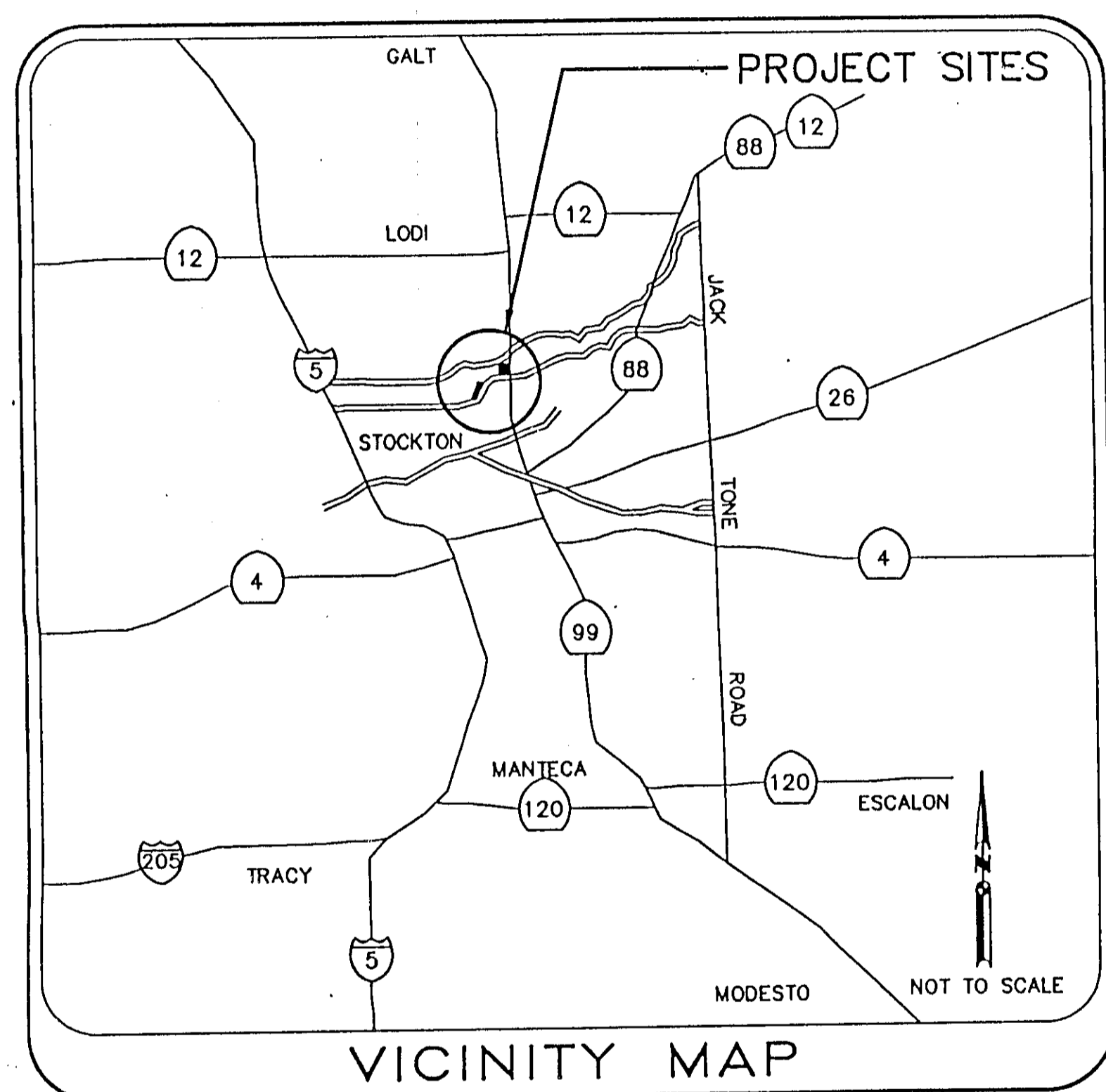


FLOOD PROTECTION RESTORATION PROJECT

MOSHER CREEK DETENTION BASINS NO. 1 AND 2 QUARRY BASINS

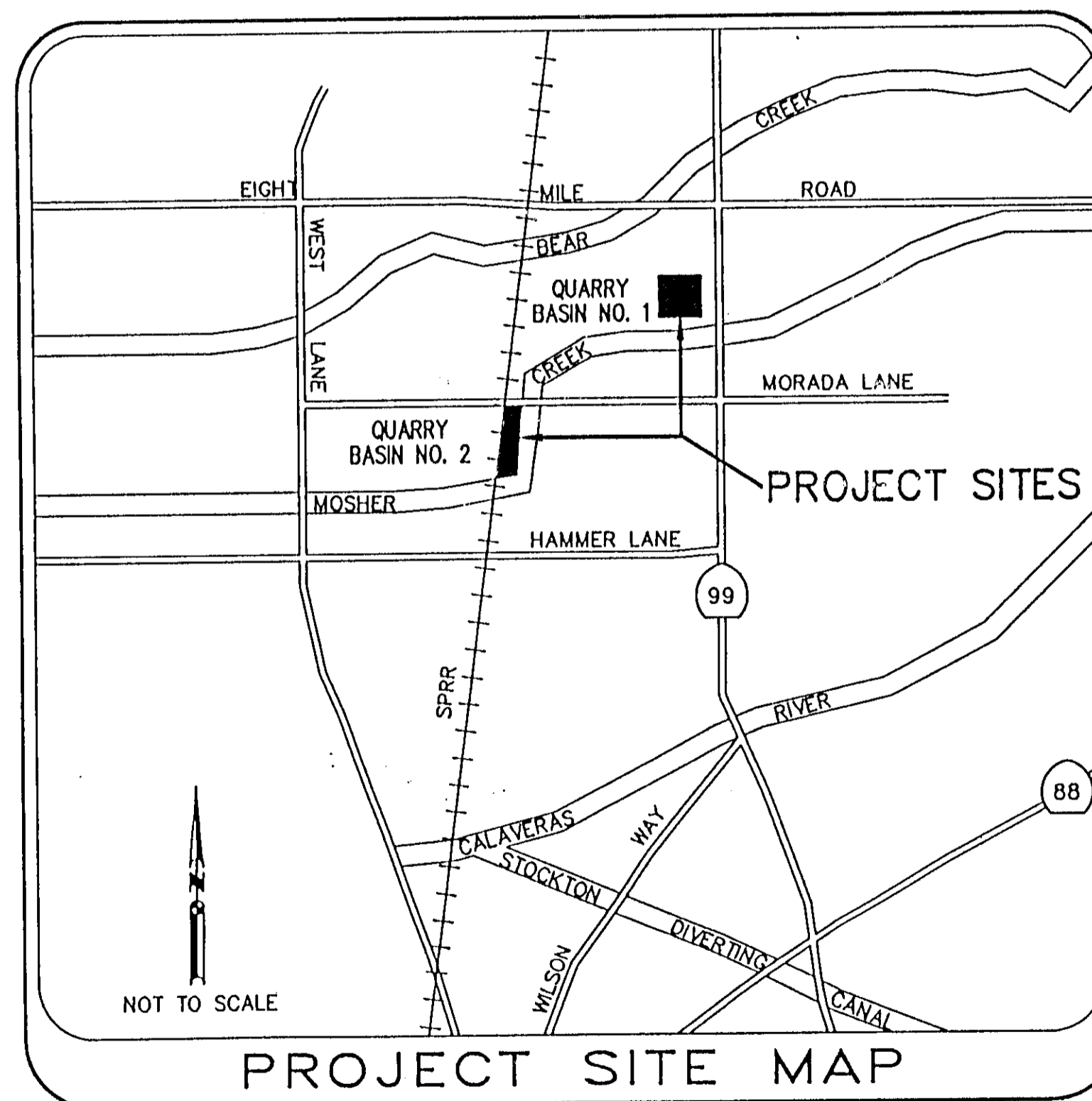
CITY OF STOCKTON,
SAN JOAQUIN COUNTY,
CALIFORNIA

RECORD DRAWINGS
Montgomery Watson, Construction Manager, has inspected this work as it was constructed and certifies that the work provides the flood protection intent of these drawings and, to the best of our knowledge, that the work was constructed as shown in these record drawings.
Monty Krant 4/11/99
FPRP Construction Manager



SAN JOAQUIN AREA FLOOD CONTROL AGENCY

JAMES GIOTTONINI
DIRECTOR OF ENGINEERING



SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	LEGEND AND CONSTRUCTION NOTES
3	VICINITY MAP
4	BASE MAP
5-6	LAYOUT PLANS
7-10	FINAL GRADING PLANS
11-27	CROSS SECTIONS
28-30	DETAILS
31-34	BORING LOGS
34A, 34B	ACCESS ROAD QUARRY BASIN NO. 2

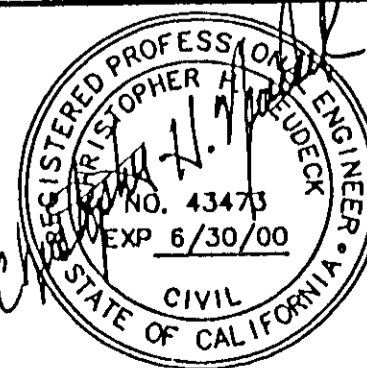
INDEX

SAN JOAQUIN COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT

HENRY M. HIRATA
FLOOD CONTROL ENGINEER

HDR
HDR Engineering, Inc.
5175 Hillside Circle
El Dorado Hills, CA 95762
(916) 939-4100

K S N
INC.
KJELSDEN
SINNOCK
NEUDECK
Consulting Engineers
and Land Surveyors
Post Office Box 844
1113 W. Fremont Street
Stockton, CA 95201-0844
(209) 946-0268



Job No. 1375-144
Plan No. E-1960

No.	DATE	APVD.	REVISION
1	3/99		RECORD CHANGES

FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS

QUARRY BASINS
TITLE SHEET

SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN

SCALE: N/A
DESIGNED BY: DGR
DRAWN BY: BAS
CHECKED BY: CHN
RECORD DWG.:
DATE: 6/13/96

CHECKED BY: *[Signature]*
DATE: 6/13/96
HANSON ENGINEERING

SHEET
1
OF
34
SHEETS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
A	AREA	GRND	GROUND	R	RADIUS / RADIAL	VERT	VERTICAL
AB	AGGREGATE BASE	GSP	GALVANIZED STEEL PIPE	R&D	REMOVE AND DISPOSE	VLT	VAULT
ABN	ABANDON	GV	GAS VALVE	RB	REBAR	VOL	VOLUME
AC	ASPHALT CONCRETE	H	HEIGHT	RD	ROAD	VP	VENT PIPE
ADJ	ADJUST	HB	HOSE BIB	REF	REFERENCE	VPI	VERTICAL POINT OF INTERSECTION
ALT	ALTERNATIVE	HD	HORIZONTAL DRAIN	REINF	REINFORCED / REINFORCING	W	WEST / WIDTH
ARV	AIR RELEASE VALVE	HGL	HYDRAULIC GRADE LINE	REL	RELOCATE / RELOCATED	W/O	WITH OUT
ASSY	ASSEMBLY	HORIZ	HORIZONTAL	REM	REMOVABLE / REMOVED	WB	WESTBOUND
AVE	AVERAGE	HP	HINGE POINT OR HORSE POWER	REV	REVISION	WD	WOOD
BC	BEGIN HORIZONTAL CURVE	HWY	HIGHWAY	RL	REFERENCE LINE	WH	WEEP HOLE
BK	BACK	IB	IMPORTED BORROW	RND	ROUND	WK	WALK
BKF	BACKFILL	ID	INSIDE DIAMETER	RP	REFERENCE POINT	WL	WATER METER
BL	BASELINE	IE	INVERT ELEVATION	RR	RAILROAD	WM	WIRE MESH
BLDG	BUILDING	IN	INCH	RSP	REMOVE AND SALVAGE	WP	WATER PUMP / WEATHER PROOF
BLVD	BOULEVARD	INTX	INTERSECTION	RT	RIGHT / ROUTE / RETAINING WALL	WRG	WIRING
BM	BENCH MARK	INV	INVERT	RVS	REVERSE	WS	WATER SURFACE
BO	BLOW OFF	IP	IRON PIPE	RW	RIGHT-OF-WAY	WV	WATER VALVE
BVC	BEGIN VERTICAL CURVE	IRR	IRRIGATION	S	SLOPE / SOUTH	WWF	WELDED WIRE FABRIC
BW	BACK OF WALK / BARBED WIRE	JP	JOINT POLE	S/M	SELECTED MATERIAL	XFMR	TRANSFORMER
C/C	CENTER TO CENTER	JS	JUNCTION STRUCTURE	SALV	SALVAGE	XING	CROSSING
CALC	CALCULATE	JT	JOINT	SB	SOUTHBOUND / SLIP BASE (SIGNAL)	XS	CROSS SECTION
CB	CATCH BASIN	L	LENGTH	SBM	STANDARD BENCH MARK DISK	YD	YARD
CF	CUBIC FOOT	LAT	LATITUDE	SCH	SCHEDULE		
CHNL	CHANNEL	LB	POUND	SD	STORM DRAIN		
CIP	CAST IRON PIPE / CAST IN PLACE	LD	LANDSCAPE DRAIN	SDG	SOUNDING		
CIPCP	CAST IN PLACE CONCRETE PIPE	LEV	LEVEL	SDMH	STORM DRAIN MANHOLE		
CL	CENTERLINE / CHAIN LINK / CLASS	LF	LINEAR FOOT	SE	SOUTHEAST		
CLR	CLEAR / CLEARANCE	LN	LANE	SEC	SECTION		
CMP	CORRUGATED METAL PIPE	LOC	LOCATION	SEP	SEPARATION		
CMU	CONCRETE MASONRY UNIT	LOL	LAYOUT LINE	SF	SQUARE FOOT		
CO	CLEAN OUT	LON	LONGITUDE	SFN	SEARCH FOUND NOTHING		
CONC	CONCRETE	LS	LUMP SUM	SG	SUBGRADE		
COND	CONDUIT	LT	LEFT	SGL	SINGLE		
CONST	CONSTRUCTION	LYT	LAYOUT	SHLD	SHOULDER		
CORD	COORDINATE	MAJ	MAJOR	SHT	SHEET		
CORP	U.S. CORPS OF ENGINEERS	MATL	MATERIAL	SIG	SIGNAL		
CR	CURB RETURN / CREEK	MAX	MAXIMUM	SL	SEA LEVEL / SECTION LINE		
CRSP	CONCRETE ROCK SLOPE PROTECTION	MEAS	MEASURE	SM	SELECTED MATERIAL		
CU	CUBIC	MED	MEDIAN	SMH	SANITARY SEWER MANHOLE		
CULV	CULVERT	MH	MANHOLE	SP	STAND PIPE / SERVICE POINT		
CY	CUBIC YARD	MI	MILES	SPEC	SPECIAL / SPECIFICATION		
D	DEPTH / DIAMETER	MID	MIDDLE	SPK	SPIKE		
DBL	DOUBLE	MIN	MINIMUM	SQ	SQUARE		
DD	DOWNDRAIN	MISC	MISCELLANEOUS	SQFT	SQUARE FOOT		
DEG	DEGREE	MKR	MARKER	SQYD	SQUARE YARD		
DET	DETAILS	MN	MAIN	SS	SANITARY SEWER		
DF	DOUGLAS FUR	MOD	MODIFIED	ST	STREET		
DFL	DITCH FLOW LINE	MON	MONUMENT	STA	STATION		
DG	DECOMPOSED GRANITE	MSONRY	MASONRY	STD	STANDARD		
DI	DROP INLET	MTL	MATERIAL	STK	STAKE		
DIA	DIAMETER	MTR	METER	STL	STEEL		
DIFF	DIFFERENCE	(N)	NEW	STOR	STORAGE		
DIP	DUCTILE IRON PIPE	N	NORTH / NORthing	STR	STRUCTURE		
DIST	DISTANCE	N/A	NOT APPLICABLE	STR GR	STRAIGHT GRADE		
DN	DOWN	NAPOTS	NOT A PART OF THIS SURVEY	SURF	SURFACING		
DR	DRAIN OR DRIVE	NAT	NATURAL	SW	SIDEWALK / SOUTHWEST		
DWG	DRAWING	NB	NORTHBOUND	SWR	SEWER		
DWY	DRIVEWAY	NE	NORTHEAST	SY	SQUARE YARD		
(E)	EXISTING	NGS	NATIONAL GEOLOGIC SURVEY	SYS	SYSTEM		
E	EAST / EASTING	NO	NUMBER	T	SEMI-TANGENT		
EA	EACH	NORM	NORMAL	TAN	TANGENT		
EC	END HORIZONTAL CURVE	NTS	NOT TO SCALE	TB	THRUST BLOCK		
EG	EXISTING GRADE / FOR EXAMPLE	NW	NORTHWEST	TBM	TEMPORARY BENCH MARK		
EL	ELEVATION	OC	ON CENTER / OVERCROSSING	TC	TOP OF CURB		
EMB	EMBANKMENT	OD	OUTSIDE DIAMETER	TCB	TRAFFIC CONTROL BOX		
EP	EDGE OF PAVEMENT	OG	ORIGINAL GROUND	TEL	TELEPHONE		
ER	END OF RETURN	OH	OVERHEAD	TEMP	TEMPORARY		
ES	EDGE OF SHOULDER	ORIG	ORIGINAL	TER	TERRACE		
ESCP	EXTRA STRENGTH CONCRETE PIPE	OUT	OUTLET	TO	TOP OF GRATE		
ESMT	EASEMENT	PB	PULL BOX	TH	TEST HOLE		
EVC	END VERTICAL CURVE	PBM	PRECISE BENCH MARK	TMBR	TIMBER		
EW	END WALL	PC	POINT ON CURVE	TP	TOTAL		
EXC	EXCAVATION	PCC	POINT OF COMPOUND CURVE	TP	TURNING POINT		
EXIST	EXISTING	PCP	PERFORATED CONCRETE PIPE	TR	TRACT		
EXP JT	EXPANSION JOINT	PCVC	POINT OF COMPOUND VERTICAL CURVE	TRANS	TRANSITION		
F	FILL	PERP	PERPENDICULAR	TYP	TYPICAL		
F & C	FRAME AND COVER	PG	PROFILE GRADE	TYP SEC	TYPICAL SECTION		
F & G	FRAME AND GRATE	PI	POINT OF INTERSECTION	UD	UNDERDRAIN		
FD	FOUNDATION	PL	PROPERTY LINE / PLATE	UGRD	UNDERGROUND		
FDN	FOUNDATION	POB	POINT OF BEGINNING	UNMKD	UNMARKED		
FG	FINISHED GRADE	PCC	POINT ON HORIZONTAL CURVE	UP	UNDERPASS / UTILITY POLE		
FH	FIRE HYDRANT	POT	POINT ON TANGENT	USA	UNDERGROUND SERVICE ALERT		
FL	FLOW LINE	POVC	POINT ON VERTICAL CURVE	USC&GS	UNITED STATES COAST & GEODETIC SURVEY		
FR RD	FRONTAGE ROAD	PP	POWER POLE	USGS	UNITED STATES GEODETIC SURVEY		
FS	FORESIGHT OR FINISHED SURFACE	PRC	POINT OF REVERSE CURVE	UTL	UTILITY		
FT	FOOT / FEET	PRI	PRIMARY	V	VALVE		
FTG	FOOTING	PRVC	POINT OF REVERSE VERTICAL CURVE	VAL	VALLEY		
G	GAS	PT	POINT	VAR	VARIABLE		
GAL	GALLON	PUE	PUBLIC UTILITY EASEMENT	VB	VALVE BOX		
GALV	GALVANIZED	PVC	POLYVINYL CHLORIDE	VC	VERTICAL CURVE		
GB	GRADE BREAK	PVMT	PAVEMENT	VCP	VITRIFIED CLAY PIPE		
CL	GRADELINE OR GROUND LINE						
GR	GRADE / GRATE / GUARD RAILING						

ABBREVIATION	DESCRIPTION
VERT	VERTICAL
VLT	VAULT
VOL	VOLUME
VP	VENT PIPE
VPI	VERTICAL POINT OF INTERSECTION
W	WEST / WIDTH
W/O	WITH OUT
WB	WESTBOUND
WD	WOOD
WH	WEEP HOLE
WK	WALK
WL	WATER METER
WM	WIRE MESH
WP	WATER PUMP / WEATHER PROOF
WRG	WIRING
WS	WATER SURFACE
WV	WATER VALVE
WWF	WELDED WIRE FABRIC
XFMR	TRANSFORMER
XING	CROSSING
XS	CROSS SECTION
YD	YARD

EXCAVATION / GRADING NOTES

- PRIOR TO BEGINNING WORK CONTRACTOR SHALL SUBMIT FOR APPROVAL, BY ENGINEER, A SITE MAINTENANCE AND OPERATIONS PLAN (S.M.O.P.)
- CLEAR AND GRUB THE ENTIRE SITE PRIOR TO BEGINNING THE EXCAVATION AS DESCRIBED IN THE SPECIFICATIONS.
- INSTALL PERIMETER CHAIN LINK FENCING & PIPE GATES PRIOR TO BEGINNING SITE EXCAVATION.
- GRADE BASIN PERIMETER AREAS TO THE DESIGN GRADE PRIOR TO BEGINNING SITE EXCAVATION.
- GRADE BOTTOM OF EXCAVATION TO COLLECT EXCESS RAINFALL RUNOFF TO AN APPROVED LOCATION. REMOVE COLLECTED RUNOFF BY PUMPING INTO EXISTING DRAINAGE FACILITIES.
- EXCAVATED SLOPES SHALL NOT EXCEED 2:1
- MIX EXCAVATED MATERIAL AS DESCRIBED IN THE SPECIFICATIONS OR AS APPROVED BY ENGINEER.
- CONTRACTOR SHALL REPLACE TEMPORARY CHAIN LINK FENCE WITH PERMANENT CHAIN LINK FENCE AS DIRECTED BY ENGINEER EXCEPT AT THE FIELD OFFICE INSTALL A PERMANENT CHAIN LINK FENCE AND GATE.

NEW (N)	EXISTING (E)	DESCRIPTION
		GATE
		FENCE
		GUARD RAIL / BARRICADE
		RAILROAD TRACKS
		BUILDING
		TREE / SHRUB
		LIGHT
		MANHOLE
		UTILITY POLE
		POST / BOLLARD
		SIGN
		CONTROL MONUMENT
		SPOT ELEVATION
		UTILITY BOX
		STORM DRAIN LINE (ARROW DEPICTS FLOW DIRECTION)
		SANITARY SEWER LINE (ARROW DEPICTS FLOW DIRECTION)
		WATER LINE
		GAS LINE
		COMMUNICATION LINE
		ELECTRICAL LINE
		CONDUIT
		REMOVE PIPELINE
		PAVING
		RIGHT OF WAY / PROPERTY LINE
		DITCH

SYMBOL	DESCRIPTION
	WORK POINT OR BENCH MARK
	CONTROL POINT BY AGENCY
	DETAIL INDICATOR
	DETAIL IDENTIFICATION NUMBER
	DRAWING WHERE DETAIL IS SHOWN
	NOTE: DRAWING NOTE WILL IDENTIFY WHERE DETAIL IS SHOWN
	REVISION
	REVISION NUMBER
	SECTION INDICATOR
	DETAIL IDENTIFICATION NUMBER
	DRAWING WHERE DETAIL IS DRAWN
	NOTE INDICATOR
	NOTE NUMBER AS INDICATED
	EXISTING TREE TO BE REMOVED

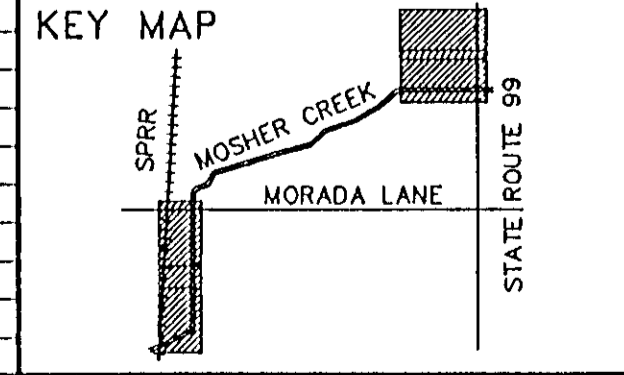
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HDR Engineering, Inc.
5175 Hillsdale Circle
El Dorado Hills, CA 95762
(916) 935-4100

K S N
INC.
Consulting Engineers
and Land Surveyors
Post Office Box 844
1113 W. Fremont Street
Stockton, CA 95201-0844
(209) 946-0268

No.	DATE	APVD.	REVISION



FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS

QUARRY BASINS

LEGEND & CONSTRUCTION NOTES

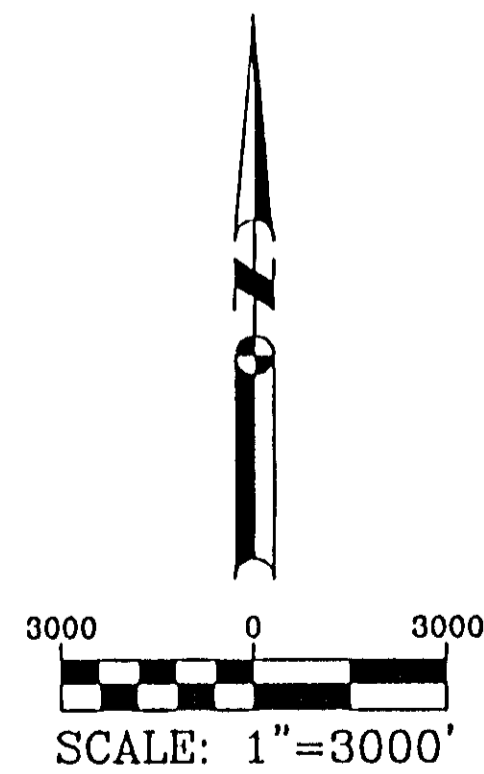
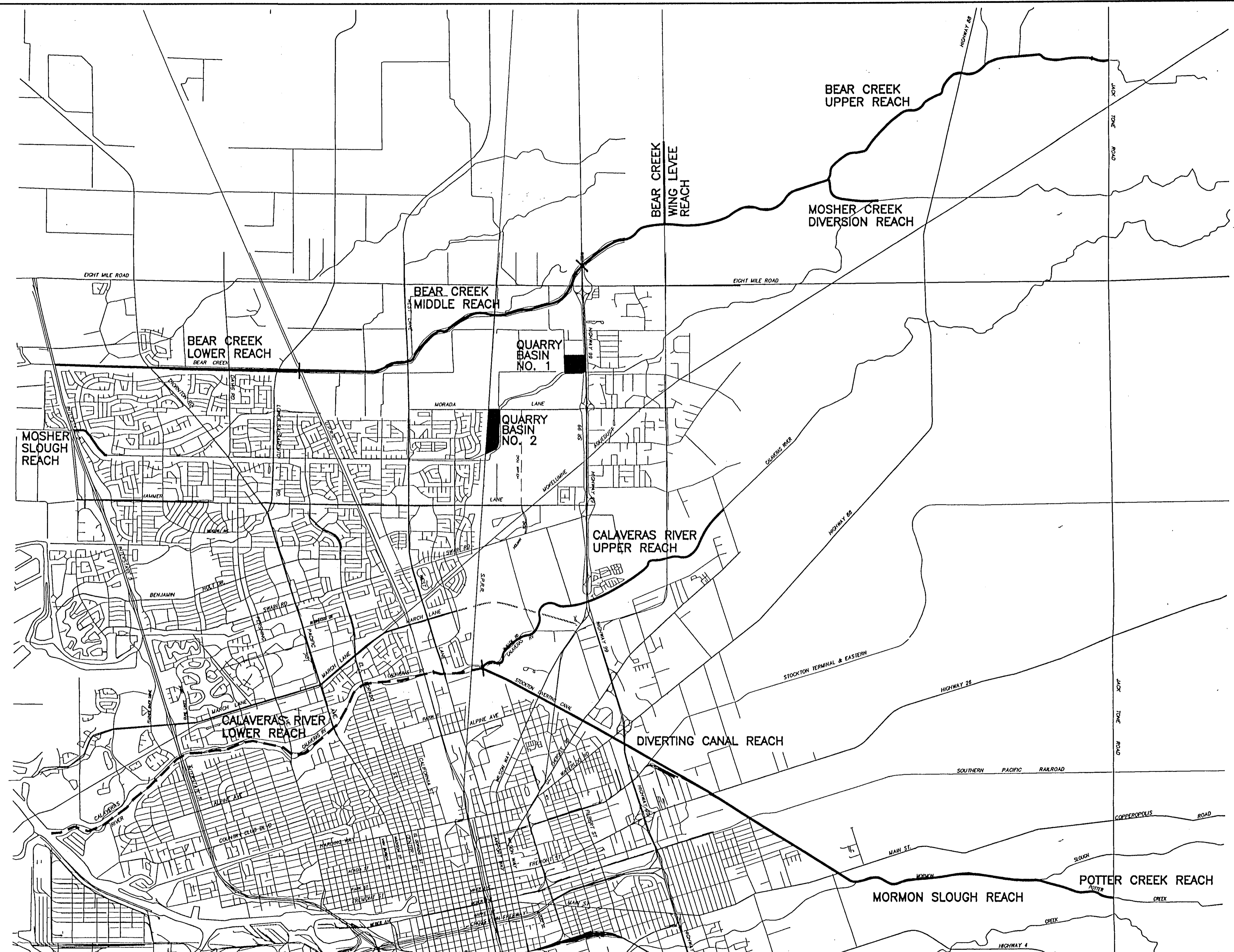
SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN

SCALE: N/A CHECKED BY: DATE: 6/13/96 SHEET NO. 2

DESIGNED BY: DJB
DRAWN BY: JDB
CHECKED BY: CHN
RECORD DWG.: CHN
DATE: 6/13/96

OF SHEETS 34
JOB NO. SHEETS

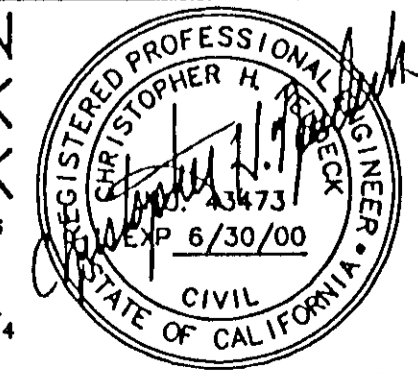
AMSON ENGINEERING



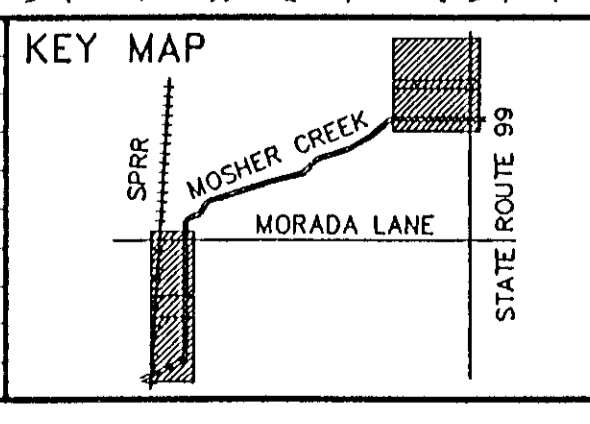
RECORD DRAWINGS
See Sheet 1

HDR
HDR Engineering, Inc.
5175 Hillside Circle
El Dorado Hills, CA 95762
(916) 939-4100

KSN
INC.
KJELDEN
SINNOCK
NEUDECK
Consulting Engineers
and Land Surveyors
Post Office Box 844
1113 W. Fremont Street
Stockton, CA 95201-0844
(209) 946-0268



No.	DATE	APVD.	REVISION



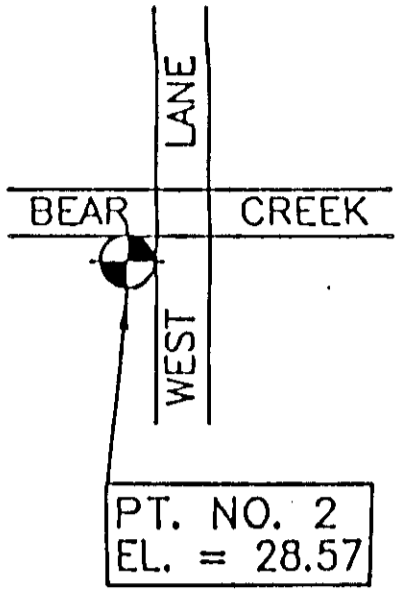
FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS
QUARRY BASINS AND LEVEE REACHES
VICINITY MAP

SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN
SCALE: 1"=3000'
DESIGNED BY: DGR
DRAWN BY: BLJ
CHECKED BY: CHN
RECORD DWG.:
DATE: 6/13/96

CHECKED BY: *[Signature]*
DATE: 6/13/96
HANSON ENGINEERING

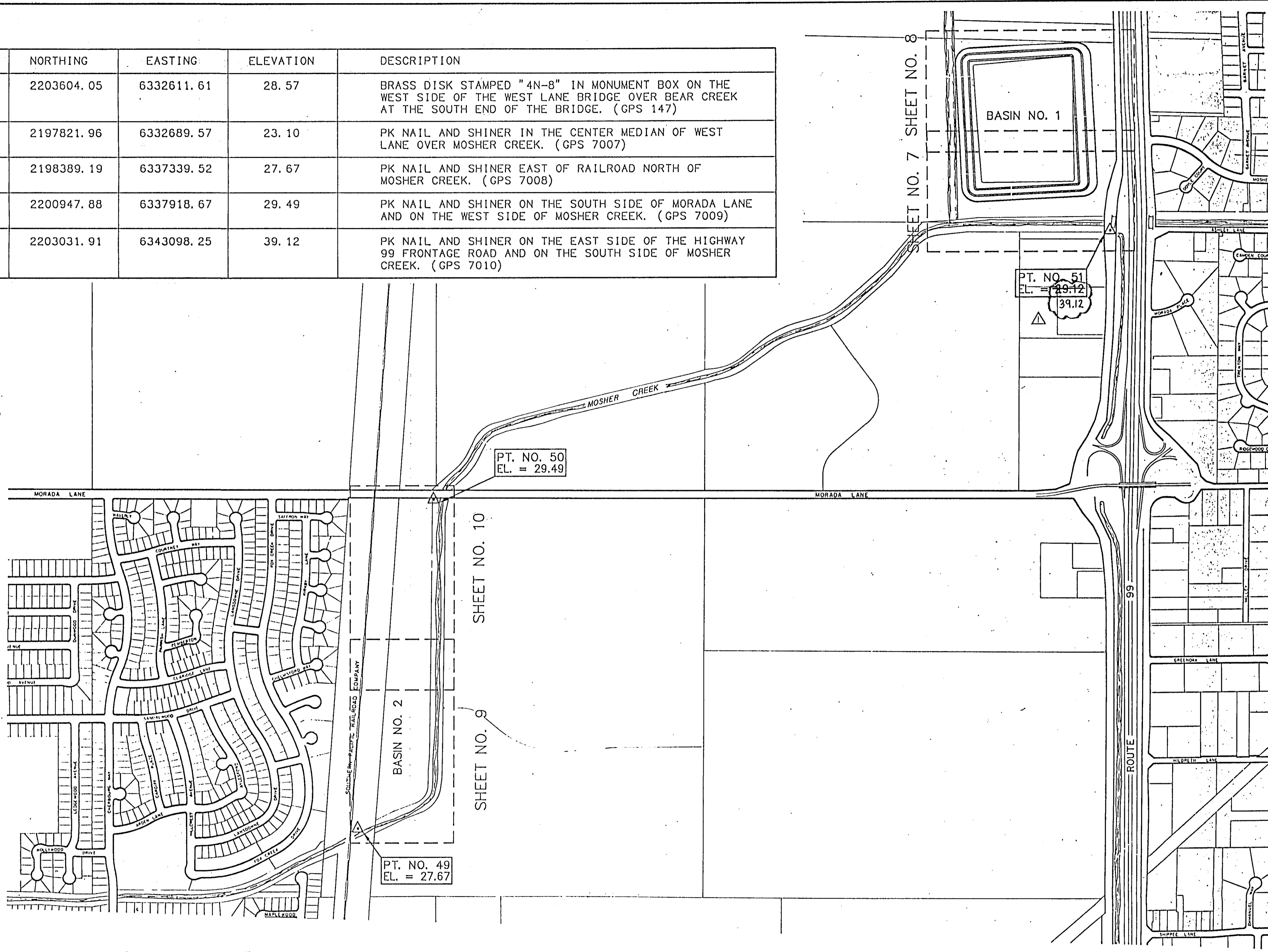
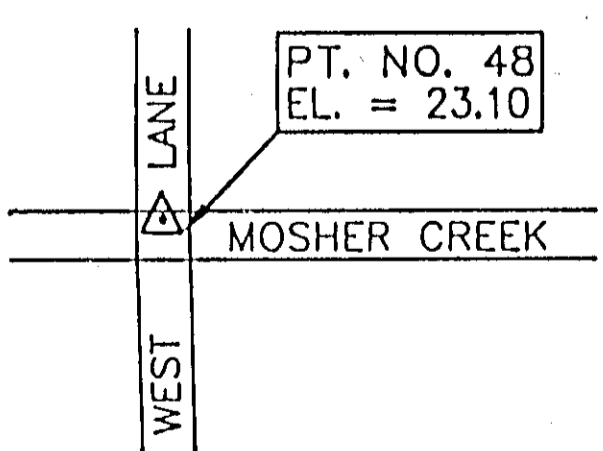
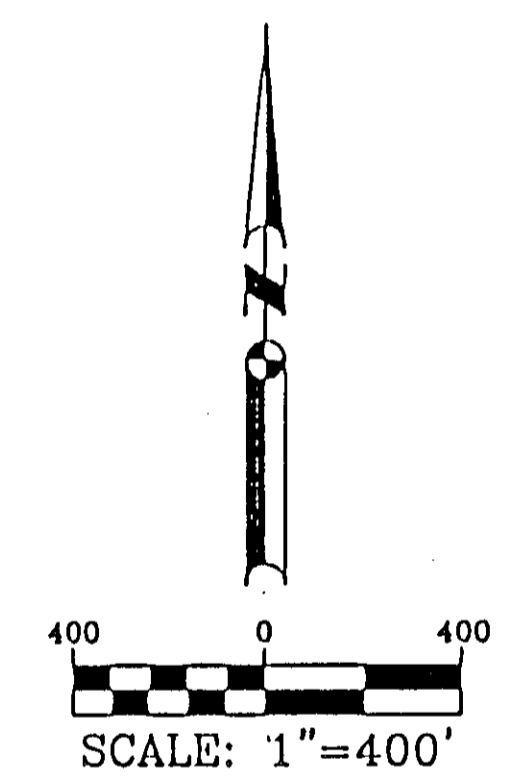
SHEET
3
OF
34
SHEETS

POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
2	2203604.05	6332611.61	28.57	BRASS DISK STAMPED "4N-8" IN MONUMENT BOX ON THE WEST SIDE OF THE WEST LANE BRIDGE OVER BEAR CREEK AT THE SOUTH END OF THE BRIDGE. (GPS 147)
48	2197821.96	6332689.57	23.10	PK NAIL AND SHINER IN THE CENTER MEDIAN OF WEST LANE OVER MOSHER CREEK. (GPS 7007)
49	2198389.19	6337339.52	27.67	PK NAIL AND SHINER EAST OF RAILROAD NORTH OF MOSHER CREEK. (GPS 7008)
50	2200947.88	6337918.67	29.49	PK NAIL AND SHINER ON THE SOUTH SIDE OF MORADA LANE AND ON THE WEST SIDE OF MOSHER CREEK. (GPS 7009)
51	2203031.91	6343098.25	39.12	PK NAIL AND SHINER ON THE EAST SIDE OF THE HIGHWAY 99 FRONTAGE ROAD AND ON THE SOUTH SIDE OF MOSHER CREEK. (GPS 7010)



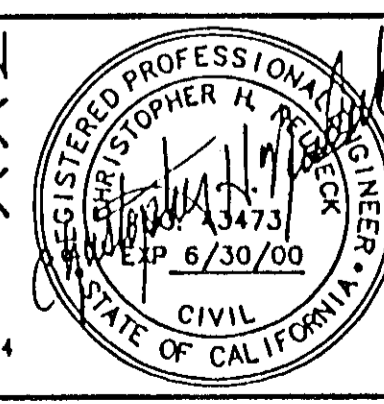
BENCHMARK:
 BRASS DISK STAMPED "4N-8" IN MONUMENT BOX ON THE WEST SIDE OF THE WEST LANE BRIDGE OVER BEAR CREEK AT THE SOUTH END OF THE BRIDGE. (GPS 147)
 ELEVATION = 28.57', NGVD 1929.

BASIS OF BEARINGS:
 BEARINGS, DISTANCES AND COORDINATES ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, ZONE 3, NAD 83. MULTIPLY DISTANCES SHOWN BY 1.00005842 TO OBTAIN GROUND DISTANCES.

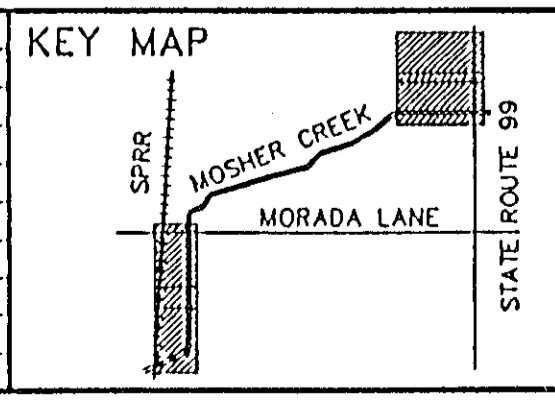


HDR
 HDR Engineering, Inc.
 5175 Hillsdale Circle
 El Dorado Hills, CA 95762
 (916) 933-4100

KSN
 INC.
 KJELDEN SINNOCK NEUDECK
 Consulting Engineers and Land Surveyors
 Post Office Box 844
 1113 W. Fremont Street
 Stockton, CA 95201-0844
 (209) 946-0268



No.	DATE	APVD.	REVISION
1	8/7/98		elevation correction



FLOOD PROTECTION RESTORATION PROJECT
 MOSHER CREEK DETENTION BASINS

**QUARRY BASINS
 BASE MAP**

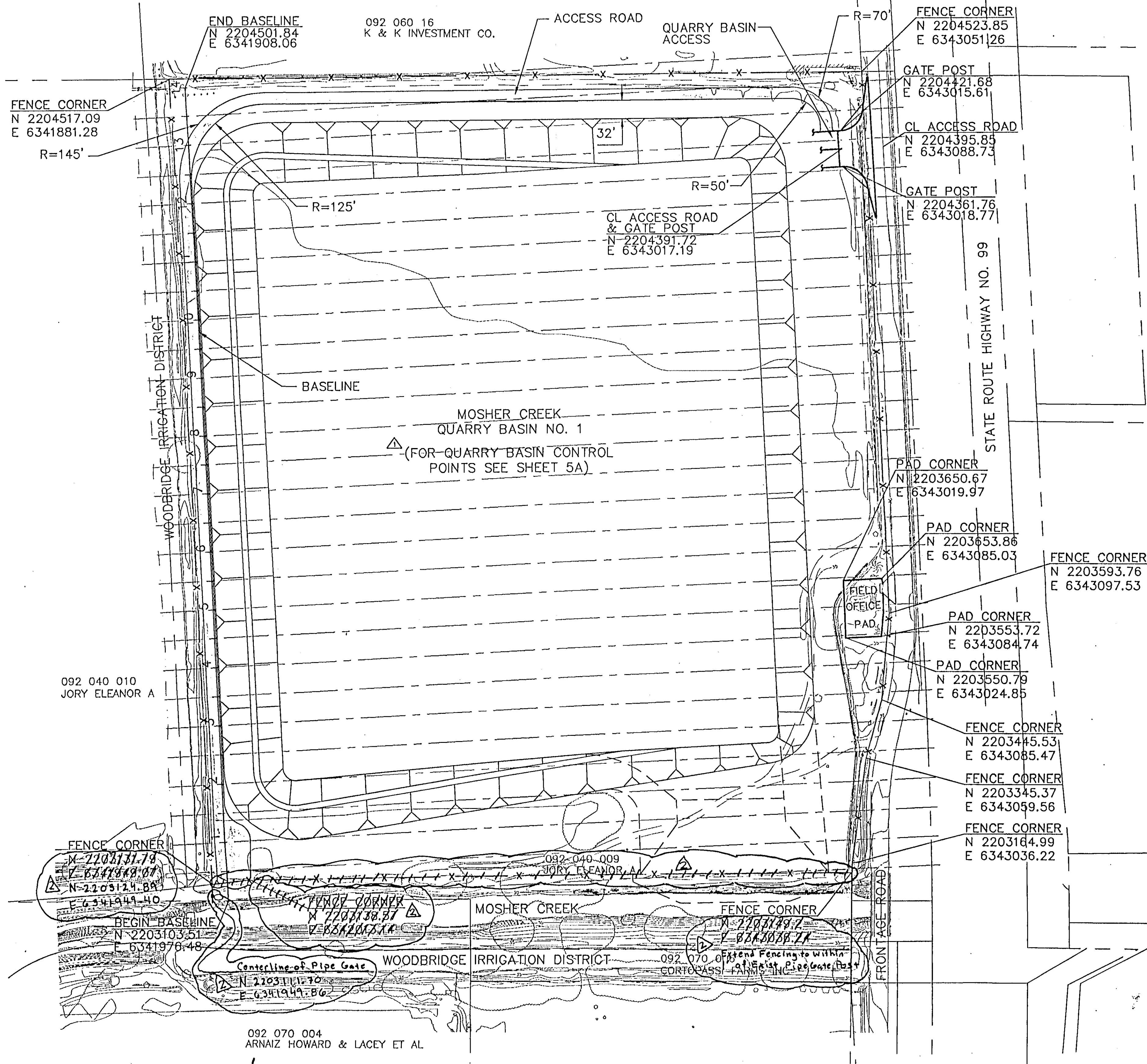
SAN JOAQUIN AREA FLOOD CONTROL AGENCY
 CITY OF STOCKTON - COUNTY OF SAN JOAQUIN

SCALE: 1"=400'
 DESIGNED BY: DGR
 DRAWN BY: BAS
 CHECKED BY: CHN
 RECORD DWG.:
 DATE: 6/13/96

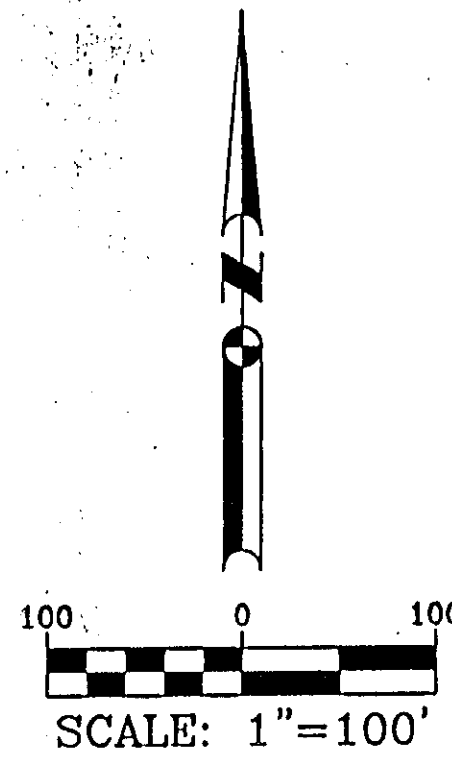
CHECKED BY: [Signature]
 DATE: 6/13/96
 HANSON ENGINEERING

RECORD DRAWINGS
See Sheet 1

SHEET
4
 OF
 34
 SHEETS



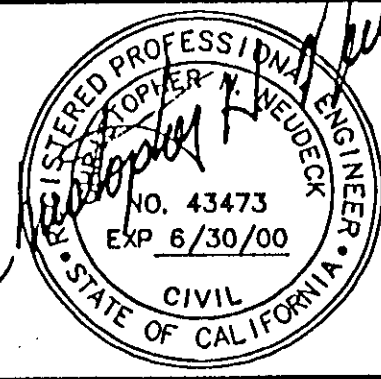
- NOTES: \triangle
- CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION STAKING AND GRADE STAKING.
 - SEE SHEETS 7 AND 8 FOR FINAL GRADING PLAN.



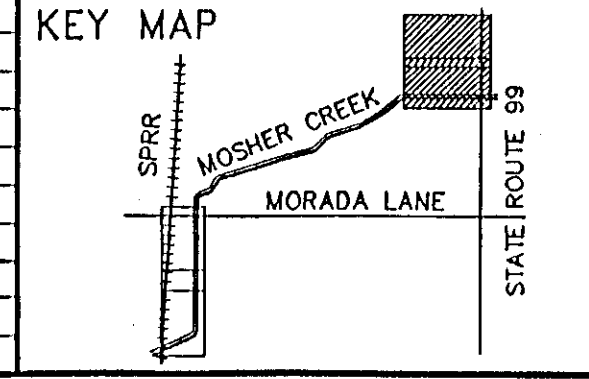
RECORD DRAWINGS
See Sheet 1



KSN
INC.
KJELSDEN
SINNOCK
NEUDECK
Consulting Engineers
and Land Surveyors
Post Office Box 544
1113 W. Fremont Street
Stockton, CA 95201-0844
(209) 946-0268



No.	DATE	APVD.	REVISION
1	6/13/97		DEIC #1 - REVISED QUARRY BASIN LAYOUT ADDED & MODIFIED NOTES REMOVED QUARRY BASIN CONTROL POINTS
2	1/22/98		Removed Southern Portion of Fencing # Added Pipe Gate

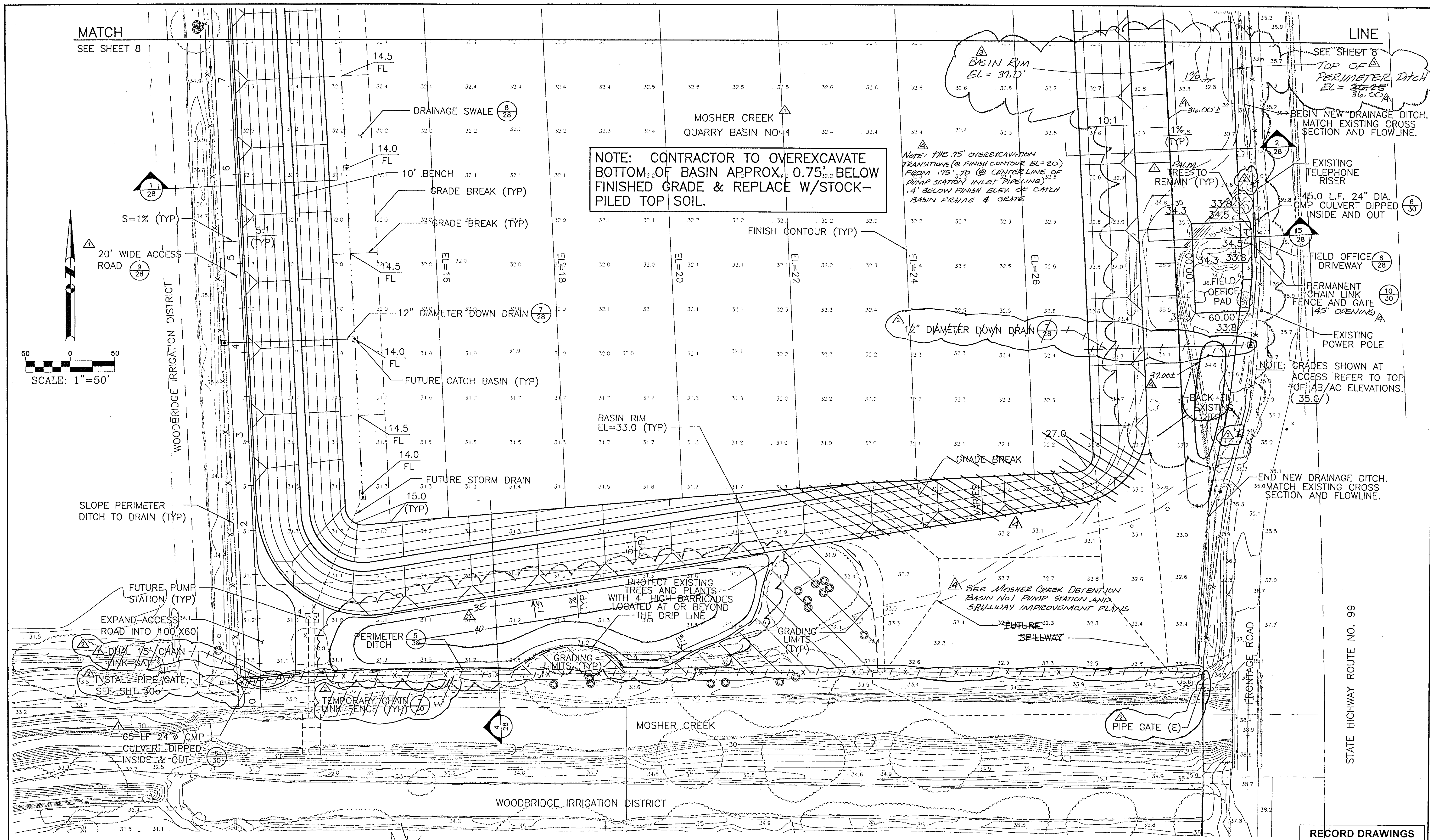


FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS

**QUARRY BASIN NO. 1
LAYOUT PLAN**

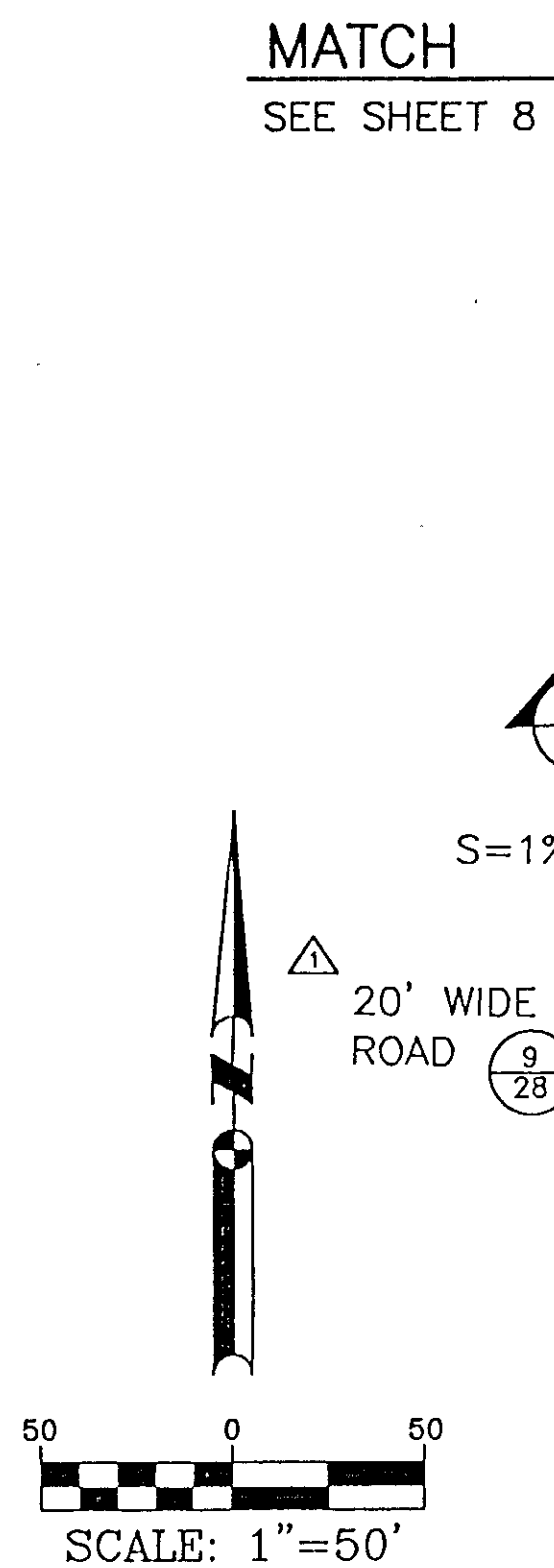
SAN JOAQUIN AREA FLOOD CONTROL AGENCY CITY OF STOCKTON - COUNTY OF SAN JOAQUIN	
SCALE: 1"=100'	CHECKED BY: DATE: SHEET NO.
DESIGNED BY: DJB	HANSON ENGINEERING
DRAWN BY: JSW	
CHECKED BY: CHN	
RECORD DWG.:	
DATE: 6/13/96	

SHEET
5
OF
34
SHEETS



NOTE: CONTRACTOR TO OVEREXCAVATE BOTTOM OF BASIN APPROX. 0.75' BELOW FINISHED GRADE & REPLACE W/STOCK-PILED TOP SOIL.

