

COMMITTENTE:



PROGETTAZIONE:



**U.O. OPERE CIVILI**

**PROGETTO DEFINITIVO**

**RADDOPPIO DELLA LINEA GENOVA – VENTIMIGLIA  
TRATTA FINALE LIGURE - ANDORA**

**OPERE PRINCIPALI - PONTI e CAVALCAFERROVIA**

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

SCALA:

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COMMESSA	LOTTO	FASE	ENTE	TIPO DOC.	OPERA/DISCIPLINA	PROGR.	REV.
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Rev.	Descrizione	Redatto	Data	Verificato	Data	Approvato	Data	Autorizzato Data
A	Emissione esecutiva	K. Petrucci	Gen.2022	D. Guerci	Gen.2022	D. Fadda	Gen.2022	A. VITTOZZI Gen.2022

ITALFERR S.p.A.  
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N° 420783

File: IV0I00D09CLIV0204001A n. Elab.:

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## 1 PREMESSA

La presente relazione ha per oggetto la descrizione dei calcoli eseguiti per il dimensionamento delle spalle del cavalcavia IV02, ponte stradale su Torrente Giustenice , nell'ambito del raddoppio della linea Genova-Ventimiglia, tratta Finale Ligure-Andora.

## 2 DESCRIZIONE GENERALE

Le spalle in oggetto sono costituite da paratie di pali di diametro 1200 mm ad interasse di 1.30 m e di lunghezza pari a 25 m. In direzione ortogonale alle paratie sono presenti 4 speroni (2 di estremità e 2 centrali), posti ad interasse di circa 6 m, aventi sporgenza verso monte di circa 3m e spessore di 1.55 m per gli speroni centrali e 1.65 m per gli speroni di estremità. I cordoli seguono l'andamento delle spalle per una lunghezza complessiva di 19.85 m ed hanno dimensioni della sezione trasversale pari a 1.5 m di larghezza e 1.5 m di altezza. Il muro paraghiaia, invece, è alto circa 1.40 m, ha uno spessore di 0.50 m e lunghezza pari a quella dei cordoli. Sulle spalle poggia un impalcato in acciaio a via inferiore, con doppia passerella pedonale laterale, per ulteriori dettagli si rimanda alla relazione di calcolo dell'impalcato (IV0100D09CLIV0209001).

### 3 NORMATIVE DI RIFERIMENTO

#### 3.1 Normativa e istruzioni

La progettazione è conforme alle normative vigenti:

- DM 17 gennaio 2018: *Aggiornamento delle "Norme Tecniche per le Costruzioni"*(nel seguito **NTC18**);
- Circolare 21 gennaio 2019, n.7 C.S.LL.PP: *istruzioni per l'applicazione delle NTC 2018 (nel seguito circ. NTC18)*;
- RFICTCSIMAIIFS001\_E: *Manuale di progettazione delle opere civili, 31/12/2020*;
- *Regolamento (UE) N. 1299/2014 della Commissione del 18 novembre 2014 relativo alle specifiche tecniche di interoperabilità per il sottosistema "infrastruttura" del sistema ferroviario dell'Unione europea, modificato dal Regolamento di esecuzione (UE) N° 2019/776 della Commissione del 16 maggio 2019*;
- *Regolamento (UE) 2016/919 della Commissione del 27 maggio 2016 relativo alla specifica tecnica di interoperabilità per i sottosistemi "controllo-comando e segnalamento" del sistema ferroviario nell'Unione europea*;
- UNI EN 1991-2 (nel seguito EN91);
- UNI EN 1992-1-1:2015 (nel seguito EN92);
- UNI EN 1997-1: *Progettazione Geotecnica – Parte 1: Regole generali*;
- UNI EN 1998-5: *Progettazione delle strutture per la resistenza sismica – Parte 5: Fondazione, strutture di contenimento ed aspetti geotecnici*;
- *Linee Guida per la progettazione di ponti e viadotti stradali a travata, Settembre 2012 (nel seguito LG ANAS)*.

## 4 CARATTERISTICHE DEI MATERIALI IMPIEGATI

### 4.1 Calcestruzzo

#### 4.1.1 Pali di fondazione

Classe di resistenza C25/30

Classe d'esposizione: XC2

Copriferro netto minimo:  $c = 60\text{mm}$

$$R_{ck} = 30 \text{ N/mm}^2$$

$$f_{ck} = 0,83 \cdot R_{ck} = 24.9 \text{ N/mm}^2$$

$$\text{Resistenza di calcolo a compressione: } f_{cd} = f_{ck} \cdot \alpha_{cc} / \gamma_c = 24.9 \cdot 0,85 / 1,5 = 14.11 \text{ N/mm}^2$$

$$\text{Resistenza di calcolo a trazione: } f_{ctm} = 0,30 \cdot f_{ck}^{(2/3)} = 2.56 \text{ N/mm}^2$$

$$\text{Modulo elastico: } E = 22000 [f_{cm}/10]^{0.3} = 31447,16 \text{ MPa}$$

#### 4.1.2 Cordoli

Classe di resistenza C32/40

Classe d'esposizione: XC2

Copriferro netto minimo:  $c = 40\text{mm}$

$$R_{ck} = 40 \text{ N/mm}^2$$

$$f_{ck} = 0,83 \cdot R_{ck} = 33.20 \text{ N/mm}^2$$

$$\text{Resistenza di calcolo a compressione: } f_{cd} = f_{ck} \cdot \alpha_{cc} / \gamma_c = 33.20 \cdot 0,85 / 1,5 = 18.81 \text{ N/mm}^2$$

$$\text{Resistenza di calcolo a trazione: } f_{ctm} = 0,30 \cdot f_{ck}^{(2/3)} = 3.10 \text{ N/mm}^2$$

$$\text{Modulo elastico: } E = 22000 [f_{cm}/10]^{0.3} = 33642.78 \text{ MPa}$$

### 4.2 Acciaio

#### 4.2.1 Acciaio per cemento armato

Si utilizzano barre ad aderenza migliorata in acciaio con le seguenti caratteristiche meccaniche:

#### Acciaio B450C

tensione caratteristica di snervamento

$$f_{yk} = 450 \text{ N/mm}^2;$$

tensione caratteristica di rottura

$$f_{tk} = 540 \text{ N/mm}^2;$$

resistenza di calcolo a trazione

$$f_{yd} = 391.30 \text{ N/mm}^2;$$

modulo elastico

$$E_s = 206000 \text{ N/mm}^2.$$

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## 5 STRATIGRAFIA E PARAMETRI GEOTECNICI

Il terreno, per le profondità d'interesse, è caratterizzato da tre unità per cui si adottano i seguenti parametri:

Unità	Descrizione	Prof top m slm	$\gamma$ kN/mc	$\phi$ °	$c'$ kPa	$c_u$ kPa	E MPa
1	Terreno di riporto costituito da ghiaia in matrice sabbio-limosa, con clasti da eterometrici a spigolosi	+14.5	19	31	0	-	10
2	Sabbia con ghiaia debolmente limosa o ghiaia con sabbia limosa, con clasti prevalentemente angolari, eterometrici e poligenici	+12.0	20	33 per $z > 1m$ slm 35 per $z < 1m$ slm	0	-	35 per $z > 1m$ slm 35-45 per $z < 1m$ slm
3	Limo sabbioso ghiaioso	-4	21	27	20	60	10-15
2	Sabbia con ghiaia debolmente limosa o ghiaia con sabbia limosa, con clasti prevalentemente angolari, eterometrici e poligenici	-9	20	35	0	-	50-60
3	Limo sabbioso ghiaioso	-22	21	27	20	80-100	15-20

Per i dettagli si rimanda alla relazione geotecnica generale.

Per il rilevato a monte sono stati assunti i seguenti parametri:

- $\gamma = 19 \text{ kN/m}^3$
- $\phi = 35^\circ$

La falda è posta a +8.0 m slm.

## 6 MODELLO DI CALCOLO

L'analisi della paratia è stata svolta con il programma di calcolo PARATIE PLUS della CeAS S.r.l. I files di input e output dei modelli utilizzati sono riportati in allegato.

Il modello si riferisce ad una porzione di paratia di larghezza unitaria (1m).

Per considerare la presenza del vincolo offerto dal cordolo collegato ai pali posti in direzione perpendicolare, nel modello è stata inserita una molla in testa alla paratia.

Per determinare la rigidità di tale molla, è stata prima valutata la rigidità dei pali posti ortogonalmente all'asse della paratia, successivamente è stato considerato uno schema statico di trave appoggiata in corrispondenza degli speroni modellati come molle di rigidità pari a quella precedentemente calcolata.



Applicando a tale schema di calcolo un valore della forza unitario si è valutato lo spostamento corrispondente e, tenendo conto della relazione  $F=k*u$  ove "k" è la rigidità e "u" lo spostamento ottenuto, si è ottenuto il valore della rigidità.

F	1	KN
u	0.00001923	m
k	52002	KN/m

La rigidità ottenuta è pari a circa 52000 kN/m. Questo è il valore inserito nel modello di Paratie.

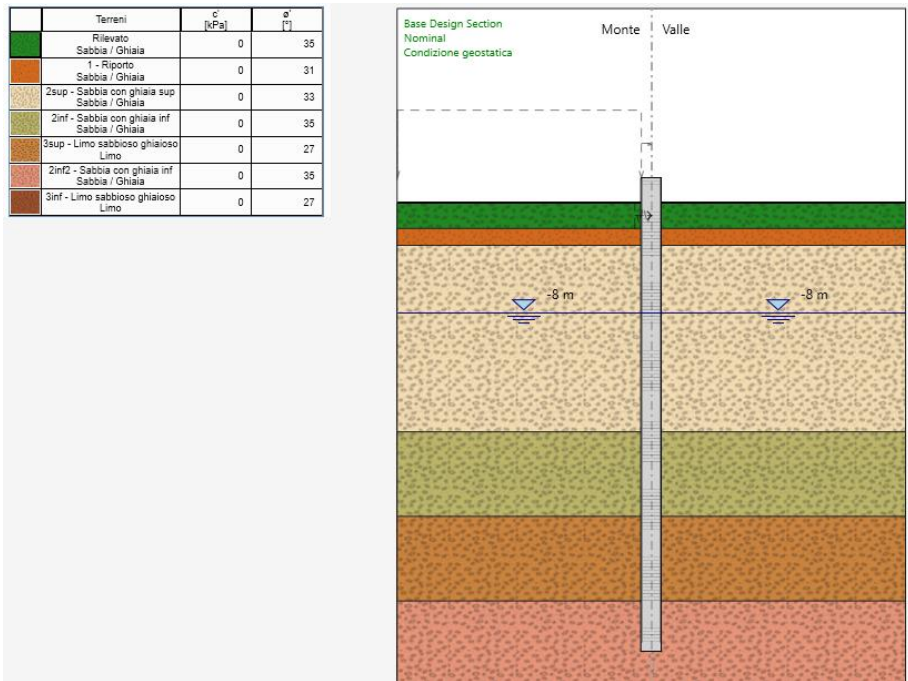


Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

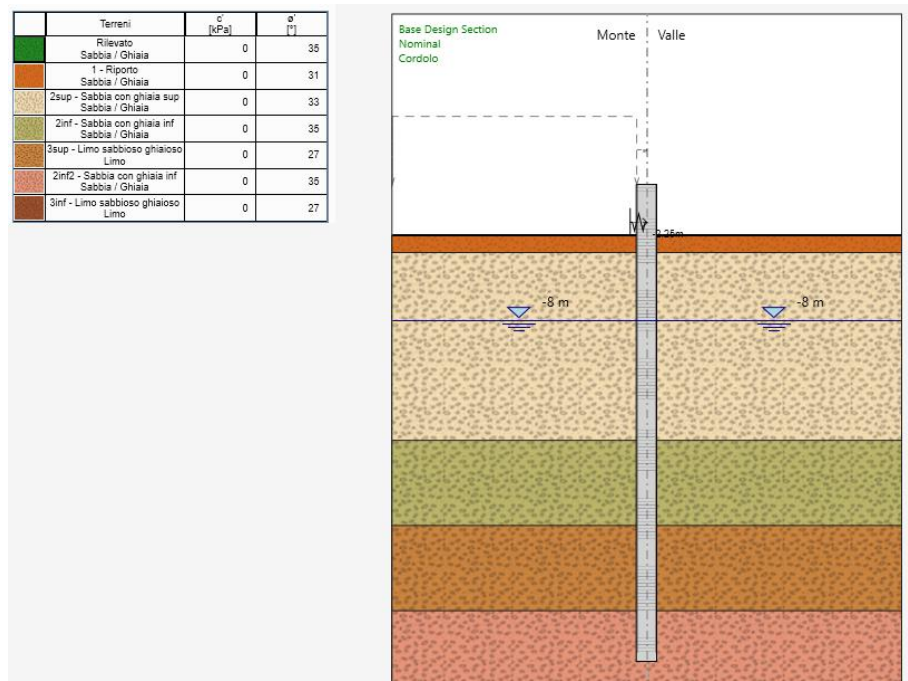
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Di seguito si riportano le fasi considerate nel calcolo:

Fase 1: Condizioni geostatiche



Fase 2: Realizzazione cordolo (inserimento molla)

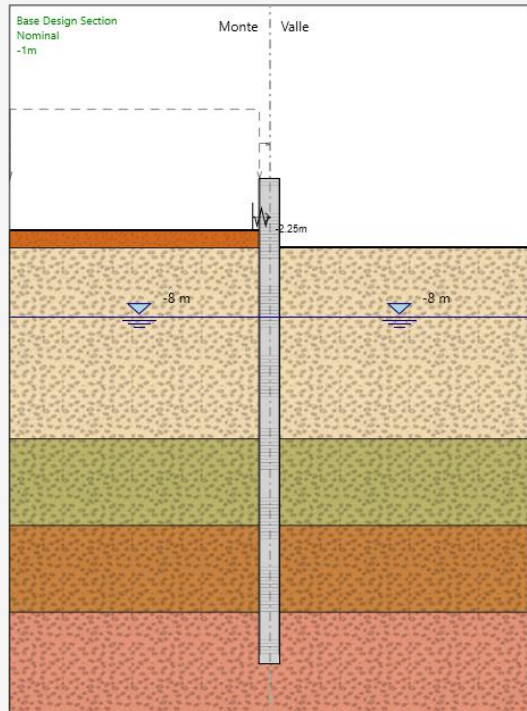


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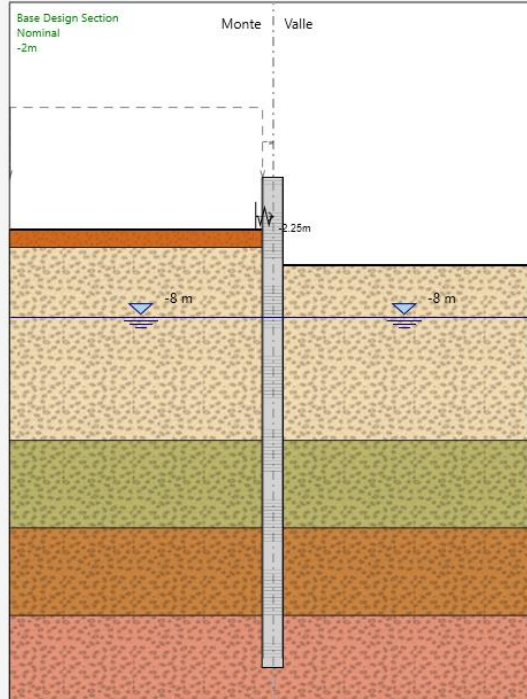
Fase 3: Scavo fino a -1m

Terreni	c' [kPa]	$\phi'$ [°]
Rilevato Sabbia / Ghiaia	0	35
1 - Riporto Sabbia / Ghiaia	0	31
2sup - Sabbia con ghiaia sup Sabbia / Ghiaia	0	33
2inf - Sabbia con ghiaia inf Sabbia / Ghiaia	0	35
3sup - Limo sabbioso ghiaioso Limo	0	27
2inf2 - Sabbia con ghiaia inf Sabbia / Ghiaia	0	35
3inf - Limo sabbioso ghiaioso Limo	0	27



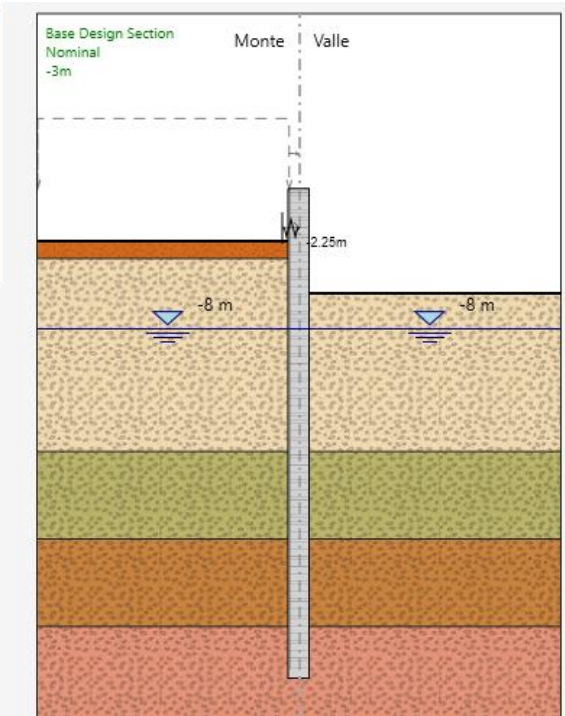
Fase 4: Scavo fino a quota - 2 m

Terreni	c' [kPa]	$\phi'$ [°]
Rilevato Sabbia / Ghiaia	0	35
1 - Riporto Sabbia / Ghiaia	0	31
2sup - Sabbia con ghiaia sup Sabbia / Ghiaia	0	33
2inf - Sabbia con ghiaia inf Sabbia / Ghiaia	0	35
3sup - Limo sabbioso ghiaioso Limo	0	27
2inf2 - Sabbia con ghiaia inf Sabbia / Ghiaia	0	35
3inf - Limo sabbioso ghiaioso Limo	0	27



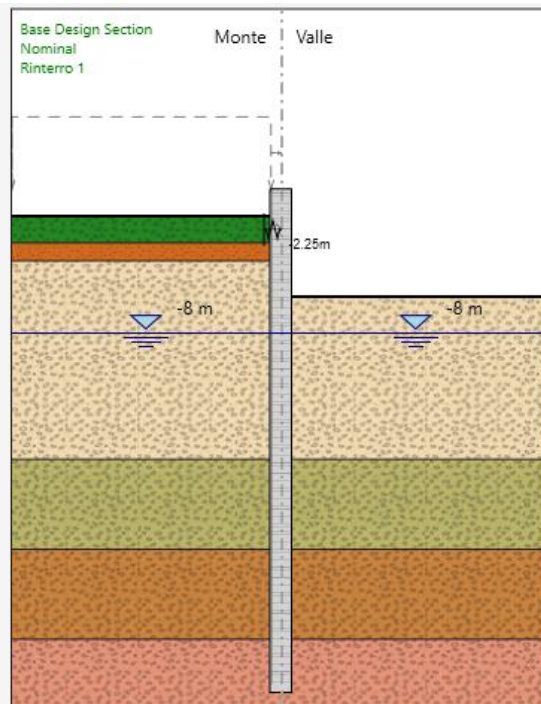
Fase 5: Scavo fino a quota -3.0m

	Terreni	$c'$ [kPa]	$\phi'$ [°]
	Rilevato Sabbia / Ghiaia	0	35
	1 - Riporto Sabbia / Ghiaia	0	31
	2sup - Sabbia con ghiaia sup Sabbia / Ghiaia	0	33
	2inf - Sabbia con ghiaia inf Sabbia / Ghiaia	0	35
	3sup - Limo sabbioso ghiaioso Limo	0	27
	2inf2 - Sabbia con ghiaia inf Sabbia / Ghiaia	0	35
	3inf - Limo sabbioso ghiaioso Limo	0	27



Fase 6: Rinterro parziale

	Terreni	$c'$ [kPa]	$\phi'$ [°]
	Rilevato Sabbia / Ghiaia	0	35
	1 - Riporto Sabbia / Ghiaia	0	31
	2sup - Sabbia con ghiaia sup Sabbia / Ghiaia	0	33
	2inf - Sabbia con ghiaia inf Sabbia / Ghiaia	0	35
	3sup - Limo sabbioso ghiaioso Limo	0	27
	2inf2 - Sabbia con ghiaia inf Sabbia / Ghiaia	0	35
	3inf - Limo sabbioso ghiaioso Limo	0	27

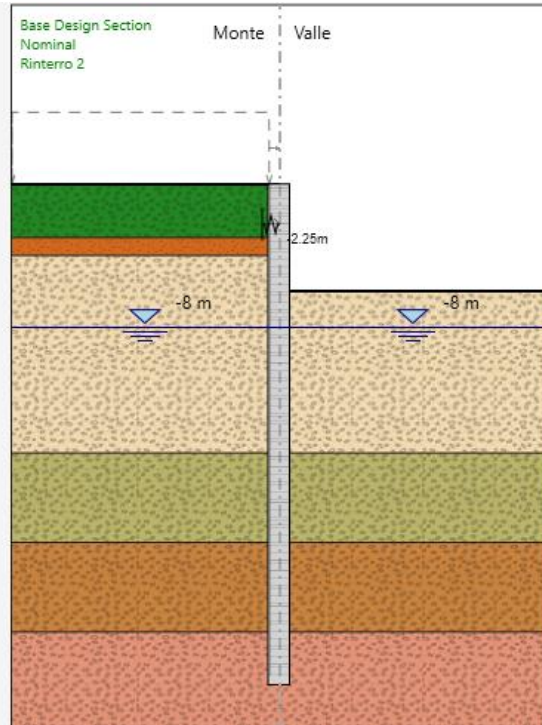


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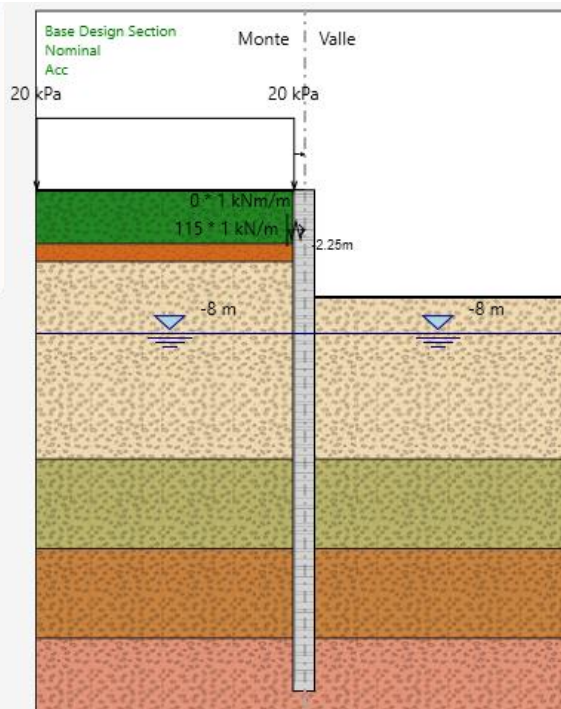
Fase 7: Completamento rinterro (rilevato)

	Terreni	c' [kPa]	$\phi'$ [°]
	Rilevato Sabbia / Ghiaia	0	35
	1 - Riporto Sabbia / Ghiaia	0	31
	2sup - Sabbia con ghiaia sup Sabbia / Ghiaia	0	33
	2inf - Sabbia con ghiaia inf Sabbia / Ghiaia	0	35
	3sup - Limo sabbioso ghiaioso Limo	0	27
	2inf2 - Sabbia con ghiaia inf Sabbia / Ghiaia	0	35
	3inf - Limo sabbioso ghiaioso Limo	0	27

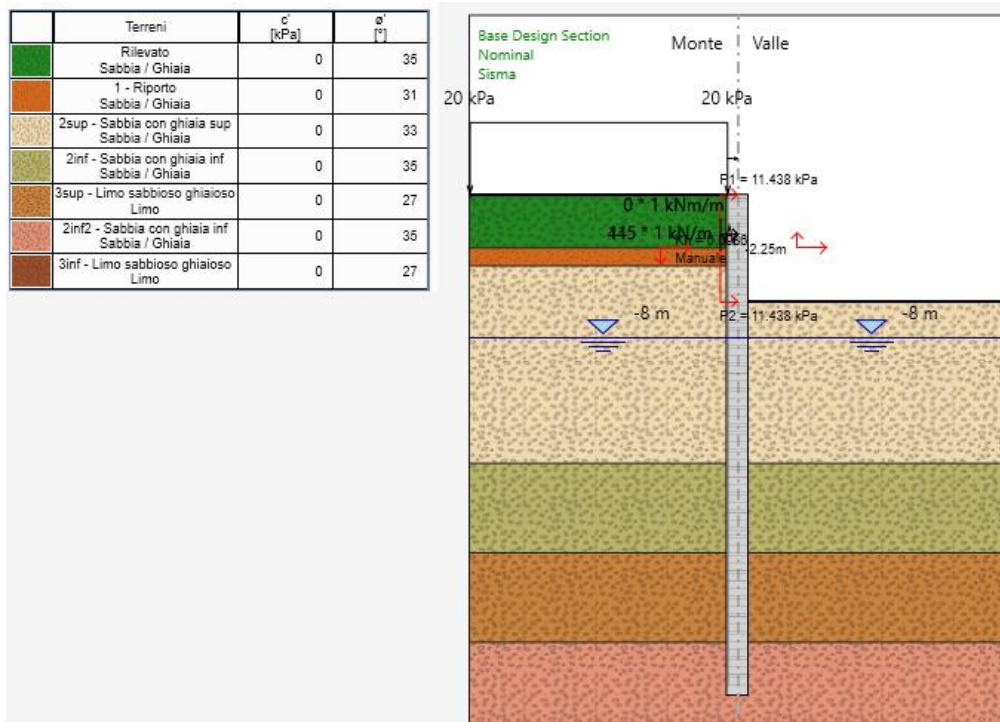


Fase 8: Transito accidentali (a monte e sull'impalcato)

	Terreni	c' [kPa]	$\phi'$ [°]
	Rilevato Sabbia / Ghiaia	0	35
	1 - Riporto Sabbia / Ghiaia	0	31
	2sup - Sabbia con ghiaia sup Sabbia / Ghiaia	0	33
	2inf - Sabbia con ghiaia inf Sabbia / Ghiaia	0	35
	3sup - Limo sabbioso ghiaioso Limo	0	27
	2inf2 - Sabbia con ghiaia inf Sabbia / Ghiaia	0	35
	3inf - Limo sabbioso ghiaioso Limo	0	27



### Fase 9: Sisma



A monte della paratia è stato applicato il carico accidentale dovuto al traffico.

Sul cordolo in testa alla paratia sono stati considerati anche gli scarichi dell'impalcato, in particolare è stata applicata una forza orizzontale pari a pari a 115 kN/m distribuiti lungo il cordolo.

Per i dettagli si rimanda alla relazione dell'impalcato (IV0I00D09CLIV020A001). Le azioni sono state diffuse fino alla quota dei pali considerando una diffusione a 45°.

Il sisma è stato modellato considerando il comportamento della paratia flessibile calcolando la spinta secondo la teoria di Mononobe-Okabe. L'azione proveniente dall'impalcato è stata assunta pari a quella agente in corrispondenza del plateau dello spettro considerando un fattore di comportamento  $q$  pari a  $1.5/1.1=1.36$ .

Nel calcolo è stato considerato:

- categoria di sottosuolo
- categoria topografica T1
- vita nominale 75 anni
- Classe d'uso III ( $C_U = 1.5$ ).

Nella schermata seguente si riporta il dettaglio utilizzato nel modello di calcolo:

Opzioni Sisma (attive solo nell'ultima fase)

Includi Azione Sismica

1. Definizione accelerazione

Coefficiente accel. base  $a_g / g$

Fattore importanza I

Coefficiente  $S_s$

Coefficiente  $S_T$

$a_{max} / g =$

2. Accelerazione di calcolo

Eurocodice

Calcolo coefficiente di risposta R

Input diretto

Da formule

$U_s$   m  $T_c$   m/s

$V_{max}$   m/s  $V_{max}/a_{max}$   >

R=  >

NTC

$U_s =$   m

$\beta =$   >

$\alpha =$   >

$k_h = \alpha \beta a_{max}$

3. Definizione calcolo

Modalità spinta  Paratia fuori terra  
 Paratia intera

Comportamento idraulico  Terreno pervio  
 Terreno impervio

$k_{vu}$  (% kh)

$k_{vd}$  (% kh)

$R_u$

Includi inerzia paratia

4. Metodo di calcolo

Procedura Automatica (Paratie)

Pressione di Wood [0-1]

Valore Applicato

Manuale (Carichi Esterni)

Comportamento Paratia

Flessibile (usa kh)  
 Rigido (usa  $a_{max}$ )

Metodo

Wood  
 Mononobe-Okabe  
 Semirigido

B=

$\alpha_1 =$

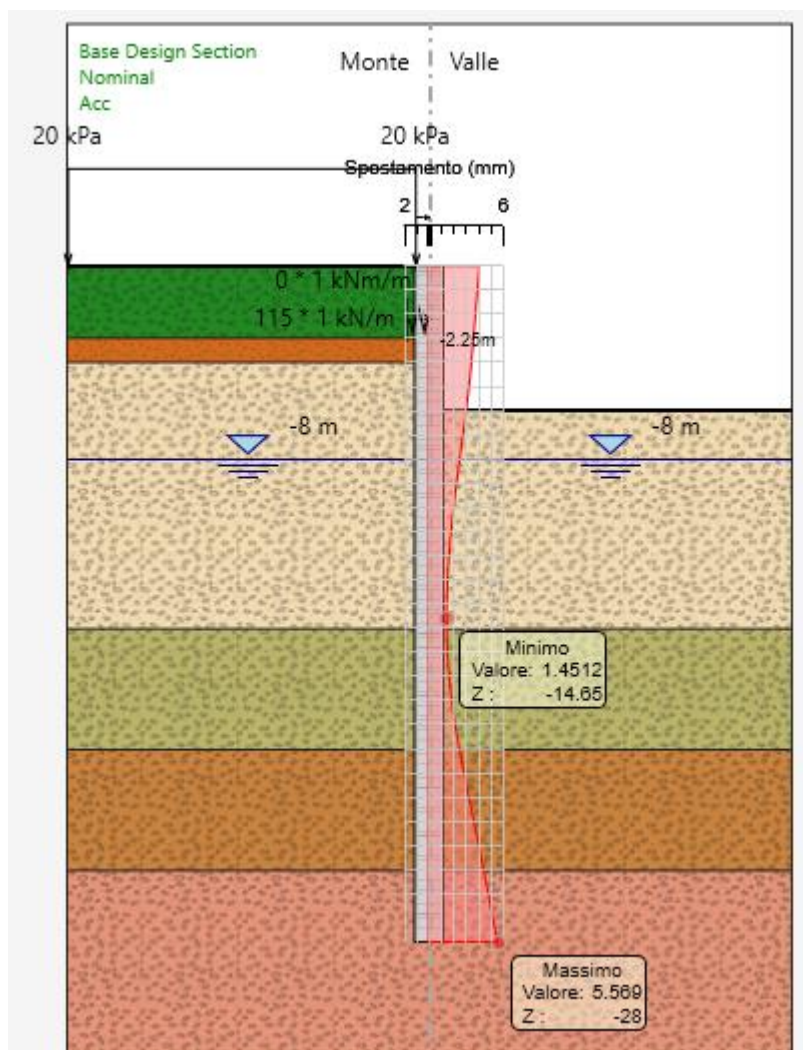
$\alpha_2 =$

Correlazione  $\alpha_1 - \alpha_2$

## 7 VERIFICHE DI DEFORMABILITA'

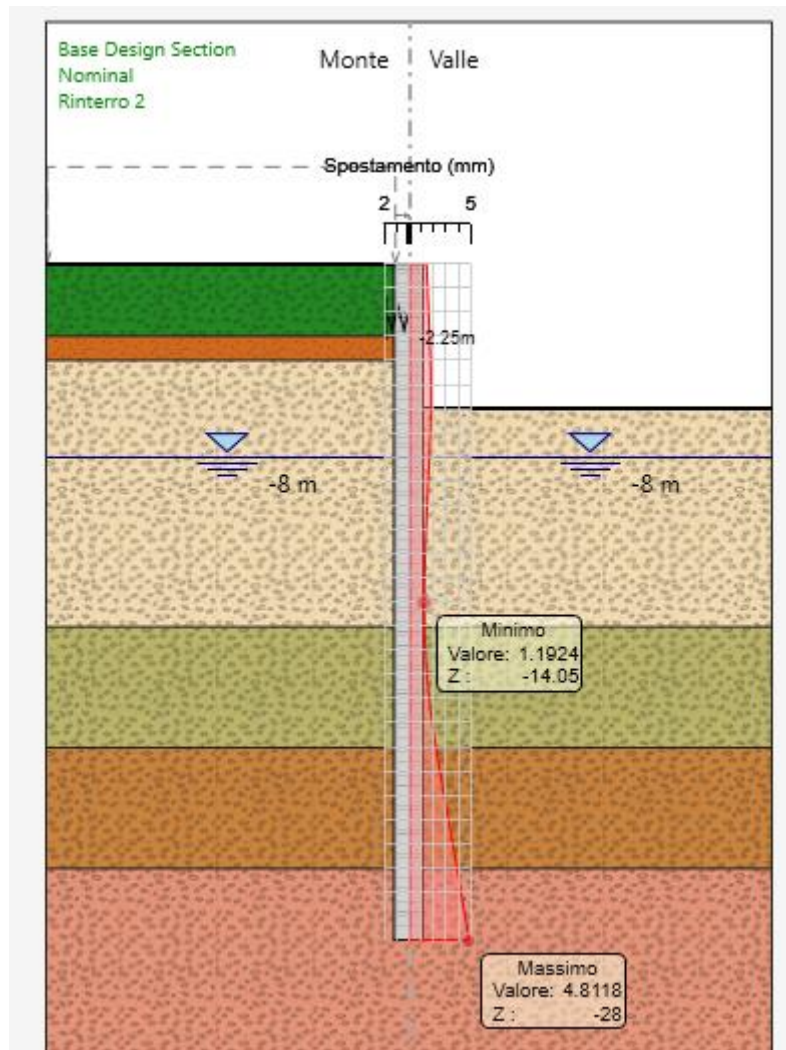
Nel seguito si riportano i massimi spostamenti attesi per la paratia in oggetto.

- In condizione statica (fase 8, con transito degli accidentali)



Il valore massimo dello spostamento è pari a circa 5.57mm, valore che si ritiene accettabile.

- In condizione statica (fase 7, senza transito degli accidentali)



Il massimo spostamento è pari a 4.81 mm.

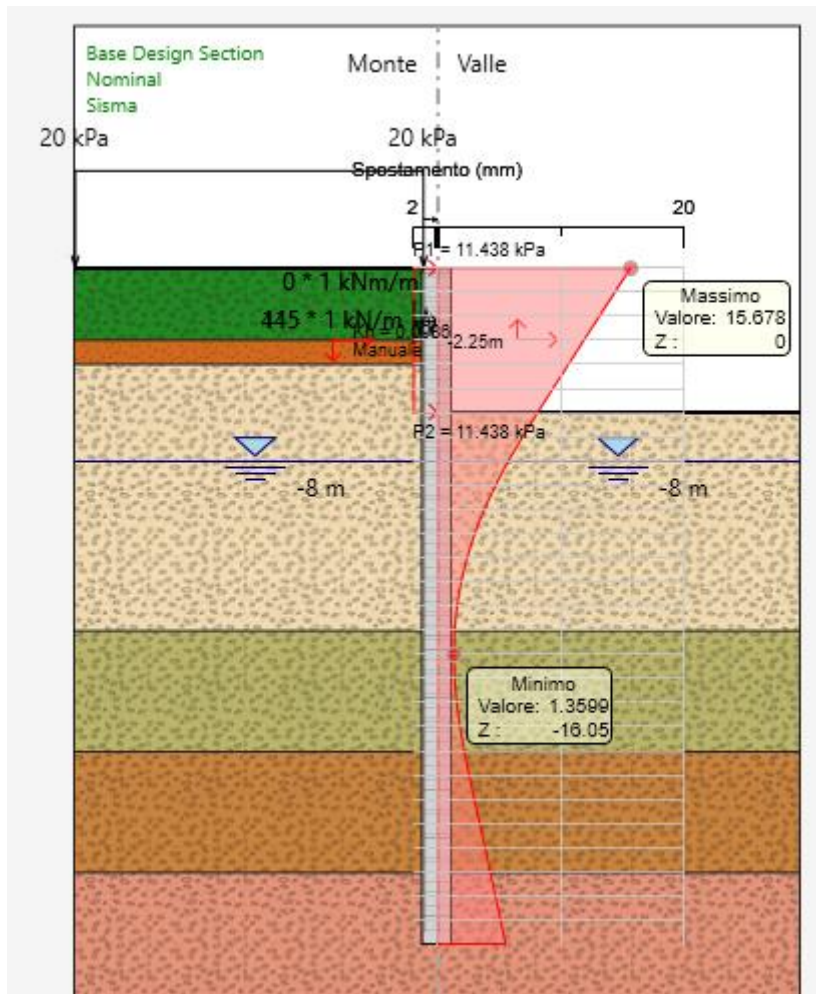
Pertanto, per effetto del transito degli accidentali si hanno  $5.57 - 4.81 = 0.76$  mm di spostamento, valore che si ritiene del tutto accettabile.



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- In condizione sismica



Il valore massimo dello spostamento è pari a circa 15.68mm, valore che si ritiene accettabile.

## 8 VERIFICHE STRUTTURALI

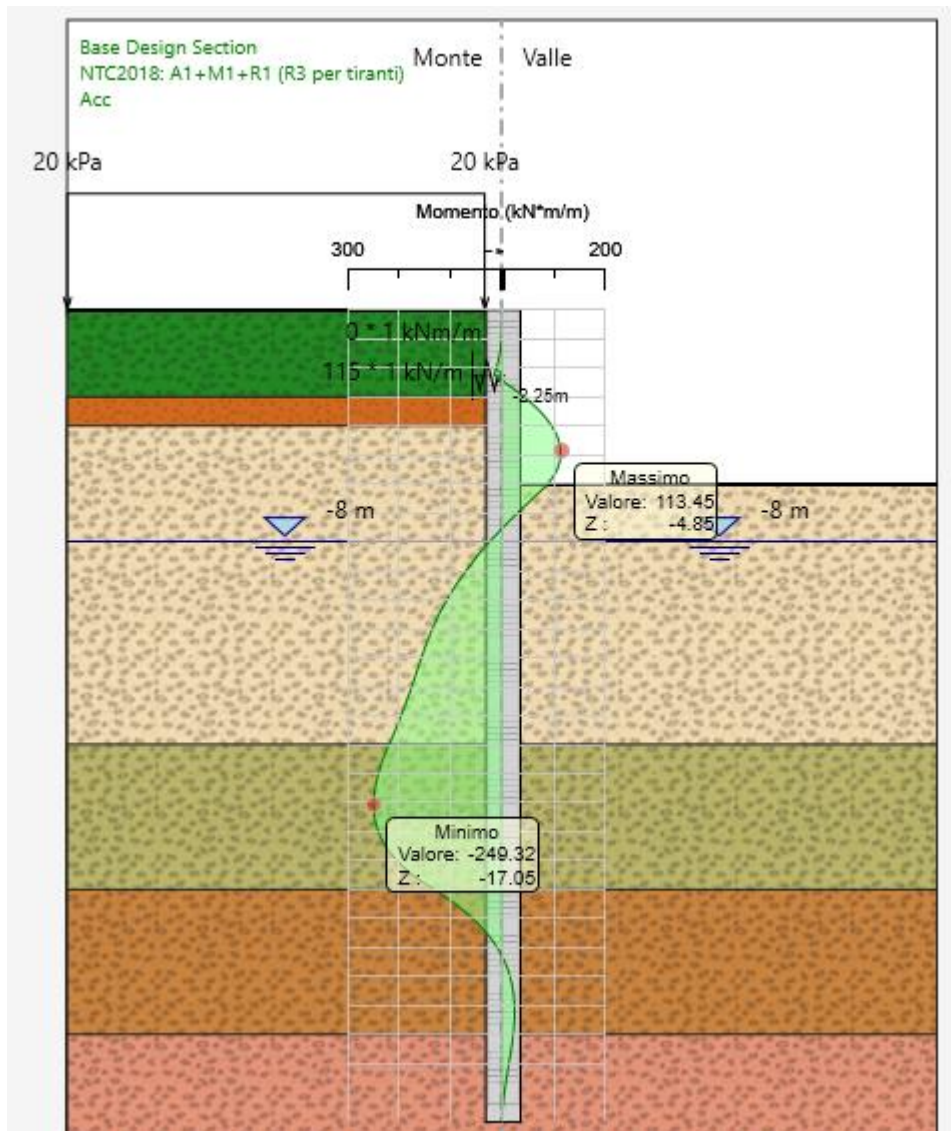
Nel seguito si riportano le verifiche strutturali della paratia effettuate in condizioni A1+M1 e in condizioni sismiche.

Le armature dei pali delle paratie sono state dimensionate in riferimento al palo più sollecitato.

### 8.1 Pali

#### 8.1.1 Sollecitazioni sui pali

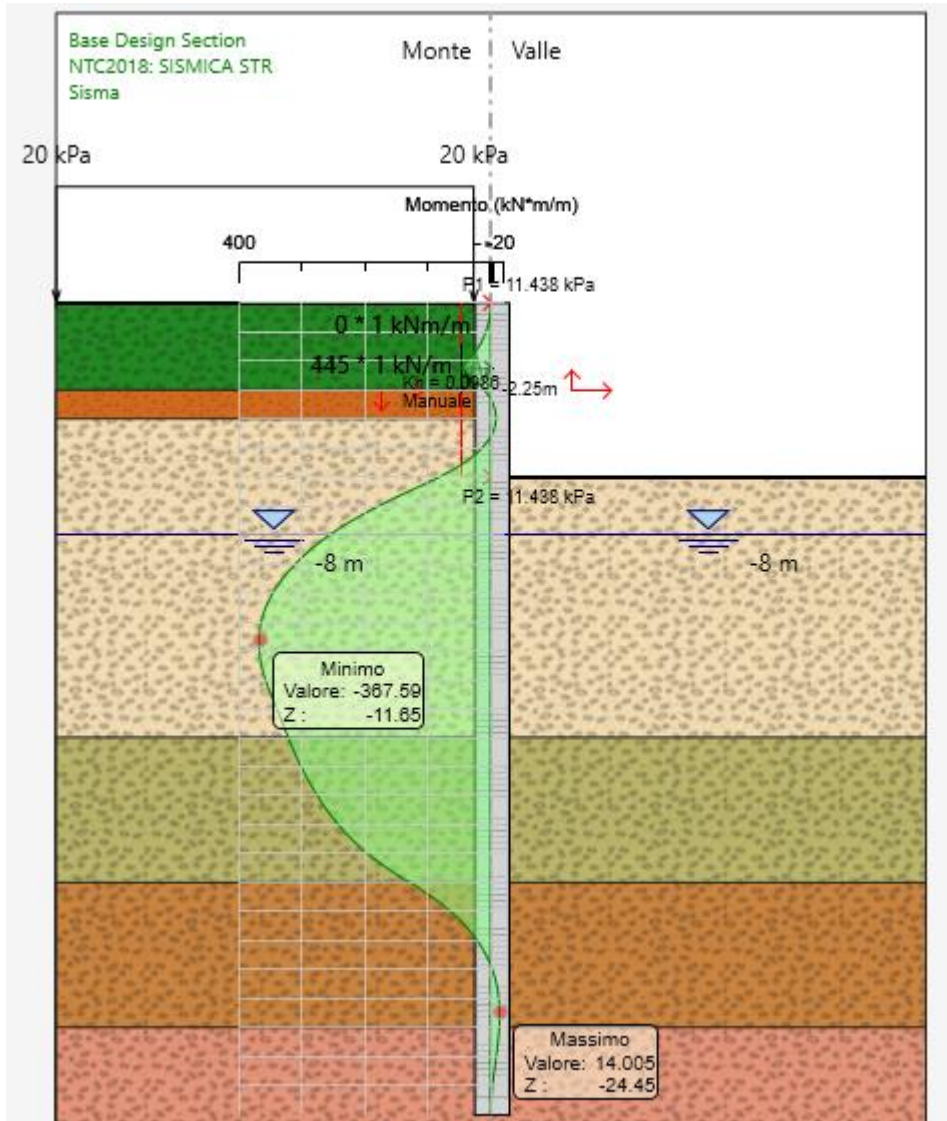
Il massimo momento nella combinazione A1+M1+R1 vale  $M_{A1+M1+R1} = 249.32$  kNm/m, come riportato nella seguente figura:



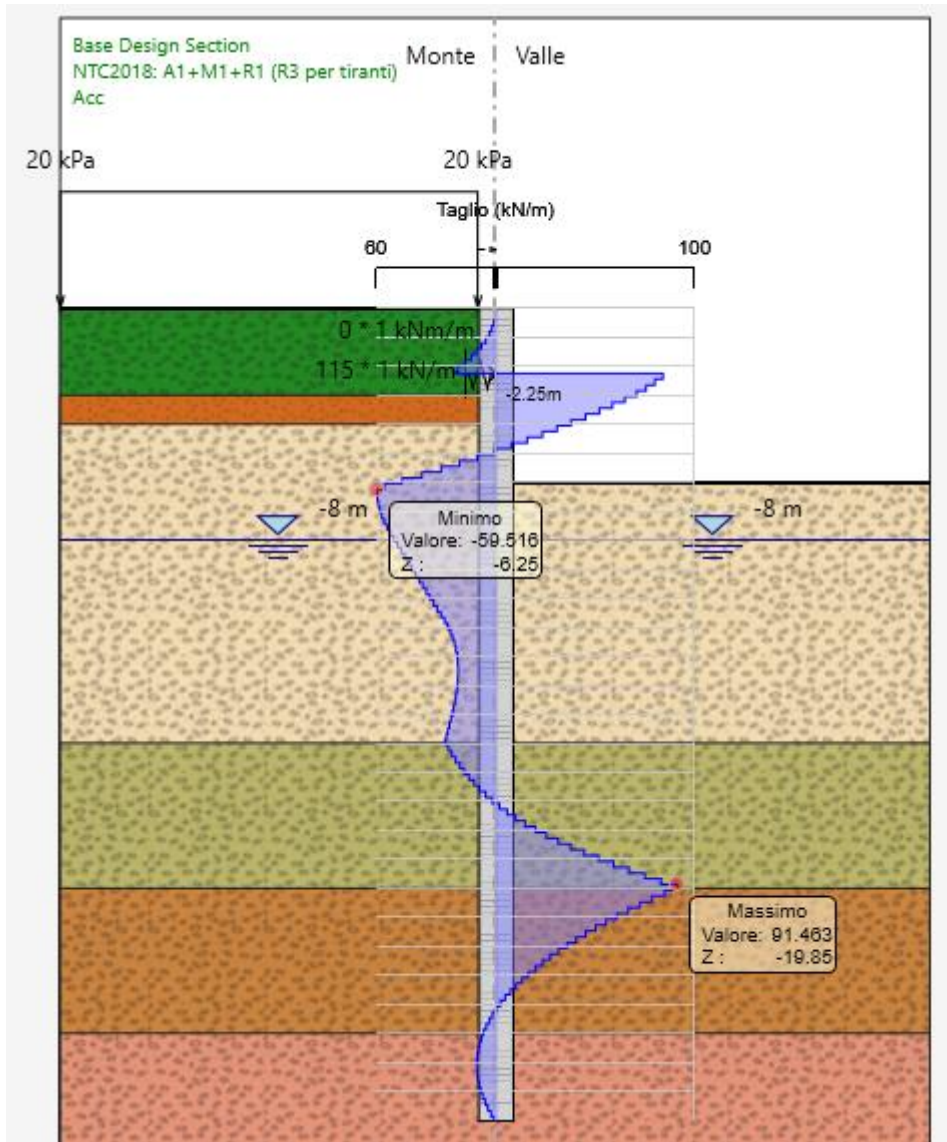
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Il massimo momento nella combinazione SISMICA STR vale  $M_{SISMICA STR} = 367.59 \text{ kNm/m}$ , come riportato nella seguente figura:



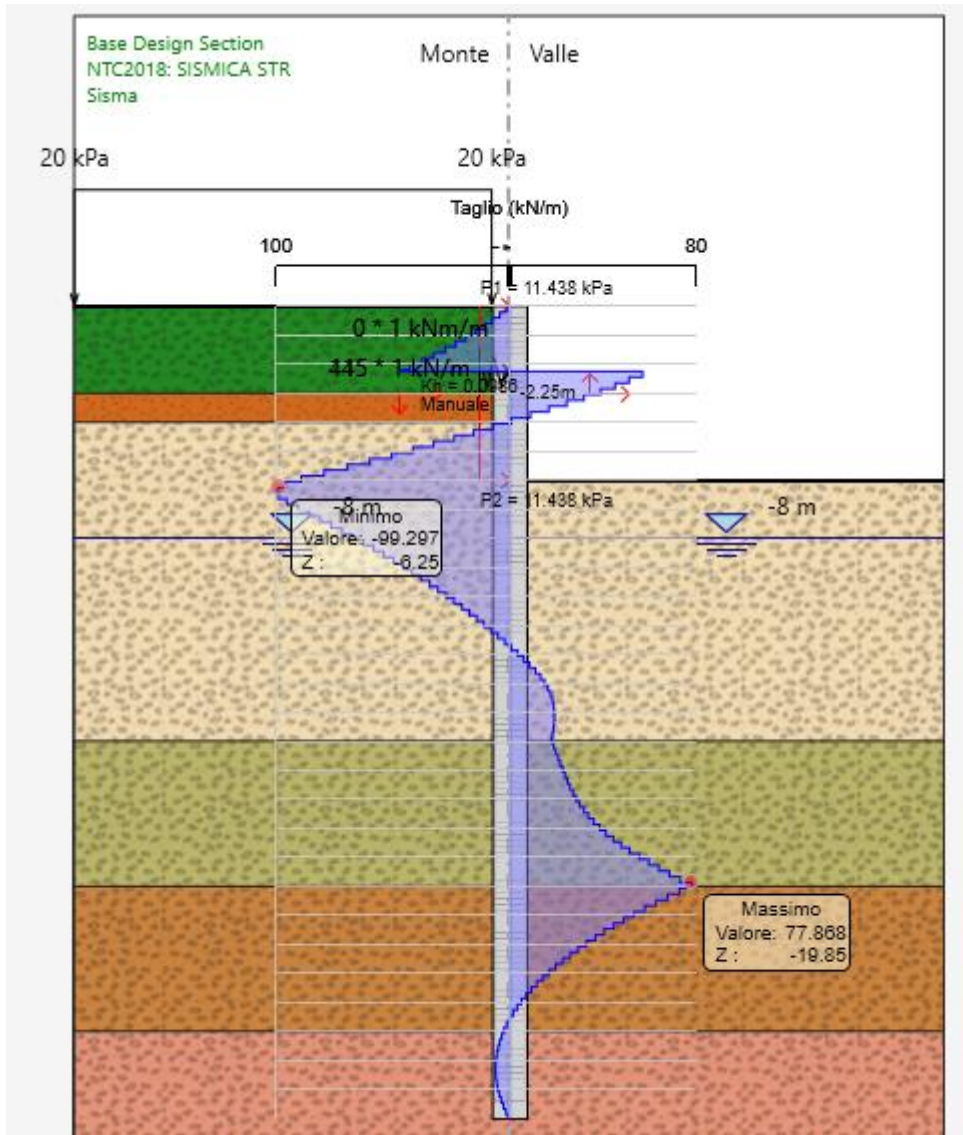
Il massimo taglio nella combinazione A1+M1+R1 vale  $T_{A1+M1+R1} = 91.46 \text{ kN/m}$ , come riportato nella seguente figura:



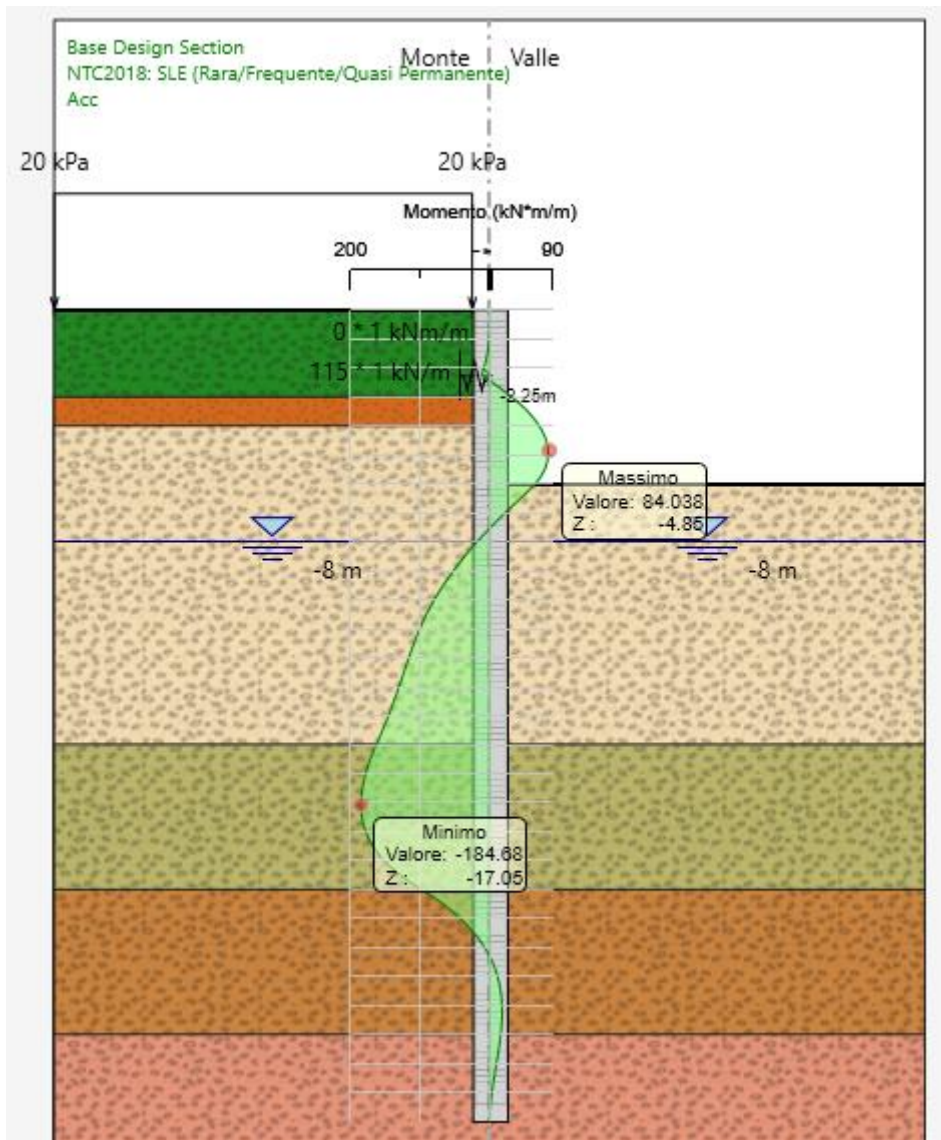
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Il massimo taglio nella combinazione SISMICA STR vale  $T_{SISMICA STR} = 99.3 \text{ kN/m}$ , come riportato nella seguente figura:



Il massimo momento nella combinazione SLE vale  $M = 184.68 \text{ kNm/m}$ , come riportato nella seguente figura:



Tali valori sono a metro lineare, pertanto vanno moltiplicati per l'interasse dei pali (pari a 1.3 m) per ottenere i valori delle sollecitazioni da utilizzare nelle verifiche sul singolo palo.

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Di seguito si riporta una sintesi delle sollecitazioni utilizzate per le verifiche:

	$N_{pali}$ [KN]	$M_{max}$ [KNm]	$T_{max}$ [KN]
SLU	397.25	324.12	118.90
SLV	244.57	477.87	129.09
RARA	311.02	240.10	-

Dimensionamento delle armature

Caratteristiche del palo		
Diametro	1.2	m <sup>2</sup>
Area	1.13	m
Perimetro	3.77	m

$\emptyset$ palo	1200	mm
Area palo	1130973	mm <sup>2</sup>
As, min	11310	mm <sup>2</sup>
As, max	45239	mm <sup>2</sup>

$\emptyset$	22	mm
n	30	
strati	1	
As	11398	mm <sup>2</sup>
	1.01%	<b>ok</b>

Si dispongono staffe  $\emptyset$  12/20 a due bracci

### 8.1.2 Verifiche SLU

#### 8.1.2.1 Verifica a pressoflessione

Si riportano di seguito i diagrammi dei momenti agenti sovrapposti a quelli resistenti e il tasso di sfruttamento dei pali allo SLU:

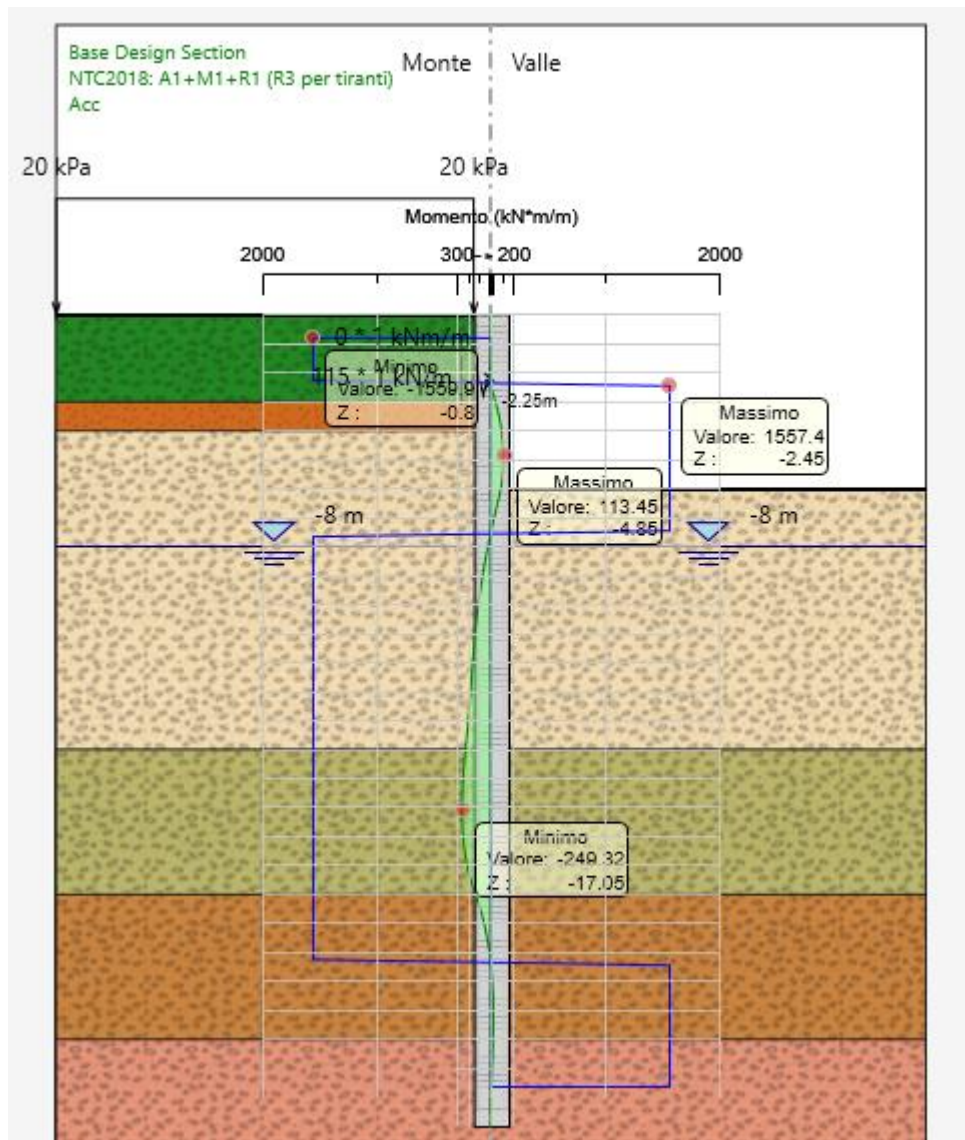


Figura 8-1 Resistenza a pressoflessione della sezione SLU



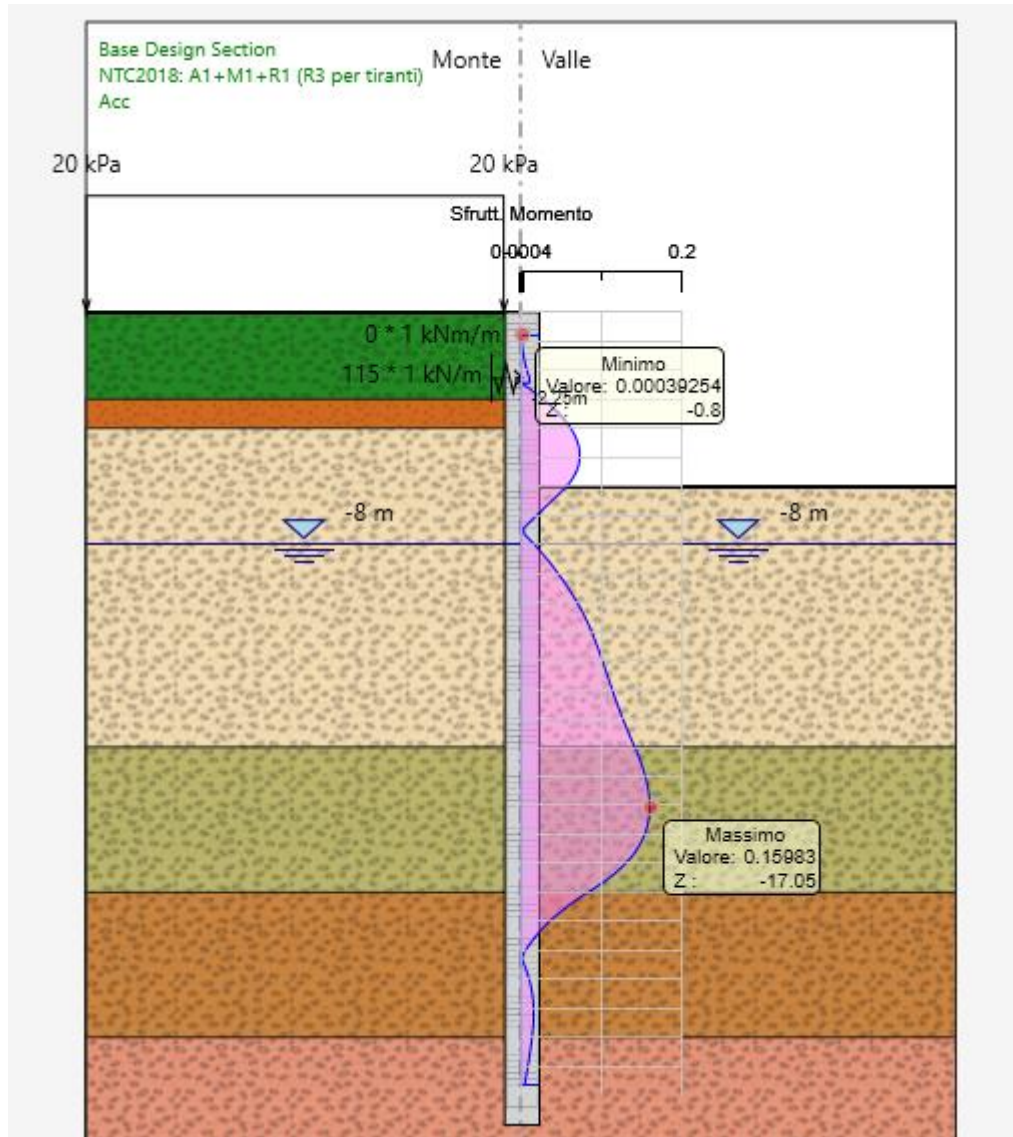


Figura 8-2 Tasso di sfruttamento a pressoflessione SLU

Il massimo tasso di sfruttamento è pari a 0.16, la verifica risulta essere soddisfatta.

### 8.1.2.2 Verifica a taglio SLU

Si riportano di seguito i diagrammi dei tagli agenti sovrapposti a quelli resistenti e il tasso di sfruttamento dei pali allo SLU:

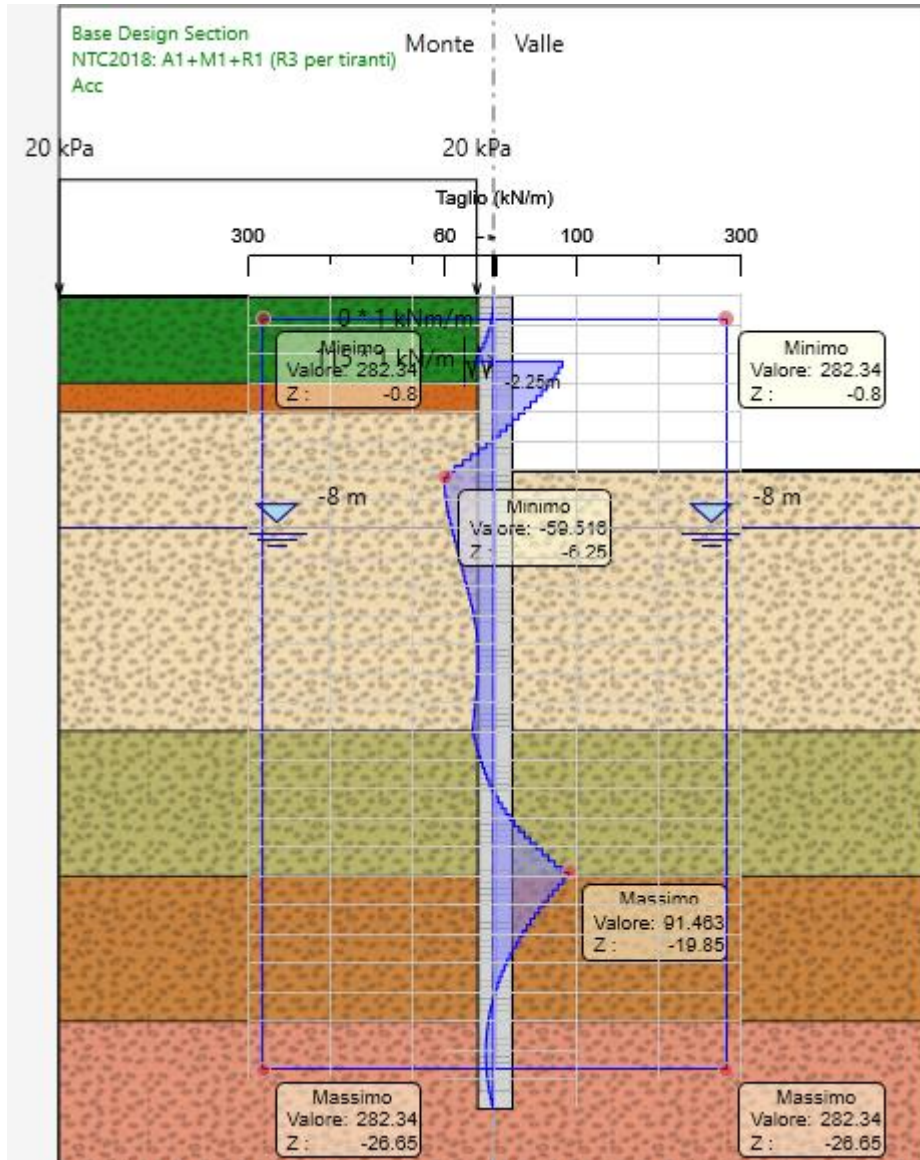


Figura 8-3 Resistenza a taglio della sezione SLU

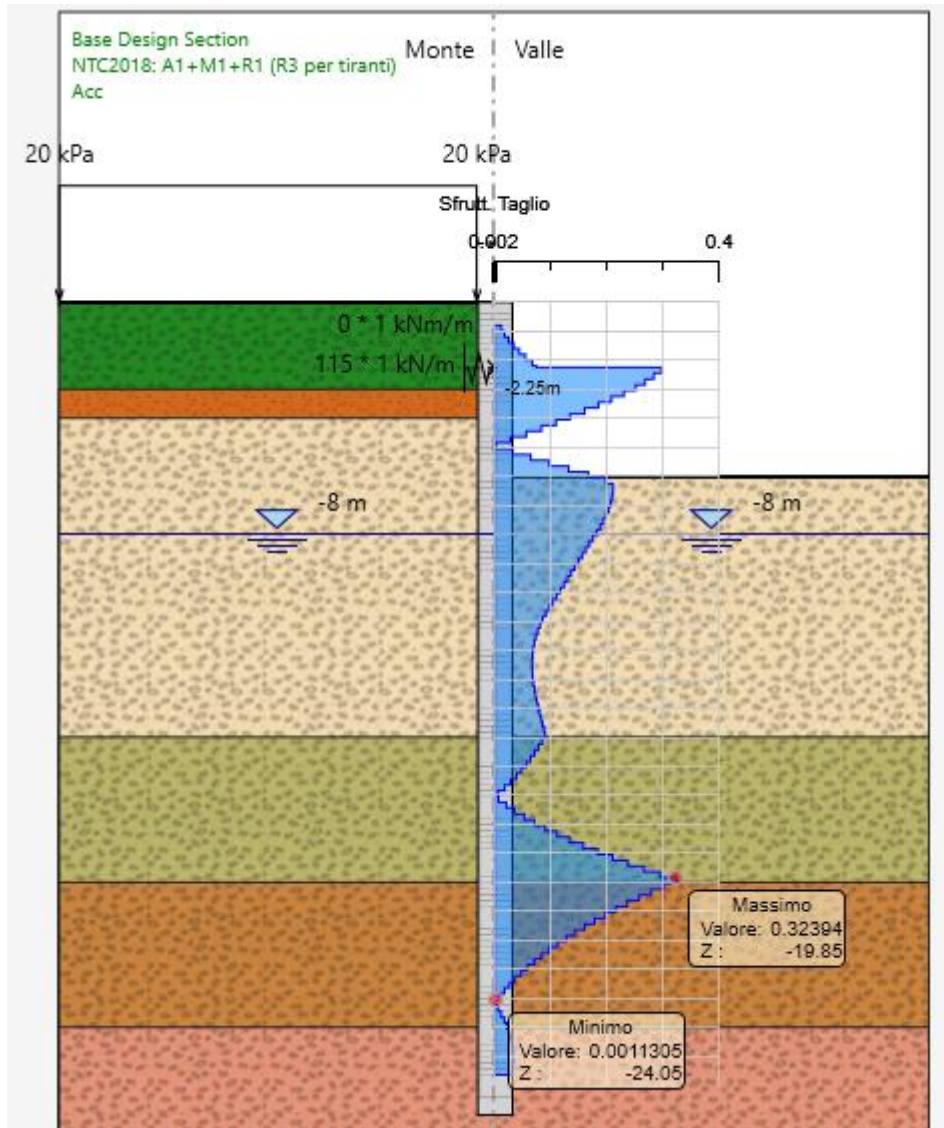


Figura 8-4 Tasso di sfruttamento a taglio SLV

Il massimo tasso di sfruttamento è pari a 0.32, la verifica risulta essere soddisfatta.

