



COMUNE DI CASCINA  
(PROVINCIA DI PISA)

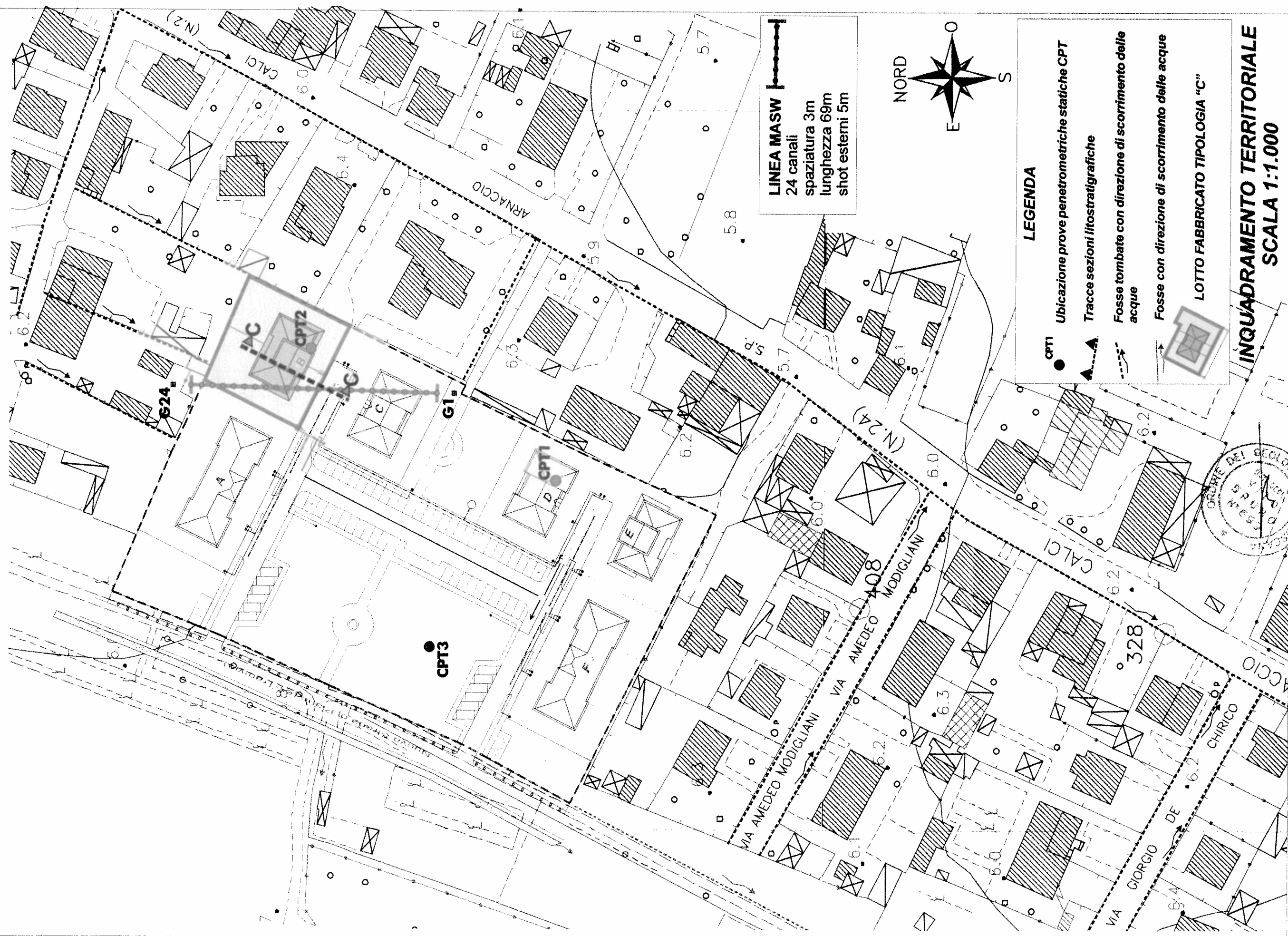
SCHEDE DEI DATI DI BASE

Numero: 96-97+M100

Località: Zambra, strada vicinale "Ex Tramvia"

Tipo e numero: n. 2 prove penetrometriche statiche CPT  
n. 1 indagine sismica MASW

Fonte: Comune di Cascina



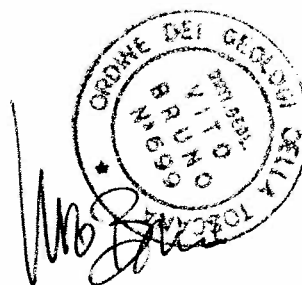
## Report MASW data

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Cantiere 11/02/2010  
Localita' Zambra (PI)



