IDAHO POWER

McMILLEN, LLC

EXHIBIT 3
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201400202 CU-MSP-ZC-DA-HD-F

IDAHO POWER COMPANY
SWAN FALLS DAM
RECREATION IMPROVEMENT PROJECT

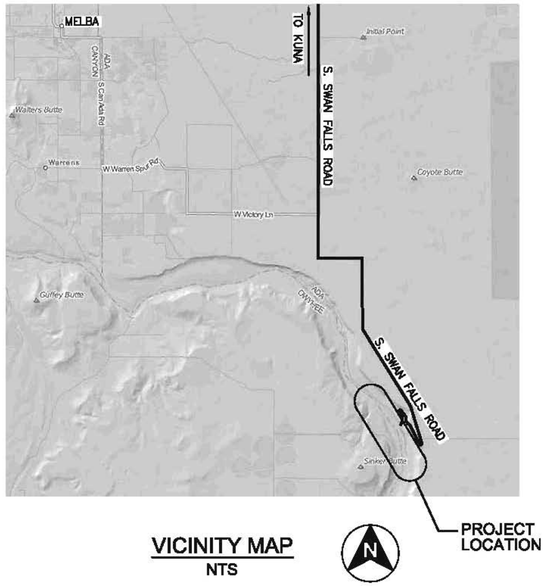
VOLUME 1 - CONSTRUCTION DRAWINGS
DECEMBER 2013

ISSUED FOR CONSTRUCTION

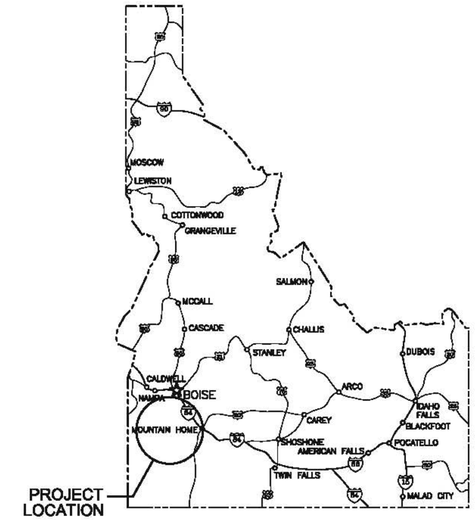
REVISION	
0	12/18/13 ISSUED FOR CONSTRUCTION

IDAHO POWER COMPANY

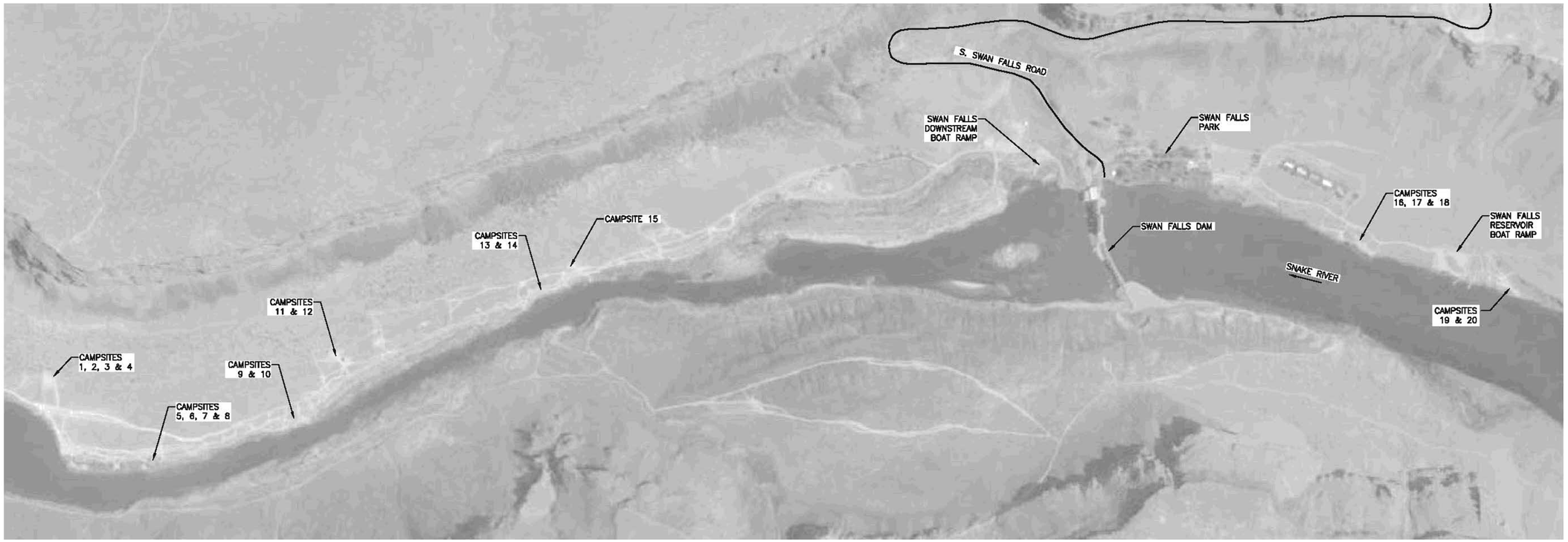
SWAN FALLS DAM
RECREATION IMPROVEMENT PROJECT
ISSUED FOR CONSTRUCTION



VICINITY MAP
NTS



LOCATION MAP
NTS



OVERALL SITE PLAN
1" = 500'

PROFESSIONAL ENGINEER REGISTERED 10805 STATE OF IDAHO 12/18/13 CHRISTOPHER C. BOYD

McMILLEN, LLC
1401 SHORELINE DR.
BOISE, ID 83702
OFFICE: 208.342.4214
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Swan Falls Dam Recreation Improvement Project LOCATION MAP, VICINITY MAP AND OVERALL SITE PLAN		VAULT NO. D-
IDAHO POWER COMPANY BOISE, IDAHO		
SCALE: AS NOTED	DATE: DEC 2013	
DS. CP / DR. RW / CH. CB	APPROVED —	20D-.....
REV.		G001

DWG NO	DESCRIPTION
	GENERAL
	COVER SHEET
G001	LOCATION MAP, VICINITY MAP, AND OVERALL SITE PLAN
G002	DRAWING INDEX
G003	STANDARD ABBREVIATIONS
G004	STANDARD SYMBOLS
G005	OVERALL PROJECT SITE PLAN AND CONTROL – UPSTREAM
G006	OVERALL PROJECT SITE PLAN AND CONTROL – DOWNSTREAM
G007	JETTY AREA SITE PLAN
	DEMOLITION AND CLEARING
D101	SWAN FALLS RESERVOIR BOAT RAMP DEMOLITION PLAN
D102	SWAN FALLS PARK DEMOLITION PLAN
D103	DOWNSTREAM BOAT RAMP AND SIDE CHANNEL DEMOLITION PLAN
	EROSION AND SEDIMENT CONTROL
ESC101	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS
ESC102	CAMPSITE EROSION AND SEDIMENT CONTROL PLAN 1
ESC103	CAMPSITE EROSION AND SEDIMENT CONTROL PLAN 2
ESC104	CAMPSITE EROSION AND SEDIMENT CONTROL PLAN 3
ESC201	JETTY AREA EROSION AND SEDIMENT CONTROL PLAN
ESC301	SWAN FALLS PARK EROSION AND SEDIMENT CONTROL PLAN 1
ESC302	SWAN FALLS PARK EROSION AND SEDIMENT CONTROL PLAN 2
ESC321	SWAN FALLS RESERVOIR BOAT RAMP EROSION AND SEDIMENT CONTROL PLAN
	CIVIL
GC001	GENERAL CIVIL DETAILS 1
GC002	GENERAL CIVIL DETAILS 2
GC003	GENERAL CIVIL DETAILS 3 (NOT USED)
GC004	GENERAL CIVIL DETAILS 4
GC005	GENERAL CIVIL DETAILS 5
C001	CIVIL KEY MAP
C101	ROADWAY PLAN ROAD A
C102	ROADWAY PLAN ROAD A
C103	ROADWAY PLAN ROAD B
C104	ROADWAY PLAN ROAD B
C105	ROADWAY PLAN ROAD B
C106	ROADWAY PLAN CS 5 & 6
C107	ROADWAY PLAN CS 7 & 8
C108	ROADWAY PLAN CS 9 & 10
C109	ROADWAY PLAN CS 11–12 & 15
C110	ROADWAY PLAN CS 16 & 17
C111	ROADWAY PLAN ROAD C
C112	ROADWAY PLAN ROAD D
C113	ROADWAY PLAN ROAD E
C201	DOWNSTREAM BOAT RAMP CHANNEL GRADING
C221	PILOT CHANNEL PLAN AND PROFILE
C301	SWAN FALLS PARK SITE PLAN 1
C302	SWAN FALLS PARK SITE PLAN 2
C303	SWAN FALLS PARK RETAINING WALL PLAN AND PROFILE
C304	SWAN FALLS PARK DOCK PLAN AND SECTIONS
C305	SWAN FALLS PARK DOCK AND RETAINING WALL SECTIONS AND DETAILS
C320	SWAN FALLS RESERVOIR BOAT RAMP LAYOUT
C321	SWAN FALLS RESERVOIR BOAT RAMP GRADING
C322	RESERVOIR BOAT RAMP ADA PARKING DETAIL
C323	SWAN FALLS RESERVOIR BOAT RAMP PLAN AND PROFILE
C324	SWAN FALLS RESERVOIR BOAT RAMP SECTIONS AND DETAILS
C325	SWAN FALLS RESERVOIR DOCK PLAN AND SECTIONS
C326	SWAN FALLS RESERVOIR DOCK SECTIONS AND DETAILS
C330	DOWNSTREAM BOAT RAMP LAYOUT PLAN
C331	DOWNSTREAM BOAT RAMP GRADING PLAN
C332	DOWNSTREAM BOAT RAMP ADA PARKING DETAIL
C333	DOWNSTREAM BOAT RAMP PLAN AND PROFILE
C334	DOWNSTREAM BOAT RAMP SECTIONS AND DETAILS
C341	DOWNSTREAM BOAT RAMP ADA BOARDING RAMP
C342	ADA BOARDING RAMP SECTIONS AND DETAILS

DWG NO	DESCRIPTION
C343	METAL STAIRWAY SECTIONS AND DETAILS
	LANDSCAPING
L101	DISPERSED RECREATION KEY MAP
L102	DISPERSED RECREATION SITE PLAN 1
L103	DISPERSED RECREATION SITE PLAN 2
L104	DISPERSED RECREATION SITE PLAN 3
L105	DISPERSED RECREATION SITE PLAN 4
L106	DISPERSED RECREATION SITE PLAN 5
L201	ROADWAY REVEGETATION AND FENCING PLAN 1
L202	ROADWAY REVEGETATION AND FENCING PLAN 2
L203	ROADWAY REVEGETATION AND FENCING PLAN 3
L204	ROADWAY REVEGETATION AND FENCING PLAN 4
L205	ROADWAY REVEGETATION AND FENCING PLAN 5
L206	ROADWAY REVEGETATION AND FENCING PLAN 6
L211	PILOT CHANNEL REVEGETATION PLAN
L301	LANDSCAPE NOTES AND DETAILS
L302	SWAN FALLS PARK LANDSCAPE PLAN 1
L303	SWAN FALLS PARK LANDSCAPE PLAN 2

REVISION	
0	12/18/13 ISSUED FOR CONSTRUCTION
1	01/13/14 REMOVE JETTY & SIDE CHANNEL

PROFESSIONAL ENGINEER REGISTERED 10805 1/13/14 STATE OF IDAHO CHRISTOPHER C. BOYD

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Swan Falls Dam
Recreation Improvement Project
DRAWING INDEX

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: JAN 2014

DS. CR
DR. RW
CH. CB
REV.
APPROVED
20 D–.....
G002

VAULT NO. D–

ABBREVIATIONS

A	AIR
A	ALARM
A	ANALOG
A, AMP	AMPERE
AB	ANCHOR BOLT
ABBR	ABBREVIATION
ABAN	ABANDON
ABC	AGGREGATE BASE COURSE
AC	ALTERNATING CURRENT
AC	ASPHALT CONCRETE
ACH	AIR CHANGES PER HOUR
ACI	AMERICAN CONCRETE INTERNATIONAL
ACOUS	ACOUSTIC, ACOUSTICAL
ACP	ASPHALTIC CONCRETE PAVEMENT
ACU	AIR CONDITIONING UNIT
ADDL	ADDITIONAL
ADH	ADHESIVE
ADJ	ADJUSTABLE, ADJACENT
AE	AIR EVACUATION
AF	AMP FRAME, AMP FUSE
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AGGR	AGGREGATE
AHU	AIR HANDLING UNIT
AI	AREA INLET
AIC	AMPERES INTERRUPTING CURRENT
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALIG	ALIGNMENT
ALM	ALARM
ALT	ALTERNATE
ALUM	ALUMINUM
AMB	AMBIENT
ANC	ANCHOR
ANCB	ANCHOR BOLT
ANG	ANGLE
AP	ACCESS PANEL
APPROX	APPROXIMATE
ARCH	ARCHITECTURE
ARV	VALVE, AIR RELIEF
AS	AIR SUPPLY
ASD	ALLOWABLE STRESS DESIGN
ASSY	ASSEMBLY
AT	AMP TRIP
AT	ACOUSTICAL TILE
ATM	ATMOSPHERE
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AUX	AUXILIARY
AV	VALVE, AIR
AVE	AVENUE
AVG	AVERAGE
B/W	BACK OF WALL
BD	BOARD
BDRY	BOUNDARY
BE	BOTH ENDS, BELL END
BF	BOTH FACES, BOTTOM FACE, BLIND FLANGE, BOARD FEET
BFP	BACK FLOW PREVENTER
BFV	BUTTERFLY VALVE
BITUM	BITUMINOUS
BKG	BACKING
BKR	BREAKER
BL	BASELINE
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BENCHMARK, BEAM
BMP	BEST MANAGEMENT PRACTICE
BOC	BACK OF CURB/ BOTTOM OF CONCRETE
BOF	BOTTOM OF FOOTING
BOG	BOTTOM OF GABION
BOP	BOTTOM/BEGINNING OF PIPE
BOT	BOTTOM
BP	BASE PLATE
BRG	BEARING
BRGP	BEARING PLATE
BRKT	BRACKET
BS	BOTH SIDES
BTU	BRITISH THERMAL UNIT
BTW	BETWEEN
BTWLD	BUTT WELD
BU	BELL UP, BUILT UP
BUR	BUILT-UP ROOF
BW	BOTH WAYS
BW	BACKWASH
C	CENTIGRADE
C	CONDUIT
CA	COMPRESSED AIR
CAB	CABINET
CAV	CONTINUOUS ACTING AIR VALVE
CB	CATCH BASIN
CB	CIRCUIT BREAKER
CBL	CABLE
CC	CENTER TO CENTER
CCB	CONCRETE BLOCK
CCOM	CABLE, COMMUNICATION
CCP	CONCRETE CYLINDER PIPE
CCW	COUNTER CLOCKWISE
CDR	CONDUCTOR
CDU	CONDENSER UNIT
CE	CONCRETE EDGE
CF	CUBIC FEET (FOOT)
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CHD	CHORD
CHEM	CHEMICAL
CHFR	CHAMFER
CHH	COMMUNICATION HANDHOLE
CHNL	CHANNEL
CHR	CHILLER
CIP	CAST IN PLACE
CJ	CONSTRUCTION JOINT
CKT	CIRCUIT
CL	CENTERLINE, CLASS, CLOSE
CL	CHLORINE
CLF	CHAIN LINK FENCE
CLR	CLEAR
CLSM	CONTROLLED LOW STRENGTH MATERIAL
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CNTL	CONTROL
CO	CLEAN OUT, CONCRETE OPENING
COL	COLUMN
COM	COMMON
COMB	COMBINATION
COMP	COMPOSITION, COMPRESSIBLE, COMPOSITE
COMP	COMPRESSOR
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTD	CONTINUED
COORD	COORDINATE
CORR	CORRUGATED
CP	CONTROL POINT
CPEP	CORRUGATED POLYETHYLENE PIPE
CPLG	COUPLING
CPVC	CHLORINATED POLYVINYL CHLORIDE
CR	CONTROL RELAY
CRL	CORROSION RESISTANT LINING
CSC	COMPRESSION SLEEVE COUPLING
CSK	COUNTERSINK
CT	CURRENT TRANSFORMER
CT	CERAMIC TILE
CTR	CENTER
CTRL	CONTROL
CU	CUBIC
CULV	CULVERT
CV	VALVE, CONTROL
CW	CLOCKWISE
CW	CHILLED WATER
CWD	COLD WATER DISEASE
CWO	CHAIN WHEEL OPERATED
CY	CUBIC YARD
cm	CENTIMETERS
D	DEEP, DIFFUSER
DB	DUCT BANK, DECIBEL, DRY BULB
DBA	DEFORMED BAR ANCHOR
DBL	DOUBLE
DC	DIRECT CURRENT
DEG	DEGREE
DEG C	DEGREE CENTIGRADE
DEG F	DEGREE FAHRENHEIT
DEMO	DEMOLITION
DET	DETAIL
DF	DRINKING FOUNTAIN
DI	DUCTILE IRON
DIA	DIAMETER
DIAG	DIAGONAL, DIAGRAM
DIFF	DIFFERENTIAL, DIFFERENCE
DIM	DIMENSION
DIP	PIPE, DUCTILE IRON
DISC	DISCONNECT
DISCH	DISCHARGE
DIST	DISTANCE, DISTRIBUTION
DIV	DIVISION
DL	DEAD LOAD
DMJ	DOUBLE MECHANICAL JOINT
DO	DISSOLVED OXYGEN
DP	DEPTH
DR	DRAIN
DUP	DUPLICATE
DWG(S)	DRAWING(S)
DWN	DOWN
E	EAST, ELECTRICAL (DWG DISCIPLINE)
EA	EACH
EDB	ELECTRICAL DUCT BANK
EE	EACH END
EF	EACH FACE
EFF	EFFLUENT, EFFICIENCY
EGL	ENERGY GRADE LINE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATION
EMBD	EMBEDDED
EMER	EMERGENCY
ENCL	ENCLOSURE
ENGR	ENGINEER
EOLL	END OF LAMP LIFE
EOP	END OF PIPE, EDGE OF PAVEMENT
EPR	ETHYLENE PROPYLENE RUBBER
EQ	EQUAL
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ERM	ENTRIC REDMOUTH DISEASE
ES	EACH SIDE, EQUAL SPACE
EST	ESTIMATE
ETM	ELAPSED TIME METER
EW	EACH WAY
EX	EXISTING
EXH	EXHAUST
EXA	EXPANSION ANCHOR
EXB	EXPANSION BOLT
EXC	EXCAVATION
EXP	EXPANSION, EXPOSED
EXPS	EXPANSION
EXST	EXISTING
EXT	EXTERIOR, EXTERNAL, EXTENSION
EXTR	EXTRUDED
F	FEMALE OR FAHRENHEIT
FAB	FABRICATE
FB	FLAT BAR
FBO	FURNISHED BY OWNER
FC	FLUSHING CONNECTION
FCA	FLANGED COUPLING ADAPTER
FD	FLOOR DRAIN
FDC	FLEXIBLE DUCT CONNECTION
FDN	FOUNDATION
FDR	FEEDER
FE	FLANGED END
FE	FIRE EXTINGUISHER
FE	FLOW ELEMENT
FEM	FEMALE (PIPE THREAD)
FENC	FENCE
FES	FIRE EXTINGUISHER CABINET
FF	FINISHED FLOOR
FG	FINISHED GRADE
FH	FIRE HYDRANT
FH	FLAT HEAD
FIG	FIGURE
FIT	FLOW INDICATING TRANSMITTER
FL	FLOW, FLOW LINE
FLEX	FLEXIBLE
FLG	FLANGE, FLANGED
FLR	FLOOR
FLS	FLOW SWITCH
FM	FORCE MAIN
FO	FINISHED OPENING, FIBER OPTIC
FOC	FACE OF CONCRETE
FOM	FACE OF MASONRY
FOS	FACE OF STUDS
FOT	FLAT ON TOP
FOW	FACE OF WALL
FP	FIRE PROTECTION
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FPT	FEMALE PIPE THREAD
FR	FRAME
FR	FURUNCULOSIS
FRP	FIBERGLASS REINFORCED PLASTIC
FRS	FIRE SYSTEM
FS	FINISHED SURFACE
FS	SINK, FLOOR
FS	FIRE SYSTEM
FT	FOOT/FEET
FTG	FOOTING, FITTING
FUR	FURRING
FUT	FUTURE
FV	FRONT VIEW
FW	FIELD WELD
FWD	FORWARD
FWE	FURNISHED WITH EQUIPMENT
G	GAS
GA	GAGE (METAL THICKNESS)
GA	GAGE, GAUGE
GAL	GALLON
GALV	GALVANIZED
GB	GRADE BREAK
GC	GROOVED COUPLING
GEN	GENERAL, GENERATOR
GFCI	GROUND-FAULT CIRCUIT INTERRUPTING
GFI	GROUND-FAULT INTERRUPTION
GFP	GROUND-FAULT PROTECTION
GIP	PIPE, GALVANIZED IRON
GND	GROUND
GP	GUY POLE
GPD	GALLONS PER DAY
GPM	GALLONS PER MINUTE
GR	GRADE
GRP	GLASS REINFORCED PLASTIC
GRS	GALVANIZED RIGID STEEL
GRTG	GRATING
GS	GROUND SURFACE
GSP	PIPE, GALVANIZED STEEL
GT	GREASE TRAP
GVL	GRAVEL
GYP	GYPSUM
H	HEIGHT
HA	HYDRAULIC ACTUATOR
HB	HOSE BIB
HC	HOSE CONNECTION
HCAB	CABINET, FIRE HOSE
HDPE	HIGH DENSITY POLYETHYLENE
HDR	HEADER
HDW	HARDWARE
HEX	HEXAGONAL
HGL	HYDRAULIC GRADE LINE
HGR	HANGER
HH	HANDHOLE
HLOA	HIGH-LOW-OFF-AUTO
HM	HOLLOW METAL
HM	METAL
HO	HAND OFF
HOA	HAND OFF-AUTO
HOAL	HAND OFF-AUTO LOCAL
HOR	HAND OFF-REMOTE
HORZ	HORIZONTAL
HP	HIGH POINT
HP	HORSEPOWER
HPC	HORIZONTAL POINT OF CURVATURE
HPT	HORIZONTAL POINT OF TANGENCY
HR	HANDRAIL
HR	HOSE REEL
HR	HOUR
HS	HYDRAULIC SUPPLY
HSS	HOLLOW STRUCTURAL SHAPE
HST	HIGH STRENGTH
HT	HEIGHT
HTP	PUMP, HEAT
HTR	HEATER
HVAC	HEATING, VENTILATION, & AIR CONDITIONING
HWL	HIGH WATER LEVEL
HWO	HAND WHEEL OPERATED
HWR	WATER HEATER RETURN
HWS	WATER HEATER SUPPLY
HWT	TANK, HOT WATER
HYD	HYDRAULIC
HYD	HYDRANT
HZ	HERTZ (CYCLES PER SECOND)
I&C	INSTRUMENTATION AND CONTROL
I/O	INPUT/OUTPUT
IA	INSTRUMENT AIR
IAIR	INSTRUMENT AIR SYSTEM
IAS	INSTRUMENT AIR SUPPLY
IBC	INTERNATIONAL BUILDING CODE
IC	INSULATION CONTACTOR
ID	INSIDE (OR INTERNAL) DIAMETER
IDFG	IDAHO FISH AND GAME
IE	INVERT ELEVATION
IF	INSIDE FACE
IG	ISOLATED GROUND
IHN	INFECTIOUS HEMATOPOIETIC NECROSIS
IN	INCH/INCHES
INCL	INCLUDE, INCLUDING
INF	INFLUENT
INST	INSTANTANEOUS
INSTR	INSTRUMENTATION
INT	INTERSECTION
INTLK	INTERLOCK
INTR	INTERMEDIATE
INV	INVERT
IP	PIPE, IRON
IPB	ILLUMINATED PUSH BUTTON
IPC	IDAHO POWER COMPANY
IPN	INFECTIOUS PANCREATIC NECROSIS
IPS	IRON PIPE SIZE
IPT	INTERNAL PIPE THREAD
IR	INSIDE RADIUS
IRR	IRRIGATION
ISL	INSULATION
ISO	ISOMETRIC
IT	INDICATING TRANSMITTER
JB	JUNCTION BOX (J-BOX)
JCT	JUNCTION
JF	JOINT FILLER
JSTS	JOISTS
JT	JOINT
K	KILO, KELVIN
KIP	KIP (1000 POUNDS)
KO	KNOCK OUT
KV	KILOVOLTS
KVA	KILOVOLT AMPERES (APPARENT POWER)
KVAR	KILOVARS (REACTIVE POWER)
KW	KILOWATTS (REAL POWER)
KWH	KILOWATT HOUR
L	LENGTH, LITER
LADR	LADDER
LATL	LATERAL
LAV	LAVATORY
LB	LAG BOLT, POUND
LE	LIFTING EYE
LF	LINEAR FOOT
LG	LONG
LIN	LINEAR
LIQ	LIQUID
LIT	LEVEL INDICATING TRANSMITTER
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LOC	LOCATION
LONG	LONGITUDINAL
LP	LOW POINT
LP	LOW PRESSURE
LR	LOCAL-REMOTE
LS	LEVEL SENSOR
LS	LIFT STATION
LT	LEFT
LT	LEVEL TRANSMITTER
LTD	LIMITED
LTFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT
LTG	LIGHTING
LV	LOW VOLTAGE
LV	LOUVER
LW	LIGHTWEIGHT
LWC	LIGHTWEIGHT CONCRETE
LWL	LOW WATER LEVEL
M	METER, MALE
mA	MILLIAMPERES
MA	ACTUATOR, MOTOR
MAINT	MAINTENANCE
MAN	MACHINED
MAN	MANUAL
MAS	MASONRY
MAT	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MC	MECHANICAL COUPLING
MECH	MECHANICAL
MCC	MOTOR CONTROL CENTER
MCP	MAIN CONTROL PANEL
MED	MEDIUM
MFR	MANUFACTURER
MH	MANHOLE
MI	MILE
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MO	MASONRY OPENING
MOD	MODIFY
MON	MONUMENT
MPT	MALE PIPE THREAD
MS	SINK,MOP
MSE	MECHANICALLY STABILIZED EARTH
MSL	MEAN SEA LEVEL
MT	MOUNT
MTC	MECHANICAL-TYPE COUPLING
MTS	MANUAL TRANSFER SWITCH
MU	MASONRY UNIT
mJ	MILLIJOULES
mm	MILLIMETERS
mV	MILLIVOLTS
N	NORTH, NEUTRAL
N/A	NOT APPLICABLE
NAT	NATURAL
NC	NORMALLY CLOSED
ND	NON-DETECT
NEG	NEGATIVE
NF	NON-FUSED
NF	NEAR FACE
NIC	NOT IN CONTRACT
NO	NUMBER, NORMALLY OPEN
NOM	NOMINAL
NP	NAMEPLATE
NPS	NOMINAL PIPE SIZE
NPSH	NET POSITIVE SUCTION HEAD
NPT	NATIONAL PIPE THREAD
NRS	NON-RISING STEM
NS	NATURAL SUPPLY
NS	NEAR SIDE
NT	NORMALLY THROTTLED
NTS	NOT TO SCALE
NWL	NORMAL WATER LEVEL
O TO O	OUT-TO-OUT
O&M	OPERATIONS AND MAINTENANCE
OAC	OPEN-AUTOMATIC-CLOSED
OC	ON CENTER
OD	OUTSIDE DIAMETER
OED	OPEN END DUCT
OF	OUTSIDE FACE
OF	OVERFLOW
OFF	OFFICE
OG	ORIGINAL GROUND
OH	OVERHEAD
OL	OVERLOAD
OPNG	OPENING
OPP	OPPOSITE
OPT	OPTIONAL
OR	OUTSIDE RADIUS
ORIG	ORIGINAL
OUT	OUTLET
OVFL	OVERFLOW
OVHG	OVERHANG
OZ	OUNCE
P	PRESSURE, PUMP
PA	PLANT AIR
PA	ACTUATOR, PNEUMATIC
PAR	PARALLEL
PB	PULL BOX
PBD	PANEL BOARD
PC	POINT OF CURVE, PRECAST
PCC	POINT OF COMPOUND CURVATURE
PCC	PORTLAND CEMENT CONCRETE
PCF	POUNDS PER CUBIC FOOT
PCT	PERCENT
PED	PEDESTAL
PEN	PENETRATION
PERF	PERFORATED
PERM	PERMANENT
PERP	PERPENDICULAR
PH	PHASE
PI	POINT OF INTERSECTION
PL	PLATE, PROPERTY LINE
PLC	PROGRAMMABLE LOGIC CONTROLLER
PLWD	PLYWOOD
PMR	POWER MONITOR
PN	PNEUMATIC
PNL	PANEL
POB	POINT OF BEGINNING
POE	POINT OF END
POS	POSITIVE, POSITION
PP	POWER POLE
PP	POLYPROPYLENE
PR	SHIELDED PAIR
PRC	POINT OF REVERSE CURVATURE
PRCP	POWER RECEPTACLE
PRCT	PRECAST
PREFAB	PREFABRICATED
PRELIM	PRELIMINARY
PREP	PREPARE
PRES	PRESSURE
PRI	PRIMARY
PROF	PROFILE
PROP	PROPERTY
PROT	PROTECTION
PRP	PROPANE
PRV	VALVE, PRESSURE RELIEF OR REDUCING
PS	PIPE SUPPORT
PS	PUMP STATION
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAUGE
PT	POINT, POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
PW	POTABLE WATER
PZ	PIEZOMETER
Q	RATE OF FLOW
QTR	QUARTER
QTY	QUANTITY
QUAL	QUALITY
R	RADIUS
R&R	REMOVE AND REPLACE
R&S	REMOVE AND SALVAGE
RA	AIR, RETURN
RC	REINFORCED CONCRETE
RCCP	REINFORCED CONCRETE CYLINDER PIPE
RCP	RECEPTACLE
RCP	PIPE, REINFORCED CONCRETE
RD	ROUND
REC	RECESS
RECD	RECEIVED
RECT	RECTANGULAR
RED	REDUCER
REF	REFERENCE
REINF	REINFORCE/REINFORCED
REM	REMOVE
REQD	REQUIRED
RESIL	RESILIENT
RET	RETAINING
RET	RETURN
REV	REVISION
RFG	ROOFING
RGH	ROUGH
RGS	RIGID GALVANIZED STEEL
RGS-PVC	PVC COATED RGS
RLY	RELAY
RM	ROOM
RND	ROUND
ROW	RIGHT OF WAY
RP	RADIUS POINT
RPM	REVOLUTIONS PER MINUTE
RR	RAILROAD
RS	RISING STEM
RT	RIGHT
RTD	RESISTANCE TEMPERATURE DETECTOR
RTH	RIGHT HAND
RVTC	RIM VIEW TROUT COMPANY
RW	WATER, RAW
S	SOUTH, SLOPE
SA	AIR, SUPPLY
SAN	SANITARY
SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION
SCH	SCHEDULE
SCHEM	SCHEMATIC
SCL	SCALE
SCN	SCREEN
SD	STORM DRAIN
SEC	SECONDARY, SECONDS
SECT	SECTION
SEL	SELECTOR
SEP	SEPARATE
SF	SQUARE FOOT/FEET
SHELV	SHELVING
SHR	SHOWER
SHT	SHEET
SHTG	SHEATHING
SL	SLOPE
SLTD	SLOTTED
SLV	SLEEVE
SOG	SLAB ON GRADE
SP	STANDPIPE
SP	PIPE STEEL
SP	PUMP, SUMP
SPA	SPACING
SPEC	SPECIFICATION
SPLY	SUPPLY
SQ	SQUARE
SS	SANITARY SEWER
SS	STAINLESS STEEL
STA	STATION, STAIR
STC	SLEEVE-TYPE COUPLING
STD	STANDARD
STIFF	STIFFENER
STIR	STIRRUP
STL	STEEL
STLG	STOPLOG
STOR	STORAGE
STR	STRAIGHT
SUB	SUBSTITUTE
SUC	SUCTION
SUMP	SUMP
SUSP	SUSPENDED
SV	VALVE, SOLENOID
SW	SWITCH
SW	WATER, SERVICE
SWGR	SWITCH GEAR
SWLK	SIDEWALK
SWPPP	STORMWATER POLLUTION PREVENTION PLAN
SY	SQUARE YARD
SYM	SYMBOL
SYMM	SYMMETRICAL
SYN	SYNTHETIC
SYS	SYSTEM
T	TEMPERATURE
T&B	TOP AND BOTTOM
TAN	TANGENT
TB	TERMINAL BLOCK
TBM	TEMPORARY BENCHMARK
TDH	TOTAL DYNAMIC HEAD
TEL	TELEPHONE
TEMP	TEMPERATURE
TEMP	TEMPORARY
THRD	THREAD
TK	TANK
TMTR	THERMOMETER
TO OPNG	TOP OF OPENING
TOA	TEST-OFF-AUTO
TOB	TOP OF BANK
	TOP OF BEAM
TOC	TOP OF CONCRETE
TOCMU	TOP OF CMU
TOCOL	TOP OF COLUMN
TOD	TOP OF DUCT
TOF	TOP OF FOOTING
TOG	TOP OF GRATING/TOP OF GABION
TOL	TOLERANCE
TOM	TOP OF MASONRY
TOP	TOP OF PLATE/PIPE
TOPO	TOPOGRAPHIC
TOS	TOP OF SLAB/STEEL
TOW	TOP OF WALL
TP	TELEPHONE POLE
TRANS	TRANSITION
TRD	TRENCH DRAIN
TRT	TREAT, TREATMENT
TSP	TWISTED SHIELDED PAIR
TSS	TOTAL SUSPENDED SOLIDS
TST	TWISTED SHIELDED TRIAD
TW	TREATED WATER
TYP	TYPICAL
UBC	UNIFORM BUILDING CODE
UFC	UNIFORM FIRE CODE
UG	UNDERGROUND
UHMW	ULTA HIGH MOLECULAR WEIGHT
ULT	ULTIMATE
UNO	UNLESS NOTED OTHERWISE
UP	UTILITY POWER, UTILITY POLE
UPC	UNIFORM PLUMBING CODE
UPS	UNINTERRUPTED POWER SUPPLY
URN	URINAL
USFWS	UNITES STATES FISH AND WILDLIFE SERVICE
UTIL	UTILITY
UVT	ULTRAVIOLET TRANSMITTANCE
V	VALVE, VAULT, VENT, VOLT(S)
VA	VOLT AMPERE
VAC	VACUUM, VOLTS ALTERNATING CURRENT
VAR	VARIES, VARIABLE
VB	VALVE BOX
VC	VERTICAL CURVE
VCP	PIPE, VITRIFIED CLAY
VCT	VERTICAL CENTERLINE
VDC	VOLTS DIRECT CURRENT
VEL	VELOCITY
VENT	VENTILATION
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VHS	VIRAL HEMORRHAGIC SEPTICEMIA
VIN	VINYL
VOL	VOLUME
VPC	VERTICAL POINT OF CURVATURE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
VSD	VARIABLE SPEED DRIVE
VTC	VENT TO CEILING
VTR	VENT THROUGH ROOF
VTR	VENT TO ROOF
W	WEST, WIRE, WASTE, WIDE
W/	WITH
W/O	WITHOUT
WC	WATER COLUMN
WD	WIDTH, WOOD
WD	WHIRLING DISEASE
WDW	WINDOW
WFLG	WIDE FLANGE
WG	WATER GAGE
WL	WATER LEVEL
WLD	WELDED
WM	WIRE MESH
WP	WATERPROOF
WP	PRESSURE, WORKING
WP	WATERPROOFING
WS	WATER SURFACE, WATER SUPPLY
WSEL	WATER SURFACE ELEVATION
WSP	PIPE, WELDED STEEL
WSTP	WATERSTOP
WT	WEIGHT, WATERTIGHT
WTHP	WEATHERPROOF
WW	WASTEWATER
WWF	WELDED WIRE FABRIC
XA	AIR, EXHAUST
XLPE	CROSS LINKED POLYETHYLENE
XMFR	TRANSFORMER
XP	EXPLOSION PROOF
XSEC	CROSS SECTION
YD	YARD
YR	YEAR
&	AND
@	AT
ø	DIAMETER
#, NO.	NUMBER

GENERAL NOTES:

1. THESE ABBREVIATIONS APPLY TO THE ENTIRE SET OF CONTRACT DRAWINGS.
2. LISTING OF ABBREVIATIONS DOES NOT IMPLY ALL ABBREVIATIONS ARE USED IN THE CONTRACT DRAWINGS.
3. ABBREVIATIONS SHOWN ON THIS SHEET INCLUDE VARIATIONS OF THE WORD. FOR EXAMPLE, "MOD" MAY MEAN MODIFY OR MODIFICATION; "INC" MAY MEAN INCLUDED OR INCLUDING; "REINF" MAY MEAN EITHER REINFORCE OR REINFORCING.
4. SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.

REVISION		
0	12/18/13	ISSUED FOR CONSTRUCTION

PROFESSIONAL ENGINEER REGISTERED 10805 STATE OF IDAHO CHRISTOPHER C. BOYD 12/18/13

MCMILLEN, LLC
1401 SHORELINE DR.
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Swan Falls Dam
Recreation Improvement Project
STANDARD ABBREVIATIONS

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: DEC 2013

DS. CR DR. RW CH. CB

APPROVED

20D-.....

REV.

G003

VAULT NO. D-

SHEET SYMBOLS

ARROW INDICATES DIRECTION OF PLAN NORTH

N

PLAN
SCALE: 1/2"= 1'-0"

SECTION IDENTIFICATION

(1) SECTION CUT ON DRAWING C102:

SECTION NUMBER
A
C103
DRAWING WHERE SECTION IS DRAWN

(2) ON DRAWING C103 THIS SECTION IS IDENTIFIED AS:

SECTION VIEW
SCALE: 1/2"= 1'-0"
SECTION LETTER
A
C102
DRAWING WHERE DETAIL OCCURS*

DETAIL IDENTIFICATION

(1) DETAIL CALL-OUT ON DRAWING C102:

DETAIL NUMBER
1
C103
DRAWING WHERE DETAIL IS SHOWN

(2) ON DRAWING C103 THIS SECTION IS IDENTIFIED AS:

DETAIL
SCALE: 1/2"= 1'-0"
DETAIL NUMBER
1
C102
DRAWING WHERE DETAIL OCCURS*

*NOTE: IF PLAN AND SECTION (OR DETAIL CALL-OUT AND DETAIL) ARE SHOWN ON SAME DRAWING. DRAWING NUMBER IS REPLACED BY A LINE.

STANDARD DETAIL IDENTIFICATION

(1) DETAIL CALL-OUT ON PLAN OR SECTION:

STANDARD DETAIL NUMBER
M101

(2) ON DETAIL DRAWINGS, IDENTIFIED AS:

DETAIL
STANDARD DETAIL NUMBER
M101

SITE PLAN LINETYPES

— X — X —	FENCE LINE
— P — P —	OVERHEAD POWER
455	MAJOR CONTOUR
456	MINOR CONTOUR
— · · · —	DITCH CENTERLINE
TOE	TOE OF SLOPE
TOP	TOP OF SLOPE
TOB	TOP OF BANK
— SS — SS —	SANITARY SEWER
— SD — SD —	STORM DRAIN
— EP — EP —	EDGE OF PAVEMENT
— EG — EG —	EDGE OF GRAVEL
— EW — EW —	EDGE OF WATER
TC	TURBIDITY CURTAIN
— SF — SF —	SILT FENCE OR WATTLE
— CF — CF —	CONSTRUCTION FENCE
GAS	GAS LINE
— — —	PROPERTY LINE
- - - - - - - - - -	BASE FLOOD ELEVATION (FEMA MAPPING)
100 YR	100 YR WSEL (FEMA MAPPING)

SITE PLAN SYMBOLS

	CONIFER TREE: FIR, SPRUCE, LARCH OR PINE, 8" DIAMETER OR LARGER.
	DECIDUOUS TREE: COTTONWOOD, HAWTHORN, ASPEN, 8" DIAMETER OR LARGER.
MH	MANHOLE
EB	ELECTRIC BOX
	STORM DRAIN MANHOLE
FH	FIRE HYDRANT
YH-X	YARD HYDRANT
	SURVEY CONTROL POINT, AS NOTED.
	POLE ANCHOR
	POWER POLE
	LIGHT POLE
	SIGN

HATCH SYMBOLS

	ROCK, TYPE AS NOTED (PLAN/SECTION)
	EXISTING GRADE (SECTION)
	NEW SOIL (SECTION)
	CONCRETE (SECTION/PLAN)
	SAND, GROUT (PLAN/SECTION)
	STEEL (SECTION)
	RIP RAP (PLAN/SECTION)
	ASPHALT CONCRETE PAVEMENT SURFACE (PLAN/SECTION)

GENERAL NOTES:
1. ALL SYMBOLS ARE NOT NECESSARILY USED THIS IS A STANDARD DRAWING SHOWING COMMON SYMBOLS ON THIS PROJECT.
2. SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE PROPOSED IMPROVEMENTS TO HIGHLIGHT SELECTED TRADE WORK. REFER TO CONTEXT OF EACH DRAWING FOR USAGE.

