

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SF, Ala	80	8.6/8.9, 0.0/1.2	25	142

Yong Pil Kim 03-20-14
 REGISTERED CIVIL ENGINEER DATE

06-09-14
 PLANS APPROVAL DATE

YONG PIL KIM
 No. C48365
 Exp. 06-30-16
 CIVIL
 STATE OF CALIFORNIA

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GENERAL DEMOLITION NOTES

1. Design Specifications:

AASHTO "The Manual for Bridge Evaluation, 2011" and these General Demolition Notes. When a conflict occurs, these notes shall govern. The analysis and demolition sequence of the existing Bridge shall be based on Allowable Stress Design (ASD) and operating level only.

3

2. Wind Load:

See Details on "WIND LOADS ON 288 FT SPANS" sheet, "WIND LOADS ON 504 FT SPANS" sheet and "WIND LOADS ON PIERS, 504 FT AND 288 FT SPANS" sheet.

3. Existing Structural Steel (ksi):

Steel Type	Nickel	Carbon		Silicon	Heat Treated
		Medium	Mild		
Min. Fu	90	62	55	80	80
Min. Fy	55	37	30	45	50

For eye bars, allowable tension shall not exceed 0.6F_y on gross section nor 0.5F_u on net section.

Where the material is not otherwise specifically designated on as-built plans, Medium Carbon Steel was used.

4. Existing Connections:

a. Existing Rivets (ksi):

Shear:

Carbon Steel Rivet Allowable = 15
 Manganese Steel Rivet Allowable = 20

Bearing:

Carbon Steel Rivet Allowable = 30
 Manganese Steel Rivet Allowable:
 For Carbon Steel = 30
 For Silicon Steel = 38
 For Nickel Steel = 45

b. Existing Bolts: ASTM A325

5. Existing Reinforced Concrete (ksi):

Concrete: f'_c = 3

Reinforcing Steel:

f_y = 33 (Original light weight upper deck)
 f_y = 60 (Reconstructed lower deck)

6. For material not listed, refer to original document "SAN FRANCISCO - OAKLAND BAY BRIDGE, Notice to Contractors, Contract and Specifications, Proposal and Contractors Bonds, Contract No. 7 SUPERSTRUCTURE - EAST BAY CROSSING" and previous reconstruction as-built plans.

7. Adequate strength and stability of the structure or partially demolished structure shall be maintained throughout the demolition process. Depending on demolition sequence and equipment used, existing structure members and connections may require strengthening and / or supplemental bracing.

8. Locked-in forces in members due to previous erection sequence shall be considered in dismantling procedures. Members under stress shall be unloaded to a level that will not result in a sudden redistribution of member forces or excessive displacement.

9. Live Load Impact Factors:

Normal construction equipment shall have a 30% impact factor applied, while equipment such as ram hoes that are subject to vibration shall have 50% impact factor. An impact factor of 100% shall be applied to the pick weight of cranes if the pick weight is lowered down to a barge, otherwise an impact factor of 30% shall be used. For any Truss Span lowering system, apply a 100% impact factor to the weight of the Truss Span following disconnection from the Supports.

10. For thermal forces, a temperature difference of plus or minus 30 degrees Fahrenheit from ambient temperature of 60 degrees Fahrenheit shall be considered.

11. Load Combinations:

The following load combinations shall be used.

FACTORS FOR SERVICE LOAD DESIGN

GROUP	GAMMA FACTOR	BETA FACTORS												
		D	L+I	CF	E	B	SF	W	WL	LF	P _s	R+S+T	ICE	EL
I	1.0	1	1	0	0	0	0	0	0	0	1	0	0	1
II	1.0	1	0	0	0	0	0	1	0	0	1	0	0	1
III	1.0	1	1	0	0	0	0	0.3	1	1	1	0	0	1
IV	1.0	1	1	0	0	0	0	0	0	0	1	1	0	1
V	1.0	1	0	0	0	0	0	1	0	0	1	1	0	1
VI	1.0	1	1	0	0	0	0	0.3	1	1	1	1	0	1

L: Construction live loads consist of two components: 1) actual weights of equipment such as cranes, manlifts, excavators, dump trucks, and 2) a distributed load of 10 psf on deck surfaces to account for miscellaneous minor items.

EL: locked-in forces due to erection sequence used to construct bridge.

1

12. Datum:

Elevations shown are based on NGVD 1929, unless shown otherwise.

1

13.

APPROXIMATE TIDAL SUMMARY (BASED ON MLLW = 0)	
TIDE LEVEL	ELEVATION (ft)
Highest Observed Water Level (EHW)	8.6
Mean Higher High Water (MHHW)	6.2
Mean Tide Level (MTL)	3.4
NGVD 1929	2.6
Mean Lower Low Water (MLLW)	0
Lowest Observed Water Level (ELW)	-2.0

Contractor shall verify tidal elevations prior to beginning work.

1

14. Coordinates, distances, and bearings are based on 1933 as-built plans.

3 REPLACED PER ADDENDUM No. 3 DATED DECEMBER 29, 2014

1 REPLACED PER ADDENDUM No. 1 DATED OCTOBER 28, 2014

NOTE:
 THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGN		BY Yong Pil Kim	CHECKED Mary Beall	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 8	BRIDGE NO.	SAN FRANCISCO-OAKLAND BAY BRIDGE EAST SPAN SEISMIC SAFETY PROJECT 504' AND 288' SPANS DEMOLITION GENERAL NOTES
DETAILS		BY Carlo Cancino	CHECKED Mary Beall			33-0025	
QUANTITIES		BY Yong Pil Kim	CHECKED Mary Beall			POST MILE 8.6/1.2	

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3 UNIT: 3593 PROJECT NUMBER & PHASE: 0412000608, 1 CONTRACT NO.: 04-013521 DISREGARD PRINTS BEARING EARLIER REVISION DATES 10-29-12 01-14-13 SHEET 3 OF 120

3 REPLACED PER ADDENDUM No. 3
DATED DECEMBER 29, 2014

1 REPLACED PER ADDENDUM No. 1
DATED OCTOBER 28, 2014

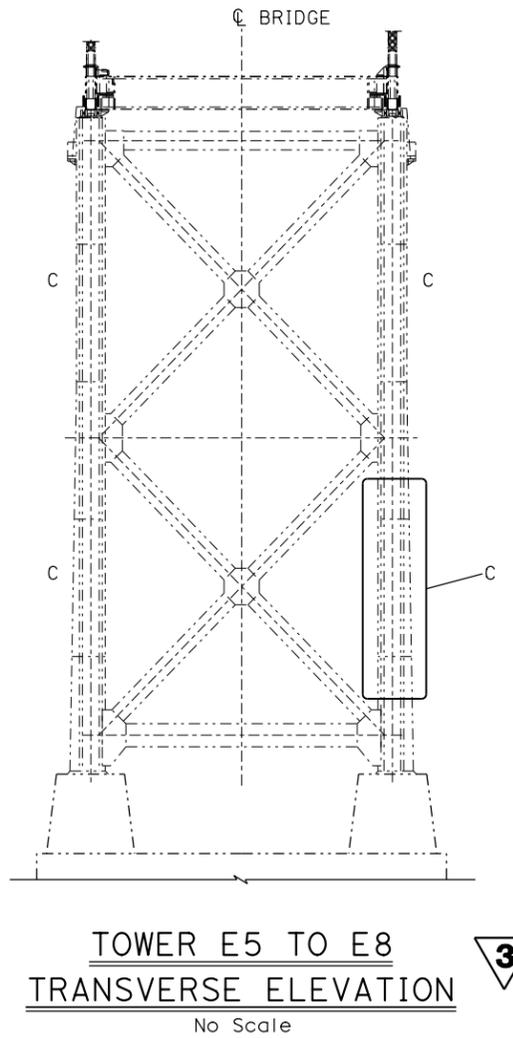
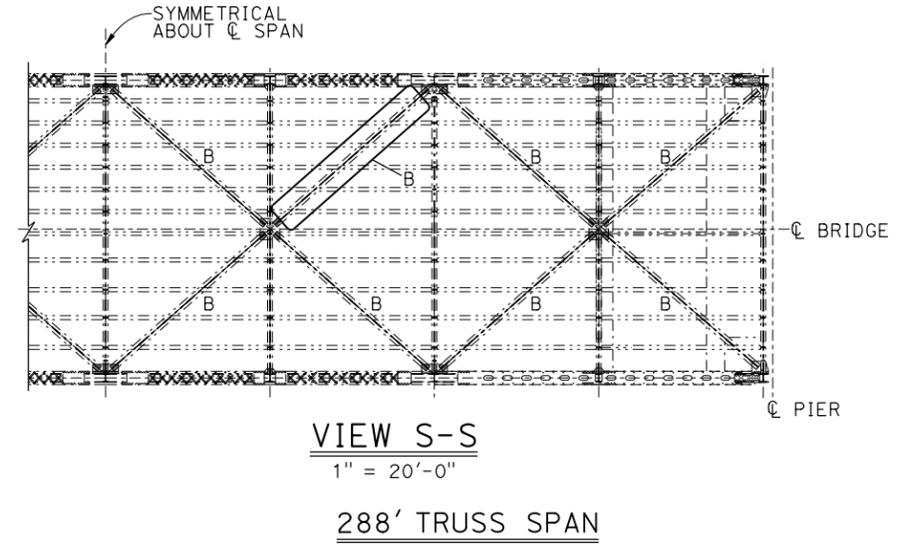
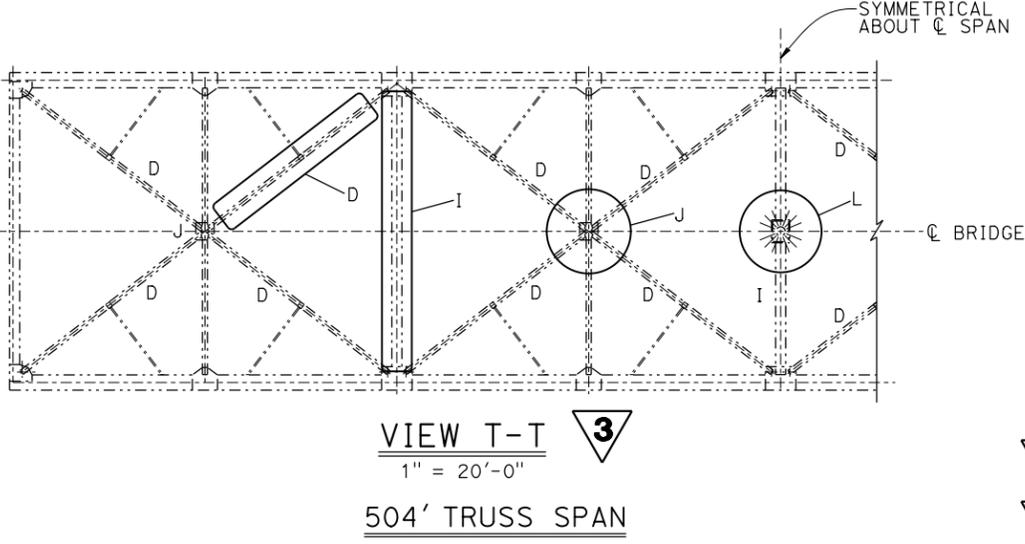
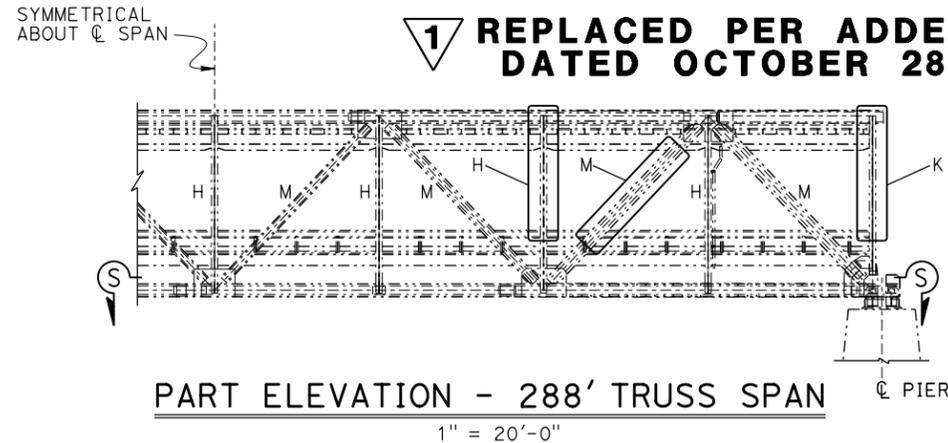
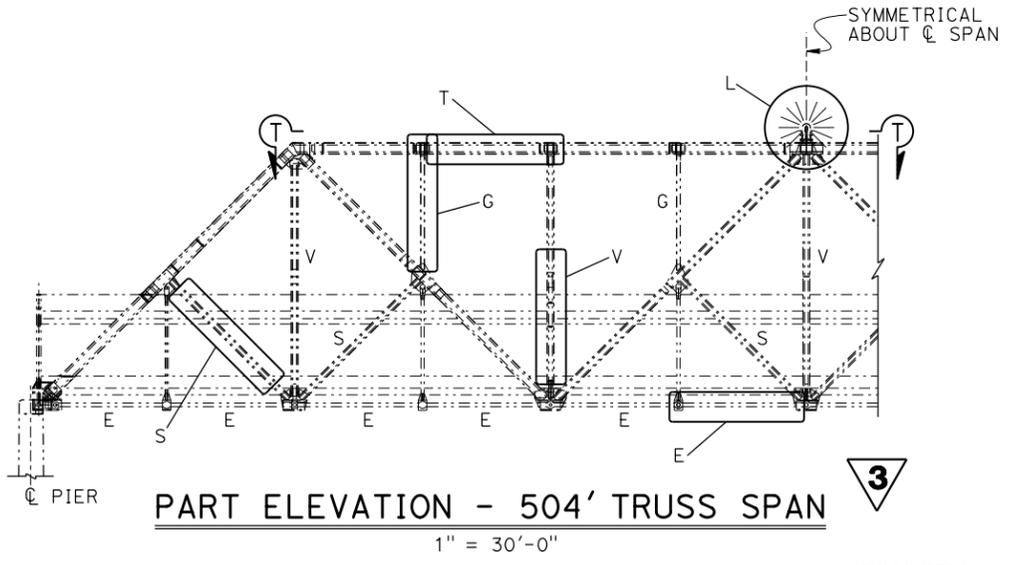


