

WELCOME

GRAY STREET SUBSTATION CAPACITY UPGRADE PROJECT

Thank you for attending this open house hosted by Xcel Energy. Your questions and comments are appreciated and important to us.



NEED AND BENEFITS

The existing Gray Street Substation is located at Gray Street and 11th Avenue in Lakewood, and has been in operation for the past several decades. The existing facility operates as a transmission switchyard with no distribution service to provide electricity to the local area. Currently, electricity is provided to this local area of Lakewood from substations far from the area. This creates reliability issues and limits growth.

Lakewood continues to experience residential and commercial growth, which has increased the demand for additional electricity. Xcel Energy is making upgrades to the electric system in this area to reliably serve the additional customer need anticipated in the future.

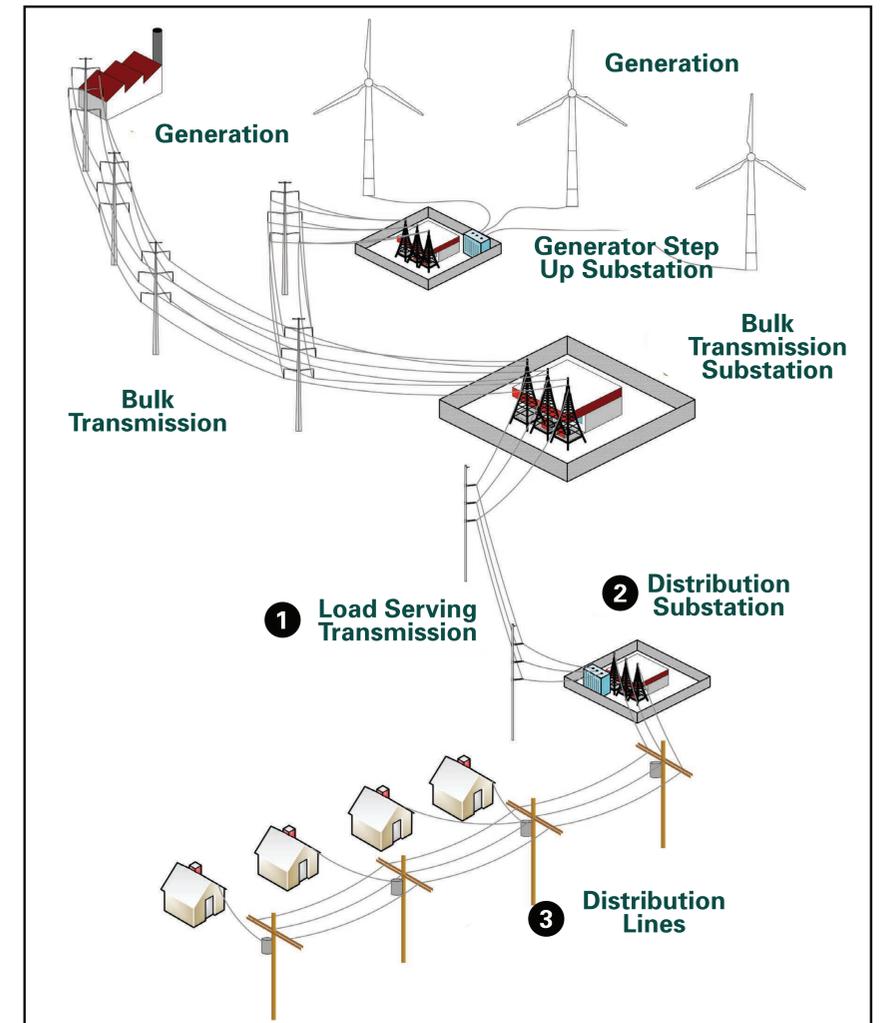
Gray Street Substation will:

- Provide additional system capacity
- Maintain adequate voltage to serve electrical demand
- Reliably serve local customers' electric needs as residential and commercial demand increases and increase power quality in the area around Gray Street
- Convert the existing open-air yard to a yard with an equipment enclosure