REVISION	
0	12/18/13 ISSUED FOR CONSTRUCTION

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Swan Falls Dam
Recreation Improvement Project
STANDARD SYMBOLS

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: DEC 2013

DS. CR DR. RW CH. CB APPROVED

20D-.....

G004

REV.

VAULT NO. D-

CONTROL POINT TABLE				
CP#	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	786358.15	1403547.21	2307.29	BRC RR RM456.80
2	786795.74	1402994.48	2303.13	BRC RR RM456.67
3	787673.02	1401783.05	2301.88	BRC RR RM456.43
4	782798.35	1406482.44	2301.43	BRC RR RM457.69
5	784912.22	1404778.39	2303.28	BRC RR RM457.14
6	780589.38	1409384.13	3020.79	BRC NGS BM SWAN FALLS
7	784490.92	1405032.54	2308.31	BRC RR RM457.22
8	785380.07	1404458.18	2308.58	BRC RR RM457.02
9	786102.62	1403859.39	2308.92	BRC RR RM456.87
10	782517.71	1408407.17	2308.95	X-TAILGAGE
11	784467.93	1404998.19	2299.08	X-RAMPGAGE
12	779050.97	1407408.24	2327.03	RVT WITH STAMPED WASHER
13	779252.10	1407305.73	2318.53	RVT WITH STAMPED WASHER
14	794085.29	1399857.87	2298.29	BRC RR RM455.18
15	788984.88	1400448.41	2299.54	BRC RR RM456.08
16	789715.70	1400414.25	2308.99	BRC RR RM455.93
17	790834.40	1400443.28	2312.87	BRC RR RM455.74
18	792248.39	1400432.93	2310.88	BRC RR RM455.47
19	783188.95	1408034.88	2305.05	BRC RR RM457.50
20	782429.33	1408597.00	2328.01	RVT WITH STAMPED WASHER
21	788219.74	1401079.81	2301.52	BRC RR RM456.25

GENERAL NOTES:

1. TOPOGRAPHIC MAPPING COMPLETED VIA 3-FOOT RED LIDAR COLLECTED BY WATERSHED SCIENCE, INC DATED SEPTEMBER 28, 2012 AND PROVIDED BY IDAHO POWER COMPANY.
2. SUPPLEMENTAL BATHYMETRIC SURVEY DATA COMPLETED VIA 3-FOOT GREEN LIDAR COLLECTED BY WATERSHED SCIENCES, INC DATED APRIL 18, 2013 AND PROVIDED BY IDAHO POWER COMPANY.
3. IDAHO POWER COMPANY PROJECTION, NAVD88 VERTICAL DATUM.
4. CONTROL POINT TABLE PROVIDED BY IDAHO POWER COMPANY. NOT ALL CONTROL POINTS SHOWN ON PLAN.
5. THE FOLLOWING TABLE PROVIDES APPROXIMATE WATER SURFACE ELEVATIONS AT THE BOAT RAMP FOR THE FLOWS INDICATED. THESE ELEVATIONS AND CORRESPONDING FLOWS ARE APPROXIMATE AND ARE ONLY PROVIDED FOR REFERENCE. ACTUAL WATER SURFACE ELEVATIONS AND FLOWS MAY VARY DEPENDING ON CHANGING RIVER CONDITIONS.

RIVER FLOW CFS	APPROX WSEL @ BOAT RAMP
25,400	2297.6
20,000	2295.8
15,000	2293.7
10,000	2290.9
7,000	2289.2
5,370	2287.8

LEGNED:

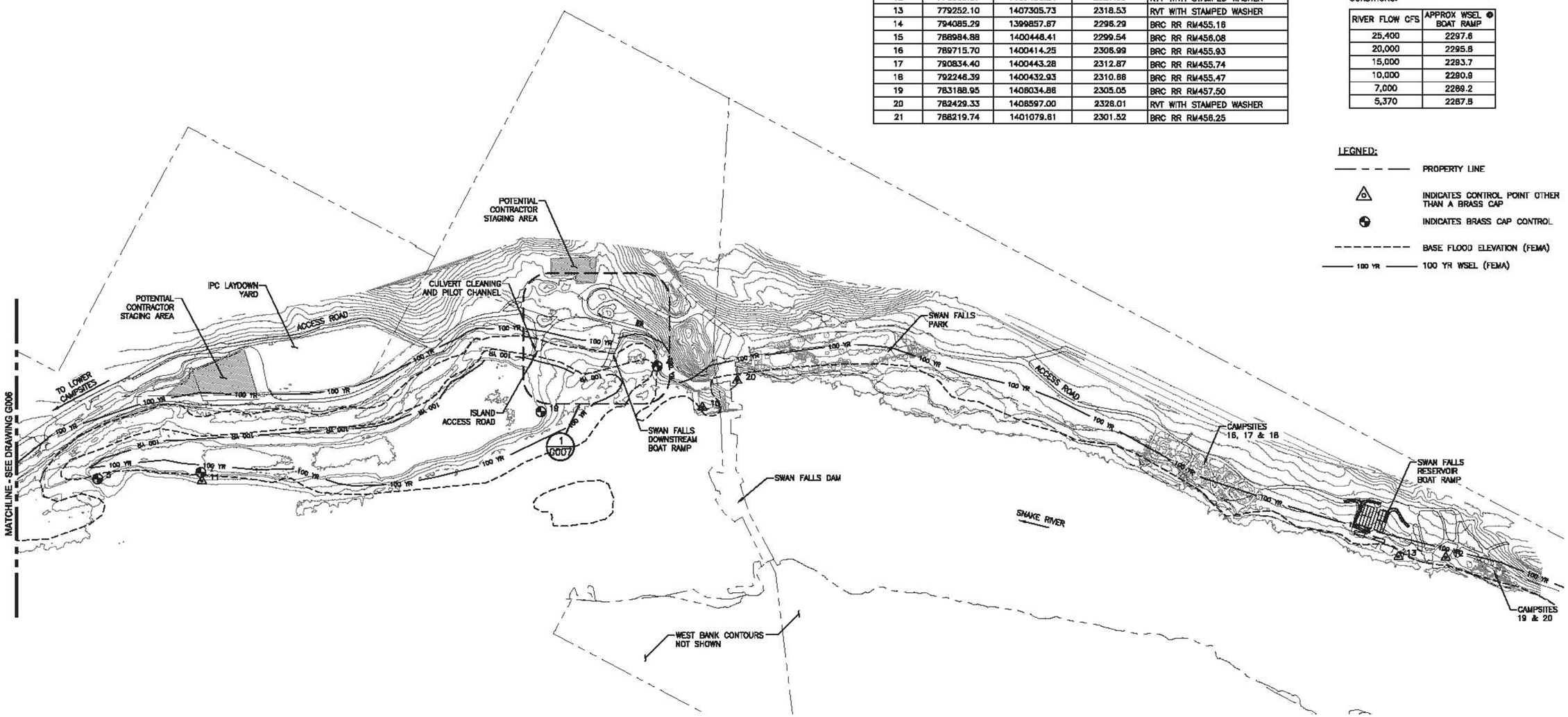
PROPERTY LINE

INDICATES CONTROL POINT OTHER THAN A BRASS CAP

INDICATES BRASS CAP CONTROL

BASE FLOOD ELEVATION (FEMA)

100 YR — 100 YR WSEL (FEMA)



OVERALL PROJECT SITE PLAN AND CONTROL – UPSTREAM

SCALE: 1"= 250'

0' 250' 500'

REVISION

0	12/18/13	ISSUED FOR CONSTRUCTION
1	01/13/14	REMOVE JETTY & SIDE CHANNEL

PROFESSIONAL ENGINEER REGISTERED 10805 STATE OF IDAHO CHRISTOPHER C. BOYD 1/13/14

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Swan Falls Dam
Recreation Improvement Project
OVERALL PROJECT SITE PLAN AND CONTROL – UPSTREAM

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: JAN 2014

DS. CR DR. RW CH. CB

APPROVED

20D-.....

G005

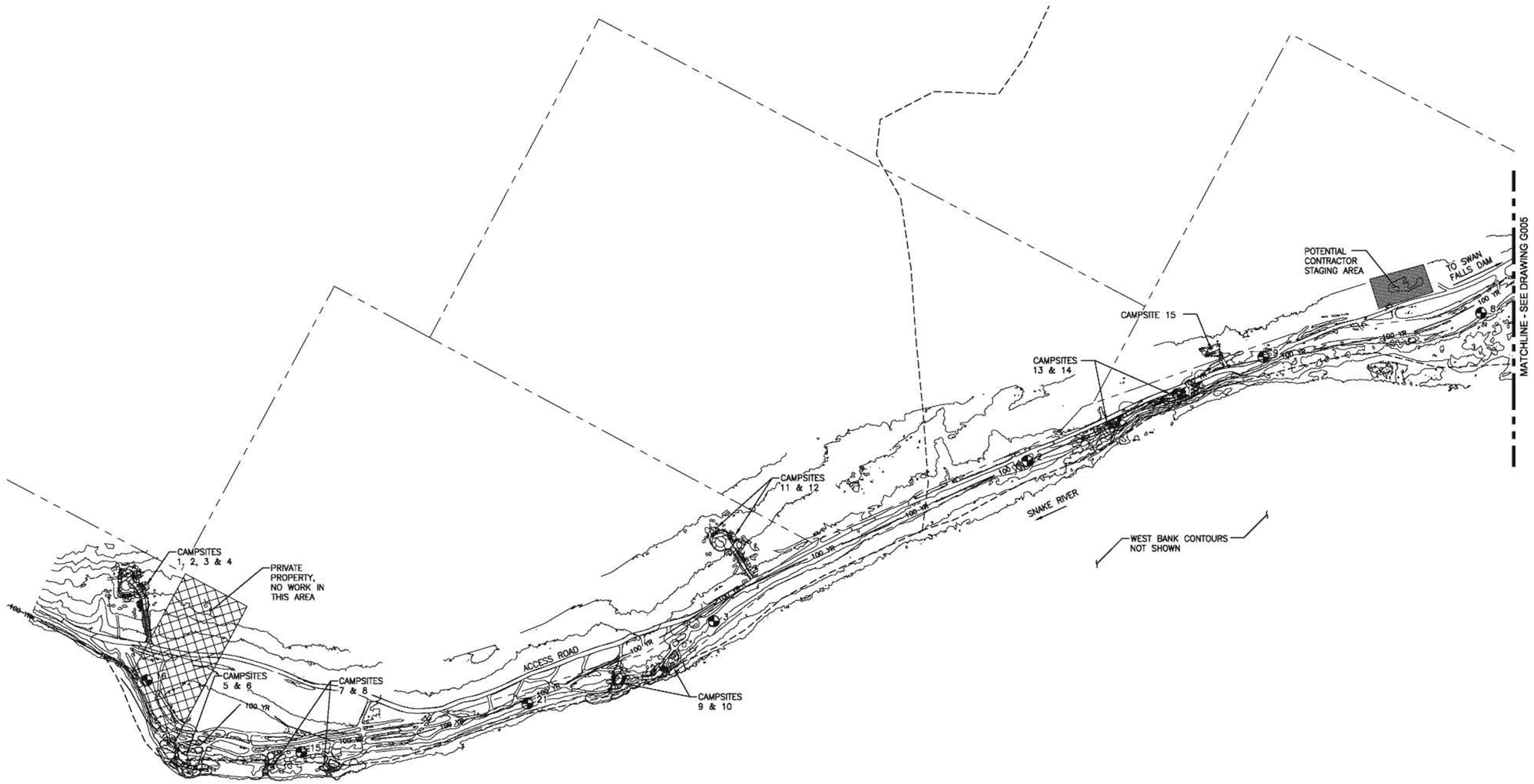
VAULT NO. D-

REV.

SHEET NOTES:

1. SEE SHEET G005 FOR SHEET NOTES, CONTROL POINTS AND LEGEND.

REVISION	
0	12/18/13
ISSUED FOR CONSTRUCTION	



OVERALL PROJECT SITE PLAN AND CONTROL – DOWNSTREAM

SCALE: 1"= 250'

0" 250' 500'

PROFESSIONAL ENGINEER REGISTERED 10805 (12/18/13) STATE OF IDAHO CHRISTOPHER C. BOYD

MCMILLEN, LLC

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BOISE, ID 83702

OFFICE: 208.342.4214
FAX: 208.342.4216

Swan Falls Dam Recreation Improvement Project OVERALL PROJECT SITE PLAN AND CONTROL – DOWNSTREAM	
IDAHO POWER COMPANY BOISE, IDAHO	
SCALE: AS NOTED	DATE: DEC 2013
DS. CR / DR. RW / CH. CB	APPROVED ---
20D-.....	
G006	

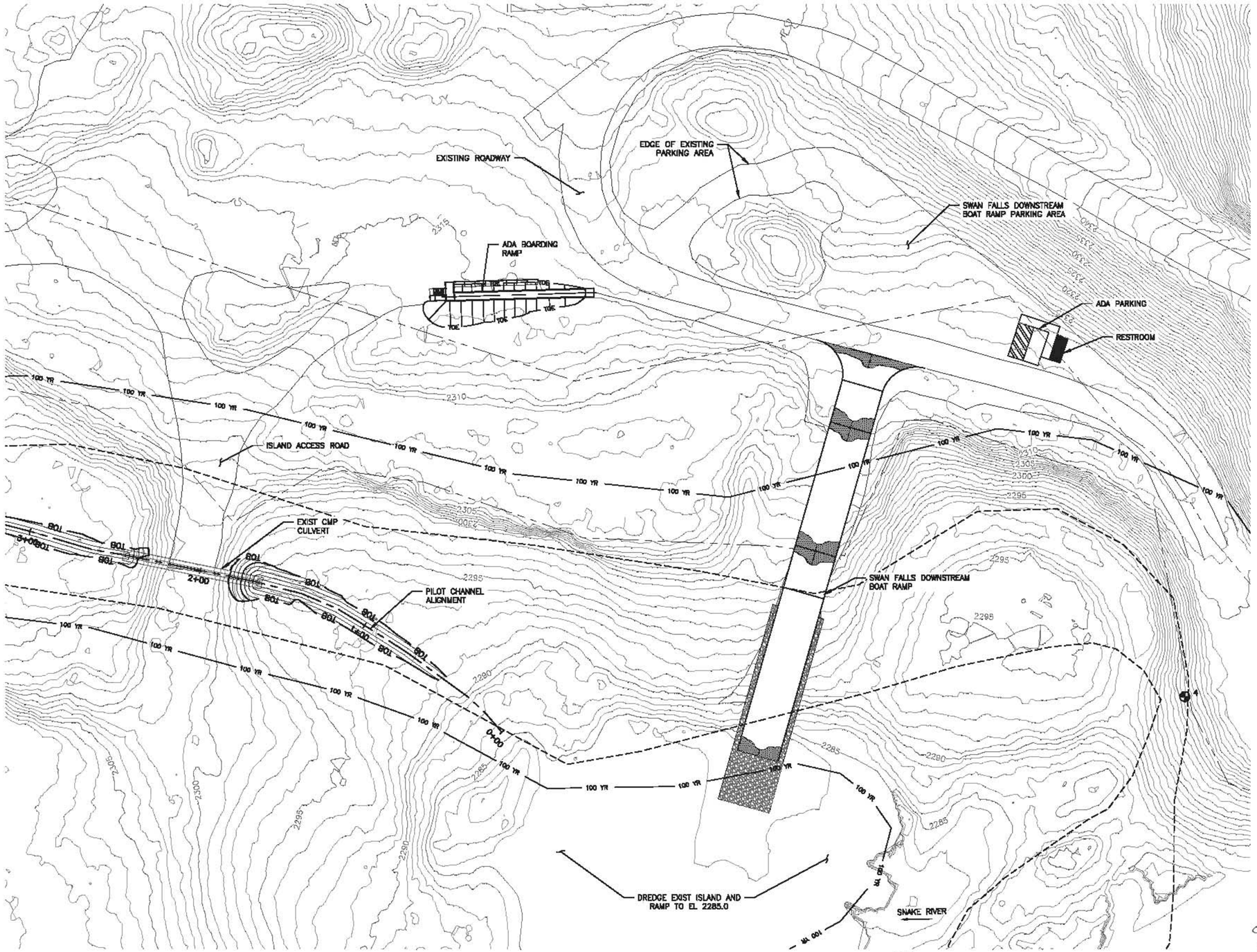
REV.

VAULT NO. D-

SHEET NOTES:

1. SEE SHEET G005 FOR SHEET NOTES, CONTROL POINTS AND LEGEND.

REVISION		
0	12/18/13	ISSUED FOR CONSTRUCTION
1	01/13/14	REMOVE JETTY & SIDE CHANNEL



JETTY AREA SITE PLAN

SCALE: 1"= 30'

PROFESSIONAL ENGINEER REGISTERED 10805 1/13/14 STATE OF IDAHO CHRISTOPHER C. BOYD

McMILLEN, LLC

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Swan Falls Dam Recreation Improvement Project	
JETTY AREA SITE PLAN	
IDAHO POWER COMPANY BOISE, IDAHO	
SCALE: AS NOTED	DATE: JAN 2014
DS. CR / DR. RW / CH. CB	APPROVED —
20D-.....	
G007	

VAULT NO. D-

GENERAL NOTES:

1. SEE SPECIFICATIONS AND SPECIAL CONDITIONS FOR CLEARING, GRUBBING AND DEMOLITION REQUIREMENTS.

SHEET KEY NOTES:

1. REMOVE AND DISPOSE OF EXISTING CONCRETE BOAT RAMP
2. REMOVE AND SALVAGE DOCK FOR OWNER'S USE. COORDINATE REMOVAL SCHEDULE WITH OWNER.
3. PROTECT AND REUSE EXISTING CONCRETE DOCK ABUTMENT
4. PROTECT AND REUSE EXISTING 11"ø PILE
5. RETAIN AND PROTECT EXISTING FENCE
6. RETAIN AND PROTECT EXISTING DOCK

REVISION	
0	12/18/13
	ISSUED FOR CONSTRUCTION

RESERVOIR BOAT RAMP DEMOLITION PLAN

SCALE: 1"= 30'

0' 30' 60'

N

PROFESSIONAL ENGINEER REGISTERED 10805 12/18/13 STATE OF IDAHO CHRISTOPHER C. BOYD

MCMILLEN, LLC

1401 SHORELINE DR.
BOISE, ID 83702

OFFICE: 208.342.4214
FAX: 208.342.4216

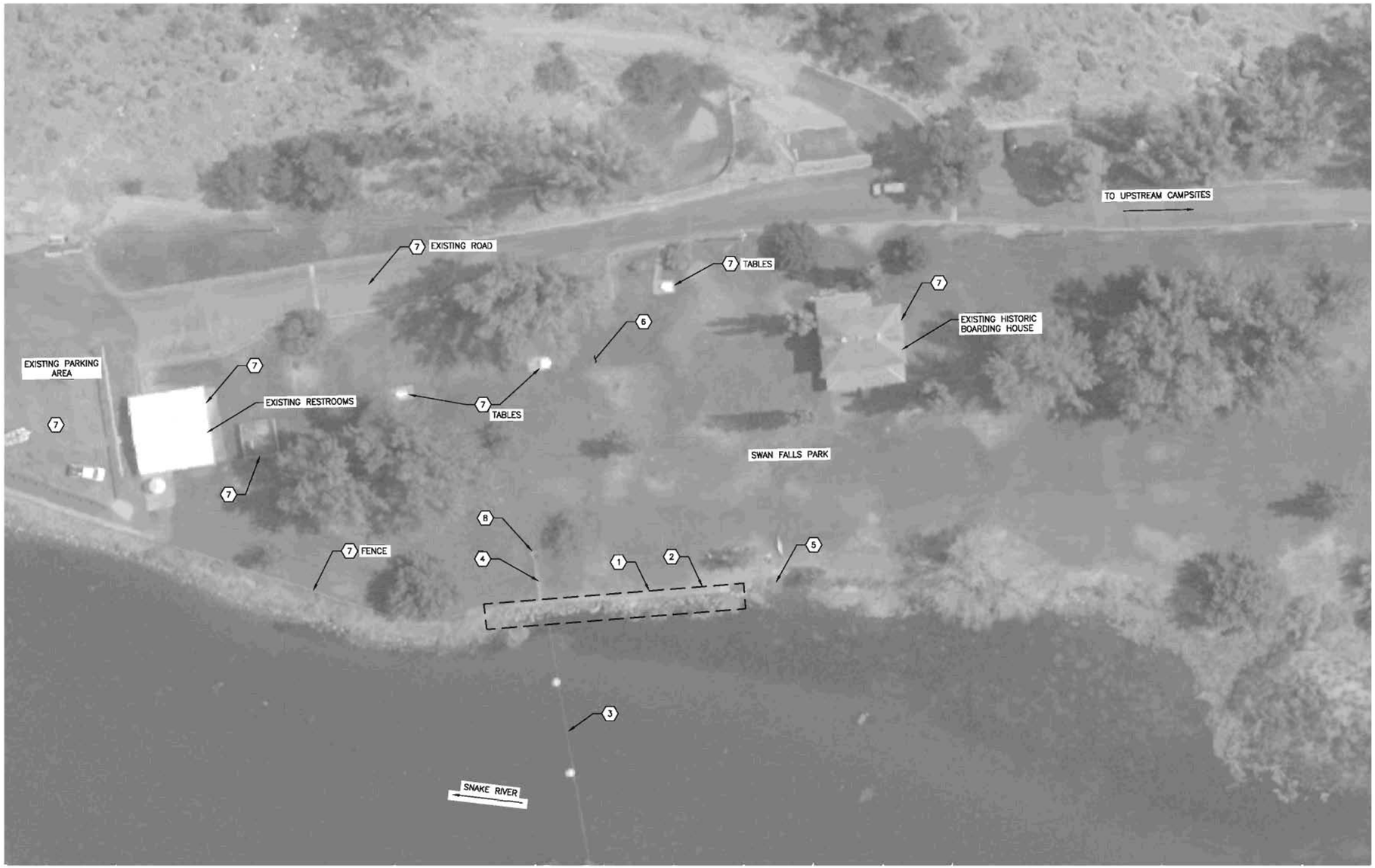
Swan Falls Dam Recreation Improvement Project SWAN FALLS RESERVOIR BOAT RAMP DEMOLITION PLAN	VAULT NO. D-
IDAHO POWER COMPANY BOISE, IDAHO	
SCALE: AS NOTED	DATE: DEC 2013
DS. CR / DR. RW / CH. CB / REV.	APPROVED / 20 D-.....
	D101

GENERAL NOTES:

1. SEE SPECIFICATIONS AND SPECIAL CONDITIONS FOR CLEARING, GRUBBING AND DEMOLITION REQUIREMENTS.

SHEET KEY NOTES:

1. REMOVE EXISTING RETAINING WALL BLOCKS AND STORE ON-SITE FOR NEW RETAINING WALL
2. CLEAR AND GRUB RETAINING WALL LENGTH TO PREPARE FOR RETAINING WALL REGRADING
3. RETAIN AND PROTECT EXISTING BUOY LINE
4. REMOVE AND DISPOSE OF EXISTING FENCES
5. CLEAR AND GRUB NEW BOAT DOCK ABUTMENT LOCATION
6. CLEAR AND GRUB FOR NEW PATHWAY AND PICNIC AREA. SEE SHEET C301 AND C302 FOR PARK SITE PLANS
7. RETAIN AND PROTECT EXISTING FACILITIES
8. REMOVE AND DISPOSE OF EXISTING SHEET PILE ANCHORAGE.



PARK DEMOLITION PLAN

SCALE: 1"= 30'

0' 30' 60'

REVISION	
0	12/18/13
	ISSUED FOR CONSTRUCTION

PROFESSIONAL ENGINEER REGISTERED 10805 STATE OF IDAHO CHRISTOPHER C. BOYD 12/18/13

McMILLEN, LLC

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Swan Falls Dam
Recreation Improvement Project
SWAN FALLS PARK
DEMOLITION PLAN

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: DEC 2013

DS. CR DR. RW CH. CB

APPROVED

20D-.....

D102

REV.

VAULT NO. D-

DOWNSTREAM BOAT RAMP AND SIDE CHANNEL DEMOLITION PLAN

SCALE: 1"= 30'

0" 30' 60'

GENERAL NOTES:

1. SEE SPECIFICATIONS AND SPECIAL CONDITIONS FOR CLEARING, GRUBBING AND DEMOLITION REQUIREMENTS.

SHEET KEY NOTES:

1. CLEAR AND GRUB AREA FOR NEW BOAT RAMP, SEE SHEET C330–C332.
2. RETAIN AND PROTECT EXISTING ASPHALT ROADWAY.
3. CLEAN OUT (2) EXISTING CMP'S UNDER SPUR ROAD.
4. NOT USED
5. CLEAR AND GRUB EXISTING DEPRESSION TO BE FILLED DURING GRADING, SEE SHEET C330.
6. CLEAR AND GRUB PILOT CHANNEL AS REQUIRED FOR PILOT CHANNEL CONSTRUCTION.
7. EXISTING OUTHOUSE TO BE REMOVED BY OWNER
8. REMOVE ISLAND TO ELEVATION 2285.0. DREDGE BOAT LAUNCH AREA TO ELEVATION 2284.0 (SEE SHEET C201). STOCKPILE OR DRAIN DREDGED MATERIAL UNTIL IT IS SUITABLE FOR PLACEMENT. DISPOSE OF ISLAND SOIL ALONG ROADS TO BE RE–VEGETATED
9. PROTECT AND MAINTAIN ACCESS TO EXISTING LAYDOWN YARD
10. EXISTING COMPRESSOR TO BE REMOVED BY OWNER.

REVISION	
0	12/18/13 ISSUED FOR CONSTRUCTION
1	01/13/14 REMOVE JETTY & SIDE CHANNEL

PROFESSIONAL ENGINEER REGISTERED 10805 STATE OF IDAHO CHRISTOPHER C. BOYD 1/13/14

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Swan Falls Dam
Recreation Improvement Project
DOWNSTREAM BOAT RAMP AND SIDE CHANNEL DEMOLITION PLAN

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: JAN 2014

DS. CR
DR. RW
CH. CB
REV.

APPROVED

20D–.....

D103

VAULT NO. D–

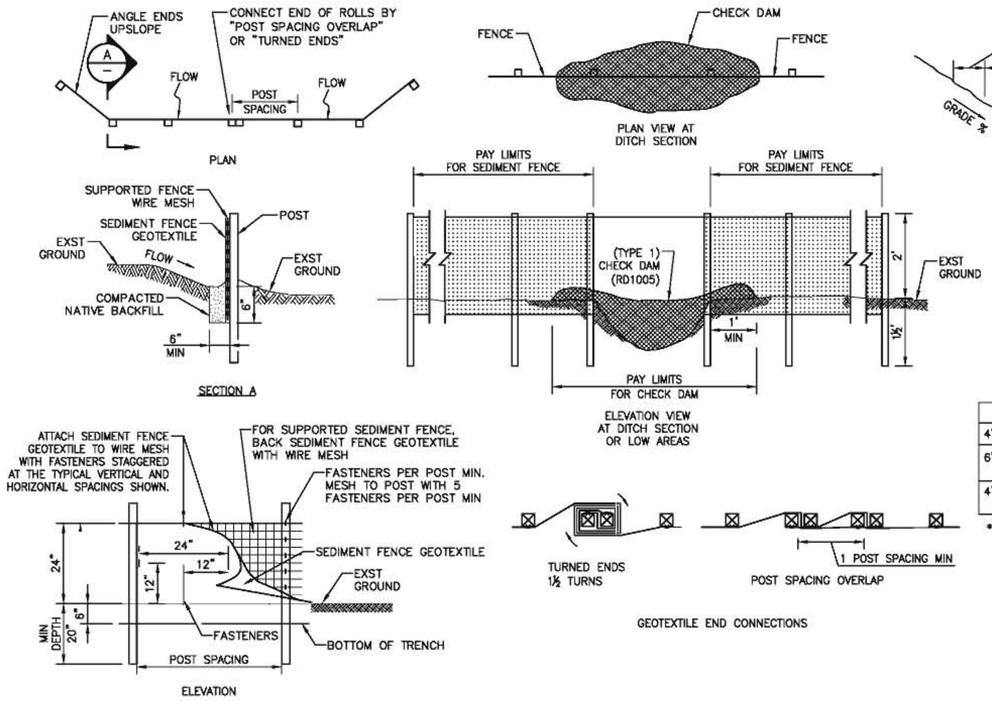


TABLE 1
FENCE SPACING
FOR GENERAL APPLICATION

INSTALL PARALLEL ALONG CONTOURS AS FOLLOWS	
GRADE	MAXIMUM SPACING ON GRADE
GRADE< 10%	300'
10% ≤ GRADE < 15%	150'
15% ≤ GRADE < 20%	100'
20% ≤ GRADE < 30%	50'
30% ≤ GRADE	25'

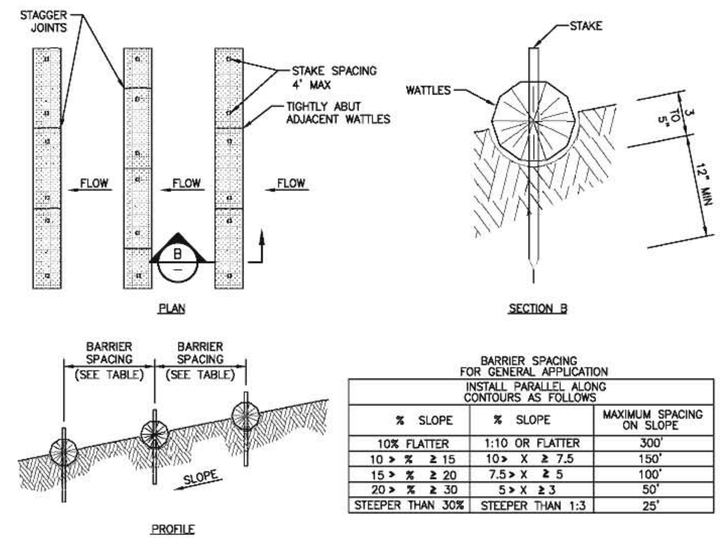
TABLE 2

POST SPACING	
4'	SUPPORTED SEDIMENT FENCE
6'	UNSUPPORTED SEDIMENT FENCE WITH GEOTEXTILE ELONGATION *LESS THAN 50%
4'	UNSUPPORTED SEDIMENT FENCE WITH GEOTEXTILE ELONGATION *MORE THAN 50%

* GEOTEXTILE GRAB ELONGATION VALUE AS DOCUMENTED BY "LEVEL B" MANUFACTURER'S DOCUMENTATION (SEE STANDARD SPECIFICATIONS).

SILT FENCE DETAIL — EC101

SCALE: NTS



PLACE WATTLES ALONG SLOPE CONTOURS.

BARRIER SPACING
FOR GENERAL APPLICATION

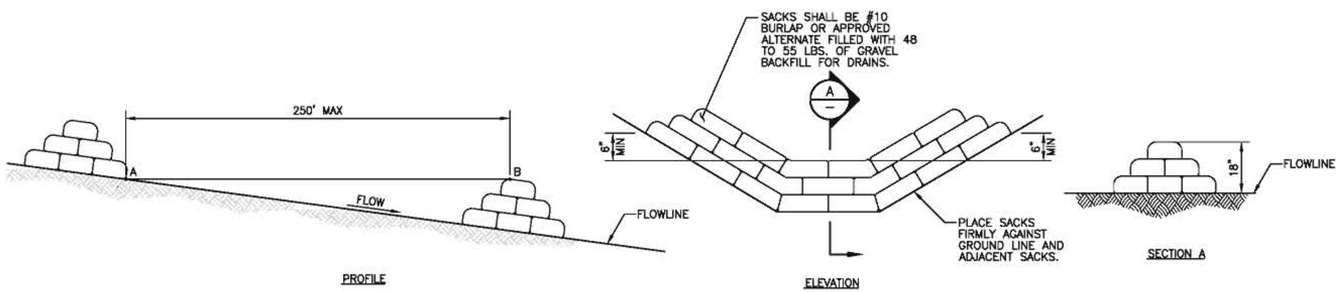
INSTALL PARALLEL ALONG CONTOURS AS FOLLOWS		
% SLOPE	% SLOPE	MAXIMUM SPACING ON SLOPE
10% FLATTER	1:10 OR FLATTER	300'
10 > % ≥ 15	10> X ≥ 7.5	150'
15 > % ≥ 20	7.5 > X ≥ 5	100'
20 > % ≥ 30	5 > X ≥ 3	50'
STEEPER THAN 30%	STEEPER THAN 1:3	25'

SEDIMENT BARRIER (WATTLES) — EC102

SCALE: NTS

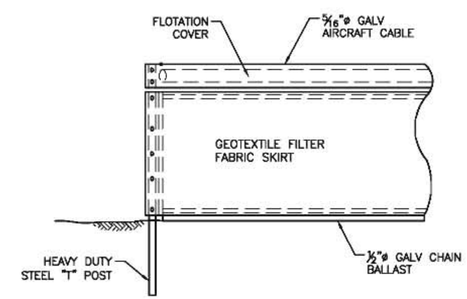
EROSION CONTROL NOTES:

1. THE CONTRACTOR SHALL SUBMIT AN EROSION AND SEDIMENT CONTROL PLAN FOR WORK DURING CONSTRUCTION, SIGNED AND STAMPED BY A REGISTERED CIVIL ENGINEER PRIOR TO THE START OF CONSTRUCTION, THAT MEETS ALL FEDERAL, STATE AND LOCAL REQUIREMENTS.
   A. ALL SLOPES SHALL BE PROTECTED FROM EROSION DURING ROUGH GRADING OPERATIONS AND THEREAFTER, UNTIL INSTALLATION OF FINAL GROUNDCOVER.
   B. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTATION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES CONTAINED WITHIN THE CONTRACT SPECIFICATIONS. THE CONTRACTOR SHALL ALSO PROVIDE ANY ADDITIONAL EROSION CONTROL MEASURES (HYDROSEEDING, MULCHING OF STRAW, SAND DIVERSION DITCHES, ETC.) DICTATED BY FIELD CONDITIONS TO PREVENT EROSION OR THE INTRODUCTION OF DIRT, MUD, OR DEBRIS TO EXISTING PUBLIC OR PRIVATE ROADWAY OR ONTO ADJACENT PROPERTIES DURING ANY PHASE OF CONSTRUCTION OPERATIONS. SPECIAL ATTENTION SHALL BE GIVEN TO ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES NOTED ABOVE.
   C. THE GENERAL EROSION AND SEDIMENT CONTROL PLAN ON DRAWINGS IS PROVIDED TO AID THE CONTRACTOR IN DEVELOPING THE EROSION AND SEDIMENT CONTROL PLAN ACCORDING TO CONTRACTOR SCHEDULE AND PHASING OF THE PROJECT.
2. CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES AS INDICATED AND IN ANY ADDITIONAL LOCATIONS WHERE MATERIAL COULD LEAVE THE CONSTRUCTION SITE, AT CONTRACTORS EXPENSE.
3. INSTALL WATTLES OR SILT FENCE BETWEEN ALL DISTURBED AREAS AND THE RIVER. THIS INCLUDES ALL EXCAVATIONS, FILL AREAS, STOCKPILES, ETC. STRAW WATTLES OR SILT FENCE MAY BE USED BASED ON THE CONTRACTOR'S APPROVED SWPPP.
4. FOR ANY IN-WATER WORK, INSTALL TURBIDITY CURTAIN AROUND THE WORK AREA.
5. THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING AND MAINTAINING ALL EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT THE DURATION OF THE PROJECT.
6. CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL FACILITIES, FENCING, AND STAGING AREA MATERIALS WHEN CONSTRUCTION IS COMPLETE. NO CONSTRUCTION DEBRIS, DEMOLITION MATERIALS, OR EXCESS EQUIPMENT SHALL BE LEFT ON SITE.
7. CONTRACTOR SHALL REGRADE AND VEGETATE DISTURBED SLOPES AS INDICATED ON THE RE-VEGETATION PLANS.
8. ALL RUNOFF FROM SITE CONSTRUCTION ACTIVITIES AND FROM RAINFALL EVENTS SHALL BE DETAINED ON SITE AND FILTERED PRIOR TO DISCHARGE WITH THE USE OF PORTABLE FILTRATION TANKS AND PUMPS.
9. CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO PREVENT:
   A. TRACKING OF MUD AND DIRT ONTO PAVED ROADS. ROAD SWEEPING IS REQUIRED IF TRACKING OCCURS.
   B. ACCUMULATION OF CONSTRUCTION WASTE AND LITTER ON SITE.
   C. NO GRADING OR CONSTRUCTION ACTIVITIES SHALL OCCUR OUTSIDE OF THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS FOR THE PROJECT.
10. STOCKPILED EXCAVATION MATERIALS SHALL BE PROTECTED FROM WATER AND WIND EROSION BY COVERING AS APPROPRIATE.
11. THE EROSION CONTROL MEASURES SHALL BE CONSTRUCTED PRIOR TO ANY CONSTRUCTION ACTIVITIES.
12. CONTRACTOR SHALL PROVIDE DUST ABATEMENT OVER ALL DISTURBED AREAS BY WATER SPRAY.
13. MINIMIZE DISTURBANCES TO EXISTING VEGETATION – UTILIZE AS NATURAL BUFFER STRIPS.
14. CONTRACTOR SHALL HAVE ONSITE AT ALL TIMES SPILL PREVENTION AND CONTROL MEASURES AS PER IDEQ BMP-10.



SANDBAG CHECK DAMS — EC104

SCALE: NTS



NOTE:

TURBIDITY BLANKET TO BE CSI GEOSYNTHETICS OR EQUAL.

TURBIDITY CURTAIN — EC105

SCALE: NTS

REVISION	
0	12/18/13 ISSUED FOR CONSTRUCTION

PROFESSIONAL ENGINEER REGISTERED 10805 12/18/13 STATE OF IDAHO CHRISTOPHER C. BOYD

MCMILLEN, LLC
1401 SHORELINE DR.
SUITE 100
BOISE, ID 83702
OFFICE: 208.342.4214
FAX: 208.342.4216

Swan Falls Dam

EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

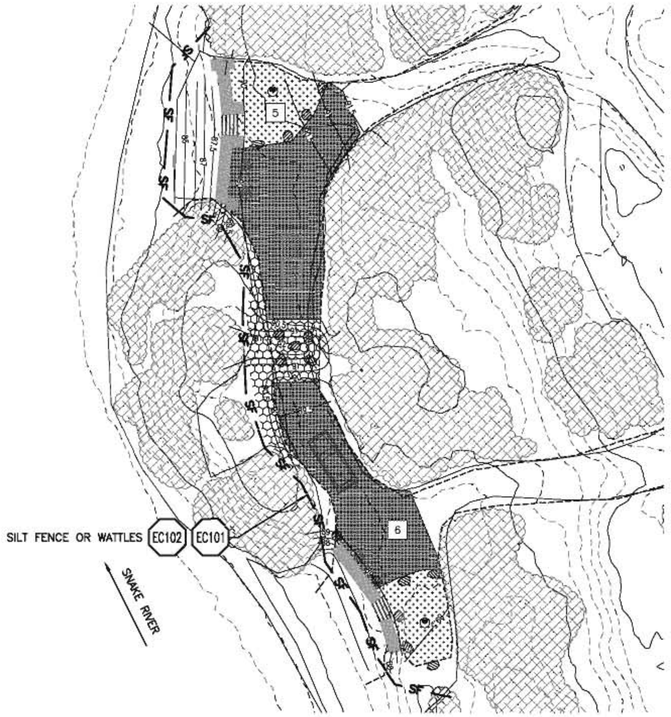
IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: DEC 2013

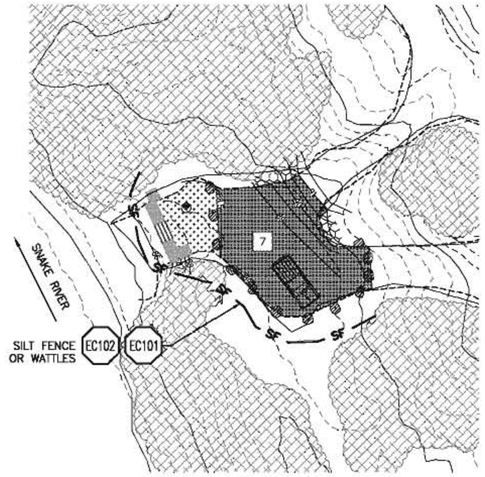
DS. CR DR. RW CH. CB APPROVED — 20D-.....