TABLE OF BRIDGE ELEMENTS TO BE SALVAGED - GROUPS A, B & C

LEGEND	DESCRIPTION OF THE ELEMENT	LENGTH (ft)	NO. OF UNITS		
			GROUP A	GROUP B	GROUP C
L *	Warning light and platform	N/A	2	3	0
T *	Top chord with manhole unit	30'±	2	6	0
V *	Vertical Strut	30'±	5	30	0
J *	Top Joint Knuckle	5' radius	5	16	0
D *	Top Diagonal Brace	40'±	50	30	0
S *	Side Diagonal Truss Member	40'±	10	20	0
C *	Pier Column	30'±	4	0	0
E ▲	Eye Bar	20'±	0	32*	10
G *	Vertical Truss Member	20'±	0	30	0
I *	Top Horizontal Brace	40'±	0	10	0
- *	Rivets (1" min shank)	N/A	1000	1000	0

TABLE OF BRIDGE ELEMENTS TO BE SALVAGED - GROUPS B & C

LEGEND	DESCRIPTION OF THE ELEMENT	LENGTH (ft)	NO. OF UNITS	
			GROUP B	GROUP C
H	Inner vertical truss member	20'±	0	4
M	Side diagonal truss member	20'±	0	4
K	End vertical truss member	20'±	10*	4
B	Bottom diagonal bracing	20'±	0	4

- 1** NOTES:
- Bridge elements indicated with bubbles and legends are typical of each type. Potential salvageable elements are marked with respective legends.
 - Group A : Cleaned and delivered to Gateway Park Group.
Group B : Cleaned and stored for Oakland Museum of CA Group.
Group C : Saved as is, without cleaning for Caltrans Toll Bridge Maintenance Group.
- LEGEND:
- Indicates existing
 - ▲ One eyelet to remain with the member.
 - * Denotes bridge elements to be blast cleaned.

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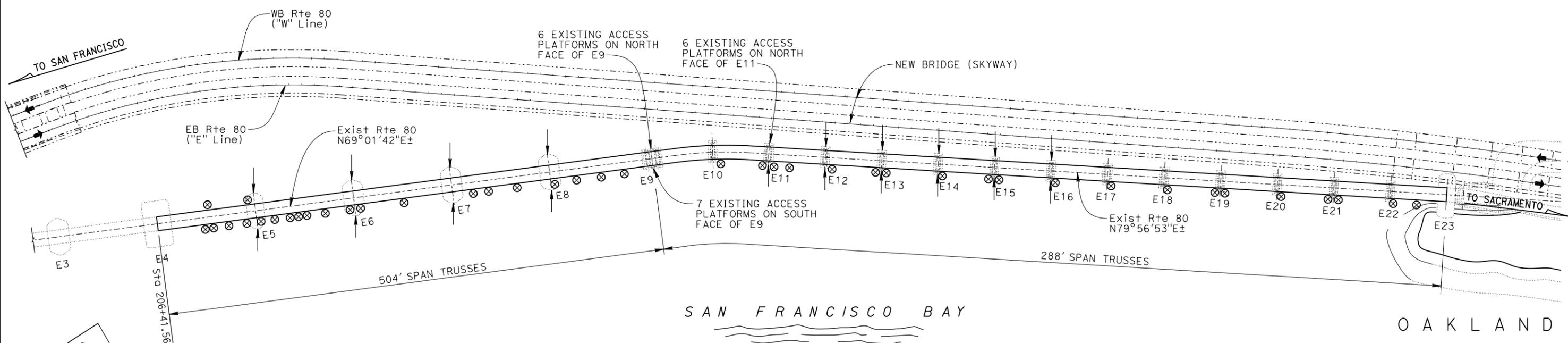
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SF,Ala	80	8.6/8.9 0.0/1.2	142A	142

Y.P. Kim 09-16-14
 REGISTERED CIVIL ENGINEER DATE
 06-09-14
 PLANS APPROVAL DATE
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 Exp. 06-30-16
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APPROXIMATE AREAS OF BIRD SPIKE INSTALLATION

STRUCTURE	JOINT/MEMBER	AREA (SQ. FT.)
SFOBB 504 FT TRUSS	JOINTS U2	160
	JOINTS U3	180
	JOINTS U4	320
	JOINTS U5	180
	JOINTS U6	160
	UPPER LATERAL BRACING JOINTS	300
PORTAL FRAME TOP JOINTS		255
	PORTAL FRAME MID JOINTS	90
PIER E9 LONGITUDINAL	JOINTS A	36
	JOINTS B	16
	MEMBER C	88
	MEMBER D	58
	JOINTS E	156
PIER E9 TRANSVERSE	JOINTS F	28
TOWER E4		44
TOWER E5, E6, E7, E8		80
TOWER E10 THRU E16		112
TOWER E17 THRU E22		N/A
BENT E23		90

- LEGEND:
- Indicates existing
 - Indicates removal
 - Indicates removed by others
 - = 1 Tower Leg Existing Access Platform
 - ⊗ = 1 Superstructure Existing Access Platform



PLAN - LOCATION OF EXISTING ACCESS PLATFORMS
1" = 250'

NOTE:
Existing access platforms shall be removed or covered with installed bird spikes

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3 ADDED PER ADDENDUM No. 3 DATED DECEMBER 29, 2014

DESIGN BY Yong Pil Kim CHECKED Nora Kyo DETAILS BY Carlo Cancino CHECKED Nora Kyo QUANTITIES BY Yong Pil Kim CHECKED Nora Kyo	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 8	BRIDGE NO. 33-0025	SAN FRANCISCO-OAKLAND BAY BRIDGE EAST SPAN SEISMIC SAFETY PROJECT 504' AND 288' SPANS DEMOLITION BIRD DETERRENT SYSTEM DETAILS NO. 1
			POST MILE 8.6/1.2	
			UNIT: 3593 PROJECT NUMBER & PHASE: 0412000608, 1 CONTRACT NO.: 04-013521	
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)			REVISION DATES	SHEET OF 120 120

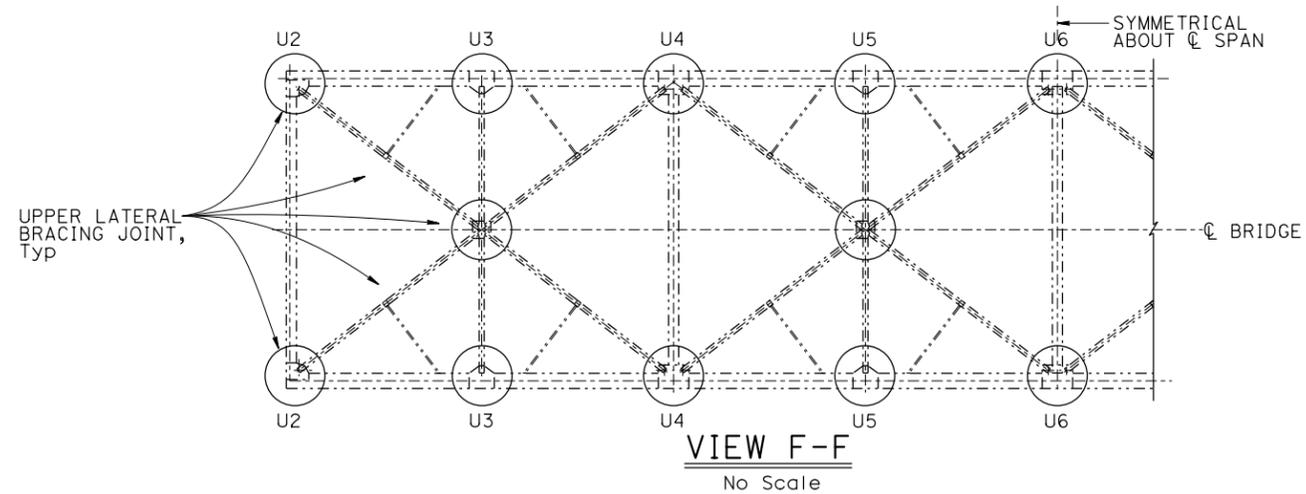
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

DISREGARD PRINTS BEARING EARLIER REVISION DATES

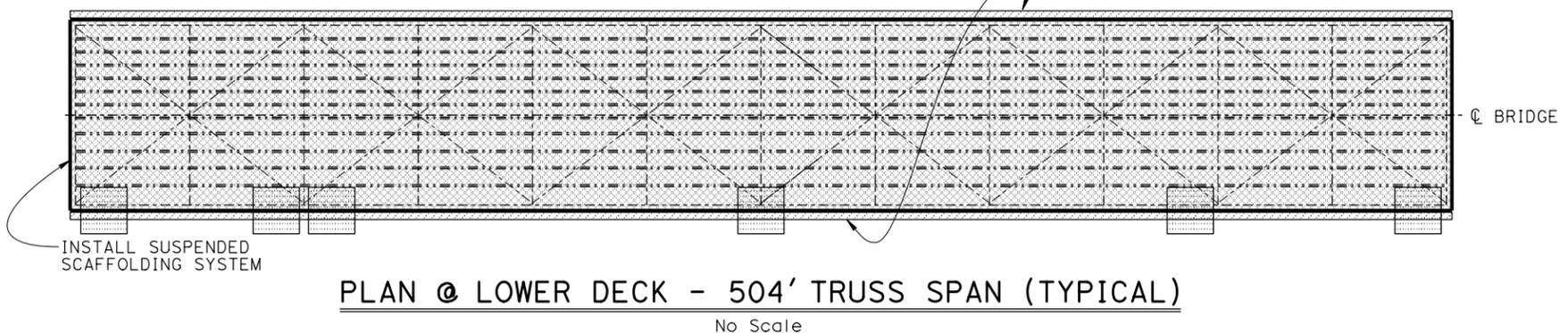
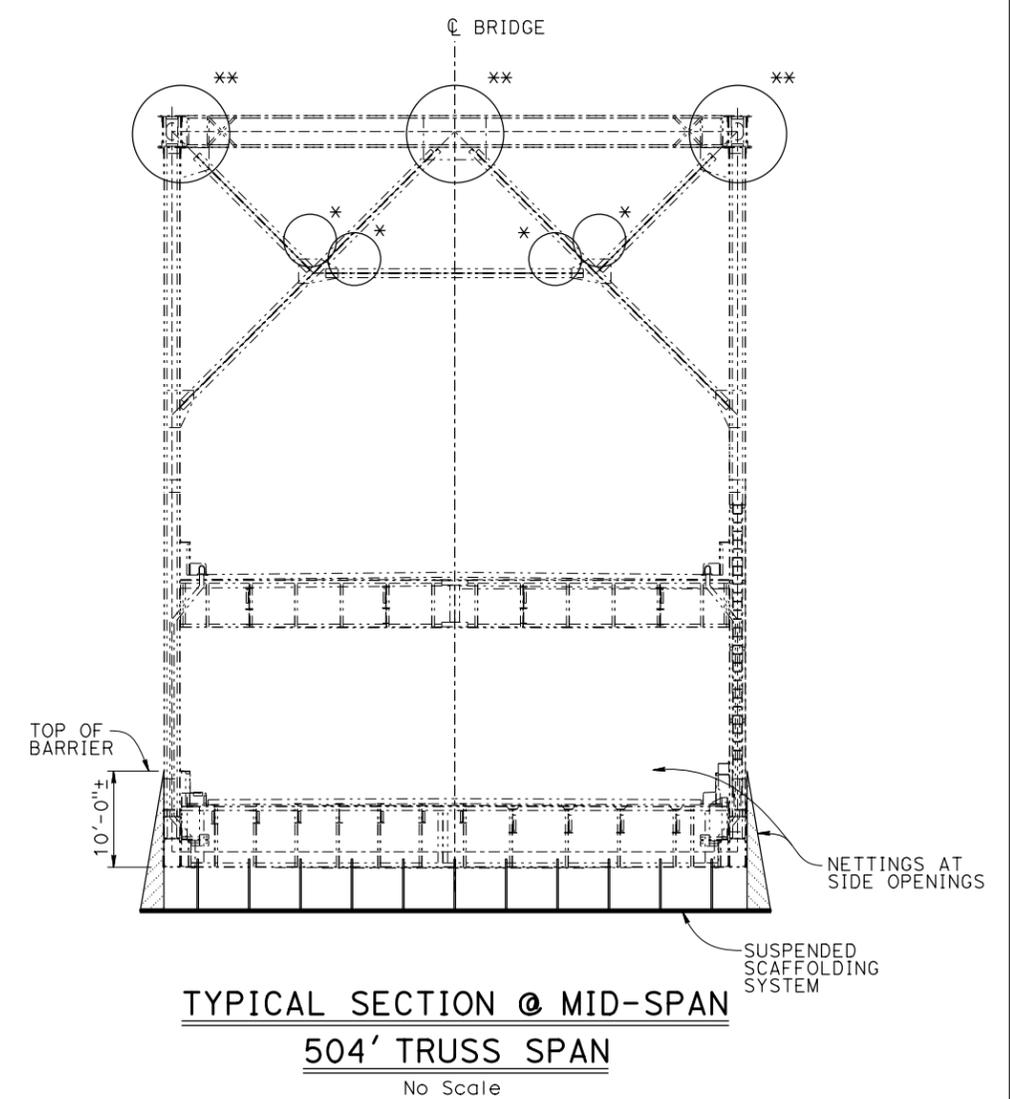
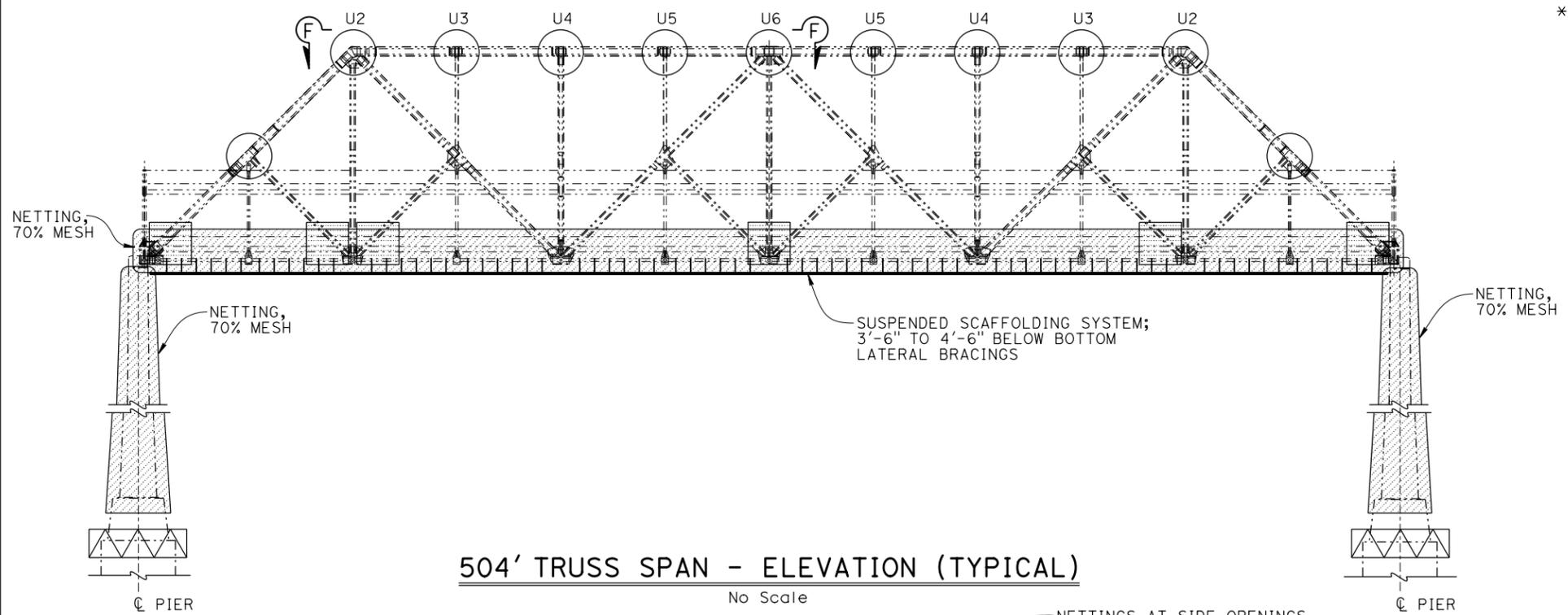
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SF,Ala	80	8.6/8.9 0.0/1.2	142B	142

