US Army Corps
of Engineers
Alaska District

MOORING POINTS PHASE 4

VARIOUS LOCATIONS, ALASKA

ITR, 14 FEB 2014
AKV289D
PN 325271
IFB NO. W911KB-14-B-00XX

Drawing X:\UNIFIED\EN-CW\Jobs\AKV289D\Dwgs\AKV289D-G-001.dwg last saved on 12/20/2013 8:44 AM was plotted by Peterson, Merlin D POA on 2/14/2014 3:11 PM

MOORING POINTS PHASE 4

VARIOUS LOCATIONS, ALASKA

ITR - AKV289D/PN 325271, 14 FEB 2014

IFB NO. W911KB-14-B-00XX

ALASKA DISTRICT U.S. ARMY CORPS OF ENGINEERS

SCHEDULE OF DRAWINGS

SHT	REF. NUM.	SHEET TITLE
		GENERAL
1	G-001	COVER SHEET
2	G-002	INDEX SHEET
		CIVIL: PLANS
3	C-111	BUCKLAND MOORING POINTS
4	C-121	NOORVIK MOORING POINTS
5	C-131	KIANA MOORING POINTS
6	C-141	NULATO MOORING POINTS
7	C-151	GALENA MOORING POINTS
8	C-161	TANANA DOWNSTREAM MOORING POINTS
9	C-162	TANANA UPSTREAM MOORING POINTS
10	C-171	STEVENS VILLAGE MOORING POINTS
11	C-181	KALTAG MOORING POINTS
12	C-191	RUBY MOORING POINTS
		CIVIL: DETAILS
13	C-501	BELOW GRADE MOORING POINT DETAILS
14	C-502	ABOVE GRADE MOORING POINT DETAILS

SHT	REF. NUM.	SHEET TITLE	SHT	REF. NUM.	SHEET TITLE	SHT	REF. NUM.	SHEET TITLE

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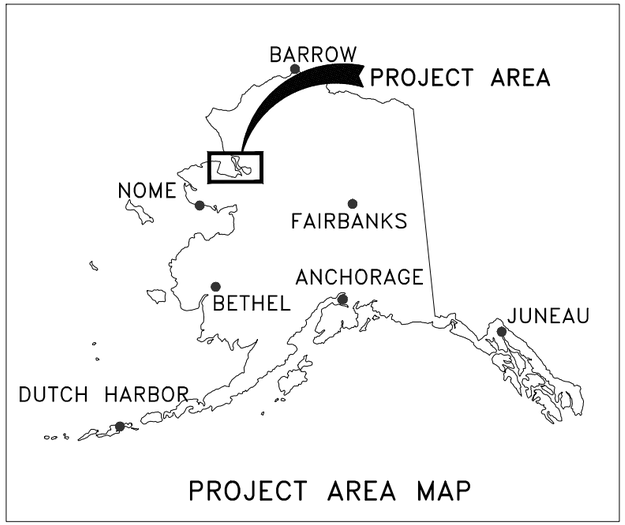
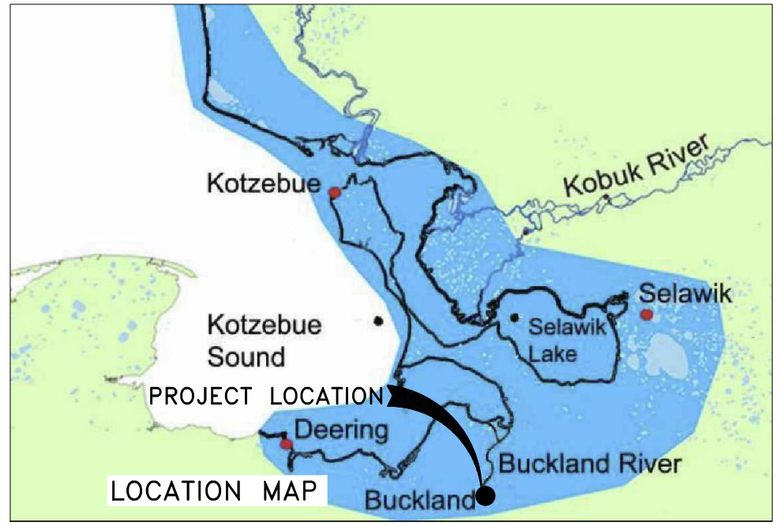
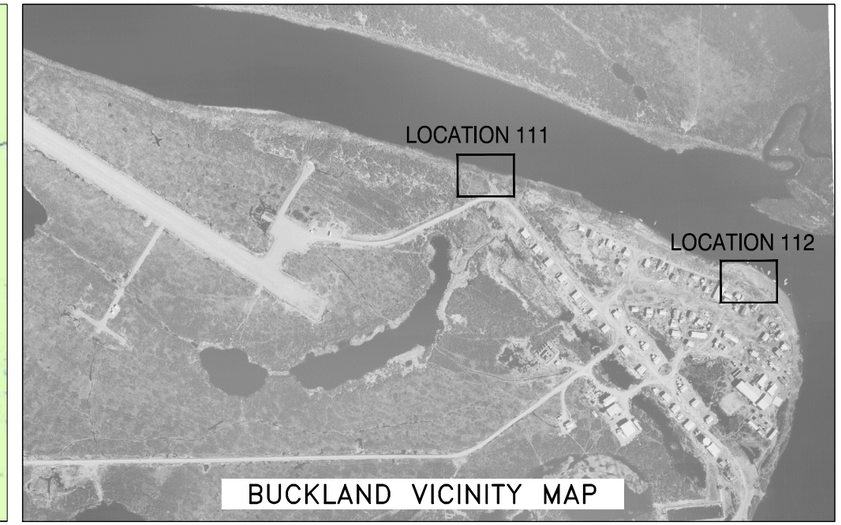
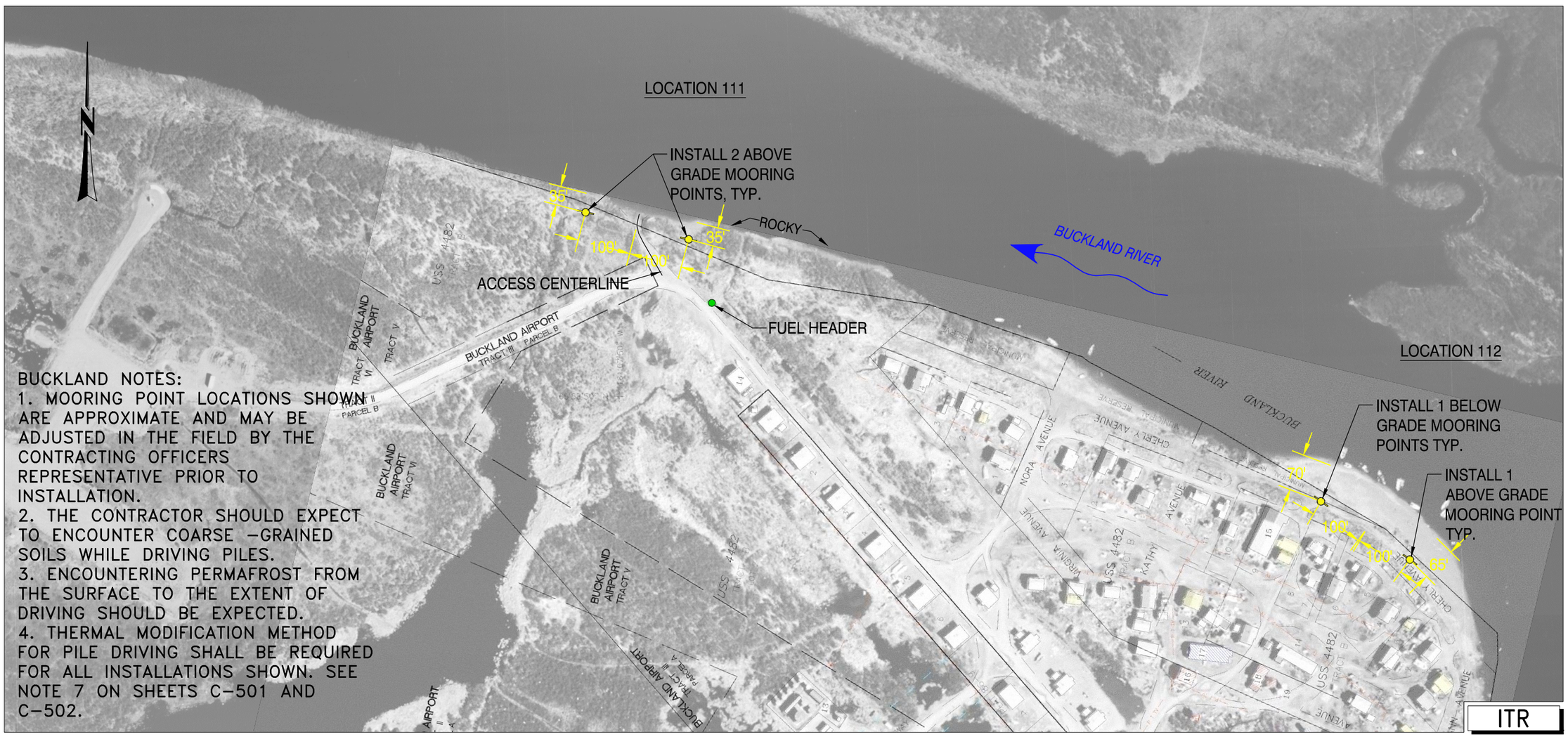








BUCKLAND NOTES:
1. MOORING POINT LOCATIONS SHOWN ARE APPROXIMATE AND MAY BE ADJUSTED IN THE FIELD BY THE CONTRACTING OFFICERS REPRESENTATIVE PRIOR TO INSTALLATION.
2. THE CONTRACTOR SHOULD EXPECT TO ENCOUNTER COARSE –GRAINED SOILS WHILE DRIVING PILES.
3. ENCOUNTERING PERMAFROST FROM THE SURFACE TO THE EXTENT OF DRIVING SHOULD BE EXPECTED.
4. THERMAL MODIFICATION METHOD FOR PILE DRIVING SHALL BE REQUIRED FOR ALL INSTALLATIONS SHOWN. SEE NOTE 7 ON SHEETS C–501 AND C–502.

US ARMY CORPS OF ENGINEERS
ALASKA DISTRICT

CONTRACT NO. ___ CONTRACTOR ___ CITY ___ STATE ___
Recommended: ___ Approved: ___ Date: ___
"REAL" CONTRACTOR RESIDENT ENGINEER

Sym.	Action	Description	Date	Approv.

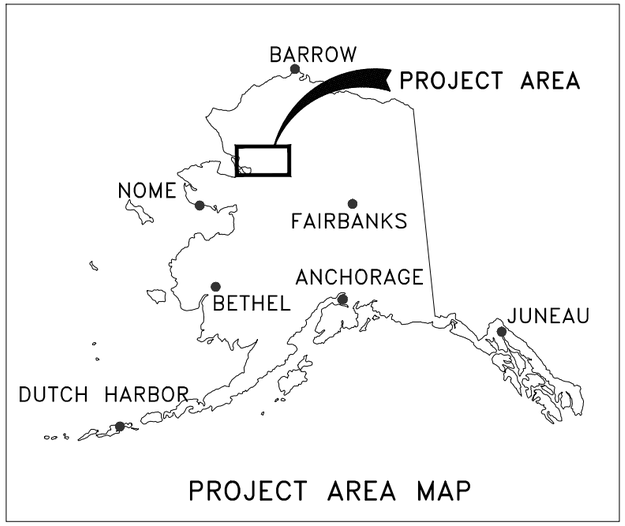
Designed: M. PETERSON
Drawn: M. PETERSON
Reviewed: K. EGGES
Reviewed: T. BOLDT
Submitted: J. SAUCEDA
Chief ___ Branch ___ Section ___
Date: 14 FEB 2014
Dwg Scale: AS NOTED
Plot Scale: 1:1
File: BUCKLAND_E31_KS
Drawing #: 7-xxx-xx-xx
14-B-00xx
AKV289D
IFB NO. W911KB-14-B-0025
PN 325271

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

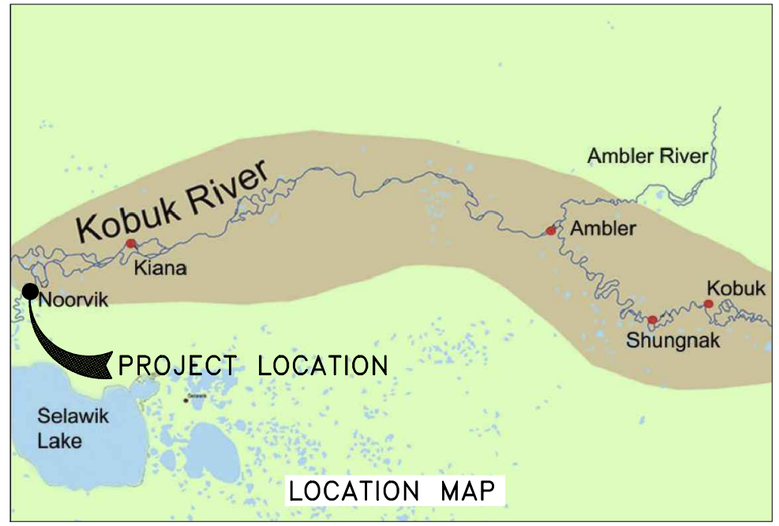
VARIOUS LOCATIONS, ALASKA
MOORING POINTS PHASE 4
HYDRAULICS & HYDROLOGY
PLANS
BUCKLAND MOORING POINTS

Reference number:
C–111
Sheet 3 of 14

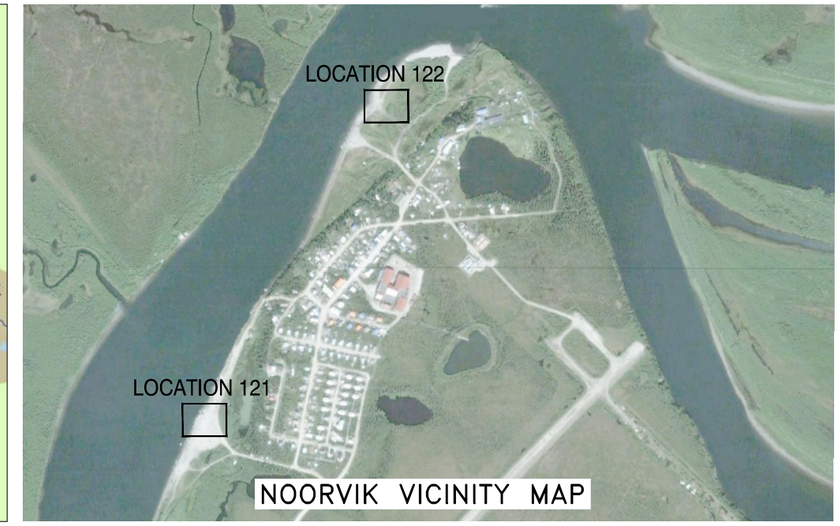
Drawing X:\UNIFIED\EN-CW\Jobs\AKV289D\Dwgs\BUCKLAND_E31_KS.dwg last saved on 2/14/2014 10:32 AM was plotted by Peterson, Merlin D POA on 2/14/2014 3:11 PM



