



SOLAR LED LIGHT PURCHASE FOR HIKE AND BIKE TRAILS AND DOG PARK

RS-21-003

January 5, 2021

Background

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- ❑ Recreation Services (RS) is seeking to replace sixty (60) metal halide bulb lights at the Fort Hood Regional Trail (FHRT)
- ❑ Seeking to install thirty (30) new light fixtures at the Conder Park Trail
- ❑ Seeking to add eight (8) Solar LED lights within the Mickey's Dog Park
- ❑ The new lights at both trails and the dog park will be All-in-One Smart Solar LED Light panels



Fort Hood Regional Trail (FHRT)

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- ❑ RS obtained the FHRT in 2017, at which time electric light poles were installed
 - ❑ Vandals have repeatedly removed the copper wiring from the light poles, making them inoperable and making the trail unsafe
- ❑ The existing poles will be used for this project; wiring will be removed, and the smart solar LED light panel will be added

Conder Park Trail

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- ❑ Conder Park Trail has been part of the City of Killeen parks system for over twenty (20) years
- ❑ The current trail is constructed of crushed granite, with numerous washouts, and limited lighting from other areas of the park
- ❑ RS is using CDBG funding to renovate the trail, installing an 8-foot wide, rebar-reinforced concrete trail through the park
- ❑ JEC Energy Solutions will install new light poles, anchor base, base cover, and the smart solar LED light panel

Mickey's Dog Park

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- ❑ Mickey's Dog Park was established on June 10, 2015 and currently has no lighting within the park
- ❑ Adding this LED Solar light system within the dog park will allow park users to utilize this space well into the hours of darkness safely
 - ❑ 4 poles added with eight (8) lights (2 lights per pole)
 - ❑ RS will install new light poles, anchor base, base cover, and the smart solar LED light panel

Smart Solar LED Light Panel

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- ❑ All-In-One panel includes the solar panel, LED light, battery, battery charger, and motion sensor
- ❑ Bright LED lights include infrared motion sensors to detect people as they walk by
- ❑ Instant on/off capabilities
- ❑ No flickering or buzzing
- ❑ JEC Energy Solutions is a member of the Texas BuyBoard Purchasing Cooperative

Integrated Solar Panel,
LED Light, Battery and
Charger In One
Convenient Package!!



 **JEC** Energy Savings

Financial Benefits

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- ❑ Solar LED lighting is energy efficient, reducing the financial impact on the City
 - ❑ Currently spend \$4,380 annually in electric utility costs at FHRT
- ❑ The absence of wiring will limit vandalism and reduce the cost of maintenance and repairs
- ❑ LED lighting is brighter, creating a safer environment for citizens utilizing the trail and dog park
- ❑ Includes a 5-year warranty

Cost of Solar Lights

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| Fort Hood Regional Trail | |
|--------------------------------|------------------|
| Light Cost | \$86,508 |
| Installation Cost | \$21,000 |
| Total Fort Hood Regional Trail | \$107,508 |
| Conder Park Trail | |
| Light Cost | \$83,380 |
| Installation Cost | \$32,800 |
| Total Conder Park Trail | \$116,180 |
| Mickey's Dog Park | |
| Light Cost | \$11,356 |
| Total Mickey's Dog Park | \$11,356 |
| TOTAL COST | \$235,044 |

Alternatives

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- The City Council has two (2) alternatives:
 - ▣ Option 1 – Do not approve the purchase and installation of solar LED lights;
 - ▣ Option 2 – Approve the purchase and installation of solar LED lights

Recommendation

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- ❑ Staff recommends City Council approve the purchase of the solar LED lights for both trails and the dog park through JEC Energy Solutions, in the amount of \$235,044 in FY21 and that the City Manager or designee be authorized to execute any change orders as permitted by state and local law