bp

BP Exploration (Alaska) Inc.
P.O. Box 196612
900 East Benson Boulevard
Anchorage, AK 99519-6612

April 25, 2007

Mr. Michiel E. Holley
U.S. Army Corps of Engineers
CEPOA-CO-Regulatory
P.O. Box 6898
Elmendorf AFB, AK 99506-6898

Application for Department of the Army Permit
Section 404 Clean Water Act and Section 10 Rivers and Harbors Act
Liberty Development Project

Dear Mr. Holley:

BP Exploration (Alaska) Inc. (BPXA) is requesting U.S. Army Corps of Engineers (USACE) approvals under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act for activities associated with the Liberty Development Project.

BPXA submitted a copy of the Liberty Development Project, Project Description dated December 2006 ("Project Description") to the USACE on December 22, 2006. On March 20, 2007, BPXA submitted a draft permit application to the USACE requesting USACE assessment on the completeness of the draft permit application material.

Key components of the Liberty Development Project that include USACE Section 404 Clean Water Act or Section 10 Rivers and Harbors Act jurisdiction include the following:

- Endicott Satellite Drilling Island (SDI) expansion,
- New mine site development,
- Endicott Main Production Island (MPI) boat ramp, and
- Potential new west Sagavanirktok River Bridge.

In addition to the listed activities above, the *Liberty Development Project Development and Production Plan* (April 2007) (DPP), submitted to your office under separate cover, discusses maintenance dredging at the Endicott MPI seawater intake. As explained in our March 20, 2007 draft permit application, BPXA will permit seawater intake structure and dock maintenance activities separately through a comprehensive *Endicott Causeway Erosion Control and Maintenance Plan* similar to the West Dock Causeway Erosion Control and Maintenance Plan.

In support of this request, attached are the following:

- Application for Department of the Army Permit, and
- Figures 1 - 24.

The final DPP, Mining and Rehabilitation Plan and Coastal Project Questionnaire and Certification Statement are submitted under separate cover:

If you have any questions or need additional information, please call Cash Fay at (907) 339-5067 or email (*cash.fay@bp.com*).

Sincerely,

Peter T. Hanley, Liberty HSE Manager

Attachments

cc: Larry Bright, USFWS/Fairbanks
Ben Greene, ADNR/OPMP
James Helfinstine, USCG, w/o attachments
Brenda Krauss, ADEC/Water
Don Perrin, ADNR/OPMP
Ted Rockwell, EPA
Dianne Soderlund, EPA
Brad Smith, NMFS
Jeff Walker, MMS
Jack Winters, ADNR/OHMP
Frank Maxwell, ADNR/DMLW

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT (33 CFR 325)	OMB APPROVAL NO. 0710-003 Expires December 31, 2004

The public reporting burden for this collection of information is estimated to average 10 hours per response, although the majority of applications should require 5 hours or less. This includes the time for reviewing instructions, searching external data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Service Directorate of Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302; and to the Office of Management and Budget, Paperwork Reduction Project (0710-003), Washington, DC 20503. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies. Submission of requested information is voluntary, however, if information is not provided, the permit application cannot be processed nor can a permit be issued.

One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME BP Exploration (Alaska) Inc.	8. AUTHORIZED AGENT'S NAME AND TITLE (an agent is not required) Peter T. Hanley HSE Manager, Liberty
6. APPLICANT'S ADDRESS P.O. Box 196612 Anchorage, AK 99519-6612	9. AGENT'S ADDRESS same
7. APPLICANT'S PHONE NUMBERS WITH AREA CODE a. Residence b. Business (907) 339-5067	10. AGENT'S PHONE NUMBERS WITH AREA CODE a. Residence b. Business (907) 339-5067

11. **STATEMENT OF AUTHORIZATION**

I hereby authorize _____ to act In my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

APPLICANT'S SIGNATURE _____ DATE 4/25/2007

NAME, LOCATION AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions)
Liberty Development Project

13. NAME OF WATERBODY, IF KNOWN (if applicable)
Beaufort Sea 340 / SDI and MPI
Sag River 151 / Bridge
Beaufort Sea 111 / Mine Site

14. PROJECT STREET ADDRESS (if applicable)

15. LOCATION OF PROJECT

North Slope Borough	Alaska
COUNTY	STATE

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)

See Table: Liberty Approximate Acreage and Location Information for Corps of Engineers Application

17. DIRECTIONS TO THE SITE

See attached Figures 1, 2, 3, 11, 15 and Liberty Development Project Development and Production Plan Attachment D Gravel Site Mining and Rehabilitation Plan

Liberty Approximate Acreage and Location Information for Corps of Engineers Application

Location / Activity	Legal Description (Coordinate is Centroid for existing facility in NAD 83)	Acres	Cubic Yards
New Mine Site	70.736833 W, 148.185931 N; T10N R16E Sections 6, 7 Umiat Meridian, Beechey Point A-2		
Mine Permit Area		63	
Excavated Area		18	1,000,000[1]
Overburden (Viable)		3	60,000
Overburden (Non-Viable)[2]		8	215,000
Perimeter Berm(Overburden)		3	15,000
Access Roads		2	15,000
SDI Expansion	70.321886 W, 147.895631 N; T11N R17E Sections 8, 9 Umiat Meridian, Beechey Point B-2		
Gravel		20[3]	860,000[4]
Slope Protection[5]		0.4	6,000
Sag River Bridge	70.249753 W, 148.305183 N; T10N R16E Sections 3, Umiat Meridian, Beechey Point B-3 and A-3		
Piles		0.1	1,000
Gravel		0.5	10,000
Boat Launch at MPI	70.353047 W, 147.960728 N; T12N R16E Section 36, Umiat Meridian, Beechey Point B-2		
Slope Protection[5]		0.3	3,000

Notes:

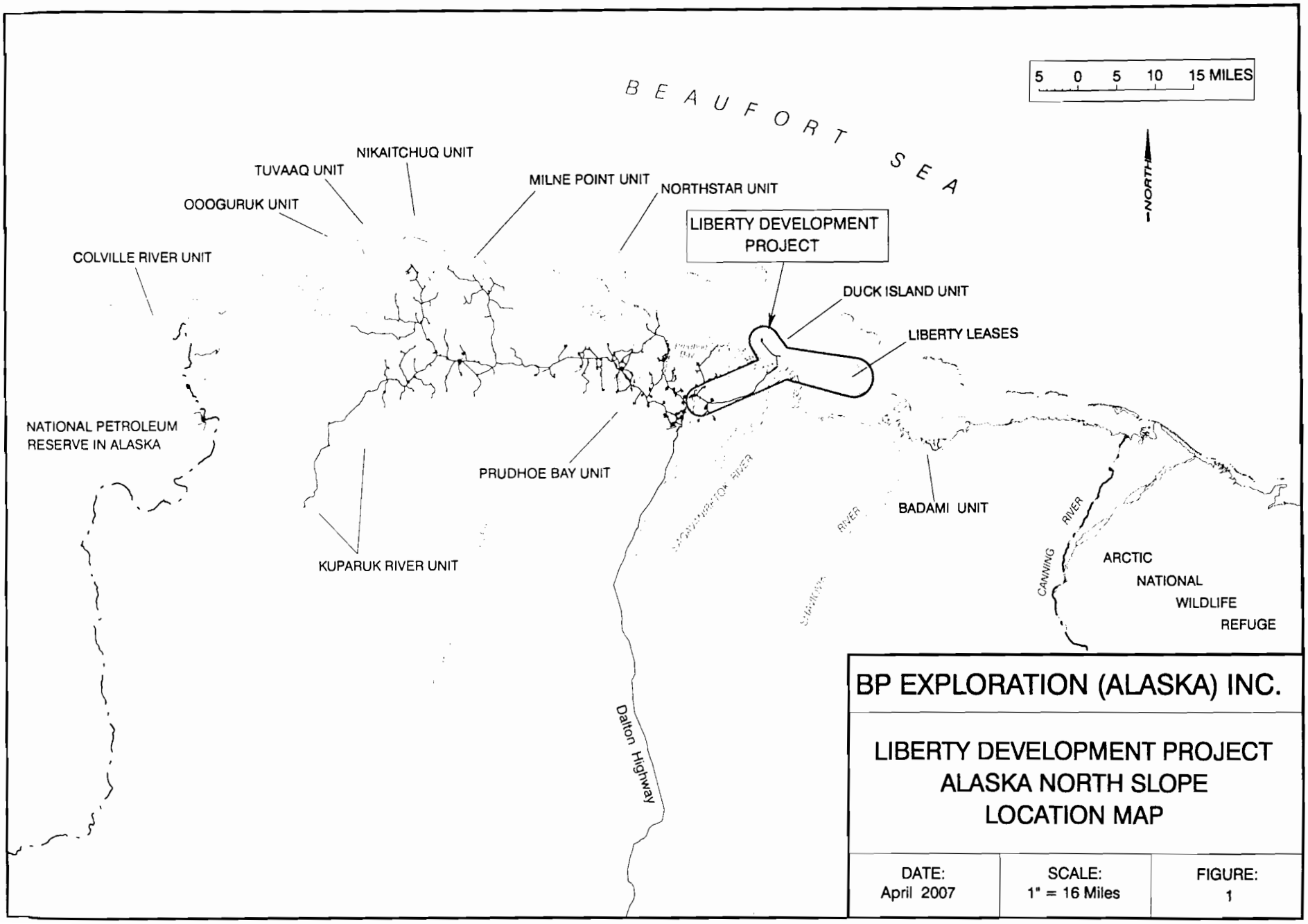
[1]BPXA is permitting a mine site for up to 1,000,000 cubic yards of material to ensure flexibility for the project in the event additional gravel is needed.

[2] This overburden will be pushed back into the mine site as part of rehabilitation program

[3]Acreage reflects total covered areas to the sea bed floor

[4]These amounts are approximate and account for a 10% contingency to allow for flexibility in final design and project execution including make-up volumes for potential gravel settlement at the Endicott SDI.

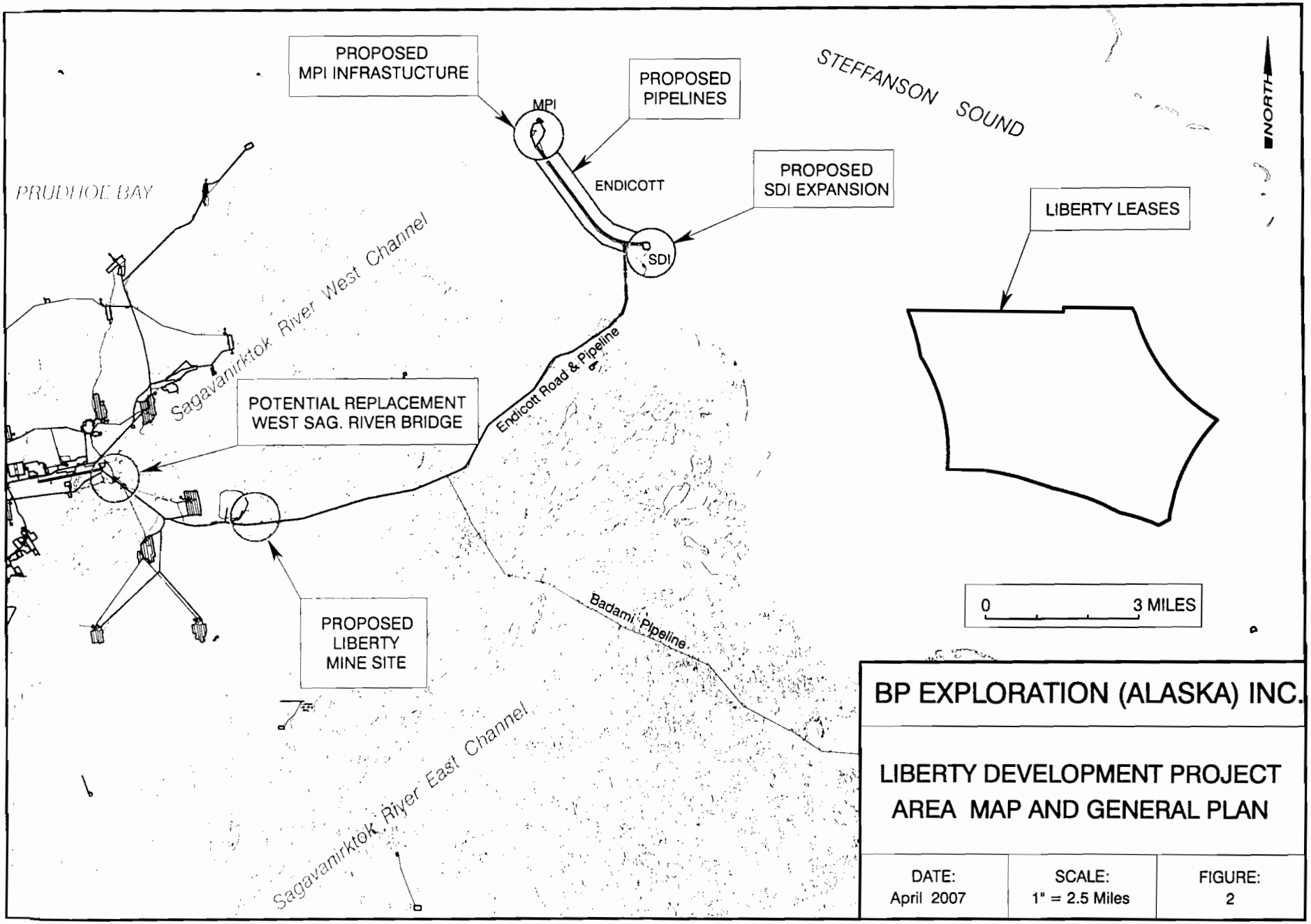
[5]Slope protection source is from mine site outside of Fairbanks



BP EXPLORATION (ALASKA) INC.

