condition within 30 days after opening of Bids.
- 2.02 Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.03 Owner and Engineer, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not authorize or confer a license for any other use.

## ARTICLE 3 – QUALIFICATIONS OF BIDDERS

- 3.01 To demonstrate Bidder's qualifications to perform the Work, at Owner's request, the apparent Bidder may be asked to submit written evidence within 10 days. Bidder shall submitted evidence as financial data, previous experience, present commitments, and such other data as may be called for below.
- 3.02 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications.

## ARTICLE 4 – EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA, AND SITE

- 4.01 *Underground Facilities*
- A. Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site is based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.
- 4.02 *Hazardous Environmental Condition*
- A. The Supplementary Conditions identify any reports and drawings known to Owner relating to a Hazardous Environmental Condition identified at the Site.

- B. Copies of reports and drawings referenced in Paragraph 4.03.A will be made available by Owner to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the “technical data” contained therein upon which Bidder is entitled to rely as provided in Paragraph 4.06 of the General Conditions has been identified and established in Paragraph 4.06 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any “technical data” or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.
- 4.03 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions, and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated subsurface or physical conditions appear in Paragraphs 4.02, 4.03, and 4.04 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work, appear in Paragraph 4.06 of the General Conditions.
- 4.05 On request, Owner will provide Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies as Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies. Bidder shall comply with all applicable Laws and Regulations relative to excavation and utility locates.
- 4.06 A. Reference is made to Article 7 of the Supplementary Conditions for the identification of the general nature of other work that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) that relates to the Work contemplated by these Bidding Documents. On request, Owner will provide to each Bidder for examination access to or copies of contract documents (other than portions thereof related to price) for such other work.
- B. Paragraph 6.13.C of the General Conditions indicates that if an Owner safety program exists, it will be noted in the Supplementary Conditions.
- 4.07 It is the responsibility of each Bidder before submitting a Bid to:
- A. examine and carefully study the Bidding Documents, and the other related data identified in the Bidding Documents;
- B. visit the Site and become familiar with and satisfy Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
- C. become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work;
- D. carefully study all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or

subsurface structures at the Site (except Underground Facilities) that have been identified in Paragraph 4.02 of the Supplementary Conditions as containing reliable "technical data," and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in the Paragraph 4.06 of the Supplementary Conditions as containing reliable "technical data";

- E. consider the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs;
- F. agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price(s) bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents;
- G. become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
- H. promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder; and
- I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.

4.08 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by Engineer are acceptable to Bidder, and that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

## ARTICLE 5 – PRE-BID CONFERENCE

5.01 A pre-Bid conference will be held at **X:XX** p.m. local time on **XXXX** at City of Woodcreek at 41 Champions Circle, Woodcreek, TX 78676. Representatives of Owner and Engineer will be present to discuss the Project. Bidders are encouraged to attend and participate in the conference. Engineer will transmit to all prospective Bidders of record such Addenda as Engineer considers

necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

## **ARTICLE 6 – SITE AND OTHER AREAS**

6.01 The Site is identified in the Bidding Documents. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by Owner unless otherwise provided in the Bidding Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by Contractor.

## **ARTICLE 7 – INTERPRETATIONS AND ADDENDA**

7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to Engineer in writing. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received the Bidding Documents. Questions received less than ten days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

7.02 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by Owner or Engineer.

## **ARTICLE 8 – BID SECURITY**

8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of 5 percent of Bidder's maximum Bid price and in the form of a certified check, bank money order, or a Bid bond (on the form C-430) issued by a surety meeting the requirements of Paragraphs 5.01 and 5.02 of the General Conditions.

8.02 Bid security of other Bidders whom Owner believes do not have a reasonable chance of receiving the award will be returned within seven days after the Bid opening.

## **ARTICLE 9 – CONTRACT TIMES**

9.01 The times for Substantial Completion and readiness for final payment are to be set forth by Bidder in the Bid and will be entered into the Agreement. Substantial Completion is desired within **XX** calendar days. The times will be taken into consideration by Owner during the evaluation of Bids, and it will be necessary for the apparent Successful Bidder to satisfy Owner that it will be able to achieve Substantial Completion and be ready for final payment within the times designated in the Bid.

## **ARTICLE 10 – LIQUIDATED DAMAGES**

10.01 Provisions for liquidated damages, if any, are set forth in the Agreement.

## **ARTICLE 11 – SUBSTITUTE AND “OR-EQUAL” ITEMS**

11.01 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or “or-equal” items. Whenever it is specified or described in the Bidding Documents that a substitute or “or-equal” item of material or equipment may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after the Effective Date of the Agreement.

## **ARTICLE 12 – SUBCONTRACTORS, SUPPLIERS AND OTHERS**

12.01 If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, individuals, or entities to be submitted to Owner in advance of a specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to Owner a list of all such Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, individual, or entity if requested by Owner. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit a substitute,

12.02 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 6.06 of the General Conditions.

12.03 Contractor shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom Contractor has reasonable objection.

## **ARTICLE 13 – PREPARATION OF BID**

13.01 The Bid Form is included with the Bidding Documents.

13.02 All blanks on the Bid Form shall be completed in ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each [section, Bid item, alternative, adjustment unit price item, and unit price item] listed therein. In the case of optional alternatives the words “No Bid,” “No Change,” or “Not Applicable” may be entered.

13.03 A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer accompanied by evidence of authority to sign. The corporate

seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown.

- 13.04 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown.
- 13.05 A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown.
- 13.06 A Bid by an individual shall show the Bidder's name and official address.
- 13.07 A Bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid Form. The official address of the joint venture shall be shown.
- 13.08 All names shall be printed in ink below the signatures.
- 13.09 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- 13.10 Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.
- 13.11 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach such covenant to the Bid. Bidder's state contractor license number, if any, shall also be shown on the Bid Form.

#### **ARTICLE 14 – BASIS OF BID; COMPARISON OF BIDS**

##### 14.01 *Unit Price*

- A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the Bid schedule.
- B. The total of all estimated prices will be the sum of the products of the estimated quantity to complete at each item's corresponding unit price up to nine (9) street projects outlined in the contract documents. The final quantities and Contract Price will be determined in accordance with Paragraph 11.03 of the General Conditions.
- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.



## ARTICLE 15 – SUBMITTAL OF BID

- 15.01 With each copy of the Bidding Documents, a Bidder is furnished one separate unbound copy of the Bid Form, and, if required, the Bid Bond Form. The unbound copy of the Bid Form is to be completed and submitted with the Bid security and the following documents:
- 15.02 A Bid shall be submitted no later than the date and time prescribed and at the place indicated in the advertisement or invitation to bid and shall be enclosed in a plainly marked package with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation “BID ENCLOSED.” A mailed Bid shall be addressed to City of Woodcreek Attn: City Secretary.

## ARTICLE 16 – MODIFICATION AND WITHDRAWAL OF BID

- 16.01 A Bid may be modified or withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids.
- 16.02 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

## ARTICLE 17 – OPENING OF BIDS

- 17.01 Bids will be opened at the time and place indicated in the Advertisement or Invitation to Bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

## ARTICLE 18 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 18.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

## ARTICLE 19 – EVALUATION OF BIDS AND AWARD OF CONTRACT

- 19.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to not be responsible. Owner may also reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder. Owner also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder.

- 19.02 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.
- 19.03 In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.
- 19.04 In evaluating Bidders, Owner will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Supplementary Conditions.
- 19.05 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work in accordance with the Contract Documents.
- 19.06 If the Contract is to be awarded, Owner will award the Contract to the Bidder whose Bid is in the best interests of the Project.

#### **ARTICLE 20 – SIGNING OF AGREEMENT**

- 20.01 When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Agreement along with the other Contract Documents which are identified in the Agreement as attached thereto. Within 15 days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to Owner. Within ten days thereafter, Owner shall deliver one fully signed counterpart to Successful Bidder with a complete set of the Drawings with appropriate identification.

#### **ARTICLE 21 – RETAINAGE**

- 21.01 Provisions concerning Contractor's rights to deposit securities in lieu of retainage are set forth in the Agreement.

**BID FORM**

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**ARTICLE 1 – BID RECIPIENT**

1.01 This Bid is submitted to:

City of Woodcreek at *41 Champions Cir, Woodcreek, TX 78676*

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

**ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS**

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

**ARTICLE 3 – BIDDER’S REPRESENTATIONS**

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, other related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged:

<u>Addendum No.</u>	<u>Addendum Date</u>
_____	_____
_____	_____
_____	_____

B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) that have been identified in SC-4.02 as containing reliable "technical data"

E. Bidder has considered the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the

means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs.

- F. Based on the information and observations referred to in Paragraph 3.01.E above, Bidder does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Engineer is acceptable to Bidder.
- 1. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.

#### **ARTICLE 4 – BIDDER'S CERTIFICATION**

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
  - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
  - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
  - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and

4. “coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

**ARTICLE 5 – BASIS OF BID**

- 5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s). See the following sheet:



Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price
1006002	PREPARING ROW	STA	50.9	\$	\$
3166224	AGGR(TY-PB GR-4 SAC-B)	CY	732	\$	\$
3166466	ASPH (CHFRS-2P OR CRS-2P)	GAL	6255	\$	\$
3406246	D-GR HMA(SQ) TY-D PG64-22 (LEVEL_UP)	TON	304	\$	\$
3516004	FLEXIBLE PAVEMENT STRUCTURE REPAIR (8")	SY	210	\$	\$
5006001	MOBILIZATION	LSUM	1	\$	\$
5026001	BARRICADES, SIGNS AND TRAFFIC HANLING	MO	1	\$	\$
6666042	REFL PAV MRK TY 1 (W)12"(SLD)(100MIL)	LF	9	\$	\$
6726009	REFL PAV MRKR TY II-C-R *	EA	6	\$	\$
N/A	CONSTRUCTION PHOTOGRAPHY	LSUM	1	\$	\$
Total of All Bid Prices				\$	

Unit Prices have been computed in accordance with Paragraph 11.03.B of the General Conditions.

Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will not exceed \$227,000 and will be based on actual quantities authorized by the Owner as as determined as provided in the Contract Documents.

#### **ARTICLE 6 – TIME OF COMPLETION**

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

**ARTICLE 7 – ATTACHMENTS TO THIS BID**

- 7.01 The following documents are submitted with and made a condition of this Bid:
  - A. Required Bid security in the form of 5% Bid Bond;
  - B. Form 1295
  - C. CIQ Questionnaire;

**ARTICLE 8 – DEFINED TERMS**

- 8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

**BID SUBMITTAL**

- 9.01 This Bid is submitted by:  
If Bidder is:

An Individual

Name (typed or printed): \_\_\_\_\_

By: \_\_\_\_\_  
(Individual’s signature)

Doing business as: \_\_\_\_\_

A Partnership

Partnership Name: \_\_\_\_\_

By: \_\_\_\_\_  
(Signature of general partner -- attach evidence of authority to sign)

Name (typed or printed): \_\_\_\_\_

A Corporation

Corporation Name: \_\_\_\_\_ (SEAL)

State of Incorporation: \_\_\_\_\_

Type (General Business, Professional, Service, Limited Liability): \_\_\_\_\_

By: \_\_\_\_\_  
(Signature -- attach evidence of authority to sign)

Name (typed or printed): \_\_\_\_\_

Title: \_\_\_\_\_  
(CORPORATE SEAL)

Attest \_\_\_\_\_

Date of Qualification to do business in Texas is \_\_\_ / \_\_\_ / \_\_\_.

A Joint Venture

Name of Joint Venture: \_\_\_\_\_

First Joint Venturer Name: \_\_\_\_\_ (SEAL)

By: \_\_\_\_\_  
(Signature of first joint venture partner -- attach evidence of authority to sign)

Name (typed or printed): \_\_\_\_\_

Title: \_\_\_\_\_

Second Joint Venturer Name: \_\_\_\_\_ (SEAL)

By: \_\_\_\_\_  
(Signature of second joint venture partner -- attach evidence of authority to sign)

Name (typed or printed): \_\_\_\_\_

Title: \_\_\_\_\_

Bidder's Business Address \_\_\_\_\_  
\_\_\_\_\_

Phone No. \_\_\_\_\_ Fax No. \_\_\_\_\_

E-mail \_\_\_\_\_

SUBMITTED on \_\_\_\_\_, 20\_\_\_\_.

State Contractor License No. \_\_\_\_\_. *[If applicable]*

# CONFLICT OF INTEREST QUESTIONNAIRE

For vendor doing business with local governmental entity

## FORM CIQ

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. See Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

### OFFICE USE ONLY

Date Received

**1 Name of vendor who has a business relationship with local governmental entity.**

**2**  **Check this box if you are filing an update to a previously filed questionnaire.** (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

**3 Name of local government officer about whom the information is being disclosed.**

\_\_\_\_\_  
Name of Officer

**4 Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.**

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

Yes       No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

Yes       No

**5 Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.**

**6**  Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

**7**

\_\_\_\_\_  
Signature of vendor doing business with the governmental entity

\_\_\_\_\_  
Date

## CONFLICT OF INTEREST QUESTIONNAIRE

### For vendor doing business with local governmental entity

A complete copy of Chapter 176 of the Local Government Code may be found at <http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm>. For easy reference, below are some of the sections cited on this form.

**Local Government Code § 176.001(1-a):** "Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:

- (A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;
- (B) a transaction conducted at a price and subject to terms available to the public; or
- (C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

**Local Government Code § 176.003(a)(2)(A) and (B):**

(a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:

\*\*\*

(2) the vendor:

(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds \$2,500 during the 12-month period preceding the date that the officer becomes aware that

- (i) a contract between the local governmental entity and vendor has been executed;
- or
- (ii) the local governmental entity is considering entering into a contract with the vendor;

(B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than \$100 in the 12-month period preceding the date the officer becomes aware that:

- (i) a contract between the local governmental entity and vendor has been executed; or
- (ii) the local governmental entity is considering entering into a contract with the vendor.

**Local Government Code § 176.006(a) and (a-1)**

(a) A vendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:

- (1) has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);
- (2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or
- (3) has a family relationship with a local government officer of that local governmental entity.

(a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

(1) the date that the vendor:

- (A) begins discussions or negotiations to enter into a contract with the local governmental entity; or
- (B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity; or

(2) the date the vendor becomes aware:

- (A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);
- (B) that the vendor has given one or more gifts described by Subsection (a); or
- (C) of a family relationship with a local government officer.

# CERTIFICATE OF INTERESTED PARTIES

# FORM 1295

### OFFICE USE ONLY

Complete Nos. 1 - 4 and 6 if there are interested parties.  
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

**1 Name of business entity filing form, and the city, state and country of the business entity's place of business.**

**2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.**

**3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.**

4 Name of Interested Party	City, State, Country (place of business)	Nature of Interest (check applicable)	
		Controlling	Intermediary

**5** Check only if there is **NO** Interested Party.

### 6 UNSWORN DECLARATION

My name is \_\_\_\_\_, and my date of birth is \_\_\_\_\_.

My address \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.  
(street) (city) (state) (zip code) (country)

I declare under penalty of perjury that the foregoing is true and correct.

Executed in \_\_\_\_\_ County, State of \_\_\_\_\_, on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.  
(month) (year)

\_\_\_\_\_  
Signature of authorized agent of contracting business entity  
(Declarant)

**ADD ADDITIONAL PAGES AS NECESSARY**



**BID BOND**

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

---

BIDDER *(Name and Address)*:

SURETY *(Name and Address of Principal Place of Business)*:

OWNER *(Name and Address)*:

City of Woodcreek  
 41 Champions Circle, Woodcreek, TX 78676

**BID**

Bid Due Date:  
 Description *(Project Name and Include Location)*:

Residential Streets Chipseal Project is an overlay, with milling and full depth replacement, of residential streets including Canyon Circle, Woodview Court, Garrison Trail, Tremont Trace, Overbrook Court, Country Lane, Country Court, and Wildwood Circle for approximately 1.0 mile in the City of Woodcreek.

**BOND**

Bond Number:  
 Date *(Not earlier than Bid due date)*:  
 Penal sum \_\_\_\_\_

\_\_\_\_\_ \$ \_\_\_\_\_  
 (Words) (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

**BIDDER**

**SURETY**

\_\_\_\_\_  
 Bidder's Name and Corporate Seal (Seal)      \_\_\_\_\_ (Seal)  
 Surety's Name and Corporate Seal

By: \_\_\_\_\_  
 Signature

By: \_\_\_\_\_  
 Signature (Attach Power of Attorney)

\_\_\_\_\_  
 Print Name

\_\_\_\_\_  
 Print Name

\_\_\_\_\_  
 Title

\_\_\_\_\_  
 Title

Attest: \_\_\_\_\_  
 Signature

Attest: \_\_\_\_\_  
 Signature

\_\_\_\_\_  
 Title

\_\_\_\_\_  
 Title

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
  - 3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
  - 3.2 All Bids are rejected by Owner, or
  - 3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

# Notice of Award

Date: \_\_\_\_\_

Project: Residential Streets Chipseal	
Owner: City of Woodcreek	Owner's Contract No.:
Contract:	Engineer's Project No.: 0762
Bidder:	
Bidder's Address:	

You are notified that your Bid dated \_\_\_\_\_ for the above Contract has been considered. You are the Successful Bidder and are awarded a Contract for \_\_\_\_\_

The Contract Price of your Contract is \_\_\_\_\_ Dollars (\$\_\_\_\_\_).

\_\_\_\_\_ copies of the proposed Contract Documents (except Drawings) accompany this Notice of Award.

\_\_\_\_\_ sets of the Drawings will be delivered separately or otherwise made available to you immediately.

You must comply with the following conditions precedent within [15] days of the date you receive this Notice of Award.

1. Deliver to the Owner [\_\_\_\_\_] fully executed counterparts of the Contract Documents.
2. Deliver with the executed Contract Documents the Contract security [Bonds] as specified in the Instructions to Bidders (Article 20), General Conditions (Paragraph 5.01), and Supplementary Conditions (Paragraph SC-5.01).
3. Other conditions precedent:  
\_\_\_\_\_

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Contract Documents.

\_\_\_\_\_  
Owner  
By: \_\_\_\_\_  
Authorized Signature  
\_\_\_\_\_  
Title

Copy to Engineer

**FORM OF AGREEMENT  
BETWEEN OWNER AND CONTRACTOR  
FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)**

THIS AGREEMENT is by and between \_\_\_\_\_ City of Woodcreek \_\_\_\_\_ (“Owner”) and  
\_\_\_\_\_  
\_\_\_\_\_ (“Contractor”).

Owner and Contractor hereby agree as follows:

**ARTICLE 1 – WORK**

- 1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: an asphalt level up and chip seal of up to \$227,000.00 of nine (9) residential streets Canyon Circle, Woodridge Circle, Woodview Court, Garrison Trail, Tremont Trace, Overbrook Court, Country Lane, Country Court and Wildwood Circle for approximately 1.0 miles in the City of Woodcreek.

**ARTICLE 2 – THE PROJECT**

- 2.01 The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows: an asphalt level up and chip seal at Canyon Circle, Woodridge Circle, Woodview Court, Garrison Trail from Canyon Creek to each individual residential street cul-de-sac, Tremont Trace from Champions Circle to Tremont Trace cul-de-sac, Overbrook Court from Brookhollow Drive to Overbrook Court cul-de-sac, Country Lane from Brookhollow Drive to Country Lane cul-de-sac, Country Court from Country Lane to Country Court cul-de-sac, Wildwood Circle from Dolittle Drive up to \$227,00.00.

**ARTICLE 3 – ENGINEER**

- 3.01 The Project has been designed by K Friese + Associates (Engineer), which is to act as Owner’s representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

**ARTICLE 4 – CONTRACT TIMES**

- 4.02 *Days to Achieve Substantial Completion and Final Payment*

- A. The Work will be substantially completed within **XX** calendar days after the date when the Contract Times commence to run as provided in Paragraph 2.03 of the General Conditions, and

completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within **XX** days after the date when the Contract Times commence to run.

#### 4.03 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall pay Owner \$500 for each day that expires after the time specified in Paragraph 4.02 above for Substantial Completion until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by Owner, Contractor shall pay Owner \$500 for each day that expires after the time specified in Paragraph 4.02 above for completion and readiness for final payment until the Work is completed and ready for final payment.

## ARTICLE 5 – CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to Paragraphs 5.01.A, 5.01.B, and 5.01.C below:

A. For all Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the actual quantity of that item up to a total amount not to exceed \$227,000.:

The Bid prices for Unit Price Work set forth as of the Effective Date of the Agreement are based on estimated quantities. As provided in Paragraph 11.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer as provided in Paragraph 9.07 of the General Conditions.

B. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

## ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

A. Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 20th day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below. All such payments will be measured by the schedule of values established as provided in Paragraph 2.07.A of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements.

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Engineer may determine or Owner may withhold, including but not limited to liquidated damages, in accordance with Paragraph 14.02 of the General Conditions.

6.03 *Final Payment*

A. Upon final completion and acceptance of the Work in accordance with Paragraph 14.07 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 14.07.

**ARTICLE 7 – CONTRACTOR’S REPRESENTATIONS**

- 7.01 In order to induce Owner to enter into this Agreement, Contractor makes the following representations:
- A. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
  - B. Contractor has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
  - C. Contractor is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
  - D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities), if any, that have been identified in Paragraph SC-4.02 of the Supplementary Conditions as containing reliable "technical data," and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in Paragraph SC-4.06 of the Supplementary Conditions as containing reliable "technical data."
  - E. Contractor has considered the information known to Contractor; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and (3) Contractor’s safety precautions and programs.
  - F. Based on the information and observations referred to in Paragraph 8.01.E above, Contractor does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
  - G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
  - H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
  - I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

## ARTICLE 8 – CONTRACT DOCUMENTS

### 8.01 *Contents*

- A. The Contract Documents consist of the following:
1. This Agreement
  2. Performance bond
  3. Payment bond
  4. Bid bond
  5. General Conditions
  6. Supplementary Conditions
  7. Specifications as listed in the table of contents of the Project Manual.
  8. Addenda
  9. Exhibits to this Agreement (enumerated as follows):
    - a. Contractor's Bid
    - b. Documentation submitted by Contractor prior to Notice of Award
  10. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
    - a. Notice to Proceed
    - b. Work Change Directives.
    - c. Change Orders.
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the General Conditions.



## ARTICLE 9 – MISCELLANEOUS

### 9.01 *Terms*

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

### 9.02 *Assignment of Contract*

- A. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

### 9.03 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

### 9.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

### 9.05 *Contractor's Certifications*

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:
  - 1. “corrupt practice” means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
  - 2. “fraudulent practice” means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. “collusive practice” means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
4. “coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement. Counterparts have been delivered to Owner and Contractor. All portions of the Contract Documents have been signed or have been identified by Owner and Contractor or on their behalf.

This Agreement will be effective on \_\_\_\_\_).

OWNER:

CONTRACTOR

\_\_\_\_\_

\_\_\_\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: \_\_\_\_\_

Attest: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Address for giving notices:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Address for giving notices:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

License No.: \_\_\_\_\_

(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)

Agent for service of process:  
\_\_\_\_\_

# Notice to Proceed

Date: \_\_\_\_\_

Project: Residential Streets Chipseal Project	
Owner: City of Woodcreek	Owner's Contract No.:
Contract:	Engineer's Project No.: 0762
Contractor:	
Contractor's Address:	

You are notified that the Contract Times under the above Contract will commence to run on \_\_\_\_\_. On or before that date, you are to start performing your obligations under the Contract Documents. In accordance with Article 4 of the Agreement, the number of calendar days to achieve Substantial Completion is **XX days**, and the number of days to achieve readiness for final payment is **XX days**.

Before you may start any Work at the Site, Paragraph 2.01.B of the General Conditions provides that you and Owner must each deliver to the other (with copies to Engineer and other identified additional insureds and loss payees) certificates of insurance which each is required to purchase and maintain in accordance with the Contract Documents.

Also, before you may start any Work at the Site, you must:

_____	Owner
_____	Given by:
_____	Authorized Signature
_____	Title
_____	Date

Copy to Engineer

## PERFORMANCE BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*: City of Woodcreek at 41 Champions Circle, Wimberly, TX 78676

**CONSTRUCTION CONTRACT**

Effective Date of the Agreement:

Amount:

Description *(name and location)*:

**BOND**

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:

Amount:

Modifications to this Bond Form:  None  See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

**CONTRACTOR AS PRINCIPAL**

**SURETY**

\_\_\_\_\_  
Contractor's Name and Corporate Seal *(seal)*

\_\_\_\_\_  
Surety's Name and Corporate Seal *(seal)*

By: \_\_\_\_\_  
Signature

By: \_\_\_\_\_  
Signature *(attach power of attorney)*

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

Attest: \_\_\_\_\_  
Signature

Attest: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

**Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.**

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of

the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within

two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2 Construction Contract: The agreement between Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

**PAYMENT BOND**

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*: City of Woodcreek at 41 Champions Circle, Wimberly, TX 78676

**CONSTRUCTION CONTRACT**

Effective Date of the Agreement:  
Amount:  
Description *(name and location)*:

**BOND**

Bond Number:  
Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:  
Amount:  
Modifications to this Bond Form:  None  See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

**CONTRACTOR AS PRINCIPAL**

**SURETY**

\_\_\_\_\_  
Contractor's Name and Corporate Seal *(seal)*

\_\_\_\_\_  
Surety's Name and Corporate Seal *(seal)*

By: \_\_\_\_\_  
Signature

By: \_\_\_\_\_  
Signature *(attach power of attorney)*

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

Attest: \_\_\_\_\_  
Signature

Attest: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

*Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.*



1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond shall arise after the following:
  - 5.1 Claimants who do not have a direct contract with the Contractor,
    - 5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
    - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
  - 5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
  - 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
  - 7.2 Pay or arrange for payment of any undisputed amounts.
  - 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or

(2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

- 13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.
- 14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
- 15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

16. **Definitions**

16.1 **Claim:** A written statement by the Claimant including at a minimum:

- 1. The name of the Claimant;
- 2. The name of the person for whom the labor was done, or materials or equipment furnished;
- 3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
- 4. A brief description of the labor, materials, or equipment furnished;
- 5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
- 6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
- 7. The total amount of previous payments received by the Claimant; and
- 8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond

shall be to include without limitation in the terms "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4 **Owner Default:** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

18. Modifications to this Bond are as follows:

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Design and Construction Related Documents  
Instructions and License Agreement**

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# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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## ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

### 1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
  2. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
  3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
  4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
  5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
  6. *Bidder*—The individual or entity who submits a Bid directly to Owner.
  7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
  8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
  9. *Change Order*—A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
  10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
  11. *Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.



12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.
16. *Cost of the Work*—See Paragraph 11.01 for definition.
17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
19. *Engineer*—The individual or entity named as such in the Agreement.
20. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
21. *General Requirements*—Sections of Division 1 of the Specifications.
22. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
23. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
24. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
28. *Notice to Proceed*—A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
30. *PCBs*—Polychlorinated biphenyls.
31. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
32. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
34. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
35. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
37. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
38. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
39. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

40. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
41. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
42. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
43. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
44. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
45. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.
46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.
47. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.
48. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
49. *Unit Price Work*—Work to be paid for on the basis of unit prices.
50. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an

addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

## 1.02 Terminology

A. The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives:*

1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. *Day:*

1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective:*

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
  - a. does not conform to the Contract Documents; or
  - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
  - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. *Furnish, Install, Perform, Provide:*

1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
  2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
  3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
  4. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, “provide” is implied.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

## ARTICLE 2 – PRELIMINARY MATTERS

### 2.01 *Delivery of Bonds and Evidence of Insurance*

- A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

### 2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

### 2.03 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

## 2.04 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

## 2.05 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:
1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;
  2. a preliminary Schedule of Submittals; and
  3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

## 2.06 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

## 2.07 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of



the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

### ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

#### 3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

#### 3.02 *Reference Standards*

- A. Standards, Specifications, Codes, Laws, and Regulations
  1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
  2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

#### 3.03 *Reporting and Resolving Discrepancies*

- A. *Reporting Discrepancies:*

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies:*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
  - a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or
  - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:
  1. A Field Order;
  2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or



3. Engineer's written interpretation or clarification.

### 3.05 *Reuse of Documents*

- A. Contractor and any Subcontractor or Supplier shall not:
1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions; or
  2. reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

### 3.06 *Electronic Data*

- A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

## **ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS**

### 4.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the

Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

#### 4.02 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Supplementary Conditions identify:

- 1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and
- 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

- 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
- 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
- 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

#### 4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:

- 1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or
- 2. is of such a nature as to require a change in the Contract Documents; or
- 3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

- B. *Engineer's Review:* After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.

C. *Possible Price and Times Adjustments:*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
  - a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and
  - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
  - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
  - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or
  - c. Contractor failed to give the written notice as required by Paragraph 4.03.A.
3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

#### 4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and
2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
  - a. reviewing and checking all such information and data;
  - b. locating all Underground Facilities shown or indicated in the Contract Documents;
  - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and
  - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated:*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

#### 4.05 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

#### 4.06 *Hazardous Environmental Condition at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
  2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
  3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to

permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.

- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.
- F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
- G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.



## ARTICLE 5 – BONDS AND INSURANCE

### 5.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.
- B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.
- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

### 5.02 *Licensed Sureties and Insurers*

- A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

### 5.03 *Certificates of Insurance*

- A. Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.
- B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.

- C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.
- E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

#### 5.04 *Contractor's Insurance*

- A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
  - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
  - 2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
  - 3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
  - 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:
    - a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
    - b. by any other person for any other reason;
  - 5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
  - 6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.
- B. The policies of insurance required by this Paragraph 5.04 shall:
  - 1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, members, partners,



employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
6. include completed operations coverage:
  - a. Such insurance shall remain in effect for two years after final payment.
  - b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

#### 5.05 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

#### 5.06 *Property Insurance*

- A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
  1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of

them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;

2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.
  3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
  4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
  5. allow for partial utilization of the Work by Owner;
  6. include testing and startup; and
  7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.
- B. Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.
- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.
- D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

- E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

#### 5.07 *Waiver of Rights*

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for:
1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
  2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.

#### 5.08 *Receipt and Application of Insurance Proceeds*

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.
- B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

#### 5.09 *Acceptance of Bonds and Insurance; Option to Replace*

- A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

#### 5.10 *Partial Utilization, Acknowledgment of Property Insurer*

- A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

## ARTICLE 6 – CONTRACTOR’S RESPONSIBILITIES

### 6.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

### 6.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner’s written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

### 6.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.
- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

#### 6.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.
1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.
  2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

#### 6.05 *Substitutes and "Or-Equals"*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.
1. *"Or-Equal" Items:* If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
    - a. in the exercise of reasonable judgment Engineer determines that:
      - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
      - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and
      - 3) it has a proven record of performance and availability of responsive service.
    - b. Contractor certifies that, if approved and incorporated into the Work:
      - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
      - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.



2. *Substitute Items:*

- a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
- b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
- c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.
- d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
  - 1) shall certify that the proposed substitute item will:
    - a) perform adequately the functions and achieve the results called for by the general design,
    - b) be similar in substance to that specified, and
    - c) be suited to the same use as that specified;
  - 2) will state:
    - a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,
    - b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
    - c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
  - 3) will identify:
    - a) all variations of the proposed substitute item from that specified, and
    - b) available engineering, sales, maintenance, repair, and replacement services; and
  - 4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.

- B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.
- C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.
- D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. *Engineer's Cost Reimbursement:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- F. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

#### 6.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.
- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or



entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

- C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:
1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor
  2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.
- D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.
- E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.
- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

#### 6.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its

use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

#### 6.08 *Permits*

- A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

#### 6.09 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner

and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

#### 6.10 Taxes

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

#### 6.11 Use of Site and Other Areas

##### A. Limitation on Use of Site and Other Areas:

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.
2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

- D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

## 6.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.

## 6.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
1. all persons on the Site or who may be affected by the Work;
  2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
  3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts

any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

- F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

#### 6.14 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

#### 6.15 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

#### 6.16 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

#### 6.17 *Shop Drawings and Samples*

- A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

##### 1. *Shop Drawings:*

- a. Submit number of copies specified in the General Requirements.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

##### 2. *Samples:*

- a. Submit number of Samples specified in the Specifications.



- b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.
- B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Submittal Procedures:*

1. Before submitting each Shop Drawing or Sample, Contractor shall have:
  - a. reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
  - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
  - c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
  - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.
3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. *Engineer's Review:*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the

Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.18 *Continuing the Work*

- A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
  1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
  2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
  1. observations by Engineer;
  2. recommendation by Engineer or payment by Owner of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
4. use or occupancy of the Work or any part thereof by Owner;
5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
6. any inspection, test, or approval by others; or
7. any correction of defective Work by Owner.

#### 6.20 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
  1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
  2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.



## 6.21 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.
- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

## **ARTICLE 7 – OTHER WORK AT THE SITE**

### 7.01 *Related Work at Site*

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
  - 1. written notice thereof will be given to Contractor prior to starting any such other work; and
  - 2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe

access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.

- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

#### 7.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:
1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
  2. the specific matters to be covered by such authority and responsibility will be itemized; and
  3. the extent of such authority and responsibilities will be provided.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

#### 7.03 *Legal Relationships*

- A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.
- B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.
- C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

## ARTICLE 8 – OWNER’S RESPONSIBILITIES

### 8.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

### 8.02 *Replacement of Engineer*

- A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

### 8.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

### 8.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

### 8.05 *Lands and Easements; Reports and Tests*

- A. Owner’s duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner’s identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

### 8.06 *Insurance*

- A. Owner’s responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

### 8.07 *Change Orders*

- A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

### 8.08 *Inspections, Tests, and Approvals*

- A. Owner’s responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

### 8.09 *Limitations on Owner’s Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor’s means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws

and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

#### 8.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

#### 8.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents.

#### 8.12 *Compliance with Safety Program*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed pursuant to Paragraph 6.13.D.

### **ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION**

#### 9.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents.

#### 9.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

### 9.03 *Project Representative*

- A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

### 9.04 *Authorized Variations in Work*

- A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

### 9.05 *Rejecting Defective Work*

- A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

### 9.06 *Shop Drawings, Change Orders and Payments*

- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.
- B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.
- C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.
- D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

### 9.07 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations

on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.
- B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.
- D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of,



and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.

- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

#### 9.10 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

### **ARTICLE 10 – CHANGES IN THE WORK; CLAIMS**

#### 10.01 *Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
- B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

#### 10.02 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

#### 10.03 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:
1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
  2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
  3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of

executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

#### 10.04 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

#### 10.05 *Claims*

- A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).
- C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
1. deny the Claim in whole or in part;
  2. approve the Claim; or
  3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.



- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

## ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

### 11.01 *Cost of the Work*

- A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:
  1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.
  2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
  3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
  - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
  - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
  - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
  - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
  - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
  - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
  - g. The cost of utilities, fuel, and sanitary facilities at the Site.
  - h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.
  - i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.
  2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
  3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
  4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
  5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.
- C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.
- D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

#### 11.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances:*
1. Contractor agrees that:
    - a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
    - b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in

the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance:*

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 *Unit Price Work*

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:

1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
2. there is no corresponding adjustment with respect to any other item of Work; and
3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

**ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES**

12.01 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
  2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
  3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).
- C. *Contractor's Fee*: The Contractor's fee for overhead and profit shall be determined as follows:
1. a mutually acceptable fixed fee; or
  2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
    - a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
    - b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;
    - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
    - d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
    - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
    - f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

## 12.02 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

## 12.03 *Delays*

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.
- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.
- D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.



## ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

### 13.01 *Notice of Defects*

- A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

### 13.02 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

### 13.03 *Tests and Inspections*

- A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:
  - 1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
  - 2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and
  - 3. as otherwise specifically provided in the Contract Documents.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.



- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

#### 13.04 *Uncovering Work*

- A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.
- B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.
- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.
- D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

#### 13.05 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

#### 13.06 *Correction or Removal of Defective Work*

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers,

architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

### 13.07 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
1. repair such defective land or areas; or
  2. correct such defective Work; or
  3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
  4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

### 13.08 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

### 13.09 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct, or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.
- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

## ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

### 14.01 *Schedule of Values*

- A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

### 14.02 *Progress Payments*

#### A. *Applications for Payments:*

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

#### B. *Review of Applications:*

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's

review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

- a. the Work has progressed to the point indicated;
  - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and
  - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
- a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or
  - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
- a. to supervise, direct, or control the Work, or
  - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
  - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
  - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
  - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:

- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
- b. the Contract Price has been reduced by Change Orders;
- c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
- d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. *Payment Becomes Due:*

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

D. *Reduction in Payment:*

1. Owner may refuse to make payment of the full amount recommended by Engineer because:
  - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
  - b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
  - c. there are other items entitling Owner to a set-off against the amount recommended; or
  - d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.
3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

14.03 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.



#### 14.04 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to Owner, notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.
- E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.

#### 14.05 *Partial Utilization*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:



1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.
2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

#### 14.06 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

#### 14.07 *Final Payment*

##### A. *Application for Payment:*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
  - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;
  - b. consent of the surety, if any, to final payment;
  - c. a list of all Claims against Owner that Contractor believes are unsettled; and

- d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

*B. Engineer's Review of Application and Acceptance:*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

*C. Payment Becomes Due:*

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

*14.08 Final Completion Delayed*

- A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

#### 14.09 *Waiver of Claims*

- A. The making and acceptance of final payment will constitute:
1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
  2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

### ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

#### 15.01 *Owner May Suspend Work*

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

#### 15.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will justify termination for cause:
1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
  2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
  3. Contractor's repeated disregard of the authority of Engineer; or
  4. Contractor's violation in any substantial way of any provisions of the Contract Documents.
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:
1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);

2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and
  3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.
- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
- E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.
- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

### 15.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
  2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
  3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other

dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and

4. reasonable expenses directly attributable to termination.

B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

#### 15.04 *Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

## ARTICLE 16 – DISPUTE RESOLUTION

### 16.01 *Methods and Procedures*

A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.

C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:

1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or

2. agrees with the other party to submit the Claim to another dispute resolution process; or
3. gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.

## ARTICLE 17 – MISCELLANEOUS

### 17.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
  1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or
  2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

### 17.02 *Computation of Times*

- A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

### 17.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

### 17.04 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

### 17.05 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

### 17.06 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.



## SPECIAL CONDITIONS OF AGREEMENT

1. OWNER

The word "Owner" in these Specifications shall be understood as referring to the City of Woodcreek, Hays County, Texas.

2. ENGINEER

The word "Engineer" in these Specifications shall be understood as referring to K Friese and Associates, Engineer of the Owner, or to such supervisor or representative as may be authorized by said Owner to act for Owner in any particular position.

3. LOCATION OF WORK

The work is to be located within the City of Woodcreek as shown on the Project Location Map in the technical. Each person submitting a bid on the proposed work is required to inform himself/herself fully of the conditions relating to the construction and to the labor conditions under which the work will be performed.

4. TIME OF COMPLETION

Work on the Project is to be fully completed within the number of consecutive calendar days set forth in the Proposal after written notice to proceed is issued. Time extensions will not be granted for rain, wind flood, or other natural phenomena of normal intensity for the locality where Work is performed. For purpose of determining the extent of a delay attributable to unusual rainfall, the number of rain days experienced during a month will be compared to the normal weather recorded and expected for Hays County, Texas. Normal rainfall compiled by the National Oceanic and Atmospheric Administration, is considered a part of the Calendar Day Contract, and is not a justification for an extension of time. Listed below as follows are the mean number of days in which there occurred 0.25 inch or more of precipitation:

January	4 days
February	2 days
March	4 days
April	2 days
May	3 days
June	2 days
July	1 days
August	5 days
September	5 days
October	2 days
November	1 days
December	4 days

5. SUPERINTENDENCE OF CONSTRUCTION

The Contractor shall be personally in charge of all work and shall have on the job a competent construction superintendent. In the absence of the superintendent from the job site, an acting-superintendent shall be appointed to be in full charge of the work. The superintendent and acting superintendent shall be given full authority to follow any and all instructions given by the Owner or its representative.



## 6. ADDENDA

Bidders desiring further information, or clarification of the Project Manual must make request for information or questions to CivCast at XXXX or to Austin Messerli, P.E. at [AMesserli@KFriese.com](mailto:AMesserli@KFriese.com), (512) 338-1784 at by XXXX. Answers to all such requests will be given in writing to all bidders in addendum form. No other explanation or interpretation will be considered official or binding. Should a bidder find discrepancies in, or omissions from the Specifications, or other Contract Documents, or should he/she be in doubt as to their meaning, he/she should at once notify the Engineer, in order that a written addendum may be sent to all bidders. The proposal as submitted by the Contractor must be so constructed as to be responsive to or take into account any addendum or addenda issued by the Engineer and received by the Bidder.

## 7. DELIVERY OF PROPOSALS

It is the responsibility of the bidder to deliver his proposal at the proper time and to the proper place. The bidder must have his proposal in the hands of the proper official before the advertised closing time. Bids received after the advertised closing time will not be considered and will be returned unopened. The fact that a proposal was dispatched by mail, express, or otherwise, will not excuse failure to meet this requirement.

## 8. PREVENTION OF ACCIDENTS AND DAMAGE TO WORK

The Contractor shall at all times during the course of construction on this Project exercise such precautions as are necessary for the prevention of accidents. The safety provisions, as outlined in the "Manual of Accident Prevention in Construction", published by the Associated General Contractors of America, shall be observed to such extent that such provisions do not conflict with existing State Laws and City Ordinances.

No public road or entrance to residential lot shall be entirely closed. It shall be the responsibility of the Contractor to build and maintain all weather bypasses and detours, if necessary, and to properly light, barricade and mark all bypasses and detours that might be required on and across the roads in the work included in this contract.

Where the work is carried on in or adjacent to any street, alley or public place the Contractor shall at his own cost and expense, furnish and erect such barricades, fences, lights, and danger signals, shall provide such watchmen, and shall provide such other precautionary measures for the protection of persons or property and of the work as are necessary. Barricades shall conform to the latest edition of the Manual on Uniform Traffic Control Devices. Sufficient numbers of barricades shall be erected to keep vehicles from being driven on or into any work under construction. The Contractor shall furnish watchmen in sufficient number to protect the work.

The Contractor will be held responsible for all damage to the work due to failure of barricades, signs, lights and watchmen to protect it and whenever evidence is found of such damage, the Contractor shall immediately remove the damaged portion and replace it at his cost and expense. The Contractor's responsibility for the maintenance of barricades, signs, and lights, and for providing watchmen shall not cease until the Project shall have been accepted by the Owner.

## 9. SPECIFICATIONS AND DRAWINGS

Titles to divisions and paragraphs in the Specifications are introduced merely for convenience and are not to be taken as a part of the Specifications and are, furthermore, not to be taken as a correct or complete segregation of the several units of materials and labor. No responsibility, either direct or

implied, is assumed by the Owner, for omissions or duplications by the Contractor or his Subcontractors, due to real or alleged error in arrangement of matter in these.

11. CONTRACT DOCUMENTS, PLANS AND SPECIFICATIONS

Copies of the Contract Documents, Plans and Specifications are on file and may be obtained at no charge from are available online via CivCast at XXXX or Austin Messerli, P.E. at AMesserli@KFriese.com, (512) 338-1784.

12. AWARD OF CONTRACT

The Owner, or the Engineer on the Owner's behalf, will notify the successful bidder in writing, within sixty (60) days after the date of receiving bids, of its acceptance of his proposal. The Contractor shall complete the execution of the required Bonds and Contract Documents within ten (10) days of such notice.

13. LIQUIDATED DAMAGES FOR DELAY BY CONTRACTOR

The Contractor agrees that time is of the essence in this contract and that the Owner will be damaged if there is delay in completion of the work beyond the time proposed in the Bid Schedule. The parties agree that the amount of the damage which will be incurred by the Owner as a result of any such delay is difficult to estimate, and that from the viewpoint of the parties as of the date of the execution of this contract, delay beyond the time specified is a bonafide attempt by the parties to estimate as well as they are able the amount of the damages which the Owner will actually incur as a result of any such delay and that the requirements for payment of liquidated damages is not intended as a penalty. The parties further agree that it is in the best interest of both parties that the amount of liquidated damages be specified herein rather than that the parties should be faced with the problem of determining actual damages in the event of any day of delay beyond the number of calendar days agreed upon for the completion of all items of work herein specified and contracted for as established (after due allowance for such extension of time as is provided for in the General Conditions of Agreement). The parties agree, therefore, that Contractor shall pay to Owner as liquidated damages and Owner shall accept from Contractor as liquidated damages, the sum of Five Hundred Dollars (\$500.00) per day, which sum may be permanently withheld by Owner from the Contractor's total compensation provided in this Contract.

14. EXAMINATION OF PROJECT SITE

Prospective bidders shall make a careful examination of the project site, the soil and water conditions to be encountered, improvements to be protected, disposal sites available for surplus materials not designated to be salvaged and methods of handling traffic during construction of the various Projects.

15. REFERENCE SPECIFICATIONS

Where reference is made in the Specifications to specifications compiled by other agencies, organizations or departments, such reference is made for expediency and standardization, and such specifications referred to are hereby made a part of these Specifications.

16. USED MATERIAL

No material which has been used by the Contractor for any temporary purpose whatsoever is to be incorporated in the permanent structure without written consent of the Engineer.

17. GUARANTY AGAINST DEFECTIVE WORK

The Contractor shall indemnify the Owner against any repairs which may become necessary to any part of the work performed under the Contract, arising from defective workmanship or materials used therein, for a period of one (1) year from the date of final acceptance of the work required under this contract.

#### 18. MATERIAL STORAGE

Materials delivered to the site of the work in advance of their use shall be so stored as to cause the least inconvenience, and in a manner satisfactory to the Engineer.

#### 19. CLEANUP

- During Construction – The Contractor shall at all times keep the job site as free from excess material, debris, and rubbish as is practicable, and shall remove same from any portion of the job site, when it becomes objectionable or interferes with the progress of the Project.
- Final – upon completion of the work, the Contractor shall remove from the site, all materials, tools and equipment belonging to him, and leave the site with an appearance acceptable to the Engineer.

#### 20. INSPECTION

The word “inspection”, or other forms of the work, as used in the Contract Documents for this Project, shall be understood as having reference to the Owner or his designated representative who will observe the construction on behalf of the Owner. The Owner’s representative will observe and check the construction in sufficient detail to satisfy himself/herself that the work is proceeding in general accordance with the Contract Documents, but he will not be a guarantor of the Contractor’s performance.

#### 21. IMPLIED WORK

Work specified in the Specifications but not shown on the Plans, and work drawn on the Plans but not specified are to be executed as if fully set out in both ways; and any work or material which is not directly or indirectly noted in the Specifications or Plans, but is necessary for the proper carrying out of the obvious intentions thereof, is to be understood as implied work and to be provided by the Contractor in his proposal as fully as if specifically described or delineated. Any discrepancies between Plans and Specifications must be reported to the Engineer for correction and interpretation before the work is executed.

