

Tucson Electric Power Cottonwood 138 kV Substation

Special Exception Land Use Permit

DESIGN REVIEW BOARD– SEPTEMBER 16, 2022

Introductions

Chris Ortiz y Pino, Environmental & Land Planner

Amanda Wittenborn, Engineering Project Manager

Miranda Jackson, Civil/Transmission Engineer

Kevin Letendre, Civil Engineer Consultant

Scott Martinez, Landscape Architect

Agenda: Cottonwood Substation

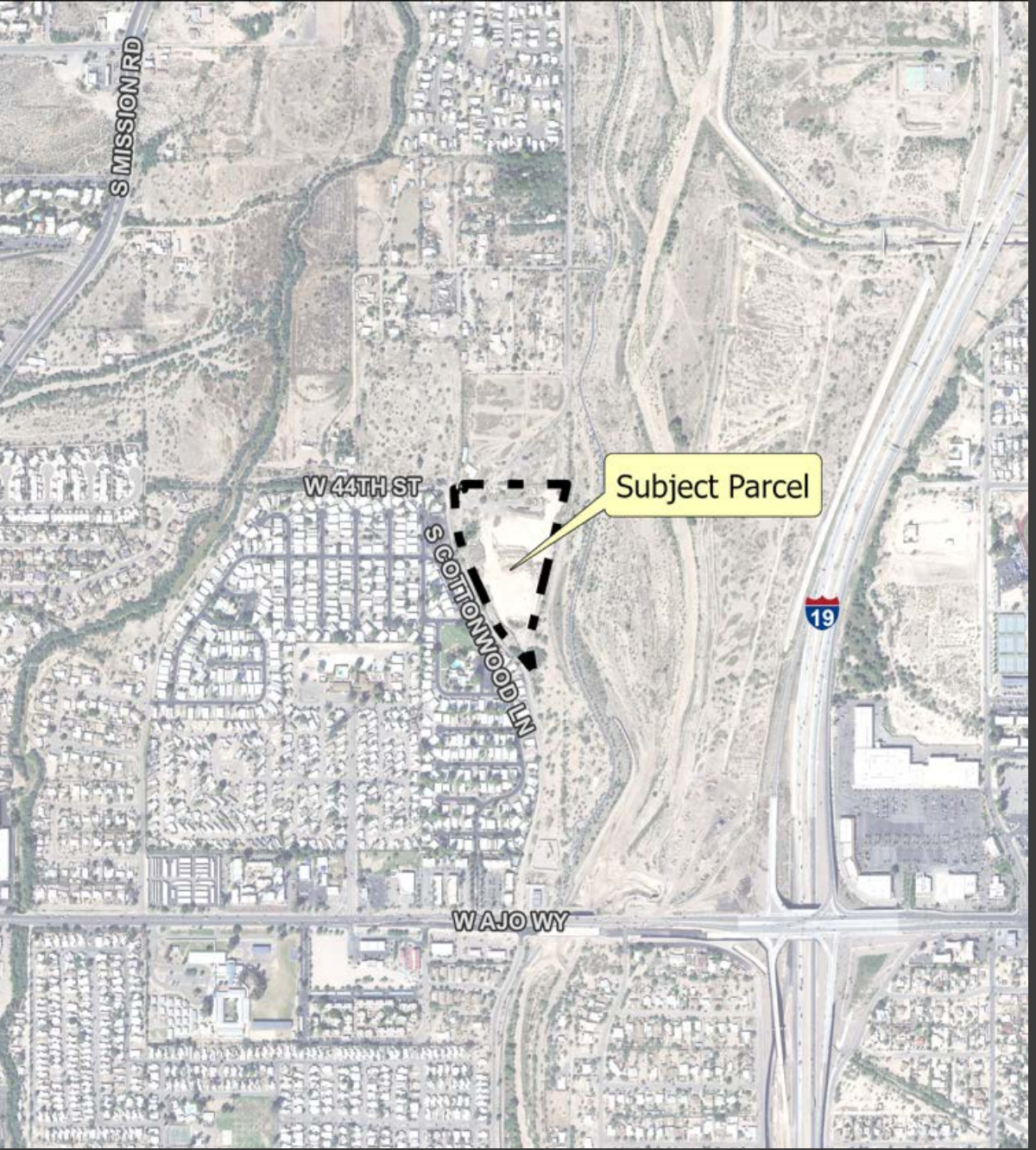
Special Exception Land Use Permit (SELUP)

