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GRUPPO FS ITALIANE

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Direzione Progettazione e Realizzazione Lavori

ITINERARIO INTERNAZIONALE E78 S.G.C. GROSSETO – FANO
Tratto Selci Lama (E45) – S. Stefano di Gaifa
Adeguamento a 2 corsie della Galleria della Guinza (lotto 2)
e del tratto Guinza – Mercatello Ovest (lotto 3)
1° stralcio

PROGETTO DEFINITIVO

COD. AN58

PROGETTAZIONE: ANAS - DIREZIONE PROGETTAZIONE E REALIZZAZIONE LAVORI

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PROTOCOLLO

DATA:

OPERE D'ARTE MINORI

Paratia locale impianti galleria Guinza lato Marche

Relazione di calcolo

CODICE PROGETTO	NOME FILE	REVISIONE	
PROGETTO / LIV. PROG. / N. PROG.: LO702M D 1801	T00OM03GETRE01A		
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D					
C					
B					
A	EMISSIONE	Giugno 2018			

INDICE

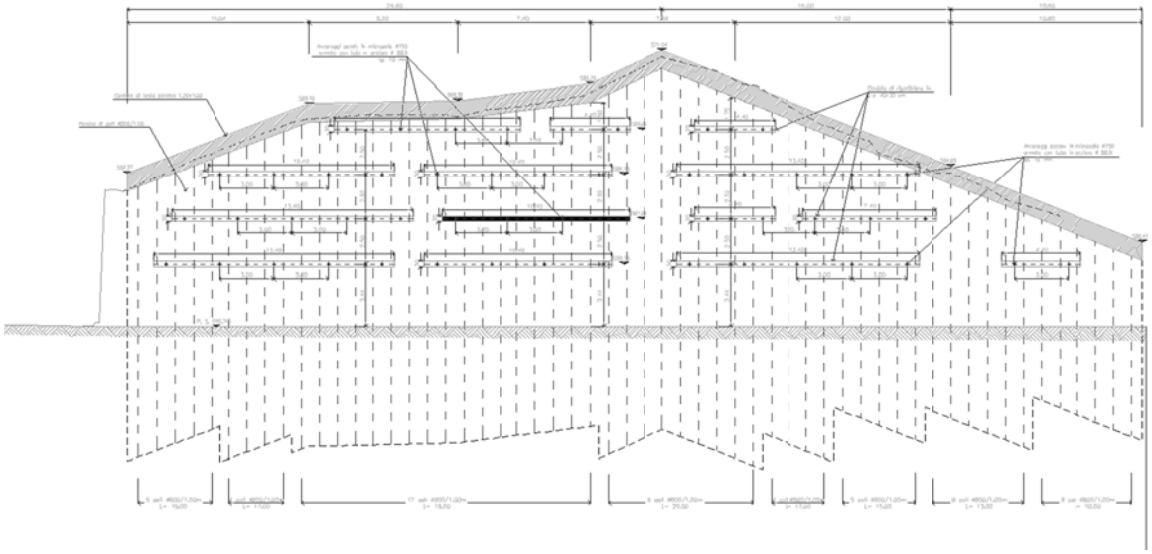
1. INTRODUZIONE

La presente relazione fa parte della documentazione allegata al Progetto Definitivo della paratia dell'edificio impianti situato in prossimità dell'imbocco lato Marche della galleria della Guinza facente parte dell'Itinerario Internazionale E78 S.G.C. Grosseto – Fano – Tratto Selci Lama (E45) – S. Stefano di Gaifa - Adeguamento a 2 corsie della Galleria della Guinza (lotto 2) e del tratto Guinza – Marcatello Ovest (lotto 3).

La galleria della Guinza è un traforo stradale a canna unica di lunghezza pari a 5960 m, non ancora aperto al traffico, situato nell'Appennino umbro-marchigiano.

In mancanza di dati ricavati da indagini in sito e successiva caratterizzazione, sono state dedotte informazioni utili dal certificato di collaudo della paratia, di cui nel seguito si riportano degli stralci.

Nel seguito è riportata la sviluppata dalla paratia in prossimità dell'edificio impianti.



Sviluppata paratia edificio impianti

L'opera da realizzare è una paratia definitiva costituita da pali in calcestruzzo armato di diametro pari a 80cm posti ad interasse 1m.

Vista la natura definitiva dell'opera si è optato, nella scelta della tipologia di vincolo, per ancoraggi passivi costituiti da micropali Φ150 armati con tubolari in acciaio S355 Φ88.9 spessore 10 mm.

Vi sono al massimo 4 ordini di ancoraggi passivi inclinati 15° sull'orizzontale posti ad interasse trasversale pari a 3m.

La trave di ripartizione in calcestruzzo armato ha dimensioni 40 x 30 cm. L'armatura della stessa è costituita da 6+6 ferri longitudinali Φ18 posti ai lati della trave con copriferro pari a 5cm; l'armatura a taglio è costituita da staffe Φ12 con interasse pari a 20cm.

2. RIFERIMENTI NORMATIVI E BIBLIOGRAFICI

[1] Decreto Ministero Infrastrutture 14/01/2008 "Nuove norme tecniche per le costruzioni".

[2] Circolare Ministero Infrastrutture e Trasporti 02/02/2009 n. 617 "Istruzioni per l'applicazione delle Nuove Norme Tecniche per le Costruzioni di cui al DM 14/01/2008".

[3] D.M. 9 Gennaio 1996 "Norme Tecniche per il calcolo, l' esecuzione ed il collaudo delle strutture in cemento armato normale e precompresso e per le strutture metalliche"

[4] D.M. 16 Gennaio 1996 "Norme Tecniche relative ai criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi".

[5] Circolare 156 del 04.07.1996 "Istruzioni per l'applicazione delle Norme tecniche relative ai criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi".

[6] D.M. 16.01.1996 "Norme tecniche per le costruzioni in zone sismiche".

[7] Eurocodice 1 "Basi di calcolo ed azioni sulle strutture - Parte 1: Basi di calcolo", ottobre 1996.

[8] Eurocodice 7 "Progettazione geotecnica - Parte 1: Regole generali", aprile 1997.

[9] Eurocodice 8 "Indicazioni progettuali per la resistenza sismica delle strutture – Parte 1-1: Regole generali - azioni sismiche e requisiti generali per le strutture", ottobre 1997.

[10] Ordinanza 3274 del 20/03/03 del Consiglio dei ministri – Allegato 1 – "Criteri per l'individuazione delle zone sismiche – Individuazione, formazione e aggiornamento degli elenchi nelle medesime zone".

[11] Ordinanza 3274 del 20/03/03 del Consiglio dei ministri – Allegato 4 – "Norme Tecniche per il progetto sismico delle opere di fondazione e sostegno dei terreni".

3. SOFTWARE UTILIZZATI

- Paratie Plus 2012. Software di calcolo per l'analisi e le verifiche geotecniche e strutturali di paratie.

- GeoSlope 2012. Software di calcolo per l'analisi e le verifiche geotecniche per la stabilità dei versanti.

4. CARATTERISTICHE DEI MATERIALI E DEGLI ELEMENTI UTILIZZATI

CARATTERISTICHE DI RESISTENZA DEI MATERIALI IMPIEGATI

Per quanto riguarda le caratteristiche dei materiali utilizzate nei calcoli di verifica, si è considerato:

CALCESTRUZZO PER PALIFICATA E TRAVI DI RIPARTIZIONE:

D.M. 14/01/2008 e UNI EN 1992-1-1			
CLASSE	**C 28/35**		classe identificativa del calcestruzzo
αcc	**0.85**		coefficiente riduttivo per le resistenze di lunga durata
γc	**1.5**		coefficiente parziale di sicurezza del calcestruzzo
Rck	**35**	Mpa	resistenza cubica caratteristica
in esercizio			
fck	29.05	MPa	resistenza cilindrica caratteristica
fcm	37.05	MPa	resistenza cilindrica media
fcd	**16.46**	MPa	resistenza a compressione di calcolo
fctm	-2.83	MPa	resistenza media a trazione semplice (assiale)
fctk0.05	-1.98	MPa	frattile 5% della resistenza a trazione semplice
fctk0.95	-3.69	MPa	frattile 95% della resistenza a trazione semplice
fctd	-1.32	MPa	resistenza a trazione semplice di calcolo
fcfm	-3.40	MPa	resistenza media a trazione per flessione
fcfk0.05	-2.38	MPa	frattile 5% della resistenza a trazione per flessione
fcfk0.95	-4.42	MPa	frattile 95% della resistenza a trazione per flessione
Ecm	32588	MPa	modulo elastico secante tra la tensione nulla e 0.40fcm
Ec	34218	MPa	modulo elastico tangente
v	**0.2**		coefficiente di Poisson
G	13578	MPa	modulo di rigidezza al taglio
tensioni massime in esercizio			
0.60fck	**17.43**	MPa	combinazione caratteristica (rara)
0.45fck	**13.07**	MPa	combinazione quasi permanente
fcfd	-1.59	MPa	resistenza a trazione per flessione di calcolo
fctm / 1.2	**-2.36**	MPa	trazione limite per la formazione di fessure

ACCIAIO PER CALCESTRUZZO ARMATO:

D.M. 14/01/2008 e UNI EN 1992-1-1			
B450C			
fy.nom	**450**	MPa	valore nominale della tensione caratteristica di snervamento
ft.nom	**540**	MPa	valore nominale della tensione caratteristica di rottura
fyk	450	MPa	valore caratteristico della tensione di snervamento
ftk	540	MPa	valore caratteristico della tensione di rottura
γs	1.15		coefficiente parziale di sicurezza relativo all'acciaio
fyd	**391.30**	MPa	resistenza di calcolo
Es	**2.06E+05**	MPa	modulo elastico dell'acciaio

ACCIAIO PER TUBOLARI:

tipo: S355
tensione caratteristica di snervamento: fyk = 355 MPa
modulo elastico: Es = 210000 MPa

5. QUADRO GEOTECNICO DI RIFERIMENTO

In mancanza di dati ricavati da campagne indagini e relative caratterizzazioni, come parametri geotecnici in input all'interno delle analisi numeriche sono stati adottati gli stessi delle opere circostanti, in particolare la paratia di imbocco lato Umbria della galleria Guinza.

I gruppi geomeccanici in cui si è sintetizzato il terreno interessato dalla paratia presentano le seguenti caratteristiche geotecniche:

Litotipo	**γ** [kN/m^3]	**ϕ'** [°]	**c'** [kPa]	**E** [MPa]
Coltre detritica	18	30	0	30
Marna arenacea	21	35	200	1000

Parametri geotecnici di calcolo

Nella zona interessata dalla paratia, da vecchi elaborati grafici di progetto dell'imbocco ovest canna di monte della galleria Valpiana, si può evincere che il terreno limitrofo la paratia da realizzare è stato parzialmente consolidato attraverso interventi di jet grouting.

Ciò fa pensare che la coltre detritica superficiale abbia uno spessore superiore rispetto alla zona interessata dall'imbocco lato Umbria.

Per questo motivo, a vantaggio di sicurezza, è stata ipotizzata una coltre detritica superficiale di spessore pari a 9m, adottando ii parametri sopra riportati e non considerando l'eventuale presenza di una porzione di terreno consolidato attraverso l'intervento di jet-grouting.

6. PARATIA DI PALI

Il progetto prevede la realizzazione di una paratia definitiva costituita da pali in c.a. di diametro pari a 0.80m posti ad interasse 1m.

I pali sono di lunghezza massima pari a 20m; l'altezza massima di scavo è pari a circa 14m.

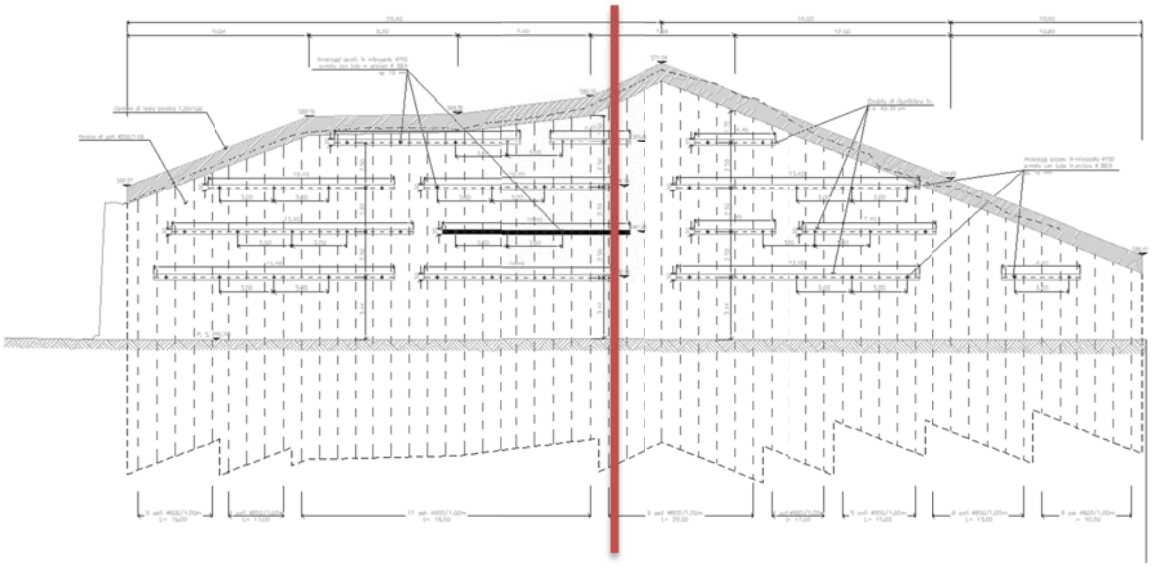
I pali circolari sono armati con 24 tondini Φ20; per contrastare l'azione tagliante è prevista una spirale di acciaio Φ12 interasse 15cm.

Sono previsti fino a 4 ordini di ancoraggi passivi realizzati con micropali Φ150mm armati con tubolari in acciaio S355 Φ88.9 spessore 10mm. Gli ancoraggi sono inclinati di 15° rispetto all'orizzontale.

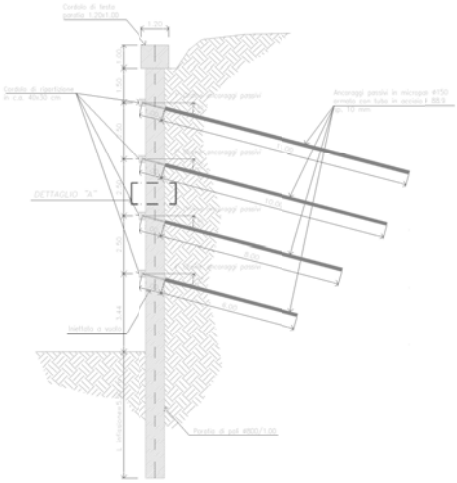
Gli ancoraggi passivi sono posti ad interasse trasversale pari a 3m.

Le travi di ripartizione sono in c.a. e presentano una sezione pari a 40cm x 30cm. È prevista un'armatura longitudinale composta da 6+6 tondini Φ18 con un copriferro pari a 5cm. L'armatura a taglio della trave è costituita da staffe Φ12 interasse 20cm.

Nella figura successiva è riportata la sezione di calcolo della paratia



Sviluppata paratia edificio impianti – Sezione di calcolo



Sezione di calcolo paratia

6.1 MODELLO DI CALCOLO

Le analisi di stabilità locale delle opere di sostegno e quelle per la valutazione delle sollecitazioni negli elementi resistenti (pali e tiranti) sono state condotte mediante l'ausilio del codice di calcolo PARATIE PLUS (release 2012 – CeAS). In tale codice la schematizzazione dell'interazione tra paratia e terreno avviene considerando:

- la paratia come una serie di elementi il cui comportamento è caratterizzato dalla rigidezza flessionale EJ,
- il terreno come una serie di molle di tipo elasto-plastico connesse ai nodi della paratia.

Questo modello numerico consente una simulazione del comportamento del terreno adeguata agli scopi progettuali. In particolare vengono superate le limitazioni dei più tradizionali metodi dell'equilibrio limite, non idonei a seguire il comportamento della struttura al variare delle configurazioni di carico, delle fasi esecutive e di esercizio. Nel caso in esame, in una generica fase di calcolo dell'analisi di interazione tra paratia e terreno la soluzione viene a dipendere dal percorso tensio-deformativo seguito dagli elementi schematizzanti il terreno nelle fasi precedenti; dalle variazioni di spinta o reazione del terreno indotte dalla progressione degli scavi, dall'inserimento di tiranti, dalle variazioni delle condizioni idrostatiche e di sovraccarico, etc.

La legge costitutiva, rappresentativa del comportamento elasto–plastico del terreno, è identificata dai parametri di spinta e di deformabilità del terreno.

I parametri di spinta del terreno sono:

- il coefficiente di spinta a riposo K0, corrispondente alla condizione iniziale in deformata per terreni normal consolidati, calcolato mediante l'espressione K0 = 1-sen φ';
- i coefficienti di spinta attiva KA e passiva KP, corrispondenti alle condizioni di equilibrio limite attivo e passivo, calcolati rispettivamente mediante le espressioni di Coulomb e Caquot e Kerisel, tenendo conto di un angolo di attrito tra terreno e paratia.

I parametri di deformabilità del terreno, che compaiono nella definizione della rigidezza delle molle, sono assegnati sulla base dei valori di modulo di Young (E) dei vari strati, tenendo conto della diversa rigidezza in fase di carico vergine oppure di scarico e ricarico. In particolare il modulo di ricarico è assunto pari al doppio del modulo vergine.

Nella tabella seguente è riportata la successione delle fasi di modellazione della paratia:

FASE	DESCRIZIONE
1	Condizione iniziale geostatica
2	Realizzazione paratia esistente
3	I fase di scavo
4	Applicazione del I ordine di tiranti
5	II fase di scavo
6	Applicazione del II ordine di tiranti
	.....
N-1	Ultima fase di scavo
N	Applicazione delle azioni sismiche

Nelle verifiche sismiche le azioni generate dal sisma ed agenti in direzione orizzontale sulla struttura sono considerate come segue:

- Incremento di spinta dovuto al terreno a tergo della paratia ΔF= Fs – F, dove:

- F rappresenta la spinta esercitata dal terreno in condizioni statiche, calcolata come integrale, sull'altezza di scavo, della tensione orizzontale esercitata dal terreno in condizioni di equilibrio limite attivo e fornita dall'espressione:

$\sigma h = Ka\ \sigma v0 - 2\ c\ (Ka)^{0.5}$

- Fs rappresenta la spinta esercitata dal terreno in condizioni sismiche, calcolata come integrale, sull'altezza di scavo, della tensione orizzontale esercitata dal terreno in condizioni sismiche e fornita dall'espressione:

$\sigma hs = Kas\ \sigma v0 - 2\ c\ (Kas)^{0.5}$

Nelle due espressioni i simboli rappresentano:

σv0= γ z = tensione verticale

c = coesione

Ka, Kas = rispettivamente coefficiente di spinta attiva in condizioni statiche (calcolato con il metodo di Coulomb) e sismico (calcolato con il metodo di Mononobe-Okabe).

6.2 AZIOINE SISMICA

In quanto opera definitiva per quanto riguarda il calcolo dell'azione sismica si è fatto riferimento ad una classe d'uso III, vita nominale 50 anni e SLU (SLV).

Secondo la classificazione sismica del territorio nazionale introdotta dal DM2008, alla paratia in esame (considerando Vita nominale = 50 anni; Classe d'uso = III) corrisponde un'accelerazione orizzontale massima pari a: ag = 0.229g allo SLU (SLV).

L'azione sismica agente sulla paratia è stata considerata con un approccio di tipo pseudo-statico. I coefficienti sismici utilizzati per l'analisi sono:

kh = α*βm*S*ag/g = 0.165 coefficiente sismico orizzontale

con:

α = 0.978

βm = 0.524 c coefficiente di riduzione dell'accelerazione massima attesa in sito

S = SS*ST = 1.4076

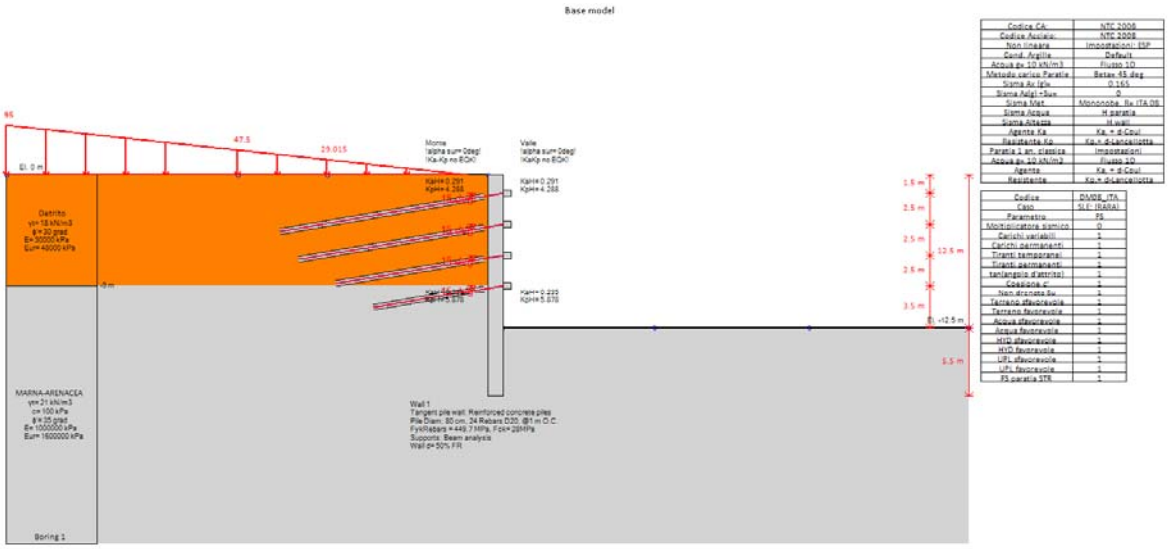
dove:

SS = 1.173 coefficiente di amplificazione stratigrafica

ST = 1.2 coefficiente di amplificazione topografica

6.3 CARATTERISTICHE SEZIONE DI VERIFICA

La sezione di paratia modellata all'interno delle analisi numeriche presenta un'altezza di scavo pari a 12.5m con 4 ordini di ancoraggi passivi; la lunghezza complessiva dei pali è posta pari a 18m con un'infissione pari a circa 5.5m.



Paratia edificio impianti – Sezione di calcolo

Nella tabella seguente sono riportate le caratteristiche della paratia verificata con i dati di input inseriti all'interno del software di calcolo.

PARATIA - GUINZA EDIFICIO IMPIANTI				
DATI MATERIALI			Unità di misura	
	Tipologia		[kN - m]	
Calcestruzzo	C28/35			
Acciao per c.a.	B450C			
Acciao tubolari ancoraggi passivi	S355			
DATI PARATIA				
Tipo	Pali in c.a.			
Interasse	1			
D palo	0.8			
H scavo	12.5			
L paratia	18			
L infissione	5.5			
Armatura longit.	24 Φ20			
Staffe a spirale	Φ12 / 15cm			
DATI ANCORAGGI (ancoraggi passivi - micropali armati con tubolare in acciaio)	**ORDINE 1**	**ORDINE 2**	**ORDINE 3**	**ORDINE 4**
Profondità	-1.5	-4	-6.5	-9
Angolo	15	15	15	15
Diametro perforazione	0.15	0.15	0.15	0.15
Tubolare in acciaio	Φ88.9 sp. 10mm	Φ88.9 sp. 10mm	Φ88.9 sp. 10mm	Φ88.9 sp. 10mm
F iniziale	0	0	0	0
Interasse	3	3	3	3
L libera	1	1	1	1
L fondazione	11	10	8	6
DATI TRAVE DI RIPARTIZIONE				
Tipo	Trave in c.a.			
Dimensioni	0.4 x 0.3			
Armatura longit.	6+6 Φ18			
Staffe	Φ12 / 20cm			

Le analisi di dimensionamento sono state eseguite conformemente al D.M. 14 Gennaio 2008 (NTC 2008), con il metodo degli stati limite ultimi SLU (sicurezza nei confronti della rottura) e degli stati limite di esercizio SLE (deformazioni compatibili con la destinazione d'uso).

Design Code	Design Case	F(tan	F	F	F	F(perm	F(temp	F(perm	F(temp	F Earth	F Earth	F GWT	F GWT	F HYD	F HYD	F UPL	F UPL
Name		fr)	(c')	(Su)	(EQ)	load)	load)	sup)	sup)	(Dstab)	(stab)	(Dstab)	(stab)	(Dstab)	(stab)	(Dstab)	(stab)
DM08_ITA	SLE: (RARA)	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
DM08_ITA	1: A1+M1+R1	1	1	1	0	1.3	1.5	1.2	1.1	1.3	1	1.3	1	1.3	0.9	1	1
DM08_ITA	2: A2+M2+R1	1.25	1.25	1.4	0	1	1.3	1.2	1.1	1	1	1	1	1.3	0.9	1	1
DM08_ITA	EQK - GEO	1.25	1.25	1.4	1	1	1	1.2	1.1	1	1	1	1	1.3	0.9	1	1
DM08_ITA	EQK - STR	1	1	1	1	1	1	1.2	1.1	1	1	1	1	1	1	1	1
DM08_ITA	3: A1+M1+R3	1	1	1	0	1.3	1.5	1.2	1.1	1.3	1	1.3	1	1.3	0.9	1	1

Combinazioni di carico

6.4 RISULTATI DELLE ANALISI E VERIFICHE

Si riporta nella tabella seguente un quadro di sintesi dei risultati ottenuti.

In particolare, da sinistra verso destra sono riportati l'approccio di calcolo esaminato, lo spostamento massimo registrato in seno alla paratia, i valori massimi delle sollecitazioni nelle paratie (momento flettente e taglio), i tassi di sfruttamento massimi (rapporto azioni di progetto-resistenze di progetto) e il rapporto tra la spinta passiva totale e la spinta passiva mobilitata.

Di seguito si riporta il dettaglio del significato delle colonne.

- Spostamento paratia: valore dello spostamento massimo in seno alla paratia.
- Momento paratia (kNm/m): momento massimo riscontrato sul singolo palo, distribuito su un metro di sviluppo.
- Taglio paratia (kN/m): taglio massimo riscontrato sul singolo palo, distribuito su un metro di sviluppo.
- Verifica presso-flessione (TSF): verifica paratia soggetta a presso-flessione; valore peggiore tra N costante ed eccentricità costante in termini di tasso di sfruttamento.
- Verifica taglio (TSF) paratia: tasso di sfruttamento della paratia soggetta a taglio.
- Max. reazione vincoli (kN): massimo carico assiale riscontrato sugli ancoraggi.
- Passiva/Vera (analisi NL): rappresenta il rapporto tra la spinta passiva e la spinta effettivamente mobilitata a valle.

E' possibile che la tabella riporti in alcune posizioni il simbolo N/A (Not Available). Tale sigla indica che la particolare verifica non è attiva per la combinazione di calcolo in esame.

Per illustrare in dettaglio la situazione, sono riportate nel seguito le seguenti rappresentazioni grafiche:

- diagrammi inviluppo dei massimi valori delle deformazioni in seno alla paratia – valori in cm nelle combinazioni SLE;
- diagramma inviluppo dei massimi valori del momento flettente sulla paratia - valori in kNm a metro lineare - per la combinazione in cui è massimo il valore del momento flettente sollecitante; viene riportato anche il grafico con il momento resistente di progetto (linee verticali rosse). La verifica a pressoflessione risulta soddisfatta, in quanto MEd < MRd.
- diagramma inviluppo dei massimi valori della forza di taglio sulla paratia - valori in kN a metro lineare - per la combinazione in cui è massimo il valore del taglio sollecitante; viene riportato anche il grafico con il taglio resistente di progetto (linee verticali rosse). La verifica a taglio risulta soddisfatta, in quanto VEd < VRd.

- variazione in funzione della storia di carico del coefficiente di sicurezza globale della struttura FS, definito in termini di rapporto tra spinta passiva e spinta effettiva mobilitata nel tratto infisso. Risulta, nel pieno rispetto dei vincoli prefissati in precedenza:

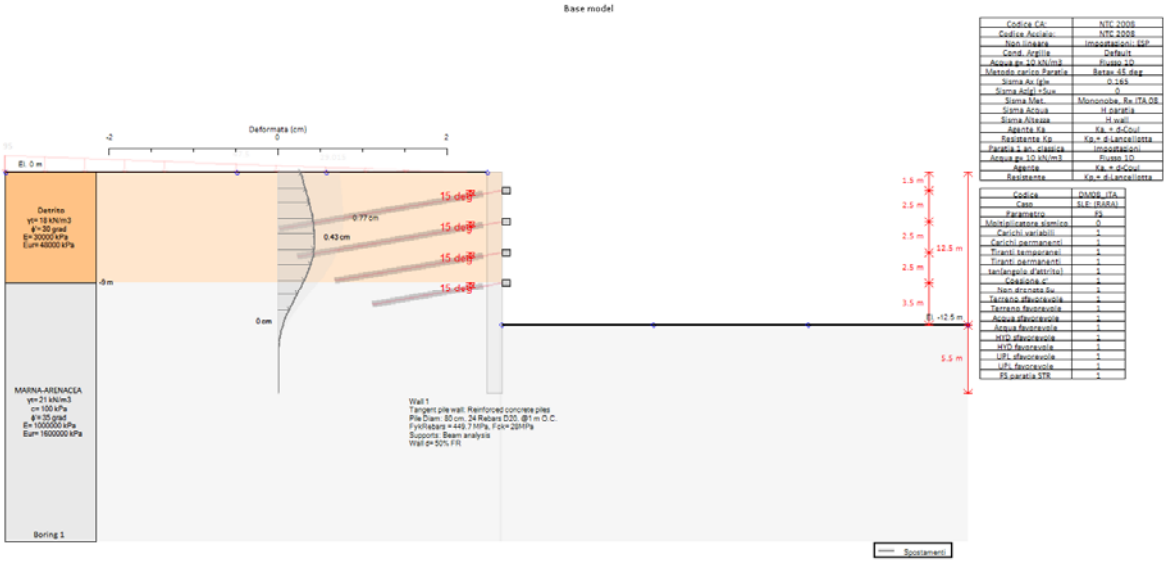
FSSLE 1 = 8.5 > FSSLE,adm = 1.5

FSSLU EQK GEO = 4.3 > FSSLU A2+M2+R1,adm = 1.0

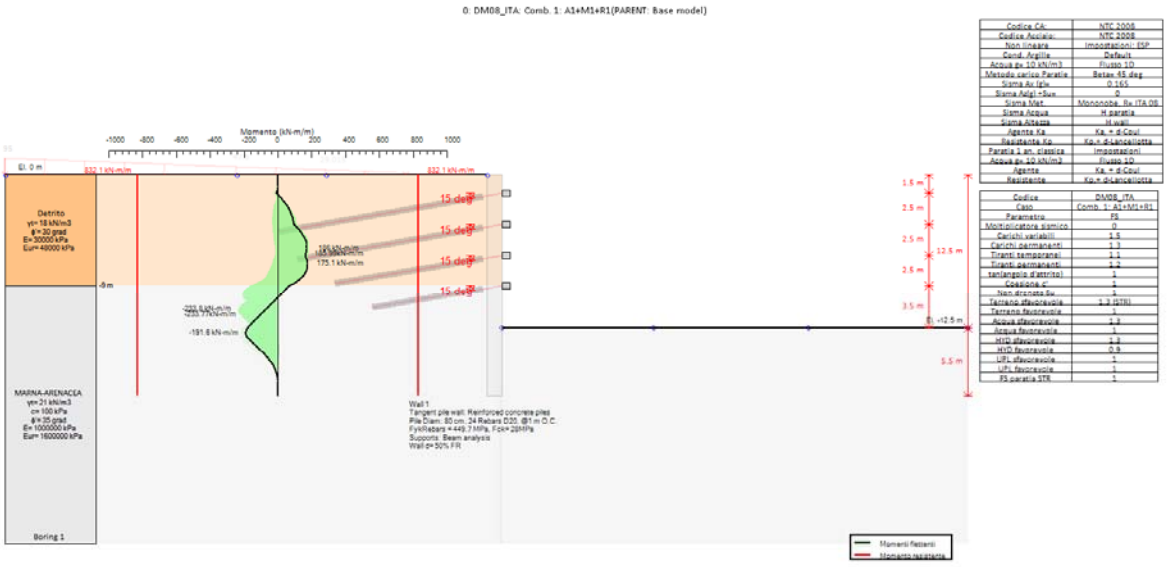
Quanto dedotto numericamente risulta compatibile con le condizioni di lavoro delle opere in oggetto.

Per ulteriori dettagli, si rimanda alla consultazione dei tabulati di calcolo allegati alla presente relazione.

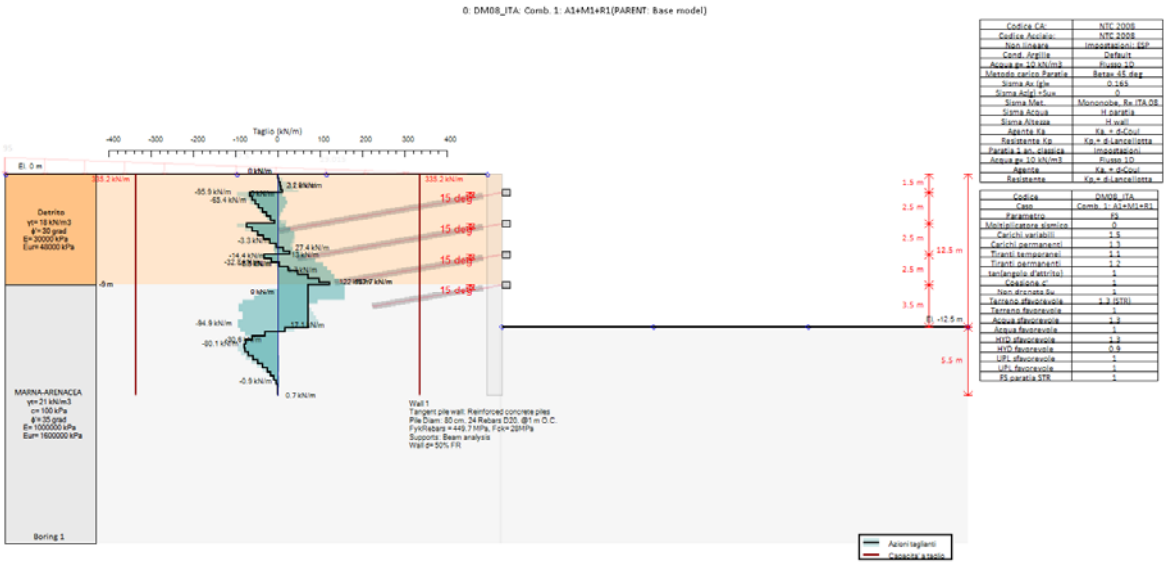
		Spostamento X paratia (cm)	Momento paratia (kN-m/m)	Taglio paratia (kN/m)	Verifica presso flessione (TSF)	Verifica taglio (TSF)	Max. reazione vincoli (kN)	Passiva/Vera (analisi NL)
SLE	Base model	0.43	179.82	121.27	0.22	0.36	202	8.5
SLU A1+M1+R1	DM08_ITA: Comb. 1: A1+M1+R1	0.43	233.77	157.65	0.28	0.47	263	8.5
SLU A2+M2+R1	DM08_ITA: Comb. 2: A2+M2+R1	0.54	220.9	148.72	0.27	0.44	252	4.7
SLU EQK-GEO	DM08_ITA: EQK-GEO	0.77	228.22	148.72	0.27	0.44	500	4.3
SLU EQK-STR	DM08_ITA: EQK-STR	0.63	187.14	121.27	0.23	0.36	416	7.8



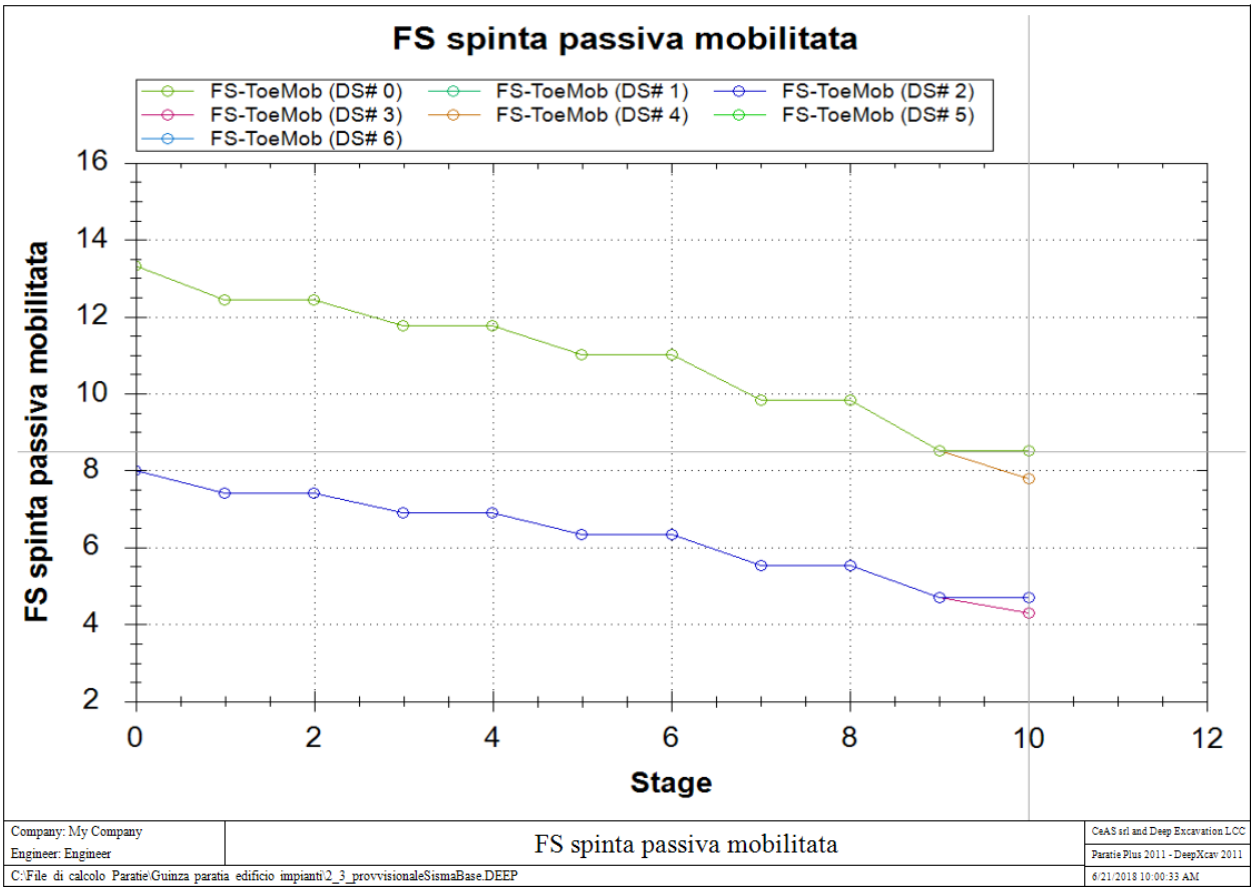
SLE – Diagramma inviluppo spostamenti



SLU A1+M1+R1 – Diagramma inviluppo momento flettente



SLU A1+M1+R1 – Diagramma inviluppo taglio



FS spinta passiva/vera

7. VERIFICHE DI STABILITA' GLOBALE

E' stata affrontata di seguito la verifica di stabilità globale del pendio in oggetto, in presenza dell'opera di sostegno in accordo con le nuove norme tecniche (NTC2008), con il programma di calcolo GeoSlope2012.

La stratigrafia ed i parametri geotecnici utilizzati all'interno della modellazione sono analoghi a quelli adottati all'interno delle analisi per il dimensionamento strutturale delle opere.

Secondo le NTC 2008, il livello di sicurezza di un versante è espresso come rapporto tra resistenza al taglio disponibile, presa con il suo valore caratteristico, e sforzo di taglio mobilitato lungo la superficie di scorrimento:

$Fs = \tau s / \tau m$

Dove τs è la resistenza al taglio disponibile, valutata con parametri caratteristici, e τm lo sforzo di taglio mobilitato lungo la superficie di scorrimento sotto l'azione dei carichi. Il grado di sicurezza ritenuto accettabile dal progettista deve essere giustificato sulla base del livello di conoscenze raggiunto, dell'affidabilità dei dati disponibili e del modello di calcolo adottato in relazione alla complessità geologica e geotecnica, nonché sulla base delle conseguenze di un'eventuale frana.

Nella verifica dei versanti invece si assume, per la verifica agli stati limite ultimi (SLU), così come nell'EC7 che sia rispettata la condizione:

$Ed \leq Rd$ (DM 2008 paragrafo 6.3.4)

Risulta inoltre necessario considerare la presenza di un'azione sismica; l'accelerazione considerata all'interno dei calcoli è la medesima di quella adottata all'interno delle verifiche strutturali delle opere.

Le verifiche di stabilità globale vengono condotte attraverso il programma GeoSlope. In accordo con l'approccio di verifica adottato, nel modello si introducono le caratteristiche di resistenza dei terreni divise per l'opportuno coefficiente parziale.

Nel programma si imposta la geometria del problema, e si individua, attraverso un reticolo di dimensioni e infittimento opportuno, una zona in cui è ragionevole ipotizzare la posizione del centro delle possibili superfici di scivolamento, e un fascio di rette a cui le stesse superfici sono tangenti. Il programma considera tutte le possibili superfici ed indica quella critica, cioè col minore valore del coefficiente di sicurezza.

Si ipotizza che la superficie di scivolamento passi all'interno della coltre superficiale o al massimo all'interfaccia tra la coltre ed il substrato litoide.

7.1 AZIONE SISMICA

La stabilità delle scarpate viene verificata anche in condizione sismica; si applica l'azione del sisma nelle due direzioni orizzontale e verticale.

L'accelerazione orizzontale massima è pari a:

ag = 0.229g allo SLU (SLV).

kh = βm S ag/g = 0.09

kv= ±0.5 kh

con:

βm = 0.28 (Tab. 7.11.II)

S = SS ST = 1.41

dove:

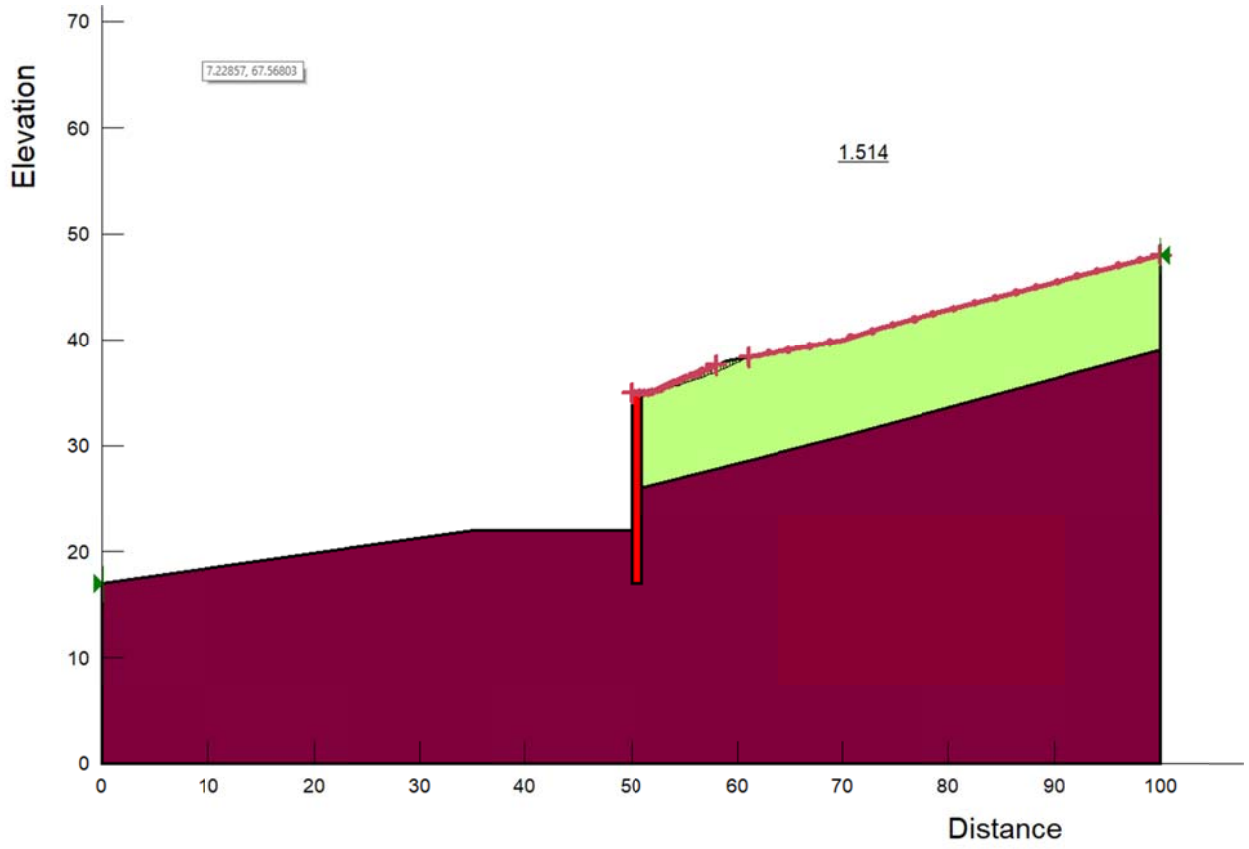
SS = 1.173 coefficiente di amplificazione stratigrafica (Tab. 3.2.V)

ST = 1.2 coefficiente di amplificazione topografica (Tab. 3.2.VI)

7.2 RISULTATI E VERIFICHE

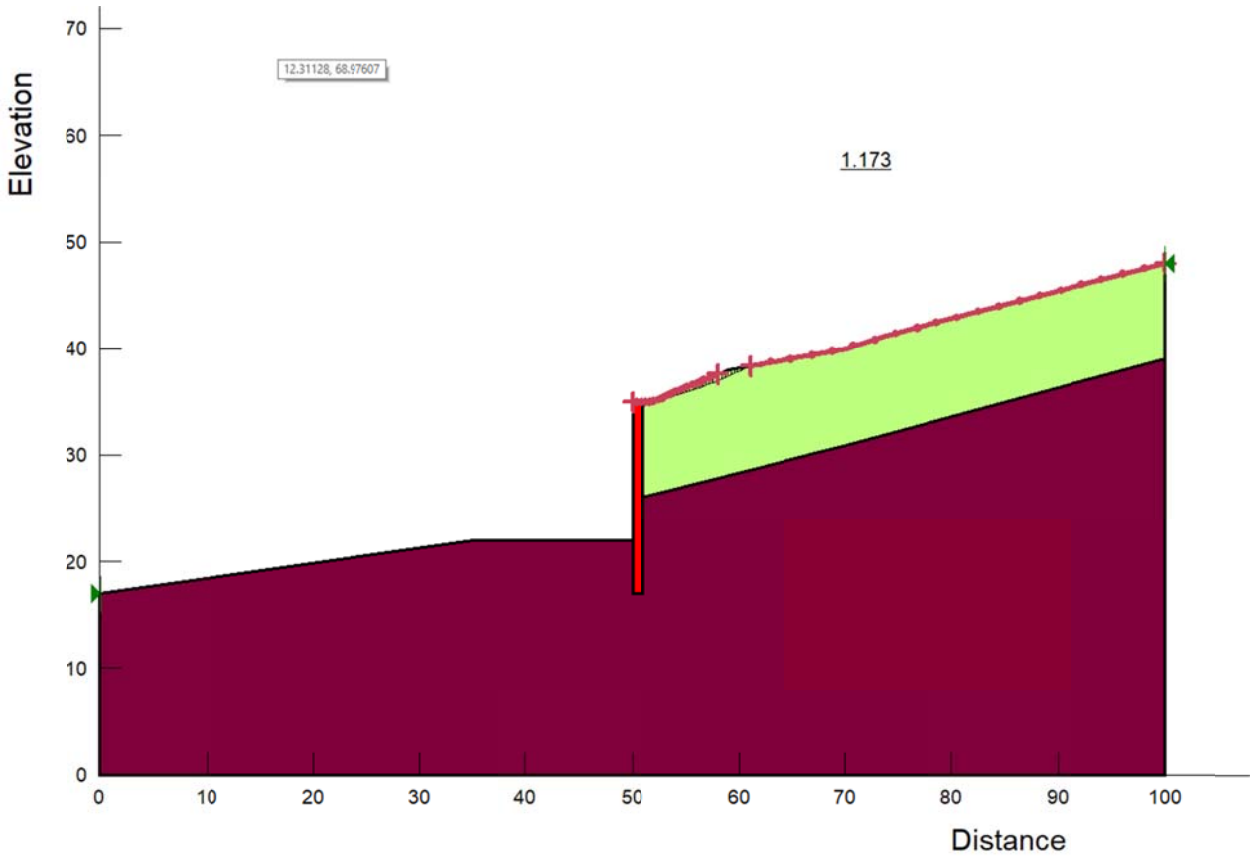
Di seguito sono riportati i risultati nei casi stati e sismici

Per il caso statico si ha la situazione riportata di seguito:



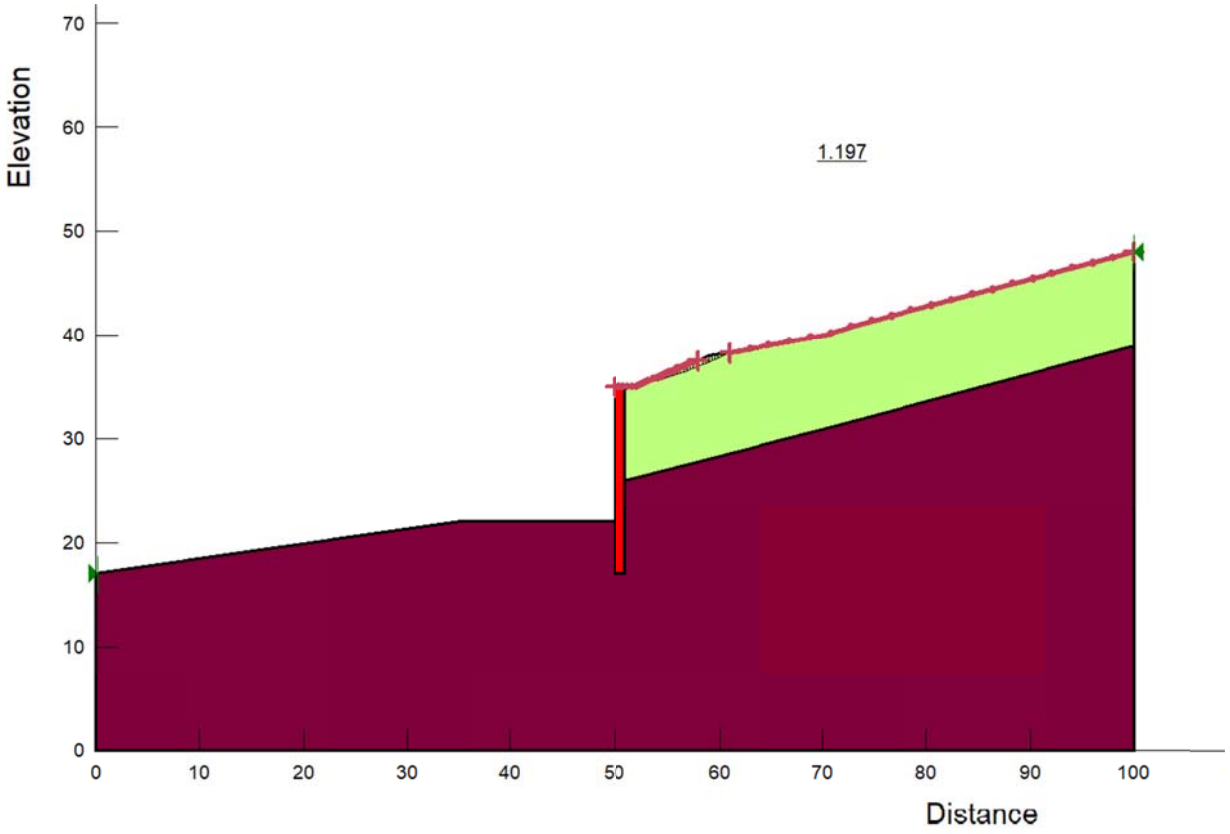
Si ottiene un coefficiente di sicurezza F= 1.514>1.1 per cui la verifica è soddisfatta:

Per il caso sismico (sisma orizzontale + verticale verso il basso) si ha la situazione riportata di seguito:



Si ottiene un coefficiente di sicurezza F= 1.173>1 per cui la verifica è soddisfatta:

Per il caso sismico (sisma orizzontale + verticale verso l'alto) si ha la situazione riportata di seguito:



Si ottiene un coefficiente di sicurezza F= 1.197>1 per cui la verifica è soddisfatta.

