COPY FOR
DEPT. Environmental Engineering
ATTN. V. Zeuzem

PSK

04-SCl-280 R02.9/R03.2
04273 13487K (448401C)
IR HB311

RECEIVED
APR 30 1992
Environmental Analysis
Branch C

NOISE BARRIER SCOPE SUMMARY REPORT (NBSSR)

FOR

CONSTRUCTION OF NOISE BARRIERS
ON ROUTE 280
IN SANTA CLARA COUNTY
IN THE CITY OF SAN JOSE
FROM BIRD AVENUE TO LOS GATOS CREEK BRIDGE

APPROVED:

DEPUTY DISTRICT DIRECTOR

April 24, 1992
DATE

APPROVAL RECOMMENDED BY:

PROJECT MANAGER

This Noise Barrier Scope Summary Report has been prepared under the direction of the following Registered Engineer. The registered Civil Engineer attests to the technical information contained therein and has judged the qualifications of any technical specialists providing engineering data upon which recommendations, conclusions and decisions are based.

REGISTERED CIVIL ENGINEER

3-13-92
DATE

(SEAL)

ADDENDUM #2

Construction cost estimate for this project has been updated to reflect 2002 Dollars.
The following applicable sections of the NBSSR are therefore revised as follows:

	1992	1996	2002
Section II (C) Priority Index:	# 16.65	#14.59	#11.31

	1992	1996	2002
Section IV (H) Estimated Construction Cost:	$1,110,000	$1,292,000	$2,450,000
Estimated Support Cost:			$ 784,000

Section IV (I) Cost Effectiveness:
Residential Units Protected : 37 (38 for 2002)

	1991	1996	2002
Cost Per Unit:	$30,000	$34,919	$64,474

APPROVED BY:

Robert E. Baxter

ROBERT E. BAXTER
Deputy District Director
Project Development West

1/31/02
DATE

APPROVAL RECOMMENDED:

Paul P. Mai

PAUL P. MAI
District Office Chief
Project Development West, Design SCL "B"

1/30/02
DATE

SUBMITTED FOR
APPROVAL BY:

Susan Wong

SUSAN WONG
District Branch Chief
Project Development West, Design SCL "B"

January 30, 2002
DATE

ADDENDUM

Construction cost estimate for this project has been escalated to reflect 1996 Dollars. Escalation factors were provided by Program Management Branch.

The following applicable sections of the NBSSR are therefore revised as follows:

		1992	1996
Section II (C)	Priority Index : #	16.65	# 14.59

	1992	1996
Section IV (H) Estimated Construction Cost :	$1,110,000	$1,292,000

Section IV (I) Cost Effectiveness :
Residential Units Protected : 37

	1992	1996
Cost Per Unit:	$30,000	$34,919

APPROVED BY:

DARNALL W. REYNOLDS
District Division Chief, Planning

8-22-97
Date

APPROVAL RECOMMENDED:

RON MORIGUCHI
Office Chief, Office of Environmental Engineering

8/21/97
Date

SUBMITTED FOR
APPROVAL BY:

VICTOR ZEUZEM
District Branch Chief, Office of Environmental Engineering

8-21-97
Date

I. INTRODUCTION

A. Proposal and Limits

Construct three noise barriers on both sides of Interstate Route 280 (I-280) between Bird Avenue and Los Gatos Creek Bridge (Post Mile R02.9 to R03.2) in the City of San Jose. See Attachment 1, Location Map.

B. Deficiencies and Justification

Section 215.5 of the Streets and Highways Code requires Caltrans to develop and implement a system of priorities for ranking the need for installation of noise barriers along freeways in the California freeway and expressway system. The highest consideration shall be given to residential areas which were developed prior to the opening of the freeway or if alterations have been made to the freeway since its original opening which result in a significant (3dBA) increase in ambient noise levels.

This project meets the above requirements and has been prioritized on the State HB311 Candidate Projects list.

C. Project Category

This is a Category 5 project because it will have minimal economic, social or environmental significance.

II. BACKGROUND

A. Funding Source

It is proposed to include this project into the 1994 STIP. This project has not been advanced by any local agency and will be funded entirely from the State HB311 Program.

B. Public Involvement

This location has received many complaints concerning excessive adjacent freeway traffic noise impacting the residential units. It is proposed to receive public input with informational meeting during the project report stage. There are no known unresolved issues or commitments to local agencies.

C. Project Priority

This project is currently on the Statewide Priority List at rank #220A and Priority Index #16.65.

III. DESIGN INFORMATION

A. Existing Facility

The existing I-280 within the project limits is an eight-lane freeway with one auxiliary lane in each direction, 10-ft outside shoulders and a 36-ft median. An existing 78-ft wide Los Gatos Creek bridge (Br. No. 37-265L and 37-265R) spans the Los Gatos Creek from Sta.D615+60 to Sta.D617+40.

There is an existing reinforced concrete pipe (RCP) drainage system lying between the right-of-way line and the top of cut on the southbound side of I-280. It is parallel to the right-of-way line with 48-in diameter from Sta.D619+50 to Sta.D625+00 and 42-inch diameter from Sta.D625+00 to Sta.D633+00.

Within the project limits, the distance from the edge of traveled way to the right-of-way line varies from 32 to 50 feet on the northbound side and 40 to 70 feet on the southbound side. Additional right-of-way will not be required for this project. See Attachment 5, Right-of-Way Data Sheet.

The right of way at the wall locations are planted with trees, shrubs and ground cover. The planting is irrigated with an automatic irrigation system.

1990 Average Daily Traffic was 178,000, 3.6% of which are trucks.

IV. PROPOSAL

A. Description

This project proposes the construction of three noise barriers on both sides of I-280 between Bird Avenue and Los Gatos Creek Bridge (Post Mile R02.9 to R03.2) in the City of San Jose. The proposed soundwalls will be 12-ft to 14-ft high with a total length of 2300-ft. See Attachment 3, Soundwall Layout. Cross sections at 100 feet intervals indicating proposed locations of the noise barriers are included as Attachment 2.

Existing irrigation systems will be modified.

The existing type 1 barrier rail on the right shoulder of Los Gatos Creek structure northbound side (Br. No. 37-265L) will be replaced by a soundwall on type 27R barrier rail. The type 27R barrier rail requires 0.5-ft more bridge deck width than the type 1 barrier rail. We propose to widen the 78-ft wide Los Gatos Creek bridge by 0.5-ft to maintain the existing 10-ft shoulder width. Attachment 2A, Typical Section, Los Gatos Creek Bridge, indicates the proposed modification of the structure to accommodate the noise barrier.

A potential conflict exists between the 48-inch and 42-inch RCP drainage system and the soundwall footing. Detailed surveys of the relationship between the drainage alignment and the right-of-way line will be required to verify the areas of conflict. It is proposed to realign the RCP drainage system where it will be in conflict with the soundwall since changing the soundwall alignment will not be feasible. If the drainage system is realigned, junction boxes will be used to connect the new alignment to the existing pipe that crosses the railroad right of way, as there will be no soundwall conflict within the railroad right of way. According to the Hydraulics Section, the estimated cost to relocate the entire drainage system along the right of way will be $240,000. Partial funds for drainage system realignment have been included in the estimate. In addition, funds for minor drainage facilities to maintain the existing natural drainage patterns originating outside the right of way are also included. See Attachment 4, Preliminary NBSSR Project Cost Estimate Summary. Design details will be developed at the Project Report stage.

Existing right-of-way fence will be removed at locations where the sound walls are on the right-of-way line.

The proposed sites and dimensions of noise barriers are based on the preliminary noise studies by the Enviromental Engineering Branch. A complete noise report will be done at the Project Report stage.

B. Value Engineering

Because of right-of-way restrictions, other non-wall alternatives (i.e. earth mounds, berms) have not been considered.