Design Review Board

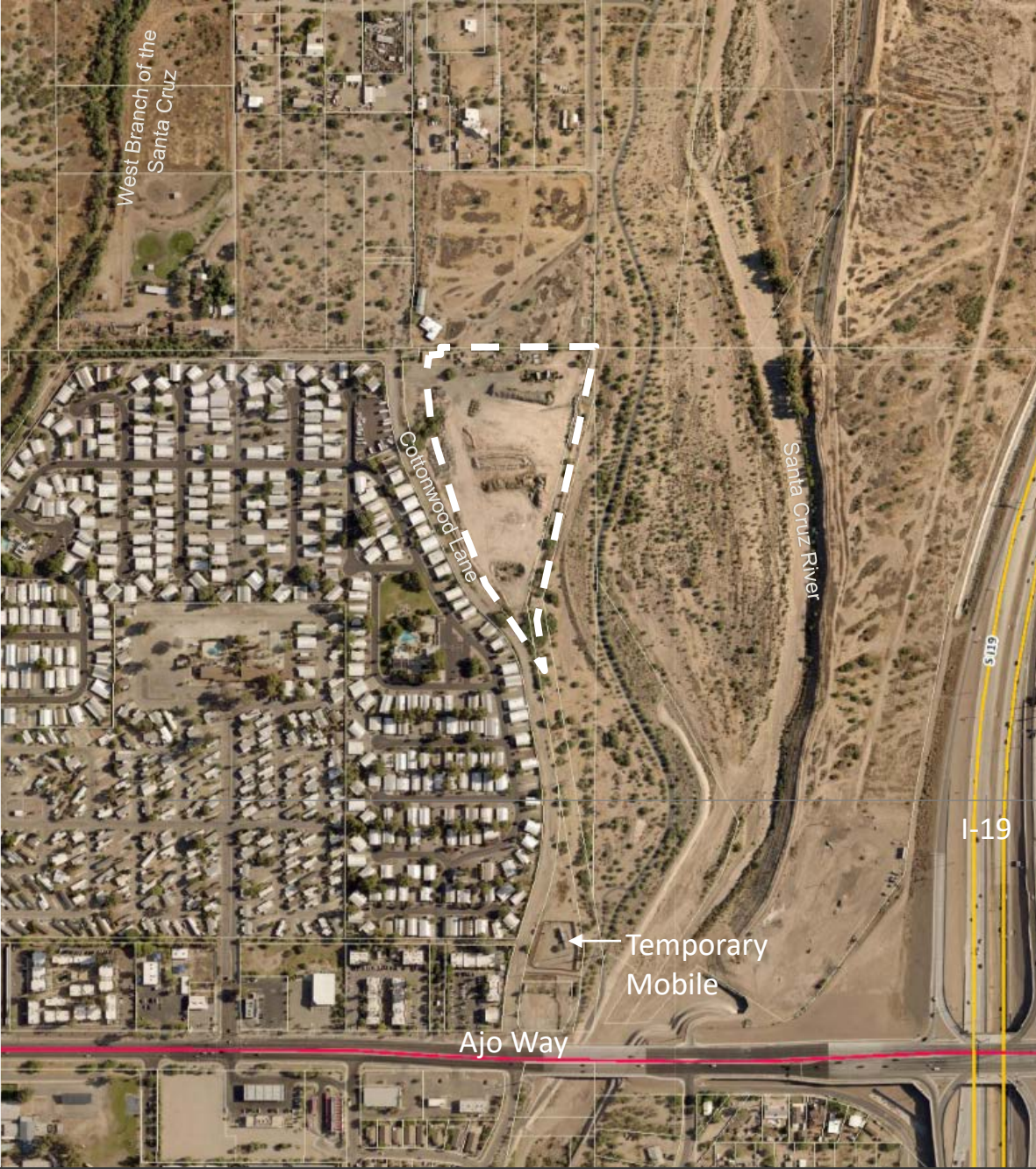
- Cottonwood 138-kV Substation Information

