

## Wily Splain

---

**From:** Norm Miller [nmiller@fosdickandhilmer.com]  
**Sent:** Sunday, July 18, 2010 5:40 PM  
**To:** jimgibertoni@aaronak.com; stuart@cei-alaska.com; christianw@doyon.com; tjohansen@grtnw.com; dpeet@patrickmechanical.com; mike.tci@mosquionet.com; miked; jlbj; kevinohara@wattersonconstruction.com; Richard Rutland; kris manke  
**Cc:** Wily Splain; Charles Davenport; Pat Driscoll; Sinigaglio, Bruno F Mr CIV US USA IMCOM  
**Subject:** Construction Document Q&A  
**Attachments:** Bid Period Questions & Responses - 16 Jul 10.pdf

Hello All

Attached are the questions and answers accumulated for FTW 3336B and 348.

This document also provides specific information on the phasing discussed in the pre-bid meeting on Thursday.

Proposals are due at the DU Corporate office by 14:00 ADT. FTW 336B is due on Thursday 22 July; and FTW 348 is due Friday 23 July.

Norman Miller  
Program Manager  
Energy Group  
**Fosdick & Hilmer, Inc.**  
309 Vine Street  
Cincinnati, OH 45202  
PH: 513.241.5640  
FAX: 513.241.3659  
CELL: 907.687.8907

**FOSDICK & HILMER**  
ENERGY GROUP

QUESTIONS & DECISIONS ON UTILITIES EXTENSION (FROM BID DOCUMENTS)	
PREPURCHASED MATERIAL SUPPLY – DU FURNISHED ITEMS	
1.	Have materials indicated as "Attachments" to the Construction Documents been ordered yet?  Most, but not all materials have been purchased. Several items are still in the quoting process.
2.	Specifications state that DU intends to have the direct bury water and sewer piping pipe preinsulated in the Fairbanks area. Has that pipe been ordered and insulated already? Would we have to wait a significant amount of time after award to get our hands on the pipe? This can significantly affect cost.  Pipe has been ordered and is in storage locally (Vertex). Contractor must initiate insulation process on as needed basis as part of request for possession of the pipe including anticipated need date w/ necessary lead time (per the specs). This applies to ductile iron water and sewer pipe.
3.	Doyon will pay for the insulation as part of their contract with Vertex? Correct!!  Correct. Pipe insulation is covered by DU. However, Vertex doesn't automatically insulate it upon arrival. It is insulated on an as needed basis as determined by the construction Contractor.  Again, Contractor must initiate insulation process on as needed basis as part of request for possession of the pipe including anticipated need date with necessary lead time (per the specs).
4.	DU supplied material will be on-site in a timely manner as to not impact contractors' schedule.  Correct.
5.	DU supplied materials are to be inspected and approved by both the Contractor and DU at time of delivery to the Jobsite.  Correct.
6.	Does DU really intend to require stainless steel piping for the Condensate? One of our subs has not bid every one of your projects, but the ones they did bid had specified carbon steel.  Yes, the condensate is stainless steel.
7.	Who will be the supplier of the direct bury steam & condensate piping?  FTW 336B      PermaPipe FTW348      Rovanco

