

**To the Mayor and Members of the City Council****April 16, 2024**

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SUBJECT: ARPA FUNDED STREETLIGHT CAPITAL PROJECT UPDATE

The purpose of this Informal Report is to provide an update and timeline on the American Rescue Plan Act (ARPA) funded Neighborhood LED Streetlight Capital Project.

Project Background

In FY 2023, Transportation and Public Works (TPW) received \$12 million of ARPA funding to support the Neighborhood LED Streetlight Capital Project. The project team's initial scope was LED conversion, replacing poor-condition streetlights, poles, and wiring as needed. Staff developed the project scope to address 28 neighborhoods over 4 years. Year 1 included 5 Neighborhoods; Year 2 included 7 Neighborhoods; Year 3 included 8 Neighborhoods; and Year 4 included 8 Neighborhoods. The Year 1 and Year 2 neighborhood projects are now complete. The project replaced 448 street lights, removed 42,565 linear feet of old/bad wire, and installed 36,818 linear feet of new wire for a total cost of \$2 million with a remaining balance of \$10 million.

New Plan for Year 3 and Year 4

In late 2023, TPW initiated pilot projects using solar lighting as a new connected technology. This afforded an opportunity to implement solar lighting for Year 3 and Year 4 of the project in a total of 16 neighborhoods. The plan is to procure roughly 3,400 solar streetlights at a cost of \$10 million. The installation is to be completed mainly by City forces.

The ARPA program's objective of addressing neighborhood lighting in the original 28 neighborhoods remains unchanged. However, Year 3 and Year 4 will use solar streetlights rather than conventional streetlights.

Solar Light Benefits

The proposed solar lighting is a new, connected technology that uses a renewable resource. Solar lighting can be installed quickly, reduces vandalism, and reliably operates during power outages. It requires little maintenance and does not utilize any traditional electrical power sources. Solar lighting can also be installed where installation of conventional lighting is challenging. Staff estimates energy savings of approximately \$1.4 million over the 25-year lifespan of the anticipated 3,400 solar lights.

The City also has an economic development opportunity by using solar lighting produced by a global solar light manufacturer whose North American Headquarters is in Fort Worth.

The City has already initiated a pilot solar lighting project in several locations with positive stakeholder feedback. Locations include Prewett Road between Navajo Court and Teal Drive, Simondale Drive, Harriet Creek Bridge, Prairie Hills Road, Camp Bowie Boulevard, Statesman Lane, Missouri Fox Drive, Avenue D, Plymouth Avenue, Gray Rock Drive, Monica Lane, Canyon Ridge Street at Prairie Hill Road, and Rosedale Street.

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Next Steps

Prior to solar lighting installation, TPW plans to begin stakeholder engagement in April 2024. The purchasing contract and purchase order to procure solar lights is anticipated in June 2024. The City expects to receive solar lights starting in July 2024. Staff anticipates project completion by October 2026.

Below is a visual comparison of a typical on-grid streetlight and a solar light assembly along with a map showing the 28 programmed neighborhood locations.



Solar Street Light vs. Conventional Street Light

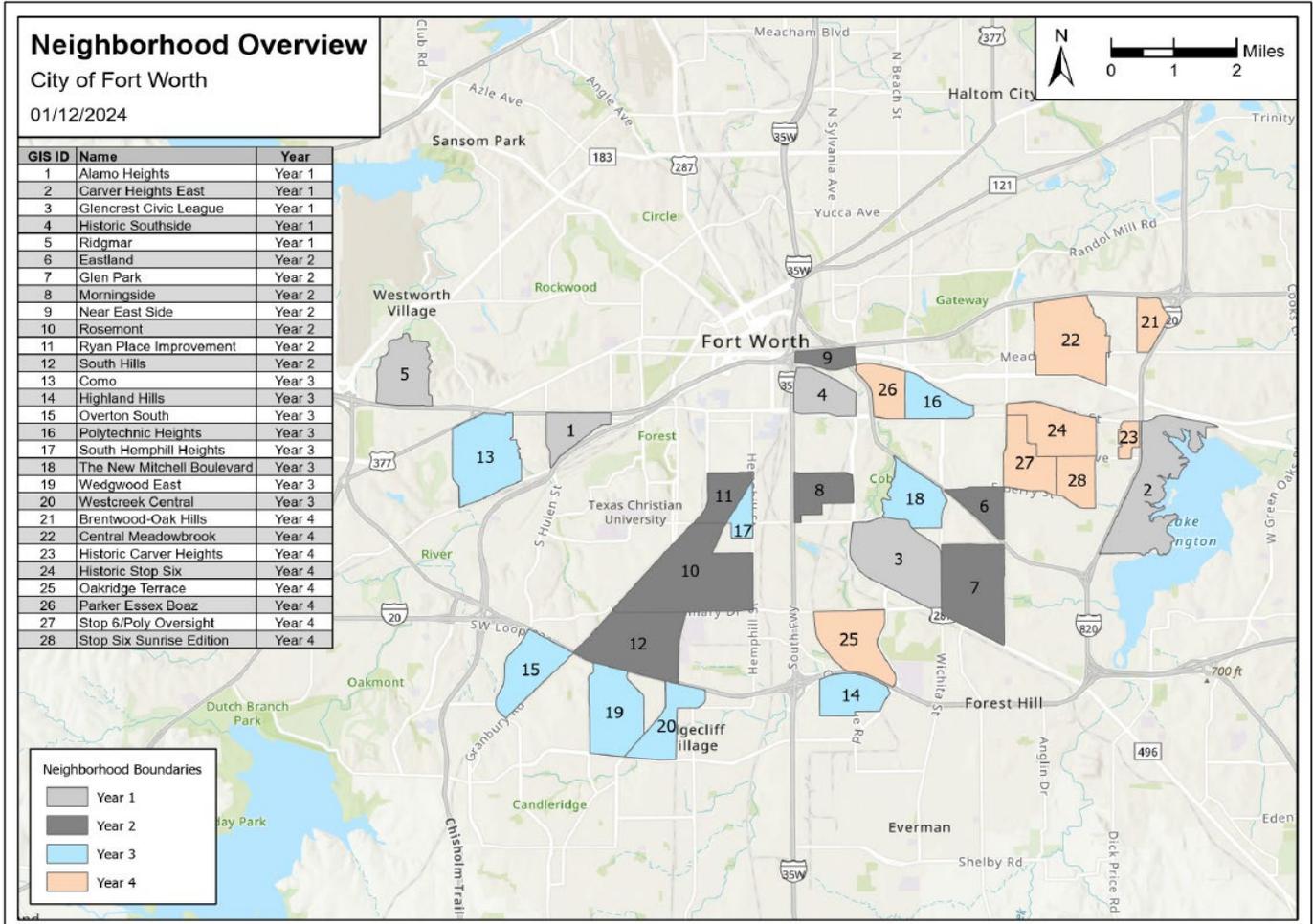
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IDs from 1 to 12 show neighborhoods completed in Year 1 and Year 2. IDs from 13 to 28 show neighborhoods to be completed in Year 3 and Year 4.

For questions, please contact Martin Phillips, Assistant Director of Transportation Management, Transportation and Public Works, at 817-392-7861.

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