

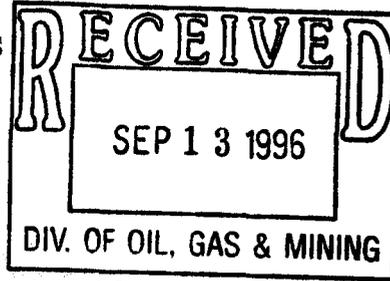
0020



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WATER RIGHTS

Michael O. Leavitt
Governor
Ted Stewart
Executive Director
Robert L. Morgan
State Engineer

1594 West North Temple, Suite 220
Box 146300
Salt Lake City, Utah 84114-6300
801-538-7240
801-538-7467 (Fax)



September 12, 1996

RE: Stream Channel Alteration No. 96-91-11SA
Willow Creek
Cyprus Plateau Mining Corp.

*Route to Aaron /
Steve Johnson
then file ACT/007/038*

Attached is a copy of an application to Alter a Natural Stream No. 96-91-11SA. Your #2
comments are requested so we can evaluate any impacts caused by the project.

We are requesting that all comments be returned to me at our office prior to
October 3, 1996. If we do not receive comments by that date, we will assume you
have no input on the proposal outlined in the application.

If you have any questions or comments, feel free to contact Greg Mladenka at
538-7375.

Sincerely,

Judy Mattson
for Greg Mladenka
Stream Alteration Specialist

GM/jm

- pc: Bob Mairley - EPA
- Mike Schwinn - Corps of Engineers
- Field Supervisor - U. S. Fish & Wildlife
- Mark Page - Regional Engineer
- Bill Bates - Regional Wildlife Habitat Manager
- Bill Bradwisch - Aquatic Habitat Coordinator
- Rick Summers - Department of Environmental Quality, Water Quality Div.
- Karl Kappe - State Lands & Forestry
- Carolyn Wright - State Planning & Coordinator's Office
- Terry Green - State Parks & Recreation
- Jim Dykmann - State Office of Historic Preservation
- W. D. Robinson - Department of Agriculture, Env. Quality Section
- Nancy Barr - Comprehensive Emergency Management
- Division of Oil, Gas, & Mining



Alternatives (other ways to accomplish the project purpose):

MANUAL MONITORING OF LOW FLOWS BY CURRENT METER IS NOT PRACTICAL. WEIRS WILL ALLOW ACCURATE DATA GATHERING.

Names and addresses of adjacent property owners or other individuals who may be affected by this project:

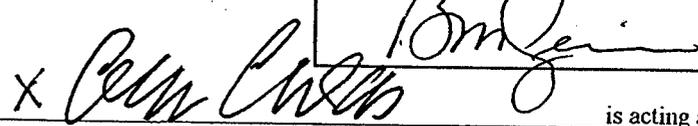
- NONE -

List other authorizations required by Federal, state or local governments (i.e.; National Flood Insurance Program), and the status of those authorizations.

Estimated starting date of project	Estimated completion date
OCT 1996	NOV 1996

(If project has already been partially or totally completed, indicate date of work. Indicate existing work on drawings).

Application is hereby made for a permit or permits to authorize the activities described herein. I certify that I am familiar with the information contained in the application, and that to the best of my knowledge and belief such information is true, complete and accurate. I further certify that I possess the authority to undertake the proposed activities or am acting as the duly authorized agent of the applicant.

Signature of applicant	Date
	8/29/96

I hereby certify that X Paul C. Webb is acting as my agent for this project.

