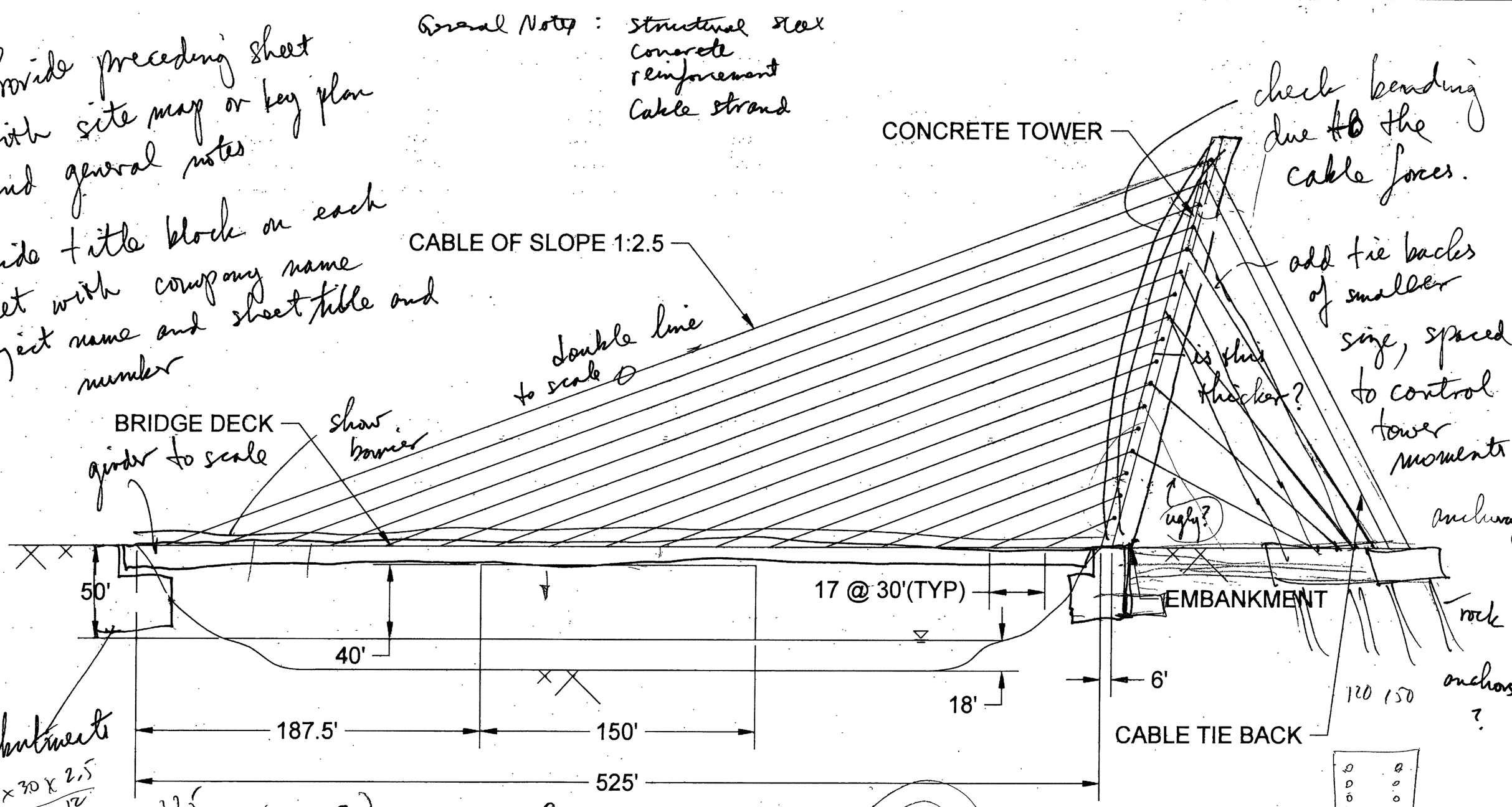
Provide preceding sheet with site map or key plan and general notes

