

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

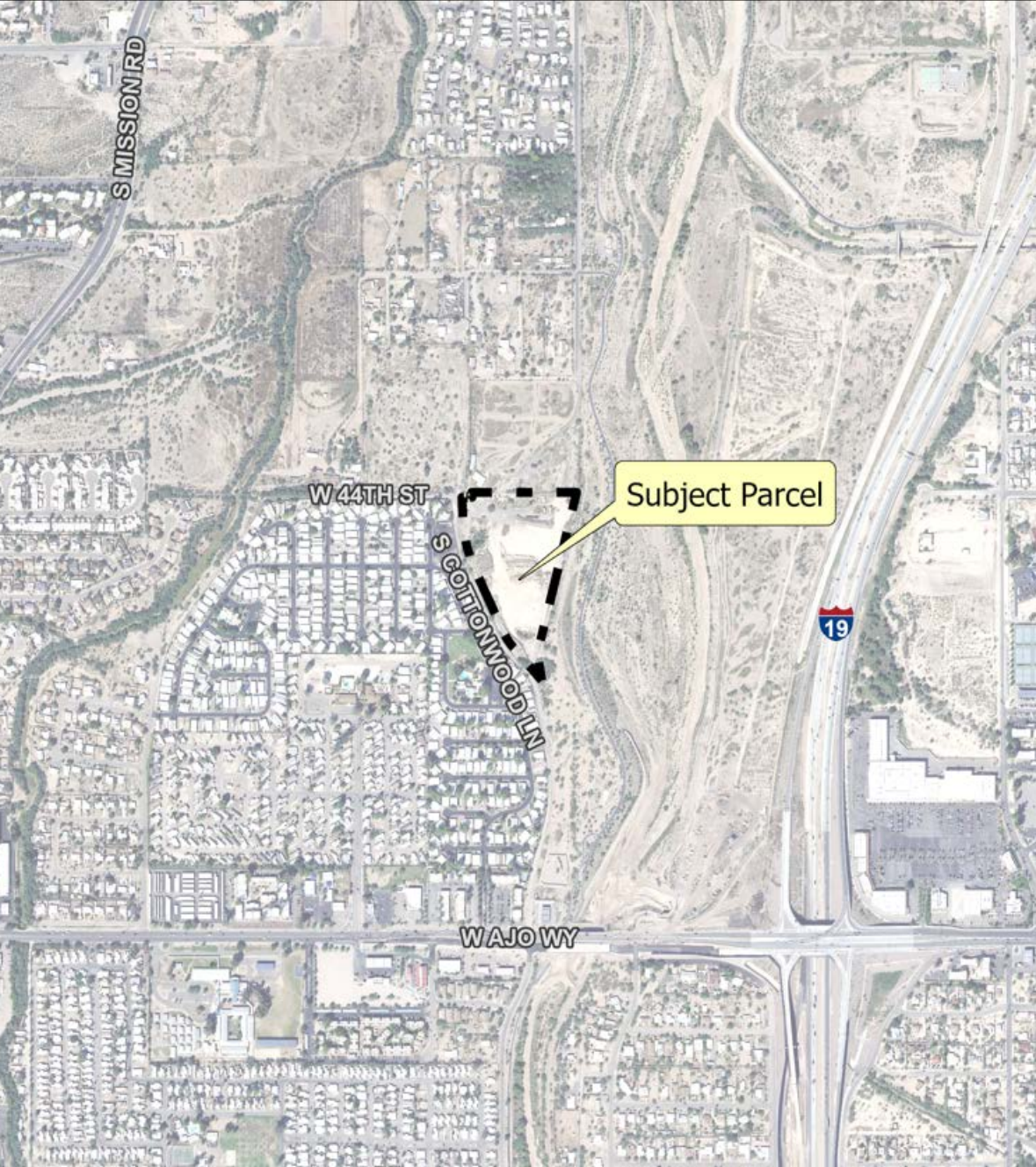
Scott Martinez, Landscape Architect

