

COMMITTENTE:



DIREZIONE LAVORI:



APPALTATORE:



PROGETTAZIONE:

MANDATARIA:

MANDANTI:



IL DIRETTORE DELLA PROGETTAZIONE:

Ing. L. LACOPO

Responsabile integrazione fra le varie prestazioni specialistiche



PROGETTO ESECUTIVO

**ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO - BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO**

INFRASTRUTTURA DI LINEA

TR16

Muri di Sostegno in SX e DX dal km 37+311 a pk 37+616

Allegato di calcolo Muro tipo 7

APPALTATORE		SCALA:
IL DIRETTORE TECNICO Ing. M. FERRONI		-

COMMESSA LOTTO FASE ENTE TIPO DOC. OPERA/DISCIPLINA PROGR. REV.

IF2R 22 E ZZ CL TR1605 009 A

Rev.	Descrizione	Redatto	Data	Verificato	Data	Approvato	Data	Autorizzato Data
A	EMISSIONE	C. Pinti	22/10/21	G. Coppa	22/10/21	L. Bruzzone	23/10/21	IL PROGETTISTA F. DI IULIO
								 31/10/21

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1 ALLEGATO DI CALCOLO – MURO TIPO 7 $4,0 \leq H_{PARAMENTO} \leq 4,5$ M:.. 2

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1 ALLEGATO DI CALCOLO – MURO TIPO 7 $4,0 \leq H_{PARAMENTO} \leq 4,5$ M:

Dati

Materiali

Simbologia adottata

n°	Indice materiale
Descr	Descrizione del materiale
Calcestruzzo armato	
C	Classe di resistenza del cls
A	Classe di resistenza dell'acciaio
γ	Peso specifico, espresso in [kN/mc]
R _{ck}	Resistenza caratteristica a compressione, espressa in [kPa]
E	Modulo elastico, espresso in [kPa]
ν	Coeff. di Poisson
n	Coeff. di omogenizzazione acciaio/cls
ntc	Coeff. di omogenizzazione cls tesato/compresso

Calcestruzzo armato

n°	Descr	C	A	γ [kN/mc]	R _{ck} [kPa]	E [kPa]	ν	n	ntc
1	C32/40	C32/40	B450C	24.5170	40000	33642648	0.30	15.00	0.50
2	Materiale tiranti	Rck 250	Precomp	24.5170	24517	30073438	0.30	15.00	0.50
4	C28/35	C28/35	Precomp	24.5170	35000	32587986	0.30	15.00	0.50
5	C25/30	C25/30	Precomp	24.5170	30000	31447048	0.30	15.00	0.50

Acciai

Descr	f _{yk} [kPa]	f _{uk} [kPa]
B450C	450000	540000
Precomp	1569089	1863293

Tipologie pali

Simbologia adottata

n°	Indice tipologia palo
Descr	Descrizione tipologia palo
P	Contributo portanza palo (laterale e/o punta)
T	Tecnologia costruttiva (trivellato, infisso o elica continua)
V	Vincolo palo-fondazione: Cerniera o Incastro (libero o impedito di ruotare in testa)
Imat	Indice materiale che lo costituisce
BD	usa metodo di Bustamante-Doix
PN	Portanza nota
Pp, PI	Portanza di punta e laterale caratteristica, espressa in [kN]

n°	Descr	P	T	V	Imat	BD	PN	Pp	PI
1	Tipologia palo	Laterale + Punta	Trivellato	Incastro	5	NO	NO	--	--

Geometria profilo terreno a monte del muro

Simbologia adottata

(Sistema di riferimento con origine in testa al muro, ascissa X positiva verso monte, ordinata Y positiva verso l'alto)

n°	numero ordine del punto
X	ascissa del punto espressa in [m]
Y	ordinata del punto espressa in [m]
A	inclinazione del tratto espressa in [°]

n°	X [m]	Y [m]	A [°]
1	0.20	-3.00	0.000
2	30.00	-3.00	0.000

Inclinazione terreno a valle del muro rispetto all'orizzontale 0.000 [°]

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Falda

Simbologia adottata

(Sistema di riferimento con origine in testa al muro, ascissa X positiva verso monte, ordinata Y positiva verso l'alto)

n°	numero ordine del punto
X	ascissa del punto espressa in [m]
Y	ordinata del punto espressa in [m]
A	inclinazione del tratto espressa in [°]

n°	X [m]	Y [m]	A [°]
1	-5.00	-17.40	0.000
2	-0.70	-17.40	0.000
3	10.00	-17.40	0.000
4	15.00	-17.40	0.000
5	30.00	-17.40	0.000

Geometria muro

Geometria paramento e fondazione

Lunghezza muro 12.00 [m]