## SWAN - Surface waves analysis

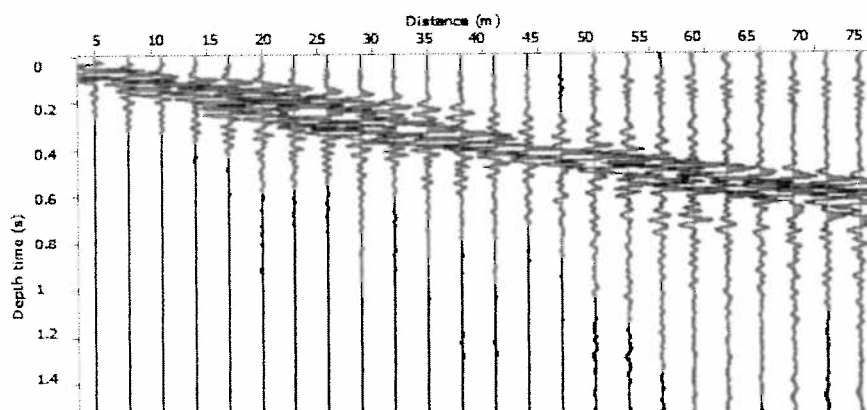


## Setup

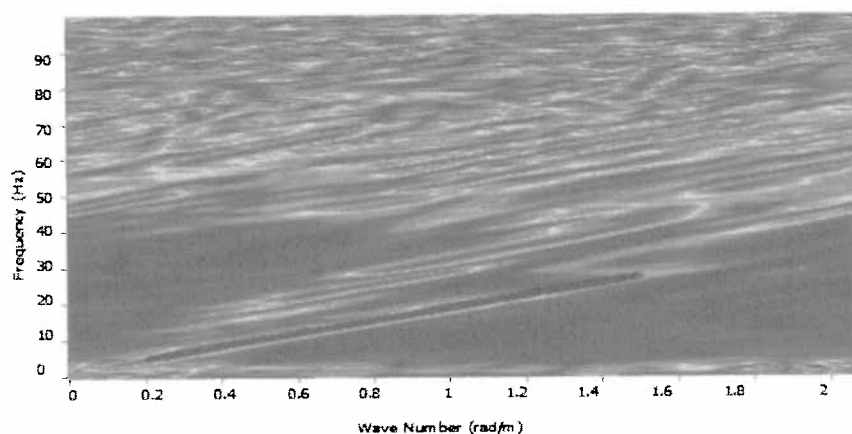
Sample interval [ms]: 0.25  
 Number of samples: 6144  
 Record Length [ms]: 1536  
 Number of channels: 24  
 Distance to the first geophone [m]: 5  
 Distance to the last geophone [m]: 74  
 Geophone's mean spacing [m]: 3

Seismograph: DMT, Summit II Compact  
 Sampler: 24bit  
 Source: Hammer (8Kg)  
 Cut off frequency of the Geophones: 4.5Hz  
 Nearest geophone to source: G01

