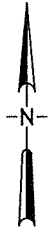


**RECEIVED**

AUG 13 2015

REGULATORY DIVISION - COEUR D'ALENE

MICA BAY BOAT LAUNCH  
SEC 16 & 9  
T49N, R4W, B.M.  
KOOTENAI COUNTY, IDAHO



NOT TO SCALE

CARNIE RD

KIDD ISLAND RD

TO  
COEUR D'ALENE  
7 MILES

DOVE CREST LN

HITES  
COVE LN

CARNIE RD

5

4

DEER PATH  
TRL

-47°37'00"

PUTNAM RD

TALL PINES RD

8

US 95

RANCARO VISTA DR

9

MICA  
SHORE RD

-47°36'30"

KOOTENAI COUNTY  
MICA BAY BOAT  
RAMP LOCATION  
N47°36'00"  
W116°51'31"

PROJECT  
LOCATION

SWAN CT

-47°36'00"

116°52'00"

116°51'30"

Applicant: Kootenai Parks and Waterways  
File No. : NWW-2009-710  
Waterway: Lake Coeur d'Alene  
Proposed activity: Sediment removal and  
bank stabilization  
Section 9, T-49, R-4W  
Lat. 47.59917, Long.: -116.85997  
Sheet 1 of 8 Date: December 21, 2015



RUEN-YEAGER & ASSOCIATES, INC.  
CONSULTING ENGINEERS - LAND SURVEYORS - PLANNERS

3201 N. HUETTER, STE. 102  
COEUR D'ALENE, IDAHO 83814  
(208)292-0820

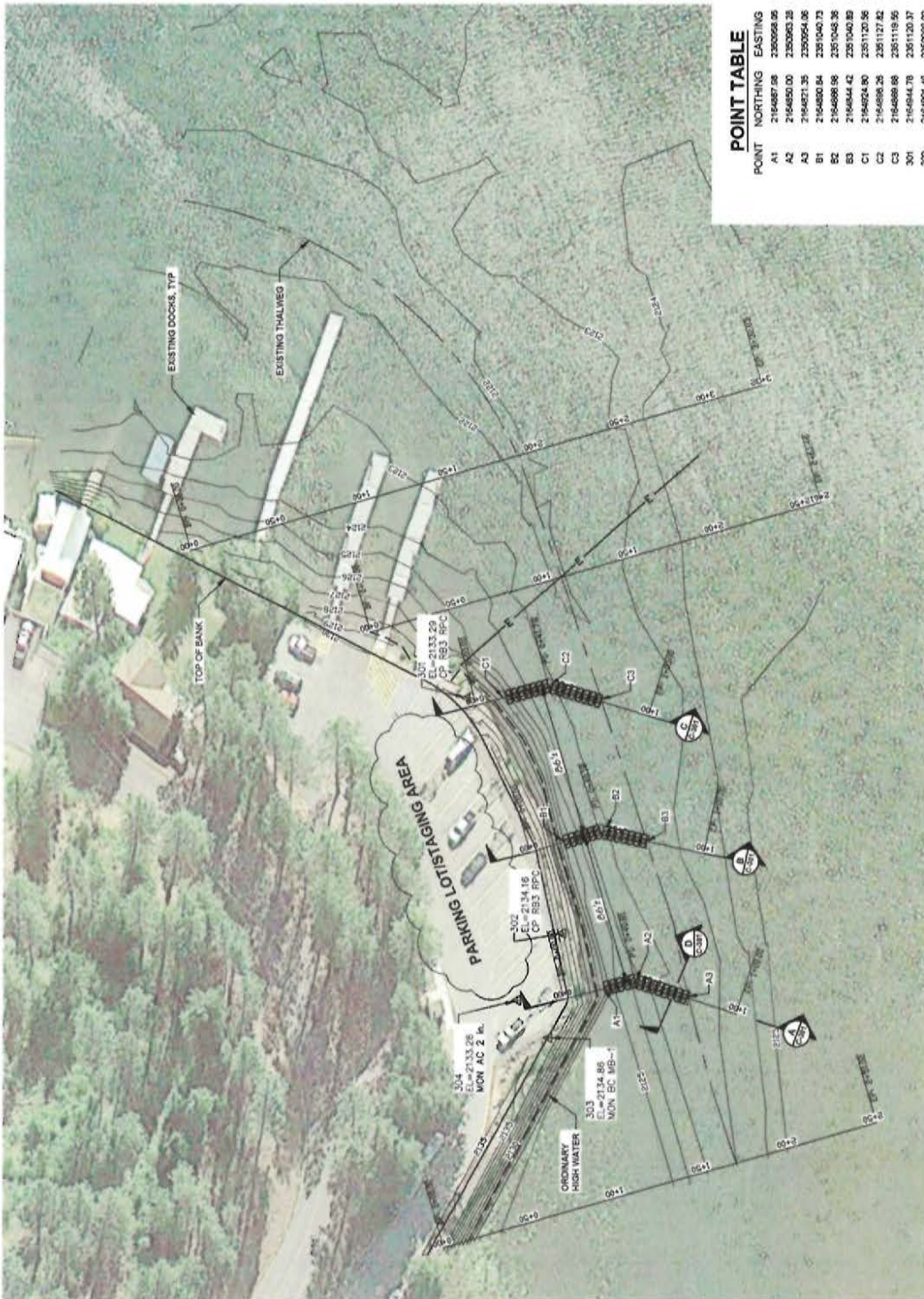
219 PINE ST.  
SANDPOINT, IDAHO 83864  
(208)265-4629



overall view of project area: locations approximate  
(see Engineering Plans for actual locations and detail)

