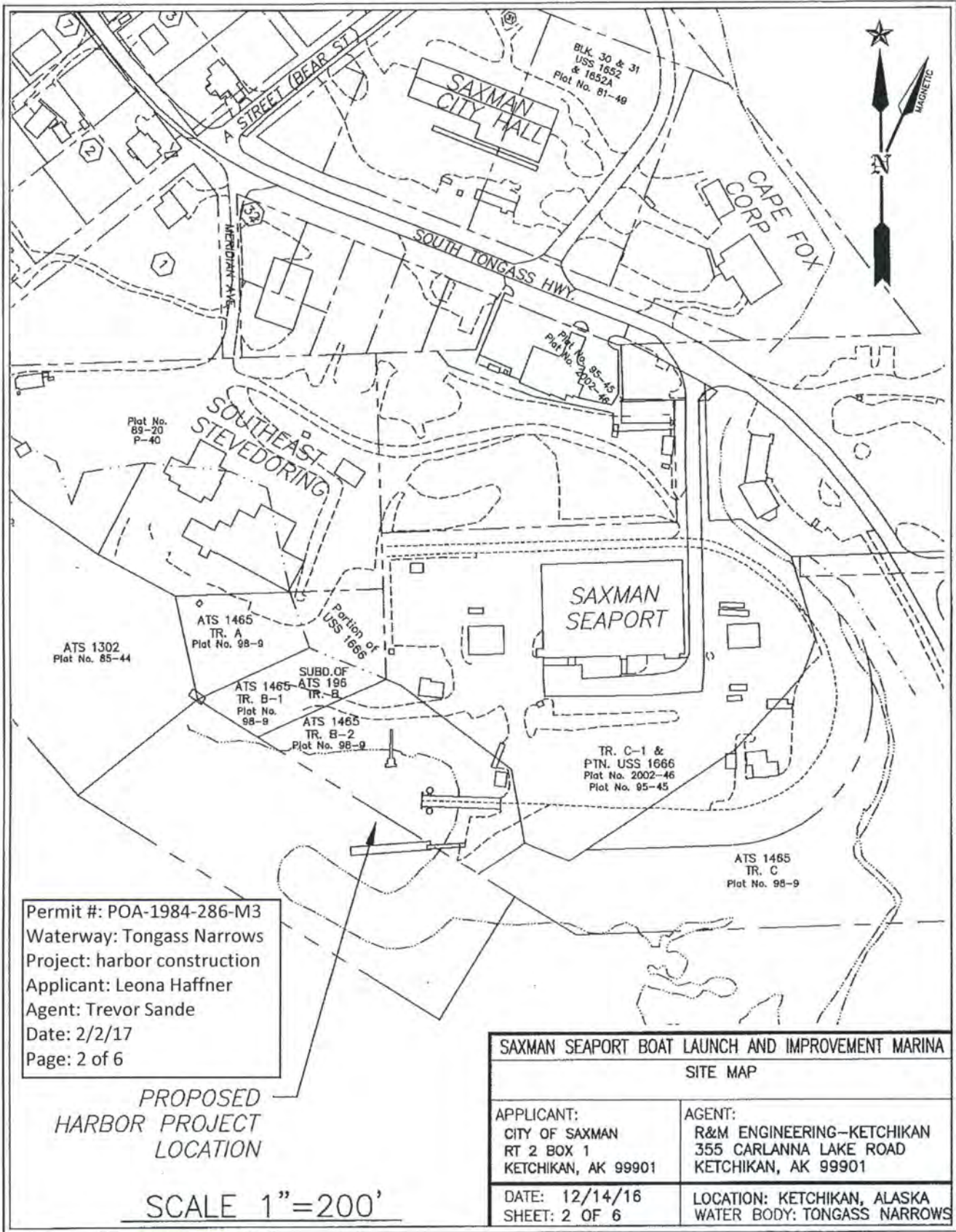


Permit #: POA-1984-286-M3
 Waterway: Tongass Narrows
 Project: harbor construction
 Applicant: Leona Haffner
 Agent: Trevor Sande
 Date: 2/2/17
 Page: 1 of 6

