

Southwest Tucson Reliability Project



Welcome

Please Sign In

Bienvenidos

(Hablamos Español)

Por Favor Regístrese



tep.com/southwest-tucson-reliability-project

Our Energy Grid

How we deliver electric service to you

Natural Gas
Sundt Generating Station
in Tucson and others



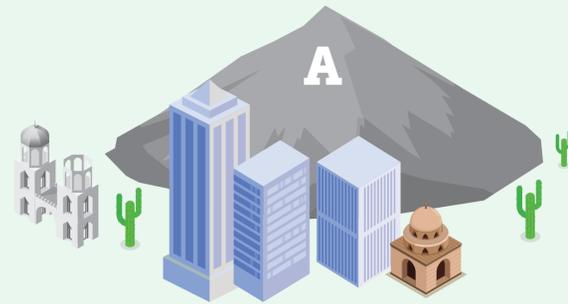
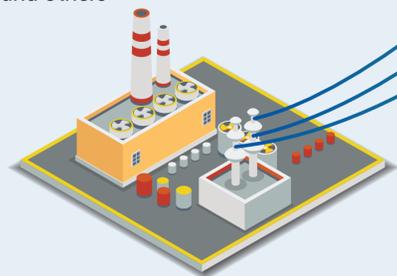
Community Scale Solar
Wilnot Energy Center
and others



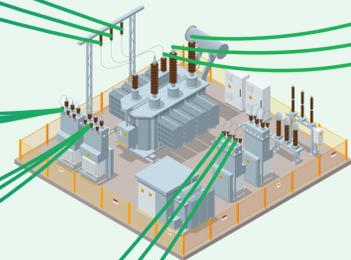
Wind Resources
Oso Grande Wind
and others



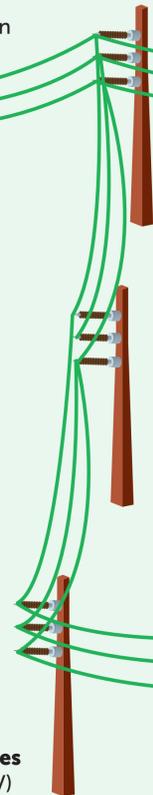
Coal
Springerville Generating Station
and others



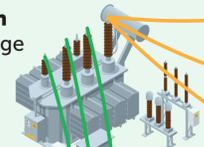
High Voltage Substation
Steps up voltage for transmission



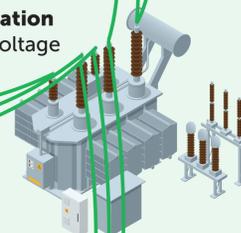
High Voltage Transmission Lines
(500 kV / 345 kV / 230 kV 138 kV)



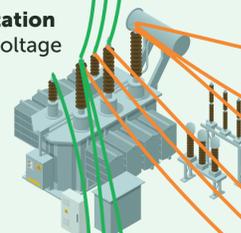
46 kV Substation
Steps down voltage



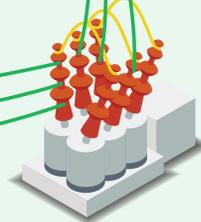
138 kV Substation
Steps down voltage



138 kV Substation
Steps down voltage



Switchyard



4 kV Distribution Lines

14 kV Distribution Lines

Homes



Businesses



Commercial Facilities



Homes



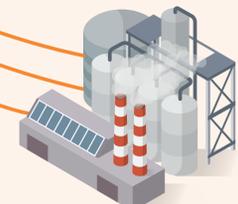
Businesses



Commercial Facilities



Industrial Facilities



Generation

Transmission and Sub-Transmission

Distribution

Purpose

- Replace the 46 kV system with a new looped 138 kV transmission line and substation to support long term reliability.

Need

- Existing distribution system is supported by a single 46 kV source.
- Existing system risks the potential for extended customer outages.

