

**CITY OF SHAVANO PARK  
PLANNING & ZONING COMMISSION MEETING  
CITY HALL, COUNCIL CHAMBERS  
900 SADDLETREE COURT, SHAVANO PARK, TEXAS 78231  
January 11, 2018**

**6:30 P.M.**

**AGENDA**

1. Call to order
2. Vote under Section 36-69 of the Shavano Park City Code (“Code”) concerning a finding that each of the items following item 2 on the agenda are “planning issues” or otherwise prescribed Planning & Zoning Commission duties under 36-69(l) of the Code or the severance of one or more of such items for an individual vote on such item or items.
3. Citizens to be heard – Rules for Citizen’s Comments: The Planning & Zoning Commission welcomes citizen participation and comments at all of their meetings. As a courtesy to your fellow citizens and out of respect to Board members; we request that if you wish to speak that you follow these guidelines.
  - A. Direct your comments to the entire Board, not to an individual member;
  - B. Limit your discussion to one or two issues that you wish to address rather than a generalized statement; and
  - C. Show the Board the same respect and courtesy that you expect to be shown to you.
  - D. As stated in Resolution No. 04-11, residents are given three (3) minutes to speak during Citizens to be heard. Residents are only allowed to speak once and cannot pass their time allotment to someone else.

The Presiding Officer will rule any disruptive behavior, including shouting or derogatory statements or comments, out of order. Continuation of this type of behavior could result in a request by the Presiding Officer that the individual leave the meeting, and if refused, an order of removal.

**Note:** The Commission may not debate any non-agenda issue, nor may any action be taken on any non-agenda issue at this time; however, the Board may present any factual response to items brought up by citizens [Attorney General Opinion – JC 0169].

4. Consent Agenda:
  - A. Approval – Planning & Zoning Commission minutes, December 6, 2017
5. Discussion – Review and update of the public hearing and discussion at previous Planning & Zoning meetings regarding the City’s 2010 Town Plan with focus on the City Municipal Tract – City Manager Hill.
6. Discussion – Review and update of the public hearing and discussion at the December 6, 2017 meeting regarding the City’s 2010 Town Plan with focus on improvements to NW Military Highway – City Manager Hill.

7. Discussion / Action – Presentation of Drainage Improvement Implementation Plan and prioritization and funding options for consideration - City Manager Hill.
8. Report / update – City Council items considered at previous City Council meetings and discussion concerning the same – City Manager Hill.
9. Chairman Announcements:
  - A. Advise members to contact City staff to add new or old agenda items.
  - B. Advise members of pending agenda items, as follows:
    - i. February, 2018 – Presentation by the City Attorney regarding the Open Meetings Act, Public Information and discussion regarding the same.
    - ii. February, 2018 – Discussion and action regarding possible updates and amendments to the City's 2010 Town Plan.
    - iii. February, 2018 – Semiannual presentation by Denton Communities regarding residential and commercial development in Shavano Park and surrounding areas and discussion concerning the same.
    - iv. March, 2018 – Discussion action regarding possible updates and amendments to the City's 2010 Town Plan.
    - v. March, 2018 – Review of the City's zoning ordinances to correct omissions of zoning districts A-1 PUD and A-2 PUD in various City ordinances.
    - vi. March, 2018 – Review of the City's zoning ordinances to correct a conflict between Chapters 32 and 36 regarding the minimum allowable sizing of parking spaces.
10. Adjournment

**Accessibility Statement:**

The City of Shavano Park City Hall is wheelchair accessible. The entry ramp is located in the front of the building. Accessible parking spaces are also available in the front and sides of the building. Sign interpretative services for meetings must be made 48 hours in advance of the meeting. Call the A.D.A. Coordinator at 817-447-5400 or TDD 1-800-735-2989.

**Decorum Required:**

Any disruptive behavior, including shouting or derogatory statements or comments may be ruled out of order by the Presiding Officer. Continuation of this type of behavior could result in a request by the Presiding Officer that the individual leave the meeting, and if refused, an order of removal.

**Action by Commission Authorized:**

The Planning and Zoning Commission may vote and/or act upon any item within this Agenda. The Commission reserves the right to retire into executive session concerning any of the items listed on this Agenda, pursuant to and in accordance with Texas Government Code Section 551.071, to seek the advice of its attorney about pending or contemplated litigation, settlement offer or on a matter in which the duty of the attorney to the governmental body under the Texas Disciplinary Rules of Professional Conduct of the State Bar of Texas conflict with the Open Meetings Act and may invoke this right where the City Attorney, the Mayor or a majority of the Governing Body deems an executive session is necessary to allow privileged consultation between the City Attorney and the governing body, if considered necessary and legally justified under the Open Meetings Act. The City Attorney may appear in person, or appear in executive session by conference call in accordance with applicable state law.

**Executive Sessions Authorized:**

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

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

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

I, the undersigned authority, do hereby certify that the above Notice of Meeting of the governing body of the above named Shavano Park Planning and Zoning Commission is a true and correct copy of said Notice and that I posted a true and correct copy of said Notice on the bulletin boards, of the City Hall of said City Shavano Park, Texas, a place convenient and readily accessible to the general public at all times, and said Notice was posted on 4<sup>th</sup> of January 2018 at 10:45 a.m. and remained so posted continuously for at least 72 hours preceding the scheduled time of said meeting.

ZINA TEDFORD  
City Secretary

1. **Call to order**

Chairman Janssen called the meeting to order at 6:30 p.m.

**PRESENT:**

Carla Laws

Konrad Kuyendall

Bill Simmons

Kerry Dike

Michael Janssen

**ABSENT:**

Albert Aleman

Jason Linahan

Shawn Fitzpatrick

Carlos Ortiz

2. **Vote under Section 36-69 of the Shavano Park City Code (“Code”) concerning a finding that each of the items following item 2 on the agenda are “planning issues” or otherwise prescribed Planning & Zoning Commission duties under 36-69(l) of the Code or the severance of one or more of such items for an individual vote on such item or items.**

Upon a motion made by Commissioner Kuykendall and a second made by Commissioner Laws, the Planning & Zoning Commission voted five (5) for and none (0) opposed to approve the agenda as it was provided as Planning & Zoning Commission issues. The motion carried.

3. **Citizens to be heard**

No one signed up to address the Planning & Zoning Commission at this time.