Paramento

Materiale C32/40
Altezza paramento 4.50 [m]
Altezza paramento libero 4.30 [m]

Geometria gradoni

Simbologia adottata

n°	indice gradone (a partire dall'alto)
Bs, Bi	Base superiore ed inferiore del gradone, espressa in [m]
H	altezza del gradone, espressa in [m]
Ae, Ai	inclinazione esterna ed interna del gradone espressa in [°]

n°	X [m]	Bs [m]	Bi [m]	H [m]	Ae [°]	Ai [°]
1	0.00	0.70	0.70	2.50	0.00	0.00
2	0.20	0.90	0.90	2.00	0.00	0.00

Fondazione

Materiale C28/35
Lunghezza mensola di valle 1.20 [m]
Lunghezza mensola di monte 1.90 [m]
Lunghezza totale 4.00 [m]
Inclinazione piano di posa 0.00 [°]
Spessore 1.00 [m]
Spessore magrone 0.15 [m]

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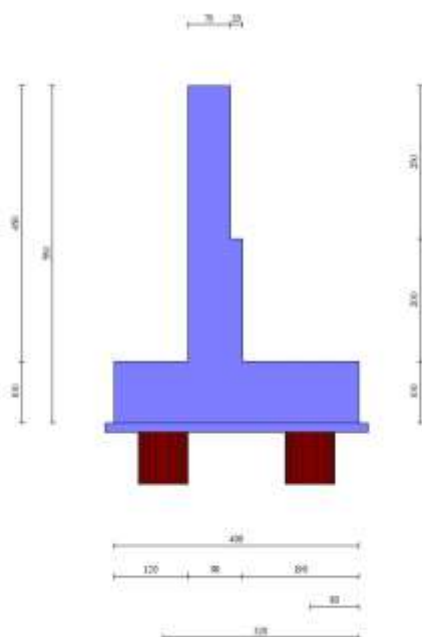


Fig. 1 - Sezione quotata del muro

Descrizione pali di fondazione

Simbologia adottata

n°	numero d'ordine della fila
X	ascissa della fila misurata dallo spigolo di monte della fondazione espressa in [m]
I	interasse tra i pali, espressa in [m]
f	franco laterale (distanza minima dal bordo laterale), espressa in [m]
Np	Numero di pali della fila
D	diametro dei pali della fila espresso in [cm]
L	lunghezza dei pali della fila espressa in [m]
α	inclinazione dei pali della fila rispetto alla verticale espressa in [°]
ALL	allineamento dei pali della fila rispetto al baricentro della fondazione (CENTRATI o SFALSATI)

n°	Tipologia	X [m]	I [m]	f [m]	Np	D [cm]	L [m]	α [°]	ALL
1	Tipologia palo	0.80	2.40	0.80	5	80.00	8.00	0.00	Centrati
2	Tipologia palo	3.20	2.40	0.80	5	80.00	8.00	0.00	Centrati

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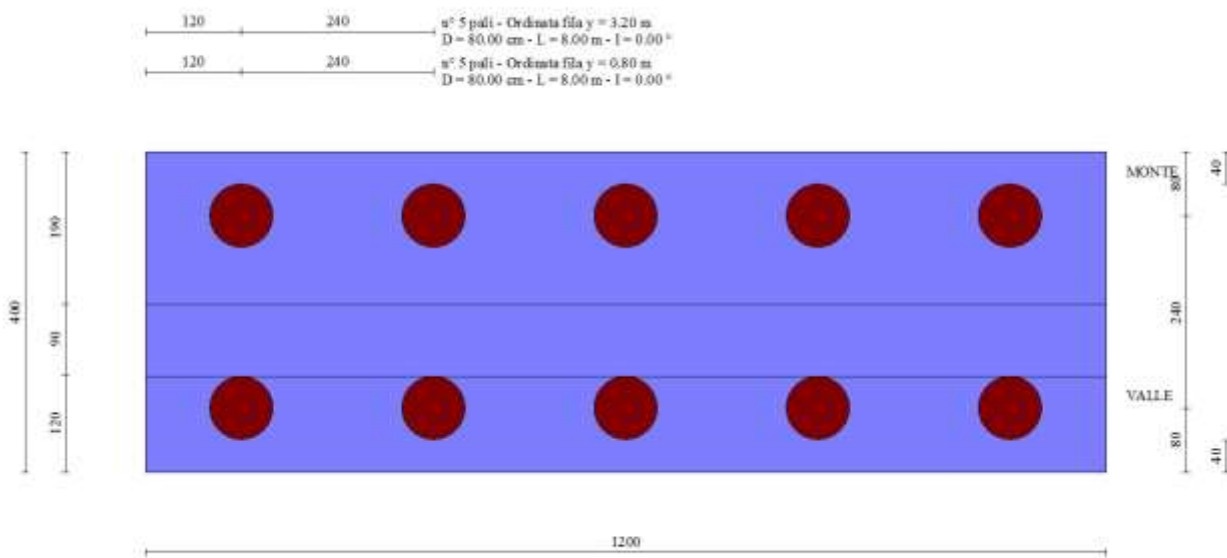