Provide title block on each sheet with company name project name and sheet title and number

General Notes: Structural steel
Concrete
reinforcement
Cable strand



check bending due to the cable forces.

add tie backs of smaller size, spaced to control tower moments

anchors

is this thicker?

ugly?

rock

120 150

?

abutments

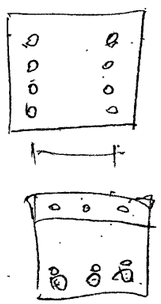
$\frac{20 \times 30 \times 2.5}{12}$

$20\ klf \times 2.5 = 50\ klf \left(\times \frac{228^2}{8}\right) = 325{,}000\ k\text{-}ft / 5.5' = 59000\ k / 65\ ksi = 908\ in^2$

look at analysis

OR: $30' / 2.5 \times 2 = 24' \Rightarrow 50 \times \frac{24^2}{8} = 3600\ k\text{-}ft$ $\quad 655k \Rightarrow 10\ in^2$

OR: $\frac{30}{2.5} \times 3 = 36' \Rightarrow$ $\quad 8100\ k\text{-}ft / 9.5 \quad 853 \Rightarrow 13\ in^2$



ELEVATION VIEW

Define scales on each ~~view~~ view

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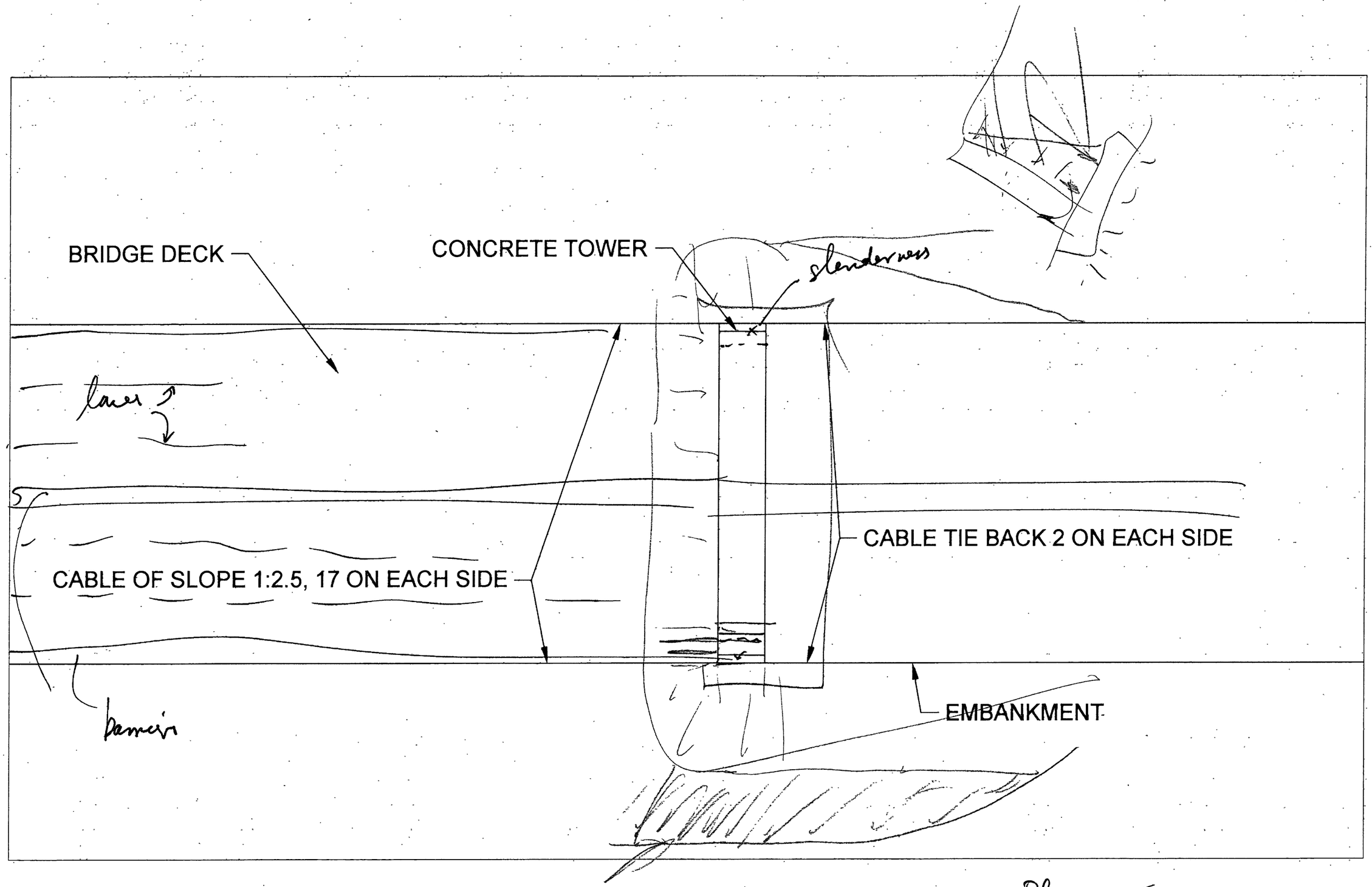

