

## NOTICE TO CONTRACTORS

- All work shall conform to Standard Specifications for Public Works Construction, latest edition and supplements, and latest Standard Plan S-610 adopted by the Board of Public Works.
- This improvement consists of work called for only this plan.
- Standard Plans for this project:  
CITY OF LOS ANGELES (Latest):  
S-610-24 Notice to Contractors - Comprehensive  
S-791-1 Advance Construction Notice Signs
- The contractor shall verify all dimensions and conditions in the field before starting work. Notify the Engineer immediately of any discrepancies.
- The Engineer does not warrant the accuracy of scaled dimensions. All dimensions shall be designated on the plans.
- The Contractor shall contact the Geotechnical Section (213) 847-4008 at least two working days in advance of required observations or inspections by the Geotechnical Engineer.
- Underground Service Alert (USA): Within ten days before starting excavation work, the Contractor shall call 1-800-422-4133 and obtain an USA Inquiry Identification Number. After obtaining the number, excavation shall not proceed for two days to allow for notification of utility owners. The number shall also be reported to the Inspector when requesting inspection at Metro (213)485-3002 or Valley (818) 989-8335. The Contractor shall take special precautions to protect and maintain continuous service of overhead utility lines. Any necessary potholes and relocation of overhead utility lines shall be at the Contractor's expense. Construction in close proximity to high-voltage overhead lines shall be performed in accordance with the latest provisions of Article 86, State of California High Voltage Electric Safety Order.
- The Contractor shall obtain required permits from the California Division of Industrial Safety for construction of trenches and excavations over five feet deep. The Contractor shall submit proof of permit to the Inspector.
- The Contractor shall verify the location and dimension of all blockouts, pads, sleeves, openings, embedded or attached items, pipes, etceteras, whether shown on Civil, Architectural, Electrical, Mechanical or Structural drawings, or as required by approved shop drawing. All sleeves and pipes with waterstops shall be cast-in-place.
- The Contractor shall locate all underground utilities and protect them during construction.
- The subsurface investigation for this project is prepared by Geotechnical Services, dated xx/xx/199x, File #99-XX, is made part of this set of plans.
- All Provisions of the Los Angeles County Flood Control District permit shall be complied with. The Contractor shall not enter the Los Angeles River Channel at any time during the rainy season (October 15th through April 15th) without prior notice and authorization by the Engineer. Mr. Ted Masigat, Maintenance and Operation Section, of the United States Army Corps of Engineers, shall be notified by telephone (213) 452-3393 five days prior to the beginning of work in the Los Angeles River channel right-of-way.
- Security of work site: The Contractor shall provide temporary chain-link fencing as necessary to protect the public and the work site.
- The Contractor shall provide a professionally prepared cost-loaded CPM and bar chart schedule for the Engineer's review and approval prior to setting up the preconstruction meeting.
- The Contractor shall provide 2 credit signs and Advance Construction Notice signs per S-791-1 at locations approved by the Engineer.
- The Contractor shall provide a modified Class B Field Office (with air conditioning) including a fax machine for the duration of the project. Place the Field Office at a location approved by the Engineer.
- Cleanup: The Contractor shall be responsible in maintaining a clean, trash and graffiti-free work zone during the construction period. After completion of work, the Contractor shall remove all equipment and appurtenances used, and shall leave the premises in a clean, and presentable condition.

## STRUCTURAL NOTES

- Bar reinforcement: ASTMA706, including Supplement S1, Grade 60.
- Reinforced concrete: Class 660-C-4000. All exposed edges and corners shall be chamfered 3/4", unless otherwise noted.
- Bar spacing are center to center of bars. Bar cover is clear distance between surface of bar and face of concrete and shall be as follows unless otherwise noted.
  - Concrete exposed to liquid or deposited against earth ----- 3"
  - All others ----- 2"Reinforcement shall terminate 2 inches from concrete surface unless otherwise noted.

**PRELIMINARY - NOT FOR CONSTRUCTION**

- Unless otherwise detailed or approved by the Engineer:
  - Bars may be continuous in lieu of splicing.
  - Bars shown spliced shall be continuous at all other locations.
  - Bar sizes #3 through #7, lap splices shall be 45 bar diameters. For bar sizes #8 through #11, lap splice lengths shall be approved by the Engineer.
  - Hooked bars shall be standard hooks.
- Construction joints: Roughen to 1/4 inch amplitude minimum.
- For construction below grade and in areas in contact with liquids, all holes and form tie holes shall be filled with an epoxy or non-shrink grout, unless noted otherwise. Holes shall be filled after the removal of all form clamps, bolts and other hardware.
- Welding reinforcing bars shall not be permitted without the approval of the Engineer. All welding shall conform to the requirements of the Bridge Welding code AWS D1.5 (Latest Edition). Welding shall be performed by L.A. City certified welders. Continuous inspection is required on all welds. All electrodes shall be E70XX Series. Material cuts and welds shall be ground smooth.
- Steel pipes shall conform to ASTM A-53.
- The bottom of all excavations shall be approved by the Geotechnical Engineer before placing any reinforcing.
- All excavation, removal, and recompaction of soil, dewatering (if required), and pile installation shall conform to the recommendations of Soils Report. The Contractor shall install the CIDH piles with either temporary steel casing or drilling fluid to prevent caving as directed by the Engineer. All foundations shall be poured against undisturbed earth or compacted fill.
- Unshored excavation up to 5' may be made. All backfill shall be mechanically compacted to a density of at least equal to 90 percent of the maximum density obtained by the ASTM D1557-58T Method of compaction, unless otherwise specified. Jetting is not permitted.
- Permanent cut and fill slopes shall match existing adjacent slopes. Riverbed armor (Riprap and gunite shall be restored to its original condition after construction of new piers and abutments.
- The loss in stress in pretensioning steel due to shrinkage and creep shall be assumed to be 35 psi.
- Prestressing steel: Grade 270, 0.6-inch diameter seven-wire, low relaxation strands, AASHTO M203.
- Elastomeric bearing pads shall conform to Section 51-1.12H (2) steel Reinforced Elastomeric Bearings of the Caltrans Standard Specifications.
- Asphalt concrete shall conform to D2-AR-4000.

## DESIGN DATA

Bridge Design Specification (1983 AASHTO with Interim and Revisions by CALTRANS through 1994), except as modified by the City of Los Angeles Structural Engineering Division Standards.

### Applied Loads

Live Load ..... 85 psf and checking for H10 loading  
Dead Load ..... 8 inch dirt on top of concrete deck: ..... 120 pcf  
Concrete: ..... 150 pcf  
Lateral Earth Pressure ..... 36 pcf  
Earth Weight ..... 120 pcf  
Seismic Load (Peak Rock Acceleration) ..... 0.7g  
For prestressed I-girder:  
Concrete .....  $f'_c = 5,000$  psi @ 28 days  
 $f'_{ci} = 3,500$  psi @ time of initial prestressing  
Prestressing Steel .....  $f'_s = 270,000$  psi  
Reinforcing Steel .....  $f_y = 60,000$  psi

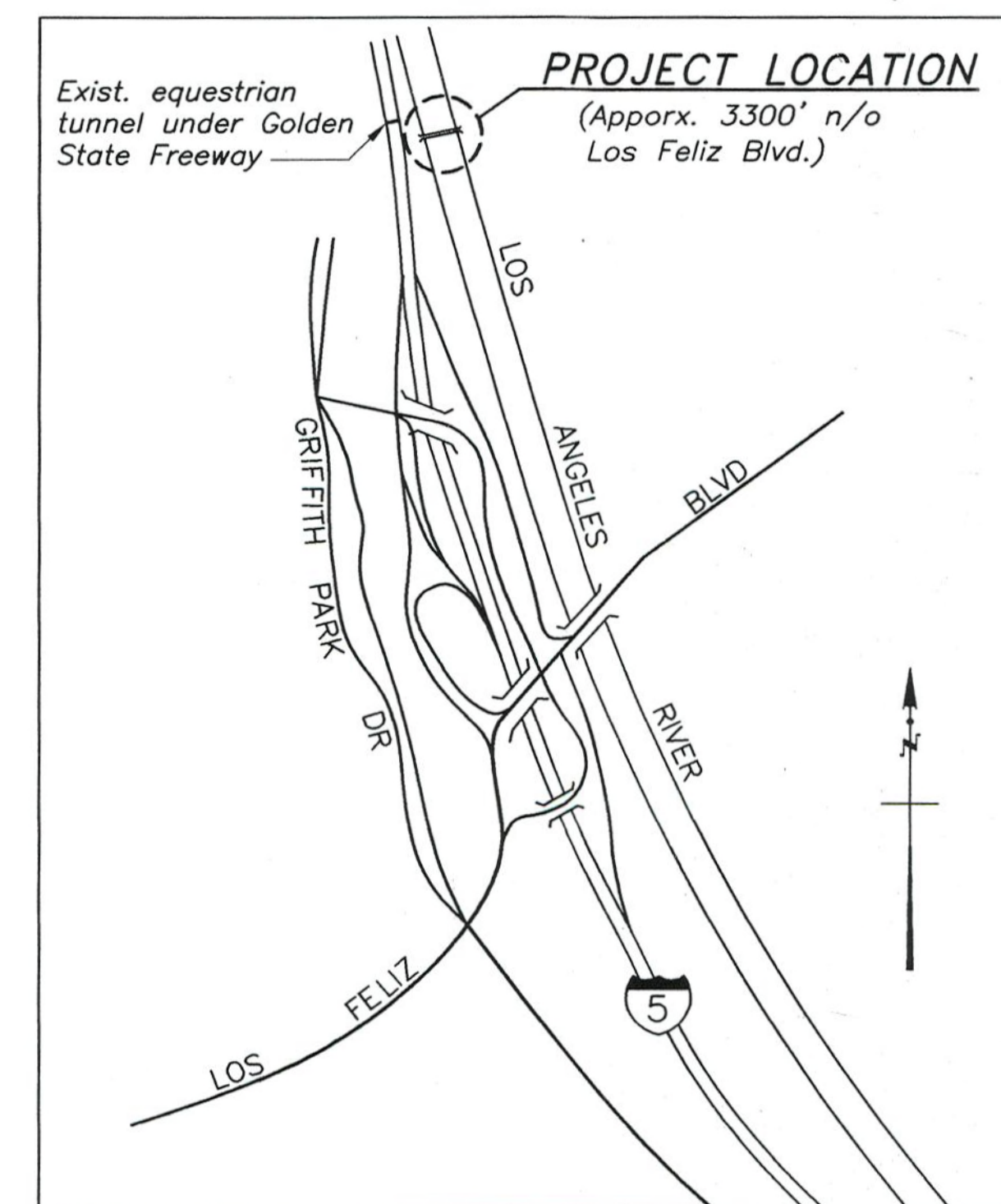
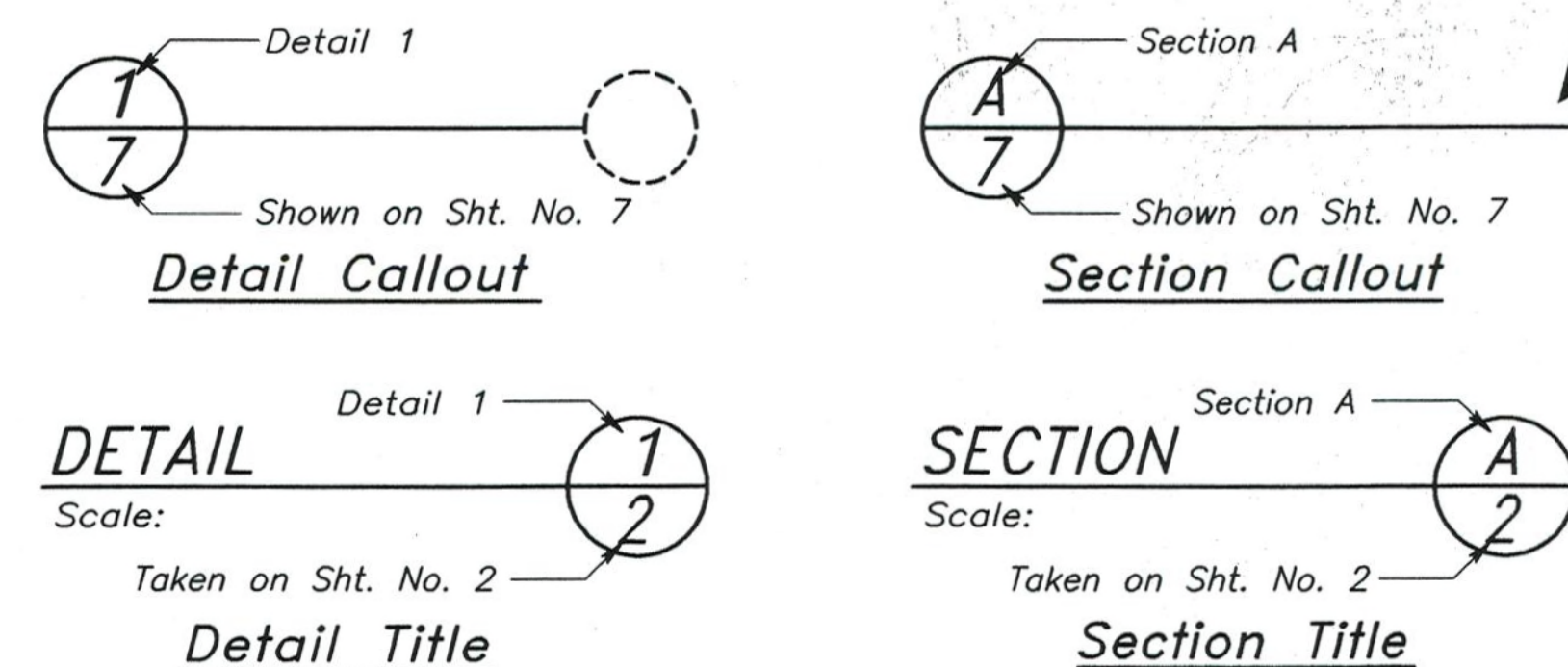
Reinforced Concrete (Deck, Abutment, Pier wall, Pile, Foundation, Arch, etc.)