Fig. 2 - Pianta pali

Descrizione terreni

Parametri di resistenza

Simbologia adottata

n°	Indice del terreno
Descr	Descrizione terreno
γ	Peso di volume del terreno espresso in [kN/mc]
γ_s	Peso di volume saturo del terreno espresso in [kN/mc]
ϕ	Angolo d'attrito interno espresso in [°]
δ	Angolo d'attrito terra-muro espresso in [°]
c	Coesione espressa in [kPa]
c_a	Adesione terra-muro espressa in [kPa]
Per calcolo portanza con il metodo di Bustamante-Doix	
Cesp	Coeff. di espansione laterale (solo per il metodo di Bustamante-Doix)
τ_l	Tensione tangenziale limite, espressa in [kPa]

n°	Descr	γ [kN/mc]	γ_{sat} [kN/mc]	ϕ [°]	δ [°]	c [kPa]	c_a [kPa]	Cesp	τ_l [kPa]	
1	RILEVATO FERROVIARIO	20.0000	20.0000	38.000	0.000	0	0	1.000	0	(CAR)
				38.000	0.000	0	0			(MIN)
				38.000	0.000	0	0			(MED)
2	bc1	19.5000	19.5000	34.000	34.000	0	0	1.000	0	(CAR)
				34.000	34.000	0	0			(MIN)
				34.000	34.000	0	0			(MED)
3	bc3	19.5000	19.5000	25.000	25.000	5	2	1.000	0	(CAR)
				25.000	25.000	5	2			(MIN)
				25.000	25.000	5	2			(MED)
4	bn1	20.0000	20.0000	34.000	34.000	0	0	1.000	0	(CAR)
				34.000	34.000	0	0			(MIN)
				34.000	34.000	0	0			(MED)
5	MDL1	20.0000	20.0000	38.000	38.000	0	0	1.000	0	(CAR)
				38.000	38.000	0	0			(MIN)
				38.000	38.000	0	0			(MED)

Stratigrafia

Simbologia adottata

n°	Indice dello strato
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H Spessore dello strato espresso in [m]
 α Inclinazione espressa in [°]
 Terreno Terreno dello strato
 Kwn, Kwt Costante di Winkler normale e tangenziale alla superficie espressa in Kg/cm²/cm
 Per calcolo pali (solo se presenti)
 Kw Costante di Winkler orizzontale espressa in Kg/cm²/cm
 Ks Coefficiente di spinta
 Cesp Coefficiente di espansione laterale (per tutti i metodi tranne il metodo di Bustamante-Doix)

Per calcolo della spinta con coeff. di spinta definiti (usati solo se attiva l'opzione 'Usa coeff. di spinta da strato')
 Kststa, Kstsis Coeff. di spinta statico e sismico

n°	H [m]	α [°]	Terreno	Kwn [Kg/cm ²]	Kwt [Kg/cm ²]	Kw [Kg/cm ²]	Ks	Cesp	Kststa	Kstsis
1	5.50	0.000	RILEVATO FERROVIARIO	0.000	0.000	1.000	0.000	1.000	---	---
2	2.00	0.000	bc3	0.000	0.000	10.000	0.400	1.000	---	---
3	2.00	0.000	bc1	0.000	0.000	10.000	0.400	1.000	---	---
4	20.00	0.000	bn1	0.000	0.000	8.000	0.400	1.000	---	---

