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CALCOLO DIMENSIONALE CON L'IMPIEGO DI COMPUTER
DI MURI DI SOSTEGNO IN C.A. A PARETE VERTICALE PIANA SEMPLICE
IN FUNZIONE DI ALCUNE VARIABILI GEOMETRICHE E COSTRUTTIVE

RIASSUNTO

Gli Autori, utilizzando un metodo già sviluppato sul piano teorico in uno studio precedente, per una serie di casi pratici tra i più usuali elaborano a mezzo di computer il calcolo dimensionale di muri di sostegno in calcestruzzo armato a soletta verticale piana, incastrata alla fondazione di base.

Le tabelle predisposte (sono complessivamente ben 180) consentono di determinare in modo automatico i valori più rappresentativi di progetto (dimensioni, parametri statici, quantità di calcestruzzo e d'armatura metallica per metro lineare di muro, tensioni unitarie d'esercizio sul terreno), elementi tutti utili e indispensabili al tecnico che voglia svolgere facilmente ma in modo attendibile la libera professione.

SUMMARY

Computering calculus in function of some geometrical and statical variables to design reinforced concrete retaining walls.

For a serial of practical and usualy cases, the Authors working out by mean of a computer, the dimensional calculus of retaining walls in reinforced concrete with a strip vertical plain insert in the foundation. The tabulation (are carried in all 180 tables) enable to establish in a automatic way the most representati-ves values of the project (the dimensions, the statical parameters, the amount of concret and of the metallic reinforcement for a linear meter of wall, the unitary forces on the ground), all usefull and necessary elements for the technical who wishes carry out easily but in a reliable way his activity.

1. PREMESSA

Solitamente la progettazione ed il dimensionamento dei manufatti stradali in senso lato, e dei muri di sostegno in particolare, costituiscono attività espletata più

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per affrettata abitudine che con meditata professionalità. Ciò è dovuto alla complessità dei calcoli da eseguire, al notevole numero di variabili presenti, al limitato tempo a disposizione di chi esercita la libera professione.

Perciò ogni decisione è spesso assunta «a sentimento» ed affidata all'impiego di tabelle generiche se non di formule empiriche, che non possono tener conto di tutte le condizioni del caso, variabili di volta in volta, e pertanto non pervenire a soluzioni approssimate, che presentano sempre dimensioni in eccesso rispetto al necessario, considerato il fine primario di garantire comunque la stabilità della struttura in progetto.

Ciò determina costi di manufatti ed investimenti in infrastrutture, già di per se ingenti, raramente compatibili con il piano finanziario programmato.

Da qui l'importanza di poter disporre di metodi semplici ma attendibili, che presentino il maggior numero di soluzioni riferite alla più vasta casistica possibile: ciò può ottenersi con la predisposizione di tabelle articolate, ma di facile ed immediata consultazione.

Di quanto in premessa, gli stessi Autori, in un precedente studio¹, avevano sviluppato gli aspetti teorici relativi alla progettazione dei muri di sostegno in calcestruzzo armato con l'intento di esaminarne un aspetto specifico: analizzare con l'uso del calcolatore l'andamento dei costi di costruzione e delle sollecitazioni indotte sul terreno di fondazione, in muri di sostegno di cemento armato, al variare della posizione della parete verticale resistente lungo la piastra di fondazione.

La trattazione del tema nello studio citato, veniva svolta, come detto, essenzialmente sul piano teorico e circoscritta a limitati casi presi a campione, al solo fine di ricavare conclusioni oggettive sulle risultanze del metodo, più che elaborare dati numerici da utilizzare nell'esercizio della professione.

2. SCOPO DELLO STUDIO

Nel presente studio, assumendo a presupposto il metodo già elaborato, per un gruppo di casi pratici tra i più ricorrenti, si è invece voluto svolgere a mezzo di computer soprattutto il calcolo analitico, riportando su una serie di tabelle i dati ricavati, da impiegare quali standards dimensionali nella progettazione di muri di sostegno in calcestruzzo armato, a soletta verticale incastrata al piede di fondazione.

¹ Cfr. S. De Montis - M. Pisanu: «Analisi delle prestazioni statiche e dei costi di muri di sostegno in calcestruzzo armato in funzione di alcune caratteristiche dimensionali». Studi Sassaressi. Sez. 3ª Annali della Facoltà di Agraria. Vol. XXVIII, 1979.

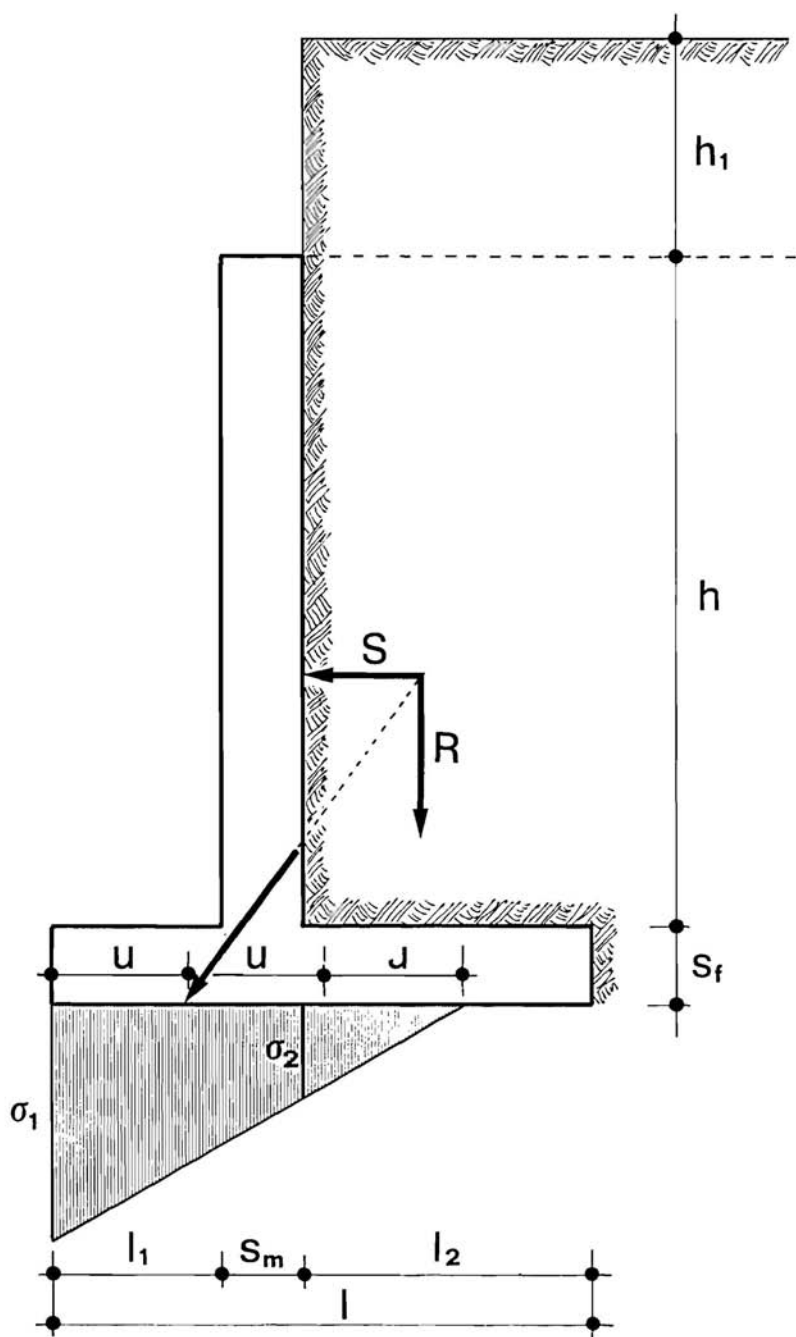


Fig. 1 - Caratteristiche geometriche, statiche e costruttive del muro di sostegno.
Geometric, static and building features of retaining wall.

Ciò sempre con l'intento di analizzare, per le classi di casi considerate, l'andamento dei costi di costruzione e delle tensioni indotte sul terreno, al variare della posizione della parete verticale resistente rispetto alla piastra di fondazione. Quanto sopra anche allo scopo di indicare i costi minimi di struttura, individuati dai valori in volume di calcestruzzo e in peso d'armatura metallica, riportati nelle tabelle e corrispondenti alle tensioni unitarie ottimali dei materiali e del terreno.

3. RICHIAMO DEL METODO

Il procedimento usato si articola sulle principali diverse voci (caratteristiche generali, parametri, formule, sequenze e calcoli dimensionali) sulle quali vengono formulate le considerazioni riassuntive seguenti.

3.1. Le caratteristiche generali, geometriche e costruttive, dei manufatti presi a riferimento sono:

- a) mensola verticale di spessore costante, priva di nervature,
- b) fondazione di base anch'essa a sezione costante,
- c) armatura doppia simmetrica con tondo nervato ad elevata aderenza, predisposta sia nel paramento verticale, sia nella piastra di fondazione.

3.2. L'elaborazione dei calcoli è stata eseguita prendendo in considerazione i seguenti parametri:

a. Parametri costanti:

$\gamma_c = 2500$	kg/mc	peso specifico del calcestruzzo armato,
$K_c = 80$	kg/cm ²	carico di sicurezza a compressione del calcestruzzo
$K_y = 2000$	kg/cm ²	carico di sicurezza a trazione dell'armatura,
$n = 10$		rapporto d'amplificazione,
$d = 2,5$	cm	«copriferro», spessore di protezione dell'armatura,
$\lambda = 0,05$		rapporto tra le distanze delle due armature dal bordo esterno compresso,
$r' = 0,25455$		} noti coefficienti utilizzati per il calcolo di progetto in sezioni rettangolari inflesse.
$t' = 0,00217$		

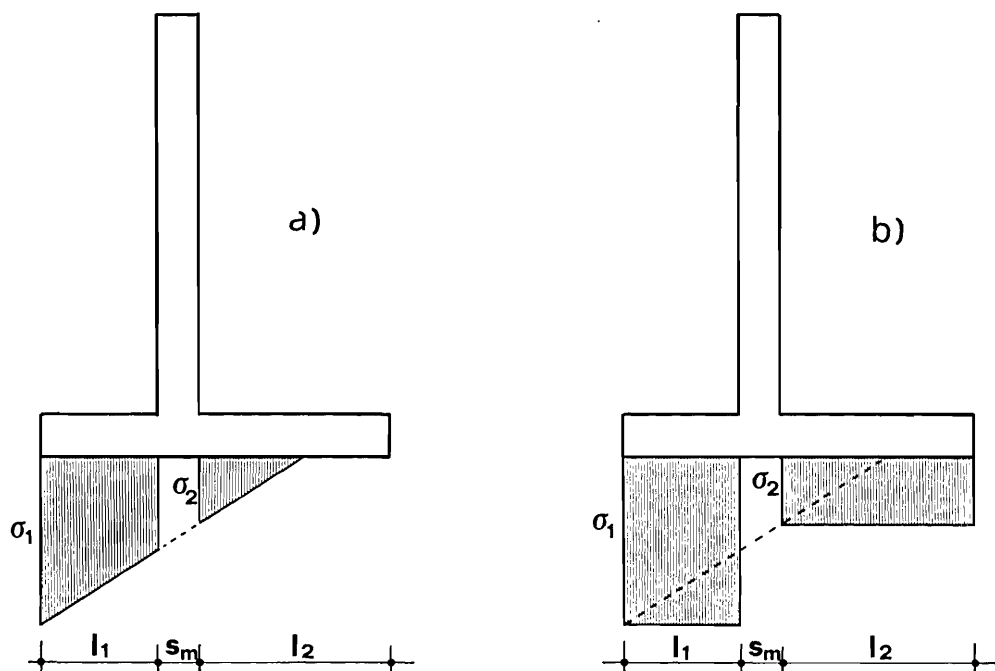


Fig. 2 - Diagrammi delle sollecitazioni del terreno sulla piastra di fondazione: a) diagramma reale, b) diagramma ipotizzato per i calcoli.

Stress diagram of the ground on the foundation: a) real diagram, b) hypothetical diagram assumed for the calculation.

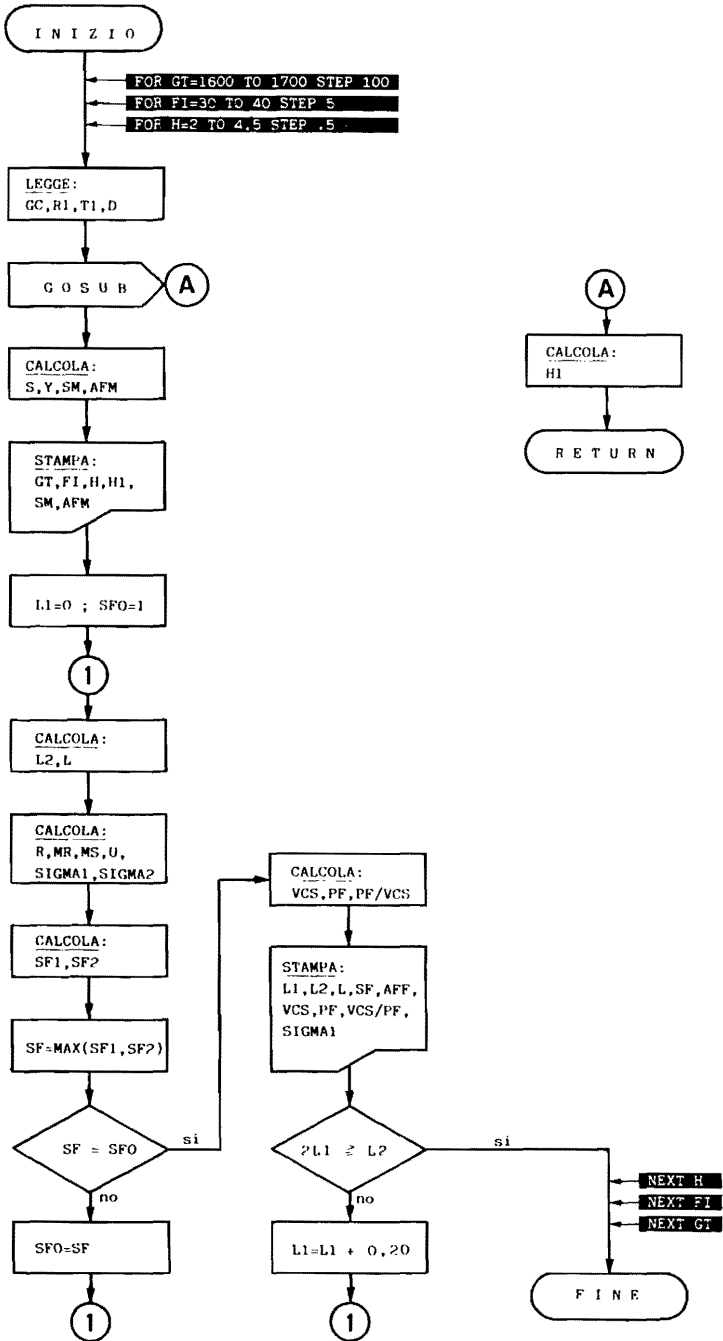


Fig. 3 - Diagramma di flusso.
Flow-chart.

b. Parametri variabili:

h : altezza della parete verticale resistente,

γ_r : peso specifico del terreno,

ϕ : angolo di attrito del terreno,

h_s : sovraccarico eventuale,

l_1 : valore della risega esterna della piastra di fondazione.

3.3. Per il calcolo della spinta S e del relativo braccio y_0 , si è ricorso al metodo di Coulomb nella sua accezione più ampia, che tiene conto di eventuali sovraccarichi, impiegando le formule:

$$S = \gamma_r \cdot \frac{h^2}{2} \operatorname{tg}^2 \left(45^\circ - \frac{\phi}{2} \right) \left(1 + \frac{2 h_s}{h} \right)$$

$$y_0 = \frac{h}{3} \cdot \frac{h + 3 h_s}{h + 2 h_s}$$

3.4. Il dimensionamento del muro di sostegno è stato effettuato considerando la parete verticale incastrata al piede di fondazione, sollecitata dalla spinta S orizzontale.

Le formule impiegate sono quelle generali utilizzate per il progetto di travi inflesse a sezione rettangolare.

$$sm = r' \sqrt{\frac{M}{b}} + d \qquad Af_m = Af'_m = t' \sqrt{M b}$$

in cui

$$M = S \cdot y_0 \qquad \text{kg cm}$$

$$b = 100 \qquad \text{cm}$$

sm = spessore della mensola verticale

$Af_m = Af'_m$ armatura doppia simmetrica del paramento verticale.

3.5. Per il calcolo della piastra di fondazione

a) posto $M_R = 1,5 M_S$, ove M_R ed M_S sono rispettivamente il momento resistente e spingente,

b) fissato l_1 , misura della risega esterna, con valori crescenti incrementati di 20 in 20 cm a partire da $l_1 = 0$,

c) assegnato ad sf un valore virtuale sf_0 (per semplicità 1 metro), si è determinato il valore della risega interna l_2 , in funzione di l_1 , assunta come variabile indipendente.

Si è così definita la larghezza della piastra di base, pari a $l = l_1 + l_2 + sm$. Successivamente si sono calcolati i valori di R , risultante delle forze verticali stabilizzanti (peso proprio del muro + peso del terreno), e di u , distanza del punto di applicazione C della risultante ($\vec{S} + \vec{R}$) dal bordo esterno della fondazione.

3.6. Per la determinazione delle tensioni sul terreno di fondazione, poichè il diagramma delle sollecitazioni è di tipo incrociato, a favore della stabilità se ne è trascurata la parte soggetta a trazione. In tal modo sono stati calcolati i valori (per $b = 100$ cm)

$$\sigma_1 = \frac{2 R}{3 \cdot u \cdot b}$$

tensione massima sul terreno in corrispondenza del lembo estremo della risega esterna,

$$\sigma_2 = \sigma_1 \cdot \frac{l_2 + 3 u - l}{3 \cdot u \cdot b}$$

tensione massima sul terreno in corrispondenza del piano della parete interna verticale.

3.7. Per il calcolo di progetto dello spessore e dell'armatura metallica della fondazione, le due ali di questa sono state considerate come mensole rovescie sollecitate a flessione dalla reazione del terreno.

A vantaggio della sicurezza quali diagrammi di carico si sono assunti:

- per la risega esterna, il diagramma trapezoidale delle tensioni sul terreno è stato assimilato ad un diagramma rettangolare di altezza costante σ_1 (tensione massima) e base l_1 ,
- per la risega interna, al diagramma incrociato delle tensioni, si è sostituito un diagramma rettangolare d'altezza costante σ_2 esteso a tutta la base l_2 ,
- infine non si è tenuto conto, sempre a vantaggio della stabilità, dei momenti resistenti relativi al peso del terreno sulle due riseghe.

Le formule impiegate sono:

$$\text{per la risega esterna} \quad sf_1 = r' \cdot l_1 \sqrt{\frac{\sigma_1}{2}} + d$$

$$Af_{r1} = t' \cdot l_1 \sqrt{\frac{\sigma_1}{2}}$$

$$\text{per la risega interna} \quad sf_2 = r' \cdot l_2 \sqrt{\frac{\sigma_2}{2}} + d$$

$$Af_{r2} = t' \cdot l_2 \sqrt{\frac{\sigma_2}{2}}$$

Se per ragioni costruttive è necessario assegnare altezza resistente costante alle due ali della piastra di base, si considera per sf il valore più elevato tra i due determinati.

È necessario ora confrontare questo dato con il valore virtuale sf_0 , assunto in prima approssimazione in 3.5.c. e sostituirlo ad esso, se come probabile $sf \neq sf_0$, quale nuovo valore di riferimento.

Occorre così ripercorrere la sequenza di calcolo a partire da 3.5 per pervenire, attraverso una serie di iterazioni, alla convergenza dei due valori su un unico risultato (l'approssimazione è di ± 5 cm).

4. DIAGRAMMA DI FLUSSO

Il programma di calcolo impostato sul calcolatore è stato schematizzato nel flow-chart riportato in fig. 3. Tre loops annidati uno all'interno dell'altro permettono di elaborare i dati relativi a tutte le possibili combinazioni di γ , σ ed h . Questi loops vengono indicati in linguaggio BASIC con istruzioni del tipo FOR...TO...STEP-NEXT e riportati in negativo.

Nel loop più interno, è stato impostato il ciclo di calcolo fondamentale, attribuendo ad l , il valore zero ed a sf , il valore 1 e successivamente calcolando, sulla base di questi dati, gli altri parametri, compreso il valore di sf . Effettuato il confronto tra sf_0 ed sf se i due valori non coincidono, si sostituisce ad sf_0 il valore di sf e si esegue un altro ciclo. Qualora invece i due valori coincidessero (la convergenza si accentua ad ogni ciclo), un'istruzione di salto condizionato sposta l'esecuzione del programma sulla sezione che prevede la stampa dei dati finali.

Detti cicli vengono impostati per tutti i valori prescelti per l , che, come accennato, variano dal valore iniziale pari a zero con incrementi di 20 in 20 cm, almeno fino a quando $2l_1 = l_2$.

Per il valore di h_1 , altezza del sovraccarico, si è preferito utilizzare, quando era necessario il calcolo, una specifica subroutine.

5. CASISTICA DELLE VARIABILI

Sui dati variabili sembrano necessarie alcune considerazioni che rendano meglio comprensibile il metodo e più spedita la consultazione delle tabelle.

5.1. Riguardo il terreno, si è fatto riferimento a consistenze medie, le più usuali nell'uso corrente, con pesi specifici

$$\gamma_r = 1600 \text{ kg/mc}$$

$$\gamma_r = 1700 \text{ kg/mc}$$

e angoli d'attrito

$$\phi = 30^\circ$$

$$\phi = 35^\circ$$

$$\phi = 40^\circ$$

5.2. Riguardo le altezze del muro, le misure variano da 2,00 a 4,50 metri, con intervalli crescenti di 50 in 50 cm. Il limite massimo assunto si giustifica con il tipo di manufatto considerato, a paramento verticale semplice, privo di nervature.

Per altezze maggiori, è infatti consigliabile riferirsi a tipi costruttivi diversi, ad esempio a mensola verticale con contrafforti e soletta di collegamento a sviluppo orizzontale.