C. Acceptable Noise Barrier Materials

The acceptable materials for the proposed soundwalls are masonry block and precast concrete panels. A portion of the wall will be constructed on the Los Gatos Creek structure. The Division of Structures recommends using only masonry block for the soundwall on structure. Residents of the area involved will be consulted at a later date on which barrier material they prefer.

D. Noise Study Recommendations

The preliminary noise study recommendations for the wall dimensions and locations are shown in Attachment 3, Soundwall Layout.

E. Noise Barrier Foundation

Standard soundwall on pile foundation is recommended for this project except for the wall on hinge point on the southbound side of the freeway. The Geotechnical Section has reported that due to the high ground water level in this area, standard sound

wall on piles design is not recommended. Until final design studies are completed, masonry block on spread or trench footings is recommended for this section (300-ft). The Office of Structures Design has provided a preliminary design study for a masonry block wall on barrier with a spread footing.

F. Design Details Required

A field review of the project site was conducted in September, 1989 by Cel Alfafara, District Program Advisor, Enviromental Engineering Branch, Eric Cheng, and Charles Huff, Project Development Santa Clara-I Branch.

Drainage details will be required to show any proposed work on the existing drainage system between Sta.D619+50 to Sta.D633+00. Temporary lane width reductions for construction purpose on the mainline are being considered and details for this proposal will be developed. Design details for highway lighting, irrigation and structure work will also be needed for this project.

As-builts have been closely studied and no sight distance problems are anticipated after the walls are constructed. Existing roadside signs and lighting that will be blocked by the walls will be relocated. Within the project limits, no construction easement will be necessary since all the work can be done inside the existing State right of way.

G. Nonstandard Design Features

There are no nonstandard design features on this project.

H. Cost Estimate

The total estimated cost for this project is $1,110,000. See Attachment 4, Preliminary NBSSR Project Cost Estimate Summary.

I. Analysis of Proposal

This project meets the cost effectiveness criteria of less than $30,000 per residential unit protected.

Estimated cost of project	$ 1,110,000
Residential units protected	37
Cost per residential unit	$ 30,000

The projected noise levels at the residential units at this location are estimated to be between 70 and 76 dBA (Leq). The proposed 12 to 14-ft high noise barriers are expected to provide an attenuation of 5 to 9 dBA to lower the noise level to 65 to 67 dBA. The projected noise level was determined using the LeqV2 noise prediction model. Level of service "C" traffic was utilized assuming 2000 vpl/hr in urban core areas and 1800 vpl/hr outer suburban areas. Truck percentages for existing and future conditions were determined during model calibration counts.

E. Permits

No permits will be required within the project limits.

F. Railroad or Utility Involvement

No utility relocation and temporary construction easements are anticipated. Utility verification will be required at the Project Report stage. See Attachment 5, Right-of-Way Data Sheet. The sound walls will be in the proximity of the Southern Pacific Transportation Company (S.P.T. Co.) railroad and there is possible railroad involvement.

G. Replacement Planting

Replacement Planting will be implemented by a separate planting project. Funds will come from this EA. The project will be identified as a "Y" project in the Districts STIP when it is funded.

VI. PROJECT REVIEWS

TITLE	NAME	DATE
District Program Advisor	Cel Alfafara (for Victor Zeuzem)	12/06/91
Headquarters Program Advisor	Not reviewed	N/A
OPPD Project Development Coordinator	Frank Baxter	12/04/91
FHWA Area Engineer	Edward A. Sheldahl	12/03/91

VII. ENVIROMENTAL CLEARANCE

The project is categorically exempt under Class 1, Section 1510.1 of Caltrans Enviromental Regulations. Environmental documentation for catagorical exemption and exclusion will be prepared by the Environmental Analysis Branch "B".

VIII. RIGHT OF WAY CERTIFICATION

Right of way certification will be included at the Project Report stage.

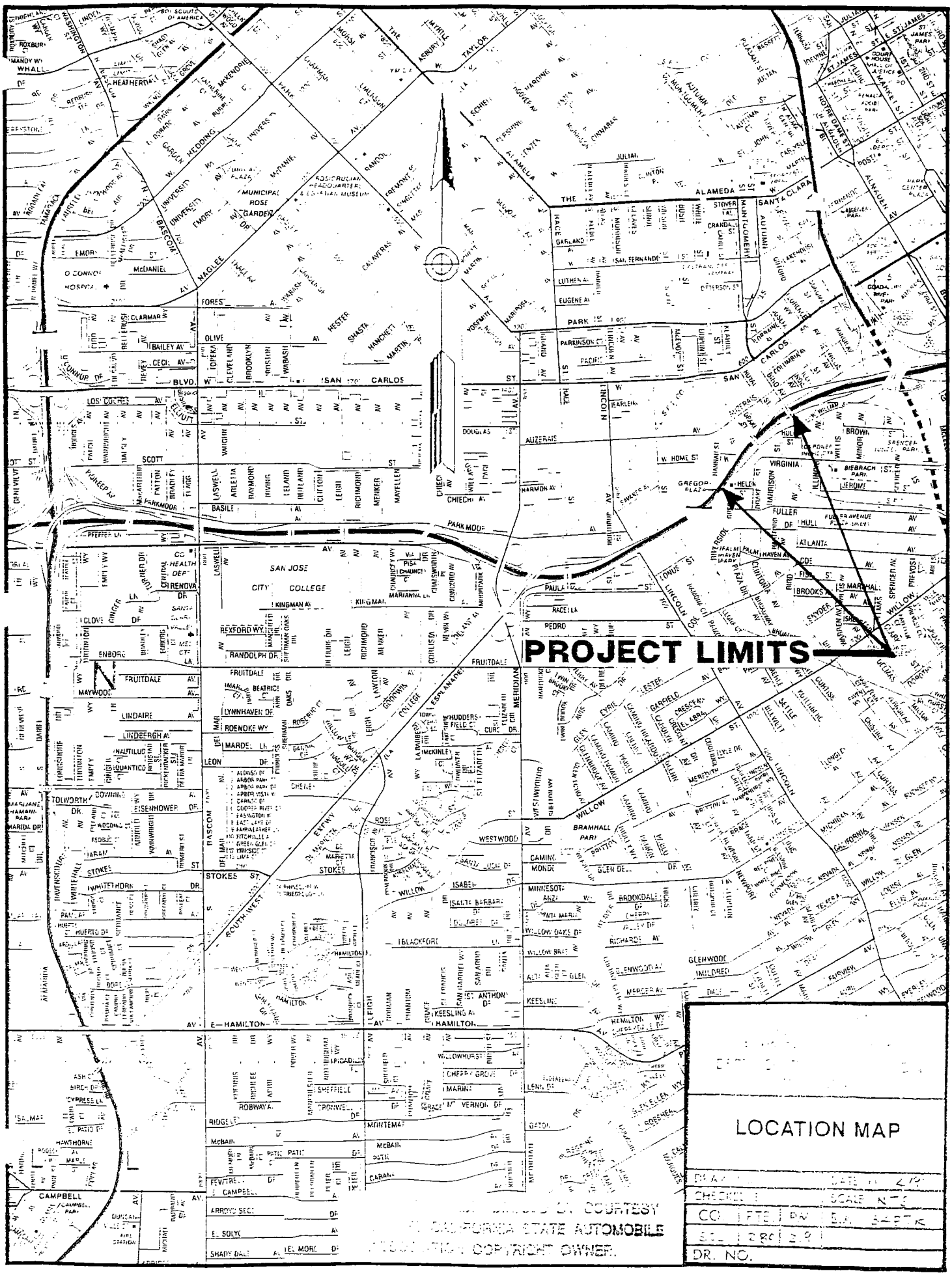
IX. PROJECT PERSONNEL

Name	Branch	Phone
PEDER SAMUELSEN, Project Manager	P/D SCL-I	(415) 923-4249
ERIC Y. CHENG, Asst. Project Manager	P/D SCL-I	(415) 923-4246
CHARLES W. HUFF, Project Engineer	P/D SCL-I	(415) 923-4235