Plan ~~TOP~~ VIEW

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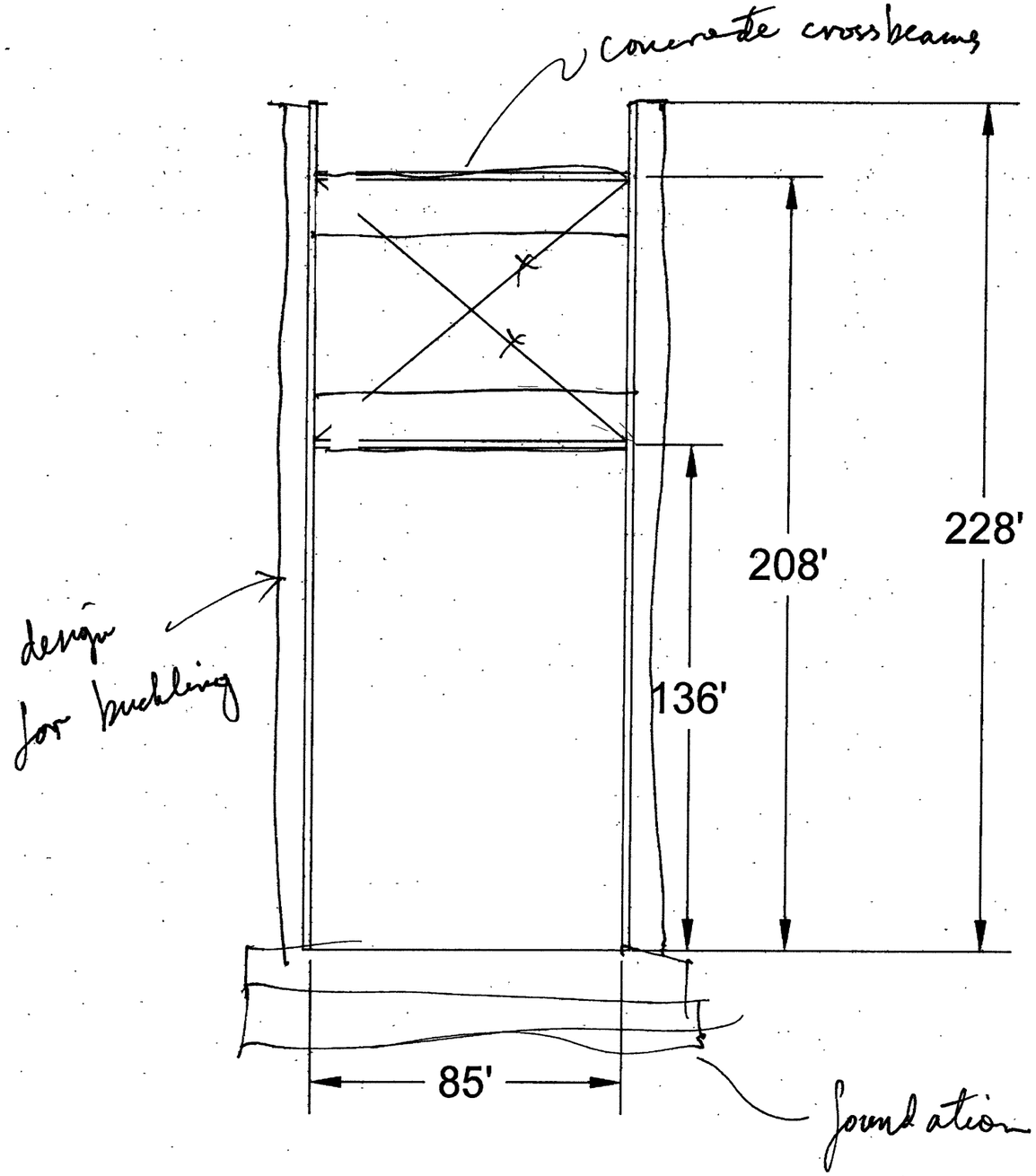