REGISTERED CIVIL ENGINEER
 YONG PIL KIM
 No. C48365
 Exp. 06-30-16
 CIVIL
 STATE OF CALIFORNIA
 09-16-14
 DATE
 06-09-14
 PLANS APPROVAL DATE
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- LEGEND:**
- Indicates existing
 - [Hatched Box] Indicates netting
 - [Cross-hatched Box] Indicates suspended scaffolding system
 - Indicates joint area where bird spikes shall be installed to cover horizontal surfaces greater than 3 in by 3 in.
 - [Dotted Box] Indicates existing platforms that shall be removed or covered with installed bird spikes (See "BIRD DETERRENT SYSTEM DETAILS NO.1" sheet for locations)
 - [Zigzag Box] Indicates areas where bird slope panels shall be installed (For Plan View, see other detail sheets with corresponding pier details)
 - ** Indicates portal frame top joints
 - * Indicates portal frame mid joints



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3 ADDED PER ADDENDUM No. 3 DATED DECEMBER 29, 2014

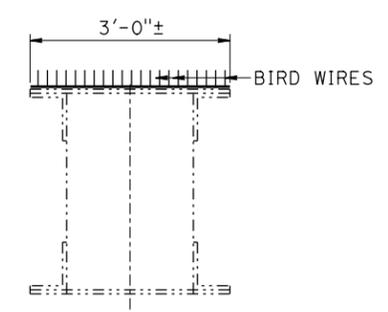
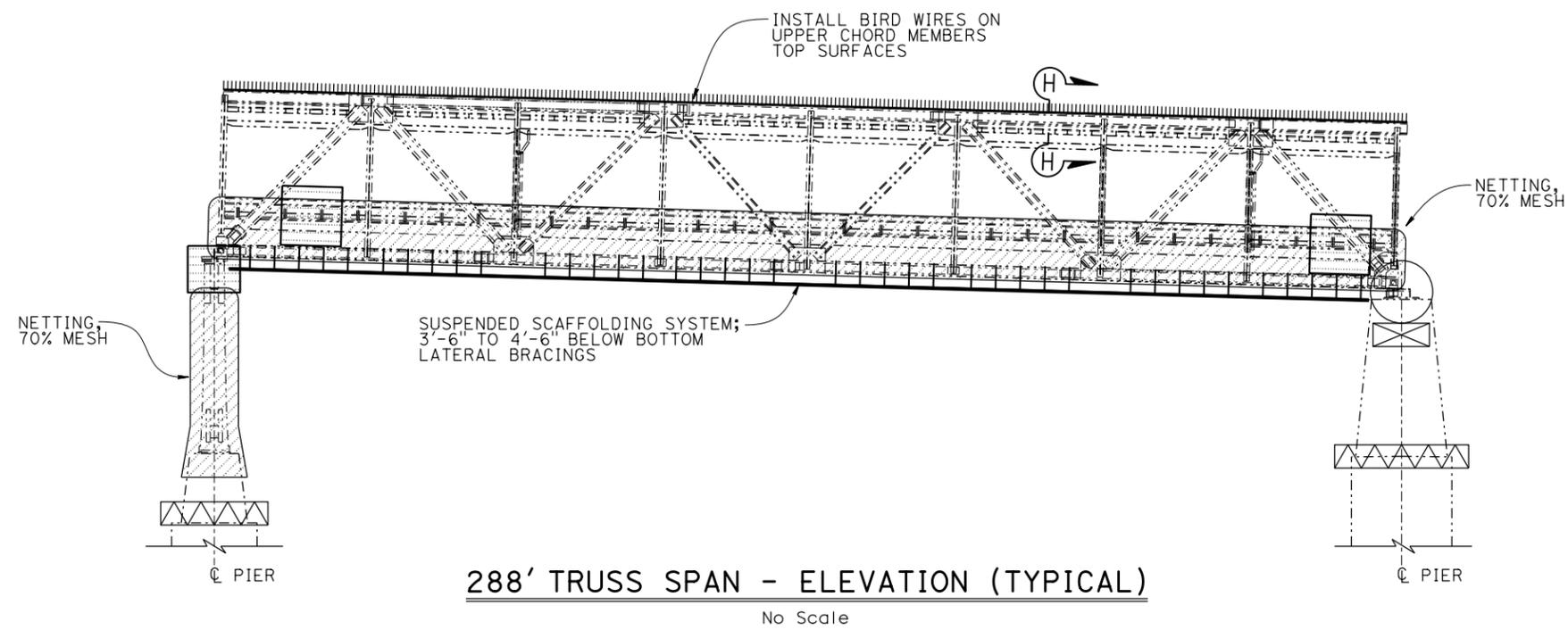
DESIGN	BY Yong Pil Kim	CHECKED Nora Kyo	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 8	BRIDGE NO.	33-0025	SAN FRANCISCO-OAKLAND BAY BRIDGE EAST SPAN SEISMIC SAFETY PROJECT 504' AND 288' SPANS DEMOLITION BIRD DETERRENT SYSTEM DETAILS NO. 2
DETAILS	BY Carlo Cancino	CHECKED Nora Kyo		POST MILE	8.6/1.2	
QUANTITIES	BY Yong Pil Kim	CHECKED Nora Kyo				

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SF, Ala	80	8.6/8.9 0.0/1.2	142C	142

Y. P. Kim 09-16-14
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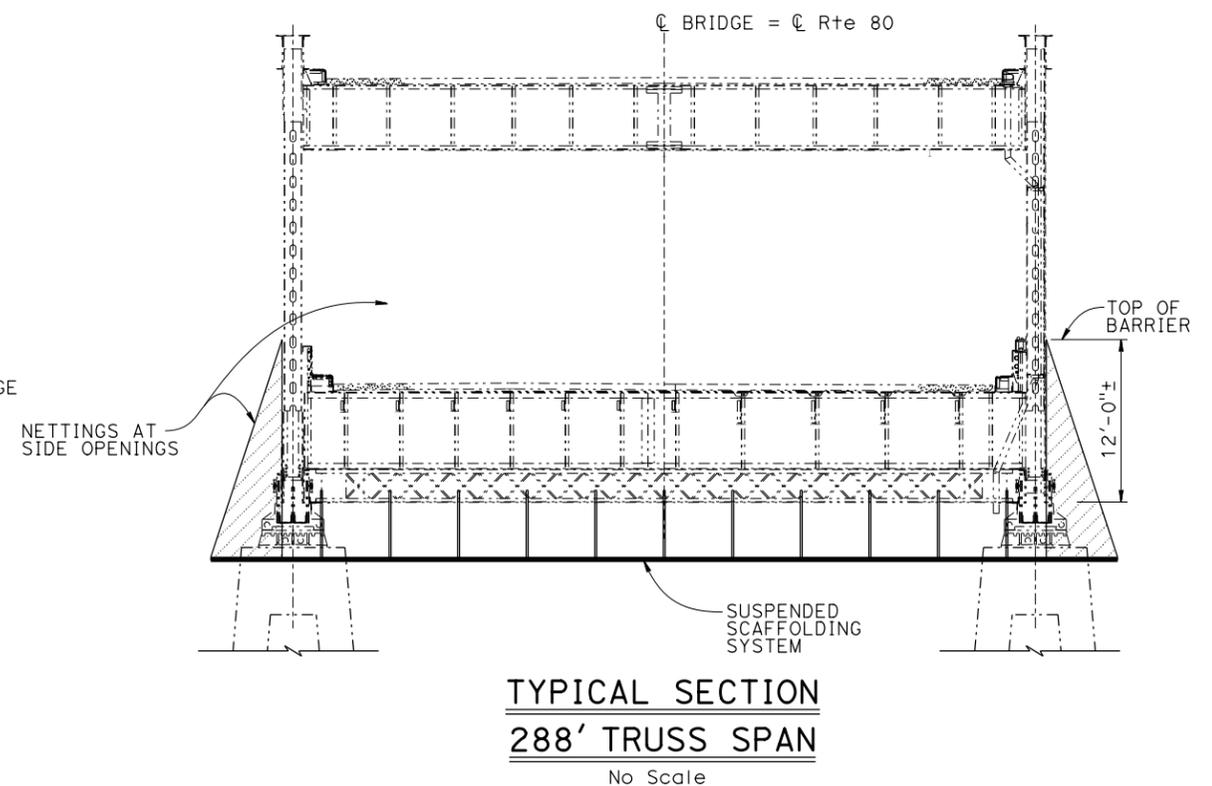
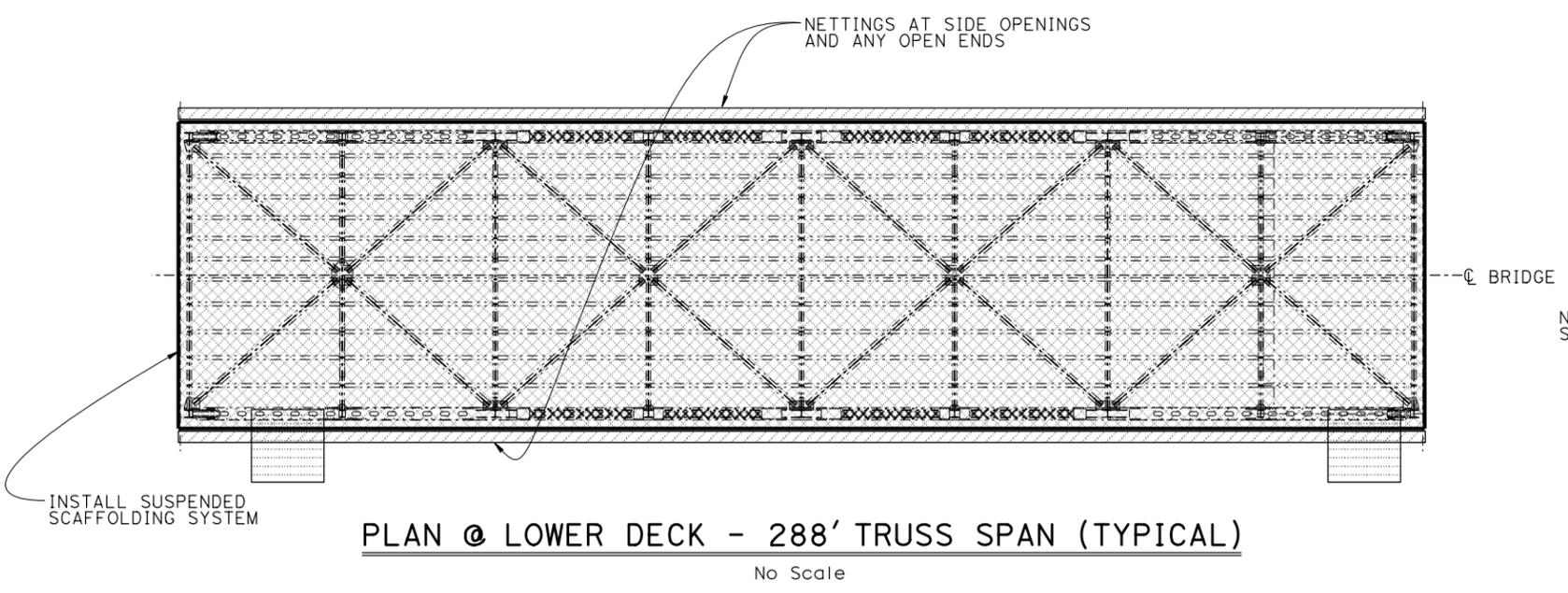
REGISTERED PROFESSIONAL ENGINEER
 YONG PIL KIM
 No. C48365
 Exp. 06-30-16
 CIVIL
 STATE OF CALIFORNIA