Concrete .....  $f'_c = 4,000$  psi @ 28 days  
Reinforcing Steel .....  $f_y = 60,000$  psi

NO.	REVISION DESCRIPTION	DIV./DIST. ENGR.	DATE	CITY ENGINEER	DATE

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL PLAN, ELEVATION AND TYPICAL SECTION
3	FOUNDATION PLAN, SECTIONS AND CIDH PILE DETAILS
4	ABUTMENT PLAN, SECTION AND DETAILS
5	PIER WALL PLAN, ELEVATION AND SECTIONS
6	PRESTRESSED GIRDER, STRAND PROFILE, AND SECTION
7	CHAIN LINK RAILING TYPE 3L (CALTRANS XS9-81)
8	BORING LOGS AND MISCELLANEOUS DETAILS

## LEGEND



## VICINITY MAP

Not to Scale

EQUESTRIAN BRIDGE OVER LOS ANGELES RIVER  
N/O LOS FELIZ BLVD  
W.O. E6000572

CITY OF LOS ANGELES			
VITALY B. TROYAN, P.E. CITY ENGINEER			
APPROVALS	ENGINEER	DATE	
GEOTECHNICAL			
SURVEY			
DIV./DIST. ENGINEER		R.E. NO.	DATE
DEPUTY ENGINEER		R.E. NO.	DATE
APPROVED		19	
CITY ENGINEER			

SHEET 1 OF 8 SHEETS INDEX NUMBER

DESIGNED BY	YAN DAI-CORE	DRAWN BY	AARON HSU
SUPERVISED BY	JOHN KOO	CHECKED BY	WENN CHYN
PROJECT ENGINEER	JOHN KOO	R.E. NO.	S-3949
ASST. DIV./DIST. ENGINEER	A. VIDARAZACA	R.E. NO.	S-2891
REVIEWED FOR			
STREETS	STRUCTURES	SEWERS	R/W

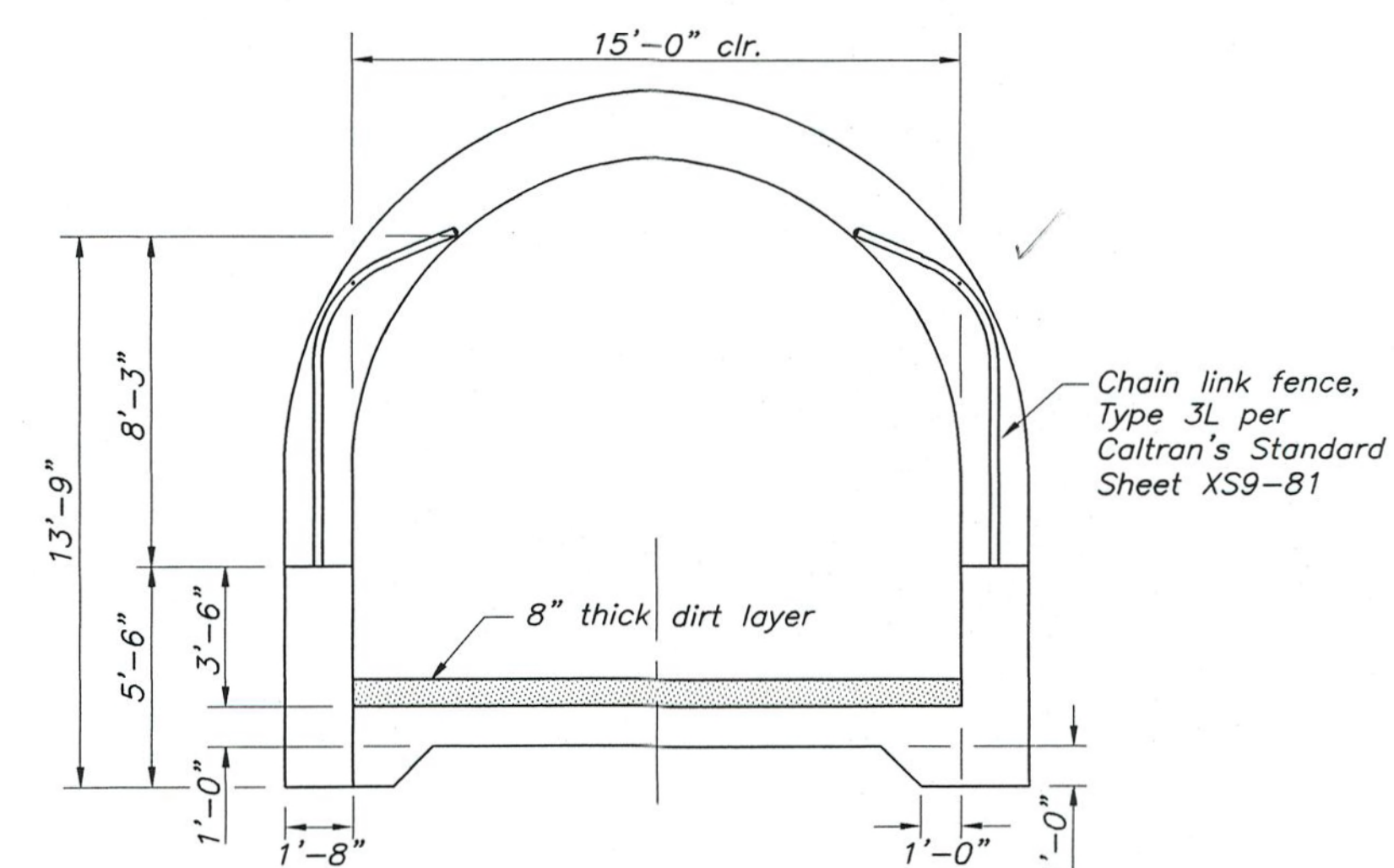
BENCH MARKS	DESCRIPTION
1985 ADJ.	
N&T PIER A-20522	SHEET 6
RIVER CROSSING 1985 ADJ.	
NAIL ON 2/C @ 6+53.2	
EL. = 413.41	

SURVEY INFORMATION	NATIONAL GEODETIC VERTICAL DATUM OF 1929
ORDINANCE NO.	150763
FIELD BOOK NO.	DATE OF SURVEY
PRELIMINARY 41118 P.29-42	12-7-98
PROFILE	
CENTERLINE	

REFERENCES	DISTRICT MAP NO.	R/W NO.	DIV.	PROJECT DISPOSITION	DATE	SERIAL NO.	BY	BT

TITLE SHEET



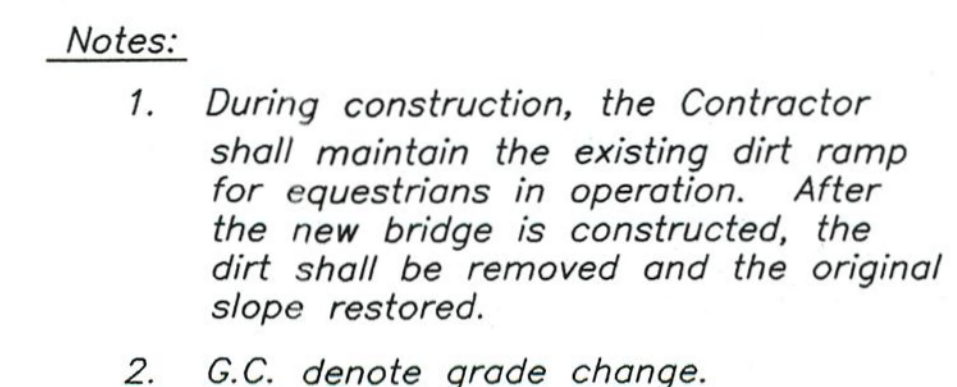


ELEVATION  
Scale 1" = 20'-0"

\* Accumulated dirt, tree growth, and concrete above stone invert not shown. Contractor to field verify actual condition prior to bidding.

\*\* Water level may rise during dry season (April 15 thru October 15) as well due to water release from Glendale Water Treatment Plant upstream.

TYP. SECTION  
Scale 1/4" = 1'-0"



*PLAN*

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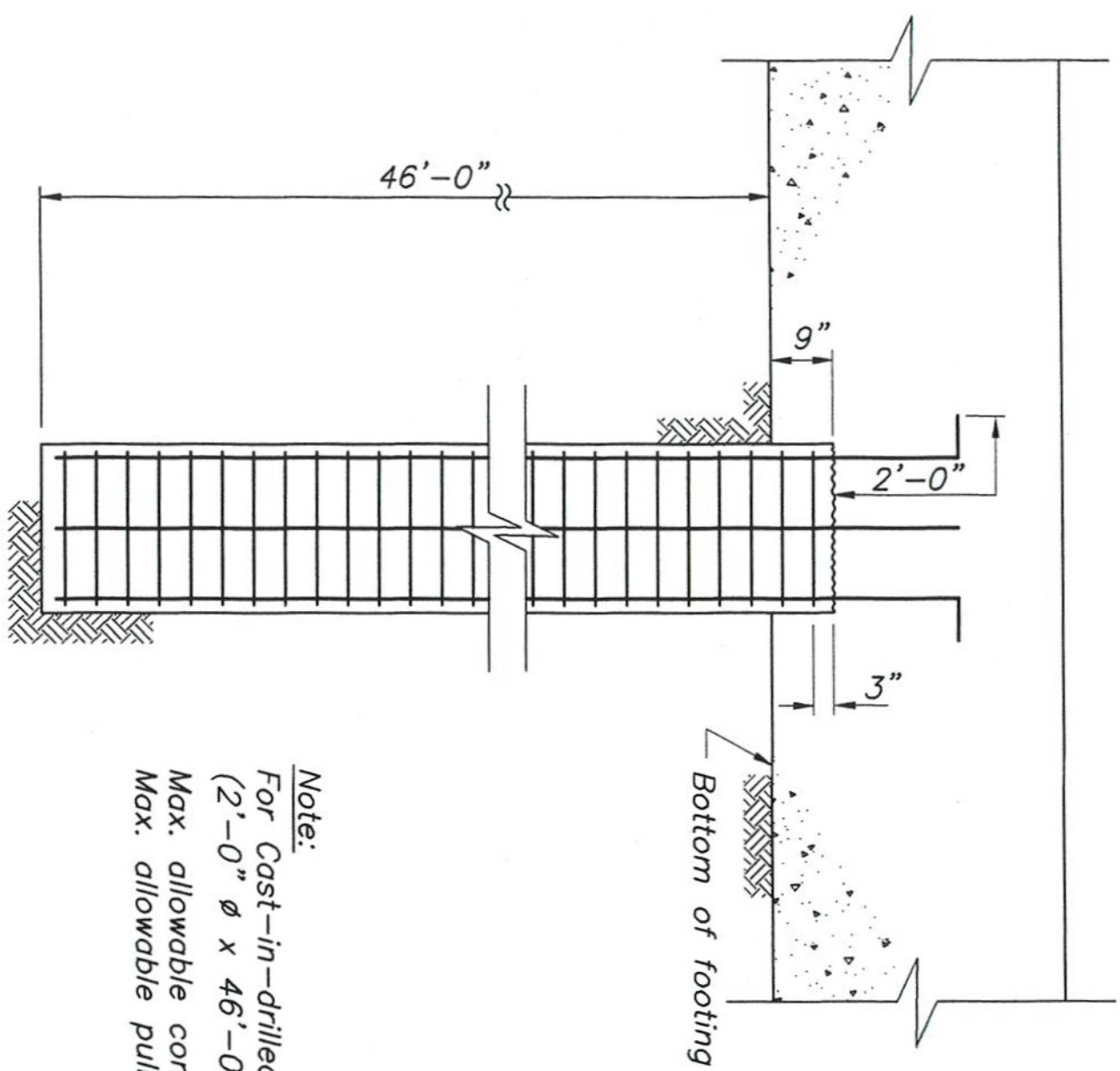
*Scale 1" = 20'-0"*

PRELIMINARY - NOT FOR CONSTRUCTION

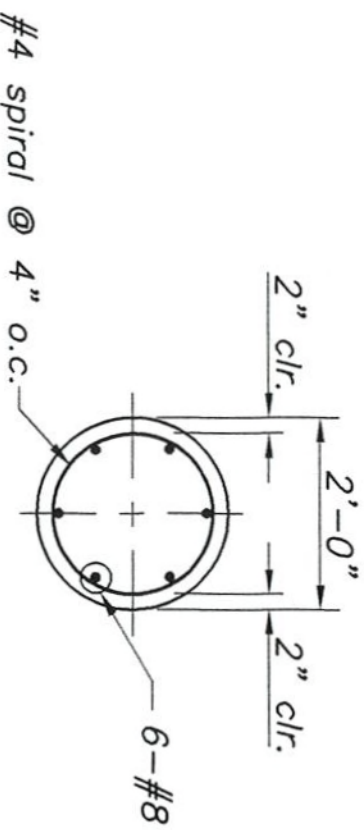
EQUESTRIAN BRIDGE OVER LOS ANGELES RIVER  
N/O LOS FELIZ BLVD W.O. E6000572