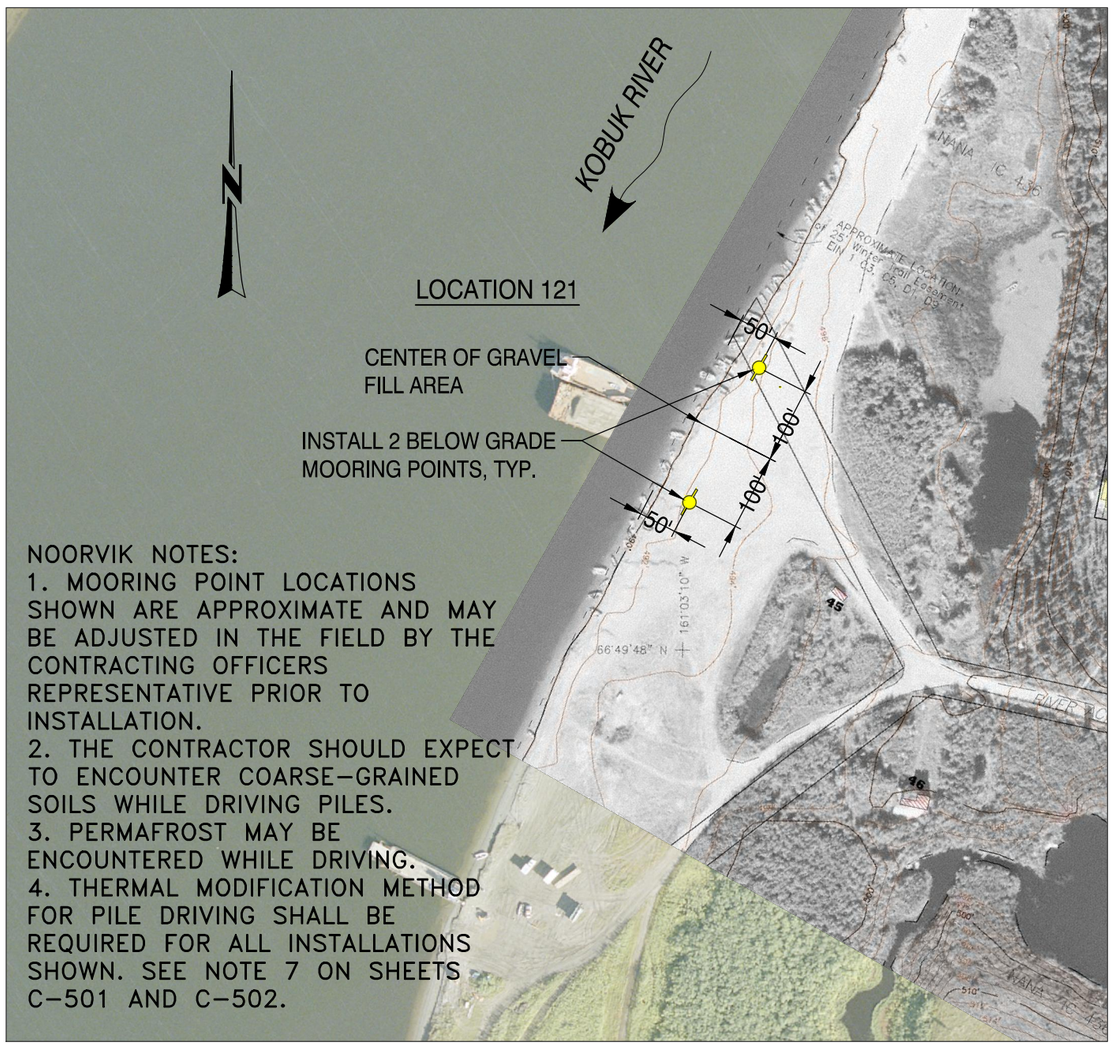
PROJECT AREA MAP



LOCATION MAP



NOORVIK VICINITY MAP



NOORVIK NOTES:
1. MOORING POINT LOCATIONS SHOWN ARE APPROXIMATE AND MAY BE ADJUSTED IN THE FIELD BY THE CONTRACTING OFFICERS REPRESENTATIVE PRIOR TO INSTALLATION.
2. THE CONTRACTOR SHOULD EXPECT TO ENCOUNTER COARSE-GRAINED SOILS WHILE DRIVING PILES.
3. PERMAFROST MAY BE ENCOUNTERED WHILE DRIVING.
4. THERMAL MODIFICATION METHOD FOR PILE DRIVING SHALL BE REQUIRED FOR ALL INSTALLATIONS SHOWN. SEE NOTE 7 ON SHEETS C-501 AND C-502.

ITR

US ARMY CORPS OF ENGINEERS
ALASKA DISTRICT

CONTRACT NO. ____ CONTRACTOR ____ CITY ____ STATE ____
Recommended: ____ Approved: ____ Date: ____
"REAL CONTRACTOR" "RESIDENT ENGINEER"

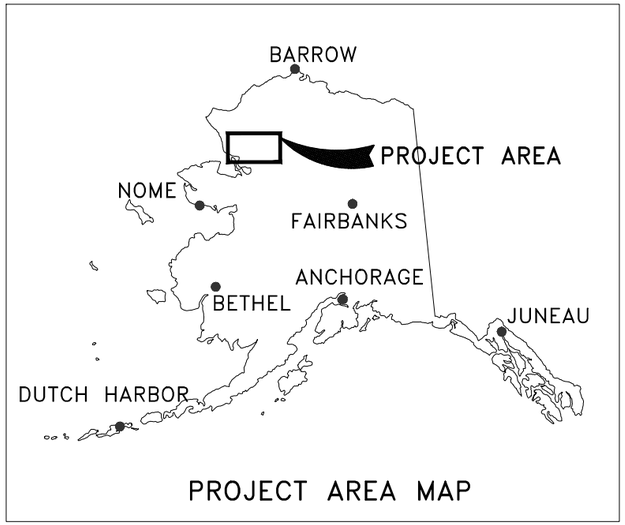
Sym.	Action	Description	Date	Approd

Date: 14 FEB 2014
Dwg Scale: AS NOTED
Plot Scale: 1:1
File: NOORVIK_E32_KR
Drawing #: 7-xxx-xxx-xx-xx
Section ____ Branch ____
Designed: M. PETERSON
Drawn: M. PETERSON
Reviewed: K. EISSES
Reviewed: D. ROBERT
Submitted: J. SAUCEDA
Chief ____ Branch ____
CEPOA-EG-CD-C
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS ANCHORAGE, ALASKA
IFB NO. W911KB-14-B-00xx
AKV289D
PN 325271

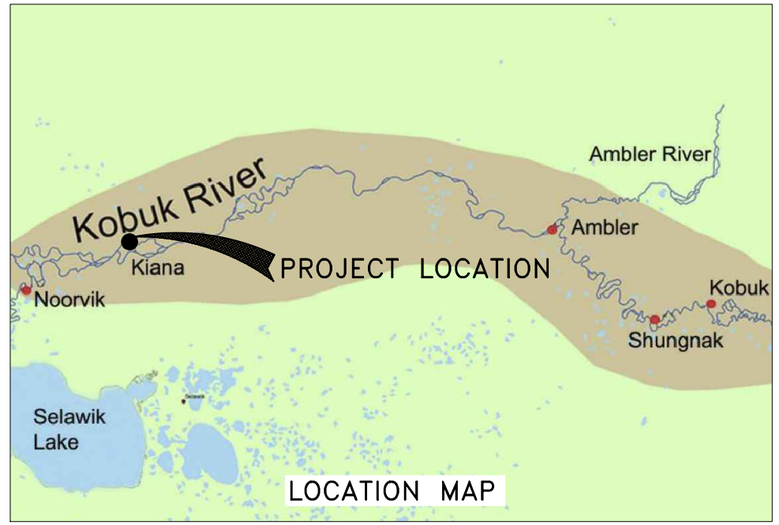
VARIOUS LOCATIONS, ALASKA
MOORING POINTS PHASE 4
HYDRAULICS & HYDROLOGY
PLANS
NOORVIK MOORING POINTS

Reference number:
C-121
Sheet 4 of 14

Drawing X:\UNIFIED\EN-CW\Jobs\AKV289D\Dwgs\NOORVIK_E32_KR.dwg last saved on 2/14/2014 11:02 AM was plotted by Peterson, Merlin D POA on 2/14/2014 3:12 PM

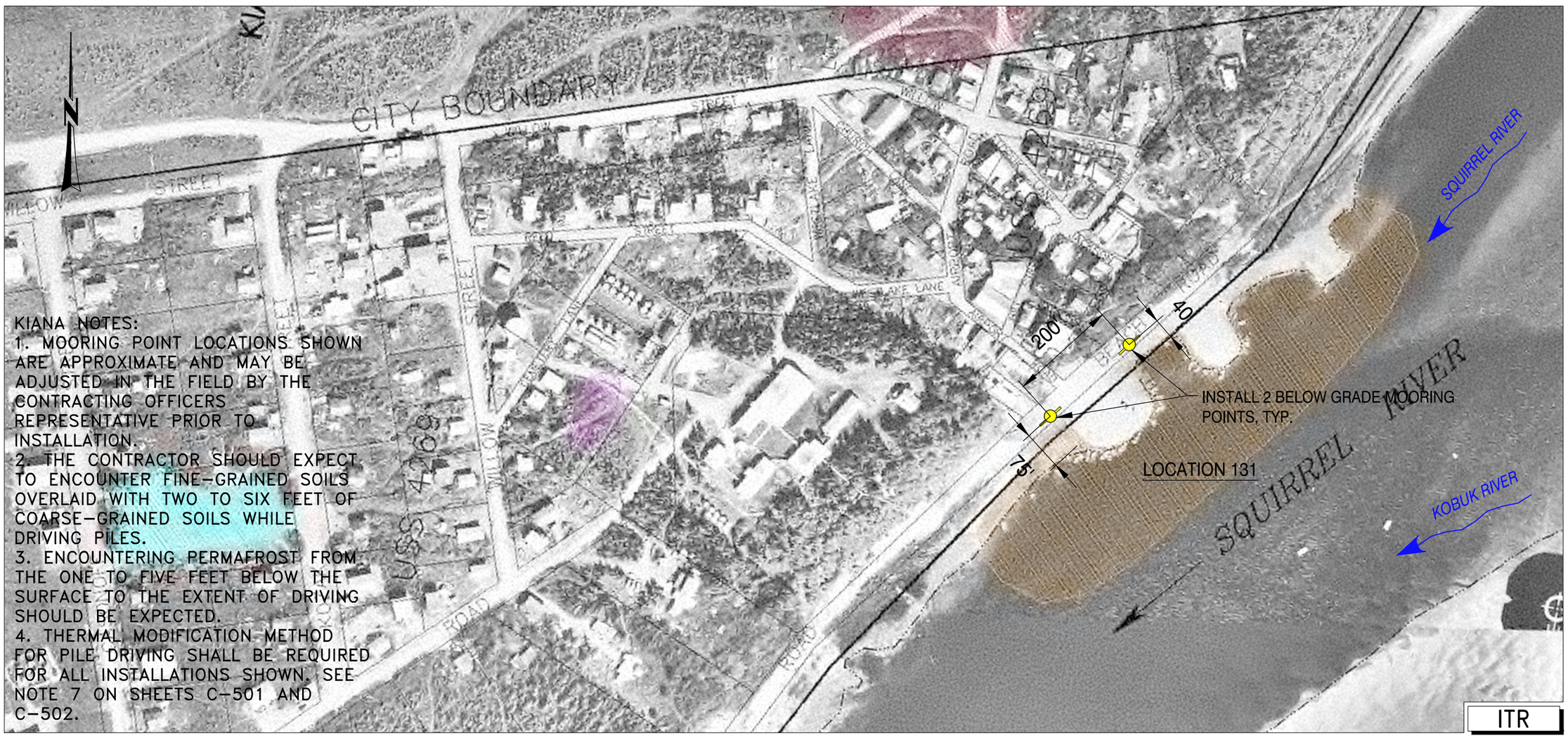


PROJECT AREA MAP



LOCATION MAP

KIANA VICINITY MAP



KIANA NOTES:
1. MOORING POINT LOCATIONS SHOWN ARE APPROXIMATE AND MAY BE ADJUSTED IN THE FIELD BY THE CONTRACTING OFFICERS REPRESENTATIVE PRIOR TO INSTALLATION.
2. THE CONTRACTOR SHOULD EXPECT TO ENCOUNTER FINE-GRAINED SOILS OVERLAID WITH TWO TO SIX FEET OF COARSE-GRAINED SOILS WHILE DRIVING PILES.
3. ENCOUNTERING PERMAFROST FROM THE ONE TO FIVE FEET BELOW THE SURFACE TO THE EXTENT OF DRIVING SHOULD BE EXPECTED.
4. THERMAL MODIFICATION METHOD FOR PILE DRIVING SHALL BE REQUIRED FOR ALL INSTALLATIONS SHOWN. SEE NOTE 7 ON SHEETS C-501 AND C-502.

US ARMY CORPS OF ENGINEERS
ALASKA DISTRICT

CONTRACT NO. ____ CONTRACTOR ____ CITY ____ STATE ____
Recommended: ____ Approved: ____ Date: ____
"REAL CONTRACTOR" "RESIDENT ENGINEER"

Sym.	Action	Description	Date	Appvd

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

Designed: M. PETERSON
Drawn: M. PETERSON
Reviewed: K. EGGES
Project Mgr: J. SAUCEDA
Submitted: J. SAUCEDA
Chief: ____ Section ____ Branch CEPOA-EC-CW

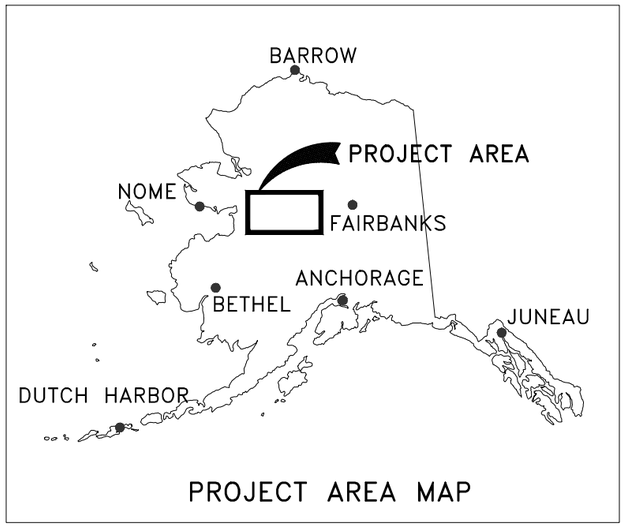
Date: 14 FEB 2014
Dwg Scale: AS NOTED
Plot Scale: 1:1
File: KIANA_E33_KR
Drawing #: 7-xxx-xx-xx