Agenda: Cottonwood Substation

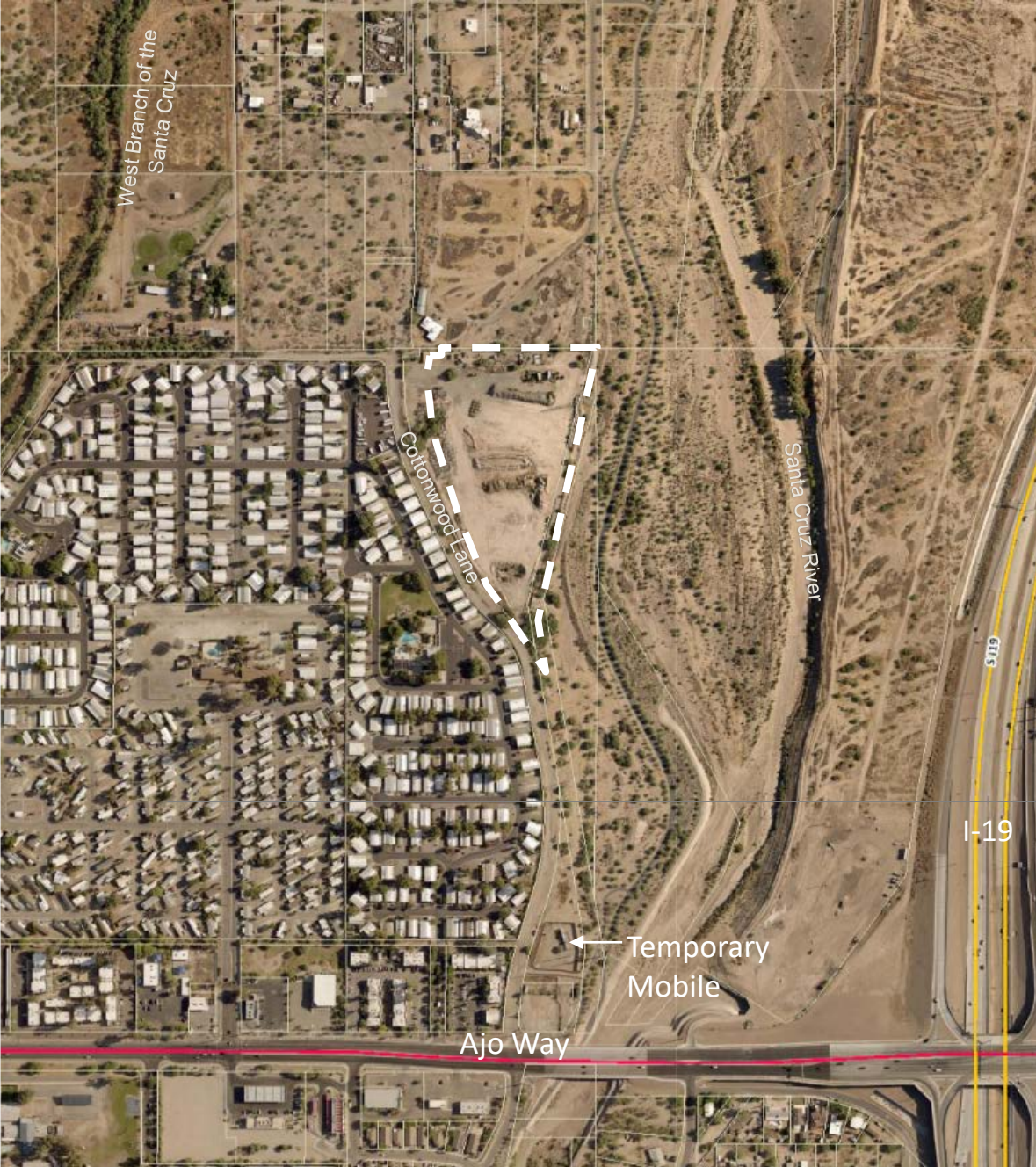
Special Exception Land Use Permit (SELUP)

