

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON  
STATE HIGHWAY  
IN DEL NORTE COUNTY  
NEAR GASQUET  
FROM 0.3 KM SOUTH OF HARDSCRABBLE CREEK BRIDGE  
TO 0.2 KM NORTH OF HARDSCRABBLE CREEK BRIDGE

To be supplemented by Standard Plans dated July, 2004

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
01	DN	199	17.4/18.0	1	46

LOCATION MAP

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INDEX OF SHEETS

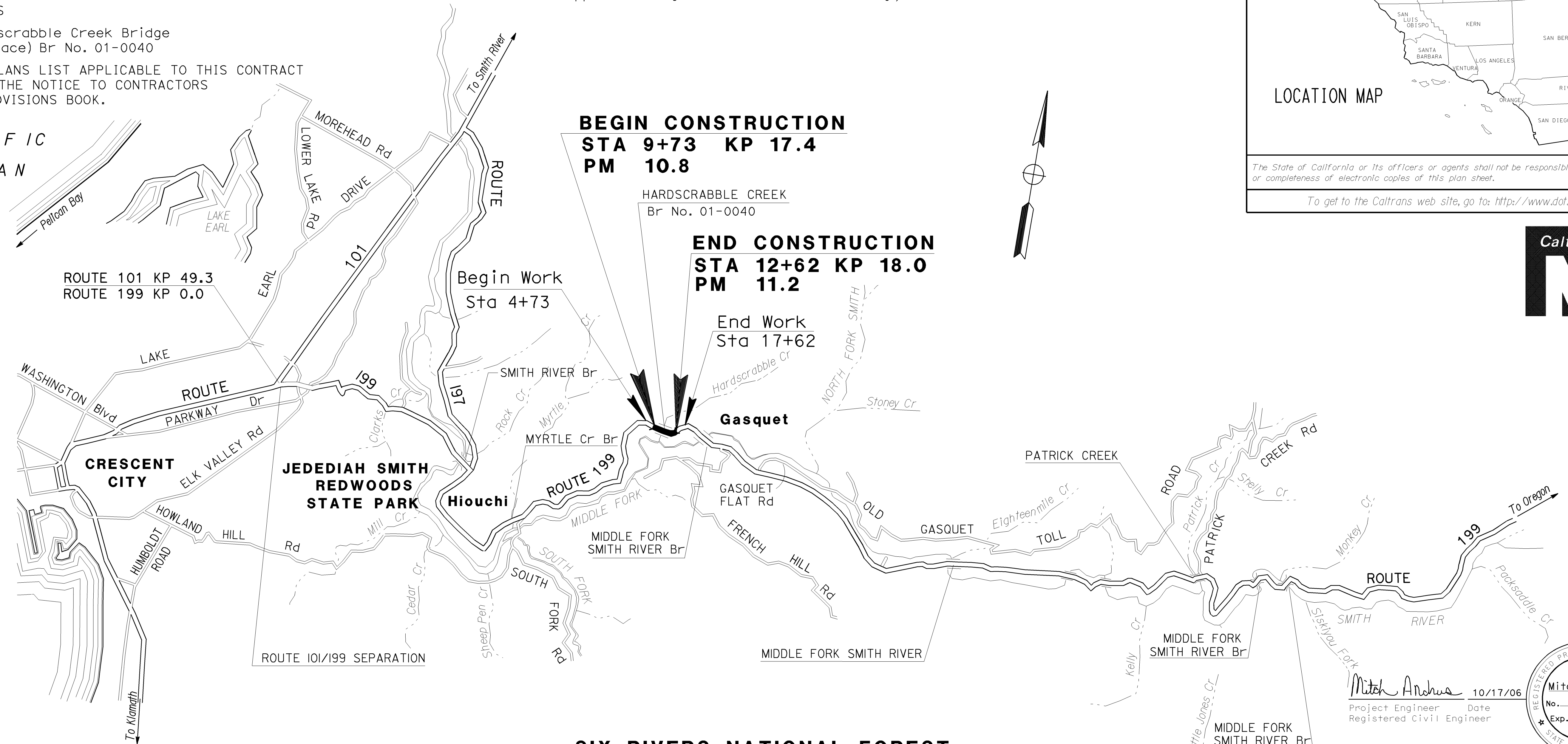
Sheet No.	Description
1	Title and Location Map
2	Typical Cross Sections
3	Layouts
4	Profiles and Superelevation Diagram
5-6	Construction Details
7	Drainage Plans, Profile, Details and Quantities
8	Temporary Water Pollution Control
9	Utility Plan
10-12	Stage Construction
13-15	Traffic Handling Plans and Quantities
16	Construction Area Signs
17-18	Pavement Delineation and Sign Plans, Details and Quantities
19	Summary of Quantities
20-22	Electrical Plans
23-28	Revised Standard Plans

STRUCTURE PLANS

29-46	Hardscrabble Creek Bridge (Replace) Br No. 01-0040
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THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO CONTRACTORS AND SPECIAL PROVISIONS BOOK.

PACIFIC OCEAN

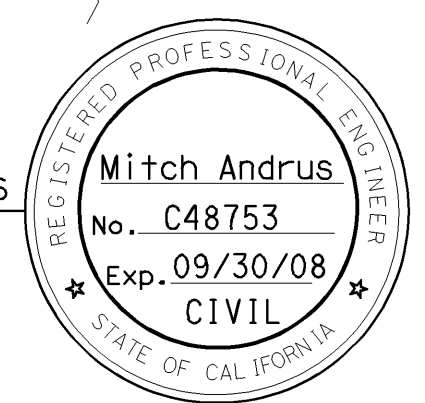


PROJECT ENGINEER	DATE	PROJECT MANAGER	DATE
M. ANDRUS	8/06/06	K. CHURCH	

The Contractor shall possess the Class (or Classes) of license as specified in the "Notice to Contractors."