REV. ESC101

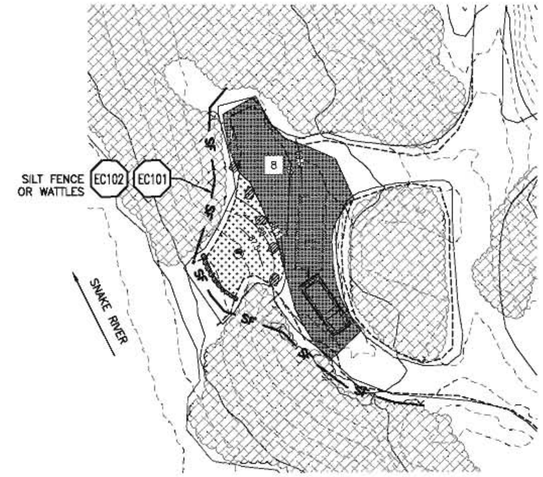
VAULT NO. D-



SITES 5 & 6
SCALE: 1"= 20'
0' 20' 40'



SITE 7
SCALE: 1"= 20'
0' 20' 40'



SITE 8
SCALE: 1"= 20'
0' 20' 40'

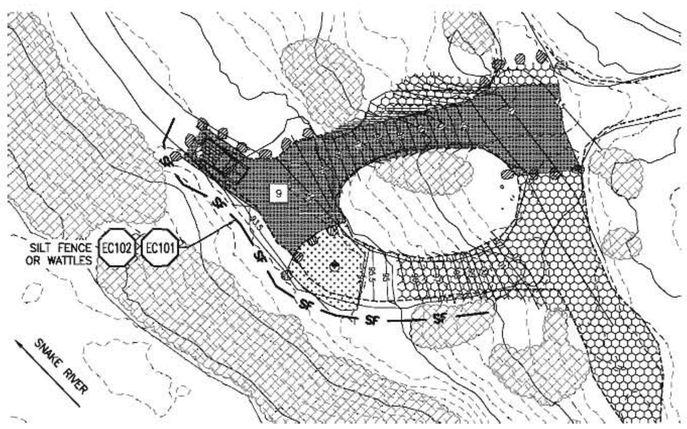
SHEET NOTES:

1. SEE SHEET ESC101 FOR GENERAL EROSION CONTROL NOTES.

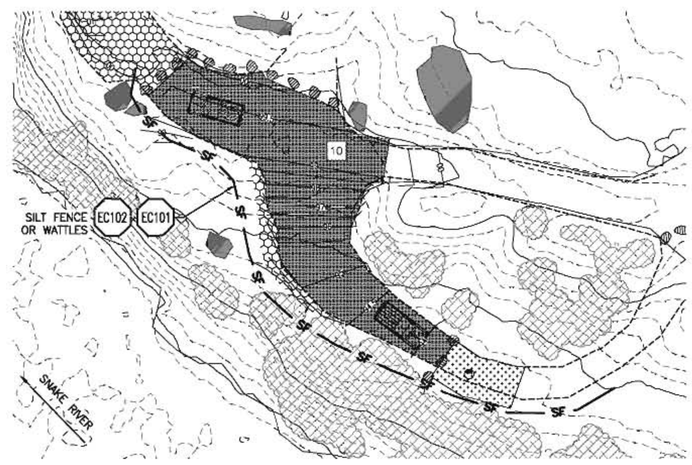
LEGEND:

— SF — SILT FENCE OR

EC101 EC102 WATTLES



SITE 9
SCALE: 1"= 20'
0' 20' 40'



SITE 10
SCALE: 1"= 20'
0' 20' 40'

REVISION	
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PROFESSIONAL ENGINEER REGISTERED 10805 STATE OF IDAHO CHRISTOPHER C. BOYD 12/18/13

MCMILLEN, LLC
1401 SHORELINE DR.
BOISE, ID 83702
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FAX: 208.342.4216

Swan Falls Dam
Recreation Improvement Project
CAMPSITE EROSION AND SEDIMENT CONTROL PLAN 1

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: DEC 2013

DS. CR DR. RW CH. CB

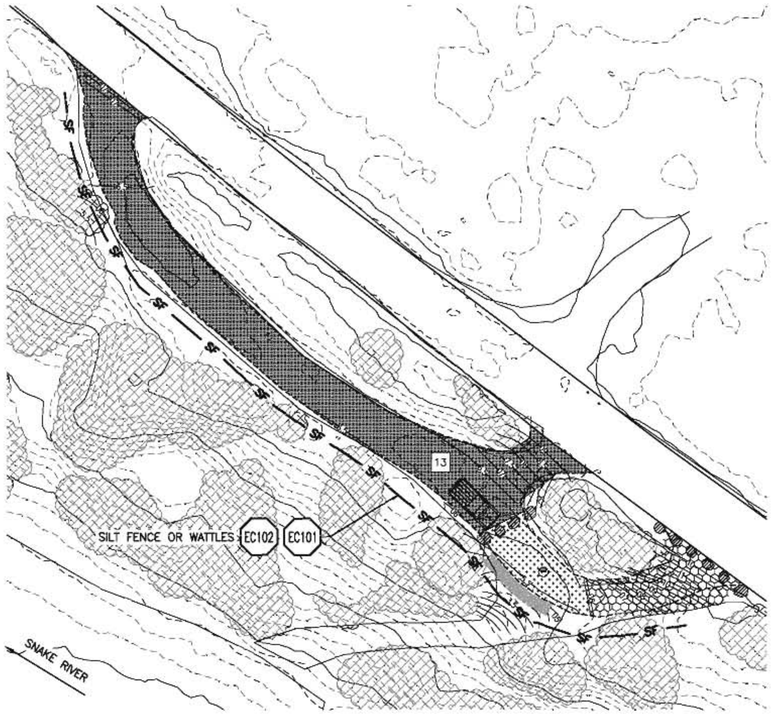
APPROVED

20D-.....

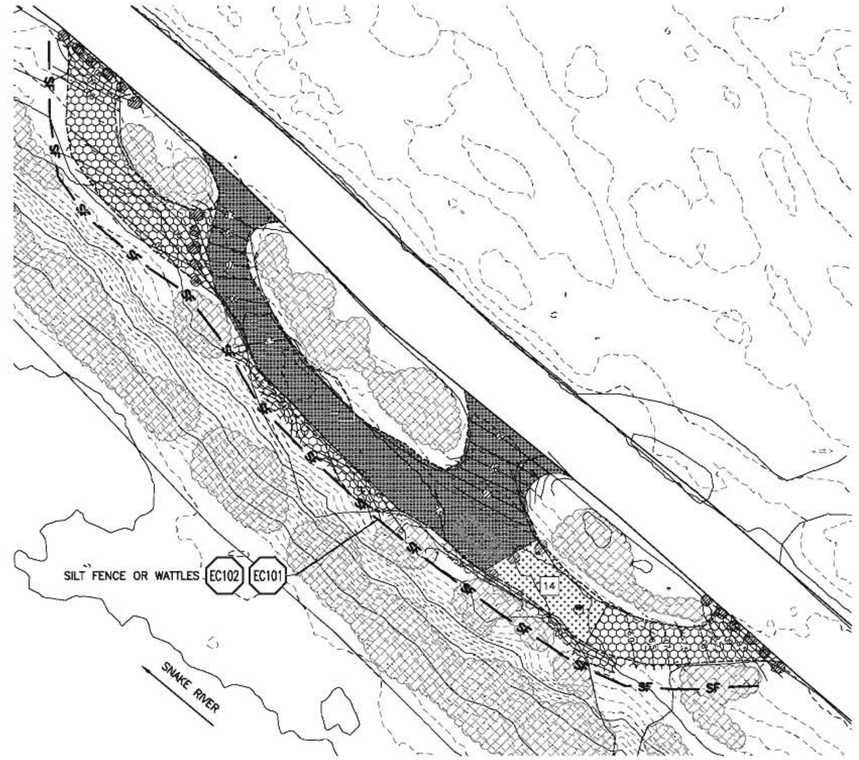
ESC102

REV.

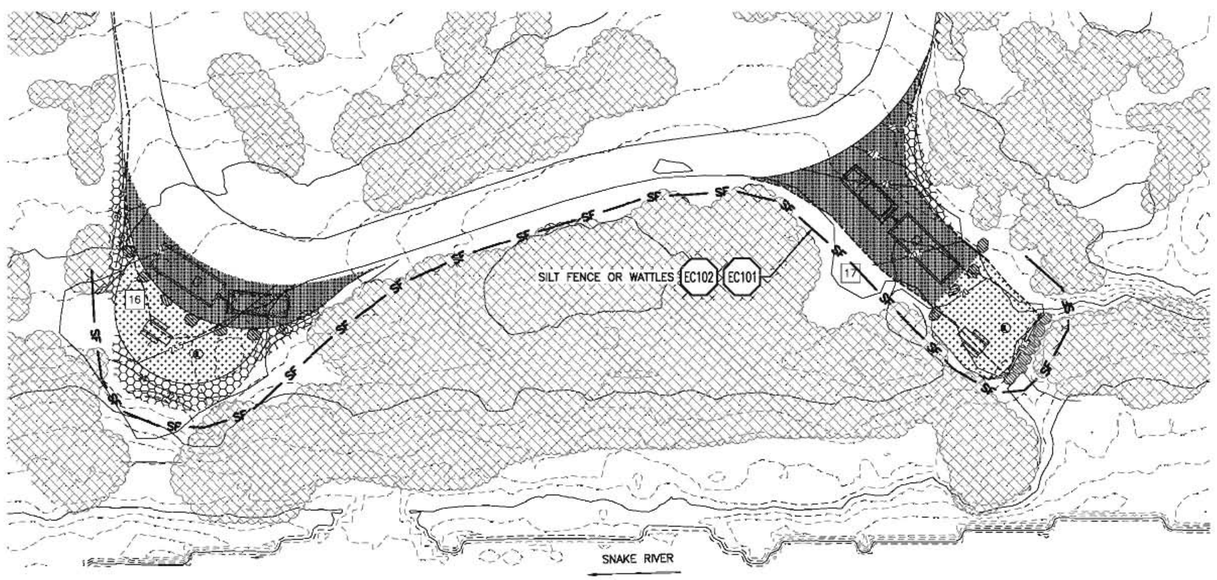
VAULT NO. D-



SITE 13
SCALE: 1"= 20'



SITE 14
SCALE: 1"= 20'



SITES 16 & 17
SCALE: 1"= 20'

SHEET NOTES:

1. SEE SHEET ESC101 FOR GENERAL EROSION CONTROL NOTES.

LEGEND:

— SF — SILT FENCE OR

EC101 EC102 WATTLES

REVISION	
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PROFESSIONAL ENGINEER REGISTERED 10805 STATE OF IDAHO CHRISTOPHER C. BOYD 12/18/13

McMILLEN, LLC

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BOISE, ID 83702

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FAX: 208.342.4216

Swan Falls Dam
Recreation Improvement Project
CAMPSITE EROSION AND SEDIMENT CONTROL PLAN 2

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: DEC 2013

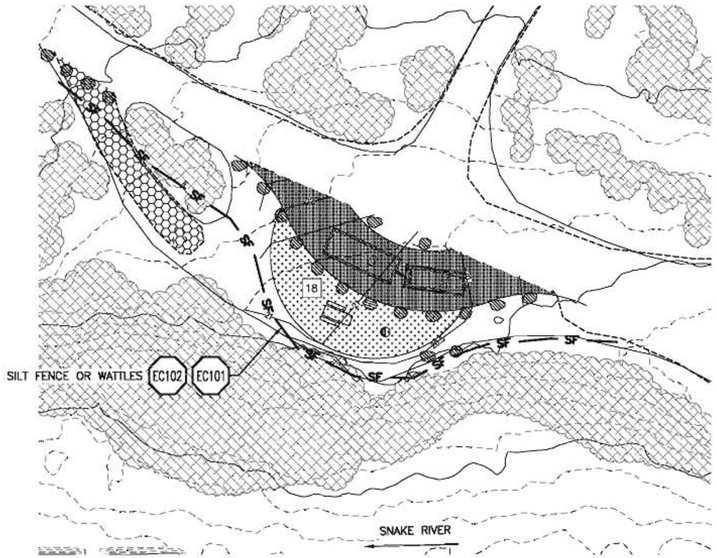
DS. CR
DR. RW
CH. CB
REV.

APPROVED

20 D–.....

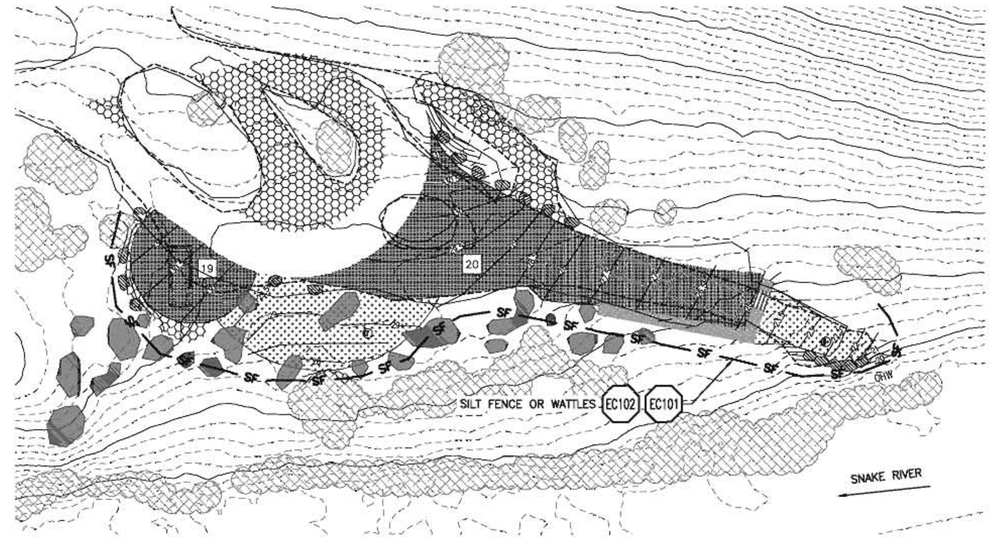
ESC103

VAULT NO. D–



SITE 18

SCALE: 1"= 20'



SITES 19 & 20

SCALE: 1"= 20'

SHEET NOTES:

1. SEE SHEET ESC101 FOR GENERAL EROSION CONTROL NOTES.

LEGEND:

—— SF ——

EC101 EC102 SILT FENCE OR WATTLES

REVISION	
0	12/18/13
	ISSUED FOR CONSTRUCTION

PROFESSIONAL ENGINEER REGISTERED 10805 STATE OF IDAHO CHRISTOPHER C. BOYD 12/18/13

MCMILLEN, LLC

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BOISE, ID 83702

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FAX: 208.342.4216

Swan Falls Dam

Recreation Improvement Project

CAMPSITE EROSION AND SEDIMENT CONTROL PLAN 3

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: DEC 2013

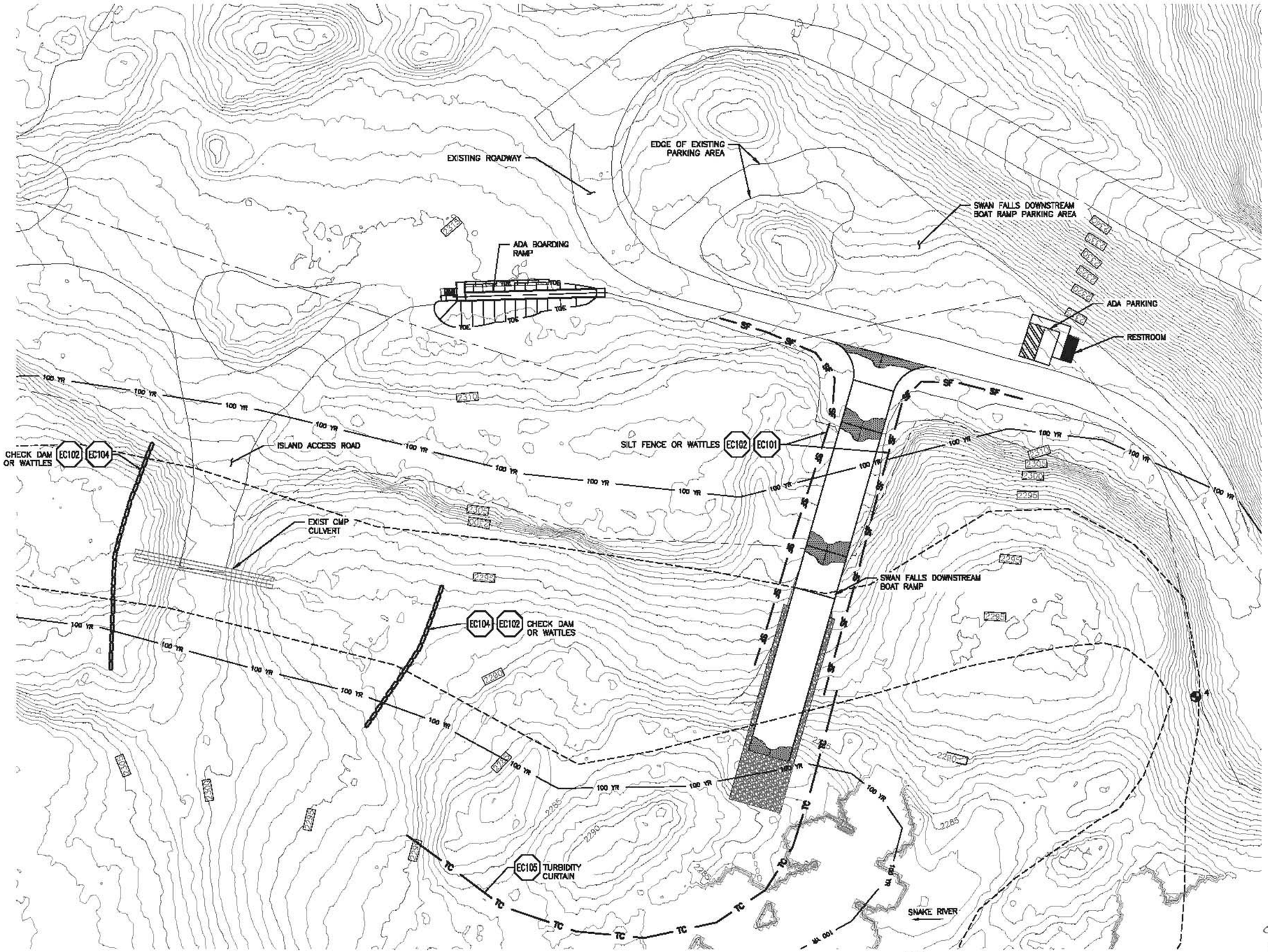
DS. CR DR. RW CH. CB APPROVED

20D-.....

ESC104

REV.

VAULT NO. D-



JETTY AREA SITE PLAN

SCALE: 1"= 30'

0" 30' 60'

SHEET NOTES:

1. SEE SHEET ESC101 FOR GENERAL EROSION CONTROL NOTES.

LEGEND:

—— SF ——	EC101	SILT FENCE OR
	EC102	WATTLES
	EC104	CHECK DAM
—— TC ——	EC105	TURBIDITY CURTAIN

REVISION	
0	12/18/13 ISSUED FOR CONSTRUCTION
1	01/13/14 REMOVE JETTY & SIDE CHANNEL

PROFESSIONAL ENGINEER REGISTERED 10805 1/13/14 STATE OF IDAHO CHRISTOPHER C. BOYD

MCMILLEN, LLC
1401 SHORELINE DR.
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FAX: 208.342.4216

Swan Falls Dam
Recreation Improvement Project
JETTY AREA EROSION AND SEDIMENT CONTROL PLAN

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: JAN 2014

DS. CR DR. RW CH. CB APPROVED

20D-.....

ESC201

VAULT NO. D-

REV.

SHEET NOTES:

1. SEE SHEET ESC101 FOR GENERAL EROSION CONTROL NOTES.

LEGEND:

—— SF ——	EC101 / EC102	SILT FENCE OR WATTLES
—— TC ——	EC105	TURBIDITY CURTAIN

SWAN FALLS PARK – NORTH

SCALE: 1"= 20'

0' 20' 40'

REVISION	
0	12/18/13 ISSUED FOR CONSTRUCTION

PROFESSIONAL ENGINEER REGISTERED 10805 12/18/13 STATE OF IDAHO CHRISTOPHER C. BOYD

MCMILLEN, LLC
1401 SHORELINE DR.
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OFFICE: 208.342.4214
FAX: 208.342.4216

Swan Falls Dam
Recreation Improvement Project
SWAN FALLS PARK EROSION AND SEDIMENT CONTROL PLAN 1

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: DEC 2013

DS. CR DR. RW CH. CB APPROVED

20D–.....

ESC301

REV.

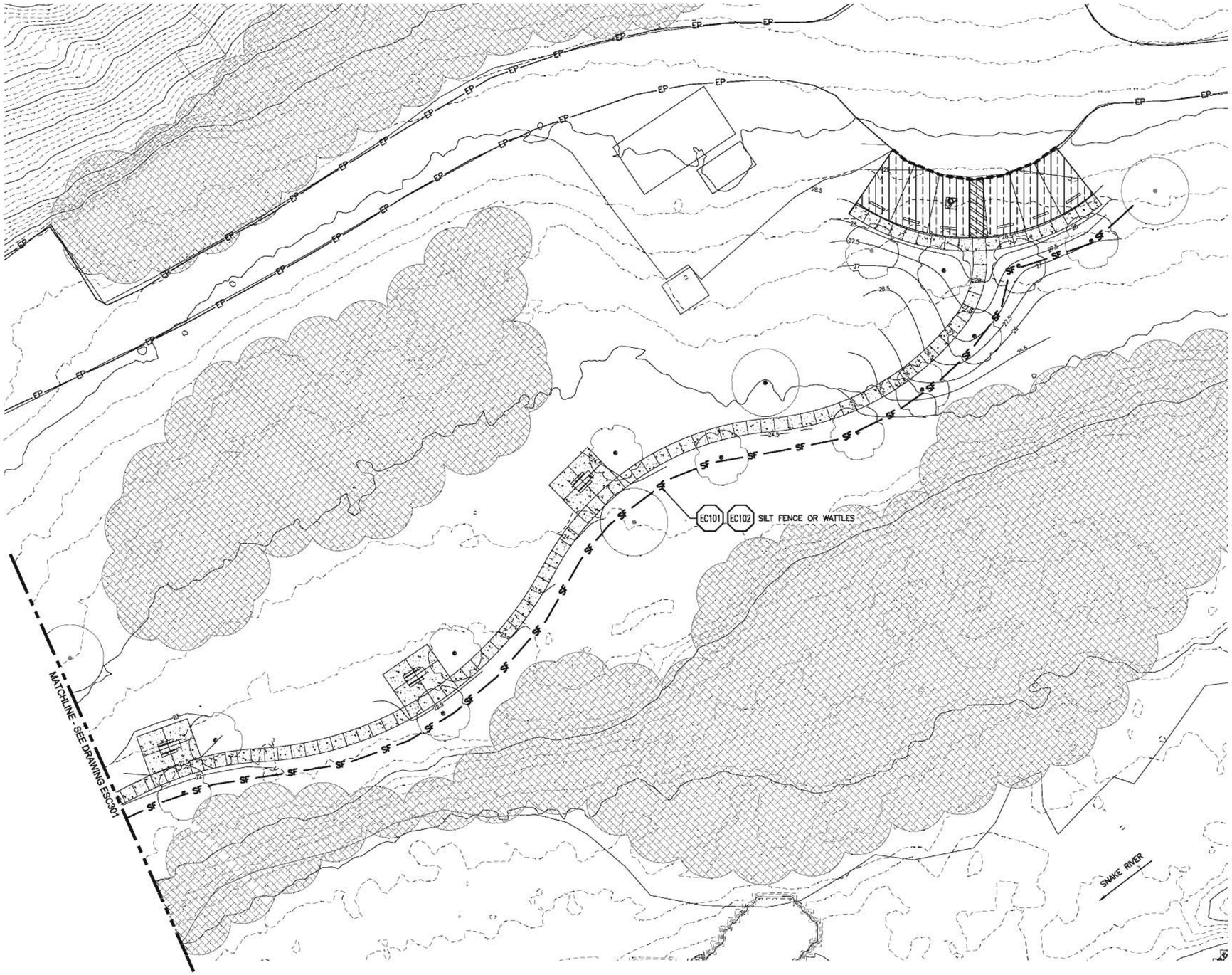
VAULT NO. D–

SHEET NOTES:

1. SEE SHEET ESC101 FOR GENERAL EROSION CONTROL NOTES.

LEGEND:

— SF — EC101 EC102 SILT FENCE OR WATTLES



SWAN FALLS PARK – SOUTH

SCALE: 1"= 20'

0' 20' 40'

REVISION	
0	12/18/13 ISSUED FOR CONSTRUCTION

PROFESSIONAL ENGINEER REGISTERED 10805 (12/18/13) STATE OF IDAHO CHRISTOPHER C. BOYD

McMILLEN, LLC

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FAX: 208.342.4216

Swan Falls Dam

Recreation Improvement Project

SWAN FALLS PARK EROSION AND SEDIMENT CONTROL PLAN 2

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: DEC 2013

DS. CR DR. RW CH. CB APPROVED

20D–.....

REV.

ESC302

VAULT NO. D–

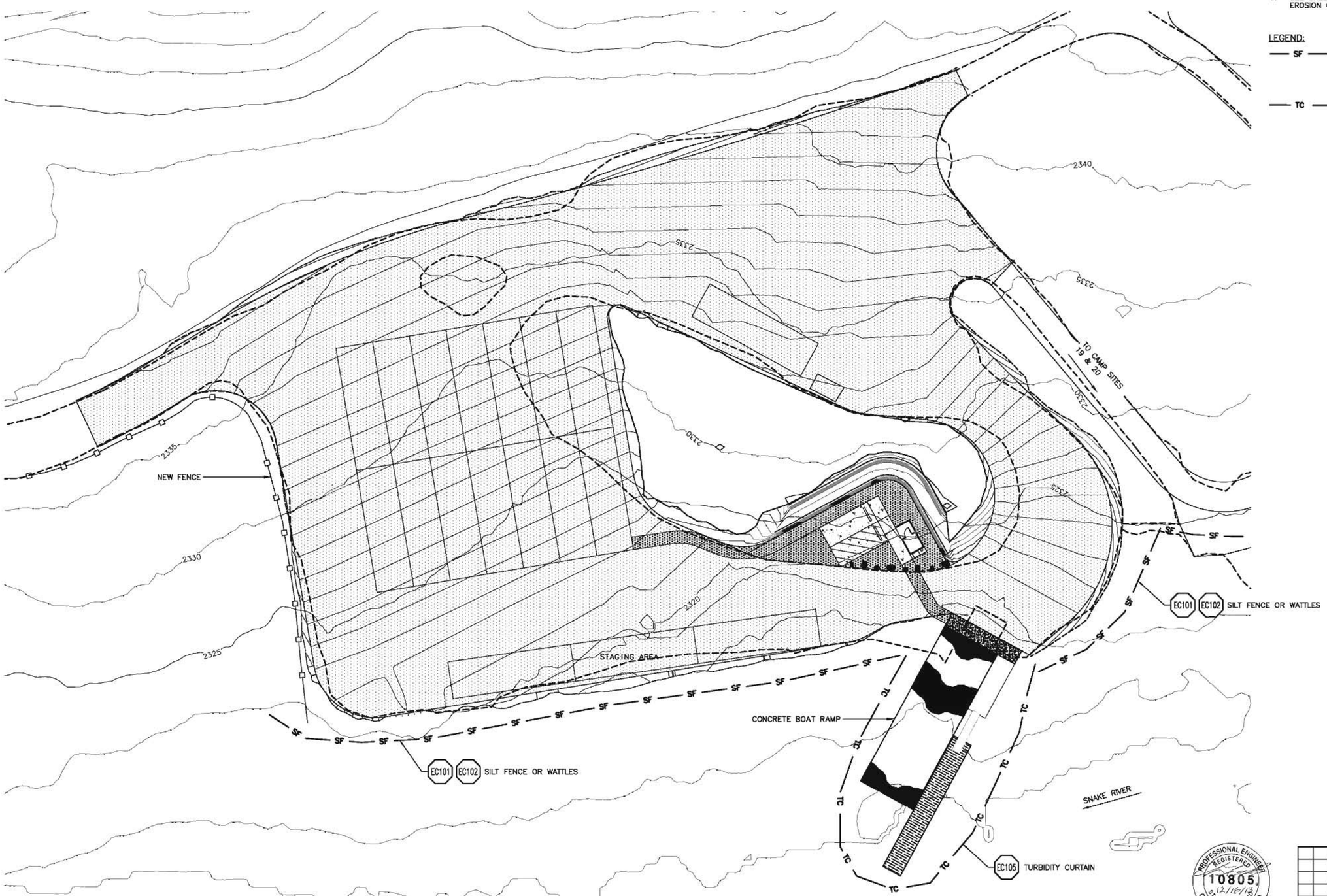
SHEET NOTES:

1. SEE SHEET ESC101 FOR GENERAL EROSION CONTROL NOTES.

LEGEND:

— SF — EC101 EC102 SILT FENCE OR WATTLES

— TC — EC105 TURBIDITY CURTAIN



SWAN FALLS RESERVOIR BOAT RAMP

SCALE: 1"= 20'

0' 20' 40'

PROFESSIONAL ENGINEER REGISTERED 10805 12/18/13 STATE OF IDAHO CHRISTOPHER C. BOYD

McMILLEN, LLC

1401 SHORELINE DR.
BOISE, ID 83702

OFFICE: 208.342.4214
FAX: 208.342.4216

REVISION	
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Swan Falls Dam

Recreation Improvement Project

SWAN FALLS RESERVOIR BOAT RAMP EROSION AND SEDIMENT CONTROL PLAN

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: DEC 2013

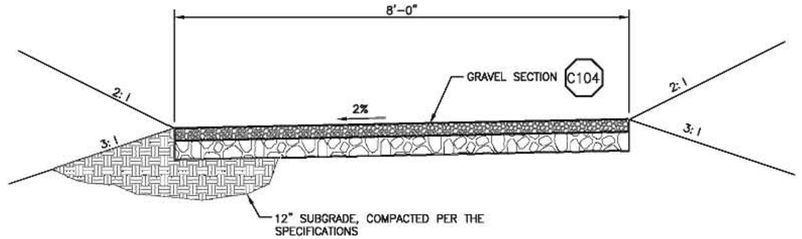
DS. CR DR. RW CH. CB APPROVED

20D-.....

ESC321

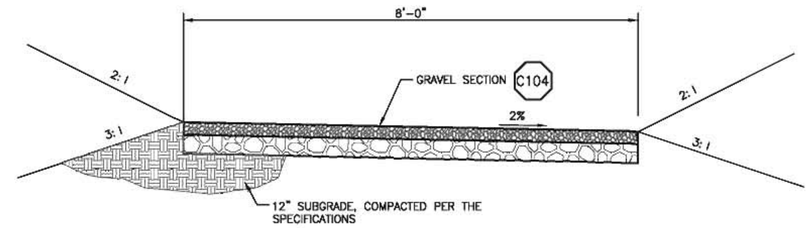
VAULT NO. D-

REV.



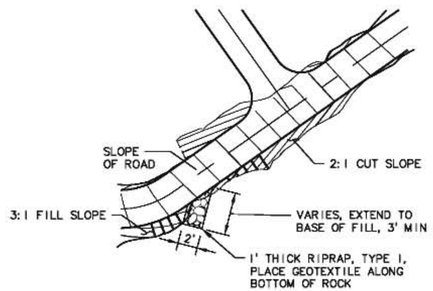
12' WIDE LEFT TILT ROAD SECTION (C101)

SCALE: NTS



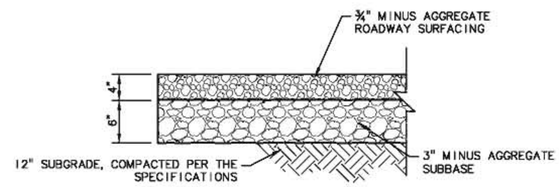
12' WIDE RIGHT TILT ROAD SECTION (C102)

SCALE: NTS



DRAINAGE APRON AT CUT/FILL TRANSITION (C103)

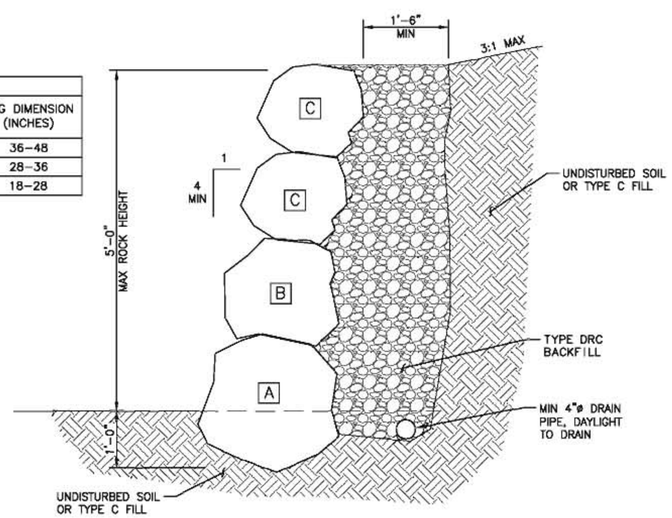
SCALE: NTS



GRAVEL SECTION (C104)

SCALE: NTS

ROCK SIZE TABLE			
ROCK	ROCK SIZE (PERSON)	ROCK WT (POUNDS)	AVG DIMENSION (INCHES)
A	4	2,000–4,000	36–48
B	3	660–2,000	28–36
C	2	200–660	18–28



ROCKERY WALL (C111)

SCALE: NTS

REVISION	
0	12/18/13 ISSUED FOR CONSTRUCTION

PROFESSIONAL ENGINEER REGISTERED 10805 12/18/13 STATE OF IDAHO CHRISTOPHER C. BOYD

MCMILLEN, LLC
1401 SHORELINE DR.
BOISE, ID 83702
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FAX: 208.342.4216

Swan Falls Dam
Recreation Improvement Project
GENERAL CIVIL DETAILS 1

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: DEC 2013

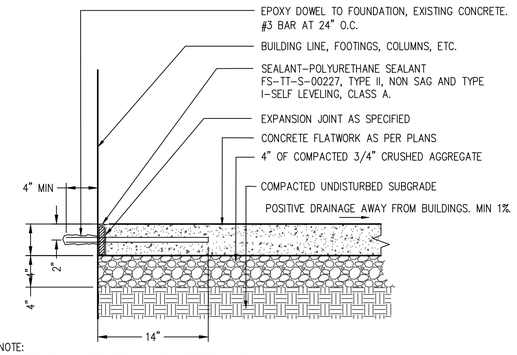
DS. CR DR. RW CH. CB APPROVED

20 D–.....

GC001

VAULT NO. D–

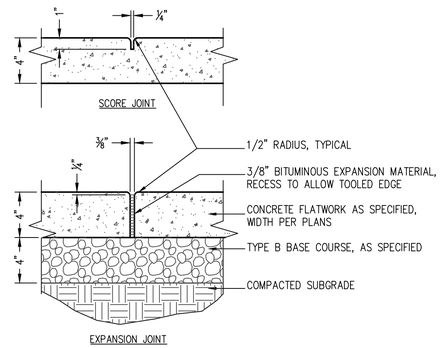
REV.



NOTE:
1. SEE GRADING FOR DETAILS OF SLOPE/DRAINAGE.
2. REFER TO SPECIFICATIONS FOR FULL DETAILS OF CONCRETE INSTALLATION AND COMPACTION REQUIREMENTS OF SUB BASE AND SUBGRADE MATERIALS.
3. ALL CONCRETE SIDEWALKS SHALL MEET REQUIREMENTS OF AMERICANS WITH DISABILITIES ACT INCLUDING RUNNING SLOPES OF NOT MORE THAN 5% AND CROSS SLOPES OF NOT MORE THAN 2%.

Concrete Paving (Pedestrian) — C901

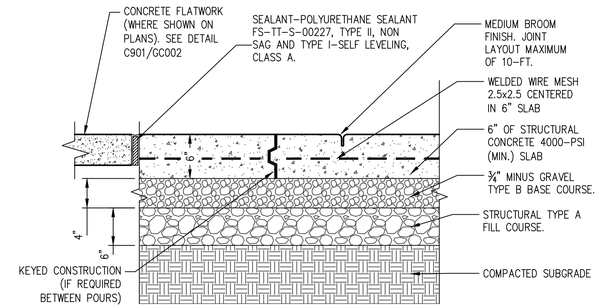
SCALE: NTS



NOTE:
1. REFER TO SPECIFICATIONS FOR DETAILS OF JOINTS/SCORING SPACING.
2. REFER TO SPECIFICATIONS FOR 28 DAY COMPRESSIVE STRENGTH REQUIREMENTS.

Concrete Joints — C902

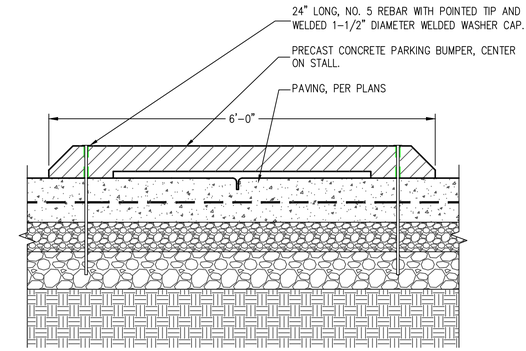
SCALE: NTS



NOTES:
1. SCORE JOINTS SHALL BE MINIMUM 1/8" WIDE, 1–1/2" DEEP. ENSURE MAXIMUM SPACING OF 10'.
2. CONCRETE JOINTING PATTERN SHALL BE IN CONFORMANCE WITH ISPWC STANDARD DRAWING SD–714.
3. ALL JOINT SEALANTS SHALL MATCH STANDARD GRAY CONCRETE.
4. REFER TO SPECIFICATIONS FOR FULL DETAILS OF CONCRETE INSTALLATION AND COMPACTION REQUIREMENTS OF SUB BASE AND SUBGRADE MATERIALS.
5. ALL CONCRETE SURFACES SHALL MEET REQUIREMENTS OF AMERICANS WITH DISABILITIES ACT INCLUDING CROSS SLOPES OF NOT MORE THAN 2% FOR A.D.A. PARKING STALLS AND LOADING ZONES.

Concrete Paving (Vehicular) — C903

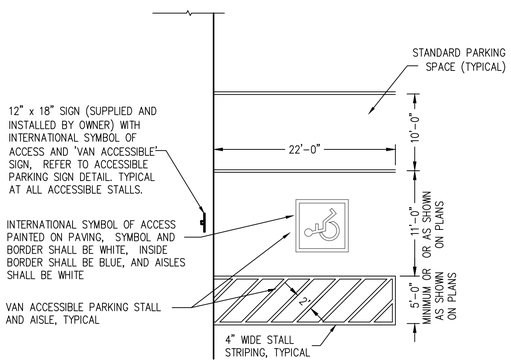
SCALE: NTS



NOTES:
1. CENTER OF WHEEL STOPS TO BE LOCATED 3' FROM BACK EDGE OF PARKING STALL.
2. SEE PLANS FOR QUANTITIES/LOCATIONS.
3. ALL BUMPERS ARE OWNER PROVIDED, CONTRACTOR INSTALLED. CONTRACTOR TO PROVIDE REBAR WITH CAPS.

