ISTITUTO AUTONOMO CASE POPOLARI

BRINDISI

COSTRUZIONE DI N°12 ALLOGGI PER AGRICOLTORI DIPENDENTI IN CELLINO SAN MARCO

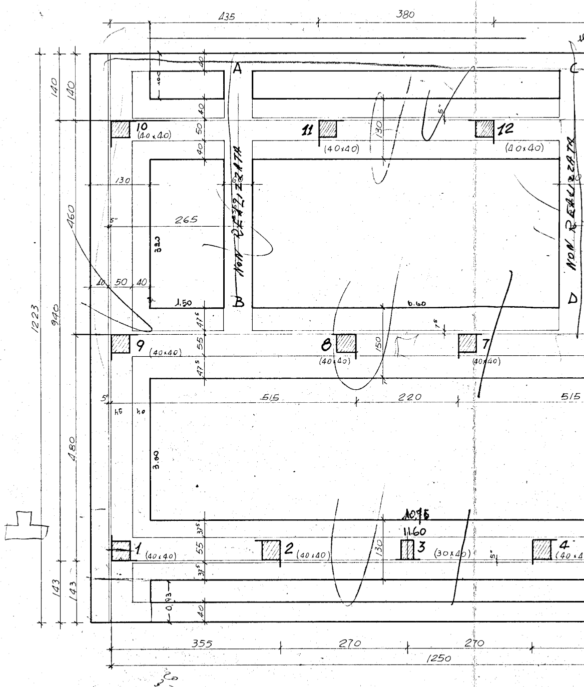
CALCOLI STATICI ESECUTIVI

IL CALCOLATORE
DOTT. ING. PIER FRANCESCO PINTO

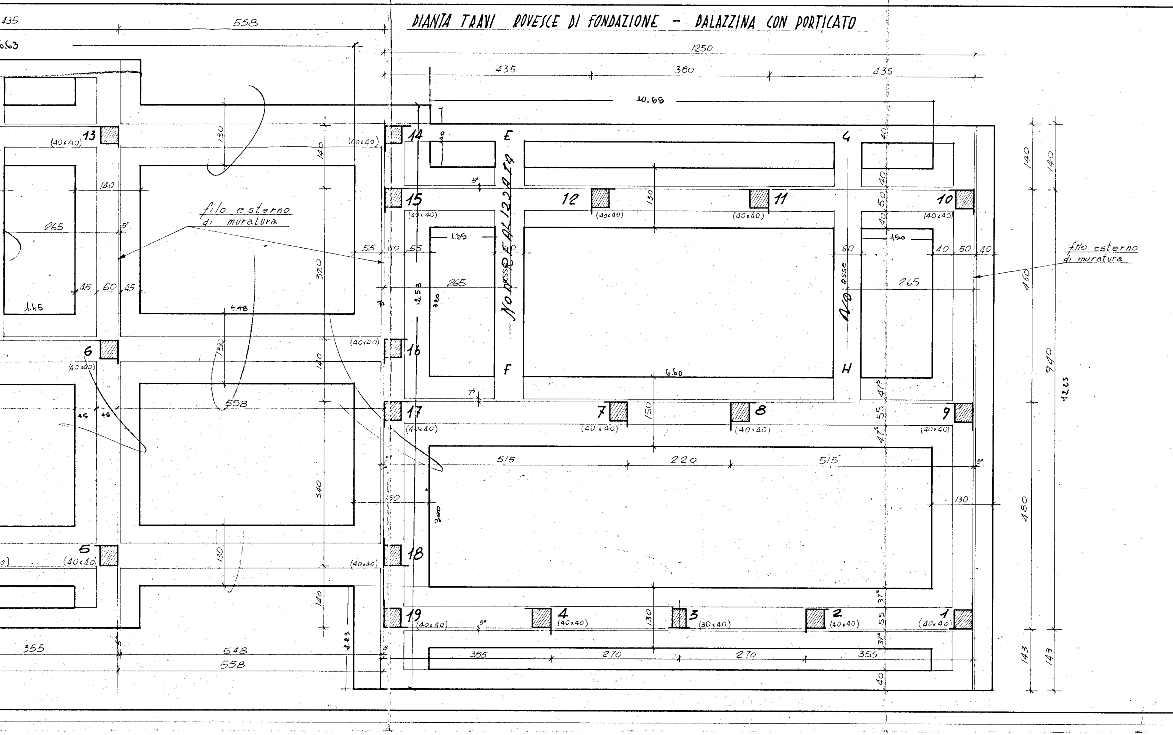
Cellino San Marco

L'IMPRESA

IL DIRETTORE DEI LAVORI

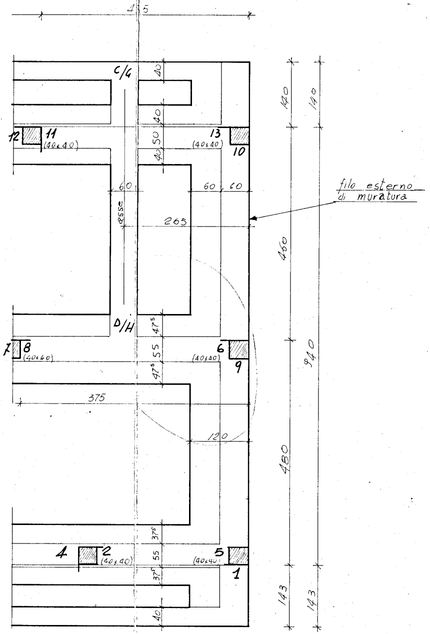

435
380
A
B
C
D
140
140
1223
940
460
480
143
143
10 (40x40)
11 (40x40)
12 (40x40)
9 (40x40)
8 (40x40)
7 (40x40)
1 (40x40)
2 (40x40)
3 (30x40)
4
130
265
320
1.50
6.60
150
130
515
220
515
3.80
11.60
NON REALIZZATA
NON REALIZZATA
355
270
270
1250

PIANTA TRAVI ROVESCE DI FONDAZIONE - PALAZZINA CON PORTICATO

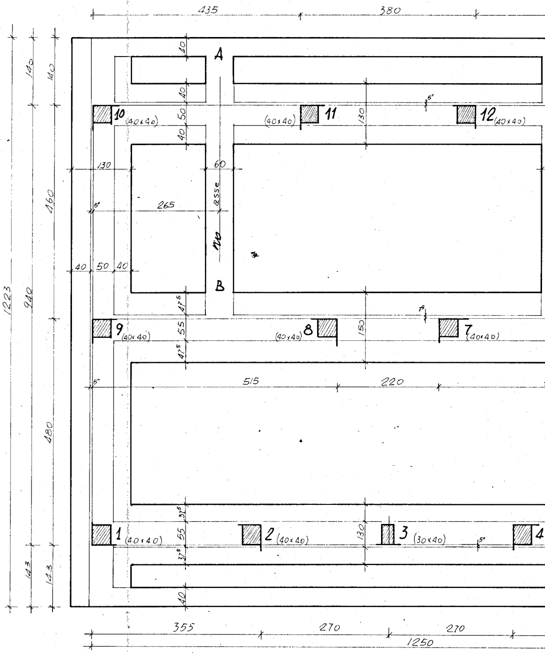


435
558
6.63
1250
435
380
435
10.65
13
14
15
16
17
18
19
12
11
10
9
8
7
6
5
4
3
2
1
E
F
G
H
(40x40)
(30x40)
filo esterno di muratura
filo esterno di muratura
NON REALIZZATO
asse
asse
130
140
265
320
340
4.48
558
1.45
45
50
45
55
50
55
1.35
265
12.53
320
60
150
40
50
40
140
460
940
12.23
480
143
6.60
515
220
515
130
380
150
355
270
270
355
355
548
558
2.83
47.5
55
37.5
40
5