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

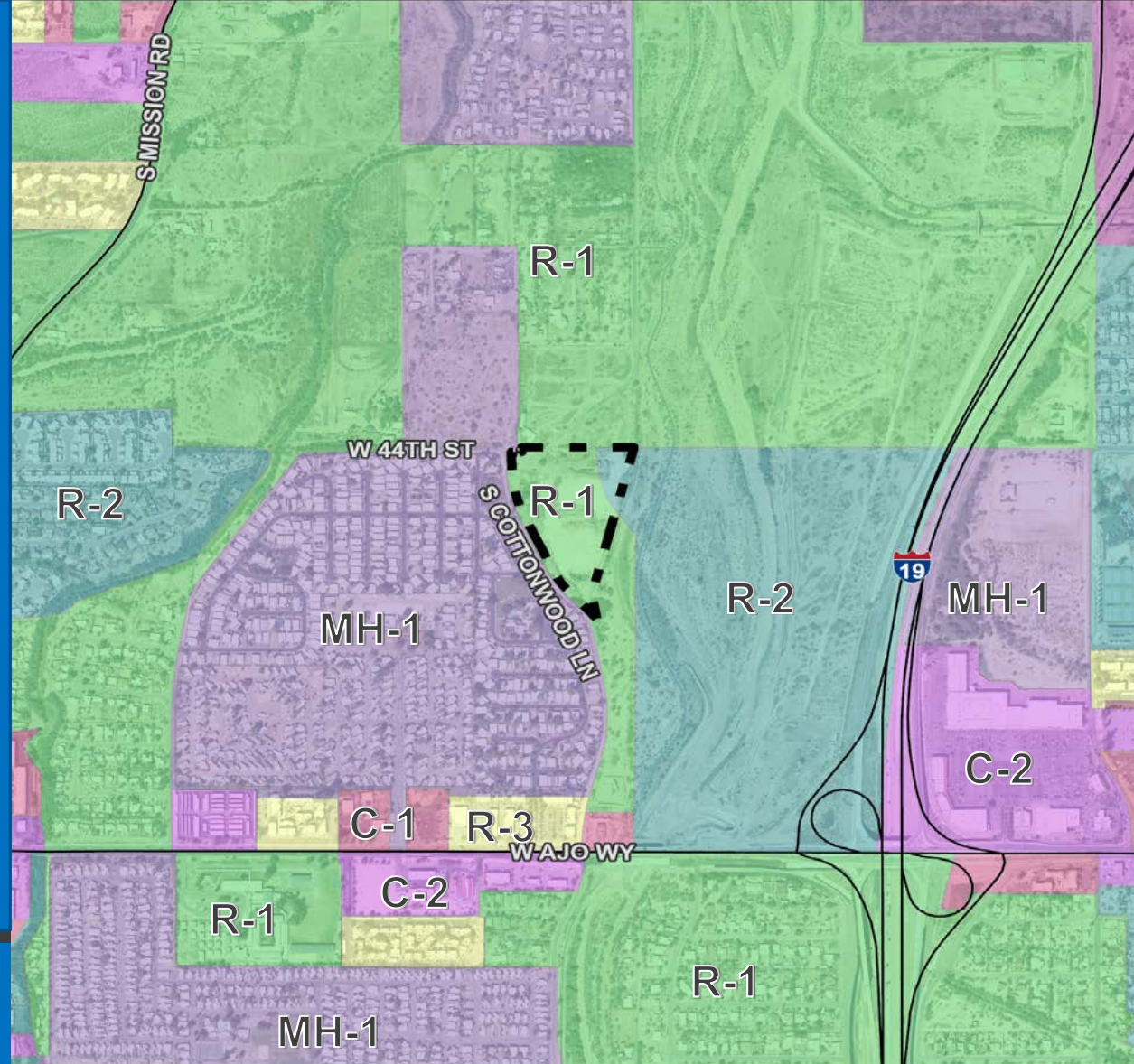


Location Map



Aerial Map

Zoning Map



- Subject Parcel
- Study Area (1 Mile)
- Zone Codes**
- C-1

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

- P
- P-I
- 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

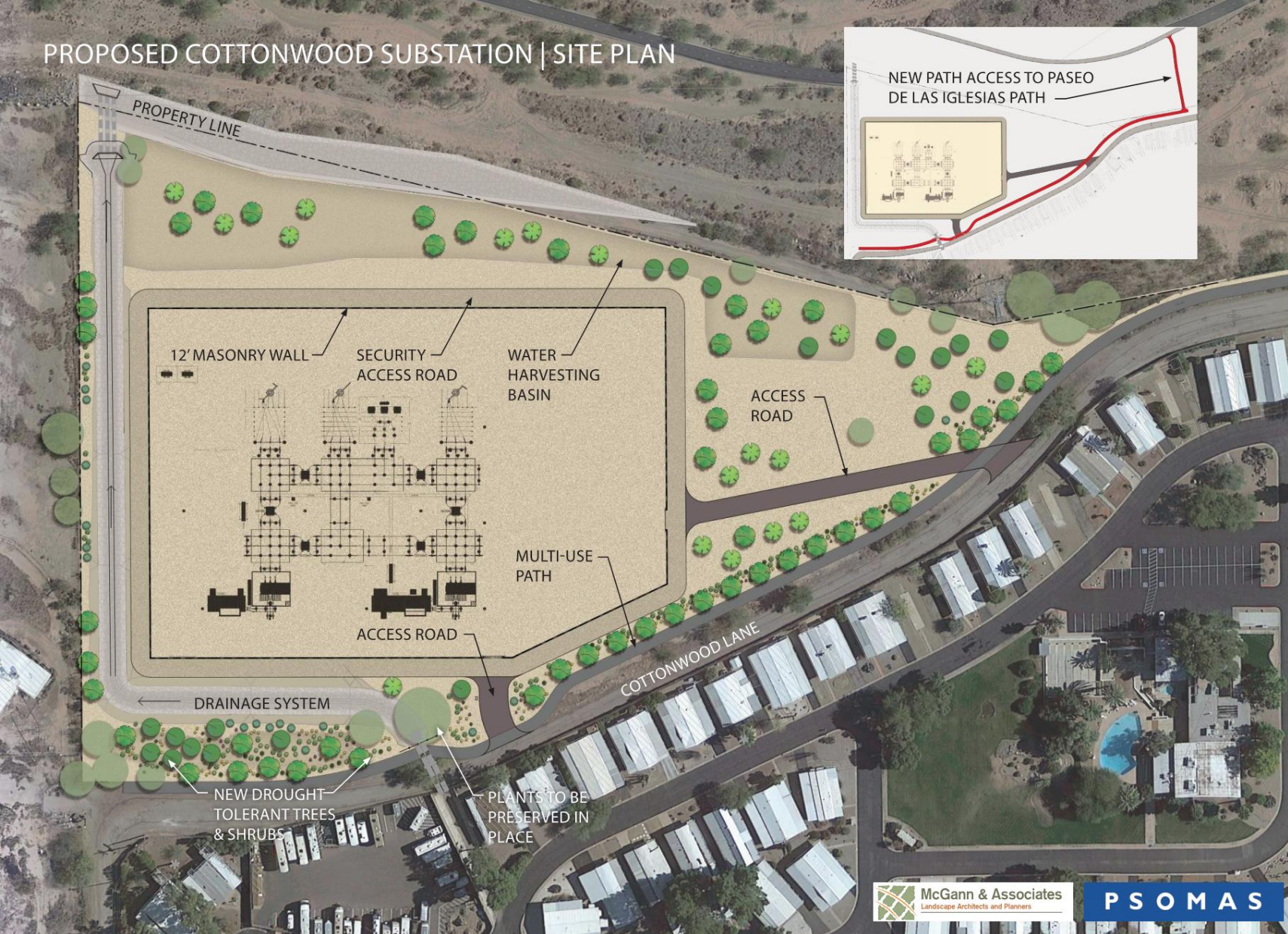
- To strengthen electric reliability for customers, meet future energy needs, and expand power capacity to help drive economic development.
- Substantial load growth as a result of new commercial and residential development.
- Existing distribution circuits serving the area are significantly loaded by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