IFB NO. W911KB-14-B-00xx AKV289D
PN 325271

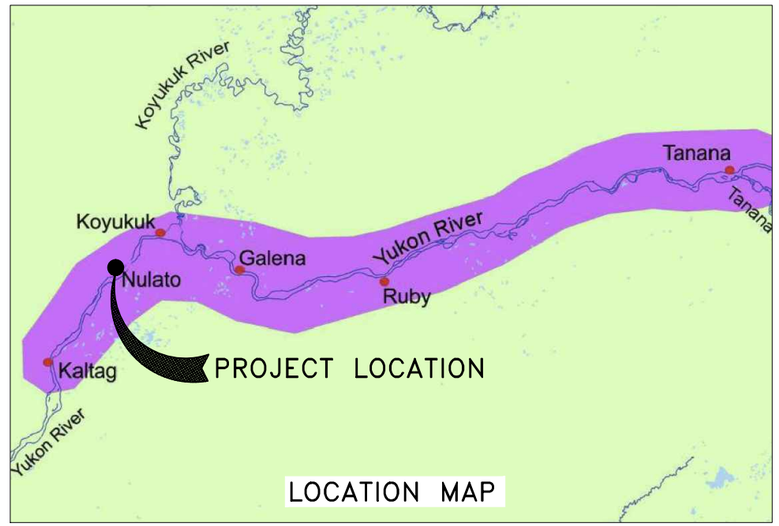
VARIOUS LOCATIONS, ALASKA
MOORING POINTS PHASE 4
HYDRAULICS & HYDROLOGY
PLANS
KIANA MOORING POINTS

Reference number:
C-131
Sheet 5 of 14

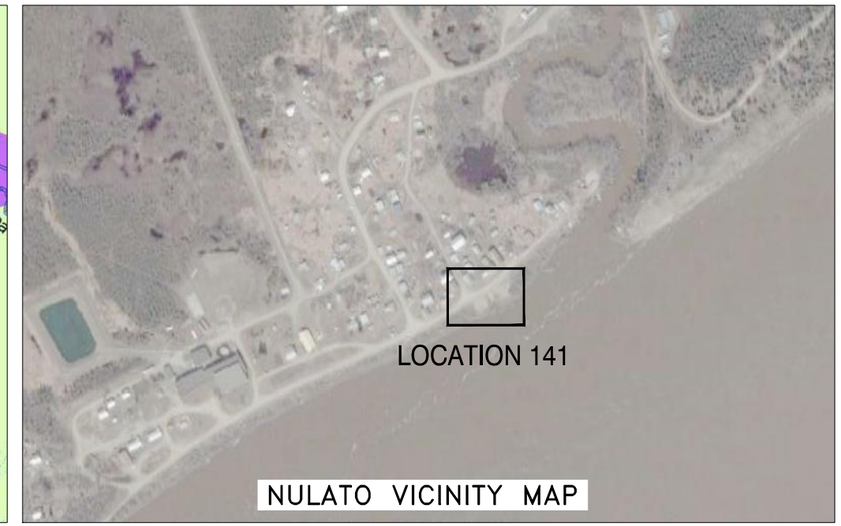
Drawing X:\UNIFIED\EN-CW\Jobs\AKV289D\Dwgs\KIANA_E33_KR.dwg last saved on 2/14/2014 10:39 AM was plotted by Peterson, Merlin D POA on 2/14/2014 3:12 PM



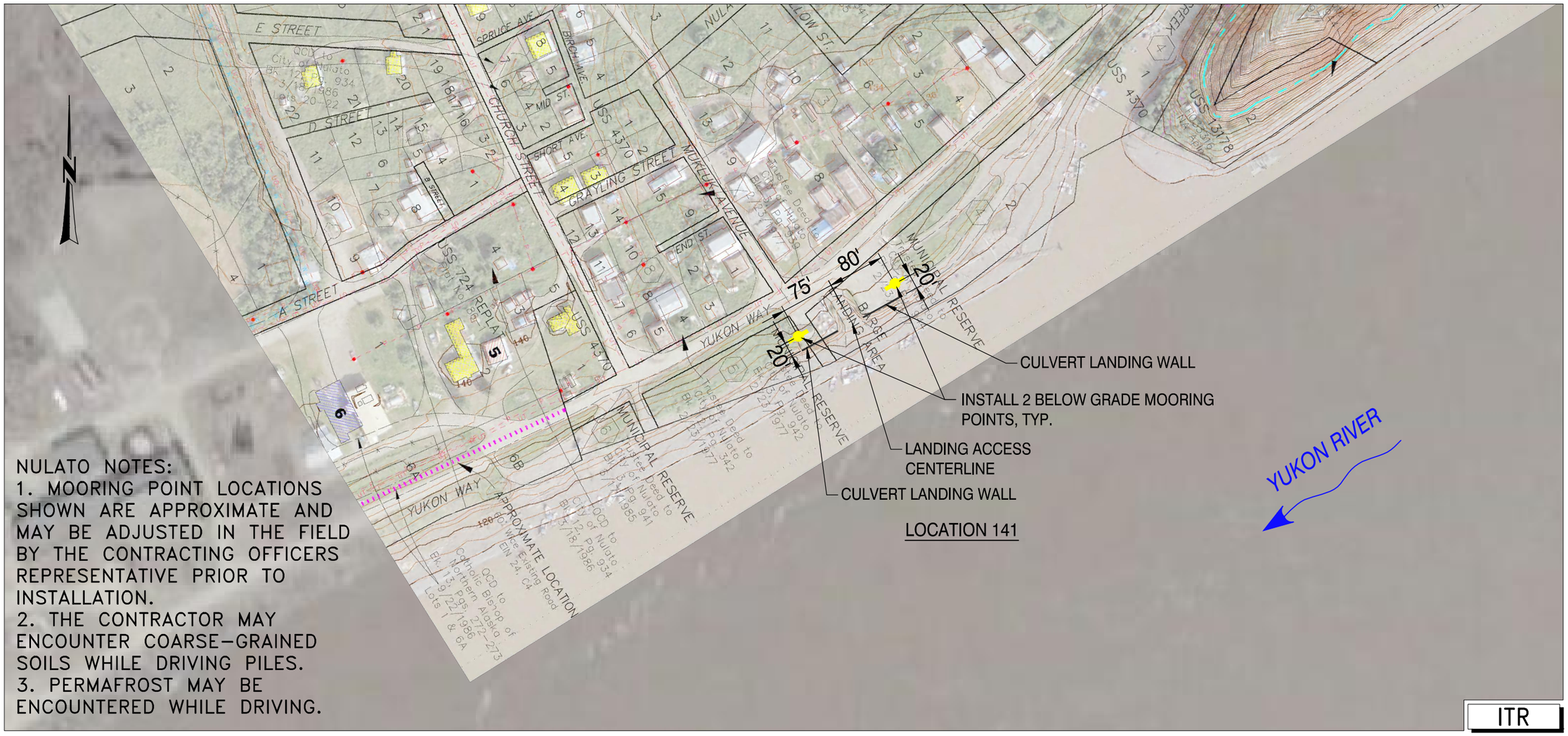
PROJECT AREA MAP



LOCATION MAP



NULATO VICINITY MAP



NULATO NOTES:
1. MOORING POINT LOCATIONS SHOWN ARE APPROXIMATE AND MAY BE ADJUSTED IN THE FIELD BY THE CONTRACTING OFFICERS REPRESENTATIVE PRIOR TO INSTALLATION.
2. THE CONTRACTOR MAY ENCOUNTER COARSE-GRAINED SOILS WHILE DRIVING PILES.
3. PERMAFROST MAY BE ENCOUNTERED WHILE DRIVING.

ITR

US ARMY CORPS OF ENGINEERS
ALASKA DISTRICT

CONTRACT NO. ____ CONTRACTOR ____ CITY ____ STATE ____
Recommended: ____ Approved: ____ Date: ____
"REAR CONTRACTOR" "RESIDENT ENGINEER"

Sym.	Action	Description	Date	Approvd

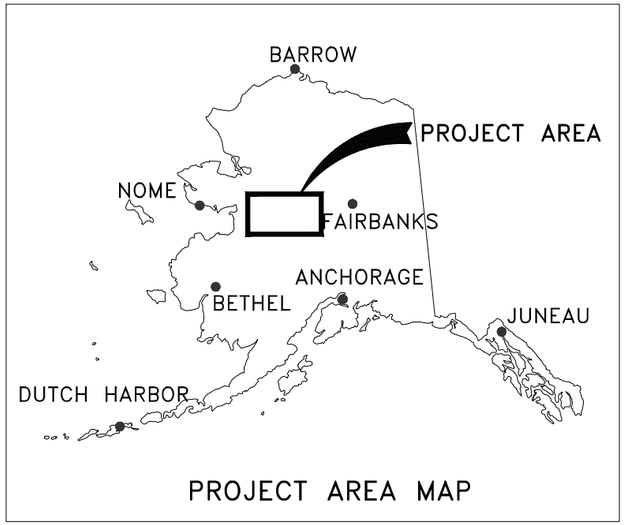
Designed: M. PETERSON
Drawn: M. PETERSON
Reviewed: K. ESSES
Reviewed: J. SAUCEDA
Submitted: J. SAUCEDA
Chief: CONTRACTOR
Date: 14 FEB 2014
Dwg Scale: AS NOTED
Plot Scale: 1:1
File: NULATO_E10_MYR
Drawing #: 7-xxx-xxx-xx
Section: Branch:
IFB NO. W911KB-14-B-00xx
AKV289D
PN 325271

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

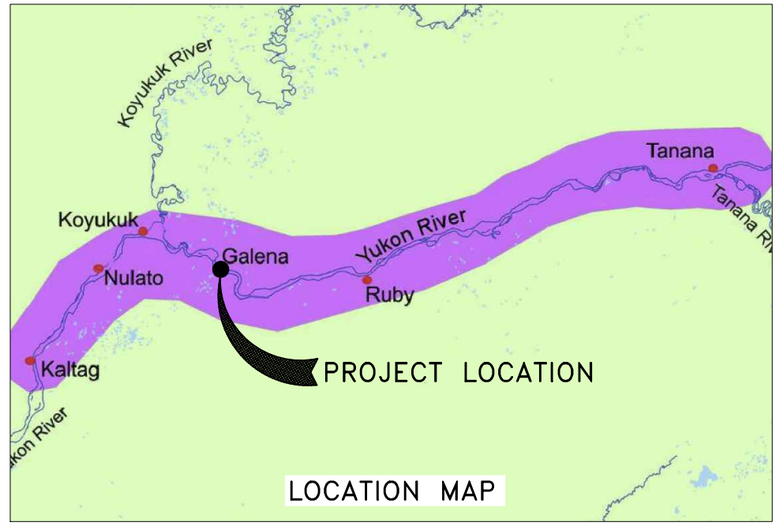
VARIOUS LOCATIONS, ALASKA
MOORING POINTS PHASE 4
HYDRAULICS & HYDROLOGY
PLANS
NULATO MOORING POINTS

Reference number:
C-141
Sheet 6 of 14

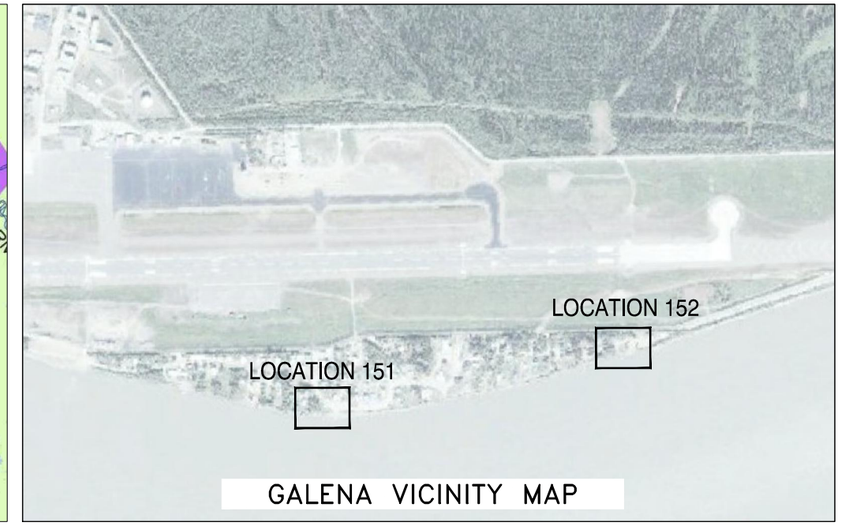
Drawing X:\UNIFIED\EN-CW\Jobs\AKV289D\Dwgs\NULATO_E10_MYR.dwg last saved on 2/14/2014 11:07 AM was plotted by Peterson, Merlin D POA on 2/14/2014 3:12 PM