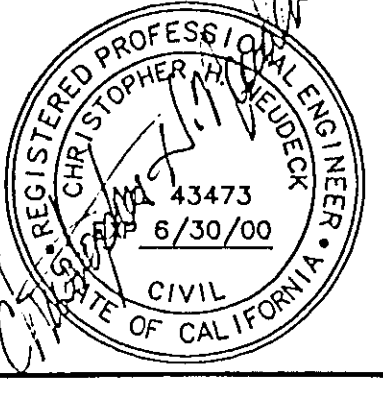
NOTE: THE 75' OVEREXCAVATION TRANSITIONS @ FINISH CONTOUR EL=20' FROM .75' TO @ CENTER LINE OF PUMP STATION INLET PIPELINE .4' BELOW FINISH ELEV. OF CATCH BASIN FRAME & GRATE



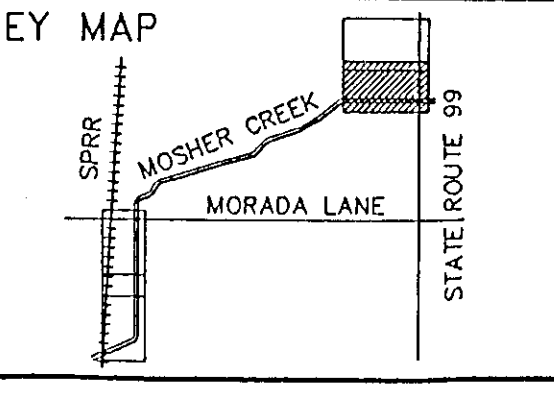
RECORD DRAWINGS
See Sheet 1

HDR
HDR Engineering, Inc.
271 Turn Pike Drive
Folsom, CA 95630
(916) 351-3333

KSN
KJELDSSEN
SINNOCK
NEUDECK
INC.
Consulting Engineers
and Land Surveyors
Post Office Box 844
911 N. Pershing Avenue
Stockton, CA 95201-0844
(209) 946-0269



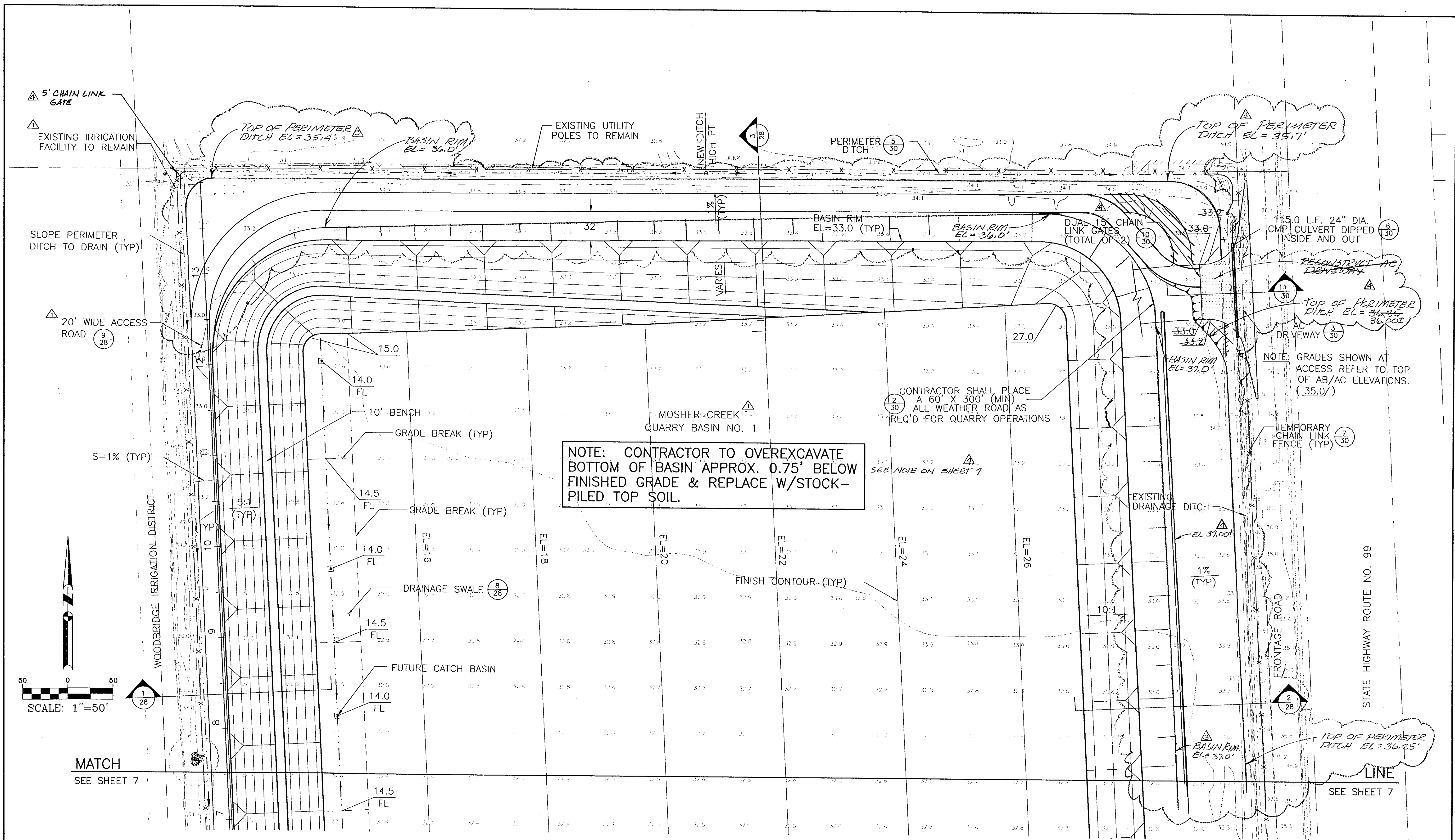
No.	DATE	APVD.	REVISION
1	7/13/99		DEIC #1 - REVISED QUARRY BASIN LAYOUT ADDED & MODIFIED QUARRY BASIN ACCESS ROAD, GATE, CULVERT, GRADES, SLOPES & NOTES
2	7/22/99		REMOVED SOUTHERN PORTION OF TEMPORARY FENCING, FLOW DIRECTION ARROWS AND EASTERN DOWN DRAIN AND ADDED PIPE GATE
3	10/99		REVISED GRADING RECORD CHANGES



**FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS**

**QUARRY BASIN NO 1
FINAL GRADING PLAN**

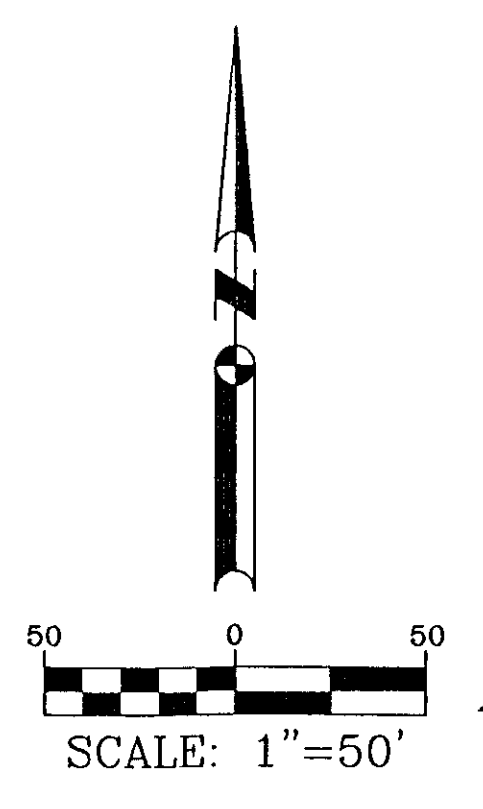
SAN JOAQUIN AREA FLOOD CONTROL AGENCY CITY OF STOCKTON - COUNTY OF SAN JOAQUIN		SHEET
SCALE: 1"=50'	CHECKED BY: _____	DATE: _____
DESIGNED BY: DGR	CHECKED BY: CHN	DATE: 1/22/98
DRAWN BY: BAS	RECORD DWG.: _____	HANSON ENGINEERING
OF SHEETS	JOB NO.	SHEETS
34		7



NOTE: CONTRACTOR TO OVEREXCAVATE BOTTOM OF BASIN APPROX. 0.75' BELOW FINISHED GRADE & REPLACE W/STOCK-PILED TOP SOIL.

CONTRACTOR SHALL PLACE A 60' X 300' (MIN) ALL WEATHER ROAD AS REQ'D FOR QUARRY OPERATIONS

NOTE: GRADES SHOWN AT ACCESS REFER TO TOP OF AB/AC ELEVATIONS. (35.0')



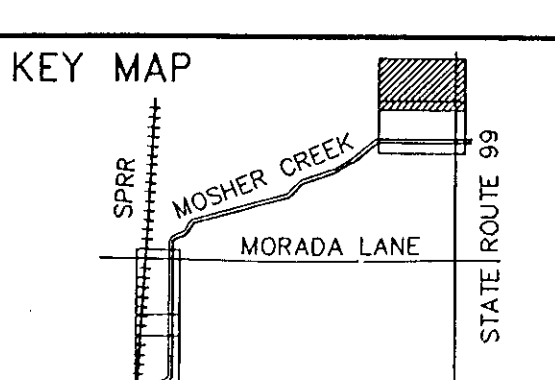
MATCH SEE SHEET 7

RECORD DRAWINGS See Sheet 1

HDR
HDR Engineering, Inc.
5175 Hillside Circle
El Dorado Hills, CA 95762
(916) 939-4100

KSN
KJELSDEN SINNOCK NEUDECK
INC.
Consulting Engineers and Land Surveyors
Post Office Box 844
1113 W. Fremont Street
Stockton, CA 95201-0844
(209) 946-0289

No.	DATE	APVD	REVISION
1	7/13/97		DEIG #1 - REVISED QUARRY BASIN LAYOUT ADDED & MODIFIED QUARRY BASIN ACCESS ROAD, IRR FACILITY, GRADES, SLOPES & GATES
2	10/18		REVISED GRADING ADD 5' CHAIN LINK GATE CHANGE

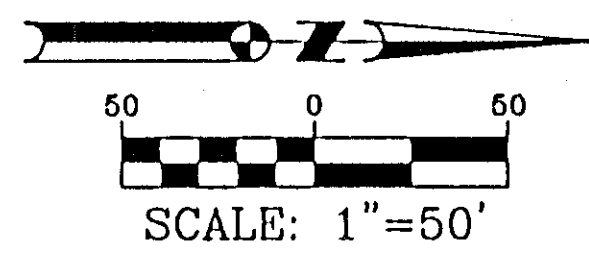
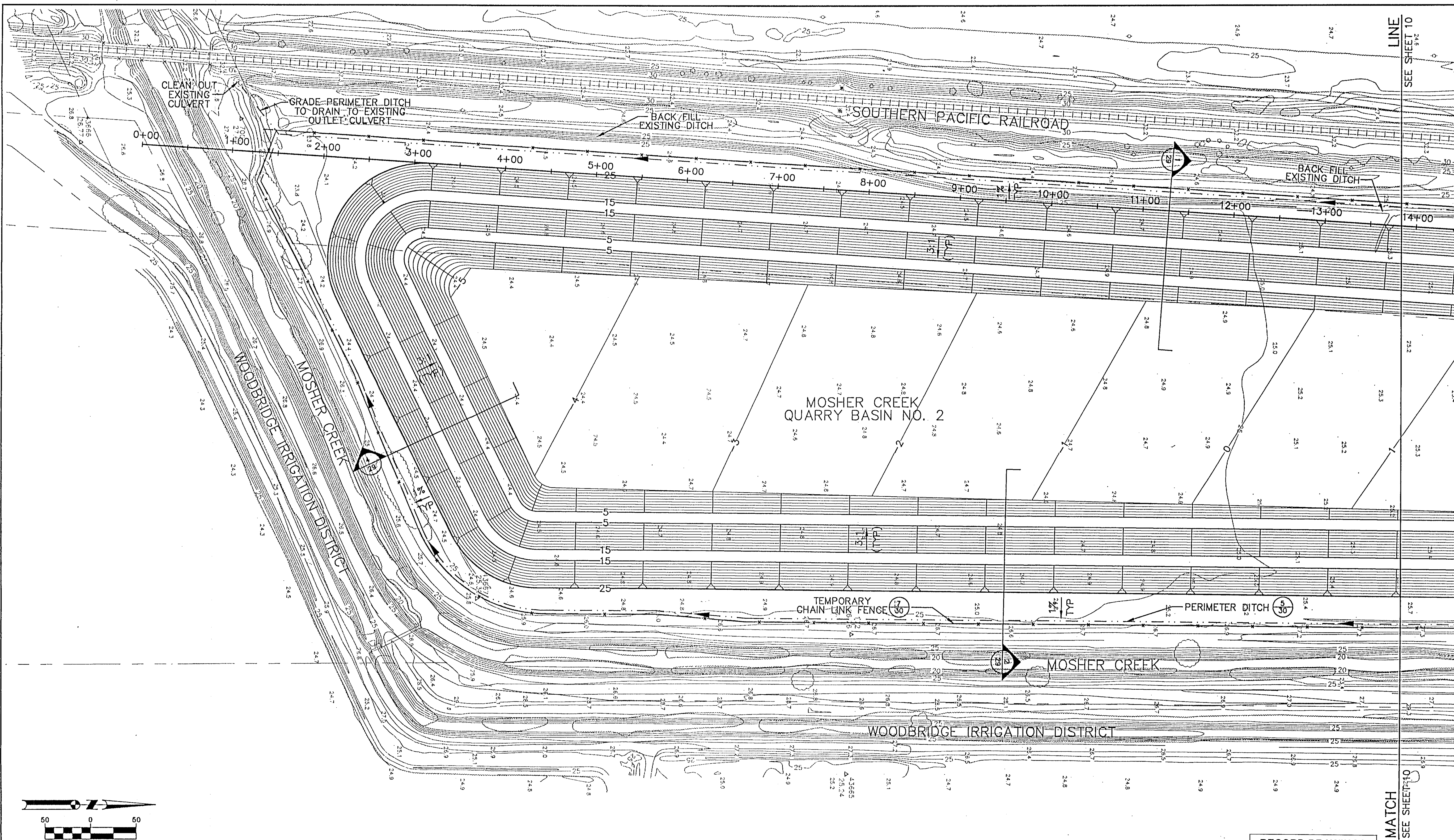


FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS

QUARRY BASIN NO.1
FINAL GRADING PLAN

SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN
SCALE: 1"=50'
DESIGNED BY: DGR
DRAWN BY: BAS
CHECKED BY: CHN
RECORD DWG.:
DATE: 6/13/96

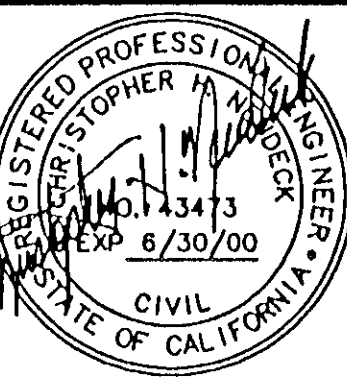
SHEET 8 OF 34 SHEETS
JOB NO.
HANSON ENGINEERING



RECORD DRAWINGS
See Sheet 1

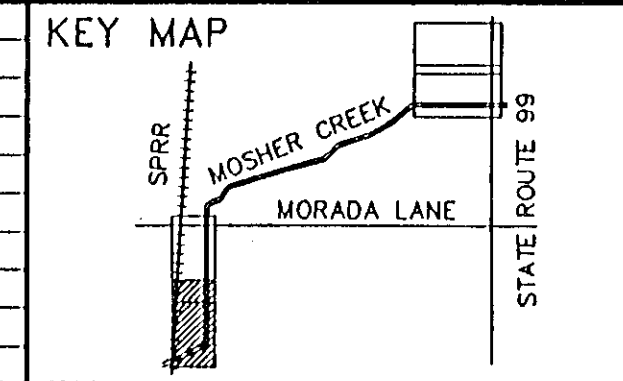
HDR
HDR Engineering, Inc.
5175 Hilldale Circle
El Dorado Hills, CA 95762
(916) 939-4100

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INC.
KJELDEN SINNOCK NEUDECK
Consulting Engineers and Land Surveyors
Post Office Box 844
1113 W. Fremont Street
Stockton, CA 95201-0844
(209) 946-0268



Job No. 1375-144
Date E-1960

No.	DATE	APVD.	REVISION



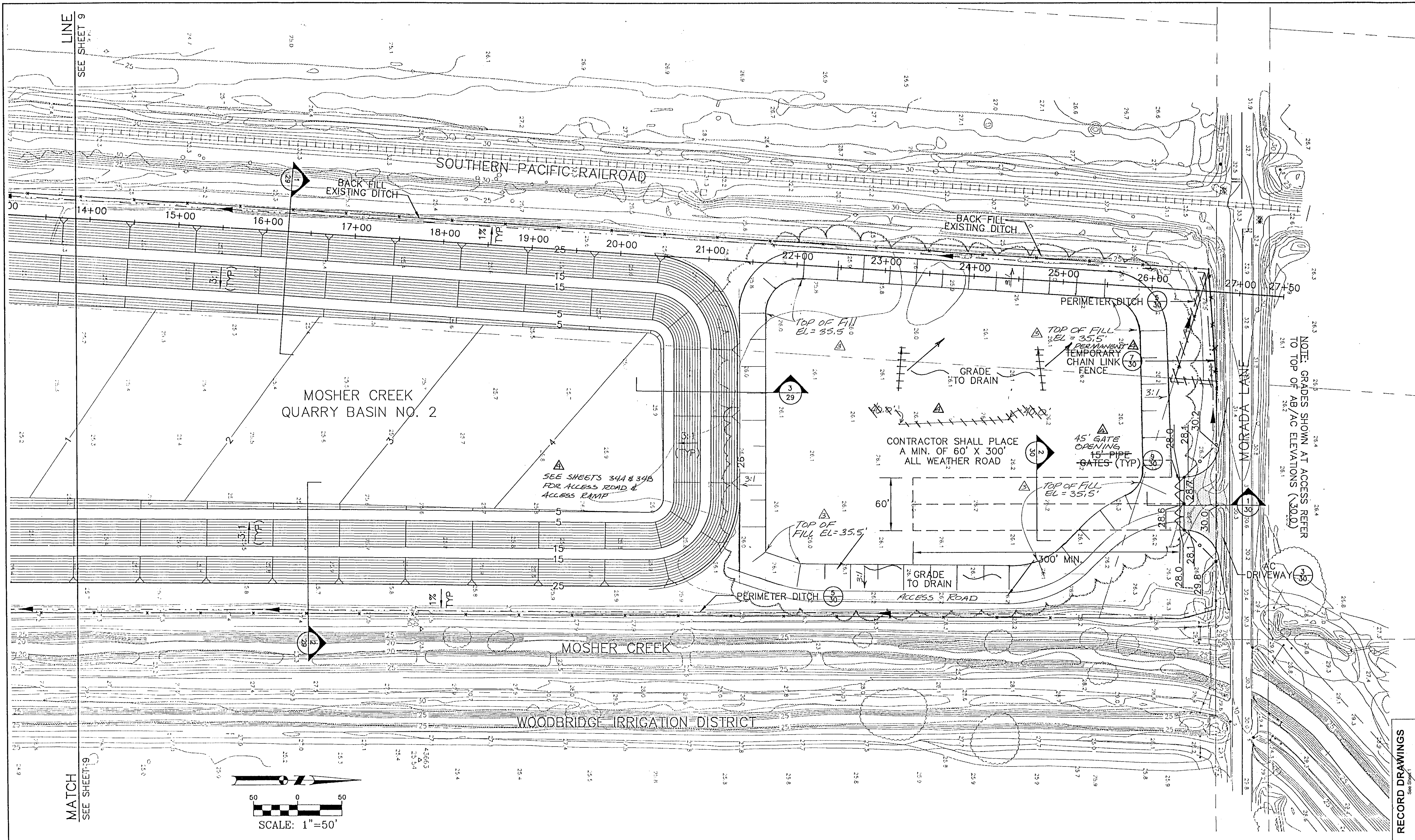
FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS

QUARRY BASIN NO. 2
FINAL GRADING PLAN

SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN
SCALE: 1"=50'
DESIGNED BY: DGR
DRAWN BY: BAS
CHECKED BY: CHN
RECORD DWG.:
DATE: 6/13/96
CHECKED BY: [Signature]
DATE: 6/13/96
HANSON ENGINEERING

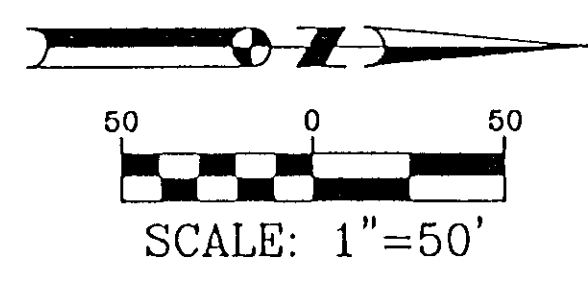
SHEET **9**
OF **34**
SHEETS
JOB NO.

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LINE 9
SEE SHEET 9

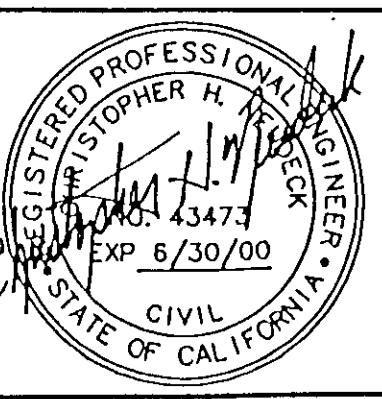
MATCH
SEE SHEET 9



RECORD DRAWINGS
See Sheet

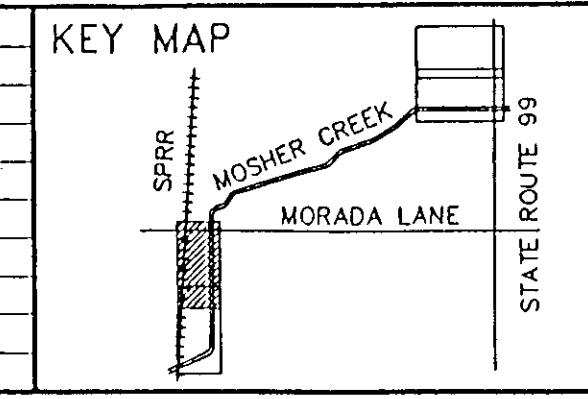
HDR
HDR Engineering, Inc.
5175 Hillside Circle
El Dorado Hills, CA 95762
(916) 939-4100

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INC.
Consulting Engineers and Land Surveyors
Post Office Box 244
1113 W. Fremont Street
Stockton, CA 95201-0844
(209) 946-0268



Job No. 1375-144
File No. E-1960

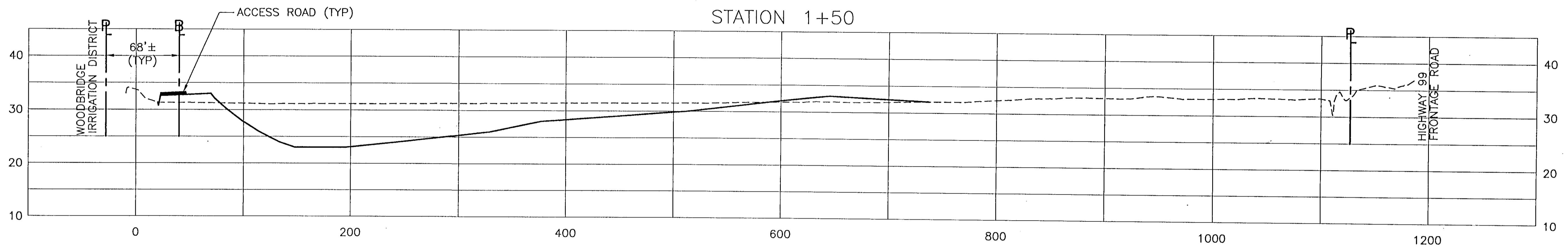
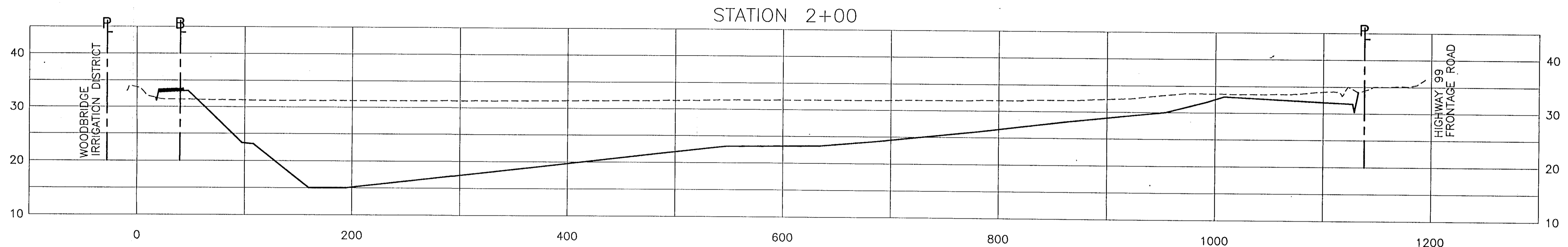
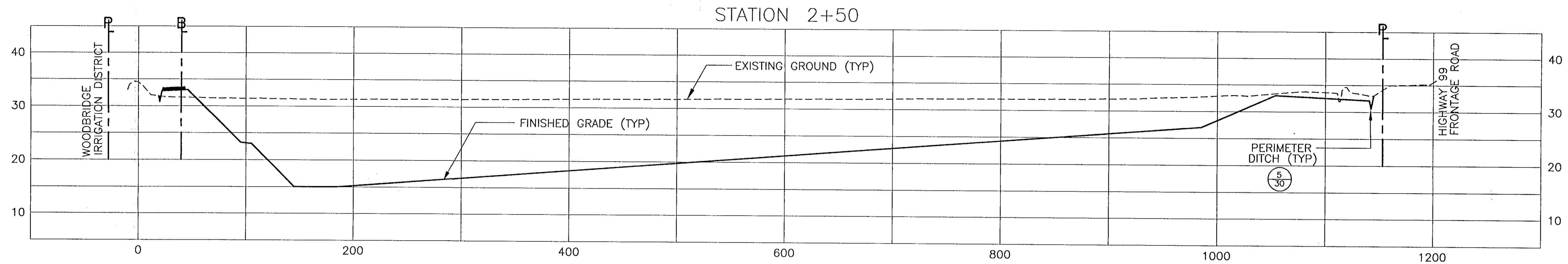
No.	DATE	APVD.	REVISION
1	1/99		REVISED GRADING
2	3/99		RECORD CHANGES



FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS
QUARRY BASIN NO. 2
FINAL GRADING PLAN

SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN
SCALE: 1"=50'
DESIGNED BY: DGR
DRAWN BY: BAS
CHECKED BY: CHN
RECORD DWG.:
DATE: 6/13/96
CHECKED BY: DATE: 6/13/96
HANSON ENGINEERING

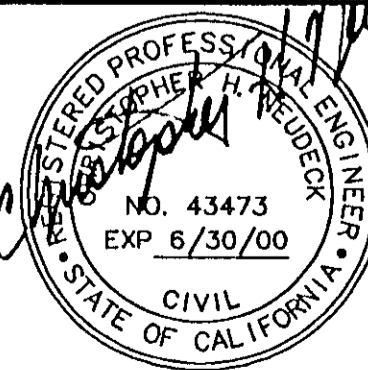
SHEET 10
OF 34
SHEETS



RECORD DRAWINGS
See Sheet 1

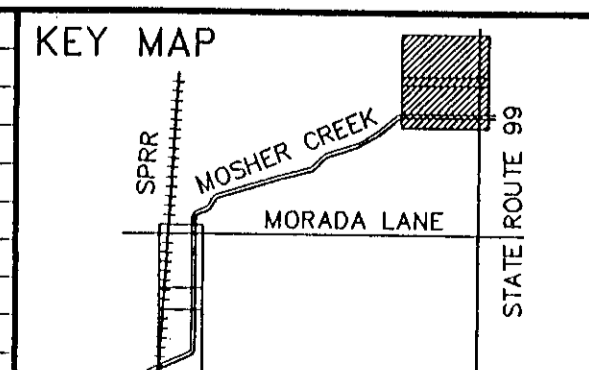
HDR
HDR Engineering, Inc.
5175 Hillside Circle
El Dorado Hills, CA 95762
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KJELSDEN
SINNOCK
NEUDECK
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and Land Surveyors
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1113 W. Fremont Street
Stockton, CA 95201-0844
(209) 946-0268



Job No. 1375-144
File No. E-1960

No.	DATE	APVD.	REVISION
1	6/13/96		DEIC #1 - REVISED QUARRY BASIN LAYOUT MODIFIED ALL CROSS SECTIONS



FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS

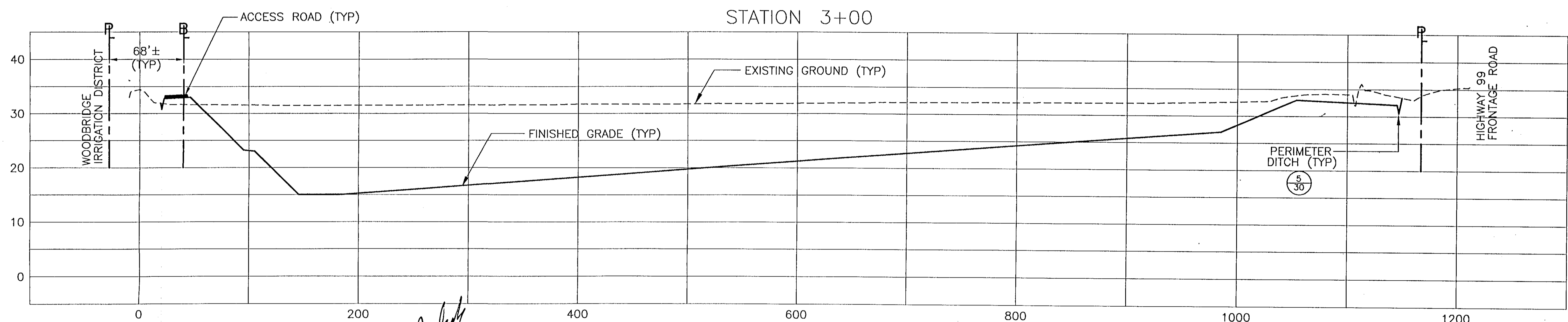
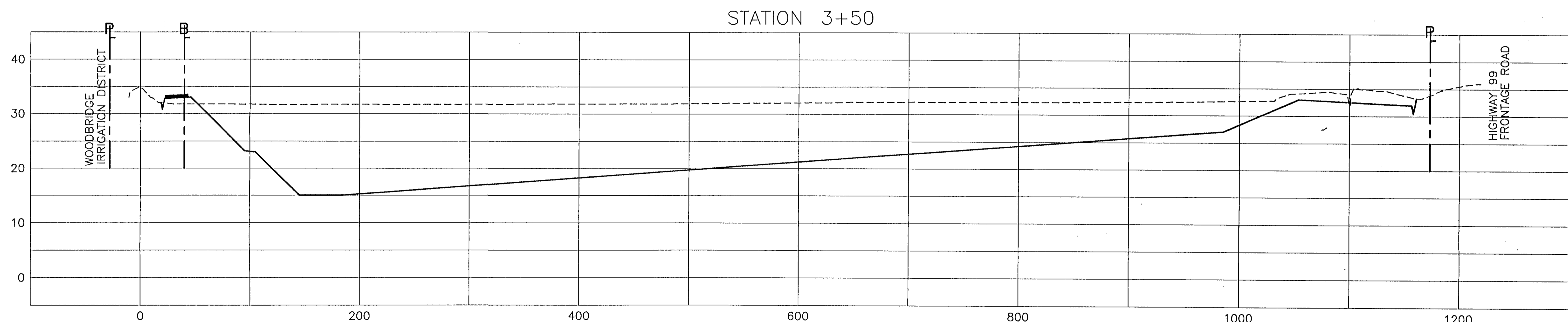
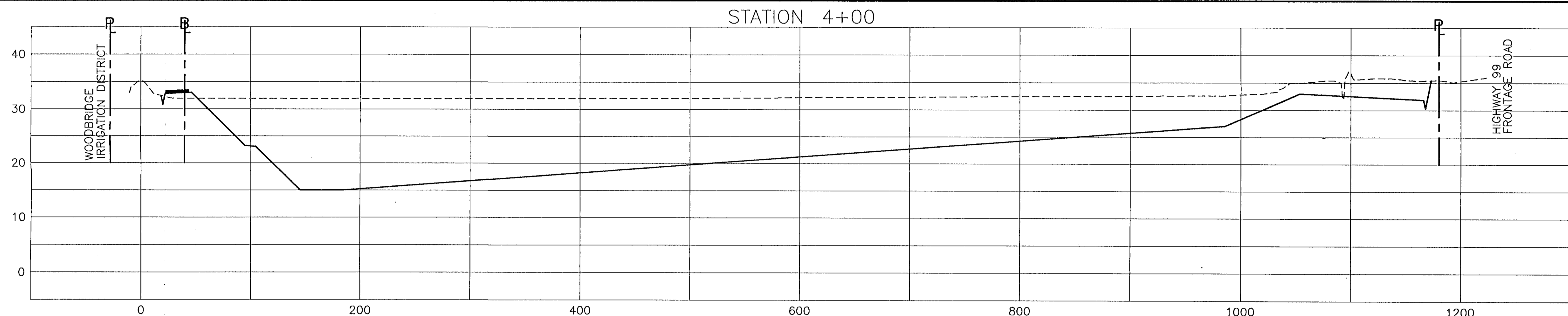
QUARRY BASIN NO. 1
CROSS SECTIONS

SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN

SCALE: 1" = 50'(H) 10'(V)
DESIGNED BY: DGR
DRAWN BY: BLJ
CHECKED BY: CHN
RECORD DWG.
DATE: 6/13/96

CHECKED BY: _____ DATE: _____
HANSON ENGINEERING

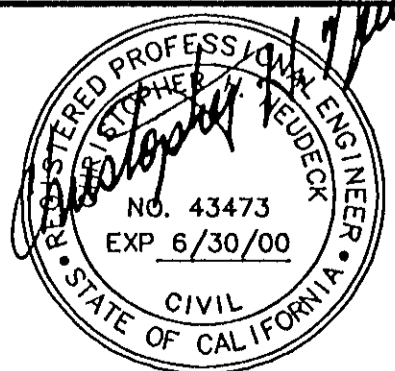
SHEET
NO. 11
OF
SHEETS 34
SHEETS



RECORD DRAWINGS
See Sheet 1

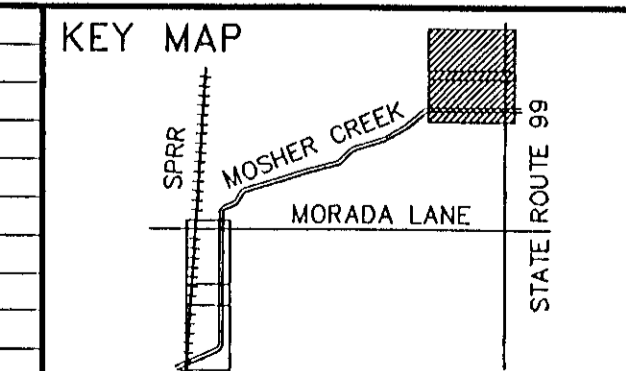
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Job No. 1375-144
File No. E-1960

No.	DATE	APVD.	REVISION
1	6/13/96		DEIC #1 - REVISED QUARRY BASIN LAYOUT MODIFIED ALL CROSS SECTIONS



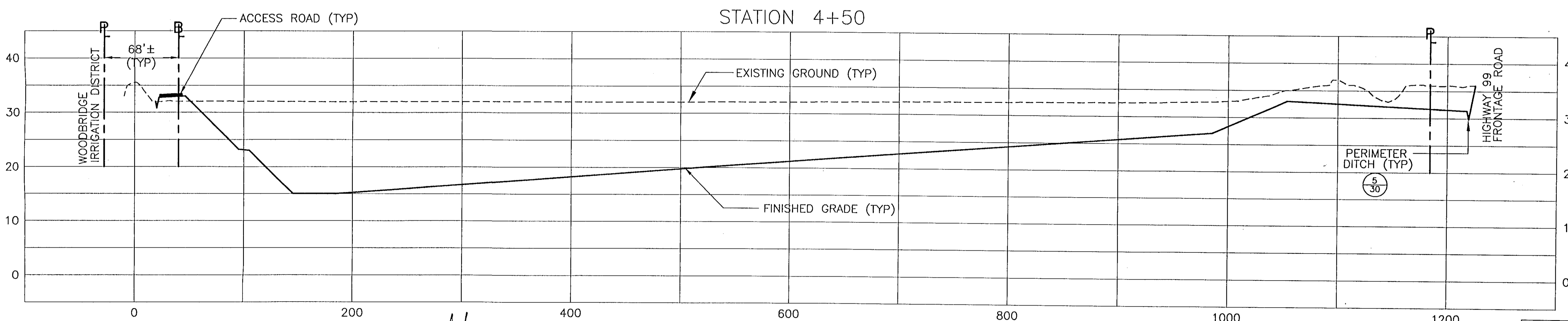
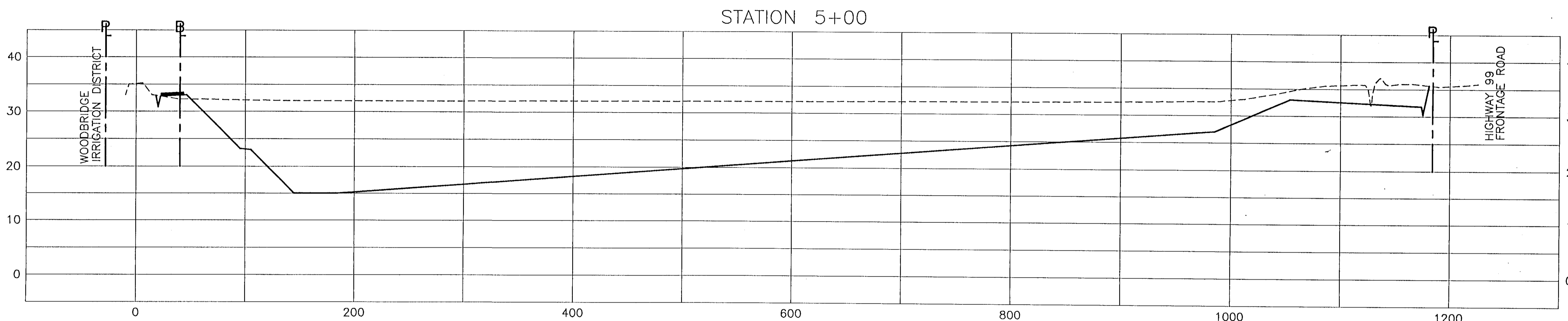
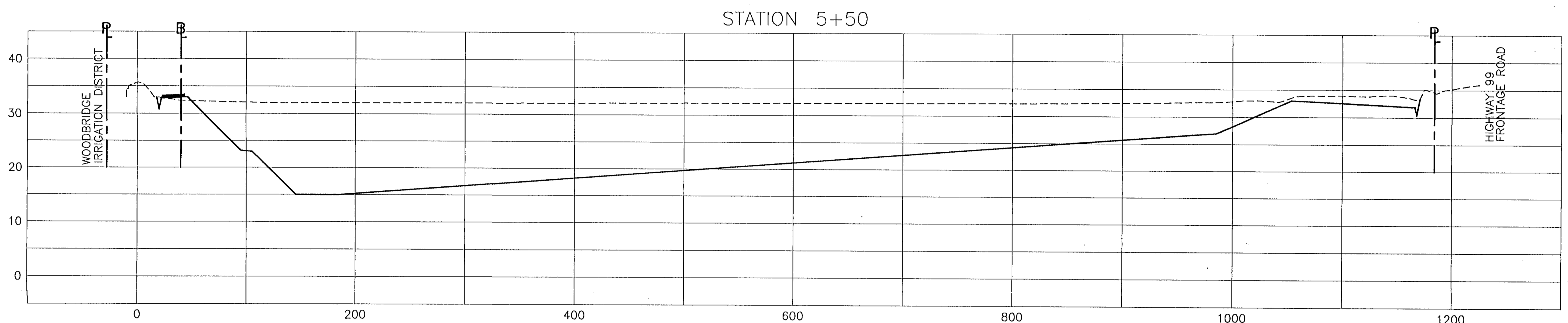
FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS

**QUARRY BASIN NO. 1
CROSS SECTIONS**

SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN
SCALE: 1"=50'(H) 10'(V)
DESIGNED BY: DGR
DRAWN BY: BLJ
CHECKED BY: CHN
RECORD DWG.:
DATE: 6/13/96
HANSON ENGINEERING

SHEET
OF
OF SHEETS
JOB NO.
12
34
SHEETS

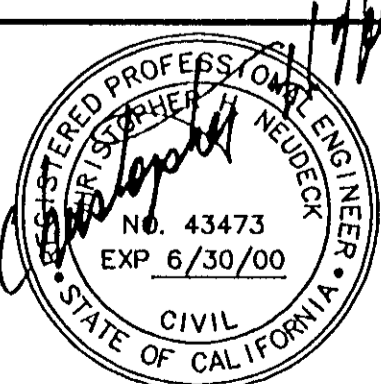
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RECORD DRAWINGS
See Sheet 1

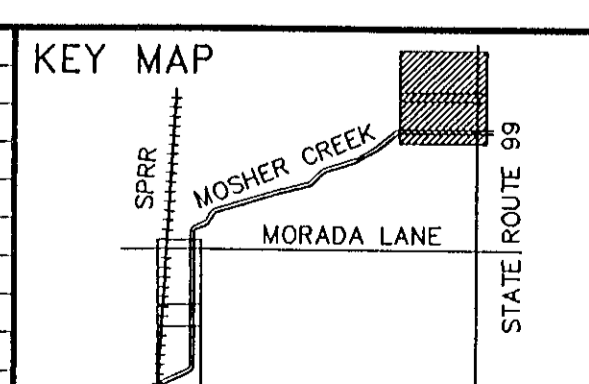
HDR
HDR Engineering, Inc.
5175 Hillside Circle
El Dorado Hills, CA 95762
(916) 939-4100

KSN
INC.
**KJELSDEN
SINNOCK
NEUDECK**
Consulting Engineers
and Land Surveyors
Post Office Box 844
1113 W. Fremont Street
Stockton, CA 95201-0844
(209) 946-0288



Job No. 1375-144
File No. E-1980
No. DATE APVD.
R/S/M

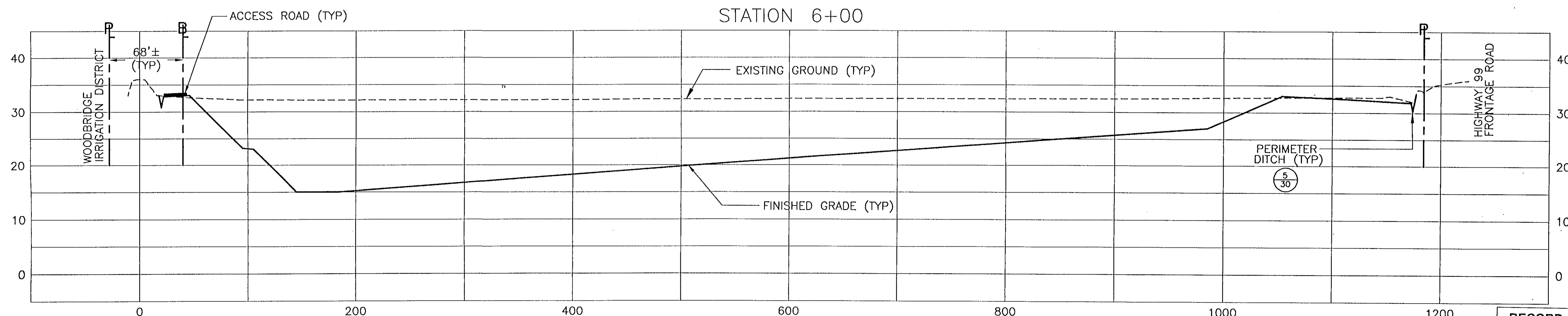
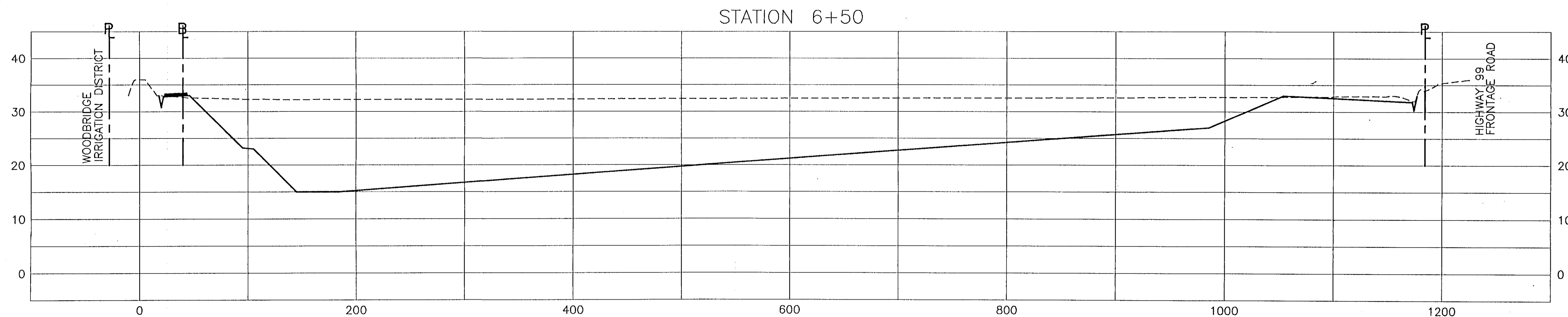
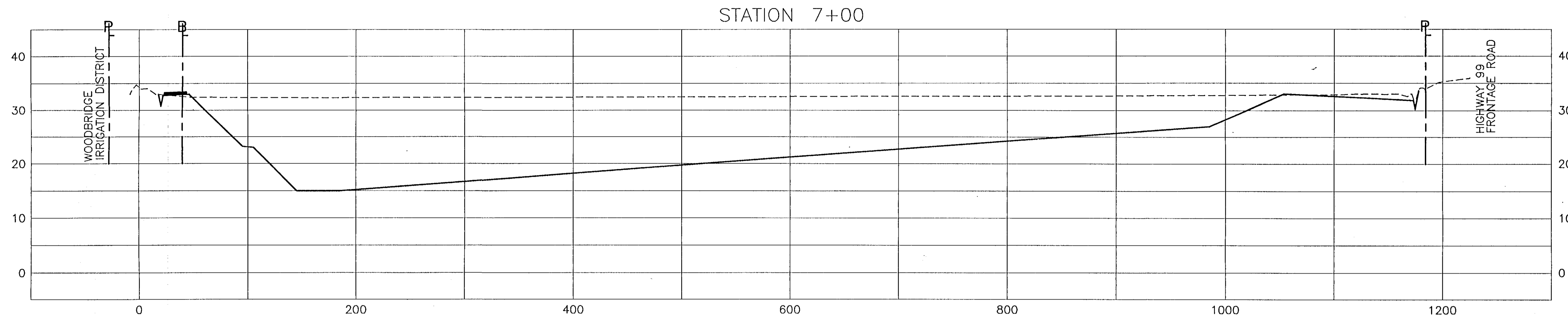
REVISION	
DEIC #1 - REVISED QUARRY BASIN LAYOUT	MODIFIED ALL CROSS SECTIONS



FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS
**QUARRY BASIN NO. 1
CROSS SECTIONS**

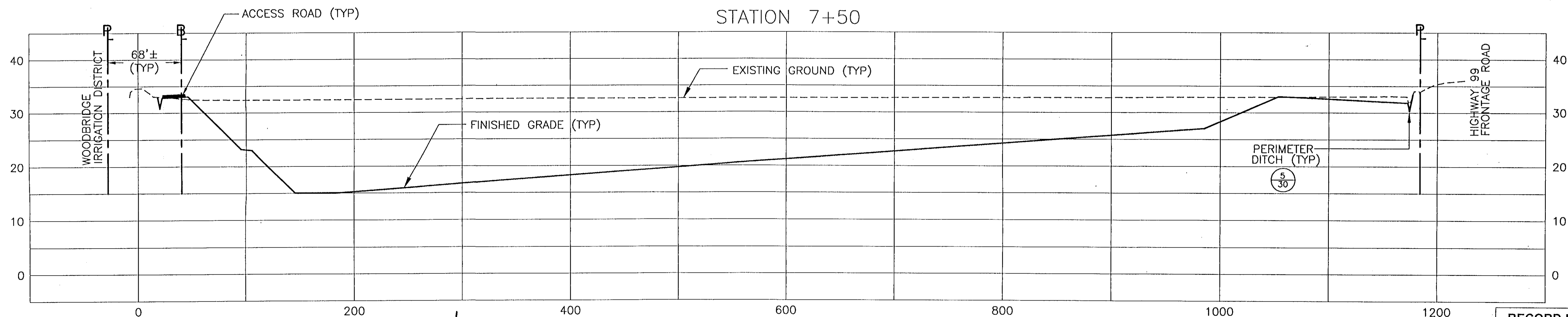
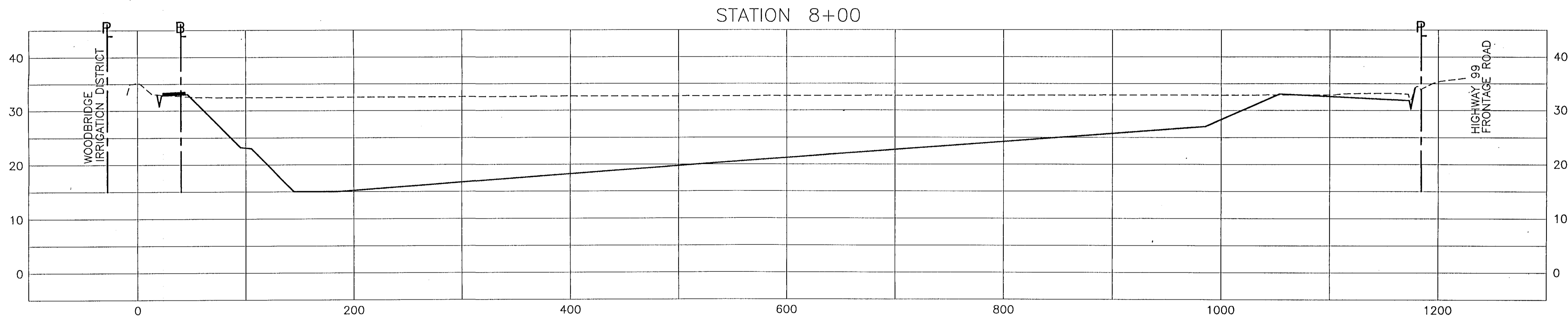
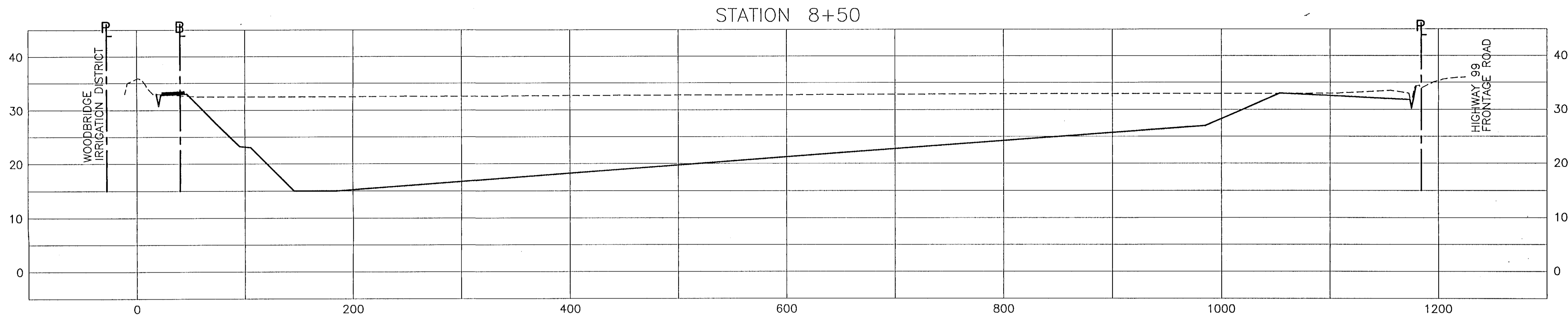
SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN
SCALE: 1" = 50'(H) 10'(V)
DESIGNED BY: DGR
DRAWN BY: BLJ
CHECKED BY: CHN
RECORD DWG.:
DATE: 6/13/96
CHECKED BY: DATE: SHEET NO. 13
OF SHEETS 34
JOB NO. HANSON ENGINEERING SHEETS

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RECORD DRAWINGS
See Sheet 1

<p>HDR Engineering, Inc. 5175 Hillside Circle El Dorado Hills, CA 95762 (916) 939-4100</p>	<p>KSN INC. Consulting Engineers and Land Surveyors Post Office Box 844 1113 W. Fremont Street Stockton, CA 95201-0844 (209) 946-0268</p>	<p>REGISTERED PROFESSIONAL ENGINEER K. SINNOCK NO. 43473 EXP. 6/30/00 CIVIL STATE OF CALIFORNIA</p>	<p>Job No. 1375-144 File No. E-1960</p>	<p>No. DATE APVD. 1 6/13/96</p>	<p>REVISION DEIC #1 - REVISED QUARRY BASIN LAYOUT MODIFIED ALL CROSS SECTIONS</p>	<p>KEY MAP MOSHER CREEK MORADA LANE STATE ROUTE 99</p>	<p>FLOOD PROTECTION RESTORATION PROJECT MOSHER CREEK DETENTION BASINS</p> <p>QUARRY BASIN NO. 1 CROSS SECTIONS</p>	<p>SAN JOAQUIN AREA FLOOD CONTROL AGENCY CITY OF STOCKTON - COUNTY OF SAN JOAQUIN</p>			<p>SHEET 14 OF 34 SHEETS</p>
								<p>SCALE: "H"=50' (H) 10' (V)</p>	<p>DESIGNED BY: DGR DRAWN BY: BLJ CHECKED BY: CHN RECORD DWG.: DATE: 6/13/96</p>	<p>CHECKED BY: _____ DATE: _____</p> <p>_____ HANSON ENGINEERING</p>	



RECORD DRAWINGS
See Sheet 1

HDR
HDR Engineering, Inc.
5175 Hillside Circle
El Dorado Hills, CA 95762
(916) 939-4100

