

September 6, 2022

Environmental Variance Request Review
City of San Antonio
Development Services Department
1901 S. Alamo
San Antonio, Texas 78204

Re: E-54 SAWS Sanitary Sewer – Capital Improvement Project
A/P #22-38800421
Environmental Variance
Request for UDC Section 35-523 (2010 Tree Ordinance – 80% Preservation Within Floodplain and Buffer)

Dear Development Services,

Kindly consider this letter as a formal request for an Environmental Variance from Section 35-523 “Tree Preservation” of the Unified Development Code. It is the intent of Section 35-523 of the Unified Development Code *“to allow the reasonable improvement of land within the city and the city’s ETJ, while maintaining to the greatest extent possible, existing trees within the city and the ETJ and to promote a high tree canopy goal”*. For the reasons herein described by the following letter, this project requests an Environmental Variance from the portion of the Unified Development Code that requires *“maintaining to the greatest extent possible, existing trees within the city and the ETJ”*.

The E-54 Sanitary Sewer Project is a necessary improvement to the San Antonio Water System (SAWS) sewer system in the northern area of San Antonio. The E-54 Sanitary Sewer Project will construct approximately 6.1 miles (31,935 LF) of gravity sewer and force main from Evans Road to the northern boundary of Loop 1604. This project is part of SAWS’ efforts to accommodate future flows in the Evans Road and Bulverde Road area and ultimately areas along the US 281 corridor.

The proposed sanitary sewer project will include the construction of approximately 9,444 LF of 18-inch, 21-inch, and 24-inch PVC gravity mains that begin along Evans Road and will connect to a proposed regional lift station, allowing three existing lift stations to be decommissioned. The three lift stations to be decommissioned are aging facilities and are undersized to serve the growing population in the area. By decommissioning the three lift stations and upgrading to a regional lift station, SAWS will reduce operations, maintenance, and repair costs, while also reducing the risk of spills from the undersized facilities. The regional lift station is initially sized for 6 MGD and will pump wastewater through approximately 6,258 LF of dual 20-inch and 30-inch HDPE force main that connects to 16,233 LF of 30-inch and 36-inch gravity sewer main. This gravity main connects to the SAWS E-4 Sanitary Sewer Project that is currently under construction south of Loop 1604. The project is located on private tracts of land within a variable width permanent easement for SAWS future operation and maintenance of the sewer main. A

variable width temporary construction easement is also utilized to allow access and sufficient space for contractors to install the proposed sewer infrastructure. Significant and heritage trees have been preserved, to the extent possible, to meet the intent of Section 35-253 “Tree Preservation” of the Unified Development Code at all feasible locations throughout the project limits.

Many factors were considered to determine the most viable and cost-effective project alignment that would also promote the preservation of trees within the project limits. Segment B utilizes several existing easements, thus mitigating the need for easement acquisition and further tree removal. To further promote the preservation of tree canopy and heritage trees, a total of 3,851 linear feet (LF) will be bored throughout the project, 1,238 LF of which will be located within the floodplain and ESA Buffer area. Boring these sections will save approximately 50,535 SF of canopy, 9,666 SF of which is located within the floodplain and ESA Buffer area. In trying to keep with the spirit and intent of the preservation ordinance, a diligent effort was made to comply with the minimum preservation requirements for the 2010 Tree Preservation Ordinance within the variable width permanent and temporary construction easements as indicated on the E-54 Sanitary Sewer Tree Stand Delineation Plan.

Portions of the project site are located within the 100-year regulatory Federal Emergency Management Agency (FEMA) floodplain. Per Table 523-1B of the 2010 Tree Preservation Ordinance, the minimum preservation requirement is 80% of the total existing canopy area, and 100% of the heritage trees within the 100-year FEMA floodplain. As indicated on the Project’s Tree Preservation Plan, four heritage trees are located inside the 100-year FEMA floodplain and one heritage tree is located inside the ESA buffer area; these heritage trees will be removed and mitigated at a ratio of 3:1 per Table 523-2 “Mitigation” of the Unified Development Code. Due to the size and location of the proposed sanitary sewer pipeline, the project does not satisfy the canopy preservation requirements inside the floodplain or ESA buffer area. A total of approximately 439,262 SF of canopy will be located within the floodplain work limits, and a total of approximately 100,617 SF of canopy will be located within the floodplain buffer work limits. This results in a required 124,538 SF for canopy mitigation and 399 inches for heritage tree mitigation in the overall project 100-year FEMA floodplain, and 40,426 SF for canopy mitigation in the overall project ESA buffer area as shown on the Tree Preservation Plan. This disturbed area will be revegetated by drill seeding with a native seed mix and ensuring 85% establishment, where practicable. A total of 1,283,499 SF (142,611 SY) of revegetation by drill seeding is proposed for this project, approximately 444,824 SF (49,425 SY) of which is located within the floodplain and ESA Buffer area. See Tables 1 and 2 below for a summary of the canopy area to be removed and preserved as part of the SAWS E-54 Sanitary Sewer Project within the floodplain and ESA buffer area.