8. ALLEGATI DI CALCOLO

8.1 OUTPUT PARATIE PLUS

Paratie Plus 2012

Ce.A.S. , Centro di Analisi Strutturale, viale Giustiniano 10, 20129 Milano.www.ceas.it.DeepExcavation LLC, Astoria, New York.www.deepexcavation.com.UN PROGRAMMA NONLINEARE AD ELEMENTI FINITI PER L'ANALISI DI STRUTTURE DI SOSTEGNO FLESSIBILI

Progetto:

Società: My Company
Preparato dall'Ing. Engineer
Numero File: Edificio Impianti
Ora: 6/21/2018 10:25:10 AM

File: C:\File di calcolo Paratie\Guinza paratia edificio impianti\2_3_provvisionaleSismaBase.DEEP

Progetto: Paratia edificio impianti
Risultati per l'Approccio di Progetto 0: Base model

DATI TERRENO

Name	g tot	g dry	Frict	C'	Su	FRp	FRcv	Eload	Eur	kAp	kPp	kAcv	kPcv	Vary	Spring	Color
	(kN/m3)	(kN/m3)	(deg)	(kPa)	(kPa)	(deg)	(deg)	(kPa)	(kPa)	NL	NL	NL	NL		Model	
Detrito	18	18	30	0	N/A	N/A	N/A	30000	48000	0.33	3	N/A	N/A	True	Linear	
MARNA-ARENACEA	21	21	35	100	N/A	N/A	N/A	1000000	1600000	0.27	3.69	N/A	N/A	True	Linear	

Name	Poisson	Min Ka	Min sh	ko.NC	nOCR	aH.EXP	aV.EXP	qSkin	qNails	kS.nails	PL
	v	(clays)	(clays)	-	-	(0 to 1)	(0 to 1)	(kPa)	(kPa)	(kN/m3)	(MPa)
Detrito	0.35	-	-	0.5	0.5	-	-	180	33.1	3143.04	-
MARNA-ARENACEA	0.45	-	-	0.426	0.5	-	-	200	466.9	31430.45	-

gtot=peso specifico /totale terreno
gdry=peso secco del terreno
Frict=angolo di attrito di calcolo
C'=coesione efficace
Su = Coesione non drenata, parametro attivo per terreni tipo CLAY in condizioni NON drenate
Dilat=Dilatanza terreno (parametro valido solo in analisi non lineare)
Evc=modulo a compressioen vergine molla equivalente terreno
Eur=modulo di scarico/ricarico (fase elastica) molla equivalente terreno
Kap= coefficiente di spinta attiva di picco
Kpp= coefficiente di spinta passiva di picco
Kacv= coefficiente di spinta attiva di picco
Kpcv= coefficiente di spinta passiva di picco
Spring models= modalità di definizione dei moduli di rigidezza molle terreno (LIN, EXP, SIMC)
LIN= Lineare-Elastico-Perfettamente plastico
EXP: esponenziale, SUB: Modulo di reazione del sottosuolo
SIMC= Modo semplificato per argille

STRATIGRAFIA TERRENI

Top Elev= quota superiore strato

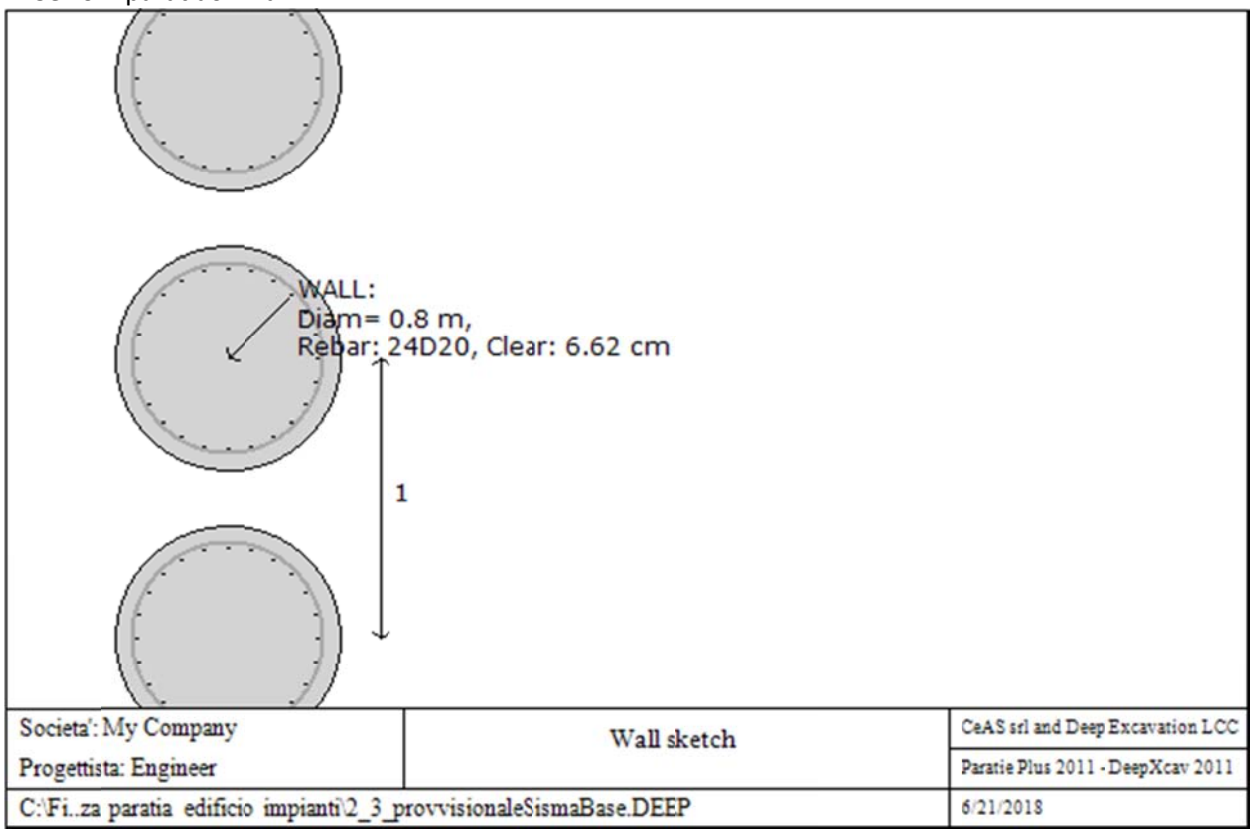
Soil type=nome del terreno
OCR=rapporto di sovraconsolidazione
K0=coefficiente di spinta a riposo

Nome: Boring 1, pos: (-20, 0)

Top elev.	Soil type	OCR	Ko
0	Detrito	1	0.5
-9	MARNA-ARENACEA	1	0.43

DATI PARATIE

Sezioni paratia0: Wall 1



Sezioni paratia0: Wall 1
Tipo paratia: Pali tangenti: pali in calcestruzzo armato
Quota sommita' paratia: 0 m Quota piede paratia: -18 m
Dimensione fuori piano paratia: 1 Spessore paratia = 0.8
Ampiezza zona spinta passiva al di sotto del piano di scavo: 1 Ampiezza zona spinta attiva al di sotto del piano di scavo: 1 Swater= 1
fc' cls = 28 Fy barre = 449.7 Ecls = 29962 FcT calcestruzzo a trazione = 10% di Fc'
Attrito paratia: % attrito terreno = 50%
Le capacita' paratie in acciaio sono calcolate con NTC 2008
Le capacita' paratie in calcestruzzo sono calcolate con NTC 2008

Nota: con la capacita' ultima si dovrebbe adottare un fattore di sicurezza strutturale.
Proprieta' paratie di pali tangenti
Tipo di sezione di calcestruzzo:
Dimensioni della sezione
D = 80 cm, A = 5026.54824574367 cm2, Ixx = 2010619.29829747 cm4
Armatura longitudinale
Barre cima: N = 24 barre #D20 = AsTop 75.408 cm2, Ctop = 7.62 cm
Armatura a taglio
Bar #D12 = As 1.131 cm2, sV = 15 cm

DATI GENERALI PARATIA
Hor wall spacing=interasse tra pannelli
passive width below exc=larghezza di riferimento per calcolo zona passiva per analisi classica
concrete f'c=fck=res cilindrica caratteristica cls
Rebar fy=fyk=res caratteristica acciaio armature
Econc=modulo elastico cls
Concrete tension fct=fctk=resistenza caratteristica a trazione cls
Steel members fy=fyk=res caratteristica acciaio
Esteel=modulo elastico acciaio
DATI TABELLATI (si omette la spiegazione dei parametri già descritti in precedenza)
1) Diaphragm wall=sezione rettangolare in CA
N/A= il valore non è disponibile in quanto non correlato al tipo di sezione in uso
Fy=fyk
F'c=fck
D=altezza paratia
B=base paratia
tf=spessore
2)Steel sheet pile=palancolata
DES=tipo di palancolata
Shape=forma
W=peso per unità di lunghezza
A=area
h=altezza
t=spessore lamiera orizzontale
b=base singolo elemento a Z o U
s=spessore lati obliqui
Ixx=inerzia asse principale palancolata (per unità di lunghezza)
Sxx=modulo di resistenza asse principale palancolata (per unità di lunghezza)
3)Secant pile wall (pali allineati e sovrapposti), Tangent pile wall=pali allineati (Berlinesi, micropali), soldier pile (pali in acciaio con collegamento in cls), soildier pile and timber lagging (pali in acciiao con colleghamento con elementi in legno)
W=peso per unità di lunghezza
A=area
D=diametro
tw o tp=spessore dell'anima (sezione a I) o del tubo (sezione circolare)
bf=larghezza della sezione
tf=spessore dell'ala
k=altezza flangia + altezza raccordo
Ixx=inerzia rispetto asse orizzontale (per unità di lunghezza)
Sxx=modulo di resistenza rispetto asse orizzontale (per unità di lunghezza)
rx=raggio giratore d'inerzia lungo x
Iyy=inerzia rispetto asse verticale (per unità di lunghezza)
Syy=modulo di resistenza rispetto asse verticale (per unità di lunghezza)

ry=raggio giratore d'inerzia lungo y
Cw=costante di ingobbamento
fy=fyk

DATI SEZIONI TIRANTI

Name	Fy	Fc'	Dfix	Number	Dinside	Afree	Efree	Pa STR	Pu STR	PresGr	FSgeo	UserGcap	Pa GEO	Pu GEO	WireModel
	(MPa)	(MPa)	(cm)	Strands	(cm)	(cm2)	(MPa)	(kN)	(kN)	(kPa)			(kN)	(kN)	Si'/No
CHS88.9X10	355	24.8	15	1	6.89	24.79	210000	765.3	765.3	N/A	1.4	False	N/A	N/A	Si'

DATI VINCOLI, TIRANTI, PUNTONI, ECC

Vincolo 0: Tipo = Tirante
X = 0.8 m, Z = -1.5 m, S = 3 m
Lfree = 1 m, Lfix = 11 m, Rfix = 50 %
Paratia:Wall 1

Stage No	Active	Prestress	Slab live load	User add. strain	Is base slab
	Si'/No	(kN)	(kPa)	+expansion	Yes/No
0	No	-	-	-	-
1	No	450	-	-	-
2	Si'	-	-	-	-
3	Si'	-	-	-	-
4	Si'	-	-	-	-
5	Si'	-	-	-	-
6	Si'	-	-	-	-
7	Si'	-	-	-	-
8	Si'	-	-	-	-
9	Si'	-	-	-	-
10	Si'	-	-	-	-

Vincolo 1: Tipo = Tirante
X = 0.8 m, Z = -4 m, S = 3 m
Lfree = 1 m, Lfix = 10 m, Rfix = 50 %
Paratia:Wall 1

Stage No	Active	Prestress	Slab live load	User add. strain	Is base slab
	Si'/No	(kN)	(kPa)	+expansion	Yes/No
0	No	-	-	-	-
1	No	450	-	-	-

2	No	-	-	-	-
3	No	-	-	-	-
4	Si'	-	-	-	-
5	Si'	-	-	-	-
6	Si'	-	-	-	-
7	Si'	-	-	-	-
8	Si'	-	-	-	-
9	Si'	-	-	-	-
10	Si'	-	-	-	-

Vincolo 2: Tipo = Tirante
X = 0.8 m, Z = -6.5 m, S = 3 m
Lfree = 1 m, Lfix = 8 m, Rfix = 50 %
Paratia:Wall 1

Stage No	Active	Prestress	Slab live load	User add. strain	Is base slab
	Si'/No	(kN)	(kPa)	+expansion	Yes/No
0	No	-	-	-	-
1	No	-	-	-	-
2	No	-	-	-	-
3	No	-	-	-	-
4	No	-	-	-	-
5	No	-	-	-	-
6	Si'	-	-	-	-
7	Si'	-	-	-	-
8	Si'	-	-	-	-
9	Si'	-	-	-	-
10	Si'	-	-	-	-

Vincolo 3: Tipo = Tirante
X = 0.8 m, Z = -9 m, S = 3 m
Lfree = 1 m, Lfix = 6 m, Rfix = 50 %
Paratia:Wall 1

Stage No	Active	Prestress	Slab live load	User add. strain	Is base slab
	Si'/No	(kN)	(kPa)	+expansion	Yes/No
0	No	-	-	-	-
1	No	-	-	-	-
2	No	-	-	-	-
3	No	-	-	-	-
4	No	-	-	-	-
5	No	-	-	-	-
6	No	-	-	-	-
7	No	-	-	-	-

8	Si'	-	-	-	-
9	Si'	-	-	-	-
10	Si'	-	-	-	-

Support type= tipo di vincolo
Tieback=tirante
Strut=puntone
Raker=Sbadacchio
LEGENDA PER TIRANTI
Dati generali
Z=quota vincolo
S=interasse in direzione orizzontale
Lfree=lunghezza tratto elastico
Lfix=lunghezza tratto rigido
Rfix=% sfruttamento tratto rigido
Stage No=numero step di scavo
Active=stato tirante (YES=attivo)
Post stress= precarico tirante (carico moltiplicato per interasse)
Walls= indica il nome della paratia alla quale il vincolo è applicato
Nel caso di solette indica il punto di partenza e cioè la paratia di sinistra

APPROCCI DI PROGETTO E FATTORI DI COMBINAZIONE

Moltiplicatori e fattori di riduzione utilizzati per ogni Approccio di Progetto

Stage	Design Code	Design Case	F(tan	F	F	F	F(perm	F(temp	F(perm	F(temp	F Earth	F Earth	F GWT	F GWT	F HYD	F HYD	F UPL	F UPL
	Name		fr)	(c')	(Su)	(EQ)	load)	load)	sup)	sup)	(Dstab)	(stab)	(Dstab)	(stab)	(Dstab)	(stab)	(Dstab)	(stab)
0	DM08_ITA	SLE: (RARA)	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
1	DM08_ITA	SLE: (RARA)	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
2	DM08_ITA	SLE: (RARA)	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
3	DM08_ITA	SLE: (RARA)	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
4	DM08_ITA	SLE: (RARA)	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
5	DM08_ITA	SLE: (RARA)	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
6	DM08_ITA	SLE: (RARA)	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
7	DM08_ITA	SLE: (RARA)	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
8	DM08_ITA	SLE: (RARA)	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
9	DM08_ITA	SLE: (RARA)	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1
10	DM08_ITA	SLE: (RARA)	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1

Legenda
Stage: Fase di scavo
Design Code: Normativa in accordo alla quale vengono eseguite le verifiche
Ftan fr: moltiplicatore della tangente dell'angolo di attrito

F C': moltiplicatore della coesione efficace
F Su': moltiplicatore coesione non drenata
F EQ: moltiplicatore azione sismica
F perm load: moltiplicatore carichi permanenti
F temp load: moltiplicatore carichi accidentali/variabili
F perm supp: fattore di riduzione della resistenza allo sfilamento dei tiranti, intesi come permanenti
F temp supp: fattore di riduzione della resistenza allo sfilamento dei tiranti, intesi come temporanei
F earth Dstab: moltiplicatore della spinta attiva, caso sfavorevole
F earth stab: moltiplicatore della spinta attiva, caso favorevole
F GWT Dstab (ground water): moltiplicatore della spinta idrostatica, caso sfavorevole
F GWT stab (ground water): moltiplicatore della spinta idrostatica, caso favorevole
F HYD Dstab: moltiplicatore della spinta idrodinamica, caso sfavorevole
F HYD stab: moltiplicatore della spinta idrodinamica, caso favorevole
F UPL Dstab: moltiplicatore per la verifica a sifonamento, caso sfavorevole
F UPL stab: moltiplicatore per la verifica a sifonamento, caso favorevole

CARICHI DI SUPERFICIE

Di seguito si riportano i carichi di superficie. Il carico di superifcie rappresenta un carico di pressione parziale o lungo quanto le superifici di monte/valle
uniforme o trapezioidale.

Sovraccarico 0: X1 = -25, X2 = -1

Sovraccarico permanente

Stage No	Active	X1	Z1	qX1	qZ1	X2	Z2	qX2	qZ2
	Si'/No	(m)	(m)	(kPa)	(kPa)	(m)	(m)	(kPa)	(kPa)
0	Si'	-25	0	0	95	-1	0	0	0
1	Si'	-25	0	0	95	-1	0	0	0
2	Si'	-25	0	0	95	-1	0	0	0
3	Si'	-25	0	0	95	-1	0	0	0
4	Si'	-25	0	0	95	-1	0	0	0
5	Si'	-25	0	0	95	-1	0	0	0
6	Si'	-25	0	0	95	-1	0	0	0
7	Si'	-25	0	0	95	-1	0	0	0
8	Si'	-25	0	0	95	-1	0	0	0
9	Si'	-25	0	0	95	-1	0	0	0
10	Si'	-25	0	0	95	-1	0	0	0

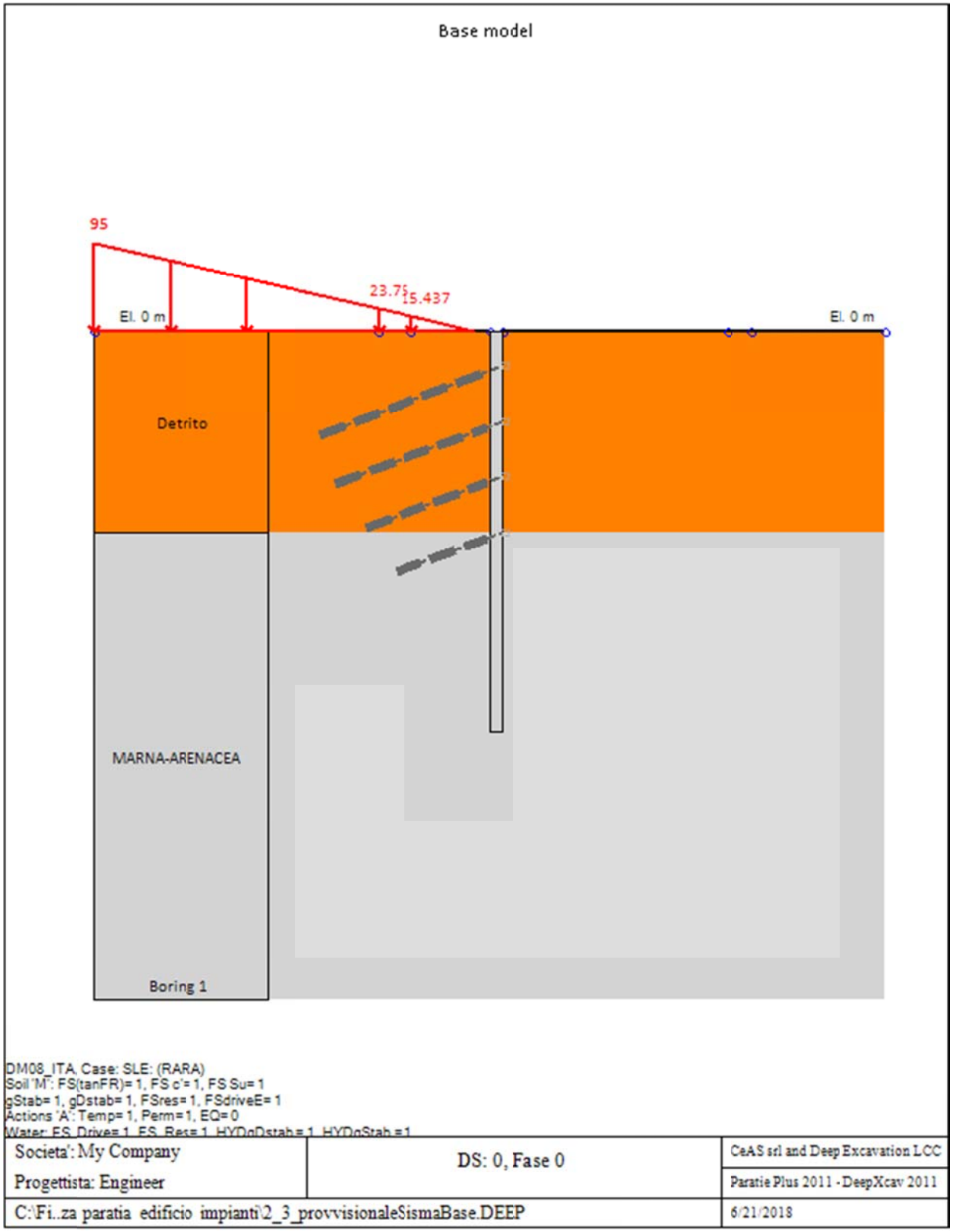
LEGENDA
Stage No=fase di scavo
Active=stato carico (Yes=attivo)

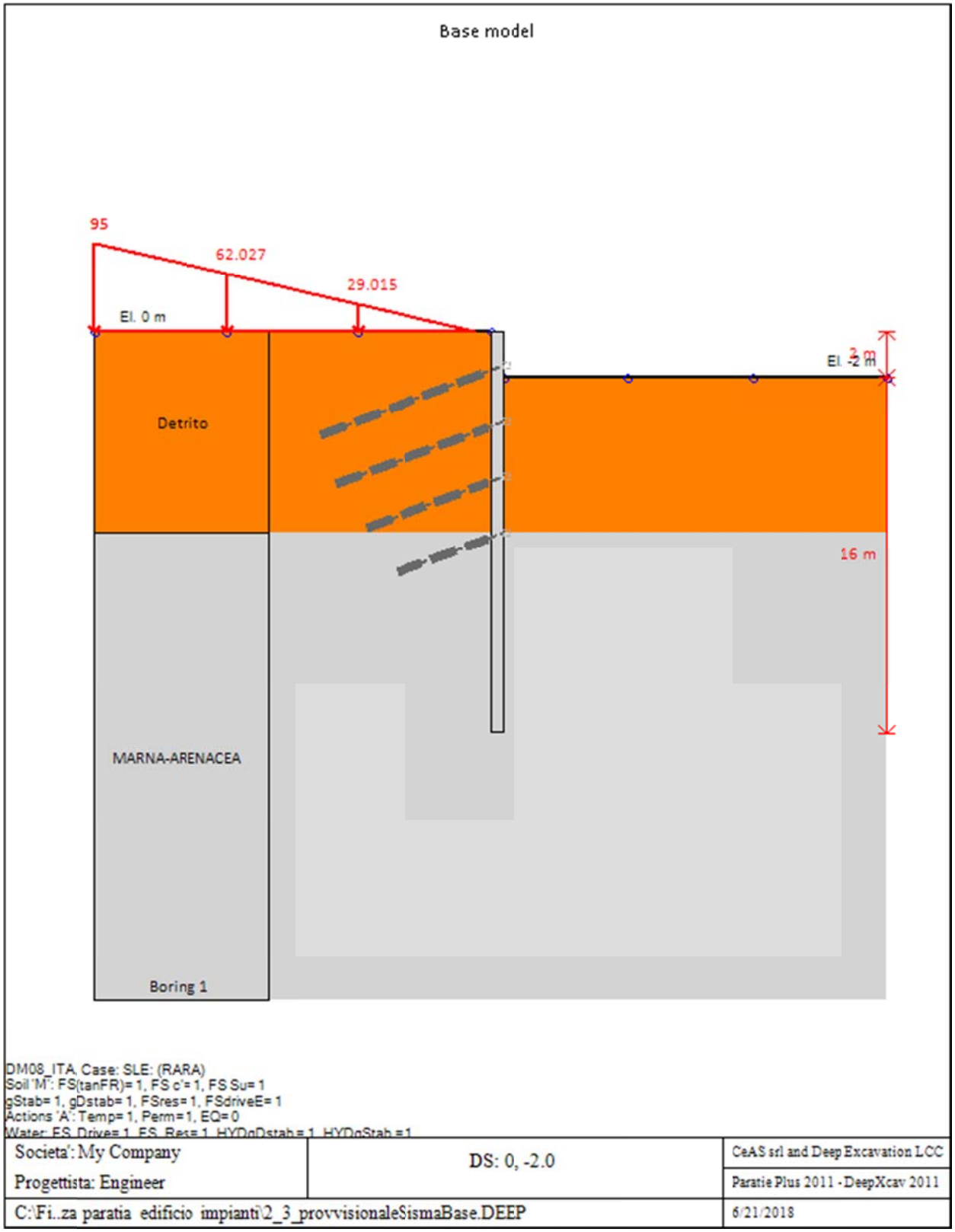
X1=coordinata X primo estremo carico
Z1=coordinata Z primo estremo carico
qX1=valore carico in direz orizzontale primo estremo
qZ1=valore carico in direz verticale primo estremo

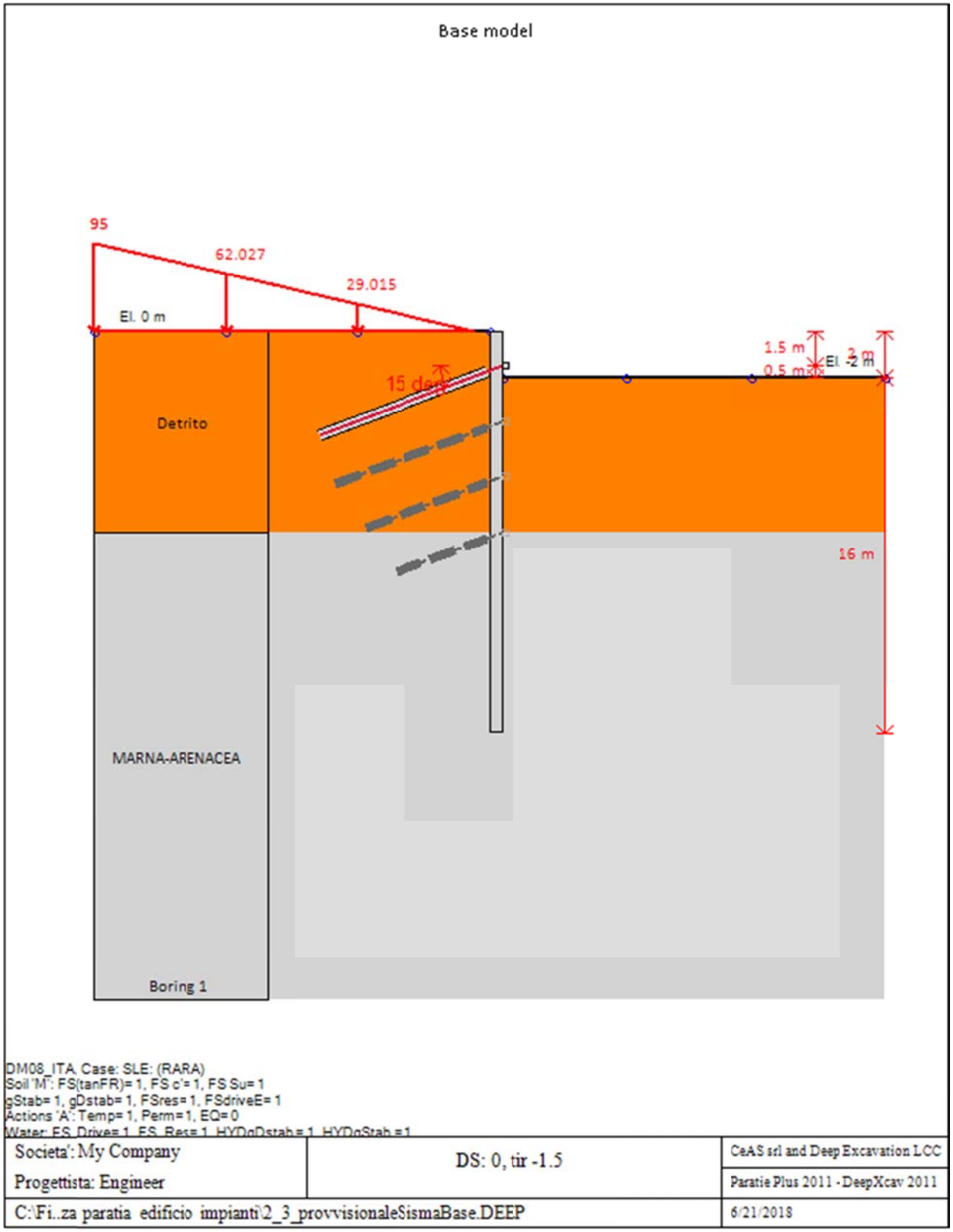
X2=coordinata X secondo estremo carico
Z2=coordinata Z secondo estremo carico
qX2=valore carico in direz orizzontale secondo estremo
qZ2=valore carico in direz verticale secondo estremo

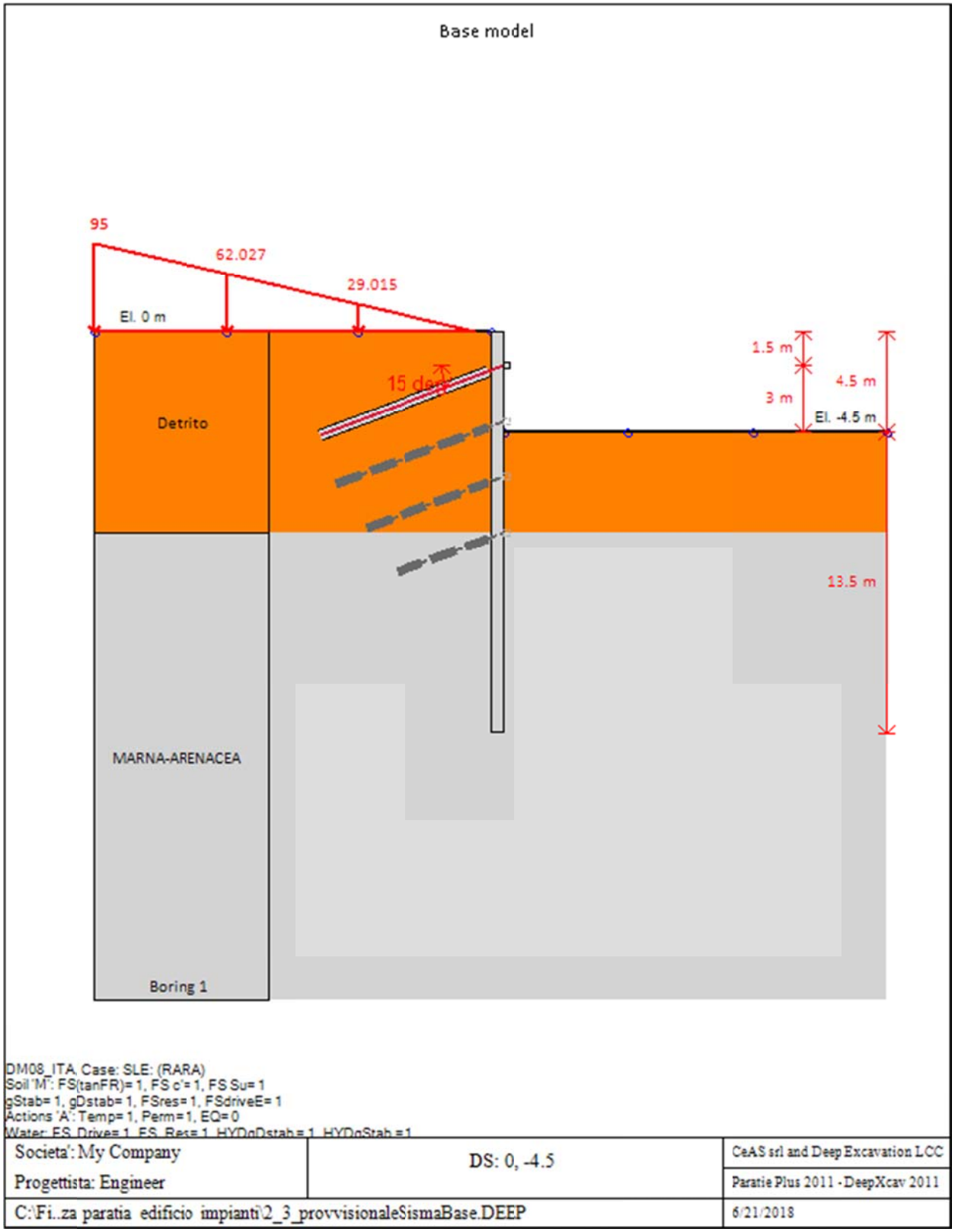
GRAFICI FASI DI SCAVO

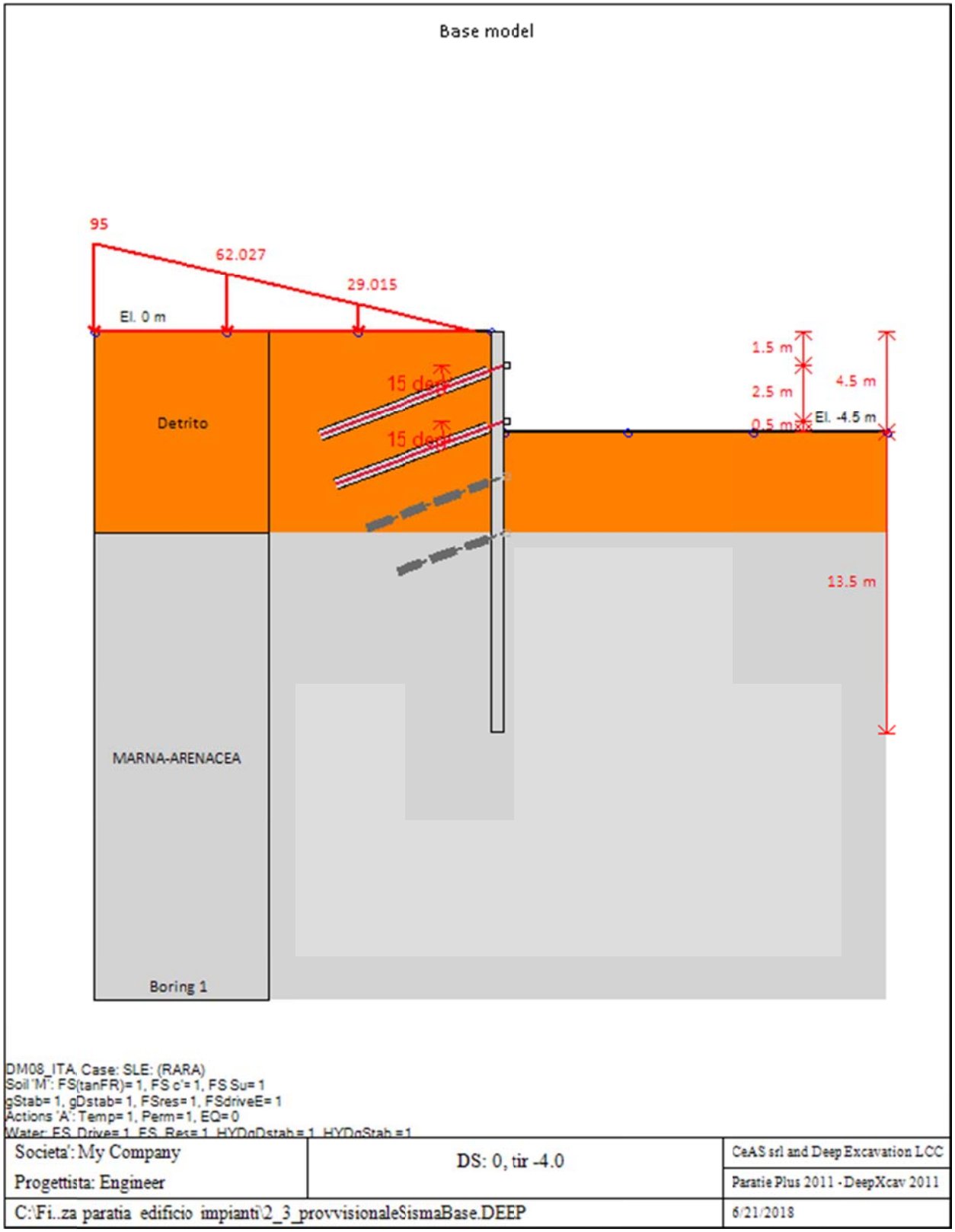
Nel seguito si riportano i grafici dei risultati relativi alle fasi di scavo principali.

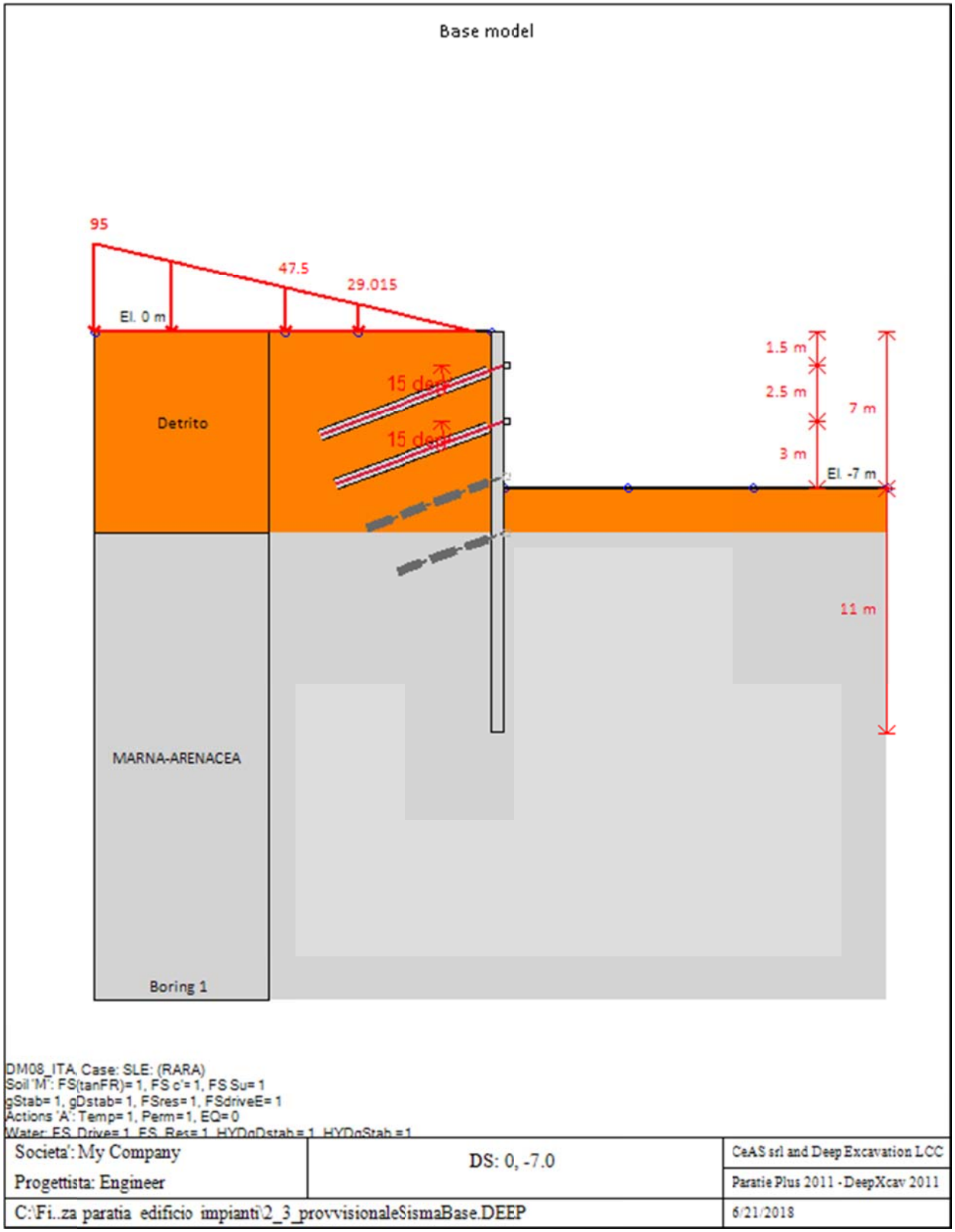

Base model
95
El. 0 m
23.75
15.437
El. 0 m
Detrito
MARNA-ARENACEA
Boring 1
DM08_ITA, Case: SLE: (RARA)
Soil 'M': FS(tanFR)= 1, FS c'= 1, FS Su= 1
gStab= 1, gDstab= 1, FSres= 1, FSdriveE= 1
Actions 'A': Temp= 1, Perm= 1, EQ= 0
Water: FS_Drive= 1, FS_Res= 1, HYDgDstab= 1, HYDgStab= 1
Societa': My Company
Progettista: Engineer
DS: 0, Fase 0
CeAS srl and Deep Excavation LCC
Paratie Plus 2011 - DeepXcav 2011
C:\Fi..za paratia edificio impianti\2_3_provvisionaleSismaBase.DEEP
6/21/2018

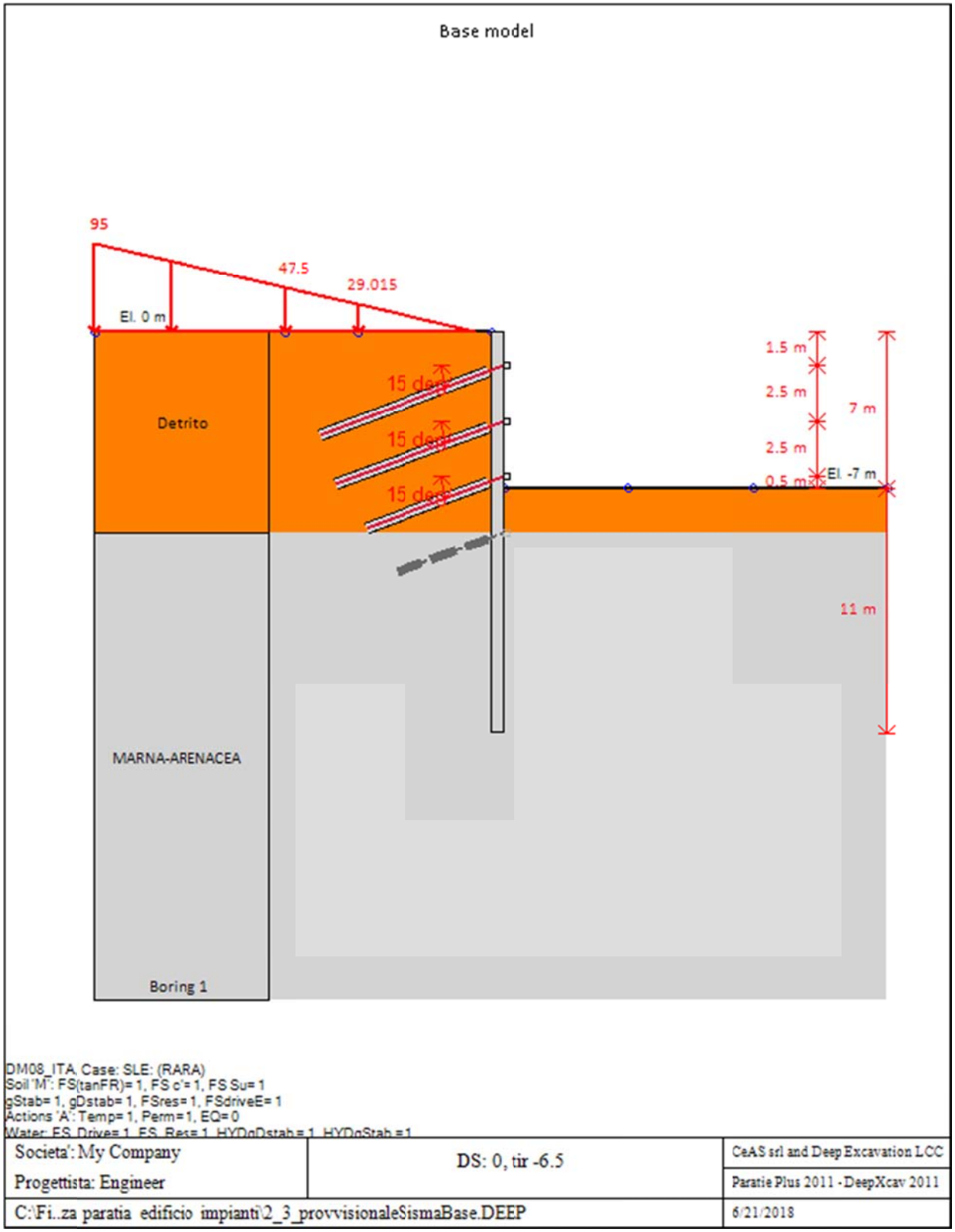

Base model
95
62.027
29.015
El. 0 m
El. -2 m
2 m
Detrito
16 m
MARNA-ARENACEA
Boring 1
DM08_ITA Case: SLE: (RARA)
Soil 'M': FS(tanFR)= 1, FS c'= 1, FS Su= 1
gStab= 1, gDstab= 1, FSres= 1, FSdriveE= 1
Actions 'A': Temp= 1, Perm= 1, EQ= 0
Water: FS Drive= 1, FS Res= 1, HYDgDstab= 1, HYDgStab =1
Societa': My Company
Progettista: Engineer
DS: 0, -2.0
CeAS srl and Deep Excavation LCC
Paratie Plus 2011 - DeepXcav 2011
C:\Fi..za paratia edificio impianti\2_3_provvisionaleSismaBase.DEEP
6/21/2018

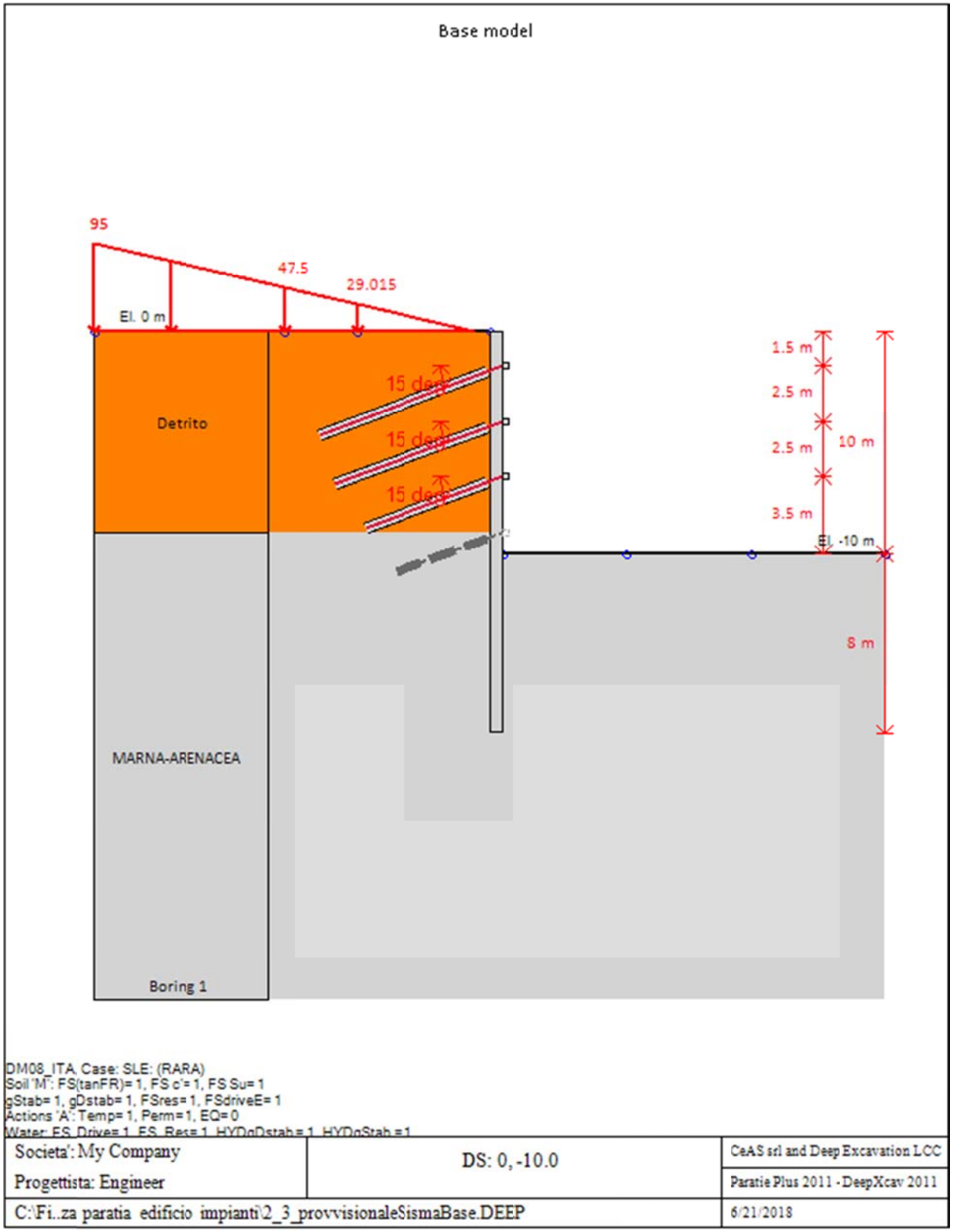

Base model
95
62.027
29.015
El. 0 m
1.5 m
0.5 m
El. -2 m
15 deg
Detrito
16 m
MARNA-ARENACEA
Boring 1
DM08_ITA, Case: SLE: (RARA)
Soil 'M': FS(tanFR)= 1, FS c'= 1, FS Su= 1
gStab= 1, gDstab= 1, FSres= 1, FSdriveE= 1
Actions 'A': Temp= 1, Perm= 1, EQ= 0
Water: FS_Drive= 1, FS_Res= 1, HYDgDstab= 1, HYDgStab= 1
Societa': My Company
Progettista: Engineer
DS: 0, tir -1.5
CeAS srl and Deep Excavation LCC
Paratie Plus 2011 - DeepXcav 2011
C:\Fi..za paratia edificio impianti\2_3_provvisionaleSismaBase.DEEP
6/21/2018

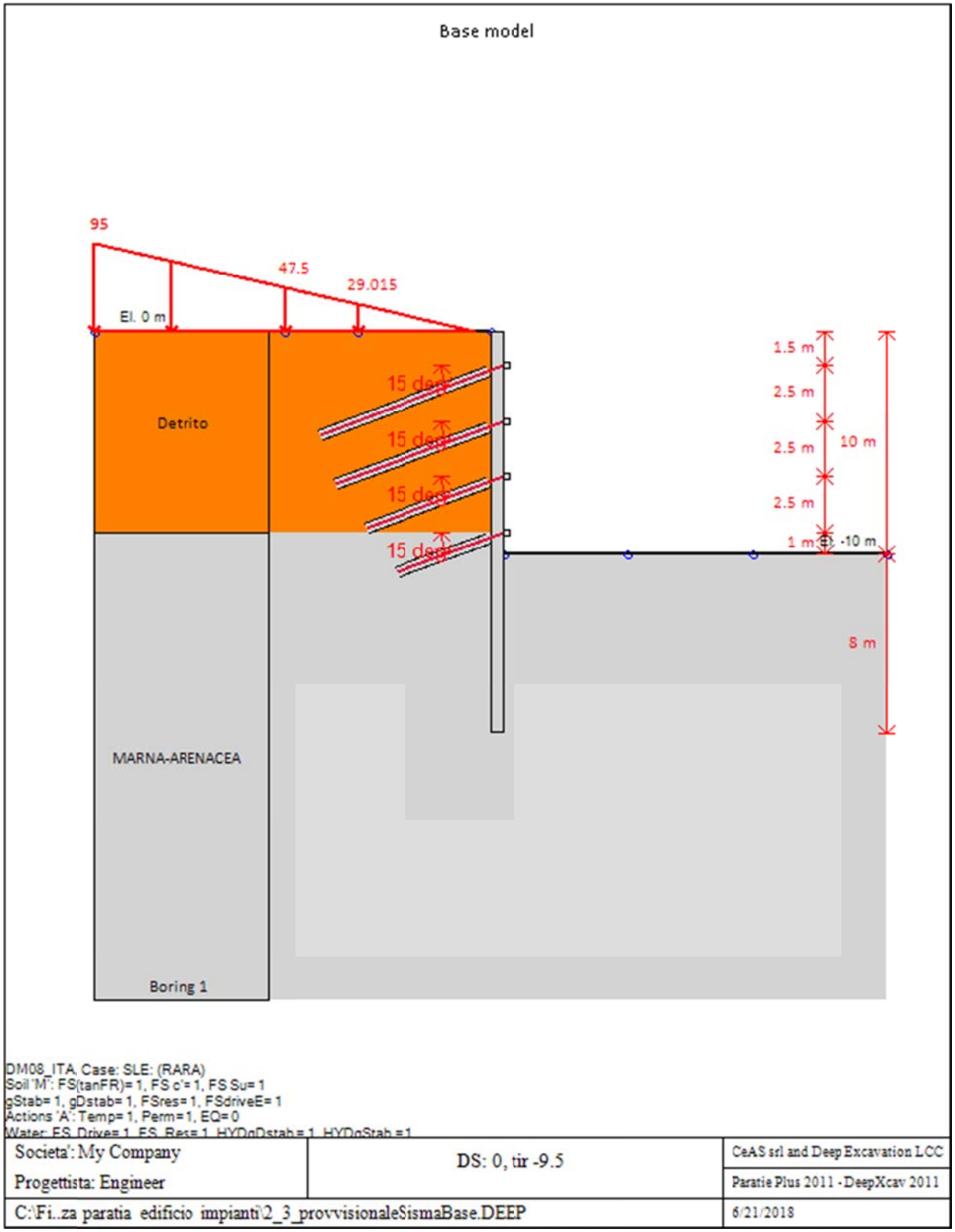

Base model
95
62.027
29.015
El. 0 m
15 deg
1.5 m
3 m
4.5 m
El. -4.5 m
Detrito
13.5 m
MARNA-ARENACEA
Boring 1
DM08_ITA, Case: SLE: (RARA)
Soil 'M': FS(tanFR)= 1, FS c'= 1, FS Su= 1
gStab= 1, gDstab= 1, FSres= 1, FSdriveE= 1
Actions 'A': Temp= 1, Perm= 1, EQ= 0
Water: FS Drive= 1, FS Res= 1, HYDgDstab= 1, HYDgStab= 1
Societa': My Company
Progettista: Engineer
DS: 0, -4.5
CeAS srl and Deep Excavation LCC
Paratie Plus 2011 - DeepXcav 2011
C:\Fi..za paratia edificio impianti\2_3_provvisionaleSismaBase.DEEP
6/21/2018