**FOSDICK & HILMER**  
ENERGY GROUP

<b>QUESTIONS &amp; DECISIONS ON UTILITIES EXTENSION (FROM BID DOCUMENTS)</b>	
<b>PREPURCHASED MATERIAL SUPPLY – DU FURNISHED ITEMS</b>	
8.	<p>The Construction Documents provided for this project indicated that DU is providing PermaPipe. Is that correct or is the direct buried steam and condensate piping being provided by Rovanco? Does installation vary between the different manufactures? Other versions of these questions are shown below.</p> <ul style="list-style-type: none"> <li>• Can DU provide the specific installation procedures for a Rovanco system?</li> <li>• Can DU provide the bedding requirements for the Rovanco pipe?</li> <li>• Can DU provide a complete list of materials that Rovanco will be supplying for this project? This would hopefully include the anchors, wall sleeves, quantity of repair kits for each size of pipe, packing glands, etc.</li> <li>• Please check on the pipe lengths that the steam and condensate piping is being bought in. My guess is 40ft for the steam and 20 ft for the condensate.</li> </ul> <p>All documents received to date from each of the manufacturers have been included with the various Construction Documents as reference information.</p> <p>DU understands that additional information will be supplied with shipment of the piping to the Jobsite.</p> <p>Please also review DU Standards for direct buried HDS piping UES-DD-H101 through H103.</p>
9.	<p>Are you furnishing Flygt Pumps for all lift stations?</p> <p>Yes, they are all identical.</p>
10.	<p>Are details available for the lift stations?</p> <p>Submittals have not been received from Flygt at this time. See details on UES-DD-S201 thru S202.</p>
11.	<p>Who is supplying the lift station control panels?</p> <p>Panelfab.</p>
12.	<p>HDS piping material list doesn't include enough pipe to cover the new work for this job. Please look into that possibility for steam line (200' vs. much more on drawing for new work).</p> <p>The amounts indicated on the HDS takeoff are for piping materials in the vaults and utilidors. It does not include the direct buried piping quantities. If Contractor feels additional material is required to perform the installation they must include the cost for these materials in their quote. If the Contractor has a concern on the piping takeoffs for the other services please request specifics.</p>
13.	<p>Will Doyon be providing All of the Control panels, Fiber Panels and Power Panels?</p> <p>Yes, as indicated on the Owner Furnished material lists in Attachment A.</p>

**FOSDICK & HILMER**  
ENERGY GROUP

QUESTIONS & DECISIONS ON UTILITIES EXTENSION (FROM BID DOCUMENTS)	
GENERAL CONDITIONS AND SCHEDULE	
14.	<p>What is the DU installation schedule for the utility poles and electric drops to the disconnects for power to the utility vaults and lift stations?</p> <p>TBD, Proposals have been received but contracts have not yet been awarded.</p>
15.	<p>What is the completion schedule for this project?</p> <p>TBD.</p> <p>As outlined in the pre-bid meeting on Thursday 15 July 2010, both Projects will now be phased. The minimum amount of utilities to be installed and functional this year is outlined below. Remainder of utility installation work is to be completed in spring of 2011. Final date to be coordinated between DU and successful Contractor.</p>
<b>FTW 336B – BARRACKS 2010 MINIMUM</b>	
<p>New vault H5-4-5 on Santiago Street utilidor.</p> <p>HDS main piping from vault H5-4-5 eastward to vault H5-5-5. This includes construction of new vaults H5-5-4 and H5-5-5.</p> <p>WDS main piping from vault H5-4-5 eastward to vault H5-5-5.</p> <p>WWCS main piping from vault H5-4-5 eastward to lift station H5-5-4S. This includes construction of new lift station H5-5-3S and H5-5-4S and all main cleanouts.</p> <p>HDS service lateral piping from vault H5-5-5 northward to Barracks mechanical room. This includes construction of new steam metering station.</p> <p>WDS service lateral piping from vault H5-5-5 northward to Barracks mechanical room. This includes construction of new fire hydrant south of the building; new water metering station; and continuation of the WDS lateral to the north side of the building and installation of the new fire hydrant.</p> <p>WWCS service lateral piping from building POD to lift station H5-5-3S. This includes all service cleanouts.</p> <p>Install electrical ductbank, panels, cabling, lighting, etc. for above utility services.</p>	
<b>FTW 336B – BARRACKS 2010 ADDITIONAL</b>	
<p>HDS main piping from vault H5-5-5 eastward to vault H5-5-7. This includes construction of new vaults H5-5-6 and H5-5-7.</p> <p>WDS main piping from vault H5-5-5 eastward to vault H5-5-7.</p> <p>WWCS main piping from lift station H5-5-3S eastward to sanitary MH H5-6-4S. This includes construction of new sanitary manholes H5-5-2S, H5-5-1S, H5-6-4S and all main cleanouts.</p> <p>Install electrical ductbank, panels, cabling, lighting, etc. for above utility services.</p>	