Table 1. Tree Canopy Preservation Inside Floodplain

Plan Segment	Total Existing Canopy (SF)	Canopy Required to Be Preserved (SF)		Canopy To Be Removed (SF)	Canopy To Be Preserved (SF)		Canopy Required to Be Mitigated (SF)
A + FM	209,099	167,279	80%	97,623	111,476	53%	55,803
B	203,168	162,535	80%	100,513	102,655	51%	59,879
C	26,995	21,596	80%	14,255	12,740	47%	8,856
Total	439,262	351,410	80%	212,391	226,871	52%	124,538

Table 2. Tree Canopy Preservation Inside ESA Floodplain Buffer

Plan Segment	Total Existing Canopy (SF)	Canopy Required to Be Preserved (SF)		Canopy To Be Removed (SF)	Canopy To Be Preserved (SF)		Canopy Required to Be Mitigated (SF)
A + FM	46,456	37,165	80%	26,267	20,190	44%	16,975
B	47,411	37,928	80%	31,569	15,842	33%	22,087
C	6,750	5,400	80%	2,714	4,036	60%	1,364
Total	100,617	80,493	80%	60,550	40,068	40%	40,426

Table 3 shown below provides a summary of the four heritage trees located in the floodplain that will be removed during construction.

Table 3. Heritage Tree Preservation Inside Floodplain

Plan Segment	Total Existing Heritage Tree Inches	Preserved Heritage Tree Inches	Removed Heritage Tree Inches	Percent of Preserved Heritage Tree Inches
A + FM	133	0	133	0%
B	0	N/A	N/A	N/A
C	0	N/A	N/A	N/A
Total	133	0	133	0%

Table 4 shown below provides a summary of the heritage tree located in the ESA buffer that will be removed during construction.

Table 4. Heritage Tree Preservation Inside ESA Floodplain Buffer

Plan Segment	Total Existing Heritage Tree Inches	Preserved Heritage Tree Inches	Removed Heritage Tree Inches	Percent of Preserved Heritage Tree Inches
A + FM	25	0	25	0%
B	0	N/A	N/A	N/A
C	0	N/A	N/A	N/A
Total	25	0	25	0%

Table 5 shown below provides a summary of the required canopy and heritage tree mitigation and anticipated fee amount required to mitigate the removed canopy and heritage tree inches, prior to consideration of revegetation efforts.

Table 5. Required Mitigation Fees

Plan Segment	Required Canopy Mitigation (SF) (Floodplain + ESA Buffer Area)	Required Canopy Mitigation (IN) IN = SF ÷ 875 SF/Tree x 16.7 IN	Required Heritage Tree Mitigation (IN) (To Be Mitigated 3:1) (Floodplain + ESA Buffer Area)	Total Mitigation Fee = \$200/IN
A + FM	72,778	1,403	158 x 3 = 474	\$375,400
B	81,966	1,570	0	\$314,000
C	10,220	201	0	\$40,200
Total	164,964	3,174	474	\$729,600

Although SAWS will have the right for ingress and egress to access the permanent easements for operation and maintenance requirements, the hardship for complying totally with the minimum preservation requirements are:

- The construction of the E-54 Sanitary Sewer Project is critical to SAWS and the City of San Antonio as it pertains to the health and welfare of the public. The existing sanitary sewer system is undersized and is susceptible to sanitary sewer overflows experienced at the upstream end of the project. This project seeks to address the “Lift Station Rehabilitation and Elimination Program” section of the EPA Consent Decree, in which SAWS shall assess the condition of existing lift stations and determine whether to improve or eliminate lift stations based on these assessments; the E-54 Sanitary Sewer Project will eliminate three sanitary sewer lift stations and replace them

with one regional lift station in an effort to reduce sanitary sewer overflows (SSOs) and improve system capacity. The diameter, depth of installation, and overall magnitude of the project require SAWS to procure necessary space for the construction contractor to successfully complete the project within the EPA Consent Decree timeline. The contractor will have to use the total easement area for the duration of the project, thus limiting the amount of easement area potentially available to preserve trees.

- SAWS requires removal of all vegetation within the permanent easement to facilitate construction of the proposed sanitary sewer project. Newly planted trees are not an option for this project as SAWS requires the easement area to be clear for future access to the sewer main for maintenance and operation of the sewer main.
- The granting of this 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.

It is our professional opinion that the proposed environmental variance remains in harmony with the spirit and the intent of the UDC as it will not adversely affect the health, safety, or welfare of the public, nor does it weaken the general purpose of the tree preservation regulation.

We respectfully request your consideration for this variance. The Environmental Variance Request Application is attached, as required. If you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,
Pape-Dawson Engineers, Inc.

Marshall Preas, P.E.
Senior Project Manager

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

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