#### 24. SAFETY REQUIREMENTS

The Contractor shall at all times conduct all phases of his operations in observance of the requirements of the Occupational Safety and Health Act of 1970, and the Texas Occupational Safety Law.

#### 25. DAMAGE TO WORK (LOSSES FROM NATURAL CAUSES)

All loss or damage to the Contractor arising out of the nature of the work to be done, or from the action of the elements, or from unforeseen circumstances in the prosecution of same, or from unusual obstructions or difficulties which may be encountered in the prosecution of the work, shall be sustained and borne by the Contractor at his own cost and expense.

#### 26. TESTING

Testing and control of all materials used in the work shall be done by an approved commercial laboratory, employed and paid directly by the Owner. When the material tested does not meet Specification requirements, the cost of additional testing related to this material shall be borne by the Contractor. The Contractor shall furnish, at his own expense, all necessary specimens for testing of

materials, as required by the Engineer. All test results shall be reported to the Owner or the Engineer by the laboratory.

The Contractor and any subcontractor shall keep accurate records showing the names and occupations of all laborers, workmen and mechanics employed by him in connection with this Project which shall be available for inspection by the Owner; or Engineer.

## 27. WORKERS COMPENSATION INSURANCE COVERAGE

The Contractor shall provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the Contractor providing services on the Project, for the duration of the Project.

The Contractor must provide a certificate of coverage to the Owner prior to being awarded the Contract. If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the Project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage showing that coverage has been extended.

The Contractor shall obtain from each person providing services on a Project, and provide to the Owner:

- (1) a certificate of coverage, prior to that person beginning work on the Project, so the Owner will have on file, certificates of coverage showing coverage for all persons providing services on the Project; and
- (2) no later than seven (7) days after receipt by the Contractor, a new certificate of coverage showing extension of coverage of the coverage period shown on the current certificate of coverage ends during the duration of the Project.

The Contractor shall retain all required certificates of coverage for the duration of the Project and for one (1) year thereafter. The Contractor shall notify the Owner in writing by certified mail or personal delivery, within ten (10) days after the Contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the Project.

The Contractor shall post on each Project site a notice, in the text, form and manner prescribed by the Texas Worker's Compensation Commission, informing all persons providing services on the Project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.

The Contractor shall contractually require each person with whom it contacts to provide services on a Project to:

- (1) provide coverage, based on proper reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all of its employees providing services on the Project, for the duration of the Project;

- (2) provide to the Contractor, prior to that person beginning work on the Project, a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the Project, for the duration of the Project;
- (3) provide the Contractor, prior to the end of the coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the Project;
- (4) obtain from each other person with whom it contracts, and provide to the Contractor:
  - (a) a certificate of coverage, prior to the other person beginning work on the Project; and
  - (b) a new certificate of coverage showing extension of coverage, prior to the end of the coverage period, if the coverage period shown on the current certificate of coverage ends during the duration of the Project;
- (5) retain all required certificates of coverage on file for the duration of the Project and for one (1) year thereafter;
- (6) notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the Project; and
- (7) contractually require each person with whom it contracts, to perform as required by paragraphs (1) – (7), with the certificates of coverage to be provided to the person for whom they are providing services.

By providing a certificate of coverage, the Contractor is representing to the Owner that all employees of the Contractor who will provide services on the Project will be covered by workers' compensation coverage for the duration of the Project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the Contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor which entitle the Owner to declare the contract void if the Contractor does not remedy the breach within ten (10) days after receipt of notice or breach from the Owner.

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## I. SUPPLEMENTARY CONDITIONS

### Supplementary Conditions

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract, EJCDC C-700 (2007 Edition). All provisions which are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.

#### SC-2.02 *Copies of Documents*

As electronic documents become more widely used, electronic copies of the Drawings, Specifications, and other Contract Documents are often made available in place of multiple sets of hard copy. If electronic documents are to be made available, the following may be used:

#### SC-4.02 *Subsurface and Physical Conditions*

##### SC-4.02

- A. No reports of explorations or tests of subsurface conditions at or contiguous to the Site, or drawings of physical conditions relating to existing surface or subsurface structures at the Site, are known to Owner.**

#### SC-4.06 *Hazardous Environmental Conditions*

- A. No reports or drawings related to Hazardous Environmental Conditions at the Site are known to Owner.**
- B. Not Used.**

#### SC-5.04 *Contractor's Liability Insurance*

- C. The limits of liability for the insurance required by Paragraph 5.04 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:**

**1. Workers' Compensation, and related coverages under Paragraphs 5.04.A.1 and A.2 of the General Conditions:**

- a. State: Statutory
- b. Applicable Federal (e.g., Longshoreman's): Statutory
- c. Employer's Liability: \$\_\_\_\_\_

**2. Contractor's General Liability under Paragraphs 5.04.A.3 through A.6 of the General Conditions which shall include completed operations and product liability coverages and eliminate the exclusion with respect to property under the care, custody and control of Contractor:**

- a. General Aggregate \$\_\_\_\_\_
- b. Products - Completed Operations Aggregate \$\_\_\_\_\_
- c. Personal and Advertising Injury \$\_\_\_\_\_
- d. Each Occurrence (Bodily Injury and Property Damage) \$\_\_\_\_\_
- e. Property Damage liability insurance will provide Explosion, Collapse, and Under-ground coverages where applicable.
- f. Excess or Umbrella Liability
  - General Aggregate \$\_\_\_\_\_
  - Each Occurrence \$\_\_\_\_\_

**3. Automobile Liability under Paragraph 5.04.A.6 of the General Conditions:**

- a. Bodily Injury:
  - Each person \$\_\_\_\_\_
  - Each Accident \$\_\_\_\_\_
- b. Property Damage:
  - Each Accident \$\_\_\_\_\_
- [or]*
- a. Combined Single Limit of \$\_\_\_\_\_

4. The Contractual Liability coverage required by Paragraph 5.04.B.4 of the General Conditions shall provide coverage for not less than the following amounts:

- a. Bodily Injury:
  - Each person \$ \_\_\_\_\_
  - Each Accident \$ \_\_\_\_\_
  
- b. Property Damage:
  - Each Accident \$ \_\_\_\_\_
  - Annual Aggregate \$ \_\_\_\_\_

SC-5.06 Property Insurance

a. In addition to the individuals and entities specified, include as loss payees the following:

*[Here list by name (not genre) other persons or entities to be include on policy as loss payees.]*

SC-5.06 Delete Paragraph 5.06.B and replace with the following:

**B. [Owner] [Contractor] [select one, delete the other] shall purchase and maintain [here identify any specifically required equipment breakdown insurance or additional property insurance to be provided], and any other additional property insurance required by Laws and Regulations, which insurance will include the interest of Owner, Contractor, Subcontractors, and Engineer, and [here identify any other individuals or entities to be included as loss payees] and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.**

SC-6.10 Taxes

5. Owner’s exemption does not apply to construction tools, machinery, equipment, or other property purchased by or leased by Contractor, or to supplies or materials not incorporated into the Work.

SC-6.17 Shop Drawings and Samples

**F. Contractor shall furnish required submittals with sufficient information and accuracy in order to obtain required approval of an item with no more than three submittals. Engineer will record Engineer’s time for reviewing subsequent submittals of Shop Drawings, samples, or other items requiring approval and**

Contractor shall reimburse Owner for Engineer's charges for such time.

- G. In the event that Contractor requests a change of a previously approved item, Contractor shall reimburse Owner for Engineer's charges for its review time unless the need for such change is beyond the control of Contractor.

SC-9.03 *Project Representative*

**SC-9.03 Add the following new paragraphs immediately after Paragraph 9.03.A:**

**B. The Resident Project Representative (RPR) will be Engineer's employee or agent at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR's actions. RPR's dealings in matters pertaining to the Work in general shall be with Engineer and Contractor. RPR's dealings with Subcontractors shall be through or with the full knowledge and approval of Contractor. The RPR shall:**

1. ***Schedules:* Review the progress schedule, schedule of Shop Drawing and Sample submittals, and schedule of values prepared by Contractor and consult with Engineer concerning acceptability.**
2. ***Conferences and Meetings:* Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.**
3. ***Liaison:***
  - a. **Serve as Engineer's liaison with Contractor, working principally through Contractor's authorized representative, assist in providing information regarding the intent of the Contract Documents.**
  - b. **Assist Engineer in serving as Owner's liaison with Contractor when Contractor's operations affect Owner's on-Site operations.**
  - c. **Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.**

4. ***Interpretation of Contract Documents:*** Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.
5. ***Shop Drawings and Samples:***
  - a. Record date of receipt of Samples and approved Shop Drawings.
  - b. Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.
6. ***Modifications:*** Consider and evaluate Contractor's suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR's recommendations, to Engineer. Transmit to Contractor in writing decisions as issued by Engineer.
7. ***Review of Work and Rejection of Defective Work:***
  - a. Conduct on-Site observations of Contractor's work in progress to assist Engineer in determining if the Work is in general proceeding in accordance with the Contract Documents.
  - b. Report to Engineer whenever RPR believes that any part of Contractor's work in progress will not produce a completed Project that conforms generally to the Contract Documents or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise Engineer of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.
8. ***Inspections, Tests, and System Startups:***
  - a. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate Owner's personnel, and that Contractor maintains adequate records thereof.

- b. Observe, record, and report to Engineer appropriate details relative to the test procedures and systems start-ups.

**9. Records:**

- a. Record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of all Contractors, Subcontractors, and major Suppliers of materials and equipment.
- b. Maintain records for use in preparing Project documentation.

**10. Reports:**

- a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the progress schedule and schedule of Shop Drawing and Sample submittals.
- b. Draft and recommend to Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.
- c. Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, damage to property by fire or other causes, or the discovery of any Hazardous Environmental Condition.

**11. Payment Requests:** Review Applications for Payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the schedule of values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.

**12. Certificates, Operation and Maintenance Manuals:** During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Specifications to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.

**13. Completion:**

- a. **Participate in a Substantial Completion inspection, assist in the determination of Substantial Completion and the preparation of lists of items to be completed or corrected.**
- b. **Participate in a final inspection in the company of Engineer, Owner, and Contractor and prepare a final list of items to be completed and deficiencies to be remedied.**
- c. **Observe whether all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the Notice of Acceptability of the Work.**

**C. The RPR shall not:**

1. **Authorize any deviation from the Contract Documents or substitution of materials or equipment (including “or-equal” items).**
2. **Exceed limitations of Engineer’s authority as set forth in the Contract Documents.**
3. **Undertake any of the responsibilities of Contractor, Subcontractors, Suppliers, or Contractor’s superintendent.**
4. **Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor’s work unless such advice or directions are specifically required by the Contract Documents.**
5. **Advise on, issue directions regarding, or assume control over safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.**
6. **Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.**
7. **Accept Shop Drawing or Sample submittals from anyone other than Contractor.**
8. **Authorize Owner to occupy the Project in whole or in part.**

SC-11.01 *Cost of the Work*



**SC-11.01.A.5.c** Delete Paragraph 11.01.A.5.c in its entirety and insert the following in its place:

**c. *Construction Equipment and Machinery:***

- 1) Rentals of all construction equipment and machinery, and the parts thereof in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.**
- 2) Costs for equipment and machinery owned by Contractor will be paid at a rate shown for such equipment provided by the contractor. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs. Costs will include the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, shall cease to accrue when the use thereof is no longer necessary for the changed Work. Equipment or machinery with a value of less than \$1,000 will be considered small tools.**

**SC-11.03** *Unit Price Work*

The following SC is typically called a variation in estimated quantities clause and facilitates administrative resolution of situations where actual quantities differ materially from estimated quantities. Typically, the clause applies where the Bid price of an item of the Unit Price Work is more than 5 percent of the Contract Price and the actual quantity of the units of work performed varies by 15 to 25 percent.

**SC-11.03.D** Delete Paragraph 11.03.D in its entirety and insert the following in its place:

**D. The unit price of an item of Unit Price Work shall be subject to reevaluation and adjustment under the following conditions:**

- 1. The projected project work includes up to nine (9) projects at the shown estimated quantities with a maximum not to exceed cost of \$227,000.00 by the City.**

**SC-12.01** *Change of Contract Price*

**SC-12.01.C Contractor's Fee.** Delete the semicolon at the end of GC 12.01.C.2.c, and add the following language:

**, provided, however, that on any subcontracted work the total maximum fee to be paid by Owner under this subparagraph shall be no greater than 27 percent of the costs incurred by the Subcontractor who actually performs the work;**

SC-16.01 *Methods and Procedure*

**SC-16.01 Delete Paragraph 16.01.C in its entirety and insert the following in its place:**

**C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:**

- 1. elects in writing to demand arbitration of the Claim, pursuant to Paragraph SC-16.02; or**
- 2. agrees with the other party to submit the Claim to another dispute resolution process.**

**SC-16.02 Add the following new paragraph immediately after Paragraph 16.01.**

**SC-16.02 *Arbitration***

**A. All Claims or counterclaims, disputes, or other matters in question between Owner and Contractor arising out of or relating to the Contract Documents or the breach thereof (except for Claims which have been waived by the making or acceptance of final payment as provided by Paragraph 14.09) including but not limited to those not resolved under the provisions of Paragraphs SC-16.01A and 16.01.B will be decided by arbitration in accordance with the rules of *[insert name of selected arbitration agency]*, subject to the conditions and limitations of this Paragraph SC-16.02. This agreement to arbitrate and any other agreement or consent to arbitrate entered into will be specifically enforceable under the prevailing law of any court having jurisdiction.**

**B. The demand for arbitration will be filed in writing with the other party to the Contract and with the selected arbitrator or arbitration provider, and a copy will be sent to Engineer for information. The**

**demand for arbitration will be made within the 30 day period specified in Paragraph SC-16.01.C, and in all other cases within a reasonable time after the Claim or counterclaim, dispute, or other matter in question has arisen, and in no event shall any such demand be made after the date when institution of legal or equitable proceedings based on such Claim or other dispute or matter in question would be barred by the applicable statute of limitations.**

- C. No arbitration arising out of or relating to the Contract Documents shall include by consolidation, joinder, or in any other manner any other individual or entity (including Engineer, and Engineer's consultants and the officers, directors, partners, agents, employees or consultants of any of them) who is not a party to this Contract unless:**
- 1. the inclusion of such other individual or entity is necessary if complete relief is to be afforded among those who are already parties to the arbitration; and**
  - 2. such other individual or entity is substantially involved in a question of law or fact which is common to those who are already parties to the arbitration and which will arise in such proceedings.**
- D. The award rendered by the arbitrator(s) shall be consistent with the agreement of the parties, in writing, and include: (i) a concise breakdown of the award; (ii) a written explanation of the award specifically citing the Contract Document provisions deemed applicable and relied on in making the award.**
- E. The award will be final. Judgment may be entered upon it in any court having jurisdiction thereof, and it will not be subject to modification or appeal, subject to provisions of the Controlling Law relating to vacating or modifying an arbitral award.**
- F. The fees and expenses of the arbitrators and any arbitration service shall be shared equally by Owner and Contractor.**

## SECTION 01000

## GOVERNING SPECIFICATIONS

## PART 1: DESCRIPTION

- A. All Specifications and Special Provisions applicable to this project are identified as follows:
- 1) Standard Specifications – Adopted by the Texas Department of Transportation November 1, 2014. Standard Specifications are incorporated into the contract by reference.
  - 2) All Special Provisions and Special Specifications under the Texas Department of Transportation.
  - 3) All other General and Special conditions included elsewhere in the contract documents.
- B. Where discrepancies occur between the various governing specifications, the special provisions shall govern over standard specifications.
- C. Items 1-9 are superseded by the contract general and special conditions, where applicable. Wherever, in the TxDOT Standard Specifications and Special Provisions, reference is made to the State of Texas, the Department and its representatives, such reference shall be taken to mean the City of Castroville and its representatives.

END OF SECTION 01000

## SECTION 01380

## CONSTRUCTION PHOTOGRAPHS

## PART 1: GENERAL

## 1.01 SCOPE OF WORK

- A. This section specifies the requirements for providing Construction Photographs.

## 1.02 GENERAL

- A. Photographs shall be taken at each staging and storage site, and at intervals of approximately 100 feet along the route before commencement of work, and one copy promptly submitted to the OWNER. Additional photographs shall be taken at stations of significant features and, for pipeline projects at dead ends, tees, bends, valves, manholes, connections, at locations of concrete placement, at stations which will affect adjacent property owners, and at such times as requested by the OWNER. Photographs shall be taken from a minimum of two (2) views (one forward station view and one backward station view along pipeline route, and one front view and one side view for fittings and appurtenances of pipeline projects.)
- B. The photographs shall be submitted with the CONTRACTOR's application for progress payment. The same view of any preconstruction or construction activity shall be photographed again upon completion of construction activities and submitted with the CONTRACTOR's application for final payment.

## 1.04 QUALITY ASSURANCE

- A. All photographs shall be either 35mm color photographs or digital color photographs of commercial quality. Computer generated and "instamatic" photographs shall not be accepted.

## 1.05 NEGATIVES

- A. Negatives shall become the property of Owner.
- B. Contractor shall catalog, index, and deliver to Owner at completion of Project all Project negatives.

## 1.06 MEASUREMENT AND PAYMENT

- A. This will be paid for under Construction Photography bid item. Cost will be paid as lump sum and shall include all materials and methods required in the specification.

## PART 2: PRODUCTS

## 2.01 GENERAL

- A. All prints shall be in color with a glossy finish.
- B. Print paper shall be white base, single weight.

- C. All prints, except aerial photographs, shall be 8-inch by 10-inch size.
- D. Three (3) prints of each exposure and three (3) CD/DVDs containing a complete set of monthly exposures shall be provided to the Engineer prior to beginning work.
- E. Each set of prints shall be mounted in reinforced 3-hole punched clear plastic photo sleeves inside 3-ring heavy duty view binders. Contractor shall provide 8-1/2-inch by 11-inch label inserts on the binder fronts and 11-inch high inserts on the corresponding binder spines, as well as labels on the corresponding CD/DVDs all indicating the Owner's Name, Project Name, Contractor Name, and month and year of photographs.
- F. Provide photo identification consisting of, as a minimum:
  - 1. Owner's Name.
  - 2. Project Title.
  - 3. Description of View.
  - 4. Time and date of exposure.
  - 5. Photographer's name, address and photo identification number.

PART 3: EXECUTION

- A. Technique is to present important factual details with high resolution, minimum distortion, maximum depth-of-field and sharpness.
- B. Views shall adequately illustrate Project status or condition of construction at the time of the exposure.

END OF SECTION

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SECTION 02000

RESIDENTIAL STREETS CHIPSEAL PLANS, DETAILS AND NOTES INDEX

- 1. Project Location Map (1 page)
- 2. Roadway Details and Quantity Breakdown (1 page)
- 3. Quantity Summary (1 page)
- 4. General Notes (4 page)
- 5. Roadway Standards (1 page) – TE(HMAC)-11
- 6. Pavement Standards (1 page) – PM(1)-12
- 7. Traffic Control Standards (13 page) – BC(1)-21 to BC(12)-21, TCP(2-2)-18

Issued for construction with the following:

The General Notes listed above and included herein have been prepared by me and are applicable to this project. The Details and Traffic Control Standards listed above and included herein have been selected by me and are applicable to this project.

---

Austin M. Messerli, P.E. \_\_\_\_\_ Date





*The City of*  
**Woodcreek**  
IN THE MIDST OF THE TEXAS HILL COUNTRY



CITY OF WOODCREEK  
RESIDENTIAL STREETS CHIPSEAL

PROJECT LAYOUT  
SHEET 1 OF 1 2 OF 26

**K-FRIESE**  
+ ASSOCIATES  
1150 S. Loop W. Suite 1700  
Austin, Texas 78741  
(512) 336-1101  
www.kfriese.com

10/14/2022 10:11:14 AM

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QUANTITY ESTIMATE PER STREET

Item 4.

COUNTRY LANE			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1006002	PREPARING ROW	STA	14.2
3166224	AGGR (TY-PB GR-4 SAC-B)	CY	215
3166466	ASPH (CHFRS-2P OR CRS-2P)	GAL	923
3406246	D-GR HMA (SQ) TY-D PG64-22 (LEVEL_UP)	TON	87
3516004	FLEXIBLE PAVEMENT STRUCTURE REPAIR (8")	SY	158

OVERBROOK COURT			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1006002	PREPARING ROW	STA	8.2
3166224	AGGR (TY-PB GR-4 SAC-B)	CY	11
3166466	ASPH (CHFRS-2P OR CRS-2P)	GAL	48
3406246	D-GR HMA (SQ) TY-D PG64-22 (LEVEL_UP)	TON	6

COUNTRY COURT			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1006002	PREPARING ROW	STA	1.5
3166224	AGGR (TY-PB GR-4 SAC-B)	CY	32
3166466	ASPH (CHFRS-2P OR CRS-2P)	GAL	136
3406246	D-GR HMA (SQ) TY-D PG64-22 (LEVEL_UP)	TON	14

GARRISON TRAIL			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1006002	PREPARING ROW	STA	1.4
3166224	AGGR (TY-PB GR-4 SAC-B)	CY	44
3166466	ASPH (CHFRS-2P OR CRS-2P)	GAL	189
3406246	D-GR HMA (SQ) TY-D PG64-22 (LEVEL_UP)	TON	19

TREMONT TRACE			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1006002	PREPARING ROW	STA	8.3
3166224	AGGR (TY-PB GR-4 SAC-B)	CY	109
3166466	ASPH (CHFRS-2P OR CRS-2P)	GAL	471
3406246	D-GR HMA (SQ) TY-D PG64-22 (LEVEL_UP)	TON	46
3516004	FLEXIBLE PAVEMENT STRUCTURE REPAIR (8")	SY	52
6666042	REFL PAV MRK TY 1 (W)12" (SLD) (100MIL)	LF	9

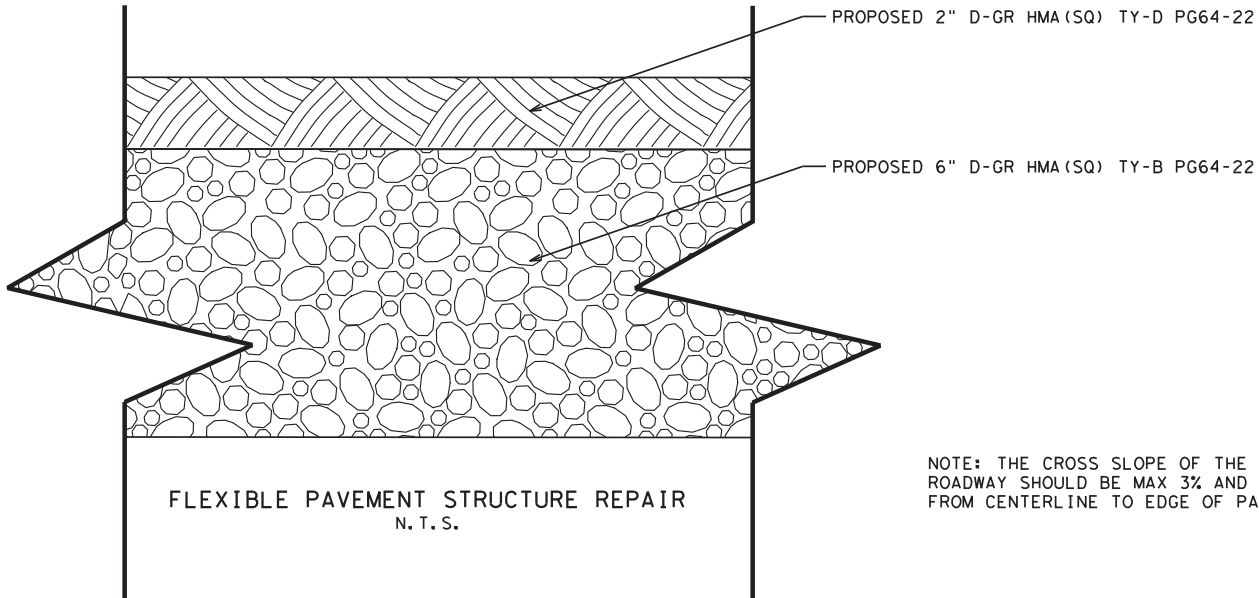
WOODVIEW COURT			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1006002	PREPARING ROW	STA	2.8
3166224	AGGR (TY-PB GR-4 SAC-B)	CY	69
3166466	ASPH (CHFRS-2P OR CRS-2P)	GAL	292
3406246	D-GR HMA (SQ) TY-D PG64-22 (LEVEL_UP)	TON	28

WILDWOOD CIRCLE			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1006002	PREPARING ROW	STA	9.9
3166224	AGGR (TY-PB GR-4 SAC-B)	CY	124
3166466	ASPH (CHFRS-2P OR CRS-2P)	GAL	528
3406246	D-GR HMA (SQ) TY-D PG64-22 (LEVEL_UP)	TON	51

WOODRIDGE CIRCLE			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1006002	PREPARING ROW	STA	2.6
3166224	AGGR (TY-PB GR-4 SAC-B)	CY	63
3166466	ASPH (CHFRS-2P OR CRS-2P)	GAL	268
3406246	D-GR HMA (SQ) TY-D PG64-22 (LEVEL_UP)	TON	26

CANYON CIRCLE			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1006002	PREPARING ROW	STA	2.0
3166224	AGGR (TY-PB GR-4 SAC-B)	CY	65
3166466	ASPH (CHFRS-2P OR CRS-2P)	GAL	278
3406246	D-GR HMA (SQ) TY-D PG64-22 (LEVEL_UP)	TON	27

\* COLORS TO BE BLUE TO INDICATE FIRE HYDRANT



NOTE: THE CROSS SLOPE OF THE PROPOSED ROADWAY SHOULD BE MAX 3% AND A MIN OF 2% FROM CENTERLINE TO EDGE OF PAVEMENT



N. T. S.

CITY OF WOODCREEK  
RESIDENTIAL STREETS CHIPSEAL

ROADWAY DETAILS

SHEET 1 OF 1

3 OF 26



1120 S. Capital of Texas Highway  
CityView 2, Suite 100  
Austin, Texas 78746  
P 512.338.1704 F 512.338.1705  
TXBPE Firm Number 6  
www.kfriesecom

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**2022 Residential Streets Chipseal Project Quantity Summary List**

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
1006002	PREPARING ROW	STA	50.9
3166224	AGGR(TY-PB GR-4 SAC-B)	CY	732
3166466	ASPH (CHFRS-2P OR CRS-2P)	GAL	6255
3406106	D-GR HMA(SQ) TY-D PG64-22 (LEVEL_UP)	TON	304
3516004	FLEXIBLE PAVEMENT STRUCTURE REPAIR (8")	SY	210
5006001	MOBILIZATION	LSUM	1
5026001	BARRICADES, SIGNS AND TRAFFIC HANLING	MO	1
6666042	REFL PAV MRK TY 1 (W)12"(SLD)(100MIL)	LF	9
6666078	REFL PAV MRKR TY II-C-R*	EA	6
N/A	CONSTRUCTION PHOTOGRAPHY	LSUM	1

\* COLORS TO BE BLUE TO INDICATE FIRE HYDRANT



## GENERAL NOTES

1. All construction shall be in accordance with the TxDOT Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges (STANDARD SPECIFICATIONS) dated November 1, 2014 included in "Plans, Details and Notes". The governing STANDARD SPECIFICATIONS may be accessed at the web address:

<https://www.txdot.gov/business/resources/txdot-specifications.html>

2. The streets and their general limits that are the subject of the Work are shown on the Project Location Map in "Plans, Details and Notes".
3. Approximate data utilized to develop most of the repair quantities shown in the Bid Form are indicated on the Repair List in "Plans, Details and Notes". However, the Contractor is alerted to the fact that the Repair List is only intended to provide general scope and scale, and the actual quantities to be furnished under the contract or areas to be repaired shall be as determined by existing conditions and/or determined and/or laid out by the Engineer or Owner's representative. Some of the quantities in the Bid Form may be in excess of the Repair List quantities in anticipation of variances that can typically occur in a street maintenance project. Actual quantities may differ from the quantities shown in the Repair List or Bid Form, may be increased, or decreased, or additional areas may be identified for repair as determined by the Engineer or Owner's representative. Actual quantities provided by the Contractor shall be paid for at the unit price shown in the Bid Form for each item unless other provisions in the contract apply.
4. Prior to any construction, the Contractor shall convene a preconstruction conference between the City of Woodcreek, their self, the Engineer, any affected parties, and any other entity the City or Engineer may require.
5. Any existing utilities, pavement, curbs, sidewalks, structures, trees, lawns, etc., not intended to be disturbed, removed, or repaired under the contract and damaged by the Contractor, shall be restored, repaired, or replaced by the Contractor to the satisfaction of the Engineer or the Owner at the Contractor's sole expense.
6. The Contractor shall verify all depths and locations of existing utilities prior to any construction. Any conflict between existing utilities (other than typical irrigation system components as discussed herein) and any portion of the Work shall be brought to the attention of the Engineer for resolution prior to proceeding with the portion of the Work in conflict. No separate measurement or payment shall be made for existing utilities verification and this work shall be subsidiary to each bid item in the contract for which such verification is required by law or the contract provisions prior to performing the work prescribed by the bid item. The Contractor shall temporarily remove irrigation system components that are required to be removed to

perform any portion of the Work; and shall reinstall said components as part of the completion of such portion of the Work. Irrigation pipes left disconnected in-place by the temporary removal shall be temporarily capped to prevent soil/debris from entering the system until the aforementioned reinstallation necessitates the removal of the temporary capping. The completed reinstallation shall comply with applicable City Code and shall be subject to the approval of the Engineer or Owner. Unless the pipes exceed two- inch (2") diameter, no separate measurement and payment shall be made for temporarily removing and reinstalling irrigation system components conflicting with any portion of the Work; and such temporary removal and subsequent reinstallation shall be subsidiary to each bid item in the contract for which such removal is required to perform the work prescribed by the bid item.

7. All unpaved areas disturbed or damaged during construction of the Work shall be restored and re-vegetated as soon as practicable upon completion of activities causing the disturbance or damage. Restoration and re-vegetation of all disturbed or damaged areas shall be in accordance with section G7 of the Standard Specifications to appropriate lines and grades that preclude ponding of water and uneven terrain. The species of seed shall match the generally prevailing species in the vicinity of the area being restored; however the Contractor shall consult with the abutting lot(s) owner(s) and the Engineer or Owner's representative to determine the species of seed to be installed before ordering or placement. Finished restored and re-vegetated areas shall be subject to the approval of the Engineer or Owner's representative prior to final acceptance. Unless the Engineer determines that through no fault of the Contractor the limits of restoration and re-vegetation for the entire Work must exceed the total of an area fivefeet (5') in width along all construction areas, no separate measurement or payment shall be made for restoration and re-vegetation and this work shall be subsidiary to each bid item in the contract for which the work prescribed by the bid item causes restoration and re-vegetation to be required.
8. The Contractor shall keep accurate records of all construction that deviates from the Work described in the Project Manual documents. The Contractor shall furnish the City of Woodcreek accurate "As-Built" drawings and/or data following completion of all construction. These "As-Built" drawings and/or data shall meet with the satisfaction of the Engineer or Owner prior to final acceptance. No separate measurement or payment shall be made for this item and this item shall be subsidiary to the various bid items in the contract.
9. Trash and debris generated by the Contractor shall be removed from rights-of-way, and easements by the Contractor. Trash and debris must be always kept off private property. Clean up shall be to the satisfaction of the Engineer or Owner prior to final acceptance. When construction is being carried out within easements, the Contractor shall confine his work to within the permanent and any temporary easements.

10. After each of the following operations and roadway: pavement improvements or other repairs; and the Contractor shall sweep all surfaces with a vacuum broom to remove fines and other residual waste material generated and Clean all concrete curbs, islands, medians, etc. that get coated with asphalt during construction. As approved, by the Engineer or Owner and where inaccessible for a vacuum broom, the Contractor shall use other appropriate means to adequately remove fines and residual waste. The Contractor shall also clean construction areas when directed by the Owner or Engineer. All property impacted by the Contractor, whether public or private, shall be cleaned to the satisfaction of the Owner or Engineer. No separate measurement or payment shall be made for this work and this work shall be subsidiary to the various bid items in the contract.
11. All excavation associated with the various bid items is unclassified and without regard to material encountered. No extra compensation shall be provided for encountering material that adversely impacts excavation.
12. Unless otherwise approved by the Engineer, all open excavations in excess of two inches (2") in depth shall be filled at the end of each day. In all cases, it is the Contractor's responsibility to provide proper warning devices, barricades, etc. for the protection of pedestrians and traffic in the area of excavations, regardless of depth, until the excavation is completely filled. Subject to the approval of the Engineer, where an excavation to be left open overnight creates a drop-off in excess of two inches (2") abutting the edge of a roadway lane, CW-8-17 "Shoulder Drop Off" signs and vertical panel delineators shall be provided for the excavated area; where an excavation to be left open overnight creates a drop-off in excess of one-inch (1") but less than two inches (2") abutting the edge of a roadway lane, CW-8-17 "Shoulder Drop Off" signs shall be provided for the excavated area. No extra compensation shall be provided for this item and it shall be subsidiary to the bid item "BARRICADES, SIGNS, AND TRAFFIC HANDLING".
13. Where a bid item is measured by the ton or gallon, the Contractor shall provide documentation (i.e. daily run tickets, invoices, etc.) to the Owner to verify quantities in conjunction with any application for payment for such bid item. No extra compensation shall be made for providing this documentation and it shall be subsidiary to the various bid items in the contract.
14. The asphalt plant shall have truck scales as defined in Item 520. Give three weight tickets bearing the date, ticket number, the truck number, the gross, net & tare weights to the truck driver for the State inspector at the spreading and finishing operation. Trucks may be required to weigh on public scales or portable platform scales to verify the weight of the ticket.
15. The Contractor shall be responsible for determining and implementing measures necessary to protect the City and adhere to applicable State and City's environmental regulations as part of the Stormwater Pollution Prevention Plan (SW3P) submitted to the City prior to construction. For the entire Work, tack or

prime coats shall not be applied when a rainfall event is imminent and shall be covered as soon as practicable. Any long term (more than a day) spoils or materials storage areas and, Contractor staging sites, shall be protected with physical erosion/sedimentation, filter, or other appropriate controls. Hazardous materials shall be kept in proper containment. All measures implemented shall be subject to the approval of the Engineer and the Contractor shall provide additional measures immediately upon direction by the Engineer. The Contractor shall immediately report to the City any spills of hazardous materials or pollutants and shall forthwith provide remediation of any such spill. No separate payment shall be made for complying with the foregoing requirements and such compliance shall be subsidiary to the various bid items in the contract.

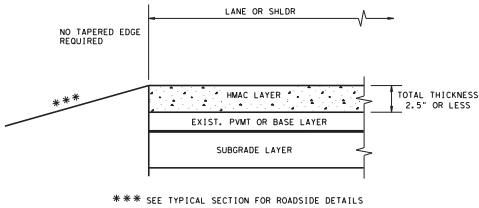
19. Ensure that the asphalt for precoating the aggregate and the asphalt used for the surface treatment will not result in a reaction that may adversely affect the bonding of the aggregate and asphalt during the surface treatment operation.
20. Do not add bag house fines in the production of precoated material.
21. No material stockpiling on project is allowed.
22. Contractor retains ownership of salvaged materials from millings.



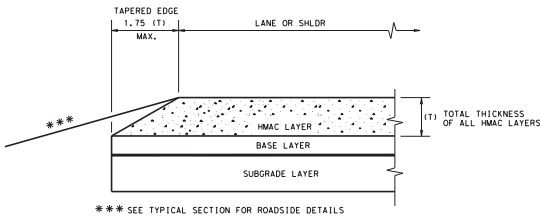
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## ROADWAY STANDARDS

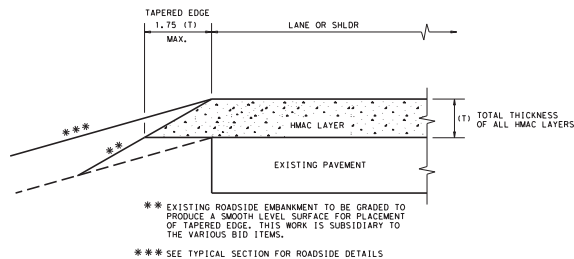
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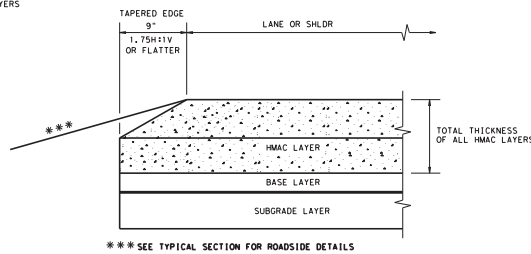
**CONDITION - 1**  
 THIN HMAc SURFACES OR HMAc OVERLAY  
 WITH THICKNESS OF 2.5" OR LESS



**CONDITION - 3**  
 NEW OR RECONSTRUCTED PAVEMENT  
 HMAc THICKNESS 2.5" TO 5"



**CONDITION - 2**  
 OVERLAY OF EXISTING PAVEMENT  
 HMAc THICKNESS 2.5" TO 5"



**CONDITION - 4**  
 NEW OR RECONSTRUCTED PAVEMENT  
 HMAc THICKNESS 5" OR GREATER

(NOT TO SCALE)

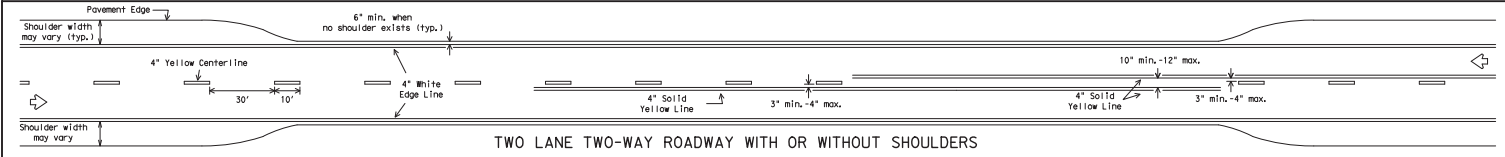
**GENERAL NOTES**

- UNLESS OTHERWISE SHOWN IN THE PLANS, A VERTICAL EDGE IS PERMISSIBLE FOR HMAc PLACED GREATER THAN 5" BELOW THE EDGE OF PAVEMENT AND FOR THICKNESS OF HMAc LESS THAN 2.5".
- FOR FURTHER INFORMATION REGARDING THE ROADSIDE AND PAVEMENT DETAILS, SEE TYPICAL SECTIONS.
- PAYMENT FOR TAPERED EDGE WILL BE IN ACCORDANCE WITH APPLICABLE ITEMS IN THE CONTRACT.
- THE SLOPE OF THE TAPERED EDGE SHALL BE 1.75H:1V OR FLATTER.
- THE TAPERED EDGE SHALL BE PRODUCED BY USE OF A SCREED ATTACHMENT CAPABLE OF PRODUCING A SMOOTH COMPACTED SURFACE. ADDITIONAL COMPACTING EFFORT BEHIND THE SCREED IS NOT REQUIRED.

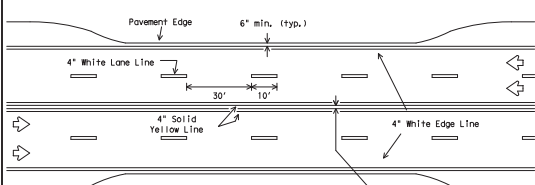
		Design Division Standard	
<b>TAPERED EDGE DETAILS</b> <b>HMAc PAVEMENT</b>			
<b>TE (HMAc) - 11</b>			
Plan: 19990211.dwg TxDOT January 2011	DWG: TxDOT CONV: SECT	DES: RL JOB:	DES: KB HSD: HW
REVISIONS	DIST:	COUNTY:	SHEET NO.:

## PAVEMENT MARKING STANDARDS

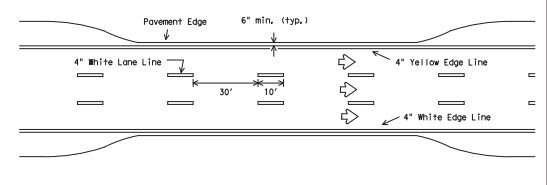
DISCLAIMER: The use of this standard is governed by the Texas Engineering Practice Act. No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the consequences of any failure to conform to the standards or for the consequences of any damage resulting from the use.



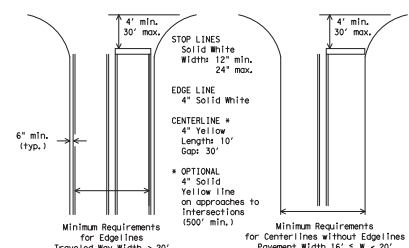
TWO LANE TWO-WAY ROADWAY WITH OR WITHOUT SHOULDERS



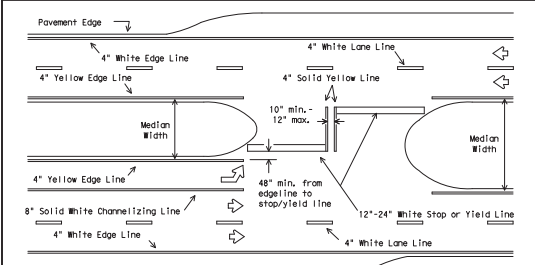
CENTERLINE AND LANE LINES  
FOUR LANE TWO-WAY ROADWAY  
WITH OR WITHOUT SHOULDERS



EDGE LINE AND LANE LINES  
ONE-WAY ROADWAY  
WITH OR WITHOUT SHOULDERS

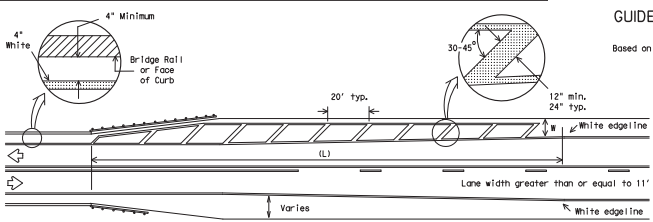


GUIDE FOR PLACEMENT OF STOP LINES,  
EDGE LINE & CENTERLINE  
Based on Traveled Way and Pavement Widths for Undivided Highways



All medians shall be field measured to determine the location of necessary striping. Stop/yield bars and centerlines shall be placed when the median width is greater than 30 ft. The median width is defined as the area between two roadways of a divided highway measured from edge of traveled way to edge of traveled way. The median excludes turn lanes. The median width might be different between intersections, interchanges and of opposite approaches of the same intersection. The narrow median width will be the controlling width to determine if markings are required.

FOUR LANE DIVIDED ROADWAY INTERSECTIONS



- NOTES:
1. No-passing zone on bridge approach is optional but if used, it shall be a minimum 500 feet long.
  2. For crosshatching length (L) see Table 1.
  3. The width of the offset (W) and the required crosshatching width is the full shoulder width in advance of the bridge.
  4. The crosshatching is not required if delineators or barrier reflectors are used along the structure.
  5. For guard fence details, refer elsewhere in the plans.

ROADWAYS WITH REDUCED SHOULDER  
WIDTHS ACROSS BRIDGE OR CULVERT

TABLE 1 - TYPICAL LENGTH (L)

Posted Speed	Formula
≤ 40	$L = \frac{WS}{60} - 2$
≥ 45	$L = WS$

W=85th Percentile Speed may be used on roads where traffic volume normally exceeds the posted speed limit.  
S=feet per minute.  
L=length of crosshatching (FT.) W=width of offset (FT.)  
S=posted speed (MPH)

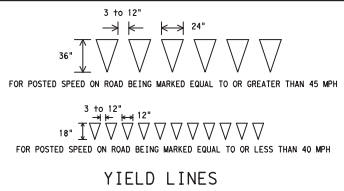
EXAMPLES:  
An 8 foot shoulder in advance of a bridge reduces to 4 feet on a 70 MPH roadway. The length of the cross-hatching should be:  
 $L = 8 \times 70 = 560$  ft.  
A 4 foot shoulder in advance of a bridge reduces to 2 feet on a 40 MPH roadway. The length of the cross-hatching should be:  
 $L = 4(40)^2 / 60 = 106.67$  ft. rounded to 110 ft.

GENERAL NOTES

1. Edgeline striping shall be as shown in the plans or as directed by the Engineer. The edgeline should typically be placed a minimum of 6 inches from the edge of pavement. This distance may vary due to pavement traveling or other conditions. Edgelines are not required in curb and gutter sections of roadways.
2. The traveled way includes only that portion of the roadway used for vehicular travel and not the parking lanes, sidewalks, berms and shoulders. The traveled ways shall be measured from the inside of edgeline to inside of edgeline of a two lane roadway.

MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.



YIELD LINES

Texas Department of Transportation  
Traffic Operations Division

TYPICAL STANDARD  
PAVEMENT MARKINGS

PM(1) - 12

© TxDOT November 1978	DATE	BY	CHK	DATE	BY
0-95 2-12	REVISED				
5:00	DATE	BY	DATE	BY	
8:00					
5:00					
2:21					

TRAFFIC CONTROL STANDARDS

**BARRICADE AND CONSTRUCTION (BC) STANDARD SHEETS GENERAL NOTES:**

1. The Barricade and Construction Standard Sheets (BC sheets) are intended to show typical examples for placement of temporary traffic control devices, construction pavement markings, and typical work zone signs. The information contained in these sheets meet or exceed the requirements shown in the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
2. The development and design of the Traffic Control Plan (TCP) is the responsibility of the Engineer.
3. The Contractor may propose changes to the TCP that are signed and sealed by a licensed professional engineer for approval. The Engineer may develop, sign and seal Contractor proposed changes.
4. The Contractor is responsible for installing and maintaining the traffic control devices as shown in the plans. The Contractor may not move or change the approximate location of any device without the approval of the Engineer.
5. Geometric design of lane shifts and detours should, when possible, meet the applicable design criteria contained in manuals such as the American Association of State Highway and Transportation Officials (AASHTO), "A Policy on Geometric Design of Highways and Streets," the TxDOT "Roadway Design Manual" or engineering judgment.
6. When projects abut, the Engineer(s) may omit the END ROAD WORK, TRAFFIC FINES DOUBLE, and other advance warning signs if the signing would be redundant and the work areas appear continuous to the motorists. If the adjacent project is completed first, the Contractor shall erect the necessary warning signs as shown on these sheets, the TCP sheets or as directed by the Engineer. The BEGIN ROAD WORK NEXT X MILES sign shall be revised to show appropriate work zone distance.
7. The Engineer may require duplicate warning signs on the median side of divided highways where median width will permit and traffic volumes justify the signing.
8. All signs shall be constructed in accordance with the details found in the "Standard Highway Sign Designs for Texas," latest edition. Sign details not shown in this manual shall be shown in the plans or the Engineer shall provide a detail to the Contractor before the sign is manufactured.
9. The temporary traffic control devices shown in the illustrations of the BC sheets are examples. As necessary, the Engineer will determine the most appropriate traffic control devices to be used.
10. Where highway construction or maintenance work is being undertaken, other than mobile operations as defined by the Texas Manual on Uniform Traffic Control Devices, CSJ limit signs are required. CSJ limit signs are shown on BC(2). The OBEY WARNING SIGNS STATE LAW sign, STAY ALERT TALK OR TEXT LATER and the WORK ZONE TRAFFIC FINES DOUBLE sign with plaque shall be erected in advance of the CSJ limits. The BEGIN ROAD WORK NEXT X MILES, CONTRACTOR and END ROAD WORK signs shall be erected at or near the CSJ limits. For mobile operations, CSJ limit signs are not required.
11. Traffic control devices should be in place only while work is actually in progress or a definite need exists.
12. The Engineer has the final decision on the location of all traffic control devices.
13. Inactive equipment and work vehicles, including workers' private vehicles must be parked away from travel lanes. They should be as close to the right-of-way line as possible, or located behind a barrier or guardrail, or as approved by the Engineer.

