

Draft

Plates

Engineering Summary Appendix

Shasta Lake Water Resources Investigation, California

Prepared by:

**U. S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region**



**U.S. Department of the Interior
Bureau of Reclamation**

June 2013

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Engineering Summary Appendix

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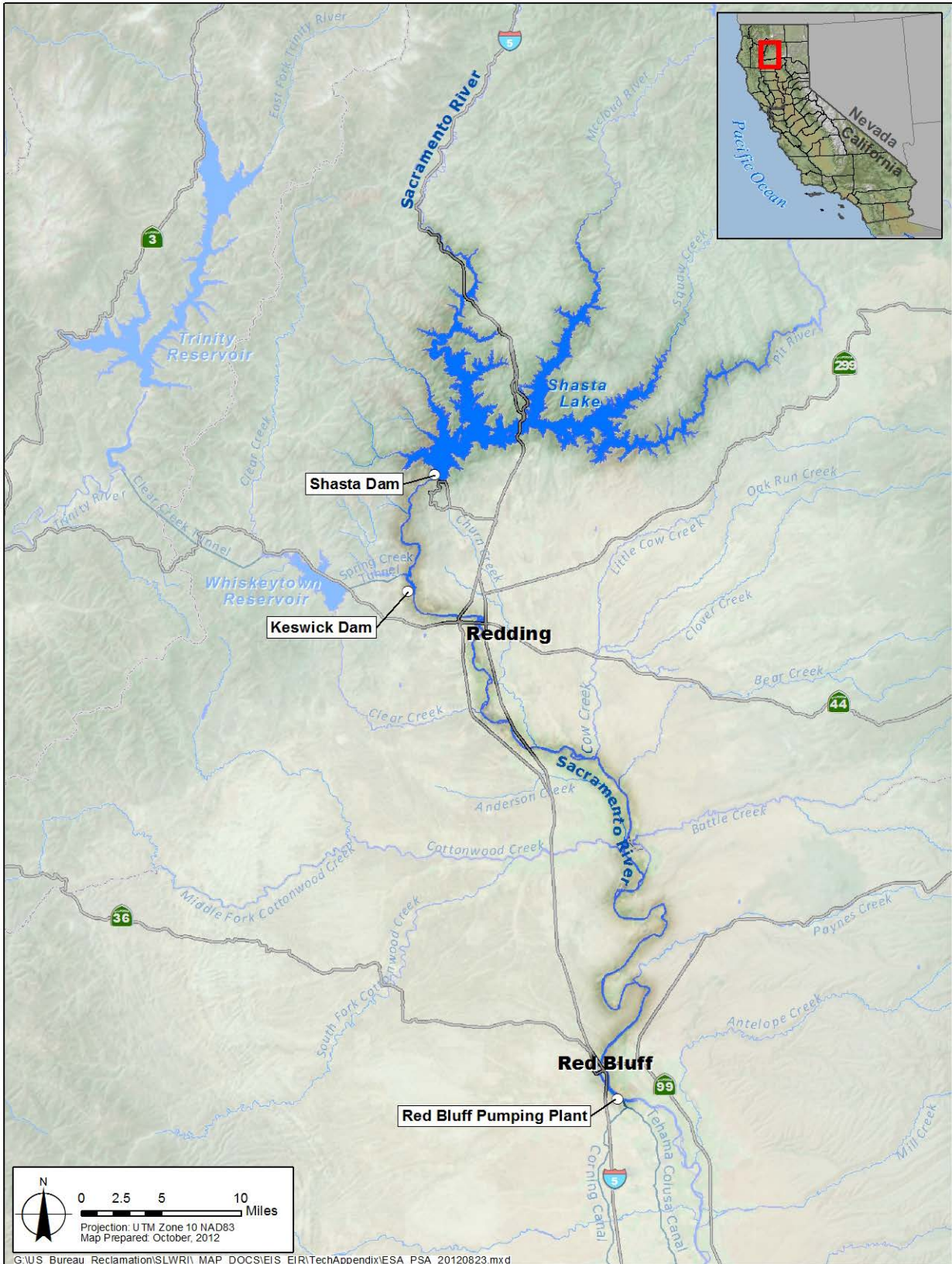


Plate 1. Primary Study Area

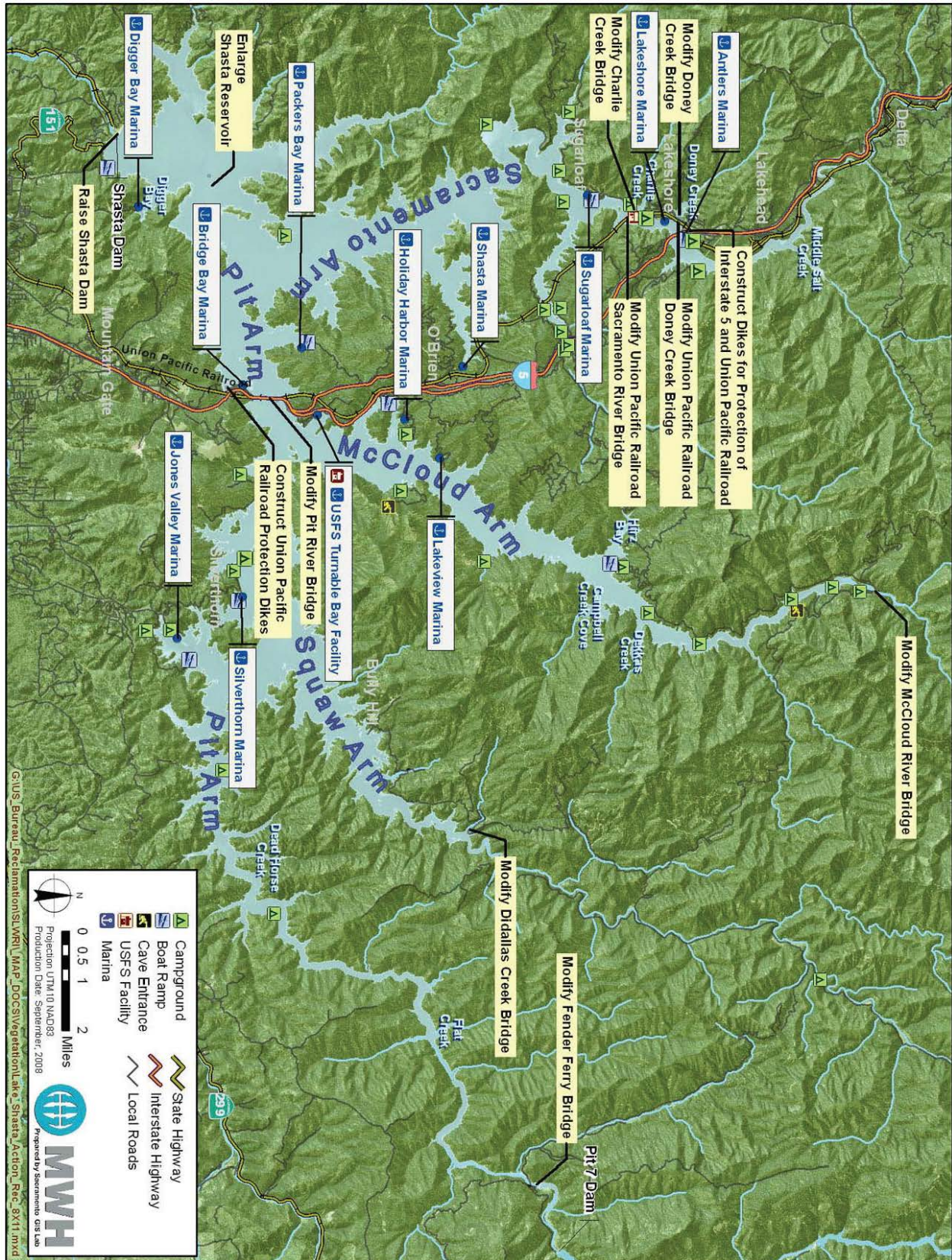
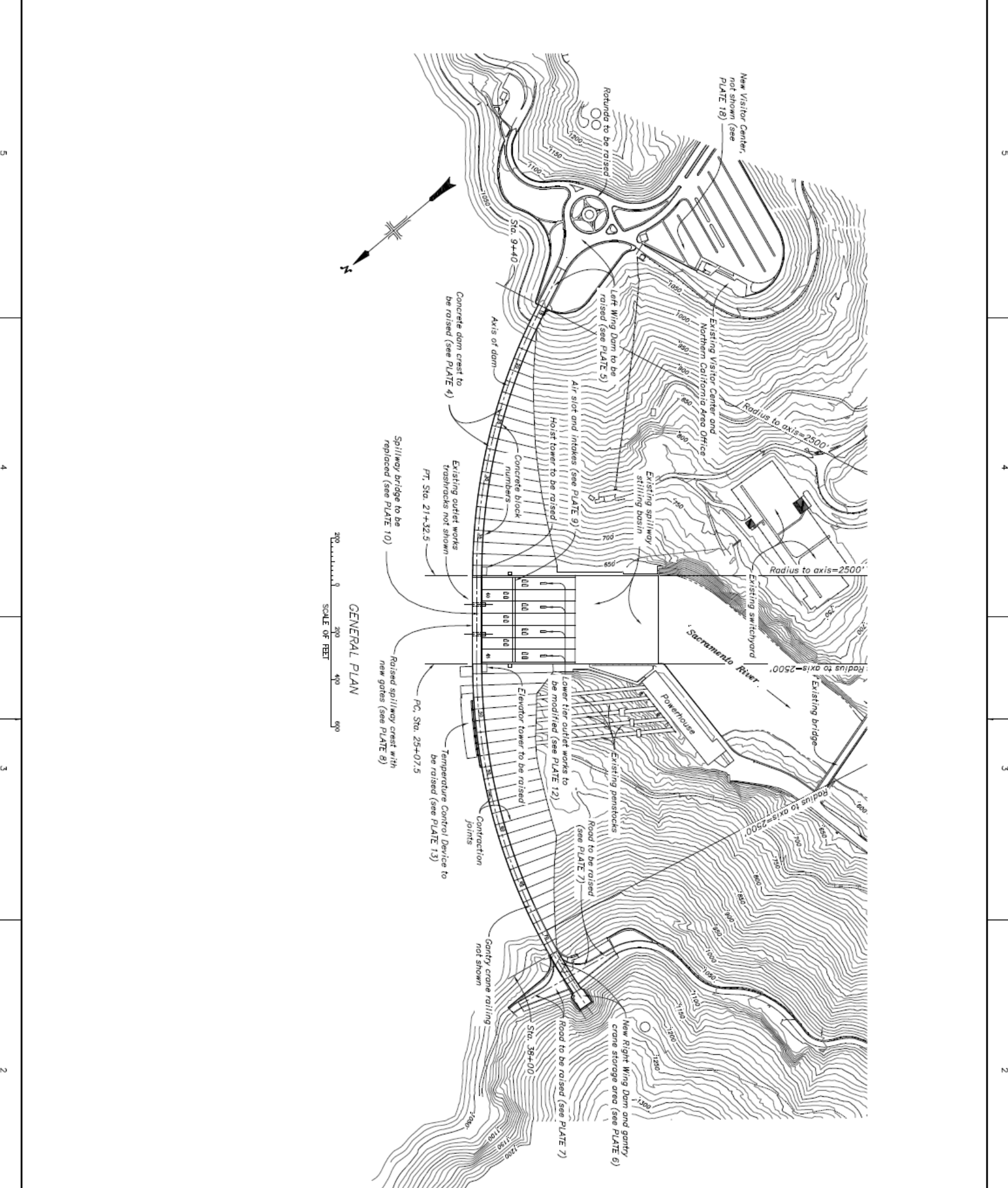


