
Series 1600: Piling and Embedded Retaining Walls

<i>Item</i>	<i>Root Narrative</i>	<i>Unit</i>
Piling Plant		
1	Establishment of piling plant for 4*7*1*2*15*	item
2	Moving piling plant for 4*7*1*2*15*	no
Precast Concrete Piles		
3	3*4* precast concrete piles 16*5* in length 2*	m
4	Driving 6*3*4* precast concrete piles 5* in length 2*	m
5	Lengthening 6*3*4* precast concrete piles 16*5* in length 2*	m
6	Driving lengthened 6*3*4* precast concrete piles 5* in length 2*	m
7	Stripping 6*3*4* precast concrete pile heads 2*	no
Cast-in-place Piles		
8	6*7* cast-in-place piles 16*3*5* in length 2*	m
9	6*7* empty bores 2*	m
10	Enlarged base to 7* cast-in-place piles 2*	no
Reinforcement for Cast-in-place Piles		
11	8* steel bar reinforcement nominal size 9*10* in length	t
12	8* steel helical reinforcement nominal size 9*	t
Steel Bearing Piles		
13	3* steel bearing piles 5* in length 2*	m
14	3* lengthening pieces for steel bearing piles 5* in length 2*	m
15	Driving 6*3* steel bearing piles 5* in length 2*	m
16	Driving lengthened 6*3* steel bearing piles 5* in length 2*	m
17	Welding on lengthening pieces to 6*3* steel bearing piles 2*	no
18	Cutting or burning off surplus length of 6*3* steel bearing piles 2*	no

Proof Loading of Piles

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|----|---|------|
| 19 | Establishment of proof loading equipment for piles 1*2* | item |
| 20 | Proof loading of 6*3*1* with 17*2* | no |

Steel Sheet Piles

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|----|---|----------------|
| 21 | 3* steel sheet piles 5* in length 11* | m ² |
| 22 | 3* steel sheet piles lengthening piece 5* in length 11* | m ² |
| 23 | Extra over 3* steel sheet piles 5* in length 11* for 12*3* | m |
| 24 | Extra over 3* steel sheet piles lengthening pieces 5* in length 11* for 12*3* | m |
| 25 | Driving 3* steel sheet piles 5* in length 11* | m ² |
| 26 | Driving lengthened 3* steel sheet piles 5* in length 11* | m ² |
| 27 | Extra over driving 3* steel sheet piles 5* in length 11* for driving 12*3* | m |
| 28 | Extra over driving lengthened 3* steel sheet piles 5* in length 11* for driving 12*3* | m |
| 29 | Welding on lengthening piece to 3* steel sheet piles 11* | m |
| 30 | Cutting or burning off surplus length of 3* steel sheet piles 11* | m |
| 31 | 3* walings | t |
| 32 | 3* tie rods | t |

Embedded Retaining Wall Plant

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|----|--------------------------------|------|
| 33 | Establishment of 18* plant 15* | item |
|----|--------------------------------|------|

Diaphragm Walls

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|----|-------------------------|----------------|
| 34 | Diaphragm wall 13*14* | m ² |
| 35 | Empty excavation 13*14* | m ² |

Secant Pile Walls

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|----|---|----------------|
| 36 | 19* secant pile wall with 7* piles 20*14* | m ² |
| 37 | Empty bore 7* 20* 14* | m ² |

Contiguous Bored Pile Walls

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|----|--|----------------|
| 38 | Contiguous bored pile walls with 7* piles 21*14* | m ² |
| 39 | Empty bores 7* 21* 14* | m ² |

Reinforcement for Embedded Retaining Walls

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|----|---|---|
| 40 | 8* steel bar reinforcement nominal size 9*10* in length | t |
| 41 | 8* rolled sections as reinforcement size 10* in length | t |

King Post Wall Plant

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|----|--|------|
| 42 | Establishment of piling plant for 7* 22* 15* | item |
| 43 | Moving piling plant for 7* 22* 15* | no |

