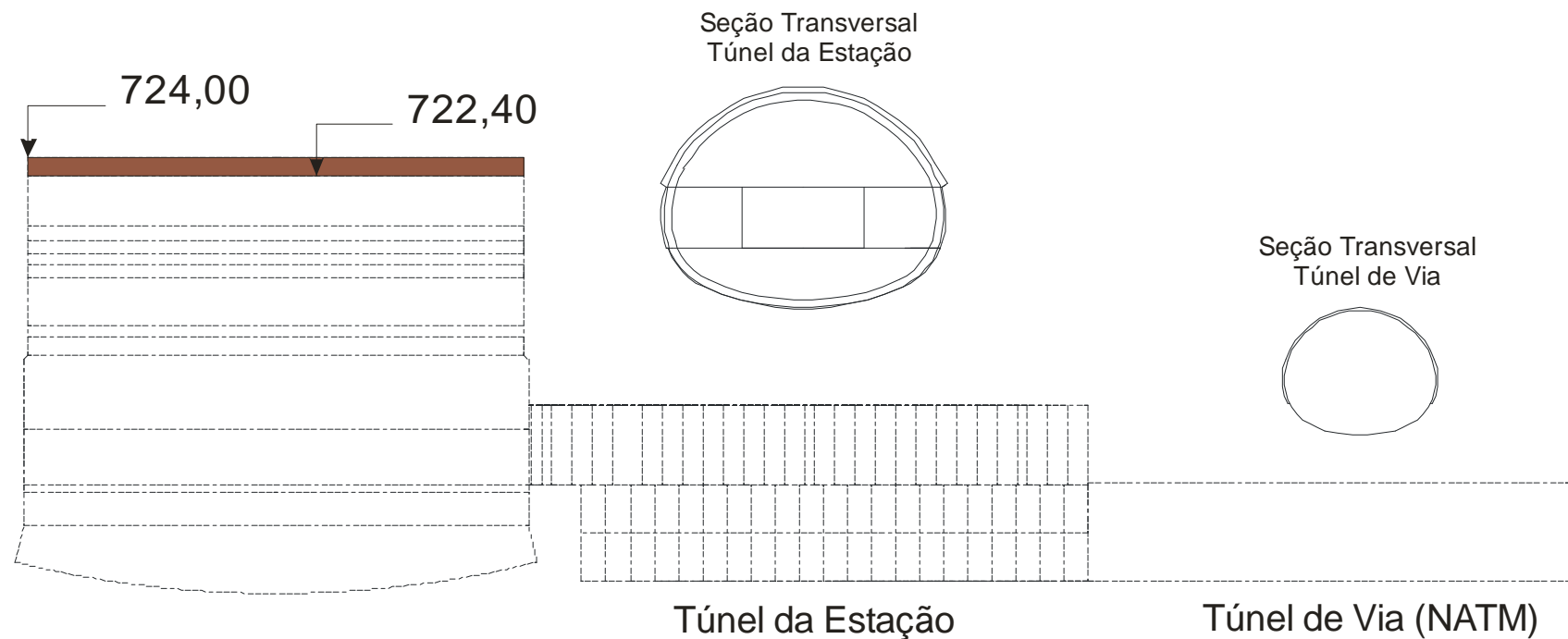


Estação Pinheiros - Sequência de Escavação



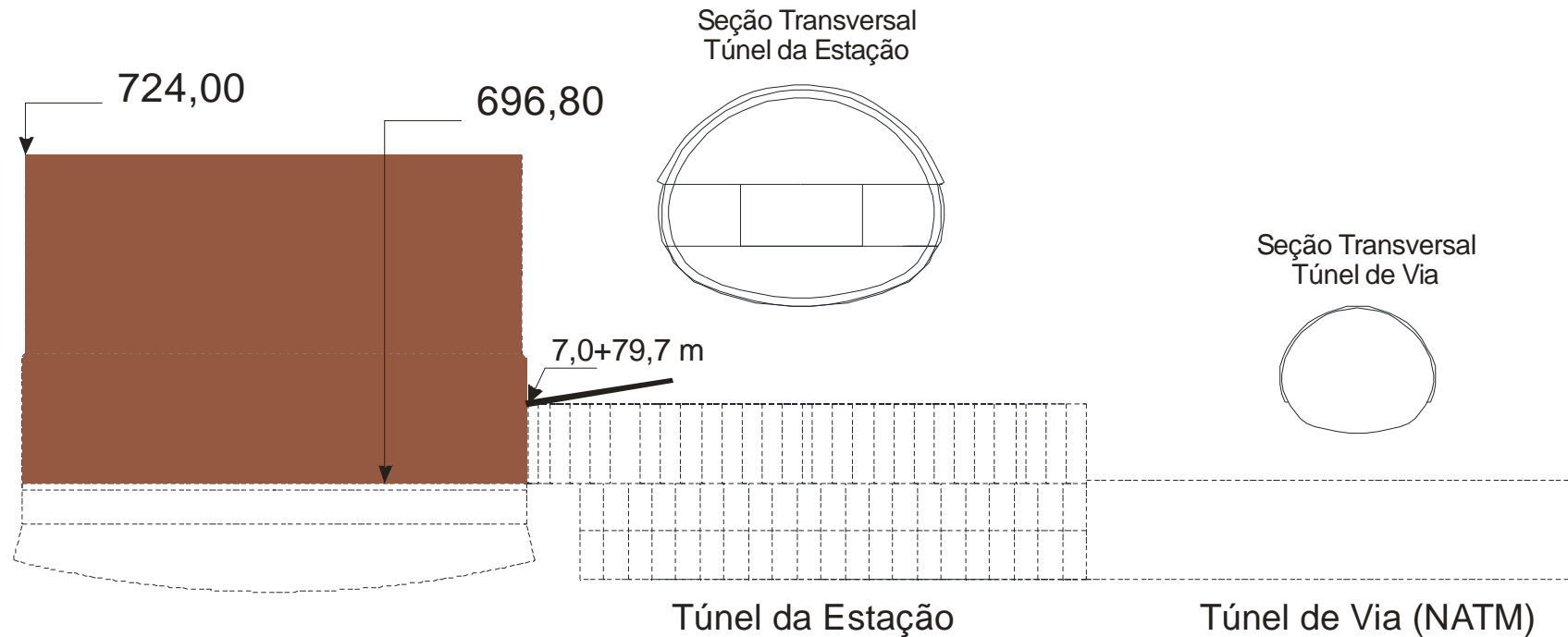
Data: 06/01/2006

Sentido Faria Lima