4. **Consent Agenda:**

**A. Approval – Planning & Zoning Commission minutes, November 1, 2017**

Upon a motion made by Commissioner Laws and a second made by Commissioner Kuyendall, the Planning & Zoning Commission voted five (5) for and none (0) opposed to approve the Planning & Zoning Commission November 1, 2017 minutes as presented. The motion carried.

5. **Discussion – Review the public hearing and discussion from the November 1, 2017 meeting regarding the City’s 2010 Town Plan with focus on the City Municipal Tract – City Manager Hill.**

Chairman Janssen presented an overview of the public hearing and discussion from the November 1, 2017 meeting regarding the City’s 2010 Town Plan with focus on the City Municipal Tract

6. **Public Hearing – Receive testimony and written evidence from City of Shavano Park residents and property owners on the review / update of the City’s 2010 Town Plan with focus on improvements to NW Military Highway – City Manager Hill.**

Public hearing opened at 6:41 p.m.

City Manager Hill presented an overview of the on the review / update of the City’s 2010 Town Plan with focus on improvements to NW Military Highway.

Ms. Florine spoke regarding construction on NW Military Highway.

Public hearing closed at 6:56 p.m.

7. **Discussion – Review and update of the City’s 2010 Town Plan with focus on the improvements to NW Military Highway – Commissioner Janssen and City Manager Hill.**

Chairman Janssen and City Manager Hill presented a review and update of the City’s 2010 Town Plan with focus on the improvements to NW Military Highway.

8. **Presentation by the City Attorney regarding an update on the Open Meetings Act, Public Information and discussion regarding same – City Attorney and City Manager Hill.**

It was the consensus of the Planning & Zoning Commission to postpone this item to a future meeting.

9. **Report / update – City Council items considered at previous City Council meetings and discussion concerning the same – City Manager Hill.**

City Manager Hill provided an overview of items considered at the previous City Council Meeting.

10. **Discussion / action – Discussion and possible rescheduling the Planning & Zoning Commission meeting from January 3, 2018 to January 11, 2018 – City Manager**

Upon a motion made by Commissioner Dikes and a second made by Commissioner Simmons, the Planning & Zoning Commission voted five (5) for and none (0) opposed to approve rescheduling the Planning & Zoning Commission meeting from January 3, 2018 to January 11, 2018. The motion carried.

11. **Chairman Announcements:**

- A. Advise members to contact City staff to add new or old agenda items.
- B. Advise members of pending agenda items, as follows:
  - i. January, 2018 – Review of the public hearing and discussion at the December meeting regarding updates to the 2010 Town Plan for NW Military Highway improvements.
  - ii. January, 2018 – Discussion and action regarding possible updates and amendments to the City’s 2010 Town Plan.
  - iii. February, 2018 – Semiannual presentation by Denton Communities regarding residential and commercial development in Shavano Park and surrounding areas and discussion concerning the same.
  - iv. March, 2018 – Review of the City’s zoning ordinances to correct omissions of zoning districts A-1 PUD and A-2 PUD in various City ordinances.
  - v. March, 2018 – Review of the City’s zoning ordinances to correct a conflict between Chapters 32 and 36 regarding the minimum allowable sizing of parking spaces.

12. **Adjournment**

Upon a motion made by Commissioner Dikes and a second made by Commissioner Laws, the Planning and Zoning Commission voted five (5) for and none (0) opposed to adjourn the meeting. The meeting adjourned at 7:40 p.m.

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MICHAEL JANSSEN  
Chairman

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ZINA TEDFORD  
City Secretary

## PLANNING AND ZONING STAFF SUMMARY

Meeting Date: January 11, 2017

Agenda item: 5

Prepared by: Curtis Leeth

Reviewed by: Bill Hill

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### **AGENDA ITEM DESCRIPTION:**

Discussion – Review and update of the public hearing and discussion at previous Planning & Zoning meetings regarding the City’s 2010 Town Plan with focus on the City Municipal Tract – City Manager Hill.

X

### **Attachments for Reference:**

1) 5a Munitract Consensus Draft

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**BACKGROUND / HISTORY:** At the October 11, 2017 meeting, City staff made a presentation on the history of the Muni-tract, the 2014 Feasibility Study, the 2015 CORE Survey, and other current issues regarding the tract.

An online survey was issued for the Muni-tract on October 25, 2017. A postcard was mailed notifying residents of October, November and December Town Plan activities on October 9 – 10.

At the November 1, 2017 Planning & Zoning meeting the Commission held a public hearing to gather resident input and review the results of the online survey. A discussion was held among Commission members following the public hearing. **At the December 6, 2017 meeting the Commission held discussion on the consensus and revisions have been made.**

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**DISCUSSION:** The attached memo summarizes what staff and Chairman Janssen captured as the key points regarding the Munitract in the 2018 Town Plan. Note: This consensus is not final, but serves as way for Planning & Zoning and staff to track citizen input and Commission consensus as the Town Plan update process moves forward.

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**COURSES OF ACTION:** This is not an action item.

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**FINANCIAL IMPACT:** N/A

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**MOTION REQUESTED:** This is not an action item.

**Town Plan 2017 Update**  
*Municipal Tract*

Consensus from November 1 and December 6 Planning & Zoning Commission Meetings

- A majority of P&Z Commissioners and the residents who completed the Town Plan survey strongly agree / agree with the 2010 Town Plan language, whose vision for the Muni-tract were that any improvements should provide for a unique area for community events and increasing residential based sense of community.
- Include the results from the 2014 Feasibility Study – that a number of options ranging from natural walking trail to athletic facilities are feasible on the Muni-tract.
- Include the results from the 2015 CORE Survey – that no clear majority favoring either “no change” or improvement of the Muni-tract; that the features most likely be supported are: Hike and bike trail, a park with gardens, a pavilion, or a picnic area; and that two feasibility study options received over 50% support - the “natural” option and drainage and storm water infrastructure improvements; and that a plurality of respondents (48.8%) did not support improvements to the Muni-tract at that time.
- Residents are divided regarding any improvements to the municipal tract, especially those that would be visible from DeZavala Road and would thus distract from the rural feel and natural look of the City.
- Near unanimous agreement to maintain natural look and specifically maintain natural buffer for residential properties abutting the Muni-tract
- Strong support for Fire Safety improvements to the Muni-tract
- Town Plan could state “possible” improvements, like leaving natural with underbrush or dead trees in underbrush with residents divided on what they want.
- Improvements should be based on future amenities desired by residents.
- Note how much is currently raw land without improvements.

