

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SS-5-085(086)012	170	6

NOTE:

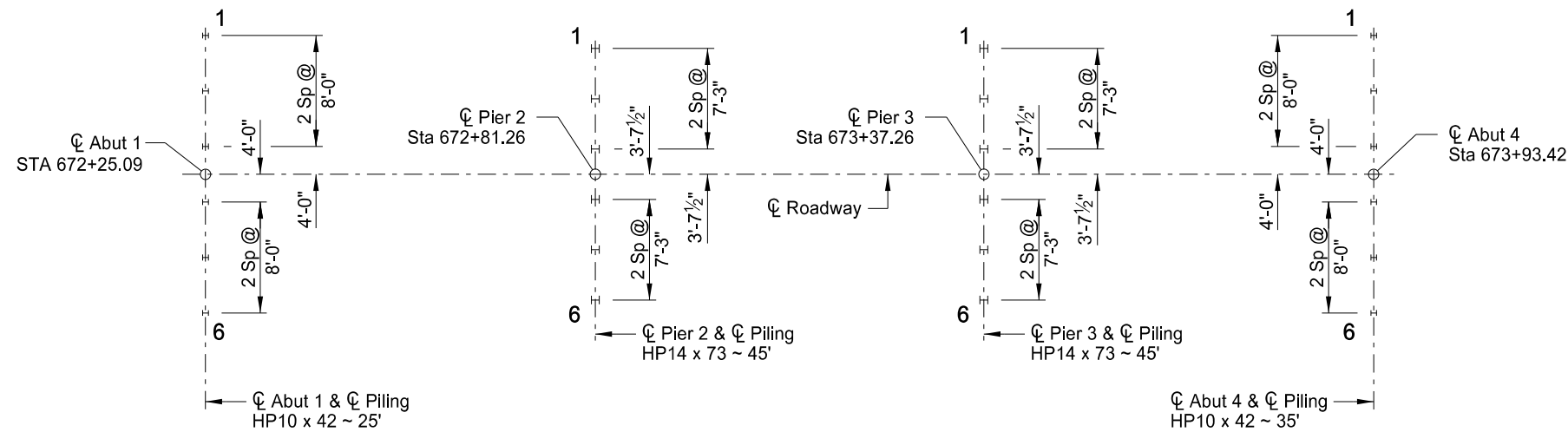
For double acting or single acting diesel hammers, calculate the bearing resistance of piles by the following formula:

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

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.

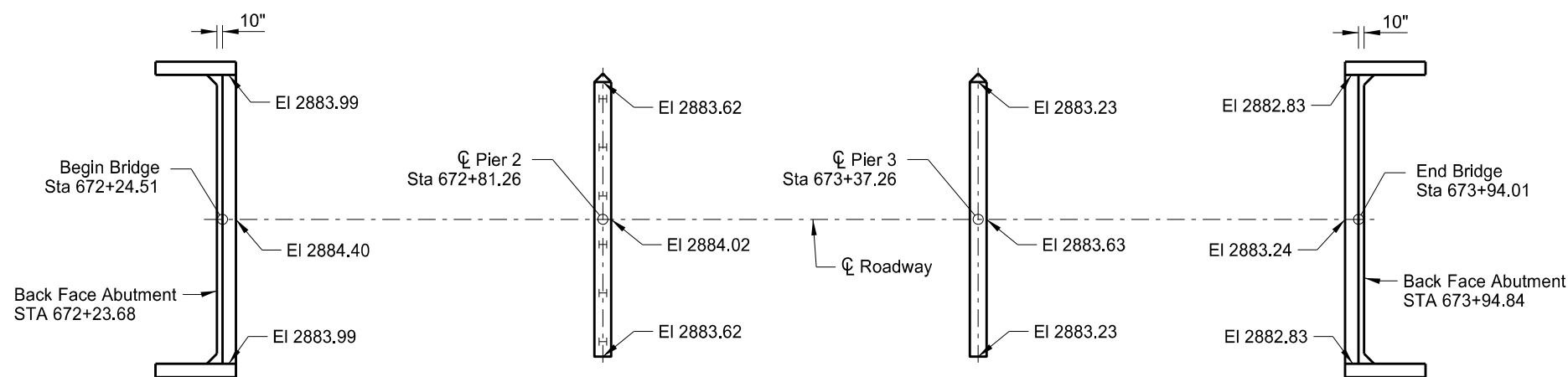
For single acting hammers, calculate E by multiplying observed stroke (ft) and W (lbs).



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.

PILING LAYOUT

PILE COORDINATES			
	PILE	NORTHING	EASTING
ABUT 1	1	180,739.97	1,230,655.87
	6	180,738.53	1,230,695.84
PIER 2	1	180,796.04	1,230,659.78
	6	180,794.73	1,230,696.00
PIER 3	1	180,852.00	1,230,661.80
	6	180,850.69	1,230,698.02
ABUT 4	1	180,908.20	1,230,661.95
	6	180,906.75	1,230,701.93



Elevations shown are to top of finished concrete.

BEARING ELEVATIONS

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

SPRING CREEK 4 SOUTH OF JCT US 12	
PILING LAYOUT & BEARING ELEVATIONS	
DRAWING NO.	85-012.747-6