Plate 2. Reservoir Area Map

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PLATE 3.DWG

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GENERAL PLAN
SCALE OF FEET
0 200 400 600

- NOTES
1. NA1028 - North American Vertical Datum of 1988 used in the feasibility design.
 2. NAVD29 - National Geodetic Vertical Datum of 1929. Vertical datum referenced on many existing drawings.
 3. Vertical Datum equated: NA1028 elevation = NAVD29 elevation + 2.024 feet.
 4. Debris boom not shown, see PLATE 17

ALWAYS THINK SAFETY	
U.S. DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION	
CENTRAL VALLEY PROJECT - CALIFORNIA KENNETT DIVISION	
SHASTA DAM FEASIBILITY 18.5 FT. DAM RAISE GENERAL PLAN	
DESIGNED BY J. LABSON	CHECKED BY T. C. GOSWAMI
SHEET 1 OF 1	
PLATE 3	

Plate 3. Dam General Plan

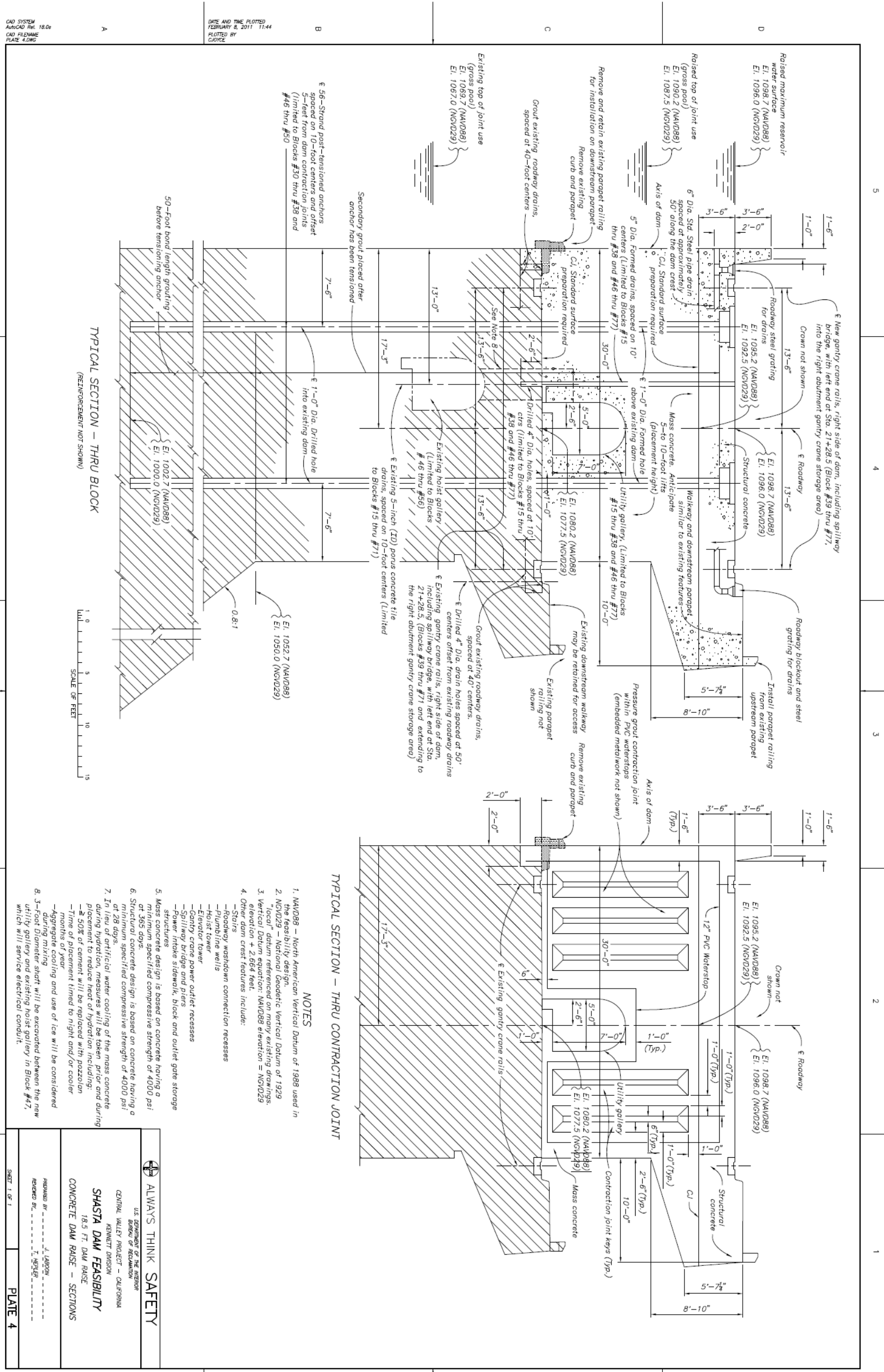


Plate 4. Concrete Dam Raise - Sections

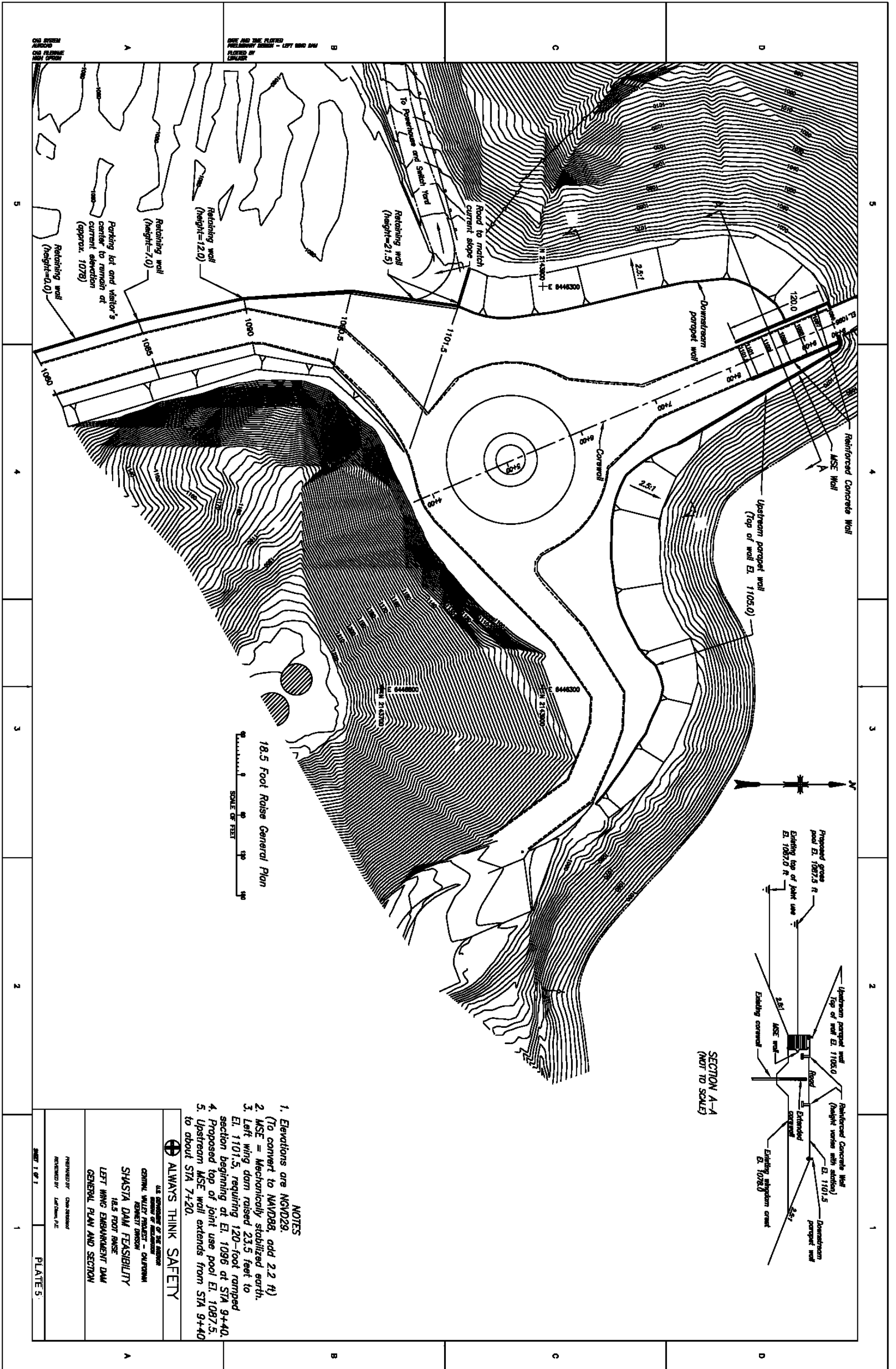
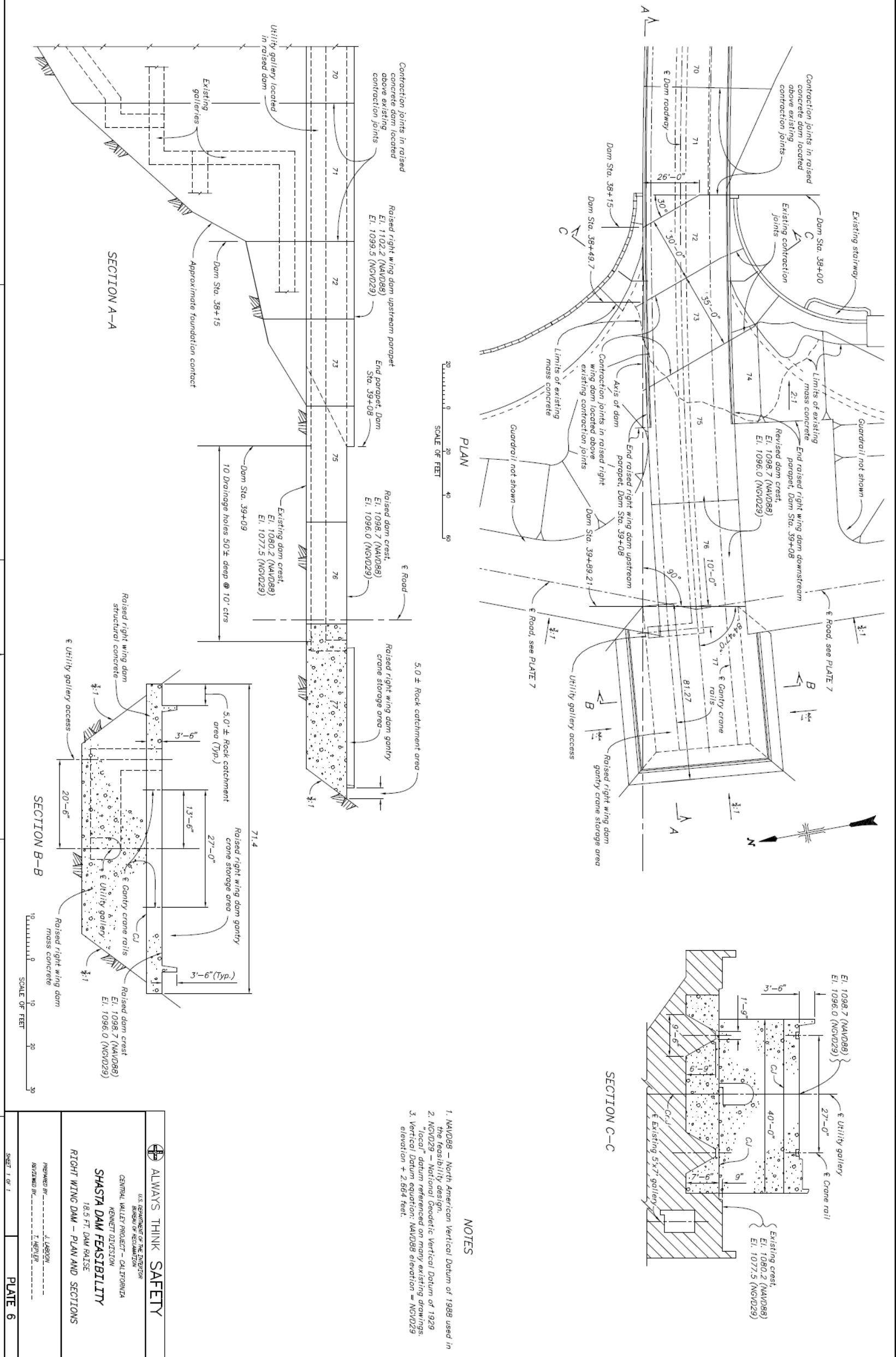


Plate 5. Left Wing Embankment Dam – General Plan and Section

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- NOTES
1. NAVD88 - North American Vertical Datum of 1988 used in the feasibility design.
 2. NGVD29 - National Geodetic Vertical Datum of 1929 "local" datum referenced on many existing drawings.
 3. Vertical Datum equation: NAVD88 elevation = NGVD29 elevation + 2.664 feet.

	ALWAYS THINK SAFETY U.S. DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION CENTRAL VALLEY PROJECT - CALIFORNIA KENNETH DIVISION SHASTA DAM FEASIBILITY 18.5 FT DAM RAISE RIGHT WING DAM - PLAN AND SECTIONS
DESIGNED BY: J. LABDON REVIEWED BY: T. HERBER	SHEET 1 OF 1 PLATE 6