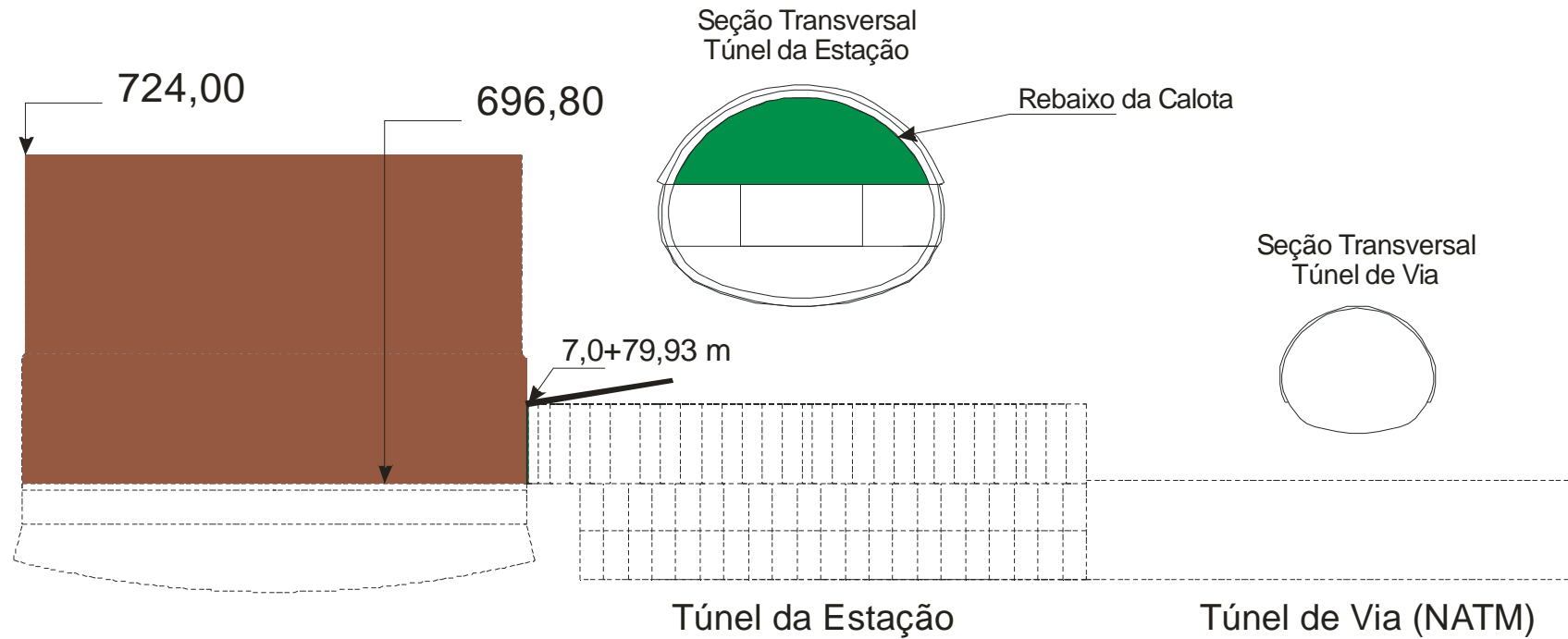
1

Estação Pinheiros - Sequência de Escavação



Data: 31/07/2006

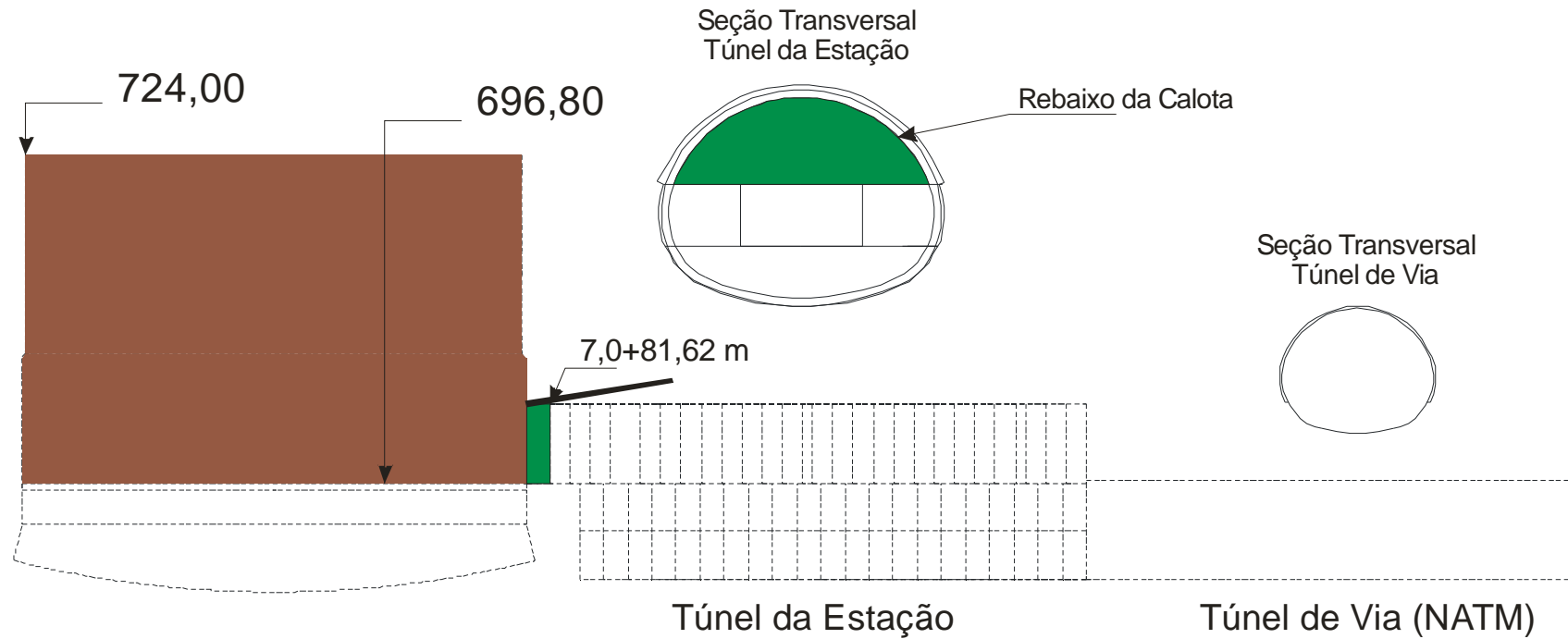
Estação Pinheiros - Sequência de Escavação