**WORKER SAFETY NOTES:**

1. Workers on foot who are exposed to traffic or to construction equipment within the right-of-way shall wear high-visibility safety apparel meeting the requirements of ISEA "American National Standard for High-Visibility Apparel," or equivalent revisions, and labeled as ANSI 107-2004 standard performance for Class 2 or 3 risk exposure. Class 3 garments should be considered for high traffic volume work areas or night time work.
2. Except in emergency situations, flagger stations shall be illuminated when flagging is used at night.

**COMPLIANT WORKZONE TRAFFIC CONTROL DEVICES**

1. Only pre-qualified products shall be used. The "Compliant Work Zone Traffic Control Devices List" (CWZTCD) describes pre-qualified products and their sources.
2. Work zone traffic control devices shall be compliant with the Manual for Assessing safety Hardware (MASH).

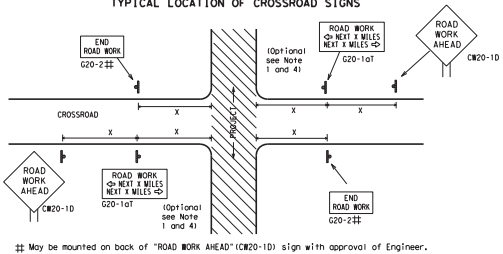
<p>THE DOCUMENTS BELOW CAN BE FOUND ON-LINE AT  <a href="http://www.txdot.gov">http://www.txdot.gov</a></p>
COMPLIANT WORK ZONE TRAFFIC CONTROL DEVICES LIST (CWZTCD)
DEPARTMENTAL MATERIAL SPECIFICATIONS (DMS)
MATERIAL PRODUCER LIST (MPL)
ROADWAY DESIGN MANUAL - SEE "MANUALS (ONLINE MANUALS)"
STANDARD HIGHWAY SIGN DESIGNS FOR TEXAS (SHSD)
TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD)
TRAFFIC ENGINEERING STANDARD SHEETS

DISCLAIMER: THIS SHEET IS A GENERAL NOTE. It is not intended to be used as a contract document. The user of this sheet is responsible for its use. The user of this sheet is responsible for its use. The user of this sheet is responsible for its use.

SHEET 1 OF 12

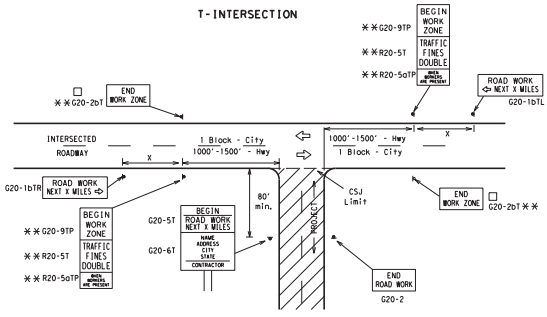
<p><b>BARRICADE AND CONSTRUCTION                  GENERAL NOTES                  AND REQUIREMENTS</b></p>			
<p><b>BC (1) - 21</b></p>			
Title: BC (1) - 21 Date: November 2002	Rev: 1 Date: 11-13-02	Rev: 2 Date: 08-14-02	Rev: 3 Date: 05-21-02
DISSEMINATION 4-01 1-13 9-07 8-14 5-10 5-21	DIST COUNTY SHEET NO.		

TYPICAL LOCATION OF CROSSROAD SIGNS



1. The typical minimum signing on a crossroad approach should be a "ROAD WORK AHEAD" (CW20-10) sign and a (G20-21) "END ROAD WORK" sign, unless noted otherwise in plans.
2. The Engineer may use the reduced size 36" x 36" ROAD WORK AHEAD (CW20-10) sign mounted back to back with the reduced size 36" x 18" "END ROAD WORK" (G20-21) sign on low volume crossroads (see Note 4 under "Typical Construction Warning Sign Size and Spacing"). See the "Standard Highway Sign Designs for Texas" manual for sign details. The Engineer may omit the advance warning signs on low volume crossroads. The Engineer will determine whether a road is low volume as per TMUTCD Part 5. This information shall be shown in the plans.
3. Based on existing field conditions, the Engineer/Inspector may require additional signs such as FLAGGER AHEAD, LOOSE GRAVEL, or other appropriate signs. When additional signs are required, these signs will be considered part of the minimum requirements. The Engineer/Inspector will determine the proper location and spacing of any sign not shown on the BC sheets, Traffic Control Plan sheets or the Work Zone Standard Sheets.
4. The "ROAD WORK NEXT X MILES" (G20-101) sign shall be required at high volume crossroads to advise motorists of the length of construction in either direction from the intersection. The Engineer will determine whether a roadway is considered high volume.
5. Additional traffic control devices may be shown elsewhere in the plans for higher volume crossroads.
6. When work occurs in the intersection area, appropriate traffic control devices, as shown elsewhere in the plans or as determined by the Engineer/Inspector, shall be in place.

T-INTERSECTION



- CSJ LIMITS AT T-INTERSECTION**
- The Engineer will determine the types and location of any additional traffic control devices, such as a flagger and accompanying signs, or other signs, that should be used when work is being performed at or near an intersection.
  - If construction closes the road at a T-Intersection, the Contractor shall place the "CONTRACTOR NAME" (G20-61) sign behind the Type 3 Barricades for the road closure (see BC110) also. The "ROAD WORK NEXT X MILES" (left arrow (G20-101L) and "ROAD WORK NEXT X MILES" (right arrow (G20-101R)) signs shall be replaced by the detour signing called for in the plans.

TYPICAL CONSTRUCTION WARNING SIGN SIZE AND SPACING<sup>1,5,6</sup>

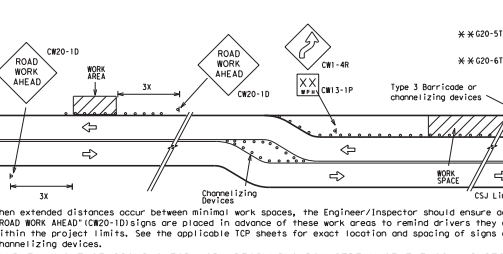
Sign Number or Series	SIZE		SPACING	
	Conventional Road	Expressway/Freeway	Posted Speed MPH	Sign Spacing Feet (Approx.)
CW20 <sup>4</sup>	48" x 48"	48" x 48"	30	120
CW21			35	160
CW23			40	240
CW25			45	320
CW1, CW2, CW7, CW8, CW9, CW11, CW14	36" x 36"	48" x 48"	50	400
			55	500 <sup>2</sup>
			60	600 <sup>2</sup>
CW3, CW4, CW5, CW6, CW8-5, CW10, CW12	48" x 48"	48" x 48"	70	800 <sup>2</sup>
			75	900 <sup>2</sup>
			80	1000 <sup>2</sup>
			*	* <sup>3</sup>

\* For typical sign spacings on divided highways, expressways and freeways, see Part 6 of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) typical application diagrams or TDP Standard Sheets.

<sup>1</sup> Minimum distance from work area to first Advance Warning sign nearest the work area and/or distance between each additional sign.

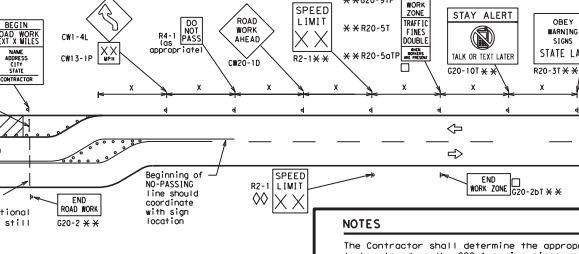
- GENERAL NOTES**
- Special or larger size signs may be used as necessary.
  - Distance between signs should be increased as required to have 1500 feet advance warning.
  - Distance between signs should be increased as required to have 1/2 mile or more advance warning.
  - 36" x 36" "ROAD WORK AHEAD" (CW20-10) signs may be used on low volume crossroads at the discretion of the Engineer as per TMUTCD Part 5. See Note 2 under "Typical Location of Crossroad Signs".
  - Only diamond shaped warning sign sizes are indicated.
  - See sign size listing in "TMUTCD", Sign Appendix or the "Standard Highway Sign Designs for Texas" manual for complete list of available sign design sizes.

WORK AREAS IN MULTIPLE LOCATIONS WITHIN CSJ LIMITS



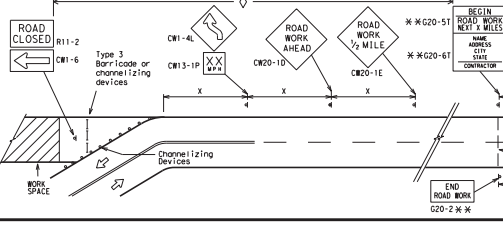
When extended distances occur between minimal work spaces, the Engineer/Inspector should ensure additional "ROAD WORK AHEAD" (CW20-10) signs are placed in advance of these work areas to remind drivers they are still within the project limits. See the applicable TDP sheets for exact location and spacing of signs and channelizing devices.

SAMPLE LAYOUT OF SIGNING FOR WORK BEGINNING AT THE CSJ LIMITS

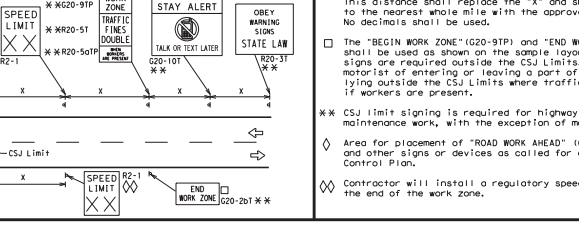


When extended distances occur between minimal work spaces, the Engineer/Inspector should ensure additional "ROAD WORK AHEAD" (CW20-10) signs are placed in advance of these work areas to remind drivers they are still within the project limits. See the applicable TDP sheets for exact location and spacing of signs and channelizing devices.

SAMPLE LAYOUT OF SIGNING FOR WORK BEGINNING DOWNSTREAM OF THE CSJ LIMITS



SAMPLE LAYOUT OF SIGNING FOR WORK BEGINNING DOWNSTREAM OF THE CSJ LIMITS



- NOTES**
- The Contractor shall determine the appropriate distance to be placed on the G20-1 series signs and "BEGIN ROAD WORK NEXT X MILES" (G20-61) sign for each specific project. This distance shall replace the "x" and shall be rounded to the nearest whole mile with the approval of the Engineer. No decimals shall be used.
- The "BEGIN WORK ZONE" (G20-9TP) and "END WORK ZONE" (G20-2B1) shall be used as shown on the sample layout when advance signs are required outside the CSJ Limits. They inform the motorist of entering or leaving a part of the work zone lying outside the CSJ Limits where traffic fines may double if workers are present.
- \* CSJ limit signing is required for highway construction and maintenance work, with the exception of mobile operations.
- ◇ Area for placement of "ROAD WORK AHEAD" (CW20-10) sign and other signs or devices as called for on the Traffic Control Plan.
- ◇◇ Contractor will install a regulatory speed limit sign at the end of the work zone.

**LEGEND**

—	Type 3 Barricade
○ ○ ○	Channelizing Devices
▲	Sign
X	See Typical Construction Warning Sign Size and Spacing chart or the TMUTCD for sign spacing requirements.

SHEET 2 OF 12  
Texas Department of Transportation  
Traffic Safety Division Standard

**BARRICADE AND CONSTRUCTION PROJECT LIMIT**

**BC (2) - 21**

FILED: BC-21, 0901  
REVISED: 9-07 8-14 1-13 5-21

DATE	BY	CHECKED	DATE

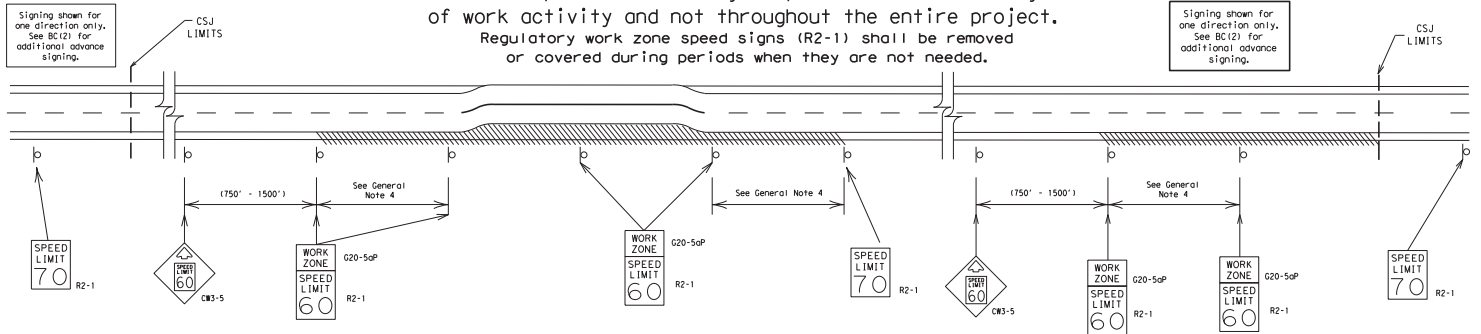
DISCLAIMER: This plan sheet is prepared by the Engineer/Inspector. The Engineer/Inspector is responsible for the accuracy of the information provided. The Contractor shall be responsible for the accuracy of the information provided. The Engineer/Inspector shall not be held responsible for any damages resulting from its use.



### TYPICAL APPLICATION OF WORK ZONE SPEED LIMIT SIGNS

Work zone speed limits shall be regulatory, established in accordance with the "Procedures for Establishing Speed Zones," and approved by the Texas Transportation Commission, or by City Ordinance when within Incorporated City Limits.

Reduced speeds should only be posted in the vicinity of work activity and not throughout the entire project. Regulatory work zone speed signs (R2-1) shall be removed or covered during periods when they are not needed.



#### GUIDANCE FOR USE:

##### LONG/INTERMEDIATE TERM WORK ZONE SPEED LIMITS

This type of work zone speed limit should be included on the design of the traffic control plans when restricted geometrics with a lower design speed are present in the work zone and modification of the geometrics to a higher design speed is not feasible.

Long/Intermediate Term Work Zone Speed Limit signs, when approved as described above, should be posted and visible to the motorist when work activity is present. Work activity may also be defined as a change in the roadway that requires a reduced speed for motorists to safely negotiate the work area, including:

- a) rough road or damaged pavement surface
- b) substantial alteration of roadway geometrics (diversions)
- c) construction detours
- d) grade
- e) width
- f) other conditions readily apparent to the driver

As long as any of these conditions exist, the work zone speed limit signs should remain in place.

##### SHORT TERM WORK ZONE SPEED LIMITS

This type of work zone speed limit may be included on the design of the traffic control plans when workers or equipment are not behind concrete barrier, when work activity is within 10 feet of the traveled way or actually in the traveled way.

Short Term Work Zone Speed Limit signs should be posted and visible to the motorists only when work activity is present. When work activity is not present, signs shall be removed or covered. (See Removing or Covering on BC(4)).

##### GENERAL NOTES

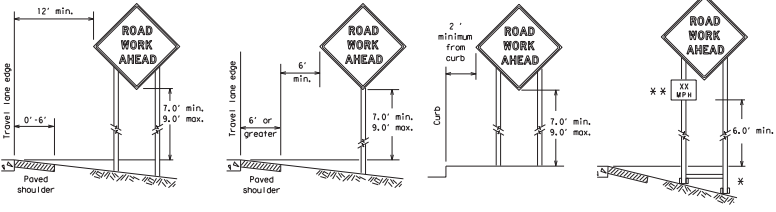
1. Regulatory work zone speed limits should be used only for sections of construction projects where speed control is of major importance.
2. Regulatory work zone speed limit signs shall be placed on supports at a 7 foot minimum mounting height.
3. Speed zone signs are illustrated for one direction of travel and are normally posted for each direction of travel.
4. Frequency of work zone speed limit signs should be:
  - 40 mph and greater 0.2 to 2 miles
  - 35 mph and less 0.2 to 1 mile
5. Regulatory speed limit signs shall have black legend and border on a white reflective background (See "Reflective Sheeting" on BC(4)).
6. Fabrication, erection and maintenance of the "ADVANCE SPEED LIMIT" (CW3-5) sign, "WORK ZONE" (G20-5aP) plaque and the "SPEED LIMIT" (R2-1) signs shall not be paid for directly, but shall be considered subsidiary to Item 502.
7. Turning signs from view, laying signs over or down will not be allowed, unless as otherwise noted under "REMOVING OR COVERING" on BC(4).
8. Techniques that may help reduce traffic speeds include but are not limited to:
  - A. Low enforcement.
  - B. Flagger stationed next to sign.
  - C. Portable changeable message sign (PCMS).
  - D. Low power (dome) radar transmitter.
  - E. Speed monitor trailers or signs.
9. Speeds shown on details above are for illustration only. Work Zone Speed Limits should only be posted as approved for each project.
10. For more specific guidance concerning the type of work, work zone conditions and factors impacting allowable regulatory construction speed zone reduction see TxDOT form #1204 in the TxDOT e-form system.

DISCLAIMER: The use of this standard is governed by the Texas Engineering Practice Act. No warranty of any kind is made by the Board of Professional Engineers, Architects, Surveyors and Landscape Architects of this state or to other persons or for incorrect results or damages resulting from its use.

SHEET 3 OF 12

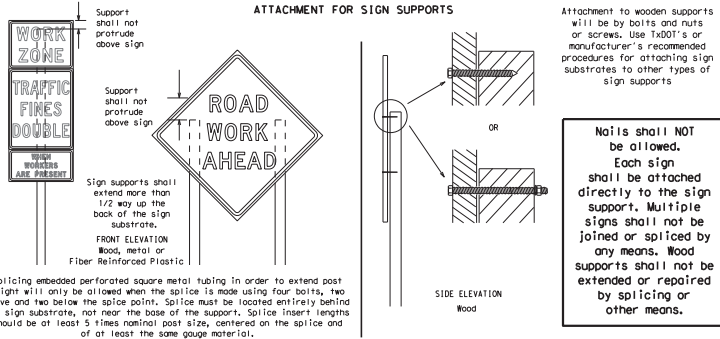
		Traffic Safety Division Standard
BARRICADE AND CONSTRUCTION WORK ZONE SPEED LIMIT		
BC (3) - 21		
Title: BC-21, 09/01 11/001 November 2002	[Rev 1/00] [Rev 1/00] [Rev 1/00] [Rev 1/00] [Rev 1/00]	[Rev 1/00] [Rev 1/00] [Rev 1/00] [Rev 1/00] [Rev 1/00]
REVISIONS 9-07 8-14 7-13 5-21	DIST COUNTY	SHEET NO.

**TYPICAL MINIMUM CLEARANCES FOR LONG TERM AND INTERMEDIATE TERM SIGNS**



\* When placing skid supports on uneven ground, the leg post lengths must be adjusted so the sign appears straight and plumb. Objects shall NOT be placed under skids as a means of leveling.  
 \*\* When plaques are placed on dual-leg supports, they should be attached to the upright nearest the travel lane. Supplemental plaques (advisory or distance) should not cover the surface of the parent sign.

**ATTACHMENT FOR SIGN SUPPORTS**



**GENERAL NOTES FOR WORK ZONE SIGNS**

- Contractor shall install and maintain signs in a straight and plumb condition and/or as directed by the Engineer.
- Wooden sign posts shall be painted white.
- Barricades shall NOT be used as sign supports.
- All signs shall be installed in accordance with the plans or as directed by the Engineer. Signs shall be used to regulate, warn, and guide the traveling public safely through the work zone.
- The Contractor may furnish either the sign design shown in the plans or in the "Standard Highway Sign Designs for Texas" (SHSD). The Engineer/Inspector may require the Contractor to furnish other work zone signs that are shown in the TMUTCD but may have been omitted from the plans. Any variation in the plans shall be documented by written agreement between the Engineer and the Contractor's Responsible Person. All changes must be documented in writing before being implemented. This can include documenting the changes in the Inspector's TxDOT diary and having both the Inspector and Contractor initial and date the agreed upon changes.
- The Contractor shall furnish sign supports listed in the "Compliant Work Zone Traffic Control Device List" (CWZTD) for small roadside signs. Supports for temporary large roadside signs shall meet the requirements detailed on the Temporary Large Roadside Signs (TLRS) standard sheets. The Contractor shall install the sign support in accordance with the manufacturer's recommendations. If there is a question regarding installation procedures, the Contractor shall furnish the Engineer a copy of the manufacturer's installation recommendations so the Engineer can verify the correct procedures are being followed.
- The Contractor is responsible for installing signs on approved supports and replacing signs with damaged or cracked substrates and/or damaged or marred reflective sheeting as directed by the Engineer/Inspector.
- Identification markings may be shown only on the back of the sign substrate. The maximum height of letters and/or company logos used for identification shall be 1 inch.
- The Contractor shall replace damaged wood posts. New or damaged wood sign posts shall not be spliced.

**DURATION OF WORK (as defined by the "Texas Manual on Uniform Traffic Control Devices" Part 6)**

- Types of sign supports, sign mounting height, the size of signs, and the type of sign substrate can vary based on the type of work being performed. The Engineer is responsible for selecting the appropriate size sign for the type of work being performed. The Contractor is responsible for ensuring the sign support, sign mounting height and substrate meets manufacturer's recommendations in regard to crashworthiness and duration of work requirements.
  - Long-term stationary - work that occupies a location more than 3 days.
  - Intermediate-term stationary - work that occupies a location more than one daylight period up to 3 days, or nighttime work lasting more than one hour.
  - Short-term stationary - daytime work that occupies a location for more than 1 hour in a single daylight period.
  - Short-term duration - work that occupies a location up to 1 hour.
  - Mobile - work that moves continuously or intermittently (stopping for up to approximately 15 minutes.)

**SIGN MOUNTING HEIGHT**

- The bottom of Long-term/Intermediate-term signs shall be at least 7 feet, but not more than 9 feet, above the paved surface, except as shown for supplemental plaques mounted below other signs.
- The bottom of Short-term/Short Duration signs shall be a minimum of 1 foot above the pavement surface but no more than 2 feet above the road surface.
- Long-term/Intermediate-term signs may be used in lieu of Short-term/Short Duration signing.
- Short-term/Short Duration signs shall be used only during daylight and shall be removed at the end of the roadway or raised to appropriate Long-term/Intermediate sign height.
- Regulatory signs shall be mounted at least 7 feet, but not more than 9 feet, above the paved surface regardless of work duration.

**SIZES OF SIGNS**

- The Contractor shall furnish the sign sizes shown on BC (2) unless otherwise shown in the plans or as directed by the Engineer.

**SIGN SUBSTRATES**

- The Contractor shall ensure the sign substrate is installed in accordance with the manufacturer's recommendations for the type of sign support that is being used. The CWZTD lists sign substrate that can be used on the different types and models of sign supports.
- "Mesh" type materials are NOT an approved sign substrate, regardless of the tightness of the weave.
- All wooden individual sign panels fabricated from 2 or more pieces shall have one or more plywood cleat, 1/2" thick by 6" wide, fastened to the back of the sign and extending fully across the sign. The cleat shall be attached to the back of the sign using wood screws that do not penetrate the face of the sign panel. The screws shall be placed on both sides of the splice and spaced at 8" centers. The Engineer may approve other methods of splicing the sign face.

**REFLECTIVE SHEETING**

- All signs shall be retroreflective and constructed of sheeting meeting the color and retro-reflectivity requirements of DMS-8300 for rigid signs or DMS-8310 for roll-up signs. The web address for DMS specifications is shown on BC(1).
- White sheeting, meeting the requirements of DMS-8300 type A, shall be used for signs with a white background.
- Orange sheeting, meeting the requirements of DMS-8300 type B<sub>1</sub> or type C<sub>1</sub>, shall be used for rigid signs with orange backgrounds.

**SIGN LETTERS**

- All sign letters and numbers shall be clear, and open rounded type uppercase alphabet letters as approved by the Federal Highway Administration (FHWA) and as published in the "Standard Highway Sign Design for Texas" manual. Signs, letters and numbers shall be of first class workmanship in accordance with Department Standards and Specifications.

**REMOVING OR COVERING**

- When sign messages may be confusing or do not apply, the signs shall be removed or completely covered.
- Long-term stationary or intermediate stationary signs installed on square metal tubing may be turned away from traffic 90 degrees when the sign message is not applicable. This technique may not be used for signs installed in the median of divided highways or near any intersections where the sign may be seen from approaching traffic.
- Signs installed on wooden skids shall not be turned at 90 degree angles to the roadway. These signs should be removed or completely covered when not required.
- When signs are covered, the material used shall be opaque, such as heavy mil black plastic, or other materials which will cover the entire sign face and maintain their opaque properties under automobile headlights at night, without damaging the sign sheeting.
- Burlap shall NOT be used to cover signs.
- Duct tape or other adhesive material shall NOT be affixed to a sign face.
- Signs and anchor studs shall be removed and holes backfilled upon completion of work.

**SIGN SUPPORT WEIGHTS**

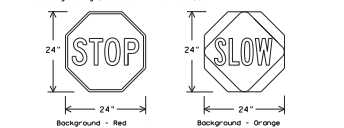
- Where sign supports require the use of weights to keep from turning over, the use of sandbags with dry, cohesionless sand should be used.
- The sandbags will be filled with sand to keep the sand from spilling and to maintain a constant weight.
- Rock, concrete, iron, steel or other solid objects shall not be permitted for use as sign support weights.
- Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs.
- Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber (such as tire inner tubes) shall NOT be used.
- Rubber ballasts designed for channeled devices should not be used for ballast on portable sign supports. Sign supports designed and manufactured with rubber bases may be used when shown on the CWZTD list.
- Sandbags shall only be placed along or laid over the base supports of the traffic control device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners. Sandbags shall be placed along the length of the skids to weigh down the sign support.
- Sandbags shall NOT be placed under the skid and shall not be used to level sign supports placed on slopes.

**FLAGS ON SIGNS**

- Flags may be used to draw attention to warning signs. When used, the flag shall be 16 inches square or larger and shall be orange or fluorescent orange-red in color. Flags shall not be allowed to cover any portion of the sign face.

**STOP/SLOW PADDLES**

- STOP/SLOW paddles are the primary method to control traffic by flaggers. The STOP/SLOW paddle size should be 24" x 24".
- STOP/SLOW paddles shall be retroreflectivized when used at night.
- STOP/SLOW paddles may be attached to a staff with a minimum length of 6' to the bottom of the sign.
- Any lights incorporated into the STOP or SLOW paddle faces shall only be as specifically described in Section 6E.03 Road Signaling Devices in the TMUTCD.



SHEETING REQUIREMENTS (WHEN USED AT NIGHT)		
USAGE	COLOR	SIGN FACE MATERIAL
BACKGROUND	RED	TYPE B OR C SHEETING
BACKGROUND	ORANGE	TYPE B <sub>1</sub> OR C <sub>1</sub> SHEETING
LEGEND & BORDER	WHITE	TYPE B OR C SHEETING
LEGEND & BORDER	BLACK	ACRYLIC NON-REFLECTIVE FILM

**CONTRACTOR REQUIREMENTS FOR MAINTAINING PERMANENT SIGNS WITHIN THE PROJECT LIMITS**

- Permanent signs are used to give notice of traffic laws or regulations, call attention to conditions that are potentially hazardous to traffic operations, show route designations, destinations, directions, distances, services, points of interest, and other geographical, recreational, specific service (LOCO), or cultural information. Drivers proceeding through a work zone need the same, if not better route guidance as normally installed on a roadway without construction.
- When permanent regulatory or warning signs conflict with work zone conditions, remove or cover the permanent signs until the permanent sign message matches the roadway condition. For details for covering large guide signs see the TS-CD standard.
- When existing permanent signs are moved and relocated due to construction purposes, they shall be visible to motorists at all times.
- If existing signs are to be relocated on their original supports, they shall be installed on crashworthy bases as shown on the SMD Standard sheets. The signs shall meet the required mounting heights shown on the BC sheets or the SMD Standard sheets. This work should be paid for under the appropriate pay item for relocating existing signs.
- If permanent signs are to be removed and relocated using temporary supports, the Contractor shall use crashworthy supports as shown on the BC standard sheets, TLRS standard sheets or the CWZTD list. The signs shall meet the required mounting heights shown on the BC, or the SMD standard sheets during construction. This work should be paid for under the appropriate pay item for relocating existing signs.
- Any sign or traffic control device that is struck or damaged by the Contractor or his/her construction equipment shall be replaced as soon as possible by the Contractor to ensure proper guidance for the motorists. This will be subsidiary to Item 502.

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Texas Department of Transportation  
Traffic Safety Division Standard

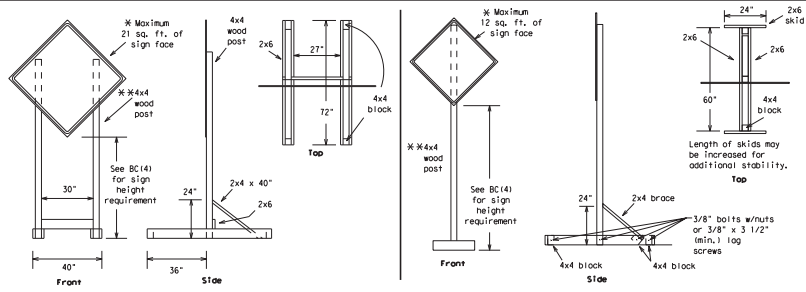
**BARRICADE AND CONSTRUCTION  
TEMPORARY SIGN NOTES**

**BC (4) - 21**

Revised:	0c-21-000	0a-1000	0a-1000	0a-1000	0a-1000
Revised:	0c-21-000	0a-1000	0a-1000	0a-1000	0a-1000
Revised:	0c-21-000	0a-1000	0a-1000	0a-1000	0a-1000
Revised:	0c-21-000	0a-1000	0a-1000	0a-1000	0a-1000

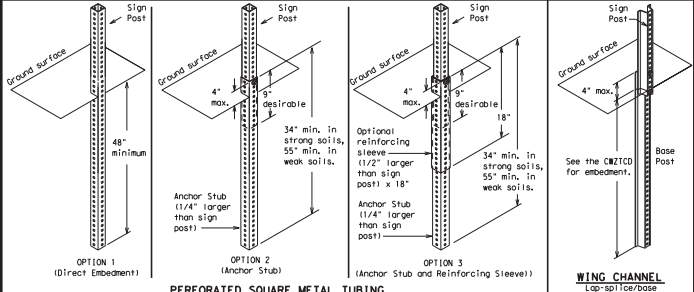
DATE FILED

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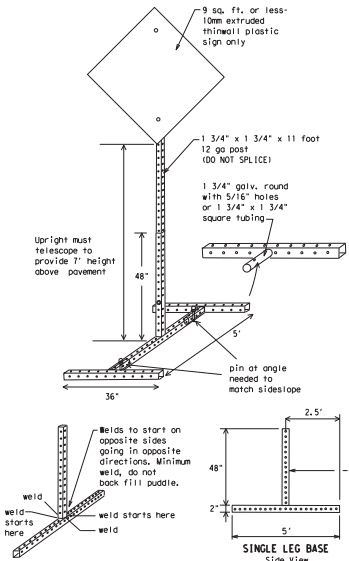
**SKID MOUNTED WOOD SIGN SUPPORTS**

\* LONG/INTERMEDIATE TERM STATIONARY - PORTABLE SKID MOUNTED SIGN SUPPORTS



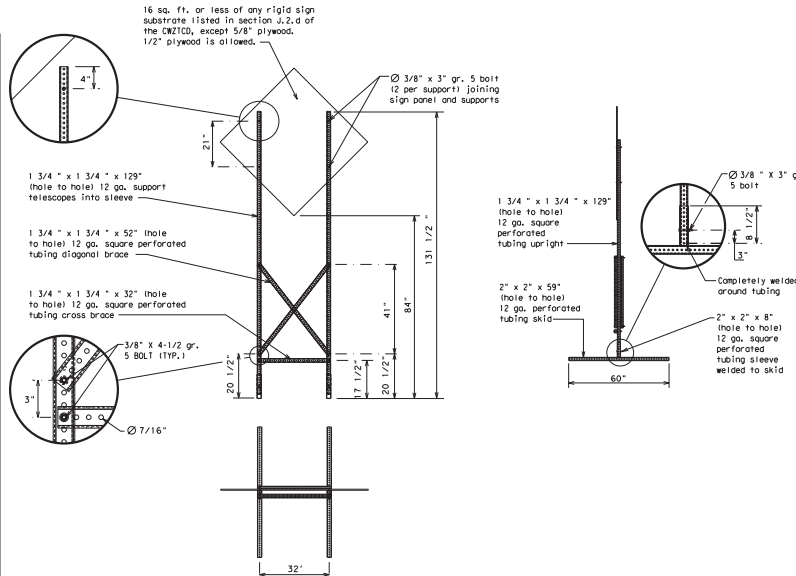
**GROUND MOUNTED SIGN SUPPORTS**

Refer to the CRZTCO and the manufacturer's installation procedure for each type sign support. The maximum sign square footage shall adhere to the manufacturer's recommendation. Two post installations can be used for larger signs.



**SKID MOUNTED PERFORATED SQUARE STEEL TUBING SIGN SUPPORTS**

\* LONG/INTERMEDIATE TERM STATIONARY - PORTABLE SKID MOUNTED SIGN SUPPORTS



**WEDGE ANCHORS**

Both steel and plastic Wedge Anchor Systems as shown on the SMO Standard Sheets may be used as temporary sign supports for signs up to 10 square feet of sign face. They may be set in concrete or in sturdy soils if approved by the Engineer. (See web address for "Traffic Engineering Standard Sheets" on BC111).

**OTHER DESIGNS**

MORE DETAILS OF APPROVED LONG/INTERMEDIATE AND SHORT TERM SUPPORTS CAN BE FOUND ON THE CRZTCO LIST. SEE BC(1) FOR WEBSITE LOCATION.

**GENERAL NOTES**

- Nails may be used in the assembly of wooden sign supports, but 3/8" bolts with nuts or 3/8" x 3 1/2" lag screws must be used on every joint for final connection.
  - No more than 2 sign posts shall be placed within a 7 ft. circle, except for specific materials noted on the CRZTCO List.
  - When project is completed, all sign supports and foundations shall be removed from the project site. This will be considered subsidiary to Item 502.
- \* See BC(14) for definition of "Work Duration."
  - \*\* Wood sign posts MUST be one piece. Splicing will NOT be allowed. Posts shall be painted white.
  - See the CRZTCO for the type of sign substrate that can be used for each approved sign support.

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**BARRICADE AND CONSTRUCTION TYPICAL SIGN SUPPORT**

BC (5) - 21

File#	BC-71-001	Rev	1A001	Rev	1A001	Rev	1A001
Rev	1A001	Rev	1A001	Rev	1A001	Rev	1A001
DATE	9-07	DATE	8-14	DATE	2-13	DATE	5-21
DESIGNER		CHECKER		APPROVER		DATE	
DIST		COUNTY		SHEET NO.			

WHEN NOT IN USE, REMOVE THE PCMS FROM THE RIGHT-OF-WAY OR PLACE THE PCMS BEHIND BARRIER OR GUARDRAIL WITH SIGN PANEL TURNED PARALLEL TO TRAFFIC

**PORTABLE CHANGEABLE MESSAGE SIGNS**

- The Engineer/Inspector shall approve all messages used on portable changeable message signs (PCMS).
- Messages on PCMS should contain no more than 8 words (about four to eight characters per word), not including simple words such as "TO," "FOR," "AT," etc.
- Messages should consist of a single phase, or two phases that alternate. Three-phase messages are not allowed. Each phase of the message should convey a single thought, and must be understood by itself.
- Use the word "EXIT" to refer to an exit ramp on a freeway; i.e., "EXIT CLOSED." Do not use the term "RAMP."
- Always use the route or interstate designation (IH, US, SH, FM) along with the number when referring to a roadway.
- When in use, the bottom of a stationary PCMS message panel should be a minimum 7 feet above the roadway, where possible.
- The message term "WEEKEND" should be used only if the work is to start on Saturday morning and end by Sunday evening at midnight. Actual days and hours of work should be displayed on the PCMS if work is to begin on Friday evening and/or continue into Monday morning.
- The Engineer/Inspector may select one of two options which are available for displaying a two-phase message on a PCMS. Each phase may be displayed for either four seconds each or for three seconds each.
- Do not "flash" messages or words included in a message. The message should be steady burn or continuous while displayed.
- Do not present redundant information on a two-phase message; i.e., keeping two lines of the message the same and changing the third line.
- Do not use the word "Danger" in a message.
- Do not display the message "LANES SHIFT LEFT" or "LANES SHIFT RIGHT" on a PCMS, if drivers do not understand the message.
- Do not display messages that scroll horizontally or vertically across the face of the sign.
- The following table lists abbreviated words and two-word phrases that are acceptable for use on a PCMS. Both words in a phrase must be displayed together. Words or phrases not on this list should not be abbreviated, unless shown in the TMC/CO.
- PCMS character height should be at least 18 inches for trailer mounted units. They should be visible from 0.1 to 1.2 (1-1.5) mile and the text should be legible from at least 600 feet at night and 800 feet in daylight. Truck mounted units must have a character height of 10 inches and must be legible from at least 400 feet.
- Each line of text should be centered on the message board rather than left or right justified.
- If displayed, the PCMS should default to an illegible display that will not alarm motorists and will only be used to alert workers that the PCMS has malfunctioned. A pattern such as a series of horizontal solid bars is appropriate.

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**RECOMMENDED PHASES AND FORMATS FOR PCMS MESSAGES DURING ROADWORK ACTIVITIES**  
(The Engineer may approve other messages not specifically covered here.)

**Phase 1: Condition Lists**

**Road/Lane/Ramp Closure List**

FREEWAY CLOSED X MILE
ROAD CLOSED AT SH XXX
ROAD CLSD AT FM XXXX
RIGHT X LANES CLOSED
CENTER LANE CLOSED
NIGHT LANE CLOSURES
VARIOUS LANES CLOSED
EXIT CLOSED
MALL DRIVEWAY CLOSED
XXXXXXX BLVD CLOSED

**Other Condition List**

ROADWORK XXX FT
FLAGGER XXXX FT
RIGHT LN NARROWS XXXX FT
MERGING TRAFFIC XXXX FT
LOOSE GRAVEL XXXX FT
DETOUR X MILE
ROADWORK PAST X MILE
ROADWORK NEXT FRI-SUN
BUMP XXXX FT
TRAFFIC SIGNAL XXXX FT

**Phase 2: Possible Component Lists**

**Action to Take/Effect on Travel List**

MERGE RIGHT
DETOUR NEXT X EXITS
USE EXIT XXX
STAY ON US XXX SOUTH
TRUCKS USE US XXX N
WATCH FOR TRUCKS
EXPECT DELAYS
PREPARE TO STOP
REDUCE SPEED XXX FT
USE OTHER ROUTES
STAY IN LANE

**Location List**

AT FM XXXX
BEFORE RAILROAD CROSSING
NEXT X MILES
PAST US XXX EXIT
US XXX TO XXXXXX TO XXXXXX
US XXX TO FM XXXX

**Warning List**

SPEED LIMIT XX MPH
MAXIMUM SPEED XX MPH
MINIMUM SPEED XX MPH
ADVISORY SPEED XX MPH
RIGHT LANE EXIT
USE CAUTION
DRIVE SAFELY
DRIVE WITH CARE

**\*\* Advance Notice List**

TUE-FRI XX AM-X PM
APR XX-X PM-X AM
BEGINS MONDAY
BEGINS MAY XX
MAY X-X TO XX AM
NEXT FRI-SUN
XX AM TO XX PM
NEXT TUE AUG XX
TONIGHT XX PM-XX AM

\* LANES SHIFT in Phase 1 must be used with STAY IN LANE in Phase 2.

\*\* See Application Guidelines Note 6.

**APPLICATION GUIDELINES**

- Only 1 or 2 phases are to be used on a PCMS.
- The 1st phase (or both) should be selected from the "Road/Lane/Ramp Closure List" and the "Other Condition List".
- A 2nd phase can be selected from the "Action to Take/Effect on Travel", "Location", "General Warning", or "Advance Notice Phase Lists".
- A Location Phase is necessary only if a distance or location is not included in the first phase selected.
- If two PCMS are used in sequence, they must be separated by a minimum of 1000 ft. Each PCMS shall be limited to two phases, and should be understandable by themselves.
- For advance notice, when the current date is within seven days of the actual work date, calendar days should be replaced with days of the week. Advance notification should typically be for no more than one week prior to the work.

**WORDING ALTERNATIVES**

- The words RIGHT, LEFT and ALL can be interchanged as appropriate.
- Roadway designations IH, US, SH, FM and LP can be interchanged as appropriate.
- EAST, WEST, NORTH and SOUTH (or abbreviations E, W, N and S) can be interchanged as appropriate.
- Highway names and numbers replaced as appropriate.
- ROAD, HIGHWAY and FREEWAY can be interchanged as needed.
- AHEAD may be used instead of distances if necessary.
- FT and MILE and MILES interchanged as appropriate.
- AT, BEFORE and PAST interchanged as needed.
- Distances or AHEAD can be eliminated from the message if a location phase is used.

PCMS SIGNS WITHIN THE R.O.W. SHALL BE BEHIND GUARDRAIL OR CONCRETE BARRIER OR SHALL HAVE A MINIMUM OF FOUR (4) PLASTIC DRUMS PLACED PERPENDICULAR TO TRAFFIC ON THE UPSTREAM SIDE OF THE PCMS, WHEN EXPOSED TO ONE DIRECTION OF TRAFFIC. WHEN EXPOSED TO TWO WAY TRAFFIC, THE FOUR DRUMS SHOULD BE PLACED WITH ONE DRUM AT EACH OF THE FOUR CORNERS OF THE UNIT.

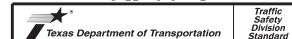
**FULL MATRIX PCMS SIGNS**

- When Full Matrix PCMS signs are used, the character height and legibility/visibility requirements shall be maintained as listed in Note 15 under "PORTABLE CHANGEABLE MESSAGE SIGNS" above.
- When symbol signs, such as the "Flagger Symbol" (CW20-7) are represented graphically on the Full Matrix PCMS sign and, with the approval of the Engineer, it shall maintain the legibility/visibility requirements listed above.
- When symbol signs are represented graphically on the Full Matrix PCMS, they shall only supplement the use of the static sign represented, and shall not substitute for, or replace that sign.
- A full matrix PCMS may be used to simulate a flashing arrow board provided it meets the visibility, flash rate and dimming requirements on BC(7), for the same size arrow.

WORD OR PHRASE	ABBREVIATION	WORD OR PHRASE	ABBREVIATION
Access Road	ACCESS RD	Major	MAJ
Alternative	ALT	Miles	MI
Avenue	AVE	Miles Per Hour	MPH
Best Route	BEST RTE	Minor	MIN
Boulevard	BLVD	Monday	MON
Bridge	BRDG	Normal	NORM
Carpet	CARP	North	N
Center	CTR	Northbound	Traject N
Construction Ahead	CONST AHD	Parking	PKING
CROSSING	XING	Road	RD
Detour Route	DETOUR RTE	Right Lane	RT LN
Do Not	DO NT	Saturday	SAT
East	E	Service Road	SERV RD
Eastbound	Traject E	Shoulder	SHLR
Emergency	EMER	Slippery	SLIP
Emergency Vehicle	EMER VEH	South	S
Entrance	ENT	Southbound	Traject S
Express Lane	EXP LN	Speed	SPD
Expressway	EXPWY	Street	ST
Fog Ahead	FOG AHD	Sunday	SUN
Freeway	FWAY	Temporary	TEMP
Freeway Blocked	FWY BLKD	Thursday	THURS
Friday	FRI	To Downtown	TO DWTN
Hazardous Driving	HAZ DRIVING	Traffic	TRAF
Hazardous Material	HAZMAT	Travelers	TRVRS
High Occupancy	HOV	Tuesday	TUES
Vehicle Highway	HWY	Time Minutes	TIME MIN
Hour(s)	HRS, HRS	Upper Level	UPR LEVEL
Information	INFO	Vehicles (pl)	VEH, VEHs
It Is	ITS	Warning	WARN
Junction	JCT	Weight Limit	WT LIMIT
Left Lane	LEFT LN	West	W
Lane Closed	LN CLOSED	Westbound	Traject W
Lower Level	LWR LEVEL	West Palletment	WET PWT
Maintenance	MAINT	West Not	WNT

Roadway designation = IH-number, US-number, SH-number, FM-number

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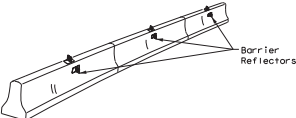


**BARRICADE AND CONSTRUCTION PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)**

BC (6) - 21

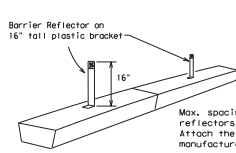
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DATE	06-21-09	DATE	06-15-07	DATE	06-15-07
BY	06-21-09	BY	06-15-07	BY	06-15-07
REVISED	06-21-09	REVISED	06-15-07	REVISED	06-15-07
DATE	06-21-09	DATE	06-15-07	DATE	06-15-07
BY	06-21-09	BY	06-15-07	BY	06-15-07

- Barrier Reflectors shall be pre-qualified, and conform to the color and reflectivity requirements of DM-8500. A list of prequalified barrier reflectors can be found at the Material Producer List web address shown on BC11).
- Color of Barrier Reflectors shall be as specified in the MUTCD. The cost of the reflectors shall be considered subsidiary to Item 512.