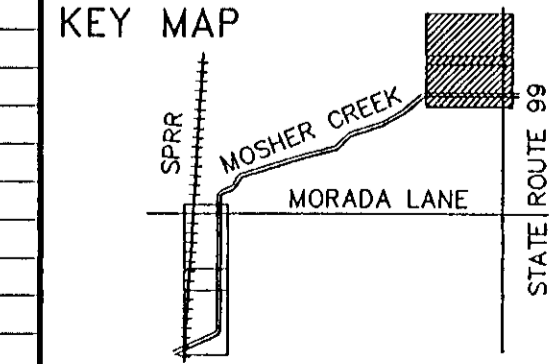
KSN
KJELDSSEN
SINNOCK
NEUDECK
INC.
Consulting Engineers
and Land Surveyors
Post Office Box 844
1113 W. Fremont Street
Stockton, CA 95201-0844
(209) 946-0268



Job No. 1375-144
Plan No. E-1960

Bar Length: On Original Drawing Equals One Inch. Regular Scale Accuracy

No.	DATE	APVD.	REVISION
1	6/13/96		DEIC #1 - REVISED QUARRY BASIN LAYOUT MODIFIED ALL CROSS SECTIONS



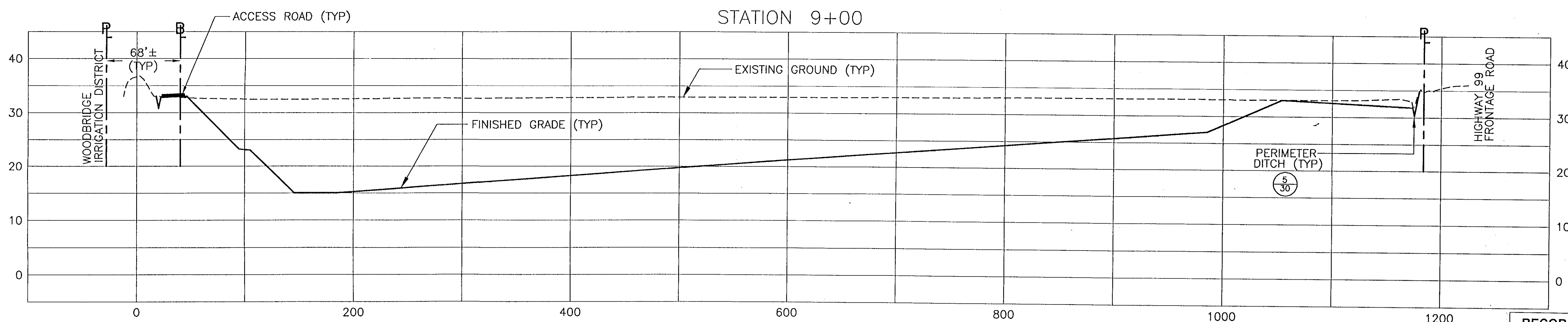
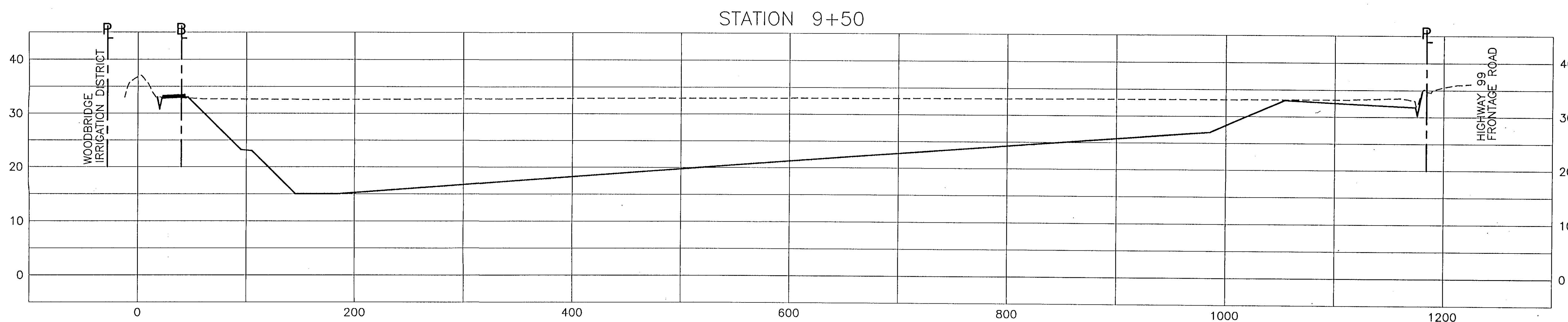
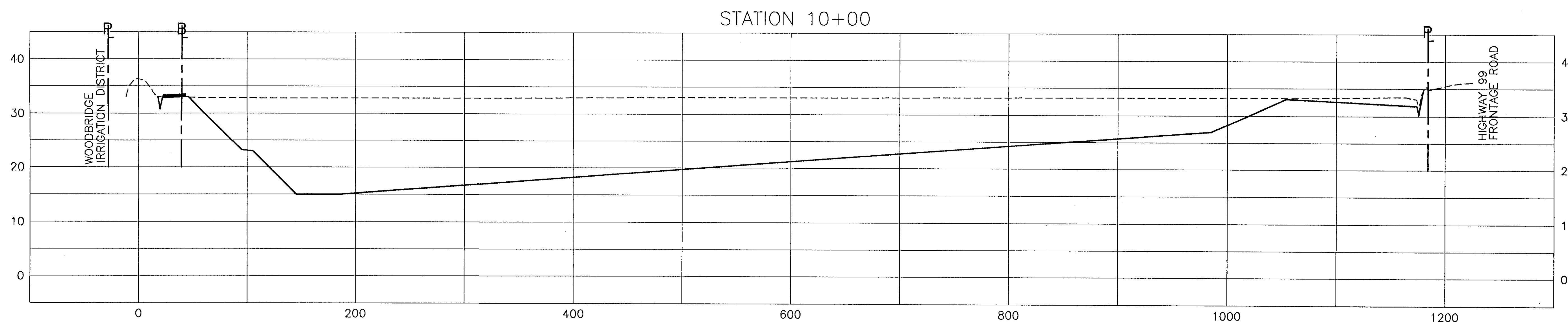
FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS

QUARRY BASIN NO. 1
CROSS SECTIONS

SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN
SCALE: 1"=50'(H) 10'(V)
DESIGNED BY: DGR
DRAWN BY: BLJ
CHECKED BY: CHN
RECORD DWG.:
DATE: 6/13/96
CHECKED BY: _____ DATE: _____
HANSON ENGINEERING

SHEET
OF
OF SHEETS
JOB NO.
15
34
SHEETS

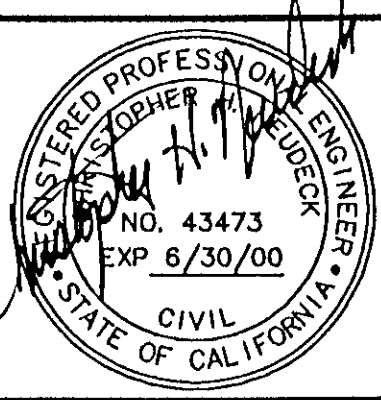
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RECORD DRAWINGS
See Sheet 1

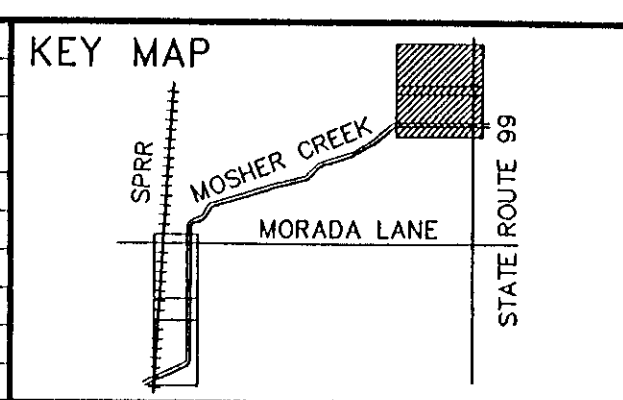
HDR
HDR Engineering, Inc.
5175 Hilldale Circle
El Dorado Hills, CA 95762
(916) 939-4100

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INC.
KJELDEN SINNOCK NEUDECK
Consulting Engineers and Land Surveyors
Post Office Box 844
1113 W. Fremont Street
Stockton, CA 95201-0844
(209) 946-0288



Job No. 1375-144
File No. E-1960

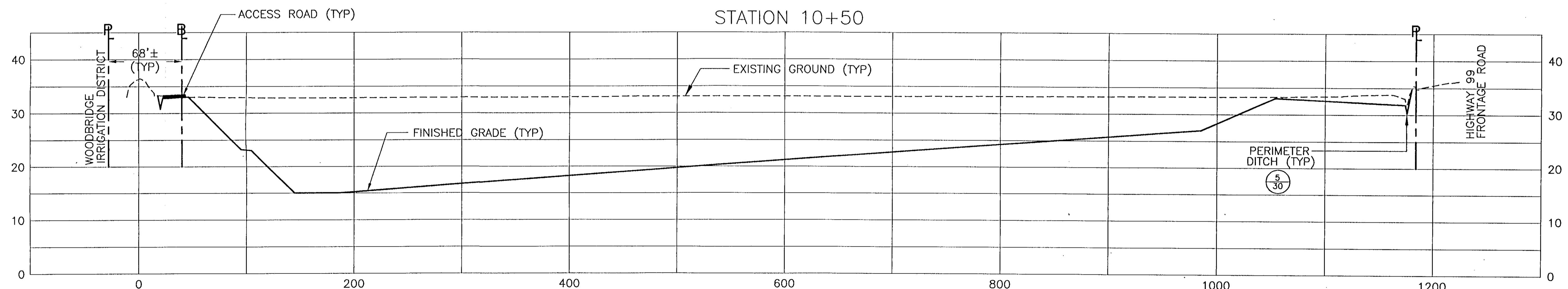
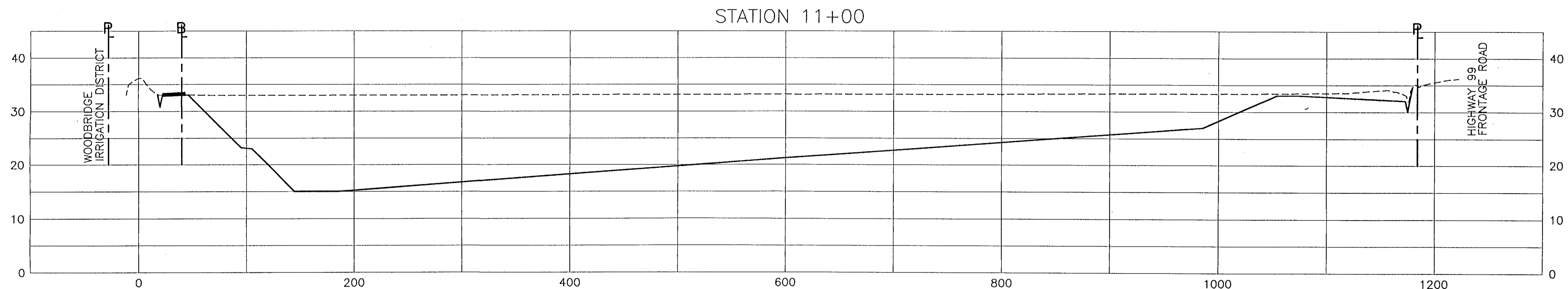
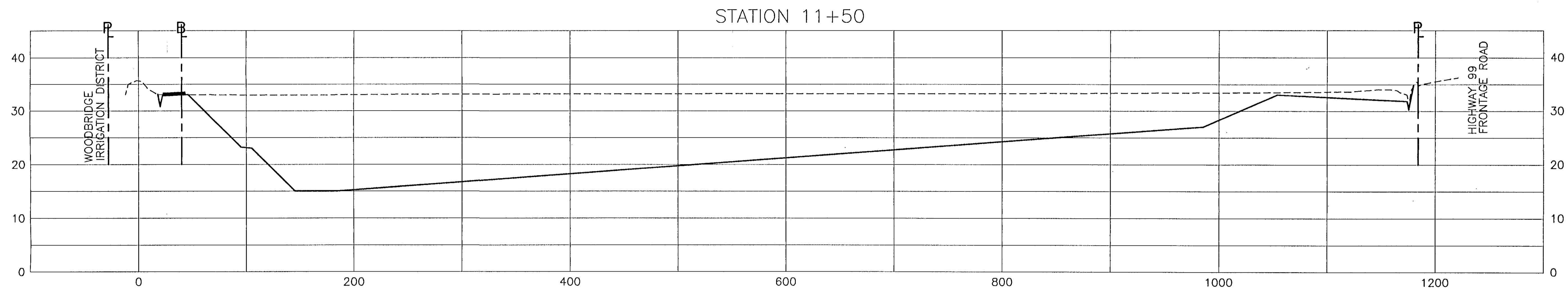
No.	DATE	APVD.	REVISION
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FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS
QUARRY BASIN NO. 1
CROSS SECTIONS

SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN
SCALE: H=50' (H) 10' (V)
DESIGNED BY: DGR
DRAWN BY: BLJ
CHECKED BY: CHN
RECORD DWG.:
DATE: 6/13/96
HANSON ENGINEERING

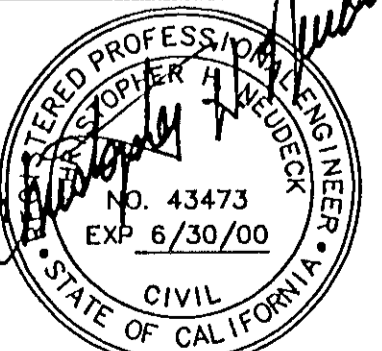
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OF
OF SHEETS **34**
JOB NO.
SHEETS



RECORD DRAWINGS
See Sheet 1

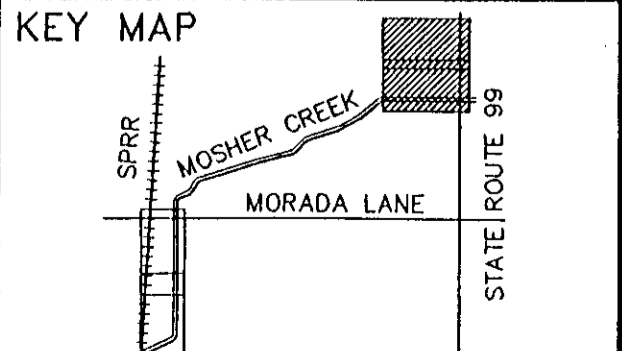
HDR
HDR Engineering, Inc.
5175 Hilldale Circle
El Dorado Hills, CA 95762
(916) 939-4100

KSN
INC.
KJELSDEN
SINNOCK
NEUDECK
Consulting Engineers
and Land Surveyors
Post Office Box 844
1113 W. Fremont Street
Stockton, CA 95201-0844
(209) 946-0288



Job No. 1375-144
Plan No. E-1960

No.	DATE	APVD.	REVISION
1	6/13/96		DEIC #1 - REVISED QUARRY BASIN LAYOUT MODIFIED ALL CROSS SECTIONS

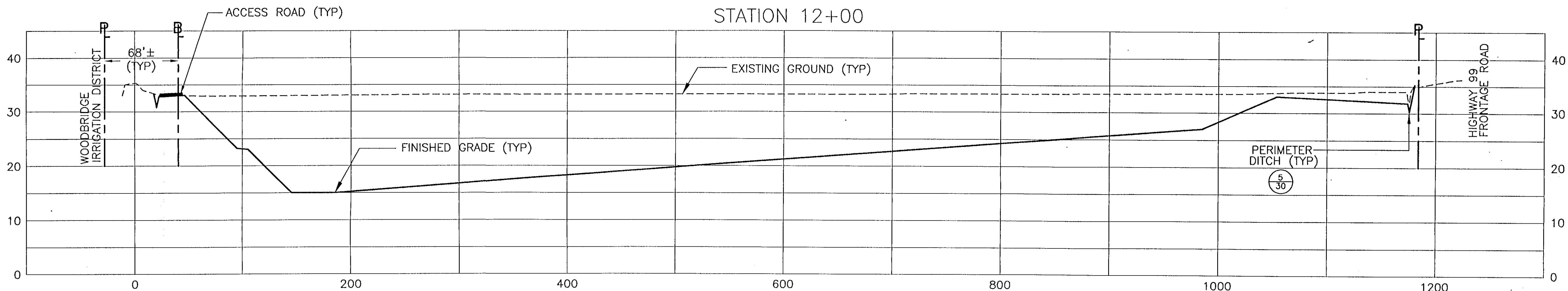
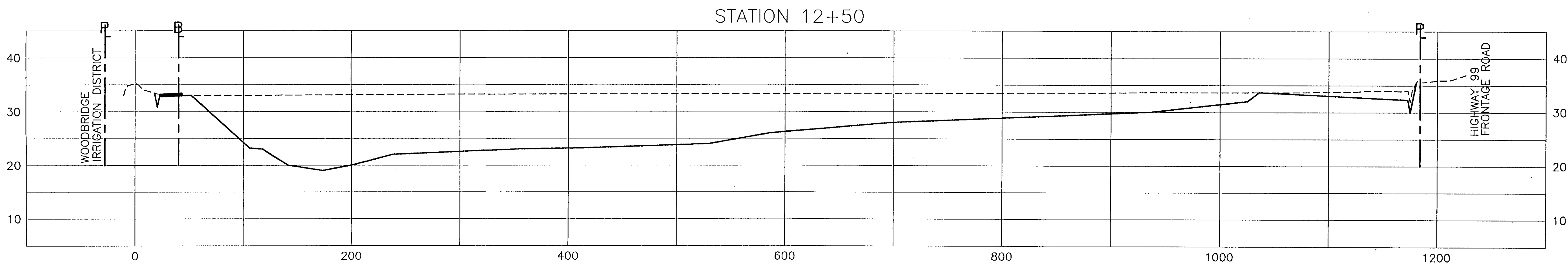
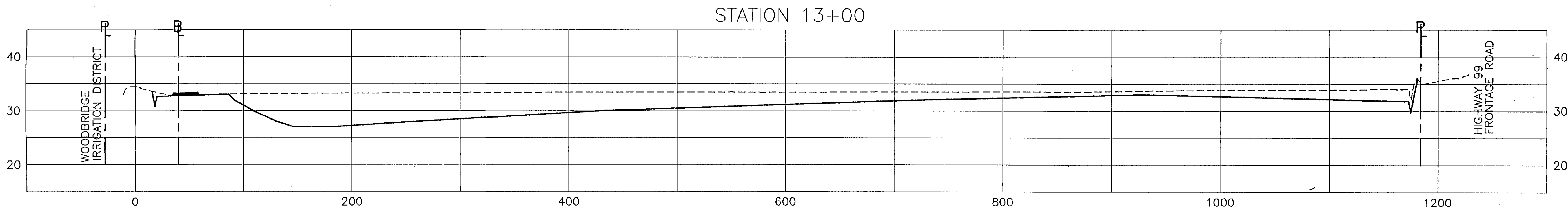
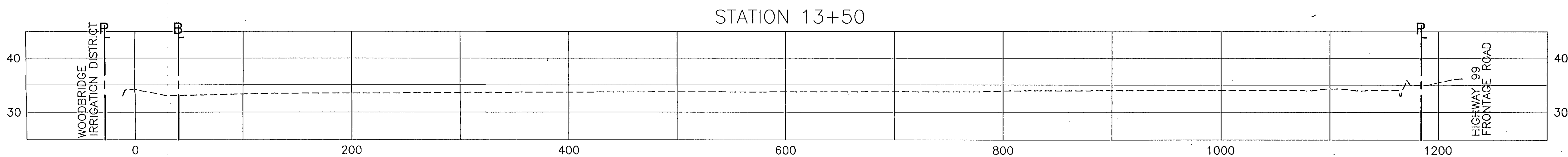


FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS

QUARRY BASIN NO. 1
CROSS SECTIONS

SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN

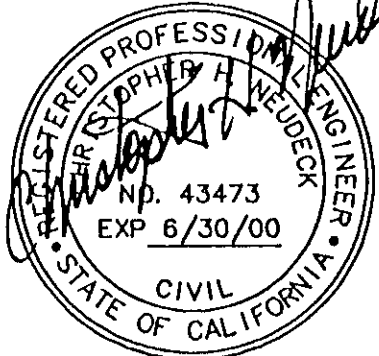
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DESIGNED BY: BLJ	CHECKED BY: CHN		OF SHEETS 34
DRAWN BY: BLJ	RECORD DWG.:		JOB NO.
CHECKED BY: CHN	DATE: 6/13/96	HANSON ENGINEERING	SHEETS



RECORD DRAWINGS
See Sheet 1

HDR
HDR Engineering, Inc.
5175 Hilldale Circle
El Dorado Hills, CA 95762
(916) 939-4100

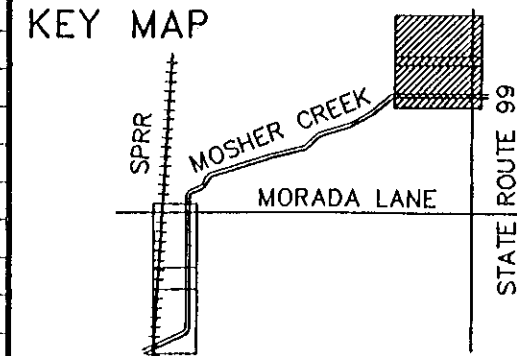
K S N
KJELSDEN
SINNOCK
NEUDECK
INC.
Consulting Engineers
and Land Surveyors
Post Office Box 844
1113 W. Fremont Street
Stockton, CA 95201-0844
(209) 946-0268



Job No. 1375-144
File No. E-1960

Bar Length On Original Drawing Equals One Inch. Adjust Scale Accordingly.

No.	DATE	APVD.	REVISION
1	6/13/96		DEIC #1 - REVISED QUARRY BASIN LAYOUT MODIFIED ALL CROSS SECTIONS

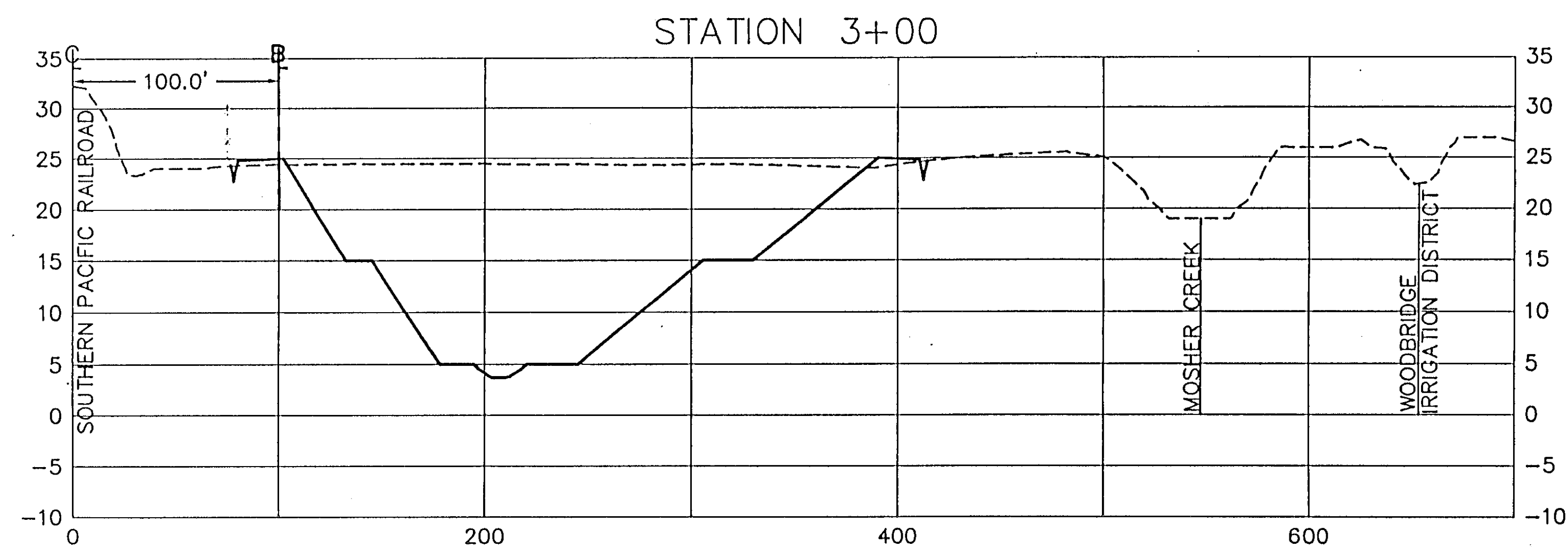
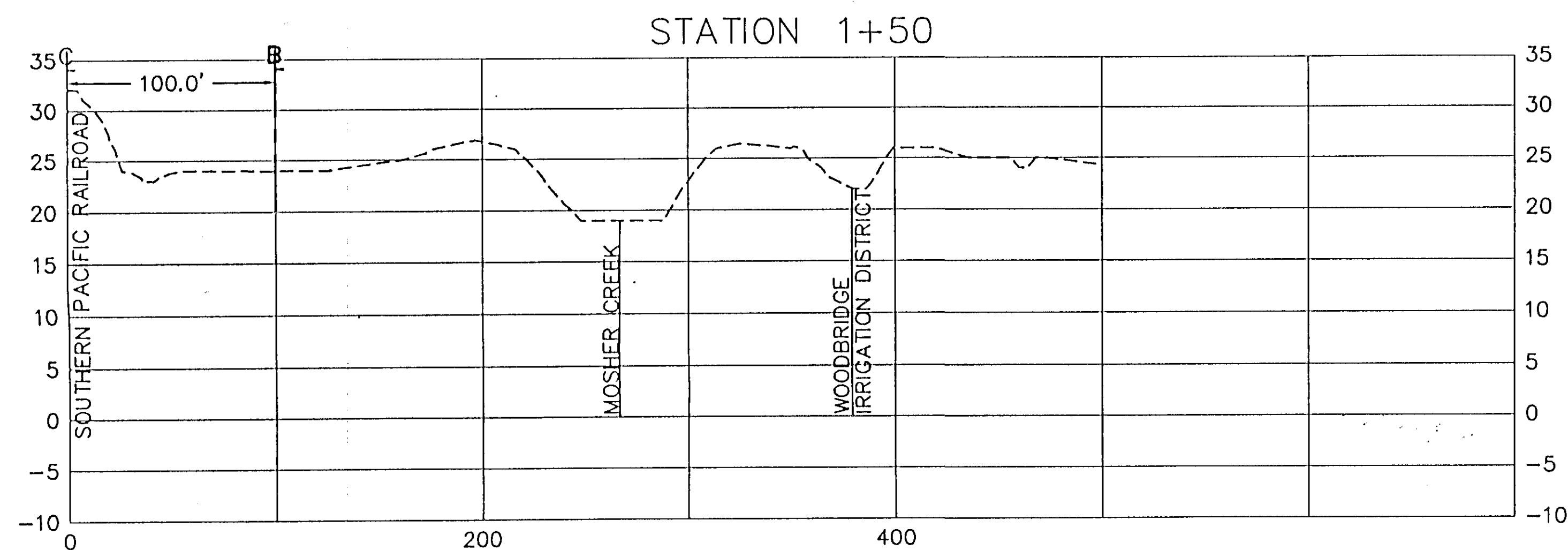
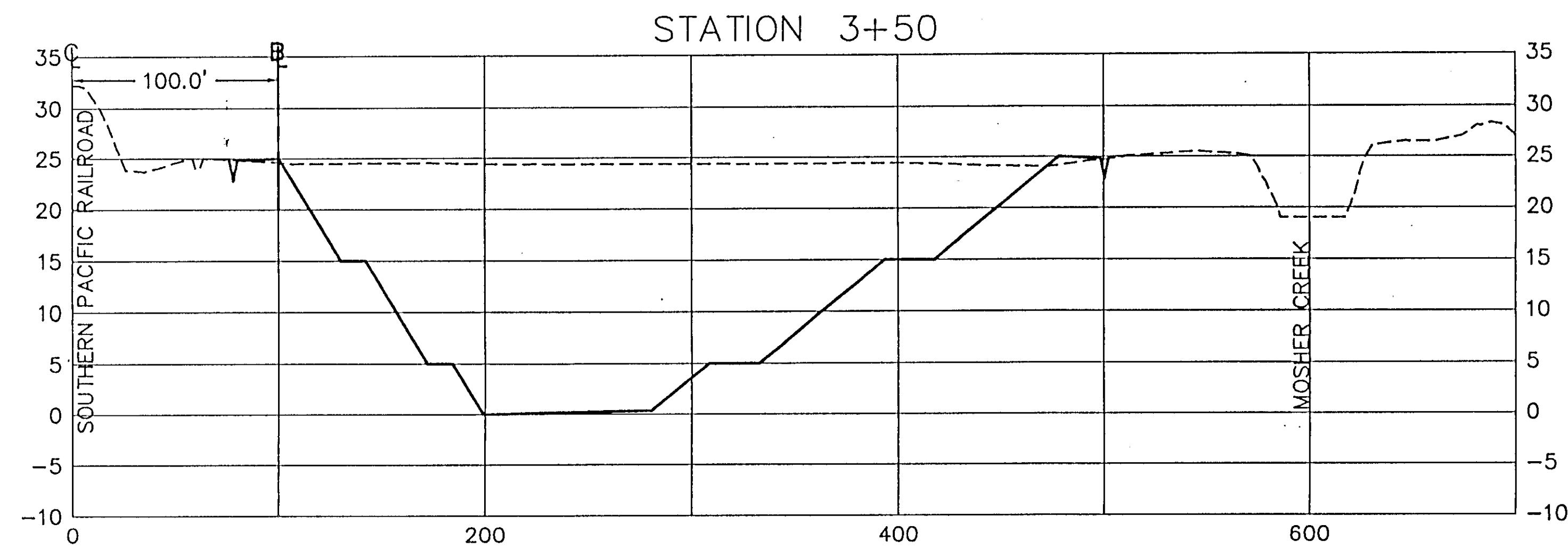
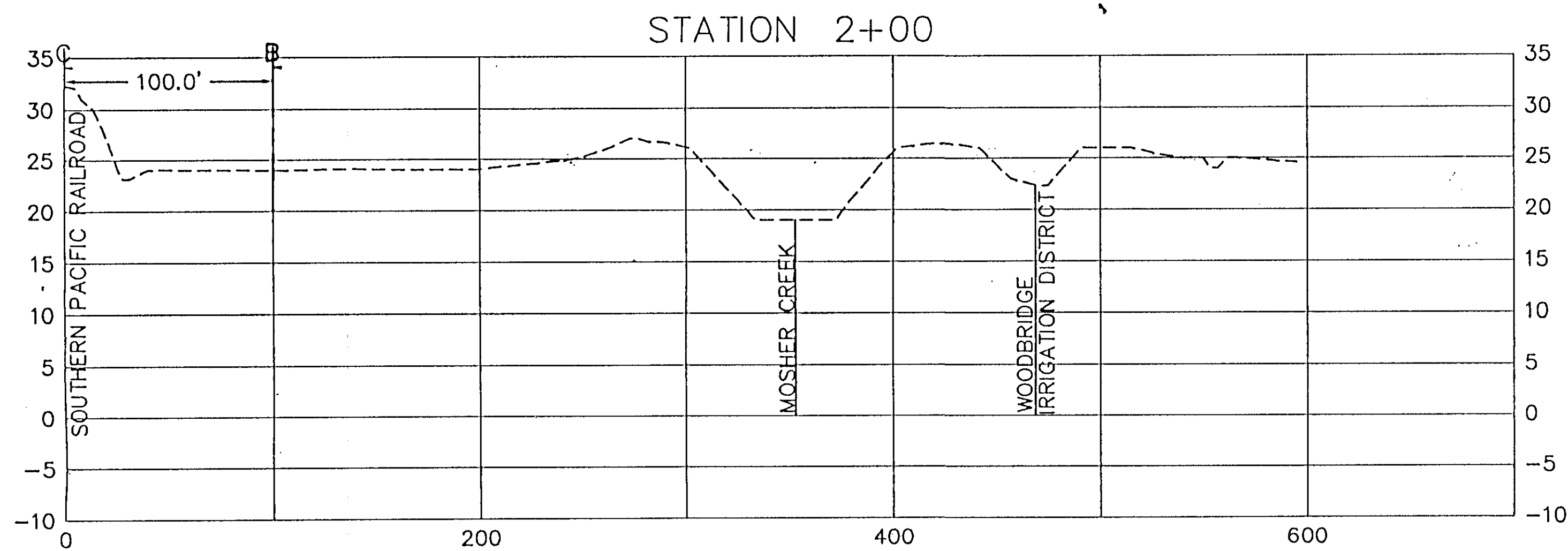
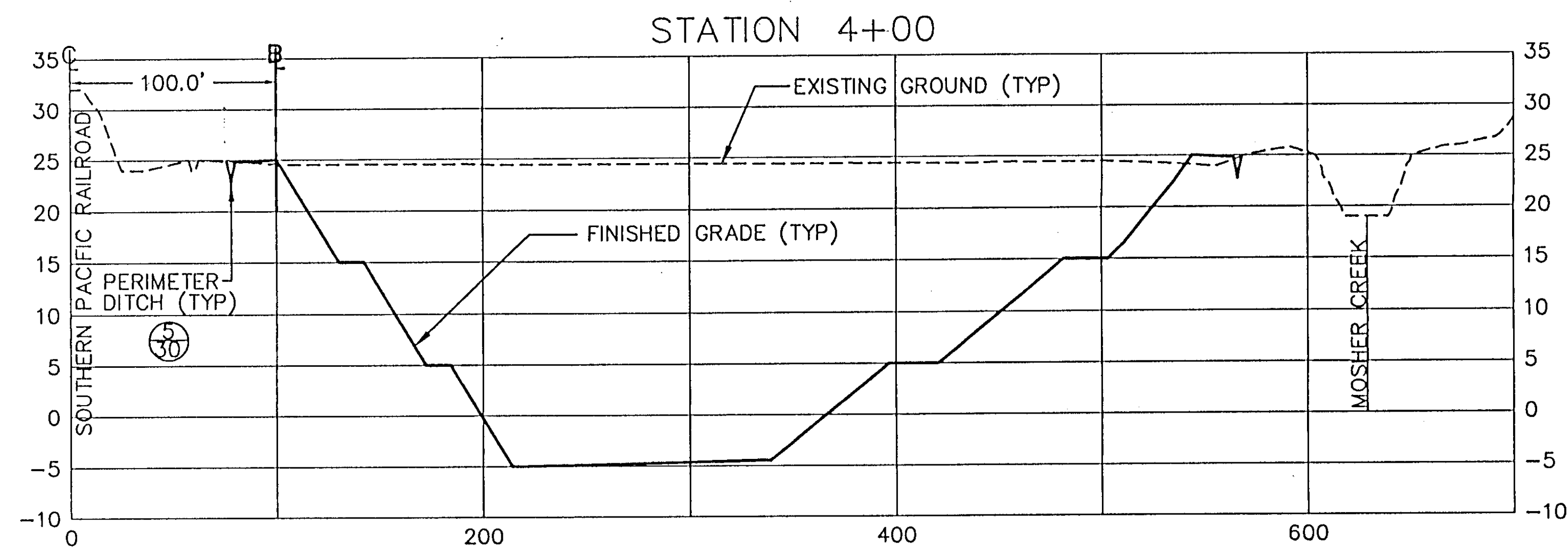
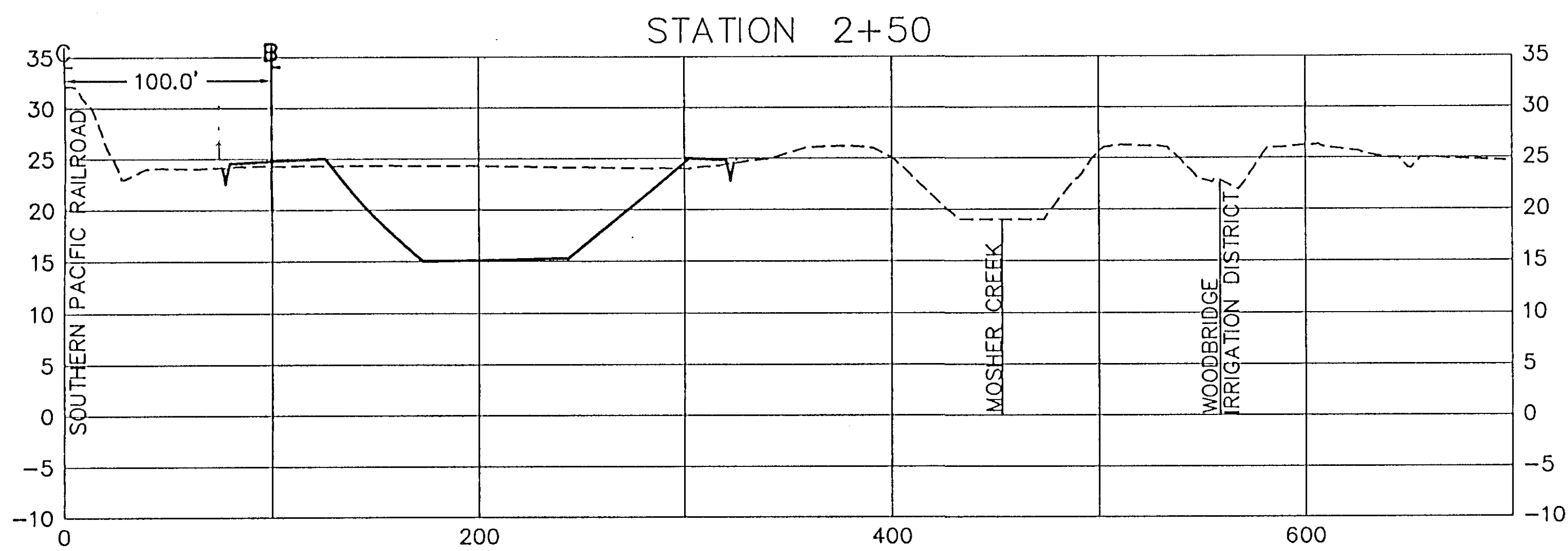


FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS
**QUARRY BASIN NO. 1
CROSS SECTIONS**

SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN
SCALE 1"=50'(H) 10'(V)
DESIGNED BY: DGR
DRAWN BY: BLJ
CHECKED BY: CHN
RECORD DWG.:
DATE: 6/13/96
HANSON ENGINEERING

SHEET NO. 18
OF 34 SHEETS
JOB NO.

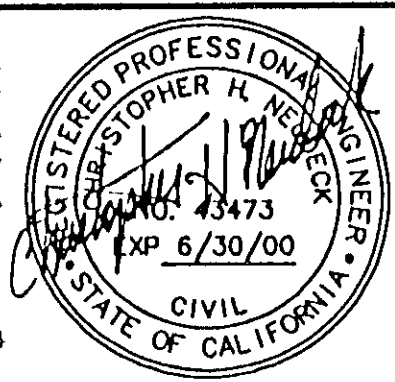
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RECORD DRAWINGS
See Sheet 1

HDR
HDR Engineering, Inc.
5175 Hillside Circle
El Dorado Hills, CA 95762
(916) 939-4100

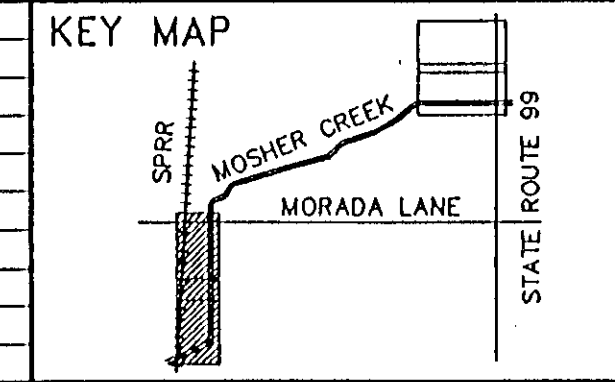
KSN
KJELSDEN
SINNOCK
NEUDECK
INC.
Consulting Engineers
and Land Surveyors
Post Office Box 844
1113 W. Fremont Street
Stockton, CA 95201-0844
(209) 946-0268



Job No. 1375-144
File No. E-1960



No.	DATE	APVD.	REVISION

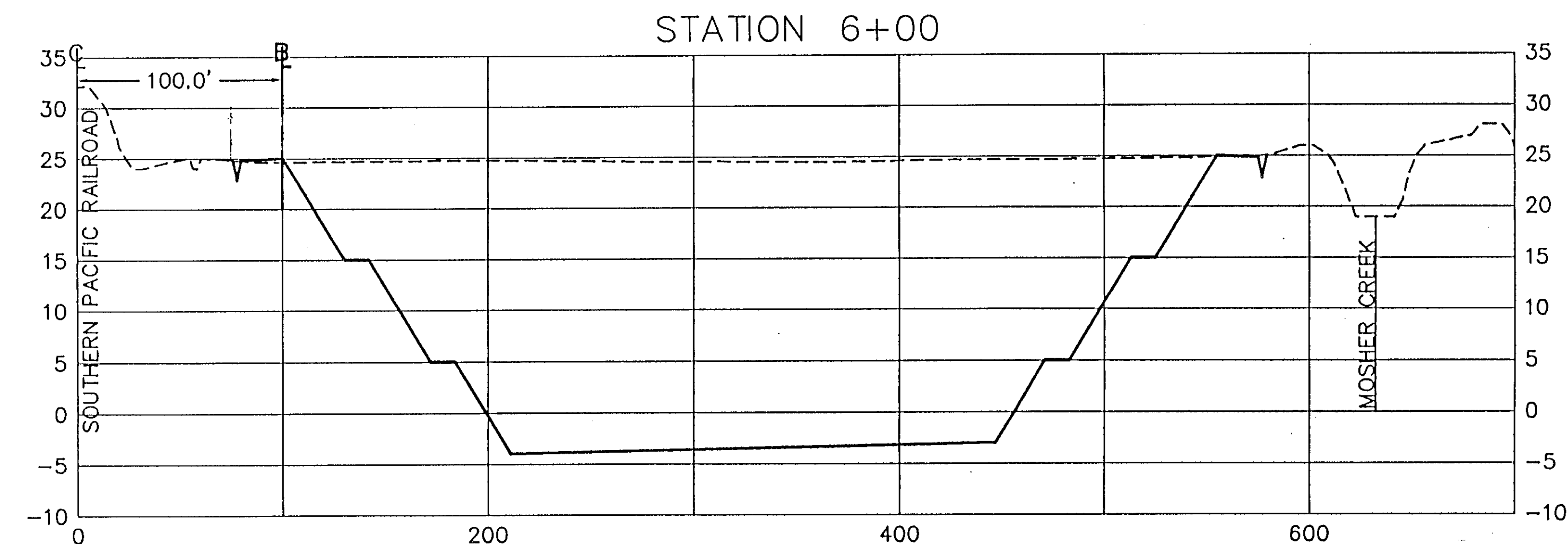
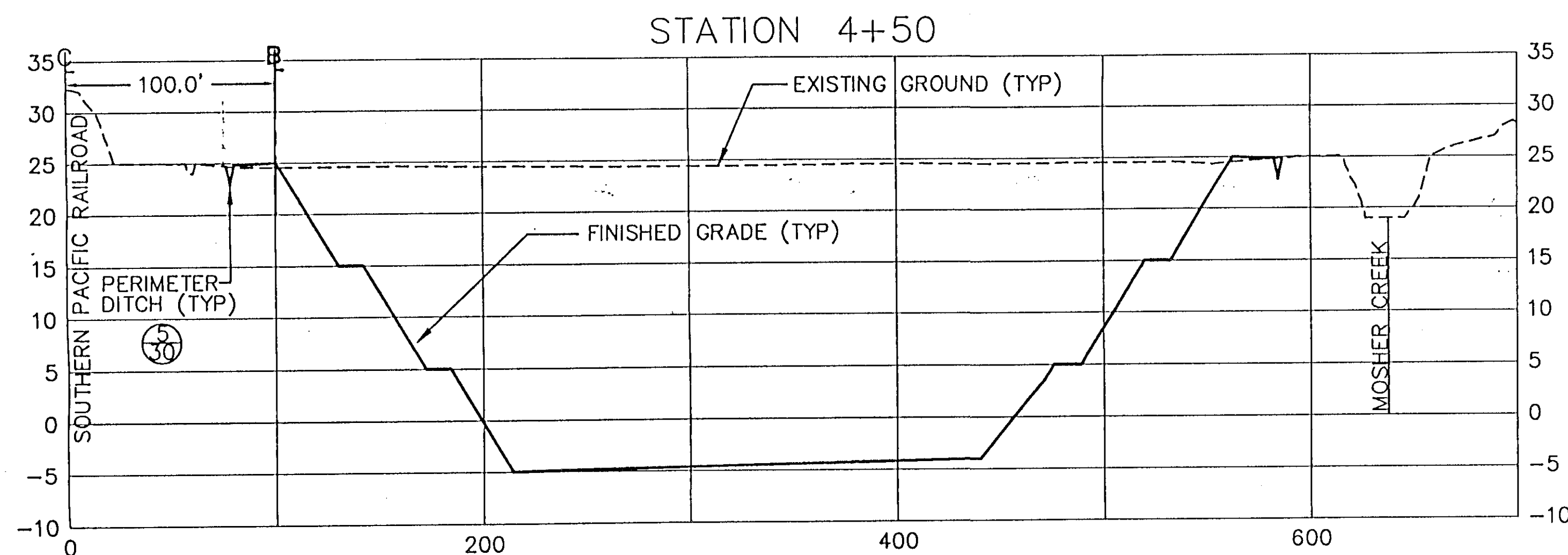
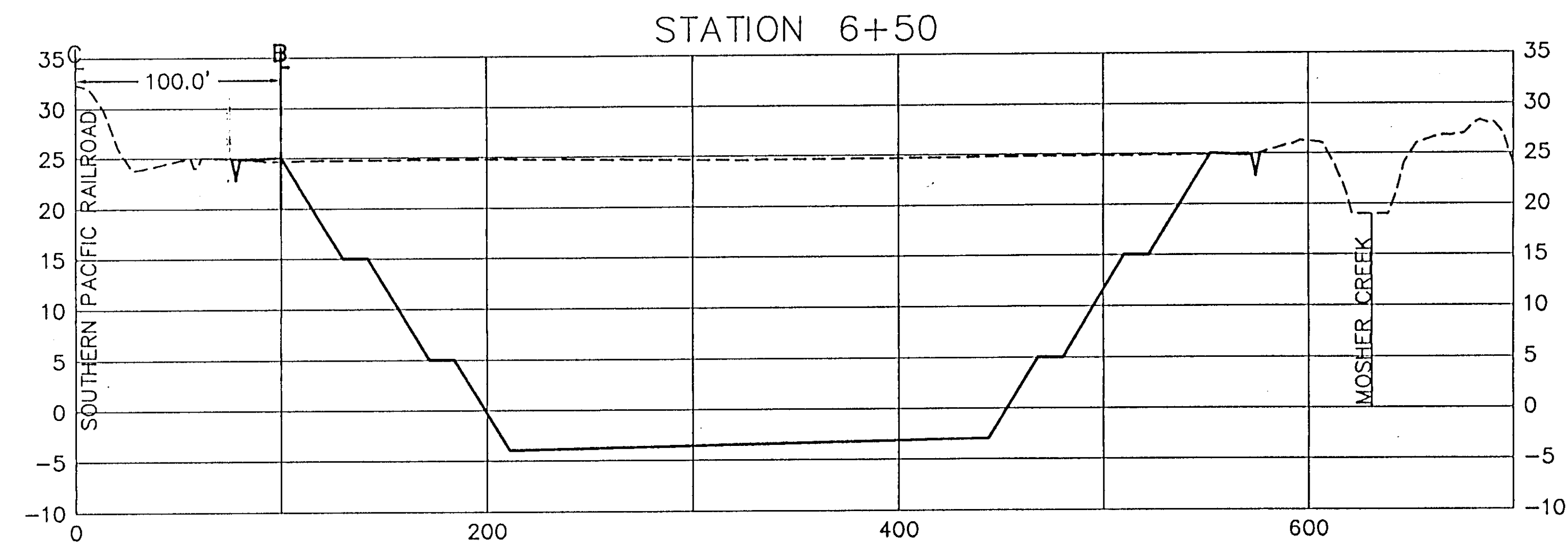
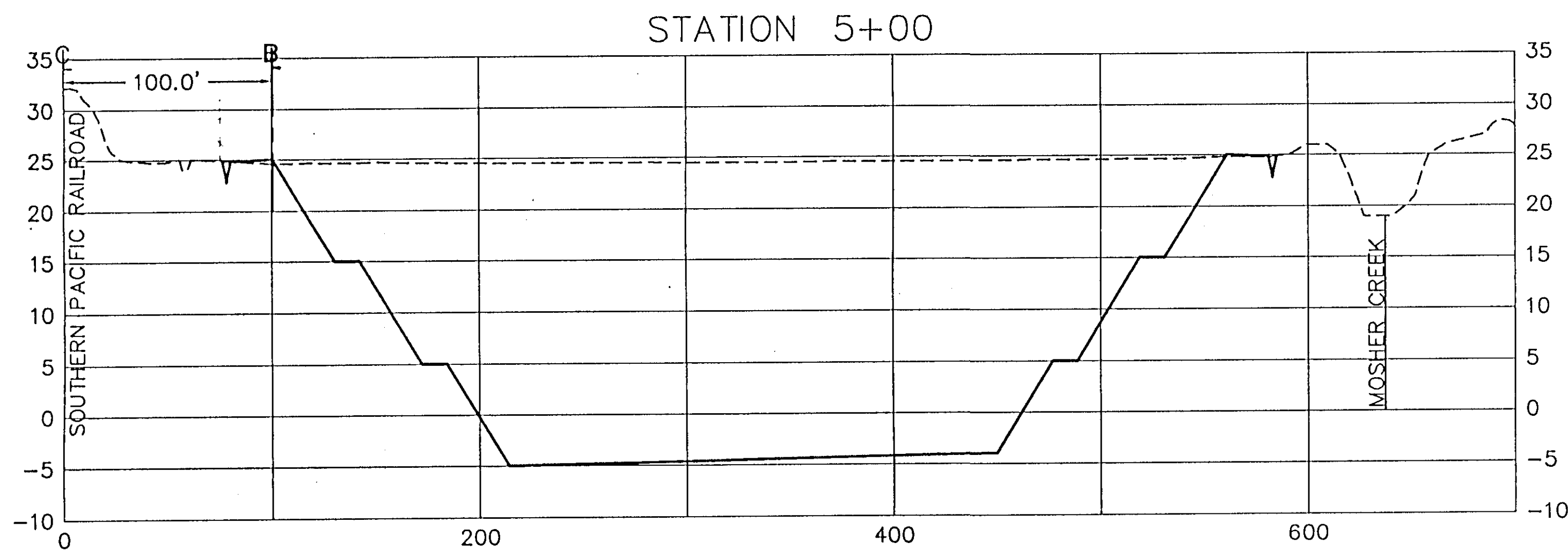
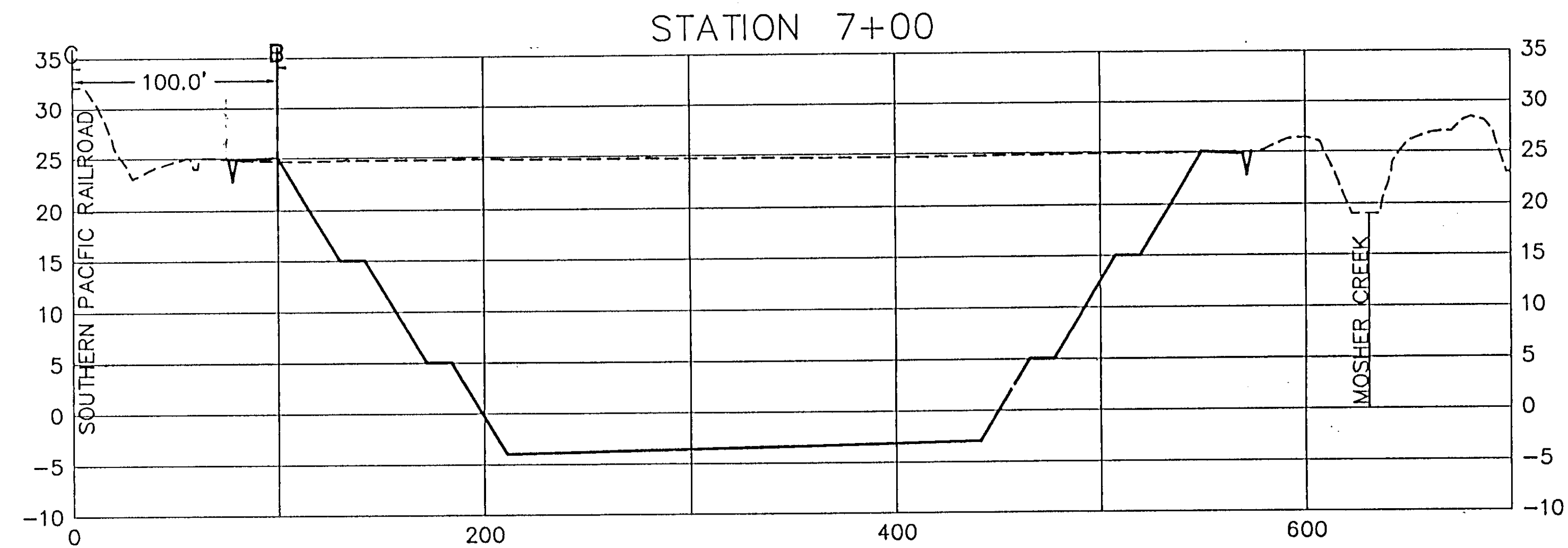
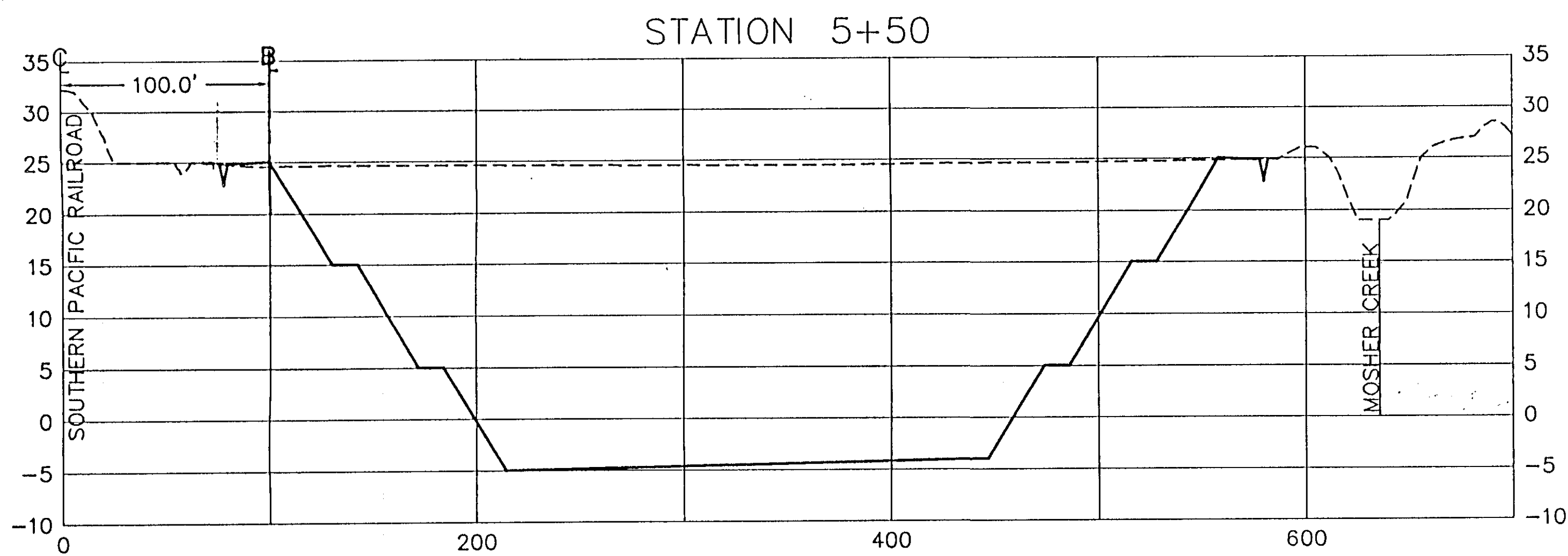


FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTIONS BASINS

QUARRY BASIN NO. 2
CROSS SECTIONS

SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN
SCALE: " = 50'(H) 10'(V)
DESIGNED BY: DGR
DRAWN BY: BLJ
CHECKED BY: CHN
RECORD DWG.:
DATE: 6/13/96
CHECKED BY: [Signature]
HAMSON ENGINEERING

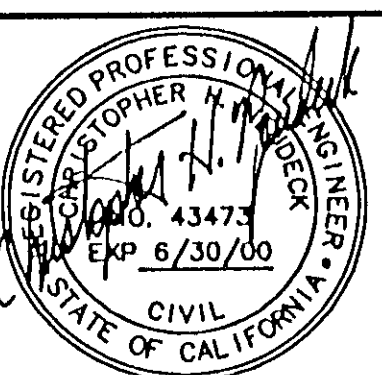
SHEET
19
OF
34
SHEETS



RECORD DRAWINGS
See Sheet 1

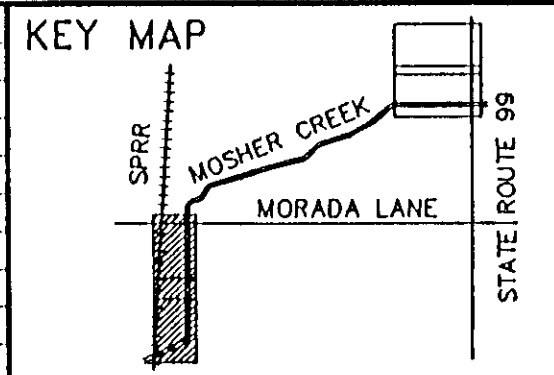
HDR
HDR Engineering, Inc.
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(209) 946-0268



Job No. 1375-144
File No. E-1950

No.	DATE	APVD.	REVISION

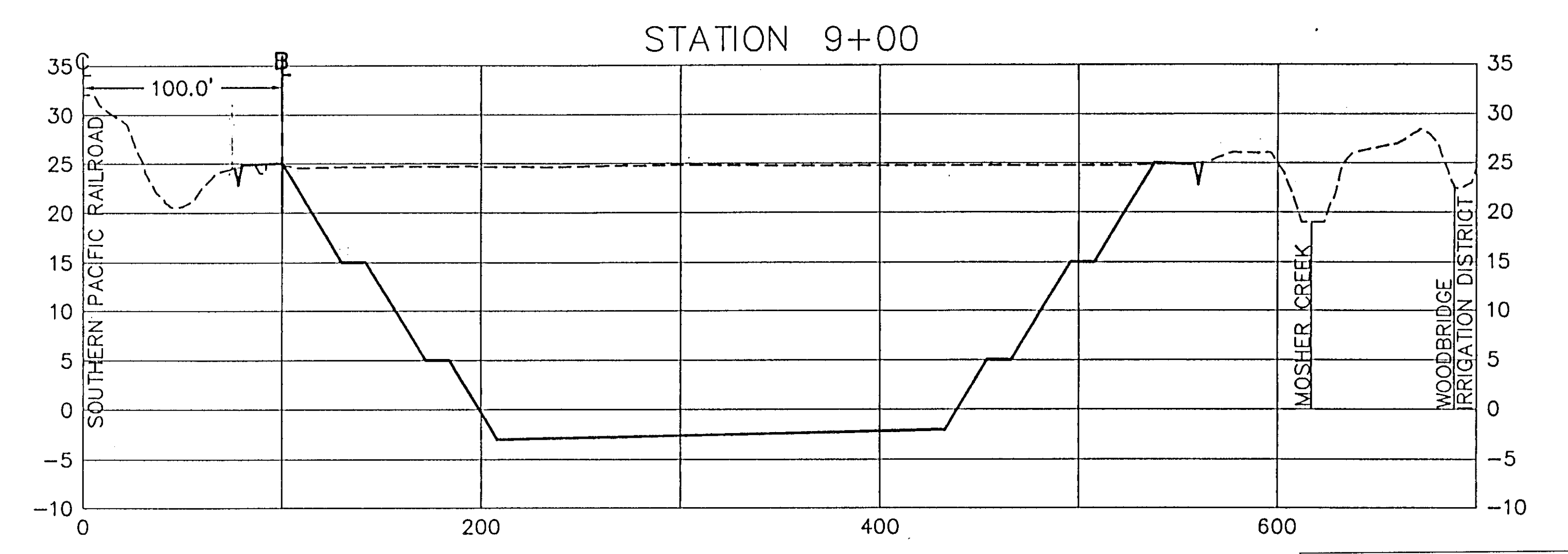
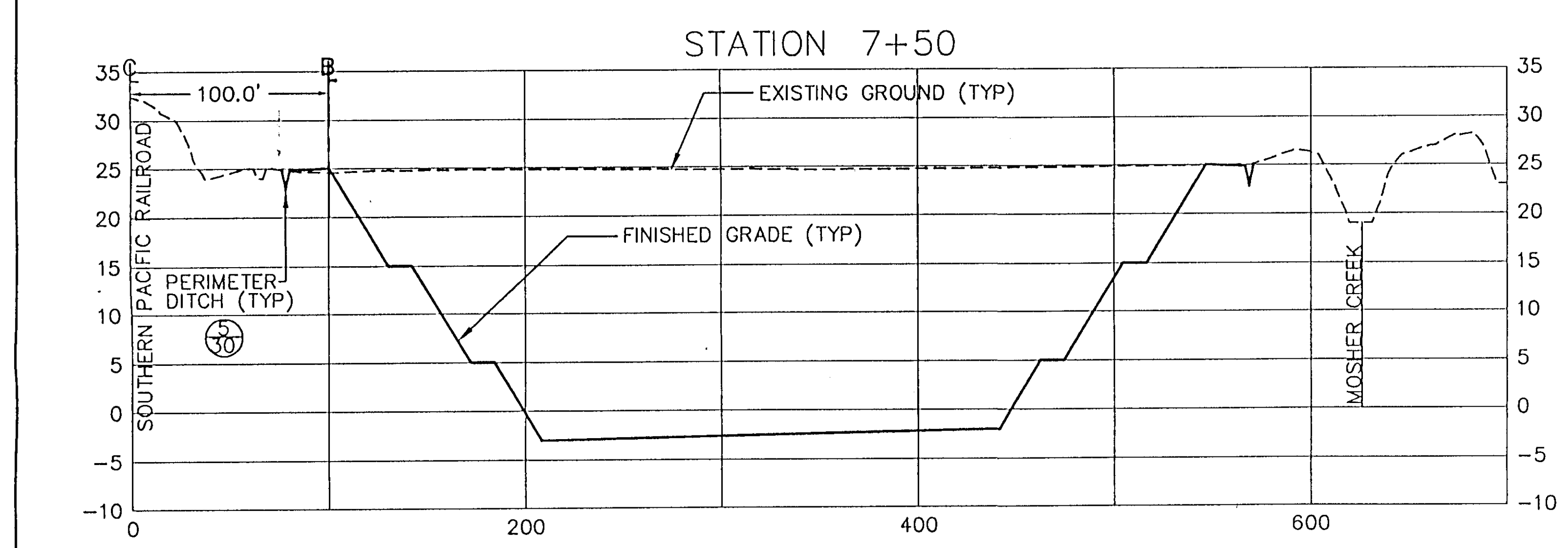
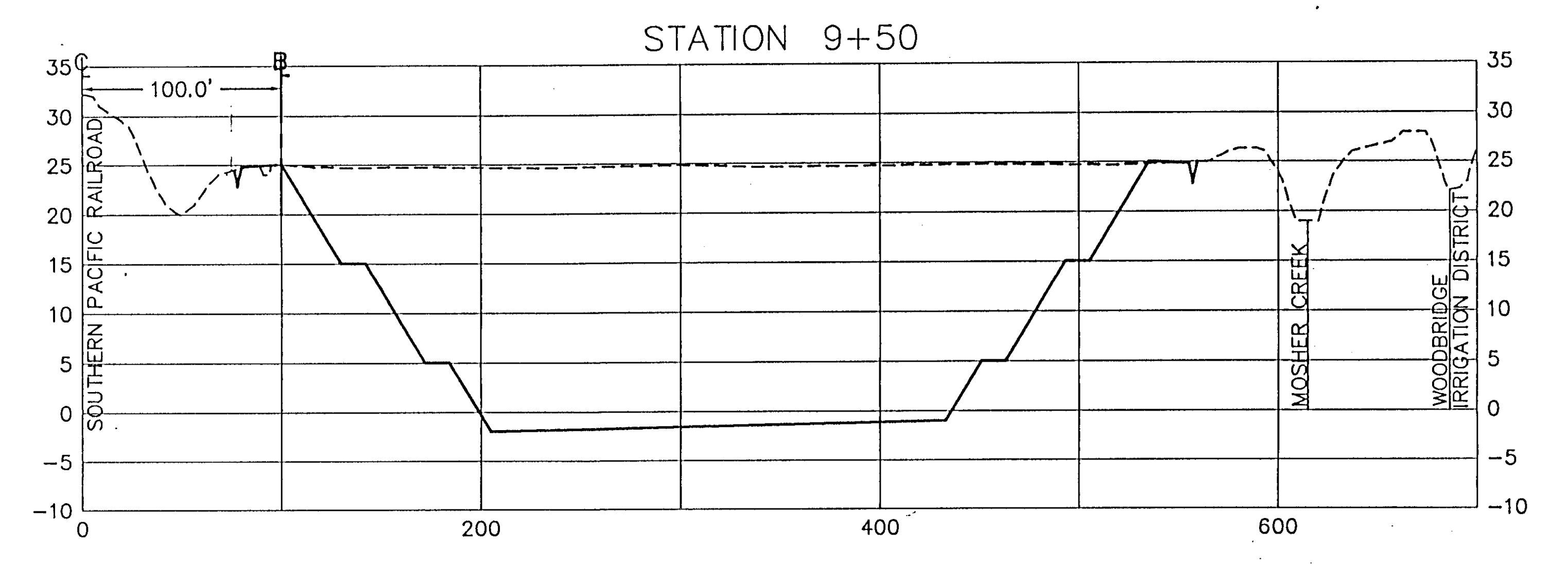
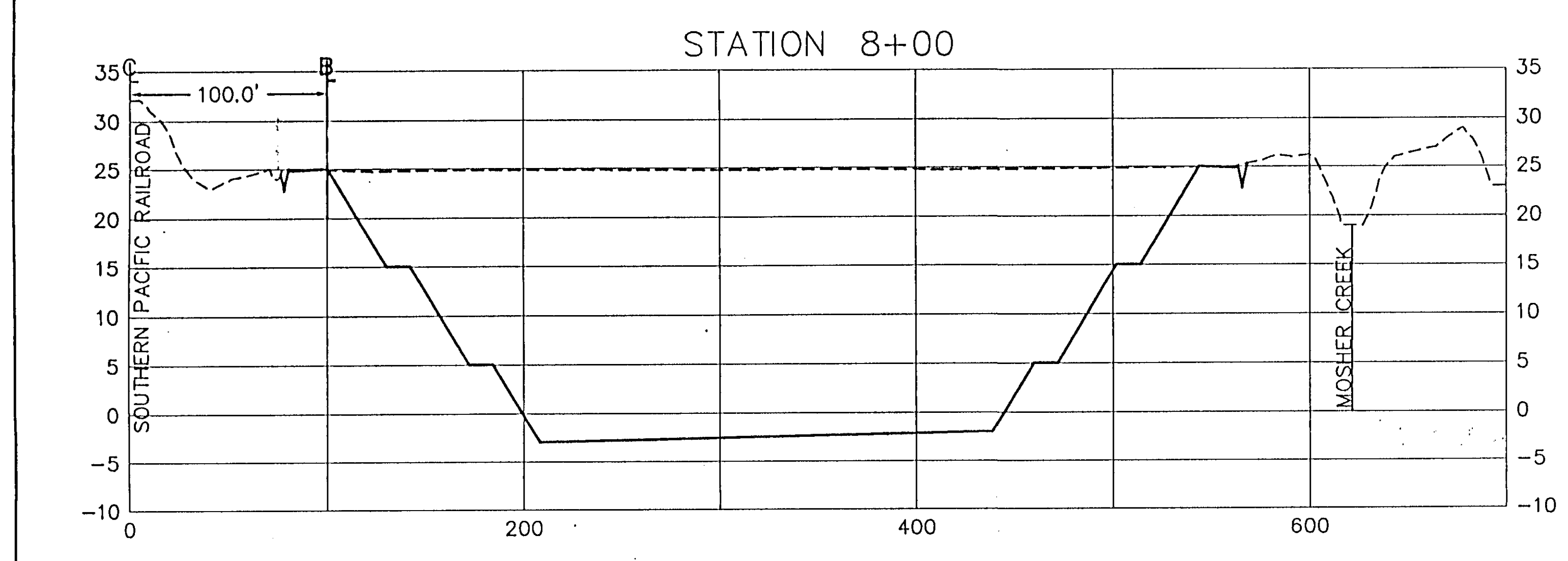
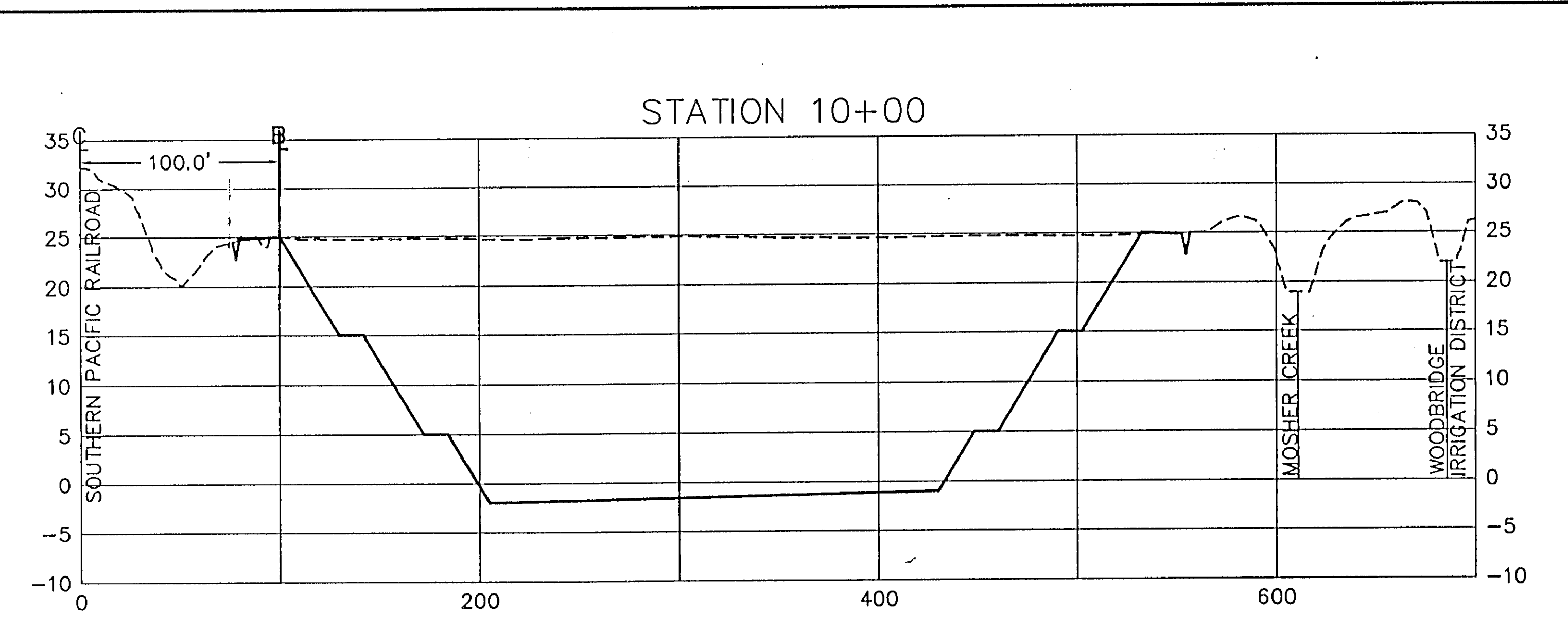
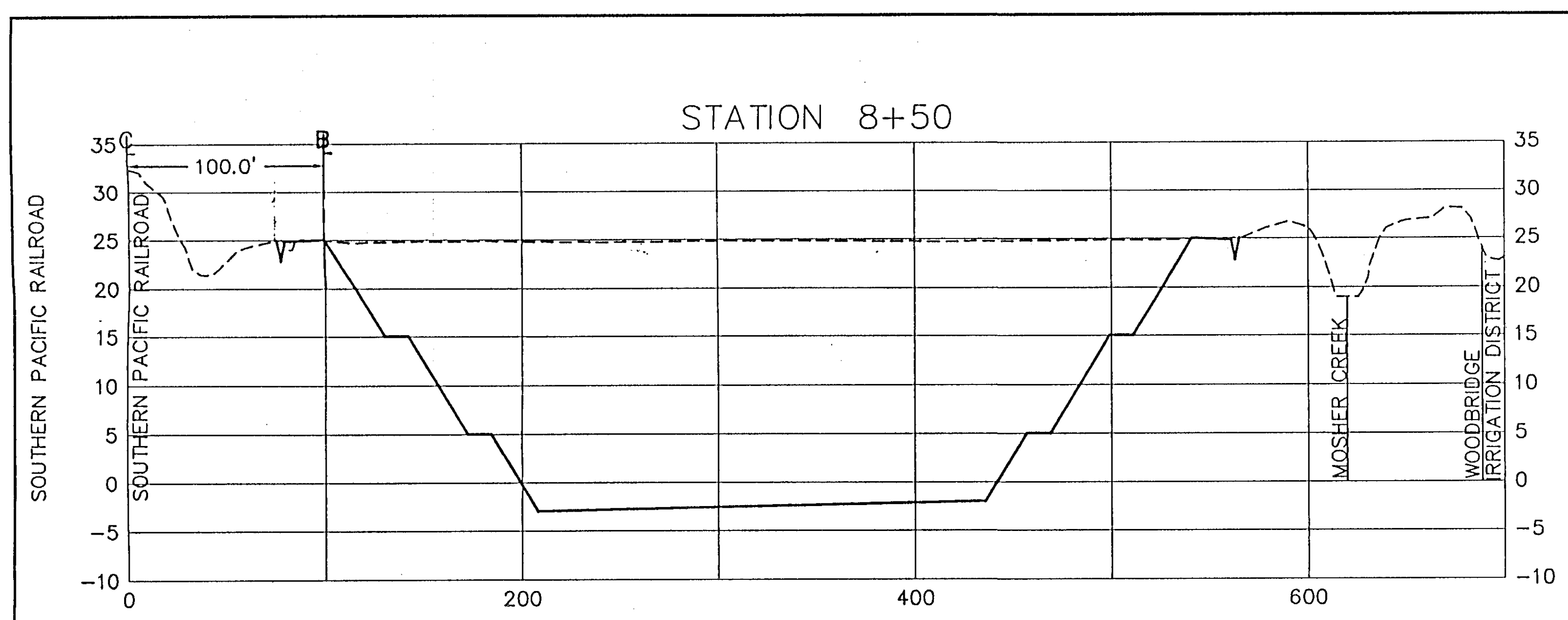


FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS

QUARRY BASIN NO. 2
CROSS SECTIONS

SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN
SCALE: 1"=50'(H) 10'(V)
DESIGNED BY: DGR
DRAWN BY: BLJ
CHECKED BY: CHN
RECORD DWG.:
DATE: 6/13/96
CHECKED BY: DATE: 6/13/96
HANSON ENGINEERING

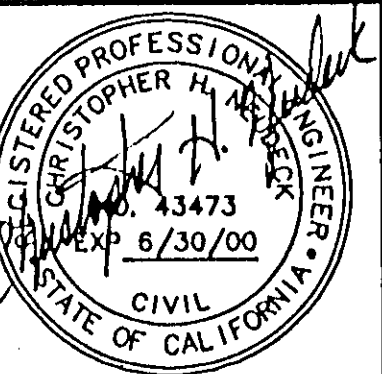
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NO. 20
OF
34
SHEETS
JOB NO.



RECORD DRAWINGS
See Sheet 1

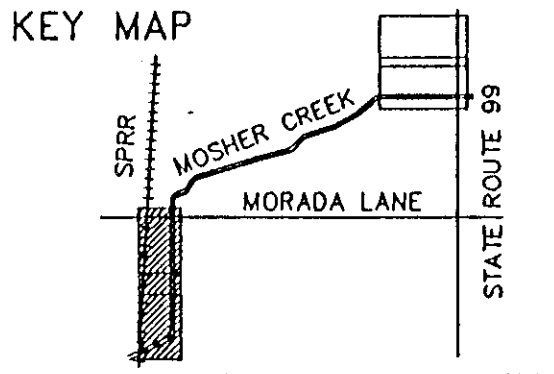


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(209) 946-0268



Job No. 1375-144
File No. E-1960

No.	DATE	APVD.	REVISION

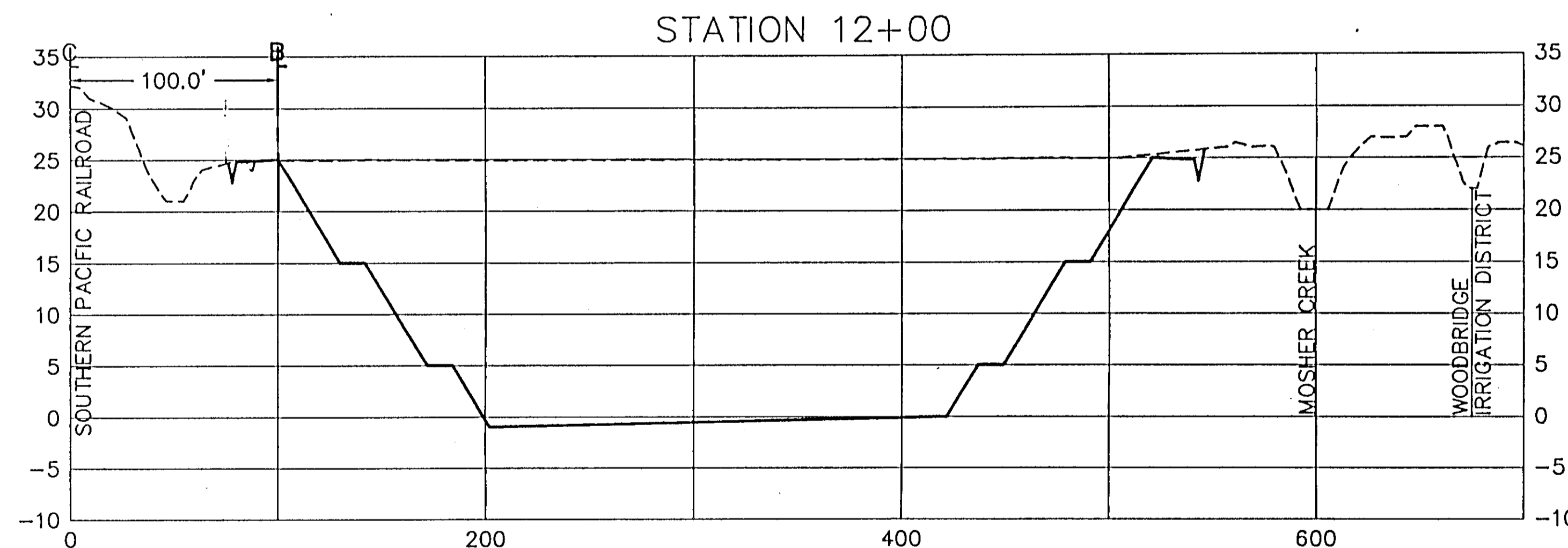
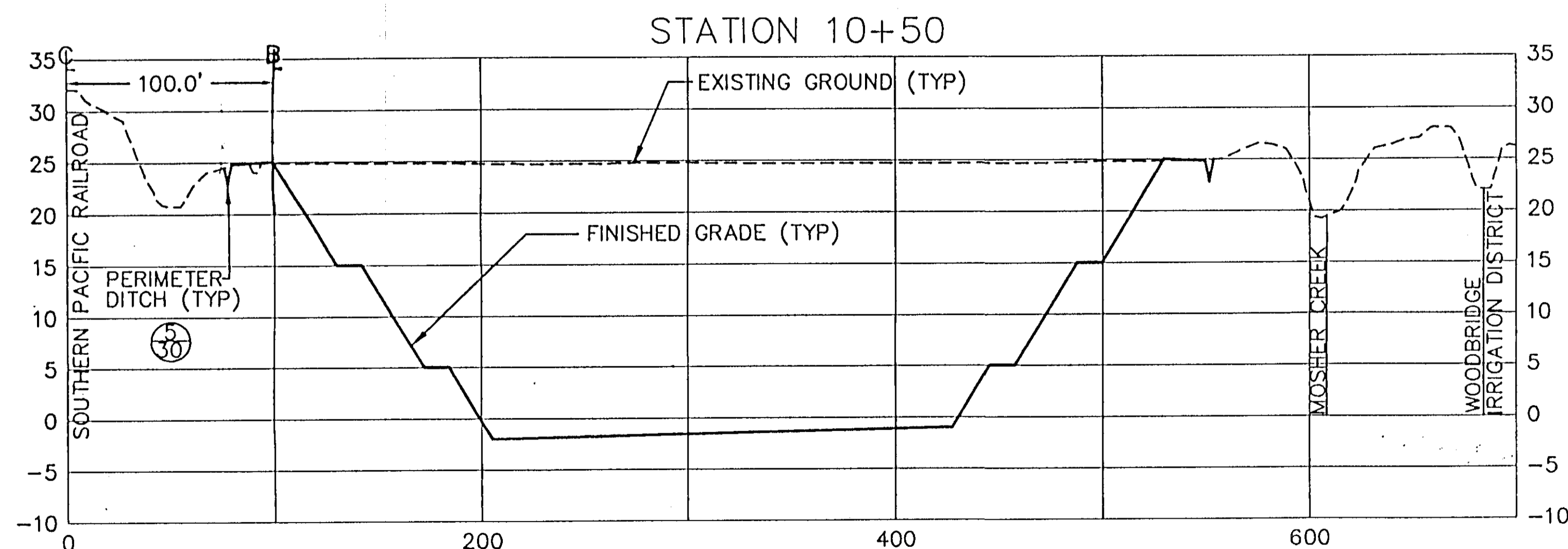
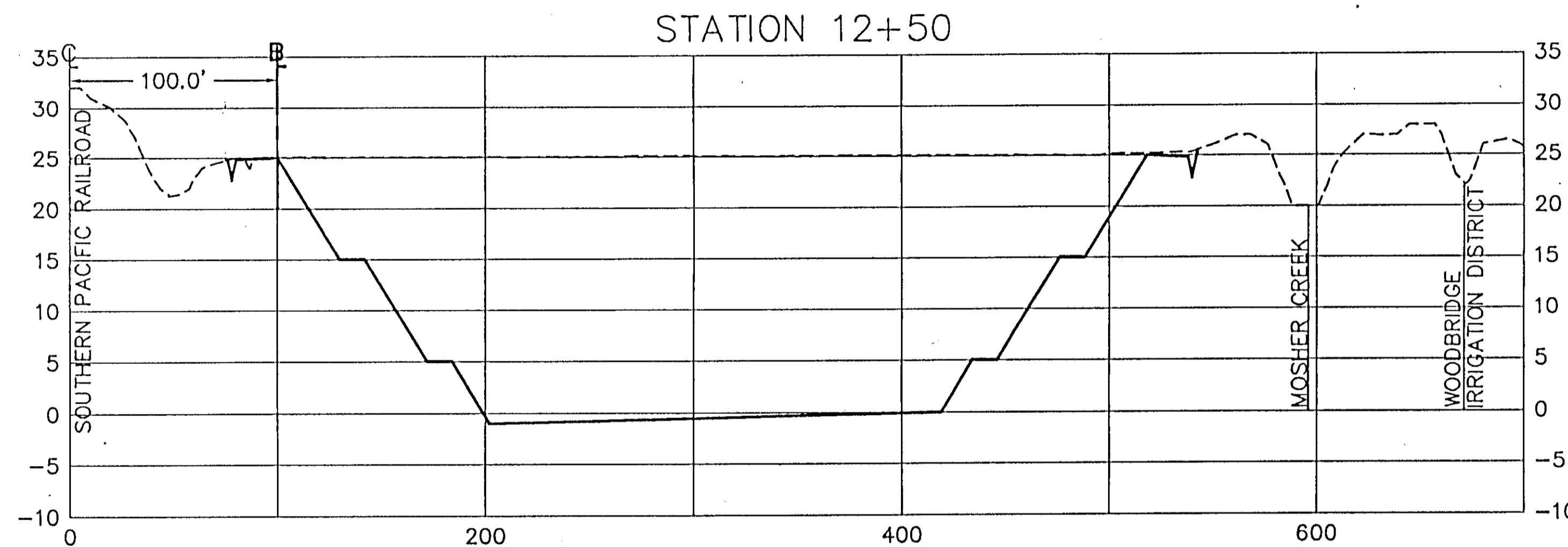
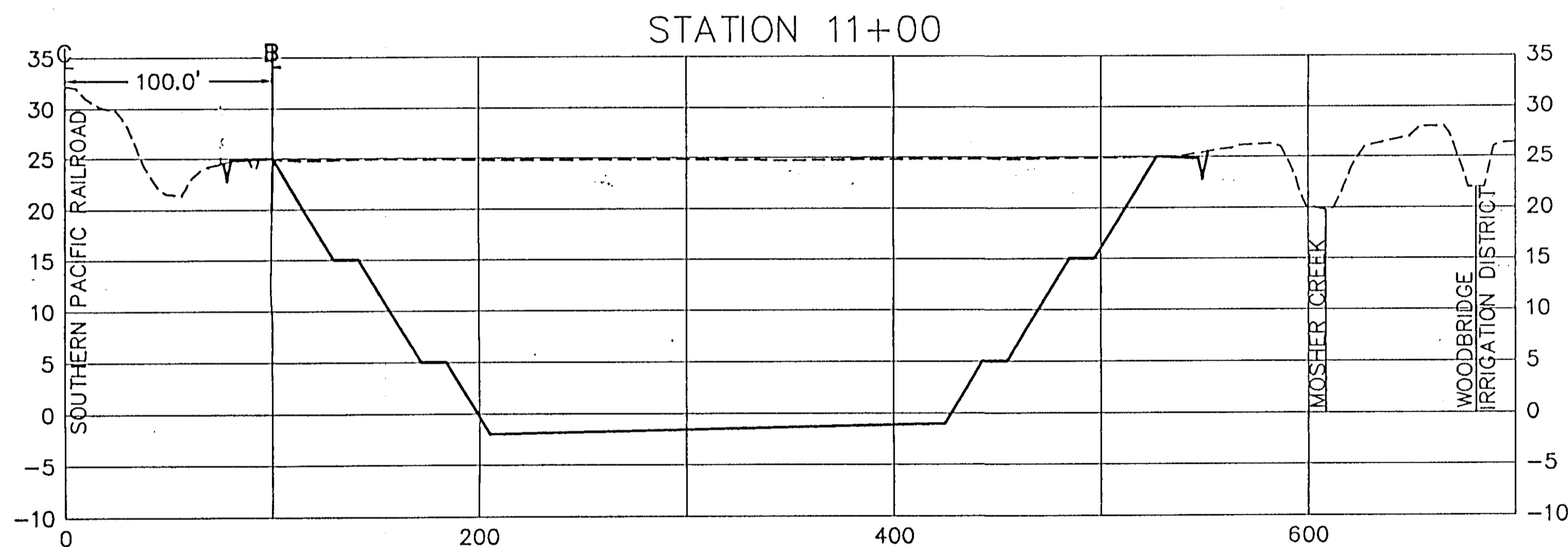
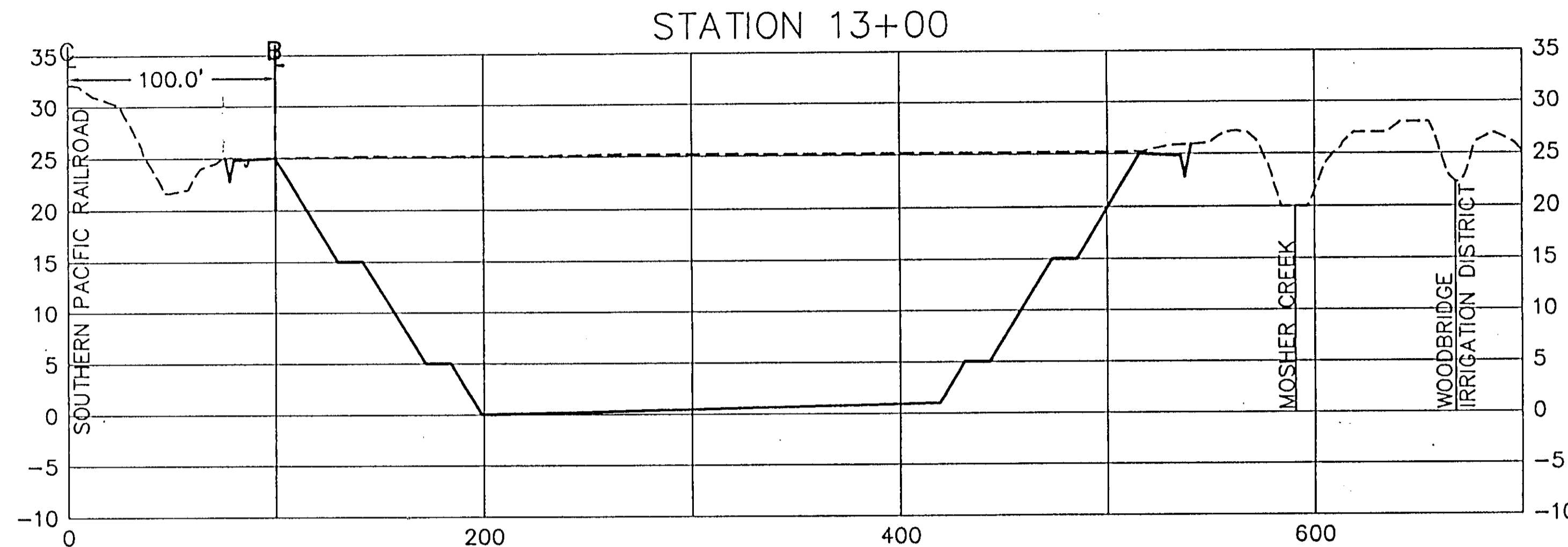
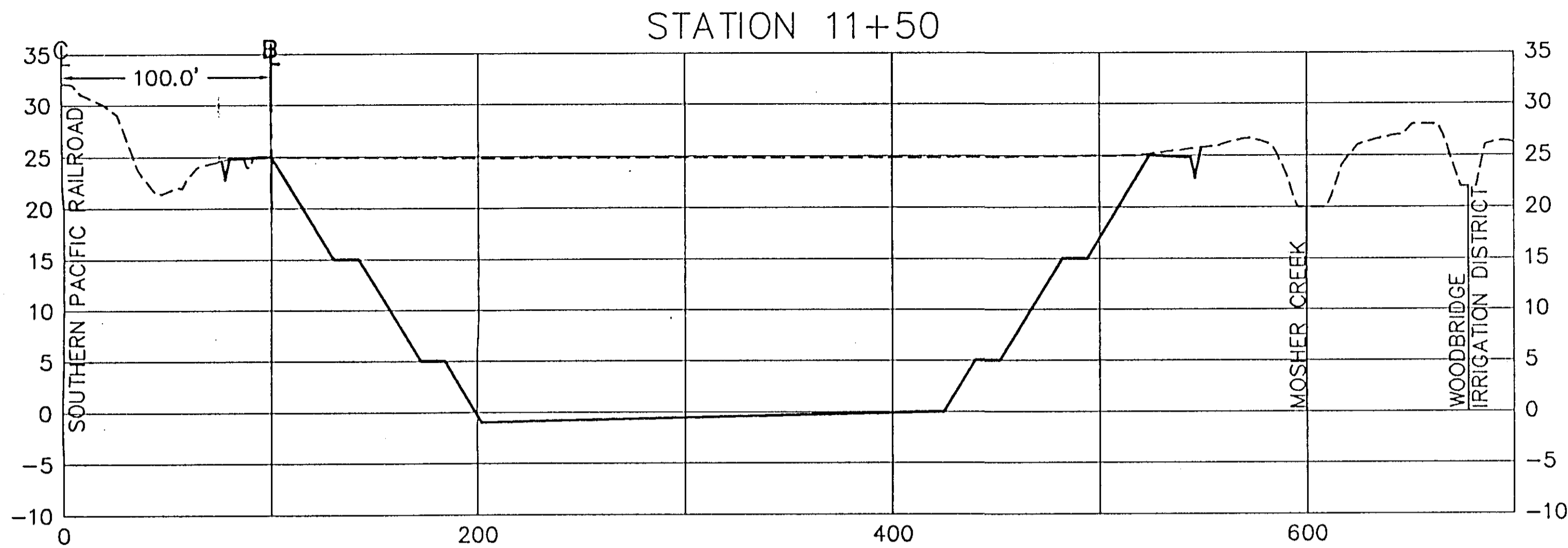


FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS

QUARRY BASIN NO. 2
CROSS SECTIONS

SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN
SCALE: 1" = 50'(H) 10'(V)
DESIGNED BY: DGR
DRAWN BY: BLJ
CHECKED BY: CHN
RECORD DWG.:
DATE: 6/13/96
CHECKED BY: [Signature]
HANSON ENGINEERING

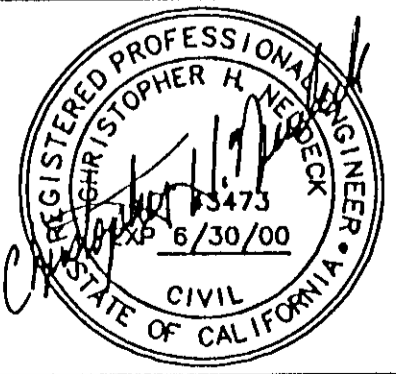
SHEET
21
OF
34
SHEETS



RECORD DRAWINGS
See Sheet 1

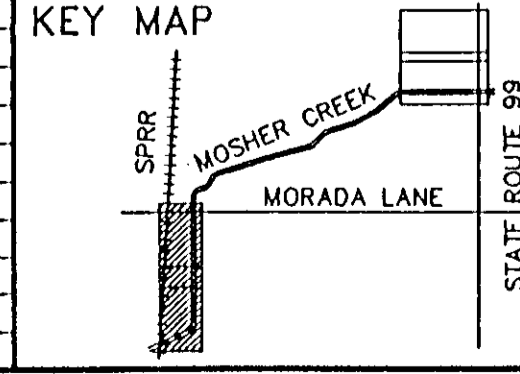
HDR
HDR Engineering, Inc.
5175 Hillside Circle
El Dorado Hills, CA 95762
(916) 939-4100

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NEUDECK
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Stockton, CA 95201-0844
(209) 946-0268



Job No. 1375-144
File No. E-1960

No.	DATE	APVD.	REVISION



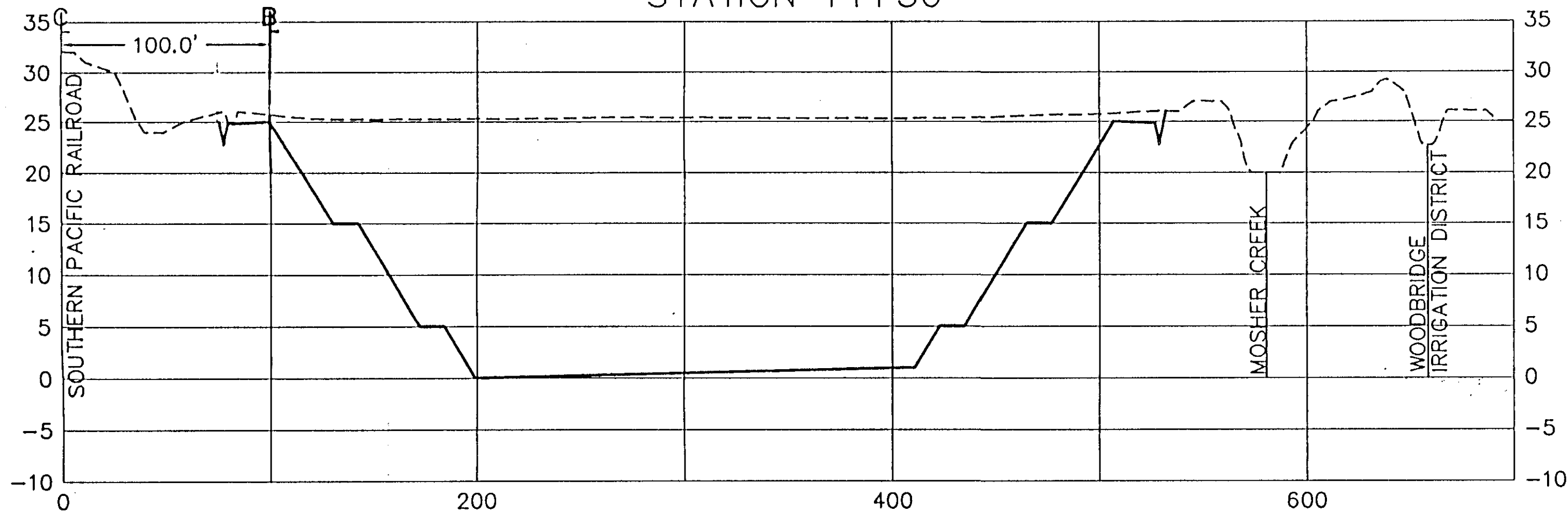
FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS

QUARRY BASIN NO. 2
CROSS SECTIONS

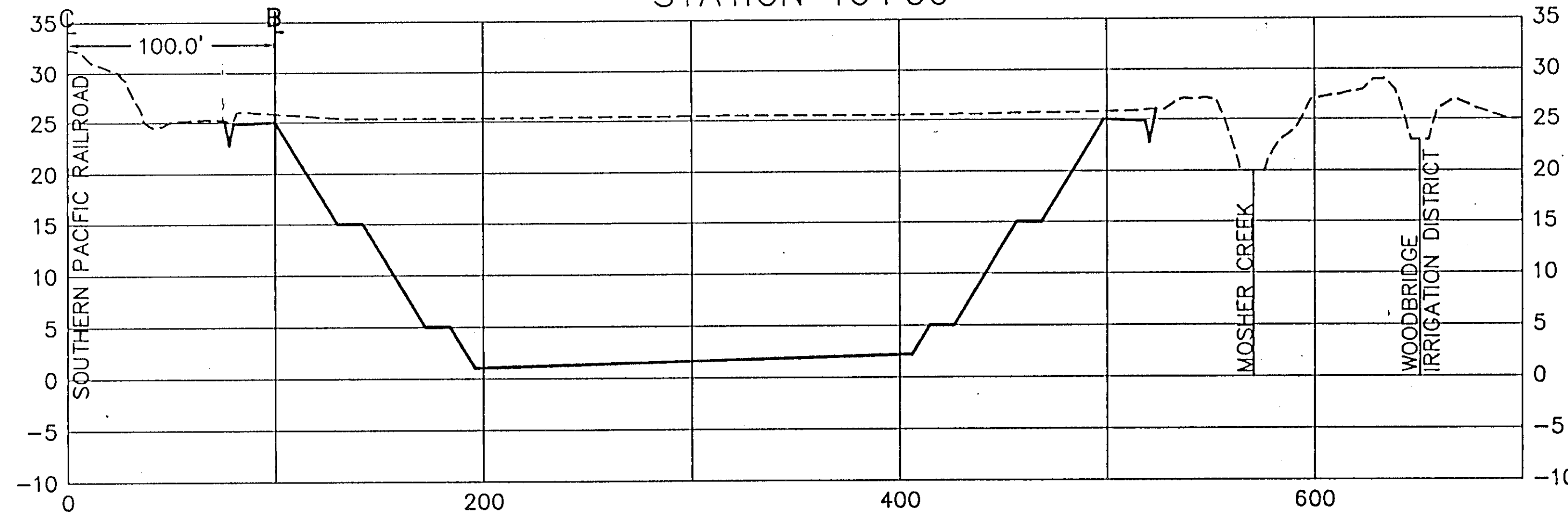
SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN
SCALE: 1"=50'(H) 10'(V)
DESIGNED BY: DGR
DRAWN BY: BLJ
CHECKED BY: CHN
RECORD DWG.:
DATE: 6/13/96
CHECKED BY: DATE: 6/19/96
HANSON ENGINEERING

SHEET
22
OF
34
SHEETS
JOB NO.

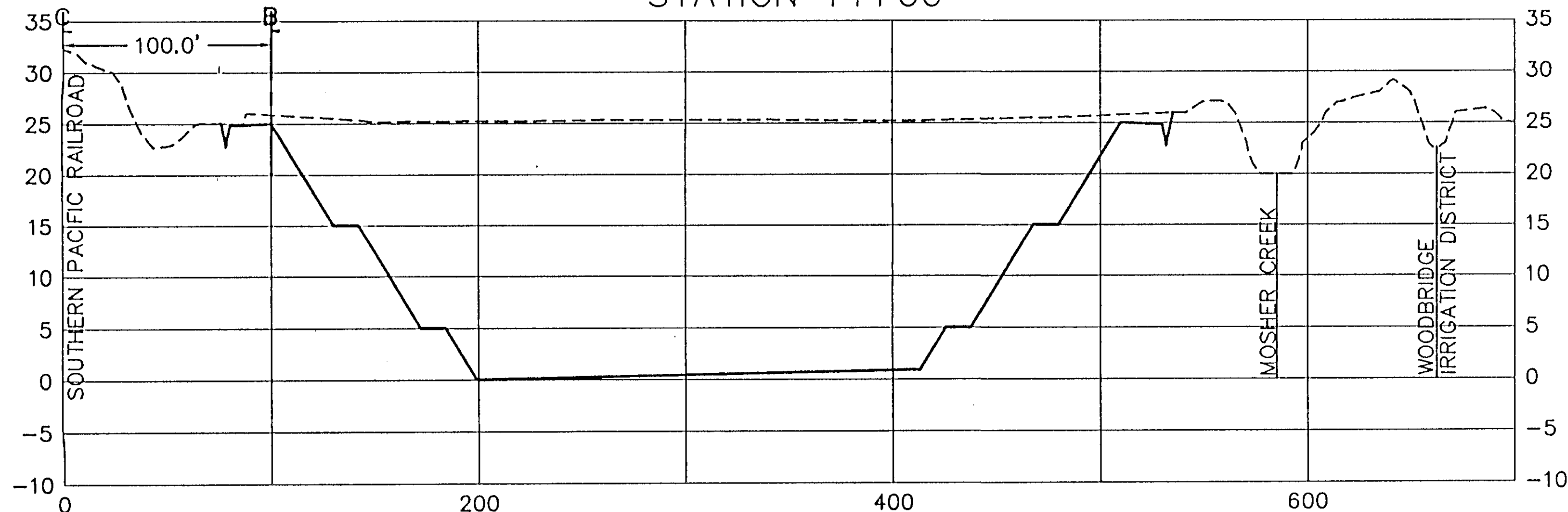
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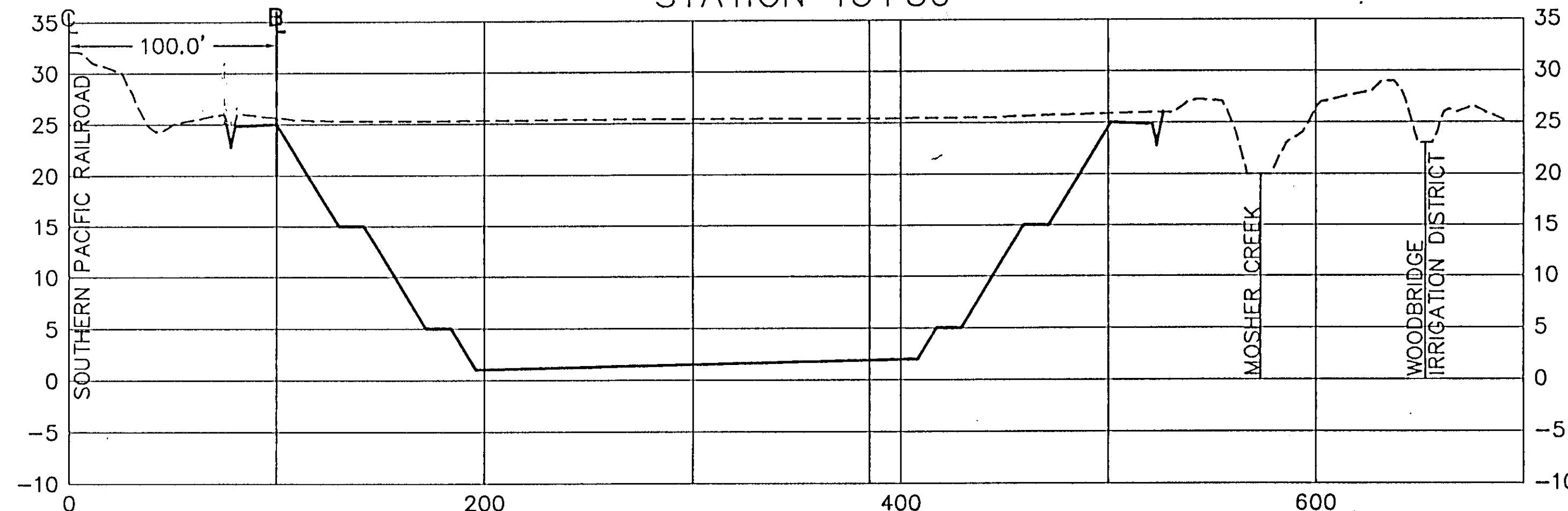
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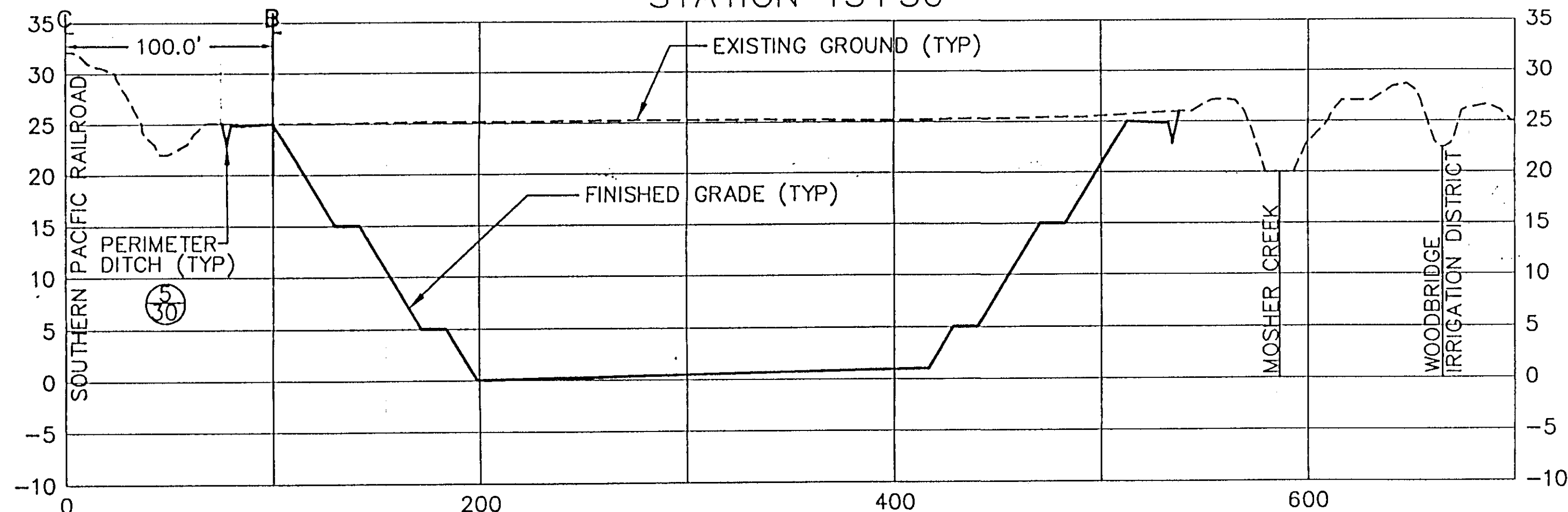
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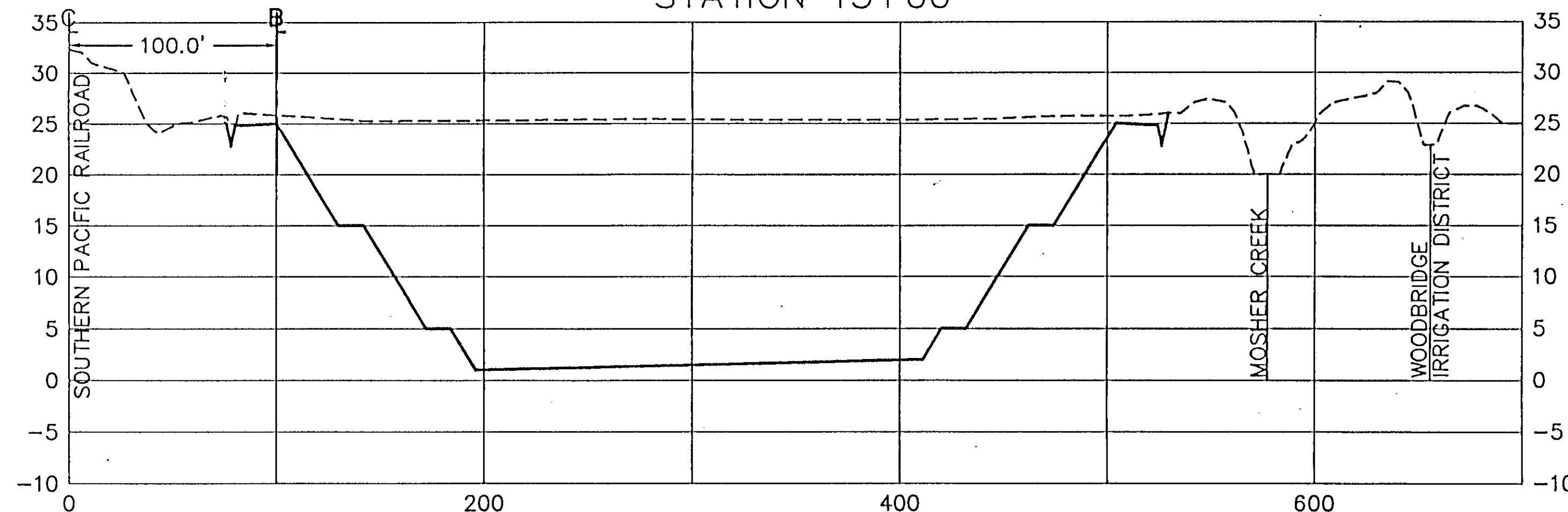
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STATION 13+50



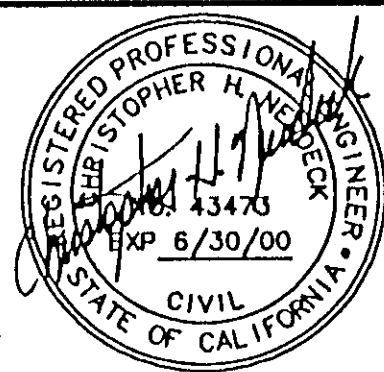
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RECORD DRAWINGS
See Sheet 1

