M E M O R A N D U M

TO: Mayor and Council Members

CC: Marc A. Ott, City Manager
Robert Goode, P.E., Assistant City Manager

FROM: Robert Spillar, P.E., Director
Austin Transportation Department

DATE: November 7, 2014

SUBJECT: **CIUR 1447 - Brodie Lane Improvements**

On October 16, 2014, the Austin City Council passed Resolution No. 20141016-30 directing the City Manager to develop a timeline and budget for improvements to Brodie Lane between Slaughter Lane and FM 1626. This memorandum is in response to that resolution.

Background

The City of Austin initiated a planning level study to evaluate the potential for a series of intersection improvements along Brodie Lane. The goal of the preliminary effort was to relieve congestion and improve mobility in the southern segment of Brodie Lane due to operational conflicts observed in the field. The investigation included examining single-lane roundabouts at major collector intersections along Brodie Lane, between Slaughter Lane and FM 1626. The intersections that were analyzed for possible roundabout installations are:

- Aspen Creek Parkway
- Squirrel Hollow and Indian Point Drive (roundabout pairs)
- Sesbania Drive
- Sunland Drive
- Gatling Gun Lane

The initial concept for this section of Brodie Lane maintains the roadway as a two-lane facility that includes roundabouts for improved accessibility from the side streets and better facilitates left turning vehicles, and provides a complete sidewalk and/or shared use path connection between Slaughter Lane and FM 1626.

The evaluation indicated that the single lane roundabouts could be mostly constructed within the existing right-of-way and would only require minor right-of-way acquisition at some of the intersection corners. It is anticipated however, that due to the extent of the area to be disturbed during construction activities, that an amendment to the S.O.S. ordinance would be required for project implementation. Additional corridor level modeling and detailed design and survey data are necessary to identify the most technically appropriate design for the roundabouts and actual right-of-way needs. At some roundabout locations the construction

will occur over the existing open drainage ditches that exist along the west side of Brodie Lane. These intersection improvements will require significant storm water infrastructure modifications.

Approach

This project will require the City of Austin to hire a consultant to develop a Preliminary Engineer Report which will include a detailed traffic analysis, watershed impact determination and remediation plan, and public involvement process. Once that process has completed and the final scope of the project is determined, the next steps would be detailed engineering/ design, permitting, and construction.

Timeline

It is estimated that the Preliminary Engineering Report and Public Involvement process can be completed in 12 months. Design and permitting should require another 24 months, and construction would require 12 months. The resulting total project time estimate is 48 months.

Cost Estimate

A preliminary cost estimate has been developed for this project. The estimate includes engineering, project management, construction costs, drainage modifications, water quality improvements, real estate acquisition, water & wastewater upgrades and modifications, and a 25% construction contingency. Including additional contingency for unknown issues including time and environmental stewardship it is estimated that the total cost for this project is $15,000,000.

Item	Cost
Brodie and Aspen Creek Roundabout	$550,000
Brodie and Squirrel Hollow / Indian Point Roundabout	$1,050,000
Brodie and Sesbania Drive Roundabout	$400,000
Brodie and Sunland Drive Roundabout	$450,000
Brodie and Gatling Gun Lane Roundabout	$500,000
Drainage Improvements for Roundabouts	$750,000
Water Quality for Roundabouts	$350,000
Extend SB merge area south of Slaughter - Turn Lane @ 300 LF	$75,000
Frate Barker to Sully Creek Shared Use Path @ 2400 LF	$250,000
Precast Median / Barrier Curb @ 2500 LF	$250,000
Misc. Utility Relocations (minus AWU) @ 5%	$231,250
Sub-Total Construction Estimate	**$4,856,250**
Construction Contingency @ 25%	$1,214,000
Grand Total Construction Estimate	**$6,070,500**
Construction Soft Costs @ 30%	$1,821,000
Preliminary Engineering Report	$350,000
Real Estate Acquisition for Roundabouts	$30,000
Real Estate Acquisition for Water Quality	$1,000,000
AWU Upgrades and Relocations	$3,000,000
Project Contingency @ 22%	$2,725,000
Grand Total	**$15,000,000**