Benefits

- Upgrade from older lower voltage system, to modern 138 kV standard.
- Reduce outages and improve system reliability.
- Increase capacity to provide electrical service to existing and new customers.



Bopp-Donald 46 kV Substation and Line

Southwest Tucson Reliability Project



September 2026
CEC Application
Submittal



Quarter 1 2027
ACC Open
Meeting



2029
Construction of Phase 1:
Tucson Estates to Midvale Substation



2025

2026

2027

2028

2029

2030



October 2025 – September 2026

Transmission Line
Planning and Siting



November 2026

Line Siting
Public Hearing



2027—2028

Acquire Land Rights, Detailed Engi-
neering, and Procure Materials



2030

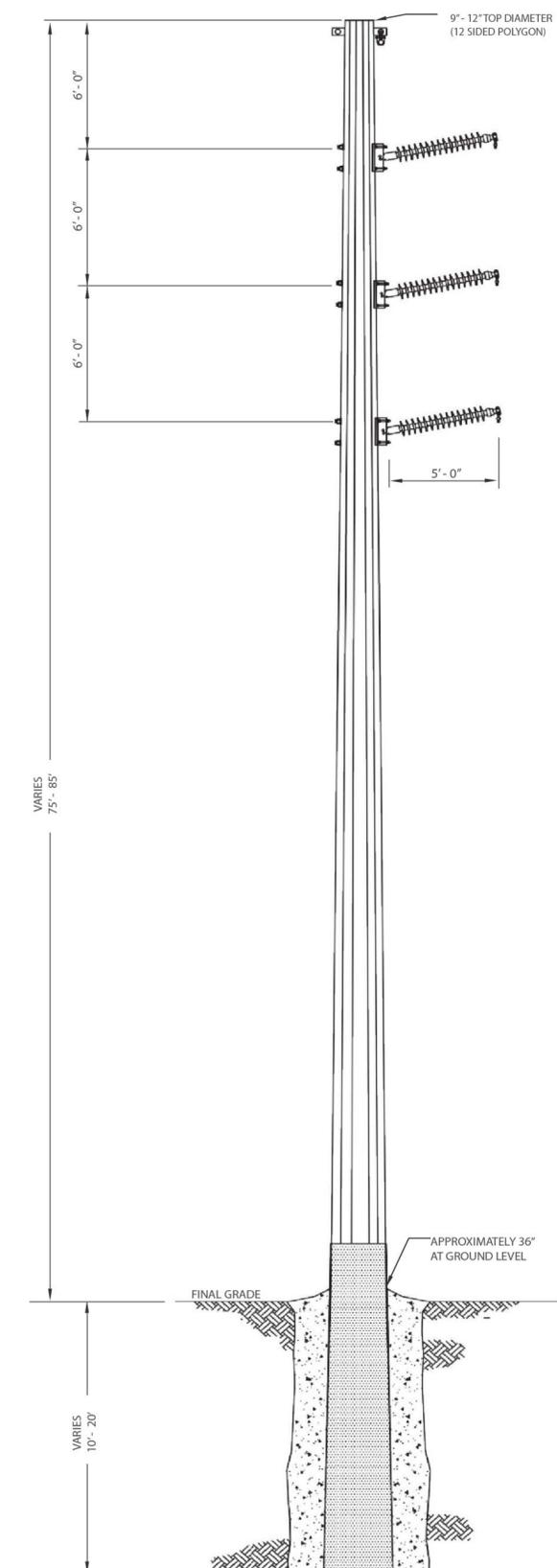
Construction of Phase 2:
Tucson Estates Substation
to Circuit Tie