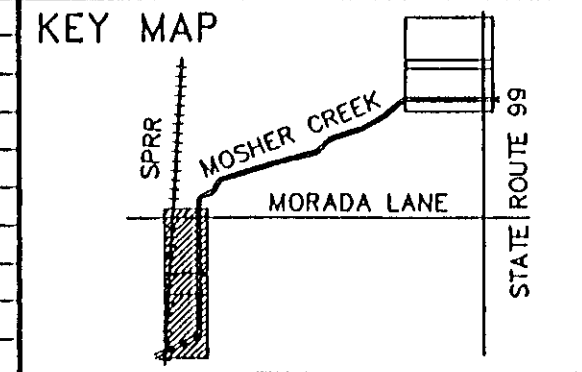
HDR
HDR Engineering, Inc.
5175 Hillside Circle
El Dorado Hills, CA 95762
(916) 939-4100

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NEUDECK
Consulting Engineers
and Land Surveyors
Post Office Box 944
1113 W. Fremont Street
Stockton, CA 95201-0844
(209) 946-0268



Job No. 1375-144
File No. E-1960

No.	DATE	APVD.	REVISION

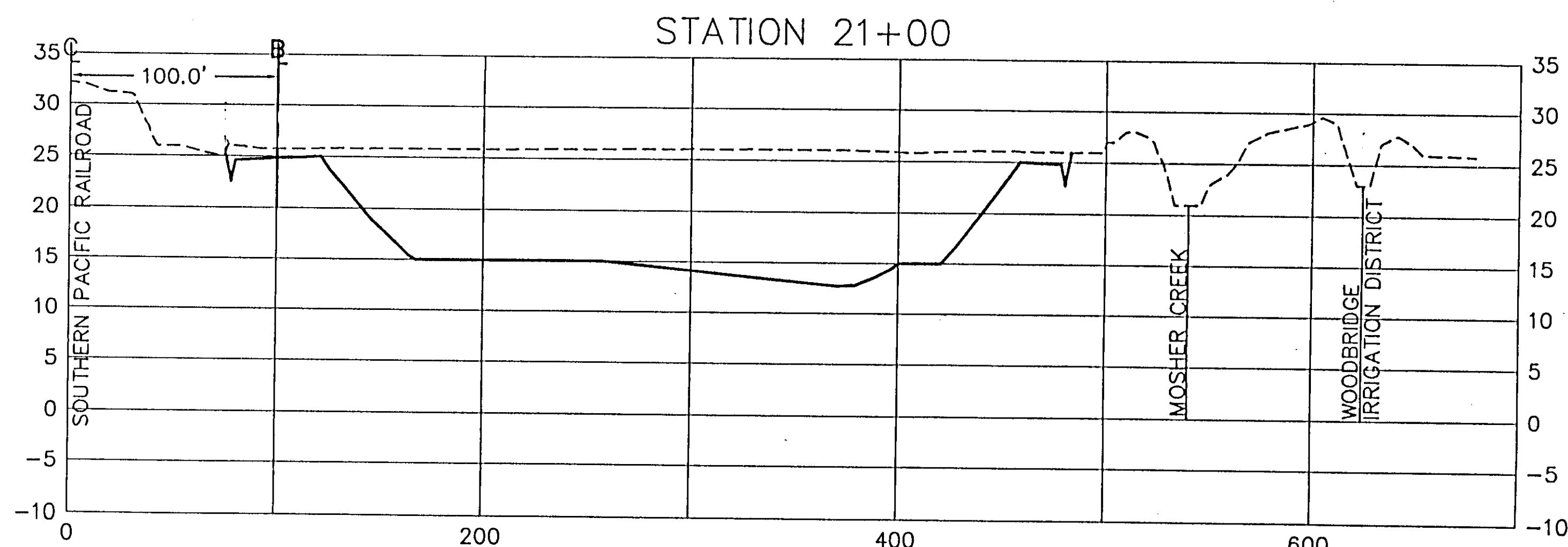
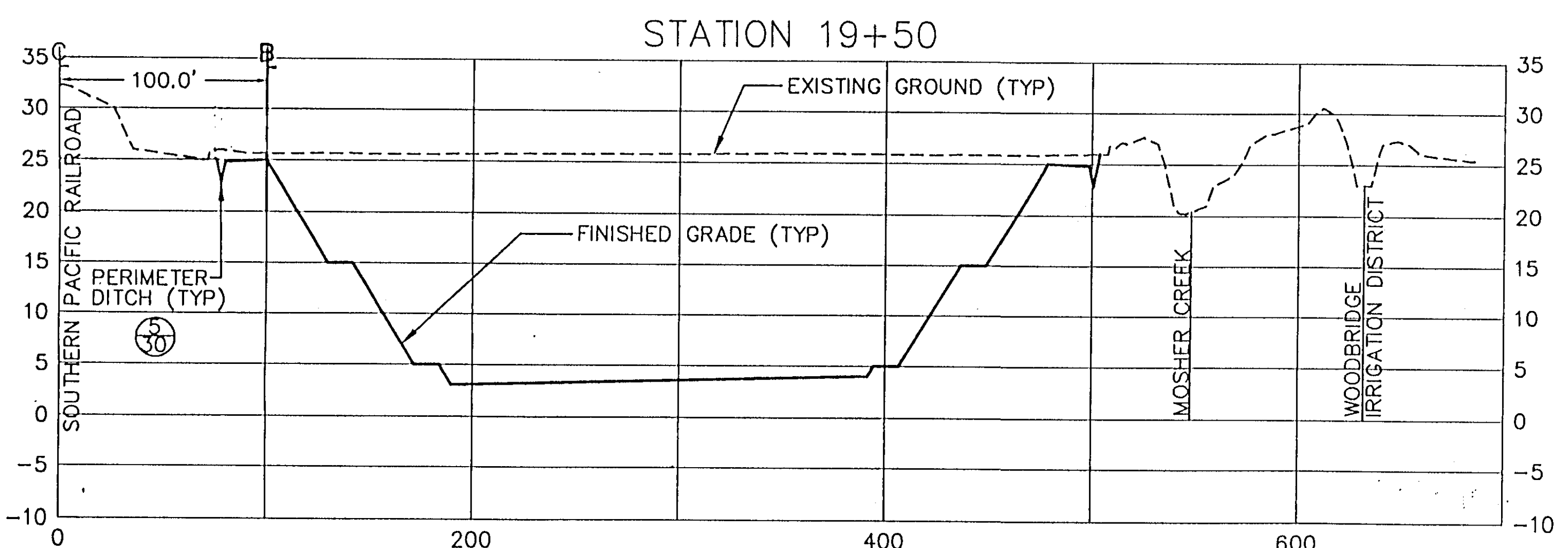
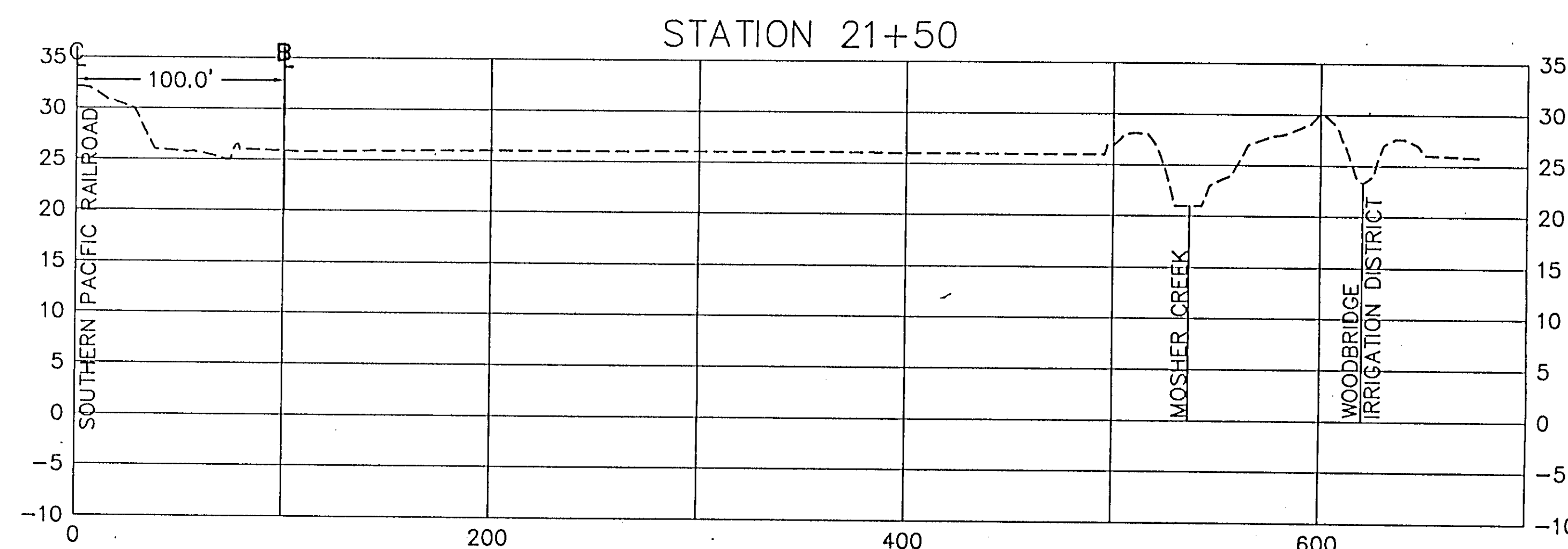
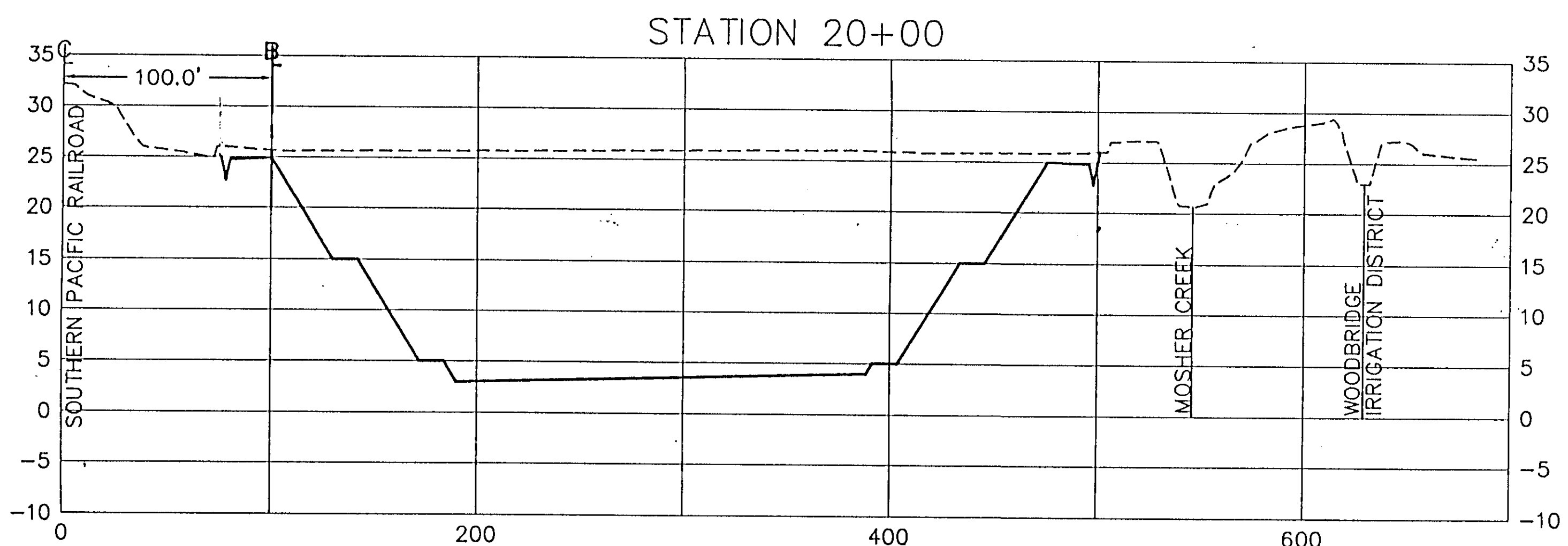
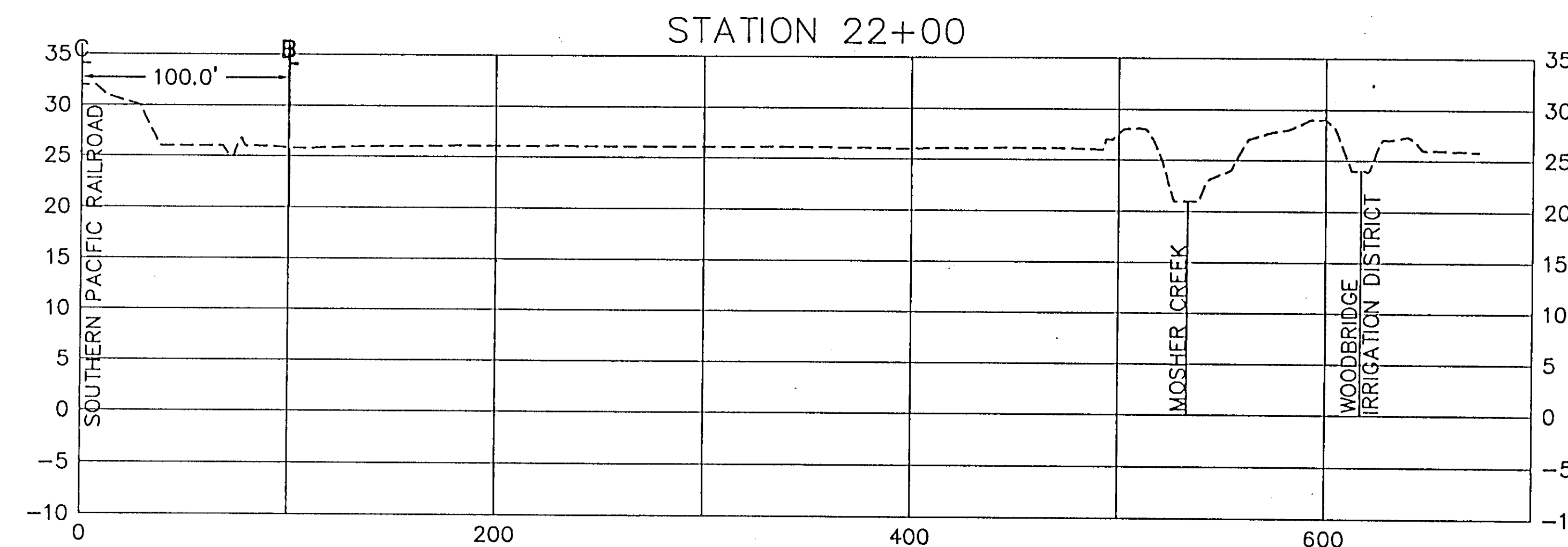
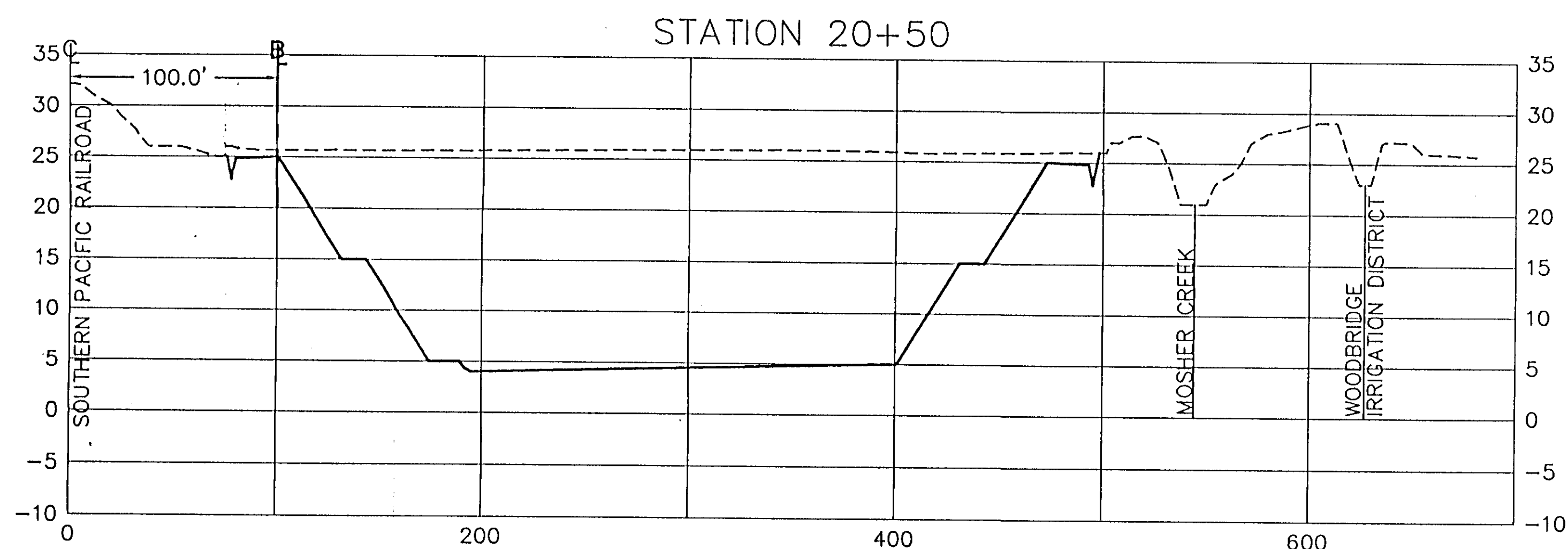


FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS

QUARRY BASIN NO. 2
CROSS SECTIONS

SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN
SCALE 1"=50'(H) 10'(V)
DESIGNED BY: DGR
DRAWN BY: BLJ
CHECKED BY: CHN
RECORD DWG.:
DATE: 6/13/96
CHECKED BY: [Signature]
DATE: 6/13/96
HAMSON ENGINEERING

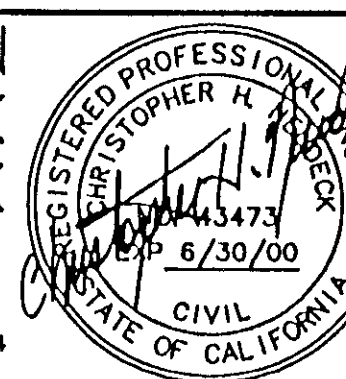
SHEET
23
OF
34
SHEETS



RECORD DRAWINGS
See Sheet 1

HDR
HDR Engineering, Inc.
5175 Hillsdale Circle
El Dorado Hills, CA 95762
(916) 939-4100

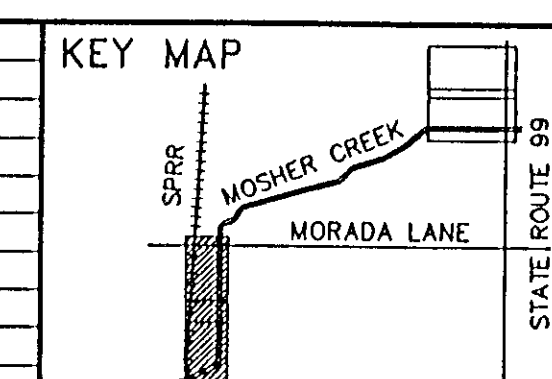
KSN
INC.
KJELDEN
SINNOCK
NEUDECK
Consulting Engineers
and Land Surveyors
Post Office Box 844
1113 W. Fremont Street
Stockton, CA 95201-0844
(209) 946-0268



Job No. 1375-144
Plan No. E-1960

No.	DATE	APVD.	REVISION

Bar Length: On Original Drawing Equals One Inch, Adjust Scale Accordingly



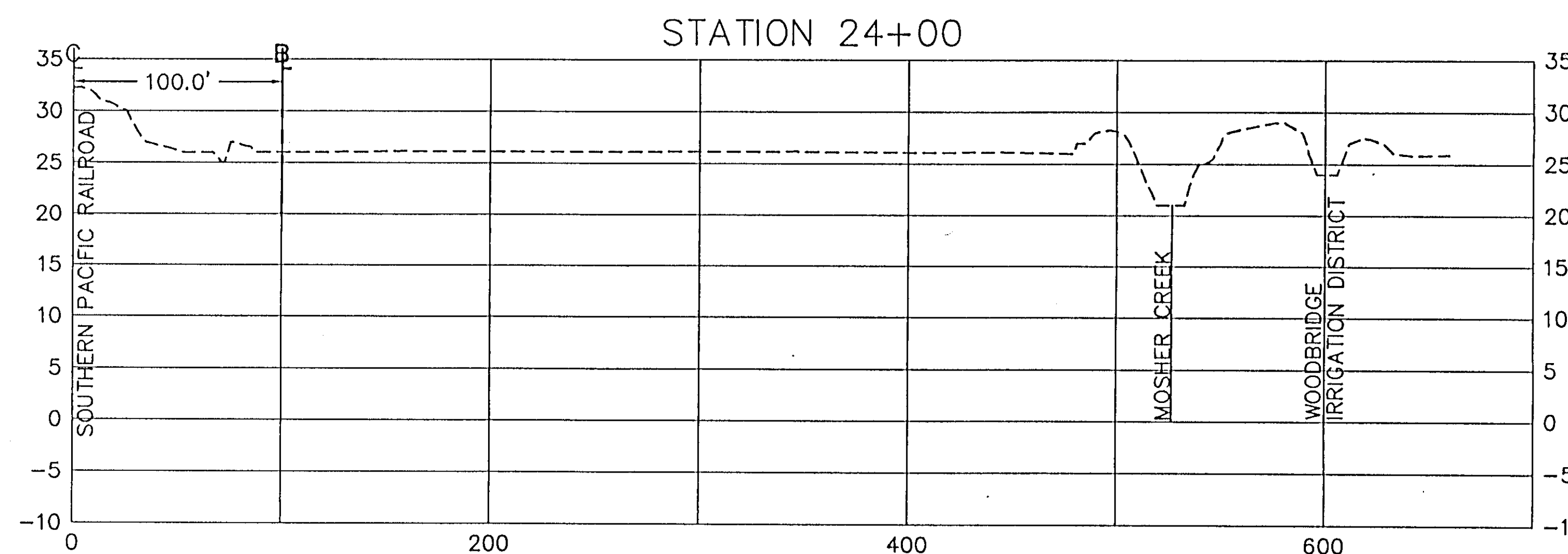
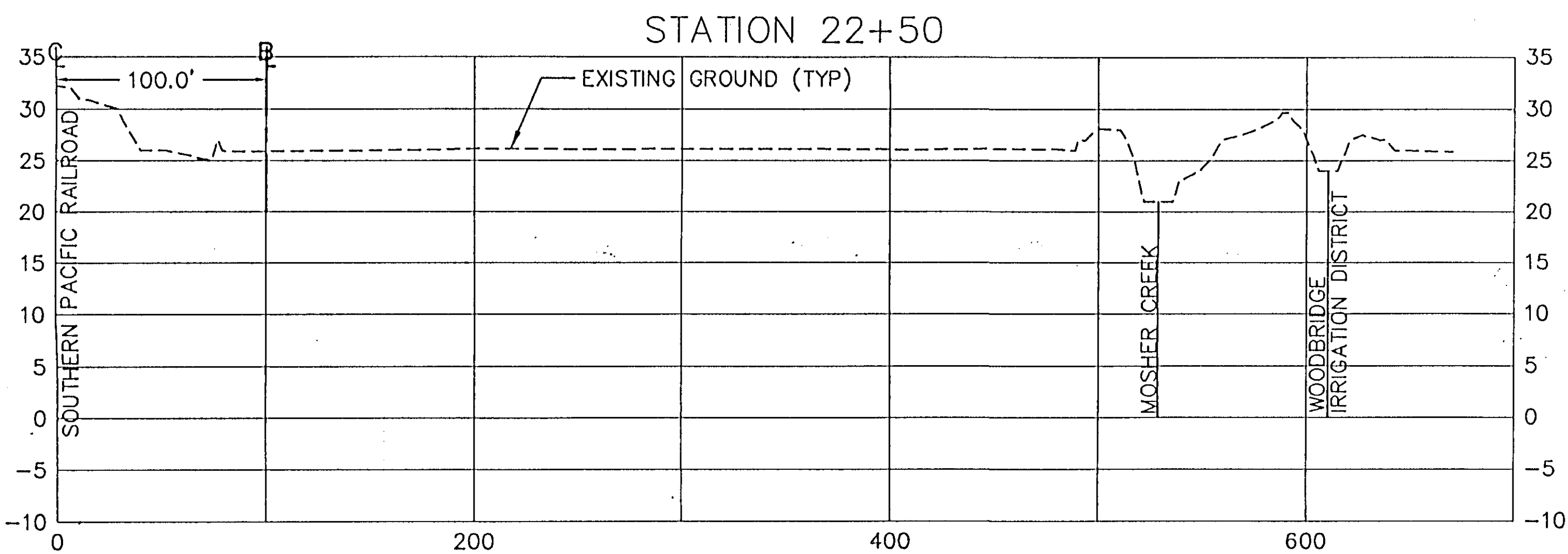
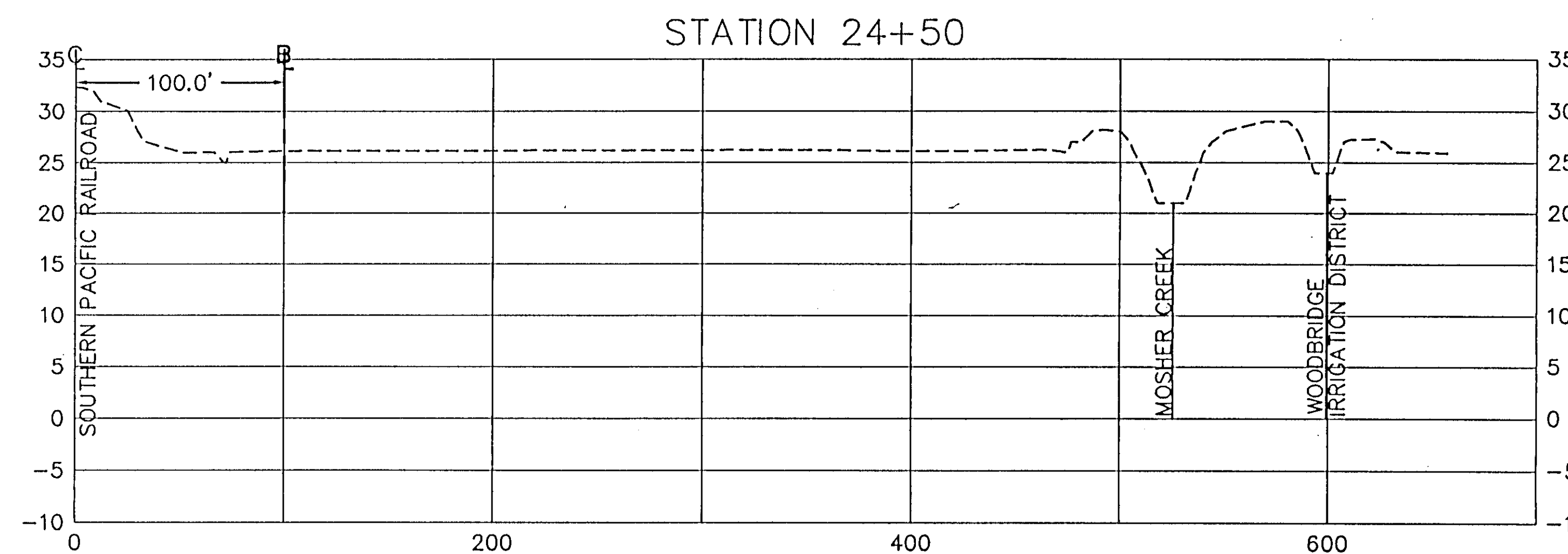
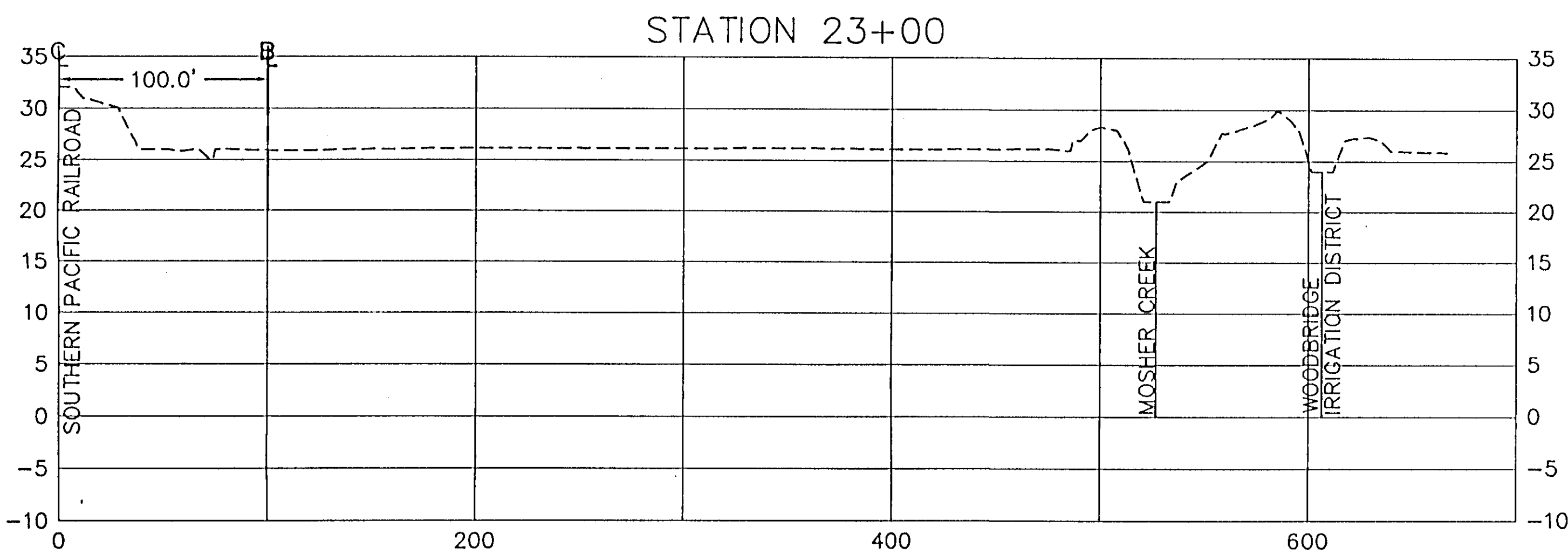
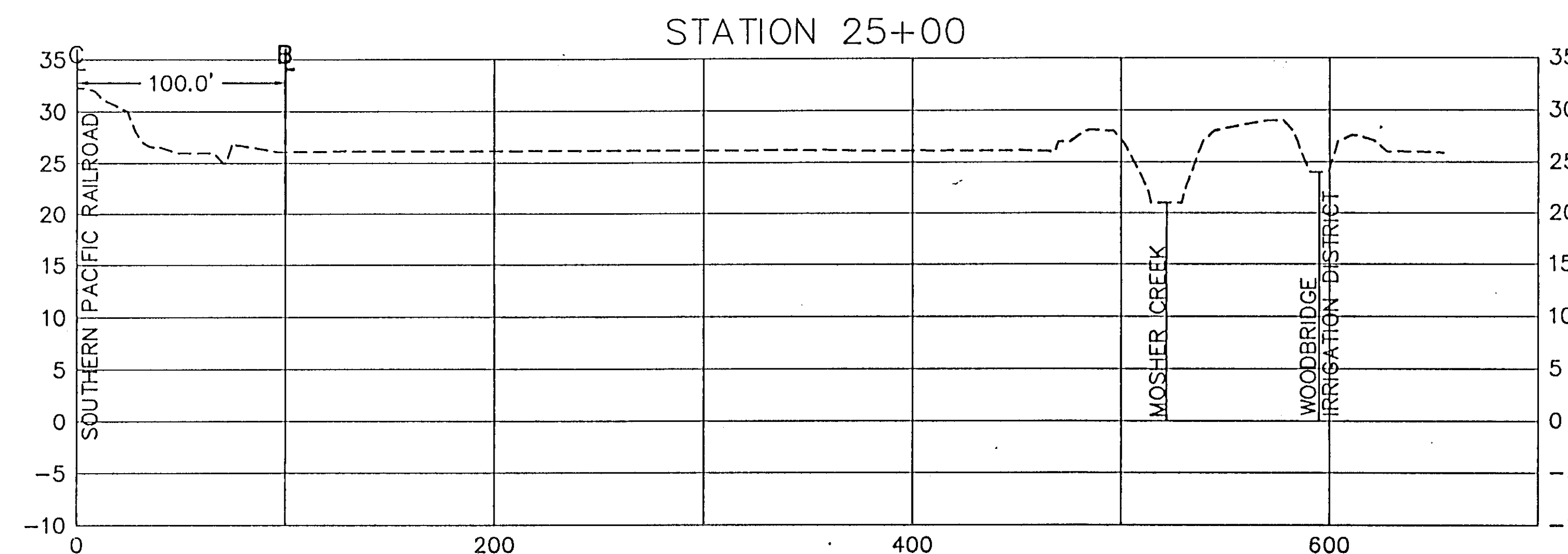
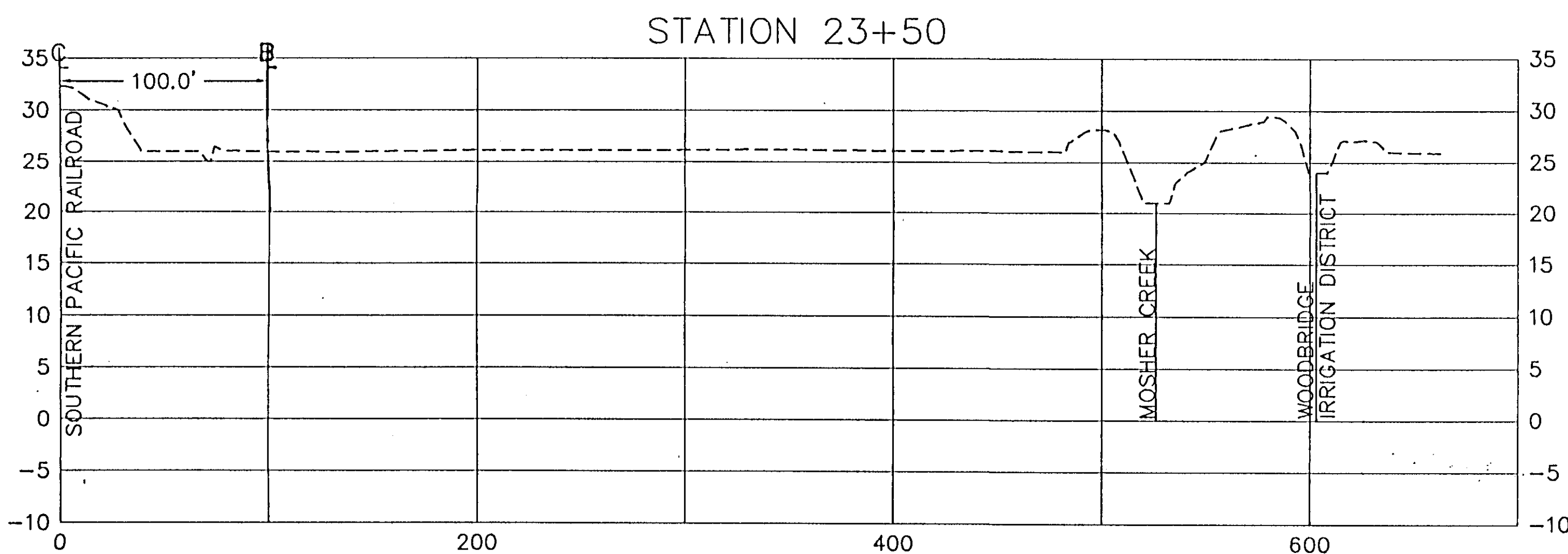
FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS

QUARRY BASIN NO. 2
CROSS SECTIONS

SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN
SCALE: H=50' (H) 10' (V)
DESIGNED BY: DGR
DRAWN BY: BLJ
CHECKED BY: CHN
RECORD DWG.:
DATE: 6/13/96
CHECKED BY: [Signature]
DATE: 2/13/96
ANSON ENGINEERING

SHEET
OF
OF SHEETS
JOB NO.
25
34
SHEETS

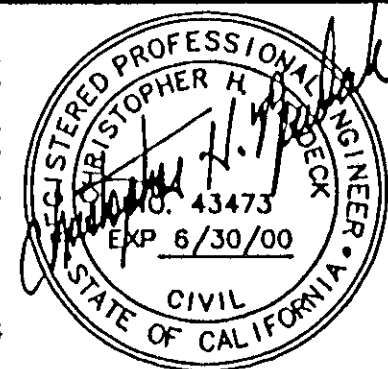
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RECORD DRAWINGS
See Sheet 1

HDR
HDR Engineering, Inc.
5175 Hillsdale Circle
El Dorado Hills, CA 95762
(916) 939-4100

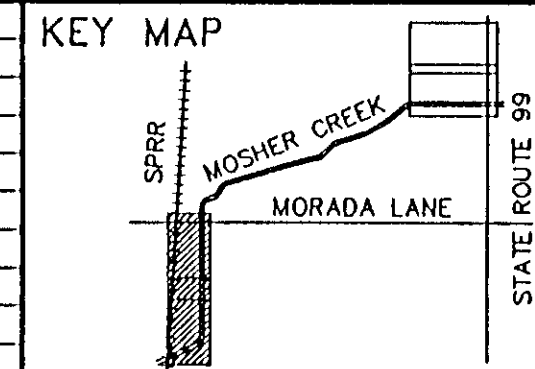
KSN
INC.
KJELDEN
SINNOCK
NEUDECK
Consulting Engineers
and Land Surveyors
Post Office Box 844
1113 W. Fremont Street
Stockton, CA 95201-0844
(209) 946-0268



Job No. 1375-144
File No. E-1960

Bar Length On Original Drawing Equals One Inch. Actual Scale Accordingly.

No.	DATE	APVD.	REVISION

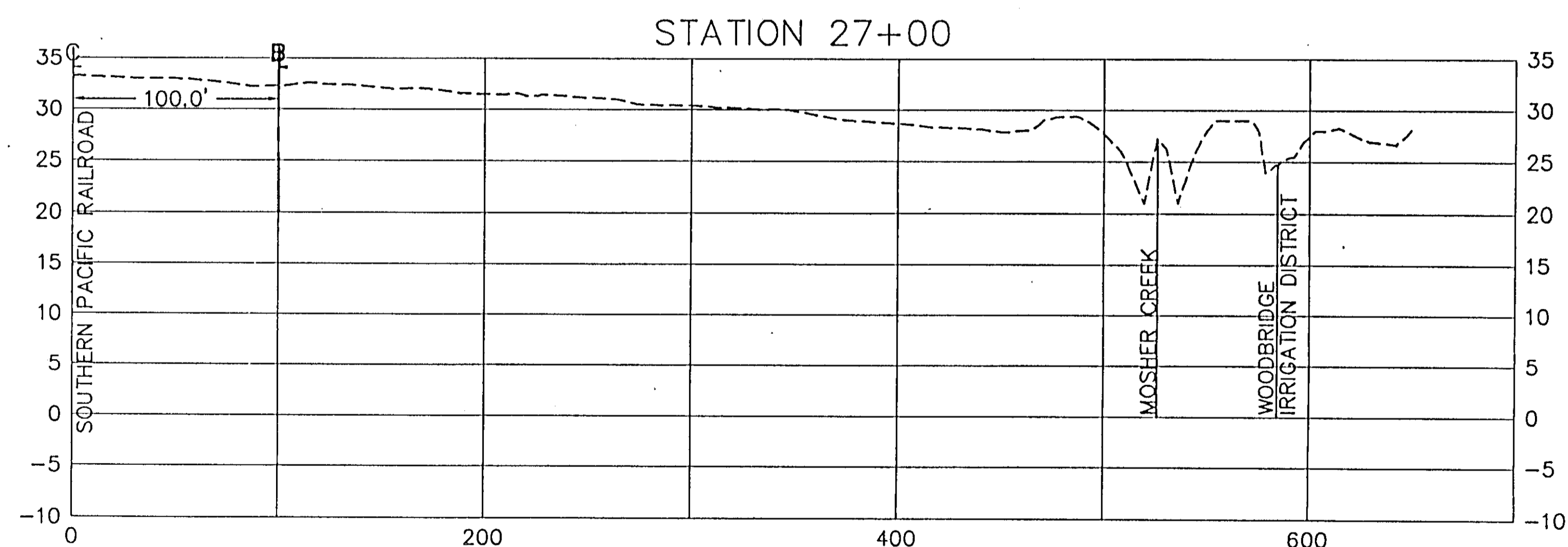
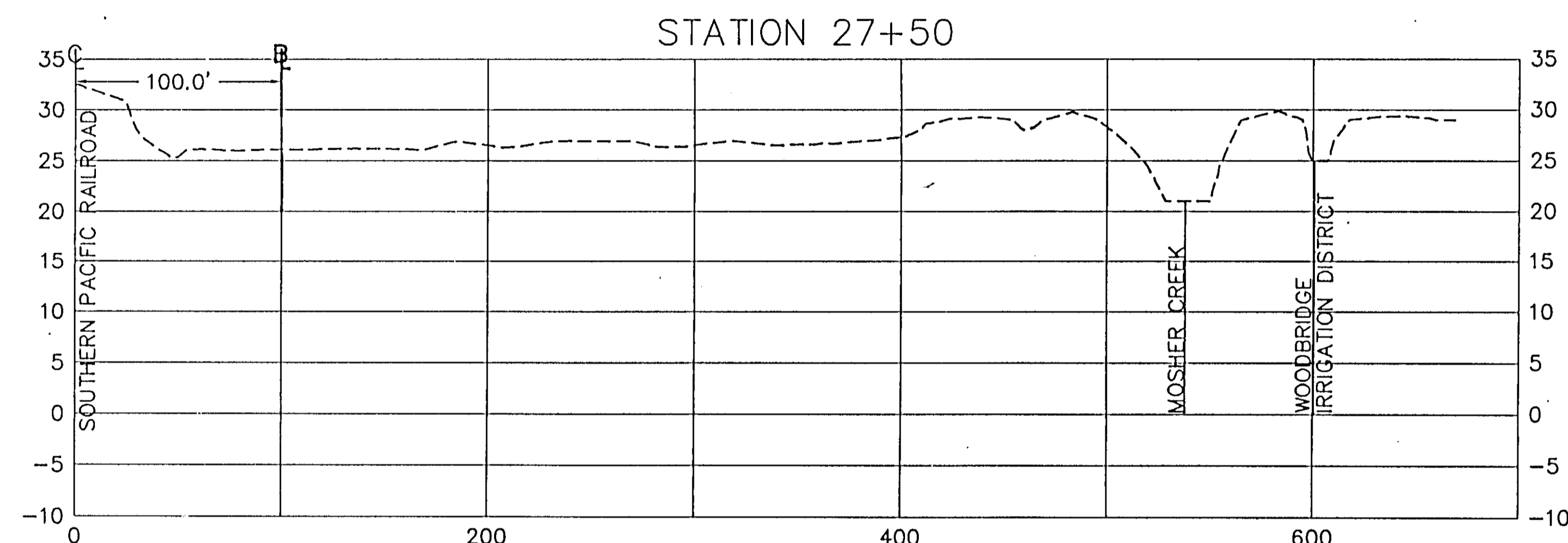
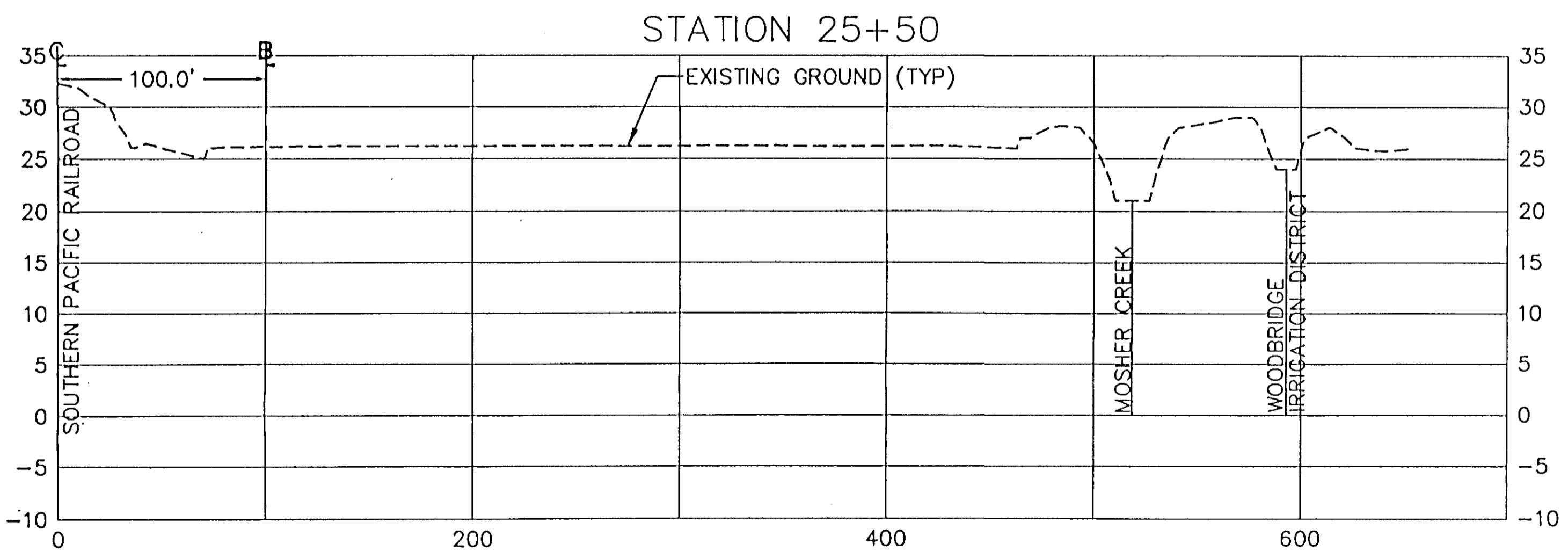
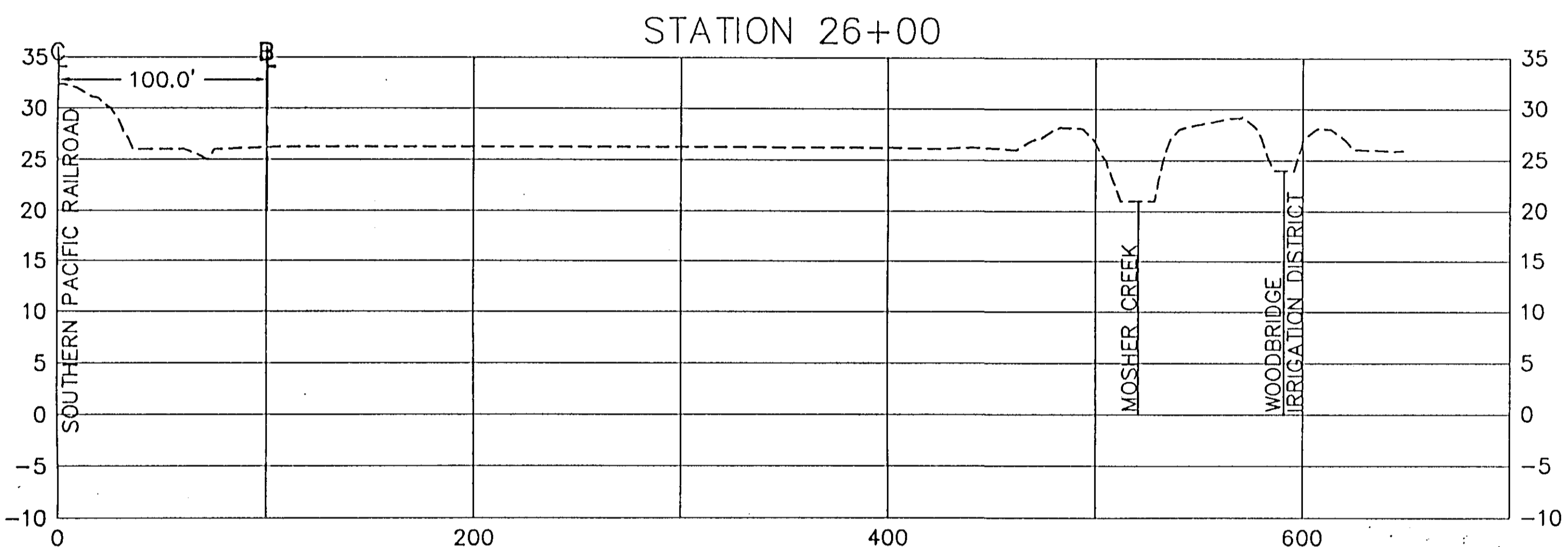
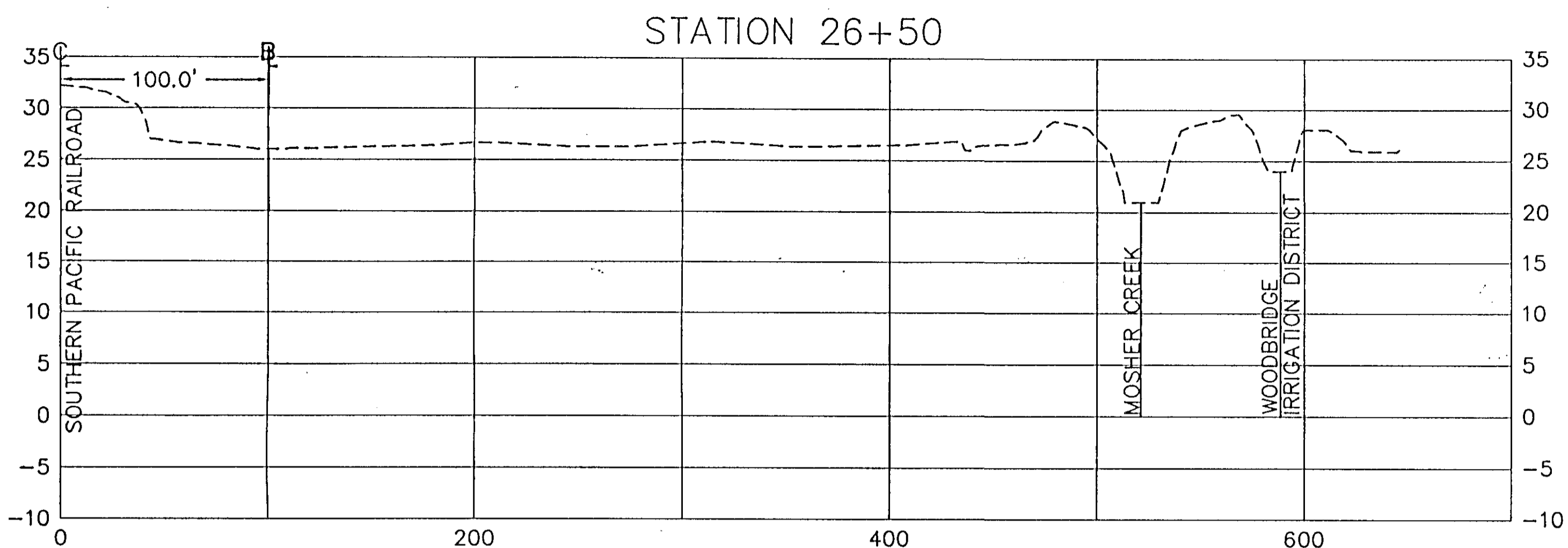


FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS

QUARRY BASIN NO. 2
CROSS SECTIONS

SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN
SCALE 1"=50'(H) 10'(V)
DESIGNED BY: DGR
DRAWN BY: BLJ
CHECKED BY: CHN
RECORD DWG.:
DATE: 6/13/96
CHECKED BY: DATE: 6/13/96
HANSON ENGINEERING

SHEET
26
OF
34
SHEETS
JOB NO.