QUESTIONS & DECISIONS ON UTILITIES EXTENSION (FROM BID DOCUMENTS)	
GENERAL CONDITIONS AND SCHEDULE	
	<p><b>FTW 348 – AVIATION TASK FORCE – LADD AIRFIELD 2010 MINIMUM</b></p> <p>Expand vault H5-1-2.</p> <p>Remove and replace HDS main piping from vault H5-1-6 to vault H5-1-2.</p> <p>Remove and replace WDS main piping from vault H5-1-6 to vault H5-1-2.</p> <p>Remove and replace WWCS main piping from vault H5-1-3 to vault H5-5-5-5.</p> <p>WWCS main piping from lift station H5-1-2S to vault H5-1-3. This includes construction of new lift station H5-1-1S and H5-1-2S and all main cleanouts.</p> <p>Install new HDS, WDS and WWCS service laterals to Building 3004, Fire Station. Provide temporary service to building as required to maintain service throughout the Project.</p> <p>New vaults H5-1-13 and H5-2-10.</p> <p>Install valved HDS main tie-ins at vault H5-1-13 and H5-2-10.</p> <p>Install valved WDS main tie-ins at vault H5-1-13 and H5-2-10.</p> <p>WWCS main piping from lift station H5-1-4S to vault H5-1-3. This includes construction of new lift station H5-1-3S and H5-1-4S and all main cleanouts.</p> <p>Install electrical ductbank, panels, cabling, lighting, etc. for above utility services.</p> <p>Remove utilidor and vaults west from vault H5-1-2 including the service lateral utilidor to building 3004.</p>
16.	<p>How many buildings will need to be fed with new utilities this year?</p> <p>FTW 336B Barracks Steam &amp; condensate at the minimum.</p> <p>FTW 348 Fire Station (Bldg 3004) All utilities.</p>
17.	<p>Do the new lift stations need to be on line this year?</p> <p>FTW 336B Lift station is to be capable of operation this year. It will not be active.</p> <p>FTW 348 Both lift stations are to be capable of operation this year. Only the lift station serving Bldg 3004 will be active.</p>
18.	<p>We don't see a bid item for the Electrical or Comm items? Please advise how to treat them.</p> <p>The electrical and comm work is considered part of the utilidor/vault support system. Please add those costs with the concrete, ladders, etc under item#1.</p>

**FOSDICK & HILMER**  
ENERGY GROUP

<b>QUESTIONS &amp; DECISIONS ON UTILITIES EXTENSION (FROM BID DOCUMENTS)</b>	
<b>GENERAL CONDITIONS AND SCHEDULE</b>	
19.	<p>Under specification Section 01520 Temporary Construction Facilities and Controls, submittal of Construction and Traffic Control Plans are required. These documents have already been submitted to USACE for review and approval prior to starting construction of the facility. Can these existing "Plans" be utilized and no submittals required to DU?</p> <p>Contractor shall provide DU with copy of Government approved Construction and Traffic Control Plans including a memo describing any variation from technical specification requirements in Section 01520 provided in the Construction Documents. Traffic control plan must cover any additional work areas related to utilities portion of Project not currently covered in USACE approved document. Should the Plans as currently exist not meet specified requirements for this Project, Contractor shall include in their proposal costs necessary to develop Plans acceptable to DU.</p>
20.	<p>Under specification Section 01570 Storm Water Pollution Prevention Measures, submittal of a SWPPP Plan is required. These documents have already been submitted to USACE for review and approval prior to starting construction of the facility. Can this existing Plan be utilized and no submittals required to DU?</p> <p>Contractor shall provide DU with copy of Government approved SWPPP. SWPPP must cover additional work areas related to utilities portion of Project not currently covered in USACE approved document. Should the Plan as currently exists not meet specified requirements for this Project, Contractor shall include in their proposal costs necessary to develop SWPPP acceptable to DU.</p>
21.	<p>Under specification Section 01577 Radioactive Materials Procedures, submittal of Procedures is required. These documents have already been submitted to USACE for review and approval prior to starting construction of the facility. Can these existing Procedures be utilized and no submittals required to DU?</p> <p>Contractor shall provide DU with copy of Government approved radioactive materials handling procedures. Procedures must cover any additional work areas or processes related to utilities portion of Project not currently covered in USACE approved document. Should the Plan as currently exists not meet specified requirements for this Project, Contractor shall include in their proposal costs necessary to develop SWPPP acceptable to DU.</p>
22.	<p>Under specification Section 01780 Project Closeout, CADD drawings are required. In specification Section 01330, 1.7 it states that AutoCAD drawings will not be provided for Contractor's use in preparing submittals. If that is the case, is DU requiring the Contractor to start from scratch to develop AutoCAD as-builts?</p> <p>DU will provide AutoCAD formatted drawings, where available and requested, to the Successful Contractor prior to signing of Contract Agreement.</p>
23.	<p>Has there been an environmental survey done on the routing of the piping to verify any unknown contaminants or explosives in the excavation limits?</p> <p>USACE performed study which is available for review at DPW Environmental Department.</p>

