

Agency: Commerce, Community and Economic Development**Grants to Municipalities (AS 37.05.315)****Grant Recipient: Kenai Peninsula Borough****Federal Tax ID: 920030894****Project Title:****Project Type: Remodel, Reconstruction and Upgrades**

Kenai Peninsula Borough - Anchor Point Fire and Emergency Medical Service Area Sewer System Replacement

State Funding Requested: \$50,000**House District: Kenai Areawide (28-30)**

One-Time Need

Brief Project Description:

Sewer System Replacement

Funding Plan:

Total Project Cost:	\$50,000
Funding Already Secured:	(\$0)
FY2014 State Funding Request:	<u>(\$50,000)</u>
Project Deficit:	\$0

Funding Details:

None

Detailed Project Description and Justification:

Replacement of existing septic tank and leach field with DEC approved septic tank, leach field and mound system. Removal of old 1000 gallon tank, tank is inefficient, baffles are not functioning properly, and broken piping will also need to be replaced. Leach field will be reconstructed and relocated.

Due to a failing leach field and septic tank, for the past 5-years (minimum) every spring, the toilets begin to not flush or flush very slowly, sewage starts to back up and floor drains back up into the emergency bay. At first, this problem was minimal, but every year has progressively worsened, until spring 2012, when the toilets would not flush at all, sewage backed up into the public / emergency building and the floor drains backed up into the emergency bays. Utility sinks and decontamination area drains would not drain posing a serious health risk to volunteer EMTs and Firefighters. The gasses emitted into the building made it almost impossible to even enter. The bay doors, windows, main entrance and emergency exist had to be opened daily to allow workers to function. A portable toilet had to be brought in to service the volunteers and public. The septic tank was pumped, then pumped again 5-days later, this quickly became cost prohibitive.

Project Timeline:

Work on the system replacement shall commence immediately upon receipt of funding and with regards to weather conditions.

Entity Responsible for the Ongoing Operation and Maintenance of this Project:

Anchor Point Fire and Emergency Medical Service Area

Grant Recipient Contact Information:

Name: Kathryn Andrews
Title: Deputy Chief
Address: P.O. Box 350
Anchor Point, Alaska 99556
Phone Number: (907)235-6700
Email: klyon@borough.kenai.ak.us

Has this project been through a public review process at the local level and is it a community priority? Yes No



Kenai Peninsula Borough

Year 2013 State Capital Improvement Projects

ANCHOR POINT FIRE AND EMERGENCY MEDICAL SERVICE AREA

Funding Recipient: Kenai Peninsula Borough / Anchor Point Fire and Emergency Medical Service Area

Project Name: Sewer System Replacement

Project Priority Ranking: 1

Detailed Project Description and Justification:

Replacement of existing septic tank and leach field with DEC approved septic tank, leach field and mound system. Removal of old 1000 gallon tank, tank is inefficient, baffles are not functioning properly, and broken piping will also need to be replaced. Leach field will be reconstructed and relocated.

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Funding Requested:	\$	50,000	Election District:	Senate:	0
Total Project Cost:	\$	50,000		House:	30

CONTACT INFORMATION

Kathryn Andrews, Deputy Chief
P.O. Box 350
Anchor Point, Alaska 99556

Phone: (907) 235-6700
Fax: (907) 235-2633

Funding Plan:

Total Project Cost:	\$ 50,000
Funding Secured:	\$ 0
Funding Requested:	\$ 50,000
Pending Requests:	\$ 0
Project Deficit:	\$ 0

Please list Secured Funding Sources and Amounts:

None

If this project is funded this year, will you be requesting state funding again?

No

Please describe the project time-line and when the expenditures will occur:

Work on the system replacement shall commence immediately upon receipt of funding and with regards to weather conditions.

Has this project gone through a public review process at the local level?

Yes

Is it a community or service area priority demonstrated by resolution or other official action?

If a community or service area meeting was conducted, how was it advertised? When and where was it held?**Who attended?**

Publicly posted as required. A Service Area Board meeting was held September 26, 2012. Discussion was held as to the legislative priorities and this project was unanimously voted as priority number one.