- Project Design Elements
 - Decorative Wall
 - Landscape Buffers
 - Multi-Use Path Connection

- Q&A: About SELU and Cottonwood Substation

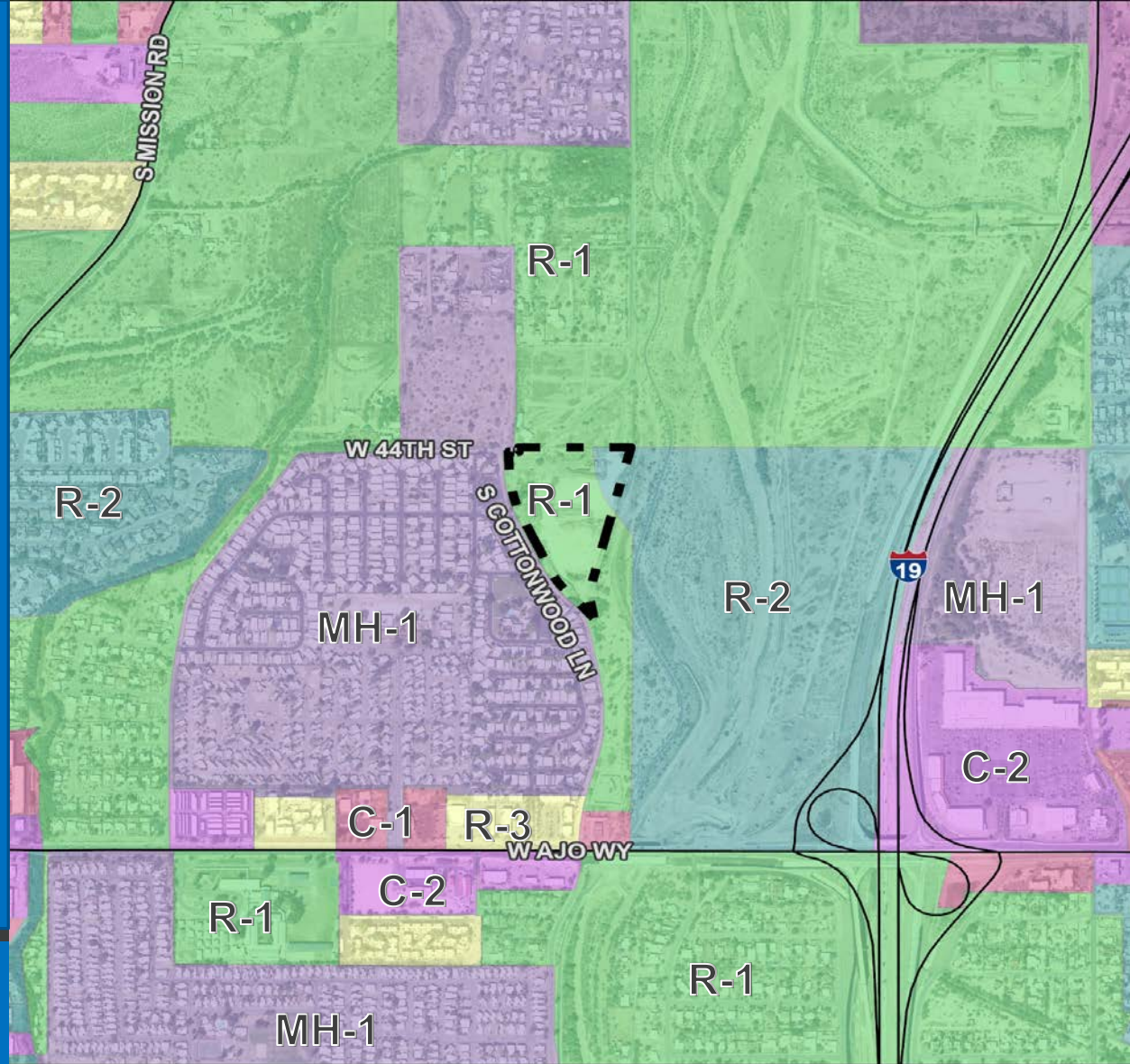




Location Map



Aerial Map





Zoning Map



 Subject Parcel
 Study Area (1 Mile)


Zone Codes

 C-1

 C-2
 I-1
 MH-1
 O-3

 P
 P-1
 R-1
 R-2
 R-3

Sources: Esri, UNS, TEP, and Pima County GIS.
 Projection: NAD 1983 UTM Zone 12 N
 Basemap: PAG Imagery 2019


 0 1,000
 Feet
 1 Inch = 1,000 Feet



Cottonwood Substation

Proposed Substation

- TEP proposes building a new 138-kV substation on a 10.7-acre site.
- The substation will connect to an existing transmission line adjacent to the property.
- The substation will convert energy from transmission level voltage to distribution levels for safe delivery of electric service to area customers.

Cottonwood Substation

Purpose & Need

- To strengthen electric reliability for customers, meet future energy needs, and expand power capacity to help drive economic development.
- Substantial load growth as a result of new commercial and residential development.
- Existing distribution circuits serving the area are significantly loaded by exiting demand.