Mitch Andrus 10/17/06  
Project Engineer Date  
Registered Civil Engineer

January 8, 2007  
Plans Approval Date



Contract No **01-293144**

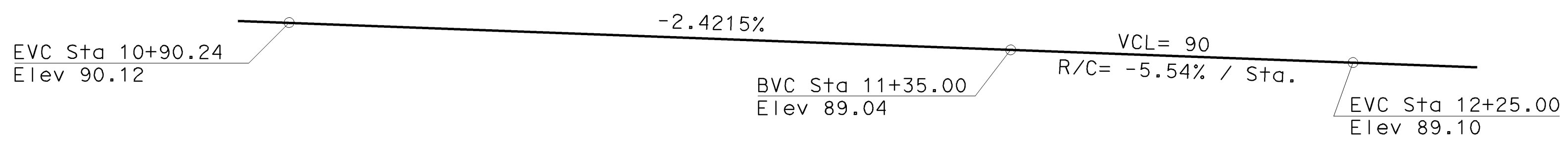


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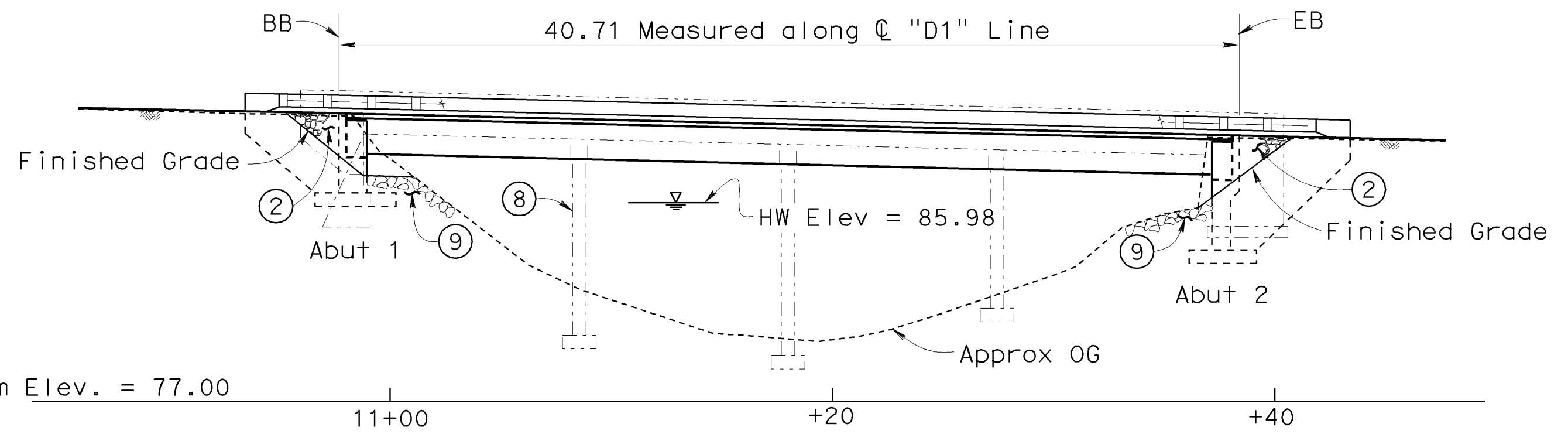
  

<b>M. Akkari</b>	
REGISTERED CIVIL ENGINEER	DATE 10-17-06
1-8-07	
PLANS APPROVAL DATE	
No. 44488	Exp. 3/31/08
STATE OF CALIFORNIA CIVIL	

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**PROFILE GRADE**  
No Scale