Cottonwood Substation

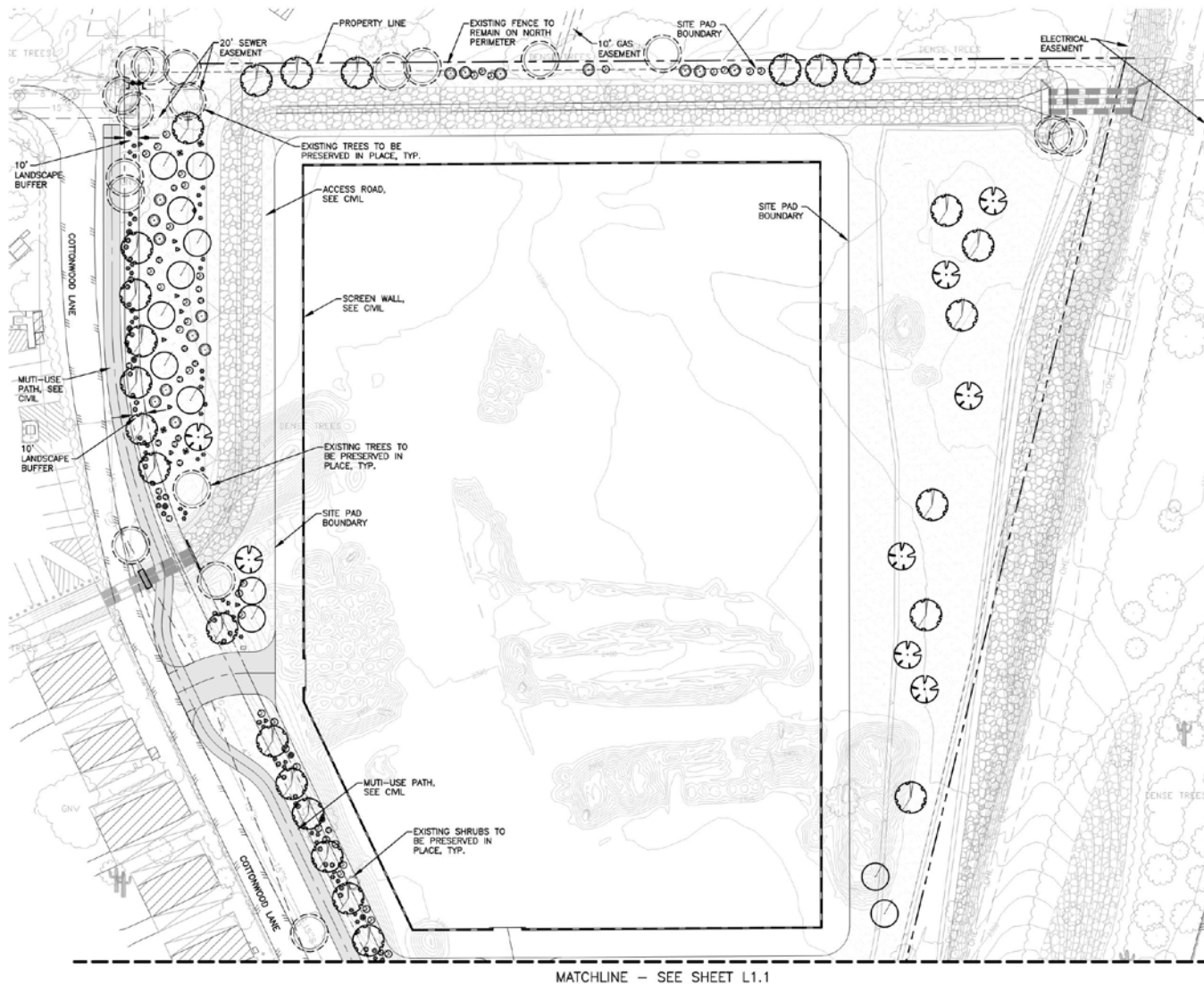
Project Benefits

- 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		
	CHOLEPIS LINEARIS	DESERT WILLOW
	PARKINSONIA MICROPHYLLA	FOOTHILLS PALM VERDE
	PROSOPIS VELUTINA	NATIVE VELVET MESQUITE
SHRUB		
	CELTIS PALLIDA	DESERT HACKBERRY
	ENCELIA FARINOSA	BRITTLERUSH
	LARREA TRIDENTATA	CREOSOTE
	LYCIUM FREMONTII	FREMONT WOLFBERY
	ZIZYPHUS OBTUSIFOLIA	GRATHORN
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"