CONCRETE TRAFFIC BARRIER (CTB)

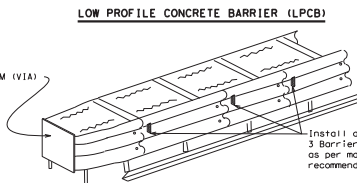
- Where traffic is on one side of the CTB, two (2) Barrier Reflectors shall be mounted in approximately the midsection of each section of CTB. An alternate mounting location is uniformly spaced at one end of each CTB. This will allow for attachment of a barrier groove without damaging the reflector. The Barrier Reflector mounted on the side of the CTB shall be located directly below the reflector mounted on top of the barrier, as shown in the detail above.
- Where CTB separates two-way traffic, three barrier reflectors shall be mounted on each section of CTB. The reflector units on top shall have two yellow reflective faces (bi-directional) while the reflectors on each side of the barrier shall have one yellow reflective face, as shown in the detail above.
- When CTB separates traffic traveling in the same direction, no barrier reflectors will be required on top of the CTB.
- Barrier Reflector units shall be yellow or white in color to match the edge line being supplemented.
- Maximum spacing of Barrier Reflectors is forty (40) feet.
- Pavement markers or temporary flexible/reflective roadway marker tabs shall NOT be used as CTB delineation.
- Attachment of Barrier Reflectors to CTB shall be per manufacturer's recommendations.
- Missing or damaged Barrier Reflectors shall be replaced as directed by the Engineer.
- Single slope barriers shall be delineated as shown on the above detail.



**LOW PROFILE CONCRETE BARRIER (LPCB) USED IN WORK ZONES**

LPCB is approved for use in work zone locations, where the posted speed is 45mph, or less. See Roadway Standard Sheet LPCB.

Max. spacing of barrier reflectors is 20 feet. Attach the delineators as per manufacturer's recommendations.

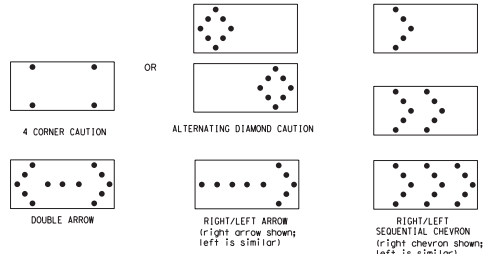


**END TREATMENTS FOR CTB'S USED IN WORK ZONES**

End treatments used on CTB's in work zones shall meet the appropriate crashworthy standards as defined in the Manual for Assessing Safety Hardware (MASH). Refer to the CRWCD List for approved end treatments and manufacturers.

Arrow Boards may be located behind channelizing devices in place for a shoulder taper or merging taper, otherwise they shall be delineated with four (4) channelizing devices placed perpendicular to traffic on the upstream side of traffic.

- The Flashing Arrow Board should be used for all lane closures on multi-lane roadways, or slow moving maintenance or construction activities on the travel lanes.
- Flashing Arrow Boards should not be used on two-lane, two-way roadways, detours, diversions or work on shoulders unless the "CAUTION" display (see detail below) is used.
- The Engineer/Inspector shall choose all appropriate signs, barricades and/or other traffic control devices that should be used in conjunction with the Flashing Arrow Board.
- The Flashing Arrow Board should be able to display the following symbols:



- The "CAUTION" display consists of four corner lamps flashing simultaneously, or the Alternating Diamond Caution mode as shown.
- The straight line caution display is NOT ALLOWED.
- The Flashing Arrow Board shall be capable of minimum 50 percent dimming from rated lamp voltage. The flashing rate of the lamps shall not be less than 25 nor more than 40 flashes per minute.
- Minimum lamp "on time" shall be approximately 50 percent for the flashing arrow and equal intervals of 25 percent for each sequential phase of the flashing chevron.
- The sequential arrow display is NOT ALLOWED.
- The flashing arrow display is the TxDOT standard; however, the sequential chevron display may be used during daylight operations.
- The Flashing Arrow Board shall be mounted on a vehicle, trailer or other suitable support.
- A flashing Arrow Board SHALL NOT BE USED to laterally shift traffic.
- A full matrix POMS may be used to simulate a Flashing Arrow Board provided it meets visibility, flash rate and dimming requirements on this sheet for the same size arrow.
- Minimum mounting height of trailer mounted Arrow Boards should be 7 feet from roadway to bottom of panel.

**BARRIER REFLECTORS FOR CONCRETE TRAFFIC BARRIER AND ATTENUATORS**

**WARNING LIGHTS**

- Warning lights shall meet the requirements of the MUTCD.
- Warning lights shall NOT be installed on barricades.
- Type A Low Intensity Flashing Warning Lights are commonly used with drums. They are intended to warn of or mark a potentially hazardous area. Their use shall be as indicated on this sheet and/or other sheets of the plans by the designation "FL". The Type A Warning Lights shall not be used with signs manufactured with Type B<sub>2</sub> or G<sub>2</sub> sheeting meeting the requirements of Departmental Material Specification DM-8300.
- Type C and Type D 360 degree Steady Burn Lights are intended to be used in a series for delineation to supplement other traffic control devices. Their use shall be as indicated on this sheet and/or other sheets of the plans by the designation "SB".
- The Engineer/Inspector or the plans shall specify the location and type of warning lights to be installed on the traffic control devices.
- When required by the Engineer, the Contractor shall furnish a copy of the warning lights certification. The warning light manufacturer will certify the warning lights meet the requirements of the latest ITE Purchase Specifications for Flashing and Steady-Burn Warning Lights.
- When used to delineate curves, Type C and Type D Steady Burn Lights should only be placed on the outside of the curve, not the inside.
- The location of warning lights and warning reflectors on drums shall be as shown elsewhere in the plans.

**WARNING LIGHTS MOUNTED ON PLASTIC DRUMS**

- Type A Flashing warning lights are intended to warn drivers that they are approaching or are in a potentially hazardous area.
- Type A random flashing warning lights are not intended for delineation and shall not be used in a series.
- A series of sequential flashing warning lights placed on channelizing devices to form a merging taper may be used for delineation. If used, the successive flashing of the sequential warning lights should occur from the beginning of the taper to the end of the merging taper in order to identify the desired vehicle path. The rate of flashing for each light shall be 65 flashes per minute, plus or minus 10 flashes.
- Type C and D steady-burn warning lights are intended to be used in a series to delineate the edge of the travel lane on detours, on lane closures, on lane closures, and on other similar conditions.
- Type A, Type C and Type D warning lights shall be installed at locations as detailed on other sheets in the plans.
- Warning lights shall not be installed on a drum that has a sign, chevron or vertical panel.
- The maximum spacing for warning lights on drums should be identical to the channelizing device spacing.

**WARNING REFLECTORS MOUNTED ON PLASTIC DRUMS AS A SUBSTITUTE FOR TYPE C (STEADY BURN) WARNING LIGHTS**

- A warning reflector or approved substitute may be mounted on a plastic drum as a substitute for a Type C, steady burn warning light at the discretion of the Contractor unless otherwise noted in the plans.
- The warning reflector shall be yellow in color and shall be manufactured using a sign substrate approved for use with plastic drums listed on the CRWCD.
- The warning reflector shall have a minimum retroreflective surface area (one-side) of 30 square inches.
- Round reflectors shall be fully reflectorized, including the area where attached to the drum.
- Square substrates must have a minimum of 30 square inches of reflectorized sheeting. They do not have to be reflectorized where it attaches to the drum.
- The side of the warning reflector facing approaching traffic shall have sheeting meeting the color and retroreflectivity requirements for DM-8300-Type B or Type C.
- When used near two-way traffic, both sides of the warning reflector shall be reflectorized.
- The warning reflector should be mounted on the side of the handle nearest approaching traffic.
- The maximum spacing for warning reflectors should be identical to the channelizing device spacing requirements.

REQUIREMENTS			
TYPE	MINIMUM SIZE	MINIMUM NUMBER OF PANEL LAMPS	MINIMUM VISIBILITY DISTANCE
A	30 x 60	13	3/4 mile
B	30 x 60	13	3/4 mile
C	48 x 96	15	1 mile

**ATTENTION**  
Flashing Arrow Boards shall be equipped with automatic dimming devices.

WHEN NOT IN USE, REMOVE THE ARROW BOARD FROM THE RIGHT-OF-WAY OR PLACE THE ARROW BOARD BEHIND CONCRETE TRAFFIC BARRIER OR GUARDRAIL.

**FLASHING ARROW BOARDS**

**TRUCK-MOUNTED ATTENUATORS**

- Truck-mounted attenuators (TMA) used on TxDOT facilities must meet the requirements outlined in the Manual for Assessing Safety Hardware (MASH).
- Refer to the CRWCD for the requirements of Level 2 or Level 3 TMAs.
- Refer to the CRWCD for a list of approved TMAs.
- TMAs are required on freeways unless otherwise noted in the plans.
- A TMA should be used anytime that it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the work performance.
- The only reason a TMA should not be required is when a work area is spread down the roadway and the work crew is on an extended distance from the TMA.

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**BARRICADE AND CONSTRUCTION ARROW PANEL, REFLECTORS, WARNING LIGHTS & ATTENUATOR**

BC (7) - 21

FILED	BC-21-099	BY TxDOT	ON 10/07	AT TxDOT	IN 10/07
REVISED	November 2002	DATE	ISSUE	JOB	NUMBER
9-07	8-14	DIST	COUNTY		SHEET NO.
1-13	5-23				

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Type C Warning Light or approved substitute mounted on a drum adjacent to the travel way.



Warning reflector may be round or square. Must have a yellow reflective surface area of at least 30 square inches.

DATE FILED



**GENERAL NOTES**

- For long term stationary work zones on freeways, drums shall be used as the primary channelizing device.
- For intermediate term stationary work zones on freeways, drums should be used as the primary channelizing device but may be replaced in tangent sections by vertical panels, or 42" two-piece cones. In tangent sections, one-piece cones may be used with the approval of the Engineer but only if personnel are present on the project at all times to maintain the cones in proper position and location.
- For short term stationary work zones on freeways, drums are the preferred channelizing device but may be replaced in tapers, transitions and tangent sections by vertical panels, two-piece cones or one-piece cones as approved by the Engineer.
- Drums and all related items shall comply with the requirements of the current version of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) and the "Compliant Work Zone Traffic Control Devices List" (CWZCD).
- Drums, bases, and related materials shall exhibit good workmanship and shall be free from objectionable marks or defects that would adversely affect their appearance or serviceability.
- The Contractor shall have a maximum of 24 hours to replace any plastic drums identified for replacement by the Engineer/Inspector. The replacement device must be an approved device.

**GENERAL DESIGN REQUIREMENTS**

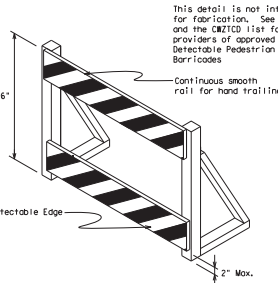
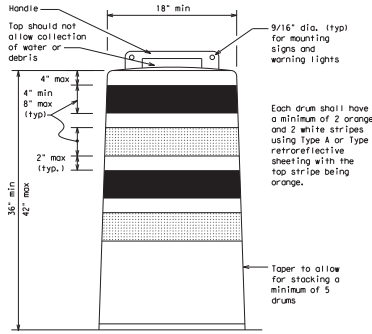
- Pre-qualified plastic drums shall meet the following requirements:
- Plastic drum shall be a two-piece design; the "body" of the drum shall be the top portion and the "base" shall be the bottom.
  - The body and base shall lock together in such a manner that the body separates from the base when impacted by a vehicle traveling at a speed of 20 MPH or greater but prevents accidental separation due to normal handling and/or air turbulence created by passing vehicles.
  - Plastic drums shall be constructed of lightweight, flexible, and deformable materials. The Contractor shall NOT use metal drums or single piece plastic drums as channelizing devices or sign supports.
  - Drums shall present a profile that is a minimum of 18 inches in width at the 36 inch height when viewed from any direction. The height of drum unit (body installed on base) shall be a minimum of 36 inches and a maximum of 42 inches.
  - The top of the drum shall have a built-in handle for easy pickup and shall be designed to drain water and not collect debris. The handle shall have a minimum of two widely spaced 9/16 inch diameter holes to allow attachment of a warning reflector unit or approved compliant sign.
  - The exterior of the drum body shall have a minimum of four alternating orange and white retroreflective circumferential stripes not less than 4 inches nor greater than 8 inches in width. Any non-reflectORIZED space between any two adjacent stripes shall not exceed 2 inches in width.
  - Bases shall have a maximum width of 36 inches, a maximum height of 4 inches, and a minimum of two footpads of sufficient size to allow base to be held down while separating the drum body from the base.
  - Plastic drums shall be constructed of ultra-violet stabilized, orange, high-density polyethylene (HDPE) or other approved material.
  - Drum body shall have a maximum unballasted weight of 11 lbs.
  - Drum and base shall be marked with manufacturer's name and model number.

**RETROREFLECTIVE SHEETING**

- The stripes used on drums shall be constructed of sheeting meeting the color and retroreflectivity requirements of Departmental Materials Specification DMS-8300, "Sign Face Materials," Type A or Type B reflective sheeting shall be supplied unless otherwise specified in the plans.
- The sheeting shall be suitable for use on and shall adhere to the drum surface such that, upon vehicular impact, the sheeting shall remain adhered in place and exhibit no delaminating, cracking, or loss of retroreflectivity other than that loss due to abrasion of the sheeting surface.

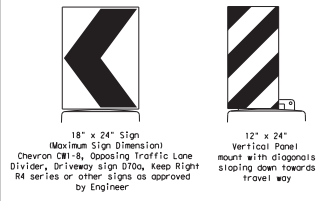
**BALLAST**

- Unballasted bases shall be large enough to hold up to 50 lbs. of sand. This base, when filled with the ballast material, should weigh between 35 lbs (minimum) and 50 lbs (maximum). The ballast may be sand in one to three sandbags separate from the base, sand in a sand-filled plastic base, or other ballasting devices as approved by the Engineer. Stacking of sandbags will be allowed, however height of sandbags above pavement surface may not exceed 12 inches.
- Bases with built-in ballast shall weigh between 40 lbs. and 50 lbs. Built-in ballast can be constructed of an integral crumb rubber base or a solid rubber base.
- Recycled truck tire sidewalls may be used for ballast on drums approved for this type of ballast on the CWZCD list.
- The ballast shall not be heavy objects, water, or any material that would become hazardous to motorists, pedestrians, or workers when the drum is struck by a vehicle.
- When used in regions susceptible to freezing, drums shall have drainage holes in the ballasts so that water will not collect and freeze becoming a hazard when struck by a vehicle.
- Ballast shall not be placed on top of drums.
- Adhesives may be used to secure base of drums to pavement.



**DETECTABLE PEDESTRIAN BARRICADES**

- When existing pedestrian facilities are disrupted, closed, or relocated in a TTC zone, the temporary facilities shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility. Refer to M2(BIS-2) for Pedestrian Control requirements for Sidewalk Diversions, Sidewalk Detours and Crosswalk Closures.
- Where pedestrians with visual disabilities normally use the closed sidewalk, a Detectable Pedestrian Barricade shall be placed across the full width of the closed sidewalk instead of a Type B Barricade.
- Detectable pedestrian barricades similar to the one pictured above, longitudinal channelizing devices, some concrete barriers, and wood or chain link fencing with a continuous detectable edging can satisfactorily delineate a pedestrian path.
- Tapel, rope, or plastic chain strung between devices are not detectable, do not comply with the design standards in the "Americans with Disabilities Act Accessibility Guidelines (ADAAG)" and should not be used as a control for pedestrian movements.
- Warning lights shall not be attached to detectable pedestrian barricades.
- Detectable pedestrian barricades should use 8" nominal barricade rolls as shown on BC110) provided that the top roll provides a smooth continuous rail suitable for hand trailing with no splinters, burrs, or sharp edges.



Plywood, Aluminum or Metal sign substrates shall NOT be used on plastic drums

**SIGNS, CHEVRONS, AND VERTICAL PANELS MOUNTED ON PLASTIC DRUMS**

- Signs used on plastic drums shall be manufactured using substrates listed on the CWZCD.
- Chevrons and other work zone signs with an orange background shall be manufactured with Type B<sub>2</sub> or Type G<sub>2</sub> orange sheeting meeting the color and retroreflectivity requirements of DMS-8300, "Sign Face Material," unless otherwise specified in the plans.
- Vertical Panels shall be manufactured with orange and white sheeting meeting the requirements of DMS-8300 Type A or Type B. Diagonal stripes on Vertical Panels shall slope down toward the intended traveled lane.
- Other sign messages (text or symbolic) may be used as approved by the Engineer. Sign dimensions shall not exceed 18 inches in width or 24 inches in height, except for the R9 series signs discussed in note 8 below.
- Signs shall be installed using a 1/2 inch bolt (nominal) and nut, two washers, and one locking washer for each connection.
- Mounting bolts and nuts shall be fully engaged and adequately torqued. Bolts should not extend more than 1/2 inch beyond nuts.
- Chevrons may be placed on drums on the outside of curves, on merging tapers or on shifting tapers. When used in these locations, they may be placed on every drum or spaced not more than on every third drum. A minimum of three (3) should be used of each location called for in the plans.
- R9-9, R9-10, R9-11 and R9-11a Sidewalk Closed signs which are 24 inches wide may be mounted on plastic drums, with approval of the Engineer.

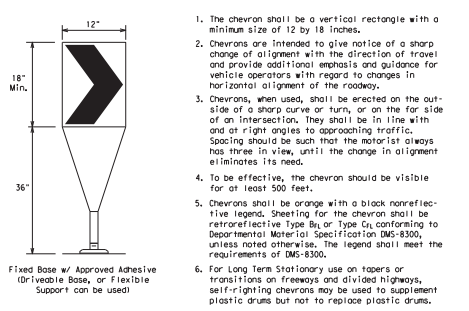
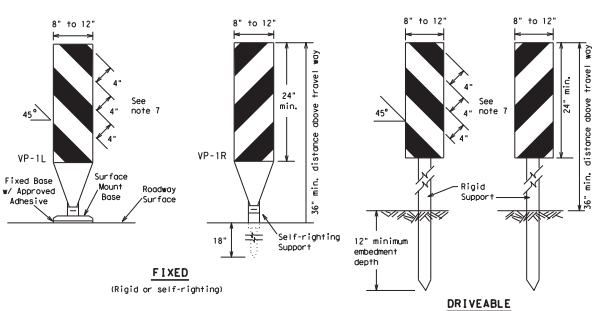
SHEET 8 OF 12

**BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES**

**BC (8) - 21**

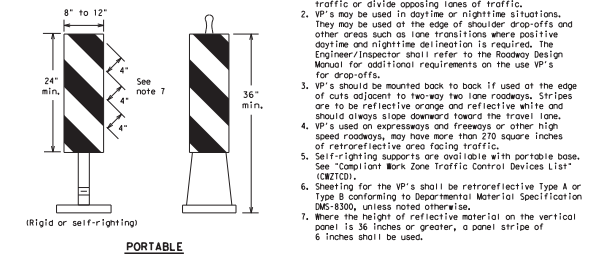
Rev:	01-21-00	02-10-01	03-10-01	04-10-01	05-10-01	06-10-01
Rev:	01-01	02-01	03-01	04-01	05-01	06-01
Rev:	01-01	02-01	03-01	04-01	05-01	06-01
Rev:	01-01	02-01	03-01	04-01	05-01	06-01

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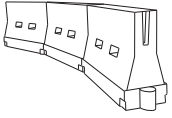
- GENERAL NOTES**
- Work zone channelizing devices illustrated on this sheet may be installed in close proximity to traffic and are suitable for use on high or low speed roadways. The Engineer/Inspector shall ensure that spacing and placement is uniform and in accordance with the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
  - Channelizing devices shown on this sheet may have a driveable, fixed or portable base. The requirement for self-lighting channelizing devices must be specified in the General Notes or other plan sheets.
  - Channelizing devices on self-lighting supports should be used in work zone areas where channelizing devices are frequently inspected by errant vehicles or vehicle related wind gusts making alignment of the channelizing devices difficult to maintain. Locations of these devices shall be detailed elsewhere in the plans. These devices shall conform to the TMUTCD and the "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
  - The Contractor shall maintain devices in a clean condition and replace damaged, non-reflective, faded, or broken devices and bases as required by the Engineer/Inspector. The Contractor shall be required to maintain proper device spacing and alignment.
  - Portable bases shall be fabricated from virgin and/or recycled rubber. The portable bases shall weigh a minimum of 30 lbs.
  - Pavement surfaces shall be prepared in a manner that ensures proper bonding between the adhesives, the fixed mount bases and the pavement surface. Adhesives shall be prepared and applied according to the manufacturer's recommendations.
  - The installation and removal of channelizing devices shall not cause detrimental effects to the final pavement surfaces, including pavement surface discoloration or surface integrity. Driveable bases shall not be permitted on final pavement surfaces. The Engineer/Inspector shall approve all application and removal procedures of fixed bases.

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- Vertical Panels (VP's) are normally used to channelize traffic or divide opposing lanes of traffic.
- VP's may be used in daytime or nighttime situations. They may be used at the edge of shoulder drop-offs and other areas such as lane transitions where positive daytime and nighttime delineation is required. The Engineer/Inspector shall refer to the Roadway Design Manual for additional requirements on the use VP's for drop-offs.
- VP's should be mounted back to back if used at the edge of cuts adjacent to two-way two lane roadways. Stripes are to be reflective orange and reflective white and should always slope downward toward the travel lane.
- VP's used on expressways and freeways or other high speed roadways, may have more than 270 square inches of retroreflective area facing traffic.
- Self-lighting supports are available with portable base. See "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
- Sheeting for the VP's shall be retroreflective Type A or Type B conforming to Departmental Material Specification DMS-8300, unless noted otherwise.
- Where the height of reflective material on the vertical panel is 36 inches or greater, a panel stripe of 6 inches shall be used.

**CHEVRONS**



**LONGITUDINAL CHANNELIZING DEVICES (LCD)**

- LCDs are crossworthy, lightweight, deformable devices that are highly visible, have good target value and can be connected together. They are not designed to contain or redirect a vehicle on impact.
- LCDs may be used instead of a line of cones or drums.
- LCDs shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZTCD list.
- LCDs should not be used to provide positive protection for obstacles, pedestrians or workers.
- LCDs shall be supplemented with retroreflective delineation as required for temporary barriers on BC(17) when placed roughly parallel to the travel lanes.
- LCDs used as barricades placed perpendicular to traffic should have at least one row of reflective sheeting meeting the requirements for barricade rolls as shown on BC(10). Place reflective sheeting near the top of the LCD along the full length of the device.

**WATER BALLASTED SYSTEMS USED AS BARRIERS**

- Water ballasted systems used as barriers shall not be used solely to channelize road users, but also to protect the work space per the appropriate Manual for Assessing Safety Hardware (MSAH) crossworthiness requirements based on roadway speed and barrier application.
- Water ballasted systems used to channelize vehicular traffic shall be supplemented with retroreflective delineation or channelizing devices to improve daytime/nighttime visibility. They may also be supplemented with pavement markings.
- Water ballasted systems used as barriers shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZTCD list.
- Water ballasted systems used as barriers should not be used for a merging taper except in low speed (less than 45 MPH) urban areas. When used on a taper in a low speed urban area, the taper shall be delineated and the taper length should be designed to optimize road user operations considering the available geometric conditions.
- When water ballasted systems used as barriers have blunt ends exposed to traffic, they should be attenuated as per manufacturer recommendations or fixed to a point outside the clear zone.

If used to channelize pedestrians, longitudinal channelizing devices or water ballasted systems must have a continuous detectable bottom for users of long cones and the top of the unit shall not be less than 32 inches in height.

**HOLLOW OR WATER BALLASTED SYSTEMS USED AS LONGITUDINAL CHANNELIZING DEVICES OR BARRIERS**

Posted Speed	Formula	Minimum Desirable Taper Lengths (ft.)			Suggested Maximum Spacing of Channelizing Devices	
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent
30	L = WS/60	150	165	180	30'	60'
35		205	225	245	35'	70'
40	L = WS	265	295	320	40'	80'
45		450	495	540	45'	90'
50	L = WS	500	550	600	50'	100'
55		550	605	660	55'	110'
60	L = WS	600	660	720	60'	120'
65		650	715	780	65'	130'
70	L = WS	700	770	840	70'	140'
75		750	825	900	75'	150'
80	L = WS	800	880	960	80'	160'
85		850	945	1020	85'	170'

**SUGGESTED MAXIMUM SPACING OF CHANNELIZING DEVICES AND MINIMUM DESIRABLE TAPER LENGTHS**

SHEET 9 OF 12



**BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES**

BC (9) - 21

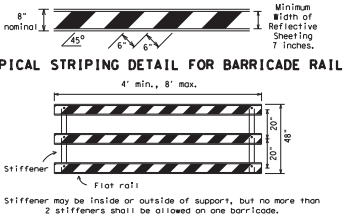
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2	0001	08/14/02			
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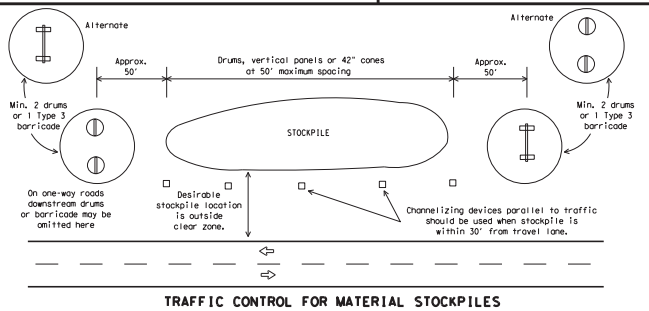
**TYPE 3 BARRICADES**

1. Refer to the Compliant Work Zone Traffic Control Devices List (CWZCD) for details of the Type 3 Barricades and a list of all materials used in the construction of Type 3 Barricades.
2. Type 3 Barricades shall be used at each end of construction projects closed to all traffic.
3. Barricades extending across a roadway should have stripes that slope downward in the direction toward which traffic must turn in detouring. When both right and left turns are provided, the chevron striping may slope downward in both directions from the center of the barricade. Where no turns are provided at a closed road, striping should slope downward in both directions toward the center of roadway.
4. Striping of rails, for the right side of the roadway, should slope downward to the left. For the left side of the roadway, striping should slope downward to the right.
5. Identification markings may be shown only on the back of the barricade rails. The maximum height of letters and/or company logos used for identification shall be 1".
6. Barricades shall not be placed parallel to traffic unless an adequate clear zone is provided.
7. Warning lights shall NOT be installed on barricades.
8. Where barricades require the use of weights to keep from turning over, the use of sandbags with dry, consistency sand is recommended. The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight. Sand bags shall not be stacked in a manner that covers any portion of a barricade rails reflective sheeting. Rock, concrete, iron, steel or other solid objects will NOT be permitted. Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs. Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber (such as tire inner tubes) shall not be used for sandbags. Sandbags shall only be placed along or upon the base supports of the device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners.
9. Sheeting for barricades shall be retroreflective Type A or Type B conforming to Departmental Material Specification DMS-8300 unless otherwise noted.

Barricades shall NOT be used as a sign support.

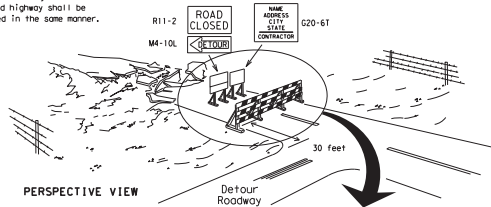


**TYPICAL PANEL DETAIL FOR SKID OR POST TYPE BARRICADES**



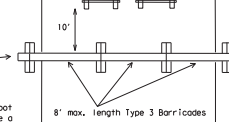
**TRAFFIC CONTROL FOR MATERIAL STOCKPILES**

Each roadway of a divided highway shall be barricaded in the same manner.



**PERSPECTIVE VIEW**

The three rails on Type 3 barricades shall be reflectorized orange and reflective white stripes on one side facing one-way traffic and both sides for two-way traffic. Barricade striping should slant downward in the direction of detour.



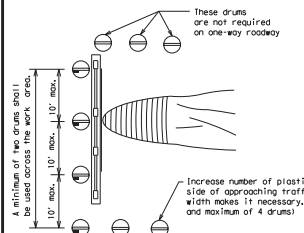
**PLAN VIEW**

1. Signs should be mounted on independent supports at a 7 foot mounting height in center of roadway. The signs should be a minimum of 10 feet behind Type 3 barricades.
2. Advance signing shall be as specified elsewhere in the plans.

**TYPE 3 BARRICADE (POST AND SKID) TYPICAL APPLICATION**



**PERSPECTIVE VIEW**



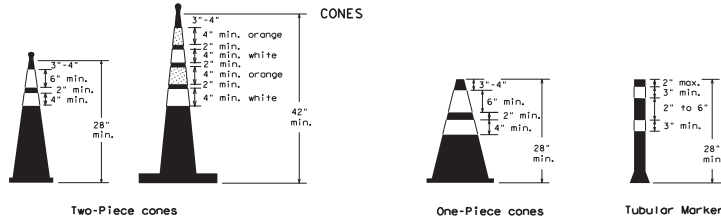
**PLAN VIEW**

**CULVERT WIDENING OR OTHER ISOLATED WORK WITHIN THE PROJECT LIMITS**

1. Where positive redirection capability is provided, drums may be omitted.
2. Plastic construction fencing may be used with drums for safety as required in the plans.
3. Vertical Panels on flexible support may be substituted for drums when the shoulder width is less than 4 feet.
4. When the shoulder width is greater than 12 feet, steady-burn lights may be omitted if drums are used.
5. Drums must extend the length of the culvert widening.

**LEGEND**

	Plastic drum
	Plastic drum with steady burn light or yellow warning reflector
	Steady burn warning light or yellow warning reflector



**CONES**

**Two-Piece cones**

**One-Piece cones**

**Tubular Marker**

28" Cones shall have a minimum weight of 9 1/2 lbs.  
42" 2-piece cones shall have a minimum weight of 30 lbs, including base.

1. Traffic cones and tubular markers shall be predominantly orange, and meet the height and weight requirements shown above.
2. One-piece cones have the body and base of the cone molded in one consolidated unit. Two-piece cones have a cone shaped body and a separate rubber base, or ballast, that is added to keep the device upright and in place.
3. Two-piece cones may have a handle or loop extending up to 8" above the minimum height shown, in order to aid in retrieving the device.
4. Cones or tubular markers shall have white or white and orange reflective bands as shown above. The reflective bands shall have a smooth, sealed outer surface and meet the requirements of Departmental Material Specification DMS-8300 Type A or Type B.
5. 28" cones and tubular markers are generally suitable for short duration and short-term stationary work as defined on BC141. These should not be used for intermediate-term or long-term stationary work unless personnel is on-site to maintain them in their proper upright position.
6. 42" two-piece cones, vertical panels or drums are suitable for all work zone durations.
7. Cones or tubular markers used on each project should be of the same size and shape.

**SHEET 10 OF 12**



**BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES**

**BC (10) - 21**

File#	BC-21-090	Rev	1/007	Chg	1/007	Rev	1/007	Chg	1/007
©	1/007	November	2002	CON	1/007	CON	1/007	CON	1/007
REVISIONS									
9-07	8-14	DISY		COUNTY					
7-13	5-21								

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**WORK ZONE PAVEMENT MARKINGS**

**GENERAL**

1. The Contractor shall be responsible for maintaining work zone and existing pavement markings, in accordance with the standard specifications and special provisions, on all roadways open to traffic within the CSJ limits unless otherwise stated in the plans.
2. Color, patterns and dimensions shall be in conformance with the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
3. Additional supplemental pavement marking details may be found in the plans or specifications.
4. Pavement markings shall be installed in accordance with the TMUTCD and as shown on the plans.
5. When short term markings are required on the plans, short term markings shall conform with the TMUTCD, the plans and details as shown on the Standard Plan Sheet WZ(S1PM).
6. When standard pavement markings are not in place and the roadway is opened to traffic, DO NOT PASS signs shall be erected to mark the beginning of the sections where passing is prohibited and PASS WITH CARE signs at the beginning of sections where passing is permitted.
7. All work zone pavement markings shall be installed in accordance with Item 662, "Work Zone Pavement Markings."

**RAISED PAVEMENT MARKERS**

1. Raised pavement markers are to be placed according to the patterns on BC(11).
2. All raised pavement markers used for work zone markings shall meet the requirements of Item 672, "RAISED PAVEMENT MARKERS" and Departmental Material Specification DMS-4200 or DMS-4300.

**PREFABRICATED PAVEMENT MARKINGS**

1. Removable prefabricated pavement markings shall meet the requirements of DMS-8241.
2. Non-removable prefabricated pavement markings (fall back) shall meet the requirements of DMS-8240.

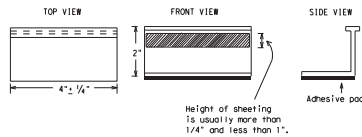
**MAINTAINING WORK ZONE PAVEMENT MARKINGS**

1. The Contractor will be responsible for maintaining work zone pavement markings within the work limits.
2. Work zone pavement markings shall be inspected in accordance with the frequency and reporting requirements of work zone traffic control device inspections as required by Form 599.
3. The markings should provide a visible reference for a minimum distance of 300 feet during normal daylight hours and 160 feet when illuminated by automobile low-beam headlights at night, unless sight distance is restricted by roadway geometrics.
4. Markings failing to meet this criteria within the first 30 days after placement shall be replaced at the expense of the Contractor as per Specification Item 662.

**REMOVAL OF PAVEMENT MARKINGS**

1. Pavement markings that are no longer applicable, could create confusion or direct a motorist toward or into the closed portion of the roadway shall be removed or obliterated before the roadway is opened to traffic.
2. The above shall not apply to detours in place for less than three days, where flaggers and/or sufficient channelizing devices are used in lieu of markings to outline the detour route.
3. Pavement markings shall be removed to the fullest extent possible, so as not to leave a discernible marking. This shall be by any method approved by TxDOT Specification Item 677 for "Eliminating Existing Pavement Markings and Markers".
4. The removal of pavement markings may require resurfacing or seal coating portions of the roadway as described in Item 677.
5. Subject to the approval of the Engineer, any method that proves to be successful on a particular type pavement may be used.
6. Blast cleaning may be used but will not be required unless specifically shown in the plans.
7. Over-painting of the markings SHALL NOT BE permitted.
8. Removal of raised pavement markers shall be as directed by the Engineer.
9. Removal of existing pavement markings and markers will be paid for directly in accordance with Item 677, "ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS," unless otherwise stated in the plans.
10. Block-out marking tape may be used to cover conflicting existing markings for periods less than two weeks when approved by the Engineer.

**Temporary Flexible-Reflective Roadway Marker Tabs**



**STAPLES OR NAILS SHALL NOT BE USED TO SECURE TEMPORARY FLEXIBLE-REFLECTIVE ROADWAY MARKER TABS TO THE PAVEMENT SURFACE**

1. Temporary flexible-reflective roadway marker tabs used as guidemarks shall meet the requirements of DMS-8242.
2. Tabs detailed on this sheet are to be inspected and accepted by the Engineer or designated representative. Sampling and testing is not normally required, however at the option of the Engineer, either "A" or "B" below may be imposed to assure quality before placement on the roadway.
  - A. Select five (5) or more tabs at random from each lot or shipment and submit to the Construction Division, Materials and Pavement Section to determine specification compliance.
  - B. Select five (5) tabs and perform the following test. Affix five (5) tabs at 24 inch intervals on an asphaltic pavement in a straight line. Using a medium size passenger vehicle or pickup, run over the markers with the front and rear tires at a speed of 35 to 40 miles per hour. Four (4) times in each direction, no more than one (1) out of the five (5) reflective surfaces shall be lost or displaced as a result of this test.
3. Small design variances may be noted between tab manufacturers.
4. See Standard Sheet WZ(S1PM) for tab placement on new pavements. See Standard Sheet TOP(T-1) for tab placement on seal coat work.

**RAISED PAVEMENT MARKERS USED AS GUIDEMARKS**

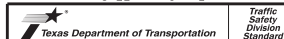
1. Raised pavement markers used as guidemarks shall be from the approved product list, and meet the requirements of DMS-4200.
  2. All temporary construction raised pavement markers provided on a project shall be of the same manufacturer.
  3. Adhesive for guidemarks shall be bituminous material hot applied or butyl rubber pad for all surfaces, or thermoplastic for concrete surfaces.
- Guidemarks shall be designated as:  
 YELLOW - (two amber reflective surfaces with yellow body).  
 WHITE - (one silver reflective surface with white body).

**DEPARTMENTAL MATERIAL SPECIFICATIONS**

PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
TRAFFIC BUTTONS	DMS-4300
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240
TEMPORARY REMOVABLE, PREFABRICATED PAVEMENT MARKINGS	DMS-8241
TEMPORARY FLEXIBLE, REFLECTIVE ROADWAY MARKER TABS	DMS-8242

A list of prequalified reflective raised pavement markers, non-reflective traffic buttons, roadway marker tabs and other pavement markings can be found at the Material Producer List web address shown on BC(1).

SHEET 11 OF 12

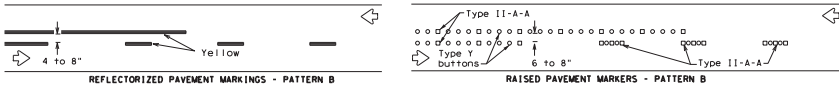
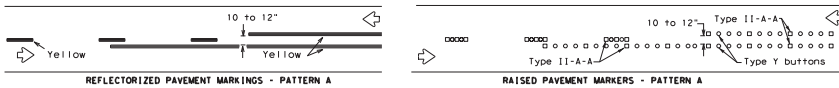


**BARRICADE AND CONSTRUCTION PAVEMENT MARKINGS**

**BC(11)-21**

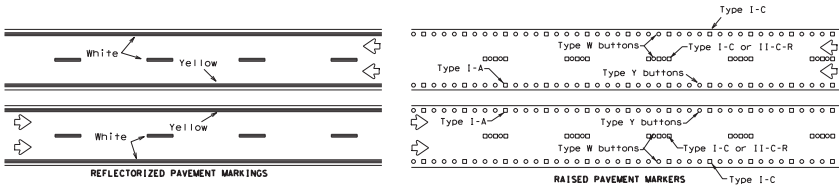
FILED	02-21-000	BY	TJ001	ON	1/2001	DW	TJ001	DN	1/2001
PROJECT	01-001	February 1998	CONV	SECT		JOB		W/CONV	
REVISED	2-98	9-01	5-21						
	1-02	7-13							
	11-01	8-14							

**PAVEMENT MARKING PATTERNS**



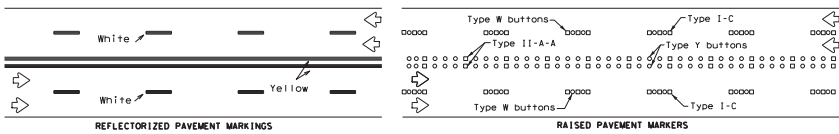
Pattern A is the TxDOT Standard, however Pattern B may be used if approved by the Engineer. Prefabricated markings may be substituted for reflectORIZED pavement markings.

**CENTER LINE & NO-PASSING ZONE BARRIER LINES FOR TWO-LANE, TWO-WAY HIGHWAYS**



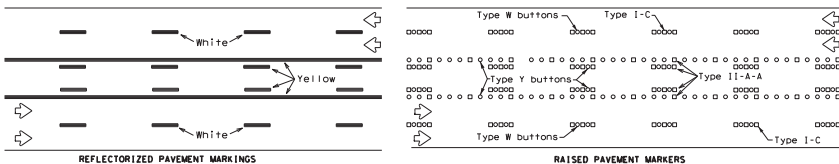
Prefabricated markings may be substituted for reflectORIZED pavement markings.

**EDGE & LANE LINES FOR DIVIDED HIGHWAY**



Prefabricated markings may be substituted for reflectORIZED pavement markings.

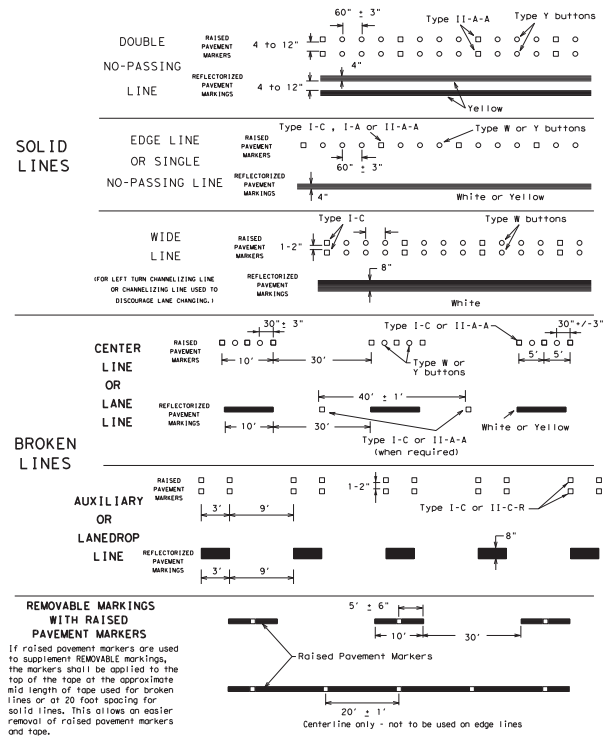
**LANE & CENTER LINES FOR MULTILANE UNDIVIDED HIGHWAYS**



Prefabricated markings may be substituted for reflectORIZED pavement markings.

**TWO-WAY LEFT TURN LANE**

**STANDARD WORK ZONE PAVEMENT MARKINGS DETAILS**



SHEET 12 OF 12

Raised pavement markers used as standard pavement markings shall be from the approved products list and meet the requirements of Item 672 "RAISED PAVEMENT MARKERS."

Texas Department of Transportation Traffic Safety Division Standard

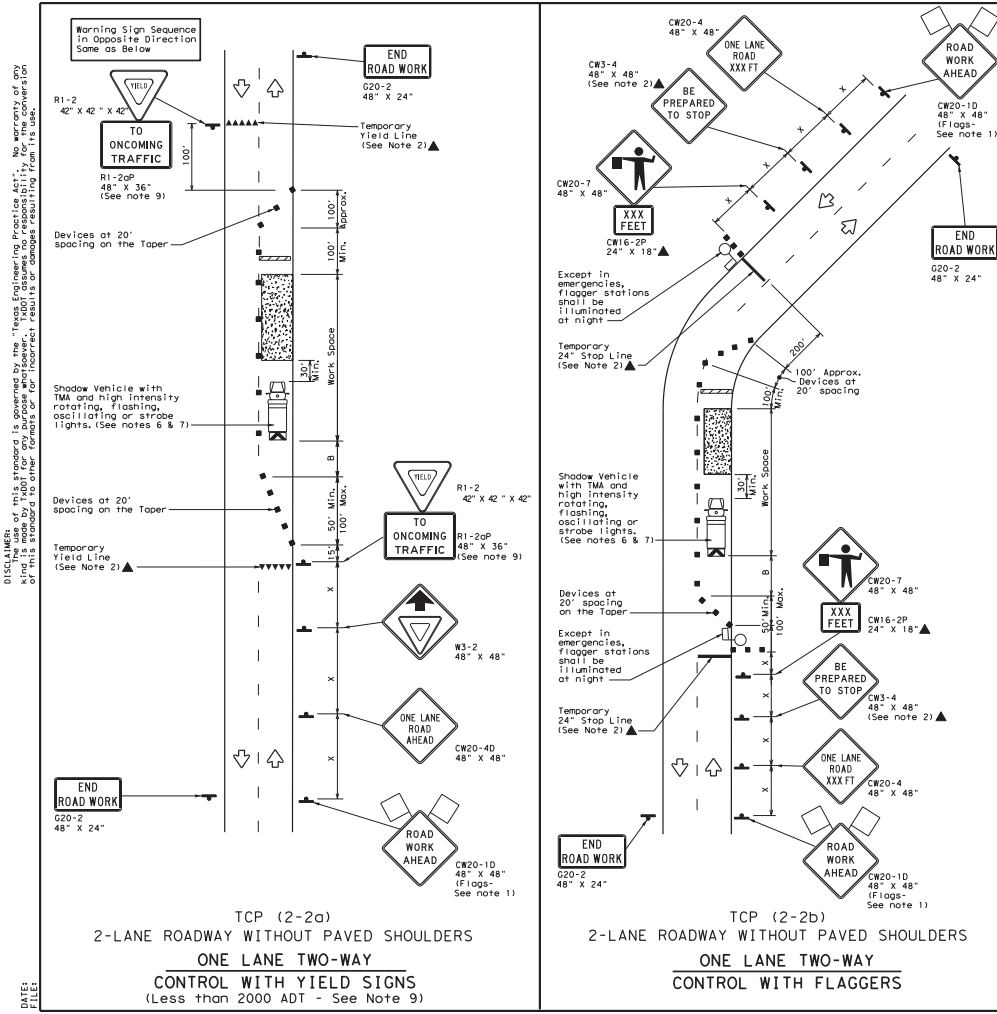
**BARRICADE AND CONSTRUCTION PAVEMENT MARKING PATTERNS**

BC (12) - 21

Rev:	02-21-000	Rev:	1/001	Rev:	1/001	Rev:	1/001
01/001	February 1998	02/001	February 1998	03/001	February 1998	04/001	February 1998
REVISIONS				DATE			
1-97	9-07	5-21		DIST	COUNTY		SHEET NO.
2-98	7-13						
11-97	8-14						

DISCLAIMER: THIS STANDARD IS DERIVED FROM THE "TRAFFIC SAFETY DIVISION PRACTICE LIST". NO PORTION OF THIS KIND IS MADE BY TxDOT FOR ANY PURPOSE WHATSOEVER. TxDOT ASSUMES NO RESPONSIBILITY FOR THE CORRECTNESS OF THIS STANDARD OR ANY ERRORS OR FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

DATE FILED



**LEGEND**

Type 3 Barricade	Channelizing Devices
Heavy Work Vehicle	Truck Mounted Attenuator (TMA)
Trailer Mounted Flashing Arrow Board	Portable Changeable Message Sign (PCMS)
Sign	Traffic Flow
Flag	Flagger

Posted Speed*	Formula	Minimum Desirable Taper Lengths			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing Distance	Suggested Longitudinal Buffer Space	Stopping Sight Distance
		70'	11'	12'	On a Taper	On a Taper			
30	L = WS <sup>2</sup> / 60	150'	165'	180'	30'	60'	120'	90'	200'
35		205'	225'	245'	35'	70'	160'	120'	250'
40		265'	295'	320'	40'	80'	240'	155'	305'
45	L = WS	450'	495'	540'	45'	90'	320'	195'	360'
50		500'	550'	600'	50'	100'	400'	240'	425'
55		550'	605'	660'	55'	110'	500'	295'	495'
60		600'	660'	720'	60'	120'	600'	350'	570'
65		650'	715'	780'	65'	130'	700'	410'	645'
70		700'	770'	840'	70'	140'	800'	475'	730'
75		750'	825'	900'	75'	150'	900'	540'	820'

\* Conventional Roads Only  
 \*\* Taper lengths have been rounded off.  
 L=Length of Taper (FT) W=Width of Offset (FT) S=Posted Speed (MPH)

**TYPICAL USAGE**

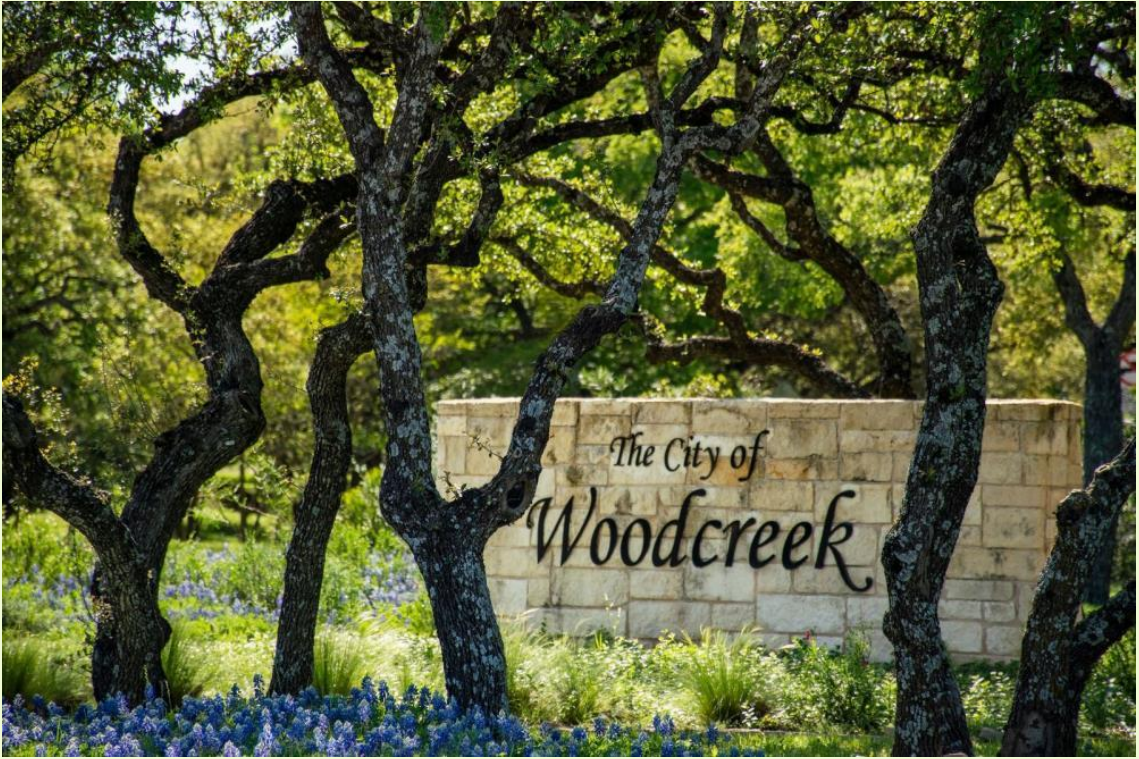
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- GENERAL NOTES**
- Flags attached to signs where shown, are REQUIRED.
  - All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
  - The CW3-4 "BE PREPARED TO STOP" sign may be installed after the CW20-4 "ONE LANE ROAD XXX FT" sign, but proper sign spacing shall be maintained.
  - Flaggers should use two-way radios or other methods of communication to control traffic.
  - Length of work space should be based on the ability of flaggers to communicate.
  - A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
  - Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect a wider work space.
- TCP (2-2a)**
- The R1-2 "YIELD" sign traffic control may be used on projects with approaches that have adequate sight distance. For projects in urban areas, work space should be no longer than one half city block. In rural areas, roadways with less than 2000 ADT, work space should be no longer than 400 feet.
  - The R1-2aP "YIELD TO ONCOMING TRAFFIC" sign shall be placed on a support of a 7 foot minimum mounting height.
- TCP (2-2b)**
- Channelizing devices on the center line may be omitted when a pilot car is leading traffic and approved by the Engineer.
  - If the work space is located near a horizontal or vertical curve, the buffer distances should be increased in order to maintain stopping sight distance to the flagger and a queue of stopped vehicles. (See Table above).
  - Flaggers should use 24" STOP/SLOW paddles to control traffic. Flags should be limited to emergency situations.