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- LEGEND:
- Indicates existing
 - ||||| Indicates install bird wires
 - ▨ Indicates netting
 - ▩ Indicates suspended scaffolding system
 - Indicates joint area where bird spikes shall be installed to cover horizontal surfaces greater than 3 in by 3 in.
 - ▨ (with dots) Indicates existing platforms that shall be removed or covered with installed bird spikes (See "BIRD DETERRENT SYSTEM DETAILS NO.1" sheet for locations)
 - ▨ (with triangles) Indicates areas where bird slope panels shall be installed (For Plan View, see other detail sheets with corresponding pier details)
 - ⊗ Indicates openings where welded hardware cloth shall be installed if unoccupied

288' TRUSS SPAN - ELEVATION (TYPICAL)
No Scale



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SAN FRANCISCO-OAKLAND BAY BRIDGE EAST SPAN SEISMIC SAFETY PROJECT	
BRIDGE NO. 33-0025	504' AND 288' SPANS DEMOLITION
POST MILE 8.6/1.2	BIRD DETERRENT SYSTEM DETAILS NO. 3

DESIGN	BY Yong Pil Kim	CHECKED Nora Kyo
DETAILS	BY Carlo Cancino	CHECKED Nora Kyo
QUANTITIES	BY Yong Pil Kim	CHECKED Nora Kyo

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 8

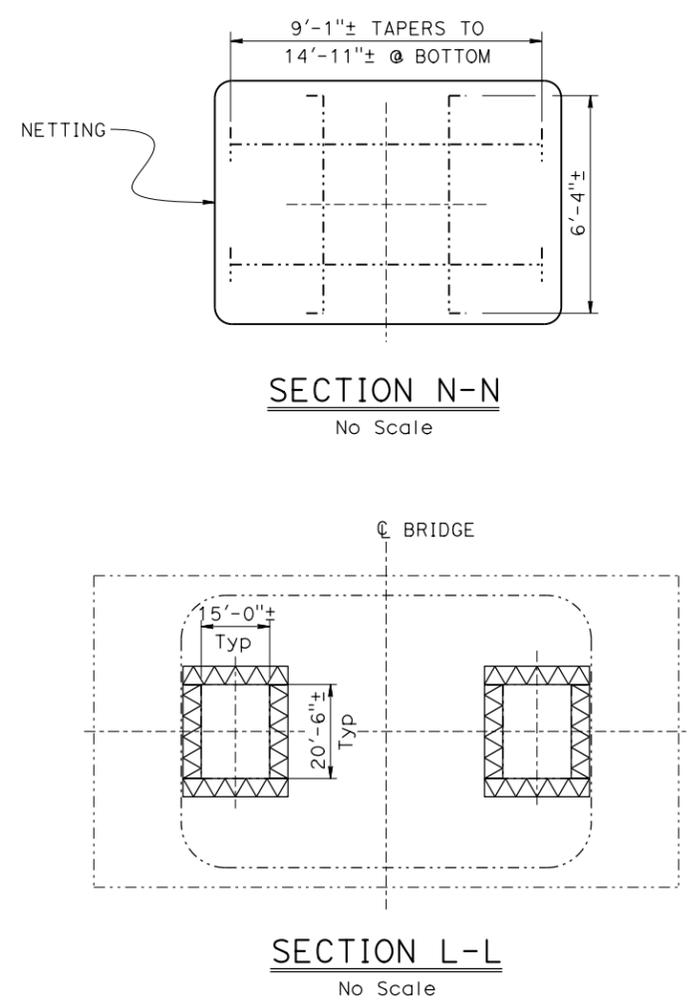
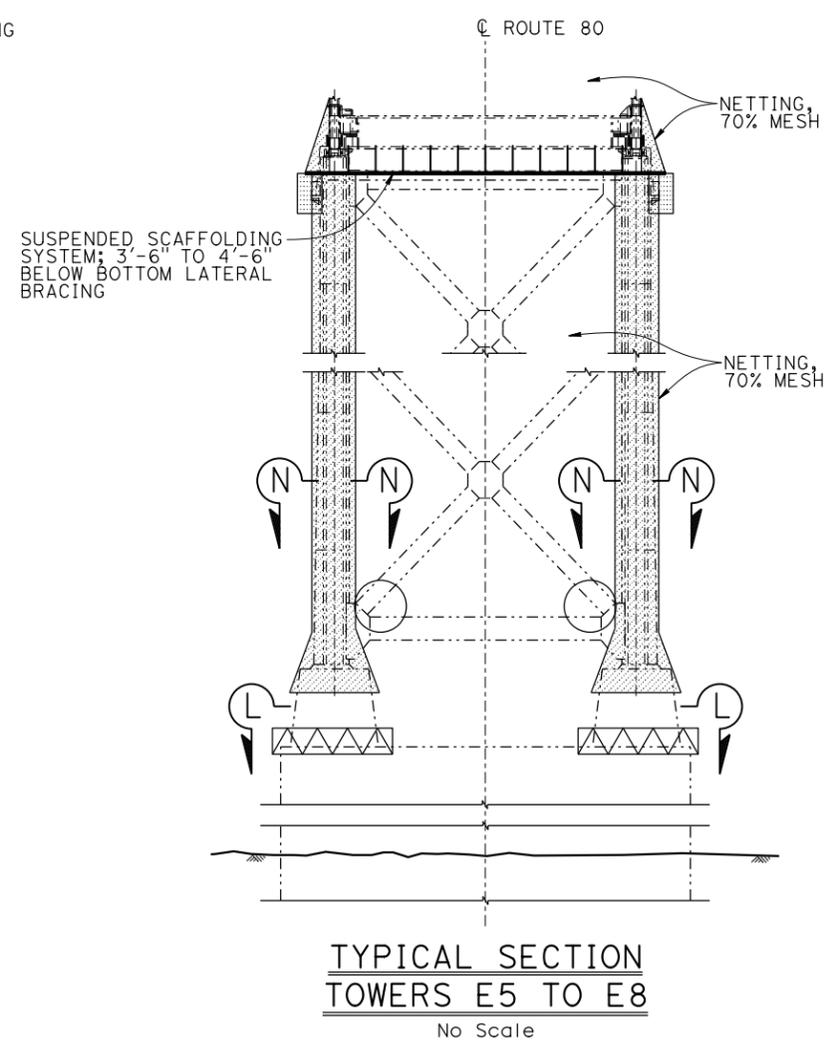
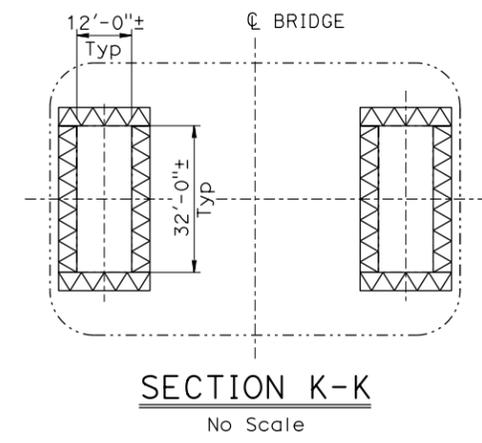
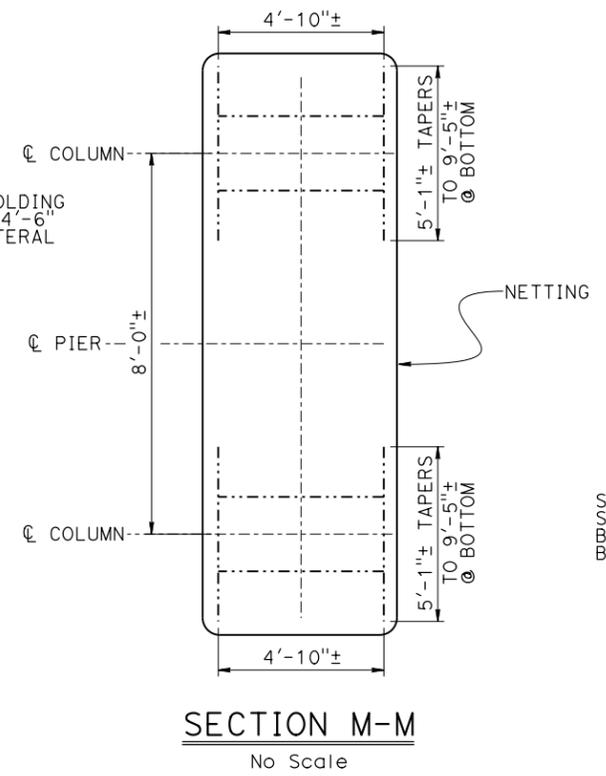
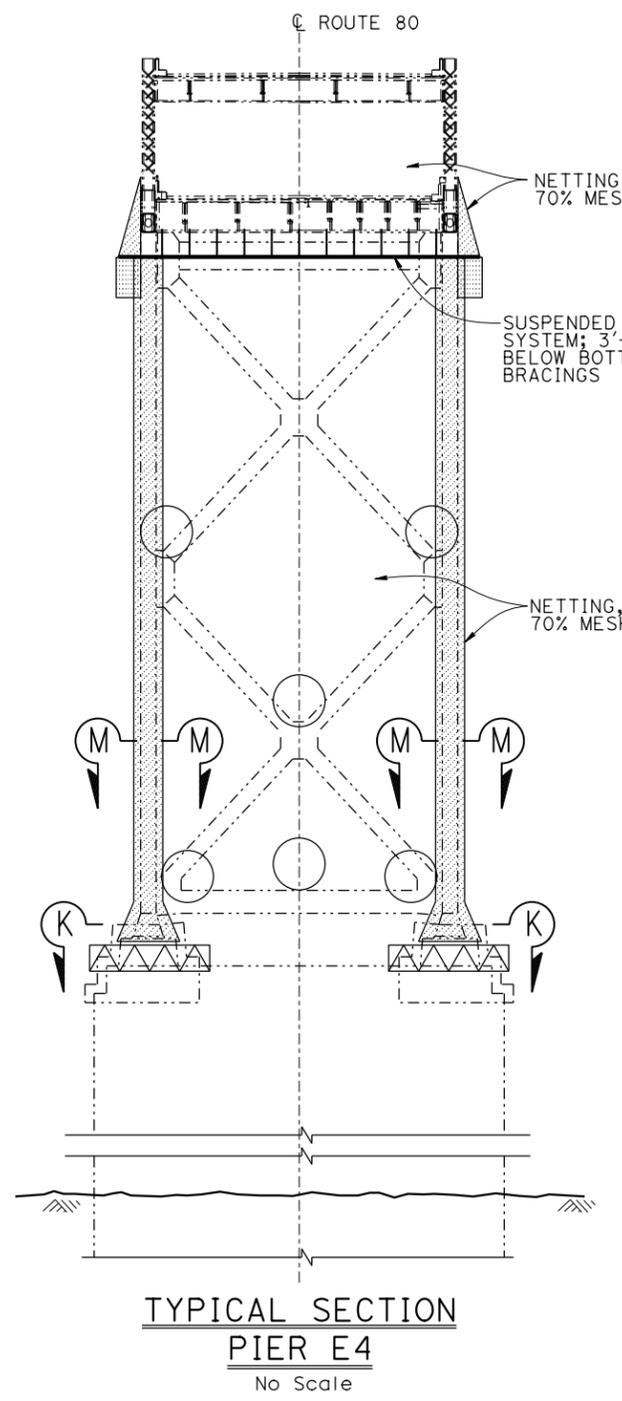
UNIT: 3593
PROJECT NUMBER & PHASE: 0412000608, 1
CONTRACT NO.: 04-013521