Parking Bumper — C904

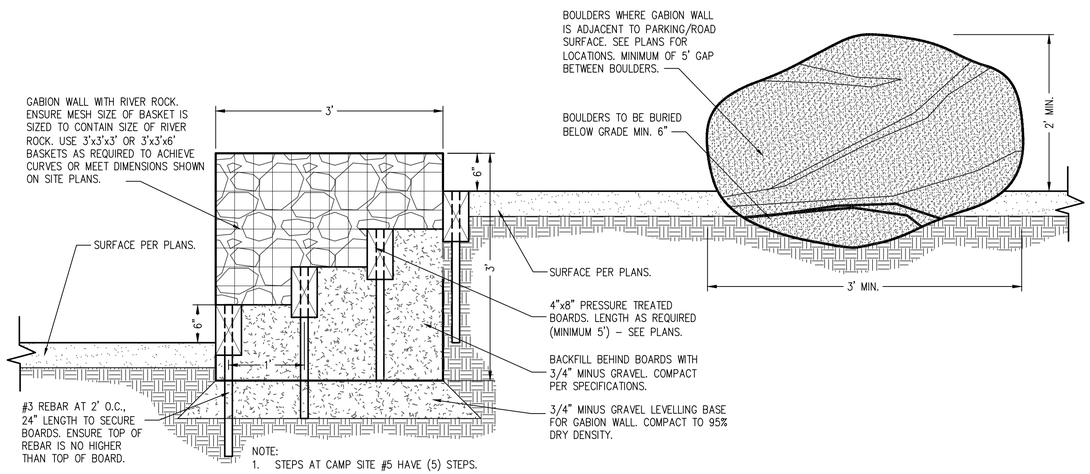
SCALE: NTS



NOTE:
1. ALL A.D.A. PARKING STALLS SHALL MEET REQUIREMENTS OF AMERICANS WITH DISABILITIES ACT STANDARDS INCLUDING CROSS SLOPES OF NOT MORE THAN 2% ACROSS PARKING STALL AND LOADING ZONE.
2. REFER TO SPECIFICATION SECTION 32 17 23 FOR FURTHER DETAILS OF PAVEMENT MARKINGS.

Accessible Parking Layout — C905

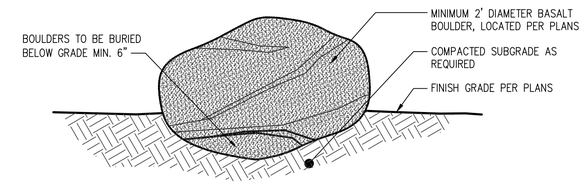
SCALE: NTS



NOTE:
1. STEPS AT CAMP SITE #5 HAVE (5) STEPS.

Gabion Wall and Steps — C906

SCALE: NTS



Boulder Installation — C907

SCALE: NTS

REVISION		
A	12/18/13	ISSUED FOR CONSTRUCTION
B		

STATE OF IDAHO — SIMON DAWS — LA–16758 — 12.18.2013 — LICENSED LANDSCAPE ARCHITECT

THE LAND GROUP INCORPORATED
Eagle • Coeur d'Alene
Ph. 208.939.4041
www.thelandgroupinc.com
TLG Project Number: 113127

McMILLEN, LLC
1401 SHORELINE DRIVE
BOISE, ID 83702
OFFICE: 208.342.4214
FAX: 208.342.4216

Swan Falls Dam
Recreation Improvement Project
GENERAL CIVIL
DETAILS 2

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: DEC 2013

DS. SD
DR. DK
CH. CB
REV.
APPROVED
20D–.....
GC002

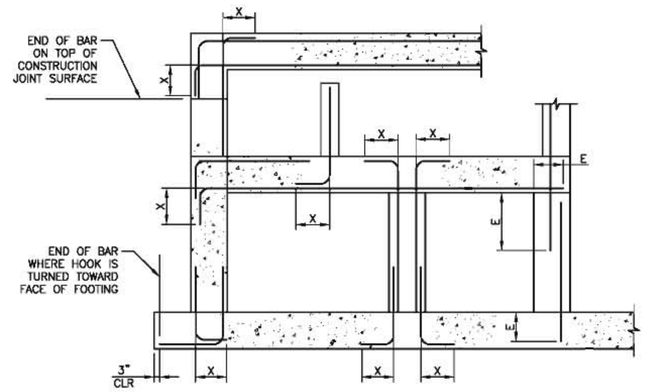
VAULT NO. D–

TYPICAL LAP SPLICE LENGTHS IN INCHES, PER ACI 318/350									
BAR SIZE	LAP CLASS	f'c=3,000 psi		f'c=4,000 psi		f'c=5,000 psi		f'c=6,000 psi	
		CAT.1	CAT.2	CAT.1	CAT.2	CAT.1	CAT.2	CAT.1	CAT.2
#3	A	16	25	14	21	13	19	12	17
	B	21	32	19	28	17	25	15	23
#4	A	22	33	19	28	17	25	15	23
	B	28	43	25	37	22	33	20	30
#5	A	27	41	24	36	21	32	19	29
	B	36	53	31	46	28	41	25	38
#6	A	33	49	28	43	25	38	23	35
	B	43	64	37	55	33	50	30	45
#7	A	48	72	42	62	37	56	34	51
	B	62	93	54	81	48	72	44	66
#8	A	55	82	47	71	42	64	39	58
	B	71	106	61	92	55	83	50	76
#9	A	62	92	53	80	48	72	44	65
	B	80	120	69	104	62	93	57	85

NOTES:
1. FOR GRADE 60 REINFORCING STEEL BARS.
2. ALL LAP SPLICES SHALL BE CLASS B, UNLESS NOTED OTHERWISE.
3. CATEGORY 1: CLEAR COVER >= db & CLR. SPACING >= db, AND STIRRUPS OR TIES THROUGHOUT Ld ARE PROVIDED.
   CATEGORY 2: CLEAR COVER < db OR CLR. SPACING < 2db.
   CATEGORY 1: CLEAR COVER >= db & CLR. SPACING >= 2db.
4. FOR TOP BARS MULTIPLY LAP LENGTH LISTED BY 1.30 TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS.
5. MODIFY ABOVE VALUES FOR LIGHT-WEIGHT CONCRETE.

LAP SPLICE SCHEDULE (C951)

SCALE: NTS



SECTION

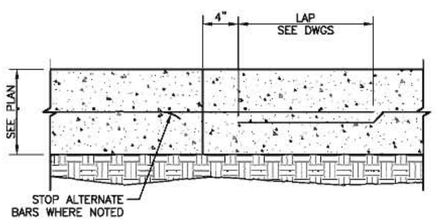
LENGTH (*)			
BAR SIZE	HOOK X	LAP	EMBEDMENT E
#3	6"	16" (21")	12" (16")
#4	8"	16" (21")	12" (16")
#5	10"	20" (26")	15" (20")
#6	12"	28" (37")	22" (28")
#7	14"	48" (62")	37" (48")
#8	16"	62" (81")	48" (62")
#9	19"	79" (102")	61" (79")
#10	22"	100" (130")	77" (100")
#11	24"	123" (160")	95" (123")

* USE LENGTH IN PARENTHESIS FOR WALL HORIZONTAL BARS AND SLAB BARS WITH 12" OR MORE OF FRESH CONCRETE UNDERNEATH

NOTES:
1. USE LAP LENGTHS AS DETERMINED FROM THESE TABLES UNLESS SHOWN OTHERWISE.
2. THE TABLES SHOWN ARE FOR f'c=4000psi, fy=60,000psi, 1.5" MIN CONCRETE COVER AND 3" MIN BAR SPACING.
3. WHEN BARS OF DIFFERENT SIZES ARE LAP SPLICED, LAP LENGTH SHALL BE THE LARGER OF:
   EMBEDMENT LENGTH OF LARGER BAR LAP LENGTH OF SMALLER BAR.
4. UNLESS NOTED OTHERWISE USE REBAR COUPLERS FOR SPLICES OF #11 AND LARGER BARS.
5. ALL DOWEL BARS SHALL EXTEND AN EMBEDMENT LENGTH E INTO ANOTHER MEMBER OR ACROSS A CONSTRUCTION JOINT UNLESS SHOWN TO SPLICE WITH OTHER BARS OR TO EXTEND TO THE FAR FACE OF THE MEMBER AND END WITH A STANDARD HOOK.

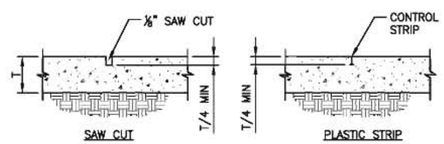
STANDARD 90° BAR HOOKS, EMBEDMENT LENGTHS AND LAP LENGTHS (C952)

SCALE: NTS



STANDARD CONSTRUCTION JOINT (C953)

SCALE: NTS



SLAB ON GRADE CONTROL JOINT (C954)

SCALE: NTS

REVISION

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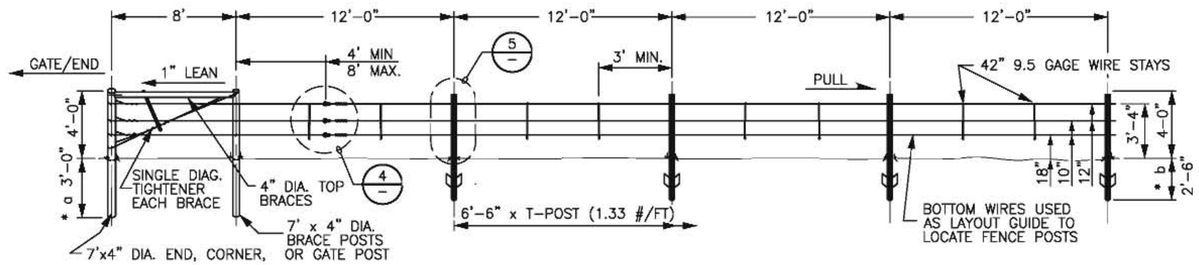
Swan Falls Dam
Recreation Improvement Project
GENERAL CIVIL DETAILS 4

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: DEC 2013

DS. CR
DR. RW
CH. CB
REV.
APPROVED
20D-.....
GC004

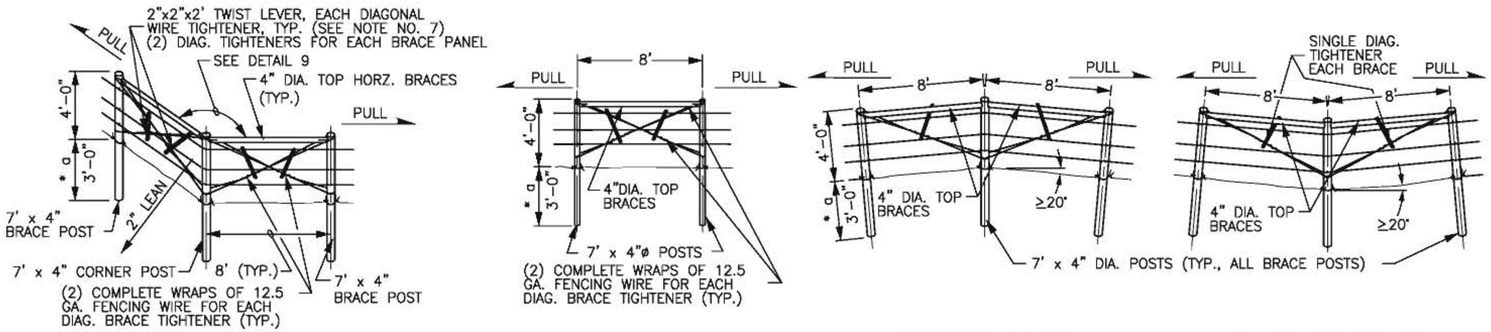
VAULT NO. D-



TERMINAL BRACE & LINE FENCE DETAILS

SCALE: NTS

1



BRACE DETAILS

SCALE: NTS

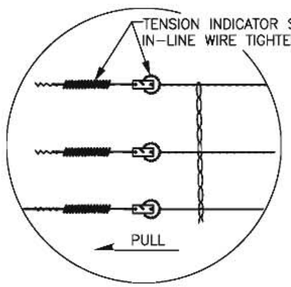
2

SHEET NOTES:

1. ALL END, CORNER AND GATE POST SHALL BE 4" DIA. GALV STEEL FENCE POSTS. ALL LINE POST SHALL BE HEAVY DUTY T-POST (1.33 #/FT) WITH A GREEN BODY AND WHITE TOP.
2. END POSTS, BRACE POSTS AND LINE POSTS ARE RECOMMENDED TO BE MECHANICALLY DRIVEN INTO THE GROUND WHERE SOIL CONDITIONS PERMIT. WHERE SOIL CONDITIONS DO NOT PERMIT DRIVEN POSTS THE CONCRETE BASE SHALL BE INSTALLED (SEE CONCRETE BASE DETAIL).
3. TO ALLOW FOR EXPANSION AND CONTRACTION, DO NOT TIE THE WIRES TIGHT TO THE BRACE POSTS.
4. BRACE PINS, WIRE STAYS, SPIKES, TENSION INDICATOR SPRINGS, AND IN-LINE TIGHTENERS SHALL HAVE A ZINC COATING IN ACCORDANCE WITH ASTM A 116, CLASS 3.
5. ALL FENCE WIRE SHALL BE BARBLESS DOUBLE WEAVE 12.5 GAGE STEEL WITH A MINIMUM OF 57,000 PSI TENSILE STRENGTH. THE WIRE SHALL BE ZINC COATED IN ACCORDANCE WITH ASTM A 116, CLASS 3.
6. IN-LINE WIRE TIGHTENERS AND TENSION INDICATOR SPRINGS SHALL MEET THE FOLLOWING:
   a. IN-LINE WIRE TIGHTENERS AND TENSION INDICATOR SPRINGS ARE TO BE USED AS A UNIT.
   b. TIGHTENERS ARE TO BE PLACED ON ALL THREE WIRE SETS. TIGHTENING FOR STRAIGHT RUNS SHOULD BE 80 TO 100 LBS. AND ON CRESTS AND DIPS SHOULD BE 50 TO 75 LBS. ROUNDED CORNERS ARE TIGHTENED THE SAME AS STRAIGHT RUNS.
   c. IN LINE WIRE TIGHTENERS SHALL BE INSTALLED BETWEEN EACH SET OF CORNER, EVEN TERRAIN LINE, AND RISE/DIP BRACES.
7. PROPER TENSION ON THE DIAGONAL BRACE TIGHTENERS IS TO BE ACCOMPLISHED BY TWISTING A MINIMUM OF 3 TO 5 TURNS. EACH DIAGONAL BRACE WIRE TIGHTENER SHALL CONSIST OF (2) COMPLETE WRAPS OF FENCE WIRE (THE WIRE TIE-OFF SHOULD BE OFFSET FROM THE POSITION OF THE TWIST LEVER). THE TWIST LEVER SHOULD BE SECURELY FASTENED AGAINST THE HORIZONTAL BRACE RAIL OR THE OPPOSING DIAGONAL BRACE TIGHTENER.
8. LINE WIRES SHOULD BE TIED TO THE BRACE POSTS ONLY AFTER TAKING UP PRELIMINARY TENSION OF APPROXIMATELY 50-80 LBS. ON EACH WIRE SET.
9. LINE WIRES SHALL BE STRUNG ON THE OUTSIDE OF EVEN TERRAIN LINE BRACES AND RISE/DIP BRACES. LINE WIRES SHALL ALWAYS BE STRUNG ON THE EXTERIOR ANGLE SIDE OF CORNER BRACES.
10. THE MAXIMUM FENCE RUN BETWEEN BRACE PANELS SHALL BE 1320 FEET.
11. THE NUMBER OF WIRE STAYS SHALL BE MINIMIZED TO THE EXTENT PRACTICAL.
12. IN-LINE WIRE SPLICES SHALL BE SPLICED ACCORDING TO THE METHOD SHOWN IN THE "WIRE SPLICES" DETAIL. WIRE TIE-OFFS AND TERMINAL ENDS MAY BE SPLICED OR WRAPPED.
13. NOT TO SCALE.

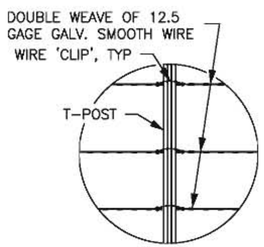
SUB-NOTES
* a DRIVEN DEPTH 36" (SEE CONCRETE BASE DETAIL & NOTE NO. 2).
* b DRIVEN DEPTH 30" (SEE CONCRETE BASE DETAIL & NOTE NO. 2).

ROUNDED CORNER TABLE	
EXT. COR. ANGLE	MIN. NO. CORNER POSTS
0°-20°	3
>20°-40°	4
>40°-60°	5



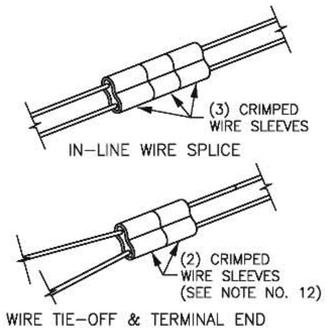
DETAIL (SEE NOTE NO. 6) 4

SCALE: NTS



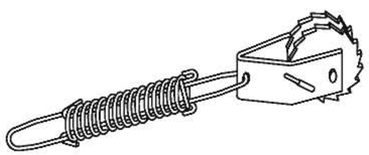
DETAIL 5

SCALE: NTS



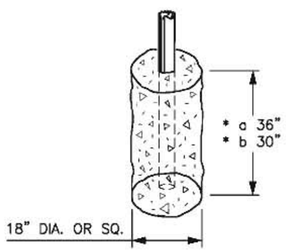
WIRE SPLICES 6

SCALE: NTS



IN-LINE WIRE TIGHTENER & TENSION INDICATOR SPRING 7

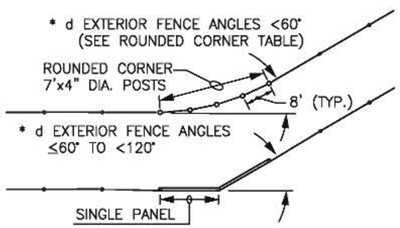
SCALE: NTS



USE AT POSTS WHERE SOIL CONDITIONS DO NOT PERMIT DRIVEN POSTS

CONCRETE BASE 8

SCALE: NTS



FENCE CORNER ANGLE 9

SCALE: NTS

* d WHEN THE EXTERIOR FENCE ANGLE IS 60° OR LESS, USE THE ROUNDED FENCE CORNER (SEE TABLE) WITH 7'x4" POSTS. FOR EXTERIOR FENCE ANGLES GREATER THAN & EQUAL TO 60° AND LESS THAN 120° USE (1) CORNER BRACE. FOR EXTERIOR ANGLES GREATER THAN 120° A COMBINATION (2) CORNER BRACES ARE REQUIRED.

PROFESSIONAL ENGINEER REGISTERED 10805 12-18-13 STATE OF IDAHO CHRISTOPHER C. BOYD

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REVISION	
0	12/18/13 ISSUED FOR CONSTRUCTION

Swan Falls Dam
Recreation Improvement Project
GENERAL CIVIL DETAILS 5

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: DEC 2013

DS. CR DR. RW CH. CB APPROVED

20D-.....

GC005

VAULT NO. D-

REV.

KEY MAP

SCALE: 1"= 500'

0' 500' 1000'

REVISION		
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PROFESSIONAL ENGINEER REGISTERED 12599 STATE OF IDAHO DOMINIC M. BROWN
12/13/13

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Swan Falls Dam
Recreation Improvement Project
CIVIL KEY MAP

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS SHOWN DATE: DEC 2013

DS. DMB DR. JLP CH. DG REV.

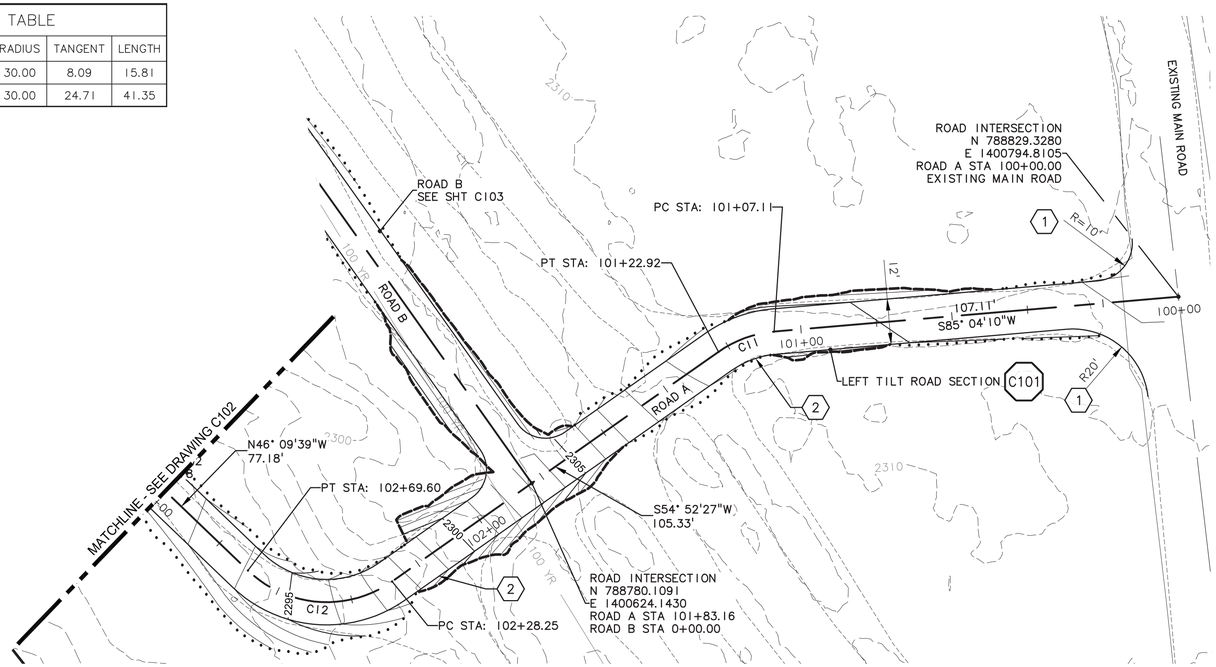
APPROVED

20D-.....

C001

VAULT NO. D-

CURVE DATA TABLE					
CURVE #	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
C11	101+15.20	30.1952	30.00	8.09	15.81
C12	102+52.97	78.9649	30.00	24.71	41.35



PLAN – ROAD A: STA 100+00 – 130+00

SCALE: 1"= 20'

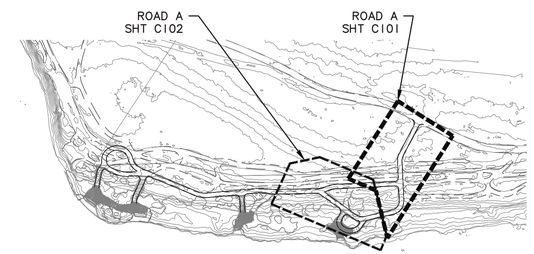
C001

SHEET KEY NOTES:

1. BLEND END OF ROAD RADIUS INTO EXISTING EDGE OF ROADWAY
2. PROVIDE RIP RAP PAD ALONG FILL SLOPE AT TRANSITION FROM CUT TO FILL C103
3. NOT USED
4. NOT USED

GENERAL ROADWAY NOTES:

1. CONTRACTOR SHALL REMOVE TOP 6" OF LOOSE MATERIAL OR AS NECESSARY TO REACH COMPETENT FIRM SUBGRADE. SCARIFY TOP 12" OF SUBGRADE MATERIAL AND COMPACT AS SPECIFIED.
2. EXISTING ROAD MATERIAL IS A FINE GRAIN MATERIAL THAT IS SENSITIVE TO MOISTURE. THE CONTRACTOR SHALL TAKE CARE TO ENSURE THAT THE MATERIAL IS WITHIN IT'S OPTIMUM MOISTURE RANGE TO OBTAIN ADEQUATE COMPACTION. EXISTING MATERIAL MAY BE USED AS FILL UNDER ROADWAYS AS LONG AS THE MATERIAL MEETS THE REQUIREMENTS OF THE SPECIFICATIONS AND THE SUBGRADE IS COMPACTED PRIOR TO PLACEMENT OF THE NATIVE MATERIAL. SEE SPECIFICATIONS FOR EARTHWORK REQUIREMENTS.
3. CONTRACTOR SHALL VEGETATE ALL CUTS, FILLS AND DISTURBED AREAS ALONG PROPOSED ROADWAYS. SEE SPECIFICATIONS FOR SEED MIX REQUIREMENTS.
4. CONTRACTOR SHALL AVOID DRIVING ON AREAS NOT IDENTIFIED ON THE PLANS AS A PROPOSED ROAD. COORDINATE WITH IDAHO POWER ON ANY ADDITIONAL ROUTES REQUIRED FOR CONSTRUCTION. ALL ROUTES USED FOR CONSTRUCTION, NOT SHOWN AS A PROPOSED ROAD SHALL BE REPAIRED AND REVEGETATE PRIOR TO PROJECT COMPLETION.
5. SEE SHEETS L201–L206 FOR PROPOSED ROAD REVEGETATION, NEW FENCING OR BOULDER PLACEMENT.
6. ALL CUT SLOPES SHALL BE 2:1 MAX SLOPE. ALL FILL SLOPES SHALL BE 3:1 MAX SLOPE

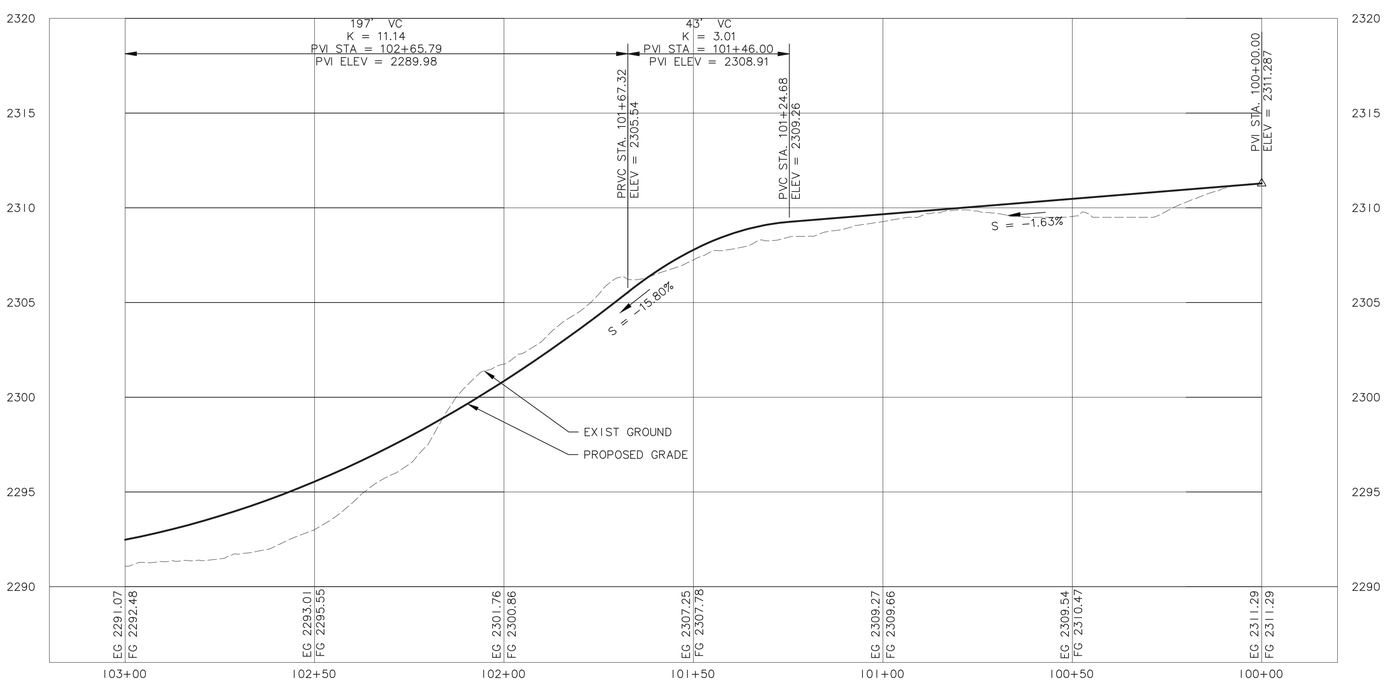


KEY MAP

SCALE: 1" = 200'

LEGEND

- P/L — PROPERTY LINE
- CUT LINE
- FILL LINE
- PROPOSED EDGE OF ROAD
- EXISTING EDGE OF ROAD
- X CAMPSITE NUMBER



PROFILE

SCALE: 1" = 20' H
1" = 4' V

REVISION

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PROFESSIONAL ENGINEER REGISTERED 12599 STATE OF IDAHO DOMINIC M. BROWN
12/13/13

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Swan Falls Dam
Recreation Improvement Project
ROADWAY PLAN ROAD A

IDAHO POWER COMPANY BOISE, IDAHO

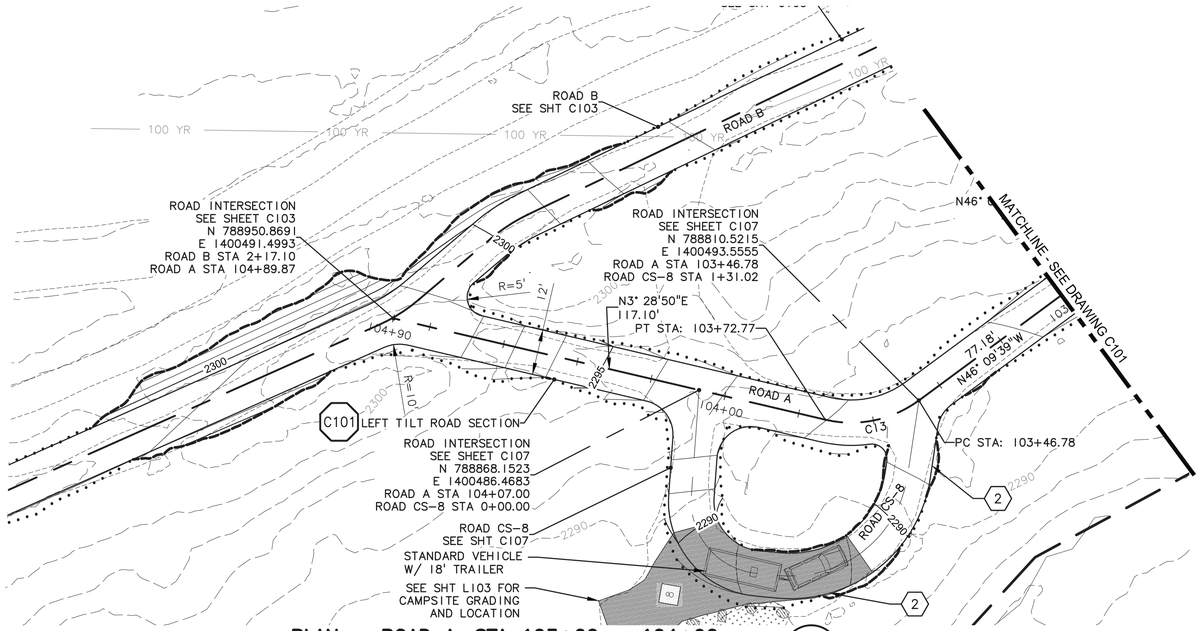
SCALE: 1" = 20' DATE: DEC 2013

DS. DMB DR. JLP CH. DG REV. APPROVED

20D–.....

C101

VAULT NO. D–



PLAN – ROAD A: STA 103+00 – 104+90

SCALE: 1"= 20'

0" 20' 40'

2 / C001

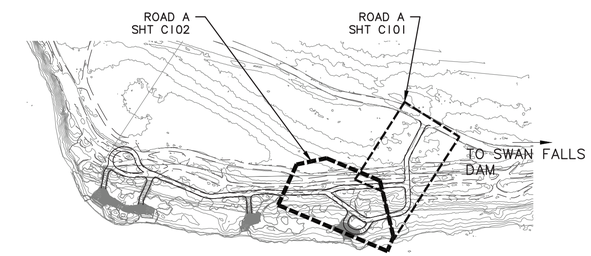
SHEET KEY NOTES:

1. BLEND END OF ROAD RADIUS INTO EXISTING EDGE OF ROADWAY
2. PROVIDE RIP RAP PAD ALONG FILL SLOPE AT TRANSITION FROM CUT TO FILL C103
3. NOT USED
4. NOT USED

GENERAL ROADWAY NOTES:

1. SEE SHEET C101 FOR NOTES.

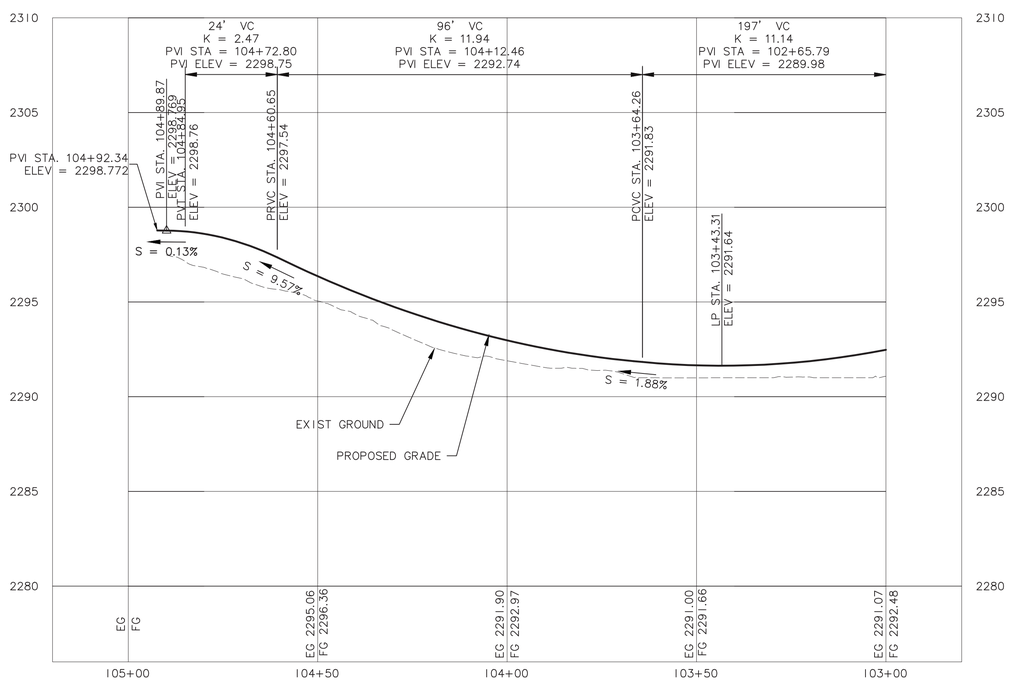
CURVE DATA TABLE					
CURVE #	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
C13	103+60.65	49.6413	30.00	13.88	25.99



KEY MAP

SCALE: 1" = 200'

0' 200' 400'



PROFILE

SCALE: 1" = 20' H (0" 20' 40')

1" = 4' V (0" 4' 8")

LEGEND

- P/L — PROPERTY LINE
- CUT LINE
- FILL LINE
- PROPOSED EDGE OF ROAD
- EXISTING EDGE OF ROAD
- X — CAMPSITE NUMBER

PROFESSIONAL ENGINEER REGISTERED 12599 STATE OF IDAHO DOMINIC M. BROWN

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Swan Falls Dam
Recreation Improvement Project
ROADWAY PLAN ROAD A

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: 1" = 20' DATE: DEC 2013

DS. DMB DR. JLP CH. DG REV. APPROVED

20D-.....

C102

VAULT NO. D-

SHEET KEY NOTES:

1. BLEND END OF ROAD RADIUS INTO EXISTING EDGE OF ROADWAY
2. PROVIDE RIP RAP PAD ALONG FILL SLOPE AT TRANSITION FROM CUT TO FILL (C103)
3. NOT USED
4. NOT USED

GENERAL ROADWAY NOTES:

1. SEE SHEET C101 FOR NOTES.

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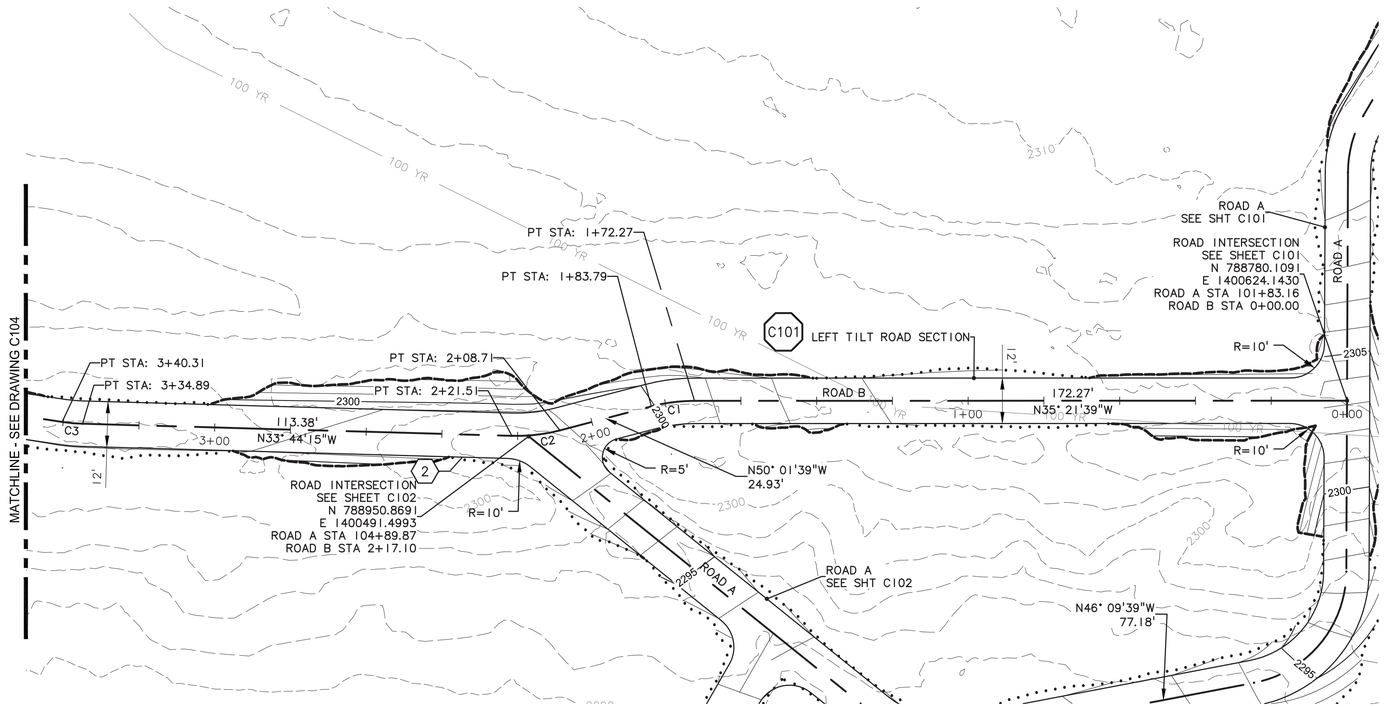
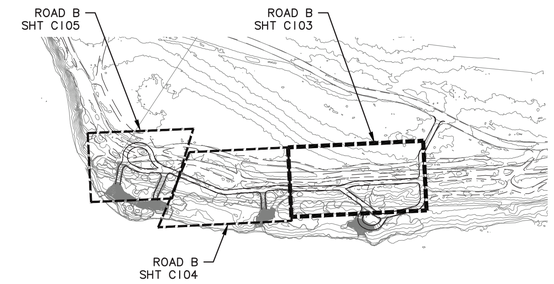


PLAN – ROAD B: STA 0+00 – 3+50

SCALE: 1"= 20'

3 C001

CURVE DATA TABLE					
CURVE #	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
C1	1+78.06	14.6667	45.00	5.79	11.52
C2	2+15.15	16.2899	45.00	6.44	12.79
C3	3+37.60	6.9007	45.00	2.71	5.42



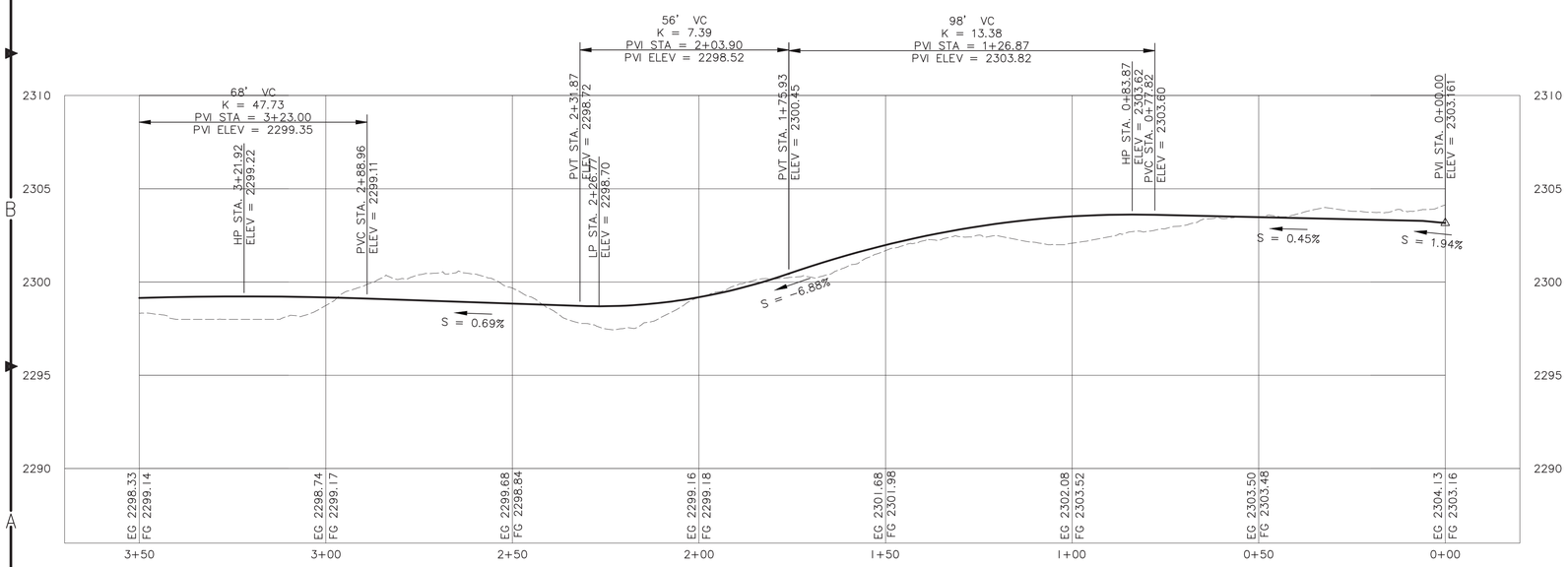
KEY MAP

SCALE: 1" = 200'

0' 200' 400'

LEGEND

- P/L — PROPERTY LINE
- CUT LINE
- FILL LINE
- PROPOSED EDGE OF ROAD
- EXISTING EDGE OF ROAD
- X CAMPSITE NUMBER



PROFILE

SCALE: 1" = 20' H (0' 20' 40')

1" = 4' V (0" 4' 8')

PROFESSIONAL ENGINEER REGISTERED 12599 STATE OF IDAHO DOMINIC M. BROWN
12/13/13

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Swan Falls Dam
Recreation Improvement Project
ROADWAY PLAN ROAD B

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: 1" = 20' DATE: DEC 2013

DS. DMB DR. JLP CH. DG REV. APPROVED

20D-.....

