



Town of Double Oak  
Town Council –Public Meeting

Double Oak Town Hall  
320 Waketon Road, Double Oak  
TX 75077  
Monday, February 6, 2023  
7:00 p.m.

*OUT OF RESPECT FOR ALL THOSE IN ATTENDANCE, PLEASE REFRAIN FROM TALKING TO OTHER MEMBERS OF THE AUDIENCE DURING THE MEETING AND SILANCE CELL PHONES.*

- I. Opening:** Call to Order  
Roll Call  
Invocation  
Pledge of Allegiance – American Flag  
Pledge of Allegiance – Texas Flag

*“Honor the Texas flag; I pledge allegiance to thee, Texas, one state under God, one and indivisible.”*

**Remembrance of Double Oak Police Officers John Mestas and Lonnie Sneed**

**John Mestas End of Watch – February 7, 2022**  
**Lonnie Sneed End of Watch – February 15, 2022**

- II. Citizen Comments-Non-Agenda Subjects**
- III. Consent Agenda** - All consent agenda items listed are considered to be routine by the Town Council and will be enacted by one motion. There will be no separate discussion of these items unless a Council Member so requests, in which event the item will be removed from the Consent Agenda and considered in its normal sequence on the agenda. Information concerning consent agenda items is available for public review.
1. Consideration, and action on minutes of January 17, 2023. \*
  2. Consideration, and action on Lantana invoice for the DOPD awards banquet. \*
- IV. Mayor, Council Members and Staff reports:**
3. Mayor and Council
  4. Public Works - Code Enforcement – Animal Control
  5. Administration
  6. Public Safety
  7. Road and Drainage Committee
- V. New business agenda (consideration and action):**
8. Receive an update on Braum’s Development.

Presentation: Helen Pacione, Braum’s Director of Real Estate

9. Discussion, consideration, and action on a resolution establishing fund balance policies.  
Presentation: Town Treasurer Billie Garrett
10. Discussion, consideration, and action on the fiscal year 2021-2022 audit report.  
Presentation: Town Auditor Carl Deaton
11. Discussion, consideration, and action on an ordinance of the Town Council of the Town of Double Oak, Texas, ordering a General Election to be held on May 6, 2023, for the purpose of electing a Mayor and two (2) Council Members at large; providing for the publication and posting of notices; providing for early voting; providing for the appointment of elections administrators and judges; providing a severability clause; and providing an effective date.  
Presentation: Town Secretary Eileen Kennedy
12. Discussion, consideration, and action on an Inter-Local Agreement between Denton County and the Town of Double Oak Police and Volunteer Fire Departments for the use of the Denton County Radio Communications systems.  
Presentation: Town Secretary Eileen Kennedy
13. Discussion, consideration, and action on a maturing certificate of deposit.  
Presentation: Town Treasurer Billie Garrett
14. Receive an update on the Waketon Road Reconstruction project.  
Presentation: Public Services Randall Anglin  
Town Engineer Steve Templer
15. Discussion, consideration, and action on a presentation, overview, and funding for a Town comprehensive drainage study.  
Presentation: Public Services Randall Anglin  
Town Engineer Steve Templer
16. Discussion, consideration, and action on fiscal year 2022-2023 Mill and Overlay Project and authorize Town Engineer to proceed with the bid process.  
Presentation: Public Services Randall Anglin  
Town Engineer Steve Templer

**VI. Old business agenda (consideration and action):**

15. Council – staff announcements and comments:

- Tim Henderson will celebrate his 1-year anniversary with Double Oak on February 15, 2023.
- Saturday, May 6, 2023, Municipal Election Day.

Seats up for election:

Mayor seat

Two Council seats

First day to file for a place on the ballot is January 18, 2023

Last day to file for a place on the ballot is February 17, 2023, by 5:00 p.m.

16. Adjournment

As authorized by Section 551.071 of the Texas Government Code, this meeting may be convened into closed Executive Session for the purpose of seeking confidential legal advice from the Town Attorney, or on any other item covered under the code, on any agenda item listed herein.

The Town of Double Oak reserves the right to reconvene, recess or realign the Regular Session or called Executive Session or order of business at any time prior to adjournment.

I certify that the above notice of meeting was posted by Friday, February 3, 2023, by 5:00 p.m. on:

1) Bulletin board located to the right of the front door at Town Hall, 320 Waketon Road, Double Oak, Texas

2) On the Town's website (<https://www.doubleoak.texas.gov>)

*Eileen Kennedy*

Town Secretary

**PUBLIC PARTICIPATION** If you wish to address the Council, please sign the "CITIZENS WHO WISH TO SPEAK TO THE TOWN COUNCIL" sheet before the meeting begins. Pursuant to Section 551.007 of the Texas Government Code, citizens wishing to address the Council for items listed as public hearings will be recognized when the public hearing is opened. For citizens wishing to speak on a non-public hearing item, they may either address the Council during the Citizen Comments portion of the meeting or when the item is considered by the Town Council.

This facility is wheelchair accessible and accessible parking spaces are available. Requests for accommodations or interpretive services must be made 48 hours prior to this meeting. Please contact the Town Secretary's office at 972.539.9464, fax 972.539.9613 or email to [eileen.kennedy@doubleoak.texas.gov](mailto:eileen.kennedy@doubleoak.texas.gov) for additional information.

\* Backup attached

**UNAPPROVED-NOT FOR  
PUBLICATION**

**STATE OF TEXAS  
COUNTY OF DENTON  
TOWN OF DOUBLE OAK**

The Double Oak Town Council met in regular session at 7:00 p.m. January 17, 2023, at the Double Oak Town Hall, located at 320 Waketon Road with the following members present to-wit:

Mike Donnelly	Mayor
Patrick Johnson	Mayor Pro-Tem
Connie Schoenrade	Deputy Mayor Pro-Tem
Scott Whisenhunt	Council Member
Casey Parsons	Council Member
Jean Hillyer	Council Member

Also in attendance were Town Secretary Eileen Kennedy, Police Chief Ruben Rivas, Town Engineer Steve Templer, and Town Treasurer Billie Garrett.

Mayor Donnelly called the meeting to order at 7:01 p.m.

Council Member Scott Whisenhunt gave the invocation and Mayor Pro-Tem Patrick Johnson led the pledge of allegiance to the American and Texas flags.

**II. Citizen Comments-Non-Agenda Subjects**

No one signed up to speak.

**III. Consent Agenda** - All consent agenda items listed are considered to be routine by the Town Council and will be enacted by one motion. There will be no separate discussion of these items unless a Council Member so requests, in which event the item will be removed from the Consent Agenda and considered in its normal sequence on the agenda. Information concerning consent agenda items is available for public review.

1. Consideration, and action on minutes of December 19, 2022.

Deputy Mayor Pro-Tem Schoenrade asked to capture citizen comments on item 7.

Motion Schoenrade, seconded Johnson to approve the minutes of December 19, 2022, as corrected.

AYE: Hillyer, Johnson, Schoenrade, Parsons, Whisenhunt  
NAY: None  
ABSTAIN: None

Motion Carried



**IV. Mayor, Council Members and Staff reports:**

2. Mayor and Council

Council Member Hillyer stated the minutes are too extensive and requested that the council meeting minutes follow our ordinance and Roberts Rule of Order or bring forth revisions to the current ordinance. Ms. Hillyer also requested that officials reports follow the ordinance and be submitted quarterly and not monthly to save time. Ms. Hillyer said the Technology Committee had met with Datamax for the quarterly review and discussed items that will be brought to council in the future, i.e. lease on current printer/copier. Ms. Hillyer mentioned a comment made by Mayor Pro Tem Patrick Johnson at the December 19, 2022 council meeting directed at Police Chief Rivas that was inappropriate, racial, and offensive and requested a formal apology from Mayor Pro Tem Johnson.

Council Member Casey Parson also was offended by the comment Mayor Pro Tem Johnson made and apologized for not speaking up at the December 19 meeting.

Council Member Scott Whisenhunt agreed with Ms. Hillyer regarding the minutes and comments made at the December 19 meeting.

Deputy Mayor Pro Tem Connie Schoenrade stated that minutes are the official records of council meetings and agreed they should be brief but accurate.

Mayor Pro Tem Patrick Johnson formally apologized to Police Chief Rivas for his comment made at the December 19 council meeting and would refrain from making further comments.

3. Public Works - Code Enforcement – Animal Control

Public Works-Waketon Road construction  
Code Enforcement-ongoing inspections  
Animal Control-none

4. Administration

Eileen Kennedy, Town Secretary, stated that Assistant Town Secretary Lynn Jones attended the Election Law Seminar in Denton on January 12-13<sup>th</sup> and brought back some good information. Candidate packets are ready to pick up. First day to file is January 18 and the last day is February the 17 at 5pm.

5. Public Safety

Fire Chief Whisenhunt stated that his quarterly report will be in the next agenda packet. Police Chief Rivas said the DOPD quarterly report is in the agenda packet and asked for questions. Deputy Mayor Pro Tem Schoenrade asked the difference between close patrol.

and vacation watch. Chief Rivas explained the close patrol is when officers patrol a residence that has had some police activity like a burglary or theft. Chief Rivas reported that Officer Housman is off training and patrolling on her own. We have 5 officers patrolling so traffic enforcement will pick up. Mayor Donnelly thanked Officer Scalco for his help with the water situation that flooded the lobby area at Town Hall.

6. Road and Drainage Committee

None

**V. New business agenda (consideration and action):**

7. Update on Braum's Development.

Mayor Donnelly announced that Helen Pacione, Braum's Director of Real Estate, was unable to attend but will be on a future agenda.

8. Discussion, consideration, and action on a presentation and overview of the Comprehensive Drainage Plan.

Gary Goodman, 131 Trailing Oaks, commented that the town has not had a drainage study in a long time and feels it is important and necessary that one is conducted.

Marian Crivello, 311 Cedarcrest Lane, asked that the council take into consideration the effects of drainage downstream.

Steve Templer, Town Engineer with Halff & Associates, introduced Scott Rushing, Drainage Engineer with Halff that will help with the Power Point presentation.

After much discussion and questions from the audience Hillyer motioned, seconded by Schoenrade to postpone any action on the Comprehensive Drainage Plan until additional information is received as requested.

AYE: Parsons, Hillyer, Johnson, Schoenrade, Whisenhunt

NAY: None

ABSTAIN: None

Motion Carried

9. Discussion, consideration, and action on the 2022-2023 Asphalt, Mill, and Overlay Bid Project.

Town Engineer Steve Templer asked council to give him the dollar amount or budget to work with for the mill and overlay project for 2022-2023 in order to get better bids from contractors. Mr. Templer has bid packets ready as soon as he receives a budget.

Motion Hillyer, seconded Schoenrade to postpone any action until the February 6, 2023, council meeting.

AYE: Johnson, Hillyer, Parsons, Whisenhunt, Schoenrade  
NAY: None  
ABSTAIN: None

Motion Carried

10. Discussion, consideration, and action on eCode 360 Premium.

Council Member Hillyer presented a Power Point of eCode 360.

Hillyer motioned, seconded Parsons to adopt the eCode 360 Premium as our platform of choice for our ordinances and other public documents.

AYE: Hillyer, Whisenhunt, Parsons, Schoenrade, Johnson  
NAY: None  
ABSTAIN: None

Motion Carried

11. Discussion, consideration, and action on extending Dell warranty with Datamax.

Council Member Hillyer explained that extending the warranty would be a better use of funds.

Motion Hillyer, seconded Parsons to extend the Dell warranty with Datamax for one year in the amount of \$1,798.53.

AYE: Hillyer, Johnson, Whisenhunt, Schoenrade, Parsons  
NAY: None  
ABSTAIN: None

Motion Carried

12. Discussion, consideration, and action on updating the assigned fund balances for fiscal year-end 2022.

Town Treasurer Billie Garrett passed out her recommendations on the fund balances. \*

Motion Hillyer, Parsons second to approve the assigned fund balances for fiscal year-end 2022 as presented and forward to the Town Auditor for the audit report.

AYE: Schoenrade, Hillyer, Parsons, Whisenhunt, Johnson  
NAY: None  
ABSTAIN: None

Motion Carried



13. Discussion, consideration, and action on 2022-2023 first quarter financial report.

Motion Schoenrade, Parsons second to accept the first quarter financial report as presented.

AYE: Parsons, Whisenhunt, Schoenrade, Johnson, Hillyer

NAY: None

ABSTAIN: None

Motion Carried

14. Discussion and consideration of developing a possible “Double Oak Citizens Refund Program” for the Cross Timbers Water Supply Backflow project.

Mayor Pro Tem Johnson displayed an idea of developing a program to help citizens with the state mandated backflow inspection.

Gary Garrett, 120 Trailing Oaks Dr., commented he did not believe the SLFRF funds is a good use of funds and excited to see roads as a use of the funds.

**VI. Old business agenda (consideration and action):**

15. Council – staff announcements and comments:

- Ruben Rivas celebrated his 17-year anniversary with Double Oak on January 6, 2023.
- Cassandra Gaines celebrated her 2-year anniversary with Double Oak on January 4, 2023.
- Lynn Jones will celebrate her 9-year anniversary with Double Oak on January 20, 2023.
- Saturday, May 6, 2023, Municipal Election Day.

Seats up for election:

Mayor seat

Two Council seats

First day to file for a place on the ballot is January 18, 2023

Last day to file for a place on the ballot is February 17, 2023, by 5:00 p.m.

16. Adjournment

With no further business to come before the Council, motion Whisenhunt, second Johnson, the meeting was adjourned at 10:15 p.m.

Approved:

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Mike Donnelly, Mayor

Attest:

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Eileen Kennedy, Town Secretary



	Current Balance	Proposed Change	New Balance
Town Contingency	100,000.00	50,000.00	150,000.00
Town 50th Anniversary Fund	-	10,000.00	10,000.00
Stormwater structures fund	100,000.00		100,000.00
Road Contingency	150,000.00		150,000.00
Denton County Bond Project Fund	120,000.00	70,000.00	190,000.00
Town Hall Technology Fund	40,000.00	60,000.00	100,000.00
TCEQ MS4 (5-year report) fund	20,000.00	5,000.00	25,000.00
Streets and Drainage Fund	450,000.00		450,000.00
Cross Timbers drainage project fund	20,000.00	(20,000.00)	-
Police vehicle fund	110,000.00		110,000.00
Police body cameras project fund	40,000.00	-	40,000.00
	<u>1,150,000.00</u>	<u>175,000.00</u>	<u>1,325,000.00</u>



# POTENTIAL: Double Oak Citizens Reimbursement Program for Cross Timbers Water Backflow Project

Presentation

By

Patrick Johnson-Mayor Pro-Tem

&

Connie Schoenrade Deputy Mayor Pro-Tem

Double Oak Town Council

1/17/2023

Double Oak Town Council

# Cross Timbers Backflow/Cross Connection



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

## A Consumer's Guide to Backflow Prevention in Texas

The Texas Commission on Environmental Quality requires all public water systems to maintain a cross-connection control program that protects the distribution system delivering drinking water to your home or business.

A cross-connection control program includes:

- An inspection of the customer's private plumbing to identify and prevent cross-connections and potential contamination, including contamination from high lead levels in the plumbing.
- Installation and testing of backflow-prevention assemblies, where required.
- Rules to prevent cross-connections and unacceptable plumbing practices—ordinances, regulations, service agreements, and a plumbing code.

Some public water systems may have more stringent requirements than the TCEQ. TCEQ regulations are the minimum requirement.

GI-411 (rev. 9/16)

### What is a cross-connection?

A physical connection between potable water and an actual or potential contamination hazard that could make the water unsafe to drink. Wherever there is a cross-connection, there is a potential threat to public health from contaminants.

### What is backflow?

Water flowing in the opposite of its intended direction, either from a loss of pressure in the supply lines or an increase in pressure on the customer's side. When the water backflows it can carry contaminants with it into the water lines.

### Common cross-connections:

- **Garden hose:** Backflow can occur at your home if you leave a garden hose turned on and submerged in a swimming pool, insert it into your car's radiator to flush out the antifreeze, or attach it to an insecticide sprayer. That material could siphon back into your potable water.
- **Private well:** Backflow can also occur from an untreated water supply, such as a private well, if the well plumbing is connected to the potable-water-supply plumbing. The untreated water could be pumped into the potable-water supply serving your home and into the public water system.
- **Lawn sprinkler system:** TCEQ regulations require that all lawn sprinkler systems be connected through a backflow-prevention assembly—without which, the stagnant water, and anything in it, from the sprinkler system could be drawn into the potable-water supply for your home.

### How can backflow be prevented?

Backflow into a potable-water system can be prevented by using a backflow-prevention assembly, or an air gap, which is a physical separation between the water supply and a potential source of pollution. Licensed professionals as well as your public water system are responsible for determining the type of backflow-prevention assembly required, based on the degree of hazard.

### Testing backflow-prevention assemblies

Because backflow-prevention assemblies are mechanical assemblies that can fail, the TCEQ requires testing of all backflow-prevention assemblies at installation by a TCEQ-licensed tester. Backflow-prevention assemblies installed to protect against any health hazard must be tested annually.

### How can I find out more information about backflow?

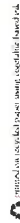
For more information about backflow and cross-connection control, visit [www.tceq.texas.gov/goto/cc](http://www.tceq.texas.gov/goto/cc).

[www.tceq.texas.gov/publications/gi/gi-411.html](http://www.tceq.texas.gov/publications/gi/gi-411.html)



**How is our customer service?**  
[tceq.texas.gov/customer/survey](http://tceq.texas.gov/customer/survey)

The TCEQ is an equal opportunity employer. The agency does not allow discrimination on the basis of race, color, religion, sex, national origin, age, or disability in recruitment, or retention of staff.



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# Cross Timbers Backflow/Cross Connection



## **BACKFLOW/CROSS-CONNECTION INSPECTION PROGRAM NOW IN PROGRESS**

- Cross Timbers Water Supply Corporation has established a Backflow/Cross Connection Inspection Program in 2022.
- Letters to Members are going out identifying when your inspection will take place.
- With this inspection, some of their Members will be required to replace a failed back-flow device with a new Reduced Pressure Zone (RPZ) back flow device.

# Cross Timbers Backflow/Cross Connection



## **BACKFLOW/CROSS-CONNECTION INSPECTION PROGRAM**

### **NOW IN PROGRESS**

- If you are a Member and are required to replace your failed back flow device, Cross Timbers Water Supply Corporation has secured volume pricing for an approved RPZ that you can purchase at our cost.
  - This is a Zurn Wilkins one-inch (1") RPZ model 375 and can be purchased for \$303.00.
- If you have any questions or wish to schedule a purchase, please contact the office at 940-584-0780.
- The two links on next slide give you Texas Commission on Environmental Quality (TCEQ) information about this program and tracking and reporting on this program.

# Cross Timbers Backflow/Cross Connection



## BACKFLOW/CROSS-CONNECTION INSPECTION PROGRAM NOW IN PROGRESS

- <https://www.tceq.texas.gov/downloads/publications/gi/backflow-prevention-gi-411.pdf>
- <https://www.sctrackingsolutions.com/info2/techplus.asp?process=1>



# Proposed Discussion Tonight



- Utilize SLFRF Funds to create a reimbursement type program for the citizens of Double Oak for some of these unplanned expenses
- Deputy Mayor Pro Tem Connie Schoenrade had email exchange with Town Attorney's on the use of these funds for this purpose.
- Town Attorneys response was as follows:
  - Double Oak can utilize SLFRF funds in this:
    - *The expenditure would be justified under the "water, sewer and broadband infrastructure" category and the "revenue loss" category.*

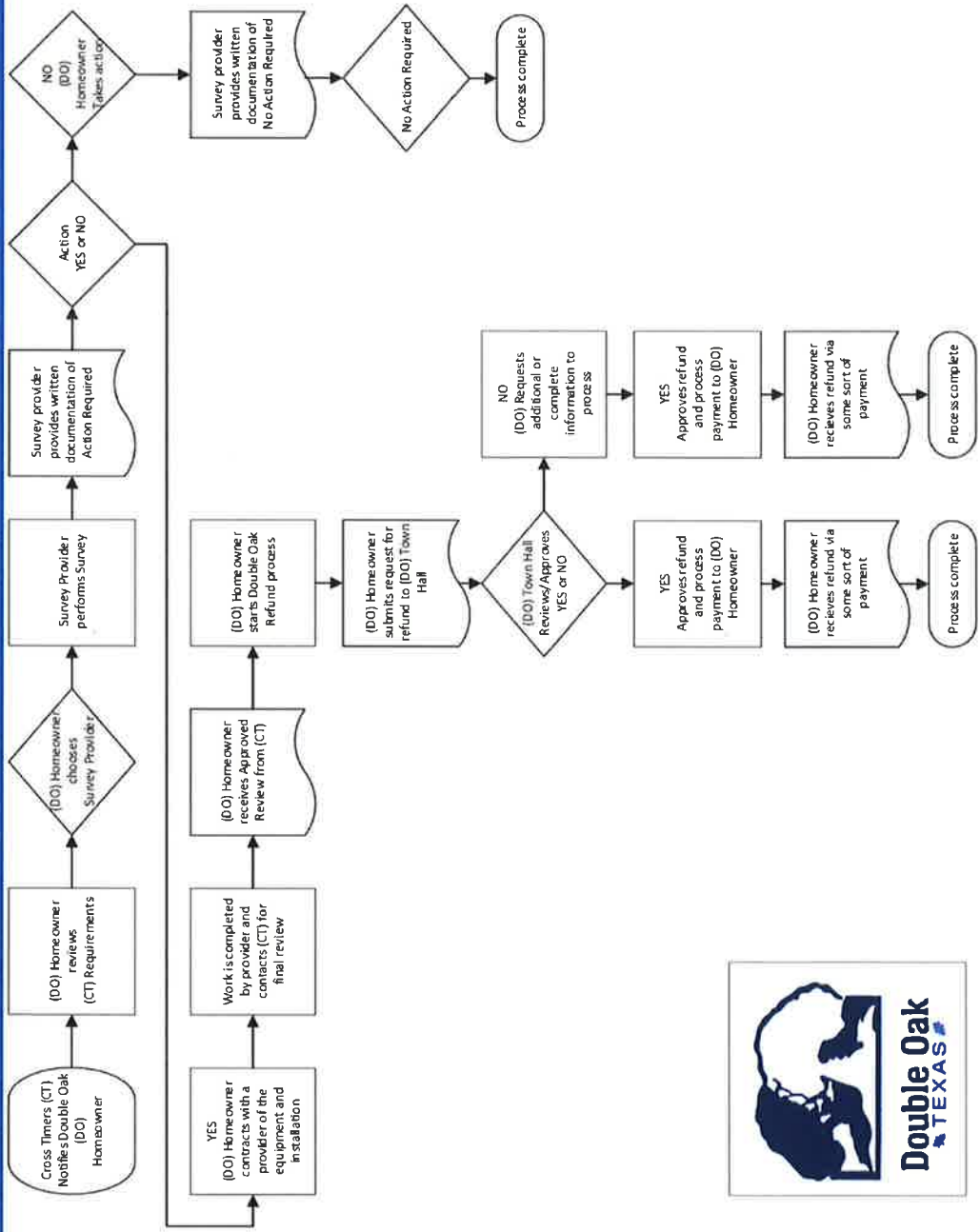
## Proposed Discussion Tonight



- Double Oak has **979** members of Cross Timbers Water Supply
- All **979** members/homes will require the first Inspection
- Some homes will be required to do nothing as their irrigation systems, septic systems and wells do not connect to Cross Timbers water
- Others will either be deemed in compliance or need to be replaced
- Annually the **979** members will need a paid for inspection to ensure they meet compliance
- Amount of refund is still yet to be determined and budgeted for with SLFRF funds.



