Agenda Item No. **F-3**

DATE SUBMITTED   February 24, 2022

SUBMITTED BY   R. Alejandro Estrada

DATE ACTION REQUIRED   March 2, 2022

COUNCIL ACTION	(X)
PUBLIC HEARING REQUIRED	( )
RESOLUTION	( )
ORDINANCE 1ST READING	( )
ORDINANCE 2ND READING	( )
CITY CLERK'S INITIALS	

IMPERIAL CITY COUNCIL
AGENDA ITEM

SUBJECT: DISCUSSION/ACTION: APPROVAL OF DISBURSEMENT OF ARPA FUNDS FOR A HIGH-CAPACITY WIRELESS NETWORK, OUTDOOR CAMERAS SYSTEM, AND DEMARCATION POINT IN THE AMOUNT OF 734,953.00

DEPARTMENT INVOLVED: DEPARTMENT OF INFORMATION TECHNOLOGY

BACKGROUND/SUMMARY:

Staff is requesting authorization to use ARPA funds to install a new High Capacity Broadband Wireless Network (HCBWN), a new video surveillance system, and a new IVTA demarcation point.

The new HCBWN will provide connectivity to different services and devices citywide, including outdoor cameras, light controllers, public Wi-Fi in city parks, IoT, and eventually offer Internet access to under-served or unserved parts of the community. The new camera system includes the installation of thirty-four (34) dome cameras throughout all city parks and a new network video recorder.

FISCAL IMPACT: NOT TO EXCEED

No to exceed 734,953.00 - Monies to come from ARPA Funds

FINANCE INITIALS

STAFF RECOMMENDATION:

After the review and consideration by the Department of Information Technology , it is recommended the City Council approve the use of funds allocated to pay these services.

DEPT. INITIALS

MANAGER'S RECOMMENDATION: approve staff recommendation

CITY MANAGER's INITIALS

MOTION:

SECONDED:
AYES:
NAYES:
ABSENT:

APPROVED   ( )
DISAPPROVED   ( )

REJECTED   ( )
DEFERRED   ( )

REFERRED TO:

INFORMATION TECHNOLOGY DEPARTMENT

DIRECTOR
R. Alejandro Estrada

Erick Quero
IT Technician I

Luis Anguiano
IT Technician I

Alissa Ulloa
Administrative Assistant

February 22, 2022

To: Dennis Morita, City Manager
Re: Broadband ARPA Funds Proposal

Dennis Morita,

The City of Imperial allocated $937,668.00 in ARPA funds for Broadband Infrastructure. From that amount, the Department of Information Technology (DoIT) expended $121,062.18 on cybersecurity citywide in February 2022.

In an effort to provide innovative solutions, the DoIT is currently proposing the installation of a High-Capacity Broadband Wireless Network (HCBWN) with the remaining ARPA funds. The proposal is comparable to installing fiber optics around the city. This newer wireless technology will provide the city with the essential gigabit speed, and therefore, a major performance and reliability when compared to the current situation.

Furthermore, the city will have the capacity to maintain and expand services, including critical infrastructure (water and wastewater), surveillance cameras, traffic controllers, lights and irrigation controllers, public Wi-Fi, public safety devices, and ultimately, provide internet access to under-served or no-served parts of the community.

Sincerely,

R. Alejandro Estrada
Director of Information Technology

The new HCBWN consists of four layers of wireless infrastructure that, working together, provides outstanding performance and connectivity citywide. This project also includes the installation of Wi-Fi in City Parks and Downtown (farmers market area)

1) Broadband Wireless High Capacity Network Ring (10G backhaul)	1	128,480.23
• 80 GHz PTP Ring Wireless Network, cnMatrix, and cnMaestro X		
• Six Point-Sites of Failure Ring		
2) Distribution Wireless Network	1	82,126.12
• 5 GHz PTM Wireless		
3) Mesh Wireless Network	1	65,177.36
• 60 GHz Mesh Wireless Network		
4) Public Wi-Fi Network	1	34,030.64
• Outdoor Dual radio Wi-Fi 6 AP Omni 2x2		
Estimated Tax	1	22,824.90
Estimated Freight	1	2,275.86
Total Wireless Infrastructure	1	334,915.11

This proposal also includes the installation of a new 34 Cameras Surveillance System in city parks.