PROJECT LOCATION:
 55°18'53.50"N, 131°35'43.62"W
 T 76S, R 91E, SEC 33, CRM

SAXMAN SEAPORT BOAT LAUNCH AND IMPROVEMENT MARINA LOCATION MAP	
APPLICANT: CITY OF SAXMAN RT 2 BOX 1 KETCHIKAN, AK 99901	AGENT: R&M ENGINEERING--KETCHIKAN 355 CARLANNA LAKE ROAD KETCHIKAN, AK 99901
DATE: 12/14/16 SHEET: 1 OF 6	LOCATION: KETCHIKAN, ALASKA WATER BODY: TONGASS NARROWS

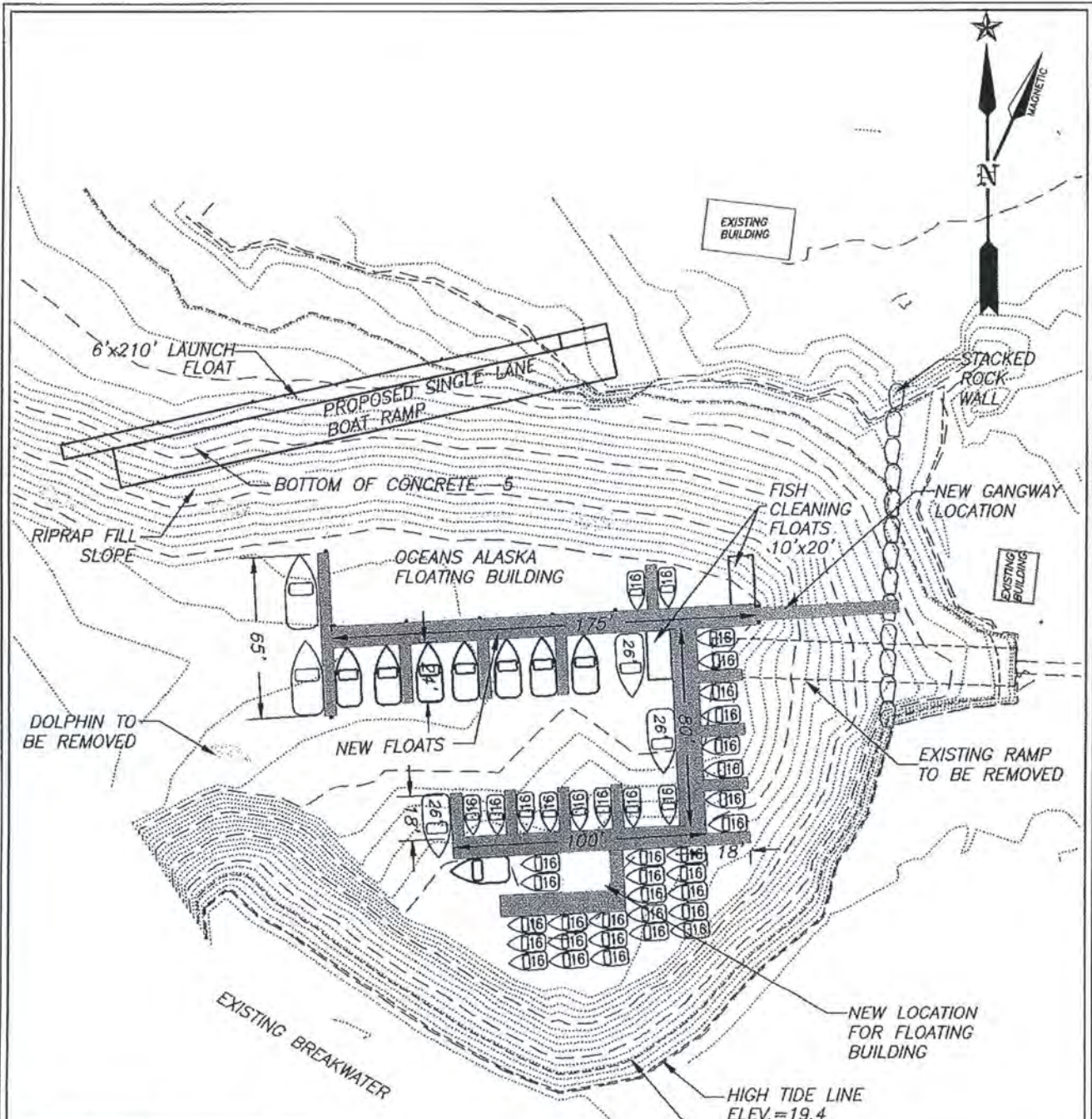


Permit #: POA-1984-286-M3
 Waterway: Tongass Narrows
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 Date: 2/2/17
 Page: 2 of 6