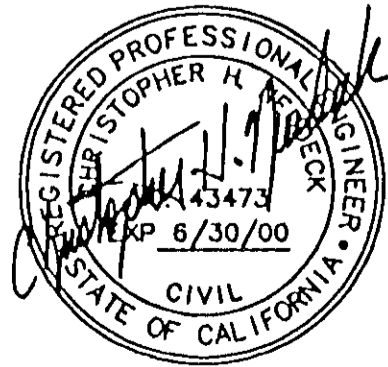


RECORD DRAWINGS
See Sheet 1

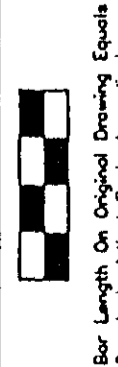


5175 Hillside Circle
El Dorado Hills, CA 95762
(916) 939-4100

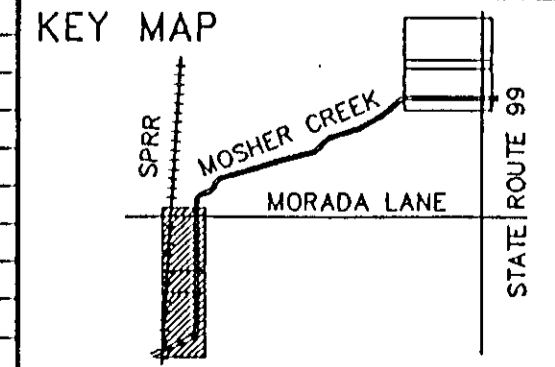
K S INC.
KJELSDEN
SINNOCK
NEUDECK
Consulting Engineers
and Land Surveyors
Post Office Box 844
1113 W. Fremont Street
Stockton, CA 95201-0844
(209) 946-0268



Job No. 1375-144
Plan No. E-1960



No.	DATE	APVD.	REVISION

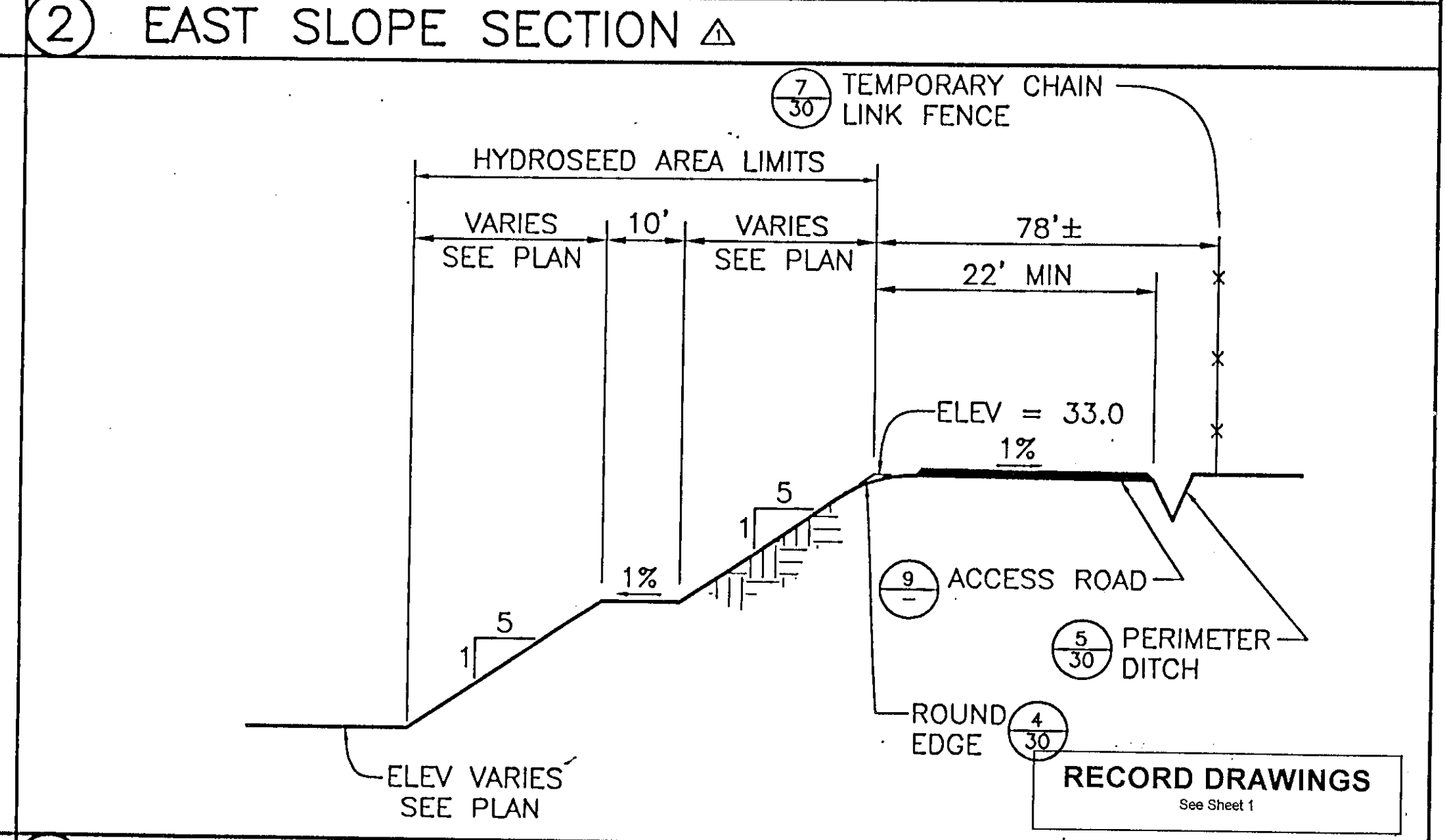
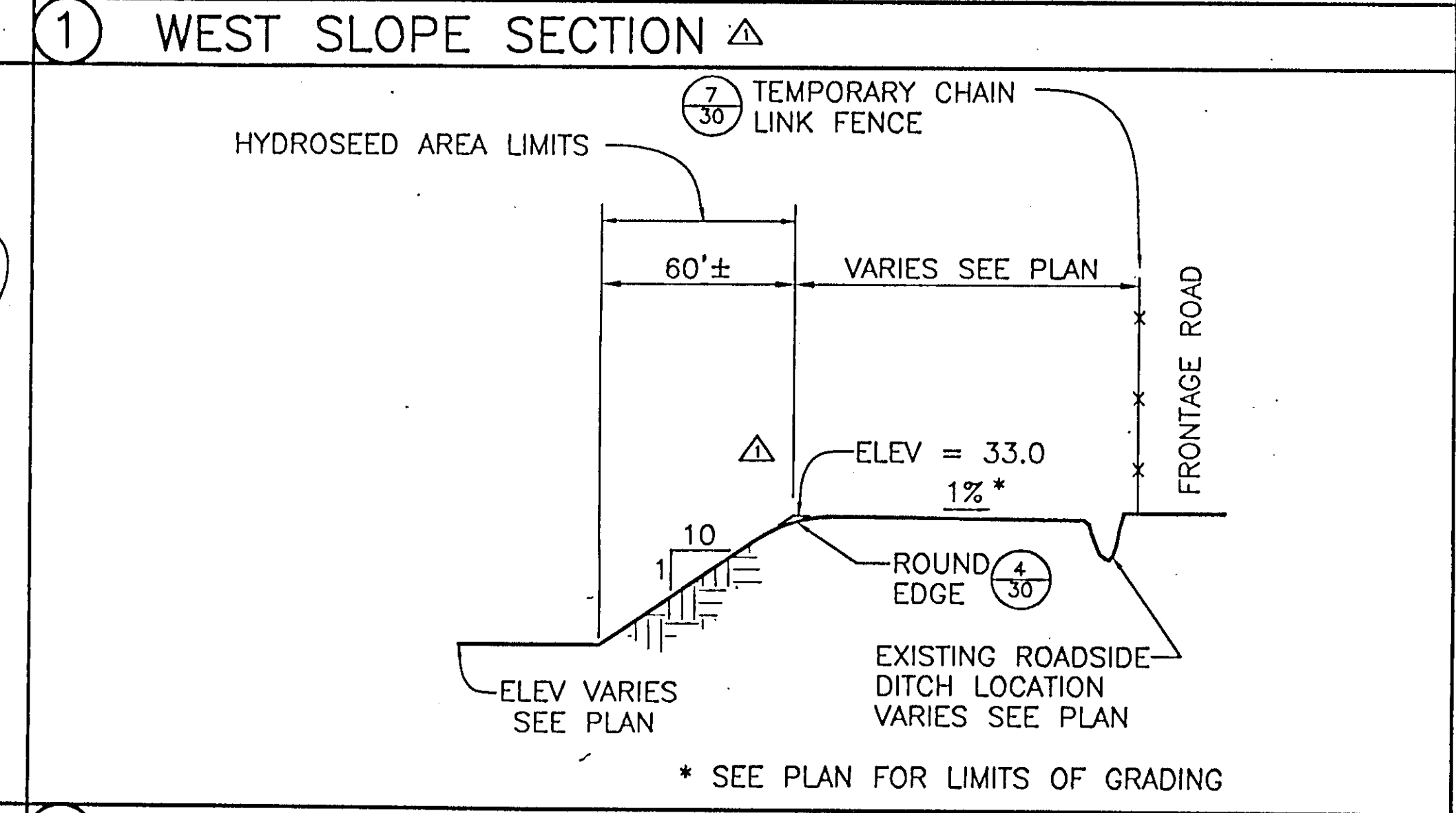
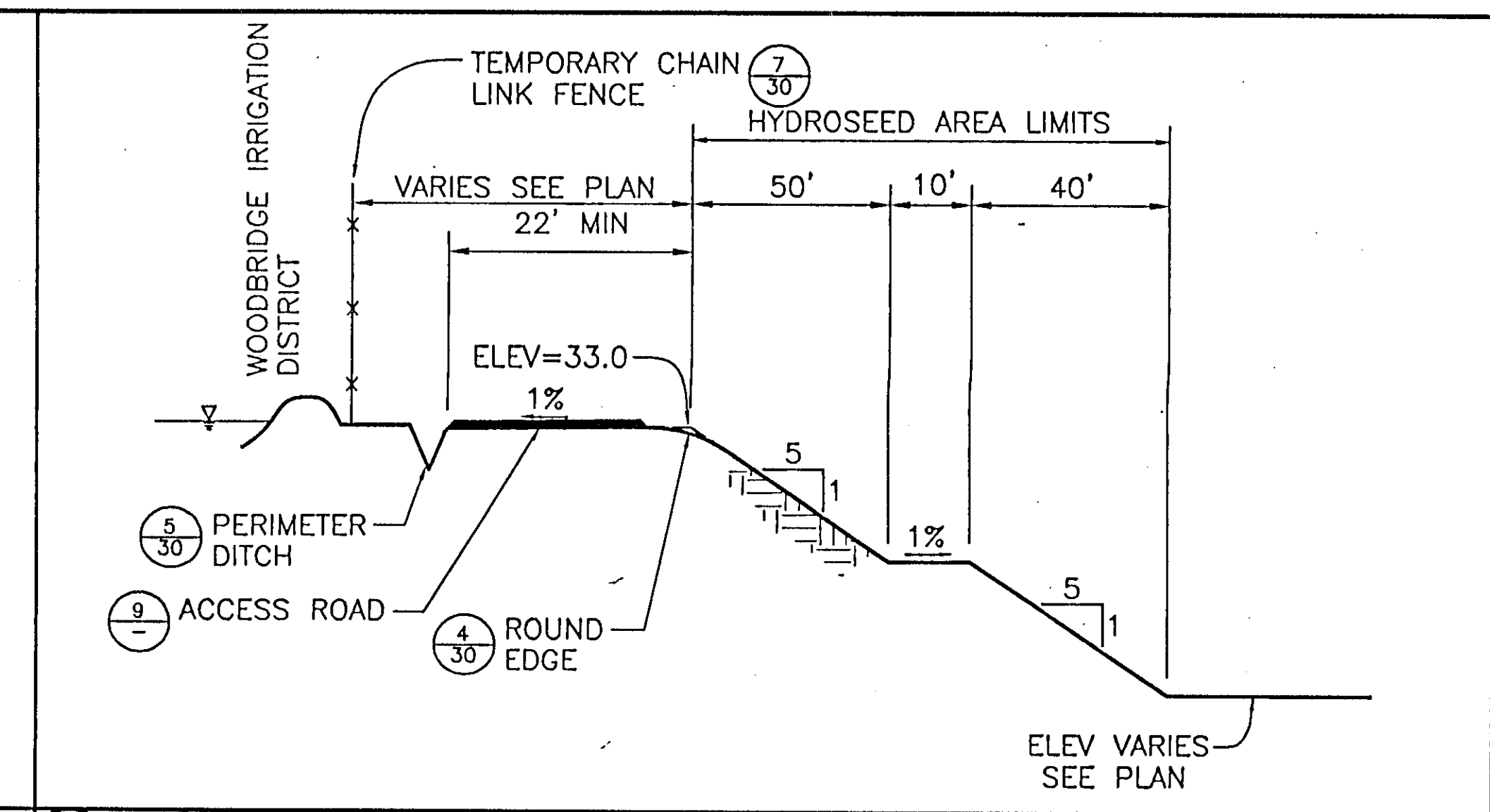
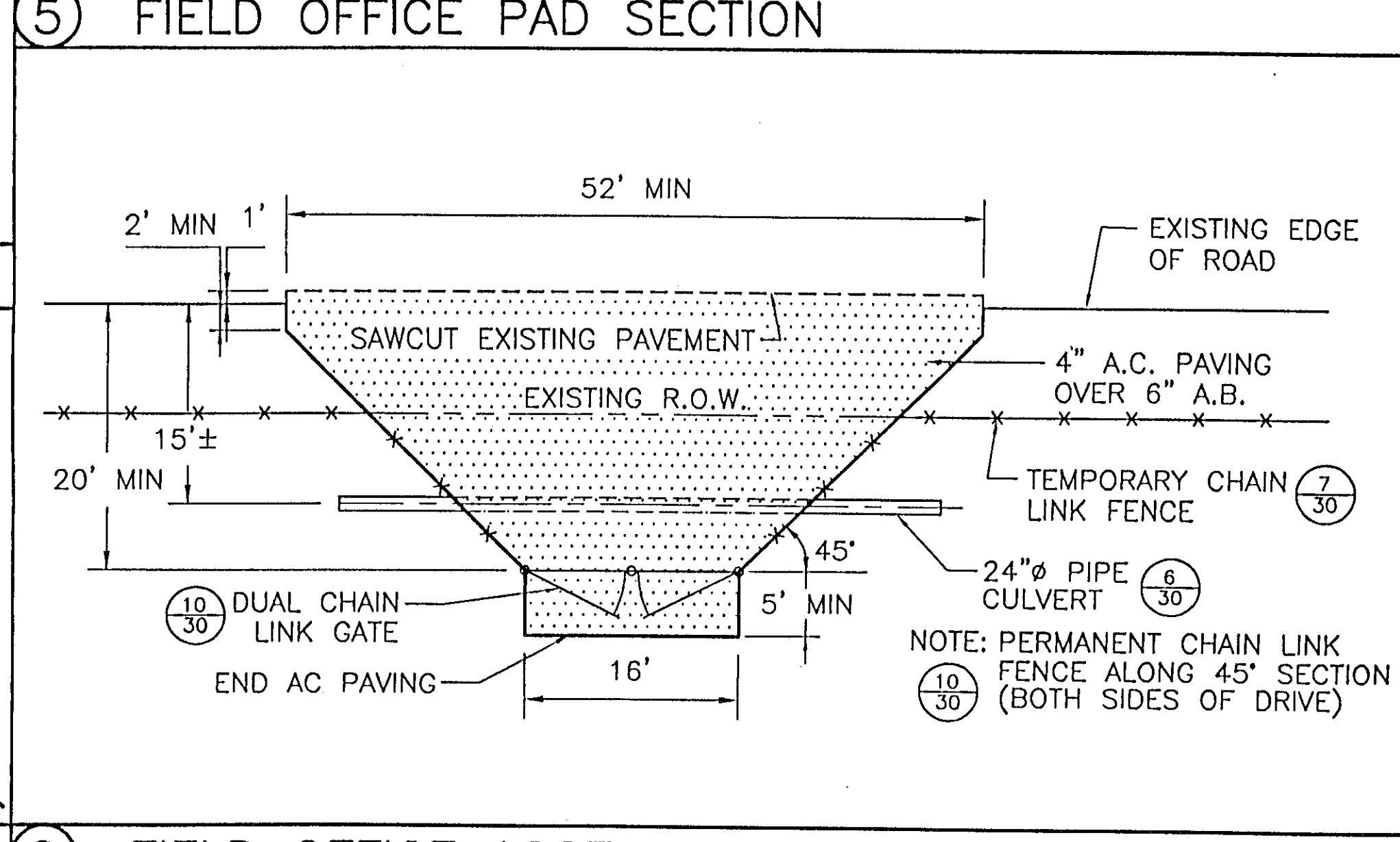
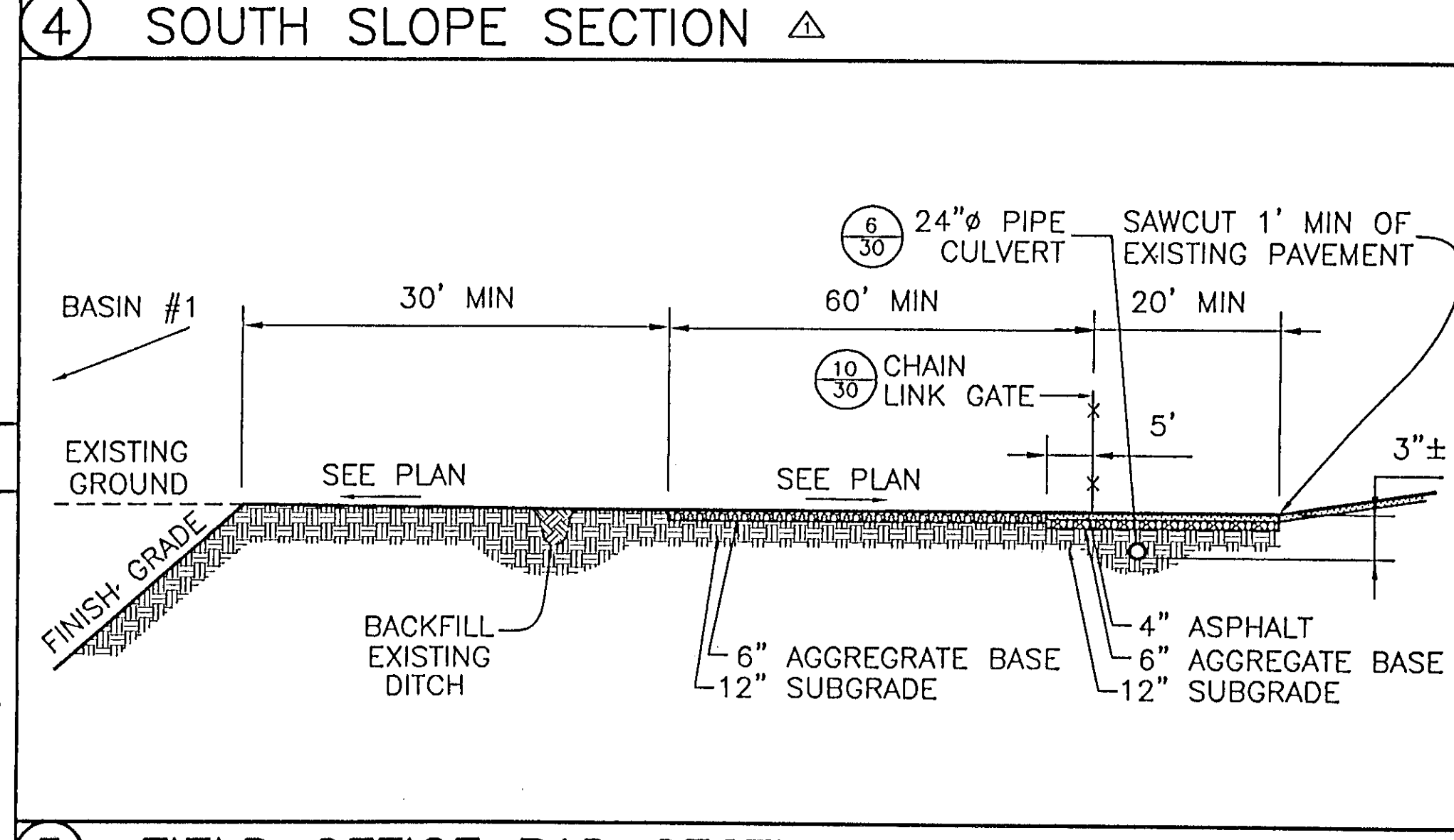
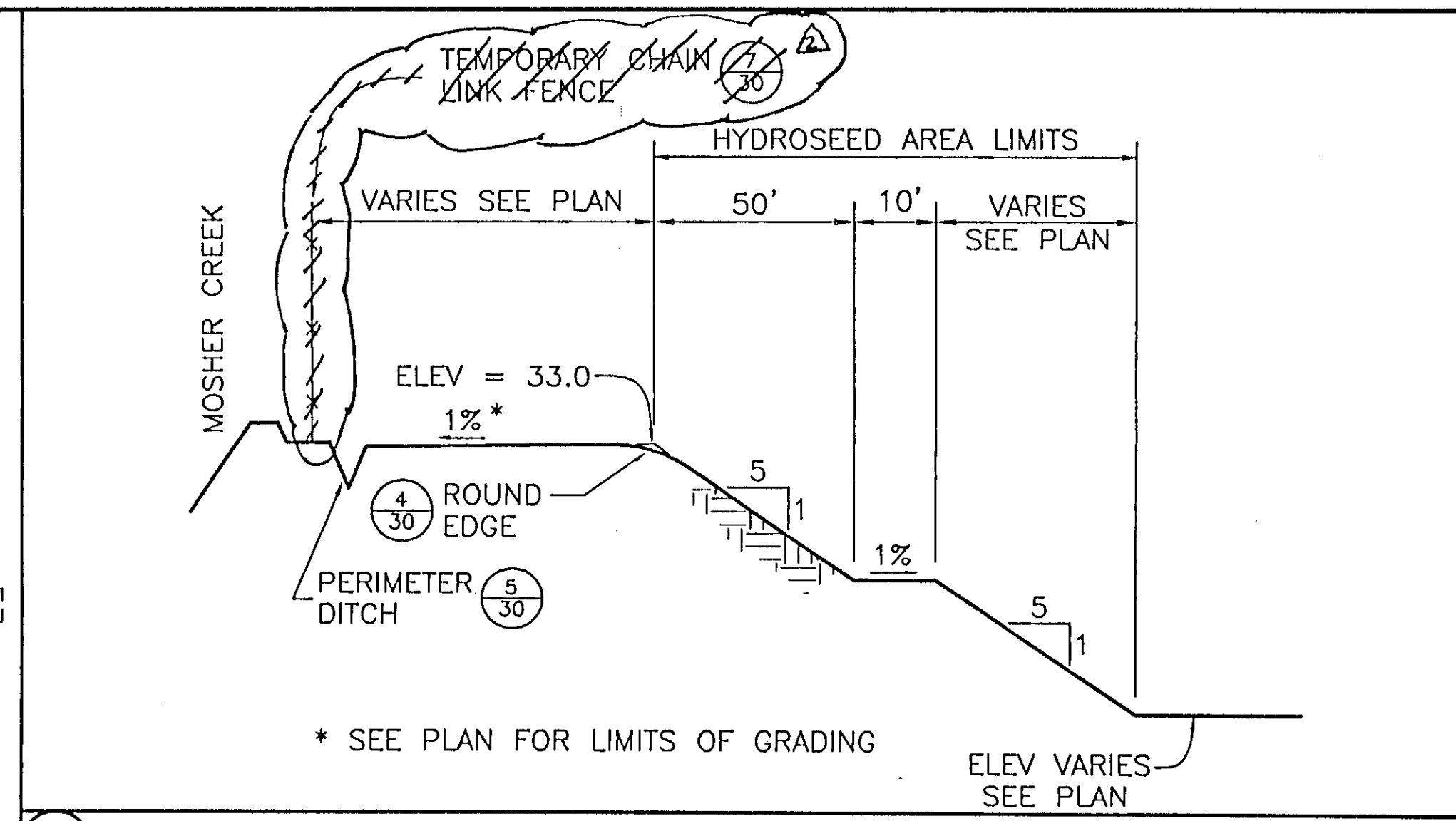
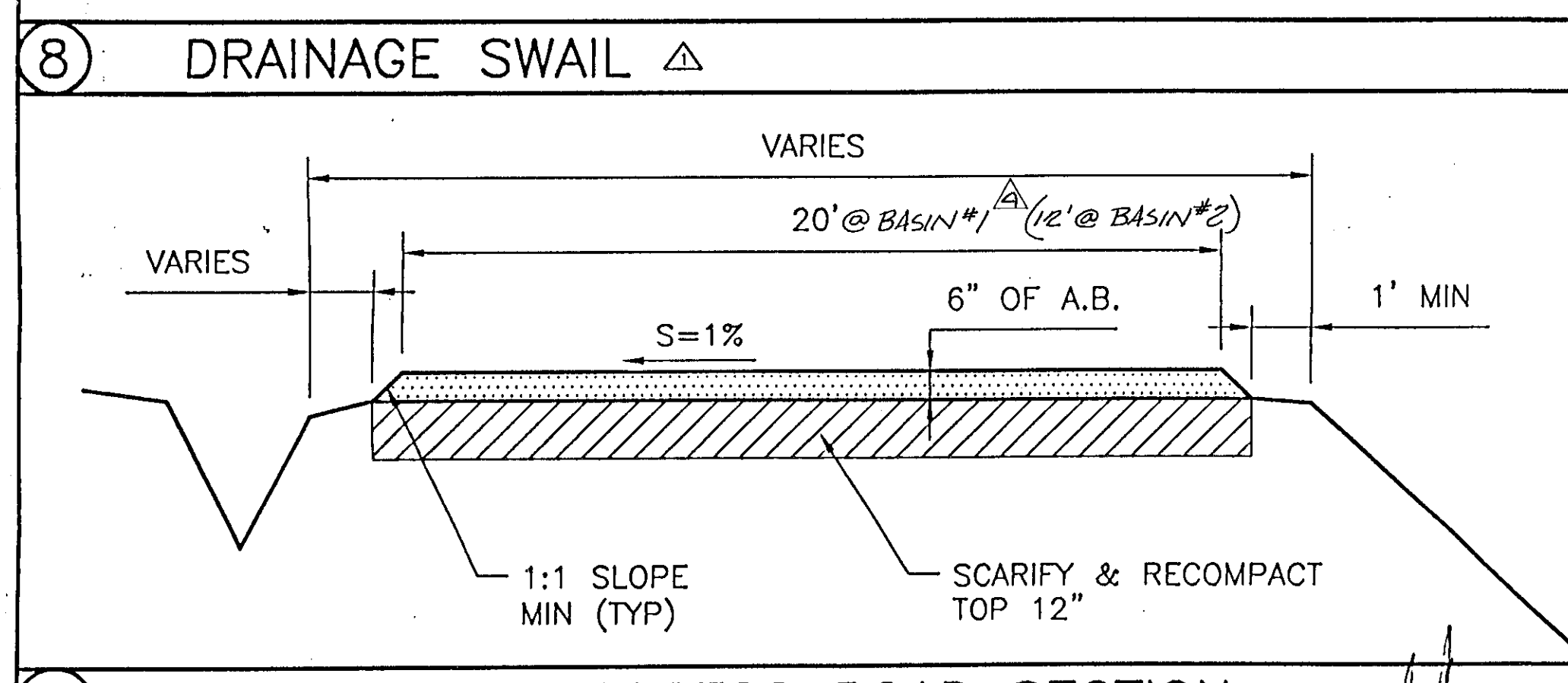
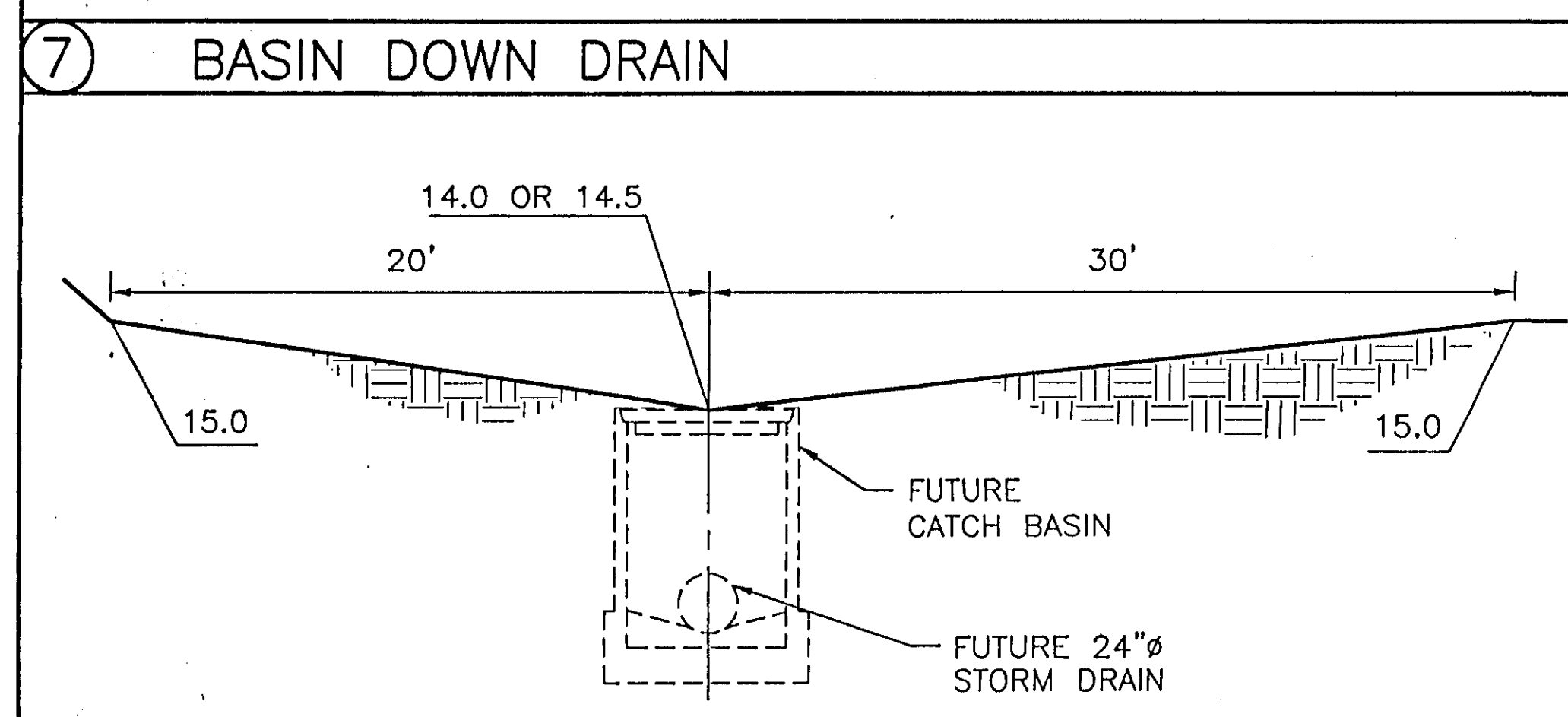
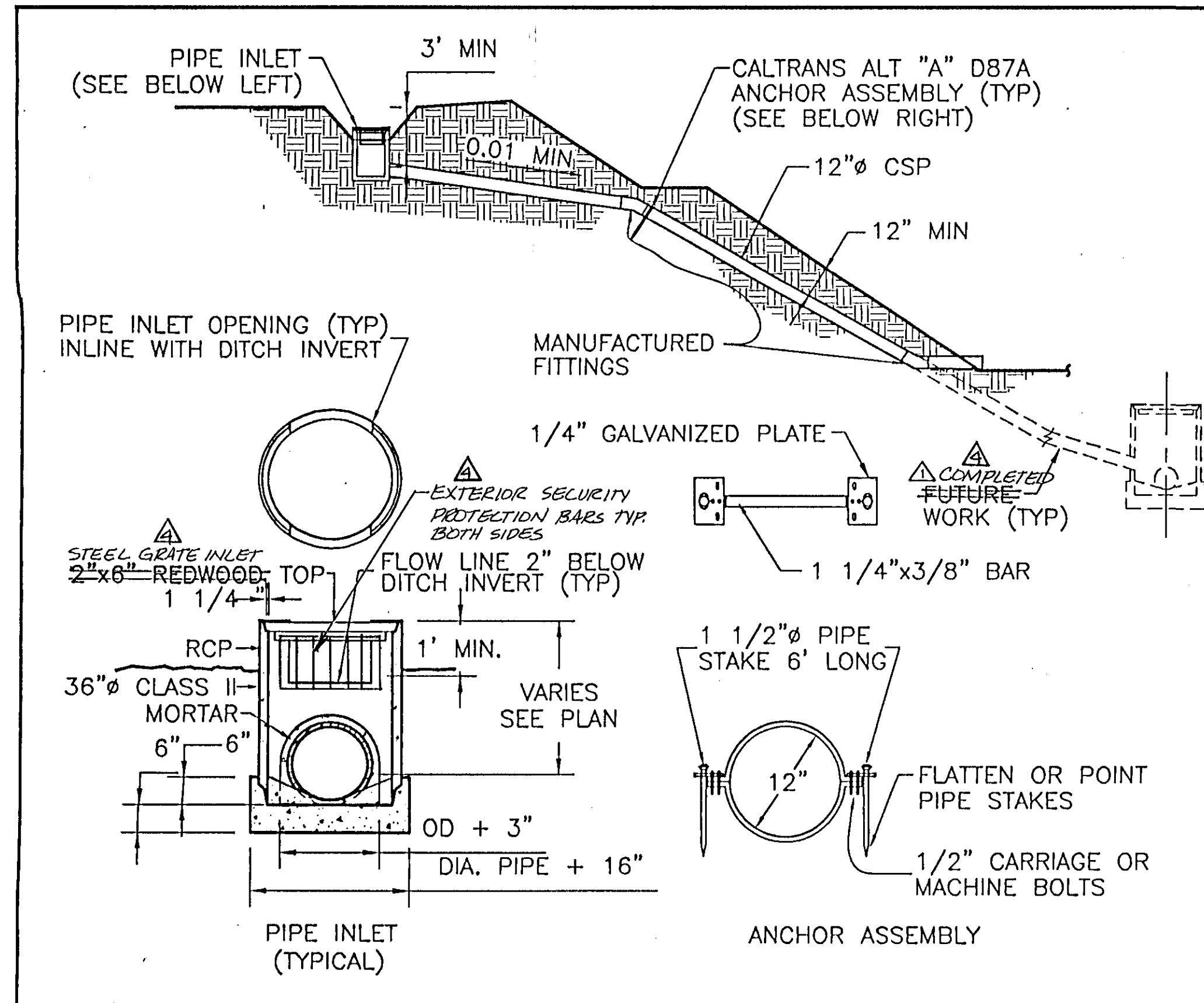


FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS

QUARRY BASIN NO. 2
CROSS SECTIONS

SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN
SCALE: 1" = 50'(H) 10'(V)
DESIGNED BY: DGR
DRAWN BY: BLJ
CHECKED BY: CHN
RECORD DWG.:
DATE: 6/13/96
MANSON ENGINEERING

SHEET
27
OF
34
SHEETS



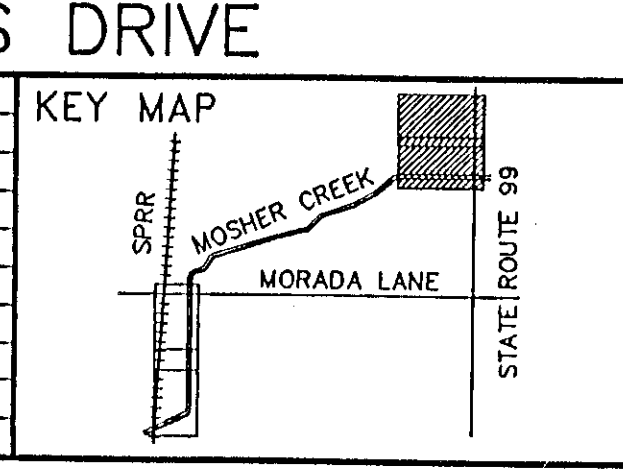
HDR Engineering, Inc. 5175 Hillside Circle, El Dorado Hills, CA 95762 (916) 939-4100

K S N INC. KJELDEN SINNOCK NEUDECK Consulting Engineers and Land Surveyors, Post Office Box 844, 1113 W. Fremont Street, Stockton, CA 95201-0844 (209) 946-0268

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR, CIVIL, No. 43473, EXP. 6/30/00

Job No. 1375-144, File No. E-1960

No.	DATE	APVD.	REVISION
1	1/13/97		DEIC #1 - REVISED QUARRY BASIN LAYOUT ADDED & MODIFIED DETAILS
2	1/24/97		Removed Southern Portion of Temporary Fencing
3	3/97		RECORD CHANGES



FLOOD PROTECTION RESTORATION PROJECT MOSHER CREEK DETENTION BASINS

QUARRY BASIN NO. 1 DETAILS

SAN JOAQUIN AREA FLOOD CONTROL AGENCY CITY OF STOCKTON - COUNTY OF SAN JOAQUIN

SCALE: N/A

DESIGNED BY: DGR

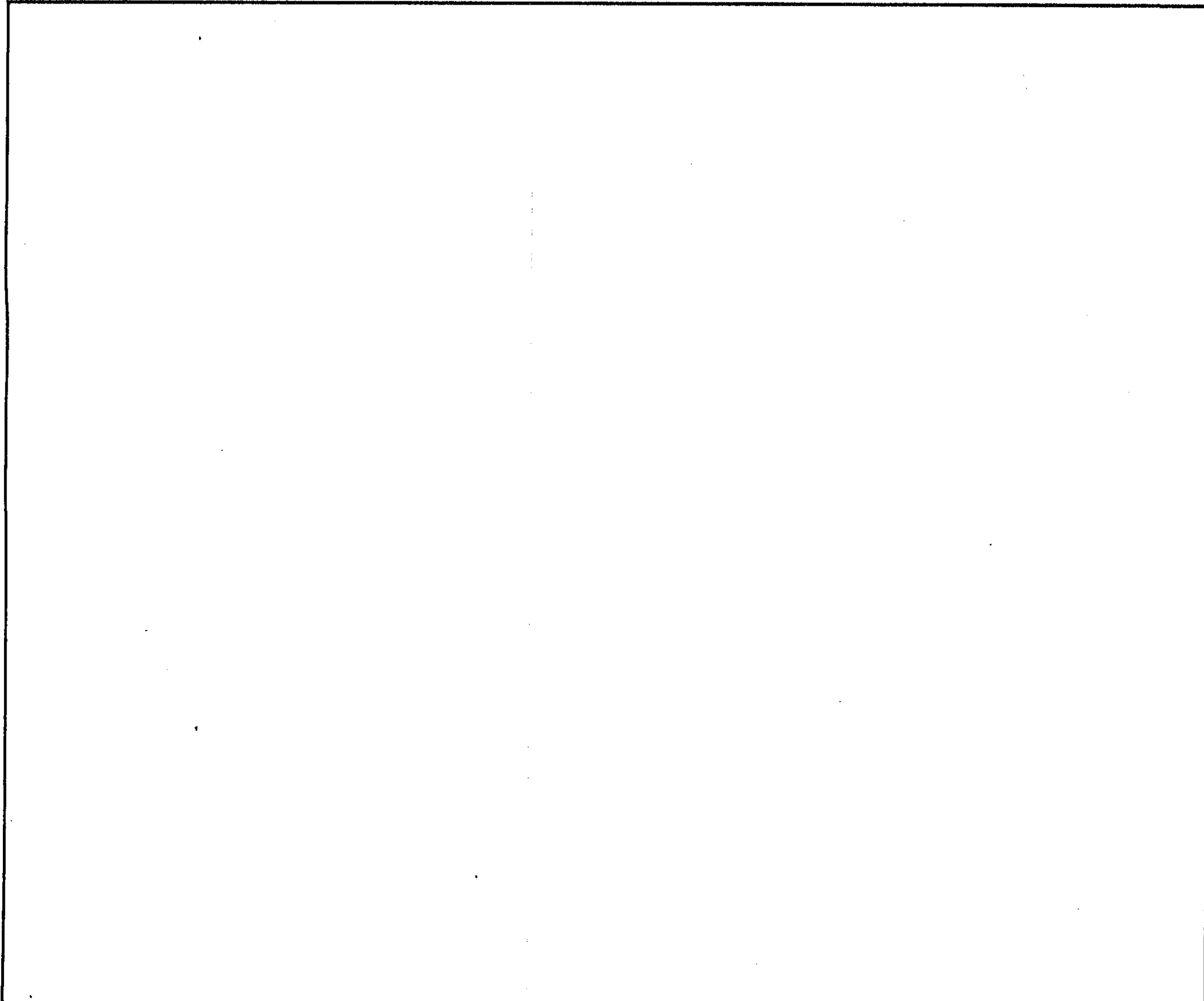
DRAWN BY: JDK

CHECKED BY: CHN

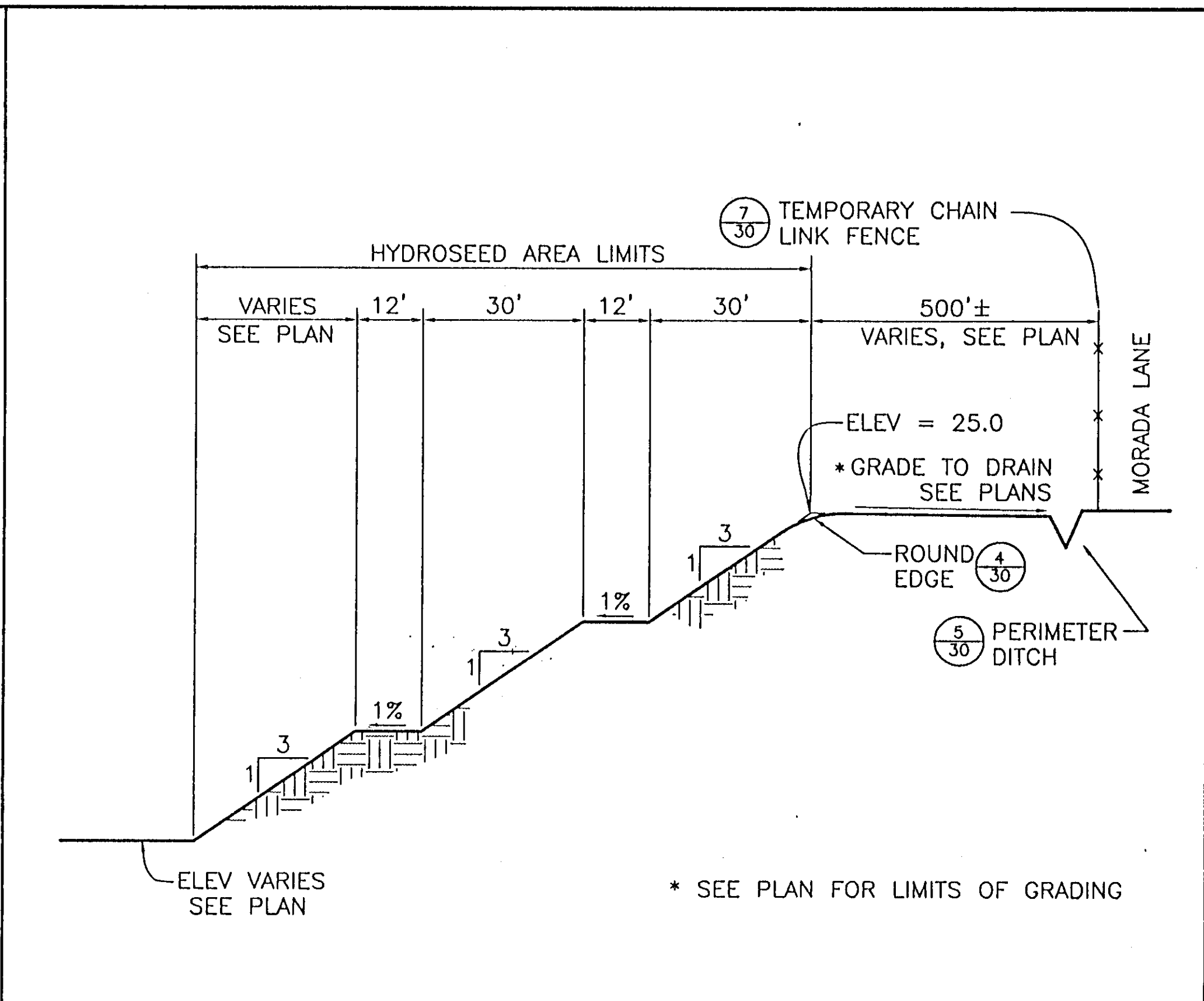
RECORD DWG.: DATE: 6/13/96

CHECKED BY: DATE: HANSON ENGINEERING

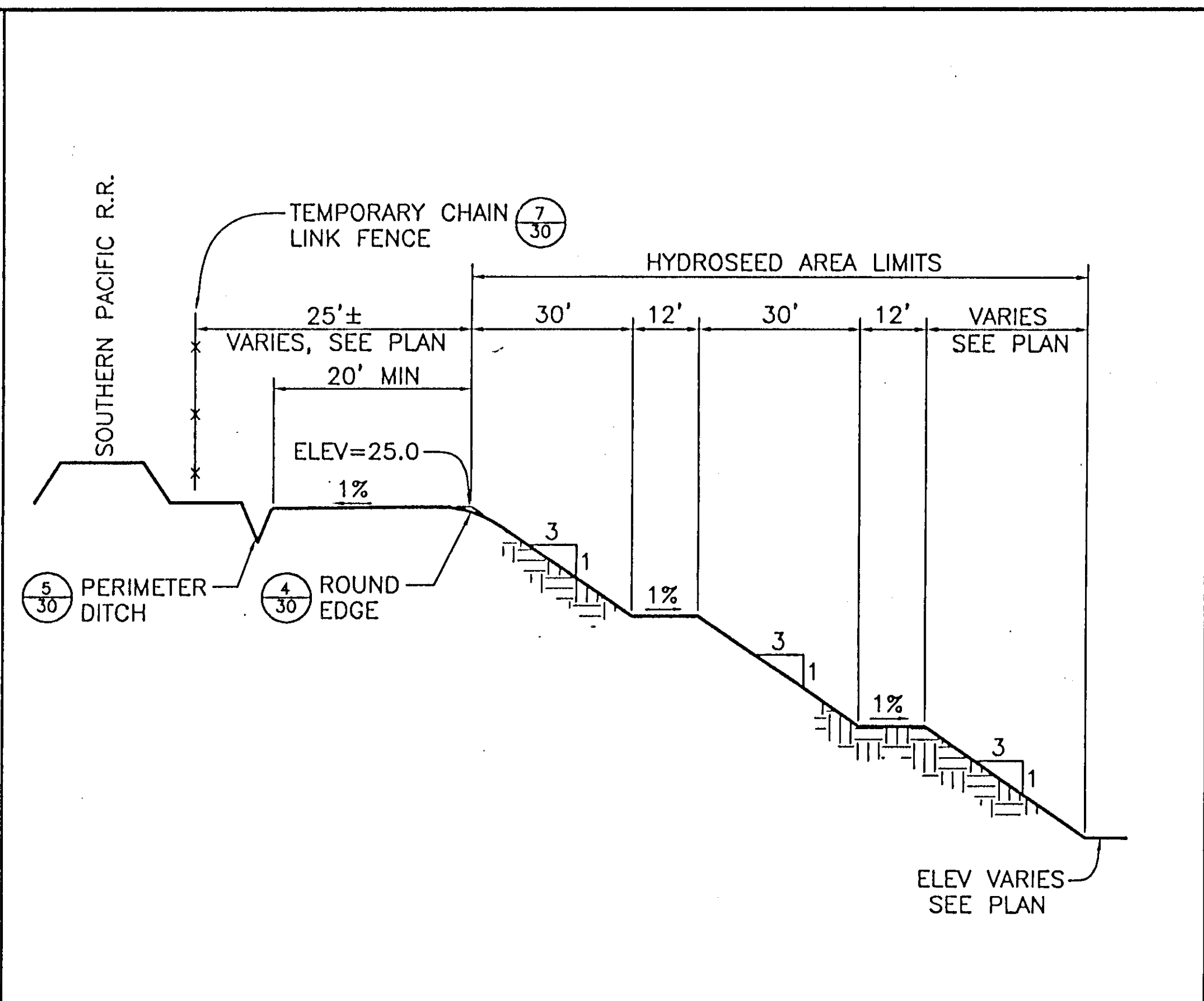
SHEET NO. 28 OF 34 SHEETS



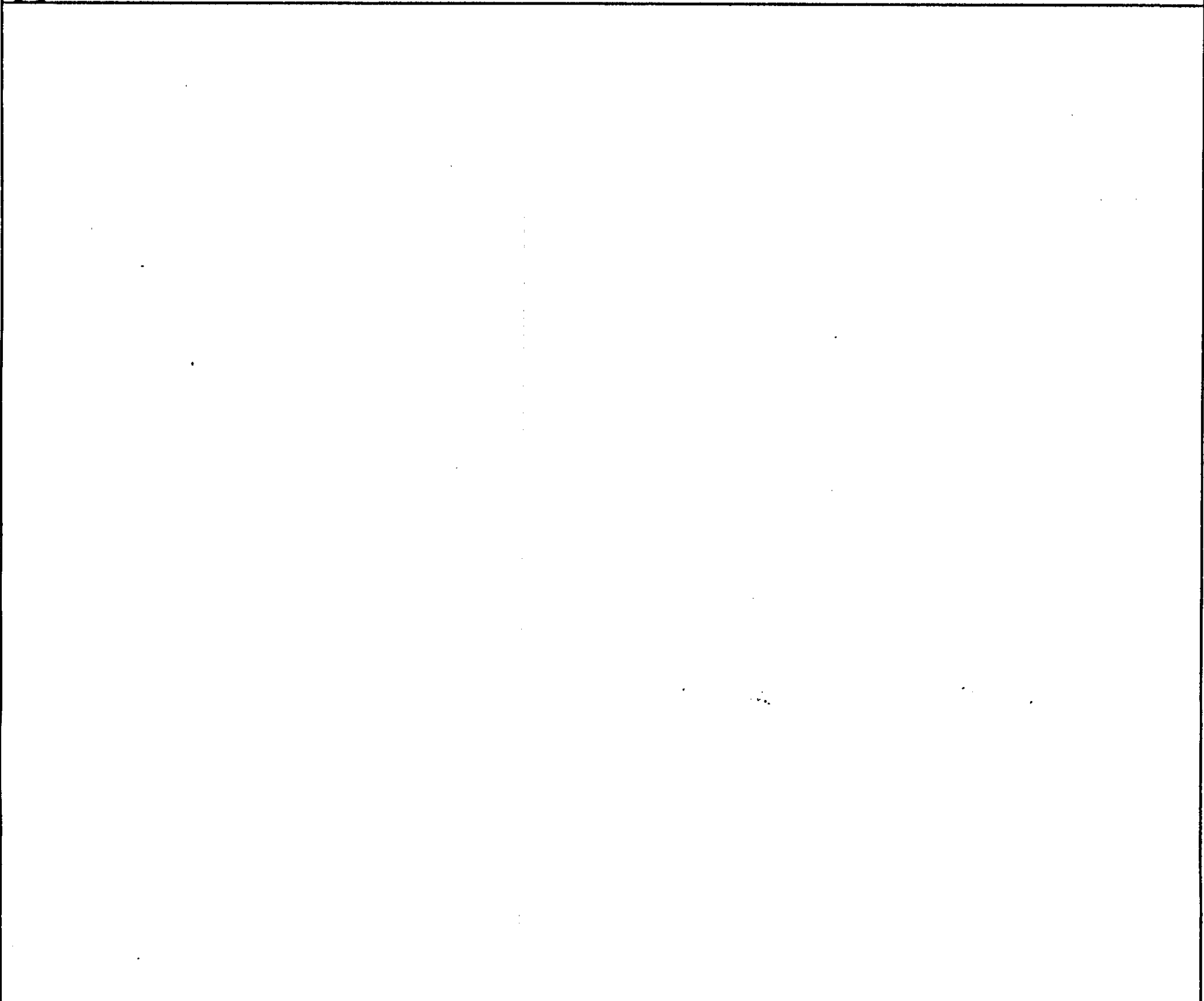
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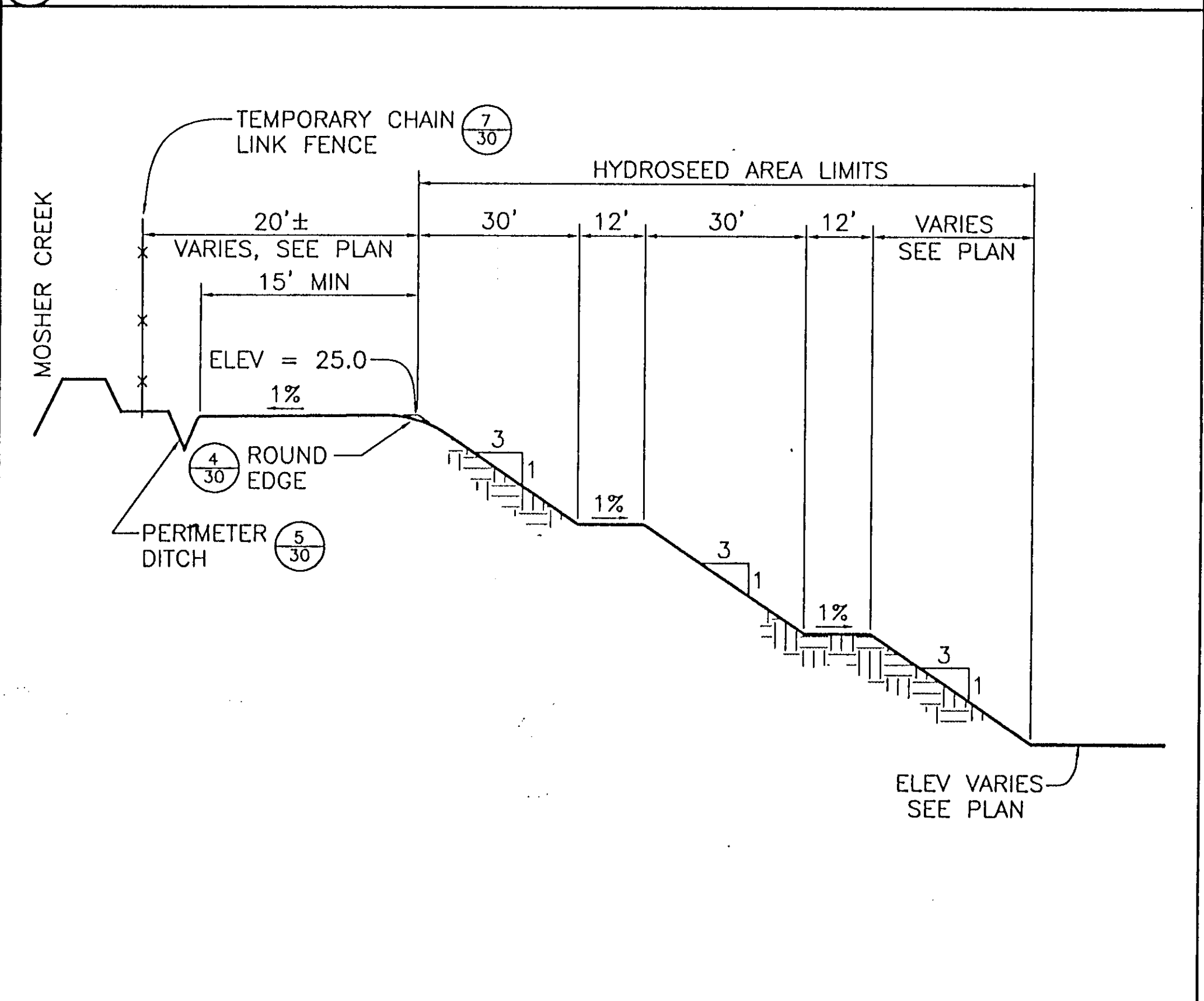
3 BASIN SECTION



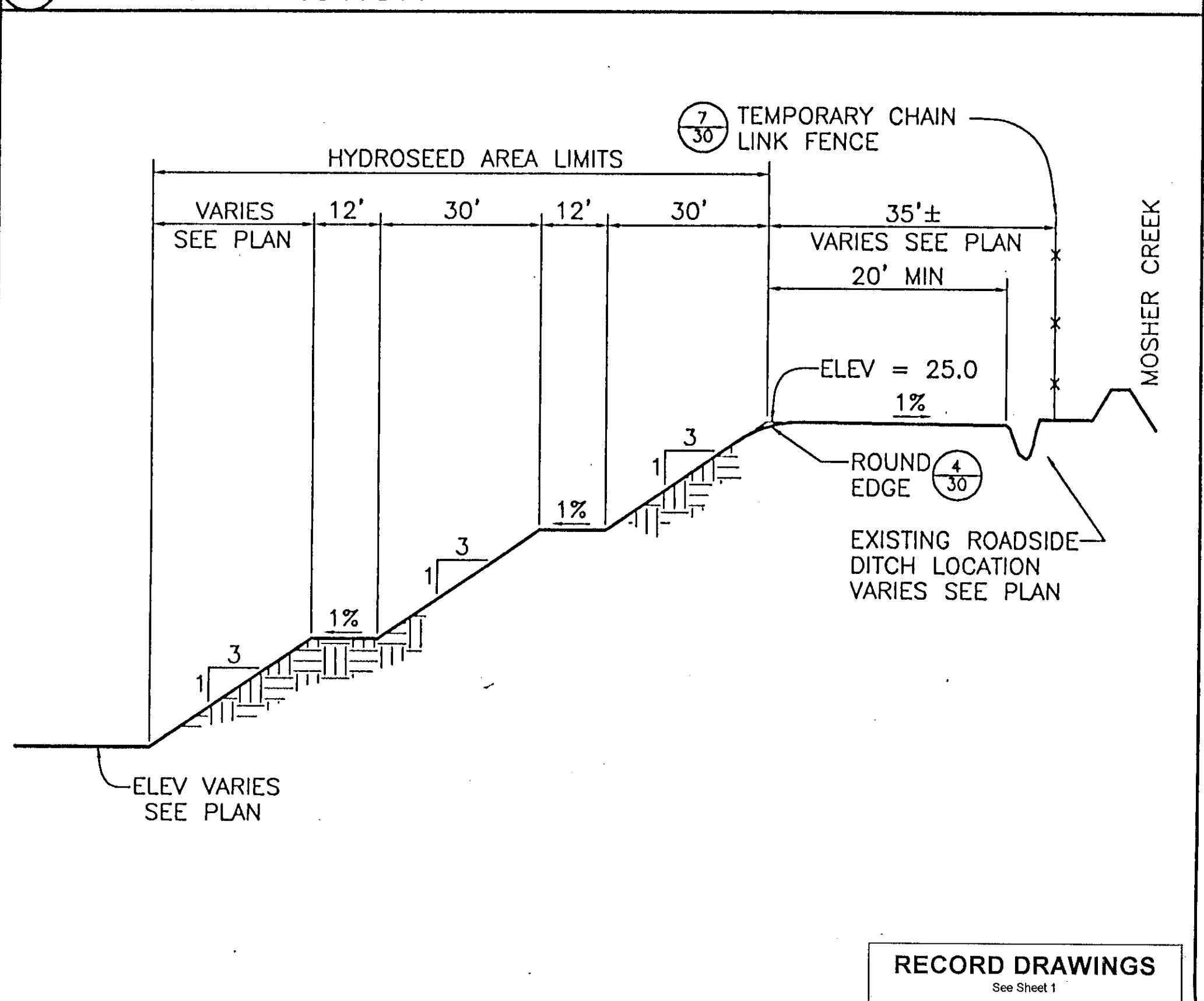
1 BASIN SECTION



6



4 BASIN SECTION

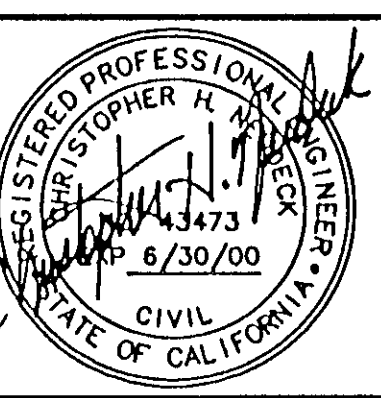


2 BASIN SECTION

RECORD DRAWINGS
See Sheet 1

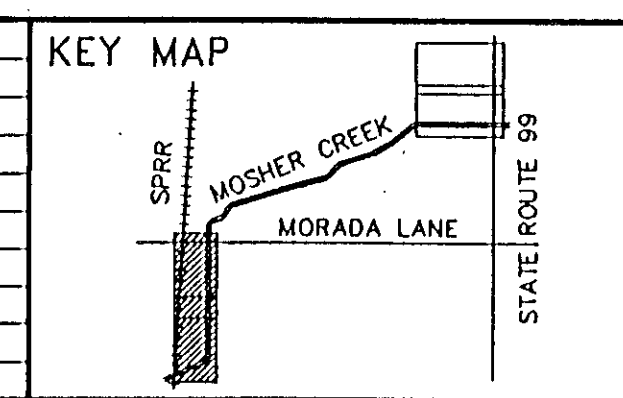
HDR
HDR Engineering, Inc.
5175 Hilldale Circle
El Dorado Hills, CA 95762
(916) 939-4100