<b>QUESTIONS &amp; DECISIONS ON UTILITIES EXTENSION (FROM BID DOCUMENTS)</b>	
<b>DOYON UTILITIES STANDARDS OF CONSTRUCTION</b>	
24.	<p>On UES-DD-206 the bollards (detail 1) are called out as galvanized pipe, but the vent pipes (details 2,3 and 4) are not called out as galvanized pipe. Is that correct?</p> <p>Yes. Bollards are to be fabricated from factory galvanized steel piping and then painted.</p> <p>Vents are fabricated from carbon steel components and then galvanized.</p>
25.	<p>Are the Anvil Hanger components shown on UES-DD-H003 and H004 described as Fig. Nos. 66 Welded Beam Attachment, 290 Weldless Eye Nut, 171 Pipe Roll, 175 Roller Chair and 271 Pipe Roll required to be galvanized?</p> <p>If it does not come from the manufacturer galvanized, paint it.</p>
26.	<p>Please confirm that the Anvil Fig. No. 265 Pipe Guides on UES-DD-H006, and Fig. Nos. 160 thru 165 Protective Saddles on UES-DD-H004 are not required to be galvanized.</p> <p>If it does not come from the manufacturer galvanized, paint it.</p>
27.	<p>Can we use on this project an Ice &amp; Water shield in 3ft wide strips for water proofing which has been used on other projects, instead of the fiber plastic roof coating per details on H204.</p> <p>Alternate water proofing materials are outlined in Section 02560.</p>

<b>QUESTIONS &amp; DECISIONS ON UTILITIES EXTENSION (FROM BID DOCUMENTS)</b>	
<b>PROJECT CONSTRUCTION DRAWINGS</b>	
28.	<p>I see nothing about temporary bracing of the existing 14" deluge line and the 8" water line when we demo the corner at the existing utilidor. Do we need to have some engineering done for these or are we going to go with field engineering or are you guys planning on getting us something.</p> <p>Temporary bracing for the existing 14" deluge line and the 8" DCW piping is required. Contractor shall provide sketch of proposed support method based on field conditions.</p>
29.	<p>The tie in of the new manhole to the existing manhole is not really detailed out that I can find. We did a utilidor job a couple years ago that had some detailed drawings I have attached a couple of the details. This is how I would go about the tie-ins, does that work with you? Also it gives the size and lay out of the rebar in general but no details so I have also attached a couple details that I believe we could use.</p> <p>Per Sheet X-03, Note F, final structural design for all new vaults shall be provided by the Contractor. Final drawings shall be stamped by Alaska PE.</p>
30.	<p>Drawing X1.0 –</p> <ul style="list-style-type: none"> <li>Note "I" – Replace existing hatches access hatches with DU furnished access hatches. Question: This is for existing hatches. Is DU furnishing hatches for new vaults? We assume you are.</li> <li>Same note – raise final elevation 12" above flood plain – Does DU have elevation of flood plain to raise it to?</li> </ul> <p>All hatches will be furnished for installation by DU.</p> <p>The top of hatch/lid elevation is typically 18" above finished grade. If the vault is located in a drainage ditch/swale, the elevation should be at least 12" above the top edge of the swale. "Flood Plain" is not part of equation.</p>