## PLANNING AND ZONING STAFF SUMMARY

Meeting Date: January 11, 2017

Agenda item: 6

Prepared by: Curtis Leeth

Reviewed by: Bill Hill

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### **AGENDA ITEM DESCRIPTION:**

Discussion – Review and update of the public hearing and discussion at the December 6, 2017 meeting regarding the City’s 2010 Town Plan with focus on improvements to NW Military Highway – City Manager Hill.

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**Attachments for Reference:**

1) 6a NW Military Hwy Consensus

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**BACKGROUND / HISTORY:** At the November 1, 2017 Planning & Zoning Commission meeting City staff presented an update on the NW Military Highway improvement project using materials and information from TxDOT. A representation from CD&P – the public involvement consultant for TxDOT – was present at the meeting.

At the December 6, 2017 meeting the Commission held a public hearing on NW Military Highway improvements followed by a discussion on the online survey results and public hearing comments.

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**DISCUSSION:** The attached memo summarizes what staff and Chairman Janssen captured as the key points regarding NW Military in the 2018 Town Plan.

Note: This consensus is not final, but serves as way for Planning & Zoning and staff to track citizen input and Commission consensus as the Town Plan update process moves forward.

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**COURSES OF ACTION:** Varies

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**FINANCIAL IMPACT:** N/A

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**MOTION REQUESTED:** N/A; Discussion only



**Town Plan 2017 Update**  
*NW Military Highway*

Consensus from December 6, 2017 Planning & Zoning Commission Meeting

- City will continue coordination with TxDOT to ensure the improvements to NW Military are designed to fit the needs of Shavano Park residents and businesses.
- Improvements planned for the 2020 NW Military Highway project focus upon:
  - Creating a continuous 2-way center turn lane
  - Adding bike lanes both directions
  - Adding sidewalks on both directions
  - Drainage as required
- City will work with TxDOT to ensure that no further widening of NW Military happens in the future beyond the improvements slated for 2020. The City does not want a “runway” of concrete dividing the City in the future.
- City will take a strong position that Pond Hill intersection improvements to not impede the access of Huntington and Willow Wood residents.
- City will ensure TxDOT is accountable for ensuring drainage runoff for Shavano Park property owners does not worsen after NW Military highway improvements are complete.

*From Development Consensus:*

- Include discussion regarding the preserving single-family residential use in residential zoning districts and future review of ordinances regulating redevelopment to preserve single-family use (with specific mentions of preventing business along NW Military Highway in residential zoned areas)

## PLANNING AND ZONING STAFF SUMMARY

Meeting Date: January 11, 2017

Agenda item: 8

Prepared by: Curtis Leeth

Reviewed by: Bill Hill

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### **AGENDA ITEM DESCRIPTION:**

Discussion / Action – Presentation of Drainage Improvement Implementation Plan and prioritization and funding options for consideration – City Manager Hill.

X

**Attachments for Reference:** 1) 8a Drainage Improvement Plan Options Spreadsheets  
2) Jan 2016 P&Z Drainage Prioritization

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**BACKGROUND / HISTORY:** In Jan 2016, P&Z presented a Drainage Prioritization Concept to City Council (See attachment 2). The City subsequently hired KFW as the City Engineer and tasked them to complete a formal drainage study.

At the November 27, 2017 City Council meeting KFW presented the final drainage plan to City Council. Staff since then held several planning sessions. Staff created three scenarios for the City to implement projects under the Master Drainage Plan for consideration.

The table below outlines the identified drainage areas and the estimated costs to address. There are alternative minimums for the two largest projects as well that include culverts for low water crossings (LWC) on Turkey Creek, Honey Bee, Long Bow (Area 3) and Elm Spring – Bikeway (Area 4) as well as creating a berm instead of a detention pond on the Muni-tract (Area 4-2). These minimums would allow roads to be passible during a storm event but not solve drainage problems in these areas.

| <b>Drainage Projects</b>       | <b>Cost - Full</b>   | <b>Cost - Minimum</b> | <b>3rd Party</b> |                         |
|--------------------------------|----------------------|-----------------------|------------------|-------------------------|
| Area 1 Wagon Trail Depression  | \$ 25,000            | -                     | Denton partial   |                         |
| Area 2 Kinnan Way Channel Berm | \$ 25,000            | -                     |                  |                         |
| Area 5 Bent Oak Clearing       | \$ 15,000            | -                     |                  |                         |
| Area 3 Turkey Creek Area       | \$ 5,400,000         | \$ 510,000            | TxDOT partial    |                         |
| Area 4 Elm Spring Area         | \$ 2,150,000         | \$ 140,000            | TxDOT partial    |                         |
| Area 12 Chimney Rock LWC       | \$ 165,000           | -                     |                  |                         |
| Area 11 NW Military Culvert #1 | \$ 90,000            | -                     | TxDOT - 100%     |                         |
| Area 5 NW Military LWC #2      | \$ 229,000           | -                     | TxDOT - 100%     |                         |
| Area 5 Windmill LWC            | \$ 235,000           | -                     |                  |                         |
| Area 5 Bent Oak LWC            | \$ 263,000           | -                     |                  |                         |
| Area 5 Cliffside LWC           | \$ 312,000           | -                     |                  |                         |
| Area 4-2 Ripple Creek Area     | \$ 735,000           | -                     |                  |                         |
| Area 12 Fawn Drive LWC         | \$ 131,000           | -                     |                  |                         |
| Area 6 Happy Trail             | \$ 617,000           | -                     |                  |                         |
| Area 7 Bobcat Bend             | \$ 60,000            | -                     |                  |                         |
| Area 7 Rock Squirrel           | \$ 82,000            | -                     |                  |                         |
|                                |                      |                       |                  | <b>Drainage Reserve</b> |
| <b>Total Cost of Projects</b>  | <b>\$ 10,534,000</b> | <b>\$ 3,634,000</b>   |                  | <b>\$ 1,456,649</b>     |

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**DISCUSSION:** This undertaking will be a multi-year challenge for the City. For this reason, staff wants the initial discussion to primarily focus on what the City will set as a goal to achieve for Fiscal Year 2018 and leave other projects for consideration in future years.