KSN
INC.
KJELDSSEN
SINNOCK
NEUDECK
Consulting Engineers
and Land Surveyors
Post Office Box 944
1113 W. Fremont Street
Stockton, CA 95201-0844
(209) 946-0268



Job No. 1375-144
File No. E-1960
Scale: As Shown
Not Length On Original Drawing Equals One Inch Unless Otherwise Indicated

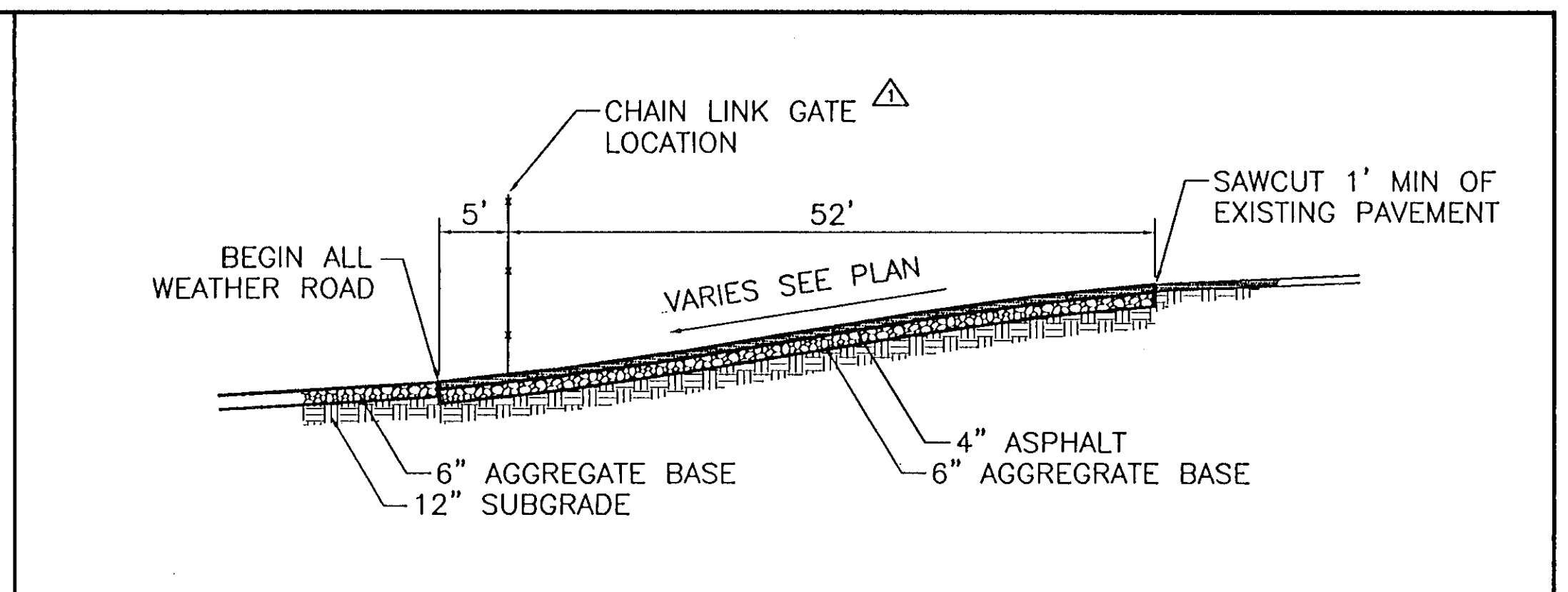
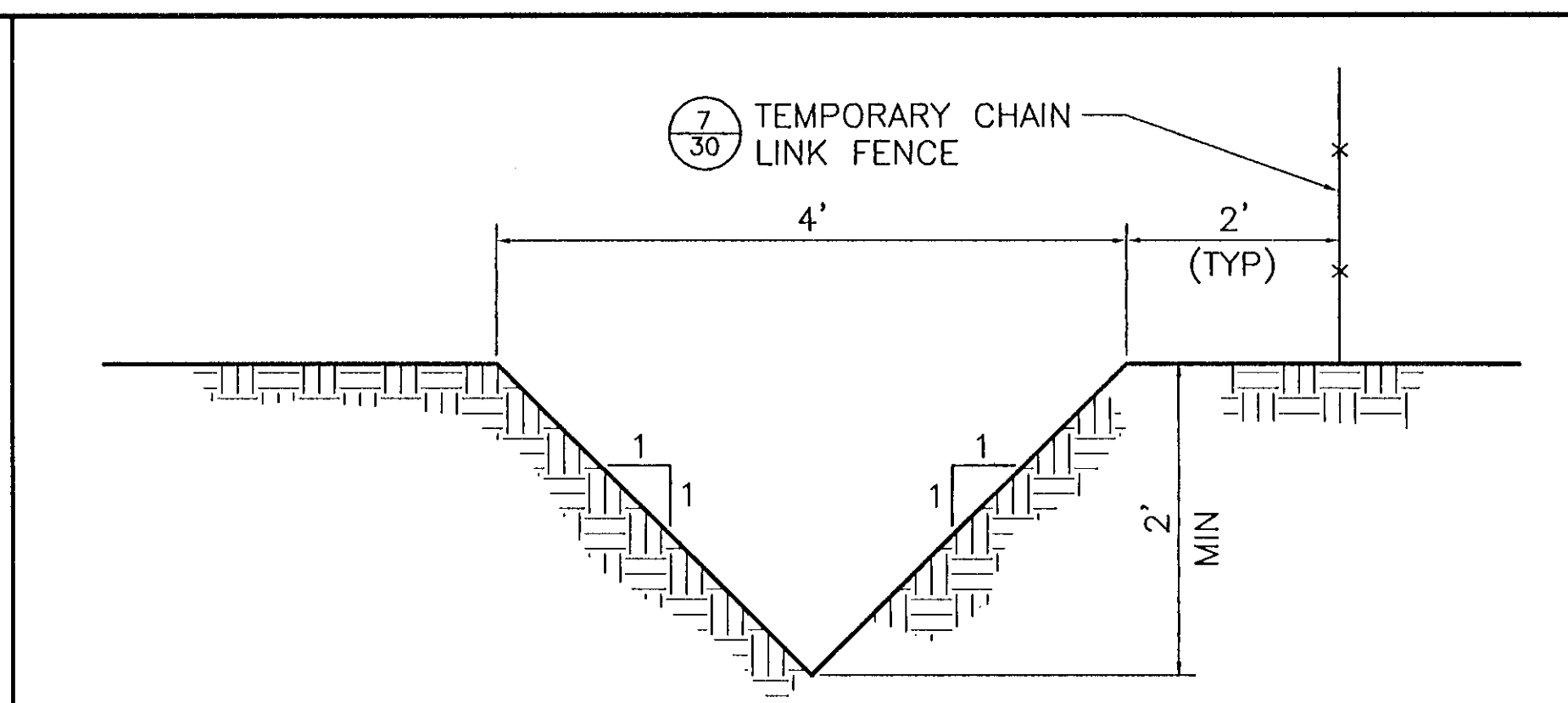
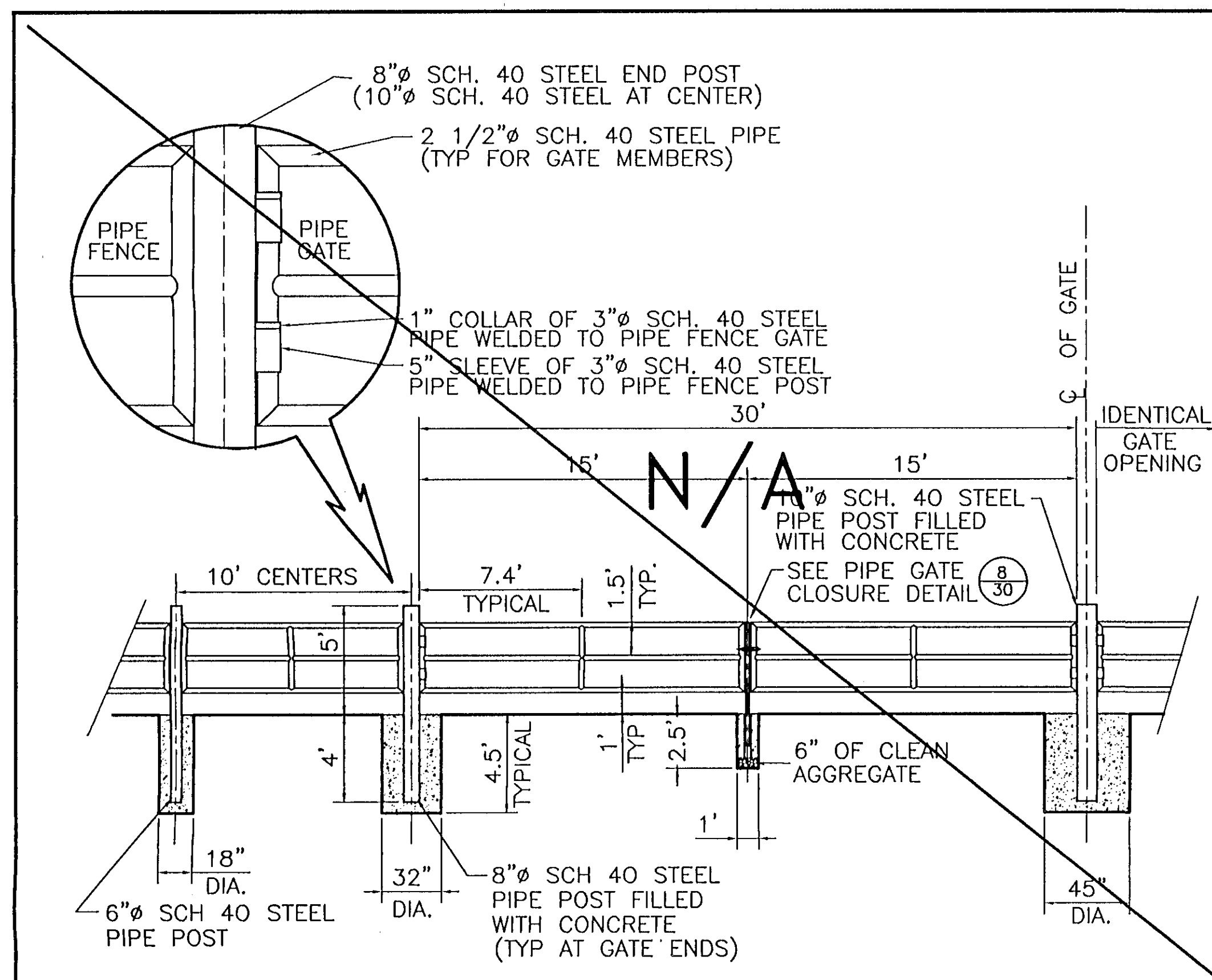
No.	DATE	APVD.	REVISION



FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS
QUARRY BASIN NO. 2
DETAILS

SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN
SCALE: N/A
DESIGNED BY: DGR
DRAWN BY: JDK
CHECKED BY: CHN
RECORD DWG.:
DATE: 6/13/96
CHECKED BY: [Signature]
DATE: 6/13/96
HANSON ENGINEERING

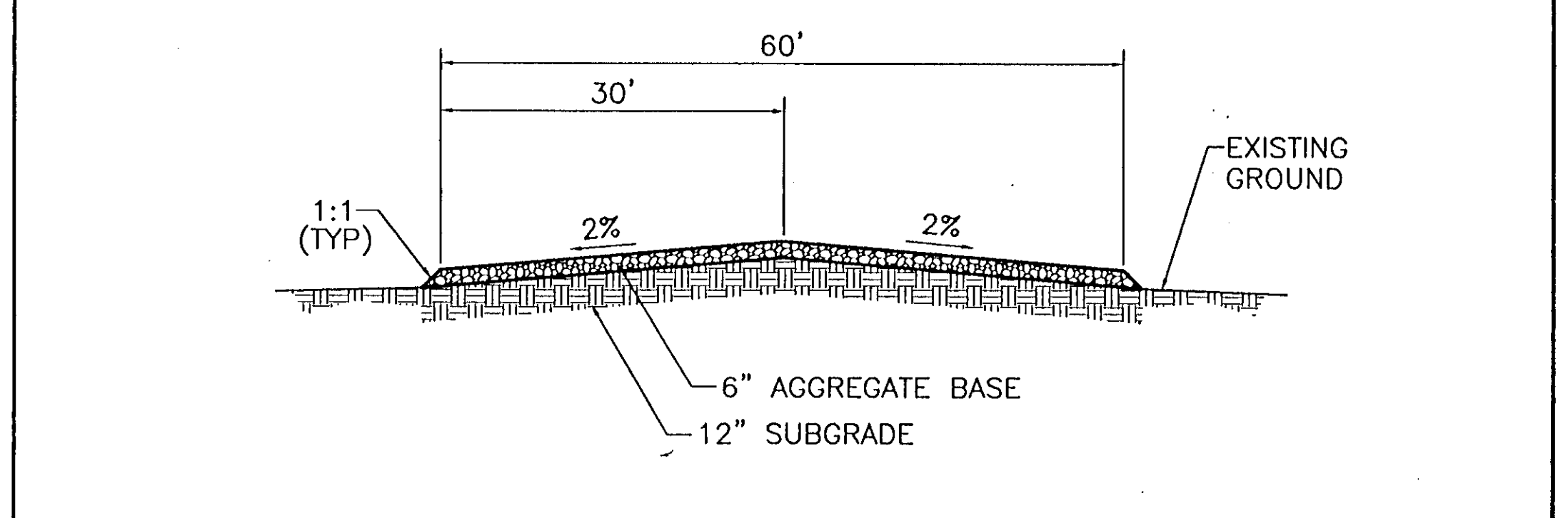
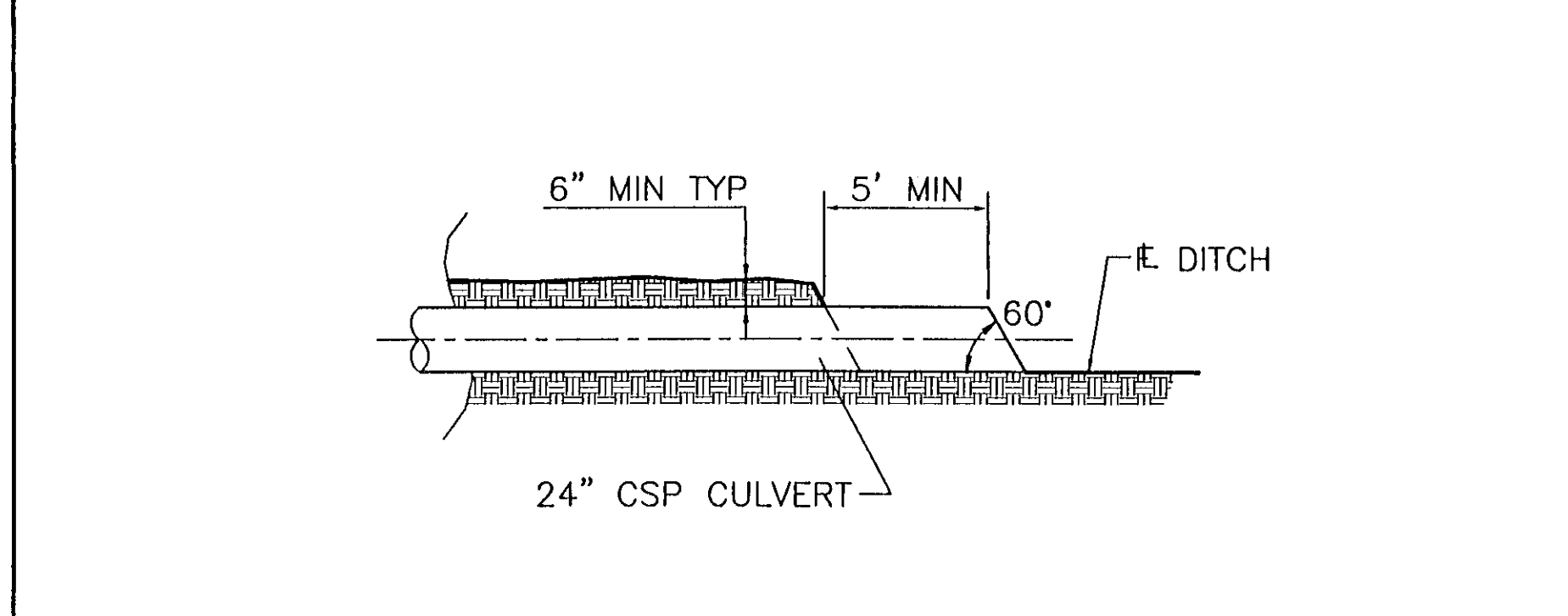
SHEET
29
OF
34
SHEETS
OF SHEETS
JOB NO.



9 PIPE FENCE & PIPE FENCE GATE

5 PERIMETER V-DITCH

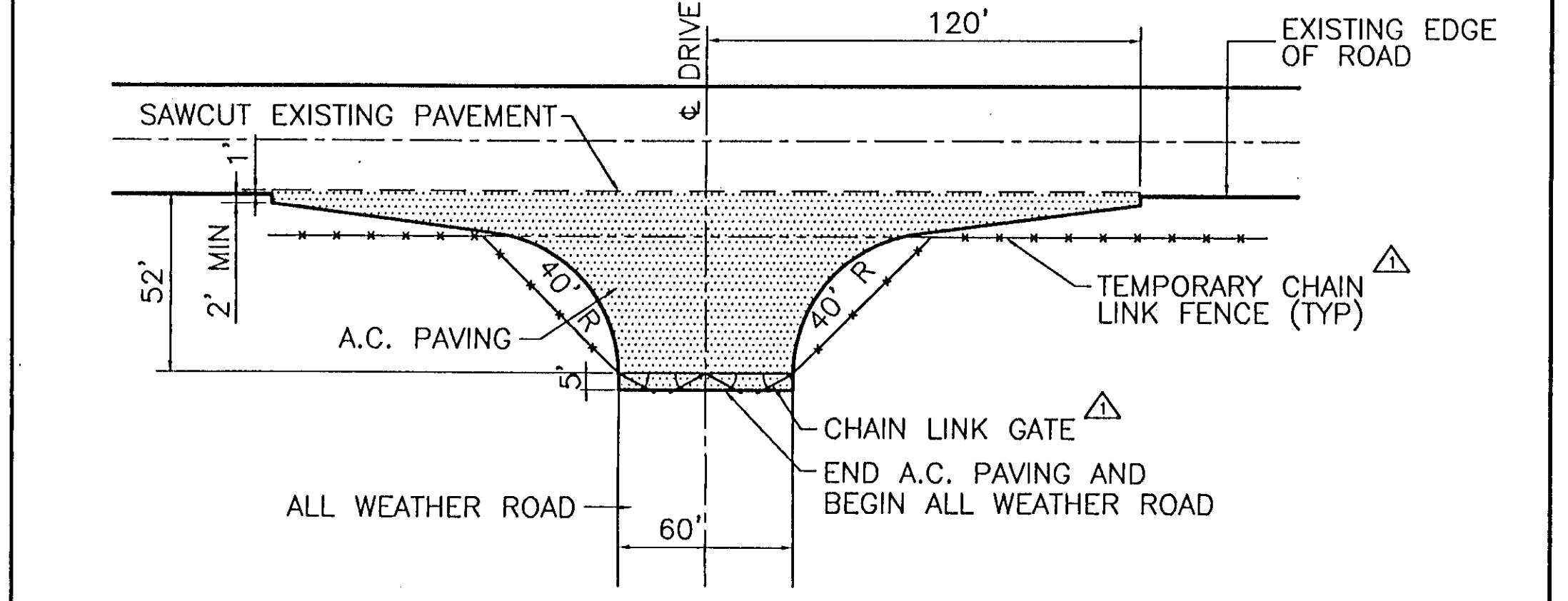
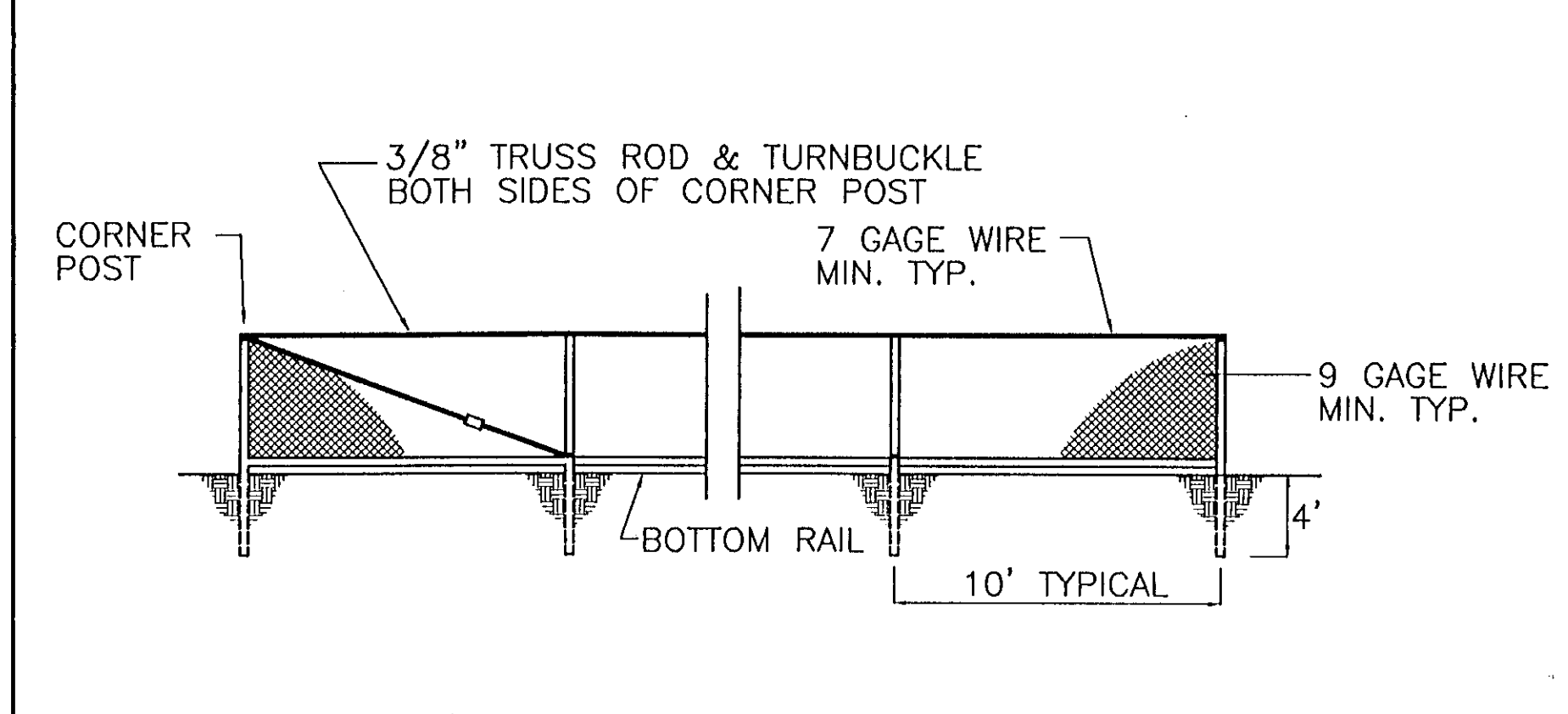
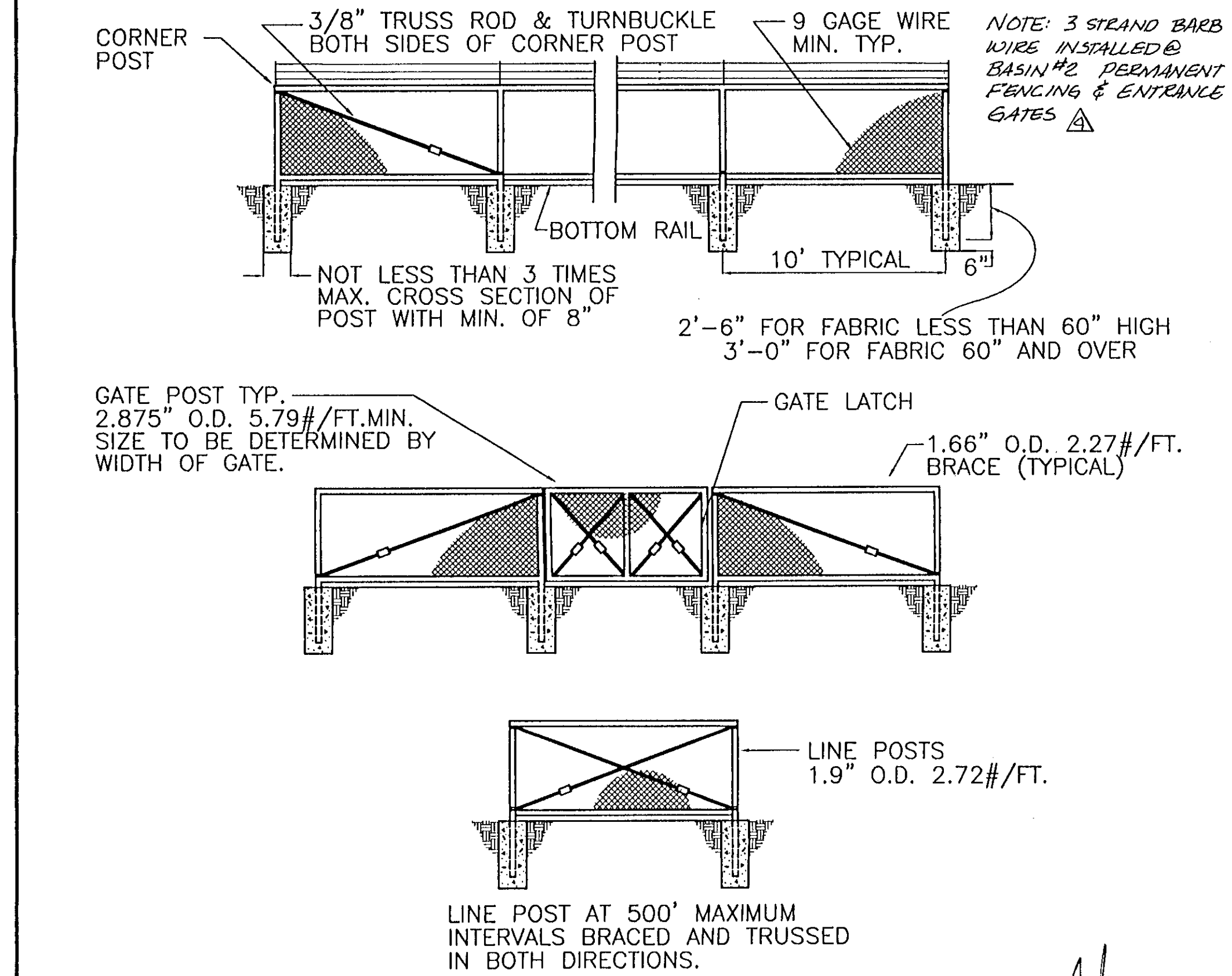
1 A.C. PAVEMENT SECTION



9 PIPE FENCE & PIPE FENCE GATE

6 24" PIPE CULVERT

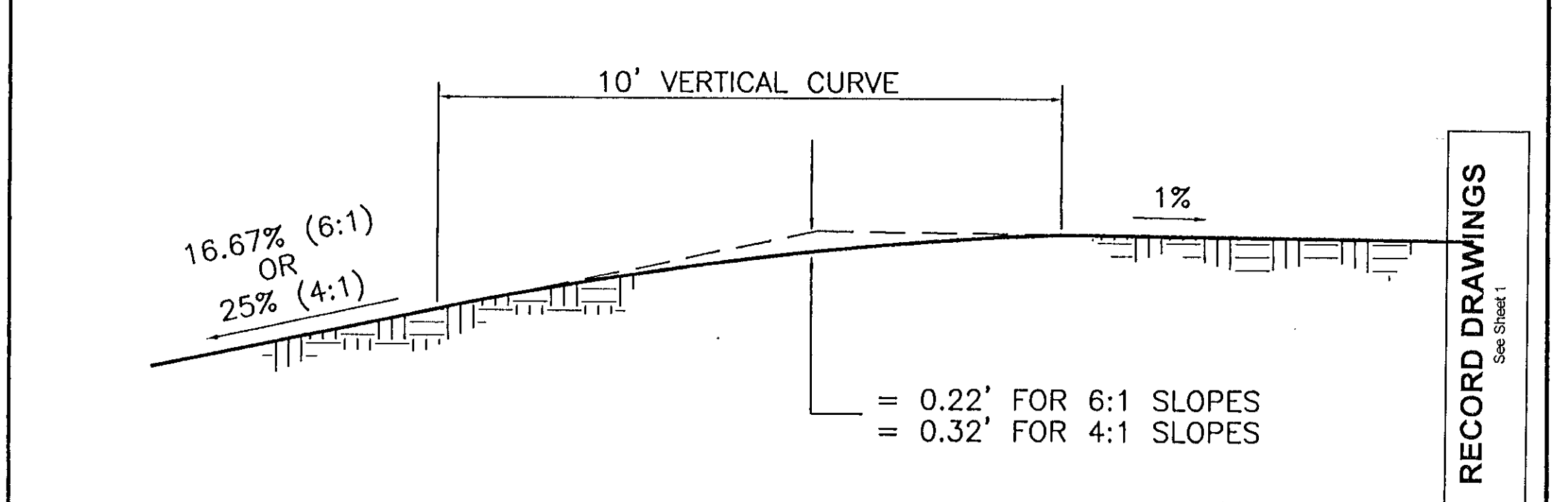
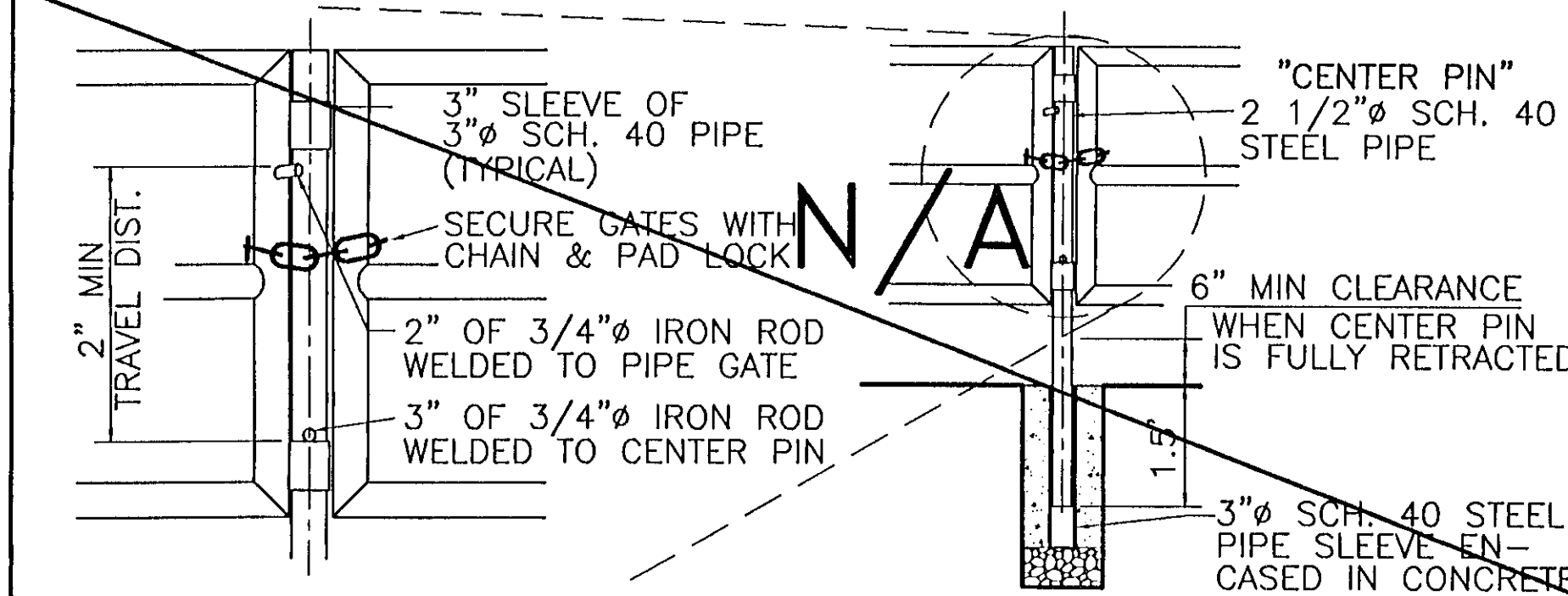
2 ALL WEATHER ROAD



10 PERMANENT CHAIN LINK FENCE & GATE

7 TEMPORARY CHAIN LINK FENCE

3 ACCESS DRIVE & CHAIN LINK GATE



10 PERMANENT CHAIN LINK FENCE & GATE

8 PIPE GATE CLOSURE

4 ROUND BASIN CROWN

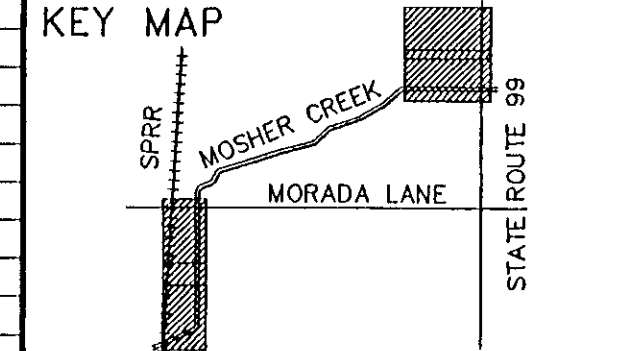
HDR
HDR Engineering, Inc.
5175 Hillside Circle
El Dorado Hills, CA 95762
(916) 939-4100

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KJELSDEN
SINNOCK
NEUDECK
Consulting Engineers
and Land Surveyors
Post Office Box 844
1113 W. Fremont Street
Stockton, CA 95201-0844
(209) 946-0268

REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA
NO. 43473
EXP. 6/30/00
CIVIL

Job No. 1375-144
File No. E-1960

No.	DATE	APVD.	REVISION
1	6/13/96		DEIC #1 - REVISED QUARRY BASIN LAYOUT MODIFIED & DELETED DETAILS
2	3/99		RECORD CHANGES

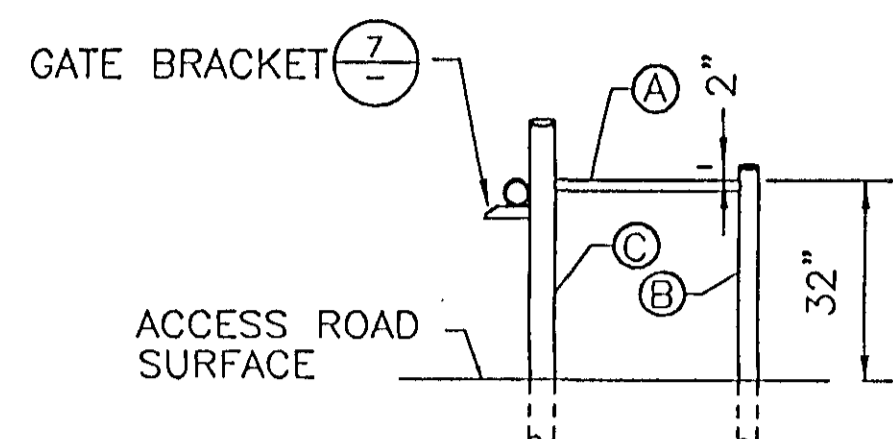


FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS
QUARRY BASINS
DETAILS

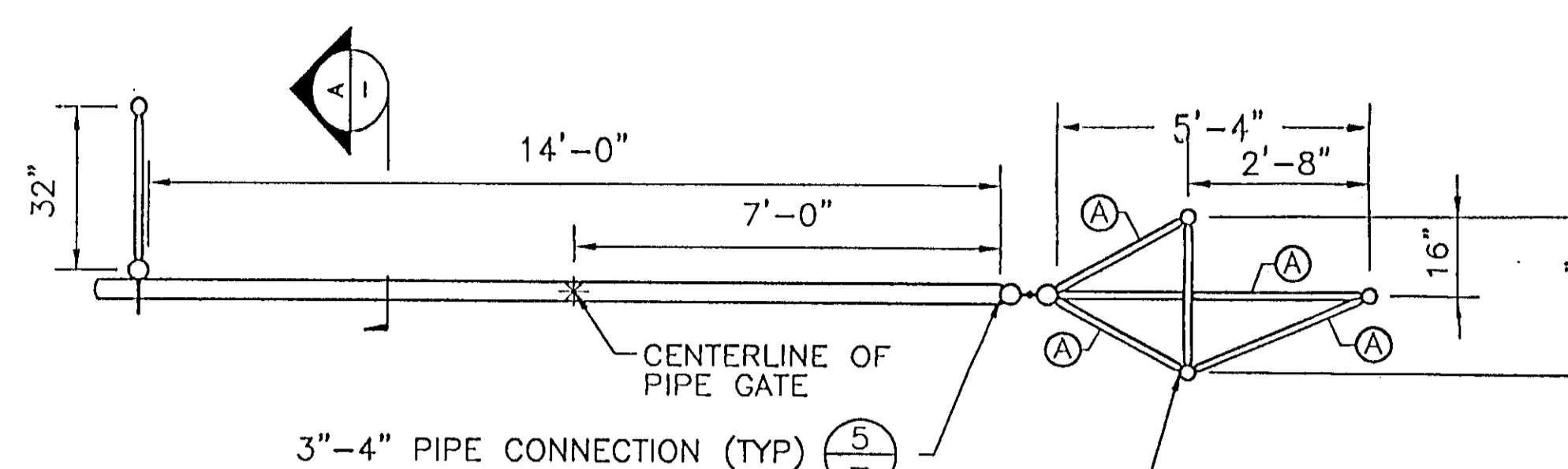
SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN
SCALE: N/A
DESIGNED BY: DGR
DRAWN BY: JDK
CHECKED BY: CHN
RECORD DWG.:
DATE: 6/13/96
CHECKED BY: DATE: SHEET NO.
HANSON ENGINEERING
SHEET NO. 30
OF 34
JOB NO. SHEETS

RECORD DRAWINGS
See Sheet 1

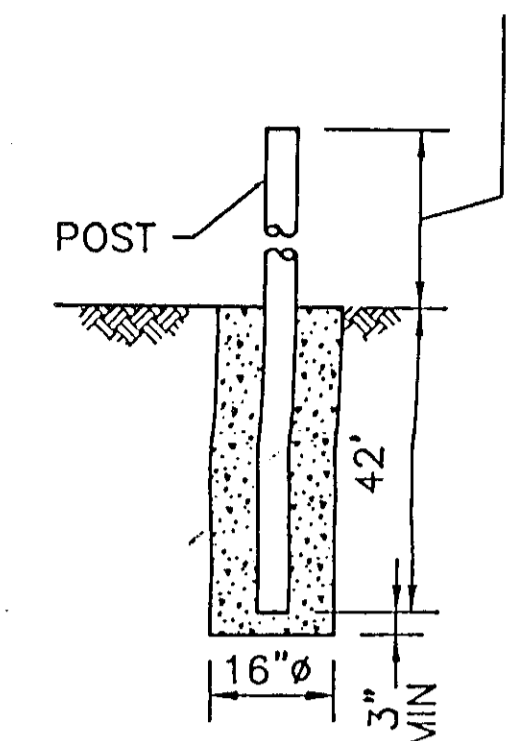
SYMBOL	PIPE DIAMETER
(A)	1 1/2"
(B)	3"
(C)	4"



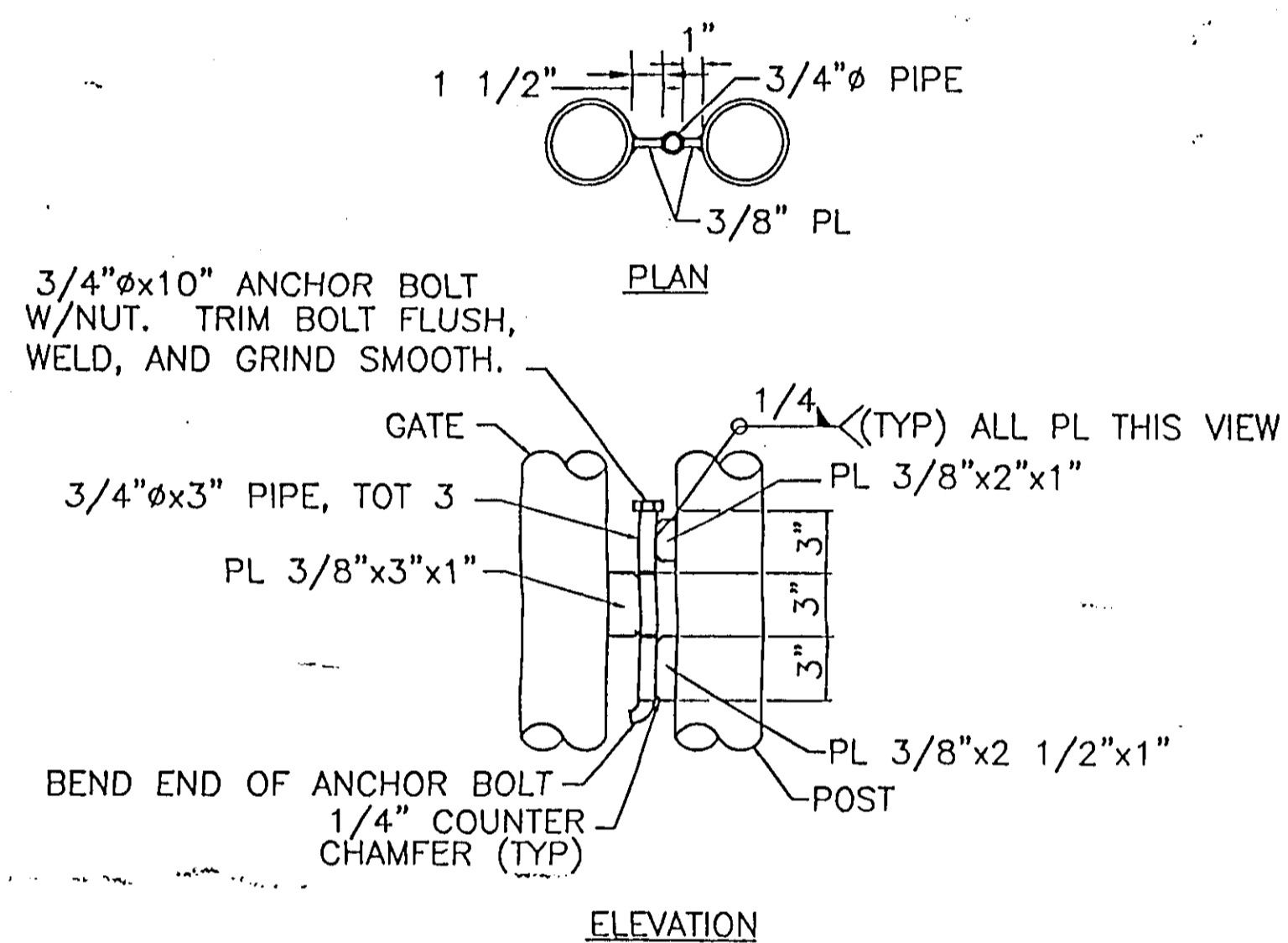
(A) SECTION



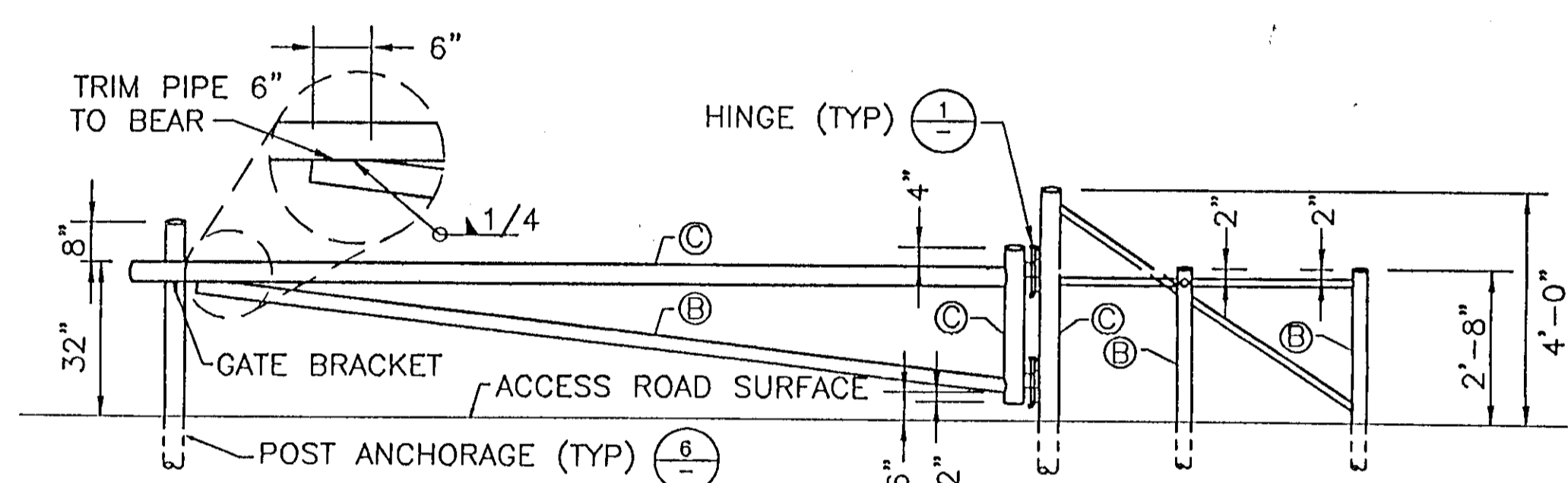
(3) GATE PLAN



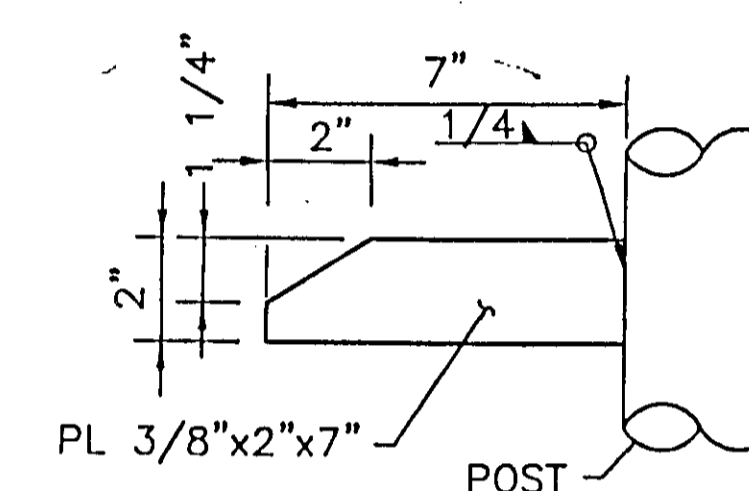
(6) POST ANCHORAGE



(1) HINGE DETAIL

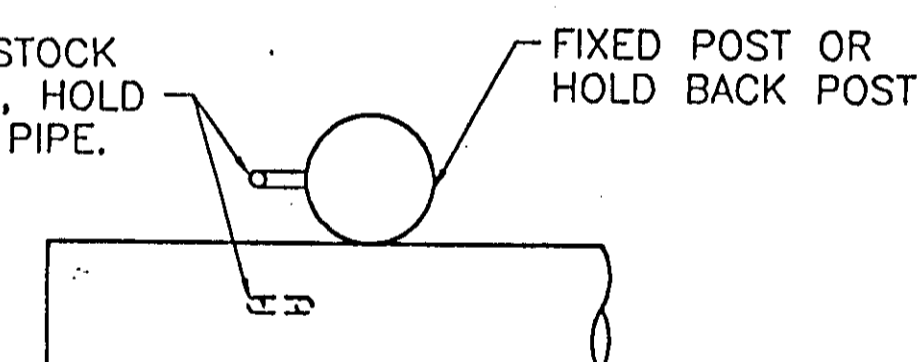


(4) GATE ELEVATION

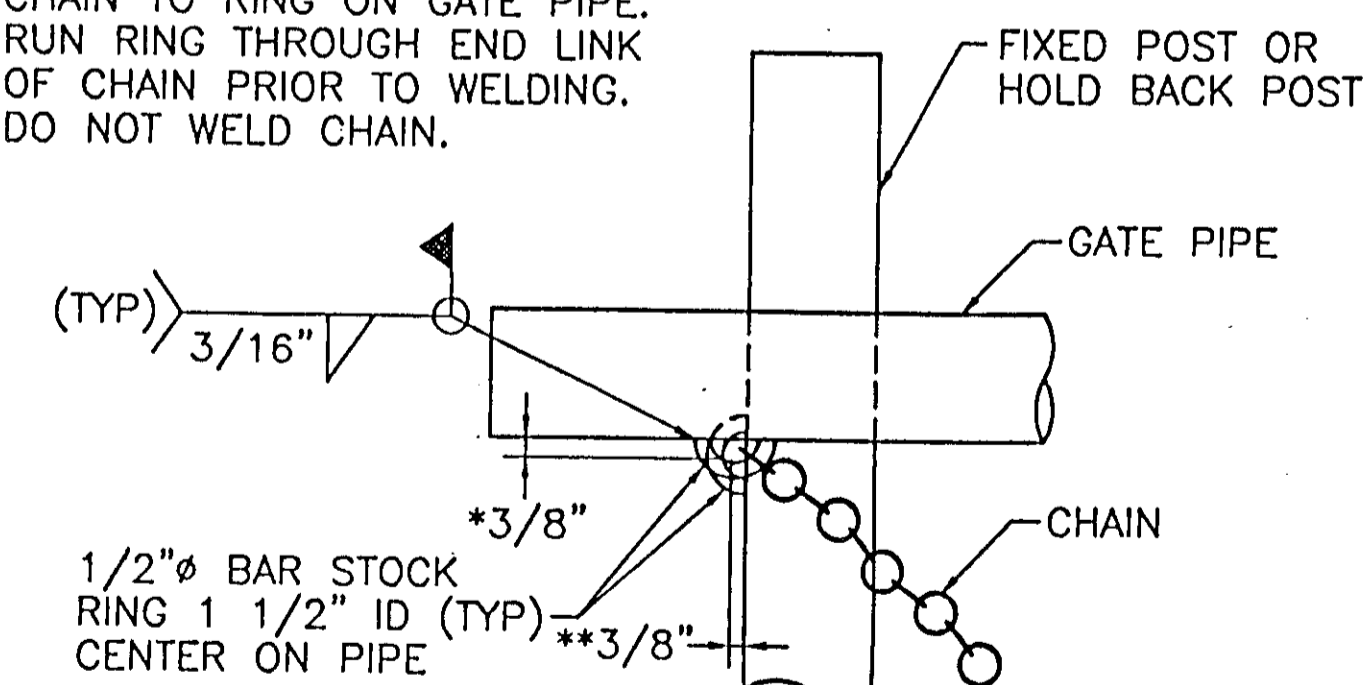


(7) GATE BRACKET DETAIL

ATTACH 1/2" ϕ BAR STOCK RING TO FIXED POST, HOLD BACK POST & GATE PIPE.

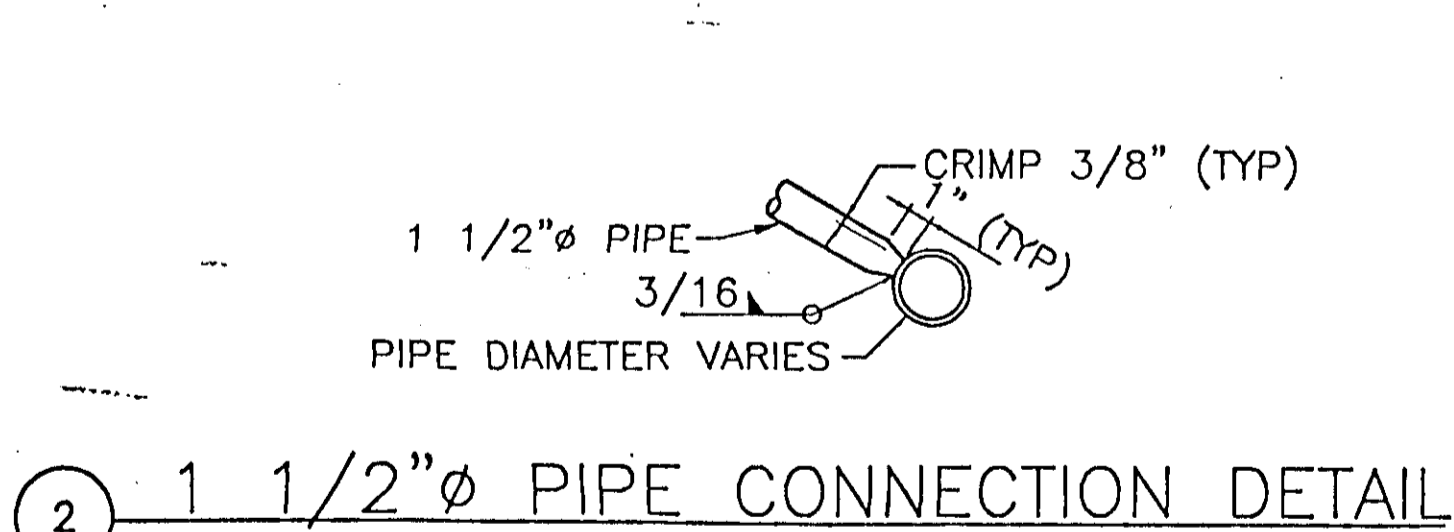


NOTE: ATTACH 12" LENGTH OF 3/8" HIGH TEST HOT DIP GALVANIZED CHAIN TO RING ON GATE PIPE. RUN RING THROUGH END LINK OF CHAIN PRIOR TO WELDING. DO NOT WELD CHAIN.