### 8.1.3 Verifiche SLV

#### 8.1.3.1 Verifica a pressoflessione

Si riportano di seguito i diagrammi dei momenti agenti sovrapposti a quelli resistenti e il tasso di sfruttamento dei pali allo SLV:

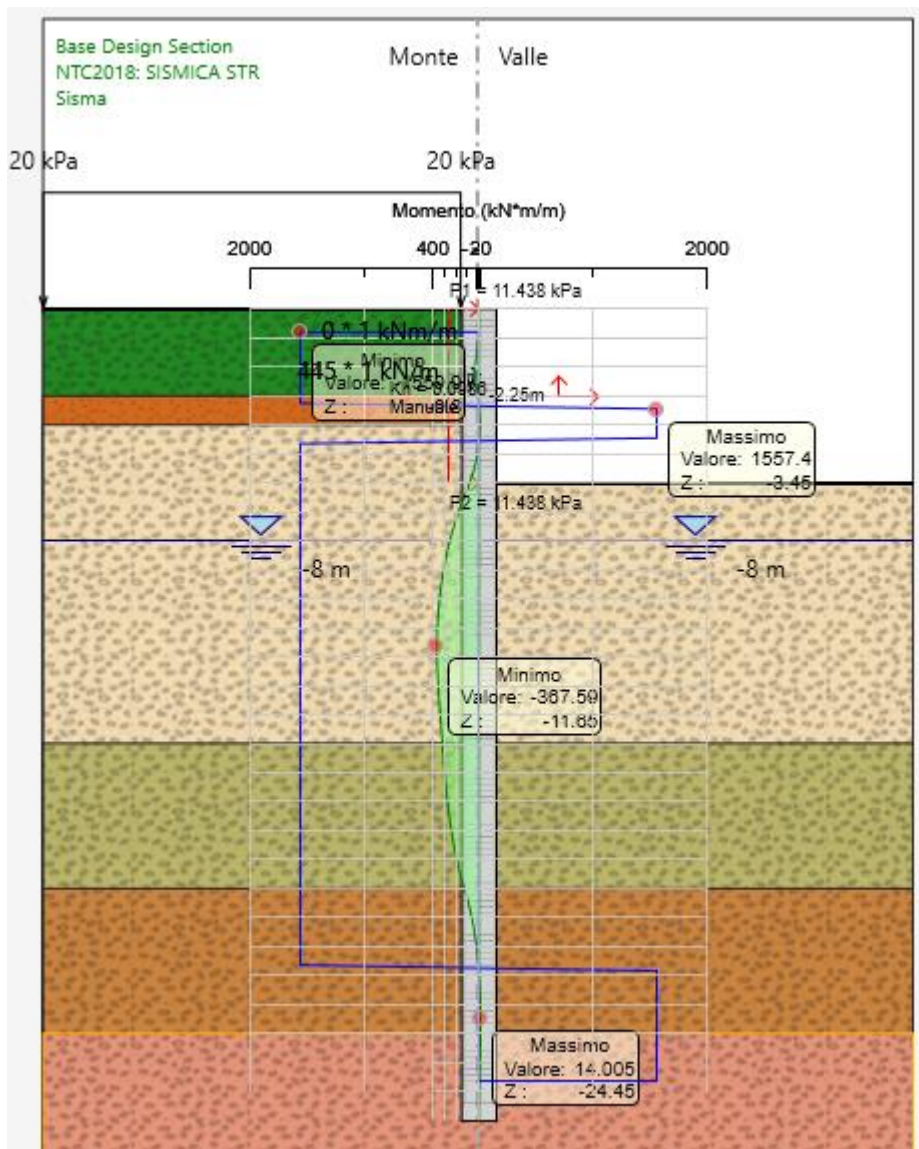


Figura 8-5 Resistenza a pressoflessione della sezione

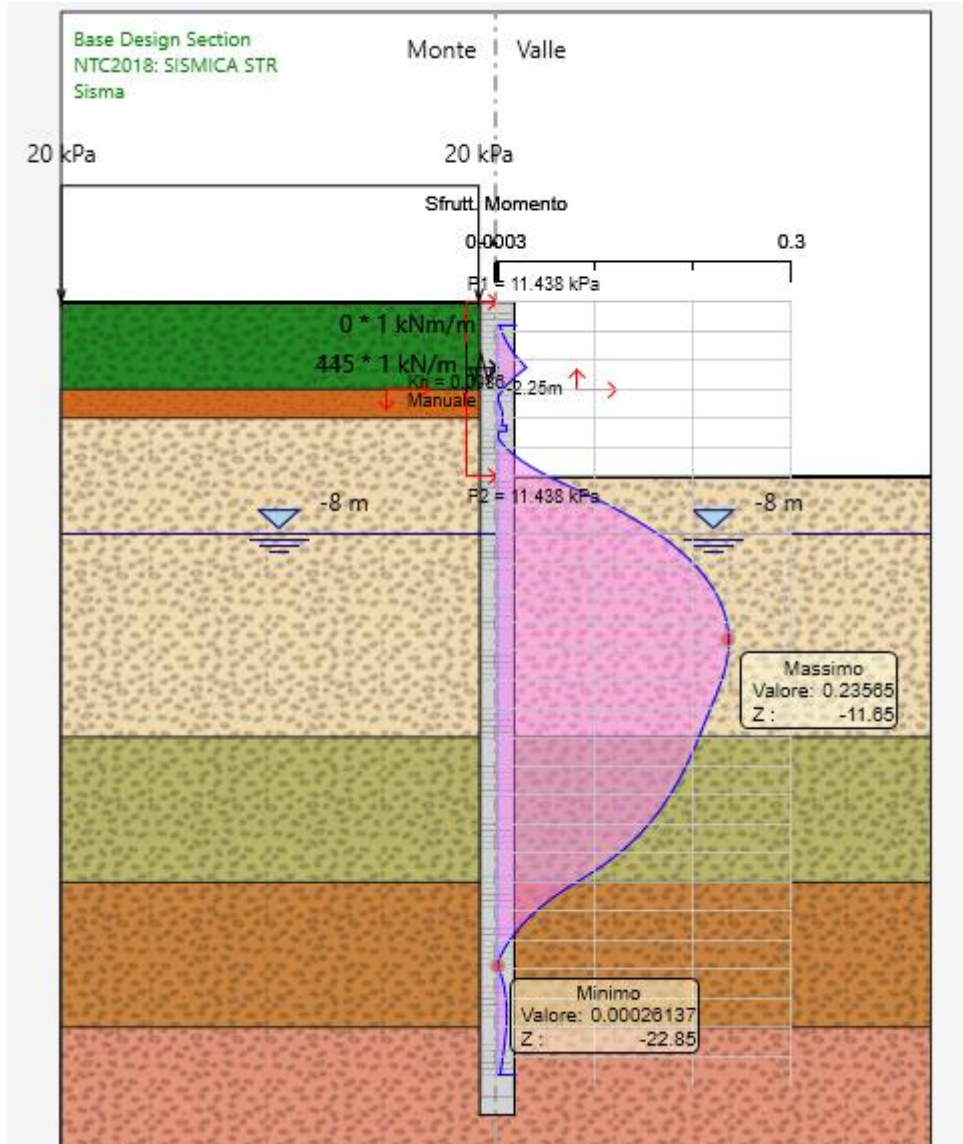


Figura 8-6 Tasso di sfruttamento a pressoflessione SLV

Il massimo tasso di sfruttamento è pari a 0.24, la verifica risulta essere soddisfatta.

### 8.1.3.1 Verifica a taglio SLV

Si riportano di seguito i diagrammi dei tagli agenti sovrapposti a quelli resistenti e il tasso di sfruttamento dei pali allo SLV:

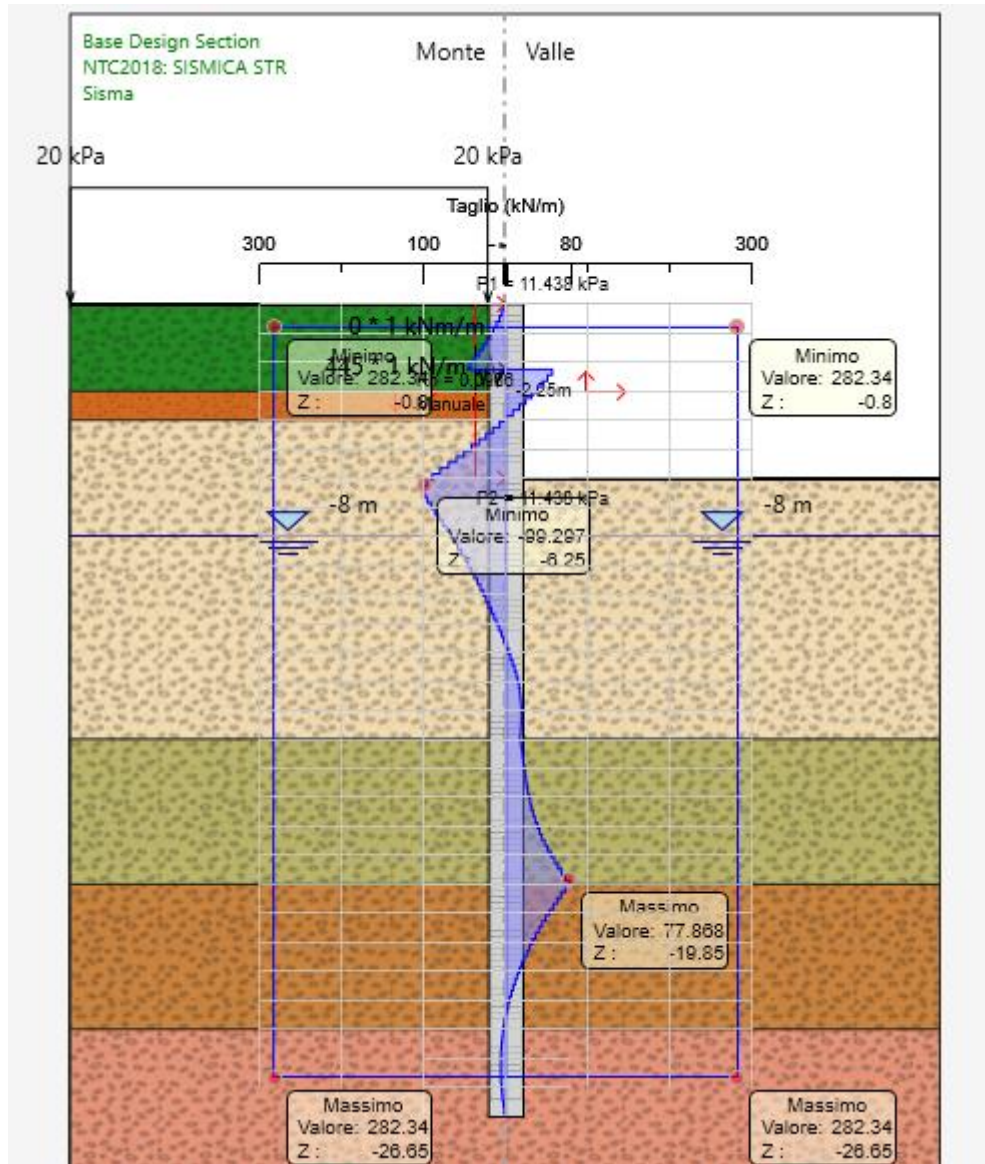


Figura 8-7 Resistenza a taglio della sezione

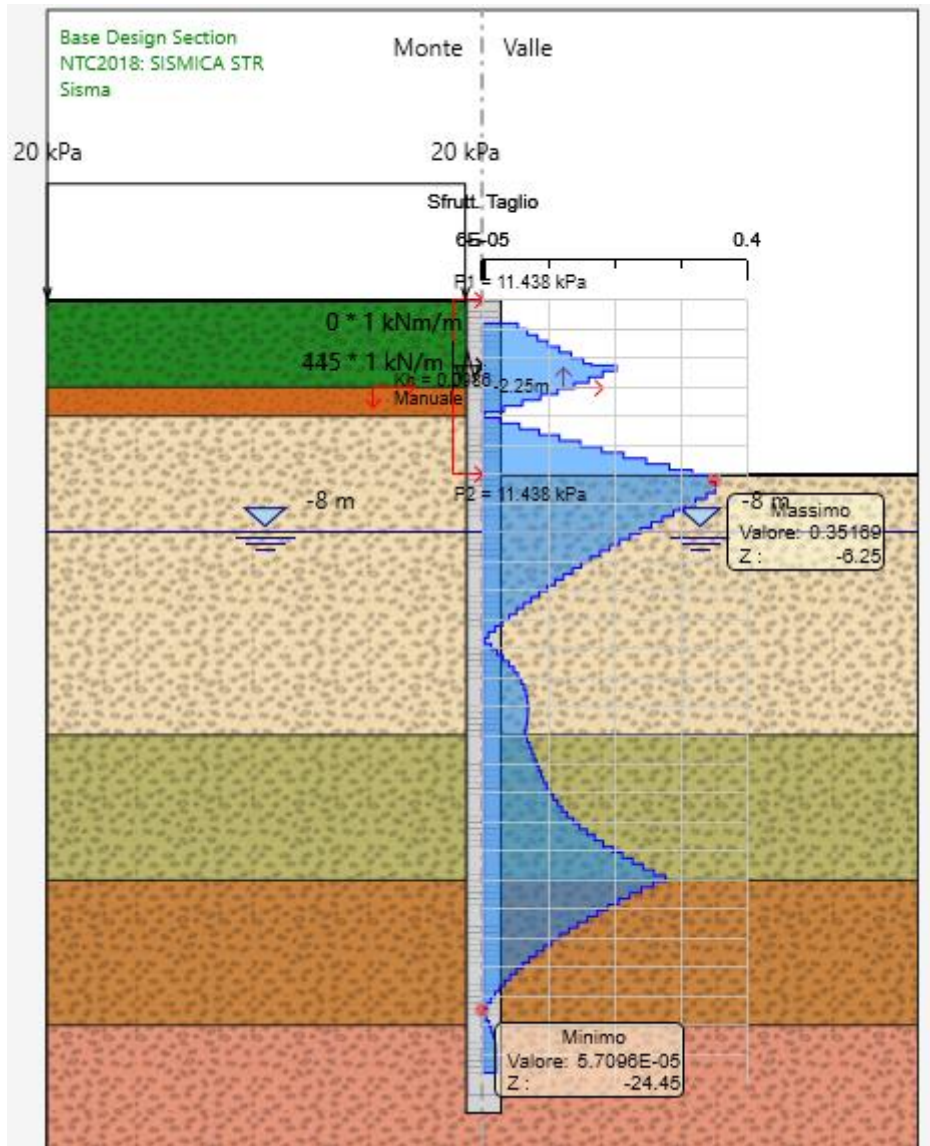


Figura 8-8 Tasso di sfruttamento a taglio SLV

Il massimo tasso di sfruttamento è pari a 0.35, la verifica risulta essere soddisfatta.

#### 8.1.4 Verifiche SLE

##### 8.1.4.1 Sollecitazioni per le verifiche

	N	M <sub>x</sub>
	KN	KN m
RARA	395.84	240.5
Q.PERM	395.84	240.5

A favore di sicurezza, le verifiche agli stati limite di esercizio sono state eseguite con le sollecitazioni della combinazione rara.

##### 8.1.4.2 Verifica tensioni di esercizio

La massima tensione di compressione del cls deve rispettare le seguenti limitazioni (vedi §4.1.2.2.5 delle NTC18):

- $\sigma_{c,max} < 0.60 f_{ck}$  per combinazione caratteristica (rara) = 14.94 MPa;
- $\sigma_{c,max} < 0.45 f_{ck}$  per combinazione quasi permanente = 11.21 MPa;

La massima tensione di trazione dell'acciaio deve rispettare la limitazione:

- $\sigma_s < 0.80 f_{yk}$  per combinazione caratteristica (rara) = 360 MPa.

La massima tensione di compressione nel cls vale:

- $\sigma_{c,max} = 1.99$  MPa per la combinazione caratteristica (rara);

Siccome il valore della tensione di compressione nel cls è inferiore anche al limite per la combinazione quasi permanente, per quest'ultima si omettono le verifiche.

La massima tensione di trazione dell'acciaio vale:

- $\sigma_s = 30.41$  MPa per la combinazione caratteristica (rara).

Le verifiche risultano tutte soddisfatte.



### 8.1.4.3 Verifica a fessurazione

#### Stato limite di formazione delle fessure

Si verifica nel seguito lo stato limite di formazione delle fessure, a favore di sicurezza condotto con la combinazione rara:

<b>fck</b>	24.9	N/mm <sup>2</sup>
<b>fctm</b>	2.56	N/mm <sup>2</sup>
<b>fyk</b>	450.00	N/mm <sup>2</sup>

	<b><math>\sigma_t</math> max</b>	<b><math>\sigma_{cls}</math></b>	<b>U.d.m.</b>	<b>Verifica</b>
<b>Comb rara</b>	<b>-2.13</b>	-0.86	N/mm <sup>2</sup>	<b>Verifica soddisfatta</b>

Il valore limite di tensione di trazione nel calcestruzzo per lo stato limite di formazione delle fessure vale  $f_{ctm}/1.2 = -2.13$  MPa.

Considerando la sezione interamente reagente, per la combinazione rara si ottiene un valore massimo della tensione di trazione nel calcestruzzo pari a -0.86 MPa, inferiore al limite di tensione di trazione nel calcestruzzo.

Pertanto, la verifica risulta soddisfatta e non occorre verificare lo stato limite di apertura delle fessure.

## 8.2 Cordolo

Nel seguito si riportano le verifiche strutturali del cordolo.

### 8.2.1 Sollecitazioni sul cordolo

Dall'analisi della paratia effettuata con il software di calcolo PARATIE PLUS della CeAS S.r.l si ottiene il carico linearmente distribuito sul cordolo pari a 262.88 kN/m nella combinazione SLU A1+M1+R1.

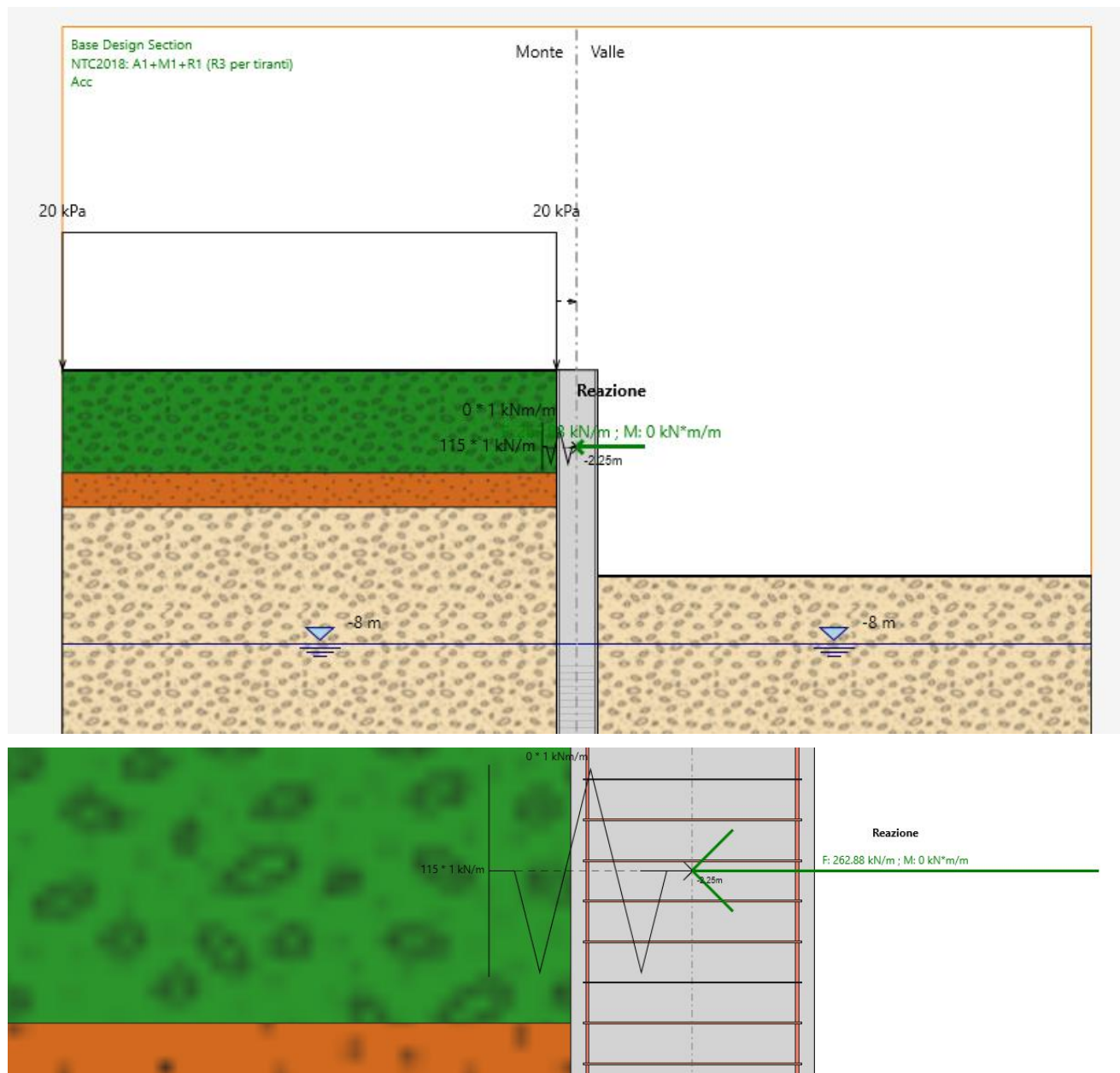


Figura 8-9: Sollecitazione sul cordolo A1+M1+R1

Dall'analisi della paratia effettuata con il software di calcolo PARATIE PLUS della CeAS S.r.l si ottiene il carico linearmente distribuito sul cordolo pari a 666.71 kN/m nella combinazione SISMICA STR.

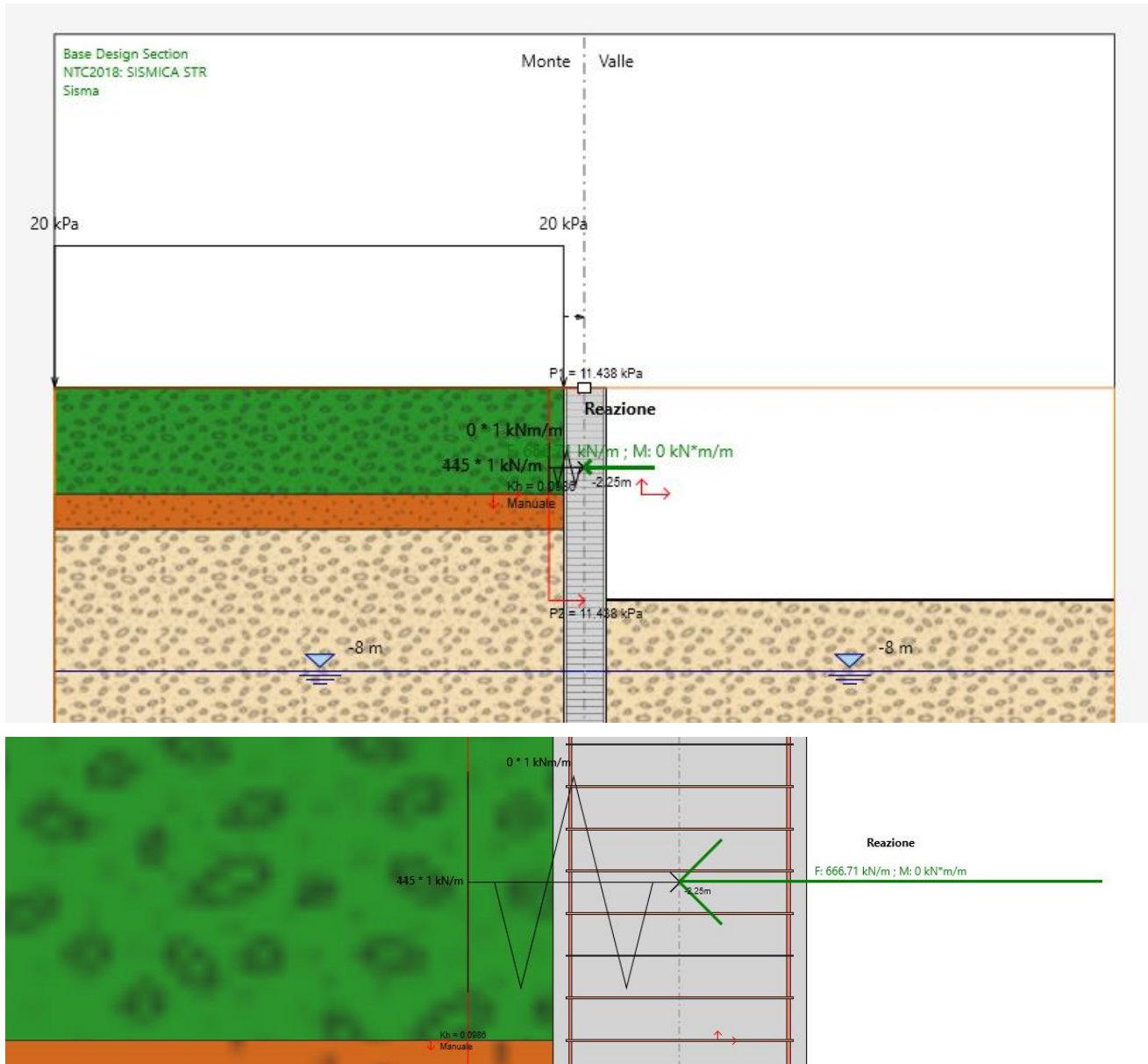


Figura 8-10 Sollecitazioni sul cordolo SISMICA STR

Considerando uno schema di trave continua su 4 appoggi si ottengono le seguenti sollecitazioni:

SLE Combinazione Rara			SLU			SLV		
F	195	kN/m	F	263	kN/m	F	667	kN/m
V <sub>Ed</sub>	676	kN/m	V <sub>Ed</sub>	913	kN/m	V <sub>Ed</sub>	2314	kN/m
M <sub>Ed</sub>	996	kNm/m	M <sub>Ed</sub>	1344	kNm/m	M <sub>Ed</sub>	3405	kNm/m

### 8.2.2 Dimensionamento delle armature

Per il dimensionamento delle armature si considera la sezione trasversale del cordolo di dimensioni pari a 1,5 m x 1.5 m.

Si dispone la seguente armatura, nel rispetto di quanto prescritto nelle **NTC18** §7.4.6.2.1.

	Φ	passo	As	As,tot	As,min	Verifica As,min
	mm	mm	mm <sup>2</sup>	mm <sup>2</sup>	mm <sup>2</sup>	
Tesa	22	100	5701.99	11403.98	7000.00	Verificato
	22	100	5701.99			
Compressa	22	100	0.00	0.00	-	
	-	-	-		-	

Si dispongono staffe  $\phi$  12/10 a 6 bracci.

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### 8.2.3 Verifiche SLU

#### 8.2.3.1 Verifica a pressoflessione SLU

Si riportano di seguito le verifiche a pressoflessione per la combinazione SLU:

	N (kN)	M (kNm)	cs
SLU	0	1344	4.47

Verificato



Il coefficiente di sicurezza è pari a 4.47, la verifica risulta soddisfatta.

### 8.2.3.1 Verifica a taglio SLU

#### VERIFICA A TAGLIO SECONDO NTC2018 SENZA ARMATURE A TAGLIO

$V_{Ed} = T_{SLU}$	913.00	kN
$V_{Ed} = T_{SLU}$	913000	N
$R_{ck}$	40	MPa
$f_{ck}$	33.2	MPa
<b>c netto</b>	40	mm
<b>Ø staffa</b>	12	mm
<b>Ø arm tesa</b>	22	mm
<b>Hsezione</b>	1500	mm
<b>d</b>	1437.00	mm
<b>k</b>	1.373	-
<b>b<sub>w</sub></b>	1500	mm
<b>Ø</b>	22	mm
<b>n</b>	14	-
<b>strati</b>	2	-
<b>A<sub>sl</sub></b>	5322	mm <sup>2</sup>
<b>ρ<sub>l</sub></b>	0.0025	-
<b>N<sub>Ed</sub></b>	0	kN
<b>N<sub>Ed</sub></b>	0	N
<b>Ac</b>	2250000.0	mm <sup>2</sup>
<b>σ<sub>cp</sub></b>	0	MPa
<b>f<sub>cd</sub></b>	21.053	MPa
<b>γ<sub>c</sub></b>	1.5	-
<b>C<sub>Rd,c</sub></b>	0.12	-
<b>v<sub>min</sub></b>	0.3245	-
<b>V<sub>Rd,c</sub></b>	716097.3	N
<b>V<sub>Rd,c min</sub></b>	699395.2	N
<b>V<sub>Rd,c effettivo</sub></b>	<b>716097.3</b>	<b>N</b>
<b>Verifica</b>	<b>NO</b>	
<b>T.S.</b>	1.275	
<b>C.S.</b>	0.784	

E' necessario disporre specifica armatura a taglio.

**VERIFICA A TAGLIO**  
**SECONDO NTC2018**  
**CON ARMATURE A TAGLIO**

$V_{Ed} = T_{SLU}$	913	kN
$V_{Ed} = T_{SLU}$	913000	N
$\phi$	12	mm
$A_{\phi}$	113.1	mm <sup>2</sup>
<b>bracci</b>	6	-
$A_{sw}$	678.6	mm <sup>2</sup>
<b>s</b>	100	mm
$f_{ywd}$	391.3	MPa
<b>cot <math>\theta</math></b>	1	-
$\alpha_c$	1	-
<b>z = 0.9d</b>	1293.3	mm
<b>v</b>	0.52032	-
$V_{Rd,s}$	3434137	N
$V_{Rd,s \max}$	10625208	N
$V_{Rd,c \text{ effettivo}}$	<b>3434137</b>	<b>N</b>
<b>Verifica</b>	<b>OK</b>	
<b>T.S.</b>	0.266	
<b>C.S.</b>	3.761	

Disponendo delle staffe  $\phi 12/10$  a 6 bracci la verifica risulta soddisfatta.

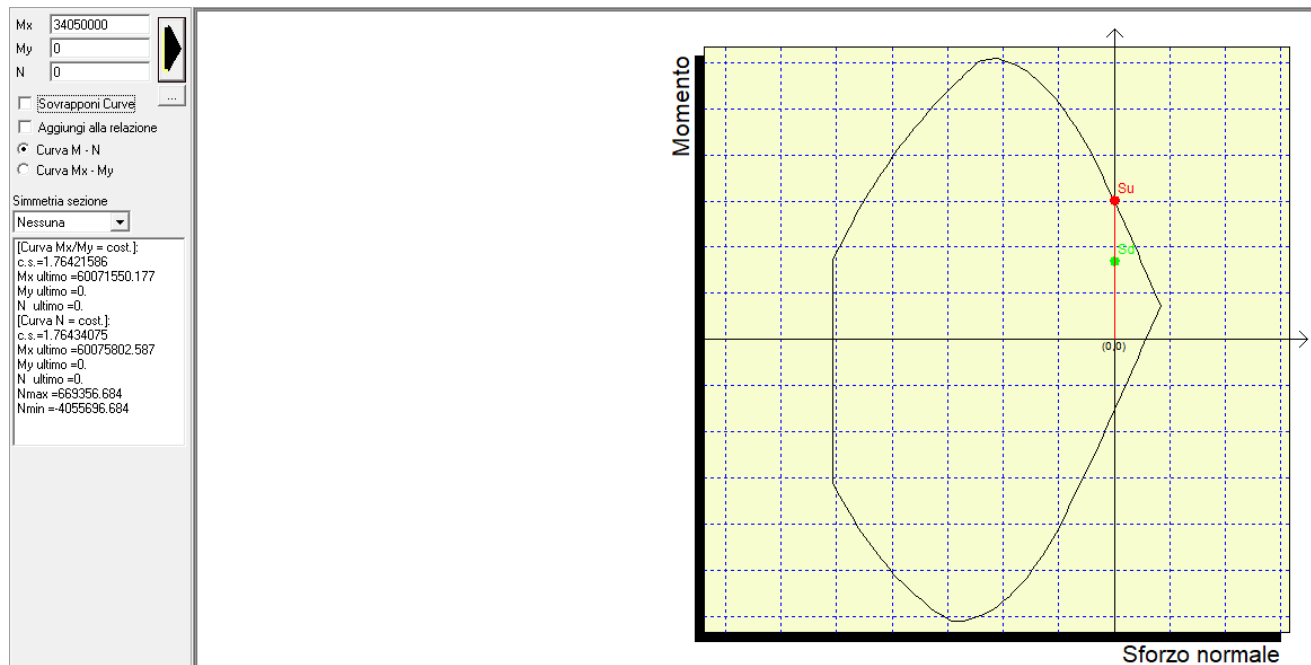
## 8.2.4 Verifiche SLV

### 8.2.4.1 Verifica a pressoflessione SLV

Si riportano di seguito le verifiche a pressoflessione per la combinazione SLU:

	N (kN)	M (kNm)	cs
SLU	0	3405	1.76

Verificato



Il coefficiente di sicurezza è pari a 1.76, la verifica risulta soddisfatta.



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### 8.2.4.2 Verifica a taglio SLV

#### VERIFICA A TAGLIO SECONDO NTC2018 SENZA ARMATURE A TAGLIO

$V_{Ed} = T_{SLU}$	2314.00	kN
$V_{Ed} = T_{SLU}$	2314000	N
$R_{ck}$	40	MPa
$f_{ck}$	33.2	MPa
<b>c netto</b>	40	mm
<b>Ø staffa</b>	12	mm
<b>Ø arm tesa</b>	22	mm
<b>Hsezione</b>	1500	mm
<b>d</b>	1437.00	mm
<b>k</b>	1.373	-
<b>b<sub>w</sub></b>	1500	mm
<b>Ø</b>	22	mm
<b>n</b>	14	-
<b>strati</b>	2	-
<b>A<sub>sl</sub></b>	5322	mm <sup>2</sup>
<b>ρ<sub>l</sub></b>	0.0025	-
<b>N<sub>Ed</sub></b>	0	kN
<b>N<sub>Ed</sub></b>	0	N
<b>Ac</b>	2250000.0	mm <sup>2</sup>
<b>σ<sub>cp</sub></b>	0	MPa
<b>f<sub>cd</sub></b>	21.053	MPa
<b>γ<sub>c</sub></b>	1.5	-
<b>C<sub>Rd,c</sub></b>	0.12	-
<b>v<sub>min</sub></b>	0.3245	-
<b>V<sub>Rd,c</sub></b>	716097.3	N
<b>V<sub>Rd,c min</sub></b>	699395.2	N
<b>V<sub>Rd,c effettivo</sub></b>	<b>716097.3</b>	<b>N</b>
<b>Verifica</b>	<b>NO</b>	
<b>T.S.</b>	3.231	
<b>C.S.</b>	0.309	

E' necessario disporre specifica armatura a taglio

**VERIFICA A TAGLIO**  
**SECONDO NTC2018**  
**CON ARMATURE A TAGLIO**

$V_{Ed} = T_{SLU}$	2314	kN
$V_{Ed} = T_{SLU}$	2314000	N
$\phi$	12	mm
$A_{\phi}$	113.1	mm <sup>2</sup>
<b>bracci</b>	6	-
$A_{sw}$	678.6	mm <sup>2</sup>
<b>s</b>	100	mm
$f_{ywd}$	391.3	MPa
<b>cot <math>\theta</math></b>	1	-
$\alpha_c$	1	-
<b>z = 0.9d</b>	1293.3	mm
<b>v</b>	0.5203	-
$V_{Rd,s}$	3434137	N
$V_{Rd,s \max}$	10625208	N
$V_{Rd,c \text{ effettivo}}$	<b>3434137</b>	<b>N</b>
<b>Verifica</b>	<b>OK</b>	
<b>T.S.</b>	0.674	
<b>C.S.</b>	1.484	

Disponendo delle staffe  $\phi 12/10$  a 6 bracci la verifica risulta soddisfatta.

## 8.2.5 Verifiche SLE

### 8.2.5.1 Sollecitazioni per le verifiche

Di seguito si riportano le sollecitazioni per la combinazione rara:

	<b>N (kN)</b>	<b>M (kNm)</b>
<b>Comb SLE</b>		996.45

A favore di sicurezza, le verifiche agli stati limite di esercizio sono state eseguite con le sollecitazioni della combinazione rara.

### 8.2.5.2 Verifica tensioni di esercizio

La massima tensione di compressione del cls deve rispettare le seguenti limitazioni (vedi §4.1.2.2.5 delle NTC18):

- $\sigma_{c,max} < 0.60 f_{ck}$  per combinazione caratteristica (rara) = 19.92 MPa;
- $\sigma_{c,max} < 0.45 f_{ck}$  per combinazione quasi permanente = 14.94 MPa;

La massima tensione di trazione dell'acciaio deve rispettare la limitazione:

- $\sigma_s < 0.80 f_{yk}$  per combinazione caratteristica (rara) = 360 MPa.

La massima tensione di compressione nel cls vale:

- $\sigma_{c,max} = 1.95$  MPa per la combinazione caratteristica (rara);

Siccome il valore della tensione di compressione nel cls è inferiore anche al limite per la combinazione quasi permanente, per quest'ultima si omettono le verifiche.

La massima tensione di trazione dell'acciaio vale:

- $\sigma_s = 173.39$  MPa per la combinazione caratteristica (rara).

Le verifiche risultano tutte soddisfatte.

### 8.2.5.3 Verifica a fessurazione

#### Stato limite di formazione delle fessure

Si verifica nel seguito lo stato limite di formazione delle fessure, a favore di sicurezza condotto con la combinazione rara:

<b>fck</b>	33.2	N/mm <sup>2</sup>
<b>fctm</b>	3.10	N/mm <sup>2</sup>
<b>fyk</b>	450.00	N/mm <sup>2</sup>

	<b><math>\sigma_t</math> max</b>	<b><math>\sigma_{cls}</math></b>	<b>U.d.m.</b>	<b>Verifica</b>
<b>Comb rara</b>	<b>-2.58</b>	-1.43	N/mm <sup>2</sup>	<b>Verifica soddisfatta</b>

Il valore limite di tensione di trazione nel calcestruzzo per lo stato limite di formazione delle fessure vale  $f_{ctm}/1.2 = -2.58$  MPa.

Considerando la sezione interamente reagente, per la combinazione rara si ottiene un valore massimo della tensione di trazione nel calcestruzzo pari a -1.43 MPa, inferiore al limite di tensione di trazione nel calcestruzzo.

Pertanto, la verifica risulta soddisfatta e non occorre verificare lo stato limite di apertura delle fessure.

## 9 ALLEGATO

**PARATIE** plus™

### *Report di Calcolo*

Nome Progetto: New Project

Autore: Ingegnere

Design Section: Base Design Section

Ponte stradale su Torrente Giustenice  
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## Sommario

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## ***Descrizione del Software***

ParatiePlus è un codice agli elementi finiti che simula il problema di uno scavo sostenuto da diaframmi flessibili e permette di valutare il comportamento della parete di sostegno durante tutte le fasi intermedie e nella configurazione finale.







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## **Descrizione Pareti**

X : 0 m

Quota in alto : 0 m

Quota di fondo : -28 m

Muro di sinistra

Armatura Lunghezza segmenti : 1 m

Rinforzo longitudinale 1

Lunghezza : 27.5 m

Materiale : B450C

Quota iniziale : 0 m

Barre 1

Numero di barre : 30

Diametro : 0.022 m

Distanza dal bordo : 0.083 m

Staffe 1

Numero di staffe : 2

Copertura : 0.06 m

Diametro : 0.012 m

Lunghezza : 27.5 m

Quota iniziale : 0 m

Passo : 0.2 m

Sezione : Pali1200\_1.3m

Area equivalente : 0.86997950407102 m

Inerzia equivalente : 0.0783 m<sup>4</sup>/m

Materiale calcestruzzo : C25/30

Tipo sezione : Tangent

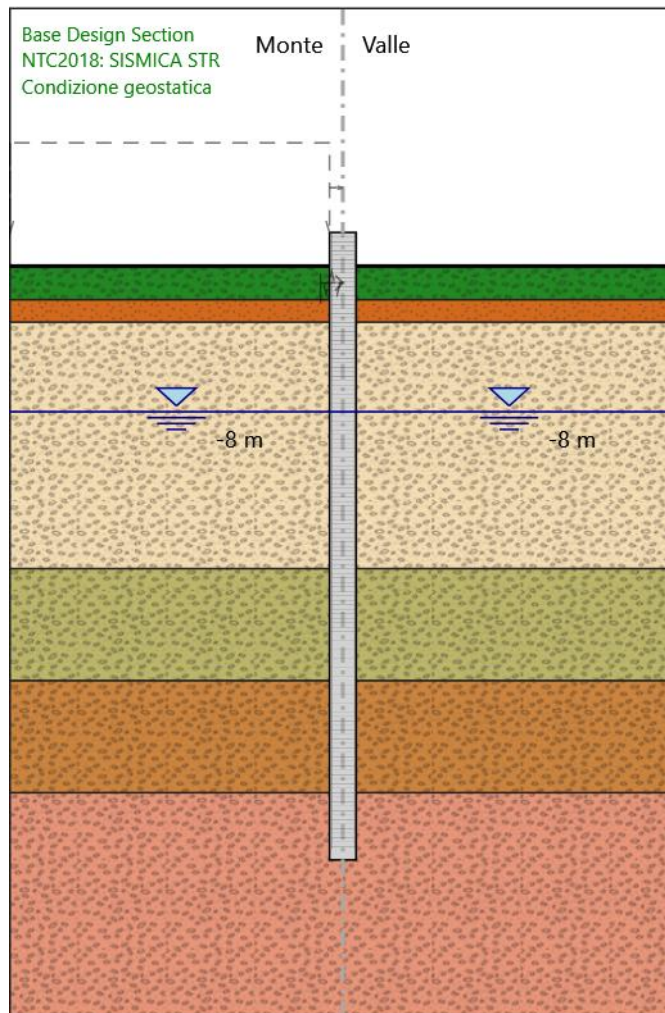
Spaziatura : 1.3 m

Diametro : 1.2 m

Efficacia : 1

## Fasi di Calcolo

### Condizione geostatica



Condizione geostatica

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#### Scavo

##### Muro di sinistra

Lato monte : -1.5 m

Lato valle : -1.5 m

Linea di scavo di sinistra (Orizzontale)

-1.5 m

Linea di scavo di destra (Orizzontale)

-1.5 m

#### Falda acquifera

Falda di sinistra : -8 m

Falda di destra : -8 m

#### Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0 m

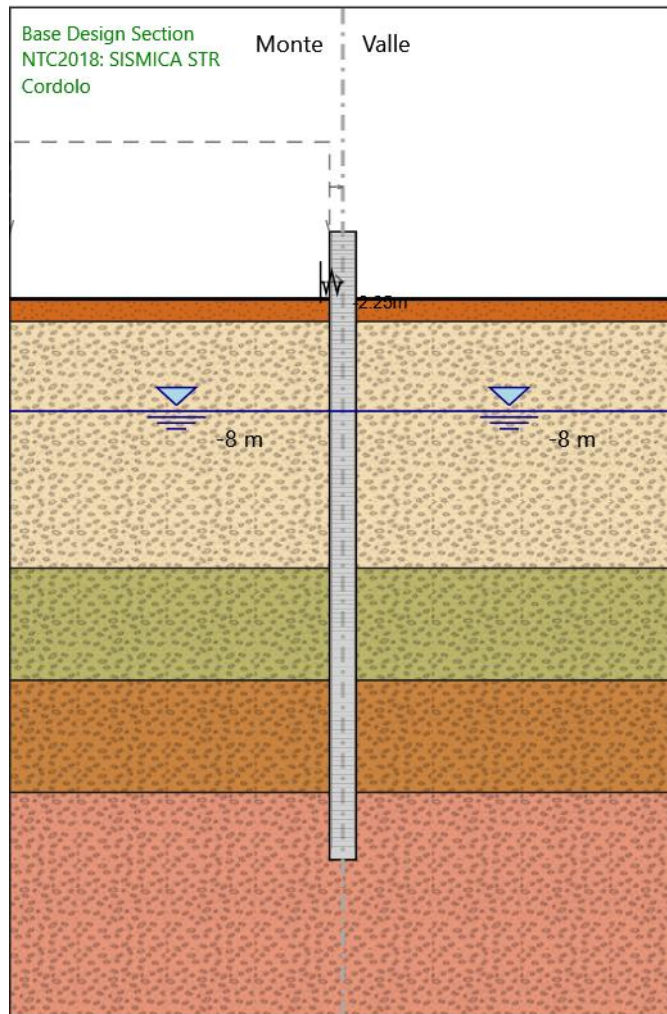
Quota di fondo : -28 m

Sezione : Pali1200\_1.3m

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## Cordolo



Cordolo

Scavo

Muro di sinistra

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Lato monte : -3 m

Lato valle : -3 m

Linea di scavo di sinistra (Orizzontale)

-3 m

Linea di scavo di destra (Orizzontale)

-3 m

Falda acquifera

Falda di sinistra : -8 m

Falda di destra : -8 m

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0 m

Quota di fondo : -28 m

Sezione : Pali1200\_1.3m

Vincolo elastico : Spring

X : 0 m

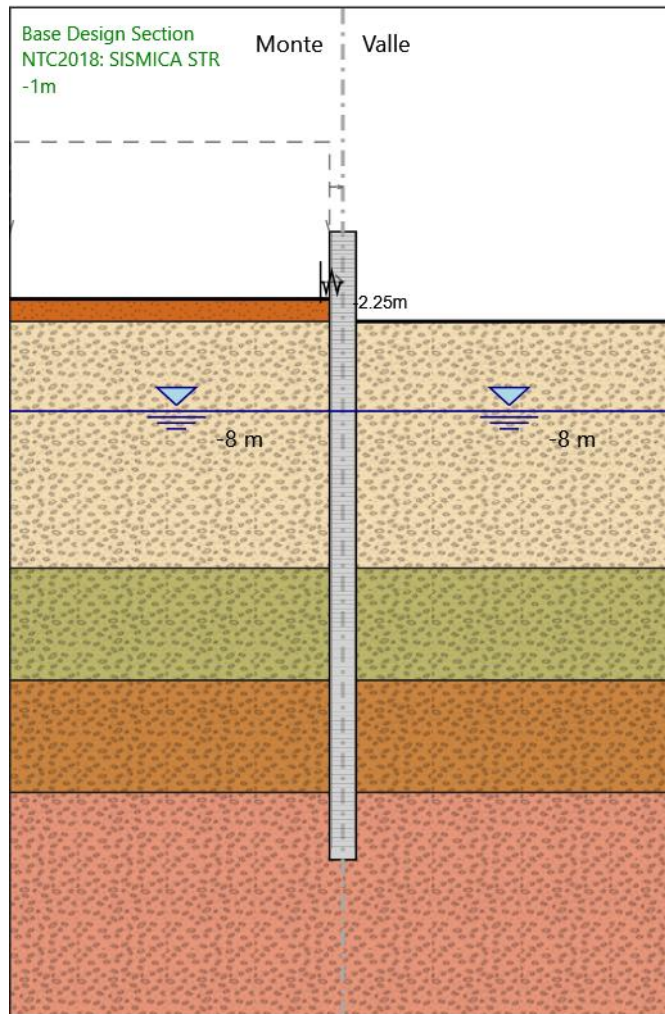
Z : -2.25 m

Angolo : 0 °

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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**-1m**



-1m

Scavo

Muro di sinistra

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
IV01	00	D 09	CLIV0204001	A	54 di 206

Lato monte : -3 m

Lato valle : -4 m

Linea di scavo di sinistra (Orizzontale)

-3 m

Linea di scavo di destra (Orizzontale)

-4 m

Falda acquifera

Falda di sinistra : -8 m

Falda di destra : -8 m

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0 m

Quota di fondo : -28 m

Sezione : Pali1200\_1.3m

Vincolo elastico : Spring

X : 0 m

Z : -2.25 m

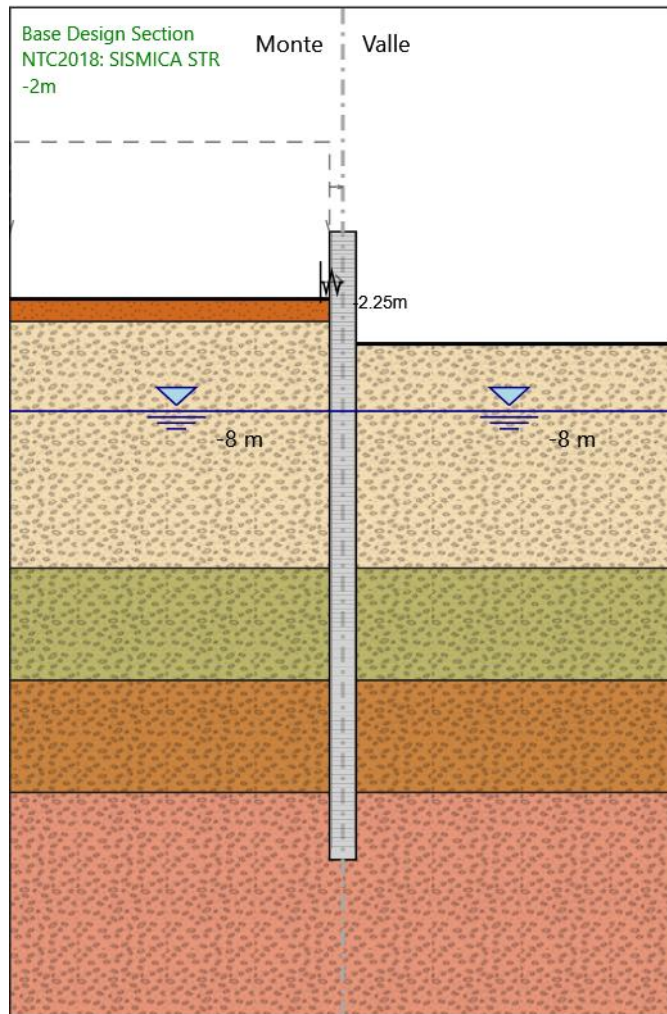
Angolo : 0 °



Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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**-2m**



-2m

Scavo

Muro di sinistra

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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Lato monte : -3 m

Lato valle : -5 m

Linea di scavo di sinistra (Orizzontale)

-3 m

Linea di scavo di destra (Orizzontale)

-5 m

Falda acquifera

Falda di sinistra : -8 m

Falda di destra : -8 m

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0 m

Quota di fondo : -28 m

Sezione : Pali1200\_1.3m

Vincolo elastico : Spring

X : 0 m

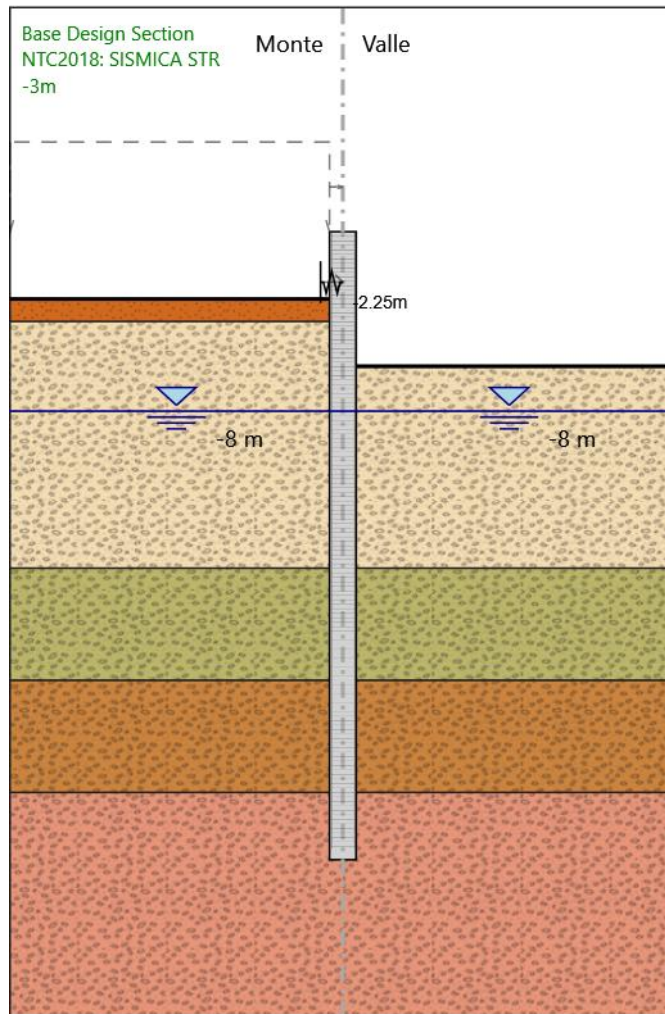
Z : -2.25 m

Angolo : 0 °

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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**-3m**



-3m

Scavo

Muro di sinistra

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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Lato monte : -3 m

Lato valle : -6 m

Linea di scavo di sinistra (Orizzontale)

-3 m

Linea di scavo di destra (Orizzontale)

-6 m

Falda acquifera

Falda di sinistra : -8 m

Falda di destra : -8 m

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0 m

Quota di fondo : -28 m

Sezione : Pali1200\_1.3m

Vincolo elastico : Spring

X : 0 m

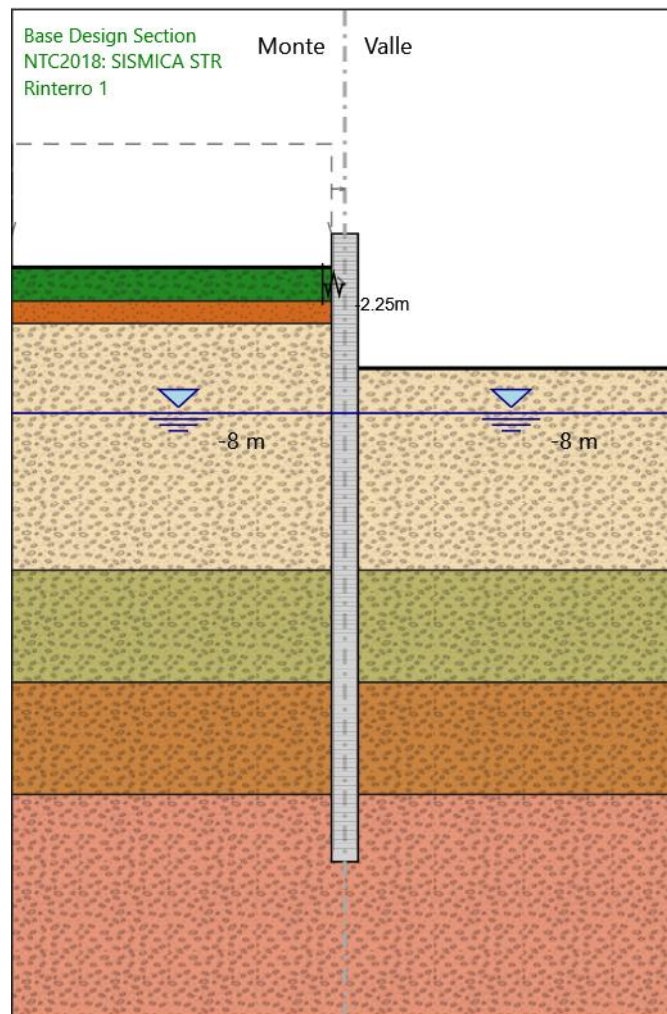
Z : -2.25 m

Angolo : 0 °

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

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## Rinterro 1



Rinterro 1

Scavo

Muro di sinistra

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
IV01	00	D 09	CLIV0204001	A	60 di 206

Lato monte : -1.5 m

Lato valle : -6 m

Linea di scavo di sinistra (Orizzontale)

-1.5 m

Linea di scavo di destra (Orizzontale)

-6 m

Falda acquifera

Falda di sinistra : -8 m

Falda di destra : -8 m

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0 m

Quota di fondo : -28 m

Sezione : Pali1200\_1.3m

Vincolo elastico : Spring

X : 0 m

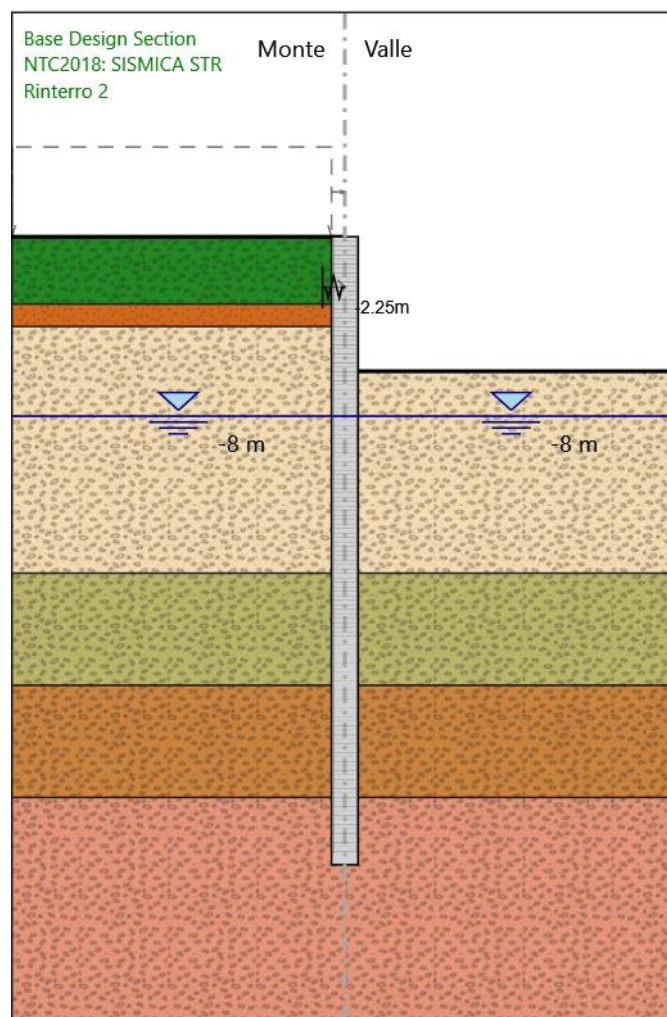
Z : -2.25 m

Angolo : 0 °

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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## Rinterro 2



Rinterro 2

Scavo

Muro di sinistra

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
IV01	00	D 09	CLIV0204001	A	62 di 206

Lato monte : 0 m

Lato valle : -6 m

Linea di scavo di sinistra (Orizzontale)

0 m

Linea di scavo di destra (Orizzontale)

-6 m

Falda acquifera

Falda di sinistra : -8 m

Falda di destra : -8 m

Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0 m

Quota di fondo : -28 m

Sezione : Pali1200\_1.3m

Vincolo elastico : Spring

X : 0 m

Z : -2.25 m

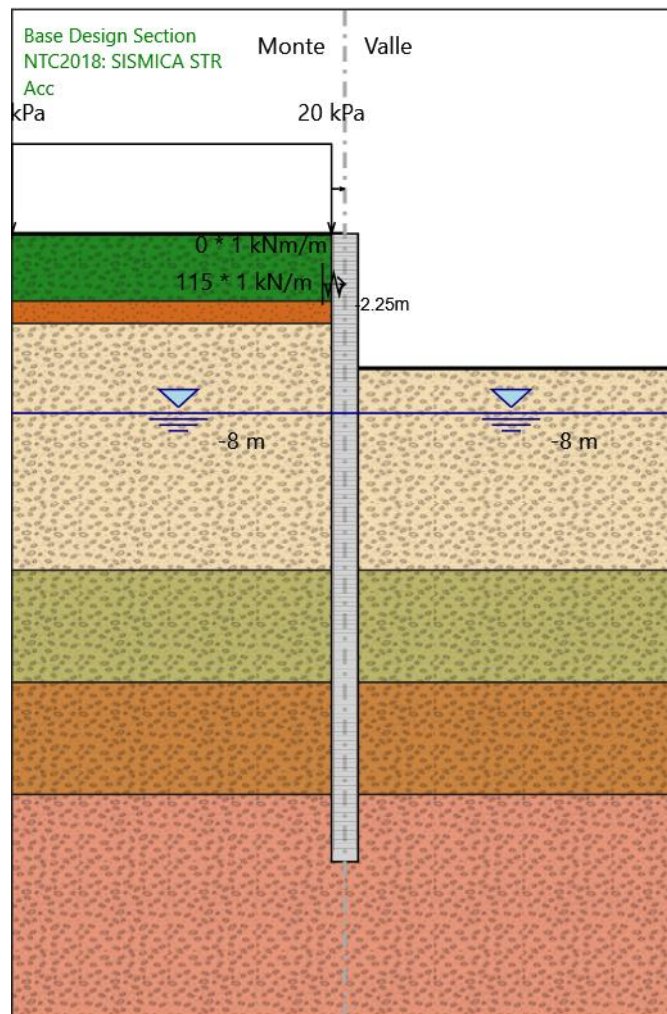
Angolo : 0 °



Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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**Acc**



Acc

Scavo

Muro di sinistra

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
IV01	00	D 09	CLIV0204001	A	64 di 206

Lato monte : 0 m

Lato valle : -6 m

Linea di scavo di sinistra (Orizzontale)

0 m

Linea di scavo di destra (Orizzontale)

-6 m

#### Falda acquifera

Falda di sinistra : -8 m

Falda di destra : -8 m

#### Carichi

Carico puntuale alla paratia : Accidentale

Quota : -2.25 m

Px : 115 kN/m

Pz : 1 kN/m

: 0 kNm/m

X : 0 m

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -15 m

X finale : -0.6 m

Pressione iniziale : 20 kPa

Pressione finale : 20 kPa

#### Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0 m

Quota di fondo : -28 m

Sezione : Pali1200\_1.3m

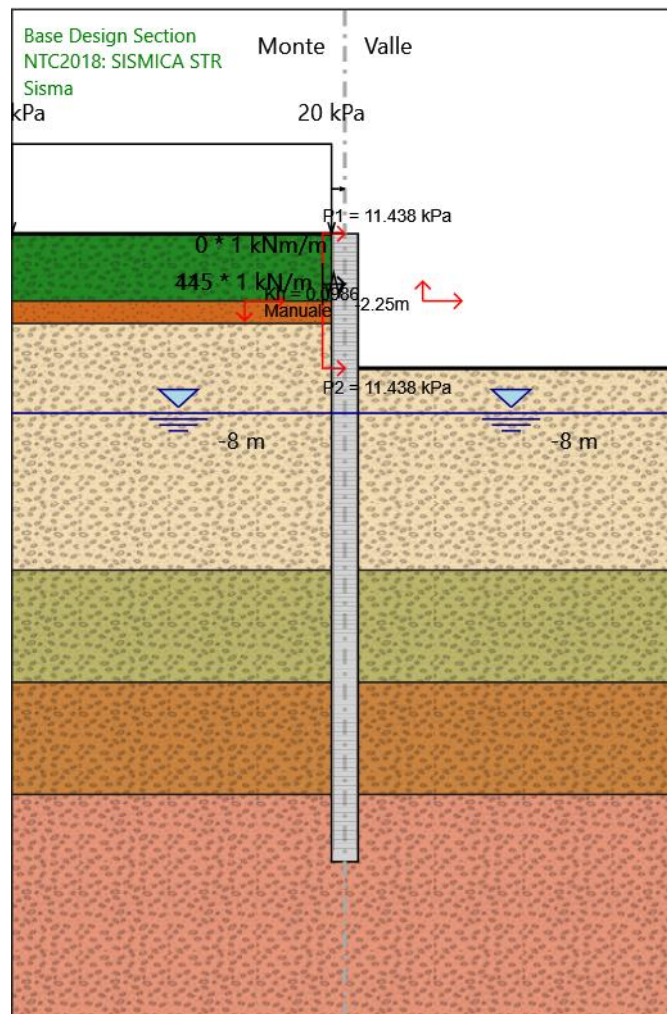
Vincolo elastico : Spring

X : 0 m

Z : -2.25 m

Angolo : 0 °

## Sisma



Sisma

Scavo

Muro di sinistra

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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Lato monte : 0 m

Lato valle : -6 m

Linea di scavo di sinistra (Orizzontale)

0 m

Linea di scavo di destra (Orizzontale)

-6 m

#### Falda acquifera

Falda di sinistra : -8 m

Falda di destra : -8 m

#### Carichi

Carico puntuale alla paratia : Sisma

Quota : -2.25 m

Px : 445 kN/m

Pz : 1 kN/m

: 0 kNm/m

X : 0 m

Carico puntuale alla paratia : Accidentale

Quota : -2.25 m

Px : 115 kN/m

Pz : 1 kN/m

: 0 kNm/m

X : 0 m

Carico lineare in superficie : SurfaceSurcharge

X iniziale : -15 m

X finale : -0.6 m

Pressione iniziale : 20 kPa

Pressione finale : 20 kPa

#### Elementi strutturali

Paratia : WallElement

X : 0 m

Quota in alto : 0 m

Quota di fondo : -28 m

Sezione : Pali1200\_1.3m

Vincolo elastico : Spring

X : 0 m

Z : -2.25 m

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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Angolo : 0 °

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

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## Grafici dei Risultati

### Design Assumption : Nominal

#### Tabella Spostamento Nominal - LEFT Stage: Condizione geostatica

Design Assumption: Nominal Stage	Tipo Risultato: Spostamento Z (m)	Muro: LEFT Spostamento (mm)
Condizione geostatica	0	0
Condizione geostatica	-0.2	0
Condizione geostatica	-0.4	0
Condizione geostatica	-0.6	0
Condizione geostatica	-0.8	0
Condizione geostatica	-1	0
Condizione geostatica	-1.2	0
Condizione geostatica	-1.4	0
Condizione geostatica	-1.6	0
Condizione geostatica	-1.8	0
Condizione geostatica	-2	0
Condizione geostatica	-2.2	0
Condizione geostatica	-2.25	0
Condizione geostatica	-2.45	0
Condizione geostatica	-2.65	0
Condizione geostatica	-2.85	0
Condizione geostatica	-3.05	0
Condizione geostatica	-3.25	0
Condizione geostatica	-3.45	0
Condizione geostatica	-3.65	0
Condizione geostatica	-3.85	0
Condizione geostatica	-4.05	0
Condizione geostatica	-4.25	0
Condizione geostatica	-4.45	0
Condizione geostatica	-4.65	0
Condizione geostatica	-4.85	0
Condizione geostatica	-5.05	0
Condizione geostatica	-5.25	0
Condizione geostatica	-5.45	0
Condizione geostatica	-5.65	0
Condizione geostatica	-5.85	0
Condizione geostatica	-6.05	0
Condizione geostatica	-6.25	0
Condizione geostatica	-6.45	0
Condizione geostatica	-6.65	0
Condizione geostatica	-6.85	0
Condizione geostatica	-7.05	0
Condizione geostatica	-7.25	0
Condizione geostatica	-7.45	0
Condizione geostatica	-7.65	0
Condizione geostatica	-7.85	0
Condizione geostatica	-8.05	0
Condizione geostatica	-8.25	0
Condizione geostatica	-8.45	0
Condizione geostatica	-8.65	0
Condizione geostatica	-8.85	0