C103

VAULT NO. D-

REVISION	
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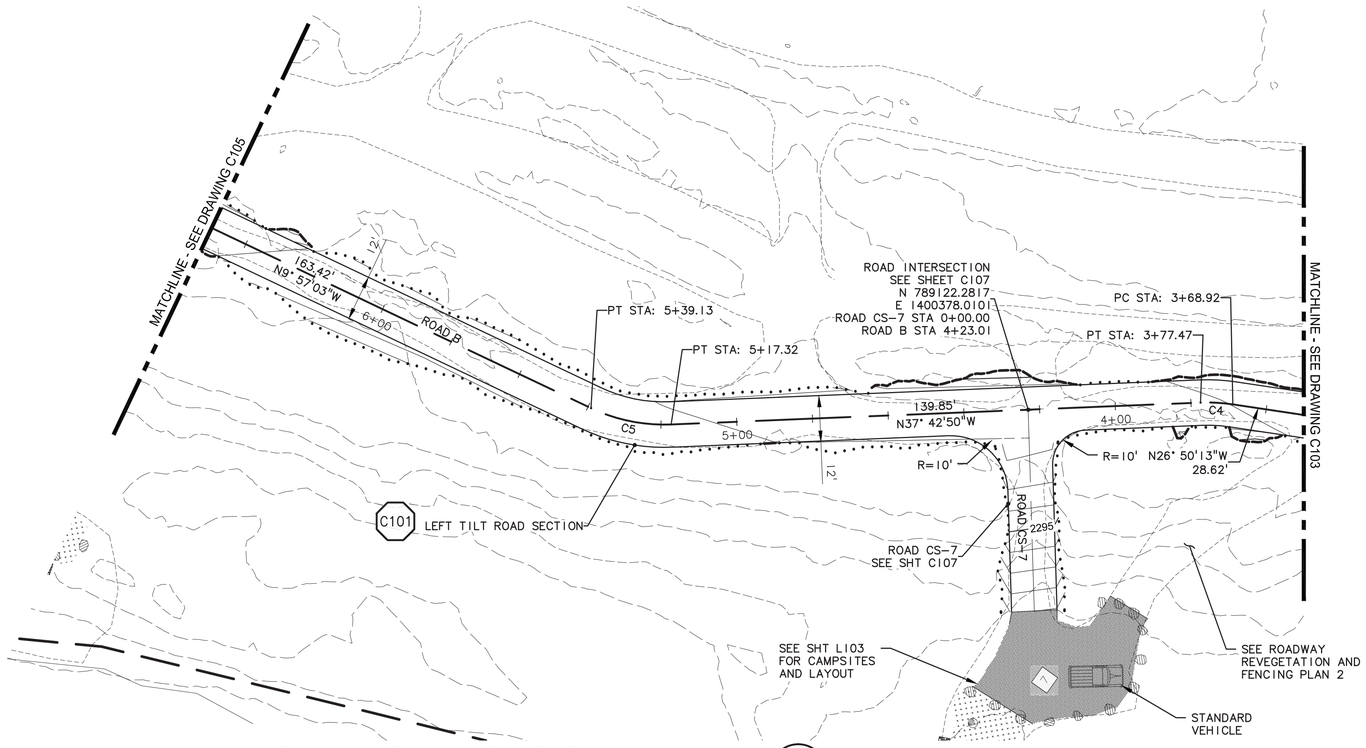
SHEET KEY NOTES:

1. BLEND END OF ROAD RADIUS INTO EXISTING EDGE OF ROADWAY
2. PROVIDE RIP RAP PAD ALONG FILL SLOPE AT TRANSITION FROM CUT TO FILL (C103)
3. NOT USED
4. NOT USED

GENERAL ROADWAY NOTES:

1. SEE SHEET C101 FOR NOTES.

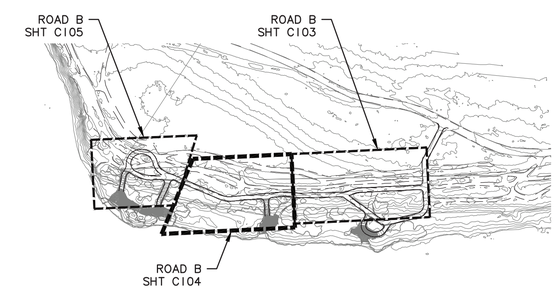


PLAN – SCTM MAIN B: STA 3+50 – 6+50

SCALE: 1"= 20'

4 / C001

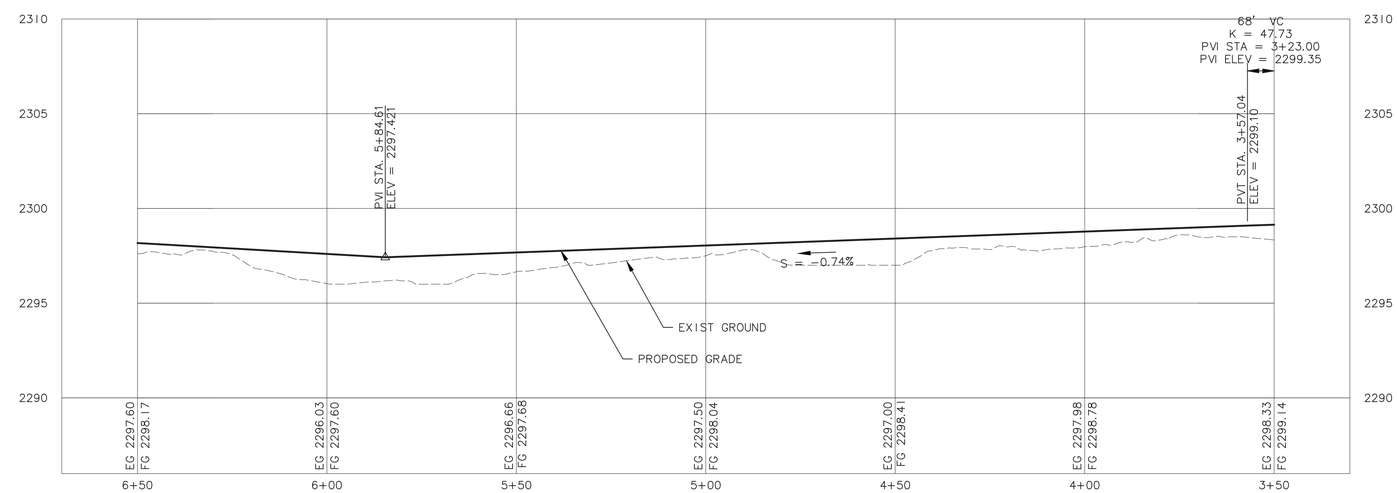
CURVE DATA TABLE					
CURVE #	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
C4	3+73.21	10.8770	45.00	4.28	8.54
C5	5+28.44	27.7629	45.00	11.12	21.80



KEY MAP

SCALE: 1" = 200'

0" 200' 400'



PROFILE

SCALE: 1" = 20' H (0" 20' 40')
1" = 4' V (0" 4' 8')

LEGEND

- P/L — PROPERTY LINE
- CUT LINE
- FILL LINE
- PROPOSED EDGE OF ROAD
- EXISTING EDGE OF ROAD
- X — CAMPSITE NUMBER

PROFESSIONAL ENGINEER REGISTERED 12599 STATE OF IDAHO DOMINIC M. BROWN
12/13/13

Murray, Smith & Associates, Inc. Engineers/Planners
1649 W. Shoreline Dr., Suite 200 Boise, Idaho 83702-6701 PHONE 208.947.9033 FAX 208.947.9034

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1401 SHORELINE DR. BOISE, ID 83702
OFFICE: 208.342.4214 FAX: 208.342.4216

Swan Falls Dam
Recreation Improvement Project
ROADWAY PLAN ROAD B

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: 1" = 20' DATE: DEC 2013

DS. DMB DR. JLP CH. DG REV. APPROVED

20D-.....

C104

VAULT NO. D-

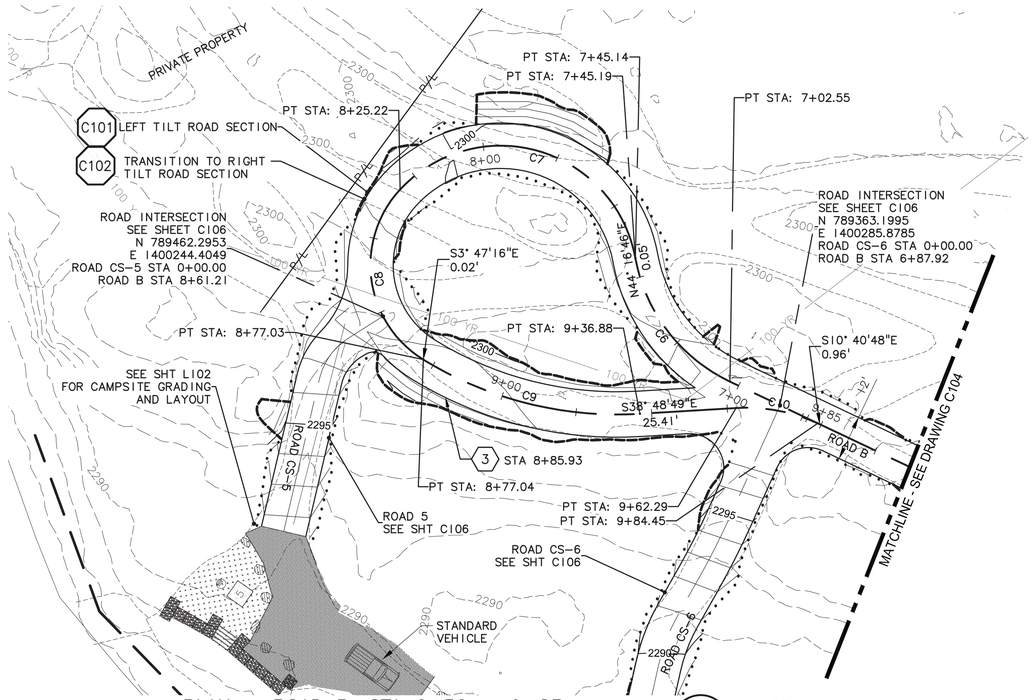
SHEET KEY NOTES:

1. BLEND END OF ROAD RADIUS INTO EXISTING EDGE OF ROADWAY
2. PROVIDE RIP RAP PAD ALONG FILL SLOPE AT TRANSITION FROM CUT TO FILL (C103)
3. CONSTRUCT "V" DITCH W/ 1:1 SIDE SLOPE FROM ROAD LOW POINT TO EXISTING GRADE AT 2% MIN SLP. ADD RIP RAP ALONG TRENCH BOTTOM.
4. NOT USED

GENERAL ROADWAY NOTES:

1. SEE SHEET C101 FOR NOTES.

REVISION	
0	12/18/13 ISSUED FOR CONSTRUCTION

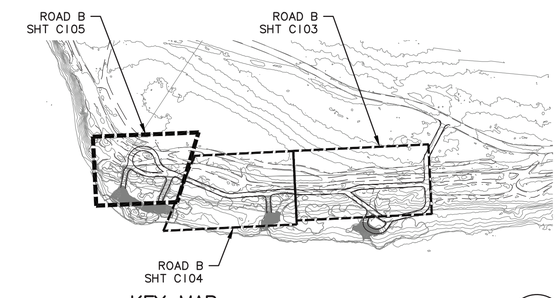


PLAN – ROAD B: STA 6+50 – 9+85

SCALE: 1"= 20'

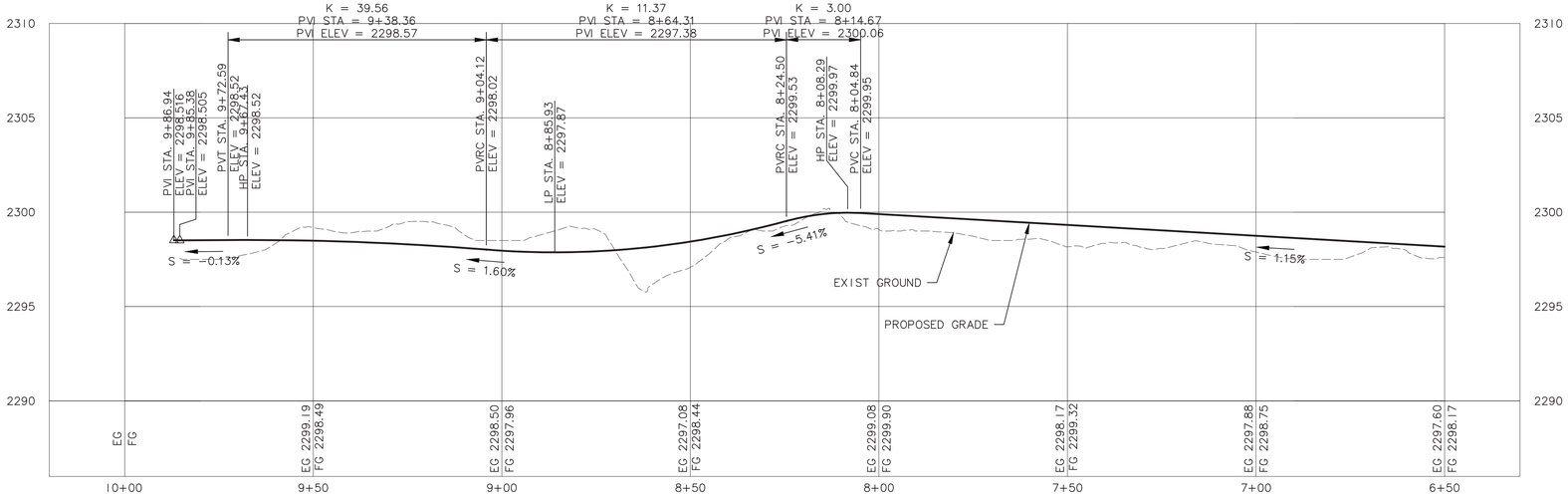
5 C001

CURVE DATA TABLE					
CURVE #	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
C6	7+25.59	54.2304	45.00	23.04	42.59
C7	8+17.34	126.7388	36.18	72.16	80.03
C8	8+60.97	101.3283	29.30	35.75	51.81
C9	9+07.93	35.0260	97.88	30.89	59.84
C10	9+73.60	28.1336	45.14	11.31	22.17



KEY MAP

SCALE: 1" = 200'



PROFILE

SCALE: 1" = 20' H
1" = 4' V

LEGEND

- P/L — PROPERTY LINE
- CUT LINE
- FILL LINE
- PROPOSED EDGE OF ROAD
- EXISTING EDGE OF ROAD
- X CAMPSITE NUMBER

PROFESSIONAL ENGINEER REGISTERED 12599 STATE OF IDAho DOMINIC M. BROWN
12/13/13

Swan Falls Dam
Recreation Improvement Project
ROADWAY PLAN
ROAD B

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: 1" = 20' DATE: DEC 2013

DS. DMB
DR. JLP
CH. DG
REV.

APPROVED

20D-.....

C105

VAULT NO. D-

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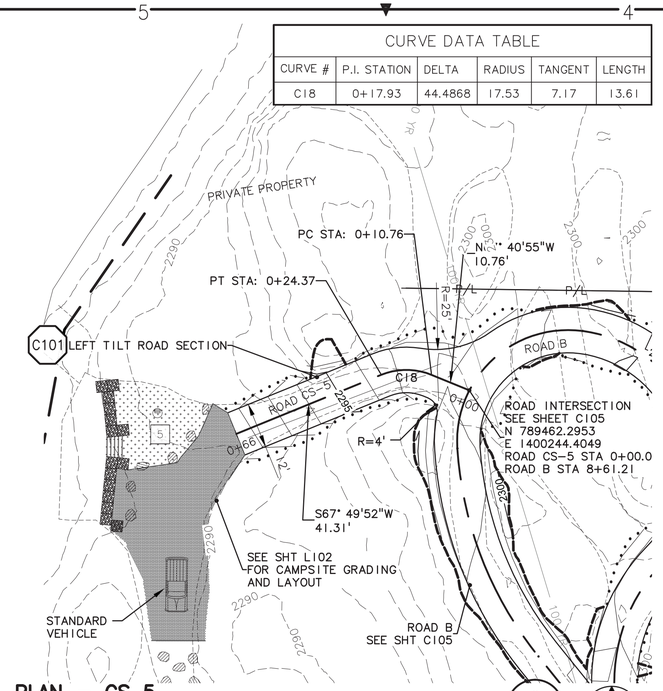
CURVE DATA TABLE					
CURVE #	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
C18	0+17.93	44.4868	17.53	7.17	13.61

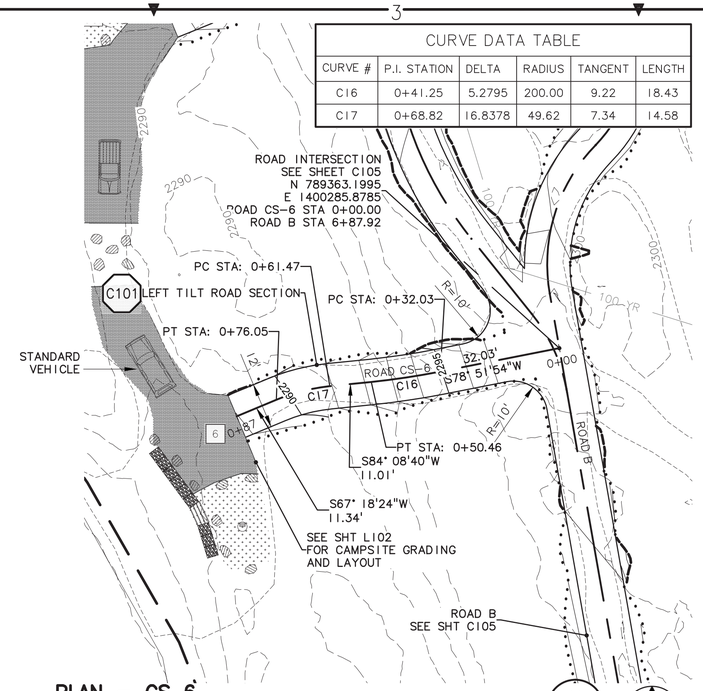


PLAN – CS 5

SCALE: 1"= 20'

6 C001

CURVE DATA TABLE					
CURVE #	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
C16	0+41.25	5.2795	200.00	9.22	18.43
C17	0+68.82	16.8378	49.62	7.34	14.58



PLAN – CS 6

SCALE: 1"= 20'

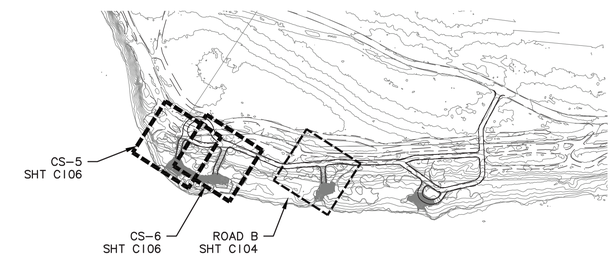
7 C001

SHEET KEY NOTES:

1. BLEND END OF ROAD RADIUS INTO EXISTING EDGE OF ROADWAY
2. PROVIDE RIP RAP PAD ALONG FILL SLOPE AT TRANSITION FROM CUT TO FILL (C103)
3. NOT USED
4. NOT USED

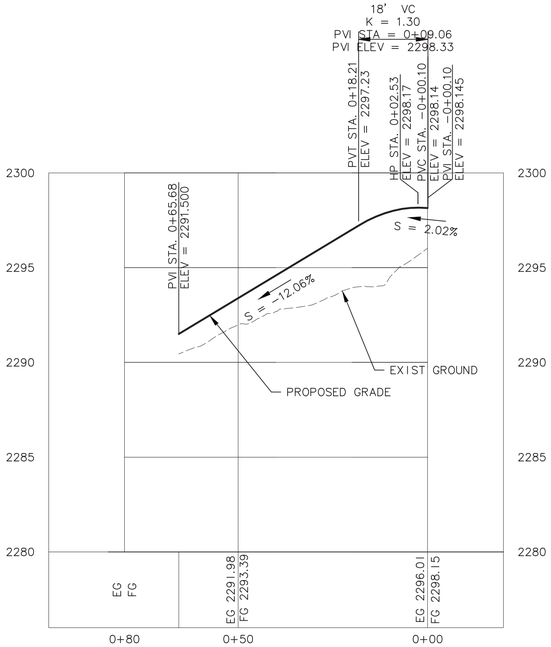
GENERAL ROADWAY NOTES:

1. SEE SHEET C101 FOR NOTES.



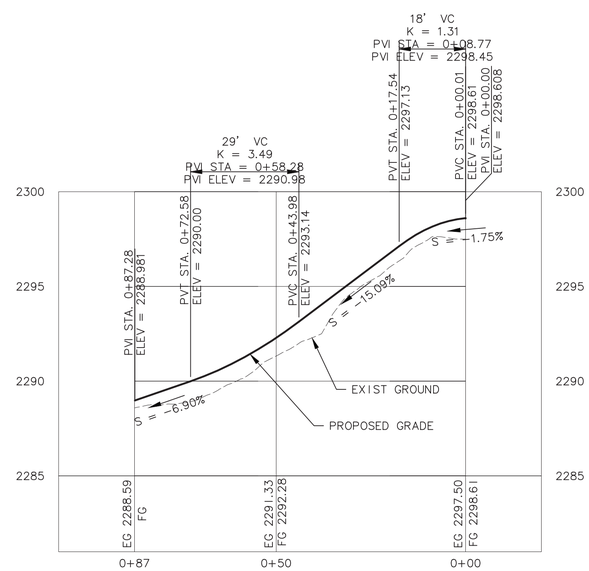
KEY MAP

SCALE: 1" = 200'



PROFILE

SCALE: 1" = 20' H
1" = 4' V



PROFILE

SCALE: 1" = 20' H
1" = 4' V

LEGEND

- P/L — PROPERTY LINE
- CUT LINE
- FILL LINE
- PROPOSED EDGE OF ROAD
- EXISTING EDGE OF ROAD
- X — CAMPSITE NUMBER

PROFESSIONAL ENGINEER REGISTERED 12599 STATE OF IDAHO DOMINIC M. BROWN
12/13/13

REVISION	
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Swan Falls Dam
Recreation Improvement Project
ROADWAY PLAN CS-5 & 6

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: 1" = 20' DATE: DEC 2013

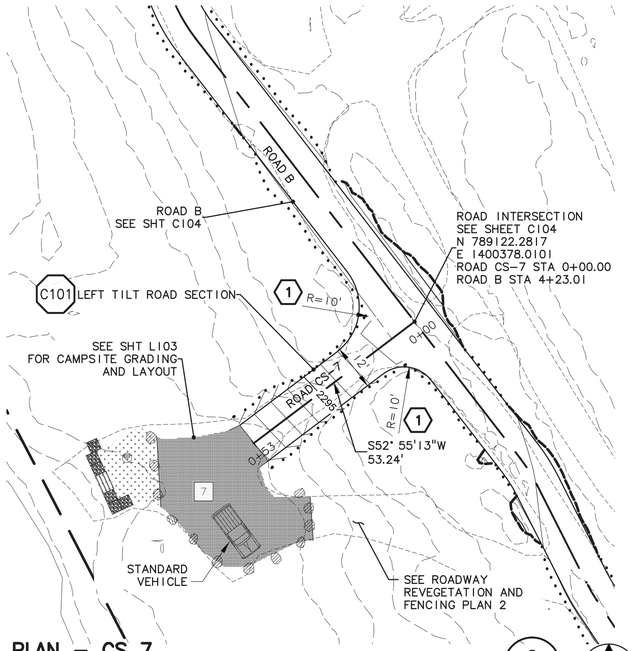
DS. DMB DR. JLP CH. DG REV.

APPROVED

20D-.....

C106

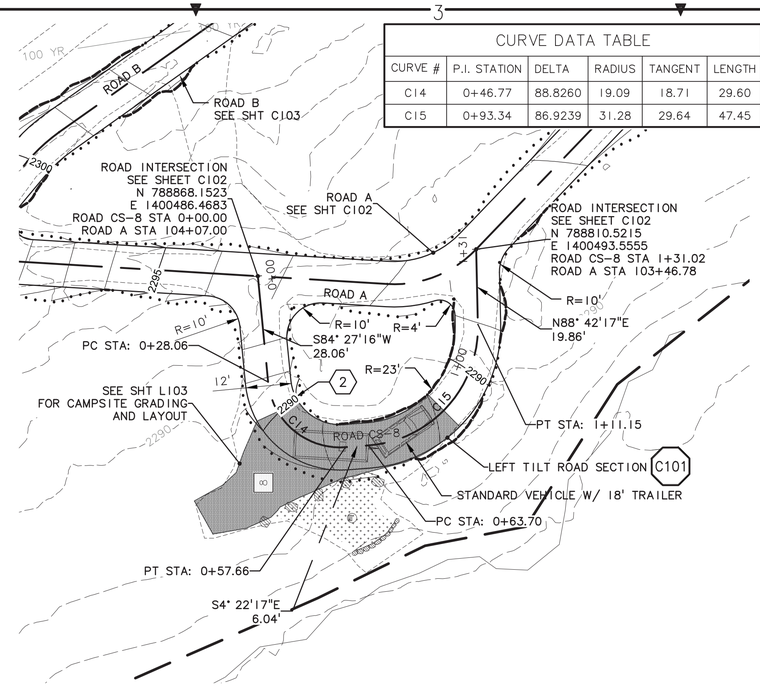
VAULT NO. D-



PLAN – CS 7

SCALE: 1"= 20'

8 C001



PLAN – CS 8

SCALE: 1"= 20'

9 C001

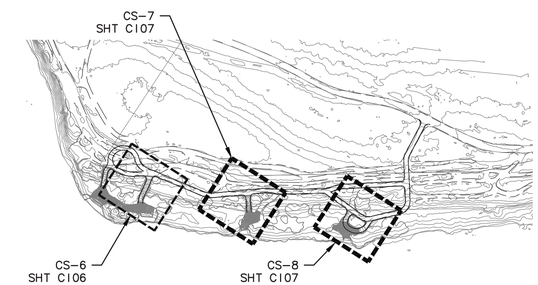
CURVE DATA TABLE					
CURVE #	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
C14	0+46.77	88.8260	19.09	18.71	29.60
C15	0+93.34	86.9239	31.28	29.64	47.45

SHEET KEY NOTES:

1. BLEND END OF ROAD RADIUS INTO EXISTING EDGE OF ROADWAY
2. PROVIDE RIP RAP PAD ALONG FILL SLOPE AT TRANSITION FROM CUT TO FILL (C103)
3. NOT USED
4. NOT USED

GENERAL ROADWAY NOTES:

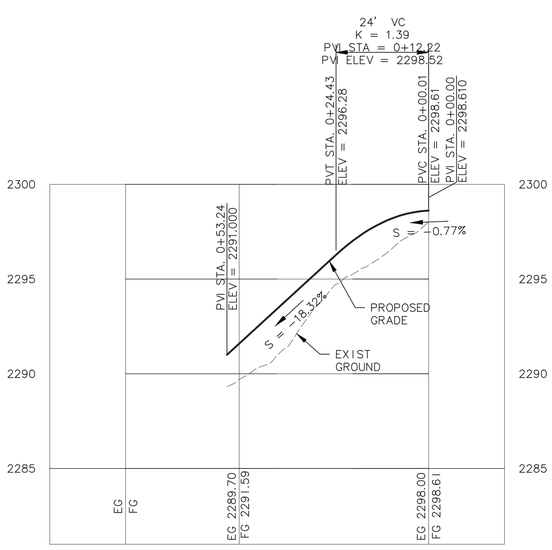
1. SEE SHEET C101 FOR NOTES.



KEY MAP

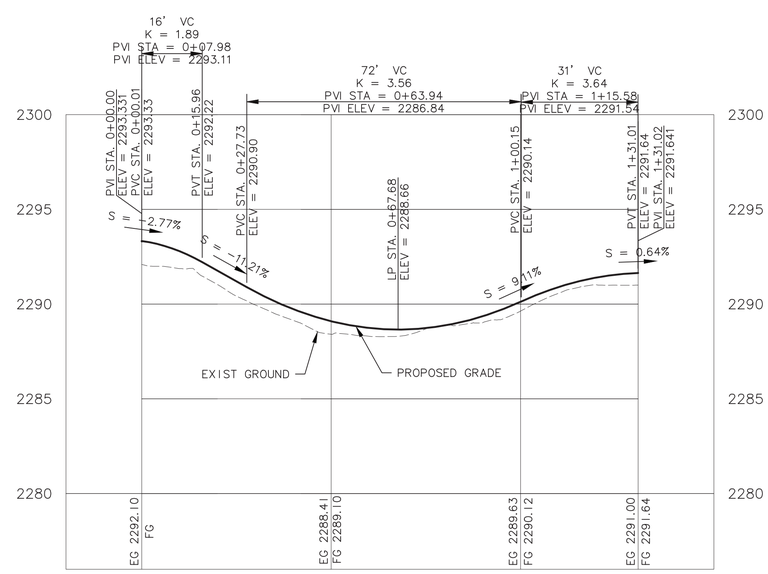
SCALE: 1" = 200'

REVISION	
0	12/18/13 ISSUED FOR CONSTRUCTION



PROFILE

SCALE: 1" = 20' H
1" = 4' V



PROFILE

SCALE: 1" = 20' H
1" = 4' V

LEGEND

- P/L — PROPERTY LINE
- CUT LINE
- FILL LINE
- PROPOSED EDGE OF ROAD
- EXISTING EDGE OF ROAD
- X CAMPSITE NUMBER

PROFESSIONAL ENGINEER REGISTERED 12599 STATE OF IDAHO DOMINIC M. BROWN
12/13/13

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Swan Falls Dam
Recreation Improvement Project
ROADWAY PLAN CS-7 & 8

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: 1" = 20' DATE: DEC 2013

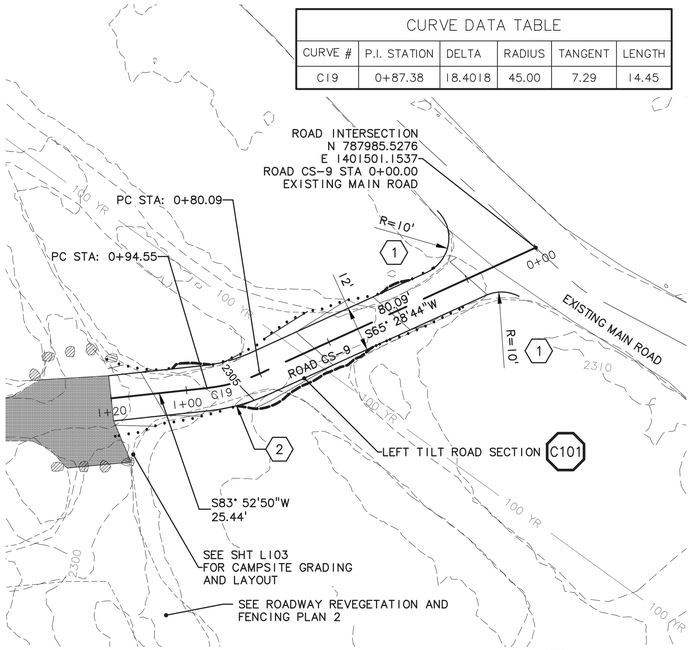
DS. DMB DR. JLP CH. DG REV. APPROVED

20D-.....

C107

VAULT NO. D-

CURVE DATA TABLE					
CURVE #	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
C19	0+87.38	18.4018	45.00	7.29	14.45

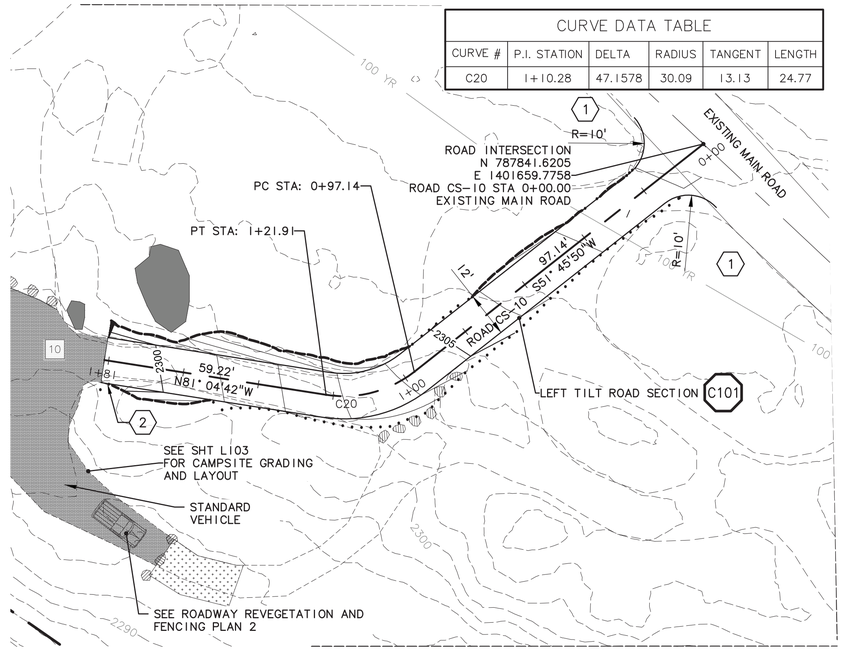


PLAN – CS 9

SCALE: 1"= 20'

10 C001

CURVE DATA TABLE					
CURVE #	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
C20	1+10.28	47.1578	30.09	13.13	24.77



PLAN – CS 10

SCALE: 1"= 20'

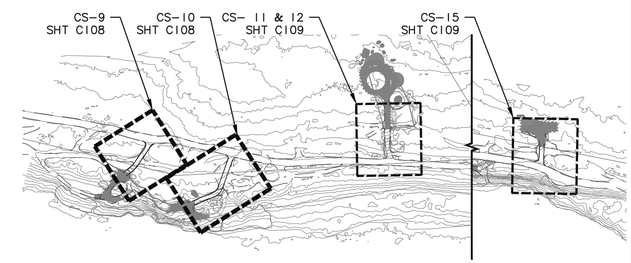
11 C001

SHEET KEY NOTES:

1. BLEND END OF ROAD RADIUS INTO EXISTING EDGE OF ROADWAY
2. PROVIDE RIP RAP PAD ALONG FILL SLOPE AT TRANSITION FROM CUT TO FILL (C103)
3. NOT USED
4. NOT USED

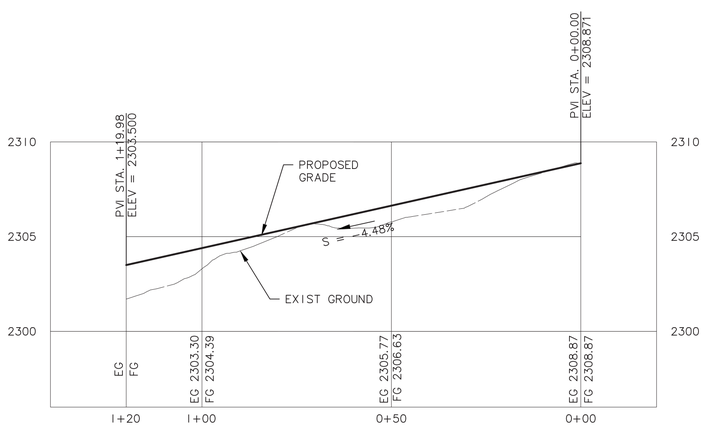
GENERAL ROADWAY NOTES:

1. SEE SHEET C101 FOR NOTES.



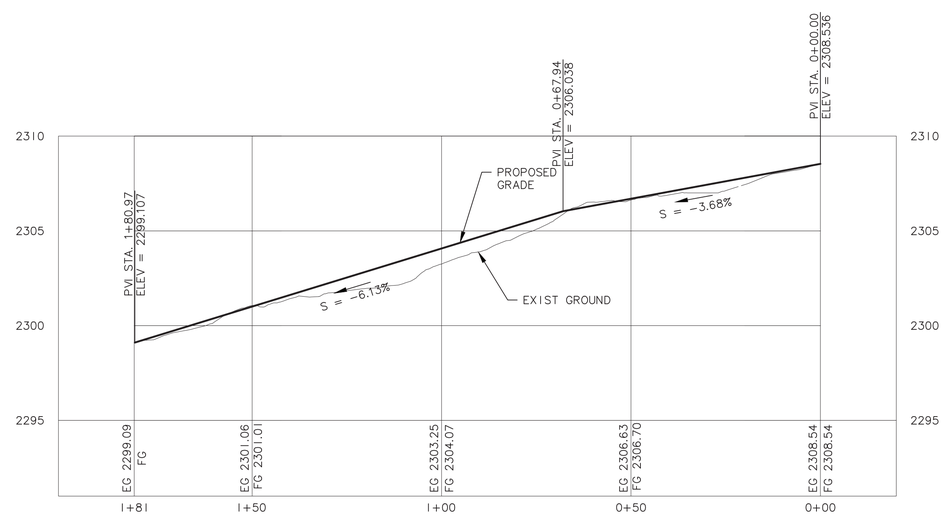
KEY MAP

SCALE: 1" = 200'



PROFILE

SCALE: 1" = 20' H
1" = 4' V



PROFILE

SCALE: 1" = 20' H
1" = 4' V

LEGEND

- P/L — PROPERTY LINE
- CUT LINE
- FILL LINE
- PROPOSED EDGE OF ROAD
- EXISTING EDGE OF ROAD
- X — CAMPSITE NUMBER

PROFESSIONAL ENGINEER REGISTERED 12599 STATE OF IDAHO DOMINIC M. BROWN
12/13/13

REVISION	
0	12/18/13 ISSUED FOR CONSTRUCTION

MSA Murray, Smith & Associates, Inc. Engineers/Planners
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BOISE, ID 83702
OFFICE: 208.342.4214
FAX: 208.342.4216

Swan Falls Dam
Recreation Improvement Project
ROADWAY PLAN CS-9 & 10

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: 1" = 20' DATE: DEC 2013

DS. DMB DR. JLP CH. DG REV.