X. ATTATCHMENTS

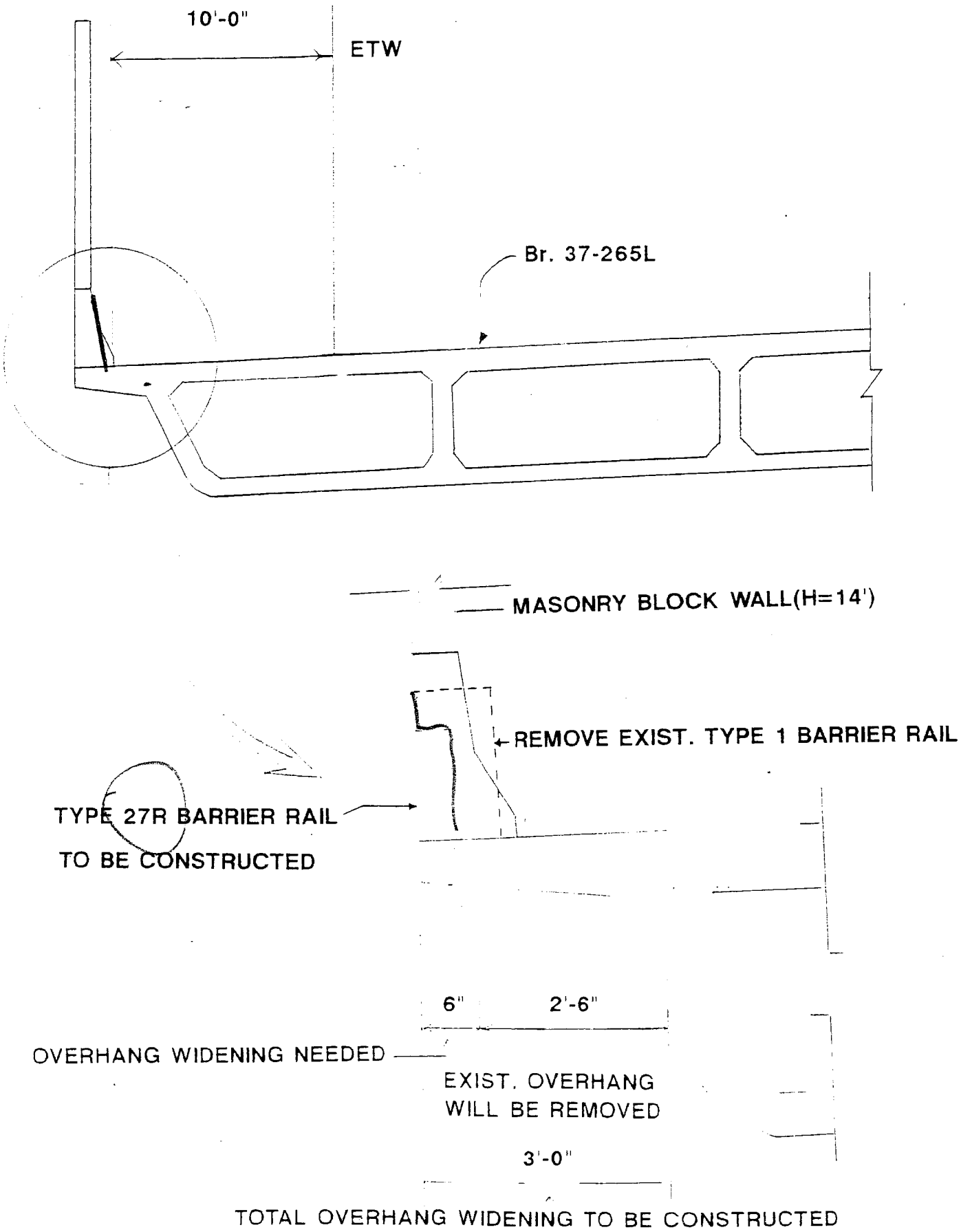
1 - Location Map
2 - Cross Sections
2A - Typical Section, Los Gatos Creek Bridge
3 - Soundwall Layouts
4 - Preliminary NBSSR Project Cost Estimate Summary
5 - Right-of-Way Data Sheet
6 - PYPSCAN Printout

ATTACHMENT 1



N

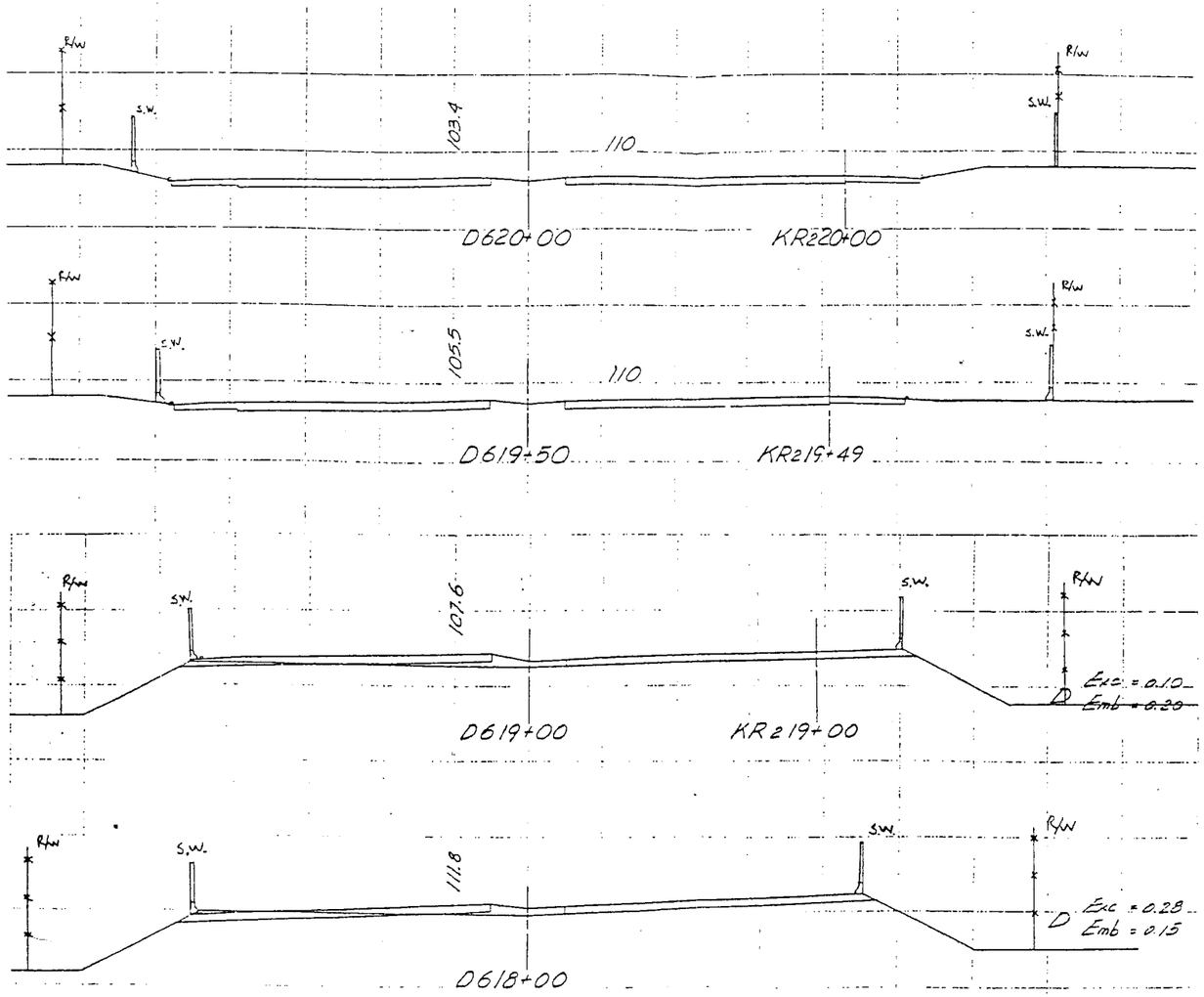
NO SCALE



LAS GATOS CREEK BRIDGE TYPICAL SECTION

ATTACHMENT 7

SCALE:1"=40'