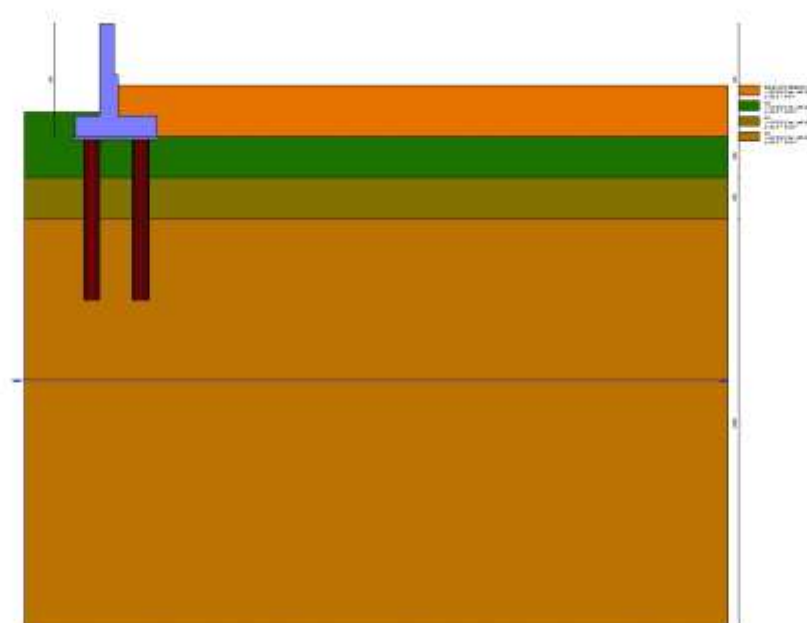


Fig. 3 - Stratigrafia

Condizioni di carico

Simbologia adottata

Carichi verticali positivi verso il basso.
 Carichi orizzontali positivi verso sinistra.
 Momento positivo senso antiorario.

X Ascissa del punto di applicazione del carico concentrato espressa in [m]
 Fx Componente orizzontale del carico concentrato espressa in [kN]
 Fy Componente verticale del carico concentrato espressa in [kN]
 M Momento espresso in [kNm]
 Xi Ascissa del punto iniziale del carico ripartito espressa in [m]
 Xf Ascissa del punto finale del carico ripartito espressa in [m]
 Qi Intensità del carico per x=Xi espressa in [kN]
 Qf Intensità del carico per x=Xf espressa in [kN]

Condizione n° 1 (PESO BA) - PERMANENTE

Carichi sul muro

n°	Tipo	Dest	X; Y [m]	Fx [kN]	Fy [kN]	M [kNm]	Xi [m]	Xf [m]	Qi [kN]	Qf [kN]
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n°	Tipo	Dest	X; Y [m]	Fx [kN]	Fy [kN]	M [kNm]	Xi [m]	Xf [m]	Qi [kN]	Qf [kN]
1	Concentrato	Paramento	-0.35; 0.00	0.0000	5.0000	0.0000				

Condizione n° 2 (BALLAST+ARMAMENTO+MARCIPIEDE) - PERMANENTE

Carichi sul terreno

n°	Tipo	X [m]	Fx [kN]	Fy [kN]	M [kNm]	Xi [m]	Xf [m]	Qi [kN]	Qf [kN]
1	Distribuito					0.30	3.55	5.6000	5.6000
2	Distribuito					3.35	8.00	14.4000	14.4000

Condizione n° 3 (LM71) - VARIABILE TF

Coeff. di combinazione $\Psi_0=1.00 - \Psi_1=0.75 - \Psi_2=0.20$

Carichi sul terreno

n°	Tipo	X [m]	Fx [kN]	Fy [kN]	M [kNm]	Xi [m]	Xf [m]	Qi [kN]	Qf [kN]
1	Distribuito					3.35	8.00	57.2900	57.2900

Condizione n° 4 (VENTO+PA) - VARIABILE TF

Coeff. di combinazione $\Psi_0=1.00 - \Psi_1=0.75 - \Psi_2=0.00$

Carichi sul muro

n°	Tipo	Dest	X; Y [m]	Fx [kN]	Fy [kN]	M [kNm]	Xi [m]	Xf [m]	Qi [kN]	Qf [kN]
1	Concentrato	Paramento	-0.35; 0.00	7.0000	0.0000	2.0000				

Condizione n° 5 (INERZIA BARRIERA) - VARIABILE

Coeff. di combinazione $\Psi_0=1.00 - \Psi_1=1.00 - \Psi_2=1.00$

Normativa

Normativa usata: **Norme Tecniche sulle Costruzioni 2008 (D.M. 14.01.2008) - Approccio 2 + Circolare C.S.LL.PP. 02/02/2009 n.617**

Coeff. parziali per le azioni o per l'effetto delle azioni

Carichi	Effetto		Combinazioni statiche					Combinazioni sismiche			
			HYD	UPL	EQU	A1	A2	EQU	A1	A2	
Permanenti strutturali	Favorevoli	$\gamma_{G1,fav}$	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Permanenti strutturali	Sfavorevoli	$\gamma_{G1,sfav}$	1.00	1.10	1.30	1.30	1.00	1.00	1.00	1.00	1.00
Permanenti non strutturali	Favorevoli	$\gamma_{G2,fav}$	0.00	0.80	0.80	0.80	0.80	0.80	0.00	0.00	0.00
Permanenti non strutturali	Sfavorevoli	$\gamma_{G2,sfav}$	1.00	1.50	1.50	1.50	1.30	1.00	1.00	1.00	1.00
Variabili	Favorevoli	$\gamma_{Q,fav}$	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Variabili	Sfavorevoli	$\gamma_{Q,sfav}$	1.00	1.50	1.50	1.50	1.30	1.00	1.00	1.00	1.00
Variabili da traffico	Favorevoli	$\gamma_{QT,fav}$	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Variabili da traffico	Sfavorevoli	$\gamma_{QT,sfav}$	1.00	1.50	1.45	1.45	1.15	1.00	1.00	1.00	1.00