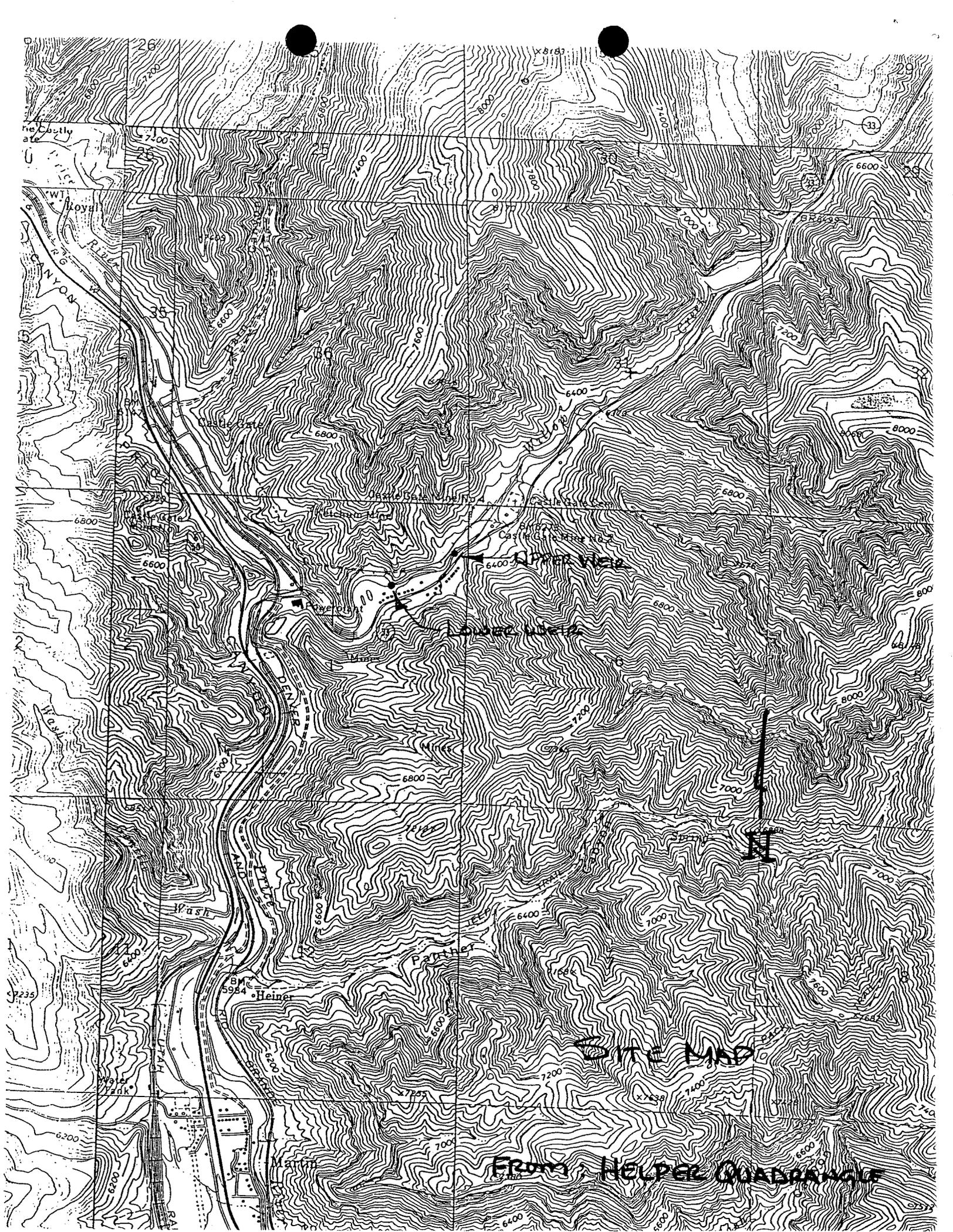
Agent's address and telephone number
PO. DRAWER 7007 PRICE, UT 84501

INSTRUCTIONS

Applications which do not include the following will not be processed.

For a complete application, you **MUST** include the following on 8 1/2 by 11 paper (for large projects, multiple sheets with a key may be used). Clear, hand-drawn plans approximately to scale are acceptable.

1. An accurate location map (USGS quadrangle map preferred)
2. A plan view of the proposed activity (as seen from above) including dimensions of work.
3. A cross-section view of the proposed activity (may use typical cross-section for large projects) including dimensions.
4. For projects which include wetlands, an accurate wetland delineation must be prepared in accordance with the current method required by the Corps.