## Seismogram

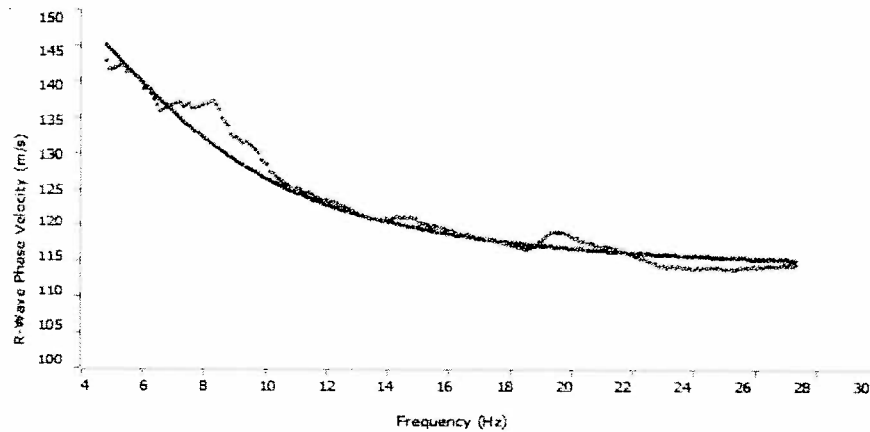


## Spectrum

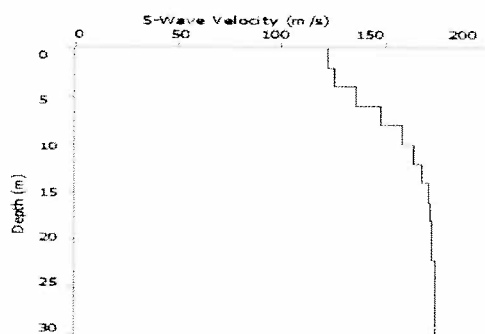


## Dispersion Curve

Experimental dispersion curve  
Theoretical dispersion curve



## Profile



$V_{s30} = 158 \text{ m/s}$

| Layer | Thickness [m] | Depth [m] | Density [Kg/dm <sup>3</sup> ] | Vs [m/s] | Vp [m/s] | Poisson [1] |
|-------|---------------|-----------|-------------------------------|----------|----------|-------------|
| 1     | 2.00          | 0.00      | 1.80                          | 122      | 245      | 0.335       |
| 2     | 2.00          | 2.00      | 1.80                          | 125      | 251      | 0.335       |
| 3     | 2.00          | 4.00      | 1.80                          | 136      | 273      | 0.335       |
| 4     | 2.00          | 6.00      | 1.80                          | 148      | 296      | 0.333       |
| 5     | 2.00          | 8.00      | 1.80                          | 158      | 315      | 0.332       |
| 6     | 2.00          | 10.00     | 1.80                          | 164      | 328      | 0.333       |
| 7     | 2.00          | 12.00     | 1.80                          | 168      | 337      | 0.335       |
| 8     | 2.00          | 14.00     | 1.80                          | 171      | 342      | 0.333       |
| 9     | 2.00          | 16.00     | 1.80                          | 172      | 344      | 0.333       |
| 10    | 2.00          | 18.00     | 1.80                          | 173      | 346      | 0.333       |
| 11    | 2.00          | 20.00     | 1.80                          | 173      | 347      | 0.335       |
| 12    | 2.00          | 22.00     | 1.80                          | 174      | 347      | 0.332       |
| 13    | 2.00          | 24.00     | 1.80                          | 174      | 348      | 0.333       |
| 14    | 2.00          | 26.00     | 1.80                          | 174      | 348      | 0.333       |
| 15    | INF           | 28.00     | 1.80                          | 174      | 348      | 0.333       |

## SWAN - Surface waves analysis

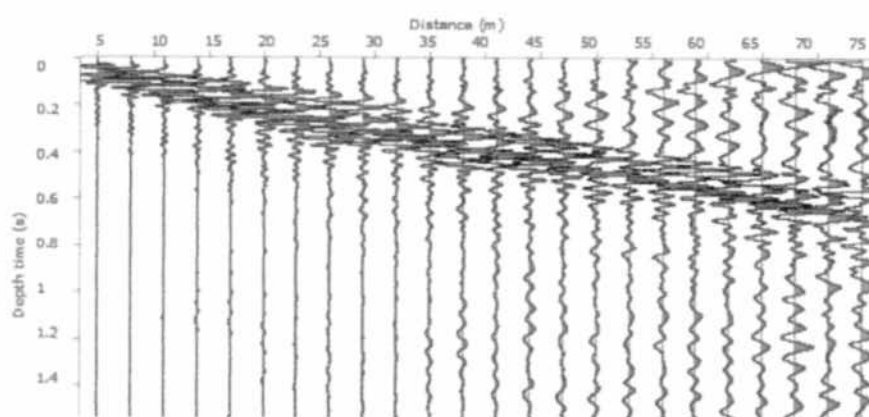


## Setup

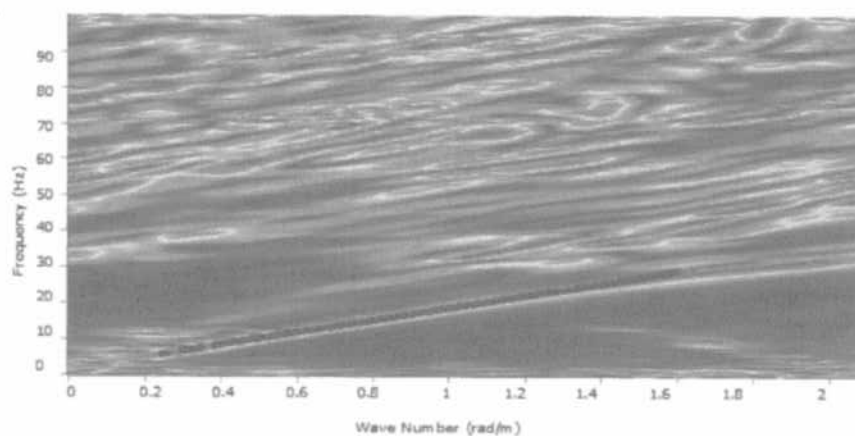
Sample Interval [ms]: 0.25  
 Number of samples: 6144  
 Record Length [ms]: 1536  
 Number of channels: 24  
 Distance to the first geophone [m]: 5  
 Distance to the last geophone [m]: 74  
 Geophone's mean spacing [m]: 3