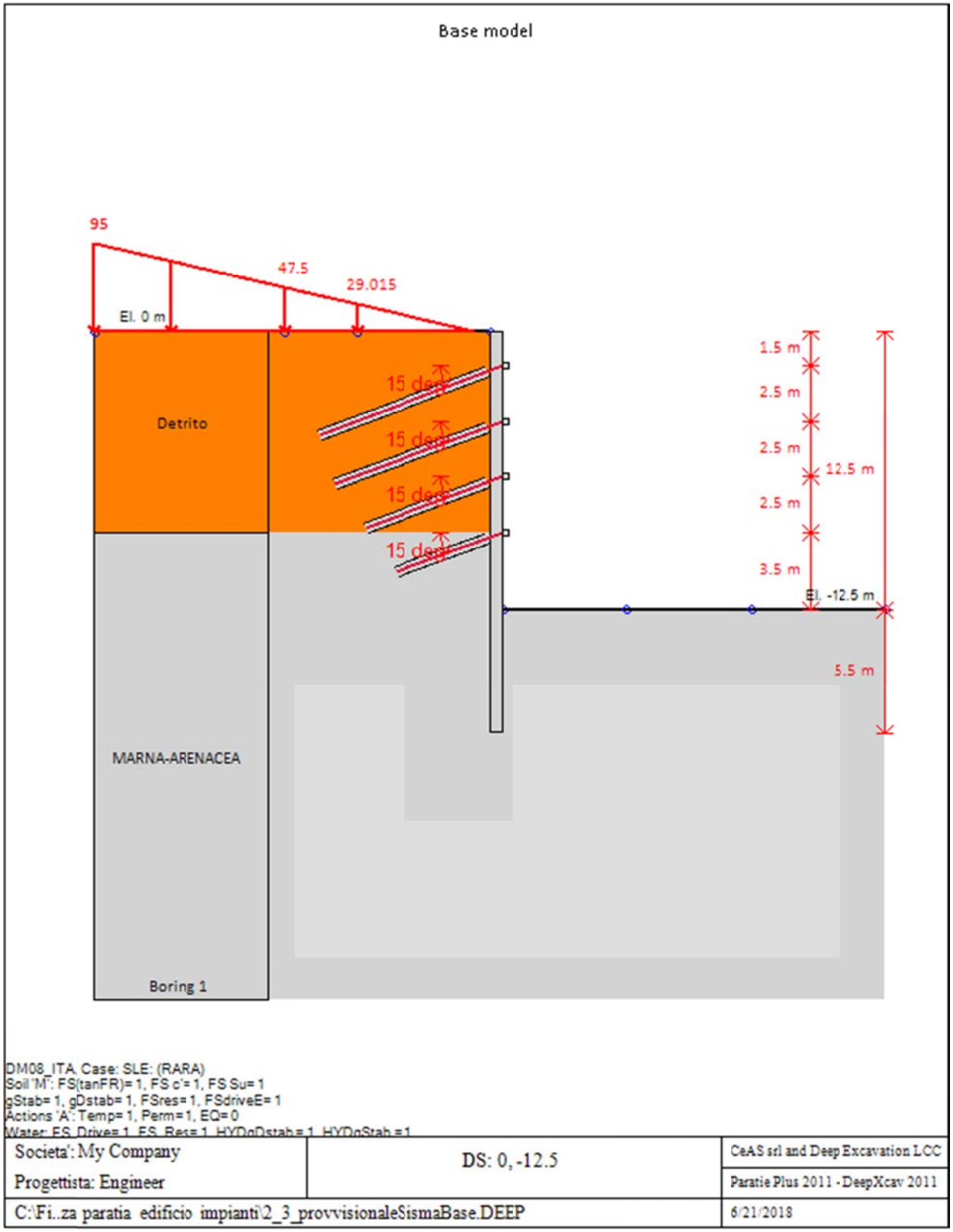

Base model
95
62.027
29.015
El. 0 m
1.5 m
2.5 m
0.5 m
4.5 m
El. -4.5 m
15 deg
15 deg
Detrito
13.5 m
MARNA-ARENACEA
Boring 1
DM08_ITA Case: SLE: (RARA)
Soil 'M': FS(tanFR)= 1, FS c'= 1, FS Su= 1
gStab= 1, gDstab= 1, FSres= 1, FSdriveE= 1
Actions 'A': Temp= 1, Perm= 1, EQ= 0
Water: FS Drive= 1, FS Res= 1, HYDgDstab= 1, HYDgStab =1
Societa': My Company
Progettista: Engineer
DS: 0, tir -4.0
CeAS srl and Deep Excavation LCC
Paratie Plus 2011 - DeepXcav 2011
C:\Fi..za paratia edificio impianti\2_3_provvisionaleSismaBase.DEEP
6/21/2018


Base model
95
47.5
29.015
El. 0 m
15 deg
15 deg
Detrito
1.5 m
2.5 m
3 m
7 m
El. -7 m
11 m
MARNA-ARENACEA
Boring 1
DM08_ITA Case: SLE: (RARA)
Soil 'M': FS(tanFR)= 1, FS c'= 1, FS Su= 1
gStab= 1, gDstab= 1, FSres= 1, FSdriveE= 1
Actions 'A': Temp= 1, Perm= 1, EQ= 0
Water: FS Drive= 1, FS Res= 1, HYDgDstab= 1, HYDgStab= 1
Societa': My Company
Progettista: Engineer
DS: 0, -7.0
CeAS srl and Deep Excavation LCC
Paratie Plus 2011 - DeepXcav 2011
C:\Fi..za paratia edificio impianti\2_3_provvisionaleSismaBase.DEEP
6/21/2018


Base model
95
47.5
29.015
El. 0 m
Detrito
15 deg
15 deg
15 deg
1.5 m
2.5 m
2.5 m
0.5 m
7 m
El. -7 m
11 m
MARNA-ARENACEA
Boring 1
DM08_ITA Case: SLE: (RARA)
Soil 'M': FS(tanFR)= 1, FS c'= 1, FS Su= 1
gStab= 1, gDstab= 1, FSres= 1, FSdriveE= 1
Actions 'A': Temp= 1, Perm= 1, EQ= 0
Water: FS Drive= 1, FS Res= 1, HYDgDstab= 1, HYDgStab =1
Societa': My Company
Progettista: Engineer
DS: 0, tir -6.5
CeAS srl and Deep Excavation LCC
Paratie Plus 2011 - DeepXcav 2011
C:\Fi..za paratia edificio impianti\2_3_provvisionaleSismaBase.DEEP
6/21/2018


Base model
95
47.5
29.015
El. 0 m
Detrito
15 deg
15 deg
15 deg
1.5 m
2.5 m
2.5 m
3.5 m
10 m
El. -10 m
8 m
MARNA-ARENACEA
Boring 1
DM08_ITA, Case: SLE: (RARA)
Soil 'M': FS(tanFR)= 1, FS c'= 1, FS Su= 1
gStab= 1, gDstab= 1, FSres= 1, FSdriveE= 1
Actions 'A': Temp= 1, Perm= 1, EQ= 0
Water: FS_Drive= 1, FS_Res= 1, HYDgDstab= 1, HYDgStab= 1
Societa': My Company
Progettista: Engineer
DS: 0, -10.0
CeAS srl and Deep Excavation LCC
Paratie Plus 2011 - DeepXcav 2011
C:\Fi..za paratia edificio impianti\2_3_provvisionaleSismaBase.DEEP
6/21/2018


Base model
95
47.5
29.015
El. 0 m
Detrito
15 dest
15 dest
15 dest
15 dest
1.5 m
2.5 m
2.5 m
2.5 m
1 m
10 m
-10 m
8 m
MARNA-ARENACEA
Boring 1
DM08_ITA Case: SLE: (RARA)
Soil 'M': FS(tanFR)= 1, FS c'= 1, FS Su= 1
gStab= 1, gDstab= 1, FSres= 1, FSdriveE= 1
Actions 'A': Temp= 1, Perm= 1, EQ= 0
Water: FS Drive= 1, FS Res= 1, HYDgDstab= 1, HYDgStab =1
Societa': My Company
Progettista: Engineer
DS: 0, tir -9.5
CeAS srl and Deep Excavation LCC
Paratie Plus 2011 - DeepXcav 2011
C:\Fi..za paratia edificio impianti\2_3_provvisionaleSismaBase.DEEP
6/21/2018


Base model
95
47.5
29.015
El. 0 m
Detrito
15 dest
15 dest
15 dest
15 dest
1.5 m
2.5 m
2.5 m
12.5 m
2.5 m
3.5 m
El. -12.5 m
5.5 m
MARNA-ARENACEA
Boring 1
DM08_ITA, Case: SLE: (RARA)
Soil 'M': FS(tanFR)= 1, FS c'= 1, FS Su= 1
gStab= 1, gDstab= 1, FSres= 1, FSdriveE= 1
Actions 'A': Temp= 1, Perm= 1, EQ= 0
Water: FS_Drive= 1, FS_Res= 1, HYDgDstab= 1, HYDgStab= 1
Societa': My Company
Progettista: Engineer
DS: 0, -12.5
CeAS srl and Deep Excavation LCC
Paratie Plus 2011 - DeepXcav 2011
C:\Fi..za paratia edificio impianti\2_3_provvisionaleSismaBase.DEEP
6/21/2018

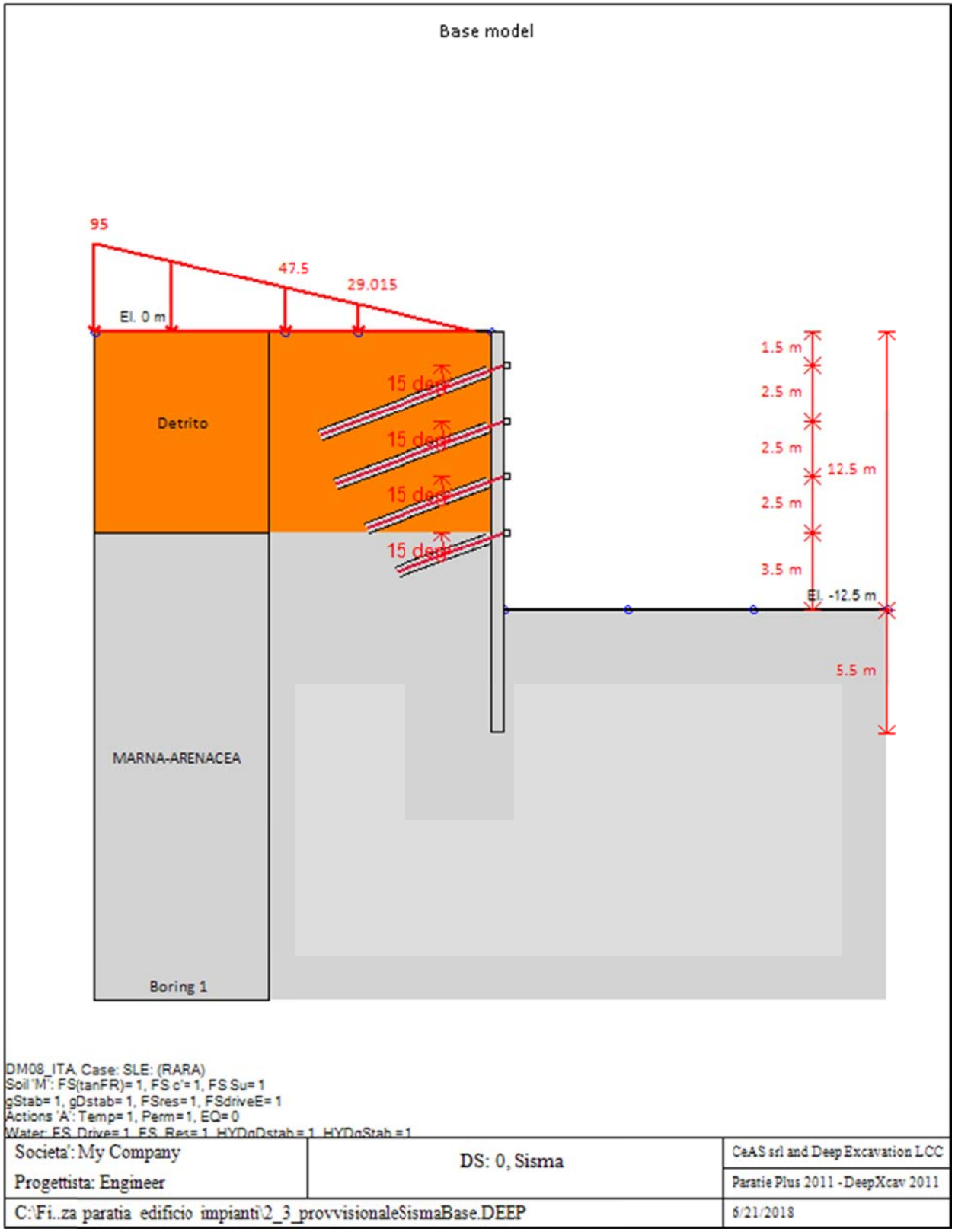

Base model
95
47.5
29.015
El. 0 m
Detrito
15 dest
15 dest
15 dest
15 dest
1.5 m
2.5 m
2.5 m
12.5 m
2.5 m
3.5 m
El. -12.5 m
5.5 m
MARNA-ARENACEA
Boring 1
DM08_ITA Case: SLE: (RARA)
Soil 'M': FS(tanFR)= 1, FS c'= 1, FS Su= 1
gStab= 1, gDstab= 1, FSres= 1, FSdriveE= 1
Actions 'A': Temp= 1, Perm= 1, EQ= 0
Water: FS Drive= 1, FS Res= 1, HYDgDstab= 1, HYDgStab =1
Societa': My Company
Progettista: Engineer
DS: 0, Sisma
CeAS srl and Deep Excavation LCC
Paratie Plus 2011 - DeepXcav 2011
C:\Fi..za paratia edificio impianti\2_3_provvisionaleSismaBase.DEEP
6/21/2018

TABELLA RISULTATI PARATIA

Wall 1 Stage: 0

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0	832.13	832.13	335.22	335.22
2	-0.65	20.688	20.688	20.688	20.688	0	0	0	0	0	0	832.13	832.13	335.22	335.22
4	-1.3	31.273	31.273	31.273	31.273	0	0	0	0	0	0	832.13	832.13	335.22	335.22
6	-1.82	36.768	36.768	36.768	36.768	0	0	0	0	0	0	832.13	832.13	335.22	335.22
8	-2.48	42.497	42.497	42.497	42.497	0	0	0	0	0	0	832.13	832.13	335.22	335.22
10	-3.12	47.84	47.84	47.84	47.84	0	0	0	0	0	0	832.13	832.13	335.22	335.22
12	-3.78	53.054	53.054	53.054	53.054	0	0	0	0	0	0	832.13	832.13	335.22	335.22
14	-4.32	57.428	57.428	57.428	57.428	0	0	0	0	0	0	832.13	832.13	335.22	335.22
16	-4.97	62.583	62.583	62.583	62.583	0	0	0	0	0	0	832.13	832.13	335.22	335.22
18	-5.62	67.736	67.736	67.736	67.736	0	0	0	0	0	0	832.13	832.13	335.22	335.22
20	-6.28	72.897	72.897	72.897	72.897	0	0	0	0	0	0	832.13	832.13	335.22	335.22
22	-6.82	77.273	77.273	77.273	77.273	0	0	0	0	0	0	832.13	832.13	335.22	335.22
24	-7.48	82.459	82.459	82.459	82.459	0	0	0	0	0	0	832.13	832.13	335.22	335.22
26	-8.12	87.661	87.661	87.661	87.661	0	0	0	0	0	0	832.13	832.13	335.22	335.22
28	-8.78	92.882	92.882	92.882	92.882	0	0	0	0	0	0	832.13	832.13	335.22	335.22
30	-9.32	85.308	85.308	85.308	85.308	0	0	0	0	0	0	832.13	832.13	335.22	335.22
32	-9.98	90.53	90.53	90.53	90.53	0	0	0	0	0	0	832.13	832.13	335.22	335.22
34	-10.62	95.772	95.772	95.772	95.772	0	0	0	0	0	0	832.13	832.13	335.22	335.22
36	-11.28	101.03	101.03	101.03	101.03	0	0	0	0	0	0	832.13	832.13	335.22	335.22
38	-11.92	106.32	106.32	106.32	106.32	0	0	0	0	0	0	832.13	832.13	335.22	335.22
40	-12.58	111.62	111.62	111.62	111.62	0	0	0	0	0	0	832.13	832.13	335.22	335.22
42	-13.22	116.95	116.95	116.95	116.95	0	0	0	0	0	0	832.13	832.13	335.22	335.22
44	-13.88	122.29	122.29	122.29	122.29	0	0	0	0	0	0	832.13	832.13	335.22	335.22
46	-14.52	127.66	127.66	127.66	127.66	0	0	0	0	0	0	832.13	832.13	335.22	335.22
48	-15.18	133.05	133.05	133.05	133.05	0	0	0	0	0	0	832.13	832.13	335.22	335.22
50	-15.82	138.45	138.45	138.45	138.45	0	0	0	0	0	0	832.13	832.13	335.22	335.22
52	-16.48	143.87	143.87	143.87	143.87	0	0	0	0	0	0	832.13	832.13	335.22	335.22
54	-17.12	149.32	149.32	149.32	149.32	0	0	0	0	0	0	832.13	832.13	335.22	335.22
56	-17.77	154.78	154.78	154.78	154.78	0	0	0	0	0	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 1

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)

0	0	0	0	0	0	0	0	0	0	0	0.11	832.13	832.13	335.22	335.22
2	-0.65	3.93	0	3.93	0	0	0	0	0.19	0.58	0.09	832.13	832.13	335.22	335.22
4	-1.3	9.309	0	9.309	0	0	0	0	2.06	3.91	0.08	832.13	832.13	335.22	335.22
6	-1.82	15.008	0	15.008	0	0	0	0	6.36	9.3	0.07	832.13	832.13	335.22	335.22
8	-2.48	24.584	36.662	24.584	36.662	0	0	0	16.45	16.88	0.06	832.13	832.13	335.22	335.22
10	-3.12	33.424	46.201	33.424	46.201	0	0	0	23.27	8.04	0.05	832.13	832.13	335.22	335.22
12	-3.78	41.639	49.986	41.639	49.986	0	0	0	24.69	0.48	0.04	832.13	832.13	335.22	335.22
14	-4.32	48.135	53.238	48.135	53.238	0	0	0	23.07	-3.73	0.03	832.13	832.13	335.22	335.22
16	-4.97	55.339	57.261	55.339	57.261	0	0	0	19.2	-6.5	0.02	832.13	832.13	335.22	335.22
18	-5.62	62.123	61.493	62.123	61.493	0	0	0	14.51	-7.32	0.02	832.13	832.13	335.22	335.22
20	-6.28	68.598	65.903	68.598	65.903	0	0	0	10.07	-6.55	0.01	832.13	832.13	335.22	335.22
22	-6.82	73.908	69.739	73.908	69.739	0	0	0	7.17	-4.9	0.01	832.13	832.13	335.22	335.22
24	-7.48	80.052	74.364	80.052	74.364	0	0	0	5.39	-1.93	0.01	832.13	832.13	335.22	335.22
26	-8.12	86.09	79.074	86.09	79.074	0	0	0	6.01	1.99	0.01	832.13	832.13	335.22	335.22
28	-8.78	92.007	83.883	92.007	83.883	0	0	0	9.58	6.74	0	832.13	832.13	335.22	335.22
30	-9.32	68.84	85.583	68.84	85.583	0	0	0	12.01	1.27	0	832.13	832.13	335.22	335.22
32	-9.98	84.33	85.801	84.33	85.801	0	0	0	8.48	-6.69	0	832.13	832.13	335.22	335.22
34	-10.62	93.043	89.194	93.043	89.194	0	0	0	4.06	-6.46	0	832.13	832.13	335.22	335.22
36	-11.28	98.366	94.452	98.366	94.452	0	0	0	1.12	-3.83	0	832.13	832.13	335.22	335.22
38	-11.92	102.67	100.29	102.67	100.29	0	0	0	-0.21	-1.52	0	832.13	832.13	335.22	335.22
40	-12.58	107.08	106.1	107.08	106.1	0	0	0	-0.52	-0.22	0	832.13	832.13	335.22	335.22
42	-13.22	111.89	111.72	111.89	111.72	0	0	0	-0.41	0.26	0	832.13	832.13	335.22	335.22
44	-13.88	117.05	117.19	117.05	117.19	0	0	0	-0.21	0.3	0	832.13	832.13	335.22	335.22
46	-14.52	122.4	122.58	122.4	122.58	0	0	0	-0.07	0.19	0	832.13	832.13	335.22	335.22
48	-15.18	127.83	127.95	127.83	127.95	0	0	0	0	0.08	0	832.13	832.13	335.22	335.22
50	-15.82	133.29	133.34	133.29	133.34	0	0	0	0.02	0.02	0	832.13	832.13	335.22	335.22
52	-16.48	138.74	138.76	138.74	138.76	0	0	0	0.02	-0.01	0	832.13	832.13	335.22	335.22
54	-17.12	144.21	144.2	144.21	144.2	0	0	0	0.01	-0.02	0	832.13	832.13	335.22	335.22
56	-17.77	149.68	149.66	149.68	149.66	0	0	0	0	-0.01	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 2

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.11	832.13	832.13	335.22	335.22
2	-0.65	3.93	0	3.93	0	0	0	0	0.19	0.58	0.09	832.13	832.13	335.22	335.22
4	-1.3	9.309	0	9.309	0	0	0	0	2.06	3.91	0.08	832.13	832.13	335.22	335.22
6	-1.82	15.008	0	15.008	0	0	0	0	6.36	9.3	0.07	832.13	832.13	335.22	335.22
8	-2.48	24.584	36.662	24.584	36.662	0	0	0	16.45	16.88	0.06	832.13	832.13	335.22	335.22
10	-3.12	33.424	46.201	33.424	46.201	0	0	0	23.27	8.04	0.05	832.13	832.13	335.22	335.22
12	-3.78	41.639	49.986	41.639	49.986	0	0	0	24.69	0.48	0.04	832.13	832.13	335.22	335.22
14	-4.32	48.135	53.238	48.135	53.238	0	0	0	23.07	-3.73	0.03	832.13	832.13	335.22	335.22
16	-4.97	55.339	57.261	55.339	57.261	0	0	0	19.2	-6.5	0.02	832.13	832.13	335.22	335.22

18	-5.62	62.123	61.493	62.123	61.493	0	0	0	14.51	-7.32	0.02	832.13	832.13	335.22	335.22
20	-6.28	68.598	65.903	68.598	65.903	0	0	0	10.07	-6.55	0.01	832.13	832.13	335.22	335.22
22	-6.82	73.908	69.739	73.908	69.739	0	0	0	7.17	-4.9	0.01	832.13	832.13	335.22	335.22
24	-7.48	80.052	74.364	80.052	74.364	0	0	0	5.39	-1.93	0.01	832.13	832.13	335.22	335.22
26	-8.12	86.09	79.074	86.09	79.074	0	0	0	6.01	1.99	0.01	832.13	832.13	335.22	335.22
28	-8.78	92.007	83.883	92.007	83.883	0	0	0	9.58	6.74	0	832.13	832.13	335.22	335.22
30	-9.32	68.84	85.583	68.84	85.583	0	0	0	12.01	1.27	0	832.13	832.13	335.22	335.22
32	-9.98	84.33	85.801	84.33	85.801	0	0	0	8.48	-6.69	0	832.13	832.13	335.22	335.22
34	-10.62	93.043	89.194	93.043	89.194	0	0	0	4.06	-6.46	0	832.13	832.13	335.22	335.22
36	-11.28	98.366	94.452	98.366	94.452	0	0	0	1.12	-3.83	0	832.13	832.13	335.22	335.22
38	-11.92	102.67	100.29	102.67	100.29	0	0	0	-0.21	-1.52	0	832.13	832.13	335.22	335.22
40	-12.58	107.08	106.1	107.08	106.1	0	0	0	-0.52	-0.22	0	832.13	832.13	335.22	335.22
42	-13.22	111.89	111.72	111.89	111.72	0	0	0	-0.41	0.26	0	832.13	832.13	335.22	335.22
44	-13.88	117.05	117.19	117.05	117.19	0	0	0	-0.21	0.3	0	832.13	832.13	335.22	335.22
46	-14.52	122.4	122.58	122.4	122.58	0	0	0	-0.07	0.19	0	832.13	832.13	335.22	335.22
48	-15.18	127.83	127.95	127.83	127.95	0	0	0	0	0.08	0	832.13	832.13	335.22	335.22
50	-15.82	133.29	133.34	133.29	133.34	0	0	0	0.02	0.02	0	832.13	832.13	335.22	335.22
52	-16.48	138.74	138.76	138.74	138.76	0	0	0	0.02	-0.01	0	832.13	832.13	335.22	335.22
54	-17.12	144.21	144.2	144.21	144.2	0	0	0	0.01	-0.02	0	832.13	832.13	335.22	335.22
56	-17.77	149.68	149.66	149.68	149.66	0	0	0	0	-0.01	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 3

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.3	832.13	832.13	335.22	335.22
2	-0.65	3.93	0	3.93	0	0	0	0	0.19	0.58	0.28	832.13	832.13	335.22	335.22
4	-1.3	9.309	0	9.309	0	0	0	0	2.06	3.91	0.27	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	-9.01	-37.98	0.26	832.13	832.13	335.22	335.22
8	-2.48	18.263	0	18.263	0	0	0	0	-29.21	-28.54	0.24	832.13	832.13	335.22	335.22
10	-3.12	22.053	0	22.053	0	0	0	0	-41.77	-16.05	0.23	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-44.97	-0.96	0.21	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-39.08	13.8	0.19	832.13	832.13	335.22	335.22
16	-4.97	35.714	36.662	35.714	36.662	0	0	0	-21.82	29.77	0.16	832.13	832.13	335.22	335.22
18	-5.62	45.409	54.636	45.409	54.636	0	0	0	-3.92	25.62	0.14	832.13	832.13	335.22	335.22
20	-6.28	54.977	58.405	54.977	58.405	0	0	0	10.11	20.55	0.11	832.13	832.13	335.22	335.22
22	-6.82	62.913	61.273	62.913	61.273	0	0	0	20.77	19.24	0.09	832.13	832.13	335.22	335.22
24	-7.48	72.032	64.576	72.032	64.576	0	0	0	34.11	21.26	0.07	832.13	832.13	335.22	335.22
26	-8.12	80.765	67.977	80.765	67.977	0	0	0	50.58	27	0.04	832.13	832.13	335.22	335.22
28	-8.78	88.942	71.656	88.942	71.656	0	0	0	72.43	36.08	0.02	832.13	832.13	335.22	335.22
30	-9.32	8.885	98.666	8.885	98.666	0	0	0	85.17	10.92	0.01	832.13	832.13	335.22	335.22
32	-9.98	64.098	85.09	64.098	85.09	0	0	0	67.92	-34.81	0	832.13	832.13	335.22	335.22
34	-10.62	91.497	78.552	91.497	78.552	0	0	0	40.89	-41.54	0	832.13	832.13	335.22	335.22

36	-11.28	101.72	81.09	101.72	81.09	0	0	0	18.65	-31.09	0	832.13	832.13	335.22	335.22
38	-11.92	105.19	87.741	105.19	87.741	0	0	0	4.9	-17.93	0	832.13	832.13	335.22	335.22
40	-12.58	106.29	95.466	106.29	95.466	0	0	0	-1.57	-7.65	0	832.13	832.13	335.22	335.22
42	-13.22	108	102.86	108	102.86	0	0	0	-3.44	-1.62	0	832.13	832.13	335.22	335.22
44	-13.88	111.08	109.55	111.08	109.55	0	0	0	-3.08	1.05	0	832.13	832.13	335.22	335.22
46	-14.52	115.35	115.6	115.35	115.6	0	0	0	-2.03	1.7	0	832.13	832.13	335.22	335.22
48	-15.18	120.41	121.24	120.41	121.24	0	0	0	-1.04	1.41	0	832.13	832.13	335.22	335.22
50	-15.82	125.88	126.68	125.88	126.68	0	0	0	-0.39	0.86	0	832.13	832.13	335.22	335.22
52	-16.48	131.51	132.06	131.51	132.06	0	0	0	-0.07	0.38	0	832.13	832.13	335.22	335.22
54	-17.12	137.19	137.43	137.19	137.43	0	0	0	0.02	0.07	0	832.13	832.13	335.22	335.22
56	-17.77	142.88	142.82	142.88	142.82	0	0	0	0	-0.03	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 4

Wall Node	EL (m)	Sht L (kPa)	Sht R (kPa)	Shs L (kPa)	Shs R (kPa)	q (kPa)	U L (kPa)	U R (kPa)	M (kN-m/m)	V (kN/m)	dx (cm)	Mcap L (kN-m/m)	Mcap R (kN-m/m)	VcapL (kN/m)	VcapR (kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.3	832.13	832.13	335.22	335.22
2	-0.65	3.93	0	3.93	0	0	0	0	0.19	0.58	0.28	832.13	832.13	335.22	335.22
4	-1.3	9.309	0	9.309	0	0	0	0	2.06	3.91	0.27	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	-9.01	-37.98	0.26	832.13	832.13	335.22	335.22
8	-2.48	18.263	0	18.263	0	0	0	0	-29.21	-28.54	0.24	832.13	832.13	335.22	335.22
10	-3.12	22.053	0	22.053	0	0	0	0	-41.77	-16.05	0.23	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-44.97	-0.96	0.21	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-39.08	13.8	0.19	832.13	832.13	335.22	335.22
16	-4.97	35.714	36.662	35.714	36.662	0	0	0	-21.82	29.77	0.16	832.13	832.13	335.22	335.22
18	-5.62	45.409	54.636	45.409	54.636	0	0	0	-3.92	25.62	0.14	832.13	832.13	335.22	335.22
20	-6.28	54.977	58.405	54.977	58.405	0	0	0	10.11	20.55	0.11	832.13	832.13	335.22	335.22
22	-6.82	62.913	61.273	62.913	61.273	0	0	0	20.77	19.24	0.09	832.13	832.13	335.22	335.22
24	-7.48	72.032	64.576	72.032	64.576	0	0	0	34.11	21.26	0.07	832.13	832.13	335.22	335.22
26	-8.12	80.765	67.977	80.765	67.977	0	0	0	50.58	27	0.04	832.13	832.13	335.22	335.22
28	-8.78	88.942	71.656	88.942	71.656	0	0	0	72.43	36.08	0.02	832.13	832.13	335.22	335.22
30	-9.32	8.885	98.666	8.885	98.666	0	0	0	85.17	10.92	0.01	832.13	832.13	335.22	335.22
32	-9.98	64.098	85.09	64.098	85.09	0	0	0	67.92	-34.81	0	832.13	832.13	335.22	335.22
34	-10.62	91.497	78.552	91.497	78.552	0	0	0	40.89	-41.54	0	832.13	832.13	335.22	335.22
36	-11.28	101.72	81.09	101.72	81.09	0	0	0	18.65	-31.09	0	832.13	832.13	335.22	335.22
38	-11.92	105.19	87.741	105.19	87.741	0	0	0	4.9	-17.93	0	832.13	832.13	335.22	335.22
40	-12.58	106.29	95.466	106.29	95.466	0	0	0	-1.57	-7.65	0	832.13	832.13	335.22	335.22
42	-13.22	108	102.86	108	102.86	0	0	0	-3.44	-1.62	0	832.13	832.13	335.22	335.22
44	-13.88	111.08	109.55	111.08	109.55	0	0	0	-3.08	1.05	0	832.13	832.13	335.22	335.22
46	-14.52	115.35	115.6	115.35	115.6	0	0	0	-2.03	1.7	0	832.13	832.13	335.22	335.22
48	-15.18	120.41	121.24	120.41	121.24	0	0	0	-1.04	1.41	0	832.13	832.13	335.22	335.22
50	-15.82	125.88	126.68	125.88	126.68	0	0	0	-0.39	0.86	0	832.13	832.13	335.22	335.22
52	-16.48	131.51	132.06	131.51	132.06	0	0	0	-0.07	0.38	0	832.13	832.13	335.22	335.22

54	-17.12	137.19	137.43	137.19	137.43	0	0	0	0.02	0.07	0	832.13	832.13	335.22	335.22
56	-17.77	142.88	142.82	142.88	142.82	0	0	0	0	-0.03	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 5

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.32	832.13	832.13	335.22	335.22
2	-0.65	3.93	0	3.93	0	0	0	0	0.19	0.58	0.33	832.13	832.13	335.22	335.22
4	-1.3	9.309	0	9.309	0	0	0	0	2.06	3.91	0.33	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	-14.63	-55.26	0.34	832.13	832.13	335.22	335.22
8	-2.48	18.263	0	18.263	0	0	0	0	-46.06	-45.83	0.34	832.13	832.13	335.22	335.22
10	-3.12	22.053	0	22.053	0	0	0	0	-69.86	-33.33	0.34	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-84.29	-18.25	0.34	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-99.58	-39.4	0.33	832.13	832.13	335.22	335.22
16	-4.97	33.142	0	33.142	0	0	0	0	-115.68	-19.67	0.31	832.13	832.13	335.22	335.22
18	-5.62	36.892	0	36.892	0	0	0	0	-117.78	2.44	0.29	832.13	832.13	335.22	335.22
20	-6.28	42.219	0	42.219	0	0	0	0	-104.32	26.98	0.26	832.13	832.13	335.22	335.22
22	-6.82	51.159	0	51.159	0	0	0	0	-79.01	51.19	0.22	832.13	832.13	335.22	335.22
24	-7.48	62.021	36.662	62.021	36.662	0	0	0	-30.17	82.44	0.18	832.13	832.13	335.22	335.22
26	-8.12	72.893	51.592	72.893	51.592	0	0	0	30.72	96.67	0.13	832.13	832.13	335.22	335.22
28	-8.78	83.331	55.793	83.331	55.793	0	0	0	100.63	111.53	0.09	832.13	832.13	335.22	335.22
30	-9.32	0	136.78	0	136.78	0	0	0	151.89	75.26	0.06	832.13	832.13	335.22	335.22
32	-9.98	0	104.18	0	104.18	0	0	0	159.41	-7.65	0.03	832.13	832.13	335.22	335.22
34	-10.62	57.56	82.892	57.56	82.892	0	0	0	125.39	-63.17	0.01	832.13	832.13	335.22	335.22
36	-11.28	92.226	72.694	92.226	72.694	0	0	0	79.27	-70.51	0	832.13	832.13	335.22	335.22
38	-11.92	105.58	74.079	105.58	74.079	0	0	0	40.55	-54.98	0	832.13	832.13	335.22	335.22
40	-12.58	109.32	81.004	109.32	81.004	0	0	0	14.78	-34.55	0	832.13	832.13	335.22	335.22
42	-13.22	109.17	89.688	109.17	89.688	0	0	0	0.86	-17.51	0	832.13	832.13	335.22	335.22
44	-13.88	109.23	98.229	109.23	98.229	0	0	0	-4.82	-6.3	0	832.13	832.13	335.22	335.22
46	-14.52	110.8	105.94	110.8	105.94	0	0	0	-5.79	-0.25	0	832.13	832.13	335.22	335.22
48	-15.18	113.97	112.78	113.97	112.78	0	0	0	-4.64	2.22	0	832.13	832.13	335.22	335.22
50	-15.82	118.36	118.95	118.36	118.95	0	0	0	-2.93	2.65	0	832.13	832.13	335.22	335.22
52	-16.48	123.49	124.73	123.49	124.73	0	0	0	-1.44	2.12	0	832.13	832.13	335.22	335.22
54	-17.12	129	130.31	129	130.31	0	0	0	-0.46	1.3	0	832.13	832.13	335.22	335.22
56	-17.77	134.63	135.83	134.63	135.83	0	0	0	-0.03	0.46	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 6

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.32	832.13	832.13	335.22	335.22
2	-0.65	3.93	0	3.93	0	0	0	0	0.19	0.58	0.33	832.13	832.13	335.22	335.22

4	-1.3	9.309	0	9.309	0	0	0	0	2.07	3.91	0.33	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	-14.62	-55.26	0.34	832.13	832.13	335.22	335.22
8	-2.48	18.263	0	18.263	0	0	0	0	-46.06	-45.83	0.34	832.13	832.13	335.22	335.22
10	-3.12	22.053	0	22.053	0	0	0	0	-69.86	-33.33	0.34	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-84.29	-18.25	0.34	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-99.58	-39.4	0.33	832.13	832.13	335.22	335.22
16	-4.97	33.142	0	33.142	0	0	0	0	-115.68	-19.67	0.31	832.13	832.13	335.22	335.22
18	-5.62	36.892	0	36.892	0	0	0	0	-117.78	2.44	0.29	832.13	832.13	335.22	335.22
20	-6.28	42.219	0	42.219	0	0	0	0	-104.32	26.98	0.26	832.13	832.13	335.22	335.22
22	-6.82	51.159	0	51.159	0	0	0	0	-79	51.19	0.22	832.13	832.13	335.22	335.22
24	-7.48	62.021	36.662	62.021	36.662	0	0	0	-30.17	82.44	0.18	832.13	832.13	335.22	335.22
26	-8.12	72.893	51.592	72.893	51.592	0	0	0	30.72	96.67	0.13	832.13	832.13	335.22	335.22
28	-8.78	83.331	55.793	83.331	55.793	0	0	0	100.63	111.53	0.09	832.13	832.13	335.22	335.22
30	-9.32	0	136.78	0	136.78	0	0	0	151.89	75.26	0.06	832.13	832.13	335.22	335.22
32	-9.98	0	104.18	0	104.18	0	0	0	159.41	-7.65	0.03	832.13	832.13	335.22	335.22
34	-10.62	57.56	82.892	57.56	82.892	0	0	0	125.39	-63.17	0.01	832.13	832.13	335.22	335.22
36	-11.28	92.226	72.694	92.226	72.694	0	0	0	79.27	-70.51	0	832.13	832.13	335.22	335.22
38	-11.92	105.58	74.079	105.58	74.079	0	0	0	40.55	-54.98	0	832.13	832.13	335.22	335.22
40	-12.58	109.32	81.004	109.32	81.004	0	0	0	14.78	-34.55	0	832.13	832.13	335.22	335.22
42	-13.22	109.17	89.688	109.17	89.688	0	0	0	0.86	-17.51	0	832.13	832.13	335.22	335.22
44	-13.88	109.23	98.229	109.23	98.229	0	0	0	-4.82	-6.3	0	832.13	832.13	335.22	335.22
46	-14.52	110.8	105.94	110.8	105.94	0	0	0	-5.79	-0.25	0	832.13	832.13	335.22	335.22
48	-15.18	113.97	112.78	113.97	112.78	0	0	0	-4.64	2.22	0	832.13	832.13	335.22	335.22
50	-15.82	118.36	118.95	118.36	118.95	0	0	0	-2.93	2.65	0	832.13	832.13	335.22	335.22
52	-16.48	123.49	124.73	123.49	124.73	0	0	0	-1.44	2.12	0	832.13	832.13	335.22	335.22
54	-17.12	129	130.31	129	130.31	0	0	0	-0.46	1.3	0	832.13	832.13	335.22	335.22
56	-17.77	134.63	135.83	134.63	135.83	0	0	0	-0.03	0.46	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 7

Wall Node	EL (m)	Sht L (kPa)	Sht R (kPa)	Shs L (kPa)	Shs R (kPa)	q (kPa)	U L (kPa)	U R (kPa)	M (kN-m/m)	V (kN/m)	dx (cm)	Mcap L (kN-m/m)	Mcap R (kN-m/m)	VcapL (kN/m)	VcapR (kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.29	832.13	832.13	335.22	335.22
2	-0.65	5.223	0	5.223	0	0	0	0	0.38	1.18	0.31	832.13	832.13	335.22	335.22
4	-1.3	9.487	0	9.487	0	0	0	0	3	5.17	0.33	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	-13.19	-54.54	0.35	832.13	832.13	335.22	335.22
8	-2.48	18.263	0	18.263	0	0	0	0	-44.15	-45.1	0.37	832.13	832.13	335.22	335.22
10	-3.12	22.053	0	22.053	0	0	0	0	-67.48	-32.61	0.38	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-81.44	-17.52	0.4	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-102.06	-56.31	0.4	832.13	832.13	335.22	335.22
16	-4.97	33.142	0	33.142	0	0	0	0	-129.16	-36.58	0.4	832.13	832.13	335.22	335.22
18	-5.62	36.892	0	36.892	0	0	0	0	-142.26	-14.48	0.39	832.13	832.13	335.22	335.22
20	-6.28	40.316	0	40.316	0	0	0	0	-139.8	10.06	0.37	832.13	832.13	335.22	335.22

22	-6.82	43.525	0	43.525	0	0	0	0	-137.49	-7.54	0.35	832.13	832.13	335.22	335.22
24	-7.48	52.531	0	52.531	0	0	0	0	-128.2	21.98	0.31	832.13	832.13	335.22	335.22
26	-8.12	63.349	0	63.349	0	0	0	0	-96.71	57.86	0.27	832.13	832.13	335.22	335.22
28	-8.78	74.343	0	74.343	0	0	0	0	-38.44	100.83	0.22	832.13	832.13	335.22	335.22
30	-9.32	0	0	0	0	0	0	0	28.26	121.27	0.17	832.13	832.13	335.22	335.22
32	-9.98	0	0	0	0	0	0	0	107.09	121.27	0.12	832.13	832.13	335.22	335.22
34	-10.62	0	131.77	0	131.77	0	0	0	170.12	72.68	0.07	832.13	832.13	335.22	335.22
36	-11.28	0	105.37	0	105.37	0	0	0	177.17	-8.15	0.04	832.13	832.13	335.22	335.22
38	-11.92	54.81	82.671	54.81	82.671	0	0	0	142.8	-63.36	0.02	832.13	832.13	335.22	335.22
40	-12.58	87.999	73.111	87.999	73.111	0	0	0	95.55	-72.99	0.01	832.13	832.13	335.22	335.22
42	-13.22	102.89	73.694	102.89	73.694	0	0	0	53.85	-60.15	0	832.13	832.13	335.22	335.22
44	-13.88	108.41	79.736	108.41	79.736	0	0	0	24.11	-40.86	0	832.13	832.13	335.22	335.22
46	-14.52	110.09	88.032	110.09	88.032	0	0	0	6.32	-23.18	0	832.13	832.13	335.22	335.22
48	-15.18	111.07	96.742	111.07	96.742	0	0	0	-2.17	-10.11	0	832.13	832.13	335.22	335.22
50	-15.82	112.72	105.04	112.72	105.04	0	0	0	-4.57	-1.94	0.01	832.13	832.13	335.22	335.22
52	-16.48	115.34	112.73	115.34	112.73	0	0	0	-3.68	2.17	0.01	832.13	832.13	335.22	335.22
54	-17.12	118.71	119.94	118.71	119.94	0	0	0	-1.66	3.21	0.01	832.13	832.13	335.22	335.22
56	-17.77	122.42	126.92	122.42	126.92	0	0	0	-0.14	1.87	0.01	832.13	832.13	335.22	335.22

Wall 1 Stage: 8

Wall Node	EL (m)	Sht L (kPa)	Sht R (kPa)	Shs L (kPa)	Shs R (kPa)	q (kPa)	U L (kPa)	U R (kPa)	M (kN-m/m)	V (kN/m)	dx (cm)	Mcap L (kN-m/m)	Mcap R (kN-m/m)	VcapL (kN/m)	VcapR (kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.29	832.13	832.13	335.22	335.22
2	-0.65	5.223	0	5.223	0	0	0	0	0.38	1.18	0.31	832.13	832.13	335.22	335.22
4	-1.3	9.487	0	9.487	0	0	0	0	3	5.17	0.33	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	-13.19	-54.54	0.35	832.13	832.13	335.22	335.22
8	-2.48	18.263	0	18.263	0	0	0	0	-44.15	-45.1	0.37	832.13	832.13	335.22	335.22
10	-3.12	22.053	0	22.053	0	0	0	0	-67.48	-32.61	0.38	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-81.44	-17.52	0.4	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-102.06	-56.31	0.4	832.13	832.13	335.22	335.22
16	-4.97	33.142	0	33.142	0	0	0	0	-129.16	-36.58	0.4	832.13	832.13	335.22	335.22
18	-5.62	36.892	0	36.892	0	0	0	0	-142.26	-14.48	0.39	832.13	832.13	335.22	335.22
20	-6.28	40.316	0	40.316	0	0	0	0	-139.8	10.06	0.37	832.13	832.13	335.22	335.22
22	-6.82	43.525	0	43.525	0	0	0	0	-137.49	-7.54	0.35	832.13	832.13	335.22	335.22
24	-7.48	52.531	0	52.531	0	0	0	0	-128.2	21.98	0.31	832.13	832.13	335.22	335.22
26	-8.12	63.349	0	63.349	0	0	0	0	-96.71	57.86	0.27	832.13	832.13	335.22	335.22
28	-8.78	74.343	0	74.343	0	0	0	0	-38.44	100.83	0.22	832.13	832.13	335.22	335.22
30	-9.32	0	0	0	0	0	0	0	28.26	121.27	0.17	832.13	832.13	335.22	335.22
32	-9.98	0	0	0	0	0	0	0	107.09	121.27	0.12	832.13	832.13	335.22	335.22
34	-10.62	0	131.77	0	131.77	0	0	0	170.12	72.68	0.07	832.13	832.13	335.22	335.22
36	-11.28	0	105.37	0	105.37	0	0	0	177.17	-8.15	0.04	832.13	832.13	335.22	335.22
38	-11.92	54.81	82.671	54.81	82.671	0	0	0	142.8	-63.36	0.02	832.13	832.13	335.22	335.22

40	-12.58	87.999	73.111	87.999	73.111	0	0	0	95.55	-72.99	0.01	832.13	832.13	335.22	335.22
42	-13.22	102.89	73.694	102.89	73.694	0	0	0	53.85	-60.15	0	832.13	832.13	335.22	335.22
44	-13.88	108.41	79.736	108.41	79.736	0	0	0	24.11	-40.86	0	832.13	832.13	335.22	335.22
46	-14.52	110.09	88.032	110.09	88.032	0	0	0	6.32	-23.18	0	832.13	832.13	335.22	335.22
48	-15.18	111.07	96.742	111.07	96.742	0	0	0	-2.17	-10.11	0	832.13	832.13	335.22	335.22
50	-15.82	112.72	105.04	112.72	105.04	0	0	0	-4.57	-1.94	0.01	832.13	832.13	335.22	335.22
52	-16.48	115.34	112.73	115.34	112.73	0	0	0	-3.68	2.17	0.01	832.13	832.13	335.22	335.22
54	-17.12	118.71	119.94	118.71	119.94	0	0	0	-1.66	3.21	0.01	832.13	832.13	335.22	335.22
56	-17.77	122.42	126.92	122.42	126.92	0	0	0	-0.14	1.87	0.01	832.13	832.13	335.22	335.22

Wall 1 Stage: 9

Wall Node	EL (m)	Sht L (kPa)	Sht R (kPa)	Shs L (kPa)	Shs R (kPa)	q (kPa)	U L (kPa)	U R (kPa)	M (kN-m/m)	V (kN/m)	dx (cm)	Mcap L (kN-m/m)	Mcap R (kN-m/m)	VcapL (kN/m)	VcapR (kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.27	832.13	832.13	335.22	335.22
2	-0.65	6.51	0	6.51	0	0	0	0	0.54	1.67	0.29	832.13	832.13	335.22	335.22
4	-1.3	10.335	0	10.335	0	0	0	0	3.86	6.43	0.32	832.13	832.13	335.22	335.22
6	-1.82	13.948	0	13.948	0	0	0	0	-10.66	-50.31	0.34	832.13	832.13	335.22	335.22
8	-2.48	18.298	0	18.298	0	0	0	0	-38.74	-40.63	0.37	832.13	832.13	335.22	335.22
10	-3.12	22.055	0	22.055	0	0	0	0	-59.16	-28.13	0.39	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-70.21	-13.04	0.41	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-89.84	-56.35	0.42	832.13	832.13	335.22	335.22
16	-4.97	33.142	0	33.142	0	0	0	0	-116.96	-36.62	0.43	832.13	832.13	335.22	335.22
18	-5.62	36.892	0	36.892	0	0	0	0	-130.08	-14.52	0.43	832.13	832.13	335.22	335.22
20	-6.28	40.316	0	40.316	0	0	0	0	-127.65	10.02	0.43	832.13	832.13	335.22	335.22
22	-6.82	43.525	0	43.525	0	0	0	0	-131.1	-25.23	0.41	832.13	832.13	335.22	335.22
24	-7.48	47.528	0	47.528	0	0	0	0	-133.53	3.61	0.39	832.13	832.13	335.22	335.22
26	-8.12	57.549	0	57.549	0	0	0	0	-115.6	36.12	0.35	832.13	832.13	335.22	335.22
28	-8.78	67.84	0	67.84	0	0	0	0	-73.35	75.19	0.31	832.13	832.13	335.22	335.22
30	-9.32	0	0	0	0	0	0	0	-34.47	54.65	0.27	832.13	832.13	335.22	335.22
32	-9.98	0	0	0	0	0	0	0	1.05	54.65	0.22	832.13	832.13	335.22	335.22
34	-10.62	0	0	0	0	0	0	0	36.57	54.65	0.17	832.13	832.13	335.22	335.22
36	-11.28	0	0	0	0	0	0	0	72.09	54.65	0.13	832.13	832.13	335.22	335.22
38	-11.92	0	0	0	0	0	0	0	107.61	54.65	0.09	832.13	832.13	335.22	335.22
40	-12.58	0	127.74	0	127.74	0	0	0	143.13	54.65	0.05	832.13	832.13	335.22	335.22
42	-13.22	34.398	105.25	34.398	105.25	0	0	0	139.75	-23.53	0.03	832.13	832.13	335.22	335.22
44	-13.88	74.39	84.642	74.39	84.642	0	0	0	105.68	-58.26	0.02	832.13	832.13	335.22	335.22
46	-14.52	96.211	77.422	96.211	77.422	0	0	0	66.45	-59.14	0.01	832.13	832.13	335.22	335.22
48	-15.18	106.55	79.437	106.55	79.437	0	0	0	34.61	-44.94	0.01	832.13	832.13	335.22	335.22
50	-15.82	110.86	86.564	110.86	86.564	0	0	0	13.93	-27.48	0.01	832.13	832.13	335.22	335.22
52	-16.48	112.68	95.879	112.68	95.879	0	0	0	3.4	-12.81	0.01	832.13	832.13	335.22	335.22
54	-17.12	113.87	105.77	113.87	105.77	0	0	0	-0.06	-3.29	0.01	832.13	832.13	335.22	335.22
56	-17.77	115.04	115.61	115.04	115.61	0	0	0	-0.09	0.56	0.01	832.13	832.13	335.22	335.22