Data: 05/08/2006

Sentido Faria Lima
→

Estação Pinheiros - Sequência de Escavação

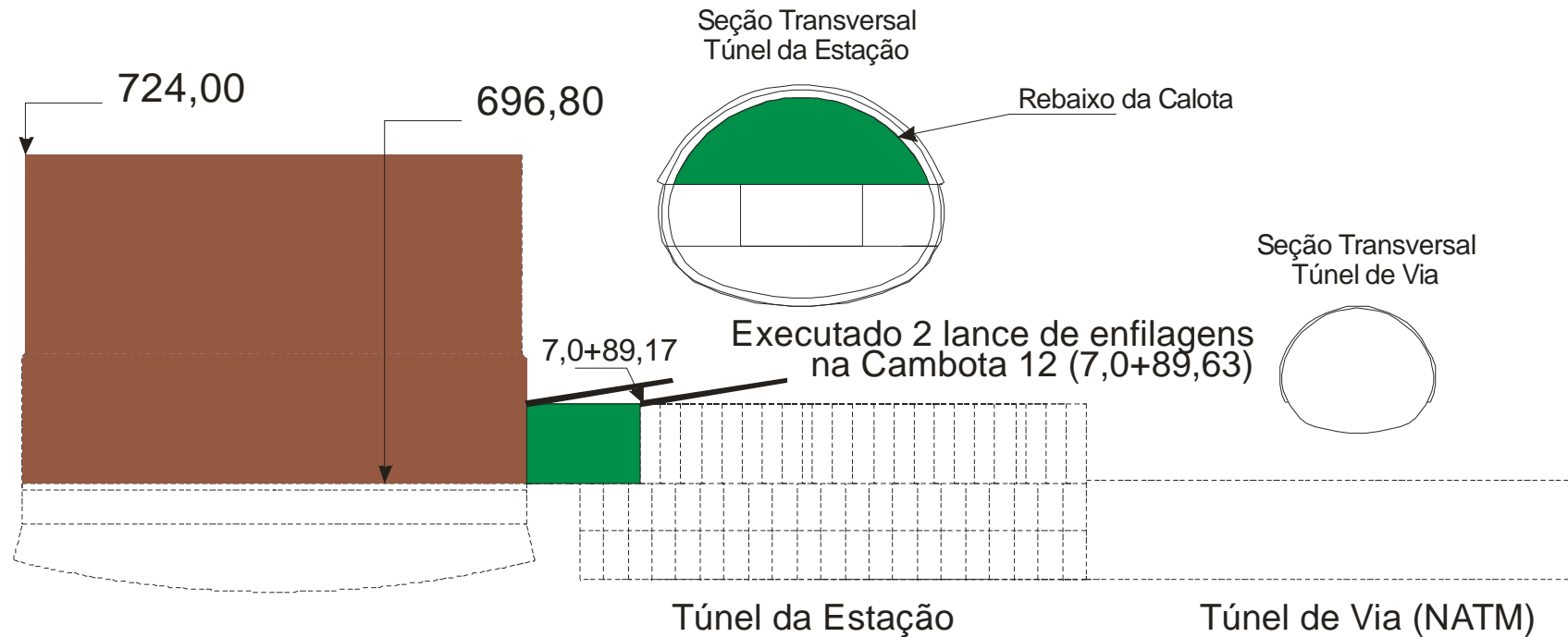


Data: 09/08/2006

Sentido Faria Lima
→

15

Estação Pinheiros - Sequência de Escavação

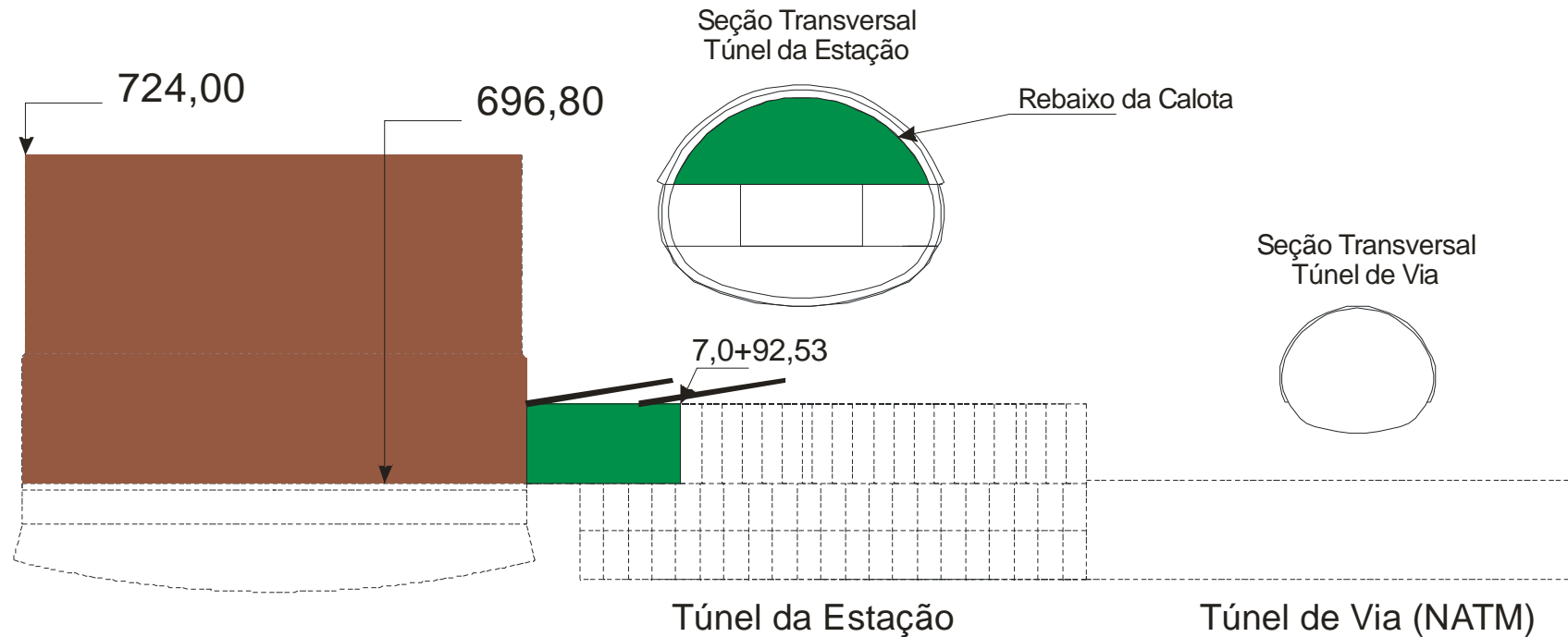


Data: 21 e 26/08/2006

Sentido Faria Lima

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Estação Pinheiros - Sequência de Escavação