LIBERTY DEVELOPMENT PROJECT
ALASKA NORTH SLOPE
LOCATION MAP

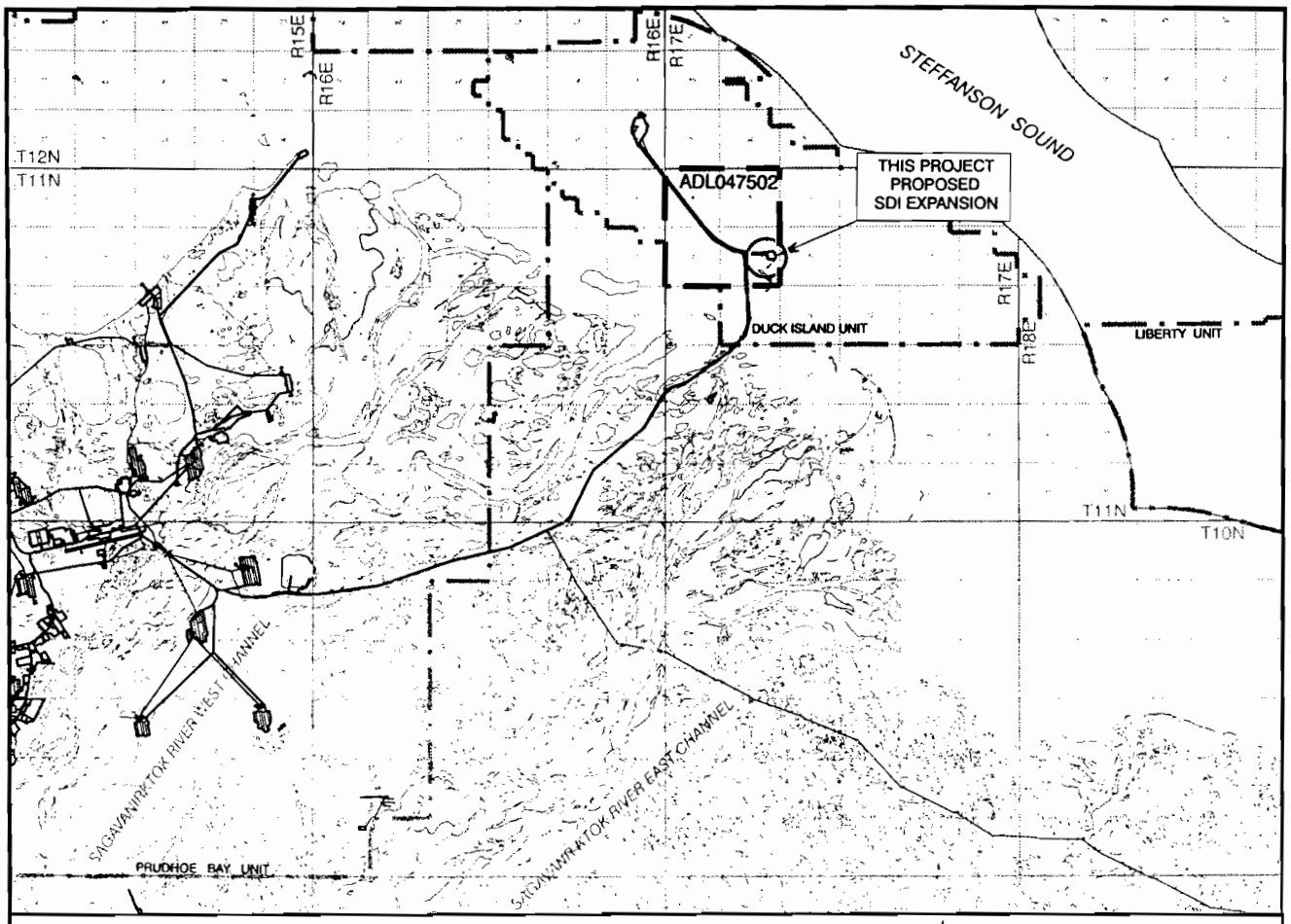
DATE:	SCALE:	FIGURE:
April 2007	1" = 16 Miles	1



BP EXPLORATION (ALASKA) INC.

LIBERTY DEVELOPMENT PROJECT
AREA MAP AND GENERAL PLAN

DATE:	SCALE:	FIGURE:
April 2007	1" = 2.5 Miles	2



This map is based on U.S.G.S. quad Beechey Point (A-2, A-3, B-2, B-3) and on the Unit Operator's Facility Maps.

NORTH

PROJECT LOCATION:

DUCK ISLAND UNIT - SDI

NAD 83
LAT. = 70° 19' 19.69"
LONG. = -147° 51' 45.40"
ALASKA STATE PLANE ZONE 3, NAD 83
X = 1,410,346.80 FEET
Y = 5,970,686.01 FEET

ADL 047502 SEC. 8 T11N, R17E

DATUM: MEAN SEA LEVEL

PURPOSE: GRAVEL EXPANSION

ADJACENT PROPERTY OWNER: STATE OF ALASKA

COUNTY: NORTH SLOPE BOROUGH

IN: STEFFANSON SOUND / BEAUFORT SEA

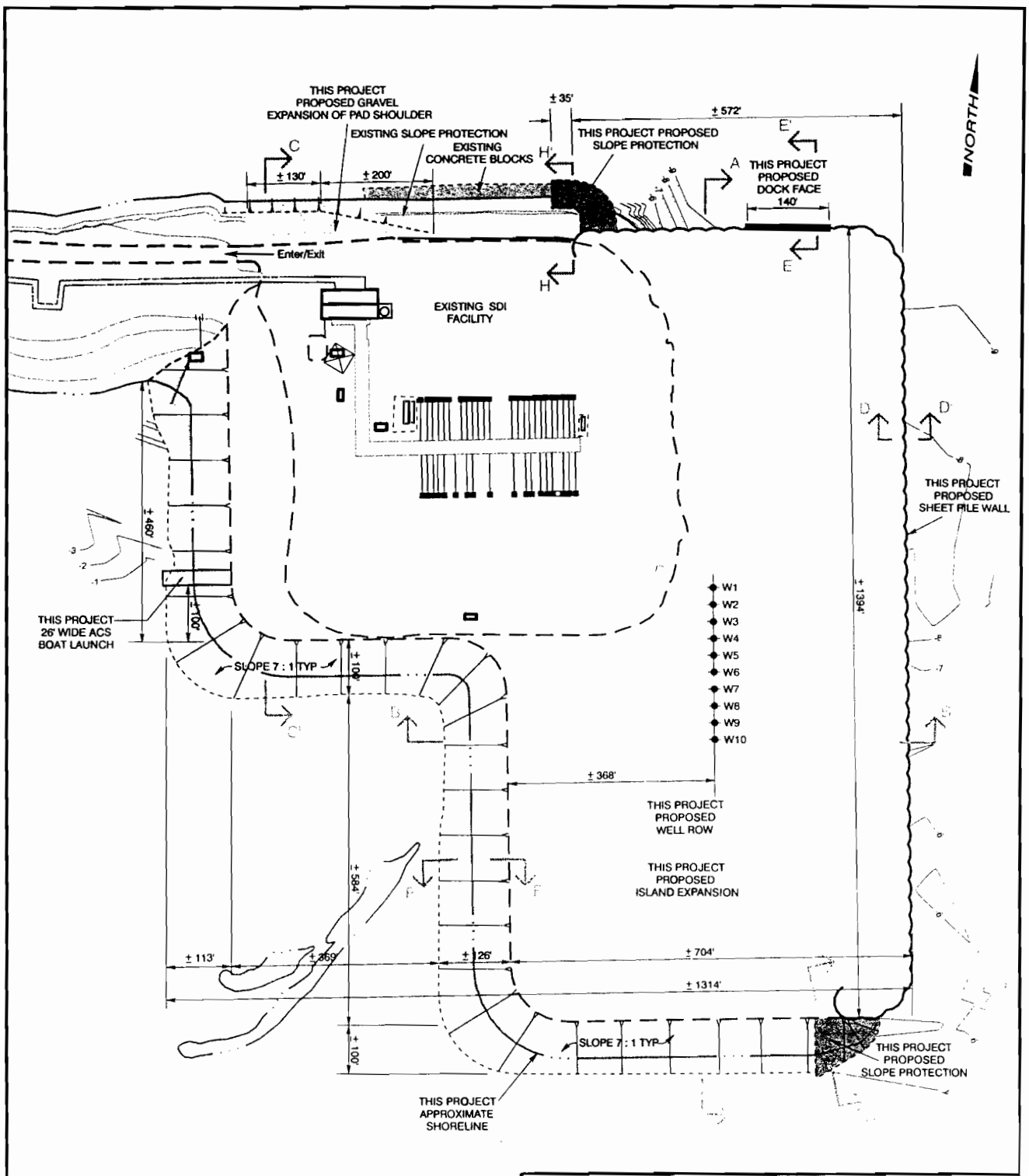
NEAR / AT: SAGAVANIRKOK RIVER

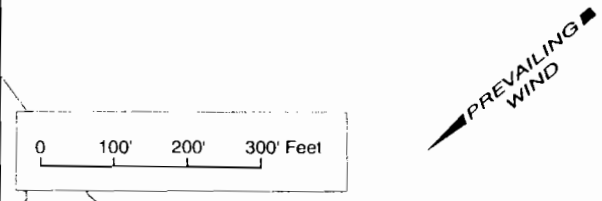
APPLICANT: BP EXPLORATION ALASKA, INC.

BP EXPLORATION (ALASKA) INC.