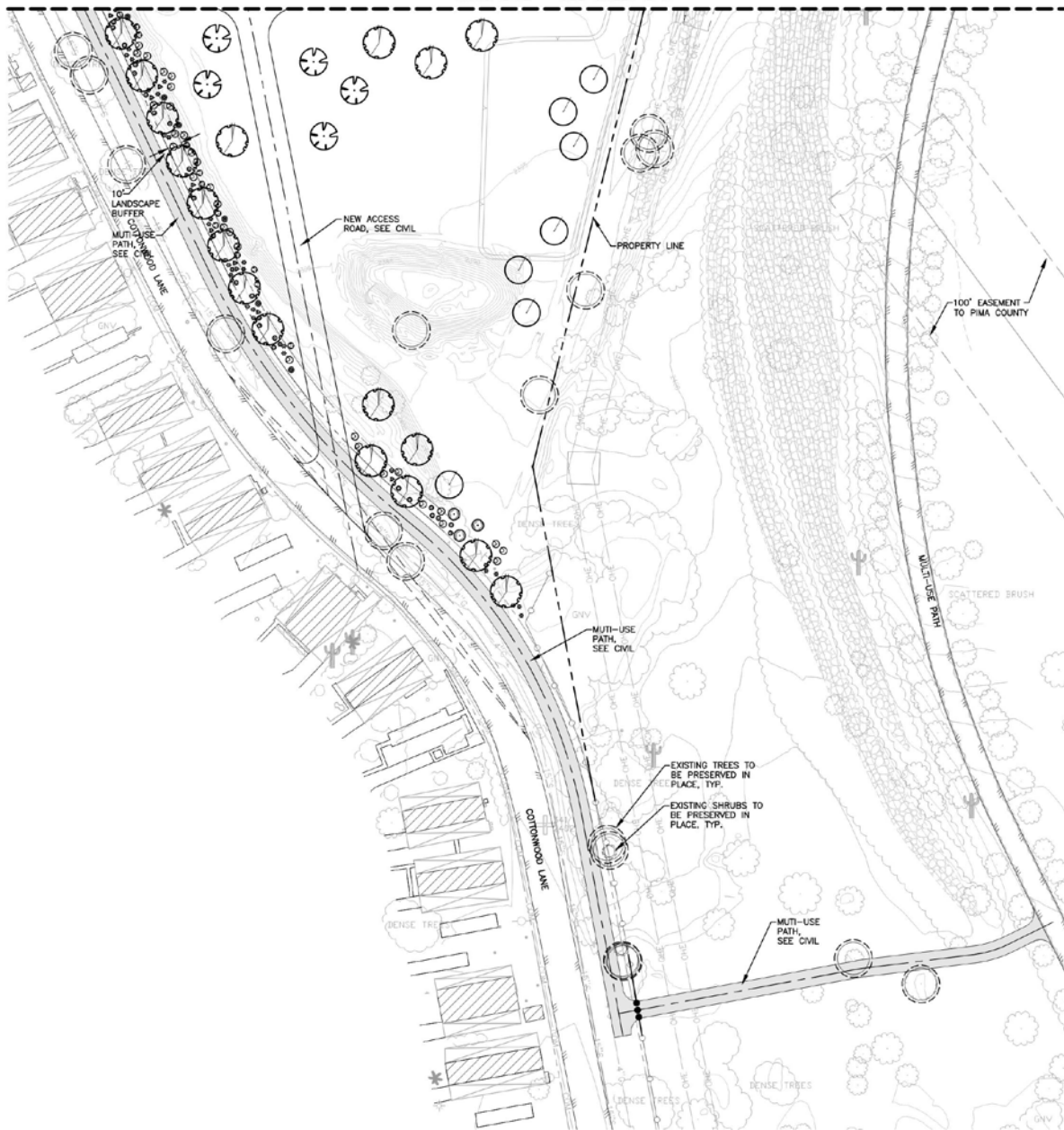
MATCHLINE - SEE SHEET L1.1



KEYMAP
SCALE: NTS



CITY OF TUCSON		DEVELOPMENT PACKAGE	
PDS APPROVAL		PDS APPROVAL	
☐ Site/Dev Plan	☐ SCZ	☐ Tentative Plat	☐ FRZ
☐ Grading	☐ HDX	☐ SWPPP	☐ WASH
☐ FUP	☐ Other		
DVP/PG MOR	Date		
Zoning	Date		
Engineering	Date		
NYC Site	Date		
Fire	Date		
Landscape	Date		
PLME	Date		
Revision #		☐ per letter in SIRM	



LANDSCAPE LEGEND

SYM./KEY	BOTANICAL NAME	COMMON NAME
TREES		
	CHILOPSIS LINEARIS	DESERT WILLOW
	PARKINSONIA MICROPHYLLA	FOOTTHILLS PALE VERDE
	PROSOPIS JULIFLORA	NATIVE VELVET MESQUITE
SHRUB		
	CELTIS PALLIDA	DESERT HACKBERRY
	ENCELIA FARINOSA	BRITTLERUSH
	LARREA TRIDENTATA	CREOSOTE
	LYCIUM FREMONTII	FREMONT NOUBERRY
	ZIZYPHUS OBTUSIFOLIA	GRANTHORN
SUCCULENTS		