<b>QUESTIONS &amp; DECISIONS ON UTILITIES EXTENSION (FROM BID DOCUMENTS)</b>	
<b>PROJECT CONSTRUCTION DRAWINGS</b>	
31.	<p>Do you have the profiles of the sewer lines and the Steam &amp; Condensate lines that we can use to base our estimate on. Also the depths of the manholes for the sewer line. Assuming they are all 4ft diameter as one of your standards show.</p> <p>No profiles were developed.</p> <p>In general, the existing grade in the Aviation Task Force – Ladd Airfield area varies between 451.5 and 452.75. The top of sewer manhole lids (TOL) should be installed roughly at grade. Since we do not know what “final” grade will be for the all the buildings in the area, Contractors performing work on this Project should install the manhole with the TOL at existing grade. Changing the lid elevation as the area is built out will be included as part of the service lateral work to the future buildings (if required).</p> <p>Depth (inverts) of each manhole are already shown on the “S” series drawings. Contractor can do the math to determine how deep the manhole, and the excavation, needs to be.</p> <p><b>Before the question is asked by the contractors, we are setting the elevation of the new vault access hatches (all of them) north of Montgomery Road at 453.75.</b></p>
32.	<p>Do you feel there could be any issues near area of H5-1-2 going westward, practically over the top of H5-1-1, toward 12 as they do their excavation? Looks like almost on top of the existing utilities there.</p> <p>H5-1-2 is to be enlarged and the branch utilidor going west is to be demolished since it is not large enough to carry the new mains. See Demo Plan on drawing U1.0.</p>
33.	<p>Building 3004 is shown in the DU (2007) utility map as already having a 72’X36”X42” utilidor w/ 3” DCW (R’02), 6” Grav. S. (R’02), 4” Steam (R’02), &amp; 2” Cond. (R’02) coming out of H5-1-1 and going into bldg. 3004. Is that supposed to be demo’d and replaced w/ new?</p> <p>Yes, it is to be replaced. Demo and replacement is indicated on all the service drawings!!!</p>
34.	<p>Drawings currently have (2) 2” conduits running between the vaults and the building. One conduit is to sub feed panel LP from panel PP in vault J5-1-3. The other pipe is for the fiber optic cable. We also have both discrete and non discrete cabling that needs to be run between the vaults. Does DU want this mixed in the conduit with the fiber or does DU want the Contractor to increase this to a 4 pipe duct bank?</p> <p>Conduits and ductbanks are to be quoted as shown on the drawings.</p>
35.	<p>Does DU want to install single cleanouts as per drawing or follow DU Standards and include a double cleanout at 300 ft.</p> <p>Follow the DU Standards and include a double cleanout.</p>