Cottonwood Substation

Project Benefits

- Strengthen electric reliability for customers
- Meet future energy needs
- Drive economic development.
- Quickly restore service after power outages.
- Brownfield Redevelopment
- New multi-use path connection
- Retire aging 46-kV substations

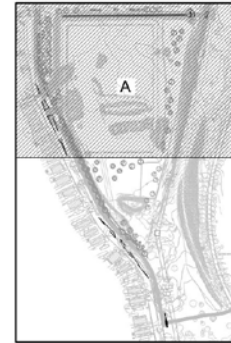
PROPOSED COTTONWOOD SUBSTATION | SITE PLAN



Preliminary Development Plan (PDP)



LANDSCAPE LEGEND		
SYM/KEY	BOTANICAL NAME	COMMON NAME
TREES		
	CHILOPSIS LINEARIS	DESERT WILLOW
	PARKINSONIA MICROPHYLLA	FOOTHILLS PALM VERDE
	PROSOPIS VELUTINA	NATIVE VELVET MESQUITE
SHRUB		
	CELTIS PALLIDA	DESERT HICKBERRY
	ENCELIA FARINOSA	BRITTLEBUSH
	LARREA TRIDENTATA	CREOSOTE
	LYCIUM FREMONTII	FREMONT WOLFBERRY
	ZIZYPHUS OBTUSIFOLIA	GRANTHORN
SUCCULENTS		
	CARNEGIEA GIGANTEA	SAGUARO
	DASYLIRION WHEELERI	SOTOL/DESERT SPOON
	OPUNTIA ENGELMANNII	ENGELMANN PRICKLY PEAR
SYMBOL LEGEND		
	1/2" DECOMPOSED GRAVEL, COLOR: APACHE BROWN	MASONRY WALL, SEE CIVIL
	RIP RAP, IN DRAINAGE IMPROVEMENTS, SEE CIVIL	EXISTING POST AND CABLE FENCE
PLANTS TO PRESERVE IN PLACE		
	TREE TO BE PRESERVED IN PLACE	SHRUB TO BE PRESERVED IN PLACE



LANDSCAPE PLAN AREA A
SCALE: 1" = 40'-0"