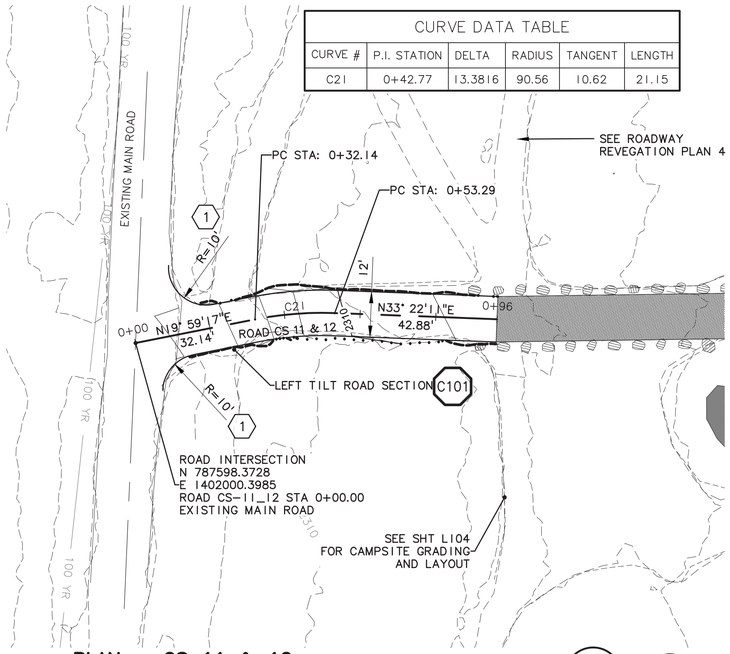
APPROVED

20D-.....

C108

VAULT NO. D-

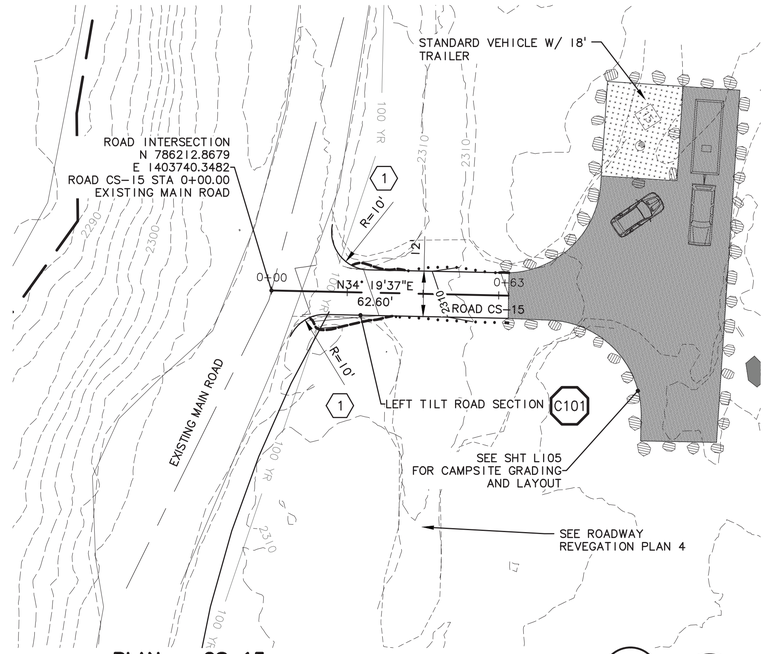
CURVE DATA TABLE					
CURVE #	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
C21	0+42.77	13.3816	90.56	10.62	21.15



PLAN – CS 11 & 12

SCALE: 1"= 20'

12 C001



PLAN – CS 15

SCALE: 1"= 20'

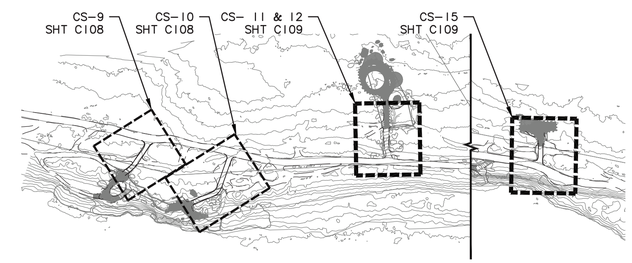
13 C001

SHEET KEY NOTES:

1. BLEND END OF ROAD RADIUS INTO EXISTING EDGE OF ROADWAY
2. NOT USED
3. NOT USED
4. NOT USED

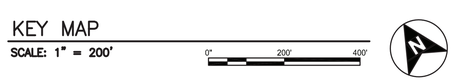
GENERAL ROADWAY NOTES:

1. SEE SHEET C101 FOR NOTES.



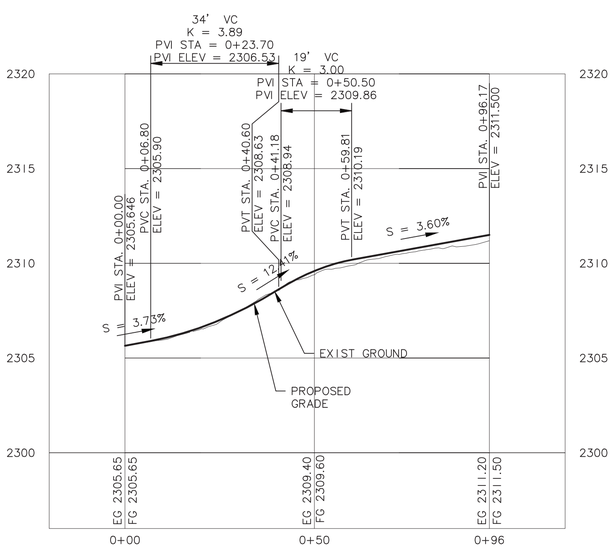
KEY MAP

SCALE: 1" = 200'



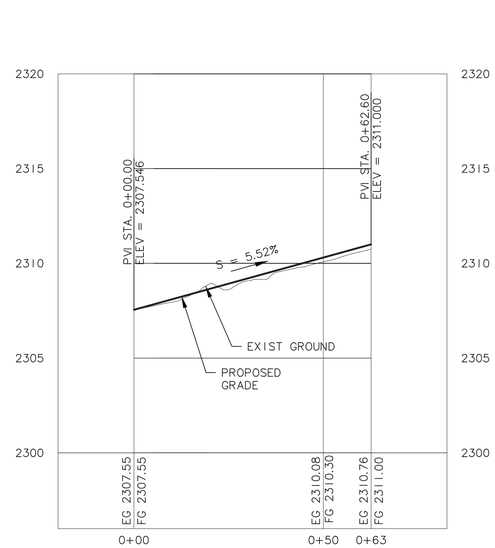
LEGEND

- P/L — PROPERTY LINE
- CUT LINE
- FILL LINE
- PROPOSED EDGE OF ROAD
- EXISTING EDGE OF ROAD
- X — CAMPSITE NUMBER



PROFILE

SCALE: 1" = 20' H
1" = 4' V



PROFILE

SCALE: 1" = 20' H
1" = 4' V

REVISION	
0	12/18/13 ISSUED FOR CONSTRUCTION

PROFESSIONAL ENGINEER REGISTERED 12599 STATE OF IDAHO DOMINIC M. BROWN
12/13/13

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Swan Falls Dam
Recreation Improvement Project
ROADWAY PLAN
CS 11–12 & 15

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: 1" = 20' DATE: DEC 2013

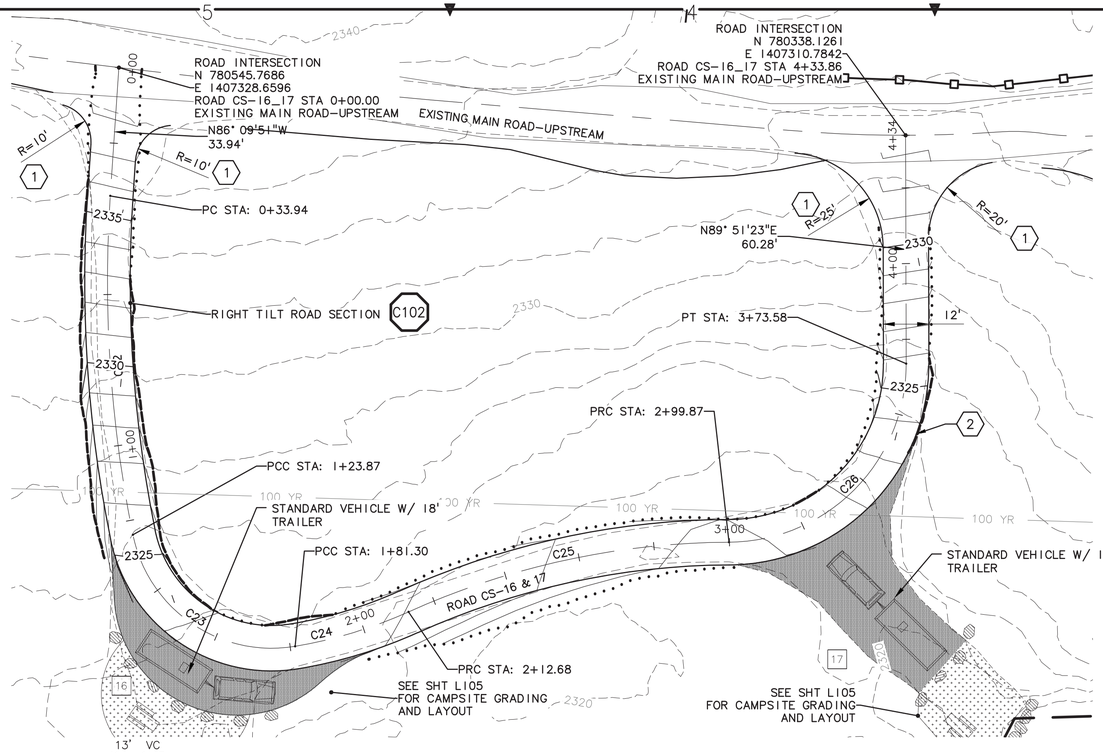
DS. DMB DR. JLP CH. DG REV.

APPROVED

20D–.....

C109

VAULT NO. D–

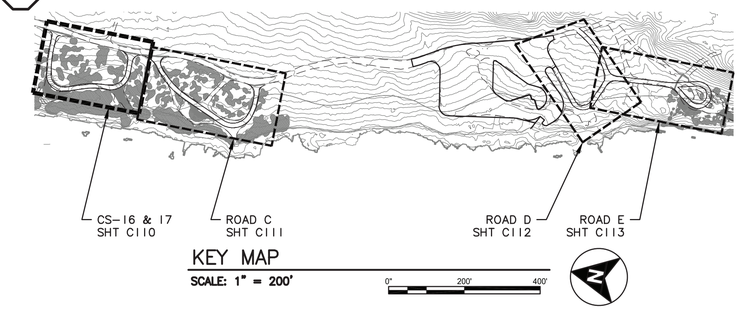


SHEET KEY NOTES:

1. BLEND END OF ROAD RADIUS INTO EXISTING EDGE OF ROADWAY
2. PROVIDE RIP RAP PAD ALONG FILL SLOPE AT TRANSITION FROM CUT TO FILL C103
3. NOT USED
4. NOT USED

GENERAL ROADWAY NOTES:

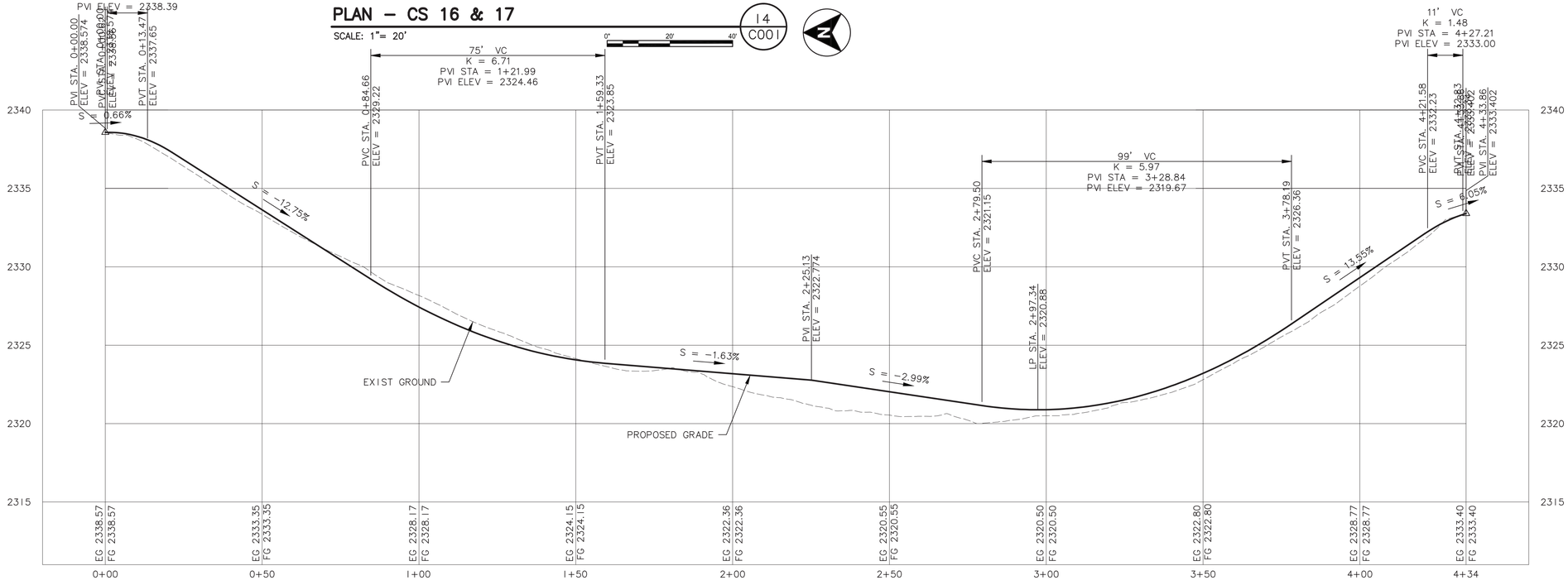
1. SEE SHEET C101 FOR NOTES.



PLAN – CS 16 & 17

SCALE: 1"= 20'

14 / C001



PROFILE

SCALE: 1" = 20' H (0' 20' 40')

1" = 4' V (0'' 4' 8')

CURVE DATA TABLE

CURVE #	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
C22	0+79.18	15.3124	336.50	45.23	89.93
C23	1+59.99	88.0291	37.38	36.11	57.43
C24	1+97.08	14.7521	121.87	15.78	31.38
C25	2+56.92	23.9684	208.44	44.24	87.20
C26	3+46.75	89.8542	47.00	46.88	73.71

LEGEND

- P/L — PROPERTY LINE
- CUT LINE
- FILL LINE
- PROPOSED EDGE OF ROAD
- EXISTING EDGE OF ROAD
- X CAMPSITE NUMBER

PROFESSIONAL ENGINEER REGISTERED 12599 STATE OF IDAHO DOMINIC M. BROWN
12/13/13

REVISION

0	12/18/13 ISSUED FOR CONSTRUCTION

MSA Murray, Smith & Associates, Inc. Engineers/Planners
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Swan Falls Dam
Recreation Improvement Project
ROADWAY PLAN CS-16 & 17

IDAHO POWER COMPANY BOISE, IDAHO

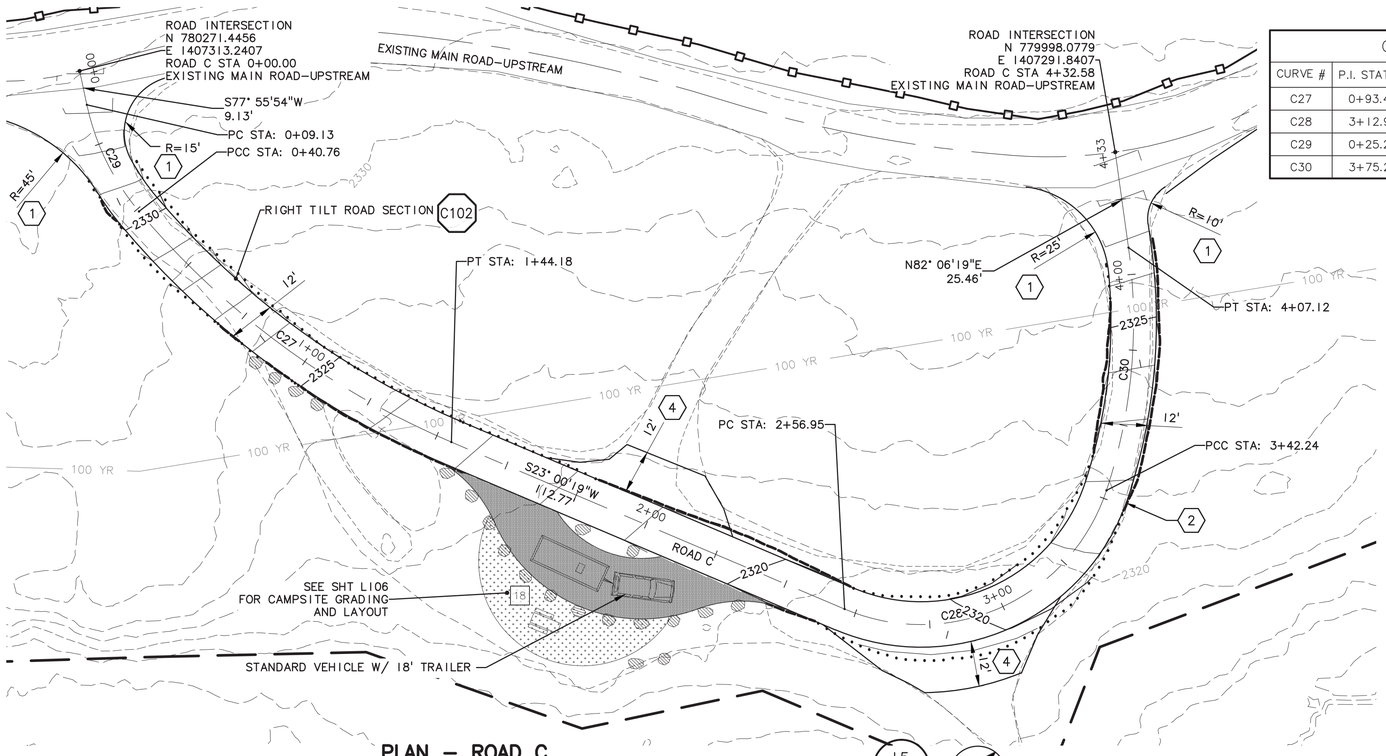
SCALE: 1" = 20' DATE: DEC 2013

DS. DMB DR. JLP CH. DG REV. APPROVED

20D-.....

C110

VAULT NO. D-



PLAN – ROAD C

SCALE: 1"= 20'

0" 20' 40'

15
C001

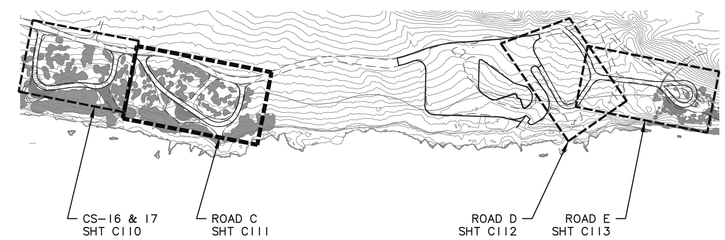
CURVE DATA TABLE					
CURVE #	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
C27	0+93.44	26.8738	220.49	52.68	103.42
C28	3+12.99	94.7517	51.58	56.04	85.30
C29	0+25.27	28.0524	64.61	16.14	31.63
C30	3+75.26	26.1486	142.16	33.01	64.88

SHEET KEY NOTES:

1. BLEND END OF ROAD RADIUS INTO EXISTING EDGE OF ROADWAY
2. PROVIDE RIP RAP PAD ALONG FILL SLOPE AT TRANSITION FROM CUT TO FILL (C103)
3. NOT USED
4. GRADE SHOULDER TO MATCH ROADWAY GRADE AND SLOPE. SLOPE EDGE OF SHOULDER TO EXISTING. SEE GENERAL NOTE 6

GENERAL ROADWAY NOTES:

1. SEE SHEET C101 FOR NOTES.



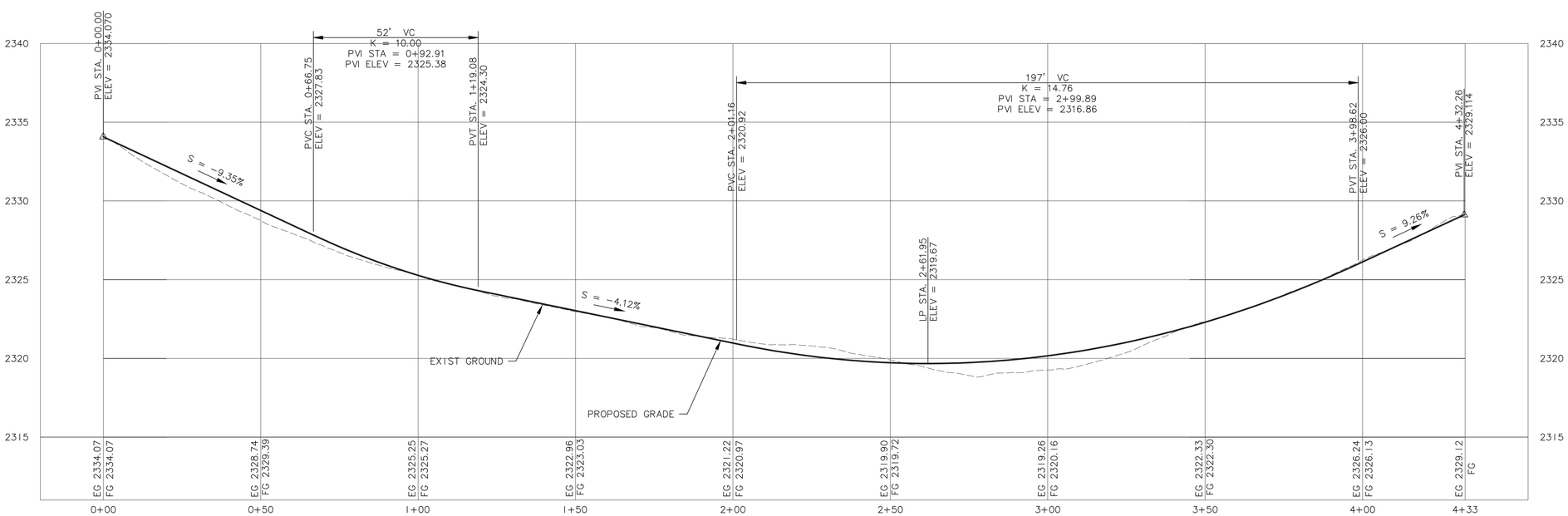
KEY MAP

SCALE: 1" = 200'

0" 200' 400'

LEGEND

- P/L — PROPERTY LINE
- CUT LINE
- FILL LINE
- PROPOSED EDGE OF ROAD
- EXISTING EDGE OF ROAD
- X CAMPSITE NUMBER



PROFILE

SCALE: 1" = 20' H
1" = 4' V

0" 20' 40'
0" 4' 8'

REVISION

0	12/18/13 ISSUED FOR CONSTRUCTION

PROFESSIONAL ENGINEER REGISTERED 12599 STATE OF IDAHO DOMINIC M. BROWN
12/13/13

Swan Falls Dam
Recreation Improvement Project
ROADWAY PLAN
ROAD C

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: 1" = 20' DATE: DEC 2013

DS. DMB
DR. JLP
CH. DG
REV.

APPROVED

20D–.....

C111

VAULT NO. D–

MSA Murray, Smith & Associates, Inc. Engineers/Planners
1649 W. Shoreline Dr., Suite 200 Boise, Idaho 83702-6701
PHONE 208.947.9033 FAX 208.947.9034

McMILLEN, LLC
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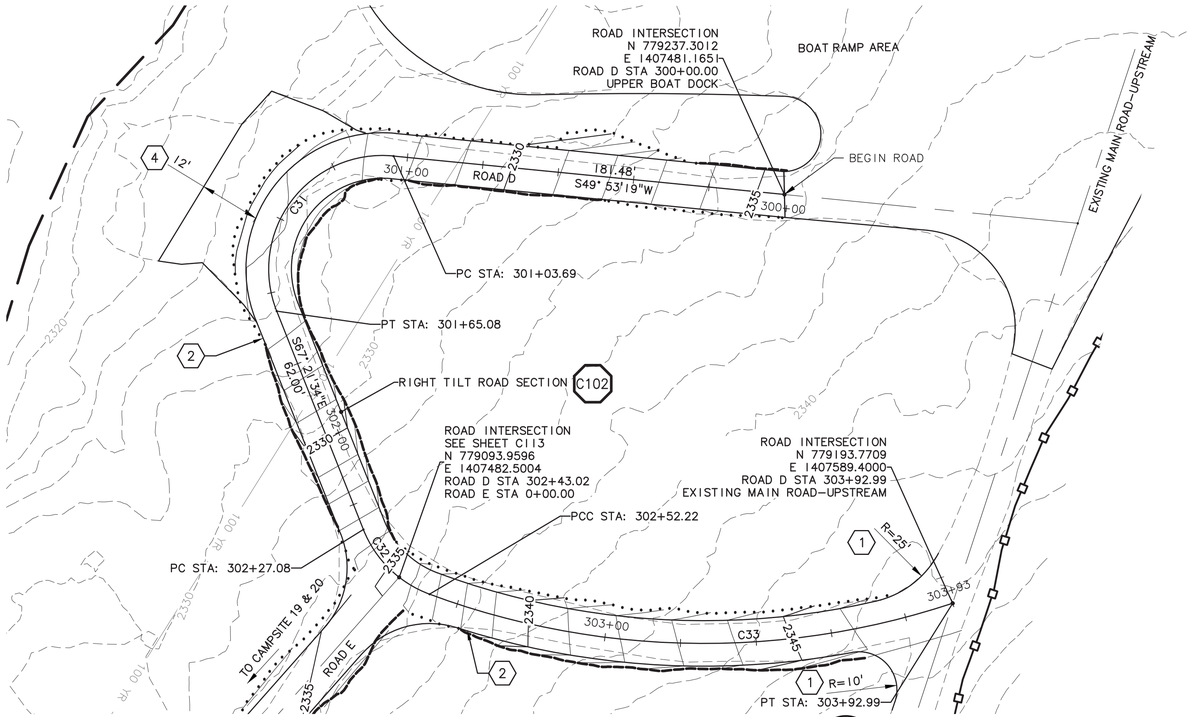
FAX: 208.342.4216



PLAN – ROAD D

SCALE: 1"= 20'

16 C001

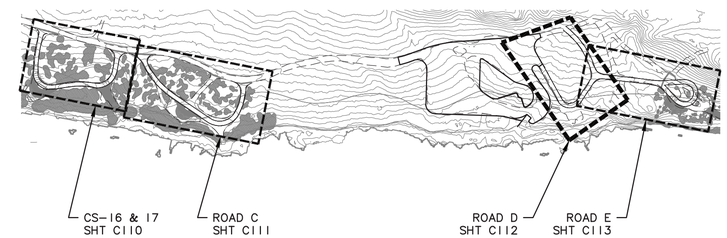
SHEET KEY NOTES:

1. BLEND END OF ROAD RADIUS INTO EXISTING EDGE OF ROADWAY
2. PROVIDE RIP RAP PAD ALONG FILL SLOPE AT TRANSITION FROM CUT TO FILL (C103)
3. NOT USED
4. GRADE SHOULDER TO MATCH ROADWAY GRADE AND SLOPE. SLOPE EDGE OF SHOULDER TO EXISTING. SEE GENERAL NOTE 6

GENERAL ROADWAY NOTES:

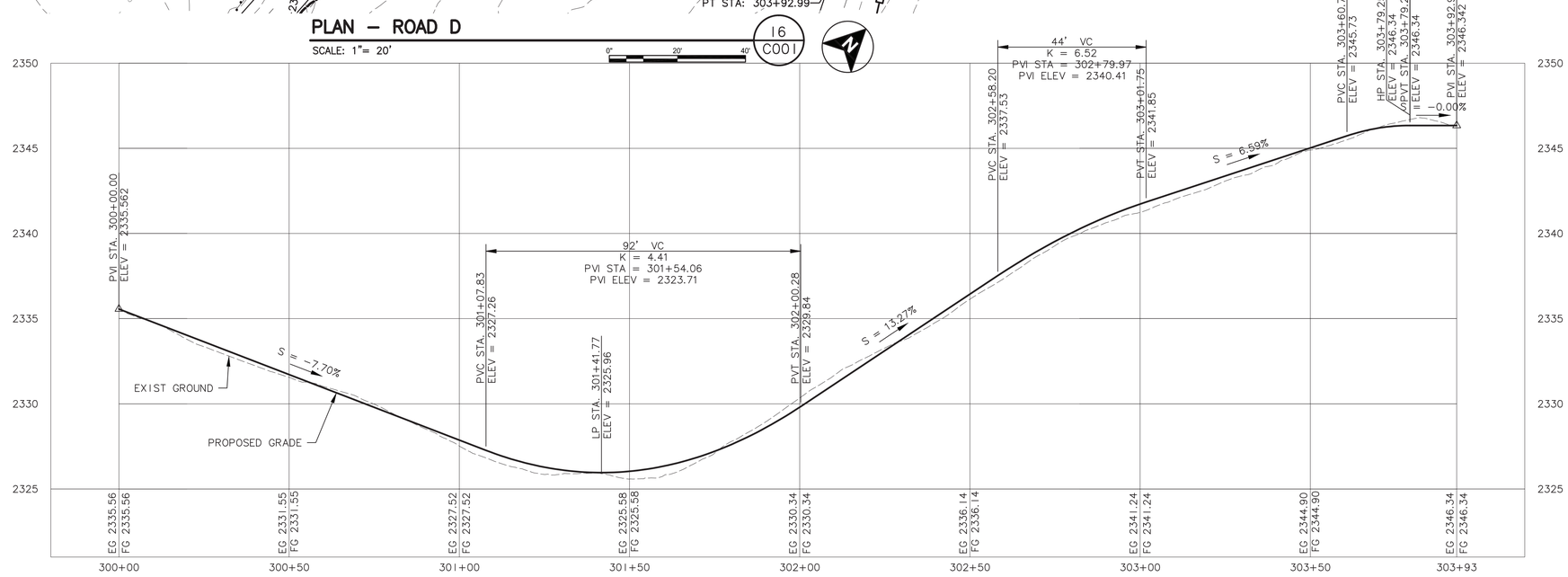
1. SEE SHEET C101 FOR NOTES.

CURVE DATA TABLE					
CURVE #	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
C31	301+52.88	117.2482	30.00	49.19	61.39
C32	302+40.44	48.0150	30.00	13.36	25.14
C33	303+25.41	38.7083	208.37	73.19	140.77



KEY MAP

SCALE: 1" = 200'



PROFILE

SCALE: 1" = 20' H
1" = 4' V

LEGEND

- P/L — PROPERTY LINE
- CUT LINE
- FILL LINE
- PROPOSED EDGE OF ROAD
- EXISTING EDGE OF ROAD
- X — CAMPSITE NUMBER

REVISION		
0	12/18/13	ISSUED FOR CONSTRUCTION

PROFESSIONAL ENGINEER REGISTERED 12599 STATE OF IDAHO DOMINIC M. BROWN
12/13/13

Murray, Smith & Associates, Inc. Engineers/Planners
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Swan Falls Dam
Recreation Improvement Project
ROADWAY PLAN
ROAD D

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: 1" = 20' DATE: DEC 2013

DS. DMB DR. JLP CH. DG REV. APPROVED

20D–.....

C112

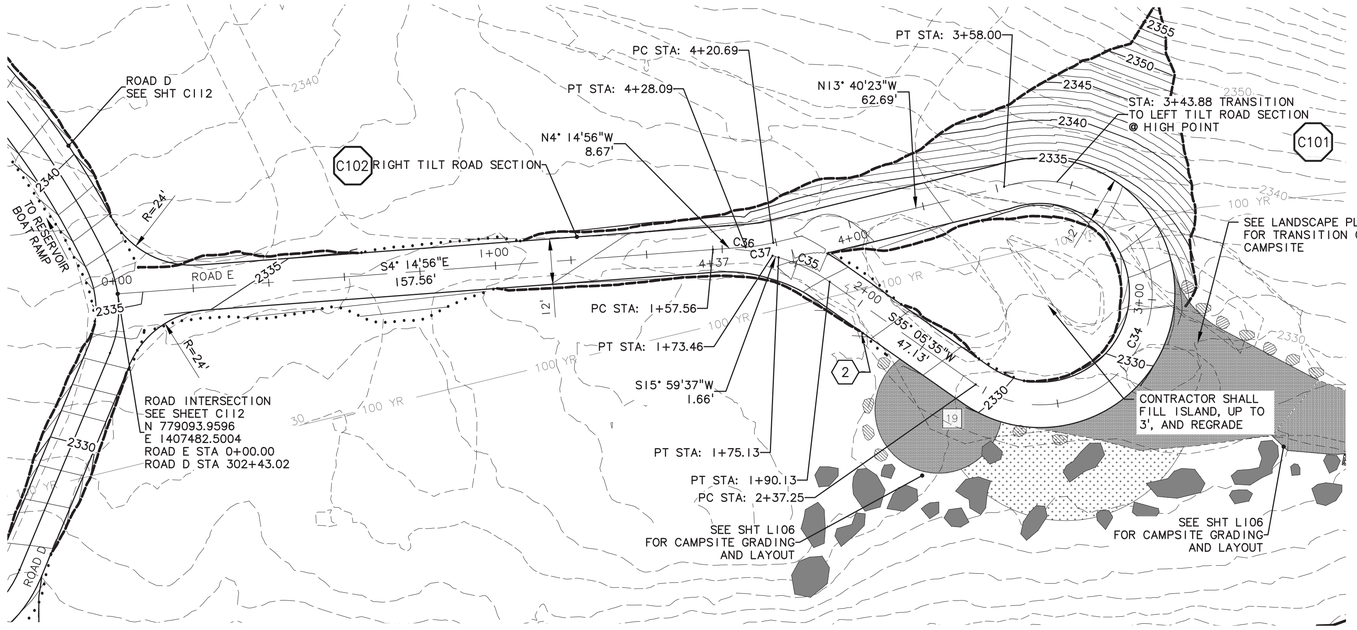
VAULT NO. D–

SHEET KEY NOTES:

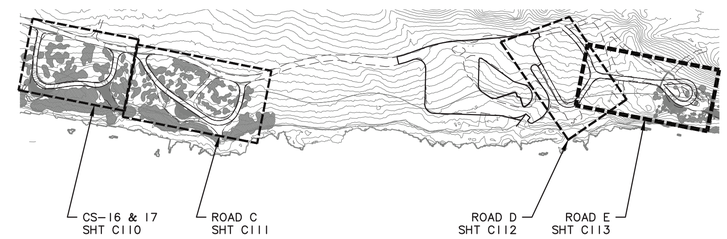
1. NOT USED
2. PROVIDE RIP RAP PAD ALONG FILL SLOPE AT TRANSITION FROM C103 CUT TO FILL
3. NOT USED
4. NOT USED

GENERAL ROADWAY NOTES:

1. SEE SHEET C101 FOR NOTES.



CURVE DATA TABLE					
CURVE #	P.I. STATION	DELTA	RADIUS	TANGENT	LENGTH
C34	1+79.00	233.8501	29.58	58.25	120.75
C35	1+82.70	19.0993	45.00	7.57	15.00
C36	1+65.60	20.2427	45.00	8.03	15.90
C37	4+24.40	9.4241	45.00	3.71	7.40



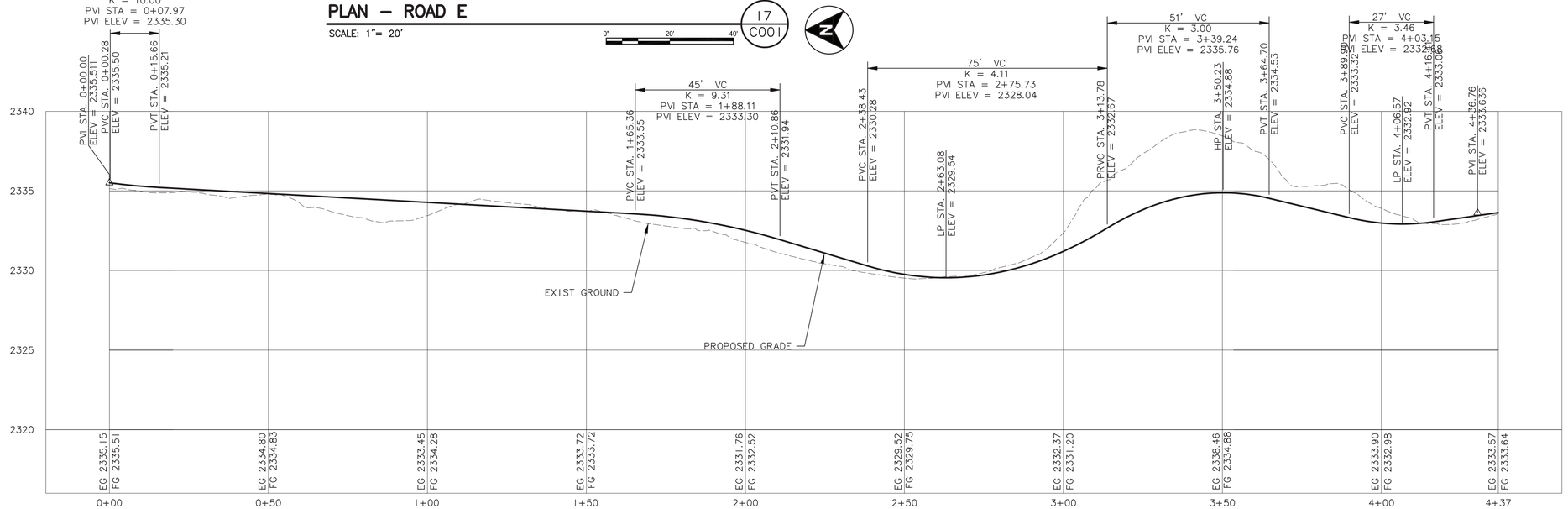
KEY MAP

SCALE: 1" = 200'

PLAN – ROAD E

SCALE: 1"= 20'

17 C001



PROFILE

SCALE: 1" = 20' H
1" = 4' V

LEGEND

- P/L — PROPERTY LINE
- CUT LINE
- FILL LINE
- PROPOSED EDGE OF ROAD
- EXISTING EDGE OF ROAD
- X — CAMPSITE NUMBER

PROFESSIONAL ENGINEER REGISTERED 12599 STATE OF IDAHO DOMINIC M. BROWN
12/13/13

REVISION	
0	12/18/13 ISSUED FOR CONSTRUCTION

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Swan Falls Dam
Recreation Improvement Project
ROADWAY PLAN
ROAD E

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: 1" = 20' DATE: DEC 2013

DS. DMB DR. JLP CH. DG REV.