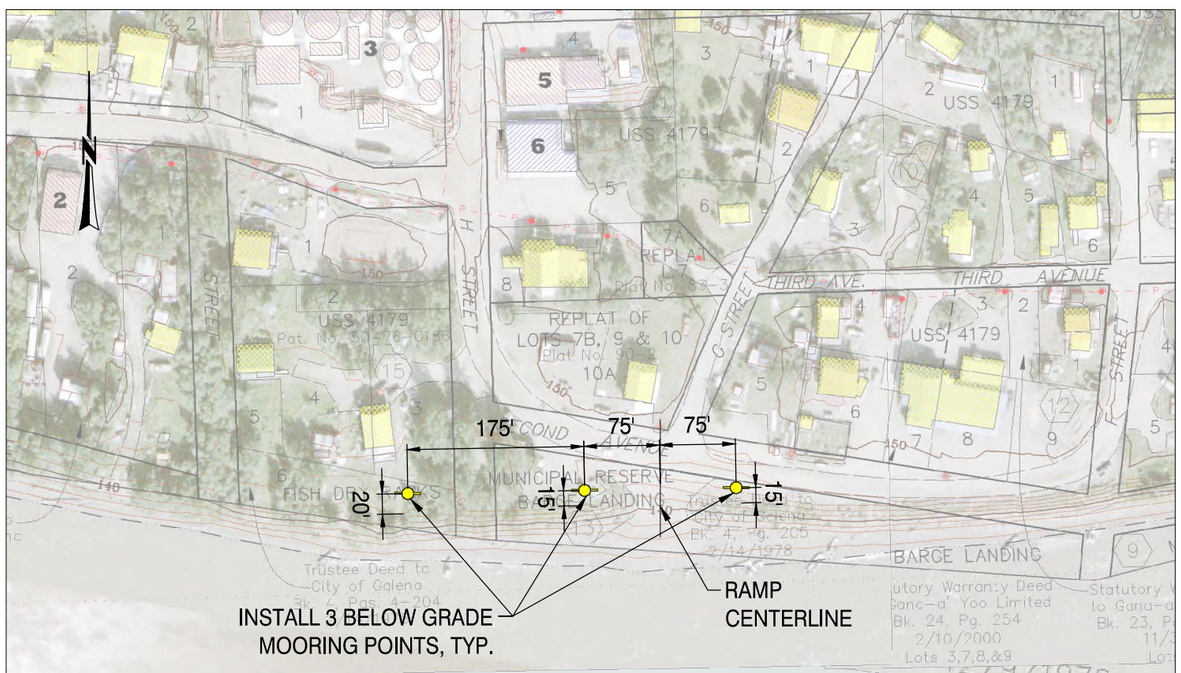
PROJECT AREA MAP



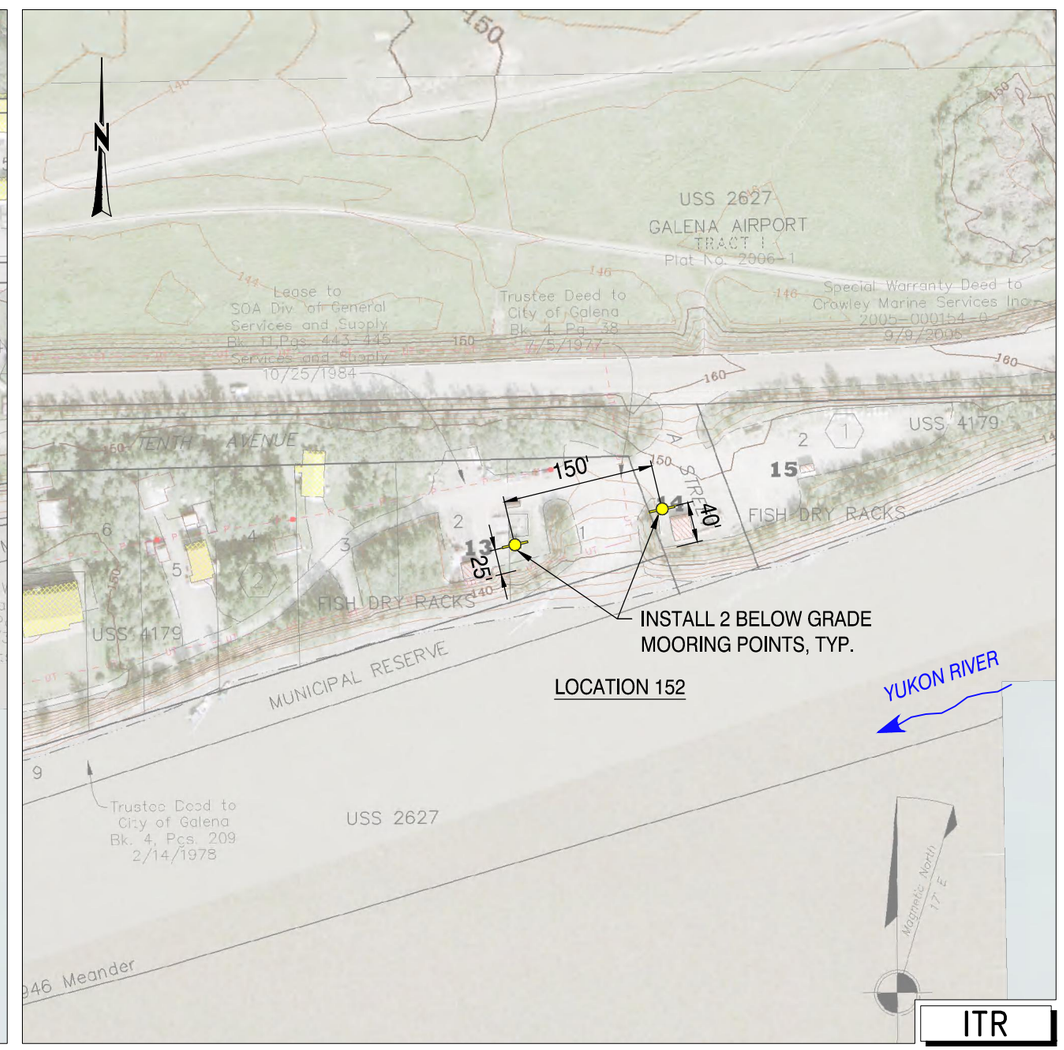
LOCATION MAP



GALENA VICINITY MAP



LOCATION 151



LOCATION 152

GALENA NOTES:

1. MOORING POINT LOCATIONS SHOWN ARE APPROXIMATE AND MAY BE ADJUSTED IN THE FIELD BY THE CONTRACTING OFFICERS REPRESENTATIVE PRIOR TO INSTALLATION.
2. THE CONTRACTOR SHOULD EXPECT TO ENCOUNTER PREDOMINANTLY FINE-GRAINED SOILS WITH SPORATIC COARSE-GRAINED SOILS NEAR THE SURFACE.
3. PERMAFROST MAY BE ENCOUNTERED WHILE DRIVING.

YUKON RIVER

US ARMY CORPS OF ENGINEERS
ALASKA DISTRICT

CONTRACT NO. ____ CONTRACTOR ____ CITY ____ STATE ____
Recommended: ____ Approved: ____ Date: ____
"REAL CONTRACTOR" "RESIDENT ENGINEER"

Sym.	Action	Description	Date	Appvd

Date: 14 FEB 2014
Dwg Scale: AS NOTED
Plot Scale: 1:1
File: galena block
Drawing #: 7-xxx-xx-xx
Designed: M. PETERSON
Drawn: M. PETERSON
Reviewed: K. ESSES
Reviewed: ____ Section
Submitted: J. SAUCEDA
Chief: ____ Branch
CEPOA-EG-CW

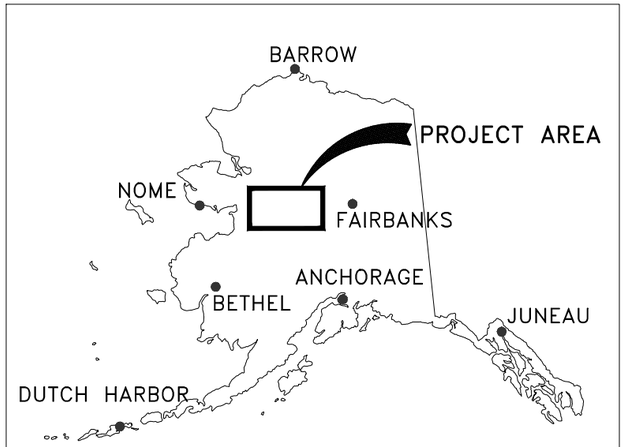
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

IFB NO. W911KB-14-B-00xx AKV289D
PN 325271

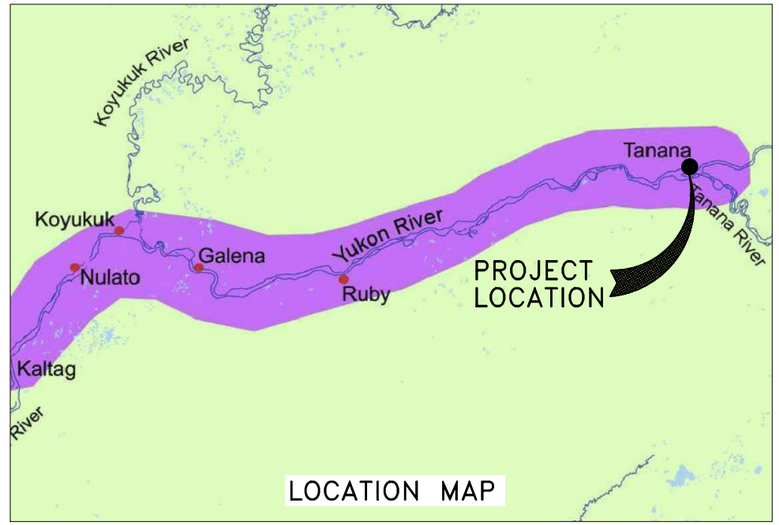
VARIOUS LOCATIONS, ALASKA
MOORING POINTS PHASE 4
HYDRAULICS & HYDROLOGY
PLANS
GALENA MOORING POINTS

Reference number:
C-151
Sheet 7 of 14

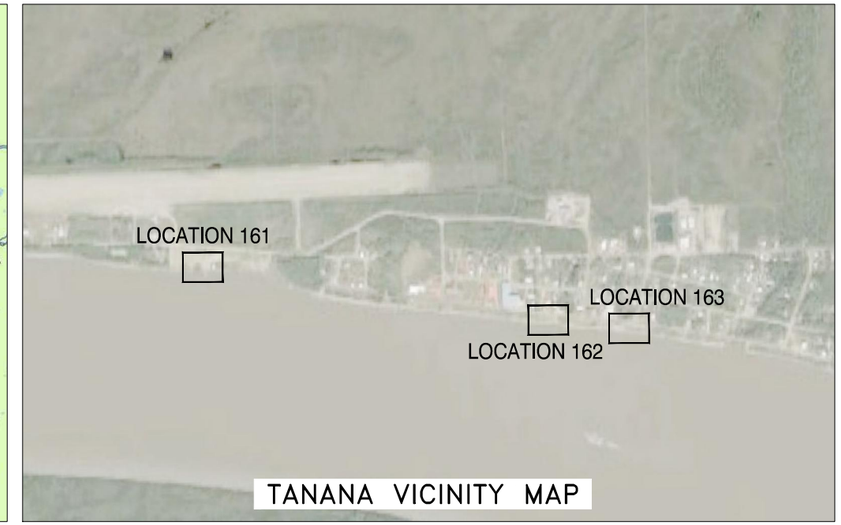
Drawing X:\UNIFIED\EN-CW\Jobs\AKV289D\Dwgs\galena block.dwg last saved on 2/14/2014 1:47 PM was plotted by Peterson, Merlin D POA on 2/14/2014 3:12 PM



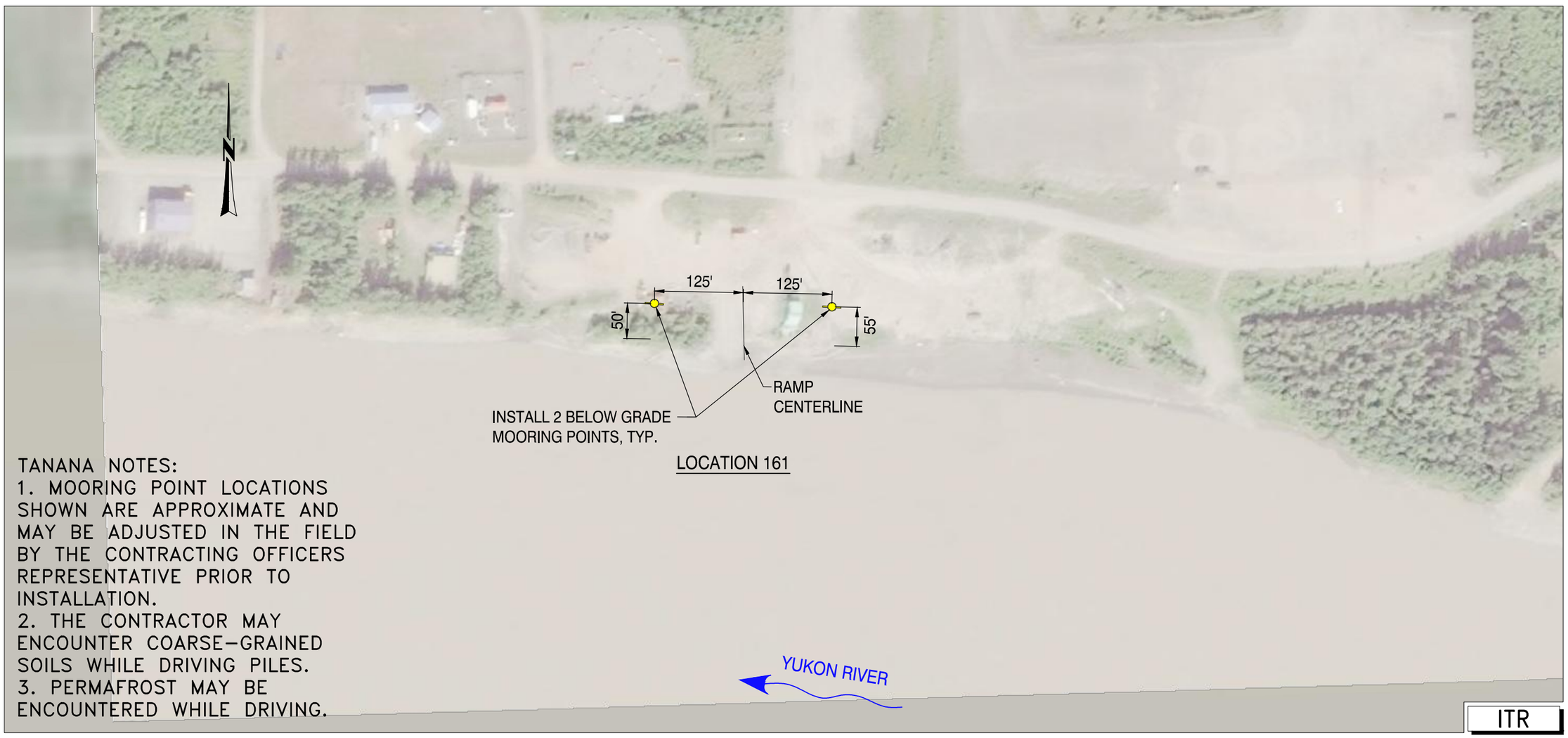
PROJECT AREA MAP



LOCATION MAP



TANANA VICINITY MAP



TANANA NOTES:
1. MOORING POINT LOCATIONS SHOWN ARE APPROXIMATE AND MAY BE ADJUSTED IN THE FIELD BY THE CONTRACTING OFFICERS REPRESENTATIVE PRIOR TO INSTALLATION.
2. THE CONTRACTOR MAY ENCOUNTER COARSE-GRAINED SOILS WHILE DRIVING PILES.
3. PERMAFROST MAY BE ENCOUNTERED WHILE DRIVING.

US ARMY CORPS OF ENGINEERS
ALASKA DISTRICT

CONTRACT NO. ____ CONTRACTOR ____ CITY ____ STATE ____
Recommended: ____ Approved: ____ Date: ____
"REAL" CONTRACTOR RESIDENT ENGINEER

Sym. Action	Description	Date	Approd

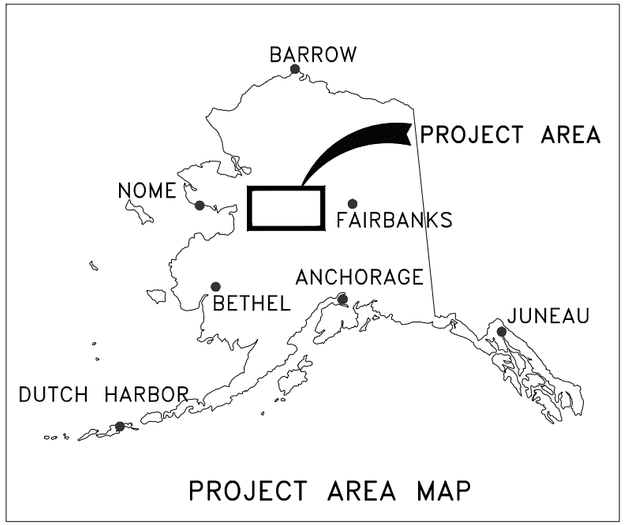
Designed: M. PETERSON
Drawn: M. PETERSON
Reviewed: K. ESSES
Reviewed: J. SAUCEDA
Submitted: J. SAUCEDA
Chief, CEPOA-E-CW Branch
Date: 14 FEB 2014
Dwg Scale: AS NOTED
Plot Scale: 1:1
File: tanana block
Drawing #: 7-xxx-xxx-xx
Branch: B-14-B-00xx
AKV289D
IFB NO. W911KB-14-B-00xx
PN 325271

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

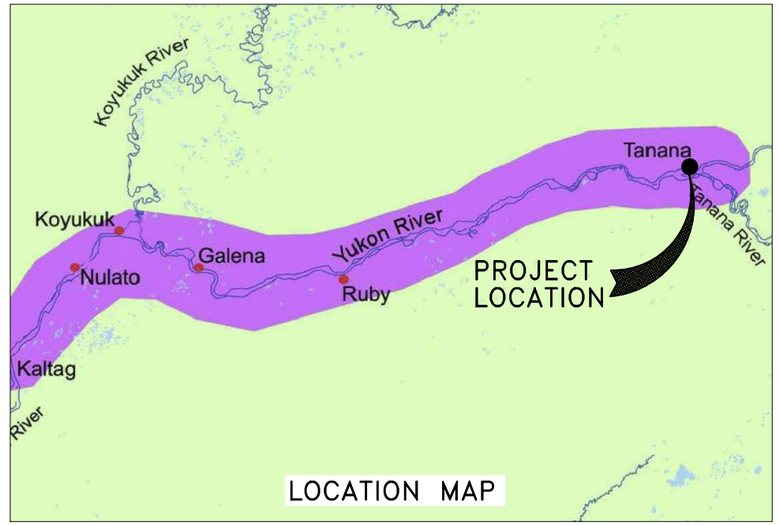
VARIOUS LOCATIONS, ALASKA
MOORING POINTS PHASE 4
HYDRAULICS & HYDROLOGY
PLANS
TANANA DOWNSTREAM MOORING POINTS