5.3. Riguardo i sovraccarichi, si sono distinti cinque casi, sviluppati in cinque gruppi di tabelle, riferiti alle cinque condizioni di sovraccarico che più si riscontrano nella professione:

- a) assenza di sovraccarico,
- b) strato equipesante di terreno $h_1 = 50 \text{ cm}$,
- c) strato equipesante di terreno $h_1 = 100 \text{ cm}$,
- d) folla compatta (400 kg/mq),
- e) rullo compressore da 18t.

Nel caso di rullo compressore lo strato di terreno equivalente varia in funzione dell'altezza del muro e quindi della base del cuneo di massima spinta.

5.4. Riguardo le dimensioni della fondazione, il programma, per ogni combinazione dei dati precedenti, sviluppa il calcolo della soletta di base per posizioni di risega esterna che variano, in ragione di 20 in 20 cm, lungo la piastra di fondazione, da $l_1 = 0$ a $2l_1 = l_2$.

6. ORGANIZZAZIONE E SIMBOLISMO DELLE TABELLE

Le tabelle sono suddivise in 5 gruppi distinti per tipo di sovraccarico e piú esattamente:

- | | |
|----------------------------|--|
| 1° gruppo (tab. 1 ÷ 36) | relativo ai casi privi di sovraccarico, |
| 2° gruppo (tab. 37 ÷ 72) | per sovraccarico equivalente a strato di terreno di altezza $h_1 = 0,50$ m, |
| 3° gruppo (tab. 73 ÷ 108) | per sovraccarico corrispondente a strato equipesante di terreno, altezza $h_1 = 1,00$ m, |
| 4° gruppo (tab. 109 ÷ 144) | nel caso di sovraccarico costituito da folla compatta (400 kg/mq), |
| 5° gruppo (tab. 145 ÷ 180) | per sovraccarico prodotto da rullo compressore di 18 t. |

Ciascuno dei gruppi è preceduto da un frontespizio esplicativo nel quale sono schematizzati l'eventuale sovraccarico ed un tabellino indice utile per individuare la tabella corrispondente alla combinazione di γ e ϕ assegnati.

Tutte le tabelle sono riportate così come ottenute dall'unità stampante annessa al computer: non essendo possibile rappresentare, per alcuni parametri, i simboli originali, perchè non compresi nel corredo di caratteri del calcolatore, occorre ricordare che

- γ , viene espresso nelle tabelle con Gt,
- ϕ viene espresso nelle tabelle con Fi
- σ viene espresso nelle tabelle con Sigma.

Per ogni valore prefissato per l_1 e per le possibili combinazioni delle variabili considerate, il calcolatore ha elaborato, secondo le linee programmate, i risultati relativi alle seguenti grandezze di progetto:

- sm spessore della parete verticale resistente,
- A_{fm} armatura relativa,
- l larghezza della base di fondazione,
- sf spessore della base di fondazione,
- A_{ff} armatura della base di fondazione,

- σ_{max} tensione massima sul terreno,
- V_{cs} volume di calcestruzzo per ml di muro,
- P_f peso dell'armatura presente in 1 ml di muro,
- P_f/V_{cs} incidenza di ferro per mc di calcestruzzo.

I dati numerici esposti nelle tabelle rappresentano il risultato finale, cioè quanto lo studio si propone di porre a disposizione del tecnico che voglia servirsene nell'esercizio della professione.

7. ESEMPLIFICAZIONE DELL'USO DELLE TABELLE

Per una migliore esplicazione del metodo vengono riportati alcuni esempi d'uso delle tabelle.

Esempio 1. Il manufatto da progettare presenta i dati seguenti:

$$\begin{aligned} \gamma_c &= 1700 \text{ kg/mc} & \phi &= 30^\circ & h &= 4,50 \text{ m} \\ h_1 \text{ (rullo compressore)} &= 2,72 \text{ m} & \sigma &\leq 3 \text{ kg/cm}^2 \end{aligned}$$

Dalla tab. 168 risulta: $s_m = 0,45 \text{ m}$ $A_{f_m} = 34 \text{ cm}^2$

Nella colonna delle σ si sceglie il valore di $2,7 \text{ kg/cm}^2$ (immediatamente inferiore a 3 kg/cm^2), al quale corrispondono le seguenti misure e parametri progettuali della piastra di fondazione:

$$l_1 = 0,80 \text{ m}, \quad l_2 = 1,45 \text{ m}, \quad l = 2,70 \text{ m}, \quad s_f = 0,30 \text{ m}, \quad A_{f_r} = 21 \text{ cm}^2$$

Corrispondentemente il volume di calcestruzzo è pari a $2,8 \text{ mc/ml}$ ed il peso dell'armatura è di 346 kg/ml . Nel caso specifico detti valori determinano anche il minimo impiego di materiali: il corrispondente rapporto armatura/calcestruzzo è ottimale, in quanto il più basso.

Esempio 2. Si determinino i dati di progetto di un manufatto di sostegno (del tipo di cui al tema trattato) corrispondenti al minimo impiego di calcestruzzo e di armatura.

Sono dati:

$$\gamma_c = 1600 \text{ kg/mc} \quad \phi = 35^\circ \quad h = 4,00 \text{ m} \quad h_1 = 1,00 \text{ m}$$

Per la combinazione dei parametri suddetti occorre far riferimento alla tab. 83, nella quale si rileva per il paramento verticale uno spessore di $0,30 \text{ m}$ ed un'armatura di 20 cm^2 .

Scorrendo le colonne V_{cs} e P_f si osserva che il minimo impiego di materiali ($V_{cs} = 1,7 \text{ mc}$ e $P_f = 173 \text{ kg}$) si ha per:

$$l_1 = 0,60 \text{ m}, \quad l_2 = 1,00 \text{ m}, \quad l = 1,90 \text{ m}, \quad sf = 0,25 \text{ m}, \quad Af_r = 13 \text{ cmq}$$

La σ corrispondente è di $1,9 \text{ kg/cmq}$.

Con facilità è inoltre possibile constatare che a tali dimensioni corrisponde la minima incidenza di armatura per mc di calcestruzzo ($P_f/V_{cs} = 103,3 \text{ kg/mc}$).

8. GRAFICI

A completamento di quanto finora esposto si è provveduto a far tracciare al computer una serie di grafici per rendere più leggibile l'andamento di alcuni parametri caratteristici al variare di l_1 .

Per ragioni di spazio, a titolo esplicativo, si riportano soltanto i casi riferiti alla combinazione di $\gamma_c = 1700 \text{ kg/mc}$, $\phi = 40^\circ$ ed $h = 4,50 \text{ m}$, sviluppata per le cinque ipotesi di sovraccarico considerate. Per ciascuna vengono rappresentati, raccolti insieme, quattro grafici riferiti rispettivamente all'andamento delle quantità di armatura (P_f), dei volumi di calcestruzzo (V_{cs}), del rapporto armatura/calcestruzzo (P_f/V_{cs}) e della tensione massima trasmessa sul terreno (σ).

9. CONCLUSIONI

Le considerazioni finali riguardano soprattutto l'utilità e l'impiego del metodo. In particolare viene rilevato che

- a) l'immediatezza e la facilità di consultazione delle tabelle, unitamente alla rapidità con cui si conseguono i risultati, sono elementi già sufficienti a provarne la qualità,
- b) il largo spettro di possibilità offerte garantisce soluzioni alternative adeguate ai diversi e numerosi casi pratici,
- c) l'elevato numero di variabili controllate conferisce al metodo ulteriore flessibilità e consente di individuare le grandezze geometriche e statiche più idonee,
- d) anche riguardo il profilo dei costi le tabelle predisposte appaiono utili ed esaurienti, essendo facilmente individuabili le quantità ottimali di materiali da impiegare e pertanto le soluzioni più convenienti: di particolare importanza la possibilità di porre a confronto i dati relativi al rapporto peso del ferro/volume

di calcestruzzo (Pf/Vcs), elemento che sempre molto interessa la progettazione delle strutture in c.a.,

e) infine la possibilità di verificare immediatamente le tensioni ammissibili sul terreno, completa l'ampiezza del procedimento.

Va in ultimo doverosamente ricordato che, pur riconoscendone l'utilità e la validità d'applicazione, qualunque metodologia, comunque rigorosa ed attendibile, non ha mai l'oggettività del calcolo diretto eseguito specificamente di volta in volta, che resta il più valido e probante in assoluto.

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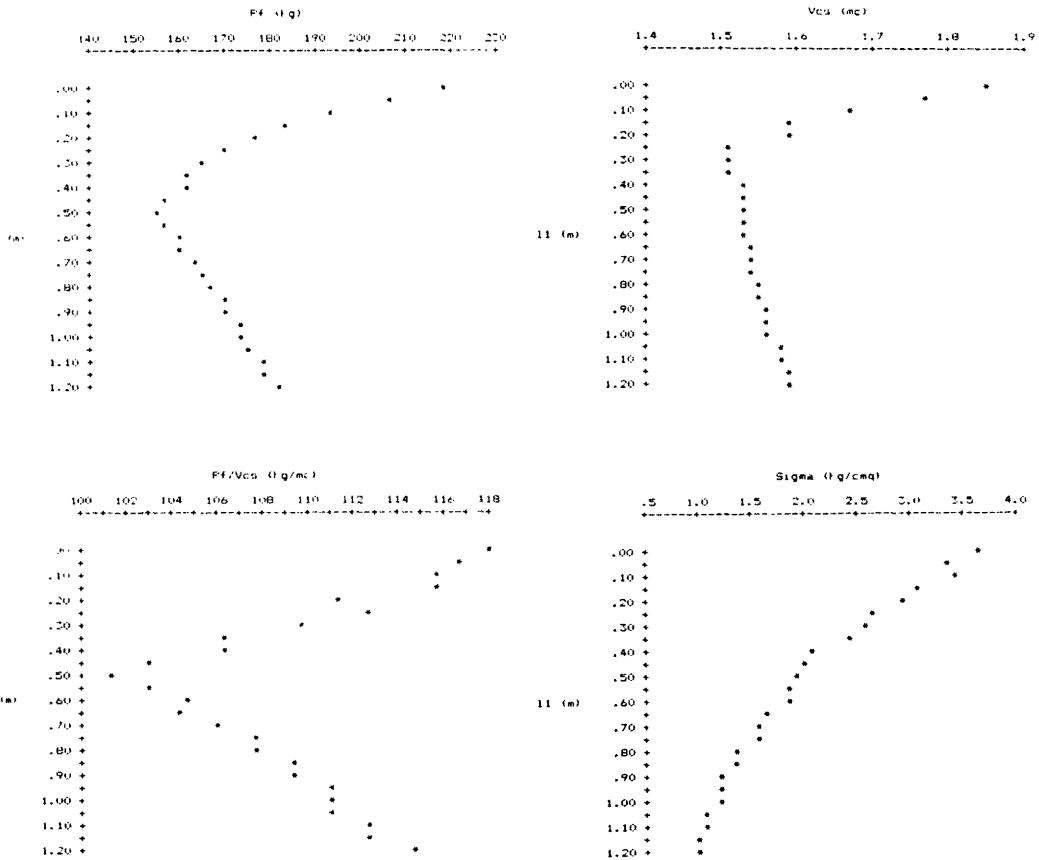


Grafico 1. Andamento di P_f , V_{cs} , P_f/V_{cs} e σ in funzione di l_1 , per $\gamma_1 = 1700$ kg/mc, $\phi = 40^\circ$, $h = 4,50$ m, ed assenza di sovraccarico ($h_1 = 0$).

State of P_f , V_{cs} , P_f/V_{cs} and σ in function of the different values of l_1 , for $\gamma_1 = 1700$ kg/mc, $\phi = 40^\circ$, $h = 4,50$ m, without any surcharge ($h_1 = 0$).

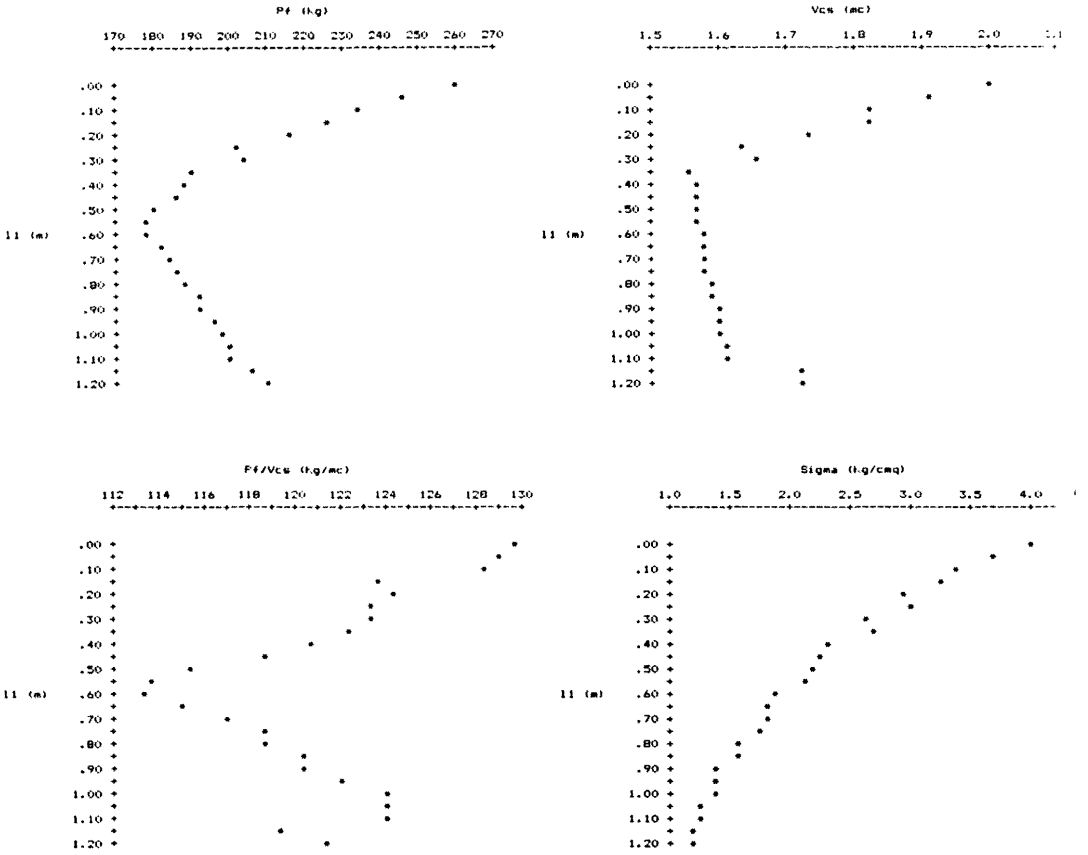


Grafico 2. Andamento di Pf, Vcs, Pf/Vcs e σ in funzione di l_1 , per $\gamma_r = 1700 \text{ kg/mc}$, $\phi = 40^\circ$, $h = 4,50 \text{ m}$, e sovraccarico costituito da strato equipesante di terreno ($h_1 = 0,50 \text{ m}$).
 State of Pf, Vcs, Pf/Vcs and σ in function of the different values of l_1 , for $\gamma_r = 1700 \text{ kg/mc}$, $\phi = 40^\circ$, $h = 4,50 \text{ m}$, with surcharge make up equivalent ground's layer ($h_1 = 0,50 \text{ m}$).

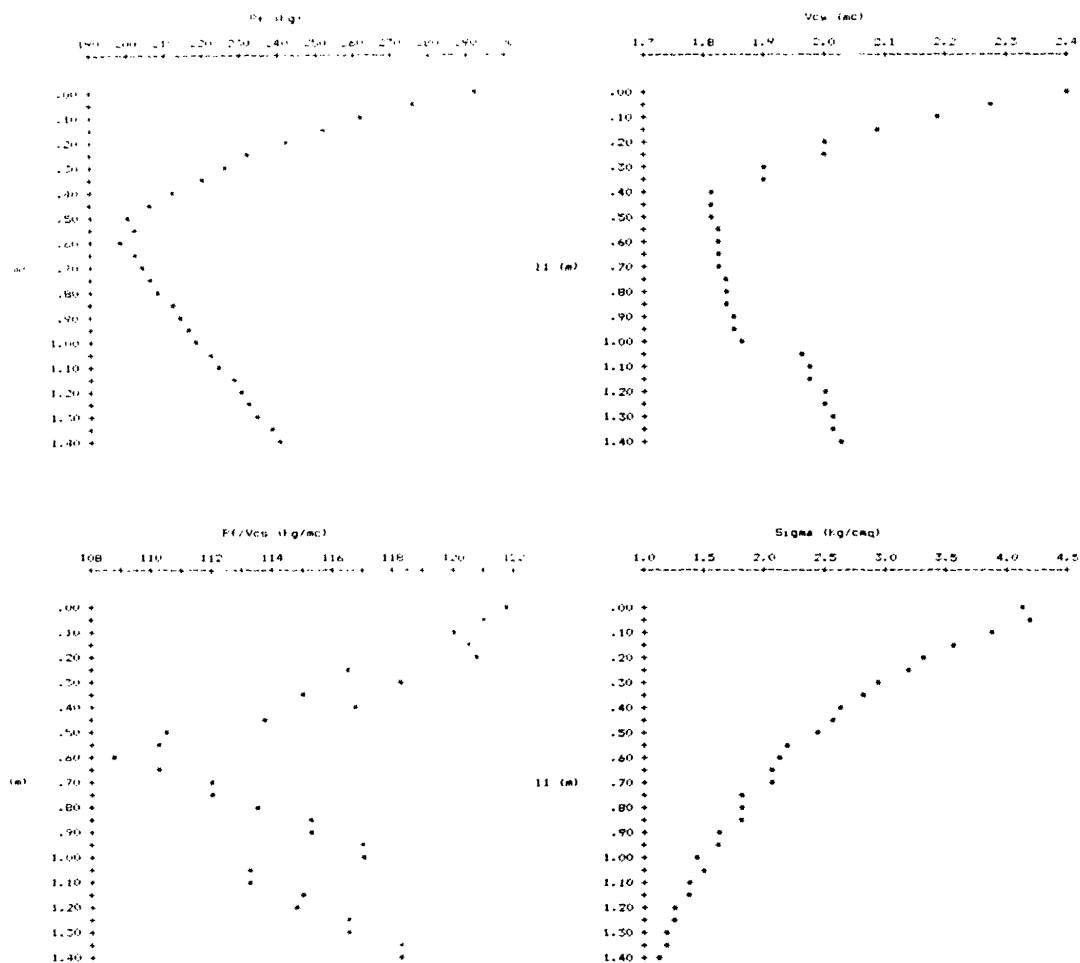


Grafico 3. Andamento di P_f , V_{cs} , P_f/V_{cs} e σ in funzione di h , per $\gamma_r = 1700 \text{ kg/mc}$, $\phi = 40^\circ$, $h = 4,50 \text{ m}$, e sovraccarico costituito da strato equipesante di terreno ($h_1 = 1,00 \text{ m}$).

State of P_f , V_{cs} , P_f/V_{cs} and σ in function of the different values of h , for $\gamma_r = 1700 \text{ kg/mc}$, $\phi = 40^\circ$, $h = 4,50 \text{ m}$, with surcharge make up equivalent ground's layer ($h_1 = 1,00 \text{ m}$).

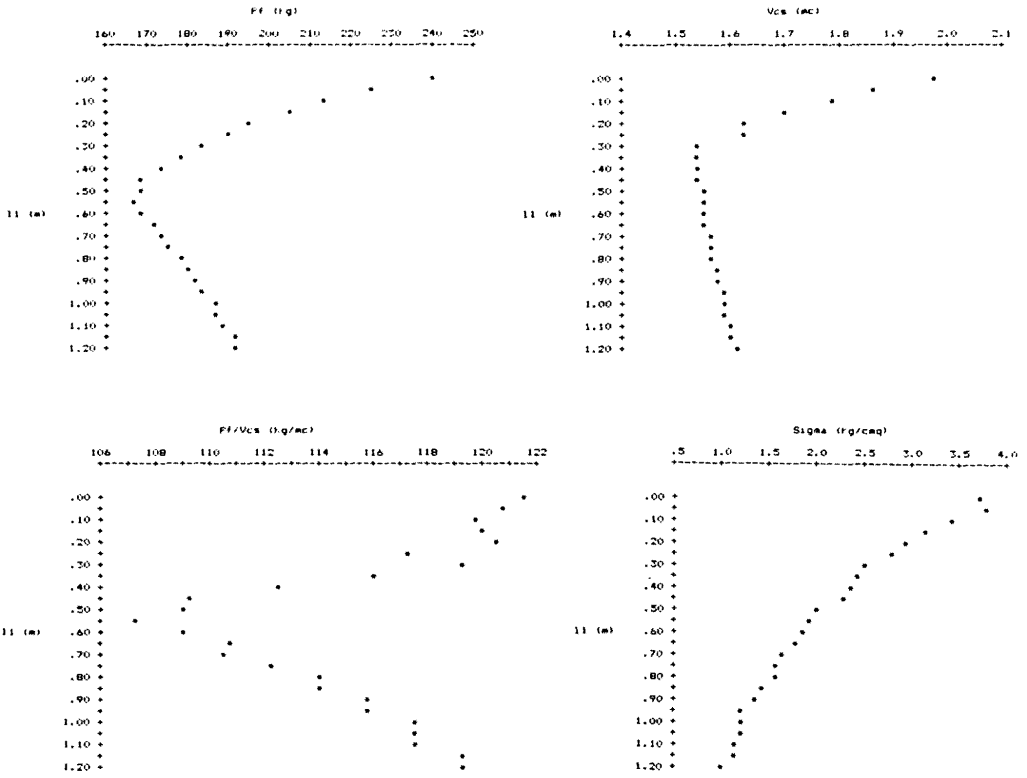


Grafico 4. Andamento di P_f , V_{cs} , P_f/V_{cs} e σ in funzione di l_1 , per $\gamma_s = 1700 \text{ kg/mc}$, $\phi = 40^\circ$, $h = 4,50 \text{ m}$, e sovraccarico costituito da folla compatta (400 kg/mq corrispondente ad $h_1 = 0,24 \text{ m}$).
 State of P_f , V_{cs} , P_f/V_{cs} and σ in function of the different values of l_1 , for $\gamma_s = 1700 \text{ kg/mc}$, $\phi = 40^\circ$, $h = 4,50 \text{ m}$, with surcharge make up compact crowd (400 kg/mq corresponding to $0,24 \text{ m}$).

