

Undergrounding Utilities on Grandview Ave.

Why?

Every few years Xcel Energy comes down Grandview and reshapes everyone's trees on the north side of the street to keep them away from the power lines. The end result is ridiculous. It looks like a crazy giant with a roto-rooter machine cut a perfect path right through the middle of the trees on one side of the street. About the time the trees get their shape back, Xcel starts all over again. This routine activity ruins the aesthetic appeal of one of Arvada's most iconic streets.

In addition, depending on their state of repair, aboveground utilities can qualify as criteria for blight conditions in Colorado and the entire commercial area known as Ralston Creek has already been declared blighted by Urban Renewal since 2005. This project would give them one less reason to make the same declaration about our residential area.

Finally, it is inevitable that during heavy, wet snowstorms or high winds, loss of utility services is unavoidable.

How much?

I limited the cost estimate to the residential area between Brentwood and Independence because power lines detour south to the railroad tracks at Brentwood. Based on information provided by city engineers (see attached), Xcel Energy escrows approximately \$650,000 per year for these projects in Arvada, but the cost of connecting each house would have to be paid entirely by the city because Xcel will not cover that in their portion of the expense.

Other utility line users have different agreements. Century Link does not pay any of the expense to underground their service. Comcast pays 100% of the cost to underground their lines.

Grandview Ave. between Brentwood and Independence is approximately .8 miles and serves about 80 houses. Based on the attached report, undergrounding these utility lines would cost just over \$2 million. That does not include the cost of Century Link or other associated costs described in the engineer's report.

Numbers:

Estimated 4224 feet (0.8 miles) @ \$400	\$1,689,600
Estimated 80 homes (counted on Google Earth) @ \$5,000	\$ 400,000
Sub-total	\$2,089,600
Less Xcel (one year escrow)	(\$ 650,000)
Total	\$1,439,600

January 8, 2015

Other funding sources:

There is currently \$2,000,000 in the Xcel fund and with city approval to use that money for the major portion of the project, only the \$400,000 to hook up the houses would need to be funded with capital improvement money.



MEMORANDUM

Public Works - Engineering

DATE: January 6, 2015

TO: Bryan Archer, Finance Director
Bill Ray, Deputy City Manager

THROUGH: Bob Manwaring, Director of Public Works

FROM: Patrick Dougherty, Special Projects Engineer

SUBJECT: Undergrounding of Overhead Utilities

Conversion of overhead utilities to underground and who bears the expense depends on which utility is involved and the individual circumstances.

Electrical

Article 11 in the franchise agreement with Xcel Energy establishes a "1% Fund" "*for the purpose of undergrounding existing overhead distribution facilities*". The annual funding, which is about \$650,000 per year, is 1% of Xcel's preceding year's electric gross revenue from Arvada customers. Funds are retained and managed by Xcel. Unexpended funds carry over to the next year. There is about \$2,000,000 currently in the Fund. The City may also expend up to three years in advance of the estimated future revenue. The design and construction of a conversion project is managed by Xcel.

Historically the City has approached the selection of projects for use of the 1% Fund on a case by case basis guided by the City's CIP projects, the Land Development Code, and staff's assessment of the cost of the undergrounding compared subjectively to the benefits derived. The City's Land Development Code requires developers to only underground new utilities needed to serve their development. City's use of the 1% Fund in association with new development is usually with off-site construction to extend what a developer has been required to do.

The strongest consideration has been given to selecting those projects where undergrounding is necessary to facilitate the completion of a public project, such as the installation of traffic signals where the overhead utilities conflict with the new signal mast arms, and those City CIP projects along major corridors where significant stretches of overhead lines can be buried to gain an appreciable aesthetic improvement. Kipling Street - W. 72nd Avenue to W. 80th Avenue, is an example of this type of project.

If Xcel facilities conflict with a City project the franchise agreement requires Xcel to relocate at its expense their overhead utilities within City right of way or City owned easements. If the City directs that those same overhead utilities be placed underground, Xcel will deduct the estimated expense it would have incurred to relocate those overhead facilities.

For planning purposes it can be estimated that conversion of overhead electrical lines to underground is about \$400 a lineal foot.

It is critical to be aware of other expenses related to the undergrounding of utilities that are not covered by the 1% Fund and must be covered by another sources, usually the City. The expenses can include:

- Undergrounding Service Lines to Homes and Businesses – When lines are moved from overhead to underground it may become necessary to relocate the service line to the electric meter of the home or business. The 1% Fund does not cover this cost. To remain code compliant, this conversion requires that the service panel at the house or business be upgraded to meet the current electrical code. Doing so may also necessitate electrical changes inside the home or business. Permission from the property owner is also required to enter their property, trench through the property, upgrade their service panel/meter, and do work in their home or businesses as necessary. Assume \$5,000 per residential service line to accomplish the task. Commercial services are more expensive.
- Street Light Relocation – Relocating street lights, whether they are owned by Xcel, City, or an HOA, and undergrounding the lines to them are not covered by the 1% Fund.
- Acquisition of Easements – If transformers, switch cabinets, and other ancillary components cannot be located on City right of way, the City must obtain the necessary easements from private parties. If a property owner is not willing to grant the easement or the City is unable to negotiate its purchase, the undergrounding project potentially would not occur.

When electrical lines are undergrounded the City also requests Century Link, Baja Broadband, and Comcast to concurrently convert their facilities to underground.

Century Link

There is not a franchise agreement with Century Link so any relocation or undergrounding of their facilities is a 100% City expense. The cost could potentially equal the cost of undergrounding the electrical lines.

Cable

Baja Broadband and Comcast per their respective franchise agreements must relocate/underground their lines at their expense when requested to do so by the City.

Examples of recently completed or under construction undergrounding projects include:

W. 57th Avenue - Upham Street to the alley west of Olde Wadsworth Boulevard
(development project)

Ward Road at W. 57th Avenue - Van Bibber Trail Crossing (City trail project)
W. 64th Avenue - Quaker Street to the Church Ditch (City and developer project)
Ralston Road (south side) - Balsam Street to west end of Wolf Park (City park project)
Garrison Street – Ralston Road to Brooks Drive (City drainage and park project)
Brooks Drive – Garrison Street to Carr Street (City drainage and park project)
Intersection of W. 64th Avenue and Oak Street – signal rebuild (City Street project)
Ridge Road - Independence Street to Kipling Parkway (City/Gold Line project)
W. 71st Avenue – Independence Street to Holland Court (developer project)
W. 69th Avenue – Benton Court to Gray Drive (City park project)

Each year staff reviews many worthy projects that could be benefited by use of the 1% Fund to convert electric lines to underground, but unless there is funding available to pay for the ancillary expenses and to pay for conversion of the Century Link lines the project does not occur.

The cities of Golden and Wheat Ridge utilize the 1% Fund similar to Arvada in reviewing projects on a case by case basis. The City of Boulder has established a screening process to differentiate between projects and determine how to best spend their funds. An unconfirmed rumor has at least one local entity stopping to use the 1% Fund because of the significant additional costs that would be incurred by the City to underground utility lines.