Reference number:
C-161
Sheet 8 of 14

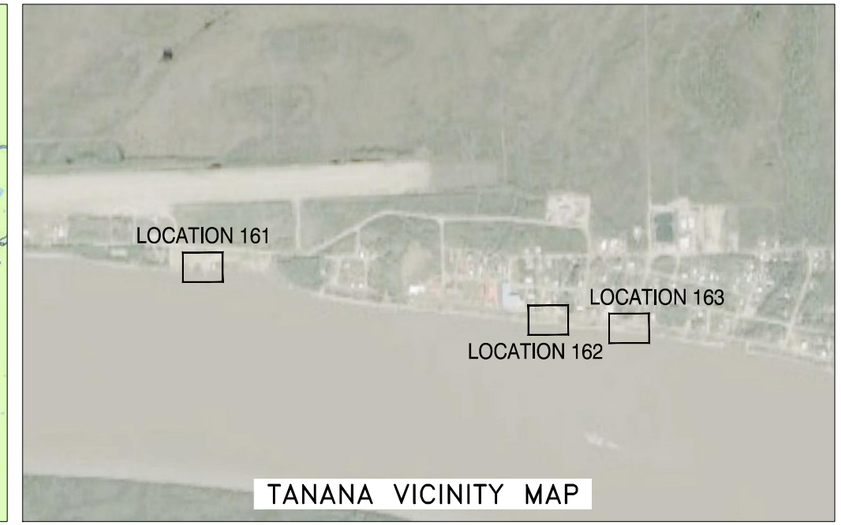
Drawing X:\UNIFIED\EN-CW\Jobs\AKV289D\Dwgs\tanana block.dwg last saved on 2/14/2014 2:04 PM was plotted by Peterson, Merlin D POA on 2/14/2014 3:12 PM



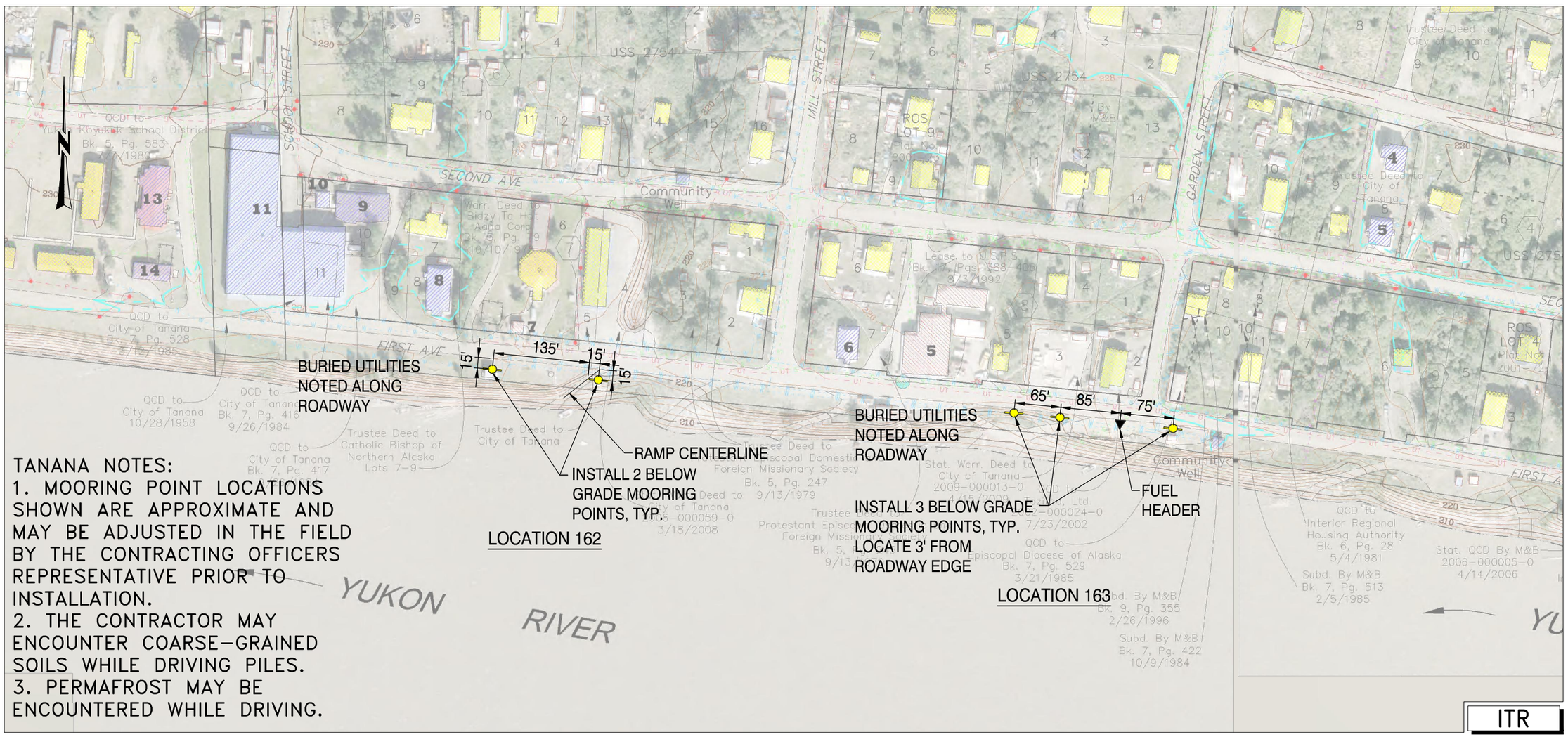
PROJECT AREA MAP



LOCATION MAP



TANANA VICINITY MAP



TANANA NOTES:
1. MOORING POINT LOCATIONS SHOWN ARE APPROXIMATE AND MAY BE ADJUSTED IN THE FIELD BY THE CONTRACTING OFFICERS REPRESENTATIVE PRIOR TO INSTALLATION.
2. THE CONTRACTOR MAY ENCOUNTER COARSE-GRAINED SOILS WHILE DRIVING PILES.
3. PERMAFROST MAY BE ENCOUNTERED WHILE DRIVING.

ITR

US ARMY CORPS OF ENGINEERS
ALASKA DISTRICT

CONTRACT NO. ___ CONTRACTOR ___ CITY ___ STATE ___
Recommended: ___ "RE&AE CONTRACTOR" Approved: ___ "RESIDENT ENGINEER" Date: ___

Sym.	Action	Description	Date	Appvd.

Date: 14 FEB 2014
Dwg Scale: AS NOTED
Plot Scale: 1:1
File: tanana block
Drawing #: 7-xxx-xx-xx
IFB NO. W911KB-14-B-00xx
AKV289D
PN 325271

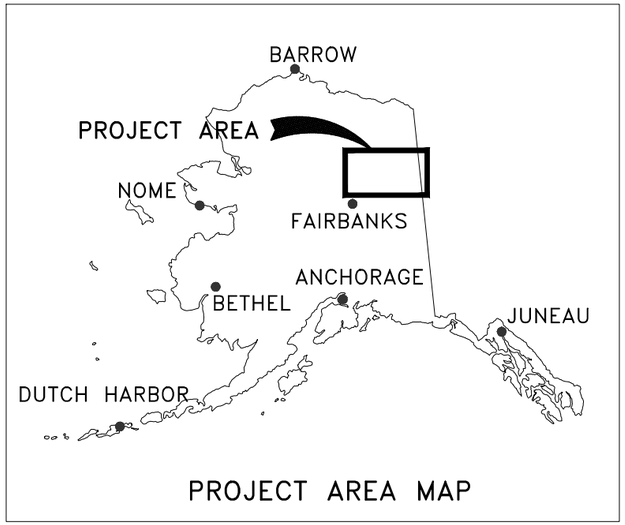
Designed: M. PETERSON
Drawn: M. PETERSON
Reviewed: K. ESSES
Reviewed: ___ Section
Submitted: J. SAUCEDA
Chief: ___ Branch
CEPOA-EG-CW

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

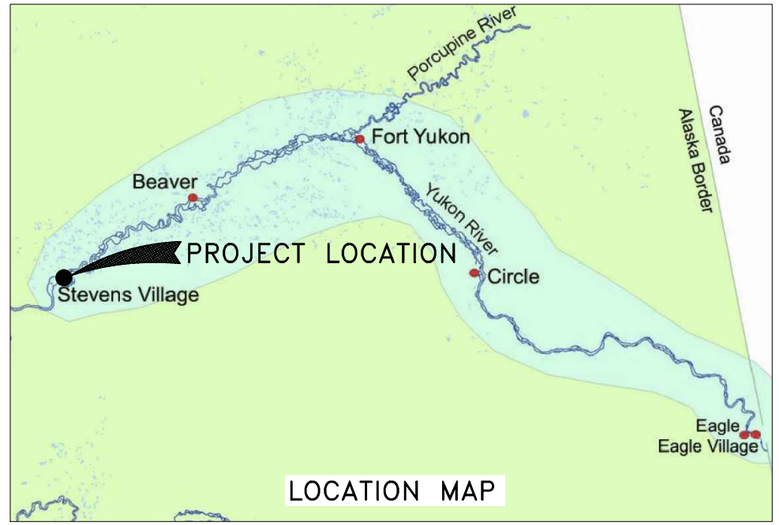
VARIOUS LOCATIONS, ALASKA
MOORING POINTS PHASE 4
HYDRAULICS & HYDROLOGY
PLANS
TANANA UPSTREAM MOORING POINTS

Reference number:
C-162
Sheet 9 of 14

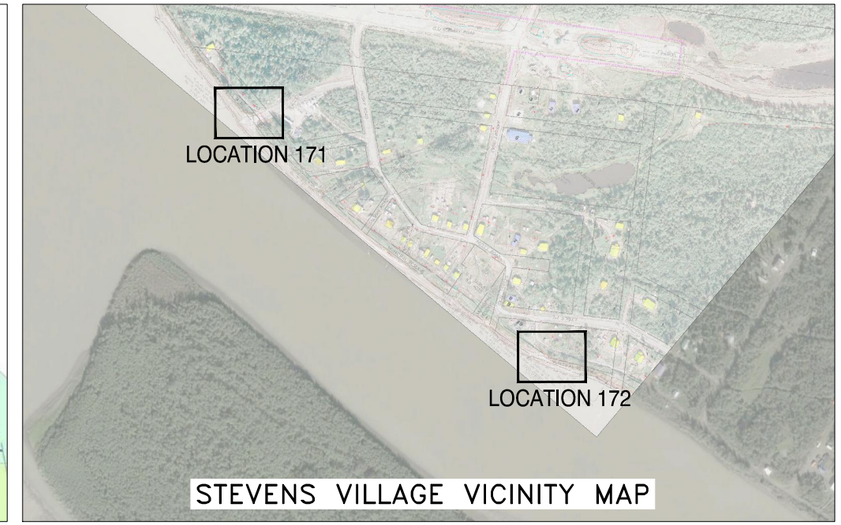
Drawing X:\UNIFIED\EN-CW\Jobs\AKV289D\Dwgs\tanana block.dwg last saved on 2/14/2014 2:04 PM was plotted by Peterson, Merlin D POA on 2/14/2014 3:12 PM