Surveillance System, NVR And Cameras		
• 140 TB Network Video Recorder (18,263.00)	1	18,263.00
• 34 PTZ IP Dome Cameras (3,241.00 each)	34	110,194.00
• HDTV 1080p with 32x optical zoom,		
• Pole mounting accessories		
• 34 Distribution Enclosure (743.78 each)	34	25,288.52
• Rack System (Cabinet, Battery Backups, Etc.)	1	5,800.00
Total Surveillance System		159,545.52

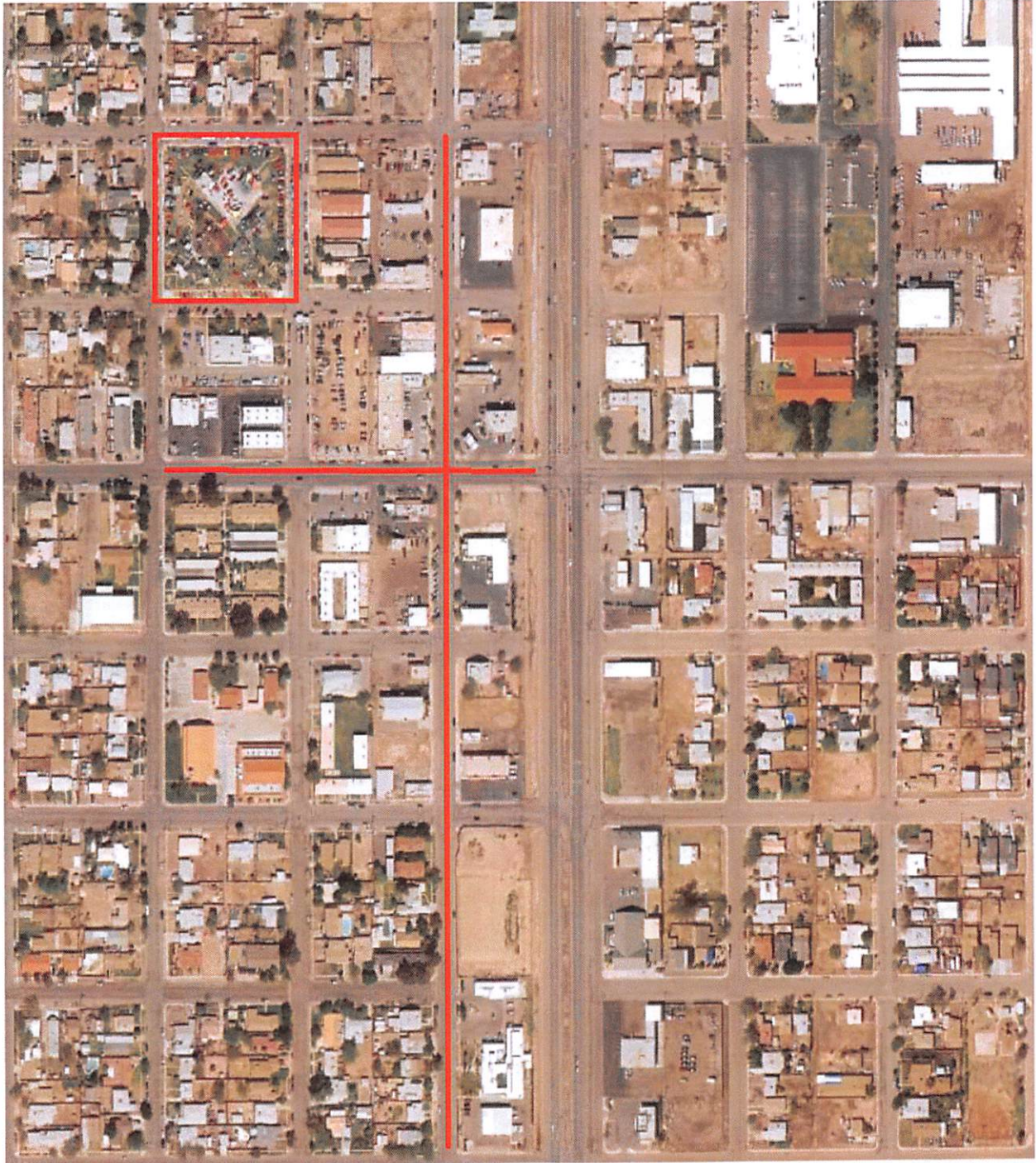|		
Fiber Optics Cable and Tools	1	30,000.00
• Fiber Cable, OTDR and Splicer		
IT Tools and Accessories	1	10,000.00
• Laptop, tools, and materials		
IVTA Demarcation Point at Aten WTP Tank	1	78,000.00
Total Fiber Optics, Tools and Demarcation Point		118,000.00
Contingencies 20%	1	122,492.13
Project Grand Total		734,952.76
(ARPA funds available: 816,605.82 - 81,653.06 will available)		
Optional:		
IVTA Demarcation Point at Water Treatment Plant	1	42,000.00
IVTA Demarcation Point at Wastewater Treatment Plant	1	60,000.00