	CARNEGIA GIGANTEA	SAAGUJO
	DASYLIRION WHEELERI	SOTOL/DESERT SPOON
	OPUNTIA ENGELMANNII	ENGELMANN PRICKLY PEAR
SYMBOL LEGEND		
	1/2" DECOMPOSED GRAVEL, COLOR: APACHE BROWN	 MASONRY WALL, SEE CAIL
	RP RAP, IN DRAINAGE IMPROVEMENTS, SEE CAIL	 EXISTING POST AND CABLE FENCE
PLANTS TO PRESERVE IN PLACE		
	TREE TO BE PRESERVED IN PLACE	 SHRUB TO BE PRESERVED IN PLACE



KEYMAP

SCALE: NTS



CITY OF TUCSON
DEVELOPMENT PACKAGE
PDSO APPROVAL

☐ Site/Dev Plan	☐ SCZ
☐ Tentative Plat	☐ FRZ
☐ Grading	☐ HDZ
☐ SWPPP	☐ WASH
☐ EUP	☐ Other

DVPGK MGR _____ Date _____
 Zoning _____ Date _____
 Engineering _____ Date _____
 N/C Site _____ Date _____
 Fire _____ Date _____
 Landscapo _____ Date _____
 PLME _____ Date _____
 Revision # _____ ☐ per letter in SI