# Potential Process Flow for Double Oak Citizens



# Town Council Next Steps



1. This evening's discussion and consideration of putting a Refund/Rebate Program together for the Double Oak Town Citizens?
  1. *If agreed upon to move forward create a documented process for how this program could work?*
  2. *Double Oak could work with Cross Timbers Water on most efficient way to administer program.*
  3. *Retroactive participation and timelines for program*
  4. *Determine a budget and timeline for the reimbursement program*
  5. *Work on a plan to handle the administrative piece of this program*
  6. *Formalize and present the Reimbursement Program at a future Town Council Meeting.*



# THANK YOU FOR ATTENDING TONIGHTS MEETING

1/17/2023

Double Oak  
TEXAS

Double Oak Town Council

# LANTANA GOLF CLUB



## EVENT INVOICE

### Double Oak Police Department Banquet

Lantana Golf Club

Lantana, TX 76226  
 amorrisette@lantanagolf.com  
 P: (940) 784-6920  
 F:

Primary Contact	Address	Email Address	Telephone
Cassandra Gaines	320 Waketon Rd. Double Oak, Texas 75077	cassandra.gaines@doubleoak.texas.gov	

Double Oak Police Department Banquet						
Date	Time	Location	Function	#	Set	Minimum
Sun, 12/18/2022	5:00pm-9:00pm	Pavillion	Banquet	60	60	\$1,500.00

### Event Charges

Banquet			
Description	Qty	Price	Total
Build Your Own Buffet (2 entrées)	60	\$30.00	\$1,800.00

Payment Date	Amount	Payment Method	Payment Type
11/01/2022	\$500.00	Credit Card	Deposit
12/18/2022	\$1,660.00	Credit Card	Final Payment

Charges	\$1,800.00
Service Charge	\$360.00
Subtotal	\$2,160.00
Grand Total	\$2,160.00
Payments Received	(\$2,160.00)
Balance Due	\$0.00

Approved RJR 12/19/22  
 PD Account # 550292  
 Check \_\_\_\_\_  
 Amount \_\_\_\_\_

Raid w/lec

# MONTHLY REPORT DECEMBER 2022

- 12/03: Animal in trap at 230 Double Oaks Drive. Relocated.
- 12/05: Patrol from 14:00 until 16:00.  
Nuisance wildlife reported at 120 Meadow Oak Court. Trap issued.
- 12/07: Patrol from 15:00 until 17:00. No activity.
- 12/09: Patrol from 09:30 until 11:30. No activity.
- 12/12: Patrol from 15:00 until 17:00.  
Dead wildlife initiated 115 S. Woodland Trail. Removed.
- 12/15: Patrol from 11:00 until 13:00. No activity.
- 12/17: Patrol from 10:20 until 12:20. No activity.
- 12/20: Patrol from 12:00 until 14:00. No activity.
- 12/21: Patrol from 12:00 until 14:00. No activity.
- 12/22: Patrol from 13:30 until 15:30. No activity.
- 12/28: Patrol from 11:00 until 12:00.  
Stray dog initiated FM 407 & Cedar Crest Lane. Returned to owner.  
Nuisance wildlife reported at 240 McMakin Road. Trap issued.
- 12/30: Patrol from 09:45 until 11:45. No activity.

## SUMMARY

Total calls received: 5      By Double Oak residents: 3      Initiated by NTACA: 2  
 Animals impounded: Dogs: 1      Puppies: 0      Cats: 0      Kittens: 0      Other: 0      Deceased: 1  
 Verbal Warnings issued: 0      Written Warnings issued: 0      Citations: 0

## MONTHLY REPORT JANUARY 2023

- 01/02/23: Patrol from 09:30 until 11:30.  
Nuisance wildlife reported at 250 McMakin Road. Trap issued.
- 01/03/23: Nuisance wildlife reported at 205 Fox Trot Lane. Trap issued.
- 01/04/23: Patrol from 12:45 until 14:45. No activity.
- 01/05/23: Patrol from 13:45 until 15:45. No activity.
- 01/08/23: Patrol from 12:00 until 13:30 and then from 16:30 until 18:00.  
Injured wildlife reported 440 Cross Timbers Dr. UTC.  
Injured wildlife reported 200 blk Double Oaks Dr. UTC.
- 01/12/23: Patrol from 10:30 until 13:30. No activity.
- 01/15/23: Patrol from 14:00 until 16:00.  
Dead wildlife initiated Kings Road @ Simmons Road. Removed.
- 01/18/23: Patrol from 11:30 until 13:30. No activity.
- 01/20/23: Patrol from 13:25 until 15:25. No activity.
- 01/21/23: Stray dog confined at 141 Oak Grove Circle. Owner located CSO.
- 01/24/23: Patrol from 14:00 until 16:00. No activity.
- 01/26/23: Patrol from 10:00 until 12:00. No activity.
- 01/28/23: Patrol from 11:00 until 13:00. No activity.
- 01/31/23: Injured wildlife reported 325 Kings Road. CSO.

### SUMMARY

Total calls received: 7      By Double Oak residents: 6      Initiated by NTACA: 1  
Animals impounded: Dogs: 0      Puppies: 0      Cats: 0      Kittens: 0      Other: 0      Deceased: 1  
Verbal Warnings issued: 0      Written Warnings issued: 0      Citations: 0



Town of Double Oak  
**Profit & Loss Budget vs. Actual**  
 October 2022 through September 2023

5

	Oct '22 - Sep 23	Budget	\$ Over Budget	% of Budget
<b>Ordinary Income/Expense</b>				
<b>Income</b>				
<b>400000 · Tax Revenue</b>				
401101 · Current Property Taxes-M & O	857,395.65	1,235,201.96	-377,806.31	69.4%
401201 · Penalty & Interest	778.18	2,500.00	-1,721.82	31.1%
401301 · Prior Year Property Taxes	1,379.36	2,000.00	-620.64	69.0%
401315 · Sales Taxes	165,391.78	650,000.00	-484,608.22	25.4%
401601 · Franchise-Cross Timbers Water	18,715.75	24,000.00	-5,284.25	78.0%
401701 · Franchise-Cable TV	4,335.31	35,000.00	-30,664.69	12.4%
401801 · Franchise-Electric	0.00	95,000.00	-95,000.00	0.0%
401805 · Franchise-Garbage	7,181.89	13,000.00	-5,818.11	55.2%
401811 · Franchise-Gas	0.00	17,000.00	-17,000.00	0.0%
401901 · Franchise-Telephone	3,995.27	500.00	3,495.27	799.1%
401912 · Prior Year Carry Over	0.00	0.00	0.00	0.0%
400000 · Tax Revenue - Other	0.00	0.00	0.00	0.0%
<b>Total 400000 · Tax Revenue</b>	<b>1,059,173.19</b>	<b>2,074,201.96</b>	<b>-1,015,028.77</b>	<b>51.1%</b>
<b>420000 · Fines and Forfeitures</b>				
420101 · Court Fines	21,378.13	120,000.00	-98,621.87	17.8%
420113 · Court Forfeitures	0.00	0.00	0.00	0.0%
420000 · Fines and Forfeitures - Other	0.00	0.00	0.00	0.0%
<b>Total 420000 · Fines and Forfeitures</b>	<b>21,378.13</b>	<b>120,000.00</b>	<b>-98,621.87</b>	<b>17.8%</b>
<b>430000 · Licenses and Permits</b>				
430101 · Fences	425.00	1,275.00	-850.00	33.3%
430102 · Commercial Buildings	0.00	6,000.00	-6,000.00	0.0%
430103 · Oil and Gas Drilling	0.00	0.00	0.00	0.0%
430201 · New Homes	0.00	3,000.00	-3,000.00	0.0%
430202 · Erosion Control	0.00	0.00	0.00	0.0%
430301 · Misc Construction	7,730.00	23,000.00	-15,270.00	33.6%
430401 · Roofs	1,360.00	1,275.00	85.00	106.7%
430501 · Septic Systems	3,250.00	5,000.00	-1,750.00	65.0%
430601 · Sprinkler Systems	85.00	500.00	-415.00	17.0%
430701 · Swimming Pools	325.00	2,000.00	-1,675.00	16.3%
430801 · Water Wells	0.00	0.00	0.00	0.0%
430901 · Plats and Subdivision Fees	250.00	0.00	250.00	100.0%
<b>Total 430000 · Licenses and Permits</b>	<b>13,425.00</b>	<b>42,050.00</b>	<b>-28,625.00</b>	<b>31.9%</b>
<b>440000 · Other Revenue</b>				
440101 · Administration Fees	254.12	1,000.00	-745.88	25.4%
440102 · Animal Control Fees	0.00	0.00	0.00	0.0%
440103 · Building Contributions	0.00	0.00	0.00	0.0%
440150 · FEMA Revenue	0.00	0.00	0.00	0.0%
440160 · Capital Lease Proceeds	0.00	0.00	0.00	0.0%
440201 · Interest Income	6,919.06	9,500.00	-2,580.94	72.8%
440203 · Police Dept. Contracts	0.00	0.00	0.00	0.0%
440205 · Police Dept. Contributions	0.00	0.00	0.00	0.0%
440206 · Police Training Grants	0.00	0.00	0.00	0.0%
440210 · Police State Training Funds	0.00	0.00	0.00	0.0%
440700 · Insurance Proceeds	0.00	0.00	0.00	0.0%
<b>Total 440000 · Other Revenue</b>	<b>7,173.18</b>	<b>10,500.00</b>	<b>-3,326.82</b>	<b>68.3%</b>

Town of Double Oak  
**Profit & Loss Budget vs. Actual**  
 October 2022 through September 2023

	Oct '22 - Sep 23	Budget	\$ Over Budget	% of Budget
<b>440300 · Charges for Services</b>				
440301 · Lien Release	0.00	0.00	0.00	0.0%
440401 · Lot Mowing Fees	0.00	0.00	0.00	0.0%
440501 · Misc. Income	0.00	250.00	-250.00	0.0%
440601 · Sewage Service	5,082.67	25,000.00	-19,917.33	20.3%
440701 · Town Hall Rental Fees	0.00	0.00	0.00	0.0%
<b>Total 440300 · Charges for Services</b>	<b>5,082.67</b>	<b>25,250.00</b>	<b>-20,167.33</b>	<b>20.1%</b>
<b>440400 · Park Funds</b>				
440401A · Gazebo Funds	0.00	0.00	0.00	0.0%
<b>Total 440400 · Park Funds</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.0%</b>
<b>440500 · Carry Over from previous year</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.0%</b>
<b>Total Income</b>	<b>1,106,232.17</b>	<b>2,272,001.96</b>	<b>-1,165,769.79</b>	<b>48.7%</b>
<b>Gross Profit</b>	<b>1,106,232.17</b>	<b>2,272,001.96</b>	<b>-1,165,769.79</b>	<b>48.7%</b>
<b>Expense</b>				
<b>510000 · Town Administration</b>				
521000 · Town Salary Adjustments	0.00	0.00	0.00	0.0%
521012 · Attorney Fees	7,338.75	25,000.00	-17,661.25	29.4%
521033 · Custodial Services	1,673.32	5,500.00	-3,826.68	30.4%
521041 · Denton Central Appraisal Dist	1,768.74	8,237.00	-6,468.26	21.5%
521050 · Election Expense	0.00	4,500.00	-4,500.00	0.0%
521051 · Electricity	1,882.16	6,500.00	-4,617.84	29.0%
521060 · Financial Auditors	1,500.00	10,000.00	-8,500.00	15.0%
521070 · Natural Gas	589.36	2,000.00	-1,410.64	29.5%
521073 · Printer Copier	1,631.20	6,000.00	-4,368.80	27.2%
521133 · Ordinance Codification	395.00	1,500.00	-1,105.00	26.3%
521160 · Postage	531.91	3,000.00	-2,468.09	17.7%
521200 · Tax Billing Expense	0.00	1,500.00	-1,500.00	0.0%
521201 · Communications	2,130.92	11,000.00	-8,869.08	19.4%
521220 · Water	541.04	2,500.00	-1,958.96	21.6%
521230 · Archive System	0.00	5,000.00	-5,000.00	0.0%
521250 · Outdoor Siren	0.00	0.00	0.00	0.0%
530050 · Ambulance Service	29,075.00	29,075.00	0.00	100.0%
<b>Total 510000 · Town Administration</b>	<b>49,059.15</b>	<b>121,312.00</b>	<b>-72,252.85</b>	<b>40.4%</b>
<b>520000 · Administrative</b>				
521010 · Advertising	0.00	2,000.00	-2,000.00	0.0%
521020 · Bank Charges	58.78	100.00	-41.22	58.8%
521030 · Cleaning Supplies	0.00	0.00	0.00	0.0%
521031 · Computer Supplies/Software	7,875.91	25,000.00	-17,124.09	31.5%
521032 · Council Contingency	300.00	849.00	-549.00	35.3%
521034 · Technology Fund	0.00	3,500.00	-3,500.00	0.0%
521074 · Meetings	0.00	150.00	-150.00	0.0%
521075 · Goodwill	39.96	500.00	-460.04	8.0%
521076 · Incentive Pay	519.21	1,500.00	-980.79	34.6%
521090 · General Liability Insurance	2,949.58	5,513.20	-2,563.62	53.5%
521091 · Health/Dental/Life Insurance	5,836.20	17,069.04	-11,232.84	34.2%
521130 · Membership & Dues	525.00	1,500.00	-975.00	35.0%
521131 · Car Maintenance-Fuel-Travel	0.00	0.00	0.00	0.0%
521150 · Office Supplies	1,048.99	6,000.00	-4,951.01	17.5%
521151 · Other Professional Services	380.00	2,200.00	-1,820.00	17.3%
521153 · Other Supplies	260.19	650.00	-389.81	40.0%

**Profit & Loss Budget vs. Actual**

October 2022 through September 2023

	Oct '22 - Sep 23	Budget	\$ Over Budget	% of Budget
521161 · Publications & Subscriptions	119.00	200.00	-81.00	59.5%
521162 · Printing and Copying	46.26	450.00	-403.74	10.3%
521170 · Payroll Taxes - FICA	8,861.96	12,580.05	-3,718.09	70.4%
521172 · TWC Unemployment Insurance	83.27	2,400.00	-2,316.73	3.5%
521190 · Town Secretary Salary	28,580.40	82,565.60	-53,985.20	34.6%
521191 · Longevity Pay-Administration	1,540.00	1,540.00	0.00	100.0%
521192 · Worker's Compensation Ins.	645.12	891.60	-246.48	72.4%
521194 · Asst Town Secretary Salary	25,872.24	73,839.53	-47,967.29	35.0%
521195 · Overtime	2,289.32	5,000.00	-2,710.68	45.8%
521196 · TMRS-Retirement	3,499.28	14,149.24	-10,649.96	24.7%
521202 · Training Seminars	970.00	2,000.00	-1,030.00	48.5%
<b>Total 520000 · Administrative</b>	<b>92,300.73</b>	<b>262,147.26</b>	<b>-169,846.53</b>	<b>35.2%</b>
<b>530000 · Public Works</b>				
521021 · Building Repair/Remodeling	9,838.96	0.00	9,838.96	100.0%
521025 · Building Expenditures	0.00	2,000.00	-2,000.00	0.0%
521120 · Lien Filing Expense	0.00	100.00	-100.00	0.0%
530025 · Mosquito Control Program	0.00	200.00	-200.00	0.0%
530100 · Animal Control Officer	5,485.00	18,000.00	-12,515.00	30.5%
530101 · Public Works Director Salary	24,836.58	71,750.00	-46,913.42	34.6%
530102 · Public Works Director TMRS	1,750.74	6,229.03	-4,478.29	28.1%
530103 · Public Works Director FICA	1,455.40	5,538.22	-4,082.82	26.3%
530104 · Public Works Director (H/D/L)	4,469.83	13,077.36	-8,607.53	34.2%
530105 · PW Director (TWC/Unempl Ins)	0.00	0.00	0.00	0.0%
530106 · Building Official Overtime	0.00	0.00	0.00	0.0%
530110 · Building Inspectors	16,000.00	0.00	16,000.00	100.0%
530111 · Building Inspectors Phone	0.00	0.00	0.00	0.0%
530115 · Code Enforcement	0.00	0.00	0.00	0.0%
530116 · Code Enforcement Liab Ins-TML	632.05	1,181.40	-549.35	53.5%
530125 · Council Discretionary Fund	0.00	0.00	0.00	0.0%
530150 · Grounds Maintenance	4,641.32	9,000.00	-4,358.68	51.6%
530151 · Grounds Equipment	0.00	0.00	0.00	0.0%
530175 · Equipment Repair/Maintenance	0.00	0.00	0.00	0.0%
530180 · Minor Equipment	361.47	0.00	361.47	100.0%
530200 · Lot Mowing/Tree Trim Service	700.00	5,500.00	-4,800.00	12.7%
530201 · Public Works Training	0.00	2,500.00	-2,500.00	0.0%
530202 · Longevity Pay- Public Works	45.00	45.00	0.00	100.0%
530203 · Vehicle Payment	0.00	0.00	0.00	0.0%
530204 · Vehicle Maintenance	349.70	750.00	-400.30	46.6%
530205 · Vehicle Fuel	187.60	2,000.00	-1,812.40	9.4%
530206 · Uniforms	0.00	0.00	0.00	0.0%
530210 · Membership Dues/Licensing	75.00	500.00	-425.00	15.0%
530230 · Other Professional Services	388.68	2,000.00	-1,611.32	19.4%
530231 · Other Supplies	0.00	1,000.00	-1,000.00	0.0%
530235 · Printing	0.00	200.00	-200.00	0.0%
530240 · Postage	0.00	0.00	0.00	0.0%
530245 · Computer Support	2,232.12	12,290.00	-10,057.88	18.2%
530250 · Health Inspector	750.00	2,500.00	-1,750.00	30.0%
530260 · Septic Inspections	2,680.00	5,000.00	-2,320.00	53.6%
530270 · Sewage Services	6,023.80	25,000.00	-18,976.20	24.1%
530271 · Vehicle Reimbursement	0.00	0.00	0.00	0.0%
530272 · Incentive Pay	207.63	600.00	-392.37	34.6%
530273 · Worker's Compensation Ins	322.56	445.80	-123.24	72.4%
530277 · General Liability Insurance	0.00	0.00	0.00	0.0%
530280 · Hazardous Waste Disposal	0.00	0.00	0.00	0.0%
530650 · Public Works-Cell phone	473.78	500.00	-26.22	94.8%