Wall 1 Stage: 10

Wall Node	EL (m)	Sht L (kPa)	Sht R (kPa)	Shs L (kPa)	Shs R (kPa)	q (kPa)	U L (kPa)	U R (kPa)	M (kN-m/m)	V (kN/m)	dx (cm)	Mcap L (kN-m/m)	Mcap R (kN-m/m)	VcapL (kN/m)	VcapR (kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.27	832.13	832.13	335.22	335.22
2	-0.65	6.51	0	6.51	0	0	0	0	0.54	1.67	0.29	832.13	832.13	335.22	335.22
4	-1.3	10.334	0	10.334	0	0	0	0	3.86	6.43	0.32	832.13	832.13	335.22	335.22
6	-1.82	13.947	0	13.947	0	0	0	0	-10.66	-50.32	0.34	832.13	832.13	335.22	335.22
8	-2.48	18.298	0	18.298	0	0	0	0	-38.75	-40.63	0.37	832.13	832.13	335.22	335.22
10	-3.12	22.055	0	22.055	0	0	0	0	-59.16	-28.13	0.39	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-70.21	-13.04	0.41	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-89.84	-56.35	0.42	832.13	832.13	335.22	335.22
16	-4.97	33.142	0	33.142	0	0	0	0	-116.96	-36.62	0.43	832.13	832.13	335.22	335.22
18	-5.62	36.892	0	36.892	0	0	0	0	-130.08	-14.52	0.43	832.13	832.13	335.22	335.22
20	-6.28	40.316	0	40.316	0	0	0	0	-127.65	10.02	0.43	832.13	832.13	335.22	335.22
22	-6.82	43.525	0	43.525	0	0	0	0	-131.1	-25.23	0.41	832.13	832.13	335.22	335.22
24	-7.48	47.528	0	47.528	0	0	0	0	-133.53	3.61	0.39	832.13	832.13	335.22	335.22
26	-8.12	57.549	0	57.549	0	0	0	0	-115.6	36.12	0.35	832.13	832.13	335.22	335.22
28	-8.78	67.84	0	67.84	0	0	0	0	-73.34	75.19	0.31	832.13	832.13	335.22	335.22
30	-9.32	0	0	0	0	0	0	0	-34.47	54.65	0.27	832.13	832.13	335.22	335.22
32	-9.98	0	0	0	0	0	0	0	1.05	54.65	0.22	832.13	832.13	335.22	335.22
34	-10.62	0	0	0	0	0	0	0	36.57	54.65	0.17	832.13	832.13	335.22	335.22
36	-11.28	0	0	0	0	0	0	0	72.09	54.65	0.13	832.13	832.13	335.22	335.22
38	-11.92	0	0	0	0	0	0	0	107.61	54.65	0.09	832.13	832.13	335.22	335.22
40	-12.58	0	127.74	0	127.74	0	0	0	143.13	54.65	0.05	832.13	832.13	335.22	335.22
42	-13.22	34.398	105.25	34.398	105.25	0	0	0	139.75	-23.53	0.03	832.13	832.13	335.22	335.22
44	-13.88	74.39	84.642	74.39	84.642	0	0	0	105.68	-58.26	0.02	832.13	832.13	335.22	335.22
46	-14.52	96.211	77.422	96.211	77.422	0	0	0	66.45	-59.14	0.01	832.13	832.13	335.22	335.22
48	-15.18	106.55	79.437	106.55	79.437	0	0	0	34.61	-44.94	0.01	832.13	832.13	335.22	335.22
50	-15.82	110.86	86.564	110.86	86.564	0	0	0	13.93	-27.48	0.01	832.13	832.13	335.22	335.22
52	-16.48	112.68	95.879	112.68	95.879	0	0	0	3.4	-12.81	0.01	832.13	832.13	335.22	335.22
54	-17.12	113.87	105.77	113.87	105.77	0	0	0	-0.06	-3.29	0.01	832.13	832.13	335.22	335.22
56	-17.77	115.04	115.61	115.04	115.61	0	0	0	-0.09	0.56	0.01	832.13	832.13	335.22	335.22

LEGENDA
Wall node=numero nodo
EL=quota
Sht L=pressione terreno orizzontale totale a sx paratia
Sht R=pressione terreno orizzontale totale a dx paratia
Shs L=pressione terreno orizzontale efficace a sx paratia
Shs R=pressione terreno orizzontale efficace a dx paratia
q=pressioni dovute al sovraccarico
U L=pressione acqua a sx paratia
U R=pressione acqua a dx paratia

M=momento flettente (per metro)
V=taglio (per metro)
dx=spostamento orizzontale
McapL=Momento ultimo lato sx
McapR=Momento ultimo lato dx
VcapL=Taglio ultimo resistente lato sx
VcapR=Taglio ultimo resistente lato dx

REAZIONI VINCOLI (TIRANTI, PUNTONI, SOLETTE, SBADACCHI)

Vincolo 0

Stage No	R
	(kN)
0	0
1	0
2	0
3	146.832
4	146.832
5	200.514
6	200.517
7	202.365
8	202.365
9	194.415
10	194.418

Vincolo 1

Stage No	R
	(kN)
0	0
1	0
2	0
3	0
4	0
5	111.549
6	111.549
7	166.35
8	166.35
9	180.387
10	180.39

Vincolo 2

Stage No	R

	(kN)
0	0
1	0
2	0
3	0
4	0
5	0
6	0
7	124.596
8	124.596
9	179.427
10	179.43

Vincolo 3

Stage No	R
	(kN)
0	0
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	121.749
10	121.752

Verifica tensioni

Vincolo 0

Tabella: vincoli 0, Sommario rapporti di verifica

Stage No	R/CAP	R/STR	R/GEO
0	N/A	N/A	N/A
1	N/A	N/A	N/A
2	0	0	0
3	0.212	0.192	0.212
4	0.212	0.192	0.212
5	0.29	0.262	0.29
6	0.29	0.262	0.29

7	0.293	0.264	0.293
8	0.293	0.264	0.293
9	0.281	0.254	0.281
10	0.281	0.254	0.281

Vincolo 1

Tabella: vincoli 1, Sommario rapporti di verifica

Stage No	R/CAP	R/STR	R/GEO
0	N/A	N/A	N/A
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	0	0	0
5	0.178	0.146	0.178
6	0.178	0.146	0.178
7	0.265	0.217	0.265
8	0.265	0.217	0.265
9	0.287	0.236	0.287
10	0.287	0.236	0.287

Vincolo 2

Tabella: vincoli 2, Sommario rapporti di verifica

Stage No	R/CAP	R/STR	R/GEO
0	N/A	N/A	N/A
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	N/A	N/A	N/A
5	N/A	N/A	N/A
6	0	0	0
7	0.248	0.163	0.248
8	0.248	0.163	0.248
9	0.357	0.234	0.357
10	0.357	0.234	0.357

Vincolo 3

Tabella: vincoli 3, Sommario rapporti di verifica

Stage No	R/CAP	R/STR	R/GEO
0	N/A	N/A	N/A

1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	N/A	N/A	N/A
5	N/A	N/A	N/A
6	N/A	N/A	N/A
7	N/A	N/A	N/A
8	0	0	0
9	0.291	0.159	0.291
10	0.291	0.159	0.291

Progetto: Paratia edificio impianti
Risultati per l'Approccio di Progetto 1: 0: DM08_ITA: Comb. 1: A1+M1+R1

APPROCCI DI PROGETTO E FATTORI DI COMBINAZIONE

Moltiplicatori e fattori di riduzione utilizzati per ogni Approccio di Progetto

Stage	Design Code	Design Case	F(tan	F	F	F	F(perm	F(temp	F(perm	F(temp	F Earth	F Earth	F GWT	F GWT	F HYD	F HYD	F UPL	F UPL
	Name		fr)	(c')	(Su)	(EQ)	load)	load)	sup)	sup)	(Dstab)	(stab)	(Dstab)	(stab)	(Dstab)	(stab)	(Dstab)	(stab)
0	DM08_ITA	1: A1+M1+R1	1	1	1	0	1.3	1.5	1.2	1.1	1.3	1	1.3	1	1.3	0.9	1	1
1	DM08_ITA	1: A1+M1+R1	1	1	1	0	1.3	1.5	1.2	1.1	1.3	1	1.3	1	1.3	0.9	1	1
2	DM08_ITA	1: A1+M1+R1	1	1	1	0	1.3	1.5	1.2	1.1	1.3	1	1.3	1	1.3	0.9	1	1
3	DM08_ITA	1: A1+M1+R1	1	1	1	0	1.3	1.5	1.2	1.1	1.3	1	1.3	1	1.3	0.9	1	1
4	DM08_ITA	1: A1+M1+R1	1	1	1	0	1.3	1.5	1.2	1.1	1.3	1	1.3	1	1.3	0.9	1	1
5	DM08_ITA	1: A1+M1+R1	1	1	1	0	1.3	1.5	1.2	1.1	1.3	1	1.3	1	1.3	0.9	1	1
6	DM08_ITA	1: A1+M1+R1	1	1	1	0	1.3	1.5	1.2	1.1	1.3	1	1.3	1	1.3	0.9	1	1
7	DM08_ITA	1: A1+M1+R1	1	1	1	0	1.3	1.5	1.2	1.1	1.3	1	1.3	1	1.3	0.9	1	1
8	DM08_ITA	1: A1+M1+R1	1	1	1	0	1.3	1.5	1.2	1.1	1.3	1	1.3	1	1.3	0.9	1	1
9	DM08_ITA	1: A1+M1+R1	1	1	1	0	1.3	1.5	1.2	1.1	1.3	1	1.3	1	1.3	0.9	1	1
10	DM08_ITA	1: A1+M1+R1	1	1	1	0	1.3	1.5	1.2	1.1	1.3	1	1.3	1	1.3	0.9	1	1

Legenda
Stage: Fase di scavo
Design Code: Normativa in accordo alla quale vengono eseguite le verifiche
Ftan fr: moltiplicatore della tangente dell'angolo di attrito
F C': moltiplicatore della coesione efficace
F Su': moltiplicatore coesione non drenata
F EQ: moltiplicatore azione sismica
F perm load: moltiplicatore carichi permanenti
F temp load: moltiplicatore carichi accidentali/variabili
F perm supp: fattore di riduzione della resistenza allo sfilamento dei tiranti, intesi come permanenti
F temp supp: fattore di riduzione della resistenza allo sfilamento dei tiranti, intesi come temporanei
F earth Dstab: moltiplicatore della spinta attiva, caso sfavorevole
F earth stab: moltiplicatore della spinta attiva, caso favorevole
F GWT Dstab (ground water): moltiplicatore della spinta idrostatica, caso sfavorevole
F GWT stab (ground water): moltiplicatore della spinta idrostatica, caso favorevole
F HYD Dstab: moltiplicatore della spinta idrodinamica, caso sfavorevole
F HYD stab: moltiplicatore della spinta idrodinamica, caso favorevole
F UPL Dstab: moltiplicatore per la verifica a sifonamento, caso sfavorevole
F UPL stab: moltiplicatore per la verifica a sifonamento, caso favorevole

TABELLA RISULTATI PARATIA

Wall 1 Stage: 0

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0	832.13	832.13	335.22	335.22
2	-0.65	20.688	20.688	20.688	20.688	0	0	0	0	0	0	832.13	832.13	335.22	335.22
4	-1.3	31.273	31.273	31.273	31.273	0	0	0	0	0	0	832.13	832.13	335.22	335.22
6	-1.82	36.768	36.768	36.768	36.768	0	0	0	0	0	0	832.13	832.13	335.22	335.22
8	-2.48	42.497	42.497	42.497	42.497	0	0	0	0	0	0	832.13	832.13	335.22	335.22
10	-3.12	47.84	47.84	47.84	47.84	0	0	0	0	0	0	832.13	832.13	335.22	335.22
12	-3.78	53.054	53.054	53.054	53.054	0	0	0	0	0	0	832.13	832.13	335.22	335.22
14	-4.32	57.428	57.428	57.428	57.428	0	0	0	0	0	0	832.13	832.13	335.22	335.22
16	-4.97	62.583	62.583	62.583	62.583	0	0	0	0	0	0	832.13	832.13	335.22	335.22
18	-5.62	67.736	67.736	67.736	67.736	0	0	0	0	0	0	832.13	832.13	335.22	335.22
20	-6.28	72.897	72.897	72.897	72.897	0	0	0	0	0	0	832.13	832.13	335.22	335.22
22	-6.82	77.273	77.273	77.273	77.273	0	0	0	0	0	0	832.13	832.13	335.22	335.22
24	-7.48	82.459	82.459	82.459	82.459	0	0	0	0	0	0	832.13	832.13	335.22	335.22
26	-8.12	87.661	87.661	87.661	87.661	0	0	0	0	0	0	832.13	832.13	335.22	335.22
28	-8.78	92.882	92.882	92.882	92.882	0	0	0	0	0	0	832.13	832.13	335.22	335.22
30	-9.32	85.308	85.308	85.308	85.308	0	0	0	0	0	0	832.13	832.13	335.22	335.22
32	-9.98	90.53	90.53	90.53	90.53	0	0	0	0	0	0	832.13	832.13	335.22	335.22
34	-10.62	95.772	95.772	95.772	95.772	0	0	0	0	0	0	832.13	832.13	335.22	335.22

36	-11.28	101.03	101.03	101.03	101.03	0	0	0	0	0	0	832.13	832.13	335.22	335.22
38	-11.92	106.32	106.32	106.32	106.32	0	0	0	0	0	0	832.13	832.13	335.22	335.22
40	-12.58	111.62	111.62	111.62	111.62	0	0	0	0	0	0	832.13	832.13	335.22	335.22
42	-13.22	116.95	116.95	116.95	116.95	0	0	0	0	0	0	832.13	832.13	335.22	335.22
44	-13.88	122.29	122.29	122.29	122.29	0	0	0	0	0	0	832.13	832.13	335.22	335.22
46	-14.52	127.66	127.66	127.66	127.66	0	0	0	0	0	0	832.13	832.13	335.22	335.22
48	-15.18	133.05	133.05	133.05	133.05	0	0	0	0	0	0	832.13	832.13	335.22	335.22
50	-15.82	138.45	138.45	138.45	138.45	0	0	0	0	0	0	832.13	832.13	335.22	335.22
52	-16.48	143.87	143.87	143.87	143.87	0	0	0	0	0	0	832.13	832.13	335.22	335.22
54	-17.12	149.32	149.32	149.32	149.32	0	0	0	0	0	0	832.13	832.13	335.22	335.22
56	-17.77	154.78	154.78	154.78	154.78	0	0	0	0	0	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 1

Wall Node	EL (m)	Sht L (kPa)	Sht R (kPa)	Shs L (kPa)	Shs R (kPa)	q (kPa)	U L (kPa)	U R (kPa)	M (kN-m/m)	V (kN/m)	dx (cm)	Mcap L (kN-m/m)	Mcap R (kN-m/m)	VcapL (kN/m)	VcapR (kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.11	832.13	832.13	335.22	335.22
2	-0.65	3.93	0	3.93	0	0	0	0	0.25	0.76	0.09	832.13	832.13	335.22	335.22
4	-1.3	9.309	0	9.309	0	0	0	0	2.68	5.08	0.08	832.13	832.13	335.22	335.22
6	-1.82	15.008	0	15.008	0	0	0	0	8.26	12.08	0.07	832.13	832.13	335.22	335.22
8	-2.48	24.584	36.662	24.584	36.662	0	0	0	21.38	21.94	0.06	832.13	832.13	335.22	335.22
10	-3.12	33.424	46.201	33.424	46.201	0	0	0	30.25	10.45	0.05	832.13	832.13	335.22	335.22
12	-3.78	41.639	49.986	41.639	49.986	0	0	0	32.1	0.62	0.04	832.13	832.13	335.22	335.22
14	-4.32	48.135	53.238	48.135	53.238	0	0	0	29.99	-4.85	0.03	832.13	832.13	335.22	335.22
16	-4.97	55.339	57.261	55.339	57.261	0	0	0	24.97	-8.45	0.02	832.13	832.13	335.22	335.22
18	-5.62	62.123	61.493	62.123	61.493	0	0	0	18.86	-9.51	0.02	832.13	832.13	335.22	335.22
20	-6.28	68.598	65.903	68.598	65.903	0	0	0	13.09	-8.52	0.01	832.13	832.13	335.22	335.22
22	-6.82	73.908	69.739	73.908	69.739	0	0	0	9.32	-6.37	0.01	832.13	832.13	335.22	335.22
24	-7.48	80.052	74.364	80.052	74.364	0	0	0	7.01	-2.51	0.01	832.13	832.13	335.22	335.22
26	-8.12	86.09	79.074	86.09	79.074	0	0	0	7.81	2.58	0.01	832.13	832.13	335.22	335.22
28	-8.78	92.007	83.883	92.007	83.883	0	0	0	12.46	8.76	0	832.13	832.13	335.22	335.22
30	-9.32	68.84	85.583	68.84	85.583	0	0	0	15.62	1.65	0	832.13	832.13	335.22	335.22
32	-9.98	84.33	85.801	84.33	85.801	0	0	0	11.03	-8.69	0	832.13	832.13	335.22	335.22
34	-10.62	93.043	89.194	93.043	89.194	0	0	0	5.27	-8.4	0	832.13	832.13	335.22	335.22
36	-11.28	98.366	94.452	98.366	94.452	0	0	0	1.45	-4.98	0	832.13	832.13	335.22	335.22
38	-11.92	102.67	100.29	102.67	100.29	0	0	0	-0.27	-1.97	0	832.13	832.13	335.22	335.22
40	-12.58	107.08	106.1	107.08	106.1	0	0	0	-0.68	-0.29	0	832.13	832.13	335.22	335.22
42	-13.22	111.89	111.72	111.89	111.72	0	0	0	-0.53	0.33	0	832.13	832.13	335.22	335.22
44	-13.88	117.05	117.19	117.05	117.19	0	0	0	-0.27	0.39	0	832.13	832.13	335.22	335.22
46	-14.52	122.4	122.58	122.4	122.58	0	0	0	-0.09	0.25	0	832.13	832.13	335.22	335.22
48	-15.18	127.83	127.95	127.83	127.95	0	0	0	0	0.11	0	832.13	832.13	335.22	335.22
50	-15.82	133.29	133.34	133.29	133.34	0	0	0	0.03	0.02	0	832.13	832.13	335.22	335.22
52	-16.48	138.74	138.76	138.74	138.76	0	0	0	0.02	-0.01	0	832.13	832.13	335.22	335.22

54	-17.12	144.21	144.2	144.21	144.2	0	0	0	0.01	-0.02	0	832.13	832.13	335.22	335.22
56	-17.77	149.68	149.66	149.68	149.66	0	0	0	0	-0.01	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 2

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.11	832.13	832.13	335.22	335.22
2	-0.65	3.93	0	3.93	0	0	0	0	0.25	0.76	0.09	832.13	832.13	335.22	335.22
4	-1.3	9.309	0	9.309	0	0	0	0	2.68	5.08	0.08	832.13	832.13	335.22	335.22
6	-1.82	15.008	0	15.008	0	0	0	0	8.26	12.08	0.07	832.13	832.13	335.22	335.22
8	-2.48	24.584	36.662	24.584	36.662	0	0	0	21.38	21.94	0.06	832.13	832.13	335.22	335.22
10	-3.12	33.424	46.201	33.424	46.201	0	0	0	30.25	10.45	0.05	832.13	832.13	335.22	335.22
12	-3.78	41.639	49.986	41.639	49.986	0	0	0	32.1	0.62	0.04	832.13	832.13	335.22	335.22
14	-4.32	48.135	53.238	48.135	53.238	0	0	0	29.99	-4.85	0.03	832.13	832.13	335.22	335.22
16	-4.97	55.339	57.261	55.339	57.261	0	0	0	24.97	-8.45	0.02	832.13	832.13	335.22	335.22
18	-5.62	62.123	61.493	62.123	61.493	0	0	0	18.86	-9.51	0.02	832.13	832.13	335.22	335.22
20	-6.28	68.598	65.903	68.598	65.903	0	0	0	13.09	-8.52	0.01	832.13	832.13	335.22	335.22
22	-6.82	73.908	69.739	73.908	69.739	0	0	0	9.32	-6.37	0.01	832.13	832.13	335.22	335.22
24	-7.48	80.052	74.364	80.052	74.364	0	0	0	7.01	-2.51	0.01	832.13	832.13	335.22	335.22
26	-8.12	86.09	79.074	86.09	79.074	0	0	0	7.81	2.58	0.01	832.13	832.13	335.22	335.22
28	-8.78	92.007	83.883	92.007	83.883	0	0	0	12.46	8.76	0	832.13	832.13	335.22	335.22
30	-9.32	68.84	85.583	68.84	85.583	0	0	0	15.62	1.65	0	832.13	832.13	335.22	335.22
32	-9.98	84.33	85.801	84.33	85.801	0	0	0	11.03	-8.69	0	832.13	832.13	335.22	335.22
34	-10.62	93.043	89.194	93.043	89.194	0	0	0	5.27	-8.4	0	832.13	832.13	335.22	335.22
36	-11.28	98.366	94.452	98.366	94.452	0	0	0	1.45	-4.98	0	832.13	832.13	335.22	335.22
38	-11.92	102.67	100.29	102.67	100.29	0	0	0	-0.27	-1.97	0	832.13	832.13	335.22	335.22
40	-12.58	107.08	106.1	107.08	106.1	0	0	0	-0.68	-0.29	0	832.13	832.13	335.22	335.22
42	-13.22	111.89	111.72	111.89	111.72	0	0	0	-0.53	0.33	0	832.13	832.13	335.22	335.22
44	-13.88	117.05	117.19	117.05	117.19	0	0	0	-0.27	0.39	0	832.13	832.13	335.22	335.22
46	-14.52	122.4	122.58	122.4	122.58	0	0	0	-0.09	0.25	0	832.13	832.13	335.22	335.22
48	-15.18	127.83	127.95	127.83	127.95	0	0	0	0	0.11	0	832.13	832.13	335.22	335.22
50	-15.82	133.29	133.34	133.29	133.34	0	0	0	0.03	0.02	0	832.13	832.13	335.22	335.22
52	-16.48	138.74	138.76	138.74	138.76	0	0	0	0.02	-0.01	0	832.13	832.13	335.22	335.22
54	-17.12	144.21	144.2	144.21	144.2	0	0	0	0.01	-0.02	0	832.13	832.13	335.22	335.22
56	-17.77	149.68	149.66	149.68	149.66	0	0	0	0	-0.01	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 3

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.3	832.13	832.13	335.22	335.22
2	-0.65	3.93	0	3.93	0	0	0	0	0.25	0.76	0.28	832.13	832.13	335.22	335.22

4	-1.3	9.309	0	9.309	0	0	0	0	2.68	5.08	0.27	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	-11.71	-49.37	0.26	832.13	832.13	335.22	335.22
8	-2.48	18.263	0	18.263	0	0	0	0	-37.97	-37.11	0.24	832.13	832.13	335.22	335.22
10	-3.12	22.053	0	22.053	0	0	0	0	-54.3	-20.86	0.23	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-58.46	-1.25	0.21	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-50.81	17.95	0.19	832.13	832.13	335.22	335.22
16	-4.97	35.714	36.662	35.714	36.662	0	0	0	-28.37	38.7	0.16	832.13	832.13	335.22	335.22
18	-5.62	45.409	54.636	45.409	54.636	0	0	0	-5.1	33.31	0.14	832.13	832.13	335.22	335.22
20	-6.28	54.977	58.405	54.977	58.405	0	0	0	13.14	26.72	0.11	832.13	832.13	335.22	335.22
22	-6.82	62.913	61.273	62.913	61.273	0	0	0	27.01	25.01	0.09	832.13	832.13	335.22	335.22
24	-7.48	72.032	64.576	72.032	64.576	0	0	0	44.34	27.64	0.07	832.13	832.13	335.22	335.22
26	-8.12	80.765	67.977	80.765	67.977	0	0	0	65.75	35.1	0.04	832.13	832.13	335.22	335.22
28	-8.78	88.942	71.656	88.942	71.656	0	0	0	94.16	46.91	0.02	832.13	832.13	335.22	335.22
30	-9.32	8.885	98.666	8.885	98.666	0	0	0	110.72	14.19	0.01	832.13	832.13	335.22	335.22
32	-9.98	64.098	85.09	64.098	85.09	0	0	0	88.29	-45.25	0	832.13	832.13	335.22	335.22
34	-10.62	91.497	78.552	91.497	78.552	0	0	0	53.15	-54	0	832.13	832.13	335.22	335.22
36	-11.28	101.72	81.09	101.72	81.09	0	0	0	24.24	-40.42	0	832.13	832.13	335.22	335.22
38	-11.92	105.19	87.741	105.19	87.741	0	0	0	6.37	-23.31	0	832.13	832.13	335.22	335.22
40	-12.58	106.29	95.466	106.29	95.466	0	0	0	-2.04	-9.95	0	832.13	832.13	335.22	335.22
42	-13.22	108	102.86	108	102.86	0	0	0	-4.47	-2.1	0	832.13	832.13	335.22	335.22
44	-13.88	111.08	109.55	111.08	109.55	0	0	0	-4.01	1.37	0	832.13	832.13	335.22	335.22
46	-14.52	115.35	115.6	115.35	115.6	0	0	0	-2.64	2.21	0	832.13	832.13	335.22	335.22
48	-15.18	120.41	121.24	120.41	121.24	0	0	0	-1.36	1.83	0	832.13	832.13	335.22	335.22
50	-15.82	125.88	126.68	125.88	126.68	0	0	0	-0.51	1.12	0	832.13	832.13	335.22	335.22
52	-16.48	131.51	132.06	131.51	132.06	0	0	0	-0.09	0.49	0	832.13	832.13	335.22	335.22
54	-17.12	137.19	137.43	137.19	137.43	0	0	0	0.02	0.1	0	832.13	832.13	335.22	335.22
56	-17.77	142.88	142.82	142.88	142.82	0	0	0	0.01	-0.04	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 4

Wall Node	EL (m)	Sht L (kPa)	Sht R (kPa)	Shs L (kPa)	Shs R (kPa)	q (kPa)	U L (kPa)	U R (kPa)	M (kN-m/m)	V (kN/m)	dx (cm)	Mcap L (kN-m/m)	Mcap R (kN-m/m)	VcapL (kN/m)	VcapR (kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.3	832.13	832.13	335.22	335.22
2	-0.65	3.93	0	3.93	0	0	0	0	0.25	0.76	0.28	832.13	832.13	335.22	335.22
4	-1.3	9.309	0	9.309	0	0	0	0	2.68	5.08	0.27	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	-11.71	-49.37	0.26	832.13	832.13	335.22	335.22
8	-2.48	18.263	0	18.263	0	0	0	0	-37.97	-37.11	0.24	832.13	832.13	335.22	335.22
10	-3.12	22.053	0	22.053	0	0	0	0	-54.3	-20.86	0.23	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-58.46	-1.25	0.21	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-50.81	17.95	0.19	832.13	832.13	335.22	335.22
16	-4.97	35.714	36.662	35.714	36.662	0	0	0	-28.37	38.7	0.16	832.13	832.13	335.22	335.22
18	-5.62	45.409	54.636	45.409	54.636	0	0	0	-5.1	33.31	0.14	832.13	832.13	335.22	335.22
20	-6.28	54.977	58.405	54.977	58.405	0	0	0	13.14	26.72	0.11	832.13	832.13	335.22	335.22

22	-6.82	62.913	61.273	62.913	61.273	0	0	0	27.01	25.01	0.09	832.13	832.13	335.22	335.22
24	-7.48	72.032	64.576	72.032	64.576	0	0	0	44.34	27.64	0.07	832.13	832.13	335.22	335.22
26	-8.12	80.765	67.977	80.765	67.977	0	0	0	65.75	35.1	0.04	832.13	832.13	335.22	335.22
28	-8.78	88.942	71.656	88.942	71.656	0	0	0	94.16	46.91	0.02	832.13	832.13	335.22	335.22
30	-9.32	8.885	98.666	8.885	98.666	0	0	0	110.72	14.19	0.01	832.13	832.13	335.22	335.22
32	-9.98	64.098	85.09	64.098	85.09	0	0	0	88.29	-45.25	0	832.13	832.13	335.22	335.22
34	-10.62	91.497	78.552	91.497	78.552	0	0	0	53.15	-54	0	832.13	832.13	335.22	335.22
36	-11.28	101.72	81.09	101.72	81.09	0	0	0	24.24	-40.42	0	832.13	832.13	335.22	335.22
38	-11.92	105.19	87.741	105.19	87.741	0	0	0	6.37	-23.31	0	832.13	832.13	335.22	335.22
40	-12.58	106.29	95.466	106.29	95.466	0	0	0	-2.04	-9.95	0	832.13	832.13	335.22	335.22
42	-13.22	108	102.86	108	102.86	0	0	0	-4.47	-2.1	0	832.13	832.13	335.22	335.22
44	-13.88	111.08	109.55	111.08	109.55	0	0	0	-4.01	1.37	0	832.13	832.13	335.22	335.22
46	-14.52	115.35	115.6	115.35	115.6	0	0	0	-2.64	2.21	0	832.13	832.13	335.22	335.22
48	-15.18	120.41	121.24	120.41	121.24	0	0	0	-1.36	1.83	0	832.13	832.13	335.22	335.22
50	-15.82	125.88	126.68	125.88	126.68	0	0	0	-0.51	1.12	0	832.13	832.13	335.22	335.22
52	-16.48	131.51	132.06	131.51	132.06	0	0	0	-0.09	0.49	0	832.13	832.13	335.22	335.22
54	-17.12	137.19	137.43	137.19	137.43	0	0	0	0.02	0.1	0	832.13	832.13	335.22	335.22
56	-17.77	142.88	142.82	142.88	142.82	0	0	0	0.01	-0.04	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 5

Wall Node	EL (m)	Sht L (kPa)	Sht R (kPa)	Shs L (kPa)	Shs R (kPa)	q (kPa)	U L (kPa)	U R (kPa)	M (kN-m/m)	V (kN/m)	dx (cm)	Mcap L (kN-m/m)	Mcap R (kN-m/m)	VcapL (kN/m)	VcapR (kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.32	832.13	832.13	335.22	335.22
2	-0.65	3.93	0	3.93	0	0	0	0	0.25	0.76	0.33	832.13	832.13	335.22	335.22
4	-1.3	9.309	0	9.309	0	0	0	0	2.68	5.08	0.33	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	-19.01	-71.84	0.34	832.13	832.13	335.22	335.22
8	-2.48	18.263	0	18.263	0	0	0	0	-59.88	-59.58	0.34	832.13	832.13	335.22	335.22
10	-3.12	22.053	0	22.053	0	0	0	0	-90.82	-43.33	0.34	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-109.58	-23.72	0.34	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-129.46	-51.21	0.33	832.13	832.13	335.22	335.22
16	-4.97	33.142	0	33.142	0	0	0	0	-150.38	-25.57	0.31	832.13	832.13	335.22	335.22
18	-5.62	36.892	0	36.892	0	0	0	0	-153.11	3.17	0.29	832.13	832.13	335.22	335.22
20	-6.28	42.219	0	42.219	0	0	0	0	-135.62	35.07	0.26	832.13	832.13	335.22	335.22
22	-6.82	51.159	0	51.159	0	0	0	0	-102.71	66.55	0.22	832.13	832.13	335.22	335.22
24	-7.48	62.021	36.662	62.021	36.662	0	0	0	-39.22	107.17	0.18	832.13	832.13	335.22	335.22
26	-8.12	72.893	51.592	72.893	51.592	0	0	0	39.93	125.67	0.13	832.13	832.13	335.22	335.22
28	-8.78	83.331	55.793	83.331	55.793	0	0	0	130.82	144.99	0.09	832.13	832.13	335.22	335.22
30	-9.32	0	136.78	0	136.78	0	0	0	197.46	97.83	0.06	832.13	832.13	335.22	335.22
32	-9.98	0	104.18	0	104.18	0	0	0	207.23	-9.94	0.03	832.13	832.13	335.22	335.22
34	-10.62	57.56	82.892	57.56	82.892	0	0	0	163.01	-82.12	0.01	832.13	832.13	335.22	335.22
36	-11.28	92.226	72.694	92.226	72.694	0	0	0	103.05	-91.66	0	832.13	832.13	335.22	335.22
38	-11.92	105.58	74.079	105.58	74.079	0	0	0	52.72	-71.47	0	832.13	832.13	335.22	335.22

40	-12.58	109.32	81.004	109.32	81.004	0	0	0	19.22	-44.91	0	832.13	832.13	335.22	335.22
42	-13.22	109.17	89.688	109.17	89.688	0	0	0	1.11	-22.76	0	832.13	832.13	335.22	335.22
44	-13.88	109.23	98.229	109.23	98.229	0	0	0	-6.27	-8.19	0	832.13	832.13	335.22	335.22
46	-14.52	110.8	105.94	110.8	105.94	0	0	0	-7.53	-0.33	0	832.13	832.13	335.22	335.22
48	-15.18	113.97	112.78	113.97	112.78	0	0	0	-6.03	2.89	0	832.13	832.13	335.22	335.22
50	-15.82	118.36	118.95	118.36	118.95	0	0	0	-3.81	3.44	0	832.13	832.13	335.22	335.22
52	-16.48	123.49	124.73	123.49	124.73	0	0	0	-1.87	2.76	0	832.13	832.13	335.22	335.22
54	-17.12	129	130.31	129	130.31	0	0	0	-0.6	1.68	0	832.13	832.13	335.22	335.22
56	-17.77	134.63	135.83	134.63	135.83	0	0	0	-0.04	0.6	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 6

Wall Node	EL (m)	Sht L (kPa)	Sht R (kPa)	Shs L (kPa)	Shs R (kPa)	q (kPa)	U L (kPa)	U R (kPa)	M (kN-m/m)	V (kN/m)	dx (cm)	Mcap L (kN-m/m)	Mcap R (kN-m/m)	VcapL (kN/m)	VcapR (kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.32	832.13	832.13	335.22	335.22
2	-0.65	3.93	0	3.93	0	0	0	0	0.25	0.76	0.33	832.13	832.13	335.22	335.22
4	-1.3	9.309	0	9.309	0	0	0	0	2.68	5.08	0.33	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	-19.01	-71.84	0.34	832.13	832.13	335.22	335.22
8	-2.48	18.263	0	18.263	0	0	0	0	-59.88	-59.58	0.34	832.13	832.13	335.22	335.22
10	-3.12	22.053	0	22.053	0	0	0	0	-90.81	-43.33	0.34	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-109.58	-23.72	0.34	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-129.45	-51.21	0.33	832.13	832.13	335.22	335.22
16	-4.97	33.142	0	33.142	0	0	0	0	-150.38	-25.57	0.31	832.13	832.13	335.22	335.22
18	-5.62	36.892	0	36.892	0	0	0	0	-153.11	3.17	0.29	832.13	832.13	335.22	335.22
20	-6.28	42.219	0	42.219	0	0	0	0	-135.62	35.07	0.26	832.13	832.13	335.22	335.22
22	-6.82	51.159	0	51.159	0	0	0	0	-102.71	66.55	0.22	832.13	832.13	335.22	335.22
24	-7.48	62.021	36.662	62.021	36.662	0	0	0	-39.22	107.17	0.18	832.13	832.13	335.22	335.22
26	-8.12	72.893	51.592	72.893	51.592	0	0	0	39.93	125.67	0.13	832.13	832.13	335.22	335.22
28	-8.78	83.331	55.793	83.331	55.793	0	0	0	130.82	144.99	0.09	832.13	832.13	335.22	335.22
30	-9.32	0	136.78	0	136.78	0	0	0	197.46	97.83	0.06	832.13	832.13	335.22	335.22
32	-9.98	0	104.18	0	104.18	0	0	0	207.23	-9.94	0.03	832.13	832.13	335.22	335.22
34	-10.62	57.56	82.892	57.56	82.892	0	0	0	163.01	-82.12	0.01	832.13	832.13	335.22	335.22
36	-11.28	92.226	72.694	92.226	72.694	0	0	0	103.05	-91.66	0	832.13	832.13	335.22	335.22
38	-11.92	105.58	74.079	105.58	74.079	0	0	0	52.72	-71.47	0	832.13	832.13	335.22	335.22
40	-12.58	109.32	81.004	109.32	81.004	0	0	0	19.22	-44.91	0	832.13	832.13	335.22	335.22
42	-13.22	109.17	89.688	109.17	89.688	0	0	0	1.11	-22.76	0	832.13	832.13	335.22	335.22
44	-13.88	109.23	98.229	109.23	98.229	0	0	0	-6.27	-8.19	0	832.13	832.13	335.22	335.22
46	-14.52	110.8	105.94	110.8	105.94	0	0	0	-7.53	-0.33	0	832.13	832.13	335.22	335.22
48	-15.18	113.97	112.78	113.97	112.78	0	0	0	-6.03	2.89	0	832.13	832.13	335.22	335.22
50	-15.82	118.36	118.95	118.36	118.95	0	0	0	-3.81	3.44	0	832.13	832.13	335.22	335.22
52	-16.48	123.49	124.73	123.49	124.73	0	0	0	-1.87	2.76	0	832.13	832.13	335.22	335.22
54	-17.12	129	130.31	129	130.31	0	0	0	-0.6	1.68	0	832.13	832.13	335.22	335.22
56	-17.77	134.63	135.83	134.63	135.83	0	0	0	-0.04	0.6	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 7

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.29	832.13	832.13	335.22	335.22
2	-0.65	5.223	0	5.223	0	0	0	0	0.5	1.54	0.31	832.13	832.13	335.22	335.22
4	-1.3	9.487	0	9.487	0	0	0	0	3.9	6.72	0.33	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	-17.15	-70.9	0.35	832.13	832.13	335.22	335.22
8	-2.48	18.263	0	18.263	0	0	0	0	-57.4	-58.63	0.37	832.13	832.13	335.22	335.22
10	-3.12	22.053	0	22.053	0	0	0	0	-87.72	-42.39	0.38	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-105.87	-22.78	0.4	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-132.68	-73.21	0.4	832.13	832.13	335.22	335.22
16	-4.97	33.142	0	33.142	0	0	0	0	-167.91	-47.56	0.4	832.13	832.13	335.22	335.22
18	-5.62	36.892	0	36.892	0	0	0	0	-184.94	-18.82	0.39	832.13	832.13	335.22	335.22
20	-6.28	40.316	0	40.316	0	0	0	0	-181.74	13.07	0.37	832.13	832.13	335.22	335.22
22	-6.82	43.525	0	43.525	0	0	0	0	-178.74	-9.8	0.35	832.13	832.13	335.22	335.22
24	-7.48	52.531	0	52.531	0	0	0	0	-166.66	28.57	0.31	832.13	832.13	335.22	335.22
26	-8.12	63.349	0	63.349	0	0	0	0	-125.72	75.22	0.27	832.13	832.13	335.22	335.22
28	-8.78	74.343	0	74.343	0	0	0	0	-49.97	131.08	0.22	832.13	832.13	335.22	335.22
30	-9.32	0	0	0	0	0	0	0	36.74	157.65	0.17	832.13	832.13	335.22	335.22
32	-9.98	0	0	0	0	0	0	0	139.22	157.65	0.12	832.13	832.13	335.22	335.22
34	-10.62	0	131.77	0	131.77	0	0	0	221.16	94.48	0.07	832.13	832.13	335.22	335.22
36	-11.28	0	105.37	0	105.37	0	0	0	230.32	-10.6	0.04	832.13	832.13	335.22	335.22
38	-11.92	54.81	82.671	54.81	82.671	0	0	0	185.64	-82.37	0.02	832.13	832.13	335.22	335.22
40	-12.58	87.999	73.111	87.999	73.111	0	0	0	124.21	-94.88	0.01	832.13	832.13	335.22	335.22
42	-13.22	102.89	73.694	102.89	73.694	0	0	0	70	-78.19	0	832.13	832.13	335.22	335.22
44	-13.88	108.41	79.736	108.41	79.736	0	0	0	31.34	-53.12	0	832.13	832.13	335.22	335.22
46	-14.52	110.09	88.032	110.09	88.032	0	0	0	8.22	-30.13	0	832.13	832.13	335.22	335.22
48	-15.18	111.07	96.742	111.07	96.742	0	0	0	-2.82	-13.14	0	832.13	832.13	335.22	335.22
50	-15.82	112.72	105.04	112.72	105.04	0	0	0	-5.94	-2.52	0.01	832.13	832.13	335.22	335.22
52	-16.48	115.34	112.73	115.34	112.73	0	0	0	-4.79	2.82	0.01	832.13	832.13	335.22	335.22
54	-17.12	118.71	119.94	118.71	119.94	0	0	0	-2.16	4.17	0.01	832.13	832.13	335.22	335.22
56	-17.77	122.42	126.92	122.42	126.92	0	0	0	-0.18	2.42	0.01	832.13	832.13	335.22	335.22

Wall 1 Stage: 8

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.29	832.13	832.13	335.22	335.22
2	-0.65	5.223	0	5.223	0	0	0	0	0.5	1.54	0.31	832.13	832.13	335.22	335.22
4	-1.3	9.487	0	9.487	0	0	0	0	3.9	6.72	0.33	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	-17.15	-70.9	0.35	832.13	832.13	335.22	335.22

8	-2.48	18.263	0	18.263	0	0	0	0	-57.4	-58.63	0.37	832.13	832.13	335.22	335.22
10	-3.12	22.053	0	22.053	0	0	0	0	-87.72	-42.39	0.38	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-105.87	-22.78	0.4	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-132.68	-73.21	0.4	832.13	832.13	335.22	335.22
16	-4.97	33.142	0	33.142	0	0	0	0	-167.91	-47.56	0.4	832.13	832.13	335.22	335.22
18	-5.62	36.892	0	36.892	0	0	0	0	-184.94	-18.82	0.39	832.13	832.13	335.22	335.22
20	-6.28	40.316	0	40.316	0	0	0	0	-181.74	13.07	0.37	832.13	832.13	335.22	335.22
22	-6.82	43.525	0	43.525	0	0	0	0	-178.74	-9.8	0.35	832.13	832.13	335.22	335.22
24	-7.48	52.531	0	52.531	0	0	0	0	-166.66	28.57	0.31	832.13	832.13	335.22	335.22
26	-8.12	63.349	0	63.349	0	0	0	0	-125.72	75.22	0.27	832.13	832.13	335.22	335.22
28	-8.78	74.343	0	74.343	0	0	0	0	-49.97	131.08	0.22	832.13	832.13	335.22	335.22
30	-9.32	0	0	0	0	0	0	0	36.74	157.65	0.17	832.13	832.13	335.22	335.22
32	-9.98	0	0	0	0	0	0	0	139.22	157.65	0.12	832.13	832.13	335.22	335.22
34	-10.62	0	131.77	0	131.77	0	0	0	221.16	94.48	0.07	832.13	832.13	335.22	335.22
36	-11.28	0	105.37	0	105.37	0	0	0	230.32	-10.6	0.04	832.13	832.13	335.22	335.22
38	-11.92	54.81	82.671	54.81	82.671	0	0	0	185.64	-82.37	0.02	832.13	832.13	335.22	335.22
40	-12.58	87.999	73.111	87.999	73.111	0	0	0	124.21	-94.88	0.01	832.13	832.13	335.22	335.22
42	-13.22	102.89	73.694	102.89	73.694	0	0	0	70	-78.19	0	832.13	832.13	335.22	335.22
44	-13.88	108.41	79.736	108.41	79.736	0	0	0	31.34	-53.12	0	832.13	832.13	335.22	335.22
46	-14.52	110.09	88.032	110.09	88.032	0	0	0	8.22	-30.13	0	832.13	832.13	335.22	335.22
48	-15.18	111.07	96.742	111.07	96.742	0	0	0	-2.82	-13.14	0	832.13	832.13	335.22	335.22
50	-15.82	112.72	105.04	112.72	105.04	0	0	0	-5.94	-2.52	0.01	832.13	832.13	335.22	335.22
52	-16.48	115.34	112.73	115.34	112.73	0	0	0	-4.79	2.82	0.01	832.13	832.13	335.22	335.22
54	-17.12	118.71	119.94	118.71	119.94	0	0	0	-2.16	4.17	0.01	832.13	832.13	335.22	335.22
56	-17.77	122.42	126.92	122.42	126.92	0	0	0	-0.18	2.42	0.01	832.13	832.13	335.22	335.22

Wall 1 Stage: 9

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.27	832.13	832.13	335.22	335.22
2	-0.65	6.51	0	6.51	0	0	0	0	0.71	2.18	0.29	832.13	832.13	335.22	335.22
4	-1.3	10.335	0	10.335	0	0	0	0	5.02	8.35	0.32	832.13	832.13	335.22	335.22
6	-1.82	13.948	0	13.948	0	0	0	0	-13.86	-65.41	0.34	832.13	832.13	335.22	335.22
8	-2.48	18.298	0	18.298	0	0	0	0	-50.37	-52.82	0.37	832.13	832.13	335.22	335.22
10	-3.12	22.055	0	22.055	0	0	0	0	-76.91	-36.57	0.39	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-91.27	-16.95	0.41	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-116.79	-73.26	0.42	832.13	832.13	335.22	335.22
16	-4.97	33.142	0	33.142	0	0	0	0	-152.05	-47.61	0.43	832.13	832.13	335.22	335.22
18	-5.62	36.892	0	36.892	0	0	0	0	-169.1	-18.87	0.43	832.13	832.13	335.22	335.22
20	-6.28	40.316	0	40.316	0	0	0	0	-165.94	13.02	0.43	832.13	832.13	335.22	335.22
22	-6.82	43.525	0	43.525	0	0	0	0	-170.43	-32.8	0.41	832.13	832.13	335.22	335.22
24	-7.48	47.528	0	47.528	0	0	0	0	-173.59	4.69	0.39	832.13	832.13	335.22	335.22

26	-8.12	57.549	0	57.549	0	0	0	0	-150.28	46.95	0.35	832.13	832.13	335.22	335.22
28	-8.78	67.84	0	67.84	0	0	0	0	-95.35	97.75	0.31	832.13	832.13	335.22	335.22
30	-9.32	0	0	0	0	0	0	0	-44.81	71.04	0.27	832.13	832.13	335.22	335.22
32	-9.98	0	0	0	0	0	0	0	1.36	71.04	0.22	832.13	832.13	335.22	335.22
34	-10.62	0	0	0	0	0	0	0	47.54	71.04	0.17	832.13	832.13	335.22	335.22
36	-11.28	0	0	0	0	0	0	0	93.72	71.04	0.13	832.13	832.13	335.22	335.22
38	-11.92	0	0	0	0	0	0	0	139.89	71.04	0.09	832.13	832.13	335.22	335.22
40	-12.58	0	127.74	0	127.74	0	0	0	186.07	71.04	0.05	832.13	832.13	335.22	335.22
42	-13.22	34.398	105.25	34.398	105.25	0	0	0	181.68	-30.59	0.03	832.13	832.13	335.22	335.22
44	-13.88	74.39	84.642	74.39	84.642	0	0	0	137.38	-75.73	0.02	832.13	832.13	335.22	335.22
46	-14.52	96.211	77.422	96.211	77.422	0	0	0	86.38	-76.88	0.01	832.13	832.13	335.22	335.22
48	-15.18	106.55	79.437	106.55	79.437	0	0	0	44.99	-58.43	0.01	832.13	832.13	335.22	335.22
50	-15.82	110.86	86.564	110.86	86.564	0	0	0	18.11	-35.73	0.01	832.13	832.13	335.22	335.22
52	-16.48	112.68	95.879	112.68	95.879	0	0	0	4.42	-16.65	0.01	832.13	832.13	335.22	335.22
54	-17.12	113.87	105.77	113.87	105.77	0	0	0	-0.07	-4.28	0.01	832.13	832.13	335.22	335.22
56	-17.77	115.04	115.61	115.04	115.61	0	0	0	-0.12	0.72	0.01	832.13	832.13	335.22	335.22

Wall 1 Stage: 10

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.27	832.13	832.13	335.22	335.22
2	-0.65	6.51	0	6.51	0	0	0	0	0.71	2.18	0.29	832.13	832.13	335.22	335.22
4	-1.3	10.334	0	10.334	0	0	0	0	5.02	8.35	0.32	832.13	832.13	335.22	335.22
6	-1.82	13.947	0	13.947	0	0	0	0	-13.86	-65.41	0.34	832.13	832.13	335.22	335.22
8	-2.48	18.298	0	18.298	0	0	0	0	-50.37	-52.82	0.37	832.13	832.13	335.22	335.22
10	-3.12	22.055	0	22.055	0	0	0	0	-76.91	-36.57	0.39	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-91.27	-16.95	0.41	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-116.79	-73.26	0.42	832.13	832.13	335.22	335.22
16	-4.97	33.142	0	33.142	0	0	0	0	-152.05	-47.61	0.43	832.13	832.13	335.22	335.22
18	-5.62	36.892	0	36.892	0	0	0	0	-169.1	-18.87	0.43	832.13	832.13	335.22	335.22
20	-6.28	40.316	0	40.316	0	0	0	0	-165.94	13.02	0.43	832.13	832.13	335.22	335.22
22	-6.82	43.525	0	43.525	0	0	0	0	-170.43	-32.8	0.41	832.13	832.13	335.22	335.22
24	-7.48	47.528	0	47.528	0	0	0	0	-173.59	4.69	0.39	832.13	832.13	335.22	335.22
26	-8.12	57.549	0	57.549	0	0	0	0	-150.28	46.95	0.35	832.13	832.13	335.22	335.22
28	-8.78	67.84	0	67.84	0	0	0	0	-95.35	97.75	0.31	832.13	832.13	335.22	335.22
30	-9.32	0	0	0	0	0	0	0	-44.81	71.04	0.27	832.13	832.13	335.22	335.22
32	-9.98	0	0	0	0	0	0	0	1.37	71.04	0.22	832.13	832.13	335.22	335.22
34	-10.62	0	0	0	0	0	0	0	47.54	71.04	0.17	832.13	832.13	335.22	335.22
36	-11.28	0	0	0	0	0	0	0	93.72	71.04	0.13	832.13	832.13	335.22	335.22
38	-11.92	0	0	0	0	0	0	0	139.89	71.04	0.09	832.13	832.13	335.22	335.22
40	-12.58	0	127.74	0	127.74	0	0	0	186.07	71.04	0.05	832.13	832.13	335.22	335.22
42	-13.22	34.398	105.25	34.398	105.25	0	0	0	181.68	-30.59	0.03	832.13	832.13	335.22	335.22

44	-13.88	74.39	84.642	74.39	84.642	0	0	0	137.38	-75.73	0.02	832.13	832.13	335.22	335.22
46	-14.52	96.211	77.422	96.211	77.422	0	0	0	86.38	-76.88	0.01	832.13	832.13	335.22	335.22
48	-15.18	106.55	79.437	106.55	79.437	0	0	0	44.99	-58.43	0.01	832.13	832.13	335.22	335.22
50	-15.82	110.86	86.564	110.86	86.564	0	0	0	18.11	-35.73	0.01	832.13	832.13	335.22	335.22
52	-16.48	112.68	95.879	112.68	95.879	0	0	0	4.42	-16.65	0.01	832.13	832.13	335.22	335.22
54	-17.12	113.87	105.77	113.87	105.77	0	0	0	-0.07	-4.28	0.01	832.13	832.13	335.22	335.22
56	-17.77	115.04	115.61	115.04	115.61	0	0	0	-0.12	0.72	0.01	832.13	832.13	335.22	335.22

LEGENDA
Wall node=numero nodo
EL=quota
Sht L=pressione terreno orizzontale totale a sx paratia
Sht R=pressione terreno orizzontale totale a dx paratia
Shs L=pressione terreno orizzontale efficace a sx paratia
Shs R=pressione terreno orizzontale efficace a dx paratia
q=pressioni dovute al sovraccarico
U L=pressione acqua a sx paratia
U R=pressione acqua a dx paratia
M=momento flettente (per metro)
V=taglio (per metro)
dx=spostamento orizzontale
McapL=Momento ultimo lato sx
McapR=Momento ultimo lato dx
VcapL=Taglio ultimo resistente lato sx
VcapR=Taglio ultimo resistente lato dx

REAZIONI VINCOLI (TIRANTI, PUNTONI, SOLETTE, SBADACCHI)

Vincolo 0

Stage No	R
	(kN)
0	0
1	0
2	0
3	190.882
4	190.882
5	260.668
6	260.672
7	263.074
8	263.074
9	252.74
10	252.743

Vincolo 1

Stage No	R
	(kN)
0	0
1	0
2	0
3	0
4	0
5	145.014
6	145.014
7	216.255
8	216.255
9	234.503
10	234.507

Vincolo 2

Stage No	R
	(kN)
0	0
1	0
2	0
3	0
4	0
5	0
6	0
7	161.975
8	161.975
9	233.255
10	233.259

Vincolo 3

Stage No	R
	(kN)
0	0
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	158.274

10	158.278

Verifica tensioni

Vincolo 0

Tabella: vincoli 0, Sommario rapporti di verifica

Stage No	R/CAP	R/STR	R/GEO
0	N/A	N/A	N/A
1	N/A	N/A	N/A
2	0	0	0
3	0.331	0.249	0.331
4	0.331	0.249	0.331
5	0.453	0.341	0.453
6	0.453	0.341	0.453
7	0.457	0.344	0.457
8	0.457	0.344	0.457
9	0.439	0.33	0.439
10	0.439	0.33	0.439

Vincolo 1

Tabella: vincoli 1, Sommario rapporti di verifica

Stage No	R/CAP	R/STR	R/GEO
0	N/A	N/A	N/A
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	0	0	0
5	0.277	0.189	0.277
6	0.277	0.189	0.277
7	0.413	0.283	0.413
8	0.413	0.283	0.413
9	0.448	0.306	0.448
10	0.448	0.306	0.448

Vincolo 2

Tabella: vincoli 2, Sommario rapporti di verifica

Stage No	R/CAP	R/STR	R/GEO
0	N/A	N/A	N/A
1	N/A	N/A	N/A

2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	N/A	N/A	N/A
5	N/A	N/A	N/A
6	0	0	0
7	0.387	0.212	0.387
8	0.387	0.212	0.387
9	0.557	0.305	0.557
10	0.557	0.305	0.557

