

CITY OF SAN ANTONIO

TRANSPORTATION & CAPITAL IMPROVEMENTS

TO: 2017 Drainage Community Bond Committee

FROM: Lori Houston, Assistant City Manager

COPY: Sheryl Sculley, City Manager; Executive Leadership Team; Mike Frisbie, Transportation & Capital Improvements Director/City Engineer

DATE: November 4, 2016

SUBJECT: 2017 DRAINAGE COMMUNITY BOND COMMITTEE REQUESTED INFORMATION

This memo addresses requests for information from 2017 Community Bond Committee members and citizens regarding the Drainage 2017 Community Bond Committee meeting held on October 27, 2016.

Drainage

N. New Braunfels - Citizen William Schiller reported of major drainage issues along N. New Braunfels. As stated in the October 21st response letter, the City of San Antonio, Bexar County, and the San Antonio River Authority are all aware of the street flooding along N. New Braunfels and the major challenges it poses to resolve, without causing downstream impacts. On Monday, November 7th, the Bexar Regional Watershed Management (BRWM) committee met and discussed this project. BRWM is a partnership between the City of San Antonio, Bexar County, and the San Antonio River Authority, and 20 surrounding suburban cities formed in 2003 to provide regional flood control management.

Multiple drainage studies have been performed by various agencies over the past several years. Each of the studies reviewed different components of the Broadway, N. New Braunfels, and San Antonio River areas; therefore, the next step in developing a long-term plan to address flooding in the area would be to compile all of the previous information into a single report. Past studies estimated options to reduce flooding ranging from over \$60M to over \$300M. As part of the report, a detailed analysis of exactly which properties flood and the frequency of flooding would need to be determined to further justify the benefit of the project beyond the improved transportation mobility and safety. The ultimate solution will need to include contributions from the City of San Antonio, Bexar County, City of Alamo Heights, Texas Department of Transportation, and potentially the San Antonio River Authority.

Wigwam Dr. Area Drainage Project - Citizen David Archibald, District 7, from the St. Andrews Episcopal Church reported flooding of the church and property. TCI had previously discussed these issues with the church and developed a \$1.6M project. This project is considered viable at this time and may be taken under consideration for the 2017 Bond Program.

Council District 6 Low Water Crossings - Citizen Paul Basaldua, representing District 6, is requesting the removal of the multiple low water crossings within the District.

- **Tallahassee – Low Water Crossings 113-116** - City staff is familiar with this location and had previously created a \$2.1M project that includes removal of several low water crossings in this neighborhood. Currently, in the event of water overtopping the roadway, residents do have access to either W. Military or Pinn Rd. Subsequent to the October 27th meeting, maintenance staff visited the site and is currently addressing rutting and debris removal in these areas. Staff is

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also recommending that alternative funding be used to protect against erosion and/or slow the speed of the water.

- **Pinn Rd. – Low Water Crossing** - A cost estimate for the replacement of this low water crossing was previously prepared in 2007 for an estimated cost of \$15.6M. This location currently has a High Water Detection System but the project is considered viable and may be taken under consideration for the 2017 Bond Program, although the crossing would likely be designed for a more frequent, smaller scale, storm event than the 1% annual chance (100-year) storm.
- **Commerce St. – Low Water Crossing** - A cost estimate for the replacement of this low water crossing was previously prepared in 2007 for an estimated cost of \$16.8M. This location currently has a High Water Detection System but the project is considered viable and may be taken under consideration for the 2017 Bond Program, although the crossing would likely be designed for a more frequent, smaller scale, storm event than the 1% annual chance (100-year) storm.

De Chantle (Westhill Place) - Citizens Frank Fonseca and Cindy Medrano representing the Maverick Home Owners Association, District 7, are requesting improvements be done in the alley behind Westhill Place to alleviate the discharge coming from the adjacent apartment complex. TCI currently maintains only those alleys in which the Solid Waste Management Department utilizes waste collection service and any lot-to-lot drainage issues are considered a private matter. Should the Bond Committee want to consider this as a 2017 Bond project, the estimated cost for the De Chantle project is \$6.2M.

Overbrook Alley - Citizens Frank Fonseca and Cindy Medrano representing the Maverick Home Owners Association, District 7, are requesting improvements be done in the alley behind Overbrook to alleviate the discharge coming from the alley. TCI currently maintains only those alleys in which the Solid Waste Management Department utilizes waste collection service and any lot-to-lot drainage issues are considered a private matter. TCI staff believes the issues may be caused by a SAWS manhole blocking the natural flow in the alley and recommend further coordination by SAWS be done to alleviate these flows.

Laddie Place/Kampmann - Bianca Maldonado, president of the Monticello Park Neighborhood Association, presented five project options for bond funding consideration. The project options were recommended to supplement the previously constructed Laddie Place detention ponds with the aim of providing further flood reduction in or around the Kampmann area. TCI has further analyzed Options 1-4 as follows.

- **Option 1:** Expanding the Laddie Place Phase 2 detention pond to the east of the current limits would require acquiring a parcel with occupied buildings. While the expansion could potentially add 35 to 40 acre-feet of storage, the added storage could result in under-utilizing the volume of the downstream Laddie Place Phase 3. There would be no positive impact to Laddie Place Phase 1 or downstream of Laddie 1.
- **Option 2-4:** The existing SAHA detention pond ties into the Kampmann drainage system downstream of Laddie Place Phase 1. About 5 acre-feet of storage could be added to the pond by

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expanding into further into the SAHA property. The added storage would not have any apparent positive impact to the drainage issues along Kampmann.