**TRAFFIC CONTROL PLAN  
ONE-LANE TWO-WAY  
TRAFFIC CONTROL**

**TCP (2-2) - 18**

FILE NO:	TCP(2)-18.dwg	DATE:	06/10/2007	BY:	
PROJECT:	00000	DATE:	December 1985	CITY:	
SECTION:	1-91 2-12	DIST:		COUNTY:	
REVISIONS:	4-98 2-18	SHEET NO.:		TOTAL SHEETS:	
11/24					



*City Of Woodcreek  
Comprehensive Plan  
2022*



*Vision Statement*

*Nestled amid the unique Texas Hill Country, the City of Woodcreek is a growing, family-oriented community tucked around an 18-hole golf course, with an inherent dedication to celebrating natural beauty and the culture of the surrounding area. Citizens seek to preserve the peaceful, rural feel of this community through sustainable land management, responsible planning, quality infrastructure management, and thoughtful development practices. Residents chose Woodcreek as home for its safety, convenient location, recreational opportunities, and high quality of life. Intentional communication and community spirit will preserve Woodcreek’s enduring charm.*

*Background*

*A comprehensive plan is a policy document that establishes a community’s aspirations and lays out a road map to achieve those goals. The core philosophy of the Woodcreek Comprehensive Plan, as directed by the citizen survey, will be to preserve the character of Woodcreek and its quality of life for residents. The tenets driving the plan are to promote a sense of community; to preserve and protect our natural beauty and wealth of resources; and to ensure that the rural character of Woodcreek carries on even as the Wimberley Valley experiences unprecedented growth.*



Image 1: Woodcreek Golf Course

- I. Introduction**
- II. Acknowledgements**
- III. Plan Creation**
- IV. Overview of Woodcreek**
- V. Current Conditions**
  - a. Demographics
  - b. Environmental Analysis
  - c. Natural Systems
  - d. Physical Systems
  - e. Fiscal
  - f. Land Use
- VI. Citizen Survey Focus Areas**
  - a. Overview
  - b. Key Areas of Focus
- VII. Vision for Woodcreek**
  - a. Natural Systems
  - b. Physical Systems
  - c. Fiscal
  - d. Land Use
- VIII. Implementation**
- IX. Woodcreek and the Wimberley Valley**
- X. Summary of Key Action Items**
- XI. Glossary**
- XII. Appendix: Image Credits**



*The City of Woodcreek Comprehensive Plan serves as a vision for the future of the city. As a policy guide, it directs long-term planning across the city and its Extra Territorial Jurisdiction (ETJ). This plan builds upon past vision plans and utilizes existing plans, like the Parks & Recreation Master Plan, to form a complete picture for the Woodcreek community. Development, sustainability, preservation of its character, infrastructure maintenance, protecting natural resources, supporting local business, and all other aspects ensure a community will flourish.*

*The Comprehensive Plan creates a framework for allocation of city resources to achieve community goals and plan for improvements, as well as basis for future land use and development in the ETJ. The Plan integrates the wants and needs of the community's stakeholders. Its workgroup consists of a representative from each of the three commercial enterprises located within the city limits, a diverse group of citizens, two elected Councilmembers, and a member each from the Planning & Zoning Commission and Parks & Recreation Board, all with the assistance of a City Planner from K. Friese. The plan is driven by citizen input through surveys and focus groups. Periodic updates will ensure that the Plan stays relevant and reflective of changing needs over time.*

### *Chapter 213 – Texas Local Government Code*

**Chapter 213 of the Texas Local Government Code** provides the basis for comprehensive planning in Texas. This chapter reads in part:

*Sec. 213.002. COMPREHENSIVE PLAN*

*(a) The governing body of a municipality may adopt a comprehensive plan for the long-range development of the municipality. A municipality may define the content and design of a comprehensive plan.*

*(b) A comprehensive plan may:*

*(1) include but is not limited to provisions on land use, transportation, and public facilities;*

*(2) consist of a single plan or a coordinated set of plans organized by subject and geographic area; and*

*(3) be used to coordinate and guide the establishment of development regulations.*

*(c) A municipality may define, in its charter or by ordinance, the relationship between a comprehensive plan and development regulations and may provide standards for determining the consistency required between a plan and development regulations.*

*(d) Land use assumptions adopted in a manner that complies with Subchapter C, Chapter 395 may be incorporated in a comprehensive plan.*

A primary way that a municipality regulates the development of land within its jurisdiction is through a zoning ordinance. Here again, the comprehensive plan serves as the basis upon which all zoning decisions are made. Chapter 211 of the Local Government Code requires that all zoning decisions be consistent with a municipal comprehensive plan. That chapter reads in part:

*Chapter 211 – Texas Local Government Code*

**Sec. 211.004. COMPLIANCE WITH COMPREHENSIVE PLAN**

(a) Zoning regulations must be adopted in accordance with a comprehensive plan and must be designed to:

- (1) lessen congestion in the streets;
- (2) safety from fire, panic, and other dangers;
- (3) promote health and the general welfare;
- (4) provide adequate light and air;
- (5) prevent the overcrowding of land;
- (6) avoid undue concentration of population; or
- (7) facilitate the adequate provision of transportation, water, sewers, schools, parks, and other public requirements.

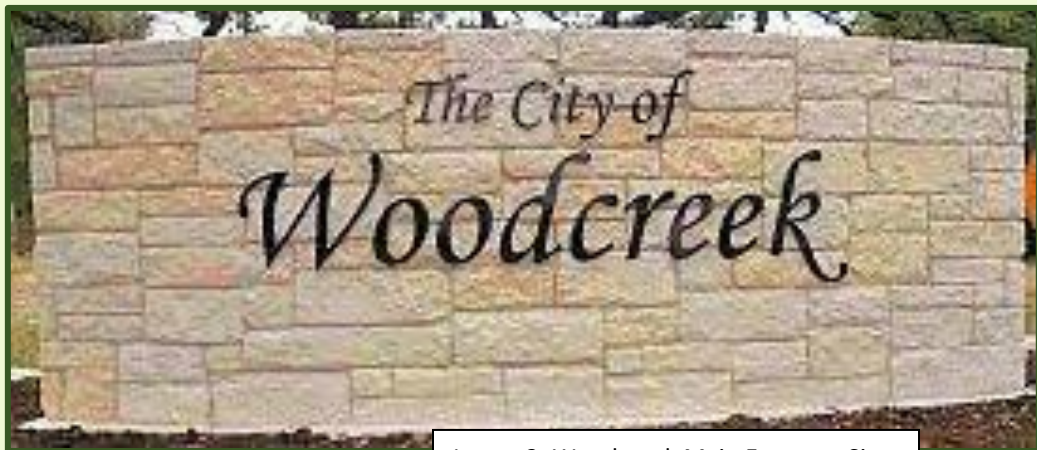


Image 2: Woodcreek Main Entrance Sign

We would like to acknowledge the many individuals who gave a significant amount of their time and energy to drafting this Comprehensive Plan for the City of Woodcreek.

The following lists of people from the City of Woodcreek have been directly or indirectly involved in the completion of this plan, and they are listed below to acknowledge and thank them for their time spent in service to the community.

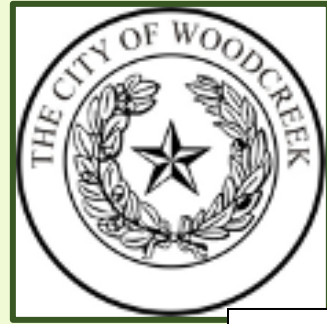


Image 3: City Seal

*Comprehensive Plan*

Current:

- Aurora LeBrun**, Co-Chair
- Debra Hines**, Co-Chair
- Justin Camp**
- Jason Donaldson**
- Lydia Johns**
- Jerry Moore**
- Tomas Palm**
- Greg Posey**
- Pat Rawlings**
- Danny Ross**
- Bill Tarwater**

Previous:

- Amanda Erwin**, Chair
- Diane Stewart**
- Pat Rawlings**

*City Administration*

Current:

- Suzanne Mac Kenzie**, City Secretary
- Maureen Mele**, Administrative Assistant
- Bud Wymore**, City Attorney

Previous:

- Brenton Lewis**, City Manager
- Linda Land**, City Secretary
- Joe Tijerina**, City Inspector

*City Council*

Current:

- Jeff Rasco**, Mayor
- Aurora LeBrun**, Mayor Pro-Tem
- Chrys Grummert**, Councilmember
- Debra Hines**, Councilmember
- Joe Kotarba**, Councilmember
- Brent Pulley**, Councilmember

Previous:

- Gloria Whitehead**, Mayor
- Judy Brizendine**, Councilmember
- Bob Hamrick**, Councilmember

*Planning and Zoning*

Current:

- Andy Davenport**, Chairperson
- Lydia Johns**, Vice-Chair
- Tomas Palm**, Commissioner
- Chris Sonnier**, Commissioner
- Tamara Robertson**, Commissioner
- Carson Bledsoe**, Alt. Commissioner
- Josh Erwin**, Alt. Commissioner

Previous:

- Joe Kotarba**, Chair
- Larry Alford**, Commissioner
- Jack Bose**, Commissioner
- Kathy Maldonado**, Commissioner
- Rogers Holt**, Alt. Commissioner

A special thank you to our city staff, past and present, who provided answers to questions and vital information as this plan came together, in addition to, setting up each meeting, tracking minutes, posting communications for public engagement and the distribution of the citizen surveys. This endeavor would not have been possible without the direct support of the City of Woodcreek staff.

*Planning and Development Consultant - Pegasus*

*Civil Engineering Firm - K. Friese*

- **Brandon Melland**
- **Selina Angel**
- **Adrian Frias**
- **Carolyn LaFollette**

Important acknowledgement goes out to the K. Friese staff members who assisted in:

- Collecting and compiling survey results,
- Analyzing the survey results,
- Producing reports,
- Advising in the creation of the Comprehensive Plan document,
- Hosting the Future Land Use workshop,
- Developing all the visuals for that event,
- Providing charts and maps for inclusion in the Comprehensive Plan.

*Parks and Recreation*

*Current:*

- Pat Rawlings, Chair**
- Karen Poe, Vice-Chair**
- Cody Abney**
- Ruth Ann Gilbert**
- Elizabeth Maurer**

*Previous:*

**Jane Little**

*Tree Board*

*Current:*

- Cindy Jones, Chair**
- Monica Rasco, Vice-Chair**
- Jacob McElroy**
- Iris Ramos**
- Dorothy Tasian**
- Nan Simpson, Alternate**
- Terri Burney-Bisett, Alternate**

*Platinum Panel*

- Linnea Bailey, Chair**
- Cody Abney, Vice-Chair**
- Joe Green**
- Ed Fleming**
- Jill Bloom**

*Ordinance Review*

*Current:*

- Emma Davenport, Chair**
- Donna Hector, Vice-Chair**
- Randy Renter**
- Karen Duncan**
- Steve Passalacqua**

*Previous:*

- Carroll Wilson, Chair**
- Peg Wolfe, Vice-Chair**

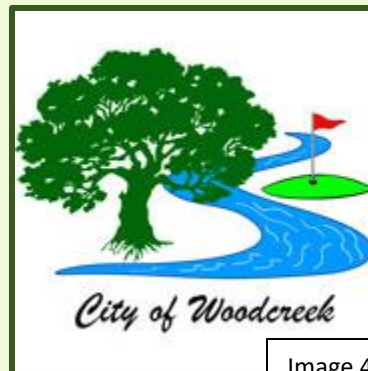


Image 4: Unofficial Logo

The City of Woodcreek Comprehensive Plan is the result of an extensive process involving:

- analysis of existing conditions,
- engaging the public for input,
- drafting recommendations for future goals.

Meetings were open to the public, advanced notice was published, and in most cases, meetings were recorded and posted on the city website.

### *Phases in Process*

1. **Formation of the Comprehensive Plan Workgroup and the creation of the Comprehensive Plan Survey of Summer 2021** involved gathering a diverse group of citizens and stakeholders together as the official advising body to work on the Comprehensive Plan. This group would see the plan to its finish and was initially responsible for producing the first citizen survey that would serve as the foundational source of information for the first iteration of the City of Woodcreek's Comprehensive Plan.
2. **Review of Survey results and the creation of an outline utilizing focus groups** marked the start of the writing of the Comprehensive Plan. The city of Woodcreek hired K. Friese to collect, process and analyze the citizen survey results. From their report, and with on-going counsel from K. Friese staff, the Comprehensive Plan Workgroup identified key focus groups from which the plan could derive its basic outline: Natural Systems, Physical Systems, Fiscal Systems and Land Use. During this time the introductory portions of the plan were written and edited.
3. **Focus group meetings, discussions, and the Future Land Use Workshop** served to further fill out the plan establishing existing conditions and identifying future goals as expressed in citizen input. The Future Land Use Workshop was an interactive event with significant attendance. It served as an educational event and involved gathering more citizen input through additional survey questions and boards for stakeholders to provide feedback for their vision of Woodcreek's future. Providing multiple opportunities for citizen engagement, the bi-weekly meetings of the Comprehensive Plan Workgroup have proceeded through each focus group individually filling out large portions of the existing conditions and vision sections of this document.





Image 5: Future Land Use Meeting

**4. Final drafting of the plan and review by the Planning and Zoning Commission and City Council** is the last step in the process. Once approved by the City Council, the Comprehensive Plan becomes a document to guide policy and planning. It is backed by City ordinance and can directly influence the expenditure of funds and future development agreements. Planning and Zoning will be directly responsible for future updates of the plan and for ensuring stated goals are carried out.

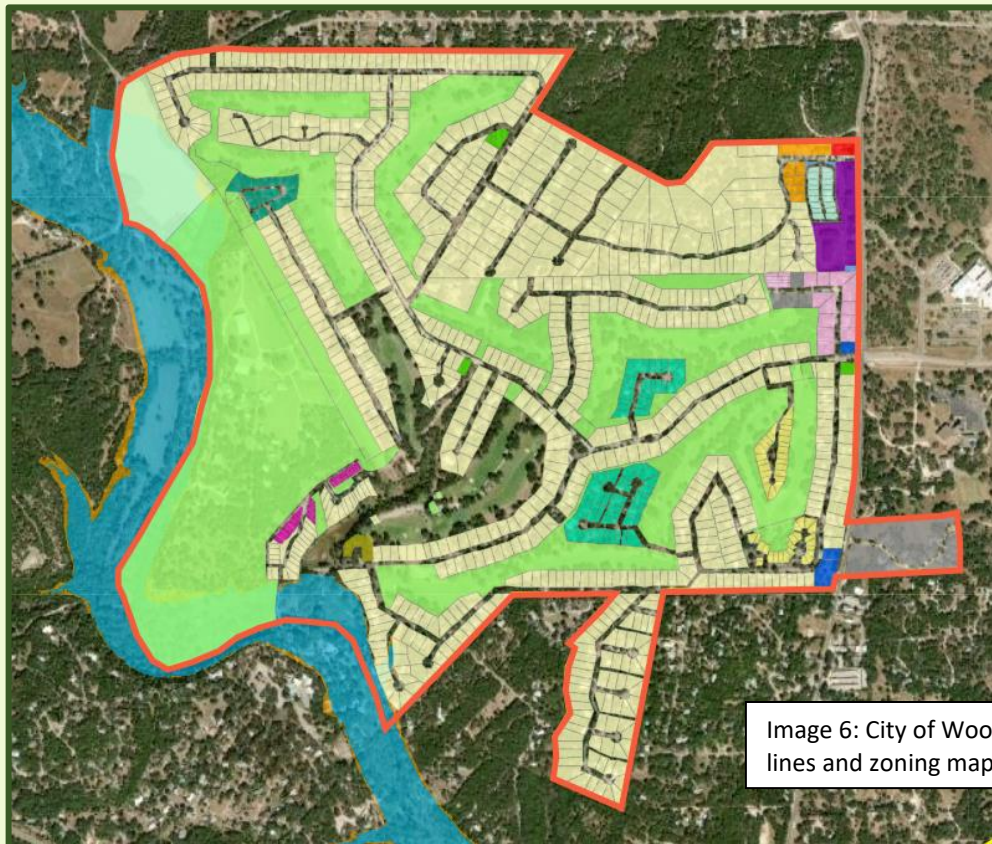


Image 6: City of Woodcreek Lot lines and zoning map (2019)

Overview of Woodcreek

The City of Woodcreek, located in Hays County, was incorporated into a municipality in 1984 and became a General Law Type A city in 1989. It originally began as a golfing resort community with many vacation homes and has grown to be a thriving and diverse community of long-term residents. With its narrow streets lined by ancient oaks, park-like setting, larger-than-average lot sizes, varied fauna, and views of Cypress Creek, Woodcreek feels more like a quaint, rural neighborhood than a city.

**Woodcreek**

- Consists of approximately 696 acres of land
- More than 900 residences
- 1,750 residents
- Nestles in the Cypress Creek Watershed of the Blanco River Basin
- Sister city to Wimberley, relying on basic consumer, recreational and education needs
- City limits bordered by Cypress Creek to the west and south, Ranch Road 12 to the east and Mountain



Image 7: Road Map of Texas



Image 8: Hays County Cut Out

The City of Woodcreek has just three non-residential entities: **Double J Ranch Golf Club (formerly Quicksand Golf Course), Camp Young Judaea, and Hill Country Spirits.** Woodcreek is known for its championship 18-hole golf course dating back to the 1970s. Quicksand winds throughout the entire city and serves as a beautiful scenic backdrop to the residents' daily lives, making this an idyllic spot for retirement and raising children alike.



## Growth

The City of Woodcreek has seen a steady growth rate of about one percent annually for the past decade, with a 21% increase between 2010 and 2020. The city saw a dramatic increase in population in 2017 due to the Woodcreek Apartments complex.

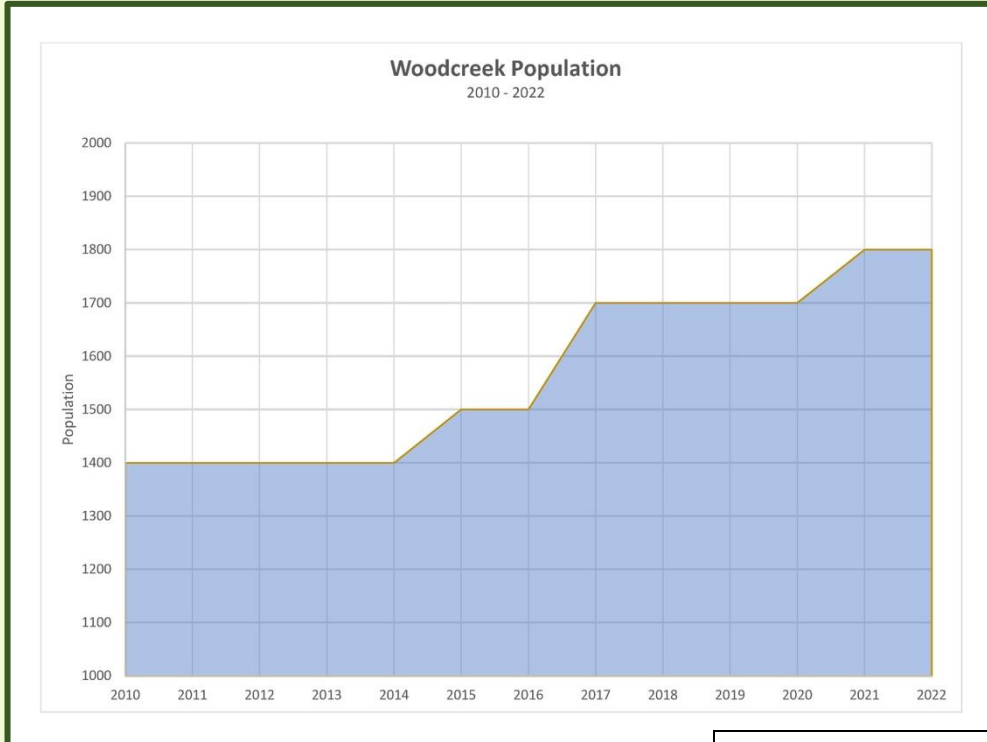


Image 9: Population Graph

## Statistics

- The median income matches the average for the County and is nine percent higher than the State average.
- The median age has hovered in the low to mid 60s for most of the City’s history but has been shifting in recent years to include more young families.
- Houses and property have typically remained affordable in Woodcreek. However, Hays County’s status as the fastest growing county in the nation with a population of 100,000 or more has caused Woodcreek property values to increase significantly over the last five years.

### Demographics

The median age of Woodcreek is 59, and the population distribution is shown in the charts below.

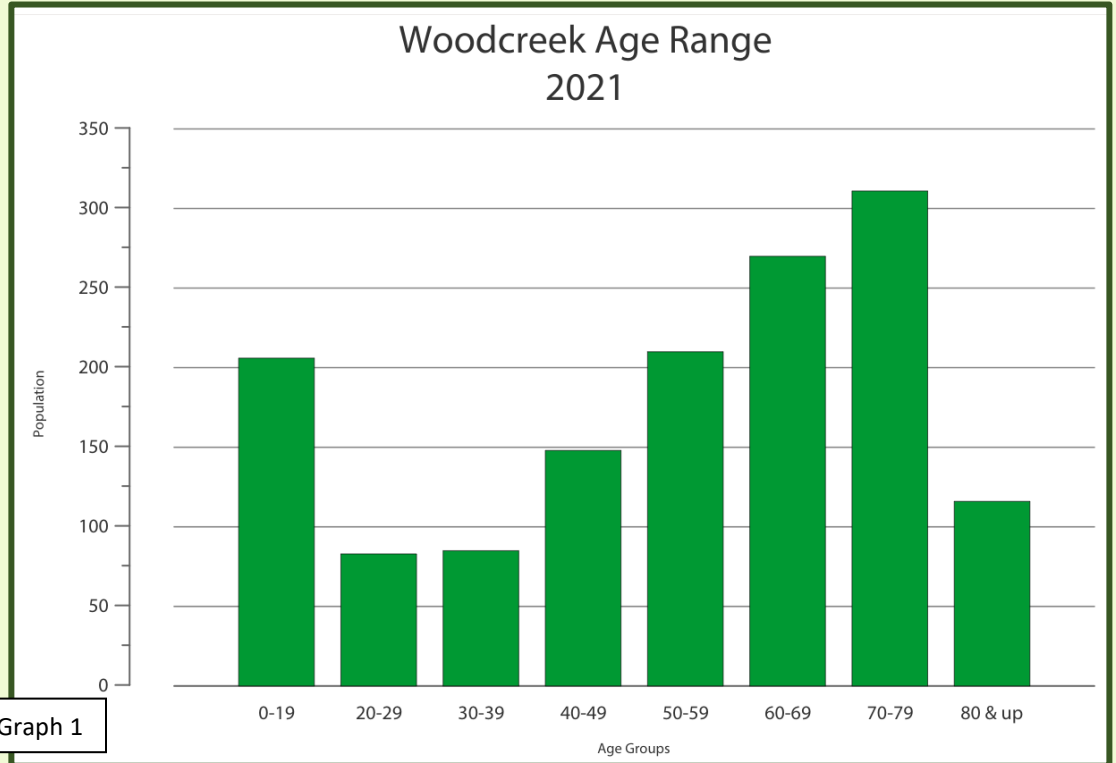


Image 10: Demographics Graph 1

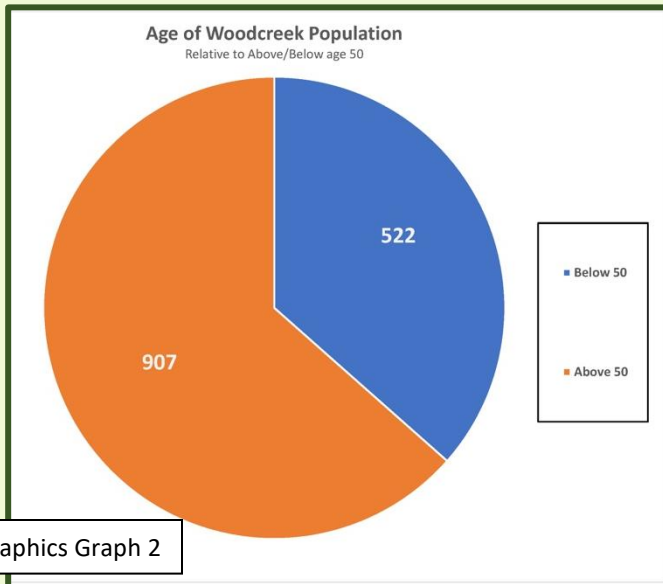


Image 11: Demographics Graph 2

*Changes in this make-up are expected as there has been an increase in younger home buyers and those with adolescent children moving into the area. This is due in part to the new Blue Hole Primary School opening in the ETJ but can also be tied to the relative worth and low cost of the homes in this area. Woodcreek is one of the last affordable neighborhoods in the area.*

*The 2020 Census results have not been released yet, but demographics reported in the Comprehensive Plan Survey match trends in previous census data. The survey results were only indicative of about half the population of Woodcreek but given the large sample size are still considered significant for gathering resident preferences. The 2020 census data will shine greater light on current population trends in Woodcreek and the plan shall be updated once those are released.*

### *Housing and Extra Territorial Jurisdiction*

- *The housing market within the city limits has seen an increase in home values since 2020 as a more mobile workforce has migrated into rural communities.*
- *The rising housing costs in the closest major cities have caused home buyers seeking proximity to Austin to look in a much broader radius into the surrounding hill country and places like Woodcreek.*
- *Around 70 homes are long-term rentals in Woodcreek.*
- *Much of the land within Woodcreek City limits is built out and remains residential.*
- *There are less than 120 lots available for new construction.*
- *The ETJ remains widely undeveloped and will be the site of any significant future growth for the city.*
- *Woodcreek hosts a diverse housing market with everything from apartments and townhomes to duplexes and single-family residences, both on small*

### *Commercial Enterprises*

***There are only three major non-residential enterprises within the city.***

- *Double J Ranch Golf Club (formerly Quicksand Golf Course) and Hill Country Spirits bring in significant sales tax income for the city.*
- *The third major business is Camp Young Judaea, a nonprofit children's summer camp, and is the second largest private landowner in Woodcreek behind the golf course.*
- *There are a handful of other small, home-based, businesses operating throughout the community.*

## Environmental Analysis

Woodcreek has several environment features determined to be of critical value for the protection of water quality such as flood plains, a nearby fault line, riparian corridors, karst features, groundwater management zones, cave like rock features, seeps, and natural springs. These features, when protected and managed, help to lessen the impact of floods and drought.

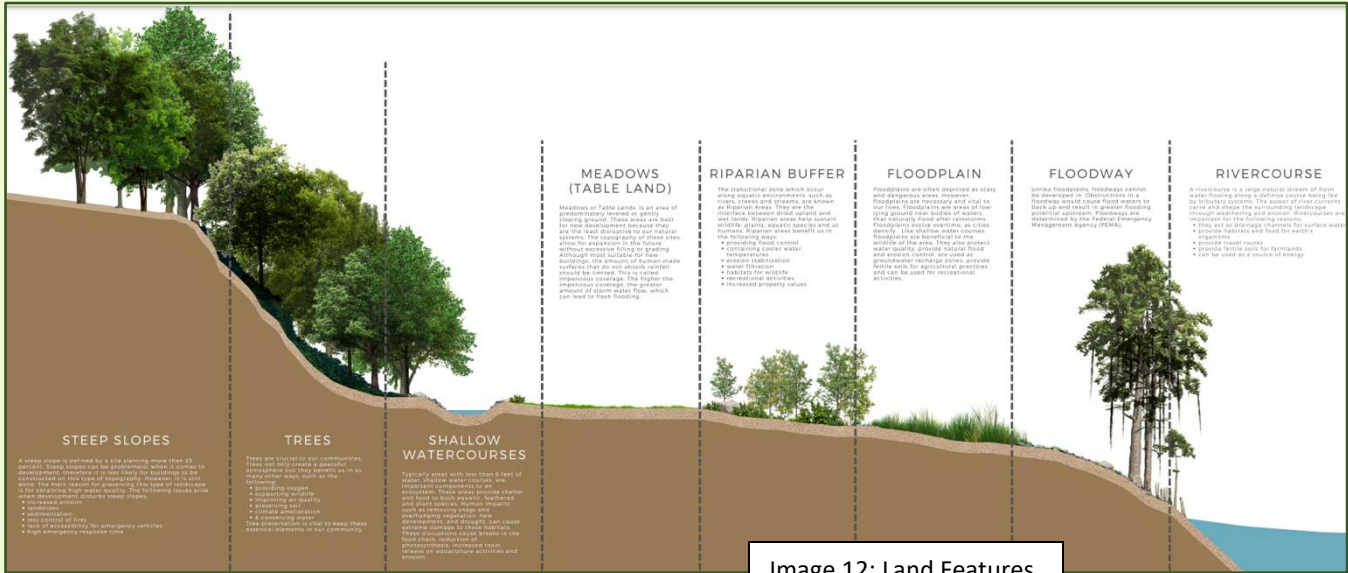


Image 12: Land Features

### Steep Slopes

A steep slope is defined by a site slanting more than 25 percent. Steep slopes can be problematic when it comes to development, therefore it is less likely for buildings to be constructed on this type of topography. However, it is still done. The main reason for preserving this type of landscape is for obtaining high water quality. The following issues arise when development disturbs steep slopes:

- Increased erosion
- Landslides
- Sedimentation
- Less control of fires
- Lack of accessibility for emergency vehicles
- High emergency response time

### *Trees*

Trees are crucial to our communities. Trees not only create a peaceful atmosphere, but they benefit us in so many other ways, such as the following:

- Providing oxygen
- Supporting wildlife
- Improving air quality
- Preserving soil
- Climate amelioration
- Conserving water

Tree Preservation is vital to keep these essential elements in our community.

### *Shallow Watercourses*

Typically, areas with less than 6 feet of water. Shallow water courses are important components to an ecosystem. These areas provide shelter and food to both aquatic, feathered, and plant species. Human impacts such as removing snags and overhanging vegetation, new development, and drought can cause extreme damage to these habitats. These disruptions cause breaks in the food chain, reduction of photosynthesis, increased toxin release on aquaculture activities and erosion.

### *Meadows (Table Land)*

Meadows or Table Lands, is an area of predominately leveled or gently sloping ground. These areas are best for new development because they are the least disruptive to our natural systems. The topography of these sites allow for expansion in the future without excessive filling or grading. Although most suitable for new buildings, the amount of human-made surfaces that do not absorb rainfall should be limited. This is called impervious coverage. The higher the impervious coverage, the greater amount of storm water flow, which can lead to flash flooding.

### *Riparian Buffer*

The transitional zones which occur along aquatic environments, such as rivers, creeks, and streams are known as Riparian Areas. They are the interface between dried upland and wetlands. Riparian areas benefit us in the following ways:

- Providing flood control
- Containing cooler water temperatures
- Erosion stabilization
- Water filtration
- Habitats for wildlife
- Recreational activities
- Increased property values



### *Floodplain*

Floodplains are often depicted as scary and dangerous areas. However, floodplains are necessary and vital to our lives. Floodplains are areas of low-lying ground near bodies of waters that naturally flood after rainstorms. Floodplains evolve over time, as cities densify. Like shallow water courses, floodplains are beneficial to the wildlife of the area. They also protect water quality, provide natural flood and erosion control, are used as groundwater recharge zones, provide fertile soils for agricultural practices, and can be used for recreational activities.

### *Floodway*

Unlike floodplains, floodways cannot be developed in. Obstructions in a floodway would cause flood waters to back up and result in greater flooding potential upstream. Floodways are determined by the Federal Emergency Management Agency (FEMA).

### *Rivercourse*

A rivercourse is a large natural stream of fresh water flowing along a definite course being fed by tributary systems. The power of river currents carve and shape the surrounding landscape through weathering and erosion. Rivercourses are important for the following reasons:

- They act as drainage channels for surface water
- Provide habitats and food for earth's organisms
- Provide travel routes
- Provide fertile soils for farmlands
- Can be used as a source of energy



Image 13: Cypress Falls Swimming Hole

**Influences on the local environment:**

- Increased population in the area has put a strain on the local watershed.
- Human development changes the natural landscape, increases impervious coverage, and magnifies resource consumption by residents and businesses.
- Protecting groundwater recharge in the local watershed in which Woodcreek is located will work to preserve water quality and availability for future residents.
- Additionally, it will ensure the character of the valley endures for generations to come.

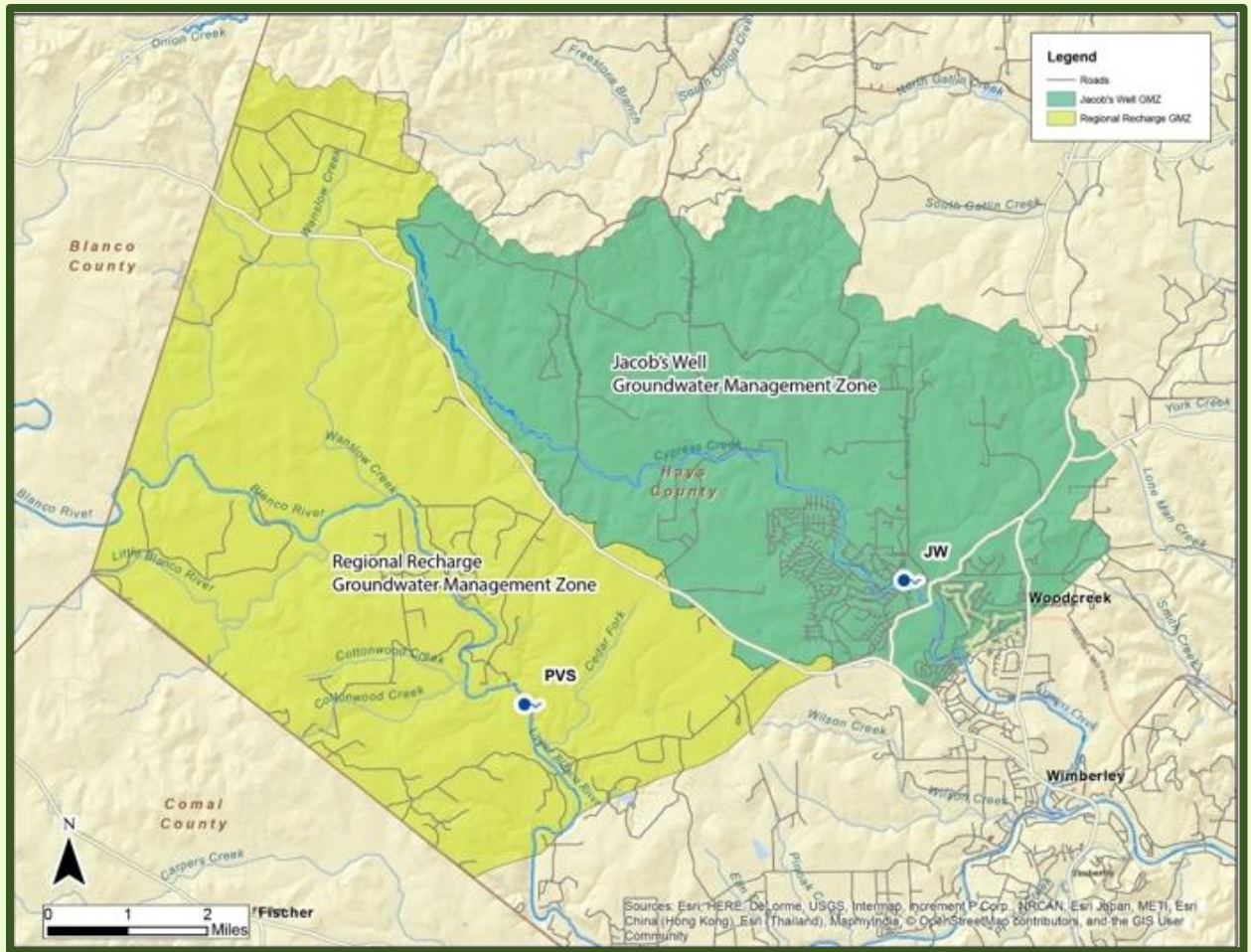


Image 14: Regional Groundwater Management Zones



Woodcreek lies within the Wimberley Valley which follows the course of the Blanco River and Cypress Creek. This area is in the Blanco River basin where the land and all water tributaries (streams and creeks) slowly drain any rainfall into the Blanco River, acting like a giant sink basin.

On a larger scale, Woodcreek sits on top of the Trinity aquifer – the sole source of our water supply - which is a network of underground limestone water channels. Karst features (i.e. sinkholes, fissures and caves) on the surface level allow direct access for rain and runoff into the aquifer.

Woodcreek sits inside the Cypress Creek Watershed (black outline in map below). All surface water in the Woodcreek area flows downward towards the creek, and any surface pollutants from our community can quickly impact surface and groundwater quality. Woodcreek has allied with the City of Wimberley and the Meadows Center at Texas State University to improve and preserve the water quality and quantity of Cypress Creek and the Trinity aquifer.

Cypress Creek and portions of the Blanco River are part of only 22 remaining segments of waterways in the State of Texas that are still considered pristine and without toxic levels of phosphorous.

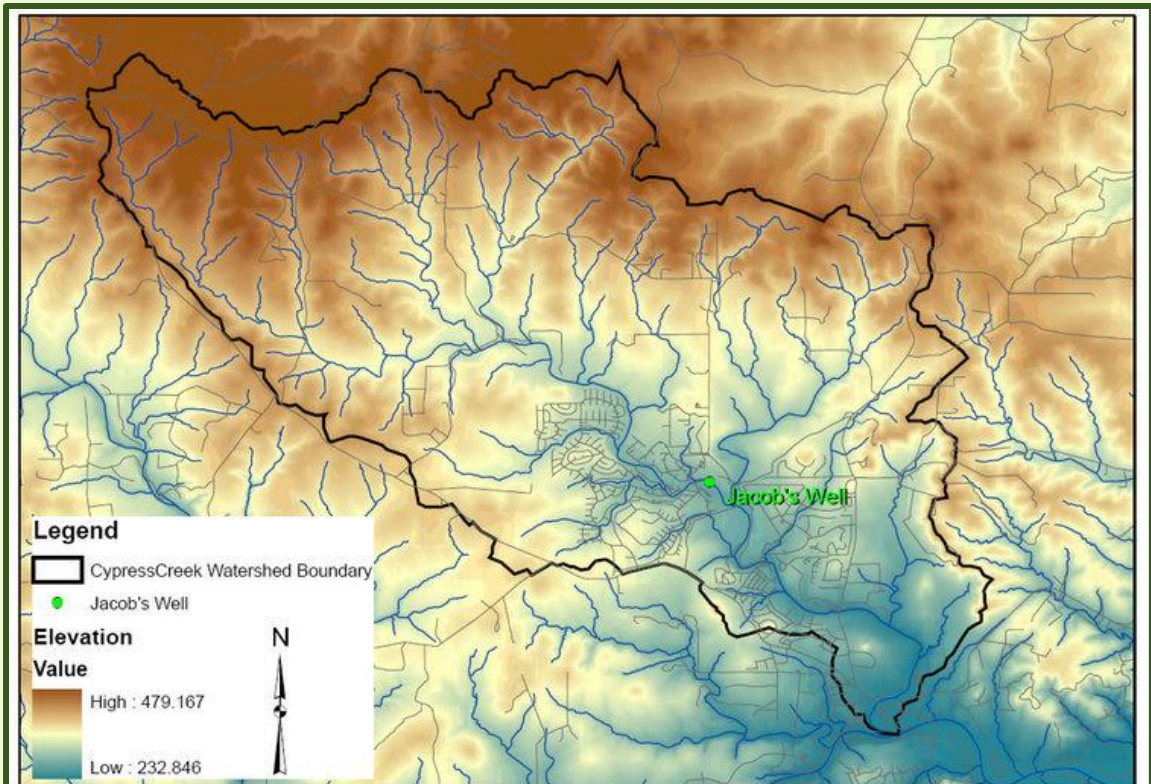


Image 15: Cypress Creek Watershed

0 0.5 1 2 3 4 Kilometers

Current Conditions

*Part of Woodcreek, specifically the northwest part of the city limits, a large segment of Brookmeadow, and much of the northwest portion of the ETJ are in the Jacob's Well Groundwater Management Zone (yellow and green map below). This is a sensitive area where aquifer pumping is reduced during periods of drought to help maintain spring flow.*

*This zone serves as a catchment that feeds water into Cypress creek. Some of the outer limits of the ETJ intersect the Jacob's Well recharge zone (sinkholes and caves) where water is percolating down into the aquifer that feeds the spring.*

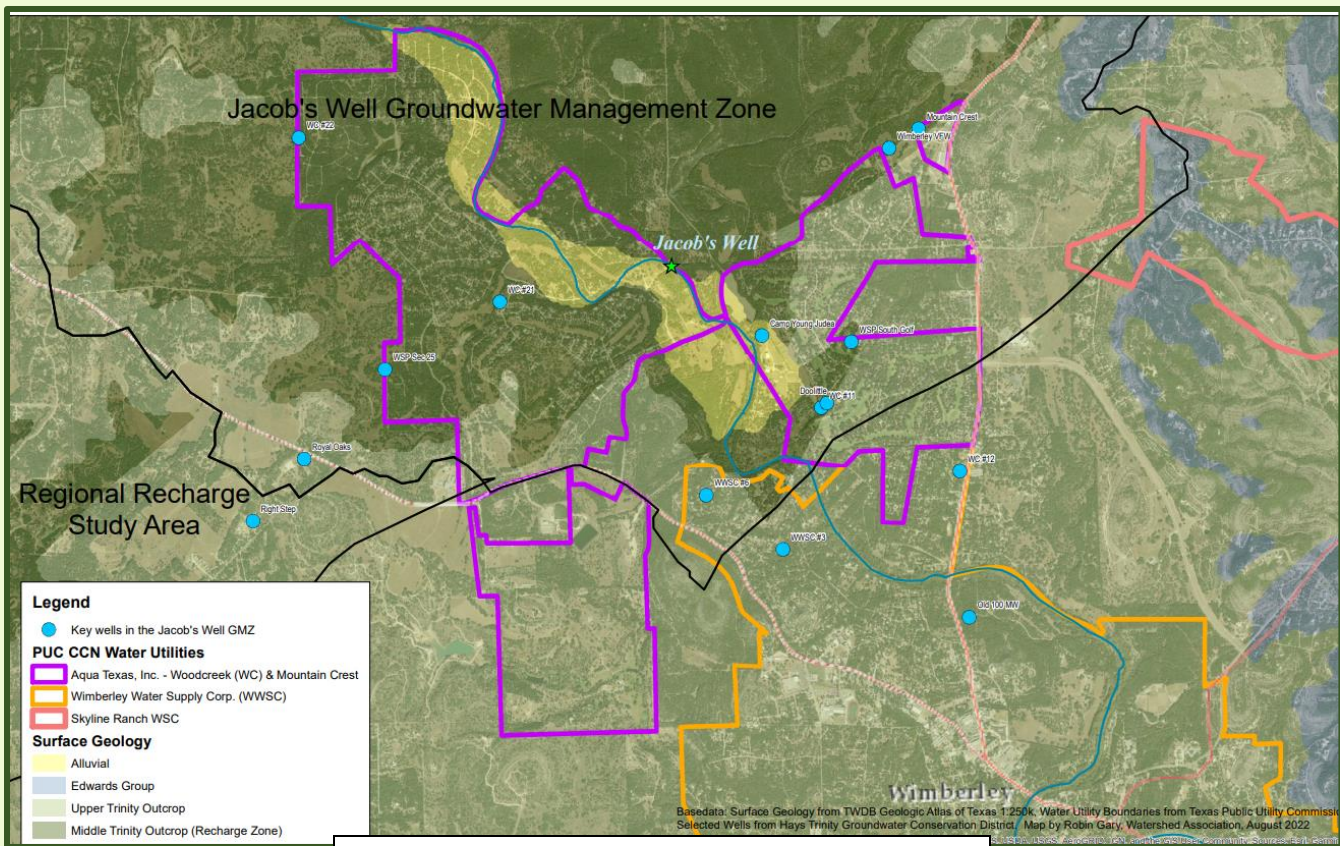


Image 16: Jacob's Well Groundwater Management Zone



Jacob's Well is a karst spring located in the Cypress Creek watershed about one mile northwest of Woodcreek. The spring is situated on a fault which delivers artesian flow (water under pressure) to the creek and provides a unique habitat for aquatic species. The spring is a great indicator of the health of the Trinity aquifer, our drinking water supply.