**Figure 2**  
**Aerial Photograph**  
**Mica Bay Sediment Removal and Rock Vane Construction**  
**Mica Bay Homeowner's Association**

Applicant: Kootenai Parks and Waterways  
 File No. : NWW-2009-710  
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 Sheet 2 of 8 Date: December 21, 2015



**POINT TABLE**

POINT	NORTHING	EASTING
A1	2164667.88	2350668.85
A2	2164650.00	2350603.35
A3	2164621.35	2350564.36
B1	2164680.84	2351040.73
B2	2164688.98	2351043.36
B3	2164644.42	2351040.89
C1	2164624.80	2351120.56
C2	2164688.25	2351127.82
C3	2164688.68	2351129.95
301	2164644.78	2351120.37
302	2164681.45	2350868.82
303	2164658.03	2350530.73
304	2164618.55	2350691.81

**LEGEND**

- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- EXISTING THALWEG
- ORDINARY HIGH WATER
- TOP OF BANK
- UNDERGROUND ELECTRIC
- CONTROL POINT

**SECTION DESIGNATION**

SWIFT WHERE SECTION WAS TAKEN OR WHERE SECTION IS SHOWN

**PROJECT OBJECTIVE**

THE OVERALL OBJECTIVE OF THE PROJECT IS TO IMPROVE DOCK ACCESSIBILITY BY MOVING WATER FLOW AWAY FROM THE DOCKS AND REDUCE SEDIMENT DEPOSITION UNDER THE DOCKS AND ON THE LAUNCH RAMP.

**GENERAL NOTES**

ALL DIMENSIONS, STATIONS, AND ELEVATIONS ARE IN FEET UNLESS OTHERWISE NOTED.

ALL IN-STREAM WORK SHALL BE PERFORMED WITHIN THE CHANNEL OF THE WATERWAY AS DETERMINED BY THE CORPS OF ENGINEERS (CER) PERMITS, AND BANO DEPARTMENT OF LANDS PERMITS.

ALL WORK INCLUDING EROSION CONTROL MEASURES, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PERMITS.

STATE PLANE COORDINATES

DESIGNED IN 2015 BY PERRY & ASSOCIATES, INC. CONTRACTOR TO VERIFY AT THE TIME OF CONSTRUCTION BY A LICENSED SURVEY ENGINEER OF ANY STATE.

UTILITIES:

STAINLESS STEEL 48" HOLES GIVEN, CALL BEFORE YOU DIG 1-800-342-1585 (OR 811). VERIFY ALL CONSTRUCTION.

**ANDERSON PERRY & ASSOCIATES, INC.**  
 ENGINEERS, ARCHITECTS, PLANNERS, ENVIRONMENTAL SCIENTISTS

7008-104  
 JULY 13, 2015

7008-104-0600-101.dwg  
 J. WELLS  
 B. SALLERVA, WELP/CD  
 B. WYKE

THIS DRAWING HAS BEEN REDUCED APPROXIMATELY 50%. ADJUST SCALE ACCORDINGLY. BAR SCALE SHOWN IS ACCURATE.

SCALE 1" = 20'

**KOOTENAI COUNTY**  
 MICA BAY  
 ROCK VANE

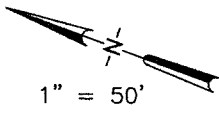
PLAN VIEW

**C-101**

3 OF 4

Applicant: Kootenai Parks and Waterways  
 File No. : NWW-2009-710  
 Waterway: Lake Coeur d'Alene  
 Proposed activity: Sediment removal and bank stabilization  
 Section 9, T-49, R-4W  
 Lat. 47.59917, Long.: -116.85997  
 Sheet 3 of 8 Date: December 21, 2015





1" = 50'