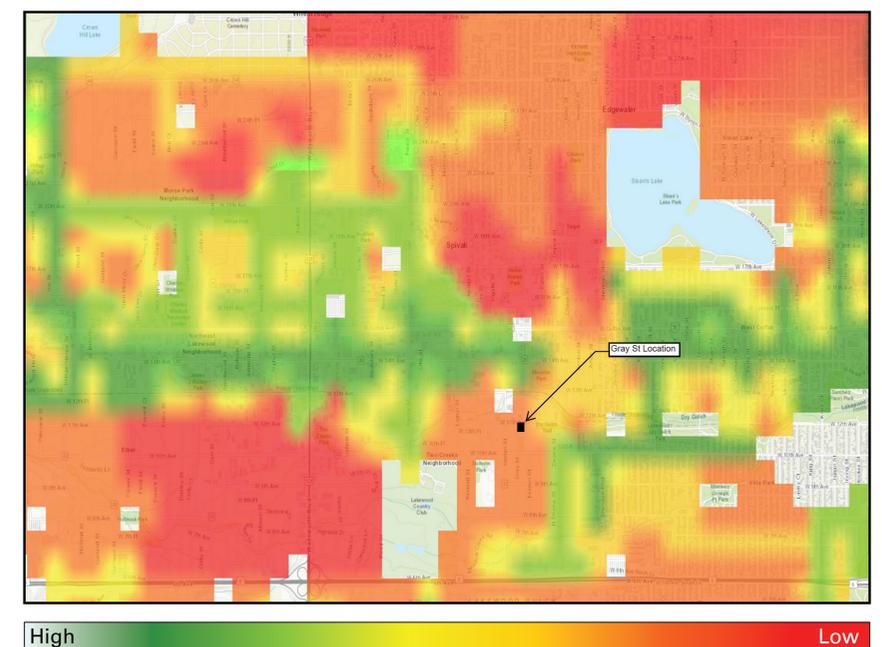
What does a substation do?

Distribution substations, like the planned upgrade of the Gray Street Substation, reduce voltage of electricity delivered from load serving transmission lines to a lower voltage that is delivered on distribution lines to a lower voltage to power homes and businesses.

- (1) Existing Transmission Lines
- (2) Gray Street Substation
- (3) Distribution line will deliver power from the Gray Street Substation to local residences and businesses.



Ability to Deliver Electric Load



This diagram illustrates that the existing Gray Street Substation has a lower ability to deliver electricity to the local area.

PROJECT DESCRIPTION

The planned Gray Street Substation will have a new and different look.

- To accommodate growth and ensure electric service in this area of Lakewood, new substation equipment is needed.
- To ensure adequate electric capacity at the Gray Street site, a full 3-transformer substation will be constructed,
- Xcel Energy plans to expand capacity at the substation by converting the existing open-air substation to a gas-insulated substation (GIS) Equipment can be placed closer together, thereby saving space and is the only viable option that can be accommodated on the land available.
- GIS is a state-of-the-art substation with equipment insulated with a colorless, odorless, nonflammable and nontoxic sulfur hexafluoride (SF6) gas.
- GIS is used in densely populated urban areas where space is limited.



PHASED SUBSTATION DEVELOPMENT

The project will be built in two phases:

Phase 1:

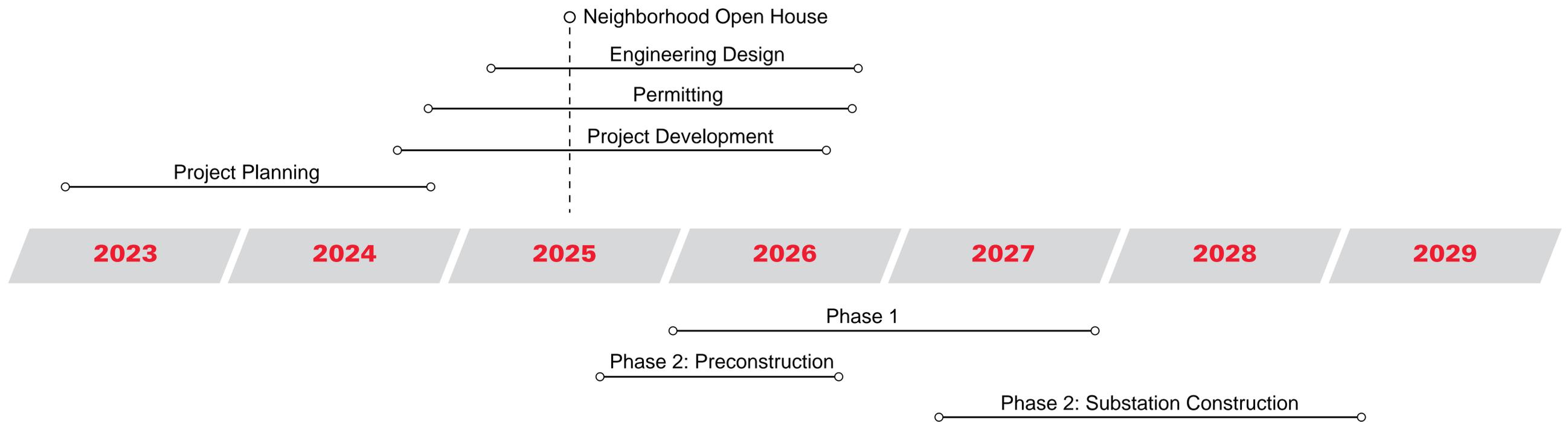
- Install temporary bypass transmission lines (shoo-flies) to allow power to continue flowing while work is underway
- Expand the fence line on property to allow for additional equipment
- Partially demolish existing substation equipment and grade the surface
- Install transformer
- Install underground distribution lines.