Plate 6. Right Wing Dam - Plan Sections

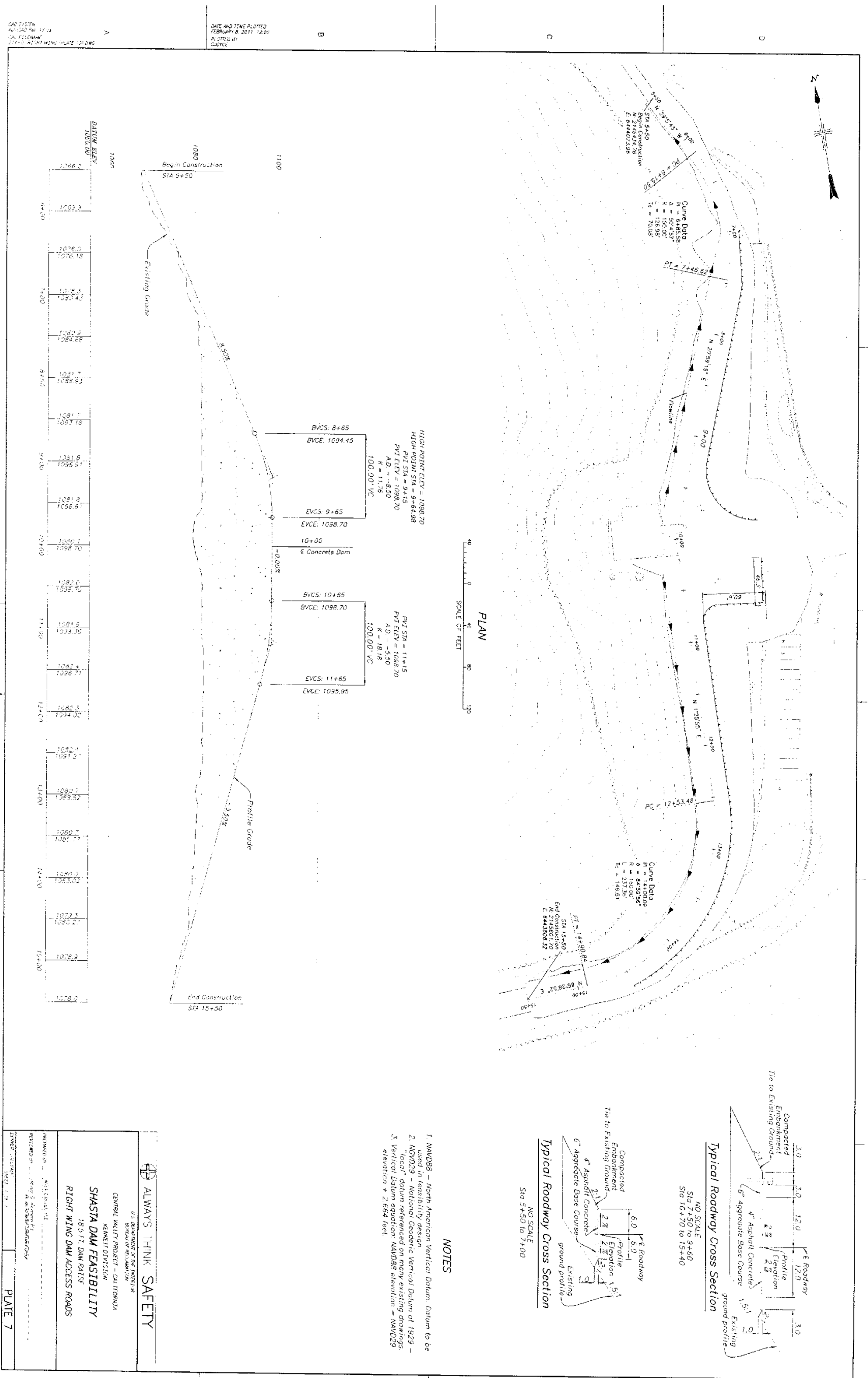


Plate 7. Right Wing Dam Access Roads

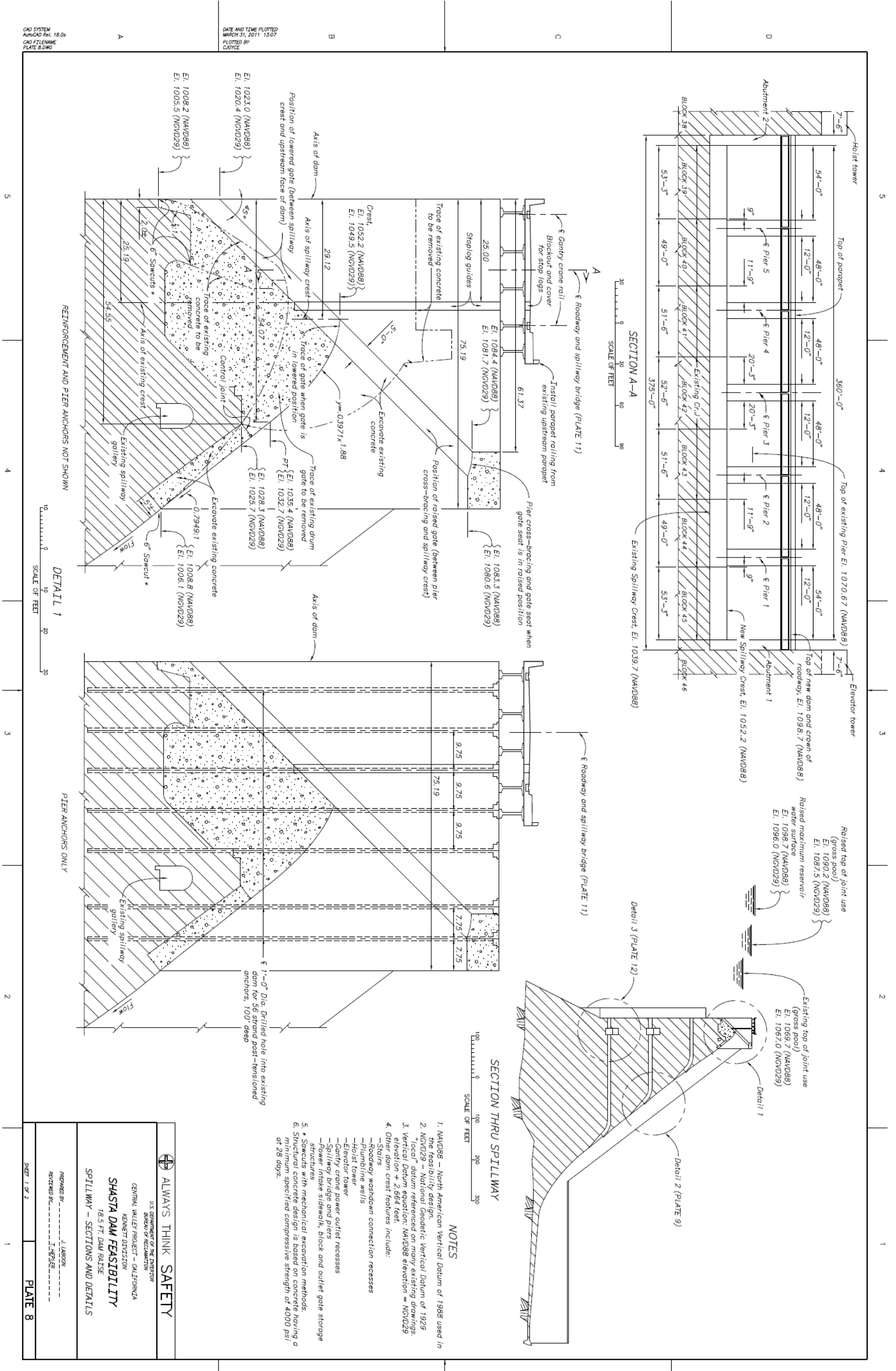


Plate 8. Spillway – Sections and Details, 1 of 2

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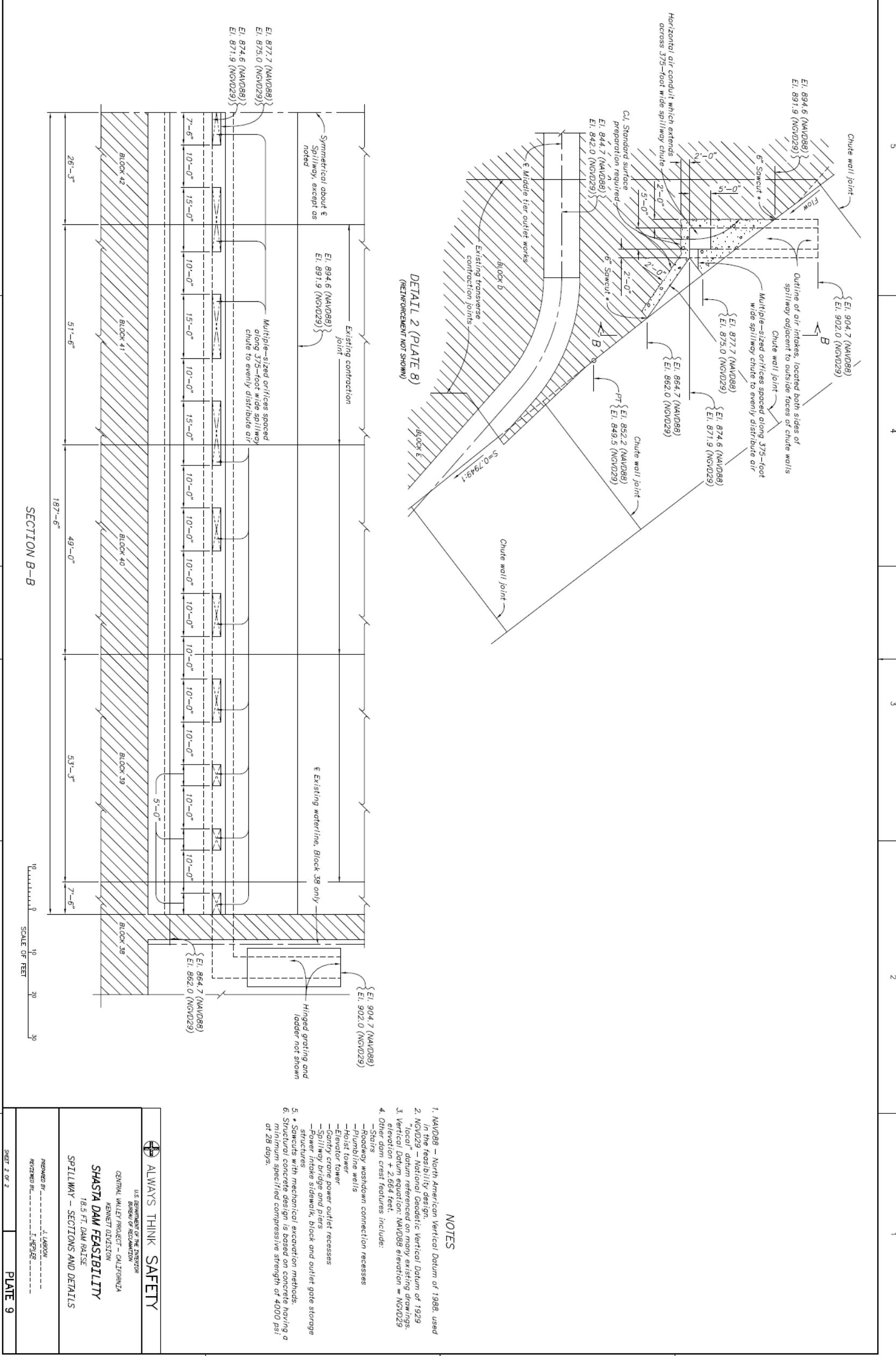


