Electricity (including Telephone and Cable Easements)

Existing Conditions of Service Availability
All electric distribution facilities within the Gateway area were rebuilt or upgraded in 2001. An additional electric distribution substation was added in 2003 with the completion of the Rivery Substation allowing for this area to be served from either the Rivery Substation or the San Gabriel Substation.

This addition coupled with the distribution rebuild will allow for adequate electric infrastructure to serve any planned redevelopment within the study area. The majority of electric, cable and telephone facilities within the study area are located mostly above ground with aerial construction. This is due to the soil conditions west of IH-35 being rock and the added expense to bury facilities within this area.

Current Load and Projections
Currently we have divided the Gateway Area into two distinct study areas for the dry utilities, with Williams Drive south to the San Gabriel River as one, and Williams Drive north to Northwest Blvd as the other. Current electric connected load for Williams Drive south to the River is 386 kW, and Williams Drive north to Northwest Blvd. is 438 kW, for a total connected load of 804 kW for the entire area.

Load and Cost Options
Based on existing land use and zoning City staff estimates that electric load could increase in the area from Williams Drive south to the River from its current 386 kW to a range from 780 – 1300 kW. The area from Williams Drive north to Northwest Blvd. could increase in load from its current 438 kW to a range from 1320 – 2200 kW. A larger growth is possible in this area due to the current undeveloped property within this study area.

Overhead, Underground or Both
The current redevelopment area is shown in Electric Gateway Exhibit V and is a mixture of both overhead and underground facilities. Expansion of facilities would be dependent on type of development and electric requirements.

Underground conversion is shown in Electric Gateway Exhibit W and shows possible overhead lines converted to underground with additional underground facilities installed to provide a loop system for reliability purposes. Again the study area was split into two separate areas with Williams Drive as the dividing line. It is estimated that to convert the area between Williams and the San Gabriel River from overhead to underground will be approximately $477,000. For the area from Williams Drive north to Northwest Blvd. conversion costs are estimated to be $666,000 with an additional $310,000 required to serve the currently undeveloped tracts within this area.

Total estimated expense to convert this area from overhead to underground facilities is estimated to be $1,453,000.

We have also attempted to estimate for study purposes only the additional expense for conduit and trench required for cable and telephone. For the area Williams Drive south to the River estimates are $68,000 and from Williams Drive north to Northwest Blvd. estimates are $140,000 for a total within the study area of $218,000. Note these are estimates for conduit and trenching only and do not include any equipment used by either cable or telephone systems.
Using a mixture of overhead and underground within the Gateway area could lessen the expense for conversion by allowing electric facilities along the west boundary to remain overhead with facilities within the redevelopment area to be converted to underground. By utilizing a mixture of overhead and underground facilities, the area from Williams Drive north to Northwest Blvd. realizes a substantial savings estimated at $554,000 for electric and $50,000 for cable and telephone. A mixture would allow the facilities along Park Lane and Northwest Blvd to remain overhead, and facilities within the redevelopment area to be relocated underground.

**Exhibit V Existing Electric Service Overview**
Exhibit X  Electric Service Scenario B
Exhibit Y  Electric Service Scenario C
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