**Profit & Loss Budget vs. Actual**

October 2022 through September 2023

	Oct '22 - Sep 23	Budget	\$ Over Budget	% of Budget
531020 · Credit Card Convenience Fee	0.00	0.00	0.00	0.0%
531201 · Weather Siren	0.00	785.00	-785.00	0.0%
<b>Total 530000 · Public Works</b>	<b>83,907.22</b>	<b>188,691.81</b>	<b>-104,784.59</b>	<b>44.5%</b>
<b>540000 · Streets and Drainage</b>				
540019 · Engineering General	6,485.50	50,000.00	-43,514.50	13.0%
540060 · Crack Seal & Potholes	460.14	35,000.00	-34,539.86	1.3%
540110 · Current Year Road Repairs	0.00	200,000.00	-200,000.00	0.0%
540111 · Prior Year Road Repairs	0.00	0.00	0.00	0.0%
540155 · MS4 Stormwater	0.00	7,500.00	-7,500.00	0.0%
540177 · Public Works Projects Costs	0.00	0.00	0.00	0.0%
540200 · Sign Repair and Replacement	0.00	2,000.00	-2,000.00	0.0%
<b>Total 540000 · Streets and Drainage</b>	<b>6,945.64</b>	<b>294,500.00</b>	<b>-287,554.36</b>	<b>2.4%</b>
<b>550000 · Police Department</b>				
550120 · Capital Equipment (Auto)	0.00	0.00	0.00	0.0%
550135 · Computer Equip/Supplies/SW Main	7,308.25	41,500.00	-34,191.75	17.6%
550140 · Equipment Repair & Maintenance	0.00	1,000.00	-1,000.00	0.0%
550145 · Health/Dental/Life Insurance	28,897.81	126,276.84	-97,379.03	22.9%
550219 · Membership Dues	0.00	500.00	-500.00	0.0%
550220 · Minor Equipment	334.26	1,000.00	-665.74	33.4%
550230 · Other Professional Services	0.00	100.00	-100.00	0.0%
550240 · Office Supplies	205.48	700.00	-494.52	29.4%
550248 · Publications	0.00	400.00	-400.00	0.0%
550249 · External Contracts	656.00	5,000.00	-4,344.00	13.1%
550250 · Postage	0.00	0.00	0.00	0.0%
550251 · Printing	84.00	900.00	-816.00	9.3%
550252 · Police Chief Salary	34,649.55	100,098.70	-65,449.15	34.6%
550253 · Police Asst. Chief Salary	30,796.38	88,967.35	-58,170.97	34.6%
550254 · Police Officers' Salary	105,173.13	513,517.56	-408,344.43	20.5%
550255 · Administrative Assistant PD	0.00	0.00	0.00	0.0%
550256 · Crossing Guard	2,048.38	4,000.00	-1,951.62	51.2%
550257 · Police Department Overtime	3,283.31	5,000.00	-1,716.69	65.7%
550261 · Criminal Investigations	0.00	2,000.00	-2,000.00	0.0%
550262 · General Liability Insurance	10,323.51	19,296.20	-8,972.69	53.5%
550263 · TWC Unemployment Ins	0.00	0.00	0.00	0.0%
550264 · Incentive Pay	2,474.35	9,600.00	-7,125.65	25.8%
550271 · Salaries Benefits - FICA	10,274.62	55,349.94	-45,075.32	18.6%
550275 · Salaries Benefits - TMRS	10,433.62	61,909.90	-51,476.28	16.9%
550276 · Human Resources	1,565.06	1,500.00	65.06	104.3%
550277 · Longevity Pay	1,860.00	2,345.00	-485.00	79.3%
550278 · Worker's Compensation Ins	12,902.40	17,832.00	-4,929.60	72.4%
550280 · Communications	1,720.20	14,000.00	-12,279.80	12.3%
550281 · Training	3,260.30	15,000.00	-11,739.70	21.7%
550286 · Training Ammo	74.95	5,000.00	-4,925.05	1.5%
550290 · Uniforms	4,674.09	24,000.00	-19,325.91	19.5%
550291 · Patrol Equipment	0.00	7,000.00	-7,000.00	0.0%
550292 · Community Programs	3,046.00	3,000.00	46.00	101.5%
550293 · Traffic Management	0.00	100.00	-100.00	0.0%
550294 · Evidence Room Supplies	0.00	100.00	-100.00	0.0%
550295 · Goodwill	913.56	1,000.00	-86.44	91.4%
550300 · Vehicle Fuel	2,659.93	30,000.00	-27,340.07	8.9%
550400 · Vehicle Repair & Maintenance	942.84	10,000.00	-9,057.16	9.4%
<b>Total 550000 · Police Department</b>	<b>280,561.98</b>	<b>1,167,993.49</b>	<b>-887,431.51</b>	<b>24.0%</b>

Town of Double Oak  
**Profit & Loss Budget vs. Actual**  
 October 2022 through September 2023

	Oct '22 - Sep 23	Budget	\$ Over Budget	% of Budget
<b>560000 · Municipal Court</b>				
560010 · Judges Services	1,700.00	10,000.00	-8,300.00	17.0%
560015 · Jury Services	0.00	240.00	-240.00	0.0%
560018 · Jail Services	1,330.00	0.00	1,330.00	100.0%
560020 · Prosecuting Attorney	2,081.25	10,000.00	-7,918.75	20.8%
560025 · Other Professional Services	340.00	480.00	-140.00	70.8%
560026 · Court Clerk - Salary	23,302.86	65,820.78	-42,517.92	35.4%
560027 · Court Clerk- FICA	1,531.10	5,632.37	-4,101.27	27.2%
560028 · Court Clerk - TMRS	1,765.07	6,334.93	-4,569.86	27.9%
560029 · Court Clerk Ins (H/D/L)	2,919.87	8,534.52	-5,614.65	34.2%
560030 · Court Clerk - Longevity	905.00	905.00	0.00	100.0%
560031 · Overtime	1,044.12	6,000.00	-4,955.88	17.4%
560035 · Court Supplies,Equip & S/W Main	6,277.26	6,000.00	277.26	104.6%
560055 · Membership Dues	0.00	0.00	0.00	0.0%
560076 · Incentive Pay	311.49	900.00	-588.51	34.6%
<b>Total 560000 · Municipal Court</b>	<b>43,508.02</b>	<b>120,847.60</b>	<b>-77,339.58</b>	<b>36.0%</b>
<b>570000 · Double Oak Vol. Fire Department</b>				
570010 · DOVFD Capital Equip Contributio	0.00	0.00	0.00	0.0%
570020 · DOVFD Operations Contribution	25,000.00	100,000.00	-75,000.00	25.0%
570021 · General Liability Insurance	7,163.26	13,389.20	-6,225.94	53.5%
570022 · Worker's Compensation Ins	2,257.92	3,120.60	-862.68	72.4%
<b>Total 570000 · Double Oak Vol. Fire Departm...</b>	<b>34,421.18</b>	<b>116,509.80</b>	<b>-82,088.62</b>	<b>29.5%</b>
<b>Total Expense</b>	<b>590,703.92</b>	<b>2,272,001.96</b>	<b>-1,681,298.04</b>	<b>26.0%</b>
<b>Net Ordinary Income</b>	<b>515,528.25</b>	<b>0.00</b>	<b>515,528.25</b>	<b>100.0%</b>
<b>Net Income</b>	<b>515,528.25</b>	<b>0.00</b>	<b>515,528.25</b>	<b>100.0%</b>

Town of Double Oak  
**Balance Sheet**  
As of February 3, 2023

	Feb 3, 23
<b>ASSETS</b>	
Current Assets	
Checking/Savings	
102302 · Independent Bank Money Market	1,990,341.50
102303 · Independent Bank Checking	871,339.03
102304 · Police Lease Training Fund	864.96
102306 · John B. Wright Memorial Fund	566.75
102307 · DO Police Dept Chapter 59	8.78
102400 · Petty Cash	499.21
102450 · DATCU	3,278.14
106101 · Certificate of Deposit	427,624.57
<b>Total Checking/Savings</b>	<b>3,294,522.94</b>
Accounts Receivable	
106100 · Accounts Receivable	25,221.24
<b>Total Accounts Receivable</b>	<b>25,221.24</b>
Other Current Assets	
104100 · Bartonville Water Certificate	2,000.00
106150 · Interest Receivable	225.00
106400 · Employee Receivables	-66.09
106700 · Property Taxes Receivable	10,443.89
106900 · Prepaid Costs	20,132.44
<b>Total Other Current Assets</b>	<b>32,735.24</b>
<b>Total Current Assets</b>	<b>3,352,479.42</b>
<b>TOTAL ASSETS</b>	<b>3,352,479.42</b>
<b>LIABILITIES &amp; EQUITY</b>	
Liabilities	
Current Liabilities	
Accounts Payable	
202000 · Accounts Payable	7,881.27
<b>Total Accounts Payable</b>	<b>7,881.27</b>
Other Current Liabilities	
106300 · Allowance for Uncoll Taxes	10,443.89
200000 · Payroll Liabilities	
201500 · TMRS Payable	4,333.73
202507- · Dependant Health Care Cover...	-1,873.66
202508- · AFLAC Deduction	384.72
202509 · Child Support Withholding Or...	111.85
202513 · Vision Insurance	806.94
202516 · Dependent Life Insurance	189.36
200000 · Payroll Liabilities - Other	-190.88
<b>Total 200000 · Payroll Liabilities</b>	<b>3,762.06</b>

Town of Double Oak  
**Balance Sheet**  
As of February 3, 2023

	Feb 3, 23
200504 · Town Hall Reservation Deposits	500.00
201250 · Cr Card Fees/Collection Charges	725.61
202250 · Town Hall Renovations	200.00
202501 · Court Fees & Fines Due State	45,800.91
202502 · Technology Fees	3,627.91
202503 · Court Security Fees	16,996.86
202504 · Police LEOSE Training Account	864.96
202506 · Child Safety Fund	7,409.56
202511 · Omnibase Fees Due	498.70
202512 · Court Collections	-14,828.39
202760 · Time Payment Reimbursement F...	700.14
203002 · Park Fund Account	215.78
203006 · CARES - CLFRF - SLFRF Funds	374,047.19
203060 · Waketon Road Reconstruction	32,891.36
203090 · Waketon Road-Town of Double ...	-92,372.46
2050000 · Accrued Payroll	22,774.04
205555 · Police Grants	347.25
206250 · Sewer System Maintenance	10,321.51
206500 · Police-Chapter 59	8.78
208000 · Golf Tournament	44.85
2110 · Direct Deposit Liabilities	-254.37
<b>Total Other Current Liabilities</b>	<b>424,726.14</b>
<b>Total Current Liabilities</b>	<b>432,607.41</b>
<b>Total Liabilities</b>	<b>432,607.41</b>
<b>Equity</b>	
3000 · Fund Balances	209,371.05
3100 · Town Contingency	100,000.00
3150 · Stormwater Structures Fund	100,000.00
3200 · Road Contingency	150,000.00
3250 · Denton County Bond Project Fund	120,000.00
3450 · Town Hall Technology Fund	38,352.96
3550 · TCEQ MS4 (5-year) Fund	20,000.00
3600 · Street and Drainage Fund	185,392.58
3650 · Cross Timbers Drainage Project	20,000.00
3800 · Police Vehicle Fund	80,007.67
3850 · Police Body Camera Project Fund	16,401.00
3900 · Retained Earnings	1,364,818.50
et Income	515,528.25
<b>Total Equity</b>	<b>2,919,872.01</b>
<b>TOTAL LIABILITIES &amp; EQUITY</b>	<b>3,352,479.42</b>



# DEPARTMENT ACTIVITY THRU DECEMBER 2022



**TOTAL  
CALLS:**  
234



**FIRE  
CALLS:**  
91



**MEDICAL  
CALLS:**  
143



**TRAINING  
HOURS:**  
3021



**VOLUNTEER  
HOURS\*:**  
5581.75



## RECENT TEAM ACHIEVEMENTS:

- C. Scherer earned national Paramedic

\* excludes calls and training



TOWN OF DOUBLE OAK  
COUNTY OF DENTON  
STATE OF TEXAS

RESOLUTION 23-01

RESOLUTION OF THE TOWN OF DOUBLE OAK  
TOWN COUNCIL ESTABLISHING FUND BALANCE POLICIES  
AS REQUIRED BY GASB 54

WHEREAS, the Governmental Accounting Standards Board (“GASB”) has adopted Statement 54 (“GASB 54”), a new standard for governmental fund balance reporting and governmental fund type definitions that became effective in governmental fiscal years starting after June 15, 2010, and

WHEREAS the Town of Double Oak elects to implement GASB 54 requirements, and to apply such requirements to its financial statements beginning with the current October 1, 2022-September 30, 2023, fiscal year; and

NOW THEREFORE BE IT RESOLVED that the Town of Double Oak commits the following portions of its September 30, 2023, anticipated general fund balance as follows:

\$150,000	is committed	Town Contingency
\$ 10,000	is committed	Town 50th Anniversary Fund
\$100,000	is committed	Stormwater structures fund
\$150,000	is committed	Road Contingency
\$190,000	is committed	Denton County Bond Project Fund
\$100,000	is committed	Town Hall Technology Fund
\$ 25,000	is committed	TCEQ MS4 (5-year report) fund
\$450,000	is committed	Streets and Drainage Fund
\$110,000	is committed	Police vehicle fund
\$ 40,000	is committed	Police body cameras project fund

BE IT ALSO RESOLVED that the Town of Double Oak Town Council commits the revenues generated in various activities reported in the Special Revenue Funds to projects related to those activities.

BE IT ALSO RESOLVED that in circumstances where an expenditure is to be made for a purpose for which amounts are available in multiple fund balance classifications, the order in which resources will be expended is as follows: restricted fund balance, followed by committed fund balance, assigned fund balance and lastly, unassigned fund balance.

AND BE IT RESOLVED that the Town of Double Oak’s financial goal is to have a sufficient balance in the general fund with sufficient working capital and a margin of safety to address local and regional emergencies without borrowing. The Town shall strive to maintain a yearly assigned and unassigned fund balance in the general fund of 55 percent to 75 percent of the total operating expenditures.

The above Resolution is adopted this 6th day of February 2022.

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
Town Secretary

**ORDINANCE NO. 23-01**

AN ORDINANCE OF THE TOWN COUNCIL OF THE TOWN OF DOUBLE OAK, TEXAS, ORDERING A GENERAL ELECTION TO BE HELD ON MAY 6, 2023 FOR THE PURPOSE OF ELECTING A MAYOR AND TWO (2) COUNCIL MEMBERS AT LARGE; PROVIDING FOR THE PUBLICATION AND POSTING OF NOTICES; PROVIDING FOR EARLY VOTING; PROVIDING FOR THE APPOINTMENT OF ELECTIONS ADMINISTRATORS AND JUDGES; PROVIDING A SEVERABILITY CLAUSE; AND, PROVIDING AN EFFECTIVE DATE.

**WHEREAS**, the Town Council of the Town of Double Oak, Texas, herein determines that it shall call a general election to elect a mayor and two council members at large for two-year terms each; and

**WHEREAS** the Town Council hereby calls for a general election to be held on May 6, 2023, in accordance with State law. Now, Therefore,

**BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF DOUBLE OAK, TEXAS:**

**SECTION 1.** That a general election is hereby ordered to be held in the Town of Double Oak, Texas on the 6th day of May 2023, the same being the first Saturday of said month, for the purpose of electing a mayor and two council members, all of whom shall be elected at large, each to serve for two-year terms. The candidates receiving the highest number of votes cast shall be elected for two-year terms.

**SECTION 2.** The polling place for said election shall be determined by the County Elections Administrator. The polls shall be open from 7:00 a.m. to 7:00 p.m. None but legally qualified voters of the Town shall be entitled to vote at said election.

**SECTION 3.** Notice of said election shall be published once in the official newspaper of the Town not earlier than the 30<sup>th</sup> day before Election Day, and not later than the 10<sup>th</sup> day before Election Day. Such notice shall also be posted on the bulletin board used to publish notice of the Town Council meeting not later than the 19<sup>th</sup> day before Election Day.

**SECTION 4.** A copy of the published notice that contains the name of the newspaper and the date of the publication shall be retained as a record of such notice, and the person posting the notice shall make a record at the time of posting stating the date and place of posting and deliver a copy of each notice posted to the Mayor of the Town of Double Oak after the last posting is made.

**SECTION 5.** The elections shall be conducted in accordance with an interlocal agreement between the Town and the Denton County Elections Administrator. The County Elections Administrator shall appoint an Election Judge and an Alternate Presiding Election Judge shall be appointed, to serve at the polling place during the election. The Alternate Presiding Judge shall serve as Presiding Judge if the regularly appointed Presiding Judge cannot serve and where the election is conducted by the regularly appointed Judge, the Presiding Judge shall appoint the Alternate Presiding Judge as one of the clerks.

**SECTION 6.** That an early voting ballot board is hereby created. The Presiding Election Judge shall also serve as the Presiding Judge of the early voting ballot board. The other members of the early voting ballot board shall be appointed by the Presiding Judge in the same manner as the Presiding Election Judge appoints election clerks. All judges and clerks appointed by the Presiding Election Judge shall be qualified voters in the Town. The County Elections Administrator shall be the Early Voting Clerk for said election. Early voting polling locations for the above designated election shall be determined by the County Elections Administrator, and said place of early voting shall remain open on each day of early voting which is not a Saturday, Sunday or legal State holiday, beginning on or before the 12<sup>th</sup> day before the Election and continuing through the 4<sup>th</sup> day preceding the date of said election.

**SECTION 7.** After holding the election, the Presiding Election Judge shall promptly deliver the original of the election returns in person to the Mayor or if the Mayor is unavailable, to the Town Secretary. The Town Secretary shall present the returns to the Town Council for the canvassing of said election. The canvass of said election returns shall be conducted by the Town Council not earlier than the 3<sup>rd</sup> day nor later than the 11<sup>th</sup> day after the election.

**SECTION 8.** Should any part, section, subsection, paragraph, sentence, clause or phrase contained in this ordinance be held to be unconstitutional or of no force and effect, such holding shall not affect the validity of the remaining portion of this ordinance, but in all respects said remaining portion shall be and remain in full force and effect.

**SECTION 9.** This Ordinance shall take effect immediately from and after its passage and the publication of the caption as the law in such cases provides.

**DULY PASSED** by the Town Council of the Town of Double Oak, Texas, on the 6th day of February, 2023.

APPROVED:

\_\_\_\_\_  
MAYOR

ATTEST:

\_\_\_\_\_  
TOWN SECRETARY

APPROVED AS TO FORM:

    /S/      
TOWN ATTORNEY

/ )

**INTER-LOCAL COOPERATION AGREEMENT BETWEEN DENTON COUNTY AND  
THE TOWN OF DOUBLE OAK POLICE AND VOLUNTEER FIRE DEPARTMENTS  
FOR THE USE OF THE DENTON COUNTY RADIO COMMUNICATIONS SYSTEM**

This Inter-Local Agreement (“Agreement”) is entered into by and between the County of Denton, Texas (“the County”) and the Town of Double Oak Police and Volunteer Fire Departments, Texas, a home-rule municipality, both entities being located in Denton County, Texas (collectively, the “Parties” or separately as a “Party”). The Parties execute this agreement as hereinafter provided, pursuant to the Texas Governmental Code, Chapter 791, known as the Inter-Local Cooperation Act:

**WHEREAS**, Denton County is a political subdivision within the State of Texas, each of which engages in the provision of governmental services for the benefit of its citizens; and

**WHEREAS**, the Agencies are duly organized and operating under the laws of the State of Texas engaged in the provision of municipal government and/or related services for the benefit of the citizens of these Agencies; and

**WHEREAS**, the Inter-Local Cooperation Act, Texas Government Code, Chapter 791, as amended “the Act” provides authority for local governments of the State of Texas to enter into Inter-local agreements with each other for the purpose of performing governmental functions and services as set forth in the Act; and

**WHEREAS**, the County owns, operates, and maintains the radio-communications system, exclusive of the radios owned individually by each User Agency (“System”) for the purpose of providing radio communications in support of its governmental operations; and

**WHEREAS**, Double Oak Police and Volunteer Fire Departments wish to use certain portions of the System for its governmental operations; and

**WHEREAS**, the use of the System in the provision of governmental services benefits the public health and welfare, promotes efficiency and effectiveness of local governments, and is of mutual concern to the contracting Parties; and

**WHEREAS**, Double Oak Police and Volunteer Fire Departments and the County have current funds available to satisfy any fees and costs required pursuant to this Agreement;

**NOW, THEREFORE**, in consideration of the mutual covenants and agreement herein contained, the sufficiency of which are hereby acknowledged, and upon and subject to the terms and conditions hereinafter set forth, the Parties agree as follows:

## **I. DEFINITIONS**

“*Assignee*” means the Agencies employee assigned to a specific Subscriber Unit.

“*Communications System*” or “*System*” means a wide area, multi-agency digital trunked radio system compliant with P-25 interoperability standards to be used jointly by the City of Lewisville, the City of Denton, Denton County, and other Infrastructure Members, if any, primarily for providing public safety dispatch and communications for fire, emergency medical and police services and such other governmental services as may be agreed from time to time by the Parties.

“*Coordinating Committee*” means the committee that is responsible for making recommendations to the Infrastructure Management Committee on the administration and operation of the Communications System.

“*Infrastructure Management Committee*” means the committee that is responsible for the administration and operation of the Communications System.

“*Subscriber Units*” means mobile radios, portable radios or any similar devices used for communicating over the Communications System.

“*Talk Group*” means a specific group of Subscriber Units allowed to communicate privately within that group over shared infrastructure resources.

“*Technical Committee*” means the committee that advises the Coordinating Committee on technical issues related to the operation of the Communications System.

“*User*” means any entity with which the City of Denton, the City of Lewisville, Denton County, or other Infrastructure Member has entered into a contractual agreement for the provision of radio communication services through the Consolidated Communications System.

## **II. TERM**

2.1 This Agreement is for a period of a one (1) year term, beginning on the 1<sup>st</sup> day of October, 2022, and ending on the 30<sup>th</sup> day of September, 2023. unless terminated earlier pursuant to Section 7.1.

2.2 It is the intention of the Parties for this to be a long term enterprise which will be renewed with a new ILA each year subject to approval by each Party’s governing body.

**III.**  
**OBLIGATIONS OF TOWN OF DOUBLE OAK POLICE AND VOLUNTEER FIRE DEPARTMENTS**

3.1 Double Oak Police and Volunteer Fire Departments shall use the System in accordance with this Agreement to provide integration of communications by Double Oak Police and Volunteer Fire Departments between its Users on the System for governmental operations.

3.2 When using the System, Double Oak Police and Volunteer Fire Departments shall abide by all applicable Federal and State laws and regulations, including any regulations of the Denton County Radio System. When Double Oak Police and Volunteer Fire Departments use the System for interoperability with Talk Groups (hereinafter defined) other than those provided by this Agreement, Double Oak Police and Volunteer Fire Departments will also abide by the User rules of those Talk Groups.

3.3 Double Oak Police and Volunteer Fire Departments must provide a written request to the Denton County Radio System Manager (“System Manager”) or his designee, to activate radios (“Subscriber Units”) on the System. Such request must include the model and serial number of the Subscriber Unit, the name of the Assignee, and identifying Talk Groups required in the Subscriber Unit.

3.4 Double Oak Police and Volunteer Fire Departments are responsible for furnishing its own Subscriber Units, which must be compatible with the APCO P-25 Phase 2 TDMA Digital System, and for maintenance of the Subscriber Units. Double Oak Police and Volunteer Fire Departments are responsible for all programming of Agency-owned Subscriber Units.

3.5 Double Oak Police and Volunteer Fire Departments shall be solely responsible for obtaining a technical services support contract and a maintenance contract for all Agency-owned dispatch infrastructure equipment, either from the manufacturer of the equipment or from a manufacturer-authorized service provider. The County shall not be responsible for maintenance of any Agency-owned equipment.