Who will own the project or facility?

Kenai Peninsula Borough on behalf of Anchor Point Fire and Emergency Medical Service Area

Entity responsible for providing ongoing operation and maintenance of this project?

Anchor Point Fire and Emergency Medical Service Area

How will operations and maintenance be funded after the project is complete?

Operations and maintenance shall be funded from the annual operating budget of the Anchor Point Fire and Emergency Medical Service Area.

Project type: Remodel, Reconstruction and Upgrades

TAURIAINEN ENGINEERING & TESTING

35186 Spur Hwy Soldotna, AK 99669 (907)262-4824 FAX 262-5777 engineeringalaska@gci.net

PRELIMINARY REPORT

Date: 13 Jun 2012

To: Kevin Lyon, Director
KPB Capital Projects

From: Clayton Spittler, Project Engineer *CS*

Subject: Spruce Acres Subdivision Lot 23
Anchor Point Fire Station
Septic System Investigation and Recommendations
2 pages + Attachments



12063

Per your request, on 22 May 12 we conducted a site investigation of the existing septic system on Spruce Acres Subdivision Lot 23 to determine its condition and reason for apparent failure. The system was reportedly backing up and had been pumped out twice in early May 2012. The system was installed about 1987. According to available project drawings, the septic system is comprised of a 50" diameter, 1000-gallon, two-compartment, steel septic tank and a soil absorption system (SAS) of two, 50' long by 34" deep trenches, with the bottom at 10' below grade.

One septic tank monitor tube was broken off near ground level. The SAS has six total monitor tubes, two at the upstream (west) end and four at the downstream (east) end. Two of the monitor tubes on the east end of the SAS are broken off near ground level. A 6" deep ditch runs parallel to, and to the north of, the SAS. No surface water was observed on, or adjacent to, the site. A gravel driveway is north of this ditch also running parallel with the SAS. The driveway dead-ends adjacent to the SAS and an earthen berm was observed which may divert surface runoff toward the SAS to the south. However, it is unlikely that this berm has negatively affected the performance of the on site SAS.

Per conversation with Verna at Homer Septic Services (HSS), water flowed quickly back into the septic tank after the first pumping, and backflowed more slowly after the second pumping. At the time of septic tank pumpings, water was reportedly flowing in the ditch north of the SAS. During our 22 May observation, the ditch was dry.

HSS said they had similar experiences (backflow from SAS into tank when pumped) w/ other systems in the area this spring. We also had a project in Anchor Point where the water table in late May was approximately nine feet higher than in November, 2011.

Some anomalies were noted in our measured water levels in standpipes (attached), but all were at or above the outlet level of the septic tank indicating failure or very high water table.

Liquid levels were measured in all septic system monitor tubes. In the septic tank, the liquid depth was approximately 5'-2". In the SAS, the groundwater surface elevation was measured to be approximately 6" lower than the liquid level in the septic tank. It appears that the groundwater elevation on site may be subsiding. Our May field measurements indicate bottom of tank to be approximately 8.5' below existing ground level and bottom of SAS at 9' BGL.

It appears that removing or abandoning the existing septic system and installing a new 1000-gallon septic tank and SAS may be appropriate. The new septic system may require a lift station and elevated bed SAS to maintain 4' separation distance above the groundwater table. We also recommend not plowing excess snow to any location in which meltwater may inundate the SAS.

This report is based upon the application of scientific principles and professional judgement with resultant subjective interpretations based on facts currently available within the limits of existing information, scope of service, budget and schedule. Conclusions and recommendations stated herein are intended as guidance and not necessarily a firm course of action, unless explicitly stated. If more definitive conclusions are desired than are warranted by currently available facts, additional investigation is recommended.

TET makes no warranties as to merchantability or fitness for a particular purpose. Due to the variable nature of site hydrogeology, the limited investigation, and the lack of a complete record of previous site activities, subsurface conditions may vary from the information presented. If conditions are found to differ significantly from those described in this report, please contact us. Please call if you have any questions.