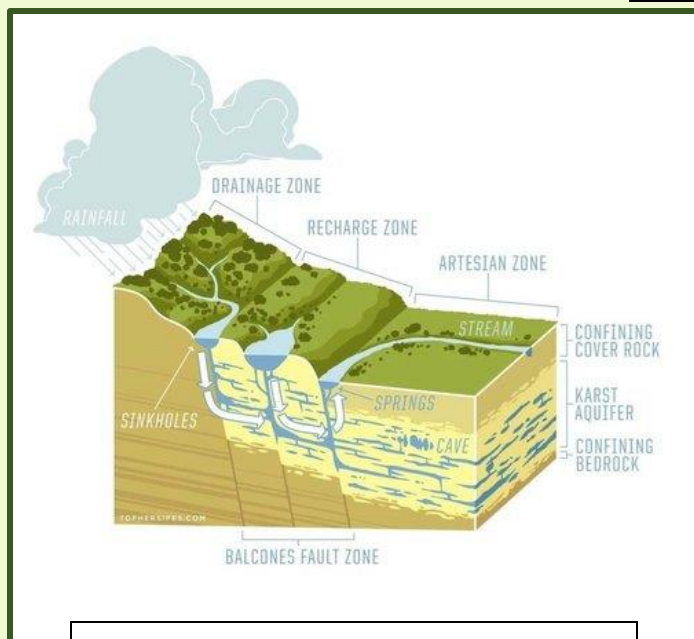


Image 17: Karst and Artesian Well Land Features

*Efforts to protect this natural resource area are paramount to the Woodcreek community. Maintaining spring flow from Jacob's Well into Cypress Creek and the Blanco River is essential for our local economy and for the health of our regional ecosystems.*

*Pumping of nearby wells drawing from the same aquifer can influence the flow from Jacob's Well. While it traditionally flows year-round, the combination of periodic drought and increased groundwater pumping have led to periods of low-to-no flow at Jacob's well.*



Image 18: Jacob's Well

The karst features of Woodcreek and the greater Wimberley valley provide it with a unique character and charming landscape. In addition, it provides the community a cherished groundwater resource.

Conversely, karst geology also makes the groundwater more susceptible to contamination and damage through over consumption and excessive development, so conservation is essential.

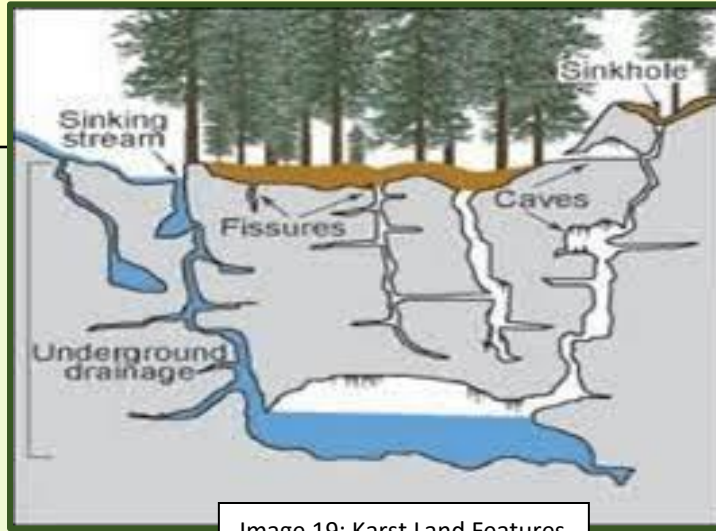


Image 19: Karst Land Features

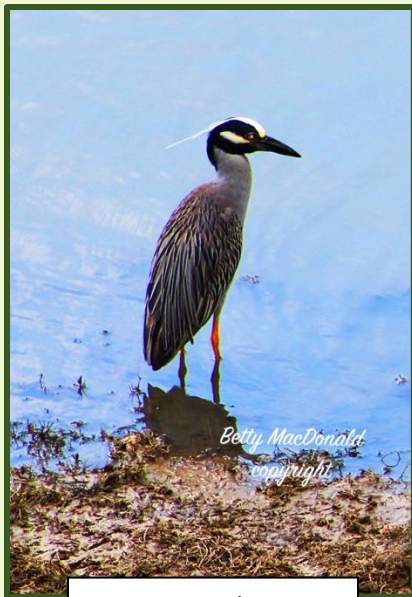


Image 20: Night Heron



Image 21: Cypress Falls Bridge



Woodcreek does not have much in the way of drainage infrastructure and so during heavy rains, water travels in surface level sheet flows through our community primarily down our streets, and directly into Cypress Creek.

Hog Creek flows towards a dam located at Woodcreek Drive creating a stormwater retention pond. This not only creates significant pollution hazards if unmanaged, but it also contributes to erosion as well. Studies show that traditional “gray infrastructure” or concrete like culverts do not do well with limestone karst features.

The city has, in alliance with the Cypress Creek Protection Plan, been implementing nature-based infrastructure such as rain gardens to slow and collect water allowing it to soak into the ground rather than rapidly washing away into the stream and out of the area.

These efforts will help restore and protect groundwater levels and help to reduce surface water pollutants during periods of flooding and heavy rains.



Images 22 & 23: Rainwater Collection at Golf Course

In 2018, the Cypress Creek Project team installed the above 5,000 gallon polyethylene cistern at the Woodcreek Golf Course. The cistern is collecting water off of a 2,700 square foot roof, which allows for the harvesting potential to be approximately 45,000 gallons annually. The rainwater harvested from this cistern is being used to clean golf carts at the facility.



Image 24: Rain Garden on Golf Course at Installation

Work continued at the Woodcreek Golf Course in the summer of 2019, with the installation of this rain garden. Rain gardens are installed downslope of hills to capture stormwater. The bottoms are often planted with native plants to further treat the water before it recharges the aquifer.

PRESERVING THE NATURAL BEAUTY AND WATER QUALITY OF CYPRESS CREEK FOR GENERATIONS TO COME

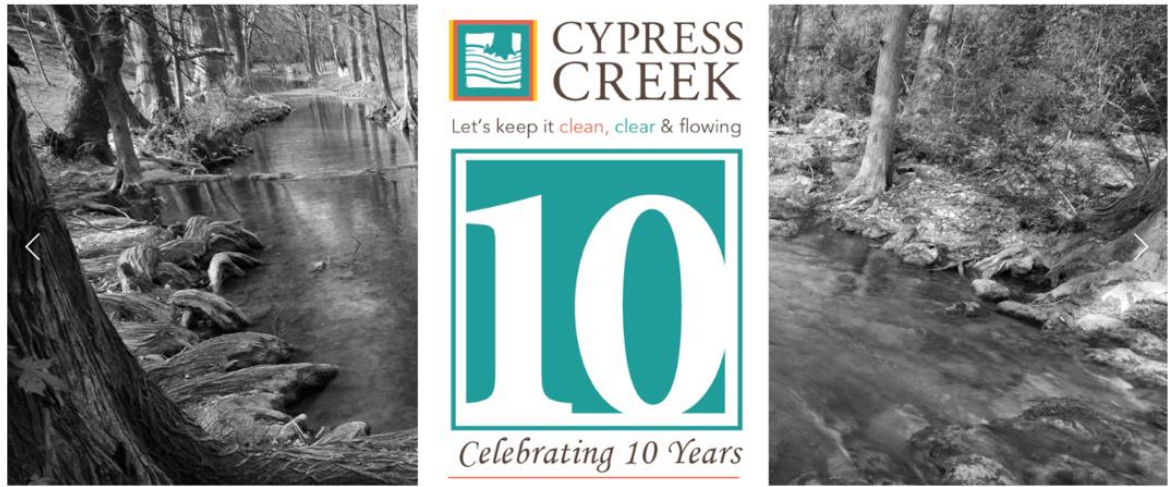


Image 25: Cypress Creek Watershed Protection Project

*Some areas of Woodcreek’s ETJ are at risk of “groundwater under influence” because the source of drinking water or groundwater travels close to the land surface. This presents the possibility of surface water mingling with the groundwater and this risks microbial contamination as the surface water has not gone through the natural filtrations of the limestone. This means greater filtration and sanitation efforts for the water systems in those areas.*

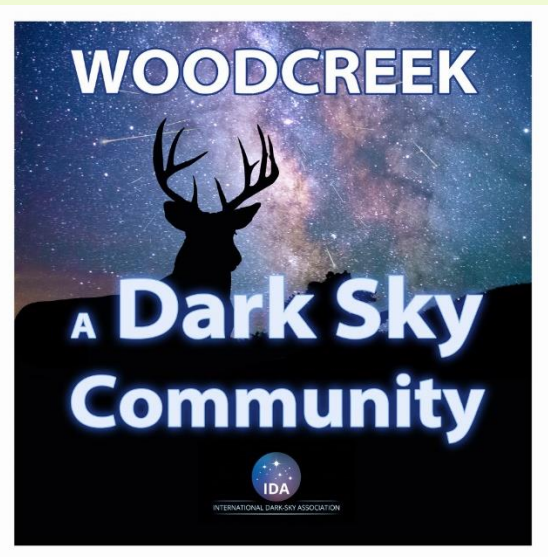


Image 26: Dark Skies Community Sign

***International Dark Skies***

*We are a designated International Dark Skies Community with ordinances backing this effort and reinforcing the commitment to reduce light pollution to protect the clear night skies for which rural communities are so well known and loved.*



*Ashe Junipers (colloquially called “Cedars” in this area) serve as habitat for the Golden Cheek Warbler bird which is Native to Central Texas and an endangered species.*

*Substantial amounts of these trees can be found in the Woodcreek ETJ and undeveloped areas within the city limits.*

*These trees not only serve to provide habitat for this beloved bird species, but they also diversify our tree canopies, and contribute to soil production as they drop significant amounts of debris on the ground.*



Image 27: Golden-cheeked Warbler

### *Oak Wilt*

*Oak Wilt is a fungal disease that impacts specific species of oak trees, many of which can be found within Woodcreek and serve as representation of the namesake of the community.*

*There is no known cure for oak wilt. Efforts can be made to prevent and protect trees, but once infected all further efforts turn to containment and extending the life of the tree until a replacement canopy can mature.*

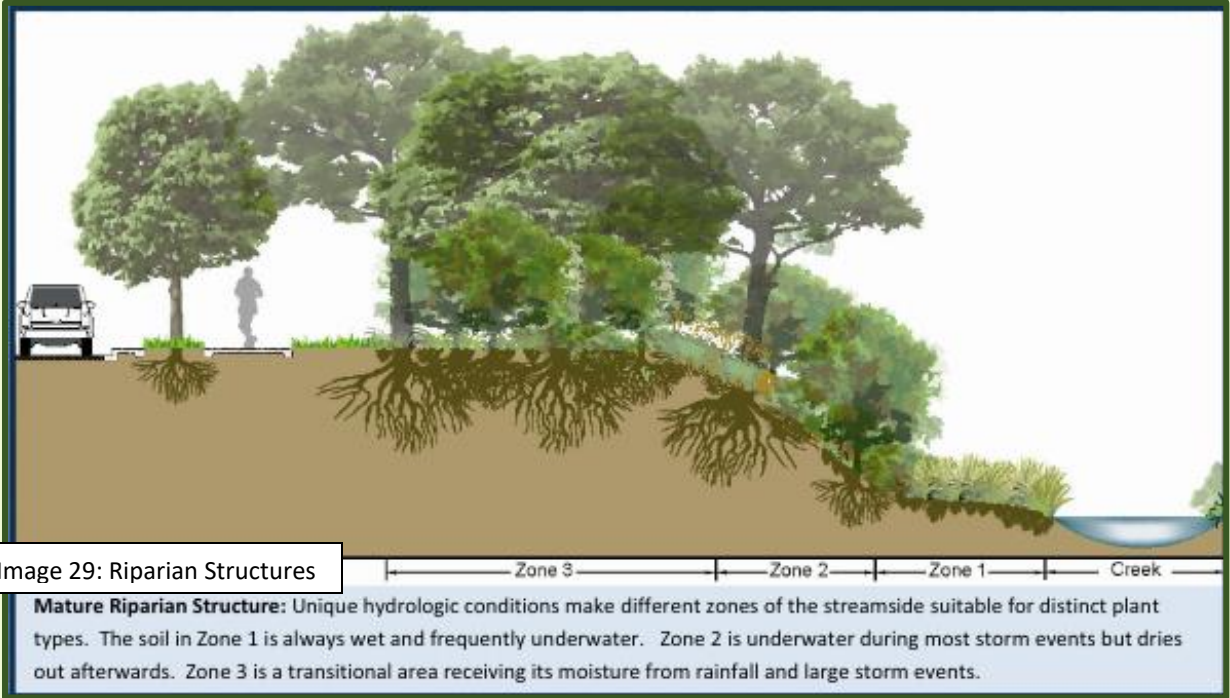
*Woodcreek does currently have documented Oak Wilt in various areas of the community and so strong ordinances and education efforts remain a priority for leadership here as trees are a great asset for the community.*



Image 28: Oak Wilt



Much of Woodcreek is part of a riparian corridor that serves to protect Cypress Creek. The plants in this land belt running adjacent to the creek protect the water quality and prevent erosion and flooding damage to homes nearby by providing a water break and buffer. Item 5.



### Air Quality

Air quality remains good in Woodcreek and the Wimberley Valley currently. Protecting this from over-development, excessive traffic, and industrial production will need to be a focus for the community as the Wimberley Valley grows.

### Light Pollution

Light pollution is a growing concern as more concentrated and commercial development grows in the valley. Preserving unadulterated night skies by limiting outdoor lighting benefits wildlife and brings a greater quality of life for human residents. Outdoor lighting at night should be avoided or specific fixtures that reduce glare, light trespass, and sky glow should be utilized where lighting is desired or needed.

### Noise Pollution

Noise pollution from major roads like Ranch Road 12 will only increase, and the community can take steps to address this by raising fence lines alongside the road and planting vegetation as a noise break.

Additionally, the material used for the reconstruction of streets within the city limits will need to be carefully considered as many residents are reporting the concrete of Brookhollow to be louder than the previous asphalt street, thereby producing a loud hum as cars travel down the road.

### Natural Systems

*These are open systems whose elements and boundaries exist outside of human control. There are four main natural systems: land, water, life, and air. Humans rely on the natural systems to survive and must work to protect them.*

### Land: Parks and Greenspaces

*There are a handful of parks and greenspaces in Woodcreek with only a few amenities for citizens to use. The Parks Board is seeking grants to improve existing parklands. The city does have a current Parks Master Plan and there is an existing budget for park maintenance and improvements. Protections exist for trees located on all public land.*

### Augusta Park

Augusta Park is at the north corner of where Augusta Lane and Augusta Drive meet. It features a rain garden, bocci ball court, and a couple of cement picnic tables.



Image 30: Augusta Park

*Veteran's Memorial Plaza*

Veteran's Memorial Plaza is located at the intersection of Woodcreek Drive and RR12 on the north side of Woodcreek Drive just behind the main entrance sign. This park features a small memorial to Veterans and a stone table with benches.



Image 31: Veteran's Memorial Plaza

*Creekside Park*

A new park named Creekside is the center for discussions about a playscape and nature walk on Brookhollow alongside Hog Creek.

*Champions Circle Park*

1 Champions Circle across from Veteran's Memorial Plaza on the southside of Woodcreek Drive and RR12 intersection remains undeveloped but is zoned for a public park.



### *The Triangle*

The Triangle, is often thought of as a park by the community but is designated a right-of-way greenspace. It features a single bench, some landscaping and an unused flagpole.

### *Greenspaces*

There are several other greenspaces throughout the community. These include street trees, the Brookmeadow planter, the Par View cul-de-sac median, a median on Woodcreek Drive near The Triangle, a small lot located alongside La Rocca Lane, a wooded area next to City Hall. There are protections in place for trees located in these areas and some have varying levels of landscaping or maintenance that is performed.



Image 32: Brookmeadow Sign Median

# Greenspaces within Woodcreek

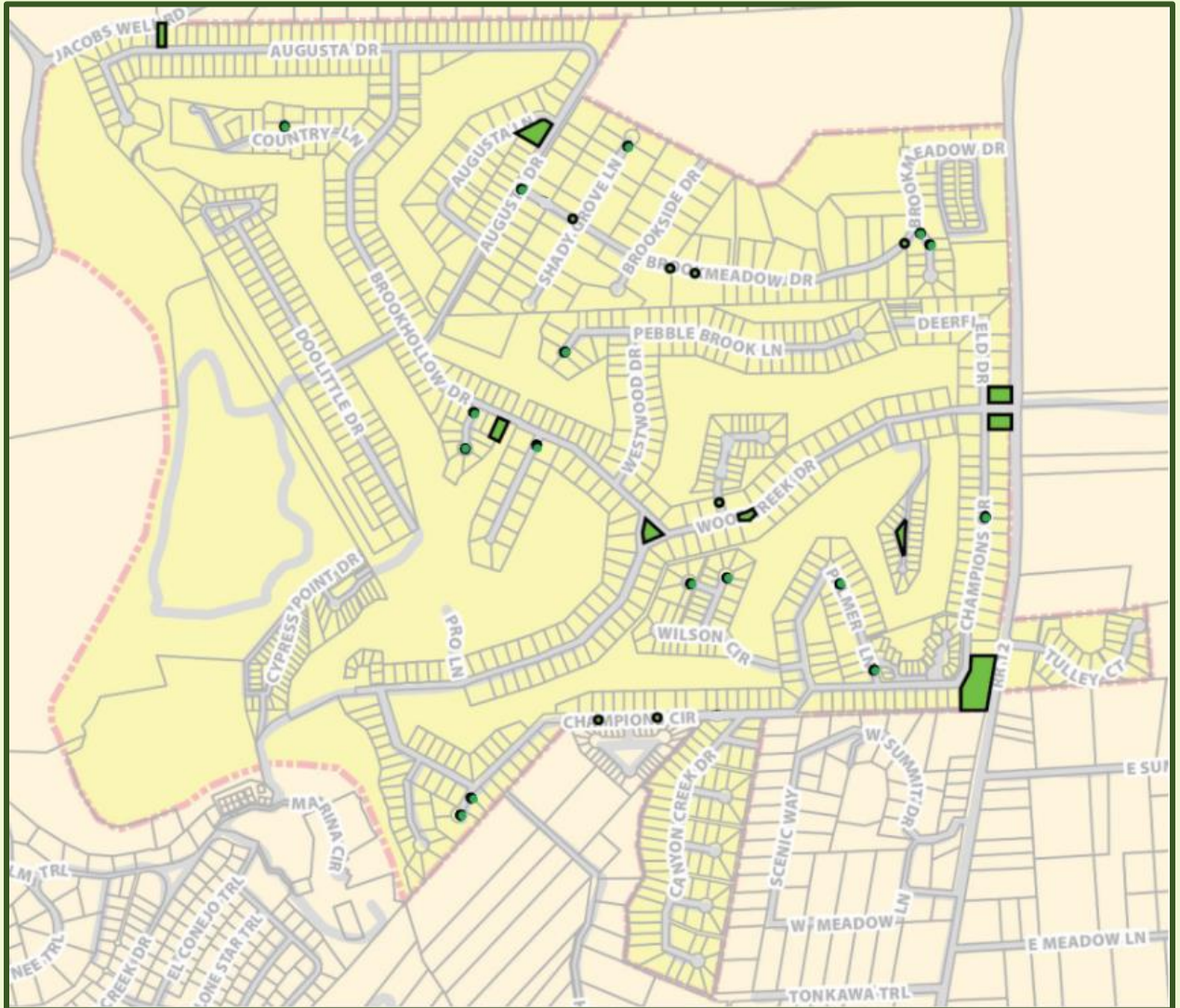
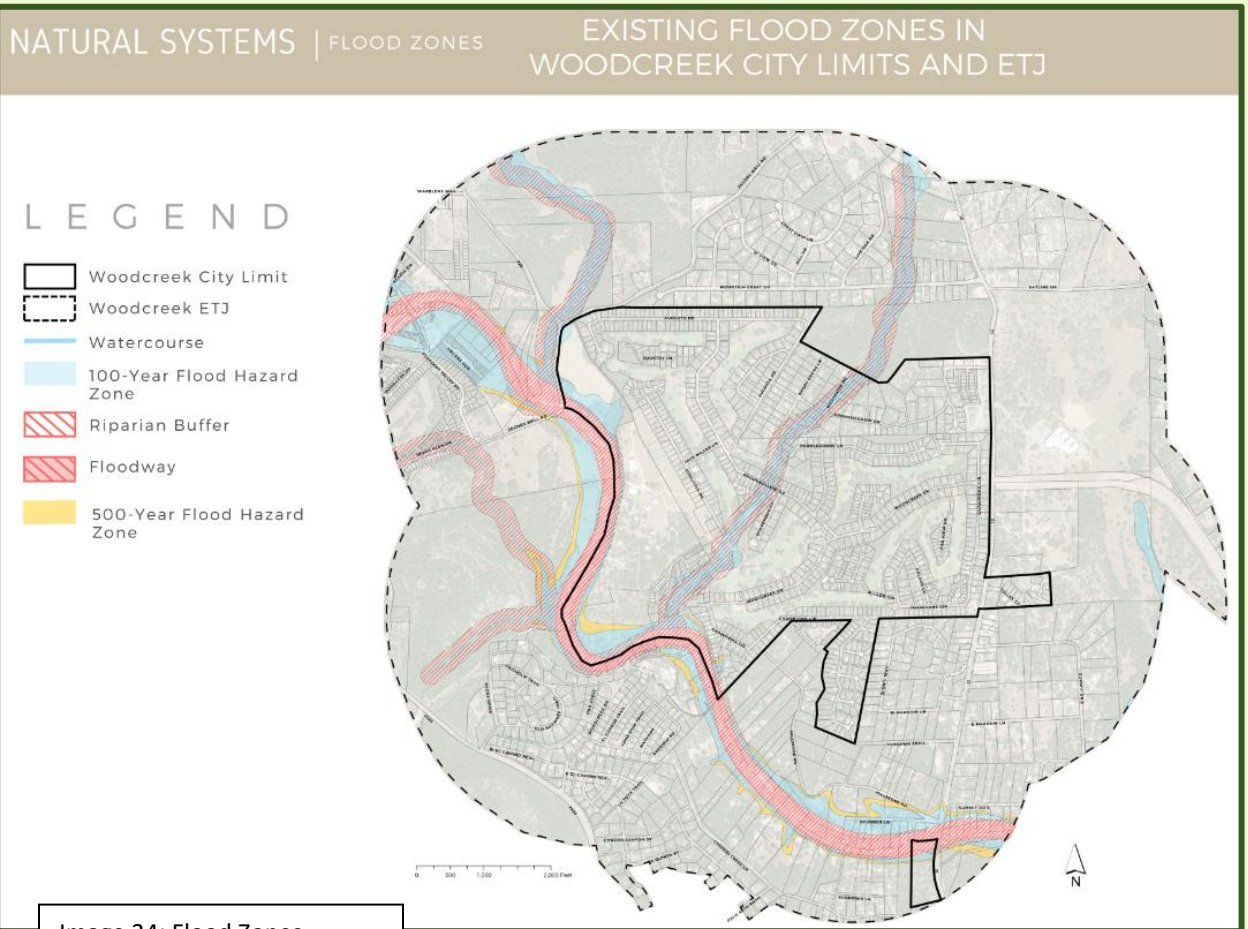


Image 33: Greenspaces Map

### Water: Drinking, Regulation, Quality Management

- Woodcreek is a groundwater dependent community. While some rainwater catchment systems exist, the community is linked to a public water utility system serviced by Aqua Texas. They control drinking water quality, drought curtailment enforcement, and oversee the treatment of effluent then used for watering the Quicksand Golf Course grounds. Some private septic systems still exist.
- Hays Trinity Groundwater Management is the state regulatory body responsible for permits and water management in this area. Woodcreek relies on the Middle Trinity Aquifer for meeting community potable water needs.
- There are two natural waterways within Woodcreek city limits and its ETJ. These are Cypress Creek and Hog Creek. There are several ponds on the golf course grounds and a large retention pond located at the dam on Woodcreek Drive east of Cypress Point.





## Water: Drinking, Regulation, Quality Management

- Environmental protection efforts have increased in the past 30 years resulting in the creation of efforts like the Cypress Creek Watershed Protection plan which seeks to preserve Cypress Creek as a pristine stream, implement waterwise conservation systems, and help to educate residents on water issues.
  - The Meadows Center based in San Marcos has been in partnership with this effort along with the Wimberley Valley Watershed Association, who was instrumental in the effort to preserve Jacob’s Well, the headwaters of Cypress Creek.
  - Woodcreek has engaged in water conservation efforts through the creation of the Water Quality ordinance and by setting strict impervious coverage guidelines.
  - There are no rainwater collection incentives offered by the city at this time, but rainwater collection is allowed and there are some guidelines that exist in the City’s code.
  
- Rain gardens can be used to trap rainwater and help it soak into the ground. Augusta Park and Quicksand Golf Course both have these features. Rain gardens can be utilized to control drainage as a method of natural based infrastructure.
  
- Sizeable portions of Woodcreek and its ETJ fall in the Middle Trinity Aquifer recharge zone and the Jacob’s Well Management zone. Limiting impervious coverage in these areas is essential for the preservation of the aquifer and maintaining its ability to recharge and provide potable water for this community.

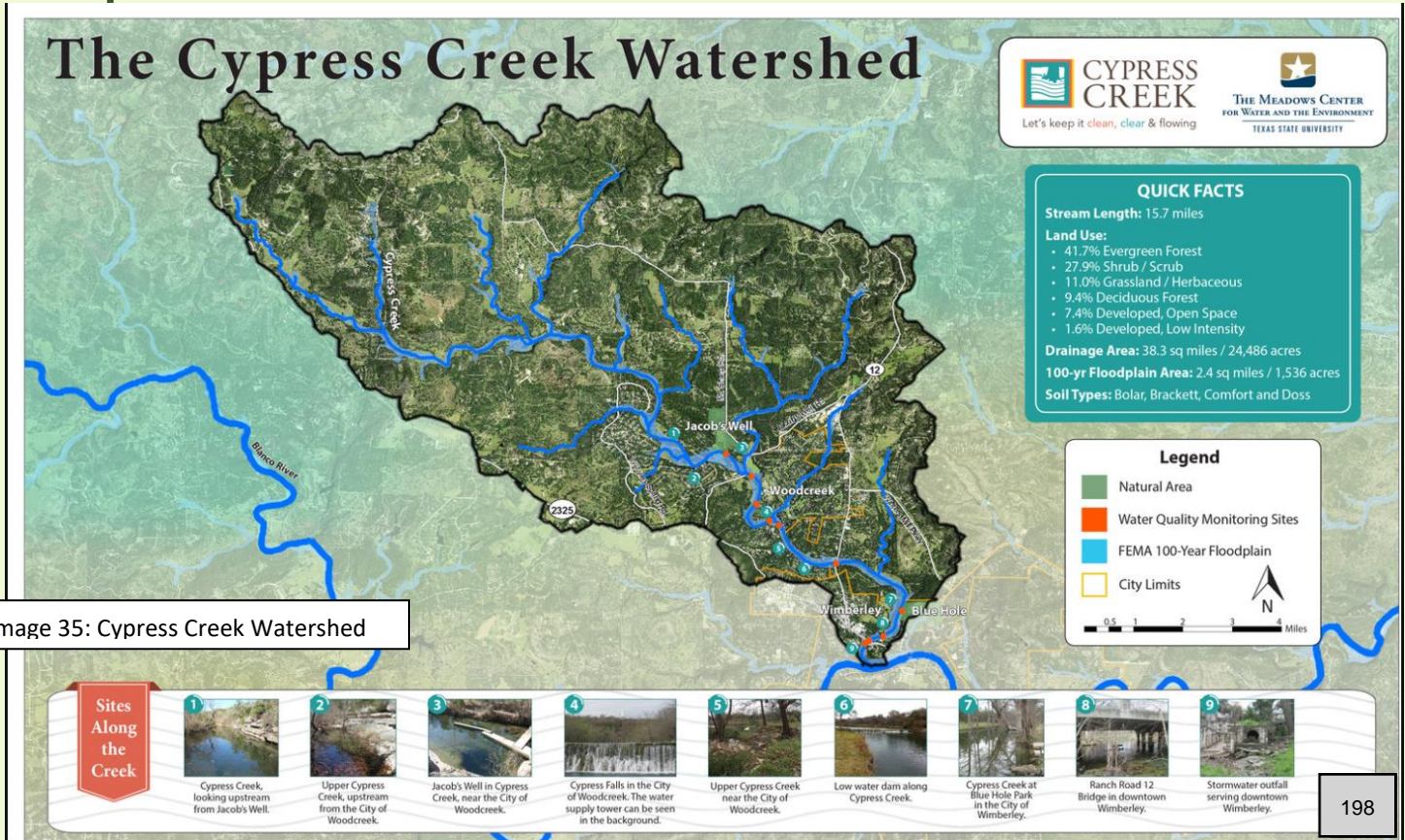


Image 35: Cypress Creek Watershed

### *Life: Plants and Animals*

- A Tree Board has been created as an official government body and a city tree inventory is in the process of being completed. The city has substantial amounts of Heritage and Protected Trees. Ordinances passed in 2022 seek to protect those trees.
- Oak Wilt has been documented within the City’s jurisdiction for over 30 years.
  - Texas A&M Forestry Services keeps a record of documented Oak Wilt cases and provides testing services.
  - Oak Wilt is a collective problem as it spreads easily across property lines.
  - The loss of trees can reduce property values by up to 20%.
  - Some preventative treatments exist, but there is no cure for the disease.
  - Once infected, trees will experience a “failure to thrive” and in most cases will die.
  - Early identification and removal or containment are the best options for stopping the spread of this infectious disease.
- Golden Cheek Warblers are an endangered species that breed in Central Texas. Protection of their habitats, such as dense ashe juniper stands and some types of oaks, has become increasingly important for the protection of this species.
- Overpopulation of deer brings concerns of disease and large predators moving through the area.



Image 36: Deer Family

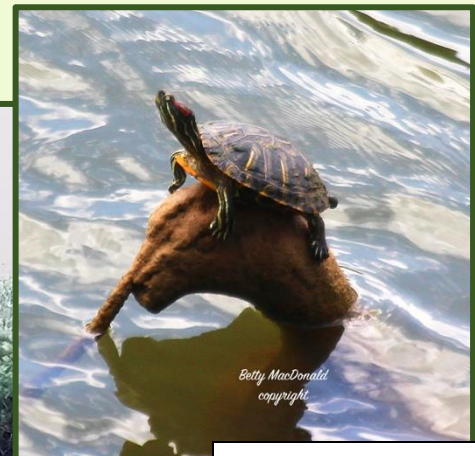


Image 37: Red Eared Slider



## *Air: Visibility, Quality, and Pollution*

- Light pollution at night threatens both wildlife migratory patterns and quality of life for residents of Woodcreek. Efforts to reduce outdoor lighting at night have been a focus for the valley-wide community. Residents can assist by turning lights off or buying fixtures that comply with recommendations for outdoor lighting that minimize glare, light trespass, and skyglow.
  - International “Lights Out” for migratory bird protection seeks to reduce light pollution in the skies that can disorient birds while flying at night. Central Texas sees about 1/3 of the national migratory birds move through the area twice a year.
  - International Dark Skies Initiative is a commitment from the community to reduce outdoor lighting at night to promote visibility of the night sky.
- As the area grows in population, it brings more traffic on the county roads around Woodcreek. Efforts to reduce noise pollution are increasing in popularity.
- Currently, Woodcreek and the Wimberley Valley typically have good air quality with very little pollution. Occasional fires can change this and there have been periods of dust from the Saharan Desert causing the particulate matter to increase.
- There are no large-scale industrial or manufacturing plants in the area that typically bring noise pollution and air quality concerns.



Images 38 & 39: Woodcreek Skies



## *Physical Systems*

Physical Systems, often called infrastructure, are the basic physical and organizational structures and facilities needed for the operation of a society.

## *Public Facilities*

The City of Woodcreek does not own the utilities that serve its citizens. These services are provided by private entities through franchise agreements granting the service provider the right to offer, sell, or distribute services specifically identified in the agreement. Fees collected through these franchise agreements create supplemental income for the city.

- Electricity – Pedernales Cooperative
- Water and Sewer – AQUA Texas
- Cable/Internet - Spectrum
- Telephone – Spectrum and Frontier
- Trash and Recycling – Waste Connections



Image 40: Blue Heron

### Infrastructure

- **Roads:**
  - There are thirty-four roads with a total of 10.95 miles in the City of Woodcreek.
  - Road conditions throughout the City have been described as poor or in need of repair.
  - Extensive engineering and pavement assessments have been completed.
  - Road conditions have consistently been rated as a top priority concern for citizens.
  - Some traffic calming in the form of speed monitoring signage exists, but there is no widespread traffic calming infrastructure or design plan in place.

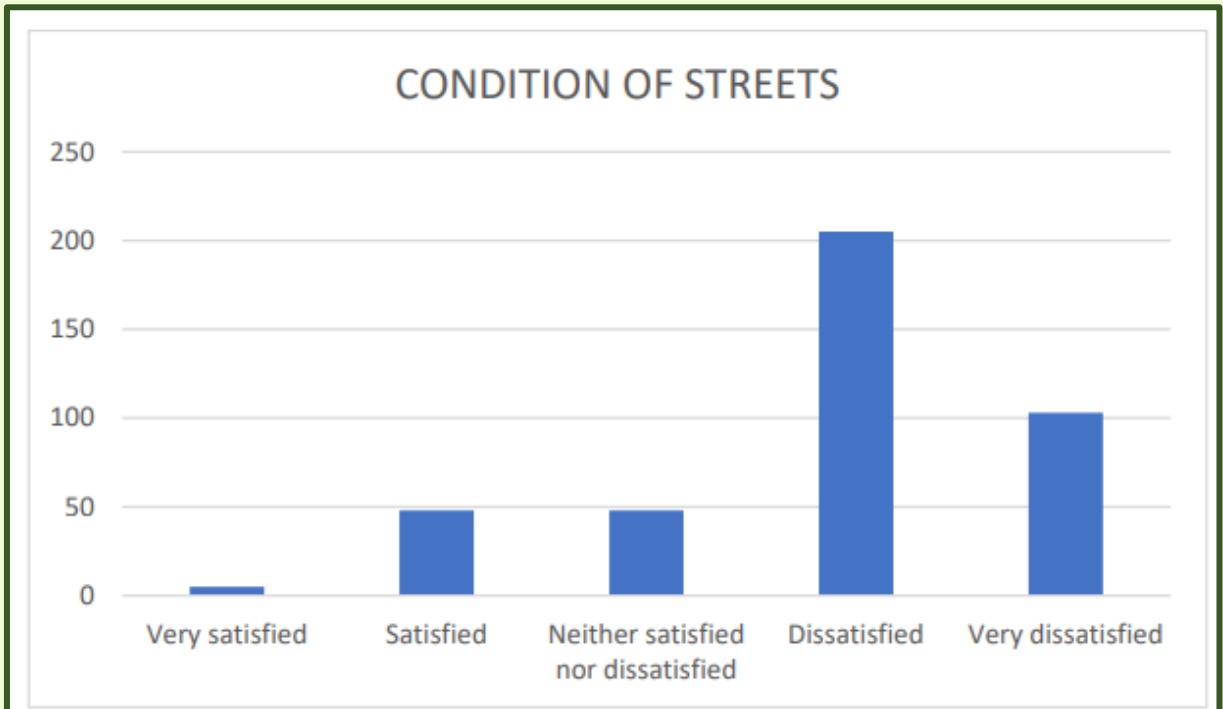


Image 41: Citizen Survey Graph 1

# Road Conditions

Current Conditions

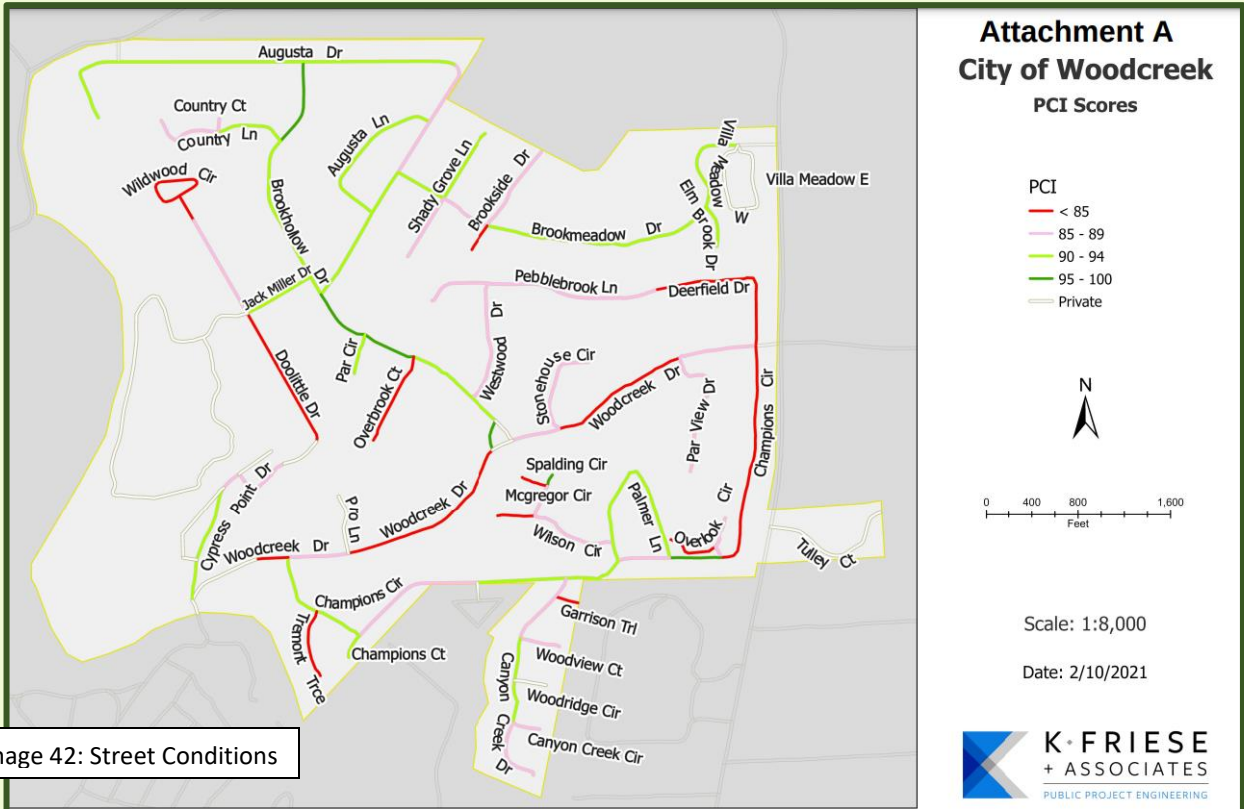


Image 42: Street Conditions

**Table 2. PCI Rating Scale**

PCI Rating	Range	Definition	Maintenance Classification
Good	100 - 85	Pavement has minor or no distresses and requires only routine maintenance.	Preventative
Satisfactory	84 - 70	Pavement has scattered low-severity to medium distresses that need only routine maintenance.	Preventative
At risk	69 - 50	Pavement has low, medium, and high severity distresses that may cause a reduction in ride quality.	Rehabilitation
Poor	49 - 25	Pavement has predominantly medium and high severity distresses that cause noticeable reduction in ride quality and pavement life span.	Rehabilitation
Serious	24 - 0	Pavement has mainly high severity distresses that cause significant reduction in ride quality and pavement life span. Immediate repairs are needed.	Reconstruction

Image 43: Street Condition Rating Scale



## *Infrastructure*

- **Drainage:**
  - There is no official drainage infrastructure that is consistently implemented in the city.
  - Most areas rely on the street surfaces to convey excess water which contributes to the further erosion and degradation of these structures.

## *Infrastructure*

- **Trails, Pedestrian and Other Alternative Forms of Mobility:**
  - There are no public walking trails in the City of Woodcreek, nor are there bike lines or any alternative transportation options available.
  - Currently, Hays County has outlined a system of trail improvements for the Wimberley Valley. Some of this plan may include connectivity for Woodcreek to existing and future trails.
  - There is a portion of the Winters Mill and Blue Hole Walking Trail located in Woodcreek's ETJ.
  - Addressing pedestrian safety and mobility has been listed as a high priority for citizens.



Image 44: Blue Hole Walking Trail

## *Infrastructure*

- **City Hall:**
  - The City of Woodcreek owns the land and constructed the building that currently houses the daily operations of the city and hosts most City meetings.
  - There have been some on-going discussions about expansion to accommodate a larger meeting space in the future.



Image 45: Woodcreek City Hall

## *Infrastructure*

- **Water Hydrants and Flush Valves:**
  - The system of water hydrant flush valves is owned and maintained by AQUA Texas.
  - These hydrants will not be directly used in the event of a fire as there is not enough pressure in the system and some of the lines are too small to conduct sufficient water.
  - These valves can and are used to fill water tank trucks for the local fire department.
  - The system is also utilized to flush water to maintain water quality as needed. AQUA is responsible for performing regular checks and maintenance on this system.

## *Fiscal*

### **Ad Valorem Dependency:**

- Woodcreek is heavily dependent on ad valorem tax income.
- Only an estimated 14% of the City's total income comes from sales tax and other retail taxes.
- About 33% of the City's total income is derived from franchise agreements

### **Land Availability Concerns:**

- Within the city limits there is little land left for development of any kind.
- There is little to no commercial zoning inside the city limits.
- Annexation into the city limits must be on a voluntary basis or can be a part of a development agreement for future construction projects in the ETJ.
- Aquifer availability and groundwater management zones can limit future development possibilities.

### **Financial Stability:**

- The City's income is stable as ad valorem income is not as susceptible to market fluctuations as other forms of income such as sales tax.
- The City maintains healthy reserves, utilizes investment accounts to generate passive income, and has strong financial policies to protect from overspending.
- The City maintains a strong credit rating and has only one debt service account for a tax note issued in 2017 for the repair of Brookhollow. There are only two more years of payments left on this note.

### **Project Funding Realities:**

- Funding current projects on projected future growth is not a viable or sustainable financial policy. Thus, planning for future growth in property values, increases in the territory of the city limits, or the construction of new homes and businesses cannot be relied upon to fund desired projects.
- The City must look to grants and other sources of funding like a General Bond or additional tax notes to fund infrastructure and other desired projects.



## Land Use

The City of Woodcreek is a collection of residential neighborhoods forming one large subdivision. There is no town center or central district. There is one small retail area within the City Limits at the north entrance to Brookmeadow.

Woodcreek boasts a diversity in housing choices with high-density options like apartments, duplexes, town homes, condominiums, and a pending fourplex planned development district to a wide variety of low-density single-family options with a significant range in lot sizes from 6,500 square feet to multiple acres. Most of these housing options being that of single-family residential lots with an average size of around or just above a quarter of an acre.



Image 46: Woodcreek Apartments

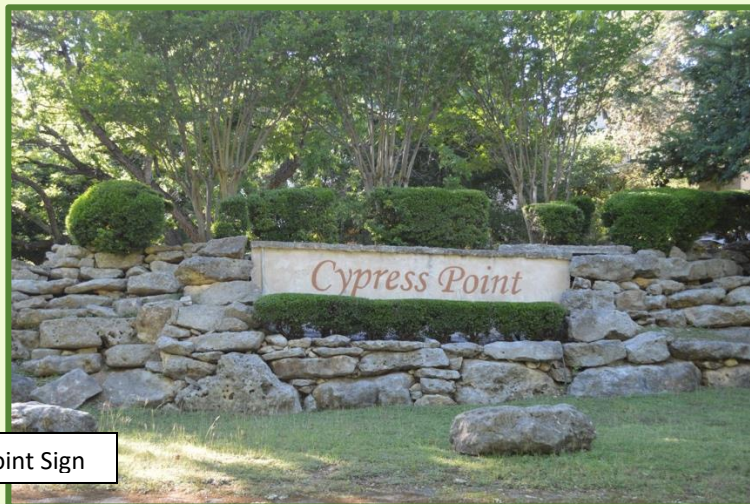


Image 47: Cypress Point Sign

Vast portions of the city are zoned recreational for Quicksand Golf Course and Camp Young Judaea. The city has a handful of pocket parks and right-of-way greenspaces scattered throughout the neighborhoods. There is one small nature preserve tucked in the upper northwest corner within the city limits.