Sismograph: DMT, Summit II Compact  
 Sampler: 24bit  
 Source: Hammer (8Kg)  
 Cut off frequency of the Geophones: 4.5Hz  
 Nearest geophone to source: G24

## Seismogram

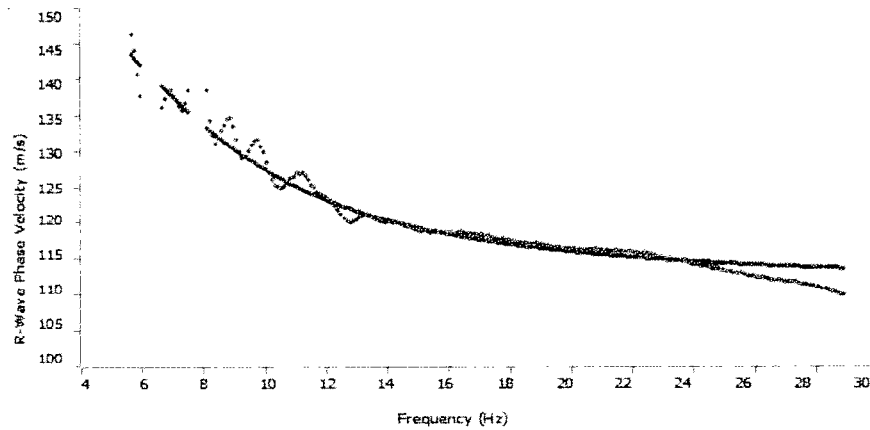


## Spectrum

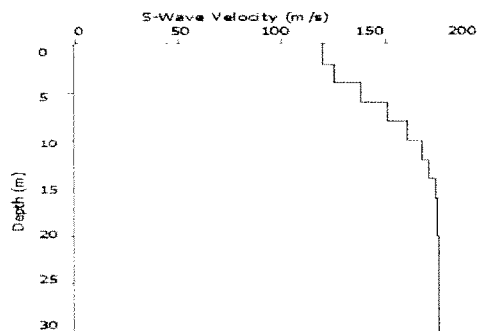


## Dispersion Curve

Experimental dispersion curve  
Theoretical dispersion curve



## Profile



Vs30 = 160m/s

| Layer | Thickness [m] | Depth [m] | Density [Kg/dm3] | Vs [m/s] | Vp [m/s] | Poisson [1] |
|-------|---------------|-----------|------------------|----------|----------|-------------|
| 1     | 2.00          | 0.00      | 1.80             | 120      | 240      | 0.333       |
| 2     | 2.00          | 2.00      | 1.80             | 125      | 249      | 0.332       |
| 3     | 2.00          | 4.00      | 1.80             | 138      | 276      | 0.333       |
| 4     | 2.00          | 6.00      | 1.80             | 151      | 303      | 0.335       |
| 5     | 2.00          | 8.00      | 1.80             | 161      | 322      | 0.333       |
| 6     | 2.00          | 10.00     | 1.80             | 168      | 335      | 0.332       |
| 7     | 2.00          | 12.00     | 1.80             | 171      | 343      | 0.335       |
| 8     | 2.00          | 14.00     | 1.80             | 174      | 347      | 0.332       |
| 9     | 2.00          | 16.00     | 1.80             | 175      | 350      | 0.333       |
| 10    | 2.00          | 18.00     | 1.80             | 175      | 351      | 0.335       |
| 11    | 2.00          | 20.00     | 1.80             | 176      | 351      | 0.332       |
| 12    | 2.00          | 22.00     | 1.80             | 176      | 352      | 0.333       |
| 13    | 2.00          | 24.00     | 1.80             | 176      | 352      | 0.333       |
| 14    | 2.00          | 26.00     | 1.80             | 176      | 352      | 0.333       |
| 15    | INF           | 28.00     | 1.80             | 176      | 352      | 0.333       |