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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Design Assumption: Nominal Stage	Tipo Risultato: Spostamento Z (m)	Muro: LEFT Spostamento (mm)
Condizione geostatica	-9.05	0
Condizione geostatica	-9.25	0
Condizione geostatica	-9.45	0
Condizione geostatica	-9.65	0
Condizione geostatica	-9.85	0
Condizione geostatica	-10.05	0
Condizione geostatica	-10.25	0
Condizione geostatica	-10.45	0
Condizione geostatica	-10.65	0
Condizione geostatica	-10.85	0
Condizione geostatica	-11.05	0
Condizione geostatica	-11.25	0
Condizione geostatica	-11.45	0
Condizione geostatica	-11.65	0
Condizione geostatica	-11.85	0
Condizione geostatica	-12.05	0
Condizione geostatica	-12.25	0
Condizione geostatica	-12.45	0
Condizione geostatica	-12.65	0
Condizione geostatica	-12.85	0
Condizione geostatica	-13.05	0
Condizione geostatica	-13.25	0
Condizione geostatica	-13.45	0
Condizione geostatica	-13.65	0
Condizione geostatica	-13.85	0
Condizione geostatica	-14.05	0
Condizione geostatica	-14.25	0
Condizione geostatica	-14.45	0
Condizione geostatica	-14.65	0
Condizione geostatica	-14.85	0
Condizione geostatica	-15.05	0
Condizione geostatica	-15.25	0
Condizione geostatica	-15.45	0
Condizione geostatica	-15.65	0
Condizione geostatica	-15.85	0
Condizione geostatica	-16.05	0
Condizione geostatica	-16.25	0
Condizione geostatica	-16.45	0
Condizione geostatica	-16.65	0
Condizione geostatica	-16.85	0
Condizione geostatica	-17.05	0
Condizione geostatica	-17.25	0
Condizione geostatica	-17.45	0
Condizione geostatica	-17.65	0
Condizione geostatica	-17.85	0
Condizione geostatica	-18.05	0
Condizione geostatica	-18.25	0
Condizione geostatica	-18.45	0
Condizione geostatica	-18.65	0
Condizione geostatica	-18.85	0
Condizione geostatica	-19.05	0
Condizione geostatica	-19.25	0
Condizione geostatica	-19.45	0
Condizione geostatica	-19.65	0
Condizione geostatica	-19.85	0
Condizione geostatica	-20.05	0
Condizione geostatica	-20.25	0

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

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Design Assumption: Nominal Stage	Tipo Risultato: Spostamento Z (m)	Muro: LEFT Spostamento (mm)
Condizione geostatica	-20.45	0
Condizione geostatica	-20.65	0
Condizione geostatica	-20.85	0
Condizione geostatica	-21.05	0
Condizione geostatica	-21.25	0
Condizione geostatica	-21.45	0
Condizione geostatica	-21.65	0
Condizione geostatica	-21.85	0
Condizione geostatica	-22.05	0
Condizione geostatica	-22.25	0
Condizione geostatica	-22.45	0
Condizione geostatica	-22.65	0
Condizione geostatica	-22.85	0
Condizione geostatica	-23.05	0
Condizione geostatica	-23.25	0
Condizione geostatica	-23.45	0
Condizione geostatica	-23.65	0
Condizione geostatica	-23.85	0
Condizione geostatica	-24.05	0
Condizione geostatica	-24.25	0
Condizione geostatica	-24.45	0
Condizione geostatica	-24.65	0
Condizione geostatica	-24.85	0
Condizione geostatica	-25.05	0
Condizione geostatica	-25.25	0
Condizione geostatica	-25.45	0
Condizione geostatica	-25.65	0
Condizione geostatica	-25.85	0
Condizione geostatica	-26.05	0
Condizione geostatica	-26.25	0
Condizione geostatica	-26.45	0
Condizione geostatica	-26.65	0
Condizione geostatica	-26.85	0
Condizione geostatica	-27.05	0
Condizione geostatica	-27.25	0
Condizione geostatica	-27.45	0
Condizione geostatica	-27.65	0
Condizione geostatica	-27.85	0
Condizione geostatica	-28	0



Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

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### Tabella Spostamento Nominal - LEFT Stage: Cordolo

Design Assumption:	Tipo Risultato:	Muro: LEFT
Nominal Stage	Spostamento Z (m)	Spostamento (mm)
Cordolo	0	0
Cordolo	-0.2	0
Cordolo	-0.4	0
Cordolo	-0.6	0
Cordolo	-0.8	0
Cordolo	-1	0
Cordolo	-1.2	0
Cordolo	-1.4	0
Cordolo	-1.6	0
Cordolo	-1.8	0
Cordolo	-2	0
Cordolo	-2.2	0
Cordolo	-2.25	0
Cordolo	-2.45	0
Cordolo	-2.65	0
Cordolo	-2.85	0
Cordolo	-3.05	0
Cordolo	-3.25	0
Cordolo	-3.45	0
Cordolo	-3.65	0
Cordolo	-3.85	0
Cordolo	-4.05	0
Cordolo	-4.25	0
Cordolo	-4.45	0
Cordolo	-4.65	0
Cordolo	-4.85	0
Cordolo	-5.05	0
Cordolo	-5.25	0
Cordolo	-5.45	0
Cordolo	-5.65	0
Cordolo	-5.85	0
Cordolo	-6.05	0
Cordolo	-6.25	0
Cordolo	-6.45	0
Cordolo	-6.65	0
Cordolo	-6.85	0
Cordolo	-7.05	0
Cordolo	-7.25	0
Cordolo	-7.45	0
Cordolo	-7.65	0
Cordolo	-7.85	0
Cordolo	-8.05	0
Cordolo	-8.25	0
Cordolo	-8.45	0
Cordolo	-8.65	0
Cordolo	-8.85	0
Cordolo	-9.05	0
Cordolo	-9.25	0
Cordolo	-9.45	0
Cordolo	-9.65	0
Cordolo	-9.85	0
Cordolo	-10.05	0
Cordolo	-10.25	0

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

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Design Assumption:	Tipo Risultato:	Muro: LEFT
Nominal Stage	Spostamento Z (m)	Spostamento (mm)
Cordolo	-10.45	0
Cordolo	-10.65	0
Cordolo	-10.85	0
Cordolo	-11.05	0
Cordolo	-11.25	0
Cordolo	-11.45	0
Cordolo	-11.65	0
Cordolo	-11.85	0
Cordolo	-12.05	0
Cordolo	-12.25	0
Cordolo	-12.45	0
Cordolo	-12.65	0
Cordolo	-12.85	0
Cordolo	-13.05	0
Cordolo	-13.25	0
Cordolo	-13.45	0
Cordolo	-13.65	0
Cordolo	-13.85	0
Cordolo	-14.05	0
Cordolo	-14.25	0
Cordolo	-14.45	0
Cordolo	-14.65	0
Cordolo	-14.85	0
Cordolo	-15.05	0
Cordolo	-15.25	0
Cordolo	-15.45	0
Cordolo	-15.65	0
Cordolo	-15.85	0
Cordolo	-16.05	0
Cordolo	-16.25	0
Cordolo	-16.45	0
Cordolo	-16.65	0
Cordolo	-16.85	0
Cordolo	-17.05	0
Cordolo	-17.25	0
Cordolo	-17.45	0
Cordolo	-17.65	0
Cordolo	-17.85	0
Cordolo	-18.05	0
Cordolo	-18.25	0
Cordolo	-18.45	0
Cordolo	-18.65	0
Cordolo	-18.85	0
Cordolo	-19.05	0
Cordolo	-19.25	0
Cordolo	-19.45	0
Cordolo	-19.65	0
Cordolo	-19.85	0
Cordolo	-20.05	0
Cordolo	-20.25	0
Cordolo	-20.45	0
Cordolo	-20.65	0
Cordolo	-20.85	0
Cordolo	-21.05	0
Cordolo	-21.25	0
Cordolo	-21.45	0
Cordolo	-21.65	0

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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Design Assumption: Nominal Stage	Tipo Risultato: Spostamento Z (m)	Muro: LEFT Spostamento (mm)
Cordolo	-21.85	0
Cordolo	-22.05	0
Cordolo	-22.25	0
Cordolo	-22.45	0
Cordolo	-22.65	0
Cordolo	-22.85	0
Cordolo	-23.05	0
Cordolo	-23.25	0
Cordolo	-23.45	0
Cordolo	-23.65	0
Cordolo	-23.85	0
Cordolo	-24.05	0
Cordolo	-24.25	0
Cordolo	-24.45	0
Cordolo	-24.65	0
Cordolo	-24.85	0
Cordolo	-25.05	0
Cordolo	-25.25	0
Cordolo	-25.45	0
Cordolo	-25.65	0
Cordolo	-25.85	0
Cordolo	-26.05	0
Cordolo	-26.25	0
Cordolo	-26.45	0
Cordolo	-26.65	0
Cordolo	-26.85	0
Cordolo	-27.05	0
Cordolo	-27.25	0
Cordolo	-27.45	0
Cordolo	-27.65	0
Cordolo	-27.85	0
Cordolo	-28	0

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

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### Tabella Spostamento Nominal - LEFT Stage: -1m

Design Assumption: Nominal Stage	Tipo Risultato: Spostamento Z (m)	Muro: LEFT Spostamento (mm)
-1m	0	0.12
-1m	-0.2	0.12
-1m	-0.4	0.12
-1m	-0.6	0.12
-1m	-0.8	0.13
-1m	-1	0.13
-1m	-1.2	0.13
-1m	-1.4	0.13
-1m	-1.6	0.13
-1m	-1.8	0.13
-1m	-2	0.13
-1m	-2.2	0.13
-1m	-2.25	0.13
-1m	-2.45	0.13
-1m	-2.65	0.14
-1m	-2.85	0.14
-1m	-3.05	0.14
-1m	-3.25	0.14
-1m	-3.45	0.14
-1m	-3.65	0.14
-1m	-3.85	0.14
-1m	-4.05	0.14
-1m	-4.25	0.14
-1m	-4.45	0.14
-1m	-4.65	0.14
-1m	-4.85	0.14
-1m	-5.05	0.14
-1m	-5.25	0.14
-1m	-5.45	0.14
-1m	-5.65	0.14
-1m	-5.85	0.14
-1m	-6.05	0.14
-1m	-6.25	0.14
-1m	-6.45	0.14
-1m	-6.65	0.14
-1m	-6.85	0.13
-1m	-7.05	0.13
-1m	-7.25	0.13
-1m	-7.45	0.13
-1m	-7.65	0.13
-1m	-7.85	0.13
-1m	-8.05	0.13
-1m	-8.25	0.13
-1m	-8.45	0.12
-1m	-8.65	0.12
-1m	-8.85	0.12
-1m	-9.05	0.12
-1m	-9.25	0.12
-1m	-9.45	0.12
-1m	-9.65	0.12
-1m	-9.85	0.12
-1m	-10.05	0.11
-1m	-10.25	0.11

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Design Assumption: Nominal Stage	Tipo Risultato: Spostamento Z (m)	Muro: LEFT Spostamento (mm)
-1m	-10.45	0.11
-1m	-10.65	0.11
-1m	-10.85	0.11
-1m	-11.05	0.11
-1m	-11.25	0.11
-1m	-11.45	0.11
-1m	-11.65	0.1
-1m	-11.85	0.1
-1m	-12.05	0.1
-1m	-12.25	0.1
-1m	-12.45	0.1
-1m	-12.65	0.1
-1m	-12.85	0.1
-1m	-13.05	0.1
-1m	-13.25	0.1
-1m	-13.45	0.1
-1m	-13.65	0.1
-1m	-13.85	0.1
-1m	-14.05	0.1
-1m	-14.25	0.1
-1m	-14.45	0.1
-1m	-14.65	0.1
-1m	-14.85	0.1
-1m	-15.05	0.1
-1m	-15.25	0.1
-1m	-15.45	0.1
-1m	-15.65	0.1
-1m	-15.85	0.1
-1m	-16.05	0.1
-1m	-16.25	0.11
-1m	-16.45	0.11
-1m	-16.65	0.11
-1m	-16.85	0.11
-1m	-17.05	0.12
-1m	-17.25	0.12
-1m	-17.45	0.12
-1m	-17.65	0.13
-1m	-17.85	0.13
-1m	-18.05	0.13
-1m	-18.25	0.14
-1m	-18.45	0.14
-1m	-18.65	0.15
-1m	-18.85	0.15
-1m	-19.05	0.16
-1m	-19.25	0.16
-1m	-19.45	0.17
-1m	-19.65	0.17
-1m	-19.85	0.18
-1m	-20.05	0.18
-1m	-20.25	0.19
-1m	-20.45	0.2
-1m	-20.65	0.2
-1m	-20.85	0.21
-1m	-21.05	0.22
-1m	-21.25	0.22
-1m	-21.45	0.23
-1m	-21.65	0.23

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Design Assumption: Nominal Stage	Tipo Risultato: Spostamento Z (m)	Muro: LEFT Spostamento (mm)
-1m	-21.85	0.24
-1m	-22.05	0.25
-1m	-22.25	0.25
-1m	-22.45	0.26
-1m	-22.65	0.27
-1m	-22.85	0.27
-1m	-23.05	0.28
-1m	-23.25	0.29
-1m	-23.45	0.29
-1m	-23.65	0.3
-1m	-23.85	0.3
-1m	-24.05	0.31
-1m	-24.25	0.32
-1m	-24.45	0.32
-1m	-24.65	0.33
-1m	-24.85	0.33
-1m	-25.05	0.34
-1m	-25.25	0.34
-1m	-25.45	0.35
-1m	-25.65	0.36
-1m	-25.85	0.36
-1m	-26.05	0.37
-1m	-26.25	0.37
-1m	-26.45	0.38
-1m	-26.65	0.38
-1m	-26.85	0.39
-1m	-27.05	0.4
-1m	-27.25	0.4
-1m	-27.45	0.41
-1m	-27.65	0.41
-1m	-27.85	0.42
-1m	-28	0.42

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### Tabella Spostamento Nominal - LEFT Stage: -2m

Design Assumption: Nominal Stage	Tipo Risultato: Spostamento Z (m)	Muro: LEFT Spostamento (mm)
-2m	0	0.21
-2m	-0.2	0.21
-2m	-0.4	0.22
-2m	-0.6	0.22
-2m	-0.8	0.22
-2m	-1	0.23
-2m	-1.2	0.23
-2m	-1.4	0.24
-2m	-1.6	0.24
-2m	-1.8	0.25
-2m	-2	0.25
-2m	-2.2	0.26
-2m	-2.25	0.26
-2m	-2.45	0.26
-2m	-2.65	0.27
-2m	-2.85	0.27
-2m	-3.05	0.27
-2m	-3.25	0.28
-2m	-3.45	0.28
-2m	-3.65	0.29
-2m	-3.85	0.29
-2m	-4.05	0.29
-2m	-4.25	0.3
-2m	-4.45	0.3
-2m	-4.65	0.3
-2m	-4.85	0.3
-2m	-5.05	0.3
-2m	-5.25	0.3
-2m	-5.45	0.3
-2m	-5.65	0.3
-2m	-5.85	0.3
-2m	-6.05	0.3
-2m	-6.25	0.3
-2m	-6.45	0.3
-2m	-6.65	0.3
-2m	-6.85	0.3
-2m	-7.05	0.3
-2m	-7.25	0.29
-2m	-7.45	0.29
-2m	-7.65	0.29
-2m	-7.85	0.29
-2m	-8.05	0.28
-2m	-8.25	0.28
-2m	-8.45	0.28
-2m	-8.65	0.28
-2m	-8.85	0.27
-2m	-9.05	0.27
-2m	-9.25	0.27
-2m	-9.45	0.26
-2m	-9.65	0.26
-2m	-9.85	0.26
-2m	-10.05	0.25
-2m	-10.25	0.25

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Design Assumption: Nominal Stage	Tipo Risultato: Spostamento Z (m)	Muro: LEFT Spostamento (mm)
-2m	-10.45	0.25
-2m	-10.65	0.24
-2m	-10.85	0.24
-2m	-11.05	0.24
-2m	-11.25	0.24
-2m	-11.45	0.23
-2m	-11.65	0.23
-2m	-11.85	0.23
-2m	-12.05	0.23
-2m	-12.25	0.22
-2m	-12.45	0.22
-2m	-12.65	0.22
-2m	-12.85	0.22
-2m	-13.05	0.22
-2m	-13.25	0.21
-2m	-13.45	0.21
-2m	-13.65	0.21
-2m	-13.85	0.21
-2m	-14.05	0.21
-2m	-14.25	0.21
-2m	-14.45	0.21
-2m	-14.65	0.21
-2m	-14.85	0.21
-2m	-15.05	0.21
-2m	-15.25	0.21
-2m	-15.45	0.22
-2m	-15.65	0.22
-2m	-15.85	0.22
-2m	-16.05	0.22
-2m	-16.25	0.23
-2m	-16.45	0.23
-2m	-16.65	0.23
-2m	-16.85	0.24
-2m	-17.05	0.24
-2m	-17.25	0.25
-2m	-17.45	0.26
-2m	-17.65	0.26
-2m	-17.85	0.27
-2m	-18.05	0.28
-2m	-18.25	0.29
-2m	-18.45	0.3
-2m	-18.65	0.31
-2m	-18.85	0.32
-2m	-19.05	0.33
-2m	-19.25	0.34
-2m	-19.45	0.35
-2m	-19.65	0.36
-2m	-19.85	0.37
-2m	-20.05	0.39
-2m	-20.25	0.4
-2m	-20.45	0.41
-2m	-20.65	0.42
-2m	-20.85	0.44
-2m	-21.05	0.45
-2m	-21.25	0.46
-2m	-21.45	0.48
-2m	-21.65	0.49



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Design Assumption: Nominal Stage	Tipo Risultato: Spostamento Z (m)	Muro: LEFT Spostamento (mm)
-2m	-21.85	0.5
-2m	-22.05	0.52
-2m	-22.25	0.53
-2m	-22.45	0.54
-2m	-22.65	0.56
-2m	-22.85	0.57
-2m	-23.05	0.58
-2m	-23.25	0.6
-2m	-23.45	0.61
-2m	-23.65	0.62
-2m	-23.85	0.64
-2m	-24.05	0.65
-2m	-24.25	0.66
-2m	-24.45	0.67
-2m	-24.65	0.69
-2m	-24.85	0.7
-2m	-25.05	0.71
-2m	-25.25	0.72
-2m	-25.45	0.73
-2m	-25.65	0.75
-2m	-25.85	0.76
-2m	-26.05	0.77
-2m	-26.25	0.78
-2m	-26.45	0.79
-2m	-26.65	0.8
-2m	-26.85	0.82
-2m	-27.05	0.83
-2m	-27.25	0.84
-2m	-27.45	0.85
-2m	-27.65	0.86
-2m	-27.85	0.87
-2m	-28	0.88

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### Tabella Spostamento Nominal - LEFT Stage: -3m

Design Assumption: Nominal Stage	Tipo Risultato: Spostamento Z (m)	Muro: LEFT Spostamento (mm)
-3m	0	0.27
-3m	-0.2	0.28
-3m	-0.4	0.29
-3m	-0.6	0.3
-3m	-0.8	0.31
-3m	-1	0.32
-3m	-1.2	0.33
-3m	-1.4	0.34
-3m	-1.6	0.35
-3m	-1.8	0.36
-3m	-2	0.37
-3m	-2.2	0.38
-3m	-2.25	0.38
-3m	-2.45	0.39
-3m	-2.65	0.4
-3m	-2.85	0.41
-3m	-3.05	0.42
-3m	-3.25	0.43
-3m	-3.45	0.44
-3m	-3.65	0.45
-3m	-3.85	0.46
-3m	-4.05	0.46
-3m	-4.25	0.47
-3m	-4.45	0.48
-3m	-4.65	0.48
-3m	-4.85	0.49
-3m	-5.05	0.49
-3m	-5.25	0.5
-3m	-5.45	0.5
-3m	-5.65	0.5
-3m	-5.85	0.5
-3m	-6.05	0.5
-3m	-6.25	0.51
-3m	-6.45	0.51
-3m	-6.65	0.5
-3m	-6.85	0.5
-3m	-7.05	0.5
-3m	-7.25	0.5
-3m	-7.45	0.5
-3m	-7.65	0.49
-3m	-7.85	0.49
-3m	-8.05	0.48
-3m	-8.25	0.48
-3m	-8.45	0.48
-3m	-8.65	0.47
-3m	-8.85	0.47
-3m	-9.05	0.46
-3m	-9.25	0.46
-3m	-9.45	0.45
-3m	-9.65	0.44
-3m	-9.85	0.44
-3m	-10.05	0.43
-3m	-10.25	0.43

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Design Assumption: Nominal Stage	Tipo Risultato: Spostamento Z (m)	Muro: LEFT Spostamento (mm)
-3m	-10.45	0.42
-3m	-10.65	0.42
-3m	-10.85	0.41
-3m	-11.05	0.41
-3m	-11.25	0.4
-3m	-11.45	0.4
-3m	-11.65	0.39
-3m	-11.85	0.39
-3m	-12.05	0.38
-3m	-12.25	0.38
-3m	-12.45	0.37
-3m	-12.65	0.37
-3m	-12.85	0.36
-3m	-13.05	0.36
-3m	-13.25	0.36
-3m	-13.45	0.35
-3m	-13.65	0.35
-3m	-13.85	0.35
-3m	-14.05	0.35
-3m	-14.25	0.35
-3m	-14.45	0.35
-3m	-14.65	0.35
-3m	-14.85	0.35
-3m	-15.05	0.35
-3m	-15.25	0.35
-3m	-15.45	0.35
-3m	-15.65	0.35
-3m	-15.85	0.36
-3m	-16.05	0.36
-3m	-16.25	0.37
-3m	-16.45	0.37
-3m	-16.65	0.38
-3m	-16.85	0.39
-3m	-17.05	0.39
-3m	-17.25	0.4
-3m	-17.45	0.41
-3m	-17.65	0.42
-3m	-17.85	0.43
-3m	-18.05	0.45
-3m	-18.25	0.46
-3m	-18.45	0.47
-3m	-18.65	0.49
-3m	-18.85	0.5
-3m	-19.05	0.52
-3m	-19.25	0.54
-3m	-19.45	0.56
-3m	-19.65	0.57
-3m	-19.85	0.59
-3m	-20.05	0.61
-3m	-20.25	0.63
-3m	-20.45	0.65
-3m	-20.65	0.67
-3m	-20.85	0.69
-3m	-21.05	0.71
-3m	-21.25	0.74
-3m	-21.45	0.76
-3m	-21.65	0.78

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Design Assumption: Nominal Stage	Tipo Risultato: Spostamento Z (m)	Muro: LEFT Spostamento (mm)
-3m	-21.85	0.8
-3m	-22.05	0.82
-3m	-22.25	0.84
-3m	-22.45	0.86
-3m	-22.65	0.88
-3m	-22.85	0.9
-3m	-23.05	0.92
-3m	-23.25	0.94
-3m	-23.45	0.96
-3m	-23.65	0.98
-3m	-23.85	1
-3m	-24.05	1.02
-3m	-24.25	1.04
-3m	-24.45	1.06
-3m	-24.65	1.08
-3m	-24.85	1.1
-3m	-25.05	1.12
-3m	-25.25	1.14
-3m	-25.45	1.16
-3m	-25.65	1.18
-3m	-25.85	1.2
-3m	-26.05	1.22
-3m	-26.25	1.23
-3m	-26.45	1.25
-3m	-26.65	1.27
-3m	-26.85	1.29
-3m	-27.05	1.31
-3m	-27.25	1.33
-3m	-27.45	1.34
-3m	-27.65	1.36
-3m	-27.85	1.38
-3m	-28	1.4

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**Tabella Spostamento Nominal - LEFT Stage: Rinterro 1**

Design Assumption:	Tipo Risultato:	Muro: LEFT
Nominal	Spostamento	Spostamento
Stage	Z (m)	(mm)
Rinterro 1	0	0.65
Rinterro 1	-0.2	0.66
Rinterro 1	-0.4	0.67
Rinterro 1	-0.6	0.69
Rinterro 1	-0.8	0.7
Rinterro 1	-1	0.71
Rinterro 1	-1.2	0.72
Rinterro 1	-1.4	0.74
Rinterro 1	-1.6	0.75
Rinterro 1	-1.8	0.76
Rinterro 1	-2	0.77
Rinterro 1	-2.2	0.79
Rinterro 1	-2.25	0.79
Rinterro 1	-2.45	0.8
Rinterro 1	-2.65	0.81
Rinterro 1	-2.85	0.83
Rinterro 1	-3.05	0.84
Rinterro 1	-3.25	0.85
Rinterro 1	-3.45	0.86
Rinterro 1	-3.65	0.87
Rinterro 1	-3.85	0.88
Rinterro 1	-4.05	0.89
Rinterro 1	-4.25	0.89
Rinterro 1	-4.45	0.9
Rinterro 1	-4.65	0.9
Rinterro 1	-4.85	0.91
Rinterro 1	-5.05	0.91
Rinterro 1	-5.25	0.91
Rinterro 1	-5.45	0.91
Rinterro 1	-5.65	0.91
Rinterro 1	-5.85	0.91
Rinterro 1	-6.05	0.91
Rinterro 1	-6.25	0.91
Rinterro 1	-6.45	0.9
Rinterro 1	-6.65	0.9
Rinterro 1	-6.85	0.89
Rinterro 1	-7.05	0.88
Rinterro 1	-7.25	0.87
Rinterro 1	-7.45	0.87
Rinterro 1	-7.65	0.86
Rinterro 1	-7.85	0.85
Rinterro 1	-8.05	0.84
Rinterro 1	-8.25	0.83
Rinterro 1	-8.45	0.82
Rinterro 1	-8.65	0.81
Rinterro 1	-8.85	0.79
Rinterro 1	-9.05	0.78
Rinterro 1	-9.25	0.77
Rinterro 1	-9.45	0.76
Rinterro 1	-9.65	0.75
Rinterro 1	-9.85	0.74
Rinterro 1	-10.05	0.73
Rinterro 1	-10.25	0.72

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Design Assumption:	Tipo Risultato:	Muro: LEFT
Nominal Stage	Spostamento Z (m)	Spostamento (mm)
Rinterro 1	-10.45	0.71
Rinterro 1	-10.65	0.7
Rinterro 1	-10.85	0.69
Rinterro 1	-11.05	0.68
Rinterro 1	-11.25	0.67
Rinterro 1	-11.45	0.66
Rinterro 1	-11.65	0.65
Rinterro 1	-11.85	0.64
Rinterro 1	-12.05	0.63
Rinterro 1	-12.25	0.62
Rinterro 1	-12.45	0.62
Rinterro 1	-12.65	0.61
Rinterro 1	-12.85	0.6
Rinterro 1	-13.05	0.6
Rinterro 1	-13.25	0.59
Rinterro 1	-13.45	0.59
Rinterro 1	-13.65	0.58
Rinterro 1	-13.85	0.58
Rinterro 1	-14.05	0.58
Rinterro 1	-14.25	0.58
Rinterro 1	-14.45	0.58
Rinterro 1	-14.65	0.58
Rinterro 1	-14.85	0.58
Rinterro 1	-15.05	0.58
Rinterro 1	-15.25	0.58
Rinterro 1	-15.45	0.59
Rinterro 1	-15.65	0.59
Rinterro 1	-15.85	0.6
Rinterro 1	-16.05	0.61
Rinterro 1	-16.25	0.62
Rinterro 1	-16.45	0.63
Rinterro 1	-16.65	0.64
Rinterro 1	-16.85	0.65
Rinterro 1	-17.05	0.67
Rinterro 1	-17.25	0.68
Rinterro 1	-17.45	0.7
Rinterro 1	-17.65	0.72
Rinterro 1	-17.85	0.73
Rinterro 1	-18.05	0.76
Rinterro 1	-18.25	0.78
Rinterro 1	-18.45	0.8
Rinterro 1	-18.65	0.83
Rinterro 1	-18.85	0.85
Rinterro 1	-19.05	0.88
Rinterro 1	-19.25	0.91
Rinterro 1	-19.45	0.94
Rinterro 1	-19.65	0.97
Rinterro 1	-19.85	1
Rinterro 1	-20.05	1.03
Rinterro 1	-20.25	1.06
Rinterro 1	-20.45	1.1
Rinterro 1	-20.65	1.13
Rinterro 1	-20.85	1.16
Rinterro 1	-21.05	1.2
Rinterro 1	-21.25	1.23
Rinterro 1	-21.45	1.27
Rinterro 1	-21.65	1.3

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Design Assumption: Nominal Stage	Tipo Risultato: Spostamento Z (m)	Muro: LEFT Spostamento (mm)
Rinterro 1	-21.85	1.34
Rinterro 1	-22.05	1.37
Rinterro 1	-22.25	1.41
Rinterro 1	-22.45	1.44
Rinterro 1	-22.65	1.48
Rinterro 1	-22.85	1.51
Rinterro 1	-23.05	1.55
Rinterro 1	-23.25	1.58
Rinterro 1	-23.45	1.62
Rinterro 1	-23.65	1.65
Rinterro 1	-23.85	1.68
Rinterro 1	-24.05	1.72
Rinterro 1	-24.25	1.75
Rinterro 1	-24.45	1.78
Rinterro 1	-24.65	1.82
Rinterro 1	-24.85	1.85
Rinterro 1	-25.05	1.88
Rinterro 1	-25.25	1.92
Rinterro 1	-25.45	1.95
Rinterro 1	-25.65	1.98
Rinterro 1	-25.85	2.01
Rinterro 1	-26.05	2.05
Rinterro 1	-26.25	2.08
Rinterro 1	-26.45	2.11
Rinterro 1	-26.65	2.14
Rinterro 1	-26.85	2.17
Rinterro 1	-27.05	2.21
Rinterro 1	-27.25	2.24
Rinterro 1	-27.45	2.27
Rinterro 1	-27.65	2.3
Rinterro 1	-27.85	2.33
Rinterro 1	-28	2.36

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### Tabella Spostamento Nominal - LEFT Stage: Rinterro 2

Design Assumption:	Tipo Risultato:	Muro: LEFT
Nominal	Spostamento	Spostamento
Stage	Z (m)	(mm)
Rinterro 2	0	1.37
Rinterro 2	-0.2	1.39
Rinterro 2	-0.4	1.4
Rinterro 2	-0.6	1.42
Rinterro 2	-0.8	1.44
Rinterro 2	-1	1.45
Rinterro 2	-1.2	1.47
Rinterro 2	-1.4	1.49
Rinterro 2	-1.6	1.5
Rinterro 2	-1.8	1.52
Rinterro 2	-2	1.53
Rinterro 2	-2.2	1.55
Rinterro 2	-2.25	1.56
Rinterro 2	-2.45	1.57
Rinterro 2	-2.65	1.59
Rinterro 2	-2.85	1.61
Rinterro 2	-3.05	1.62
Rinterro 2	-3.25	1.64
Rinterro 2	-3.45	1.65
Rinterro 2	-3.65	1.67
Rinterro 2	-3.85	1.68
Rinterro 2	-4.05	1.69
Rinterro 2	-4.25	1.7
Rinterro 2	-4.45	1.71
Rinterro 2	-4.65	1.71
Rinterro 2	-4.85	1.72
Rinterro 2	-5.05	1.72
Rinterro 2	-5.25	1.72
Rinterro 2	-5.45	1.72
Rinterro 2	-5.65	1.72
Rinterro 2	-5.85	1.72
Rinterro 2	-6.05	1.71
Rinterro 2	-6.25	1.71
Rinterro 2	-6.45	1.7
Rinterro 2	-6.65	1.69
Rinterro 2	-6.85	1.68
Rinterro 2	-7.05	1.67
Rinterro 2	-7.25	1.65
Rinterro 2	-7.45	1.64
Rinterro 2	-7.65	1.63
Rinterro 2	-7.85	1.61
Rinterro 2	-8.05	1.59
Rinterro 2	-8.25	1.58
Rinterro 2	-8.45	1.56
Rinterro 2	-8.65	1.54
Rinterro 2	-8.85	1.52
Rinterro 2	-9.05	1.51
Rinterro 2	-9.25	1.49
Rinterro 2	-9.45	1.47
Rinterro 2	-9.65	1.45
Rinterro 2	-9.85	1.43
Rinterro 2	-10.05	1.41
Rinterro 2	-10.25	1.4



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Design Assumption:	Tipo Risultato:	Muro: LEFT
Nominal	Spostamento	Spostamento
Stage	Z (m)	(mm)
Rinterro 2	-10.45	1.38
Rinterro 2	-10.65	1.36
Rinterro 2	-10.85	1.34
Rinterro 2	-11.05	1.33
Rinterro 2	-11.25	1.31
Rinterro 2	-11.45	1.3
Rinterro 2	-11.65	1.28
Rinterro 2	-11.85	1.27
Rinterro 2	-12.05	1.26
Rinterro 2	-12.25	1.25
Rinterro 2	-12.45	1.24
Rinterro 2	-12.65	1.23
Rinterro 2	-12.85	1.22
Rinterro 2	-13.05	1.21
Rinterro 2	-13.25	1.2
Rinterro 2	-13.45	1.2
Rinterro 2	-13.65	1.2
Rinterro 2	-13.85	1.19
Rinterro 2	-14.05	1.19
Rinterro 2	-14.25	1.19
Rinterro 2	-14.45	1.2
Rinterro 2	-14.65	1.2
Rinterro 2	-14.85	1.21
Rinterro 2	-15.05	1.21
Rinterro 2	-15.25	1.22
Rinterro 2	-15.45	1.23
Rinterro 2	-15.65	1.25
Rinterro 2	-15.85	1.26
Rinterro 2	-16.05	1.28
Rinterro 2	-16.25	1.3
Rinterro 2	-16.45	1.33
Rinterro 2	-16.65	1.35
Rinterro 2	-16.85	1.38
Rinterro 2	-17.05	1.41
Rinterro 2	-17.25	1.44
Rinterro 2	-17.45	1.47
Rinterro 2	-17.65	1.51
Rinterro 2	-17.85	1.55
Rinterro 2	-18.05	1.59
Rinterro 2	-18.25	1.64
Rinterro 2	-18.45	1.68
Rinterro 2	-18.65	1.73
Rinterro 2	-18.85	1.78
Rinterro 2	-19.05	1.84
Rinterro 2	-19.25	1.89
Rinterro 2	-19.45	1.95
Rinterro 2	-19.65	2.01
Rinterro 2	-19.85	2.07
Rinterro 2	-20.05	2.13
Rinterro 2	-20.25	2.2
Rinterro 2	-20.45	2.26
Rinterro 2	-20.65	2.33
Rinterro 2	-20.85	2.4
Rinterro 2	-21.05	2.46
Rinterro 2	-21.25	2.53
Rinterro 2	-21.45	2.6
Rinterro 2	-21.65	2.67

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Design Assumption: Nominal Stage	Tipo Risultato: Spostamento Z (m)	Muro: LEFT Spostamento (mm)
Rinterro 2	-21.85	2.74
Rinterro 2	-22.05	2.81
Rinterro 2	-22.25	2.88
Rinterro 2	-22.45	2.95
Rinterro 2	-22.65	3.02
Rinterro 2	-22.85	3.09
Rinterro 2	-23.05	3.16
Rinterro 2	-23.25	3.23
Rinterro 2	-23.45	3.29
Rinterro 2	-23.65	3.36
Rinterro 2	-23.85	3.43
Rinterro 2	-24.05	3.5
Rinterro 2	-24.25	3.57
Rinterro 2	-24.45	3.64
Rinterro 2	-24.65	3.7
Rinterro 2	-24.85	3.77
Rinterro 2	-25.05	3.84
Rinterro 2	-25.25	3.9
Rinterro 2	-25.45	3.97
Rinterro 2	-25.65	4.04
Rinterro 2	-25.85	4.1
Rinterro 2	-26.05	4.17
Rinterro 2	-26.25	4.24
Rinterro 2	-26.45	4.3
Rinterro 2	-26.65	4.37
Rinterro 2	-26.85	4.43
Rinterro 2	-27.05	4.5
Rinterro 2	-27.25	4.57
Rinterro 2	-27.45	4.63
Rinterro 2	-27.65	4.7
Rinterro 2	-27.85	4.76
Rinterro 2	-28	4.81

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### Tabella Spostamento Nominal - LEFT Stage: Acc

Design Assumption: Nominal Stage	Tipo Risultato: Spostamento Z (m)	Muro: LEFT Spostamento (mm)
Acc	0	4.1
Acc	-0.2	4.07
Acc	-0.4	4.04
Acc	-0.6	4.01
Acc	-0.8	3.98
Acc	-1	3.94
Acc	-1.2	3.91
Acc	-1.4	3.88
Acc	-1.6	3.85
Acc	-1.8	3.82
Acc	-2	3.78
Acc	-2.2	3.75
Acc	-2.25	3.74
Acc	-2.45	3.71
Acc	-2.65	3.68
Acc	-2.85	3.65
Acc	-3.05	3.62
Acc	-3.25	3.59
Acc	-3.45	3.55
Acc	-3.65	3.52
Acc	-3.85	3.48
Acc	-4.05	3.45
Acc	-4.25	3.41
Acc	-4.45	3.37
Acc	-4.65	3.33
Acc	-4.85	3.29
Acc	-5.05	3.25
Acc	-5.25	3.2
Acc	-5.45	3.16
Acc	-5.65	3.11
Acc	-5.85	3.07
Acc	-6.05	3.02
Acc	-6.25	2.97
Acc	-6.45	2.92
Acc	-6.65	2.86
Acc	-6.85	2.81
Acc	-7.05	2.76
Acc	-7.25	2.71
Acc	-7.45	2.65
Acc	-7.65	2.6
Acc	-7.85	2.55
Acc	-8.05	2.49
Acc	-8.25	2.44
Acc	-8.45	2.39
Acc	-8.65	2.34
Acc	-8.85	2.29
Acc	-9.05	2.24
Acc	-9.25	2.19
Acc	-9.45	2.14
Acc	-9.65	2.09
Acc	-9.85	2.05
Acc	-10.05	2
Acc	-10.25	1.96

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Design Assumption: Nominal Stage	Tipo Risultato: Spostamento Z (m)	Muro: LEFT Spostamento (mm)
Acc	-10.45	1.92
Acc	-10.65	1.87
Acc	-10.85	1.84
Acc	-11.05	1.8
Acc	-11.25	1.76
Acc	-11.45	1.73
Acc	-11.65	1.7
Acc	-11.85	1.66
Acc	-12.05	1.64
Acc	-12.25	1.61
Acc	-12.45	1.58
Acc	-12.65	1.56
Acc	-12.85	1.54
Acc	-13.05	1.52
Acc	-13.25	1.5
Acc	-13.45	1.49
Acc	-13.65	1.48
Acc	-13.85	1.47
Acc	-14.05	1.46
Acc	-14.25	1.45
Acc	-14.45	1.45
Acc	-14.65	1.45
Acc	-14.85	1.45
Acc	-15.05	1.46
Acc	-15.25	1.47
Acc	-15.45	1.48
Acc	-15.65	1.49
Acc	-15.85	1.5
Acc	-16.05	1.52
Acc	-16.25	1.54
Acc	-16.45	1.57
Acc	-16.65	1.6
Acc	-16.85	1.63
Acc	-17.05	1.66
Acc	-17.25	1.7
Acc	-17.45	1.74
Acc	-17.65	1.78
Acc	-17.85	1.82
Acc	-18.05	1.87
Acc	-18.25	1.92
Acc	-18.45	1.98
Acc	-18.65	2.03
Acc	-18.85	2.09
Acc	-19.05	2.15
Acc	-19.25	2.22
Acc	-19.45	2.28
Acc	-19.65	2.35
Acc	-19.85	2.42
Acc	-20.05	2.49
Acc	-20.25	2.57
Acc	-20.45	2.64
Acc	-20.65	2.72
Acc	-20.85	2.8
Acc	-21.05	2.87
Acc	-21.25	2.95
Acc	-21.45	3.03
Acc	-21.65	3.11

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Design Assumption: Nominal Stage	Tipo Risultato: Spostamento Z (m)	Muro: LEFT Spostamento (mm)
Acc	-21.85	3.19
Acc	-22.05	3.27
Acc	-22.25	3.35
Acc	-22.45	3.43
Acc	-22.65	3.51
Acc	-22.85	3.59
Acc	-23.05	3.67
Acc	-23.25	3.75
Acc	-23.45	3.83
Acc	-23.65	3.91
Acc	-23.85	3.99
Acc	-24.05	4.06
Acc	-24.25	4.14
Acc	-24.45	4.22
Acc	-24.65	4.3
Acc	-24.85	4.38
Acc	-25.05	4.45
Acc	-25.25	4.53
Acc	-25.45	4.61
Acc	-25.65	4.68
Acc	-25.85	4.76
Acc	-26.05	4.83
Acc	-26.25	4.91
Acc	-26.45	4.98
Acc	-26.65	5.06
Acc	-26.85	5.14
Acc	-27.05	5.21
Acc	-27.25	5.29
Acc	-27.45	5.36
Acc	-27.65	5.44
Acc	-27.85	5.51
Acc	-28	5.57

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### Tabella Spostamento Nominal - LEFT Stage: Sisma

Design Assumption:	Tipo Risultato:	Muro: LEFT
Nominal	Spostamento	Spostamento
Stage	Z (m)	(mm)
Sisma	0	15.68
Sisma	-0.2	15.42
Sisma	-0.4	15.17
Sisma	-0.6	14.91
Sisma	-0.8	14.66
Sisma	-1	14.41
Sisma	-1.2	14.15
Sisma	-1.4	13.9
Sisma	-1.6	13.64
Sisma	-1.8	13.39
Sisma	-2	13.14
Sisma	-2.2	12.88
Sisma	-2.25	12.82
Sisma	-2.45	12.57
Sisma	-2.65	12.32
Sisma	-2.85	12.07
Sisma	-3.05	11.82
Sisma	-3.25	11.57
Sisma	-3.45	11.32
Sisma	-3.65	11.07
Sisma	-3.85	10.82
Sisma	-4.05	10.57
Sisma	-4.25	10.32
Sisma	-4.45	10.07
Sisma	-4.65	9.82
Sisma	-4.85	9.56
Sisma	-5.05	9.31
Sisma	-5.25	9.06
Sisma	-5.45	8.81
Sisma	-5.65	8.56
Sisma	-5.85	8.32
Sisma	-6.05	8.07
Sisma	-6.25	7.82
Sisma	-6.45	7.58
Sisma	-6.65	7.34
Sisma	-6.85	7.1
Sisma	-7.05	6.86
Sisma	-7.25	6.63
Sisma	-7.45	6.39
Sisma	-7.65	6.17
Sisma	-7.85	5.94
Sisma	-8.05	5.72
Sisma	-8.25	5.51
Sisma	-8.45	5.3
Sisma	-8.65	5.09
Sisma	-8.85	4.89
Sisma	-9.05	4.69
Sisma	-9.25	4.5
Sisma	-9.45	4.31
Sisma	-9.65	4.13
Sisma	-9.85	3.96
Sisma	-10.05	3.79
Sisma	-10.25	3.62

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Design Assumption: Nominal Stage	Tipo Risultato: Spostamento Z (m)	Muro: LEFT Spostamento (mm)
Sisma	-10.45	3.46
Sisma	-10.65	3.31
Sisma	-10.85	3.16
Sisma	-11.05	3.02
Sisma	-11.25	2.89
Sisma	-11.45	2.76
Sisma	-11.65	2.63
Sisma	-11.85	2.51
Sisma	-12.05	2.4
Sisma	-12.25	2.3
Sisma	-12.45	2.2
Sisma	-12.65	2.1
Sisma	-12.85	2.02
Sisma	-13.05	1.93
Sisma	-13.25	1.86
Sisma	-13.45	1.79
Sisma	-13.65	1.72
Sisma	-13.85	1.66
Sisma	-14.05	1.61
Sisma	-14.25	1.56
Sisma	-14.45	1.52
Sisma	-14.65	1.48
Sisma	-14.85	1.45
Sisma	-15.05	1.42
Sisma	-15.25	1.4
Sisma	-15.45	1.38
Sisma	-15.65	1.37
Sisma	-15.85	1.36
Sisma	-16.05	1.36
Sisma	-16.25	1.36
Sisma	-16.45	1.37
Sisma	-16.65	1.38
Sisma	-16.85	1.4
Sisma	-17.05	1.42
Sisma	-17.25	1.45
Sisma	-17.45	1.48
Sisma	-17.65	1.51
Sisma	-17.85	1.55
Sisma	-18.05	1.59
Sisma	-18.25	1.64
Sisma	-18.45	1.69
Sisma	-18.65	1.75
Sisma	-18.85	1.8
Sisma	-19.05	1.86
Sisma	-19.25	1.93
Sisma	-19.45	1.99
Sisma	-19.65	2.06
Sisma	-19.85	2.14
Sisma	-20.05	2.21
Sisma	-20.25	2.29
Sisma	-20.45	2.36
Sisma	-20.65	2.44
Sisma	-20.85	2.52
Sisma	-21.05	2.61
Sisma	-21.25	2.69
Sisma	-21.45	2.77
Sisma	-21.65	2.86

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Design Assumption: Nominal Stage	Tipo Risultato: Spostamento Z (m)	Muro: LEFT Spostamento (mm)
Sisma	-21.85	2.94
Sisma	-22.05	3.03
Sisma	-22.25	3.11
Sisma	-22.45	3.2
Sisma	-22.65	3.28
Sisma	-22.85	3.37
Sisma	-23.05	3.46
Sisma	-23.25	3.54
Sisma	-23.45	3.63
Sisma	-23.65	3.71
Sisma	-23.85	3.8
Sisma	-24.05	3.88
Sisma	-24.25	3.97
Sisma	-24.45	4.05
Sisma	-24.65	4.14
Sisma	-24.85	4.22
Sisma	-25.05	4.31
Sisma	-25.25	4.39
Sisma	-25.45	4.48
Sisma	-25.65	4.56
Sisma	-25.85	4.64
Sisma	-26.05	4.73
Sisma	-26.25	4.81
Sisma	-26.45	4.89
Sisma	-26.65	4.98
Sisma	-26.85	5.06
Sisma	-27.05	5.14
Sisma	-27.25	5.22
Sisma	-27.45	5.31
Sisma	-27.65	5.39
Sisma	-27.85	5.47
Sisma	-28	5.53



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## Risultati Paratia

### Tabella Risultati Paratia Nominal - Stage: Condizione geostatica

Design Assumption: Nominal Stage	Risultati Paratia Z (m)	Muro: LEFT	
		Momento (kN*m/m)	Taglio (kN/m)
Condizione geostatica	0	0	0
Condizione geostatica	-0.2	0	0
Condizione geostatica	-0.4	0	0
Condizione geostatica	-0.6	0	0
Condizione geostatica	-0.8	0	0
Condizione geostatica	-1	0	0
Condizione geostatica	-1.2	0	0
Condizione geostatica	-1.4	0	0
Condizione geostatica	-1.6	0	0
Condizione geostatica	-1.8	0	0
Condizione geostatica	-2	0	0
Condizione geostatica	-2.2	0	0
Condizione geostatica	-2.25	0	0
Condizione geostatica	-2.45	0	0
Condizione geostatica	-2.65	0	0
Condizione geostatica	-2.85	0	0
Condizione geostatica	-3.05	0	0
Condizione geostatica	-3.25	0	0
Condizione geostatica	-3.45	0	0
Condizione geostatica	-3.65	0	0
Condizione geostatica	-3.85	0	0
Condizione geostatica	-4.05	0	0
Condizione geostatica	-4.25	0	0
Condizione geostatica	-4.45	0	0
Condizione geostatica	-4.65	0	0
Condizione geostatica	-4.85	0	0
Condizione geostatica	-5.05	0	0
Condizione geostatica	-5.25	0	0
Condizione geostatica	-5.45	0	0
Condizione geostatica	-5.65	0	0
Condizione geostatica	-5.85	0	0
Condizione geostatica	-6.05	0	0
Condizione geostatica	-6.25	0	0
Condizione geostatica	-6.45	0	0
Condizione geostatica	-6.65	0	0
Condizione geostatica	-6.85	0	0
Condizione geostatica	-7.05	0	0
Condizione geostatica	-7.25	0	0
Condizione geostatica	-7.45	0	0
Condizione geostatica	-7.65	0	0
Condizione geostatica	-7.85	0	0
Condizione geostatica	-8.05	0	0
Condizione geostatica	-8.25	0	0
Condizione geostatica	-8.45	0	0
Condizione geostatica	-8.65	0	0
Condizione geostatica	-8.85	0	0
Condizione geostatica	-9.05	0	0
Condizione geostatica	-9.25	0	0
Condizione geostatica	-9.45	0	0
Condizione geostatica	-9.65	0	0

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Design Assumption: Nominal Stage	Risultati Paratia Z (m)	Muro: LEFT	
		Momento (kN*m/m)	Taglio (kN/m)
Condizione geostatica	-9.85	0	0
Condizione geostatica	-10.05	0	0
Condizione geostatica	-10.25	0	0
Condizione geostatica	-10.45	0	0
Condizione geostatica	-10.65	0	0
Condizione geostatica	-10.85	0	0
Condizione geostatica	-11.05	0	0
Condizione geostatica	-11.25	0	0
Condizione geostatica	-11.45	0	0
Condizione geostatica	-11.65	0	0
Condizione geostatica	-11.85	0	0
Condizione geostatica	-12.05	0	0
Condizione geostatica	-12.25	0	0
Condizione geostatica	-12.45	0	0
Condizione geostatica	-12.65	0	0
Condizione geostatica	-12.85	0	0
Condizione geostatica	-13.05	0	0
Condizione geostatica	-13.25	0	0
Condizione geostatica	-13.45	0	0
Condizione geostatica	-13.65	0	0
Condizione geostatica	-13.85	0	0
Condizione geostatica	-14.05	0	0
Condizione geostatica	-14.25	0	0
Condizione geostatica	-14.45	0	0
Condizione geostatica	-14.65	0	0
Condizione geostatica	-14.85	0	0
Condizione geostatica	-15.05	0	0
Condizione geostatica	-15.25	0	0
Condizione geostatica	-15.45	0	0
Condizione geostatica	-15.65	0	0
Condizione geostatica	-15.85	0	0
Condizione geostatica	-16.05	0	0
Condizione geostatica	-16.25	0	0
Condizione geostatica	-16.45	0	0
Condizione geostatica	-16.65	0	0
Condizione geostatica	-16.85	0	0
Condizione geostatica	-17.05	0	0
Condizione geostatica	-17.25	0	0
Condizione geostatica	-17.45	0	0
Condizione geostatica	-17.65	0	0
Condizione geostatica	-17.85	0	0
Condizione geostatica	-18.05	0	0
Condizione geostatica	-18.25	0	0
Condizione geostatica	-18.45	0	0
Condizione geostatica	-18.65	0	0
Condizione geostatica	-18.85	0	0
Condizione geostatica	-19.05	0	0
Condizione geostatica	-19.25	0	0
Condizione geostatica	-19.45	0	0
Condizione geostatica	-19.65	0	0
Condizione geostatica	-19.85	0	0
Condizione geostatica	-20.05	0	0
Condizione geostatica	-20.25	0	0
Condizione geostatica	-20.45	0	0
Condizione geostatica	-20.65	0	0
Condizione geostatica	-20.85	0	0
Condizione geostatica	-21.05	0	0

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Design Assumption: Nominal Stage	Risultati Paratia Z (m)	Muro: LEFT	
		Momento (kN*m/m)	Taglio (kN/m)
Condizione geostatica	-21.25	0	0
Condizione geostatica	-21.45	0	0
Condizione geostatica	-21.65	0	0
Condizione geostatica	-21.85	0	0
Condizione geostatica	-22.05	0	0
Condizione geostatica	-22.25	0	0
Condizione geostatica	-22.45	0	0
Condizione geostatica	-22.65	0	0
Condizione geostatica	-22.85	0	0
Condizione geostatica	-23.05	0	0
Condizione geostatica	-23.25	0	0
Condizione geostatica	-23.45	0	0
Condizione geostatica	-23.65	0	0
Condizione geostatica	-23.85	0	0
Condizione geostatica	-24.05	0	0
Condizione geostatica	-24.25	0	0
Condizione geostatica	-24.45	0	0
Condizione geostatica	-24.65	0	0
Condizione geostatica	-24.85	0	0
Condizione geostatica	-25.05	0	0
Condizione geostatica	-25.25	0	0
Condizione geostatica	-25.45	0	0
Condizione geostatica	-25.65	0	0
Condizione geostatica	-25.85	0	0
Condizione geostatica	-26.05	0	0
Condizione geostatica	-26.25	0	0
Condizione geostatica	-26.45	0	0
Condizione geostatica	-26.65	0	0
Condizione geostatica	-26.85	0	0
Condizione geostatica	-27.05	0	0
Condizione geostatica	-27.25	0	0
Condizione geostatica	-27.45	0	0
Condizione geostatica	-27.65	0	0
Condizione geostatica	-27.85	0	0
Condizione geostatica	-28	0	0

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### Tabella Risultati Paratia Nominal - Stage: Cordolo

Design Assumption:	Risultati	Muro: LEFT	
Nominal	Paratia	Momento	Taglio
Stage	Z (m)	(kN*m/m)	(kN/m)
Cordolo	0	0	0
Cordolo	-0.2	0	0
Cordolo	-0.4	0	0
Cordolo	-0.6	0	0
Cordolo	-0.8	0	0
Cordolo	-1	0	0
Cordolo	-1.2	0	0
Cordolo	-1.4	0	0
Cordolo	-1.6	0	0
Cordolo	-1.8	0	0
Cordolo	-2	0	0
Cordolo	-2.2	0	0
Cordolo	-2.25	0	0
Cordolo	-2.45	0	0
Cordolo	-2.65	0	0
Cordolo	-2.85	0	0
Cordolo	-3.05	0	0
Cordolo	-3.25	0	0
Cordolo	-3.45	0	0
Cordolo	-3.65	0	0
Cordolo	-3.85	0	0
Cordolo	-4.05	0	0
Cordolo	-4.25	0	0
Cordolo	-4.45	0	0
Cordolo	-4.65	0	0
Cordolo	-4.85	0	0
Cordolo	-5.05	0	0
Cordolo	-5.25	0	0
Cordolo	-5.45	0	0
Cordolo	-5.65	0	0
Cordolo	-5.85	0	0
Cordolo	-6.05	0	0
Cordolo	-6.25	0	0
Cordolo	-6.45	0	0
Cordolo	-6.65	0	0
Cordolo	-6.85	0	0
Cordolo	-7.05	0	0
Cordolo	-7.25	0	0
Cordolo	-7.45	0	0
Cordolo	-7.65	0	0
Cordolo	-7.85	0	0
Cordolo	-8.05	0	0
Cordolo	-8.25	0	0
Cordolo	-8.45	0	0
Cordolo	-8.65	0	0
Cordolo	-8.85	0	0
Cordolo	-9.05	0	0
Cordolo	-9.25	0	0
Cordolo	-9.45	0	0
Cordolo	-9.65	0	0
Cordolo	-9.85	0	0
Cordolo	-10.05	0	0
Cordolo	-10.25	0	0

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Design Assumption: Nominal Stage	Risultati Paratia Z (m)	Muro: LEFT	
		Momento (kN*m/m)	Taglio (kN/m)
Cordolo	-10.45	0	0
Cordolo	-10.65	0	0
Cordolo	-10.85	0	0
Cordolo	-11.05	0	0
Cordolo	-11.25	0	0
Cordolo	-11.45	0	0
Cordolo	-11.65	0	0
Cordolo	-11.85	0	0
Cordolo	-12.05	0	0
Cordolo	-12.25	0	0
Cordolo	-12.45	0	0
Cordolo	-12.65	0	0
Cordolo	-12.85	0	0
Cordolo	-13.05	0	0
Cordolo	-13.25	0	0
Cordolo	-13.45	0	0
Cordolo	-13.65	0	0
Cordolo	-13.85	0	0
Cordolo	-14.05	0	0
Cordolo	-14.25	0	0
Cordolo	-14.45	0	0
Cordolo	-14.65	0	0
Cordolo	-14.85	0	0
Cordolo	-15.05	0	0
Cordolo	-15.25	0	0
Cordolo	-15.45	0	0
Cordolo	-15.65	0	0
Cordolo	-15.85	0	0
Cordolo	-16.05	0	0
Cordolo	-16.25	0	0
Cordolo	-16.45	0	0
Cordolo	-16.65	0	0
Cordolo	-16.85	0	0
Cordolo	-17.05	0	0
Cordolo	-17.25	0	0
Cordolo	-17.45	0	0
Cordolo	-17.65	0	0
Cordolo	-17.85	0	0
Cordolo	-18.05	0	0
Cordolo	-18.25	0	0
Cordolo	-18.45	0	0
Cordolo	-18.65	0	0
Cordolo	-18.85	0	0
Cordolo	-19.05	0	0
Cordolo	-19.25	0	0
Cordolo	-19.45	0	0
Cordolo	-19.65	0	0
Cordolo	-19.85	0	0
Cordolo	-20.05	0	0
Cordolo	-20.25	0	0
Cordolo	-20.45	0	0
Cordolo	-20.65	0	0
Cordolo	-20.85	0	0
Cordolo	-21.05	0	0
Cordolo	-21.25	0	0
Cordolo	-21.45	0	0
Cordolo	-21.65	0	0

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Design Assumption: Nominal Stage	Risultati Paratia Z (m)	Muro: LEFT	
		Momento (kN*m/m)	Taglio (kN/m)
Cordolo	-21.85	0	0
Cordolo	-22.05	0	0
Cordolo	-22.25	0	0
Cordolo	-22.45	0	0
Cordolo	-22.65	0	0
Cordolo	-22.85	0	0
Cordolo	-23.05	0	0
Cordolo	-23.25	0	0
Cordolo	-23.45	0	0
Cordolo	-23.65	0	0
Cordolo	-23.85	0	0
Cordolo	-24.05	0	0
Cordolo	-24.25	0	0
Cordolo	-24.45	0	0
Cordolo	-24.65	0	0
Cordolo	-24.85	0	0
Cordolo	-25.05	0	0
Cordolo	-25.25	0	0
Cordolo	-25.45	0	0
Cordolo	-25.65	0	0
Cordolo	-25.85	0	0
Cordolo	-26.05	0	0
Cordolo	-26.25	0	0
Cordolo	-26.45	0	0
Cordolo	-26.65	0	0
Cordolo	-26.85	0	0
Cordolo	-27.05	0	0
Cordolo	-27.25	0	0
Cordolo	-27.45	0	0
Cordolo	-27.65	0	0
Cordolo	-27.85	0	0
Cordolo	-28	0	0

Ponte stradale su Torrente Giustenice  
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**Tabella Risultati Paratia Nominal - Stage: -1m**

Design Assumption:	Risultati	Muro: LEFT	
Nominal	Paratia	Momento	Taglio
Stage	Z (m)	(kN*m/m)	(kN/m)
-1m	0	0	0
-1m	-0.2	0	0
-1m	-0.2	0	0
-1m	-0.4	0	0
-1m	-0.4	0	0
-1m	-0.6	0	0
-1m	-0.6	0	0
-1m	-0.8	0	0
-1m	-0.8	0	0
-1m	-1	0	0
-1m	-1	0	0
-1m	-1.2	0	0
-1m	-1.2	0	0
-1m	-1.4	0	0
-1m	-1.4	0	0
-1m	-1.6	0	0
-1m	-1.6	0	0
-1m	-1.8	0	0
-1m	-1.8	0	0
-1m	-2	0	0
-1m	-2	0	0
-1m	-2.2	0	0
-1m	-2.2	0	0
-1m	-2.25	0	0
-1m	-2.25	0	0
-1m	-2.45	1.39	6.95
-1m	-2.65	2.78	6.95
-1m	-2.85	4.17	6.95
-1m	-3.05	5.56	6.95
-1m	-3.25	6.89	6.65
-1m	-3.45	8.02	5.64
-1m	-3.65	8.84	4.12
-1m	-3.85	9.27	2.16
-1m	-4.05	9.22	-0.23
-1m	-4.25	8.99	-1.19
-1m	-4.45	8.65	-1.7
-1m	-4.65	8.24	-2.02
-1m	-4.85	7.8	-2.23
-1m	-5.05	7.32	-2.36
-1m	-5.25	6.84	-2.43
-1m	-5.45	6.35	-2.45
-1m	-5.65	5.86	-2.45
-1m	-5.85	5.38	-2.42
-1m	-6.05	4.9	-2.37
-1m	-6.25	4.44	-2.3
-1m	-6.45	4	-2.22
-1m	-6.65	3.57	-2.14
-1m	-6.85	3.16	-2.05
-1m	-7.05	2.77	-1.95
-1m	-7.25	2.4	-1.86
-1m	-7.45	2.05	-1.76
-1m	-7.65	1.71	-1.67
-1m	-7.85	1.4	-1.57

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Design Assumption: Nominal Stage	Risultati Paratia Z (m)	Muro: LEFT Momento (kN*m/m)	Taglio (kN/m)
-1m	-8.05	1.1	-1.48
-1m	-8.25	0.82	-1.4
-1m	-8.45	0.56	-1.32
-1m	-8.65	0.31	-1.26
-1m	-8.85	0.07	-1.2
-1m	-9.05	-0.16	-1.15
-1m	-9.25	-0.38	-1.11
-1m	-9.45	-0.6	-1.07
-1m	-9.65	-0.81	-1.05
-1m	-9.85	-1.01	-1.04
-1m	-10.05	-1.22	-1.03
-1m	-10.25	-1.43	-1.03
-1m	-10.45	-1.64	-1.05
-1m	-10.65	-1.85	-1.07
-1m	-10.85	-2.07	-1.1
-1m	-11.05	-2.3	-1.14
-1m	-11.25	-2.53	-1.18
-1m	-11.45	-2.78	-1.24
-1m	-11.65	-3.04	-1.3
-1m	-11.85	-3.31	-1.37
-1m	-12.05	-3.6	-1.44
-1m	-12.25	-3.91	-1.52
-1m	-12.45	-4.23	-1.61
-1m	-12.65	-4.57	-1.71
-1m	-12.85	-4.93	-1.81
-1m	-13.05	-5.31	-1.91
-1m	-13.25	-5.72	-2.01
-1m	-13.45	-6.14	-2.12
-1m	-13.65	-6.59	-2.24
-1m	-13.85	-7.06	-2.35
-1m	-14.05	-7.55	-2.46
-1m	-14.25	-8.07	-2.58
-1m	-14.45	-8.6	-2.69
-1m	-14.65	-9.16	-2.79
-1m	-14.85	-9.74	-2.9
-1m	-15.05	-10.34	-3
-1m	-15.25	-10.92	-2.89
-1m	-15.45	-11.48	-2.78
-1m	-15.65	-12.01	-2.66
-1m	-15.85	-12.51	-2.52
-1m	-16.05	-12.99	-2.37
-1m	-16.25	-13.43	-2.2
-1m	-16.45	-13.83	-2.01
-1m	-16.65	-14.19	-1.81
-1m	-16.85	-14.51	-1.58
-1m	-17.05	-14.77	-1.32
-1m	-17.25	-14.98	-1.04
-1m	-17.45	-15.12	-0.72
-1m	-17.65	-15.2	-0.37
-1m	-17.85	-15.19	0.01
-1m	-18.05	-15.11	0.43
-1m	-18.25	-14.93	0.89
-1m	-18.45	-14.65	1.39
-1m	-18.65	-14.26	1.94
-1m	-18.85	-13.76	2.54
-1m	-19.05	-13.12	3.18
-1m	-19.25	-12.34	3.88



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Design Assumption: Nominal Stage	Risultati Paratia Z (m)	Muro: LEFT Momento (kN*m/m)	Taglio (kN/m)
-1m	-19.45	-11.42	4.63
-1m	-19.65	-10.33	5.44
-1m	-19.85	-9.07	6.3
-1m	-20.05	-7.62	7.23
-1m	-20.25	-6.29	6.67
-1m	-20.45	-5.07	6.12
-1m	-20.65	-3.95	5.59
-1m	-20.85	-2.93	5.09
-1m	-21.05	-2.01	4.6
-1m	-21.25	-1.18	4.14
-1m	-21.45	-0.44	3.7
-1m	-21.65	0.21	3.27
-1m	-21.85	0.79	2.87
-1m	-22.05	1.28	2.49
-1m	-22.25	1.71	2.12
-1m	-22.45	2.07	1.78
-1m	-22.65	2.36	1.46
-1m	-22.85	2.59	1.16
-1m	-23.05	2.76	0.88
-1m	-23.25	2.89	0.62
-1m	-23.45	2.96	0.38
-1m	-23.65	2.99	0.15
-1m	-23.85	2.98	-0.05
-1m	-24.05	2.94	-0.23
-1m	-24.25	2.86	-0.4
-1m	-24.45	2.75	-0.54
-1m	-24.65	2.62	-0.67
-1m	-24.85	2.46	-0.78
-1m	-25.05	2.29	-0.87
-1m	-25.25	2.1	-0.94
-1m	-25.45	1.9	-0.99
-1m	-25.65	1.7	-1.02
-1m	-25.85	1.49	-1.04
-1m	-26.05	1.28	-1.04
-1m	-26.25	1.08	-1.02
-1m	-26.45	0.88	-0.98
-1m	-26.65	0.7	-0.93
-1m	-26.85	0.52	-0.85
-1m	-27.05	0.37	-0.76
-1m	-27.25	0.24	-0.66
-1m	-27.45	0.13	-0.53
-1m	-27.65	0.06	-0.39
-1m	-27.85	0.01	-0.23
-1m	-28	0	-0.07

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### Tabella Risultati Paratia Nominal - Stage: -2m

Design Assumption:	Risultati	Muro: LEFT	
Nominal	Paratia	Momento	Taglio
Stage	Z (m)	(kN*m/m)	(kN/m)
-2m	0	0	0
-2m	-0.2	0	0
-2m	-0.2	0	0
-2m	-0.4	0	0
-2m	-0.4	0	0
-2m	-0.6	0	0
-2m	-0.6	0	0
-2m	-0.8	0	0
-2m	-0.8	0	0
-2m	-1	0	0
-2m	-1	0	0
-2m	-1.2	0	0
-2m	-1.2	0	0
-2m	-1.4	0	0
-2m	-1.4	0	0
-2m	-1.6	0	0
-2m	-1.6	0	0
-2m	-1.8	0	0
-2m	-1.8	0	0
-2m	-2	0	0
-2m	-2	0	0
-2m	-2.2	0	0
-2m	-2.2	0	0
-2m	-2.25	0	0
-2m	-2.25	0	0
-2m	-2.45	2.68	13.38
-2m	-2.65	5.35	13.38
-2m	-2.85	8.03	13.38
-2m	-3.05	10.71	13.38
-2m	-3.25	13.36	13.29
-2m	-3.45	15.86	12.49
-2m	-3.65	18.1	11.19
-2m	-3.85	19.99	9.45
-2m	-4.05	21.44	7.28
-2m	-4.25	22.66	6.07
-2m	-4.45	23.55	4.47
-2m	-4.65	24.05	2.49
-2m	-4.85	24.08	0.15
-2m	-5.05	23.56	-2.58
-2m	-5.25	22.64	-4.64
-2m	-5.45	21.56	-5.38
-2m	-5.65	20.39	-5.84
-2m	-5.85	19.17	-6.12
-2m	-6.05	17.91	-6.27
-2m	-6.25	16.65	-6.32
-2m	-6.45	15.39	-6.3
-2m	-6.65	14.15	-6.21
-2m	-6.85	12.93	-6.09
-2m	-7.05	11.74	-5.93
-2m	-7.25	10.6	-5.74
-2m	-7.45	9.49	-5.53
-2m	-7.65	8.43	-5.32
-2m	-7.85	7.41	-5.09

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Design Assumption: Nominal Stage	Risultati Paratia Z (m)	Muro: LEFT Momento (kN*m/m)	Taglio (kN/m)
-2m	-8.05	6.44	-4.86
-2m	-8.25	5.51	-4.63
-2m	-8.45	4.63	-4.41
-2m	-8.65	3.79	-4.21
-2m	-8.85	2.99	-4.02
-2m	-9.05	2.22	-3.85
-2m	-9.25	1.48	-3.69
-2m	-9.45	0.77	-3.56
-2m	-9.65	0.08	-3.44
-2m	-9.85	-0.59	-3.34
-2m	-10.05	-1.24	-3.26
-2m	-10.25	-1.88	-3.2
-2m	-10.45	-2.51	-3.16
-2m	-10.65	-3.14	-3.14
-2m	-10.85	-3.77	-3.14
-2m	-11.05	-4.4	-3.16
-2m	-11.25	-5.04	-3.2
-2m	-11.45	-5.69	-3.25
-2m	-11.65	-6.36	-3.32
-2m	-11.85	-7.04	-3.42
-2m	-12.05	-7.74	-3.52
-2m	-12.25	-8.47	-3.65
-2m	-12.45	-9.23	-3.79
-2m	-12.65	-10.02	-3.94
-2m	-12.85	-10.84	-4.1
-2m	-13.05	-11.7	-4.28
-2m	-13.25	-12.59	-4.47
-2m	-13.45	-13.52	-4.66
-2m	-13.65	-14.5	-4.87
-2m	-13.85	-15.51	-5.07
-2m	-14.05	-16.57	-5.28
-2m	-14.25	-17.67	-5.5
-2m	-14.45	-18.81	-5.71
-2m	-14.65	-19.99	-5.91
-2m	-14.85	-21.21	-6.11
-2m	-15.05	-22.48	-6.31
-2m	-15.25	-23.69	-6.06
-2m	-15.45	-24.85	-5.8
-2m	-15.65	-25.95	-5.53
-2m	-15.85	-27	-5.22
-2m	-16.05	-27.98	-4.89
-2m	-16.25	-28.88	-4.52
-2m	-16.45	-29.71	-4.12
-2m	-16.65	-30.44	-3.68
-2m	-16.85	-31.08	-3.18
-2m	-17.05	-31.6	-2.64
-2m	-17.25	-32.01	-2.04
-2m	-17.45	-32.29	-1.37
-2m	-17.65	-32.41	-0.64
-2m	-17.85	-32.38	0.16
-2m	-18.05	-32.17	1.05
-2m	-18.25	-31.77	2.01
-2m	-18.45	-31.16	3.07
-2m	-18.65	-30.31	4.22
-2m	-18.85	-29.22	5.46
-2m	-19.05	-27.86	6.81
-2m	-19.25	-26.2	8.27