Phase 2:

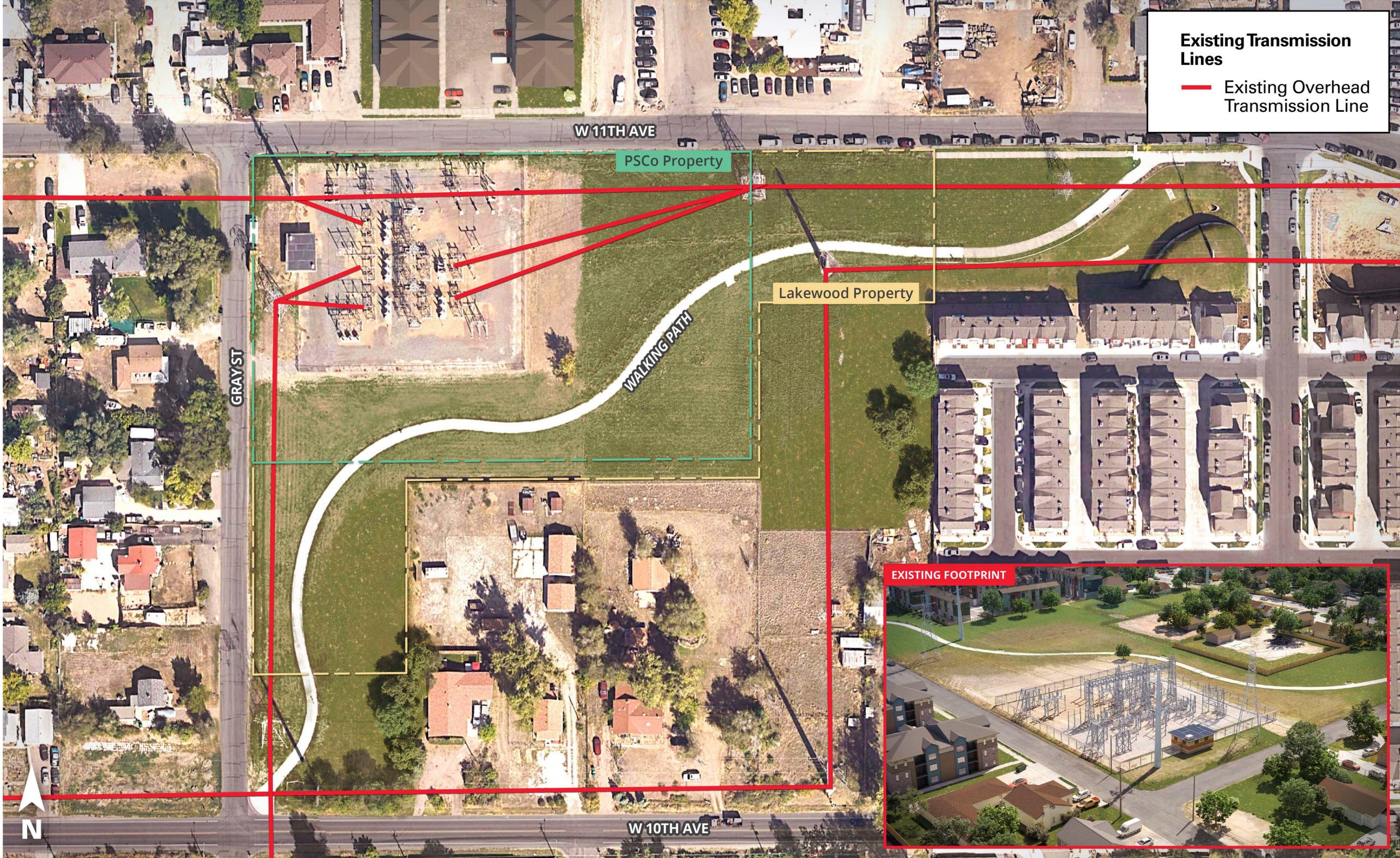
- Preconstruction (demolish remaining existing substation equipment and grade the surface, lay foundations)
- Substation construction
- Complete walking path realignment
- Complete public sidewalk along Gray Street and 11th Avenue
- Restoration and landscaping