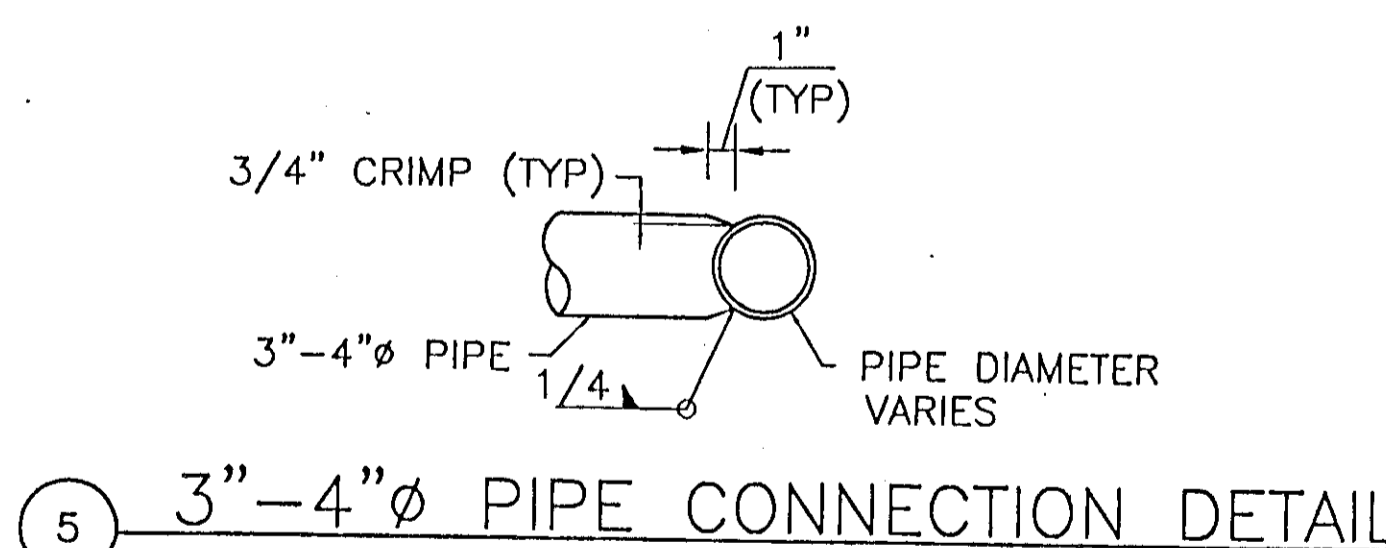


* CENTER OF RING ON POST
** CENTER OF RING ON GATE

LOCKING MECHANISM DETAIL



(2) 1 1/2" ϕ PIPE CONNECTION DETAIL

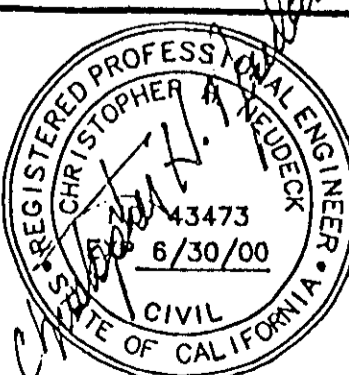


(5) 3"-4" ϕ PIPE CONNECTION DETAIL

RECORD DRAWINGS
See Sheet 1

HDR
HDR Engineering, Inc.
271 Turn Pike Drive
Folsom, CA 95630
(916) 351-3833

KSN
KJELSDEN
SINNOCK
NEUDECK
INC.
Consulting Engineers
and Land Surveyors
Post Office Box 844
911 N. Pershing Avenue
Stockton, CA 95201-0844
(209) 946-0268

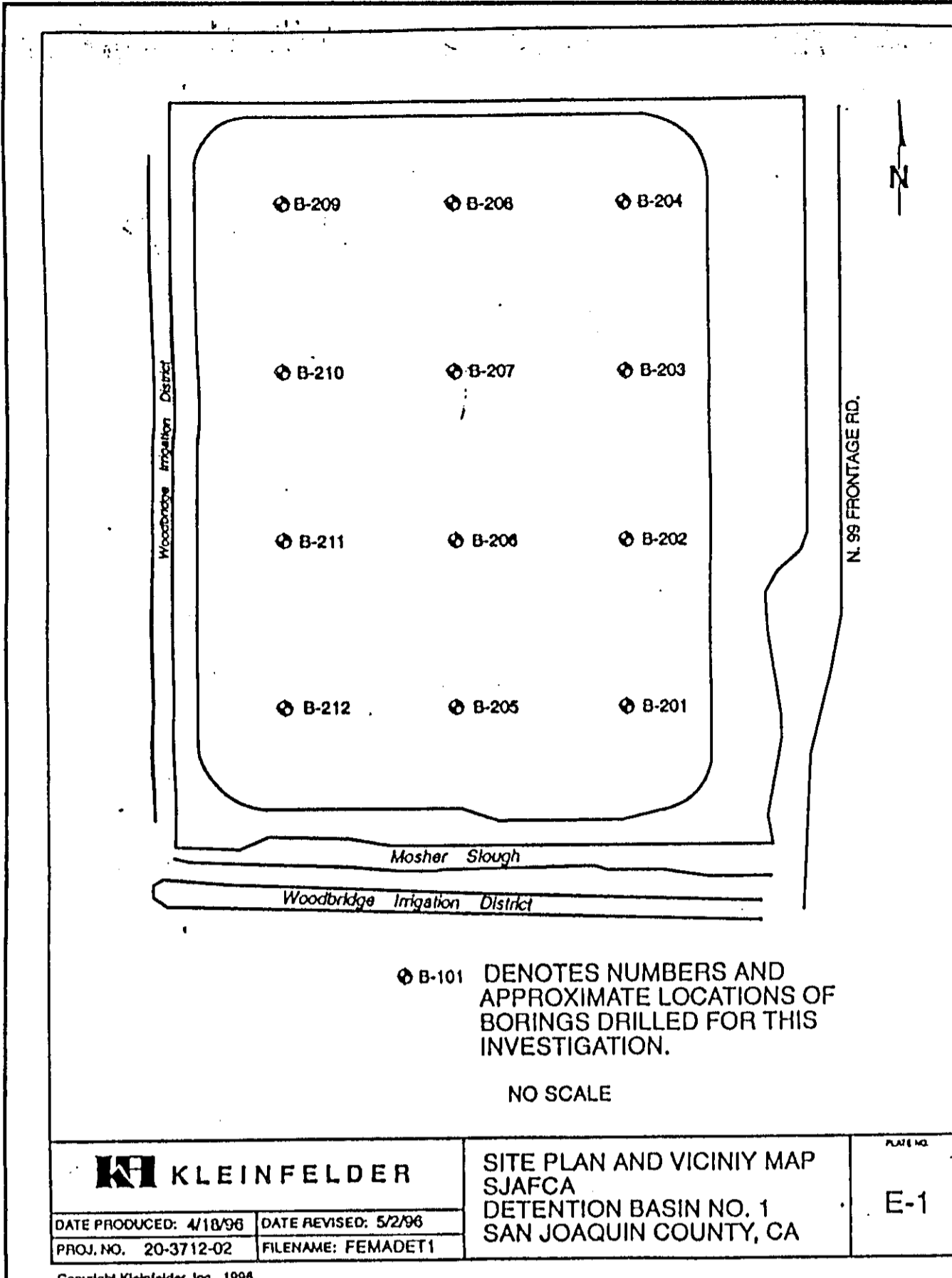


No.	DATE	APVD.	REVISION
1	7/22/98		ADDED PIPE GATE DETAIL SHEET

FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS
QUARRY BASIN NO 1
PIPE GATE DETAIL

SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN
SCALE: NO SCALE
DESIGNED BY: DJB
DRAWN BY: JSW
CHECKED BY: CHN
RECORD DWG.:
DATE: 1/22/98
CHECKED BY: DATE: SHEET NO.
HANSON ENGINEERING

SHEET
30a
OF
34
SHEETS



UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS	USCS SYMBOL	TYPICAL DESCRIPTIONS
GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN THE #4 SIEVE	GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE OR NO FINES
	GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE OR NO FINES
	GM	SILTY GRAVELS, GRAVEL-SILT-SAND MIXTURES
SANDS MORE THAN HALF OF MATERIAL IS LARGER THAN THE #200 SIEVE	GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SW	WELL-GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE OR NO FINES
	SP	POORLY-GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE OR NO FINES
FINE GRAINED SOILS LIQUID LIMIT LESS THAN 50	SM	SILTY SANDS, SAND-GRAVEL-SILT MIXTURES
	SC	CLAYEY SANDS, SAND-GRAVEL-CLAY MIXTURES
	ML	INORGANIC SILTS & VERY FINE SANDS, SILTY OR CLAYEY FINE SANDS, CLAYEY SILTS WITH SLIGHT PLASTICITY
SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50	CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
	OL	ORGANIC SILTS & ORGANIC SILTY CLAYS OF LOW PLASTICITY
	MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILT
HIGHLY ORGANIC SOILS	CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
	OH	ORGANIC CLAYS & ORGANIC SILTS OF MEDIUM-TO-HIGH PLASTICITY
	PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

Date Completed: 4/10/96 Surface Conditions: Alfalfa field with rye.
 Logged By: BD Groundwater: Groundwater not encountered.
 Total Depth: 30 feet

Depth (ft)	FIELD		LABORATORY		DESCRIPTION
	Sample	Blow/ft	Dry Density (pcf)	Moisture Content (%)	
14					(CL) SILTY CLAY - Black, Stiff, Moist
20	97	15			(CL) SILTY CLAY - Brown, Mottled, w/Trace Fine Sand, Very Stiff, Moist
30				-200 = 42%	(SM) SILTY SAND - Brown, Fine Grained, Medium Dense, Moist
21	86	26			(ML) CLAYEY SILT - Light Brown, Very Stiff, Moist
37					(SM) SILTY SAND - Gray/Brown, Fine Grained, Medium Dense, Moist
21					(ML) CLAYEY SILT - Brown, Very Stiff, Moist
37					(CL) SILTY CLAY - Yellow/Brown, Mottled, Fine Grained, Very Stiff, Moist
21					(SM) SAND - Yellow/Brown, Fine Grained, Dense, Moist
37					(CL) SILTY CLAY - Yellow/Brown, Mottled, Hard, Moist
21					(ML) CLAYEY SILT - Brown, Hard, Moist
					END OF BORING

Date Completed: 4/10/96 Surface Conditions: Alfalfa field with rye.
 Logged By: BD Groundwater: Groundwater not encountered.
 Total Depth: 30 feet

Depth (ft)	FIELD		LABORATORY		DESCRIPTION
	Sample	Blow/ft	Dry Density (pcf)	Moisture Content (%)	
27	104	12		-56%	(CL) SANDY SILT - Black, Stiff, Moist
44	112	12		-45%	(ML) SANDY SILT - Brown, Fine Grained, Medium Dense, Moist
21	96	18		-23%	(SM) SILTY SAND - Red/Brown, Cemented, Medium Grained, Dense, Moist
26	107	15			(ML) CLAYEY SILT - Gray, Very Stiff, Very Moist
41	91	21			(SM) SILTY SAND - Medium to Fine Grained, Medium Dense, Very Moist
					(CL) SILTY CLAY - Brown, Trace/Fine Sand, Very Stiff, Moist
					(SC) CLAYEY SAND - Tan/Brown, Trace/Fine Sand, Fine Grained, Medium Dense, Moist
					(CL) SANDY CLAY - Brown, Hard, Moist
					(CL) SILTY CLAY - Brown, Trace/Fine Sand, Hard, Moist
					(CL) SILTY CLAY - Tan/Brown, Hard, Moist
					(ML) CLAYEY SILT - Red/Brown, Trace/Sand, Hard, Moist
					END OF BORING

Date Completed: 4/10/96 Surface Conditions: Alfalfa field with rye.
 Logged By: BD Groundwater: Groundwater not encountered.
 Total Depth: 30 feet

Depth (ft)	FIELD		LABORATORY		DESCRIPTION
	Sample	Blow/ft	Dry Density (pcf)	Moisture Content (%)	
20	94	17			(CL) SILTY CLAY - Black, Stiff, Moist
21					(CL) SANDY CLAY - Black/Brown, Mottled, Very Stiff, Moist
23	99	19			(CL) SILTY CLAY - Brown, Mottled, w/Trace Fine Sand, Very Stiff, Moist
26					(SC) CLAYEY SAND - Brown, Fine Grained, Medium Dense, Moist
50	93	21			(SC) CLAYEY SAND - Gray, Fine Grained, Medium Dense, Moist
					(SP/SM) SAND - Red/Brown, Fine Grained, Medium Dense, Very Moist
					(SC) CLAYEY SAND - Red/Brown, Very Fine Grained, Medium Dense, Moist
					(CL) SANDY CLAY - Brown, Mottled, Cemented, Very Stiff, Hard, Moist
					(CL) SILTY CLAY - Brown, Trace/Sand, Hard, Moist
					END OF BORING

Date Completed: 4/10/96 Surface Conditions: Alfalfa field with rye.
 Logged By: BD Groundwater: Groundwater not encountered.
 Total Depth: 30 feet

Depth (ft)	FIELD		LABORATORY		DESCRIPTION
	Sample	Blow/ft	Dry Density (pcf)	Moisture Content (%)	
40					(CL) SILTY CLAY - Black, Stiff, Moist
24	106	12		-57%	(SC) CLAYEY SAND - Brown, Mottled w/Trace Sand, Fine Grained, Dense, Moist
14	99	6			(ML) SANDY SILT - Brown, Fine Grained, Medium Dense, Moist
19	89	24			(SC) CLEAN SAND - White/Brown, Medium to Fine Grained, Medium Dense, Moist
48					(SC) SILTY CLAY - Brown, Mottled, w/Trace Fine Sand, Very Stiff, Moist
					(ML) CLAYEY SILT - Gray/Brown, Mottled, w/Trace Fine Sand, Hard, Moist
					(CL) SILTY CLAY - Brown, Very Stiff, Moist
					Grade Mottled, w/Trace Fine Sand
					END OF BORING

Date Completed: 4/10/96 Surface Conditions: Alfalfa field with rye.
 Logged By: BD Groundwater: Groundwater not encountered.
 Total Depth: 30 feet

Depth (ft)	FIELD		LABORATORY		DESCRIPTION
	Sample	Blow/ft	Dry Density (pcf)	Moisture Content (%)	
16	102	15			(CL) SILTY CLAY - Black, Stiff, Moist
25	113	10			(CL) SANDY CLAY - Brown, Mottled, Fine Sand, Very Stiff, Moist
37					(SC) CLAYEY SAND - Brown, Fine Grained, Medium Dense, Moist
22	99	19			(SM) SILTY SAND - Light Brown, Fine Grained, Dense, Moist
24					(CL) SILTY CLAY - Gray, Mottled, w/Trace Fine Sand, Very Stiff, Moist
					Grade Brown
					Grade, Brown w/Trace Sand
					(CL) SANDY CLAY - Gray, Fine Grained, Very Stiff, Moist
					(CL) SILTY CLAY - Gray/Brown, Very Stiff, Moist
					END OF BORING

Date Completed: 4/10/96 Surface Conditions: Alfalfa field with rye.
 Logged By: BD Groundwater: Groundwater not encountered.
 Total Depth: 30 feet

Depth (ft)	FIELD		LABORATORY		DESCRIPTION
	Sample	Blow/ft	Dry Density (pcf)	Moisture Content (%)	
19					(CL) SILTY CLAY - Black, Very Stiff, Moist
54					(CL) SANDY CLAY - Black/Brown, Fine Grained, Very Stiff, Moist
13	92	26			(SM) SILTY SAND - Brown, Cemented, Fine Grained, Dense, Moist
27					(SC) CLAYEY SAND - Gray, Fine Grained, Medium Dense, Moist
43	95	21			(CL) SANDY CLAY - Brown w/Black, Cemented, Fine Grained, Very Stiff, Moist
					(CL) SANDY CLAY - Gray, Cemented, Fine Grained, Hard, Moist
					(CL) SILTY CLAY - Light Brown, Very Stiff, Moist
					(CL) SANDY CLAY - Brown, Fine Grained, Very Stiff, Moist
					(CL) SILTY CLAY - Light Brown w/Trace Fine Sand, Very Stiff, Moist
					END OF BORING

KLEINFELDER
 DETENTION BASIN NO. 1
 SJAFCA
 SAN JOAQUIN COUNTY, CA.
 LOG OF BORING B-203
 PLATE 1 of 1
 E-5

KLEINFELDER
 DETENTION BASIN NO. 1
 SJAFCA
 SAN JOAQUIN COUNTY, CA.
 LOG OF BORING B-204
 PLATE 1 of 1
 E-6

KLEINFELDER
 DETENTION BASIN NO. 1
 SJAFCA
 SAN JOAQUIN COUNTY, CA.
 LOG OF BORING B-205
 PLATE 1 of 1
 E-7

KLEINFELDER
 DETENTION BASIN NO. 1
 SJAFCA
 SAN JOAQUIN COUNTY, CA.
 LOG OF BORING B-206
 PLATE 1 of 1
 E-8

HDR
 HDR Engineering, Inc.
 5175 Hillside Circle
 El Dorado Hills, CA 95762
 (916) 939-4100

KJELDEN SINNOCK NEUDECK INC.
 Consulting Engineers and Land Surveyors
 Post Office Box 844
 1113 W. Fremont Street
 Stockton, CA 95201-0844
 (209) 946-0268



FLOOD PROTECTION RESTORATION PROJECT
 MOSHER CREEK DETENTION BASINS
 QUARRY BASIN NO. 1
 BORING LOGS

SAN JOAQUIN AREA FLOOD CONTROL AGENCY
 CITY OF STOCKTON - COUNTY OF SAN JOAQUIN
 SCALE: N/A
 DESIGNED BY: DGR
 DRAWN BY: JDK
 CHECKED BY: CHN
 RECORD DWG.:
 DATE: 6/13/96
 CHECKED BY: [Signature]
 HANSON ENGINEERING
 SHEET NO. 31 OF 34 SHEETS
 JOB NO.

RECORD DRAWINGS
 See Sheet 1

A:\b-logs Thu Jun 08 08:56:35 1996

FIELD		LABORATORY				DESCRIPTION	
Depth (ft)	Sample	Blow-ft	Dry Density (pcf)	Moisture Content (%)	Compress. Strength (pcf)	Other Tests	Pen (pcf)
14	81	20					
5	35	104	12				
10	23						
15	28	109	19				
20	25						
25							
30							
35							

Date Completed: 4/11/96 Surface Conditions: Alfalfa field with rye.
 Logged By: SP Groundwater: Groundwater not encountered.
 Total Depth: 30 feet

USCS Classification:
 (CL) SILTY CLAY - Dark Brown, Stiff, Moist
 (ML) CLAYEY SANDY SILT - Brown, Fine Grained, Dense, Moist
 (CL) SANDY CLAY - Gray/Brown, Fine Grained, Very Stiff, Very Moist
 Grades Gray/Red, w/ Less Clay
 (CL) SANDY SILTY CLAY - Red, Layered, Fine Grained, Very Stiff, Very Moist
 Grades Gray
 (CL) SILTY CLAY - Brown, Very Stiff, Moist
 Grades w/ Fine Sand
 Grades Light Brown
 END OF BORING

#200 = 43% Bulk (See Plate B-15)
 LL = 29
 PI = 31

KLEINFELDER DETENTION BASIN NO. 1 SJA FCA SAN JOAQUIN COUNTY, CA. LOG OF BORING B-207 PLATE 1 of 1 E-9
 PROJECT NO. 20-3712-02

FIELD		LABORATORY				DESCRIPTION	
Depth (ft)	Sample	Blow-ft	Dry Density (pcf)	Moisture Content (%)	Compress. Strength (pcf)	Other Tests	Pen (pcf)
29							
5	27	102	13				
10	34						
15	11	98	23				
20	33						
25							
30							
35							

Date Completed: 4/11/96 Surface Conditions: Alfalfa field with rye.
 Logged By: SP Groundwater: Groundwater not encountered.
 Total Depth: 30 feet

USCS Classification:
 (CL) SILTY CLAY - Black, Stiff, Moist
 (SC) CLAYEY SAND - Brown, Fine Grained, Medium Dense, Moist
 (ML) SANDY SILT - Light Gray, Fine Grained, Medium Dense, Moist
 (ML) CLAYEY SILT - Brown, Stiff, Moist
 (CL) SILTY CLAY - Brown, Hard, Moist
 (CL) SANDY CLAY - Brown, w/Silt, Fine Grained, Very Stiff, Moist
 END OF BORING

KLEINFELDER DETENTION BASIN NO. 1 SJA FCA SAN JOAQUIN COUNTY, CA. LOG OF BORING B-208 PLATE 1 of 1 E-10
 PROJECT NO. 20-3712-02

FIELD		LABORATORY				DESCRIPTION	
Depth (ft)	Sample	Blow-ft	Dry Density (pcf)	Moisture Content (%)	Compress. Strength (pcf)	Other Tests	Pen (pcf)
11	93	22					
5	24						
10	23						
15	32	104	17				
20	38						
25							
30							
35							

Date Completed: 4/11/96 Surface Conditions: Alfalfa field with rye.
 Logged By: SP Groundwater: Groundwater not encountered.
 Total Depth: 30 feet

USCS Classification:
 (CL) SILTY CLAY - Black, Stiff, Moist
 (CL) SILTY CLAY - Brown, Stiff, Moist
 (CL) SANDY CLAY - Brown, Fine Grained, Very Stiff, Moist
 (SP/SM) SAND - Brown, Fine Grained, Medium Dense, Very Moist
 (ML) CLAYEY SILT - Brown, Hard, Very Moist
 (CL) SANDY CLAY - Brown w/Red Lines, Cemented, Fine Grained, Hard, Moist
 (CL) SILTY CLAY - Brown, Hard, Moist
 END OF BORING

KLEINFELDER DETENTION BASIN NO. 1 SJA FCA SAN JOAQUIN COUNTY, CA. LOG OF BORING B-209 PLATE 1 of 1 E-11
 PROJECT NO. 20-3712-02

FIELD		LABORATORY				DESCRIPTION	
Depth (ft)	Sample	Blow-ft	Dry Density (pcf)	Moisture Content (%)	Compress. Strength (pcf)	Other Tests	Pen (pcf)
11							
5	32	109	14				
10	12						
15	7						
20	19						
25							
30							
35							

Date Completed: 4/10/96 Surface Conditions: Alfalfa field with rye.
 Logged By: SP Groundwater: Groundwater not encountered.
 Total Depth: 30 feet

USCS Classification:
 (CL) SILTY CLAY - Black, Stiff, Dry
 (SC) CLAYEY SAND - Brown, Fine Grained, Very Stiff, Moist
 (CL) SANDY SILTY CLAY - Light Brown/Gray, Fine Grained, Stiff, Wet
 Grades Moist
 Grades w/Increasing Clay
 Grades Brown w/Red, Medium Dense
 (CL) SANDY CLAY - Brown, Fine Grained, Very Stiff, Moist
 END OF BORING

LL = 27
 PI = 11

KLEINFELDER DETENTION BASIN NO. 1 SJA FCA SAN JOAQUIN COUNTY, CA. LOG OF BORING B-210 PLATE 1 of 1 E-12
 PROJECT NO. 20-3712-02

FIELD		LABORATORY				DESCRIPTION	
Depth (ft)	Sample	Blow-ft	Dry Density (pcf)	Moisture Content (%)	Compress. Strength (pcf)	Other Tests	Pen (pcf)
27	95	20					
5	32						
10	24	110	17				
15	26						
20	29						
25							
30							
35							

Date Completed: 4/10/96 Surface Conditions: Alfalfa field with rye.
 Logged By: SP Groundwater: Groundwater not encountered.
 Total Depth: 30 feet

USCS Classification:
 (CL) SILTY CLAY - Black, Stiff, Dry
 (CL) SANDY CLAY - Brown, Fine Grained, Very Stiff, Moist
 (SP) SAND - Brown, Fine Grained, Medium Dense, Moist
 (CL) SANDY SILTY CLAY - Gray, Fine Grained, Very Stiff, Moist
 Grades Brown
 Grades w/Gray and Red, w/Out Sand
 (CL) SANDY CLAY - Brown, Fine Grained, Very Stiff, Moist
 END OF BORING

KLEINFELDER DETENTION BASIN NO. 1 SJA FCA SAN JOAQUIN COUNTY, CA. LOG OF BORING B-211 PLATE 1 of 1 E-13
 PROJECT NO. 20-3712-02

FIELD		LABORATORY				DESCRIPTION	
Depth (ft)	Sample	Blow-ft	Dry Density (pcf)	Moisture Content (%)	Compress. Strength (pcf)	Other Tests	Pen (pcf)
15							
5	42	111	15				
10	11						
15	27						
20	22	92	22				
25							
30							
35							

Date Completed: 4/10/96 Surface Conditions: Alfalfa field with rye.
 Logged By: SP Groundwater: Groundwater not encountered.
 Total Depth: 30 feet

USCS Classification:
 (CL) SILTY CLAY - Black, Stiff, Dry
 (CL) SILTY CLAY - Dark Gray, stiff, Moist
 (SC) CLAYEY SAND - Brown, Partially Cemented, Fine Grained, Dense, Moist
 (SP) SAND - Light Brown, Fine Grained, Medium Dense, Moist
 (CL) SILTY CLAY - Gray, Moist
 Grades Brown
 Grades w/Gray
 Grades Light Brown
 END OF BORING

KLEINFELDER DETENTION BASIN NO. 1 SJA FCA SAN JOAQUIN COUNTY, CA. LOG OF BORING B-212 PLATE 1 of 1 E-14
 PROJECT NO. 20-3712-02

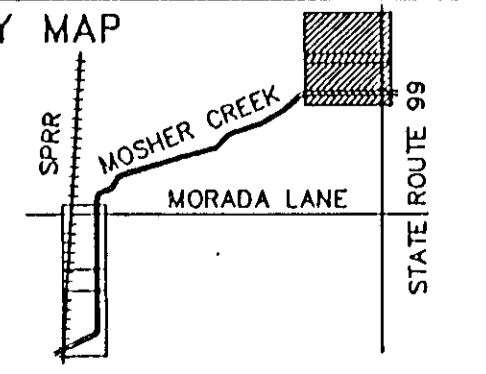
RECORD DRAWINGS
See Sheet 1

HDR
HDR Engineering, Inc.
5175 Hillside Circle
El Dorado Hills, CA 95762
(916) 939-4100

KSN
KJELSDEN SINNOCK NEUDECK
Consulting Engineers and Land Surveyors
Post Office Box 844
1113 W. Fremont Street
Stockton, CA 95201-0844
(209) 946-0268

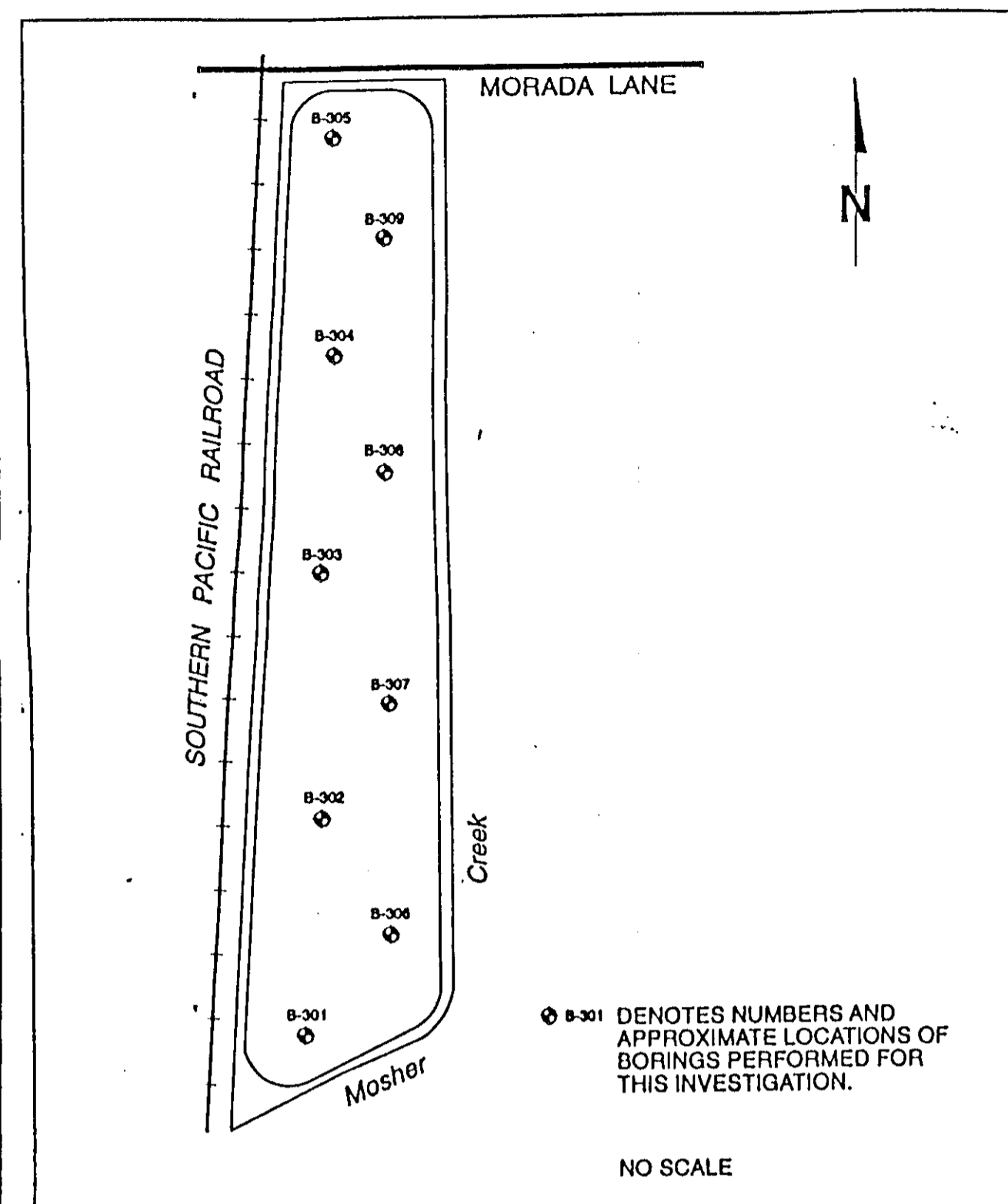
Job No. 1375-144
Plate No. E-1960

No.	DATE	APVD.	REVISION



FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS
QUARRY BASIN NO. 1
BORING LOGS

SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN
SCALE: N/A CHECKED BY: DATE: 6/13/96 SHEET NO. 32
DESIGNED BY: DGR OF SHEETS 34
DRAWN BY: JDK JOB NO.
CHECKED BY: CHN
RECORD DWG.: HANSON ENGINEERING
DATE: 6/13/96



KLEINFELDER SITE PLAN AND VICINITY MAP
SJAFC
DETENTION BASIN NO. 2
STOCKTON, CALIFORNIA

PROJECT NO. 20-3712-04

F-1

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS	USCS SYMBOL	TYPICAL DESCRIPTIONS
GRAVELS	GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE OR NO FINES
	GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE OR NO FINES
	GM	SILTY GRAVELS, GRAVEL-SILT-SAND MIXTURES
SANDS	GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SW	WELL-GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE OR NO FINES
	SP	POORLY-GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE OR NO FINES
SILTS AND CLAYS	SM	SILTY SANDS, SAND-GRAVEL-SILT MIXTURES
	SC	CLAYEY SANDS, SAND-GRAVEL-CLAY MIXTURES
	ML	INORGANIC SILTS & VERY FINE SANDS, SILTY OR CLAYEY FINE SANDS, CLAYEY SILTS WITH SLIGHT PLASTICITY
FINE GRAINED SOILS	CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
	OL	ORGANIC SILTS & ORGANIC SILTY CLAYS OF LOW PLASTICITY
	MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILT
HIGHLY ORGANIC SOILS	CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
	OH	ORGANIC CLAYS & ORGANIC SILTS OF MEDIUM-TO-HIGH PLASTICITY
	PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

KLEINFELDER SOIL CLASSIFICATION SYSTEM
DETENTION BASIN NO.2
SJAFC
STOCKTON, CALIFORNIA

PROJECT NO. 20-3712-04

F-2

Date Completed: 3/18/96 Surface Conditions: Alfalfa field.
Logged By: SP Groundwater: Groundwater not encountered.
Total Depth: 30 feet

Depth (ft)	LABORATORY						DESCRIPTION
	Sample	Blow/ft	Dry Density (pcf)	Moisture Content (%)	Compress. Strength (pcf)	Pen (pcf)	
12	98	23					(CI) SILTY CLAY - Black, Stiff, Moist
41	101	11					(CL) SILTY CLAY - Brown, w/Fine Sand, Stiff, Moist
38	107	20					(SC) CLAYEY SAND - Light Brown, Fine Grained, Dense, Moist
47	102	18					(CL) SILTY CLAY - Light Brown, Hard, Moist
54	100	24					(SC) CLAYEY SAND - Red/Brown, Fine Grained, Dense, Moist
47	102	18					(CL) SANDY CLAY - Brown, Hard, Moist
54	100	24					Grades w/Red
54	100	24					END OF BORING

KLEINFELDER DETENTION BASIN NO.2
SJAFC
STOCKTON, CALIFORNIA
LOG OF BORING B-301

PROJECT NO. 20-3712-04

PLATE 1 of 1

F-3

Date Completed: 3/18/96 Surface Conditions: Alfalfa field.
Logged By: SP Groundwater: Groundwater not encountered.
Total Depth: 30 feet

Depth (ft)	LABORATORY						DESCRIPTION
	Sample	Blow/ft	Dry Density (pcf)	Moisture Content (%)	Compress. Strength (pcf)	Pen (pcf)	
10	110	16					(CL) SILTY CLAY - Black, Stiff, Moist
29	111	15					(CL) SILTY CLAY - Brown, Stiff, Moist
35	106	17					(CL) SANDY CLAY - Brown, Fine Grained, Very Stiff, Moist
44	106	17					(CL) SANDY SILTY CLAY - Gray, Very Fine Grained, Hard, Very Moist
60							Grades Brown, Fine Grained, Moist
60							END OF BORING

KLEINFELDER DETENTION BASIN NO.2
SJAFC
STOCKTON, CALIFORNIA
LOG OF BORING B-302

PROJECT NO. 20-3712-04

PLATE 1 of 1

F-4

Date Completed: 3/18/96 Surface Conditions: Alfalfa field.
Logged By: SP Groundwater: Groundwater not encountered.
Total Depth: 30 feet

Depth (ft)	LABORATORY						DESCRIPTION
	Sample	Blow/ft	Dry Density (pcf)	Moisture Content (%)	Compress. Strength (pcf)	Pen (pcf)	
14							(CL) SILTY CLAY - Black, Stiff, Moist
27	114	15					(CL) SANDY CLAY - Brown to Red/Brown, Fine Grained, Very Stiff, Moist
27							(CL) SILTY CLAY - Brown, Very Stiff, Moist
26	108	21					Grades Light Brown
42	101	20					Grades Brown
42	101	20					(CL) SANDY CLAY - Red/Brown, Fine Grained, Hard, Moist
42	101	20					END OF BORING

KLEINFELDER DETENTION BASIN NO.2
SJAFC
STOCKTON, CALIFORNIA
LOG OF BORING B-303

PROJECT NO. 20-3712-04

PLATE 1 of 1

F-5

Date Completed: 3/18/96 Surface Conditions: Alfalfa field.
Logged By: SP Groundwater: Groundwater not encountered.
Total Depth: 30 feet

Depth (ft)	LABORATORY						DESCRIPTION
	Sample	Blow/ft	Dry Density (pcf)	Moisture Content (%)	Compress. Strength (pcf)	Pen (pcf)	
15	109	19					(CL) SILTY CLAY - Black, Very Stiff, Moist
49	107	15					(CL) SILTY CLAY - Brown, Very Stiff, Moist
43	108	20					(CL) SANDY CLAY - Brown, Fine Grained, Hard, Moist
43	108	20					(CL) SILTY CLAY - Light Gray, Hard, Moist
46							Grades Red/Gray
46							(CL) SANDY CLAY - Red, Fine Grained, Hard, Moist
70	103	22					(CL) SANDY SILTY CLAY - Brown, Very Fine Grained, Hard, Moist
70	103	22					Grades Cemented, Fine Grained
70	103	22					Grades Red/Brown
70	103	22					END OF BORING

KLEINFELDER DETENTION BASIN NO.2
SJAFC
STOCKTON, CALIFORNIA
LOG OF BORING B-304

PROJECT NO. 20-3712-04

PLATE 1 of 1

F-6

Date Completed: 3/18/96 Surface Conditions: Alfalfa field.
Logged By: SP Groundwater: Groundwater not encountered.
Total Depth: 30 feet

Depth (ft)	LABORATORY						DESCRIPTION
	Sample	Blow/ft	Dry Density (pcf)	Moisture Content (%)	Compress. Strength (pcf)	Pen (pcf)	
19							(CL) SILTY CLAY - Black, Very Stiff, Moist
77							(CL) SANDY SILT - Gray, Cemented, Fine Grained, Dense, Moist
34							(CL) SANDY CLAY - Brown, Fine Grained, Hard, Very Moist
34							(CL) SILTY CLAY - Gray/Brown, Hard, Dry
40	112	18					Grades Red/Brown
56	88	22					Grades w/Fine Sand, Moist
56	88	22					(CL) SANDY CLAY - Brown, Fine Grained, Hard, Moist
56	88	22					END OF BORING

KLEINFELDER DETENTION BASIN NO.2
SJAFC
STOCKTON, CALIFORNIA
LOG OF BORING B-305

PROJECT NO. 20-3712-04

PLATE 1 of 1

F-7

Date Completed: 3/12/96 Surface Conditions: Alfalfa field.
Logged By: SP Groundwater: Groundwater not encountered.
Total Depth: 30 feet

Depth (ft)	LABORATORY						DESCRIPTION
	Sample	Blow/ft	Dry Density (pcf)	Moisture Content (%)	Compress. Strength (pcf)	Pen (pcf)	
45	100	18					(CL) SILTY CLAY - Black, Stiff, Moist
70	115	9					(CL) SANDY SILTY CLAY - Light Brown, Fine Grained, Hard, Dry
49							Grades Cemented
49							(ML) SANDY SILT - Gray, Very Fine Grained, Dense, Moist
63	109	16					Grades Red/Gray
59	92	24					(ML) CLAYEY SILT - Brown Hard, Very Fine Grained Moist
59	92	24					Grades w/Fine Grained Sand
59	92	24					END OF BORING

KLEINFELDER DETENTION BASIN NO.2
SJAFC
STOCKTON, CALIFORNIA
LOG OF BORING B-306

PROJECT NO. 20-3712-04

PLATE 1 of 1

F-8

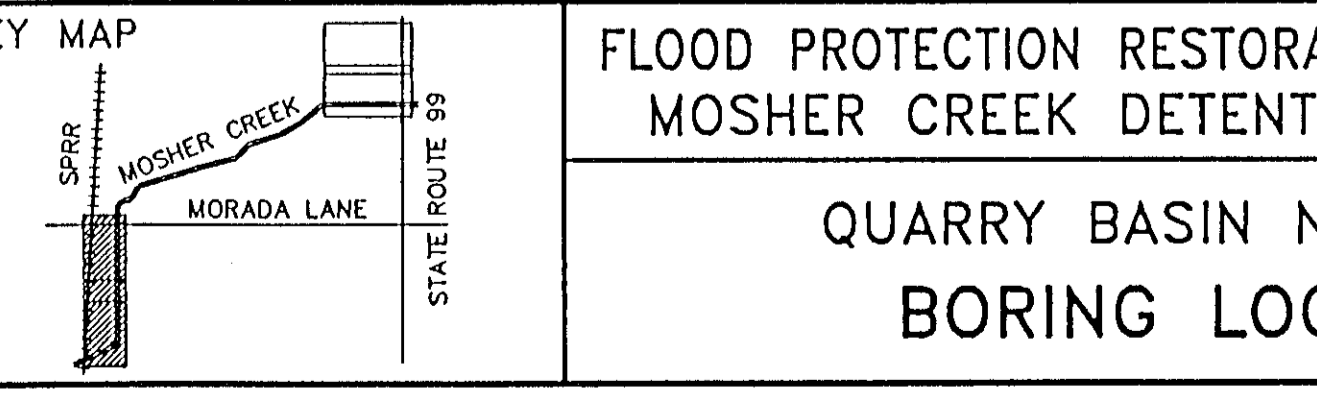
HDR Engineering, Inc.
5175 Hilldale Circle
El Dorado Hills, CA 95762
(916) 939-4100

KSN INC.
Consulting Engineers and Land Surveyors
Post Office Box 844
1113 W. Fremont Street
Stockton, CA 95201-0844
(209) 946-0268

Job No. 1375-144
Plan No. E-1960

Bar Length on Original Drawing Equals One Inch. Adjust Scale Accordingly.

No.	DATE	APVD.	REVISION



FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS

QUARRY BASIN NO. 2
BORING LOGS

SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN

SCALE: N/A
DESIGNED BY: DGR
DRAWN BY: JDK
CHECKED BY: CHN
RECORD DWG.:
DATE: 6/13/96

CHECKED BY: DATE: 6/13/96
HARRISON ENGINEERING

SHEET 33 OF 34 SHEETS

RECORD DRAWINGS
See Sheet 1

Date Completed: 3/19/96		Surface Conditions: Alfalfa field.			
Logged By: SP		Groundwater: Groundwater not encountered.			
Total Depth: 30 feet					
Depth (ft)	FIELD		LABORATORY		DESCRIPTION
	Sample	Blow/ft	Dry Density (pcf)	Moisture Content (%)	
13	94	27			(CL) SILTY CLAY - Black, Stiff, Moist
5	65				(CL) SILTY CLAY - Brown, Very Stiff, Moist
					Grades Hard
10	29	103	22		(CL) SANDY CLAY - Brown, Fine Grained, Hard, Moist
					(ML) CLAYEY SILT - Gray, Very Stiff, Moist
15	40				(CL) SANDY SILTY CLAY - Brownish/Red, Very Fine Grained, Hard, Moist
					LL = 28 PI = 10
20	40	99	18		(ML) SANDY SILT - Light Brown, Fine Grained, Very Dense, Dry
					(CL) SILTY CLAY - Brown, Hard, Moist
25					
30					
35					END OF BORING
KLEINFELDER		DETENTION BASIN NO.2 SJAFCA STOCKTON, CALIFORNIA LOG OF BORING B-307		PLATE 1 of 1 F-9	
PROJECT NO. 20-3712-04					

Date Completed: 3/19/96		Surface Conditions: Alfalfa field.			
Logged By: SP		Groundwater: Groundwater not encountered.			
Total Depth: 30 feet					
Depth (ft)	FIELD		LABORATORY		DESCRIPTION
	Sample	Blow/ft	Dry Density (pcf)	Moisture Content (%)	
13					(CL) SILTY CLAY - Black, Stiff, Very Moist
5	21	102	14		(SM) SANDY SILT - Brown, Very Fine Grained, Medium Dense, Moist
					LL = 20 PI = 4
10	52				(SC) CLAYEY SAND - Brown, Fine Grained, Medium Dense, Moist
					(CL) SILTY CLAY - Brown, Hard, Moist
15	30	101	16		(SC) CLAYEY SAND - Red/Brown, Fine Grained, Dense, Moist
					LL = 28 PI = 10
20	74				(CL) SANDY SILTY CLAY - Brown w/Red, Fine Grained, Hard, Moist
					(CL) SILTY CLAY - Light Brown, Hard, Moist
25					(CL) SANDY CLAY - Light Brown, Fine Grained, Hard, Moist
30					
35					END OF BORING
KLEINFELDER		DETENTION BASIN NO.2 SJAFCA STOCKTON, CALIFORNIA LOG OF BORING B-308		PLATE 1 of 1 F-10	
PROJECT NO. 20-3712-04					

Date Completed: 3/19/96		Surface Conditions: Alfalfa field.			
Logged By: SP		Groundwater: Groundwater not encountered.			
Total Depth: 30 feet					
Depth (ft)	FIELD		LABORATORY		DESCRIPTION
	Sample	Blow/ft	Dry Density (pcf)	Moisture Content (%)	
18	107	19			(CL) SILTY CLAY - Black, Stiff, Moist
					(CL) CLAYEY SILT - Brown, Very Stiff, Moist
5	44	115	14		Grades w/Fine Sand, Hard
					LL = 20 PI = 5
10	24				(ML) CLAYEY SILT - Gray, Very Stiff, Very Moist
15	25	109	15		(ML) SANDY SILT - Brown, Fine Grained, Medium Dense, Moist
					-#200 = 32% LL = 21 PI = 3
20	36	98	26		(CL) SILTY CLAY - Brown, Hard, Moist
					Grades Red/Brown
25					
30					
35					END OF BORING
KLEINFELDER		DETENTION BASIN NO.2 SJAFCA STOCKTON, CALIFORNIA LOG OF BORING B-309		PLATE 1 of 1 F-11	
PROJECT NO. 20-3712-04					

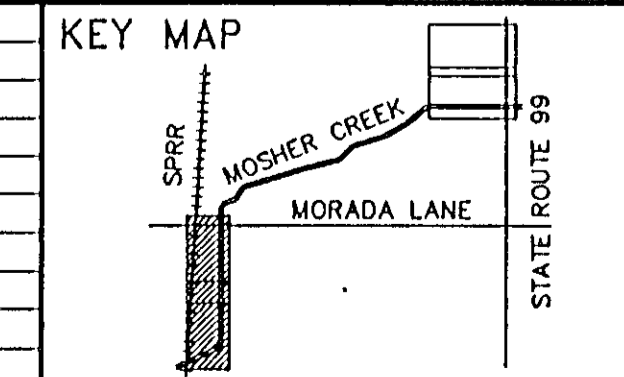
RECORD DRAWINGS
See Sheet 1

HDR
HDR Engineering, Inc.
5175 Hilldale Circle
El Dorado Hills, CA 95762
(916) 939-4100

KSN
KJELSDEN
SINNOCK
NEUDECK
INC.
Consulting Engineers
and Land Surveyors
Post Office Box 844
1113 W. Fremont Street
Stockton, CA 95201-0844
(209) 946-0268

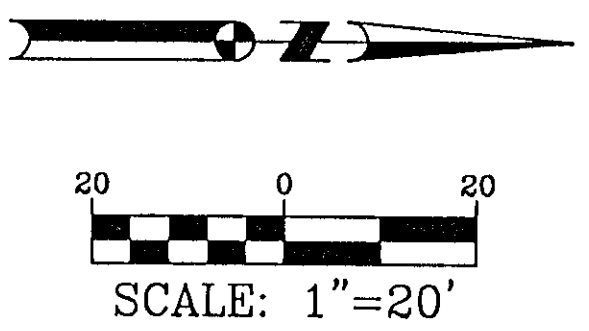
Job No. 1375-144
Plan No. E-1960

No.	DATE	APVD.	REVISION

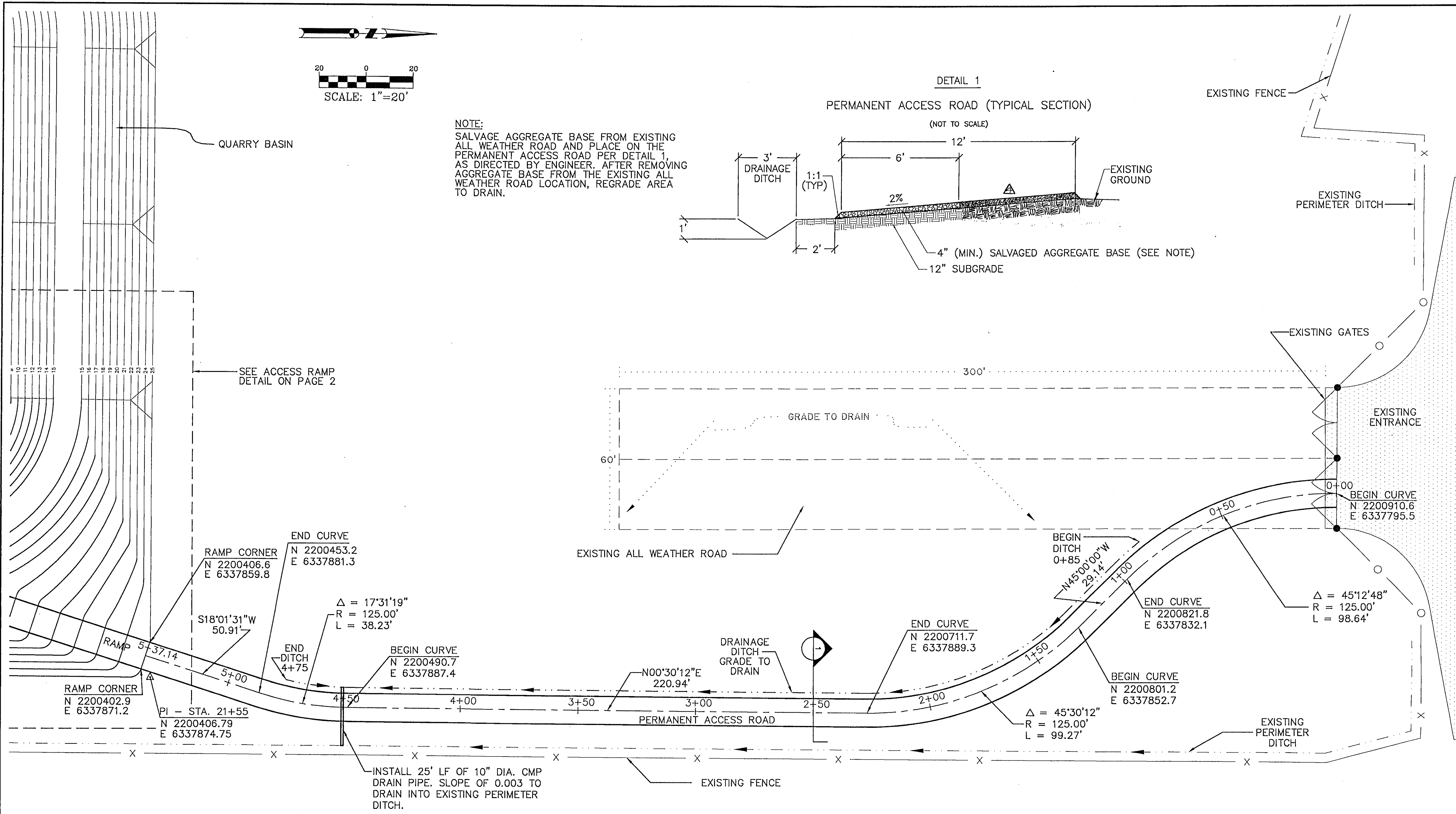
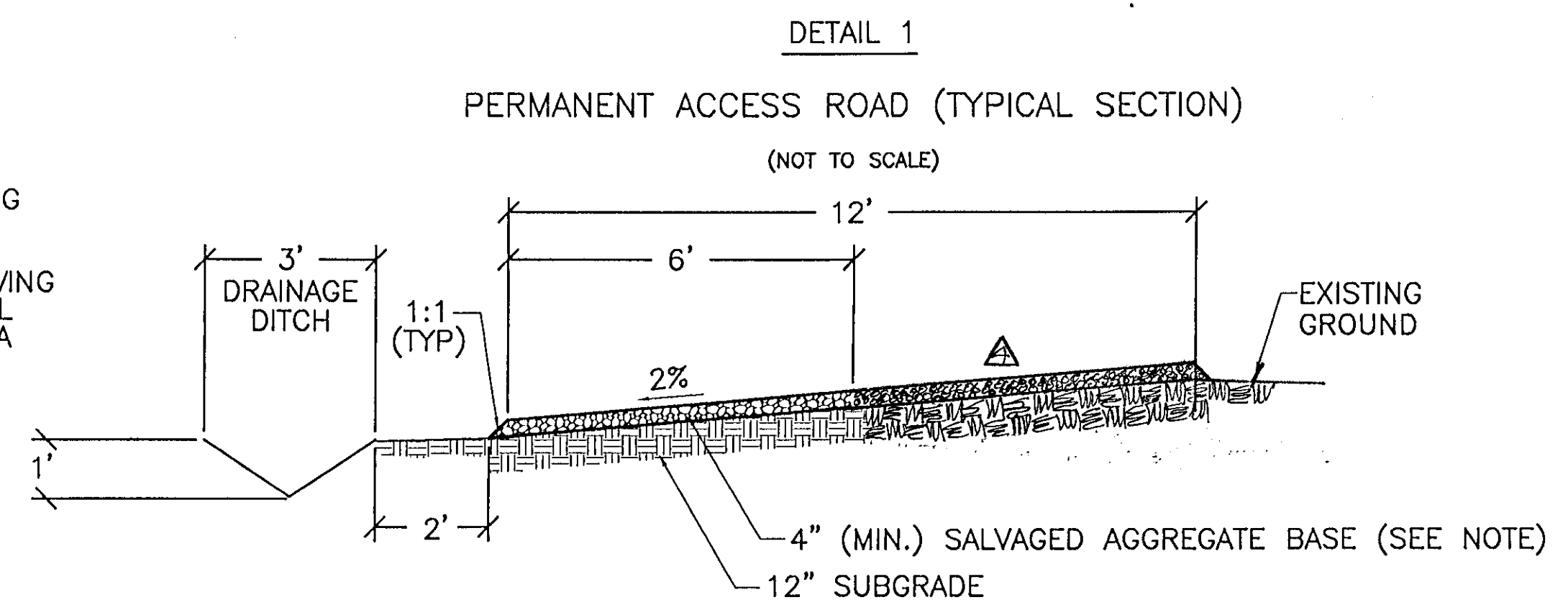


FLOOD PROTECTION RESTORATION PROJECT
MOSHER CREEK DETENTION BASINS
QUARRY BASIN NO. 2
BORING LOGS

SAN JOAQUIN AREA FLOOD CONTROL AGENCY
CITY OF STOCKTON - COUNTY OF SAN JOAQUIN
SCALE: N/A
DESIGNED BY: DGR
DRAWN BY: JDK
CHECKED BY: CHN
RECORD DWG.:
DATE: 6/13/96
CHECKED BY: DATE: 6/13/96
HANSON ENGINEERING
SHEET NO. 34
OF SHEETS 34
JOB NO. SHEETS



NOTE:
SALVAGE AGGREGATE BASE FROM EXISTING ALL WEATHER ROAD AND PLACE ON THE PERMANENT ACCESS ROAD PER DETAIL 1, AS DIRECTED BY ENGINEER. AFTER REMOVING AGGREGATE BASE FROM THE EXISTING ALL WEATHER ROAD LOCATION, REGRADE AREA TO DRAIN.



NOTE: THIS PLAN IS A REVISION TO THE FINAL GRADING PLAN, SHEET 10 OF 34, QUARRY BASINS PLANS.

RECORD DRAWINGS
See Sheet 1

 271 Turn Pike Drive Folsom, CA 95630 (916) 351-3833	 KJELSDEN SINNOCK NEUDECK Consulting Engineers and Land Surveyors Post Office Box 844 1113 W. Fremont Street Stockton, CA 95201-0844 (209) 946-0268		Job No. 1375-144 Plan No. E-2021	No. DATE APVD. 399 RECORDED CHANGES	KEY MAP 	FLOOD PROTECTION RESTORATION PROJECT MOSHER CREEK DETENTION BASINS QUARRY BASIN NO. 2 ACCESS ROAD	SAN JOAQUIN AREA FLOOD CONTROL AGENCY CITY OF STOCKTON - COUNTY OF SAN JOAQUIN SCALE: 1"=20' DESIGNED BY: DGR DRAWN BY: BAS CHECKED BY: CHN RECORD DWG.: DATE: 10/1/96	CHECKED BY: DATE: 11/4/96 HANSON ENGINEERING	SHEET NO. 34A OF SHEETS JOB NO. SHEETS
			Job No. 1375-144 Plan No. E-2021	No. DATE APVD. 399 RECORDED CHANGES	KEY MAP 	FLOOD PROTECTION RESTORATION PROJECT MOSHER CREEK DETENTION BASINS QUARRY BASIN NO. 2 ACCESS ROAD	SAN JOAQUIN AREA FLOOD CONTROL AGENCY CITY OF STOCKTON - COUNTY OF SAN JOAQUIN SCALE: 1"=20' DESIGNED BY: DGR DRAWN BY: BAS CHECKED BY: CHN RECORD DWG.: DATE: 10/1/96	CHECKED BY: DATE: 11/4/96 HANSON ENGINEERING	SHEET NO. 34A OF SHEETS JOB NO. SHEETS