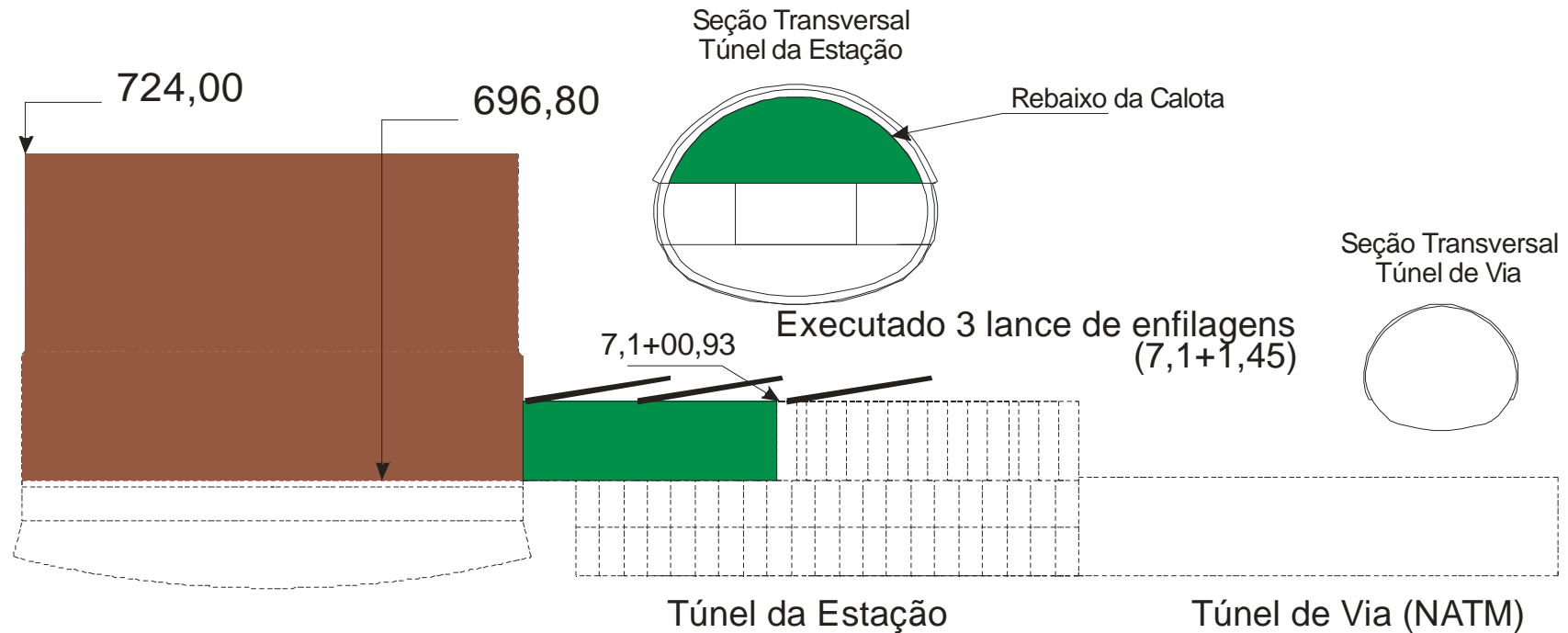


Data: 31/08/2006

Sentido Faria Lima
→

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Estação Pinheiros - Sequência de Escavação



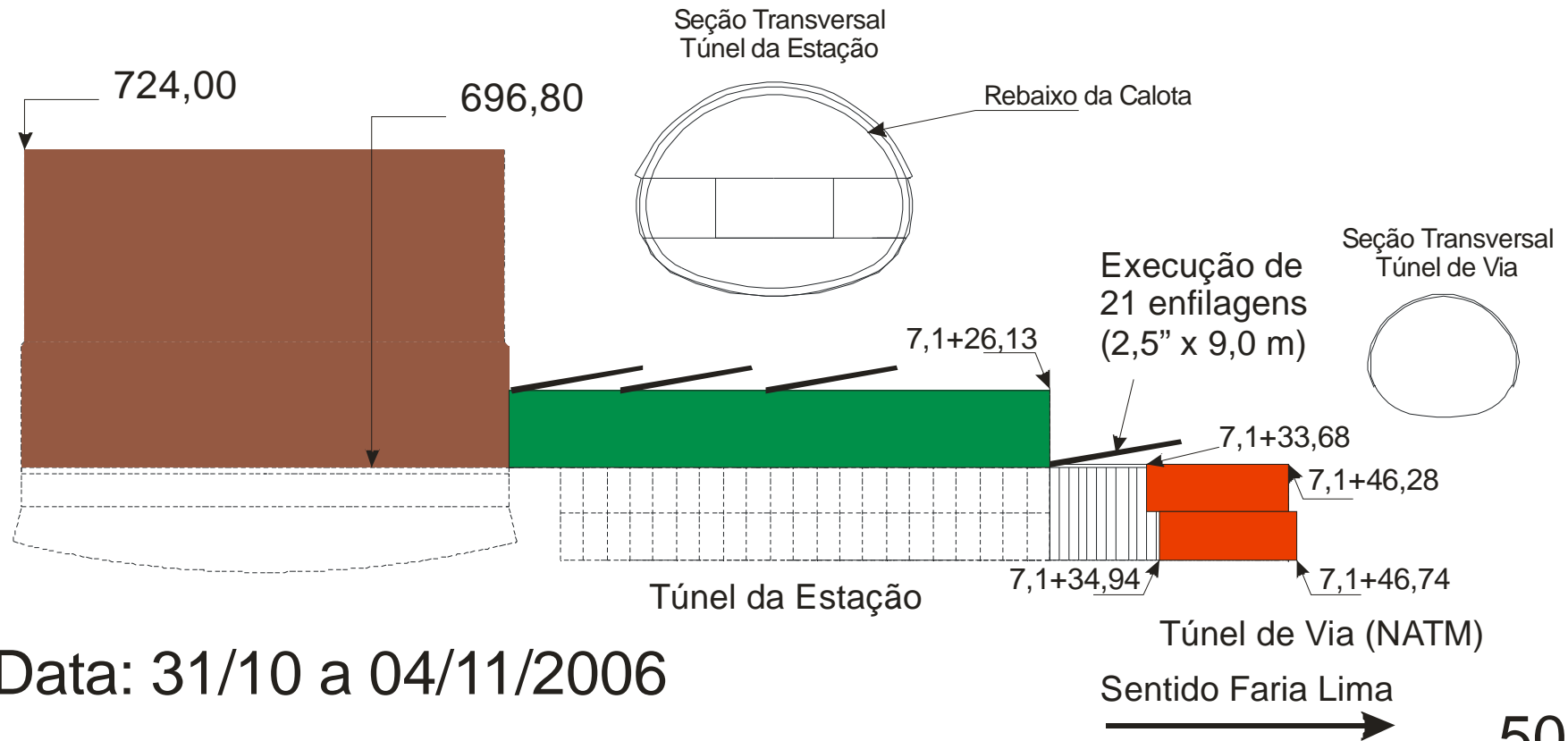
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Sentido Faria Lima