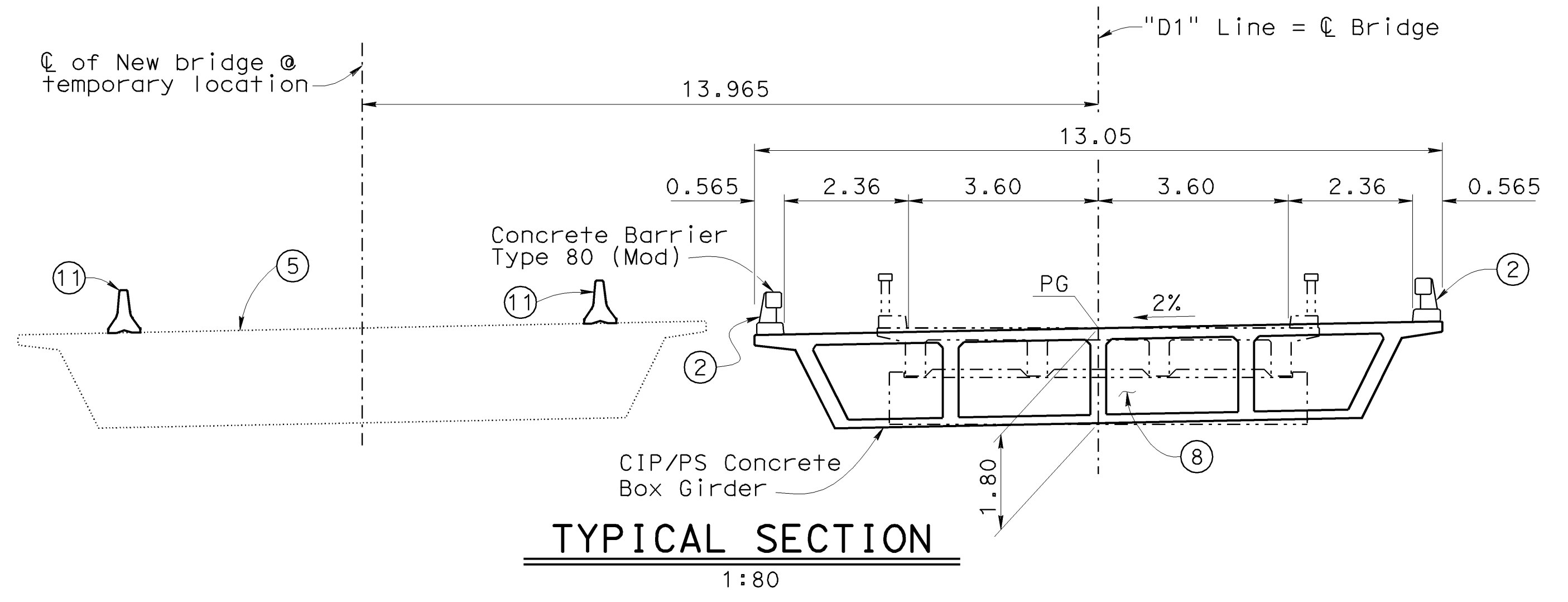


**ELEVATION**  
1:200

- Notes:**
- ① Metal Beam Guardrail, see "Road Plans"
  - ② Architectural Texture
  - ③ Paint "Br. No. 01-0040"
  - ④ Paint "Hardscrabble Creek Bridge" and year constructed
  - ⑤ New superstructure at temporary location, see "Stage Construction Plan" sheet
  - ⑥ Temporary detour alignment, see "Road Plans"
  - ⑦ Finished grade as shown, and conform to existing channel contour
  - ⑧ Existing "CIP Reinforced Concrete T-Girder" bridge to be removed
  - ⑨ Rock slope protection, see "Road Plans"
  - ⑩ For general notes, see "Deck Contour" sheet
  - ⑪ Temporary concrete barrier, Type K, see "Typical Section" sheet

QUANTITIES

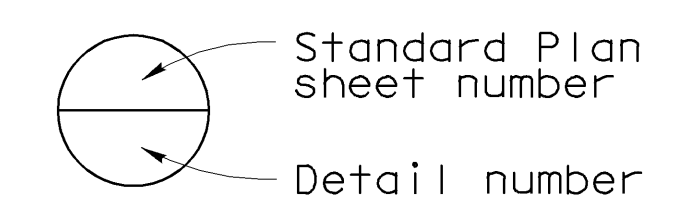
TEMPORARY ABUTMENTS	LUMP SUM
BRIDGE REMOVAL	LUMP SUM
STRUCTURE EXCAVATION (BRIDGE)	270 m3
STRUCTURE BACKFILL (BRIDGE)	292 m3
PRESTRESSING CAST-IN-PLACE CONCRETE	LUMP SUM
STRUCTURAL CONCRETE, BRIDGE FOOTING	56 m3
STRUCTURAL CONCRETE, BRIDGE	417 m3
MOVE BRIDGE	LUMP SUM
ARCHITECTURAL TEXTURE (STONE VENEER)	10 m2
JOINT SEAL (MR 40 MM)	27 m
BAR REINFORCING STEEL (BRIDGE)	25 150 kg
BAR REINFORCING STEEL (EPOXY COATED)	27 200 kg
CONCRETE BARRIER TYPE 80 (MODIFIED)	99 m



