



# CITY OF SAN ANTONIO

## DEVELOPMENT SERVICES DEPARTMENT

### VARIANCE REQUEST ANALYSIS

<b>Project:</b>	SAWS East Sewershed Large Diameter Package III
<b>Address:</b>	Rosillo Creek Between Houston St. and Salado Creek
<b>A/P #/PPR #/Plat#:</b>	AP# 2306533
<b>VR Submittal Date:</b>	October 20, 2017
<b>VR Submitted by:</b>	Mr. Michael Persyn, P.E., K. Friese & Associates, Inc. on behalf of Christopher Jackson, San Antonio Water System
<b>Issue:</b>	Below 80% preservation with 100-year Floodplain (2015 Ordinance)
<b>Code Sections:</b>	Unified Development Code (UDC), Section 35-523 (h).
<b>By:</b>	Herminio Griego, Assistant City Arborist

The Development Services Department (DSD) has reviewed the information presented in Messer's Persyn's and Jackson's letter dated October 20, 2017.

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 the 100-year floodplains and environmentally sensitive areas. Mitigation shall be prohibited in floodplains and environmentally sensitive area except when a variance is granted by the Planning Commission."

The applicant is requesting a Variance Request to mitigate for removal of trees using the tree stand delineation method stand within the 100-year floodplain in excess of the 80% minimum preservation of protected trees in place under the 2015 Tree Preservation Ordinance for the existing sewer main paralleling and mostly within the floodplain of Rosillo Creek. This project is being executed pursuant to SAWS' consent decree with the United States Environmental Protection Agency. SAWS staff has coordinated with city staff to ensure that the proposed tree mitigation meets desired criteria. SAWS will utilize trenchless sewer replacement technology to minimize surface disturbance and impacts to trees. In addition, SAWS purchased additional easement acreage to afford flexibility to the contractors allowing them to navigate without disturbing trees within the work space. The project team has also coordinated with the contractor for this project to ensure that the contractor can preserve as many trees as possible while maintaining a safe work environment. DSD staff does agree with the applicant's request to mitigate for tree stand below 80% preservation for the following reasons:

1. *Project Information* – This project will replace 50 year old deteriorated sewer main and associated appurtenances. This project will install approximately 5.5 miles of 42 to 30-inch sanitary sewer pipeline. The pipeline alignment runs along Rosillo Creek and its floodplain. SAWS and the project team have worked diligently to provide the required infrastructure while complying with the City's Tree Ordinance. These efforts include the following:

- a. Using the “cured-in-place-pipe” (CIPP) in-situ installation technique. Using CIPP significantly reduces the amount of surface disturbance by utilizing exiting manholes and pipe conveyances for installation of the new pipe.
  - b. SAWS acquired additional easement beyond the minimum required for the project. The additional easement allowed greater flexibility for the contractors to navigate around heavily wooded areas.
  - c. The location of the temporary construction easement was adjusted multiple times to minimize the removal of trees in the floodplain and riparian buffer areas.
2. *Tree Preservation* – Due to the proposed scope of work, the project is unable to preserve the minimum 80% of significant trees within the 100-year floodplain and Environmentally Sensitive Area (ESA). Tree preservation percentages within the floodplain and ESA area are 72.3% and 71%, respectively. No Heritage Trees will be removed as part of this project.

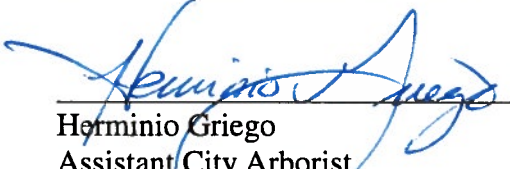
Since replanting within the floodplain and ESA areas are impractical, a 50% native seed mix credit was given to the project for proposing to re-seed (with drill seeding techniques) all disturbed areas with a native seed mix to help return the ESA area to pre-development conditions. Applying the 50% native seed mix, the required tree mitigation for heritage trees, brings the ESA and floodplain mitigation up to 85.57% in the floodplain and 85.51% in the riparian buffer (See Table Below). Therefore no additional tree planting will be required.

AREA/CANOPY	AREA/%	UNITS
<b>FLOODPLAIN</b>		
Total Tree Canopy in Floodplain	21.33	AC
Tree Canopy to be Removed (In floodplain)	6.16	AC
% Removed in Floodplain	28.86	%
% Preserved in Floodplain	71.14	%
Mitigation Through Native Planting	6.16	AC
% Preservation With Mitigation (50% Credit)	85.57	%
<b>RIPARIAN BUFFER</b>		
Total Tree Canopy in Riparian Buffer	1.38	AC
Tree Canopy to be Removed (In Riparian buffer)	0.40	AC
% Removed in Riparian Buffer	28.98	%
% Preserved in Riparian buffer	71.02	%
Mitigation Through Native Planting	0.40	AC
% Preservation With Mitigation (50% Credit)	85.51	%

3. *Tree mitigation* - The contractor will seed all disturbed area with a native grass seed mix consisting of grasses, legumes and wildflowers native to the San Antonio area. Where trees have been removed, the contractor will forgo using hydromulching in favor of a more robust drilled seed method to establish the native seed mix. The areas where trees will be preserved include the preservation of understory species as well.

DSD staff supports the applicant's request to fall below 80% of tree stand preservation requirements based on the project type, conditions of the site and design constraints. The proposed Variance Request meets the intent and spirit of the Tree Ordinance therefore, staff recommends approval.

**RECOMMENDATION: Approval**

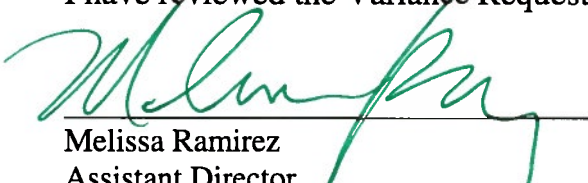
  
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Herminio Griego  
Assistant City Arborist  
DSD – Land Development – Tree Preservation

10/27/17  
Date

  
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Pablo G. Martinez, P.E.  
Development Services Engineer  
DSD – Land Development - Engineering

10/27/17  
Date

I have reviewed the Variance Request Analysis and concur with the recommendation.

  
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Melissa Ramirez  
Assistant Director  
DSD – Land Development

Oct. 30, 17  
Date