<b>QUESTIONS &amp; DECISIONS ON UTILITIES EXTENSION (FROM BID DOCUMENTS)</b>	
<b>PROJECT CONSTRUCTION DRAWINGS</b>	
36.	<p>Vault detail H5-4-5 is on sheet S2.0 but no Fiber Panel is shown. Can you locate?</p> <p>Vault H5-4-5 is being outfitted as part of FTW336B and will already have a fiber panel installed. The leader note on PC3.0 "mount in vault H5-4-5" should have read "existing in vault H5-4-5". I could show on the FTW348 drawings, but I'm sure the contractor for FTW336B will have his own ideas and my position will be wrong.</p>
37.	<p>Vault detail H5-1-1L is on sheets PC2.2 and U2.2 but no Fiber Panel is shown. Can you locate?</p> <p>There is no fiber panel in H5-1-1L.</p>
38.	<p>From Vault H5-1-2 on the "Distance Between Vaults" detail shows an East to West and a North to South footage. The Fiber Optic Connection Detail on sheet PC3.0 only shows one fiber from H5-1-2 to H5-1-11 is this the E to W or the N to S footage or is there a fiber missing from the PC3.0 sheet?</p> <p>A single fiber runs from H5-1-2 to H5-1-11. The length is the east-west plus the north-south. This is an offset run, with a turn in the path.</p>
39.	<p>Where you have indicated DU supplied power poles how do you anticipate converting the power from 277 to 120 volt? Will Doyon being providing this conversion transformer?</p> <p>Transformers are included in the panels.</p>
40.	<p>The details shown for all pipe vault penetrations are for direct buried heat distribution systems. What penetration details should be used for piping other than direct buried heat distribution systems?</p> <p>DU water system standard details also indicate use of link-seal type closure devices for wall and floor penetrations.</p>
41.	<p>Throughout the H-series drawings, most of the anchor types are not indicated.</p> <p>Drawings will be updated. In general, condensate anchors are type B and steam anchors are type C.</p>
42.	<p>Sheet H2.0, details 3/H1.0 and 5/H1.0; sheet H2.1, details 10/H1.1, 11/H1.1, 12/H1.1: The plan view shows Future 4" MPS, but the section view shows Future 3" MPS. Which is correct?</p> <p>The plan views are correct. Drawings will be corrected to indicate 4" MPS and 2" PCR.</p>
43.	<p>Sheet H2.2, detail 13/H1.1: What are the sizes of the existing steam and condensate piping at the tie-ins?</p> <p>Steam = 12"</p> <p>Condensate = 8"</p>

<b>QUESTIONS &amp; DECISIONS ON UTILITIES EXTENSION (FROM BID DOCUMENTS)</b>	
<b>PROJECT CONSTRUCTION DRAWINGS</b>	
44.	<p>Sheet W2.0, detail 6/W1.0: The drawing references a standard detail STD – H009 which is missing from the documents. Please forward this detail drawing for the Grundfos pumps.</p> <p>Reference is incorrect. Detail being prepared and drawing revised.</p>
45.	<p>Vaults G5-7-1, G5-7-2, G5-7-3, H5-2-7, H5-2-8 and H5-2-9 call out anchors to be installed in these vaults. No detail or call out is provided. Vaults H5-1-12 and H5-2-5 specify anchors per detail 20 on H2.2. The two anchor designations use differing symbols. Are all anchors to be per detail 20 on H2.2?</p> <p>This detail is to be used if necessary if required to connect anchors inside the vaults when concrete walls are not adjacent to the piping.</p>
46.	<p>On drawing U1.0, from Vault H5-1-2 to the East direction the next Vault is H5-1-11. On drawing U1.2, from Vault H5-1-9 to the South direction the next Vault is also H5-1-11. What is the correct Vault H5-1-11?</p> <p>Drawings have been clarified.</p>
47.	<p>Will details be provided for building 3004 tie-in?</p> <p>No.</p>
48.	<p>Many questions have been asked on how sewer main inverts and manhole inverts were established for the Project. Some of the questions are listed below. Based on those questions and other revised design criteria new sewer main designs were developed.</p> <ul style="list-style-type: none"> <li>• Drawings indicate a 1% slope on the piping but the inverts listed do not make sense. What are the correct inverts?</li> <li>• According to DU Construction Standards available on the website, a 12" main can have a slope of 0.22%. Is it possible to follow these standards instead of what's indicated on the drawings</li> <li>• With the depth indicated on the drawings, going with an additional lift station may be more cost effective than having the chance to dewater in multiple locations.</li> <li>• Do inverts on the sewer line take into account the additional 2 ft in depth indicated in detail 1 on S1.02 for entrance into the manholes? This will put the manholes an additional 2 to 3ft deeper. Can this detail be eliminated and just come into the side of the manhole just above the beaver slide as would be typical?</li> <li>• Would DU consider a larger diameter lift station to bring depth of each lift station up?</li> </ul> <p>Sanitary sewer drawings have been revised for both projects. All of the above questions were taken into consideration in the modification process.</p>

QUESTIONS & DECISIONS ON UTILITIES EXTENSION (FROM BID DOCUMENTS)	
PROJECT CONSTRUCTION DRAWINGS	
49.	Is DU going to require the duct bank area to be bedded in sand. Refer to details in the construction Documents.
50.	Can all of the duct bank piping be run at the same elevation. Yes. However, when penetrating building entry pit the conduits are stacked to reduce overall size of the pit.