Staff started the analysis by looking at measurable prioritizing projects, including the approximate number of properties helped, if the project addresses road access during a major rain event and if the problem was known by staff before the drainage study either from observation during rain events or complaints from property owners. Finally the cost of the project was divided by properties helped to give a rough estimation for the value for dollar the City receives from each project.

| Drainage Projects              | Cost                 | Properties Impacted | Road Access | Known Before | Dollars per Property |
|--------------------------------|----------------------|---------------------|-------------|--------------|----------------------|
| Area 1 Wagon Trail Depression  | \$ 25,000            | 8                   |             | Yes          | \$ 3,125             |
| Area 2 Kinnan Way Channel Berm | \$ 25,000            | 6                   |             | Yes          | \$ 4,167             |
| Area 5 Bent Oak Clearing       | \$ 15,000            | 5                   |             | Yes          | \$ 3,000             |
| Area 3 Turkey Creek Area       | \$ 5,400,000         | 40 +                | Yes         | Yes          | \$ 135,000           |
| Area 4 Elm Spring Area         | \$ 2,150,000         | 22 +                | Yes         | Yes          | \$ 97,727            |
| Area 12 Chimney Rock LWC       | \$ 165,000           | 4 +                 | Yes         | Yes          | \$ 41,250            |
| Area 11 NW Military Culvert #1 | \$ 90,000            | 2                   |             | Yes          | \$ 45,000            |
| Area 5 NW Military LWC #2      | \$ 229,000           | 2                   |             |              | \$ 114,500           |
| Area 5 Windmill LWC            | \$ 235,000           | 4 +                 | Yes         | Yes          | \$ 58,750            |
| Area 5 Bent Oak LWC            | \$ 263,000           | 4 +                 | Yes         | Yes          | \$ 65,750            |
| Area 5 Cliffside LWC           | \$ 312,000           | 4 +                 | Yes         | Yes          | \$ 78,000            |
| Area 4-2 Ripple Creek Area     | \$ 735,000           | 27                  |             | Yes          | \$ 27,222            |
| Area 12 Fawn Drive LWC         | \$ 131,000           | 4 +                 | Yes         | Yes          | \$ 32,750            |
| Area 6 Happy Trail             | \$ 617,000           | 4                   |             |              | \$ 154,250           |
| Area 7 Bobcat Bend             | \$ 60,000            | 5                   |             |              | \$ 12,000            |
| Area 7 Rock Squirrel           | \$ 82,000            | 2                   |             |              | \$ 41,000            |
| <b>Total Cost of Projects</b>  | <b>\$ 10,534,000</b> |                     |             |              |                      |

Properties helped are the number of properties staff estimate would see reduced flooding on their properties once the project is complete. These counts were made using before and after model data on the KFW GIS portal.

In addition to reducing flooding on properties, ensuring road access is important so that residents and first responders can access homes during a flooding event. Flooded streets also impede residents along an entire street who are forced to avoid road closures during a storm, leaving some homes blocked with no alternate way out. Staff believes a project that reduces flooded roads is a priority.

Finally staff also considered if the area identified by KFW was known before due to complaints from residents or observed flooding during rain events the past several years. Staff does not claim this is a rigorous criteria but it does help identify priority areas.

Staff created 3 options (with the final option have two scenarios in the final phase), with three phases in each option. Phase 1 is projects for FY 2018 with Phase 2 likely being 2019 / 2020 and Phase 3 considered beyond that timeframe.

### *Option 1*

| <b>Costs</b>             | <b>Projects</b>                 |
|--------------------------|---------------------------------|
| <b>Phase 1 - FY 2018</b> |                                 |
| \$ 25,000                | Area 1 Wagon Trail Depression   |
| \$ 25,000                | Area 2 Kinnan Way Berm          |
| \$ 15,000                | Area 5 Bent Oak clearing        |
| \$ 165,000               | Area 12 Chimney Rock LWC        |
| \$ 131,000               | Area 12 Fawn LWC                |
| <i>Phase 1 Cost</i>      | <b>\$ 361,000</b>               |
| <b>Phase 2</b>           |                                 |
| \$ 510,000               | Area 3 Turkey Creek LWCs        |
| \$ 140,000               | Area 4 Elm Spring/Bikeway LWC   |
| \$ 235,000               | Area 5 Windmill LWC             |
| \$ 263,000               | Area 5 Bent Oak LWC             |
| \$ 312,000               | Area 5 Cliffside LWC            |
| <i>Phase 2 Cost</i>      | <b>\$ 1,460,000</b>             |
| <b>Phase 3</b>           |                                 |
| \$ 735,000               | Area 4-2 Munitract/Ripple Creek |
| \$ 617,000               | Area 6 Happy Trail Storm sewer  |
| \$ 60,000                | Area 7 Bobcat Bend Channel      |
| \$ 82,000                | Area 7 Rock Squirrel Channel    |
| <i>Phase 3 Cost</i>      | <b>\$ 1,494,000</b>             |
| <b>Total Cost</b>        | <b>\$ 3,315,000</b>             |

This option is a relatively conservative path for the City. This option proposes tackling the three (relatively) small scale drainage projects as well as two low water crossings (LWC) on Chimney Rock and Fawn in FY2018. These LWCs area are near to each other and their proximity will allow projects to be bid together saving on mobilization costs.

In phase 2 the City, for an attainable figure without or with little debt financing, is able to solve every LWC in the City identified by KFW by 2019 / 2020.

In Phase 3 the City places, what in staff estimation, are lower priority projects for future decisions and funding.