Coeff. parziali per i parametri geotecnici del terreno

Parametro		Combinazioni statiche		Combinazioni sismiche	
		M1	M2	M1	M2
Tangente dell'angolo di attrito	$\gamma_{\tan(\phi)}$	1.00	1.25	1.00	1.00
Coesione efficace	γ_c	1.00	1.25	1.00	1.00
Resistenza non drenata	γ_{cu}	1.00	1.40	1.00	1.00
Peso nell'unità di volume	γ_r	1.00	1.00	1.00	1.00

Coeff. parziali γ_R per le verifiche agli stati limite ultimi STR e GEO

Verifica	Combinazioni statiche			Combinazioni sismiche		
	R1	R2	R3	R1	R2	R3
Capacità portante	--	--	1.40	--	--	1.20
Scorrimento	--	--	1.10	--	--	1.00
Resistenza terreno a valle	--	--	1.40	--	--	1.20
Ribaltamento	--	--	1.15	--	--	1.00
Stabilità fronte di scavo	--	1.10	--	--	1.20	--

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Carichi verticali. Coeff. parziali γ_R da applicare alle resistenze caratteristiche

Resistenza		Pali infissi			Pali trivellati			Pali ad elica continua		
		R1	R2	R3	R1	R2	R3	R1	R2	R3
Punta	γ_b	--	--	1.15	--	--	1.35	--	--	1.30
Laterale compressione	γ_s	--	--	1.15	--	--	1.15	--	--	1.15
Totale compressione	γ_t	--	--	1.15	--	--	1.30	--	--	1.25
Laterale trazione	γ_{st}	--	--	1.25	--	--	1.25	--	--	1.25

Carichi trasversali. Coeff. parziali γ_R da applicare alle resistenze caratteristiche

		R1	R2	R3
Trasversale	γ_t	--	--	1.30

Coefficienti di riduzione ζ per la determinazione della resistenza caratteristica dei pali

Numero di verticali indagate 1

$\zeta_3=1.70$ $\zeta_4=1.70$

Descrizione combinazioni di carico

Con riferimento alle azioni elementari prima determinate, si sono considerate le seguenti combinazioni di carico:

- Combinazione fondamentale, impiegata per gli stati limite ultimi (SLU):

$$\gamma_{G1} G_1 + \gamma_{G2} G_2 + \gamma_{Q1} Q_{k1} + \gamma_{Q2} Q_{k2} + \gamma_{Q3} Q_{k3} + \dots$$

- Combinazione caratteristica, cosiddetta rara, impiegata per gli stati limite di esercizio (SLE) irreversibili:

$$G_1 + G_2 + Q_{k1} + \Psi_{0,2} Q_{k2} + \Psi_{0,3} Q_{k3} + \dots$$

- Combinazione frequente, impiegata per gli stati limite di esercizio (SLE) reversibili:

$$G_1 + G_2 + \Psi_{1,1} Q_{k1} + \Psi_{2,2} Q_{k2} + \Psi_{2,3} Q_{k3} + \dots$$

- Combinazione quasi permanente, impiegata per gli effetti di lungo periodo:

$$G_1 + G_2 + \Psi_{2,1} Q_{k1} + \Psi_{2,2} Q_{k2} + \Psi_{2,3} Q_{k3} + \dots$$

- Combinazione sismica, impiegata per gli stati limite ultimi connessi all'azione sismica E:

$$E + G_1 + G_2 + \Psi_{2,1} Q_{k1} + \Psi_{2,2} Q_{k2} + \Psi_{2,3} Q_{k3} + \dots$$

I valori dei coeff. $\Psi_{0,j}$, $\Psi_{1,j}$, $\Psi_{2,j}$ sono definiti nelle singole condizioni variabili. per I valori dei coeff. γ_G e γ_Q , sono definiti nella tabella normativa.