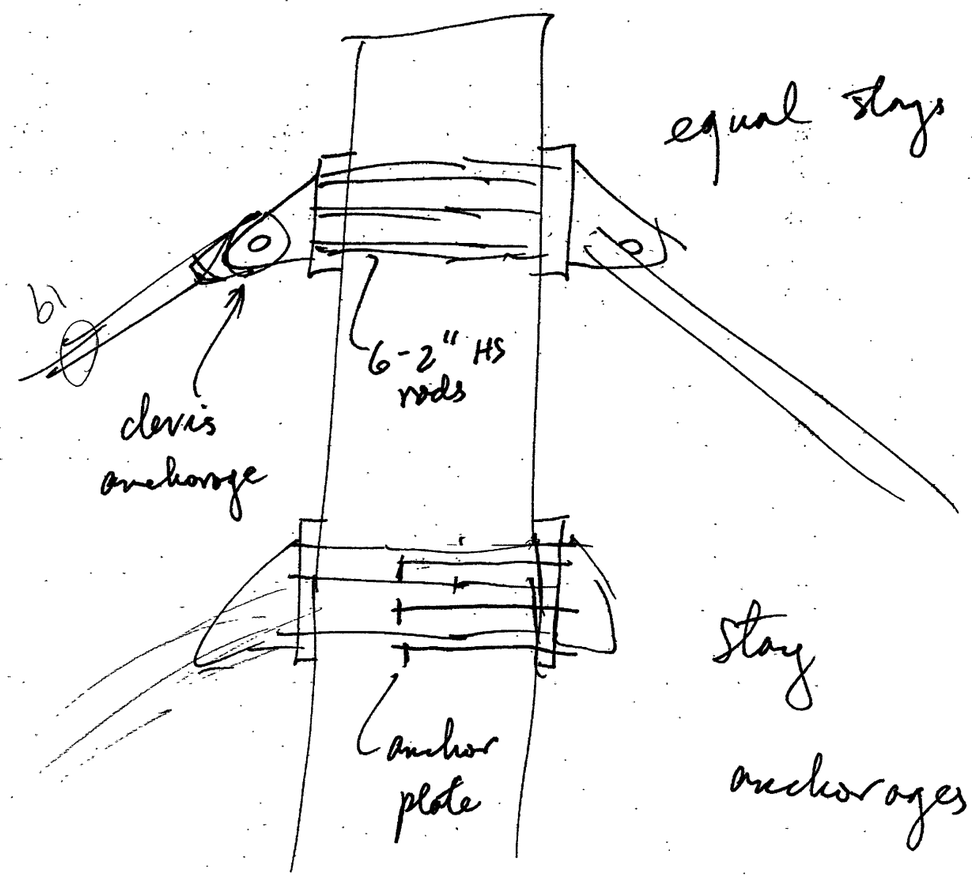

to general notes

5 to 8

CONCRETE
F'c = 4 ksi
Fy = 60 ksi

Reinforcement