**TYPICAL SECTION**  
1:80

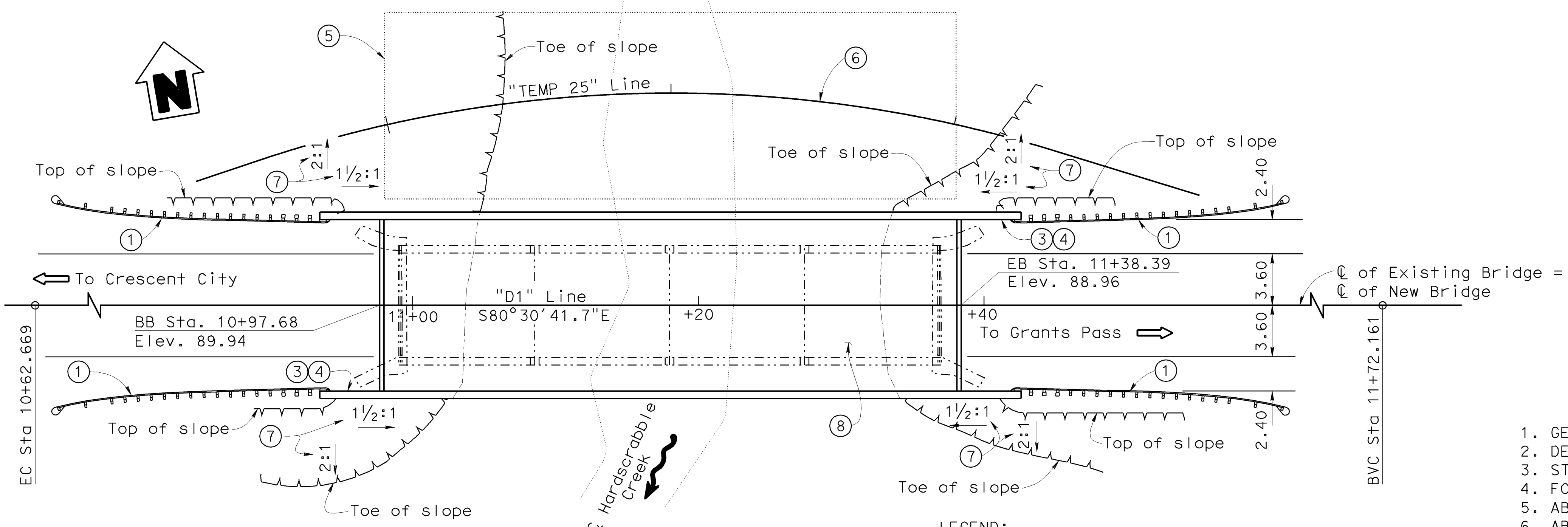
**STANDARD PLANS DATED JULY 2004**

A10A	ACRONYMS AND ABBREVIATIONS - SHEET 1 OF 2
A10B	ACRONYMS AND ABBREVIATIONS - SHEET 2 OF 2
A10C	SYMBOLS - SHEET 1 OF 2
A10D	SYMBOLS - SHEET 2 OF 2
A62C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL BRIDGE
B0-1	BRIDGE DETAILS
B0-3	BRIDGE DETAILS
B0-5	BRIDGE DETAILS
B0-13	BRIDGE DETAILS
RSP B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 50 mm)
B7-1	BOX GIRDER DETAILS
RSP B8-5	CAST-IN-PLACE PRESTRESSED GIRDER DETAILS
RSP	Revised Standard Plan



**INDEX TO PLANS**

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| 2. DECK CONTOUR            | 11. TEMPORARY ABUTMENT DETAILS         |
| 3. STAGE CONSTRUCTION PLAN | 12. TYPICAL SECTION                    |
| 4. FOUNDATION PLAN         | 13. GIRDER LAYOUT                      |
| 5. ABUTMENT 1 LAYOUT       | 14. ADDITIONAL BOTTOM REINFORCEMENT    |
| 6. ABUTMENT 1 DETAILS      | 15. CONCRETE BARRIER TYPE 80 (Mod)     |
| 7. ABUTMENT 2 LAYOUT       | 16. ARCHITECTURAL TEXTURE              |
| 8. ABUTMENT 2 DETAILS      | 17. LOG OF TEST BORINGS - SHEET 1 OF 2 |
| 9. ABUTMENT DETAILS NO. 1  | 18. LOG OF TEST BORINGS - SHEET 2 OF 2 |



**PLAN**  
1:200

- LEGEND:**
- Indicates existing structure to be removed.
  - Indicates new structure.

	DESIGN	BY G. Zuniga	CHECKED N. Nguyen	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 2</b>	BRIDGE NO.	01-0040	<b>HARDSCRABBLE CREEK BRIDGE (REPLACE)</b>  <b>GENERAL PLAN</b>	
	DETAILS	BY J. Klovach/C. Figuerres	CHECKED N. Nguyen	LAYOUT	BY G. Zuniga			CHECKED N. Nguyen	KILOMETER POST		17.7/18.1
	QUANTITIES	BY G. Zuniga	CHECKED N. Nguyen	SPECIFICATIONS	BY T. Chen			PLANS AND SPECS COMPARED	T. Chen		
ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN											
ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS											
CU 01 EA 293141								DISREGARD PRINTS BEARING EARLIER REVISION DATES		SHEET 1 OF 18	
STRUCTURES DESIGN GENERAL PLAN SHEET (METRIC) (REV.03-17-04)											

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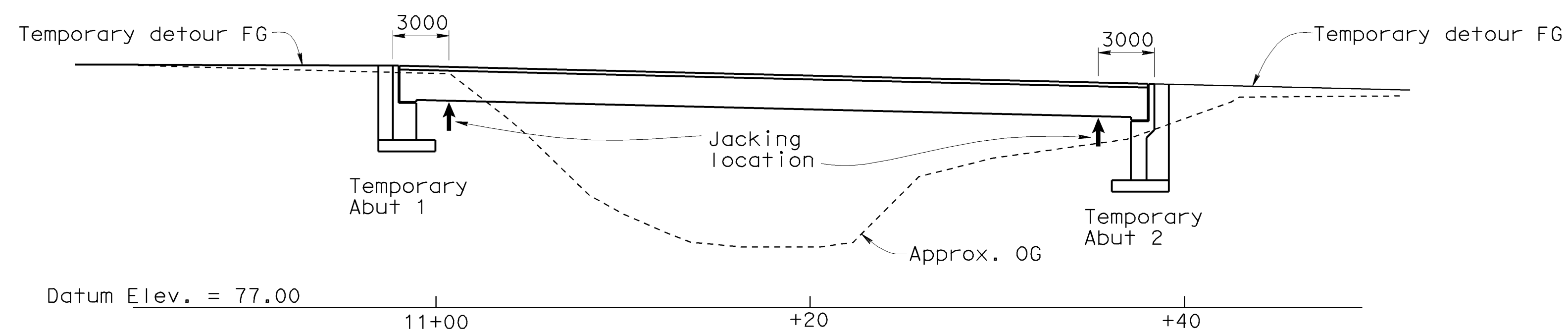
**M. AKKARI** 10-17-06  
REGISTERED CIVIL ENGINEER DATE