3.6 Depending on the equipment that will be purchased and installed by Double Oak Police and Volunteer Fire Departments, the Agencies shall be solely responsible for entering into such Software Update Agreements and/or Software Maintenance Agreements from the manufacturer as necessary to ensure that the equipment owned by the Agencies will be maintained and upgraded to meet the requirements of the System when the County performs System upgrades.

3.7 Double Oak Police and Volunteer Fire Departments shall be solely responsible for having periodic maintenance (PM) performed on its Subscriber Units at least every two years which shall include tuning and alignment of the Subscriber Units and updating the Subscriber Units with the latest firmware available.

3.8 The County shall not be liable to the Agencies for the lack of interoperability between the Subscriber Units and the System if the Agencies fails to perform the required PM and/or obtain the software and/or firmware upgrades recommended by the County and/or the manufacturer of the Subscriber Units necessary to communicate through the System as set forth in Sections 3.5, 3.6, and 3.7 above.

#### **IV. OBLIGATIONS OF THE COUNTY**

4.1 The County will allow Double Oak Police and Volunteer Fire Departments to use County provided Talk Groups, which are a primary level of communication for Users on the System (“Talk Group”), comparable to a channel on a conventional radio system, for the exclusive use of Double Oak Police and Volunteer Fire Departments. Talk Groups will be established for the Agencies by the County.

4.2 The System Manager will not activate radios on the Double Oak Police and Volunteer Fire Departments Talk Groups nor make changes to the Double Oak Police and Volunteer Fire Departments radios without first receiving authorization from the designated representative of the Agencies, unless, in the opinion of the County, such action is necessary to eliminate harmful interference.

4.3 The County is solely responsible for:

- (1) Coordinating Talk Groups among System Users;
- (2) Grouping of Talk Groups to allow transmitting and receiving on all associated Talk Groups as required by the Agencies; and
- (3) The operation, maintenance, and control of the System

#### **V. FEES**

5.1 The fees payable for the term of this Agreement are set out in **Exhibit B** and **Exhibit C**, which are attached and incorporated for all purposes.

5.2 The County may increase the fees each October 1<sup>st</sup>, the beginning of each County fiscal year, by an amount not to exceed five percent (5%) of the previous year’s fees. The County will provide ninety (90) days’ notice to Double Oak Police and Volunteer Fire Departments before increasing the fees.

5.3 Based on the fees described above, the County will calculate the annual fee due based upon the total number of Subscriber Units and submit an invoice to the Agencies on or before October 1<sup>st</sup> of each year. This amount is subject to change when the Agencies adds or



deletes the number of Subscriber Units in service. The Agencies must notify the System Manager in writing of any addition or deletion of Subscriber Units.

5.4 Fees for Additions - The amount owed for annual fees for additions of Subscriber Units will be prorated for the year added, invoiced immediately, and amounts will be due within thirty (30) days of receipt of the invoice for the addition(s).

5.5 Deletions - No refunds for deletions will be made for the Agencies deletion of Subscriber Units during the period of the Agreement. The fees for the upcoming fiscal year will be calculated based on the number of Subscriber Units in service on the radio system as of May 1<sup>st</sup> of the current contract year.

5.6 In the event a new Inter-Local Agreement is not executed prior to the expiration of this Agreement, and the Sheriff's Office continues to provide access to the Radio Communications System, the Agencies shall reimburse and compensate the County for access to the Denton County Radio Communications System at the rate set by the Denton County Sheriff and approved by the Denton County Commissioners Court for the next fiscal year.

## **VI. PAYMENT DUE**

6.1 The Agencies agree to pay the County the annual fees specified under Article V within thirty (30) days of the receipt of the invoice. Should the Agencies add Subscriber Units or Talk Groups to the Service within a Term, the Agencies agree to pay the additional fee(s) due within thirty (30) days of invoice. All payments for expenses incurred as a result of the performance of the Agreement shall be made only from current revenues legally available to each respective Party.

## **VII. TERMINATION**

7.1 Either Party may terminate this Agreement at any time by giving ninety (90) days advance written notice. The Agencies shall pay for all fees incurred through the effective date of termination. If the County permanently discontinues the operation of its System, this Agreement shall terminate on the date of discontinuance without further notice, and the County will reimburse the Agencies the pro-rated amount of the fees previously paid by the Agencies for the use of the System for the then current fiscal year.

## **VIII. RELEASE AND HOLD HARMLESS**

**TO THE EXTENT PERMITTED BY LAW, EACH PARTY AGREES TO WAIVE ALL CLAIMS AGAINST, TO RELEASE, AND TO HOLD HARMLESS THE OTHER**

**PARTY AND ITS RESPECTIVE OFFICIALS, OFFICERS, AGENTS, EMPLOYEES, IN BOTH THEIR PUBLIC AND PRIVATE CAPACITIES, FROM ANY AND ALL LIABILITY, CLAIMS, SUITS, DEMANDS, LOSSES, DAMAGES, ATTORNEYS, FEES, INCLUDING ALL EXPENSES OF LITIGATION OR SETTLEMENT, OR CAUSES OF ACTION WHICH MAY ARISE BY REASON OR INJURY TO OR DEATH OF ANY PERSON OR FOR LOSS OF, DAMAGE TO, OR LOSS OF USE OF ANY PROPERTY ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT. IN THE EVENT THAT A CLAIM IS FILED, EACH PARTY SHALL BE RESPONSIBLE FOR ITS PROPORTIONATE SHARE OF LIABILITY.**

**IX.  
IMMUNITY**

In the execution of this Agreement, neither of the Parties waives, nor shall be deemed hereby to have waived any immunity or any legal or equitable defense otherwise available against claims arising in the exercise of governmental powers and functions. By entering into this Agreement, the Parties do not create any obligations, express or implied, other than those set forth herein, and this Agreement does not create any rights in parties who are not signatories to this Agreement.

**X.  
ASSIGNMENT**

The Agencies agree to retain control and to give full attention to the fulfillment of this Agreement. The Agencies cannot assign or sublet this Agreement without the prior written consent of the County. Further, the Agencies cannot sublet any part or feature of the work to anyone objectionable to Denton County. The Double Oak Police and Fire Departments also agree that the subletting of any portion or feature of the work, or materials required in the performance of this Agreement, does not relieve the Agencies from its full obligations to the County as provided by this Agreement.

**XI.  
ENTIRE AGREEMENT**

This Agreement represents the entire and integrated agreement between Denton County and Double Oak Police and Volunteer Fire Departments and supersedes all prior negotiations, representations and/or agreements, either written or oral, between Denton County and Double Oak Police and Volunteer Fire Departments. This Agreement may be amended only by written instrument signed by Denton County and Double Oak Police and Volunteer Fire Departments.

**XII.  
NOTICES**

Unless notified otherwise in writing, all notices are required to be given to either Party in writing and delivered in person or sent via certified mail to the other Party at the following respective addresses:

County:	1	Denton County Judge Denton County Commissioners Court 1 Courthouse Drive, Ste 3100 Denton, Texas 76201
	2	Denton County Sheriff Denton County Sheriff's Office 127 N. Woodrow Lane Denton, Texas 76205
	3	Assistant District Attorney Counsel to the Sheriff 127 N. Woodrow Lane Denton, Texas 76205
Name of Agency:	Double Oak Police Department	
Contact Person	Chief Ruben Rivas	
Address	320 Waketon Rd.	
City, State, Zip	Double Oak, TX 75077	
Telephone	972-355-5995	
Email	<a href="mailto:Ruben.rivas@doubleoak.texas.gov">Ruben.rivas@doubleoak.texas.gov</a>	
Name of Agency:	Double Oak Volunteer Fire Department	
Contact Person	Chief Scott Whisenhunt	
Address	1110 Cross Timbers Dr.	
City, State, Zip	Double Oak, TX 75077	
Telephone	972-539-7683	
Email	<a href="mailto:scottwhiz@verizon.net">scottwhiz@verizon.net</a>	

**XIII.  
AUTHORITY TO SIGN**

The undersigned officers and/or agents of the Parties hereto are the properly authorized officials or representatives and have the necessary authority to execute this Agreement on behalf of the Parties.

**XIV.  
SEVERABILITY**

The provisions of this Agreement are severable. If any paragraph, section, subdivision, sentence, clause, or phrase of this Agreement is for any reason held to be contrary to the law or

contrary to any rule or regulation having the force and effect of the law, such decisions shall not affect the remaining portions of the Agreement. However, upon the occurrence of such event, either Party may terminate this Agreement by giving the other Party thirty (30) days written notice.

**XV.  
VENUE**

This Agreement and any of its terms or provisions, as well as the rights and duties of the Parties hereto, shall be governed by the laws of the State of Texas. The Parties agree that this Agreement shall be enforceable in Denton County, Texas, and if legal and necessary, exclusive venue shall lie in Denton County, Texas.

**XVI.  
INTERPRETATION OF AGREEMENT**

Although this Agreement is drafted by the County, this is a negotiated document. Should any part of this Agreement be in dispute, the Parties agree that the Agreement shall not be construed more favorably for either Party.

**XVII.  
REMEDIES**

No right or remedy granted herein or reserved to the Parties is exclusive of any right or remedy granted by law or equity; but each shall be cumulative of every right or remedy given hereunder. No covenant or condition of this Agreement may be waived without the express written consent of the Parties. It is further agreed that one (1) or more instances of forbearance by either Party in the exercise of its respective rights under this Agreement shall in no way constitute a waiver thereof.

**XVIII.  
SUCCESSORS AND ASSIGNS**

The Parties each bind themselves, their respective successors, executors, administrators, and assigns to the other Party to this contract. Neither Party will assign, sublet, subcontract or transfer any interest in this Agreement without the prior written consent of the other Party. No assignment, delegation of duties or subcontract under this Agreement will be effective without the written consent of all Parties.

**EXECUTED** duplicate originals on the dates indicated below:

**SIGNED AND AGREED BY THE TOWN OF DOUBLE OAK POLICE AND FIRE DEPARTMENTS, TEXAS:**

**BY:**

\_\_\_\_\_ Date: \_\_\_\_\_  
Ruben Rivas, Chief  
Double Oak Police Department  
320 Waketon Rd.  
Double Oak, TX 75077  
972-355-5995

\_\_\_\_\_ Date: \_\_\_\_\_  
Scott Whisenhunt, Chief  
Double Oak Volunteer Fire Department  
1110 Cross Timbers Drive  
Double Oak, TX 75077  
972-539-7683

Approved as to content:

\_\_\_\_\_

Approved as to form:

\_\_\_\_\_  
Attorney for Agency

**APPROVED BY THE DENTON COUNTY COMMISSIONERS COURT OF DENTON COUNTY, TEXAS:**

**BY:**

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

\_\_\_\_\_  
Andy Eads, County Judge  
Denton County Commissioners Court  
1 Courthouse Drive, Ste 3100  
Denton, Texas 76201  
(940)349-2820

Approved as to content:

\_\_\_\_\_  
Denton County Sheriff's Office

Approved as to form:

\_\_\_\_\_  
Assistant District Attorney  
Counsel to the Sheriff

**Exhibit B**  
**Denton County Sheriff's Office**  
**Radio Communications System Agreement**  
**FY22-23 Agency Payment Worksheet/Invoice**

<b>Agency:</b>	<b>Double Oak Volunteer Fire Department</b>					
Payment Contact Person:	Eileen Kennedy					
Phone Number:	972-539-9464					
Email(s):	<a href="mailto:Eileen.kennedy@doubleoak.texas.gov">Eileen.kennedy@doubleoak.texas.gov</a>					
Address:	320 Waketon Road					
City, State, Zip	Double Oak, TX 75077					
<b>Agency Should Include this Worksheet with Each Payment Sent to Denton County.</b>						
Make checks payable to:	<b>Denton County</b>					
Mail payments to:	<b>Radio Communications Systems Agreement Payments</b> <b>Denton County Sheriff's Office</b> <b>Attn: Sherry Cochran</b> <b>127 N. Woodrow Lane</b> <b>Denton, Texas 76205</b>					
<b>Please select one of the following options:</b>						
<b><u>Tier 1</u></b>			<b><u>Tier 3</u></b>			
Radio User <i>ONLY</i> - \$4 each per month			Includes Tier 1 User + add on of Subscriber Services (program once per year and PM radios every two years) - \$6 each per month			
FD Radio Subscribers	36	\$0.00	FD Radio Subscribers	36	\$0.00	
<b>Total Amt Per Year =</b>		<b><u>\$0.00</u></b>	<b>Total Amt Per Year =</b>		<b><u>\$0.00</u></b>	
<b><i>BILLED ANNUALLY</i></b>						

Please make your Tier selection, sign and date below.

Circle One: Tier 1 / Tier 3

\_\_\_\_\_  
Signature of Agency Representative

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date







TOWN OF  
**DOUBLE OAK**  
STORM WATER MASTER PLAN

---

January 17, 2023



# HALFF TEAM



**Steve Templar, PE**  
Project Manager

- 26 years of experience
- Located in Fort Worth
- Wide range of design experience in both municipal and state projects



**Scott Rushing, PE, CFM**  
Drainage Engineer

- 15 years of experience
- Located in Fort Worth
- Extensive municipal master drainage plan background



# PROJECT OBJECTIVES

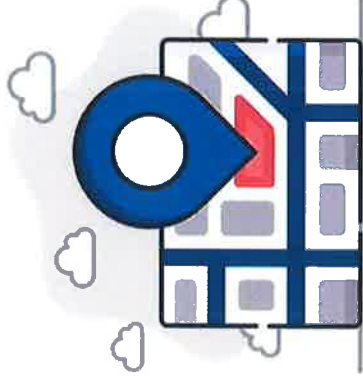


## **Capital Improvement Project (CIP) Planning:**

- Evaluate existing flooding issues
- Develop conceptual flood mitigation alternatives
- Prioritize alternatives
- Investigate Storm Water Utility Fee

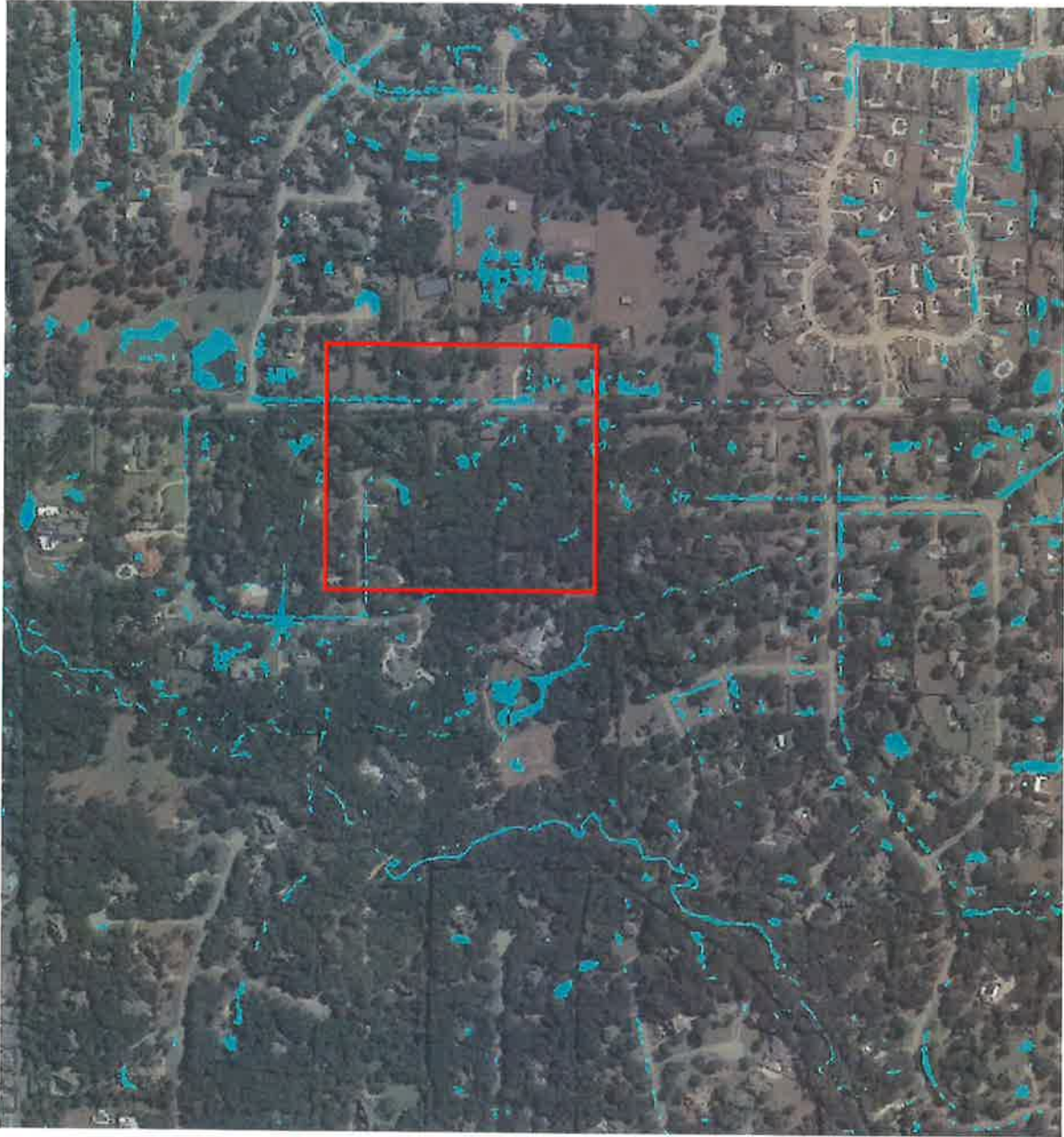


# EVALUATE EXISTING FLOODING ISSUES



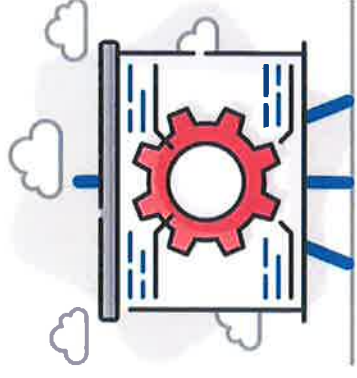
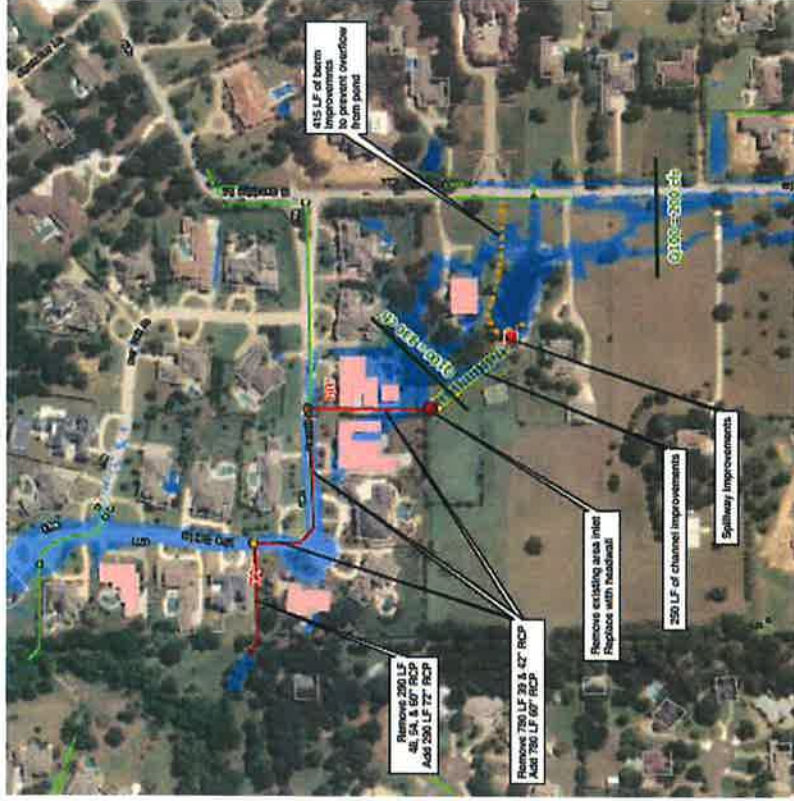
## Town-wide 2D Hydraulic Model:

- HEC-RAS 2D model
- Terrain Source – 2019 TNRS LiDAR data
- Latest Rainfall Data – NOAA Atlas 14
- Incorporate significant culvert crossings
- Develop floodplain mapping
- Identify top 10 flooding hot spots



## HEC-RAS 2D Model Simulation

# CONCEPTUAL ALTERNATIVE ANALYSIS



## Develop Conceptual Drainage Improvement Projects:

- Evaluate drainage improvements at 5 locations
- Summarize benefits & challenges
- Develop cost estimates

# PROJECT PRIORITIZATION

Table 3.3 CIP Criteria Weights

Criteria	Weight
Safety	55%
Cost Ratio	15%
Maintenance Cost	5%
Project Readiness	10%
Economic Development	10%
Other CIPs Nearby	5%

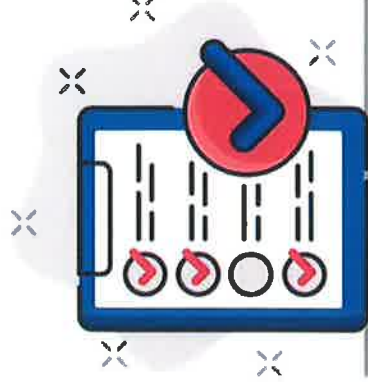
Table 3.4 Safety Sub-Criteria Weights

Safety Sub-Criteria	Weight
Impacted Parcels	10%
Street Flooding	15%
Flooding Complaints	10%
Emergency Access	20%

Public Health & Safety

Criteria	Points
Depth of flooding 0 - 0.5'	0
0.5 - 1'	1
1-2'	2
2-5'	3
5-8'	4
Greater than 8'	5

Data used: Rain on mesh results within streets



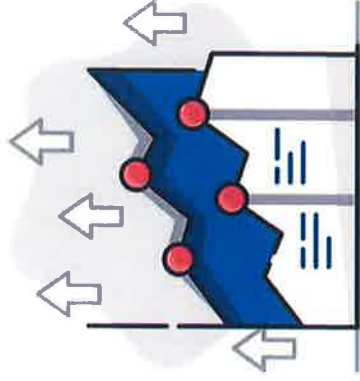
## Prioritize and Rank Drainage Improvement Projects:

- Develop evaluation criteria
  - Coordinate with Town
  - Example Criteria – Public Safety, Project Cost, Public Acceptance, etc.
- Prioritize & rank projects





# PROJECT DELIVERABLES



## **Brief Memorandum with Tables & Figures:**

- Technical data from study
- Prioritized list of drainage improvement projects
- GIS floodplain mapping
- Living 2D Model

# PROJECT FEES

## FEE SUMMARY

<u>Task</u>	<u>Description</u>	<u>Total</u>
1.	2D Rain-on-Mesh Analysis & Mapping	\$32,235
2.	Conceptual Alternatives Analysis	\$18,140
3.	SWU Rate Evaluation	\$6,985
4.	Project Management/Deliverables	\$12,789
	<b>TOTAL</b>	<b>\$70,149</b>



# QUESTIONS?

## Attachment A

The Town of Double Oak has requested Halff Associates, Inc. (Halff) to provide professional engineering services for a Town-wide Storm Water Master Plan. This proposal includes the Study Objectives, Scope of Work, Exclusions, Project Fees and Schedule.