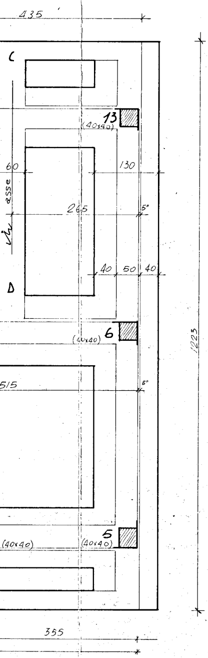
VARIANTE DI TESTATA PER LE PALAZZINE ACCOPPIATE


435
C/G
D/H
11
12
(40x40)
13
(40x40)
10
8
7
(40x40)
6
(40x40)
9
4
2
(40x40)
5
(40x40)
1
40
50
40
40
60
60
60
asse
265
47,5
55
47,5
375
120
37,5
55
37,5
40
140
140
460
940
480
143
143
filo esterno di muratura

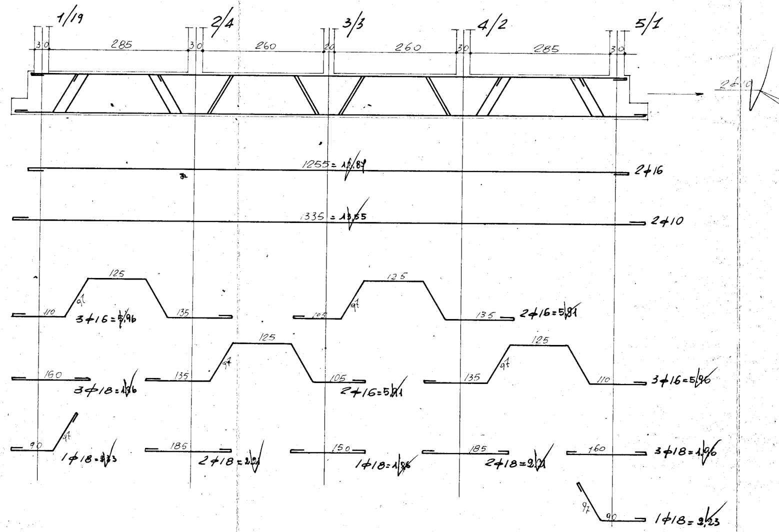
PIANTA TRAVI ROVESCE DI FONDAZIONE - PALAZZINA PIC

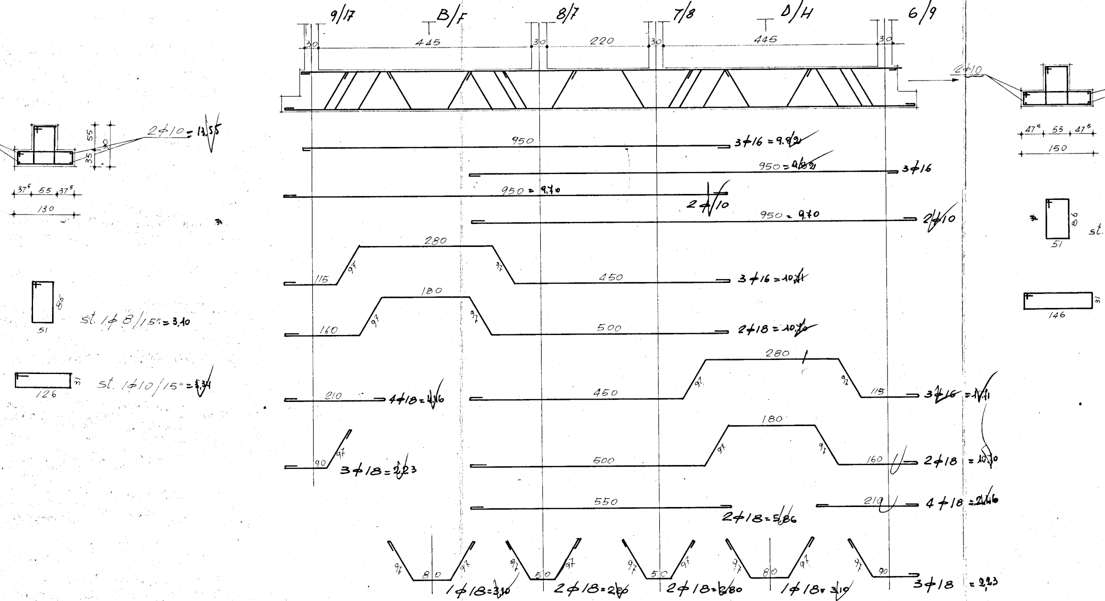

435
380
A
B
10
(40x40)
11
(40x40)
12
(40x40)
9
(40x40)
8
(40x40)
7
(40x40)
1
(40x40)
2
(40x40)
3
(30x40)
4
40
40
50
40
130
60
asse
265
5"
140
40
50
40
47,5
55
47,5
150
7,5
515
220
37,5
55
37,5
130
40
1223
940
140
140
460
480
143
143
355
270
270
1250