Anticipated Schedule



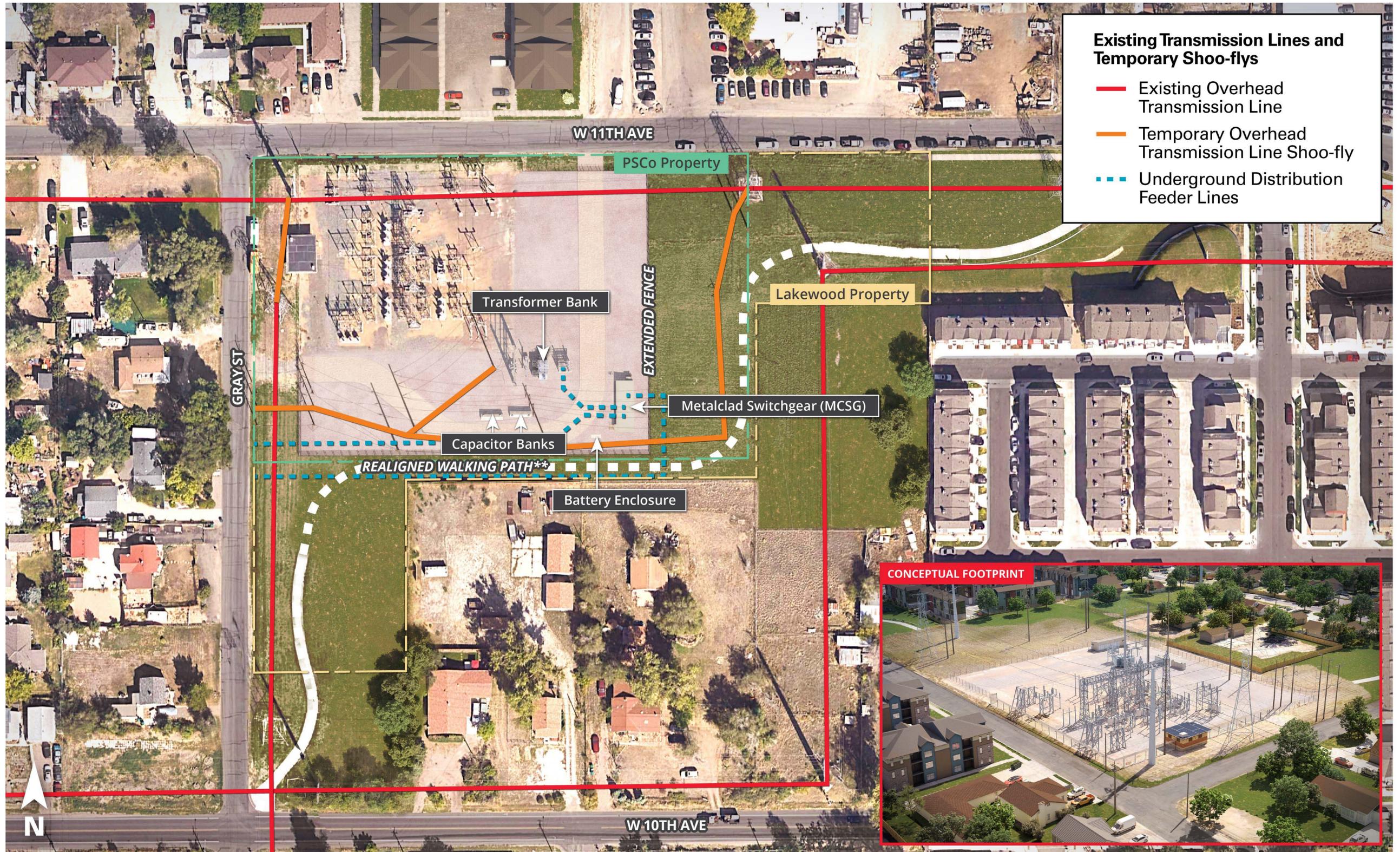
*A "shoo-fly" is a temporary bypass line that is constructed to allow power to continue flowing while work is underway on the substation. Schedule subject to change.