### Study Objectives

1. *Assist Capital Improvement Project (CIP) Planning:* Evaluate existing flood issues within the Town and develop prioritized list of conceptual flood mitigation alternatives. Local floodplains will be developed using 2D HEC-RAS to identify flooding hotspot locations. A storm water utility fee will be evaluated to project potential revenue towards a dedicated drainage fund.

### Scope of Work

Below is the detailed scope of work per task.

#### **Task 1 – 2D Rain-on-Mesh Analysis**

##### **A. Terrain Preparation**

1. Utilize 2019 TNRIS LIDAR data to develop a Digital Elevation Model (DEM) for the Town.

##### **B. 2D Modeling**

1. Develop a 2D Rain-on-Mesh (ROM) hydraulic model using the latest version of HEC-RAS. Rainfall data will be based on NOAA Atlas 14 depths and will include the 2-, 5-, 10-, and 100-year storm events. Ultimate land use will be based on Town zoning and Manning's n-value layer will be based on the latest NearMap aerial imagery. Based on existing level of development within the town only ultimate conditions will be considered for this study.
2. Incorporate significant culvert crossings (up to 25) that impact routing of flood waters during flood events. The culvert crossing geometry will be based on as-built plan data, if available, from the Town. If as-built plan data is not available, Halff will field measure culvert crossings and estimate flowlines. Survey of culvert crossings is not included in this scope of services.
3. Develop GIS floodplain mapping/depth grids based on the 2D ROM model results for the 2-, 5-, 10-, and 100-year storm events based on ultimate conditions. Flood depth boundaries will be limited to depths greater than 0.5 ft.
4. Based on the results of the 2D ROM analysis, identify up to ten (10) flooding hot spots along creeks and channels including overtopped roads and flooded structures.

#### **Task 2 – Conceptual Alternative Analysis**

## Attachment A

4. Develop evaluation criteria, in coordination with the Town, to prioritize and rank conceptual alternatives.

### **Task 3 – Storm Water Utility (SWU) Rate Evaluation**

#### **A. Project Potential SWU Fee Revenue**

1. Delineate impervious area for all non-residential lots within the Town.
2. Determine equivalent residential unit (ERU) by delineating impervious area for 20 typical residential lots and computing the average impervious area.
3. Determine total ERUs within the Town based on the number of residential lots and impervious area for non-residential lots.
4. Develop table of potential annual revenue at various fee amounts for a storm water utility.
5. SWU ordinance development/review and customer exemptions are not included within this scope of services.

### **Task 4 – Project Management / Deliverables**

This scope includes the coordination and communication procedures to be implemented between the Town of Double Oak and Halfp in completion of this project.

#### **A. Project Coordination and Management**

1. Conduct one (1) project kickoff meeting (Virtual) with the Town of Double Oak.
2. Conduct monthly coordination calls with the Town of Double oak (up to 6 meetings).
3. Prepare monthly progress reports for Town of Double Oak identifying work accomplished, work to be done, and outstanding issues that need attention.

#### **B. Deliverables/Reporting**

1. Prepare a brief memorandum summarizing the procedures and results of the study including tables and figures. The draft memorandum will be subject to one review by the Town. One (1) meeting (Virtual) will be scheduled to discuss Town comments.
2. Deliver a digital copy of the final memorandum to the Town of Double Oak with technical data utilized in preparation of the study in digital format, including hydrologic and hydraulic models and a GIS geodatabase with floodplain mapping/depth grids.

### **Exclusions**

The following services are not included in the scope of work of this proposal. Halfp can provide estimated fees for these services, if needed.

Attachment A

Project Fees:

The project will be a Lump Sum fee. Lump sum fee tasks will be billed monthly based on percentage of work that has been completed. A summary of the professional services fees by task is listed in the following table.

**FEE SUMMARY**

<u>Task</u>	<u>Description</u>	<u>Total</u>
1.	2D Rain-on-Mesh Analysis & Mapping	\$32,235
2.	Conceptual Alternatives Analysis	\$18,140
3.	SWU Rate Evaluation	\$6,985
4.	Project Management/Deliverables	\$12,789
	<b>TOTAL</b>	<b>\$70,149</b>

Direct Costs for expenses such as mileage, copies, scans, etc. are included in the lump sum fees.


Schedule:

Halff will complete the scope of within 7 months from written notice to proceed. A detailed schedule will be provided at the project kick-off meeting.

We appreciate the opportunity to be of service to the Town of Double Oak. If you have any questions, please do not hesitate to call me at (817) 764-7487.

Sincerely,

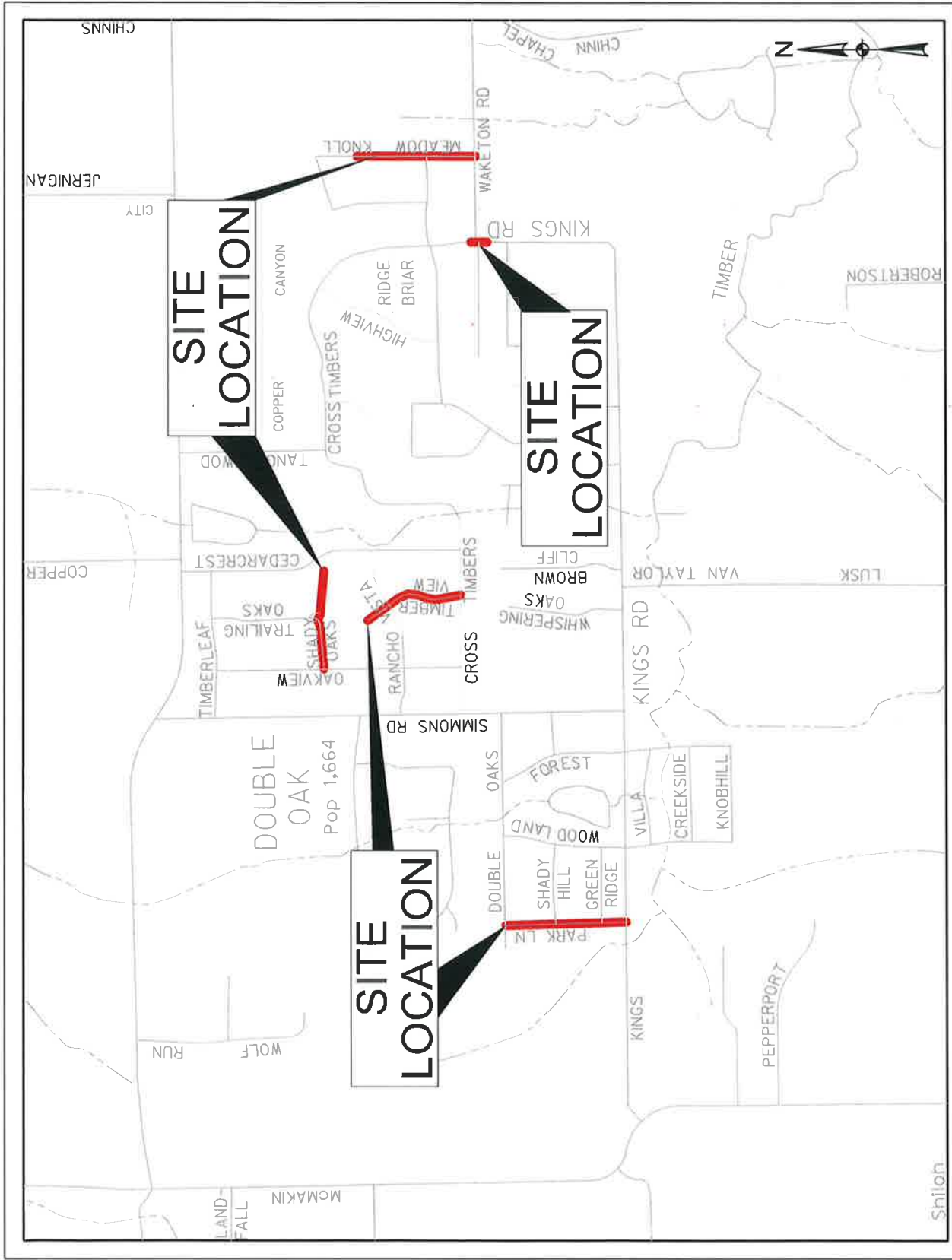
**HALFF ASSOCIATES, INC.**



Scott Rushing, PE, CFM  
Water Resources Team Leader

## Attachment B - Fee Schedule

TASK/DESCRIPTION		PROJ MGR	PROF ENGR	EIT	GIS TECH	ADMIN CLER	TOTAL MAN-HOURS	LABOR CHARGES (DIRECT)
<b>Task 1: 2D Rain-On-Mesh Analysis</b>								
A	Terrain Preparation							
	Develop DEM		2	4	8		14	\$ 1,680.00
B	2D Modelling & Floodplain Mapping							
	Build 2D Mesh		6	32			38	\$ 5,240.00
	Data Collection & Review	1	4	8			13	\$ 2,015.00
	Input Structures	2	8	40			50	\$ 7,150.00
	Execute/Troubleshoot HEC-RAS model	6	12	40			58	\$ 8,890.00
	Develop GIS floodplain mapping/depth grids		4	8			12	\$ 1,760.00
	Hotspot Identification	2	4	10			16	\$ 2,530.00
	QAQC Plan	6	8				14	\$ 2,970.00
SUBTOTAL HOURS/COSTS		17	48	142	8		215	\$ 32,235.00
<b>Task 2: Conceptual Alternative Analysis</b>								
A	Conceptual Alternative Analysis							
	Develop & Simulate Alternatives	2	12	24			38	\$ 5,790.00
	Summarize Benefits/Challenges	4	6	12			22	\$ 3,660.00
	Develop Cost Estimates	2	4	8			14	\$ 2,270.00
	Prioritize Projects	2	12	6			20	\$ 3,450.00
	QAQC Plan	6	8				14	\$ 2,970.00
SUBTOTAL HOURS/COSTS		16	42	50			108	\$ 18,140.00
<b>Task 3: Storm Water Utility Rate Evaluation</b>								
A	Impervious Area Delineation	1	4	16			21	\$ 3,055.00
	Determine ERU	1	4	12			17	\$ 2,535.00
	Compute Total ERUs for Town		1	4			5	\$ 700.00
	Develop Rate Table	1	1	2			4	\$ 695.00
SUBTOTAL HOURS/COSTS		3	10	34			47	\$ 6,985.00
<b>Task 4: Project Management / Deliverables</b>								
A	Project Coordination & Management							
	Kick-off Meeting	1	1	2			4	\$ 695.00
	Status/Coordination Meetings, x6	6		12			18	\$ 3,090.00
	Monthly progress reports	3				3	6	\$ 969.00
B	Deliverables/Reporting							
	Draft Memo	2	8	24			34	\$ 5,070.00
	Meeting to discuss City comments	1	1	2			4	\$ 695.00
	Final Memo	2	4	8			14	\$ 2,270.00
SUBTOTAL HOURS/COSTS		15	14	48		3	80	\$ 12,789.00
<b>SUMMARY</b>								
Task 1: 2D Rain-On-Mesh Analysis		17	48	142	8		215	\$ 32,235.00
Task 2: Conceptual Alternative Analysis		16	42	50				\$ 18,140.00
Task 3: Storm Water Utility Rate Evaluation		3	10	34				\$ 6,985.00
Task 4: Project Management / Deliverables		15	14	48		3	80	\$ 12,789.00
TOTAL HOURS		51	114	274	8	3	295	\$ 70,149.00
HOURLY RATES		\$ 255.00	\$ 180.00	\$ 130.00	\$ 100.00	\$ 68.00		
<b>TOTAL FEE</b>								<b>\$ 70,149.00</b>



**PREPARED FOR  
TOWN OF DOUBLE OAK, TEXAS**

320 WAKETON ROAD ~ DOUBLE OAK, TEXAS 75077



# FINAL PLANS FOR 2022 MILL AND OVERLAY PROJECT

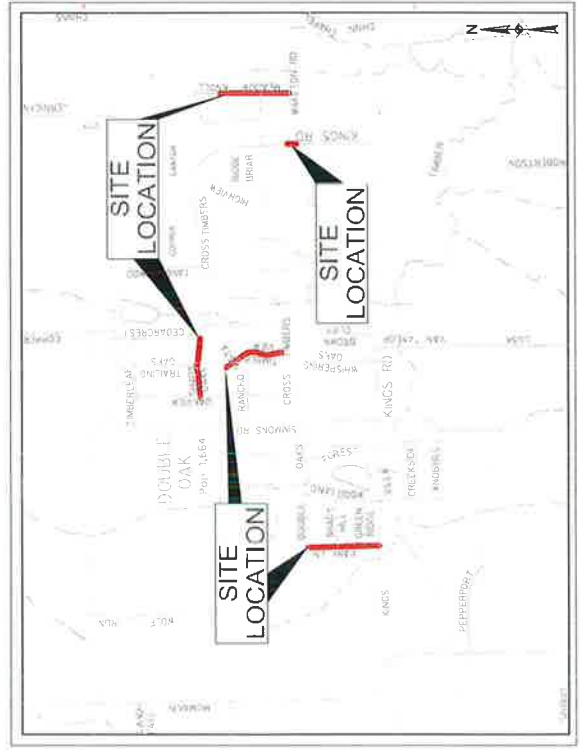
## BASE BID: SHADY OAKS & KINGS ROAD

### ADDITIVE ALTERNATES: PARK LN, TIMBERVIEW DR, AND MEADOW KNOLL DR.

DOUBLE OAK, TEXAS  
NOVEMBER 2022

**TOWN COUNCIL**

- MAYOR                    MIKE DONNELLY
- MAYOR PRO TEM      PATRICK JOHNSON
- DEPUTY MAYOR PRO TEM    CONNIE SCHOENRADE
- COUNCIL MEMBER      JEAN HILLYER
- COUNCIL MEMBER      CASEY PARSONS
- COUNCIL MEMBER      SCOTT WHISENHUNT



PREPARED FOR  
**TOWN OF DOUBLE OAK, TEXAS**  
320 WAKETON ROAD ~ DOUBLE OAK, TEXAS 75077



4000 FOSSIL CREEK BLVD.  
FORT WORTH, TX 76137-2720  
TEL 817.647.1422  
Info-FortWorth@Halff.com  
TBPELS ENGINEERING FIRM #312

PROJECT MANAGER: STEVEN D. TEMPLER, P.E.

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**GENERAL NOTES**

- All work shall conform to the requirements of the Town of Double Oak and shall be in accordance with the project details and specifications. All work not covered in the contract documents and the Town of Double Oak standard details and specifications for construction shall be governed by the Texas Department of Transportation Standard Specifications for Public Works Construction, Fourth Edition, including all amendments.
- Contractor shall locate all utilities prior to the start of construction. The Contractor shall assume responsibility for repairs to existing utilities damaged by the Contractor's activities for no additional compensation to the Contractor.
- The Contractor shall protect existing property monumentation and primary control. Any such points which the Contractor believes will be destroyed shall have offset points established by the Contractor prior to construction. Any monumentation destroyed by the Contractor shall be re-established at Contractor's expense by a registered professional land surveyor.
- It shall be the responsibility of the Contractor to:
  - Prevent any damage to private property and property owner's trees, mailboxes, poles, fences, shrubs, etc.
  - Protect all underground utilities. (C) Notify all utility companies at least 48 hours prior to excavation in locations where they are located.
  - Protect all existing public and private utilities in the vicinity of construction activities prior to start of construction. The Contractor shall notify Engineer of any unidentified potential conflicts that may exist between the existing utilities and construction plans.
  - Any damages that may occur to real property or existing utilities shall be repaired or replaced by the Contractor at least the same condition that the real property or existing improvements were in prior to the damages. This restoration shall be subject to the Owner's approval; moreover, this restoration shall not be a basis for additional compensation to the Contractor.
- The Contractor shall maintain drainage at all times during construction. Ponding of water in streets, drives, trenches, etc. will not be allowed. The Contractor shall maintain residential driveway access at all times.
- The Contractor is responsible for coordination with utility companies and adjustment of existing sanitary sewer manholes, cleanouts, water meters, water valves, fire hydrants and other utility appurtenances to finished grade as required at no cost to the Town of Double Oak.
- Barricading and traffic control during construction shall be the responsibility of the contractor and shall conform to the Texas Manual on Uniform Traffic Control Devices, Part 6B, for all phases of construction unless otherwise noted on the contract documents. Traffic control shall be maintained during all phases of construction unless otherwise noted on the contract documents. The Contractor shall assume full responsibility for public safety in the construction area during the duration of construction activities.
- The Contractor shall abide by all applicable federal, state, and local laws governing excavation. The Contractor shall provide detailed plans and specifications for trench safety systems that comply with applicable laws governing excavation. These plans shall be sealed by an Engineer experienced in the design of trench safety systems registered in the State of Texas. The Contractor shall submit completed trench safety plan to the Engineer prior to commencing work. The Contractor shall be solely responsible for all aspects of work related to excavation.

**UTILITY CONTACTS**

<p><b>Gas Companies</b></p> <p>COSERV GAS 7701 South Stemmons Carrizo, TX 76220 To report a gas leak call 1-800-566-2314 contact@coservegas.com To report a Gas Leak: 940.270.7899</p>	<p><b>Phone Companies</b></p> <p>FRONTIER BILL #EZEWS00 972-316-5066</p>
<p><b>Electric Companies</b></p> <p>ONCOR ELECTRIC DELIVERY 2601 North Rockstrahl Blvd. Fennetts, Quinter To report a Street Light Outage: 1.888.313.6852</p>	<p><b>Cable Companies</b></p> <p>GRANDE COMMUNICATIONS Jerry Horn 972-410-9544 400 Lewawille TX 75056</p>
<p><b>Water Department and Service</b></p> <p>CROSS TIMBERS WATER SUPPLY CORPORATION 2032 E. Hickory Hill Rd. Argyle, TX 75228 1-800-534-0780</p>	<p><b>Water Department and Service</b></p> <p>TIME WARNER CABLE 1555 Glenwood St. Dallas 75228 214-320-7406</p>

- The Contractor shall remove from the project area all surplus material. This work shall be incidental and not a separate pay item. Surplus materials from excavation include dirt, trash, rock measuring grease, etc. at a location accessible to the Town of Double Oak if within the Town limits. If the location is not within the Town limits, the Contractor shall provide a letter stating so. No excess excavated material shall be deposited in low areas or along natural drainage ways without written permission from the affected property owner and the Town of Double Oak. If the Contractor places excess material in these areas without written permission, he will be responsible for all damages resulting from such fill and he shall remove the material at his own cost.
- Blidders shall make any investigation of existing subsurface conditions as deemed necessary at no additional expense to the Town of Double Oak. Neither the Town of Double Oak nor the Engineer will be responsible in any way for additional compensation for excavation work performed under this contract due to the Contractor's assumptions.
- The Contractor will furnish to the Town of Double Oak the name of an OSHA certified competent person to be on the project at all times.
- No trees shall be removed unless so noted on the plans or upon the specific approval of the Town of Double Oak. Trees, plants, shrubbery, etc. are to be protected. The line of the work and area not to be removed or replaced, the Contractor shall protect such trees, plants, shrubbery, etc. utilizing orange safety fencing with steel T-posts and shall not permit machinery or employees to sorape, tear the limbs from, damage, or attach guy cables to them, if in the opinion of the Engineer, such trees, plants, shrubbery, etc. would be damaged by machinery, etc. hand excavation may be required. The CONTRACTOR shall be responsible for all damages to adjacent trees, plants, shrubbery, etc., and any such damage shall be remedied to the satisfaction of the Town. The cost of such protection shall not be paid for as a separate contract pay item; the costs thereof shall be included in such pay items as are provided for in the proposal and contract.
- The Contractor shall refer to contract documents and specifications for additional information.
- Contractor shall call 1-811-DIG1ESS 48 hours prior to construction activities.
- Contractor shall remove all excess millings from shoulder area and excess asphalt and rock from overlay. No separate pay item.
- Contractor to install Fire Hydrant blue Pavement Markers at the intersection of Shady Oaks Ln and Oakview Dr. (E.A.). No separate pay item.
- Contractor is not permitted to park equipment or vehicles on grass. Contractor and workers must park vehicles and equipment on roadway or adjacent streets. Any rutting, or damage to yards caused by contractor's equipment or worker's vehicles will be fixed at the contractor's expense.