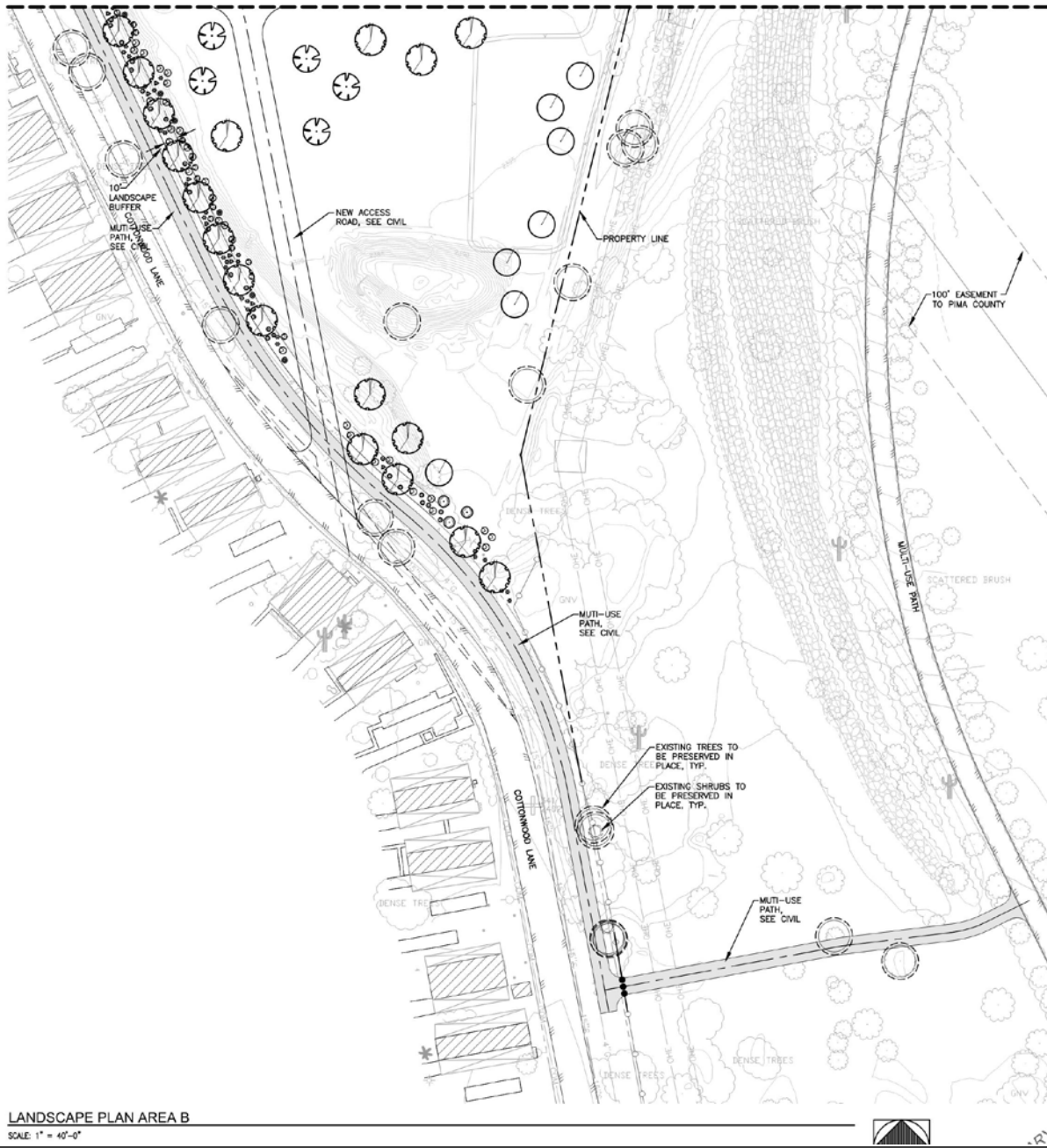
MATCHLINE - SEE SHEET L.1



KEYMAP
SCALE: NTS



CITY OF TUCSON DEVELOPMENT PACKAGE PSDS APPROVAL	
<input type="checkbox"/> Site/Dev Plan	<input type="checkbox"/> SCZ
<input type="checkbox"/> Tentative Plat	<input type="checkbox"/> FRZ
<input type="checkbox"/> Grading	<input type="checkbox"/> HDZ
<input type="checkbox"/> SWPPP	<input type="checkbox"/> WASH
<input type="checkbox"/> FUP	<input type="checkbox"/> Other
DVP/PG MOR	Date _____
Zoning	Date _____
Engineering	Date _____
HC Site	Date _____
Fire	Date _____
Landscape	Date _____
PL/ME	Date _____
Revision #	<input type="checkbox"/> per letter in SIRE