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Design Assumption: Nominal Stage	Risultati Paratia Z (m)	Muro: LEFT Momento (kN*m/m)	Taglio (kN/m)
-2m	-19.45	-24.23	9.85
-2m	-19.65	-21.93	11.54
-2m	-19.85	-19.26	13.35
-2m	-20.05	-16.2	15.28
-2m	-20.25	-13.38	14.09
-2m	-20.45	-10.79	12.94
-2m	-20.65	-8.43	11.83
-2m	-20.85	-6.28	10.76
-2m	-21.05	-4.33	9.74
-2m	-21.25	-2.58	8.76
-2m	-21.45	-1.01	7.82
-2m	-21.65	0.37	6.92
-2m	-21.85	1.58	6.07
-2m	-22.05	2.64	5.26
-2m	-22.25	3.54	4.5
-2m	-22.45	4.29	3.78
-2m	-22.65	4.91	3.1
-2m	-22.85	5.41	2.46
-2m	-23.05	5.78	1.87
-2m	-23.25	6.04	1.32
-2m	-23.45	6.2	0.81
-2m	-23.65	6.27	0.34
-2m	-23.85	6.25	-0.09
-2m	-24.05	6.16	-0.48
-2m	-24.25	5.99	-0.82
-2m	-24.45	5.77	-1.13
-2m	-24.65	5.49	-1.4
-2m	-24.85	5.16	-1.62
-2m	-25.05	4.8	-1.81
-2m	-25.25	4.41	-1.96
-2m	-25.45	3.99	-2.08
-2m	-25.65	3.56	-2.15
-2m	-25.85	3.13	-2.18
-2m	-26.05	2.69	-2.18
-2m	-26.25	2.26	-2.14
-2m	-26.45	1.85	-2.06
-2m	-26.65	1.46	-1.95
-2m	-26.85	1.1	-1.8
-2m	-27.05	0.78	-1.61
-2m	-27.25	0.5	-1.38
-2m	-27.45	0.28	-1.12
-2m	-27.65	0.12	-0.82
-2m	-27.85	0.02	-0.48
-2m	-28	0	-0.15

Ponte stradale su Torrente Giustenice  
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### Tabella Risultati Paratia Nominal - Stage: -3m

Design Assumption:	Risultati	Muro: LEFT	
Nominal	Paratia	Momento	Taglio
Stage	Z (m)	(kN*m/m)	(kN/m)
-3m	0	0	0
-3m	-0.2	0	0
-3m	-0.2	0	0
-3m	-0.4	0	0
-3m	-0.4	0	0
-3m	-0.6	0	0
-3m	-0.6	0	0
-3m	-0.8	0	0
-3m	-0.8	0	0
-3m	-1	0	0
-3m	-1	0	0
-3m	-1.2	0	0
-3m	-1.2	0	0
-3m	-1.4	0	0
-3m	-1.4	0	0
-3m	-1.6	0	0
-3m	-1.6	0	0
-3m	-1.8	0	0
-3m	-1.8	0	0
-3m	-2	0	0
-3m	-2	0	0
-3m	-2.2	0	0
-3m	-2.2	0	0
-3m	-2.25	0	0
-3m	-2.25	0	0
-3m	-2.45	3.96	19.78
-3m	-2.65	7.91	19.78
-3m	-2.85	11.87	19.78
-3m	-3.05	15.82	19.78
-3m	-3.25	19.77	19.72
-3m	-3.45	23.59	19.13
-3m	-3.65	27.2	18.05
-3m	-3.85	30.51	16.54
-3m	-4.05	33.43	14.6
-3m	-4.25	36.12	13.42
-3m	-4.45	38.52	12.01
-3m	-4.65	40.59	10.36
-3m	-4.85	42.28	8.47
-3m	-5.05	43.55	6.34
-3m	-5.25	44.35	3.98
-3m	-5.45	44.63	1.39
-3m	-5.65	44.34	-1.44
-3m	-5.85	43.41	-4.62
-3m	-6.05	41.78	-8.17
-3m	-6.25	39.57	-11.06
-3m	-6.45	37.21	-11.78
-3m	-6.65	34.78	-12.16
-3m	-6.85	32.32	-12.3
-3m	-7.05	29.86	-12.28
-3m	-7.25	27.44	-12.13
-3m	-7.45	25.06	-11.9
-3m	-7.65	22.74	-11.59
-3m	-7.85	20.49	-11.23

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Design Assumption: Nominal Stage	Risultati Paratia Z (m)	Muro: LEFT Momento (kN*m/m)	Taglio (kN/m)
-3m	-8.05	18.33	-10.83
-3m	-8.25	16.25	-10.4
-3m	-8.45	14.25	-9.99
-3m	-8.65	12.33	-9.59
-3m	-8.85	10.49	-9.2
-3m	-9.05	8.73	-8.84
-3m	-9.25	7.03	-8.49
-3m	-9.45	5.39	-8.17
-3m	-9.65	3.82	-7.87
-3m	-9.85	2.3	-7.6
-3m	-10.05	0.83	-7.36
-3m	-10.25	-0.6	-7.14
-3m	-10.45	-1.99	-6.96
-3m	-10.65	-3.35	-6.81
-3m	-10.85	-4.69	-6.69
-3m	-11.05	-6.02	-6.61
-3m	-11.25	-7.33	-6.55
-3m	-11.45	-8.63	-6.53
-3m	-11.65	-9.94	-6.54
-3m	-11.85	-11.25	-6.58
-3m	-12.05	-12.58	-6.64
-3m	-12.25	-13.93	-6.74
-3m	-12.45	-15.3	-6.86
-3m	-12.65	-16.71	-7.01
-3m	-12.85	-18.14	-7.18
-3m	-13.05	-19.62	-7.38
-3m	-13.25	-21.13	-7.59
-3m	-13.45	-22.7	-7.82
-3m	-13.65	-24.31	-8.06
-3m	-13.85	-25.98	-8.32
-3m	-14.05	-27.69	-8.59
-3m	-14.25	-29.46	-8.86
-3m	-14.45	-31.29	-9.13
-3m	-14.65	-33.17	-9.4
-3m	-14.85	-35.1	-9.66
-3m	-15.05	-37.09	-9.92
-3m	-15.25	-38.98	-9.48
-3m	-15.45	-40.79	-9.03
-3m	-15.65	-42.5	-8.55
-3m	-15.85	-44.11	-8.03
-3m	-16.05	-45.6	-7.48
-3m	-16.25	-46.98	-6.87
-3m	-16.45	-48.22	-6.21
-3m	-16.65	-49.32	-5.49
-3m	-16.85	-50.26	-4.7
-3m	-17.05	-51.02	-3.83
-3m	-17.25	-51.6	-2.87
-3m	-17.45	-51.96	-1.82
-3m	-17.65	-52.1	-0.67
-3m	-17.85	-51.98	0.59
-3m	-18.05	-51.58	1.97
-3m	-18.25	-50.89	3.47
-3m	-18.45	-49.87	5.12
-3m	-18.65	-48.49	6.9
-3m	-18.85	-46.72	8.84
-3m	-19.05	-44.53	10.93
-3m	-19.25	-41.9	13.19

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Design Assumption: Nominal Stage	Risultati Paratia Z (m)	Muro: LEFT Momento (kN*m/m)	Taglio (kN/m)
-3m	-19.45	-38.77	15.62
-3m	-19.65	-35.12	18.23
-3m	-19.85	-30.92	21.03
-3m	-20.05	-26.11	24.02
-3m	-20.25	-21.68	22.16
-3m	-20.45	-17.61	20.36
-3m	-20.65	-13.88	18.63
-3m	-20.85	-10.49	16.96
-3m	-21.05	-7.42	15.36
-3m	-21.25	-4.66	13.83
-3m	-21.45	-2.18	12.36
-3m	-21.65	0.01	10.96
-3m	-21.85	1.93	9.63
-3m	-22.05	3.61	8.37
-3m	-22.25	5.04	7.17
-3m	-22.45	6.25	6.04
-3m	-22.65	7.25	4.98
-3m	-22.85	8.04	3.98
-3m	-23.05	8.65	3.05
-3m	-23.25	9.09	2.19
-3m	-23.45	9.37	1.39
-3m	-23.65	9.5	0.65
-3m	-23.85	9.5	-0.02
-3m	-24.05	9.37	-0.63
-3m	-24.25	9.14	-1.17
-3m	-24.45	8.81	-1.66
-3m	-24.65	8.39	-2.08
-3m	-24.85	7.9	-2.44
-3m	-25.05	7.35	-2.74
-3m	-25.25	6.76	-2.98
-3m	-25.45	6.13	-3.16
-3m	-25.65	5.47	-3.28
-3m	-25.85	4.8	-3.34
-3m	-26.05	4.14	-3.34
-3m	-26.25	3.48	-3.28
-3m	-26.45	2.85	-3.17
-3m	-26.65	2.25	-2.99
-3m	-26.85	1.7	-2.76
-3m	-27.05	1.2	-2.47
-3m	-27.25	0.78	-2.12
-3m	-27.45	0.43	-1.72
-3m	-27.65	0.18	-1.26
-3m	-27.85	0.03	-0.74
-3m	-28	0	-0.23

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### Tabella Risultati Paratia Nominal - Stage: Rinterro 1

Design Assumption:	Risultati	Muro: LEFT	
Nominal	Paratia		
Stage	Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Rinterro 1	0	0	0
Rinterro 1	-0.2	0	0
Rinterro 1	-0.2	0	0
Rinterro 1	-0.4	0	0
Rinterro 1	-0.4	0	0
Rinterro 1	-0.6	0	0
Rinterro 1	-0.6	0	0
Rinterro 1	-0.8	0	0
Rinterro 1	-0.8	0	0
Rinterro 1	-1	0	0
Rinterro 1	-1	0	0
Rinterro 1	-1.2	0	0
Rinterro 1	-1.2	0	0
Rinterro 1	-1.4	0	0
Rinterro 1	-1.4	0	0
Rinterro 1	-1.6	0	0
Rinterro 1	-1.6	0	0
Rinterro 1	-1.8	-0.02	-0.1
Rinterro 1	-2	-0.1	-0.41
Rinterro 1	-2.2	-0.29	-0.93
Rinterro 1	-2.25	-0.36	-1.38
Rinterro 1	-2.45	7.47	39.14
Rinterro 1	-2.65	15.1	38.16
Rinterro 1	-2.85	22.5	36.98
Rinterro 1	-3.05	29.62	35.59
Rinterro 1	-3.25	36.33	33.58
Rinterro 1	-3.45	42.61	31.38
Rinterro 1	-3.65	48.38	28.83
Rinterro 1	-3.85	53.56	25.93
Rinterro 1	-4.05	58.1	22.67
Rinterro 1	-4.25	62.06	19.81
Rinterro 1	-4.45	65.4	16.71
Rinterro 1	-4.65	68.07	13.38
Rinterro 1	-4.85	70.04	9.81
Rinterro 1	-5.05	71.24	6
Rinterro 1	-5.25	71.63	1.96
Rinterro 1	-5.45	71.16	-2.32
Rinterro 1	-5.65	69.8	-6.83
Rinterro 1	-5.85	67.48	-11.58
Rinterro 1	-6.05	64.17	-16.57
Rinterro 1	-6.25	60.02	-20.76
Rinterro 1	-6.45	55.65	-21.84
Rinterro 1	-6.65	51.16	-22.45
Rinterro 1	-6.85	46.62	-22.7
Rinterro 1	-7.05	42.09	-22.65
Rinterro 1	-7.25	37.62	-22.35
Rinterro 1	-7.45	33.25	-21.82
Rinterro 1	-7.65	29.04	-21.09
Rinterro 1	-7.85	25.01	-20.12
Rinterro 1	-8.05	21.18	-19.14
Rinterro 1	-8.25	17.55	-18.17
Rinterro 1	-8.45	14.1	-17.25
Rinterro 1	-8.65	10.83	-16.36



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Design Assumption: Nominal Stage	Risultati Paratia Z (m)	Muro: LEFT	
		Momento (kN*m/m)	Taglio (kN/m)
Rinterro 1	-8.85	7.72	-15.52
Rinterro 1	-9.05	4.78	-14.73
Rinterro 1	-9.25	1.98	-13.99
Rinterro 1	-9.45	-0.68	-13.31
Rinterro 1	-9.65	-3.22	-12.69
Rinterro 1	-9.85	-5.64	-12.12
Rinterro 1	-10.05	-7.97	-11.6
Rinterro 1	-10.25	-10.2	-11.15
Rinterro 1	-10.45	-12.35	-10.76
Rinterro 1	-10.65	-14.43	-10.42
Rinterro 1	-10.85	-16.46	-10.14
Rinterro 1	-11.05	-18.44	-9.92
Rinterro 1	-11.25	-20.39	-9.75
Rinterro 1	-11.45	-22.32	-9.64
Rinterro 1	-11.65	-24.24	-9.58
Rinterro 1	-11.85	-26.15	-9.58
Rinterro 1	-12.05	-28.08	-9.62
Rinterro 1	-12.25	-30.02	-9.71
Rinterro 1	-12.45	-31.99	-9.84
Rinterro 1	-12.65	-33.99	-10.02
Rinterro 1	-12.85	-36.04	-10.23
Rinterro 1	-13.05	-38.13	-10.47
Rinterro 1	-13.25	-40.28	-10.75
Rinterro 1	-13.45	-42.49	-11.05
Rinterro 1	-13.65	-44.77	-11.38
Rinterro 1	-13.85	-47.11	-11.72
Rinterro 1	-14.05	-49.53	-12.08
Rinterro 1	-14.25	-52.02	-12.44
Rinterro 1	-14.45	-54.58	-12.8
Rinterro 1	-14.65	-57.21	-13.17
Rinterro 1	-14.85	-59.91	-13.52
Rinterro 1	-15.05	-62.68	-13.85
Rinterro 1	-15.25	-65.32	-13.21
Rinterro 1	-15.45	-67.83	-12.53
Rinterro 1	-15.65	-70.19	-11.81
Rinterro 1	-15.85	-72.4	-11.04
Rinterro 1	-16.05	-74.45	-10.21
Rinterro 1	-16.25	-76.31	-9.31
Rinterro 1	-16.45	-77.97	-8.33
Rinterro 1	-16.65	-79.42	-7.25
Rinterro 1	-16.85	-80.64	-6.08
Rinterro 1	-17.05	-81.6	-4.79
Rinterro 1	-17.25	-82.27	-3.38
Rinterro 1	-17.45	-82.64	-1.83
Rinterro 1	-17.65	-82.67	-0.13
Rinterro 1	-17.85	-82.32	1.72
Rinterro 1	-18.05	-81.57	3.74
Rinterro 1	-18.25	-80.39	5.94
Rinterro 1	-18.45	-78.72	8.33
Rinterro 1	-18.65	-76.54	10.93
Rinterro 1	-18.85	-73.79	13.74
Rinterro 1	-19.05	-70.43	16.77
Rinterro 1	-19.25	-66.43	20.04
Rinterro 1	-19.45	-61.72	23.55
Rinterro 1	-19.65	-56.25	27.31
Rinterro 1	-19.85	-49.99	31.34
Rinterro 1	-20.05	-42.86	35.63

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Design Assumption:	Risultati	Muro: LEFT	
Nominal Stage	Paratia Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Rinterro 1	-20.25	-36.27	32.96
Rinterro 1	-20.45	-30.19	30.38
Rinterro 1	-20.65	-24.61	27.89
Rinterro 1	-20.85	-19.52	25.49
Rinterro 1	-21.05	-14.88	23.18
Rinterro 1	-21.25	-10.68	20.97
Rinterro 1	-21.45	-6.91	18.85
Rinterro 1	-21.65	-3.55	16.83
Rinterro 1	-21.85	-0.57	14.9
Rinterro 1	-22.05	2.04	13.06
Rinterro 1	-22.25	4.31	11.32
Rinterro 1	-22.45	6.24	9.67
Rinterro 1	-22.65	7.86	8.12
Rinterro 1	-22.85	9.2	6.66
Rinterro 1	-23.05	10.25	5.29
Rinterro 1	-23.25	11.06	4.02
Rinterro 1	-23.45	11.63	2.83
Rinterro 1	-23.65	11.97	1.74
Rinterro 1	-23.85	12.12	0.74
Rinterro 1	-24.05	12.09	-0.17
Rinterro 1	-24.25	11.89	-0.99
Rinterro 1	-24.45	11.55	-1.72
Rinterro 1	-24.65	11.07	-2.36
Rinterro 1	-24.85	10.49	-2.92
Rinterro 1	-25.05	9.81	-3.39
Rinterro 1	-25.25	9.06	-3.77
Rinterro 1	-25.45	8.25	-4.07
Rinterro 1	-25.65	7.39	-4.28
Rinterro 1	-25.85	6.51	-4.4
Rinterro 1	-26.05	5.62	-4.44
Rinterro 1	-26.25	4.74	-4.4
Rinterro 1	-26.45	3.89	-4.27
Rinterro 1	-26.65	3.08	-4.05
Rinterro 1	-26.85	2.33	-3.76
Rinterro 1	-27.05	1.65	-3.38
Rinterro 1	-27.25	1.07	-2.91
Rinterro 1	-27.45	0.6	-2.36
Rinterro 1	-27.65	0.25	-1.73
Rinterro 1	-27.85	0.05	-1.02
Rinterro 1	-28	0	-0.32

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### Tabella Risultati Paratia Nominal - Stage: Rinterro 2

Design Assumption: Nominal Stage	Risultati Paratia Z (m)	Muro: LEFT	
		Momento (kN*m/m)	Taglio (kN/m)
Rinterro 2	0	0	0
Rinterro 2	-0.2	0	0
Rinterro 2	-0.2	0	0
Rinterro 2	-0.4	-0.04	-0.21
Rinterro 2	-0.6	-0.16	-0.62
Rinterro 2	-0.8	-0.41	-1.24
Rinterro 2	-1	-0.82	-2.06
Rinterro 2	-1.2	-1.44	-3.09
Rinterro 2	-1.4	-2.31	-4.33
Rinterro 2	-1.6	-3.46	-5.77
Rinterro 2	-1.8	-4.94	-7.41
Rinterro 2	-2	-6.8	-9.27
Rinterro 2	-2.2	-9.06	-11.33
Rinterro 2	-2.25	-9.7	-12.74
Rinterro 2	-2.45	3.64	66.71
Rinterro 2	-2.65	16.48	64.19
Rinterro 2	-2.85	28.77	61.46
Rinterro 2	-3.05	40.48	58.53
Rinterro 2	-3.25	51.34	54.31
Rinterro 2	-3.45	61.32	49.9
Rinterro 2	-3.65	70.35	45.15
Rinterro 2	-3.85	78.36	40.05
Rinterro 2	-4.05	85.28	34.59
Rinterro 2	-4.25	91.29	30.04
Rinterro 2	-4.45	96.34	25.26
Rinterro 2	-4.65	100.39	20.25
Rinterro 2	-4.85	103.39	15
Rinterro 2	-5.05	105.29	9.51
Rinterro 2	-5.25	106.05	3.79
Rinterro 2	-5.45	105.61	-2.17
Rinterro 2	-5.65	103.94	-8.37
Rinterro 2	-5.85	100.98	-14.8
Rinterro 2	-6.05	96.69	-21.46
Rinterro 2	-6.25	91.22	-27.33
Rinterro 2	-6.45	85.36	-29.31
Rinterro 2	-6.65	79.28	-30.39
Rinterro 2	-6.85	73.06	-31.11
Rinterro 2	-7.05	66.75	-31.55
Rinterro 2	-7.25	60.4	-31.73
Rinterro 2	-7.45	54.06	-31.7
Rinterro 2	-7.65	47.77	-31.47
Rinterro 2	-7.85	41.56	-31.05
Rinterro 2	-8.05	35.47	-30.47
Rinterro 2	-8.25	29.52	-29.75
Rinterro 2	-8.45	23.72	-28.97
Rinterro 2	-8.65	18.09	-28.14
Rinterro 2	-8.85	12.64	-27.26
Rinterro 2	-9.05	7.38	-26.32
Rinterro 2	-9.25	2.31	-25.34
Rinterro 2	-9.45	-2.56	-24.32
Rinterro 2	-9.65	-7.23	-23.39
Rinterro 2	-9.85	-11.74	-22.54
Rinterro 2	-10.05	-16.1	-21.78

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Design Assumption:	Risultati	Muro: LEFT	
Nominal Stage	Paratia Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Rinterro 2	-10.25	-20.32	-21.11
Rinterro 2	-10.45	-24.43	-20.53
Rinterro 2	-10.65	-28.43	-20.03
Rinterro 2	-10.85	-32.35	-19.61
Rinterro 2	-11.05	-36.21	-19.28
Rinterro 2	-11.25	-40.02	-19.03
Rinterro 2	-11.45	-43.79	-18.86
Rinterro 2	-11.65	-47.54	-18.76
Rinterro 2	-11.85	-51.29	-18.74
Rinterro 2	-12.05	-55.05	-18.78
Rinterro 2	-12.25	-58.83	-18.89
Rinterro 2	-12.45	-62.64	-19.06
Rinterro 2	-12.65	-66.49	-19.28
Rinterro 2	-12.85	-70.41	-19.56
Rinterro 2	-13.05	-74.38	-19.87
Rinterro 2	-13.25	-78.43	-20.23
Rinterro 2	-13.45	-82.55	-20.62
Rinterro 2	-13.65	-86.76	-21.03
Rinterro 2	-13.85	-91.05	-21.46
Rinterro 2	-14.05	-95.42	-21.89
Rinterro 2	-14.25	-99.89	-22.33
Rinterro 2	-14.45	-104.45	-22.77
Rinterro 2	-14.65	-109.08	-23.19
Rinterro 2	-14.85	-113.8	-23.58
Rinterro 2	-15.05	-118.59	-23.93
Rinterro 2	-15.25	-123.13	-22.72
Rinterro 2	-15.45	-127.42	-21.44
Rinterro 2	-15.65	-131.44	-20.09
Rinterro 2	-15.85	-135.16	-18.64
Rinterro 2	-16.05	-138.58	-17.09
Rinterro 2	-16.25	-141.67	-15.42
Rinterro 2	-16.45	-144.39	-13.62
Rinterro 2	-16.65	-146.73	-11.67
Rinterro 2	-16.85	-148.63	-9.54
Rinterro 2	-17.05	-150.08	-7.24
Rinterro 2	-17.25	-151.03	-4.74
Rinterro 2	-17.45	-151.44	-2.03
Rinterro 2	-17.65	-151.25	0.92
Rinterro 2	-17.85	-150.43	4.11
Rinterro 2	-18.05	-148.92	7.57
Rinterro 2	-18.25	-146.66	11.31
Rinterro 2	-18.45	-143.59	15.34
Rinterro 2	-18.65	-139.65	19.69
Rinterro 2	-18.85	-134.77	24.37
Rinterro 2	-19.05	-128.9	29.4
Rinterro 2	-19.25	-121.94	34.76
Rinterro 2	-19.45	-113.86	40.44
Rinterro 2	-19.65	-104.56	46.46
Rinterro 2	-19.85	-94.01	52.75
Rinterro 2	-20.05	-82.17	59.2
Rinterro 2	-20.25	-71.17	54.99
Rinterro 2	-20.45	-60.99	50.92
Rinterro 2	-20.65	-51.59	46.99
Rinterro 2	-20.85	-42.95	43.19
Rinterro 2	-21.05	-35.05	39.53
Rinterro 2	-21.25	-27.84	36.02
Rinterro 2	-21.45	-21.32	32.64

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Design Assumption:	Risultati	Muro: LEFT	
Nominal Stage	Paratia Z (m)	Momento (kN*m/m)	Taglio (kN/m)
Rinterro 2	-21.65	-15.43	29.41
Rinterro 2	-21.85	-10.17	26.32
Rinterro 2	-22.05	-5.5	23.37
Rinterro 2	-22.25	-1.38	20.57
Rinterro 2	-22.45	2.2	17.91
Rinterro 2	-22.65	5.28	15.39
Rinterro 2	-22.85	7.88	13.02
Rinterro 2	-23.05	10.04	10.79
Rinterro 2	-23.25	11.78	8.7
Rinterro 2	-23.45	13.13	6.76
Rinterro 2	-23.65	14.12	4.95
Rinterro 2	-23.85	14.78	3.28
Rinterro 2	-24.05	15.13	1.76
Rinterro 2	-24.25	15.21	0.37
Rinterro 2	-24.45	15.03	-0.88
Rinterro 2	-24.65	14.63	-1.99
Rinterro 2	-24.85	14.04	-2.96
Rinterro 2	-25.05	13.28	-3.8
Rinterro 2	-25.25	12.38	-4.5
Rinterro 2	-25.45	11.37	-5.07
Rinterro 2	-25.65	10.27	-5.5
Rinterro 2	-25.85	9.11	-5.8
Rinterro 2	-26.05	7.91	-5.97
Rinterro 2	-26.25	6.71	-6
Rinterro 2	-26.45	5.53	-5.9
Rinterro 2	-26.65	4.4	-5.66
Rinterro 2	-26.85	3.34	-5.29
Rinterro 2	-27.05	2.38	-4.8
Rinterro 2	-27.25	1.55	-4.17
Rinterro 2	-27.45	0.87	-3.4
Rinterro 2	-27.65	0.37	-2.51
Rinterro 2	-27.85	0.07	-1.48
Rinterro 2	-28	0	-0.47

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### Tabella Risultati Paratia Nominal - Stage: Acc

Design Assumption: Nominal Stage	Risultati Paratia Z (m)	Muro: LEFT	
		Momento (kN*m/m)	Taglio (kN/m)
Acc	0	0	0
Acc	-0.2	0	0
Acc	-0.2	0	0
Acc	-0.4	-0.04	-0.21
Acc	-0.6	-0.18	-0.67
Acc	-0.8	-0.45	-1.39
Acc	-1	-0.93	-2.4
Acc	-1.2	-1.67	-3.68
Acc	-1.4	-2.72	-5.27
Acc	-1.6	-4.14	-7.09
Acc	-1.8	-5.97	-9.13
Acc	-2	-8.26	-11.45
Acc	-2.2	-11.05	-13.97
Acc	-2.25	-11.84	-15.71
Acc	-2.45	0.61	62.26
Acc	-2.65	12.46	59.23
Acc	-2.85	23.65	55.95
Acc	-3.05	34.14	52.47
Acc	-3.25	43.76	48.09
Acc	-3.45	52.45	43.46
Acc	-3.65	60.17	38.59
Acc	-3.85	66.86	33.44
Acc	-4.05	72.47	28.06
Acc	-4.25	77.04	22.87
Acc	-4.45	80.53	17.42
Acc	-4.65	82.88	11.74
Acc	-4.85	84.04	5.81
Acc	-5.05	83.97	-0.36
Acc	-5.25	82.61	-6.77
Acc	-5.45	79.93	-13.42
Acc	-5.65	75.87	-20.31
Acc	-5.85	70.38	-27.45
Acc	-6.05	63.41	-34.82
Acc	-6.25	55.13	-41.39
Acc	-6.45	46.32	-44.09
Acc	-6.65	37.51	-44.03
Acc	-6.85	28.77	-43.69
Acc	-7.05	20.15	-43.12
Acc	-7.25	11.68	-42.36
Acc	-7.45	3.39	-41.46
Acc	-7.65	-4.7	-40.42
Acc	-7.85	-12.55	-39.24
Acc	-8.05	-20.14	-37.97
Acc	-8.25	-27.46	-36.61
Acc	-8.45	-34.52	-35.26
Acc	-8.65	-41.3	-33.91
Acc	-8.85	-47.81	-32.55
Acc	-9.05	-54.05	-31.2
Acc	-9.25	-60.01	-29.84
Acc	-9.45	-65.71	-28.49
Acc	-9.65	-71.14	-27.14
Acc	-9.85	-76.3	-25.79
Acc	-10.05	-81.19	-24.44

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Design Assumption: Nominal Stage	Risultati Paratia Z (m)	Muro: LEFT Momento (kN*m/m)	Taglio (kN/m)
Acc	-10.25	-85.81	-23.09
Acc	-10.45	-90.15	-21.74
Acc	-10.65	-94.23	-20.38
Acc	-10.85	-98.03	-19.02
Acc	-11.05	-101.6	-17.85
Acc	-11.25	-104.97	-16.84
Acc	-11.45	-108.17	-15.99
Acc	-11.65	-111.23	-15.3
Acc	-11.85	-114.18	-14.76
Acc	-12.05	-117.05	-14.37
Acc	-12.25	-119.87	-14.1
Acc	-12.45	-122.67	-13.96
Acc	-12.65	-125.45	-13.93
Acc	-12.85	-128.25	-14.01
Acc	-13.05	-131.09	-14.19
Acc	-13.25	-133.98	-14.45
Acc	-13.45	-136.94	-14.78
Acc	-13.65	-139.98	-15.19
Acc	-13.85	-143.1	-15.64
Acc	-14.05	-146.33	-16.14
Acc	-14.25	-149.67	-16.67
Acc	-14.45	-153.11	-17.22
Acc	-14.65	-156.67	-17.78
Acc	-14.85	-160.33	-18.33
Acc	-15.05	-164.1	-18.85
Acc	-15.25	-167.62	-17.59
Acc	-15.45	-170.87	-16.26
Acc	-15.65	-173.84	-14.85
Acc	-15.85	-176.51	-13.35
Acc	-16.05	-178.86	-11.73
Acc	-16.25	-180.85	-9.98
Acc	-16.45	-182.47	-8.08
Acc	-16.65	-183.67	-6.01
Acc	-16.85	-184.42	-3.75
Acc	-17.05	-184.68	-1.29
Acc	-17.25	-184.4	1.39
Acc	-17.45	-183.54	4.31
Acc	-17.65	-182.04	7.5
Acc	-17.85	-179.84	10.97
Acc	-18.05	-176.9	14.74
Acc	-18.25	-173.13	18.82
Acc	-18.45	-168.49	23.22
Acc	-18.65	-162.9	27.93
Acc	-18.85	-156.31	32.96
Acc	-19.05	-148.64	38.33
Acc	-19.25	-139.86	43.89
Acc	-19.45	-129.94	49.61
Acc	-19.65	-118.84	55.49
Acc	-19.85	-106.54	61.53
Acc	-20.05	-92.99	67.75
Acc	-20.25	-80.41	62.91
Acc	-20.45	-68.76	58.22
Acc	-20.65	-58.02	53.69
Acc	-20.85	-48.16	49.33
Acc	-21.05	-39.13	45.12
Acc	-21.25	-30.92	41.08
Acc	-21.45	-23.47	37.21

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Design Assumption: Nominal Stage	Risultati Paratia Z (m)	Muro: LEFT Momento (kN*m/m)	Taglio (kN/m)
Acc	-21.65	-16.78	33.49
Acc	-21.85	-10.79	29.95
Acc	-22.05	-5.47	26.57
Acc	-22.25	-0.8	23.35
Acc	-22.45	3.26	20.31
Acc	-22.65	6.74	17.42
Acc	-22.85	9.69	14.7
Acc	-23.05	12.12	12.15
Acc	-23.25	14.07	9.76
Acc	-23.45	15.57	7.53
Acc	-23.65	16.67	5.47
Acc	-23.85	17.38	3.56
Acc	-24.05	17.74	1.82
Acc	-24.25	17.79	0.24
Acc	-24.45	17.55	-1.19
Acc	-24.65	17.06	-2.45
Acc	-24.85	16.35	-3.56
Acc	-25.05	15.45	-4.51
Acc	-25.25	14.39	-5.31
Acc	-25.45	13.2	-5.95
Acc	-25.65	11.91	-6.43
Acc	-25.85	10.56	-6.77
Acc	-26.05	9.17	-6.94
Acc	-26.25	7.77	-6.97
Acc	-26.45	6.4	-6.84
Acc	-26.65	5.09	-6.56
Acc	-26.85	3.86	-6.13
Acc	-27.05	2.75	-5.55
Acc	-27.25	1.79	-4.82
Acc	-27.45	1	-3.93
Acc	-27.65	0.42	-2.9
Acc	-27.85	0.08	-1.71
Acc	-28	0	-0.54



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### Tabella Risultati Paratia Nominal - Stage: Sisma

Design Assumption:	Risultati	Muro: LEFT	
Nominal	Paratia	Momento	Taglio
Stage	Z (m)	(kN*m/m)	(kN/m)
Sisma	0	0	-1.38
Sisma	-0.2	-0.28	-1.38
Sisma	-0.4	-1.14	-4.34
Sisma	-0.6	-2.65	-7.55
Sisma	-0.8	-4.86	-11.01
Sisma	-1	-7.81	-14.78
Sisma	-1.2	-11.57	-18.81
Sisma	-1.4	-16.2	-23.15
Sisma	-1.6	-21.75	-27.72
Sisma	-1.8	-28.25	-32.52
Sisma	-2	-35.77	-37.58
Sisma	-2.2	-44.34	-42.86
Sisma	-2.25	-46.66	-46.32
Sisma	-2.45	-35.28	56.89
Sisma	-2.65	-25.06	51.11
Sisma	-2.85	-16.04	45.09
Sisma	-3.05	-8.27	38.86
Sisma	-3.25	-1.92	31.72
Sisma	-3.45	2.94	24.34
Sisma	-3.65	6.29	16.71
Sisma	-3.85	8.05	8.82
Sisma	-4.05	8.19	0.69
Sisma	-4.25	6.74	-7.26
Sisma	-4.45	3.65	-15.45
Sisma	-4.65	-1.13	-23.89
Sisma	-4.85	-7.65	-32.57
Sisma	-5.05	-15.94	-41.49
Sisma	-5.25	-26.07	-50.65
Sisma	-5.45	-38.08	-60.05
Sisma	-5.65	-52.02	-69.69
Sisma	-5.85	-67.94	-79.58
Sisma	-6.05	-85.81	-89.35
Sisma	-6.25	-105.01	-96.03
Sisma	-6.45	-124.87	-99.3
Sisma	-6.65	-144.7	-99.12
Sisma	-6.85	-163.8	-95.52
Sisma	-7.05	-181.95	-90.74
Sisma	-7.25	-199.14	-85.97
Sisma	-7.45	-215.39	-81.24
Sisma	-7.65	-230.7	-76.53
Sisma	-7.85	-245.07	-71.87
Sisma	-8.05	-258.52	-67.26
Sisma	-8.25	-271.06	-62.71
Sisma	-8.45	-282.72	-58.3
Sisma	-8.65	-293.53	-54.01
Sisma	-8.85	-303.49	-49.84
Sisma	-9.05	-312.66	-45.8
Sisma	-9.25	-321.03	-41.87
Sisma	-9.45	-328.64	-38.06
Sisma	-9.65	-335.52	-34.36
Sisma	-9.85	-341.67	-30.76
Sisma	-10.05	-347.12	-27.26
Sisma	-10.25	-351.89	-23.85

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Design Assumption:	Risultati	Muro: LEFT	
Nominal	Paratia	Momento	Taglio
Stage	Z (m)	(kN*m/m)	(kN/m)
Sisma	-10.45	-356	-20.54
Sisma	-10.65	-359.46	-17.31
Sisma	-10.85	-362.29	-14.15
Sisma	-11.05	-364.5	-11.08
Sisma	-11.25	-366.12	-8.07
Sisma	-11.45	-367.14	-5.12
Sisma	-11.65	-367.59	-2.24
Sisma	-11.85	-367.47	0.6
Sisma	-12.05	-366.8	3.34
Sisma	-12.25	-365.61	5.97
Sisma	-12.45	-363.9	8.52
Sisma	-12.65	-361.71	10.97
Sisma	-12.85	-359.09	13.12
Sisma	-13.05	-356.11	14.88
Sisma	-13.25	-352.85	16.31
Sisma	-13.45	-349.37	17.42
Sisma	-13.65	-345.72	18.23
Sisma	-13.85	-341.97	18.77
Sisma	-14.05	-338.15	19.06
Sisma	-14.25	-334.33	19.13
Sisma	-14.45	-330.53	19.01
Sisma	-14.65	-326.78	18.72
Sisma	-14.85	-323.13	18.28
Sisma	-15.05	-319.58	17.72
Sisma	-15.25	-315.82	18.8
Sisma	-15.45	-311.86	19.8
Sisma	-15.65	-307.71	20.76
Sisma	-15.85	-303.37	21.7
Sisma	-16.05	-298.84	22.64
Sisma	-16.25	-294.12	23.62
Sisma	-16.45	-289.19	24.66
Sisma	-16.65	-284.03	25.79
Sisma	-16.85	-278.62	27.04
Sisma	-17.05	-272.93	28.43
Sisma	-17.25	-266.94	29.98
Sisma	-17.45	-260.59	31.74
Sisma	-17.65	-253.85	33.71
Sisma	-17.85	-246.66	35.92
Sisma	-18.05	-238.98	38.41
Sisma	-18.25	-230.75	41.19
Sisma	-18.45	-221.89	44.26
Sisma	-18.65	-212.37	47.62
Sisma	-18.85	-202.11	51.29
Sisma	-19.05	-191.05	55.29
Sisma	-19.25	-179.16	59.48
Sisma	-19.45	-166.39	63.83
Sisma	-19.65	-152.73	68.33
Sisma	-19.85	-138.12	73.01
Sisma	-20.05	-122.55	77.87
Sisma	-20.25	-108.02	72.62
Sisma	-20.45	-94.52	67.53
Sisma	-20.65	-82	62.6
Sisma	-20.85	-70.43	57.84
Sisma	-21.05	-59.78	53.25
Sisma	-21.25	-50.02	48.82
Sisma	-21.45	-41.1	44.57
Sisma	-21.65	-33.01	40.48

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Design Assumption:	Risultati	Muro: LEFT	
Nominal	Paratia	Momento	Taglio
Stage	Z (m)	(kN*m/m)	(kN/m)
Sisma	-21.85	-25.69	36.57
Sisma	-22.05	-19.13	32.84
Sisma	-22.25	-13.27	29.27
Sisma	-22.45	-8.09	25.88
Sisma	-22.65	-3.56	22.67
Sisma	-22.85	0.37	19.63
Sisma	-23.05	3.72	16.76
Sisma	-23.25	6.53	14.06
Sisma	-23.45	8.84	11.54
Sisma	-23.65	10.68	9.19
Sisma	-23.85	12.08	7.01
Sisma	-24.05	13.08	5
Sisma	-24.25	13.71	3.16
Sisma	-24.45	14.01	1.49
Sisma	-24.65	14	-0.02
Sisma	-24.85	13.73	-1.35
Sisma	-25.05	13.23	-2.52
Sisma	-25.25	12.52	-3.52
Sisma	-25.45	11.65	-4.36
Sisma	-25.65	10.65	-5.03
Sisma	-25.85	9.54	-5.53
Sisma	-26.05	8.37	-5.88
Sisma	-26.25	7.15	-6.05
Sisma	-26.45	5.94	-6.07
Sisma	-26.65	4.76	-5.92
Sisma	-26.85	3.63	-5.61
Sisma	-27.05	2.6	-5.14
Sisma	-27.25	1.7	-4.51
Sisma	-27.45	0.96	-3.72
Sisma	-27.65	0.41	-2.76
Sisma	-27.85	0.08	-1.64
Sisma	-28	0	-0.52

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## Risultati Elementi strutturali

Design Assumption:	Sollecitazione
Nominal	Spring
Stage	Forza (kN/m)
Cordolo	0
-1m	6.949295
-2m	13.38171
-3m	19.77771
Rinterro 1	41.00225
Rinterro 2	80.90485
Acc	194.7285
Sisma	666.712

## Risultati Terreno

### Tabella Risultati Terreno Left Wall - Nominal - Condizione geostatica

Design Assumption: Nominal		Risultati Terreno		Muro:	LEFT	Lato	LEFT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Condizione geostatica	0	0	0	REMOVED	0	0	0	0	0	0	0
Condizione geostatica	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
Condizione geostatica	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
Condizione geostatica	-0.6	0	0	REMOVED	0	0	0	0	0	0	0
Condizione geostatica	-0.8	0	0	REMOVED	0	0	0	0	0	0	0
Condizione geostatica	-1	0	0	REMOVED	0	0	0	0	0	0	0
Condizione geostatica	-1.2	0	0	REMOVED	0	0	0	0	0	0	0
Condizione geostatica	-1.4	0	0	REMOVED	0	0	0	0	0	0	0
Condizione geostatica	-1.6	1.9	0.809	V-C	0.2715.879		0	0	0	0	0.809
Condizione geostatica	-1.8	5.7	2.428	V-C	0.2715.879		0	0	0	0	2.428
Condizione geostatica	-2	9.5	4.047	V-C	0.2715.879		0	0	0	0	4.047
Condizione geostatica	-2.2	13.3	5.666	V-C	0.2715.879		0	0	0	0	5.666
Condizione geostatica	-2.25	14.25	6.07	V-C	0.2715.879		0	0	0	0	6.07
Condizione geostatica	-2.45	18.05	7.689	V-C	0.2715.879		0	0	0	0	7.689
Condizione geostatica	-2.65	21.85	9.308	V-C	0.2715.879		0	0	0	0	9.308
Condizione geostatica	-2.85	25.65	10.927	V-C	0.2715.879		0	0	0	0	10.927
Condizione geostatica	-3.05	29.45	14.283	V-C	0.32 4.555		0	0	0	0	14.283
Condizione geostatica	-3.25	33.25	16.126	V-C	0.32 4.555		0	0	0	0	16.126
Condizione geostatica	-3.45	37.05	17.969	V-C	0.32 4.555		0	0	0	0	17.969
Condizione geostatica	-3.65	40.85	19.812	V-C	0.32 4.555		0	0	0	0	19.812
Condizione geostatica	-3.85	44.65	21.655	V-C	0.32 4.555		0	0	0	0	21.655
Condizione geostatica	-4.05	48.5	22.068	V-C	0.295 5.16		0	0	0	0	22.068
Condizione geostatica	-4.25	52.5	23.888	V-C	0.295 5.16		0	0	0	0	23.888
Condizione geostatica	-4.45	56.5	25.708	V-C	0.295 5.16		0	0	0	0	25.708
Condizione geostatica	-4.65	60.5	27.528	V-C	0.295 5.16		0	0	0	0	27.528

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Design Assumption: Nominal		Risultati Terreno	Muro:	LEFT	Lato	LEFT					
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Condizione geostatica	-4.85	64.5	29.347	V-C	0.295	5.16	0	0	0	0	29.347
Condizione geostatica	-5.05	68.5	31.167	V-C	0.295	5.16	0	0	0	0	31.167
Condizione geostatica	-5.25	72.5	32.987	V-C	0.295	5.16	0	0	0	0	32.987
Condizione geostatica	-5.45	76.5	34.807	V-C	0.295	5.16	0	0	0	0	34.807
Condizione geostatica	-5.65	80.5	36.627	V-C	0.295	5.16	0	0	0	0	36.627
Condizione geostatica	-5.85	84.5	38.447	V-C	0.295	5.16	0	0	0	0	38.447
Condizione geostatica	-6.05	88.5	40.267	V-C	0.295	5.16	0	0	0	0	40.267
Condizione geostatica	-6.25	92.5	42.087	V-C	0.295	5.16	0	0	0	0	42.087
Condizione geostatica	-6.45	96.5	43.907	V-C	0.295	5.16	0	0	0	0	43.907
Condizione geostatica	-6.65	100.5	45.727	V-C	0.295	5.16	0	0	0	0	45.727
Condizione geostatica	-6.85	104.5	47.547	V-C	0.295	5.16	0	0	0	0	47.547
Condizione geostatica	-7.05	108.5	49.367	V-C	0.295	5.16	0	0	0	0	49.367
Condizione geostatica	-7.25	112.5	51.187	V-C	0.295	5.16	0	0	0	0	51.187
Condizione geostatica	-7.45	116.5	53.007	V-C	0.295	5.16	0	0	0	0	53.007
Condizione geostatica	-7.65	120.5	54.827	V-C	0.295	5.16	0	0	0	0	54.827
Condizione geostatica	-7.85	124.5	56.647	V-C	0.295	5.16	0	0	0	0	56.647
Condizione geostatica	-8.05	128	58.24	V-C	0.295	5.16	0	0.5	0	0	58.74
Condizione geostatica	-8.25	130	59.15	V-C	0.295	5.16	0	2.5	0	0	61.65
Condizione geostatica	-8.45	132	60.06	V-C	0.295	5.16	0	4.5	0	0	64.56
Condizione geostatica	-8.65	134	60.97	V-C	0.295	5.16	0	6.5	0	0	67.47
Condizione geostatica	-8.85	136	61.88	V-C	0.295	5.16	0	8.5	0	0	70.38
Condizione geostatica	-9.05	138	62.79	V-C	0.295	5.16	0	10.5	0	0	73.29
Condizione geostatica	-9.25	140	63.7	V-C	0.295	5.16	0	12.5	0	0	76.2
Condizione geostatica	-9.45	142	64.61	V-C	0.295	5.16	0	14.5	0	0	79.11
Condizione geostatica	-9.65	144	65.52	V-C	0.295	5.16	0	16.5	0	0	82.02
Condizione geostatica	-9.85	146	66.43	V-C	0.295	5.16	0	18.5	0	0	84.93
Condizione geostatica	-10.05	148	67.34	V-C	0.295	5.16	0	20.5	0	0	87.84
Condizione geostatica	-10.25	150	68.25	V-C	0.295	5.16	0	22.5	0	0	90.75
Condizione geostatica	-10.45	152	69.16	V-C	0.295	5.16	0	24.5	0	0	93.66



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Design Assumption: Nominal		Risultati Terreno	Muro:	LEFT	Lato	LEFT					
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Condizione geostatica	-16.25	210	89.46	V-C	0.2715.879	0	82.5	0	0	0	171.96
Condizione geostatica	-16.45	212	90.312	V-C	0.2715.879	0	84.5	0	0	0	174.812
Condizione geostatica	-16.65	214	91.164	V-C	0.2715.879	0	86.5	0	0	0	177.664
Condizione geostatica	-16.85	216	92.016	V-C	0.2715.879	0	88.5	0	0	0	180.516
Condizione geostatica	-17.05	218	92.868	V-C	0.2715.879	0	90.5	0	0	0	183.368
Condizione geostatica	-17.25	220	93.72	V-C	0.2715.879	0	92.5	0	0	0	186.22
Condizione geostatica	-17.45	222	94.572	V-C	0.2715.879	0	94.5	0	0	0	189.072
Condizione geostatica	-17.65	224	95.424	V-C	0.2715.879	0	96.5	0	0	0	191.924
Condizione geostatica	-17.85	226	96.276	V-C	0.2715.879	0	98.5	0	0	0	194.776
Condizione geostatica	-18.05	228	97.128	V-C	0.2715.879	0	100.5	0	0	0	197.628
Condizione geostatica	-18.25	230	97.98	V-C	0.2715.879	0	102.5	0	0	0	200.48
Condizione geostatica	-18.45	232	98.832	V-C	0.2715.879	0	104.5	0	0	0	203.332
Condizione geostatica	-18.65	234	99.684	V-C	0.2715.879	0	106.5	0	0	0	206.184
Condizione geostatica	-18.85	236	100.536	V-C	0.2715.879	0	108.5	0	0	0	209.036
Condizione geostatica	-19.05	238	101.388	V-C	0.2715.879	0	110.5	0	0	0	211.888
Condizione geostatica	-19.25	240	102.24	V-C	0.2715.879	0	112.5	0	0	0	214.74
Condizione geostatica	-19.45	242	103.092	V-C	0.2715.879	0	114.5	0	0	0	217.592
Condizione geostatica	-19.65	244	103.944	V-C	0.2715.879	0	116.5	0	0	0	220.444
Condizione geostatica	-19.85	246	104.796	V-C	0.2715.879	0	118.5	0	0	0	223.296
Condizione geostatica	-20.05	248.05	135.435	V-C	0.3713.554	0	120.5	0	0	0	255.935
Condizione geostatica	-20.25	250.25	136.637	V-C	0.3713.554	0	122.5	0	0	0	259.137
Condizione geostatica	-20.45	252.45	137.838	V-C	0.3713.554	0	124.5	0	0	0	262.338
Condizione geostatica	-20.65	254.65	139.039	V-C	0.3713.554	0	126.5	0	0	0	265.539
Condizione geostatica	-20.85	256.85	140.24	V-C	0.3713.554	0	128.5	0	0	0	268.74
Condizione geostatica	-21.05	259.05	141.441	V-C	0.3713.554	0	130.5	0	0	0	271.942
Condizione geostatica	-21.25	261.25	142.643	V-C	0.3713.554	0	132.5	0	0	0	275.143
Condizione geostatica	-21.45	263.45	143.844	V-C	0.3713.554	0	134.5	0	0	0	278.344
Condizione geostatica	-21.65	265.65	145.045	V-C	0.3713.554	0	136.5	0	0	0	281.545
Condizione geostatica	-21.85	267.85	146.246	V-C	0.3713.554	0	138.5	0	0	0	284.746





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Design Assumption: Nominal		Risultati	Muro:	LEFT	Lato		LEFT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Condizione geostatica	-27.65	331.65	181.081	V-C	0.371	3.554	0	196.5	0	0	377.581
Condizione geostatica	-27.85	333.85	182.282	V-C	0.371	3.554	0	198.5	0	0	380.783
Condizione geostatica	-28	335.5	183.183	V-C	0.371	3.554	0	200	0	0	383.183

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Design Assumption: Nominal		Risultati Terreno		Muro:	LEFT	Lato	RIGHT				
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Condizione geostatica	0	0	0	REMOVED	0	0	0	0	0	0	0
Condizione geostatica	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
Condizione geostatica	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
Condizione geostatica	-0.6	0	0	REMOVED	0	0	0	0	0	0	0
Condizione geostatica	-0.8	0	0	REMOVED	0	0	0	0	0	0	0
Condizione geostatica	-1	0	0	REMOVED	0	0	0	0	0	0	0
Condizione geostatica	-1.2	0	0	REMOVED	0	0	0	0	0	0	0
Condizione geostatica	-1.4	0	0	REMOVED	0	0	0	0	0	0	0
Condizione geostatica	-1.6	1.9	0.809	V-C	0.2715	0.879	0	0	0	0	0.809
Condizione geostatica	-1.8	5.7	2.428	V-C	0.2715	0.879	0	0	0	0	2.428
Condizione geostatica	-2	9.5	4.047	V-C	0.2715	0.879	0	0	0	0	4.047
Condizione geostatica	-2.2	13.3	5.666	V-C	0.2715	0.879	0	0	0	0	5.666
Condizione geostatica	-2.25	14.25	6.07	V-C	0.2715	0.879	0	0	0	0	6.07
Condizione geostatica	-2.45	18.05	7.689	V-C	0.2715	0.879	0	0	0	0	7.689
Condizione geostatica	-2.65	21.85	9.308	V-C	0.2715	0.879	0	0	0	0	9.308
Condizione geostatica	-2.85	25.65	10.927	V-C	0.2715	0.879	0	0	0	0	10.927
Condizione geostatica	-3.05	29.45	14.283	V-C	0.32	4.555	0	0	0	0	14.283
Condizione geostatica	-3.25	33.25	16.126	V-C	0.32	4.555	0	0	0	0	16.126
Condizione geostatica	-3.45	37.05	17.969	V-C	0.32	4.555	0	0	0	0	17.969
Condizione geostatica	-3.65	40.85	19.812	V-C	0.32	4.555	0	0	0	0	19.812
Condizione geostatica	-3.85	44.65	21.655	V-C	0.32	4.555	0	0	0	0	21.655
Condizione geostatica	-4.05	48.5	22.068	V-C	0.295	5.16	0	0	0	0	22.068
Condizione geostatica	-4.25	52.5	23.888	V-C	0.295	5.16	0	0	0	0	23.888
Condizione geostatica	-4.45	56.5	25.708	V-C	0.295	5.16	0	0	0	0	25.708
Condizione geostatica	-4.65	60.5	27.528	V-C	0.295	5.16	0	0	0	0	27.528
Condizione geostatica	-4.85	64.5	29.347	V-C	0.295	5.16	0	0	0	0	29.347
Condizione geostatica	-5.05	68.5	31.167	V-C	0.295	5.16	0	0	0	0	31.167
Condizione geostatica	-5.25	72.5	32.987	V-C	0.295	5.16	0	0	0	0	32.987

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Design Assumption: Nominal		Risultati Terreno	Muro:	LEFT	Lato	RIGHT					
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Condizione geostatica	-5.45	76.5	34.807	V-C	0.295	5.16	0	0	0	0	34.807
Condizione geostatica	-5.65	80.5	36.627	V-C	0.295	5.16	0	0	0	0	36.627
Condizione geostatica	-5.85	84.5	38.447	V-C	0.295	5.16	0	0	0	0	38.447
Condizione geostatica	-6.05	88.5	40.267	V-C	0.295	5.16	0	0	0	0	40.267
Condizione geostatica	-6.25	92.5	42.087	V-C	0.295	5.16	0	0	0	0	42.087
Condizione geostatica	-6.45	96.5	43.907	V-C	0.295	5.16	0	0	0	0	43.907
Condizione geostatica	-6.65	100.5	45.727	V-C	0.295	5.16	0	0	0	0	45.727
Condizione geostatica	-6.85	104.5	47.547	V-C	0.295	5.16	0	0	0	0	47.547
Condizione geostatica	-7.05	108.5	49.367	V-C	0.295	5.16	0	0	0	0	49.367
Condizione geostatica	-7.25	112.5	51.187	V-C	0.295	5.16	0	0	0	0	51.187
Condizione geostatica	-7.45	116.5	53.007	V-C	0.295	5.16	0	0	0	0	53.007
Condizione geostatica	-7.65	120.5	54.827	V-C	0.295	5.16	0	0	0	0	54.827
Condizione geostatica	-7.85	124.5	56.647	V-C	0.295	5.16	0	0	0	0	56.647
Condizione geostatica	-8.05	128	58.24	V-C	0.295	5.16	0	0.5	0	0	58.74
Condizione geostatica	-8.25	130	59.15	V-C	0.295	5.16	0	2.5	0	0	61.65
Condizione geostatica	-8.45	132	60.06	V-C	0.295	5.16	0	4.5	0	0	64.56
Condizione geostatica	-8.65	134	60.97	V-C	0.295	5.16	0	6.5	0	0	67.47
Condizione geostatica	-8.85	136	61.88	V-C	0.295	5.16	0	8.5	0	0	70.38
Condizione geostatica	-9.05	138	62.79	V-C	0.295	5.16	0	10.5	0	0	73.29
Condizione geostatica	-9.25	140	63.7	V-C	0.295	5.16	0	12.5	0	0	76.2
Condizione geostatica	-9.45	142	64.61	V-C	0.295	5.16	0	14.5	0	0	79.11
Condizione geostatica	-9.65	144	65.52	V-C	0.295	5.16	0	16.5	0	0	82.02
Condizione geostatica	-9.85	146	66.43	V-C	0.295	5.16	0	18.5	0	0	84.93
Condizione geostatica	-10.05	148	67.34	V-C	0.295	5.16	0	20.5	0	0	87.84
Condizione geostatica	-10.25	150	68.25	V-C	0.295	5.16	0	22.5	0	0	90.75
Condizione geostatica	-10.45	152	69.16	V-C	0.295	5.16	0	24.5	0	0	93.66
Condizione geostatica	-10.65	154	70.07	V-C	0.295	5.16	0	26.5	0	0	96.57
Condizione geostatica	-10.85	156	70.98	V-C	0.295	5.16	0	28.5	0	0	99.48
Condizione geostatica	-11.05	158	71.89	V-C	0.295	5.16	0	30.5	0	0	102.39



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Design Assumption: Nominal		Risultati Terreno	Muro:	LEFT	Lato	RIGHT					
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Condizione geostatica	-16.85	216	92.016	V-C	0.2715.879		0	88.5	0	0	180.516
Condizione geostatica	-17.05	218	92.868	V-C	0.2715.879		0	90.5	0	0	183.368
Condizione geostatica	-17.25	220	93.72	V-C	0.2715.879		0	92.5	0	0	186.22
Condizione geostatica	-17.45	222	94.572	V-C	0.2715.879		0	94.5	0	0	189.072
Condizione geostatica	-17.65	224	95.424	V-C	0.2715.879		0	96.5	0	0	191.924
Condizione geostatica	-17.85	226	96.276	V-C	0.2715.879		0	98.5	0	0	194.776
Condizione geostatica	-18.05	228	97.128	V-C	0.2715.879		0	100.5	0	0	197.628
Condizione geostatica	-18.25	230	97.98	V-C	0.2715.879		0	102.5	0	0	200.48
Condizione geostatica	-18.45	232	98.832	V-C	0.2715.879		0	104.5	0	0	203.332
Condizione geostatica	-18.65	234	99.684	V-C	0.2715.879		0	106.5	0	0	206.184
Condizione geostatica	-18.85	236	100.536	V-C	0.2715.879		0	108.5	0	0	209.036
Condizione geostatica	-19.05	238	101.388	V-C	0.2715.879		0	110.5	0	0	211.888
Condizione geostatica	-19.25	240	102.24	V-C	0.2715.879		0	112.5	0	0	214.74
Condizione geostatica	-19.45	242	103.092	V-C	0.2715.879		0	114.5	0	0	217.592
Condizione geostatica	-19.65	244	103.944	V-C	0.2715.879		0	116.5	0	0	220.444
Condizione geostatica	-19.85	246	104.796	V-C	0.2715.879		0	118.5	0	0	223.296
Condizione geostatica	-20.05	248.05	135.435	V-C	0.3713.554		0	120.5	0	0	255.935
Condizione geostatica	-20.25	250.25	136.637	V-C	0.3713.554		0	122.5	0	0	259.137
Condizione geostatica	-20.45	252.45	137.838	V-C	0.3713.554		0	124.5	0	0	262.338
Condizione geostatica	-20.65	254.65	139.039	V-C	0.3713.554		0	126.5	0	0	265.539
Condizione geostatica	-20.85	256.85	140.24	V-C	0.3713.554		0	128.5	0	0	268.74
Condizione geostatica	-21.05	259.05	141.441	V-C	0.3713.554		0	130.5	0	0	271.942
Condizione geostatica	-21.25	261.25	142.643	V-C	0.3713.554		0	132.5	0	0	275.143
Condizione geostatica	-21.45	263.45	143.844	V-C	0.3713.554		0	134.5	0	0	278.344
Condizione geostatica	-21.65	265.65	145.045	V-C	0.3713.554		0	136.5	0	0	281.545
Condizione geostatica	-21.85	267.85	146.246	V-C	0.3713.554		0	138.5	0	0	284.746
Condizione geostatica	-22.05	270.05	147.447	V-C	0.3713.554		0	140.5	0	0	287.947
Condizione geostatica	-22.25	272.25	148.649	V-C	0.3713.554		0	142.5	0	0	291.149
Condizione geostatica	-22.45	274.45	149.85	V-C	0.3713.554		0	144.5	0	0	294.35



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**Tabella Risultati Terreno Left Wall - Nominal - Cordolo**

Design Assumption: Stage	Nominal	Risultati Terreno	Muro:	LEFT	Lato	LEFT					
	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Cordolo	0	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-0.6	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-0.8	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-1	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-1.2	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-1.4	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-1.6	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-1.8	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-2	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-2.2	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-2.25	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-2.45	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-2.65	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-2.85	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-3.05	0.95	2.565	UL-RL	0.32	4.555	0	0	0	0	2.565
Cordolo	-3.25	4.75	6.095	UL-RL	0.32	4.555	0	0	0	0	6.095
Cordolo	-3.45	8.55	8.632	UL-RL	0.32	4.555	0	0	0	0	8.632
Cordolo	-3.65	12.35	10.894	UL-RL	0.32	4.555	0	0	0	0	10.894
Cordolo	-3.85	16.15	13.024	UL-RL	0.32	4.555	0	0	0	0	13.024
Cordolo	-4.05	20	14.171	UL-RL	0.295	5.16	0	0	0	0	14.171
Cordolo	-4.25	24	16.151	UL-RL	0.295	5.16	0	0	0	0	16.151
Cordolo	-4.45	28	18.097	UL-RL	0.295	5.16	0	0	0	0	18.097
Cordolo	-4.65	32	20.02	UL-RL	0.295	5.16	0	0	0	0	20.02
Cordolo	-4.85	36	21.925	UL-RL	0.295	5.16	0	0	0	0	21.925
Cordolo	-5.05	40	23.817	UL-RL	0.295	5.16	0	0	0	0	23.817
Cordolo	-5.25	44	25.698	UL-RL	0.295	5.16	0	0	0	0	25.698
Cordolo	-5.45	48	27.572	UL-RL	0.295	5.16	0	0	0	0	27.572
Cordolo	-5.65	52	29.438	UL-RL	0.295	5.16	0	0	0	0	29.438
Cordolo	-5.85	56	31.299	UL-RL	0.295	5.16	0	0	0	0	31.299
Cordolo	-6.05	60	33.156	UL-RL	0.295	5.16	0	0	0	0	33.156
Cordolo	-6.25	64	35.008	UL-RL	0.295	5.16	0	0	0	0	35.008
Cordolo	-6.45	68	36.858	UL-RL	0.295	5.16	0	0	0	0	36.858
Cordolo	-6.65	72	38.704	UL-RL	0.295	5.16	0	0	0	0	38.704
Cordolo	-6.85	76	40.549	UL-RL	0.295	5.16	0	0	0	0	40.549
Cordolo	-7.05	80	42.391	UL-RL	0.295	5.16	0	0	0	0	42.391
Cordolo	-7.25	84	44.231	UL-RL	0.295	5.16	0	0	0	0	44.231
Cordolo	-7.45	88	46.07	UL-RL	0.295	5.16	0	0	0	0	46.07
Cordolo	-7.65	92	47.907	UL-RL	0.295	5.16	0	0	0	0	47.907
Cordolo	-7.85	96	49.743	UL-RL	0.295	5.16	0	0	0	0	49.743
Cordolo	-8.05	99.5	51.348	UL-RL	0.295	5.16	0	0.5	0	0	51.848
Cordolo	-8.25	101.5	52.266	UL-RL	0.295	5.16	0	2.5	0	0	54.766
Cordolo	-8.45	103.5	53.182	UL-RL	0.295	5.16	0	4.5	0	0	57.682
Cordolo	-8.65	105.5	54.099	UL-RL	0.295	5.16	0	6.5	0	0	60.599
Cordolo	-8.85	107.5	55.015	UL-RL	0.295	5.16	0	8.5	0	0	63.515
Cordolo	-9.05	109.5	55.932	UL-RL	0.295	5.16	0	10.5	0	0	66.432
Cordolo	-9.25	111.5	56.848	UL-RL	0.295	5.16	0	12.5	0	0	69.348
Cordolo	-9.45	113.5	57.763	UL-RL	0.295	5.16	0	14.5	0	0	72.263
Cordolo	-9.65	115.5	58.679	UL-RL	0.295	5.16	0	16.5	0	0	75.179
Cordolo	-9.85	117.5	59.595	UL-RL	0.295	5.16	0	18.5	0	0	78.095
Cordolo	-10.05	119.5	60.51	UL-RL	0.295	5.16	0	20.5	0	0	81.01
Cordolo	-10.25	121.5	61.425	UL-RL	0.295	5.16	0	22.5	0	0	83.925



Ponte stradale su Torrente Giustenice  
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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno		Muro: Sigma H (kPa)	LEFT		Lato		LEFT		U* (kPa)	Peq (kPa)
		Sigma V (kPa)	Sigma H (kPa)		Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente		
Cordolo	-10.45	123.5	62.34	UL-RL	0.295	5.16	0	24.5	0	0	86.84	
Cordolo	-10.65	125.5	63.255	UL-RL	0.295	5.16	0	26.5	0	0	89.755	
Cordolo	-10.85	127.5	64.169	UL-RL	0.295	5.16	0	28.5	0	0	92.669	
Cordolo	-11.05	129.5	65.084	UL-RL	0.295	5.16	0	30.5	0	0	95.584	
Cordolo	-11.25	131.5	65.998	UL-RL	0.295	5.16	0	32.5	0	0	98.498	
Cordolo	-11.45	133.5	66.913	UL-RL	0.295	5.16	0	34.5	0	0	101.413	
Cordolo	-11.65	135.5	67.827	UL-RL	0.295	5.16	0	36.5	0	0	104.327	
Cordolo	-11.85	137.5	68.741	UL-RL	0.295	5.16	0	38.5	0	0	107.241	
Cordolo	-12.05	139.5	69.655	UL-RL	0.295	5.16	0	40.5	0	0	110.155	
Cordolo	-12.25	141.5	70.569	UL-RL	0.295	5.16	0	42.5	0	0	113.069	
Cordolo	-12.45	143.5	71.483	UL-RL	0.295	5.16	0	44.5	0	0	115.983	
Cordolo	-12.65	145.5	72.396	UL-RL	0.295	5.16	0	46.5	0	0	118.896	
Cordolo	-12.85	147.5	73.31	UL-RL	0.295	5.16	0	48.5	0	0	121.81	
Cordolo	-13.05	149.5	74.224	UL-RL	0.295	5.16	0	50.5	0	0	124.723	
Cordolo	-13.25	151.5	75.137	UL-RL	0.295	5.16	0	52.5	0	0	127.637	
Cordolo	-13.45	153.5	76.05	UL-RL	0.295	5.16	0	54.5	0	0	130.55	
Cordolo	-13.65	155.5	76.964	UL-RL	0.295	5.16	0	56.5	0	0	133.464	
Cordolo	-13.85	157.5	77.877	UL-RL	0.295	5.16	0	58.5	0	0	136.377	
Cordolo	-14.05	159.5	78.79	UL-RL	0.295	5.16	0	60.5	0	0	139.29	
Cordolo	-14.25	161.5	79.703	UL-RL	0.295	5.16	0	62.5	0	0	142.203	
Cordolo	-14.45	163.5	80.616	UL-RL	0.295	5.16	0	64.5	0	0	145.116	
Cordolo	-14.65	165.5	81.529	UL-RL	0.295	5.16	0	66.5	0	0	148.029	
Cordolo	-14.85	167.5	82.442	UL-RL	0.295	5.16	0	68.5	0	0	150.942	
Cordolo	-15.05	169.5	83.355	UL-RL	0.2715	8.79	0	70.5	0	0	153.855	
Cordolo	-15.25	171.5	84.268	UL-RL	0.2715	8.79	0	72.5	0	0	156.768	
Cordolo	-15.45	173.5	85.181	UL-RL	0.2715	8.79	0	74.5	0	0	159.681	
Cordolo	-15.65	175.5	86.094	UL-RL	0.2715	8.79	0	76.5	0	0	162.594	
Cordolo	-15.85	177.5	87.007	UL-RL	0.2715	8.79	0	78.5	0	0	165.507	
Cordolo	-16.05	179.5	87.92	UL-RL	0.2715	8.79	0	80.5	0	0	168.42	
Cordolo	-16.25	181.5	88.833	UL-RL	0.2715	8.79	0	82.5	0	0	171.333	
Cordolo	-16.45	183.5	89.746	UL-RL	0.2715	8.79	0	84.5	0	0	174.246	
Cordolo	-16.65	185.5	90.659	UL-RL	0.2715	8.79	0	86.5	0	0	177.159	
Cordolo	-16.85	187.5	91.572	UL-RL	0.2715	8.79	0	88.5	0	0	180.072	
Cordolo	-17.05	189.5	92.485	UL-RL	0.2715	8.79	0	90.5	0	0	182.985	
Cordolo	-17.25	191.5	93.398	UL-RL	0.2715	8.79	0	92.5	0	0	185.898	
Cordolo	-17.45	193.5	94.311	UL-RL	0.2715	8.79	0	94.5	0	0	188.811	
Cordolo	-17.65	195.5	95.224	UL-RL	0.2715	8.79	0	96.5	0	0	191.724	
Cordolo	-17.85	197.5	96.137	UL-RL	0.2715	8.79	0	98.5	0	0	194.637	
Cordolo	-18.05	199.5	97.05	UL-RL	0.2715	8.79	0	100.5	0	0	197.55	
Cordolo	-18.25	201.5	97.963	UL-RL	0.2715	8.79	0	102.5	0	0	200.463	
Cordolo	-18.45	203.5	98.876	UL-RL	0.2715	8.79	0	104.5	0	0	203.376	
Cordolo	-18.65	205.5	99.789	UL-RL	0.2715	8.79	0	106.5	0	0	206.289	
Cordolo	-18.85	207.5	100.702	UL-RL	0.2715	8.79	0	108.5	0	0	209.202	
Cordolo	-19.05	209.5	101.615	UL-RL	0.2715	8.79	0	110.5	0	0	212.115	
Cordolo	-19.25	211.5	102.528	UL-RL	0.2715	8.79	0	112.5	0	0	215.028	
Cordolo	-19.45	213.5	103.441	UL-RL	0.2715	8.79	0	114.5	0	0	217.941	
Cordolo	-19.65	215.5	104.354	UL-RL	0.2715	8.79	0	116.5	0	0	220.854	
Cordolo	-19.85	217.5	105.267	UL-RL	0.2715	8.79	0	118.5	0	0	223.767	
Cordolo	-20.05	219.5	106.18	UL-RL	0.37	3.548	0	120.5	0	0	226.68	
Cordolo	-20.25	221.5	107.093	UL-RL	0.37	3.548	0	122.5	0	0	229.593	
Cordolo	-20.45	223.5	108.006	UL-RL	0.37	3.548	0	124.5	0	0	232.506	
Cordolo	-20.65	225.5	108.919	UL-RL	0.37	3.548	0	126.5	0	0	235.419	
Cordolo	-20.85	227.5	109.832	UL-RL	0.37	3.548	0	128.5	0	0	238.332	
Cordolo	-21.05	229.5	110.745	UL-RL	0.37	3.548	0	130.5	0	0	241.245	
Cordolo	-21.25	231.5	111.658	UL-RL	0.37	3.548	0	132.5	0	0	244.158	
Cordolo	-21.45	233.5	112.571	UL-RL	0.37	3.548	0	134.5	0	0	247.071	
Cordolo	-21.65	235.5	113.484	UL-RL	0.37	3.548	0	136.5	0	0	250.084	