LIBERTY DEVELOPMENT PROJECT
SDI EXPANSION
VICINITY MAP

DATE:	SCALE:	FIGURE:
April 2007	1" = 3 Miles	3



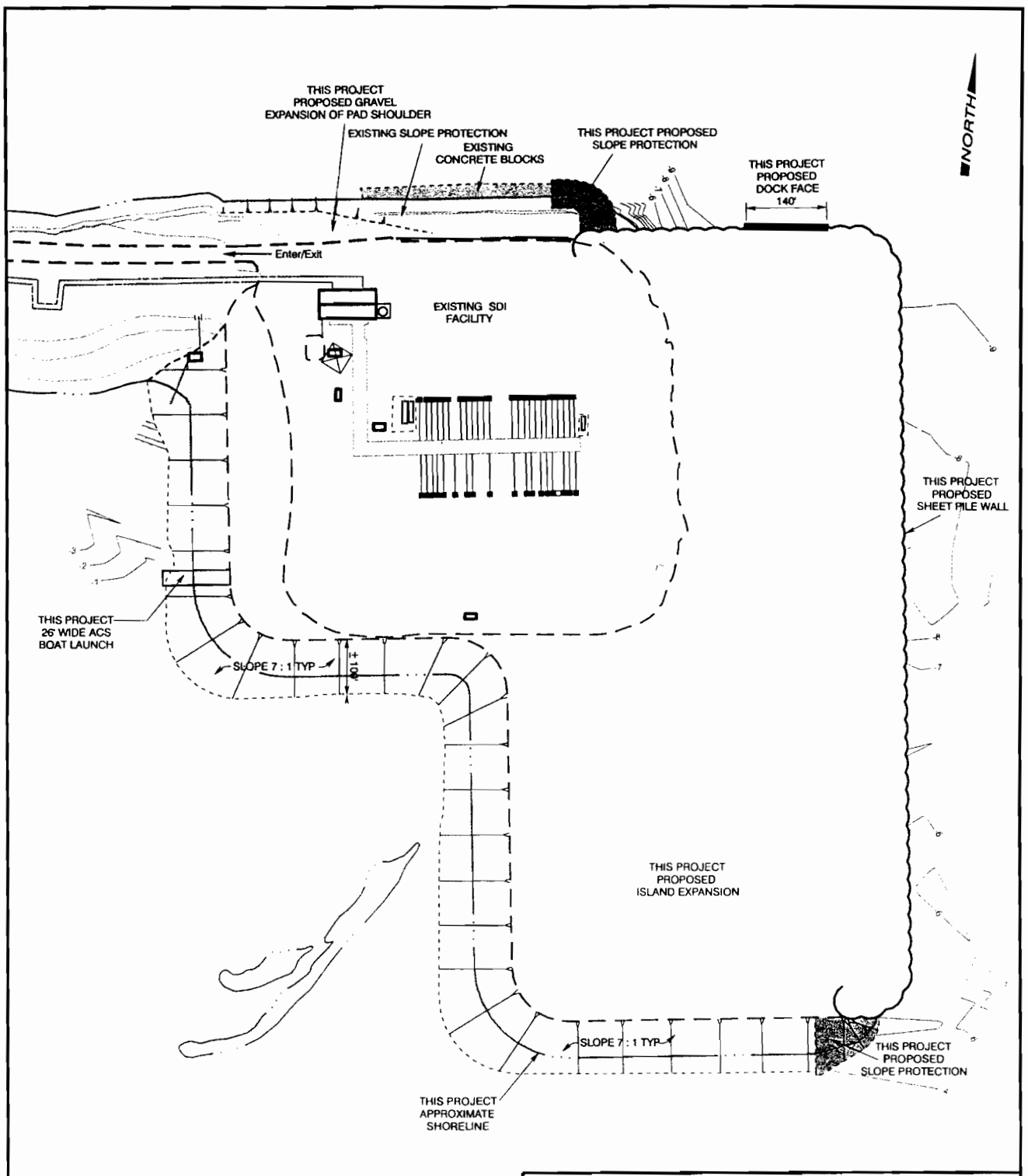


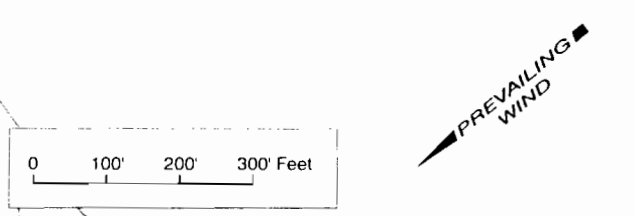
APPROXIMATE TIDE RANGE 9 INCHES
APPROXIMATE ISLAND EXPANSION FOOT PRINT 22 ACRES
APPROXIMATE ISLAND EXPANSION FILL QUANTITY 860,000 CY

BP EXPLORATION (ALASKA) INC.

LIBERTY DEVELOPMENT PROJECT SATELLITE DRILLING ISLAND PROPOSED EXPANSION GENERAL PLAN

DATE:	SCALE:	FIGURE:
April 2007	1" = 250 Feet	4



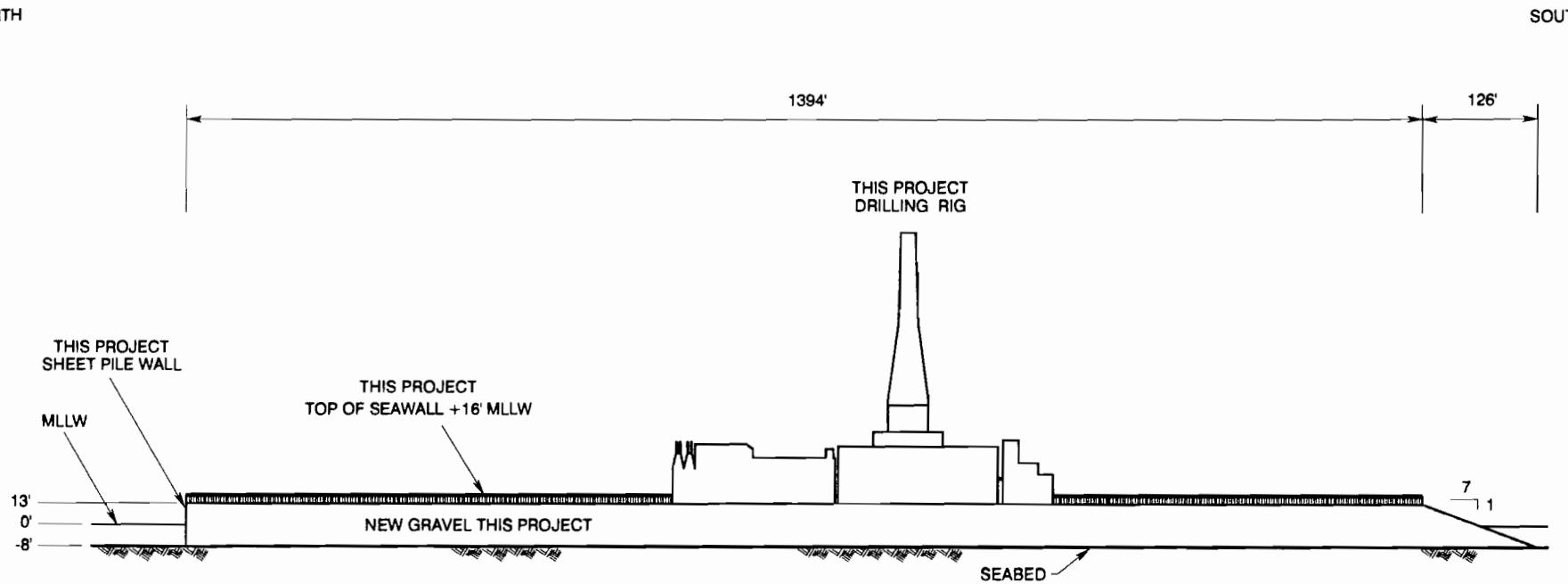


APPROXIMATE TIDE RANGE 9 INCHES
APPROXIMATE ISLAND EXPANSION FOOT PRINT 22 ACRES
APPROXIMATE ISLAND EXPANSION FILL QUANTITY 860,000 CY

BP EXPLORATION (ALASKA) INC.

LIBERTY DEVELOPMENT PROJECT
SATELLITE DRILLING ISLAND
PROPOSED
EROSION CONTROL PLAN

DATE:	SCALE:	FIGURE:
April 2007	1" = 250 Feet	5



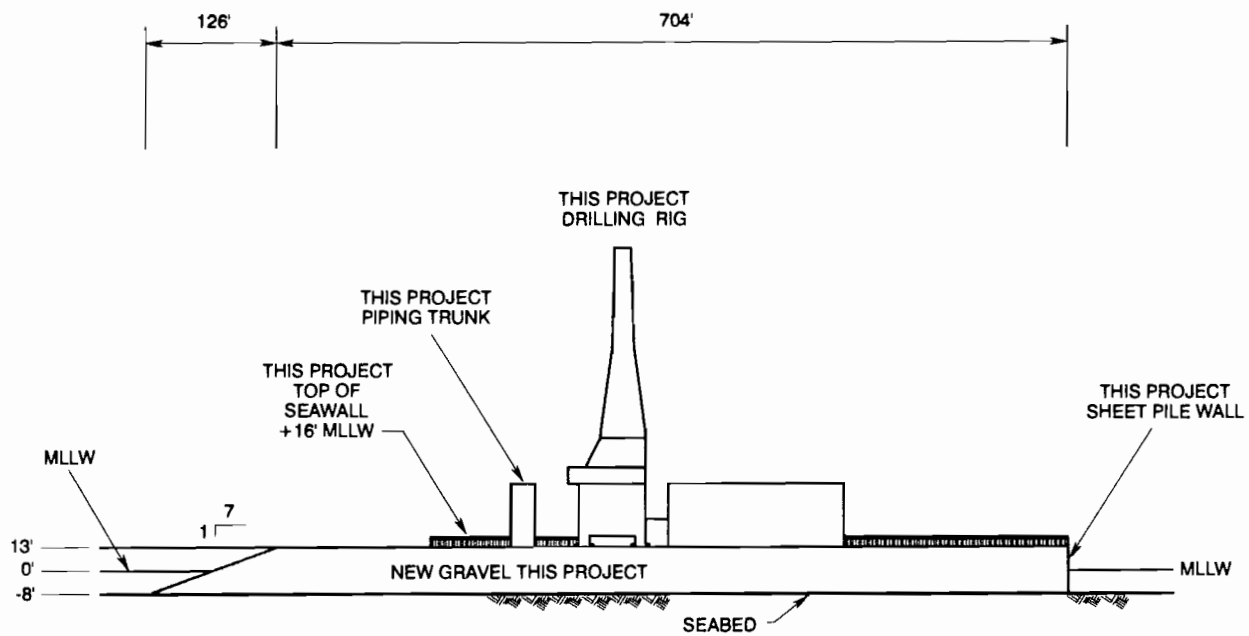
SIDE VIEW A-A'

PAD SURFACE +13 MLLW
APPROXIMATE TIDE RANGE IS 9 INCHES
DIMENSIONS AND LOCATIONS OF FACILITIES
AND ISLAND EXPANSION ARE APPROXIMATE

BP EXPLORATION (ALASKA) INC.

LIBERTY DEVELOPMENT PROJECT
SATELLITE DRILLING ISLAND
PROPOSED EXPANSION
CROSS-SECTION

DATE:	SCALE:	FIGURE:
April 2007	NOT TO SCALE	6



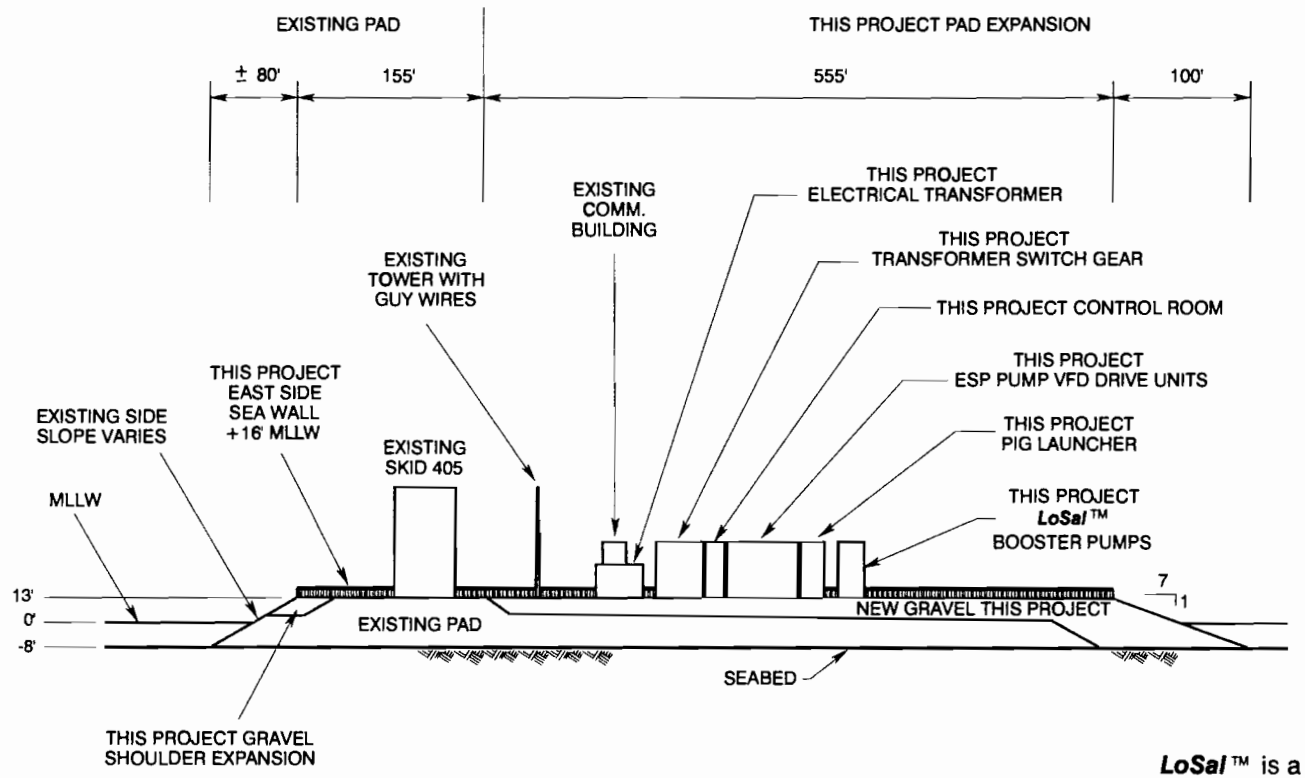
SIDE VIEW B-B'

PAD SURFACE +13 MLLW
APPROXIMATE TIDE RANGE IS 9 INCHES
DIMENSIONS AND LOCATIONS OF FACILITIES
AND ISLAND EXPANSION ARE APPROXIMATE

BP EXPLORATION (ALASKA) INC.