EXISTING SWITCHING STATION LAYOUT



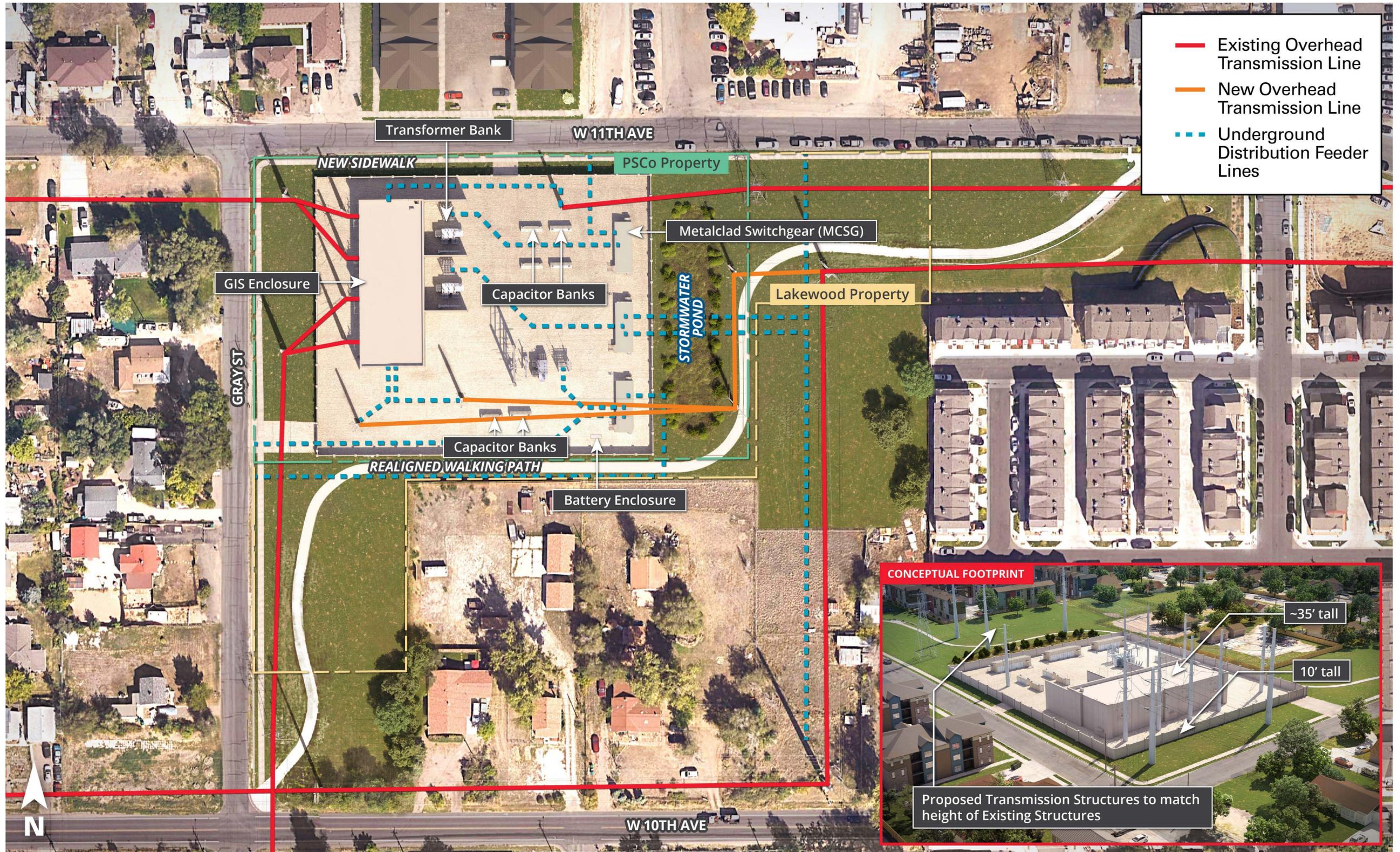
**Subject to minor design changes.*

SUBSTATION DEVELOPMENT PHASE 1



*Subject to minor design changes.
**Timing of redevelopment subject to change

SUBSTATION DEVELOPMENT PHASE 2



