



10001 Reunion Place, Suite 404
San Antonio, Texas 78216
P 210.491.2391 | kfriese.com
TBPE Firm No. 6535

February 14, 2020

Variance Request Review
City of San Antonio
Development Services Department (DSD)
City of San Antonio (COSA)
1901 S. Alamo
San Antonio, Texas 78204

RE: San Antonio Water System W-6 Upper Segment: Hwy 90 to SW Military Dr Sewer Main
A/P # 2564579
Unified Development Code (UDC) Section 35-523
Tree Permit Application and Variance Request Review

Dear COSA DSD:

The San Antonio Water System (SAWS) will be constructing the proposed W-6 Upper Segment: Hwy 90 to SW Military Dr Sewer Main project (The Project). The Project is required pursuant to the agreement between the San Antonio Water System (SAWS) and the United States Environmental Protection Agency to address capacity constrained sewer infrastructure across the City of San Antonio. The Project is essential for the health and welfare of San Antonio's citizenry. The Project consists of the construction of a large sanitary sewer line beginning at the northwest corner of the intersection of Highway 90 and Callaghan Rd to east of the intersection of Old Pearsall Rd and SW Military Dr. For the limits of the construction areas, refer to sheets TP-5 through TP-7 in the Tree Preservation Plan Sheets attached. The project consists of approximately 31,000 LF of 8" - 104" sanitary sewer line using a variety of installation techniques. The majority of the sewer main will be installed via trenchless techniques. There is approximately 1,140 LF of sanitary sewer main to be installed via the open-cut method. This project also consists of nine (9) shaft sites strategically placed along the alignment to allow access to the tunnel during construction and provide staging areas for support equipment.

This is a unique project as the majority of the pipeline will be installed via a tunnel; an open cut project of this magnitude would typically yield a much larger area of impact. The only areas of impact are the shaft sites and the open cut segments which are a small portion of the project. However, given the construction effort and footprint required to build a sewer main of this magnitude, certain impacts were unavoidable.

We are requesting a variance to the requirements of section 35-523 of the UDC.

The Unified Development Code (UDC) – Article V, Section 35-523 (h), 100-Year Floodplain(s) and Environmentally Sensitive Areas states that, "Significant Trees shall be preserved at eighty (80) percent preservation within both 100-year floodplains and environmentally sensitive area. Heritage trees shall be preserved at one-hundred (100) percent preservation within the 100-year floodplains and environmentally sensitive area except when a variance is granted by the Planning Commission."

As shown in the attached engineering documents, there are portions of the sewer main and shaft sites within the 100-year floodplain or the riparian buffer. We request consideration of this request for the following reasons:

- Current SAWS infrastructure places certain design constraints that require the sewer main alignment and shafts to be installed within the floodplain. This is because existing sewer infrastructure which this project ties into lies within the floodplain.
- In an effort to minimize disturbance to the environment, the majority of the sewer main is proposed to be installed via tunnel and other trenchless technologies. This installation method allows for minimal surface disturbance compared to a full open-cut construction method. The design has been optimized to minimize the total amount of open cut installation.
- The majority of the tree impacts are due to the shaft sites, which are required for the tunneling effort. The sewer main tunnel is approximately 5 miles long and with an open cut project of this length, the impacts would have been far more significant.
- This sewer main is critical infrastructure for SAWS to continue service to the Western Sewer shed of San Antonio. This project provides much needed additional capacity for SAWS.
- The public interest in preventing sewer overflows outweigh the difference in tree preservation requirements for which this variance is requested.

Acknowledging the Tree Preservation Ordinance – Unified Development Code (UDC) 35-523, the Project is under the minimum tree preservation requirements as displayed in the following table:

	Riparian		100-yr Floodplain	
	Significant	Heritage	Significant	Heritage
The Project	51.1 % Preserved	100.0% Preserved	57.2% Preserved	100.0% Preserved
UDC Requirement	80% Required	100.0% Required	80.0% Required	100.0% Required

To meet the 80% preservation requirement, we propose mitigation through planting 25.4 acres of drill seed where appropriate and safe, of native seed mix, ensuring 85% establishment of all disturbed areas within the project corridor excluding shaft sites that are to be paved. This seeding restores areas where trees were removed as well as areas disturbed by construction that are devoid of trees currently. Tree removal and mitigation acreages are shown in the table below.

Zone	Total (In.)	Required Preservation (In.)	Amount Preserved (In.)	Req Mitigation (In.)	Cost (\$) *
Floodplain (Significant)	962	769.6	550	219.6	\$ 43,920.00
Floodplain (Heritage)	64	64	64	N/A	
Riparian (Significant)	45	36	23	13.0	\$ 2,600.00
Riparian (Heritage)	26	26	26	N/A	
				Total Mitigation	\$ 46,520.00

*Cost calculated based on fees for medium sized trees in Appendix C of UDC (\$200/inch)

The following are provided in accordance with UDC Section 35-483(e):



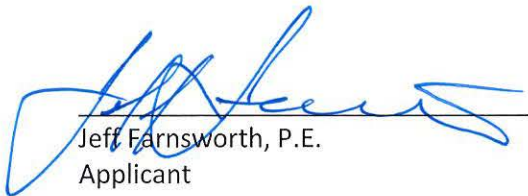
K. FRIESE
+ ASSOCIATES
PUBLIC PROJECT ENGINEERING

10001 Reunion Place, Suite 404
San Antonio, Texas 78216
P 210.491.2391 | kfriese.com
TBPE Firm No. 6535

- Strict compliance with these regulations is not possible as the proposed sewer main location has been set. Negotiations with property owners for easements, and SAWS' property acquisition is nearing completion. The sewer main cannot be moved out of the floodplain and the shaft sites coincide with SAWS' property acquisition efforts and recommended construction methods. The proposed design complies with the spirit of the regulations and maximizes the preservation of existing significant and heritage trees within the floodplain and environmentally sensitive areas.
- The public interest in reducing sewer overflows outweighs the public interest underlying the regulation for which we request a variance.
- The granting of the variance will not be injurious to other property and will not prevent the orderly subdivision of other property in the area in accordance with these regulations.

In our professional opinion, the proposed administrative variance remains in harmony with the spirit and intent of the UDC as it will not adversely affect the health, safety, or welfare of the public.

Sincerely,


Jeff Farnsworth, P.E.
Applicant


Cristina De La Garza, P.E.
Owner

Attachments: Engineering Plans dated 1/20/2020

For Office Use Only:	AEVR #: _____	Date Received: _____
<u>DSD – Director Official Action:</u>		
<input type="checkbox"/> APPROVED	<input type="checkbox"/> APPROVED W/ COMMENTS	<input type="checkbox"/> DENIED
Signature: _____	Date: _____	
Printed Name: _____	Title: _____	
Comments: _____		