End of Report Text

Attachments:

1987 Project Drawings
22 May 2012 Field Data

22 May 12

1320 → 1506

CS

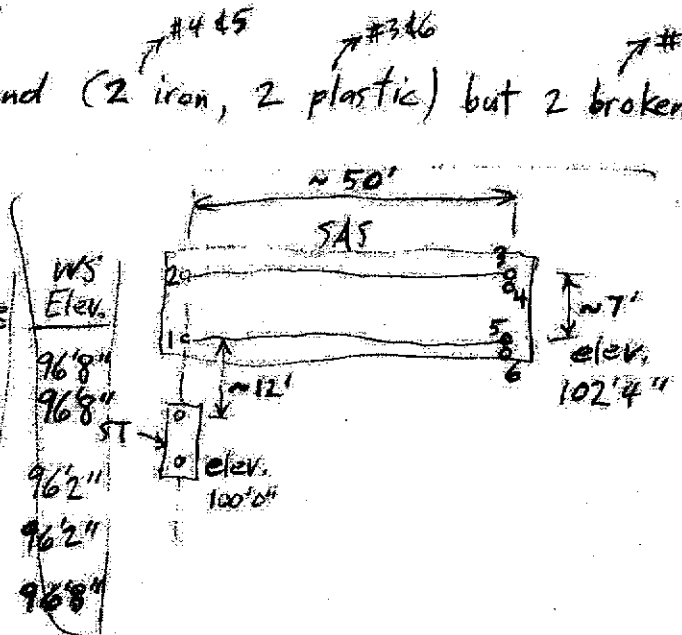
Anchor Pt. Fire Station septic

Notes / observations:

- upstream ST MT broken off at ground
- 2 MTs for SAS at upstream end
- 4 MTs for SAS at downstream end (2 iron, 2 plastic) but 2 broken off

Liquid Levels

		Bottom Depth from Surface	WS Elev.
ST MT #1	5'2"	8'6"	96'8"
ST MT #2	5'2"	8'6"	96'8"
SAS MT #1	1'6"	5'4"	96'2"
' #2	1'6"	5'4"	96'2"
' #3	3'4"	9'	96'8"
' #4	9"	6'6"	95'10"
' #5	13"	6'6"	95'10"
' #6	3'6"	9'	96'8"