PHASE 2  
PROJECT  
BOUNDARY

EXISTING  
CONTOURS

PHASE 2  
PROJECT AREA  
EXCAVATE TO  
FINISH ELEVATION  
OF 2121

PHASE 1  
PROJECT  
BOUNDARY

PHASE 2  
FINISH  
CONTOURS

LAKE  
COEUR D'ALENE  
MICA BAY

PRIVATE RAMP  
PRIVATE DOCK

PHASE 1  
FINISH  
CONTOURS

APPROXIMATE  
ORDINARY HIGH  
WATER MARK  
2128' WWP DATUM

STAGING AREA  
IN  
EXISTING  
PARKING AREA

COUNTY DOCK  
COUNTY RAMP  
COUNTY DOCK

MICA CREEK  
THALWEG

EXISTING  
TELEPHONE  
LINES

**PLAN**  
KOOTENAI COUNTY M  
BOAT LAUNCH FA

Applicant: Kootenai Parks and Waterways

File No. : NWW-2009-710

Waterway: Lake Coeur d'Alene

Proposed activity: Sediment removal and  
bank stabilization

Section 9, T-49, R-4W

Lat. 47.59917,

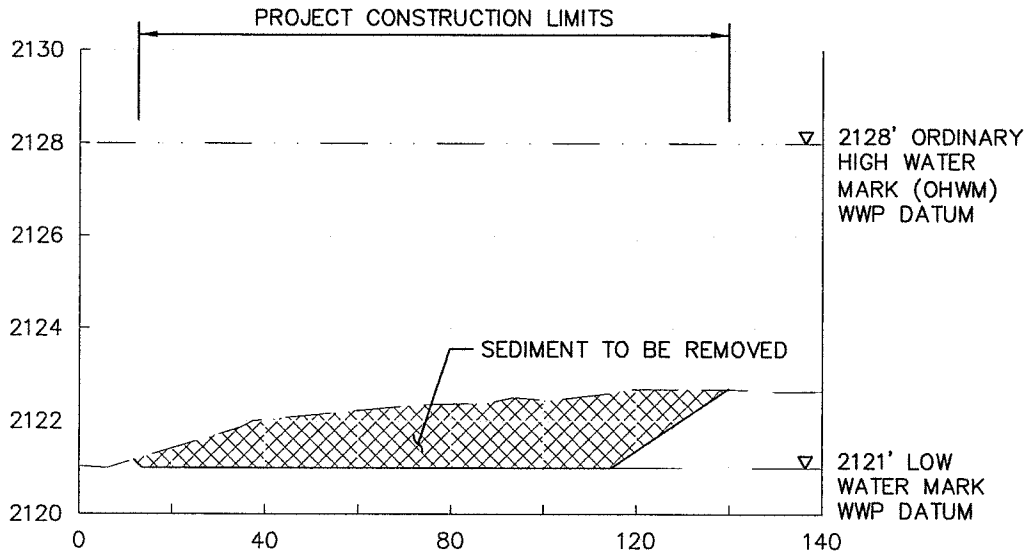
Long.: -116.85997

Sheet 5 of 8

Date: December 21, 2015

DRAWN BY: SDM	PLOT DATE: 7/7/2015
PROJECT: P121063	SHEET: 2 OF 3
FILE NAME: SV_TOPO_150319.DWG	

MICA BAY  
SEDIMENT REMOVAL  
PHASE 2  
PLAN VIEW



### SECTION A-A

SCALE: 1" = 40' (HORIZ.)  
1" = 4' (VERT.)

#### SURVEY NOTES:

This survey is based horizontally on the NAD 83 (2011) Idaho State Plane Coordinate System, West Zone using GPS and NGS OPUS. A ground combined adjustment factor of 1.00008324 was used to convert grid coordinates to ground coordinates at the 0,0 origin.

This survey vertically is based on the North American Vertical Datum of 1988 (NAVD 88) and Geoid 12A. The elevations were established on primary control using an OPUS solution at the RTK base. The water level at the time of survey was found to be 2124.20 ft (NAVD88) and comparatively 2123.59 on the AVISTA "0" datum (actually a 1900 US Geodetic Survey datum). The normal summer pool or line of administrative jurisdiction elevation is 2128.7 (NAVD88), 2128 (AVISTA), and 2124.95 (NGVD29).

Applicant: Kootenai Parks and Waterways

File No. : NWW-2009-710

Waterway: Lake Coeur d'Alene

Proposed activity: Sediment removal and bank stabilization

Section 9, T-49, R-4W

Lat. 47.59917,

Long.: -116.85997

Sheet 6 of 8

Date: December 21, 2015

DRAWN BY:	PLOT DATE:
SDM	7/7/2015
PROJECT:	SHEET:
P121063	3 OF 3
FILE NAME:	
SV_TOPO_150319.DWG	

MICA BAY  
SEDIMENT REMOVAL  
PHASE 2  
SECTION VIEW



Photo 1: View out toward Mica Creek. Thalweg is visible at blue arrow; red arrow indicates accumulated sediments to be removed. Low water.



Photo 4: View of shoreline where rock vanes are to be installed. High water, August 2015.



Photo 2: View out toward Mica Creek. Thalweg is visible at blue arrow; red arrow indicates accumulated sediments to be removed. Low water.



Photo 5: View from public dock back toward shoreline where rock vanes are to be installed. High water, August 2015.



Photo 3: View from shoreline where rock vanes are to be installed. Mica Creek thalweg is visible at blue arrow; red arrow indicates accumulated sediments to be removed. Low water.

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 Sheet 7 of 8 Date: December 21, 2015

Signs warning of navigation hazards shall be installed on the shore end of each rock vane facing out towards the lake and the bay in the direction vessels are likely to travel from. Signs shall be mounted on steel posts with galvanized fasteners.



**3 (1-SIDED) @ 30X30 ORANGE & BLACK ON WHITE ALUMINUM**

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