Transmission Line Characteristics

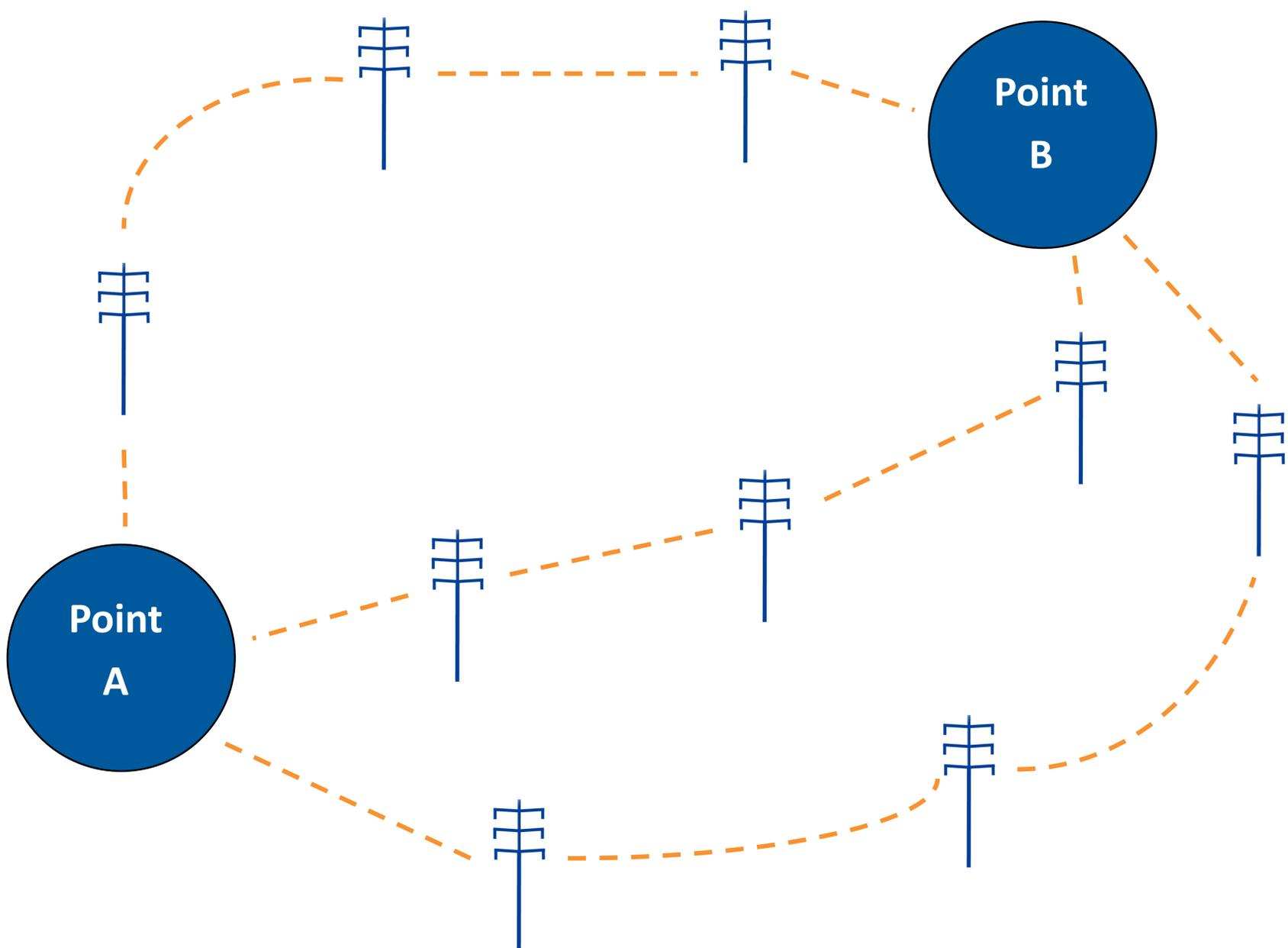
Single or Double-Circuit 138 Kilovolt

Structure Type	Tubular, weathering steel monopoles
Typical Structure Height	75-85 feet
Typical Span Length	600-1,000 feet
Typical Right-of-Way Width	Up to 100 feet



What is Siting?