LIBERTY DEVELOPMENT PROJECT
SATELLITE DRILLING ISLAND
PROPOSED EXPANSION
CROSS-SECTION

DATE:	SCALE:	FIGURE:
April 2007	NOT TO SCALE	7



SIDE VIEW C-C'

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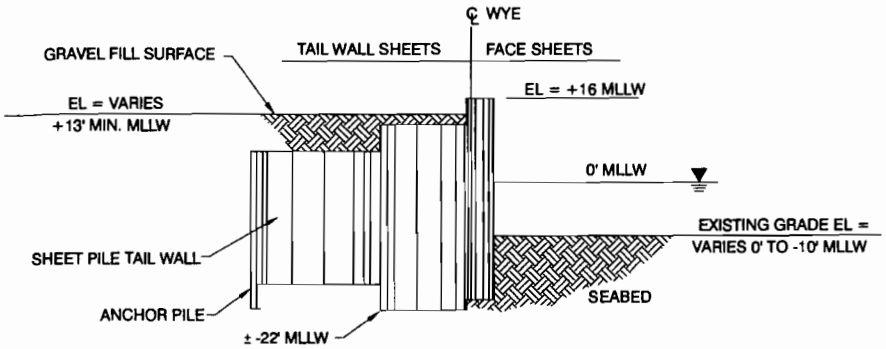
PAD SURFACE +13 MLLW
APPROXIMATE TIDE RANGE IS 9 INCHES
DIMENSIONS AND LOCATIONS OF FACILITIES AND ISLAND EXPANSION ARE APPROXIMATE

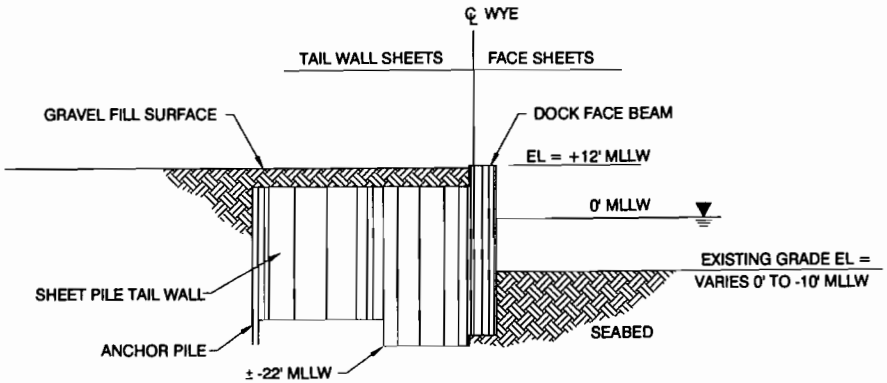
BP EXPLORATION (ALASKA) INC.

LIBERTY DEVELOPMENT PROJECT SATELLITE DRILLING ISLAND PROPOSED EXPANSION CROSS-SECTION

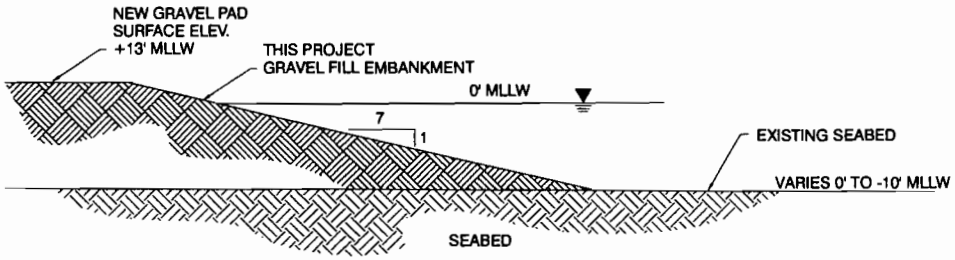
DATE:	SCALE:	FIGURE:
April 2007	NOT TO SCALE	8



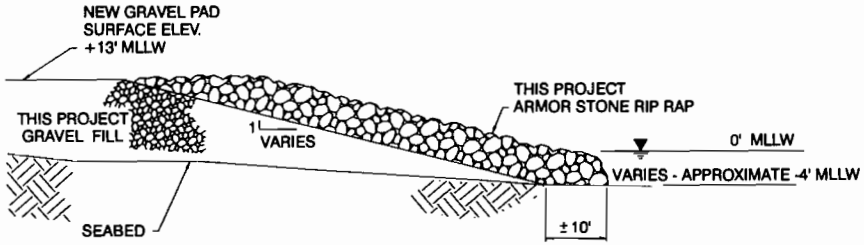
TYPICAL SHEET PILE CROSS SECTION D - D'
(NEW CONSTRUCTION THIS PROJECT)



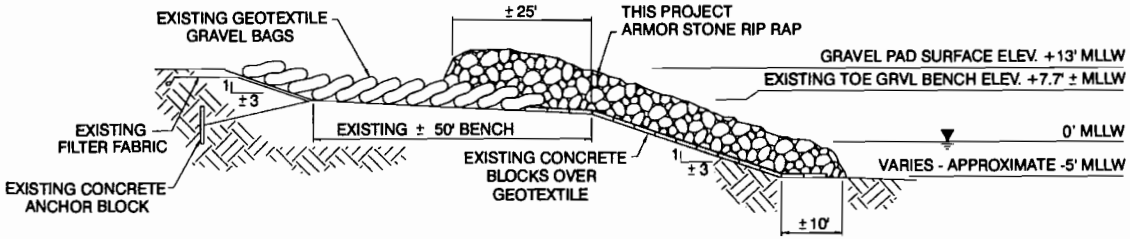
TYPICAL SHEET PILE CROSS SECTION E - E'
(NEW CONSTRUCTION THIS PROJECT)



TYPICAL GRAVEL SLOPE CROSS SECTION F - F'



TYPICAL SLOPE PROTECTION CROSS SECTION G - G'

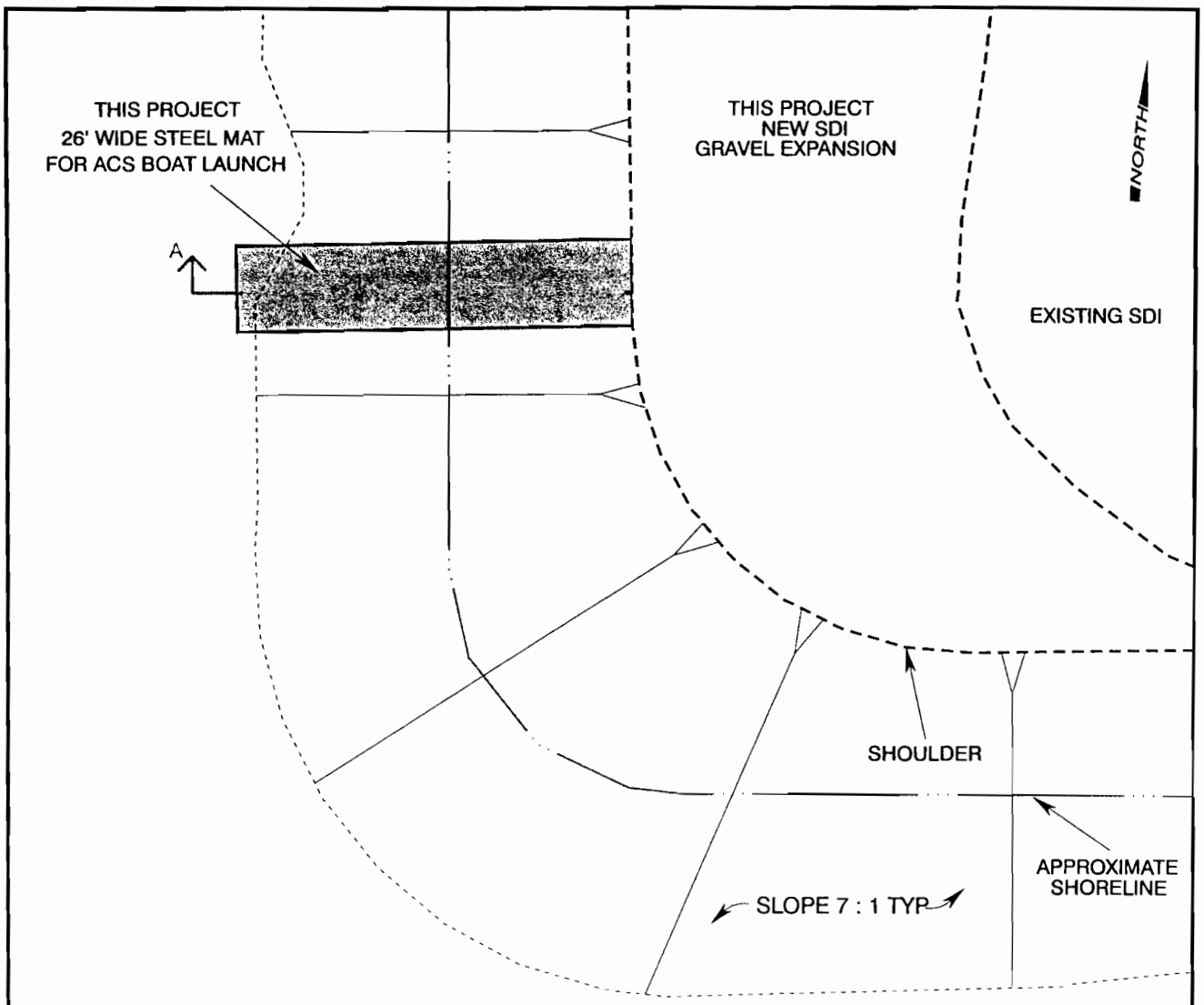


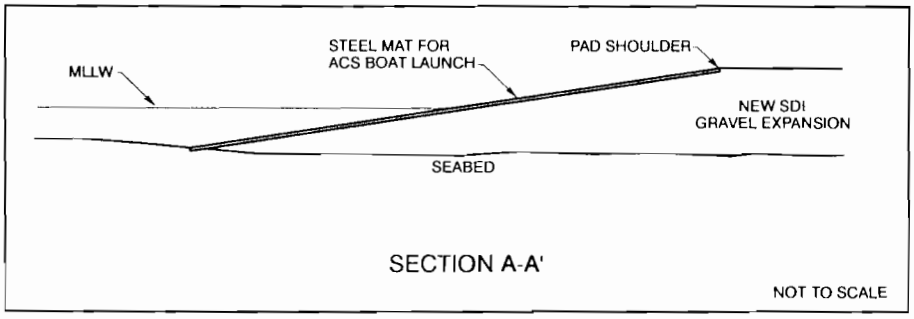
TYPICAL SLOPE PROTECTION CROSS SECTION H - H'

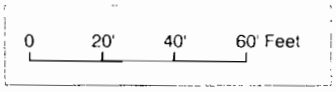
BP EXPLORATION (ALASKA) INC.

LIBERTY DEVELOPMENT PROJECT
SATELLITE DRILLING ISLAND PROPOSED
EROSION CONTROL SECTIONS

DATE:	SCALE:	FIGURE:
April 2007	NOT TO SCALE	9



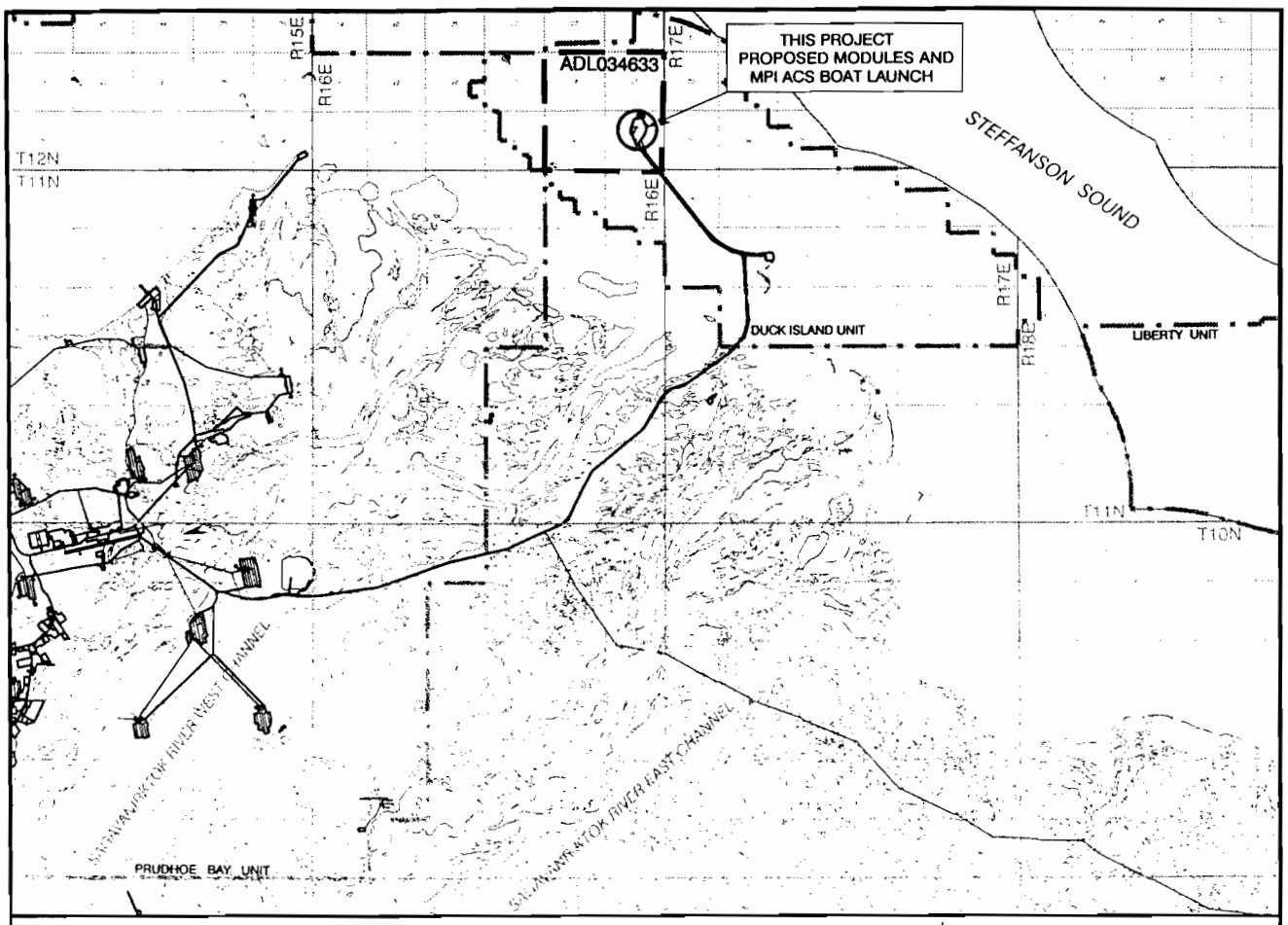




BP EXPLORATION (ALASKA) INC.