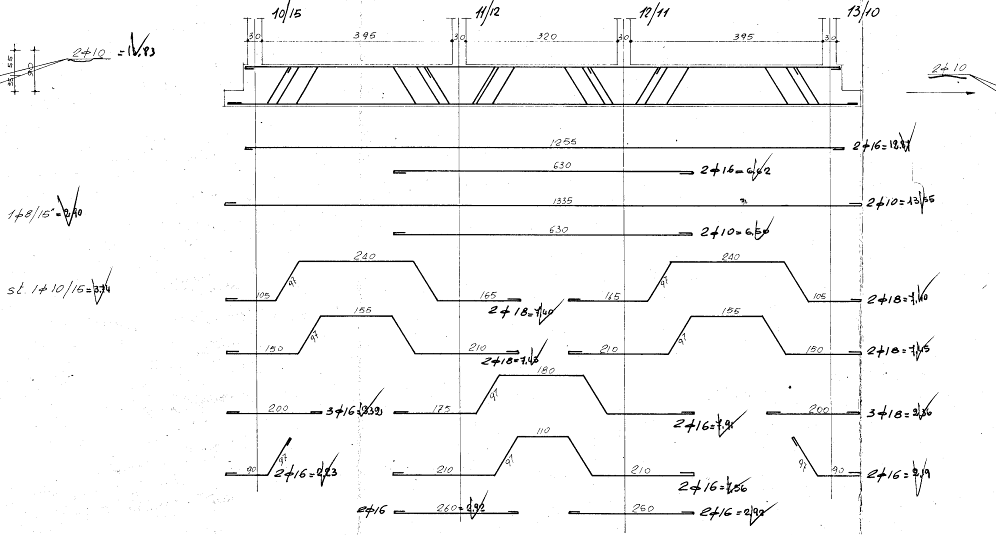
COLA

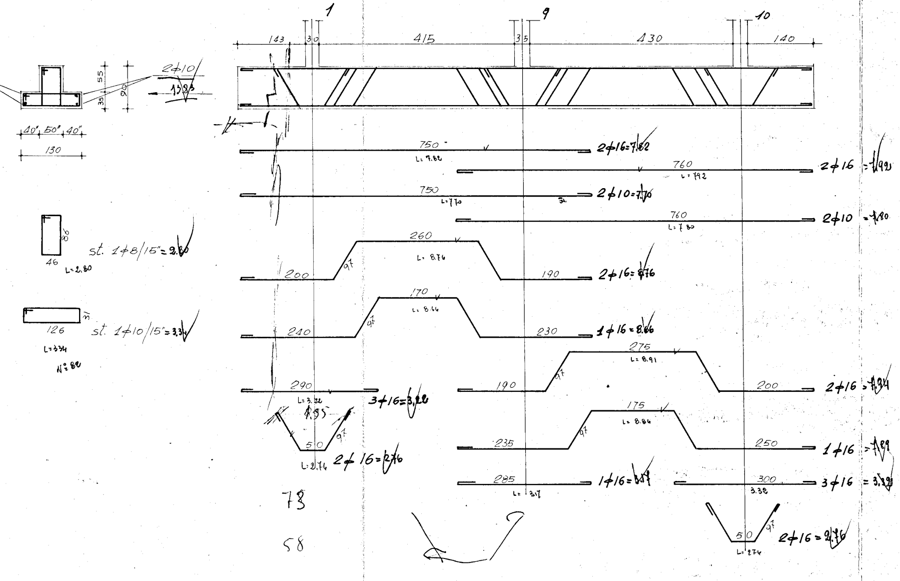

435
C
13
(40x40)
60
130
asse
265
5"
40
50
40
D
6
(40x40)
515
5"
1223
5
(40x40)
(40x40)
355

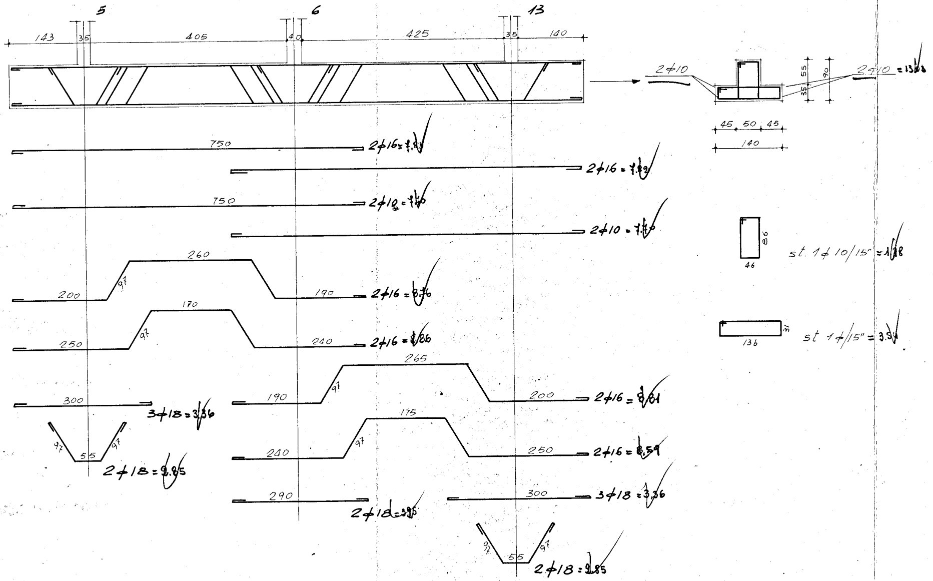
ARMATURA TRAVI DI FONDAZIONE

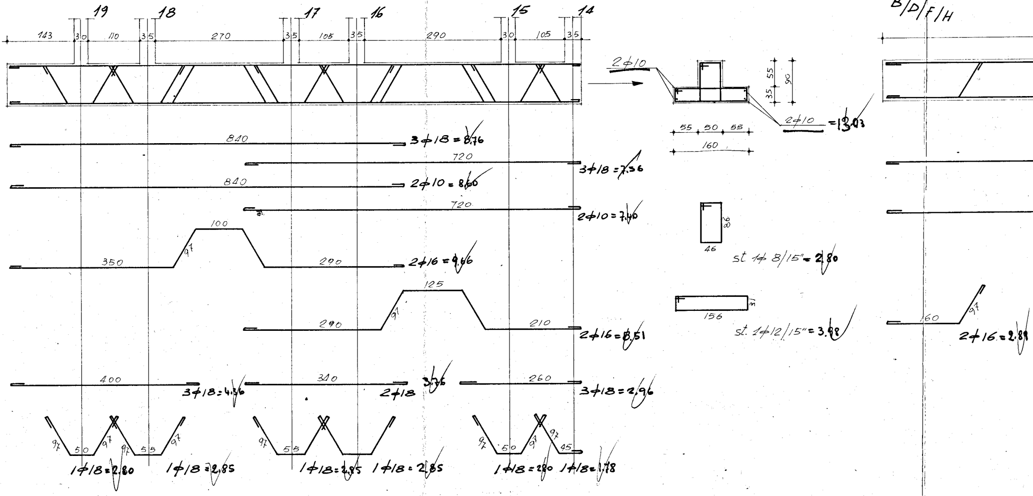

1/19
2/4
3/3
4/2
5/1
30
285
30
260
20
260
30
285
30
1255 = 12,87
2φ16
1335 = 13,55
2φ10
110
97
125
135
3φ16 = 5,96
105
97
125
135
2φ16 = 5,81
160
3φ18 = 1,86
135
97
125
105
2φ16 = 5,81
135
97
125
110
3φ16 = 5,96
90
97
1φ18 = 3,33
185
2φ18 = 2,21
150
1φ18 = 1,86
185
2φ18 = 2,21
160
3φ18 = 1,96
97
90
1φ18 = 2,23

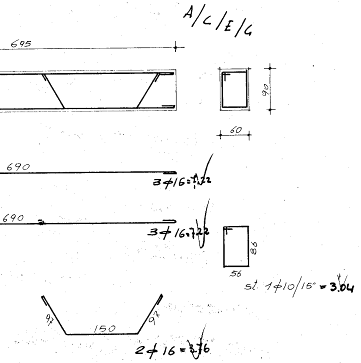

9/17
B/F
8/7
7/8
D/H
6/9
30
445
30
220
30
445
30
2φ10 = 13,55
55
35
90
37⁵ 55 37⁵
130
2φ10
47⁵ 55 47⁵
150
950
3φ16 = 9,82
950 = 9,82
3φ16
950 = 9,70
2φ10
950 = 9,70
2φ10
86
51
st.
280
97
97
115
450
3φ16 = 10,71
86
51
st. 1φ8/15" = 3,10
180
97
97
160
500
2φ18 = 10,70
31
146
280
97
97
450
115
3φ16 = 10,71
31
126
st. 1φ10/15" = 3,34
210
4φ18 = 2,46
180
97
97
500
160
2φ18 = 10,70
90
97
3φ18 = 2,23
550
2φ18 = 5,86
219
4φ18 = 2,46
97
80
97
1φ18 = 3,10
97
50
97
2φ18 = 2,86
97
50
97
2φ18 = 2,80
97
80
97
1φ18 = 3,10
97
90
3φ18 = 2,23

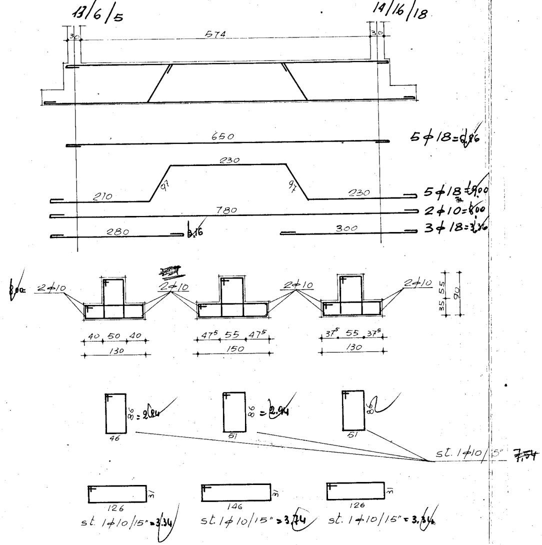

10/15
11/12
12/11
13/10
30
395
30
320
30
395
30
55
90
35
2φ10 = 1[illegible].83
2φ10
1φ8/15" = 2,90
st. 1φ10/15 = 3,74
1255
2φ16 = 12.87
630
2φ16 = 6.62
1335
2φ10 = 13.55
630
2φ10 = 6.50
240
97
105
165
2φ18 = 7.40
165
240
97
105
2φ18 = 7.40
155
97
150
210
2φ18 = 7.45
210
155
97
150
2φ18 = 7.45
200
3φ16 = 2.39
180
97
175
2φ16 = 7.91
200
3φ18 = 2.36
97
90
2φ16 = 2.23
110
97
210
210
2φ16 = 7.56
97
90
2φ16 = 2.19
2φ16
260 = 2.92
260
2φ16 = 2.92

