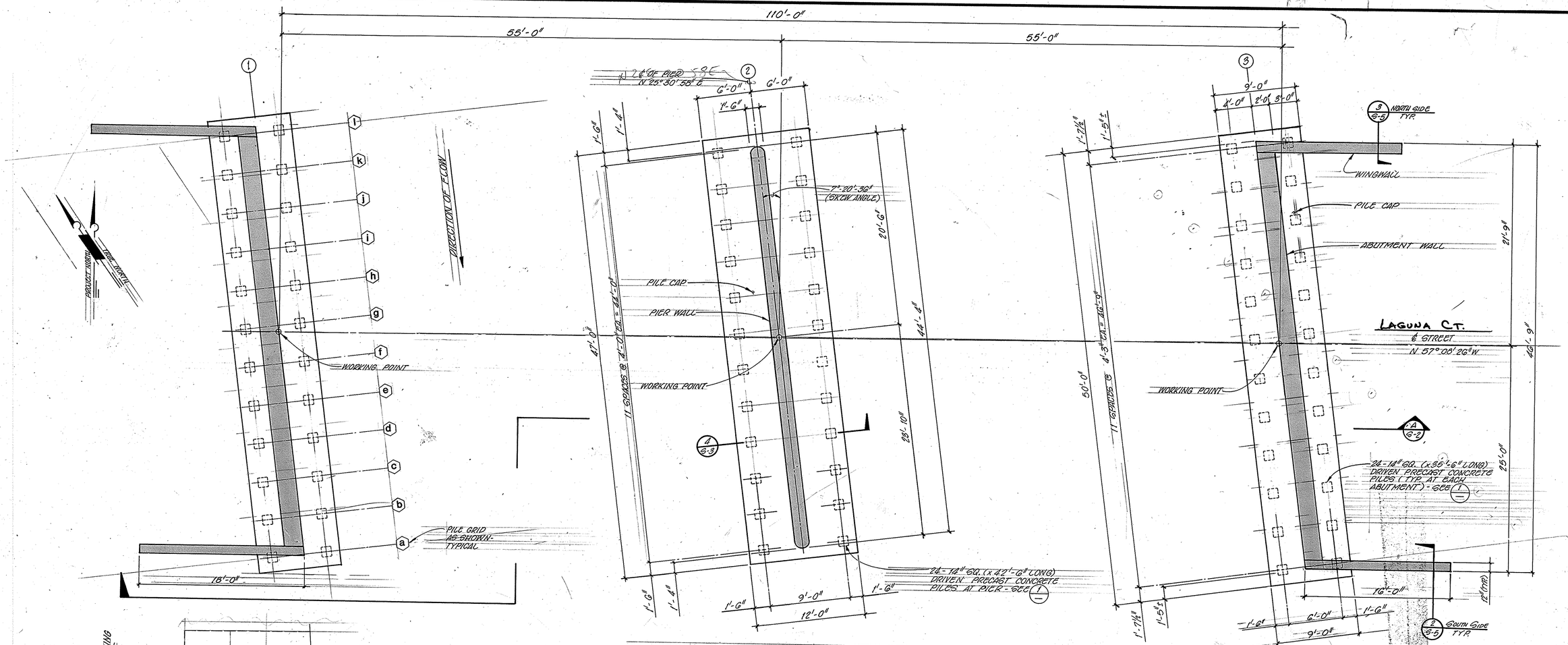
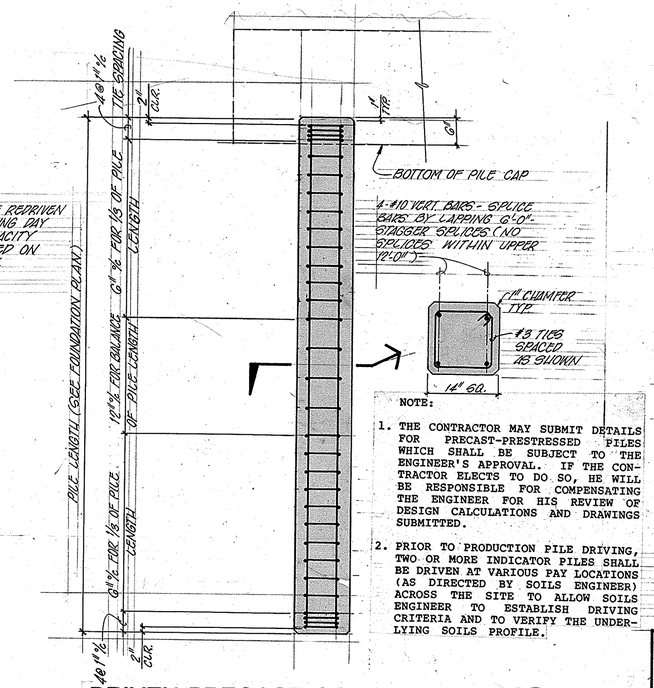