1-8-07  
PLANS APPROVAL DATE

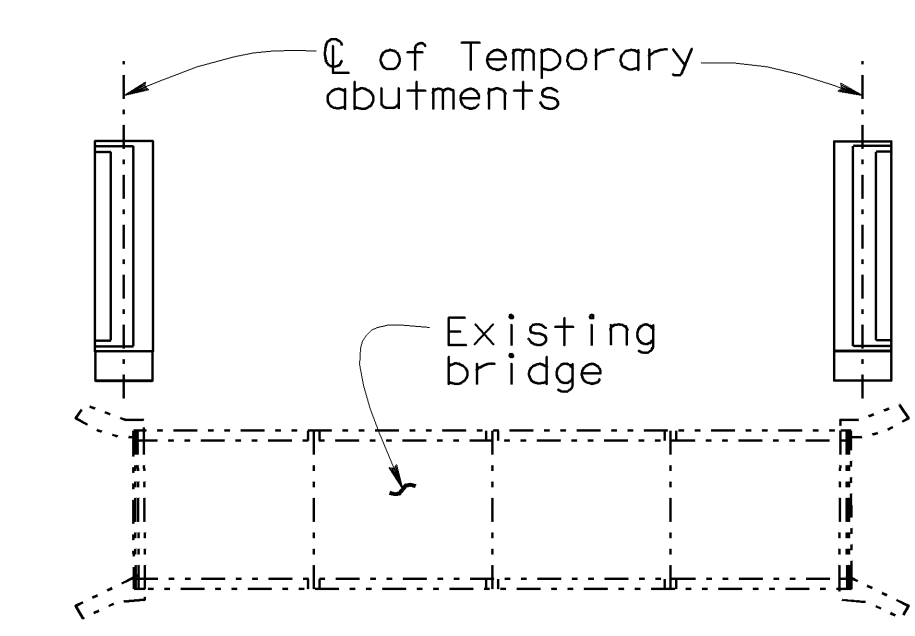
M. Akkari  
No. 4488  
Exp. 3/31/08  
CIVIL  
STATE OF CALIFORNIA

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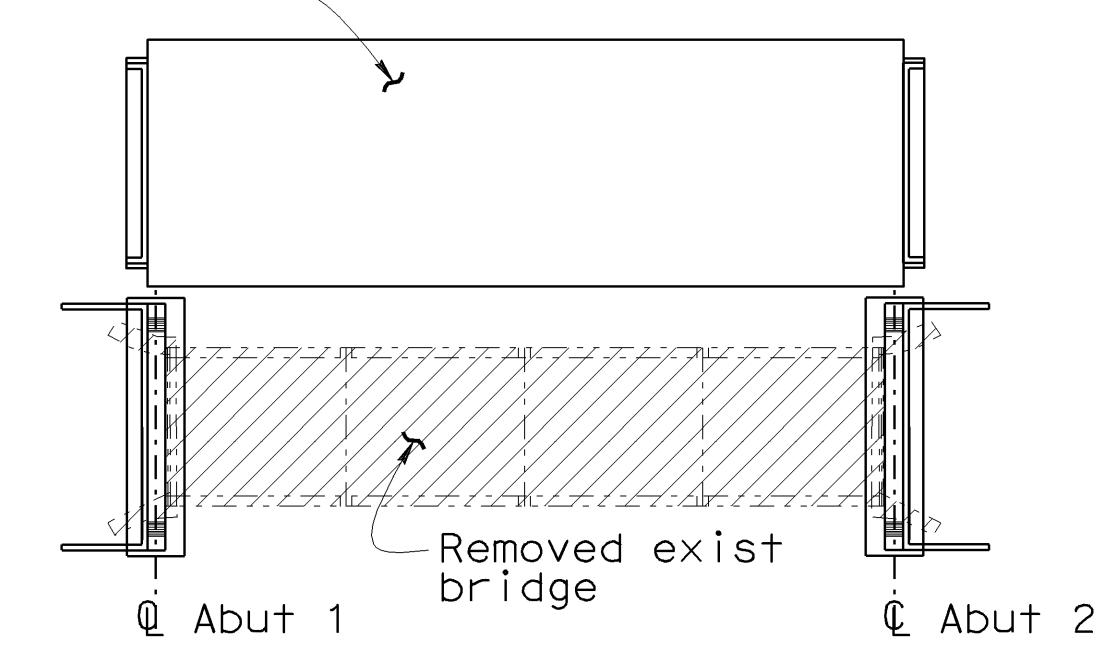


