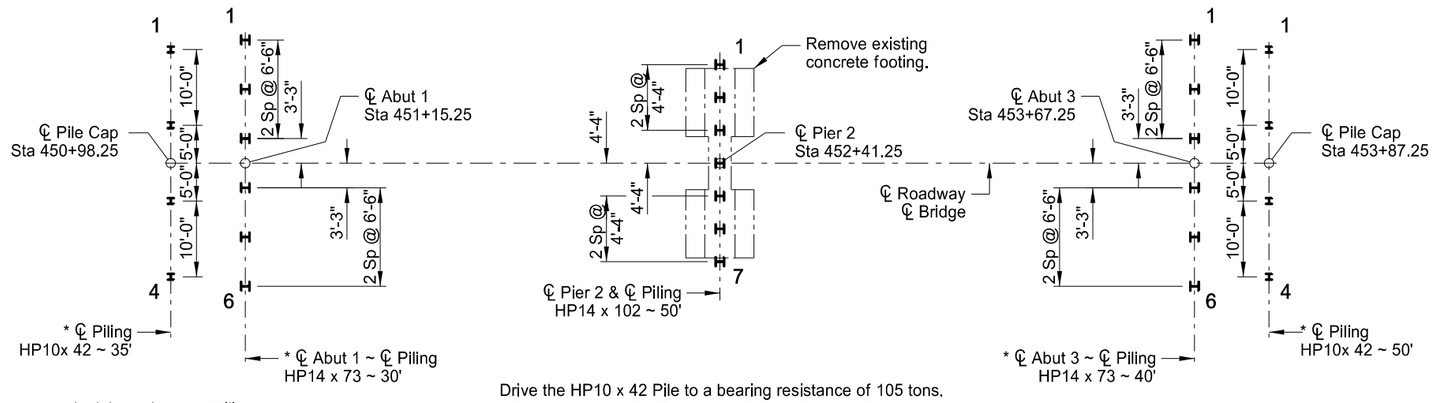
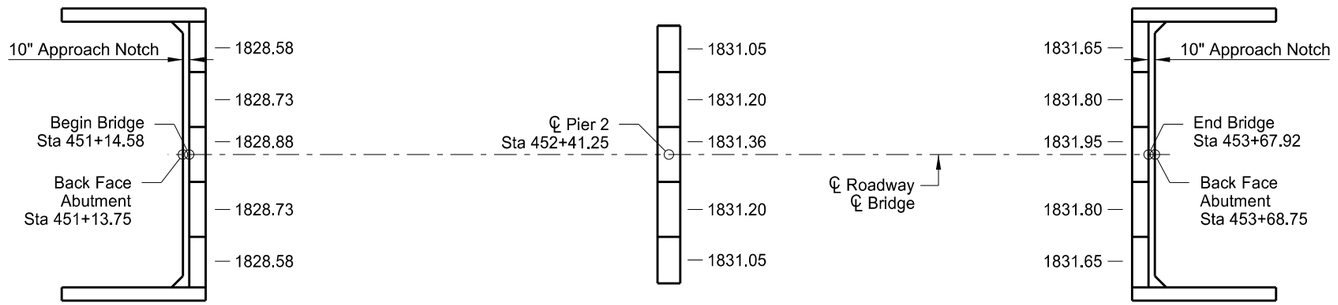
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(186)217	170	5



* Do not drive approach slab or abutment piling until all constructed embankment is in place.

Drive the HP10 x 42 Pile to a bearing resistance of 105 tons.
Drive the HP14 x 73 Pile to a bearing resistance of 180 tons.
Drive the HP14 x 102 Pile to a bearing resistance of 250 tons.

PILING LAYOUT



Elevations shown are to top of finished concrete.

BEARING ELEVATION

NOTE:

For double acting or single acting diesel hammers, calculate the bearing resistance of piles by the following formula:

$$\Phi Rn = \frac{4.5E}{S + 0.2} \times \frac{W + 0.2M}{W + M}$$

Where:

ΦRn = Factored pile bearing resistance, in pounds. The Φ factor is included in equation.
W = Weight of striking parts (ram), in pounds.
M = Weight of parts being driven, in pounds. Includes pile weight, anvil (if any), driving cap, etc.
E = Energy per blow, in foot-pounds.
S = Average penetration of pile in inches per blow for last ten blows.

For single acting hammers, calculate E by multiplying observed stroke (ft) and W (lbs).

	PILE COORDINATES		
	PILE	NORTHING	EASTING
APPR SLAB	1	443,800.40	2,200,425.44
	4	443,800.68	2,200,455.44
ABUT 1	1	443,820.39	2,200,424.00
	6	443,820.70	2,200,456.50
PIER 2	1	443,946.41	2,200,426.06
	7	443,946.66	2,200,452.06
ABUT 3	1	444,072.38	2,200,421.62
	6	444,072.68	2,200,454.11
APPR SLAB	1	444,092.39	2,200,422.68
	4	444,092.67	2,200,452.69

This drawing is preliminary and not for construction or implementation purposes.

PRELIMINARY

I-94/PETTIBONE INTERCHANGE

PILING LAYOUT &
BEARING ELEVATIONS

DRAWING NO. 94-217.146-5