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Design Assumption:	Nominal	Risultati Terreno	Muro:	LEFT	Lato	LEFT						
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)	
Cordolo	-21.85	239.35	138.247	UL-RL	0.37	3.548	0	138.5	0	0	276.747	
Cordolo	-22.05	241.55	139.45	UL-RL	0.37	3.548	0	140.5	0	0	279.95	
Cordolo	-22.25	243.75	140.653	UL-RL	0.37	3.548	0	142.5	0	0	283.153	
Cordolo	-22.45	245.95	141.856	UL-RL	0.37	3.548	0	144.5	0	0	286.356	
Cordolo	-22.65	248.15	143.059	UL-RL	0.37	3.548	0	146.5	0	0	289.559	
Cordolo	-22.85	250.35	144.262	UL-RL	0.37	3.548	0	148.5	0	0	292.762	
Cordolo	-23.05	252.55	145.465	UL-RL	0.37	3.548	0	150.5	0	0	295.965	
Cordolo	-23.25	254.75	146.668	UL-RL	0.37	3.548	0	152.5	0	0	299.168	
Cordolo	-23.45	256.95	147.871	UL-RL	0.37	3.548	0	154.5	0	0	302.371	
Cordolo	-23.65	259.15	149.074	UL-RL	0.37	3.548	0	156.5	0	0	305.574	
Cordolo	-23.85	261.35	150.276	UL-RL	0.37	3.548	0	158.5	0	0	308.777	
Cordolo	-24.05	263.55	151.479	UL-RL	0.37	3.548	0	160.5	0	0	311.979	
Cordolo	-24.25	265.75	152.682	UL-RL	0.37	3.548	0	162.5	0	0	315.182	
Cordolo	-24.45	267.95	153.885	UL-RL	0.37	3.548	0	164.5	0	0	318.385	
Cordolo	-24.65	270.15	155.088	UL-RL	0.37	3.548	0	166.5	0	0	321.588	
Cordolo	-24.85	272.35	156.29	UL-RL	0.37	3.548	0	168.5	0	0	324.79	
Cordolo	-25.05	274.55	157.493	UL-RL	0.37	3.548	0	170.5	0	0	327.993	
Cordolo	-25.25	276.75	158.696	UL-RL	0.37	3.548	0	172.5	0	0	331.196	
Cordolo	-25.45	278.95	159.898	UL-RL	0.37	3.548	0	174.5	0	0	334.398	
Cordolo	-25.65	281.15	161.101	UL-RL	0.37	3.548	0	176.5	0	0	337.601	
Cordolo	-25.85	283.35	162.303	UL-RL	0.37	3.548	0	178.5	0	0	340.804	
Cordolo	-26.05	285.55	163.506	UL-RL	0.37	3.548	0	180.5	0	0	344.006	
Cordolo	-26.25	287.75	164.708	UL-RL	0.37	3.548	0	182.5	0	0	347.209	
Cordolo	-26.45	289.95	165.911	UL-RL	0.37	3.548	0	184.5	0	0	350.411	
Cordolo	-26.65	292.15	167.114	UL-RL	0.37	3.548	0	186.5	0	0	353.614	
Cordolo	-26.85	294.35	168.316	UL-RL	0.37	3.548	0	188.5	0	0	356.816	
Cordolo	-27.05	296.55	169.518	UL-RL	0.37	3.548	0	190.5	0	0	360.019	
Cordolo	-27.25	298.75	170.721	UL-RL	0.37	3.548	0	192.5	0	0	363.221	
Cordolo	-27.45	300.95	171.923	UL-RL	0.37	3.548	0	194.5	0	0	366.424	
Cordolo	-27.65	303.15	173.126	UL-RL	0.37	3.548	0	196.5	0	0	369.626	
Cordolo	-27.85	305.35	174.328	UL-RL	0.37	3.548	0	198.5	0	0	372.829	
Cordolo	-28	307	175.23	UL-RL	0.37	3.548	0	200	0	0	375.23	

Ponte stradale su Torrente Giustenice  
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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT Stato	Lato		RIGHT Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
					Ka	Kp					
Cordolo	0	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-0.6	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-0.8	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-1	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-1.2	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-1.4	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-1.6	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-1.8	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-2	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-2.2	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-2.25	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-2.45	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-2.65	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-2.85	0	0	REMOVED	0	0	0	0	0	0	0
Cordolo	-3.05	0.95	2.565	UL-RL	0.32	4.555	0	0	0	0	2.565
Cordolo	-3.25	4.75	6.095	UL-RL	0.32	4.555	0	0	0	0	6.095
Cordolo	-3.45	8.55	8.632	UL-RL	0.32	4.555	0	0	0	0	8.632
Cordolo	-3.65	12.35	10.894	UL-RL	0.32	4.555	0	0	0	0	10.894
Cordolo	-3.85	16.15	13.024	UL-RL	0.32	4.555	0	0	0	0	13.024
Cordolo	-4.05	20	14.171	UL-RL	0.295	5.16	0	0	0	0	14.171
Cordolo	-4.25	24	16.151	UL-RL	0.295	5.16	0	0	0	0	16.151
Cordolo	-4.45	28	18.097	UL-RL	0.295	5.16	0	0	0	0	18.097
Cordolo	-4.65	32	20.02	UL-RL	0.295	5.16	0	0	0	0	20.02
Cordolo	-4.85	36	21.925	UL-RL	0.295	5.16	0	0	0	0	21.925
Cordolo	-5.05	40	23.817	UL-RL	0.295	5.16	0	0	0	0	23.817
Cordolo	-5.25	44	25.698	UL-RL	0.295	5.16	0	0	0	0	25.698
Cordolo	-5.45	48	27.572	UL-RL	0.295	5.16	0	0	0	0	27.572
Cordolo	-5.65	52	29.438	UL-RL	0.295	5.16	0	0	0	0	29.438
Cordolo	-5.85	56	31.299	UL-RL	0.295	5.16	0	0	0	0	31.299
Cordolo	-6.05	60	33.156	UL-RL	0.295	5.16	0	0	0	0	33.156
Cordolo	-6.25	64	35.008	UL-RL	0.295	5.16	0	0	0	0	35.008
Cordolo	-6.45	68	36.858	UL-RL	0.295	5.16	0	0	0	0	36.858
Cordolo	-6.65	72	38.704	UL-RL	0.295	5.16	0	0	0	0	38.704
Cordolo	-6.85	76	40.549	UL-RL	0.295	5.16	0	0	0	0	40.549
Cordolo	-7.05	80	42.391	UL-RL	0.295	5.16	0	0	0	0	42.391
Cordolo	-7.25	84	44.231	UL-RL	0.295	5.16	0	0	0	0	44.231
Cordolo	-7.45	88	46.07	UL-RL	0.295	5.16	0	0	0	0	46.07
Cordolo	-7.65	92	47.907	UL-RL	0.295	5.16	0	0	0	0	47.907
Cordolo	-7.85	96	49.743	UL-RL	0.295	5.16	0	0	0	0	49.743
Cordolo	-8.05	99.5	51.348	UL-RL	0.295	5.16	0	0.5	0	0	51.848
Cordolo	-8.25	101.5	52.266	UL-RL	0.295	5.16	0	2.5	0	0	54.766
Cordolo	-8.45	103.5	53.182	UL-RL	0.295	5.16	0	4.5	0	0	57.682
Cordolo	-8.65	105.5	54.099	UL-RL	0.295	5.16	0	6.5	0	0	60.599
Cordolo	-8.85	107.5	55.015	UL-RL	0.295	5.16	0	8.5	0	0	63.515
Cordolo	-9.05	109.5	55.932	UL-RL	0.295	5.16	0	10.5	0	0	66.432
Cordolo	-9.25	111.5	56.848	UL-RL	0.295	5.16	0	12.5	0	0	69.348
Cordolo	-9.45	113.5	57.763	UL-RL	0.295	5.16	0	14.5	0	0	72.263
Cordolo	-9.65	115.5	58.679	UL-RL	0.295	5.16	0	16.5	0	0	75.179
Cordolo	-9.85	117.5	59.595	UL-RL	0.295	5.16	0	18.5	0	0	78.095
Cordolo	-10.05	119.5	60.51	UL-RL	0.295	5.16	0	20.5	0	0	81.01
Cordolo	-10.25	121.5	61.425	UL-RL	0.295	5.16	0	22.5	0	0	83.925
Cordolo	-10.45	123.5	62.34	UL-RL	0.295	5.16	0	24.5	0	0	86.84
Cordolo	-10.65	125.5	63.255	UL-RL	0.295	5.16	0	26.5	0	0	89.755
Cordolo	-10.85	127.5	64.169	UL-RL	0.295	5.16	0	28.5	0	0	92.669

Ponte stradale su Torrente Giustenice  
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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT		Lato		RIGHT		U* (kPa)	Peq (kPa)
				Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente		
Cordolo	-11.05	129.5	65.084	UL-RL	0.295	5.16	0	30.5	0	0	95.584
Cordolo	-11.25	131.5	65.998	UL-RL	0.295	5.16	0	32.5	0	0	98.498
Cordolo	-11.45	133.5	66.913	UL-RL	0.295	5.16	0	34.5	0	0	101.413
Cordolo	-11.65	135.5	67.827	UL-RL	0.295	5.16	0	36.5	0	0	104.327
Cordolo	-11.85	137.5	68.741	UL-RL	0.295	5.16	0	38.5	0	0	107.241
Cordolo	-12.05	139.5	69.655	UL-RL	0.295	5.16	0	40.5	0	0	110.155
Cordolo	-12.25	141.5	70.569	UL-RL	0.295	5.16	0	42.5	0	0	113.069
Cordolo	-12.45	143.5	71.483	UL-RL	0.295	5.16	0	44.5	0	0	115.983
Cordolo	-12.65	145.5	72.396	UL-RL	0.295	5.16	0	46.5	0	0	118.896
Cordolo	-12.85	147.5	73.31	UL-RL	0.295	5.16	0	48.5	0	0	121.81
Cordolo	-13.05	149.5	74.224	UL-RL	0.295	5.16	0	50.5	0	0	124.723
Cordolo	-13.25	151.5	75.137	UL-RL	0.295	5.16	0	52.5	0	0	127.637
Cordolo	-13.45	153.5	76.05	UL-RL	0.295	5.16	0	54.5	0	0	130.55
Cordolo	-13.65	155.5	76.964	UL-RL	0.295	5.16	0	56.5	0	0	133.464
Cordolo	-13.85	157.5	77.877	UL-RL	0.295	5.16	0	58.5	0	0	136.377
Cordolo	-14.05	159.5	78.79	UL-RL	0.295	5.16	0	60.5	0	0	139.29
Cordolo	-14.25	161.5	79.703	UL-RL	0.295	5.16	0	62.5	0	0	142.203
Cordolo	-14.45	163.5	80.616	UL-RL	0.295	5.16	0	64.5	0	0	145.116
Cordolo	-14.65	165.5	81.529	UL-RL	0.295	5.16	0	66.5	0	0	148.029
Cordolo	-14.85	167.5	82.442	UL-RL	0.295	5.16	0	68.5	0	0	150.942
Cordolo	-15.05	169.5	83.355	UL-RL	0.2715	8.79	0	70.5	0	0	153.855
Cordolo	-15.25	171.5	84.268	UL-RL	0.2715	8.79	0	72.5	0	0	156.768
Cordolo	-15.45	173.5	85.181	UL-RL	0.2715	8.79	0	74.5	0	0	159.681
Cordolo	-15.65	175.5	86.094	UL-RL	0.2715	8.79	0	76.5	0	0	162.594
Cordolo	-15.85	177.5	87.007	UL-RL	0.2715	8.79	0	78.5	0	0	165.507
Cordolo	-16.05	179.5	87.92	UL-RL	0.2715	8.79	0	80.5	0	0	168.42
Cordolo	-16.25	181.5	88.833	UL-RL	0.2715	8.79	0	82.5	0	0	171.333
Cordolo	-16.45	183.5	89.746	UL-RL	0.2715	8.79	0	84.5	0	0	174.246
Cordolo	-16.65	185.5	90.659	UL-RL	0.2715	8.79	0	86.5	0	0	177.159
Cordolo	-16.85	187.5	91.572	UL-RL	0.2715	8.79	0	88.5	0	0	180.072
Cordolo	-17.05	189.5	92.485	UL-RL	0.2715	8.79	0	90.5	0	0	182.985
Cordolo	-17.25	191.5	93.398	UL-RL	0.2715	8.79	0	92.5	0	0	185.898
Cordolo	-17.45	193.5	94.311	UL-RL	0.2715	8.79	0	94.5	0	0	188.811
Cordolo	-17.65	195.5	95.224	UL-RL	0.2715	8.79	0	96.5	0	0	191.724
Cordolo	-17.85	197.5	96.137	UL-RL	0.2715	8.79	0	98.5	0	0	194.637
Cordolo	-18.05	199.5	97.05	UL-RL	0.2715	8.79	0	100.5	0	0	197.55
Cordolo	-18.25	201.5	97.963	UL-RL	0.2715	8.79	0	102.5	0	0	200.463
Cordolo	-18.45	203.5	98.876	UL-RL	0.2715	8.79	0	104.5	0	0	203.376
Cordolo	-18.65	205.5	99.789	UL-RL	0.2715	8.79	0	106.5	0	0	206.289
Cordolo	-18.85	207.5	100.702	UL-RL	0.2715	8.79	0	108.5	0	0	209.202
Cordolo	-19.05	209.5	101.615	UL-RL	0.2715	8.79	0	110.5	0	0	212.115
Cordolo	-19.25	211.5	102.528	UL-RL	0.2715	8.79	0	112.5	0	0	215.028
Cordolo	-19.45	213.5	103.441	UL-RL	0.2715	8.79	0	114.5	0	0	217.941
Cordolo	-19.65	215.5	104.354	UL-RL	0.2715	8.79	0	116.5	0	0	220.854
Cordolo	-19.85	217.5	105.267	UL-RL	0.2715	8.79	0	118.5	0	0	223.767
Cordolo	-20.05	219.5	106.18	UL-RL	0.37	3.548	0	120.5	0	0	226.68
Cordolo	-20.25	221.5	107.093	UL-RL	0.37	3.548	0	122.5	0	0	229.593
Cordolo	-20.45	223.5	108.006	UL-RL	0.37	3.548	0	124.5	0	0	232.506
Cordolo	-20.65	225.5	108.919	UL-RL	0.37	3.548	0	126.5	0	0	235.419
Cordolo	-20.85	227.5	109.832	UL-RL	0.37	3.548	0	128.5	0	0	238.332
Cordolo	-21.05	229.5	110.745	UL-RL	0.37	3.548	0	130.5	0	0	241.245
Cordolo	-21.25	231.5	111.658	UL-RL	0.37	3.548	0	132.5	0	0	244.158
Cordolo	-21.45	233.5	112.571	UL-RL	0.37	3.548	0	134.5	0	0	247.071
Cordolo	-21.65	235.5	113.484	UL-RL	0.37	3.548	0	136.5	0	0	250.084
Cordolo	-21.85	237.5	114.397	UL-RL	0.37	3.548	0	138.5	0	0	253.097
Cordolo	-22.05	239.5	115.31	UL-RL	0.37	3.548	0	140.5	0	0	256.11
Cordolo	-22.25	241.5	116.223	UL-RL	0.37	3.548	0	142.5	0	0	259.123

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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno		Muro: Sigma H (kPa)	LEFT Stato	Lato		RIGHT		U* (kPa)	Peq (kPa)	
		Sigma V (kPa)				Ka	Kp	Coesione (kPa)	Pore (kPa)			Gradiente
Cordolo	-22.45	245.95		141.856	UL-RL	0.37	3.548	0	144.5	0	0	286.356
Cordolo	-22.65	248.15		143.059	UL-RL	0.37	3.548	0	146.5	0	0	289.559
Cordolo	-22.85	250.35		144.262	UL-RL	0.37	3.548	0	148.5	0	0	292.762
Cordolo	-23.05	252.55		145.465	UL-RL	0.37	3.548	0	150.5	0	0	295.965
Cordolo	-23.25	254.75		146.668	UL-RL	0.37	3.548	0	152.5	0	0	299.168
Cordolo	-23.45	256.95		147.871	UL-RL	0.37	3.548	0	154.5	0	0	302.371
Cordolo	-23.65	259.15		149.074	UL-RL	0.37	3.548	0	156.5	0	0	305.574
Cordolo	-23.85	261.35		150.276	UL-RL	0.37	3.548	0	158.5	0	0	308.777
Cordolo	-24.05	263.55		151.479	UL-RL	0.37	3.548	0	160.5	0	0	311.979
Cordolo	-24.25	265.75		152.682	UL-RL	0.37	3.548	0	162.5	0	0	315.182
Cordolo	-24.45	267.95		153.885	UL-RL	0.37	3.548	0	164.5	0	0	318.385
Cordolo	-24.65	270.15		155.088	UL-RL	0.37	3.548	0	166.5	0	0	321.588
Cordolo	-24.85	272.35		156.29	UL-RL	0.37	3.548	0	168.5	0	0	324.79
Cordolo	-25.05	274.55		157.493	UL-RL	0.37	3.548	0	170.5	0	0	327.993
Cordolo	-25.25	276.75		158.696	UL-RL	0.37	3.548	0	172.5	0	0	331.196
Cordolo	-25.45	278.95		159.898	UL-RL	0.37	3.548	0	174.5	0	0	334.398
Cordolo	-25.65	281.15		161.101	UL-RL	0.37	3.548	0	176.5	0	0	337.601
Cordolo	-25.85	283.35		162.303	UL-RL	0.37	3.548	0	178.5	0	0	340.804
Cordolo	-26.05	285.55		163.506	UL-RL	0.37	3.548	0	180.5	0	0	344.006
Cordolo	-26.25	287.75		164.708	UL-RL	0.37	3.548	0	182.5	0	0	347.209
Cordolo	-26.45	289.95		165.911	UL-RL	0.37	3.548	0	184.5	0	0	350.411
Cordolo	-26.65	292.15		167.114	UL-RL	0.37	3.548	0	186.5	0	0	353.614
Cordolo	-26.85	294.35		168.316	UL-RL	0.37	3.548	0	188.5	0	0	356.816
Cordolo	-27.05	296.55		169.518	UL-RL	0.37	3.548	0	190.5	0	0	360.019
Cordolo	-27.25	298.75		170.721	UL-RL	0.37	3.548	0	192.5	0	0	363.221
Cordolo	-27.45	300.95		171.923	UL-RL	0.37	3.548	0	194.5	0	0	366.424
Cordolo	-27.65	303.15		173.126	UL-RL	0.37	3.548	0	196.5	0	0	369.626
Cordolo	-27.85	305.35		174.328	UL-RL	0.37	3.548	0	198.5	0	0	372.829
Cordolo	-28	307		175.23	UL-RL	0.37	3.548	0	200	0	0	375.23

Ponte stradale su Torrente Giustenice  
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**Tabella Risultati Terreno Left Wall - Nominal - -1m**

Design Assumption:	Nominal	Risultati Terreno	Muro:	LEFT	Lato	LEFT						
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)	
-1m	0	0	0	REMOVED	0	0	0	0	0	0	0	
-1m	-0.2	0	0	REMOVED	0	0	0	0	0	0	0	
-1m	-0.4	0	0	REMOVED	0	0	0	0	0	0	0	
-1m	-0.6	0	0	REMOVED	0	0	0	0	0	0	0	
-1m	-0.8	0	0	REMOVED	0	0	0	0	0	0	0	
-1m	-1	0	0	REMOVED	0	0	0	0	0	0	0	
-1m	-1.2	0	0	REMOVED	0	0	0	0	0	0	0	
-1m	-1.4	0	0	REMOVED	0	0	0	0	0	0	0	
-1m	-1.6	0	0	REMOVED	0	0	0	0	0	0	0	
-1m	-1.8	0	0	REMOVED	0	0	0	0	0	0	0	
-1m	-2	0	0	REMOVED	0	0	0	0	0	0	0	
-1m	-2.2	0	0	REMOVED	0	0	0	0	0	0	0	
-1m	-2.25	0	0	REMOVED	0	0	0	0	0	0	0	
-1m	-2.45	0	0	REMOVED	0	0	0	0	0	0	0	
-1m	-2.65	0	0	REMOVED	0	0	0	0	0	0	0	
-1m	-2.85	0	0	REMOVED	0	0	0	0	0	0	0	
-1m	-3.05	0.95	1.519	UL-RL	0.32	4.555	0	0	0	0	1.519	
-1m	-3.25	4.75	5.042	UL-RL	0.32	4.555	0	0	0	0	5.042	
-1m	-3.45	8.55	7.573	UL-RL	0.32	4.555	0	0	0	0	7.573	
-1m	-3.65	12.35	9.829	UL-RL	0.32	4.555	0	0	0	0	9.829	
-1m	-3.85	16.15	11.955	UL-RL	0.32	4.555	0	0	0	0	11.955	
-1m	-4.05	20	10.261	UL-RL	0.295	5.16	0	0	0	0	10.261	
-1m	-4.25	24	12.234	UL-RL	0.295	5.16	0	0	0	0	12.234	
-1m	-4.45	28	14.177	UL-RL	0.295	5.16	0	0	0	0	14.177	
-1m	-4.65	32	16.101	UL-RL	0.295	5.16	0	0	0	0	16.101	
-1m	-4.85	36	18.01	UL-RL	0.295	5.16	0	0	0	0	18.01	
-1m	-5.05	40	19.91	UL-RL	0.295	5.16	0	0	0	0	19.91	
-1m	-5.25	44	21.803	UL-RL	0.295	5.16	0	0	0	0	21.803	
-1m	-5.45	48	23.69	UL-RL	0.295	5.16	0	0	0	0	23.69	
-1m	-5.65	52	25.574	UL-RL	0.295	5.16	0	0	0	0	25.574	
-1m	-5.85	56	27.454	UL-RL	0.295	5.16	0	0	0	0	27.454	
-1m	-6.05	60	29.333	UL-RL	0.295	5.16	0	0	0	0	29.333	
-1m	-6.25	64	31.21	UL-RL	0.295	5.16	0	0	0	0	31.21	
-1m	-6.45	68	33.086	UL-RL	0.295	5.16	0	0	0	0	33.086	
-1m	-6.65	72	34.961	UL-RL	0.295	5.16	0	0	0	0	34.961	
-1m	-6.85	76	36.834	UL-RL	0.295	5.16	0	0	0	0	36.834	
-1m	-7.05	80	38.708	UL-RL	0.295	5.16	0	0	0	0	38.708	
-1m	-7.25	84	40.58	UL-RL	0.295	5.16	0	0	0	0	40.58	
-1m	-7.45	88	42.452	UL-RL	0.295	5.16	0	0	0	0	42.452	
-1m	-7.65	92	44.324	UL-RL	0.295	5.16	0	0	0	0	44.324	
-1m	-7.85	96	46.195	UL-RL	0.295	5.16	0	0	0	0	46.195	
-1m	-8.05	99.5	47.837	UL-RL	0.295	5.16	0	0.5	0	0	48.337	
-1m	-8.25	101.5	48.79	UL-RL	0.295	5.16	0	2.5	0	0	51.29	
-1m	-8.45	103.5	49.743	UL-RL	0.295	5.16	0	4.5	0	0	54.243	
-1m	-8.65	105.5	50.697	UL-RL	0.295	5.16	0	6.5	0	0	57.197	
-1m	-8.85	107.5	51.65	UL-RL	0.295	5.16	0	8.5	0	0	60.15	
-1m	-9.05	109.5	52.604	UL-RL	0.295	5.16	0	10.5	0	0	63.104	
-1m	-9.25	111.5	53.557	UL-RL	0.295	5.16	0	12.5	0	0	66.057	
-1m	-9.45	113.5	54.509	UL-RL	0.295	5.16	0	14.5	0	0	69.009	
-1m	-9.65	115.5	55.461	UL-RL	0.295	5.16	0	16.5	0	0	71.961	
-1m	-9.85	117.5	56.413	UL-RL	0.295	5.16	0	18.5	0	0	74.913	
-1m	-10.05	119.5	57.364	UL-RL	0.295	5.16	0	20.5	0	0	77.864	
-1m	-10.25	121.5	58.314	UL-RL	0.295	5.16	0	22.5	0	0	80.814	

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

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Design Assumption:	Nominal	Risultati Terreno	Muro:	LEFT	Lato	LEFT					
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U*	Peq (kPa)
-1m	-10.45	123.5	59.264	UL-RL	0.295	5.16	0	24.5	0	0	83.764
-1m	-10.65	125.5	60.213	UL-RL	0.295	5.16	0	26.5	0	0	86.713
-1m	-10.85	127.5	61.16	UL-RL	0.295	5.16	0	28.5	0	0	89.66
-1m	-11.05	129.5	62.107	UL-RL	0.295	5.16	0	30.5	0	0	92.607
-1m	-11.25	131.5	63.052	UL-RL	0.295	5.16	0	32.5	0	0	95.552
-1m	-11.45	133.5	63.997	UL-RL	0.295	5.16	0	34.5	0	0	98.496
-1m	-11.65	135.5	64.939	UL-RL	0.295	5.16	0	36.5	0	0	101.439
-1m	-11.85	137.5	65.881	UL-RL	0.295	5.16	0	38.5	0	0	104.381
-1m	-12.05	139.5	66.821	UL-RL	0.295	5.16	0	40.5	0	0	107.32
-1m	-12.25	141.5	67.759	UL-RL	0.295	5.16	0	42.5	0	0	110.259
-1m	-12.45	143.5	68.695	UL-RL	0.295	5.16	0	44.5	0	0	113.195
-1m	-12.65	145.5	69.629	UL-RL	0.295	5.16	0	46.5	0	0	116.129
-1m	-12.85	147.5	70.561	UL-RL	0.295	5.16	0	48.5	0	0	119.061
-1m	-13.05	149.5	71.491	UL-RL	0.295	5.16	0	50.5	0	0	121.991
-1m	-13.25	151.5	72.418	UL-RL	0.295	5.16	0	52.5	0	0	124.918
-1m	-13.45	153.5	73.343	UL-RL	0.295	5.16	0	54.5	0	0	127.843
-1m	-13.65	155.5	74.265	UL-RL	0.295	5.16	0	56.5	0	0	130.765
-1m	-13.85	157.5	75.183	UL-RL	0.295	5.16	0	58.5	0	0	133.683
-1m	-14.05	159.5	76.099	UL-RL	0.295	5.16	0	60.5	0	0	136.599
-1m	-14.25	161.5	77.011	UL-RL	0.295	5.16	0	62.5	0	0	139.511
-1m	-14.45	163.5	77.92	UL-RL	0.295	5.16	0	64.5	0	0	142.419
-1m	-14.65	165.5	78.824	UL-RL	0.295	5.16	0	66.5	0	0	145.324
-1m	-14.85	167.5	79.724	UL-RL	0.295	5.16	0	68.5	0	0	148.224
-1m	-15.05	169.5	74.783	UL-RL	0.2715	8.79	0	70.5	0	0	145.282
-1m	-15.25	171.5	75.611	UL-RL	0.2715	8.79	0	72.5	0	0	148.111
-1m	-15.45	173.5	76.434	UL-RL	0.2715	8.79	0	74.5	0	0	150.934
-1m	-15.65	175.5	77.251	UL-RL	0.2715	8.79	0	76.5	0	0	153.751
-1m	-15.85	177.5	78.062	UL-RL	0.2715	8.79	0	78.5	0	0	156.561
-1m	-16.05	179.5	78.865	UL-RL	0.2715	8.79	0	80.5	0	0	159.365
-1m	-16.25	181.5	79.662	UL-RL	0.2715	8.79	0	82.5	0	0	162.162
-1m	-16.45	183.5	80.451	UL-RL	0.2715	8.79	0	84.5	0	0	164.951
-1m	-16.65	185.5	81.233	UL-RL	0.2715	8.79	0	86.5	0	0	167.733
-1m	-16.85	187.5	82.007	UL-RL	0.2715	8.79	0	88.5	0	0	170.507
-1m	-17.05	189.5	82.774	UL-RL	0.2715	8.79	0	90.5	0	0	173.274
-1m	-17.25	191.5	83.533	UL-RL	0.2715	8.79	0	92.5	0	0	176.033
-1m	-17.45	193.5	84.283	UL-RL	0.2715	8.79	0	94.5	0	0	178.783
-1m	-17.65	195.5	85.026	UL-RL	0.2715	8.79	0	96.5	0	0	181.526
-1m	-17.85	197.5	85.76	UL-RL	0.2715	8.79	0	98.5	0	0	184.26
-1m	-18.05	199.5	86.486	UL-RL	0.2715	8.79	0	100.5	0	0	186.986
-1m	-18.25	201.5	87.204	UL-RL	0.2715	8.79	0	102.5	0	0	189.704
-1m	-18.45	203.5	87.914	UL-RL	0.2715	8.79	0	104.5	0	0	192.414
-1m	-18.65	205.5	88.617	UL-RL	0.2715	8.79	0	106.5	0	0	195.117
-1m	-18.85	207.5	89.311	UL-RL	0.2715	8.79	0	108.5	0	0	197.811
-1m	-19.05	209.5	89.998	UL-RL	0.2715	8.79	0	110.5	0	0	200.498
-1m	-19.25	211.5	90.679	UL-RL	0.2715	8.79	0	112.5	0	0	203.179
-1m	-19.45	213.5	91.352	UL-RL	0.2715	8.79	0	114.5	0	0	205.852
-1m	-19.65	215.5	92.02	UL-RL	0.2715	8.79	0	116.5	0	0	208.52
-1m	-19.85	217.5	92.681	UL-RL	0.2715	8.79	0	118.5	0	0	211.182
-1m	-20.05	219.55	125.81	UL-RL	0.37	3.548	0	120.5	0	0	246.31
-1m	-20.25	221.75	126.961	UL-RL	0.37	3.548	0	122.5	0	0	249.461
-1m	-20.45	223.95	128.11	UL-RL	0.37	3.548	0	124.5	0	0	252.61
-1m	-20.65	226.15	129.258	UL-RL	0.37	3.548	0	126.5	0	0	255.758
-1m	-20.85	228.35	130.406	UL-RL	0.37	3.548	0	128.5	0	0	258.906
-1m	-21.05	230.55	131.554	UL-RL	0.37	3.548	0	130.5	0	0	262.054
-1m	-21.25	232.75	132.701	UL-RL	0.37	3.548	0	132.5	0	0	265.201
-1m	-21.45	234.95	133.848	UL-RL	0.37	3.548	0	134.5	0	0	268.348
-1m	-21.65	237.15	134.994	UL-RL	0.37	3.548	0	136.5	0	0	271.494

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

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Design Assumption:	Nominal	Risultati Terreno	Muro:	LEFT	Lato	LEFT						
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)	
-1m	-21.85	239.35	136.141	UL-RL	0.37	3.548	0	138.5	0	0	274.641	
-1m	-22.05	241.55	137.288	UL-RL	0.37	3.548	0	140.5	0	0	277.788	
-1m	-22.25	243.75	138.435	UL-RL	0.37	3.548	0	142.5	0	0	280.935	
-1m	-22.45	245.95	139.582	UL-RL	0.37	3.548	0	144.5	0	0	284.082	
-1m	-22.65	248.15	140.73	UL-RL	0.37	3.548	0	146.5	0	0	287.23	
-1m	-22.85	250.35	141.877	UL-RL	0.37	3.548	0	148.5	0	0	290.378	
-1m	-23.05	252.55	143.025	UL-RL	0.37	3.548	0	150.5	0	0	293.526	
-1m	-23.25	254.75	144.174	UL-RL	0.37	3.548	0	152.5	0	0	296.674	
-1m	-23.45	256.95	145.323	UL-RL	0.37	3.548	0	154.5	0	0	299.823	
-1m	-23.65	259.15	146.472	UL-RL	0.37	3.548	0	156.5	0	0	302.972	
-1m	-23.85	261.35	147.622	UL-RL	0.37	3.548	0	158.5	0	0	306.122	
-1m	-24.05	263.55	148.772	UL-RL	0.37	3.548	0	160.5	0	0	309.272	
-1m	-24.25	265.75	149.922	UL-RL	0.37	3.548	0	162.5	0	0	312.422	
-1m	-24.45	267.95	151.073	UL-RL	0.37	3.548	0	164.5	0	0	315.573	
-1m	-24.65	270.15	152.224	UL-RL	0.37	3.548	0	166.5	0	0	318.724	
-1m	-24.85	272.35	153.376	UL-RL	0.37	3.548	0	168.5	0	0	321.876	
-1m	-25.05	274.55	154.527	UL-RL	0.37	3.548	0	170.5	0	0	325.028	
-1m	-25.25	276.75	155.68	UL-RL	0.37	3.548	0	172.5	0	0	328.18	
-1m	-25.45	278.95	156.832	UL-RL	0.37	3.548	0	174.5	0	0	331.332	
-1m	-25.65	281.15	157.985	UL-RL	0.37	3.548	0	176.5	0	0	334.485	
-1m	-25.85	283.35	159.138	UL-RL	0.37	3.548	0	178.5	0	0	337.638	
-1m	-26.05	285.55	160.291	UL-RL	0.37	3.548	0	180.5	0	0	340.791	
-1m	-26.25	287.75	161.444	UL-RL	0.37	3.548	0	182.5	0	0	343.944	
-1m	-26.45	289.95	162.597	UL-RL	0.37	3.548	0	184.5	0	0	347.098	
-1m	-26.65	292.15	163.751	UL-RL	0.37	3.548	0	186.5	0	0	350.251	
-1m	-26.85	294.35	164.904	UL-RL	0.37	3.548	0	188.5	0	0	353.404	
-1m	-27.05	296.55	166.058	UL-RL	0.37	3.548	0	190.5	0	0	356.558	
-1m	-27.25	298.75	167.212	UL-RL	0.37	3.548	0	192.5	0	0	359.712	
-1m	-27.45	300.95	168.365	UL-RL	0.37	3.548	0	194.5	0	0	362.866	
-1m	-27.65	303.15	169.519	UL-RL	0.37	3.548	0	196.5	0	0	366.019	
-1m	-27.85	305.35	170.672	UL-RL	0.37	3.548	0	198.5	0	0	369.173	
-1m	-28	307	171.538	UL-RL	0.37	3.548	0	200	0	0	371.538	



Ponte stradale su Torrente Giustenice  
 Relazione di calcolo spalle

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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT		Lato		RIGHT		U* (kPa)	Peq (kPa)
				Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente		
-1m	0	0	0	REMOVED	0	0	0	0	0	0	0
-1m	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
-1m	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
-1m	-0.6	0	0	REMOVED	0	0	0	0	0	0	0
-1m	-0.8	0	0	REMOVED	0	0	0	0	0	0	0
-1m	-1	0	0	REMOVED	0	0	0	0	0	0	0
-1m	-1.2	0	0	REMOVED	0	0	0	0	0	0	0
-1m	-1.4	0	0	REMOVED	0	0	0	0	0	0	0
-1m	-1.6	0	0	REMOVED	0	0	0	0	0	0	0
-1m	-1.8	0	0	REMOVED	0	0	0	0	0	0	0
-1m	-2	0	0	REMOVED	0	0	0	0	0	0	0
-1m	-2.2	0	0	REMOVED	0	0	0	0	0	0	0
-1m	-2.25	0	0	REMOVED	0	0	0	0	0	0	0
-1m	-2.45	0	0	REMOVED	0	0	0	0	0	0	0
-1m	-2.65	0	0	REMOVED	0	0	0	0	0	0	0
-1m	-2.85	0	0	REMOVED	0	0	0	0	0	0	0
-1m	-3.05	0	0	REMOVED	0	0	0	0	0	0	0
-1m	-3.25	0	0	REMOVED	0	0	0	0	0	0	0
-1m	-3.45	0	0	REMOVED	0	0	0	0	0	0	0
-1m	-3.65	0	0	REMOVED	0	0	0	0	0	0	0
-1m	-3.85	0	0	REMOVED	0	0	0	0	0	0	0
-1m	-4.05	1	5.16	PASSIVE	0.295	5.16	0	0	0	0	5.16
-1m	-4.25	5	9.681	UL-RL	0.295	5.16	0	0	0	0	9.681
-1m	-4.45	9	12.571	UL-RL	0.295	5.16	0	0	0	0	12.571
-1m	-4.65	13	15.071	UL-RL	0.295	5.16	0	0	0	0	15.071
-1m	-4.85	17	17.375	UL-RL	0.295	5.16	0	0	0	0	17.375
-1m	-5.05	21	19.561	UL-RL	0.295	5.16	0	0	0	0	19.561
-1m	-5.25	25	21.668	UL-RL	0.295	5.16	0	0	0	0	21.668
-1m	-5.45	29	23.72	UL-RL	0.295	5.16	0	0	0	0	23.72
-1m	-5.65	33	25.73	UL-RL	0.295	5.16	0	0	0	0	25.73
-1m	-5.85	37	27.708	UL-RL	0.295	5.16	0	0	0	0	27.708
-1m	-6.05	41	29.662	UL-RL	0.295	5.16	0	0	0	0	29.662
-1m	-6.25	45	31.595	UL-RL	0.295	5.16	0	0	0	0	31.595
-1m	-6.45	49	33.512	UL-RL	0.295	5.16	0	0	0	0	33.512
-1m	-6.65	53	35.415	UL-RL	0.295	5.16	0	0	0	0	35.415
-1m	-6.85	57	37.306	UL-RL	0.295	5.16	0	0	0	0	37.306
-1m	-7.05	61	39.188	UL-RL	0.295	5.16	0	0	0	0	39.188
-1m	-7.25	65	41.061	UL-RL	0.295	5.16	0	0	0	0	41.061
-1m	-7.45	69	42.927	UL-RL	0.295	5.16	0	0	0	0	42.927
-1m	-7.65	73	44.787	UL-RL	0.295	5.16	0	0	0	0	44.787
-1m	-7.85	77	46.641	UL-RL	0.295	5.16	0	0	0	0	46.641
-1m	-8.05	80.5	48.257	UL-RL	0.295	5.16	0	0.5	0	0	48.757
-1m	-8.25	82.5	49.17	UL-RL	0.295	5.16	0	2.5	0	0	51.67
-1m	-8.45	84.5	50.081	UL-RL	0.295	5.16	0	4.5	0	0	54.581
-1m	-8.65	86.5	50.992	UL-RL	0.295	5.16	0	6.5	0	0	57.492
-1m	-8.85	88.5	51.901	UL-RL	0.295	5.16	0	8.5	0	0	60.401
-1m	-9.05	90.5	52.81	UL-RL	0.295	5.16	0	10.5	0	0	63.31
-1m	-9.25	92.5	53.718	UL-RL	0.295	5.16	0	12.5	0	0	66.218
-1m	-9.45	94.5	54.626	UL-RL	0.295	5.16	0	14.5	0	0	69.126
-1m	-9.65	96.5	55.533	UL-RL	0.295	5.16	0	16.5	0	0	72.033
-1m	-9.85	98.5	56.44	UL-RL	0.295	5.16	0	18.5	0	0	74.94
-1m	-10.05	100.5	57.346	UL-RL	0.295	5.16	0	20.5	0	0	77.846
-1m	-10.25	102.5	58.252	UL-RL	0.295	5.16	0	22.5	0	0	80.752
-1m	-10.45	104.5	59.158	UL-RL	0.295	5.16	0	24.5	0	0	83.658
-1m	-10.65	106.5	60.064	UL-RL	0.295	5.16	0	26.5	0	0	86.564
-1m	-10.85	108.5	60.97	UL-RL	0.295	5.16	0	28.5	0	0	89.47

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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT Stato	Lato		RIGHT		Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
					Ka	Kp	Coesione (kPa)	Pore (kPa)				
-1m	-11.05	110.5	61.876	UL-RL	0.295	5.16	0	30.5	0	0	92.375	
-1m	-11.25	112.5	62.782	UL-RL	0.295	5.16	0	32.5	0	0	95.282	
-1m	-11.45	114.5	63.688	UL-RL	0.295	5.16	0	34.5	0	0	98.188	
-1m	-11.65	116.5	64.595	UL-RL	0.295	5.16	0	36.5	0	0	101.094	
-1m	-11.85	118.5	65.502	UL-RL	0.295	5.16	0	38.5	0	0	104.002	
-1m	-12.05	120.5	66.409	UL-RL	0.295	5.16	0	40.5	0	0	106.909	
-1m	-12.25	122.5	67.317	UL-RL	0.295	5.16	0	42.5	0	0	109.817	
-1m	-12.45	124.5	68.226	UL-RL	0.295	5.16	0	44.5	0	0	112.726	
-1m	-12.65	126.5	69.136	UL-RL	0.295	5.16	0	46.5	0	0	115.636	
-1m	-12.85	128.5	70.046	UL-RL	0.295	5.16	0	48.5	0	0	118.546	
-1m	-13.05	130.5	70.958	UL-RL	0.295	5.16	0	50.5	0	0	121.458	
-1m	-13.25	132.5	71.871	UL-RL	0.295	5.16	0	52.5	0	0	124.37	
-1m	-13.45	134.5	72.784	UL-RL	0.295	5.16	0	54.5	0	0	127.284	
-1m	-13.65	136.5	73.7	UL-RL	0.295	5.16	0	56.5	0	0	130.2	
-1m	-13.85	138.5	74.616	UL-RL	0.295	5.16	0	58.5	0	0	133.116	
-1m	-14.05	140.5	75.535	UL-RL	0.295	5.16	0	60.5	0	0	136.035	
-1m	-14.25	142.5	76.455	UL-RL	0.295	5.16	0	62.5	0	0	138.955	
-1m	-14.45	144.5	77.377	UL-RL	0.295	5.16	0	64.5	0	0	141.877	
-1m	-14.65	146.5	78.301	UL-RL	0.295	5.16	0	66.5	0	0	144.801	
-1m	-14.85	148.5	79.227	UL-RL	0.295	5.16	0	68.5	0	0	147.727	
-1m	-15.05	150.5	75.304	UL-RL	0.2715	8.79	0	70.5	0	0	145.804	
-1m	-15.25	152.5	76.178	UL-RL	0.2715	8.79	0	72.5	0	0	148.678	
-1m	-15.45	154.5	77.055	UL-RL	0.2715	8.79	0	74.5	0	0	151.555	
-1m	-15.65	156.5	77.935	UL-RL	0.2715	8.79	0	76.5	0	0	154.435	
-1m	-15.85	158.5	78.818	UL-RL	0.2715	8.79	0	78.5	0	0	157.318	
-1m	-16.05	160.5	79.705	UL-RL	0.2715	8.79	0	80.5	0	0	160.205	
-1m	-16.25	162.5	80.595	UL-RL	0.2715	8.79	0	82.5	0	0	163.095	
-1m	-16.45	164.5	81.489	UL-RL	0.2715	8.79	0	84.5	0	0	165.989	
-1m	-16.65	166.5	82.387	UL-RL	0.2715	8.79	0	86.5	0	0	168.887	
-1m	-16.85	168.5	83.289	UL-RL	0.2715	8.79	0	88.5	0	0	171.789	
-1m	-17.05	170.5	84.195	UL-RL	0.2715	8.79	0	90.5	0	0	174.695	
-1m	-17.25	172.5	85.105	UL-RL	0.2715	8.79	0	92.5	0	0	177.605	
-1m	-17.45	174.5	86.019	UL-RL	0.2715	8.79	0	94.5	0	0	180.52	
-1m	-17.65	176.5	86.938	UL-RL	0.2715	8.79	0	96.5	0	0	183.438	
-1m	-17.85	178.5	87.861	UL-RL	0.2715	8.79	0	98.5	0	0	186.361	
-1m	-18.05	180.5	88.788	UL-RL	0.2715	8.79	0	100.5	0	0	189.288	
-1m	-18.25	182.5	89.719	UL-RL	0.2715	8.79	0	102.5	0	0	192.219	
-1m	-18.45	184.5	90.655	UL-RL	0.2715	8.79	0	104.5	0	0	195.155	
-1m	-18.65	186.5	91.595	UL-RL	0.2715	8.79	0	106.5	0	0	198.095	
-1m	-18.85	188.5	92.538	UL-RL	0.2715	8.79	0	108.5	0	0	201.038	
-1m	-19.05	190.5	93.486	UL-RL	0.2715	8.79	0	110.5	0	0	203.986	
-1m	-19.25	192.5	94.437	UL-RL	0.2715	8.79	0	112.5	0	0	206.937	
-1m	-19.45	194.5	95.392	UL-RL	0.2715	8.79	0	114.5	0	0	209.892	
-1m	-19.65	196.5	96.35	UL-RL	0.2715	8.79	0	116.5	0	0	212.85	
-1m	-19.85	198.5	97.311	UL-RL	0.2715	8.79	0	118.5	0	0	215.811	
-1m	-20.05	200.55	122.986	UL-RL	0.37	3.543	0	120.5	0	0	243.486	
-1m	-20.25	202.75	124.234	UL-RL	0.37	3.543	0	122.5	0	0	246.734	
-1m	-20.45	204.95	125.483	UL-RL	0.37	3.543	0	124.5	0	0	249.983	
-1m	-20.65	207.15	126.732	UL-RL	0.37	3.543	0	126.5	0	0	253.232	
-1m	-20.85	209.35	127.981	UL-RL	0.37	3.543	0	128.5	0	0	256.481	
-1m	-21.05	211.55	129.23	UL-RL	0.37	3.543	0	130.5	0	0	259.73	
-1m	-21.25	213.75	130.48	UL-RL	0.37	3.543	0	132.5	0	0	262.98	
-1m	-21.45	215.95	131.729	UL-RL	0.37	3.543	0	134.5	0	0	266.229	
-1m	-21.65	218.15	132.979	UL-RL	0.37	3.543	0	136.5	0	0	269.479	
-1m	-21.85	220.35	134.228	UL-RL	0.37	3.543	0	138.5	0	0	272.728	
-1m	-22.05	222.55	135.477	UL-RL	0.37	3.543	0	140.5	0	0	275.977	
-1m	-22.25	224.75	136.726	UL-RL	0.37	3.543	0	142.5	0	0	279.226	

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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT	Lato		RIGHT		Gradiente	U* (kPa)	Peq (kPa)
				Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)			
-1m	-22.45	226.95	137.974	UL-RL	0.37	3.543	0	144.5	0	0	282.475
-1m	-22.65	229.15	139.223	UL-RL	0.37	3.543	0	146.5	0	0	285.723
-1m	-22.85	231.35	140.471	UL-RL	0.37	3.543	0	148.5	0	0	288.971
-1m	-23.05	233.55	141.718	UL-RL	0.37	3.543	0	150.5	0	0	292.219
-1m	-23.25	235.75	142.966	UL-RL	0.37	3.543	0	152.5	0	0	295.466
-1m	-23.45	237.95	144.212	UL-RL	0.37	3.543	0	154.5	0	0	298.713
-1m	-23.65	240.15	145.459	UL-RL	0.37	3.543	0	156.5	0	0	301.959
-1m	-23.85	242.35	146.705	UL-RL	0.37	3.543	0	158.5	0	0	305.205
-1m	-24.05	244.55	147.95	UL-RL	0.37	3.543	0	160.5	0	0	308.451
-1m	-24.25	246.75	149.196	UL-RL	0.37	3.543	0	162.5	0	0	311.696
-1m	-24.45	248.95	150.44	UL-RL	0.37	3.543	0	164.5	0	0	314.941
-1m	-24.65	251.15	151.685	UL-RL	0.37	3.543	0	166.5	0	0	318.185
-1m	-24.85	253.35	152.929	UL-RL	0.37	3.543	0	168.5	0	0	321.429
-1m	-25.05	255.55	154.173	UL-RL	0.37	3.543	0	170.5	0	0	324.673
-1m	-25.25	257.75	155.416	UL-RL	0.37	3.543	0	172.5	0	0	327.916
-1m	-25.45	259.95	156.66	UL-RL	0.37	3.543	0	174.5	0	0	331.16
-1m	-25.65	262.15	157.902	UL-RL	0.37	3.543	0	176.5	0	0	334.403
-1m	-25.85	264.35	159.145	UL-RL	0.37	3.543	0	178.5	0	0	337.645
-1m	-26.05	266.55	160.388	UL-RL	0.37	3.543	0	180.5	0	0	340.888
-1m	-26.25	268.75	161.63	UL-RL	0.37	3.543	0	182.5	0	0	344.13
-1m	-26.45	270.95	162.872	UL-RL	0.37	3.543	0	184.5	0	0	347.372
-1m	-26.65	273.15	164.114	UL-RL	0.37	3.543	0	186.5	0	0	350.614
-1m	-26.85	275.35	165.356	UL-RL	0.37	3.543	0	188.5	0	0	353.856
-1m	-27.05	277.55	166.597	UL-RL	0.37	3.543	0	190.5	0	0	357.098
-1m	-27.25	279.75	167.839	UL-RL	0.37	3.543	0	192.5	0	0	360.339
-1m	-27.45	281.95	169.08	UL-RL	0.37	3.543	0	194.5	0	0	363.581
-1m	-27.65	284.15	170.322	UL-RL	0.37	3.543	0	196.5	0	0	366.822
-1m	-27.85	286.35	171.563	UL-RL	0.37	3.543	0	198.5	0	0	370.063
-1m	-28	288	172.494	UL-RL	0.37	3.543	0	200	0	0	372.494

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**Tabella Risultati Terreno Left Wall - Nominal - -2m**

Design Assumption:	Nominal	Risultati Terreno	Muro:	LEFT	Lato	LEFT					
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
-2m	0	0	0	REMOVED	0	0	0	0	0	0	0
-2m	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
-2m	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
-2m	-0.6	0	0	REMOVED	0	0	0	0	0	0	0
-2m	-0.8	0	0	REMOVED	0	0	0	0	0	0	0
-2m	-1	0	0	REMOVED	0	0	0	0	0	0	0
-2m	-1.2	0	0	REMOVED	0	0	0	0	0	0	0
-2m	-1.4	0	0	REMOVED	0	0	0	0	0	0	0
-2m	-1.6	0	0	REMOVED	0	0	0	0	0	0	0
-2m	-1.8	0	0	REMOVED	0	0	0	0	0	0	0
-2m	-2	0	0	REMOVED	0	0	0	0	0	0	0
-2m	-2.2	0	0	REMOVED	0	0	0	0	0	0	0
-2m	-2.25	0	0	REMOVED	0	0	0	0	0	0	0
-2m	-2.45	0	0	REMOVED	0	0	0	0	0	0	0
-2m	-2.65	0	0	REMOVED	0	0	0	0	0	0	0
-2m	-2.85	0	0	REMOVED	0	0	0	0	0	0	0
-2m	-3.05	0.95	0.482	UL-RL	0.32	4.555	0	0	0	0	0.482
-2m	-3.25	4.75	3.981	UL-RL	0.32	4.555	0	0	0	0	3.981
-2m	-3.45	8.55	6.489	UL-RL	0.32	4.555	0	0	0	0	6.489
-2m	-3.65	12.35	8.723	UL-RL	0.32	4.555	0	0	0	0	8.723
-2m	-3.85	16.15	10.828	UL-RL	0.32	4.555	0	0	0	0	10.828
-2m	-4.05	20	6.08	UL-RL	0.295	5.16	0	0	0	0	6.08
-2m	-4.25	24	7.987	UL-RL	0.295	5.16	0	0	0	0	7.987
-2m	-4.45	28	9.87	UL-RL	0.295	5.16	0	0	0	0	9.87
-2m	-4.65	32	11.74	UL-RL	0.295	5.16	0	0	0	0	11.74
-2m	-4.85	36	13.604	UL-RL	0.295	5.16	0	0	0	0	13.604
-2m	-5.05	40	15.464	UL-RL	0.295	5.16	0	0	0	0	15.464
-2m	-5.25	44	17.325	UL-RL	0.295	5.16	0	0	0	0	17.325
-2m	-5.45	48	19.188	UL-RL	0.295	5.16	0	0	0	0	19.188
-2m	-5.65	52	21.054	UL-RL	0.295	5.16	0	0	0	0	21.054
-2m	-5.85	56	22.924	UL-RL	0.295	5.16	0	0	0	0	22.924
-2m	-6.05	60	24.797	UL-RL	0.295	5.16	0	0	0	0	24.797
-2m	-6.25	64	26.675	UL-RL	0.295	5.16	0	0	0	0	26.675
-2m	-6.45	68	28.557	UL-RL	0.295	5.16	0	0	0	0	28.557
-2m	-6.65	72	30.443	UL-RL	0.295	5.16	0	0	0	0	30.443
-2m	-6.85	76	32.333	UL-RL	0.295	5.16	0	0	0	0	32.333
-2m	-7.05	80	34.227	UL-RL	0.295	5.16	0	0	0	0	34.227
-2m	-7.25	84	36.124	UL-RL	0.295	5.16	0	0	0	0	36.124
-2m	-7.45	88	38.024	UL-RL	0.295	5.16	0	0	0	0	38.024
-2m	-7.65	92	39.927	UL-RL	0.295	5.16	0	0	0	0	39.927
-2m	-7.85	96	41.833	UL-RL	0.295	5.16	0	0	0	0	41.833
-2m	-8.05	99.5	43.511	UL-RL	0.295	5.16	0	0.5	0	0	44.011
-2m	-8.25	101.5	44.504	UL-RL	0.295	5.16	0	2.5	0	0	47.004
-2m	-8.45	103.5	45.499	UL-RL	0.295	5.16	0	4.5	0	0	49.999
-2m	-8.65	105.5	46.496	UL-RL	0.295	5.16	0	6.5	0	0	52.996
-2m	-8.85	107.5	47.495	UL-RL	0.295	5.16	0	8.5	0	0	55.995
-2m	-9.05	109.5	48.495	UL-RL	0.295	5.16	0	10.5	0	0	58.995
-2m	-9.25	111.5	49.495	UL-RL	0.295	5.16	0	12.5	0	0	61.995
-2m	-9.45	113.5	50.496	UL-RL	0.295	5.16	0	14.5	0	0	64.996
-2m	-9.65	115.5	51.497	UL-RL	0.295	5.16	0	16.5	0	0	67.997
-2m	-9.85	117.5	52.498	UL-RL	0.295	5.16	0	18.5	0	0	70.998
-2m	-10.05	119.5	53.498	UL-RL	0.295	5.16	0	20.5	0	0	73.998
-2m	-10.25	121.5	54.498	UL-RL	0.295	5.16	0	22.5	0	0	76.998

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Design Assumption:	Nominal	Risultati Terreno	Muro:	LEFT	Lato	LEFT					
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U*	Peq (kPa)
-2m	-10.45	123.5	55.497	UL-RL	0.295	5.16	0	24.5	0	0	79.997
-2m	-10.65	125.5	56.495	UL-RL	0.295	5.16	0	26.5	0	0	82.995
-2m	-10.85	127.5	57.491	UL-RL	0.295	5.16	0	28.5	0	0	85.991
-2m	-11.05	129.5	58.485	UL-RL	0.295	5.16	0	30.5	0	0	88.985
-2m	-11.25	131.5	59.477	UL-RL	0.295	5.16	0	32.5	0	0	91.977
-2m	-11.45	133.5	60.467	UL-RL	0.295	5.16	0	34.5	0	0	94.966
-2m	-11.65	135.5	61.454	UL-RL	0.295	5.16	0	36.5	0	0	97.953
-2m	-11.85	137.5	62.438	UL-RL	0.295	5.16	0	38.5	0	0	100.938
-2m	-12.05	139.5	63.418	UL-RL	0.295	5.16	0	40.5	0	0	103.918
-2m	-12.25	141.5	64.396	UL-RL	0.295	5.16	0	42.5	0	0	106.896
-2m	-12.45	143.5	65.369	UL-RL	0.295	5.16	0	44.5	0	0	109.869
-2m	-12.65	145.5	66.338	UL-RL	0.295	5.16	0	46.5	0	0	112.838
-2m	-12.85	147.5	67.303	UL-RL	0.295	5.16	0	48.5	0	0	115.802
-2m	-13.05	149.5	68.262	UL-RL	0.295	5.16	0	50.5	0	0	118.762
-2m	-13.25	151.5	69.216	UL-RL	0.295	5.16	0	52.5	0	0	121.716
-2m	-13.45	153.5	70.165	UL-RL	0.295	5.16	0	54.5	0	0	124.665
-2m	-13.65	155.5	71.107	UL-RL	0.295	5.16	0	56.5	0	0	127.607
-2m	-13.85	157.5	72.043	UL-RL	0.295	5.16	0	58.5	0	0	130.543
-2m	-14.05	159.5	72.972	UL-RL	0.295	5.16	0	60.5	0	0	133.471
-2m	-14.25	161.5	73.893	UL-RL	0.295	5.16	0	62.5	0	0	136.393
-2m	-14.45	163.5	74.806	UL-RL	0.295	5.16	0	64.5	0	0	139.306
-2m	-14.65	165.5	75.711	UL-RL	0.295	5.16	0	66.5	0	0	142.211
-2m	-14.85	167.5	76.606	UL-RL	0.295	5.16	0	68.5	0	0	145.106
-2m	-15.05	169.5	71.054	UL-RL	0.2715	8.79	0	70.5	0	0	141.554
-2m	-15.25	171.5	71.865	UL-RL	0.2715	8.79	0	72.5	0	0	144.365
-2m	-15.45	173.5	72.663	UL-RL	0.2715	8.79	0	74.5	0	0	147.163
-2m	-15.65	175.5	73.448	UL-RL	0.2715	8.79	0	76.5	0	0	149.948
-2m	-15.85	177.5	74.219	UL-RL	0.2715	8.79	0	78.5	0	0	152.718
-2m	-16.05	179.5	74.975	UL-RL	0.2715	8.79	0	80.5	0	0	155.475
-2m	-16.25	181.5	75.716	UL-RL	0.2715	8.79	0	82.5	0	0	158.216
-2m	-16.45	183.5	76.442	UL-RL	0.2715	8.79	0	84.5	0	0	160.942
-2m	-16.65	185.5	77.152	UL-RL	0.2715	8.79	0	86.5	0	0	163.652
-2m	-16.85	187.5	77.846	UL-RL	0.2715	8.79	0	88.5	0	0	166.346
-2m	-17.05	189.5	78.523	UL-RL	0.2715	8.79	0	90.5	0	0	169.023
-2m	-17.25	191.5	79.183	UL-RL	0.2715	8.79	0	92.5	0	0	171.683
-2m	-17.45	193.5	79.826	UL-RL	0.2715	8.79	0	94.5	0	0	174.326
-2m	-17.65	195.5	80.451	UL-RL	0.2715	8.79	0	96.5	0	0	176.952
-2m	-17.85	197.5	81.06	UL-RL	0.2715	8.79	0	98.5	0	0	179.56
-2m	-18.05	199.5	81.651	UL-RL	0.2715	8.79	0	100.5	0	0	182.151
-2m	-18.25	201.5	82.225	UL-RL	0.2715	8.79	0	102.5	0	0	184.725
-2m	-18.45	203.5	82.781	UL-RL	0.2715	8.79	0	104.5	0	0	187.281
-2m	-18.65	205.5	83.322	UL-RL	0.2715	8.79	0	106.5	0	0	189.822
-2m	-18.85	207.5	83.845	UL-RL	0.2715	8.79	0	108.5	0	0	192.345
-2m	-19.05	209.5	84.354	UL-RL	0.2715	8.79	0	110.5	0	0	194.854
-2m	-19.25	211.5	84.847	UL-RL	0.2715	8.79	0	112.5	0	0	197.347
-2m	-19.45	213.5	85.327	UL-RL	0.2715	8.79	0	114.5	0	0	199.826
-2m	-19.65	215.5	85.793	UL-RL	0.2715	8.79	0	116.5	0	0	202.293
-2m	-19.85	217.5	86.248	UL-RL	0.2715	8.79	0	118.5	0	0	204.748
-2m	-20.05	219.55	124.046	UL-RL	0.37	3.548	0	120.5	0	0	244.546
-2m	-20.25	221.75	125.139	UL-RL	0.37	3.548	0	122.5	0	0	247.639
-2m	-20.45	223.95	126.229	UL-RL	0.37	3.548	0	124.5	0	0	250.729
-2m	-20.65	226.15	127.318	UL-RL	0.37	3.548	0	126.5	0	0	253.818
-2m	-20.85	228.35	128.406	UL-RL	0.37	3.548	0	128.5	0	0	256.906
-2m	-21.05	230.55	129.493	UL-RL	0.37	3.548	0	130.5	0	0	259.993
-2m	-21.25	232.75	130.579	UL-RL	0.37	3.548	0	132.5	0	0	263.079
-2m	-21.45	234.95	131.664	UL-RL	0.37	3.548	0	134.5	0	0	266.165
-2m	-21.65	237.15	132.75	UL-RL	0.37	3.548	0	136.5	0	0	269.25

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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Design Assumption:	Nominal	Risultati Terreno	Muro:	LEFT	Lato	LEFT						
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)	
-2m	-21.85	239.35	133.836	UL-RL	0.37	3.548	0	138.5	0	0	272.336	
-2m	-22.05	241.55	134.921	UL-RL	0.37	3.548	0	140.5	0	0	275.422	
-2m	-22.25	243.75	136.008	UL-RL	0.37	3.548	0	142.5	0	0	278.508	
-2m	-22.45	245.95	137.094	UL-RL	0.37	3.548	0	144.5	0	0	281.594	
-2m	-22.65	248.15	138.181	UL-RL	0.37	3.548	0	146.5	0	0	284.681	
-2m	-22.85	250.35	139.269	UL-RL	0.37	3.548	0	148.5	0	0	287.769	
-2m	-23.05	252.55	140.358	UL-RL	0.37	3.548	0	150.5	0	0	290.858	
-2m	-23.25	254.75	141.447	UL-RL	0.37	3.548	0	152.5	0	0	293.947	
-2m	-23.45	256.95	142.537	UL-RL	0.37	3.548	0	154.5	0	0	297.037	
-2m	-23.65	259.15	143.628	UL-RL	0.37	3.548	0	156.5	0	0	300.128	
-2m	-23.85	261.35	144.72	UL-RL	0.37	3.548	0	158.5	0	0	303.22	
-2m	-24.05	263.55	145.813	UL-RL	0.37	3.548	0	160.5	0	0	306.313	
-2m	-24.25	265.75	146.906	UL-RL	0.37	3.548	0	162.5	0	0	309.406	
-2m	-24.45	267.95	148.001	UL-RL	0.37	3.548	0	164.5	0	0	312.501	
-2m	-24.65	270.15	149.096	UL-RL	0.37	3.548	0	166.5	0	0	315.596	
-2m	-24.85	272.35	150.192	UL-RL	0.37	3.548	0	168.5	0	0	318.692	
-2m	-25.05	274.55	151.288	UL-RL	0.37	3.548	0	170.5	0	0	321.789	
-2m	-25.25	276.75	152.386	UL-RL	0.37	3.548	0	172.5	0	0	324.886	
-2m	-25.45	278.95	153.484	UL-RL	0.37	3.548	0	174.5	0	0	327.984	
-2m	-25.65	281.15	154.582	UL-RL	0.37	3.548	0	176.5	0	0	331.082	
-2m	-25.85	283.35	155.681	UL-RL	0.37	3.548	0	178.5	0	0	334.181	
-2m	-26.05	285.55	156.78	UL-RL	0.37	3.548	0	180.5	0	0	337.281	
-2m	-26.25	287.75	157.88	UL-RL	0.37	3.548	0	182.5	0	0	340.38	
-2m	-26.45	289.95	158.98	UL-RL	0.37	3.548	0	184.5	0	0	343.481	
-2m	-26.65	292.15	160.08	UL-RL	0.37	3.548	0	186.5	0	0	346.581	
-2m	-26.85	294.35	161.181	UL-RL	0.37	3.548	0	188.5	0	0	349.681	
-2m	-27.05	296.55	162.282	UL-RL	0.37	3.548	0	190.5	0	0	352.782	
-2m	-27.25	298.75	163.382	UL-RL	0.37	3.548	0	192.5	0	0	355.883	
-2m	-27.45	300.95	164.483	UL-RL	0.37	3.548	0	194.5	0	0	358.983	
-2m	-27.65	303.15	165.584	UL-RL	0.37	3.548	0	196.5	0	0	362.084	
-2m	-27.85	305.35	166.685	UL-RL	0.37	3.548	0	198.5	0	0	365.185	
-2m	-28	307	167.51	UL-RL	0.37	3.548	0	200	0	0	367.51	

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno		Muro:	LEFT	Lato	RIGHT				U* (kPa)	Peq (kPa)
		Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente			
-2m	0	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-0.2	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-0.4	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-0.6	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-0.8	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-1	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-1.2	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-1.4	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-1.6	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-1.8	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-2	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-2.2	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-2.25	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-2.45	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-2.65	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-2.85	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-3.05	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-3.25	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-3.45	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-3.65	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-3.85	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-4.05	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-4.25	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-4.45	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-4.65	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-4.85	0	0	REMOVED	0	0	0	0	0	0	0	0
-2m	-5.05	1	5.16	PASSIVE	0.295	5.16	0	0	0	0	0	5.16
-2m	-5.25	5	13.6	UL-RL	0.295	5.16	0	0	0	0	0	13.6
-2m	-5.45	9	16.882	UL-RL	0.295	5.16	0	0	0	0	0	16.882
-2m	-5.65	13	19.662	UL-RL	0.295	5.16	0	0	0	0	0	19.662
-2m	-5.85	17	22.183	UL-RL	0.295	5.16	0	0	0	0	0	22.183
-2m	-6.05	21	24.543	UL-RL	0.295	5.16	0	0	0	0	0	24.543
-2m	-6.25	25	26.794	UL-RL	0.295	5.16	0	0	0	0	0	26.794
-2m	-6.45	29	28.964	UL-RL	0.295	5.16	0	0	0	0	0	28.964
-2m	-6.65	33	31.074	UL-RL	0.295	5.16	0	0	0	0	0	31.074
-2m	-6.85	37	33.136	UL-RL	0.295	5.16	0	0	0	0	0	33.136
-2m	-7.05	41	35.161	UL-RL	0.295	5.16	0	0	0	0	0	35.161
-2m	-7.25	45	37.154	UL-RL	0.295	5.16	0	0	0	0	0	37.154
-2m	-7.45	49	39.121	UL-RL	0.295	5.16	0	0	0	0	0	39.121
-2m	-7.65	53	41.066	UL-RL	0.295	5.16	0	0	0	0	0	41.066
-2m	-7.85	57	42.993	UL-RL	0.295	5.16	0	0	0	0	0	42.993
-2m	-8.05	60.5	44.661	UL-RL	0.295	5.16	0	0.5	0	0	0	45.161
-2m	-8.25	62.5	45.589	UL-RL	0.295	5.16	0	2.5	0	0	0	48.089
-2m	-8.45	64.5	46.513	UL-RL	0.295	5.16	0	4.5	0	0	0	51.013
-2m	-8.65	66.5	47.434	UL-RL	0.295	5.16	0	6.5	0	0	0	53.934
-2m	-8.85	68.5	48.35	UL-RL	0.295	5.16	0	8.5	0	0	0	56.85
-2m	-9.05	70.5	49.264	UL-RL	0.295	5.16	0	10.5	0	0	0	59.764
-2m	-9.25	72.5	50.175	UL-RL	0.295	5.16	0	12.5	0	0	0	62.675
-2m	-9.45	74.5	51.084	UL-RL	0.295	5.16	0	14.5	0	0	0	65.584
-2m	-9.65	76.5	51.99	UL-RL	0.295	5.16	0	16.5	0	0	0	68.49
-2m	-9.85	78.5	52.895	UL-RL	0.295	5.16	0	18.5	0	0	0	71.395
-2m	-10.05	80.5	53.798	UL-RL	0.295	5.16	0	20.5	0	0	0	74.298
-2m	-10.25	82.5	54.699	UL-RL	0.295	5.16	0	22.5	0	0	0	77.199
-2m	-10.45	84.5	55.6	UL-RL	0.295	5.16	0	24.5	0	0	0	80.1
-2m	-10.65	86.5	56.5	UL-RL	0.295	5.16	0	26.5	0	0	0	83
-2m	-10.85	88.5	57.4	UL-RL	0.295	5.16	0	28.5	0	0	0	85.9