Plate 9. Spillway – Sections and Details, 2 of 2

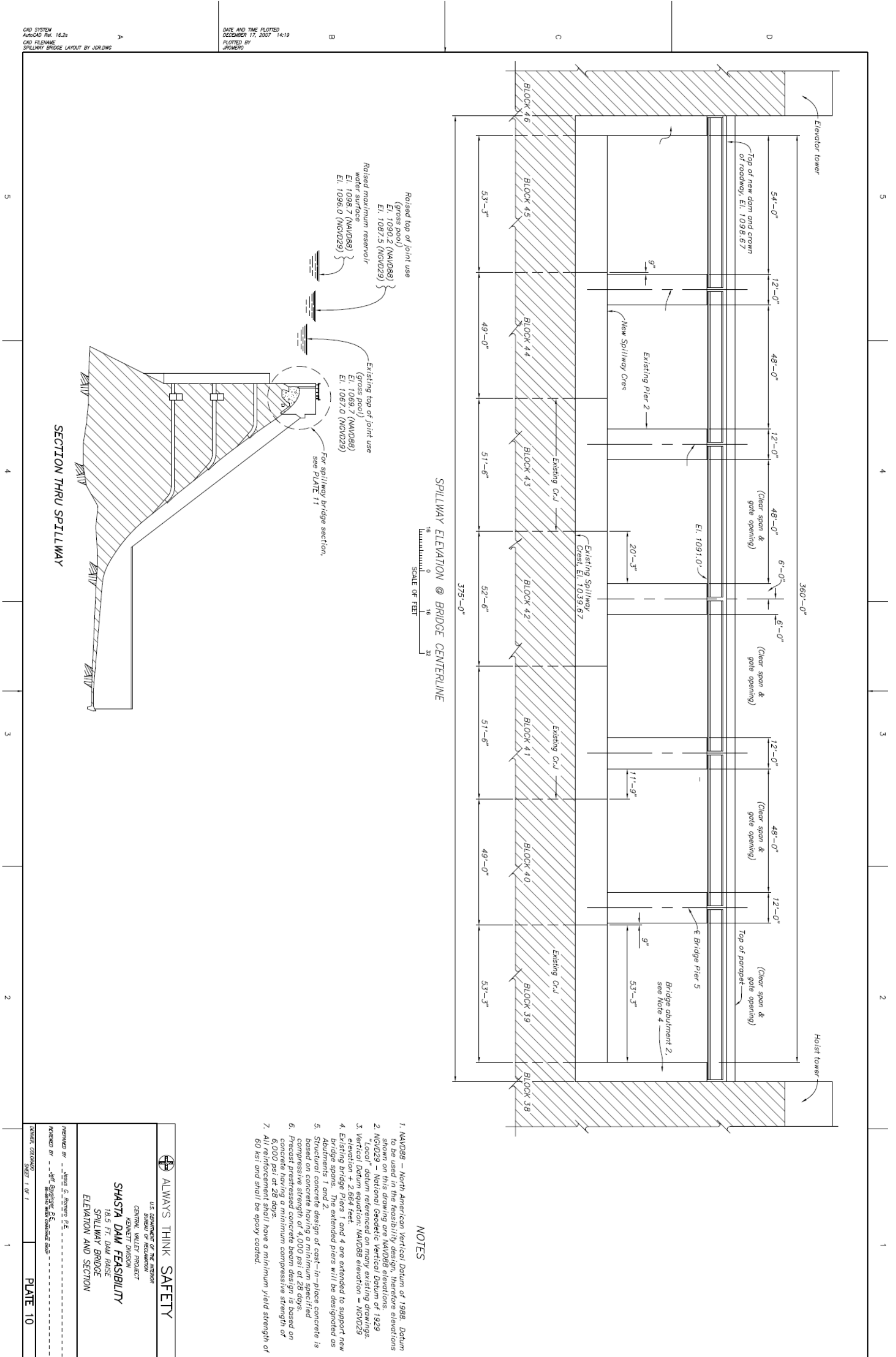


Plate 10. Spillway Bridge – Elevation and Section

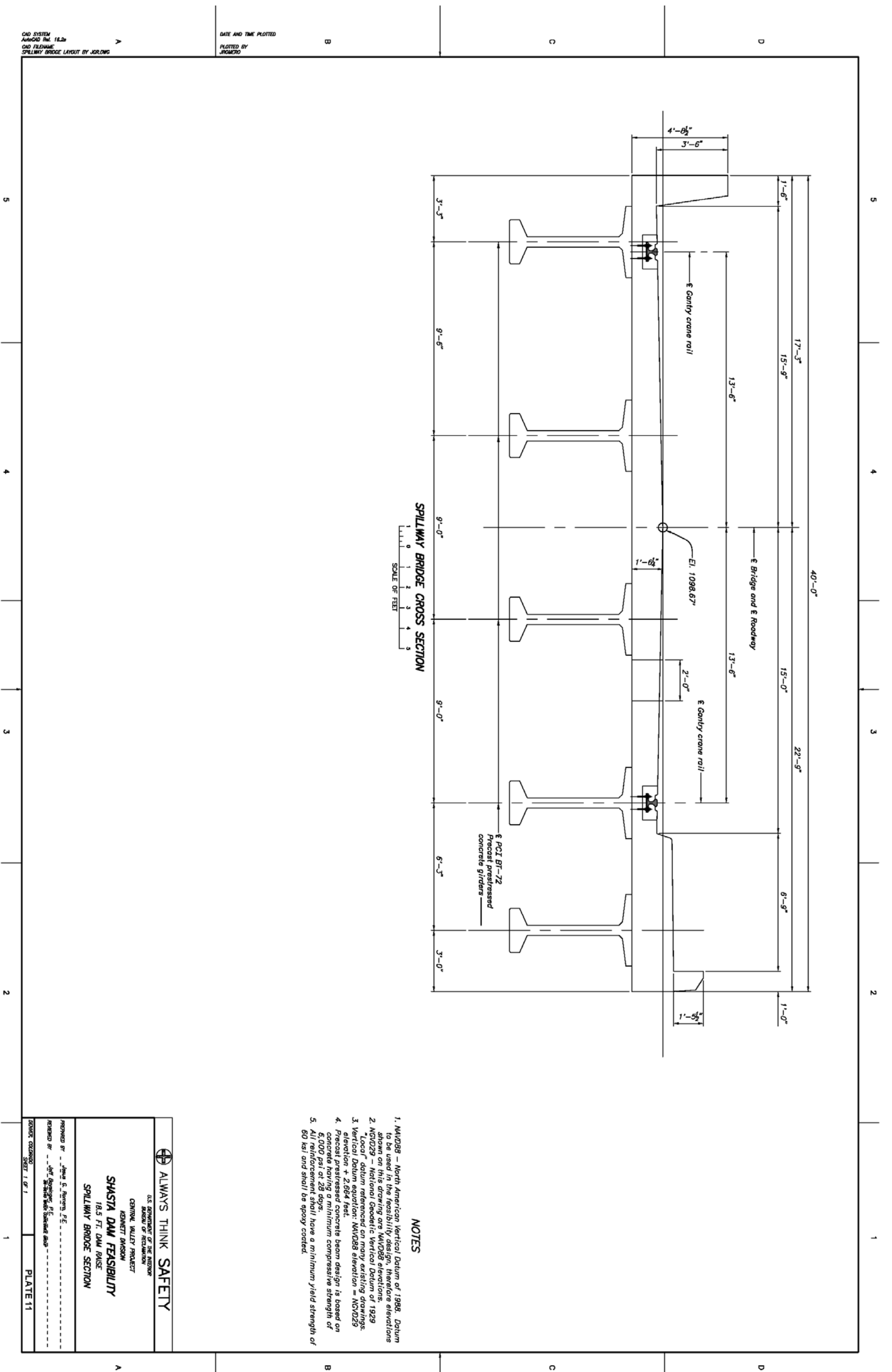
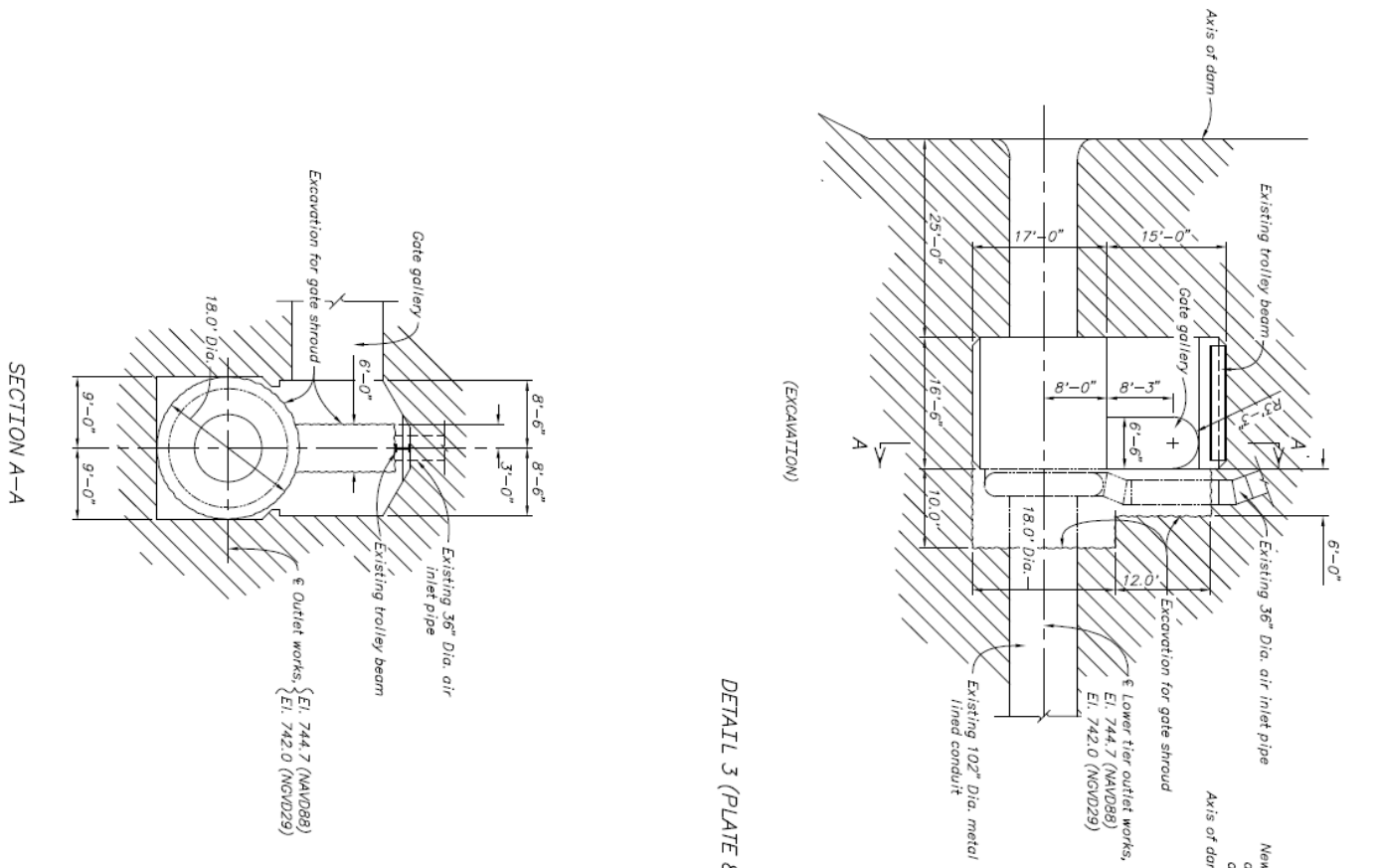


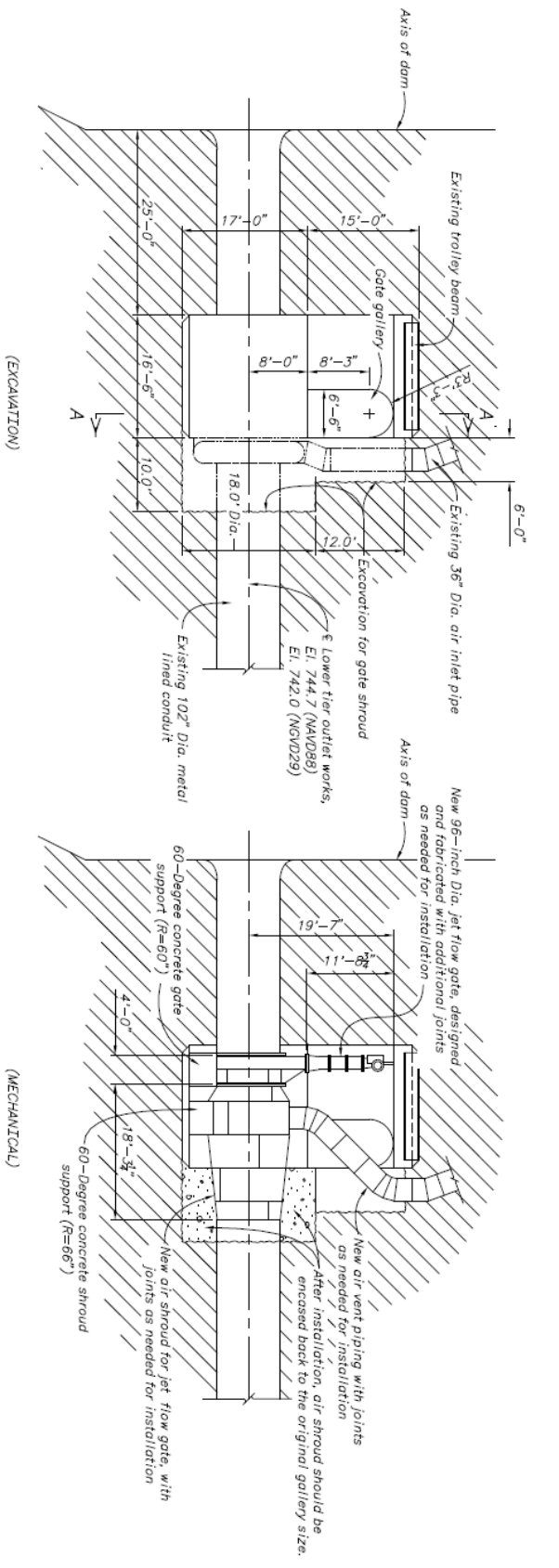
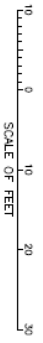
Plate 11. Spillway Bridge – Section

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PLATE 12.DWG

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CJOWCE



SECTION A-A



DETAIL 3 (PLATE 8)

- NOTES
1. NAVD88 - North American Vertical Datum of 1988 used in the feasibility design.
 2. NGVD29 - National Geodetic Vertical Datum of 1929 "local" datum referenced on many existing drawings.
 3. Vertical Datum equation: NAVD88 elevation = NGVD29 elevation + 2.664 feet.
 4. * Sowers with mechanical excavation methods.
 5. Structural concrete design is based on concrete having a minimum specified compressive strength of 4000 psi at 28 days.