Vincolo 3

Tabella: vincoli 3, Sommario rapporti di verifica

Stage No	R/CAP	R/STR	R/GEO
0	N/A	N/A	N/A
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	N/A	N/A	N/A
5	N/A	N/A	N/A
6	N/A	N/A	N/A
7	N/A	N/A	N/A
8	0	0	0
9	0.453	0.207	0.453
10	0.453	0.207	0.453

Progetto: Paratia edificio impianti
Risultati per l'Approccio di Progetto 2: 0: DM08_ITA: Comb. 2: A2+M2+R1

APPROCCI DI PROGETTO E FATTORI DI COMBINAZIONE

Moltiplicatori e fattori di riduzione utilizzati per ogni Approccio di Progetto

Stage	Design Code	Design Case	F(tan	F	F	F	F(perm	F(temp	F(perm	F(temp	F Earth	F Earth	F GWT	F GWT	F HYD	F HYD	F UPL	F UPL
	Name		fr)	(c')	(Su)	(EQ)	load)	load)	sup)	sup)	(Dstab)	(stab)	(Dstab)	(stab)	(Dstab)	(stab)	(Dstab)	(stab)
0	DM08_ITA	2: A2+M2+R1	1.25	1.25	1.4	0	1	1.3	1.2	1.1	1	1	1	1	1.3	0.9	1	1
1	DM08_ITA	2: A2+M2+R1	1.25	1.25	1.4	0	1	1.3	1.2	1.1	1	1	1	1	1.3	0.9	1	1
2	DM08_ITA	2: A2+M2+R1	1.25	1.25	1.4	0	1	1.3	1.2	1.1	1	1	1	1	1.3	0.9	1	1
3	DM08_ITA	2: A2+M2+R1	1.25	1.25	1.4	0	1	1.3	1.2	1.1	1	1	1	1	1.3	0.9	1	1
4	DM08_ITA	2: A2+M2+R1	1.25	1.25	1.4	0	1	1.3	1.2	1.1	1	1	1	1	1.3	0.9	1	1
5	DM08_ITA	2: A2+M2+R1	1.25	1.25	1.4	0	1	1.3	1.2	1.1	1	1	1	1	1.3	0.9	1	1
6	DM08_ITA	2: A2+M2+R1	1.25	1.25	1.4	0	1	1.3	1.2	1.1	1	1	1	1	1.3	0.9	1	1
7	DM08_ITA	2: A2+M2+R1	1.25	1.25	1.4	0	1	1.3	1.2	1.1	1	1	1	1	1.3	0.9	1	1
8	DM08_ITA	2: A2+M2+R1	1.25	1.25	1.4	0	1	1.3	1.2	1.1	1	1	1	1	1.3	0.9	1	1
9	DM08_ITA	2: A2+M2+R1	1.25	1.25	1.4	0	1	1.3	1.2	1.1	1	1	1	1	1.3	0.9	1	1
10	DM08_ITA	2: A2+M2+R1	1.25	1.25	1.4	0	1	1.3	1.2	1.1	1	1	1	1	1.3	0.9	1	1

Legenda
Stage: Fase di scavo
Design Code: Normativa in accordo alla quale vengono eseguite le verifiche
Ftan fr: moltiplicatore della tangente dell'angolo di attrito
F C': moltiplicatore della coesione efficace
F Su': moltiplicatore coesione non drenata
F EQ: moltiplicatore azione sismica
F perm load: moltiplicatore carichi permanenti
F temp load: moltiplicatore carichi accidentali/variabili
F perm supp: fattore di riduzione della resistenza allo sfilamento dei tiranti, intesi come permanenti
F temp supp: fattore di riduzione della resistenza allo sfilamento dei tiranti, intesi come temporanei
F earth Dstab: moltiplicatore della spinta attiva, caso sfavorevole
F earth stab: moltiplicatore della spinta attiva, caso favorevole
F GWT Dstab (ground water): moltiplicatore della spinta idrostatica, caso sfavorevole
F GWT stab (ground water): moltiplicatore della spinta idrostatica, caso favorevole
F HYD Dstab: moltiplicatore della spinta idrodinamica, caso sfavorevole
F HYD stab: moltiplicatore della spinta idrodinamica, caso favorevole
F UPL Dstab: moltiplicatore per la verifica a sifonamento, caso sfavorevole
F UPL stab: moltiplicatore per la verifica a sifonamento, caso favorevole

TABELLA RISULTATI PARATIA

Wall 1 Stage: 0

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0	832.13	832.13	335.22	335.22
2	-0.65	21.632	21.632	21.632	21.632	0	0	0	0	0	0	832.13	832.13	335.22	335.22
4	-1.3	33.162	33.162	33.162	33.162	0	0	0	0	0	0	832.13	832.13	335.22	335.22
6	-1.82	39.419	39.419	39.419	39.419	0	0	0	0	0	0	832.13	832.13	335.22	335.22

8	-2.48	46.092	46.092	46.092	46.092	0	0	0	0	0	0	832.13	832.13	335.22	335.22
10	-3.12	52.38	52.38	52.38	52.38	0	0	0	0	0	0	832.13	832.13	335.22	335.22
12	-3.78	58.538	58.538	58.538	58.538	0	0	0	0	0	0	832.13	832.13	335.22	335.22
14	-4.32	63.711	63.711	63.711	63.711	0	0	0	0	0	0	832.13	832.13	335.22	335.22
16	-4.97	69.809	69.809	69.809	69.809	0	0	0	0	0	0	832.13	832.13	335.22	335.22
18	-5.62	75.907	75.907	75.907	75.907	0	0	0	0	0	0	832.13	832.13	335.22	335.22
20	-6.28	82.012	82.012	82.012	82.012	0	0	0	0	0	0	832.13	832.13	335.22	335.22
22	-6.82	87.187	87.187	87.187	87.187	0	0	0	0	0	0	832.13	832.13	335.22	335.22
24	-7.48	93.317	93.317	93.317	93.317	0	0	0	0	0	0	832.13	832.13	335.22	335.22
26	-8.12	99.463	99.463	99.463	99.463	0	0	0	0	0	0	832.13	832.13	335.22	335.22
28	-8.78	105.63	105.63	105.63	105.63	0	0	0	0	0	0	832.13	832.13	335.22	335.22
30	-9.32	99.709	99.709	99.709	99.709	0	0	0	0	0	0	832.13	832.13	335.22	335.22
32	-9.98	106.1	106.1	106.1	106.1	0	0	0	0	0	0	832.13	832.13	335.22	335.22
34	-10.62	112.5	112.5	112.5	112.5	0	0	0	0	0	0	832.13	832.13	335.22	335.22
36	-11.28	118.93	118.93	118.93	118.93	0	0	0	0	0	0	832.13	832.13	335.22	335.22
38	-11.92	125.38	125.38	125.38	125.38	0	0	0	0	0	0	832.13	832.13	335.22	335.22
40	-12.58	131.85	131.85	131.85	131.85	0	0	0	0	0	0	832.13	832.13	335.22	335.22
42	-13.22	138.33	138.33	138.33	138.33	0	0	0	0	0	0	832.13	832.13	335.22	335.22
44	-13.88	144.85	144.85	144.85	144.85	0	0	0	0	0	0	832.13	832.13	335.22	335.22
46	-14.52	151.38	151.38	151.38	151.38	0	0	0	0	0	0	832.13	832.13	335.22	335.22
48	-15.18	157.93	157.93	157.93	157.93	0	0	0	0	0	0	832.13	832.13	335.22	335.22
50	-15.82	164.49	164.49	164.49	164.49	0	0	0	0	0	0	832.13	832.13	335.22	335.22
52	-16.48	171.08	171.08	171.08	171.08	0	0	0	0	0	0	832.13	832.13	335.22	335.22
54	-17.12	177.69	177.69	177.69	177.69	0	0	0	0	0	0	832.13	832.13	335.22	335.22
56	-17.77	184.31	184.31	184.31	184.31	0	0	0	0	0	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 1

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.15	832.13	832.13	335.22	335.22
2	-0.65	4.876	0	4.876	0	0	0	0	0.23	0.72	0.13	832.13	832.13	335.22	335.22
4	-1.3	11.548	0	11.548	0	0	0	0	2.56	4.85	0.11	832.13	832.13	335.22	335.22
6	-1.82	16.695	0	16.695	0	0	0	0	7.88	11.53	0.1	832.13	832.13	335.22	335.22
8	-2.48	24.009	27.232	24.009	27.232	0	0	0	20.04	20.44	0.08	832.13	832.13	335.22	335.22
10	-3.12	34.736	53.237	34.736	53.237	0	0	0	30.92	14.07	0.06	832.13	832.13	335.22	335.22
12	-3.78	44.74	57.427	44.74	57.427	0	0	0	34.49	2.95	0.05	832.13	832.13	335.22	335.22
14	-4.32	52.643	60.706	52.643	60.706	0	0	0	33.24	-3.48	0.04	832.13	832.13	335.22	335.22
16	-4.97	61.37	64.926	61.37	64.926	0	0	0	28.67	-7.95	0.03	832.13	832.13	335.22	335.22
18	-5.62	69.535	69.525	69.535	69.525	0	0	0	22.58	-9.65	0.02	832.13	832.13	335.22	335.22
20	-6.28	77.26	74.448	77.26	74.448	0	0	0	16.46	-9.16	0.02	832.13	832.13	335.22	335.22
22	-6.82	83.547	78.809	83.547	78.809	0	0	0	12.18	-7.38	0.01	832.13	832.13	335.22	335.22
24	-7.48	90.769	84.137	90.769	84.137	0	0	0	8.98	-3.98	0.01	832.13	832.13	335.22	335.22

26	-8.12	97.825	89.614	97.825	89.614	0	0	0	8.58	0.6	0.01	832.13	832.13	335.22	335.22
28	-8.78	104.72	95.242	104.72	95.242	0	0	0	11.64	6.15	0	832.13	832.13	335.22	335.22
30	-9.32	82.824	100.39	82.824	100.39	0	0	0	13.82	0.62	0	832.13	832.13	335.22	335.22
32	-9.98	99.536	100.89	99.536	100.89	0	0	0	9.64	-7.76	0	832.13	832.13	335.22	335.22
34	-10.62	109.4	104.97	109.4	104.97	0	0	0	4.59	-7.35	0	832.13	832.13	335.22	335.22
36	-11.28	115.85	111.41	115.85	111.41	0	0	0	1.26	-4.34	0	832.13	832.13	335.22	335.22
38	-11.92	121.28	118.58	121.28	118.58	0	0	0	-0.25	-1.72	0	832.13	832.13	335.22	335.22
40	-12.58	126.82	125.71	126.82	125.71	0	0	0	-0.6	-0.25	0	832.13	832.13	335.22	335.22
42	-13.22	132.78	132.59	132.78	132.59	0	0	0	-0.47	0.29	0	832.13	832.13	335.22	335.22
44	-13.88	139.09	139.26	139.09	139.26	0	0	0	-0.25	0.34	0	832.13	832.13	335.22	335.22
46	-14.52	145.61	145.81	145.61	145.81	0	0	0	-0.08	0.22	0	832.13	832.13	335.22	335.22
48	-15.18	152.21	152.35	152.21	152.35	0	0	0	0	0.1	0	832.13	832.13	335.22	335.22
50	-15.82	158.83	158.89	158.83	158.89	0	0	0	0.02	0.02	0	832.13	832.13	335.22	335.22
52	-16.48	165.45	165.47	165.45	165.47	0	0	0	0.02	-0.01	0	832.13	832.13	335.22	335.22
54	-17.12	172.08	172.07	172.08	172.07	0	0	0	0.01	-0.02	0	832.13	832.13	335.22	335.22
56	-17.77	178.72	178.7	178.72	178.7	0	0	0	0	-0.01	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 2

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.15	832.13	832.13	335.22	335.22
2	-0.65	4.876	0	4.876	0	0	0	0	0.23	0.72	0.13	832.13	832.13	335.22	335.22
4	-1.3	11.548	0	11.548	0	0	0	0	2.56	4.85	0.11	832.13	832.13	335.22	335.22
6	-1.82	16.695	0	16.695	0	0	0	0	7.88	11.53	0.1	832.13	832.13	335.22	335.22
8	-2.48	24.009	27.232	24.009	27.232	0	0	0	20.04	20.44	0.08	832.13	832.13	335.22	335.22
10	-3.12	34.736	53.237	34.736	53.237	0	0	0	30.92	14.07	0.06	832.13	832.13	335.22	335.22
12	-3.78	44.74	57.427	44.74	57.427	0	0	0	34.49	2.95	0.05	832.13	832.13	335.22	335.22
14	-4.32	52.643	60.706	52.643	60.706	0	0	0	33.24	-3.48	0.04	832.13	832.13	335.22	335.22
16	-4.97	61.37	64.926	61.37	64.926	0	0	0	28.67	-7.95	0.03	832.13	832.13	335.22	335.22
18	-5.62	69.535	69.525	69.535	69.525	0	0	0	22.58	-9.65	0.02	832.13	832.13	335.22	335.22
20	-6.28	77.26	74.448	77.26	74.448	0	0	0	16.46	-9.16	0.02	832.13	832.13	335.22	335.22
22	-6.82	83.547	78.809	83.547	78.809	0	0	0	12.18	-7.38	0.01	832.13	832.13	335.22	335.22
24	-7.48	90.769	84.137	90.769	84.137	0	0	0	8.98	-3.98	0.01	832.13	832.13	335.22	335.22
26	-8.12	97.825	89.614	97.825	89.614	0	0	0	8.58	0.6	0.01	832.13	832.13	335.22	335.22
28	-8.78	104.72	95.242	104.72	95.242	0	0	0	11.64	6.15	0	832.13	832.13	335.22	335.22
30	-9.32	82.824	100.39	82.824	100.39	0	0	0	13.82	0.62	0	832.13	832.13	335.22	335.22
32	-9.98	99.536	100.89	99.536	100.89	0	0	0	9.64	-7.76	0	832.13	832.13	335.22	335.22
34	-10.62	109.4	104.97	109.4	104.97	0	0	0	4.59	-7.35	0	832.13	832.13	335.22	335.22
36	-11.28	115.85	111.41	115.85	111.41	0	0	0	1.26	-4.34	0	832.13	832.13	335.22	335.22
38	-11.92	121.28	118.58	121.28	118.58	0	0	0	-0.25	-1.72	0	832.13	832.13	335.22	335.22
40	-12.58	126.82	125.71	126.82	125.71	0	0	0	-0.6	-0.25	0	832.13	832.13	335.22	335.22
42	-13.22	132.78	132.59	132.78	132.59	0	0	0	-0.47	0.29	0	832.13	832.13	335.22	335.22

44	-13.88	139.09	139.26	139.09	139.26	0	0	0	-0.25	0.34	0	832.13	832.13	335.22	335.22
46	-14.52	145.61	145.81	145.61	145.81	0	0	0	-0.08	0.22	0	832.13	832.13	335.22	335.22
48	-15.18	152.21	152.35	152.21	152.35	0	0	0	0	0.1	0	832.13	832.13	335.22	335.22
50	-15.82	158.83	158.89	158.83	158.89	0	0	0	0.02	0.02	0	832.13	832.13	335.22	335.22
52	-16.48	165.45	165.47	165.45	165.47	0	0	0	0.02	-0.01	0	832.13	832.13	335.22	335.22
54	-17.12	172.08	172.07	172.08	172.07	0	0	0	0.01	-0.02	0	832.13	832.13	335.22	335.22
56	-17.77	178.72	178.7	178.72	178.7	0	0	0	0	-0.01	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 3

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.39	832.13	832.13	335.22	335.22
2	-0.65	4.876	0	4.876	0	0	0	0	0.23	0.72	0.37	832.13	832.13	335.22	335.22
4	-1.3	11.548	0	11.548	0	0	0	0	2.56	4.85	0.35	832.13	832.13	335.22	335.22
6	-1.82	16.695	0	16.695	0	0	0	0	-11.92	-49.41	0.34	832.13	832.13	335.22	335.22
8	-2.48	22.656	0	22.656	0	0	0	0	-38.47	-37.7	0.32	832.13	832.13	335.22	335.22
10	-3.12	27.358	0	27.358	0	0	0	0	-55.54	-22.2	0.3	832.13	832.13	335.22	335.22
12	-3.78	32.463	0	32.463	0	0	0	0	-61	-3.48	0.28	832.13	832.13	335.22	335.22
14	-4.32	36.344	0	36.344	0	0	0	0	-54.96	14.83	0.25	832.13	832.13	335.22	335.22
16	-4.97	41.114	27.232	41.114	27.232	0	0	0	-34.43	36.51	0.22	832.13	832.13	335.22	335.22
18	-5.62	49.425	64.496	49.425	64.496	0	0	0	-8	40.3	0.18	832.13	832.13	335.22	335.22
20	-6.28	60.856	68.618	60.856	68.618	0	0	0	13.78	31.58	0.15	832.13	832.13	335.22	335.22
22	-6.82	70.308	71.298	70.308	71.298	0	0	0	29.53	28.08	0.12	832.13	832.13	335.22	335.22
24	-7.48	81.123	74.453	81.123	74.453	0	0	0	47.88	28.7	0.09	832.13	832.13	335.22	335.22
26	-8.12	91.43	77.836	91.43	77.836	0	0	0	69.02	34.2	0.06	832.13	832.13	335.22	335.22
28	-8.78	101.05	81.675	101.05	81.675	0	0	0	95.88	44.03	0.03	832.13	832.13	335.22	335.22
30	-9.32	12.195	122.24	12.195	122.24	0	0	0	110.74	11.53	0.02	832.13	832.13	335.22	335.22
32	-9.98	75.972	103.06	75.972	103.06	0	0	0	88.38	-44.54	0.01	832.13	832.13	335.22	335.22
34	-10.62	108.14	92.051	108.14	92.051	0	0	0	53.7	-53.39	0	832.13	832.13	335.22	335.22
36	-11.28	120.26	94.242	120.26	94.242	0	0	0	24.93	-40.34	0	832.13	832.13	335.22	335.22
38	-11.92	125.11	102.53	125.11	102.53	0	0	0	6.86	-23.71	0	832.13	832.13	335.22	335.22
40	-12.58	126.73	112.49	126.73	112.49	0	0	0	-1.83	-10.36	0	832.13	832.13	335.22	335.22
42	-13.22	128.97	122.04	128.97	122.04	0	0	0	-4.47	-2.39	0	832.13	832.13	335.22	335.22
44	-13.88	132.75	130.56	132.75	130.56	0	0	0	-4.11	1.24	0	832.13	832.13	335.22	335.22
46	-14.52	137.92	138.13	137.92	138.13	0	0	0	-2.76	2.19	0	832.13	832.13	335.22	335.22
48	-15.18	144.04	145.08	144.04	145.08	0	0	0	-1.46	1.88	0	832.13	832.13	335.22	335.22
50	-15.82	150.65	151.7	150.65	151.7	0	0	0	-0.57	1.18	0	832.13	832.13	335.22	335.22
52	-16.48	157.47	158.21	157.47	158.21	0	0	0	-0.13	0.54	0	832.13	832.13	335.22	335.22
54	-17.12	164.35	164.7	164.35	164.7	0	0	0	0.01	0.12	0	832.13	832.13	335.22	335.22
56	-17.77	171.25	171.2	171.25	171.2	0	0	0	0	-0.04	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 4

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.39	832.13	832.13	335.22	335.22
2	-0.65	4.876	0	4.876	0	0	0	0	0.23	0.72	0.37	832.13	832.13	335.22	335.22
4	-1.3	11.548	0	11.548	0	0	0	0	2.56	4.85	0.35	832.13	832.13	335.22	335.22
6	-1.82	16.695	0	16.695	0	0	0	0	-11.92	-49.41	0.34	832.13	832.13	335.22	335.22
8	-2.48	22.656	0	22.656	0	0	0	0	-38.47	-37.7	0.32	832.13	832.13	335.22	335.22
10	-3.12	27.358	0	27.358	0	0	0	0	-55.54	-22.2	0.3	832.13	832.13	335.22	335.22
12	-3.78	32.463	0	32.463	0	0	0	0	-61	-3.48	0.28	832.13	832.13	335.22	335.22
14	-4.32	36.344	0	36.344	0	0	0	0	-54.96	14.83	0.25	832.13	832.13	335.22	335.22
16	-4.97	41.114	27.232	41.114	27.232	0	0	0	-34.43	36.51	0.22	832.13	832.13	335.22	335.22
18	-5.62	49.425	64.496	49.425	64.496	0	0	0	-8	40.3	0.18	832.13	832.13	335.22	335.22
20	-6.28	60.856	68.618	60.856	68.618	0	0	0	13.78	31.58	0.15	832.13	832.13	335.22	335.22
22	-6.82	70.308	71.298	70.308	71.298	0	0	0	29.53	28.08	0.12	832.13	832.13	335.22	335.22
24	-7.48	81.123	74.453	81.123	74.453	0	0	0	47.88	28.7	0.09	832.13	832.13	335.22	335.22
26	-8.12	91.43	77.836	91.43	77.836	0	0	0	69.02	34.2	0.06	832.13	832.13	335.22	335.22
28	-8.78	101.05	81.675	101.05	81.675	0	0	0	95.88	44.03	0.03	832.13	832.13	335.22	335.22
30	-9.32	12.195	122.24	12.195	122.24	0	0	0	110.74	11.53	0.02	832.13	832.13	335.22	335.22
32	-9.98	75.972	103.06	75.972	103.06	0	0	0	88.38	-44.54	0.01	832.13	832.13	335.22	335.22
34	-10.62	108.14	92.051	108.14	92.051	0	0	0	53.7	-53.39	0	832.13	832.13	335.22	335.22
36	-11.28	120.26	94.242	120.26	94.242	0	0	0	24.93	-40.34	0	832.13	832.13	335.22	335.22
38	-11.92	125.11	102.53	125.11	102.53	0	0	0	6.86	-23.71	0	832.13	832.13	335.22	335.22
40	-12.58	126.73	112.49	126.73	112.49	0	0	0	-1.83	-10.36	0	832.13	832.13	335.22	335.22
42	-13.22	128.97	122.04	128.97	122.04	0	0	0	-4.47	-2.39	0	832.13	832.13	335.22	335.22
44	-13.88	132.75	130.56	132.75	130.56	0	0	0	-4.11	1.24	0	832.13	832.13	335.22	335.22
46	-14.52	137.92	138.13	137.92	138.13	0	0	0	-2.76	2.19	0	832.13	832.13	335.22	335.22
48	-15.18	144.04	145.08	144.04	145.08	0	0	0	-1.46	1.88	0	832.13	832.13	335.22	335.22
50	-15.82	150.65	151.7	150.65	151.7	0	0	0	-0.57	1.18	0	832.13	832.13	335.22	335.22
52	-16.48	157.47	158.21	157.47	158.21	0	0	0	-0.13	0.54	0	832.13	832.13	335.22	335.22
54	-17.12	164.35	164.7	164.35	164.7	0	0	0	0.01	0.12	0	832.13	832.13	335.22	335.22
56	-17.77	171.25	171.2	171.25	171.2	0	0	0	0	-0.04	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 5

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.42	832.13	832.13	335.22	335.22
2	-0.65	4.881	0	4.881	0	0	0	0	0.23	0.72	0.42	832.13	832.13	335.22	335.22
4	-1.3	11.548	0	11.548	0	0	0	0	2.56	4.85	0.43	832.13	832.13	335.22	335.22
6	-1.82	16.695	0	16.695	0	0	0	0	-18.32	-69.09	0.43	832.13	832.13	335.22	335.22
8	-2.48	22.656	0	22.656	0	0	0	0	-57.66	-57.38	0.43	832.13	832.13	335.22	335.22
10	-3.12	27.358	0	27.358	0	0	0	0	-87.53	-41.89	0.43	832.13	832.13	335.22	335.22

12	-3.78	32.463	0	32.463	0	0	0	0	-105.78	-23.17	0.43	832.13	832.13	335.22	335.22
14	-4.32	36.344	0	36.344	0	0	0	0	-124.27	-47.04	0.41	832.13	832.13	335.22	335.22
16	-4.97	41.114	0	41.114	0	0	0	0	-143.05	-22.56	0.39	832.13	832.13	335.22	335.22
18	-5.62	45.767	0	45.767	0	0	0	0	-144.47	4.86	0.36	832.13	832.13	335.22	335.22
20	-6.28	50.014	0	50.014	0	0	0	0	-126.58	35.3	0.32	832.13	832.13	335.22	335.22
22	-6.82	57.565	0	57.565	0	0	0	0	-94.99	63.24	0.28	832.13	832.13	335.22	335.22
24	-7.48	70.231	27.232	70.231	27.232	0	0	0	-35.89	99.91	0.22	832.13	832.13	335.22	335.22
26	-8.12	82.852	59.731	82.852	59.731	0	0	0	41.38	123.87	0.16	832.13	832.13	335.22	335.22
28	-8.78	94.935	63.908	94.935	63.908	0	0	0	129.64	140.19	0.11	832.13	832.13	335.22	335.22
30	-9.32	0	175.45	0	175.45	0	0	0	192.86	91.55	0.07	832.13	832.13	335.22	335.22
32	-9.98	0	128.7	0	128.7	0	0	0	199.56	-13.9	0.03	832.13	832.13	335.22	335.22
34	-10.62	71.885	100.08	71.885	100.08	0	0	0	155.35	-80.32	0.01	832.13	832.13	335.22	335.22
36	-11.28	110.11	84.957	110.11	84.957	0	0	0	97.74	-87.77	0	832.13	832.13	335.22	335.22
38	-11.92	125.29	86.049	125.29	86.049	0	0	0	49.77	-68.02	0	832.13	832.13	335.22	335.22
40	-12.58	129.99	94.877	129.99	94.877	0	0	0	17.95	-42.63	0	832.13	832.13	335.22	335.22
42	-13.22	130.21	106.14	130.21	106.14	0	0	0	0.81	-21.53	0	832.13	832.13	335.22	335.22
44	-13.88	130.73	117.16	130.73	117.16	0	0	0	-6.15	-7.68	0	832.13	832.13	335.22	335.22
46	-14.52	132.96	126.99	132.96	126.99	0	0	0	-7.29	-0.23	0	832.13	832.13	335.22	335.22
48	-15.18	137.01	135.56	137.01	135.56	0	0	0	-5.82	2.81	0	832.13	832.13	335.22	335.22
50	-15.82	142.43	143.18	142.43	143.18	0	0	0	-3.67	3.32	0.01	832.13	832.13	335.22	335.22
52	-16.48	148.69	150.23	148.69	150.23	0	0	0	-1.81	2.66	0.01	832.13	832.13	335.22	335.22
54	-17.12	155.36	157	155.36	157	0	0	0	-0.58	1.62	0.01	832.13	832.13	335.22	335.22
56	-17.77	162.18	163.68	162.18	163.68	0	0	0	-0.04	0.58	0.01	832.13	832.13	335.22	335.22

Wall 1 Stage: 6

Wall Node	EL (m)	Sht L (kPa)	Sht R (kPa)	Shs L (kPa)	Shs R (kPa)	q (kPa)	U L (kPa)	U R (kPa)	M (kN-m/m)	V (kN/m)	dx (cm)	Mcap L (kN-m/m)	Mcap R (kN-m/m)	VcapL (kN/m)	VcapR (kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.42	832.13	832.13	335.22	335.22
2	-0.65	4.879	0	4.879	0	0	0	0	0.24	0.72	0.42	832.13	832.13	335.22	335.22
4	-1.3	11.548	0	11.548	0	0	0	0	2.56	4.85	0.43	832.13	832.13	335.22	335.22
6	-1.82	16.695	0	16.695	0	0	0	0	-18.31	-69.09	0.43	832.13	832.13	335.22	335.22
8	-2.48	22.656	0	22.656	0	0	0	0	-57.66	-57.38	0.43	832.13	832.13	335.22	335.22
10	-3.12	27.358	0	27.358	0	0	0	0	-87.52	-41.89	0.43	832.13	832.13	335.22	335.22
12	-3.78	32.463	0	32.463	0	0	0	0	-105.78	-23.17	0.43	832.13	832.13	335.22	335.22
14	-4.32	36.344	0	36.344	0	0	0	0	-124.27	-47.04	0.41	832.13	832.13	335.22	335.22
16	-4.97	41.114	0	41.114	0	0	0	0	-143.05	-22.56	0.39	832.13	832.13	335.22	335.22
18	-5.62	45.767	0	45.767	0	0	0	0	-144.46	4.86	0.36	832.13	832.13	335.22	335.22
20	-6.28	50.014	0	50.014	0	0	0	0	-126.58	35.3	0.32	832.13	832.13	335.22	335.22
22	-6.82	57.565	0	57.565	0	0	0	0	-94.99	63.24	0.28	832.13	832.13	335.22	335.22
24	-7.48	70.231	27.232	70.231	27.232	0	0	0	-35.89	99.91	0.22	832.13	832.13	335.22	335.22
26	-8.12	82.852	59.731	82.852	59.731	0	0	0	41.38	123.86	0.16	832.13	832.13	335.22	335.22
28	-8.78	94.935	63.908	94.935	63.908	0	0	0	129.64	140.19	0.11	832.13	832.13	335.22	335.22

30	-9.32	0	175.45	0	175.45	0	0	0	192.86	91.55	0.07	832.13	832.13	335.22	335.22
32	-9.98	0	128.7	0	128.7	0	0	0	199.56	-13.9	0.03	832.13	832.13	335.22	335.22
34	-10.62	71.885	100.08	71.885	100.08	0	0	0	155.35	-80.32	0.01	832.13	832.13	335.22	335.22
36	-11.28	110.11	84.956	110.11	84.956	0	0	0	97.74	-87.77	0	832.13	832.13	335.22	335.22
38	-11.92	125.29	86.048	125.29	86.048	0	0	0	49.77	-68.02	0	832.13	832.13	335.22	335.22
40	-12.58	129.99	94.876	129.99	94.876	0	0	0	17.95	-42.63	0	832.13	832.13	335.22	335.22
42	-13.22	130.21	106.14	130.21	106.14	0	0	0	0.81	-21.53	0	832.13	832.13	335.22	335.22
44	-13.88	130.73	117.16	130.73	117.16	0	0	0	-6.15	-7.68	0	832.13	832.13	335.22	335.22
46	-14.52	132.96	126.99	132.96	126.99	0	0	0	-7.29	-0.23	0	832.13	832.13	335.22	335.22
48	-15.18	137.01	135.56	137.01	135.56	0	0	0	-5.82	2.81	0	832.13	832.13	335.22	335.22
50	-15.82	142.43	143.18	142.43	143.18	0	0	0	-3.67	3.32	0.01	832.13	832.13	335.22	335.22
52	-16.48	148.69	150.23	148.69	150.23	0	0	0	-1.81	2.66	0.01	832.13	832.13	335.22	335.22
54	-17.12	155.36	157	155.36	157	0	0	0	-0.58	1.62	0.01	832.13	832.13	335.22	335.22
56	-17.77	162.18	163.68	162.18	163.68	0	0	0	-0.04	0.58	0.01	832.13	832.13	335.22	335.22

Wall 1 Stage: 7

Wall Node	EL (m)	Sht L (kPa)	Sht R (kPa)	Shs L (kPa)	Shs R (kPa)	q (kPa)	U L (kPa)	U R (kPa)	M (kN-m/m)	V (kN/m)	dx (cm)	Mcap L (kN-m/m)	Mcap R (kN-m/m)	VcapL (kN/m)	VcapR (kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.38	832.13	832.13	335.22	335.22
2	-0.65	6.286	0	6.286	0	0	0	0	0.45	1.38	0.4	832.13	832.13	335.22	335.22
4	-1.3	11.76	0	11.76	0	0	0	0	3.58	6.23	0.42	832.13	832.13	335.22	335.22
6	-1.82	16.695	0	16.695	0	0	0	0	-16.74	-68.27	0.44	832.13	832.13	335.22	335.22
8	-2.48	22.656	0	22.656	0	0	0	0	-55.55	-56.56	0.46	832.13	832.13	335.22	335.22
10	-3.12	27.358	0	27.358	0	0	0	0	-84.88	-41.06	0.48	832.13	832.13	335.22	335.22
12	-3.78	32.463	0	32.463	0	0	0	0	-102.6	-22.34	0.5	832.13	832.13	335.22	335.22
14	-4.32	36.344	0	36.344	0	0	0	0	-127.41	-67.05	0.5	832.13	832.13	335.22	335.22
16	-4.97	41.114	0	41.114	0	0	0	0	-159.2	-42.57	0.5	832.13	832.13	335.22	335.22
18	-5.62	45.767	0	45.767	0	0	0	0	-173.61	-15.15	0.49	832.13	832.13	335.22	335.22
20	-6.28	50.014	0	50.014	0	0	0	0	-168.73	15.29	0.46	832.13	832.13	335.22	335.22
22	-6.82	53.995	0	53.995	0	0	0	0	-163.55	-4.17	0.43	832.13	832.13	335.22	335.22
24	-7.48	60.108	0	60.108	0	0	0	0	-148.93	31.61	0.38	832.13	832.13	335.22	335.22
26	-8.12	72.659	0	72.659	0	0	0	0	-108.68	72.71	0.33	832.13	832.13	335.22	335.22
28	-8.78	85.322	0	85.322	0	0	0	0	-37.72	122	0.26	832.13	832.13	335.22	335.22
30	-9.32	0	0	0	0	0	0	0	42.28	145.46	0.21	832.13	832.13	335.22	335.22
32	-9.98	0	0	0	0	0	0	0	136.83	145.46	0.14	832.13	832.13	335.22	335.22
34	-10.62	0	165.65	0	165.65	0	0	0	211.25	83.52	0.09	832.13	832.13	335.22	335.22
36	-11.28	7.299	128.94	7.299	128.94	0	0	0	215.23	-17.43	0.05	832.13	832.13	335.22	335.22
38	-11.92	72.066	100.34	72.066	100.34	0	0	0	170.78	-79.83	0.02	832.13	832.13	335.22	335.22
40	-12.58	107.52	87.159	107.52	87.159	0	0	0	113.08	-88.52	0.01	832.13	832.13	335.22	335.22
42	-13.22	123.43	87.588	123.43	87.588	0	0	0	63.12	-71.81	0	832.13	832.13	335.22	335.22
44	-13.88	129.61	95.226	129.61	95.226	0	0	0	27.87	-48.3	0	832.13	832.13	335.22	335.22
46	-14.52	131.93	105.77	131.93	105.77	0	0	0	6.98	-27.16	0	832.13	832.13	335.22	335.22

48	-15.18	133.65	116.79	133.65	116.79	0	0	0	-2.89	-11.69	0.01	832.13	832.13	335.22	335.22
50	-15.82	136.17	127.19	136.17	127.19	0	0	0	-5.58	-2.09	0.01	832.13	832.13	335.22	335.22
52	-16.48	139.76	136.76	139.76	136.76	0	0	0	-4.44	2.7	0.01	832.13	832.13	335.22	335.22
54	-17.12	144.15	145.68	144.15	145.68	0	0	0	-1.99	3.87	0.01	832.13	832.13	335.22	335.22
56	-17.77	148.91	154.29	148.91	154.29	0	0	0	-0.17	2.23	0.01	832.13	832.13	335.22	335.22

Wall 1 Stage: 8

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.38	832.13	832.13	335.22	335.22
2	-0.65	6.286	0	6.286	0	0	0	0	0.45	1.38	0.4	832.13	832.13	335.22	335.22
4	-1.3	11.76	0	11.76	0	0	0	0	3.58	6.23	0.42	832.13	832.13	335.22	335.22
6	-1.82	16.695	0	16.695	0	0	0	0	-16.74	-68.27	0.44	832.13	832.13	335.22	335.22
8	-2.48	22.656	0	22.656	0	0	0	0	-55.55	-56.56	0.46	832.13	832.13	335.22	335.22
10	-3.12	27.358	0	27.358	0	0	0	0	-84.88	-41.06	0.48	832.13	832.13	335.22	335.22
12	-3.78	32.463	0	32.463	0	0	0	0	-102.6	-22.34	0.5	832.13	832.13	335.22	335.22
14	-4.32	36.344	0	36.344	0	0	0	0	-127.41	-67.05	0.5	832.13	832.13	335.22	335.22
16	-4.97	41.114	0	41.114	0	0	0	0	-159.2	-42.57	0.5	832.13	832.13	335.22	335.22
18	-5.62	45.767	0	45.767	0	0	0	0	-173.61	-15.15	0.49	832.13	832.13	335.22	335.22
20	-6.28	50.014	0	50.014	0	0	0	0	-168.73	15.29	0.46	832.13	832.13	335.22	335.22
22	-6.82	53.995	0	53.995	0	0	0	0	-163.55	-4.17	0.43	832.13	832.13	335.22	335.22
24	-7.48	60.108	0	60.108	0	0	0	0	-148.93	31.61	0.38	832.13	832.13	335.22	335.22
26	-8.12	72.659	0	72.659	0	0	0	0	-108.68	72.71	0.33	832.13	832.13	335.22	335.22
28	-8.78	85.322	0	85.322	0	0	0	0	-37.72	122	0.26	832.13	832.13	335.22	335.22
30	-9.32	0	0	0	0	0	0	0	42.28	145.46	0.21	832.13	832.13	335.22	335.22
32	-9.98	0	0	0	0	0	0	0	136.83	145.46	0.14	832.13	832.13	335.22	335.22
34	-10.62	0	165.65	0	165.65	0	0	0	211.25	83.52	0.09	832.13	832.13	335.22	335.22
36	-11.28	7.299	128.94	7.299	128.94	0	0	0	215.23	-17.43	0.05	832.13	832.13	335.22	335.22
38	-11.92	72.066	100.34	72.066	100.34	0	0	0	170.78	-79.83	0.02	832.13	832.13	335.22	335.22
40	-12.58	107.52	87.159	107.52	87.159	0	0	0	113.08	-88.52	0.01	832.13	832.13	335.22	335.22
42	-13.22	123.43	87.588	123.43	87.588	0	0	0	63.12	-71.81	0	832.13	832.13	335.22	335.22
44	-13.88	129.61	95.226	129.61	95.226	0	0	0	27.87	-48.3	0	832.13	832.13	335.22	335.22
46	-14.52	131.93	105.77	131.93	105.77	0	0	0	6.98	-27.16	0	832.13	832.13	335.22	335.22
48	-15.18	133.65	116.79	133.65	116.79	0	0	0	-2.89	-11.69	0.01	832.13	832.13	335.22	335.22
50	-15.82	136.17	127.19	136.17	127.19	0	0	0	-5.58	-2.09	0.01	832.13	832.13	335.22	335.22
52	-16.48	139.76	136.76	139.76	136.76	0	0	0	-4.44	2.7	0.01	832.13	832.13	335.22	335.22
54	-17.12	144.15	145.68	144.15	145.68	0	0	0	-1.99	3.87	0.01	832.13	832.13	335.22	335.22
56	-17.77	148.91	154.29	148.91	154.29	0	0	0	-0.17	2.23	0.01	832.13	832.13	335.22	335.22

Wall 1 Stage: 9

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-	(kN/m)	(cm)	(kN-	(kN-	(kN/m)	(kN/m)

									m/m)			m/m)	m/m)		
0	0	0	0	0	0	0	0	0	0	0	0.34	832.13	832.13	335.22	335.22
2	-0.65	7.758	0	7.758	0	0	0	0	0.63	1.94	0.38	832.13	832.13	335.22	335.22
4	-1.3	12.716	0	12.716	0	0	0	0	4.57	7.66	0.41	832.13	832.13	335.22	335.22
6	-1.82	17.231	0	17.231	0	0	0	0	-13.77	-63.2	0.43	832.13	832.13	335.22	335.22
8	-2.48	22.663	0	22.663	0	0	0	0	-49.14	-51.23	0.46	832.13	832.13	335.22	335.22
10	-3.12	27.358	0	27.358	0	0	0	0	-75.01	-35.73	0.49	832.13	832.13	335.22	335.22
12	-3.78	32.463	0	32.463	0	0	0	0	-89.27	-17.02	0.51	832.13	832.13	335.22	335.22
14	-4.32	36.344	0	36.344	0	0	0	0	-113.09	-67.69	0.53	832.13	832.13	335.22	335.22
16	-4.97	41.114	0	41.114	0	0	0	0	-145.29	-43.21	0.54	832.13	832.13	335.22	335.22
18	-5.62	45.767	0	45.767	0	0	0	0	-160.12	-15.79	0.54	832.13	832.13	335.22	335.22
20	-6.28	50.014	0	50.014	0	0	0	0	-155.66	14.65	0.53	832.13	832.13	335.22	335.22
22	-6.82	53.995	0	53.995	0	0	0	0	-158.15	-27.32	0.51	832.13	832.13	335.22	335.22
24	-7.48	58.207	0	58.207	0	0	0	0	-158.57	8.47	0.47	832.13	832.13	335.22	335.22
26	-8.12	66.099	0	66.099	0	0	0	0	-134.38	47.07	0.43	832.13	832.13	335.22	335.22
28	-8.78	78.014	0	78.014	0	0	0	0	-82.21	91.97	0.38	832.13	832.13	335.22	335.22
30	-9.32	0	0	0	0	0	0	0	-35.65	64.71	0.33	832.13	832.13	335.22	335.22
32	-9.98	0	0	0	0	0	0	0	6.41	64.71	0.27	832.13	832.13	335.22	335.22
34	-10.62	0	0	0	0	0	0	0	48.48	64.71	0.21	832.13	832.13	335.22	335.22
36	-11.28	0	0	0	0	0	0	0	90.54	64.71	0.15	832.13	832.13	335.22	335.22
38	-11.92	0	0	0	0	0	0	0	132.6	64.71	0.11	832.13	832.13	335.22	335.22
40	-12.58	0	162.32	0	162.32	0	0	0	174.67	64.71	0.06	832.13	832.13	335.22	335.22
42	-13.22	50.585	134.43	50.585	134.43	0	0	0	168.82	-29.94	0.04	832.13	832.13	335.22	335.22
44	-13.88	93.753	105.21	93.753	105.21	0	0	0	127.19	-70.9	0.02	832.13	832.13	335.22	335.22
46	-14.52	117.54	94.436	117.54	94.436	0	0	0	79.71	-71.46	0.01	832.13	832.13	335.22	335.22
48	-15.18	129.14	96.27	129.14	96.27	0	0	0	41.35	-54.1	0.01	832.13	832.13	335.22	335.22
50	-15.82	134.37	105.05	134.37	105.05	0	0	0	16.52	-32.96	0.01	832.13	832.13	335.22	335.22
52	-16.48	137.01	116.8	137.01	116.8	0	0	0	3.95	-15.27	0.01	832.13	832.13	335.22	335.22
54	-17.12	138.98	129.32	138.98	129.32	0	0	0	-0.12	-3.83	0.01	832.13	832.13	335.22	335.22
56	-17.77	140.96	141.8	140.96	141.8	0	0	0	-0.11	0.73	0.01	832.13	832.13	335.22	335.22

Wall 1 Stage: 10

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.34	832.13	832.13	335.22	335.22
2	-0.65	7.757	0	7.757	0	0	0	0	0.63	1.94	0.38	832.13	832.13	335.22	335.22
4	-1.3	12.715	0	12.715	0	0	0	0	4.57	7.66	0.41	832.13	832.13	335.22	335.22
6	-1.82	17.23	0	17.23	0	0	0	0	-13.77	-63.2	0.43	832.13	832.13	335.22	335.22
8	-2.48	22.663	0	22.663	0	0	0	0	-49.14	-51.23	0.46	832.13	832.13	335.22	335.22
10	-3.12	27.358	0	27.358	0	0	0	0	-75.02	-35.73	0.49	832.13	832.13	335.22	335.22
12	-3.78	32.463	0	32.463	0	0	0	0	-89.27	-17.01	0.51	832.13	832.13	335.22	335.22
14	-4.32	36.344	0	36.344	0	0	0	0	-113.09	-67.69	0.53	832.13	832.13	335.22	335.22

16	-4.97	41.114	0	41.114	0	0	0	0	-145.29	-43.21	0.54	832.13	832.13	335.22	335.22
18	-5.62	45.767	0	45.767	0	0	0	0	-160.12	-15.79	0.54	832.13	832.13	335.22	335.22
20	-6.28	50.014	0	50.014	0	0	0	0	-155.66	14.65	0.53	832.13	832.13	335.22	335.22
22	-6.82	53.995	0	53.995	0	0	0	0	-158.15	-27.32	0.51	832.13	832.13	335.22	335.22
24	-7.48	58.207	0	58.207	0	0	0	0	-158.57	8.47	0.47	832.13	832.13	335.22	335.22
26	-8.12	66.099	0	66.099	0	0	0	0	-134.37	47.07	0.43	832.13	832.13	335.22	335.22
28	-8.78	78.014	0	78.014	0	0	0	0	-82.21	91.97	0.38	832.13	832.13	335.22	335.22
30	-9.32	0	0	0	0	0	0	0	-35.65	64.71	0.33	832.13	832.13	335.22	335.22
32	-9.98	0	0	0	0	0	0	0	6.41	64.71	0.27	832.13	832.13	335.22	335.22
34	-10.62	0	0	0	0	0	0	0	48.48	64.71	0.21	832.13	832.13	335.22	335.22
36	-11.28	0	0	0	0	0	0	0	90.54	64.71	0.15	832.13	832.13	335.22	335.22
38	-11.92	0	0	0	0	0	0	0	132.6	64.71	0.11	832.13	832.13	335.22	335.22
40	-12.58	0	162.32	0	162.32	0	0	0	174.67	64.71	0.06	832.13	832.13	335.22	335.22
42	-13.22	50.585	134.43	50.585	134.43	0	0	0	168.82	-29.94	0.04	832.13	832.13	335.22	335.22
44	-13.88	93.753	105.21	93.753	105.21	0	0	0	127.19	-70.9	0.02	832.13	832.13	335.22	335.22
46	-14.52	117.54	94.436	117.54	94.436	0	0	0	79.71	-71.46	0.01	832.13	832.13	335.22	335.22
48	-15.18	129.14	96.27	129.14	96.27	0	0	0	41.35	-54.1	0.01	832.13	832.13	335.22	335.22
50	-15.82	134.37	105.05	134.37	105.05	0	0	0	16.52	-32.96	0.01	832.13	832.13	335.22	335.22
52	-16.48	137.01	116.8	137.01	116.8	0	0	0	3.95	-15.27	0.01	832.13	832.13	335.22	335.22
54	-17.12	138.98	129.32	138.98	129.32	0	0	0	-0.12	-3.83	0.01	832.13	832.13	335.22	335.22
56	-17.77	140.96	141.8	140.96	141.8	0	0	0	-0.11	0.73	0.01	832.13	832.13	335.22	335.22

LEGENDA
Wall node=numero nodo
EL=quota
Sht L=pressione terreno orizzontale totale a sx paratia
Sht R=pressione terreno orizzontale totale a dx paratia
Shs L=pressione terreno orizzontale efficace a sx paratia
Shs R=pressione terreno orizzontale efficace a dx paratia
q=pressioni dovute al sovraccarico
U L=pressione acqua a sx paratia
U R=pressione acqua a dx paratia
M=momento flettente (per metro)
V=taglio (per metro)
dx=spostamento orizzontale
McapL=Momento ultimo lato sx
McapR=Momento ultimo lato dx
VcapL=Taglio ultimo resistente lato sx
VcapR=Taglio ultimo resistente lato dx

REAZIONI VINCOLI (TIRANTI, PUNTONI, SOLETTE, SBADACCHI)

Vincolo 0

Stage No	R

	(kN)
0	0
1	0
2	0
3	189.267
4	189.267
5	250.404
6	250.413
7	252.348
8	252.348
9	242.496
10	242.499

Vincolo 1

Stage No	R
	(kN)
0	0
1	0
2	0
3	0
4	0
5	131.031
6	131.034
7	195.729
8	195.729
9	214.275
10	214.278

Vincolo 2

Stage No	R
	(kN)
0	0
1	0
2	0
3	0
4	0
5	0
6	0.001
7	147.213
8	147.213
9	217.104
10	217.104

Vincolo 3

Stage No	R
	(kN)
0	0
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	151.278
10	151.278

Verifica tensioni

Vincolo 0

Tabella: vincoli 0, Sommario rapporti di verifica

Stage No	R/CAP	R/STR	R/GEO
0	N/A	N/A	N/A
1	N/A	N/A	N/A
2	0	0	0
3	0.341	0.247	0.341
4	0.341	0.247	0.341
5	0.451	0.327	0.451
6	0.451	0.327	0.451
7	0.454	0.33	0.454
8	0.454	0.33	0.454
9	0.437	0.317	0.437
10	0.437	0.317	0.437

Vincolo 1

Tabella: vincoli 1, Sommario rapporti di verifica

Stage No	R/CAP	R/STR	R/GEO
0	N/A	N/A	N/A
1	N/A	N/A	N/A
2	N/A	N/A	N/A

3	N/A	N/A	N/A
4	0	0	0
5	0.26	0.171	0.26
6	0.26	0.171	0.26
7	0.388	0.256	0.388
8	0.388	0.256	0.388
9	0.424	0.28	0.424
10	0.424	0.28	0.424

Vincolo 2

Tabella: vincoli 2, Sommario rapporti di verifica

Stage No	R/CAP	R/STR	R/GEO
0	N/A	N/A	N/A
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	N/A	N/A	N/A
5	N/A	N/A	N/A
6	0	0	0
7	0.364	0.192	0.364
8	0.364	0.192	0.364
9	0.537	0.284	0.537
10	0.537	0.284	0.537

Vincolo 3

Tabella: vincoli 3, Sommario rapporti di verifica

Stage No	R/CAP	R/STR	R/GEO
0	N/A	N/A	N/A
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	N/A	N/A	N/A
5	N/A	N/A	N/A
6	N/A	N/A	N/A
7	N/A	N/A	N/A
8	0	0	0
9	0.449	0.198	0.449
10	0.449	0.198	0.449

Progetto: Paratia edificio impianti
Risultati per l'Approccio di Progetto 3: 0: DM08_ITA: EQK - GEO

APPROCCI DI PROGETTO E FATTORI DI COMBINAZIONE

Moltiplicatori e fattori di riduzione utilizzati per ogni Approccio di Progetto

Stage	Design Code	Design Case	F(tan	F	F	F	F(perm	F(temp	F(perm	F(temp	F Earth	F Earth	F GWT	F GWT	F HYD	F HYD	F UPL	F UPL
	Name		fr)	(c')	(Su)	(EQ)	load)	load)	sup)	sup)	(Dstab)	(stab)	(Dstab)	(stab)	(Dstab)	(stab)	(Dstab)	(stab)
0	DM08_ITA	EQK - GEO	1.25	1.25	1.4	1	1	1	1.2	1.1	1	1	1	1	1.3	0.9	1	1
1	DM08_ITA	EQK - GEO	1.25	1.25	1.4	1	1	1	1.2	1.1	1	1	1	1	1.3	0.9	1	1
2	DM08_ITA	EQK - GEO	1.25	1.25	1.4	1	1	1	1.2	1.1	1	1	1	1	1.3	0.9	1	1
3	DM08_ITA	EQK - GEO	1.25	1.25	1.4	1	1	1	1.2	1.1	1	1	1	1	1.3	0.9	1	1
4	DM08_ITA	EQK - GEO	1.25	1.25	1.4	1	1	1	1.2	1.1	1	1	1	1	1.3	0.9	1	1
5	DM08_ITA	EQK - GEO	1.25	1.25	1.4	1	1	1	1.2	1.1	1	1	1	1	1.3	0.9	1	1
6	DM08_ITA	EQK - GEO	1.25	1.25	1.4	1	1	1	1.2	1.1	1	1	1	1	1.3	0.9	1	1
7	DM08_ITA	EQK - GEO	1.25	1.25	1.4	1	1	1	1.2	1.1	1	1	1	1	1.3	0.9	1	1
8	DM08_ITA	EQK - GEO	1.25	1.25	1.4	1	1	1	1.2	1.1	1	1	1	1	1.3	0.9	1	1
9	DM08_ITA	EQK - GEO	1.25	1.25	1.4	1	1	1	1.2	1.1	1	1	1	1	1.3	0.9	1	1
10	DM08_ITA	EQK - GEO	1.25	1.25	1.4	1	1	1	1.2	1.1	1	1	1	1	1.3	0.9	1	1

Legenda
Stage: Fase di scavo
Design Code: Normativa in accordo alla quale vengono eseguite le verifiche
Ftan fr: moltiplicatore della tangente dell'angolo di attrito
F C': moltiplicatore della coesione efficace
F Su': moltiplicatore coesione non drenata
F EQ: moltiplicatore azione sismica
F perm load: moltiplicatore carichi permanenti
F temp load: moltiplicatore carichi accidentali/variabili
F perm supp: fattore di riduzione della resistenza allo sfilamento dei tiranti, intesi come permanenti
F temp supp: fattore di riduzione della resistenza allo sfilamento dei tiranti, intesi come temporanei
F earth Dstab: moltiplicatore della spinta attiva, caso sfavorevole
F earth stab: moltiplicatore della spinta attiva, caso favorevole
F GWT Dstab (ground water): moltiplicatore della spinta idrostatica, caso sfavorevole
F GWT stab (ground water): moltiplicatore della spinta idrostatica, caso favorevole
F HYD Dstab: moltiplicatore della spinta idrodinamica, caso sfavorevole
F HYD stab: moltiplicatore della spinta idrodinamica, caso favorevole
F UPL Dstab: moltiplicatore per la verifica a sifonamento, caso sfavorevole

