City of Bel Aire, Kansas

STAFF REPORT

DATE:	March 13, 2024
TO:	Ty Lasher, City Manager
FROM:	Anne Stephens, City Engineer
RE:	Geotechnical Investigation for Woodlawn
Proposal Focus:	



Our Mission

• Attractive growth and safe living – Encourage attractive neighborhoods and new developments.

Our Values

• Working Together – Departments working together as one team. Staff working with residents, HOA's and neighborhoods. Citizens working with each other.

Current Situation:

Additional geotechnical information is needed from Woodlawn to design a solution for the failing roadway. Data regarding the elevation and movement of the subsurface water is needed. The design solution will likely include an underdrainage system and subgrade stabilization as recommended in KDOT's February 6, 2024 Pavement Failure Investigation Memo.

Goals:

- To grow the City in an attractive, safe manner that is consistent with City standards.

Discussion:

Staff reached out to PEC for a quote to provide geotechnical engineering and investigation services for the design of a solution for Woodlawn. Staff met with representatives from both PEC and KDOT on Monday, March 11th to walk the site and determine the location for monitoring wells. During the installation of the monitoring wells, PEC will collect soil samples that come out of the drill rig for analysis. PEC originally thought that 6 monitoring wells would be sufficient to collect the information needed (4 on the closed lane, one on the southbound lane, north of the tracks and one south of the tracks). During our on-site visit, it was decided to put in two additional monitoring wells north of the tracks on the west side of the roadway (in the grass behind the curb), directly across from monitoring wells on the east side, to help determine the elevation and movement of the subsurface water. When walking the area south of the tracks, pavement distress that is inconsistent with one year old paving and discussed. Because of this, it was determined that additional borings with 24hour water level observations should be obtained from the pavement south of the tracks to ensure that any design or rework is going to fix the problems and provide a 20+ year roadway. One monitoring well will be installed south of the tracks for a longer water level observation. Additional monitoring wells were not suggested because it was desired to get pavement borings and the monitoring wells will stick up out of the ground, requiring lane closures. PEC's quote for this work is \$19,000.

<u>Financials:</u>

The cost associated with this investigation will be included in the bonds for the project and paid for out of the general fund.

Recommendation:

It is staff's recommendation to accept the quote from PEC for \$19,000 to collect the additional geotechnical information needed for the re-design of the roadway.