King Posts

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|----|---|---|
| 44 | 6* 7* cast-in-place king post piles 16* 3* 5* in length | m |
| 45 | 6* 7* king post empty bores | m |

Reinforcement for King Post Piles

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|----|--|---|
| 46 | 8* steel bar reinforcement size 9* 10* in length | t |
| 47 | 8* rolled section members size 10* in length | t |
| 48 | 3* precast concrete members size 10* in length | m |

King Post Walling

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|----|--------------------------|----------------|
| 49 | 3* king post walling 13* | m ² |
|----|--------------------------|----------------|
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Group Variables

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|----|-------|---|
| 1* | (i) | =precast reinforced and prestressed concrete piles |
| | (ii) | =precast reinforced concrete segmental piles |
| | (iii) | =bored cast-in-place piles |
| | (iv) | =bored piles constructed using continuous flight auger and concrete or grout through hollow auger stems |
| | (v) | =driven cast-in-place piles |
| | (vi) | =steel bearing piles |
| | (vii) | =steel sheet piles |

- 2* (i) =in preliminary piling as a separate operation in advance of main piling
- (ii) =in main piling

- 3* (o) =No entry
- (i) etc =[stated Type]

- 4* (o) =No entry
- (i) =300 x 300 mm
- (ii) =350 x 350 mm
- (iii) =400 x 400 mm
- (iv) =450 x 450 mm
- (v) =500 x 500 mm
- (vi) =550 x 550 mm
- (vii) =600 x 600 mm
- (viii) etc =[stated size or cross-section]

- 5* (i) =not exceeding 5 metres
- (ii) =exceeding 5 metres but not exceeding 10 metres
- (iii) = exceeding 10 metres but not exceeding 15 metres
- (iv) etc =exceeding 15 metres but not exceeding 20 metres (and so on in steps of 5 metres)

- 6* (i) =vertical
- (ii) =raking

- 7* (o) =No entry
- (i) =300 mm diameter
- (ii) =350 mm diameter
- (iii) =400 mm diameter
- (iv) =450 mm diameter
- (v) =500 mm diameter
- (vi) =550 mm diameter
- (vii) =600 mm diameter
- (viii) =750 mm diameter
- (ix) =900 mm diameter
- (x) =1050 mm diameter
- (xi) =1350 mm diameter
- (xii) =1500 mm diameter
- (xiii) etc = [stated diameter]

- 8* (i) etc = [stated type or grade of steel]
- 9* (i) = 16 mm and under
(ii) = 20 mm and over
- 10* (i) = not exceeding 12 metres
(ii) = exceeding 12 metres but not exceeding 13.5 metres
(iii) etc = exceeding 13.5 metres but not exceeding 15.0 metres (and so on in steps of 1.5 metres)
- 11* (i) = in main construction
(ii) = in anchorage
- 12* (i) = corner pile
(ii) = junction pile
(iii) etc = [stated special pile]
- 13* (i) etc = [stated thickness or width]
- 14* (i) = 0 to 5 metres in depth
(ii) = 0 to 10 metres in depth
(iii) etc = 0 to 15 metres in depth (and so on in steps of 5 metres)
- 15* (o) = No entry
(i) etc = [stated location]
- 16* (o) = No entry
(i) etc = [stated material]
- 17* (i) = maintained load
(ii) = constant rate load
(iii) = dynamic load
- 18* (i) = diaphragm walling
(ii) = hard/hard secant pile walling
(iii) = hard/soft secant pile walling
(iv) = contiguous bored pile walling

- 19* (i) =hard/hard
- (ii) =hard/soft

- 20* (i) etc =[stated spacings and overlap of piles at commencing level]

- 21* (i) etc =[stated spacings]

- 22* (i) =bored cast-in-place king post piles
- (ii) =bored king post piles constructed using continuous flight auger and concrete or grout through hollow auger stems
- (iii) =driven cast-in-place king post piles