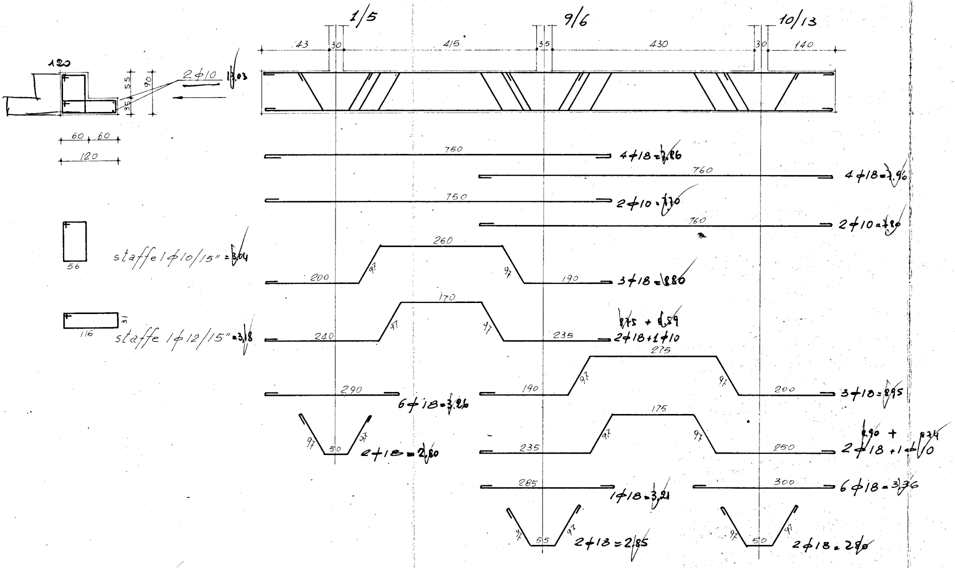

1
9
10
143
30
415
35
430
140
2φ10
13.83
55
35
90
40"
50"
40"
130
750
L= 7.82
2φ16=7.82
760
L= 7.92
2φ16 = 7.92
750
L=7.70
2φ10=7.70
760
L= 7.80
2φ10 = 7.80
80
46
L=2.80
st. 1φ8/15"=2.80
260
L= 8.76
97
200
190
2φ16=8.76
170
L= 8.66
97
240
230
1φ16 = 8.66
126
L=3.34
N°: 82
st. 1φ10/15"=3.34
275
L= 8.91
97
190
200
2φ16 = 7.94
290
L= 3.22
3φ16=3.22
2.95
97
50
L: 2.76
2φ 16=2.76
175
L= 8.86
97
235
250
1φ16 = 7.89
285
L= 3.17
1φ16=3.17
300
3.32
3φ16 = 3.32
78
58
50
97
L= 2.74
2φ16 = 2.76

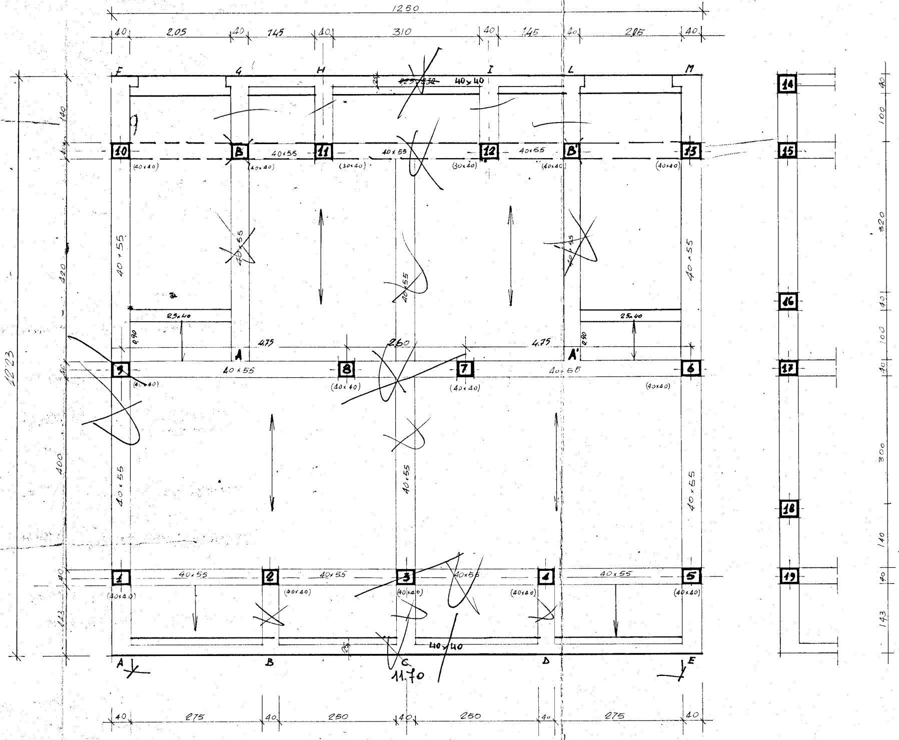

5
6
13
143
35
405
40
425
35
140
2φ10
55
35
90
2φ10 = 13.8
45
50
45
140
750
2φ16 = 7.82
2φ16 = 7.82
750
2φ10 = 7.70
2φ10 = 7.70
86
46
st. 1φ 10/15" = 1.18
31
136
st 1φ/15" = 3.54
260
97
200
190
2φ16 = 8.76
170
97
250
240
2φ16 = 8.86
265
97
190
200
2φ16 = 8.81
300
3φ18 = 3.36
97
55
97
2φ18 = 2.85
175
97
240
250
2φ16 = 8.59
290
2φ18 = 3.95
300
3φ18 = 3.36
97
55
97
2φ18 = 2.85


19
18
17
16
15
14
B/D/F/H
143
30
110
35
270
35
105
35
290
30
105
35
2φ10
55
35
90
55
50
55
160
2φ10 = 13.03
840
3φ18 = 8.76
720
3φ18 = 7.36
840
2φ10 = 8.60
720
2φ10 = 7.40
46
30
st. 1φ 8/15" = 2.80
100
97
350
290
2φ16 = 9.66
125
97
290
210
2φ16 = 8.51
156
31
st. 1φ12/15" = 3.98
160
97
2φ16 = 2.89
400
3φ18 = 4.36
340
2φ18
3.76
260
3φ18 = 2.96
97
50
97
97
55
97
1φ18 = 2.80
1φ18 = 2.85
97
55
1φ18 = 2.85
1φ18 = 2.85
97
50
97
97
45
1φ18 = 2.80
1φ18 = 1.78


A/C/E/G
695
90
60
690
3φ16=7.22
690
3φ16=7.22
86
56
st. 1φ10/15" = 3.04
97
150
97
2φ16 = 3.76

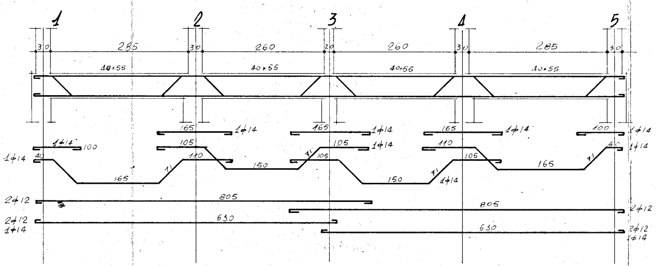

13/6/5
14/16/18
30
574
30
650
5φ18=6.86
230
97
97
210
230
5φ18=9.00
780
2φ10=8.00
280
3.16
300
3φ18=3.36
8.00
2φ10
2φ10
2φ10
2φ10
55
35
55
90
40 50 40
130
47⁵ 55 47⁵
150
37⁵ 55 37⁵
130
86 = 2.84
46
86 = 2.94
51
86
51
st. 1φ10/15" 7.54
31
126
st. 1φ10/15"=3.34
31
146
st. 1φ10/15"=3.74
31
126
st. 1φ10/15"=3.34