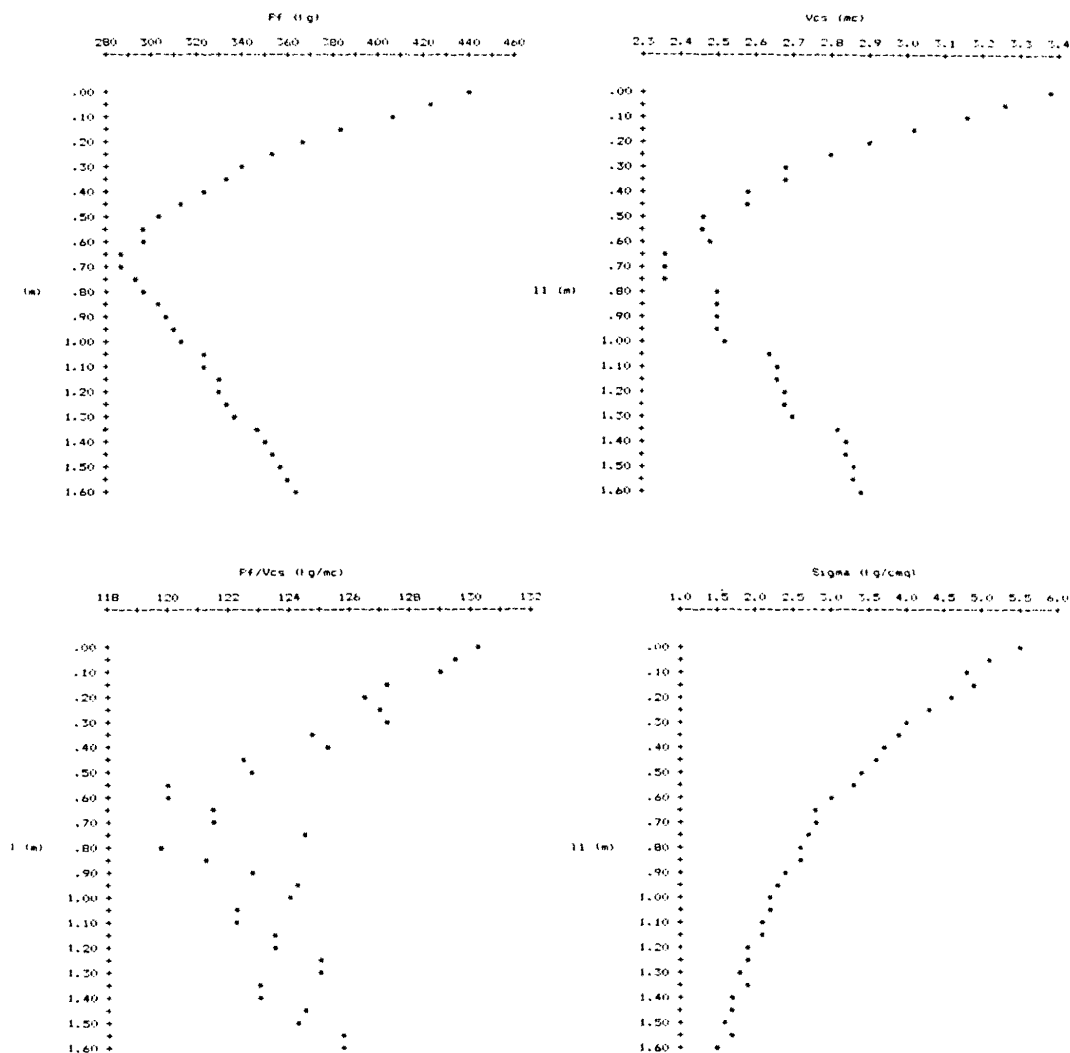


Grafico 5. Andamento di P_f , V_{cs} , P_f/V_{cs} e σ in funzione di l_1 , per $\gamma_s = 1700$ kg/mc, $\phi = 40^\circ$, $h = 4,50$ m, e sovraccarico costituito da rullo compressore di 18 t (corrispondente ad $h_1 = 3,36$ m).
 State of P_f , V_{cs} , P_f/V_{cs} and σ in function of the different values of l_1 , for $\gamma_s = 1700$ kg/mc, $\phi = 40^\circ$, $h = 4,50$ m, with surcharge make up steam roller of 18 t. (corresponding to $h_1 = 3,36$ m).

Sovraccarico: assente

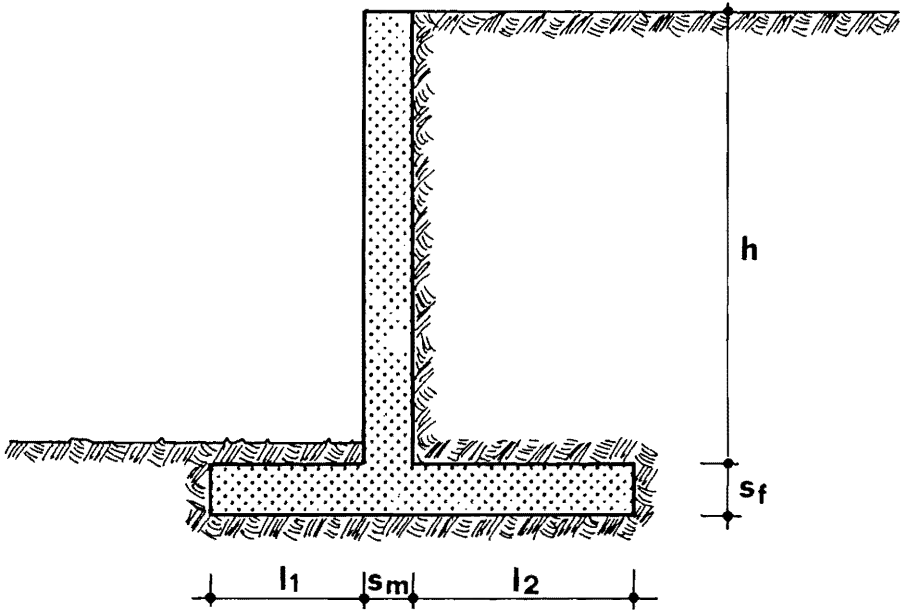


TABELLE 1 ÷ 36

γ_t kg/mc	φ gradi	30	35	40
1600		1 ÷ 6	7 ÷ 12	13 ÷ 18
1700		19 ÷ 24	25 ÷ 30	31 ÷ 36

TABELLA N. 1

=====								
			Gt= 1600 Kg/mc	h = 2.00 m		sm = .25 m		
			Fi= 30 gradi	h1= .00 m		Afm= 6 cmq		
11	12	l	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(lg/cmq)
.00	.65	.90	.25	9	.7	34	46.9	1.6
.20	.45	.90	.25	4	.7	27	37.2	1.1
.40	.25	.90	.25	6	.7	30	41.4	.8
.60	.10	.95	.25	8	.7	34	46.1	.6

TABELLA N. 2

=====								
			Gt= 1600 Kg/mc	h = 2.50 m		sm = .25 m		
			Fi= 30 gradi	h1= .00 m		Afm= 9 cmq		
11	12	l	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.85	1.10	.25	14	.9	64	71.1	2.0
.20	.65	1.10	.25	7	.9	51	56.7	1.4
.40	.45	1.10	.25	7	.9	51	56.7	1.1
.60	.30	1.15	.25	9	.9	56	61.4	.9
.80	.20	1.25	.25	10	.9	59	62.9	.6

TABELLA N. 3

=====								
			Gt= 1600 Kg/mc	h = 3.00 m		sm = .25 m		
			Fi= 30 gradi	h1= .00 m		Afm= 11 cmq		
11	12	l	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.05	1.30	.30	20	1.1	98	86.0	2.5
.20	.85	1.30	.25	12	1.1	81	75.3	1.8
.40	.65	1.30	.25	8	1.1	73	67.9	1.4
.60	.50	1.35	.25	10	1.1	78	71.7	1.1
.80	.40	1.45	.25	12	1.1	84	75.5	.8
1.00	.30	1.55	.25	13	1.1	88	77.4	.7

TABELLA N. 4

=====								
			Gt= 1600 Kg/mc	h = 3.50 m		sm = .25 m		
			Fi= 30 gradi	h1= .00 m		Afm= 14 cmq		
11	12	l	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.30	1.55	.35	28	1.4	153	107.9	2.7
.20	1.05	1.50	.25	17	1.3	123	98.4	2.1
.40	.85	1.50	.25	10	1.3	106	84.8	1.8
.60	.70	1.55	.25	11	1.3	110	87.1	1.4
.80	.60	1.65	.25	13	1.3	117	90.9	1.0
1.00	.45	1.70	.25	15	1.3	123	94.6	.9

TABELLA N. 5

=====								
			Gt= 1600	Kg/mc	h = 4.00 m		sm = .25 m	
			Fi= 30	gradi	h1= .00 m		Afm= 17 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.50	1.75	.45	36	1.8	218	122.0	3.3
.20	1.25	1.70	.30	22	1.5	174	115.2	2.6
.40	1.10	1.75	.25	16	1.4	158	109.9	1.9
.60	.90	1.75	.25	12	1.4	147	102.3	1.7
.80	.75	1.80	.25	15	1.5	156	107.6	1.4
1.00	.65	1.90	.25	17	1.5	165	111.9	1.1
1.20	.55	2.00	.25	18	1.5	170	113.3	.9

TABELLA N. 6

=====								
			Gt= 1600	Kg/mc	h = 4.50 m		sm = .30 m	
			Fi= 30	gradi	h1= .00 m		Afm= 20 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.70	2.00	.55	42	2.5	291	118.8	3.6
.20	1.45	1.95	.40	28	2.1	240	112.7	3.0
.40	1.20	1.90	.25	18	1.8	203	111.2	2.4
.60	1.05	1.95	.25	13	1.8	189	102.9	2.0
.80	.90	2.00	.25	16	1.9	200	108.1	1.6
1.00	.75	2.05	.25	19	1.9	211	113.3	1.4
1.20	.65	2.15	.30	21	2.0	222	111.3	1.2
1.40	.55	2.25	.30	22	2.0	229	113.1	1.0

TABELLA N. 7

=====								
			Gt= 1600	Kg/mc	h = 2.00 m		sm = .25 m	
			Fi= 35	gradi	h1= .00 m		Afm= 6 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.55	.80	.25	7	.7	30	42.9	1.7
.20	.35	.80	.25	4	.7	27	38.6	1.1
.40	.15	.80	.25	6	.7	29	41.4	.8

TABELLA N. 8

=====								
			Gt= 1600	Kg/mc	h = 2.50 m		sm = .25 m	
			Fi= 35	gradi	h1= .00 m		Afm= 8 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.75	1.00	.25	12	.9	54	61.7	2.0
.20	.55	1.00	.25	6	.9	44	50.3	1.4
.40	.35	1.00	.25	7	.9	46	52.6	1.0
.60	.20	1.05	.25	9	.9	50	56.3	.8

TABELLA N. 9

=====								
			Gt= 1600	Kg/mc	h = 3.00 m		sm = .25 m	
			Fi= 35	gradi	h1= .00 m		Afm= 10 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.90	1.15	.25	17	1.0	82	79.0	2.6
.20	.70	1.15	.25	8	1.0	66	63.6	1.9
.40	.55	1.20	.25	7	1.1	65	61.9	1.3
.60	.40	1.25	.25	10	1.1	71	66.8	1.0
.80	.25	1.30	.25	12	1.1	76	70.7	.8

TABELLA N. 10

=====								
			Gt= 1600	Kg/mc	h = 3.50 m		sm = .25 m	
			Fi= 35	gradi	h1= .00 m		Afm= 13 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.15	1.40	.35	24	1.4	132	96.7	2.7
.20	.90	1.35	.25	13	1.2	105	86.6	2.1
.40	.75	1.40	.25	9	1.2	97	79.2	1.5
.60	.55	1.40	.25	11	1.2	101	82.4	1.3
.80	.45	1.50	.25	13	1.3	108	86.4	1.0
1.00	.35	1.60	.25	14	1.3	112	87.8	.8

TABELLA N. 11

=====								
			Gt= 1600	Kg/mc	h = 4.00 m		sm = .25 m	
			Fi= 35	gradi	h1= .00 m		Afm= 15 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.35	1.60	.40	31	1.6	182	111.0	3.0
.20	1.10	1.55	.25	19	1.4	147	105.9	2.4
.40	.90	1.55	.25	11	1.4	127	91.5	2.0
.60	.75	1.60	.25	12	1.4	131	93.6	1.5
.80	.60	1.65	.25	14	1.4	137	97.0	1.3
1.00	.50	1.75	.25	16	1.4	145	100.9	1.0
1.20	.40	1.85	.25	17	1.5	150	102.6	.8

TABELLA N. 12

=====								
			Gt= 1600	Kg/mc	h = 4.50 m		sm = .25 m	
			Fi= 35	gradi	h1= .00 m		Afm= 18 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.55	1.80	.50	38	2.0	249	123.0	3.5
.20	1.30	1.75	.35	25	1.7	206	118.6	2.8
.40	1.10	1.75	.25	16	1.6	179	114.6	2.2
.60	.95	1.80	.25	13	1.6	171	108.6	1.7
.80	.80	1.85	.25	15	1.6	178	112.1	1.5
1.00	.65	1.90	.25	18	1.6	188	117.5	1.3
1.20	.55	2.00	.25	19	1.6	194	119.4	1.0

TABELLA N. 13

=====								
			Gt= 1600 Kg/mc			h = 2.00 m	sm = .25 m	
			Fi= 40 gradi			h1= .00 m	Afm= 5 cmq	
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	.45	.70	.25	5	.7	24	35.6	1.8
.20	.25	.70	.25	4	.7	23	34.1	1.1
.40	.10	.75	.25	5	.7	24	34.9	.7

TABELLA N. 14

=====								
			Gt= 1600 Kg/mc			h = 2.50 m	sm = .25 m	
			Fi= 40 gradi			h1= .00 m	Afm= 7 cmq	
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	.65	.90	.25	10	.9	45	52.9	1.9
.20	.40	.85	.25	4	.8	36	43.0	1.5
.40	.25	.90	.25	7	.9	41	48.2	1.0
.60	.10	.95	.25	8	.9	43	49.9	.7

TABELLA N. 15

=====								
			Gt= 1600 Kg/mc			h = 3.00 m	sm = .25 m	
			Fi= 40 gradi			h1= .00 m	Afm= 9 cmq	
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	.80	1.05	.25	14	1.0	70	69.1	2.4
.20	.60	1.05	.25	7	1.0	58	57.3	1.7
.40	.40	1.05	.25	8	1.0	60	59.3	1.3
.60	.30	1.15	.25	9	1.0	63	60.7	.9
.80	.15	1.20	.25	11	1.1	67	63.8	.7

TABELLA N. 16

=====								
			Gt= 1600 Kg/mc			h = 3.50 m	sm = .25 m	
			Fi= 40 gradi			h1= .00 m	Afm= 11 cmq	
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	1.00	1.25	.30	20	1.3	105	84.0	2.6
.20	.75	1.20	.25	10	1.2	84	71.5	2.1
.40	.60	1.25	.25	8	1.2	81	68.2	1.5
.60	.45	1.30	.25	10	1.2	86	71.7	1.1
.80	.30	1.35	.25	12	1.2	91	75.1	.9

TABELLA N. 17

=====								
			Gt= 1600 Kg/mc	h = 4.00 m		sm = .25 m		
			Fi= 40 gradi	h1= .00 m		Afm= 14 cmq		
11	12	l	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(kg)	(kg/mc)	(kg/cmq)
.00	1.15	1.40	.35	26	1.5	153	102.7	3.2
.20	.95	1.40	.25	15	1.4	127	94.1	2.3
.40	.75	1.40	.25	9	1.4	114	84.4	1.8
.60	.60	1.45	.25	11	1.4	119	87.3	1.4
.80	.45	1.50	.25	14	1.4	127	92.4	1.2
1.00	.35	1.60	.25	15	1.4	132	94.3	.9

TABELLA N. 18

=====								
			Gt= 1600 Kg/mc	h = 4.50 m		sm = .25 m		
			Fi= 40 gradi	h1= .00 m		Afm= 16 cmq		
11	12	l	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(kg)	(kg/mc)	(kg/cmq)
.00	1.35	1.60	.45	33	1.8	208	112.7	3.5
.20	1.10	1.55	.30	20	1.6	170	106.9	2.8
.40	.90	1.55	.25	12	1.5	149	98.5	2.2
.60	.75	1.60	.25	13	1.5	152	99.7	1.7
.80	.60	1.65	.25	15	1.5	159	103.4	1.4
1.00	.50	1.75	.25	17	1.6	167	106.9	1.1
1.20	.40	1.85	.25	18	1.6	172	108.3	.9

TABELLA N. 19

=====								
			Gt= 1700 Kg/mc	h = 2.00 m		sm = .25 m		
			Fi= 30 gradi	h1= .00 m		Afm= 6 cmq		
11	12	l	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(kg)	(kg/mc)	(kg/cmq)
.00	.65	.90	.25	9	.7	34	46.9	1.7
.20	.45	.90	.25	4	.7	27	37.2	1.1
.40	.25	.90	.25	6	.7	30	41.4	.9
.60	.15	1.00	.25	8	.8	34	45.3	.6

TABELLA N. 20

=====								
			Gt= 1700 Kg/mc	h = 2.50 m		sm = .25 m		
			Fi= 30 gradi	h1= .00 m		Afm= 9 cmq		
11	12	l	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(kg)	(kg/mc)	(kg/cmq)
.00	.85	1.10	.25	15	.9	65	72.2	2.1
.20	.65	1.10	.25	7	.9	51	56.7	1.5
.40	.50	1.15	.25	7	.9	52	57.0	1.1
.60	.35	1.20	.25	9	.9	56	60.5	.8
.80	.20	1.25	.25	11	.9	61	65.1	.7

TABELLA N. 21

=====								
			Gt= 1700	Kg/mc	h = 3.00 m		sm = .25 m	
			Fi= 30	gradi	h1= .00 m		Afm= 11 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.05	1.30	.30	21	1.1	100	87.7	2.6
.20	.85	1.30	.25	12	1.1	81	75.3	1.9
.40	.70	1.35	.25	8	1.1	74	68.0	1.4
.60	.55	1.40	.25	10	1.1	79	71.8	1.1
.80	.40	1.45	.25	12	1.1	84	75.5	.9
1.00	.30	1.55	.25	13	1.1	88	77.4	.7

TABELLA N. 22

=====								
			Gt= 1700	Kg/mc	h = 3.50 m		sm = .25 m	
			Fi= 30	gradi	h1= .00 m		Afm= 14 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.30	1.55	.40	29	1.5	157	105.0	2.9
.20	1.05	1.50	.25	17	1.3	123	98.4	2.3
.40	.90	1.55	.25	11	1.3	110	87.1	1.7
.60	.75	1.60	.25	11	1.3	111	87.1	1.3
.80	.60	1.65	.25	13	1.3	117	90.9	1.1
1.00	.50	1.75	.25	15	1.3	124	94.5	.9
1.20	.40	1.85	.25	16	1.3	129	96.4	.7

TABELLA N. 23

=====								
			Gt= 1700	Kg/mc	h = 4.00 m		sm = .25 m	
			Fi= 30	gradi	h1= .00 m		Afm= 17 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.55	1.80	.50	37	1.9	225	118.4	3.2
.20	1.30	1.75	.35	24	1.6	183	113.5	2.6
.40	1.10	1.75	.25	16	1.4	158	109.9	2.0
.60	.95	1.80	.25	12	1.5	148	102.1	1.6
.80	.80	1.85	.25	15	1.5	158	108.0	1.3
1.00	.65	1.90	.25	17	1.5	165	111.9	1.2
1.20	.55	2.00	.25	19	1.5	174	116.0	1.0

TABELLA N. 24

=====								
			Gt= 1700	Kg/mc	h = 4.50 m		sm = .30 m	
			Fi= 30	gradi	h1= .00 m		Afm= 21 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.70	2.00	.55	43	2.5	302	123.3	3.8
.20	1.45	1.95	.40	29	2.1	251	117.8	3.1
.40	1.25	1.95	.25	20	1.8	218	118.6	2.4
.60	1.05	1.95	.25	14	1.8	200	108.8	2.1
.80	.90	2.00	.25	17	1.9	210	113.5	1.7
1.00	.80	2.10	.25	19	1.9	220	117.3	1.4
1.20	.70	2.20	.30	21	2.0	231	114.9	1.2
1.40	.60	2.30	.30	22	2.0	238	116.7	1.0

TABELLA N. 25

=====								
			Gt= 1700 Kg/mc	h = 2.00 m		sm = .25 m		
			Fi= 35 gradi	h1= .00 m		Afm= 6 cmq		
11 (m)	12 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	.55	.80	.25	8	.7	32	45.7	1.8
.20	.35	.80	.25	4	.7	27	38.6	1.1
.40	.20	.85	.25	6	.7	30	42.1	.7
.60	.05	.90	.25	7	.7	32	44.1	.6

TABELLA N. 26

=====								
			Gt= 1700 Kg/mc	h = 2.50 m		sm = .25 m		
			Fi= 35 gradi	h1= .00 m		Afm= 8 cmq		
11 (m)	12 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	.75	1.00	.25	12	.9	54	61.7	2.0
.20	.55	1.00	.25	6	.9	44	50.3	1.4
.40	.35	1.00	.25	7	.9	46	52.6	1.1
.60	.25	1.10	.25	8	.9	49	54.4	.7

TABELLA N. 27

=====								
			Gt= 1700 Kg/mc	h = 3.00 m		sm = .25 m		
			Fi= 35 gradi	h1= .00 m		Afm= 10 cmq		
11 (m)	12 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	.95	1.20	.25	18	1.1	85	81.0	2.3
.20	.75	1.20	.25	10	1.1	70	66.7	1.7
.40	.55	1.20	.25	8	1.1	67	63.8	1.4
.60	.40	1.25	.25	10	1.1	71	66.8	1.1
.80	.30	1.35	.25	11	1.1	75	69.0	.8