DOUBLE OAK TX  
2022 MILL AND OVERLAY PROJECT  
BRIDGE OVER LAKE TRAVELWAY

STATE OF TEXAS  
COUNTY OF TARRANT  
CITY OF WORTH

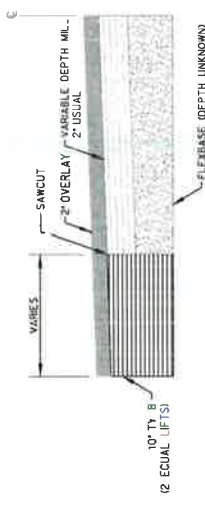
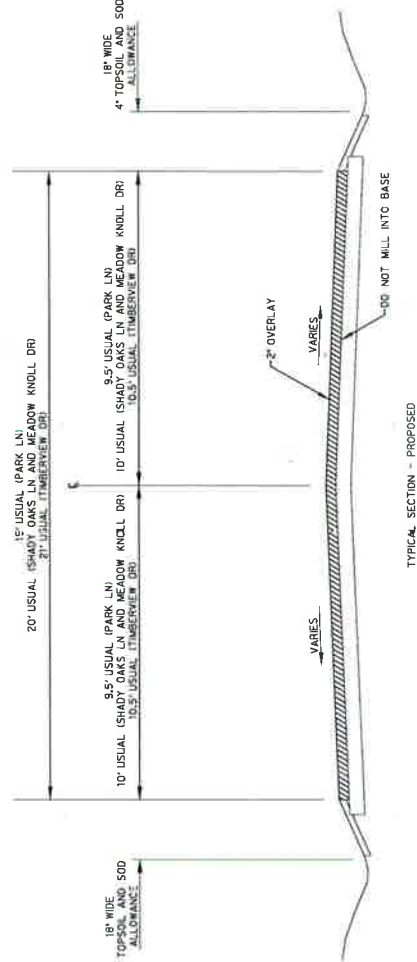
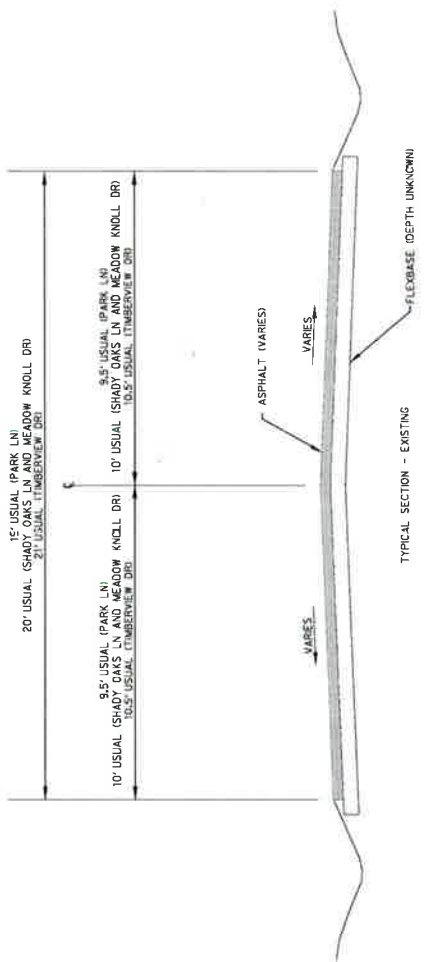
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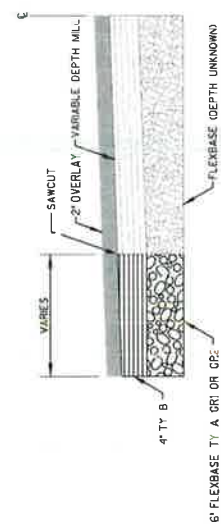
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OPTION 1 - FULL DEPTH REPAIR



OPTION 2 - FULL DEPTH REPAIR

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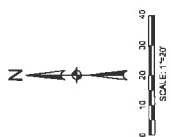
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MATCHLINE - SEE SHEET 5

LEGEND

- LIMITS OF MILL AND OVERLAY
- LIMITS OF FULL DEPTH REPAIR
- APPROXIMATE LIMITS OF BLOCK SOO

- NOTES:
- REFER TO PAVEMENT DETAILS AND STANDARD DETAILS FOR PAVING NOTES, DETAILS, AND OTHER INFORMATION.
  - CONTRACTOR SHALL MATCH EDGE OF PROPOSED PAVEMENT TO FULL EXISTING DRIVEWAY. CONTRACTOR SHALL MAINTAIN A STRAIGHT ROADWAY EDGE.
  - CONTRACTOR TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
  - CONTRACTOR TO PROTECT ALL TREES, MAILBOXES, AND LANDSCAPING ADJACENT TO PAVEMENT.
  - QUANTITIES AND LIMITS OF ASPHALT TRANSITION ARE APPROXIMATE AND SHALL BE ADJUSTED TO MATCH FIELD CONDITIONS. CONTRACTOR SHALL MAINTAIN A STRAIGHT ROADWAY EDGE. DEPTH CHANGES ARE SUBSIDIARY TO VARIABLE DEPTH MILL.
  - QUANTITY FOR REMOVE AND REPLACE ASPHALT TRANSITION ON DRIVEWAY IS APPROXIMATE BASED ON AN AVERAGE 2' WIDE ACTUAL DRIVEWAY. THE QUANTITIES WILL BE MEASURED IN THE FIELD.
  - AN ALLOWANCE IS PROVIDED FOR BLOCK SOODING. IT IS THE INTENT TO MINIMIZE THE NEED EXCEPT WHERE SHOWN ON THE PLANS. THERE MAY BE CIRCUMSTANCES CAUSED BY PAVEMENT REDUCTION OR GRASS GROWTH THAT MAY REQUIRE ADDITIONAL BLOCK SOODING.
  - CONTRACTOR TO TAKE PICTURES AND VIDEO THE PROJECT SITE TO DOCUMENT THE EXISTING CONDITIONS PRIOR TO BEGINNING WORK.



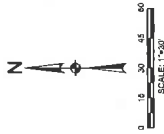




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Project Name	2022 MILL AND OVERLAY PROJECT

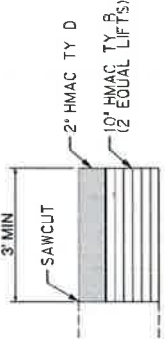
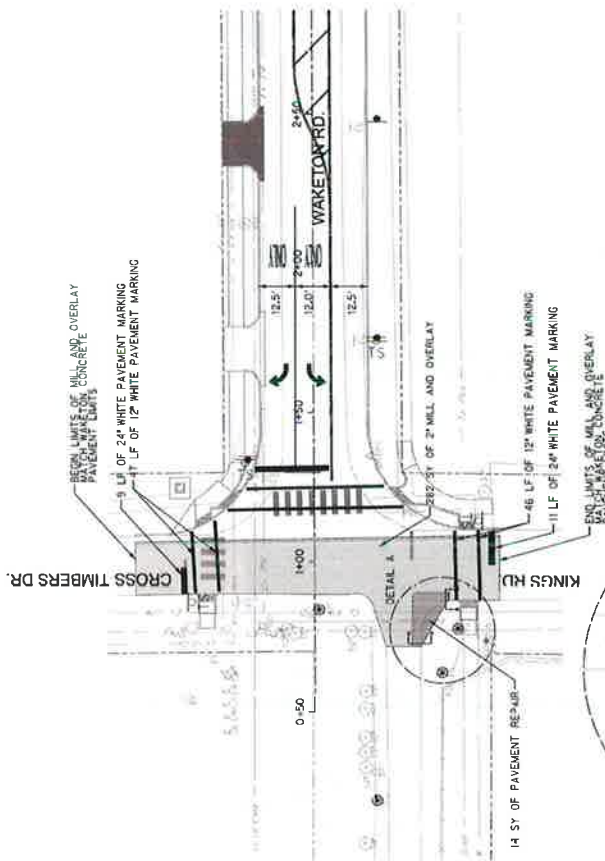


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Project Name	2022 MILL AND OVERLAY PROJECT

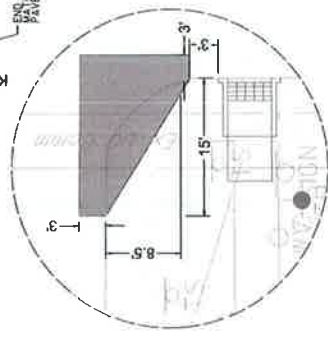


**NOTES:**

- REFER TO PAVEMENT DETAILS AND STANDARD DETAILS FOR PAVING NOTES, DETAILS, AND OTHER INFORMATION.
- CONTRACTOR SHALL MATCH EDGE OF PROPOSED PAVEMENT TO EXISTING PAVEMENT TO MAINTAIN A STRAIGHT ROADWAY EDGE TO THE DRIVEWAY TO MAINTAIN A STRAIGHT ROADWAY EDGE PRIOR TO CONSTRUCTION.
- CONTRACTOR TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- CONTRACTOR TO PROTECT ALL TREES, MAILBOXES, AND LANDSCAPING ADJACENT TO PAVEMENT.
- QUANTITIES OF ASPHALT PATCHES ARE APPROXIMATE. DEPTH OF MILLING AND OVERLAY MAY VARY TO ALLOW BETTER FITTING. AT NO TIME SHALL THE CONTRACTOR MILL INTO THE BASE. DEPTH CHANGES ARE SUBORDINARY TO VARIABLE DEPTH MILL.
- QUANTITY FOR REMOVE AND REPLACE ASPHALT TRANSITION ON WAREHOUR RD. SHALL BE MEASURED BY THE ACTUAL WIDTH AND LENGTH OF THE MILL AND OVERLAY. THE FIELD QUANTITIES WILL BE MEASURED IN THE FIELD.
- AN ALLOWANCE IS PROVIDED FOR BLOCK SOGGING. IT IS THE INTENT TO MAINTAIN THE NEED EXCEPT WHERE SHOWN ON THE PLANS. THESE ARE TO BE USED TO CORRECT DEFECTS THAT ARE NOT NECESSARY TO BE CORRECTED. THE QUANTITY OF ASPHALT PATCHES WILL BE MEASURED IN THE FIELD.
- CONTRACTOR TO TAKE PICTURES AND VIDEO THE PROJECT SITE TO DOCUMENT THE EXISTING CONDITIONS PRIOR TO BEGINNING WORK.



SECTION A-A  
PAVEMENT REPAIR  
N.T.S.



DETAIL A  
N.T.S.

**KINGS ROAD MILL AND OVERLAY**




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MATCHLINE - SEE SHEET 9

**NOTES**

1. REFER TO PAVEMENT DETAILS AND STANDARD DETAILS FOR PAVING NOTES, DETAILS, AND OTHER INFORMATION.
2. CONTRACTOR SHALL MATCH EDGE OF PROPOSED PAVEMENT TO EXISTING PAVEMENT TO MAINTAIN A STRAIGHT ROADWAY EDGE.
3. CONTRACTOR TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
4. CONTRACTOR TO PROTECT ALL TREES, MAILBOXES, AND LANDSCAPING ADJACENT TO PAVEMENT.
5. QUANTITY AND LIMITS OF ASPHALT TRANSITIONS ARE APPROXIMATE DEPTH OF MILLING NEAR DRIVEWAYS MAY VARY TO ALLOW BETTER TIE-INS. AT NO TIME SHALL THE CONTRACTOR MILL INTO THE BASE. DEPTH CHANGES ARE SUBSIDIARY TO VARIABLE DEPTH MILL.
6. QUANTITY FOR REMOVE AND REPLACE ASPHALT TRANSITION ON DRIVEWAYS SHALL BE MEASURED AS SHOWN ON THE PLANS. THE WIDTH AND LIMITS ON DRIVEWAYS WILL VARY AND BE AGREED UPON IN THE FIELD. QUANTITIES WILL BE MEASURED IN THE FIELD.
7. AN ALLOWANCE IS PROVIDED FOR BLOCK SOODING. IT IS THE INTENT TO MINIMIZE THE NEED EXCEPT WHERE SHOWN ON THE PLANS. THERE WILL BE NO BLOCK SOODING PERMITTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ASPHALT OPERATION THAT MAY NECESSITATE THE NEED FOR ADDITIONAL BLOCK SOODING.
8. CONTRACTOR TO TAKE PICTURES AND VIDEO THE PROJECT SITE TO DOCUMENT THE EXISTING CONDITIONS PRIOR TO BEGINNING WORK.

**LEGEND**

-  LIMITS OF MILL AND OVERLAY
-  LIMITS OF FULL DEPTH REPAIR

DOUBLE OAK  
2022 MILL AND OVERLAY PROJECT  
AND VENDOR CONTROL  
DOUBLE OAK TX



**HALFF**  
HALFF ENGINEERING, P.C.  
1400 W. WYOMING  
SUITE 100  
DALLAS, TEXAS 75201  
TEL: 972.961.1111  
WWW.HALFF.COM



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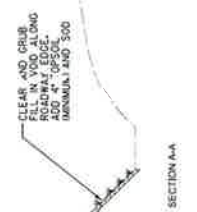
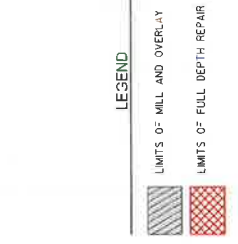
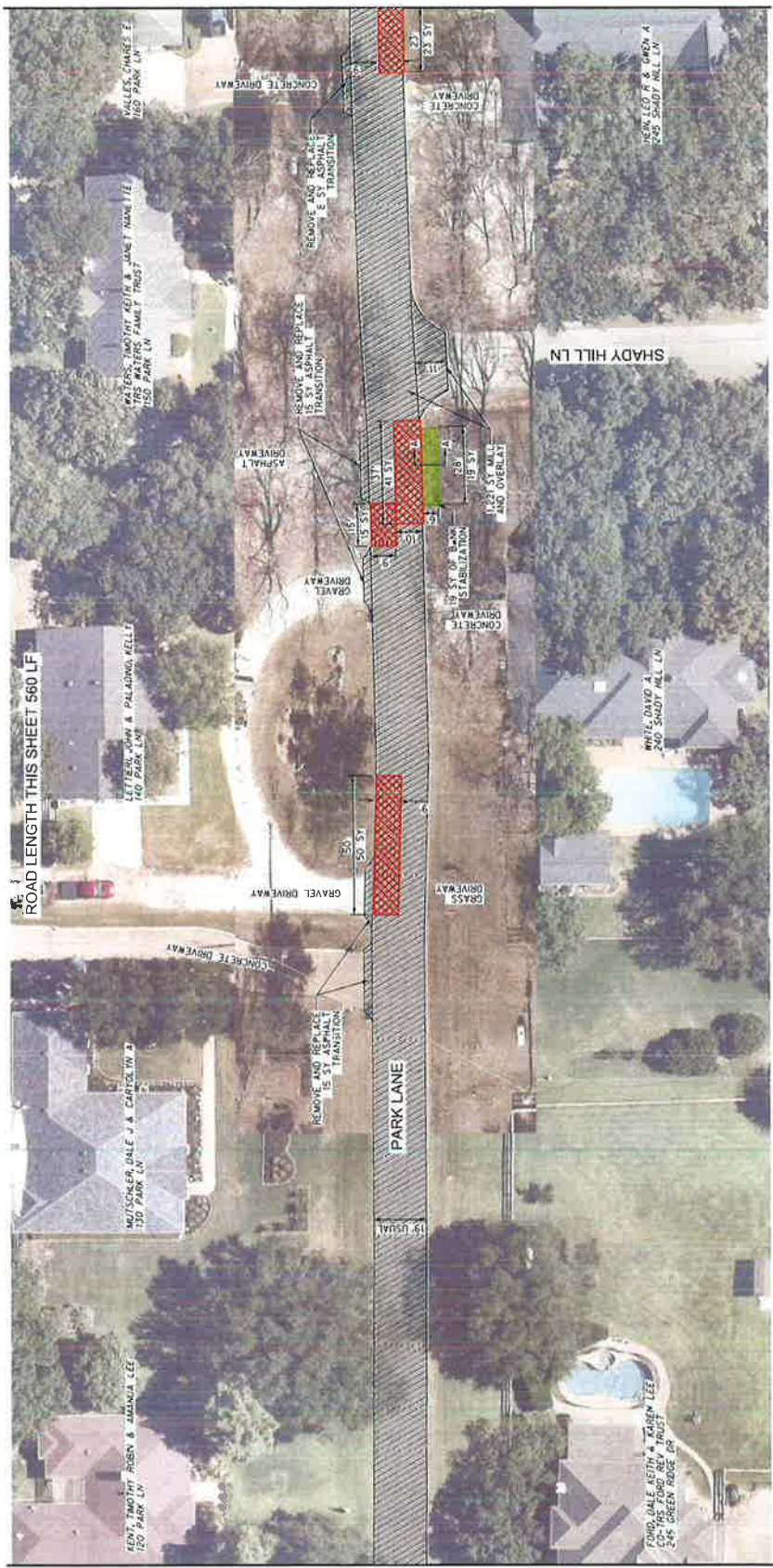




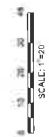
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Client	
Contract No.	
Issue Date	
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Issue Date	
Drawn By	
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Scale	
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Project No.	
Revision	
Scale	
Sheet No.	
Project Name	
Client	
Contract No.	
Issue Date	
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Project Name	
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Contract No.	
Issue Date	
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Sheet No.	



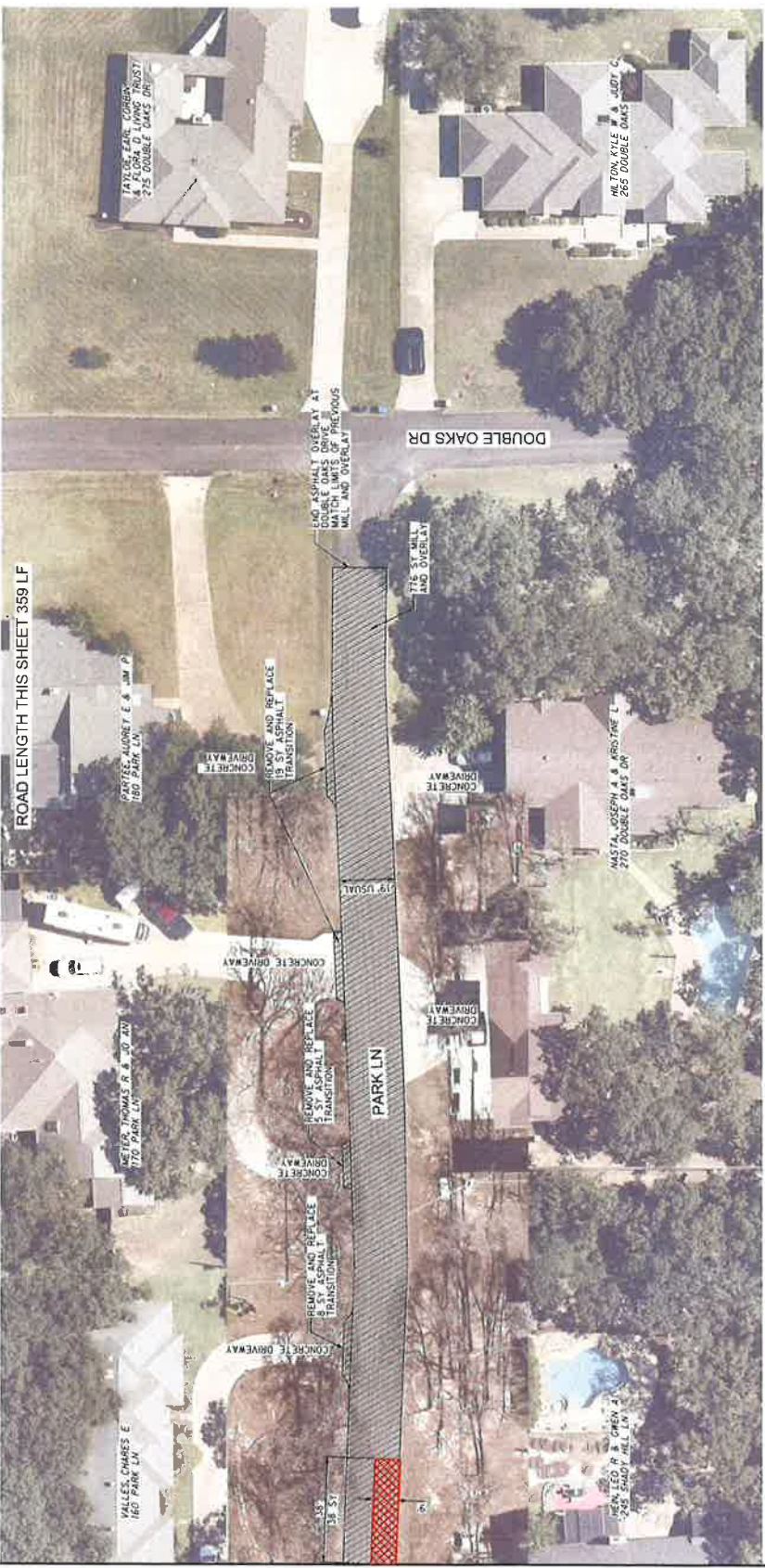
- NOTES:
- REFER TO PAVEMENT DETAILS AND STANDARD DETAILS FOR PAVING NOTES, DETAILS, AND OTHER INFORMATION.
  - CONTRACTOR SHALL MATCH EDGE OF PROPOSED PAVEMENT TO ALL EXISTING DRIVEWAYS. THIS MAY REQUIRE A FLARE TO THE DRIVEWAY TO MAINTAIN A STRAIGHT ROADWAY EDGE.
  - CONTRACTOR TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
  - CONTRACTOR TO PROTECT ALL TREES, MAILBOXES, AND LANDSCAPING ADJACENT TO PAVEMENT.
  - QUANTITY AND LIMITS OF ASPHALT TRANSITIONS ARE APPROXIMATE. DEPTH OF MILLING NEAR DRIVEWAYS MAY VARY TO ALLOW BETTER FIT. DEPTH CHANGES ARE SUBSIDIARY TO VARIABLE DEPTH MILLING.
  - QUANTITY FOR REMOVE AND REPLACE ASPHALT TRANSITION ON DRIVEWAY IS APPROXIMATE BASED ON AN AVERAGE 5' WIDTH. ACTUAL WIDTH AND LIMITS ON DRIVEWAYS WILL VARY AND BE AGREED UPON IN THE FIELD. QUANTITIES WILL BE MEASURED IN THE FIELD.
  - AN ALLOWANCE IS PROVIDED FOR BLOCK SODDING. IT IS THE INTENT OF THIS SPECIFICATION TO REQUIRE THE CONTRACTOR TO PROVIDE MAXIMUM SODDING NEAR DRIVEWAYS TO PREVENT EROSION OR GRASS DYING DUE TO THE ASPHALT OPERATION THAT MAY NECESSITATE THE NEED FOR ADDITIONAL BLOCK SODDING.
  - CONTRACTOR TO TAKE PICTURES AND VIDEO THE PROJECT SITE TO DOCUMENT THE EXISTING CONDITIONS PRIOR TO BEGINNING WORK.



