

## **APPENDIX G**

### **Draft Utility Conflict Report**

## **FIREWEED LANE/LATOUCHE STREET UPGRADE UTILITY CONFLICT REPORT**

The purpose of the Utility Conflict Report (UCR) is to identify conflicts between proposed project improvements and existing utilities. The report will recommend a resolution to the conflict and estimate costs of relocation that may be required. The report will identify additional right of way that might be required, and discuss any construction impacts.

The proposed project will provide roadway and drainage improvements along Fireweed Lane between the New Seward Highway, and LaTouche Street/Bannister Drive Intersection, and proceeding from that intersection along LaTouche Street to Northern Lights Boulevard. The roadway profile will be graded to provide positive drainage into the upgraded storm drain system. A new outfall for the storm drain will be constructed north along Juneau Street to replace the existing outfall.

Several utilities serve this existing residential community, including:

- Municipal Light and Power (ML&P)-Electrical Power
- Anchorage Water and Wastewater Utility (AWWU)-Water and Sanitary Sewer
- Alaska Communications Systems (ACS)-Telephone
- GCI Cable Inc. (GCI)-Cable Television
- Enstar Natural Gas Co (ENS)-Natural Gas

### **CABLE UTILITIES-GENERAL**

ML&P, ACS, and GCI, are for the most part aerial throughout the corridor, located both left and right of the Fireweed Lane centerline, in utility easements or next to the ROW limits. The ACS and GCI cable is attached on ML&P poles for the most part, except for a segment of GCI poles on the right side.

Along LaTouche Street, ML&P operates aerial power along the left side with a GCI cable attached to the same poles. ACS operates several large pair cables in an underground system, just inside the right of way on the left.

At the time of this report, it is understood that the overhead utilities are scheduled to be placed underground in conjunction with the project. Coordination of design and construction will be required, but no project relocation cost is assumed to be necessary.

Construction coordination will be necessary to allow utility crews to place conduit to replace crossings of both mainline and side streets. Maintaining access to the adjacent neighborhoods, when alternate access is not available, will require consideration in work phasing for both the utility and roadway work.

Prior to construction, design coordination is recommended to insure utility duct profiles that are compatible with proposed profile changes of main line and side streets, and the new storm drain. Location of surface equipment, such as switch cabinets, transformers, or vaults, will need to be considered in terms of maintenance access, landscaping, and sidewalk placement. Location of any new or relocated load centers for signal or lighting will need to be coordinated to the new underground configuration and equipment.

## **ELECTRICAL POWER**

As discussed above, ML&P operates electrical power in the project corridor, which is scheduled to be placed underground. No conflict is anticipated.

## **TELEPHONE**

ACS operates a telephone system that runs the length of the project corridor. The 400 pair copper ACS cables are aerial, on ML&P poles to Station 22+50 Lt, where the line goes underground to adjacent switching equipment. ACS has a several larger trunk cables, including 2400 pair copper and 1200 pair copper cables, that run from the north of Fireweed Lane crossing the Fireweed Lane/Bannister Drive Intersection and continue along the left side of LaTouche Street to a crossing on Northern Lights Boulevard outside the project limits.

The aerial ACS cables attached to the ML&P power poles is anticipated to be placed underground in conjunction with the ML&P undergrounding plan. This remains to be confirmed as of this report date, but if so, then no conflict is anticipated.

Drainage and side street reconstruction will cross the ACS cables in several locations, including Bannister Drive, 26<sup>th</sup> Avenue, and 27<sup>th</sup> Avenue. No conflict is anticipated, but the elevation of the cable will need to be verified to insure that sufficient cover will remain. Excavation around the cable may require cable watch services, which are normally a part of the contractor's cost. The contractor will be required to locate, expose, protect, and work around the cables during construction.

## **CABLE TELEVISION**

GCI operates aerial .875-Inch Coaxial and .500-Inch Coaxial cable crossing the New Seward Highway to the right side of Fireweed Lane in easement, just outside the right of way. The .875 -Inch Coaxial cable turns south and exits the project limits at Station 11+90. A .500-Inch Coaxial cable crosses Fireweed from south to north at this same location. These runs do not appear to be in conflict with the proposed project. A .500-Inch Coaxial cable continues along the left of the Fireweed Lane Centerline to past the intersection with LaTouche Street. There is a .500-Inch Coaxial cable that crosses Fireweed Lane at Station 18+95 to attach to ML&P poles along the left of Fireweed Lane and continues east and crossing Bannister Drive. GCI also operates a .500-Inch Coaxial cable attached to ML&P poles along the left side of LaTouche Street. These aerial cables are assumed to be scheduled for placement underground in conjunction with the ML&P power relocation. If so, there will be no conflict or cost to the project.

## **WATER AND SANITARY SEWER**

AWWU operates an 8-Inch AC sanitary sewer and 8-inch CI waterline right and left, respectively, for the length of Fireweed Lane. Laterals extend off the line down side streets, including Ingra Street, Juneau Street, and Karluk Street. AWWU also operates a 12-Inch AC sanitary sewer along the right of LaTouche Street from north of Fireweed Lane to and crossing Northern Lights Boulevard with a crossing of LaTouche Street at 26<sup>th</sup> Avenue. AWWU operates a 10-inch cast iron waterline along the left of LaTouche Street with a crossing to the west at 27<sup>th</sup> Avenue.