## *Option 2*

| <b>Costs</b>             | <b>Projects</b>                 |
|--------------------------|---------------------------------|
| <b>Phase 1 - FY 2018</b> |                                 |
| \$ 25,000                | Area 1 Wagon Trail Depression   |
| \$ 25,000                | Area 2 Kinnan Way Berm          |
| \$ 15,000                | Area 5 Bent Oak clearing        |
| \$ 735,000               | Area 4-2 Munitract/Ripple Creek |
| \$ 140,000               | Area 4 Elm Spring/Bikeway LWC   |
| <i>Phase 1 Cost</i>      | <b>\$ 940,000</b>               |
| <b>Phase 2</b>           |                                 |
| \$ 165,000               | Area 12 Chimney Rock LWC        |
| \$ 131,000               | Area 12 Fawn LWC                |
| \$ 235,000               | Area 5 Windmill LWC             |
| \$ 263,000               | Area 5 Bent Oak LWC             |
| \$ 312,000               | Area 5 Cliffside LWC            |
| <i>Phase 2 Cost</i>      | <b>\$ 1,106,000</b>             |
| <b>Phase 3</b>           |                                 |
| \$ 510,000               | Area 3 Turkey Creek LWCs        |
| \$ 617,000               | Area 6 Happy Trail Storm sewer  |
| \$ 60,000                | Area 7 Bobcat Bend Channel      |
| \$ 82,000                | Area 7 Rock Squirrel Channel    |
| <i>Phase 3 Cost</i>      | <b>\$ 1,269,000</b>             |
| <b>Total Cost</b>        | <b>\$ 3,315,000</b>             |

For this option the City resolves the three small scale drainage projects as well as projects addressing the LWC on Elm Spring / Bikeway and improvements to Munitract / Ripple Creek area. The proximity of the Munitract / Ripple Creek and Elm Spring / Bikeway culvert may save the City on mobilization costs.

In phase 2 the City, addresses LWCs across the City. These projects could be bid together, being of the same general scope of work.

In Phase 3 the City places the Turkey Creek project and what in staff estimation, are lower priority projects for future decisions and funding. Either a full or minimal project for Turkey Creek area could be chosen by a future Council.

### *Option 3*

| <b>3A</b>                |                                 | <b>3B</b>                |                                 |
|--------------------------|---------------------------------|--------------------------|---------------------------------|
| <b>Costs</b>             | <b>Projects</b>                 | <b>Costs</b>             | <b>Projects</b>                 |
| <b>Phase 1 - FY 2018</b> |                                 | <b>Phase 1 - FY 2018</b> |                                 |
| \$ 25,000                | Area 1 Wagon Trail Depression   | \$ 25,000                | Area 1 Wagon Trail Depression   |
| \$ 25,000                | Area 2 Kinnan Way Berm          | \$ 25,000                | Area 2 Kinnan Way Berm          |
| \$ 15,000                | Area 5 Bent Oak clearing        | \$ 15,000                | Area 5 Bent Oak clearing        |
| \$ 165,000               | Area 12 Chimney Rock LWC        | \$ 165,000               | Area 12 Chimney Rock LWC        |
| \$ 131,000               | Area 12 Fawn LWC                | \$ 131,000               | Area 12 Fawn LWC                |
| \$ 235,000               | Area 5 Windmill LWC             | \$ 235,000               | Area 5 Windmill LWC             |
| \$ 263,000               | Area 5 Bent Oak LWC             | \$ 263,000               | Area 5 Bent Oak LWC             |
| \$ 312,000               | Area 5 Cliffside LWC            | \$ 312,000               | Area 5 Cliffside LWC            |
| <i>Phase 1 Cost</i>      | <b>\$ 1,171,000</b>             | <i>Phase 1 Cost</i>      | <b>\$ 1,171,000</b>             |
| <b>Phase 2 - Full</b>    |                                 | <b>Phase 2 - Minimum</b> |                                 |
| \$ 5,400,000             | Area 3 Turkey Creek Storm sewer | \$ 510,000               | Area 3 Turkey Creek LWCs        |
| \$ 2,150,000             | Area 4 Elm Spring Storm sewer   | \$ 140,000               | Area 4 Elm Spring/Bikeway LWC   |
| <i>Phase 2 Cost</i>      | <b>\$ 7,550,000</b>             | <i>Phase 2 Cost</i>      | <b>\$ 650,000</b>               |
| <b>Phase 3</b>           |                                 | <b>Phase 3</b>           |                                 |
| \$ 735,000               | Area 4-2 Munitract/Ripple Creek | \$ 735,000               | Area 4-2 Munitract/Ripple Creek |
| \$ 617,000               | Area 6 Happy Trail Storm sewer  | \$ 617,000               | Area 6 Happy Trail Storm sewer  |
| \$ 60,000                | Area 7 Bobcat Bend Channel      | \$ 60,000                | Area 7 Bobcat Bend Channel      |
| \$ 82,000                | Area 7 Rock Squirrel Channel    | \$ 82,000                | Area 7 Rock Squirrel Channel    |
| <i>Phase 3 Cost</i>      | <b>\$ 1,494,000</b>             | <i>Phase 3 Cost</i>      | <b>\$ 1,494,000</b>             |
| <b>Total Cost</b>        | <b>\$ 10,215,000</b>            | <b>Total Cost</b>        | <b>\$ 3,315,000</b>             |

The third option is the most ambitious schedule for projects in FY 2018. This option proposes the City resolve the three small scale drainage projects as well as the five culvert projects to solve LWCs across the City. The culmination of these projects would spend 79% of City reserves designated for drainage project.

After these projects Option 3 lays out two scenarios where the City either pursues debt financing for the large projects or alternatively only constructs culverts to solve LWCs on Turkey Creek, Honey Bee, Long Bow and Elm Spring / Bikeway.

In Phase 3 the City places, what in staff estimation, are lower priority projects for future decisions and funding.

**COURSES OF ACTION:** Staff proposes 3 options for project schedules, but funding level / selection of projects are at discretion of Council.

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**FINANCIAL IMPACT:** Varies based upon options approved. The difference between the current City drainage funds (Capital Improvement and Replacement Fund) and the total cost of the proposed projects is in excess of \$9 Million. The majority of the costs are in two projects: Area 3 (Turkey Creek Storm Sewer) and Area 4 (Elm Spring Storm Sewer).

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**MOTION REQUESTED:** Approve a recommendation to City Council to approve Phase 1 of Option \_\_\_\_.