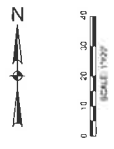
SCALE: 1"=20'

MATCHLINE - SEE SHEET 10

MATCHLINE - SEE SHEET 8



- NOTES:
1. REFER TO PAVEMENT DETAILS AND STANDARD DETAILS FOR PAVING NOTES, DETAILS, AND OTHER INFORMATION.
  2. CONTRACTOR SHALL MATCH EDGE OF PROPOSED PAVEMENT TO EXISTING PAVEMENT TO MAINTAIN A STRAIGHT ROADWAY EDGE.
  3. CONTRACTOR TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
  4. CONTRACTOR TO PROTECT ALL TREES, MAILBOXES, AND LANDSCAPING ADJACENT TO PAVEMENT.
  5. QUANTITY AND LIMITS OF ASPHALT TRANSITIONS ARE APPROXIMATE. DEPTH OF MILL AND OVERLAY DRIVEWAYS MAY VARY TO ALLOW BETTER TIE-INS. AT NO TIME SHALL THE CONTRACTOR MILL INTO THE BASE. DEPTH CHANGES ARE SUBSIDIARY TO VARIABLE DEPTH MILL.
  6. QUANTITY FOR REMOVE AND REPLACE ASPHALT TRANSITION ON DRIVEWAY IS APPROXIMATE BASED ON AN AVERAGE WIDTH OF 10 FT. THE FIELD QUANTITIES WILL BE MEASURED IN THE FIELD.
  7. AN ALLOWANCE IS PROVIDED FOR BLOCK SOODING. IT IS THE INTENT TO MINIMIZE THE NEED EXCEPT WHERE SHOWN ON THE PLANS. THERE MAY BE CIRCUMSTANCES CAUSED BY AVOIDMENT OF UTILITY OR GRASS NEED FOR ADDITIONAL BLOCK SOODING.
  8. CONTRACTOR TO TAKE PICTURES AND VIDEO. THE PROJECT SITE TO DOCUMENT THE EXISTING CONDITIONS PRIOR TO BEGINNING WORK.

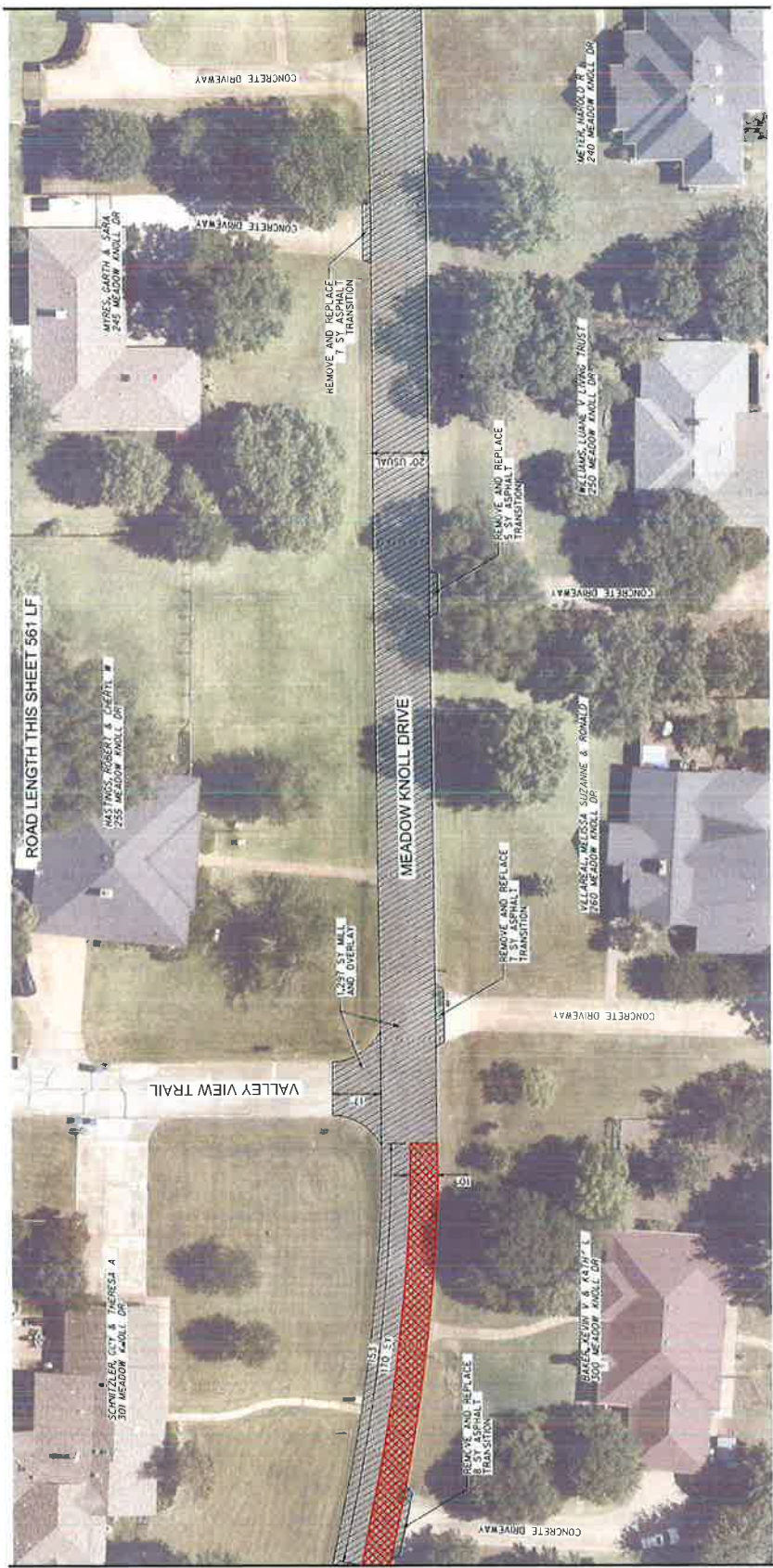












MATCHLINE - SEE SHEET 14

MATCHLINE - SEE SHEET 16

**NOTES:**

1. REFER TO PAVEMENT DETAILS AND STANDARD DETAILS FOR PAVING NOTES, DETAILS, AND OTHER INFORMATION.
2. CONTRACTOR SHALL MATCH EDGE OF PROPOSED PAVEMENT TO ALL EXISTING DRIVEWAYS. THIS MAY REQUIRE A FLARE TO THE DRIVEWAY TO MAINTAIN A STRAIGHT ROADWAY EDGE.
3. CONTRACTOR TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
4. CONTRACTOR TO PROTECT ALL TREES, MAILBOXES, AND LANDSCAPING ADJACENT TO PAVEMENT.
5. QUANTITY AND LIMITS OF ASPHALT TRANSITIONS ARE APPROXIMATE. DEPTH OF MILLING NEAR DRIVEWAYS MAY VARY TO ALLOW BETTER MATCHES TO EXISTING DRIVEWAYS. MILLING DEPTH NEAR DRIVEWAY DEPTH CHANGES ARE SUBSIDIARY TO VARIABLE DEPTH MILL.
6. QUANTITY FOR REMOVE AND REPLACE ASPHALT TRANSITION ON WID-T-H AND LIMITS ON DRIVEWAYS WILL VARY AND BE ADDED UPON IN THE FIELD. QUANTITIES WILL BE MEASURED IN THE FIELD.
7. AN ALLOWANCE IS PROVIDED FOR BLOCK SODDING. IT IS THE INTENT OF THIS PROJECT TO PROVIDE FOR PAVEMENT REDUCTION OR GRASS DYING DUE TO THE ASPHALT OPERATION THAT MAY NECESSITATE THE NEED FOR ADDITIONAL BLOCK SODDING.
8. CONTRACTOR TO TAKE PICTURES AND VIDEO THE PROJECT SITE TO DOCUMENT THE EXISTING CONDITIONS PRIOR TO BEGINNING WORK.



**LEGEND**

- LIMITS OF MILL AND OVERLAY
- LIMITS OF FULL DEPTH REPAIR

DOUBLE OAK  
2022 MILL AND OVERLAY PROJECT  
3000 W. WASHINGTON BLVD  
MARIETTA, GA 30067



**HALFF**  
CORPORATION  
1000 W. WASHINGTON BLVD  
MARIETTA, GA 30067  
TEL: 770.426.1000  
WWW.HALFFCORP.COM

Project No.	
Sheet No.	
Date	
Drawn by	
Checked by	
Scale	AS NOTED



Project No.	
Sheet No.	
Date	
Drawn by	
Checked by	
Scale	AS NOTED
Sheet Title	MEADOW KNOLL DR PAVING PLAN
Sheet of	31

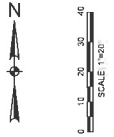


MATCHLINE - SEE SHEET 15

ROAD LENGTH THIS SHEET 387 LF



- NOTES:**
1. REFER TO PAVEMENT DETAILS AND STANDARD DETAILS FOR PAVING NOTES, DETAILS, AND OTHER INFORMATION.
  2. CONTRACTOR SHALL MATCH EDGE OF PROPOSED PAVEMENT TO DRIVEWAY TO MAINTAIN A STRAIGHT ROADWAY EDGE.
  3. CONTRACTOR TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
  4. CONTRACTOR TO PROTECT ALL TREES, MAILBOXES, AND LANDSCAPING ADJACENT TO PAVEMENT.
  5. QUANTITY AND LIMITS OF ASPHALT TRANSITIONS ARE APPROXIMATE DEPTH OF MILLING NEAR DRIVEWAYS MAY VARY TO ALLOW BETTER FITS. AT NO TIME SHALL THE CONTRACTOR MILL INTO THE BASE. DEPTH CHANGES ARE SUBSIDIARY TO VARIABLE DEPTH MILL.
  6. QUANTITY FOR REMOVE AND REPLACE ASPHALT TRANSITION ON DRIVEWAYS WILL VARY. LIMITS ON DRIVEWAYS WILL VARY AND BE AGREED UPON IN THE FIELD. QUANTITIES WILL VARY AND BE AGREED UPON IN THE FIELD.
  7. AN ALLOWANCE IS PROVIDED FOR BLOCK SODDING. IT IS THE INTENT TO MINIMIZE THE NEED EXCEPT WHERE SHOWN ON THE PLANS. THERE WILL BE A MINIMUM 10% SODDING ALLOWANCE. CONTRACTOR WILL BE RESPONSIBLE FOR THE ASPHALT OPERATION THAT MAY NECESSITATE THE NEED FOR ADDITIONAL BLOCK SODDING.
  8. CONTRACTOR TO TAKE PICTURES AND VIDEO THE PROJECT SITE TO DOCUMENT THE EXISTING CONDITIONS PRIOR TO BEGINNING WORK.



DOUBLE OAK  
2022 MILL AND OVERLAY PROJECT  
DRIVEWAYS AND DRIVEWAY TRANSITION IN  
DOUBLE OAK, TX

**HALF**

HALF ENGINEERING & ARCHITECTURE  
10000 W. STATE ST. SUITE 100  
DALLAS, TEXAS 75243  
TEL: 972.382.1111  
WWW.HALFENGINEERING.COM

Project No.	15270
Client	MEADOW KNOLL DR
Drawn By	HALF
Checked By	HALF
Date	07/11/23
Sheet No.	15

THE STATE OF TEXAS  
Professional Engineer  
No. 15270  
Date: 07/11/23

MEADOW KNOLL DR  
PAVING PLAN  
(SHEET 15 OF 15)

15 OF 30  
Sheet Number







Project No.	
Sheet No.	
Date	
Revision	

TYPE: BARRIERS  
1/2/2022

Project No. 2022-00000-0000  
Sheet No. 19 OF 36  
Scale: AS NOTED  
DATE: 1/2/2022

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

- The Barricade and Construction Standard Sheets (BC sheets) are intended to show typical examples for placement of temporary traffic control devices, construction movement 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).
- The development and design of the Traffic Control Plan (TCP) is the responsibility of the Engineer.
- 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.
- 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.
- Geometric design of lane shifts and detours should, when possible, meet the applicable Texas State Highway and Transportation Officials (ASHOTO) "Policy on Geometric Design of Highways and Streets," the "MUTCD" "Roadway Design Manual," or engineering judgment.
- When projects start, the Engineer(s) may omit the END ROAD WORK, TRAFFIC FINES LABLEL, and other appropriate contingencies to the contractor. 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.
- 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.
- All signs shall be constructed in accordance with the details found in the Standard Highway Sign Designs for Texas. If the sign is not in the Standard Highway Sign Designs, the Contractor shall provide a detail to the Contractor before the sign is manufactured.
- 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.
- 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 on all CSJ limited projects. The BEGIN ROAD WORK sign near the CSJ limit sign shall be revised to show the CSJ limit sign. CSJ limit signs are not required.
- Traffic control devices should be in place only while work is actually in progress or a definite need exists.
- The Engineer has the final decision on the location of all traffic control devices.
- 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:**

- 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 ISFA - American National Standards for High-visibility apparel. Equipment operators shall wear high-visibility safety apparel meeting the requirements of Class 2 or 3 flash exposure. Class 3 garments should be considered for high traffic volume work areas or night time work.
- Except in emergency situations, flagger stations shall be illuminated when flagging is used at night.

**COMPLIANT WORKZONE TRAFFIC CONTROL DEVICES**

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

THE DOCUMENTS BELOW CAN BE FOUND ON-LINE AT <http://www.tdot.gov>

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

SHEET 1 OF 12

Texas Department of Transportation  
Traffic Division  
Barricade

**BARRICADE AND CONSTRUCTION  
GENERAL NOTES  
AND REQUIREMENTS**

BC(1) - 21

DATE	BY	CHKD	DATE
4-01	1-13		
4-02	1-13		
4-03	1-13		
4-04	1-13		

DISCLAIMER  
The use of this template is governed by the terms and conditions of the contract and the user assumes all responsibility for the content and accuracy of the information provided. The user is responsible for ensuring that the information is current and accurate.

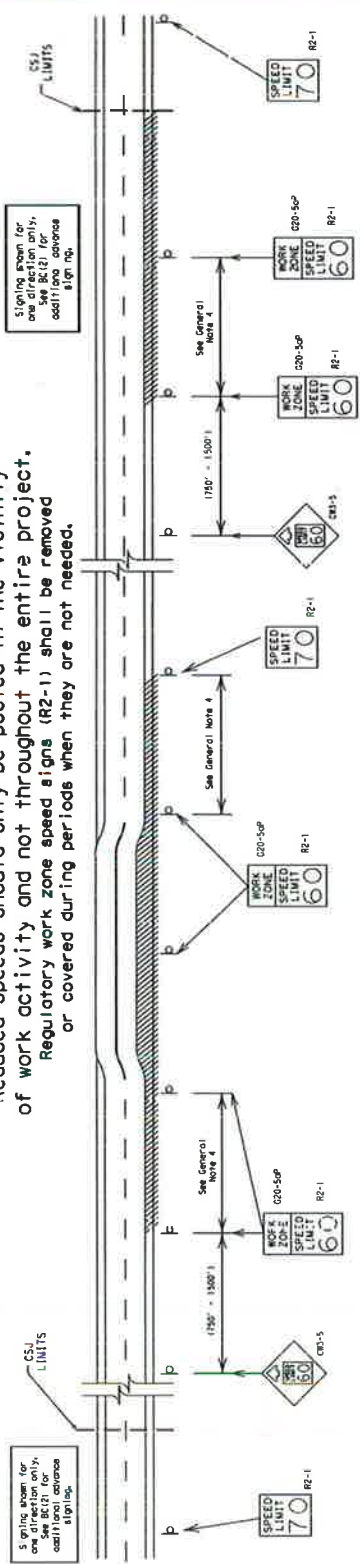




Project No.	2022-001
Sheet No.	1-1
Scale	AS SHOWN
Contract No.	2022-001
Contract Name	DOUBLE OAK AND CONSTRUCTION
Contract No.	BC (13) - 21
Drawn By	...
Checked By	...
Scale	AS SHOWN
Date	...

### 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 (RZ-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 traveled way when restricted geometrics with a lower design speed or other 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) grade
  - d) cross section details
  - 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 traveled way when restricted geometrics with a lower design speed or other modification of the geometrics to a higher design speed is not feasible. This type of work zone speed limit may be included on the design of the traveled way 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

- Regulatory work zone speed limits should be used only for sections of construction projects where speed control is of major importance.
- Regulatory work zone speed limit signs shall be placed on supports at a 7 foot minimum mounting height.
- Speed zone signs are illustrated for one direction of travel and are normally posted for each direction of travel.
- Frequency of work zone speed limit signs should be 40 mph and greater 0.2 to 1 mile 35 mph and less 0.2 to 1 mile
- Regulatory speed limit signs shall have black legends on a white reflective background (See "Reflective Sheeting" on BC(4)).
- Fabrication, erection and maintenance of the ADVANCE SPEED LIMIT (AS-5) sign, "WORK ZONE" (WZ-5) plaque and the "SPEED LIMIT" (RZ-1) sign shall not be paid for directly, but shall be considered subsidiary to Item 502.
- Turning signs from view, laying signs over or down will not be allowed, unless as otherwise noted under "REMOVING OR COVERING" on BC(4).
- Techniques that may help reduce traffic speeds include but are not limited to:
  - A. Law enforcement.
  - B. Flagger stationed next to sign.
  - C. Portable changeable message sign (PCMS).
  - D. Low-power (orange) radar transmitter.
  - E. Speed monitor trailers or signs.
- Signs 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.

SHEET 3 OF 12  
Texas Department of Transportation  
Traffic Control  
Barricade  
Barricade

## BARRICADE AND CONSTRUCTION WORK ZONE SPEED LIMIT

### BC (13) - 21

Item	1	2	3	4	5	6	7	8	9	10
Quantity	1	1	1	1	1	1	1	1	1	1
Unit	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA
Material	...	...	...	...	...	...	...	...	...	...
Notes	...	...	...	...	...	...	...	...	...	...
Scale	AS SHOWN	AS SHOWN	AS SHOWN	AS SHOWN	AS SHOWN	AS SHOWN	AS SHOWN	AS SHOWN	AS SHOWN	AS SHOWN
Date	...	...	...	...	...	...	...	...	...	...

DISCLAIMER: The use of this standard is governed by the Texas Engineering Practice Act. No warranty of kind is made by the author or publisher for errors or omissions. The user assumes full responsibility for the completion of this standard for other projects or for incorrect results or damages resulting from its use.





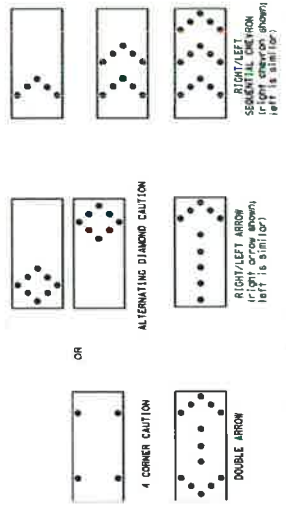






Arrow boards may be located behind channelizing devices in a case for a shoulder taper or merging taper, otherwise they shall be delineated with (con) channelizing devices placed perpendicular to traffic on the upstream leg of traffic.

- The flashing arrow board should be used for all lane closures on multi-lane roads, or lane merging situations or construction activities on the travel lanes, as well as situations where a lane is closed for a short duration, such as a lane closure for a short duration or work on shoulders, unless the "CAUTION" display (see detail below) is used.
- The flashing arrow board should be used for all lane closures on multi-lane roads, or lane merging situations or construction activities on the travel lanes, as well as situations where a lane is closed for a short duration, such as a lane closure for a short duration or work on shoulders, unless the "CAUTION" display (see detail below) is used.
- The flashing arrow board should be used for all lane closures on multi-lane roads, or lane merging situations or construction activities on the travel lanes, as well as situations where a lane is closed for a short duration, such as a lane closure for a short duration or work on shoulders, unless the "CAUTION" display (see detail below) is used.
- The flashing arrow board should be able to display the following symbols:



- The "CAUTION" display consists of four corner lamps (channelizing渠treatments), or the alternating diamond (see detail below).
- The "DOUBLE ARROW" display consists of two arrow lamps (channelizing渠treatments), or the alternating diamond (see detail below).
- The "ALTERNATING DIAMOND CAUTION" display consists of four corner lamps (channelizing渠treatments), or the alternating diamond (see detail below).
- The "RIGHT/LEFT ARROW" display consists of two arrow lamps (channelizing渠treatments), or the alternating diamond (see detail below).
- The "RIGHT/LEFT ARROW (RIGHT OR LEFT ONLY)" display consists of two arrow lamps (channelizing渠treatments), or the alternating diamond (see detail below).
- The "RIGHT/LEFT ARROW (RIGHT OR LEFT ONLY) (LEFT IS STILL UP)" display consists of two arrow lamps (channelizing渠treatments), or the alternating diamond (see detail below).