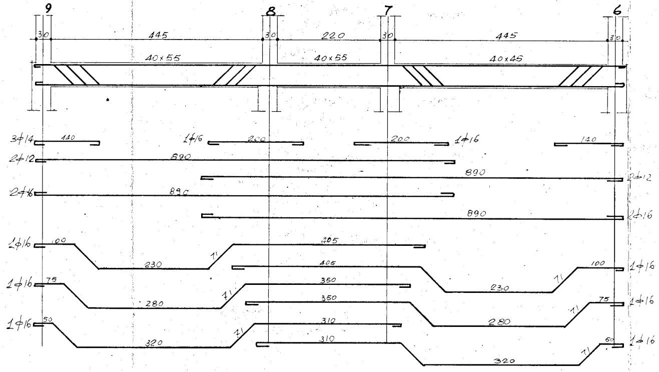

1/5
9/6
10/13
43
30
415
35
430
30
140
120
55
35
90
2ϕ10 17,03
60
60
120
750
4ϕ18 = 7,86
760
4ϕ18 = 7,96
750
2ϕ10 = 7,70
760
2ϕ10 = 7,80
56
staffe 1ϕ10/15" = 3,04
200
97
260
97
190
3ϕ18 = 8,80
116
31
staffe 1ϕ12/15" = 3,18
240
97
170
97
235
8,75 + 8,59
2ϕ18 + 1ϕ10
290
6ϕ18 = 3,26
97
50
97
2ϕ18 = 2,80
190
97
275
97
200
3ϕ18 = 8,95
235
97
175
97
250
8,90 + 8,74
2ϕ18 + 1ϕ10
285
1ϕ18 = 3,21
300
6ϕ18 = 3,36
97
55
97
2ϕ18 = 2,85
97
50
97
2ϕ18 = 2,80

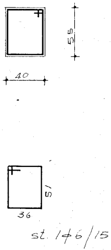

1250
40 2.05 40 145 40 310 40 145 40 205 40
F G H I L M
40x40
10 B 11 12 B' 13
40x55 40x55 40x55
(40x40) (40x40) (30x40) (30x40) (40x40) (40x40)
40x55 40x55 40x55 40x55 40x55
25x40 25x40
0.90 0.90
A A'
4.75 2.60 4.75
9 8 7 6
40x55 40x55
(40x40) (40x40) (40x40) (40x40)
40x55 40x55 40x55
1 2 3 4 5
40x55 40x55 40x55 40x55
(40x40) (40x40) (40x40) (40x40) (40x40)
40x40
A B C D E
11.70
40 275 40 250 40 250 40 275 40
12.23
140 420 400 123
14 15 16 17 18 19
40 100 320 40 100 40 300 140 40 143

PIANTA CARPENTERIA TRAVI PORTANTI 1° SOLAIO PALAZZINA ISOLATA E VARIANTE TRAVE 5/13 NELLE PALAZZINE CON PORTICO

ARMATURA TRAVI PORTANTI 1° SOLAIO

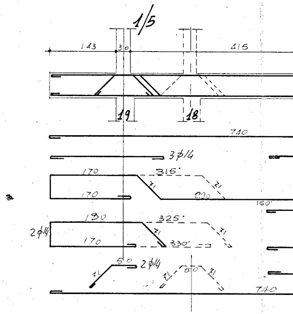

1
2
3
4
5
30
285
260
20
260
30
285
30
40x55
40x55
40x55
40x55
165
1φ14
165
1φ14
165
1φ14
100
1φ14
1φ14
100
105
105
1φ14
110
1φ14
1φ14
40
110
150
105
105
165
165
150
1φ14
71
2φ12
805
805
2φ12
2φ12
1φ14
630
630
2φ12
1φ14

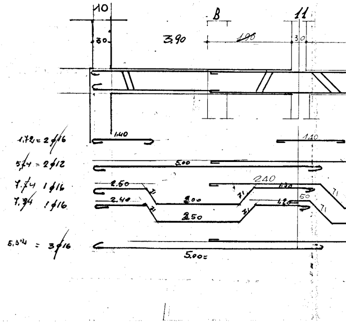

9
8
7
6
30
445
30
220
30
445
30
40x55
40x55
40x45
3φ14
140
1φ16
200
200
1φ16
140
2φ12
890
890
2φ12
2φ16
890
890
2φ16
1φ16
100
230
71
405
405
100
230
1φ16
1φ16
75
280
350
350
75
280
1φ16
1φ16
50
320
310
310
50
320
1φ16

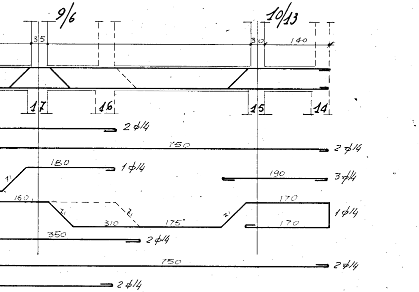

55
40
51
36
st. 1φ6/15

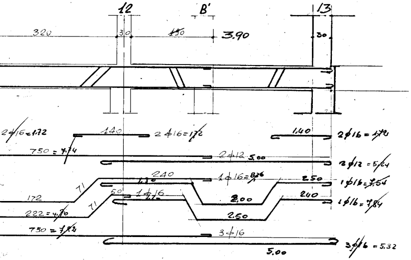
SEZIONE TIPO -

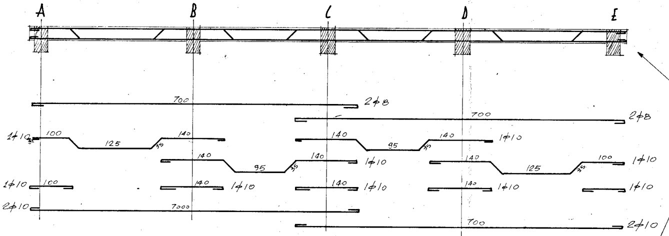
TRAVE 40x55 -

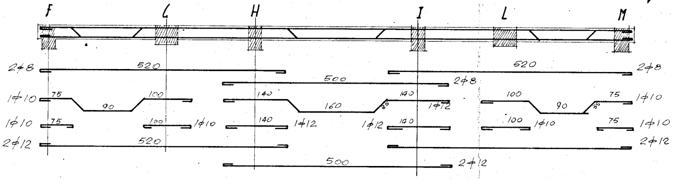

1/5
143
30
415
19
18
740
3φ14
170
315
170
230
150
180
325
2φ14
170
330
50
2φ14
50
740
71

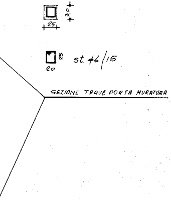

10
B
11
30
3,90
190
30
1,40
1,40
1,72 = 2φ16
5,14 = 2φ12
5.00
7,74 1φ16
7,34 1φ16
2.50
2.40
2.00
2.50
240
71
5,34 = 3φ16
5.00


9/6
10/13
35
30
140
17
16
15
14
2 ϕ14
750
2 ϕ14
180
1 ϕ14
190
3 ϕ14
160
170
310
175
170
1 ϕ14
350
2 ϕ14
750
2 ϕ14
2 ϕ14

