



South Mountain Transportation Corridor Study

Citizens Advisory Team
Draft Technical Report Summary

Utilities

Why document analysis of utilities in the Environmental Impact Statement (EIS)?

The Phoenix metropolitan area is growing rapidly and has been since the 1950s. Today's American society expectations are such that public/quasi-public services need to be in place to support this growth. So, as growth creates the need for more transportation infrastructure, it also creates the need for utility infrastructure. At times, the two can conflict.

Without proper planning and coordination, the construction of a major transportation facility like the proposed South Mountain Freeway could require relocation and/or reconstruction of major utility lines providing electricity, phone, sewer, natural gas, water and fiber optics to perhaps millions of people. Relocation and/or reconstruction of major utility lines and corridors can be extremely costly and delay meeting important project milestones. Additionally, a project of this size would likely affect smaller utility lines, irrigation canals and wells.

Utility lines and corridors are abundant in the Study Area. For the proposed project, the study team focused on major utilities and utility corridors that may influence the alignment of the proposed freeway.

What kind of impacts could occur from construction?

In the Western Section of the Study Area, any one of the action alternatives could affect the following major utilities:

- The Roosevelt Irrigation District (RID) Canal (the proposed freeway would have to cross it)
- Two Union Pacific Railroad tracks (the freeway would have to cross them)
- Two major overhead power lines—a Western Area Power Administration (WAPA) 230 kilovolt (kV) line that parallels Elwood Street and a Salt River Project (SRP) 230 kV line adjacent to Broadway Road
- A Kinder Morgan Energy Partners 20-inch high-pressure petroleum pipeline that parallels the Union Pacific Railroad tracks
- A Southwest Gas 10-inch gas pipeline adjacent to Buckeye Road
- Two underground fiber optic lines—a Sprint line parallel to Lower Buckeye Road and an AT&T line adjacent to the RID canal

Individual alternatives would have specific utility impacts:

The ***W55 Alternative*** would potentially affect additional major utilities, including:

- Two 90-inch City of Phoenix sanitary sewer lines along Broadway Road between 59th and 63rd avenues
- Several City of Phoenix 12-inch waterlines along major crossroads
- SRP irrigation laterals
- Multiple power lines
- The Salt Canal along Van Buren Street



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- Multiple Union Pacific Railroad spur tracks near 55th Avenue
- A power substation at 59th Avenue and Lower Buckeye Road—avoidance may be possible in design

The **W71 Alternative** could affect additional major utilities, including:

- Two 90-inch City of Phoenix sanitary sewer lines along Broadway Road between 71st and 75th avenues
- Several City of Phoenix 12-inch waterlines along major crossroads
- SRP irrigation laterals
- Multiple power lines
- The Salt Canal along Van Buren Street

The **W101 Alternative and Options** could affect additional major utilities, including:

W101 Western Option

- A City of Phoenix 66-inch sanitary sewer line
- A Cox overhead fiber optic cable at Van Buren Street and at 99th Avenue
- A City of Tolleson 12-inch water line along Roosevelt Street
- A Qwest underground telephone cable at Van Buren Street
- A RID well
- An SRP well
- SRP irrigation laterals
- Multiple power lines
- Three City of Tolleson 48-inch sewer lines
- Seven City of Phoenix sanitary sewer lines, 60 inches or greater
- Fourteen City of Phoenix wells
- A Kinder Morgan Energy Partners 12-inch petroleum pipeline parallel to Buckeye Road
- Two Cox Cable underground fiber vaults at Lower Buckeye Road and 99th Avenue

W101 Central Option

- A City of Phoenix 66-inch sanitary sewer line
- A Cox overhead fiber optic cable at Van Buren Street and 99th Avenue
- City of Tolleson 12-inch water lines
- A Qwest underground telephone cable at Van Buren Street
- A RID well
- An SRP well
- SRP irrigation laterals