[illegible]



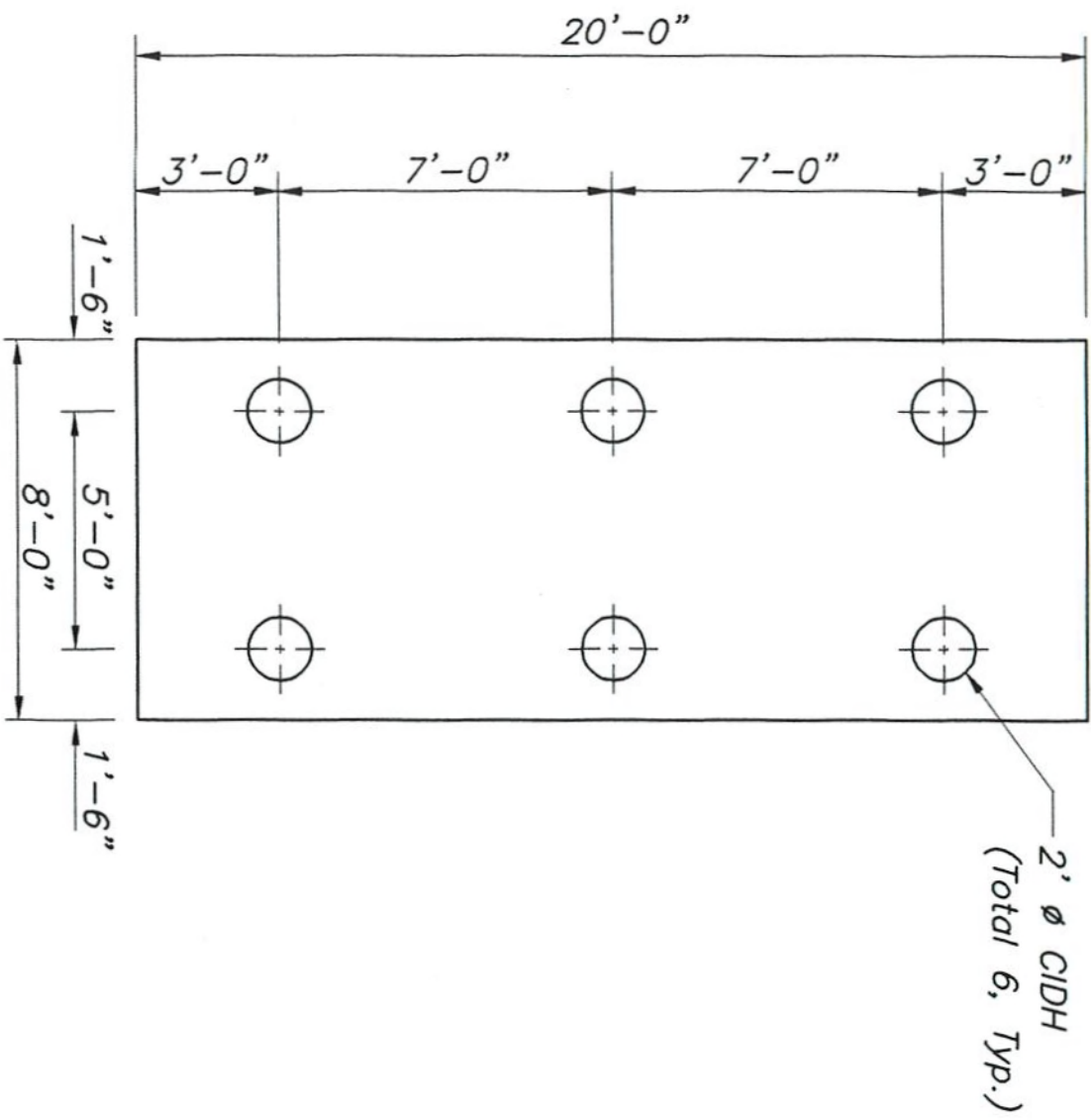
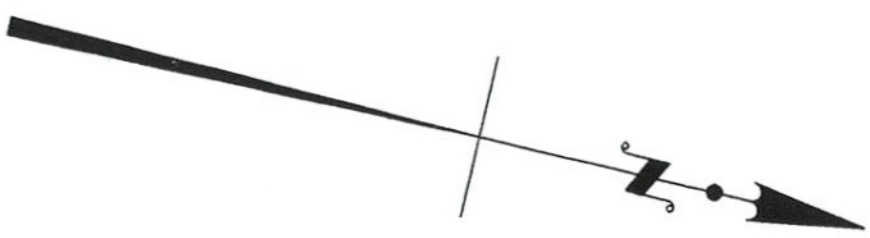


Note:  
For Cast-in-drilled-hole (CIDH) piles  
(2'-0"  $\phi$  x 46'-0" L)  
Max. allowable compression: 70 kips  
Max. allowable pullout: 10 kips



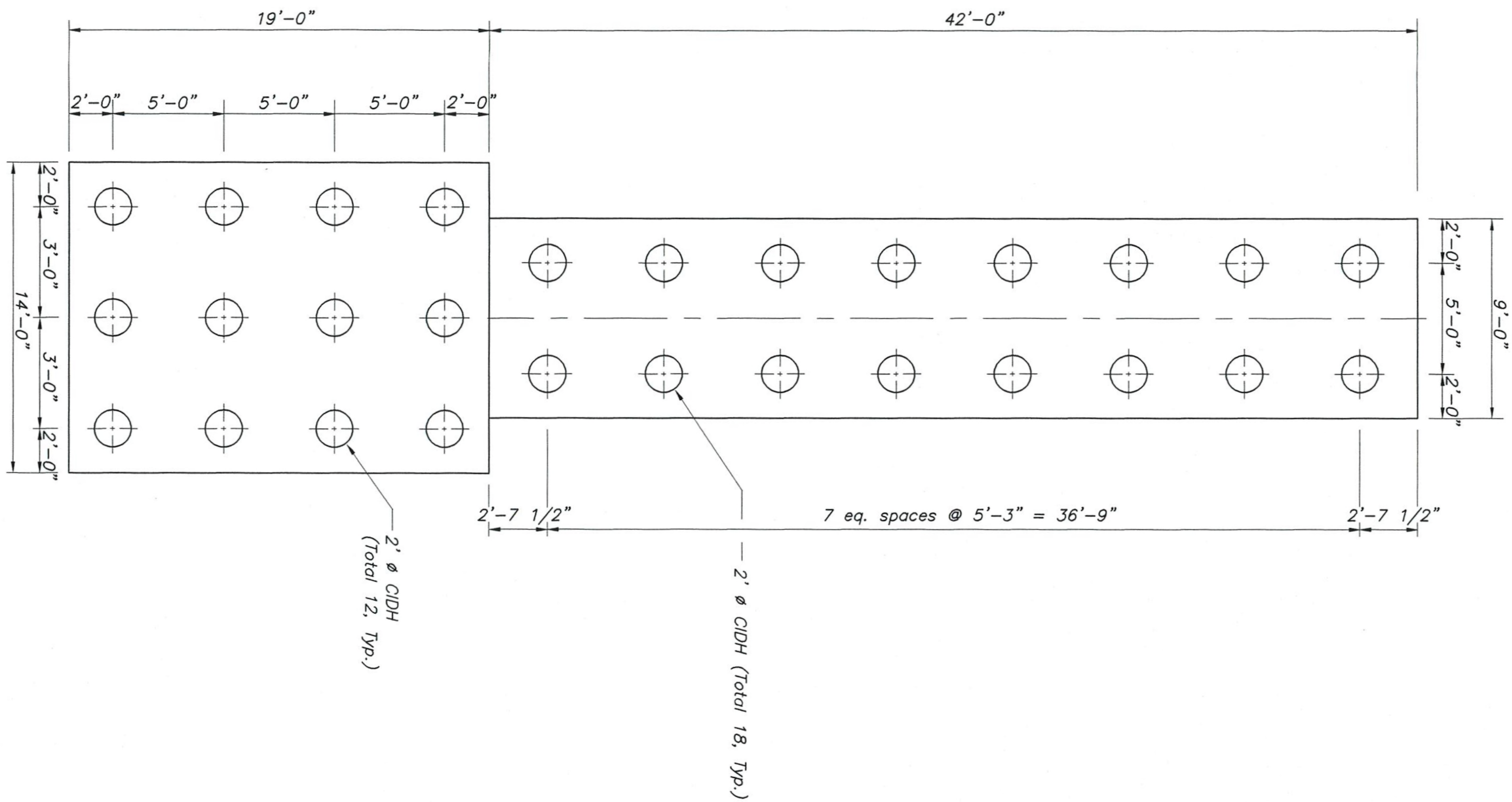
### CAST-IN-PLACE CONCRETE PILE SECTION

Scale: 1/2" = 1'-0"



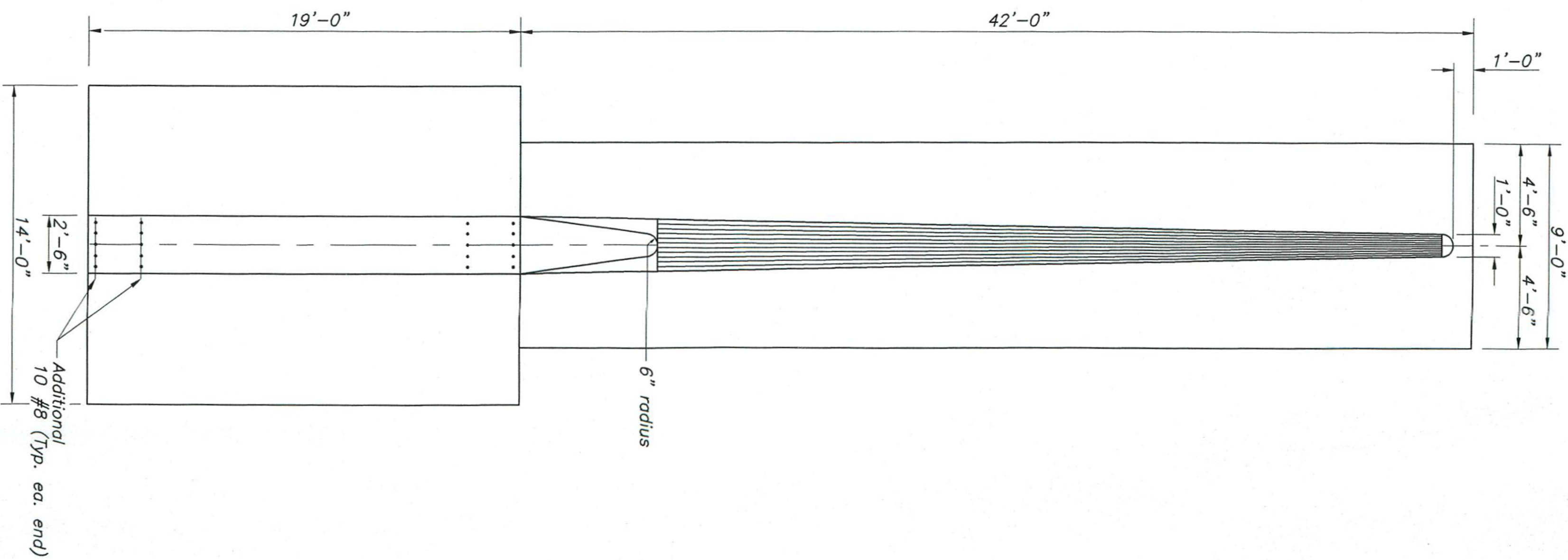
### PILE PLAN @ ABUTMENTS

Scale: 1/4" = 1'-0"



### PILE PLAN @ PIER WALLS

Scale: 1/4" = 1'-0"



### PIER WALL & EXTENSION PLAN

Scale 1/4" = 1'-0"



CITY OF LOS ANGELES  
VITALY B. TROYAN, P.E. CITY ENGINEER

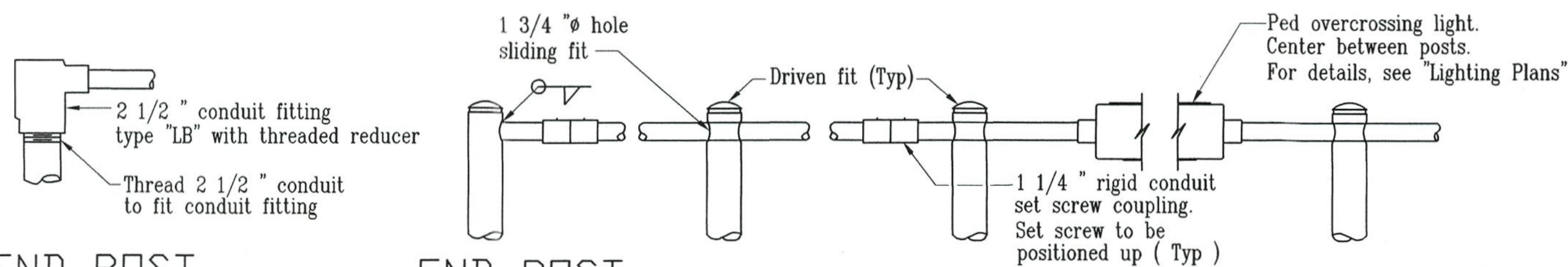
DATE: 19

DIV./DIST. ENGR. R. E. NO.