CROSS SECTION

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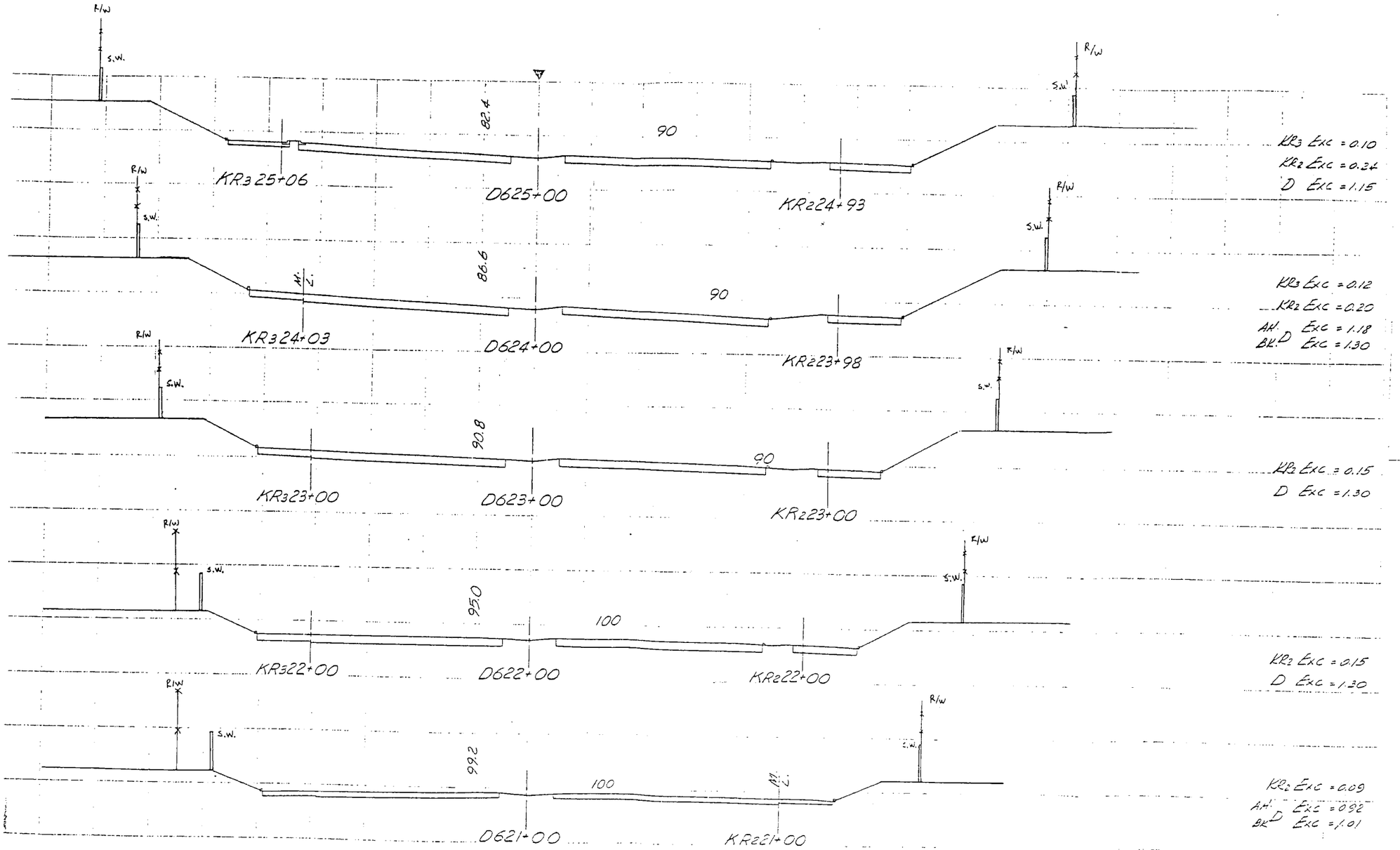
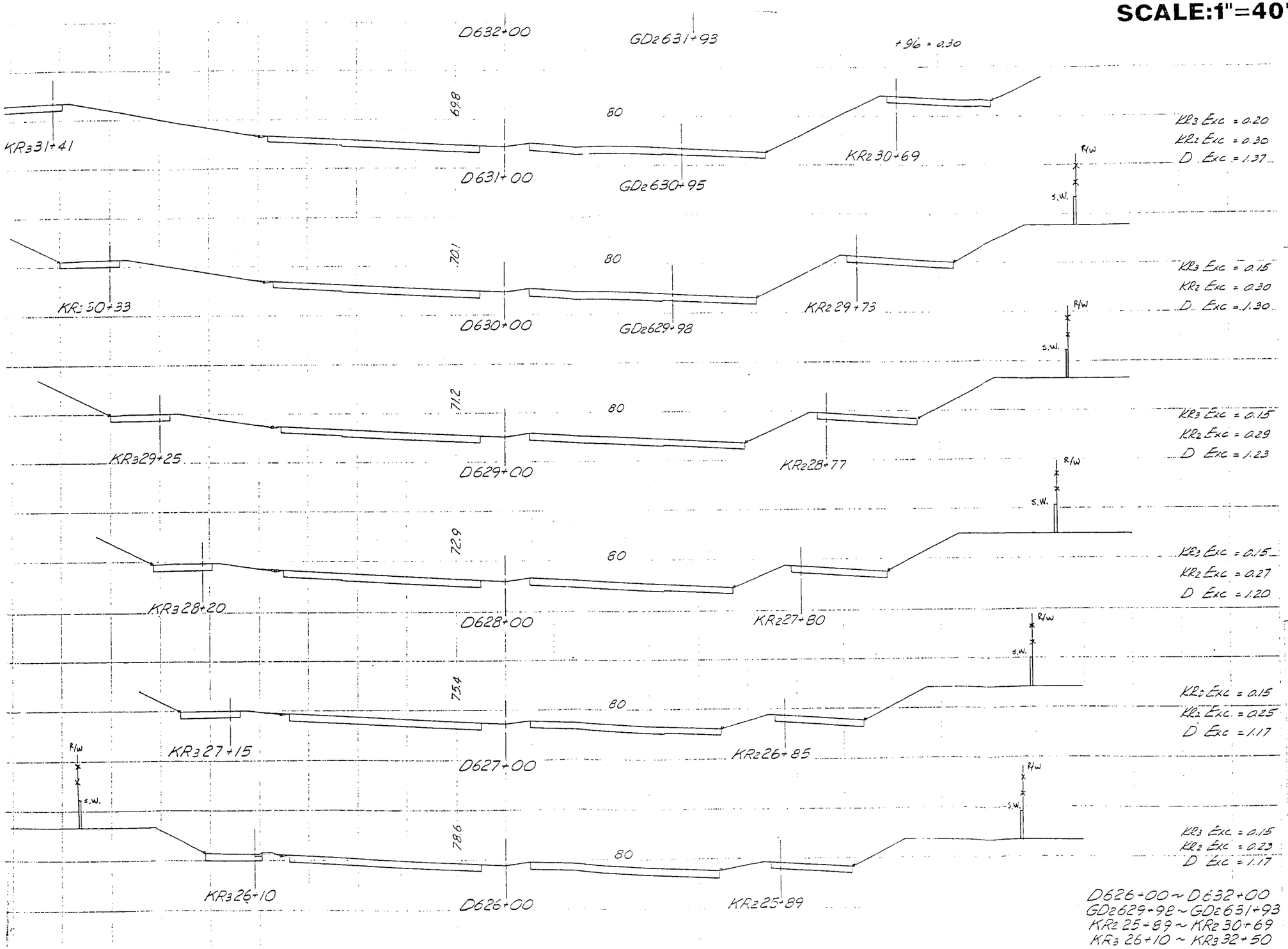