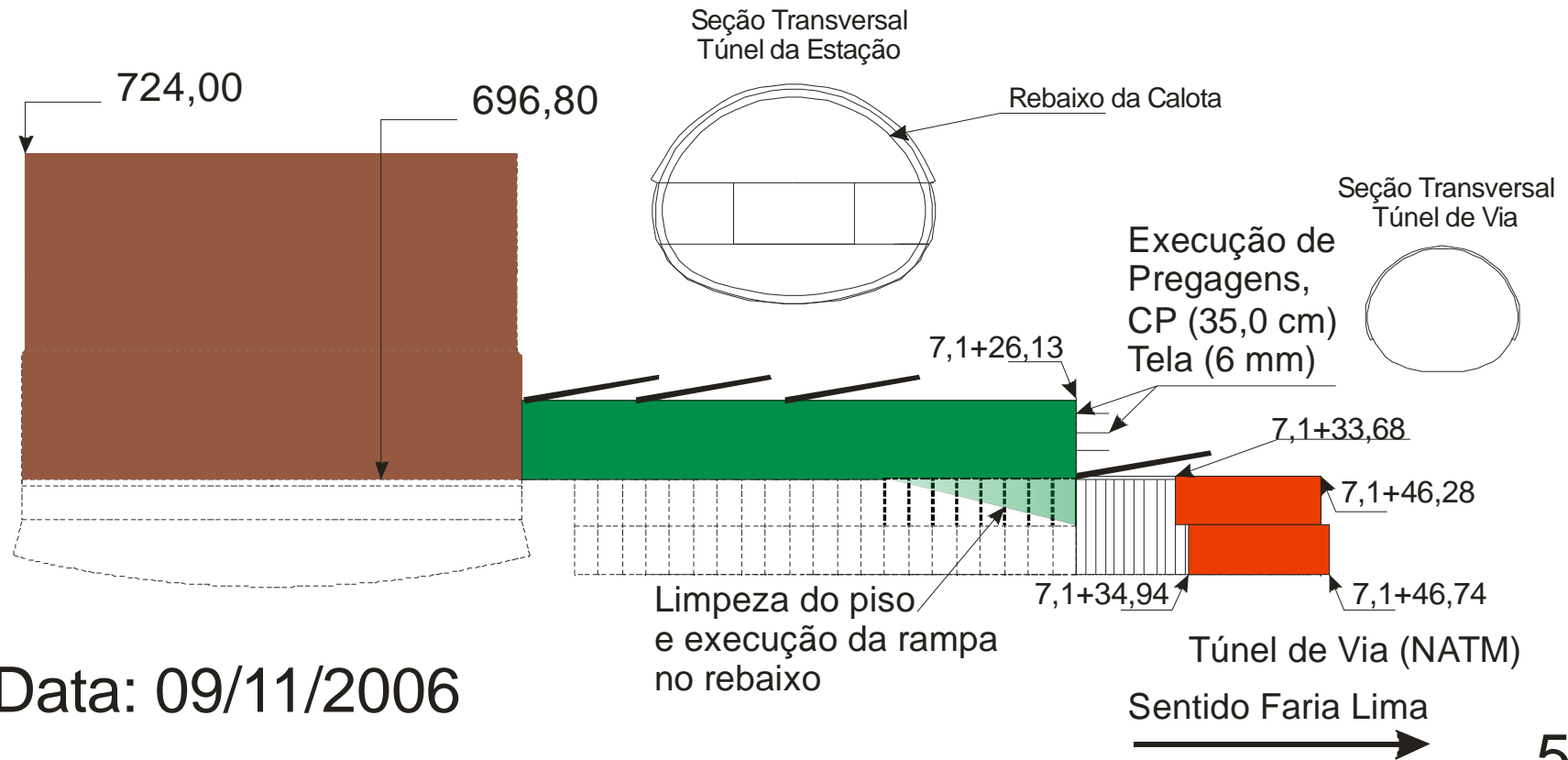


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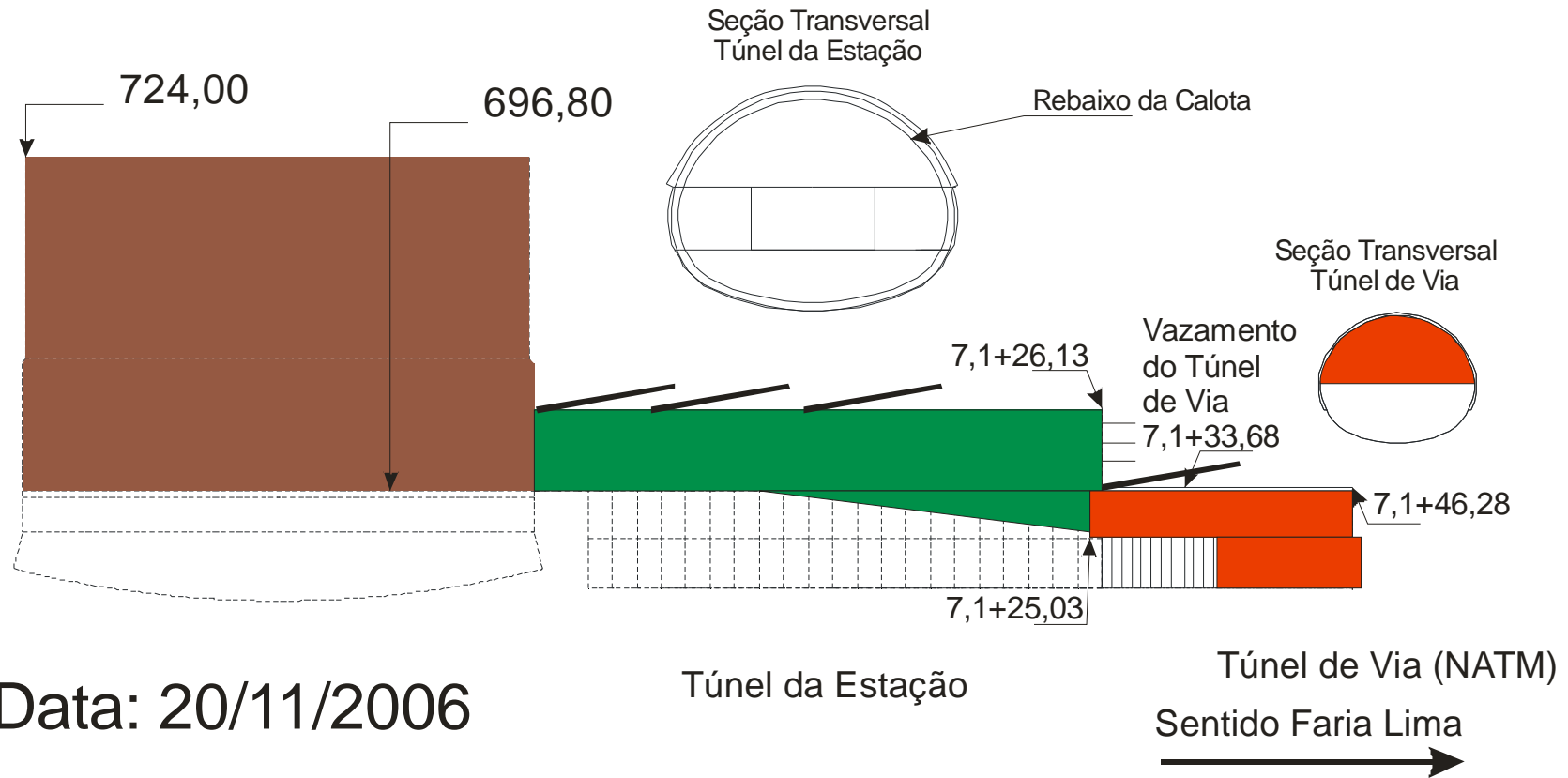
Estação Pinheiros - Sequência de Escavação