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Upper View

Lower View



SITE MAP

FROM HELPER QUADRANGLE

WILLOW CREEK WEIR DESIGN

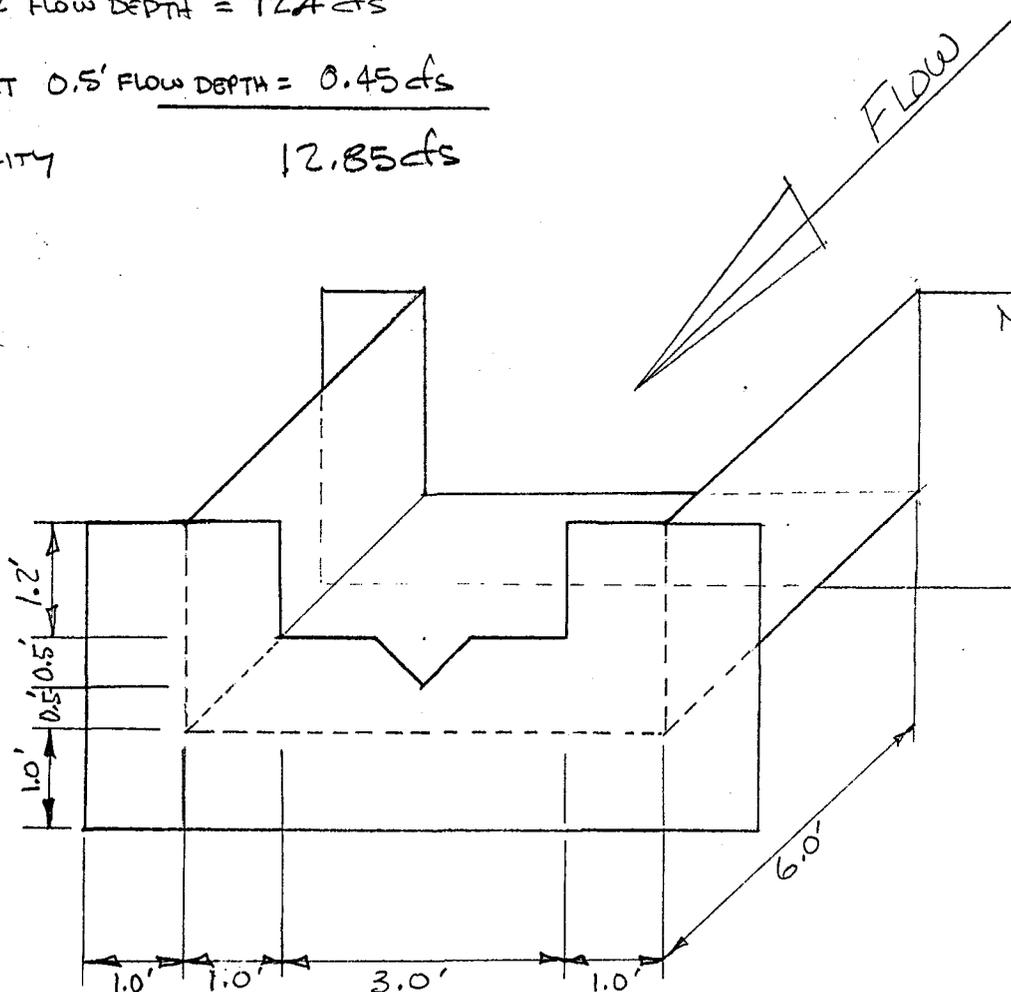
NOT TO SCALE

WEIR CAPACITY

3' WEIR WIDTH AT 1.2' FLOW DEPTH = 124 cfs

90° LOW FLOW NOTCH AT 0.5' FLOW DEPTH = 0.45 cfs

TOTAL WEIR CAPACITY 12.85 cfs



NOTES:

