

**INDIAN RIVER COUNTY, FLORIDA
MEMORANDUM**

TO: Jason E. Brown, County Administrator

THROUGH: Richard B. Szyrka, P.E., Public Works Director
James Ennis, P.E., PMP, Assistant Public Works Director

FROM: Kirstin Leiendecker, P.E., Roadway Production Manager

SUBJECT: Amendment No. 21 to Indian River County Civil Engineering and Land Surveying Agreement for Bridge Replacements and Widening of 66th Avenue from South of SR60 to North of 57th Street

DATE: March 21, 2022

DESCRIPTION AND CONDITIONS

Arcadis US, Inc. (formally known as Arcadis G&M, Inc) is under contract with Indian River County (IRC) to provide Civil Engineering and Land Surveying Services for Bridge Replacements and Widening of 66th Avenue from South of SR60 to North of 57th Street. The original Agreement was approved by the Board of County Commissioners on September 6, 2005 in the amount of \$631,700.00. Twenty amendments have been approved to date, bringing the total to \$2,693,744.61.

After the award of bid for construction, the County directed Arcadis, via Amendment 17 to the contract, to update the bridge design, consistent with the original design methodology to accommodate a 5-lane bridge profile. This design update was deemed necessary by the Board to accommodate future anticipated traffic volumes along 53rd Street due to anticipated development.

When the updated plans were presented to the Contractor for review the Contractor proposed modifying the design of the superstructure using a FDOT Standard Florida Slab Beam (FSB) System instead of a Post Tensioned Prestress Bridge System.

The Post Tensioned Prestress Bridge System was originally designed by the engineers over 15 years ago when this was a common practice. Since then, the State of Florida has shifted away from the use of post-tensioned prestress slab designs bridges and prestress yards now are mostly producing the new FSB's (Florida Slab Beams). The FSB beams produce a more robust superstructure which requires less maintenance compared to the post tensioned slab system which has been shown to have corrosion issues of the post-tensioning strand. Additionally, due to the rising cost of the post tension strands that, which continue to be in a shortage, the post tension prestress design with an asphalt topping would cost over \$130,000 more than the FSB design.

By changing the superstructure design of the bridge, the County will benefit with cost savings and an updated system with less maintenance issues. IRC Public Works staff discussed this redesign proposal with FDOT and the design modification was deemed to be beneficial to all parties.

Amendment No. 21 provides for redesign of the superstructure of the widened 53rd Avenue Bridge over the IRFWCD Lateral A Canal.

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Amendment No. 21 Arcadis US, Inc.

For April 12, 2022 BCC Meeting

The total negotiated lump sum fee for Amendment No. 21 is \$55,000.00 . Amendment No. 21 increases the total contract amount from \$2,693,744.61 to \$2,748,744.61.

FUNDING

Funding in the amount of \$55,000.00 for Amendment No. 21 is available in Account No. 10415141-066510-07806/Traffic Impact Fees/District 2 Roads/Construction Progress/66th Ave/49th Street to 69th Street.

Account Name	Account Number	Amount
Traffic Impact Fees/District 2 Roads/Construction Progress/66 th Ave/49 th Street to 69 th Street	10415141-066510-07806	\$55,000.00

RECOMMENDATION

Staff recommends the Board of County Commissioners approve Amendment No. 21 with Arcadis US, Inc. for lump sum amount of \$55,000.00 and authorize the Chairman to execute the amendment.

ATTACHMENTS

Amendment No. 21 from Arcadis US, Inc.

APPROVED AGENDA ITEM FOR APRIL 12, 2022