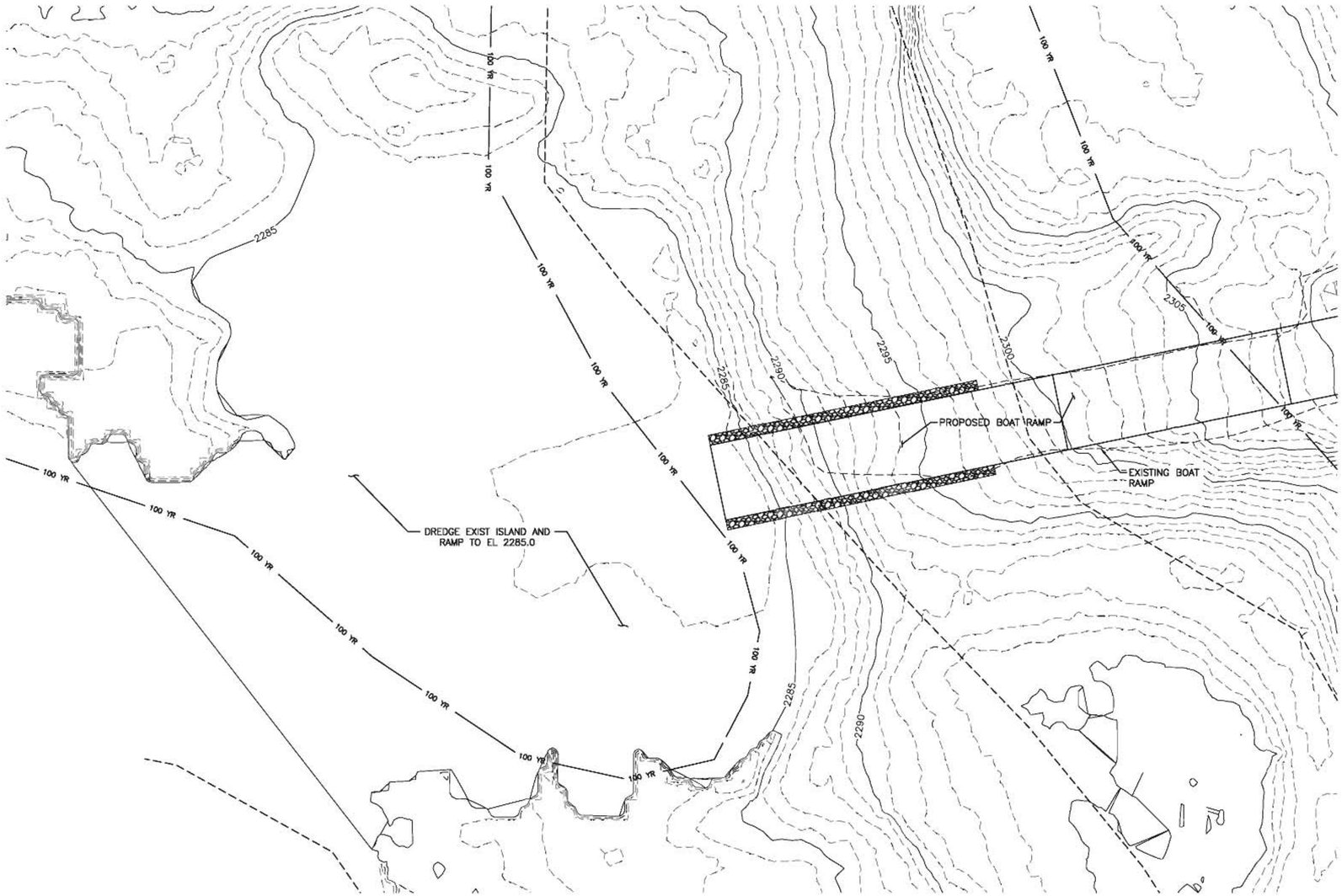
APPROVED

20D-.....

C113

VAULT NO. D-

REVISION	
0	12/18/13 ISSUED FOR CONSTRUCTION
1	01/13/14 REMOVE JETTY & SIDE CHANNEL



DOWNSTREAM BOAT RAMP

SCALE: 1"= 20'

0' 20' 40'

N

PROFESSIONAL ENGINEER REGISTERED 10805 1/13/14 STATE OF IDAHO CHRISTOPHER C. BOYD

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Swan Falls Dam
Recreation Improvement Project
DOWNSTREAM BOAT RAMP CHANNEL GRADING

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: JAN 2014

DS. CR APPROVED

DR. RW

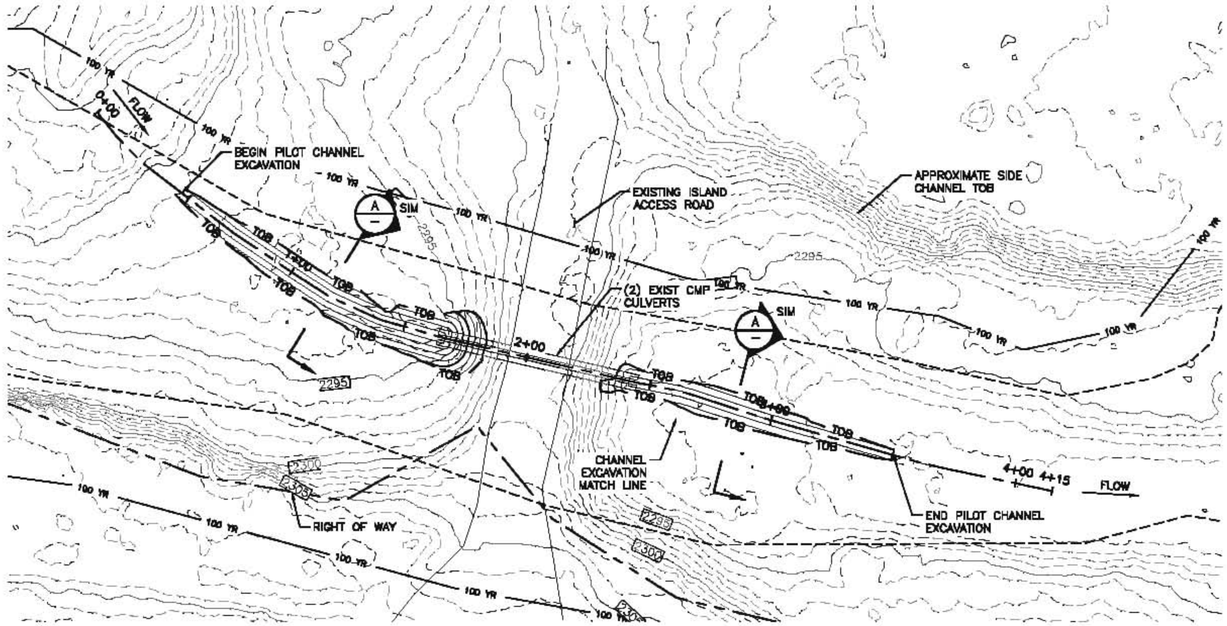
CH. CB

REV.

20D-.....

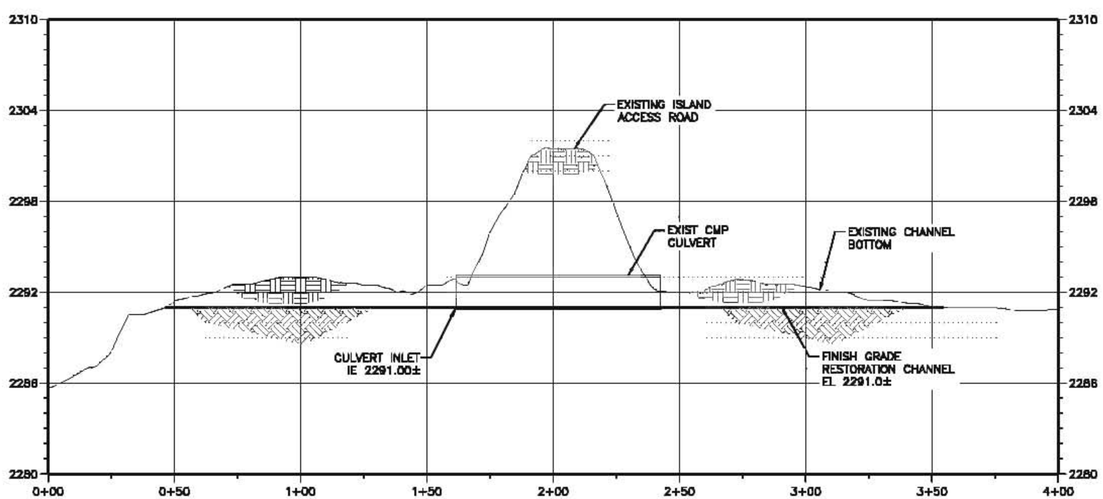
C201

VAULT NO. D-



PLAN

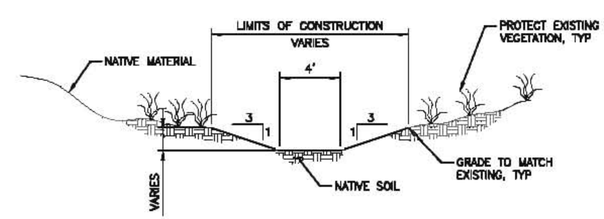
SCALE: 1" = 30'



PROFILE

SCALE: 1" = 30' H

1" = 5' V



TYPICAL PILOT CHANNEL SECTION

SCALE: 1" = 5'

SHEET NOTES:

1. CLEAN OUT CMP CULVERTS AND EXTEND PILOT CHANNEL TO DAYLIGHT AT EXIST CHANNEL INVERT. FIELD ADJUST CHANNEL AS REQUIRED IN COOPERATION WITH THE OWNER DURING CONSTRUCTION.

REVISION	
0	12/18/13 ISSUED FOR CONSTRUCTION
1	01/13/14 REMOVE JETTY & SIDE CHANNEL

PROFESSIONAL ENGINEER REGISTERED 10805 STATE OF IDAHO CHRISTOPHER C. BOYD

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FAX: 208.342.4216

Swan Falls Dam
Recreation Improvement Project
PILOT CHANNEL PLAN AND PROFILE

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: JAN 2014

DS. CR DR. RW CH. CB APPROVED

20D-.....

C221

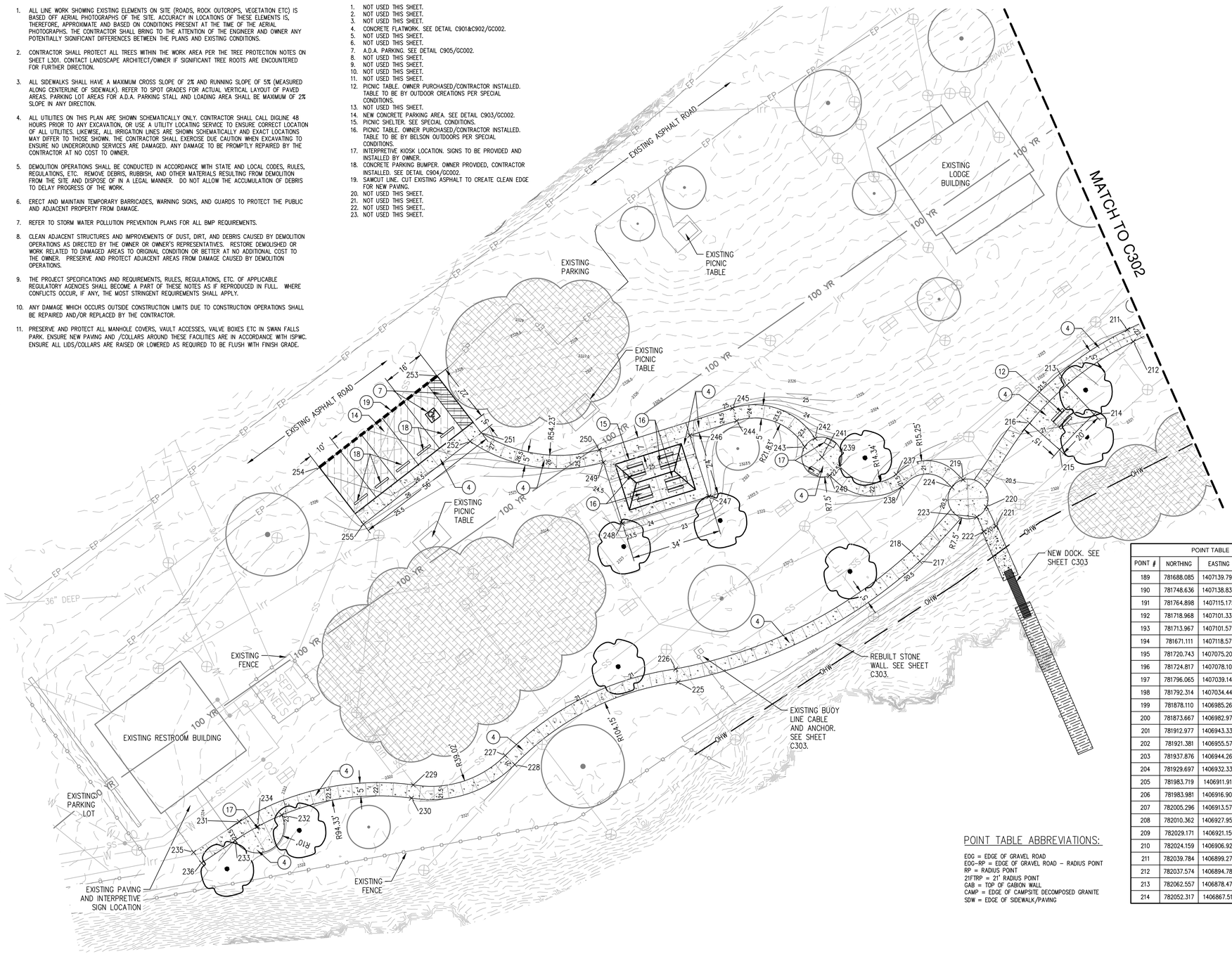
VAULT NO. D-

SWAN FALLS PARK SHEET NOTES:

1. ALL LINE WORK SHOWING EXISTING ELEMENTS ON SITE (ROADS, ROCK OUTCROPS, VEGETATION ETC) IS BASED OFF AERIAL PHOTOGRAPHS OF THE SITE. ACCURACY IN LOCATIONS OF THESE ELEMENTS IS, THEREFORE, APPROXIMATE AND BASED ON CONDITIONS PRESENT AT THE TIME OF THE AERIAL PHOTOGRAPHS. THE CONTRACTOR SHALL BRING TO THE ATTENTION OF THE ENGINEER AND OWNER ANY POTENTIALLY SIGNIFICANT DIFFERENCES BETWEEN THE PLANS AND EXISTING CONDITIONS.
2. CONTRACTOR SHALL PROTECT ALL TREES WITHIN THE WORK AREA PER THE TREE PROTECTION NOTES ON SHEET L301. CONTACT LANDSCAPE ARCHITECT/OWNER IF SIGNIFICANT TREE ROOTS ARE ENCOUNTERED FOR FURTHER DIRECTION.
3. ALL SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2% AND RUNNING SLOPE OF 5% (MEASURED ALONG CENTERLINE OF SIDEWALK). REFER TO SPOT GRADES FOR ACTUAL VERTICAL LAYOUT OF PAVED AREAS. PARKING LOT AREAS FOR A.D.A. PARKING STALL AND LOADING AREA SHALL BE MAXIMUM OF 2% SLOPE IN ANY DIRECTION.
4. ALL UTILITIES ON THIS PLAN ARE SHOWN SCHEMATICALLY ONLY. CONTRACTOR SHALL CALL DIGLINE 48 HOURS PRIOR TO ANY EXCAVATION, OR USE A UTILITY LOCATING SERVICE TO ENSURE CORRECT LOCATION OF ALL UTILITIES. LIKEWISE, ALL IRRIGATION LINES ARE SHOWN SCHEMATICALLY AND EXACT LOCATIONS MAY DIFFER TO THOSE SHOWN. THE CONTRACTOR SHALL EXERCISE DUE CAUTION WHEN EXCAVATING TO ENSURE NO UNDERGROUND SERVICES ARE DAMAGED. ANY DAMAGE TO BE PROMPTLY REPAIRED BY THE CONTRACTOR AT NO COST TO OWNER.
5. DEMOLITION OPERATIONS SHALL BE CONDUCTED IN ACCORDANCE WITH STATE AND LOCAL CODES, RULES, REGULATIONS, ETC. REMOVE DEBRIS, RUBBISH, AND OTHER MATERIALS RESULTING FROM DEMOLITION FROM THE SITE AND DISPOSE OF IN A LEGAL MANNER. DO NOT ALLOW THE ACCUMULATION OF DEBRIS TO DELAY PROGRESS OF THE WORK.
6. ERECT AND MAINTAIN TEMPORARY BARRICADES, WARNING SIGNS, AND GUARDS TO PROTECT THE PUBLIC AND ADJACENT PROPERTY FROM DAMAGE.
7. REFER TO STORM WATER POLLUTION PREVENTION PLANS FOR ALL BMP REQUIREMENTS.
8. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF DUST, DIRT, AND DEBRIS CAUSED BY DEMOLITION OPERATIONS AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVES. RESTORE DEMOLISHED OR WORK RELATED TO DAMAGED AREAS TO ORIGINAL CONDITION OR BETTER AT NO ADDITIONAL COST TO THE OWNER. PRESERVE AND PROTECT ADJACENT AREAS FROM DAMAGE CAUSED BY DEMOLITION OPERATIONS.
9. THE PROJECT SPECIFICATIONS AND REQUIREMENTS, RULES, REGULATIONS, ETC. OF APPLICABLE REGULATORY AGENCIES SHALL BECOME A PART OF THESE NOTES AS IF REPRODUCED IN FULL. WHERE CONFLICTS OCCUR, IF ANY, THE MOST STRINGENT REQUIREMENTS SHALL APPLY.
10. ANY DAMAGE WHICH OCCURS OUTSIDE CONSTRUCTION LIMITS DUE TO CONSTRUCTION OPERATIONS SHALL BE REPAIRED AND/OR REPLACED BY THE CONTRACTOR.
11. PRESERVE AND PROTECT ALL MANHOLE COVERS, VAULT ACCESSES, VALVE BOXES ETC IN SWAN FALLS PARK. ENSURE NEW PAVING AND /COLLARS AROUND THESE FACILITIES ARE IN ACCORDANCE WITH ISPWC. ENSURE ALL LIDS/COLLARS ARE RAISED OR LOWERED AS REQUIRED TO BE FLUSH WITH FINISH GRADE.

SHEET KEYNOTES:

1. NOT USED THIS SHEET.
2. NOT USED THIS SHEET.
3. NOT USED THIS SHEET.
4. CONCRETE FLATWORK. SEE DETAIL C901&C902/GC002.
5. NOT USED THIS SHEET.
6. NOT USED THIS SHEET.
7. A.D.A. PARKING. SEE DETAIL C905/GC002.
8. NOT USED THIS SHEET.
9. NOT USED THIS SHEET.
10. NOT USED THIS SHEET.
11. NOT USED THIS SHEET.
12. PICNIC TABLE. OWNER PURCHASED/CONTRACTOR INSTALLED. TABLE TO BE BY OUTDOOR CREATIONS PER SPECIAL CONDITIONS.
13. NOT USED THIS SHEET.
14. NEW CONCRETE PARKING AREA. SEE DETAIL C903/GC002.
15. PICNIC SHELTER. SEE SPECIAL CONDITIONS.
16. PICNIC TABLE. OWNER PURCHASED/CONTRACTOR INSTALLED. TABLE TO BE BY BELSON OUTDOORS PER SPECIAL CONDITIONS.
17. INTERPRETIVE KIOSK LOCATION. SIGNS TO BE PROVIDED AND INSTALLED BY OWNER.
18. CONCRETE PARKING BUMPER. OWNER PROVIDED, CONTRACTOR INSTALLED. SEE DETAIL C904/GC002.
19. SAWCUT LINE. CUT EXISTING ASPHALT TO CREATE CLEAN EDGE FOR NEW PAVING.
20. NOT USED THIS SHEET.
21. NOT USED THIS SHEET.
22. NOT USED THIS SHEET..
23. NOT USED THIS SHEET.



LEGEND:

- EXISTING GROUPS OF TREES AND VEGETATION
- EXISTING INDIVIDUAL TREES
- EXISTING ROCK OUTCROPS
- EDGE OF EXISTING ROAD/NATIVE SOIL
- EDGE OF EXISTING PAVEMENT
- ORDINARY HIGH WATER MARK
- FEMA 100 YEAR FLOOD LINE
- EXISTING CONTOURS – 0.5 FOOT INTERVAL
- PROPOSED CONTOURS – 0.5 FOOT INTERVAL
- PROPOSED BASALT BOULDERS, MIN. 3' LENGTH AND 2' HEIGHT (ABOVE GRADE). SEE DETAIL C907/GC002.
- CAMP SITE NUMBER
- EXISTING SANITARY SEWER LINE
- EXISTING WATER LINE
- EXISTING TELEPHONE LINE
- EXISTING POWER LINE
- EXISTING IRRIGATION LINE
- SAW CUT LINE
- GRAVEL ROADWAYS AND PARKING AREAS. SEE DETAIL SEE DETAIL C104/GC001.
- DECOMPOSED GRANITE LIVING PADS. SEE KEYNOTES.
- 4" DEPTH CONCRETE FLATWORK AND SCORE JOINTS. SEE DETAILS C901&C902/GC002
- CONCRETE PARKING SURFACE. SEE DETAIL C903/GC002
- GABION WALLS. SEE DETAIL C906/GC002.
- AREAS TO BE RE-VEGETATED. SEE SPECIFICATION SECTION 32 92 19.
- PROPOSED PICNIC TABLE. REFER TO KEYNOTES FOR DETAILS OF TYPE OF TABLE.
- PROPOSED FIRE RINGS. SEE KEYNOTES.
- PROPOSED TREES. SEE LANDSCAPE PLANS
- NORTHING/EASTING/ELEVATION POINT – SEE POINT TABLE.

POINT TABLE ABBREVIATIONS:

EOG = EDGE OF GRAVEL ROAD
EOG–RP = EDGE OF GRAVEL ROAD – RADIUS POINT
RP = RADIUS POINT
21FTRP = 21' RADIUS POINT
GAB = TOP OF GABION WALL
CAMP = EDGE OF CAMPSITE DECOMPOSED GRANITE
SDW = EDGE OF SIDEWALK/PAVING

POINT TABLE

POINT #	NORTHING	EASTING	ELEV.	DESC.
189	781688.085	1407139.795	2329.60	EOG
190	781748.636	1407138.834	2329.40	EOG
191	781764.898	1407115.175	2328.20	SDW
192	781718.968	1407101.335	2328.30	SDW
193	781713.967	1407101.579	2328.30	SDW
194	781671.111	1407118.577	2328.20	SDW
195	781720.743	1407075.204	2327.15	SDW
196	781724.817	1407078.104	2327.20	SDW
197	781796.065	1407039.146	2324.60	SDW
198	781792.314	1407034.445	2324.55	SDW
199	781878.110	1406985.264	2323.60	SDW
200	781873.667	1406982.970	2323.55	SDW
201	781912.977	1406943.330	2322.60	SDW
202	781921.381	1406955.576	2322.75	SDW
203	781937.876	1406944.265	2322.75	SDW
204	781929.697	1406932.338	2322.60	SDW
205	781983.719	1406911.911	2322.15	SDW
206	781983.981	1406916.905	2322.20	SDW
207	782005.296	1406913.573	2322.50	SDW
208	782010.362	1406927.950	2322.80	SDW
209	782029.171	1406921.150	2322.80	SDW
210	782024.159	1406906.926	2322.50	SDW
211	782039.784	1406899.270	2322.00	SDW
212	782037.574	1406894.785	2321.95	SDW
213	782062.557	1406878.472	2321.35	SDW
214	782052.317	1406867.511	2321.05	SDW

POINT TABLE

POINT #	NORTHING	EASTING	ELEV.	DESC.
215	782065.258	1406854.194	2320.70	SDW
216	782076.521	1406864.189	2321.30	SDW
217	782117.699	1406812.340	2320.75	SDW
218	782121.087	1406816.017	2320.80	SDW
219	782101.475	1406842.962	2320.40	SDW
220	782092.713	1406832.714	2320.30	SDW
221	782089.185	1406825.462	2320.00	SDW
222	782093.776	1406823.482	2320.00	SDW
223	782096.315	1406828.956	2320.30	SDW
224	782105.684	1406840.077	2320.40	SDW
225	782208.448	1406766.960	2320.45	SDW
226	782209.357	1406771.877	2320.50	SDW
227	782273.344	1406739.404	2321.00	SDW
228	782269.741	1406735.937	2320.95	SDW
229	782307.878	1406728.351	2321.60	SDW
230	782308.546	1406723.396	2321.55	SDW
231	782373.206	1406714.513	2323.50	SDW
232	782357.264	1406717.080	2323.25	SDW
233	782374.762	1406707.457	2323.50	SDW
234	782366.283	1406712.759	2323.30	SDW
235	782390.370	1406703.021	2323.60	SDW
236	782387.338	1406699.034	2323.55	SDW
237	782126.598	1406844.935	2321.50	SDW
238	782124.474	1406840.281	2321.50	SDW
239	782147.861	1406847.903	2322.50	SDW
240	782151.578	1406844.525	2322.50	SDW

POINT TABLE

POINT #	NORTHING	EASTING	ELEV.	DESC.
241	782154.473	1406851.444	2322.60	SDW
242	782157.047	1406858.488	2322.80	SDW
243	782160.934	1406855.252	2322.80	SDW
244	782186.502	1406865.032	2324.50	SDW
245	782188.039	1406869.790	2324.50	SDW
246	782204.068	1406859.551	2325.10	SDW
247	782196.919	1406836.640	2324.70	SDW
248	782229.376	1406826.513	2324.70	SDW
249	782236.525	1406849.423	2325.10	SDW
250	782237.990	1406854.204	2325.10	SDW
251	782282.373	1406860.576	2327.30	SDW
252	782286.545	1406857.340	2327.30	SDW
253	782298.924	1406881.909	2327.80	EOG
254	782343.169	1406847.582	2326.70	EOG
255	782326.619	1406826.249	2326.20	SDW
256	781850.992	1407017.348	2324.40	SDW
257	781861.901	1407028.509	2324.60	SDW
258	781876.204	1407014.529	2324.30	SDW
259	781865.462	1407003.539	2324.20	SDW
260	781715.364	1407128.216	2328.90	EOG
261	781713.313	1407106.655	2328.60	SDW
262	781735.981	1407108.011	2328.60	SDW
263	781737.045	1407103.126	2328.20	SDW
264	781731.302	1407129.508	2328.90	EOD

Swan Falls Park - North

0 20' 40'

HORIZONTAL SCALE: 1" = 20'

REVISION		
A	12/18/13	ISSUED FOR CONSTRUCTION
B		

STATE OF IDAHO — SIMON DAVIS — LA-16758 — 12.18.2013 — LICENSED LANDSCAPE ARCHITECT

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TLG Project Number: 113127

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Swan Falls Dam
Recreation Improvement Project
SWAN FALLS PARK
SITE PLAN 1

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: DEC 2013

DS. SD DR. DK CH. CB REV.

APPROVED ---

20D–.....

C301

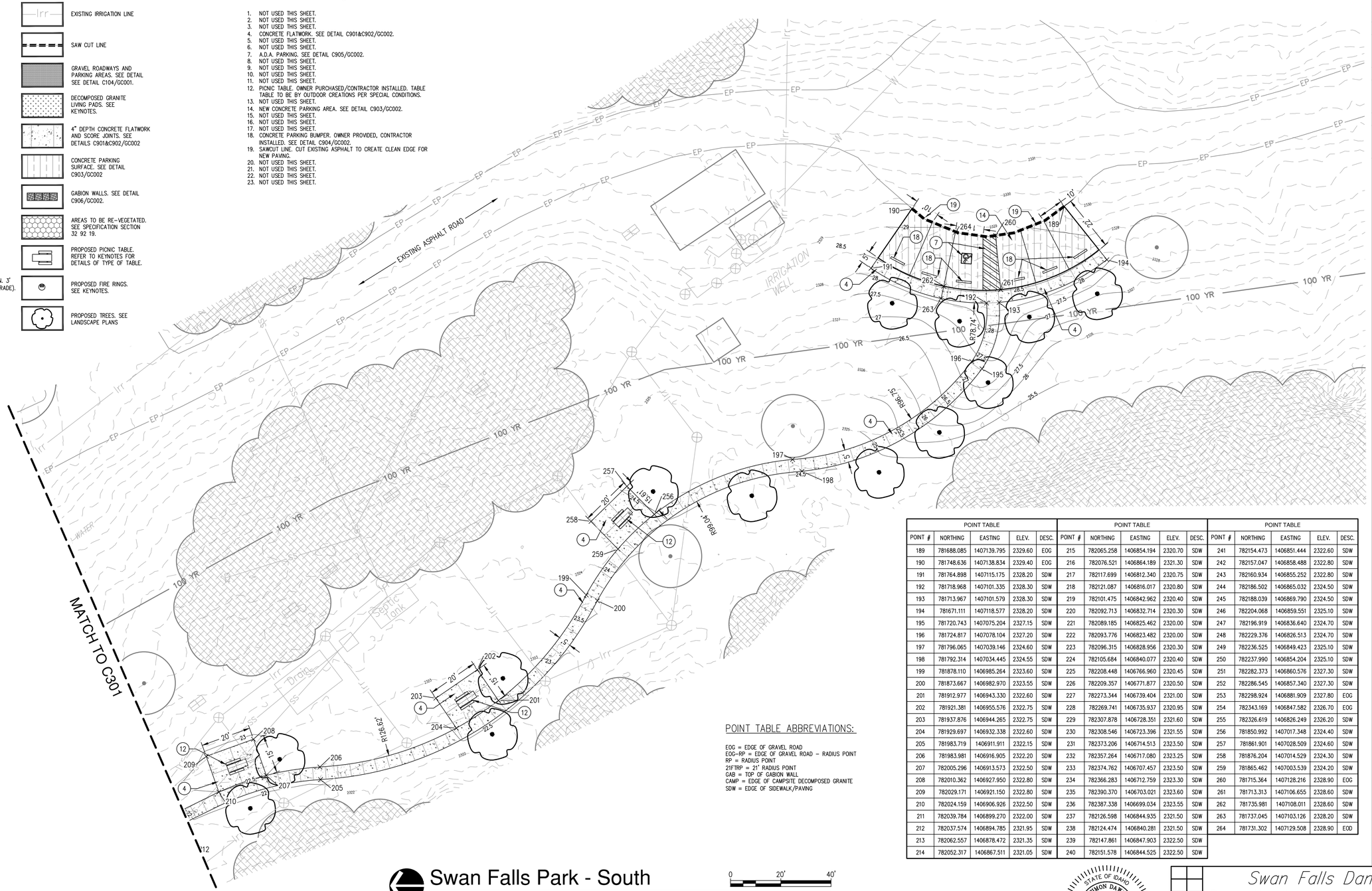
VAULT NO. D–

LEGEND:

- EXISTING GROUPS OF TREES AND VEGETATION
- EXISTING INDIVIDUAL TREES
- EXISTING ROCK OUTCROPS
- EDGE OF EXISTING ROAD/NATIVE SOIL
- EP — EDGE OF EXISTING PAVEMENT
- OHW — ORDINARY HIGH WATER MARK
- 100 YR — FEMA 100 YEAR FLOOD LINE
- 2324 — EXISTING CONTOURS – 0.5 FOOT INTERVAL
- 25 — PROPOSED CONTOURS – 0.5 FOOT INTERVAL
- PROPOSED BASALT BOULDERS, MIN. 3' LENGTH AND 2' HEIGHT (ABOVE GRADE). SEE DETAIL C907/GC002.
- 1 — CAMP SITE NUMBER
- SS — EXISTING SANITARY SEWER LINE
- W — EXISTING WATER LINE
- T — EXISTING TELEPHONE LINE
- E — EXISTING POWER LINE
- 27 — NORTHING/EASTING/ELEVATION POINT – SEE POINT TABLE.
- Irr — EXISTING IRRIGATION LINE
- SAW CUT LINE
- GRAVEL ROADWAYS AND PARKING AREAS. SEE DETAIL SEE DETAIL C104/GC001.
- DECOMPOSED GRANITE LIVING PADS. SEE KEYNOTES.
- 4" DEPTH CONCRETE FLATWORK AND SCORE JOINTS. SEE DETAILS C901&C902/GC002
- CONCRETE PARKING SURFACE. SEE DETAIL C903/GC002
- GABION WALLS. SEE DETAIL C906/GC002.
- AREAS TO BE RE-VEGETATED. SEE SPECIFICATION SECTION 32 92 19.
- PROPOSED PICNIC TABLE. REFER TO KEYNOTES FOR DETAILS OF TYPE OF TABLE.
- PROPOSED FIRE RINGS. SEE KEYNOTES.
- PROPOSED TREES. SEE LANDSCAPE PLANS

SHEET KEYNOTES:

1. NOT USED THIS SHEET.
2. NOT USED THIS SHEET.
3. NOT USED THIS SHEET.
4. CONCRETE FLATWORK. SEE DETAIL C901&C902/GC002.
5. NOT USED THIS SHEET.
6. NOT USED THIS SHEET.
7. A.D.A. PARKING. SEE DETAIL C905/GC002.
8. NOT USED THIS SHEET.
9. NOT USED THIS SHEET.
10. NOT USED THIS SHEET.
11. NOT USED THIS SHEET.
12. PICNIC TABLE. OWNER PURCHASED/CONTRACTOR INSTALLED. TABLE TABLE TO BE BY OUTDOOR CREATIONS PER SPECIAL CONDITIONS.
13. NOT USED THIS SHEET.
14. NEW CONCRETE PARKING AREA. SEE DETAIL C903/GC002.
15. NOT USED THIS SHEET.
16. NOT USED THIS SHEET.
17. NOT USED THIS SHEET.
18. CONCRETE PARKING BUMPER. OWNER PROVIDED, CONTRACTOR INSTALLED. SEE DETAIL C904/GC002.
19. SAWCUT LINE. CUT EXISTING ASPHALT TO CREATE CLEAN EDGE FOR NEW PAVING.
20. NOT USED THIS SHEET.
21. NOT USED THIS SHEET.
22. NOT USED THIS SHEET.
23. NOT USED THIS SHEET.



POINT TABLE ABBREVIATIONS:

EOG = EDGE OF GRAVEL ROAD
EOG–RP = EDGE OF GRAVEL ROAD – RADIUS POINT
RP = RADIUS POINT
21FTRP = 21' RADIUS POINT
GAB = TOP OF GABION WALL
CAMP = EDGE OF CAMPSITE DECOMPOSED GRANITE
SDW = EDGE OF SIDEWALK/PAVING

POINT TABLE

POINT #	NORTHING	EASTING	ELEV.	DESC.
189	781688.085	1407139.795	2329.60	EOG
190	781748.636	1407138.834	2329.40	EOG
191	781764.898	1407115.175	2328.20	SDW
192	781718.968	1407101.335	2328.30	SDW
193	781713.967	1407101.579	2328.30	SDW
194	781671.111	1407118.577	2328.20	SDW
195	781720.743	1407075.204	2327.15	SDW
196	781724.817	1407078.104	2327.20	SDW
197	781796.065	1407039.146	2324.60	SDW
198	781792.314	1407034.445	2324.55	SDW
199	781878.110	1406985.264	2323.60	SDW
200	781873.667	1406982.970	2323.55	SDW
201	781912.977	1406943.330	2322.60	SDW
202	781921.381	1406955.576	2322.75	SDW
203	781937.876	1406944.265	2322.75	SDW
204	781929.697	1406932.338	2322.60	SDW
205	781983.719	1406911.911	2322.15	SDW
206	781983.981	1406916.905	2322.20	SDW
207	782005.296	1406913.573	2322.50	SDW
208	782010.362	1406927.950	2322.80	SDW
209	782029.171	1406921.150	2322.80	SDW
210	782024.159	1406906.926	2322.50	SDW
211	782039.784	1406899.270	2322.00	SDW
212	782037.574	1406894.785	2321.95	SDW
213	782062.557	1406878.472	2321.35	SDW
214	782052.317	1406867.511	2321.05	SDW

POINT TABLE

POINT #	NORTHING	EASTING	ELEV.	DESC.
215	782065.258	1406854.194	2320.70	SDW
216	782076.521	1406864.189	2321.30	SDW
217	782117.699	1406812.340	2320.75	SDW
218	782121.087	1406816.017	2320.80	SDW
219	782101.475	1406842.962	2320.40	SDW
220	782092.713	1406832.714	2320.30	SDW
221	782089.185	1406825.462	2320.00	SDW
222	782093.776	1406823.482	2320.00	SDW
223	782096.315	1406828.956	2320.30	SDW
224	782105.684	1406840.077	2320.40	SDW
225	782208.448	1406766.960	2320.45	SDW
226	782209.357	1406771.877	2320.50	SDW
227	782273.344	1406739.404	2321.00	SDW
228	782269.741	1406735.937	2320.95	SDW
229	782307.878	1406728.351	2321.60	SDW
230	782308.546	1406723.396	2321.55	SDW
231	782373.206	1406714.513	2323.50	SDW
232	782357.264	1406717.080	2323.25	SDW
233	782374.762	1406707.457	2323.50	SDW
234	782366.283	1406712.759	2323.30	SDW
235	782390.370	1406703.021	2323.60	SDW
236	782387.338	1406699.034	2323.55	SDW
237	782126.598	1406844.935	2321.50	SDW
238	782124.474	1406840.281	2321.50	SDW
239	782147.861	1406847.903	2322.50	SDW
240	782151.578	1406844.525	2322.50	SDW

POINT TABLE

POINT #	NORTHING	EASTING	ELEV.	DESC.
241	782154.473	1406851.444	2322.60	SDW
242	782157.047	1406858.488	2322.80	SDW
243	782160.934	1406855.252	2322.80	SDW
244	782186.502	1406865.032	2324.50	SDW
245	782188.039	1406869.790	2324.50	SDW
246	782204.068	1406859.551	2325.10	SDW
247	782196.919	1406836.640	2324.70	SDW
248	782229.376	1406826.513	2324.70	SDW
249	782236.525	1406849.423	2325.10	SDW
250	782237.990	1406854.204	2325.10	SDW
251	782282.373	1406860.576	2327.30	SDW
252	782286.545	1406857.340	2327.30	SDW
253	782298.924	1406881.909	2327.80	EOG
254	782343.169	1406847.582	2326.70	EOG
255	782326.619	1406826.249	2326.20	SDW
256	781850.992	1407017.348	2324.40	SDW
257	781861.901	1407028.509	2324.60	SDW
258	781876.204	1407014.529	2324.30	SDW
259	781865.462	1407003.539	2324.20	SDW
260	781715.364	1407128.216	2328.90	EOG
261	781713.313	1407106.655	2328.60	SDW
262	781735.981	1407108.011	2328.60	SDW
263	781737.045	1407103.126	2328.20	SDW
264	781731.302	1407129.508	2328.90	EOD

Swan Falls Park - South

HORIZONTAL SCALE: 1" = 20'

0 20' 40'

REVISION		
A	12/18/13	ISSUED FOR CONSTRUCTION
B		

STATE OF IDAHO — SIMON DAVIS — LA-16758 — 12.18.2013 — LICENSED LANDSCAPE ARCHITECT

THE LAND GROUP INCORPORATED
Eagle • Coeur d'Alene
Ph. 208.939.4041
www.thelandgroupinc.com
TLG Project Number: 113127

McMILLEN, LLC
1401 SHORELINE DRIVE
BOISE, ID 83702
OFFICE: 208.342.4214
FAX: 208.342.4216

Swan Falls Dam
Recreation Improvement Project
SWAN FALLS PARK
SITE PLAN 2

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: DEC 2013

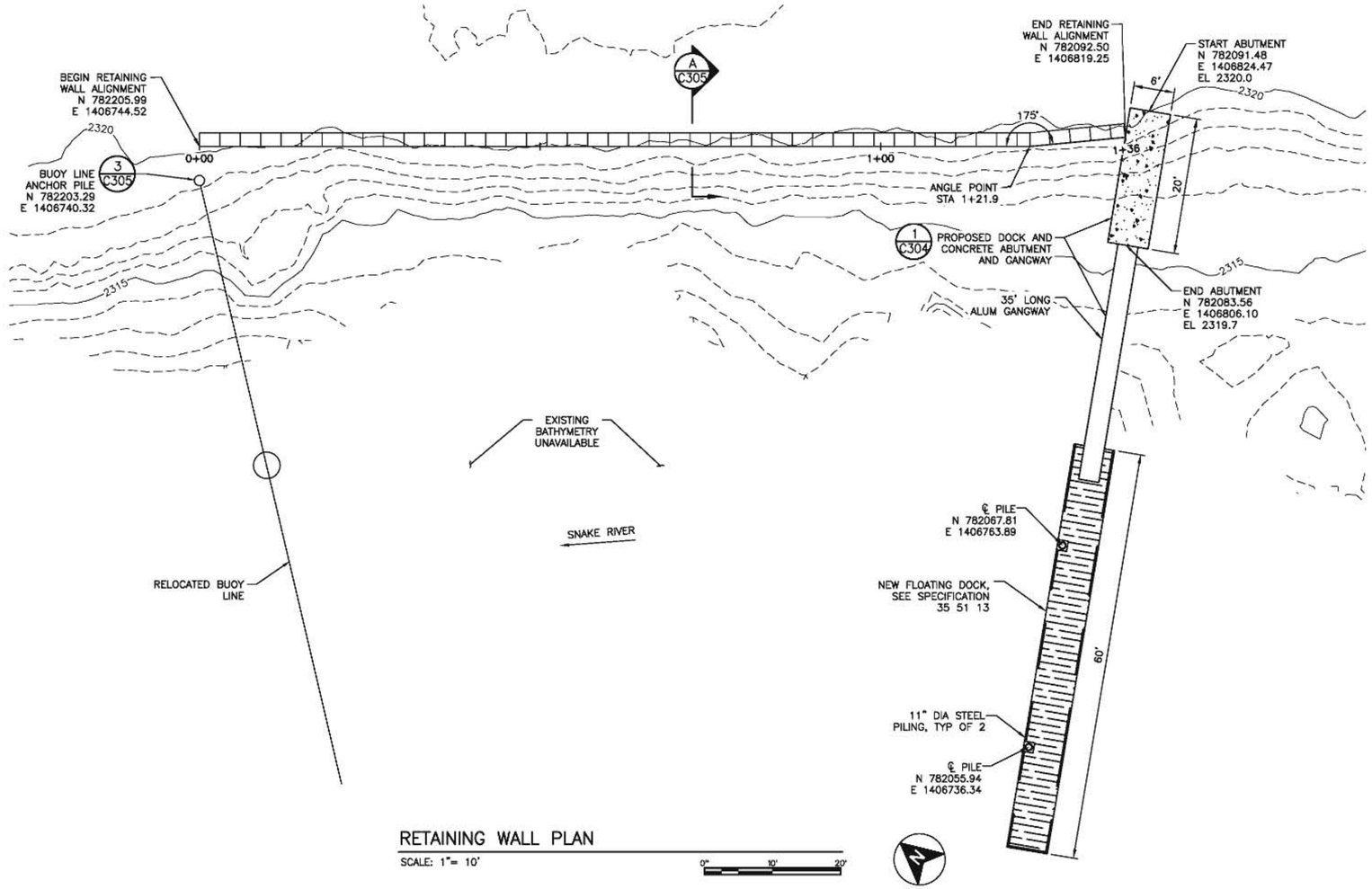
DS. SD DR. DK CH. CB REV.