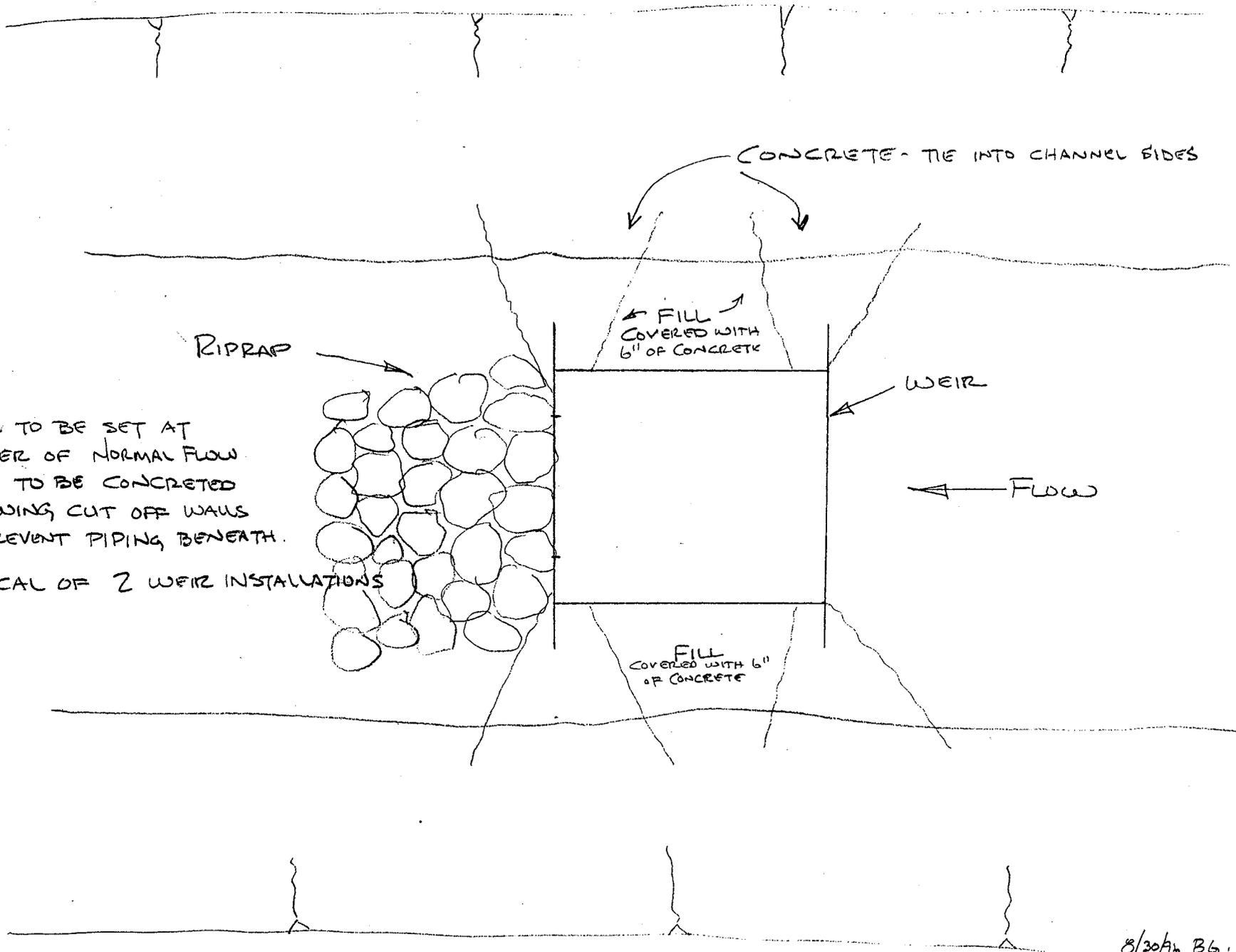
- 1- V NOTCH IS 90°
- 2- WINGS ON NOTCH/WEIR FACE & THROAT EXTEND TO TIE INTO STREAM BOTTOM & SIDES. TO PROVIDE CUT OFF BARRIER
- 3- WINGS SHALL BE CEMENTED INTO CHANNEL SIDES & BOTTOM.
- 4- WEIR TO BE FABRICATED OF 1/8" STEEL PLATE - CONTINUOUS WELDS TO BE WATER TIGHT. PAINT WITH SANDSTONE COLORED PAINT - AFTER PRIMER COAT.