### FOUNDATION PLAN SECTIONS AND CIDH PILE DETAILS

DESIGNED	YAN DAI-CORE	DATE	10-31-99
DRAWN	AARON HSU		10-31-99
CHECKED	EJIKI MRARUGURU		10-31-99
SUPERVISED	JOHN KOO		10-31-99
PROJECT ENGR.	JOHN KOO		10-31-99
R. E. NO.	S-3949		
ASST. DIV./DIST. ENGR.	ALEX VIDAURRAZAGA		10-31-99
R. E. NO.	S-2891		

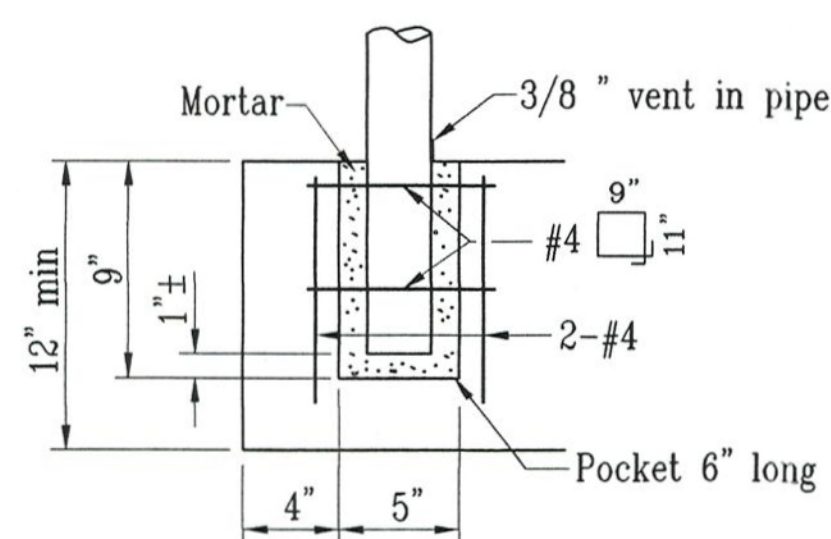




END POST  
(With electrical conductors)

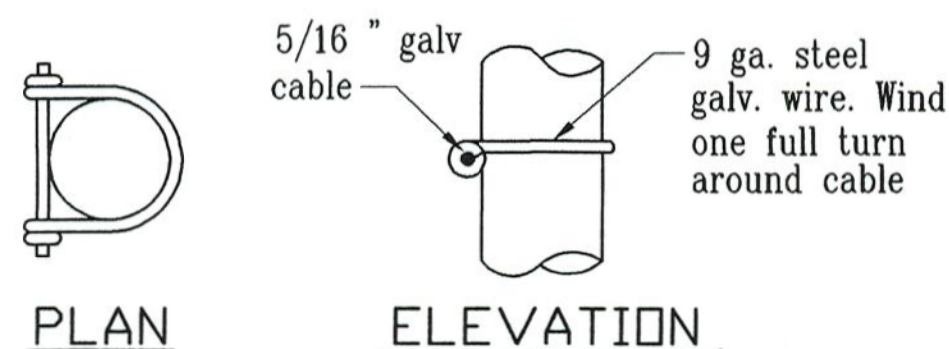
END POST  
(Without electrical conductors)

INTERMEDIATE POSTS



ALTERNATIVE  
ANCHORAGE DETAIL

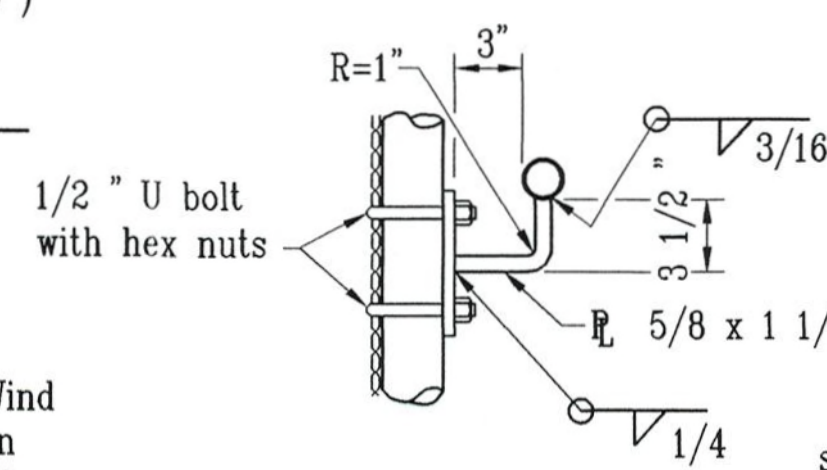
May be used when thickness of concrete is 12" or more.  
Not to be used when post contains electrical conduit.



PLAN

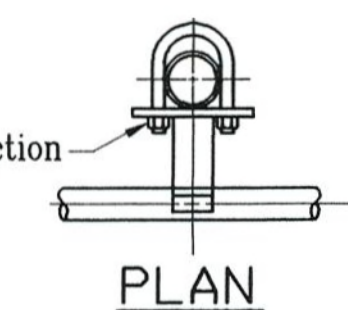
ELEVATION

DETAIL H

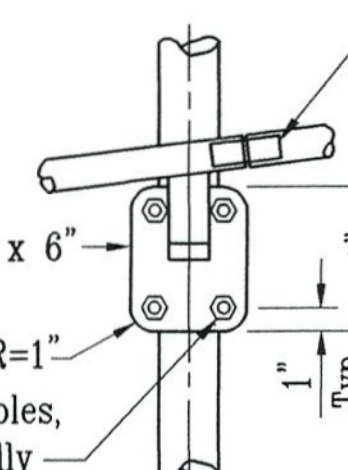


SIDE VIEW

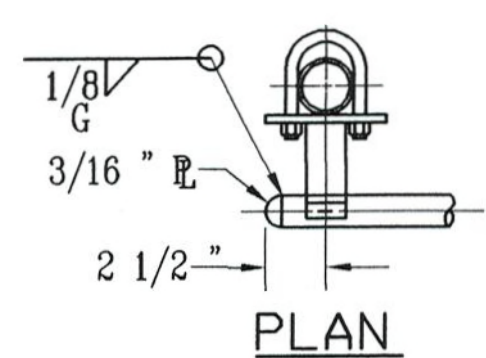
PIPE HANDRAILING BRACKET



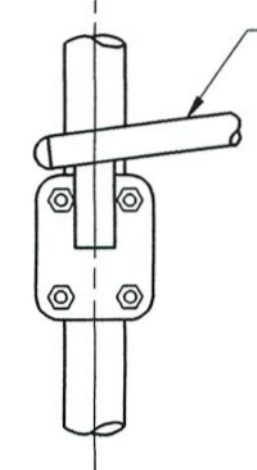
PLAN



ELEVATION



PLAN

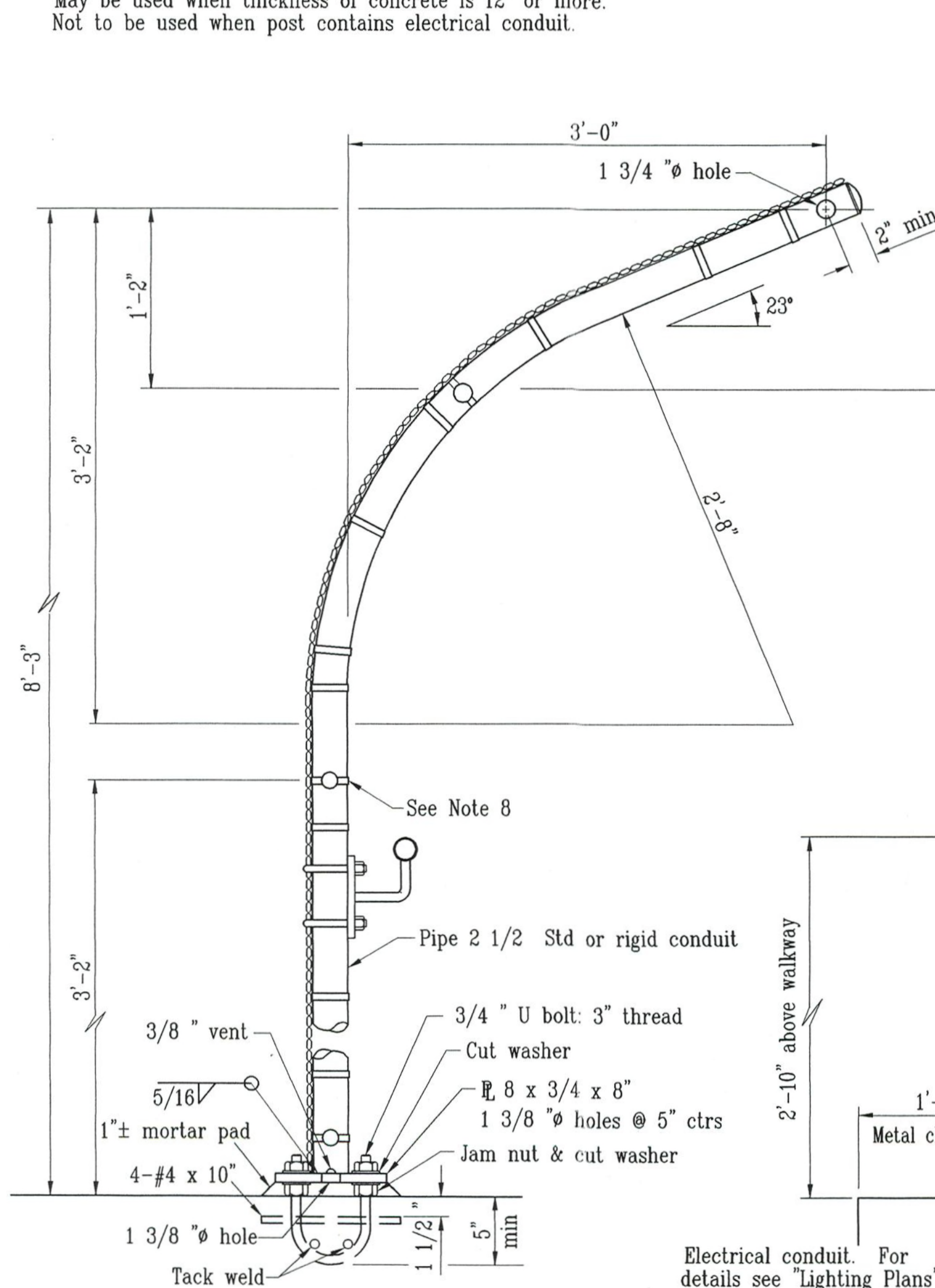


ELEVATION

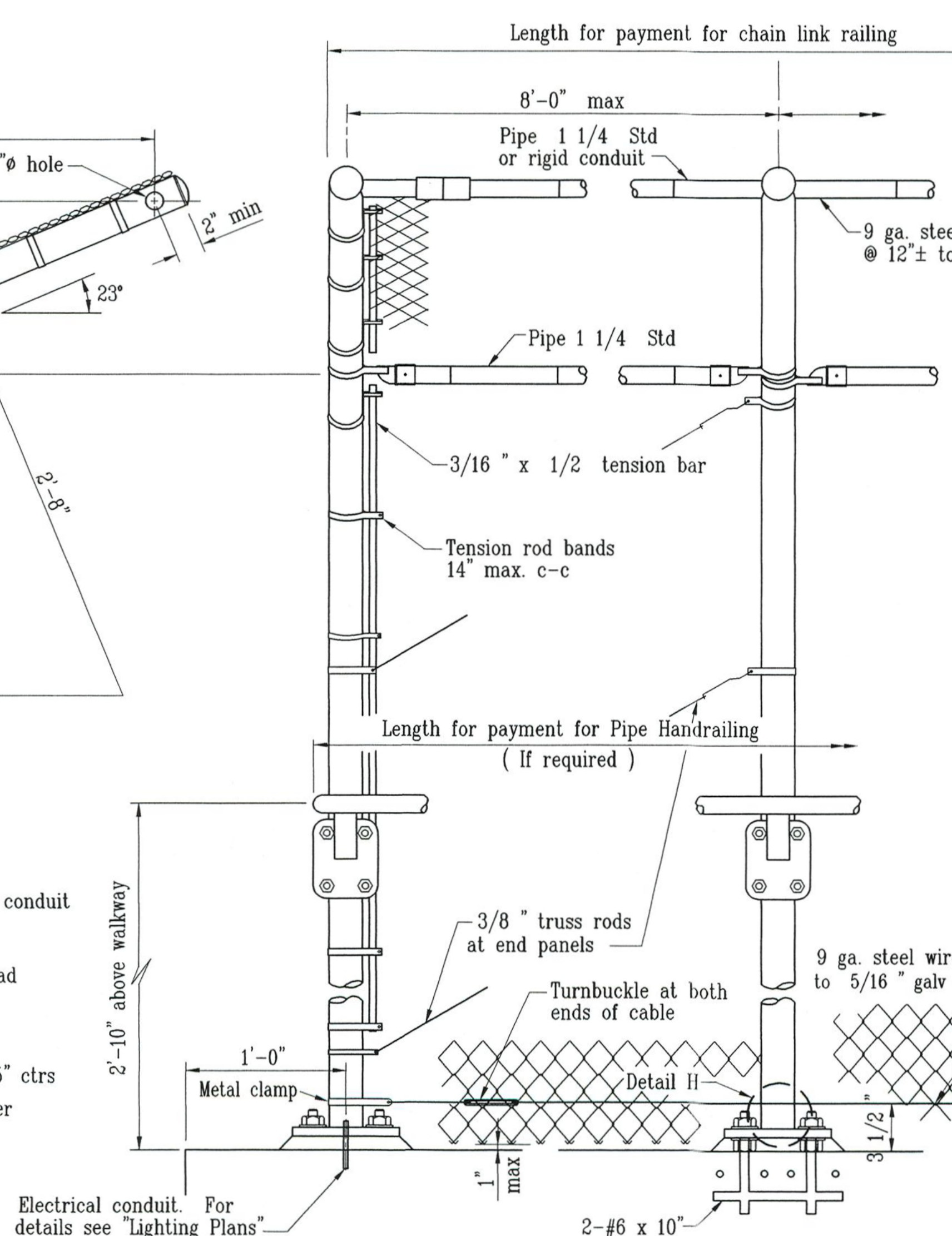
PIPE HANDRAILING AT END

NOTES:

1. Railing assembly except chain link fabric to be galvanized after fabrication.
2. Railing shall conform to horizontal and vertical alignment. Posts shall be vertical. Horizontal pipes shall be bent if radius is 150' or less - may be on 8' chords if radius is over 150'.
3. Peen all 3/8" bolts.
4. When railing is on slope, fabric shall be placed parallel to slope.
5. Alternative details may be submitted by Contractor for Engineer's approval.
6. All pipe carrying electrical conductors shall be rigid conduit.
7. Details for Railing Type 3 & 3L are similar except Type 3 does not have light fixtures.
8. Additional pipe 1 1/4" std required on radius less than 150'.



TYPICAL POST DETAIL

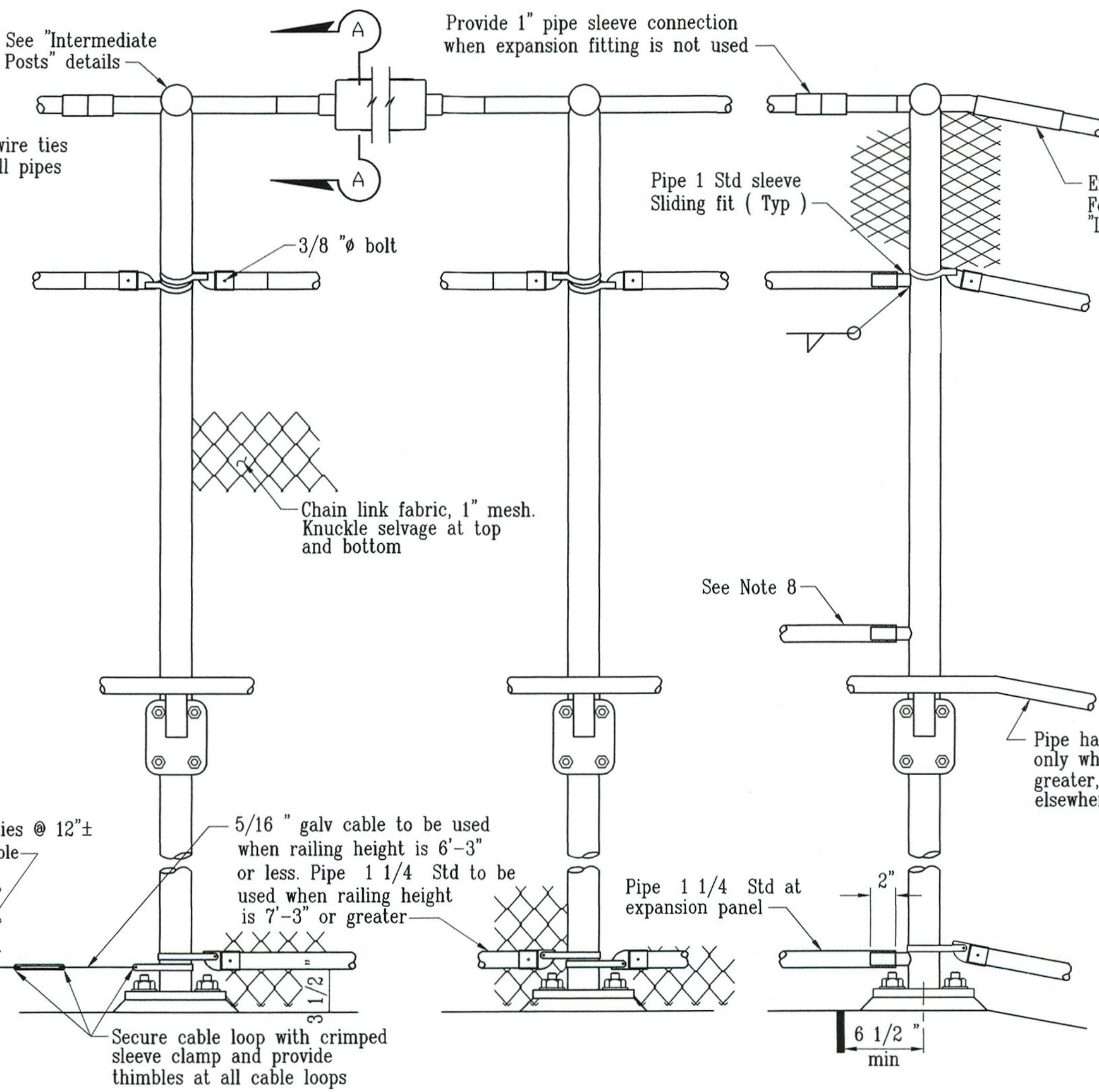


END POST

INTERMEDIATE POST

ELEVATION

PRELIMINARY - NOT FOR CONSTRUCTION



EXPANSION JOINT

SECTION A-A



EQUESTRIAN BRIDGE OVER LOS ANGELES RIVER  
N/O LOS FELIZ BLVD  
W.O. E6000572

SCALES

HORIZ. AS SHOWN  
VERT. AS SHOWN

SHEET 7 OF

SHEETS

INDEX NUMBER

CITY OF LOS ANGELES  
VITALY B. TROYAN, P.E. CITY ENGINEER

DATE 19

REVISION DESCRIPTION

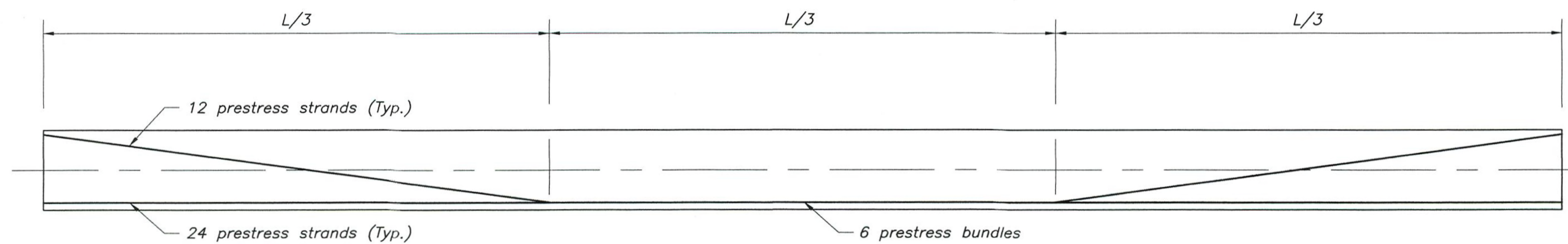
CHAIN LINK RAILING  
TYPE 3L

(CALTRANS XS9-81)

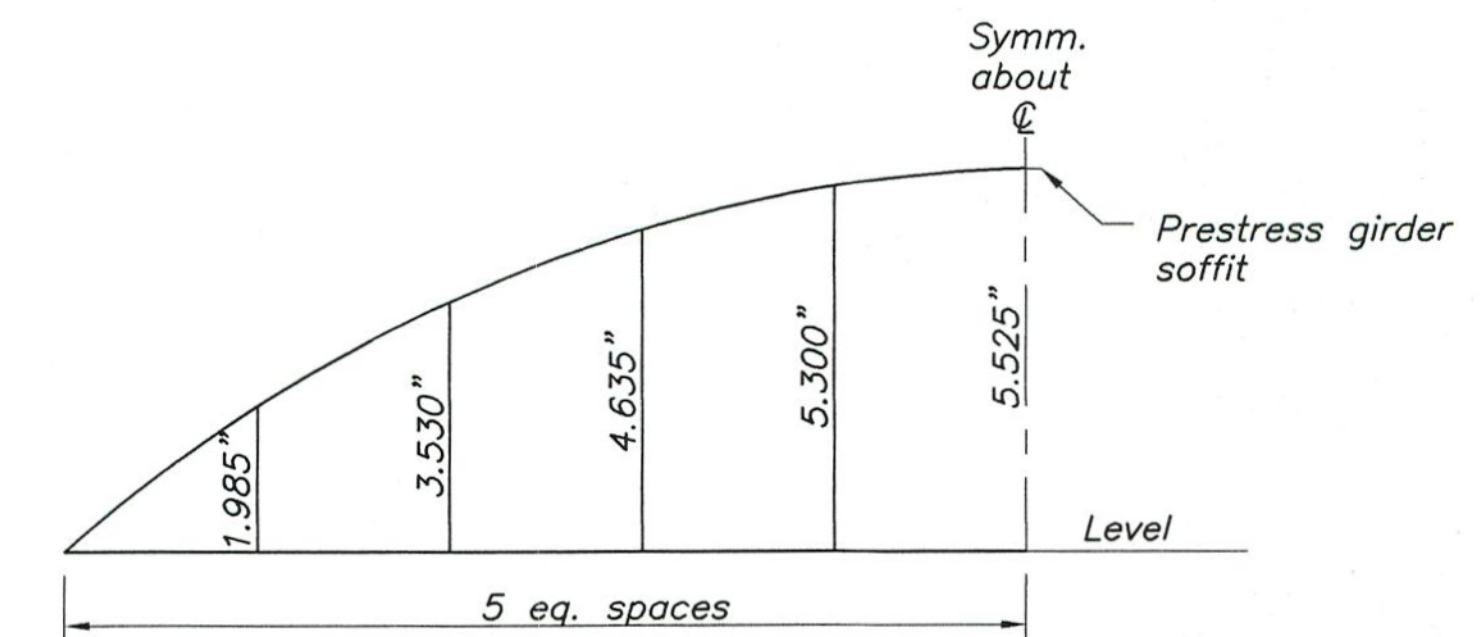
DESIGNED YAN DAI-CORE  
DRAWN AARON HSU  
CHECKED ERIK MARAGURI  
SUPERVISED JOHN KOO  
PROJECT ENGR. JOHN KOO  
R.E. NO. S-3943  
ASST. DIR. DIST. ENGR. ALEX VIDAUZAKA