PROPOSED
 HARBOR PROJECT
 LOCATION

SCALE 1"=200'

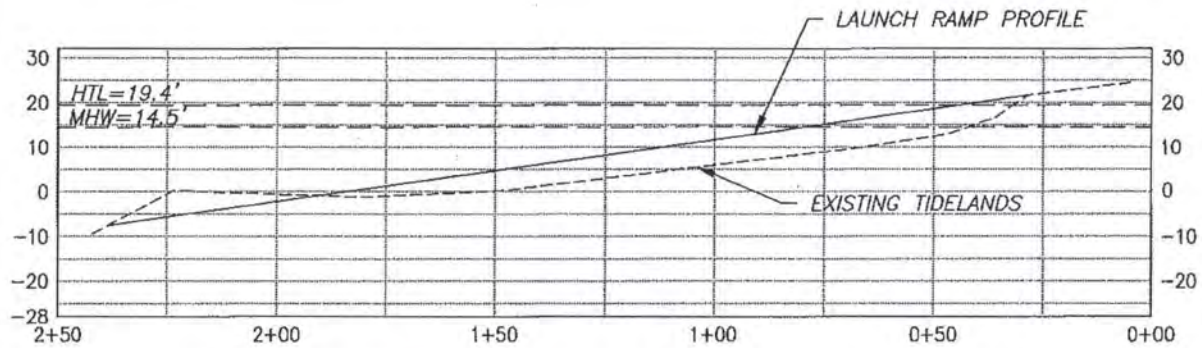
SAXMAN SEAPORT BOAT LAUNCH AND IMPROVEMENT MARINA	
SITE MAP	
APPLICANT: CITY OF SAXMAN RT 2 BOX 1 KETCHIKAN, AK 99901	AGENT: R&M ENGINEERING-KETCHIKAN 355 CARLANNA LAKE ROAD KETCHIKAN, AK 99901
DATE: 12/14/16 SHEET: 2 OF 6	LOCATION: KETCHIKAN, ALASKA WATER BODY: TONGASS NARROWS



Permit #: POA-1984-286-M3
 Waterway: Tongass Narrows
 Project: harbor construction
 Applicant: Leona Haffner
 Agent: Trevor Sande
 Date: 2/2/17
 Page: 3 of 6