LANDSCAPE LEGEND			
SYM./KEY	BOTANICAL NAME	COMMON NAME	
TREES			
	CHLOPSIS LINEARIS	DESERT WILLOW	
	PARKINSONIA MICROPHYLLA	FOOTHILLS PALO VERDE	
	PROSOPIA VELUTINA	NATIVE VELVET MESQUITE	
SHRUB			
	CELTIS PALLIDA	DESERT HAWBERRY	
	ENCLETA FARINOSA	BRITTLEBUSH	
	LARREA TRIDENTATA	CRESSOTE	
	LYCUM FREMONTI	FREMONT HOUTBERRY	
	ZIZYPHUS OBTUSIFOLIA	GRAYTHORN	
SUCCULENTS			
	CARNEGIA GONTEA	SAGUARO	
	DISKILIRION WHEELERI	SOTOL/DESERT SPOON	
	OPUNTIA ENGELMANNI	ENGELMANN PRICKLY PEAR	
SYMBOL LEGEND			
	1/2" DECOMPOSED GRAVEL, COLOR: APACHE BROWN		MASONRY WALL, SEE CIVIL
	PIP RIP: IN DRAINAGE IMPROVEMENTS, SEE CIVIL		EXISTING POST AND CABLE FENCE
PLANTS TO BE PRESERVED IN PLACE			
	TREE TO BE PRESERVED IN PLACE		SHRUB TO BE PRESERVED IN PLACE



KEYMAP
SCALE: NIS



CITY OF TUCSON DEVELOPMENT PACKAGE PSDS APPROVAL	
<input type="checkbox"/> Site-Draw Plan	<input type="checkbox"/> SCSZ
<input type="checkbox"/> Tentative Plat	<input type="checkbox"/> FRZ
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<input type="checkbox"/> FUP	<input type="checkbox"/> Other
DVPPKG MGR _____	Date _____
Zoning _____	Date _____
Engineering _____	Date _____
HC Site _____	Date _____
Fire _____	Date _____
Landscape _____	Date _____
PLME _____	Date _____
Revision # _____	<input type="checkbox"/> per letter in SIRE



DEVELOPMENT PACKAGE FOR

LANDSCAPE PLAN AREA B
SCALE: 1" = 40'-0"

Cottonwood Substation Landscape Plan

PROPOSED COTTONWOOD SUBSTATION | PLANT MATERIALS



Row 1 left to right
 Desert Willow, *Chilopsis Linearis*
 Foothills Palo Verde, *Parkinsonia microphylla*
 Mesquite, *Prosopis velutina*



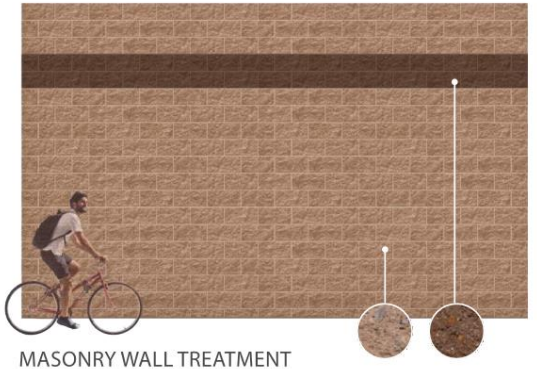
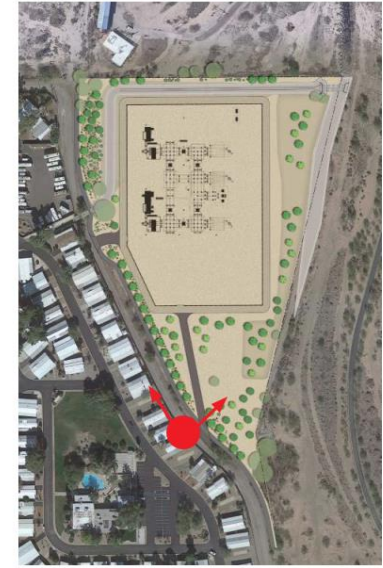
Row 2 left to right
 Desert hackberry, *Celtis pallida*
 Brittlebush, *Encelia farinosa*
 Creosote, *Larrea tridentata*
 Fremont wolfberry, *Lycium fremontii*