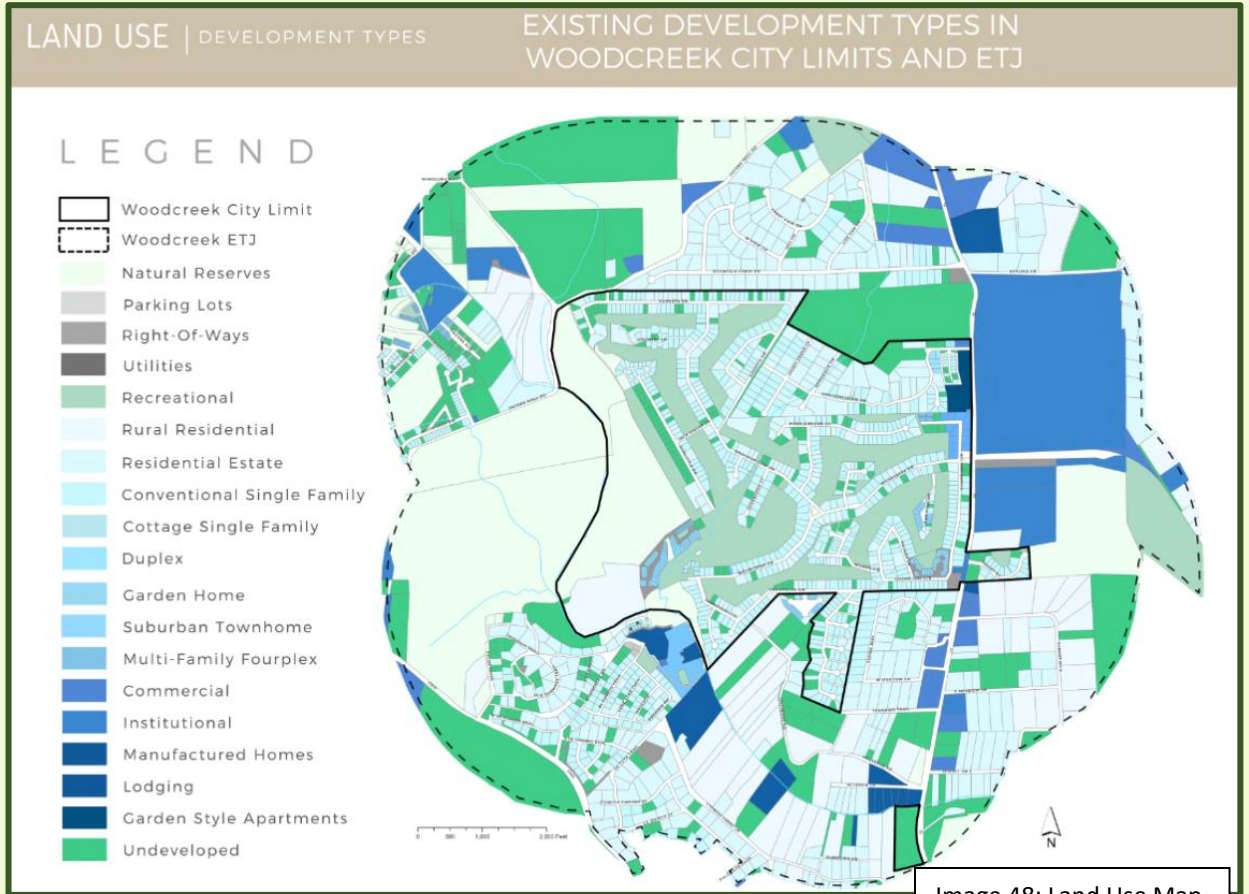


Image 48: Land Use Map

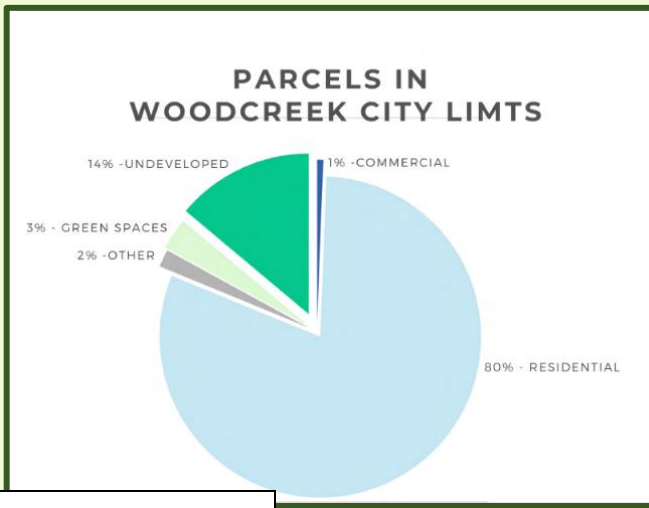


Image 49: Land Use Chart 1

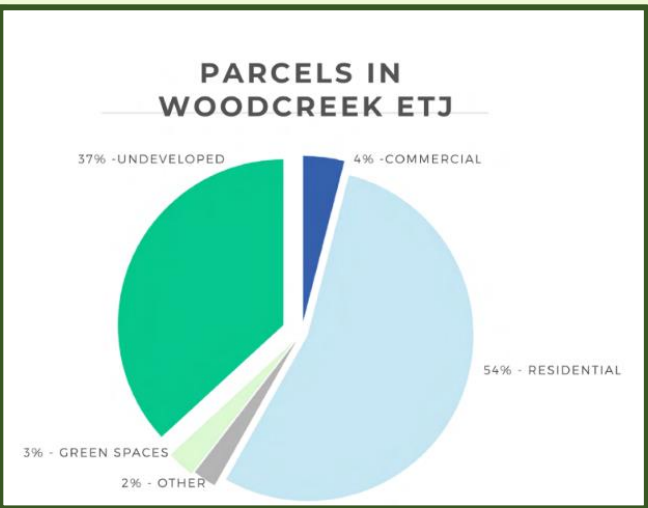


Image 50: Land Use

## *Extra Territorial Jurisdiction*

- The ETJ is largely undeveloped
  - Blue Hole Primary School and the First Baptist Church are the largest non-residential landholders in that area.
  - Woodcreek has one Planned Development District outside the contiguous city lines, The Enclave, which is located on the Eastside of Ranch Road 12 opposite City Hall.
  - There is a conservation district South of the city across Cypress Creek resting on the southern bank of the creek closer to Wimberley.
- There are many residential homes in Woodcreek's ETJ, including the Mountain Crest and Eagle Rock POAs.
- There are also several commercial short-term lodging operations,
  - The Lodge at Cypress Falls
  - Cypress Creek Cottages
  - Messina Inn
  - Cypress Creek Vacation Homes
- There are two bars
  - Casa Vindemia
  - The Tavern
- A restaurant, The Falls, located in the wedding venue complex of Cypress Falls alongside The Lodge.
- There are a handful of office spaces and other retail enterprises in the ETJ located along Ranch Road 12.
- The ETJ envelops portions of three major throughfares for the Wimberley Valley
  - Ranch Road 12
  - Winter's Mill Parkway
  - FM 2325.
- The road, Woodcreek Drive, which cuts through the heart of Woodcreek, crosses Cypress Creek and links Ranch Road 12 to FM 2325 sees significant through traffic from residents of the greater valley area, specifically those traveling between Blue Hole Primary and Jacob's Well Elementary for school pick-ups and drop off.



## Citizen Survey

A total of 911 surveys were distributed, one per household within the city limits. Of those, 411 were returned.

- A majority of the participants were property owners and residents, with less than 25% being renters.
- The responses were equally distributed throughout the four geographical zones designated in the survey.
- A slight majority, 54%, of the responses came from houses with two residents.
- 29% percent came from houses with a single resident.
- The remaining 17% from homes with three or more.
- Age demographics in this survey showed a slight majority, 64%, were 65 and older. This holds steady with previous census data of the area.
- A large majority of respondents, 84%, do not have children under the age of 18 living in their homes.

The five aspects of Woodcreek that participants valued most were (in order):

- natural beauty
- peace and quiet
- location
- safety
- rural setting.

It was found that 42% of participants have lived or worked in Woodcreek for over ten years, with 22% in the five-to-ten-year range, another 22% in the two-to-five-year range, and 14% for less than two years.

While less than half of the surveys were returned, the sample size and response was significant and represents many of the residents since the total number of individuals living within the households that responded represents about one half of the total population at a conservative estimate of 798 citizens based on the household occupancy question.

# Most Pressing Issues

## Roadway Improvements

Roadway improvements received the most support of any topic in the survey and have been identified as a key priority for immediate planning in the city. A Platinum Panel with representation from city residents has been formed and is addressing this issue. The Panel will develop a master transportation plan and is working on funding options that include addressing all forms of mobility for the city. A follow-up survey on funding options was conducted and helped identify citizen preferences for funding road improvements.

## Pedestrian Safety and Mobility

Pedestrian Safety and Mobility were ranked as high priorities; falling among the top four issues identified by respondents. Specifically, residents listed pedestrian safety along roadways as a major concern and area for improvement.

## Tree Preservation

Tree Preservation also landed in the top four pressing issues facing Woodcreek residents. Protection for heritage trees, preventing oak wilt, tree planting, and education are areas the city will focus on to address tree preservation.

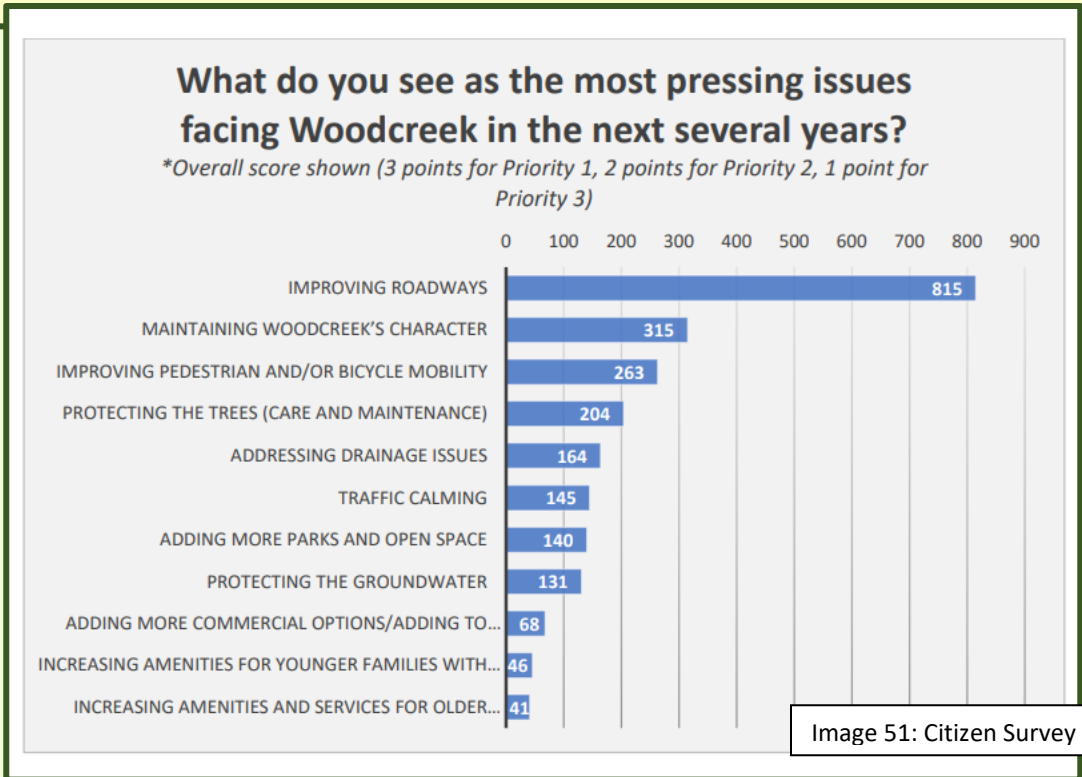


Image 51: Citizen Survey Graph 2

## Future Development Goals

- Limited to no commercial development was a theme throughout the survey results. Residents would like Woodcreek to remain rural and noted that many needed commercial services are already provided in Wimberley.
- Needing more restaurants, a coffee shop, and/or food trucks were popular responses regarding what type of development would be desirable. These have the benefit of building community and boosting sales tax income.
- Maintaining Woodcreek's character was in the top four pressing issues and was mentioned in open comments as something residents supported.
  - When considering why residents chose Woodcreek to live, it becomes apparent that the quiet, peaceful, and rural setting are large factors in their decision.
  - This general concept was a common thread running through most responses.
  - Aside from road improvements, if there was one thing that united respondents it would be the desire to protect Woodcreek's charm as a residential community with significant natural features.
  - Respondents were against growth and commercial development.
- Parks and greenspaces received neutral to dissatisfied ratings indicating residents could be interested in additional parks, park improvements, and additional community amenities. The top-rated choices for new amenities were a community pool and playground.



Image 52: Double J Ranch Golf Club

## Addressing Mobility

- Traffic calming received significant support, falling among the top three desired improvements in mobility for the city.
- Improving trails and connections to Wimberley was frequently mentioned. This may be in support of or as a response to the larger Wimberley trails projects being proposed. It should be noted that citizens supported this concept of interlocking trails connecting Woodcreek with the rest of the Valley.
- Implementing walking space (sidewalks or trails) along roadways was mentioned as a pressing issue and as a top priority for improving mobility in the City. Citizens cited walking on the golf course, which is technically not permitted, as an alternative or that they are simply walking in the road. These open comments point to a community that has a significant population of residents who appreciate taking walks and other similar activities. The city would do well to address providing safe spaces for the residents to support this preference.



Image 53: Blue Hole Trail



## Natural Systems

**GOAL: Preserve Woodcreek's natural, rural setting**

### *Strategy One: Protect what exists.*

#### Action Plan:

- Enforce protective regulations for trees
- Community education programs
  - Rainwater collection
  - Oak Wilt
  - Drought tolerant landscaping
  - Reducing chemicals used in landscaping
- Incentivize rainwater collection
- Protect impervious coverage limits and create strong regulations for areas of the Middle Trinity recharge zone and Jacob's Well Management Zone
- Create green building incentives
- Promote the protection of natural habitats and local ecosystems
- Participate in an annual Arbor Day Event and encourage tree planting events
- Invest in public land via tree care, planting, watering, and other efforts to beautify and improve public spaces

**Are you satisfied with the current parks, trails, and recreational options in Woodcreek?**

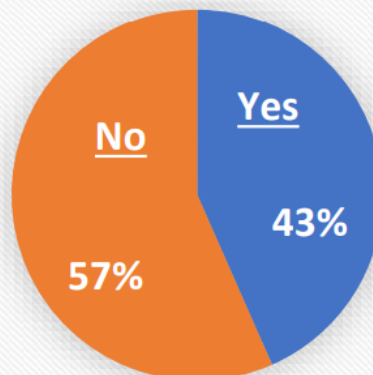


Image 54: Citizen Survey Chart 1

### Strategy Two: Increase and improve parks and greenspaces.

#### Action Plan:

- Update the Park’s Master Plan
- Pursue the purchase of more parkland with the plan of one acre of parkland or greenspace per 80 people and no more than a 10-minute walk to greenspace
- Negotiate parkland designations in future development to include a 15% minimum acre of suitable parkland or greenspace per acre of land to be developed or a cash in-lieu payment system.
- Revise and review the plating and subdivision codes to promote greenspace allocation in design
- Pursue grants and other funding to improve park amenities, with a playscape being the citizen’s top priority
- Consider and plan on how to achieve the citizens’ goal of a community pool
- Consider the placement of a dog park in an existing park as this was listed as moderately desirable in the citizen survey.

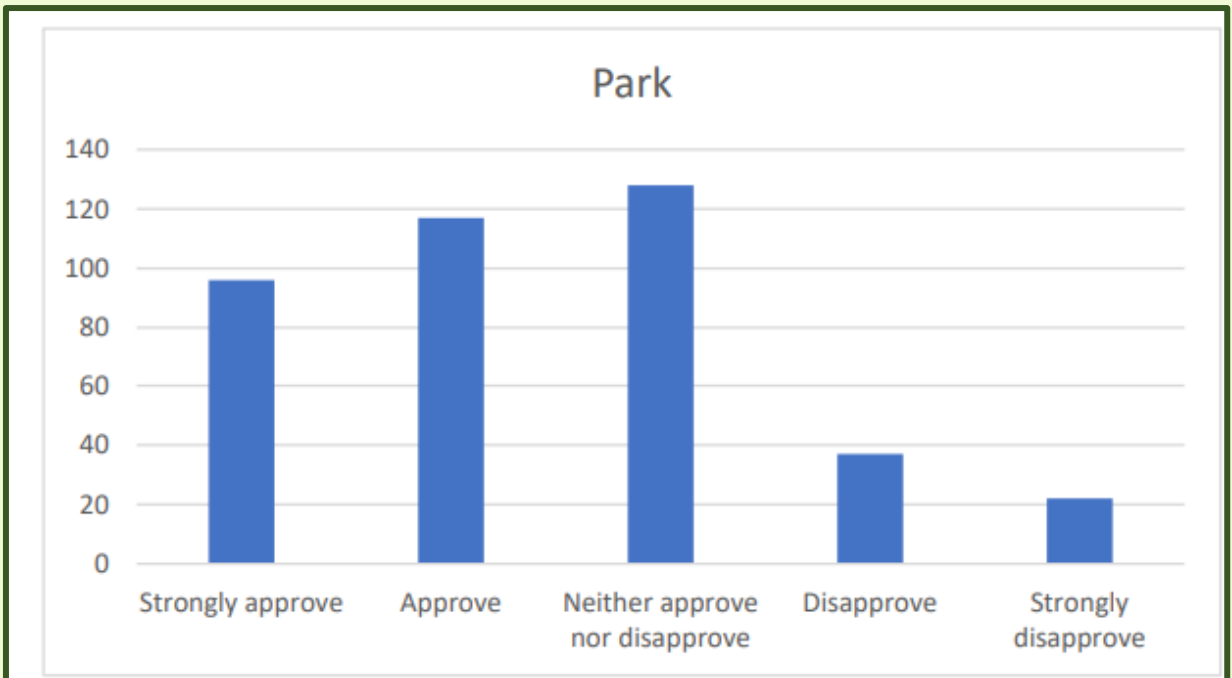


Image 55: Citizen Survey Graph 3



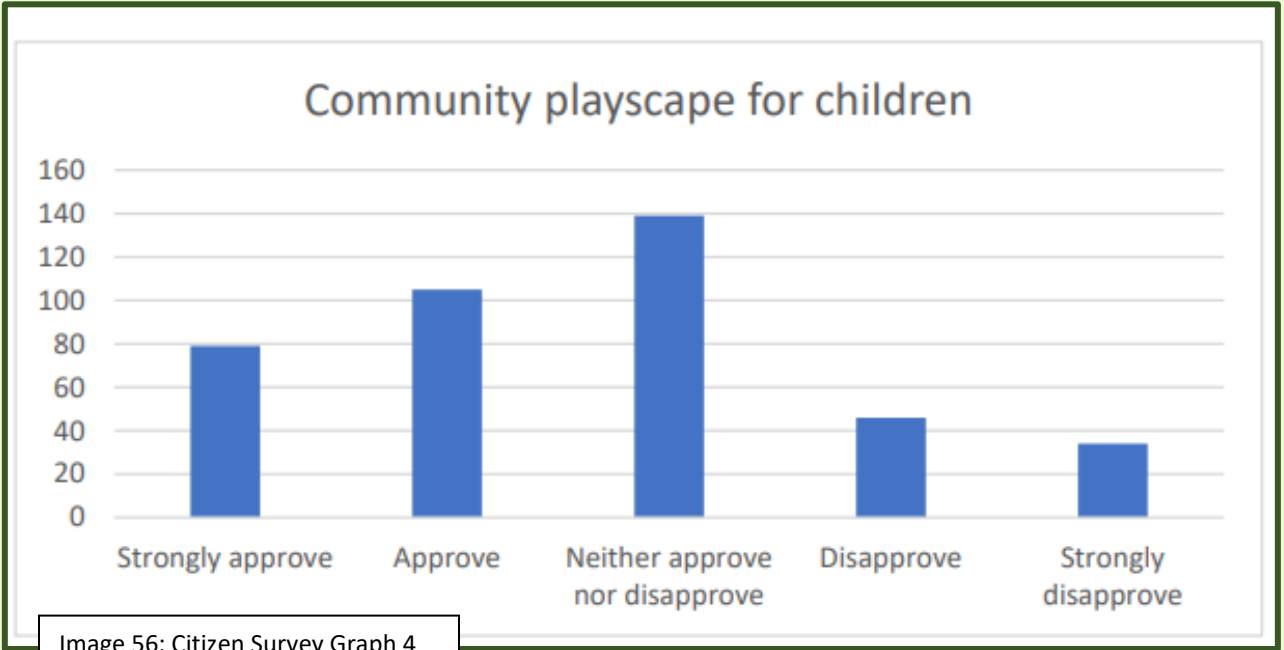


Image 56: Citizen Survey Graph 4

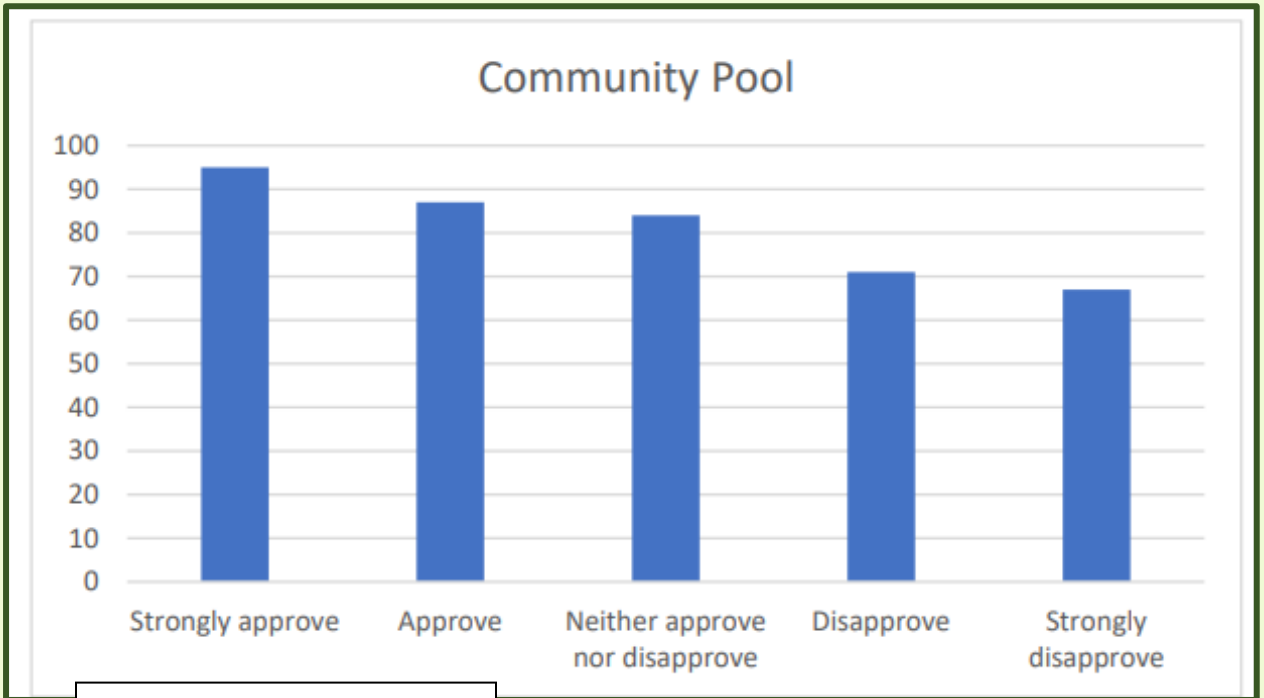
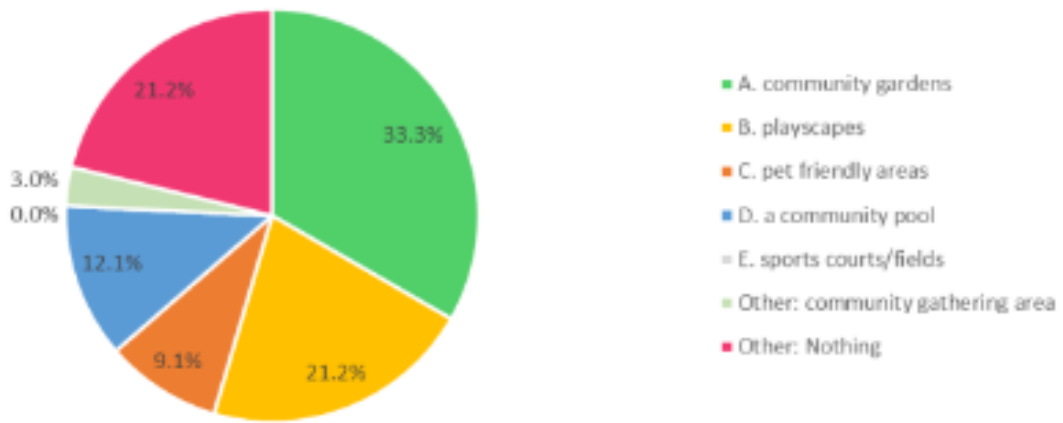
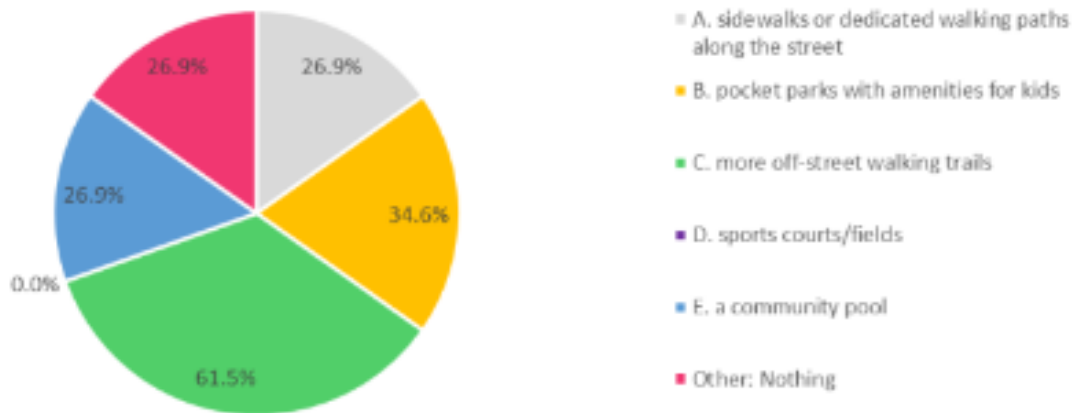


Image 57: Citizen Survey Graph 5

IN WOODCREEK'S EXISTING PARKS, I WOULD LIKE TO SEE..



IN TERMS OF ACTIVE RECREATION, I WOULD LIKE TO SEE MORE...



I WOULD PREFER THIS TYPE OF PARK...

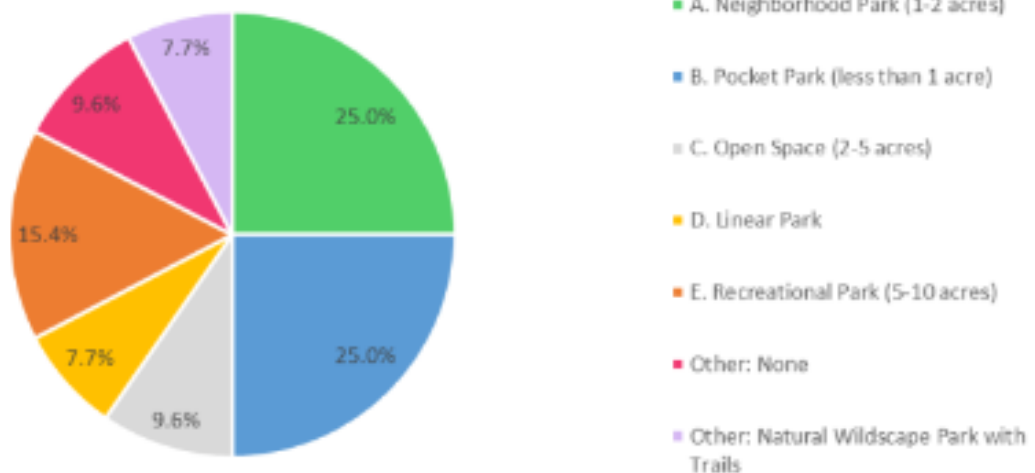


Image 58: Future Land Use Workshop Chart 1

## Physical Systems

**GOAL:** Improve existing structures with a focus on roads and mobility.

**Strategy One:** Re-negotiate franchise agreements to seek to lower rates and improve customer service.

**Action Plan:**

- **Electricity** - Residents expressed general satisfaction with the rates and customer service provided by Pedernales. As account holders, resident involvement directly with voting board members onto the co-op board and staying active in rate change discussions is the best way for PEC customers to influence this service provider. The City can and should seek advantageous improvements in the franchise agreement each time it comes up for re-negotiation.
- **Water and Sewer** - AQUA Texas received low satisfaction ratings from citizens who completed the survey. Poor customer service, frequent outages, line breaks, and water quality were all cited as issues needing improvement. Residents would like to address rising rate increases, improving sewage treatment and the smell related to the effluent used to water the golf course. Little to no enforcement of the drought curtailment guidelines exists which can result in poor water management practices from residents due to lack of awareness and/or no consequences for non-compliance. This public utility should be seen as the highest priority for action based on citizen responses and water availability concerns due to population increases and drought.

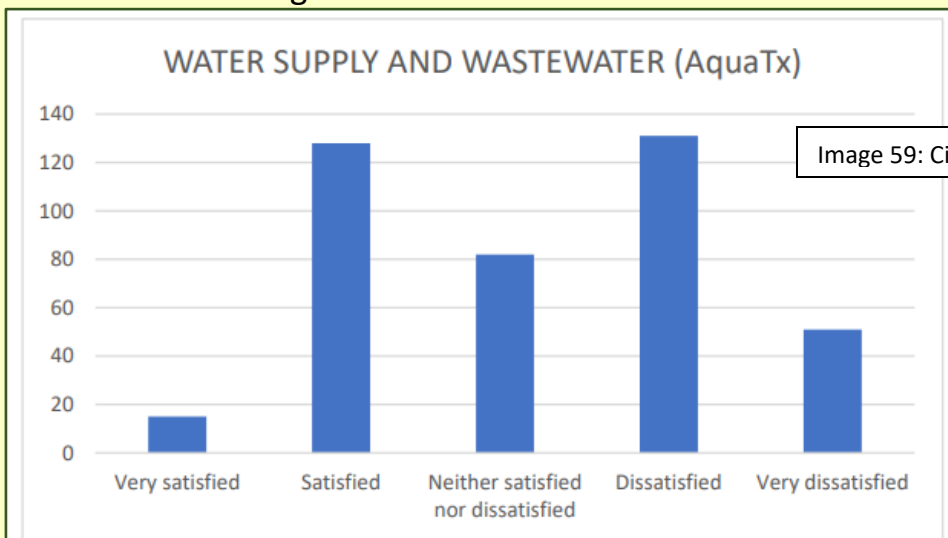


Image 59: Citizen Survey Graph 6

***Strategy One: Re-negotiate franchise agreements to seek to lower rates and improve customer service.***

**Action Plan:**

- **Cable/Internet** - Spectrum received general satisfaction ratings, but many citizens noted slow service, rising costs, and frequent connectivity issues. The City's cable lines are aged, and an update is needed. Negotiations of the franchise agreement in the future should take this into consideration.
- **Telephone** – Fewer residents are using landlines than ever. This service is dated and produces little revenue for the city.
- **Trash and Recycling** - Waste Connections received a satisfactory rating in the survey results. However, open comments highlighted issues with pick-up regularity, rising costs, desires for bulk pick-up on the street and increases in recycling services.

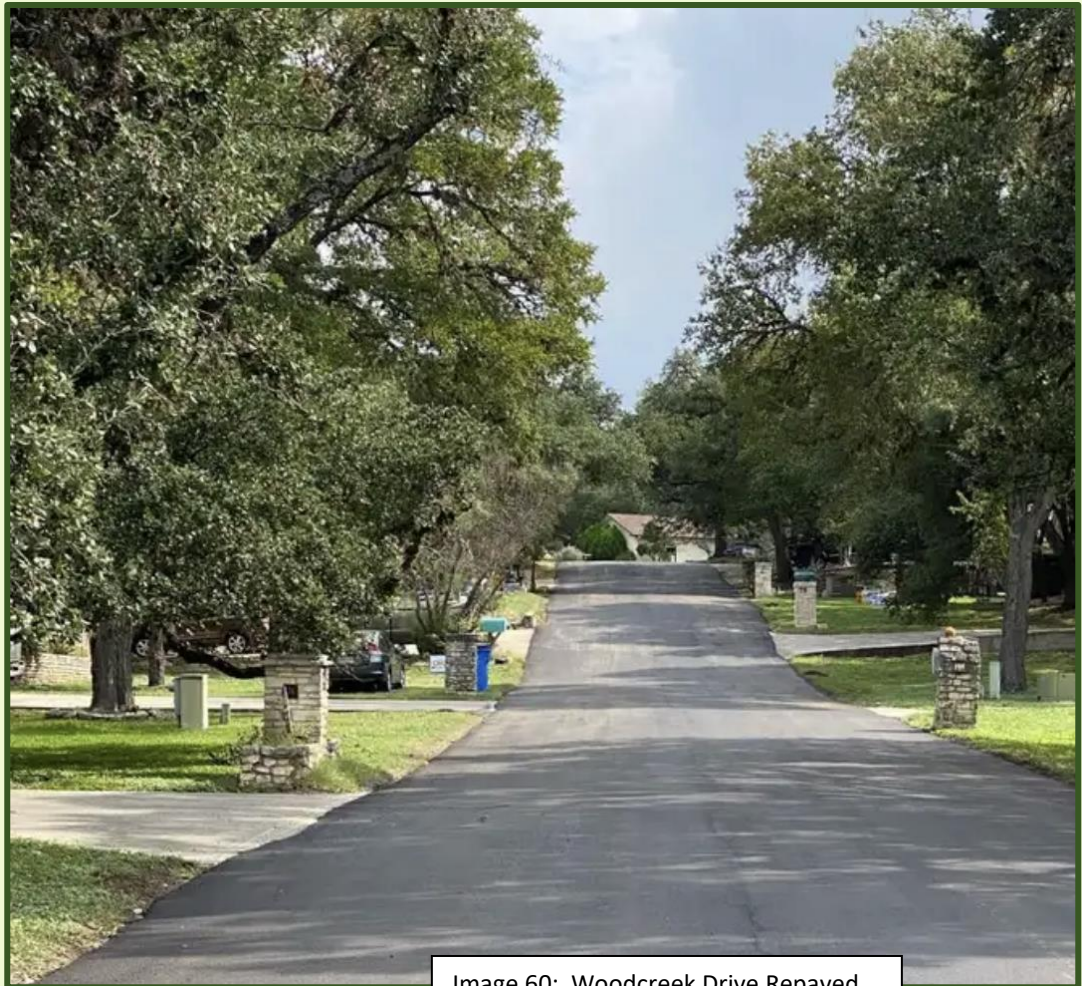


Image 60: Woodcreek Drive Repaved

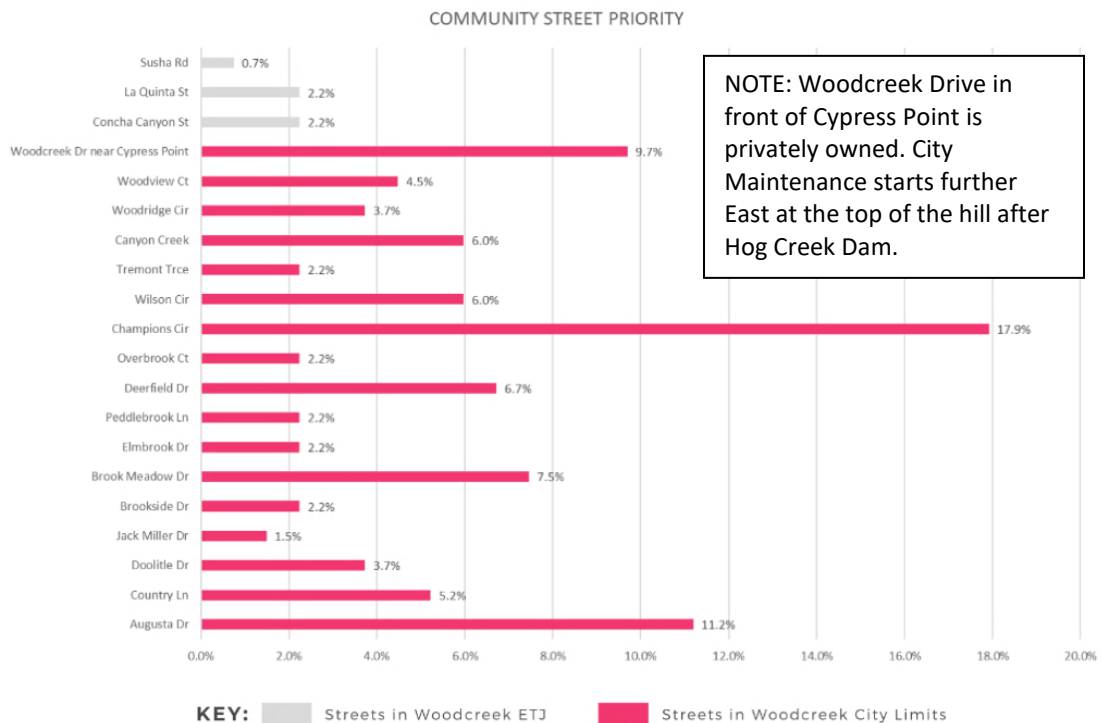
## Strategy Two: Repair all roads in the City of Woodcreek and create a long-term maintenance plan.

### Action Plan:

- Develop a Master Transportation Plan and Policy that addresses a regular maintenance schedule as part of the duty of the Platinum Panel.
- Finish the creation of a Capital Improvements Plan by the Platinum Panel which looks at capital needs as a whole and assesses fiscal capacity. The City should manage reserves and operating budgets to plan for and create the capacity for debt, while simultaneously funding some immediate projects. This plan should create a timeframe to achieve goals while balancing needs with fiscal responsibility. This plan would compile engineering studies, work through the priorities for roads to be improved, and seek final budget requests.
- Pursue grants and alternative funding
- Address drainage and traffic calming with road improvements

### PHYSICAL SYSTEMS |

OTHER THAN WOODCREEK DR AND BROOKHOLLOW DR. PLACE A STICKER ON WHICH STREETS YOU BELIEVE THE CITY SHOULD PRIORITIZE WHEN IT COMES TO IMPROVEMENTS. (SELECT YOUR TOP 3)





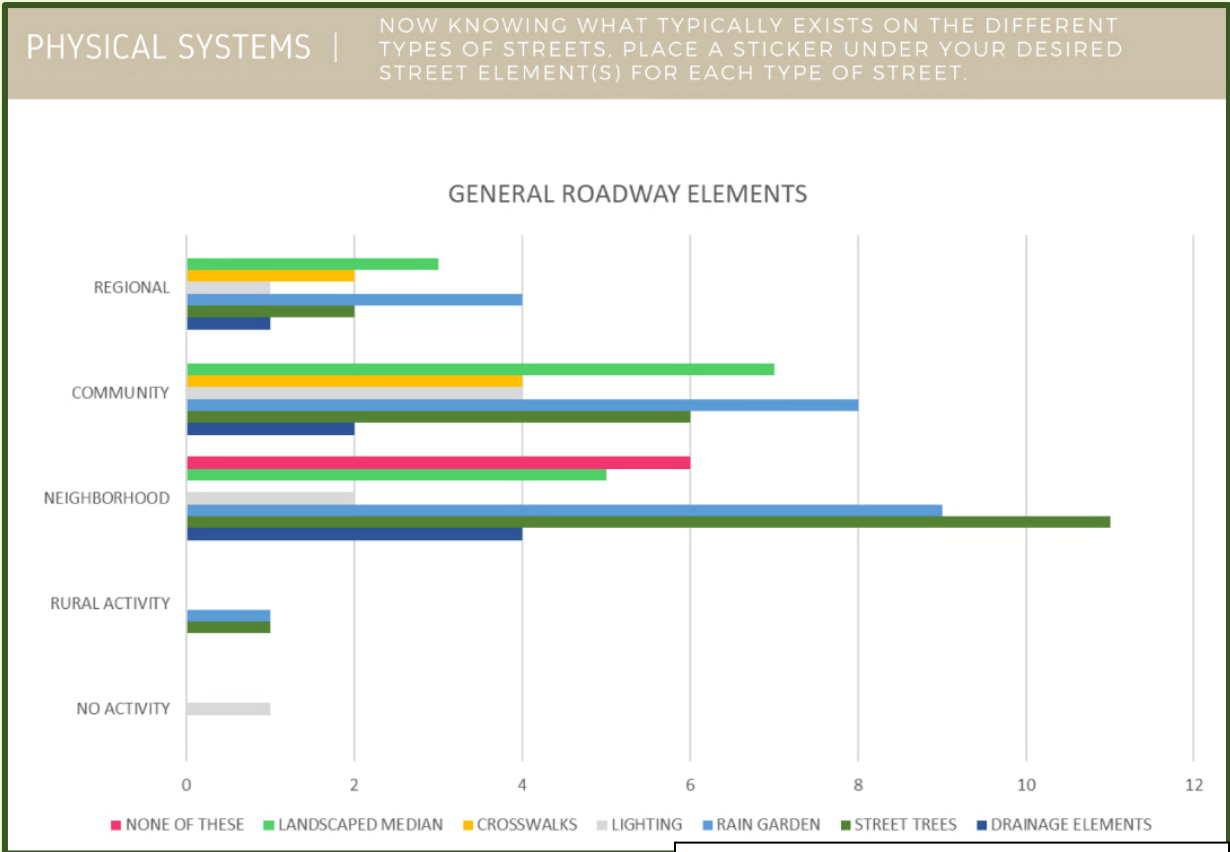


Image 62: Future Land Use Workshop Graph 2

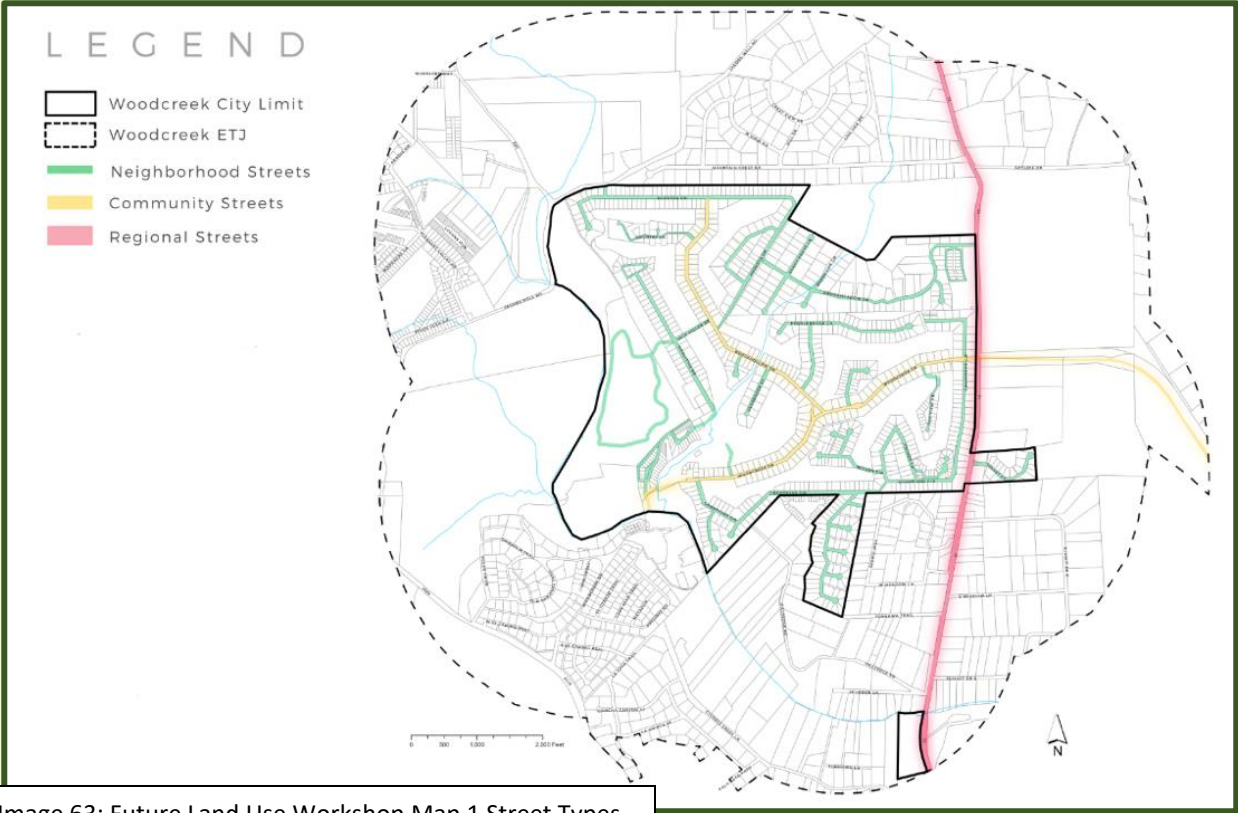


Image 63: Future Land Use Workshop Map 1 Street Types



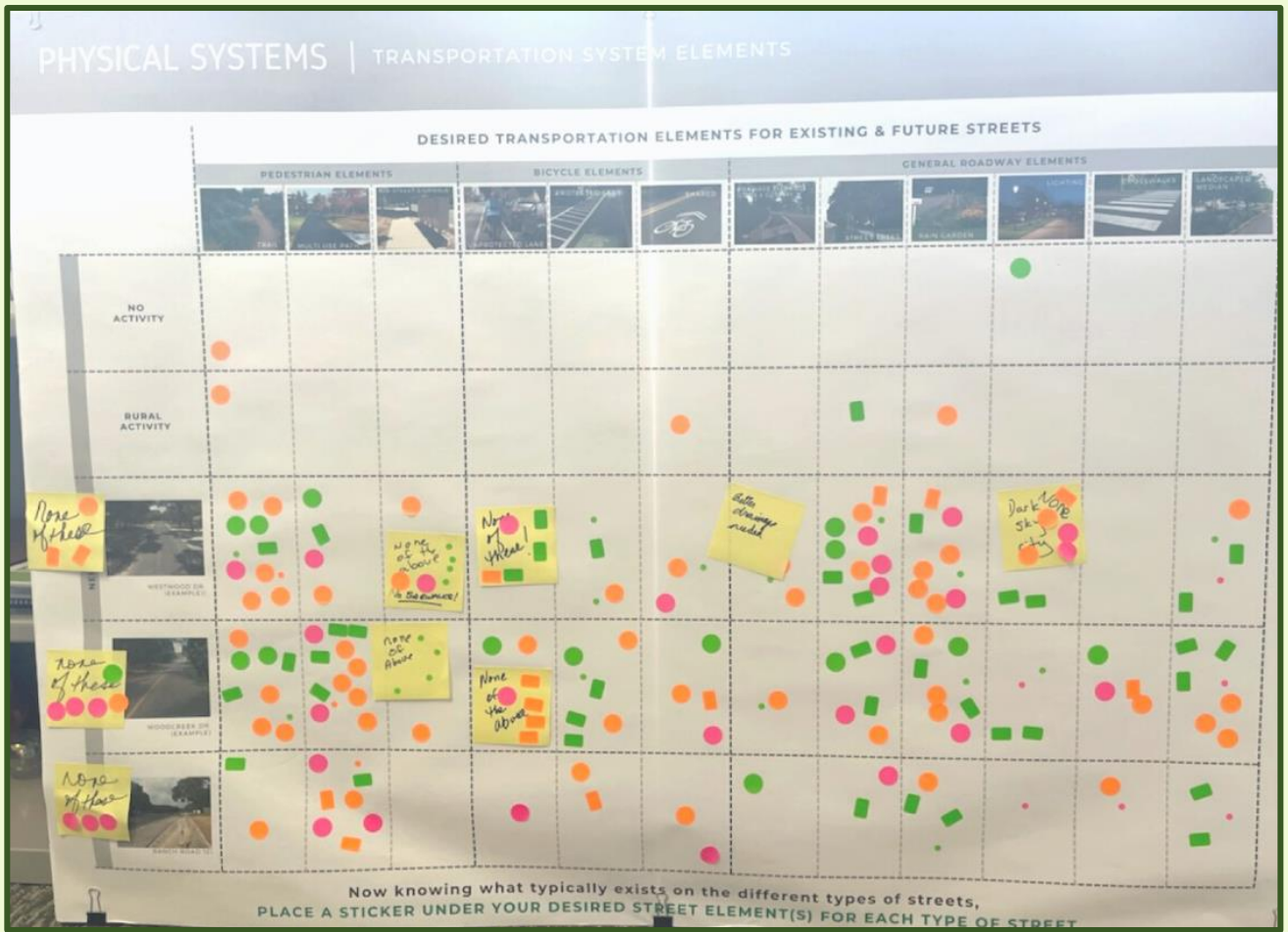


Image 64: Future Land Use Workshop Citizen Input for Graph 2 & Map 1 (Above)

**Strategy Three: Create walking trails to address pedestrian safety.**

**Action Plan:**

- Seek alternative funding through grants
- Work with the County on existing trails projects
- Obtain engineering studies to work on the placement of trails within the community
- Utilize citizen feedback to create a plan and prioritize routes for mobility improvements
- Create a timeline for execution of the plan and funding

### What mobility improvements would you like to see the City address?

*\*Overall score shown (7 points for Rank 1, 6 points for Rank 2, etc.)*

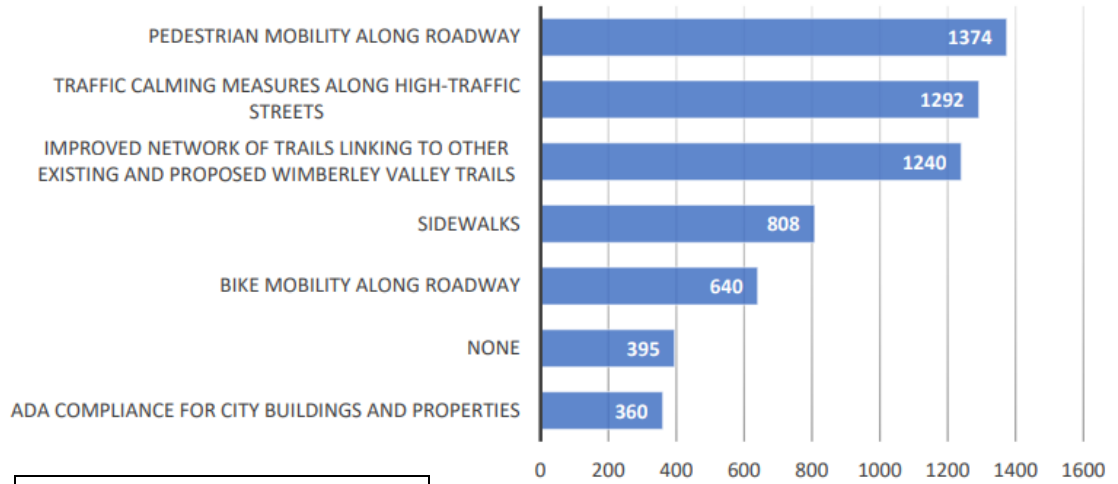


Image 65: Citizen Survey Graph 7

#### PHYSICAL SYSTEMS |

IF YOU COULD WALK OR BIKE ANYWHERE IN WOODCREEK, WHERE WOULD YOU WALK OR BIKE TO? (FOR SAFETY ISSUES, DO NOT WALK/BIKE ACROSS THE GOLF COURSE!)