F UPL stab: moltiplicatore per la verifica a sifonamento, caso favorevole

TABELLA RISULTATI PARATIA

Wall 1 Stage: 0

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0	832.13	832.13	335.22	335.22
2	-0.65	21.632	21.632	21.632	21.632	0	0	0	0	0	0	832.13	832.13	335.22	335.22
4	-1.3	33.162	33.162	33.162	33.162	0	0	0	0	0	0	832.13	832.13	335.22	335.22
6	-1.82	39.419	39.419	39.419	39.419	0	0	0	0	0	0	832.13	832.13	335.22	335.22
8	-2.48	46.092	46.092	46.092	46.092	0	0	0	0	0	0	832.13	832.13	335.22	335.22
10	-3.12	52.38	52.38	52.38	52.38	0	0	0	0	0	0	832.13	832.13	335.22	335.22
12	-3.78	58.538	58.538	58.538	58.538	0	0	0	0	0	0	832.13	832.13	335.22	335.22
14	-4.32	63.711	63.711	63.711	63.711	0	0	0	0	0	0	832.13	832.13	335.22	335.22
16	-4.97	69.809	69.809	69.809	69.809	0	0	0	0	0	0	832.13	832.13	335.22	335.22
18	-5.62	75.907	75.907	75.907	75.907	0	0	0	0	0	0	832.13	832.13	335.22	335.22
20	-6.28	82.012	82.012	82.012	82.012	0	0	0	0	0	0	832.13	832.13	335.22	335.22
22	-6.82	87.187	87.187	87.187	87.187	0	0	0	0	0	0	832.13	832.13	335.22	335.22
24	-7.48	93.317	93.317	93.317	93.317	0	0	0	0	0	0	832.13	832.13	335.22	335.22
26	-8.12	99.463	99.463	99.463	99.463	0	0	0	0	0	0	832.13	832.13	335.22	335.22
28	-8.78	105.63	105.63	105.63	105.63	0	0	0	0	0	0	832.13	832.13	335.22	335.22
30	-9.32	99.709	99.709	99.709	99.709	0	0	0	0	0	0	832.13	832.13	335.22	335.22
32	-9.98	106.1	106.1	106.1	106.1	0	0	0	0	0	0	832.13	832.13	335.22	335.22
34	-10.62	112.5	112.5	112.5	112.5	0	0	0	0	0	0	832.13	832.13	335.22	335.22
36	-11.28	118.93	118.93	118.93	118.93	0	0	0	0	0	0	832.13	832.13	335.22	335.22
38	-11.92	125.38	125.38	125.38	125.38	0	0	0	0	0	0	832.13	832.13	335.22	335.22
40	-12.58	131.85	131.85	131.85	131.85	0	0	0	0	0	0	832.13	832.13	335.22	335.22
42	-13.22	138.33	138.33	138.33	138.33	0	0	0	0	0	0	832.13	832.13	335.22	335.22
44	-13.88	144.85	144.85	144.85	144.85	0	0	0	0	0	0	832.13	832.13	335.22	335.22
46	-14.52	151.38	151.38	151.38	151.38	0	0	0	0	0	0	832.13	832.13	335.22	335.22
48	-15.18	157.93	157.93	157.93	157.93	0	0	0	0	0	0	832.13	832.13	335.22	335.22
50	-15.82	164.49	164.49	164.49	164.49	0	0	0	0	0	0	832.13	832.13	335.22	335.22
52	-16.48	171.08	171.08	171.08	171.08	0	0	0	0	0	0	832.13	832.13	335.22	335.22
54	-17.12	177.69	177.69	177.69	177.69	0	0	0	0	0	0	832.13	832.13	335.22	335.22
56	-17.77	184.31	184.31	184.31	184.31	0	0	0	0	0	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 1

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)

0	0	0	0	0	0	0	0	0	0	0	0.15	832.13	832.13	335.22	335.22
2	-0.65	4.876	0	4.876	0	0	0	0	0.23	0.72	0.13	832.13	832.13	335.22	335.22
4	-1.3	11.548	0	11.548	0	0	0	0	2.56	4.85	0.11	832.13	832.13	335.22	335.22
6	-1.82	16.695	0	16.695	0	0	0	0	7.88	11.53	0.1	832.13	832.13	335.22	335.22
8	-2.48	24.009	27.232	24.009	27.232	0	0	0	20.04	20.44	0.08	832.13	832.13	335.22	335.22
10	-3.12	34.736	53.237	34.736	53.237	0	0	0	30.92	14.07	0.06	832.13	832.13	335.22	335.22
12	-3.78	44.74	57.427	44.74	57.427	0	0	0	34.49	2.95	0.05	832.13	832.13	335.22	335.22
14	-4.32	52.643	60.706	52.643	60.706	0	0	0	33.24	-3.48	0.04	832.13	832.13	335.22	335.22
16	-4.97	61.37	64.926	61.37	64.926	0	0	0	28.67	-7.95	0.03	832.13	832.13	335.22	335.22
18	-5.62	69.535	69.525	69.535	69.525	0	0	0	22.58	-9.65	0.02	832.13	832.13	335.22	335.22
20	-6.28	77.26	74.448	77.26	74.448	0	0	0	16.46	-9.16	0.02	832.13	832.13	335.22	335.22
22	-6.82	83.547	78.809	83.547	78.809	0	0	0	12.18	-7.38	0.01	832.13	832.13	335.22	335.22
24	-7.48	90.769	84.137	90.769	84.137	0	0	0	8.98	-3.98	0.01	832.13	832.13	335.22	335.22
26	-8.12	97.825	89.614	97.825	89.614	0	0	0	8.58	0.6	0.01	832.13	832.13	335.22	335.22
28	-8.78	104.72	95.242	104.72	95.242	0	0	0	11.64	6.15	0	832.13	832.13	335.22	335.22
30	-9.32	82.824	100.39	82.824	100.39	0	0	0	13.82	0.62	0	832.13	832.13	335.22	335.22
32	-9.98	99.536	100.89	99.536	100.89	0	0	0	9.64	-7.76	0	832.13	832.13	335.22	335.22
34	-10.62	109.4	104.97	109.4	104.97	0	0	0	4.59	-7.35	0	832.13	832.13	335.22	335.22
36	-11.28	115.85	111.41	115.85	111.41	0	0	0	1.26	-4.34	0	832.13	832.13	335.22	335.22
38	-11.92	121.28	118.58	121.28	118.58	0	0	0	-0.25	-1.72	0	832.13	832.13	335.22	335.22
40	-12.58	126.82	125.71	126.82	125.71	0	0	0	-0.6	-0.25	0	832.13	832.13	335.22	335.22
42	-13.22	132.78	132.59	132.78	132.59	0	0	0	-0.47	0.29	0	832.13	832.13	335.22	335.22
44	-13.88	139.09	139.26	139.09	139.26	0	0	0	-0.25	0.34	0	832.13	832.13	335.22	335.22
46	-14.52	145.61	145.81	145.61	145.81	0	0	0	-0.08	0.22	0	832.13	832.13	335.22	335.22
48	-15.18	152.21	152.35	152.21	152.35	0	0	0	0	0.1	0	832.13	832.13	335.22	335.22
50	-15.82	158.83	158.89	158.83	158.89	0	0	0	0.02	0.02	0	832.13	832.13	335.22	335.22
52	-16.48	165.45	165.47	165.45	165.47	0	0	0	0.02	-0.01	0	832.13	832.13	335.22	335.22
54	-17.12	172.08	172.07	172.08	172.07	0	0	0	0.01	-0.02	0	832.13	832.13	335.22	335.22
56	-17.77	178.72	178.7	178.72	178.7	0	0	0	0	-0.01	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 2

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.15	832.13	832.13	335.22	335.22
2	-0.65	4.876	0	4.876	0	0	0	0	0.23	0.72	0.13	832.13	832.13	335.22	335.22
4	-1.3	11.548	0	11.548	0	0	0	0	2.56	4.85	0.11	832.13	832.13	335.22	335.22
6	-1.82	16.695	0	16.695	0	0	0	0	7.88	11.53	0.1	832.13	832.13	335.22	335.22
8	-2.48	24.009	27.232	24.009	27.232	0	0	0	20.04	20.44	0.08	832.13	832.13	335.22	335.22
10	-3.12	34.736	53.237	34.736	53.237	0	0	0	30.92	14.07	0.06	832.13	832.13	335.22	335.22
12	-3.78	44.74	57.427	44.74	57.427	0	0	0	34.49	2.95	0.05	832.13	832.13	335.22	335.22
14	-4.32	52.643	60.706	52.643	60.706	0	0	0	33.24	-3.48	0.04	832.13	832.13	335.22	335.22
16	-4.97	61.37	64.926	61.37	64.926	0	0	0	28.67	-7.95	0.03	832.13	832.13	335.22	335.22

18	-5.62	69.535	69.525	69.535	69.525	0	0	0	22.58	-9.65	0.02	832.13	832.13	335.22	335.22
20	-6.28	77.26	74.448	77.26	74.448	0	0	0	16.46	-9.16	0.02	832.13	832.13	335.22	335.22
22	-6.82	83.547	78.809	83.547	78.809	0	0	0	12.18	-7.38	0.01	832.13	832.13	335.22	335.22
24	-7.48	90.769	84.137	90.769	84.137	0	0	0	8.98	-3.98	0.01	832.13	832.13	335.22	335.22
26	-8.12	97.825	89.614	97.825	89.614	0	0	0	8.58	0.6	0.01	832.13	832.13	335.22	335.22
28	-8.78	104.72	95.242	104.72	95.242	0	0	0	11.64	6.15	0	832.13	832.13	335.22	335.22
30	-9.32	82.824	100.39	82.824	100.39	0	0	0	13.82	0.62	0	832.13	832.13	335.22	335.22
32	-9.98	99.536	100.89	99.536	100.89	0	0	0	9.64	-7.76	0	832.13	832.13	335.22	335.22
34	-10.62	109.4	104.97	109.4	104.97	0	0	0	4.59	-7.35	0	832.13	832.13	335.22	335.22
36	-11.28	115.85	111.41	115.85	111.41	0	0	0	1.26	-4.34	0	832.13	832.13	335.22	335.22
38	-11.92	121.28	118.58	121.28	118.58	0	0	0	-0.25	-1.72	0	832.13	832.13	335.22	335.22
40	-12.58	126.82	125.71	126.82	125.71	0	0	0	-0.6	-0.25	0	832.13	832.13	335.22	335.22
42	-13.22	132.78	132.59	132.78	132.59	0	0	0	-0.47	0.29	0	832.13	832.13	335.22	335.22
44	-13.88	139.09	139.26	139.09	139.26	0	0	0	-0.25	0.34	0	832.13	832.13	335.22	335.22
46	-14.52	145.61	145.81	145.61	145.81	0	0	0	-0.08	0.22	0	832.13	832.13	335.22	335.22
48	-15.18	152.21	152.35	152.21	152.35	0	0	0	0	0.1	0	832.13	832.13	335.22	335.22
50	-15.82	158.83	158.89	158.83	158.89	0	0	0	0.02	0.02	0	832.13	832.13	335.22	335.22
52	-16.48	165.45	165.47	165.45	165.47	0	0	0	0.02	-0.01	0	832.13	832.13	335.22	335.22
54	-17.12	172.08	172.07	172.08	172.07	0	0	0	0.01	-0.02	0	832.13	832.13	335.22	335.22
56	-17.77	178.72	178.7	178.72	178.7	0	0	0	0	-0.01	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 3

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.39	832.13	832.13	335.22	335.22
2	-0.65	4.876	0	4.876	0	0	0	0	0.23	0.72	0.37	832.13	832.13	335.22	335.22
4	-1.3	11.548	0	11.548	0	0	0	0	2.56	4.85	0.35	832.13	832.13	335.22	335.22
6	-1.82	16.695	0	16.695	0	0	0	0	-11.92	-49.41	0.34	832.13	832.13	335.22	335.22
8	-2.48	22.656	0	22.656	0	0	0	0	-38.47	-37.7	0.32	832.13	832.13	335.22	335.22
10	-3.12	27.358	0	27.358	0	0	0	0	-55.54	-22.2	0.3	832.13	832.13	335.22	335.22
12	-3.78	32.463	0	32.463	0	0	0	0	-61	-3.48	0.28	832.13	832.13	335.22	335.22
14	-4.32	36.344	0	36.344	0	0	0	0	-54.96	14.83	0.25	832.13	832.13	335.22	335.22
16	-4.97	41.114	27.232	41.114	27.232	0	0	0	-34.43	36.51	0.22	832.13	832.13	335.22	335.22
18	-5.62	49.425	64.496	49.425	64.496	0	0	0	-8	40.3	0.18	832.13	832.13	335.22	335.22
20	-6.28	60.856	68.618	60.856	68.618	0	0	0	13.78	31.58	0.15	832.13	832.13	335.22	335.22
22	-6.82	70.308	71.298	70.308	71.298	0	0	0	29.53	28.08	0.12	832.13	832.13	335.22	335.22
24	-7.48	81.123	74.453	81.123	74.453	0	0	0	47.88	28.7	0.09	832.13	832.13	335.22	335.22
26	-8.12	91.43	77.836	91.43	77.836	0	0	0	69.02	34.2	0.06	832.13	832.13	335.22	335.22
28	-8.78	101.05	81.675	101.05	81.675	0	0	0	95.88	44.03	0.03	832.13	832.13	335.22	335.22
30	-9.32	12.195	122.24	12.195	122.24	0	0	0	110.74	11.53	0.02	832.13	832.13	335.22	335.22
32	-9.98	75.972	103.06	75.972	103.06	0	0	0	88.38	-44.54	0.01	832.13	832.13	335.22	335.22
34	-10.62	108.14	92.051	108.14	92.051	0	0	0	53.7	-53.39	0	832.13	832.13	335.22	335.22

36	-11.28	120.26	94.242	120.26	94.242	0	0	0	24.93	-40.34	0	832.13	832.13	335.22	335.22
38	-11.92	125.11	102.53	125.11	102.53	0	0	0	6.86	-23.71	0	832.13	832.13	335.22	335.22
40	-12.58	126.73	112.49	126.73	112.49	0	0	0	-1.83	-10.36	0	832.13	832.13	335.22	335.22
42	-13.22	128.97	122.04	128.97	122.04	0	0	0	-4.47	-2.39	0	832.13	832.13	335.22	335.22
44	-13.88	132.75	130.56	132.75	130.56	0	0	0	-4.11	1.24	0	832.13	832.13	335.22	335.22
46	-14.52	137.92	138.13	137.92	138.13	0	0	0	-2.76	2.19	0	832.13	832.13	335.22	335.22
48	-15.18	144.04	145.08	144.04	145.08	0	0	0	-1.46	1.88	0	832.13	832.13	335.22	335.22
50	-15.82	150.65	151.7	150.65	151.7	0	0	0	-0.57	1.18	0	832.13	832.13	335.22	335.22
52	-16.48	157.47	158.21	157.47	158.21	0	0	0	-0.13	0.54	0	832.13	832.13	335.22	335.22
54	-17.12	164.35	164.7	164.35	164.7	0	0	0	0.01	0.12	0	832.13	832.13	335.22	335.22
56	-17.77	171.25	171.2	171.25	171.2	0	0	0	0	-0.04	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 4

Wall Node	EL (m)	Sht L (kPa)	Sht R (kPa)	Shs L (kPa)	Shs R (kPa)	q (kPa)	U L (kPa)	U R (kPa)	M (kN-m/m)	V (kN/m)	dx (cm)	Mcap L (kN-m/m)	Mcap R (kN-m/m)	VcapL (kN/m)	VcapR (kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.39	832.13	832.13	335.22	335.22
2	-0.65	4.876	0	4.876	0	0	0	0	0.23	0.72	0.37	832.13	832.13	335.22	335.22
4	-1.3	11.548	0	11.548	0	0	0	0	2.56	4.85	0.35	832.13	832.13	335.22	335.22
6	-1.82	16.695	0	16.695	0	0	0	0	-11.92	-49.41	0.34	832.13	832.13	335.22	335.22
8	-2.48	22.656	0	22.656	0	0	0	0	-38.47	-37.7	0.32	832.13	832.13	335.22	335.22
10	-3.12	27.358	0	27.358	0	0	0	0	-55.54	-22.2	0.3	832.13	832.13	335.22	335.22
12	-3.78	32.463	0	32.463	0	0	0	0	-61	-3.48	0.28	832.13	832.13	335.22	335.22
14	-4.32	36.344	0	36.344	0	0	0	0	-54.96	14.83	0.25	832.13	832.13	335.22	335.22
16	-4.97	41.114	27.232	41.114	27.232	0	0	0	-34.43	36.51	0.22	832.13	832.13	335.22	335.22
18	-5.62	49.425	64.496	49.425	64.496	0	0	0	-8	40.3	0.18	832.13	832.13	335.22	335.22
20	-6.28	60.856	68.618	60.856	68.618	0	0	0	13.78	31.58	0.15	832.13	832.13	335.22	335.22
22	-6.82	70.308	71.298	70.308	71.298	0	0	0	29.53	28.08	0.12	832.13	832.13	335.22	335.22
24	-7.48	81.123	74.453	81.123	74.453	0	0	0	47.88	28.7	0.09	832.13	832.13	335.22	335.22
26	-8.12	91.43	77.836	91.43	77.836	0	0	0	69.02	34.2	0.06	832.13	832.13	335.22	335.22
28	-8.78	101.05	81.675	101.05	81.675	0	0	0	95.88	44.03	0.03	832.13	832.13	335.22	335.22
30	-9.32	12.195	122.24	12.195	122.24	0	0	0	110.74	11.53	0.02	832.13	832.13	335.22	335.22
32	-9.98	75.972	103.06	75.972	103.06	0	0	0	88.38	-44.54	0.01	832.13	832.13	335.22	335.22
34	-10.62	108.14	92.051	108.14	92.051	0	0	0	53.7	-53.39	0	832.13	832.13	335.22	335.22
36	-11.28	120.26	94.242	120.26	94.242	0	0	0	24.93	-40.34	0	832.13	832.13	335.22	335.22
38	-11.92	125.11	102.53	125.11	102.53	0	0	0	6.86	-23.71	0	832.13	832.13	335.22	335.22
40	-12.58	126.73	112.49	126.73	112.49	0	0	0	-1.83	-10.36	0	832.13	832.13	335.22	335.22
42	-13.22	128.97	122.04	128.97	122.04	0	0	0	-4.47	-2.39	0	832.13	832.13	335.22	335.22
44	-13.88	132.75	130.56	132.75	130.56	0	0	0	-4.11	1.24	0	832.13	832.13	335.22	335.22
46	-14.52	137.92	138.13	137.92	138.13	0	0	0	-2.76	2.19	0	832.13	832.13	335.22	335.22
48	-15.18	144.04	145.08	144.04	145.08	0	0	0	-1.46	1.88	0	832.13	832.13	335.22	335.22
50	-15.82	150.65	151.7	150.65	151.7	0	0	0	-0.57	1.18	0	832.13	832.13	335.22	335.22
52	-16.48	157.47	158.21	157.47	158.21	0	0	0	-0.13	0.54	0	832.13	832.13	335.22	335.22

54	-17.12	164.35	164.7	164.35	164.7	0	0	0	0.01	0.12	0	832.13	832.13	335.22	335.22
56	-17.77	171.25	171.2	171.25	171.2	0	0	0	0	-0.04	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 5

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.42	832.13	832.13	335.22	335.22
2	-0.65	4.881	0	4.881	0	0	0	0	0.23	0.72	0.42	832.13	832.13	335.22	335.22
4	-1.3	11.548	0	11.548	0	0	0	0	2.56	4.85	0.43	832.13	832.13	335.22	335.22
6	-1.82	16.695	0	16.695	0	0	0	0	-18.32	-69.09	0.43	832.13	832.13	335.22	335.22
8	-2.48	22.656	0	22.656	0	0	0	0	-57.66	-57.38	0.43	832.13	832.13	335.22	335.22
10	-3.12	27.358	0	27.358	0	0	0	0	-87.53	-41.89	0.43	832.13	832.13	335.22	335.22
12	-3.78	32.463	0	32.463	0	0	0	0	-105.78	-23.17	0.43	832.13	832.13	335.22	335.22
14	-4.32	36.344	0	36.344	0	0	0	0	-124.27	-47.04	0.41	832.13	832.13	335.22	335.22
16	-4.97	41.114	0	41.114	0	0	0	0	-143.05	-22.56	0.39	832.13	832.13	335.22	335.22
18	-5.62	45.767	0	45.767	0	0	0	0	-144.47	4.86	0.36	832.13	832.13	335.22	335.22
20	-6.28	50.014	0	50.014	0	0	0	0	-126.58	35.3	0.32	832.13	832.13	335.22	335.22
22	-6.82	57.565	0	57.565	0	0	0	0	-94.99	63.24	0.28	832.13	832.13	335.22	335.22
24	-7.48	70.231	27.232	70.231	27.232	0	0	0	-35.89	99.91	0.22	832.13	832.13	335.22	335.22
26	-8.12	82.852	59.731	82.852	59.731	0	0	0	41.38	123.87	0.16	832.13	832.13	335.22	335.22
28	-8.78	94.935	63.908	94.935	63.908	0	0	0	129.64	140.19	0.11	832.13	832.13	335.22	335.22
30	-9.32	0	175.45	0	175.45	0	0	0	192.86	91.55	0.07	832.13	832.13	335.22	335.22
32	-9.98	0	128.7	0	128.7	0	0	0	199.56	-13.9	0.03	832.13	832.13	335.22	335.22
34	-10.62	71.885	100.08	71.885	100.08	0	0	0	155.35	-80.32	0.01	832.13	832.13	335.22	335.22
36	-11.28	110.11	84.957	110.11	84.957	0	0	0	97.74	-87.77	0	832.13	832.13	335.22	335.22
38	-11.92	125.29	86.049	125.29	86.049	0	0	0	49.77	-68.02	0	832.13	832.13	335.22	335.22
40	-12.58	129.99	94.877	129.99	94.877	0	0	0	17.95	-42.63	0	832.13	832.13	335.22	335.22
42	-13.22	130.21	106.14	130.21	106.14	0	0	0	0.81	-21.53	0	832.13	832.13	335.22	335.22
44	-13.88	130.73	117.16	130.73	117.16	0	0	0	-6.15	-7.68	0	832.13	832.13	335.22	335.22
46	-14.52	132.96	126.99	132.96	126.99	0	0	0	-7.29	-0.23	0	832.13	832.13	335.22	335.22
48	-15.18	137.01	135.56	137.01	135.56	0	0	0	-5.82	2.81	0	832.13	832.13	335.22	335.22
50	-15.82	142.43	143.18	142.43	143.18	0	0	0	-3.67	3.32	0.01	832.13	832.13	335.22	335.22
52	-16.48	148.69	150.23	148.69	150.23	0	0	0	-1.81	2.66	0.01	832.13	832.13	335.22	335.22
54	-17.12	155.36	157	155.36	157	0	0	0	-0.58	1.62	0.01	832.13	832.13	335.22	335.22
56	-17.77	162.18	163.68	162.18	163.68	0	0	0	-0.04	0.58	0.01	832.13	832.13	335.22	335.22

Wall 1 Stage: 6

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.42	832.13	832.13	335.22	335.22
2	-0.65	4.879	0	4.879	0	0	0	0	0.24	0.72	0.42	832.13	832.13	335.22	335.22

4	-1.3	11.548	0	11.548	0	0	0	0	2.56	4.85	0.43	832.13	832.13	335.22	335.22
6	-1.82	16.695	0	16.695	0	0	0	0	-18.31	-69.09	0.43	832.13	832.13	335.22	335.22
8	-2.48	22.656	0	22.656	0	0	0	0	-57.66	-57.38	0.43	832.13	832.13	335.22	335.22
10	-3.12	27.358	0	27.358	0	0	0	0	-87.52	-41.89	0.43	832.13	832.13	335.22	335.22
12	-3.78	32.463	0	32.463	0	0	0	0	-105.78	-23.17	0.43	832.13	832.13	335.22	335.22
14	-4.32	36.344	0	36.344	0	0	0	0	-124.27	-47.04	0.41	832.13	832.13	335.22	335.22
16	-4.97	41.114	0	41.114	0	0	0	0	-143.05	-22.56	0.39	832.13	832.13	335.22	335.22
18	-5.62	45.767	0	45.767	0	0	0	0	-144.46	4.86	0.36	832.13	832.13	335.22	335.22
20	-6.28	50.014	0	50.014	0	0	0	0	-126.58	35.3	0.32	832.13	832.13	335.22	335.22
22	-6.82	57.565	0	57.565	0	0	0	0	-94.99	63.24	0.28	832.13	832.13	335.22	335.22
24	-7.48	70.231	27.232	70.231	27.232	0	0	0	-35.89	99.91	0.22	832.13	832.13	335.22	335.22
26	-8.12	82.852	59.731	82.852	59.731	0	0	0	41.38	123.86	0.16	832.13	832.13	335.22	335.22
28	-8.78	94.935	63.908	94.935	63.908	0	0	0	129.64	140.19	0.11	832.13	832.13	335.22	335.22
30	-9.32	0	175.45	0	175.45	0	0	0	192.86	91.55	0.07	832.13	832.13	335.22	335.22
32	-9.98	0	128.7	0	128.7	0	0	0	199.56	-13.9	0.03	832.13	832.13	335.22	335.22
34	-10.62	71.885	100.08	71.885	100.08	0	0	0	155.35	-80.32	0.01	832.13	832.13	335.22	335.22
36	-11.28	110.11	84.956	110.11	84.956	0	0	0	97.74	-87.77	0	832.13	832.13	335.22	335.22
38	-11.92	125.29	86.048	125.29	86.048	0	0	0	49.77	-68.02	0	832.13	832.13	335.22	335.22
40	-12.58	129.99	94.876	129.99	94.876	0	0	0	17.95	-42.63	0	832.13	832.13	335.22	335.22
42	-13.22	130.21	106.14	130.21	106.14	0	0	0	0.81	-21.53	0	832.13	832.13	335.22	335.22
44	-13.88	130.73	117.16	130.73	117.16	0	0	0	-6.15	-7.68	0	832.13	832.13	335.22	335.22
46	-14.52	132.96	126.99	132.96	126.99	0	0	0	-7.29	-0.23	0	832.13	832.13	335.22	335.22
48	-15.18	137.01	135.56	137.01	135.56	0	0	0	-5.82	2.81	0	832.13	832.13	335.22	335.22
50	-15.82	142.43	143.18	142.43	143.18	0	0	0	-3.67	3.32	0.01	832.13	832.13	335.22	335.22
52	-16.48	148.69	150.23	148.69	150.23	0	0	0	-1.81	2.66	0.01	832.13	832.13	335.22	335.22
54	-17.12	155.36	157	155.36	157	0	0	0	-0.58	1.62	0.01	832.13	832.13	335.22	335.22
56	-17.77	162.18	163.68	162.18	163.68	0	0	0	-0.04	0.58	0.01	832.13	832.13	335.22	335.22

Wall 1 Stage: 7

Wall Node	EL (m)	Sht L (kPa)	Sht R (kPa)	Shs L (kPa)	Shs R (kPa)	q (kPa)	U L (kPa)	U R (kPa)	M (kN-m/m)	V (kN/m)	dx (cm)	Mcap L (kN-m/m)	Mcap R (kN-m/m)	VcapL (kN/m)	VcapR (kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.38	832.13	832.13	335.22	335.22
2	-0.65	6.286	0	6.286	0	0	0	0	0.45	1.38	0.4	832.13	832.13	335.22	335.22
4	-1.3	11.76	0	11.76	0	0	0	0	3.58	6.23	0.42	832.13	832.13	335.22	335.22
6	-1.82	16.695	0	16.695	0	0	0	0	-16.74	-68.27	0.44	832.13	832.13	335.22	335.22
8	-2.48	22.656	0	22.656	0	0	0	0	-55.55	-56.56	0.46	832.13	832.13	335.22	335.22
10	-3.12	27.358	0	27.358	0	0	0	0	-84.88	-41.06	0.48	832.13	832.13	335.22	335.22
12	-3.78	32.463	0	32.463	0	0	0	0	-102.6	-22.34	0.5	832.13	832.13	335.22	335.22
14	-4.32	36.344	0	36.344	0	0	0	0	-127.41	-67.05	0.5	832.13	832.13	335.22	335.22
16	-4.97	41.114	0	41.114	0	0	0	0	-159.2	-42.57	0.5	832.13	832.13	335.22	335.22
18	-5.62	45.767	0	45.767	0	0	0	0	-173.61	-15.15	0.49	832.13	832.13	335.22	335.22
20	-6.28	50.014	0	50.014	0	0	0	0	-168.73	15.29	0.46	832.13	832.13	335.22	335.22

22	-6.82	53.995	0	53.995	0	0	0	0	-163.55	-4.17	0.43	832.13	832.13	335.22	335.22
24	-7.48	60.108	0	60.108	0	0	0	0	-148.93	31.61	0.38	832.13	832.13	335.22	335.22
26	-8.12	72.659	0	72.659	0	0	0	0	-108.68	72.71	0.33	832.13	832.13	335.22	335.22
28	-8.78	85.322	0	85.322	0	0	0	0	-37.72	122	0.26	832.13	832.13	335.22	335.22
30	-9.32	0	0	0	0	0	0	0	42.28	145.46	0.21	832.13	832.13	335.22	335.22
32	-9.98	0	0	0	0	0	0	0	136.83	145.46	0.14	832.13	832.13	335.22	335.22
34	-10.62	0	165.65	0	165.65	0	0	0	211.25	83.52	0.09	832.13	832.13	335.22	335.22
36	-11.28	7.299	128.94	7.299	128.94	0	0	0	215.23	-17.43	0.05	832.13	832.13	335.22	335.22
38	-11.92	72.066	100.34	72.066	100.34	0	0	0	170.78	-79.83	0.02	832.13	832.13	335.22	335.22
40	-12.58	107.52	87.159	107.52	87.159	0	0	0	113.08	-88.52	0.01	832.13	832.13	335.22	335.22
42	-13.22	123.43	87.588	123.43	87.588	0	0	0	63.12	-71.81	0	832.13	832.13	335.22	335.22
44	-13.88	129.61	95.226	129.61	95.226	0	0	0	27.87	-48.3	0	832.13	832.13	335.22	335.22
46	-14.52	131.93	105.77	131.93	105.77	0	0	0	6.98	-27.16	0	832.13	832.13	335.22	335.22
48	-15.18	133.65	116.79	133.65	116.79	0	0	0	-2.89	-11.69	0.01	832.13	832.13	335.22	335.22
50	-15.82	136.17	127.19	136.17	127.19	0	0	0	-5.58	-2.09	0.01	832.13	832.13	335.22	335.22
52	-16.48	139.76	136.76	139.76	136.76	0	0	0	-4.44	2.7	0.01	832.13	832.13	335.22	335.22
54	-17.12	144.15	145.68	144.15	145.68	0	0	0	-1.99	3.87	0.01	832.13	832.13	335.22	335.22
56	-17.77	148.91	154.29	148.91	154.29	0	0	0	-0.17	2.23	0.01	832.13	832.13	335.22	335.22

Wall 1 Stage: 8

Wall Node	EL (m)	Sht L (kPa)	Sht R (kPa)	Shs L (kPa)	Shs R (kPa)	q (kPa)	U L (kPa)	U R (kPa)	M (kN-m/m)	V (kN/m)	dx (cm)	Mcap L (kN-m/m)	Mcap R (kN-m/m)	VcapL (kN/m)	VcapR (kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.38	832.13	832.13	335.22	335.22
2	-0.65	6.286	0	6.286	0	0	0	0	0.45	1.38	0.4	832.13	832.13	335.22	335.22
4	-1.3	11.76	0	11.76	0	0	0	0	3.58	6.23	0.42	832.13	832.13	335.22	335.22
6	-1.82	16.695	0	16.695	0	0	0	0	-16.74	-68.27	0.44	832.13	832.13	335.22	335.22
8	-2.48	22.656	0	22.656	0	0	0	0	-55.55	-56.56	0.46	832.13	832.13	335.22	335.22
10	-3.12	27.358	0	27.358	0	0	0	0	-84.88	-41.06	0.48	832.13	832.13	335.22	335.22
12	-3.78	32.463	0	32.463	0	0	0	0	-102.6	-22.34	0.5	832.13	832.13	335.22	335.22
14	-4.32	36.344	0	36.344	0	0	0	0	-127.41	-67.05	0.5	832.13	832.13	335.22	335.22
16	-4.97	41.114	0	41.114	0	0	0	0	-159.2	-42.57	0.5	832.13	832.13	335.22	335.22
18	-5.62	45.767	0	45.767	0	0	0	0	-173.61	-15.15	0.49	832.13	832.13	335.22	335.22
20	-6.28	50.014	0	50.014	0	0	0	0	-168.73	15.29	0.46	832.13	832.13	335.22	335.22
22	-6.82	53.995	0	53.995	0	0	0	0	-163.55	-4.17	0.43	832.13	832.13	335.22	335.22
24	-7.48	60.108	0	60.108	0	0	0	0	-148.93	31.61	0.38	832.13	832.13	335.22	335.22
26	-8.12	72.659	0	72.659	0	0	0	0	-108.68	72.71	0.33	832.13	832.13	335.22	335.22
28	-8.78	85.322	0	85.322	0	0	0	0	-37.72	122	0.26	832.13	832.13	335.22	335.22
30	-9.32	0	0	0	0	0	0	0	42.28	145.46	0.21	832.13	832.13	335.22	335.22
32	-9.98	0	0	0	0	0	0	0	136.83	145.46	0.14	832.13	832.13	335.22	335.22
34	-10.62	0	165.65	0	165.65	0	0	0	211.25	83.52	0.09	832.13	832.13	335.22	335.22
36	-11.28	7.299	128.94	7.299	128.94	0	0	0	215.23	-17.43	0.05	832.13	832.13	335.22	335.22
38	-11.92	72.066	100.34	72.066	100.34	0	0	0	170.78	-79.83	0.02	832.13	832.13	335.22	335.22

40	-12.58	107.52	87.159	107.52	87.159	0	0	0	113.08	-88.52	0.01	832.13	832.13	335.22	335.22
42	-13.22	123.43	87.588	123.43	87.588	0	0	0	63.12	-71.81	0	832.13	832.13	335.22	335.22
44	-13.88	129.61	95.226	129.61	95.226	0	0	0	27.87	-48.3	0	832.13	832.13	335.22	335.22
46	-14.52	131.93	105.77	131.93	105.77	0	0	0	6.98	-27.16	0	832.13	832.13	335.22	335.22
48	-15.18	133.65	116.79	133.65	116.79	0	0	0	-2.89	-11.69	0.01	832.13	832.13	335.22	335.22
50	-15.82	136.17	127.19	136.17	127.19	0	0	0	-5.58	-2.09	0.01	832.13	832.13	335.22	335.22
52	-16.48	139.76	136.76	139.76	136.76	0	0	0	-4.44	2.7	0.01	832.13	832.13	335.22	335.22
54	-17.12	144.15	145.68	144.15	145.68	0	0	0	-1.99	3.87	0.01	832.13	832.13	335.22	335.22
56	-17.77	148.91	154.29	148.91	154.29	0	0	0	-0.17	2.23	0.01	832.13	832.13	335.22	335.22

Wall 1 Stage: 9

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.34	832.13	832.13	335.22	335.22
2	-0.65	7.758	0	7.758	0	0	0	0	0.63	1.94	0.38	832.13	832.13	335.22	335.22
4	-1.3	12.716	0	12.716	0	0	0	0	4.57	7.66	0.41	832.13	832.13	335.22	335.22
6	-1.82	17.231	0	17.231	0	0	0	0	-13.77	-63.2	0.43	832.13	832.13	335.22	335.22
8	-2.48	22.663	0	22.663	0	0	0	0	-49.14	-51.23	0.46	832.13	832.13	335.22	335.22
10	-3.12	27.358	0	27.358	0	0	0	0	-75.01	-35.73	0.49	832.13	832.13	335.22	335.22
12	-3.78	32.463	0	32.463	0	0	0	0	-89.27	-17.02	0.51	832.13	832.13	335.22	335.22
14	-4.32	36.344	0	36.344	0	0	0	0	-113.09	-67.69	0.53	832.13	832.13	335.22	335.22
16	-4.97	41.114	0	41.114	0	0	0	0	-145.29	-43.21	0.54	832.13	832.13	335.22	335.22
18	-5.62	45.767	0	45.767	0	0	0	0	-160.12	-15.79	0.54	832.13	832.13	335.22	335.22
20	-6.28	50.014	0	50.014	0	0	0	0	-155.66	14.65	0.53	832.13	832.13	335.22	335.22
22	-6.82	53.995	0	53.995	0	0	0	0	-158.15	-27.32	0.51	832.13	832.13	335.22	335.22
24	-7.48	58.207	0	58.207	0	0	0	0	-158.57	8.47	0.47	832.13	832.13	335.22	335.22
26	-8.12	66.099	0	66.099	0	0	0	0	-134.38	47.07	0.43	832.13	832.13	335.22	335.22
28	-8.78	78.014	0	78.014	0	0	0	0	-82.21	91.97	0.38	832.13	832.13	335.22	335.22
30	-9.32	0	0	0	0	0	0	0	-35.65	64.71	0.33	832.13	832.13	335.22	335.22
32	-9.98	0	0	0	0	0	0	0	6.41	64.71	0.27	832.13	832.13	335.22	335.22
34	-10.62	0	0	0	0	0	0	0	48.48	64.71	0.21	832.13	832.13	335.22	335.22
36	-11.28	0	0	0	0	0	0	0	90.54	64.71	0.15	832.13	832.13	335.22	335.22
38	-11.92	0	0	0	0	0	0	0	132.6	64.71	0.11	832.13	832.13	335.22	335.22
40	-12.58	0	162.32	0	162.32	0	0	0	174.67	64.71	0.06	832.13	832.13	335.22	335.22
42	-13.22	50.585	134.43	50.585	134.43	0	0	0	168.82	-29.94	0.04	832.13	832.13	335.22	335.22
44	-13.88	93.753	105.21	93.753	105.21	0	0	0	127.19	-70.9	0.02	832.13	832.13	335.22	335.22
46	-14.52	117.54	94.436	117.54	94.436	0	0	0	79.71	-71.46	0.01	832.13	832.13	335.22	335.22
48	-15.18	129.14	96.27	129.14	96.27	0	0	0	41.35	-54.1	0.01	832.13	832.13	335.22	335.22
50	-15.82	134.37	105.05	134.37	105.05	0	0	0	16.52	-32.96	0.01	832.13	832.13	335.22	335.22
52	-16.48	137.01	116.8	137.01	116.8	0	0	0	3.95	-15.27	0.01	832.13	832.13	335.22	335.22
54	-17.12	138.98	129.32	138.98	129.32	0	0	0	-0.12	-3.83	0.01	832.13	832.13	335.22	335.22
56	-17.77	140.96	141.8	140.96	141.8	0	0	0	-0.11	0.73	0.01	832.13	832.13	335.22	335.22

Wall 1 Stage: 10

Wall Node	EL (m)	Sht L (kPa)	Sht R (kPa)	Shs L (kPa)	Shs R (kPa)	q (kPa)	U L (kPa)	U R (kPa)	M (kN-m/m)	V (kN/m)	dx (cm)	Mcap L (kN-m/m)	Mcap R (kN-m/m)	VcapL (kN/m)	VcapR (kN/m)
0	0	0	0	0	0	0	0	0	0	5.31	0.73	832.13	832.13	335.22	335.22
2	-0.65	4.876	0	4.876	0	0	0	0	5.4	11.3	0.74	832.13	832.13	335.22	335.22
4	-1.3	11.549	0	11.549	0	0	0	0	24.75	36.18	0.75	832.13	832.13	335.22	335.22
6	-1.82	16.695	0	16.695	0	0	0	0	3.46	-95.87	0.76	832.13	832.13	335.22	335.22
8	-2.48	22.656	0	22.656	0	0	0	0	-44.74	-66.7	0.77	832.13	832.13	335.22	335.22
10	-3.12	27.358	0	27.358	0	0	0	0	-71.39	-32.22	0.77	832.13	832.13	335.22	335.22
12	-3.78	32.463	0	32.463	0	0	0	0	-74.35	4.92	0.77	832.13	832.13	335.22	335.22
14	-4.32	36.344	0	36.344	0	0	0	0	-100.84	-95.72	0.77	832.13	832.13	335.22	335.22
16	-4.97	41.114	0	41.114	0	0	0	0	-143.54	-54.01	0.76	832.13	832.13	335.22	335.22
18	-5.62	45.767	0	45.767	0	0	0	0	-157.23	-9.91	0.74	832.13	832.13	335.22	335.22
20	-6.28	50.014	0	50.014	0	0	0	0	-141.09	36.61	0.71	832.13	832.13	335.22	335.22
22	-6.82	53.995	0	53.995	0	0	0	0	-145.67	-51.55	0.68	832.13	832.13	335.22	335.22
24	-7.48	58.207	0	58.207	0	0	0	0	-155.91	-4.34	0.63	832.13	832.13	335.22	335.22
26	-8.12	62.672	0	62.672	0	0	0	0	-132.87	48.91	0.57	832.13	832.13	335.22	335.22
28	-8.78	70.541	0	70.541	0	0	0	0	-74.11	104.44	0.5	832.13	832.13	335.22	335.22
30	-9.32	0	0	0	0	0	0	0	-30.97	42.52	0.44	832.13	832.13	335.22	335.22
32	-9.98	0.136	0	0.136	0	0	0	0	2.98	55.42	0.36	832.13	832.13	335.22	335.22
34	-10.62	0	0	0	0	0	0	0	44.15	67.73	0.29	832.13	832.13	335.22	335.22
36	-11.28	0	0	0	0	0	0	0	93.96	79.55	0.21	832.13	832.13	335.22	335.22
38	-11.92	0	0	0	0	0	0	0	151.05	90.62	0.15	832.13	832.13	335.22	335.22
40	-12.58	0	206.13	0	206.13	0	0	0	215.48	102.2	0.09	832.13	832.13	335.22	335.22
42	-13.22	15.087	160.83	15.087	160.83	0	0	0	223.34	-15.04	0.05	832.13	832.13	335.22	335.22
44	-13.88	76.731	124.34	76.731	124.34	0	0	0	177.42	-83.69	0.03	832.13	832.13	335.22	335.22
46	-14.52	111.14	101.63	111.14	101.63	0	0	0	115.92	-94.58	0.01	832.13	832.13	335.22	335.22
48	-15.18	127.59	98.019	127.59	98.019	0	0	0	62.96	-75.7	0.01	832.13	832.13	335.22	335.22
50	-15.82	134.16	105.29	134.16	105.29	0	0	0	26.98	-48.42	0.01	832.13	832.13	335.22	335.22
52	-16.48	136.39	117.49	136.39	117.49	0	0	0	7.66	-24.04	0.01	832.13	832.13	335.22	335.22
54	-17.12	137.31	131.21	137.31	131.21	0	0	0	0.57	-7.26	0.01	832.13	832.13	335.22	335.22
56	-17.77	138.07	145.04	138.07	145.04	0	0	0	-0.03	0.45	0.02	832.13	832.13	335.22	335.22

LEGENDA
Wall node=numero nodo
EL=quota
Sht L=pressione terreno orizzontale totale a sx paratia
Sht R=pressione terreno orizzontale totale a dx paratia
Shs L=pressione terreno orizzontale efficace a sx paratia
Shs R=pressione terreno orizzontale efficace a dx paratia
q=pressioni dovute al sovraccarico
U L=pressione acqua a sx paratia
U R=pressione acqua a dx paratia

M=momento flettente (per metro)
V=taglio (per metro)
dx=spostamento orizzontale
McapL=Momento ultimo lato sx
McapR=Momento ultimo lato dx
VcapL=Taglio ultimo resistente lato sx
VcapR=Taglio ultimo resistente lato dx

REAZIONI VINCOLI (TIRANTI, PUNTONI, SOLETTE, SBADACCHI)

Vincolo 0

Stage No	R
	(kN)
0	0
1	0
2	0
3	189.267
4	189.267
5	250.404
6	250.413
7	252.348
8	252.348
9	242.496
10	500.04

Vincolo 1

Stage No	R
	(kN)
0	0
1	0
2	0
3	0
4	0
5	131.031
6	131.034
7	195.729
8	195.729
9	214.275
10	424.86

Vincolo 2

Stage No	R

	(kN)
0	0
1	0
2	0
3	0
4	0
5	0
6	0.001
7	147.213
8	147.213
9	217.104
10	396.66

Vincolo 3

Stage No	R
	(kN)
0	0
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	151.278
10	294.432

Verifica tensioni

Vincolo 0

Tabella: vincoli 0, Sommario rapporti di verifica

Stage No	R/CAP	R/STR	R/GEO
0	N/A	N/A	N/A
1	N/A	N/A	N/A
2	0	0	0
3	0.341	0.247	0.341
4	0.341	0.247	0.341
5	0.451	0.327	0.451
6	0.451	0.327	0.451

7	0.454	0.33	0.454
8	0.454	0.33	0.454
9	0.437	0.317	0.437
10	0.9	0.653	0.9

Vincolo 1

Tabella: vincoli 1, Sommario rapporti di verifica

Stage No	R/CAP	R/STR	R/GEO
0	N/A	N/A	N/A
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	0	0	0
5	0.26	0.171	0.26
6	0.26	0.171	0.26
7	0.388	0.256	0.388
8	0.388	0.256	0.388
9	0.424	0.28	0.424
10	0.841	0.555	0.841

Vincolo 2

Tabella: vincoli 2, Sommario rapporti di verifica

Stage No	R/CAP	R/STR	R/GEO
0	N/A	N/A	N/A
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	N/A	N/A	N/A
5	N/A	N/A	N/A
6	0	0	0
7	0.364	0.192	0.364
8	0.364	0.192	0.364
9	0.537	0.284	0.537
10	0.982	0.518	0.982

Vincolo 3

Tabella: vincoli 3, Sommario rapporti di verifica

Stage No	R/CAP	R/STR	R/GEO
0	N/A	N/A	N/A

1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	N/A	N/A	N/A
5	N/A	N/A	N/A
6	N/A	N/A	N/A
7	N/A	N/A	N/A
8	0	0	0
9	0.449	0.198	0.449
10	0.875	0.385	0.875

Progetto: Paratia edificio impianti
Risultati per l'Approccio di Progetto 4: 0: DM08_ITA: EQK - STR

APPROCCI DI PROGETTO E FATTORI DI COMBINAZIONE

Moltiplicatori e fattori di riduzione utilizzati per ogni Approccio di Progetto

Stage	Design Code	Design Case	F(tan	F	F	F	F(perm	F(temp	F(perm	F(temp	F Earth	F Earth	F GWT	F GWT	F HYD	F HYD	F UPL	F UPL
	Name		fr)	(c')	(Su)	(EQ)	load)	load)	sup)	sup)	(Dstab)	(stab)	(Dstab)	(stab)	(Dstab)	(stab)	(Dstab)	(stab)
0	DM08_ITA	EQK - STR	1	1	1	1	1	1	1.2	1.1	1	1	1	1	1	1	1	1
1	DM08_ITA	EQK - STR	1	1	1	1	1	1	1.2	1.1	1	1	1	1	1	1	1	1
2	DM08_ITA	EQK - STR	1	1	1	1	1	1	1.2	1.1	1	1	1	1	1	1	1	1
3	DM08_ITA	EQK - STR	1	1	1	1	1	1	1.2	1.1	1	1	1	1	1	1	1	1
4	DM08_ITA	EQK - STR	1	1	1	1	1	1	1.2	1.1	1	1	1	1	1	1	1	1
5	DM08_ITA	EQK - STR	1	1	1	1	1	1	1.2	1.1	1	1	1	1	1	1	1	1
6	DM08_ITA	EQK - STR	1	1	1	1	1	1	1.2	1.1	1	1	1	1	1	1	1	1
7	DM08_ITA	EQK - STR	1	1	1	1	1	1	1.2	1.1	1	1	1	1	1	1	1	1
8	DM08_ITA	EQK - STR	1	1	1	1	1	1	1.2	1.1	1	1	1	1	1	1	1	1
9	DM08_ITA	EQK - STR	1	1	1	1	1	1	1.2	1.1	1	1	1	1	1	1	1	1
10	DM08_ITA	EQK - STR	1	1	1	1	1	1	1.2	1.1	1	1	1	1	1	1	1	1

Legenda
Stage: Fase di scavo

Design Code: Normativa in accordo alla quale vengono eseguite le verifiche
Ftan fr: moltiplicatore della tangente dell'angolo di attrito
F C': moltiplicatore della coesione efficace
F Su': moltiplicatore coesione non drenata
F EQ: moltiplicatore azione sismica
F perm load: moltiplicatore carichi permanenti
F temp load: moltiplicatore carichi accidentali/variabili
F perm supp: fattore di riduzione della resistenza allo sfilamento dei tiranti, intesi come permanenti
F temp supp: fattore di riduzione della resistenza allo sfilamento dei tiranti, intesi come temporanei
F earth Dstab: moltiplicatore della spinta attiva, caso sfavorevole
F earth stab: moltiplicatore della spinta attiva, caso favorevole
F GWT Dstab (ground water): moltiplicatore della spinta idrostatica, caso sfavorevole
F GWT stab (ground water): moltiplicatore della spinta idrostatica, caso favorevole
F HYD Dstab: moltiplicatore della spinta idrodinamica, caso sfavorevole
F HYD stab: moltiplicatore della spinta idrodinamica, caso favorevole
F UPL Dstab: moltiplicatore per la verifica a sifonamento, caso sfavorevole
F UPL stab: moltiplicatore per la verifica a sifonamento, caso favorevole

TABELLA RISULTATI PARATIA

Wall 1 Stage: 0

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0	832.13	832.13	335.22	335.22
2	-0.65	20.688	20.688	20.688	20.688	0	0	0	0	0	0	832.13	832.13	335.22	335.22
4	-1.3	31.273	31.273	31.273	31.273	0	0	0	0	0	0	832.13	832.13	335.22	335.22
6	-1.82	36.768	36.768	36.768	36.768	0	0	0	0	0	0	832.13	832.13	335.22	335.22
8	-2.48	42.497	42.497	42.497	42.497	0	0	0	0	0	0	832.13	832.13	335.22	335.22
10	-3.12	47.84	47.84	47.84	47.84	0	0	0	0	0	0	832.13	832.13	335.22	335.22
12	-3.78	53.054	53.054	53.054	53.054	0	0	0	0	0	0	832.13	832.13	335.22	335.22
14	-4.32	57.428	57.428	57.428	57.428	0	0	0	0	0	0	832.13	832.13	335.22	335.22
16	-4.97	62.583	62.583	62.583	62.583	0	0	0	0	0	0	832.13	832.13	335.22	335.22
18	-5.62	67.736	67.736	67.736	67.736	0	0	0	0	0	0	832.13	832.13	335.22	335.22
20	-6.28	72.897	72.897	72.897	72.897	0	0	0	0	0	0	832.13	832.13	335.22	335.22
22	-6.82	77.273	77.273	77.273	77.273	0	0	0	0	0	0	832.13	832.13	335.22	335.22
24	-7.48	82.459	82.459	82.459	82.459	0	0	0	0	0	0	832.13	832.13	335.22	335.22
26	-8.12	87.661	87.661	87.661	87.661	0	0	0	0	0	0	832.13	832.13	335.22	335.22
28	-8.78	92.882	92.882	92.882	92.882	0	0	0	0	0	0	832.13	832.13	335.22	335.22
30	-9.32	85.308	85.308	85.308	85.308	0	0	0	0	0	0	832.13	832.13	335.22	335.22
32	-9.98	90.53	90.53	90.53	90.53	0	0	0	0	0	0	832.13	832.13	335.22	335.22
34	-10.62	95.772	95.772	95.772	95.772	0	0	0	0	0	0	832.13	832.13	335.22	335.22
36	-11.28	101.03	101.03	101.03	101.03	0	0	0	0	0	0	832.13	832.13	335.22	335.22
38	-11.92	106.32	106.32	106.32	106.32	0	0	0	0	0	0	832.13	832.13	335.22	335.22

40	-12.58	111.62	111.62	111.62	111.62	0	0	0	0	0	0	832.13	832.13	335.22	335.22
42	-13.22	116.95	116.95	116.95	116.95	0	0	0	0	0	0	832.13	832.13	335.22	335.22
44	-13.88	122.29	122.29	122.29	122.29	0	0	0	0	0	0	832.13	832.13	335.22	335.22
46	-14.52	127.66	127.66	127.66	127.66	0	0	0	0	0	0	832.13	832.13	335.22	335.22
48	-15.18	133.05	133.05	133.05	133.05	0	0	0	0	0	0	832.13	832.13	335.22	335.22
50	-15.82	138.45	138.45	138.45	138.45	0	0	0	0	0	0	832.13	832.13	335.22	335.22
52	-16.48	143.87	143.87	143.87	143.87	0	0	0	0	0	0	832.13	832.13	335.22	335.22
54	-17.12	149.32	149.32	149.32	149.32	0	0	0	0	0	0	832.13	832.13	335.22	335.22
56	-17.77	154.78	154.78	154.78	154.78	0	0	0	0	0	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 1