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT Stato	Lato		RIGHT		Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
					Ka	Kp	Coesione (kPa)	Pore (kPa)				
-2m	-11.05	90.5	58.299	UL-RL	0.295	5.16	0	30.5	0	0	88.799	
-2m	-11.25	92.5	59.198	UL-RL	0.295	5.16	0	32.5	0	0	91.698	
-2m	-11.45	94.5	60.098	UL-RL	0.295	5.16	0	34.5	0	0	94.598	
-2m	-11.65	96.5	60.997	UL-RL	0.295	5.16	0	36.5	0	0	97.497	
-2m	-11.85	98.5	61.898	UL-RL	0.295	5.16	0	38.5	0	0	100.398	
-2m	-12.05	100.5	62.799	UL-RL	0.295	5.16	0	40.5	0	0	103.299	
-2m	-12.25	102.5	63.701	UL-RL	0.295	5.16	0	42.5	0	0	106.201	
-2m	-12.45	104.5	64.605	UL-RL	0.295	5.16	0	44.5	0	0	109.105	
-2m	-12.65	106.5	65.511	UL-RL	0.295	5.16	0	46.5	0	0	112.01	
-2m	-12.85	108.5	66.418	UL-RL	0.295	5.16	0	48.5	0	0	114.918	
-2m	-13.05	110.5	67.327	UL-RL	0.295	5.16	0	50.5	0	0	117.827	
-2m	-13.25	112.5	68.238	UL-RL	0.295	5.16	0	52.5	0	0	120.738	
-2m	-13.45	114.5	69.153	UL-RL	0.295	5.16	0	54.5	0	0	123.652	
-2m	-13.65	116.5	70.07	UL-RL	0.295	5.16	0	56.5	0	0	126.57	
-2m	-13.85	118.5	70.99	UL-RL	0.295	5.16	0	58.5	0	0	129.49	
-2m	-14.05	120.5	71.914	UL-RL	0.295	5.16	0	60.5	0	0	132.414	
-2m	-14.25	122.5	72.841	UL-RL	0.295	5.16	0	62.5	0	0	135.341	
-2m	-14.45	124.5	73.773	UL-RL	0.295	5.16	0	64.5	0	0	138.273	
-2m	-14.65	126.5	74.709	UL-RL	0.295	5.16	0	66.5	0	0	141.208	
-2m	-14.85	128.5	75.649	UL-RL	0.295	5.16	0	68.5	0	0	144.149	
-2m	-15.05	130.5	72.264	UL-RL	0.2715	5.879	0	70.5	0	0	142.764	
-2m	-15.25	132.5	73.159	UL-RL	0.2715	5.879	0	72.5	0	0	145.658	
-2m	-15.45	134.5	74.059	UL-RL	0.2715	5.879	0	74.5	0	0	148.559	
-2m	-15.65	136.5	74.966	UL-RL	0.2715	5.879	0	76.5	0	0	151.466	
-2m	-15.85	138.5	75.881	UL-RL	0.2715	5.879	0	78.5	0	0	154.38	
-2m	-16.05	140.5	76.802	UL-RL	0.2715	5.879	0	80.5	0	0	157.302	
-2m	-16.25	142.5	77.732	UL-RL	0.2715	5.879	0	82.5	0	0	160.232	
-2m	-16.45	144.5	78.669	UL-RL	0.2715	5.879	0	84.5	0	0	163.169	
-2m	-16.65	146.5	79.615	UL-RL	0.2715	5.879	0	86.5	0	0	166.115	
-2m	-16.85	148.5	80.569	UL-RL	0.2715	5.879	0	88.5	0	0	169.069	
-2m	-17.05	150.5	81.532	UL-RL	0.2715	5.879	0	90.5	0	0	172.032	
-2m	-17.25	152.5	82.504	UL-RL	0.2715	5.879	0	92.5	0	0	175.004	
-2m	-17.45	154.5	83.484	UL-RL	0.2715	5.879	0	94.5	0	0	177.984	
-2m	-17.65	156.5	84.474	UL-RL	0.2715	5.879	0	96.5	0	0	180.974	
-2m	-17.85	158.5	85.473	UL-RL	0.2715	5.879	0	98.5	0	0	183.973	
-2m	-18.05	160.5	86.48	UL-RL	0.2715	5.879	0	100.5	0	0	186.98	
-2m	-18.25	162.5	87.497	UL-RL	0.2715	5.879	0	102.5	0	0	189.997	
-2m	-18.45	164.5	88.523	UL-RL	0.2715	5.879	0	104.5	0	0	193.023	
-2m	-18.65	166.5	89.557	UL-RL	0.2715	5.879	0	106.5	0	0	196.057	
-2m	-18.85	168.5	90.6	UL-RL	0.2715	5.879	0	108.5	0	0	199.1	
-2m	-19.05	170.5	91.652	UL-RL	0.2715	5.879	0	110.5	0	0	202.152	
-2m	-19.25	172.5	92.711	UL-RL	0.2715	5.879	0	112.5	0	0	205.211	
-2m	-19.45	174.5	93.777	UL-RL	0.2715	5.879	0	114.5	0	0	208.277	
-2m	-19.65	176.5	94.85	UL-RL	0.2715	5.879	0	116.5	0	0	211.35	
-2m	-19.85	178.5	95.93	UL-RL	0.2715	5.879	0	118.5	0	0	214.43	
-2m	-20.05	180.55	118.08	UL-RL	0.3693	5.538	0	120.5	0	0	238.58	
-2m	-20.25	182.75	119.379	UL-RL	0.3693	5.538	0	122.5	0	0	241.879	
-2m	-20.45	184.95	120.68	UL-RL	0.3693	5.538	0	124.5	0	0	245.18	
-2m	-20.65	187.15	121.982	UL-RL	0.3693	5.538	0	126.5	0	0	248.482	
-2m	-20.85	189.35	123.284	UL-RL	0.3693	5.538	0	128.5	0	0	251.784	
-2m	-21.05	191.55	124.586	UL-RL	0.3693	5.538	0	130.5	0	0	255.086	
-2m	-21.25	193.75	125.889	UL-RL	0.3693	5.538	0	132.5	0	0	258.389	
-2m	-21.45	195.95	127.192	UL-RL	0.3693	5.538	0	134.5	0	0	261.692	
-2m	-21.65	198.15	128.494	UL-RL	0.3693	5.538	0	136.5	0	0	264.994	
-2m	-21.85	200.35	129.796	UL-RL	0.3693	5.538	0	138.5	0	0	268.296	
-2m	-22.05	202.55	131.098	UL-RL	0.3693	5.538	0	140.5	0	0	271.598	
-2m	-22.25	204.75	132.4	UL-RL	0.3693	5.538	0	142.5	0	0	274.9	



Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno		Muro: Sigma H (kPa)	LEFT		Lato		RIGHT		U* (kPa)	Peq (kPa)
		Sigma V (kPa)			Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente		
-2m	-22.45	206.95		133.7	UL-RL	0.3693.538	0	144.5	0	0	278.2	
-2m	-22.65	209.15		135	UL-RL	0.3693.538	0	146.5	0	0	281.501	
-2m	-22.85	211.35		136.3	UL-RL	0.3693.538	0	148.5	0	0	284.8	
-2m	-23.05	213.55		137.598	UL-RL	0.3693.538	0	150.5	0	0	288.099	
-2m	-23.25	215.75		138.896	UL-RL	0.3693.538	0	152.5	0	0	291.396	
-2m	-23.45	217.95		140.193	UL-RL	0.3693.538	0	154.5	0	0	294.693	
-2m	-23.65	220.15		141.489	UL-RL	0.3693.538	0	156.5	0	0	297.989	
-2m	-23.85	222.35		142.784	UL-RL	0.3693.538	0	158.5	0	0	301.285	
-2m	-24.05	224.55		144.079	UL-RL	0.3693.538	0	160.5	0	0	304.579	
-2m	-24.25	226.75		145.372	UL-RL	0.3693.538	0	162.5	0	0	307.872	
-2m	-24.45	228.95		146.665	UL-RL	0.3693.538	0	164.5	0	0	311.165	
-2m	-24.65	231.15		147.957	UL-RL	0.3693.538	0	166.5	0	0	314.457	
-2m	-24.85	233.35		149.248	UL-RL	0.3693.538	0	168.5	0	0	317.748	
-2m	-25.05	235.55		150.538	UL-RL	0.3693.538	0	170.5	0	0	321.039	
-2m	-25.25	237.75		151.828	UL-RL	0.3693.538	0	172.5	0	0	324.328	
-2m	-25.45	239.95		153.118	UL-RL	0.3693.538	0	174.5	0	0	327.618	
-2m	-25.65	242.15		154.406	UL-RL	0.3693.538	0	176.5	0	0	330.906	
-2m	-25.85	244.35		155.694	UL-RL	0.3693.538	0	178.5	0	0	334.194	
-2m	-26.05	246.55		156.982	UL-RL	0.3693.538	0	180.5	0	0	337.482	
-2m	-26.25	248.75		158.269	UL-RL	0.3693.538	0	182.5	0	0	340.769	
-2m	-26.45	250.95		159.556	UL-RL	0.3693.538	0	184.5	0	0	344.056	
-2m	-26.65	253.15		160.842	UL-RL	0.3693.538	0	186.5	0	0	347.342	
-2m	-26.85	255.35		162.128	UL-RL	0.3693.538	0	188.5	0	0	350.628	
-2m	-27.05	257.55		163.414	UL-RL	0.3693.538	0	190.5	0	0	353.914	
-2m	-27.25	259.75		164.7	UL-RL	0.3693.538	0	192.5	0	0	357.2	
-2m	-27.45	261.95		165.985	UL-RL	0.3693.538	0	194.5	0	0	360.486	
-2m	-27.65	264.15		167.271	UL-RL	0.3693.538	0	196.5	0	0	363.771	
-2m	-27.85	266.35		168.556	UL-RL	0.3693.538	0	198.5	0	0	367.056	
-2m	-28	268		169.52	UL-RL	0.3693.538	0	200	0	0	369.52	

Ponte stradale su Torrente Giustenice  
 Relazione di calcolo spalle

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**Tabella Risultati Terreno Left Wall - Nominal - -3m**

Design Assumption:	Nominal	Risultati Terreno	Muro:	LEFT	Lato	LEFT					
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
-3m	0	0	0	REMOVED	0	0	0	0	0	0	0
-3m	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
-3m	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
-3m	-0.6	0	0	REMOVED	0	0	0	0	0	0	0
-3m	-0.8	0	0	REMOVED	0	0	0	0	0	0	0
-3m	-1	0	0	REMOVED	0	0	0	0	0	0	0
-3m	-1.2	0	0	REMOVED	0	0	0	0	0	0	0
-3m	-1.4	0	0	REMOVED	0	0	0	0	0	0	0
-3m	-1.6	0	0	REMOVED	0	0	0	0	0	0	0
-3m	-1.8	0	0	REMOVED	0	0	0	0	0	0	0
-3m	-2	0	0	REMOVED	0	0	0	0	0	0	0
-3m	-2.2	0	0	REMOVED	0	0	0	0	0	0	0
-3m	-2.25	0	0	REMOVED	0	0	0	0	0	0	0
-3m	-2.45	0	0	REMOVED	0	0	0	0	0	0	0
-3m	-2.65	0	0	REMOVED	0	0	0	0	0	0	0
-3m	-2.85	0	0	REMOVED	0	0	0	0	0	0	0
-3m	-3.05	0.95	0.304	ACTIVE	0.32	4.555	0	0	0	0	0.304
-3m	-3.25	4.75	2.921	UL-RL	0.32	4.555	0	0	0	0	2.921
-3m	-3.45	8.55	5.392	UL-RL	0.32	4.555	0	0	0	0	5.392
-3m	-3.65	12.35	7.59	UL-RL	0.32	4.555	0	0	0	0	7.59
-3m	-3.85	16.15	9.66	UL-RL	0.32	4.555	0	0	0	0	9.66
-3m	-4.05	20	5.9	ACTIVE	0.295	5.16	0	0	0	0	5.9
-3m	-4.25	24	7.08	ACTIVE	0.295	5.16	0	0	0	0	7.08
-3m	-4.45	28	8.26	ACTIVE	0.295	5.16	0	0	0	0	8.26
-3m	-4.65	32	9.44	ACTIVE	0.295	5.16	0	0	0	0	9.44
-3m	-4.85	36	10.62	ACTIVE	0.295	5.16	0	0	0	0	10.62
-3m	-5.05	40	11.8	ACTIVE	0.295	5.16	0	0	0	0	11.8
-3m	-5.25	44	12.98	ACTIVE	0.295	5.16	0	0	0	0	12.98
-3m	-5.45	48	14.16	ACTIVE	0.295	5.16	0	0	0	0	14.16
-3m	-5.65	52	15.933	UL-RL	0.295	5.16	0	0	0	0	15.933
-3m	-5.85	56	17.749	UL-RL	0.295	5.16	0	0	0	0	17.749
-3m	-6.05	60	19.579	UL-RL	0.295	5.16	0	0	0	0	19.579
-3m	-6.25	64	21.423	UL-RL	0.295	5.16	0	0	0	0	21.423
-3m	-6.45	68	23.281	UL-RL	0.295	5.16	0	0	0	0	23.281
-3m	-6.65	72	25.152	UL-RL	0.295	5.16	0	0	0	0	25.152
-3m	-6.85	76	27.036	UL-RL	0.295	5.16	0	0	0	0	27.036
-3m	-7.05	80	28.932	UL-RL	0.295	5.16	0	0	0	0	28.932
-3m	-7.25	84	30.839	UL-RL	0.295	5.16	0	0	0	0	30.839
-3m	-7.45	88	32.755	UL-RL	0.295	5.16	0	0	0	0	32.755
-3m	-7.65	92	34.682	UL-RL	0.295	5.16	0	0	0	0	34.682
-3m	-7.85	96	36.616	UL-RL	0.295	5.16	0	0	0	0	36.616
-3m	-8.05	99.5	38.329	UL-RL	0.295	5.16	0	0.5	0	0	38.829
-3m	-8.25	101.5	39.362	UL-RL	0.295	5.16	0	2.5	0	0	41.862
-3m	-8.45	103.5	40.401	UL-RL	0.295	5.16	0	4.5	0	0	44.901
-3m	-8.65	105.5	41.446	UL-RL	0.295	5.16	0	6.5	0	0	47.946
-3m	-8.85	107.5	42.496	UL-RL	0.295	5.16	0	8.5	0	0	50.996
-3m	-9.05	109.5	43.551	UL-RL	0.295	5.16	0	10.5	0	0	54.051
-3m	-9.25	111.5	44.609	UL-RL	0.295	5.16	0	12.5	0	0	57.109
-3m	-9.45	113.5	45.67	UL-RL	0.295	5.16	0	14.5	0	0	60.17
-3m	-9.65	115.5	46.733	UL-RL	0.295	5.16	0	16.5	0	0	63.232
-3m	-9.85	117.5	47.797	UL-RL	0.295	5.16	0	18.5	0	0	66.297
-3m	-10.05	119.5	48.862	UL-RL	0.295	5.16	0	20.5	0	0	69.362
-3m	-10.25	121.5	49.927	UL-RL	0.295	5.16	0	22.5	0	0	72.427

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

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Design Assumption:	Nominal	Risultati Terreno	Muro:	LEFT	Lato	LEFT					
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U*	Peq (kPa)
-3m	-10.45	123.5	50.992	UL-RL	0.295	5.16	0	24.5	0	0	75.492
-3m	-10.65	125.5	52.056	UL-RL	0.295	5.16	0	26.5	0	0	78.556
-3m	-10.85	127.5	53.118	UL-RL	0.295	5.16	0	28.5	0	0	81.618
-3m	-11.05	129.5	54.178	UL-RL	0.295	5.16	0	30.5	0	0	84.678
-3m	-11.25	131.5	55.235	UL-RL	0.295	5.16	0	32.5	0	0	87.735
-3m	-11.45	133.5	56.289	UL-RL	0.295	5.16	0	34.5	0	0	90.789
-3m	-11.65	135.5	57.339	UL-RL	0.295	5.16	0	36.5	0	0	93.838
-3m	-11.85	137.5	58.384	UL-RL	0.295	5.16	0	38.5	0	0	96.884
-3m	-12.05	139.5	59.424	UL-RL	0.295	5.16	0	40.5	0	0	99.924
-3m	-12.25	141.5	60.459	UL-RL	0.295	5.16	0	42.5	0	0	102.959
-3m	-12.45	143.5	61.488	UL-RL	0.295	5.16	0	44.5	0	0	105.988
-3m	-12.65	145.5	62.51	UL-RL	0.295	5.16	0	46.5	0	0	109.01
-3m	-12.85	147.5	63.524	UL-RL	0.295	5.16	0	48.5	0	0	112.024
-3m	-13.05	149.5	64.531	UL-RL	0.295	5.16	0	50.5	0	0	115.03
-3m	-13.25	151.5	65.528	UL-RL	0.295	5.16	0	52.5	0	0	118.028
-3m	-13.45	153.5	66.517	UL-RL	0.295	5.16	0	54.5	0	0	121.017
-3m	-13.65	155.5	67.495	UL-RL	0.295	5.16	0	56.5	0	0	123.995
-3m	-13.85	157.5	68.463	UL-RL	0.295	5.16	0	58.5	0	0	126.963
-3m	-14.05	159.5	69.42	UL-RL	0.295	5.16	0	60.5	0	0	129.92
-3m	-14.25	161.5	70.364	UL-RL	0.295	5.16	0	62.5	0	0	132.864
-3m	-14.45	163.5	71.295	UL-RL	0.295	5.16	0	64.5	0	0	135.795
-3m	-14.65	165.5	72.213	UL-RL	0.295	5.16	0	66.5	0	0	138.713
-3m	-14.85	167.5	73.116	UL-RL	0.295	5.16	0	68.5	0	0	141.616
-3m	-15.05	169.5	66.895	UL-RL	0.2715	5.879	0	70.5	0	0	137.395
-3m	-15.25	171.5	67.701	UL-RL	0.2715	5.879	0	72.5	0	0	140.201
-3m	-15.45	173.5	68.486	UL-RL	0.2715	5.879	0	74.5	0	0	142.986
-3m	-15.65	175.5	69.249	UL-RL	0.2715	5.879	0	76.5	0	0	145.749
-3m	-15.85	177.5	69.991	UL-RL	0.2715	5.879	0	78.5	0	0	148.491
-3m	-16.05	179.5	70.71	UL-RL	0.2715	5.879	0	80.5	0	0	151.209
-3m	-16.25	181.5	71.404	UL-RL	0.2715	5.879	0	82.5	0	0	153.904
-3m	-16.45	183.5	72.075	UL-RL	0.2715	5.879	0	84.5	0	0	156.574
-3m	-16.65	185.5	72.72	UL-RL	0.2715	5.879	0	86.5	0	0	159.22
-3m	-16.85	187.5	73.339	UL-RL	0.2715	5.879	0	88.5	0	0	161.839
-3m	-17.05	189.5	73.932	UL-RL	0.2715	5.879	0	90.5	0	0	164.432
-3m	-17.25	191.5	74.499	UL-RL	0.2715	5.879	0	92.5	0	0	166.999
-3m	-17.45	193.5	75.039	UL-RL	0.2715	5.879	0	94.5	0	0	169.539
-3m	-17.65	195.5	75.551	UL-RL	0.2715	5.879	0	96.5	0	0	172.051
-3m	-17.85	197.5	76.037	UL-RL	0.2715	5.879	0	98.5	0	0	174.537
-3m	-18.05	199.5	76.495	UL-RL	0.2715	5.879	0	100.5	0	0	176.995
-3m	-18.25	201.5	76.927	UL-RL	0.2715	5.879	0	102.5	0	0	179.427
-3m	-18.45	203.5	77.332	UL-RL	0.2715	5.879	0	104.5	0	0	181.832
-3m	-18.65	205.5	77.711	UL-RL	0.2715	5.879	0	106.5	0	0	184.211
-3m	-18.85	207.5	78.064	UL-RL	0.2715	5.879	0	108.5	0	0	186.564
-3m	-19.05	209.5	78.394	UL-RL	0.2715	5.879	0	110.5	0	0	188.894
-3m	-19.25	211.5	78.7	UL-RL	0.2715	5.879	0	112.5	0	0	191.2
-3m	-19.45	213.5	78.984	UL-RL	0.2715	5.879	0	114.5	0	0	193.484
-3m	-19.65	215.5	79.249	UL-RL	0.2715	5.879	0	116.5	0	0	195.749
-3m	-19.85	217.5	79.494	UL-RL	0.2715	5.879	0	118.5	0	0	197.994
-3m	-20.05	219.55	122.196	UL-RL	0.37	3.548	0	120.5	0	0	242.696
-3m	-20.25	221.75	123.231	UL-RL	0.37	3.548	0	122.5	0	0	245.731
-3m	-20.45	223.95	124.262	UL-RL	0.37	3.548	0	124.5	0	0	248.762
-3m	-20.65	226.15	125.29	UL-RL	0.37	3.548	0	126.5	0	0	251.79
-3m	-20.85	228.35	126.317	UL-RL	0.37	3.548	0	128.5	0	0	254.817
-3m	-21.05	230.55	127.342	UL-RL	0.37	3.548	0	130.5	0	0	257.842
-3m	-21.25	232.75	128.366	UL-RL	0.37	3.548	0	132.5	0	0	260.867
-3m	-21.45	234.95	129.39	UL-RL	0.37	3.548	0	134.5	0	0	263.89
-3m	-21.65	237.15	130.413	UL-RL	0.37	3.548	0	136.5	0	0	266.913

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

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Design Assumption:	Nominal	Risultati Terreno	Muro:	LEFT	Lato	LEFT					
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
-3m	-21.85	239.35	131.436	UL-RL	0.37	3.548	0	138.5	0	0	269.936
-3m	-22.05	241.55	132.46	UL-RL	0.37	3.548	0	140.5	0	0	272.96
-3m	-22.25	243.75	133.483	UL-RL	0.37	3.548	0	142.5	0	0	275.983
-3m	-22.45	245.95	134.508	UL-RL	0.37	3.548	0	144.5	0	0	279.008
-3m	-22.65	248.15	135.533	UL-RL	0.37	3.548	0	146.5	0	0	282.033
-3m	-22.85	250.35	136.559	UL-RL	0.37	3.548	0	148.5	0	0	285.06
-3m	-23.05	252.55	137.587	UL-RL	0.37	3.548	0	150.5	0	0	288.087
-3m	-23.25	254.75	138.615	UL-RL	0.37	3.548	0	152.5	0	0	291.115
-3m	-23.45	256.95	139.645	UL-RL	0.37	3.548	0	154.5	0	0	294.145
-3m	-23.65	259.15	140.676	UL-RL	0.37	3.548	0	156.5	0	0	297.176
-3m	-23.85	261.35	141.708	UL-RL	0.37	3.548	0	158.5	0	0	300.208
-3m	-24.05	263.55	142.742	UL-RL	0.37	3.548	0	160.5	0	0	303.242
-3m	-24.25	265.75	143.777	UL-RL	0.37	3.548	0	162.5	0	0	306.277
-3m	-24.45	267.95	144.813	UL-RL	0.37	3.548	0	164.5	0	0	309.313
-3m	-24.65	270.15	145.85	UL-RL	0.37	3.548	0	166.5	0	0	312.35
-3m	-24.85	272.35	146.888	UL-RL	0.37	3.548	0	168.5	0	0	315.389
-3m	-25.05	274.55	147.928	UL-RL	0.37	3.548	0	170.5	0	0	318.428
-3m	-25.25	276.75	148.968	UL-RL	0.37	3.548	0	172.5	0	0	321.469
-3m	-25.45	278.95	150.01	UL-RL	0.37	3.548	0	174.5	0	0	324.51
-3m	-25.65	281.15	151.052	UL-RL	0.37	3.548	0	176.5	0	0	327.552
-3m	-25.85	283.35	152.095	UL-RL	0.37	3.548	0	178.5	0	0	330.595
-3m	-26.05	285.55	153.139	UL-RL	0.37	3.548	0	180.5	0	0	333.639
-3m	-26.25	287.75	154.183	UL-RL	0.37	3.548	0	182.5	0	0	336.683
-3m	-26.45	289.95	155.228	UL-RL	0.37	3.548	0	184.5	0	0	339.728
-3m	-26.65	292.15	156.273	UL-RL	0.37	3.548	0	186.5	0	0	342.773
-3m	-26.85	294.35	157.318	UL-RL	0.37	3.548	0	188.5	0	0	345.818
-3m	-27.05	296.55	158.363	UL-RL	0.37	3.548	0	190.5	0	0	348.864
-3m	-27.25	298.75	159.409	UL-RL	0.37	3.548	0	192.5	0	0	351.909
-3m	-27.45	300.95	160.455	UL-RL	0.37	3.548	0	194.5	0	0	354.955
-3m	-27.65	303.15	161.501	UL-RL	0.37	3.548	0	196.5	0	0	358.001
-3m	-27.85	305.35	162.546	UL-RL	0.37	3.548	0	198.5	0	0	361.047
-3m	-28	307	163.331	UL-RL	0.37	3.548	0	200	0	0	363.331

Ponte stradale su Torrente Giustenice  
 Relazione di calcolo spalle

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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno		Muro:	LEFT	Lato	RIGHT				U* (kPa)	Peq (kPa)
		Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente			
-3m	0	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-0.2	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-0.4	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-0.6	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-0.8	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-1	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-1.2	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-1.4	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-1.6	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-1.8	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-2	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-2.2	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-2.25	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-2.45	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-2.65	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-2.85	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-3.05	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-3.25	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-3.45	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-3.65	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-3.85	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-4.05	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-4.25	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-4.45	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-4.65	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-4.85	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-5.05	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-5.25	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-5.45	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-5.65	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-5.85	0	0	REMOVED	0	0	0	0	0	0	0	0
-3m	-6.05	1	5.16	PASSIVE	0.295	5.16	0	0	0	0	0	5.16
-3m	-6.25	5	17.795	UL-RL	0.295	5.16	0	0	0	0	0	17.795
-3m	-6.45	9	21.414	UL-RL	0.295	5.16	0	0	0	0	0	21.414
-3m	-6.65	13	24.437	UL-RL	0.295	5.16	0	0	0	0	0	24.437
-3m	-6.85	17	27.145	UL-RL	0.295	5.16	0	0	0	0	0	27.145
-3m	-7.05	21	29.654	UL-RL	0.295	5.16	0	0	0	0	0	29.654
-3m	-7.25	25	32.026	UL-RL	0.295	5.16	0	0	0	0	0	32.026
-3m	-7.45	29	34.297	UL-RL	0.295	5.16	0	0	0	0	0	34.297
-3m	-7.65	33	36.49	UL-RL	0.295	5.16	0	0	0	0	0	36.49
-3m	-7.85	37	38.621	UL-RL	0.295	5.16	0	0	0	0	0	38.621
-3m	-8.05	40.5	40.436	UL-RL	0.295	5.16	0	0.5	0	0	0	40.936
-3m	-8.25	42.5	41.428	UL-RL	0.295	5.16	0	2.5	0	0	0	43.928
-3m	-8.45	44.5	42.408	UL-RL	0.295	5.16	0	4.5	0	0	0	46.908
-3m	-8.65	46.5	43.376	UL-RL	0.295	5.16	0	6.5	0	0	0	49.876
-3m	-8.85	48.5	44.334	UL-RL	0.295	5.16	0	8.5	0	0	0	52.834
-3m	-9.05	50.5	45.283	UL-RL	0.295	5.16	0	10.5	0	0	0	55.783
-3m	-9.25	52.5	46.224	UL-RL	0.295	5.16	0	12.5	0	0	0	58.724
-3m	-9.45	54.5	47.158	UL-RL	0.295	5.16	0	14.5	0	0	0	61.658
-3m	-9.65	56.5	48.085	UL-RL	0.295	5.16	0	16.5	0	0	0	64.585
-3m	-9.85	58.5	49.006	UL-RL	0.295	5.16	0	18.5	0	0	0	67.506
-3m	-10.05	60.5	49.922	UL-RL	0.295	5.16	0	20.5	0	0	0	70.422
-3m	-10.25	62.5	50.834	UL-RL	0.295	5.16	0	22.5	0	0	0	73.334
-3m	-10.45	64.5	51.743	UL-RL	0.295	5.16	0	24.5	0	0	0	76.243
-3m	-10.65	66.5	52.648	UL-RL	0.295	5.16	0	26.5	0	0	0	79.148
-3m	-10.85	68.5	53.551	UL-RL	0.295	5.16	0	28.5	0	0	0	82.051

Ponte stradale su Torrente Giustenice  
 Relazione di calcolo spalle

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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT Stato	Lato		RIGHT		Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
					Ka	Kp	Coesione (kPa)	Pore (kPa)				
-3m	-11.05	70.5	54.452	UL-RL	0.295	5.16	0	30.5	0	0	84.952	
-3m	-11.25	72.5	55.351	UL-RL	0.295	5.16	0	32.5	0	0	87.851	
-3m	-11.45	74.5	56.25	UL-RL	0.295	5.16	0	34.5	0	0	90.75	
-3m	-11.65	76.5	57.148	UL-RL	0.295	5.16	0	36.5	0	0	93.648	
-3m	-11.85	78.5	58.046	UL-RL	0.295	5.16	0	38.5	0	0	96.546	
-3m	-12.05	80.5	58.945	UL-RL	0.295	5.16	0	40.5	0	0	99.445	
-3m	-12.25	82.5	59.845	UL-RL	0.295	5.16	0	42.5	0	0	102.345	
-3m	-12.45	84.5	60.746	UL-RL	0.295	5.16	0	44.5	0	0	105.246	
-3m	-12.65	86.5	61.65	UL-RL	0.295	5.16	0	46.5	0	0	108.15	
-3m	-12.85	88.5	62.556	UL-RL	0.295	5.16	0	48.5	0	0	111.055	
-3m	-13.05	90.5	63.464	UL-RL	0.295	5.16	0	50.5	0	0	113.964	
-3m	-13.25	92.5	64.376	UL-RL	0.295	5.16	0	52.5	0	0	116.876	
-3m	-13.45	94.5	65.292	UL-RL	0.295	5.16	0	54.5	0	0	119.792	
-3m	-13.65	96.5	66.212	UL-RL	0.295	5.16	0	56.5	0	0	122.712	
-3m	-13.85	98.5	67.137	UL-RL	0.295	5.16	0	58.5	0	0	125.637	
-3m	-14.05	100.5	68.067	UL-RL	0.295	5.16	0	60.5	0	0	128.567	
-3m	-14.25	102.5	69.003	UL-RL	0.295	5.16	0	62.5	0	0	131.503	
-3m	-14.45	104.5	69.945	UL-RL	0.295	5.16	0	64.5	0	0	134.445	
-3m	-14.65	106.5	70.894	UL-RL	0.295	5.16	0	66.5	0	0	137.394	
-3m	-14.85	108.5	71.85	UL-RL	0.295	5.16	0	68.5	0	0	140.35	
-3m	-15.05	110.5	69.053	UL-RL	0.2715	8.79	0	70.5	0	0	139.553	
-3m	-15.25	112.5	69.968	UL-RL	0.2715	8.79	0	72.5	0	0	142.468	
-3m	-15.45	114.5	70.892	UL-RL	0.2715	8.79	0	74.5	0	0	145.392	
-3m	-15.65	116.5	71.828	UL-RL	0.2715	8.79	0	76.5	0	0	148.328	
-3m	-15.85	118.5	72.774	UL-RL	0.2715	8.79	0	78.5	0	0	151.274	
-3m	-16.05	120.5	73.732	UL-RL	0.2715	8.79	0	80.5	0	0	154.232	
-3m	-16.25	122.5	74.702	UL-RL	0.2715	8.79	0	82.5	0	0	157.202	
-3m	-16.45	124.5	75.684	UL-RL	0.2715	8.79	0	84.5	0	0	160.184	
-3m	-16.65	126.5	76.68	UL-RL	0.2715	8.79	0	86.5	0	0	163.18	
-3m	-16.85	128.5	77.688	UL-RL	0.2715	8.79	0	88.5	0	0	166.188	
-3m	-17.05	130.5	78.71	UL-RL	0.2715	8.79	0	90.5	0	0	169.21	
-3m	-17.25	132.5	79.746	UL-RL	0.2715	8.79	0	92.5	0	0	172.246	
-3m	-17.45	134.5	80.795	UL-RL	0.2715	8.79	0	94.5	0	0	175.295	
-3m	-17.65	136.5	81.859	UL-RL	0.2715	8.79	0	96.5	0	0	178.359	
-3m	-17.85	138.5	82.937	UL-RL	0.2715	8.79	0	98.5	0	0	181.437	
-3m	-18.05	140.5	84.028	UL-RL	0.2715	8.79	0	100.5	0	0	184.528	
-3m	-18.25	142.5	85.134	UL-RL	0.2715	8.79	0	102.5	0	0	187.634	
-3m	-18.45	144.5	86.254	UL-RL	0.2715	8.79	0	104.5	0	0	190.754	
-3m	-18.65	146.5	87.387	UL-RL	0.2715	8.79	0	106.5	0	0	193.887	
-3m	-18.85	148.5	88.533	UL-RL	0.2715	8.79	0	108.5	0	0	197.033	
-3m	-19.05	150.5	89.692	UL-RL	0.2715	8.79	0	110.5	0	0	200.192	
-3m	-19.25	152.5	90.863	UL-RL	0.2715	8.79	0	112.5	0	0	203.363	
-3m	-19.45	154.5	92.045	UL-RL	0.2715	8.79	0	114.5	0	0	206.545	
-3m	-19.65	156.5	93.238	UL-RL	0.2715	8.79	0	116.5	0	0	209.738	
-3m	-19.85	158.5	94.44	UL-RL	0.2715	8.79	0	118.5	0	0	212.94	
-3m	-20.05	160.55	112.881	UL-RL	0.3693	5.32	0	120.5	0	0	233.381	
-3m	-20.25	162.75	114.238	UL-RL	0.3693	5.32	0	122.5	0	0	236.738	
-3m	-20.45	164.95	115.596	UL-RL	0.3693	5.32	0	124.5	0	0	240.096	
-3m	-20.65	167.15	116.956	UL-RL	0.3693	5.32	0	126.5	0	0	243.456	
-3m	-20.85	169.35	118.316	UL-RL	0.3693	5.32	0	128.5	0	0	246.816	
-3m	-21.05	171.55	119.677	UL-RL	0.3693	5.32	0	130.5	0	0	250.177	
-3m	-21.25	173.75	121.038	UL-RL	0.3693	5.32	0	132.5	0	0	253.538	
-3m	-21.45	175.95	122.399	UL-RL	0.3693	5.32	0	134.5	0	0	256.899	
-3m	-21.65	178.15	123.759	UL-RL	0.3693	5.32	0	136.5	0	0	260.259	
-3m	-21.85	180.35	125.12	UL-RL	0.3693	5.32	0	138.5	0	0	263.62	
-3m	-22.05	182.55	126.479	UL-RL	0.3693	5.32	0	140.5	0	0	266.979	
-3m	-22.25	184.75	127.838	UL-RL	0.3693	5.32	0	142.5	0	0	270.338	

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT	Lato		RIGHT		U* (kPa)	Peq (kPa)	
				Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)			Gradiente
-3m	-22.45	186.95	129.195	UL-RL	0.3693.532		0	144.5	0	0	273.696
-3m	-22.65	189.15	130.552	UL-RL	0.3693.532		0	146.5	0	0	277.052
-3m	-22.85	191.35	131.908	UL-RL	0.3693.532		0	148.5	0	0	280.408
-3m	-23.05	193.55	133.262	UL-RL	0.3693.532		0	150.5	0	0	283.762
-3m	-23.25	195.75	134.615	UL-RL	0.3693.532		0	152.5	0	0	287.115
-3m	-23.45	197.95	135.966	UL-RL	0.3693.532		0	154.5	0	0	290.467
-3m	-23.65	200.15	137.317	UL-RL	0.3693.532		0	156.5	0	0	293.817
-3m	-23.85	202.35	138.666	UL-RL	0.3693.532		0	158.5	0	0	297.166
-3m	-24.05	204.55	140.013	UL-RL	0.3693.532		0	160.5	0	0	300.513
-3m	-24.25	206.75	141.359	UL-RL	0.3693.532		0	162.5	0	0	303.86
-3m	-24.45	208.95	142.704	UL-RL	0.3693.532		0	164.5	0	0	307.204
-3m	-24.65	211.15	144.048	UL-RL	0.3693.532		0	166.5	0	0	310.548
-3m	-24.85	213.35	145.39	UL-RL	0.3693.532		0	168.5	0	0	313.891
-3m	-25.05	215.55	146.732	UL-RL	0.3693.532		0	170.5	0	0	317.232
-3m	-25.25	217.75	148.072	UL-RL	0.3693.532		0	172.5	0	0	320.572
-3m	-25.45	219.95	149.412	UL-RL	0.3693.532		0	174.5	0	0	323.912
-3m	-25.65	222.15	150.75	UL-RL	0.3693.532		0	176.5	0	0	327.25
-3m	-25.85	224.35	152.088	UL-RL	0.3693.532		0	178.5	0	0	330.588
-3m	-26.05	226.55	153.424	UL-RL	0.3693.532		0	180.5	0	0	333.925
-3m	-26.25	228.75	154.76	UL-RL	0.3693.532		0	182.5	0	0	337.261
-3m	-26.45	230.95	156.096	UL-RL	0.3693.532		0	184.5	0	0	340.596
-3m	-26.65	233.15	157.431	UL-RL	0.3693.532		0	186.5	0	0	343.931
-3m	-26.85	235.35	158.765	UL-RL	0.3693.532		0	188.5	0	0	347.265
-3m	-27.05	237.55	160.099	UL-RL	0.3693.532		0	190.5	0	0	350.599
-3m	-27.25	239.75	161.433	UL-RL	0.3693.532		0	192.5	0	0	353.933
-3m	-27.45	241.95	162.766	UL-RL	0.3693.532		0	194.5	0	0	357.266
-3m	-27.65	244.15	164.099	UL-RL	0.3693.532		0	196.5	0	0	360.599
-3m	-27.85	246.35	165.432	UL-RL	0.3693.532		0	198.5	0	0	363.932
-3m	-28	248	166.431	UL-RL	0.3693.532		0	200	0	0	366.431

**Tabella Risultati Terreno Left Wall - Nominal - Rinterro 1**

Design Assumption:	Nominal	Risultati Terreno	Muro:	LEFT	Lato	LEFT					
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Rinterro 1	0	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-0.6	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-0.8	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-1	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-1.2	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-1.4	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-1.6	1.9	0.515	ACTIVE	0.2715.879	0	0	0	0	0	0.515
Rinterro 1	-1.8	5.7	1.545	ACTIVE	0.2715.879	0	0	0	0	0	1.545
Rinterro 1	-2	9.5	2.574	ACTIVE	0.2715.879	0	0	0	0	0	2.574
Rinterro 1	-2.2	13.3	3.604	ACTIVE	0.2715.879	0	0	0	0	0	3.604
Rinterro 1	-2.25	14.25	3.862	ACTIVE	0.2715.879	0	0	0	0	0	3.862
Rinterro 1	-2.45	18.05	4.892	ACTIVE	0.2715.879	0	0	0	0	0	4.892
Rinterro 1	-2.65	21.85	5.921	ACTIVE	0.2715.879	0	0	0	0	0	5.921
Rinterro 1	-2.85	25.65	6.951	ACTIVE	0.2715.879	0	0	0	0	0	6.951
Rinterro 1	-3.05	29.45	10.056	UL-RL	0.32 4.555	0	0	0	0	0	10.056
Rinterro 1	-3.25	33.25	10.977	UL-RL	0.32 4.555	0	0	0	0	0	10.977
Rinterro 1	-3.45	37.05	12.747	UL-RL	0.32 4.555	0	0	0	0	0	12.747
Rinterro 1	-3.65	40.85	14.521	UL-RL	0.32 4.555	0	0	0	0	0	14.521
Rinterro 1	-3.85	44.65	16.3	UL-RL	0.32 4.555	0	0	0	0	0	16.3
Rinterro 1	-4.05	48.5	14.308	ACTIVE	0.295 5.16	0	0	0	0	0	14.308
Rinterro 1	-4.25	52.5	15.488	ACTIVE	0.295 5.16	0	0	0	0	0	15.488
Rinterro 1	-4.45	56.5	16.668	ACTIVE	0.295 5.16	0	0	0	0	0	16.668
Rinterro 1	-4.65	60.5	17.848	ACTIVE	0.295 5.16	0	0	0	0	0	17.848
Rinterro 1	-4.85	64.5	19.027	ACTIVE	0.295 5.16	0	0	0	0	0	19.027
Rinterro 1	-5.05	68.5	20.207	ACTIVE	0.295 5.16	0	0	0	0	0	20.207
Rinterro 1	-5.25	72.5	21.388	ACTIVE	0.295 5.16	0	0	0	0	0	21.388
Rinterro 1	-5.45	76.5	22.567	ACTIVE	0.295 5.16	0	0	0	0	0	22.567
Rinterro 1	-5.65	80.5	23.747	ACTIVE	0.295 5.16	0	0	0	0	0	23.747
Rinterro 1	-5.85	84.5	24.927	ACTIVE	0.295 5.16	0	0	0	0	0	24.927
Rinterro 1	-6.05	88.5	26.107	ACTIVE	0.295 5.16	0	0	0	0	0	26.107
Rinterro 1	-6.25	92.5	27.287	ACTIVE	0.295 5.16	0	0	0	0	0	27.287
Rinterro 1	-6.45	96.5	28.467	ACTIVE	0.295 5.16	0	0	0	0	0	28.467
Rinterro 1	-6.65	100.5	29.647	ACTIVE	0.295 5.16	0	0	0	0	0	29.647
Rinterro 1	-6.85	104.5	30.827	ACTIVE	0.295 5.16	0	0	0	0	0	30.827
Rinterro 1	-7.05	108.5	32.007	ACTIVE	0.295 5.16	0	0	0	0	0	32.007
Rinterro 1	-7.25	112.5	33.187	ACTIVE	0.295 5.16	0	0	0	0	0	33.187
Rinterro 1	-7.45	116.5	34.367	ACTIVE	0.295 5.16	0	0	0	0	0	34.367
Rinterro 1	-7.65	120.5	35.547	ACTIVE	0.295 5.16	0	0	0	0	0	35.547
Rinterro 1	-7.85	124.5	37.363	UL-RL	0.295 5.16	0	0	0	0	0	37.363
Rinterro 1	-8.05	128	39.165	UL-RL	0.295 5.16	0	0.5	0	0	0	39.665
Rinterro 1	-8.25	130	40.293	UL-RL	0.295 5.16	0	2.5	0	0	0	42.793
Rinterro 1	-8.45	132	41.428	UL-RL	0.295 5.16	0	4.5	0	0	0	45.928
Rinterro 1	-8.65	134	42.57	UL-RL	0.295 5.16	0	6.5	0	0	0	49.07
Rinterro 1	-8.85	136	43.716	UL-RL	0.295 5.16	0	8.5	0	0	0	52.216
Rinterro 1	-9.05	138	44.866	UL-RL	0.295 5.16	0	10.5	0	0	0	55.366
Rinterro 1	-9.25	140	46.019	UL-RL	0.295 5.16	0	12.5	0	0	0	58.519
Rinterro 1	-9.45	142	47.173	UL-RL	0.295 5.16	0	14.5	0	0	0	61.673
Rinterro 1	-9.65	144	48.328	UL-RL	0.295 5.16	0	16.5	0	0	0	64.828
Rinterro 1	-9.85	146	49.483	UL-RL	0.295 5.16	0	18.5	0	0	0	67.983
Rinterro 1	-10.05	148	50.636	UL-RL	0.295 5.16	0	20.5	0	0	0	71.136
Rinterro 1	-10.25	150	51.787	UL-RL	0.295 5.16	0	22.5	0	0	0	74.287



Ponte stradale su Torrente Giustenice  
 Relazione di calcolo spalle

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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno		Muro: Sigma H (kPa)	LEFT		Lato		LEFT		U* (kPa)	Peq (kPa)
		Sigma V (kPa)	Sigma H (kPa)		Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente		
Rinterro 1	-10.45	152	52.935	UL-RL	0.295	5.16	0	24.5	0	0	77.435	
Rinterro 1	-10.65	154	54.08	UL-RL	0.295	5.16	0	26.5	0	0	80.58	
Rinterro 1	-10.85	156	55.219	UL-RL	0.295	5.16	0	28.5	0	0	83.719	
Rinterro 1	-11.05	158	56.354	UL-RL	0.295	5.16	0	30.5	0	0	86.854	
Rinterro 1	-11.25	160	57.482	UL-RL	0.295	5.16	0	32.5	0	0	89.982	
Rinterro 1	-11.45	162	58.604	UL-RL	0.295	5.16	0	34.5	0	0	93.104	
Rinterro 1	-11.65	164	59.717	UL-RL	0.295	5.16	0	36.5	0	0	96.217	
Rinterro 1	-11.85	166	60.823	UL-RL	0.295	5.16	0	38.5	0	0	99.323	
Rinterro 1	-12.05	168	61.919	UL-RL	0.295	5.16	0	40.5	0	0	102.419	
Rinterro 1	-12.25	170	63.006	UL-RL	0.295	5.16	0	42.5	0	0	105.506	
Rinterro 1	-12.45	172	64.082	UL-RL	0.295	5.16	0	44.5	0	0	108.582	
Rinterro 1	-12.65	174	65.147	UL-RL	0.295	5.16	0	46.5	0	0	111.647	
Rinterro 1	-12.85	176	66.199	UL-RL	0.295	5.16	0	48.5	0	0	114.699	
Rinterro 1	-13.05	178	67.239	UL-RL	0.295	5.16	0	50.5	0	0	117.739	
Rinterro 1	-13.25	180	68.265	UL-RL	0.295	5.16	0	52.5	0	0	120.765	
Rinterro 1	-13.45	182	69.276	UL-RL	0.295	5.16	0	54.5	0	0	123.776	
Rinterro 1	-13.65	184	70.272	UL-RL	0.295	5.16	0	56.5	0	0	126.772	
Rinterro 1	-13.85	186	71.252	UL-RL	0.295	5.16	0	58.5	0	0	129.752	
Rinterro 1	-14.05	188	72.214	UL-RL	0.295	5.16	0	60.5	0	0	132.714	
Rinterro 1	-14.25	190	73.159	UL-RL	0.295	5.16	0	62.5	0	0	135.658	
Rinterro 1	-14.45	192	74.084	UL-RL	0.295	5.16	0	64.5	0	0	138.584	
Rinterro 1	-14.65	194	74.989	UL-RL	0.295	5.16	0	66.5	0	0	141.488	
Rinterro 1	-14.85	196	75.872	UL-RL	0.295	5.16	0	68.5	0	0	144.372	
Rinterro 1	-15.05	198	68.427	UL-RL	0.2715	5.879	0	70.5	0	0	138.927	
Rinterro 1	-15.25	200	69.194	UL-RL	0.2715	5.879	0	72.5	0	0	141.694	
Rinterro 1	-15.45	202	69.931	UL-RL	0.2715	5.879	0	74.5	0	0	144.431	
Rinterro 1	-15.65	204	70.638	UL-RL	0.2715	5.879	0	76.5	0	0	147.138	
Rinterro 1	-15.85	206	71.314	UL-RL	0.2715	5.879	0	78.5	0	0	149.814	
Rinterro 1	-16.05	208	71.957	UL-RL	0.2715	5.879	0	80.5	0	0	152.457	
Rinterro 1	-16.25	210	72.567	UL-RL	0.2715	5.879	0	82.5	0	0	155.067	
Rinterro 1	-16.45	212	73.143	UL-RL	0.2715	5.879	0	84.5	0	0	157.643	
Rinterro 1	-16.65	214	73.684	UL-RL	0.2715	5.879	0	86.5	0	0	160.184	
Rinterro 1	-16.85	216	74.189	UL-RL	0.2715	5.879	0	88.5	0	0	162.689	
Rinterro 1	-17.05	218	74.658	UL-RL	0.2715	5.879	0	90.5	0	0	165.158	
Rinterro 1	-17.25	220	75.091	UL-RL	0.2715	5.879	0	92.5	0	0	167.591	
Rinterro 1	-17.45	222	75.486	UL-RL	0.2715	5.879	0	94.5	0	0	169.986	
Rinterro 1	-17.65	224	75.844	UL-RL	0.2715	5.879	0	96.5	0	0	172.344	
Rinterro 1	-17.85	226	76.165	UL-RL	0.2715	5.879	0	98.5	0	0	174.665	
Rinterro 1	-18.05	228	76.448	UL-RL	0.2715	5.879	0	100.5	0	0	176.948	
Rinterro 1	-18.25	230	76.695	UL-RL	0.2715	5.879	0	102.5	0	0	179.195	
Rinterro 1	-18.45	232	76.905	UL-RL	0.2715	5.879	0	104.5	0	0	181.405	
Rinterro 1	-18.65	234	77.08	UL-RL	0.2715	5.879	0	106.5	0	0	183.58	
Rinterro 1	-18.85	236	77.221	UL-RL	0.2715	5.879	0	108.5	0	0	185.721	
Rinterro 1	-19.05	238	77.328	UL-RL	0.2715	5.879	0	110.5	0	0	187.828	
Rinterro 1	-19.25	240	77.403	UL-RL	0.2715	5.879	0	112.5	0	0	189.903	
Rinterro 1	-19.45	242	77.448	UL-RL	0.2715	5.879	0	114.5	0	0	191.948	
Rinterro 1	-19.65	244	77.466	UL-RL	0.2715	5.879	0	116.5	0	0	193.966	
Rinterro 1	-19.85	246	77.458	UL-RL	0.2715	5.879	0	118.5	0	0	195.958	
Rinterro 1	-20.05	248.05	127.944	UL-RL	0.3713	3.554	0	120.5	0	0	248.444	
Rinterro 1	-20.25	250.25	128.906	UL-RL	0.3713	3.554	0	122.5	0	0	251.406	
Rinterro 1	-20.45	252.45	129.864	UL-RL	0.3713	3.554	0	124.5	0	0	254.364	
Rinterro 1	-20.65	254.65	130.818	UL-RL	0.3713	3.554	0	126.5	0	0	257.318	
Rinterro 1	-20.85	256.85	131.769	UL-RL	0.3713	3.554	0	128.5	0	0	260.269	
Rinterro 1	-21.05	259.05	132.718	UL-RL	0.3713	3.554	0	130.5	0	0	263.218	
Rinterro 1	-21.25	261.25	133.665	UL-RL	0.3713	3.554	0	132.5	0	0	266.165	
Rinterro 1	-21.45	263.45	134.611	UL-RL	0.3713	3.554	0	134.5	0	0	269.111	
Rinterro 1	-21.65	265.65	135.557	UL-RL	0.3713	3.554	0	136.5	0	0	272.057	

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

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Design Assumption:	Nominal	Risultati Terreno	Muro:	LEFT	Lato	LEFT					
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Rinterro 1	-21.85	267.85	136.502	UL-RL	0.3713.554	0	138.5	0	0	0	275.002
Rinterro 1	-22.05	270.05	137.447	UL-RL	0.3713.554	0	140.5	0	0	0	277.947
Rinterro 1	-22.25	272.25	138.392	UL-RL	0.3713.554	0	142.5	0	0	0	280.892
Rinterro 1	-22.45	274.45	139.338	UL-RL	0.3713.554	0	144.5	0	0	0	283.838
Rinterro 1	-22.65	276.65	140.285	UL-RL	0.3713.554	0	146.5	0	0	0	286.785
Rinterro 1	-22.85	278.85	141.233	UL-RL	0.3713.554	0	148.5	0	0	0	289.734
Rinterro 1	-23.05	281.05	142.182	UL-RL	0.3713.554	0	150.5	0	0	0	292.683
Rinterro 1	-23.25	283.25	143.133	UL-RL	0.3713.554	0	152.5	0	0	0	295.633
Rinterro 1	-23.45	285.45	144.085	UL-RL	0.3713.554	0	154.5	0	0	0	298.585
Rinterro 1	-23.65	287.65	145.038	UL-RL	0.3713.554	0	156.5	0	0	0	301.539
Rinterro 1	-23.85	289.85	145.994	UL-RL	0.3713.554	0	158.5	0	0	0	304.494
Rinterro 1	-24.05	292.05	146.95	UL-RL	0.3713.554	0	160.5	0	0	0	307.45
Rinterro 1	-24.25	294.25	147.908	UL-RL	0.3713.554	0	162.5	0	0	0	310.408
Rinterro 1	-24.45	296.45	148.868	UL-RL	0.3713.554	0	164.5	0	0	0	313.368
Rinterro 1	-24.65	298.65	149.829	UL-RL	0.3713.554	0	166.5	0	0	0	316.329
Rinterro 1	-24.85	300.85	150.791	UL-RL	0.3713.554	0	168.5	0	0	0	319.291
Rinterro 1	-25.05	303.05	151.755	UL-RL	0.3713.554	0	170.5	0	0	0	322.255
Rinterro 1	-25.25	305.25	152.72	UL-RL	0.3713.554	0	172.5	0	0	0	325.22
Rinterro 1	-25.45	307.45	153.686	UL-RL	0.3713.554	0	174.5	0	0	0	328.186
Rinterro 1	-25.65	309.65	154.653	UL-RL	0.3713.554	0	176.5	0	0	0	331.154
Rinterro 1	-25.85	311.85	155.621	UL-RL	0.3713.554	0	178.5	0	0	0	334.122
Rinterro 1	-26.05	314.05	156.59	UL-RL	0.3713.554	0	180.5	0	0	0	337.091
Rinterro 1	-26.25	316.25	157.56	UL-RL	0.3713.554	0	182.5	0	0	0	340.06
Rinterro 1	-26.45	318.45	158.53	UL-RL	0.3713.554	0	184.5	0	0	0	343.03
Rinterro 1	-26.65	320.65	159.501	UL-RL	0.3713.554	0	186.5	0	0	0	346.001
Rinterro 1	-26.85	322.85	160.472	UL-RL	0.3713.554	0	188.5	0	0	0	348.972
Rinterro 1	-27.05	325.05	161.443	UL-RL	0.3713.554	0	190.5	0	0	0	351.944
Rinterro 1	-27.25	327.25	162.415	UL-RL	0.3713.554	0	192.5	0	0	0	354.915
Rinterro 1	-27.45	329.45	163.387	UL-RL	0.3713.554	0	194.5	0	0	0	357.887
Rinterro 1	-27.65	331.65	164.358	UL-RL	0.3713.554	0	196.5	0	0	0	360.859
Rinterro 1	-27.85	333.85	165.33	UL-RL	0.3713.554	0	198.5	0	0	0	363.831
Rinterro 1	-28	335.5	166.059	UL-RL	0.3713.554	0	200	0	0	0	366.059

Ponte stradale su Torrente Giustenice  
 Relazione di calcolo spalle

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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno		Muro: Sigma H (kPa)	LEFT Stato	Lato		RIGHT Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
		Sigma V (kPa)				Ka	Kp					
Rinterro 1	0	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-0.2	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-0.4	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-0.6	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-0.8	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-1	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-1.2	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-1.4	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-1.6	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-1.8	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-2	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-2.2	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-2.25	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-2.45	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-2.65	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-2.85	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-3.05	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-3.25	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-3.45	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-3.65	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-3.85	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-4.05	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-4.25	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-4.45	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-4.65	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-4.85	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-5.05	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-5.25	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-5.45	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-5.65	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-5.85	0		0	REMOVED	0	0	0	0	0	0	0
Rinterro 1	-6.05	1	5.16	5.16	PASSIVE	0.295	5.16	0	0	0	0	5.16
Rinterro 1	-6.25	5	21.853	21.853	UL-RL	0.295	5.16	0	0	0	0	21.853
Rinterro 1	-6.45	9	25.427	25.427	UL-RL	0.295	5.16	0	0	0	0	25.427
Rinterro 1	-6.65	13	28.401	28.401	UL-RL	0.295	5.16	0	0	0	0	28.401
Rinterro 1	-6.85	17	31.058	31.058	UL-RL	0.295	5.16	0	0	0	0	31.058
Rinterro 1	-7.05	21	33.515	33.515	UL-RL	0.295	5.16	0	0	0	0	33.515
Rinterro 1	-7.25	25	35.831	35.831	UL-RL	0.295	5.16	0	0	0	0	35.831
Rinterro 1	-7.45	29	38.045	38.045	UL-RL	0.295	5.16	0	0	0	0	38.045
Rinterro 1	-7.65	33	40.18	40.18	UL-RL	0.295	5.16	0	0	0	0	40.18
Rinterro 1	-7.85	37	42.252	42.252	UL-RL	0.295	5.16	0	0	0	0	42.252
Rinterro 1	-8.05	40.5	44.007	44.007	UL-RL	0.295	5.16	0	0.5	0	0	44.507
Rinterro 1	-8.25	42.5	44.938	44.938	UL-RL	0.295	5.16	0	2.5	0	0	47.438
Rinterro 1	-8.45	44.5	45.857	45.857	UL-RL	0.295	5.16	0	4.5	0	0	50.357
Rinterro 1	-8.65	46.5	46.765	46.765	UL-RL	0.295	5.16	0	6.5	0	0	53.265
Rinterro 1	-8.85	48.5	47.662	47.662	UL-RL	0.295	5.16	0	8.5	0	0	56.162
Rinterro 1	-9.05	50.5	48.551	48.551	UL-RL	0.295	5.16	0	10.5	0	0	59.051
Rinterro 1	-9.25	52.5	49.433	49.433	UL-RL	0.295	5.16	0	12.5	0	0	61.933
Rinterro 1	-9.45	54.5	50.308	50.308	UL-RL	0.295	5.16	0	14.5	0	0	64.808
Rinterro 1	-9.65	56.5	51.177	51.177	UL-RL	0.295	5.16	0	16.5	0	0	67.677
Rinterro 1	-9.85	58.5	52.042	52.042	UL-RL	0.295	5.16	0	18.5	0	0	70.542
Rinterro 1	-10.05	60.5	52.903	52.903	UL-RL	0.295	5.16	0	20.5	0	0	73.403
Rinterro 1	-10.25	62.5	53.762	53.762	UL-RL	0.295	5.16	0	22.5	0	0	76.262
Rinterro 1	-10.45	64.5	54.618	54.618	UL-RL	0.295	5.16	0	24.5	0	0	79.118
Rinterro 1	-10.65	66.5	55.473	55.473	UL-RL	0.295	5.16	0	26.5	0	0	81.973
Rinterro 1	-10.85	68.5	56.327	56.327	UL-RL	0.295	5.16	0	28.5	0	0	84.827

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno		Muro: Sigma H (kPa)	LEFT Stato	Lato		RIGHT Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
		Sigma V (kPa)				Ka	Kp					
Rinterro 1	-11.05	70.5		57.181	UL-RL	0.295	5.16	0	30.5	0	0	87.681
Rinterro 1	-11.25	72.5		58.036	UL-RL	0.295	5.16	0	32.5	0	0	90.536
Rinterro 1	-11.45	74.5		58.892	UL-RL	0.295	5.16	0	34.5	0	0	93.392
Rinterro 1	-11.65	76.5		59.751	UL-RL	0.295	5.16	0	36.5	0	0	96.25
Rinterro 1	-11.85	78.5		60.611	UL-RL	0.295	5.16	0	38.5	0	0	99.111
Rinterro 1	-12.05	80.5		61.474	UL-RL	0.295	5.16	0	40.5	0	0	101.974
Rinterro 1	-12.25	82.5		62.342	UL-RL	0.295	5.16	0	42.5	0	0	104.841
Rinterro 1	-12.45	84.5		63.213	UL-RL	0.295	5.16	0	44.5	0	0	107.713
Rinterro 1	-12.65	86.5		64.089	UL-RL	0.295	5.16	0	46.5	0	0	110.588
Rinterro 1	-12.85	88.5		64.97	UL-RL	0.295	5.16	0	48.5	0	0	113.47
Rinterro 1	-13.05	90.5		65.857	UL-RL	0.295	5.16	0	50.5	0	0	116.357
Rinterro 1	-13.25	92.5		66.75	UL-RL	0.295	5.16	0	52.5	0	0	119.25
Rinterro 1	-13.45	94.5		67.65	UL-RL	0.295	5.16	0	54.5	0	0	122.15
Rinterro 1	-13.65	96.5		68.558	UL-RL	0.295	5.16	0	56.5	0	0	125.058
Rinterro 1	-13.85	98.5		69.474	UL-RL	0.295	5.16	0	58.5	0	0	127.974
Rinterro 1	-14.05	100.5		70.399	UL-RL	0.295	5.16	0	60.5	0	0	130.899
Rinterro 1	-14.25	102.5		71.333	UL-RL	0.295	5.16	0	62.5	0	0	133.833
Rinterro 1	-14.45	104.5		72.277	UL-RL	0.295	5.16	0	64.5	0	0	136.777
Rinterro 1	-14.65	106.5		73.232	UL-RL	0.295	5.16	0	66.5	0	0	139.732
Rinterro 1	-14.85	108.5		74.198	UL-RL	0.295	5.16	0	68.5	0	0	142.698
Rinterro 1	-15.05	110.5		75.174	UL-RL	0.2715	5.879	0	70.5	0	0	145.674
Rinterro 1	-15.25	112.5		76.157	UL-RL	0.2715	5.879	0	72.5	0	0	148.657
Rinterro 1	-15.45	114.5		77.147	UL-RL	0.2715	5.879	0	74.5	0	0	151.647
Rinterro 1	-15.65	116.5		78.143	UL-RL	0.2715	5.879	0	76.5	0	0	154.643
Rinterro 1	-15.85	118.5		79.145	UL-RL	0.2715	5.879	0	78.5	0	0	157.645
Rinterro 1	-16.05	120.5		80.153	UL-RL	0.2715	5.879	0	80.5	0	0	160.653
Rinterro 1	-16.25	122.5		81.167	UL-RL	0.2715	5.879	0	82.5	0	0	163.667
Rinterro 1	-16.45	124.5		82.187	UL-RL	0.2715	5.879	0	84.5	0	0	166.687
Rinterro 1	-16.65	126.5		83.213	UL-RL	0.2715	5.879	0	86.5	0	0	169.713
Rinterro 1	-16.85	128.5		84.245	UL-RL	0.2715	5.879	0	88.5	0	0	172.745
Rinterro 1	-17.05	130.5		85.283	UL-RL	0.2715	5.879	0	90.5	0	0	175.783
Rinterro 1	-17.25	132.5		86.327	UL-RL	0.2715	5.879	0	92.5	0	0	178.827
Rinterro 1	-17.45	134.5		87.377	UL-RL	0.2715	5.879	0	94.5	0	0	181.877
Rinterro 1	-17.65	136.5		88.433	UL-RL	0.2715	5.879	0	96.5	0	0	184.933
Rinterro 1	-17.85	138.5		89.495	UL-RL	0.2715	5.879	0	98.5	0	0	187.995
Rinterro 1	-18.05	140.5		90.563	UL-RL	0.2715	5.879	0	100.5	0	0	191.063
Rinterro 1	-18.25	142.5		91.637	UL-RL	0.2715	5.879	0	102.5	0	0	194.137
Rinterro 1	-18.45	144.5		92.717	UL-RL	0.2715	5.879	0	104.5	0	0	197.217
Rinterro 1	-18.65	146.5		93.803	UL-RL	0.2715	5.879	0	106.5	0	0	200.303
Rinterro 1	-18.85	148.5		94.895	UL-RL	0.2715	5.879	0	108.5	0	0	203.395
Rinterro 1	-19.05	150.5		96.0	UL-RL	0.2715	5.879	0	110.5	0	0	206.49
Rinterro 1	-19.25	152.5		97.11	UL-RL	0.2715	5.879	0	112.5	0	0	209.59
Rinterro 1	-19.45	154.5		98.227	UL-RL	0.2715	5.879	0	114.5	0	0	212.697
Rinterro 1	-19.65	156.5		99.35	UL-RL	0.2715	5.879	0	116.5	0	0	215.803
Rinterro 1	-19.85	158.5		100.479	UL-RL	0.2715	5.879	0	118.5	0	0	218.919
Rinterro 1	-20.05	160.55		101.613	UL-RL	0.3693	5.532	0	120.5	0	0	222.043
Rinterro 1	-20.25	162.75		102.753	UL-RL	0.3693	5.532	0	122.5	0	0	225.173
Rinterro 1	-20.45	164.95		103.9	UL-RL	0.3693	5.532	0	124.5	0	0	228.309
Rinterro 1	-20.65	167.15		105.053	UL-RL	0.3693	5.532	0	126.5	0	0	231.451
Rinterro 1	-20.85	169.35		106.213	UL-RL	0.3693	5.532	0	128.5	0	0	234.6
Rinterro 1	-21.05	171.55		107.379	UL-RL	0.3693	5.532	0	130.5	0	0	237.753
Rinterro 1	-21.25	173.75		108.551	UL-RL	0.3693	5.532	0	132.5	0	0	240.911
Rinterro 1	-21.45	175.95		109.729	UL-RL	0.3693	5.532	0	134.5	0	0	244.075
Rinterro 1	-21.65	178.15		110.913	UL-RL	0.3693	5.532	0	136.5	0	0	247.245
Rinterro 1	-21.85	180.35		112.103	UL-RL	0.3693	5.532	0	138.5	0	0	250.421
Rinterro 1	-22.05	182.55		113.3	UL-RL	0.3693	5.532	0	140.5	0	0	253.603
Rinterro 1	-22.25	184.75		114.503	UL-RL	0.3693	5.532	0	142.5	0	0	256.791

Ponte stradale su Torrente Giustenice  
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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno		Muro: Sigma H (kPa)	LEFT	Lato		RIGHT		U* (kPa)	Peq (kPa)
		Sigma V (kPa)	Sigma H (kPa)		Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)		
Rinterro 1	-22.45	186.95	131.571	UL-RL	0.3693.532	0	144.5	0	0	276.071	
Rinterro 1	-22.65	189.15	132.985	UL-RL	0.3693.532	0	146.5	0	0	279.485	
Rinterro 1	-22.85	191.35	134.398	UL-RL	0.3693.532	0	148.5	0	0	282.898	
Rinterro 1	-23.05	193.55	135.81	UL-RL	0.3693.532	0	150.5	0	0	286.31	
Rinterro 1	-23.25	195.75	137.22	UL-RL	0.3693.532	0	152.5	0	0	289.72	
Rinterro 1	-23.45	197.95	138.629	UL-RL	0.3693.532	0	154.5	0	0	293.129	
Rinterro 1	-23.65	200.15	140.036	UL-RL	0.3693.532	0	156.5	0	0	296.536	
Rinterro 1	-23.85	202.35	141.442	UL-RL	0.3693.532	0	158.5	0	0	299.942	
Rinterro 1	-24.05	204.55	142.846	UL-RL	0.3693.532	0	160.5	0	0	303.346	
Rinterro 1	-24.25	206.75	144.249	UL-RL	0.3693.532	0	162.5	0	0	306.749	
Rinterro 1	-24.45	208.95	145.65	UL-RL	0.3693.532	0	164.5	0	0	310.15	
Rinterro 1	-24.65	211.15	147.05	UL-RL	0.3693.532	0	166.5	0	0	313.55	
Rinterro 1	-24.85	213.35	148.448	UL-RL	0.3693.532	0	168.5	0	0	316.948	
Rinterro 1	-25.05	215.55	149.845	UL-RL	0.3693.532	0	170.5	0	0	320.346	
Rinterro 1	-25.25	217.75	151.241	UL-RL	0.3693.532	0	172.5	0	0	323.742	
Rinterro 1	-25.45	219.95	152.636	UL-RL	0.3693.532	0	174.5	0	0	327.136	
Rinterro 1	-25.65	222.15	154.03	UL-RL	0.3693.532	0	176.5	0	0	330.53	
Rinterro 1	-25.85	224.35	155.423	UL-RL	0.3693.532	0	178.5	0	0	333.923	
Rinterro 1	-26.05	226.55	156.814	UL-RL	0.3693.532	0	180.5	0	0	337.315	
Rinterro 1	-26.25	228.75	158.206	UL-RL	0.3693.532	0	182.5	0	0	340.706	
Rinterro 1	-26.45	230.95	159.596	UL-RL	0.3693.532	0	184.5	0	0	344.096	
Rinterro 1	-26.65	233.15	160.986	UL-RL	0.3693.532	0	186.5	0	0	347.486	
Rinterro 1	-26.85	235.35	162.375	UL-RL	0.3693.532	0	188.5	0	0	350.875	
Rinterro 1	-27.05	237.55	163.764	UL-RL	0.3693.532	0	190.5	0	0	354.264	
Rinterro 1	-27.25	239.75	165.152	UL-RL	0.3693.532	0	192.5	0	0	357.652	
Rinterro 1	-27.45	241.95	166.54	UL-RL	0.3693.532	0	194.5	0	0	361.04	
Rinterro 1	-27.65	244.15	167.928	UL-RL	0.3693.532	0	196.5	0	0	364.428	
Rinterro 1	-27.85	246.35	169.315	UL-RL	0.3693.532	0	198.5	0	0	367.815	
Rinterro 1	-28	248	170.355	UL-RL	0.3693.532	0	200	0	0	370.355	

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### Tabella Risultati Terreno Left Wall - Nominal - Rinterro 2