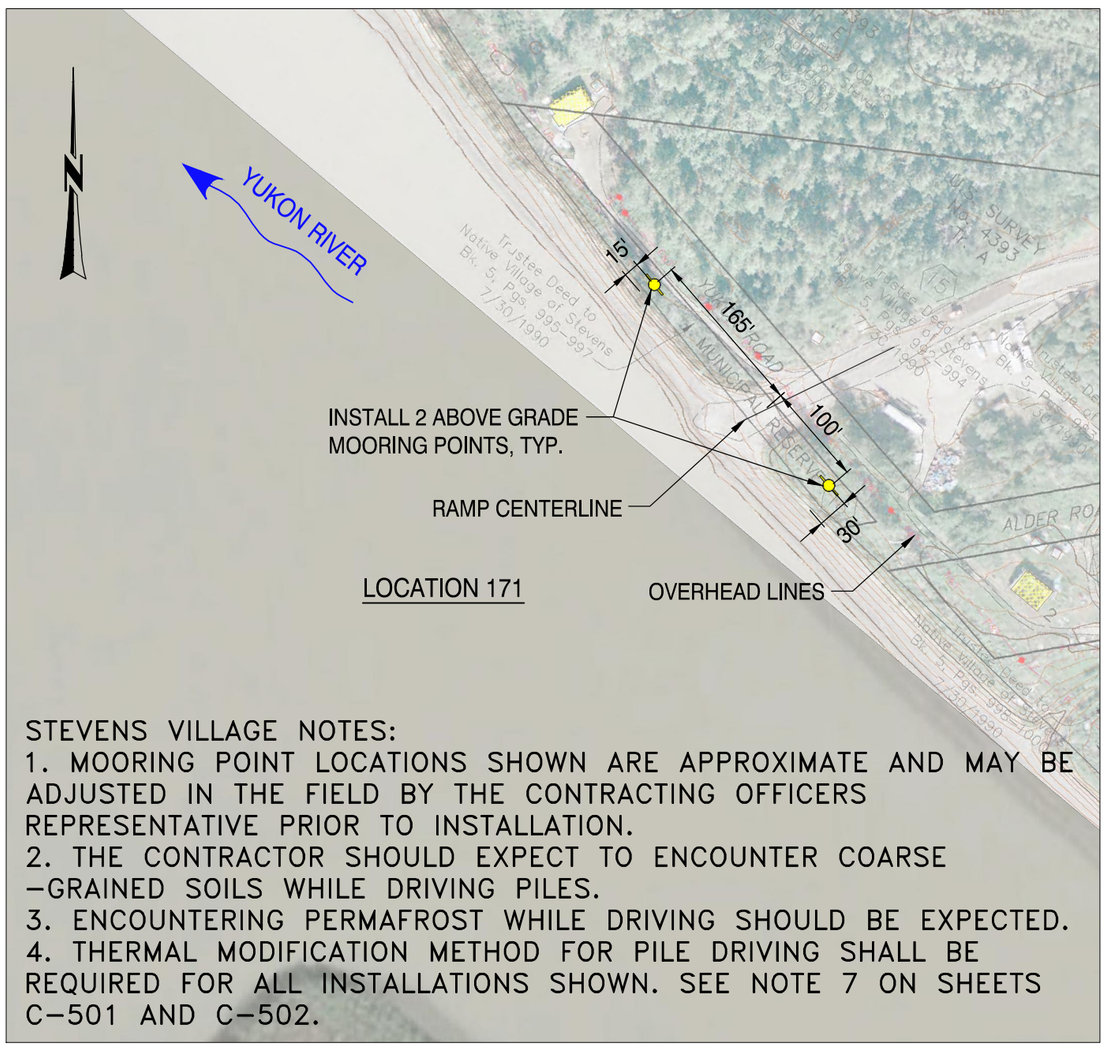
PROJECT AREA MAP

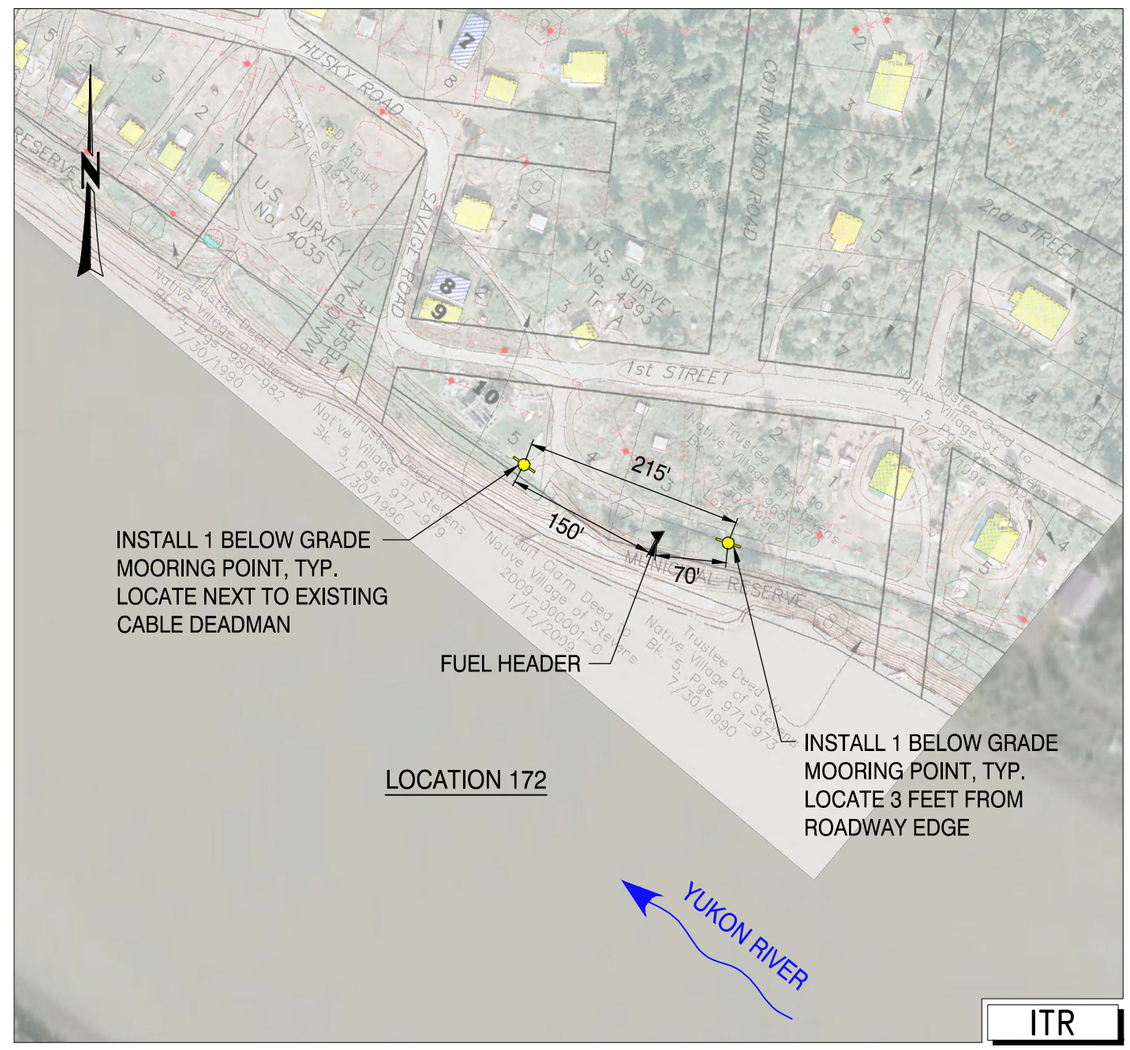


LOCATION MAP



STEVENS VILLAGE VICINITY MAP





STEVENS VILLAGE NOTES:

1. MOORING POINT LOCATIONS SHOWN ARE APPROXIMATE AND MAY BE ADJUSTED IN THE FIELD BY THE CONTRACTING OFFICERS REPRESENTATIVE PRIOR TO INSTALLATION.
2. THE CONTRACTOR SHOULD EXPECT TO ENCOUNTER COARSE-GRAINED SOILS WHILE DRIVING PILES.
3. ENCOUNTERING PERMAFROST WHILE DRIVING SHOULD BE EXPECTED.
4. THERMAL MODIFICATION METHOD FOR PILE DRIVING SHALL BE REQUIRED FOR ALL INSTALLATIONS SHOWN. SEE NOTE 7 ON SHEETS C-501 AND C-502.

ITR

US ARMY CORPS OF ENGINEERS
ALASKA DISTRICT

CONTRACT NO. ____ CONTRACTOR ____ CITY ____ STATE ____
Recommended: ____ Approved: ____ Date: ____
"REAR CONTRACTOR" "RESIDENT ENGINEER"

Sym.	Action	Description	Date	Approvd

Date: 14 FEB 2014
Dwg Scale: AS NOTED
Plot Scale: 1:1
File: stevens vil block
Drawing #: 7-xxx-xxx-xx
Designed: M. PETERSON
Drawn: M. PETERSON
Reviewed: K. ESSES
Chief: ____ Section: ____
Submitted: J. SAUCEDA
Chief: ____ Branch: ____
Drawing No. B-14-B-00xx
AKV289D

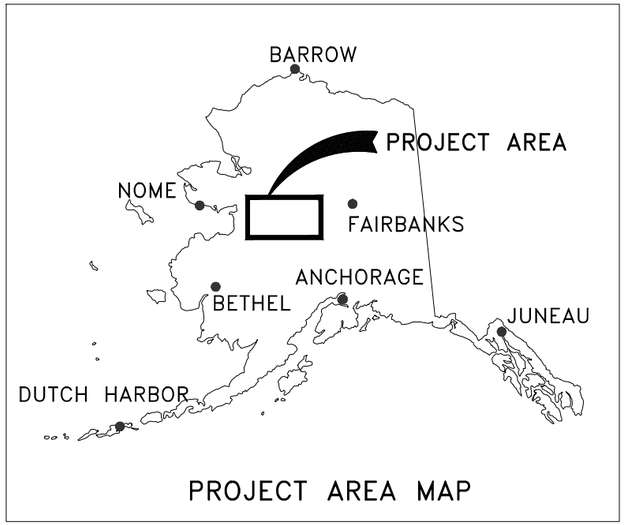
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

IFB NO. W911KB-14-B-0002
PN 325271

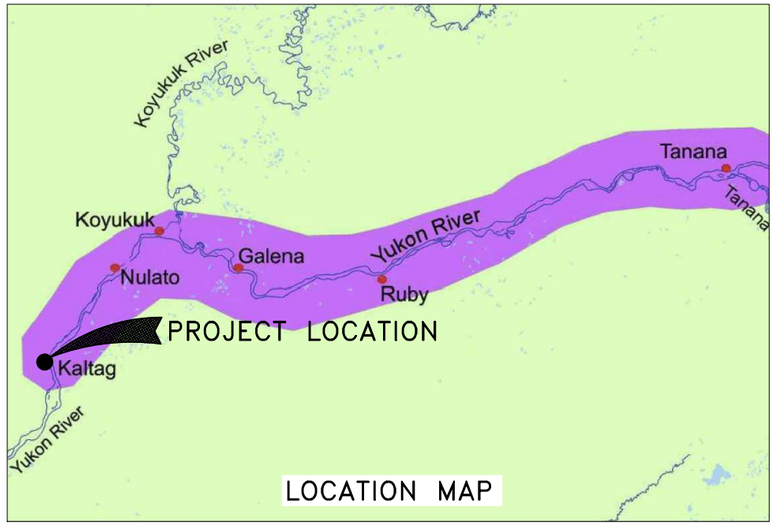
VARIOUS LOCATIONS, ALASKA
MOORING POINTS PHASE 4
HYDRAULICS & HYDROLOGY
PLANS
STEVENS VILLAGE MOORING POINTS

Reference number:
C-171
Sheet 10 of 14

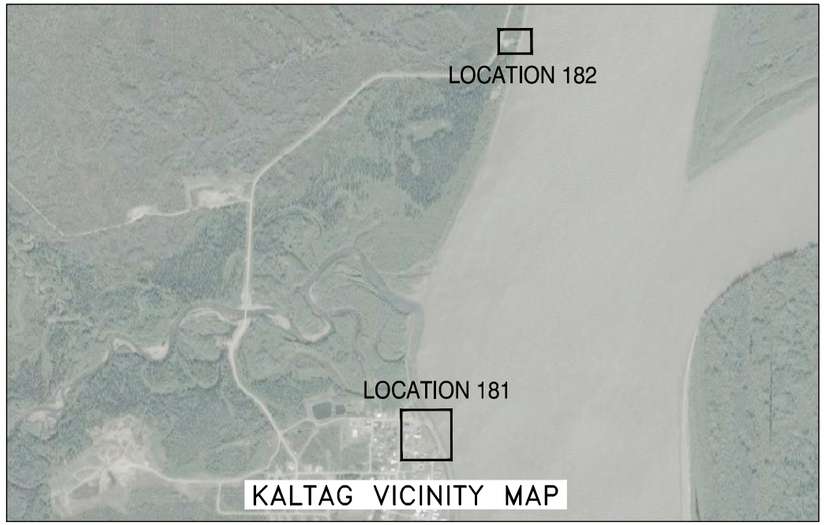
Drawing X:\UNIFIED\EN-CW\Jobs\AKV289D\Dwgs\stevens vil block.dwg last saved on 2/14/2014 2:56 PM was plotted by Peterson, Merlin D POA on 2/14/2014 3:12 PM