**ELEVATION**  
1:200

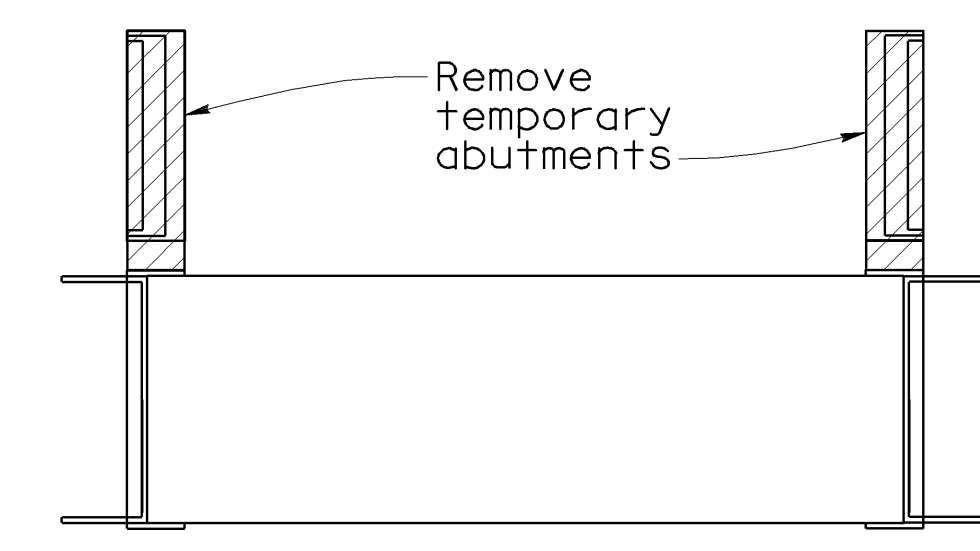


**STAGE 1**

CIP/PS Concrete Box Girder Bridge at temporary location



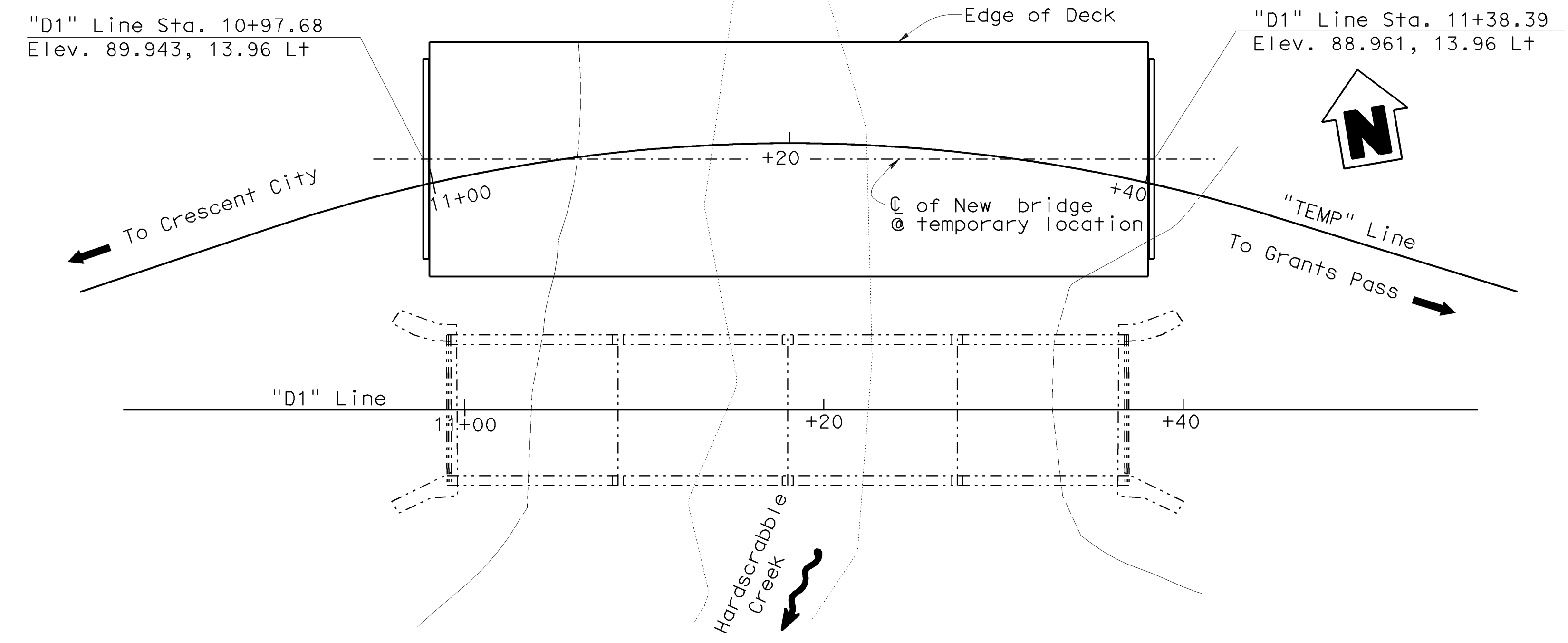
**STAGE 2**



**STAGE 3**

**CONSTRUCTION SEQUENCE**

- STAGE 1**
1. Construct temporary abutments.
- STAGE 2**
1. Construct superstructure on temporary abutments.
  2. Stress and grout P/S tendons.
  3. Construct temporary abutments backwalls.
  4. Build detour road approaches.
  5. Detour traffic to temporary bridge.
  6. Remove existing bridge.
  7. Construct permanent abutments on existing alignment.
  8. Build roadway approaches.
- STAGE 3**
1. Close Route 199 to traffic.
  2. Jack superstructure, see jacking loads table and special provisions.
  3. Move superstructure to permanent abutments on the existing alignment.
  4. Open Route 199 to traffic on new bridge.
  5. Construct left shear keys.
  6. Remove temporary abutments and reconstruct the slopes to finished grade and conform to existing channel contours.