In particolare si sono considerate le seguenti combinazioni:

Simbologia adottata

γ Coefficiente di partecipazione della condizione
 Ψ Coefficiente di combinazione della condizione

Combinazione n° 1 - STR (A1-M1-R3)

Condizione	γ	Ψ	Effetto
Peso muro	1.00	--	Favorevole
Peso terrapieno	1.00	--	Favorevole
Spinta terreno	1.30	--	Sfavorevole
PESO BA	1.30	--	Sfavorevole
BALLAST+ARMAMENTO+MARCIAPIEDE	1.30	--	Sfavorevole
LM71	1.45	1.00	Sfavorevole
VENTO+PA	1.45	1.00	Sfavorevole

Combinazione n° 2 - STR (A1-M1-R3) H

Condizione	γ	Ψ	Effetto
Peso muro	1.00	--	Favorevole
Peso terrapieno	1.00	--	Favorevole
Spinta terreno	1.00	--	Sfavorevole

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Condizione	γ	Ψ	Effetto
PESO BA	1.00	--	Sfavorevole
BALLAST+ARMAMENTO+MARCIPIEDE	1.00	--	Sfavorevole
LM71	1.00	0.20	Sfavorevole

Combinazione n° 3 - GEO (A2-M2-R2)

Condizione	γ	Ψ	Effetto
Peso muro	1.00	--	Sfavorevole
Peso terrapieno	1.00	--	Sfavorevole
Spinta terreno	1.00	--	Sfavorevole
PESO BA	1.00	--	Sfavorevole
BALLAST+ARMAMENTO+MARCIPIEDE	1.00	--	Sfavorevole
LM71	1.15	1.00	Sfavorevole
VENTO+PA	1.15	1.00	Sfavorevole

Combinazione n° 4 - GEO (A2-M2-R2) H

Condizione	γ	Ψ	Effetto
Peso muro	1.00	--	Sfavorevole
Peso terrapieno	1.00	--	Sfavorevole
Spinta terreno	1.00	--	Sfavorevole
PESO BA	1.00	--	Sfavorevole
BALLAST+ARMAMENTO+MARCIPIEDE	1.00	--	Sfavorevole
LM71	1.00	0.20	Sfavorevole

Combinazione n° 5 - SLER

Condizione	γ	Ψ	Effetto
Peso muro	1.00	--	Sfavorevole
Peso terrapieno	1.00	--	Sfavorevole
Spinta terreno	1.00	--	Sfavorevole
PESO BA	1.00	--	Sfavorevole
BALLAST+ARMAMENTO+MARCIPIEDE	1.00	--	Sfavorevole
LM71	1.00	1.00	Sfavorevole
VENTO+PA	1.00	1.00	Sfavorevole

Combinazione n° 6 - SLEF

Condizione	γ	Ψ	Effetto
Peso muro	1.00	--	Sfavorevole
Peso terrapieno	1.00	--	Sfavorevole
Spinta terreno	1.00	--	Sfavorevole
PESO BA	1.00	--	Sfavorevole
BALLAST+ARMAMENTO+MARCIPIEDE	1.00	--	Sfavorevole
LM71	1.00	0.75	Sfavorevole

Combinazione n° 7 - SLEQ

Condizione	γ	Ψ	Effetto
Peso muro	1.00	--	Sfavorevole
Peso terrapieno	1.00	--	Sfavorevole
Spinta terreno	1.00	--	Sfavorevole
PESO BA	1.00	--	Sfavorevole
BALLAST+ARMAMENTO+MARCIPIEDE	1.00	--	Sfavorevole

Combinazione n° 8 - SLEF

Condizione	γ	Ψ	Effetto
Peso muro	1.00	--	Sfavorevole
Peso terrapieno	1.00	--	Sfavorevole
Spinta terreno	1.00	--	Sfavorevole
PESO BA	1.00	--	Sfavorevole
BALLAST+ARMAMENTO+MARCIPIEDE	1.00	--	Sfavorevole
LM71	1.00	0.20	Sfavorevole
VENTO+PA	1.00	0.75	Sfavorevole

Dati sismici

Comune	Ponte
Provincia	Benevento
Regione	Campania
Latitudine	41.213973
Longitudine	14.693540

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Indice punti di interpolazione 31431 - 31653 - 31654 - 31432
Vita nominale 75 anni
Classe d'uso III
Tipo costruzione Normali affollamenti
Vita di riferimento 113 anni

	Simbolo	U.M.	SLU	SLE
Accelerazione al suolo	a_g	[m/s ²]	3.600	1.248
Accelerazione al suolo	a_g/g	[%]	0.367	0.127
Massimo fattore amplificazione spettro orizzontale	F0		2.347	2.332
Periodo inizio tratto spettro a velocità costante	Tc*		0.395	0.326
Tipo di sottosuolo - Coefficiente stratigrafico	Ss		1.055	1.200
Categoria topografica - Coefficiente amplificazione topografica	St		1.000	