TABELLA N. 28

=====								
			Gt= 1700 Kg/mc	h = 3.50 m		sm = .25 m		
			Fi= 35 gradi	h1= .00 m		Afm= 13 cmq		
11 (m)	12 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	1.15	1.40	.35	24	1.4	132	96.7	2.8
.20	.90	1.35	.25	14	1.2	107	88.2	2.2
.40	.75	1.40	.25	9	1.2	97	79.2	1.6
.60	.60	1.45	.25	11	1.2	102	82.4	1.3
.80	.45	1.50	.25	13	1.3	108	86.4	1.0
1.00	.35	1.60	.25	14	1.3	112	87.8	.8

TABELLA N. 29

=====								
			Gt= 1700	Kg/mc	h = 4.00 m		sm = .25 m	
			Fi= 35	gradi	h1= .00 m		Afm= 16 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.35	1.60	.40	31	1.6	189	115.2	3.2
.20	1.10	1.55	.25	19	1.4	153	110.3	2.5
.40	.90	1.55	.25	11	1.4	134	96.6	2.1
.60	.75	1.60	.25	12	1.4	137	97.9	1.6
.80	.65	1.70	.25	14	1.4	145	101.8	1.2
1.00	.50	1.75	.25	16	1.4	151	105.0	1.1
1.20	.40	1.85	.25	18	1.5	160	109.4	.9

TABELLA N. 30

=====								
			Gt= 1700	Kg/mc	h = 4.50 m		sm = .25 m	
			Fi= 35	gradi	h1= .00 m		Afm= 19 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.55	1.80	.50	39	2.0	260	128.4	3.7
.20	1.30	1.75	.35	26	1.7	217	124.9	3.0
.40	1.10	1.75	.25	17	1.6	189	121.0	2.3
.60	.95	1.80	.25	13	1.6	179	113.7	1.9
.80	.80	1.85	.25	16	1.6	189	119.1	1.5
1.00	.70	1.95	.25	18	1.6	197	122.2	1.2
1.20	.60	2.05	.25	19	1.6	203	124.0	1.0
1.40	.50	2.15	.30	21	1.8	215	121.5	.9

TABELLA N. 31

=====								
			Gt= 1700	Kg/mc	h = 2.00 m		sm = .25 m	
			Fi= 40	gradi	h1= .00 m		Afm= 5 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.45	.70	.25	5	.7	24	35.6	1.9
.20	.25	.70	.25	4	.7	23	34.1	1.2
.40	.10	.75	.25	6	.7	25	36.4	.7

TABELLA N. 32

=====								
			Gt= 1700	Kg/mc	h = 2.50 m		sm = .25 m	
			Fi= 40	gradi	h1= .00 m		Afm= 7 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.65	.90	.25	10	.9	45	52.9	2.0
.20	.45	.90	.25	4	.9	36	42.4	1.4
.40	.25	.90	.25	7	.9	41	48.2	1.0
.60	.15	1.00	.25	8	.9	43	49.1	.7

TABELLA N. 33

=====

Gt= 1700 Kg/mc h = 3.00 m sm = .25 m
 Fi= 40 gradi h1= .00 m Afrm= 9 cmq

11 (m)	12 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm)
.00	.80	1.05	.25	15	1.0	71	70.1	2.5
.20	.60	1.05	.25	7	1.0	58	57.3	1.8
.40	.45	1.10	.25	7	1.0	59	57.6	1.2
.60	.30	1.15	.25	9	1.0	63	60.7	.9
.80	.20	1.25	.25	11	1.1	68	64.0	.7

TABELLA N. 34

=====

Gt= 1700 Kg/mc h = 3.50 m sm = .25 m
 Fi= 40 gradi h1= .00 m Afrm= 12 cmq

11 (m)	12 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm)
.00	1.00	1.25	.30	21	1.3	113	90.4	2.7
.20	.75	1.20	.25	10	1.2	90	76.6	2.2
.40	.60	1.25	.25	8	1.2	87	73.3	1.6
.60	.45	1.30	.25	11	1.2	94	78.3	1.2
.80	.35	1.40	.25	12	1.2	98	80.0	.9

TABELLA N. 35

=====

Gt= 1700 Kg/mc h = 4.00 m sm = .25 m
 Fi= 40 gradi h1= .00 m Afrm= 14 cmq

11 (m)	12 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm)
.00	1.15	1.40	.35	26	1.5	153	102.7	3.4
.20	.95	1.40	.25	16	1.4	129	95.6	2.4
.40	.75	1.40	.25	9	1.4	114	84.4	1.9
.60	.60	1.45	.25	12	1.4	121	88.8	1.5
.80	.50	1.55	.25	14	1.4	128	92.3	1.1
1.00	.40	1.65	.25	15	1.4	133	94.2	.9

TABELLA N. 36

=====

Gt= 1700 Kg/mc h = 4.50 m sm = .25 m
 Fi= 40 gradi h1= .00 m Afrm= 17 cmq

11 (m)	12 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm)
.00	1.35	1.60	.45	34	1.8	218	118.2	3.7
.20	1.10	1.55	.30	20	1.6	177	111.3	2.9
.40	.95	1.60	.25	14	1.5	162	106.2	2.1
.60	.75	1.60	.25	13	1.5	160	104.9	1.8
.80	.65	1.70	.25	15	1.6	167	107.7	1.4
1.00	.50	1.75	.25	17	1.6	174	111.4	1.2
1.20	.40	1.85	.25	19	1.6	182	114.6	1.0

Sovraccarico: strato equipesante di terreno ($h_1 = 0.50$ m)

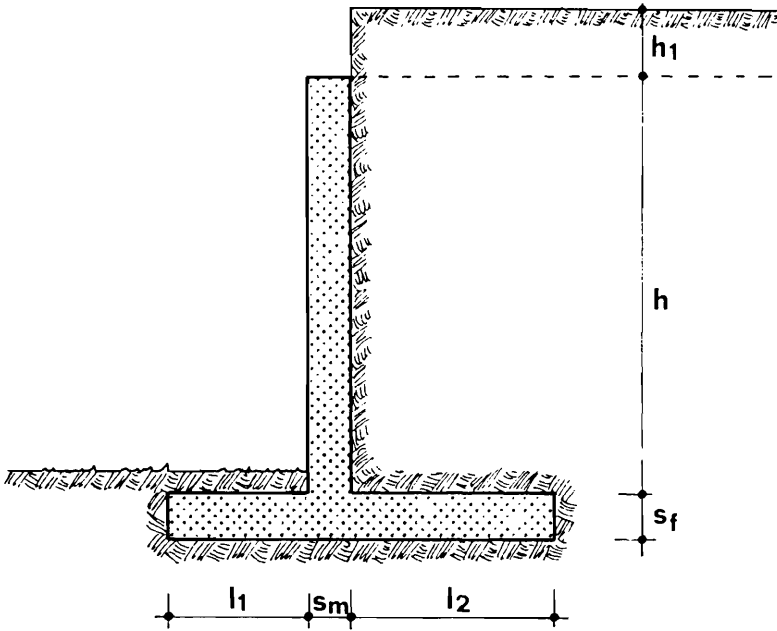


TABELLE 37 ÷ 72

γ_t kg/mc	φ gradi	30	35	40
1600		37 ÷ 42	43 ÷ 48	49 ÷ 54
1700		55 ÷ 60	61 ÷ 66	67 ÷ 72

TABELLA N. 37

=====								
			Gt= 1600	Kg/mc	h = 2.00 m		sm = .25 m	
			Fi= 30	gradi	h1= .50 m		Afm= 8 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.80	1.05	.25	13	.8	50	65.6	1.9
.20	.60	1.05	.25	6	.8	39	51.1	1.4
.40	.45	1.10	.25	7	.8	41	52.9	1.0
.60	.30	1.15	.25	9	.8	45	57.1	.8
.80	.20	1.25	.25	10	.8	48	59.1	.6

TABELLA N. 38

=====								
			Gt= 1600	Kg/mc	h = 2.50 m		sm = .25 m	
			Fi= 30	gradi	h1= .50 m		Afm= 11 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.00	1.25	.25	18	.9	83	88.5	2.3
.20	.80	1.25	.25	10	.9	68	72.5	1.8
.40	.65	1.30	.25	7	1.0	62	65.3	1.3
.60	.50	1.35	.25	10	1.0	69	71.7	1.0
.80	.40	1.45	.25	11	1.0	73	73.9	.8
1.00	.30	1.55	.25	13	1.0	80	79.0	.6

TABELLA N. 39

=====								
			Gt= 1600	Kg/mc	h = 3.00 m		sm = .25 m	
			Fi= 30	gradi	h1= .50 m		Afm= 14 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.25	1.50	.35	26	1.3	135	105.9	2.6
.20	1.05	1.50	.25	16	1.1	110	97.8	1.9
.40	.85	1.50	.25	10	1.1	95	84.4	1.6
.60	.70	1.55	.25	11	1.1	99	87.0	1.3
.80	.55	1.60	.25	13	1.2	105	91.3	1.1
1.00	.45	1.70	.25	15	1.2	112	95.3	.9

TABELLA N. 40

=====								
			Gt= 1600	Kg/mc	h = 3.50 m		sm = .25 m	
			Fi= 30	gradi	h1= .50 m		Afm= 17 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.50	1.75	.45	34	1.7	199	119.7	3.0
.20	1.25	1.70	.30	22	1.4	161	116.2	2.4
.40	1.05	1.70	.25	14	1.3	138	106.2	1.9
.60	.90	1.75	.25	12	1.3	134	102.1	1.5
.80	.75	1.80	.25	14	1.3	140	105.7	1.3
1.00	.65	1.90	.25	16	1.4	148	109.6	1.0
1.20	.55	2.00	.25	18	1.4	157	114.2	.9

TABELLA N. 41

=====								
		Gt= 1600 Kg/mc		h = 4.00 m		sm = .30 m		
		Fi= 30 gradi		h1= .50 m		Afm= 20 cmq		
11 (m)	12 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm ²)
.00	1.65	1.95	.50	40	2.2	264	121.4	3.5
.20	1.40	1.90	.35	27	1.9	218	116.9	2.9
.40	1.20	1.90	.25	18	1.7	188	112.2	2.3
.60	1.05	1.95	.25	13	1.7	174	103.1	1.8
.80	.90	2.00	.25	16	1.7	184	108.2	1.5
1.00	.75	2.05	.25	18	1.7	192	112.1	1.3
1.20	.65	2.15	.30	20	1.8	203	110.0	1.2
1.40	.55	2.25	.30	22	1.9	213	113.6	1.0

TABELLA N. 42

=====								
		Gt= 1600 Kg/mc		h = 4.50 m		sm = .30 m		
		Fi= 30 gradi		h1= .50 m		Afm= 23 cmq		
11 (m)	12 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm ²)
.00	1.90	2.20	.65	50	2.8	359	129.1	3.9
.20	1.65	2.15	.45	35	2.3	297	128.2	3.2
.40	1.45	2.15	.35	25	2.1	260	123.7	2.6
.60	1.25	2.15	.25	17	1.9	229	121.3	2.1
.80	1.10	2.20	.25	17	1.9	231	121.6	1.8
1.00	.95	2.25	.30	20	2.0	244	120.5	1.6
1.20	.85	2.35	.30	22	2.1	255	124.1	1.4
1.40	.75	2.45	.30	24	2.1	266	127.6	1.2
1.60	.65	2.55	.35	26	2.2	280	124.9	1.1

TABELLA N. 43

=====								
		Gt= 1600 Kg/mc		h = 2.00 m		sm = .25 m		
		Fi= 35 gradi		h1= .50 m		Afm= 7 cmq		
11 (m)	12 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm ²)
.00	.70	.95	.25	11	.7	42	56.9	1.8
.20	.50	.95	.25	5	.7	33	44.7	1.3
.40	.35	1.00	.25	6	.8	35	46.7	.9
.60	.20	1.05	.25	8	.8	38	49.8	.7

TABELLA N. 44

=====								
		Gt= 1600 Kg/mc		h = 2.50 m		sm = .25 m		
		Fi= 35 gradi		h1= .50 m		Afm= 10 cmq		
11 (m)	12 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm ²)
.00	.90	1.15	.25	16	.9	73	80.0	2.1
.20	.70	1.15	.25	9	.9	60	65.8	1.6
.40	.55	1.20	.25	7	.9	57	61.6	1.1
.60	.40	1.25	.25	9	.9	61	65.1	.9
.80	.30	1.35	.25	11	1.0	67	69.6	.7

TABELLA N. 45

=====								
			Gt= 1600 Kg/mc	h = 3.00 m		sm = .25 m		
			Fi= 35 gradi	h1= .50 m		Afm= 12 cmq		
11 (m)	12 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm ²)
.00	1.10	1.35	.30	22	1.2	109	94.4	2.6
.20	.90	1.35	.25	13	1.1	89	81.8	1.9
.40	.70	1.35	.25	8	1.1	79	72.6	1.5
.60	.55	1.40	.25	11	1.1	86	78.2	1.2
.80	.45	1.50	.25	12	1.1	90	80.0	.9
1.00	.35	1.60	.25	14	1.2	97	84.3	.7

TABELLA N. 46

=====								
			Gt= 1600 Kg/mc	h = 3.50 m		sm = .25 m		
			Fi= 35 gradi	h1= .50 m		Afm= 15 cmq		
11 (m)	12 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm ²)
.00	1.30	1.55	.40	29	1.5	163	109.0	3.1
.20	1.05	1.50	.25	17	1.3	129	103.2	2.4
.40	.90	1.55	.25	11	1.3	116	91.9	1.8
.60	.75	1.60	.25	11	1.3	116	91.0	1.4
.80	.60	1.65	.25	14	1.3	125	97.1	1.2
1.00	.50	1.75	.25	15	1.3	130	99.0	1.0
1.20	.40	1.85	.25	17	1.3	138	103.2	.8

TABELLA N. 47

=====								
			Gt= 1600 Kg/mc	h = 4.00 m		sm = .25 m		
			Fi= 35 gradi	h1= .50 m		Afm= 18 cmq		
11 (m)	12 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm ²)
.00	1.50	1.75	.50	37	1.9	229	122.1	3.6
.20	1.30	1.75	.35	25	1.6	192	119.1	2.6
.40	1.10	1.75	.25	16	1.4	165	114.8	2.0
.60	.90	1.75	.25	13	1.4	156	108.5	1.8
.80	.80	1.85	.25	15	1.5	164	112.1	1.4
1.00	.65	1.90	.25	17	1.5	171	115.9	1.2
1.20	.55	2.00	.25	19	1.5	180	120.0	1.0

TABELLA N. 48

=====								
			Gt= 1600 Kg/mc	h = 4.50 m		sm = .30 m		
			Fi= 35 gradi	h1= .50 m		Afm= 21 cmq		
11 (m)	12 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm ²)
.00	1.65	1.95	.55	42	2.4	296	122.2	4.0
.20	1.40	1.90	.35	28	2.0	244	121.1	3.2
.40	1.20	1.90	.25	18	1.8	211	115.6	2.5
.60	1.05	1.95	.25	14	1.8	200	108.8	2.0
.80	.90	2.00	.25	16	1.9	207	111.9	1.7
1.00	.75	2.05	.25	19	1.9	218	117.0	1.5
1.20	.65	2.15	.30	21	2.0	230	115.3	1.3
1.40	.55	2.25	.30	23	2.0	240	118.5	1.1

TABELLA N. 49

=====								
			Gt= 1600 Kg/mc	h = 2.00 m		sm = .25 m		
			Fi= 40 gradi	h1= .50 m		Afm= 7 cmq		
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm ²)
.00	.60	.85	.25	9	.7	37	51.9	1.9
.20	.40	.85	.25	4	.7	31	43.5	1.3
.40	.25	.90	.25	6	.7	34	46.9	.9
.60	.15	1.00	.25	8	.8	38	50.7	.6

TABELLA N. 50

=====								
			Gt= 1600 Kg/mc	h = 2.50 m		sm = .25 m		
			Fi= 40 gradi	h1= .50 m		Afm= 9 cmq		
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm ²)
.00	.75	1.00	.25	13	.9	60	68.6	2.4
.20	.60	1.05	.25	7	.9	51	57.5	1.5
.40	.40	1.05	.25	7	.9	51	57.5	1.2
.60	.30	1.15	.25	9	.9	56	61.4	.8
.80	.20	1.25	.25	10	.9	59	62.9	.6

TABELLA N. 51

=====								
			Gt= 1600 Kg/mc	h = 3.00 m		sm = .25 m		
			Fi= 40 gradi	h1= .50 m		Afm= 11 cmq		
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm ²)
.00	.95	1.20	.25	18	1.1	91	86.7	2.5
.20	.75	1.20	.25	10	1.1	75	71.4	1.9
.40	.60	1.25	.25	8	1.1	72	67.8	1.3
.60	.45	1.30	.25	10	1.1	77	71.6	1.0
.80	.30	1.35	.25	12	1.1	82	75.4	.9

TABELLA N. 52

=====								
			Gt= 1600 Kg/mc	h = 3.50 m		sm = .25 m		
			Fi= 40 gradi	h1= .50 m		Afm= 13 cmq		
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm ²)
.00	1.15	1.40	.35	25	1.4	134	98.2	2.9
.20	.90	1.35	.25	14	1.2	107	88.2	2.3
.40	.75	1.40	.25	9	1.2	97	79.2	1.7
.60	.60	1.45	.25	11	1.2	102	82.4	1.3
.80	.45	1.50	.25	13	1.3	108	86.4	1.1
1.00	.35	1.60	.25	15	1.3	115	90.2	.9

TABELLA N. 53

=====								
			Gt= 1600 Kg/mc	h = 4.00 m		sm = .25 m		
			Fi= 40 gradi	h1= .50 m		Afm= 16 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.30	1.55	.40	31	1.6	186	114.8	3.5
.20	1.10	1.55	.25	19	1.4	153	110.3	2.5
.40	.90	1.55	.25	12	1.4	136	98.0	2.0
.60	.75	1.60	.25	12	1.4	137	97.9	1.6
.80	.60	1.65	.25	15	1.4	146	103.4	1.4
1.00	.50	1.75	.25	16	1.4	151	105.0	1.1
1.20	.40	1.85	.25	18	1.5	160	109.4	.9

TABELLA N. 54

=====								
			Gt= 1600 Kg/mc	h = 4.50 m		sm = .25 m		
			Fi= 40 gradi	h1= .50 m		Afm= 19 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.50	1.75	.50	39	2.0	257	128.5	3.8
.20	1.25	1.70	.35	25	1.7	212	123.3	3.1
.40	1.05	1.70	.25	15	1.6	182	117.4	2.4
.60	.90	1.75	.25	13	1.6	178	113.9	1.9
.80	.80	1.85	.25	15	1.6	186	117.2	1.5
1.00	.65	1.90	.25	18	1.6	196	122.5	1.3
1.20	.55	2.00	.25	20	1.6	205	126.2	1.1

TABELLA N. 55

=====								
			Gt= 1700 Kg/mc	h = 2.00 m		sm = .25 m		
			Fi= 30 gradi	h1= .50 m		Afm= 8 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.80	1.05	.25	13	.8	50	65.6	1.9
.20	.60	1.05	.25	6	.8	39	51.1	1.4
.40	.45	1.10	.25	7	.8	41	52.9	1.0
.60	.35	1.20	.25	8	.8	44	55.0	.7
.80	.20	1.25	.25	10	.8	48	59.1	.6

TABELLA N. 56

=====								
			Gt= 1700 Kg/mc	h = 2.50 m		sm = .25 m		
			Fi= 30 gradi	h1= .50 m		Afm= 11 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.05	1.30	.30	20	1.0	90	88.7	2.2
.20	.85	1.30	.25	12	1.0	72	75.8	1.6
.40	.65	1.30	.25	8	1.0	64	67.4	1.3
.60	.50	1.35	.25	10	1.0	69	71.7	1.1
.80	.40	1.45	.25	12	1.0	75	75.9	.8
1.00	.30	1.55	.25	13	1.0	80	79.0	.7

TABELLA N. 57

=====									
		Gt= 1700 Kg/mc		h = 3.00 m		sm = .25 m			
		Fi= 30 gradi		h1= .50 m		Afm= 14 cmq			
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma	
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)	
.00	1.25	1.50	.35	27	1.3	138	108.2	2.8	
.20	1.05	1.50	.25	17	1.1	112	99.6	2.0	
.40	.85	1.50	.25	10	1.1	95	84.4	1.7	
.60	.70	1.55	.25	11	1.1	99	87.0	1.3	
.80	.60	1.65	.25	13	1.2	106	91.2	1.0	
1.00	.50	1.75	.25	14	1.2	110	92.6	.8	
1.20	.40	1.85	.25	16	1.2	118	97.3	.7	

TABELLA N. 58

=====									
		Gt= 1700 Kg/mc		h = 3.50 m		sm = .25 m			
		Fi= 30 gradi		h1= .50 m		Afm= 17 cmq			
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma	
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)	
.00	1.50	1.75	.45	35	1.7	202	121.5	3.1	
.20	1.25	1.70	.30	23	1.4	163	117.7	2.5	
.40	1.05	1.70	.25	14	1.3	138	106.2	2.0	
.60	.90	1.75	.25	12	1.3	134	102.1	1.6	
.80	.80	1.85	.25	14	1.3	141	105.4	1.3	
1.00	.65	1.90	.25	17	1.4	151	111.9	1.1	
1.20	.55	2.00	.25	18	1.4	157	114.2	.9	

TABELLA N. 59

=====									
		Gt= 1700 Kg/mc		h = 4.00 m		sm = .30 m			
		Fi= 30 gradi		h1= .50 m		Afm= 20 cmq			
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma	
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)	
.00	1.65	1.95	.55	42	2.3	272	119.7	3.8	
.20	1.45	1.95	.40	29	2.0	227	114.6	2.9	
.40	1.20	1.90	.25	18	1.7	188	112.2	2.4	
.60	1.05	1.95	.25	13	1.7	174	103.1	1.9	
.80	.90	2.00	.25	16	1.7	184	108.2	1.6	
1.00	.80	2.10	.25	18	1.7	193	111.9	1.3	
1.20	.70	2.20	.30	20	1.9	205	110.2	1.2	
1.40	.60	2.30	.30	22	1.9	215	113.8	1.0	