TOWER CROSS SECTION VIEW

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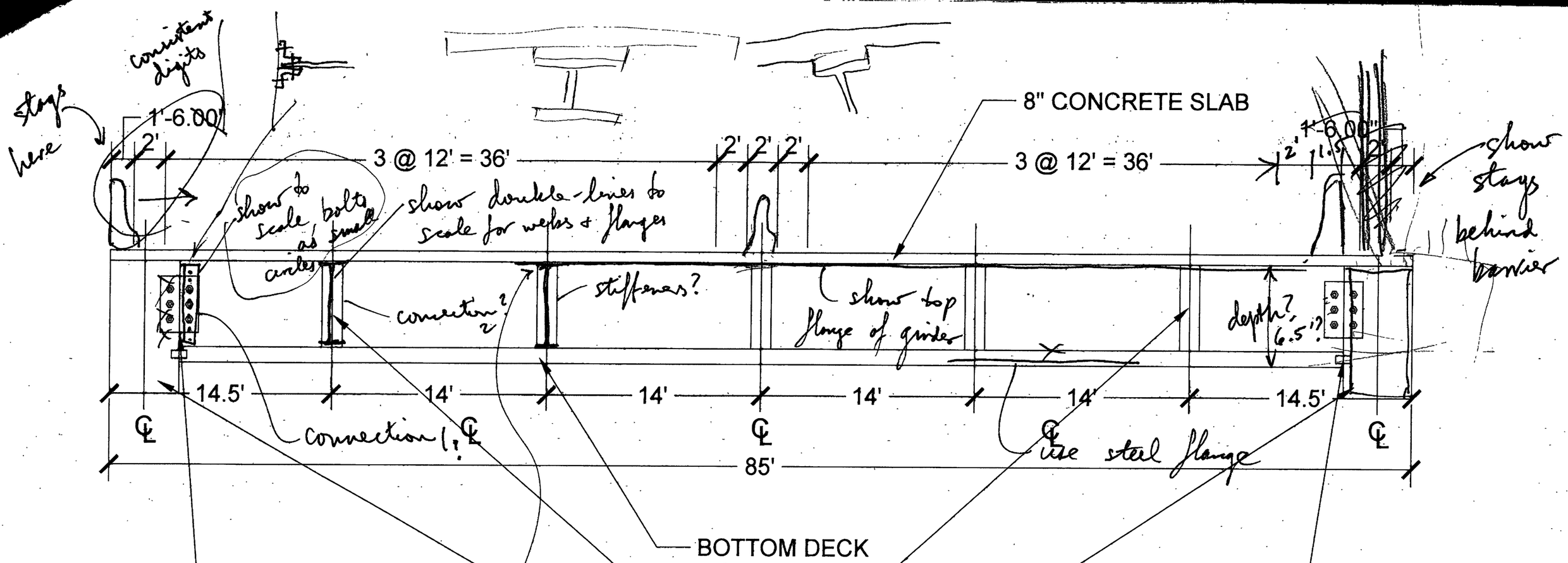