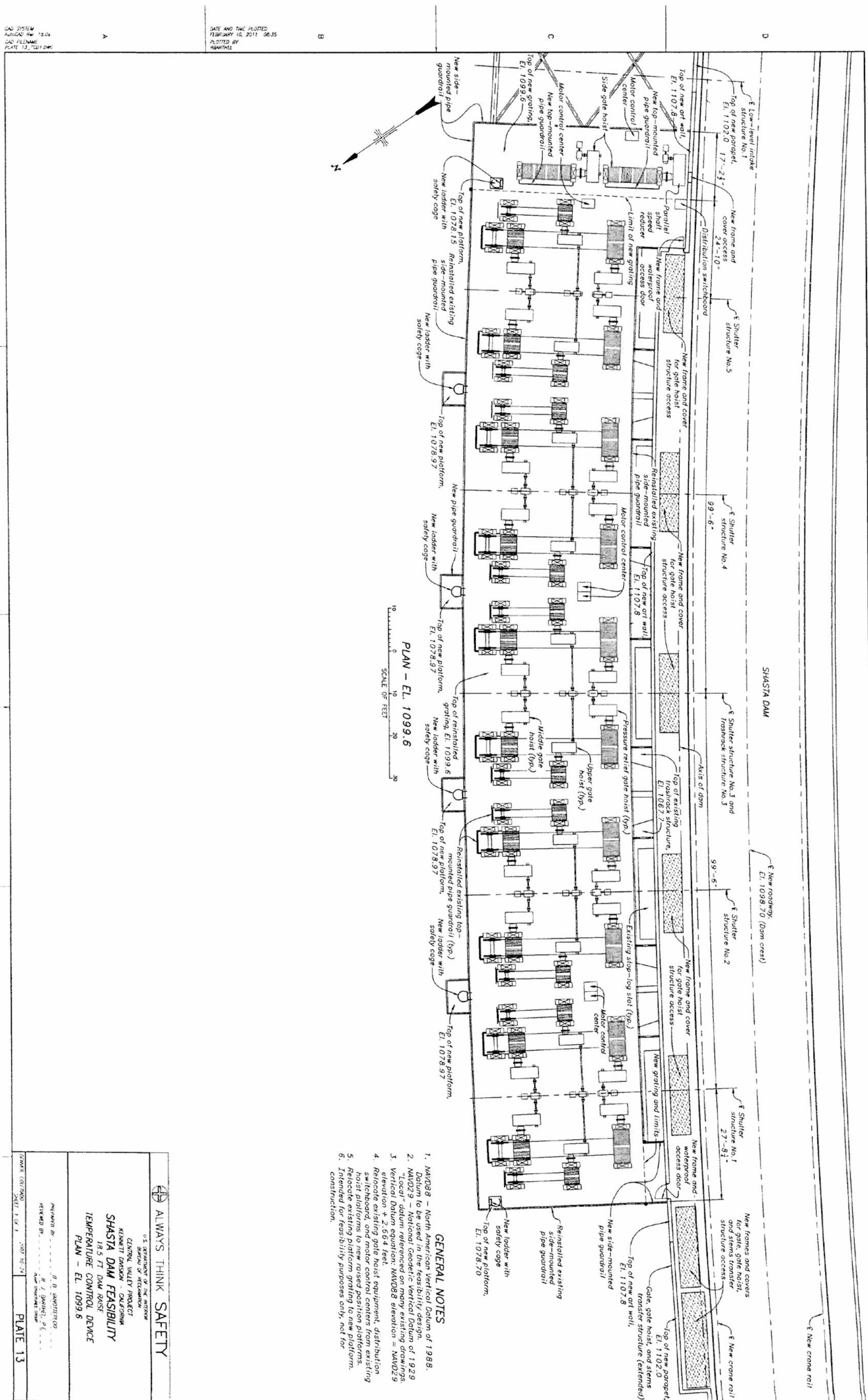
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BUREAU OF RECLAMATION
CENTRAL VALLEY PROJECT - CALIFORNIA
KENNETH DIVISION
SHASTA DAM FEASIBILITY
18.5 FT. DAM RAISE
OUTLET WORKS - SECTION AND DETAIL

DESIGNED BY: J. LABON
CHECKED BY: T. HERLIER
APPROVED BY: _____

SHEET 1 OF 1 **PLATE 12**

Plate 12. Outlet Works – Section and Detail



PLAN - EL. 1099.6
SCALE OF FEET
0 10 20 30

GENERAL NOTES

1. NAVD88 - North American Vertical Datum of 1988. Datum to be used in the feasibility design.
2. NAVD29 - National Ceodetic Vertical Datum of 1929. "Local" datum referenced on many existing drawings. Vertical Datum equation: NAVD88 elevation = NAVD29 elevation + 2.564 feet.
3. Relocate existing gate hoist equipment, distribution switchboard, and motor control centers from existing hoist platforms to new raised position platforms.
4. Relocate existing platform grating to new platform.
5. Intended for feasibility purposes only, not for construction.

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BUREAU OF RECLAMATION
CENTRAL VALLEY PROJECT
KENNETH DAMSON - CALIFORNIA
SHASTA DAM FEASIBILITY
18.5 FT DAM RAISE
TEMPERATURE CONTROL DEVICE
PLAN - EL. 1099.6

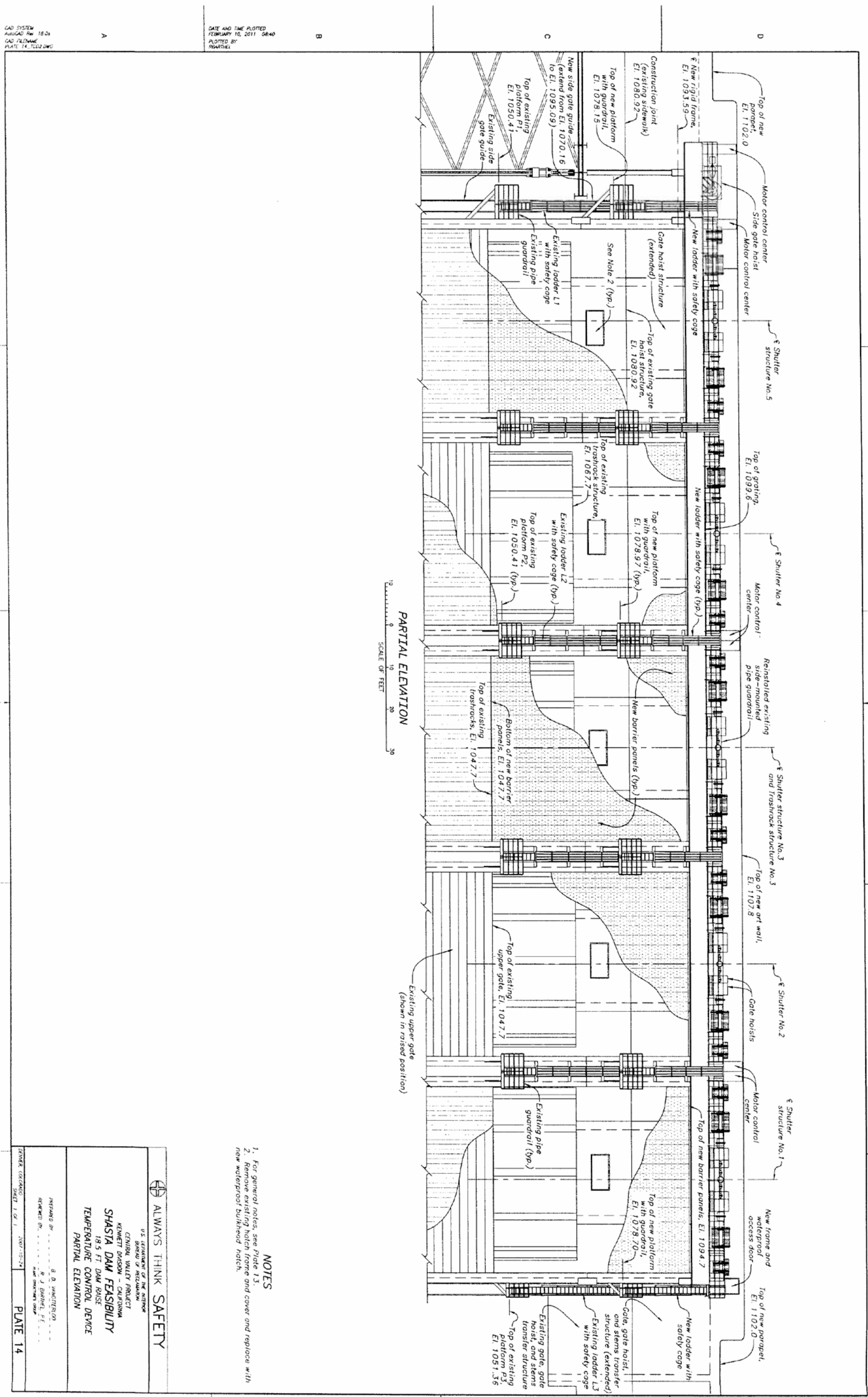
APPROVED BY: R. D. JARVINE, P.E.
R. J. JARVINE, P.E.

DATE: 03/19/03 SHEET 1 OF 1 PLATE 13

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PLATE 13_T001.DWG

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FEBRUARY 10, 2011 06:35
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TJW/ML

Plate 13. Temperature Control Device - Plan - Elevation 1,099.6



- NOTES**
1. For general notes, see plate 13.
 2. Remove existing hatch frame and cover and replace with new waterproof bulkhead hatch.