DATE 10-31-99  
10-31-99  
10-31-99  
10-31-99  
10-31-99  
10-31-99  
10-31-99

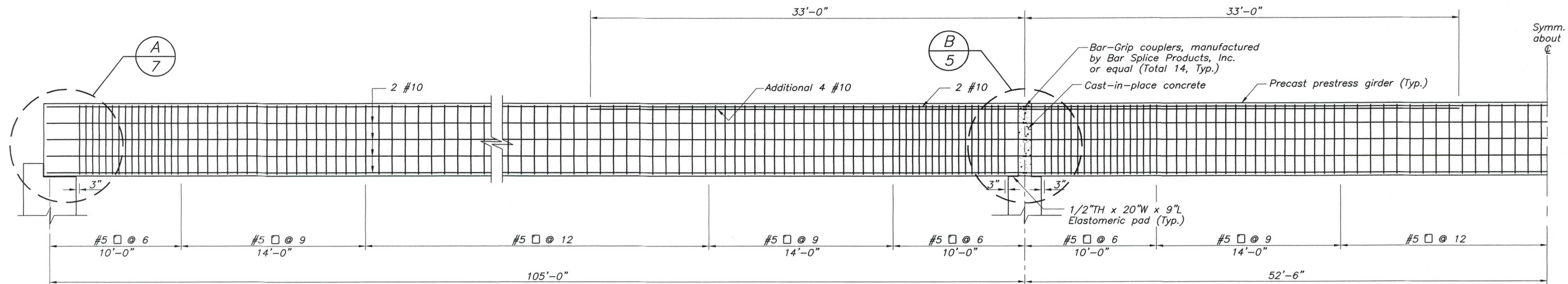




**PRESTRESSING STRANDS PROFILE**  
N. T. S.

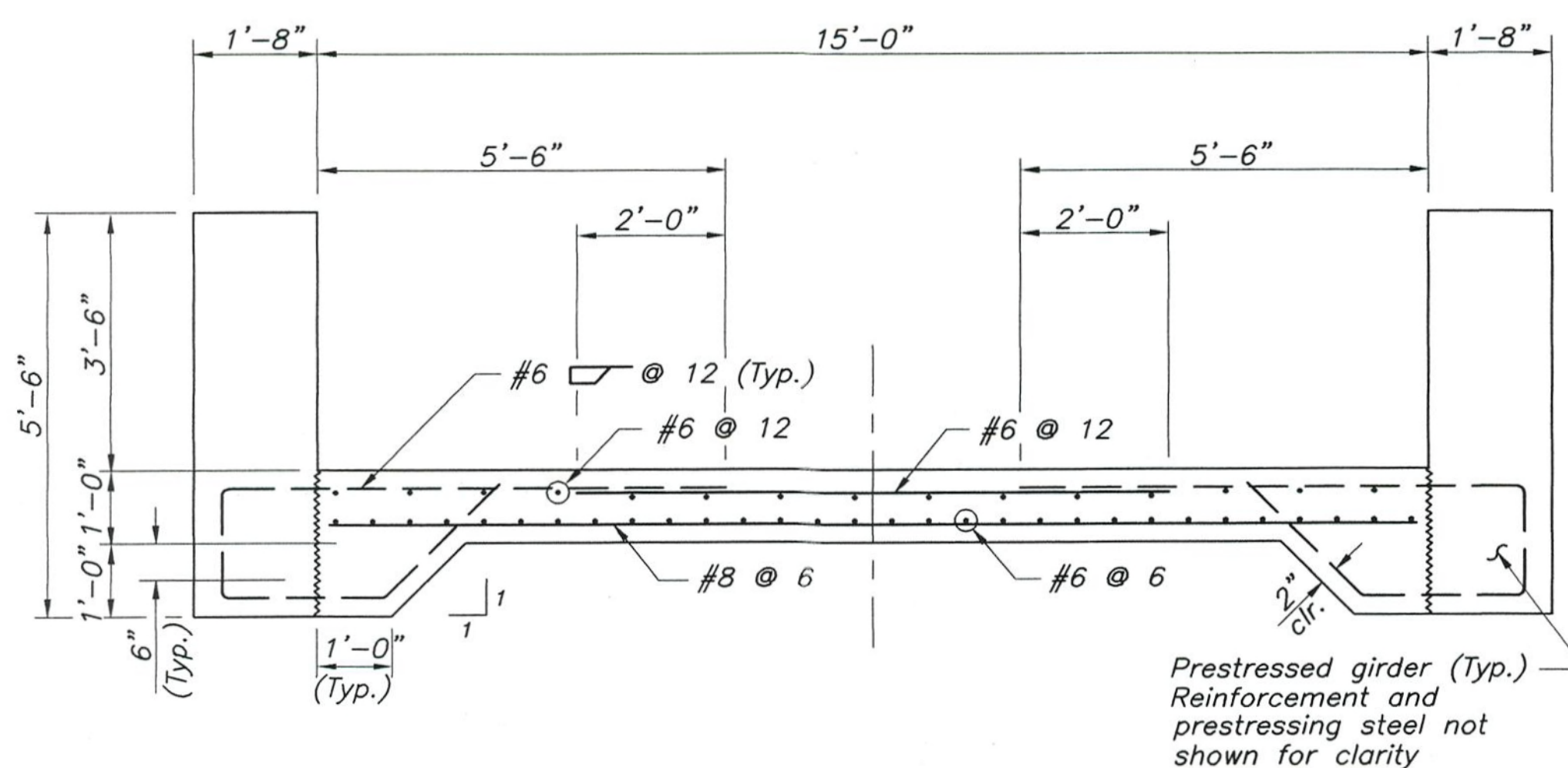


**PRESTRESSED GIRDER CAMBER DIAGRAM**

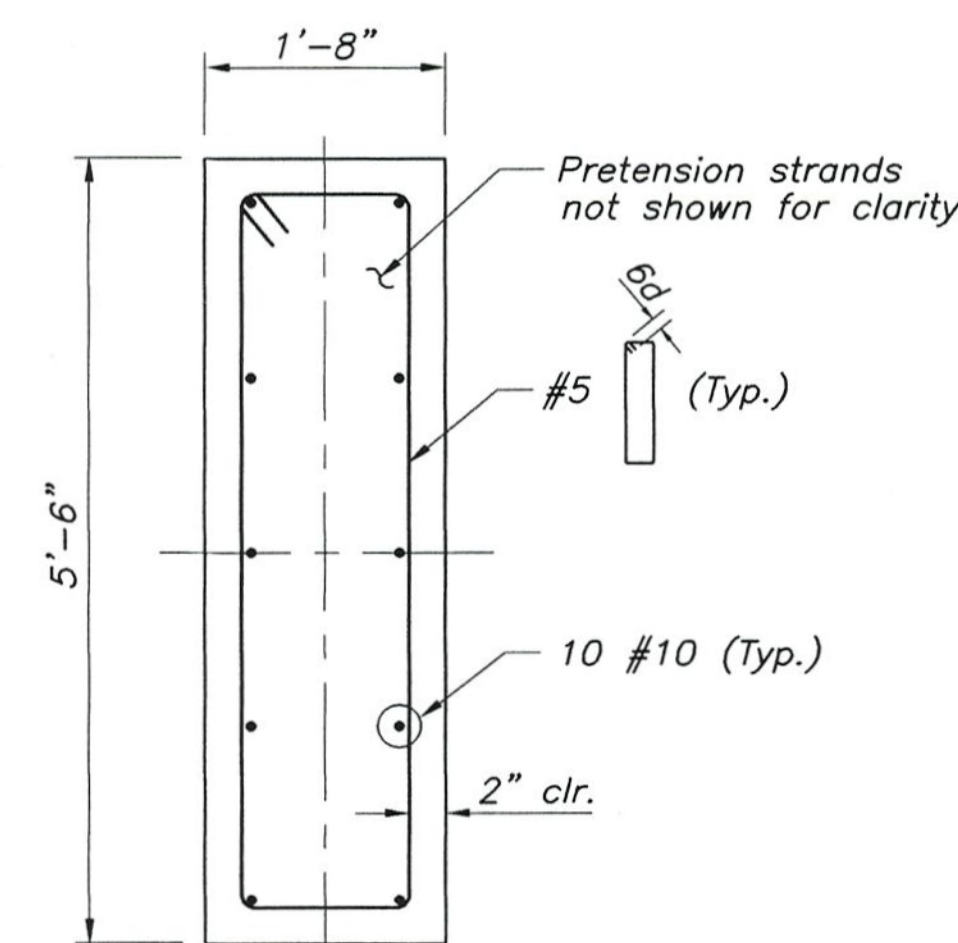


**TYPICAL GIRDER LONGITUDINAL SECTION**  
SCALE: 1/4" = 1'-0"

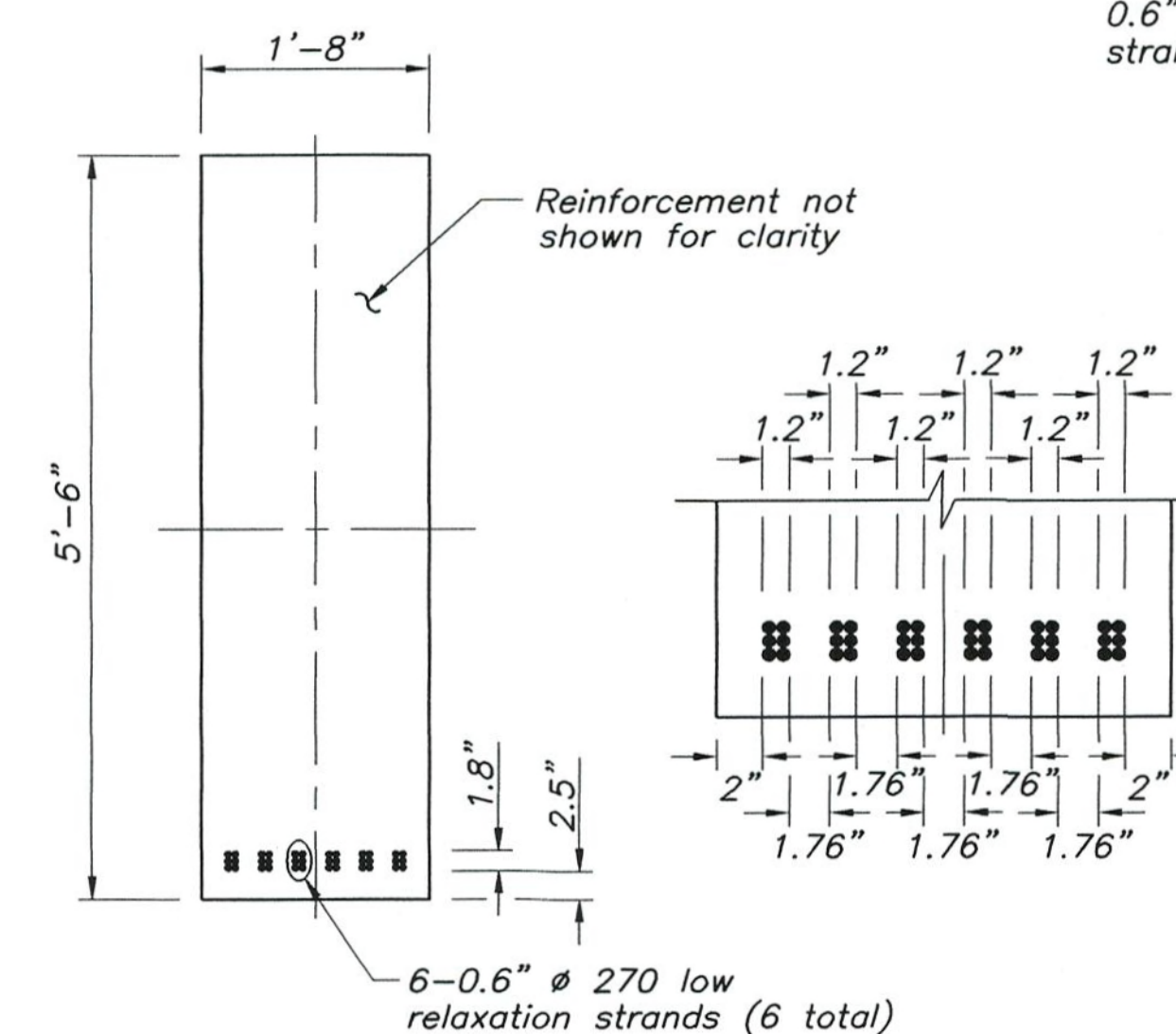
Note: Prestressing tendons are not shown for clarity.



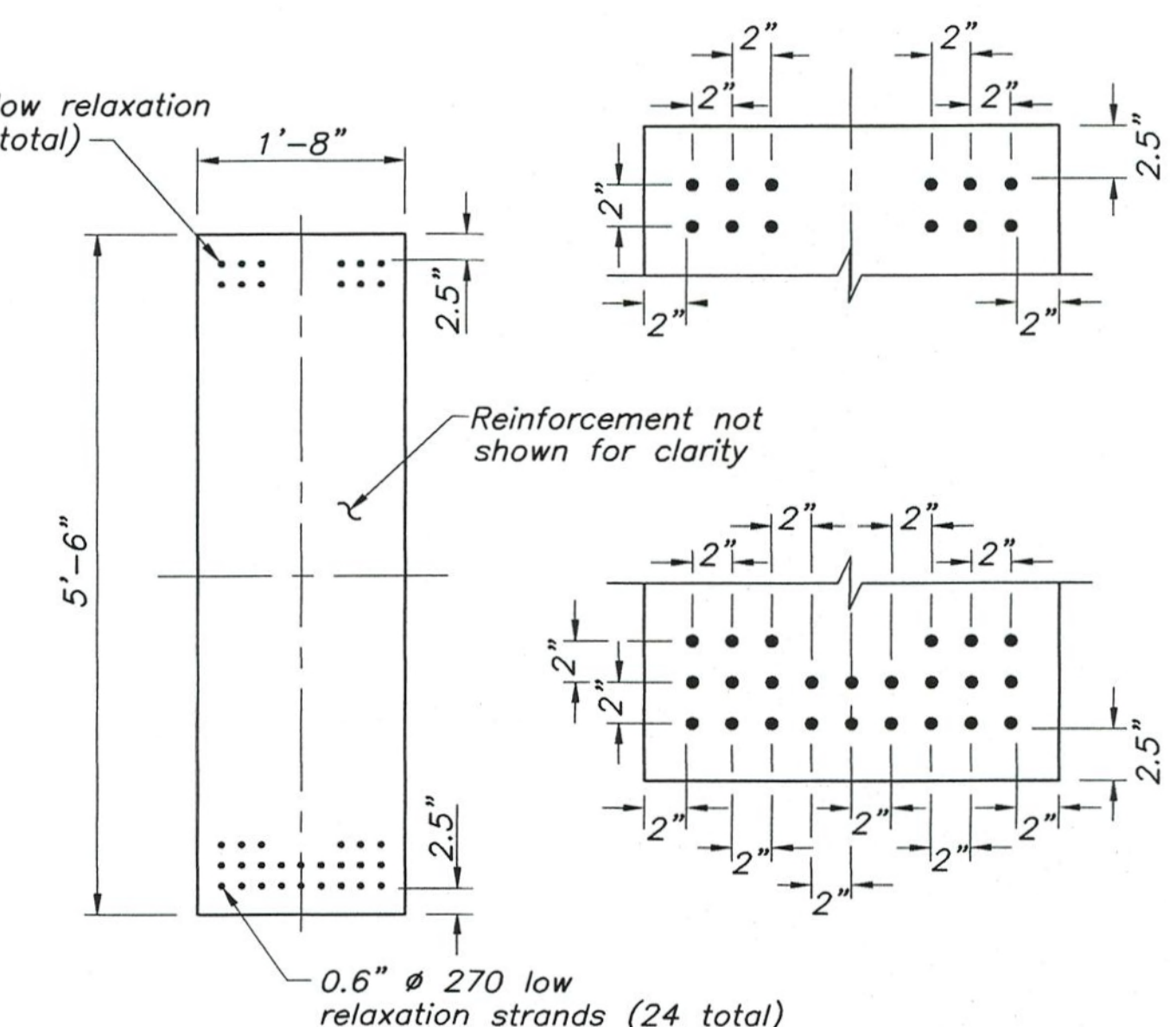
**TYPICAL DECK & GIRDER SECTION**  
Scale 1/2" = 1'-0"