Row 3 left to right
 Graythorn, *Zizyphus obtusifolia*
 Desert Spoon, *Dasyliirion wheeleri*
 Engelmann Prickly Pear, *Opuntia engelmannii*

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TREES		
	CHILOPSIS LINEARIS	DESERT WILLOW
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SUCCULENTS		
	CARNEGIEA GIGANTEA	SAGUARO
	DASYLIIRION WHEELERI	SOTOL/DESERT SPOON
	OPUNTIA ENGELMANNII	ENGELMANN PRICKLY PEAR

PROPOSED COTTONWOOD SUBSTATION | PERSPECTIVES



LOOKING NORTH ON COTTONWOOD

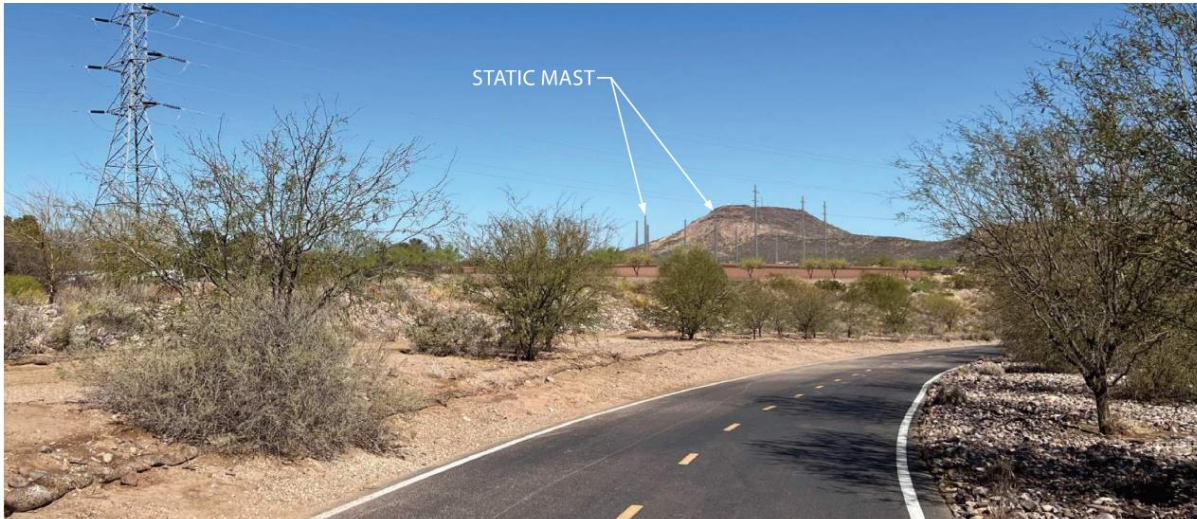
PROPOSED COTTONWOOD SUBSTATION | PERSPECTIVES



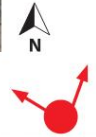
LOOKING SOUTHEAST ON COTTONWOOD



PROPOSED COTTONWOOD SUBSTATION | PERSPECTIVES



LOOKING NORTHWEST ON PASEO DE LAS IGLESIA PATH



MASONRY WALL TREATMENT

Questions?

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christopher.ortizypino@tep.com | 520-633-8693

<https://www.tep.com/cottonwood-substation/>