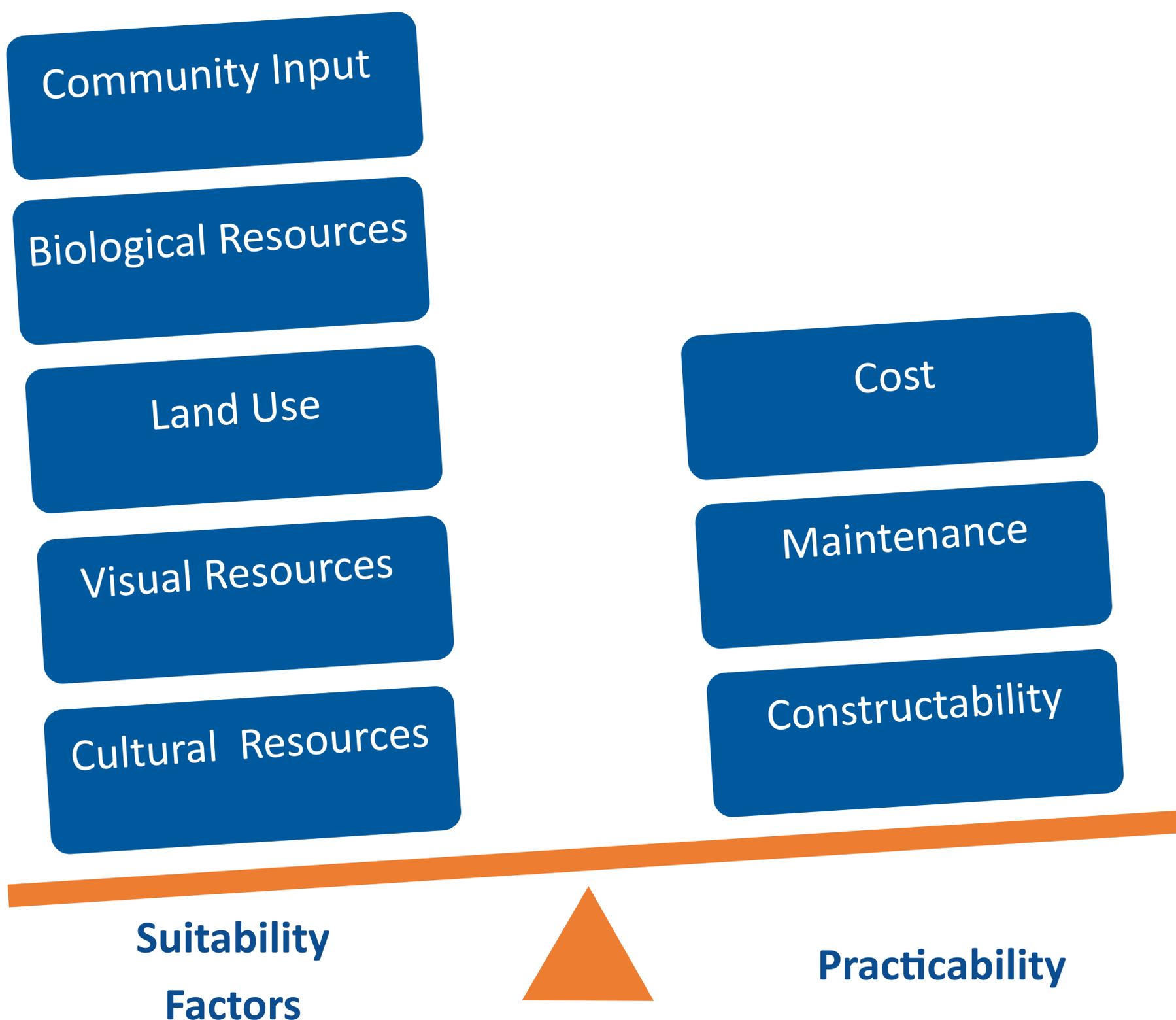
The process of determining the exact route or location where a high-voltage transmission line will be built between two or more points. These points could be new or existing substations, switchyards or energy resources.