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BUREAU OF RECLAMATION
CENTRAL VALLEY PROJECT
SHASTA DAM FEASIBILITY
18.5 FT DAM RAISE
TEMPERATURE CONTROL DEVICE
PARTIAL ELEVATION

DESIGNED BY: B. D. WICKERTON
CHECKED BY: R. J. BARTHEL, P.E.
DATE: 10/27/10

DRIVER: TOLSONO
SHEET 1 OF 1
PLATE 14

Plate 14. Temperature Control Device – Partial Elevation

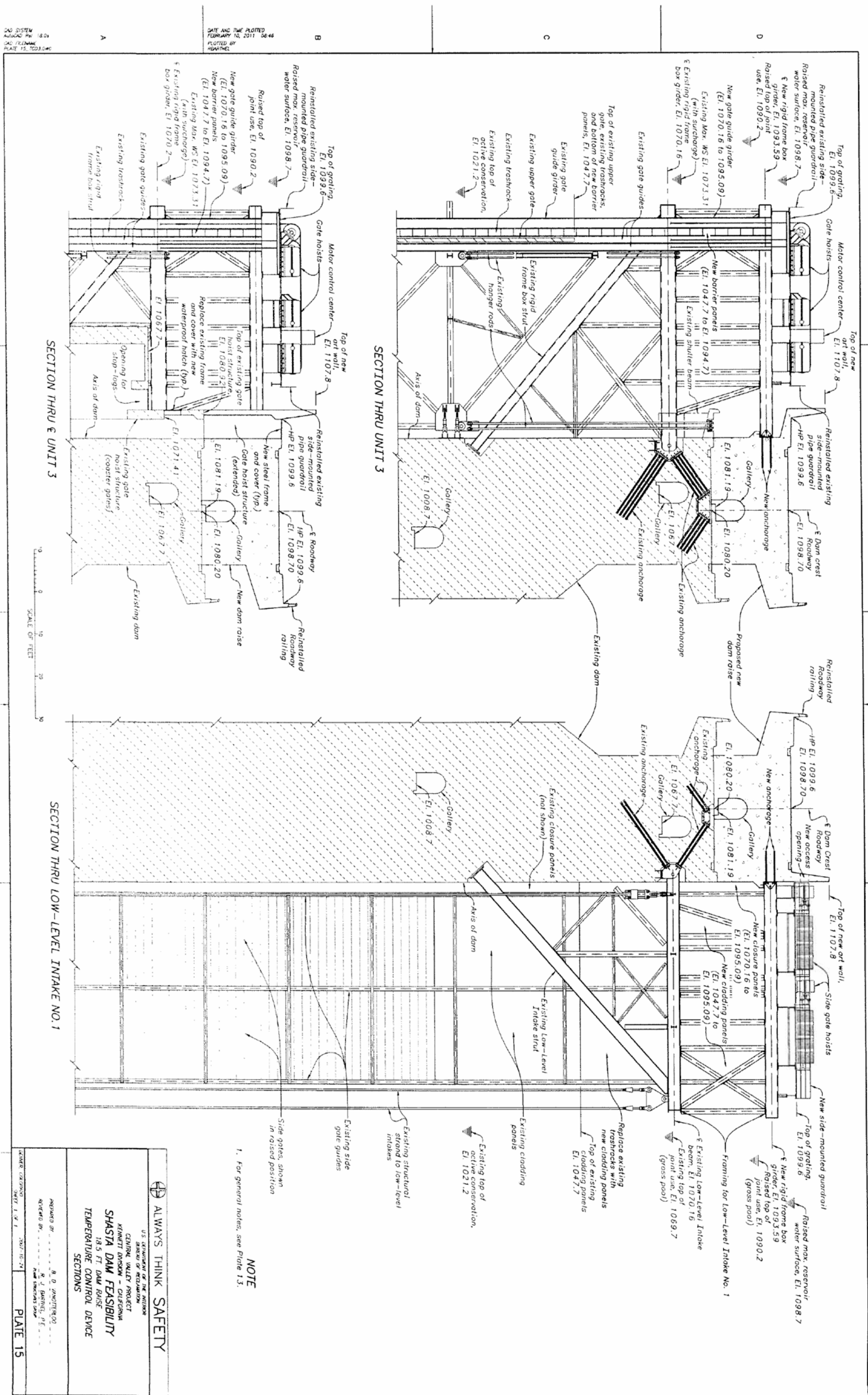
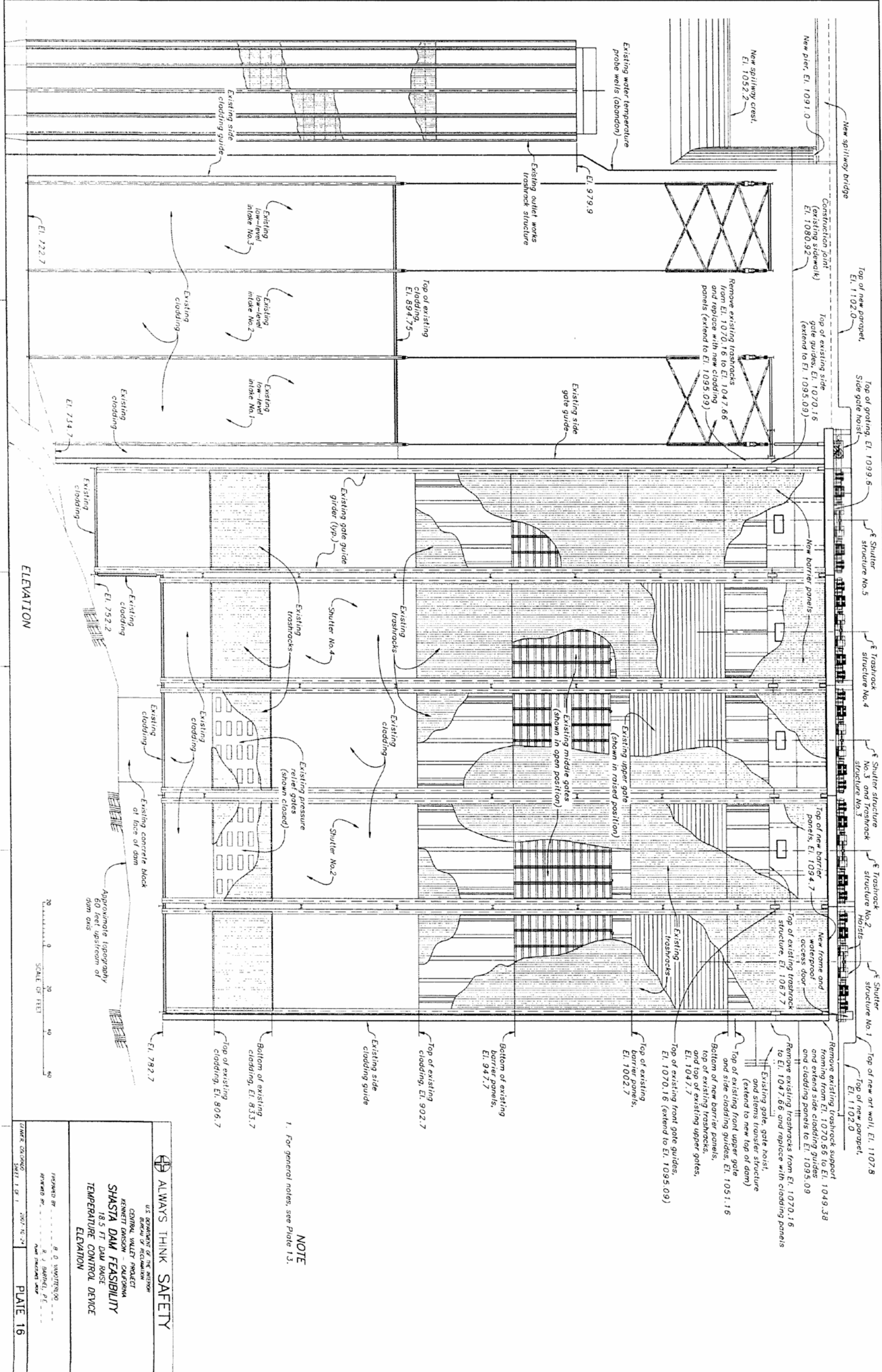


Plate 15. Temperature Control Device – Sections

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PLATE 16_1004.DWG

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BARTHEL



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BUREAU OF RECLAMATION
CENTRAL VALLEY PROJECT
SHASTA DAM FEASIBILITY
18.5 FT DAM RAISE
TEMPERATURE CONTROL DEVICE
ELEVATION

DESIGNED BY: B. O. WOODRUFF, JR.
DRAWN BY: R. J. BARTHEL, P.E.
CHECKED BY: NAME UNKNOWN, P.E.

DATE: 02/09/10
SHEET 1 OF 1 2007.16.27

PLATE 16

Plate 16. Temperature Control Device – Elevation