Stato limite ...	Coeff. di riduzione β_m	kh	kv
Ultimo	0.620	24.005	12.002
Esercizio	1.000	15.261	7.630

Nel calcolo non è stato portato in conto il sisma verticale
Forma diagramma incremento sismico **Rettangolare**

Opzioni di calcolo

Spinta

Metodo di calcolo della spinta Culmann
Tipo di spinta Spinta a riposo
Terreno a bassa permeabilità NO
Superficie di spinta limitata NO

Stabilità globale

Metodo di calcolo della stabilità globale Bishop

Altro

Partecipazione spinta passiva terreno antistante 0.00
Partecipazione resistenza passiva dente di fondazione 50.00
Componente verticale della spinta nel calcolo delle sollecitazioni NO
Considera terreno sulla fondazione di valle NO
Considera spinta e peso acqua fondazione di valle NO

Spostamenti

Modello a blocchi
Non è stato richiesto il calcolo degli spostamenti
Spostamento limite 5.00 [cm]

Opzioni calcolo pali

Portanza verticale

Metodo di calcolo della portanza alla punta Berezantzev
Metodo di calcolo della portanza alla laterale Integrazione delle tensioni tangenziali ($k_s \sigma_v \tan(\delta) + c_a$)
Correzione angolo di attrito in funzione del tipo di palo (infilso/trivellato) Attiva
Andamento pressione verticale nel calcolo della portanza alla punta σ_v con la profondità Pressione geostatica
Andamento pressione verticale nel calcolo della portanza laterale Pressione geostatica

Portanza trasversale

Costante di Winkler: da stratoCriterio rottura palo-terreno
- Spostamento limite Non attivo
- Pressione limite Pressione passiva con moltiplicatore M=3.00
- Palo infinitamente elastico Non attivo

Cedimenti

Metodo di calcolo Metodo agli elementi finiti
Spostamento limite alla punta 1.00 [cm]
Spostamento limite laterale 0.50 [cm]

Specifiche per le verifiche nelle combinazioni allo Stato Limite Ultimo (SLU)

	SLU	Eccezionale
Coefficiente di sicurezza calcestruzzo a compressione	1.50	1.00
Coefficiente di sicurezza acciaio	1.15	1.00
Fattore di riduzione da resistenza cubica a cilindrica	0.83	0.83

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	SLU	Eccezionale
Fattore di riduzione per carichi di lungo periodo	0.85	0.85
Coefficiente di sicurezza per la sezione	1.00	1.00

Specifiche per le verifiche nelle combinazioni allo Stato Limite di Esercizio (SLE)

Paramento e fondazione muro

Verifiche strutturali nelle combinazioni SLD **non eseguite**. Struttura in classe d'uso III o IV

Condizioni ambientali Aggressive
Armatura ad aderenza migliorata SI

Verifica a fessurazione

Sensibilità armatura Poco sensibile
Metodo di calcolo aperture delle fessure Circ. Min. 252 (15/10/96) - NTC 2008 I Formulazione

Valori limite aperture delle fessure:

$w_1=0.20$
 $w_2=0.30$
 $w_3=0.40$

Verifica delle tensioni

Valori limite delle tensioni nei materiali:

Combinazione	Calcestruzzo	Acciaio
Rara	0.60 f_{ck}	0.80 f_{yk}
Frequente	1.00 f_{ck}	1.00 f_{yk}
Quasi permanente	0.45 f_{ck}	1.00 f_{yk}

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Risultati per inviluppo

Spinta e forze

Simbologia adottata

Ic	Indice della combinazione
A	Tipo azione
I	Inclinazione della spinta, espressa in [°]
V	Valore dell'azione, espressa in [kN]
Cx, Cy	Componente in direzione X ed Y dell'azione, espressa in [kN]
Px, Py	Coordinata X ed Y del punto di applicazione dell'azione, espressa in [m]

Ic	A	V [kN]	I [°]	Cx [kN]	Cy [kN]	Px [m]	Py [m]
2	Spinta statica	28.91	0.00	28.91	0.00	2.10	-4.52
	Incremento di spinta sismica		23.13	23.13	0.00	2.10	-4.25
	Peso/Inerzia muro			44.43	185.10/0.00	-0.09	-3.77
	Peso/Inerzia terrapieno			16.10	67.08/0.00	1.15	-3.75
	Peso dell'acqua sulla fondazione di valle				0.00	0.00	0.00
	Risultante forze sul muro			1.20	5.00	--	--
	Resistenza pali			-414.10			