**Subject to minor design changes.*

EQUIPMENT ENCLOSURE TREATMENT EXAMPLES

Material Examples



Supplementary Examples

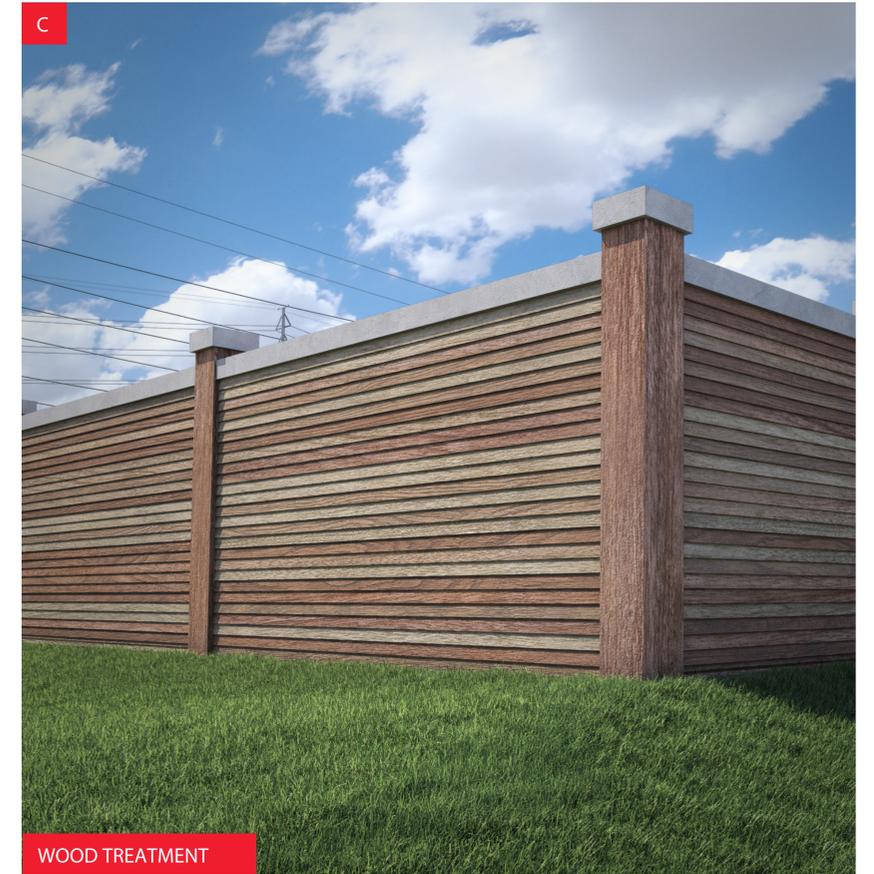
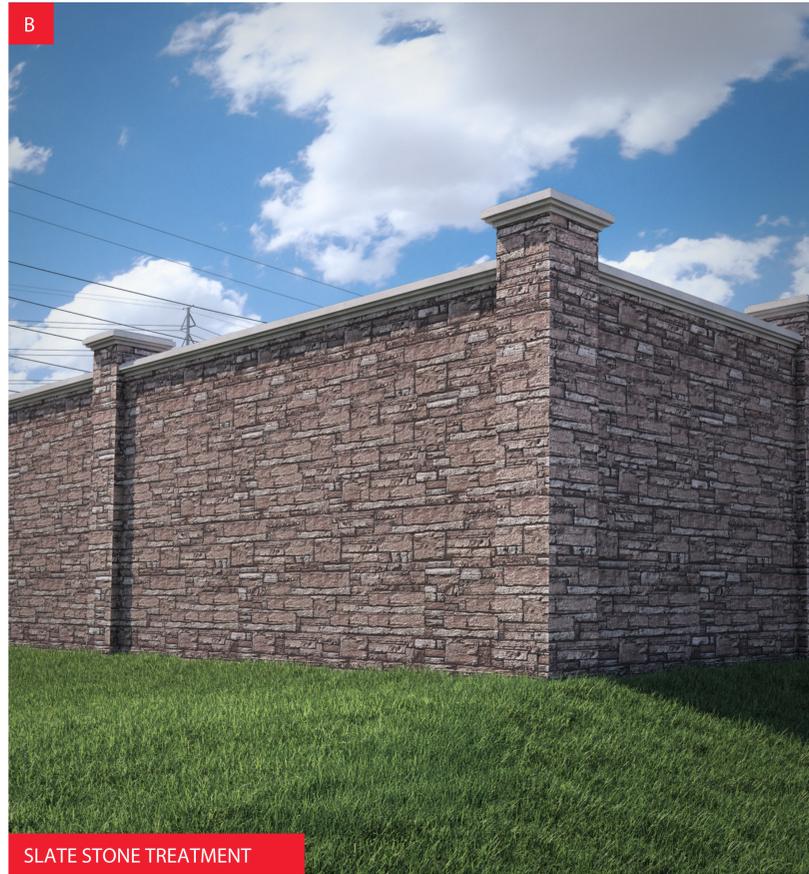
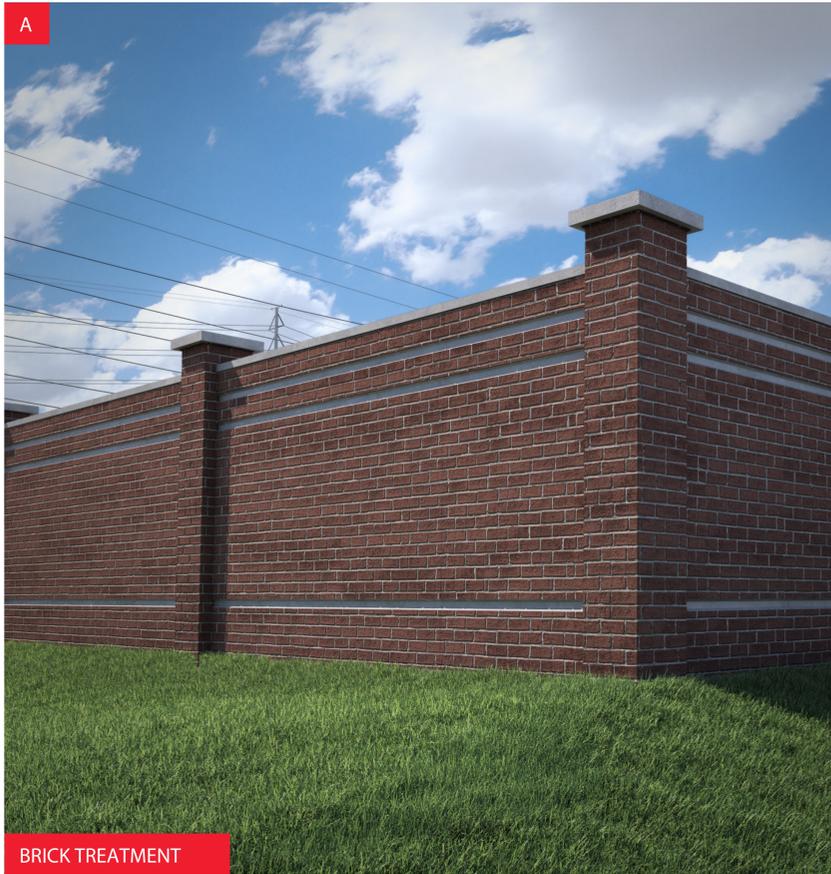