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 120 OF 120
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SF,Ala	80	8.6/8.9 0.0/1.2	142D	142

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- LEGEND:
- Indicates existing
 - ▨ Indicates netting
 - Indicates joint area where bird spikes shall be installed to cover horizontal surfaces greater than 3 in by 3 in.
 - ▤ Indicates existing platforms that shall be removed or covered with installed bird spikes
 - ▧ Indicates areas where bird slope panels shall be installed



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SAN FRANCISCO-OAKLAND BAY BRIDGE EAST SPAN SEISMIC SAFETY PROJECT	
BRIDGE NO. 33-0025 POST MILE 8.6/1.2	504' AND 288' SPANS DEMOLITION BIRD DETERRENT SYSTEM DETAILS NO. 4

DESIGN	BY Yong Pil Kim	CHECKED Nora Kyo
DETAILS	BY Carlo Cancino	CHECKED Nora Kyo
QUANTITIES	BY Yong Pil Kim	CHECKED Nora Kyo

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
 STRUCTURE DESIGN
DESIGN BRANCH 8

UNIT: 3593
 PROJECT NUMBER & PHASE: 0412000608, 1
 CONTRACT NO.: 04-013521

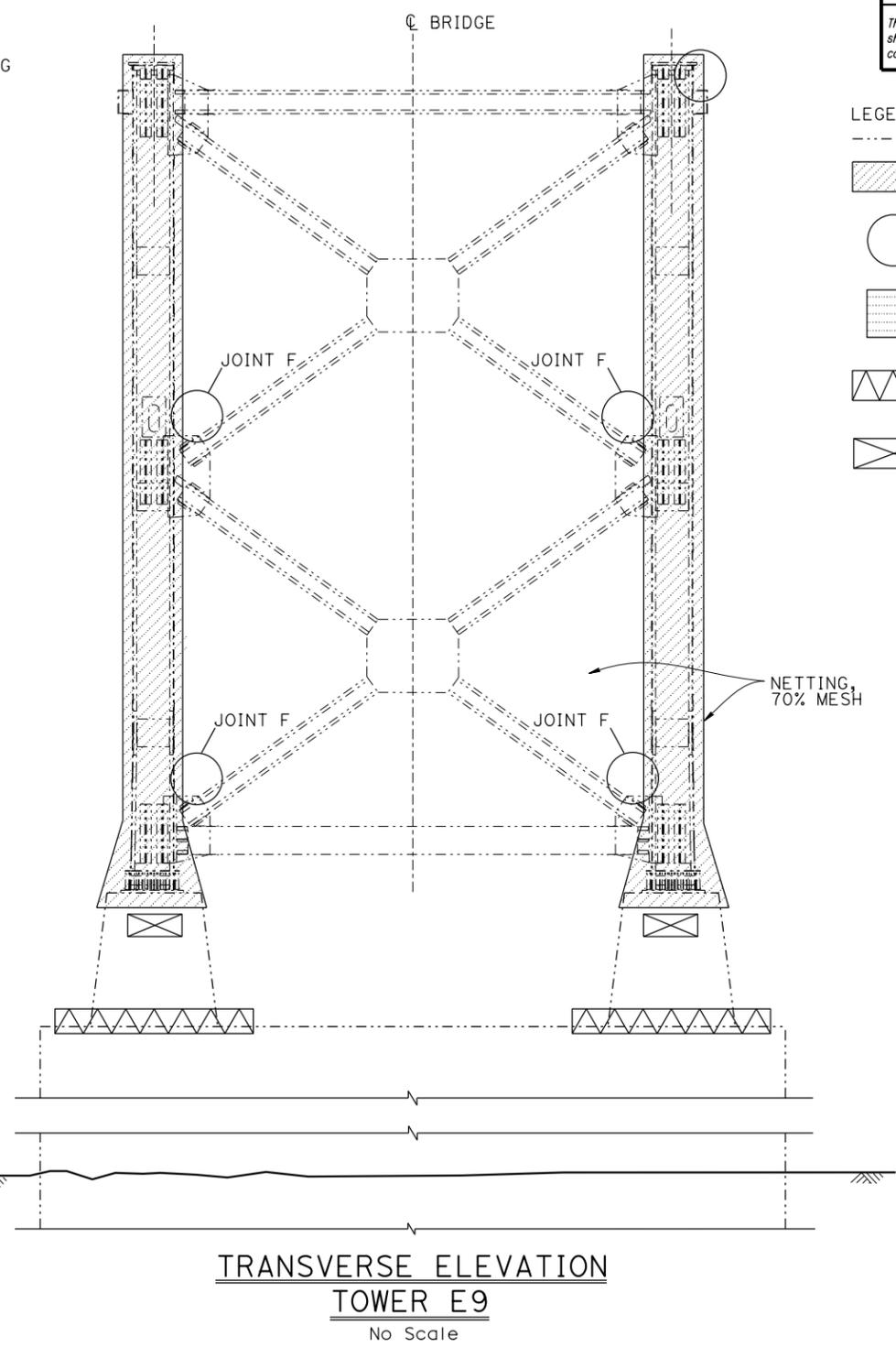
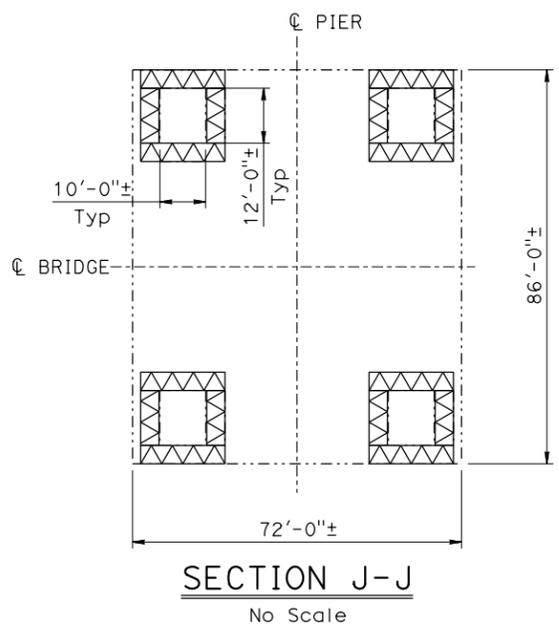
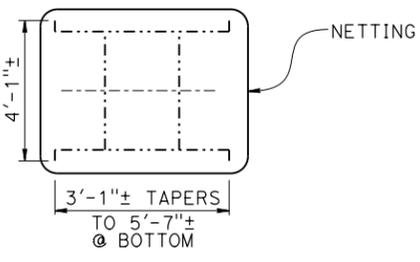
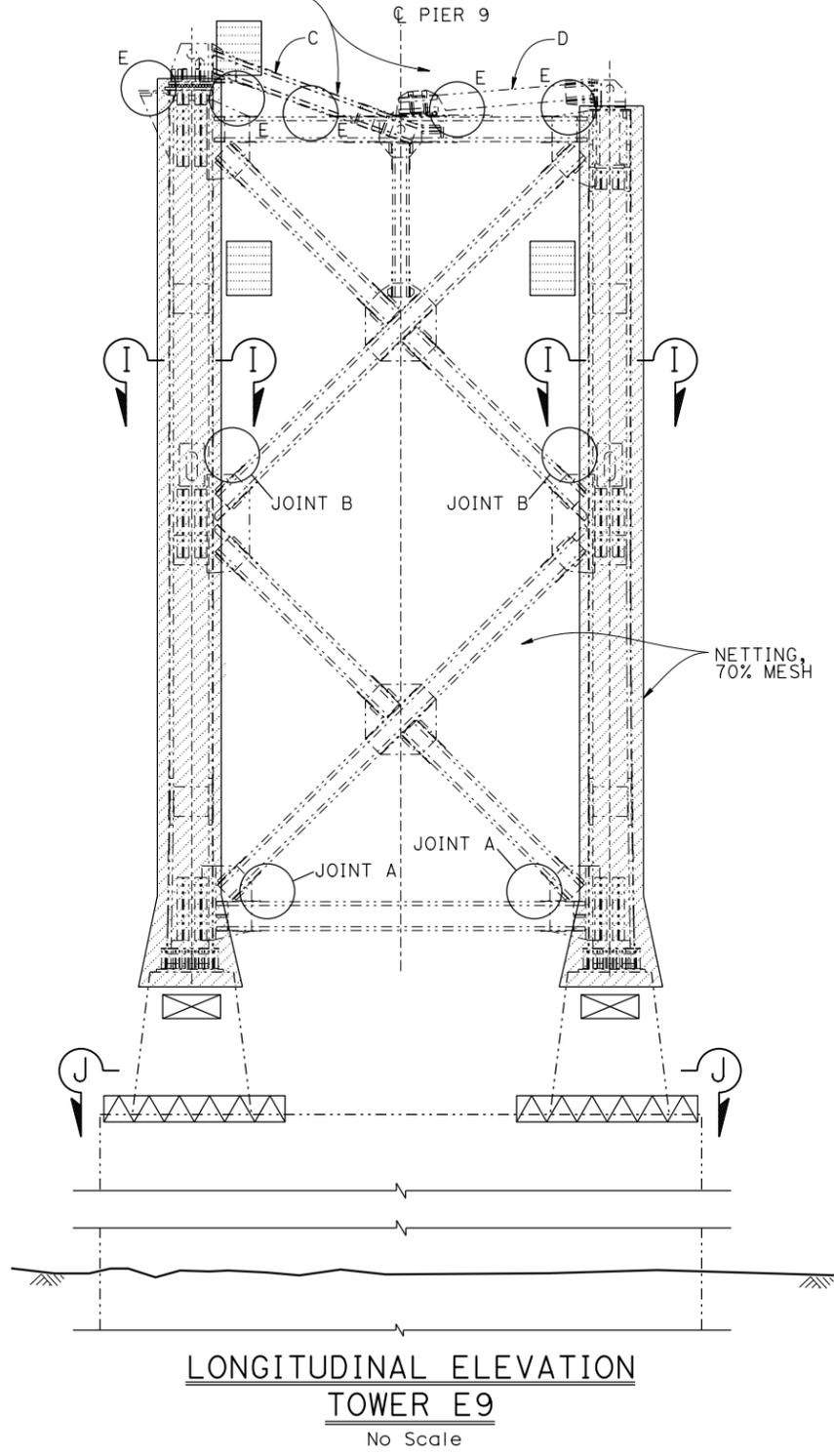
DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 120 OF 120
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REGISTERED CIVIL ENGINEER **Yong Pil Kim** DATE 09-16-14
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INSTALL BIRD SPIKES ON TOP OF DAMPERS, HORIZONTAL MEMBERS AND JOINTS



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- Indicates existing
 - [Hatched Box] Indicates netting
 - [Circle] Indicates joint area where bird spikes shall be installed to cover horizontal surfaces greater than 3 in by 3 in.
 - [Dotted Box] Indicates existing platforms that shall be removed or covered with installed bird spikes
 - [Wavy Box] Indicates areas where bird slope panels shall be installed
 - [Cross-hatched Box] Indicates openings where welded hardware cloth shall be installed if unoccupied

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**SAN FRANCISCO-OAKLAND BAY BRIDGE
EAST SPAN SEISMIC SAFETY PROJECT**

504' AND 288' SPANS DEMOLITION

BIRD DETERRENT SYSTEM DETAILS NO. 5

DESIGN	BY Yong Pil Kim	CHECKED Nora Kyo
DETAILS	BY Carlo Cancino	CHECKED Nora Kyo
QUANTITIES	BY Yong Pil Kim	CHECKED Nora Kyo