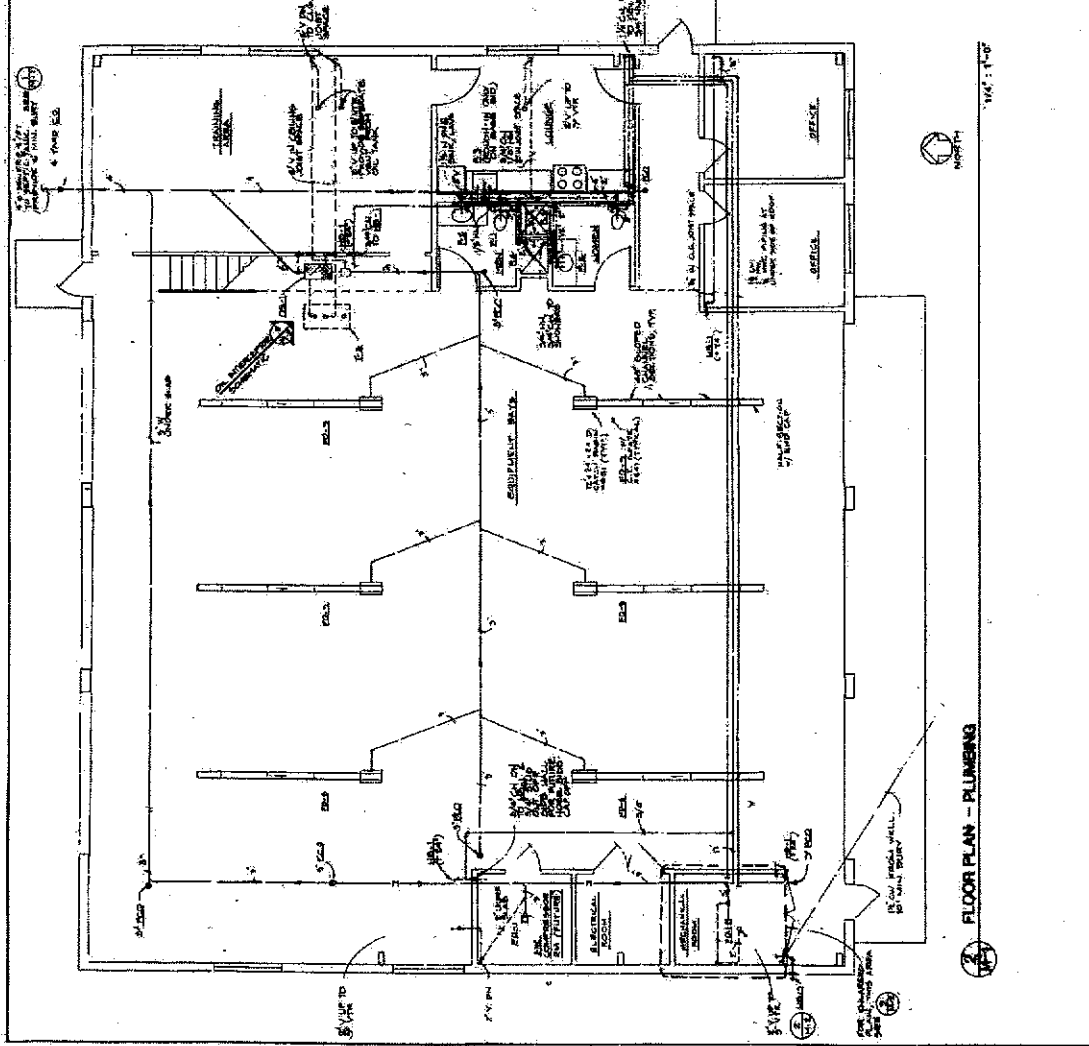
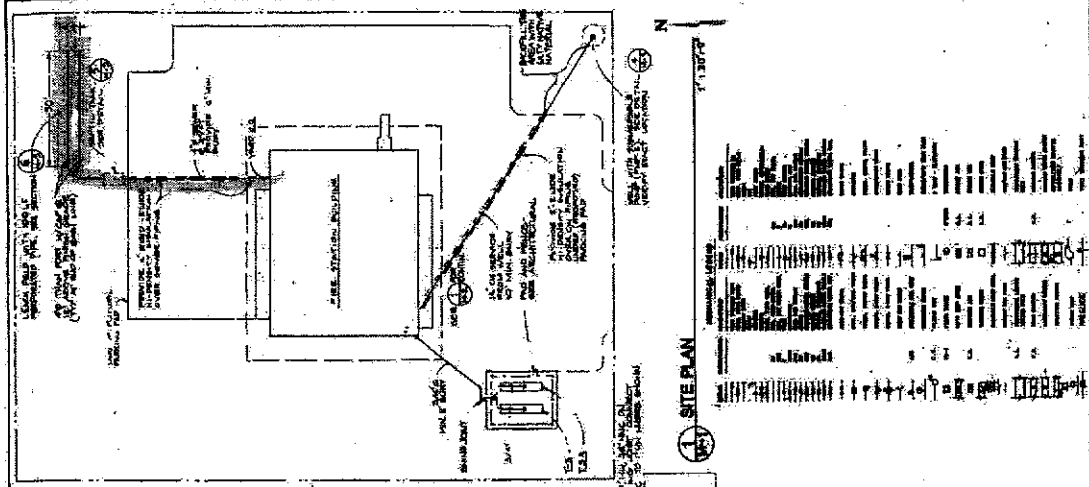
- ditch observed parallel to SAS to north (no water)
- no standing water observed on surface onsite
- ST & MT #1 & 2 roughly level ground
- MT #3 → 6: ground ~ 2'4" higher than at ST



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ANCHOR POINT FIRE STATION
ANCHOR POINT, ALASKA

PLUMBING P.R. PLAN
SITE PLAN
 LEGEND



FLOOR PLAN - PLUMBING