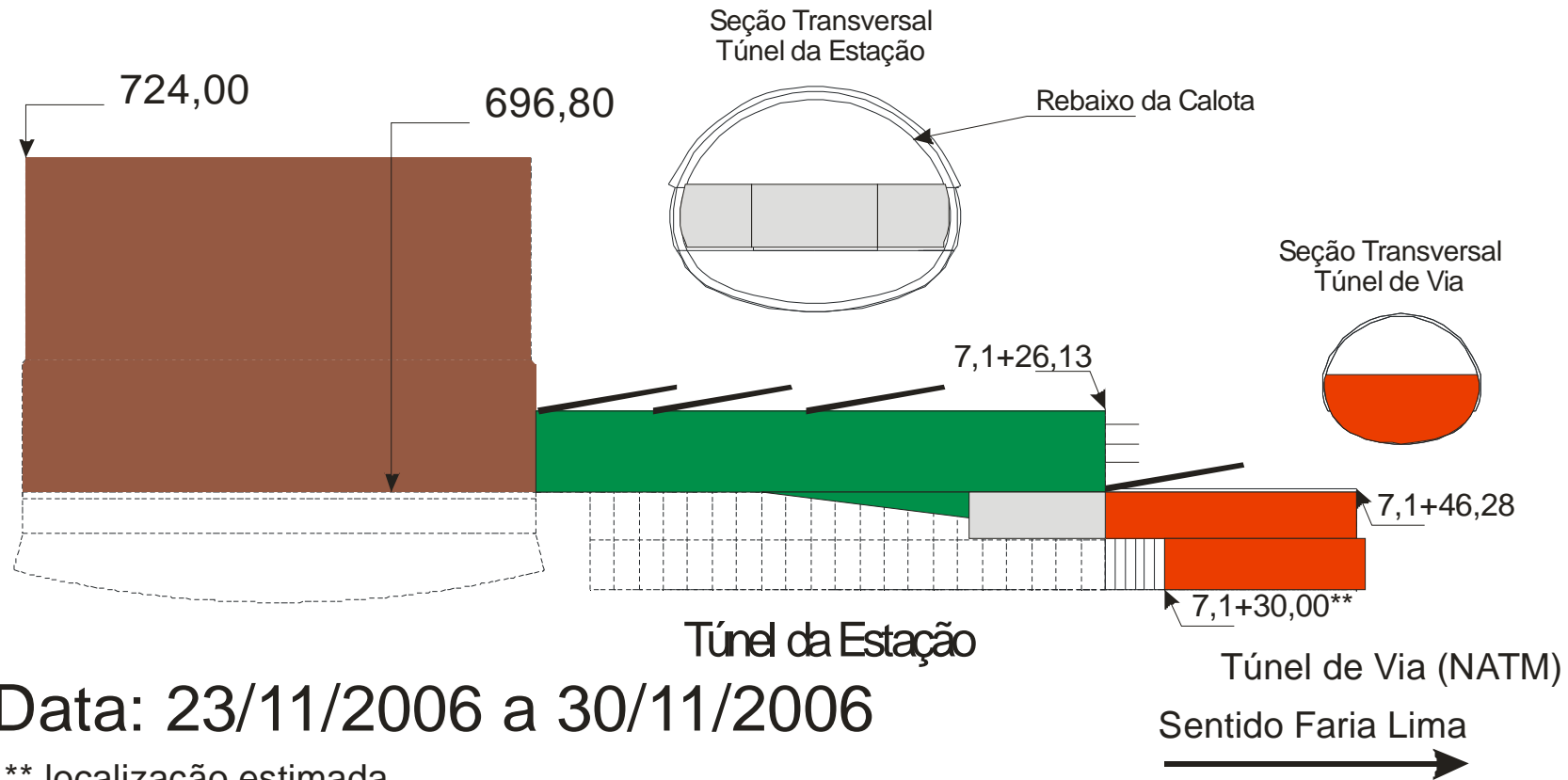
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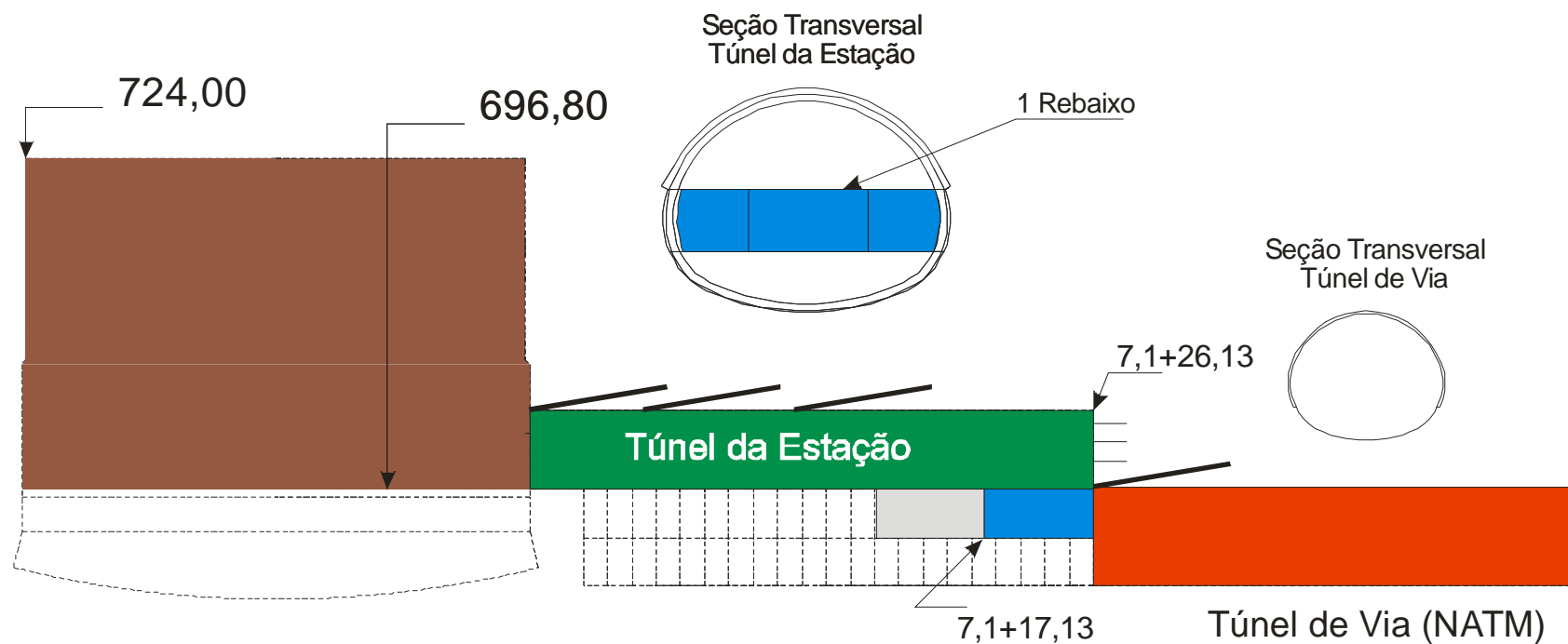
Estação Pinheiros - Sequência de Escavação