Design Assumption: Stage	Nominal	Risultati Terreno	Muro:	LEFT	Lato	LEFT					
	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Rinterro 2	0	0	0	ACTIVE	0.2715	5.879	0	0	0	0	0
Rinterro 2	-0.2	3.8	1.03	ACTIVE	0.2715	5.879	0	0	0	0	1.03
Rinterro 2	-0.4	7.6	2.06	ACTIVE	0.2715	5.879	0	0	0	0	2.06
Rinterro 2	-0.6	11.4	3.089	ACTIVE	0.2715	5.879	0	0	0	0	3.089
Rinterro 2	-0.8	15.2	4.119	ACTIVE	0.2715	5.879	0	0	0	0	4.119
Rinterro 2	-1	19	5.149	ACTIVE	0.2715	5.879	0	0	0	0	5.149
Rinterro 2	-1.2	22.8	6.179	ACTIVE	0.2715	5.879	0	0	0	0	6.179
Rinterro 2	-1.4	26.6	7.209	ACTIVE	0.2715	5.879	0	0	0	0	7.209
Rinterro 2	-1.6	30.4	8.238	ACTIVE	0.2715	5.879	0	0	0	0	8.238
Rinterro 2	-1.8	34.2	9.268	ACTIVE	0.2715	5.879	0	0	0	0	9.268
Rinterro 2	-2	38	10.298	ACTIVE	0.2715	5.879	0	0	0	0	10.298
Rinterro 2	-2.2	41.8	11.328	ACTIVE	0.2715	5.879	0	0	0	0	11.328
Rinterro 2	-2.25	42.75	11.585	ACTIVE	0.2715	5.879	0	0	0	0	11.585
Rinterro 2	-2.45	46.55	12.615	ACTIVE	0.2715	5.879	0	0	0	0	12.615
Rinterro 2	-2.65	50.35	13.645	ACTIVE	0.2715	5.879	0	0	0	0	13.645
Rinterro 2	-2.85	54.15	14.675	ACTIVE	0.2715	5.879	0	0	0	0	14.675
Rinterro 2	-3.05	57.95	21.103	UL-RL	0.32	4.555	0	0	0	0	21.103
Rinterro 2	-3.25	61.75	22.009	UL-RL	0.32	4.555	0	0	0	0	22.009
Rinterro 2	-3.45	65.55	23.765	UL-RL	0.32	4.555	0	0	0	0	23.765
Rinterro 2	-3.65	69.35	25.526	UL-RL	0.32	4.555	0	0	0	0	25.526
Rinterro 2	-3.85	73.15	27.294	UL-RL	0.32	4.555	0	0	0	0	27.294
Rinterro 2	-4.05	77	22.715	ACTIVE	0.295	5.16	0	0	0	0	22.715
Rinterro 2	-4.25	81	23.895	ACTIVE	0.295	5.16	0	0	0	0	23.895
Rinterro 2	-4.45	85	25.075	ACTIVE	0.295	5.16	0	0	0	0	25.075
Rinterro 2	-4.65	89	26.255	ACTIVE	0.295	5.16	0	0	0	0	26.255
Rinterro 2	-4.85	93	27.435	ACTIVE	0.295	5.16	0	0	0	0	27.435
Rinterro 2	-5.05	97	28.615	ACTIVE	0.295	5.16	0	0	0	0	28.615
Rinterro 2	-5.25	101	29.795	ACTIVE	0.295	5.16	0	0	0	0	29.795
Rinterro 2	-5.45	105	30.975	ACTIVE	0.295	5.16	0	0	0	0	30.975
Rinterro 2	-5.65	109	32.155	ACTIVE	0.295	5.16	0	0	0	0	32.155
Rinterro 2	-5.85	113	33.335	ACTIVE	0.295	5.16	0	0	0	0	33.335
Rinterro 2	-6.05	117	34.515	ACTIVE	0.295	5.16	0	0	0	0	34.515
Rinterro 2	-6.25	121	35.695	ACTIVE	0.295	5.16	0	0	0	0	35.695
Rinterro 2	-6.45	125	36.875	ACTIVE	0.295	5.16	0	0	0	0	36.875
Rinterro 2	-6.65	129	38.055	ACTIVE	0.295	5.16	0	0	0	0	38.055
Rinterro 2	-6.85	133	39.235	ACTIVE	0.295	5.16	0	0	0	0	39.235
Rinterro 2	-7.05	137	40.415	ACTIVE	0.295	5.16	0	0	0	0	40.415
Rinterro 2	-7.25	141	41.595	ACTIVE	0.295	5.16	0	0	0	0	41.595
Rinterro 2	-7.45	145	42.775	ACTIVE	0.295	5.16	0	0	0	0	42.775
Rinterro 2	-7.65	149	43.955	ACTIVE	0.295	5.16	0	0	0	0	43.955
Rinterro 2	-7.85	153	45.135	ACTIVE	0.295	5.16	0	0	0	0	45.135
Rinterro 2	-8.05	156.5	46.167	ACTIVE	0.295	5.16	0	0.5	0	0	46.667
Rinterro 2	-8.25	158.5	46.757	ACTIVE	0.295	5.16	0	2.5	0	0	49.257
Rinterro 2	-8.45	160.5	47.347	ACTIVE	0.295	5.16	0	4.5	0	0	51.847
Rinterro 2	-8.65	162.5	47.937	ACTIVE	0.295	5.16	0	6.5	0	0	54.437
Rinterro 2	-8.85	164.5	48.527	ACTIVE	0.295	5.16	0	8.5	0	0	57.027
Rinterro 2	-9.05	166.5	49.117	ACTIVE	0.295	5.16	0	10.5	0	0	59.617
Rinterro 2	-9.25	168.5	49.774	UL-RL	0.295	5.16	0	12.5	0	0	62.274
Rinterro 2	-9.45	170.5	51.021	UL-RL	0.295	5.16	0	14.5	0	0	65.521
Rinterro 2	-9.65	172.5	52.269	UL-RL	0.295	5.16	0	16.5	0	0	68.769
Rinterro 2	-9.85	174.5	53.516	UL-RL	0.295	5.16	0	18.5	0	0	72.016
Rinterro 2	-10.05	176.5	54.76	UL-RL	0.295	5.16	0	20.5	0	0	75.26
Rinterro 2	-10.25	178.5	56	UL-RL	0.295	5.16	0	22.5	0	0	78.5

Ponte stradale su Torrente Giustenice  
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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT		Lato		LEFT		Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
				Stato	Ka	Kp	Coesione (kPa)						
Rinterro 2	-10.45	180.5	57.235	UL-RL	0.295	5.16	0	24.5	0	0	81.735		
Rinterro 2	-10.65	182.5	58.464	UL-RL	0.295	5.16	0	26.5	0	0	84.964		
Rinterro 2	-10.85	184.5	59.685	UL-RL	0.295	5.16	0	28.5	0	0	88.185		
Rinterro 2	-11.05	186.5	60.897	UL-RL	0.295	5.16	0	30.5	0	0	91.397		
Rinterro 2	-11.25	188.5	62.1	UL-RL	0.295	5.16	0	32.5	0	0	94.6		
Rinterro 2	-11.45	190.5	63.292	UL-RL	0.295	5.16	0	34.5	0	0	97.792		
Rinterro 2	-11.65	192.5	64.472	UL-RL	0.295	5.16	0	36.5	0	0	100.971		
Rinterro 2	-11.85	194.5	65.638	UL-RL	0.295	5.16	0	38.5	0	0	104.138		
Rinterro 2	-12.05	196.5	66.79	UL-RL	0.295	5.16	0	40.5	0	0	107.29		
Rinterro 2	-12.25	198.5	67.927	UL-RL	0.295	5.16	0	42.5	0	0	110.427		
Rinterro 2	-12.45	200.5	69.047	UL-RL	0.295	5.16	0	44.5	0	0	113.547		
Rinterro 2	-12.65	202.5	70.149	UL-RL	0.295	5.16	0	46.5	0	0	116.649		
Rinterro 2	-12.85	204.5	71.232	UL-RL	0.295	5.16	0	48.5	0	0	119.732		
Rinterro 2	-13.05	206.5	72.296	UL-RL	0.295	5.16	0	50.5	0	0	122.796		
Rinterro 2	-13.25	208.5	73.338	UL-RL	0.295	5.16	0	52.5	0	0	125.838		
Rinterro 2	-13.45	210.5	74.357	UL-RL	0.295	5.16	0	54.5	0	0	128.857		
Rinterro 2	-13.65	212.5	75.353	UL-RL	0.295	5.16	0	56.5	0	0	131.853		
Rinterro 2	-13.85	214.5	76.323	UL-RL	0.295	5.16	0	58.5	0	0	134.823		
Rinterro 2	-14.05	216.5	77.267	UL-RL	0.295	5.16	0	60.5	0	0	137.767		
Rinterro 2	-14.25	218.5	78.184	UL-RL	0.295	5.16	0	62.5	0	0	140.684		
Rinterro 2	-14.45	220.5	79.071	UL-RL	0.295	5.16	0	64.5	0	0	143.571		
Rinterro 2	-14.65	222.5	79.927	UL-RL	0.295	5.16	0	66.5	0	0	146.427		
Rinterro 2	-14.85	224.5	80.752	UL-RL	0.295	5.16	0	68.5	0	0	149.252		
Rinterro 2	-15.05	226.5	81.552	UL-RL	0.2715	5.879	0	70.5	0	0	152.048		
Rinterro 2	-15.25	228.5	82.327	UL-RL	0.2715	5.879	0	72.5	0	0	154.813		
Rinterro 2	-15.45	230.5	83.077	UL-RL	0.2715	5.879	0	74.5	0	0	157.548		
Rinterro 2	-15.65	232.5	83.802	UL-RL	0.2715	5.879	0	76.5	0	0	160.253		
Rinterro 2	-15.85	234.5	84.502	UL-RL	0.2715	5.879	0	78.5	0	0	162.928		
Rinterro 2	-16.05	236.5	85.177	UL-RL	0.2715	5.879	0	80.5	0	0	165.573		
Rinterro 2	-16.25	238.5	85.827	UL-RL	0.2715	5.879	0	82.5	0	0	168.188		
Rinterro 2	-16.45	240.5	86.452	UL-RL	0.2715	5.879	0	84.5	0	0	170.773		
Rinterro 2	-16.65	242.5	87.052	UL-RL	0.2715	5.879	0	86.5	0	0	173.328		
Rinterro 2	-16.85	244.5	87.627	UL-RL	0.2715	5.879	0	88.5	0	0	175.853		
Rinterro 2	-17.05	246.5	88.177	UL-RL	0.2715	5.879	0	90.5	0	0	178.348		
Rinterro 2	-17.25	248.5	88.702	UL-RL	0.2715	5.879	0	92.5	0	0	180.813		
Rinterro 2	-17.45	250.5	89.202	UL-RL	0.2715	5.879	0	94.5	0	0	183.248		
Rinterro 2	-17.65	252.5	89.677	UL-RL	0.2715	5.879	0	96.5	0	0	185.653		
Rinterro 2	-17.85	254.5	90.127	UL-RL	0.2715	5.879	0	98.5	0	0	188.028		
Rinterro 2	-18.05	256.5	90.552	UL-RL	0.2715	5.879	0	100.5	0	0	190.373		
Rinterro 2	-18.25	258.5	90.952	UL-RL	0.2715	5.879	0	102.5	0	0	192.688		
Rinterro 2	-18.45	260.5	91.327	UL-RL	0.2715	5.879	0	104.5	0	0	194.973		
Rinterro 2	-18.65	262.5	91.677	UL-RL	0.2715	5.879	0	106.5	0	0	197.228		
Rinterro 2	-18.85	264.5	92.002	UL-RL	0.2715	5.879	0	108.5	0	0	199.453		
Rinterro 2	-19.05	266.5	92.302	UL-RL	0.2715	5.879	0	110.5	0	0	201.648		
Rinterro 2	-19.25	268.5	92.577	UL-RL	0.2715	5.879	0	112.5	0	0	203.813		
Rinterro 2	-19.45	270.5	92.827	UL-RL	0.2715	5.879	0	114.5	0	0	205.948		
Rinterro 2	-19.65	272.5	93.052	UL-RL	0.2715	5.879	0	116.5	0	0	208.053		
Rinterro 2	-19.85	274.5	93.252	UL-RL	0.2715	5.879	0	118.5	0	0	210.128		
Rinterro 2	-20.05	276.5	93.427	UL-RL	0.3713	5.559	0	120.5	0	0	212.173		
Rinterro 2	-20.25	278.5	93.577	UL-RL	0.3713	5.559	0	122.5	0	0	214.188		
Rinterro 2	-20.45	280.5	93.702	UL-RL	0.3713	5.559	0	124.5	0	0	216.173		
Rinterro 2	-20.65	283.15	93.802	UL-RL	0.3713	5.559	0	126.5	0	0	218.128		
Rinterro 2	-20.85	285.35	93.877	UL-RL	0.3713	5.559	0	128.5	0	0	220.053		
Rinterro 2	-21.05	287.5	93.927	UL-RL	0.3713	5.559	0	130.5	0	0	221.948		
Rinterro 2	-21.25	289.75	93.952	UL-RL	0.3713	5.559	0	132.5	0	0	223.813		
Rinterro 2	-21.45	291.95	93.952	UL-RL	0.3713	5.559	0	134.5	0	0	225.648		
Rinterro 2	-21.65	294.15	93.927	UL-RL	0.3713	5.559	0	136.5	0	0	227.453		

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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT Stato	Lato Ka	LEFT Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Rinterro 2	-21.85	296.35	146.346	UL-RL	0.371	3.559	0	138.5	0	0	284.846
Rinterro 2	-22.05	298.55	147.151	UL-RL	0.371	3.559	0	140.5	0	0	287.651
Rinterro 2	-22.25	300.75	147.956	UL-RL	0.371	3.559	0	142.5	0	0	290.456
Rinterro 2	-22.45	302.95	148.761	UL-RL	0.371	3.559	0	144.5	0	0	293.261
Rinterro 2	-22.65	305.15	149.567	UL-RL	0.371	3.559	0	146.5	0	0	296.067
Rinterro 2	-22.85	307.35	150.373	UL-RL	0.371	3.559	0	148.5	0	0	298.874
Rinterro 2	-23.05	309.55	151.181	UL-RL	0.371	3.559	0	150.5	0	0	301.681
Rinterro 2	-23.25	311.75	151.99	UL-RL	0.371	3.559	0	152.5	0	0	304.49
Rinterro 2	-23.45	313.95	152.8	UL-RL	0.371	3.559	0	154.5	0	0	307.3
Rinterro 2	-23.65	316.15	153.612	UL-RL	0.371	3.559	0	156.5	0	0	310.112
Rinterro 2	-23.85	318.35	154.426	UL-RL	0.371	3.559	0	158.5	0	0	312.926
Rinterro 2	-24.05	320.55	155.241	UL-RL	0.371	3.559	0	160.5	0	0	315.742
Rinterro 2	-24.25	322.75	156.058	UL-RL	0.371	3.559	0	162.5	0	0	318.559
Rinterro 2	-24.45	324.95	156.877	UL-RL	0.371	3.559	0	164.5	0	0	321.378
Rinterro 2	-24.65	327.15	157.698	UL-RL	0.371	3.559	0	166.5	0	0	324.198
Rinterro 2	-24.85	329.35	158.52	UL-RL	0.371	3.559	0	168.5	0	0	327.02
Rinterro 2	-25.05	331.55	159.344	UL-RL	0.371	3.559	0	170.5	0	0	329.844
Rinterro 2	-25.25	333.75	160.169	UL-RL	0.371	3.559	0	172.5	0	0	332.669
Rinterro 2	-25.45	335.95	160.996	UL-RL	0.371	3.559	0	174.5	0	0	335.496
Rinterro 2	-25.65	338.15	161.824	UL-RL	0.371	3.559	0	176.5	0	0	338.324
Rinterro 2	-25.85	340.35	162.652	UL-RL	0.371	3.559	0	178.5	0	0	341.153
Rinterro 2	-26.05	342.55	163.482	UL-RL	0.371	3.559	0	180.5	0	0	343.983
Rinterro 2	-26.25	344.75	164.313	UL-RL	0.371	3.559	0	182.5	0	0	346.813
Rinterro 2	-26.45	346.95	165.145	UL-RL	0.371	3.559	0	184.5	0	0	349.645
Rinterro 2	-26.65	349.15	165.977	UL-RL	0.371	3.559	0	186.5	0	0	352.477
Rinterro 2	-26.85	351.35	166.809	UL-RL	0.371	3.559	0	188.5	0	0	355.31
Rinterro 2	-27.05	353.55	167.642	UL-RL	0.371	3.559	0	190.5	0	0	358.142
Rinterro 2	-27.25	355.75	168.475	UL-RL	0.371	3.559	0	192.5	0	0	360.976
Rinterro 2	-27.45	357.95	169.309	UL-RL	0.371	3.559	0	194.5	0	0	363.809
Rinterro 2	-27.65	360.15	170.142	UL-RL	0.371	3.559	0	196.5	0	0	366.642
Rinterro 2	-27.85	362.35	170.976	UL-RL	0.371	3.559	0	198.5	0	0	369.476
Rinterro 2	-28	364	171.601	UL-RL	0.371	3.559	0	200	0	0	371.601



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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT		Lato		RIGHT		U* (kPa)	Peq (kPa)
				Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente		
Rinterro 2	0	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-0.6	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-0.8	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-1	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-1.2	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-1.4	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-1.6	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-1.8	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-2	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-2.2	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-2.25	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-2.45	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-2.65	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-2.85	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-3.05	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-3.25	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-3.45	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-3.65	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-3.85	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-4.05	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-4.25	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-4.45	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-4.65	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-4.85	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-5.05	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-5.25	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-5.45	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-5.65	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-5.85	0	0	REMOVED	0	0	0	0	0	0	0
Rinterro 2	-6.05	1	5.16	PASSIVE	0.295	5.16	0	0	0	0	5.16
Rinterro 2	-6.25	5	25.8	PASSIVE	0.295	5.16	0	0	0	0	25.8
Rinterro 2	-6.45	9	31.496	UL-RL	0.295	5.16	0	0	0	0	31.496
Rinterro 2	-6.65	13	34.441	UL-RL	0.295	5.16	0	0	0	0	34.441
Rinterro 2	-6.85	17	37.065	UL-RL	0.295	5.16	0	0	0	0	37.065
Rinterro 2	-7.05	21	39.486	UL-RL	0.295	5.16	0	0	0	0	39.486
Rinterro 2	-7.25	25	41.764	UL-RL	0.295	5.16	0	0	0	0	41.764
Rinterro 2	-7.45	29	43.936	UL-RL	0.295	5.16	0	0	0	0	43.936
Rinterro 2	-7.65	33	46.026	UL-RL	0.295	5.16	0	0	0	0	46.026
Rinterro 2	-7.85	37	48.051	UL-RL	0.295	5.16	0	0	0	0	48.051
Rinterro 2	-8.05	40.5	49.757	UL-RL	0.295	5.16	0	0.5	0	0	50.257
Rinterro 2	-8.25	42.5	50.639	UL-RL	0.295	5.16	0	2.5	0	0	53.139
Rinterro 2	-8.45	44.5	51.506	UL-RL	0.295	5.16	0	4.5	0	0	56.006
Rinterro 2	-8.65	46.5	52.36	UL-RL	0.295	5.16	0	6.5	0	0	58.86
Rinterro 2	-8.85	48.5	53.204	UL-RL	0.295	5.16	0	8.5	0	0	61.704
Rinterro 2	-9.05	50.5	54.038	UL-RL	0.295	5.16	0	10.5	0	0	64.538
Rinterro 2	-9.25	52.5	54.865	UL-RL	0.295	5.16	0	12.5	0	0	67.365
Rinterro 2	-9.45	54.5	55.685	UL-RL	0.295	5.16	0	14.5	0	0	70.184
Rinterro 2	-9.65	56.5	56.499	UL-RL	0.295	5.16	0	16.5	0	0	72.999
Rinterro 2	-9.85	58.5	57.31	UL-RL	0.295	5.16	0	18.5	0	0	75.81
Rinterro 2	-10.05	60.5	58.118	UL-RL	0.295	5.16	0	20.5	0	0	78.618
Rinterro 2	-10.25	62.5	58.923	UL-RL	0.295	5.16	0	22.5	0	0	81.423
Rinterro 2	-10.45	64.5	59.729	UL-RL	0.295	5.16	0	24.5	0	0	84.228
Rinterro 2	-10.65	66.5	60.534	UL-RL	0.295	5.16	0	26.5	0	0	87.034
Rinterro 2	-10.85	68.5	61.34	UL-RL	0.295	5.16	0	28.5	0	0	89.84

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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT Stato	Lato		RIGHT		Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
					Ka	Kp	Coesione (kPa)	Pore (kPa)				
Rinterro 2	-11.05	70.5	62.148	UL-RL	0.295	5.16	0	30.5	0	0	92.648	
Rinterro 2	-11.25	72.5	62.959	UL-RL	0.295	5.16	0	32.5	0	0	95.459	
Rinterro 2	-11.45	74.5	63.774	UL-RL	0.295	5.16	0	34.5	0	0	98.274	
Rinterro 2	-11.65	76.5	64.593	UL-RL	0.295	5.16	0	36.5	0	0	101.093	
Rinterro 2	-11.85	78.5	65.418	UL-RL	0.295	5.16	0	38.5	0	0	103.918	
Rinterro 2	-12.05	80.5	66.248	UL-RL	0.295	5.16	0	40.5	0	0	106.748	
Rinterro 2	-12.25	82.5	67.086	UL-RL	0.295	5.16	0	42.5	0	0	109.586	
Rinterro 2	-12.45	84.5	67.931	UL-RL	0.295	5.16	0	44.5	0	0	112.431	
Rinterro 2	-12.65	86.5	68.785	UL-RL	0.295	5.16	0	46.5	0	0	115.285	
Rinterro 2	-12.85	88.5	69.648	UL-RL	0.295	5.16	0	48.5	0	0	118.148	
Rinterro 2	-13.05	90.5	70.521	UL-RL	0.295	5.16	0	50.5	0	0	121.021	
Rinterro 2	-13.25	92.5	71.405	UL-RL	0.295	5.16	0	52.5	0	0	123.905	
Rinterro 2	-13.45	94.5	72.3	UL-RL	0.295	5.16	0	54.5	0	0	126.8	
Rinterro 2	-13.65	96.5	73.208	UL-RL	0.295	5.16	0	56.5	0	0	129.708	
Rinterro 2	-13.85	98.5	74.13	UL-RL	0.295	5.16	0	58.5	0	0	132.63	
Rinterro 2	-14.05	100.5	75.065	UL-RL	0.295	5.16	0	60.5	0	0	135.565	
Rinterro 2	-14.25	102.5	76.016	UL-RL	0.295	5.16	0	62.5	0	0	138.516	
Rinterro 2	-14.45	104.5	76.983	UL-RL	0.295	5.16	0	64.5	0	0	141.482	
Rinterro 2	-14.65	106.5	77.966	UL-RL	0.295	5.16	0	66.5	0	0	144.466	
Rinterro 2	-14.85	108.5	78.967	UL-RL	0.295	5.16	0	68.5	0	0	147.467	
Rinterro 2	-15.05	110.5	76.911	UL-RL	0.2715	5.879	0	70.5	0	0	147.411	
Rinterro 2	-15.25	112.5	77.899	UL-RL	0.2715	5.879	0	72.5	0	0	150.399	
Rinterro 2	-15.45	114.5	78.909	UL-RL	0.2715	5.879	0	74.5	0	0	153.409	
Rinterro 2	-15.65	116.5	79.943	UL-RL	0.2715	5.879	0	76.5	0	0	156.443	
Rinterro 2	-15.85	118.5	81.001	UL-RL	0.2715	5.879	0	78.5	0	0	159.5	
Rinterro 2	-16.05	120.5	82.084	UL-RL	0.2715	5.879	0	80.5	0	0	162.584	
Rinterro 2	-16.25	122.5	83.193	UL-RL	0.2715	5.879	0	82.5	0	0	165.693	
Rinterro 2	-16.45	124.5	84.328	UL-RL	0.2715	5.879	0	84.5	0	0	168.828	
Rinterro 2	-16.65	126.5	85.491	UL-RL	0.2715	5.879	0	86.5	0	0	171.991	
Rinterro 2	-16.85	128.5	86.682	UL-RL	0.2715	5.879	0	88.5	0	0	175.181	
Rinterro 2	-17.05	130.5	87.9	UL-RL	0.2715	5.879	0	90.5	0	0	178.4	
Rinterro 2	-17.25	132.5	89.147	UL-RL	0.2715	5.879	0	92.5	0	0	181.647	
Rinterro 2	-17.45	134.5	90.423	UL-RL	0.2715	5.879	0	94.5	0	0	184.923	
Rinterro 2	-17.65	136.5	91.728	UL-RL	0.2715	5.879	0	96.5	0	0	188.228	
Rinterro 2	-17.85	138.5	93.061	UL-RL	0.2715	5.879	0	98.5	0	0	191.561	
Rinterro 2	-18.05	140.5	94.423	UL-RL	0.2715	5.879	0	100.5	0	0	194.923	
Rinterro 2	-18.25	142.5	95.814	UL-RL	0.2715	5.879	0	102.5	0	0	198.314	
Rinterro 2	-18.45	144.5	97.233	UL-RL	0.2715	5.879	0	104.5	0	0	201.733	
Rinterro 2	-18.65	146.5	98.679	UL-RL	0.2715	5.879	0	106.5	0	0	205.179	
Rinterro 2	-18.85	148.5	100.152	UL-RL	0.2715	5.879	0	108.5	0	0	208.652	
Rinterro 2	-19.05	150.5	101.536	UL-RL	0.2715	5.879	0	110.5	0	0	212.036	
Rinterro 2	-19.25	152.5	102.808	UL-RL	0.2715	5.879	0	112.5	0	0	215.308	
Rinterro 2	-19.45	154.5	104.094	UL-RL	0.2715	5.879	0	114.5	0	0	218.594	
Rinterro 2	-19.65	156.5	105.394	UL-RL	0.2715	5.879	0	116.5	0	0	221.894	
Rinterro 2	-19.85	158.5	106.706	UL-RL	0.2715	5.879	0	118.5	0	0	225.206	
Rinterro 2	-20.05	160.55	117.97	UL-RL	0.3693	5.532	0	120.5	0	0	238.47	
Rinterro 2	-20.25	162.75	119.475	UL-RL	0.3693	5.532	0	122.5	0	0	241.975	
Rinterro 2	-20.45	164.95	120.984	UL-RL	0.3693	5.532	0	124.5	0	0	245.484	
Rinterro 2	-20.65	167.15	122.497	UL-RL	0.3693	5.532	0	126.5	0	0	248.997	
Rinterro 2	-20.85	169.35	124.013	UL-RL	0.3693	5.532	0	128.5	0	0	252.513	
Rinterro 2	-21.05	171.55	125.531	UL-RL	0.3693	5.532	0	130.5	0	0	256.031	
Rinterro 2	-21.25	173.75	127.051	UL-RL	0.3693	5.532	0	132.5	0	0	259.551	
Rinterro 2	-21.45	175.95	128.572	UL-RL	0.3693	5.532	0	134.5	0	0	263.072	
Rinterro 2	-21.65	178.15	130.094	UL-RL	0.3693	5.532	0	136.5	0	0	266.594	
Rinterro 2	-21.85	180.35	131.616	UL-RL	0.3693	5.532	0	138.5	0	0	270.116	
Rinterro 2	-22.05	182.55	133.138	UL-RL	0.3693	5.532	0	140.5	0	0	273.638	
Rinterro 2	-22.25	184.75	134.66	UL-RL	0.3693	5.532	0	142.5	0	0	277.16	

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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno		Muro: Sigma H (kPa)	LEFT		Lato		RIGHT		U* (kPa)	Peq (kPa)
		Sigma V (kPa)			Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente		
Rinterro 2	-22.45	186.95		136.181	UL-RL	0.3693.532	0	144.5	0	0	280.681	
Rinterro 2	-22.65	189.15		137.702	UL-RL	0.3693.532	0	146.5	0	0	284.202	
Rinterro 2	-22.85	191.35		139.221	UL-RL	0.3693.532	0	148.5	0	0	287.721	
Rinterro 2	-23.05	193.55		140.739	UL-RL	0.3693.532	0	150.5	0	0	291.239	
Rinterro 2	-23.25	195.75		142.255	UL-RL	0.3693.532	0	152.5	0	0	294.756	
Rinterro 2	-23.45	197.95		143.77	UL-RL	0.3693.532	0	154.5	0	0	298.27	
Rinterro 2	-23.65	200.15		145.284	UL-RL	0.3693.532	0	156.5	0	0	301.784	
Rinterro 2	-23.85	202.35		146.796	UL-RL	0.3693.532	0	158.5	0	0	305.296	
Rinterro 2	-24.05	204.55		148.306	UL-RL	0.3693.532	0	160.5	0	0	308.806	
Rinterro 2	-24.25	206.75		149.814	UL-RL	0.3693.532	0	162.5	0	0	312.315	
Rinterro 2	-24.45	208.95		151.321	UL-RL	0.3693.532	0	164.5	0	0	315.822	
Rinterro 2	-24.65	211.15		152.827	UL-RL	0.3693.532	0	166.5	0	0	319.327	
Rinterro 2	-24.85	213.35		154.331	UL-RL	0.3693.532	0	168.5	0	0	322.831	
Rinterro 2	-25.05	215.55		155.833	UL-RL	0.3693.532	0	170.5	0	0	326.333	
Rinterro 2	-25.25	217.75		157.334	UL-RL	0.3693.532	0	172.5	0	0	329.834	
Rinterro 2	-25.45	219.95		158.833	UL-RL	0.3693.532	0	174.5	0	0	333.334	
Rinterro 2	-25.65	222.15		160.332	UL-RL	0.3693.532	0	176.5	0	0	336.832	
Rinterro 2	-25.85	224.35		161.829	UL-RL	0.3693.532	0	178.5	0	0	340.329	
Rinterro 2	-26.05	226.55		163.325	UL-RL	0.3693.532	0	180.5	0	0	343.826	
Rinterro 2	-26.25	228.75		164.821	UL-RL	0.3693.532	0	182.5	0	0	347.321	
Rinterro 2	-26.45	230.95		166.315	UL-RL	0.3693.532	0	184.5	0	0	350.816	
Rinterro 2	-26.65	233.15		167.809	UL-RL	0.3693.532	0	186.5	0	0	354.309	
Rinterro 2	-26.85	235.35		169.302	UL-RL	0.3693.532	0	188.5	0	0	357.802	
Rinterro 2	-27.05	237.55		170.795	UL-RL	0.3693.532	0	190.5	0	0	361.295	
Rinterro 2	-27.25	239.75		172.287	UL-RL	0.3693.532	0	192.5	0	0	364.788	
Rinterro 2	-27.45	241.95		173.779	UL-RL	0.3693.532	0	194.5	0	0	368.279	
Rinterro 2	-27.65	244.15		175.271	UL-RL	0.3693.532	0	196.5	0	0	371.771	
Rinterro 2	-27.85	246.35		176.762	UL-RL	0.3693.532	0	198.5	0	0	375.262	
Rinterro 2	-28	248		177.88	UL-RL	0.3693.532	0	200	0	0	377.88	

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

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### Tabella Risultati Terreno Left Wall - Nominal - Acc

Design Assumption: Stage	Nominal	Risultati Terreno	Muro:	LEFT	Lato	LEFT					
	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Acc	0	0	0	ACTIVE	0.2715	5.879	0	0	0	0	0
Acc	-0.2	3.938	1.067	ACTIVE	0.2715	5.879	0	0	0	0	1.067
Acc	-0.4	8.405	2.278	ACTIVE	0.2715	5.879	0	0	0	0	2.278
Acc	-0.6	13.217	3.582	ACTIVE	0.2715	5.879	0	0	0	0	3.582
Acc	-0.8	18.771	5.087	ACTIVE	0.2715	5.879	0	0	0	0	5.087
Acc	-1	23.594	6.394	ACTIVE	0.2715	5.879	0	0	0	0	6.394
Acc	-1.2	29.306	7.942	ACTIVE	0.2715	5.879	0	0	0	0	7.942
Acc	-1.4	33.569	9.097	ACTIVE	0.2715	5.879	0	0	0	0	9.097
Acc	-1.6	37.742	10.228	ACTIVE	0.2715	5.879	0	0	0	0	10.228
Acc	-1.8	42.629	11.552	ACTIVE	0.2715	5.879	0	0	0	0	11.552
Acc	-2	46.62	12.634	ACTIVE	0.2715	5.879	0	0	0	0	12.634
Acc	-2.2	51.22	13.881	ACTIVE	0.2715	5.879	0	0	0	0	13.881
Acc	-2.25	52.041	14.103	ACTIVE	0.2715	5.879	0	0	0	0	14.103
Acc	-2.45	55.944	15.161	ACTIVE	0.2715	5.879	0	0	0	0	15.161
Acc	-2.65	60.367	16.359	ACTIVE	0.2715	5.879	0	0	0	0	16.359
Acc	-2.85	64.215	17.402	ACTIVE	0.2715	5.879	0	0	0	0	17.402
Acc	-3.05	68.519	21.926	ACTIVE	0.32	4.555	0	0	0	0	21.926
Acc	-3.25	72.334	23.147	ACTIVE	0.32	4.555	0	0	0	0	23.147
Acc	-3.45	76.146	24.367	ACTIVE	0.32	4.555	0	0	0	0	24.367
Acc	-3.65	80.346	25.711	ACTIVE	0.32	4.555	0	0	0	0	25.711
Acc	-3.85	84.14	26.925	ACTIVE	0.32	4.555	0	0	0	0	26.925
Acc	-4.05	87.984	25.955	ACTIVE	0.295	5.16	0	0	0	0	25.955
Acc	-4.25	92.313	27.232	ACTIVE	0.295	5.16	0	0	0	0	27.232
Acc	-4.45	96.295	28.407	ACTIVE	0.295	5.16	0	0	0	0	28.407
Acc	-4.65	100.584	29.672	ACTIVE	0.295	5.16	0	0	0	0	29.672
Acc	-4.85	104.558	30.845	ACTIVE	0.295	5.16	0	0	0	0	30.845
Acc	-5.05	108.534	32.017	ACTIVE	0.295	5.16	0	0	0	0	32.017
Acc	-5.25	112.782	33.271	ACTIVE	0.295	5.16	0	0	0	0	33.271
Acc	-5.45	116.752	34.442	ACTIVE	0.295	5.16	0	0	0	0	34.442
Acc	-5.65	120.976	35.688	ACTIVE	0.295	5.16	0	0	0	0	35.688
Acc	-5.85	124.943	36.858	ACTIVE	0.295	5.16	0	0	0	0	36.858
Acc	-6.05	128.911	38.029	ACTIVE	0.295	5.16	0	0	0	0	38.029
Acc	-6.25	133.109	39.267	ACTIVE	0.295	5.16	0	0	0	0	39.267
Acc	-6.45	137.075	40.437	ACTIVE	0.295	5.16	0	0	0	0	40.437
Acc	-6.65	141.257	41.671	ACTIVE	0.295	5.16	0	0	0	0	41.671
Acc	-6.85	145.22	42.84	ACTIVE	0.295	5.16	0	0	0	0	42.84
Acc	-7.05	149.186	44.01	ACTIVE	0.295	5.16	0	0	0	0	44.01
Acc	-7.25	153.35	45.238	ACTIVE	0.295	5.16	0	0	0	0	45.238
Acc	-7.45	157.314	46.408	ACTIVE	0.295	5.16	0	0	0	0	46.408
Acc	-7.65	161.28	47.578	ACTIVE	0.295	5.16	0	0	0	0	47.578
Acc	-7.85	165.43	48.802	ACTIVE	0.295	5.16	0	0	0	0	48.802
Acc	-8.05	168.895	49.824	ACTIVE	0.295	5.16	0	0.5	0	0	50.324
Acc	-8.25	171.035	50.455	ACTIVE	0.295	5.16	0	2.5	0	0	52.955
Acc	-8.45	173	51.035	ACTIVE	0.295	5.16	0	4.5	0	0	55.535
Acc	-8.65	174.966	51.615	ACTIVE	0.295	5.16	0	6.5	0	0	58.115
Acc	-8.85	177.095	52.243	ACTIVE	0.295	5.16	0	8.5	0	0	60.743
Acc	-9.05	179.06	52.823	ACTIVE	0.295	5.16	0	10.5	0	0	63.323
Acc	-9.25	181.182	53.449	ACTIVE	0.295	5.16	0	12.5	0	0	65.949
Acc	-9.45	183.147	54.028	ACTIVE	0.295	5.16	0	14.5	0	0	68.528
Acc	-9.65	185.114	54.608	ACTIVE	0.295	5.16	0	16.5	0	0	71.108
Acc	-9.85	187.227	55.232	ACTIVE	0.295	5.16	0	18.5	0	0	73.732
Acc	-10.05	189.193	55.812	ACTIVE	0.295	5.16	0	20.5	0	0	76.312
Acc	-10.25	191.3	56.434	ACTIVE	0.295	5.16	0	22.5	0	0	78.934

Ponte stradale su Torrente Giustenice  
 Relazione di calcolo spalle

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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT		Lato		LEFT		U* (kPa)	Peq (kPa)
				Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente		
Acc	-10.45	193.267	57.014	ACTIVE	0.295	5.16	0	24.5	0	0	81.514
Acc	-10.65	195.234	57.644	UL-RL	0.295	5.16	0	26.5	0	0	84.144
Acc	-10.85	197.335	59.201	UL-RL	0.295	5.16	0	28.5	0	0	87.701
Acc	-11.05	199.303	60.676	UL-RL	0.295	5.16	0	30.5	0	0	91.175
Acc	-11.25	201.272	62.127	UL-RL	0.295	5.16	0	32.5	0	0	94.627
Acc	-11.45	203.367	63.611	UL-RL	0.295	5.16	0	34.5	0	0	98.111
Acc	-11.65	205.335	65.013	UL-RL	0.295	5.16	0	36.5	0	0	101.513
Acc	-11.85	207.426	66.443	UL-RL	0.295	5.16	0	38.5	0	0	104.943
Acc	-12.05	209.395	67.79	UL-RL	0.295	5.16	0	40.5	0	0	108.29
Acc	-12.25	211.365	69.11	UL-RL	0.295	5.16	0	42.5	0	0	111.61
Acc	-12.45	213.451	70.453	UL-RL	0.295	5.16	0	44.5	0	0	114.953
Acc	-12.65	215.421	71.712	UL-RL	0.295	5.16	0	46.5	0	0	118.212
Acc	-12.85	217.503	72.992	UL-RL	0.295	5.16	0	48.5	0	0	121.492
Acc	-13.05	219.473	74.189	UL-RL	0.295	5.16	0	50.5	0	0	124.688
Acc	-13.25	221.444	75.352	UL-RL	0.295	5.16	0	52.5	0	0	127.852
Acc	-13.45	223.523	76.531	UL-RL	0.295	5.16	0	54.5	0	0	131.03
Acc	-13.65	225.494	77.625	UL-RL	0.295	5.16	0	56.5	0	0	134.125
Acc	-13.85	227.569	78.73	UL-RL	0.295	5.16	0	58.5	0	0	137.23
Acc	-14.05	229.54	79.751	UL-RL	0.295	5.16	0	60.5	0	0	140.251
Acc	-14.25	231.513	80.734	UL-RL	0.295	5.16	0	62.5	0	0	143.234
Acc	-14.45	233.585	81.723	UL-RL	0.295	5.16	0	64.5	0	0	146.223
Acc	-14.65	235.557	82.625	UL-RL	0.295	5.16	0	66.5	0	0	149.125
Acc	-14.85	237.53	83.486	UL-RL	0.295	5.16	0	68.5	0	0	151.986
Acc	-15.05	239.504	72.621	UL-RL	0.271	5.879	0	70.5	0	0	143.121
Acc	-15.25	241.383	73.274	UL-RL	0.271	5.879	0	72.5	0	0	145.774
Acc	-15.45	243.265	73.872	UL-RL	0.271	5.879	0	74.5	0	0	148.372
Acc	-15.65	245.149	74.416	UL-RL	0.271	5.879	0	76.5	0	0	150.916
Acc	-15.85	247.035	74.903	UL-RL	0.271	5.879	0	78.5	0	0	153.403
Acc	-16.05	248.924	75.333	UL-RL	0.271	5.879	0	80.5	0	0	155.833
Acc	-16.25	250.814	75.704	UL-RL	0.271	5.879	0	82.5	0	0	158.204
Acc	-16.45	252.706	76.016	UL-RL	0.271	5.879	0	84.5	0	0	160.516
Acc	-16.65	254.6	76.268	UL-RL	0.271	5.879	0	86.5	0	0	162.768
Acc	-16.85	256.497	76.459	UL-RL	0.271	5.879	0	88.5	0	0	164.959
Acc	-17.05	258.395	76.588	UL-RL	0.271	5.879	0	90.5	0	0	167.088
Acc	-17.25	260.294	76.656	UL-RL	0.271	5.879	0	92.5	0	0	169.156
Acc	-17.45	262.196	76.662	UL-RL	0.271	5.879	0	94.5	0	0	171.162
Acc	-17.65	264.099	76.607	UL-RL	0.271	5.879	0	96.5	0	0	173.107
Acc	-17.85	266.004	76.49	UL-RL	0.271	5.879	0	98.5	0	0	174.99
Acc	-18.05	267.91	76.312	UL-RL	0.271	5.879	0	100.5	0	0	176.812
Acc	-18.25	269.818	76.074	UL-RL	0.271	5.879	0	102.5	0	0	178.574
Acc	-18.45	271.727	75.778	UL-RL	0.271	5.879	0	104.5	0	0	180.278
Acc	-18.65	273.638	75.424	UL-RL	0.271	5.879	0	106.5	0	0	181.924
Acc	-18.85	275.55	75.015	UL-RL	0.271	5.879	0	108.5	0	0	183.515
Acc	-19.05	277.464	75.37	UL-RL	0.271	5.879	0	110.5	0	0	185.87
Acc	-19.25	279.379	75.887	UL-RL	0.271	5.879	0	112.5	0	0	188.387
Acc	-19.45	281.296	76.405	UL-RL	0.271	5.879	0	114.5	0	0	190.905
Acc	-19.65	283.213	76.922	UL-RL	0.271	5.879	0	116.5	0	0	193.422
Acc	-19.85	285.132	77.44	UL-RL	0.271	5.879	0	118.5	0	0	195.94
Acc	-20.05	287.103	143.289	UL-RL	0.371	3.559	0	120.5	0	0	263.789
Acc	-20.25	289.224	144.041	UL-RL	0.371	3.559	0	122.5	0	0	266.541
Acc	-20.45	291.347	144.786	UL-RL	0.371	3.559	0	124.5	0	0	269.287
Acc	-20.65	293.471	145.526	UL-RL	0.371	3.559	0	126.5	0	0	272.026
Acc	-20.85	295.596	146.262	UL-RL	0.371	3.559	0	128.5	0	0	274.762
Acc	-21.05	297.722	146.994	UL-RL	0.371	3.559	0	130.5	0	0	277.494
Acc	-21.25	299.849	147.723	UL-RL	0.371	3.559	0	132.5	0	0	280.223
Acc	-21.45	301.977	148.45	UL-RL	0.371	3.559	0	134.5	0	0	282.95
Acc	-21.65	304.106	149.176	UL-RL	0.371	3.559	0	136.5	0	0	285.676

Ponte stradale su Torrente Giustenice  
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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno Sigma V (kPa)	Muro: LEFT Sigma H (kPa)	Lato		LEFT	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
				Stato	Ka Kp						
Acc	-21.85	306.236	149.901	UL-RL	0.3713.559	0	138.5	0	0	288.401	
Acc	-22.05	308.368	150.626	UL-RL	0.3713.559	0	140.5	0	0	291.126	
Acc	-22.25	310.5	151.352	UL-RL	0.3713.559	0	142.5	0	0	293.852	
Acc	-22.45	312.633	152.078	UL-RL	0.3713.559	0	144.5	0	0	296.578	
Acc	-22.65	314.767	152.806	UL-RL	0.3713.559	0	146.5	0	0	299.306	
Acc	-22.85	316.902	153.535	UL-RL	0.3713.559	0	148.5	0	0	302.035	
Acc	-23.05	319.038	154.265	UL-RL	0.3713.559	0	150.5	0	0	304.766	
Acc	-23.25	321.175	154.998	UL-RL	0.3713.559	0	152.5	0	0	307.498	
Acc	-23.45	323.312	155.733	UL-RL	0.3713.559	0	154.5	0	0	310.233	
Acc	-23.65	325.451	156.47	UL-RL	0.3713.559	0	156.5	0	0	312.97	
Acc	-23.85	327.59	157.209	UL-RL	0.3713.559	0	158.5	0	0	315.709	
Acc	-24.05	329.73	157.951	UL-RL	0.3713.559	0	160.5	0	0	318.451	
Acc	-24.25	331.871	158.695	UL-RL	0.3713.559	0	162.5	0	0	321.195	
Acc	-24.45	334.012	159.441	UL-RL	0.3713.559	0	164.5	0	0	323.941	
Acc	-24.65	336.155	160.189	UL-RL	0.3713.559	0	166.5	0	0	326.69	
Acc	-24.85	338.298	160.94	UL-RL	0.3713.559	0	168.5	0	0	329.44	
Acc	-25.05	340.442	161.693	UL-RL	0.3713.559	0	170.5	0	0	332.193	
Acc	-25.25	342.586	162.448	UL-RL	0.3713.559	0	172.5	0	0	334.948	
Acc	-25.45	344.732	163.204	UL-RL	0.3713.559	0	174.5	0	0	337.705	
Acc	-25.65	346.878	163.963	UL-RL	0.3713.559	0	176.5	0	0	340.463	
Acc	-25.85	349.024	164.723	UL-RL	0.3713.559	0	178.5	0	0	343.223	
Acc	-26.05	351.171	165.484	UL-RL	0.3713.559	0	180.5	0	0	345.985	
Acc	-26.25	353.319	166.247	UL-RL	0.3713.559	0	182.5	0	0	348.747	
Acc	-26.45	355.468	167.011	UL-RL	0.3713.559	0	184.5	0	0	351.511	
Acc	-26.65	357.617	167.776	UL-RL	0.3713.559	0	186.5	0	0	354.276	
Acc	-26.85	359.767	168.542	UL-RL	0.3713.559	0	188.5	0	0	357.042	
Acc	-27.05	361.917	169.308	UL-RL	0.3713.559	0	190.5	0	0	359.808	
Acc	-27.25	364.068	170.075	UL-RL	0.3713.559	0	192.5	0	0	362.575	
Acc	-27.45	366.22	170.843	UL-RL	0.3713.559	0	194.5	0	0	365.343	
Acc	-27.65	368.372	171.611	UL-RL	0.3713.559	0	196.5	0	0	368.111	
Acc	-27.85	370.524	172.379	UL-RL	0.3713.559	0	198.5	0	0	370.879	
Acc	-28	372.139	172.955	UL-RL	0.3713.559	0	200	0	0	372.955	

Ponte stradale su Torrente Giustenice  
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Design Assumption:	Nominal	Risultati Terreno	Muro:	LEFT	Lato	RIGHT					
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Acc	0	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-0.2	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-0.4	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-0.6	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-0.8	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-1	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-1.2	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-1.4	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-1.6	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-1.8	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-2	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-2.2	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-2.25	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-2.45	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-2.65	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-2.85	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-3.05	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-3.25	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-3.45	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-3.65	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-3.85	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-4.05	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-4.25	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-4.45	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-4.65	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-4.85	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-5.05	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-5.25	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-5.45	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-5.65	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-5.85	0	0	REMOVED	0	0	0	0	0	0	0
Acc	-6.05	1	5.16	PASSIVE	0.295	5.16	0	0	0	0	5.16
Acc	-6.25	5	25.8	PASSIVE	0.295	5.16	0	0	0	0	25.8
Acc	-6.45	9	40.74	UL-RL	0.295	5.16	0	0	0	0	40.74
Acc	-6.65	13	43.365	UL-RL	0.295	5.16	0	0	0	0	43.365
Acc	-6.85	17	45.675	UL-RL	0.295	5.16	0	0	0	0	45.675
Acc	-7.05	21	47.786	UL-RL	0.295	5.16	0	0	0	0	47.786
Acc	-7.25	25	49.76	UL-RL	0.295	5.16	0	0	0	0	49.76
Acc	-7.45	29	51.634	UL-RL	0.295	5.16	0	0	0	0	51.634
Acc	-7.65	33	53.433	UL-RL	0.295	5.16	0	0	0	0	53.433
Acc	-7.85	37	55.173	UL-RL	0.295	5.16	0	0	0	0	55.173
Acc	-8.05	40.5	56.601	UL-RL	0.295	5.16	0	0.5	0	0	57.101
Acc	-8.25	42.5	57.211	UL-RL	0.295	5.16	0	2.5	0	0	59.711
Acc	-8.45	44.5	57.814	UL-RL	0.295	5.16	0	4.5	0	0	62.314
Acc	-8.65	46.5	58.411	UL-RL	0.295	5.16	0	6.5	0	0	64.911
Acc	-8.85	48.5	59.005	UL-RL	0.295	5.16	0	8.5	0	0	67.505
Acc	-9.05	50.5	59.597	UL-RL	0.295	5.16	0	10.5	0	0	70.097
Acc	-9.25	52.5	60.188	UL-RL	0.295	5.16	0	12.5	0	0	72.688
Acc	-9.45	54.5	60.781	UL-RL	0.295	5.16	0	14.5	0	0	75.281
Acc	-9.65	56.5	61.376	UL-RL	0.295	5.16	0	16.5	0	0	77.876
Acc	-9.85	58.5	61.975	UL-RL	0.295	5.16	0	18.5	0	0	80.475
Acc	-10.05	60.5	62.58	UL-RL	0.295	5.16	0	20.5	0	0	83.08
Acc	-10.25	62.5	63.19	UL-RL	0.295	5.16	0	22.5	0	0	85.69
Acc	-10.45	64.5	63.808	UL-RL	0.295	5.16	0	24.5	0	0	88.308
Acc	-10.65	66.5	64.434	UL-RL	0.295	5.16	0	26.5	0	0	90.933
Acc	-10.85	68.5	65.069	UL-RL	0.295	5.16	0	28.5	0	0	93.568

Ponte stradale su Torrente Giustenice  
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Design Assumption:	Nominal	Risultati Terreno	Muro:	LEFT	Lato	RIGHT					
Stage	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U*	Peq (kPa)
Acc	-11.05	70.5	65.714	UL-RL	0.295	5.16	0	30.5	0	0	96.214
Acc	-11.25	72.5	66.37	UL-RL	0.295	5.16	0	32.5	0	0	98.87
Acc	-11.45	74.5	67.037	UL-RL	0.295	5.16	0	34.5	0	0	101.537
Acc	-11.65	76.5	67.717	UL-RL	0.295	5.16	0	36.5	0	0	104.217
Acc	-11.85	78.5	68.411	UL-RL	0.295	5.16	0	38.5	0	0	106.911
Acc	-12.05	80.5	69.118	UL-RL	0.295	5.16	0	40.5	0	0	109.618
Acc	-12.25	82.5	69.84	UL-RL	0.295	5.16	0	42.5	0	0	112.34
Acc	-12.45	84.5	70.577	UL-RL	0.295	5.16	0	44.5	0	0	115.076
Acc	-12.65	86.5	71.329	UL-RL	0.295	5.16	0	46.5	0	0	117.829
Acc	-12.85	88.5	72.099	UL-RL	0.295	5.16	0	48.5	0	0	120.599
Acc	-13.05	90.5	72.885	UL-RL	0.295	5.16	0	50.5	0	0	123.385
Acc	-13.25	92.5	73.69	UL-RL	0.295	5.16	0	52.5	0	0	126.19
Acc	-13.45	94.5	74.513	UL-RL	0.295	5.16	0	54.5	0	0	129.012
Acc	-13.65	96.5	75.355	UL-RL	0.295	5.16	0	56.5	0	0	131.854
Acc	-13.85	98.5	76.217	UL-RL	0.295	5.16	0	58.5	0	0	134.716
Acc	-14.05	100.5	77.099	UL-RL	0.295	5.16	0	60.5	0	0	137.599
Acc	-14.25	102.5	78.003	UL-RL	0.295	5.16	0	62.5	0	0	140.503
Acc	-14.45	104.5	78.929	UL-RL	0.295	5.16	0	64.5	0	0	143.429
Acc	-14.65	106.5	79.878	UL-RL	0.295	5.16	0	66.5	0	0	146.378
Acc	-14.85	108.5	80.85	UL-RL	0.295	5.16	0	68.5	0	0	149.35
Acc	-15.05	110.5	78.95	UL-RL	0.2715	5.879	0	70.5	0	0	149.45
Acc	-15.25	112.5	79.919	UL-RL	0.2715	5.879	0	72.5	0	0	152.418
Acc	-15.45	114.5	80.916	UL-RL	0.2715	5.879	0	74.5	0	0	155.416
Acc	-15.65	116.5	81.942	UL-RL	0.2715	5.879	0	76.5	0	0	158.442
Acc	-15.85	118.5	82.999	UL-RL	0.2715	5.879	0	78.5	0	0	161.499
Acc	-16.05	120.5	84.086	UL-RL	0.2715	5.879	0	80.5	0	0	164.586
Acc	-16.25	122.5	85.205	UL-RL	0.2715	5.879	0	82.5	0	0	167.705
Acc	-16.45	124.5	86.355	UL-RL	0.2715	5.879	0	84.5	0	0	170.855
Acc	-16.65	126.5	87.538	UL-RL	0.2715	5.879	0	86.5	0	0	174.038
Acc	-16.85	128.5	88.754	UL-RL	0.2715	5.879	0	88.5	0	0	177.254
Acc	-17.05	130.5	90.002	UL-RL	0.2715	5.879	0	90.5	0	0	180.502
Acc	-17.25	132.5	91.284	UL-RL	0.2715	5.879	0	92.5	0	0	183.784
Acc	-17.45	134.5	92.599	UL-RL	0.2715	5.879	0	94.5	0	0	187.099
Acc	-17.65	136.5	93.947	UL-RL	0.2715	5.879	0	96.5	0	0	190.447
Acc	-17.85	138.5	95.328	UL-RL	0.2715	5.879	0	98.5	0	0	193.828
Acc	-18.05	140.5	96.742	UL-RL	0.2715	5.879	0	100.5	0	0	197.242
Acc	-18.25	142.5	98.075	UL-RL	0.2715	5.879	0	102.5	0	0	200.575
Acc	-18.45	144.5	99.318	UL-RL	0.2715	5.879	0	104.5	0	0	203.818
Acc	-18.65	146.5	100.58	UL-RL	0.2715	5.879	0	106.5	0	0	207.08
Acc	-18.85	148.5	101.86	UL-RL	0.2715	5.879	0	108.5	0	0	210.36
Acc	-19.05	150.5	103.16	UL-RL	0.2715	5.879	0	110.5	0	0	213.66
Acc	-19.25	152.5	104.476	UL-RL	0.2715	5.879	0	112.5	0	0	216.976
Acc	-19.45	154.5	105.808	UL-RL	0.2715	5.879	0	114.5	0	0	220.308
Acc	-19.65	156.5	107.156	UL-RL	0.2715	5.879	0	116.5	0	0	223.656
Acc	-19.85	158.5	108.517	UL-RL	0.2715	5.879	0	118.5	0	0	227.017
Acc	-20.05	160.55	119.076	UL-RL	0.3693	5.532	0	120.5	0	0	239.576
Acc	-20.25	162.75	120.611	UL-RL	0.3693	5.532	0	122.5	0	0	243.111
Acc	-20.45	164.95	122.15	UL-RL	0.3693	5.532	0	124.5	0	0	246.65
Acc	-20.65	167.15	123.694	UL-RL	0.3693	5.532	0	126.5	0	0	250.194
Acc	-20.85	169.35	125.24	UL-RL	0.3693	5.532	0	128.5	0	0	253.74
Acc	-21.05	171.55	126.789	UL-RL	0.3693	5.532	0	130.5	0	0	257.289
Acc	-21.25	173.75	128.341	UL-RL	0.3693	5.532	0	132.5	0	0	260.841
Acc	-21.45	175.95	129.893	UL-RL	0.3693	5.532	0	134.5	0	0	264.393
Acc	-21.65	178.15	131.447	UL-RL	0.3693	5.532	0	136.5	0	0	267.947
Acc	-21.85	180.35	133	UL-RL	0.3693	5.532	0	138.5	0	0	271.501
Acc	-22.05	182.55	134.554	UL-RL	0.3693	5.532	0	140.5	0	0	275.054
Acc	-22.25	184.75	136.108	UL-RL	0.3693	5.532	0	142.5	0	0	278.608



Ponte stradale su Torrente Giustenice  
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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno		Muro: Sigma H (kPa)	LEFT		Lato		RIGHT		U* (kPa)	Peq (kPa)
		Sigma V (kPa)			Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente		
Acc	-22.45	186.95		137.661	UL-RL	0.3693.532	0	144.5	0	0	282.161	
Acc	-22.65	189.15		139.213	UL-RL	0.3693.532	0	146.5	0	0	285.713	
Acc	-22.85	191.35		140.763	UL-RL	0.3693.532	0	148.5	0	0	289.264	
Acc	-23.05	193.55		142.313	UL-RL	0.3693.532	0	150.5	0	0	292.813	
Acc	-23.25	195.75		143.861	UL-RL	0.3693.532	0	152.5	0	0	296.361	
Acc	-23.45	197.95		145.407	UL-RL	0.3693.532	0	154.5	0	0	299.907	
Acc	-23.65	200.15		146.952	UL-RL	0.3693.532	0	156.5	0	0	303.452	
Acc	-23.85	202.35		148.494	UL-RL	0.3693.532	0	158.5	0	0	306.995	
Acc	-24.05	204.55		150.036	UL-RL	0.3693.532	0	160.5	0	0	310.536	
Acc	-24.25	206.75		151.575	UL-RL	0.3693.532	0	162.5	0	0	314.075	
Acc	-24.45	208.95		153.112	UL-RL	0.3693.532	0	164.5	0	0	317.612	
Acc	-24.65	211.15		154.648	UL-RL	0.3693.532	0	166.5	0	0	321.148	
Acc	-24.85	213.35		156.182	UL-RL	0.3693.532	0	168.5	0	0	324.682	
Acc	-25.05	215.55		157.715	UL-RL	0.3693.532	0	170.5	0	0	328.215	
Acc	-25.25	217.75		159.246	UL-RL	0.3693.532	0	172.5	0	0	331.746	
Acc	-25.45	219.95		160.776	UL-RL	0.3693.532	0	174.5	0	0	335.276	
Acc	-25.65	222.15		162.304	UL-RL	0.3693.532	0	176.5	0	0	338.804	
Acc	-25.85	224.35		163.831	UL-RL	0.3693.532	0	178.5	0	0	342.331	
Acc	-26.05	226.55		165.357	UL-RL	0.3693.532	0	180.5	0	0	345.857	
Acc	-26.25	228.75		166.882	UL-RL	0.3693.532	0	182.5	0	0	349.382	
Acc	-26.45	230.95		168.406	UL-RL	0.3693.532	0	184.5	0	0	352.907	
Acc	-26.65	233.15		169.93	UL-RL	0.3693.532	0	186.5	0	0	356.43	
Acc	-26.85	235.35		171.453	UL-RL	0.3693.532	0	188.5	0	0	359.953	
Acc	-27.05	237.55		172.975	UL-RL	0.3693.532	0	190.5	0	0	363.475	
Acc	-27.25	239.75		174.497	UL-RL	0.3693.532	0	192.5	0	0	366.997	
Acc	-27.45	241.95		176.018	UL-RL	0.3693.532	0	194.5	0	0	370.518	
Acc	-27.65	244.15		177.539	UL-RL	0.3693.532	0	196.5	0	0	374.04	
Acc	-27.85	246.35		179.06	UL-RL	0.3693.532	0	198.5	0	0	377.56	
Acc	-28	248		180.2	UL-RL	0.3693.532	0	200	0	0	380.2	

Ponte stradale su Torrente Giustenice  
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**Tabella Risultati Terreno Left Wall - Nominal - Sisma**

Design Assumption: Stage	Nominal	Risultati Terreno	Muro:	LEFT	Lato	LEFT					
	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Sisma	0	0	0	PASSIVE	0.2715.828	0	0	0	0	0	0
Sisma	-0.2	3.938	1.093	UL-RL	0.2715.828	0	0	0	0	0	1.093
Sisma	-0.4	8.405	2.297	UL-RL	0.2715.828	0	0	0	0	0	2.297
Sisma	-0.6	13.217	3.595	UL-RL	0.2715.828	0	0	0	0	0	3.595
Sisma	-0.8	18.771	5.094	UL-RL	0.2715.828	0	0	0	0	0	5.094
Sisma	-1	23.594	6.395	UL-RL	0.2715.828	0	0	0	0	0	6.395
Sisma	-1.2	29.306	7.942	ACTIVE	0.2715.828	0	0	0	0	0	7.942
Sisma	-1.4	33.569	9.097	ACTIVE	0.2715.828	0	0	0	0	0	9.097
Sisma	-1.6	37.742	10.228	ACTIVE	0.2715.828	0	0	0	0	0	10.228
Sisma	-1.8	42.629	11.552	ACTIVE	0.2715.828	0	0	0	0	0	11.552
Sisma	-2	46.62	12.634	ACTIVE	0.2715.828	0	0	0	0	0	12.634
Sisma	-2.2	51.22	13.881	ACTIVE	0.2715.828	0	0	0	0	0	13.881
Sisma	-2.25	52.041	14.103	ACTIVE	0.2715.828	0	0	0	0	0	14.103
Sisma	-2.45	55.944	15.161	ACTIVE	0.2715.828	0	0	0	0	0	15.161
Sisma	-2.65	60.367	16.359	ACTIVE	0.2715.828	0	0	0	0	0	16.359
Sisma	-2.85	64.215	17.402	ACTIVE	0.2715.828	0	0	0	0	0	17.402
Sisma	-3.05	68.519	21.926	ACTIVE	0.32 4.492	0	0	0	0	0	21.926
Sisma	-3.25	72.334	23.147	ACTIVE	0.32 4.492	0	0	0	0	0	23.147
Sisma	-3.45	76.146	24.367	ACTIVE	0.32 4.492	0	0	0	0	0	24.367
Sisma	-3.65	80.346	25.711	ACTIVE	0.32 4.492	0	0	0	0	0	25.711
Sisma	-3.85	84.14	26.925	ACTIVE	0.32 4.492	0	0	0	0	0	26.925
Sisma	-4.05	87.984	25.955	ACTIVE	0.2955.103	0	0	0	0	0	25.955
Sisma	-4.25	92.313	27.232	ACTIVE	0.2955.103	0	0	0	0	0	27.232
Sisma	-4.45	96.295	28.407	ACTIVE	0.2955.103	0	0	0	0	0	28.407
Sisma	-4.65	100.584	29.672	ACTIVE	0.2955.103	0	0	0	0	0	29.672
Sisma	-4.85	104.558	30.845	ACTIVE	0.2955.103	0	0	0	0	0	30.845
Sisma	-5.05	108.534	32.017	ACTIVE	0.2955.103	0	0	0	0	0	32.017
Sisma	-5.25	112.782	33.271	ACTIVE	0.2955.103	0	0	0	0	0	33.271
Sisma	-5.45	116.752	34.442	ACTIVE	0.2955.103	0	0	0	0	0	34.442
Sisma	-5.65	120.976	35.688	ACTIVE	0.2955.103	0	0	0	0	0	35.688
Sisma	-5.85	124.943	36.858	ACTIVE	0.2955.103	0	0	0	0	0	36.858
Sisma	-6.05	128.911	38.029	ACTIVE	0.2955.103	0	0	0	0	0	38.029
Sisma	-6.25	133.109	39.267	ACTIVE	0.2955.103	0	0	0	0	0	39.267
Sisma	-6.45	137.075	40.437	ACTIVE	0.2955.103	0	0	0	0	0	40.437
Sisma	-6.65	141.257	41.671	ACTIVE	0.2955.103	0	0	0	0	0	41.671
Sisma	-6.85	145.22	42.84	ACTIVE	0.2955.103	0	0	0	0	0	42.84
Sisma	-7.05	149.186	44.01	ACTIVE	0.2955.103	0	0	0	0	0	44.01
Sisma	-7.25	153.35	45.238	ACTIVE	0.2955.103	0	0	0	0	0	45.238
Sisma	-7.45	157.314	46.408	ACTIVE	0.2955.103	0	0	0	0	0	46.408
Sisma	-7.65	161.28	47.578	ACTIVE	0.2955.103	0	0	0	0	0	47.578
Sisma	-7.85	165.43	48.802	ACTIVE	0.2955.103	0	0	0	0	0	48.802
Sisma	-8.05	168.895	49.824	ACTIVE	0.2955.102	0	0.5	0	0	0	50.324
Sisma	-8.25	171.035	50.455	ACTIVE	0.2955.097	0	2.5	0	0	0	52.955
Sisma	-8.45	173	51.035	ACTIVE	0.2955.093	0	4.5	0	0	0	55.535
Sisma	-8.65	174.966	51.615	ACTIVE	0.2955.089	0	6.5	0	0	0	58.115
Sisma	-8.85	177.095	52.243	ACTIVE	0.2955.084	0	8.5	0	0	0	60.743
Sisma	-9.05	179.06	52.823	ACTIVE	0.295 5.08	0	10.5	0	0	0	63.323
Sisma	-9.25	181.182	53.449	ACTIVE	0.2955.076	0	12.5	0	0	0	65.949
Sisma	-9.45	183.147	54.028	ACTIVE	0.2955.072	0	14.5	0	0	0	68.528
Sisma	-9.65	185.114	54.608	ACTIVE	0.2955.069	0	16.5	0	0	0	71.108
Sisma	-9.85	187.227	55.232	ACTIVE	0.2955.065	0	18.5	0	0	0	73.732
Sisma	-10.05	189.193	55.812	ACTIVE	0.2955.061	0	20.5	0	0	0	76.312
Sisma	-10.25	191.3	56.434	ACTIVE	0.2955.057	0	22.5	0	0	0	78.934

Ponte stradale su Torrente Giustenice  
 Relazione di calcolo spalle

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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT			Lato			LEFT		
				Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U*	Peq (kPa)	
Sisma	-10.45	193.267	57.014	ACTIVE	0.295	5.054	0	24.5	0	0	81.514	
Sisma	-10.65	195.234	57.594	ACTIVE	0.295	5.051	0	26.5	0	0	84.094	
Sisma	-10.85	197.335	58.214	ACTIVE	0.295	5.047	0	28.5	0	0	86.714	
Sisma	-11.05	199.303	58.794	ACTIVE	0.295	5.044	0	30.5	0	0	89.294	
Sisma	-11.25	201.272	59.375	ACTIVE	0.295	5.041	0	32.5	0	0	91.875	
Sisma	-11.45	203.367	59.993	ACTIVE	0.295	5.038	0	34.5	0	0	94.493	
Sisma	-11.65	205.335	60.574	ACTIVE	0.295	5.035	0	36.5	0	0	97.074	
Sisma	-11.85	207.426	61.191	ACTIVE	0.295	5.032	0	38.5	0	0	99.691	
Sisma	-12.05	209.395	61.772	ACTIVE	0.295	5.029	0	40.5	0	0	102.271	
Sisma	-12.25	211.365	62.353	ACTIVE	0.295	5.026	0	42.5	0	0	104.852	
Sisma	-12.45	213.451	62.968	ACTIVE	0.295	5.023	0	44.5	0	0	107.468	
Sisma	-12.65	215.421	64.723	UL-RL	0.295	5.02	0	46.5	0	0	111.223	
Sisma	-12.85	217.503	66.868	UL-RL	0.295	5.017	0	48.5	0	0	115.368	
Sisma	-13.05	219.473	68.882	UL-RL	0.295	5.015	0	50.5	0	0	119.382	
Sisma	-13.25	221.444	70.816	UL-RL	0.295	5.012	0	52.5	0	0	123.316	
Sisma	-13.45	223.523	72.719	UL-RL	0.295	5.009	0	54.5	0	0	127.219	
Sisma	-13.65	225.494	74.494	UL-RL	0.295	5.007	0	56.5	0	0	130.994	
Sisma	-13.85	227.569	76.236	UL-RL	0.295	5.004	0	58.5	0	0	134.736	
Sisma	-14.05	229.54	77.853	UL-RL	0.295	5.002	0	60.5	0	0	138.352	
Sisma	-14.25	231.513	79.391	UL-RL	0.295	5	0	62.5	0	0	141.891	
Sisma	-14.45	233.585	80.896	UL-RL	0.295	4.997	0	64.5	0	0	145.396	
Sisma	-14.65	235.557	82.278	UL-RL	0.295	4.995	0	66.5	0	0	148.778	
Sisma	-14.85	237.53	83.583	UL-RL	0.295	4.993	0	68.5	0	0	152.083	
Sisma	-15.05	239.504	73.226	UL-RL	0.271	5.705	0	70.5	0	0	143.726	
Sisma	-15.25	241.383	74.328	UL-RL	0.271	5.703	0	72.5	0	0	146.828	
Sisma	-15.45	243.265	75.339	UL-RL	0.271	5.701	0	74.5	0	0	149.839	
Sisma	-15.65	245.149	76.26	UL-RL	0.271	5.698	0	76.5	0	0	152.76	
Sisma	-15.85	247.035	77.092	UL-RL	0.271	5.696	0	78.5	0	0	155.592	
Sisma	-16.05	248.924	77.834	UL-RL	0.271	5.694	0	80.5	0	0	158.334	
Sisma	-16.25	250.814	78.489	UL-RL	0.271	5.692	0	82.5	0	0	160.988	
Sisma	-16.45	252.706	79.055	UL-RL	0.271	5.69	0	84.5	0	0	163.555	
Sisma	-16.65	254.6	79.535	UL-RL	0.271	5.688	0	86.5	0	0	166.035	
Sisma	-16.85	256.497	79.929	UL-RL	0.271	5.686	0	88.5	0	0	168.428	
Sisma	-17.05	258.395	80.237	UL-RL	0.271	5.684	0	90.5	0	0	170.737	
Sisma	-17.25	260.294	80.463	UL-RL	0.271	5.682	0	92.5	0	0	172.962	
Sisma	-17.45	262.196	80.605	UL-RL	0.271	5.68	0	94.5	0	0	175.105	
Sisma	-17.65	264.099	80.667	UL-RL	0.271	5.678	0	96.5	0	0	177.167	
Sisma	-17.85	266.004	80.65	UL-RL	0.271	5.676	0	98.5	0	0	179.15	
Sisma	-18.05	267.91	80.555	UL-RL	0.271	5.674	0	100.5	0	0	181.055	
Sisma	-18.25	269.818	80.385	UL-RL	0.271	5.672	0	102.5	0	0	182.885	
Sisma	-18.45	271.727	80.142	UL-RL	0.271	5.671	0	104.5	0	0	184.642	
Sisma	-18.65	273.638	79.828	UL-RL	0.271	5.669	0	106.5	0	0	186.328	
Sisma	-18.85	275.55	79.446	UL-RL	0.271	5.667	0	108.5	0	0	187.946	
Sisma	-19.05	277.464	79.817	UL-RL	0.271	5.665	0	110.5	0	0	190.317	
Sisma	-19.25	279.379	80.34	UL-RL	0.271	5.664	0	112.5	0	0	192.84	
Sisma	-19.45	281.296	80.852	UL-RL	0.271	5.662	0	114.5	0	0	195.352	
Sisma	-19.65	283.213	81.356	UL-RL	0.271	5.66	0	116.5	0	0	197.856	
Sisma	-19.85	285.132	81.852	UL-RL	0.271	5.659	0	118.5	0	0	200.352	
Sisma	-20.05	287.103	144.452	UL-RL	0.371	3.369	0	120.5	0	0	264.952	
Sisma	-20.25	289.224	145.195	UL-RL	0.371	3.368	0	122.5	0	0	267.695	
Sisma	-20.45	291.347	145.928	UL-RL	0.371	3.366	0	124.5	0	0	270.428	
Sisma	-20.65	293.471	146.655	UL-RL	0.371	3.365	0	126.5	0	0	273.155	
Sisma	-20.85	295.596	147.375	UL-RL	0.371	3.364	0	128.5	0	0	275.875	
Sisma	-21.05	297.722	148.09	UL-RL	0.371	3.363	0	130.5	0	0	278.59	
Sisma	-21.25	299.849	148.802	UL-RL	0.371	3.362	0	132.5	0	0	281.302	
Sisma	-21.45	301.977	149.51	UL-RL	0.371	3.361	0	134.5	0	0	284.01	
Sisma	-21.65	304.106	150.215	UL-RL	0.371	3.36	0	136.5	0	0	286.715	