TABELLA N. 60

=====									
		Gt= 1700 Kg/mc		h = 4.50 m		sm = .30 m			
		Fi= 30 gradi		h1= .50 m		Afm= 24 cmq			
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma	
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)	
.00	1.90	2.20	.65	51	2.8	371	133.5	4.1	
.20	1.65	2.15	.45	36	2.3	309	133.3	3.4	
.40	1.45	2.15	.35	25	2.1	268	127.5	2.7	
.60	1.25	2.15	.25	17	1.9	237	125.6	2.3	
.80	1.10	2.20	.25	17	1.9	238	125.3	1.9	
1.00	1.00	2.30	.25	20	1.9	252	130.9	1.6	
1.20	.85	2.35	.30	23	2.1	266	129.4	1.5	
1.40	.75	2.45	.35	25	2.2	279	126.4	1.3	
1.60	.65	2.55	.35	27	2.2	291	129.8	1.2	

TABELLA N. 61

=====								
			Gt= 1700	Kg/mc	h = 2.00 m		sm = .25 m	
			Fi= 35	gradi	h1= .50 m		Afm= 8 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.70	.95	.25	11	.7	45	61.0	1.9
.20	.50	.95	.25	5	.7	36	48.8	1.4
.40	.35	1.00	.25	7	.8	40	53.3	1.0
.60	.25	1.10	.25	8	.8	43	55.5	.7

TABELLA N. 62

=====								
			Gt= 1700	Kg/mc	h = 2.50 m		sm = .25 m	
			Fi= 35	gradi	h1= .50 m		Afm= 10 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.90	1.15	.25	16	.9	73	80.0	2.3
.20	.70	1.15	.25	9	.9	60	65.8	1.7
.40	.55	1.20	.25	7	.9	57	61.6	1.2
.60	.40	1.25	.25	10	.9	63	67.2	1.0
.80	.30	1.35	.25	11	1.0	67	69.6	.7

TABELLA N. 63

=====								
			Gt= 1700	Kg/mc	h = 3.00 m		sm = .25 m	
			Fi= 35	gradi	h1= .50 m		Afm= 13 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.10	1.35	.30	23	1.2	117	101.3	2.7
.20	.90	1.35	.25	14	1.1	97	89.2	2.0
.40	.70	1.35	.25	8	1.1	84	77.2	1.6
.60	.60	1.45	.25	10	1.1	90	80.9	1.2
.80	.45	1.50	.25	13	1.1	97	86.2	1.0
1.00	.35	1.60	.25	14	1.2	102	88.7	.8

TABELLA N. 64

=====								
			Gt= 1700	Kg/mc	h = 3.50 m		sm = .25 m	
			Fi= 35	gradi	h1= .50 m		Afm= 15 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.30	1.55	.40	30	1.5	165	110.4	3.2
.20	1.10	1.55	.25	19	1.3	135	106.9	2.3
.40	.90	1.55	.25	12	1.3	118	93.5	1.9
.60	.75	1.60	.25	12	1.3	119	93.3	1.5
.80	.65	1.70	.25	14	1.3	126	96.9	1.2
1.00	.50	1.75	.25	16	1.3	133	101.3	1.0
1.20	.40	1.85	.25	18	1.3	141	105.4	.9

TABELLA N. 65

=====								
		Gt= 1700 Kg/mc		h = 4.00 m		sm = .25 m		
		Fi= 35 gradi		h1= .50 m		Afm= 18 cmq		
11	12	l	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.50	1.75	.50	38	1.9	232	123.7	3.8
.20	1.30	1.75	.35	25	1.6	192	119.1	2.8
.40	1.10	1.75	.25	16	1.4	165	114.8	2.2
.60	.95	1.80	.25	13	1.5	157	108.3	1.7
.80	.80	1.85	.25	15	1.5	164	112.1	1.5
1.00	.70	1.95	.25	17	1.5	173	116.3	1.2
1.20	.60	2.05	.25	19	1.5	182	120.3	1.0
1.40	.50	2.15	.30	21	1.6	193	117.3	.9

TABELLA N. 66

=====								
		Gt= 1700 Kg/mc		h = 4.50 m		sm = .30 m		
		Fi= 35 gradi		h1= .50 m		Afm= 21 cmq		
11	12	l	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.65	1.95	.55	43	2.4	299	123.4	4.2
.20	1.45	1.95	.40	30	2.1	254	119.2	3.2
.40	1.25	1.95	.30	20	1.9	220	113.7	2.5
.60	1.05	1.95	.25	14	1.8	200	108.8	2.1
.80	.90	2.00	.25	17	1.9	210	113.5	1.8
1.00	.80	2.10	.25	19	1.9	220	117.3	1.5
1.20	.70	2.20	.30	21	2.0	231	114.9	1.3
1.40	.60	2.30	.30	23	2.0	242	118.6	1.1

TABELLA N. 67

=====								
		Gt= 1700 Kg/mc		h = 2.00 m		sm = .25 m		
		Fi= 40 gradi		h1= .50 m		Afm= 7 cmq		
11	12	l	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.60	.85	.25	9	.7	37	51.9	1.9
.20	.40	.85	.25	4	.7	31	43.5	1.4
.40	.25	.90	.25	6	.7	34	46.9	.9
.60	.15	1.00	.25	8	.8	38	50.7	.6

TABELLA N. 68

=====								
		Gt= 1700 Kg/mc		h = 2.50 m		sm = .25 m		
		Fi= 40 gradi		h1= .50 m		Afm= 9 cmq		
11	12	l	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.80	1.05	.25	14	.9	62	69.9	2.1
.20	.60	1.05	.25	7	.9	51	57.5	1.5
.40	.45	1.10	.25	7	.9	51	56.7	1.1
.60	.30	1.15	.25	9	.9	56	61.4	.9
.80	.20	1.25	.25	10	.9	59	62.9	.6

TABELLA N. 69

=====								
			Gt= 1700	Kg/mc	h = 3.00 m		sm = .25 m	
			Fi= 40	gradi	h1= .50 m		Afm= 11 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.95	1.20	.25	19	1.1	92	87.6	2.6
.20	.75	1.20	.25	10	1.1	75	71.4	2.0
.40	.60	1.25	.25	8	1.1	72	67.8	1.4
.60	.45	1.30	.25	10	1.1	77	71.6	1.1
.80	.35	1.40	.25	12	1.1	83	75.5	.8

TABELLA N. 70

=====								
			Gt= 1700	Kg/mc	h = 3.50 m		sm = .25 m	
			Fi= 40	gradi	h1= .50 m		Afm= 14 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.15	1.40	.35	25	1.4	140	102.6	3.0
.20	.90	1.35	.25	14	1.2	113	93.2	2.4
.40	.75	1.40	.25	9	1.2	103	84.1	1.8
.60	.60	1.45	.25	11	1.2	108	87.3	1.4
.80	.50	1.55	.25	13	1.3	115	91.1	1.1
1.00	.40	1.65	.25	15	1.3	122	94.8	.9

TABELLA N. 71

=====								
			Gt= 1700	Kg/mc	h = 4.00 m		sm = .25 m	
			Fi= 40	gradi	h1= .50 m		Afm= 16 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.35	1.60	.45	33	1.7	195	113.4	3.4
.20	1.10	1.55	.30	20	1.5	157	107.2	2.7
.40	.90	1.55	.25	12	1.4	136	98.0	2.2
.60	.75	1.60	.25	13	1.4	140	100.0	1.7
.80	.65	1.70	.25	15	1.4	147	103.2	1.3
1.00	.55	1.80	.25	16	1.5	152	104.8	1.0
1.20	.45	1.90	.25	18	1.5	161	109.2	.9

TABELLA N. 72

=====								
			Gt= 1700	Kg/mc	h = 4.50 m		sm = .25 m	
			Fi= 40	gradi	h1= .50 m		Afm= 19 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.50	1.75	.50	40	2.0	260	130.0	4.0
.20	1.30	1.75	.35	26	1.7	217	124.9	3.0
.40	1.10	1.75	.25	17	1.6	189	121.0	2.3
.60	.95	1.80	.25	13	1.6	179	113.7	1.9
.80	.80	1.85	.25	16	1.6	189	119.1	1.6
1.00	.65	1.90	.25	19	1.6	199	124.4	1.4
1.20	.55	2.00	.30	21	1.7	210	121.7	1.2

Sovraccarico: strato equipesante di terreno ($h_1 = 1.00$ m)

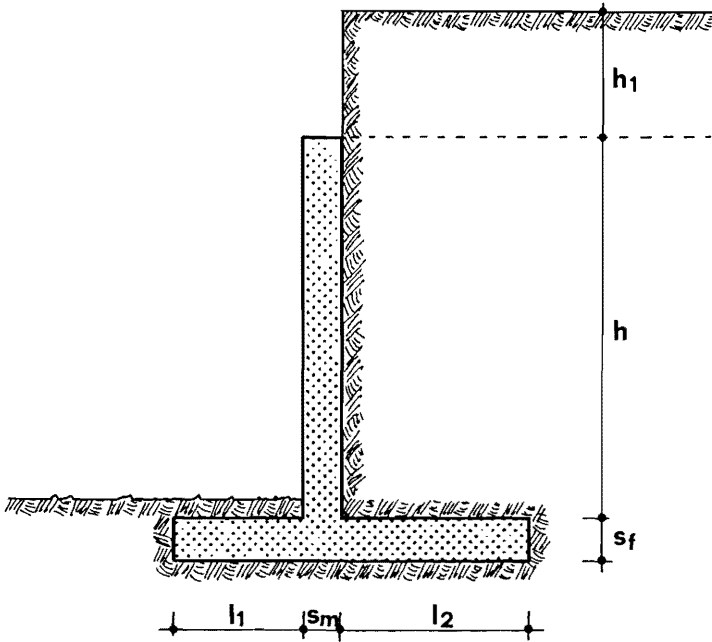


TABELLE 73 ÷ 108

γ_t kg/mc	φ gradi	30	35	40
1600		73 ÷ 78	79 ÷ 84	85 ÷ 90
1700		91 ÷ 96	97 ÷ 102	103 ÷ 108

TABELLA N. 73

=====								
			Gt= 1600 Kg/mc	h = 2.00 m		sm = .25 m		
			Fi= 30 gradi	h1= 1.00 m		Afm= 10 cmq		
l1 (m)	l2 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	.90	1.15	.25	16	.8	65	82.5	2.1
.20	.70	1.15	.25	8	.8	50	63.5	1.6
.40	.55	1.20	.25	7	.8	49	61.3	1.2
.60	.45	1.30	.25	9	.8	54	65.5	.8
.80	.35	1.40	.25	10	.9	58	68.2	.6

TABELLA N. 74

=====								
			Gt= 1600 Kg/mc	h = 2.50 m		sm = .25 m		
			Fi= 30 gradi	h1= 1.00 m		Afm= 12 cmq		
l1 (m)	l2 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	1.15	1.40	.30	23	1.0	104	99.5	2.4
.20	.95	1.40	.25	14	1.0	83	85.1	1.8
.40	.75	1.40	.25	8	1.0	70	71.8	1.5
.60	.65	1.50	.25	10	1.0	76	76.0	1.1
.80	.50	1.55	.25	12	1.0	82	81.0	.9
1.00	.40	1.65	.25	14	1.0	89	85.8	.8

TABELLA N. 75

=====								
			Gt= 1600 Kg/mc	h = 3.00 m		sm = .25 m		
			Fi= 30 gradi	h1= 1.00 m		Afm= 16 cmq		
l1 (m)	l2 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	1.40	1.65	.40	31	1.4	166	117.7	2.8
.20	1.15	1.60	.25	19	1.2	130	113.0	2.2
.40	1.00	1.65	.25	13	1.2	116	99.8	1.7
.60	.85	1.70	.25	11	1.2	111	94.5	1.4
.80	.70	1.75	.25	14	1.2	121	101.9	1.2
1.00	.60	1.85	.25	15	1.2	126	103.9	.9
1.20	.50	1.95	.25	17	1.2	134	108.3	.8

TABELLA N. 76

=====								
			Gt= 1600 Kg/mc	h = 3.50 m		sm = .25 m		
			Fi= 30 gradi	h1= 1.00 m		Afm= 19 cmq		
l1 (m)	l2 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	1.60	1.85	.50	40	1.8	236	131.1	3.5
.20	1.40	1.85	.35	27	1.5	194	127.4	2.6
.40	1.20	1.85	.25	18	1.3	165	123.4	2.1
.60	1.05	1.90	.25	13	1.4	151	111.9	1.7
.80	.90	1.95	.25	15	1.4	158	116.0	1.4
1.00	.80	2.05	.25	17	1.4	167	120.4	1.2
1.20	.65	2.10	.25	19	1.4	175	125.0	1.1
1.40	.60	2.25	.30	21	1.6	188	121.3	.9

TABELLA N. 77

=====								
			Gt= 1600	Kg/mc	h = 4.00 m		sm = .30 m	
			Fi= 30	gradi	h1= 1.00 m		Afm= 22 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.80	2.10	.60	47	2.5	314	127.6	3.9
.20	1.60	2.10	.45	33	2.1	263	122.6	3.0
.40	1.35	2.05	.30	22	1.8	220	121.2	2.5
.60	1.20	2.10	.25	16	1.7	200	115.9	2.0
.80	1.05	2.15	.25	16	1.7	201	115.7	1.7
1.00	.90	2.20	.25	19	1.8	213	121.7	1.5
1.20	.80	2.30	.30	22	1.9	228	120.6	1.3
1.40	.70	2.40	.30	23	1.9	236	122.9	1.1
1.60	.60	2.50	.35	26	2.1	253	121.9	1.0

TABELLA N. 78

=====								
			Gt= 1600	Kg/mc	h = 4.50 m		sm = .35 m	
			Fi= 30	gradi	h1= 1.00 m		Afm= 26 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	2.00	2.35	.70	54	3.2	412	128.0	4.2
.20	1.75	2.30	.50	38	2.7	342	125.5	3.5
.40	1.55	2.30	.35	28	2.4	300	126.1	2.8
.60	1.35	2.30	.25	19	2.2	263	122.3	2.3
.80	1.20	2.35	.25	18	2.2	261	120.7	2.0
1.00	1.05	2.40	.30	21	2.3	276	120.3	1.8
1.20	.95	2.50	.30	23	2.3	287	123.4	1.5
1.40	.85	2.60	.35	26	2.5	305	122.7	1.4
1.60	.75	2.70	.35	27	2.5	313	124.2	1.2

TABELLA N. 79

=====								
			Gt= 1600	Kg/mc	h = 2.00 m		sm = .25 m	
			Fi= 35	gradi	h1= 1.00 m		Afm= 9 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.80	1.05	.25	14	.8	55	72.1	2.0
.20	.60	1.05	.25	7	.8	44	57.7	1.5
.40	.45	1.10	.25	7	.8	44	56.8	1.1
.60	.35	1.20	.25	8	.8	47	58.8	.8
.80	.25	1.30	.25	10	.8	53	64.2	.6

TABELLA N. 80

=====								
			Gt= 1600	Kg/mc	h = 2.50 m		sm = .25 m	
			Fi= 35	gradi	h1= 1.00 m		Afm= 11 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.00	1.25	.25	19	.9	85	90.7	2.4
.20	.80	1.25	.25	11	.9	70	74.7	1.8
.40	.65	1.30	.25	8	1.0	64	67.4	1.3
.60	.50	1.35	.25	10	1.0	69	71.7	1.1
.80	.40	1.45	.25	12	1.0	75	75.9	.8
1.00	.30	1.55	.25	13	1.0	80	79.0	.7

TABELLA N. 81

=====								
		Gt= 1600 Kg/mc		h = 3.00 m		sm = .25 m		
		Fi= 35 gradi		h1= 1.00 m		Afm= 14 cmq		
11	12	l	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.20	1.45	.35	26	1.3	133	105.8	3.0
.20	1.00	1.45	.25	16	1.1	108	97.1	2.1
.40	.85	1.50	.25	11	1.1	98	87.1	1.6
.60	.70	1.55	.25	11	1.1	99	87.0	1.3
.80	.55	1.60	.25	13	1.2	105	91.3	1.1
1.00	.45	1.70	.25	15	1.2	112	95.3	.9

TABELLA N. 82

=====								
		Gt= 1600 Kg/mc		h = 3.50 m		sm = .25 m		
		Fi= 35 gradi		h1= 1.00 m		Afm= 17 cmq		
11	12	l	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.45	1.70	.45	34	1.6	197	120.1	3.2
.20	1.20	1.65	.30	22	1.4	159	116.1	2.6
.40	1.00	1.65	.25	14	1.3	137	106.4	2.1
.60	.85	1.70	.25	12	1.3	133	102.3	1.7
.80	.75	1.80	.25	14	1.3	140	105.7	1.3
1.00	.60	1.85	.25	17	1.3	150	112.1	1.1
1.20	.50	1.95	.25	19	1.4	159	116.7	1.0

TABELLA N. 83

=====								
		Gt= 1600 Kg/mc		h = 4.00 m		sm = .30 m		
		Fi= 35 gradi		h1= 1.00 m		Afm= 20 cmq		
11	12	l	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.60	1.90	.50	40	2.2	261	121.4	3.6
.20	1.35	1.85	.35	26	1.8	213	115.3	3.0
.40	1.15	1.85	.25	17	1.7	183	110.1	2.4
.60	1.00	1.90	.25	13	1.7	173	103.3	1.9
.80	.85	1.95	.25	16	1.7	183	108.4	1.6
1.00	.75	2.05	.25	18	1.7	192	112.1	1.3
1.20	.65	2.15	.30	20	1.8	203	110.0	1.1
1.40	.55	2.25	.30	22	1.9	213	113.6	1.0

TABELLA N. 84

=====								
		Gt= 1600 Kg/mc		h = 4.50 m		sm = .30 m		
		Fi= 35 gradi		h1= 1.00 m		Afm= 23 cmq		
11	12	l	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.80	2.10	.60	48	2.6	343	131.4	4.1
.20	1.55	2.05	.45	33	2.3	285	125.4	3.5
.40	1.35	2.05	.30	23	2.0	248	126.2	2.7
.60	1.20	2.10	.25	17	1.9	228	121.6	2.2
.80	1.05	2.15	.25	17	1.9	229	121.3	1.8
1.00	.90	2.20	.30	20	2.0	243	120.9	1.7
1.20	.80	2.30	.30	22	2.0	253	124.0	1.4
1.40	.70	2.40	.35	25	2.2	270	123.3	1.3
1.60	.60	2.50	.35	26	2.2	278	124.9	1.1

TABELLA N. 85

=====								
			Gt= 1600	Kg/mc	h = 2.00 m		sm = .25 m	
			Fi= 40	gradi	h1= 1.00 m		Afm= 8 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.70	.95	.25	11	.7	45	61.0	1.9
.20	.50	.95	.25	5	.7	36	48.8	1.4
.40	.35	1.00	.25	7	.8	40	53.3	1.0
.60	.25	1.10	.25	8	.8	43	55.5	.7

TABELLA N. 86

=====								
			Gt= 1600	Kg/mc	h = 2.50 m		sm = .25 m	
			Fi= 40	gradi	h1= 1.00 m		Afm= 10 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.85	1.10	.25	16	.9	71	78.9	2.5
.20	.70	1.15	.25	9	.9	60	65.8	1.6
.40	.50	1.15	.25	8	.9	58	63.6	1.4
.60	.40	1.25	.25	9	.9	61	65.1	.9
.80	.30	1.35	.25	11	1.0	67	69.6	.7

TABELLA N. 87

=====								
			Gt= 1600	Kg/mc	h = 3.00 m		sm = .25 m	
			Fi= 40	gradi	h1= 1.00 m		Afm= 13 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.05	1.30	.30	22	1.1	113	99.1	2.8
.20	.85	1.30	.25	13	1.1	93	86.5	2.1
.40	.70	1.35	.25	8	1.1	84	77.2	1.5
.60	.55	1.40	.25	11	1.1	91	82.7	1.2
.80	.45	1.50	.25	12	1.1	95	84.4	.9
1.00	.35	1.60	.25	14	1.2	102	88.7	.8

TABELLA N. 88

=====								
			Gt= 1600	Kg/mc	h = 3.50 m		sm = .25 m	
			Fi= 40	gradi	h1= 1.00 m		Afm= 15 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.25	1.50	.40	29	1.5	161	109.2	3.2
.20	1.00	1.45	.25	17	1.2	128	103.4	2.6
.40	.85	1.50	.25	11	1.3	115	92.0	1.9
.60	.70	1.55	.25	12	1.3	118	93.5	1.5
.80	.60	1.65	.25	14	1.3	125	97.1	1.2
1.00	.50	1.75	.25	15	1.3	130	99.0	.9
1.20	.40	1.85	.25	17	1.3	138	103.2	.8

TABELLA N. 89

=====								
			Gt= 1600 kg/mc	h = 4.00 m		sm = .25 m		
			Fi= 40 gradi	h1= 1.00 m		Afm= 18 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.45	1.70	.45	36	1.8	222	125.8	3.5
.20	1.20	1.65	.30	23	1.5	182	121.7	2.8
.40	1.00	1.65	.25	14	1.4	157	111.2	2.3
.60	.85	1.70	.25	13	1.4	155	108.8	1.9
.80	.75	1.80	.25	15	1.5	163	112.4	1.4
1.00	.60	1.85	.25	18	1.5	173	118.3	1.3
1.20	.55	2.00	.25	19	1.5	180	120.0	1.0

TABELLA N. 90

=====								
			Gt= 1600 Kg/mc	h = 4.50 m		sm = .30 m		
			Fi= 40 gradi	h1= 1.00 m		Afm= 21 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.55	1.85	.50	40	2.3	282	124.0	4.2
.20	1.35	1.85	.35	27	2.0	239	119.6	3.1
.40	1.15	1.85	.25	18	1.8	209	115.3	2.5
.60	1.00	1.90	.25	14	1.8	199	109.0	2.0
.80	.85	1.95	.25	16	1.8	206	112.1	1.7
1.00	.70	2.00	.25	19	1.9	217	117.3	1.5
1.20	.60	2.10	.30	21	2.0	228	115.2	1.3
1.40	.50	2.20	.30	23	2.0	238	118.4	1.1