R/W
S.W.
82.4
90
KR325+06
0625+00
KR224+93
KR3 Exc = 0.10
KR2 Exc = 0.34
D Exc = 1.15
86.6
90
KR324+03
0624+00
KR223+98
AH. D Exc = 1.18
BK. D Exc = 1.30
90.8
90
KR323+00
0623+00
KR223+00
KR2 Exc = 0.15
D Exc = 1.30
950
100
KR322+00
0622+00
KR22+00
KR2 Exc = 0.15
D Exc = 1.30
992
100
0621+00
KR221+00
KR2 Exc = 0.09
AH. D Exc = 0.92
BK D Exc = 1.01

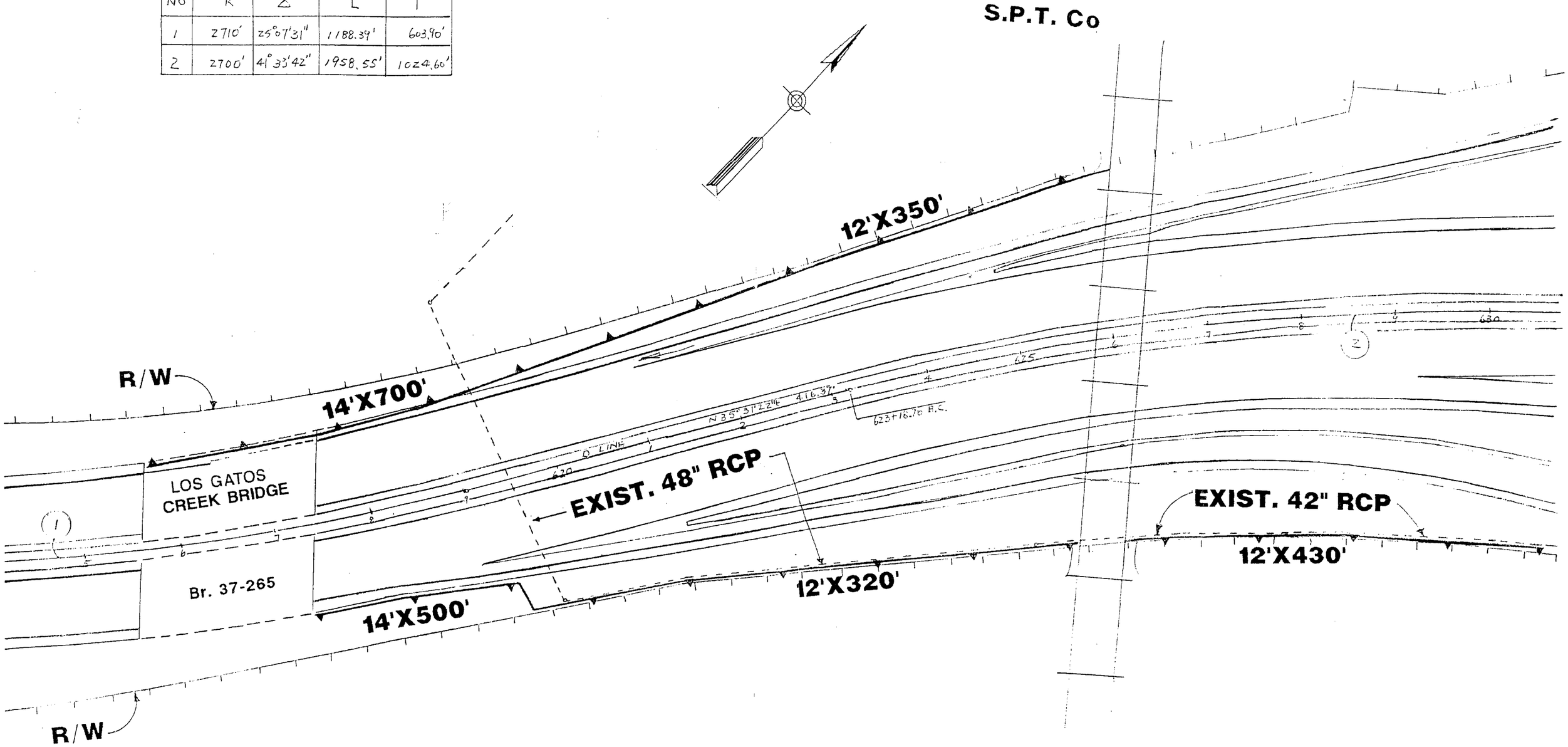
SCALE:1"=40'



D626+00 ~ D632+00
GD2629+98 ~ GD2631+93
KR2 25+89 ~ KR2 30+69
KR3 26+10 ~ KR3 32+50

CURVE ALIGNMENT DATA

NO	R	Δ	L	T
1	2710'	25°07'31"	1188.39'	603.90'
2	2700'	41°33'42"	1958.55'	1024.60'



SOUNDWALL LAYOUT

SCALE:1"=100'

PRELIMINARY NBSSR
PROJECT COST ESTIMATE SUMMARY

04-SCL-280
PM R02.9/R03.2
EA 13487K

Project Description:

Construct three Noise Barriers on both sides of Interstate Route 280 (I-280) between Bird Avenue and Los Gatos Creek Bridge in the City of San Jose (Post Mile R02.9 to R03.2).

ROADWAY ITEMS	$ 1,000,000.00
STRUCTURE ITEMS	$ 110,000.00
SUBTOTAL CONSTRUCTION	$ 1,110,000.00
RIGHT OF WAY	$ 0.00
TOTAL PROJECT COST	$ 1,110,000.00

Reviewed by District Program Advisor _____
(Signature)

Phone No. (415)904-9767 Date 4-20-92

Approved by Project Manager _____
(Signature)

Phone No. 923-4249 Date 4-23-92

PRELIMINARY NBSSR
PROJECT COST ESTIMATE

04-SCL-280
PM R02.9/R03.2
EA 13487K

I. ROADWAY ITEMS

Section 1 Earthwork	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Roadway Excavation	154	CY	15.00	2,300.00	
Imported Borrow					
Clearing and Grubbing		LS		1,000.00	
Backfill	63	CY	25.00	1,600.00	
				Total Earthwork	$ 4,900.00
Section 2 Structural Section					
Asphalt Concrete					
Cement-treated Base					
Aggregate Base					
Aggregate Subbase					
Minor Concrete (Spread Footing)	91	CY	150.00	13,700.00	
				Total Structural Section	$13,700.00
Section 3 Drainage					
Storm Drains					
Project Drainage, (X-drains, overside, etc.)		LS		20,000.00	
Lined Channels					
partial RCP re-alignment*		LS		200,000.00	
				Total Drainage	$220,000.00

NOTE: * Full RCP re-alignment will cost $240,000.00

PRELIMINARY NBSSR
PROJECT COST ESTIMATE

04-SCL-280
PM R02.9/R03.2
EA 13487K

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Section 4 Wall & Related Items					
Retaining Walls					
Soundwalls (H6'-8')					
Soundwalls (H10'-12')	13,200	SF	13.00	171,600.00	
Soundwalls (H14'-16')	5,600	SF	13.00	72,800.00	
Soundwalls (H6'-8')					
Soundwalls (H10'-12')	6,630	SF	10.00	66,300.00	
Soundwalls (H14'-16')					
			Total Wall & Related Items		$310,700.00
ction 5 Specialty Items					
Erosion Control					
Slope Protection					
Concrete Barriers	600	LF	50.00	30,000.00	
Guardrails					
Hazardous Waste Work					
Replacement Planting		LS		100,000.00	
Modify Irrigation System		LS		30,000.00	
Concrete Pile(CIDH)(16")	1,168	LF	25.00	29,200.00	
Bar Reinforcing Steel	8,400	LB	0.50	4,200.00	
Remove Chain Link Fence	2,100	LF	4.00	8,400.00	
			Total Specialty Items		$201,800.00