Ponte stradale su Torrente Giustenice  
 Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno Sigma V (kPa)	Muro: Sigma H (kPa)	LEFT			Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
				Stato	Ka	Kp				
Sisma	-21.85	306.236	150.919	UL-RL	0.3713.359	0	138.5	0	0	289.419
Sisma	-22.05	308.368	151.622	UL-RL	0.3713.358	0	140.5	0	0	292.122
Sisma	-22.25	310.5	152.324	UL-RL	0.3713.356	0	142.5	0	0	294.824
Sisma	-22.45	312.633	153.026	UL-RL	0.3713.355	0	144.5	0	0	297.527
Sisma	-22.65	314.767	153.729	UL-RL	0.3713.354	0	146.5	0	0	300.229
Sisma	-22.85	316.902	154.433	UL-RL	0.3713.353	0	148.5	0	0	302.933
Sisma	-23.05	319.038	155.137	UL-RL	0.3713.352	0	150.5	0	0	305.637
Sisma	-23.25	321.175	155.843	UL-RL	0.3713.351	0	152.5	0	0	308.343
Sisma	-23.45	323.312	156.551	UL-RL	0.371 3.35	0	154.5	0	0	311.051
Sisma	-23.65	325.451	157.26	UL-RL	0.371 3.35	0	156.5	0	0	313.76
Sisma	-23.85	327.59	157.971	UL-RL	0.3713.349	0	158.5	0	0	316.472
Sisma	-24.05	329.73	158.684	UL-RL	0.3713.348	0	160.5	0	0	319.185
Sisma	-24.25	331.871	159.4	UL-RL	0.3713.347	0	162.5	0	0	321.9
Sisma	-24.45	334.012	160.117	UL-RL	0.3713.346	0	164.5	0	0	324.617
Sisma	-24.65	336.155	160.836	UL-RL	0.3713.345	0	166.5	0	0	327.336
Sisma	-24.85	338.298	161.558	UL-RL	0.3713.344	0	168.5	0	0	330.058
Sisma	-25.05	340.442	162.281	UL-RL	0.3713.343	0	170.5	0	0	332.781
Sisma	-25.25	342.586	163.006	UL-RL	0.3713.342	0	172.5	0	0	335.506
Sisma	-25.45	344.732	163.733	UL-RL	0.3713.341	0	174.5	0	0	338.233
Sisma	-25.65	346.878	164.461	UL-RL	0.3713.341	0	176.5	0	0	340.961
Sisma	-25.85	349.024	165.191	UL-RL	0.371 3.34	0	178.5	0	0	343.691
Sisma	-26.05	351.171	165.922	UL-RL	0.3713.339	0	180.5	0	0	346.423
Sisma	-26.25	353.319	166.655	UL-RL	0.3713.338	0	182.5	0	0	349.155
Sisma	-26.45	355.468	167.389	UL-RL	0.3713.337	0	184.5	0	0	351.889
Sisma	-26.65	357.617	168.123	UL-RL	0.3713.337	0	186.5	0	0	354.624
Sisma	-26.85	359.767	168.859	UL-RL	0.3713.336	0	188.5	0	0	357.359
Sisma	-27.05	361.917	169.595	UL-RL	0.3713.335	0	190.5	0	0	360.095
Sisma	-27.25	364.068	170.332	UL-RL	0.3713.334	0	192.5	0	0	362.832
Sisma	-27.45	366.22	171.069	UL-RL	0.3713.334	0	194.5	0	0	365.569
Sisma	-27.65	368.372	171.807	UL-RL	0.3713.333	0	196.5	0	0	368.307
Sisma	-27.85	370.524	172.545	UL-RL	0.3713.332	0	198.5	0	0	371.045
Sisma	-28	372.139	173.098	UL-RL	0.3713.331	0	200	0	0	373.098

Ponte stradale su Torrente Giustenice  
 Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno		Muro:	LEFT	Lato	RIGHT				U* (kPa)	Peq (kPa)
		Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente			
Sisma	0	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-0.2	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-0.4	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-0.6	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-0.8	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-1	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-1.2	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-1.4	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-1.6	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-1.8	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-2	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-2.2	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-2.25	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-2.45	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-2.65	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-2.85	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-3.05	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-3.25	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-3.45	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-3.65	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-3.85	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-4.05	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-4.25	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-4.45	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-4.65	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-4.85	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-5.05	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-5.25	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-5.45	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-5.65	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-5.85	0	0	REMOVED	0	0	0	0	0	0	0	0
Sisma	-6.05	1	4.59	PASSIVE	0.295	4.59	0	0	0	0	0	4.59
Sisma	-6.25	5	22.95	PASSIVE	0.295	4.59	0	0	0	0	0	22.95
Sisma	-6.45	9	41.31	PASSIVE	0.295	4.59	0	0	0	0	0	41.31
Sisma	-6.65	13	59.67	PASSIVE	0.295	4.59	0	0	0	0	0	59.67
Sisma	-6.85	17	66.736	V-C	0.295	4.59	0	0	0	0	0	66.736
Sisma	-7.05	21	67.861	V-C	0.295	4.59	0	0	0	0	0	67.861
Sisma	-7.25	25	68.917	V-C	0.295	4.59	0	0	0	0	0	68.917
Sisma	-7.45	29	69.926	V-C	0.295	4.59	0	0	0	0	0	69.926
Sisma	-7.65	33	70.905	V-C	0.295	4.59	0	0	0	0	0	70.905
Sisma	-7.85	37	71.865	V-C	0.295	4.59	0	0	0	0	0	71.865
Sisma	-8.05	40.5	72.562	V-C	0.295	4.585	0	0.5	0	0	0	73.062
Sisma	-8.25	42.5	72.51	V-C	0.295	4.567	0	2.5	0	0	0	75.01
Sisma	-8.45	44.5	72.473	V-C	0.295	4.551	0	4.5	0	0	0	76.973
Sisma	-8.65	46.5	72.451	V-C	0.295	4.536	0	6.5	0	0	0	78.951
Sisma	-8.85	48.5	72.446	V-C	0.295	4.522	0	8.5	0	0	0	80.946
Sisma	-9.05	50.5	72.461	V-C	0.295	4.509	0	10.5	0	0	0	82.961
Sisma	-9.25	52.5	72.494	V-C	0.295	4.497	0	12.5	0	0	0	84.994
Sisma	-9.45	54.5	72.549	V-C	0.295	4.487	0	14.5	0	0	0	87.049
Sisma	-9.65	56.5	72.626	V-C	0.295	4.476	0	16.5	0	0	0	89.126
Sisma	-9.85	58.5	72.725	V-C	0.295	4.467	0	18.5	0	0	0	91.225
Sisma	-10.05	60.5	72.848	V-C	0.295	4.458	0	20.5	0	0	0	93.348
Sisma	-10.25	62.5	72.995	V-C	0.295	4.45	0	22.5	0	0	0	95.495
Sisma	-10.45	64.5	73.168	V-C	0.295	4.442	0	24.5	0	0	0	97.667
Sisma	-10.65	66.5	73.366	V-C	0.295	4.435	0	26.5	0	0	0	99.865
Sisma	-10.85	68.5	73.59	V-C	0.295	4.428	0	28.5	0	0	0	102.09

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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Design Assumption: Stage	Nominal	Risultati Terreno	Muro:	LEFT	Lato	RIGHT					
	Z (m)	Sigma V (kPa)	Sigma H (kPa)	Stato	Ka	Kp	Coesione (kPa)	Pore (kPa)	Gradiente	U* (kPa)	Peq (kPa)
Sisma	-11.05	70.5	73.84	V-C	0.295	4.422	0	30.5	0	0	104.34
Sisma	-11.25	72.5	74.118	V-C	0.295	4.416	0	32.5	0	0	106.618
Sisma	-11.45	74.5	74.424	V-C	0.295	4.41	0	34.5	0	0	108.924
Sisma	-11.65	76.5	74.757	V-C	0.295	4.404	0	36.5	0	0	111.257
Sisma	-11.85	78.5	74.87	UL-RL	0.295	4.399	0	38.5	0	0	113.37
Sisma	-12.05	80.5	74.947	UL-RL	0.295	4.394	0	40.5	0	0	115.447
Sisma	-12.25	82.5	75.069	UL-RL	0.295	4.39	0	42.5	0	0	117.569
Sisma	-12.45	84.5	75.237	UL-RL	0.295	4.385	0	44.5	0	0	119.737
Sisma	-12.65	86.5	75.45	UL-RL	0.295	4.381	0	46.5	0	0	121.95
Sisma	-12.85	88.5	75.709	UL-RL	0.295	4.377	0	48.5	0	0	124.209
Sisma	-13.05	90.5	76.014	UL-RL	0.295	4.373	0	50.5	0	0	126.514
Sisma	-13.25	92.5	76.364	UL-RL	0.295	4.369	0	52.5	0	0	128.864
Sisma	-13.45	94.5	76.76	UL-RL	0.295	4.366	0	54.5	0	0	131.26
Sisma	-13.65	96.5	77.201	UL-RL	0.295	4.362	0	56.5	0	0	133.701
Sisma	-13.85	98.5	77.687	UL-RL	0.295	4.359	0	58.5	0	0	136.187
Sisma	-14.05	100.5	78.219	UL-RL	0.295	4.356	0	60.5	0	0	138.719
Sisma	-14.25	102.5	78.795	UL-RL	0.295	4.353	0	62.5	0	0	141.295
Sisma	-14.45	104.5	79.417	UL-RL	0.295	4.35	0	64.5	0	0	143.916
Sisma	-14.65	106.5	80.083	UL-RL	0.295	4.347	0	66.5	0	0	146.582
Sisma	-14.85	108.5	80.793	UL-RL	0.295	4.344	0	68.5	0	0	149.293
Sisma	-15.05	110.5	81.542	UL-RL	0.271	4.974	0	70.5	0	0	152.042
Sisma	-15.25	112.5	79.347	UL-RL	0.271	4.971	0	72.5	0	0	151.847
Sisma	-15.45	114.5	80.121	UL-RL	0.271	4.969	0	74.5	0	0	154.621
Sisma	-15.65	116.5	80.942	UL-RL	0.271	4.966	0	76.5	0	0	157.442
Sisma	-15.85	118.5	81.812	UL-RL	0.271	4.964	0	78.5	0	0	160.312
Sisma	-16.05	120.5	82.73	UL-RL	0.271	4.961	0	80.5	0	0	163.23
Sisma	-16.25	122.5	83.696	UL-RL	0.271	4.959	0	82.5	0	0	166.196
Sisma	-16.45	124.5	84.708	UL-RL	0.271	4.957	0	84.5	0	0	169.208
Sisma	-16.65	126.5	85.768	UL-RL	0.271	4.955	0	86.5	0	0	172.268
Sisma	-16.85	128.5	86.873	UL-RL	0.271	4.953	0	88.5	0	0	175.373
Sisma	-17.05	130.5	88.025	UL-RL	0.271	4.951	0	90.5	0	0	178.524
Sisma	-17.25	132.5	89.221	UL-RL	0.271	4.949	0	92.5	0	0	181.721
Sisma	-17.45	134.5	90.462	UL-RL	0.271	4.947	0	94.5	0	0	184.962
Sisma	-17.65	136.5	91.746	UL-RL	0.271	4.945	0	96.5	0	0	188.246
Sisma	-17.85	138.5	93.073	UL-RL	0.271	4.943	0	98.5	0	0	191.574
Sisma	-18.05	140.5	94.442	UL-RL	0.271	4.941	0	100.5	0	0	194.942
Sisma	-18.25	142.5	95.739	UL-RL	0.271	4.94	0	102.5	0	0	198.239
Sisma	-18.45	144.5	96.952	UL-RL	0.271	4.938	0	104.5	0	0	201.452
Sisma	-18.65	146.5	98.193	UL-RL	0.271	4.937	0	106.5	0	0	204.693
Sisma	-18.85	148.5	99.459	UL-RL	0.271	4.935	0	108.5	0	0	207.959
Sisma	-19.05	150.5	100.75	UL-RL	0.271	4.933	0	110.5	0	0	211.25
Sisma	-19.25	152.5	102.063	UL-RL	0.271	4.932	0	112.5	0	0	214.563
Sisma	-19.45	154.5	103.398	UL-RL	0.271	4.931	0	114.5	0	0	217.898
Sisma	-19.65	156.5	104.753	UL-RL	0.271	4.929	0	116.5	0	0	221.253
Sisma	-19.85	158.5	106.126	UL-RL	0.271	4.928	0	118.5	0	0	224.626
Sisma	-20.05	160.55	118.202	UL-RL	0.369	2.887	0	120.5	0	0	238.702
Sisma	-20.25	162.75	119.744	UL-RL	0.369	2.886	0	122.5	0	0	242.244
Sisma	-20.45	164.95	121.293	UL-RL	0.369	2.885	0	124.5	0	0	245.793
Sisma	-20.65	167.15	122.846	UL-RL	0.369	2.884	0	126.5	0	0	249.346
Sisma	-20.85	169.35	124.404	UL-RL	0.369	2.883	0	128.5	0	0	252.904
Sisma	-21.05	171.55	125.966	UL-RL	0.369	2.882	0	130.5	0	0	256.466
Sisma	-21.25	173.75	127.53	UL-RL	0.369	2.881	0	132.5	0	0	260.031
Sisma	-21.45	175.95	129.097	UL-RL	0.369	2.88	0	134.5	0	0	263.597
Sisma	-21.65	178.15	130.666	UL-RL	0.369	2.88	0	136.5	0	0	267.166
Sisma	-21.85	180.35	132.236	UL-RL	0.369	2.879	0	138.5	0	0	270.736
Sisma	-22.05	182.55	133.806	UL-RL	0.369	2.878	0	140.5	0	0	274.307
Sisma	-22.25	184.75	135.378	UL-RL	0.369	2.877	0	142.5	0	0	277.878

Ponte stradale su Torrente Giustenice  
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Design Assumption: Stage	Nominal Z (m)	Risultati Terreno		Muro: Sigma H (kPa)	LEFT Stato	Lato		RIGHT		U* (kPa)	Peq (kPa)	
		Sigma V (kPa)				Ka	Kp	Coesione (kPa)	Pore (kPa)			Gradiente
Sisma	-22.45	186.95		136.948	UL-RL	0.369	2.877	0	144.5	0	0	281.448
Sisma	-22.65	189.15		138.519	UL-RL	0.369	2.876	0	146.5	0	0	285.019
Sisma	-22.85	191.35		140.089	UL-RL	0.369	2.875	0	148.5	0	0	288.589
Sisma	-23.05	193.55		141.658	UL-RL	0.369	2.875	0	150.5	0	0	292.158
Sisma	-23.25	195.75		143.226	UL-RL	0.369	2.874	0	152.5	0	0	295.726
Sisma	-23.45	197.95		144.793	UL-RL	0.369	2.873	0	154.5	0	0	299.293
Sisma	-23.65	200.15		146.358	UL-RL	0.369	2.873	0	156.5	0	0	302.858
Sisma	-23.85	202.35		147.922	UL-RL	0.369	2.872	0	158.5	0	0	306.422
Sisma	-24.05	204.55		149.484	UL-RL	0.369	2.871	0	160.5	0	0	309.985
Sisma	-24.25	206.75		151.045	UL-RL	0.369	2.871	0	162.5	0	0	313.545
Sisma	-24.45	208.95		152.604	UL-RL	0.369	2.87	0	164.5	0	0	317.105
Sisma	-24.65	211.15		154.162	UL-RL	0.369	2.87	0	166.5	0	0	320.662
Sisma	-24.85	213.35		155.718	UL-RL	0.369	2.869	0	168.5	0	0	324.219
Sisma	-25.05	215.55		157.273	UL-RL	0.369	2.868	0	170.5	0	0	327.774
Sisma	-25.25	217.75		158.827	UL-RL	0.369	2.868	0	172.5	0	0	331.327
Sisma	-25.45	219.95		160.379	UL-RL	0.369	2.867	0	174.5	0	0	334.879
Sisma	-25.65	222.15		161.93	UL-RL	0.369	2.867	0	176.5	0	0	338.43
Sisma	-25.85	224.35		163.479	UL-RL	0.369	2.866	0	178.5	0	0	341.98
Sisma	-26.05	226.55		165.028	UL-RL	0.369	2.866	0	180.5	0	0	345.528
Sisma	-26.25	228.75		166.576	UL-RL	0.369	2.865	0	182.5	0	0	349.076
Sisma	-26.45	230.95		168.123	UL-RL	0.369	2.865	0	184.5	0	0	352.623
Sisma	-26.65	233.15		169.669	UL-RL	0.369	2.864	0	186.5	0	0	356.169
Sisma	-26.85	235.35		171.214	UL-RL	0.369	2.864	0	188.5	0	0	359.715
Sisma	-27.05	237.55		172.759	UL-RL	0.369	2.864	0	190.5	0	0	363.26
Sisma	-27.25	239.75		174.304	UL-RL	0.369	2.863	0	192.5	0	0	366.804
Sisma	-27.45	241.95		175.848	UL-RL	0.369	2.863	0	194.5	0	0	370.348
Sisma	-27.65	244.15		177.392	UL-RL	0.369	2.862	0	196.5	0	0	373.892
Sisma	-27.85	246.35		178.936	UL-RL	0.369	2.862	0	198.5	0	0	377.436
Sisma	-28	248		180.093	UL-RL	0.369	2.861	0	200	0	0	380.093

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## Riepilogo spinte

Design	Tipo Risultato:	Muro:	LEFT	Lato	LEFT		
Assumption:	Riepilogo spinte						
Nominal							
Stage	Vera effettiva (kN/m)	Pressione neutra (kN/m)	Vera Totale (kN/m)	Min ammissibile (kN/m)	Max ammissibile (kN/m)	Percentuale di resistenza massima	Vera / Attiva
Condizione geostatica	2452.8	2000	4452.8	1624.5	22780.7	10.77%	1.51
Cordolo	2262.4	2000	4262.4	1391.6	19250	11.75%	1.63
-1m	2182.8	2000	4182.8	1391.6	19250	11.34%	1.57
-2m	2091.8	2000	4091.9	1391.6	19250	10.87%	1.5
-3m	1994.9	2000	3995	1391.6	19250	10.36%	1.43
Rinterro 1	2081.5	2000	4081.5	1624.5	22780.7	9.14%	1.28
Rinterro 2	2243.3	2000	4243.3	1866.8	26562.3	8.45%	1.2
Acc	2304.5	2000	4304.6	1959.1	28035.7	8.22%	1.18
Sisma	2312.3	2000	4312.3	1959.1	27002.8	8.56%	1.18

Design	Tipo Risultato:	Muro:	LEFT	Lato	RIGHT		
Assumption:	Riepilogo spinte						
Nominal							
Stage	Vera effettiva (kN/m)	Pressione neutra (kN/m)	Vera Totale (kN/m)	Min ammissibile (kN/m)	Max ammissibile (kN/m)	Percentuale di resistenza massima	Vera / Attiva
Condizione geostatica	2452.8	2000	4452.8	1624.5	22780.7	10.77%	1.51
Cordolo	2262.4	2000	4262.4	1391.6	19250	11.75%	1.63
-1m	2175.7	2000	4175.8	1244.9	17021.6	12.78%	1.75
-2m	2078.5	2000	4078.5	1094.7	14775.9	14.07%	1.9
-3m	1975.1	2000	3975.2	952.5	12633.3	15.63%	2.07
Rinterro 1	2040.5	2000	4040.5	952.5	12633.3	16.15%	2.14
Rinterro 2	2162.4	2000	4162.4	952.5	12633.3	17.12%	2.27
Acc	2224.8	2000	4224.8	952.5	12633.3	17.61%	2.34
Sisma	2287.1	2000	4287.1	952.5	10510.4	21.76%	2.4



Ponte stradale su Torrente Giustenice  
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## Descrizione Coefficienti Design Assumption

Nome	Carichi Permanenti Sfavorevoli (F_dead_load_unfavour)	Carichi Permanenti Favorevoli (F_dead_load_favour)	Carichi Variabili Sfavorevoli (F_live_load_unfavour)	Carichi Variabili Favorevoli (F_live_load_favour)	Carico Sismico (F_seism_load)	Pressioni Acqua Lato Monte (F_WaterDR)	Pressioni Acqua Lato Valle (F_WaterRes)	Carichi Permanenti Destabilizzanti (F_UPL_C)
Simbolo	$\gamma_G$	$\gamma_G$	$\gamma_Q$	$\gamma_Q$	$\gamma_{QE}$	$\gamma_G$	$\gamma_G$	$\gamma_{Gd}$
Nominal	1	1	1	1	1	1	1	1
NTC2018: SLE (Rara/Frequente/Quasi Permanente)	1	1	1	1	0	1	1	1
NTC2018: A1+M1+R1 (R3 per tiranti)	1.35	1	1.35	1	0	1.3	1	1
NTC2018: A2+M2+R1	1	1	1.25	1	0	1	1	1
NTC2018: SISMICA STR	1	1	1	1	1	1	1	1
NTC2018: SISMICA GEO	1	1	1	1	1	1	1	1

Nome	Parziale su tan( $\phi'$ ) (F_Fr)	Parziale su c' (F_eff_cohes)	Parziale su Su (F_Su)	Parziale su qu (F_qu)	Parziale su peso specifico (F_gamma)
Simbolo	$\gamma_\phi$	$\gamma_c$	$\gamma_{cu}$	$\gamma_{qu}$	$\gamma_\gamma$
Nominal	1	1	1	1	1
NTC2018: SLE (Rara/Frequente/Quasi Permanente)	1	1	1	1	1
NTC2018: A1+M1+R1 (R3 per tiranti)	1	1	1	1	1
NTC2018: A2+M2+R1	1.25	1.25	1.4	1	1
NTC2018: SISMICA STR	1	1	1	1	1
NTC2018: SISMICA GEO	1	1	1	1	1

Nome	Parziale resistenza terreno (es. Kp) (F_Soil_Res_walls)	Parziale resistenza Tiranti permanenti (F_Anch_P)	Parziale resistenza Tiranti temporanei (F_Anch_T)	Parziale elementi strutturali (F_wall)
Simbolo	$\gamma_{Re}$	$\gamma_{ap}$	$\gamma_{at}$	
Nominal	1	1	1	1
NTC2018: SLE (Rara/Frequente/Quasi Permanente)	1	1	1	1
NTC2018: A1+M1+R1 (R3 per tiranti)	1	1.2	1.1	1
NTC2018: A2+M2+R1	1	1.2	1.1	1
NTC2018: SISMICA STR	1	1.2	1.1	1
NTC2018: SISMICA GEO	1	1.2	1.1	1

Ponte stradale su Torrente Giustenice  
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## Allegati

### Design Assumption : Nominal - File di Paratie - File di input (.d)

\* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: Nominal

\* Time:lunedì 31 gennaio 2022 12:17:09

\* 1: Defining general settings

UNIT m kN

TITLE New Project

DELTA 0.2

option param itemax 40

option control hinges 0 0.0001 0.001

\* 2: Defining wall(s)

WALL LeftWall\_32 0 -28 0 1

\* 3: Defining surfaces for wall(s)

SOIL 0\_L LeftWall\_32 -28 0 1 0

SOIL 0\_R LeftWall\_32 -28 0 2 180

\* 4: Defining soil layers

\*

\* Soil Profile (Rilevato\_17359\_8\_L\_0)

\*

LDATA Rilevato\_17359\_8\_L\_0 0 LeftWall\_32

ATREST 0.426 0.5 1

WEIGHT 19 9 10

PERMEABILITY 0.0001

RESISTANCE 0 35 0 0 0

KSCALE 0 0

YOUNG 40000 64000

ENDL

\*

\* Soil Profile (1-Riporto\_177\_107603\_L\_0)

\*

LDATA 1-Riporto\_177\_107603\_L\_0 -3 LeftWall\_32

ATREST 0.485 0.5 1

WEIGHT 19 9 10

PERMEABILITY 0.0001

RESISTANCE 0 31 0 0 0

KSCALE 0 0

YOUNG 10000 16000

ENDL

\*

\* Soil Profile (2sup-Sabbiaconghiaiasup\_2\_391\_L\_0)

\*

LDATA 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 -4 LeftWall\_32

ATREST 0.455 0.5 1

WEIGHT 20 10 10

PERMEABILITY 0.0001

RESISTANCE 0 33 0 0 0

KSCALE 0 0

YOUNG 35000 56000

ENDL

\*

\* Soil Profile (2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0)

\*

LDATA 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 -15 LeftWall\_32

ATREST 0.426 0.5 1

WEIGHT 20 10 10

PERMEABILITY 0.0001

RESISTANCE 0 35 0 0 0

KSCALE 0 0

YOUNG 40000 64000

ENDL

\*

\* Soil Profile (3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0)

\*

LDATA 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 -20 LeftWall\_32

ATREST 0.546 0.5 1

WEIGHT 21 11 10

Ponte stradale su Torrente Giustenice  
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PERMEABILITY 0.0001  
RESISTANCE 0 27 0 0 0  
KSCALE 0 0  
YOUNG 12500 20000  
ENDL

\* 5: Defining structural materials  
\* Concrete material: 106 Name=C25/30 E=31475800 kPa  
MATERIAL C2530\_106 3.1476E+07

\* 6: Defining structural elements  
\* 6.1: Beams and combined Wall Elements  
BEAM WallElement\_33 LeftWall\_32 -28 0 C2530\_106 0.97944 00 00 0

\* 6.2: Supports

CELA Spring\_3320 LeftWall\_32 -2.25 52000 0 1 1

\* 6.3: Strips  
STRIP LeftWall\_32 8 9 0.6 14.4 0 20 45

\* 7: Defining Steps  
STEP Condizionegeostatica\_31  
CHANGE Rilevato\_17359\_8\_L\_0 U-FRICT=35 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-FRICT=35 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-KA=0.271 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-KP=5.879 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-KA=0.271 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-KP=5.879 LeftWall\_32  
CHANGE 1-Riporto\_177\_107603\_L\_0 U-FRICT=31 LeftWall\_32  
CHANGE 1-Riporto\_177\_107603\_L\_0 D-FRICT=31 LeftWall\_32  
CHANGE 1-Riporto\_177\_107603\_L\_0 U-KA=0.32 LeftWall\_32  
CHANGE 1-Riporto\_177\_107603\_L\_0 U-KP=4.555 LeftWall\_32  
CHANGE 1-Riporto\_177\_107603\_L\_0 D-KA=0.32 LeftWall\_32  
CHANGE 1-Riporto\_177\_107603\_L\_0 D-KP=4.555 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-FRICT=33 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-FRICT=33 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-KA=0.295 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-KP=5.16 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-KA=0.295 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-KP=5.16 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-FRICT=35 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-FRICT=35 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-KA=0.271 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-KP=5.879 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-KA=0.271 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-KP=5.879 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-FRICT=27 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-FRICT=27 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KA=0.371 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KP=3.554 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KA=0.371 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=3.554 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-ADHES=0 LeftWall\_32  
CHANGE 1-Riporto\_177\_107603\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE 1-Riporto\_177\_107603\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE 1-Riporto\_177\_107603\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE 1-Riporto\_177\_107603\_L\_0 D-ADHES=0 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-ADHES=0 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-ADHES=0 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-COHE=0 LeftWall\_32

Ponte stradale su Torrente Giustenice  
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```
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 D-ADHES=0 LeftWall_32
SETWALL LeftWall_32
GEOM -1.5 -1.5
SURCHARGE 0 0 0 0
WATER -8 0 -28 0 0
ADD WallElement_33
ENDSTEP
```

```
STEP Cordolo_197430
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 U-KA=0.37 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 U-KP=3.548 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 D-KA=0.37 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 D-KP=3.548 LeftWall_32
SETWALL LeftWall_32
GEOM -3 -3
SURCHARGE 0 0 0 0
WATER -8 0 -28 0 0
ADD Spring_3320
ENDSTEP
```

```
STEP -1m_198657
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 D-KP=3.543 LeftWall_32
SETWALL LeftWall_32
GEOM -3 -4
SURCHARGE 0 0 0 0
WATER -8 0 -28 0 0
ENDSTEP
```

```
STEP -2m_198911
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 D-KA=0.369 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 D-KP=3.538 LeftWall_32
SETWALL LeftWall_32
GEOM -3 -5
SURCHARGE 0 0 0 0
WATER -8 0 -28 0 0
ENDSTEP
```

```
STEP -3m_199165
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 D-KP=3.532 LeftWall_32
SETWALL LeftWall_32
GEOM -3 -6
SURCHARGE 0 0 0 0
WATER -8 0 -28 0 0
ENDSTEP
```

```
STEP Rinterro1_199927
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 U-KA=0.371 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 U-KP=3.554 LeftWall_32
SETWALL LeftWall_32
GEOM -1.5 -6
SURCHARGE 0 0 0 0
WATER -8 0 -28 0 0
ENDSTEP
```

```
STEP Rinterro2_200181
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 U-KP=3.559 LeftWall_32
SETWALL LeftWall_32
GEOM 0 -6
SURCHARGE 0 0 0 0
WATER -8 0 -28 0 0
ENDSTEP
```

```
STEP Acc_200689
SETWALL LeftWall_32
GEOM 0 -6
SURCHARGE 0 0 0 0
WATER -8 0 -28 0 0
LOAD constant LeftWall_32 -2.25 1 115
ENDSTEP
```

```
STEP Sisma_201425
SETWALL LeftWall_32
GEOM 0 -6
SURCHARGE 0 0 0 0
WATER -8 0 -28 0 0
CHANGE Rilevato_17359_8_L_0 U-KAED=0.33997 LeftWall_32
CHANGE Rilevato_17359_8_L_0 U-KAEW=0.41342 LeftWall_32
```

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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```

CHANGE Rilevato_17359_8_L_0 U-KPED=5.8278 LeftWall_32
CHANGE Rilevato_17359_8_L_0 U-KPEW=5.3651 LeftWall_32
CHANGE Rilevato_17359_8_L_0 D-KAED=0.31373 LeftWall_32
CHANGE Rilevato_17359_8_L_0 D-KAEW=0.38979 LeftWall_32
CHANGE Rilevato_17359_8_L_0 D-KPED=5.2441 LeftWall_32
CHANGE Rilevato_17359_8_L_0 D-KPEW=4.7697 LeftWall_32
CHANGE 1-Riporto_177_107603_L_0 U-KAED=0.39664 LeftWall_32
CHANGE 1-Riporto_177_107603_L_0 U-KAEW=0.47743 LeftWall_32
CHANGE 1-Riporto_177_107603_L_0 U-KPED=4.4921 LeftWall_32
CHANGE 1-Riporto_177_107603_L_0 U-KPEW=4.0986 LeftWall_32
CHANGE 1-Riporto_177_107603_L_0 D-KAED=0.36602 LeftWall_32
CHANGE 1-Riporto_177_107603_L_0 D-KAEW=0.44968 LeftWall_32
CHANGE 1-Riporto_177_107603_L_0 D-KPED=4.0395 LeftWall_32
CHANGE 1-Riporto_177_107603_L_0 D-KPEW=3.6355 LeftWall_32
CHANGE 2sup-Sabbiaconghiaiasup_2_391_L_0 U-KAED=0.36726 LeftWall_32
CHANGE 2sup-Sabbiaconghiaiasup_2_391_L_0 U-KAEW=0.43651 LeftWall_32
CHANGE 2sup-Sabbiaconghiaiasup_2_391_L_0 U-KPED=5.1027 LeftWall_32
CHANGE 2sup-Sabbiaconghiaiasup_2_391_L_0 U-KPEW=4.7239 LeftWall_32
CHANGE 2sup-Sabbiaconghiaiasup_2_391_L_0 D-KAED=0.33845 LeftWall_32
CHANGE 2sup-Sabbiaconghiaiasup_2_391_L_0 D-KAEW=0.40975 LeftWall_32
CHANGE 2sup-Sabbiaconghiaiasup_2_391_L_0 D-KPED=4.59 LeftWall_32
CHANGE 2sup-Sabbiaconghiaiasup_2_391_L_0 D-KPEW=4.2011 LeftWall_32
CHANGE 2inf-Sabbiaconghiaiainf_207591_195609_L_0 U-KAED=0.33997 LeftWall_32
CHANGE 2inf-Sabbiaconghiaiainf_207591_195609_L_0 U-KAEW=0.40608 LeftWall_32
CHANGE 2inf-Sabbiaconghiaiainf_207591_195609_L_0 U-KPED=5.8278 LeftWall_32
CHANGE 2inf-Sabbiaconghiaiainf_207591_195609_L_0 U-KPEW=5.4144 LeftWall_32
CHANGE 2inf-Sabbiaconghiaiainf_207591_195609_L_0 D-KAED=0.31373 LeftWall_32
CHANGE 2inf-Sabbiaconghiaiainf_207591_195609_L_0 D-KAEW=0.38123 LeftWall_32
CHANGE 2inf-Sabbiaconghiaiainf_207591_195609_L_0 D-KPED=5.2441 LeftWall_32
CHANGE 2inf-Sabbiaconghiaiainf_207591_195609_L_0 D-KPEW=4.821 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 U-KAED=0.45435 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 U-KAEW=0.5236 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 U-KPED=3.4837 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 U-KPEW=3.2056 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 D-KAED=0.41451 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 D-KAEW=0.48486 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 D-KPED=3.1031 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 D-KPEW=2.815 LeftWall_32
EQK USER 0.0986 0.0493 -0.0493 0 0.5 0 0.5 0 0
* Defining seismic surcharge pressures on wall LeftWall_32
*   min elevation = -6
*   max elevation = 0
*   average gamma = 19.33333333333333
*   kh = 0.0986
*   deltaQ = 68.6256
DLOAD step LeftWall_32 -6 11.438 0 11.438
* Include pressure contribution from wall: LeftWall_32
* Include wall contribution
DLOAD step LeftWall_32 -6 2.1445 0 2.1445
LOAD constant LeftWall_32 -2.25 1 445
ENDSTEP

```

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

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## Design Assumption : NTC2018: SLE (Rara/Frequente/Quasi Permanente) - File di Paratie - File di input (.d)

```
* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: NTC2018: SLE (Rara/Frequente/Quasi Permanente)
* Time:lunedì 31 gennaio 2022 12:17:14
* 1: Defining general settings
UNIT m kN
TITLE New Project
DELTA 0.2
option param itemax 40
option control hinges 0 0.0001 0.001

* 2: Defining wall(s)
WALL LeftWall_32 0 -28 0 1

* 3: Defining surfaces for wall(s)
SOIL 0_L LeftWall_32 -28 0 1 0
SOIL 0_R LeftWall_32 -28 0 2 180

* 4: Defining soil layers
*
* Soil Profile (Rilevato_17359_8_L_0)
*
LDATA Rilevato_17359_8_L_0 0 LeftWall_32
ATREST 0.426 0.5 1
WEIGHT 19 9 10
PERMEABILITY 0.0001
RESISTANCE 0 35 0 0 0
KSCALE 0 0
YOUNG 40000 64000
ENDL
*
* Soil Profile (1-Riporto_177_107603_L_0)
*
LDATA 1-Riporto_177_107603_L_0 -3 LeftWall_32
ATREST 0.485 0.5 1
WEIGHT 19 9 10
PERMEABILITY 0.0001
RESISTANCE 0 31 0 0 0
KSCALE 0 0
YOUNG 10000 16000
ENDL
*
* Soil Profile (2sup-Sabbiaconghiaiasup_2_391_L_0)
*
LDATA 2sup-Sabbiaconghiaiasup_2_391_L_0 -4 LeftWall_32
ATREST 0.455 0.5 1
WEIGHT 20 10 10
PERMEABILITY 0.0001
RESISTANCE 0 33 0 0 0
KSCALE 0 0
YOUNG 35000 56000
ENDL
*
* Soil Profile (2inf-Sabbiaconghiaiainf_207591_195609_L_0)
*
LDATA 2inf-Sabbiaconghiaiainf_207591_195609_L_0 -15 LeftWall_32
ATREST 0.426 0.5 1
WEIGHT 20 10 10
PERMEABILITY 0.0001
RESISTANCE 0 35 0 0 0
KSCALE 0 0
YOUNG 40000 64000
ENDL
*
* Soil Profile (3sup-Limosabbiosoghiaios_103517_195610_L_0)
*
LDATA 3sup-Limosabbiosoghiaios_103517_195610_L_0 -20 LeftWall_32
ATREST 0.546 0.5 1
WEIGHT 21 11 10
PERMEABILITY 0.0001
RESISTANCE 0 27 0 0 0
```

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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KSCALE 0 0  
YOUNG 12500 20000  
ENDD

\* 5: Defining structural materials  
\* Concrete material: 106 Name=C25/30 E=31475800 kPa  
MATERIAL C2530\_106 3.1476E+07

\* 6: Defining structural elements  
\* 6.1: Beams and combined Wall Elements  
BEAM WallElement\_33 LeftWall\_32 -28 0 C2530\_106 0.97944 00 00 0

\* 6.2: Supports

CELA Spring\_3320 LeftWall\_32 -2.25 52000 0 1 1

\* 6.3: Strips  
STRIP LeftWall\_32 8 9 0.6 14.4 0 20 45

\* 7: Defining Steps  
STEP Condizionegeostatica\_31  
CHANGE Rilevato\_17359\_8\_L\_0 U-FRICT=35 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-FRICT=35 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-KA=0.271 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-KP=5.879 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-KA=0.271 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-KP=5.879 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 U-FRICT=31 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 D-FRICT=31 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 U-KA=0.32 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 U-KP=4.555 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 D-KA=0.32 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 D-KP=4.555 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-FRICT=33 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-FRICT=33 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-KA=0.295 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-KP=5.16 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-KA=0.295 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-KP=5.16 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-FRICT=35 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-FRICT=35 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-KA=0.271 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-KP=5.879 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-KA=0.271 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-KP=5.879 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-FRICT=27 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-FRICT=27 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KA=0.371 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KP=3.554 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KA=0.371 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=3.554 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-ADHES=0 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 D-ADHES=0 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-ADHES=0 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-ADHES=0 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-ADHES=0 LeftWall\_32  
SETWALL LeftWall\_32

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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GEOM -1.5 -1.5  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ADD WallElement\_33  
ENDSTEP

STEP Cordolo\_197430  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KA=0.37 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KP=3.548 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KA=0.37 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=3.548 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -3 -3  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ADD Spring\_3320  
ENDSTEP

STEP -1m\_198657  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=3.543 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -3 -4  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP -2m\_198911  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KA=0.369 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=3.538 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -3 -5  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP -3m\_199165  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=3.532 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -3 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP Rinterro1\_199927  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KA=0.371 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KP=3.554 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -1.5 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP Rinterro2\_200181  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KP=3.559 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM 0 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP Acc\_200689  
SETWALL LeftWall\_32  
GEOM 0 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
LOAD constant LeftWall\_32 -2.25 1 115  
ENDSTEP

STEP Sisma\_201425  
SETWALL LeftWall\_32  
GEOM 0 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
LOAD constant LeftWall\_32 -2.25 1 445  
ENDSTEP



Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
IV01	00	D 09	CLIV0204001	A	191 di 206

## Design Assumption : NTC2018: A1+M1+R1 (R3 per tiranti) - File di Paratie - File di input (.d)

```
* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: NTC2018: A1+M1+R1 (R3 per tiranti)
* Time:lunedì 31 gennaio 2022 12:17:18
* 1: Defining general settings
UNIT m kN
TITLE New Project
DELTA 0.2
option param itemax 40
option control hinges 0 0.0001 0.001

* 2: Defining wall(s)
WALL LeftWall_32 0 -28 0 1

* 3: Defining surfaces for wall(s)
SOIL 0_L LeftWall_32 -28 0 1 0
SOIL 0_R LeftWall_32 -28 0 2 180

* 4: Defining soil layers
*
* Soil Profile (Rilevato_17359_8_L_0)
*
LDATA Rilevato_17359_8_L_0 0 LeftWall_32
ATREST 0.426 0.5 1
WEIGHT 19 9 10
PERMEABILITY 0.0001
RESISTANCE 0 35 0 0 0
KSCALE 0 0
YOUNG 40000 64000
ENDL
*
* Soil Profile (1-Riporto_177_107603_L_0)
*
LDATA 1-Riporto_177_107603_L_0 -3 LeftWall_32
ATREST 0.485 0.5 1
WEIGHT 19 9 10
PERMEABILITY 0.0001
RESISTANCE 0 31 0 0 0
KSCALE 0 0
YOUNG 10000 16000
ENDL
*
* Soil Profile (2sup-Sabbiaconghiaiasup_2_391_L_0)
*
LDATA 2sup-Sabbiaconghiaiasup_2_391_L_0 -4 LeftWall_32
ATREST 0.455 0.5 1
WEIGHT 20 10 10
PERMEABILITY 0.0001
RESISTANCE 0 33 0 0 0
KSCALE 0 0
YOUNG 35000 56000
ENDL
*
* Soil Profile (2inf-Sabbiaconghiaiainf_207591_195609_L_0)
*
LDATA 2inf-Sabbiaconghiaiainf_207591_195609_L_0 -15 LeftWall_32
ATREST 0.426 0.5 1
WEIGHT 20 10 10
PERMEABILITY 0.0001
RESISTANCE 0 35 0 0 0
KSCALE 0 0
YOUNG 40000 64000
ENDL
*
* Soil Profile (3sup-Limosabbiosoghiaios_103517_195610_L_0)
*
LDATA 3sup-Limosabbiosoghiaios_103517_195610_L_0 -20 LeftWall_32
ATREST 0.546 0.5 1
WEIGHT 21 11 10
PERMEABILITY 0.0001
RESISTANCE 0 27 0 0 0
```

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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KSCALE 0 0  
YOUNG 12500 20000  
ENDDL

\* 5: Defining structural materials  
\* Concrete material: 106 Name=C25/30 E=31475800 kPa  
MATERIAL C2530\_106 3.1476E+07

\* 6: Defining structural elements  
\* 6.1: Beams and combined Wall Elements  
BEAM WallElement\_33 LeftWall\_32 -28 0 C2530\_106 0.97944 00 00 0

\* 6.2: Supports

CELA Spring\_3320 LeftWall\_32 -2.25 52000 0 1 1

\* 6.3: Strips  
STRIP LeftWall\_32 8 9 0.6 14.4 0 20 45

\* 7: Defining Steps  
STEP Condizionegeostatica\_31  
CHANGE Rilevato\_17359\_8\_L\_0 U-FRICT=35 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-FRICT=35 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-KA=0.271 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-KP=5.879 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-KA=0.271 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-KP=5.879 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 U-FRICT=31 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 D-FRICT=31 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 U-KA=0.32 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 U-KP=4.555 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 D-KA=0.32 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 D-KP=4.555 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-FRICT=33 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-FRICT=33 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-KA=0.295 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-KP=5.16 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-KA=0.295 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-KP=5.16 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiaainf\_207591\_195609\_L\_0 U-FRICT=35 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiaainf\_207591\_195609\_L\_0 D-FRICT=35 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiaainf\_207591\_195609\_L\_0 U-KA=0.271 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiaainf\_207591\_195609\_L\_0 U-KP=5.879 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiaainf\_207591\_195609\_L\_0 D-KA=0.271 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiaainf\_207591\_195609\_L\_0 D-KP=5.879 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-FRICT=27 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-FRICT=27 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KA=0.371 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KP=3.554 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KA=0.371 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=3.554 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-ADHES=0 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 D-ADHES=0 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-ADHES=0 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiaainf\_207591\_195609\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiaainf\_207591\_195609\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiaainf\_207591\_195609\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiaainf\_207591\_195609\_L\_0 D-ADHES=0 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-ADHES=0 LeftWall\_32  
SETWALL LeftWall\_32

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

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GEOM -1.5 -1.5  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ADD WallElement\_33  
ENDSTEP

STEP Cordolo\_197430  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KA=0.37 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KP=3.548 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KA=0.37 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=3.548 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -3 -3  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ADD Spring\_3320  
ENDSTEP

STEP -1m\_198657  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=3.543 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -3 -4  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP -2m\_198911  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KA=0.369 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=3.538 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -3 -5  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP -3m\_199165  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=3.532 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -3 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP Rinterro1\_199927  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KA=0.371 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KP=3.554 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -1.5 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP Rinterro2\_200181  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KP=3.559 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM 0 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP Acc\_200689  
SETWALL LeftWall\_32  
GEOM 0 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
LOAD constant LeftWall\_32 -2.25 1 115  
ENDSTEP

STEP Sisma\_201425  
SETWALL LeftWall\_32  
GEOM 0 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
LOAD constant LeftWall\_32 -2.25 1 445  
ENDSTEP

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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## Design Assumption : NTC2018: A2+M2+R1 - File di Paratie - File di input (.d)

\* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: NTC2018: A2+M2+R1

\* Time:lunedì 31 gennaio 2022 12:17:23

\* 1: Defining general settings

UNIT m kN

TITLE New Project

DELTA 0.2

option param itemax 40

option control hinges 0 0.0001 0.001

\* 2: Defining wall(s)

WALL LeftWall\_32 0 -28 0 1

\* 3: Defining surfaces for wall(s)

SOIL 0\_L LeftWall\_32 -28 0 1 0

SOIL 0\_R LeftWall\_32 -28 0 2 180

\* 4: Defining soil layers

\*

\* Soil Profile (Rilevato\_17359\_8\_L\_0)

\*

LDATA Rilevato\_17359\_8\_L\_0 0 LeftWall\_32

ATREST 0.426 0.5 1

WEIGHT 19 9 10

PERMEABILITY 0.0001

RESISTANCE 0 35 0 0 0

KSCALE 0 0

YOUNG 40000 64000

ENDL

\*

\* Soil Profile (1-Riporto\_177\_107603\_L\_0)

\*

LDATA 1-Riporto\_177\_107603\_L\_0 -3 LeftWall\_32

ATREST 0.485 0.5 1

WEIGHT 19 9 10

PERMEABILITY 0.0001

RESISTANCE 0 31 0 0 0

KSCALE 0 0

YOUNG 10000 16000

ENDL

\*

\* Soil Profile (2sup-Sabbiaconghiaiasup\_2\_391\_L\_0)

\*

LDATA 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 -4 LeftWall\_32

ATREST 0.455 0.5 1

WEIGHT 20 10 10

PERMEABILITY 0.0001

RESISTANCE 0 33 0 0 0

KSCALE 0 0

YOUNG 35000 56000

ENDL

\*

\* Soil Profile (2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0)

\*

LDATA 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 -15 LeftWall\_32

ATREST 0.426 0.5 1

WEIGHT 20 10 10

PERMEABILITY 0.0001

RESISTANCE 0 35 0 0 0

KSCALE 0 0

YOUNG 40000 64000

ENDL

\*

\* Soil Profile (3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0)

\*

LDATA 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 -20 LeftWall\_32

ATREST 0.546 0.5 1

WEIGHT 21 11 10

PERMEABILITY 0.0001

RESISTANCE 0 27 0 0 0

KSCALE 0 0

YOUNG 12500 20000

ENDL

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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\* 5: Defining structural materials  
\* Concrete material: 106 Name=C25/30 E=31475800 kPa  
MATERIAL C2530\_106 3.1476E+07

\* 6: Defining structural elements  
\* 6.1: Beams and combined Wall Elements  
BEAM WallElement\_33 LeftWall\_32 -28 0 C2530\_106 0.97944 00 00 0

\* 6.2: Supports

CELA Spring\_3320 LeftWall\_32 -2.25 52000 0 1 1

\* 6.3: Strips  
STRIP LeftWall\_32 8 9 0.6 14.4 0 25 45

\* 7: Defining Steps  
STEP Condizionegeostatica\_31  
CHANGE Rilevato\_17359\_8\_L\_0 U-FRICT=29.256 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-FRICT=29.256 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-KA=0.343 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-KP=4.102 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-KA=0.343 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-KP=4.102 LeftWall\_32  
CHANGE 1-Riporto\_177\_107603\_L\_0 U-FRICT=25.673 LeftWall\_32  
CHANGE 1-Riporto\_177\_107603\_L\_0 D-FRICT=25.673 LeftWall\_32  
CHANGE 1-Riporto\_177\_107603\_L\_0 U-KA=0.395 LeftWall\_32  
CHANGE 1-Riporto\_177\_107603\_L\_0 U-KP=3.343 LeftWall\_32  
CHANGE 1-Riporto\_177\_107603\_L\_0 D-KA=0.395 LeftWall\_32  
CHANGE 1-Riporto\_177\_107603\_L\_0 D-KP=3.343 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-FRICT=27.453 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-FRICT=27.453 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-KA=0.369 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-KP=3.695 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-KA=0.369 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-KP=3.695 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-FRICT=29.256 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-FRICT=29.256 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-KA=0.343 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-KP=4.102 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-KA=0.343 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-KP=4.102 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-FRICT=22.177 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-FRICT=22.177 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KA=0.446 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KP=2.737 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KA=0.446 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=2.737 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-ADHES=0 LeftWall\_32  
CHANGE 1-Riporto\_177\_107603\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE 1-Riporto\_177\_107603\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE 1-Riporto\_177\_107603\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE 1-Riporto\_177\_107603\_L\_0 D-ADHES=0 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-ADHES=0 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-ADHES=0 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-ADHES=0 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -1.5 -1.5  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

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ADD WallElement\_33  
ENDSTEP

STEP Cordolo\_197430  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KA=0.445 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KP=2.733 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KA=0.445 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=2.733 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -3 -3  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ADD Spring\_3320  
ENDSTEP

STEP -1m\_198657  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KA=0.444 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=2.73 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -3 -4  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP -2m\_198911  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=2.726 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -3 -5  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP -3m\_199165  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KA=0.443 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=2.722 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -3 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP Rinterro1\_199927  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KA=0.446 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KP=2.737 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -1.5 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP Rinterro2\_200181  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KP=2.741 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM 0 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP Acc\_200689  
SETWALL LeftWall\_32  
GEOM 0 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
LOAD constant LeftWall\_32 -2.25 1 143.75  
ENDSTEP

STEP Sisma\_201425  
SETWALL LeftWall\_32  
GEOM 0 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
LOAD constant LeftWall\_32 -2.25 1 445  
ENDSTEP

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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## Design Assumption : NTC2018: SISMICA STR - File di Paratie - File di input (.d)

\* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: NTC2018: SISMICA STR

\* Time:lunedì 31 gennaio 2022 12:17:28

\* 1: Defining general settings

UNIT m kN

TITLE New Project

DELTA 0.2

option param itemax 40

option control hinges 0 0.0001 0.001

\* 2: Defining wall(s)

WALL LeftWall\_32 0 -28 0 1

\* 3: Defining surfaces for wall(s)

SOIL 0\_L LeftWall\_32 -28 0 1 0

SOIL 0\_R LeftWall\_32 -28 0 2 180

\* 4: Defining soil layers

\*

\* Soil Profile (Rilevato\_17359\_8\_L\_0)

\*

LDATA Rilevato\_17359\_8\_L\_0 0 LeftWall\_32

ATREST 0.426 0.5 1

WEIGHT 19 9 10

PERMEABILITY 0.0001

RESISTANCE 0 35 0 0 0

KSCALE 0 0

YOUNG 40000 64000

ENDL

\*

\* Soil Profile (1-Riporto\_177\_107603\_L\_0)

\*

LDATA 1-Riporto\_177\_107603\_L\_0 -3 LeftWall\_32

ATREST 0.485 0.5 1

WEIGHT 19 9 10

PERMEABILITY 0.0001

RESISTANCE 0 31 0 0 0

KSCALE 0 0

YOUNG 10000 16000

ENDL

\*

\* Soil Profile (2sup-Sabbiaconghiaiasup\_2\_391\_L\_0)

\*

LDATA 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 -4 LeftWall\_32

ATREST 0.455 0.5 1

WEIGHT 20 10 10

PERMEABILITY 0.0001

RESISTANCE 0 33 0 0 0

KSCALE 0 0

YOUNG 35000 56000

ENDL

\*

\* Soil Profile (2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0)

\*

LDATA 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 -15 LeftWall\_32

ATREST 0.426 0.5 1

WEIGHT 20 10 10

PERMEABILITY 0.0001

RESISTANCE 0 35 0 0 0

KSCALE 0 0

YOUNG 40000 64000

ENDL

\*

\* Soil Profile (3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0)

\*

LDATA 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 -20 LeftWall\_32

ATREST 0.546 0.5 1

WEIGHT 21 11 10

PERMEABILITY 0.0001

RESISTANCE 0 27 0 0 0

KSCALE 0 0

YOUNG 12500 20000

ENDL

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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\* 5: Defining structural materials  
\* Concrete material: 106 Name=C25/30 E=31475800 kPa  
MATERIAL C2530\_106 3.1476E+07

\* 6: Defining structural elements  
\* 6.1: Beams and combined Wall Elements  
BEAM WallElement\_33 LeftWall\_32 -28 0 C2530\_106 0.97944 00 00 0

\* 6.2: Supports

CELA Spring\_3320 LeftWall\_32 -2.25 52000 0 1 1

\* 6.3: Strips  
STRIP LeftWall\_32 8 9 0.6 14.4 0 20 45

\* 7: Defining Steps  
STEP Condizionegeostatica\_31  
CHANGE Rilevato\_17359\_8\_L\_0 U-FRICT=35 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-FRICT=35 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-KA=0.271 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-KP=5.879 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-KA=0.271 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-KP=5.879 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 U-FRICT=31 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 D-FRICT=31 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 U-KA=0.32 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 U-KP=4.555 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 D-KA=0.32 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 D-KP=4.555 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-FRICT=33 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-FRICT=33 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-KA=0.295 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-KP=5.16 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-KA=0.295 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-KP=5.16 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-FRICT=35 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-FRICT=35 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-KA=0.271 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-KP=5.879 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-KA=0.271 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-KP=5.879 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-FRICT=27 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-FRICT=27 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KA=0.371 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KP=3.554 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KA=0.371 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=3.554 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-ADHES=0 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 D-ADHES=0 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-ADHES=0 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-ADHES=0 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-ADHES=0 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -1.5 -1.5  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0



Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

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ADD WallElement\_33  
ENDSTEP

STEP Cordolo\_197430  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KA=0.37 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KP=3.548 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KA=0.37 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=3.548 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -3 -3  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ADD Spring\_3320  
ENDSTEP

STEP -1m\_198657  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=3.543 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -3 -4  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP -2m\_198911  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KA=0.369 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=3.538 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -3 -5  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP -3m\_199165  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=3.532 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -3 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP Rinterro1\_199927  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KA=0.371 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KP=3.554 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -1.5 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP Rinterro2\_200181  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KP=3.559 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM 0 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP Acc\_200689  
SETWALL LeftWall\_32  
GEOM 0 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
LOAD constant LeftWall\_32 -2.25 1 115  
ENDSTEP

STEP Sisma\_201425  
SETWALL LeftWall\_32  
GEOM 0 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
CHANGE Rilevato\_17359\_8\_L\_0 U-KAED=0.33997 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-KAEW=0.41342 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-KPED=5.8278 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-KPEW=5.3651 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-KAED=0.31373 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-KAEW=0.38979 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-KPED=5.2441 LeftWall\_32

Ponte stradale su Torrente Giustenice

Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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```

CHANGE Rilevato_17359_8_L_0 D-KPEW=4.7697 LeftWall_32
CHANGE 1-Riporto_177_107603_L_0 U-KAED=0.39664 LeftWall_32
CHANGE 1-Riporto_177_107603_L_0 U-KAEW=0.47743 LeftWall_32
CHANGE 1-Riporto_177_107603_L_0 U-KPED=4.4921 LeftWall_32
CHANGE 1-Riporto_177_107603_L_0 U-KPEW=4.0986 LeftWall_32
CHANGE 1-Riporto_177_107603_L_0 D-KAED=0.36602 LeftWall_32
CHANGE 1-Riporto_177_107603_L_0 D-KAEW=0.44968 LeftWall_32
CHANGE 1-Riporto_177_107603_L_0 D-KPED=4.0395 LeftWall_32
CHANGE 1-Riporto_177_107603_L_0 D-KPEW=3.6355 LeftWall_32
CHANGE 2sup-Sabbiaconghiaiasup_2_391_L_0 U-KAED=0.36726 LeftWall_32
CHANGE 2sup-Sabbiaconghiaiasup_2_391_L_0 U-KAEW=0.43651 LeftWall_32
CHANGE 2sup-Sabbiaconghiaiasup_2_391_L_0 U-KPED=5.1027 LeftWall_32
CHANGE 2sup-Sabbiaconghiaiasup_2_391_L_0 U-KPEW=4.7239 LeftWall_32
CHANGE 2sup-Sabbiaconghiaiasup_2_391_L_0 D-KAED=0.33845 LeftWall_32
CHANGE 2sup-Sabbiaconghiaiasup_2_391_L_0 D-KAEW=0.40975 LeftWall_32
CHANGE 2sup-Sabbiaconghiaiasup_2_391_L_0 D-KPED=4.59 LeftWall_32
CHANGE 2sup-Sabbiaconghiaiasup_2_391_L_0 D-KPEW=4.2011 LeftWall_32
CHANGE 2inf-Sabbiaconghiaiainf_207591_195609_L_0 U-KAED=0.33997 LeftWall_32
CHANGE 2inf-Sabbiaconghiaiainf_207591_195609_L_0 U-KAEW=0.40608 LeftWall_32
CHANGE 2inf-Sabbiaconghiaiainf_207591_195609_L_0 U-KPED=5.8278 LeftWall_32
CHANGE 2inf-Sabbiaconghiaiainf_207591_195609_L_0 U-KPEW=5.4144 LeftWall_32
CHANGE 2inf-Sabbiaconghiaiainf_207591_195609_L_0 D-KAED=0.31373 LeftWall_32
CHANGE 2inf-Sabbiaconghiaiainf_207591_195609_L_0 D-KAEW=0.38123 LeftWall_32
CHANGE 2inf-Sabbiaconghiaiainf_207591_195609_L_0 D-KPED=5.2441 LeftWall_32
CHANGE 2inf-Sabbiaconghiaiainf_207591_195609_L_0 D-KPEW=4.821 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 U-KAED=0.45435 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 U-KAEW=0.5236 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 U-KPED=3.4837 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 U-KPEW=3.2056 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 D-KAED=0.41451 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 D-KAEW=0.48486 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 D-KPED=3.1031 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 D-KPEW=2.815 LeftWall_32
EQK USER 0.0986 0.0493 -0.0493 0 0.5 0 0.5 0 0
* Defining seismic surcharge pressures on wall LeftWall_32
*   min elevation = -6
*   max elevation = 0
*   average gamma = 19.33333333333333
*   kh = 0.0986
*   deltaQ = 68.6256
DLOAD step LeftWall_32 -6 11.438 0 11.438
* Include pressure contribution from wall: LeftWall_32
* Include wall contribution
DLOAD step LeftWall_32 -6 2.1445 0 2.1445
LOAD constant LeftWall_32 -2.25 1 445
ENDSTEP

```

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

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## Design Assumption : NTC2018: SISMICA GEO - File di Paratie - File di input (.d)

```
* PARATIE ANALYSIS FOR DESIGN SECTION:Base Design Section USING ASSUMPTION: NTC2018: SISMICA GEO
* Time:lunedì 31 gennaio 2022 12:17:32
* 1: Defining general settings
UNIT m kN
TITLE New Project
DELTA 0.2
option param itemax 40
option control hinges 0 0.0001 0.001

* 2: Defining wall(s)
WALL LeftWall_32 0 -28 0 1

* 3: Defining surfaces for wall(s)
SOIL 0_L LeftWall_32 -28 0 1 0
SOIL 0_R LeftWall_32 -28 0 2 180

* 4: Defining soil layers
*
* Soil Profile (Rilevato_17359_8_L_0)
*
LDATA Rilevato_17359_8_L_0 0 LeftWall_32
ATREST 0.426 0.5 1
WEIGHT 19 9 10
PERMEABILITY 0.0001
RESISTANCE 0 35 0 0 0
KSCALE 0 0
YOUNG 40000 64000
ENDL
*
* Soil Profile (1-Riporto_177_107603_L_0)
*
LDATA 1-Riporto_177_107603_L_0 -3 LeftWall_32
ATREST 0.485 0.5 1
WEIGHT 19 9 10
PERMEABILITY 0.0001
RESISTANCE 0 31 0 0 0
KSCALE 0 0
YOUNG 10000 16000
ENDL
*
* Soil Profile (2sup-Sabbiaconghiaiasup_2_391_L_0)
*
LDATA 2sup-Sabbiaconghiaiasup_2_391_L_0 -4 LeftWall_32
ATREST 0.455 0.5 1
WEIGHT 20 10 10
PERMEABILITY 0.0001
RESISTANCE 0 33 0 0 0
KSCALE 0 0
YOUNG 35000 56000
ENDL
*
* Soil Profile (2inf-Sabbiaconghiaiainf_207591_195609_L_0)
*
LDATA 2inf-Sabbiaconghiaiainf_207591_195609_L_0 -15 LeftWall_32
ATREST 0.426 0.5 1
WEIGHT 20 10 10
PERMEABILITY 0.0001
RESISTANCE 0 35 0 0 0
KSCALE 0 0
YOUNG 40000 64000
ENDL
*
* Soil Profile (3sup-Limosabbiosoghiaios_103517_195610_L_0)
*
LDATA 3sup-Limosabbiosoghiaios_103517_195610_L_0 -20 LeftWall_32
ATREST 0.546 0.5 1
WEIGHT 21 11 10
PERMEABILITY 0.0001
RESISTANCE 0 27 0 0 0
KSCALE 0 0
YOUNG 12500 20000
ENDL
```

Ponte stradale su Torrente Giustenice  
Relazione di calcolo spalle

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\* 5: Defining structural materials  
\* Concrete material: 106 Name=C25/30 E=31475800 kPa  
MATERIAL C2530\_106 3.1476E+07

\* 6: Defining structural elements  
\* 6.1: Beams and combined Wall Elements  
BEAM WallElement\_33 LeftWall\_32 -28 0 C2530\_106 0.97944 00 00 0

\* 6.2: Supports

CELA Spring\_3320 LeftWall\_32 -2.25 52000 0 1 1

\* 6.3: Strips  
STRIP LeftWall\_32 8 9 0.6 14.4 0 20 45

\* 7: Defining Steps  
STEP Condizionegeostatica\_31  
CHANGE Rilevato\_17359\_8\_L\_0 U-FRICT=35 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-FRICT=35 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-KA=0.271 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-KP=5.879 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-KA=0.271 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-KP=5.879 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 U-FRICT=31 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 D-FRICT=31 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 U-KA=0.32 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 U-KP=4.555 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 D-KA=0.32 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 D-KP=4.555 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-FRICT=33 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-FRICT=33 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-KA=0.295 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-KP=5.16 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-KA=0.295 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-KP=5.16 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-FRICT=35 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-FRICT=35 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-KA=0.271 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-KP=5.879 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-KA=0.271 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-KP=5.879 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-FRICT=27 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-FRICT=27 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KA=0.371 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KP=3.554 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KA=0.371 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=3.554 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-ADHES=0 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE 1-Ripporto\_177\_107603\_L\_0 D-ADHES=0 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE 2sup-Sabbiaconghiaiasup\_2\_391\_L\_0 D-ADHES=0 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE 2inf-Sabbiaconghiaiainf\_207591\_195609\_L\_0 D-ADHES=0 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-COHE=0 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-ADHES=0 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-COHE=0 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-ADHES=0 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -1.5 -1.5  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0

**Ponte stradale su Torrente Giustenice**  
**Relazione di calcolo spalle**

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ADD WallElement\_33  
ENDSTEP

STEP Cordolo\_197430  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KA=0.37 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KP=3.548 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KA=0.37 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=3.548 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -3 -3  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ADD Spring\_3320  
ENDSTEP

STEP -1m\_198657  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=3.543 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -3 -4  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP -2m\_198911  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KA=0.369 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=3.538 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -3 -5  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP -3m\_199165  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 D-KP=3.532 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -3 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP Rinterro1\_199927  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KA=0.371 LeftWall\_32  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KP=3.554 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM -1.5 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP Rinterro2\_200181  
CHANGE 3sup-Limosabbiosoghiaios\_103517\_195610\_L\_0 U-KP=3.559 LeftWall\_32  
SETWALL LeftWall\_32  
GEOM 0 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
ENDSTEP

STEP Acc\_200689  
SETWALL LeftWall\_32  
GEOM 0 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
LOAD constant LeftWall\_32 -2.25 1 115  
ENDSTEP

STEP Sisma\_201425  
SETWALL LeftWall\_32  
GEOM 0 -6  
SURCHARGE 0 0 0 0  
WATER -8 0 -28 0 0  
CHANGE Rilevato\_17359\_8\_L\_0 U-KAED=0.33997 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-KAEW=0.41342 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-KPED=5.8278 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 U-KPEW=5.3651 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-KAED=0.31373 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-KAEW=0.38979 LeftWall\_32  
CHANGE Rilevato\_17359\_8\_L\_0 D-KPED=5.2441 LeftWall\_32

Ponte stradale su Torrente Giustenice

Relazione di calcolo spalle

COMMESSA	LOTTO	FASE-ENTE	DOCUMENTO	REV.	FOGLIO
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```

CHANGE Rilevato_17359_8_L_0 D-KPEW=4.7697 LeftWall_32
CHANGE 1-Riporto_177_107603_L_0 U-KAED=0.39664 LeftWall_32
CHANGE 1-Riporto_177_107603_L_0 U-KAEW=0.47743 LeftWall_32
CHANGE 1-Riporto_177_107603_L_0 U-KPED=4.4921 LeftWall_32
CHANGE 1-Riporto_177_107603_L_0 U-KPEW=4.0986 LeftWall_32
CHANGE 1-Riporto_177_107603_L_0 D-KAED=0.36602 LeftWall_32
CHANGE 1-Riporto_177_107603_L_0 D-KAEW=0.44968 LeftWall_32
CHANGE 1-Riporto_177_107603_L_0 D-KPED=4.0395 LeftWall_32
CHANGE 1-Riporto_177_107603_L_0 D-KPEW=3.6355 LeftWall_32
CHANGE 2sup-Sabbiaconghiaiasup_2_391_L_0 U-KAED=0.36726 LeftWall_32
CHANGE 2sup-Sabbiaconghiaiasup_2_391_L_0 U-KAEW=0.43651 LeftWall_32
CHANGE 2sup-Sabbiaconghiaiasup_2_391_L_0 U-KPED=5.1027 LeftWall_32
CHANGE 2sup-Sabbiaconghiaiasup_2_391_L_0 U-KPEW=4.7239 LeftWall_32
CHANGE 2sup-Sabbiaconghiaiasup_2_391_L_0 D-KAED=0.33845 LeftWall_32
CHANGE 2sup-Sabbiaconghiaiasup_2_391_L_0 D-KAEW=0.40975 LeftWall_32
CHANGE 2sup-Sabbiaconghiaiasup_2_391_L_0 D-KPED=4.59 LeftWall_32
CHANGE 2sup-Sabbiaconghiaiasup_2_391_L_0 D-KPEW=4.2011 LeftWall_32
CHANGE 2inf-Sabbiaconghiaiainf_207591_195609_L_0 U-KAED=0.33997 LeftWall_32
CHANGE 2inf-Sabbiaconghiaiainf_207591_195609_L_0 U-KAEW=0.40608 LeftWall_32
CHANGE 2inf-Sabbiaconghiaiainf_207591_195609_L_0 U-KPED=5.8278 LeftWall_32
CHANGE 2inf-Sabbiaconghiaiainf_207591_195609_L_0 U-KPEW=5.4144 LeftWall_32
CHANGE 2inf-Sabbiaconghiaiainf_207591_195609_L_0 D-KAED=0.31373 LeftWall_32
CHANGE 2inf-Sabbiaconghiaiainf_207591_195609_L_0 D-KAEW=0.38123 LeftWall_32
CHANGE 2inf-Sabbiaconghiaiainf_207591_195609_L_0 D-KPED=5.2441 LeftWall_32
CHANGE 2inf-Sabbiaconghiaiainf_207591_195609_L_0 D-KPEW=4.821 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 U-KAED=0.45435 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 U-KAEW=0.5236 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 U-KPED=3.4837 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 U-KPEW=3.2056 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 D-KAED=0.41451 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 D-KAEW=0.48486 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 D-KPED=3.1031 LeftWall_32
CHANGE 3sup-Limosabbiosoghiaios_103517_195610_L_0 D-KPEW=2.815 LeftWall_32
EQK USER 0.0986 0.0493 -0.0493 0 0.5 0 0.5 0 0
* Defining seismic surcharge pressures on wall LeftWall_32
*   min elevation = -6
*   max elevation = 0
*   average gamma = 19.33333333333333
*   kh = 0.0986
*   deltaQ = 68.6256
DLOAD step LeftWall_32 -6 11.438 0 11.438
* Include pressure contribution from wall: LeftWall_32
* Include wall contribution
DLOAD step LeftWall_32 -6 2.1445 0 2.1445
LOAD constant LeftWall_32 -2.25 1 445
ENDSTEP

```