TABELLA N. 91

=====								
			Gt= 1700 Kg/mc	h = 2.00 m		sm = .25 m		
			Fi= 30 gradi	h1= 1.00 m		Afm= 10 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.90	1.15	.25	16	.8	65	82.5	2.2
.20	.75	1.20	.25	10	.8	55	68.8	1.5
.40	.55	1.20	.25	7	.8	49	61.3	1.2
.60	.45	1.30	.25	9	.8	54	65.5	.9
.80	.35	1.40	.25	11	.9	60	70.6	.7

TABELLA N. 92

=====								
			Gt= 1700 Kg/mc	h = 2.50 m		sm = .25 m		
			Fi= 30 gradi	h1= 1.00 m		Afm= 13 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.15	1.40	.30	23	1.0	108	103.3	2.5
.20	.95	1.40	.25	14	1.0	87	89.2	1.9
.40	.80	1.45	.25	9	1.0	77	78.0	1.4
.60	.65	1.50	.25	10	1.0	80	80.0	1.2
.80	.55	1.60	.25	12	1.0	87	84.9	.9
1.00	.45	1.70	.25	14	1.1	94	89.5	.7

TABELLA N. 93

=====								
			Gt= 1700 Kg/mc	h = 3.00 m		sm = .25 m		
			Fi= 30 gradi	h1= 1.00 m		Afm= 16 cmq		
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm ²)
.00	1.40	1.65	.40	32	1.4	169	119.9	3.0
.20	1.15	1.60	.30	20	1.2	134	108.9	2.5
.40	1.00	1.65	.25	13	1.2	116	99.8	1.8
.60	.85	1.70	.25	12	1.2	114	97.0	1.5
.80	.70	1.75	.25	14	1.2	121	101.9	1.2
1.00	.60	1.85	.25	16	1.2	129	106.4	1.0
1.20	.50	1.95	.25	18	1.2	137	110.7	.9

TABELLA N. 94

=====								
			Gt= 1700 Kg/mc	h = 3.50 m		sm = .25 m		
			Fi= 30 gradi	h1= 1.00 m		Afm= 19 cmq		
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm ²)
.00	1.65	1.90	.55	41	1.9	244	127.1	3.5
.20	1.40	1.85	.35	27	1.5	194	127.4	2.8
.40	1.20	1.85	.25	18	1.3	165	123.4	2.2
.60	1.05	1.90	.25	13	1.4	151	111.9	1.8
.80	.90	1.95	.25	16	1.4	161	118.2	1.5
1.00	.80	2.05	.25	18	1.4	170	122.5	1.2
1.20	.70	2.15	.25	19	1.4	176	124.6	1.0
1.40	.60	2.25	.30	21	1.6	188	121.3	1.0

TABELLA N. 95

=====								
			Gt= 1700 Kg/mc	h = 4.00 m		sm = .30 m		
			Fi= 30 gradi	h1= 1.00 m		Afm= 23 cmq		
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm ²)
.00	1.80	2.10	.60	48	2.5	325	132.1	4.1
.20	1.60	2.10	.45	34	2.1	273	127.3	3.2
.40	1.35	2.05	.30	22	1.8	227	125.1	2.7
.60	1.20	2.10	.25	16	1.7	207	120.0	2.1
.80	1.05	2.15	.25	17	1.7	211	121.4	1.8
1.00	.95	2.25	.25	19	1.8	221	125.4	1.5
1.20	.80	2.30	.30	22	1.9	235	124.3	1.4
1.40	.70	2.40	.30	24	1.9	246	128.1	1.2
1.60	.65	2.55	.35	26	2.1	262	125.2	1.0

TABELLA N. 96

=====								
			Gt= 1700 Kg/mc	h = 4.50 m		sm = .35 m		
			Fi= 30 gradi	h1= 1.00 m		Afm= 26 cmq		
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm ²)
.00	2.00	2.35	.70	55	3.2	416	129.2	4.5
.20	1.75	2.30	.50	39	2.7	345	126.6	3.7
.40	1.55	2.30	.40	28	2.5	302	121.0	3.1
.60	1.35	2.30	.30	20	2.3	269	118.8	2.6
.80	1.20	2.35	.25	18	2.2	261	120.7	2.1
1.00	1.10	2.45	.30	21	2.3	277	119.9	1.8
1.20	.95	2.50	.30	24	2.3	291	125.2	1.6
1.40	.85	2.60	.35	26	2.5	305	122.7	1.5
1.60	.75	2.70	.40	29	2.7	323	121.7	1.3

TABELLA N. 97

=====								
			Gt= 1700 Kg/mc	h = 2.00 m		sm = .25 m		
			Fi= 35 gradi	h1= 1.00 m		Afm= 9 cmq		
l1 (m)	l2 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	.80	1.05	.25	14	.8	55	72.1	2.1
.20	.60	1.05	.25	7	.8	44	57.7	1.6
.40	.45	1.10	.25	7	.8	44	56.8	1.1
.60	.35	1.20	.25	9	.8	49	61.3	.8
.80	.25	1.30	.25	10	.8	53	64.2	.6

TABELLA N. 98

=====								
			Gt= 1700 Kg/mc	h = 2.50 m		sm = .25 m		
			Fi= 35 gradi	h1= 1.00 m		Afm= 12 cmq		
l1 (m)	l2 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	1.00	1.25	.30	20	1.0	93	93.0	2.6
.20	.80	1.25	.25	11	.9	74	78.9	1.9
.40	.65	1.30	.25	8	1.0	69	72.6	1.4
.60	.50	1.35	.25	10	1.0	74	76.9	1.1
.80	.40	1.45	.25	12	1.0	80	81.0	.9
1.00	.30	1.55	.25	14	1.0	86	84.9	.7

TABELLA N. 99

=====								
			Gt= 1700 Kg/mc	h = 3.00 m		sm = .25 m		
			Fi= 35 gradi	h1= 1.00 m		Afm= 14 cmq		
l1 (m)	l2 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	1.20	1.45	.35	27	1.3	136	108.2	3.1
.20	1.00	1.45	.25	16	1.1	108	97.1	2.3
.40	.85	1.50	.25	11	1.1	98	87.1	1.7
.60	.70	1.55	.25	11	1.1	99	87.0	1.4
.80	.60	1.65	.25	13	1.2	106	91.2	1.1
1.00	.45	1.70	.25	15	1.2	112	95.3	1.0

TABELLA N. 100

=====								
			Gt= 1700 Kg/mc	h = 3.50 m		sm = .25 m		
			Fi= 35 gradi	h1= 1.00 m		Afm= 17 cmq		
l1 (m)	l2 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	1.45	1.70	.45	35	1.6	199	121.3	3.3
.20	1.20	1.65	.30	22	1.4	159	116.1	2.7
.40	1.05	1.70	.25	15	1.3	141	108.5	2.0
.60	.90	1.75	.25	12	1.3	134	102.1	1.6
.80	.75	1.80	.25	15	1.3	143	107.9	1.4
1.00	.65	1.90	.25	17	1.4	151	111.9	1.1
1.20	.55	2.00	.25	18	1.4	157	114.2	.9

TABELLA N. 101

=====								
			Gt= 1700	Kg/mc	h = 4.00 m		sm = .30 m	
			Fi= 35	gradi	h1= 1.00 m		Afm= 21 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.60	1.90	.55	41	2.2	273	121.6	3.9
.20	1.35	1.85	.35	27	1.8	222	120.2	3.1
.40	1.15	1.85	.25	18	1.7	193	116.1	2.5
.60	1.00	1.90	.25	14	1.7	182	108.7	2.0
.80	.85	1.95	.25	17	1.7	193	114.4	1.7
1.00	.75	2.05	.25	19	1.7	202	118.0	1.4
1.20	.65	2.15	.30	21	1.8	213	115.4	1.2
1.40	.55	2.25	.30	23	1.9	224	119.5	1.1

TABELLA N. 102

=====								
			Gt= 1700	Kg/mc	h = 4.50 m		sm = .30 m	
			Fi= 35	gradi	h1= 1.00 m		Afm= 24 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.80	2.10	.65	50	2.7	359	132.2	4.5
.20	1.60	2.10	.45	35	2.3	302	131.6	3.4
.40	1.35	2.05	.30	23	2.0	255	129.8	2.9
.60	1.20	2.10	.25	17	1.9	236	125.9	2.3
.80	1.05	2.15	.25	18	1.9	240	127.2	1.9
1.00	.95	2.25	.30	20	2.0	252	124.4	1.6
1.20	.80	2.30	.30	23	2.0	264	129.4	1.5
1.40	.70	2.40	.35	25	2.2	277	126.5	1.3
1.60	.65	2.55	.35	26	2.2	287	128.0	1.1

TABELLA N. 103

=====								
			Gt= 1700	Kg/mc	h = 2.00 m		sm = .25 m	
			Fi= 40	gradi	h1= 1.00 m		Afm= 8 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.70	.95	.25	12	.7	47	63.7	2.0
.20	.50	.95	.25	5	.7	36	48.8	1.5
.40	.35	1.00	.25	7	.8	40	53.3	1.1
.60	.25	1.10	.25	8	.8	43	55.5	.7

TABELLA N. 104

=====								
			Gt= 1700	Kg/mc	h = 2.50 m		sm = .25 m	
			Fi= 40	gradi	h1= 1.00 m		Afm= 10 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.85	1.10	.25	16	.9	71	78.9	2.6
.20	.70	1.15	.25	9	.9	60	65.8	1.7
.40	.55	1.20	.25	7	.9	57	61.6	1.3
.60	.40	1.25	.25	10	.9	63	67.2	1.0
.80	.30	1.35	.25	11	1.0	67	69.6	.8

TABELLA N. 105

=====								
		Gt= 1700 Kg/mc		h = 3.00 m		sm = .25 m		
		Fi= 40 gradi		h1= 1.00 m		Afm= 13 cmq		
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	1.05	1.30	.30	23	1.1	115	100.9	3.0
.20	.85	1.30	.25	13	1.1	93	86.5	2.2
.40	.70	1.35	.25	8	1.1	84	77.2	1.6
.60	.55	1.40	.25	11	1.1	91	82.7	1.3
.80	.45	1.50	.25	13	1.1	97	86.2	1.0
1.00	.35	1.60	.25	14	1.2	102	88.7	.8

TABELLA N. 106

=====								
		Gt= 1700 Kg/mc		h = 3.50 m		sm = .25 m		
		Fi= 40 gradi		h1= 1.00 m		Afm= 16 cmq		
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	1.25	1.50	.40	30	1.5	169	114.6	3.4
.20	1.05	1.50	.25	18	1.3	137	109.6	2.4
.40	.85	1.50	.25	11	1.3	121	96.8	2.0
.60	.70	1.55	.25	12	1.3	124	98.2	1.6
.80	.60	1.65	.25	14	1.3	131	101.7	1.2
1.00	.50	1.75	.25	16	1.3	139	105.9	1.0
1.20	.40	1.85	.25	17	1.3	144	107.7	.8

TABELLA N. 107

=====								
		Gt= 1700 Kg/mc		h = 4.00 m		sm = .25 m		
		Fi= 40 gradi		h1= 1.00 m		Afm= 19 cmq		
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	1.45	1.70	.50	37	1.9	233	125.9	3.8
.20	1.20	1.65	.30	23	1.5	188	125.8	3.0
.40	1.05	1.70	.25	16	1.4	170	119.3	2.2
.60	.90	1.75	.25	13	1.4	163	113.4	1.8
.80	.75	1.80	.25	16	1.5	172	118.6	1.5
1.00	.65	1.90	.25	17	1.5	178	120.7	1.2
1.20	.55	2.00	.25	19	1.5	187	124.7	1.0

TABELLA N. 108

=====								
		Gt= 1700 Kg/mc		h = 4.50 m		sm = .30 m		
		Fi= 40 gradi		h1= 1.00 m		Afm= 21 cmq		
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	1.60	1.90	.55	42	2.4	292	121.9	4.1
.20	1.35	1.85	.35	28	2.0	242	121.2	3.3
.40	1.15	1.85	.25	19	1.8	212	117.0	2.6
.60	1.00	1.90	.25	14	1.8	199	109.0	2.1
.80	.85	1.95	.25	17	1.8	209	113.7	1.8
1.00	.75	2.05	.25	19	1.9	218	117.0	1.5
1.20	.65	2.15	.30	21	2.0	230	115.3	1.3
1.40	.55	2.25	.30	23	2.0	240	118.5	1.1

Sovraccarico: folla compatta (400 Kg/mq)

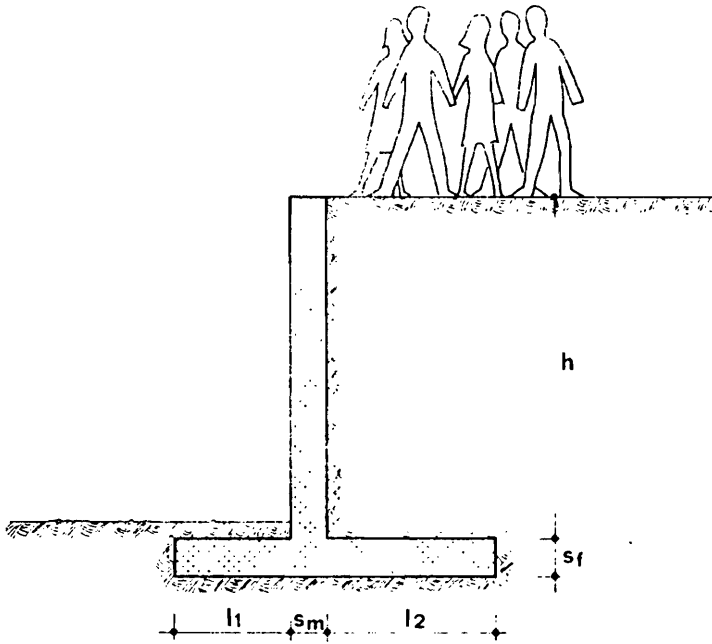


TABELLE 109 ÷ 144

γ_t kg/mc	φ gradi	30	35	40
1600		109 ÷ 114	115 ÷ 120	121 ÷ 126
1700		127 ÷ 132	133 ÷ 138	139 ÷ 144

TABELLA N. 109

=====								
			Gt= 1600	Kg/mc	h = 2.00 m		sm = .25 m	
			Fi= 30	gradi	h1= .25 m		Afm= 7 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.75	1.00	.25	11	.8	42	56.0	1.7
.20	.55	1.00	.25	6	.8	35	46.7	1.2
.40	.35	1.00	.25	6	.8	35	46.7	.9
.60	.25	1.10	.25	8	.8	39	50.3	.6

TABELLA N. 110

=====								
			Gt= 1600	Kg/mc	h = 2.50 m		sm = .25 m	
			Fi= 30	gradi	h1= .25 m		Afm= 10 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.95	1.20	.25	17	.9	76	82.2	2.1
.20	.75	1.20	.25	9	.9	61	65.9	1.5
.40	.55	1.20	.25	7	.9	57	61.6	1.2
.60	.40	1.25	.25	10	.9	63	67.2	1.0
.80	.30	1.35	.25	11	1.0	67	69.6	.7

TABELLA N. 111

=====								
			Gt= 1600	Kg/mc	h = 3.00 m		sm = .25 m	
			Fi= 30	gradi	h1= .25 m		Afm= 12 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.15	1.40	.30	23	1.2	113	96.6	2.6
.20	.95	1.40	.25	14	1.1	93	84.5	1.9
.40	.75	1.40	.25	8	1.1	79	71.8	1.6
.60	.60	1.45	.25	11	1.1	87	78.2	1.2
.80	.50	1.55	.25	12	1.1	91	80.0	.9
1.00	.40	1.65	.25	14	1.2	98	84.3	.7

TABELLA N. 112

=====								
			Gt= 1600	Kg/mc	h = 3.50 m		sm = .25 m	
			Fi= 30	gradi	h1= .25 m		Afm= 15 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.40	1.65	.40	31	1.5	173	112.7	2.9
.20	1.15	1.60	.25	19	1.3	137	107.5	2.2
.40	.95	1.60	.25	12	1.3	119	93.3	1.9
.60	.80	1.65	.25	12	1.3	120	93.2	1.5
.80	.70	1.75	.25	14	1.3	127	96.8	1.1
1.00	.55	1.80	.25	16	1.3	134	101.1	1.0
1.20	.45	1.90	.25	17	1.4	140	103.7	.8

TABELLA N. 113

=====								
			Gt= 1600	Kg/mc	h = 4.00 m		sm = .25 m	
			Fi= 30	gradi	h1= .25 m		Afm= 18 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.60	1.85	.50	39	1.9	241	125.2	3.5
.20	1.40	1.85	.35	27	1.6	202	122.6	2.6
.40	1.20	1.85	.25	18	1.5	173	118.3	2.0
.60	1.00	1.85	.25	13	1.5	158	108.0	1.8
.80	.85	1.90	.25	15	1.5	165	111.9	1.5
1.00	.75	2.00	.25	17	1.5	174	116.0	1.2
1.20	.65	2.10	.25	19	1.5	183	120.0	1.0
1.40	.55	2.20	.30	21	1.7	195	117.5	.9

TABELLA N. 114

=====								
			Gt= 1600	Kg/mc	h = 4.50 m		sm = .30 m	
			Fi= 30	gradi	h1= .25 m		Afm= 22 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.80	2.10	.60	46	2.6	328	125.7	3.8
.20	1.55	2.05	.40	32	2.2	273	125.8	3.1
.40	1.35	2.05	.30	22	2.0	237	120.6	2.4
.60	1.15	2.05	.25	15	1.9	213	114.4	2.1
.80	1.00	2.10	.25	17	1.9	221	117.9	1.7
1.00	.85	2.15	.25	19	1.9	229	121.3	1.5
1.20	.75	2.25	.30	22	2.0	244	120.5	1.3
1.40	.65	2.35	.30	23	2.1	251	122.1	1.1

TABELLA N. 115

=====								
			Gt= 1600	Kg/mc	h = 2.00 m		sm = .25 m	
			Fi= 35	gradi	h1= .25 m		Afm= 7 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.65	.90	.25	10	.7	39	53.8	1.7
.20	.45	.90	.25	4	.7	31	42.8	1.1
.40	.25	.90	.25	6	.7	34	46.9	.9
.60	.15	1.00	.25	8	.8	38	50.7	.6

TABELLA N. 116

=====								
			Gt= 1600	Kg/mc	h = 2.50 m		sm = .25 m	
			Fi= 35	gradi	h1= .25 m		Afm= 9 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.80	1.05	.25	14	.9	62	69.9	2.3
.20	.60	1.05	.25	6	.9	49	55.2	1.6
.40	.45	1.10	.25	7	.9	51	56.7	1.1
.60	.30	1.15	.25	9	.9	56	61.4	.9
.80	.20	1.25	.25	10	.9	59	62.9	.6

TABELLA N. 117

=====								
			Gt= 1600 Kg/mc	h = 3.00 m		sm = .25 m		
			Fi= 35 gradi	h1= .25 m		Afm= 11 cmq		
11 (m)	12 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	1.00	1.25	.25	19	1.1	94	88.5	2.5
.20	.80	1.25	.25	11	1.1	78	73.4	1.9
.40	.65	1.30	.25	8	1.1	73	67.9	1.4
.60	.50	1.35	.25	10	1.1	78	71.7	1.1
.80	.35	1.40	.25	12	1.1	83	75.5	.9

TABELLA N. 118

=====								
			Gt= 1600 Kg/mc	h = 3.50 m		sm = .25 m		
			Fi= 35 gradi	h1= .25 m		Afm= 14 cmq		
11 (m)	12 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	1.20	1.45	.35	26	1.4	144	104.2	3.0
.20	1.00	1.45	.25	16	1.2	119	96.2	2.2
.40	.80	1.45	.25	9	1.2	103	83.2	1.8
.60	.65	1.50	.25	11	1.3	109	87.2	1.4
.80	.55	1.60	.25	13	1.3	116	91.0	1.0
1.00	.40	1.65	.25	15	1.3	122	94.8	.9

TABELLA N. 119

=====								
			Gt= 1600 Kg/mc	h = 4.00 m		sm = .25 m		
			Fi= 35 gradi	h1= .25 m		Afm= 17 cmq		
11 (m)	12 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	1.40	1.65	.45	34	1.7	207	118.8	3.5
.20	1.20	1.65	.30	22	1.5	172	115.1	2.5
.40	1.00	1.65	.25	14	1.4	150	106.2	2.0
.60	.85	1.70	.25	12	1.4	146	102.5	1.6
.80	.70	1.75	.25	15	1.4	155	107.8	1.3
1.00	.60	1.85	.25	16	1.5	160	109.4	1.1
1.20	.50	1.95	.25	18	1.5	169	113.6	.9

TABELLA N. 120

=====								
			Gt= 1600 Kg/mc	h = 4.50 m		sm = .25 m		
			Fi= 35 gradi	h1= .25 m		Afm= 20 cmq		
11 (m)	12 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	1.65	1.90	.55	42	2.2	284	130.9	3.6
.20	1.40	1.85	.40	28	1.9	236	126.5	3.0
.40	1.20	1.85	.25	19	1.6	205	129.1	2.3
.60	1.00	1.85	.25	14	1.6	190	119.7	2.0
.80	.90	1.95	.25	16	1.6	199	123.4	1.5
1.00	.75	2.00	.25	18	1.6	206	126.8	1.3
1.20	.65	2.10	.30	20	1.8	217	123.6	1.2
1.40	.55	2.20	.30	22	1.8	227	127.2	1.0

TABELLA N. 121

=====								
			Gt= 1600	Kg/mc	h = 2.00 m		sm = .25 m	
			Fi= 40	gradi	h1= .25 m		Afm= 6 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.55	.80	.25	8	.7	32	45.7	1.7
.20	.35	.80	.25	4	.7	27	38.6	1.1
.40	.20	.85	.25	6	.7	30	42.1	.7
.60	.05	.90	.25	7	.7	32	44.1	.6