A component of siting is permitting. Under Arizona law (A.R.S. § 40-360 et seq.), certain transmission line configurations require a Certificate of Environmental Compatibility (CEC) before construction and operation along an approved route.

Project Route Development and Evaluation

Tucson Electric Power considers factors important to the community and environment, and balances them with constructability, maintenance, and cost to find the most suitable path for the transmission line that satisfies the need for the project.



Siting Criteria

Tucson Electric Power (TEP) will be applying for a Certificate of Environmental Compatibility (CEC) from the Arizona Corporation Commission. Several criteria are considered under the Arizona Revised Statutes when making the decision to issue a CEC. TEP also considers additional factors identified through public engagement and feedback to evaluate route segments, and when selecting a preferred route.



Public input



Scenic areas, historic & cultural sites



Wildlife & plants



Existing or potential recreation uses



Existing & planned land use



Engineering & construction feasibility



Overall environment



Noise emission levels & interference with communication signals



Project costs & potential impact on customer rates

In your opinion, which criteria are most important in developing a route for the Project? Let us know what you think and if there are any other criteria we should consider.



Siting Process Flowchart

Phase 1: Pre-Analysis

- Conduct Field Visits
- Develop Study Area
- Identify Opportunities & Constraints
- Engage with Public & Stakeholders
- Develop Preliminary Segments


**WE
ARE
HERE**

Phase 2: Data Inventory

- Conduct Research & Collect Data

Phase 3: Suitability Assessment

- Develop Suitability Models
- Conduct Suitability Assessment
- Field Review
- Engage with Public & Stakeholders
- Refine Segments

Phase 4: Compatibility Analysis

- Conduct Compatibility Analysis
- Develop Route Alternatives
- Field Review

Phase 5: Concept Evaluation

- Engage with Public & Stakeholders
- Identify Preferred Route
- Submit CEC Application
- Public Notification and Hearing

Opportunities and Constraints

Opportunities

- Major roads
- Minor roads in rural areas
- Railroads
- Existing utility infrastructure
- Existing/planned industrial land use
- Vacant land, open space, natural linear features



Valencia Road — Major Road



Santa Cruz River — Open Space
Existing Utility Corridor

Constraints

- High-density development
- City of Tucson Gateway/Scenic Routes
- Environmentally sensitive areas
- Conservation lands
- Extreme terrain
- Roadways with constrained rights-of-way



Mission Road Scenic Corridor



Conservation Lands



Extreme Terrain

Opportunities

Southwest Tucson Reliability Project

-  Circuit Tie-in
-  Planned 138 kV
-  Existing 138kV
-  Study Area
-  Opportunities