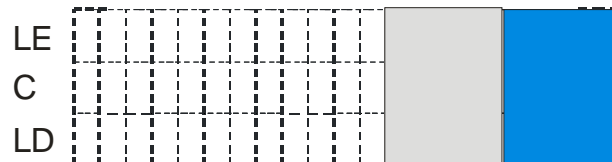
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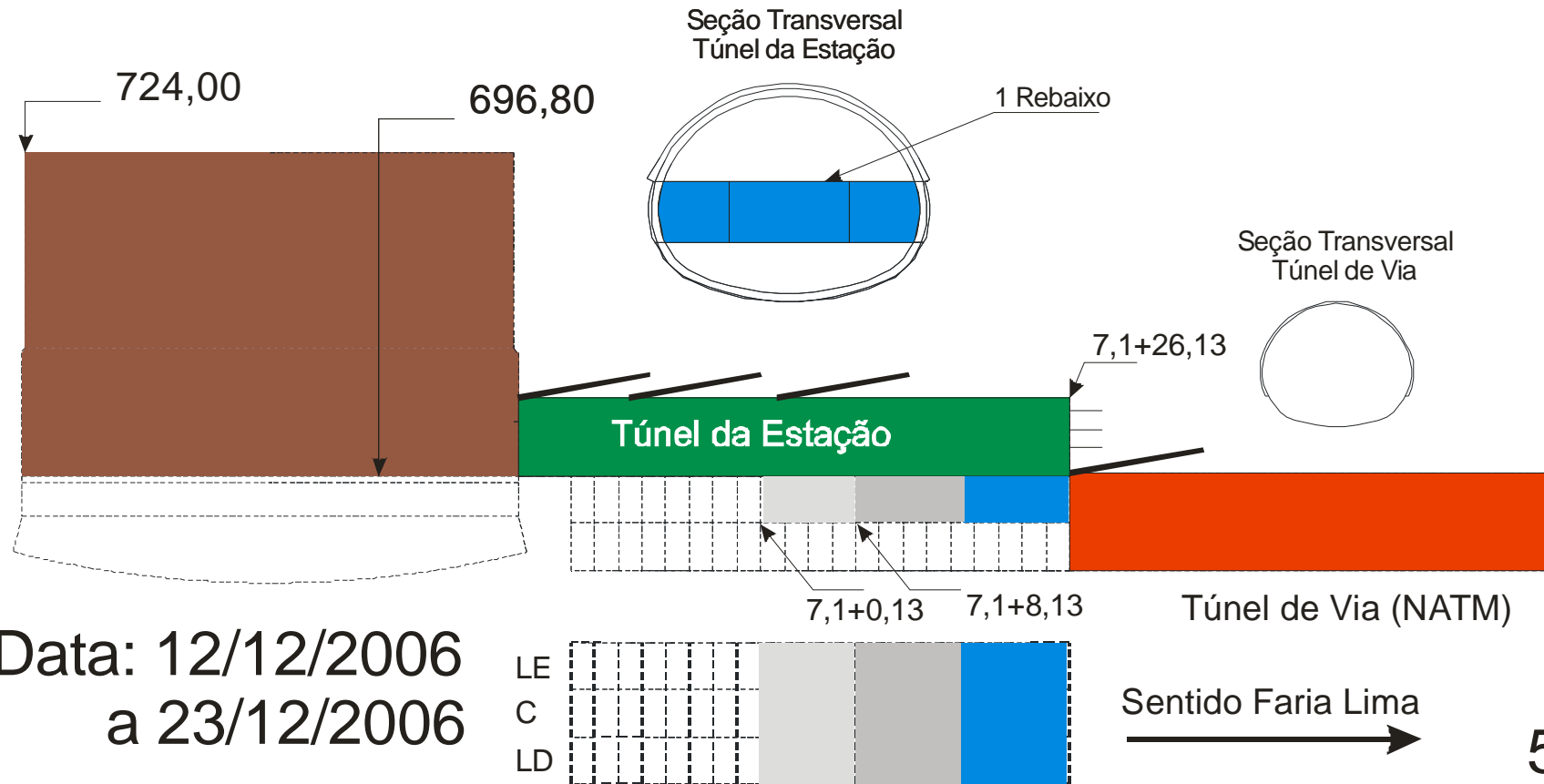
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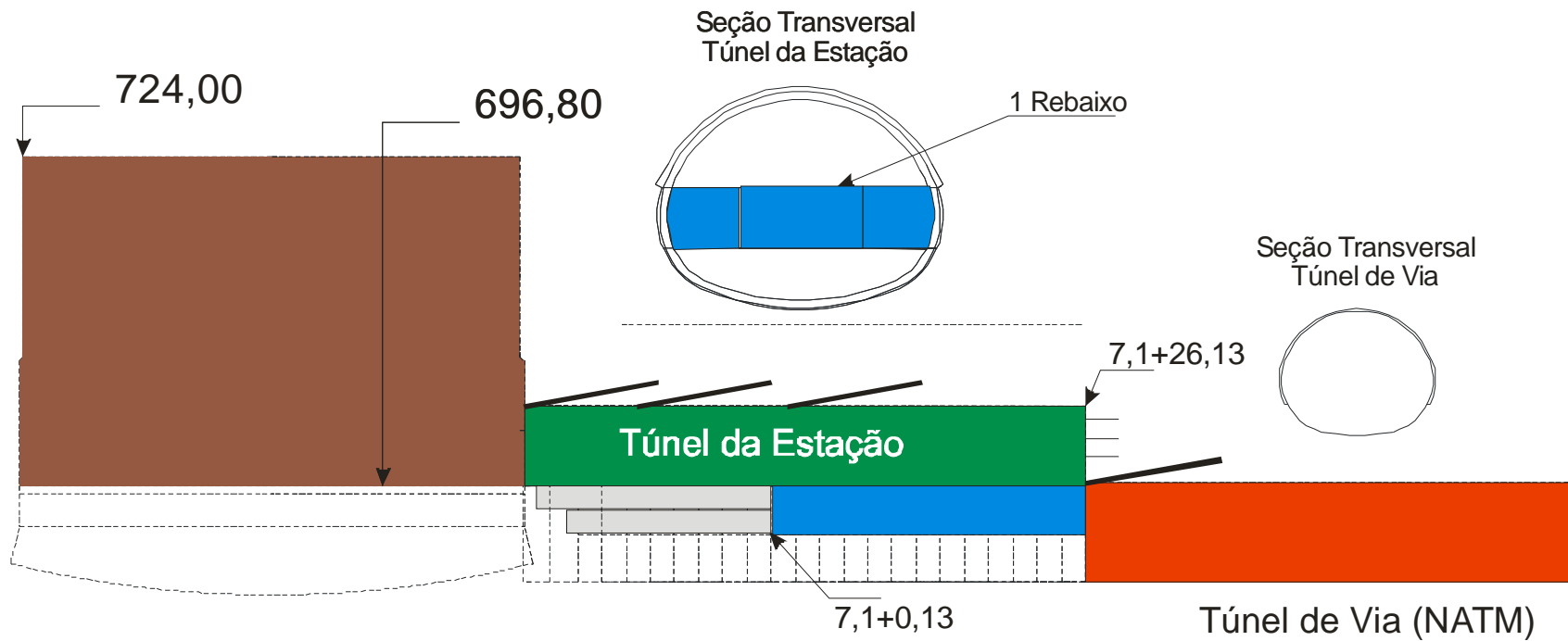
Data: 01/12/2006
a 11/12/2006