# FOSDICK & HILMER

## ENERGY GROUP

QUESTIONS & DECISIONS ON UTILITIES EXTENSION (FROM BID DOCUMENTS)	
TECHNICAL SPECIFICATIONS	
51.	<p>Section 5500, 2.1.F.1 states that all materials not called out as "painted" are to be galvanized, conforming to ASTM A653, which pertains to steel sheet, not fabrications. What is the appropriate reference?</p> <p>Yes, specification reference in 05500, 2.1.F.1 should have been ASTM A123 Hot Dip Galvanizing of Fabricated Steel Shapes and Plates which was listed as a reference standard for compliance in paragraph 1.2 REFERENCES.</p>
52.	<p>Are all vault supply and exhaust air vents required to be galvanized per Spec. Section 05500, 2.1.F.1?</p> <p>Yes, the air vents are to be fabricated and then hot dip galvanized.</p> <p>Perform fabrication early in the project to insure that galvanized items are onsite for installation and project completion is not hampered.</p>
53.	<p>Are all pipe sleeves in building entry pit walls, vault walls, utilidor walls, etc. required to be galvanized per Spec. Section 15092-2.3A?</p> <p>Due to the issues involved with having miscellaneous metal fabrications galvanized after fabrication in the State of Alaska (everything must go to the lower 48, usually Seattle area) the requirement for galvanizing pipe penetration sleeves is changed. All pipe sleeves shall be sandblasted after fabrication and epoxy coated as follows prior to insertion in concrete forms:</p> <ul style="list-style-type: none"> <li>• Sandblast to SSSC SP6, Commercial Blast Cleaning</li> <li>• Prime with inorganic zinc, minimum 3.5 mils DFT</li> <li>• Intermediate coat with epoxy-polyamide paint, 3.0 mils DFT</li> <li>• Top coat with aliphatic polyurethane paint, 1.5 mils DFT (this is necessary to handle UV degradation of the epoxy)</li> <li>• Ameron Protective Coatings (PPG), Carboline Protective Coatings and Linings, Sherwin Williams, or approved equal.</li> </ul>
54.	<p>Under Section 15417, Adhesive Markers and Arrow Banding are required. On previous utilidor projects for USACE these items were not required.</p> <p>Adhesive markers and arrow banding <b>are</b> required.</p>
55.	<p>Section 15010-1.4C states that pressure piping is to be inspected per ANSI B31.1 which only requires RT (x-rays) on systems above 750°F. Please confirm that the steam system will operate at less than 750°F and that no RT is necessary.</p> <p>Pressure piping radiographs are required on 10% of MPS and PCR piping welds.</p>