TABELLA N. 122

=====								
			Gt= 1600	Kg/mc	h = 2.50 m		sm = .25 m	
			Fi= 40	gradi	h1= .25 m		Afm= 8 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.70	.95	.25	11	.9	51	59.1	2.2
.20	.50	.95	.25	5	.9	42	48.7	1.5
.40	.35	1.00	.25	7	.9	46	52.6	1.0
.60	.20	1.05	.25	9	.9	50	56.3	.8

TABELLA N. 123

=====								
			Gt= 1600	Kg/mc	h = 3.00 m		sm = .25 m	
			Fi= 40	gradi	h1= .25 m		Afm= 10 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.90	1.15	.25	17	1.0	82	79.0	2.3
.20	.70	1.15	.25	9	1.0	68	65.5	1.7
.40	.50	1.15	.25	8	1.0	66	63.6	1.4
.60	.35	1.20	.25	10	1.1	70	66.7	1.0
.80	.25	1.30	.25	11	1.1	74	68.8	.8

TABELLA N. 124

=====								
			Gt= 1600	Kg/mc	h = 3.50 m		sm = .25 m	
			Fi= 40	gradi	h1= .25 m		Afm= 12 cmq	
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.05	1.30	.30	22	1.3	117	92.5	2.9
.20	.85	1.30	.25	13	1.2	98	81.7	2.1
.40	.65	1.30	.25	9	1.2	90	75.0	1.7
.60	.50	1.35	.25	11	1.2	94	77.5	1.3
.80	.40	1.45	.25	13	1.2	101	81.6	1.0
1.00	.30	1.55	.25	14	1.3	105	83.2	.8

TABELLA N. 125

=====								
			Gt= 1600 Kg/mc			h = 4.00 m	sm = .25 m	
			Fi= 40 gradi			h1= .25 m	Afm= 15 cmq	
l1 (m)	l2 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm ²)
.00	1.25	1.50	.40	29	1.6	172	107.5	3.2
.20	1.00	1.45	.25	17	1.4	139	102.0	2.5
.40	.85	1.50	.25	11	1.4	126	91.6	1.9
.60	.70	1.55	.25	12	1.4	130	93.7	1.5
.80	.55	1.60	.25	14	1.4	136	97.1	1.2
1.00	.45	1.70	.25	16	1.4	143	100.4	1.0

TABELLA N. 126

=====								
			Gt= 1600 Kg/mc			h = 4.50 m	sm = .25 m	
			Fi= 40 gradi			h1= .25 m	Afm= 18 cmq	
l1 (m)	l2 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm ²)
.00	1.40	1.65	.45	35	1.9	231	123.7	3.8
.20	1.20	1.65	.30	23	1.6	196	121.0	2.8
.40	1.00	1.65	.25	14	1.5	171	111.2	2.2
.60	.85	1.70	.25	13	1.6	169	109.0	1.8
.80	.70	1.75	.25	15	1.6	176	112.6	1.5
1.00	.60	1.85	.25	17	1.6	184	115.9	1.2
1.20	.50	1.95	.25	19	1.6	193	119.7	1.0

TABELLA N. 127

=====								
			Gt= 1700 Kg/mc			h = 2.00 m	sm = .25 m	
			Fi= 30 gradi			h1= .24 m	Afm= 7 cmq	
l1 (m)	l2 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm ²)
.00	.75	1.00	.25	12	.8	44	58.7	1.7
.20	.55	1.00	.25	6	.8	35	46.7	1.2
.40	.35	1.00	.25	7	.8	36	48.0	1.0
.60	.25	1.10	.25	8	.8	39	50.3	.7

TABELLA N. 128

=====								
			Gt= 1700 Kg/mc			h = 2.50 m	sm = .25 m	
			Fi= 30 gradi			h1= .24 m	Afm= 10 cmq	
l1 (m)	l2 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm ²)
.00	.95	1.20	.25	17	.9	76	82.2	2.1
.20	.75	1.20	.25	9	.9	61	65.9	1.6
.40	.55	1.20	.25	7	.9	57	61.6	1.3
.60	.45	1.30	.25	9	1.0	62	65.3	.9
.80	.30	1.35	.25	11	1.0	67	69.6	.8

TABELLA N. 129

=====								
			Gt= 1700 Kg/mc	h = 3.00 m		sm = .25 m		
			Fi= 30 gradi	h1= .24 m		Afm= 13 cmq		
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm ²)
.00	1.15	1.40	.30	24	1.2	121	103.4	2.7
.20	.95	1.40	.25	14	1.1	98	89.1	2.0
.40	.80	1.45	.25	9	1.1	87	78.2	1.4
.60	.65	1.50	.25	10	1.1	90	80.0	1.1
.80	.50	1.55	.25	13	1.1	98	86.2	1.0
1.00	.40	1.65	.25	14	1.2	103	88.6	.8

TABELLA N. 130

=====								
			Gt= 1700 Kg/mc	h = 3.50 m		sm = .25 m		
			Fi= 30 gradi	h1= .24 m		Afm= 16 cmq		
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm ²)
.00	1.40	1.65	.40	32	1.5	181	117.9	3.0
.20	1.15	1.60	.30	20	1.4	146	107.7	2.5
.40	1.00	1.65	.25	13	1.3	128	99.4	1.8
.60	.80	1.65	.25	12	1.3	126	97.9	1.6
.80	.70	1.75	.25	14	1.3	133	101.3	1.2
1.00	.55	1.80	.25	16	1.3	140	105.7	1.0
1.20	.45	1.90	.25	18	1.4	148	109.6	.9

TABELLA N. 131

=====								
			Gt= 1700 Kg/mc	h = 4.00 m		sm = .25 m		
			Fi= 30 gradi	h1= .24 m		Afm= 19 cmq		
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm ²)
.00	1.60	1.85	.50	40	1.9	251	130.4	3.6
.20	1.40	1.85	.35	27	1.6	209	126.9	2.7
.40	1.20	1.85	.25	18	1.5	180	123.1	2.1
.60	1.00	1.85	.25	13	1.5	165	112.8	1.9
.80	.90	1.95	.25	15	1.5	173	116.3	1.4
1.00	.75	2.00	.25	18	1.5	184	122.7	1.3
1.20	.65	2.10	.25	19	1.5	190	124.6	1.0
1.40	.55	2.20	.30	21	1.7	201	121.1	.9

TABELLA N. 132

=====								
			Gt= 1700 Kg/mc	h = 4.50 m		sm = .30 m		
			Fi= 30 gradi	h1= .24 m		Afm= 22 cmq		
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cm ²)
.00	1.80	2.10	.60	47	2.6	332	127.2	4.0
.20	1.55	2.05	.40	32	2.2	273	125.8	3.2
.40	1.35	2.05	.30	22	2.0	237	120.6	2.5
.60	1.15	2.05	.25	15	1.9	213	114.4	2.2
.80	1.00	2.10	.25	17	1.9	221	117.9	1.8
1.00	.90	2.20	.25	19	1.9	230	121.1	1.5
1.20	.80	2.30	.30	21	2.0	242	118.6	1.3
1.40	.65	2.35	.30	24	2.1	255	124.1	1.2

TABELLA N. 133

=====								
			Gt= 1700 Kg/mc	h = 2.00 m		sm = .25 m		
			Fi= 35 gradi	h1= .24 m		Afm= 7 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.65	.90	.25	10	.7	39	53.8	1.7
.20	.45	.90	.25	4	.7	31	42.8	1.2
.40	.30	.95	.25	6	.7	34	46.1	.8
.60	.15	1.00	.25	8	.8	38	50.7	.6

TABELLA N. 134

=====								
			Gt= 1700 Kg/mc	h = 2.50 m		sm = .25 m		
			Fi= 35 gradi	h1= .24 m		Afm= 9 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.80	1.05	.25	14	.9	62	69.9	2.4
.20	.65	1.10	.25	8	.9	53	58.9	1.5
.40	.45	1.10	.25	7	.9	51	56.7	1.2
.60	.35	1.20	.25	9	.9	56	60.5	.8
.80	.20	1.25	.25	11	.9	61	65.1	.7

TABELLA N. 135

=====								
			Gt= 1700 Kg/mc	h = 3.00 m		sm = .25 m		
			Fi= 35 gradi	h1= .24 m		Afm= 11 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.00	1.25	.30	20	1.1	97	86.2	2.8
.20	.80	1.25	.25	11	1.1	78	73.4	2.0
.40	.65	1.30	.25	8	1.1	73	67.9	1.4
.60	.50	1.35	.25	10	1.1	78	71.7	1.1
.80	.40	1.45	.25	12	1.1	84	75.5	.8
1.00	.30	1.55	.25	13	1.1	88	77.4	.7

TABELLA N. 136

=====								
			Gt= 1700 Kg/mc	h = 3.50 m		sm = .25 m		
			Fi= 35 gradi	h1= .24 m		Afm= 14 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.20	1.45	.35	27	1.4	147	106.3	3.2
.20	1.00	1.45	.25	16	1.2	119	96.2	2.2
.40	.80	1.45	.25	9	1.2	103	83.2	1.9
.60	.65	1.50	.25	12	1.3	111	88.8	1.5
.80	.55	1.60	.25	13	1.3	116	91.0	1.1
1.00	.45	1.70	.25	15	1.3	123	94.6	.9

TABELLA N. 137

=====								
			Gt= 1700 Kg/mc	h = 4.00 m		sm = .25 m		
			Fi= 35 gradi	h1= .24 m		Afm= 17 cmq		
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	1.45	1.70	.45	35	1.8	213	120.7	3.3
.20	1.20	1.65	.30	22	1.5	172	115.1	2.6
.40	1.00	1.65	.25	14	1.4	150	106.2	2.1
.60	.85	1.70	.25	12	1.4	146	102.5	1.7
.80	.70	1.75	.25	15	1.4	155	107.8	1.4
1.00	.60	1.85	.25	17	1.5	163	111.5	1.1
1.20	.50	1.95	.25	18	1.5	169	113.6	.9

TABELLA N. 138

=====								
			Gt= 1700 Kg/mc	h = 4.50 m		sm = .30 m		
			Fi= 35 gradi	h1= .24 m		Afm= 20 cmq		
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	1.55	1.85	.50	40	2.3	274	120.4	4.1
.20	1.35	1.85	.35	27	2.0	231	115.6	3.0
.40	1.15	1.85	.25	18	1.8	202	111.4	2.4
.60	.95	1.85	.25	14	1.8	190	104.8	2.1
.80	.85	1.95	.25	16	1.8	199	108.3	1.6
1.00	.70	2.00	.25	19	1.9	209	113.0	1.4
1.20	.60	2.10	.30	21	2.0	220	111.1	1.2
1.40	.50	2.20	.30	22	2.0	227	112.9	1.0

TABELLA N. 139

=====								
			Gt= 1700 Kg/mc	h = 2.00 m		sm = .25 m		
			Fi= 40 gradi	h1= .24 m		Afm= 6 cmq		
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	.55	.80	.25	8	.7	32	45.7	1.8
.20	.35	.80	.25	4	.7	27	38.6	1.2
.40	.20	.85	.25	6	.7	30	42.1	.8
.60	.10	.95	.25	7	.7	32	43.4	.5

TABELLA N. 140

=====								
			Gt= 1700 Kg/mc	h = 2.50 m		sm = .25 m		
			Fi= 40 gradi	h1= .24 m		Afm= 8 cmq		
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	.70	.95	.25	12	.9	53	61.4	2.3
.20	.50	.95	.25	5	.9	42	48.7	1.6
.40	.35	1.00	.25	7	.9	46	52.6	1.1
.60	.25	1.10	.25	8	.9	49	54.4	.7

TABELLA N. 141

=====								
			Gt= 1700	Kg/mc	h = 3.00 m	sm = .25 m		
			Fi= 40	gradi	h1= .24 m	Afm= 10 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.90	1.15	.25	17	1.0	82	79.0	2.4
.20	.70	1.15	.25	9	1.0	68	65.5	1.8
.40	.50	1.15	.25	8	1.0	66	63.6	1.4
.60	.40	1.25	.25	10	1.1	71	66.8	1.0
.80	.25	1.30	.25	12	1.1	76	70.7	.8

TABELLA N. 142

=====								
			Gt= 1700	Kg/mc	h = 3.50 m	sm = .25 m		
			Fi= 40	gradi	h1= .24 m	Afm= 13 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.05	1.30	.30	22	1.3	123	97.2	3.0
.20	.85	1.30	.25	13	1.2	104	86.7	2.2
.40	.70	1.35	.25	8	1.2	94	77.5	1.6
.60	.55	1.40	.25	11	1.2	101	82.4	1.2
.80	.40	1.45	.25	13	1.2	107	86.5	1.0
1.00	.30	1.55	.25	14	1.3	111	87.9	.8

TABELLA N. 143

=====								
			Gt= 1700	Kg/mc	h = 4.00 m	sm = .25 m		
			Fi= 40	gradi	h1= .24 m	Afm= 15 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.25	1.50	.40	29	1.6	172	107.5	3.4
.20	1.00	1.45	.25	17	1.4	139	102.0	2.6
.40	.85	1.50	.25	11	1.4	126	91.6	1.9
.60	.70	1.55	.25	12	1.4	130	93.7	1.5
.80	.55	1.60	.25	14	1.4	136	97.1	1.3
1.00	.45	1.70	.25	16	1.4	143	100.4	1.0

TABELLA N. 144

=====								
			Gt= 1700	Kg/mc	h = 4.50 m	sm = .25 m		
			Fi= 40	gradi	h1= .24 m	Afm= 18 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.45	1.70	.50	37	2.0	241	122.0	3.7
.20	1.20	1.65	.30	23	1.6	196	121.0	2.9
.40	1.00	1.65	.25	15	1.5	174	113.2	2.3
.60	.85	1.70	.25	13	1.6	169	109.0	1.9
.80	.70	1.75	.25	16	1.6	179	114.6	1.5
1.00	.60	1.85	.25	18	1.6	187	117.8	1.2
1.20	.50	1.95	.25	19	1.6	193	119.7	1.0

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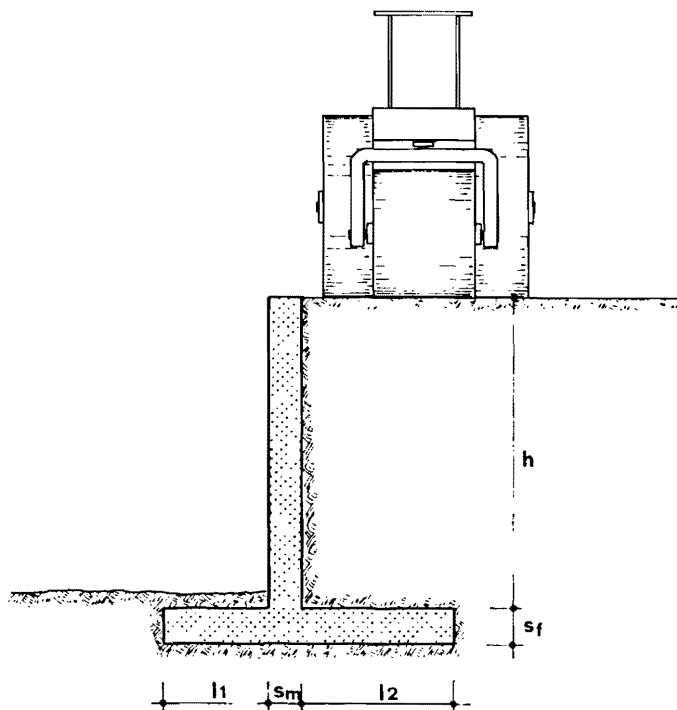


TABELLE 145 ÷ 180

γ_t kg/mc \ φ gradi	30	35	40
1600	145 ÷ 150	151 ÷ 156	157 ÷ 162
1700	163 ÷ 168	169 ÷ 174	175 ÷ 180

TABELLA N. 145

=====								
			Gt= 1600 Kg/mc	h = 2.00 m		sm = .25 m		
			Fi= 30 gradi	h1= 3.25 m		Afm= 15 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.15	1.40	.35	26	1.0	113	114.1	3.0
.20	.95	1.40	.25	16	.9	89	104.7	2.2
.40	.80	1.45	.25	10	.9	76	88.1	1.7
.60	.65	1.50	.25	12	.9	82	93.7	1.4
.80	.55	1.60	.25	14	.9	89	98.9	1.1
1.00	.50	1.75	.25	15	.9	95	101.3	.9
1.20	.40	1.85	.25	16	1.0	100	103.9	.7

TABELLA N. 146

=====								
			Gt= 1600 Kg/mc	h = 2.50 m		sm = .25 m		
			Fi= 30 gradi	h1= 2.60 m		Afm= 17 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.40	1.65	.45	33	1.4	165	120.7	3.2
.20	1.15	1.60	.30	21	1.1	128	115.8	2.6
.40	1.00	1.65	.25	14	1.0	110	106.0	1.9
.60	.85	1.70	.25	12	1.1	106	101.0	1.6
.80	.75	1.80	.25	14	1.1	113	105.1	1.2
1.00	.65	1.90	.25	16	1.1	122	110.9	1.0
1.20	.55	2.00	.25	18	1.1	130	115.6	.9

TABELLA N. 147

=====								
			Gt= 1600 Kg/mc	h = 3.00 m		sm = .30 m		
			Fi= 30 gradi	h1= 3.17 m		Afm= 22 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.65	1.95	.55	44	2.0	258	130.8	4.2
.20	1.45	1.95	.40	30	1.7	210	125.0	3.2
.40	1.25	1.95	.30	21	1.5	179	120.5	2.5
.60	1.10	2.00	.25	15	1.4	160	114.3	2.0
.80	.95	2.05	.25	17	1.4	167	118.2	1.8
1.00	.85	2.15	.25	19	1.4	177	123.1	1.4
1.20	.75	2.25	.30	22	1.6	192	121.9	1.3
1.40	.65	2.35	.30	24	1.6	203	126.5	1.2

TABELLA N. 148

=====								
			Gt= 1600 Kg/mc	h = 3.50 m		sm = .35 m		
			Fi= 30 gradi	h1= 3.71 m		Afm= 28 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.95	2.30	.70	56	2.8	387	136.5	4.9
.20	1.75	2.30	.55	41	2.5	327	131.3	3.9
.40	1.50	2.25	.40	29	2.1	274	128.9	3.3
.60	1.35	2.30	.30	21	1.9	243	126.9	2.6
.80	1.20	2.35	.25	19	1.8	235	129.7	2.2
1.00	1.10	2.45	.30	22	2.0	252	128.6	1.9
1.20	1.00	2.55	.35	24	2.1	266	125.6	1.7
1.40	.90	2.65	.35	27	2.2	282	131.0	1.5
1.60	.80	2.75	.40	29	2.3	297	127.7	1.4
1.80	.70	2.85	.40	32	2.4	315	133.2	1.3

TABELLA N. 149

=====								
			Gt= 1600 Kg/mc	h = 4.00 m		sm = .40 m		
			Fi= 30 gradi	h1= 3.25 m		Afm= 31 cmq		
11	12	l	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	2.15	2.55	.80	62	3.6	482	132.4	5.0
.20	1.90	2.50	.60	46	3.1	405	130.6	4.2
.40	1.70	2.50	.45	34	2.7	351	128.8	3.4
.60	1.50	2.50	.35	25	2.5	310	125.3	2.9
.80	1.30	2.50	.25	20	2.2	286	128.5	2.5
1.00	1.20	2.60	.30	23	2.4	304	127.7	2.1
1.20	1.10	2.70	.35	26	2.5	322	126.5	1.9
1.40	1.00	2.80	.40	29	2.7	342	125.7	1.7
1.60	.90	2.90	.40	31	2.8	356	129.0	1.5
1.80	.80	3.00	.45	34	3.0	377	127.8	1.5

TABELLA N. 150

=====								
			Gt= 1600 Kg/mc	h = 4.50 m		sm = .45 m		
			Fi= 30 gradi	h1= 2.89 m		Afm= 34 cmq		
11	12	l	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	2.30	2.75	.85	68	4.4	580	133.0	5.2
.20	2.05	2.70	.65	51	3.8	492	130.2	4.5
.40	1.80	2.65	.45	37	3.2	419	130.2	3.8
.60	1.65	2.70	.40	29	3.1	385	124.0	3.1
.80	1.45	2.70	.30	21	2.8	346	122.0	2.7
1.00	1.35	2.80	.35	24	3.0	365	121.5	2.4
1.20	1.20	2.85	.35	27	3.0	380	125.7	2.1
1.40	1.10	2.95	.40	30	3.2	401	125.1	1.9
1.60	1.00	3.05	.45	33	3.4	423	124.5	1.8
1.80	.90	3.15	.45	36	3.4	443	128.7	1.6
2.00	.80	3.25	.50	39	3.7	466	127.7	1.5

TABELLA N. 151

=====								
			Gt= 1600 Kg/mc	h = 2.00 m		sm = .25 m		
			Fi= 35 gradi	h1= 3.60 m		Afm= 14 cmq		
11	12	l	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.00	1.25	.30	23	.9	96	109.7	3.2
.20	.85	1.30	.25	14	.8	79	95.8	2.2
.40	.70	1.35	.25	9	.8	69	82.4	1.7
.60	.55	1.40	.25	11	.9	74	87.1	1.4
.80	.50	1.55	.25	13	.9	82	92.4	1.0
1.00	.40	1.65	.25	14	.9	86	94.2	.8

TABELLA N. 152

=====								
		Gt= 1600 Kg/mc		h = 2.50 m		sm = .25 m		
		Fi= 35 gradi		h1= 2.88 m		Afm= 16 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.25	1.50	.40	30	1.2	144	117.6	3.3
.20	1.00	1.45	.25	18	1.0	111	112.4	2.6
.40	.85	1.50	.25	11	1.0	95	95.0	2.0
.60	.75	1.60	.25	12	1.0	100	97.6	1.5
.80	.60	1.65	.25	14	1.0	106	102.2	1.3
1.00	.55	1.80	.25	16	1.1	115	107.0	1.0
1.20	.45	1.90	.25	17	1.1	120	109.1	.8