PRELIMINARY NBSSR
PROJECT COST ESTIMATE

04-SCL-280
PM R02.9/R03.2
EA 13487K

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Section 6 Traffic Items					
Lighting		LS		15,000.00	
Signing		LS		200.00	
Traffic Control Sys					
K Rail	800	LF	25.00	20,000.00	
			Total Traffic Items		$35,200.00
			SUBTOTAL SECTIONS 1-6		$800,000.00
				Unit Cost	Section Cost
Section 7 Minor Items					
Subtotal Sections 1-6	$800,000.00 x (0%)			$0.00	
			TOTAL MINOR ITEMS		$0.00
Section 8 Roadway Additions					
Supplemental Funds					
Subtotal Sections 1-6	$800,000.00				
Minor Items	$0.00				
Sum	$800,000.00 x (0%)			$0.00	
Contingencies					
Subtotal Sections 1-6	$800,000.00				
Minor Items	$0.00				
Sum	$800,000.00 x (25%)			$200,000.00	
			TOTAL ROADWAY ADDITIONS		$200,000.00
			TOTAL ROADWAY ITEMS (Sections 1-8)		$1,000,000.00

Prepared by: Jian Ru Liang Phone: 3-4235 Date: 4/22/92
Print

PRELIMINARY NBSSR
PROJECT COST ESTIMATE

04-SCL-280
PM R02.9/R03.2
EA 13487K

II. Structure Items*

Bridge Name	LOS GATOS CREEK BRIDGE	LOS GATOS CREEK BRIDGE
Bridge Number	37-265L	37-265L
Structure Type	Box Girder	Box Girder
	Overhang Widening	12 feet Sound Wall on type 27R Barrier Rail
Width (Widening) Ft.	3.00	
Length Ft.	184.00	
Cost per Sq. Ft. (Incl. mobilization & contingencies)	100.00	
Total Cost for Structure	55,200.00	51,000.00

SUBTOTAL STRUCTURE ITEMS $110,000.00

TOTAL STRUCTURE ITEMS $110,000.00

COMMENTS: 1. Unit price for overhang widening was provided by Eldon Davisson which including the mobilization and contigencies
2. It is proposed to remove the existing 2.5 feet overhang width and replace it by a 3 feet overhang width section in order to achieve 0.5 feet overhang widening (See ATTACHMENT 2A).

Prepared by: JYouRu CHANG (Print) Phone: 3-4235 Date: 4/22/92

* To be prepared by or in consultation with Division of Structures. (If appropriate, attach additional pages with backup)

PRELIMINARY NBSSR
PROJECT COST ESTIMATE

04-SCL-280
PM R02.9/R03.2
EA 13487K

III. RIGHT OF WAY*

Acquisitiion	$ 0.00
Construciton Easements	$ 0.00
Utility Relocation	$ 0.00
Clearance	$ 0.00
TOTAL RIGHT OF WAY	$ 0.00

Existing Property Fence Adjustments	$ 0.00
R/W GENERATED CONSTRUCTION WORK (Include as Items in Section I)	$ 0.00

COMMENTS: Noise Barrier will be constructed within the existing right-of-way

Prepared by: Jyou Ru Lyang (Print) Phone: 3-4235 Date: 4/22/92

* To be prepared by or in consultation with District Right of Way Branch. (If appropriate, attach additional pages and backup)

RIGHT OF WAY DATA SHEET

TO: Chuck Huff
ATTN: P/D Sc/ I

Dist 07/Co Sc/Rte 280 PM R2.9/R3.2
EA 134871K
Date 6/10/91
Proj. Des: Soundwalls

Subject: Right of Way Data — Alternate No: _____

1. Right of Way Cost Estimate:

A.	Acquisition, including Excess Lands and Damages to Remainder(s)	$ 0
B.	Utility Relocation (State share)	$ 0
C.	Clearance/Demolition	$ 0
D.	RAP	$ 0
E.	Title and Escrow Fees	$
	Total R/W Estimate: (Excluding Item No. 8 - Hazardous Waste)	$_____
F.	Construction Contract Work	$_____

2. Parcel Data:

Type		Dual/Appr.
X	____	
A	____	
B	____	____
C	____	____
D	____	____
E	XXXX	
F	XXXX	

Total _____

Utilities	
U4-1	____
-2	____
-3	____
-4	____
U5-7	7
-8	____
-9	____

RR Involvements	
None	0
C&M Agrmt	0
Svc Contract	1
Lic/RE/Clauses	1

Misc R/W Work:	
RAP Displ	____
Clear/Demo	____
Const Permits	____

Areas: Right of Way _____ No. Excess Parcels _____
Excess _____

Enter PMCS Screens 7, 8, 9/

Enter AGRE Screen (Railroad data only) ___/___/___

3. Are there major items of construction contract work? Yes ___ No ✓ (If yes, explain.)

4. Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.). None required

5. Is there an effect on assessed valuation? Yes ___ Not Significant ___ No ✓ (If yes, explain.)

6. Are utility facilities or rights of way affected? Yes ___ No ✓ (If yes, explain.)

UTILITY RELOCATIONS ARE NOT ANTICIPATED, HOWEVER, UTILITY VERIFICATIONS WILL BE REQUIRED.

7. A. Are railroad facilities or rights of way affected? Yes ✓ No ___ (If yes, explain.)

The proposed soundwalls will be built up to the railroad property line.

7. B. Name(s) of railroad(s) NA Southern Pacific Transportation

C. When branch lines or spurs are affected, would acquisition and/or payment of damages to businesses and/or industries served by the railroad facilities be more cost effective than construction of a facility to perpetuate the rail service? (See Procedural Handbook Volume 4a, Chapter 440 for further detail.) Yes ___, No ___ (If yes, explain.)

8. Were any previously unidentified sites with hazardous waste and/or material found? Yes ___ None Evident ✓ (If yes, attach memorandum per Procedural Handbook Volume 1, Section 101.026)

9. Are RAP displacements required? Yes ___ No ✓ (If yes, provide the following information.)

No. of single family _____ No. of business/nonprofit _____
No. of multi-family _____ No. of farm _____

Based on _____ Relocation Impact Statement/Study dated _____, it is anticipated that sufficient replacement housing (will/will not) be available without Last Resort Housing.

10. Are there material borrow and/or disposal sites required? Yes ___ No ✓ (If yes, explain.)

11. Are there potential relinquishments and/or abandonments? Yes ___ No ✓ (If yes, explain.)

12. Are there existing and/or potential Airspace sites? Yes ___ No ✓ (If yes, explain.)

13. Indicate the anticipated Right of Way schedule and lead time requirements. (Discuss if District proposes less than formula lead time and/or if significant pressures for project advancement are anticipated.)

~~[illegible]~~

PMCS Calculates 12 months lead time

14. Is it anticipated that all Right of Way work will be performed by Caltrans staff? Yes ✓ No ___ (If no, discuss.)

*Evaluations prepared by:

1. Right of Way: Name [signature] Date 6/11/91
2. Railroad: Name [signature] Date 6/13/91
3. Utilities: Name [signature] Date 6/24/91

*The Right of Way Estimator, Railroad Coordinator and Utility Coordinator must sign and date the Right of Way Data Sheet.

I have reviewed the above data and find it to be complete, current and accurate.