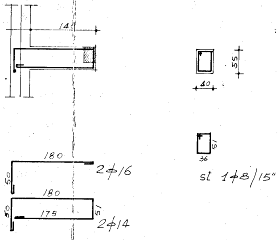

12
B'
13
320
30
150
3.90
30
2ϕ16=1.72
140
2 ϕ16=1.72
1.40
2ϕ16 = 1.72
750 = 7.74
2ϕ12 5.00
2ϕ12 = 5.24
240
1ϕ16=8.26
2.50
1ϕ16=7.54
172
1.30
1ϕ16
2.00
240
1ϕ16=7.84
222=4.70
2.50
750 = 7.72
3ϕ16
3ϕ16 = 5.32
5.00


A
B
C
D
E
700
2ϕ8
700
2ϕ8
1ϕ10
100
125
140
140
95
140
1ϕ10
140
95
140
1ϕ10
140
125
100
1ϕ10
1ϕ10
100
140
1ϕ10
140
1ϕ10
140
1ϕ10
1ϕ10
2ϕ10
7000
700
2ϕ10

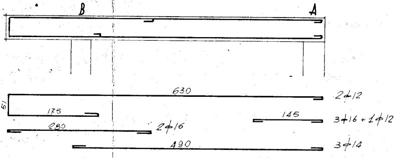

F
G
H
I
L
M
2ϕ8
520
520
2ϕ8
500
2ϕ8
1ϕ10
75
90
100
140
160
140
1ϕ12
100
90
75
1ϕ10
1ϕ10
75
100
1ϕ10
140
1ϕ12
1ϕ12
140
100
1ϕ10
75
1ϕ10
2ϕ12
520
2ϕ12
500
2ϕ12

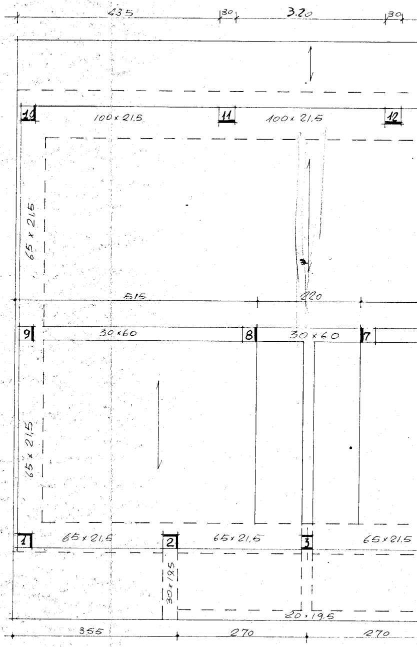

25
30
20
st. φ6/15

SEZIONE TRAVE PORTA MURATURA

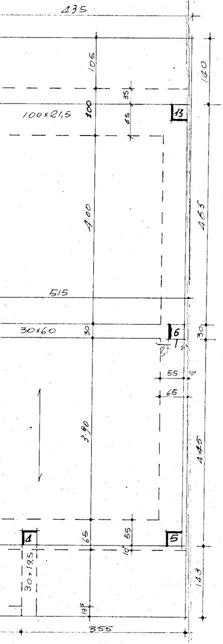

14
40
35
36
51
st 1φ8/15"
180
50
2φ16
180
50
175
51
2φ14

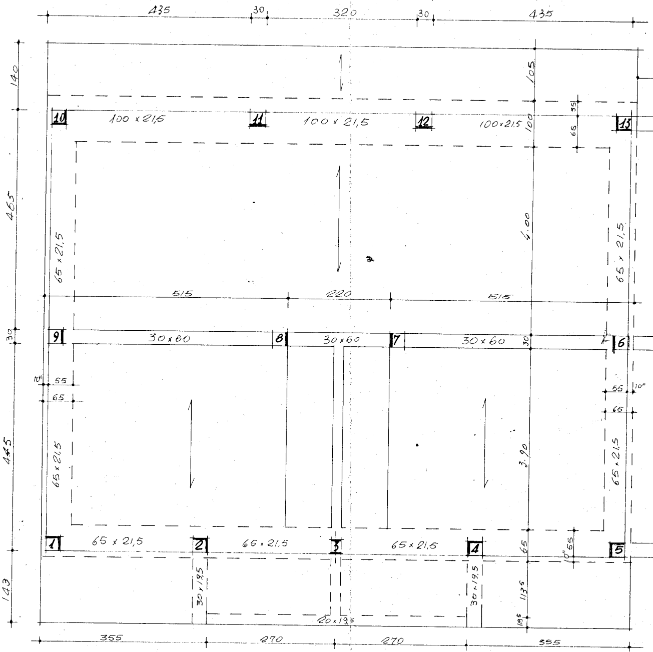
mensola tipo


B
A
630
2φ12
51
175
145
3φ16 + 1φ12
280
2φ16
490
3φ14

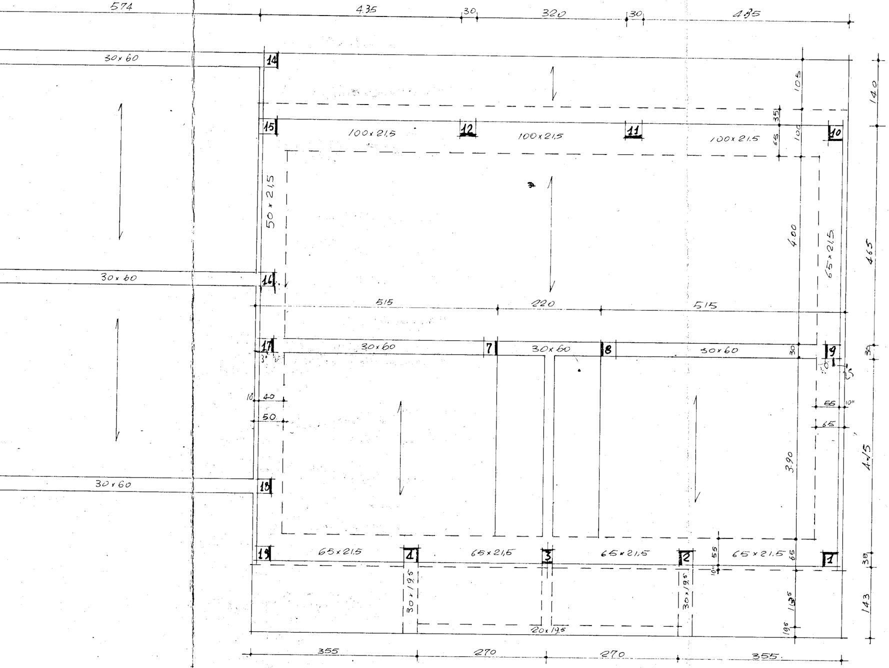

435
30
3.20
30
10
100 x 21.5
11
100 x 21.5
12
65 x 21.5
515
220
9
30 x 60
8
30 x 60
7
65 x 21.5
1
65 x 21.5
2
65 x 21.5
3
65 x 21.5
30 x 19.5
20 x 19.5
355
270
270

PALAZZINA A DUE ALLOGGI - CARPENTERIA 2° SOLAIO

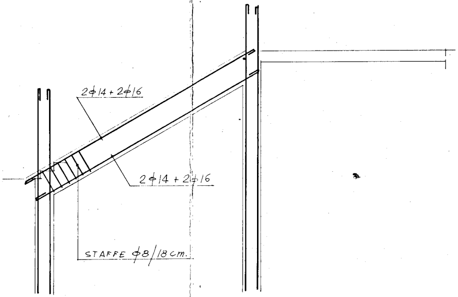

435
105
140
100x21,5
100
35
65
13
4.00
465
515
30x60
30
6
55
65
3.90
445
4
65
55
5
30x19,5
143
355