S Kinney Rd

ARIZONA
86

INTERSTATE
19

Tucson
Estates

W Irvington Rd

S Camino Verde

S Joseph Av

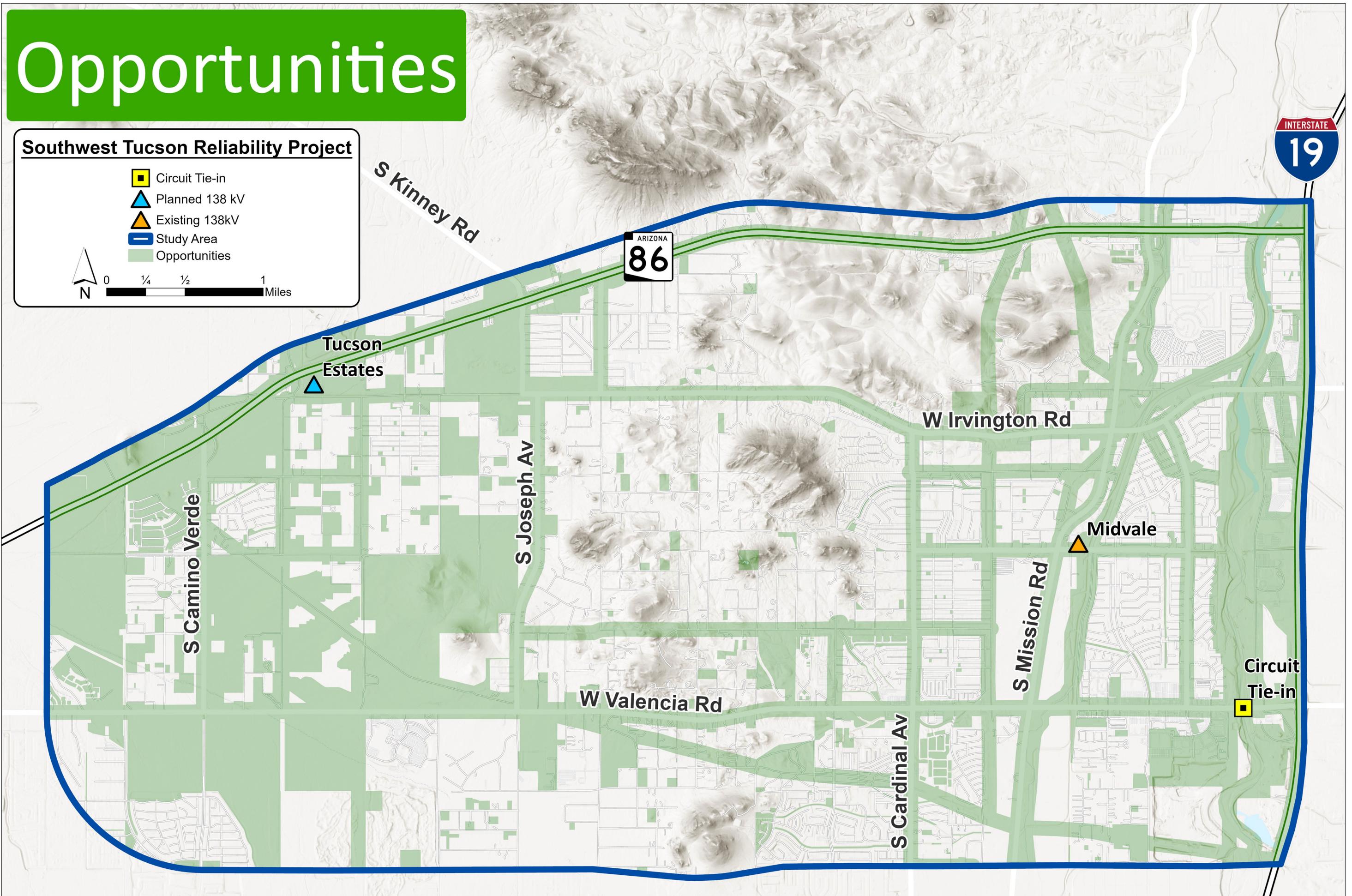
Midvale

W Valencia Rd

S Mission Rd

Circuit
Tie-in