**FOSDICK & HILMER**  
ENERGY GROUP

QUESTIONS & DECISIONS ON UTILITIES EXTENSION (FROM BID DOCUMENTS)	
TECHNICAL SPECIFICATIONS	
56.	<p>Under specification Section 02100 Field Screen of Soils for POL Contamination, submittal of a Testing Plan is required. These documents have already been submitted to USACE for review and approval prior to starting construction of the facility. Can this existing Plan be utilized and no submittals required to DU?</p> <p>Contractor shall provide DU with copy of Government approved soil testing plan including a memo describing any variation from technical specification requirements in Section 02100 in the Construction Documents. Should the Plan as currently exists not meet specified requirements for this Project, Contractor shall include in their proposal costs necessary to develop Plans acceptable to DU.</p>
57.	<p>Under specification Section 02100 Field Screen of Soils for POL Contamination, no requirements are stated for handling, analytical testing, transporting, stockpiling, etc. of any discovered Contaminated Soil. If contaminated soil is discovered, what are the DU requirements for handling and disposal?</p> <p>If the contractor encounters previously unknown conditions, they are to immediately notify DU. Contractor may submit a request for an equitable adjustment due to differing site conditions.</p>
58.	<p>Under specification Section 02200 Earthwork,</p> <ul style="list-style-type: none"> <li>• Dewatering and Plan <p>Contractor shall dewater excavations as needed. If the Contractor anticipates that the total amount of dewatering exceeds 250,000 gallons for the Project, they shall acquire an ADEC construction dewatering permit. In the event that contaminated water is discovered onsite, Contractor will immediately notify DU and the discovery shall then be considered a changed condition of the Project subject to re-negotiation of costs.</p> </li> <li>• Shoring, bracing, or boxing of excavations <p>Contractor shall conduct site excavation according to all applicable safety requirements throughout the entire excavation for this Project. This includes section 02200 of provided technical specifications and EM 385-1-1 Army Corps of Engineers Safety and Health Requirements Manual and OSHA where applicable.</p> </li> <li>• Moving/relocation of any underground/utilidor or piping or systems. <p>In the event that underground utilities, foundations, etc. not indicated on the Construction Documents are discovered onsite, Contractor will immediately notify DU and the discovery shall then be considered a changed condition of the Project subject to re-negotiation of costs.</p> </li> <li>• Working under utilidor lids that cannot be removed <p>It is DU's position that utilidor lids shall be removed per the IFC package as needed to complete necessary work.</p> </li> </ul>

**FOSDICK & HILMER**  
ENERGY GROUP

**QUESTIONS & DECISIONS ON UTILITIES EXTENSION (FROM BID DOCUMENTS)**

**TECHNICAL SPECIFICATIONS**

- |     |  |
|-----|--|
| 59. | <p>03410 Precast Concrete: Not in Contract</p> <p>Use of precast concrete is not specifically called out in the Construction Documents. Contractor may precast any portion of the concrete work for this Project rather than forming in place. All precast shall comply with this section.</p>   |
| 60. | <p>This is in ref. to section 16742, para's 1.4.B., C. &amp; D. In general, these para's require the contractor to be Manufacturer Trained. Is it your intention that the contractor must be trained by Corning? Also per para B., what is the extent of Warranty that you are looking for? If it is more than 1 year than you must be a Corning VAR of which I am told there is only one in the State of Alaska.</p> <p>No reference is made to any specific manufacturer, only manufacturers in general. F&amp;H will accept certification from a professional society or other certified training, if the contractor wishes to present documentation for review. I do not remember ever making changes to the language for Ft. Greely, we just accepted a different fiber cable. WRT warranty, the length of time should be covered in Doyon's front end documents. Our intent is to make sure the contractor has the competency to warranty fiber work.</p> <p>Attached is the optical fiber cable being furnished by DU for installation under this contract. It is not from Corning!</p>   |
| 61. | <p>Sorry to be a stickler on this but I'd hate to get the job and be stuck without "proper" documentation. When you ask for "OEM Training" in fiber optic material/equipment this really means you must be trained by the Manufacturer. In the original RFP it was stated ALTOS Cable, therefore Corning. To be OEM certified you have to go to the Manufacturer. To give an OEM Warranty you must be Manufacturer trained. You have now stated that the cable is to be Draka Cable. Draka does not have a training program so how is the contractor to be OEM Certified? Correct me if I am wrong but you really want a Fiber Optic Certified Technician, be it BICSI, Ortronics, Corning, ETA etc. Then, as for the Warranty issue. How long a warranty is required? If it is a year no problem as any contractor can and will warranty their work for a year from completion. If you are requiring a Manufacturer to Warrant the project you are than back into the contractor needing to be Manufacturer Certified and again, Draka does not have such a program. SO....Warranty length? Is a year acceptable? Do you want a Manufacturer Certified Installer or a Fiber Optic Certified Installer i.e. BICSI or ETA?</p> <p>Looking for a "Fiber Optic Certified Installer".</p> <p>Product warranty on the cabling is included with/at material purchase by DU.</p> <p>General warranty would be one year from acceptance of complete, functioning system.</p> |