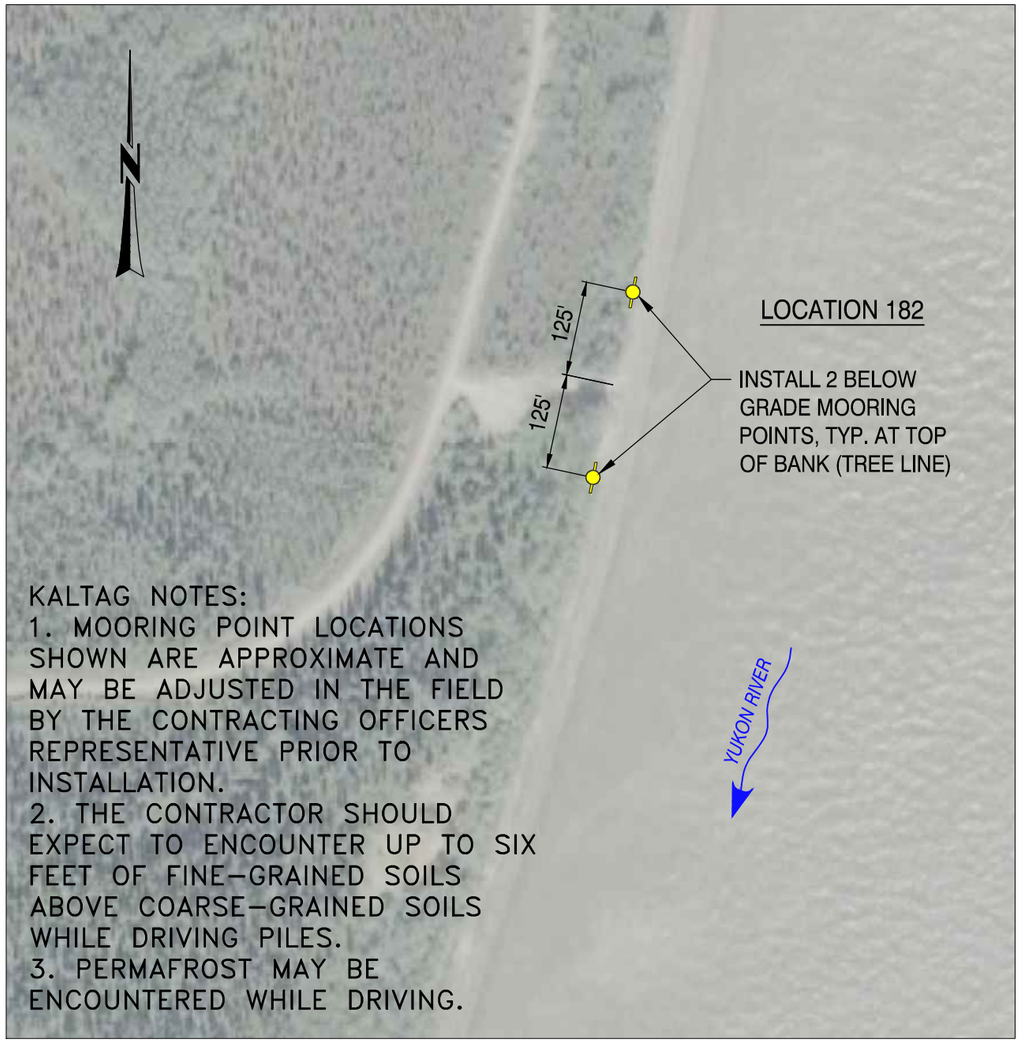
PROJECT AREA MAP



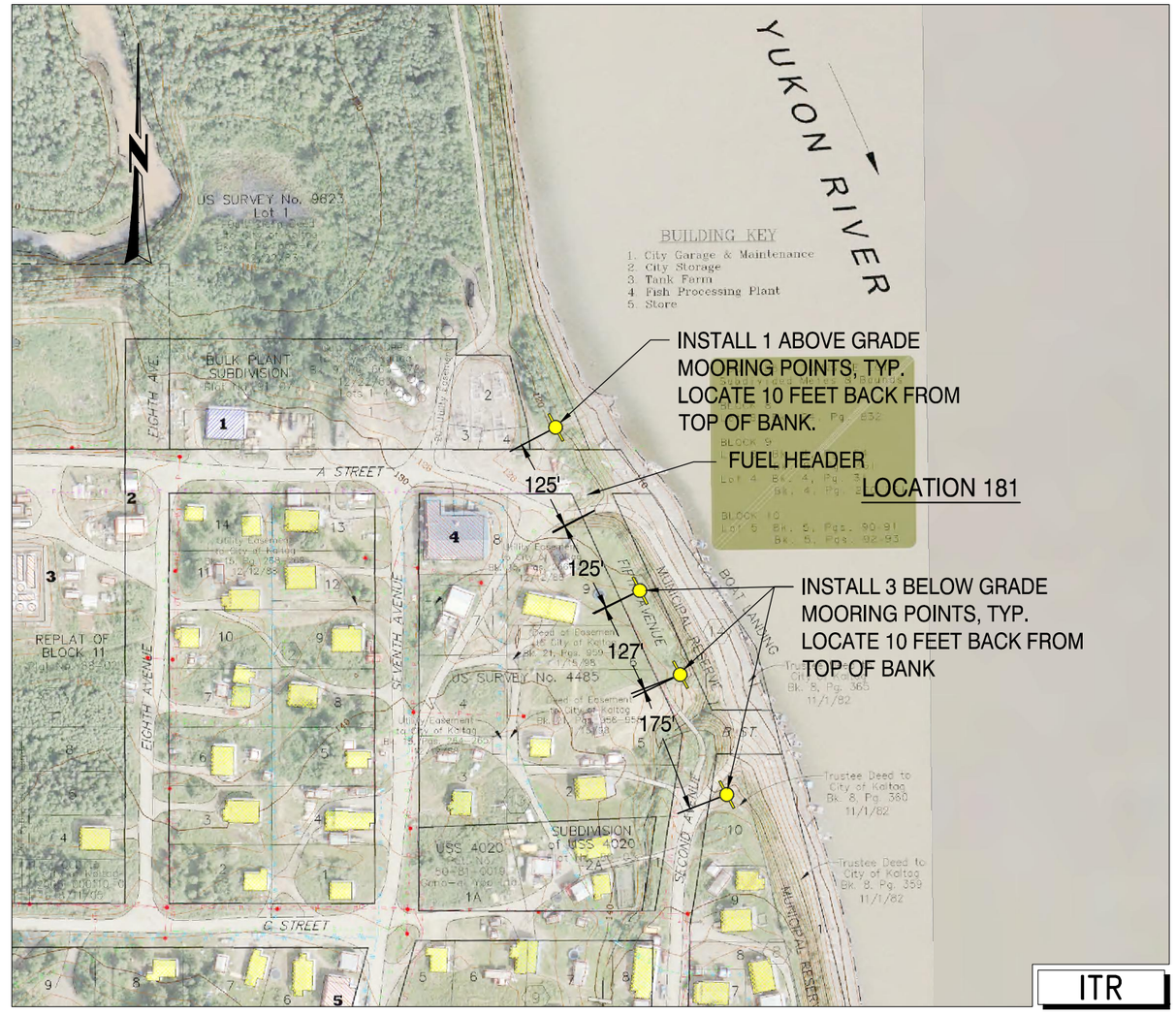
LOCATION MAP



KALTAG VICINITY MAP



KALTAG NOTES:
1. MOORING POINT LOCATIONS SHOWN ARE APPROXIMATE AND MAY BE ADJUSTED IN THE FIELD BY THE CONTRACTING OFFICERS REPRESENTATIVE PRIOR TO INSTALLATION.
2. THE CONTRACTOR SHOULD EXPECT TO ENCOUNTER UP TO SIX FEET OF FINE-GRAINED SOILS ABOVE COARSE-GRAINED SOILS WHILE DRIVING PILES.
3. PERMAFROST MAY BE ENCOUNTERED WHILE DRIVING.



ITR

US ARMY CORPS OF ENGINEERS
ALASKA DISTRICT

CONTRACT NO. ____
CONTRACTOR ____
CITY ____ STATE ____
Recommended: ____ Approved: ____ Date: ____
"REAL CONTRACTOR" "RESIDENT ENGINEER"

Sym.	Action	Description	Date	Approvd

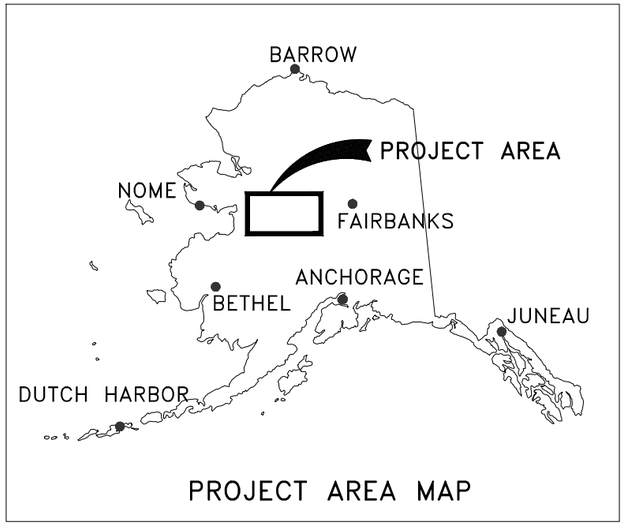
Date: 14 FEB 2014
Dwg Scale: AS NOTED
Plot Scale: 1:1
File: Kaltag
Drawing #: 7-XXX-XXX-XX
Designed: M. PETERSON
Drawn: M. PETERSON
Reviewed: K. ESSES
Reviewed: J. SAUCEDA
Submitted: J. SAUCEDA
Chief: DEPUTY-D-TYP
Section
Branch
IFB NO. W911KB-14-B-00xx
AKV289D
PN 325271

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

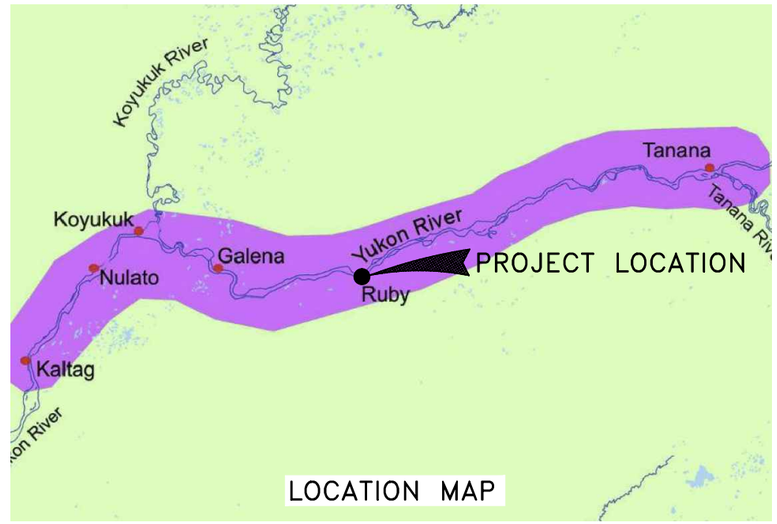
VARIOUS LOCATIONS, ALASKA
MOORING POINTS PHASE 4
HYDRAULICS & HYDROLOGY
PLANS
KALTAG MOORING POINTS

Reference number:
C-181
Sheet 11 of 14

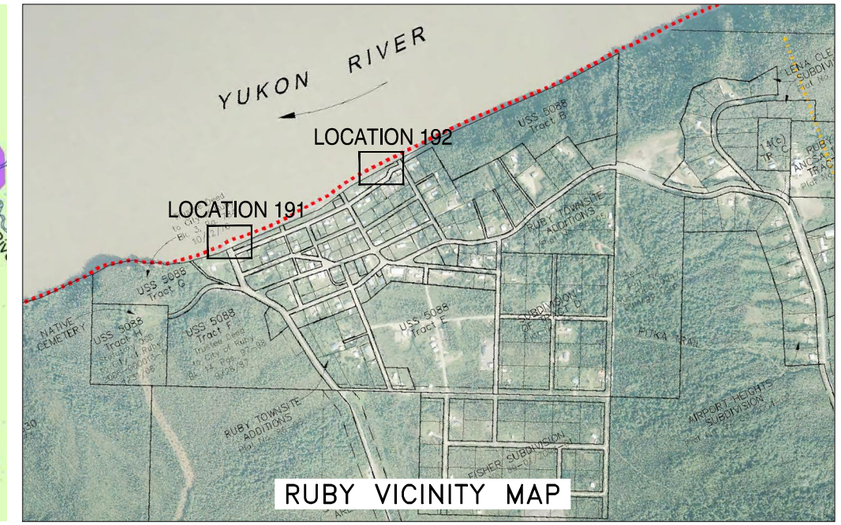
Drawing X:\UNIFIED\EN-CW\Jobs\AKV289D\Dwgs\Kaltag.dwg last saved on 2/14/2014 3:03 PM was plotted by Peterson, Merlin D POA on 2/14/2014 3:12 PM



PROJECT AREA MAP

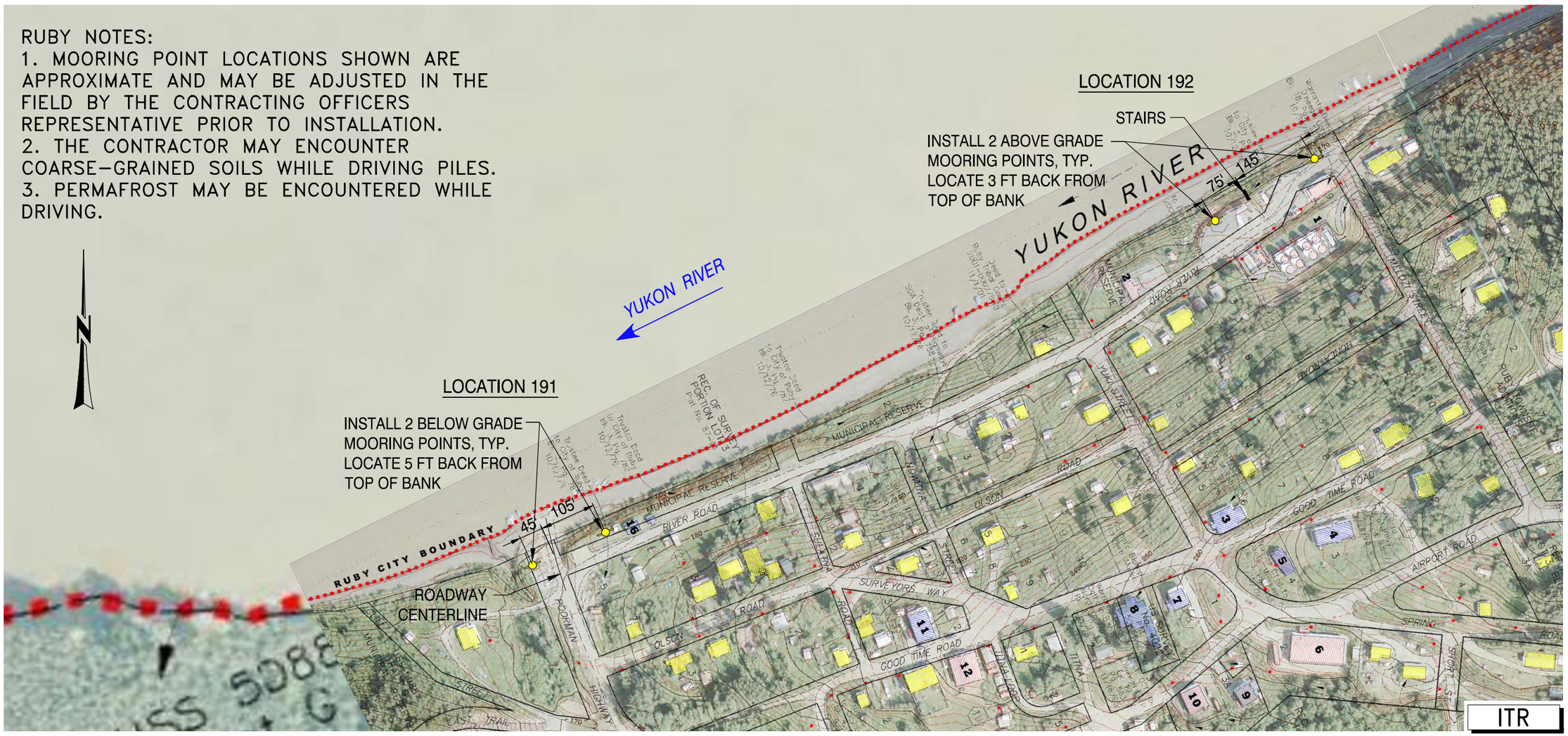


LOCATION MAP



RUBY VICINITY MAP

RUBY NOTES:
1. MOORING POINT LOCATIONS SHOWN ARE APPROXIMATE AND MAY BE ADJUSTED IN THE FIELD BY THE CONTRACTING OFFICERS REPRESENTATIVE PRIOR TO INSTALLATION.
2. THE CONTRACTOR MAY ENCOUNTER COARSE-GRAINED SOILS WHILE DRIVING PILES.
3. PERMAFROST MAY BE ENCOUNTERED WHILE DRIVING.



US ARMY CORPS OF ENGINEERS
ALASKA DISTRICT

CONTRACT NO. ____
CONTRACTOR ____
CITY ____ STATE ____
Recommended: ____ Approved: ____ Date: ____
RESIDENT ENGINEER
PRIME CONTRACTOR

Sym.	Action	Description	Date	Approvd

Date: 14 FEB 2014
Dwg Scale: AS NOTED
Plot Scale: 1:1
File: RUBY
Drawing #: 7-XXX-XXX-XX-XX
Designed: M. PETERSON
Drawn: M. PETERSON
Reviewed: K. EGGES
Reviewed: T. TAYLOR — Section
Submitted: J. SAUCEDA — Branch
Chief: ____ Office-Cir — Division

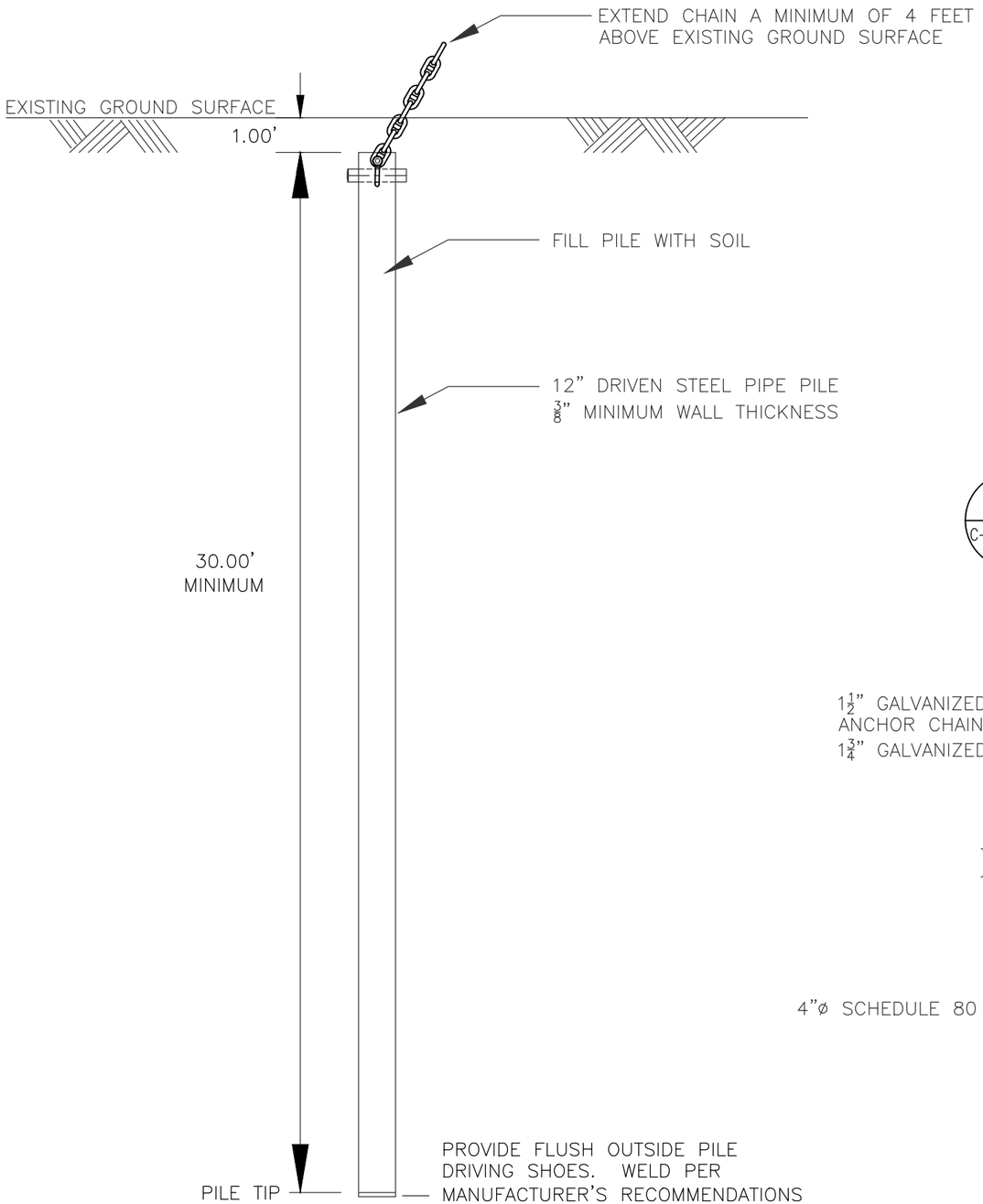
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