NOTE: Staff recommends Option 1 as this provides more time and flexibility in coordinating with TxDOT on what improvements they will make.



| Drainage Projects              | Cost - Full          | Cost - Minimum      | 3rd Party               |
|--------------------------------|----------------------|---------------------|-------------------------|
| Area 1 Wagon Trail Depression  | \$ 25,000            | -                   | Denton partial          |
| Area 2 Kinnan Way Channel Berm | \$ 25,000            | -                   |                         |
| Area 5 Bent Oak Clearing       | \$ 15,000            | -                   |                         |
| Area 3 Turkey Creek Area       | \$ 5,400,000         | \$ 510,000          | TxDOT partial           |
| Area 4 Elm Spring Area         | \$ 2,150,000         | \$ 140,000          | TxDOT partial           |
| Area 12 Chimney Rock LWC       | \$ 165,000           | -                   |                         |
| Area 11 NW Military Culvert #1 | \$ 90,000            | -                   | TxDOT - 100%            |
| Area 5 NW Military LWC #2      | \$ 229,000           | -                   | TxDOT - 100%            |
| Area 5 Windmill LWC            | \$ 235,000           | -                   |                         |
| Area 5 Bent Oak LWC            | \$ 263,000           | -                   |                         |
| Area 5 Cliffside LWC           | \$ 312,000           | -                   |                         |
| Area 4-2 Ripple Creek Area     | \$ 735,000           | -                   |                         |
| Area 12 Fawn Drive LWC         | \$ 131,000           | -                   |                         |
| Area 6 Happy Trail             | \$ 617,000           | -                   |                         |
| Area 7 Bobcat Bend             | \$ 60,000            | -                   |                         |
| Area 7 Rock Squirrel           | \$ 82,000            | -                   |                         |
| <b>Total Cost of Projects</b>  | <b>\$ 10,534,000</b> | <b>\$ 3,634,000</b> |                         |
|                                |                      |                     | <b>Drainage Reserve</b> |
|                                |                      |                     | <b>\$ 1,456,649</b>     |

| Drainage Projects              | Cost          | Properties Impacted | Road Access | Known Before | Dollars per Property |
|--------------------------------|---------------|---------------------|-------------|--------------|----------------------|
| Area 1 Wagon Trail Depression  | \$ 25,000     | 8                   |             | Yes          | \$ 3,125             |
| Area 2 Kinnan Way Channel Berm | \$ 25,000     | 6                   |             | Yes          | \$ 4,167             |
| Area 5 Bent Oak Clearing       | \$ 15,000     | 5                   |             | Yes          | \$ 3,000             |
| Area 3 Turkey Creek Area       | \$ 5,400,000  | 40 +                | Yes         | Yes          | \$ 135,000           |
| Area 4 Elm Spring Area         | \$ 2,150,000  | 22 +                | Yes         | Yes          | \$ 97,727            |
| Area 12 Chimney Rock LWC       | \$ 165,000    | 4 +                 | Yes         | Yes          | \$ 41,250            |
| Area 11 NW Military Culvert #1 | \$ 90,000     | 2                   |             | Yes          | \$ 45,000            |
| Area 5 NW Military LWC #2      | \$ 229,000    | 2                   |             |              | \$ 114,500           |
| Area 5 Windmill LWC            | \$ 235,000    | 4 +                 | Yes         | Yes          | \$ 58,750            |
| Area 5 Bent Oak LWC            | \$ 263,000    | 4 +                 | Yes         | Yes          | \$ 65,750            |
| Area 5 Cliffside LWC           | \$ 312,000    | 4 +                 | Yes         | Yes          | \$ 78,000            |
| Area 4-2 Ripple Creek Area     | \$ 735,000    | 27                  |             | Yes          | \$ 27,222            |
| Area 12 Fawn Drive LWC         | \$ 131,000    | 4 +                 | Yes         | Yes          | \$ 32,750            |
| Area 6 Happy Trail             | \$ 617,000    | 4                   |             |              | \$ 154,250           |
| Area 7 Bobcat Bend             | \$ 60,000     | 5                   |             |              | \$ 12,000            |
| Area 7 Rock Squirrel           | \$ 82,000     | 2                   |             |              | \$ 41,000            |
| Total Cost of Projects         | \$ 10,534,000 |                     |             |              |                      |

| Option 1            |                                 | Option 2            |                                 |
|---------------------|---------------------------------|---------------------|---------------------------------|
| Costs               | Projects                        | Costs               | Projects                        |
| Phase 1 - FY 2018   |                                 | Phase 1 - FY 2018   |                                 |
| \$ 25,000           | Area 1 Wagon Trail Depression   | \$ 25,000           | Area 1 Wagon Trail Depression   |
| \$ 25,000           | Area 2 Kinnan Way Berm          | \$ 25,000           | Area 2 Kinnan Way Berm          |
| \$ 15,000           | Area 5 Bent Oak clearing        | \$ 15,000           | Area 5 Bent Oak clearing        |
| \$ 165,000          | Area 12 Chimney Rock LWC        | \$ 735,000          | Area 4-2 Munitract/Ripple Creek |
| \$ 131,000          | Area 12 Fawn LWC                | \$ 140,000          | Area 4 Elm Spring/Bikeway LWC   |
| <b>Phase 1 Cost</b> | <b>\$ 361,000</b>               | <b>Phase 1 Cost</b> | <b>\$ 940,000</b>               |
| Phase 2             |                                 | Phase 2             |                                 |
| \$ 510,000          | Area 3 Turkey Creek LWCs        | \$ 165,000          | Area 12 Chimney Rock LWC        |
| \$ 140,000          | Area 4 Elm Spring/Bikeway LWC   | \$ 131,000          | Area 12 Fawn LWC                |
| \$ 235,000          | Area 5 Windmill LWC             | \$ 235,000          | Area 5 Windmill LWC             |
| \$ 263,000          | Area 5 Bent Oak LWC             | \$ 263,000          | Area 5 Bent Oak LWC             |
| \$ 312,000          | Area 5 Cliffside LWC            | \$ 312,000          | Area 5 Cliffside LWC            |
| <b>Phase 2 Cost</b> | <b>\$ 1,460,000</b>             | <b>Phase 2 Cost</b> | <b>\$ 1,106,000</b>             |
| Phase 3             |                                 | Phase 3             |                                 |
| \$ 735,000          | Area 4-2 Munitract/Ripple Creek | \$ 510,000          | Area 3 Turkey Creek LWCs        |
| \$ 617,000          | Area 6 Happy Trail Storm sewer  | \$ 617,000          | Area 6 Happy Trail Storm sewer  |
| \$ 60,000           | Area 7 Bobcat Bend Channel      | \$ 60,000           | Area 7 Bobcat Bend Channel      |
| \$ 82,000           | Area 7 Rock Squirrel Channel    | \$ 82,000           | Area 7 Rock Squirrel Channel    |
| <b>Phase 3 Cost</b> | <b>\$ 1,494,000</b>             | <b>Phase 3 Cost</b> | <b>\$ 1,269,000</b>             |
| <b>Total Cost</b>   | <b>\$ 3,315,000</b>             | <b>Total Cost</b>   | <b>\$ 3,315,000</b>             |