McGann & Associates
Landscape Architects and Planners
8814 North Oracle Road, Suite 210
Scottsdale, Arizona 85254
Telephone: (480) 267-8540 Fax: (480) 267-8541

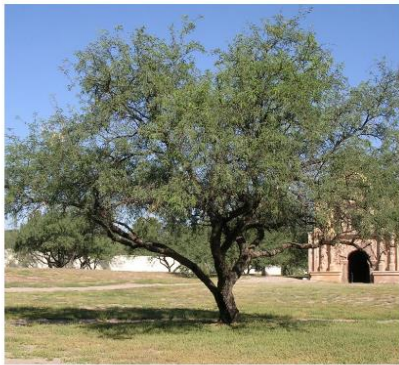
DEVELOPMENT PACKAGE
FOR

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*



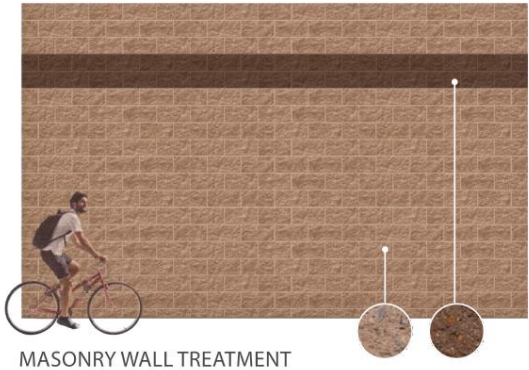
Row 3 left to right
Graythorn, *Zizyphus obtusifolia*
Desert Spoon, *Dasylirion wheeleri*
Engelmann Prickly Pear, *Opuntia engelmannii*

LANDSCAPE LEGEND		
SYM./KEY	BOTANICAL NAME	COMMON NAME
TREES		
	CHILOPSIS LINEARIS	DESERT WILLOW
	PARKINSONIA MICROPHYLLA	FOOTHILLS PALO VERDE
	PROSOPIS VELUTINA	NATIVE VELVET MESQUITE
SHRUB		
	CELTIS PALLIDA	DESERT HACKBERRY
	ENCELIA FARINOSA	BRITTLEBUSH
	LARREA TRIDENTATA	CREOSOTE
	LYCIUM FREMONTII	FREMONT WOLFBERRY
	ZIZYPHUS OBTUSIFOLIA	GRAYTHORN
SUCCULENTS		
	CARNEGIEA GIGANTEA	SAGUARO
	DASYLIRION WHEELERI	SOTOL/DESERT SPOON
	OPUNTIA ENGELMANNII	ENGELMANN PRICKLY PEAR

PROPOSED COTTONWOOD SUBSTATION | PERSPECTIVES



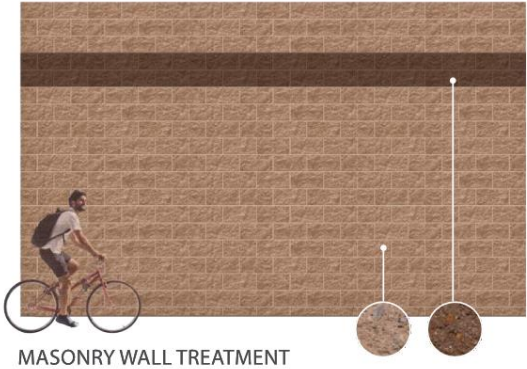
LOOKING NORTH ON COTTONWOOD



PROPOSED COTTONWOOD SUBSTATION | PERSPECTIVES



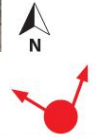
LOOKING SOUTHEAST ON COTTONWOOD



PROPOSED COTTONWOOD SUBSTATION | PERSPECTIVES



LOOKING NORTHWEST ON PASEO DE LAS IGLESIA PATH



MASONRY WALL TREATMENT

Questions?

Chris Ortiz y Pino | TEP Environmental Land Use Planner
christopher.ortizypino@tep.com | 520-633-8693

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