Wall Node	EL (m)	Sht L (kPa)	Sht R (kPa)	Shs L (kPa)	Shs R (kPa)	q (kPa)	U L (kPa)	U R (kPa)	M (kN-m/m)	V (kN/m)	dx (cm)	Mcap L (kN-m/m)	Mcap R (kN-m/m)	VcapL (kN/m)	VcapR (kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.11	832.13	832.13	335.22	335.22
2	-0.65	3.93	0	3.93	0	0	0	0	0.19	0.58	0.09	832.13	832.13	335.22	335.22
4	-1.3	9.309	0	9.309	0	0	0	0	2.06	3.91	0.08	832.13	832.13	335.22	335.22
6	-1.82	15.008	0	15.008	0	0	0	0	6.36	9.3	0.07	832.13	832.13	335.22	335.22
8	-2.48	24.584	36.662	24.584	36.662	0	0	0	16.45	16.88	0.06	832.13	832.13	335.22	335.22
10	-3.12	33.424	46.201	33.424	46.201	0	0	0	23.27	8.04	0.05	832.13	832.13	335.22	335.22
12	-3.78	41.639	49.986	41.639	49.986	0	0	0	24.69	0.48	0.04	832.13	832.13	335.22	335.22
14	-4.32	48.135	53.238	48.135	53.238	0	0	0	23.07	-3.73	0.03	832.13	832.13	335.22	335.22
16	-4.97	55.339	57.261	55.339	57.261	0	0	0	19.2	-6.5	0.02	832.13	832.13	335.22	335.22
18	-5.62	62.123	61.493	62.123	61.493	0	0	0	14.51	-7.32	0.02	832.13	832.13	335.22	335.22
20	-6.28	68.598	65.903	68.598	65.903	0	0	0	10.07	-6.55	0.01	832.13	832.13	335.22	335.22
22	-6.82	73.908	69.739	73.908	69.739	0	0	0	7.17	-4.9	0.01	832.13	832.13	335.22	335.22
24	-7.48	80.052	74.364	80.052	74.364	0	0	0	5.39	-1.93	0.01	832.13	832.13	335.22	335.22
26	-8.12	86.09	79.074	86.09	79.074	0	0	0	6.01	1.99	0.01	832.13	832.13	335.22	335.22
28	-8.78	92.007	83.883	92.007	83.883	0	0	0	9.58	6.74	0	832.13	832.13	335.22	335.22
30	-9.32	68.84	85.583	68.84	85.583	0	0	0	12.01	1.27	0	832.13	832.13	335.22	335.22
32	-9.98	84.33	85.801	84.33	85.801	0	0	0	8.48	-6.69	0	832.13	832.13	335.22	335.22
34	-10.62	93.043	89.194	93.043	89.194	0	0	0	4.06	-6.46	0	832.13	832.13	335.22	335.22
36	-11.28	98.366	94.452	98.366	94.452	0	0	0	1.12	-3.83	0	832.13	832.13	335.22	335.22
38	-11.92	102.67	100.29	102.67	100.29	0	0	0	-0.21	-1.52	0	832.13	832.13	335.22	335.22
40	-12.58	107.08	106.1	107.08	106.1	0	0	0	-0.52	-0.22	0	832.13	832.13	335.22	335.22
42	-13.22	111.89	111.72	111.89	111.72	0	0	0	-0.41	0.26	0	832.13	832.13	335.22	335.22
44	-13.88	117.05	117.19	117.05	117.19	0	0	0	-0.21	0.3	0	832.13	832.13	335.22	335.22
46	-14.52	122.4	122.58	122.4	122.58	0	0	0	-0.07	0.19	0	832.13	832.13	335.22	335.22
48	-15.18	127.83	127.95	127.83	127.95	0	0	0	0	0.08	0	832.13	832.13	335.22	335.22
50	-15.82	133.29	133.34	133.29	133.34	0	0	0	0.02	0.02	0	832.13	832.13	335.22	335.22
52	-16.48	138.74	138.76	138.74	138.76	0	0	0	0.02	-0.01	0	832.13	832.13	335.22	335.22
54	-17.12	144.21	144.2	144.21	144.2	0	0	0	0.01	-0.02	0	832.13	832.13	335.22	335.22
56	-17.77	149.68	149.66	149.68	149.66	0	0	0	0	-0.01	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 2

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.11	832.13	832.13	335.22	335.22
2	-0.65	3.93	0	3.93	0	0	0	0	0.19	0.58	0.09	832.13	832.13	335.22	335.22
4	-1.3	9.309	0	9.309	0	0	0	0	2.06	3.91	0.08	832.13	832.13	335.22	335.22
6	-1.82	15.008	0	15.008	0	0	0	0	6.36	9.3	0.07	832.13	832.13	335.22	335.22
8	-2.48	24.584	36.662	24.584	36.662	0	0	0	16.45	16.88	0.06	832.13	832.13	335.22	335.22
10	-3.12	33.424	46.201	33.424	46.201	0	0	0	23.27	8.04	0.05	832.13	832.13	335.22	335.22
12	-3.78	41.639	49.986	41.639	49.986	0	0	0	24.69	0.48	0.04	832.13	832.13	335.22	335.22
14	-4.32	48.135	53.238	48.135	53.238	0	0	0	23.07	-3.73	0.03	832.13	832.13	335.22	335.22
16	-4.97	55.339	57.261	55.339	57.261	0	0	0	19.2	-6.5	0.02	832.13	832.13	335.22	335.22
18	-5.62	62.123	61.493	62.123	61.493	0	0	0	14.51	-7.32	0.02	832.13	832.13	335.22	335.22
20	-6.28	68.598	65.903	68.598	65.903	0	0	0	10.07	-6.55	0.01	832.13	832.13	335.22	335.22
22	-6.82	73.908	69.739	73.908	69.739	0	0	0	7.17	-4.9	0.01	832.13	832.13	335.22	335.22
24	-7.48	80.052	74.364	80.052	74.364	0	0	0	5.39	-1.93	0.01	832.13	832.13	335.22	335.22
26	-8.12	86.09	79.074	86.09	79.074	0	0	0	6.01	1.99	0.01	832.13	832.13	335.22	335.22
28	-8.78	92.007	83.883	92.007	83.883	0	0	0	9.58	6.74	0	832.13	832.13	335.22	335.22
30	-9.32	68.84	85.583	68.84	85.583	0	0	0	12.01	1.27	0	832.13	832.13	335.22	335.22
32	-9.98	84.33	85.801	84.33	85.801	0	0	0	8.48	-6.69	0	832.13	832.13	335.22	335.22
34	-10.62	93.043	89.194	93.043	89.194	0	0	0	4.06	-6.46	0	832.13	832.13	335.22	335.22
36	-11.28	98.366	94.452	98.366	94.452	0	0	0	1.12	-3.83	0	832.13	832.13	335.22	335.22
38	-11.92	102.67	100.29	102.67	100.29	0	0	0	-0.21	-1.52	0	832.13	832.13	335.22	335.22
40	-12.58	107.08	106.1	107.08	106.1	0	0	0	-0.52	-0.22	0	832.13	832.13	335.22	335.22
42	-13.22	111.89	111.72	111.89	111.72	0	0	0	-0.41	0.26	0	832.13	832.13	335.22	335.22
44	-13.88	117.05	117.19	117.05	117.19	0	0	0	-0.21	0.3	0	832.13	832.13	335.22	335.22
46	-14.52	122.4	122.58	122.4	122.58	0	0	0	-0.07	0.19	0	832.13	832.13	335.22	335.22
48	-15.18	127.83	127.95	127.83	127.95	0	0	0	0	0.08	0	832.13	832.13	335.22	335.22
50	-15.82	133.29	133.34	133.29	133.34	0	0	0	0.02	0.02	0	832.13	832.13	335.22	335.22
52	-16.48	138.74	138.76	138.74	138.76	0	0	0	0.02	-0.01	0	832.13	832.13	335.22	335.22
54	-17.12	144.21	144.2	144.21	144.2	0	0	0	0.01	-0.02	0	832.13	832.13	335.22	335.22
56	-17.77	149.68	149.66	149.68	149.66	0	0	0	0	-0.01	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 3

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.3	832.13	832.13	335.22	335.22
2	-0.65	3.93	0	3.93	0	0	0	0	0.19	0.58	0.28	832.13	832.13	335.22	335.22
4	-1.3	9.309	0	9.309	0	0	0	0	2.06	3.91	0.27	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	-9.01	-37.98	0.26	832.13	832.13	335.22	335.22

8	-2.48	18.263	0	18.263	0	0	0	0	-29.21	-28.54	0.24	832.13	832.13	335.22	335.22
10	-3.12	22.053	0	22.053	0	0	0	0	-41.77	-16.05	0.23	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-44.97	-0.96	0.21	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-39.08	13.8	0.19	832.13	832.13	335.22	335.22
16	-4.97	35.714	36.662	35.714	36.662	0	0	0	-21.82	29.77	0.16	832.13	832.13	335.22	335.22
18	-5.62	45.409	54.636	45.409	54.636	0	0	0	-3.92	25.62	0.14	832.13	832.13	335.22	335.22
20	-6.28	54.977	58.405	54.977	58.405	0	0	0	10.11	20.55	0.11	832.13	832.13	335.22	335.22
22	-6.82	62.913	61.273	62.913	61.273	0	0	0	20.77	19.24	0.09	832.13	832.13	335.22	335.22
24	-7.48	72.032	64.576	72.032	64.576	0	0	0	34.11	21.26	0.07	832.13	832.13	335.22	335.22
26	-8.12	80.765	67.977	80.765	67.977	0	0	0	50.58	27	0.04	832.13	832.13	335.22	335.22
28	-8.78	88.942	71.656	88.942	71.656	0	0	0	72.43	36.08	0.02	832.13	832.13	335.22	335.22
30	-9.32	8.885	98.666	8.885	98.666	0	0	0	85.17	10.92	0.01	832.13	832.13	335.22	335.22
32	-9.98	64.098	85.09	64.098	85.09	0	0	0	67.92	-34.81	0	832.13	832.13	335.22	335.22
34	-10.62	91.497	78.552	91.497	78.552	0	0	0	40.89	-41.54	0	832.13	832.13	335.22	335.22
36	-11.28	101.72	81.09	101.72	81.09	0	0	0	18.65	-31.09	0	832.13	832.13	335.22	335.22
38	-11.92	105.19	87.741	105.19	87.741	0	0	0	4.9	-17.93	0	832.13	832.13	335.22	335.22
40	-12.58	106.29	95.466	106.29	95.466	0	0	0	-1.57	-7.65	0	832.13	832.13	335.22	335.22
42	-13.22	108	102.86	108	102.86	0	0	0	-3.44	-1.62	0	832.13	832.13	335.22	335.22
44	-13.88	111.08	109.55	111.08	109.55	0	0	0	-3.08	1.05	0	832.13	832.13	335.22	335.22
46	-14.52	115.35	115.6	115.35	115.6	0	0	0	-2.03	1.7	0	832.13	832.13	335.22	335.22
48	-15.18	120.41	121.24	120.41	121.24	0	0	0	-1.04	1.41	0	832.13	832.13	335.22	335.22
50	-15.82	125.88	126.68	125.88	126.68	0	0	0	-0.39	0.86	0	832.13	832.13	335.22	335.22
52	-16.48	131.51	132.06	131.51	132.06	0	0	0	-0.07	0.38	0	832.13	832.13	335.22	335.22
54	-17.12	137.19	137.43	137.19	137.43	0	0	0	0.02	0.07	0	832.13	832.13	335.22	335.22
56	-17.77	142.88	142.82	142.88	142.82	0	0	0	0	-0.03	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 4

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.3	832.13	832.13	335.22	335.22
2	-0.65	3.93	0	3.93	0	0	0	0	0.19	0.58	0.28	832.13	832.13	335.22	335.22
4	-1.3	9.309	0	9.309	0	0	0	0	2.06	3.91	0.27	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	-9.01	-37.98	0.26	832.13	832.13	335.22	335.22
8	-2.48	18.263	0	18.263	0	0	0	0	-29.21	-28.54	0.24	832.13	832.13	335.22	335.22
10	-3.12	22.053	0	22.053	0	0	0	0	-41.77	-16.05	0.23	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-44.97	-0.96	0.21	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-39.08	13.8	0.19	832.13	832.13	335.22	335.22
16	-4.97	35.714	36.662	35.714	36.662	0	0	0	-21.82	29.77	0.16	832.13	832.13	335.22	335.22
18	-5.62	45.409	54.636	45.409	54.636	0	0	0	-3.92	25.62	0.14	832.13	832.13	335.22	335.22
20	-6.28	54.977	58.405	54.977	58.405	0	0	0	10.11	20.55	0.11	832.13	832.13	335.22	335.22
22	-6.82	62.913	61.273	62.913	61.273	0	0	0	20.77	19.24	0.09	832.13	832.13	335.22	335.22
24	-7.48	72.032	64.576	72.032	64.576	0	0	0	34.11	21.26	0.07	832.13	832.13	335.22	335.22

26	-8.12	80.765	67.977	80.765	67.977	0	0	0	50.58	27	0.04	832.13	832.13	335.22	335.22
28	-8.78	88.942	71.656	88.942	71.656	0	0	0	72.43	36.08	0.02	832.13	832.13	335.22	335.22
30	-9.32	8.885	98.666	8.885	98.666	0	0	0	85.17	10.92	0.01	832.13	832.13	335.22	335.22
32	-9.98	64.098	85.09	64.098	85.09	0	0	0	67.92	-34.81	0	832.13	832.13	335.22	335.22
34	-10.62	91.497	78.552	91.497	78.552	0	0	0	40.89	-41.54	0	832.13	832.13	335.22	335.22
36	-11.28	101.72	81.09	101.72	81.09	0	0	0	18.65	-31.09	0	832.13	832.13	335.22	335.22
38	-11.92	105.19	87.741	105.19	87.741	0	0	0	4.9	-17.93	0	832.13	832.13	335.22	335.22
40	-12.58	106.29	95.466	106.29	95.466	0	0	0	-1.57	-7.65	0	832.13	832.13	335.22	335.22
42	-13.22	108	102.86	108	102.86	0	0	0	-3.44	-1.62	0	832.13	832.13	335.22	335.22
44	-13.88	111.08	109.55	111.08	109.55	0	0	0	-3.08	1.05	0	832.13	832.13	335.22	335.22
46	-14.52	115.35	115.6	115.35	115.6	0	0	0	-2.03	1.7	0	832.13	832.13	335.22	335.22
48	-15.18	120.41	121.24	120.41	121.24	0	0	0	-1.04	1.41	0	832.13	832.13	335.22	335.22
50	-15.82	125.88	126.68	125.88	126.68	0	0	0	-0.39	0.86	0	832.13	832.13	335.22	335.22
52	-16.48	131.51	132.06	131.51	132.06	0	0	0	-0.07	0.38	0	832.13	832.13	335.22	335.22
54	-17.12	137.19	137.43	137.19	137.43	0	0	0	0.02	0.07	0	832.13	832.13	335.22	335.22
56	-17.77	142.88	142.82	142.88	142.82	0	0	0	0	-0.03	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 5

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.32	832.13	832.13	335.22	335.22
2	-0.65	3.93	0	3.93	0	0	0	0	0.19	0.58	0.33	832.13	832.13	335.22	335.22
4	-1.3	9.309	0	9.309	0	0	0	0	2.06	3.91	0.33	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	-14.63	-55.26	0.34	832.13	832.13	335.22	335.22
8	-2.48	18.263	0	18.263	0	0	0	0	-46.06	-45.83	0.34	832.13	832.13	335.22	335.22
10	-3.12	22.053	0	22.053	0	0	0	0	-69.86	-33.33	0.34	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-84.29	-18.25	0.34	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-99.58	-39.4	0.33	832.13	832.13	335.22	335.22
16	-4.97	33.142	0	33.142	0	0	0	0	-115.68	-19.67	0.31	832.13	832.13	335.22	335.22
18	-5.62	36.892	0	36.892	0	0	0	0	-117.78	2.44	0.29	832.13	832.13	335.22	335.22
20	-6.28	42.219	0	42.219	0	0	0	0	-104.32	26.98	0.26	832.13	832.13	335.22	335.22
22	-6.82	51.159	0	51.159	0	0	0	0	-79.01	51.19	0.22	832.13	832.13	335.22	335.22
24	-7.48	62.021	36.662	62.021	36.662	0	0	0	-30.17	82.44	0.18	832.13	832.13	335.22	335.22
26	-8.12	72.893	51.592	72.893	51.592	0	0	0	30.72	96.67	0.13	832.13	832.13	335.22	335.22
28	-8.78	83.331	55.793	83.331	55.793	0	0	0	100.63	111.53	0.09	832.13	832.13	335.22	335.22
30	-9.32	0	136.78	0	136.78	0	0	0	151.89	75.26	0.06	832.13	832.13	335.22	335.22
32	-9.98	0	104.18	0	104.18	0	0	0	159.41	-7.65	0.03	832.13	832.13	335.22	335.22
34	-10.62	57.56	82.892	57.56	82.892	0	0	0	125.39	-63.17	0.01	832.13	832.13	335.22	335.22
36	-11.28	92.226	72.694	92.226	72.694	0	0	0	79.27	-70.51	0	832.13	832.13	335.22	335.22
38	-11.92	105.58	74.079	105.58	74.079	0	0	0	40.55	-54.98	0	832.13	832.13	335.22	335.22
40	-12.58	109.32	81.004	109.32	81.004	0	0	0	14.78	-34.55	0	832.13	832.13	335.22	335.22
42	-13.22	109.17	89.688	109.17	89.688	0	0	0	0.86	-17.51	0	832.13	832.13	335.22	335.22

44	-13.88	109.23	98.229	109.23	98.229	0	0	0	-4.82	-6.3	0	832.13	832.13	335.22	335.22
46	-14.52	110.8	105.94	110.8	105.94	0	0	0	-5.79	-0.25	0	832.13	832.13	335.22	335.22
48	-15.18	113.97	112.78	113.97	112.78	0	0	0	-4.64	2.22	0	832.13	832.13	335.22	335.22
50	-15.82	118.36	118.95	118.36	118.95	0	0	0	-2.93	2.65	0	832.13	832.13	335.22	335.22
52	-16.48	123.49	124.73	123.49	124.73	0	0	0	-1.44	2.12	0	832.13	832.13	335.22	335.22
54	-17.12	129	130.31	129	130.31	0	0	0	-0.46	1.3	0	832.13	832.13	335.22	335.22
56	-17.77	134.63	135.83	134.63	135.83	0	0	0	-0.03	0.46	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 6

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.32	832.13	832.13	335.22	335.22
2	-0.65	3.93	0	3.93	0	0	0	0	0.19	0.58	0.33	832.13	832.13	335.22	335.22
4	-1.3	9.309	0	9.309	0	0	0	0	2.07	3.91	0.33	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	-14.62	-55.26	0.34	832.13	832.13	335.22	335.22
8	-2.48	18.263	0	18.263	0	0	0	0	-46.06	-45.83	0.34	832.13	832.13	335.22	335.22
10	-3.12	22.053	0	22.053	0	0	0	0	-69.86	-33.33	0.34	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-84.29	-18.25	0.34	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-99.58	-39.4	0.33	832.13	832.13	335.22	335.22
16	-4.97	33.142	0	33.142	0	0	0	0	-115.68	-19.67	0.31	832.13	832.13	335.22	335.22
18	-5.62	36.892	0	36.892	0	0	0	0	-117.78	2.44	0.29	832.13	832.13	335.22	335.22
20	-6.28	42.219	0	42.219	0	0	0	0	-104.32	26.98	0.26	832.13	832.13	335.22	335.22
22	-6.82	51.159	0	51.159	0	0	0	0	-79	51.19	0.22	832.13	832.13	335.22	335.22
24	-7.48	62.021	36.662	62.021	36.662	0	0	0	-30.17	82.44	0.18	832.13	832.13	335.22	335.22
26	-8.12	72.893	51.592	72.893	51.592	0	0	0	30.72	96.67	0.13	832.13	832.13	335.22	335.22
28	-8.78	83.331	55.793	83.331	55.793	0	0	0	100.63	111.53	0.09	832.13	832.13	335.22	335.22
30	-9.32	0	136.78	0	136.78	0	0	0	151.89	75.26	0.06	832.13	832.13	335.22	335.22
32	-9.98	0	104.18	0	104.18	0	0	0	159.41	-7.65	0.03	832.13	832.13	335.22	335.22
34	-10.62	57.56	82.892	57.56	82.892	0	0	0	125.39	-63.17	0.01	832.13	832.13	335.22	335.22
36	-11.28	92.226	72.694	92.226	72.694	0	0	0	79.27	-70.51	0	832.13	832.13	335.22	335.22
38	-11.92	105.58	74.079	105.58	74.079	0	0	0	40.55	-54.98	0	832.13	832.13	335.22	335.22
40	-12.58	109.32	81.004	109.32	81.004	0	0	0	14.78	-34.55	0	832.13	832.13	335.22	335.22
42	-13.22	109.17	89.688	109.17	89.688	0	0	0	0.86	-17.51	0	832.13	832.13	335.22	335.22
44	-13.88	109.23	98.229	109.23	98.229	0	0	0	-4.82	-6.3	0	832.13	832.13	335.22	335.22
46	-14.52	110.8	105.94	110.8	105.94	0	0	0	-5.79	-0.25	0	832.13	832.13	335.22	335.22
48	-15.18	113.97	112.78	113.97	112.78	0	0	0	-4.64	2.22	0	832.13	832.13	335.22	335.22
50	-15.82	118.36	118.95	118.36	118.95	0	0	0	-2.93	2.65	0	832.13	832.13	335.22	335.22
52	-16.48	123.49	124.73	123.49	124.73	0	0	0	-1.44	2.12	0	832.13	832.13	335.22	335.22
54	-17.12	129	130.31	129	130.31	0	0	0	-0.46	1.3	0	832.13	832.13	335.22	335.22
56	-17.77	134.63	135.83	134.63	135.83	0	0	0	-0.03	0.46	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 7

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.29	832.13	832.13	335.22	335.22
2	-0.65	5.223	0	5.223	0	0	0	0	0.38	1.18	0.31	832.13	832.13	335.22	335.22
4	-1.3	9.487	0	9.487	0	0	0	0	3	5.17	0.33	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	-13.19	-54.54	0.35	832.13	832.13	335.22	335.22
8	-2.48	18.263	0	18.263	0	0	0	0	-44.15	-45.1	0.37	832.13	832.13	335.22	335.22
10	-3.12	22.053	0	22.053	0	0	0	0	-67.48	-32.61	0.38	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-81.44	-17.52	0.4	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-102.06	-56.31	0.4	832.13	832.13	335.22	335.22
16	-4.97	33.142	0	33.142	0	0	0	0	-129.16	-36.58	0.4	832.13	832.13	335.22	335.22
18	-5.62	36.892	0	36.892	0	0	0	0	-142.26	-14.48	0.39	832.13	832.13	335.22	335.22
20	-6.28	40.316	0	40.316	0	0	0	0	-139.8	10.06	0.37	832.13	832.13	335.22	335.22
22	-6.82	43.525	0	43.525	0	0	0	0	-137.49	-7.54	0.35	832.13	832.13	335.22	335.22
24	-7.48	52.531	0	52.531	0	0	0	0	-128.2	21.98	0.31	832.13	832.13	335.22	335.22
26	-8.12	63.349	0	63.349	0	0	0	0	-96.71	57.86	0.27	832.13	832.13	335.22	335.22
28	-8.78	74.343	0	74.343	0	0	0	0	-38.44	100.83	0.22	832.13	832.13	335.22	335.22
30	-9.32	0	0	0	0	0	0	0	28.26	121.27	0.17	832.13	832.13	335.22	335.22
32	-9.98	0	0	0	0	0	0	0	107.09	121.27	0.12	832.13	832.13	335.22	335.22
34	-10.62	0	131.77	0	131.77	0	0	0	170.12	72.68	0.07	832.13	832.13	335.22	335.22
36	-11.28	0	105.37	0	105.37	0	0	0	177.17	-8.15	0.04	832.13	832.13	335.22	335.22
38	-11.92	54.81	82.671	54.81	82.671	0	0	0	142.8	-63.36	0.02	832.13	832.13	335.22	335.22
40	-12.58	87.999	73.111	87.999	73.111	0	0	0	95.55	-72.99	0.01	832.13	832.13	335.22	335.22
42	-13.22	102.89	73.694	102.89	73.694	0	0	0	53.85	-60.15	0	832.13	832.13	335.22	335.22
44	-13.88	108.41	79.736	108.41	79.736	0	0	0	24.11	-40.86	0	832.13	832.13	335.22	335.22
46	-14.52	110.09	88.032	110.09	88.032	0	0	0	6.32	-23.18	0	832.13	832.13	335.22	335.22
48	-15.18	111.07	96.742	111.07	96.742	0	0	0	-2.17	-10.11	0	832.13	832.13	335.22	335.22
50	-15.82	112.72	105.04	112.72	105.04	0	0	0	-4.57	-1.94	0.01	832.13	832.13	335.22	335.22
52	-16.48	115.34	112.73	115.34	112.73	0	0	0	-3.68	2.17	0.01	832.13	832.13	335.22	335.22
54	-17.12	118.71	119.94	118.71	119.94	0	0	0	-1.66	3.21	0.01	832.13	832.13	335.22	335.22
56	-17.77	122.42	126.92	122.42	126.92	0	0	0	-0.14	1.87	0.01	832.13	832.13	335.22	335.22

Wall 1 Stage: 8

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.29	832.13	832.13	335.22	335.22
2	-0.65	5.223	0	5.223	0	0	0	0	0.38	1.18	0.31	832.13	832.13	335.22	335.22
4	-1.3	9.487	0	9.487	0	0	0	0	3	5.17	0.33	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	-13.19	-54.54	0.35	832.13	832.13	335.22	335.22
8	-2.48	18.263	0	18.263	0	0	0	0	-44.15	-45.1	0.37	832.13	832.13	335.22	335.22
10	-3.12	22.053	0	22.053	0	0	0	0	-67.48	-32.61	0.38	832.13	832.13	335.22	335.22

12	-3.78	26.168	0	26.168	0	0	0	0	-81.44	-17.52	0.4	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-102.06	-56.31	0.4	832.13	832.13	335.22	335.22
16	-4.97	33.142	0	33.142	0	0	0	0	-129.16	-36.58	0.4	832.13	832.13	335.22	335.22
18	-5.62	36.892	0	36.892	0	0	0	0	-142.26	-14.48	0.39	832.13	832.13	335.22	335.22
20	-6.28	40.316	0	40.316	0	0	0	0	-139.8	10.06	0.37	832.13	832.13	335.22	335.22
22	-6.82	43.525	0	43.525	0	0	0	0	-137.49	-7.54	0.35	832.13	832.13	335.22	335.22
24	-7.48	52.531	0	52.531	0	0	0	0	-128.2	21.98	0.31	832.13	832.13	335.22	335.22
26	-8.12	63.349	0	63.349	0	0	0	0	-96.71	57.86	0.27	832.13	832.13	335.22	335.22
28	-8.78	74.343	0	74.343	0	0	0	0	-38.44	100.83	0.22	832.13	832.13	335.22	335.22
30	-9.32	0	0	0	0	0	0	0	28.26	121.27	0.17	832.13	832.13	335.22	335.22
32	-9.98	0	0	0	0	0	0	0	107.09	121.27	0.12	832.13	832.13	335.22	335.22
34	-10.62	0	131.77	0	131.77	0	0	0	170.12	72.68	0.07	832.13	832.13	335.22	335.22
36	-11.28	0	105.37	0	105.37	0	0	0	177.17	-8.15	0.04	832.13	832.13	335.22	335.22
38	-11.92	54.81	82.671	54.81	82.671	0	0	0	142.8	-63.36	0.02	832.13	832.13	335.22	335.22
40	-12.58	87.999	73.111	87.999	73.111	0	0	0	95.55	-72.99	0.01	832.13	832.13	335.22	335.22
42	-13.22	102.89	73.694	102.89	73.694	0	0	0	53.85	-60.15	0	832.13	832.13	335.22	335.22
44	-13.88	108.41	79.736	108.41	79.736	0	0	0	24.11	-40.86	0	832.13	832.13	335.22	335.22
46	-14.52	110.09	88.032	110.09	88.032	0	0	0	6.32	-23.18	0	832.13	832.13	335.22	335.22
48	-15.18	111.07	96.742	111.07	96.742	0	0	0	-2.17	-10.11	0	832.13	832.13	335.22	335.22
50	-15.82	112.72	105.04	112.72	105.04	0	0	0	-4.57	-1.94	0.01	832.13	832.13	335.22	335.22
52	-16.48	115.34	112.73	115.34	112.73	0	0	0	-3.68	2.17	0.01	832.13	832.13	335.22	335.22
54	-17.12	118.71	119.94	118.71	119.94	0	0	0	-1.66	3.21	0.01	832.13	832.13	335.22	335.22
56	-17.77	122.42	126.92	122.42	126.92	0	0	0	-0.14	1.87	0.01	832.13	832.13	335.22	335.22

Wall 1 Stage: 9

Wall Node	EL (m)	Sht L (kPa)	Sht R (kPa)	Shs L (kPa)	Shs R (kPa)	q (kPa)	U L (kPa)	U R (kPa)	M (kN-m/m)	V (kN/m)	dx (cm)	Mcap L (kN-m/m)	Mcap R (kN-m/m)	VcapL (kN/m)	VcapR (kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.27	832.13	832.13	335.22	335.22
2	-0.65	6.51	0	6.51	0	0	0	0	0.54	1.67	0.29	832.13	832.13	335.22	335.22
4	-1.3	10.335	0	10.335	0	0	0	0	3.86	6.43	0.32	832.13	832.13	335.22	335.22
6	-1.82	13.948	0	13.948	0	0	0	0	-10.66	-50.31	0.34	832.13	832.13	335.22	335.22
8	-2.48	18.298	0	18.298	0	0	0	0	-38.74	-40.63	0.37	832.13	832.13	335.22	335.22
10	-3.12	22.055	0	22.055	0	0	0	0	-59.16	-28.13	0.39	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-70.21	-13.04	0.41	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-89.84	-56.35	0.42	832.13	832.13	335.22	335.22
16	-4.97	33.142	0	33.142	0	0	0	0	-116.96	-36.62	0.43	832.13	832.13	335.22	335.22
18	-5.62	36.892	0	36.892	0	0	0	0	-130.08	-14.52	0.43	832.13	832.13	335.22	335.22
20	-6.28	40.316	0	40.316	0	0	0	0	-127.65	10.02	0.43	832.13	832.13	335.22	335.22
22	-6.82	43.525	0	43.525	0	0	0	0	-131.1	-25.23	0.41	832.13	832.13	335.22	335.22
24	-7.48	47.528	0	47.528	0	0	0	0	-133.53	3.61	0.39	832.13	832.13	335.22	335.22
26	-8.12	57.549	0	57.549	0	0	0	0	-115.6	36.12	0.35	832.13	832.13	335.22	335.22
28	-8.78	67.84	0	67.84	0	0	0	0	-73.35	75.19	0.31	832.13	832.13	335.22	335.22

30	-9.32	0	0	0	0	0	0	0	-34.47	54.65	0.27	832.13	832.13	335.22	335.22
32	-9.98	0	0	0	0	0	0	0	1.05	54.65	0.22	832.13	832.13	335.22	335.22
34	-10.62	0	0	0	0	0	0	0	36.57	54.65	0.17	832.13	832.13	335.22	335.22
36	-11.28	0	0	0	0	0	0	0	72.09	54.65	0.13	832.13	832.13	335.22	335.22
38	-11.92	0	0	0	0	0	0	0	107.61	54.65	0.09	832.13	832.13	335.22	335.22
40	-12.58	0	127.74	0	127.74	0	0	0	143.13	54.65	0.05	832.13	832.13	335.22	335.22
42	-13.22	34.398	105.25	34.398	105.25	0	0	0	139.75	-23.53	0.03	832.13	832.13	335.22	335.22
44	-13.88	74.39	84.642	74.39	84.642	0	0	0	105.68	-58.26	0.02	832.13	832.13	335.22	335.22
46	-14.52	96.211	77.422	96.211	77.422	0	0	0	66.45	-59.14	0.01	832.13	832.13	335.22	335.22
48	-15.18	106.55	79.437	106.55	79.437	0	0	0	34.61	-44.94	0.01	832.13	832.13	335.22	335.22
50	-15.82	110.86	86.564	110.86	86.564	0	0	0	13.93	-27.48	0.01	832.13	832.13	335.22	335.22
52	-16.48	112.68	95.879	112.68	95.879	0	0	0	3.4	-12.81	0.01	832.13	832.13	335.22	335.22
54	-17.12	113.87	105.77	113.87	105.77	0	0	0	-0.06	-3.29	0.01	832.13	832.13	335.22	335.22
56	-17.77	115.04	115.61	115.04	115.61	0	0	0	-0.09	0.56	0.01	832.13	832.13	335.22	335.22

Wall 1 Stage: 10

Wall Node	EL (m)	Sht L (kPa)	Sht R (kPa)	Shs L (kPa)	Shs R (kPa)	q (kPa)	U L (kPa)	U R (kPa)	M (kN-m/m)	V (kN/m)	dx (cm)	Mcap L (kN-m/m)	Mcap R (kN-m/m)	VcapL (kN/m)	VcapR (kN/m)
0	0	0	0	0	0	0	0	0	0	4.58	0.6	832.13	832.13	335.22	335.22
2	-0.65	3.931	0	3.931	0	0	0	0	4.65	9.71	0.61	832.13	832.13	335.22	335.22
4	-1.3	9.31	0	9.31	0	0	0	0	21.22	30.96	0.61	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	4.15	-78.46	0.62	832.13	832.13	335.22	335.22
8	-2.48	18.263	0	18.263	0	0	0	0	-34.99	-53.95	0.63	832.13	832.13	335.22	335.22
10	-3.12	22.054	0	22.054	0	0	0	0	-56.06	-25.07	0.63	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-57.34	5.92	0.63	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-79.11	-80.06	0.63	832.13	832.13	335.22	335.22
16	-4.97	33.142	0	33.142	0	0	0	0	-114.98	-45.46	0.62	832.13	832.13	335.22	335.22
18	-5.62	36.892	0	36.892	0	0	0	0	-126.81	-8.96	0.61	832.13	832.13	335.22	335.22
20	-6.28	40.316	0	40.316	0	0	0	0	-113.98	29.45	0.58	832.13	832.13	335.22	335.22
22	-6.82	43.525	0	43.525	0	0	0	0	-118.7	-44.83	0.56	832.13	832.13	335.22	335.22
24	-7.48	46.92	0	46.92	0	0	0	0	-128.74	-6.12	0.52	832.13	832.13	335.22	335.22
26	-8.12	50.519	0	50.519	0	0	0	0	-111.48	37.63	0.47	832.13	832.13	335.22	335.22
28	-8.78	60.842	0	60.842	0	0	0	0	-64.58	84.11	0.41	832.13	832.13	335.22	335.22
30	-9.32	0	0	0	0	0	0	0	-29.49	34.29	0.36	832.13	832.13	335.22	335.22
32	-9.98	0	0	0	0	0	0	0	-1.76	45.41	0.3	832.13	832.13	335.22	335.22
34	-10.62	0	0	0	0	0	0	0	32.17	55.99	0.24	832.13	832.13	335.22	335.22
36	-11.28	0	0	0	0	0	0	0	73.56	66.2	0.18	832.13	832.13	335.22	335.22
38	-11.92	0	0	0	0	0	0	0	121.24	75.75	0.12	832.13	832.13	335.22	335.22
40	-12.58	0	161.95	0	161.95	0	0	0	175.25	85.75	0.08	832.13	832.13	335.22	335.22
42	-13.22	0	129.4	0	129.4	0	0	0	185.11	-6.24	0.04	832.13	832.13	335.22	335.22
44	-13.88	56.953	100.11	56.953	100.11	0	0	0	148.79	-67.59	0.02	832.13	832.13	335.22	335.22
46	-14.52	89.424	83.441	89.424	83.441	0	0	0	98.06	-78.4	0.01	832.13	832.13	335.22	335.22

48	-15.18	104.75	81.033	104.75	81.033	0	0	0	53.77	-63.48	0.01	832.13	832.13	335.22	335.22
50	-15.82	110.55	86.837	110.55	86.837	0	0	0	23.38	-41.02	0.01	832.13	832.13	335.22	335.22
52	-16.48	112.1	96.397	112.1	96.397	0	0	0	6.86	-20.66	0.01	832.13	832.13	335.22	335.22
54	-17.12	112.32	107.14	112.32	107.14	0	0	0	0.64	-6.47	0.01	832.13	832.13	335.22	335.22
56	-17.77	112.37	117.98	112.37	117.98	0	0	0	-0.01	0.21	0.01	832.13	832.13	335.22	335.22

LEGENDA
Wall node=numero nodo
EL=quota
Sht L=pressione terreno orizzontale totale a sx paratia
Sht R=pressione terreno orizzontale totale a dx paratia
Shs L=pressione terreno orizzontale efficace a sx paratia
Shs R=pressione terreno orizzontale efficace a dx paratia
q=pressioni dovute al sovraccarico
U L=pressione acqua a sx paratia
U R=pressione acqua a dx paratia
M=momento flettente (per metro)
V=taglio (per metro)
dx=spostamento orizzontale
McapL=Momento ultimo lato sx
McapR=Momento ultimo lato dx
VcapL=Taglio ultimo resistente lato sx
VcapR=Taglio ultimo resistente lato dx

REAZIONI VINCOLI (TIRANTI, PUNTONI, SOLETTE, SBADACCHI)

Vincolo 0

Stage No	R
	(kN)
0	0
1	0
2	0
3	146.832
4	146.832
5	200.514
6	200.517
7	202.365
8	202.365
9	194.415
10	416.25

Vincolo 1

Stage No	R
	(kN)

0	0
1	0
2	0
3	0
4	0
5	111.549
6	111.549
7	166.35
8	166.35
9	180.387
10	360.75

Vincolo 2

Stage No	R
	(kN)
0	0
1	0
2	0
3	0
4	0
5	0
6	0
7	124.596
8	124.596
9	179.427
10	331.8

Vincolo 3

Stage No	R
	(kN)
0	0
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	121.749
10	242.832

Verifica tensioni

Vincolo 0

Tabella: vincoli 0, Sommario rapporti di verifica

Stage No	R/CAP	R/STR	R/GEO
0	N/A	N/A	N/A
1	N/A	N/A	N/A
2	0	0	0
3	0.192	0.192	0.189
4	0.192	0.192	0.189
5	0.262	0.262	0.258
6	0.262	0.262	0.258
7	0.264	0.264	0.26
8	0.264	0.264	0.26
9	0.254	0.254	0.25
10	0.544	0.544	0.535

Vincolo 1

Tabella: vincoli 1, Sommario rapporti di verifica

Stage No	R/CAP	R/STR	R/GEO
0	N/A	N/A	N/A
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	0	0	0
5	0.158	0.146	0.158
6	0.158	0.146	0.158
7	0.235	0.217	0.235
8	0.235	0.217	0.235
9	0.255	0.236	0.255
10	0.51	0.471	0.51

Vincolo 2

Tabella: vincoli 2, Sommario rapporti di verifica

Stage No	R/CAP	R/STR	R/GEO
0	N/A	N/A	N/A
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A

4	N/A	N/A	N/A
5	N/A	N/A	N/A
6	0	0	0
7	0.22	0.163	0.22
8	0.22	0.163	0.22
9	0.317	0.234	0.317
10	0.587	0.434	0.587

Vincolo 3

Tabella: vincoli 3, Sommario rapporti di verifica

Stage No	R/CAP	R/STR	R/GEO
0	N/A	N/A	N/A
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	N/A	N/A	N/A
5	N/A	N/A	N/A
6	N/A	N/A	N/A
7	N/A	N/A	N/A
8	0	0	0
9	0.258	0.159	0.258
10	0.515	0.317	0.515

Progetto: Paratia edificio impianti
Risultati per l'Approccio di Progetto 5: 0: DM08_ITA: Comb 3: A1+M1+R3

APPROCCI DI PROGETTO E FATTORI DI COMBINAZIONE

Moltiplicatori e fattori di riduzione utilizzati per ogni Approccio di Progetto

Stage	Design Code	Design Case	F(tan	F	F	F	F(perm	F(temp	F(perm	F(temp	F Earth	F Earth	F GWT	F GWT	F HYD	F HYD	F UPL	F UPL
	Name		fr)	(c')	(Su)	(EQ)	load)	load)	sup)	sup)	(Dstab)	(stab)	(Dstab)	(stab)	(Dstab)	(stab)	(Dstab)	(stab)
0	DM08_ITA	Comb 3: A1+M1+R3	1	1	1	0	1.3	1.5	1.2	1.1	1.3	1	1.3	1	1.3	0.9	1	1
1	DM08_ITA	Comb 3: A1+M1+R3	1	1	1	0	1.3	1.5	1.2	1.1	1.3	1	1.3	1	1.3	0.9	1	1

2	DM08_ITA	Comb 3: A1+M1+R3	1	1	1	0	1.3	1.5	1.2	1.1	1.3	1	1.3	1	1.3	0.9	1	1
3	DM08_ITA	Comb 3: A1+M1+R3	1	1	1	0	1.3	1.5	1.2	1.1	1.3	1	1.3	1	1.3	0.9	1	1
4	DM08_ITA	Comb 3: A1+M1+R3	1	1	1	0	1.3	1.5	1.2	1.1	1.3	1	1.3	1	1.3	0.9	1	1
5	DM08_ITA	Comb 3: A1+M1+R3	1	1	1	0	1.3	1.5	1.2	1.1	1.3	1	1.3	1	1.3	0.9	1	1
6	DM08_ITA	Comb 3: A1+M1+R3	1	1	1	0	1.3	1.5	1.2	1.1	1.3	1	1.3	1	1.3	0.9	1	1
7	DM08_ITA	Comb 3: A1+M1+R3	1	1	1	0	1.3	1.5	1.2	1.1	1.3	1	1.3	1	1.3	0.9	1	1
8	DM08_ITA	Comb 3: A1+M1+R3	1	1	1	0	1.3	1.5	1.2	1.1	1.3	1	1.3	1	1.3	0.9	1	1
9	DM08_ITA	Comb 3: A1+M1+R3	1	1	1	0	1.3	1.5	1.2	1.1	1.3	1	1.3	1	1.3	0.9	1	1
10	DM08_ITA	Comb 3: A1+M1+R3	1	1	1	0	1.3	1.5	1.2	1.1	1.3	1	1.3	1	1.3	0.9	1	1

Legenda
Stage: Fase di scavo
Design Code: Normativa in accordo alla quale vengono eseguite le verifiche
Ftan fr: moltiplicatore della tangente dell'angolo di attrito
F C': moltiplicatore della coesione efficace
F Su': moltiplicatore coesione non drenata
F EQ: moltiplicatore azione sismica
F perm load: moltiplicatore carichi permanenti
F temp load: moltiplicatore carichi accidentali/variabili
F perm supp: fattore di riduzione della resistenza allo sfilamento dei tiranti, intesi come permanenti
F temp supp: fattore di riduzione della resistenza allo sfilamento dei tiranti, intesi come temporanei
F earth Dstab: moltiplicatore della spinta attiva, caso sfavorevole
F earth stab: moltiplicatore della spinta attiva, caso favorevole
F GWT Dstab (ground water): moltiplicatore della spinta idrostatica, caso sfavorevole
F GWT stab (ground water): moltiplicatore della spinta idrostatica, caso favorevole
F HYD Dstab: moltiplicatore della spinta idrodinamica, caso sfavorevole
F HYD stab: moltiplicatore della spinta idrodinamica, caso favorevole
F UPL Dstab: moltiplicatore per la verifica a sifonamento, caso sfavorevole
F UPL stab: moltiplicatore per la verifica a sifonamento, caso favorevole

TABELLA RISULTATI PARATIA

Wall 1 Stage: 0

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0	832.13	832.13	335.22	335.22
2	-0.65	20.688	20.688	20.688	20.688	0	0	0	0	0	0	832.13	832.13	335.22	335.22
4	-1.3	31.273	31.273	31.273	31.273	0	0	0	0	0	0	832.13	832.13	335.22	335.22
6	-1.82	36.768	36.768	36.768	36.768	0	0	0	0	0	0	832.13	832.13	335.22	335.22
8	-2.48	42.497	42.497	42.497	42.497	0	0	0	0	0	0	832.13	832.13	335.22	335.22
10	-3.12	47.84	47.84	47.84	47.84	0	0	0	0	0	0	832.13	832.13	335.22	335.22
12	-3.78	53.054	53.054	53.054	53.054	0	0	0	0	0	0	832.13	832.13	335.22	335.22

14	-4.32	57.428	57.428	57.428	57.428	0	0	0	0	0	0	832.13	832.13	335.22	335.22
16	-4.97	62.583	62.583	62.583	62.583	0	0	0	0	0	0	832.13	832.13	335.22	335.22
18	-5.62	67.736	67.736	67.736	67.736	0	0	0	0	0	0	832.13	832.13	335.22	335.22
20	-6.28	72.897	72.897	72.897	72.897	0	0	0	0	0	0	832.13	832.13	335.22	335.22
22	-6.82	77.273	77.273	77.273	77.273	0	0	0	0	0	0	832.13	832.13	335.22	335.22
24	-7.48	82.459	82.459	82.459	82.459	0	0	0	0	0	0	832.13	832.13	335.22	335.22
26	-8.12	87.661	87.661	87.661	87.661	0	0	0	0	0	0	832.13	832.13	335.22	335.22
28	-8.78	92.882	92.882	92.882	92.882	0	0	0	0	0	0	832.13	832.13	335.22	335.22
30	-9.32	85.308	85.308	85.308	85.308	0	0	0	0	0	0	832.13	832.13	335.22	335.22
32	-9.98	90.53	90.53	90.53	90.53	0	0	0	0	0	0	832.13	832.13	335.22	335.22
34	-10.62	95.772	95.772	95.772	95.772	0	0	0	0	0	0	832.13	832.13	335.22	335.22
36	-11.28	101.03	101.03	101.03	101.03	0	0	0	0	0	0	832.13	832.13	335.22	335.22
38	-11.92	106.32	106.32	106.32	106.32	0	0	0	0	0	0	832.13	832.13	335.22	335.22
40	-12.58	111.62	111.62	111.62	111.62	0	0	0	0	0	0	832.13	832.13	335.22	335.22
42	-13.22	116.95	116.95	116.95	116.95	0	0	0	0	0	0	832.13	832.13	335.22	335.22
44	-13.88	122.29	122.29	122.29	122.29	0	0	0	0	0	0	832.13	832.13	335.22	335.22
46	-14.52	127.66	127.66	127.66	127.66	0	0	0	0	0	0	832.13	832.13	335.22	335.22
48	-15.18	133.05	133.05	133.05	133.05	0	0	0	0	0	0	832.13	832.13	335.22	335.22
50	-15.82	138.45	138.45	138.45	138.45	0	0	0	0	0	0	832.13	832.13	335.22	335.22
52	-16.48	143.87	143.87	143.87	143.87	0	0	0	0	0	0	832.13	832.13	335.22	335.22
54	-17.12	149.32	149.32	149.32	149.32	0	0	0	0	0	0	832.13	832.13	335.22	335.22
56	-17.77	154.78	154.78	154.78	154.78	0	0	0	0	0	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 1

Wall Node	EL (m)	Sht L (kPa)	Sht R (kPa)	Shs L (kPa)	Shs R (kPa)	q (kPa)	U L (kPa)	U R (kPa)	M (kN-m/m)	V (kN/m)	dx (cm)	Mcap L (kN-m/m)	Mcap R (kN-m/m)	VcapL (kN/m)	VcapR (kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.11	832.13	832.13	335.22	335.22
2	-0.65	3.93	0	3.93	0	0	0	0	0.25	0.76	0.09	832.13	832.13	335.22	335.22
4	-1.3	9.309	0	9.309	0	0	0	0	2.68	5.08	0.08	832.13	832.13	335.22	335.22
6	-1.82	15.008	0	15.008	0	0	0	0	8.26	12.08	0.07	832.13	832.13	335.22	335.22
8	-2.48	24.584	36.662	24.584	36.662	0	0	0	21.38	21.94	0.06	832.13	832.13	335.22	335.22
10	-3.12	33.424	46.201	33.424	46.201	0	0	0	30.25	10.45	0.05	832.13	832.13	335.22	335.22
12	-3.78	41.639	49.986	41.639	49.986	0	0	0	32.1	0.62	0.04	832.13	832.13	335.22	335.22
14	-4.32	48.135	53.238	48.135	53.238	0	0	0	29.99	-4.85	0.03	832.13	832.13	335.22	335.22
16	-4.97	55.339	57.261	55.339	57.261	0	0	0	24.97	-8.45	0.02	832.13	832.13	335.22	335.22
18	-5.62	62.123	61.493	62.123	61.493	0	0	0	18.86	-9.51	0.02	832.13	832.13	335.22	335.22
20	-6.28	68.598	65.903	68.598	65.903	0	0	0	13.09	-8.52	0.01	832.13	832.13	335.22	335.22
22	-6.82	73.908	69.739	73.908	69.739	0	0	0	9.32	-6.37	0.01	832.13	832.13	335.22	335.22
24	-7.48	80.052	74.364	80.052	74.364	0	0	0	7.01	-2.51	0.01	832.13	832.13	335.22	335.22
26	-8.12	86.09	79.074	86.09	79.074	0	0	0	7.81	2.58	0.01	832.13	832.13	335.22	335.22
28	-8.78	92.007	83.883	92.007	83.883	0	0	0	12.46	8.76	0	832.13	832.13	335.22	335.22
30	-9.32	68.84	85.583	68.84	85.583	0	0	0	15.62	1.65	0	832.13	832.13	335.22	335.22

32	-9.98	84.33	85.801	84.33	85.801	0	0	0	11.03	-8.69	0	832.13	832.13	335.22	335.22
34	-10.62	93.043	89.194	93.043	89.194	0	0	0	5.27	-8.4	0	832.13	832.13	335.22	335.22
36	-11.28	98.366	94.452	98.366	94.452	0	0	0	1.45	-4.98	0	832.13	832.13	335.22	335.22
38	-11.92	102.67	100.29	102.67	100.29	0	0	0	-0.27	-1.97	0	832.13	832.13	335.22	335.22
40	-12.58	107.08	106.1	107.08	106.1	0	0	0	-0.68	-0.29	0	832.13	832.13	335.22	335.22
42	-13.22	111.89	111.72	111.89	111.72	0	0	0	-0.53	0.33	0	832.13	832.13	335.22	335.22
44	-13.88	117.05	117.19	117.05	117.19	0	0	0	-0.27	0.39	0	832.13	832.13	335.22	335.22
46	-14.52	122.4	122.58	122.4	122.58	0	0	0	-0.09	0.25	0	832.13	832.13	335.22	335.22
48	-15.18	127.83	127.95	127.83	127.95	0	0	0	0	0.11	0	832.13	832.13	335.22	335.22
50	-15.82	133.29	133.34	133.29	133.34	0	0	0	0.03	0.02	0	832.13	832.13	335.22	335.22
52	-16.48	138.74	138.76	138.74	138.76	0	0	0	0.02	-0.01	0	832.13	832.13	335.22	335.22
54	-17.12	144.21	144.2	144.21	144.2	0	0	0	0.01	-0.02	0	832.13	832.13	335.22	335.22
56	-17.77	149.68	149.66	149.68	149.66	0	0	0	0	-0.01	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 2

Wall Node	EL (m)	Sht L (kPa)	Sht R (kPa)	Shs L (kPa)	Shs R (kPa)	q (kPa)	U L (kPa)	U R (kPa)	M (kN-m/m)	V (kN/m)	dx (cm)	Mcap L (kN-m/m)	Mcap R (kN-m/m)	VcapL (kN/m)	VcapR (kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.11	832.13	832.13	335.22	335.22
2	-0.65	3.93	0	3.93	0	0	0	0	0.25	0.76	0.09	832.13	832.13	335.22	335.22
4	-1.3	9.309	0	9.309	0	0	0	0	2.68	5.08	0.08	832.13	832.13	335.22	335.22
6	-1.82	15.008	0	15.008	0	0	0	0	8.26	12.08	0.07	832.13	832.13	335.22	335.22
8	-2.48	24.584	36.662	24.584	36.662	0	0	0	21.38	21.94	0.06	832.13	832.13	335.22	335.22
10	-3.12	33.424	46.201	33.424	46.201	0	0	0	30.25	10.45	0.05	832.13	832.13	335.22	335.22
12	-3.78	41.639	49.986	41.639	49.986	0	0	0	32.1	0.62	0.04	832.13	832.13	335.22	335.22
14	-4.32	48.135	53.238	48.135	53.238	0	0	0	29.99	-4.85	0.03	832.13	832.13	335.22	335.22
16	-4.97	55.339	57.261	55.339	57.261	0	0	0	24.97	-8.45	0.02	832.13	832.13	335.22	335.22
18	-5.62	62.123	61.493	62.123	61.493	0	0	0	18.86	-9.51	0.02	832.13	832.13	335.22	335.22
20	-6.28	68.598	65.903	68.598	65.903	0	0	0	13.09	-8.52	0.01	832.13	832.13	335.22	335.22
22	-6.82	73.908	69.739	73.908	69.739	0	0	0	9.32	-6.37	0.01	832.13	832.13	335.22	335.22
24	-7.48	80.052	74.364	80.052	74.364	0	0	0	7.01	-2.51	0.01	832.13	832.13	335.22	335.22
26	-8.12	86.09	79.074	86.09	79.074	0	0	0	7.81	2.58	0.01	832.13	832.13	335.22	335.22
28	-8.78	92.007	83.883	92.007	83.883	0	0	0	12.46	8.76	0	832.13	832.13	335.22	335.22
30	-9.32	68.84	85.583	68.84	85.583	0	0	0	15.62	1.65	0	832.13	832.13	335.22	335.22
32	-9.98	84.33	85.801	84.33	85.801	0	0	0	11.03	-8.69	0	832.13	832.13	335.22	335.22
34	-10.62	93.043	89.194	93.043	89.194	0	0	0	5.27	-8.4	0	832.13	832.13	335.22	335.22
36	-11.28	98.366	94.452	98.366	94.452	0	0	0	1.45	-4.98	0	832.13	832.13	335.22	335.22
38	-11.92	102.67	100.29	102.67	100.29	0	0	0	-0.27	-1.97	0	832.13	832.13	335.22	335.22
40	-12.58	107.08	106.1	107.08	106.1	0	0	0	-0.68	-0.29	0	832.13	832.13	335.22	335.22
42	-13.22	111.89	111.72	111.89	111.72	0	0	0	-0.53	0.33	0	832.13	832.13	335.22	335.22
44	-13.88	117.05	117.19	117.05	117.19	0	0	0	-0.27	0.39	0	832.13	832.13	335.22	335.22
46	-14.52	122.4	122.58	122.4	122.58	0	0	0	-0.09	0.25	0	832.13	832.13	335.22	335.22
48	-15.18	127.83	127.95	127.83	127.95	0	0	0	0	0.11	0	832.13	832.13	335.22	335.22