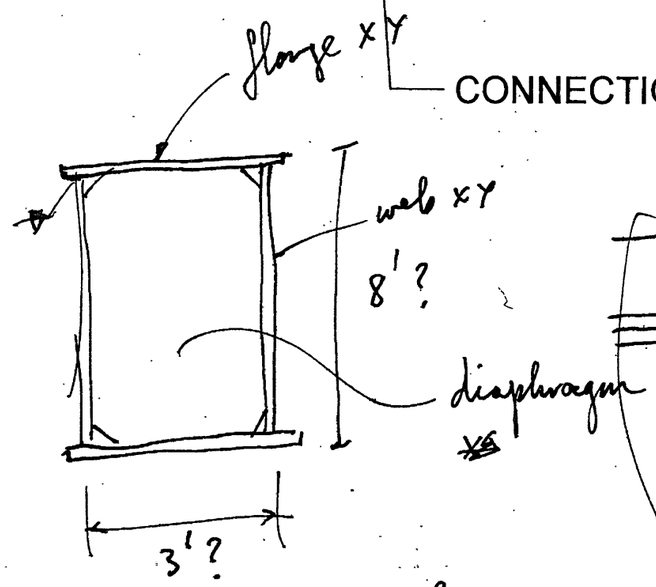
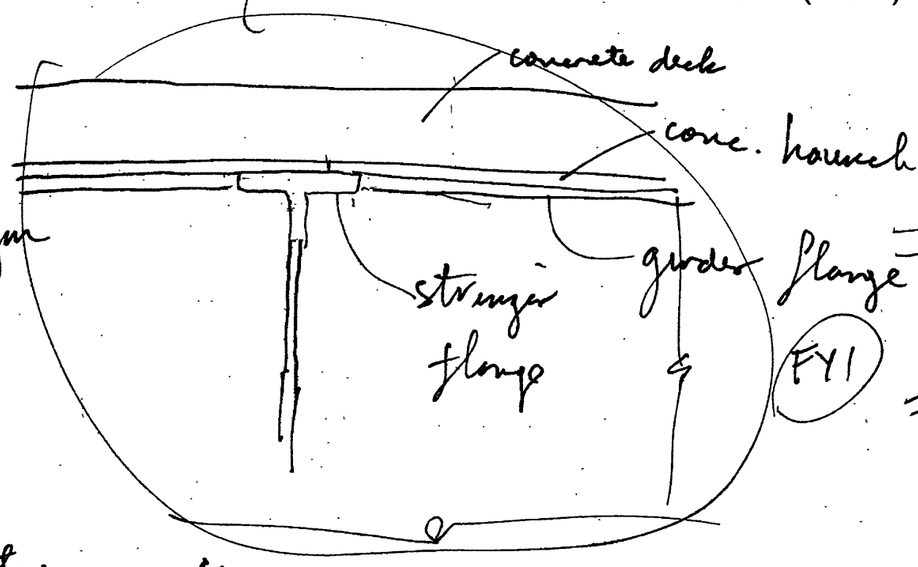
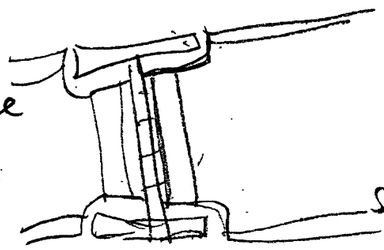