There is a lot at the corner of Quentin and Fredericksburg that could potentially be used for detention. The site is apparently used for overflow parking for the property across Quentin. Approximately 18 acre-feet of storage could be added on this lot, but there would only be a slight improvement to the Kampmann system. This option may also require substantial infrastructure improvements between the pond and the existing Kampmann system. This additional area combined with the SAHA basin expansion appears to have minimal impact.

TCI does not recommend considering any of these options for the 2017 Bond Program.

Pittman-Sullivan Park - Citizen Tommy Lee Jr., representing the Denver Heights Neighborhood Association, District 2, is requesting improvements be done to the park to prevent ponding in the baseball fields. As stated in the October 27th meeting, the recent improvements to Pittman-Sullivan Park should address this issue.

Bexar St. Reconstruction - Citizen Luis Nanez, District 7, is requesting for curbs and sidewalks along Bexar. TCI has previously provided maintenance to the right-of-way along Bexar St. Complete street reconstruction with sidewalks could be considered for the 2017 Bond Program but an underground drainage system may need to be included to properly convey storm runoff.

Capitol St. Drainage Project - Citizen Patricia Hernandez, District 1, on W. Kings Highway is concerned with street flooding. TCI had previously discussed these issues with Ms. Hernandez and developed a \$6.2M project. This project could potentially be phased into a \$1.9M project, to address her area first, since this location is the outfall for the entire Capitol Drainage Project.

Number of Flooded Structures - Committee Members requested more information on the number of structures removed from the floodplain or being flooded. As stated in the October 21st response letter, although only 6 of the recommended 2017 Bond projects are located within the mapped FEMA 100-year (1% annual chance) floodplain, this does not imply the remaining projects are immune to significant flooding. Typically FEMA does not formally designate an area as a floodplain until the drainage area is 1.5 square miles or greater. Since most of the proposed projects have much smaller drainage areas, they therefore do not have an associated mapped 1% annual chance floodplain. However, the City is aware of the flooding challenges in these areas and that they can occur during much smaller storm events than the 1% annual chance storm event. The projects with FEMA floodplain are listed in the below table, as well as the anticipated number of structures that would be removed by the project. The projects not listed (those without FEMA floodplain) include a combination of structural flooding, street flooding, and property flooding.

Floodplain Projects	Structures Removed	Notes
Barbara Drive Phase 2	90-100	Ultimate project build-out
Beitel Creekway Improvements	N/A	No existing structures, but will create developable acreage
Panther Springs Creek Restoration	0	Natural channel restoration
Paso Del Norte (Shady Oaks)	0	Removal of low water crossings
San Pedro Creek Improvements	35	Phases 1-4
Seeling Channel Phase 3	100-120	Phases 1-3

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Non-Floodplain Projects	Structures Reported or Observed to Flood	Notes
Auldine & Burr Oak Alley to Outfall Drainage	0	Localized street and alley flooding
Belfast & Janda Susan Area Drainage	1	Localized street and property flooding
Blossom Park - Lotus Blossom Drainage Improvement	2	Localized property flooding
Cedarhurst Drive. Area Drainage Improvements	1	Localized street and property flooding
Eisenhauer Northwood-Devonshire Area Drainage	15	Localized property flooding
Esma Area Drainage Improvement Project	1	Localized street and property flooding
Port San Antonio Comprehensive Drainage Improvements	106	Past equipment and building damage reported by Port SA
South Pine/Greer Street Drainage Improvements	2	Localized street and property flooding
Upland Road Drainage	0	Localized street and property flooding
Vance Jackson Low Water Crossing Improvements	0	Removal of low water crossings
West Military and Westmar Area Drainage Improvements	0	Localized street and property flooding

Criteria/Metrics for Project Selection - Committee Members requested more information on the project selection. TCI uses both qualitative and quantitative criteria in selecting projects, as well as local knowledge of the project areas and interactions with the community and Council Districts. Several criteria/metrics considered in project selection are listed below.

1. Number of structures being flooded, how often, how deep.
2. Number of properties being flooded, how often, how deep.
3. Is the project located within a FEMA floodplain?
 - i. Number of houses to be removed from the floodplain.
 - ii. Will the project impact the floodplain?
4. Is the water on the roadway causing issues?
 - i. Volume, how often, how deep, how fast?
 - ii. Ponding, how often, how deep, how wide, how long does it stay on the road?
 - iii. Unflooded access, number of homes landlocked during the 1% storm event
 - iv. Traffic volume, Average Daily Traffic.
5. Does the project encourage economic development?
6. Does this project depend on another project being constructed first to prevent adverse impacts?
7. Does the project require land acquisitions, how many acres, residential/commercial/vacant?
8. Will the project cause extreme operation and maintenance costs?
9. Are there environmental impacts/benefits?
10. Benefit/cost ratio.

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11. Is the project part of the BRWM Regional Master Plan?
12. Are other funding sources being leveraged and available?
13. Shovel readiness, has the project already been designed and ready to construct?
14. Will there be extensive permitting required from external agencies such as TCEQ, USACE, UPRR, Texas Historic Commission?
15. Will the project include parks or other recreational benefits?