LIBERTY DEVELOPMENT PROJECT
SATELLITE DRILLING ISLAND
PROPOSED ACS BOAT LAUNCH PLAN

DATE:	SCALE:	FIGURE:
April 2007	1" = 50 Feet	10



This map is based on U.S.G.S. quad Beechey Point (A-2, A-3, B-2, B-3) and on the Unit Operator's Facility Maps.

NORTH

PROJECT LOCATION:

DUCK ISLAND UNIT - MPI
NAD 83
LAT. = 70° 21' 11.88"
LONG. = -147° 57' 27.72"
ALASKA STATE PLANE ZONE 3, NAD 83
X = 1,398,990.17 FEET
Y = 5,982,454.49 FEET

ADL 034633 SEC. 36 T12N, R16E

DATUM: MEAN SEA LEVEL

PURPOSE: MODULES AND BOAT LAUNCH

ADJACENT PROPERTY OWNER: STATE OF ALASKA

COUNTY: NORTH SLOPE BOROUGH

IN: STEFFANSON SOUND / BEAUFORT SEA

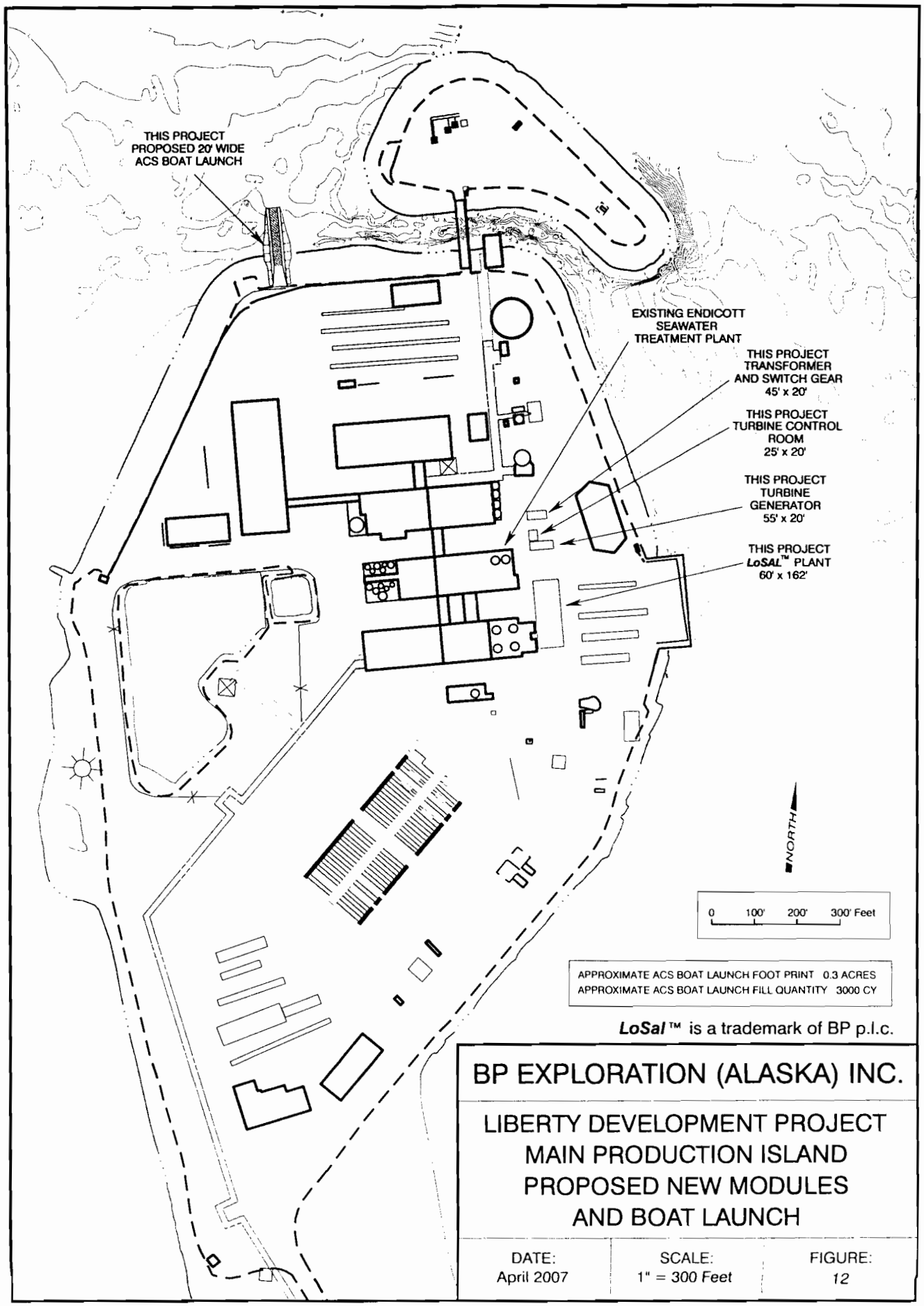
NEAR / AT: SAGAVANIRKOK RIVER

APPLICANT: BP EXPLORATION ALASKA, INC.

BP EXPLORATION (ALASKA) INC.

LIBERTY DEVELOPMENT PROJECT
MPI PROPOSED NEW MODULES
AND BOAT LAUNCH
VICINITY MAP

DATE:	SCALE:	FIGURE:
April 2007	1" = 3 Miles	11



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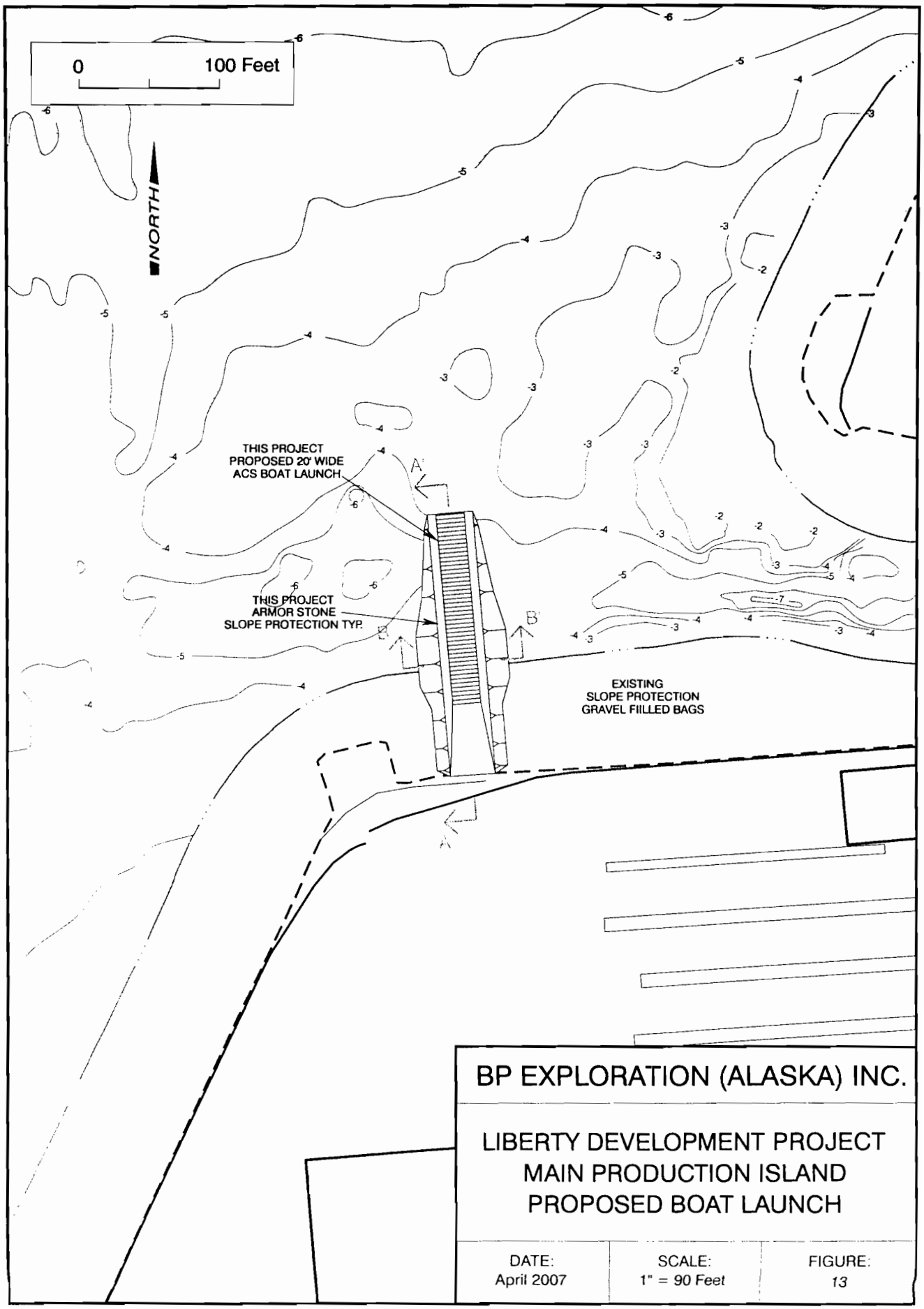
BP EXPLORATION (ALASKA) INC.

LIBERTY DEVELOPMENT PROJECT
MAIN PRODUCTION ISLAND
PROPOSED NEW MODULES
AND BOAT LAUNCH

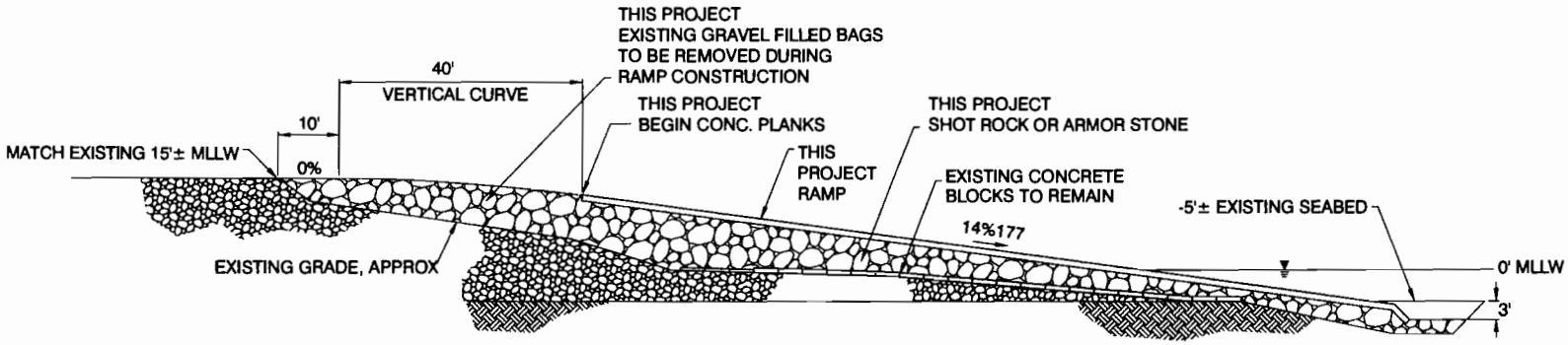
DATE:	SCALE:	FIGURE:
April 2007	1" = 300 Feet	12



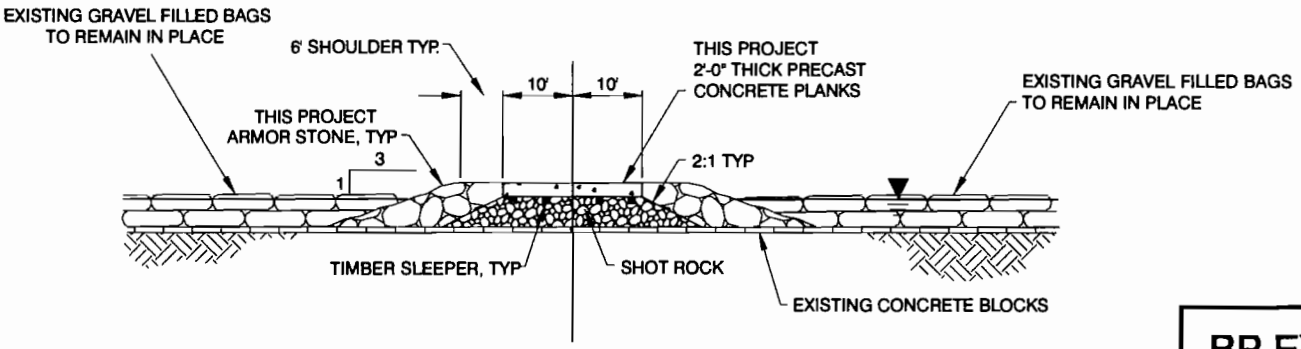
BP EXPLORATION (ALASKA) INC.