| Option 3            |                                 |                     |                                 |
|---------------------|---------------------------------|---------------------|---------------------------------|
| 3A                  |                                 | 3B                  |                                 |
| Costs               | Projects                        | Costs               | Projects                        |
| Phase 1 - FY 2018   |                                 | Phase 1 - FY 2018   |                                 |
| \$ 25,000           | Area 1 Wagon Trail Depression   | \$ 25,000           | Area 1 Wagon Trail Depression   |
| \$ 25,000           | Area 2 Kinnan Way Berm          | \$ 25,000           | Area 2 Kinnan Way Berm          |
| \$ 15,000           | Area 5 Bent Oak clearing        | \$ 15,000           | Area 5 Bent Oak clearing        |
| \$ 165,000          | Area 12 Chimney Rock LWC        | \$ 165,000          | Area 12 Chimney Rock LWC        |
| \$ 131,000          | Area 12 Fawn LWC                | \$ 131,000          | Area 12 Fawn LWC                |
| \$ 235,000          | Area 5 Windmill LWC             | \$ 235,000          | Area 5 Windmill LWC             |
| \$ 263,000          | Area 5 Bent Oak LWC             | \$ 263,000          | Area 5 Bent Oak LWC             |
| \$ 312,000          | Area 5 Cliffside LWC            | \$ 312,000          | Area 5 Cliffside LWC            |
| <b>Phase 1 Cost</b> | <b>\$ 1,171,000</b>             | <b>Phase 1 Cost</b> | <b>\$ 1,171,000</b>             |
| Phase 2 - Full      |                                 | Phase 2 - Minimum   |                                 |
| \$ 5,400,000        | Area 3 Turkey Creek Storm sewer | \$ 510,000          | Area 3 Turkey Creek LWCs        |
| \$ 2,150,000        | Area 4 Elm Spring Storm sewer   | \$ 140,000          | Area 4 Elm Spring/Bikeway LWC   |
| <b>Phase 2 Cost</b> | <b>\$ 7,550,000</b>             | <b>Phase 2 Cost</b> | <b>\$ 650,000</b>               |
| Phase 3             |                                 | Phase 3             |                                 |
| \$ 735,000          | Area 4-2 Munitract/Ripple Creek | \$ 735,000          | Area 4-2 Munitract/Ripple Creek |
| \$ 617,000          | Area 6 Happy Trail Storm sewer  | \$ 617,000          | Area 6 Happy Trail Storm sewer  |
| \$ 60,000           | Area 7 Bobcat Bend Channel      | \$ 60,000           | Area 7 Bobcat Bend Channel      |
| \$ 82,000           | Area 7 Rock Squirrel Channel    | \$ 82,000           | Area 7 Rock Squirrel Channel    |
| <b>Phase 3 Cost</b> | <b>\$ 1,494,000</b>             | <b>Phase 3 Cost</b> | <b>\$ 1,494,000</b>             |
| <b>Total Cost</b>   | <b>\$ 10,215,000</b>            | <b>Total Cost</b>   | <b>\$ 3,315,000</b>             |



# CITY OF SHAVANO PARK DRAINAGE PLAN



CONTOUR INTERVAL = 5'