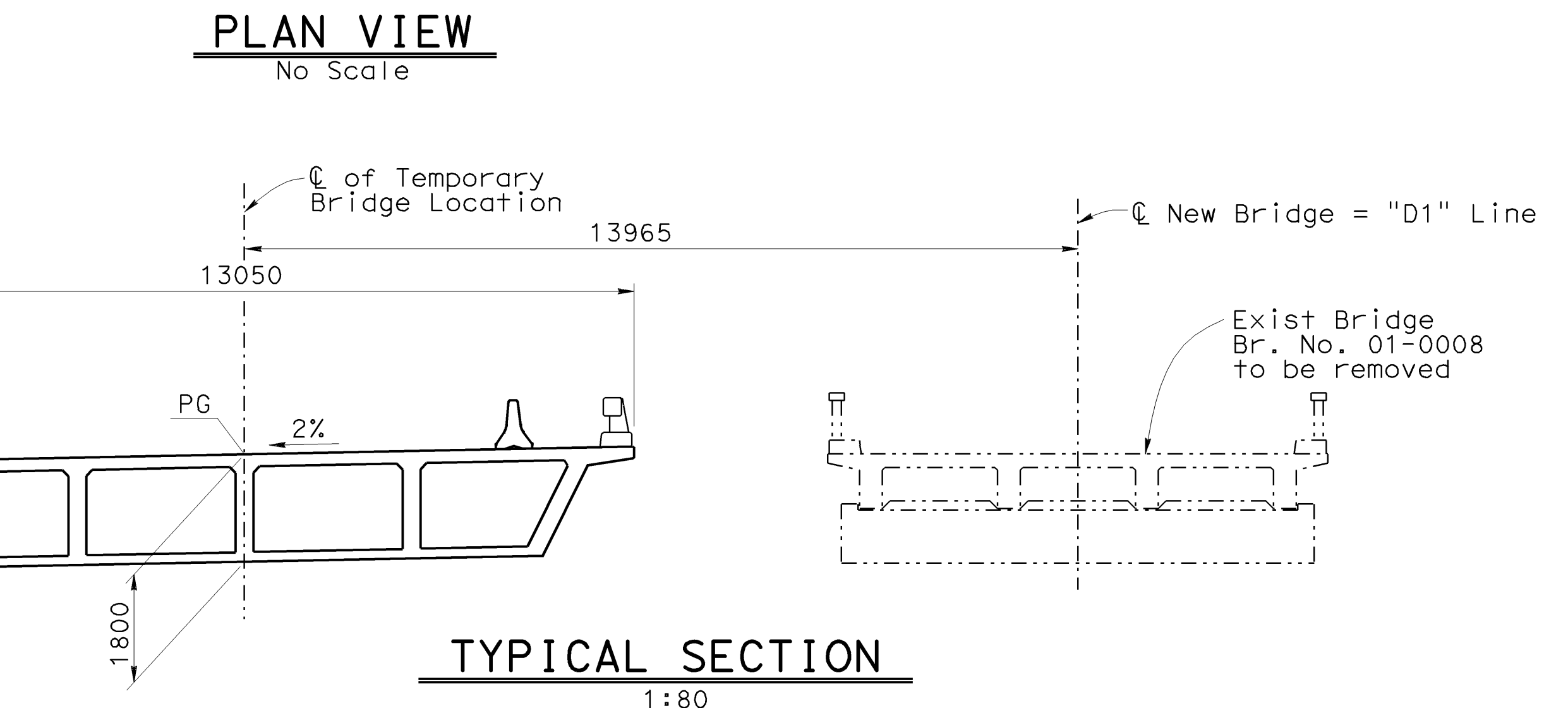
**PLAN**  
1:200

- LEGEND:**
- Indicates existing structure to be removed.
  - Indicates new structure on temporary location.
  - ▨ Indicates concrete removal

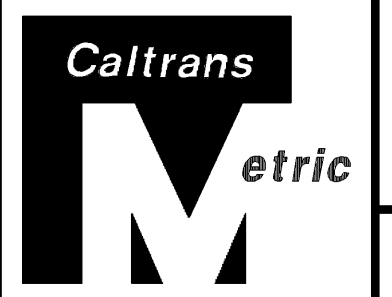
JACKING LOADS		
LOCATION	INITIAL JACKING LOAD	MINIMUM JACKING LOAD
ABUTMENT 1	3750 kN	5625 kN (Total)
ABUTMENT 2	3750 kN	5625 kN (Total)

**General notes:**

1. The Initial jacking load includes the total structure dead load only. The minimum jacking load is equal to 1.5 x the total dead load and it does not include the weight of temporary support jacks, or loads due to friction between concrete surfaces.
2. The jacking locations shall be located within 3.0 meters of EB or BB, along the center line of each girder.
3. When applying or releasing jacking loads, the jacking loads shall be applied simultaneously to all jacking locations throughout the width of the bridge.
4. The allowable concrete bearing pressure for temporary supports under the soffit shall not exceed 9 MPa.
5. Support members shall evenly distribute jacking forces to all superstructure jacking locations.
6. The abutments footings shall not be used as supports for jacking operations, unless approved by the Engineer.



**TYPICAL SECTION**  
1:80



DESIGN	BY G. Zuniga	CHECKED N. Nguyen
DETAILS	BY C. Figuerres	CHECKED N. Nguyen
QUANTITIES	BY G. Zuniga	CHECKED N. Nguyen

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF ENGINEERING SERVICES  
STRUCTURE DESIGN  
DESIGN BRANCH 2

BRIDGE NO. 01-0040  
KILOMETER POST 17.7/18.1  
**HARDSCRABBLE CREEK BRIDGE (REPLACE)**  
**STAGE CONSTRUCTION PLAN**

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS

CU 01  
EA 293141

DISREGARD PRINTS BEARING EARLIER REVISION DATES

8-28-06	6-01-06	6-15-06	6-28-06	6-29-06	7-05-06	7-25-06	7-31-06	8-15-06
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SHEET 3 OF 18