LIBERTY DEVELOPMENT PROJECT
MAIN PRODUCTION ISLAND
PROPOSED BOAT LAUNCH

DATE:	SCALE:	FIGURE:
April 2007	1" = 90 Feet	13



TYPICAL RAMP PROFILE SECTION A - A'



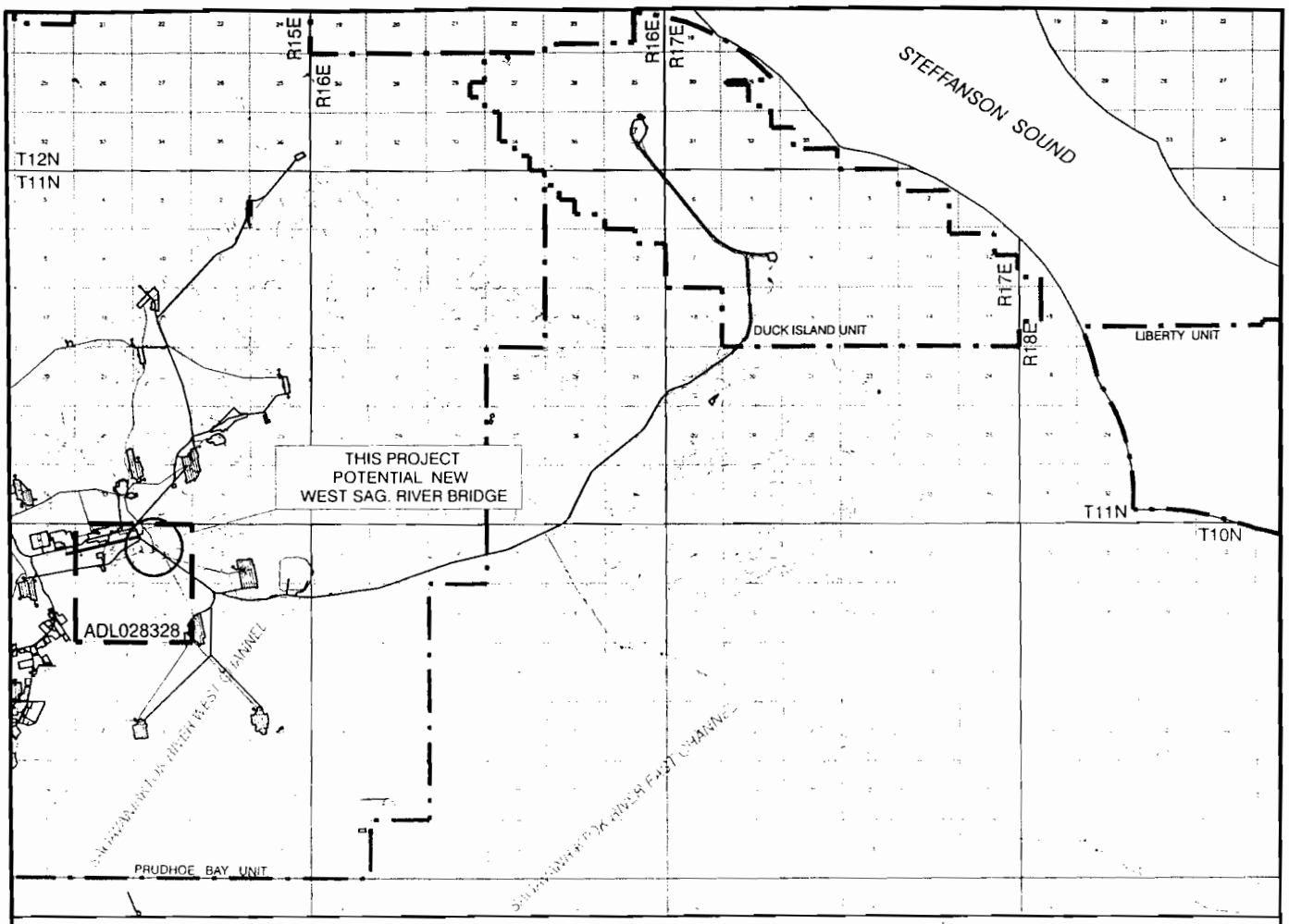
TYPICAL RAMP CROSS SECTION B - B'

APPROXIMATE TIDE RANGE IS 9 INCHES
DIMENSIONS AND LOCATIONS OF FACILITIES
ARE APPROXIMATE

BP EXPLORATION (ALASKA) INC.

LIBERTY DEVELOPMENT PROJECT
MAIN PRODUCTION ISLAND
PROPOSED BOAT LAUNCH
CROSS SECTIONS

DATE:	SCALE:	FIGURE:
April 2007	NOT TO SCALE	14



This map is based on U.S.G.S. quad Beechey Point (A-2, A-3, B-2, B-3) and on the Unit Operator's Facility Maps.

PROJECT LOCATION:

PRUDHOE BAY UNIT - SAG. RIVER NEW BRIDGE OPTION
NAD 83
LAT. = 70° 14' 59.11"
LONG. = -148° 18' 18.66"

ALASKA STATE PLANE ZONE 4, NAD 83
X = 1,850,161.80 FEET
Y = 5,943,679.20 FEET

ADL 028328 SEC. 3 T10N, R15E

DATUM: MEAN SEA LEVEL

PURPOSE: SAGAVANIRKTOK RIVER BRIDGE REPLACEMENT

ADJACENT PROPERTY OWNER: STATE OF ALASKA

COUNTY: NORTH SLOPE BOROUGH

IN: STEFFANSON SOUND / BEAUFORT SEA

NEAR / AT: SAGAVANIRKOK RIVER

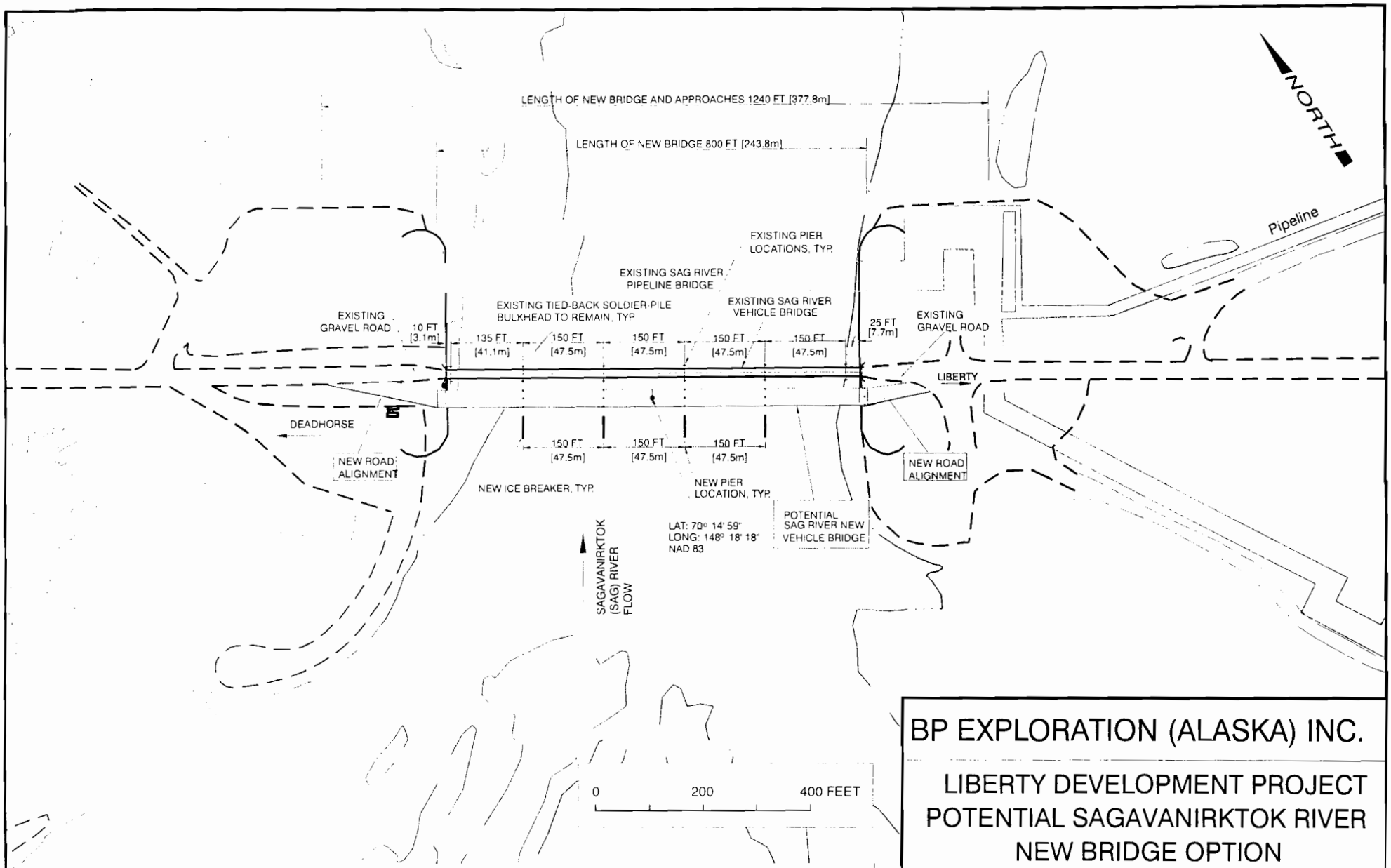
BRIDGE LOCATION MILE POST: 9.0 SAGAVANIRKTOK RIVER

APPLICANT: BP EXPLORATION ALASKA, INC.

BP EXPLORATION (ALASKA) INC.

LIBERTY DEVELOPMENT PROJECT
SAGAVANIRKTOK RIVER BRIDGE
VICINITY MAP

DATE:	SCALE:	FIGURE:
April 2007	1" = 3 Miles	15

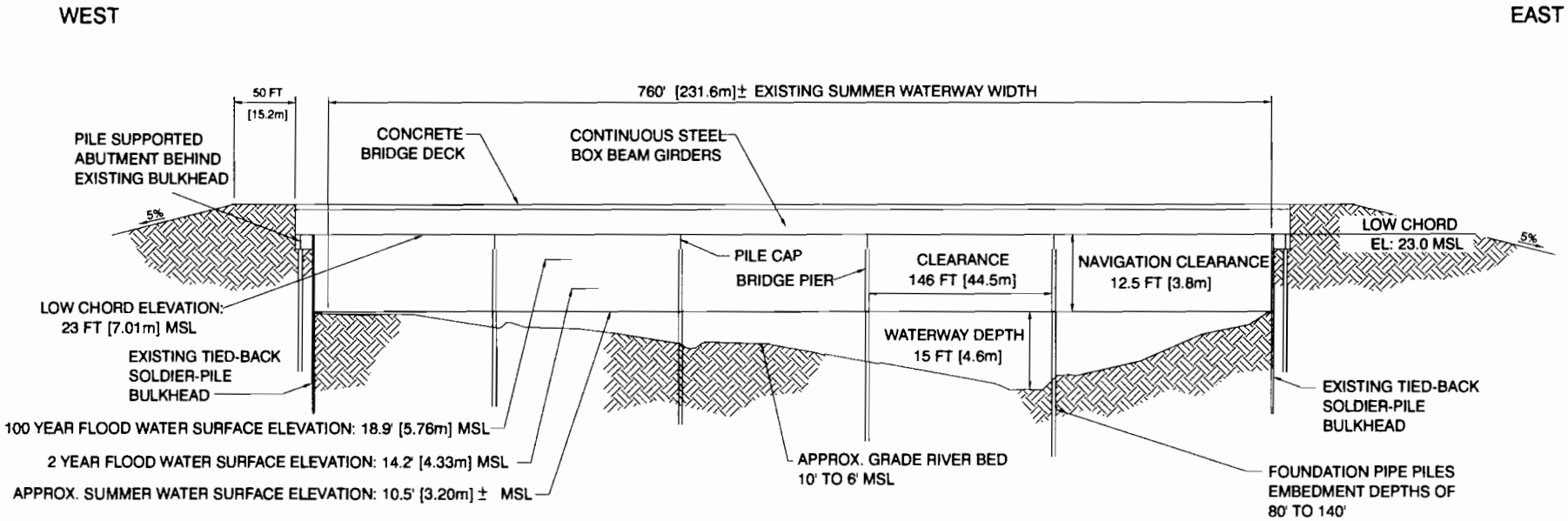


WEST SAGAVANIRKTOK NEW BRIDGE OPTION FOOT PRINT 0.1 ACRES
WEST SAGAVANIRKTOK NEW BRIDGE OPTION FILL QUANTITY 1,000 CY

BP EXPLORATION (ALASKA) INC.