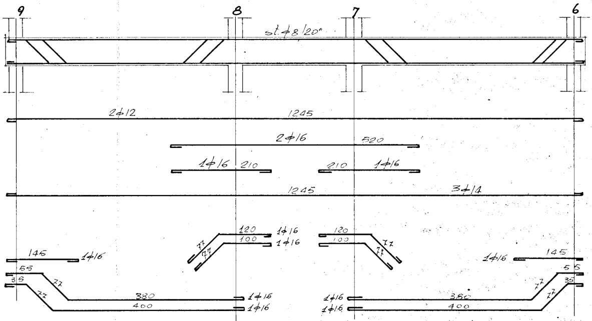

435
30
320
30
435
140
105
10
100 x 21,5
11
100 x 21,5
12
100x21,5
100
35
65
13
465
65 x 21,5
4.00
65 x 21,5
515
220
515
30
9
30x60
8
30x60
7
30x60
30
6
10"
55
65
55
10"
65
445
65 x 21,5
3.90
65 x 21,5
1
65 x 21,5
2
65 x 21,5
3
65 x 21,5
4
65
10"
55
5
143
30x19,5
20x19,5
30x19,5
1.35
19,5
355
270
270
355

PALAZZINA A QUATTRO ALLOGGI - CARPENTERIA 2° SOLAIO

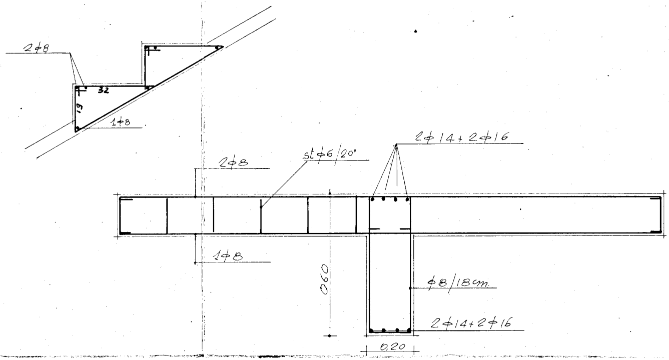

574
435
30
320
30
485
30x60
14
105
140
35
15
12
11
10
100x21,5
100x21,5
100x21,5
100
65
50x21,5
4.00
65x21,5
465
30x60
16
515
220
515
17
7
8
9
30x60
30x60
30x60
30
30
10
40
50
55
10"
65
3.90
4.15
30x60
18
19
4
3
2
1
65x21,5
65x21,5
65x21,5
65x21,5
55
65
10"
30
30x19,5
30x19,5
1.35
143
19,5
20x19,5
355
270
270
355

ARMATURE TRAVI 2° SOLAIO

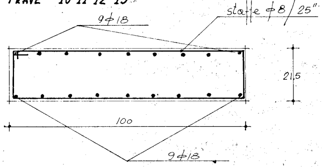

2φ14+2φ16
2φ14+2φ16
STAFFE φ8/18 cm.

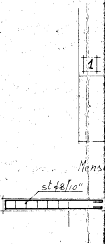

9
8
7
6
st.φ8/20"
2φ12
1245
2φ16
520
1φ16
210
210
1φ16
1245
3φ14
120
100
1φ16
1φ16
77
77
120
100
77
77
145
1φ16
1φ16
145
65
35
77
77
380
400
1φ16
1φ16
1φ16
1φ16
380
400
77
77
55
35

ARMATURA SCALA e GRADINI

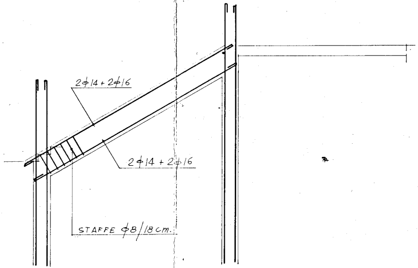

2φ8
32
19
1φ8
2φ14+2φ16
st φ6/20"
2φ8
1φ8
060
φ8/18 cm.
2φ14+2φ16
0,20

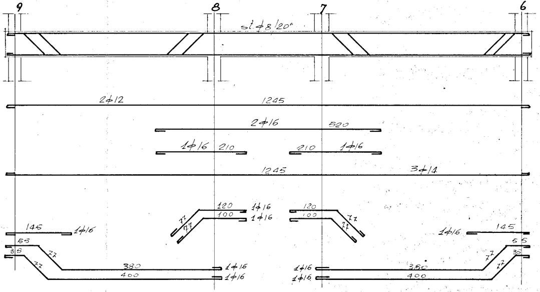
TRAVE 10-11-12-13


9φ18
staffe φ8/25"
21,5
100
9φ18

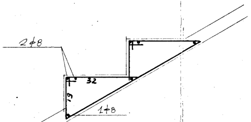

1
Mens
st φ8/10"

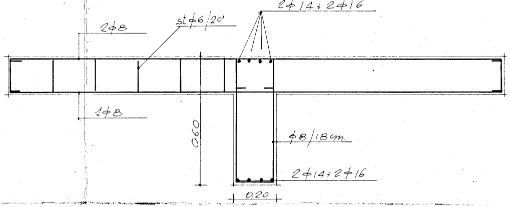
ARMATURE TRAVI 2° SOLAIO


2φ14+2φ16
2φ14 + 2φ16
STAFFE φ8/18cm.

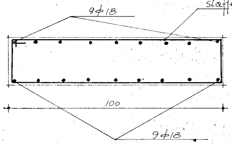

9
8
7
6
st φ8/20"
2φ12
1245
2φ16
520
1φ16 210
210 1φ16
1245
3φ14
120 1φ16
100 1φ16
77
77
120
100
77
77
145 1φ16
55
35
77
77
380 1φ16
400 1φ16
1φ16 145
55
35
77
77
1φ16 380
1φ16 400