Optional Architectural Elements

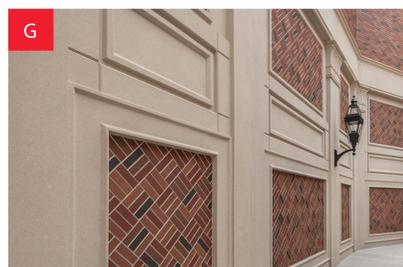
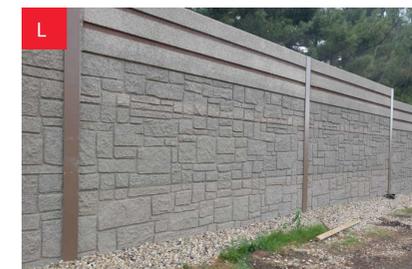


PRECAST WALL TREATMENT EXAMPLES

Wall Material Examples



Supplementary Examples



GIS SUBSTATION EQUIPMENT



Typical High Voltage Gas to Air Bushings



Typical GIS Enclosed Substation

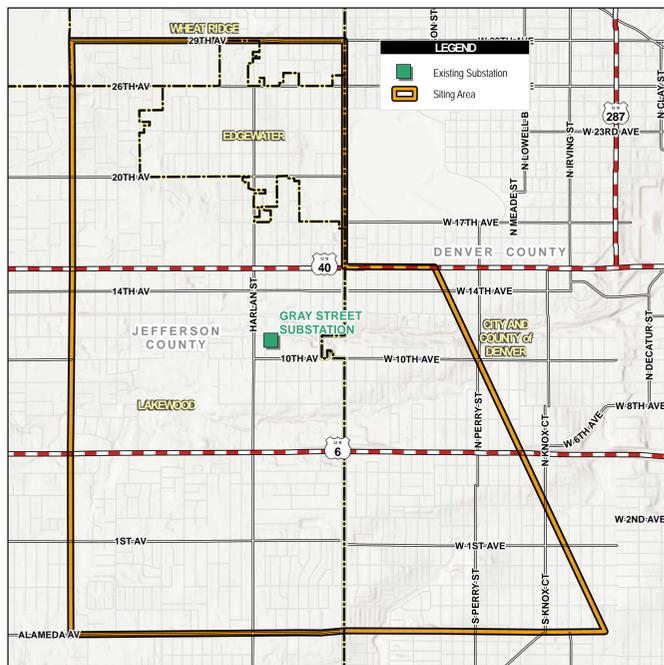


Typical Power Transformer

SITE SELECTION PROCESS

A Siting Analysis was completed for a new substation site that evaluated and compared several properties using siting criteria to identify a preferred location.