50	-15.82	133.29	133.34	133.29	133.34	0	0	0	0.03	0.02	0	832.13	832.13	335.22	335.22
52	-16.48	138.74	138.76	138.74	138.76	0	0	0	0.02	-0.01	0	832.13	832.13	335.22	335.22
54	-17.12	144.21	144.2	144.21	144.2	0	0	0	0.01	-0.02	0	832.13	832.13	335.22	335.22
56	-17.77	149.68	149.66	149.68	149.66	0	0	0	0	-0.01	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 3

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.3	832.13	832.13	335.22	335.22
2	-0.65	3.93	0	3.93	0	0	0	0	0.25	0.76	0.28	832.13	832.13	335.22	335.22
4	-1.3	9.309	0	9.309	0	0	0	0	2.68	5.08	0.27	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	-11.71	-49.37	0.26	832.13	832.13	335.22	335.22
8	-2.48	18.263	0	18.263	0	0	0	0	-37.97	-37.11	0.24	832.13	832.13	335.22	335.22
10	-3.12	22.053	0	22.053	0	0	0	0	-54.3	-20.86	0.23	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-58.46	-1.25	0.21	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-50.81	17.95	0.19	832.13	832.13	335.22	335.22
16	-4.97	35.714	36.662	35.714	36.662	0	0	0	-28.37	38.7	0.16	832.13	832.13	335.22	335.22
18	-5.62	45.409	54.636	45.409	54.636	0	0	0	-5.1	33.31	0.14	832.13	832.13	335.22	335.22
20	-6.28	54.977	58.405	54.977	58.405	0	0	0	13.14	26.72	0.11	832.13	832.13	335.22	335.22
22	-6.82	62.913	61.273	62.913	61.273	0	0	0	27.01	25.01	0.09	832.13	832.13	335.22	335.22
24	-7.48	72.032	64.576	72.032	64.576	0	0	0	44.34	27.64	0.07	832.13	832.13	335.22	335.22
26	-8.12	80.765	67.977	80.765	67.977	0	0	0	65.75	35.1	0.04	832.13	832.13	335.22	335.22
28	-8.78	88.942	71.656	88.942	71.656	0	0	0	94.16	46.91	0.02	832.13	832.13	335.22	335.22
30	-9.32	8.885	98.666	8.885	98.666	0	0	0	110.72	14.19	0.01	832.13	832.13	335.22	335.22
32	-9.98	64.098	85.09	64.098	85.09	0	0	0	88.29	-45.25	0	832.13	832.13	335.22	335.22
34	-10.62	91.497	78.552	91.497	78.552	0	0	0	53.15	-54	0	832.13	832.13	335.22	335.22
36	-11.28	101.72	81.09	101.72	81.09	0	0	0	24.24	-40.42	0	832.13	832.13	335.22	335.22
38	-11.92	105.19	87.741	105.19	87.741	0	0	0	6.37	-23.31	0	832.13	832.13	335.22	335.22
40	-12.58	106.29	95.466	106.29	95.466	0	0	0	-2.04	-9.95	0	832.13	832.13	335.22	335.22
42	-13.22	108	102.86	108	102.86	0	0	0	-4.47	-2.1	0	832.13	832.13	335.22	335.22
44	-13.88	111.08	109.55	111.08	109.55	0	0	0	-4.01	1.37	0	832.13	832.13	335.22	335.22
46	-14.52	115.35	115.6	115.35	115.6	0	0	0	-2.64	2.21	0	832.13	832.13	335.22	335.22
48	-15.18	120.41	121.24	120.41	121.24	0	0	0	-1.36	1.83	0	832.13	832.13	335.22	335.22
50	-15.82	125.88	126.68	125.88	126.68	0	0	0	-0.51	1.12	0	832.13	832.13	335.22	335.22
52	-16.48	131.51	132.06	131.51	132.06	0	0	0	-0.09	0.49	0	832.13	832.13	335.22	335.22
54	-17.12	137.19	137.43	137.19	137.43	0	0	0	0.02	0.1	0	832.13	832.13	335.22	335.22
56	-17.77	142.88	142.82	142.88	142.82	0	0	0	0.01	-0.04	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 4

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)

0	0	0	0	0	0	0	0	0	0	0	0.3	832.13	832.13	335.22	335.22
2	-0.65	3.93	0	3.93	0	0	0	0	0.25	0.76	0.28	832.13	832.13	335.22	335.22
4	-1.3	9.309	0	9.309	0	0	0	0	2.68	5.08	0.27	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	-11.71	-49.37	0.26	832.13	832.13	335.22	335.22
8	-2.48	18.263	0	18.263	0	0	0	0	-37.97	-37.11	0.24	832.13	832.13	335.22	335.22
10	-3.12	22.053	0	22.053	0	0	0	0	-54.3	-20.86	0.23	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-58.46	-1.25	0.21	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-50.81	17.95	0.19	832.13	832.13	335.22	335.22
16	-4.97	35.714	36.662	35.714	36.662	0	0	0	-28.37	38.7	0.16	832.13	832.13	335.22	335.22
18	-5.62	45.409	54.636	45.409	54.636	0	0	0	-5.1	33.31	0.14	832.13	832.13	335.22	335.22
20	-6.28	54.977	58.405	54.977	58.405	0	0	0	13.14	26.72	0.11	832.13	832.13	335.22	335.22
22	-6.82	62.913	61.273	62.913	61.273	0	0	0	27.01	25.01	0.09	832.13	832.13	335.22	335.22
24	-7.48	72.032	64.576	72.032	64.576	0	0	0	44.34	27.64	0.07	832.13	832.13	335.22	335.22
26	-8.12	80.765	67.977	80.765	67.977	0	0	0	65.75	35.1	0.04	832.13	832.13	335.22	335.22
28	-8.78	88.942	71.656	88.942	71.656	0	0	0	94.16	46.91	0.02	832.13	832.13	335.22	335.22
30	-9.32	8.885	98.666	8.885	98.666	0	0	0	110.72	14.19	0.01	832.13	832.13	335.22	335.22
32	-9.98	64.098	85.09	64.098	85.09	0	0	0	88.29	-45.25	0	832.13	832.13	335.22	335.22
34	-10.62	91.497	78.552	91.497	78.552	0	0	0	53.15	-54	0	832.13	832.13	335.22	335.22
36	-11.28	101.72	81.09	101.72	81.09	0	0	0	24.24	-40.42	0	832.13	832.13	335.22	335.22
38	-11.92	105.19	87.741	105.19	87.741	0	0	0	6.37	-23.31	0	832.13	832.13	335.22	335.22
40	-12.58	106.29	95.466	106.29	95.466	0	0	0	-2.04	-9.95	0	832.13	832.13	335.22	335.22
42	-13.22	108	102.86	108	102.86	0	0	0	-4.47	-2.1	0	832.13	832.13	335.22	335.22
44	-13.88	111.08	109.55	111.08	109.55	0	0	0	-4.01	1.37	0	832.13	832.13	335.22	335.22
46	-14.52	115.35	115.6	115.35	115.6	0	0	0	-2.64	2.21	0	832.13	832.13	335.22	335.22
48	-15.18	120.41	121.24	120.41	121.24	0	0	0	-1.36	1.83	0	832.13	832.13	335.22	335.22
50	-15.82	125.88	126.68	125.88	126.68	0	0	0	-0.51	1.12	0	832.13	832.13	335.22	335.22
52	-16.48	131.51	132.06	131.51	132.06	0	0	0	-0.09	0.49	0	832.13	832.13	335.22	335.22
54	-17.12	137.19	137.43	137.19	137.43	0	0	0	0.02	0.1	0	832.13	832.13	335.22	335.22
56	-17.77	142.88	142.82	142.88	142.82	0	0	0	0.01	-0.04	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 5

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.32	832.13	832.13	335.22	335.22
2	-0.65	3.93	0	3.93	0	0	0	0	0.25	0.76	0.33	832.13	832.13	335.22	335.22
4	-1.3	9.309	0	9.309	0	0	0	0	2.68	5.08	0.33	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	-19.01	-71.84	0.34	832.13	832.13	335.22	335.22
8	-2.48	18.263	0	18.263	0	0	0	0	-59.88	-59.58	0.34	832.13	832.13	335.22	335.22
10	-3.12	22.053	0	22.053	0	0	0	0	-90.82	-43.33	0.34	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-109.58	-23.72	0.34	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-129.46	-51.21	0.33	832.13	832.13	335.22	335.22
16	-4.97	33.142	0	33.142	0	0	0	0	-150.38	-25.57	0.31	832.13	832.13	335.22	335.22

18	-5.62	36.892	0	36.892	0	0	0	0	-153.11	3.17	0.29	832.13	832.13	335.22	335.22
20	-6.28	42.219	0	42.219	0	0	0	0	-135.62	35.07	0.26	832.13	832.13	335.22	335.22
22	-6.82	51.159	0	51.159	0	0	0	0	-102.71	66.55	0.22	832.13	832.13	335.22	335.22
24	-7.48	62.021	36.662	62.021	36.662	0	0	0	-39.22	107.17	0.18	832.13	832.13	335.22	335.22
26	-8.12	72.893	51.592	72.893	51.592	0	0	0	39.93	125.67	0.13	832.13	832.13	335.22	335.22
28	-8.78	83.331	55.793	83.331	55.793	0	0	0	130.82	144.99	0.09	832.13	832.13	335.22	335.22
30	-9.32	0	136.78	0	136.78	0	0	0	197.46	97.83	0.06	832.13	832.13	335.22	335.22
32	-9.98	0	104.18	0	104.18	0	0	0	207.23	-9.94	0.03	832.13	832.13	335.22	335.22
34	-10.62	57.56	82.892	57.56	82.892	0	0	0	163.01	-82.12	0.01	832.13	832.13	335.22	335.22
36	-11.28	92.226	72.694	92.226	72.694	0	0	0	103.05	-91.66	0	832.13	832.13	335.22	335.22
38	-11.92	105.58	74.079	105.58	74.079	0	0	0	52.72	-71.47	0	832.13	832.13	335.22	335.22
40	-12.58	109.32	81.004	109.32	81.004	0	0	0	19.22	-44.91	0	832.13	832.13	335.22	335.22
42	-13.22	109.17	89.688	109.17	89.688	0	0	0	1.11	-22.76	0	832.13	832.13	335.22	335.22
44	-13.88	109.23	98.229	109.23	98.229	0	0	0	-6.27	-8.19	0	832.13	832.13	335.22	335.22
46	-14.52	110.8	105.94	110.8	105.94	0	0	0	-7.53	-0.33	0	832.13	832.13	335.22	335.22
48	-15.18	113.97	112.78	113.97	112.78	0	0	0	-6.03	2.89	0	832.13	832.13	335.22	335.22
50	-15.82	118.36	118.95	118.36	118.95	0	0	0	-3.81	3.44	0	832.13	832.13	335.22	335.22
52	-16.48	123.49	124.73	123.49	124.73	0	0	0	-1.87	2.76	0	832.13	832.13	335.22	335.22
54	-17.12	129	130.31	129	130.31	0	0	0	-0.6	1.68	0	832.13	832.13	335.22	335.22
56	-17.77	134.63	135.83	134.63	135.83	0	0	0	-0.04	0.6	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 6

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.32	832.13	832.13	335.22	335.22
2	-0.65	3.93	0	3.93	0	0	0	0	0.25	0.76	0.33	832.13	832.13	335.22	335.22
4	-1.3	9.309	0	9.309	0	0	0	0	2.68	5.08	0.33	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	-19.01	-71.84	0.34	832.13	832.13	335.22	335.22
8	-2.48	18.263	0	18.263	0	0	0	0	-59.88	-59.58	0.34	832.13	832.13	335.22	335.22
10	-3.12	22.053	0	22.053	0	0	0	0	-90.81	-43.33	0.34	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-109.58	-23.72	0.34	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-129.45	-51.21	0.33	832.13	832.13	335.22	335.22
16	-4.97	33.142	0	33.142	0	0	0	0	-150.38	-25.57	0.31	832.13	832.13	335.22	335.22
18	-5.62	36.892	0	36.892	0	0	0	0	-153.11	3.17	0.29	832.13	832.13	335.22	335.22
20	-6.28	42.219	0	42.219	0	0	0	0	-135.62	35.07	0.26	832.13	832.13	335.22	335.22
22	-6.82	51.159	0	51.159	0	0	0	0	-102.71	66.55	0.22	832.13	832.13	335.22	335.22
24	-7.48	62.021	36.662	62.021	36.662	0	0	0	-39.22	107.17	0.18	832.13	832.13	335.22	335.22
26	-8.12	72.893	51.592	72.893	51.592	0	0	0	39.93	125.67	0.13	832.13	832.13	335.22	335.22
28	-8.78	83.331	55.793	83.331	55.793	0	0	0	130.82	144.99	0.09	832.13	832.13	335.22	335.22
30	-9.32	0	136.78	0	136.78	0	0	0	197.46	97.83	0.06	832.13	832.13	335.22	335.22
32	-9.98	0	104.18	0	104.18	0	0	0	207.23	-9.94	0.03	832.13	832.13	335.22	335.22
34	-10.62	57.56	82.892	57.56	82.892	0	0	0	163.01	-82.12	0.01	832.13	832.13	335.22	335.22

36	-11.28	92.226	72.694	92.226	72.694	0	0	0	103.05	-91.66	0	832.13	832.13	335.22	335.22
38	-11.92	105.58	74.079	105.58	74.079	0	0	0	52.72	-71.47	0	832.13	832.13	335.22	335.22
40	-12.58	109.32	81.004	109.32	81.004	0	0	0	19.22	-44.91	0	832.13	832.13	335.22	335.22
42	-13.22	109.17	89.688	109.17	89.688	0	0	0	1.11	-22.76	0	832.13	832.13	335.22	335.22
44	-13.88	109.23	98.229	109.23	98.229	0	0	0	-6.27	-8.19	0	832.13	832.13	335.22	335.22
46	-14.52	110.8	105.94	110.8	105.94	0	0	0	-7.53	-0.33	0	832.13	832.13	335.22	335.22
48	-15.18	113.97	112.78	113.97	112.78	0	0	0	-6.03	2.89	0	832.13	832.13	335.22	335.22
50	-15.82	118.36	118.95	118.36	118.95	0	0	0	-3.81	3.44	0	832.13	832.13	335.22	335.22
52	-16.48	123.49	124.73	123.49	124.73	0	0	0	-1.87	2.76	0	832.13	832.13	335.22	335.22
54	-17.12	129	130.31	129	130.31	0	0	0	-0.6	1.68	0	832.13	832.13	335.22	335.22
56	-17.77	134.63	135.83	134.63	135.83	0	0	0	-0.04	0.6	0	832.13	832.13	335.22	335.22

Wall 1 Stage: 7

Wall Node	EL (m)	Sht L (kPa)	Sht R (kPa)	Shs L (kPa)	Shs R (kPa)	q (kPa)	U L (kPa)	U R (kPa)	M (kN-m/m)	V (kN/m)	dx (cm)	Mcap L (kN-m/m)	Mcap R (kN-m/m)	VcapL (kN/m)	VcapR (kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.29	832.13	832.13	335.22	335.22
2	-0.65	5.223	0	5.223	0	0	0	0	0.5	1.54	0.31	832.13	832.13	335.22	335.22
4	-1.3	9.487	0	9.487	0	0	0	0	3.9	6.72	0.33	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	-17.15	-70.9	0.35	832.13	832.13	335.22	335.22
8	-2.48	18.263	0	18.263	0	0	0	0	-57.4	-58.63	0.37	832.13	832.13	335.22	335.22
10	-3.12	22.053	0	22.053	0	0	0	0	-87.72	-42.39	0.38	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-105.87	-22.78	0.4	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-132.68	-73.21	0.4	832.13	832.13	335.22	335.22
16	-4.97	33.142	0	33.142	0	0	0	0	-167.91	-47.56	0.4	832.13	832.13	335.22	335.22
18	-5.62	36.892	0	36.892	0	0	0	0	-184.94	-18.82	0.39	832.13	832.13	335.22	335.22
20	-6.28	40.316	0	40.316	0	0	0	0	-181.74	13.07	0.37	832.13	832.13	335.22	335.22
22	-6.82	43.525	0	43.525	0	0	0	0	-178.74	-9.8	0.35	832.13	832.13	335.22	335.22
24	-7.48	52.531	0	52.531	0	0	0	0	-166.66	28.57	0.31	832.13	832.13	335.22	335.22
26	-8.12	63.349	0	63.349	0	0	0	0	-125.72	75.22	0.27	832.13	832.13	335.22	335.22
28	-8.78	74.343	0	74.343	0	0	0	0	-49.97	131.08	0.22	832.13	832.13	335.22	335.22
30	-9.32	0	0	0	0	0	0	0	36.74	157.65	0.17	832.13	832.13	335.22	335.22
32	-9.98	0	0	0	0	0	0	0	139.22	157.65	0.12	832.13	832.13	335.22	335.22
34	-10.62	0	131.77	0	131.77	0	0	0	221.16	94.48	0.07	832.13	832.13	335.22	335.22
36	-11.28	0	105.37	0	105.37	0	0	0	230.32	-10.6	0.04	832.13	832.13	335.22	335.22
38	-11.92	54.81	82.671	54.81	82.671	0	0	0	185.64	-82.37	0.02	832.13	832.13	335.22	335.22
40	-12.58	87.999	73.111	87.999	73.111	0	0	0	124.21	-94.88	0.01	832.13	832.13	335.22	335.22
42	-13.22	102.89	73.694	102.89	73.694	0	0	0	70	-78.19	0	832.13	832.13	335.22	335.22
44	-13.88	108.41	79.736	108.41	79.736	0	0	0	31.34	-53.12	0	832.13	832.13	335.22	335.22
46	-14.52	110.09	88.032	110.09	88.032	0	0	0	8.22	-30.13	0	832.13	832.13	335.22	335.22
48	-15.18	111.07	96.742	111.07	96.742	0	0	0	-2.82	-13.14	0	832.13	832.13	335.22	335.22
50	-15.82	112.72	105.04	112.72	105.04	0	0	0	-5.94	-2.52	0.01	832.13	832.13	335.22	335.22
52	-16.48	115.34	112.73	115.34	112.73	0	0	0	-4.79	2.82	0.01	832.13	832.13	335.22	335.22

54	-17.12	118.71	119.94	118.71	119.94	0	0	0	-2.16	4.17	0.01	832.13	832.13	335.22	335.22
56	-17.77	122.42	126.92	122.42	126.92	0	0	0	-0.18	2.42	0.01	832.13	832.13	335.22	335.22

Wall 1 Stage: 8

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.29	832.13	832.13	335.22	335.22
2	-0.65	5.223	0	5.223	0	0	0	0	0.5	1.54	0.31	832.13	832.13	335.22	335.22
4	-1.3	9.487	0	9.487	0	0	0	0	3.9	6.72	0.33	832.13	832.13	335.22	335.22
6	-1.82	13.458	0	13.458	0	0	0	0	-17.15	-70.9	0.35	832.13	832.13	335.22	335.22
8	-2.48	18.263	0	18.263	0	0	0	0	-57.4	-58.63	0.37	832.13	832.13	335.22	335.22
10	-3.12	22.053	0	22.053	0	0	0	0	-87.72	-42.39	0.38	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-105.87	-22.78	0.4	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-132.68	-73.21	0.4	832.13	832.13	335.22	335.22
16	-4.97	33.142	0	33.142	0	0	0	0	-167.91	-47.56	0.4	832.13	832.13	335.22	335.22
18	-5.62	36.892	0	36.892	0	0	0	0	-184.94	-18.82	0.39	832.13	832.13	335.22	335.22
20	-6.28	40.316	0	40.316	0	0	0	0	-181.74	13.07	0.37	832.13	832.13	335.22	335.22
22	-6.82	43.525	0	43.525	0	0	0	0	-178.74	-9.8	0.35	832.13	832.13	335.22	335.22
24	-7.48	52.531	0	52.531	0	0	0	0	-166.66	28.57	0.31	832.13	832.13	335.22	335.22
26	-8.12	63.349	0	63.349	0	0	0	0	-125.72	75.22	0.27	832.13	832.13	335.22	335.22
28	-8.78	74.343	0	74.343	0	0	0	0	-49.97	131.08	0.22	832.13	832.13	335.22	335.22
30	-9.32	0	0	0	0	0	0	0	36.74	157.65	0.17	832.13	832.13	335.22	335.22
32	-9.98	0	0	0	0	0	0	0	139.22	157.65	0.12	832.13	832.13	335.22	335.22
34	-10.62	0	131.77	0	131.77	0	0	0	221.16	94.48	0.07	832.13	832.13	335.22	335.22
36	-11.28	0	105.37	0	105.37	0	0	0	230.32	-10.6	0.04	832.13	832.13	335.22	335.22
38	-11.92	54.81	82.671	54.81	82.671	0	0	0	185.64	-82.37	0.02	832.13	832.13	335.22	335.22
40	-12.58	87.999	73.111	87.999	73.111	0	0	0	124.21	-94.88	0.01	832.13	832.13	335.22	335.22
42	-13.22	102.89	73.694	102.89	73.694	0	0	0	70	-78.19	0	832.13	832.13	335.22	335.22
44	-13.88	108.41	79.736	108.41	79.736	0	0	0	31.34	-53.12	0	832.13	832.13	335.22	335.22
46	-14.52	110.09	88.032	110.09	88.032	0	0	0	8.22	-30.13	0	832.13	832.13	335.22	335.22
48	-15.18	111.07	96.742	111.07	96.742	0	0	0	-2.82	-13.14	0	832.13	832.13	335.22	335.22
50	-15.82	112.72	105.04	112.72	105.04	0	0	0	-5.94	-2.52	0.01	832.13	832.13	335.22	335.22
52	-16.48	115.34	112.73	115.34	112.73	0	0	0	-4.79	2.82	0.01	832.13	832.13	335.22	335.22
54	-17.12	118.71	119.94	118.71	119.94	0	0	0	-2.16	4.17	0.01	832.13	832.13	335.22	335.22
56	-17.77	122.42	126.92	122.42	126.92	0	0	0	-0.18	2.42	0.01	832.13	832.13	335.22	335.22

Wall 1 Stage: 9

Wall	EL	Sht L	Sht R	Shs L	Shs R	q	U L	U R	M	V	dx	Mcap L	Mcap R	VcapL	VcapR
Node	(m)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kPa)	(kN-m/m)	(kN/m)	(cm)	(kN-m/m)	(kN-m/m)	(kN/m)	(kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.27	832.13	832.13	335.22	335.22
2	-0.65	6.51	0	6.51	0	0	0	0	0.71	2.18	0.29	832.13	832.13	335.22	335.22

4	-1.3	10.335	0	10.335	0	0	0	0	5.02	8.35	0.32	832.13	832.13	335.22	335.22
6	-1.82	13.948	0	13.948	0	0	0	0	-13.86	-65.41	0.34	832.13	832.13	335.22	335.22
8	-2.48	18.298	0	18.298	0	0	0	0	-50.37	-52.82	0.37	832.13	832.13	335.22	335.22
10	-3.12	22.055	0	22.055	0	0	0	0	-76.91	-36.57	0.39	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-91.27	-16.95	0.41	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-116.79	-73.26	0.42	832.13	832.13	335.22	335.22
16	-4.97	33.142	0	33.142	0	0	0	0	-152.05	-47.61	0.43	832.13	832.13	335.22	335.22
18	-5.62	36.892	0	36.892	0	0	0	0	-169.1	-18.87	0.43	832.13	832.13	335.22	335.22
20	-6.28	40.316	0	40.316	0	0	0	0	-165.94	13.02	0.43	832.13	832.13	335.22	335.22
22	-6.82	43.525	0	43.525	0	0	0	0	-170.43	-32.8	0.41	832.13	832.13	335.22	335.22
24	-7.48	47.528	0	47.528	0	0	0	0	-173.59	4.69	0.39	832.13	832.13	335.22	335.22
26	-8.12	57.549	0	57.549	0	0	0	0	-150.28	46.95	0.35	832.13	832.13	335.22	335.22
28	-8.78	67.84	0	67.84	0	0	0	0	-95.35	97.75	0.31	832.13	832.13	335.22	335.22
30	-9.32	0	0	0	0	0	0	0	-44.81	71.04	0.27	832.13	832.13	335.22	335.22
32	-9.98	0	0	0	0	0	0	0	1.36	71.04	0.22	832.13	832.13	335.22	335.22
34	-10.62	0	0	0	0	0	0	0	47.54	71.04	0.17	832.13	832.13	335.22	335.22
36	-11.28	0	0	0	0	0	0	0	93.72	71.04	0.13	832.13	832.13	335.22	335.22
38	-11.92	0	0	0	0	0	0	0	139.89	71.04	0.09	832.13	832.13	335.22	335.22
40	-12.58	0	127.74	0	127.74	0	0	0	186.07	71.04	0.05	832.13	832.13	335.22	335.22
42	-13.22	34.398	105.25	34.398	105.25	0	0	0	181.68	-30.59	0.03	832.13	832.13	335.22	335.22
44	-13.88	74.39	84.642	74.39	84.642	0	0	0	137.38	-75.73	0.02	832.13	832.13	335.22	335.22
46	-14.52	96.211	77.422	96.211	77.422	0	0	0	86.38	-76.88	0.01	832.13	832.13	335.22	335.22
48	-15.18	106.55	79.437	106.55	79.437	0	0	0	44.99	-58.43	0.01	832.13	832.13	335.22	335.22
50	-15.82	110.86	86.564	110.86	86.564	0	0	0	18.11	-35.73	0.01	832.13	832.13	335.22	335.22
52	-16.48	112.68	95.879	112.68	95.879	0	0	0	4.42	-16.65	0.01	832.13	832.13	335.22	335.22
54	-17.12	113.87	105.77	113.87	105.77	0	0	0	-0.07	-4.28	0.01	832.13	832.13	335.22	335.22
56	-17.77	115.04	115.61	115.04	115.61	0	0	0	-0.12	0.72	0.01	832.13	832.13	335.22	335.22

Wall 1 Stage: 10

Wall Node	EL (m)	Sht L (kPa)	Sht R (kPa)	Shs L (kPa)	Shs R (kPa)	q (kPa)	U L (kPa)	U R (kPa)	M (kN-m/m)	V (kN/m)	dx (cm)	Mcap L (kN-m/m)	Mcap R (kN-m/m)	VcapL (kN/m)	VcapR (kN/m)
0	0	0	0	0	0	0	0	0	0	0	0.27	832.13	832.13	335.22	335.22
2	-0.65	6.51	0	6.51	0	0	0	0	0.71	2.18	0.29	832.13	832.13	335.22	335.22
4	-1.3	10.334	0	10.334	0	0	0	0	5.02	8.35	0.32	832.13	832.13	335.22	335.22
6	-1.82	13.947	0	13.947	0	0	0	0	-13.86	-65.41	0.34	832.13	832.13	335.22	335.22
8	-2.48	18.298	0	18.298	0	0	0	0	-50.37	-52.82	0.37	832.13	832.13	335.22	335.22
10	-3.12	22.055	0	22.055	0	0	0	0	-76.91	-36.57	0.39	832.13	832.13	335.22	335.22
12	-3.78	26.168	0	26.168	0	0	0	0	-91.27	-16.95	0.41	832.13	832.13	335.22	335.22
14	-4.32	29.297	0	29.297	0	0	0	0	-116.79	-73.26	0.42	832.13	832.13	335.22	335.22
16	-4.97	33.142	0	33.142	0	0	0	0	-152.05	-47.61	0.43	832.13	832.13	335.22	335.22
18	-5.62	36.892	0	36.892	0	0	0	0	-169.1	-18.87	0.43	832.13	832.13	335.22	335.22
20	-6.28	40.316	0	40.316	0	0	0	0	-165.94	13.02	0.43	832.13	832.13	335.22	335.22

22	-6.82	43.525	0	43.525	0	0	0	0	-170.43	-32.8	0.41	832.13	832.13	335.22	335.22
24	-7.48	47.528	0	47.528	0	0	0	0	-173.59	4.69	0.39	832.13	832.13	335.22	335.22
26	-8.12	57.549	0	57.549	0	0	0	0	-150.28	46.95	0.35	832.13	832.13	335.22	335.22
28	-8.78	67.84	0	67.84	0	0	0	0	-95.35	97.75	0.31	832.13	832.13	335.22	335.22
30	-9.32	0	0	0	0	0	0	0	-44.81	71.04	0.27	832.13	832.13	335.22	335.22
32	-9.98	0	0	0	0	0	0	0	1.37	71.04	0.22	832.13	832.13	335.22	335.22
34	-10.62	0	0	0	0	0	0	0	47.54	71.04	0.17	832.13	832.13	335.22	335.22
36	-11.28	0	0	0	0	0	0	0	93.72	71.04	0.13	832.13	832.13	335.22	335.22
38	-11.92	0	0	0	0	0	0	0	139.89	71.04	0.09	832.13	832.13	335.22	335.22
40	-12.58	0	127.74	0	127.74	0	0	0	186.07	71.04	0.05	832.13	832.13	335.22	335.22
42	-13.22	34.398	105.25	34.398	105.25	0	0	0	181.68	-30.59	0.03	832.13	832.13	335.22	335.22
44	-13.88	74.39	84.642	74.39	84.642	0	0	0	137.38	-75.73	0.02	832.13	832.13	335.22	335.22
46	-14.52	96.211	77.422	96.211	77.422	0	0	0	86.38	-76.88	0.01	832.13	832.13	335.22	335.22
48	-15.18	106.55	79.437	106.55	79.437	0	0	0	44.99	-58.43	0.01	832.13	832.13	335.22	335.22
50	-15.82	110.86	86.564	110.86	86.564	0	0	0	18.11	-35.73	0.01	832.13	832.13	335.22	335.22
52	-16.48	112.68	95.879	112.68	95.879	0	0	0	4.42	-16.65	0.01	832.13	832.13	335.22	335.22
54	-17.12	113.87	105.77	113.87	105.77	0	0	0	-0.07	-4.28	0.01	832.13	832.13	335.22	335.22
56	-17.77	115.04	115.61	115.04	115.61	0	0	0	-0.12	0.72	0.01	832.13	832.13	335.22	335.22

LEGENDA
Wall node=numero nodo
EL=quota
Sht L=pressione terreno orizzontale totale a sx paratia
Sht R=pressione terreno orizzontale totale a dx paratia
Shs L=pressione terreno orizzontale efficace a sx paratia
Shs R=pressione terreno orizzontale efficace a dx paratia
q=pressioni dovute al sovraccarico
U L=pressione acqua a sx paratia
U R=pressione acqua a dx paratia
M=momento flettente (per metro)
V=taglio (per metro)
dx=spostamento orizzontale
McapL=Momento ultimo lato sx
McapR=Momento ultimo lato dx
VcapL=Taglio ultimo resistente lato sx
VcapR=Taglio ultimo resistente lato dx

REAZIONI VINCOLI (TIRANTI, PUNTONI, SOLETTE, SBADACCHI)

Vincolo 0

Stage No	R
	(kN)
0	0
1	0

2	0
3	190.882
4	190.882
5	260.668
6	260.672
7	263.074
8	263.074
9	252.74
10	252.743

Vincolo 1

Stage No	R
	(kN)
0	0
1	0
2	0
3	0
4	0
5	145.014
6	145.014
7	216.255
8	216.255
9	234.503
10	234.507

Vincolo 2

Stage No	R
	(kN)
0	0
1	0
2	0
3	0
4	0
5	0
6	0
7	161.975
8	161.975
9	233.255
10	233.259

Vincolo 3

Stage No	R

	(kN)
0	0
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	158.274
10	158.278

Verifica tensioni

Vincolo 0

Tabella: vincoli 0, Sommario rapporti di verifica

Stage No	R/CAP	R/STR	R/GEO
0	N/A	N/A	N/A
1	N/A	N/A	N/A
2	0	0	0
3	0.331	0.249	0.331
4	0.331	0.249	0.331
5	0.453	0.341	0.453
6	0.453	0.341	0.453
7	0.457	0.344	0.457
8	0.457	0.344	0.457
9	0.439	0.33	0.439
10	0.439	0.33	0.439

Vincolo 1

Tabella: vincoli 1, Sommario rapporti di verifica

Stage No	R/CAP	R/STR	R/GEO
0	N/A	N/A	N/A
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	0	0	0
5	0.277	0.189	0.277

6	0.277	0.189	0.277
7	0.413	0.283	0.413
8	0.413	0.283	0.413
9	0.448	0.306	0.448
10	0.448	0.306	0.448

Vincolo 2

Tabella: vincoli 2, Sommario rapporti di verifica

Stage No	R/CAP	R/STR	R/GEO
0	N/A	N/A	N/A
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	N/A	N/A	N/A
5	N/A	N/A	N/A
6	0	0	0
7	0.387	0.212	0.387
8	0.387	0.212	0.387
9	0.557	0.305	0.557
10	0.557	0.305	0.557

Vincolo 3

Tabella: vincoli 3, Sommario rapporti di verifica

Stage No	R/CAP	R/STR	R/GEO
0	N/A	N/A	N/A
1	N/A	N/A	N/A
2	N/A	N/A	N/A
3	N/A	N/A	N/A
4	N/A	N/A	N/A
5	N/A	N/A	N/A
6	N/A	N/A	N/A
7	N/A	N/A	N/A
8	0	0	0
9	0.453	0.207	0.453
10	0.453	0.207	0.453

8.2 OUTPUT GEOSLOPE

CASO STATICO

SLOPE/W Analysis

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Project Settings

Length(L) Units: meters
Time(t) Units: Seconds
Force(F) Units: kN
Pressure(p) Units: kPa
Strength Units: kPa
Unit Weight of Water: 9.807 kN/m³
View: 2D

Analysis Settings

SLOPE/W Analysis

Kind: SLOPE/W
Method: Morgenstern-Price
Settings
- Side Function
  - Interslice force function option: Half-Sine
- Lambda
  - Lambda 1: -1
  - Lambda 2: -0.8
  - Lambda 3: -0.6
  - Lambda 4: -0.4
  - Lambda 5: -0.2
  - Lambda 6: 0
  - Lambda 7: 0.2
  - Lambda 8: 0.4
  - Lambda 9: 0.6
  - Lambda 10: 0.8
  - Lambda 11: 1
- PWP Conditions Source: (none)

Slip Surface
- Direction of movement: Right to Left

Use Passive Mode: No
Slip Surface Option: Entry and Exit
Critical slip surfaces saved: 1
Optimize Critical Slip Surface Location: No
Tension Crack
Tension Crack Option: (none)
F of S Distribution
F of S Calculation Option: Constant
Advanced
Number of Slices: 30
F of S Tolerance: 0.01
Minimum Slip Surface Depth: 0.1 m
Optimization Maximum Iterations: 2,000
Optimization Convergence Tolerance: 1e-007
Starting Optimization Points: 8
Ending Optimization Points: 16
Complete Passes per Insertion: 1
Driving Side Maximum Convex Angle: 5 °
Resisting Side Maximum Convex Angle: 1 °

Materials

Coltre

Model: Mohr-Coulomb
Unit Weight: 18 kN/m³
Cohesion': 0 kPa
Phi': 30 °
Phi-B: 0 °

CLS

Model: Undrained (Phi=0)
Unit Weight: 25 kN/m³
Cohesion': 5,000 kPa

Marnoso arenacea

Model: Mohr-Coulomb
Unit Weight: 21 kN/m³
Cohesion': 200 kPa
Phi': 35 °
Phi-B: 0 °

Slip Surface Entry and Exit

Left Projection: Range
Left-Zone Left Coordinate: (50, 35) m
Left-Zone Right Coordinate: (58, 37.57143) m

Left-Zone Increment: 20
Right Projection: Range
Right-Zone Left Coordinate: (61, 38.35714) m
Right-Zone Right Coordinate: (100, 48) m
Right-Zone Increment: 20
Radius Increments: 100

Slip Surface Limits

Left Coordinate: (0.14, 17.02) m
Right Coordinate: (100, 48) m

Seismic Loads

Horz Seismic Load: 0
Vert Seismic Load: 0

Points

	X (m)	Y (m)
Point 1	0	0
Point 2	0	17
Point 3	35	22
Point 4	50	22
Point 5	50	17
Point 6	51	17
Point 7	51	26
Point 8	51	35
Point 9	52	35
Point 10	59	38
Point 11	70.2	40
Point 12	73.2	41
Point 13	100	48
Point 14	100	0
Point 15	50	35
Point 16	77	42
Point 17	70.2	31
Point 18	100	39

Regions

	Material	Points	Area (m²)
Region 1	CLS	15,8,7,6,5,4	18
Region 2	Coltre	8,9,10,11,12,16,13,18,17,7	451.3
Region 3	Marnoso arenacea	1,2,3,4,5,6,7,17,18,14	2,619.7

Current Slip Surface

Slip Surface: 10,610
F of S: 1.514
F of S Rank: 1
Exit: (52.121283, 35.051978) m
Entry: (61, 38.357143) m
Radius: 39.780566 m
Center: (42.781191, 73.72052) m

Slip Slices

	X (m)	Y (m)	PWP (kPa)	Base Normal Stress (kPa)	Frictional Strength (kPa)	Cohesive Strength (kPa)
Slice 1	52.27082	35.088711	0	0.45547339	0.26296769	0
Slice 2	52.569895	35.163408	0	1.35154	0.78031197	0
Slice 3	52.868969	35.240574	0	2.2126606	1.2774802	0
Slice 4	53.168044	35.320224	0	3.0344847	1.7519606	0
Slice 5	53.467119	35.402374	0	3.812758	2.2012968	0
Slice 6	53.766193	35.487041	0	4.5435498	2.6232197	0
Slice 7	54.065268	35.574239	0	5.2234489	3.0157596	0
Slice 8	54.364343	35.663988	0	5.8497169	3.3773356	0
Slice 9	54.663417	35.756306	0	6.4203953	3.706817	0

Slice 10	54.962492	35.85121	0	6.9343604	4.0035549	0
Slice 11	55.261567	35.94872	0	7.3913288	4.2673857	0
Slice 12	55.560641	36.048858	0	7.7918165	4.4986074	0
Slice 13	55.859716	36.151643	0	8.1370593	4.6979334	0
Slice 14	56.158791	36.257097	0	8.4289018	4.8664287	0
Slice 15	56.457865	36.365244	0	8.669666	5.005434	0
Slice 16	56.75694	36.476106	0	8.8620084	5.1164829	0
Slice 17	57.056015	36.589708	0	9.008775	5.2012187	0
Slice 18	57.355089	36.706076	0	9.1128615	5.261313	0
Slice 19	57.654164	36.825234	0	9.1770835	5.2983917	0
Slice 20	57.953239	36.947211	0	9.2040617	5.3139675	0
Slice 21	58.252313	37.072035	0	9.1961209	5.3093829	0
Slice 22	58.551388	37.199734	0	9.1552048	5.28576	0
Slice 23	58.850463	37.33034	0	9.0828026	5.2439585	0
Slice 24	59.142857	37.460835	0	8.4431411	4.8746498	0
Slice 25	59.428571	37.591122	0	7.2404368	4.1802681	0
Slice 26	59.714286	37.724148	0	6.0098957	3.4698149	0
Slice 27	60	37.859944	0	4.7469644	2.7406612	0

Slice 28	60.285714	37.998541	0	3.4464949	1.9898347	0
Slice 29	60.571428	38.139972	0	2.1028712	1.2140933	0
Slice 30	60.857142	38.284272	0	0.71016789	0.41001562	0

CASO SISMICO (SISMA ORIZZONTALE E VERTICALE VERSO IL BASSO)

SLOPE/W Analysis

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Project Settings

Length(L) Units: meters
Time(t) Units: Seconds
Force(F) Units: kN
Pressure(p) Units: kPa
Strength Units: kPa
Unit Weight of Water: 9.807 kN/m³
View: 2D

Analysis Settings

SLOPE/W Analysis

Kind: SLOPE/W
Method: Morgenstern-Price
Settings
Side Function
Interslice force function option: Half-Sine
Lambda
Lambda 1: -1
Lambda 2: -0.8
Lambda 3: -0.6
Lambda 4: -0.4
Lambda 5: -0.2

Lambda 6: 0
Lambda 7: 0.2
Lambda 8: 0.4
Lambda 9: 0.6
Lambda 10: 0.8
Lambda 11: 1
PWP Conditions Source: (none)
Slip Surface
Direction of movement: Right to Left
Use Passive Mode: No
Slip Surface Option: Entry and Exit
Critical slip surfaces saved: 1
Optimize Critical Slip Surface Location: No
Tension Crack
Tension Crack Option: (none)
F of S Distribution
F of S Calculation Option: Constant
Advanced
Number of Slices: 30
F of S Tolerance: 0.01
Minimum Slip Surface Depth: 0.1 m
Optimization Maximum Iterations: 2,000
Optimization Convergence Tolerance: 1e-007
Starting Optimization Points: 8
Ending Optimization Points: 16
Complete Passes per Insertion: 1
Driving Side Maximum Convex Angle: 5 °
Resisting Side Maximum Convex Angle: 1 °

Materials

Coltre

Model: Mohr-Coulomb
Unit Weight: 18 kN/m³
Cohesion': 0 kPa
Phi': 30 °
Phi-B: 0 °

CLS

Model: Undrained (Phi=0)
Unit Weight: 25 kN/m³
Cohesion': 5,000 kPa

Marnoso arenacea

Model: Mohr-Coulomb
Unit Weight: 21 kN/m³

Cohesion': 200 kPa
Phi': 35 °
Phi-B: 0 °

Slip Surface Entry and Exit

Left Projection: Range
Left-Zone Left Coordinate: (50, 35) m
Left-Zone Right Coordinate: (58, 37.57143) m
Left-Zone Increment: 20
Right Projection: Range
Right-Zone Left Coordinate: (61, 38.35714) m
Right-Zone Right Coordinate: (100, 48) m
Right-Zone Increment: 20
Radius Increments: 100

Slip Surface Limits

Left Coordinate: (0.14, 17.02) m
Right Coordinate: (100, 48) m

Seismic Loads

Horz Seismic Load: 0.09
Vert Seismic Load: -0.045
Ignore seismic load in strength: No

Points

	X (m)	Y (m)
Point 1	0	0
Point 2	0	17
Point 3	35	22
Point 4	50	22
Point 5	50	17
Point 6	51	17
Point 7	51	26
Point 8	51	35
Point 9	52	35
Point 10	59	38
Point 11	70.2	40

Point 12	73.2	41
Point 13	100	48
Point 14	100	0
Point 15	50	35
Point 16	77	42
Point 17	70.2	31
Point 18	100	39

Regions

	Material	Points	Area (m²)
Region 1	CLS	15,8,7,6,5,4	18
Region 2	Coltre	8,9,10,11,12,16,13,18,17,7	451.3
Region 3	Marnoso arenacea	1,2,3,4,5,6,7,17,18,14	2,619.7

Current Slip Surface

Slip Surface: 10,609
F of S: 1.173
F of S Rank: 1
Exit: (52.121283, 35.051978) m
Entry: (61, 38.357143) m
Radius: 44.398891 m
Center: (41.159668, 78.076443) m

Slip Slices

	X (m)	Y (m)	PWP (kPa)	Base Normal Stress (kPa)	Frictional Strength (kPa)	Cohesive Strength (kPa)
Slice 1	52.27082	35.090631	0	0.3918478	0.22623343	0
Slice 2	52.569895	35.16905	0	1.1686521	0.67472158	0
Slice 3	52.868969	35.249701	0	1.9235216	1.1105457	0
Slice 4	53.168044	35.332597	0	2.6508483	1.530468	0
Slice	53.467119	35.417751	0	3.3446372	1.9310272	0

5						
Slice 6	53.766193	35.505176	0	3.9989219	2.3087786	0
Slice 7	54.065268	35.594887	0	4.6081816	2.6605349	0
Slice 8	54.364343	35.686897	0	5.1677208	2.983585	0
Slice 9	54.663417	35.781223	0	5.6739758	3.2758715	0
Slice 10	54.962492	35.877878	0	6.1247239	3.536111	0
Slice 11	55.261567	35.976881	0	6.5191787	3.7638496	0
Slice 12	55.560641	36.078246	0	6.8579722	3.9594521	0
Slice 13	55.859716	36.181992	0	7.1430327	4.1240319	0
Slice 14	56.158791	36.288136	0	7.37738	4.2593323	0
Slice 15	56.457865	36.396696	0	7.5648619	4.3675751	0
Slice 16	56.75694	36.507691	0	7.709863	4.4512915	0
Slice 17	57.056015	36.621141	0	7.817009	4.5131522	0
Slice 18	57.355089	36.737066	0	7.8908909	4.555808	0
Slice 19	57.654164	36.855487	0	7.9358246	4.5817505	0
Slice 20	57.953239	36.976425	0	7.9556537	4.5931988	0
Slice 21	58.252313	37.099904	0	7.9535999	4.592013	0
Slice 22	58.551388	37.225945	0	7.9321574	4.5796332	0
Slice	58.850463	37.354572	0	7.8930274	4.5570415	0

23						
Slice 24	59.142857	37.482822	0	7.3468676	4.241716	0
Slice 25	59.428571	37.610603	0	6.2956484	3.6347943	0
Slice 26	59.714286	37.740814	0	5.2252137	3.0167785	0
Slice 27	60	37.873476	0	4.1292962	2.3840503	0
Slice 28	60.285714	38.008615	0	3.0011866	1.7327359	0
Slice 29	60.571428	38.146255	0	1.8339259	1.0588176	0
Slice 30	60.857142	38.286423	0	0.62050177	0.35824686	0

CASO SISMICO (SISMA ORIZZONTALE E VERTICALE VERSO L'ALTO)

SLOPE/W Analysis

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Project Settings

Length(L) Units: meters
Time(t) Units: Seconds
Force(F) Units: kN
Pressure(p) Units: kPa
Strength Units: kPa
Unit Weight of Water: 9.807 kN/m³
View: 2D

Analysis Settings

SLOPE/W Analysis

Kind: SLOPE/W
Method: Morgenstern-Price
Settings
Side Function
Interslice force function option: Half-Sine
Lambda
Lambda 1: -1
Lambda 2: -0.8
Lambda 3: -0.6
Lambda 4: -0.4
Lambda 5: -0.2
Lambda 6: 0
Lambda 7: 0.2
Lambda 8: 0.4
Lambda 9: 0.6
Lambda 10: 0.8
Lambda 11: 1
PWP Conditions Source: (none)
Slip Surface
Direction of movement: Right to Left
Use Passive Mode: No
Slip Surface Option: Entry and Exit
Critical slip surfaces saved: 1
Optimize Critical Slip Surface Location: No
Tension Crack
Tension Crack Option: (none)
F of S Distribution
F of S Calculation Option: Constant
Advanced
Number of Slices: 30
F of S Tolerance: 0.01
Minimum Slip Surface Depth: 0.1 m
Optimization Maximum Iterations: 2,000
Optimization Convergence Tolerance: 1e-007
Starting Optimization Points: 8
Ending Optimization Points: 16
Complete Passes per Insertion: 1
Driving Side Maximum Convex Angle: 5 °
Resisting Side Maximum Convex Angle: 1 °

Materials

Coltre

Model: Mohr-Coulomb
Unit Weight: 18 kN/m³

Cohesion': 0 kPa
Phi': 30 °
Phi-B: 0 °

CLS

Model: Undrained (Phi=0)
Unit Weight: 25 kN/m³
Cohesion': 5,000 kPa

Marnoso arenacea

Model: Mohr-Coulomb
Unit Weight: 21 kN/m³
Cohesion': 200 kPa
Phi': 35 °
Phi-B: 0 °

Slip Surface Entry and Exit

Left Projection: Range
Left-Zone Left Coordinate: (50, 35) m
Left-Zone Right Coordinate: (58, 37.57143) m
Left-Zone Increment: 20
Right Projection: Range
Right-Zone Left Coordinate: (61, 38.35714) m
Right-Zone Right Coordinate: (100, 48) m
Right-Zone Increment: 20
Radius Increments: 100

Slip Surface Limits

Left Coordinate: (0.14, 17.02) m
Right Coordinate: (100, 48) m

Seismic Loads

Horz Seismic Load: 0.09
Vert Seismic Load: 0.045
Ignore seismic load in strength: No

Points

	X (m)	Y (m)
Point 1	0	0
Point 2	0	17
Point 3	35	22

Point 4	50	22
Point 5	50	17
Point 6	51	17
Point 7	51	26
Point 8	51	35
Point 9	52	35
Point 10	59	38
Point 11	70.2	40
Point 12	73.2	41
Point 13	100	48
Point 14	100	0
Point 15	50	35
Point 16	77	42
Point 17	70.2	31
Point 18	100	39

Regions

	Material	Points	Area (m²)
Region 1	CLS	15,8,7,6,5,4	18
Region 2	Coltre	8,9,10,11,12,16,13,18,17,7	451.3
Region 3	Marnoso arenacea	1,2,3,4,5,6,7,17,18,14	2,619.7

Current Slip Surface

Slip Surface: 10,609
F of S: 1.197
F of S Rank: 1
Exit: (52.121283, 35.051978) m
Entry: (61, 38.357143) m
Radius: 44.398891 m
Center: (41.159668, 78.076443) m

Slip Slices

	X (m)	Y (m)	PWP (kPa)	Base Normal Stress (kPa)	Frictional Strength (kPa)	Cohesive Strength (kPa)
Slice	52.27082	35.090631	0	0.42958483	0.24802092	0

1						
Slice 2	52.569895	35.16905	0	1.2806825	0.7394024	0
Slice 3	52.868969	35.249701	0	2.1070519	1.216507	0
Slice 4	53.168044	35.332597	0	2.9027477	1.6759022	0
Slice 5	53.467119	35.417751	0	3.661455	2.113942	0
Slice 6	53.766193	35.505176	0	4.3769189	2.5270153	0
Slice 7	54.065268	35.594887	0	5.0433719	2.9117921	0
Slice 8	54.364343	35.686897	0	5.6559192	3.2654465	0
Slice 9	54.663417	35.781223	0	6.2108499	3.5858358	0
Slice 10	54.962492	35.877878	0	6.7058455	3.8716217	0
Slice 11	55.261567	35.976881	0	7.1400757	4.1223246	0
Slice 12	55.560641	36.078246	0	7.5141773	4.3383123	0
Slice 13	55.859716	36.181992	0	7.8301302	4.5207278	0
Slice 14	56.158791	36.288136	0	8.0910488	4.6713692	0
Slice 15	56.457865	36.396696	0	8.3009149	4.7925355	0
Slice 16	56.75694	36.507691	0	8.4642811	4.886855	0
Slice 17	57.056015	36.621141	0	8.5859693	4.9571117	0
Slice 18	57.355089	36.737066	0	8.6707879	5.0060817	0
Slice	57.654164	36.855487	0	8.7232819	5.0363891	0

19						
Slice 20	57.953239	36.976425	0	8.7475259	5.0503864	0
Slice 21	58.252313	37.099904	0	8.746964	5.050062	0
Slice 22	58.551388	37.225945	0	8.7242925	5.0369726	0
Slice 23	58.850463	37.354572	0	8.681384	5.0121994	0
Slice 24	59.142857	37.482822	0	8.0804722	4.6652628	0
Slice 25	59.428571	37.610603	0	6.9239313	3.9975336	0
Slice 26	59.714286	37.740814	0	5.7460452	3.3174807	0
Slice 27	60	37.873476	0	4.5401654	2.6212657	0
Slice 28	60.285714	38.008615	0	3.299142	1.9047605	0
Slice 29	60.571428	38.146255	0	2.0155282	1.1636657	0
Slice 30	60.857142	38.286423	0	0.68179085	0.39363213	0