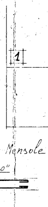
ARMATURA SCALA e GRADINI

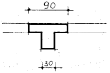

2φ8
32
19
1φ8


2φ14+2φ16
2φ8
st φ6/20"
1φ8
0.60
φ8/18cm.
2φ14+2φ16
0.20

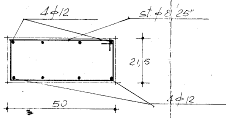
TRAVE 10-11-12-13


9φ18
staffe φ8/25"
21.5
100
9φ18

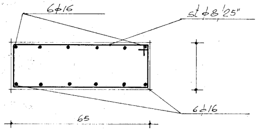

1
Mensole
st φ8/10"



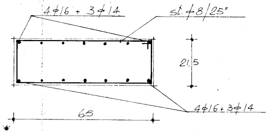
TRAVE 14-15-16-17-18-19


4ϕ12
st ϕ8/25"
21,5
50
4ϕ12

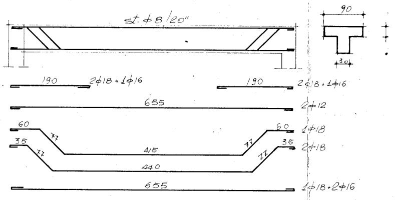
TRAVE 1·2·3·4·5

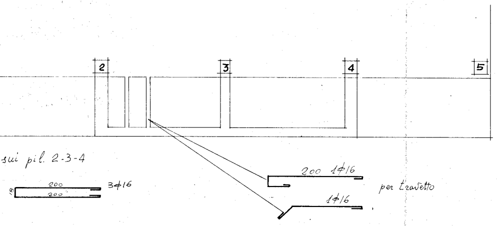

6ϕ16
st ϕ8/25"
6ϕ16
65

TRAVE 1-9-10- e 5-6-13

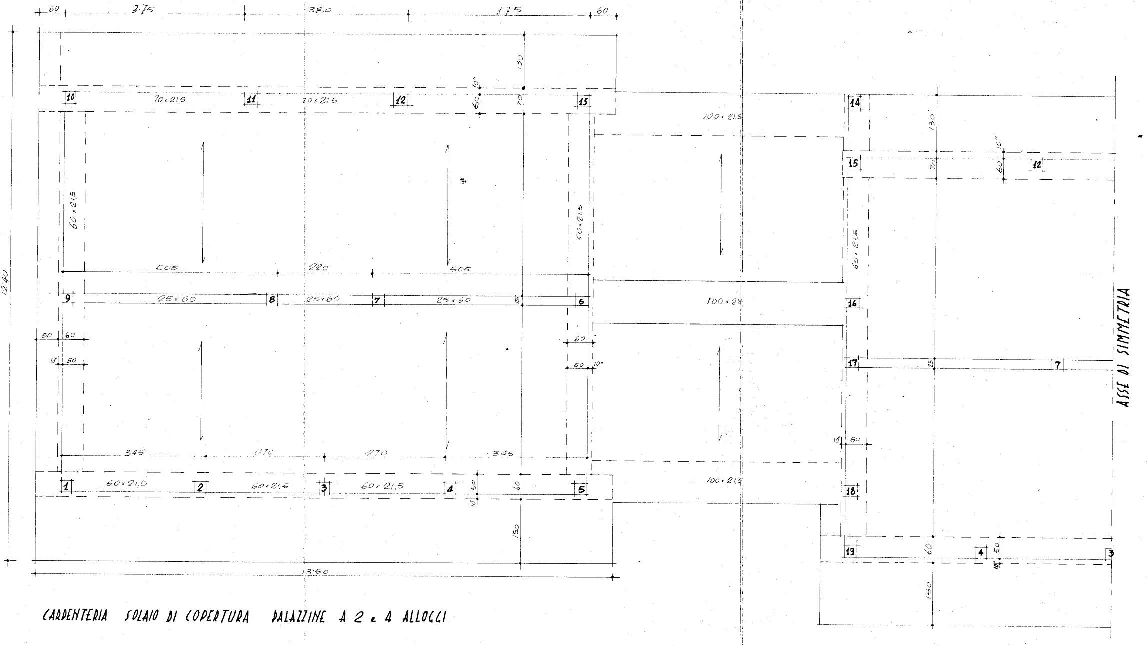

4ϕ16 + 3ϕ14
st. ϕ8/25"
21,5
4ϕ16+3ϕ14
65

TRAVE 6-16


st. ϕ8/20"
90
30
190
2ϕ18+1ϕ16
190
2ϕ18+1ϕ16
655
2ϕ12
60
77
415
77
60
1ϕ18
35
77
440
77
35
2ϕ18
655
1ϕ18+2ϕ16


2
3
4
5
sui pil. 2-3-4
200
200
3ϕ16
200 1ϕ16
1ϕ16
per travetto

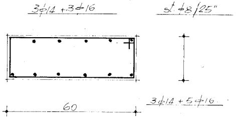
N.B. La trave N°5-18 e 13-14 è uguale alla N°6-16 ma armata con ϕ16


60
3.75
380
3.75
60
1240
130
10"
10
70×21.5
11
70×21.5
12
60
70
13
100×21.5
14
130
10"
15
70
60
12
60×21.5
60×21.5
60×21.5
505
220
505
9
25×60
8
25×60
7
25×60
25
6
100×28
16
50
60
60
10"
50
50
10"
17
25
7
ASSI DI SIMMETRIA
345
270
270
345
10"
50
1
60×21.5
2
60×21.5
3
60×21.5
4
50
60
5
100×21.5
18
10"
150
19
60
4
50
10"
3
150
13.50

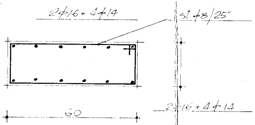
CARPENTERIA SOLAIO DI COPERTURA PALAZZINE A 2 e 4 ALLOGGI

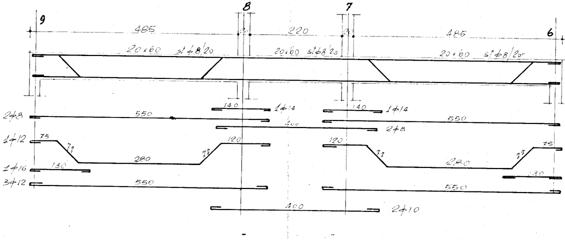
ARMATURE TRAVI SOLAIO DI COPERTURA

TRAVE 1·9·10

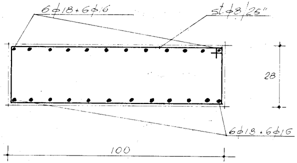

3ϕ14 + 3ϕ16
st. ϕ8/25"
3ϕ14 + 5ϕ16
60

TRAVE 1·2·3·4·5

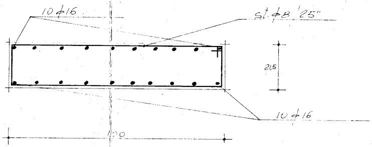

2ϕ16 + 4ϕ14
st. ϕ8/25"
2ϕ16 + 4ϕ14
60


9
8
7
6
485
220
485
20×60 st ϕ8/20
20×60 st ϕ8/20
20×60 st ϕ8/20"
140
1ϕ14
140
1ϕ14
2ϕ8
550
400
2ϕ8
550
1ϕ12
75
77
120
280
120
77
280
77
75
1ϕ16
130
130
3ϕ12
550
550
400
2ϕ10

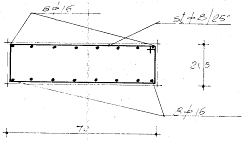
TRAVE 6·16


6ϕ18 + 6ϕ16
st. ϕ8/25"
28
6ϕ18 + 6ϕ16
100

TRAVE 5·18 e 13·14


10ϕ16
st. ϕ8/25"
21,5
10ϕ16
100

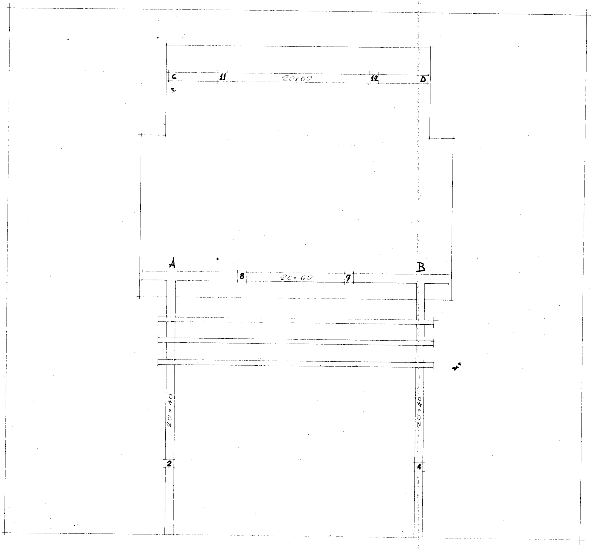
TRAVE 10·11·12·13


8ϕ16
st. ϕ8/25"
21,5
8ϕ16
70

2⌀8

1⌀12

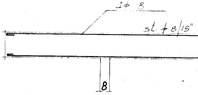
1⌀16
3⌀12


C
11
20x60
12
D
A
B
8
20x60
7
20x40
20x40
2
4

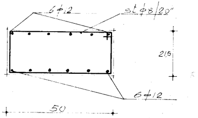
PIANTA COPERTURA STENDITOI

ARMATURA TRAVI COPERTURA

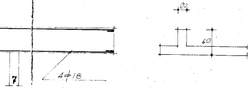
TRAVE A·8·7·B



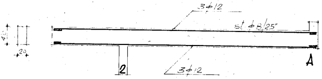
TRAVE C·11·12·D


6⌀12
st ⌀8/20"
21,5
6⌀12
50

STENDITOI



TRAVE A-2


40
20
3φ12
st φ8/25"
2
3φ12
A