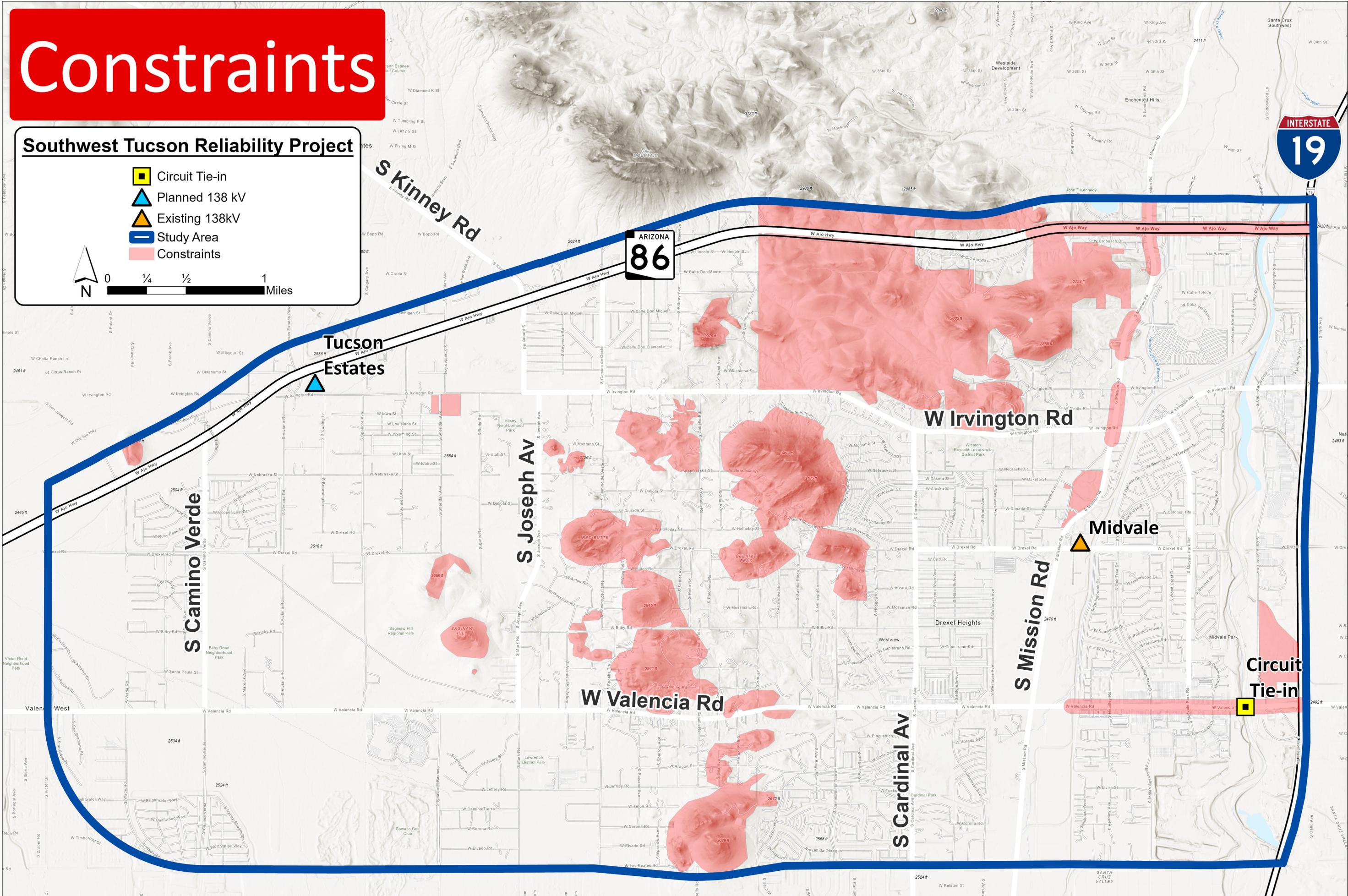
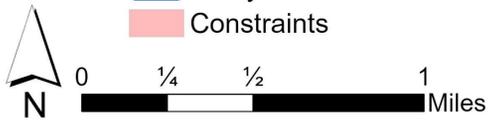
S Cardinal Av



Constraints

Southwest Tucson Reliability Project

-  Circuit Tie-in
-  Planned 138 kV
-  Existing 138kV
-  Study Area
-  Constraints