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN**

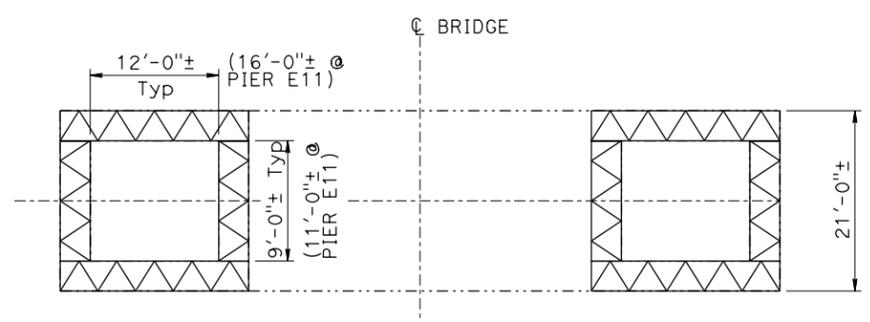
DESIGN BRANCH 8

BRIDGE NO. 33-0025
POST MILE 8.6/1.2

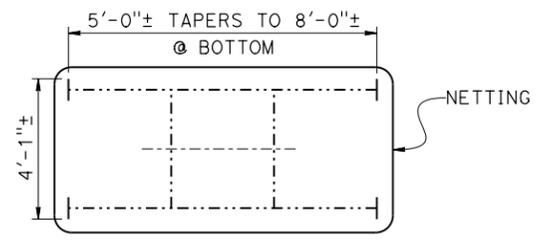
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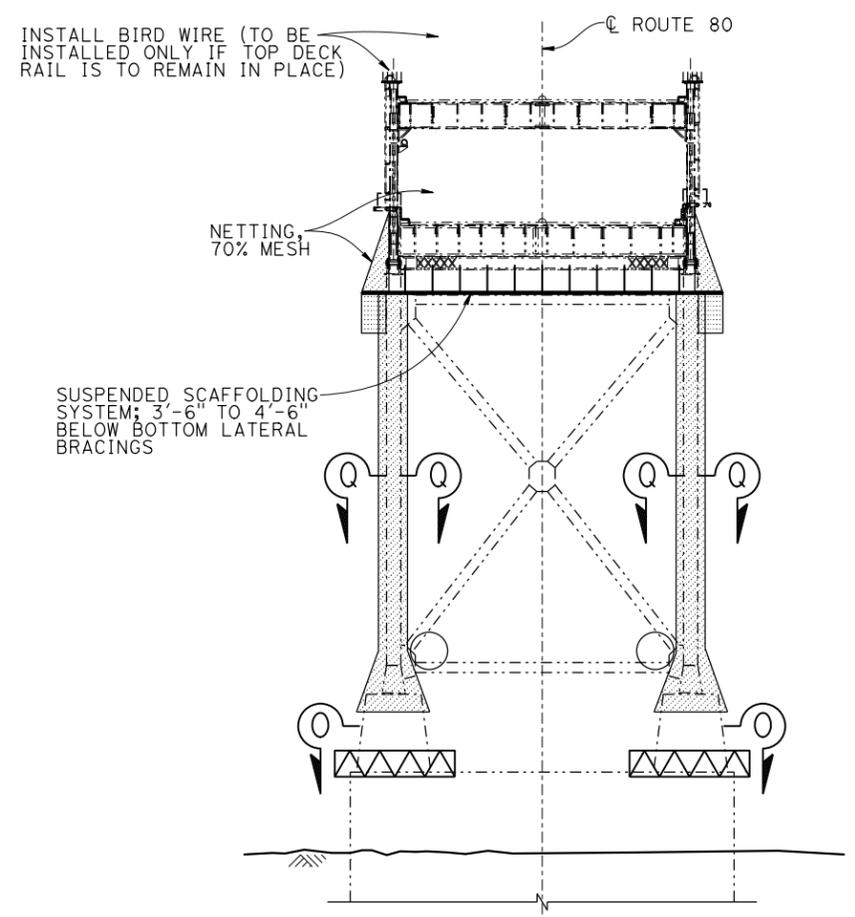


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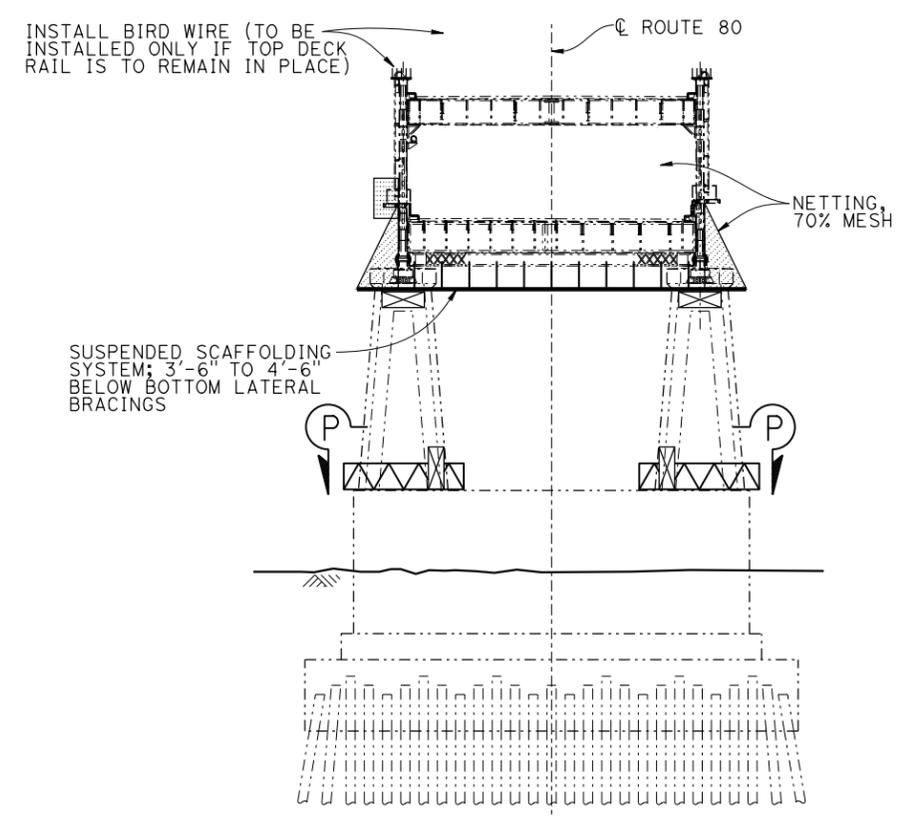


SECTION Q-Q
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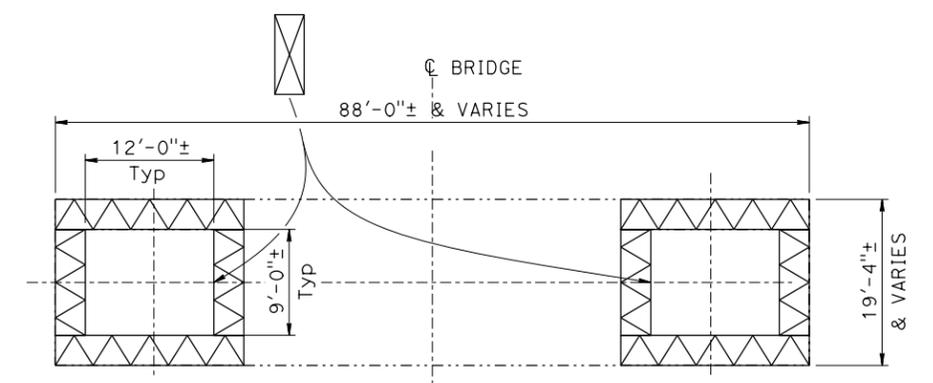
- LEGEND:**
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 - ▨ Indicates netting
 - Indicates joint area where bird spikes shall be installed to cover horizontal surfaces greater than 3 in by 3 in.
 - Indicates existing platforms that shall be removed or covered with installed bird spikes
 - ▴▾▴▾▴▾▴▾ Indicates areas where bird slope panels shall be installed
 - ⊠ Indicates openings where welded hardware cloth shall be installed if unoccupied



TYPICAL SECTION PIER E10 TO PIER E16
No Scale



TYPICAL SECTION PIER E17 TO PIER E22
No Scale



SECTION P-P
No Scale

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

3 ADDED PER ADDENDUM No. 3 DATED DECEMBER 29, 2014

SAN FRANCISCO-OAKLAND BAY BRIDGE EAST SPAN SEISMIC SAFETY PROJECT	
BRIDGE NO. 33-0025	504' AND 288' SPANS DEMOLITION
POST MILE 8.6/1.2	
BIRD DETERRENT SYSTEM DETAILS NO. 6	

DESIGN	BY Yong Pil Kim	CHECKED Nora Kyo
DETAILS	BY Carlo Cancino	CHECKED Nora Kyo
QUANTITIES	BY Yong Pil Kim	CHECKED Nora Kyo

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 8

UNIT: 3593
PROJECT NUMBER & PHASE: 0412000608, 1

CONTRACT NO.: 04-013521

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 120 OF 120
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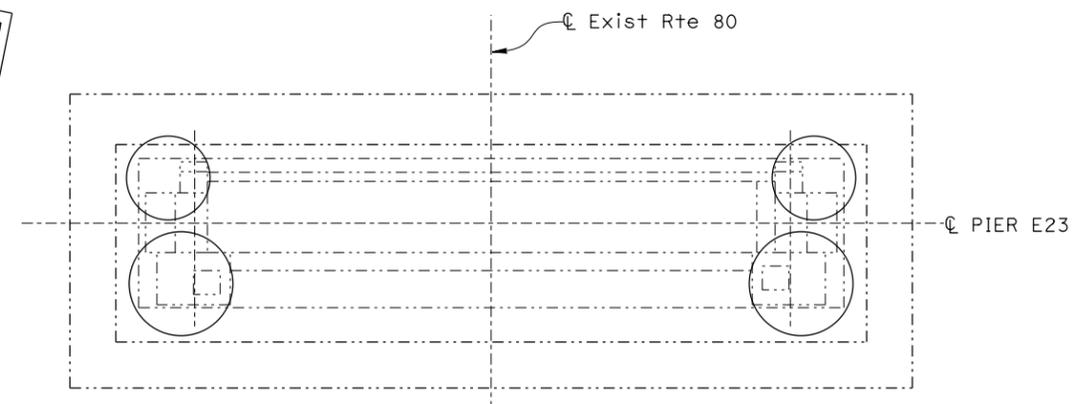
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SF, Alameda	80	8.6/8.9 0.0/1.2	142G	142

Yong Pil Kim 09-16-14
 REGISTERED CIVIL ENGINEER DATE

06-09-14
 PLANS APPROVAL DATE

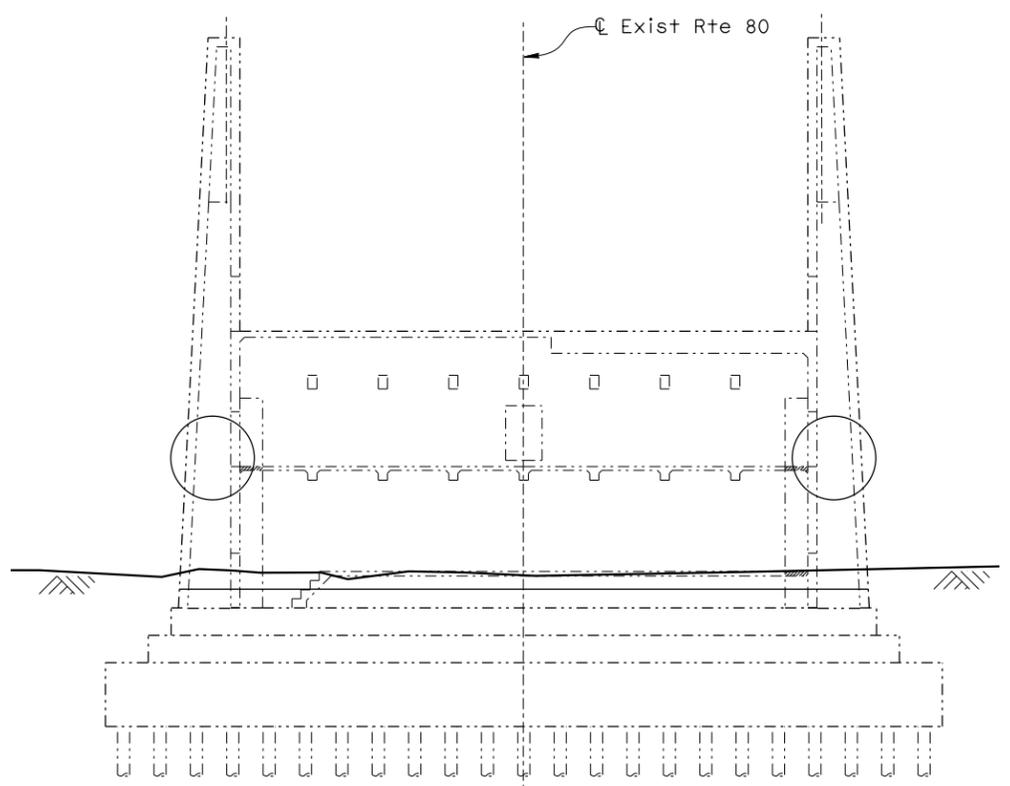
YONG PIL KIM
 No. C48365
 Exp. 06-30-16
 CIVIL
 STATE OF CALIFORNIA

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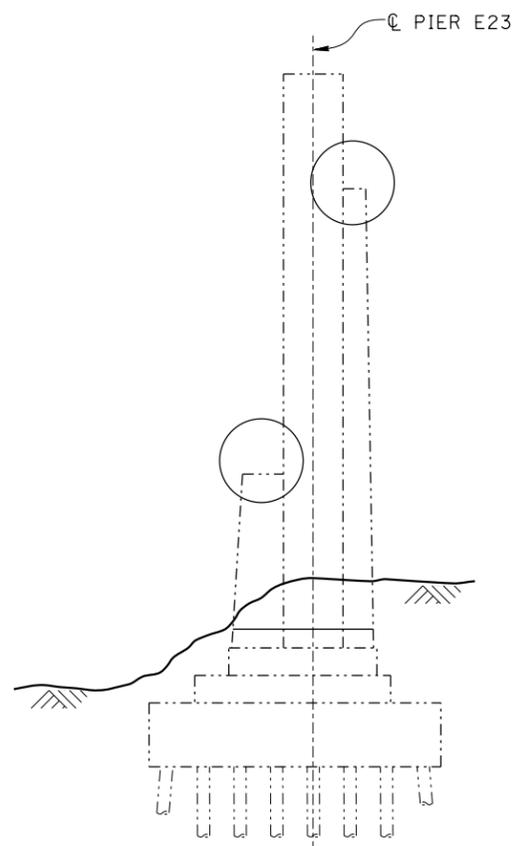


PLAN
No Scale

LEGEND:
 - - - - - Indicates existing
 ○ Indicates joint area where bird spikes shall be installed to cover horizontal surfaces greater than 3 in by 3 in.