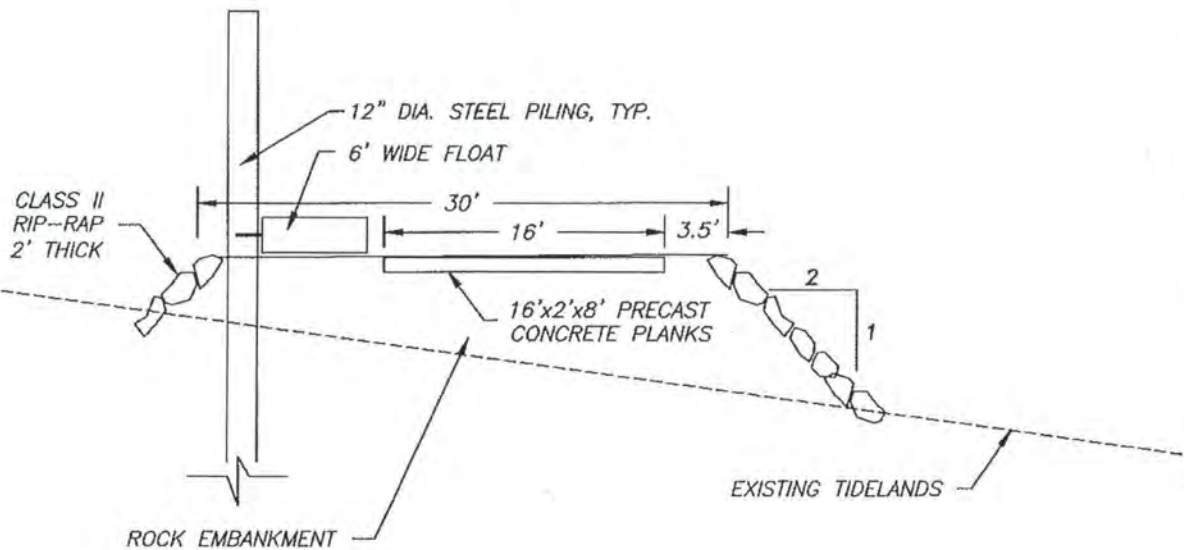
SCALE 1"=60'

SAXMAN SEAPORT BOAT LAUNCH AND IMPROVEMENT MARINA PROPOSED SITE PLAN	
APPLICANT: CITY OF SAXMAN RT 2 BOX 1 KETCHIKAN, AK 99901	AGENT: R&M ENGINEERING-KETCHIKAN 355 CARLANNA LAKE ROAD KETCHIKAN, AK 99901
DATE: 12/14/16 SHEET: 3 OF 6	LOCATION: KETCHIKAN, ALASKA WATER BODY: TONGASS NARROWS



PROPOSED BOAT RAMP PROFILE

1"=40'



NEW LAUNCH RAMP SECTION VIEW

1"=10'

Permit #: POA-1984-286-M3
Waterway: Tongass Narrows
Project: harbor construction
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Date: 2/2/17
Page: 4 of 6