[signature]
Chief of appraisal services
Right of Way

Date 7/8/91

DEC 5 1991

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:CAN 04 13487K          M SCL 280   R2.9     1  D  NEXT = PF12     *  A C S P  *
 N SAN JOSE, BIRD AVE. TO LOS GATOS                    LENGTH     .2 EA  13487K
  EEK                                                AGREE & CLEAR          FLAG S
  PROJECT DATA       PYPSCAN FACTORS    ENVIRONMENTAL CE      CONST COSTS (01/90)
PROGRAM  HB311       ALIGNMENT          RAILROADS X             (1000'S)
PROJECT TYPE NA      ADT          ____  COASTAL ZONES       DISTRICT   DE      665
STRUCTURES    __     LANES              FISH & GAME           STRUCTURES DE      101
HQ ADVERT    /       TERRAIN        _   CORPS OF ENGR         TOTAL              766
ASAP DATE    /       WEATHER        4   HISTORICAL          R/W COSTS UNESCALATED
DIST PS&E    /       LOCATION       U   PUBLIC LANDS        ACQUISITION
STRC PS&E NR/                           ENDGR SPECIES       SQUAD 1 PHONE 9234235
PARCELS        1
    RELATED E/AS
  E/A STAGE   E/A STAGE

------ -     ------ -                                                ENVIRONMENTAL UNIT ___
------ -     ------ -                                                CALC WORKING DAYS   160
------- -    ------- -                  LANDSCAPE DAYS ____          CONST WORKING DAYS  110
                    PJD X      RWO X      CON X      STD X      STC X
RESPONSIBLE UNIT      273        ___        ___        ___        ____
% TRANSFERRED        ___ ___                ___        ___        ___
  TO DISTRICT         __  __    __          __         __         __
DESIGN ENGR  PS-EYC-CWH    BRIDGE ENGR ________                      FREEZE   THAW
PRJ MANAGER SAMUELSEN, P.   PYPSCAN UPDATE 12/05/91                   UUU
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PYRS 04 13487K          M SCL 280   R2.9     1  D  NEXT = PF12     *  A C S P  *
S U P P O R T  BY  F I SC A L  Y E A R  WINDOW YR __ LAST PYPSCAN 12/05/91 (X)
   MONTHS  90-91  91-92  92-93  93-94  94-95  95-96  96-97  97-98  98-99  AFTER
PJD    30                1.50   2.50    .12
RWD                       .02    .19    .11    .06    .01
STD     5                             .23
STC    11                                                .66
CON    11                                         .04   1.93

TOTAL                    1.52   2.92    .27   2.65    .01
M I L E S T O N E S  (* COMPUTED BY PYPSCAN) REG RW LEAD  17 WDYS  110 FLAG S
   ID NEED  APPR PSR BEG ENVR BEG PR   CIRC DFR CIRC ED  HEARING  PAR RPT
   06/01/91 12/  /91
 *          01/93 _  NA/      NA/      NA/      NA/      NA/      NA/
   PA&ED CL GEO BASE BR SITE  BEG BR   RW MAPS  REG RW   SKEL LAY ENV REVL
                                       04/  /92 10/  /92
 * 05/93 _  08/93 _  08/93 _  12/93    08/93 _  09/93    11/93 _  NA/
   BR PS&E  DT PS&E  RW CERT  RDY LIST HQ ADV   APR CNTR JOB COMP
   'R/  /
    5/94 _  06/94 _  02/95 _  02/95 _  04/95 _  07/95 _  01/96 _
EXEC PYPSCAN _
CONSIDER PYPSCAN CALCULATION
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SCL–280 P.M. 2.9/3.2
Bird Ave. to Los Gatos Creek

			Wall w/o barr		Wall on barr		27sv Barr	
		%		%		%		%
A. 12 x 750	9000	35%	9000	48%				
B. 14 x 200	2800	11%	2800	15%				
C. 14 x 300J	3399	13%			3399	3%	300	51%
D. 12 x 350	4200	17%	4200	22%				
E. 14 x 200	2800	11%	2800	15%				
F. 14 x 285J	3229	13%			3229	3%	285	49%
G. 14 x 215S	----				110000	94%		
TOTAL	25428.	100%	18800	100%	116628.0	100%	585	100%

I. ROADWAY ITEMS

Section 1

	Rdwy Exc	Clear. & Grubb.	BF	
A.	$814	$354	$566	
B.	$253	$110	$176	
C.	$307	$134	$214	
D.	$380	$165	$264	
E.	$253	$110	$176	
F.	$292	$127	$203	
G.	$0	$0	$0	
	$2,300	$1,000	$1,600	
			Total	$4,900

Section 2

	Minor Concrete
A.	$4,849
B.	$1,509
C.	$1,831
D.	$2,263
E.	$1,509
F.	$1,740
G.	$0
	$13,700
Total	$13,700

Section 3

	Minor Drain.		RCP Realign	
A.	$7,079		$70,788	
B.	$2,202		$22,023	
C.	$2,673		$26,734	
D.	$3,303		$33,034	
E.	$2,202		$22,023	
F.	$2,540		$25,398	
G.	$0		$0	
		$20,000	$200,000	
			Total	$220,000

Section 4 (Wall & related Items)

	Wall (10–12')	Wall (14–16')	on 27sv Barr	
A.	$117,000	$0	$0	
B.	$0	$36,400	$0	
C.	$0	$0	$33,990	
D.	$54,600	$0	$0	
E.	$0	$36,400	$0	
F.	$0	$0	$32,291	
G.	$0	$0	$0	
	$171,600	$72,800	$66,281	
			Total	$310,681

Section 5 (Specialty Items)

	Conc Barr.	Repl. Plant	Mod. Irrig.	CIDH Piles	Rebar	Rem. Ch Lk Fnce	
A.		$35,394	$10,618	$10,335	$1,487	$3,000	
B.		$11,011	$3,303	$3,215	$462	$800	
C.	15000	$13,367	$4,010	$3,903	$561	$1,200	
D.		$16,517	$4,955	$4,823	$694	$1,400	
E.		$11,011	$3,303	$3,215	$462	$800	
F.	14250	$12,699	$3,810	$3,708	$533	$1,140	
G.		$0	$0	$0	$0	$0	
	$29,250	$100,000	$30,000	$29,200	$4,200	$8,340	
						Total	$200,990

Section 6 Traffic Items

	Lighting	Signing	K-rail
A.	$5,309	$71	$7,079
B.	$1,652	$22	$2,202
C.	$2,005	$27	$2,673
D.	$2,478	$33	$3,303
E.	$1,652	$22	$2,202
F.	$1,905	$25	$2,540
G.	$0	$0	$0
	$15,000	$200	$20,000

Total $35,200

SUMMARY

I. ROADWAY ITEMS			SAY		
Section 1	$4,900		$4,900	0	
Section 2	$13,700		$13,700	0	
Section 3	$220,000		$220,000	0	
Section 4	$310,681		$310,700	$20	
Section 5	$200,990		$201,800	$810	
Section 6	$35,200		$35,200	0	
Total	$785,471		$786,300	SAY	$800,000
Section 7 (Minor Items)			0		
Section 8 (Roadway Additions)			0		

Contincencies

Roadway Items (Sections 1-6)	786300			
	25%	$196,575	SAY	$200,000
				$1,000,000

II. Structure Items

Overhang widening		$55,200		
12 foot soundwall on 27R Barrier Rail		$51,000		
	Total	$106,200	SAY	$110,000
	GRAND TOTAL			$1,110,000

ESTIMATE BY WALL SEGMENT

	Section 1	Section 2	Section 3	Section 4	Section 5	Section 6	Total	SAY	Cont	Struct	Total
A.	$1,734	$4,849	$77,867	$117,000	$60,834	$12,459	$274,742	$280,000	$69,956	$0	$349,956
B.	$540	$1,509	$24,225	$36,400	$18,793	$3,876	$85,342	$87,000	$21,730	$0	$108,730
C.	$655	$1,831	$29,408	$33,990	$38,042	$4,705	$108,631	$111,000	$27,660	$0	$138,660
D.	$809	$2,263	$36,338	$54,600	$28,389	$5,814	$128,213	$130,000	$32,646	$0	$162,646
E.	$540	$1,509	$24,225	$36,400	$18,793	$3,876	$85,342	$87,000	$21,730	$0	$108,730
F.	$622	$1,740	$27,937	$32,291	$36,140	$4,470	$103,200	$105,000	$26,278	$0	$131,278
G.	0	$0	$0	$0	$0	$0	$0	$0	$0	$110,000	$110,000
	$4,900	$13,700	$220,000	$310,681	$200,990	$35,200	$785,471	$800,000	$200,000	$110,000	$1,110,000