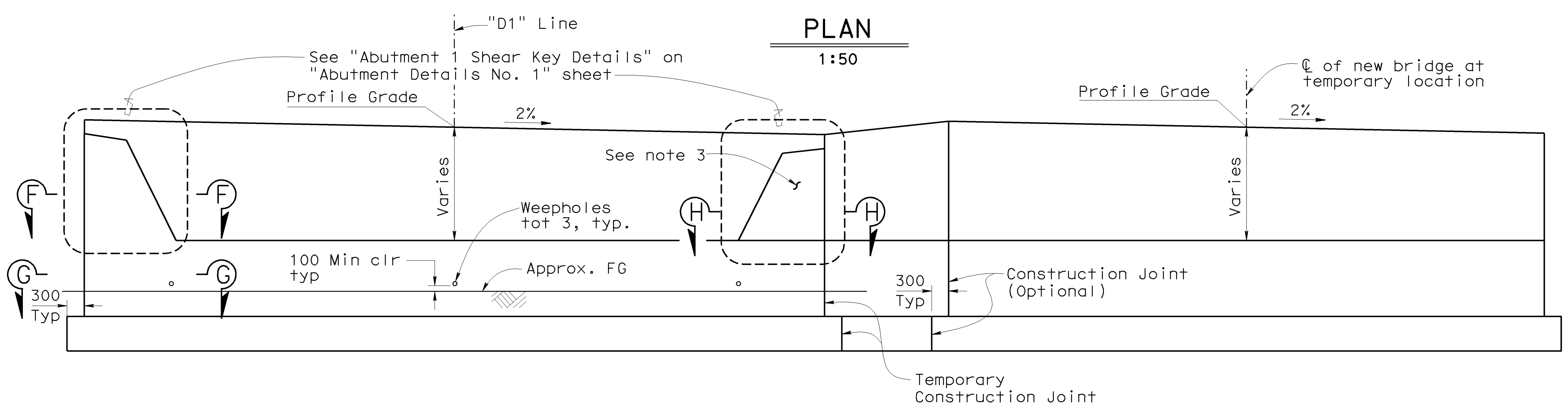
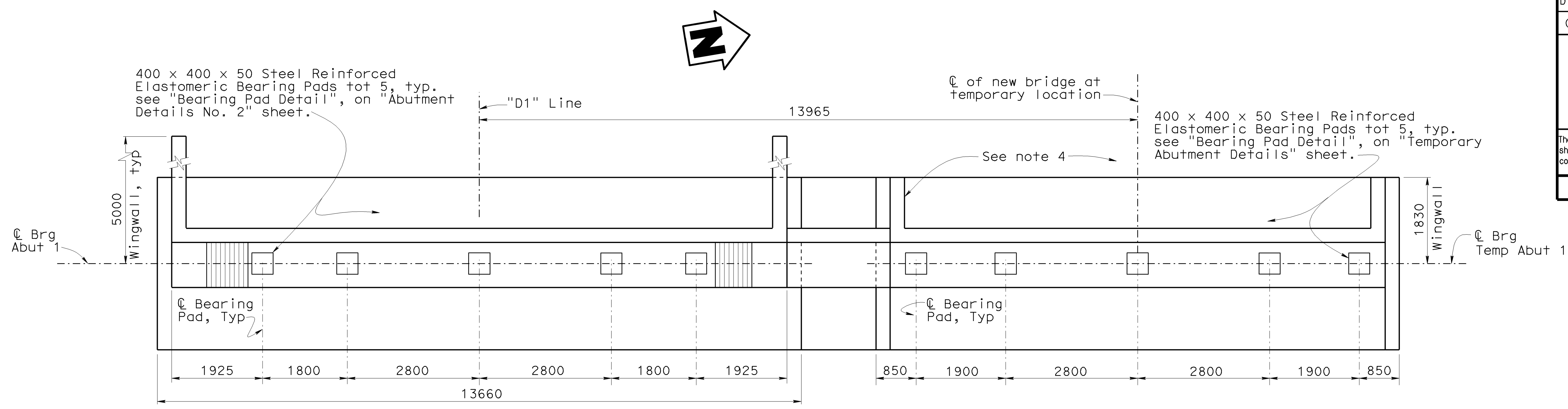
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**M. Akkari** 10-17-06  
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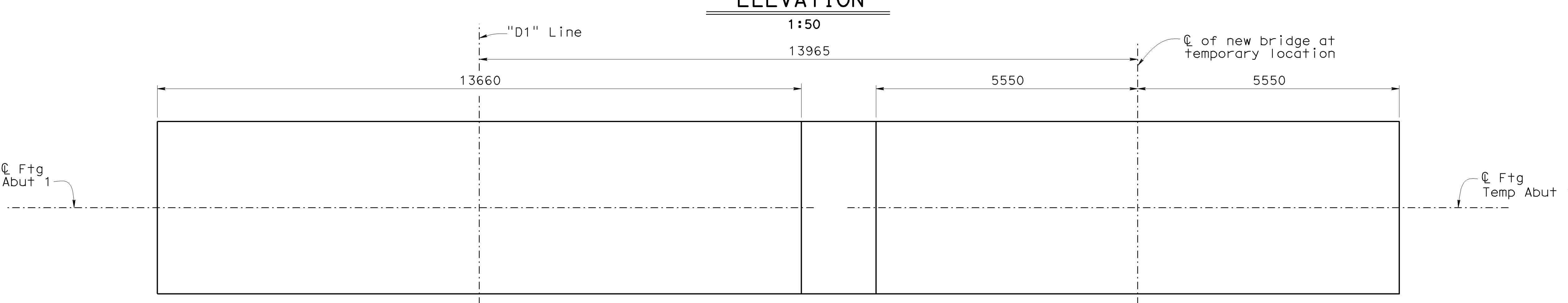
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- Notes:**
1. For "Section F-F, G-G and H-H", see "Abutment Details No. 1" sheet.
  2. For "Abutment Section", see "Abutment 1 Details" sheet.
  3. Left shear key to be built after superstructure has been moved to its final position. For reinforcing steel see "Abutment Details No. 1 & 2" sheets.
  4. For temporary abutment details, see "Temporary Abutment Details" sheet.



	DESIGN BY G. Zuniga	CHECKED N. Nguyen	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN <b>DESIGN BRANCH 2</b>	BRIDGE NO. 01-0040	<b>HARDSCRABLE CREEK BRIDGE (REPLACE)</b> <b>ABUTMENT 1 LAYOUT</b>
	DETAILS BY C. Figuerres	CHECKED N. Nguyen			KILOMETER POST 17.7/18.1	
	QUANTITIES BY G. Zuniga	CHECKED N. Nguyen			CU 01 EA 293141	
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN			ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100		DISREGARD PRINTS BEARING EARLIER REVISION DATES REVISION DATES: 6-28-06, 7-06-06, 8-15-06, 8-28-06, 10-05-06, 10-12-06, 5-23-06, 6-09-06, 6-26-06	
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