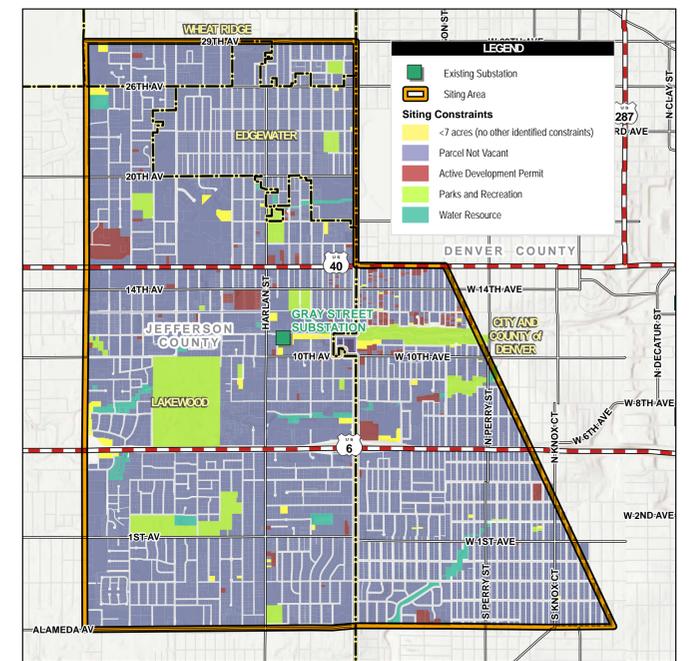
SITING AREA



The Siting Area was identified proximate to the existing Gray Street Switching Station and between other existing substations where the necessary transmission and distribution interconnections could be made to provide power to the community. Parcels within the Siting Area, including the existing Gray Street Switching Station, were assessed to identify sites that were the necessary size and dimension, absent of parks and recreation facilities, absent of wetlands and waterbodies, absent of an active development permit, and vacant.

Due to dense development in the Siting Area, there were no available sites that met the siting criteria for a new substation. A field reconnaissance was conducted in the Siting Area to verify resource data and site vacancy. Ultimately, expanding the existing facility in the remaining portions of PSCo's property, adjacent to the existing Gray Street Switching Station, was identified as the preferred option.

RESULTS OF SITING ANALYSIS

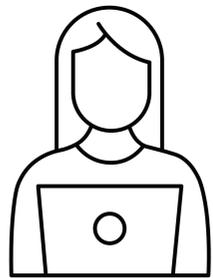


Siting Criteria	Land Acquisition	Land Use	Engineering	Environmental and Cultural Resources	Regulatory Compliance
Consideration	<ul style="list-style-type: none"> • Developable Land • Vacant 	<ul style="list-style-type: none"> • Current and future use • Absence of parks and recreation facilities • Compatible uses 	<ul style="list-style-type: none"> • Parcel size and dimension • Distance to existing electrical system interconnections 	<ul style="list-style-type: none"> • Absence of wetlands and waterbodies 	<ul style="list-style-type: none"> • Absence of active development permits

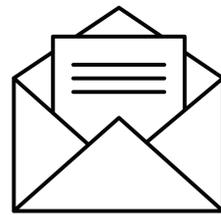
COMMUNITY ENGAGEMENT HELPS DRIVE RESPONSIBLE DEVELOPMENT. WE ENCOURAGE YOU TO SHARE YOUR THOUGHTS.



Please fill out a comment form:



OR



Please complete a comment form and submit it at the meeting this evening

Complete a comment form and mail it

Contact us with questions or comments in one of the following ways:



Email:
graystreet@xcelenergytransmission.com



Phone:
303-276-0659



Visit the website:
<https://xcelenergytransmission.com/projects/gray-street-substation/>

TAPE HERE (PLEASE DO NOT STAPLE)

PUBLIC COMMENT FORM
COLORADO

GRAY STREET SUBSTATION CAPACITY UPGRADE PROJECT

We welcome your questions. Please take a few minutes to provide your questions about the transmission project and return the completed form today or mail. Thank you.

Please provide questions on the project in the space provided below:

Referring to the *Equipment Enclosure Treatment Examples* board, please identify your preferred option(s) for each category:

Material Examples: 1 2 3

Supplementary Examples: 4 5 6 7 8 9

10 11 12 13 14 15

Architectural Elements 16 17 18 19 20 21

22 23

Referring to the *Precast Wall Treatment Examples* board, please identify your preferred option(s) for each category:

Wall Material Examples: A B C

Supplementary Examples: D E F G H I

J K L M N O

What is it about the options you chose, that you like? (Ex: Color, texture, etc.)