Southwest Tucson Reliability Project

— Draft Preliminary Segments

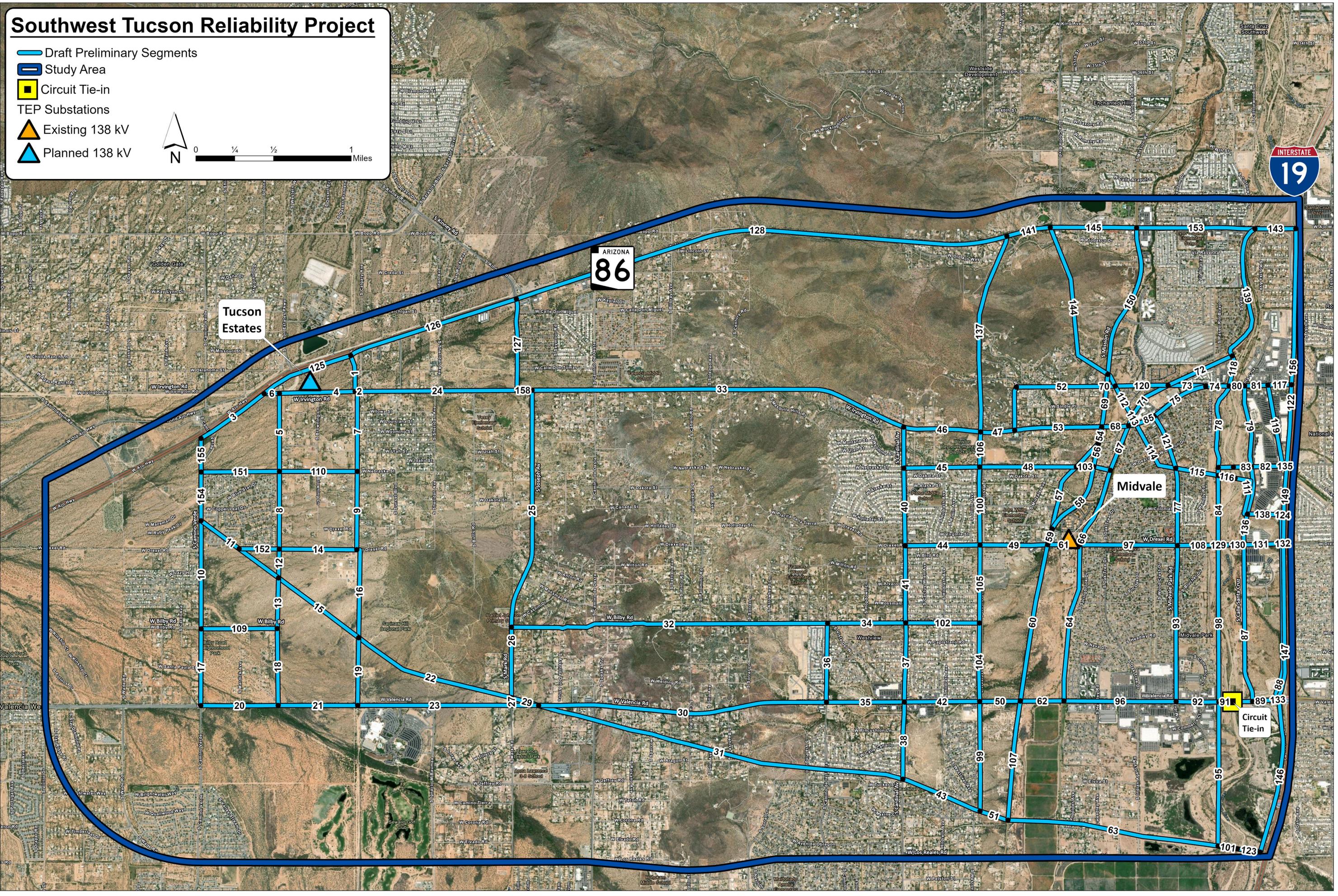
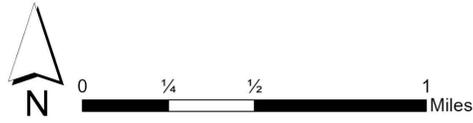
▭ Study Area

▣ Circuit Tie-in

TEP Substations

▲ Existing 138 kV

▲ Planned 138 kV



Tucson Estates

Midvale

INTERSTATE
19

ARIZONA
86

Circuit Tie-in