SAXMAN SEAPORT BOAT LAUNCH AND IMPROVEMENT MARINA

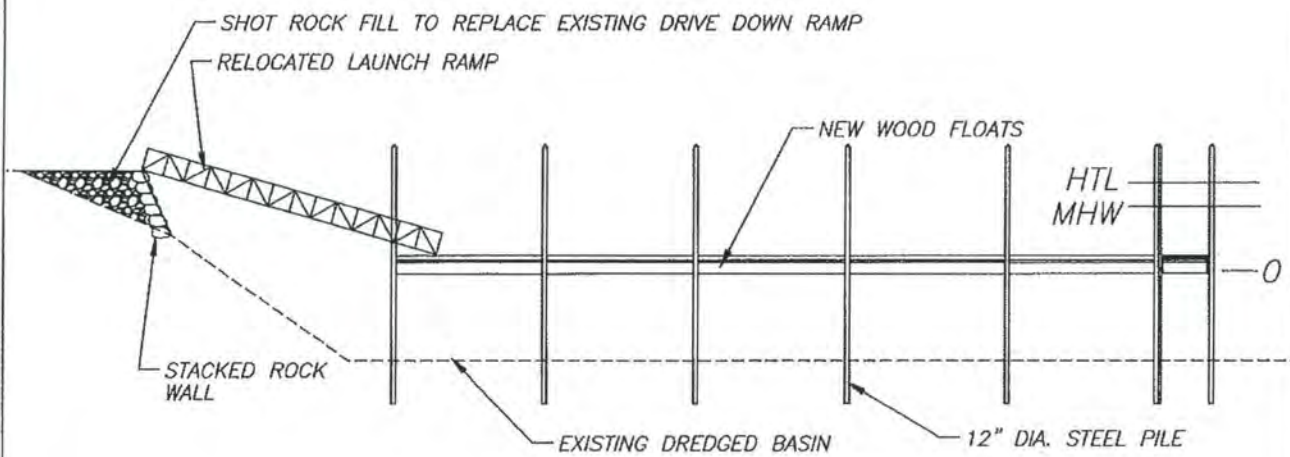
BOAT LAUNCH PROFILE & SECTION

APPLICANT:
CITY OF SAXMAN
RT 2 BOX 1
KETCHIKAN, AK 99901

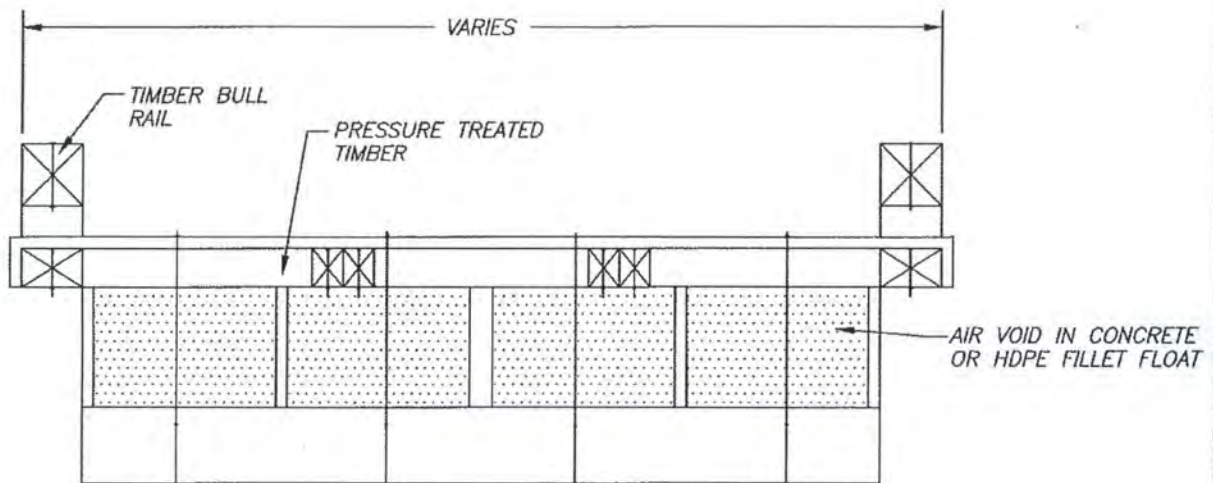
AGENT:
R&M ENGINEERING-KETCHIKAN
355 CARLANNA LAKE ROAD
KETCHIKAN, AK 99901

DATE: 12/14/16
SHEET: 4 OF 6

LOCATION: KETCHIKAN, ALASKA
WATER BODY: TONGASS NARROWS



TYPICAL SECTION

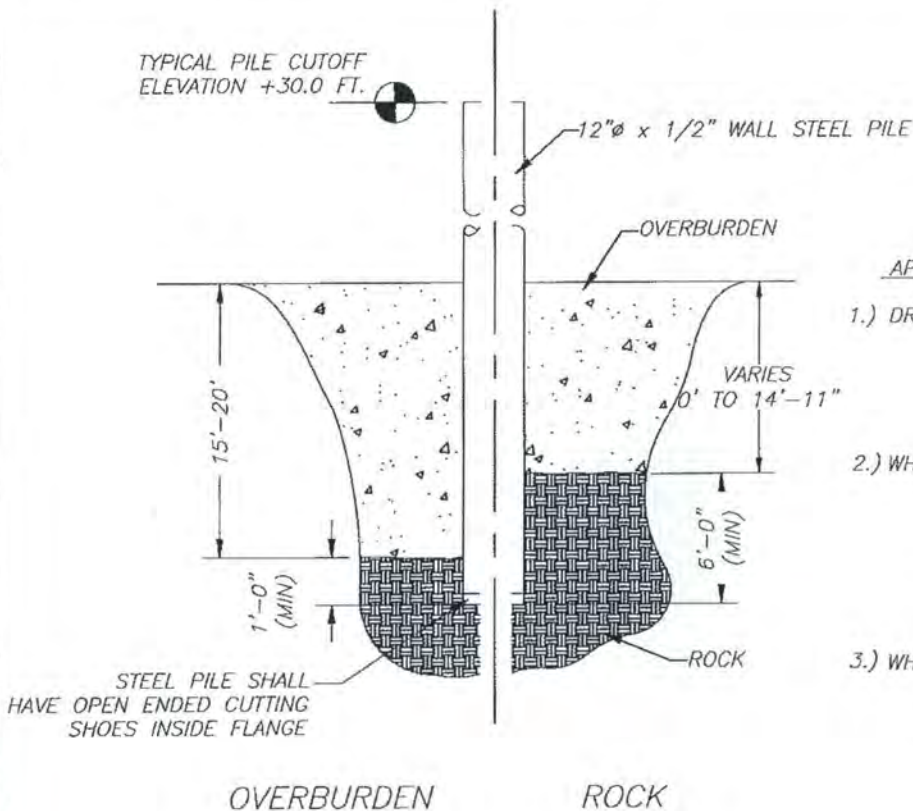


TYPICAL FLOAT DETAIL

Permit #: POA-1984-286-M3
 Waterway: Tongass Narrows
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 Date: 2/2/17
 Page: 5 of 6

SAXMAN SEAPORT BOAT LAUNCH AND IMPROVEMENT MARINA	
TYPICAL FLOAT SECTION	
APPLICANT: CITY OF SAXMAN RT 2 BOX 1 KETCHIKAN, AK 99901	AGENT: R&M ENGINEERING-KETCHIKAN 355 CARLANNA LAKE ROAD KETCHIKAN, AK 99901
DATE: 12/14/16 SHEET: 5 OF 6	LOCATION: KETCHIKAN, ALASKA WATER BODY: TONGASS NARROWS