ELEVATION
PIER E23
No Scale



END ELEVATION
PIER E23
No Scale

NOTE:
 THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

3 ADDED PER ADDENDUM No. 3 DATED DECEMBER 29, 2014

SAN FRANCISCO-OAKLAND BAY BRIDGE
EAST SPAN SEISMIC SAFETY PROJECT
504' AND 288' SPANS DEMOLITION
BIRD DETERRENT SYSTEM DETAILS NO. 7

DESIGN	BY Yong Pil Kim	CHECKED Nora Kyo
DETAILS	BY Carlo Cancino	CHECKED Nora Kyo
QUANTITIES	BY Yong Pil Kim	CHECKED Nora Kyo

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 8

BRIDGE NO.	33-0025
POST MILE	8.6/1.2

TIME PLOTTED => 11:27
 DATE PLOTTED => 23-DEC-2014
 USERNAME => s134003

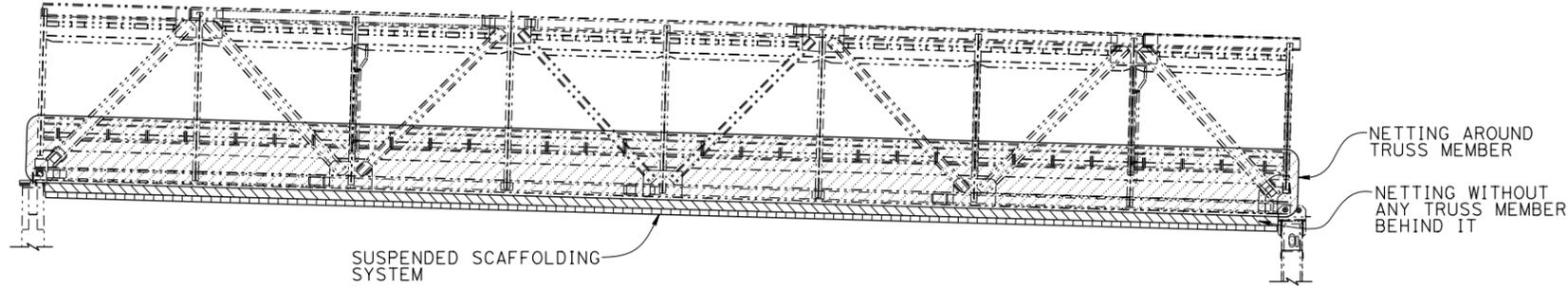
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SF,Ala	80	8.6/8.9 0.0/1.2	142H	142

Y.P. Kim 09-16-14
 REGISTERED CIVIL ENGINEER DATE
 06-09-14
 PLANS APPROVAL DATE

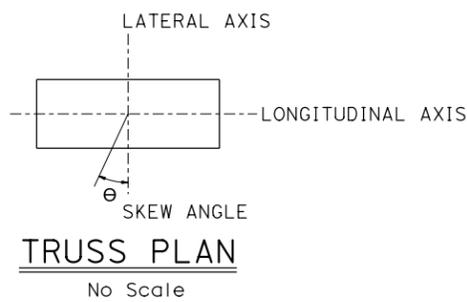
YONG PIL KIM
 No. C48365
 Exp. 06-30-16
 CIVIL
 STATE OF CALIFORNIA

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- LEGEND:
- Indicates existing
 - Bird Netting around truss members
 - Bird Netting without any truss members behind it
 - Suspended Scaffolding System



288' TRUSS SPAN - ELEVATION (TYPICAL)
No Scale



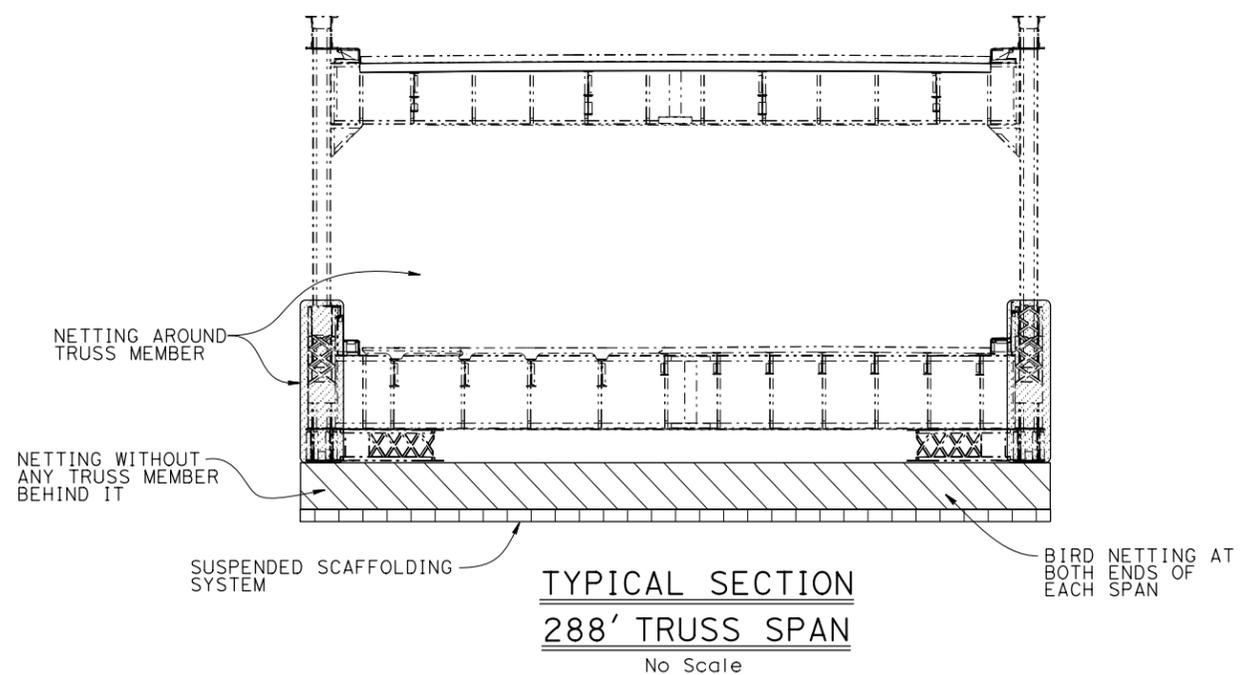
- NOTES:
- Lateral wind pressures are applied perpendicular to longitudinal axis of Bridge superstructure.
 - For wind loads, treat all individual members as solid. Ignore openings in any truss members, whether it is wrapped in bird netting or not. Wind load in windward direction is applied to the exposed area perpendicular to the axis of the truss. Wind load in leeward direction is calculated in a similar manner.
 - For wind at skew angles, use skew coefficients from the Table. The longitudinal and lateral wind loads equal the respective coefficients times the Lateral wind loads for winds that are perpendicular to the bridge superstructure. For skewed winds, the longitudinal and lateral loads shall be applied simultaneously.
 - Only horizontal wind pressures on structure are shown. Wind pressures on construction vehicles and vertical wind pressures to be used per Caltrans "Bridge Design Specifications (BDS), 2004".

DESIGN LATERAL WIND PRESSURES ON SUPERSTRUCTURE

LOCATION	LATERAL WIND PRESSURE, SEE NOTE 1 (PSF)
	50 psf, Windward 25 psf, Leeward
	25 psf, Windward
	50 psf, Windward 25 psf, Leeward
All other members not covered by Bird netting	50 psf, Windward 25 psf, Leeward

SKEW COEFFICIENTS

SKEW ANGLE (DEGREES)	LATERAL COEFFICIENT	LONGITUDINAL COEFFICIENT
0	1.000	.000
15	.933	.160
30	.867	.373
45	.627	.547
60	.320	.667



NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

3 ADDED PER ADDENDUM No. 3 DATED DECEMBER 29, 2014

**SAN FRANCISCO-OAKLAND BAY BRIDGE
EAST SPAN SEISMIC SAFETY PROJECT**

**504' AND 288' SPANS DEMOLITION
WIND LOADS ON 288 FT SPANS**

DESIGN	BY Yong Pil Kim	CHECKED Nora Kyo
DETAILS	BY Carlo Cancino	CHECKED Nora Kyo
QUANTITIES	BY Yong Pil Kim	CHECKED Nora Kyo

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 8

BRIDGE NO.	33-0025
POST MILE	8.6/1.2

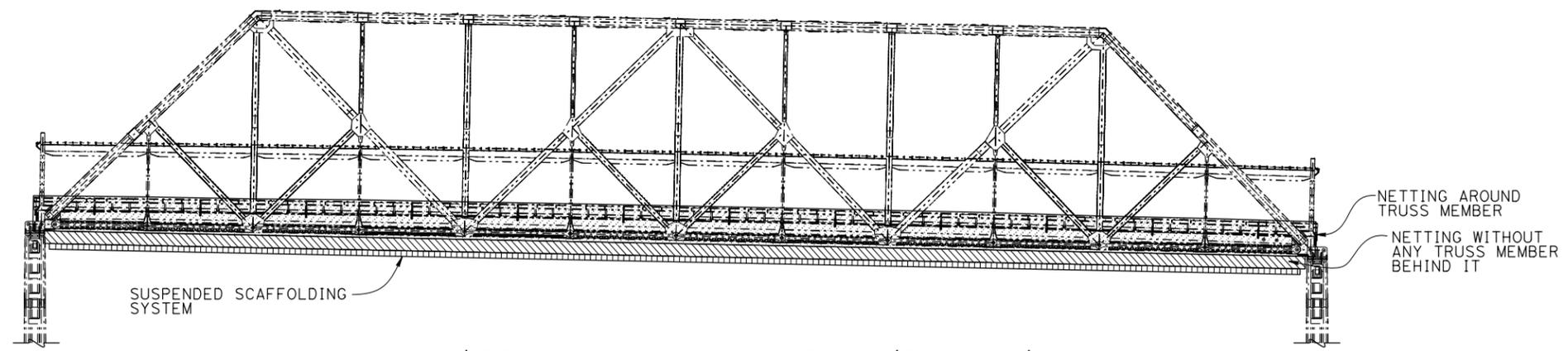
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 USERNAME => s134003 DATE PLOTTED =>

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SF,Ala	80	8.6/8.9 0.0/1.2	1421	142

Y.P. Kim 09-16-14
 REGISTERED CIVIL ENGINEER DATE
 06-09-14
 PLANS APPROVAL DATE

YONG PIL KIM
 No. C48365
 Exp. 06-30-16
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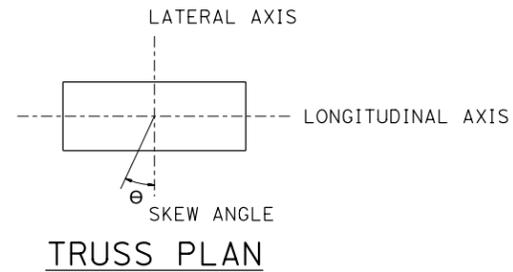
504' TRUSS SPAN - ELEVATION (TYPICAL)
No Scale

LEGEND:

- Indicates existing
- [Hatched Box] Bird Netting around truss members
- [Diagonal Hatched Box] Bird Netting without any truss members behind it
- [Vertical Line Box] Suspended Scaffolding System

DESIGN LATERAL WIND PRESSURES ON SUPERSTRUCTURE

LOCATION	LATERAL WIND PRESSURE, SEE NOTE 1 (PSF)
[Hatched Box]	50 psf, Windward 25 psf, Leeward
[Diagonal Hatched Box]	25 psf, Windward
[Vertical Line Box]	50 psf, Windward 25 psf, Leeward
All other members not covered by Bird netting	50 psf, Windward 25 psf, Leeward