Reconstruction of the roadway surface to provide positive drainage profile and to add sidewalk amenities will require adjustment or reconstruction manholes and water valves. Fire hydrants will require adjustment or relocation. Relocated fire hydrants will require

consideration of utility easements or temporary easements to allow excavation and construction. Coordination is required between AWWU and the contractor to allow for pre and post construction inspection of the surface facilities.

Water and sewer are “deep” utilities; however, placement of new storm drain will require consideration that laterals of storm drain and water and sewer do not conflict. Where the storm drain crosses existing water and sewer, insulation will be required if less than 4 feet of separation remains. If total cover is reduced below allowable depths, insulation or relocation may be necessary.

As of this report date, no AWWU contact has been made to determine if betterment, such as replacement of valve boxes, manhole covers, frames or AC/CI pipe will be added to the contract.

**AWWU Water and Sewer**

STA	Offset	Conflict	Adjust	Rel/Rec	Cost	PE+CE	Total	
Water Valves								
13+30	LT	FG	x		100	30	130	
13+45	LT	FG	x		100	30	130	
16+90	LT	FG	x		100	30	130	
17+05	LT	FG	x		100	30	130	
20+60	LT	FG	x		100	30	130	
22+85	LT	FG	x		100	30	130	
28+35	LT	FG	x		100	30	130	
31+60	LT	FG	x		100	30	130	
						<b>Total</b>	<b>1,040</b>	
SS Manholes								
11+53	RT	CUT	x		500	150	650	
13+69	LT	FG	x		500	150	650	
15+42	RT	CUT		x	2,500	750	3250	
19+03	RT	CUT		x	2,500	750	3250	
21+12	RT	CUT		x	2,500	750	3250	
23+00	LT	SW	x		500	150	650	
24+98	RT	FG		x	2,500	750	3,250	
25+93	RT	FG		x	2,500	750	3,250	
28+83	RT	FG	x		500	150	650	
						<b>Total</b>	<b>18,200</b>	
STA	Offset	Conflict	Adj	Rel	Cost	PE+CE	Total	Easement
Fire Hydrants								
11+18	40"LT	FG	x		2,500	750	3,250	
21+50	34"LT	FG		x	10,000	3,000	13,000	10x20TCE
25+30	31"LT	FG		x	10,000	3,000	13,000	10x20TCE
						<b>Total</b>	<b>29,250</b>	

**NATURAL GAS**

Enstar Natural Gas Co (ENS), operates a 8-inch steel distribution line along Fireweed Lane between the New Seward Highway and the intersection with LaTouche Street, then continuing along LaTouche Street to cross Northern Lights Boulevard outside the project limits. Lateral feeds and services take off the line throughout the corridor to feed adjacent properties. Construction of the new roadway profile will result in reduction of the cover over the line at several locations. Minimum cover, is 30-inches. Reduction in cover makes the line vulnerable do damage from future surface intrusion and requires the roadway contractor to construct embankment around or over. Restoration of the cover protection could include:

- Lowering the line to obtain the required cover.
- Pacing a new parallel line to the required depth.
- Raising the finish grade to gain cover.
- Adding mechanical protection such as a concrete slab.

Mechanical protection over a long stretch creates a barrier to access, both to the line for service connections and repair, but also to other utility or maintenance activities around the slab. This method is not recommended, except for short distances.

Steel gas lines require cathodic protection be maintained throughout the system. Replacement of a line thus becomes a problem of either replacing all the steel or adding new cathodic wells to protect the isolated segments.

Lowering a rigid steel line is normal practice if short segments are involved. Lowering requires excavation beyond the length of conflict to gain slack to lower the line. Labor and equipment cost for longer segments may be high enough to make total replacement with plastic line a better option.

For purposes of this report, replacement with new pipe is used for estimating purposes, and assumes that cost would also approach the cost to lower in place. ENS or a mechanical engineer, knowledgeable in cathodic protection schemes would need to address the numerous lateral feeds if plastic pipe replacement were proposed.

Construction of the storm drain will require work around the gas line to cross it. Care is required to avoid damaging the pipe’s cathodic protection and to maintain service. Because depth of the gas line is not known exactly, each storm drain crossing will need to be field verified. If a conflict occurs, the storm drain crossing should be adjusted if possible. If storm drain grade is critical, the gas line segment will require adjustment or relocation. The depth of the storm drain has been designed assuming a normal depth of bury of the gas line.

A list of conflicts and cost to cure estimate is shown in the following table.

**ENSTAR NATURAL GAS**

STA	STA	Offset	Size/ Type	Length Feet	Conflict	Adj/Rel	Est Const	PE+CE	Total Cost
11+00	13+00	RT	8"ST	200	Cover	Lower	20,000	6,000	26,000
13+50	23+00	RT	8"ST	950	Cover	Lower	95,000	28,500	123,500
24+60	27+80	LT	8"ST	320	Cover	Lower	32,000	9,600	41,600
28+43		LT	4"ST	50	SD	Move SD	0	0	0
								<b>Total</b>	<b>191,100</b>

### **RELOCATION ESTIMATE**

The total estimated adjustment and relocation cost for the utilities work described above is \$239,590. Round to \$240,000.