Design box webs for shear, use diaphragms as web stiffeners + stay connection





20 klf × 30/85 = 7 klf to girder

M = 7×85²/8 = 6322 kft

÷6.5 = 973k / 35ksi = 28 in²

shear 7×85/2 = 300k / 20 = 15 in²

see AASHTO 6.10.9 for shear capacity + web slenderness

DECK CROSS SECTION

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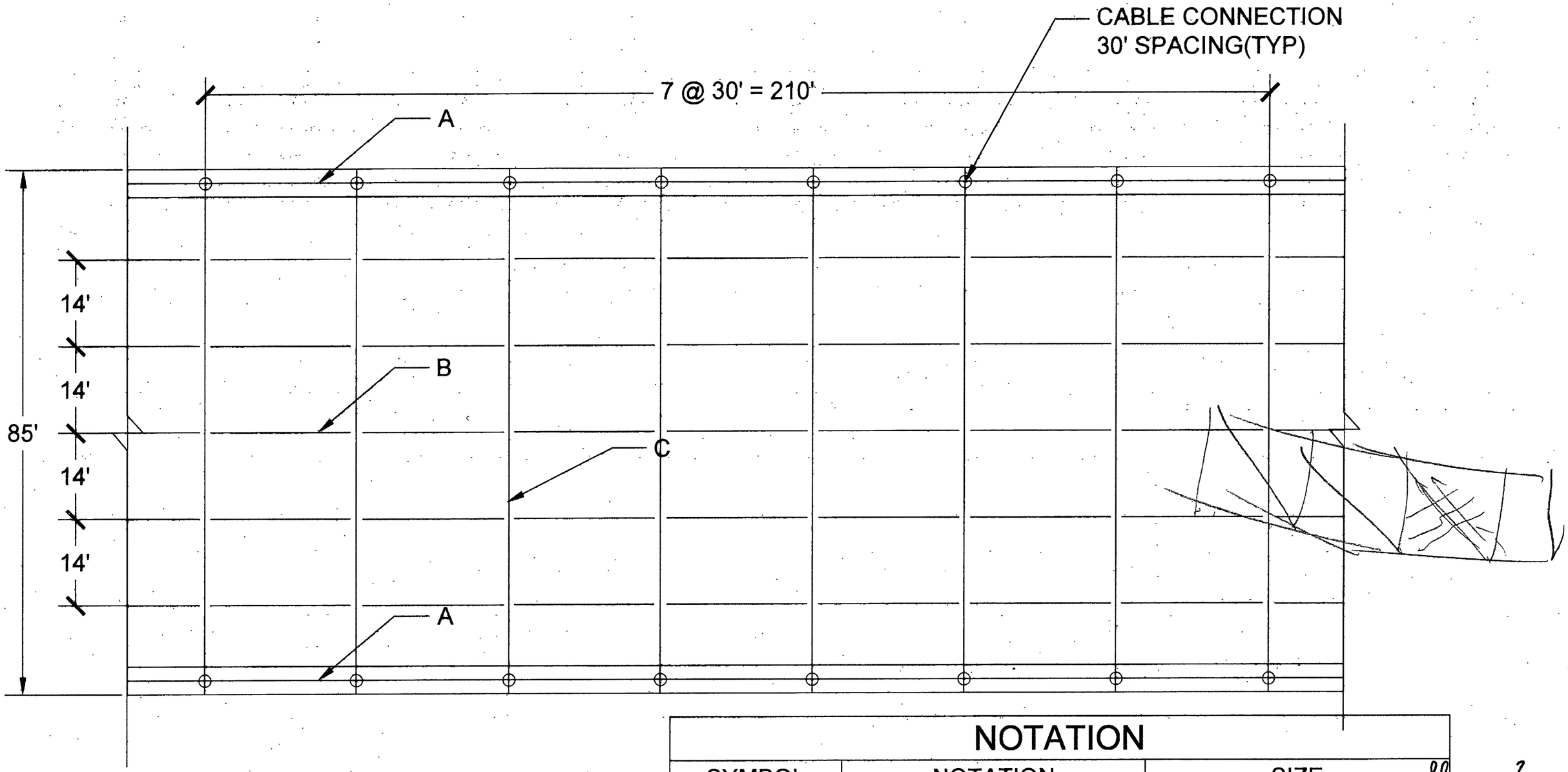

DECK FRAMING PLAN show after Elevation + plan views

NOTATION		
SYMBOL	NOTATION	SIZE
A	EDGE GIRDER	
B	SPRINGER	STEEL W30X391
C	GIRDER	BUILT-UP 2 14" X 2" AND ~~50" X 6"~~ (stiffeners X x Y @ Z spacing)
D		
E		

flanges?

web size?