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- Multiple power lines
- Four City of Tolleson 48-inch sewer lines
- Eight City of Phoenix sanitary sewer lines 60-inch or greater
- Eight City of Phoenix wells
- A pump station and sewer lift station near Buckeye Road and 95th Avenue
- A Kinder Morgan Energy Partners 12-inch petroleum pipeline parallel to Buckeye Road

W101 Eastern Option

- A City of Phoenix 66-inch sanitary sewer line
- A Cox overhead fiber optic cable at Van Buren Street and 99th Avenue
- City of Tolleson 12-inch water lines
- A RID well
- An SRP well
- SRP irrigation laterals
- Multiple power lines
- Four City of Tolleson 48-inch sewer lines
- Five City of Phoenix sanitary sewer lines, 60 inches or greater
- A City of Phoenix well
- A pump station and sewer lift station near Buckeye Road and 91st Avenue
- A Kinder Morgan Energy Partners 12-inch petroleum pipeline parallel to Buckeye Road

The options vary in the length of utility disruption that could occur as a result of construction.

In the Eastern Section, the ***E1 Alternative*** could affect utilities, including:

- An El Paso Gas natural gas line along 47th Avenue
- Two major overhead power lines—a WAPA 230 kV line at 47th Street and a SRP 500 kV line adjacent to Pecos Road
- A City of Phoenix 48-inch water line along Pecos Road
- A City of Phoenix 48-inch sanitary sewer line along Pecos Road
- Qwest telephone cables
- A Kinder Morgan Energy Partners petroleum pipeline



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How would the action alternatives differ in construction-related impacts?

In general, comparison of impacts among alternatives in the Western Section is fairly equal, with the exception of major site facilities, such as railroad spur lines, power substations and pump/lift stations. As noted earlier, some action alternatives may affect longer lengths of utility corridors than others, but the differences in lengths of potential disturbance would be indistinguishable among the action alternatives.

What kinds of freeway operational impacts (postconstruction) would occur?

The study team anticipates no operational impacts on utilities from the South Mountain Freeway.

Would the action alternatives cause any specific and/or unique impacts?

The study team anticipates no unique impacts on utilities from construction and operation of the proposed South Mountain Freeway.

What if the project were not constructed?

No project-specific impacts would be experienced.

What could ADOT do to reduce impacts on utilities once the freeway were operational?

ADOT would look at a number of ways to avoid or reduce operational impacts. Basic mitigation to minimize utility impacts is standard practice in final freeway design. During the final design process, ongoing coordination with utility purveyors would seek to identify such measures as utility encasements and bridge structures to minimize impacts. ADOT would also consider design refinements, such as minor adjustments in alignment or reduction in right-of-way needs, to minimize utility impacts.

Are the conclusions presented in this summary final?

Quantitative findings relative to impacts could change. Potential changes would be based on the following and would be presented to the public during the Draft EIS, Final EIS and, if an action alternative were selected, in the final design process:

- Refinement in design features through the design process
- Updated aerial photography as it relates to rapid growth in the Western Section of the Study Area
- Ongoing communications with the City of Phoenix regarding measures to minimize harm to Phoenix South Mountain Park/Preserve
- Ongoing communications with the Gila River Indian Community (Community) regarding granting permission to study action alternatives on Community land
- Ongoing consideration of public comments



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- Potential updates to traffic forecasts as regularly revised by the Maricopa Association of Governments
- Potential changes regarding updated census data
- Regularly updated cost estimates for construction, right-of-way acquisition, relocation and mitigation

Even with these factors possibly affecting findings, the study team anticipates effects would be equal among the alternatives and, consequently, impacts would be roughly comparable. This assumption would be confirmed if, and when, such changes were to occur.

As a member of the Citizens Advisory Team, how can you review the entire technical report?

The complete technical report is available for review by making an appointment with Mike Bruder at 602-712-6836 or Mark Hollowell at 602-712-6819.