City of Imperial
Hight Capacity Broadband Wireless Network
PTP 10G - 80 GHz Wireless Ring
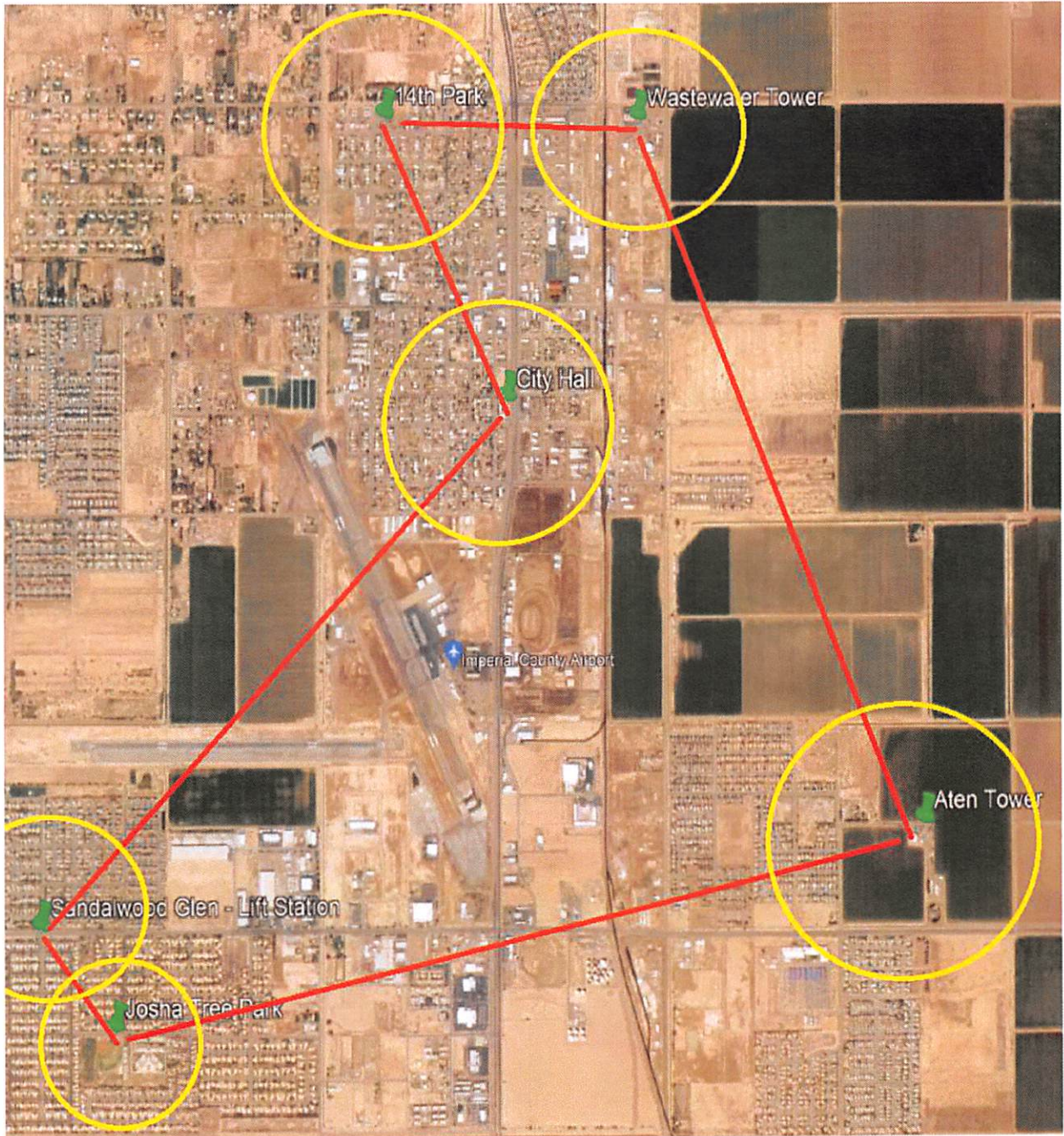
—— 80 GHz Wireless Network
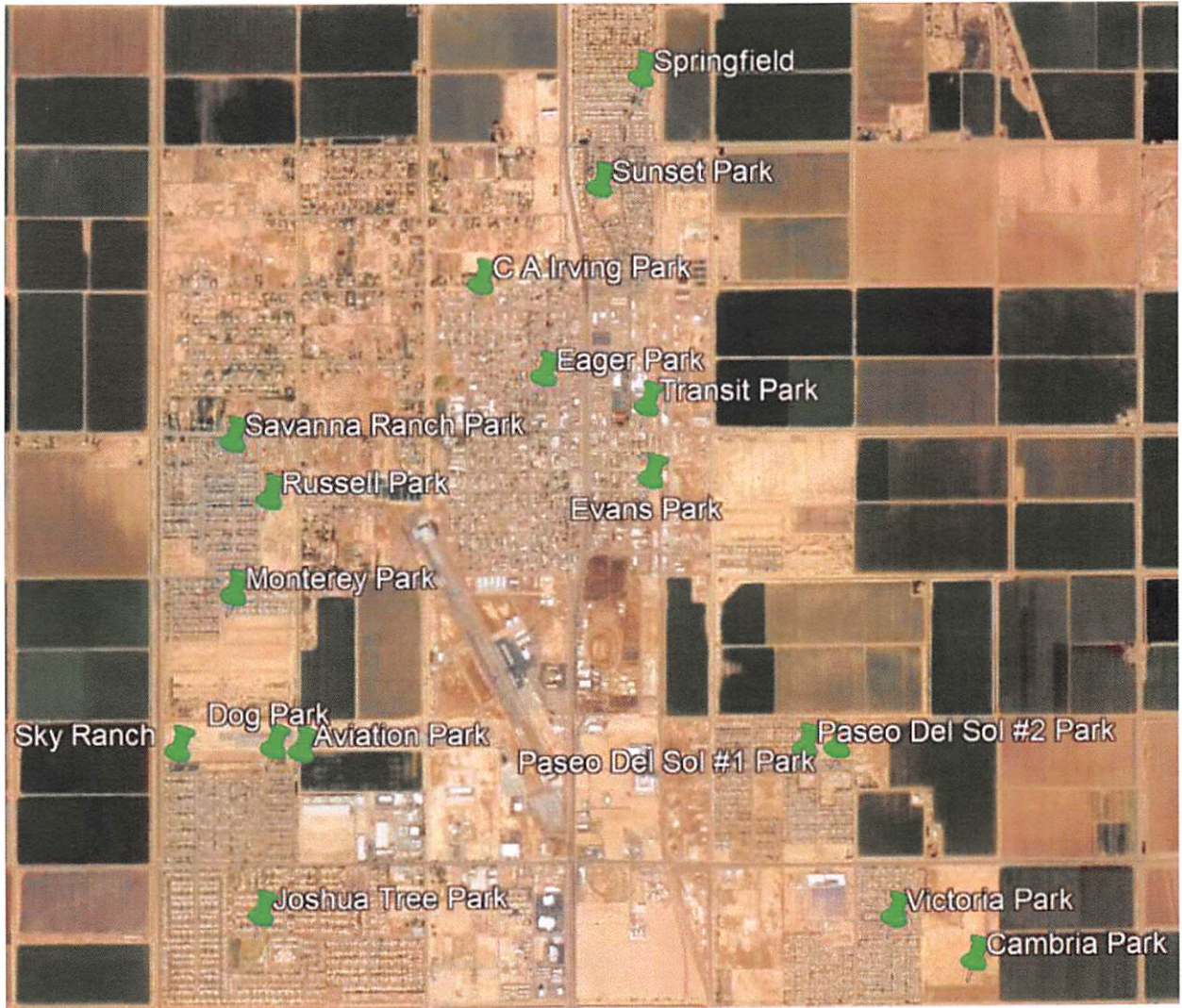—— 05 GHz Wireless Network

— Public Wi-Fi Access

— Public Wi-Fi Access Points (Hotspots)

City of Imperial
Imperial Dome PTZ Cameras

Springfield Park - Cam #1

Sunset Park - Cam #2 Sunset Park - Cam #1

AM-PM - Cam #1

City Shop - Cameras (3)

Eager Park - Cam #3

Eager Park - Cam #1 & #2

Transit Park - Cam #1 & #2 & #3

Savanna Ranch #2

Ranch #3

Evans Park - Cam #2 & #3

Chief's - Cam #1   Evans Park - Cam #1

4th St. - Cam #1

Brewer and Austing - Cam #1

Montery Park - Cam #1

Airport

Sky Ranch #2

n #1   Aviation Park - Camera

Dog Park - Camera #1

Paseo Del Sol - Cam #2 & #3

Paseo Del Sol - Cam #1

Joshua Tree Park - Cam #1

ark - Cam #2   Joshua Tree Park - Cam #3

Victoria Park - Cam #2   Victoria Park - Ca

Imperial Movies

Cambria