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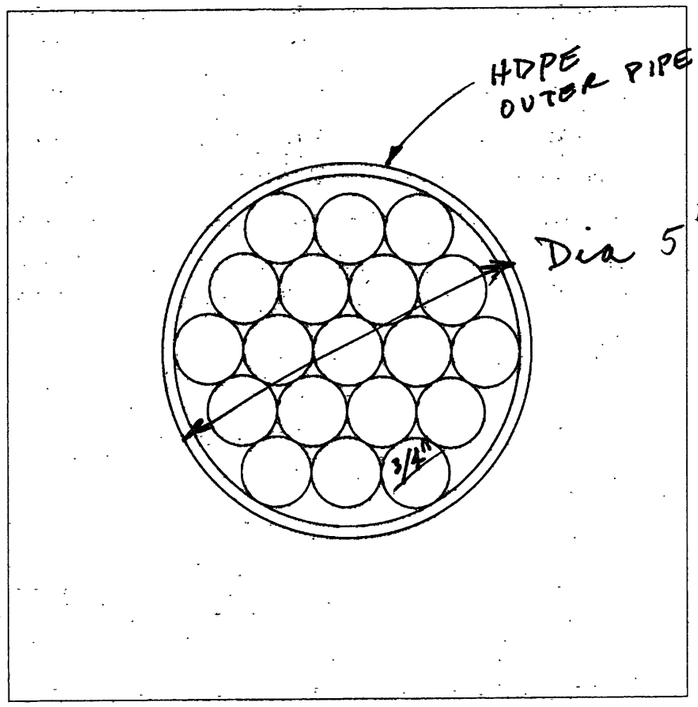
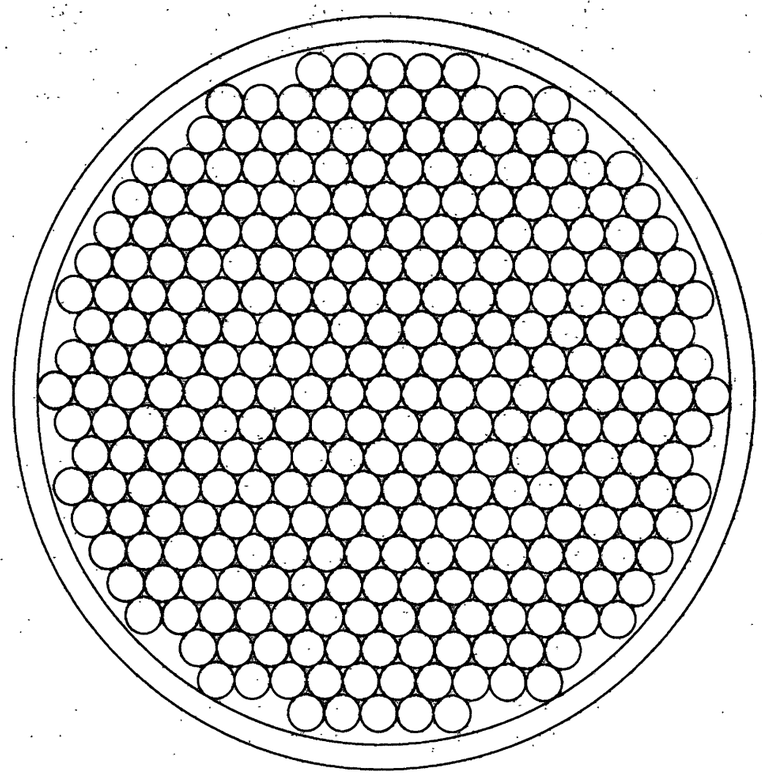


CABLE CROSS SECTION
19 ~~THREADS~~ STRANDS
1200 KIPS Breaking Strength

not 37?

To general notes: Stay Cable Strands

look at Dywidag (DSI) strands - clevis anchorages



TIE-BACK CABLE CROSS SECTION
300 ~~THREADS~~ Strands
19000 KIPS Breaking strength

too big, 127 maximum

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