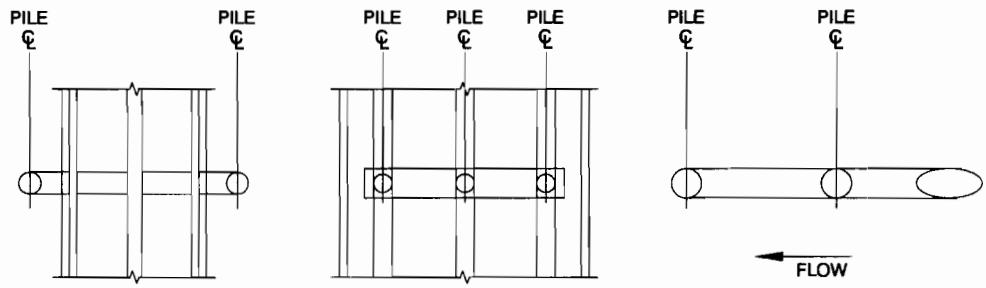
LIBERTY DEVELOPMENT PROJECT
POTENTIAL SAGAVANIRKTOK RIVER NEW BRIDGE OPTION
LOCATION MAP

DATE:	SCALE:	FIGURE:
April 2007	1" = 250 Feet	16

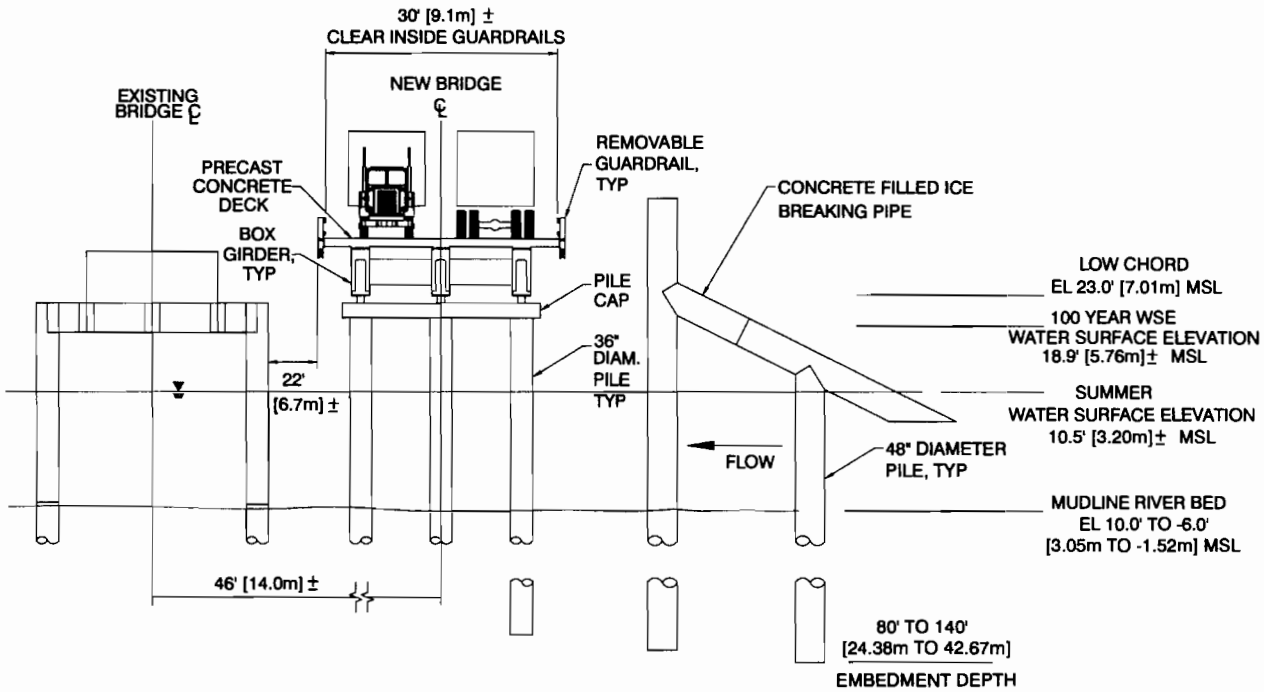


VEHICLE BRIDGE ELEVATION AT CENTER LINE

BP EXPLORATION (ALASKA) INC.		
LIBERTY DEVELOPMENT PROJECT POTENTIAL SAGAVANIRKTOK RIVER NEW BRIDGE OPTION ELEVATION		
DATE: April 2007	SCALE: NOT TO SCALE	FIGURE: 17

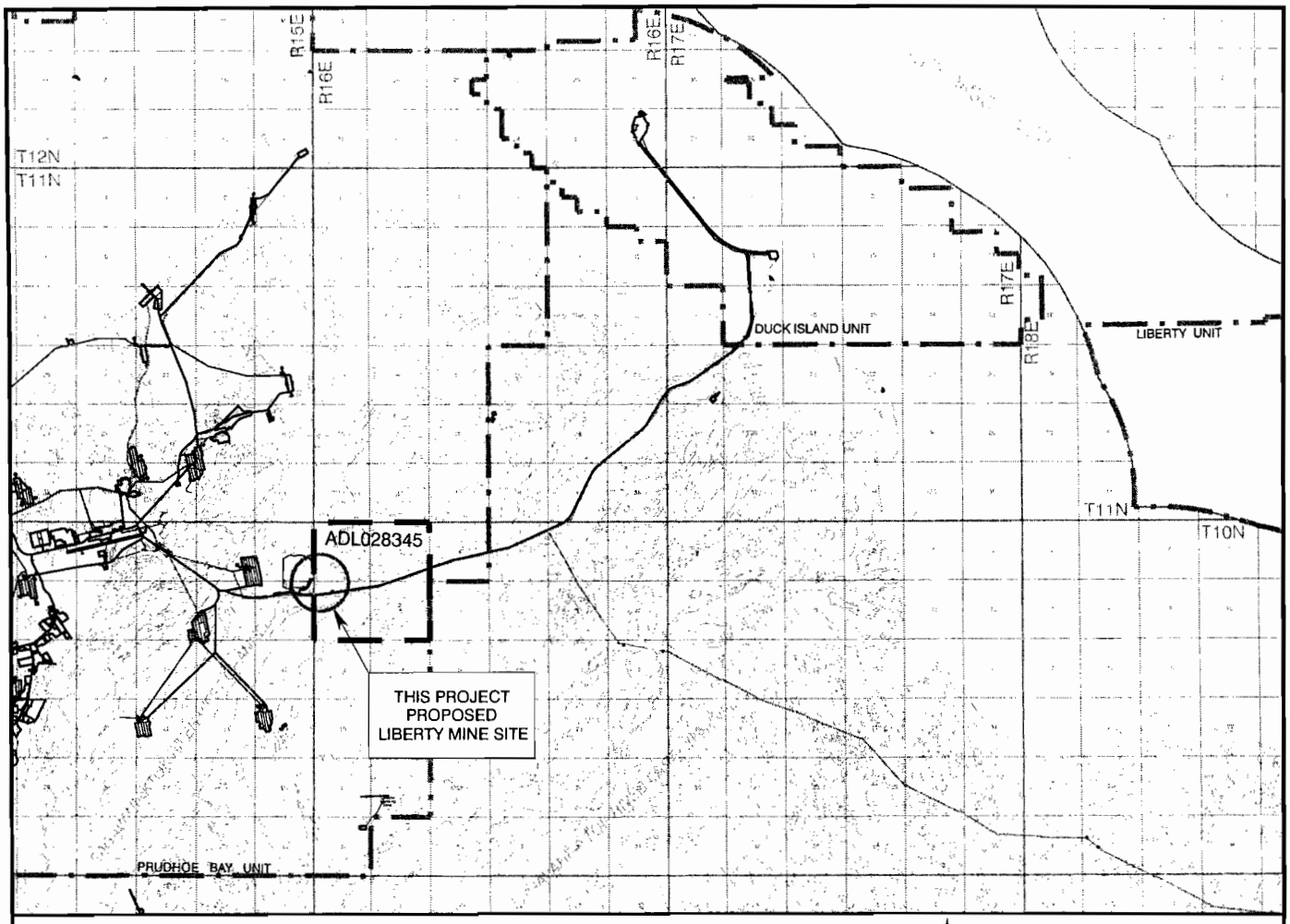


PLAN



ELEVATION

BP EXPLORATION (ALASKA) INC.		
LIBERTY DEVELOPMENT PROJECT POTENTIAL SAGAVANIRKTOK RIVER BRIDGE PIER PLAN AND ELEVATION		
DATE: April 2007	SCALE: NOT TO SCALE	FIGURE: 18



This map is based on U.S.G.S. quad Beechey Point (A-2, A-3, B-2, B-3) and on the Unit Operator's Facility Maps.

NORTH

PROJECT LOCATION:

PRUDHOE BAY UNIT - LIBERTY MINE SITE

NAD83
LAT. = 70° 14' 30.03"
LONG. = -148° 11' 06.48"
ALASKA STATE PLANE ZONE 4, NAD 83
X = 1,864,732.90 FEET
Y = 5,941,043.61 FEET

ADL 028345 SECS. 6, 7 T10N, R16E

DATUM: MEAN SEA LEVEL

PURPOSE: MINE DEVELOPMENT

ADJACENT PROPERTY OWNER: STATE OF ALASKA

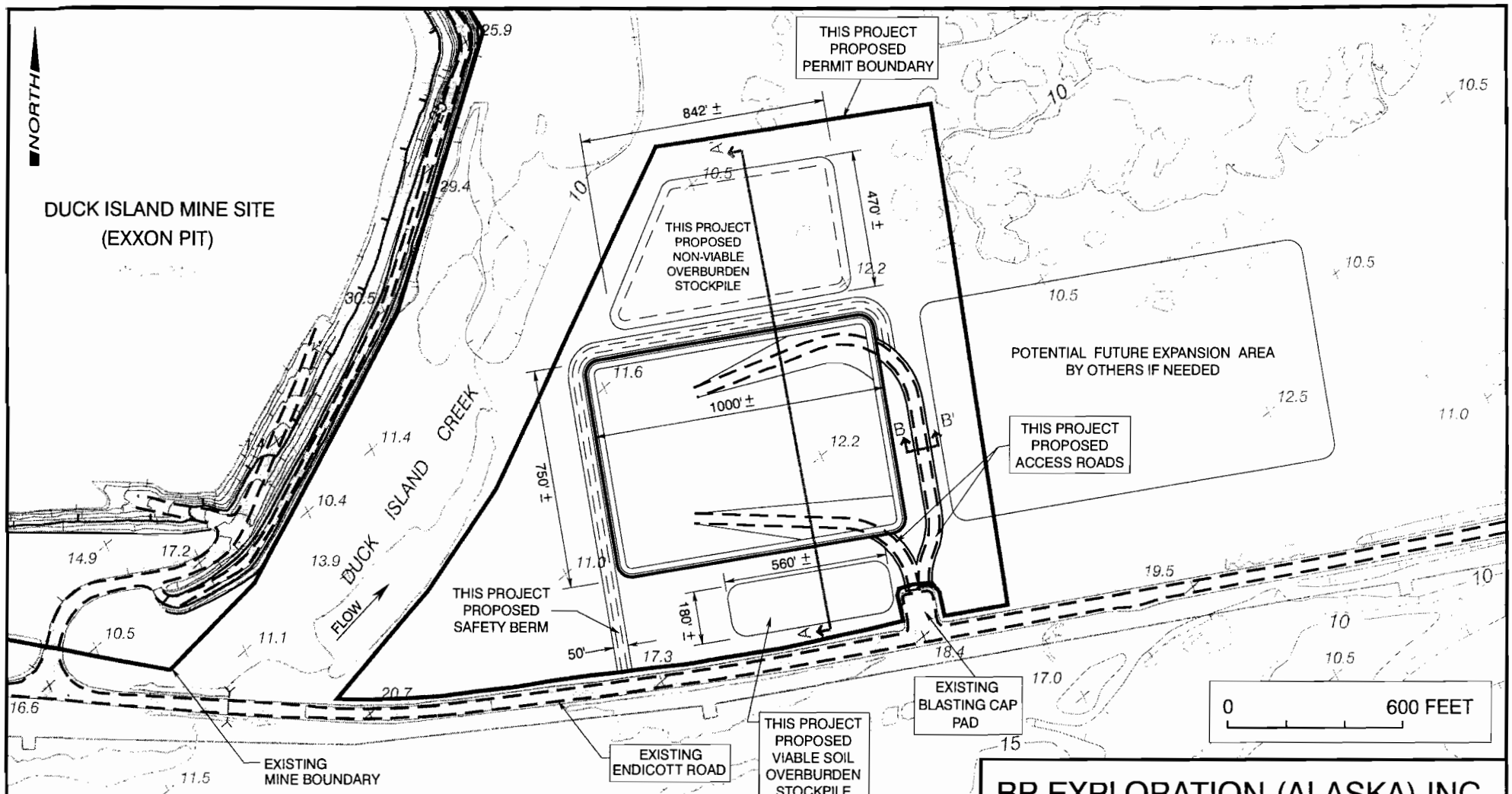
COUNTY: NORTH SLOPE BOROUGH

APPLICANT: BP EXPLORATION ALASKA, INC.