## LEGEND

- PROPOSED SWALES AND EASES
- ▲ LOW WATER CROSSINGS & WID
- MAINTENANCE - CLEAR BRUSH/ DEAD TREES TO 6' ABOVE GRO

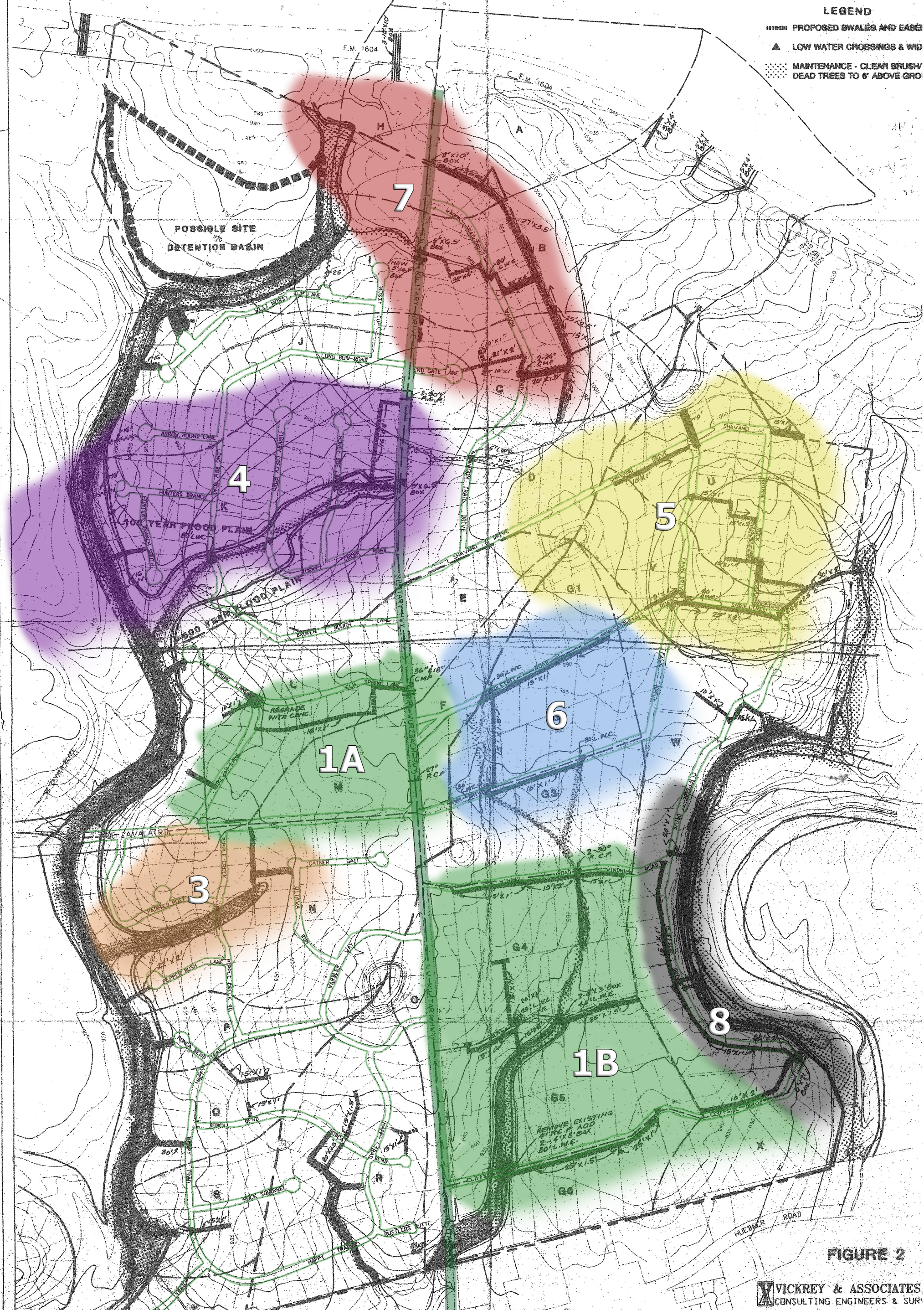


FIGURE 2



## CITY COUNCIL STAFF SUMMARY

Meeting Date: January 25, 2016

Agenda item: 6.5

Prepared by: Brandon Peterson

Reviewed by: Bill Hill

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**AGENDA ITEM DESCRIPTION:** Presentation by Commissioner Lazor on 1993 City Drainage Plan and the establishment of priorities for any proposed drainage projects, a timetable

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**Attachments for Reference:**

1) 6.5a Drainage Priority Map

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**BACKGROUND / HISTORY:** Recent efforts to create a comprehensive City Drainage Plan date to the 2010 Town Plan and the subsequent creation of a Planning & Zoning (P&Z) sub-committee chaired by Richard Lazor. The P&Z subcommittee has conducted several town halls and conducted assessments of the storm water runoff and the historic drainage solutions.

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**DISCUSSION:** Vice-Chairman Lazor will give a presentation on the sub-committee's efforts and the proposal at the January 25, 2016 meeting.

The Drainage sub-committee has organized drainage problems into 8 key areas and labeled them on the 1999 Vickery Study (a comprehensive city-wide drainage study – See attachment 6.5a). In addition to the drainage prioritization, staff has listed rough estimates for the scale of efforts required to address drainage issues in each zone. The scale of effort will be coded into, Staff Internal, Moderate Expenditure or Capital Project.

A Staff Internal is a project the Public Works / Water Director estimates could be done in house with the City's limited manpower and equipment. Example: 1-5 days spent clearing a drainage channel of brush.

A Moderate Expenditure project is estimated to require contracting an outside firm and an expenditure under \$50,000. Example: Expanding a drainage channel to accommodate more water flow.

A Capital Project is estimated to be a \$50,000+ project and require extensive re-grading, culvert installation or other major construction. Example: Installing a culvert or building a retention pond.

The P&Z drainage priority is listed below with staff comments reflected in the sub-bullets:

- 1A – Municipal Tract / Elm Spring & Bikeway Lane
  - This is a Capital Project requirement with several potential solutions that will take deliberate planning and analysis.
  - If the MPO approves the NW Military Highway expansion to be completed in a timely manner, a joint bid would likely be the best move for the City to help reduce cost for installing major box culverts under Elm Springs to help with all of the properties west of Military Hwy.
  - The culverts coming down Elm Springs would likely need to go straight across though 2 private properties to get to Olmos Creek without causing any further impact to the muni-track or residents along Bikeway.
- 1B – Southeast “Old Shavano” – Windmill, Bent Oak, and Cliffside
  - Windmill could be addressed by raising the road and adding 2 shallow box culverts, this would be a moderate expenditure. Bent Oak may also be considered for a culvert under the road.
  - The natural drainage ditches that run from the north to south and cross Bent Oak and Cliffside both need the channel cleaned out. This project will take approximately 2 weeks with City crews. Time could be cut shorter if we could get a D6 dozer to help clear the area.
  - Some other areas may be a challenge to completely mitigate
- 3 – Shavano Estates in vicinity of Painted Post and Ripple Creek
  - If the water from area 1A is picked up and addressed along Elm Springs, then this would reduce the flow of water under De Zavala through Ottawa Run which comes out on Ripple Creek. Ottawa Run just needs some general clean up and mowing, which the City crews could address
  - Another solution involves moving the storm water runoff parallel to DeZavala from the municipal tract in a westerly direction to Olmos Creek
  - A mitigation option is to create a natural water retention area vicinity the SW corner of the municipal tract
- 4 – Northwest “Old Shavano”
  - Honey Bee could be addressed by raising the road and adding 2 shallow box culverts, this would be a moderate expenditure.
  - Turkey Creek has been cleaned up to the best that it can without regrading around houses.

- 5 – Northeast “Old Shavano”
  - Chimney Rock would be a moderate to capital expenditure. The roadway needs raised with culverts under the road. Driveways for 3 residents would need to be reconstructed as well to match the road. Also the channel would need to be cleaned out along both sides of the roadway.
  - Saddletree was recently cleaned out, it just needs to be maintained.
  
- 6 – Central “Old Shavano” - Fawn Drive – Saddletree Road
  - Around the Fawn Drive and Saddletree area the bar ditches need to be reshaped and cleaned out. This would be a moderate expenditure, due to the engineering and grading involved to make sure the water would not be shifted into a house and create additional issues.
  
- 7 – Wagon Trail / Collins Circle
  - The drainage channel that was installed by the developer needs to be completed. Grading should be checked from behind 113 Wagon trail and go all the way to NW Military. By doing so the water would flow into the channel that goes into the Olmos Creek. This is on the edge of a moderate to capital expenditure.
  - Collins Circle needs to be graded into a culvert on the north side and then empty on the south side into the channel crossing NW Military into the Olmos Creek bed.
  
- 8 - Lower Cliffside
  - This area needs all the bar ditches reshaped and graded into the Salado Creek. This could be on the edge of a moderate to capital expenditure depending on the scope of work and how far up each side street the City decides to address.

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**COURSES OF ACTION:** Authorize staff to further develop plan in preparation for FY2016-17 Budget; and/or amend plan while providing further guidance to staff.

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**FINANCIAL IMPACT:** Varies. Staff intends to further develop planning options in support of the FY 2016-17 Budget.

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**MOTION REQUESTED:** None. Presentation followed by discussion and general guidance to the P&Z and/or staff.