APPROVED ---

20D–.....

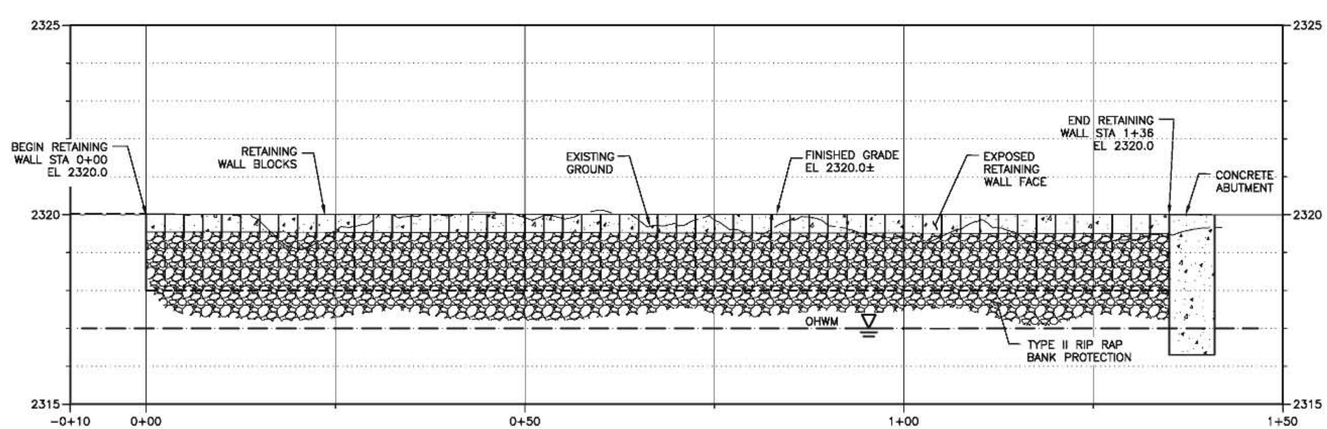
C302

VAULT NO. D–



RETAINING WALL PLAN

SCALE: 1" = 10'



RETAINING WALL PROFILE

SCALE: 1" = 10' H

1" = 2' V

REVISION	
0	12/18/13 ISSUED FOR CONSTRUCTION

PROFESSIONAL ENGINEER REGISTERED 10805 12/18/13 STATE OF IDAHO CHRISTOPHER C. BOYD

McMILLEN, LLC

1401 SHORELINE DR.
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Swan Falls Dam
Recreation Improvement Project
SWAN FALLS PARK RETAINING WALL PLAN AND PROFILE

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: DEC 2013

DS. CB APPROVED

DR. RW

CH. MDW

REV.

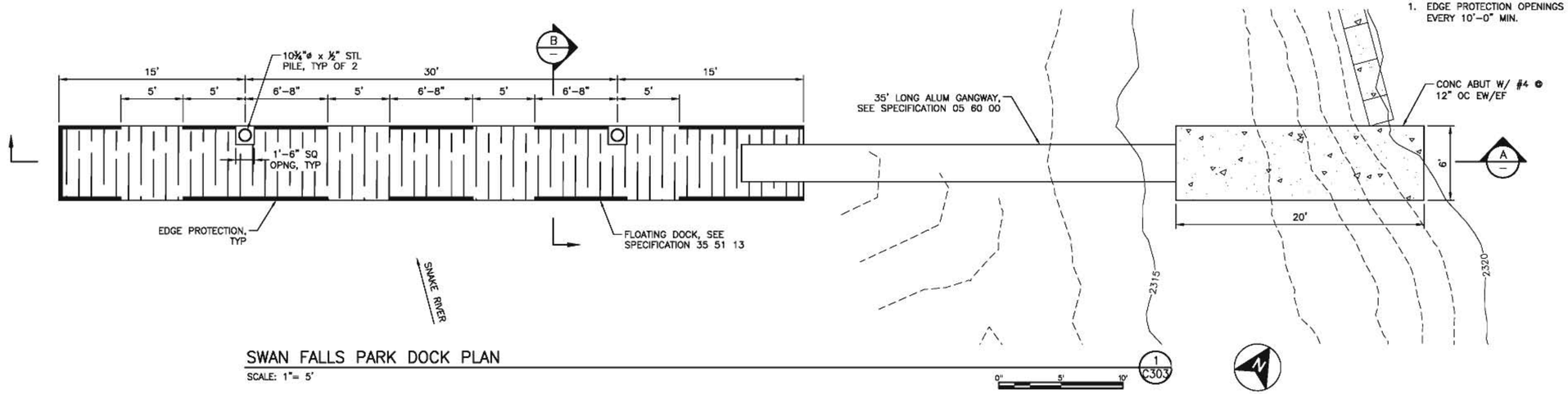
20D-.....

C303

VAULT NO. D-

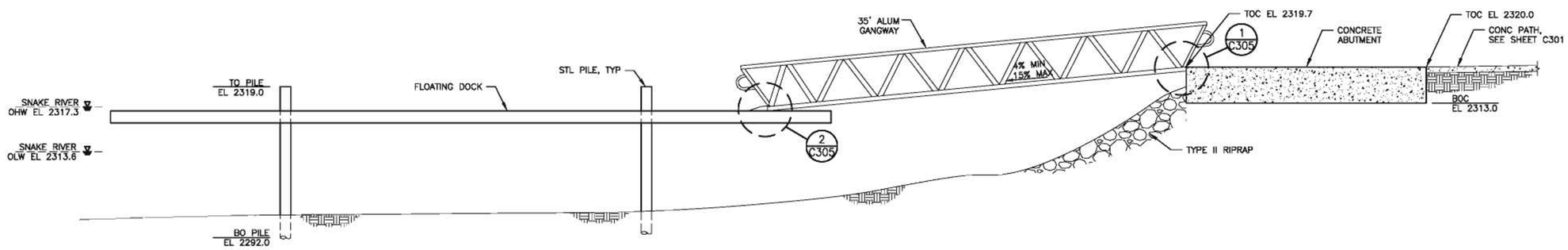
SHEET NOTES:

1. EDGE PROTECTION OPENINGS TO BE 5'-0" MIN SPACED EVERY 10'-0" MIN.



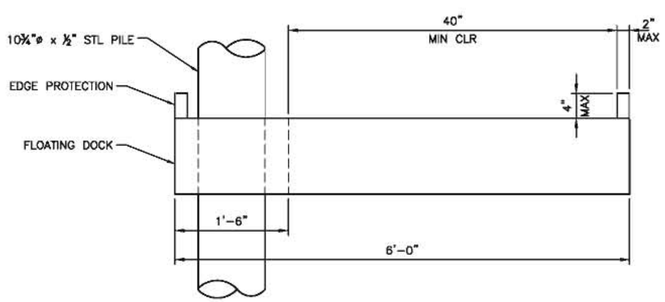
SWAN FALLS PARK DOCK PLAN

SCALE: 1"= 5'



SWAN FALLS PARK DOCK SECTION

SCALE: 1"= 5'



TYPICAL DECK SECTION

SCALE: 1"= 1'

REVISION	
0	12/18/13
	ISSUED FOR CONSTRUCTION

PROFESSIONAL ENGINEER REGISTERED 10805 STATE OF IDAHO CHRISTOPHER C. BOYD 12/18/13

McMILLEN, LLC

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Swan Falls Dam
Recreation Improvement Project
SWAN FALLS PARK DOCK
PLAN AND SECTIONS

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: DEC 2013

DS. CB DR. RW CH. MDW

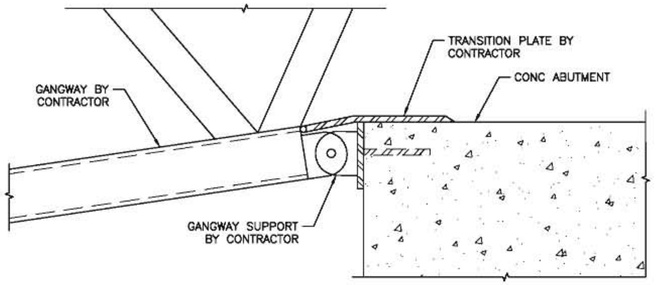
APPROVED

20D-.....

C304

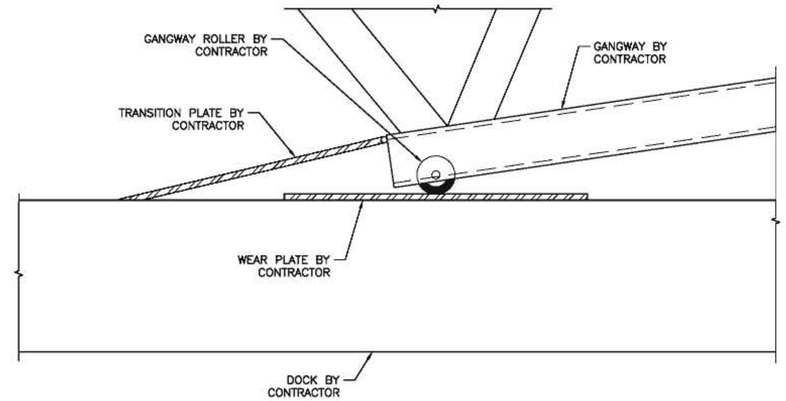
REV.

VAULT NO. D-



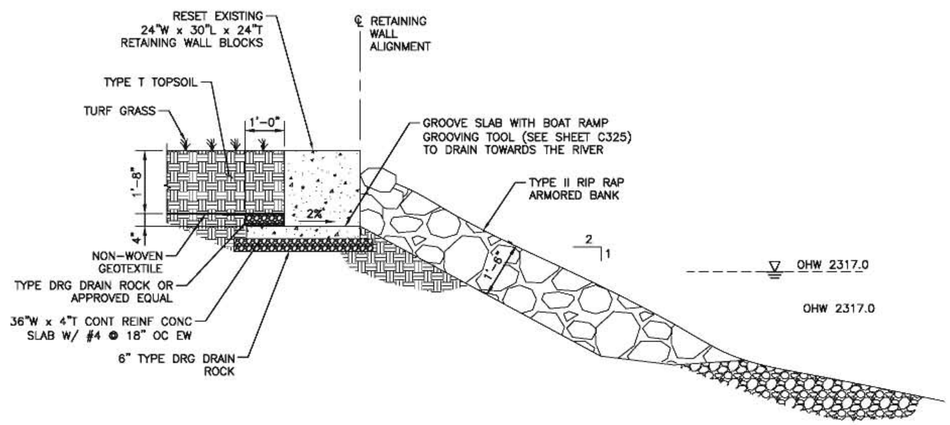
DETAIL 1/C304

SCALE: 1" = 6"



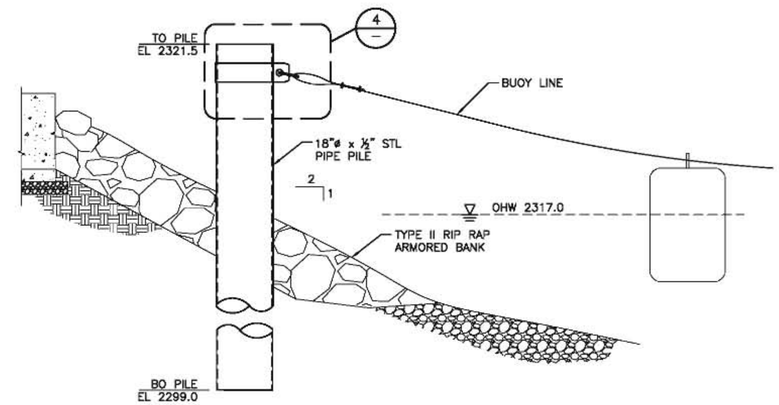
DETAIL 2/C304

SCALE: 1" = 6"



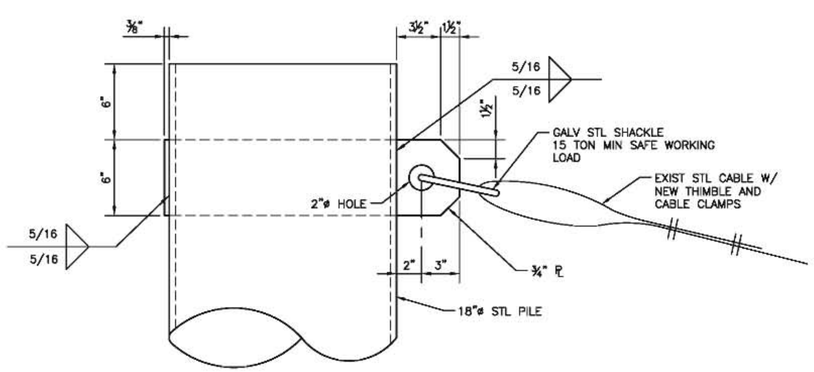
RETAINING WALL TYPICAL SECTION A/C303

SCALE: 1" = 2'



BUOY LINE ANCHOR 3/C303

SCALE: 1" = 2'



DETAIL 4/–

SCALE: 1" = 6"

REVISION	
0	12/18/13 ISSUED FOR CONSTRUCTION

PROFESSIONAL ENGINEER REGISTERED 10805 STATE OF IDAHO CHRISTOPHER C. BOYD 12/18/13

MCMILLEN, LLC
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Swan Falls Dam
Recreation Improvement Project
SWAN FALLS PARK DOCK AND RETAINING WALL SECTIONS AND DETAILS

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: DEC 2013

DS. CR DR. RW CH. CB APPROVED

20D-.....

C305

VAULT NO. D-

SHEET NOTES

1. CONCRETE PAVEMENT C903
2. CONCRETE WHEEL STOP C904
3. HANDICAP STALL STRIPING C905
4. NEW CXT VAULT RESTROOM (OWNER PURCHASED/CONTRACTOR INSTALLED)
5. PROPOSED BOULDERS, MIN 2' LENGTH AND 2' HEIGHT (ABOVE ADJACENT GR). MATCH TYPE TO ROCK ON SITE.
6. RETAINING WALL C111
7. DECOMPOSED GRANITE SEE KEYNOTE 3 ON LANDSCAPE PLANS
8. TREAT GRAVEL SURFACE WITH DUST ABATEMENT
9. PAINT 4" WHITE STRIPES FOR STALLS
10. DUMPSTER LOCATION (DUMPSTER PROVIDED BY OTHERS)
11. GRAVEL SECTION C104

GENERAL NOTES:

1. SEE SHEET C321 FOR NORTHING, EASTING AND ELEVATION OF SITE LAYOUT POINTS
2. SEE SHEET L201–L206 FOR PROPOSED ROAD REVEGETATION AND NEW FENCING.

LEGEND

- P/L — PROPERTY LINE
- CUT LINE
- FILL LINE
- PROPOSED EDGE OF ROAD
- EXISTING EDGE OF ROAD
- X — CAMPSITE NUMBER
- ARS GRAVEL HATCH
- DECOMPOSED GRANITE HATCH

REVISION		
0	12/18/13	ISSUED FOR CONSTRUCTION

PROFESSIONAL ENGINEER REGISTERED 12599 STATE OF IDAHO DOMINIC M. BROWN
12/13/13

SWAN FALLS RESERVOIR BOAT RAMP

SCALE: 1" = 20'

0" 20' 40'

18 C001

MSA Murray, Smith & Associates, Inc. Engineers/Planners
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Swan Falls Dam
Recreation Improvement Project
SWAN FALLS RESERVOIR
BOAT RAMP LAYOUT

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: 1' = 20' DATE: DEC 2013

DS. DMB DR. JLP CH. DG REV.

APPROVED

20D–.....

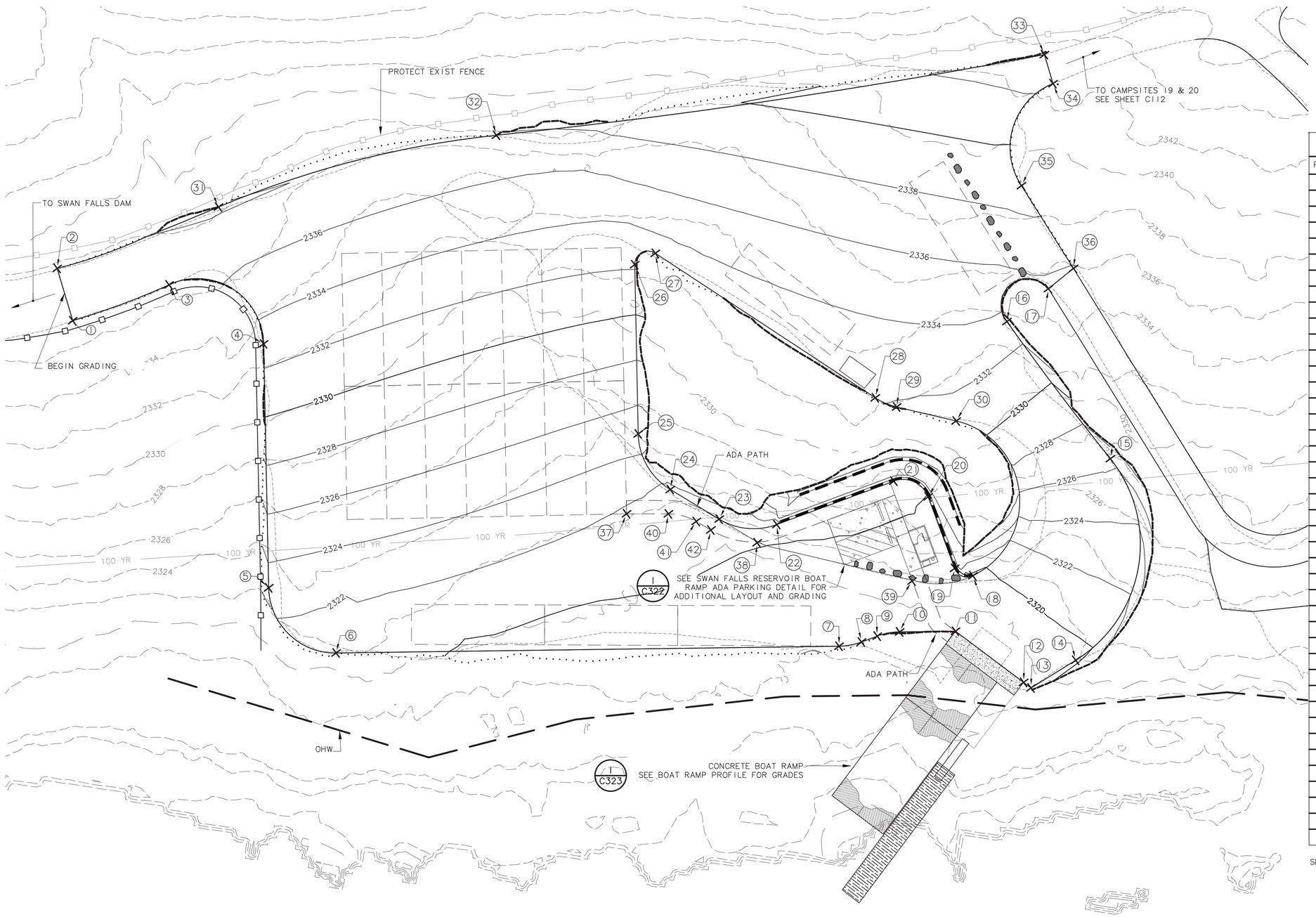
C320

VAULT NO. D–

GENERAL GRADING NOTES:

1. CONTRACTOR SHALL REMOVE TOP 6" OF LOOSE MATERIAL OR AS NECESSARY TO REACH COMPETENT FIRM SUBGRADE. SCARIFY TOP 12" OF SUBGRADE MATERIAL AND COMPACT AS SPECIFIED.
2. CONTRACTOR SHALL VEGETATE ALL CUTS, FILLS AND DISTURBED AREAS ALONG PROPOSED ROADWAYS. SEE SPECIFICATIONS FOR SEED MIX REQUIREMENTS.
3. SEE SHEETS L201–L206 FOR ANY PROPOSED ROAD VEGETATION, NEW FENCING OR BOULDER PLACEMENT.
4. ALL CUT SLOPES SHALL BE 2:1 MAX SLOPE. ALL FILL SLOPES SHALL BE 3:1 MAX SLOPE

REVISION	
0	12/18/13
ISSUED FOR CONSTRUCTION	



Point Table

Point #	Elevation	Northing	Easting
1	2337.12	779602.32	1407411.50
2	2337.40	779610.95	1407430.07
3	2337.06	779568.48	1407430.07
4	2333.00	779530.10	1407413.32
5	2322.97	779514.90	1407322.94
6	2321.38	779486.27	1407302.40
7	2318.41	779299.69	1407332.40
8	2318.63	779291.61	1407335.18
9	2318.77	779286.07	1407338.23
10	2319.05	779277.99	1407341.00
11	2318.72	779257.25	1407344.34
12	2318.72	779229.14	1407329.05
13	2318.72	779226.08	1407327.38
14	2319.34	779210.96	1407340.10
15	2326.53	779209.11	1407416.91
16	2333.08	779255.03	1407462.24
17	2335.53	779241.40	1407476.73
18	2319.52	779253.81	1407365.88
19	2319.23	779260.98	1407367.63
20	2319.99	779274.75	1407392.77
21	2320.27	779288.32	1407396.74
22	2320.24	779329.49	1407374.20
23	2320.66	779351.19	1407373.09
24	2321.60	779370.99	1407381.42
25	2324.89	779385.95	1407400.31
26	2332.20	779396.49	1407463.01
27	2332.95	779389.46	1407468.37
28	2332.46	779299.79	1407426.69
29	2331.65	779291.37	1407424.45
30	2331.25	779268.46	1407422.51
31	2338.21	779554.33	1407461.71
32	2337.40	779454.96	1407503.56
33	2343.24	779255.68	1407563.49
34	2342.54	779250.92	1407553.16
35	2339.02	779257.06	1407513.53
36	2335.75	779233.19	1407485.61
37	2321.67	779385.91	1407369.99
38	2320.06	779335.77	1407366.37
39	2319.39	779276.13	1407360.59
40	2321.24	779370.38	1407372.28
41	2320.84	779359.60	1407370.97
42	2320.57	779353.70	1407368.59

SEE SHEET C320 FOR ADDITIONAL LAYOUT

PROFESSIONAL ENGINEER REGISTERED 12599 STATE OF IDAHO DOMINIC M. BROWN
12/13/13

SWAN FALLS RESERVOIR GRADING

18 C001

SCALE: 1" = 20'

0' 20' 40'

MSA Murray, Smith & Associates, Inc. Engineers/Planners
1649 W. Shoreline Dr., Suite 200 Boise, Idaho 83702-6701
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McMILLEN, LLC
1401 SHORELINE DR. BOISE, ID 83702
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Swan Falls Dam
Recreation Improvement Project
SWAN FALLS RESERVOIR BOAT RAMP GRADING

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: 1" = 20' DATE: DEC 2013

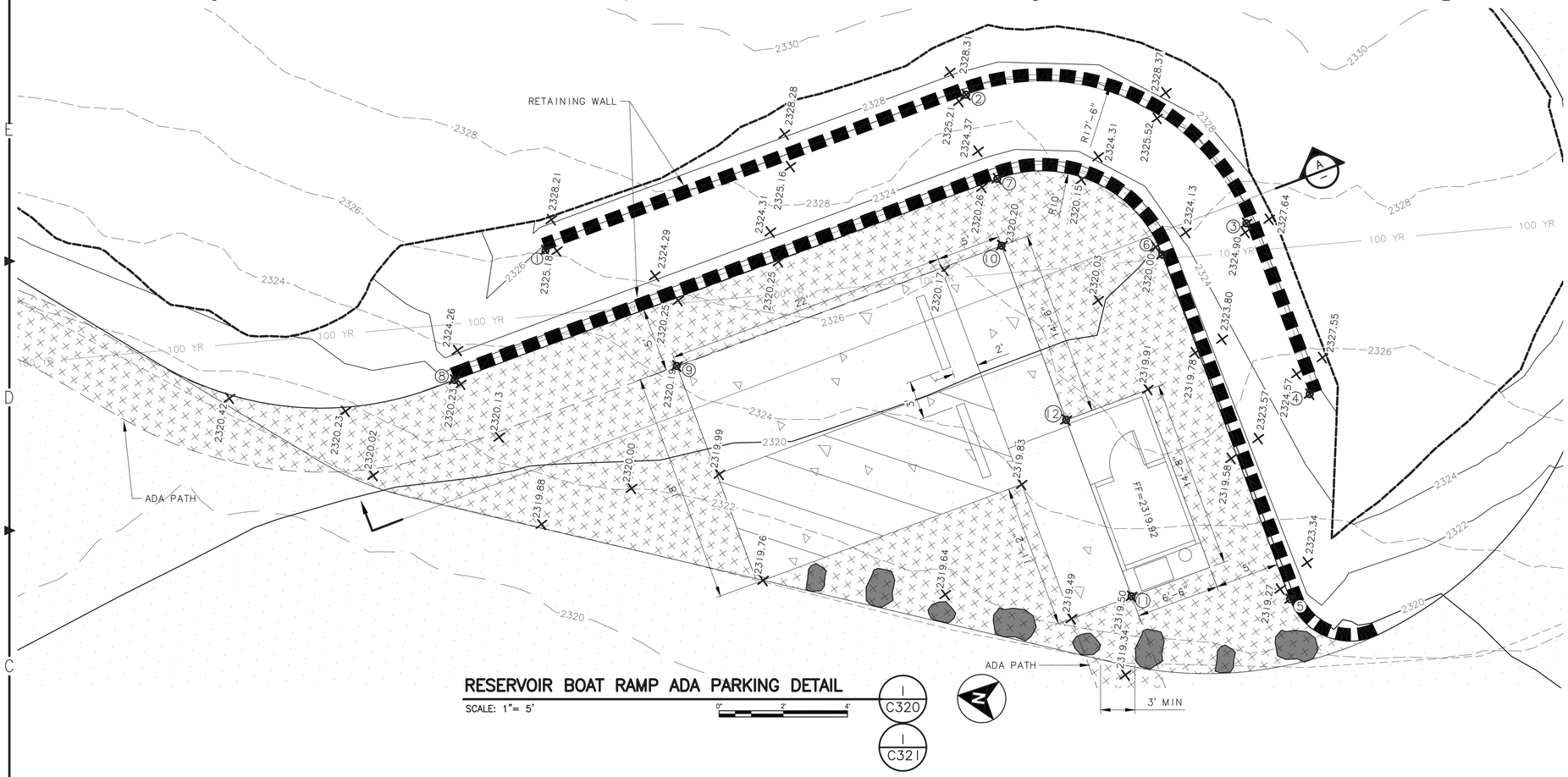
DS. DMB DR. JLP CH. DG REV.

APPROVED

20D–.....

C321

VAULT NO. D–



RESERVOIR BOAT RAMP ADA PARKING DETAIL

SCALE: 1"= 5'

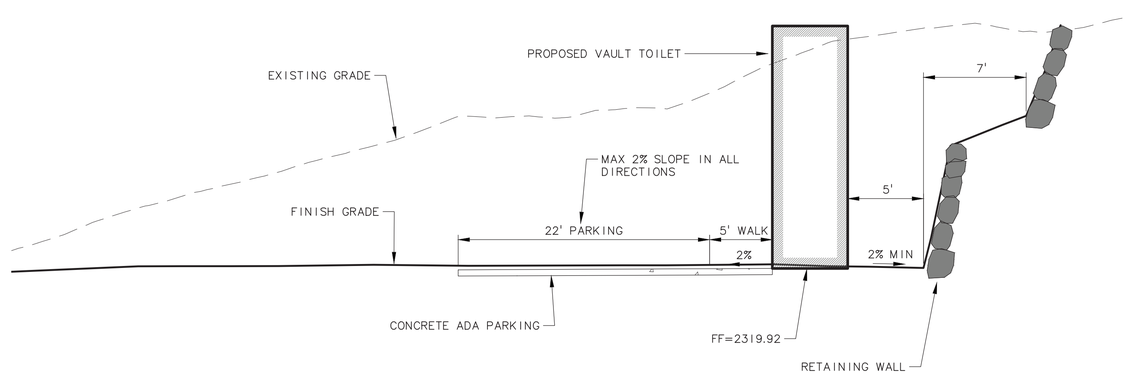
0" 2' 4'

◯ Coordinate Table

Point #	Northing	Easting
1	779322.35	1407386.09
2	779291.68	1407402.88
3	779268.61	1407396.13
4	779261.79	1407383.68
5	779260.98	1407367.63
6	779274.75	1407392.77
7	779288.32	1407396.74
8	779327.90	1407375.07
9	779310.92	1407378.67
10	779287.24	1407391.63
11	779273.24	1407366.06
12	779280.28	1407378.92

REVISION

0	12/18/13	ISSUED FOR CONSTRUCTION



SECTION

A

SCALE: 1" = 5' H
1" = 2' V

0" 2' 4'

PROFESSIONAL ENGINEER REGISTERED 12599 STATE OF IDAHO DOMINIC M. BROWN
12/13/13

Murray, Smith & Associates, Inc. Engineers/Planners
1649 W. Shoreline Dr., Suite 200 Boise, Idaho 83702-6701
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1401 SHORELINE DR. BOISE, ID 83702
OFFICE: 208.342.4214 FAX: 208.342.4216

Swan Falls Dam
Recreation Improvement Project
RESERVOIR BOAT RAMP ADA PARKING DETAIL

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: 1' = 5' DATE: DEC 2013

DS. DMB
DR. JLP
CH. DG
REV.

APPROVED

20D-.....

C322

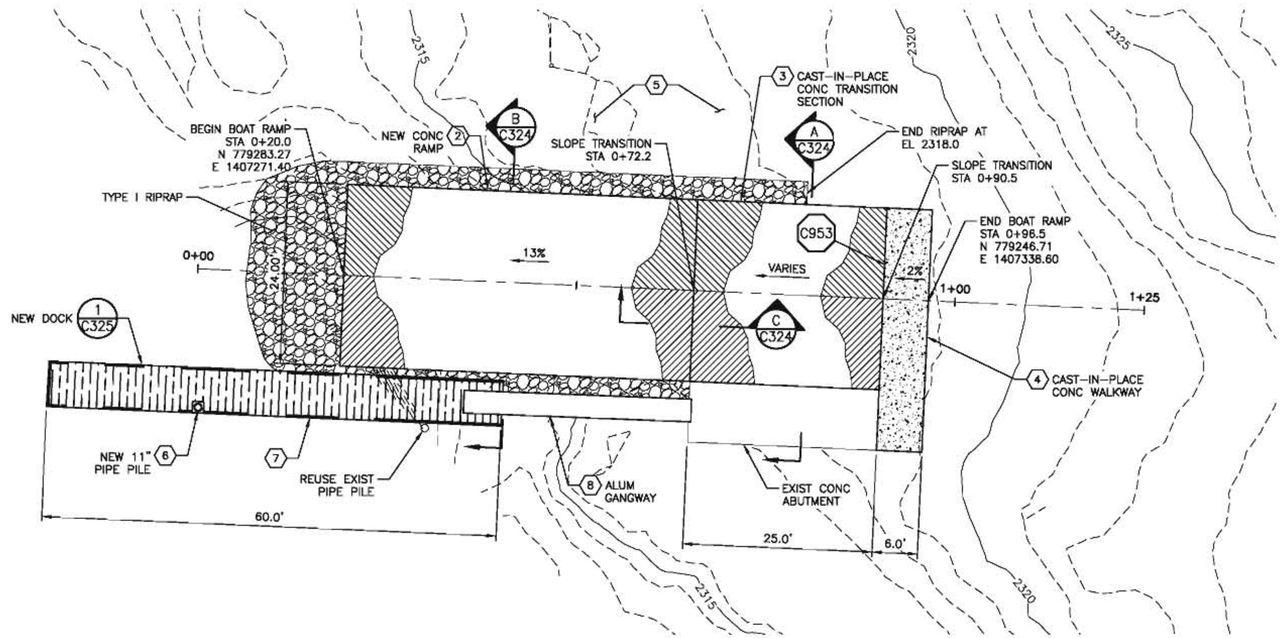
VAULT NO. D-

SHEET NOTES:

1. OWNER SHALL PROVIDE A TOOL FOR GROOVING AND FINISHING RAMP SURFACE.

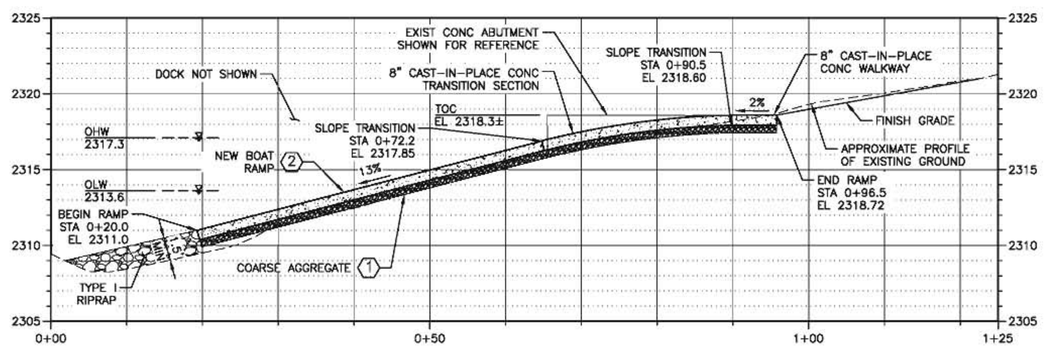
SHEET KEY NOTES:

1. PROVIDE A MINIMUM OF 6" OF TYPE DRC DRAIN ROCK.
2. CONSTRUCT NEW 24'x54' REINFORCED CONCRETE BOAT RAMP (SEE SHEET C324) ABOVE WATER LINE THEN PUSH INTO PLACE.
3. CONSTRUCT NEW 24' WIDE CAST-IN-PLACE CONCRETE TRANSITION SECTION, SEE SHEET C324.
4. CONSTRUCT NEW 6' WIDE CAST-IN-PLACE CONCRETE ACCESS WALKWAY.
5. REGRADE AND PLACE TYPE I RIPRAP ADJACENT TO BOAT RAMP.
6. INSTALL NEW 11" PIPE PILE. MATCH THE EXISTING PIPE PILE. LOCATE 10' FROM DOCK END.
7. INSTALL NEW 60' LONG DOCK. SEE SHEET C325.
8. INSTALL NEW 30' LONG ALUM GANGWAY WITH 36" MIN INSIDE WIDTH. SEE SHEET C325.



BOAT RAMP PLAN

SCALE: 1"= 10'



BOAT RAMP PROFILE

SCALE: 1" = 10' H

1" = 5' V

PROFESSIONAL ENGINEER REGISTERED 10805 12/18/13 STATE OF IDAHO CHRISTOPHER C. BOYD

MCMILLEN, LLC

1401 SHORELINE DR.
BOISE, ID 83702

OFFICE: 208.342.4214
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REVISION	
0	12/18/13 ISSUED FOR CONSTRUCTION

Swan Falls Dam
Recreation Improvement Project
SWAN FALLS RESERVOIR BOAT RAMP PLAN AND PLOT

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: DEC 2013

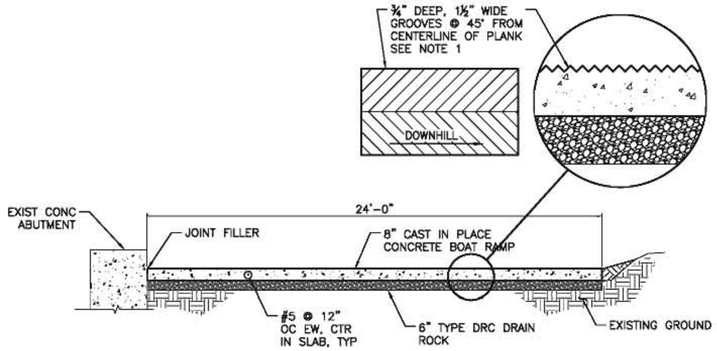
DS. CR DR. RW CH. CB REV.

APPROVED

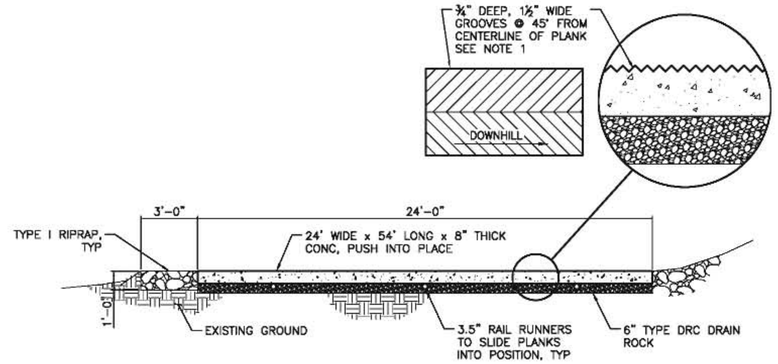
20D-.....

C323

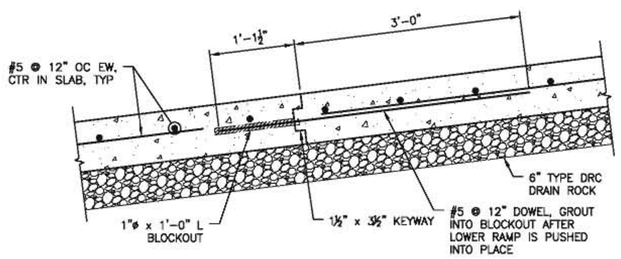
VAULT NO. D-



SECTION
SCALE: 1"= 4'
0" 4' 8'
A C323



SECTION
SCALE: 1"= 4'
0" 4' 8'
B C323



SECTION
SCALE: 1"= 1'-0"
0" 1' 2'
C C323

SHEET NOTES:

1. OWNER WILL PROVIDE A TOOL FOR GROOVING AND FINISHING RAMP SURFACE.

REVISION	
0	12/18/13 ISSUED FOR CONSTRUCTION

PROFESSIONAL ENGINEER REGISTERED 10805 12/18/13 STATE OF IDAHO CHRISTOPHER C. BOYD

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Swan Falls Dam
Recreation Improvement Project
SWAN FALLS RESERVOIR BOAT RAMP SECTIONS AND DETAILS

IDAHO POWER COMPANY BOISE, IDAHO

SCALE: AS NOTED DATE: DEC 2013

DS. CR
DR. RW
CH. CB
REV.
APPROVED
20D-.....
C324

VAULT NO. D-