**ATTENTION**  
Flashing Arrow Boards must be equipped with automatic limiting devices.

TYPE	MINIMUM HEIGHT OF PANEL LAMPS	MINIMUM WIDTH OF PANEL LAMPS	MINIMUM DISTANCE BETWEEN LAMPS
A	36 x 48	13	24 x 48
B	36 x 48	13	24 x 48
C	36 x 48	13	24 x 48

**FLASHING ARROW BOARDS**

**TRUCK-MOUNTED ATTENUATORS**

- Truck-mounted attenuators (TMAs) shall use a 1,000 foot (300 m) minimum length of attenuator in the shoulder for all situations where a lane is closed for a short duration, such as a lane closure for a short duration or work on shoulders, unless the "CAUTION" display (see detail below) is used.
- Refer to the STD for the requirements of Level 2 or Level 3.
- Refer to the STD for a list of approved TMAs.
- TMAs shall be used only if they can be positioned in the shoulder of the road for a distance of 30 to 100 feet in advance of the area of lane closure.
- The only reason a TMA should not be used is if the work zone is on a road with a shoulder width less than the work zone is on.

**LOW PROFILE CONCRETE BARRIER (LPCB) USED IN WORK ZONES**



Barrier reflector on 16" high plastic bracket. See detail below for barrier reflector placement. See detail below for barrier reflector placement. See detail below for barrier reflector placement.

**LOW PROFILE CONCRETE BARRIER (LPCB)**



Barrier reflector on 16" high plastic bracket. See detail below for barrier reflector placement. See detail below for barrier reflector placement. See detail below for barrier reflector placement.

**DELIMITATION OF END TREATMENTS**



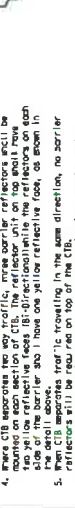
End treatments shall be used at the end of a work zone to delineate the work zone from the normal roadway. End treatments shall be used at the end of a work zone to delineate the work zone from the normal roadway.

Barrier reflectors shall be used on all concrete barriers, attenuators, and end treatments. The color and placement of the reflectors shall be as specified in the Manual. The color and placement of the reflectors shall be as specified in the Manual.



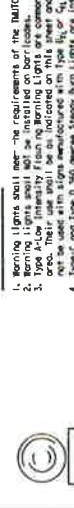
Barrier reflectors shall be used on all concrete barriers, attenuators, and end treatments. The color and placement of the reflectors shall be as specified in the Manual. The color and placement of the reflectors shall be as specified in the Manual.

**CONCRETE TRAFFIC BARRIER (CTB)**



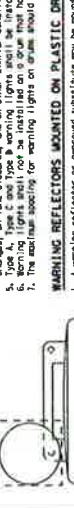
Barrier reflectors shall be used on all concrete barriers, attenuators, and end treatments. The color and placement of the reflectors shall be as specified in the Manual. The color and placement of the reflectors shall be as specified in the Manual.

**BARRIER REFLECTORS FOR CONCRETE TRAFFIC BARRIER AND ATTENUATORS**



Barrier reflectors shall be used on all concrete barriers, attenuators, and end treatments. The color and placement of the reflectors shall be as specified in the Manual. The color and placement of the reflectors shall be as specified in the Manual.

**WARNING LIGHTS**



Warning lights shall be used on all concrete barriers, attenuators, and end treatments. The color and placement of the warning lights shall be as specified in the Manual. The color and placement of the warning lights shall be as specified in the Manual.

**WARNING LIGHTS MOUNTED ON PLASTIC DRUMS**



Warning lights mounted on plastic drums shall be used on all concrete barriers, attenuators, and end treatments. The color and placement of the warning lights shall be as specified in the Manual. The color and placement of the warning lights shall be as specified in the Manual.



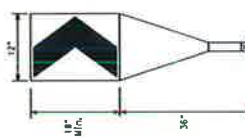


**GENERAL NOTES**

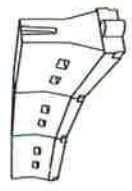
1. New cone channelizing devices, illustrated on this sheet may be installed in close proximity to traffic and are suitable for use on high or low speed roadways. The Engineer/Inspector shall ensure that spacing and placement of devices meets the minimum clearances specified in the Traffic Control Manual (TCM).
2. Channelizing devices shown on this sheet may have a flexible, fixed or portable base. The Engineer/Inspector shall specify the type of base to be used in the plans. These devices shall be used in a manner that ensures proper spacing and placement of devices. The Contractor shall be required to maintain proper device spacing and alignment.
3. Channelizing devices on self-righting supports should be used in work zone areas in the plans. These devices shall be used in a manner that ensures proper spacing and placement of devices. The Contractor shall be required to maintain proper device spacing and alignment.
4. The Contractor shall be required to ensure that the devices are properly spaced and aligned. The Contractor shall be required to maintain proper device spacing and alignment.
5. Portable bases shall be prepared in a manner that ensures proper spacing and alignment. The Contractor shall be required to maintain proper device spacing and alignment.
6. The Contractor shall be required to ensure that the devices are properly spaced and aligned. The Contractor shall be required to maintain proper device spacing and alignment.
7. The Contractor shall be required to ensure that the devices are properly spaced and aligned. The Contractor shall be required to maintain proper device spacing and alignment.

**CHEVRONS**

1. The chevron shall be a vertical rectangle with a minimum size of 12 by 18 inches.
2. Chevrons are intended to be visible to a driver of a vehicle approaching from the rear and provide additional spacing and guidance for vehicle operators with regard to changes in roadway alignment.
3. Chevrons shall be placed on the outer edge of a curve or on the edge of a lane or on the edge of a shoulder. They shall be placed in a manner that provides a clear view of the road ahead. Spacing should be such that the chevron is always visible to the driver.
4. Chevrons shall be placed on the edge of a lane or on the edge of a shoulder. They shall be placed in a manner that provides a clear view of the road ahead. Spacing should be such that the chevron is always visible to the driver.
5. Chevrons shall be placed on the edge of a lane or on the edge of a shoulder. They shall be placed in a manner that provides a clear view of the road ahead. Spacing should be such that the chevron is always visible to the driver.
6. Chevrons shall be placed on the edge of a lane or on the edge of a shoulder. They shall be placed in a manner that provides a clear view of the road ahead. Spacing should be such that the chevron is always visible to the driver.



Fixed Base of Approved Alternative (OTL) Visible Base or Flexible Support can be used



**LONGITUDINAL CHANNELIZING DEVICES (LCD)**

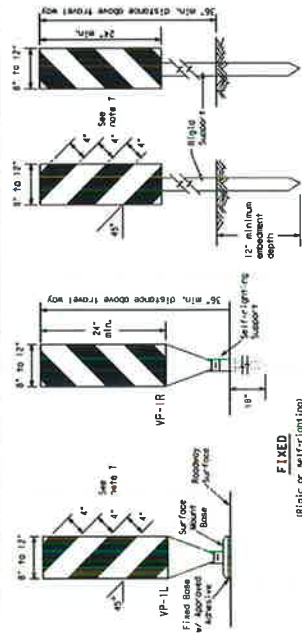
1. LCDs are chevron, lighted, reflective devices that are highly visible, have good target value and can be connected together. They are not designed to contain or redirect a vehicle in impact.
2. LCDs shall be spaced in accordance to application and investigation requirements specific to the device, and used only when placed in a manner that provides a clear view of the road ahead.
3. LCDs shall be spaced in accordance to application and investigation requirements specific to the device, and used only when placed in a manner that provides a clear view of the road ahead.
4. LCDs shall be spaced in accordance to application and investigation requirements specific to the device, and used only when placed in a manner that provides a clear view of the road ahead.
5. LCDs shall be spaced in accordance to application and investigation requirements specific to the device, and used only when placed in a manner that provides a clear view of the road ahead.
6. LCDs shall be spaced in accordance to application and investigation requirements specific to the device, and used only when placed in a manner that provides a clear view of the road ahead.

**WATER BALLASTED SYSTEMS USED AS BARRIERS**

1. Water ballasted systems used as barriers shall be used in a manner that provides a clear view of the road ahead. They shall be spaced in accordance to application and investigation requirements specific to the device, and used only when placed in a manner that provides a clear view of the road ahead.
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**HOLLOW OR WATER BALLASTED SYSTEMS USED AS LONGITUDINAL CHANNELIZING DEVICES OR BARRIERS**

If used to channelize traffic, longitudinal channelizing devices or water ballasted systems shall be spaced in accordance to application and investigation requirements specific to the device, and used only when placed in a manner that provides a clear view of the road ahead.



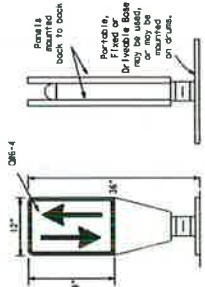
**FIXED**

1. Vertical Panels (VP) are generally used to channelize traffic or divide opposing lanes of traffic.
2. They may be used at the edge of shoulders or off-sets and other areas such as one road lanes where the Engineer/Inspector shall refer to the Roadway Design Manual for additional requirements on the use of VP's.
3. VP's should be mounted back to back. If used at the edge of curb adjacent to two-way low speed roads, VP's should always slope downward toward the travel lane.
4. VP's used on expressways and freeways or other high speed roads shall be retroreflective or reflective. VP's used on other roads shall be retroreflective or reflective.
5. Self-righting supports are available with portable bases. The Contractor shall be required to maintain proper device spacing and alignment.
6. Spacing for the VP's shall be retroreflective Type A or reflective Type B, or Type C, conforming to Departmental Material Specification DMS-330, unless noted otherwise.
7. The height of reflective material on the vertical surface of the VP's shall be 42 inches.
8. VP's shall be spaced in accordance to application and investigation requirements specific to the device, and used only when placed in a manner that provides a clear view of the road ahead.

**VERTICAL PANELS (VP)**

**PORTABLE**

1. Opposing Traffic Lane Dividers (OTLD) are delineation devices designed to separate opposing traffic lanes. The word and number above the OTLD's are used on temporary construction. OTLD's are used on temporary construction. The word and number above the OTLD's are used on temporary construction.
2. The OTLD may be used in combination with 42 inch cones or VP's.
3. Spacing between the OTLD shall not exceed 500 feet. 42 inch cones or VP's spaced between the OTLD's should not exceed 100 foot spacing.
4. The OTLD shall be spaced in a manner that provides a clear view of the road ahead. Spacing should be such that the OTLD is always visible to the driver.



**OPPOSING TRAFFIC LANE DIVIDERS (OTLD)**

Height of Top of Panel	Minimum Spacing	Minimum Spacing	Minimum Spacing	Minimum Spacing	Minimum Spacing	Minimum Spacing	Minimum Spacing	Minimum Spacing	Minimum Spacing
30	150	165	180	200	225	245	265	285	300
35	165	180	200	225	245	265	285	300	315
40	180	200	225	245	265	285	300	315	330
45	200	225	245	265	285	300	315	330	345
50	225	245	265	285	300	315	330	345	360
55	245	265	285	300	315	330	345	360	375
60	265	285	300	315	330	345	360	375	390
65	285	300	315	330	345	360	375	390	405
70	300	315	330	345	360	375	390	405	420
75	315	330	345	360	375	390	405	420	435
80	330	345	360	375	390	405	420	435	450

**SUGGESTED MAXIMUM SPACING OF CHANNELIZING DEVICES AND MINIMUM DESIRABLE TAPER LENGTHS**

Maximum Spacing (ft.) and Minimum Taper Length (ft.)

**BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES**

BC (9) - 21

Device	Minimum Spacing (ft.)	Minimum Taper Length (ft.)
Water Ballasted System	150	165
Channelizing Device	165	180
Vertical Panel	180	200
Opposing Traffic Lane Divider	200	225
Self-Righting Support	225	245
Portable Base	245	265
Fixed Base	265	285
Approved Alternative	285	300
Flexible Support	300	315

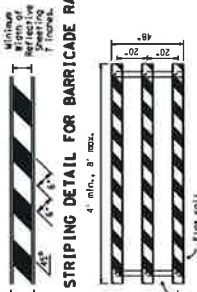
DISCLAIMER: This document is prepared by the Traffic Engineering Section for the use of the Michigan Department of Transportation. It is not intended to be used as a contract or to be used as a basis for any legal action. The user of this document shall be responsible for its use.

**TYPE 3 BARRICADES**

- Refer to the Construction Type Traffic Control Devices List (CETCD) for details of the Type 3 barricades and a list of all materials used in the construction of Type 3 barricades.
- Projects created to all traffic.
- Barricades extending across a roadway should have strikes most close to the centerline and left lane or provide the center striping may also be used in both directions from the center of the roadway.
- Striking of rolls, for the right side of the roadway, should strike down the slope downward to the right. On the left side of the roadway, striking should be placed parallel to the centerline of travel unless an alternate method is used for identification shall be 1".
- Striking lights shall NOT be installed on barricades.
- Where barricades require the use of weights to keep from turning over, weights shall be placed on the base of the barricade and the weights shall be placed on the base of the barricade and the weights shall be placed on the base of the barricade.
- 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. Rubber mats (such as tire inner tubes) shall not be used for sandbags. Sandbags shall only be placed along or upon the base of the barricade. Rubber mats, chains or other fasteners, or hanging with rope, wire, chains or other fasteners.
- Striking for barricades shall be retroreflective Type A or Type B reflective sheeting. Barricades shall be retroreflective Type A or Type B reflective sheeting.

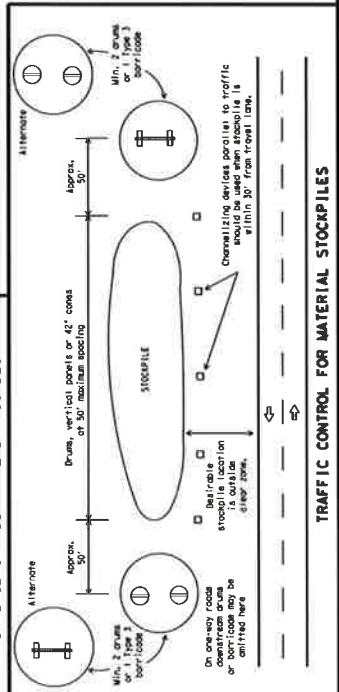
Barricades shall NOT be used on a sign support.

**TYPICAL STRIPING DETAIL FOR BARRICADE RAIL**



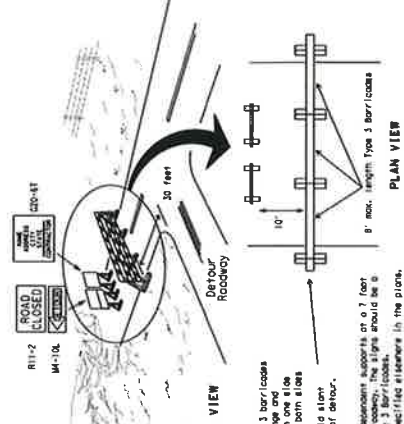
Stiffener may be inside or outside of support, but no more than 2 stiffeners shall be allowed on one barricade.

**TYPICAL PANEL DETAIL FOR SKID OR POST TYPE BARRICADES**



TRAFFIC CONTROL FOR MATERIAL STOCKPILES

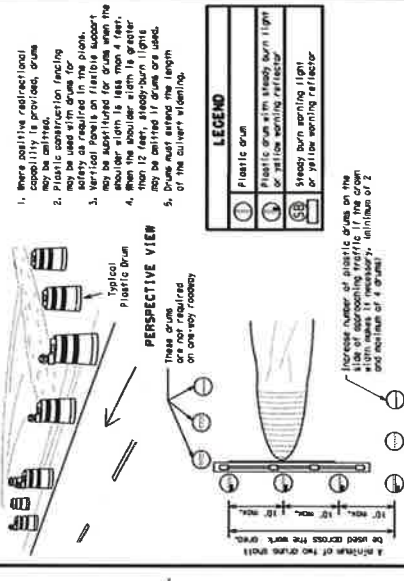
Each roadway of a divided highway shall be barricaded in the same manner.



**TYPE 3 BARRICADE (POST AND SKID) TYPICAL APPLICATION**

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 15 feet behind Type 3 barricades.

2. Advance lighting shall be as indicated elsewhere in the plans.



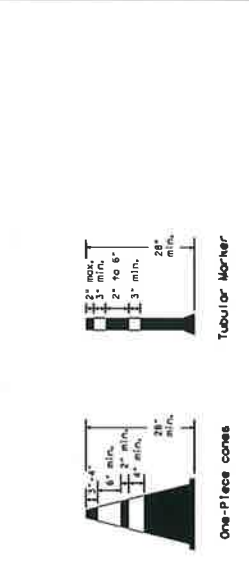
**CULVERT WIDENING OR OTHER ISOLATED WORK WITHIN THE PROJECT LIMITS**

1. Where positive reflectivity capability is provided, drum capacity as provided, drum may be used with drum facing as required in the plans.

2. Plastic construction facing may be substituted for drums when the shoulder width is less than 4 feet.

3. When the shoulder width is greater than 4 feet, drums shall be used.

4. Drums must extend the length of the culvert widening.



**CHANNELIZING DEVICES**

1. Traffic cones and tubular markers shall be conspicuously 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 compact unit. Two-piece cones have a cone shaped body and a separate rubber base.

3. Two-piece cones may have a handle or loop extending up to 3" above the minimum height shown, in order to aid in carrying the device.

4. One-piece cones shall have a smooth, sealed base on shown above. The reflective bands shall have a smooth, sealed base on shown above.

5. 24" cones and tubular markers are generally suitable for short duration use for temporary applications. For permanent applications, tubular markers are preferred to maintain them in their proper upright position.

6. 42" two-piece cones, vertical panels or drums are suitable for all work zone and stages.

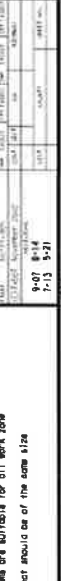
24" Cones shall have a minimum weight of 9 1/2 lbs.  
42" 2-piece cones shall have a minimum weight of 30 lbs., including base.



**LEGEND**

- Plastic drum
- Plastic drum with steady burn light or yellow warning reflector
- Steady burn warning light or yellow warning reflector

Increase number of plastic drums on the side of approaching traffic if the drum is used across the work zone. Minimum of 2 drums.



**CONES**



**ONE-PIECE CONES**



**TWO-PIECE CONES**



**TUBULAR MARKER**







## TOWN OF DOUBLE OAK - 2022 Mill and Overlay Project

Engineers Opinion of Probable Construction Cost

Date: 11/03/2022

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT PRICE	EXTENDED PRICE
<b>Shady Oaks and Kings Drive at Waketon</b>					
1-1	Mobilization, (10% max), work fully performed	LS	1	\$18,000.00	\$18,000.00
1-2	Variable Depth Mill Of Existing Asphalt And Replace With 2-Inch Asphalt Overlay	SY	2957	\$24.00	\$70,968.00
1-3	Full Depth Repair (with 8-inch TY B Asphalt)	SY	617	\$124.00	\$76,508.00
1-4	Barricades, Signs And Traffic Handling	MO	1	\$2,350.00	\$2,350.00
1-5	Block Sodding (Allowance)	SY	267	\$8.00	\$2,136.00
1-6	Pavement Markings	LS	1	\$10,000.00	\$10,000.00
1-7	Miscellaneous Construction Contingency	LS	1	\$13,000.00	\$13,000.00
<b>10% Contingency</b>					<b>\$19,296.20</b>
<b>Shady Oaks and Kings Drive Subtotal</b>					<b>\$212,258.20</b>
<b>Park Lane</b>					
2-1	Mobilization, (10% max), work fully performed	LS	1	\$14,000.00	\$14,000.00
2-2	Variable Depth Mill Of Existing Asphalt And Replace With 2-Inch Asphalt Overlay	SY	3004	\$24.00	\$72,096.00
2-3	Full Depth Repair (with 8-inch TY B Asphalt)	SY	417	\$124.00	\$51,708.00
2-4	Barricades, Signs And Traffic Handling	MO	1	\$2,350.00	\$2,350.00
2-5	Block Sodding (Allowance)	SY	355	\$8.00	\$2,840.00
2-6	Miscellaneous Construction Contingency	LS	1	\$14,419.20	\$14,419.20
2-7	Bank Stabilization (including grass)	SY	19	\$170.00	\$3,230.00
<b>10% Contingency</b>					<b>\$16,064.32</b>
<b>Park Lane Subtotal</b>					<b>\$176,707.52</b>
<b>Timber View</b>					
3-1	Mobilization, (10% max), work fully performed	LS	1	\$20,000.00	\$20,000.00
3-2	Variable Depth Mill Of Existing Asphalt And Replace With 2-Inch Asphalt Overlay	SY	3397	\$24.00	\$81,528.00
3-3	Full Depth Repair (with 8-inch TY B Asphalt)	SY	685	\$124.00	\$84,940.00
3-4	Barricades, Signs And Traffic Handling	MO	1	\$2,350.00	\$2,350.00
3-5	Block Sodding (Allowance)	SY	335	\$8.00	\$2,680.00
3-6	Miscellaneous Construction Contingency	LS	1	\$16,305.60	\$16,305.60
<b>10% Contingency</b>					<b>\$20,780.36</b>
<b>Timberview Subtotal</b>					<b>\$228,583.96</b>
<b>Meadow Knoll</b>					
4-1	Mobilization, (10% max), work fully performed	LS	1	\$10,000.00	\$10,000.00
4-2	Variable Depth Mill Of Existing Asphalt And Replace With 2-Inch Asphalt Overlay	SY	2901	\$24.00	\$69,624.00
4-3	Full Depth Repair (with 8-inch TY B Asphalt)	SY	395	\$124.00	\$48,980.00
4-4	Barricades, Signs And Traffic Handling	MO	1	\$2,350.00	\$2,350.00
4-5	Block Sodding (Allowance)	SY	392	\$8.00	\$3,136.00
4-6	Miscellaneous Construction Contingency	LS	1	\$13,924.80	\$13,924.80
<b>10% Contingency</b>					<b>\$14,801.48</b>
<b>Meadow Knoll Subtotal</b>					<b>\$162,816.28</b>
<b>2022 Mill and Overlay Project Total</b>					<b>\$780,365.96</b>

\*\* Brown Cliff Court is not suited for a full depth repair with mill and overlay due to the amount of base repair needed. Recommend this street be reconstructed in the near future.