FOUNDATION PLAN

3/16" = 1'-0"



NOTE:
PILES SHALL BE REDRIVEN ON THE FOLLOWING DAY IF DESIGN CAPACITY IS NOT ATTAINED ON THE FIRST DAY.

NOTE:

1. THE CONTRACTOR MAY SUBMIT DETAILS FOR PRECAST-PRESTRESSED PILES WHICH SHALL BE SUBJECT TO THE ENGINEER'S APPROVAL. IF THE CONTRACTOR ELECTS TO DO SO, HE WILL BE RESPONSIBLE FOR COMPENSATING THE ENGINEER FOR HIS REVIEW OF DESIGN CALCULATIONS AND DRAWINGS SUBMITTED.
2. PRIOR TO PRODUCTION PILE DRIVING, TWO OR MORE INDICATOR PILES SHALL BE DRIVEN AT VARIOUS PAY LOCATIONS (AS DIRECTED BY SOILS ENGINEER) ACROSS THE SITE TO ALLOW SOILS ENGINEER TO ESTABLISH DRIVING CRITERIA AND TO VERIFY THE UNDERLYING SOILS PROFILE.

DRIVEN PRECAST CONCRETE PILE 1/—

NOT TO SCALE

As-Built Cut-off and Tip Elevation for Precast Driven Piles

Location	Side of Pile Cap		a	b	c	d	e	f	g	h	i	j	k	l
West Abutment (Line 1)	West	Tip Elev.												
	East	Cut-off Elev.												
Pier (Line 2)	West	Tip Elev.												
	East	Cut-off Elev.												
East Abutment (Line 3)	West	Tip Elev.												
	East	Cut-off Elev.												

ESTIMATED BRIDGE QUANTITIES

ITEM	QUANTITY		ITEM	QUANTITY	
MOBILIZATION		L.S.	PRECAST CONCRETE GIRDERS PRESTRESSED	12	EA.
CLEARING AND GRUBBING		L.S.	STRUCTURAL CONCRETE: BRIDGE	112	C.Y.
DEVELOP WATER SUPPLY		L.S.	JOINT SEAL	94	L.F.
STRUCTURAL EXCAVATION AND BACKFILL	1,866	C.Y.	REINFORCING STEEL	80,200	LBS.
PRECAST STRUCTURAL PILES	2,724	L.F.	VERTICAL RESTRAINER UNITS	4	EA.
STRUCTURAL CONCRETE; PILE CAPS, PIER, ABUMENTS, AND WING WALLS	272	C.Y.	RAILING	258	L.F.
			GRAVEL BLANKET	38	TONS

GENERAL STRUCTURAL NOTES:

THESE NOTES SHALL APPLY UNLESS SHOWN OTHERWISE ON PLANS

1. DESIGN SPECIFICATION: AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, TWELFTH EDITION (DATED 1977) AND ALL SUBSEQUENT INTERIM SPECIFICATIONS THROUGH 1981. SEISMIC DESIGN BASED ON 1983 CALTRANS CRITERIA AND RECOMMENDATIONS BY IRVINE SOILS ENGINEERING, INC.
2. CONSTRUCTION SPECIFICATIONS: CALTRANS STANDARD SPECIFICATIONS (DATED JANUARY, 1981) AND THE SPECIAL PROVISIONS.
3. DESIGN LOADING: A.A.S.H.T.O. HS20-44 AND CALTRANS P-13 LOADING (BY U.S.D.).
4. CONCRETE: (a) POURED-IN-PLACE DECK, $f'c$=4000 PSI ULTIMATE COMPRESSIVE STRENGTH AT 28 DAYS (CLASS D), (b) ALL OTHER BURIED-IN-PLACE ITEMS, $f'c$= 3250 PSI ULTIMATE COMPRESSIVE STRENGTH AT 28 DAYS (CLASS A), (c) PRESTRESSED I GIRDERS, SEE NOTES ON SHEET S-6.
5. REINFORCEMENT: ALL REINFORCING BARS SHALL BE DEFORMED BILLET STEEL, CONFORMING TO ASTM A-615, GRADE 60. BAR HOOKS AND BENDS SHALL CONFORM TO THE A.C.I. MANUAL OF STANDARD PRACTICES. BARS SPECIFIED AS "CONTINUOUS" SHALL EXTEND THE FULL LENGTH OF THE MEMBER CONTAINING THEM AND MAY BE SPLICED (UNLESS NOTED OR SHOWN WITHOUT SPLICES ON PLANS) BY LAPPING #8 AND SMALLER BARS AS DIAMETERS (OF THE SMALLER BAR JOINED) AND FOR #9, #10, AND #11 BARS, 60 DIAMETERS. SPLICES SHALL BE STAGGERED IN ACCORDANCE WITH THE JOB SPECIFICATIONS.
6. MINIMUM CONCRETE COVER FOR REINFORCING BARS SHALL BE AS FOLLOWS:

CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	
CONCRETE EXPOSED TO EARTH OR WEATHER	3"
PRIMARY REINFORCEMENT	2"
STIRRUPS, TIES, AND SPIRALS	1-1/2"
CONCRETE BRIDGE SLABS	
TOP REINFORCEMENT	2"
BOTTOM REINFORCEMENT	1"

7. CONSTRUCTION JOINTS: NO CONSTRUCTION JOINT SHALL BE USED, EXCEPT BY PERMISSION OF THE ENGINEER, OR AS SHOWN ON THE PLANS.
8. CHAMFER ALL EXPOSED CONCRETE EDGES ONE INCH.
9. FOUNDATIONS: FOR ALLOWABLE VALUES AND RECOMMENDATIONS, SEE SOILS REPORT BY IRVINE SOILS ENGINEERING, INC., JOB NO. 2021-08 (DATED JANUARY 24, 1984) AND ADDENDUM (DATED MARCH 2, 1984). SOILS REPORT SHALL BE CONSIDERED A PART OF THE CONSTRUCTION DOCUMENTS AND IS AVAILABLE FOR REVIEW AT THE OFFICE OF THE ENGINEER.
10. DESIGN PILE CAPACITIES:

AT PIER

52^K EACH (VERTICAL) FOR DEAD PLUS LIVE LOADING WITH SCOUR LINE ASSUMED AT 6' BELOW PILE CAP.

87^K EACH (VERTICAL) AND 11^K EACH (LATERAL) FOR DEAD LOAD PLUS SEISMIC LOADING WITH SCOUR LINE ASSUMED AT BOTTOM OF PILE CAP.

54^K EACH (VERTICAL) AND 12^K EACH (LATERAL) FOR DEAD LOAD PLUS LIVE LOADING WITH NO SCOUR.

43^K EACH (VERTICAL) FOR DEAD LOAD ONLY AND SCOUR AT 6.5' BELOW BOTTOM OF PILE CAP.

PILE (FT. - KIPS) IS (5.2) x (LATERAL LOAD IN KIPS).

LAGUNA CT. BRIDGE
OVER ALISO CREEK
1984

ASL Consulting Engineers
SE 2197
PASADENA (213)/(818) 792-3095
SANTA ANA (714) 979-1761
PALM SPRINGS (619) 320-4200

DESIGNED BY D.E.W.	CHECKED BY Z.G.A.	SCALE AS SHOWN	FILE NO. 1122.1
DRAWN BY V.M.R.	DATE 2-84		

DATE	BY	REVISION DESCRIPTION	APP'D	DATE	DES.
					CKD.

ALICIA CREEK BRIDGE

FOUNDATION PLAN STRUCTURAL NOTES

TRACT NO. 12091

SHEET S1 OF