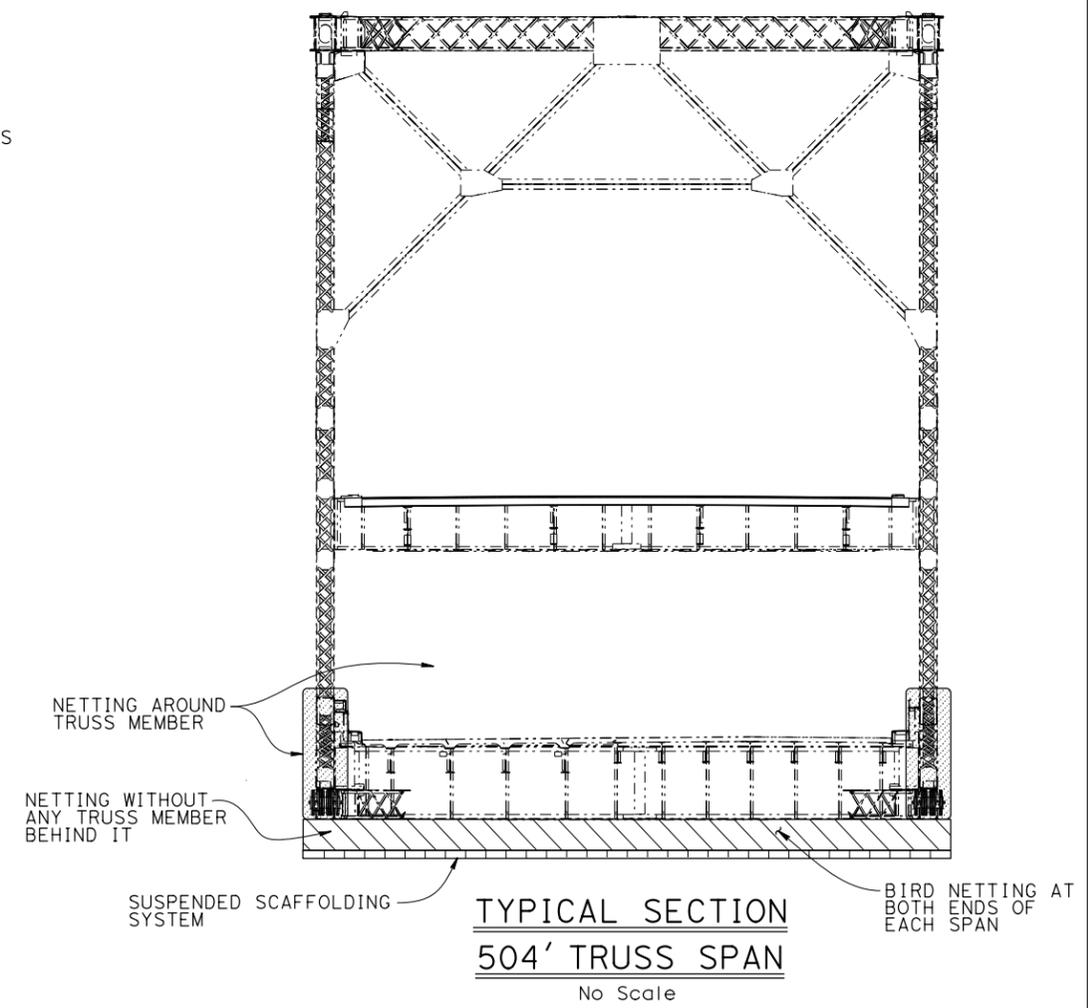
TRUSS PLAN
No Scale

SKIEW COEFFICIENTS

SKIEW ANGLE (DEGREES)	LATERAL COEFFICIENT	LONGITUDINAL COEFFICIENT
0	1.000	.000
15	.933	.160
30	.867	.373
45	.627	.547
60	.320	.667

NOTES:

- Lateral wind pressures are applied perpendicular to longitudinal axis of Bridge superstructure.
- For wind loads, treat all individual members as solid. Ignore openings in any truss members, whether it is wrapped in bird netting or not. Wind load in windward direction is applied to the exposed area perpendicular to the axis of the truss. Wind load in leeward direction is calculated in a similar manner.
- For wind at skew angles, use skew coefficients from the Table. The longitudinal and lateral wind loads equal the respective coefficients times the Lateral wind loads for winds that are perpendicular to the bridge superstructure. For skewed winds, the longitudinal and lateral loads shall be applied simultaneously.
- Only horizontal wind pressures on structure are shown. Wind pressures on construction vehicles and vertical wind pressures to be used per Caltrans "Bridge Design Specifications (BDS),2004".



TYPICAL SECTION
504' TRUSS SPAN
No Scale

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

3 ADDED PER ADDENDUM No. 3 DATED DECEMBER 29, 2014

**SAN FRANCISCO-OAKLAND BAY BRIDGE
EAST SPAN SEISMIC SAFETY PROJECT**

**504' AND 288' SPANS DEMOLITION
WIND LOADS ON 504 FT SPANS**

DESIGN	BY Yong Pil Kim	CHECKED Nora Kyo	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 8	BRIDGE NO.	33-0025
DETAILS	BY Carlo Cancino	CHECKED Nora Kyo			POST MILE	8.6/1.2
QUANTITIES	BY Yong Pil Kim	CHECKED Nora Kyo				

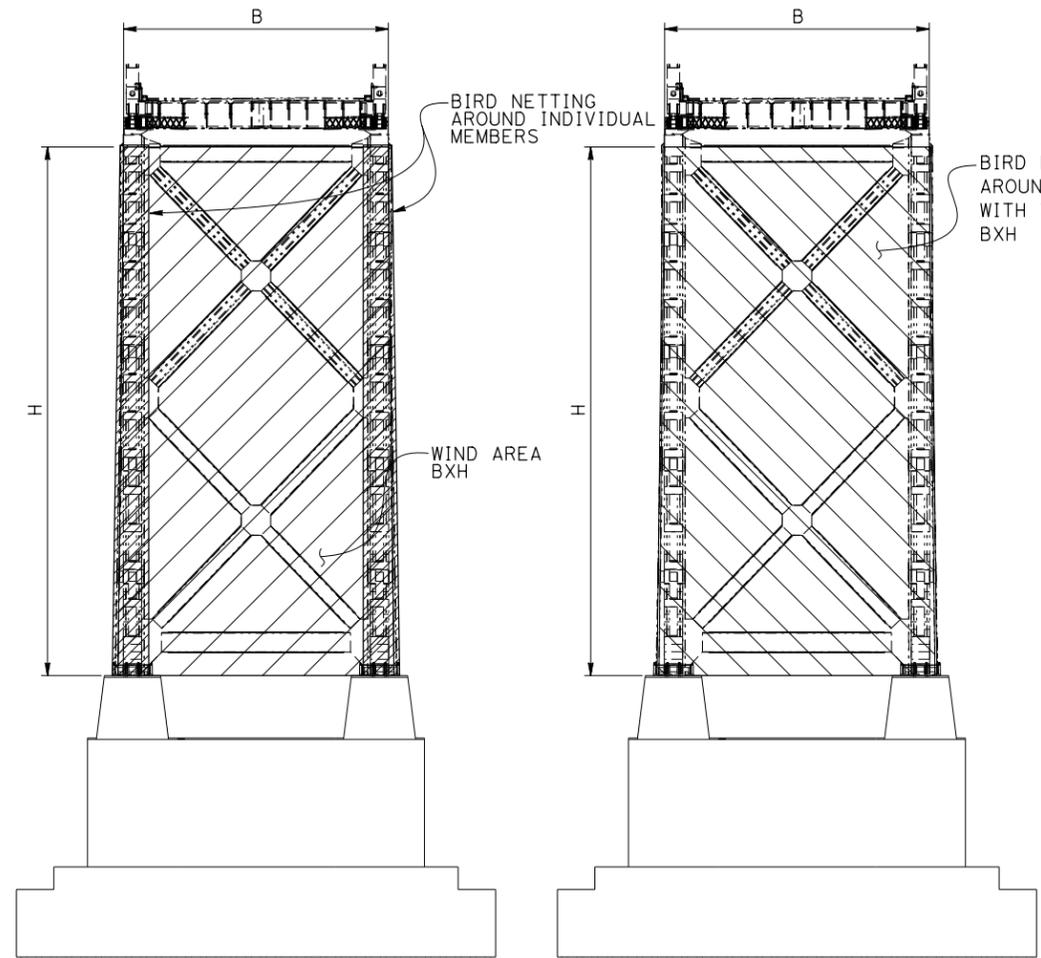
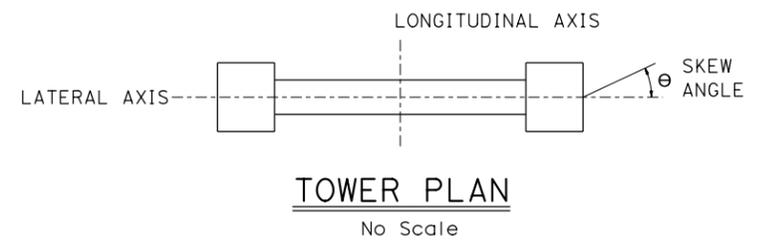
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SF,Ala	80	8.6/8.9 0.0/1.2	142J	142

REGISTERED CIVIL ENGINEER **Yong Pil Kim** DATE 09-16-14
 PLANS APPROVAL DATE 06-09-14
 No. C48365
 Exp. 06-30-16
 CIVIL
 STATE OF CALIFORNIA
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- LEGEND:**
- Indicates existing
 - Bird Netting around individual members
 - Wind Area BxH
 - Bird Netting around Tower with Wind Area BxH

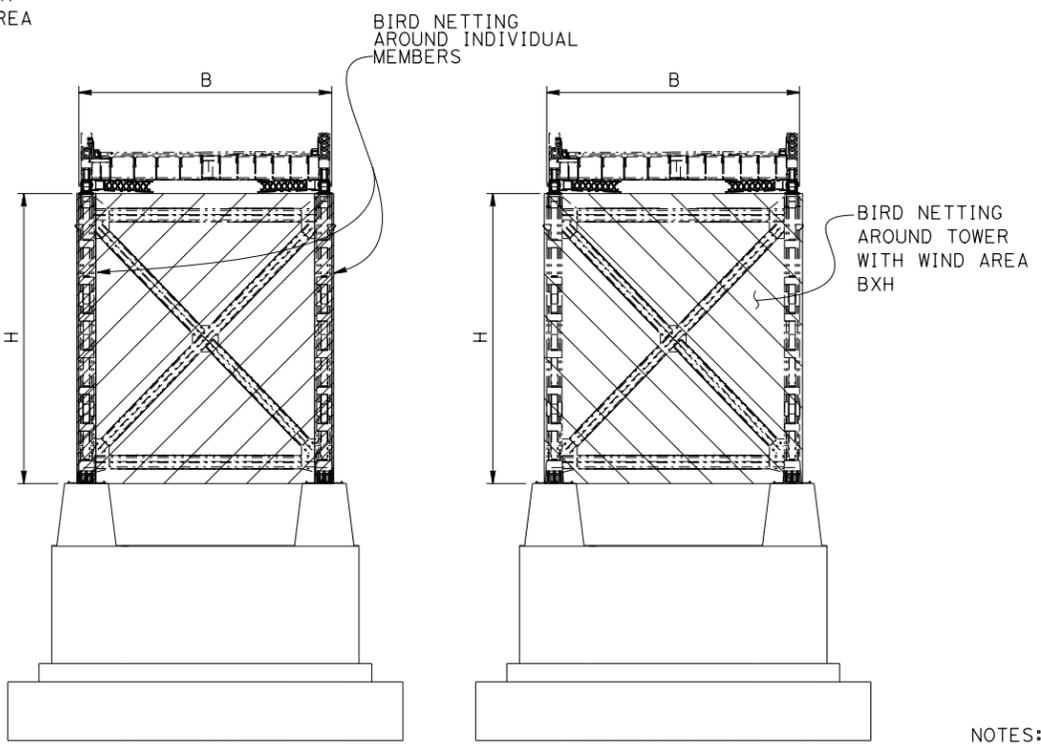
DESIGN WIND PRESSURES ON TOWER ALONG LONGITUDINAL AXIS OF BRIDGE SUPERSTRUCTURE

LOCATION	LONGITUDINAL WIND PRESSURE, SEE NOTE 1 (PSF)
Wind Area Option 1	10 psf
Wind Area Option 2	20 psf



OPTION 1 OPTION 2

TYPICAL TOWERS FOR 504' SPAN TRUSS (PIER E6 SHOWN)
No Scale
SEE NOTE 3



OPTION 1 OPTION 2

TYPICAL TOWERS FOR 288' SPAN TRUSS (PIER E12 SHOWN)
No Scale
SEE NOTE 3

SKEW COEFFICIENTS FOR OPTION 1

SKEW ANGLE (DEGREES)	LONGITUDINAL COEFFICIENT	LATERAL COEFFICIENT
90	1.000	.000
67.5	1.074	.089
45	.835	.588
22.5	.434	.906
0	.000	.784

SKEW COEFFICIENTS FOR OPTION 2

SKEW ANGLE (DEGREES)	LONGITUDINAL COEFFICIENT	LATERAL COEFFICIENT
90	1.000	.000
67.5	.930	.078
45	.735	.269
22.5	.375	.343
0	.000	.256

- NOTES:**
- Design wind pressure is applied on gross area of tower. Gross area equals height of tower multiplied by out-to-out dimensions of tower.
 - For wind at skew angles, use skew coefficients from the Tables. The longitudinal and lateral wind loads equal the respective coefficients times the Longitudinal wind loads that are in the direction parallel to the longitudinal axis (skew angle of 90 degrees). For skewed winds, the longitudinal and lateral loads shall be applied simultaneously.
 - Wind loads on falsework towers shall be treated in a similar manner as the typical towers.

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

3 ADDED PER ADDENDUM No. 3 DATED DECEMBER 29, 2014

DESIGN BY Yong Pil Kim CHECKED Nora Kyo DETAILS BY Carlo Cancino CHECKED Nora Kyo QUANTITIES BY Yong Pil Kim CHECKED Nora Kyo	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 8	BRIDGE NO. 33-0025 POST MILE 8.6/1.2	SAN FRANCISCO-OAKLAND BAY BRIDGE EAST SPAN SEISMIC SAFETY PROJECT 504' AND 288' SPANS DEMOLITION WIND LOADS ON PIERS, 504 FT AND 288 FT SPANS
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 09-01-10)	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3593 PROJECT NUMBER & PHASE: 0412000608, 1	CONTRACT NO.: 04-013521	DISREGARD PRINTS BEARING EARLIER REVISION DATES