IFB NO. W911KB-14-B-00xx
AKV289D
PN 325271

VARIOUS LOCATIONS, ALASKA
MOORING POINTS PHASE 4
HYDRAULICS & HYDROLOGY
PLANS
RUBY MOORING POINTS

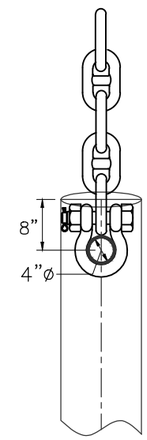
Reference number:
C-191
Sheet 12 of 14

Drawing X:\UNIFIED\EN-CW\Jobs\AKV289D\Dwgs\Ruby.dwg last saved on 2/14/2014 3:10 PM was plotted by Peterson, Merlin D POA on 2/14/2014 3:13 PM



A C-501 C-501 NTS

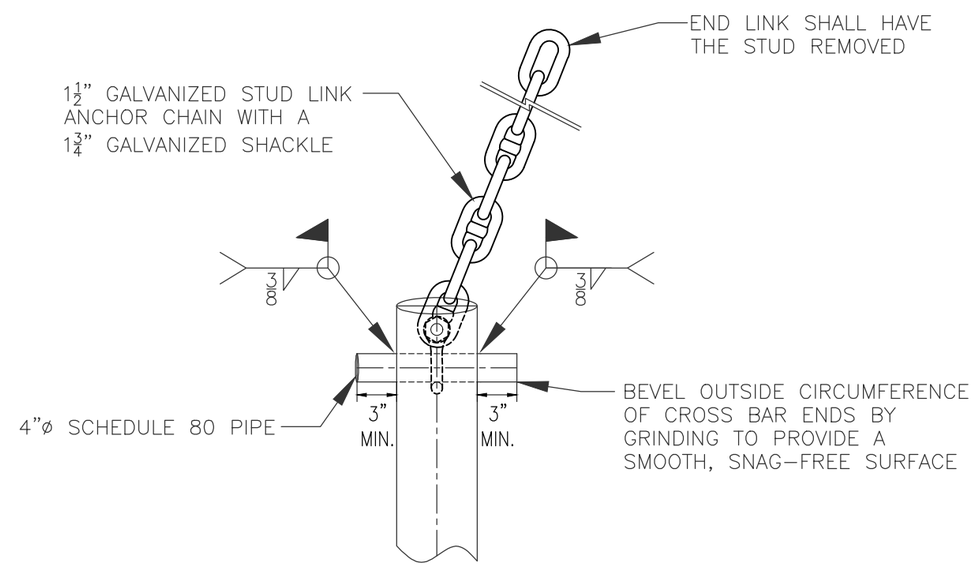
TYPICAL BELOW GRADE MOORING POINT



B C-501 C-501 NTS

TYPICAL BELOW GRADE MOORING POINT

1. ALL MATERIAL SHALL BE NEW AND PROVIDED BY THE CONTRACTOR.
2. PILE, PIPE, PLATE AND CROSSBAR SHALL BE ASTM A252 GRADE 3 WITH ASTM A36 CHEMISTRY OR EQUIVALENT SPIRAL WELD STEEL.
3. ALL WELDING SHALL BE PER LATEST AWS D1.1 BY WELDERS QUALIFIED PER AWS FOR THE TYPE AND POSITION OF THE WELDS. ELECTRODES SHALL CONFORM TO ASTM A233 CLASS E70. SUBMIT WELDER AND WELDING PROCEDURES FOR APPROVAL. THE CONTRACTOR SHALL PROVIDE 100 PERCENT VISUAL INSPECTION OF FIELD WELDS. ANY WELD FAILING INSPECTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ACCEPTANCE CRITERIA FOR ALL WELD INSPECTIONS SHALL CONFORM TO AWS D1.1 CRITERIA.
4. ALL STUD LINK ANCHOR CHAIN SHALL BE GRADE 2. SHACKLE SHALL BE BOLT TYPE ANCHOR SHACKLE WITH THIN HEAD BOLT–NUT WITH COTTER PIN (CROSBY G–2130 OR EQUIVALENT).
5. ALL PORTIONS OF THE MOORING CHAIN ABOVE FINISHED GRADE SHALL BE PAINTED SAFETY ORANGE.
6. DRIVING SHOES SHALL BE OF SUFFICIENT STRENGTH AND RIGIDITY TO WITHSTAND DRIVING CONDITIONS.
7. THERMAL MODIFICATION SHALL INCLUDE PRE–DRILLING A HOLE BETWEEN SIX AND EIGHT INCHES IN DIAMETER AND FILLING THE HOLE WITH HOT WATER FOR A SUFFICIENT DURATION TO TEMPORARILY MELT PERMAFROST ENABLING THE PILE TO BE ADVANCED TO THE SPECIFIED DEPTH.



C C-501 C-501 NTS

TYPICAL BELOW GRADE MOORING POINT SIDE VIEW

ITR

US ARMY CORPS OF ENGINEERS
ALASKA DISTRICT

CONTRACT NO. ___
CONTRACTOR ___
CITY ___ STATE ___
Recommended: ___ Approved: ___ Date: ___
PRIME CONTRACTOR RESIDENT ENGINEER

Sym	Action	Description	Date	Approd

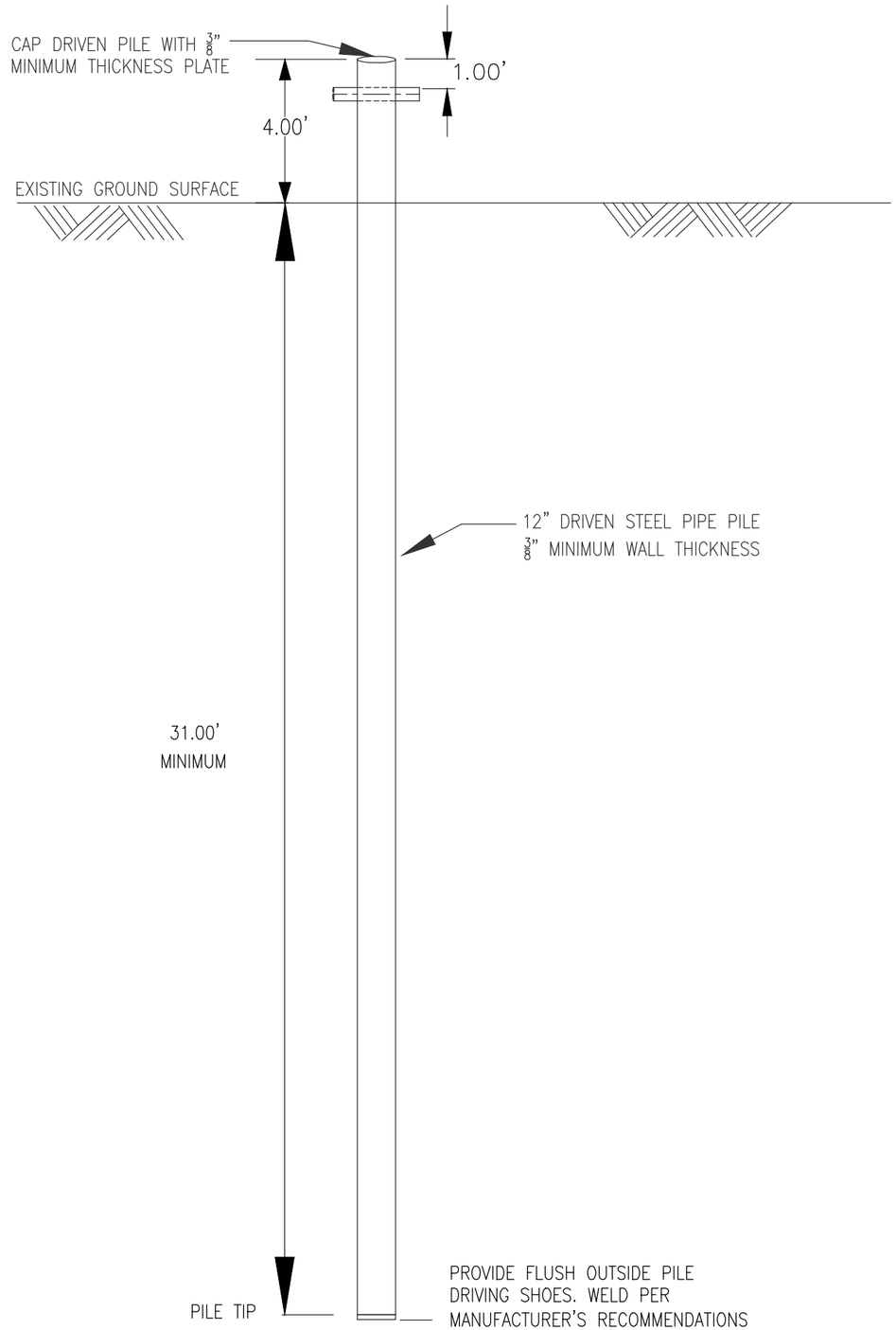
Designed: M. PETERSON
Drawn: M. PETERSON
Reviewed: K. EISSES
Chief: ___ EN-C-HB ___ Section
Submitted: J. SAUCEDA
Chief: ___ CEPOA-EN-C ___ Branch
Date: 14 FEB 2014
Dwg Scale: AS NOTED
Plot Scale: 1:1
File: AKV289D–C–501
Drawing #: F-XX-XXX-XX-XX
IFB NO. W911KB–14–B–00xx
AKV289D
PN 325271

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

VARIOUS LOCATIONS, ALASKA
MOORING POINTS PHASE 4
HYDRAULICS & HYDROLOGY
DETAILS
BELOW GRADE MOORING POINT DETAILS

Reference number:
C–501
Sheet 13 of 14

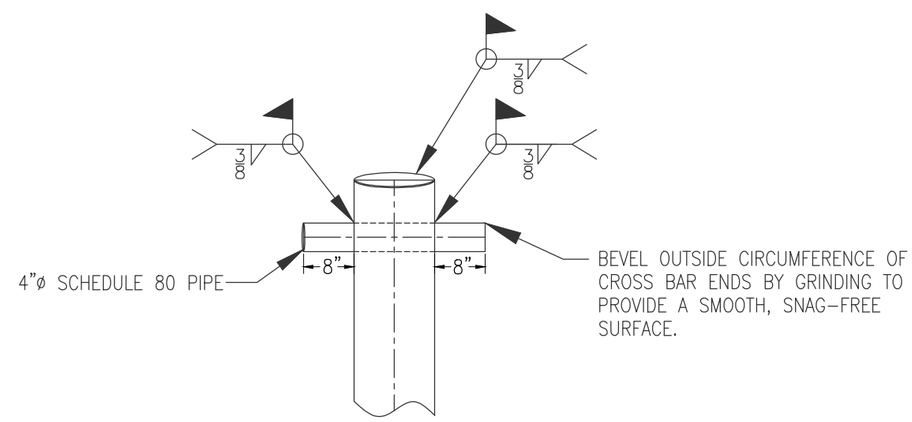
Drawing X:\UNIFIED\EN-CW\Jobs\AKV289D\Dwgs\AKV289D-C-501.dwg last saved on 2/13/2014 3:03 PM was plotted by Peterson, Merlin D POA on 2/14/2014 3:13 PM



A C-502 C-502 NTS

TYPICAL ABOVE GRADE MOORING POINT

1. ALL MATERIAL SHALL BE NEW AND PROVIDED BY THE CONTRACTOR.
2. PILE, PIPE, PLATE AND CROSSBAR SHALL BE ASTM A252 GRADE 3 WITH ASTM A36 CHEMISTRY OR EQUIVALENT SPIRAL WELD STEEL.
3. ALL WELDING SHALL BE PER LATEST AWS D1.1 BY WELDERS QUALIFIED PER AWS FOR THE TYPE AND POSITION OF THE WELDS. ELECTRODES SHALL CONFORM TO ASTM A233 CLASS E70. SUBMIT WELDER AND WELDING PROCEDURES FOR APPROVAL. THE CONTRACTOR SHALL PROVIDE 100 PERCENT VISUAL INSPECTION OF FIELD WELDS. ANY WELD FAILING INSPECTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ACCEPTANCE CRITERIA FOR ALL WELD INSPECTIONS SHALL CONFORM TO AWS D1.1 CRITERIA.
4. ALL PORTIONS OF THE MOORING POINT ABOVE FINISHED GRADE SHALL BE PAINTED SAFETY ORANGE.
5. TWO STRIPS OF 3" MINIMUM WIDTH REFLECTIVE TAPE SHALL BE ADHERED AROUND THE CIRCUMFERENCE OF THE 12" PILE ABOVE THE CROSSBAR.
6. DRIVING SHOES SHALL BE OF SUFFICIENT STRENGTH AND RIGIDITY TO WITHSTAND DRIVING FORCES.
7. THERMAL MODIFICATION SHALL INCLUDE PRE-DRILLING A HOLE BETWEEN SIX AND EIGHT INCHES IN DIAMETER AND FILLING THE HOLE WITH HOT WATER FOR A SUFFICIENT DURATION TO TEMPORARILY MELT PERMAFROST ENABLING THE PILE TO BE ADVANCED TO THE SPECIFIED DEPTH.



B C-502 C-502 NTS

TYPICAL ABOVE GRADE MOORING POINT SIDE VIEW

ITR

US ARMY CORPS OF ENGINEERS
ALASKA DISTRICT

CONTRACT NO.
CONTRACTOR
CITY STATE
Recommended: Approved: Date:
PRIME CONTRACTOR RESIDENT ENGINEER

Sym	Action	Description	Date	Appvd

Designed: M. PETERSON
Drawn: M. PETERSON
Reviewed: K. EISSES
Submitted: J. SAUCEDA
Date: 14 FEB 2014
Dwg Scale: AS NOTED
Plot Scale: 1:1
File: AKV289D-C-502
Drawing #: F-XX-XXX-XX-XX
IFB NO. W911KB-14-B-00xx
PN 325271
AKV289D

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

VARIOUS LOCATIONS, ALASKA
MOORING POINTS PHASE 4
HYDRAULICS & HYDROLOGY
DETAILS
ABOVE GRADE MOORING POINT DETAILS

Reference number:
C-502
Sheet 14 of 14

Drawing X:\UNIFIED\EN-CW\Jobs\AKV289D\Dwgs\AKV289D-C-502.dwg last saved on 2/13/2014 3:03 PM was plotted by Peterson, Merlin D POA on 2/14/2014 3:13 PM