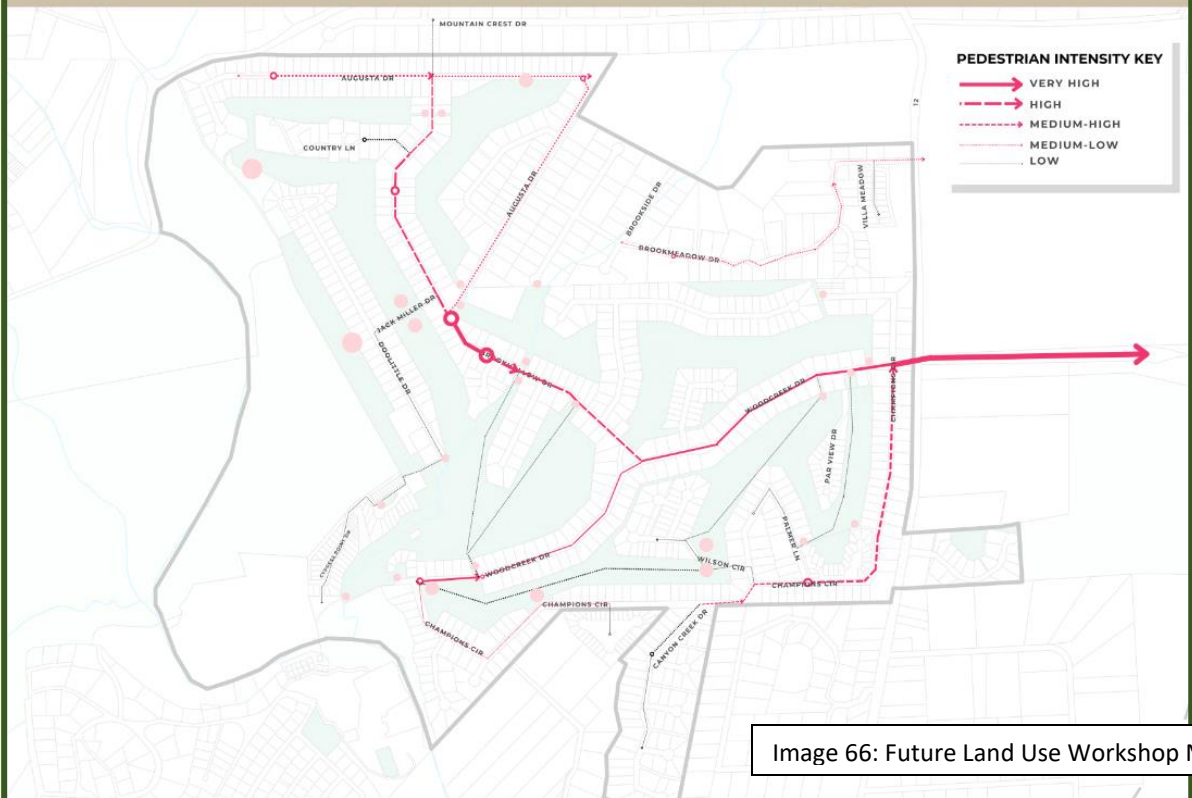


Image 66: Future Land Use Workshop Map 2

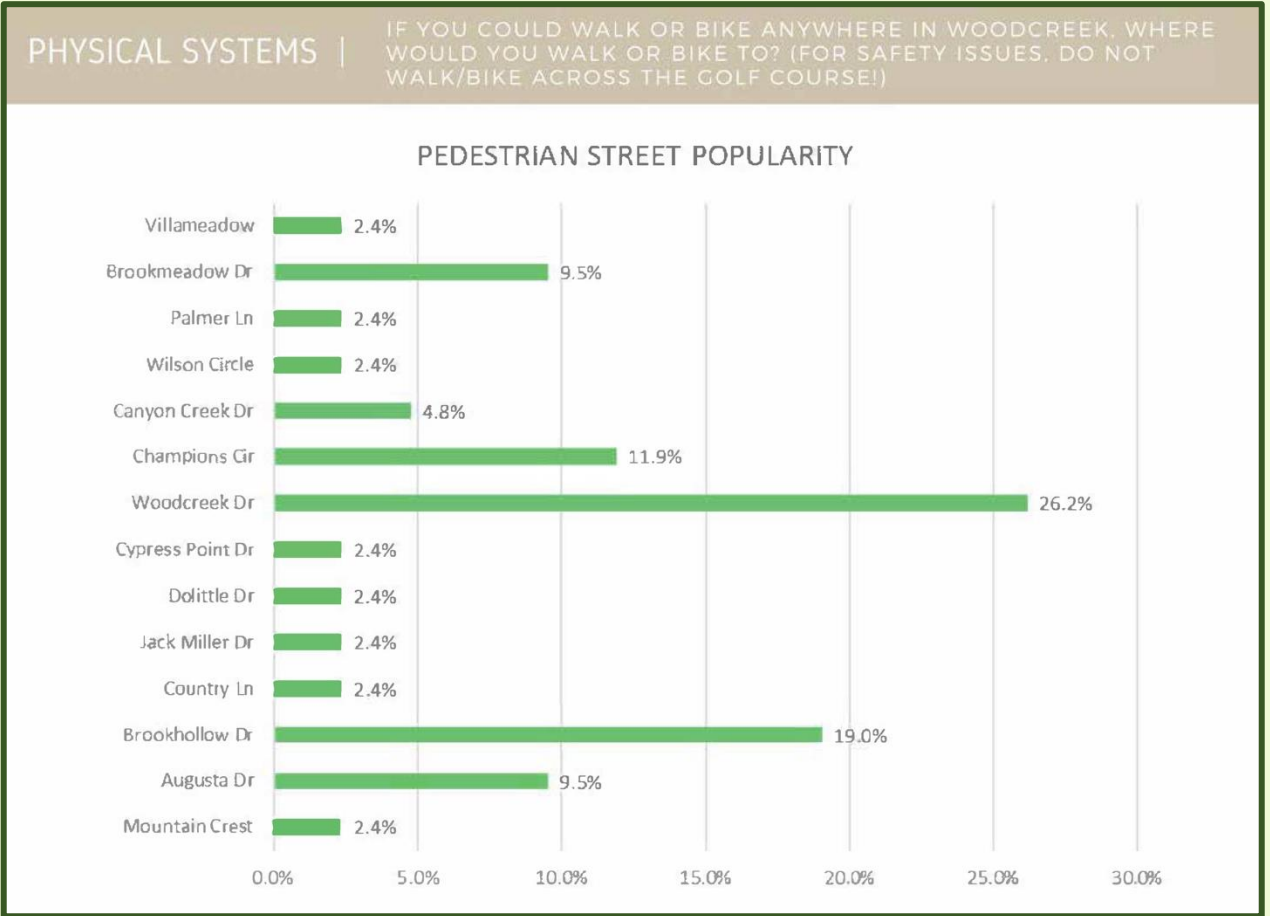


Image 67: Future Land Use Graph 4

Vision for Woodcreek

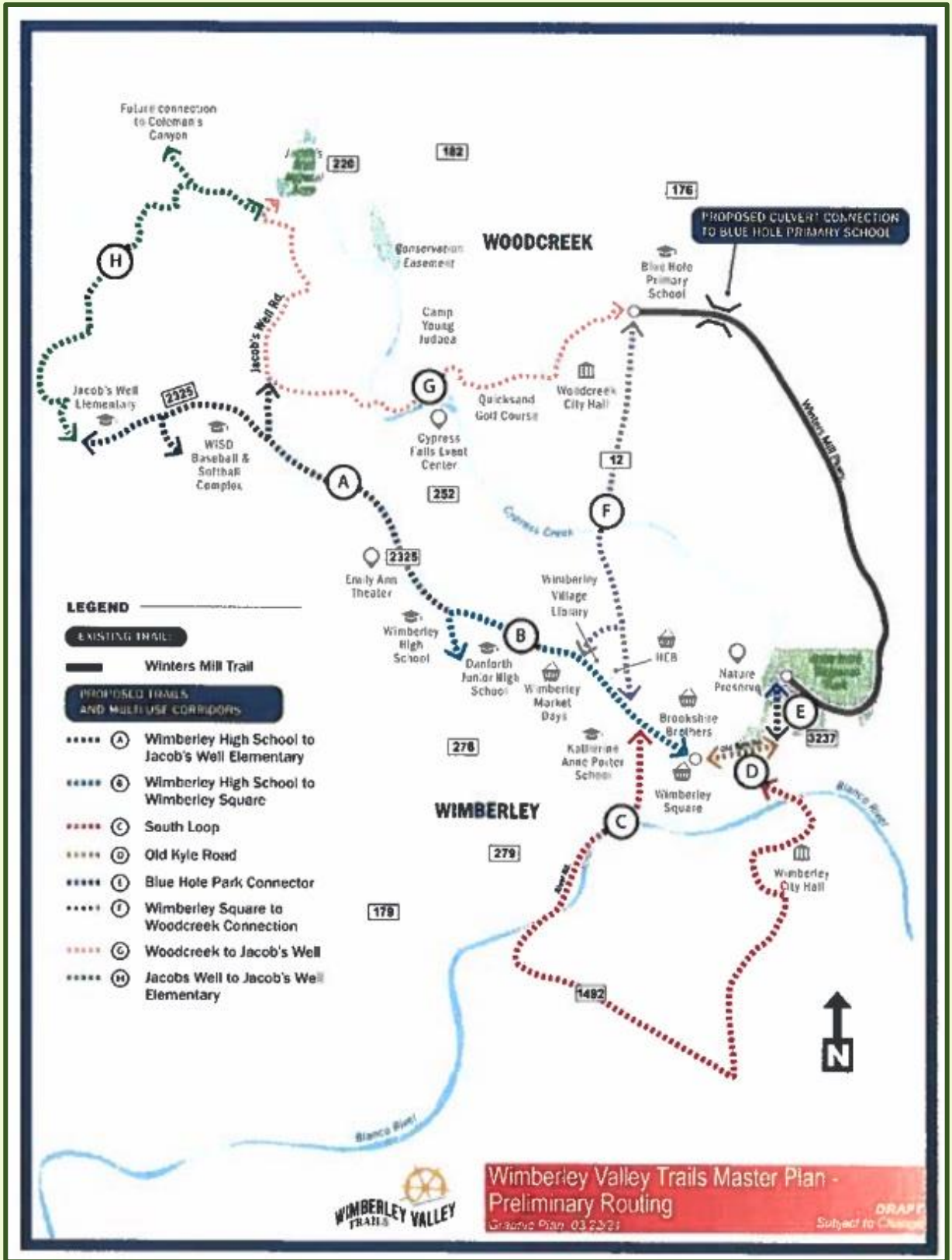


Image 68: Wimberley Valley Trails Project Preliminary Map

**GOAL:** Reduce the burden on taxpayers and over reliance on increasing ad valorem taxes to fund City projects.

***Strategy One: Maintain suitable reserves and manage the annual budget to reduce excess spending.***

**Action Plan:**

- Decrease annual spending in the “Maintenance and Operation” portion of the budget to provide funds from ad valorem income for desired projects rather than drawing from reserves.
- Do not spend over \$500,000 of the Net Reserves and maintain no less than two months operating expenses set aside from the Committed Funds Balance in the General Fund.
- Utilize existing reserves, no more than half of the general fund reserves in any single year, to fund small projects rather than seeking more debt whenever possible.

***Strategy Two: Increase income outside of ad valorem taxes.***

**Action Plan:**

- Promote and support local business
- Use Woodcreek as the city designation for online purchases
- Reconsider increasing the Hotel Occupancy Tax from 0 to create additional income for the city.



### Strategy Three: Seek advantageous development and franchise agreements.

#### Action Plan:

- Pursue advantageous annexation agreements for any new development in the ETJ seeking businesses and residencies that represent smart growth and economic muscle.
- Consider the creation of an Economic Development Plan and Committee to oversee these action items and create a policy to ensure the City can sustain itself.

### HOW MUCH AD VALOREM REVENUE DOES EACH DEVELOPMENT TYPE GENERATE PER ACRE?

Amounts represent revenue for the City of Woodcreek only.  
Amounts in italics represent estimates.



Image 69: Development Revenue Chart 1



# HOW MUCH AD VALOREM REVENUE DOES EACH DEVELOPMENT TYPE GENERATE PER ACRE?

Amounts represent revenue for the City of Woodcreek only.  
Amounts in italics represent estimates.

**LOCAL RETAIL**



Ad Valorem/Acre: **\$2,435**

**LOCAL OFFICE**



Ad Valorem/Acre: **\$2,123**

**BOUTIQUE HOTEL**



Ad Valorem/Acre: **\$5,663**

**MEDICAL OFFICES**



Ad Valorem/Acre: **\$2,549**

**RV PARK**



Ad Valorem/Acre: **\$690**

**CABINS**



Ad Valorem/Acre: **\$1,398**

**MICRO-BREWERY**



Ad Valorem/Acre: **\$481**

**WINERY**



Ad Valorem/Acre: **\$9**

**CHURCH**



Ad Valorem/Acre: **\$0**

Image 70: Development Revenue Chart 2

## HOW MUCH AD VALOREM REVENUE DOES EACH DEVELOPMENT TYPE GENERATE PER ACRE?

Amounts represent revenue for the City of Woodcreek only.  
Amounts in italics represent estimates.



Image 71: Development Revenue Chart 3

### ***Strategy Four: Pursue alternative and outside funding.***

#### **Action Plan:**

- Seek grants to fund desired projects rather than debt or the use of reserves.
- Encourage the Parks Board to pursue the formation of a citizen-based non-profit organization 501(c)(3) to raise funds for parks projects and walking trails.

# Land Use

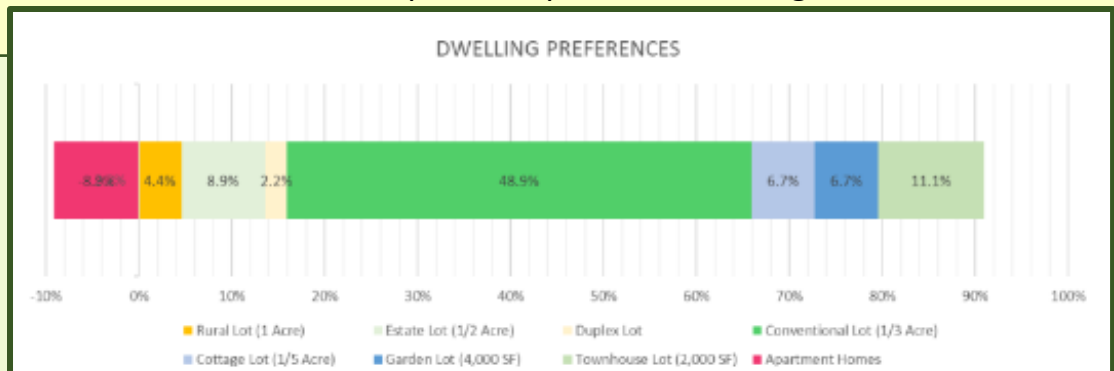
Item 5.

**GOAL: Maintain Woodcreek’s character and promote sustainable resource management.**

**Strategy One: Preserve the rural and residential character of the community.**

**Action Plan:**

- Review and update building and development ordinances.
- Update the subdivision and platting requirements to make them stricter and create more division of steps in the process including an environmental study.



Shows Preference for Conventional 1/3 Acre Lots

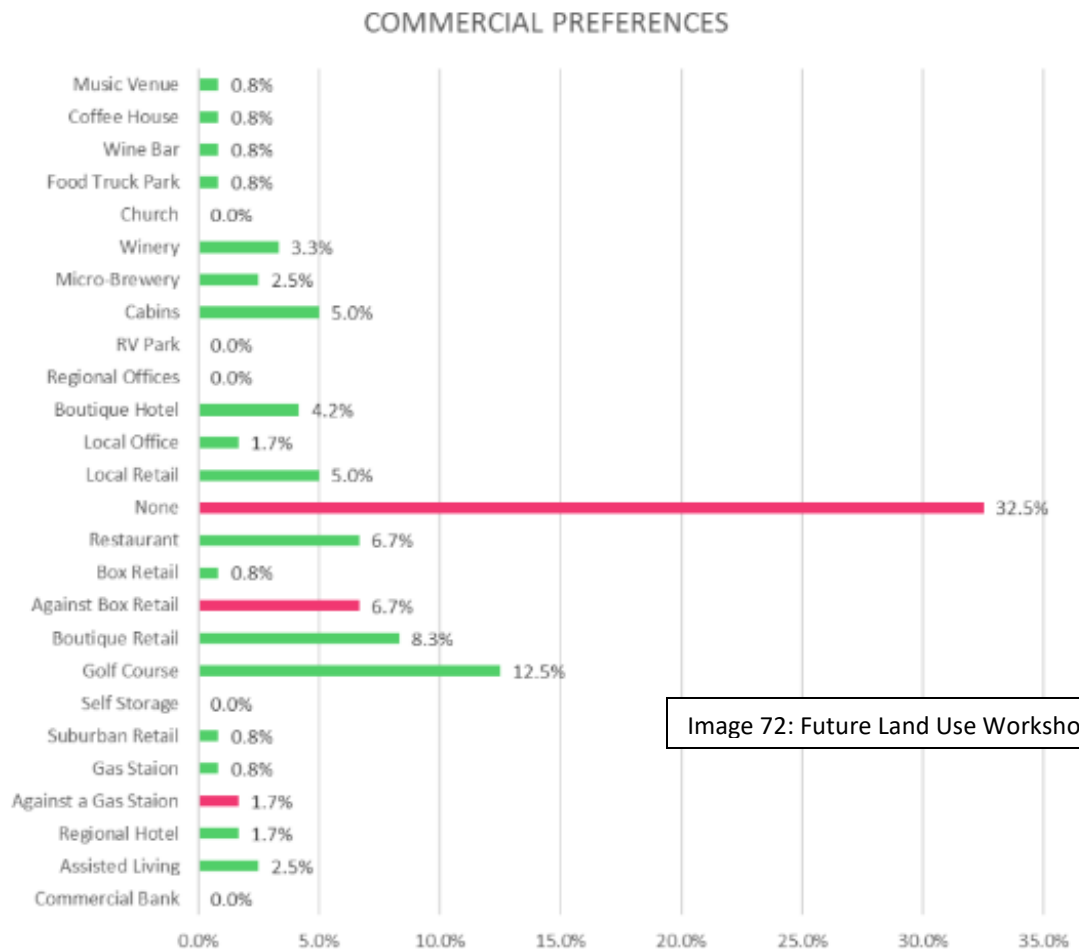


Image 72: Future Land Use Workshop Graph 5



## Strategy Two: Protect the watershed.

### Action Plan:

- Limit impervious coverage
- Encourage sustainable building practice
- Promote water-wise landscaping practices
- Create protections in the Jacob’s Well and Middle Trinity aquifer zones to limit development and minimize impervious coverage
- Utilize steep slopes and water quality management code to regulate development in the ETJ with the goal of managing impervious coverage and maintaining natural landscapes that work to reduce erosion and lessen the impacts of flooding.
- Encourage developers to utilize conservation style development in the ETJ and uphold parkland and greenspace regulations
- Enforce Heritage and Protected Tree preservation efforts

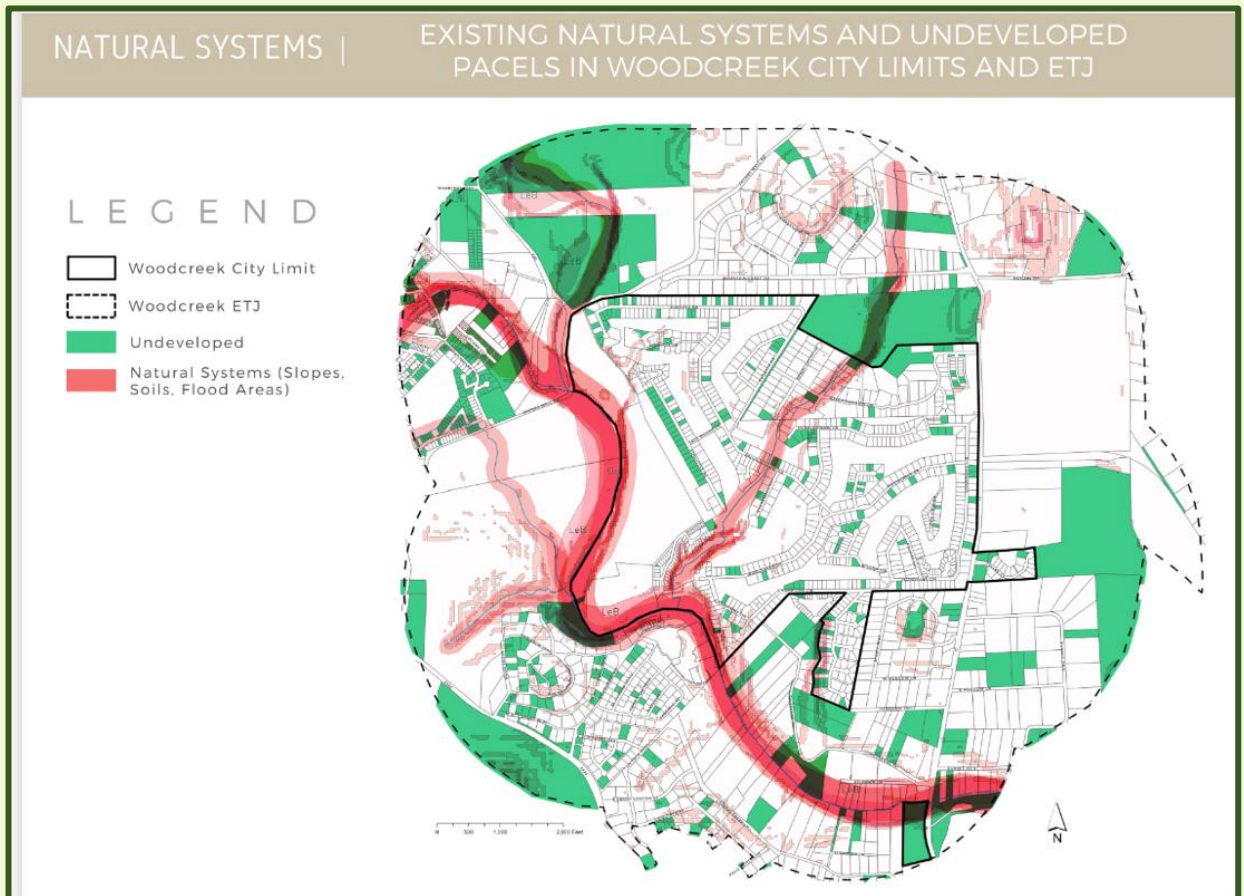


Image 73: Future Land Use Workshop Map 3

**Strategy Three: Seek to encourage development that aligns with resident preferences.**

**Action Plan:**

- Look for commercial opportunities that align with resident interests
- Do not duplicate the resources available in Wimberley
- Enforce minimal impact for resources such as water and encourage builders to utilize “one water” design principles
- Seek business that brings economic muscle: things that bring new money into the community rather than recirculating existing money or ones that take it away

NATURAL SYSTEMS |

IF ANY, WHAT TYPE OF DEVELOPMENT WOULD YOU LIKE TO SEE ON THE PARCELS THAT ARE UNDEVELOPED?

COMMUNITY LIKES

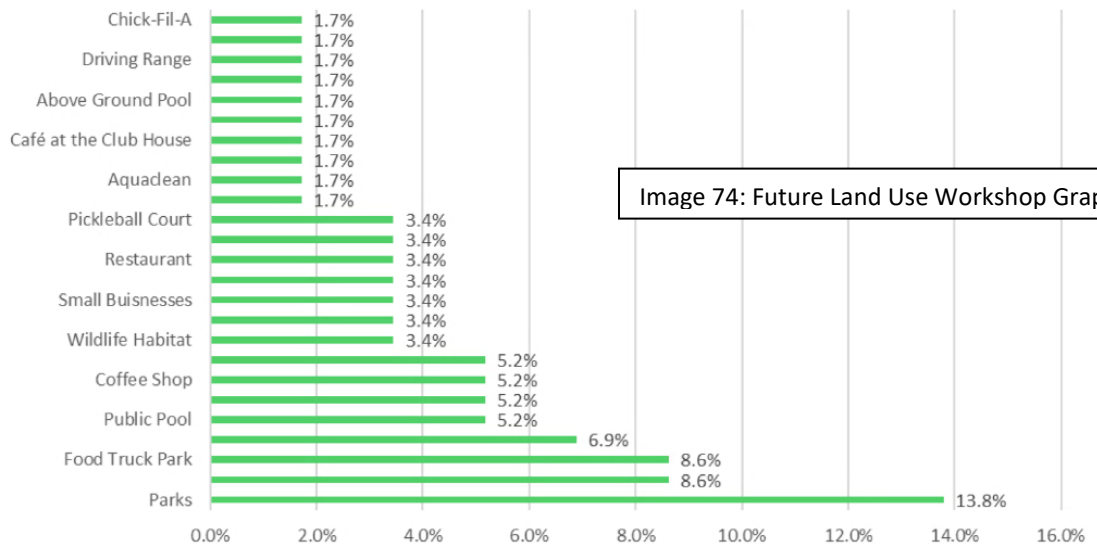


Image 74: Future Land Use Workshop Graph 6

**If the City pursues commercial development within the city limits on the few remaining lots or within the outer ETJ limits, what (if any) of these would you like to see?**

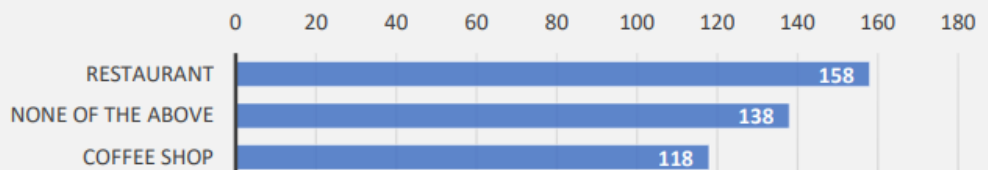
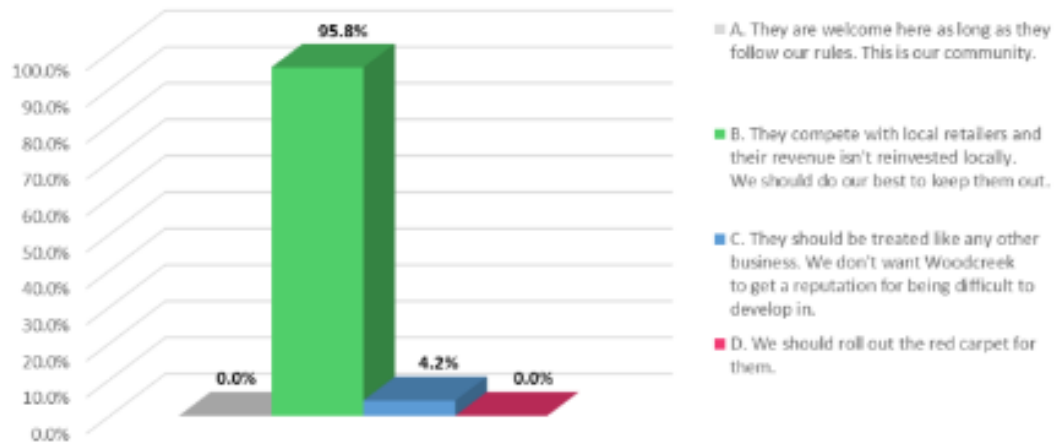
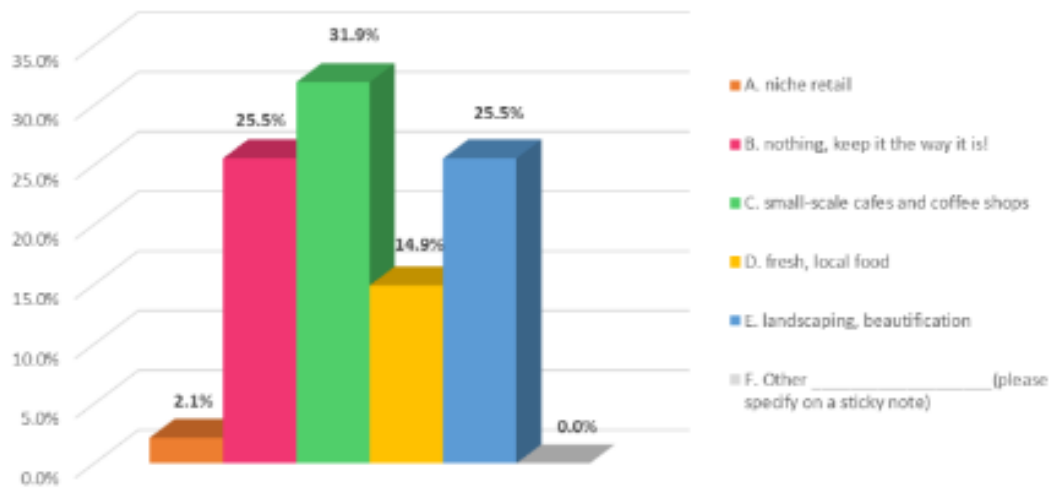


Image 75: Citizen Survey Graph 8

MY SENTIMENTS TOWARDS NATIONAL BRAND RETAILERS ARE THAT...



ALONG RANCH ROAD 12, I WOULD LIKE TO SEE...



MY BIGGEST CONCERN WITH NEW RESIDENTIAL DEVELOPMENT IN THE UNDEVELOPED AREAS SURROUNDING WOODCREEK IS...

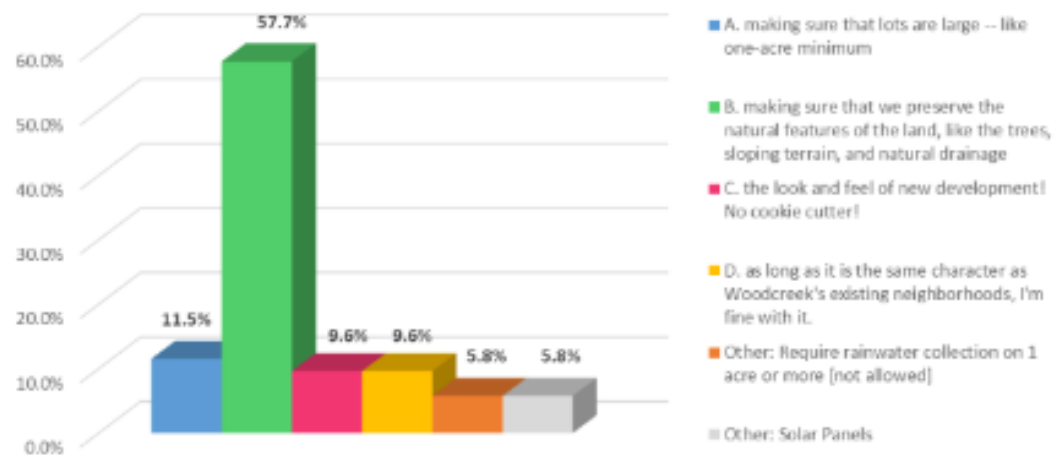


Image 76: Future Land Use Workshop Graph 7



## LAND USE TYPES: CLASSIFICATION AND TERMINOLOGY

SCALE/ LU CLASS	POSSIBLE ZONING	ACTIVITY	PRIMARY STREET FRONTAGE CLASS (Street Classification that the Majority of the Lot/Tract Abuts)			
			RURAL	NEIGHBORHOOD	COMMUNITY	REGIONAL
NATURAL (no activity)	NWP, GB, P-1	Floodplains				
		Nature Preserves				
		Parks (unimproved)				
		Rivers				
		Wetlands				
		Wildlife Habitats				
RURAL	RR, P-1, R, CR	Agriculture				
		RV Park				
		Rural SF (>1 Ac.)				
		Outdoor Venue/Camp				
		Retreat - (Lodges/Cabins)				
NEIGHBORHOOD	SF 1-6	Estate (1/2 Ac.)				
		Conventional (1/3 Ac.)				
		Bungalow (1/5 Ac.)				
		Garden (1/10 Ac.)				
		Townhome				
	??	Manufactured Home				
	DU-1	Twin House (duplex/semi-detached)				
NO	Neighborhood Office (>2,500 sf)					
NC	Neighborhood Commercial (>2,500 sf)					
COMMUNITY	MF 1	Apartment				
	G	Private School				
	4PLX	Big-House (quad-plex)				
	MF 2	Apartment				
	G	Church				
	G	Government				
	R, PI, GB	City Park				
	G, U	Utility Services				
	MH 1	Manufactured Home Park				
	NC	Service & Repair (non-vehicular)				
	NC	Community Retail**/Restaurant***				
	NO	Medical/Professional Offices				
NO	Medical Clinic					
REGIONAL	CR, R	Outdoor Entertainment & Recreation				
	CRR12	Gas Station				
	CRR12, G	University				
	TH/C, DU 1, 4PLX, MF 1, MF 2	Assisted-Living				
	CRR12	Vertical Mixed Use				
	CR	Indoor Entertainment & Recreation				
	CRR12	Service & Repair (vehicular)				
	CRR12, HCC	Hotel				
	NO	Bank				
	CRR12	Grocery/Market				
	CRR12	Strip Center				
	CRR12	Large Format Retail				

Images 77: Future Land Types

LAND USE | FUTURE

WOODCREEK FUTURE LAND USE MAP

LEGEND

- Woodcreek City Limit
- Woodcreek ETJ
- Conservation
- Rural
- Neighborhood
- Community
- Regional

**NOTE:** "A comprehensive plan shall not constitute zoning regulations or establish zoning district boundaries."

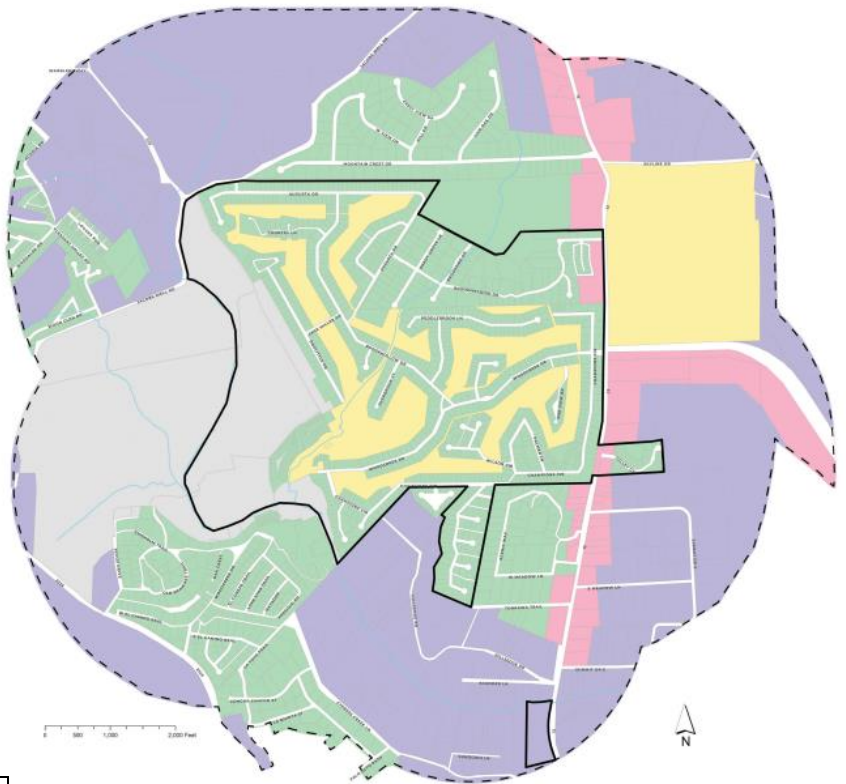


Image 78: Future Land Use Map

PHYSICAL SYSTEMS | STREETS

WOODCREEK MASTER THOROUGHFARE PLAN: STREET CLASSIFICATION

LEGEND

- Woodcreek City Limit
- Woodcreek ETJ
- Rural Streets
- Neighborhood Streets
- Community Streets
- Regional Streets

**NOTE:** For Woodcreek Drive and Brookhollow the use of the streets themselves remains under the "community" designation. However, the use of land surrounding these streets is to remain consistent with the designation of a "neighborhood" land use.



Image 79: Future Land Use Road Map

## *Plan Roots*

- Public engagement
- Reflects the priorities of Woodcreek residents
- Outlines expectations for action from city officials and staff to address these priorities
- Important for leaders to recognize that by implementing this plan, they will be serving their community and putting resources into projects identified as most needed by residents.

## *Continual Review*

- Important to recognize that this plan is intended to be reviewed and revised on a regular basis.
- Woodcreek and the greater Wimberley Valley are growing rapidly.
- Growth will lead to unforeseen challenges and opportunities that require a response.
- Plan provides direction and clear guidelines for how to navigate this anticipated development.
- New unanticipated issues will arise and city leadership will need to turn to this plan for reference and guidance as they navigate each situation.
- Plan serves as a set of benchmarks for city leadership to aid in their planning and decision making.

## *Framework for Decision Making*

- Based on extensive public engagement
- A direct reflection of the residents
  - their demographics
  - their wish lists
  - their demands
  - their needs
  - their priorities
- Key to successful implementation is to keep the plan in front of decision makers
- Decision makers must recognize it as a resource to guide their decisions, basing them on the priorities identified in the plan.
- When adjustments need to be made, or new priorities arise, they can be incorporated into the plan.
- The plan is a resource that serves to promote action and responsiveness from city leadership and ensures that the community collective vision for the City of Woodcreek is upheld.

## *Planning for the Future*

- The Comprehensive Plan shall need to be updated every four to six years.
- This will allow the community to address changes in demographics and any future needs that may arise.
- This document is not meant to be static or sit on a shelf. It is to be referenced often and updated at regular, planned intervals.
- By doing this, our community leaders are setting Woodcreek up with a foundation for success and ensuring the community thrives as a desirable place to live, work and play; a place where the local government listens to and works for its citizens.

## *Implementation of Comprehensive Plan*

**Phase 1:** Finalize the Comprehensive Plan, present to the Planning and Zoning Commission for their review, and finally present to City Council for their review and approval.

**Phase 2:** Implement the strategies outlined under each focus group goal and fund identified projects.

**Phase 3:** Review of the Comprehensive Plan every two years by the Planning and Zoning Commission to assess the achievement of or progress towards each goal, effectiveness of strategies utilized, and to conduct an update of the citizen survey as needed. Survey updates should happen every 4 to 6 years.

**Phase 4:** Identify and reassess goals that are not being achieved or lag and adjust strategies and action plans accordingly. Additionally, on survey years, identify new goals outlined in the surveys and update the plan to address changes in the needs of the community as well as demographics.

**Phase 5:** Repeat Phases 3 and 4 every two years.



*Woodcreek and the Wimberley Valley*

The City of Woodcreek is part of the Wimberley Valley, sharing this area surrounding the Blanco River and Cypress Creek with Wimberley and large unincorporated areas. As a predominantly residential City, Woodcreek depends on others in the Valley for public and private services: schools, medical, law enforcement, fire protection, library, entertainment, groceries, and other retail. Woodcreek residents share the challenges of growth and the impact of this growth on natural resources, primarily water supply, with all residents of the Valley. Traffic issues, overcrowding, expansions of schools, new recreational spaces, and other shared issues will be best addressed through Valley-wide efforts.

Protecting the Valley and its cherished beauty requires cooperation and information sharing among Woodcreek and Wimberley along with Hays County. When planning the future of Woodcreek, we must explore opportunities for sharing resources and services across entities. Promoting and supporting connection and community through projects like the Hays County Trails or those pending with Parks and Open Space Advisory Commission (POSAC) is important for the Woodcreek community and that of the whole Valley. The city must recognize the importance of planning as the decisions of Woodcreek impact the entire Valley. The City shall work to create liaisons with the County and Wimberley to promote this endeavor.

## *Key Action Items*

- Preserve the rural setting of Woodcreek by protecting trees and investing in parkland and greenspace.
- Repair roads and create a regular maintenance plan.
- Address pedestrian safety and create walking trails.
- Reduce the burden on taxpayers through an overreliance on increasing ad valorem income to fund projects.
- Improve and strengthen development regulations in order to reduce impact on the aquifer and maintain Woodcreek's character.

## Glossary

- **Ad Valorem:** Property taxes generated through a city's tax rate that are used for the maintenance and operation of a city in addition to debt service or they can be held in reserves.
- **Annexation:** the act of bring an area of land or collection of properties under the jurisdiction of a governing body. In this case, it refers to bringing land into the city limits for the purposes of taxation and to apply the City's code of ordinances. See Chapter 43 of the State of Texas Local Government Code for regulations.
- **Community Streets:** may have some commercial business mixed with residential lots, have higher volumes of traffic and may be used by non-residents to move through the area without stopping.
- **Economic development:** creation of wealth from which a community benefits and can include programs or policies that improve the economic well-being, quality of life, and financial stability of a community.
- **Economic muscle:** refers to the monetary benefits an organization brings to the community. Typically, a business that sells goods or services to non-community members and the funds remain the community has more "economic muscle" than those that send funds outside the community or only bring in business from the community itself.
- **ETJ:** Extraterritorial Jurisdiction is the area directly outside the City limits for which the City can enforce limited regulations. Property owners in this area can seek annexation into the City. This size of the ETJ is dependent upon the size of the City. Woodcreek's ETJ extends one half mile in all directions from the city limit boundaries.
- **Neighborhood Streets:** small, rural streets that only have residential lots and very low traffic
- **Regional Streets:** Connect the community with other communities and regions.
- **Rights-of-way:** these are typically streets but are any publicly used area of land utilized or meant for transportation which includes that of motor vehicles, pedestrians, bicycles, and other forms.
- **Riparian:** Transitional zones that occur along aquatic environments, such as rivers and creeks, that bridge the upper dried land with lower wetlands directly adjacent to the water.
- **Steep slopes:** site slanting by more than 25%. Preserving this type of landscape is beneficial to water quality.

## Image Credits

- *Cover Image: City of Woodcreek Main Entrance (Credit: Ray Don Tilley)*
- *Image 1: Woodcreek Golf Course (Credit: Steve Hysinger Wimberley Homes and Land)*
- *Image 2: Woodcreek Main Entrance Sign (Credit: Hill Country Portal)*
- *Image 3: City Seal (Credit: City of Woodcreek)*
- *Image 4: Unofficial Logo (Credit: Hill Country Portal)*
- *Image 5: Future Land Use Workshop (Credit: Debra Hines)*
- *Image 6: City of Woodcreek Lot Lines and Zoning Map 2019 (Credit: City of Woodcreek)*
- *Image 7: Road Map of Texas (Credit: Shutterstock royalty free images 537205852)*
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- *Image 15: Cypress Creek Watershed (Credit: Cypress Creek Watershed Protection Project)*
- *Image 16: Jacob's Well Groundwater Management Zone (Credit: Wimberley Valley Watershed Association)*
- *Image 17: Karst and Artesian Well Land Features (Credit: Cypress Creek Watershed Protection Project)*
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