TYPICAL PILE CUTOFF
ELEVATION +30.0 FT.



APPROVED PLACEMENT

- 1.) DRIVE PILES THROUGH OVERBURDEN TO 20'-0" IF POSSIBLE. PILES MAY BE DRIVEN WITH ANY SIZE HAMMER.
- 2.) WHEN 20'-0" EMBEDMENT IS NOT ACHIEVED AND PILES EMBEDMENT IS GREATER THAN 15'-0", PILES SHALL BE DRIVEN 6" TO 12" INTO BEDROCK USING A MINIMUM 15,000 FT-LB HAMMER.
- 3.) WHEN 15'-0" EMBEDMENT IS NOT ACHIEVED, PILES SHALL BE SOCKETED 6'-0" INTO ROCK USING THE PILE AS A CASING.

DETAIL - STEEL PILE INSTALLATION

N.T.S.

Permit #: POA-1984-286-M3
 Waterway: Tongass Narrows
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 Page: 6 of 6

SAXMAN SEAPORT BOAT LAUNCH AND IMPROVEMENT MARINA	
PILE DETAILS	
APPLICANT: CITY OF SAXMAN RT 2 BOX 1 KETCHIKAN, AK 99901	AGENT: R&M ENGINEERING-KETCHIKAN 355 CARLANNA LAKE ROAD KETCHIKAN, AK 99901
DATE: 12/14/16 SHEET: 6 OF 6	LOCATION: KETCHIKAN, ALASKA WATER BODY: TONGASS NARROWS