**TYPICAL GIRDER SECTION**  
Scale: 3/4" = 1'-0"



**TYPICAL GIRDER MID-1/3L SECTION**  
Scale: 3/4" = 1'-0"



**TYPICAL GIRDER END SECTION**  
Scale: 3/4" = 1'-0"

**PRETENSION STRANDS LAYOUT**

PRELIMINARY - NOT FOR CONSTRUCTION

EQUESTRIAN BRIDGE OVER LOS ANGELES RIVER  
N/O LOS FELIZ BLVD  
W.O. E6000572



DESIGNED	YAN DAI-CORE	DATE	10-31-99
DRAWN	AARON HSU	DATE	10-31-99
CHECKED	EUIKE MRARUGURU	DATE	10-31-99
SUPERVISED	JOHN KOO	DATE	10-31-99
PROJECT ENGR.	JOHN KOO	DATE	10-31-99
R. E. NO.	S-3949	DATE	10-31-99
ASST. DIV./DIST. ENGR.	ALEX VIDAUARAZAGA	DATE	10-31-99
R. E. NO.	S-2891	DATE	10-31-99

**PRESTRESSING STRANDS  
PROFILE & SECTIONS**

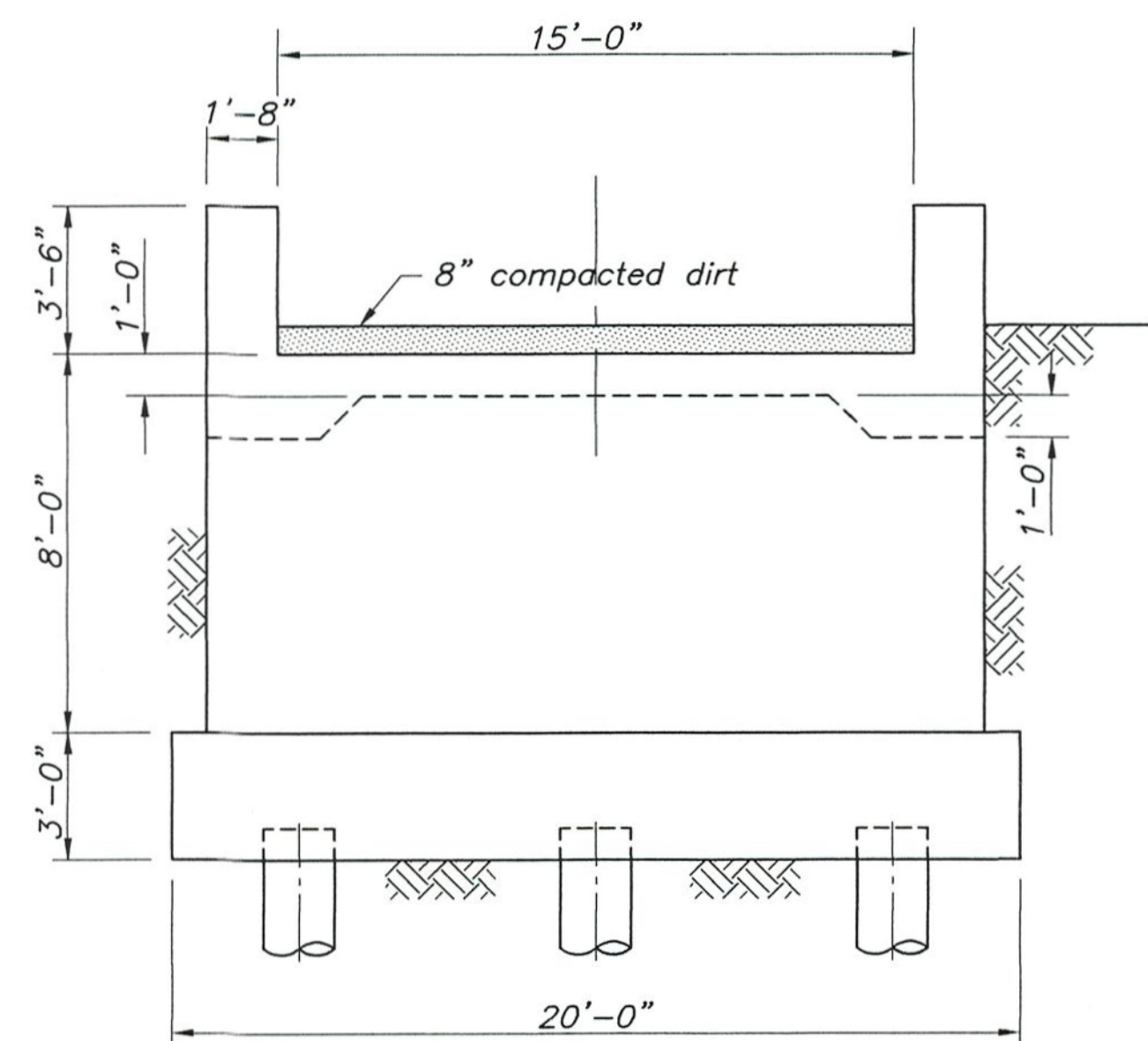
NO.	REVISION DESCRIPTION	DATE	DIV./DIST. ENGR.

CITY OF LOS ANGELES VITALY B. TROYAN, P.E. CITY ENGINEER	DATE	19	R. E. NO.