Estação Pinheiros - Sequência de Escavação



Estação Pinheiros - Sequência de Escavação



Data: 02/01/2007
a 11/01/2007

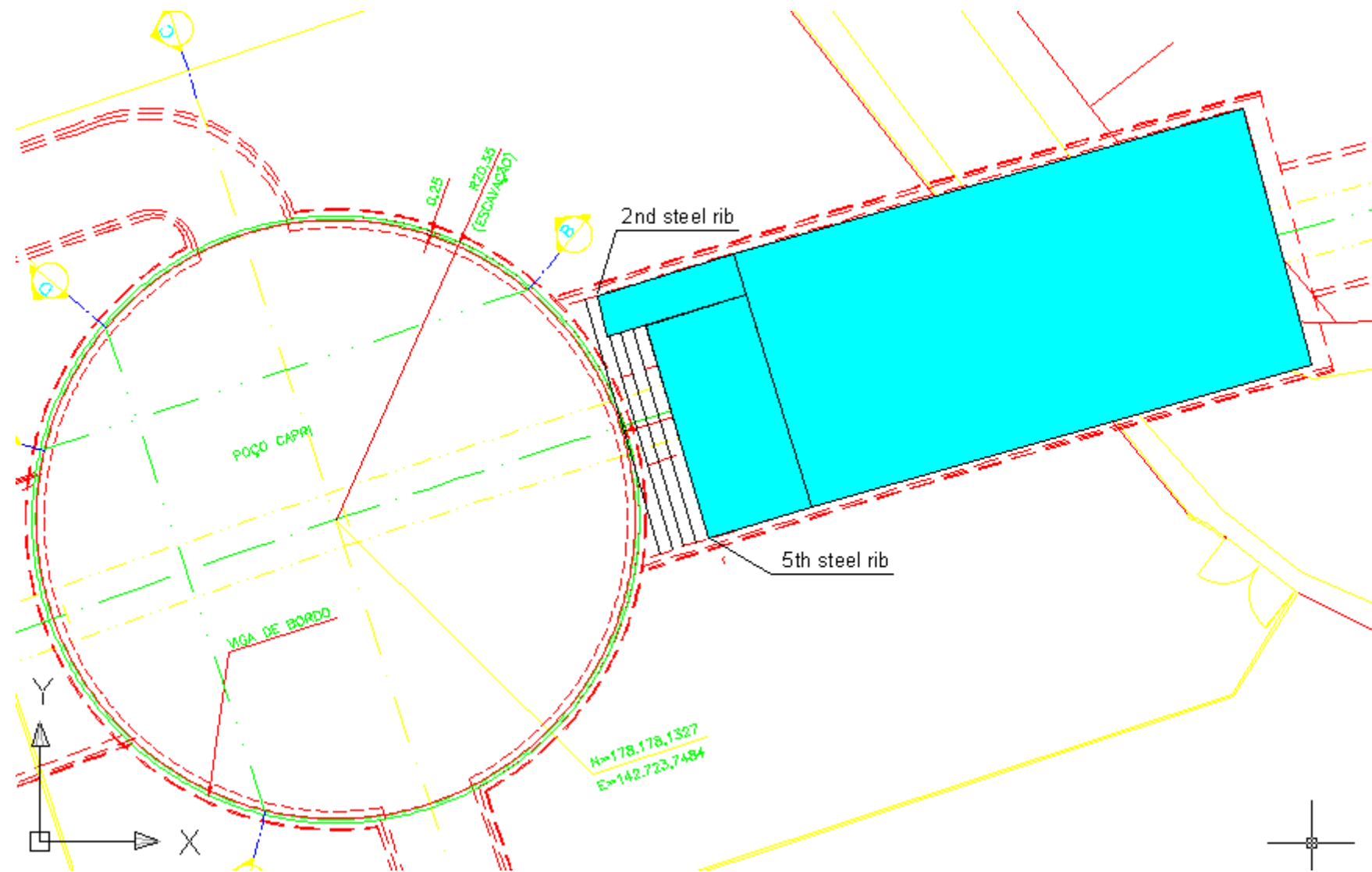
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Sentido Faria Lima



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Instruments nearby the Pinheiros Station

Surface soil settlement	quant	measure began in
• Around the shaft	5	01
• Walls of the houses (shallow foundation)	31	01, 08
• Piles of the Passarelli building (deep foundation)	5	08
• Above the train tunnel (Downtown)		
Deep soil settlement (Tassometros)		
• Above the Station tunnel (Downtown)	4 x 3	04
• Above the Station tunnel (Pinheiros River)	4 x 3	04
• Above the North access tunnel	5	09, 11
• Above the train tunnel (Downtown)		
Convergence pins		
• Inside the Station tunnel (Downtown)	4 x 5	08, 09, 10
• Inside the Station tunnel (Pinheiros River)	4 x 5	08, 09, 10
• Inside the North access tunnel	2 x 3	12
• Above the train tunnel (Downtown)		
• Inside the shaft (724m)	6	01 to 03, 06
• Inside the shaft (718m)	6	02 to 03
Ground water monitoring		
• Water level	6	02, 06
• <u>Piezometer</u>	6	02