BP EXPLORATION (ALASKA) INC.

LIBERTY DEVELOPMENT PROJECT
MINE SITE
VICINITY MAP

DATE:	SCALE:	FIGURE:
April 2007	1" = 3 Miles	19



PROPOSED LIBERTY MINE SITE QUANTITIES

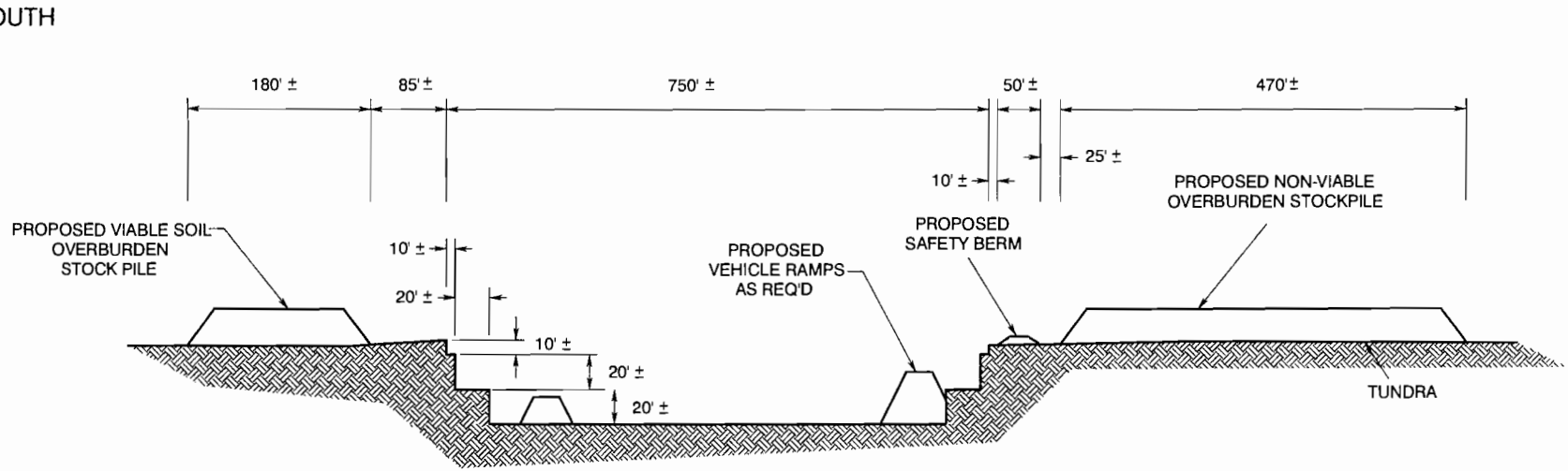
PERMIT BOUNDARY AREA 63 ACRES
EXCAVATION AREA 18 ACRES
EXCAVATED VOLUME 1,000,000 CY
VIABLE SOIL OVERBURDEN STOCKPILE VOLUME 60,000 CY
VIABLE SOIL OVERBURDEN STOCKPILE FOOTPRINT 3 ACRES
NON-VIABLE OVERBURDEN STOCKPILE VOLUME 215,000 CY
NON-VIABLE OVERBURDEN STOCKPILE FOOTPRINT 8 ACRES
SAFETY BERM OVERBURDEN FOOTPRINT 3 ACRES
SAFETY BERM OVERBURDEN VOLUME 15,000 CY
ACCESS ROAD FOOTPRINT 2 ACRES
ACCESS ROAD VOLUME 15,000 CY

ALL LOCATIONS, DIMENSIONS AND QUANTITIES ARE APPROXIMATE

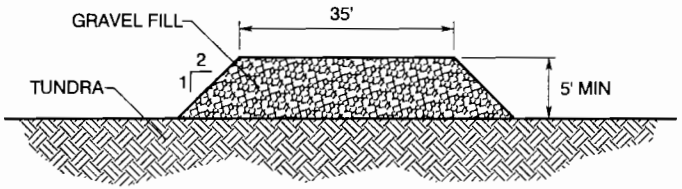
BP EXPLORATION (ALASKA) INC.

LIBERTY DEVELOPMENT PROJECT PROPOSED MINE SITE PLAN LOCATION MAP

DATE:	SCALE:	FIGURE:
April 2007	1" = 500 Feet	20



EXCAVATION CROSS SECTION A-A'



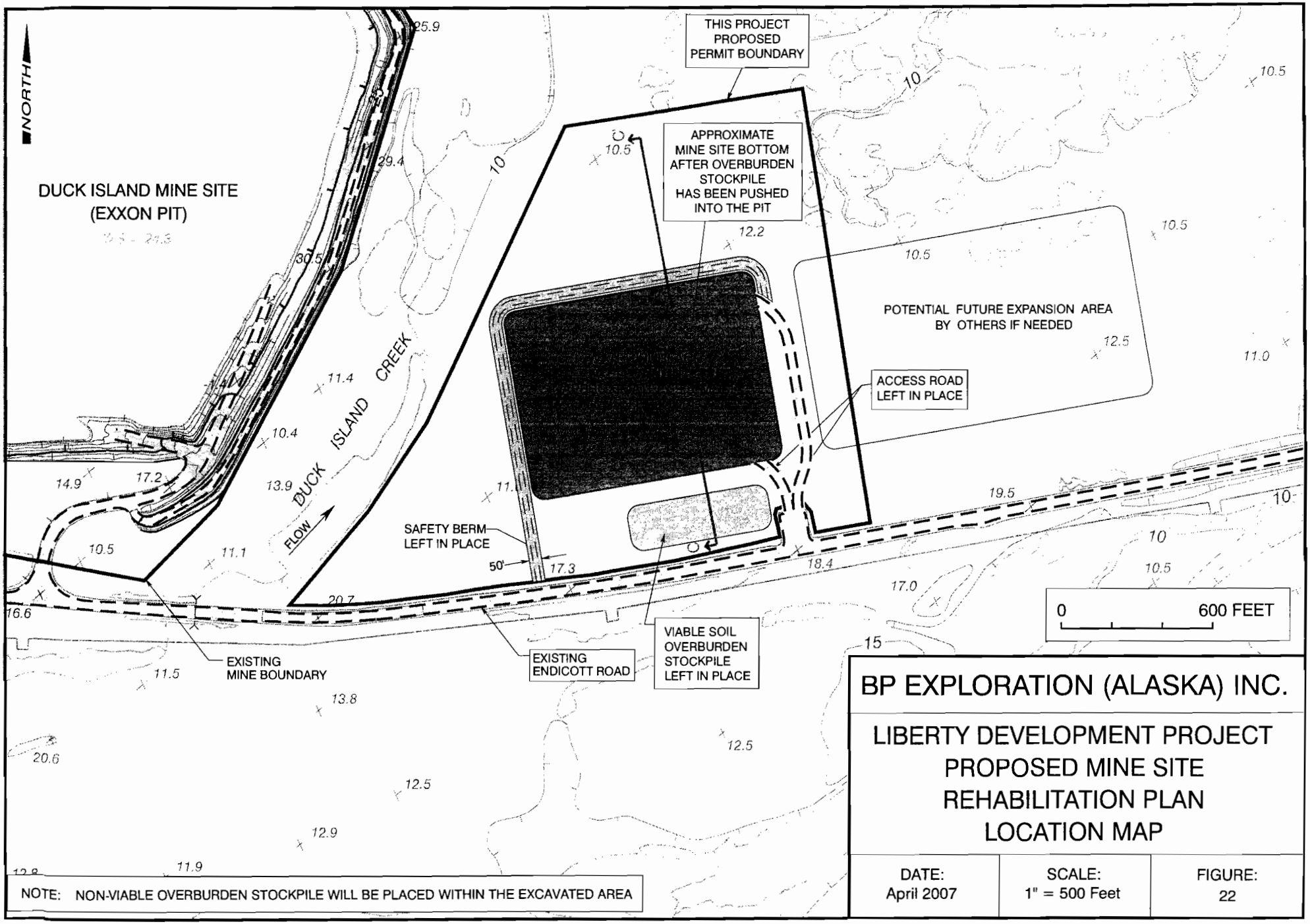
ACCESS ROAD CROSS SECTION B-B'

ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE

BP EXPLORATION (ALASKA) INC.

LIBERTY DEVELOPMENT PROJECT
PROPOSED MINE SITE PLAN
CROSS SECTIONS

DATE:	SCALE:	FIGURE:
April 2007	NOT TO SCALE	21

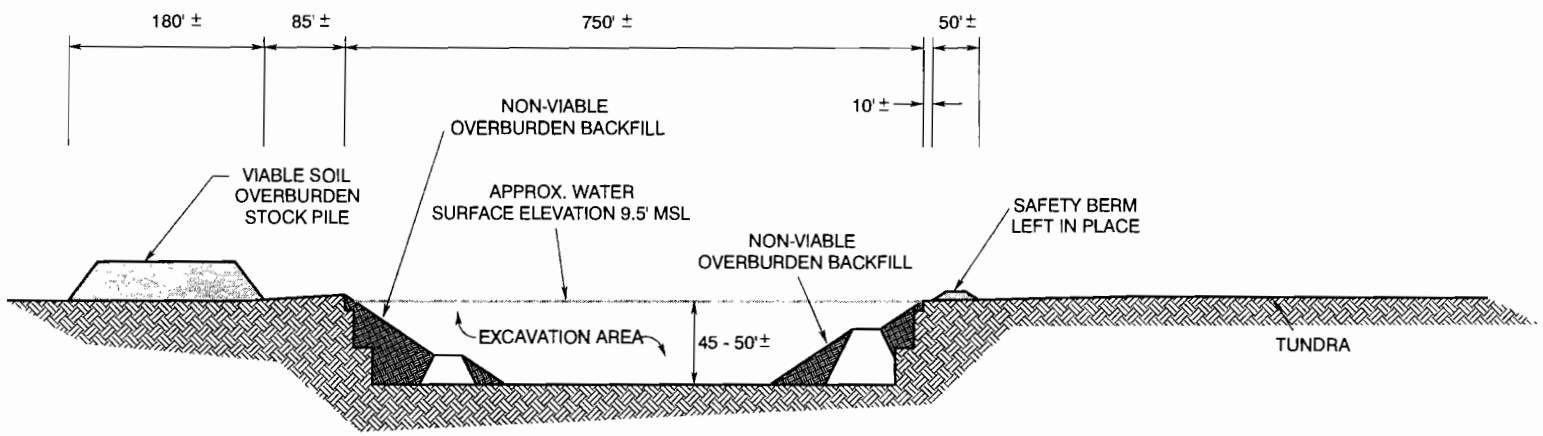


NOTE: NON-VIABLE OVERBURDEN STOCKPILE WILL BE PLACED WITHIN THE EXCAVATED AREA

BP EXPLORATION (ALASKA) INC.

LIBERTY DEVELOPMENT PROJECT
PROPOSED MINE SITE
REHABILITATION PLAN
LOCATION MAP

DATE:	SCALE:	FIGURE:
April 2007	1" = 500 Feet	22



REHAB CROSS SECTION C-C'

NON-VIABLE OVERBURDEN WILL BE PLACED IN EXCAVATION ALONG PIT WALLS,
VIABLE OVERBURDEN STOCKPILE SOIL WILL REMAIN IN PLACE FOR FUTURE USE AS NEEDED.

ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE

BP EXPLORATION (ALASKA) INC.

LIBERTY DEVELOPMENT PROJECT
PROPOSED MINE SITE
REHABILITATION PLAN
CROSS SECTION

DATE:	SCALE:	FIGURE:
April 2007	NOT TO SCALE	23