TABELLA N. 153

=====								
		Gt= 1600 Kg/mc		h = 3.00 m		sm = .25 m		
		Fi= 35 gradi		h1= 2.70 m		Afm= 19 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.45	1.70	.50	38	1.6	206	128.8	4.0
.20	1.25	1.70	.35	25	1.3	167	124.2	2.9
.40	1.05	1.70	.25	16	1.2	140	119.1	2.3
.60	.90	1.75	.25	13	1.2	133	112.0	1.9
.80	.80	1.85	.25	15	1.2	141	116.3	1.5
1.00	.70	1.95	.25	17	1.2	149	120.4	1.2
1.20	.60	2.05	.25	19	1.3	159	125.9	1.0
1.40	.55	2.20	.30	21	1.4	171	121.3	.9

TABELLA N. 154

=====								
		Gt= 1600 Kg/mc		h = 3.50 m		sm = .35 m		
		Fi= 35 gradi		h1= 3.38 m		Afm= 24 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.70	2.05	.60	46	2.5	303	123.4	4.4
.20	1.45	2.00	.40	31	2.0	245	121.0	3.5
.40	1.25	2.00	.30	21	1.8	210	115.1	2.9
.60	1.10	2.05	.25	15	1.7	190	109.4	2.3
.80	.95	2.10	.25	18	1.8	201	114.9	2.0
1.00	.85	2.20	.30	21	1.9	216	114.6	1.7
1.20	.75	2.30	.30	23	1.9	227	118.5	1.5
1.40	.70	2.45	.35	25	2.1	242	116.2	1.3
1.60	.60	2.55	.35	27	2.1	254	120.0	1.1

TABELLA N. 155

=====								
			Gt= 1600 Kg/mc	h = 4.00 m		sm = .40 m		
			Fi= 35 gradi	h1= 3.60 m		Afm= 29 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.90	2.30	.70	54	3.2	409	127.4	5.1
.20	1.65	2.25	.50	38	2.7	340	124.8	4.2
.40	1.45	2.25	.35	27	2.4	294	123.1	3.4
.60	1.30	2.30	.30	20	2.3	268	117.0	2.8
.80	1.15	2.35	.25	19	2.2	264	120.7	2.3
1.00	1.00	2.40	.30	23	2.3	283	122.0	2.1
1.20	.95	2.55	.35	25	2.5	299	120.0	1.8
1.40	.85	2.65	.35	27	2.5	311	123.0	1.5
1.60	.75	2.75	.40	30	2.7	330	122.2	1.4

TABELLA N. 156

=====								
			Gt= 1600 Kg/mc	h = 4.50 m		sm = .40 m		
			Fi= 35 gradi	h1= 3.20 m		Afm= 32 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	2.10	2.50	.80	63	3.8	514	135.3	5.4
.20	1.85	2.45	.60	46	3.3	434	132.7	4.6
.40	1.65	2.45	.45	34	2.9	380	130.9	3.7
.60	1.45	2.45	.35	24	2.7	336	126.4	3.2
.80	1.30	2.50	.30	20	2.6	320	125.5	2.6
1.00	1.15	2.55	.30	24	2.6	338	131.8	2.4
1.20	1.05	2.65	.35	27	2.7	356	130.5	2.1
1.40	.95	2.75	.40	30	2.9	376	129.7	1.9
1.60	.85	2.85	.40	32	2.9	390	132.7	1.7
1.80	.80	3.00	.45	34	3.2	409	129.8	1.5

TABELLA N. 157

=====								
			Gt= 1600 Kg/mc	h = 2.00 m		sm = .25 m		
			Fi= 40 gradi	h1= 4.02 m		Afm= 13 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	.90	1.15	.30	20	.8	84	99.4	3.2
.20	.70	1.15	.25	11	.8	66	83.8	2.4
.40	.60	1.25	.25	8	.8	62	76.3	1.6
.60	.50	1.35	.25	11	.8	70	83.6	1.2
.80	.40	1.45	.25	13	.9	76	88.1	1.0
1.00	.30	1.55	.25	15	.9	83	93.5	.8

TABELLA N. 158

=====								
			Gt= 1600 Kg/mc	h = 2.50 m		sm = .25 m		
			Fi= 40 gradi	h1= 3.22 m		Afm= 15 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.10	1.35	.35	26	1.1	123	112.1	3.3
.20	.90	1.35	.25	16	1.0	99	102.9	2.4
.40	.75	1.40	.25	10	1.0	87	89.2	1.9
.60	.60	1.45	.25	12	1.0	93	94.2	1.5
.80	.50	1.55	.25	14	1.0	99	97.8	1.2
1.00	.45	1.70	.25	15	1.1	105	100.0	.9

TABELLA N. 159

=====								
			Gt= 1600	Kg/mc	h = 3.00 m		sm = .25 m	
			Fi= 40	gradi	h1= 2.68 m		Afm= 17 cmq	
l1	l2	l	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.25	1.50	.40	31	1.4	164	121.5	3.8
.20	1.05	1.50	.25	19	1.1	132	117.3	2.7
.40	.90	1.55	.25	13	1.1	119	104.6	2.1
.60	.75	1.60	.25	13	1.2	120	104.3	1.7
.80	.65	1.70	.25	15	1.2	127	108.1	1.3
1.00	.55	1.80	.25	17	1.2	135	112.5	1.1
1.20	.45	1.90	.25	18	1.2	141	115.1	.9

TABELLA N. 160

=====								
			Gt= 1600	Kg/mc	h = 3.50 m		sm = .30 m	
			Fi= 40	gradi	h1= 2.90 m		Afm= 21 cmq	
l1	l2	l	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.45	1.75	.50	38	1.9	237	123.1	4.3
.20	1.25	1.75	.35	25	1.7	196	117.9	3.2
.40	1.05	1.75	.25	16	1.5	168	112.9	2.5
.60	.90	1.80	.25	14	1.5	164	109.3	2.1
.80	.80	1.90	.25	16	1.5	172	112.8	1.7
1.00	.70	2.00	.25	18	1.6	181	116.8	1.4
1.20	.60	2.10	.30	21	1.7	195	116.1	1.2
1.40	.50	2.20	.30	23	1.7	205	119.9	1.1

TABELLA N. 161

=====								
			Gt= 1600	Kg/mc	h = 4.00 m		sm = .35 m	
			Fi= 40	gradi	h1= 3.48 m		Afm= 26 cmq	
l1	l2	l	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.70	2.05	.60	48	2.6	343	130.4	4.7
.20	1.45	2.00	.45	33	2.3	286	124.3	4.0
.40	1.25	2.00	.30	22	2.0	245	122.5	3.2
.60	1.10	2.05	.25	16	1.9	225	117.6	2.5
.80	.95	2.10	.25	19	1.9	237	123.1	2.2
1.00	.85	2.20	.30	22	2.1	252	122.3	1.9
1.20	.75	2.30	.30	24	2.1	263	125.8	1.6
1.40	.65	2.40	.35	27	2.2	280	125.0	1.5

TABELLA N. 162

=====								
			Gt= 1600	Kg/mc	h = 4.50 m		sm = .40 m	
			Fi= 40	gradi	h1= 3.57 m		Afm= 30 cmq	
l1	l2	l	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.85	2.25	.70	55	3.4	440	130.4	5.5
.20	1.60	2.20	.50	38	2.9	367	126.6	4.6
.40	1.45	2.25	.40	28	2.7	330	122.2	3.5
.60	1.25	2.25	.25	20	2.4	295	124.9	2.9
.80	1.10	2.30	.30	20	2.5	299	120.1	2.6
1.00	1.00	2.40	.30	23	2.5	313	124.2	2.1
1.20	.90	2.50	.35	26	2.7	331	123.7	1.9
1.40	.80	2.60	.35	28	2.7	343	126.6	1.6
1.60	.70	2.70	.40	31	2.9	363	126.0	1.5

TABELLA N. 163

=====									
		Gt= 1700 Kg/mc		h = 2.00 m		sm = .25 m			
		Fi= 30 gradi		h1= 3.06 m		Afm= 15 cmq			
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma	
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)	
.00	1.15	1.40	.35	26	1.0	113	114.1	3.0	
.20	.95	1.40	.25	16	.9	89	104.7	2.2	
.40	.80	1.45	.25	10	.9	76	88.1	1.7	
.60	.65	1.50	.25	12	.9	82	93.7	1.4	
.80	.55	1.60	.25	14	.9	89	98.9	1.1	
1.00	.50	1.75	.25	15	.9	95	101.3	.9	
1.20	.40	1.85	.25	16	1.0	100	103.9	.8	

TABELLA N. 164

=====									
		Gt= 1700 Kg/mc		h = 2.50 m		sm = .25 m			
		Fi= 30 gradi		h1= 2.45 m		Afm= 17 cmq			
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma	
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)	
.00	1.40	1.65	.45	34	1.4	167	122.1	3.2	
.20	1.15	1.60	.30	21	1.1	128	115.8	2.6	
.40	1.00	1.65	.25	14	1.0	110	106.0	1.9	
.60	.85	1.70	.25	12	1.1	106	101.0	1.6	
.80	.75	1.80	.25	14	1.1	113	105.1	1.2	
1.00	.65	1.90	.25	16	1.1	122	110.9	1.0	
1.20	.55	2.00	.25	18	1.1	130	115.6	.9	

TABELLA N. 165

=====									
		Gt= 1700 Kg/mc		h = 3.00 m		sm = .30 m			
		Fi= 30 gradi		h1= 2.98 m		Afm= 22 cmq			
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma	
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)	
.00	1.65	1.95	.55	44	2.0	258	130.8	4.2	
.20	1.45	1.95	.40	31	1.7	213	126.8	3.2	
.40	1.25	1.95	.30	21	1.5	179	120.5	2.5	
.60	1.05	1.95	.25	14	1.4	156	112.4	2.2	
.80	.95	2.05	.25	17	1.4	167	118.2	1.8	
1.00	.85	2.15	.25	19	1.4	177	123.1	1.5	
1.20	.75	2.25	.30	22	1.6	192	121.9	1.3	
1.40	.65	2.35	.30	24	1.6	203	126.5	1.2	

TABELLA N. 166

=====									
		Gt= 1700 Kg/mc		h = 3.50 m		sm = .35 m			
		Fi= 30 gradi		h1= 3.49 m		Afm= 28 cmq			
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma	
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)	
.00	1.95	2.30	.70	57	2.8	391	137.9	4.9	
.20	1.70	2.25	.50	40	2.4	318	135.3	4.0	
.40	1.50	2.25	.40	29	2.1	274	128.9	3.3	
.60	1.30	2.25	.30	20	1.9	238	125.3	2.8	
.80	1.15	2.30	.25	19	1.8	234	130.0	2.3	
1.00	1.05	2.40	.30	22	1.9	250	128.5	2.0	
1.20	.95	2.50	.35	25	2.1	268	127.6	1.8	
1.40	.85	2.60	.35	28	2.1	284	133.0	1.6	
1.60	.80	2.75	.40	29	2.3	297	127.7	1.4	
1.80	.70	2.85	.40	32	2.4	315	133.2	1.3	

TABELLA N. 167

=====								
			Gt= 1700 Kg/mc	h = 4.00 m		sm = .40 m		
			Fi= 30 gradi	h1= 3.06 m		Afm= 31 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	2.15	2.55	.80	63	3.6	486	133.5	5.0
.20	1.90	2.50	.60	46	3.1	405	130.6	4.2
.40	1.65	2.45	.45	33	2.7	344	127.3	3.6
.60	1.50	2.50	.35	25	2.5	310	125.3	2.9
.80	1.30	2.50	.30	20	2.4	288	122.6	2.6
1.00	1.20	2.60	.30	23	2.4	304	127.7	2.2
1.20	1.10	2.70	.35	26	2.5	322	126.5	1.9
1.40	1.00	2.80	.40	29	2.7	342	125.7	1.8
1.60	.90	2.90	.40	31	2.8	356	129.0	1.6
1.80	.80	3.00	.45	34	3.0	377	127.8	1.5

TABELLA N. 168

=====								
			Gt= 1700 Kg/mc	h = 4.50 m		sm = .45 m		
			Fi= 30 gradi	h1= 2.72 m		Afm= 34 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	2.30	2.75	.85	68	4.4	580	133.0	5.3
.20	2.05	2.70	.65	51	3.8	492	130.2	4.5
.40	1.80	2.65	.50	37	3.4	421	125.7	3.9
.60	1.60	2.65	.35	27	3.0	372	126.0	3.3
.80	1.45	2.70	.30	21	2.8	346	122.0	2.7
1.00	1.30	2.75	.35	25	3.0	367	122.8	2.5
1.20	1.20	2.85	.35	28	3.0	385	127.4	2.2
1.40	1.10	2.95	.40	31	3.2	406	126.7	2.0
1.60	1.00	3.05	.45	34	3.4	428	126.0	1.8
1.80	.90	3.15	.45	36	3.4	443	128.7	1.6
2.00	.80	3.25	.50	39	3.7	466	127.7	1.6

TABELLA N. 169

=====								
			Gt= 1700 Kg/mc	h = 2.00 m		sm = .25 m		
			Fi= 35 gradi	h1= 3.39 m		Afm= 14 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.00	1.25	.30	23	.9	96	109.7	3.2
.20	.80	1.25	.25	13	.8	75	92.3	2.5
.40	.70	1.35	.25	9	.8	69	82.4	1.7
.60	.55	1.40	.25	11	.9	74	87.1	1.4
.80	.50	1.55	.25	13	.9	82	92.4	1.0
1.00	.40	1.65	.25	15	.9	89	97.5	.8

TABELLA N. 170

=====								
		Gt= 1700 Kg/mc		h = 2.50 m		sm = .25 m		
		Fi= 35 gradi		h1= 2.71 m		Afm= 16 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.25	1.50	.40	30	1.2	144	117.6	3.3
.20	1.00	1.45	.25	18	1.0	111	112.4	2.6
.40	.85	1.50	.25	11	1.0	95	95.0	2.0
.60	.75	1.60	.25	12	1.0	100	97.6	1.5
.80	.60	1.65	.25	14	1.0	106	102.2	1.3
1.00	.55	1.80	.25	16	1.1	115	107.0	1.0
1.20	.45	1.90	.25	17	1.1	120	109.1	.8

TABELLA N. 171

=====								
		Gt= 1700 Kg/mc		h = 3.00 m		sm = .25 m		
		Fi= 35 gradi		h1= 2.54 m		Afm= 19 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.45	1.70	.50	38	1.6	206	128.8	4.0
.20	1.25	1.70	.35	25	1.3	167	124.2	2.9
.40	1.05	1.70	.25	16	1.2	140	119.1	2.3
.60	.90	1.75	.25	13	1.2	133	112.0	1.9
.80	.80	1.85	.25	15	1.2	141	116.3	1.5
1.00	.70	1.95	.25	17	1.2	149	120.4	1.2
1.20	.60	2.05	.25	19	1.3	159	125.9	1.0
1.40	.50	2.15	.30	22	1.4	173	124.0	1.0

TABELLA N. 172

=====								
		Gt= 1700 Kg/mc		h = 3.50 m		sm = .35 m		
		Fi= 35 gradi		h1= 3.18 m		Afm= 25 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.70	2.05	.60	46	2.5	309	125.9	4.4
.20	1.45	2.00	.40	32	2.0	254	125.4	3.6
.40	1.25	2.00	.30	22	1.8	219	120.0	2.9
.60	1.10	2.05	.25	16	1.7	199	114.5	2.3
.80	.95	2.10	.25	18	1.8	207	118.3	2.0
1.00	.85	2.20	.30	21	1.9	222	117.8	1.7
1.20	.75	2.30	.30	23	1.9	233	121.7	1.5
1.40	.65	2.40	.35	26	2.1	250	121.1	1.4

TABELLA N. 173

=====								
		Gt= 1700 Kg/mc		h = 4.00 m		sm = .40 m		
		Fi= 35 gradi		h1= 3.39 m		Afm= 29 cmq		
11	12	1	sf	Aff	Vcs	Pf	Pf/Vcs	Sigma
(m)	(m)	(m)	(m)	(cmq)	(mc)	(Kg)	(Kg/mc)	(Kg/cmq)
.00	1.90	2.30	.70	55	3.2	413	128.7	5.1
.20	1.65	2.25	.50	39	2.7	343	125.9	4.2
.40	1.45	2.25	.35	28	2.4	297	124.4	3.4
.60	1.25	2.25	.25	19	2.2	261	120.7	2.9
.80	1.15	2.35	.30	20	2.3	270	117.1	2.4
1.00	1.00	2.40	.30	23	2.3	283	122.0	2.2
1.20	.90	2.50	.35	26	2.5	301	121.6	1.9
1.40	.80	2.60	.35	28	2.5	313	124.7	1.7
1.60	.75	2.75	.40	30	2.7	330	122.2	1.5

TABELLA N. 174

=====								
		Gt= 1700 Kg/mc		h = 4.50 m		sm = .40 m		
		Fi= 35 gradi		h1= 3.01 m		Afm= 32 cmq		
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	2.10	2.50	.80	63	3.8	514	135.3	5.4
.20	1.85	2.45	.60	46	3.3	434	132.7	4.6
.40	1.65	2.45	.45	34	2.9	380	130.9	3.7
.60	1.45	2.45	.35	25	2.7	340	127.9	3.2
.80	1.30	2.50	.30	21	2.6	324	127.1	2.7
1.00	1.15	2.55	.30	24	2.6	338	131.8	2.4
1.20	1.05	2.65	.35	27	2.7	356	130.5	2.1
1.40	.95	2.75	.40	30	2.9	376	129.7	1.9
1.60	.85	2.85	.40	32	2.9	390	132.7	1.7
1.80	.80	3.00	.45	34	3.2	409	129.8	1.5

TABELLA N. 175

=====								
		Gt= 1700 Kg/mc		h = 2.00 m		sm = .25 m		
		Fi= 40 gradi		h1= 3.78 m		Afm= 13 cmq		
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	.90	1.15	.30	20	.8	84	99.4	3.2
.20	.70	1.15	.25	11	.8	66	83.8	2.4
.40	.60	1.25	.25	8	.8	62	76.3	1.6
.60	.50	1.35	.25	11	.8	70	83.6	1.2
.80	.40	1.45	.25	13	.9	76	88.1	1.0
1.00	.30	1.55	.25	15	.9	83	93.5	.8

TABELLA N. 176

=====								
		Gt= 1700 Kg/mc		h = 2.50 m		sm = .25 m		
		Fi= 40 gradi		h1= 3.03 m		Afm= 15 cmq		
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	1.10	1.35	.35	26	1.1	123	112.1	3.3
.20	.90	1.35	.25	16	1.0	99	102.9	2.4
.40	.75	1.40	.25	10	1.0	87	89.2	1.9
.60	.60	1.45	.25	12	1.0	93	94.2	1.6
.80	.50	1.55	.25	14	1.0	99	97.8	1.2
1.00	.45	1.70	.25	15	1.1	105	100.0	.9

TABELLA N. 177

=====								
		Gt= 1700 Kg/mc		h = 3.00 m		sm = .25 m		
		Fi= 40 gradi		h1= 2.52 m		Afm= 17 cmq		
11 (m)	12 (m)	1 (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	1.25	1.50	.40	32	1.4	167	123.7	3.8
.20	1.05	1.50	.30	20	1.2	136	113.3	2.9
.40	.90	1.55	.25	13	1.1	119	104.6	2.1
.60	.75	1.60	.25	13	1.2	120	104.3	1.7
.80	.65	1.70	.25	15	1.2	127	108.1	1.3
1.00	.55	1.80	.25	17	1.2	135	112.5	1.1
1.20	.45	1.90	.25	18	1.2	141	115.1	1.0

TABELLA N. 178

=====								
			Gt= 1700 Kg/mc			h = 3.50 m	sm = .30 m	
			Fi= 40 gradi			h1= 2.73 m	Afm= 21 cmq	
l1 (m)	l2 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	1.45	1.75	.50	39	1.9	240	124.7	4.3
.20	1.25	1.75	.35	26	1.7	199	119.7	3.2
.40	1.05	1.75	.25	17	1.5	171	115.0	2.6
.60	.90	1.80	.25	14	1.5	164	109.3	2.1
.80	.80	1.90	.25	16	1.5	172	112.8	1.7
1.00	.70	2.00	.25	18	1.6	181	116.8	1.4
1.20	.60	2.10	.30	21	1.7	195	116.1	1.2
1.40	.50	2.20	.30	23	1.7	205	119.9	1.1

TABELLA N. 179

=====								
			Gt= 1700 Kg/mc			h = 4.00 m	sm = .35 m	
			Fi= 40 gradi			h1= 3.27 m	Afm= 26 cmq	
l1 (m)	l2 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	1.65	2.00	.60	47	2.6	336	129.2	5.2
.20	1.45	2.00	.45	33	2.3	286	124.3	4.0
.40	1.25	2.00	.30	23	2.0	248	124.0	3.2
.60	1.10	2.05	.25	16	1.9	225	117.6	2.5
.80	.95	2.10	.25	19	1.9	237	123.1	2.2
1.00	.85	2.20	.30	22	2.1	252	122.3	1.9
1.20	.75	2.30	.30	24	2.1	263	125.8	1.6
1.40	.65	2.40	.35	27	2.2	280	125.0	1.5

TABELLA N. 180

=====								
			Gt= 1700 Kg/mc			h = 4.50 m	sm = .40 m	
			Fi= 40 gradi			h1= 3.36 m	Afm= 30 cmq	
l1 (m)	l2 (m)	l (m)	sf (m)	Aff (cmq)	Vcs (mc)	Pf (Kg)	Pf/Vcs (Kg/mc)	Sigma (Kg/cmq)
.00	1.85	2.25	.70	55	3.4	440	130.4	5.5
.20	1.60	2.20	.50	38	2.9	367	126.6	4.6
.40	1.40	2.20	.35	27	2.6	322	125.3	3.7
.60	1.25	2.25	.30	20	2.5	297	120.0	3.0
.80	1.10	2.30	.30	20	2.5	299	120.1	2.6
1.00	1.00	2.40	.30	23	2.5	313	124.2	2.2
1.20	.90	2.50	.35	26	2.7	331	123.7	1.9
1.40	.80	2.60	.40	29	2.8	350	123.2	1.7
1.60	.70	2.70	.40	31	2.9	363	126.0	1.5