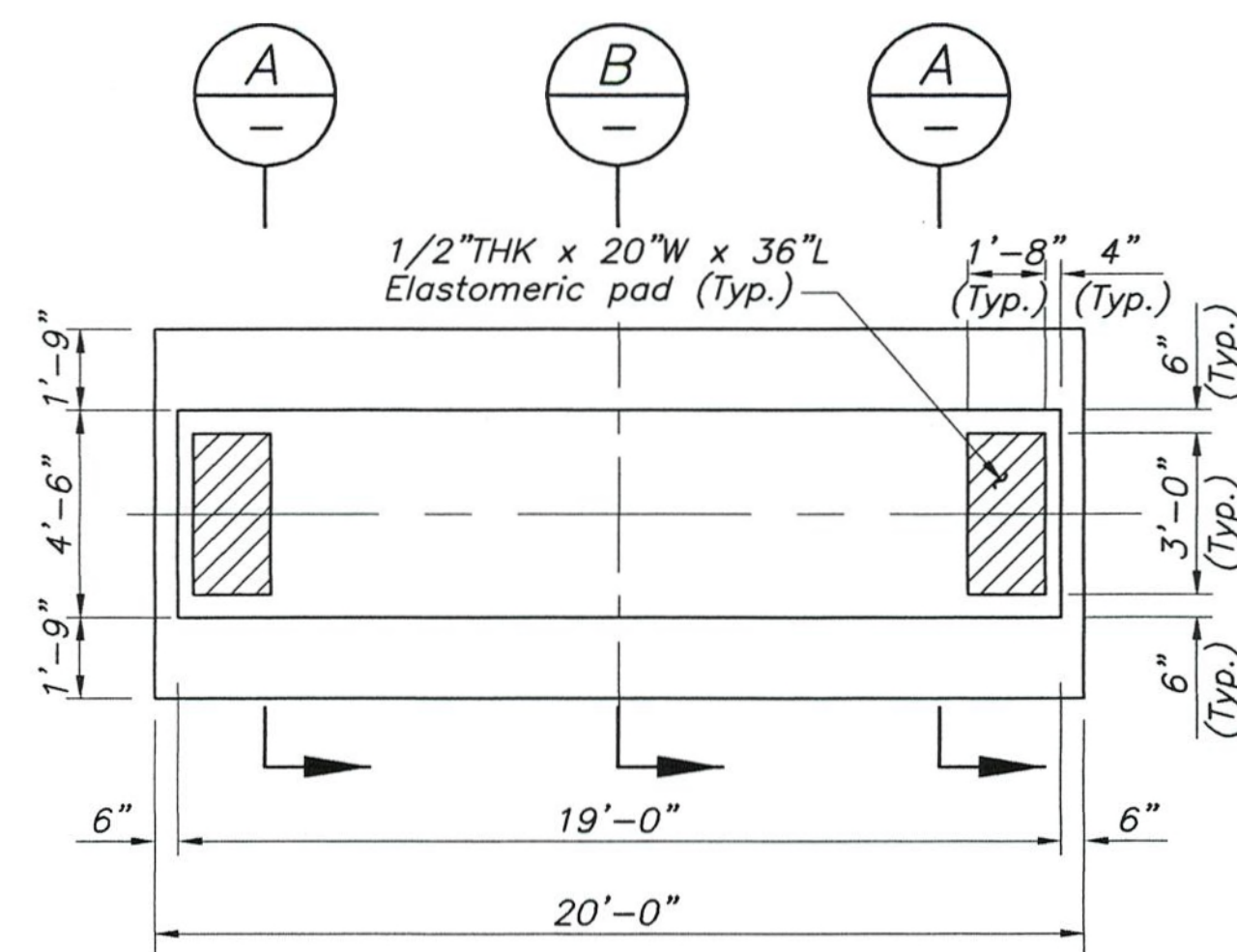




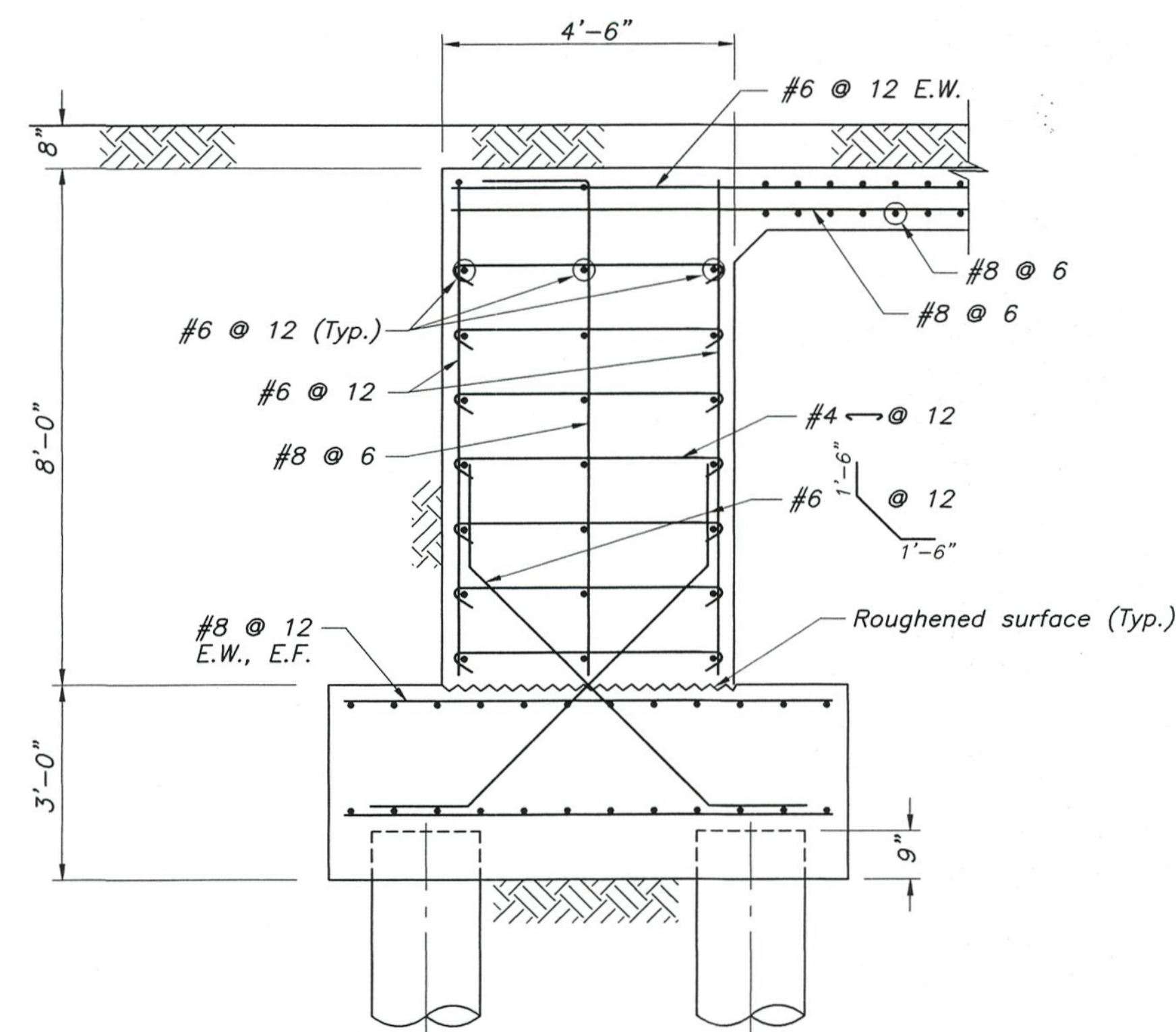




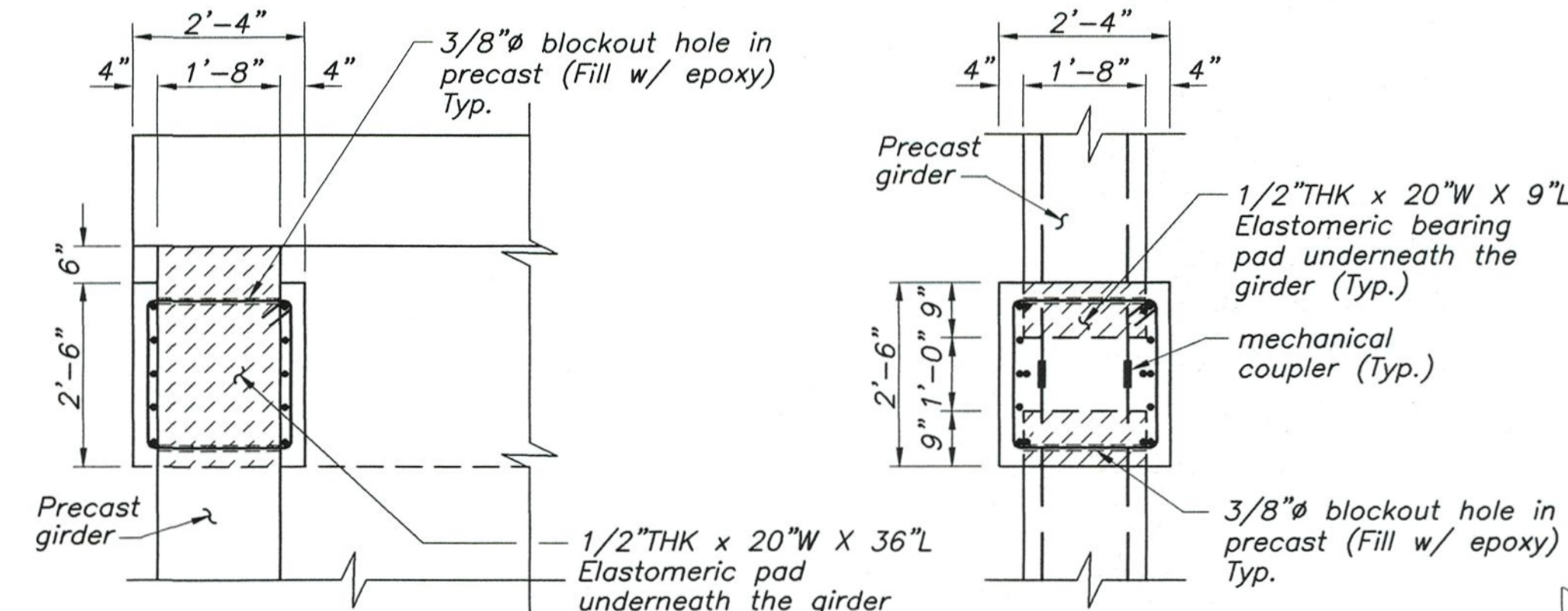
**ABUTMENT ELEVATION**  
Scale 1/4" = 1'-0"



**ABUTMENT LAYOUT  
@ TOP OF FOOTING LEVEL**  
Scale 1/4" = 1'-0"

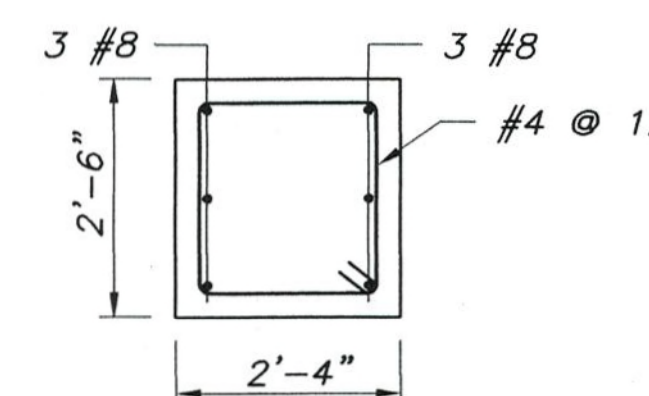


**SECTION**  
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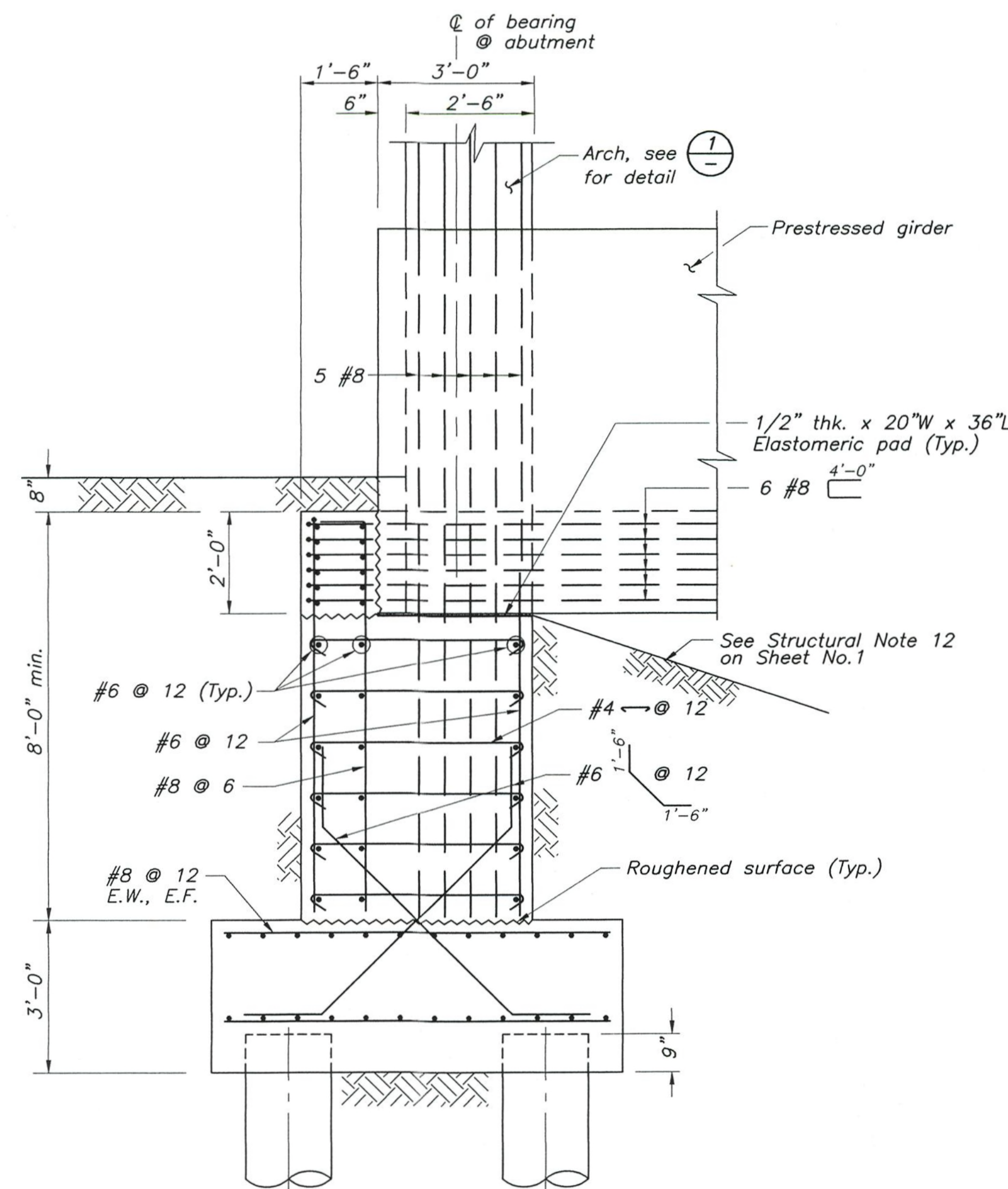


**SECTION @  
ABUTMENT**  
Scale: 1/2" = 1'-0"

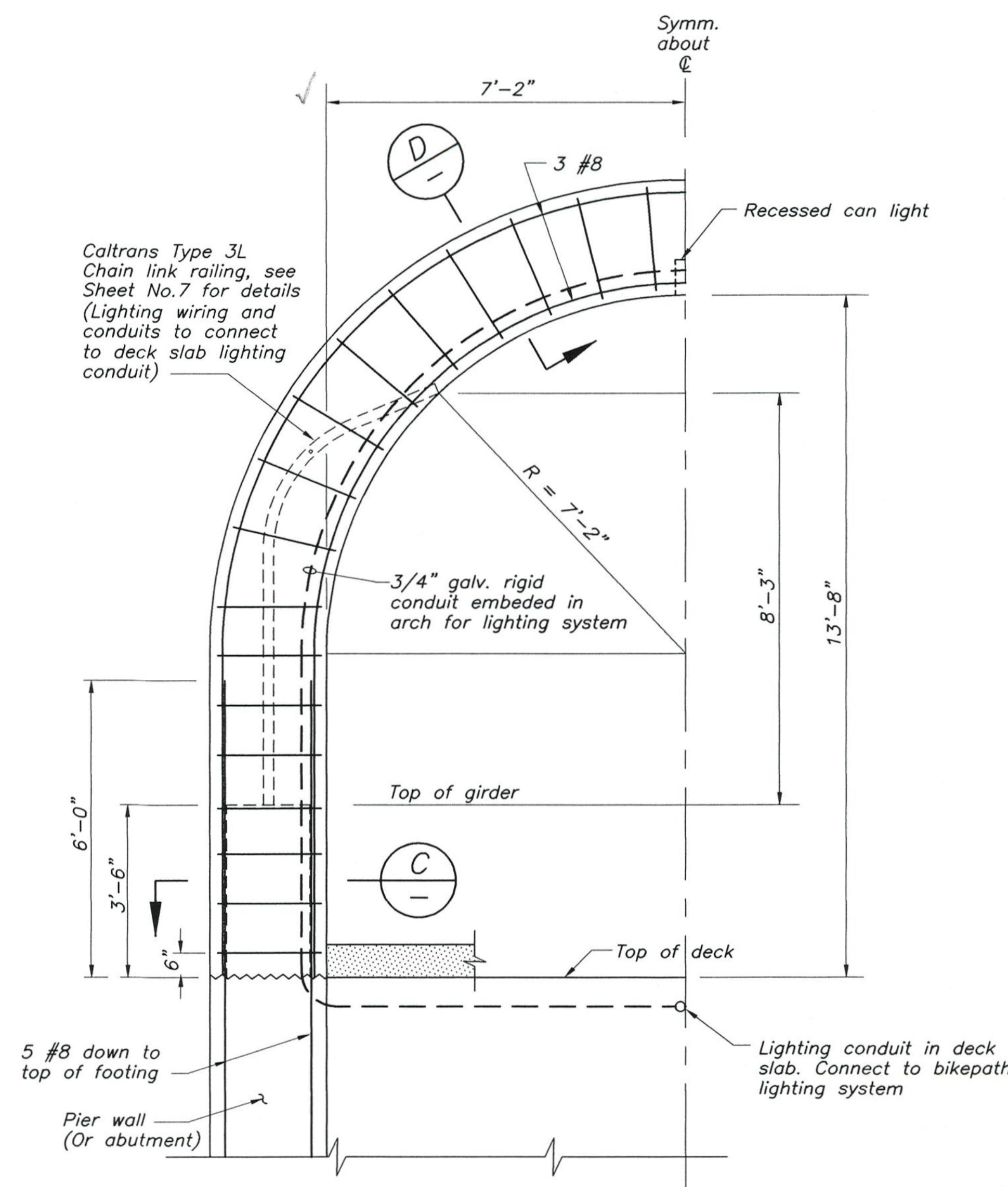
**SECTION @  
PIER WALL**  
Scale: 1/2" = 1'-0"



**SECTION**  
Scale: 1/2" = 1'-0"



**SECTION**  
Scale: 1/2" = 1'-0"



**ARCH DETAIL**  
Scale: 1/2" = 1'-0"

**PRELIMINARY - NOT FOR CONSTRUCTION**

EQUESTRIAN BRIDGE OVER LOS ANGELES RIVER  
N/O LOS FELIZ BLVD  
W.O. E6000572



DESIGNED	DRAWN	CHECKED	SUPERVISED	PROJECT ENGR.	R. E. NO.	ASST. DIV./DIST. ENGR.	R. E. NO.	DATE
YAN DAI-CORE	AARON HSU	EJIKI MARUGURU	JOHN KOO	JOHN KOO	S-3949	ALEX VIDARRAZAGA	S-2891	10-31-99
<div> <div> CITY OF LOS ANGELES VITALY B. TROYAN, P.E. CITY ENGINEER </div> <div> DATE: 19 DIV./DIST. ENGR. R. E. NO. </div> </div>								
ABUTMENT PLAN SECTION & DETAILS								
NO.	REVISION DESCRIPTION	DIV./DIST. ENGR.	DATE					