8/29/96
D. GRIMES

PLAN VIEW

WYKINS PLATEAU MINING

WILLOW CREEK WEIRS

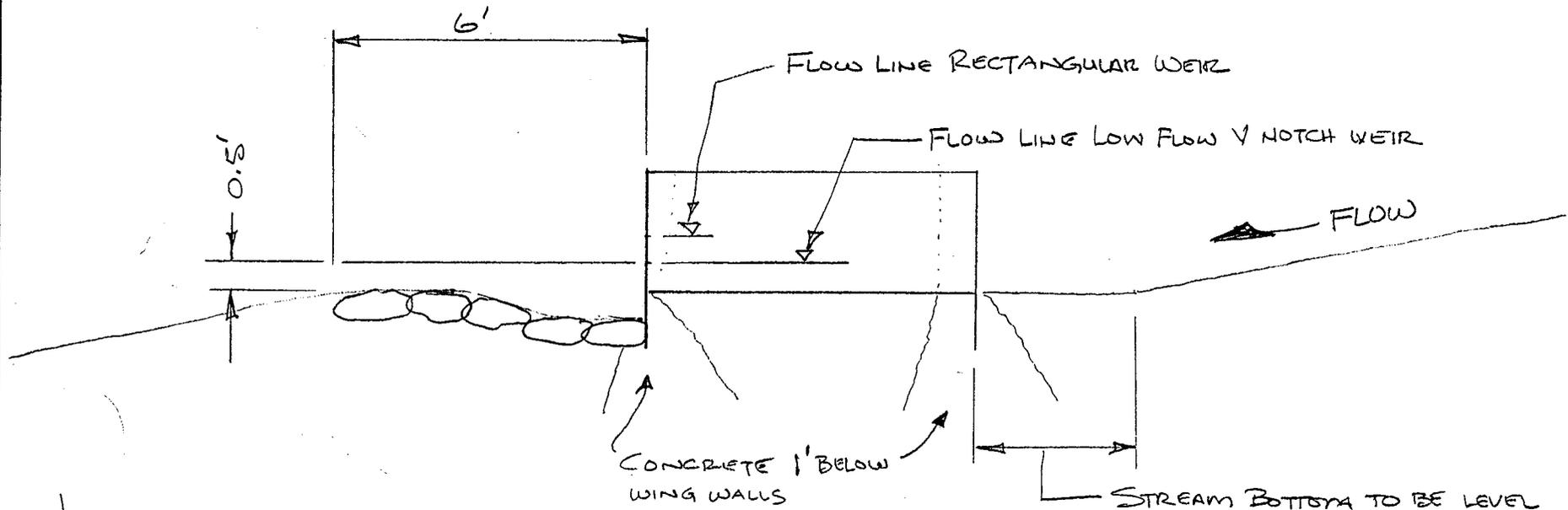


NOTES:

- 1- WEIR TO BE SET AT CENTER OF NORMAL FLOW
- 2- WEIR TO BE CONCRETED AT WING CUT OFF WALLS TO PREVENT PIPING BENEATH.
- 3- TYPICAL OF 2 WEIR INSTALLATIONS

8/30/16 B.G.

CROSS SECTION



NOTES:

- 1- WEIR TO BE INSTALLED ON COMPACTED BASE.
- 2- CONCRETE AT WING WALLS TO BE TIED INTO SOLID NATURAL MATERIAL AT BOTTOM AND SIDES TO PREVENT PILING.
- 3- WEIR TO BE SET LEVEL BOTH DIRECTIONS.

8/30/96 B.G.