PRORATION NBSSR		JAN 94
A.	$349,956	$337,345
B.	$108,730	$104,812
C.	$138,660	$133,663
D.	$162,646	$156,785
E.	$108,730	$104,812
F.	$131,278	$126,547
G.	$110,000	$106,036
	$1,110,000	$1,070,000

EA 44840K - Updated Preliminary Cost Estimate - NB SR - SCL 280 - Bird Ave. to Los Gatos Creek Bridge

NOTE: Due to time constraint, quantities from the original approved PSR or Draft PSR were used in the updated estimate for the FY 01/02.
Quantities were not double checked; units and price/unit were updated. Price/unit was estimated; reference included 1999 Contract Cost Data.
Soundwall info was updated by Env. Engineering @ July 2001. This data was used in the updating of cost.
For soundwalls calculations, the full height of the soundwall was used; did not subtract the height of the barrier, if a soundwall was to be placed on a barrier.
For example, if a 12' Soundwall is to be place on a 2' barrier, calculations used 2' for the barrier and 12' for the soundwall - did not have time to modify the estimate.

	Description of Item	Updated Quantity if available(In Metric)	Unit (Metric)	Price/Unit	Total		Quantity (from approved PSR)	Unit (English) from approved PSR	Price/Unit from approved PSR	Total from approved PSR
Earthwork	Roadway Excavation	120	M3	$25	$3,000		154	CY	$15	$2,310
	Imported Borrow									
	Clearing & Grubbing	1	LS	$10,000	$10,000		1	LS	$1,000	$1,000
	Backfill	50	M3	$50	$2,500		63	CY	$25	$1,575
	Total Earthwork Items				**$15,500**					**$4,885**
Structural Section	Asphalt Concrete									
	Cement-treated Base									
	Aggregate Base									
	Aggregate Subbase									
	Minor Concrete (Spread Footing)	70	M3	$1,000	$70,000		91	CY	$150	$13,650
	Total Structural Section				**$70,000**					**$13,650**
Drainage	Storm Drains									
	drains, overside, etc.)	1	LS	$50,000	$50,000		1	LS	$20,000	$20,000
	Partial RCP Re-alignment	1	LS	$500,000	$500,000		1	LS	$200,000	$200,000
	Lined Channels									
	Total Drainage				**$550,000**					**$220,000**

EA 44840K - Updated Preliminary Cost Estimate - N[illegible]R - SCL 280 - Bird Ave. to Los Gatos Creek Bridge

	Description of Item	Updated Quantity if available(In Metric)	Unit (Metric)	Price/Unit	Total		Quantity (from approved PSR)	Unit (English) from approved PSR	Price/Unit from approved PSR	Total from approved PSR
Wall & Related Items	Retaining Walls									
	Soundwalls (H10'-12')						13200	SQFT	$13	$171,600
	Soundwalls (H14'-16')						5600	SQFT	$13	$72,800
	Soundwalls (H10'-12')						6630	SQFT	$10	$66,300
	Soundwall (14' x 2300')	3000	M2	$175	$525,000					
	Total Wall & Related Items				**$525,000**					**$310,700**
Specialty Items	Erosion Control									
	Slope Protection									
	Concrete Barriers	190	M	$100	$19,000		600	LF	$50	$30,000
	Guardrails									
	Hazardous Waste									
	Replacement Planting	1	LS	$125,000	$125,000		1	LS	$100,000	$100,000
	Modify Irrigation System	1	LS	$75,000	$75,000		1	LS	$30,000	$30,000
	Concrete Pile (CIDH) - 16"	360	M	$300	$108,000		1168	LF	$25	$29,200
	Bar Reinforcing Steel	3810	Kg	$2	$7,620		8400	LB	$1	$4,200
	Remove Chain Link Fence	645	M	$15	$9,675		2100	LF	$4	$8,400
	Total Specialty Items				**$344,295**					**$201,800**
Traffic Items	Lighting	1	LS	$30,000	$30,000		1	LS	$15,000	$15,000
	Signing	1	LS	$5,000	$5,000		1	LS	$200	$200
	Traffic Control System									
	K-Rail	250	M	$95	$23,750		800	LF	$25	$20,000
	Total Traffic Items				**$58,750**					**$35,200**

EA 44840K - Updated Preliminary Cost Estimate - N[illegible]R - SCL 280 - Bird Ave. to Los Gatos Creek Bridge

	Description of Item	Updated Quantity if available(In Metric)	Unit (Metric)	Price/Unit	Total		Quantity (from approved PSR)	Unit (English) from approved PSR	Price/Unit from approved PSR	Total from approved PSR
	Total of Roadway Items (Subtotal 1)				**$1,563,545**					**$786,235**
	Mobilization (10% of Subtotal 1)				$156,355					$78,624
	Subtotal 2				$1,719,900					$864,859
	Contingencies (25% of Subtotal 2)				$429,975					$216,215
	Grand Total of Roadway Items				**$2,149,874**					**$1,081,073**
Structure Items	Los Gatos Creek Bridge (37-265L)									
	Box Girder (Overhang Widening						3	LF		$55,200
	Box Girder (12' S/W on Type 27 R Barrier Rail						184	SQFT		$51,000
	Total Cost for Structure Items w/ Mobilization & Contingencies	1	LS	$300,000	**$300,000**					**$106,200**
Total Construction Cost					**$2,449,874**					**$1,187,273**
Total Right of Way Cost					**$0**					**$0**
TOTAL CAPITAL OUTLAY PROJECT COST	**(Construction and Right of Way)**				**$2,449,874**					**$1,187,273**

EA 44840K - Updated Preliminary Cost Estimate - NB/SR - SCL 280 - Bird Ave. to Los Gatos Creek Bridge

	FY 01/02	FY 02/03	FY 03/04	FY 04/05	FY 05/06	FY 06/07				
Total Construction Cost per FY (Inflation Rate of 3.4% per each FY)	$2,449,874	$2,533,170	$2,619,298	$2,708,354	$2,800,438	$2,895,653				
Total Right of Way Cost per FY (Inflation Rate of 3.4% per each FY)	$0	$0	$0	$0	$0	$0				
Total Capital Outlay Project Cost per FY (Inflation Rate of 3.4% per each FY)	**$2,449,874**	**$2,533,170**	**$2,619,298**	**$2,708,354**	**$2,800,438**	**$2,895,653**				
Support Costs (32% of Total Construction Cost)	**FY 01/02**	**FY 02/03**	**FY 03/04**	**FY 04/05**	**FY 05/06**	**FY 06/07**				
Design/Right of Way (13% of Total Construction Cost)	$318,484	$329,312	$340,509	$352,086	$364,057	$376,435				
Construction (17% of Total Construction Cost)	$416,479	$430,639	$445,281	$460,420	$476,074	$492,261				
Environmental (2% of Total Construction Cost)	$48,997	$50,663	$52,386	$54,167	$56,009	$57,913				
TOTAL SUPPORT COST	**$783,960**	**$810,614**	**$838,175**	**$866,673**	**$896,140**	**$926,609**				
	FY 01/02	**FY 02/03**	**FY 03/04**	**FY 04/05**	**FY 05/06**	**FY 06/07**				**Previously approved PSR**
Priority Index = (Achiev. Reduction X ((Noise Level-67)X(Noise Level-67)) X Number of Units/Total Const. Cost ($1,000))	**11.31**	**10.94**	**10.58**	**10.23**	**9.89**	**9.57**				**16.65**
AR = 9; Noise Level = 76; Units = 38										