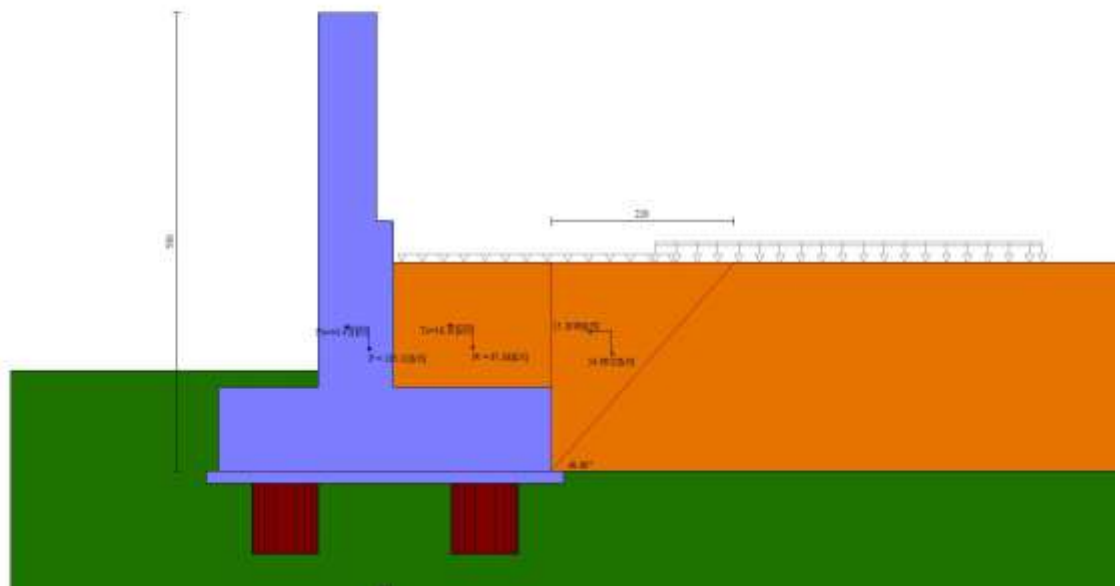


Fig. 4 - Cuneo di spinta (combinazione sismica) (Combinazione n° 2)

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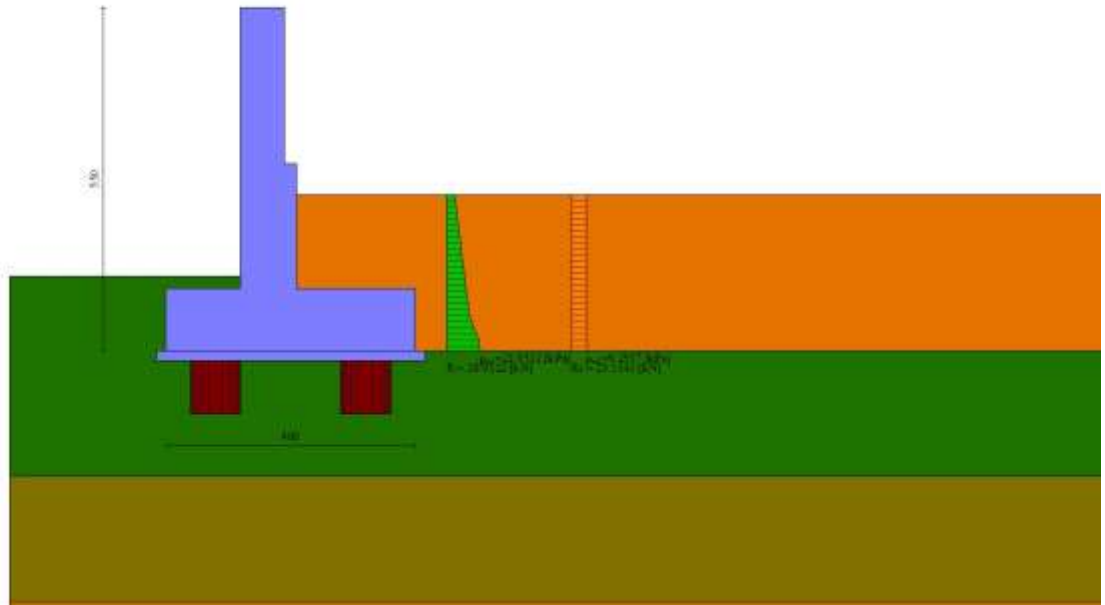


Fig. 5 - Diagramma delle pressioni (combinazione sismica) (Combinazione n° 2)

Risultanti globali

Simbologia adottata

Cmb	Indice/Tipo combinazione
N	Componente normale al piano di posa, espressa in [kN]
T	Componente parallela al piano di posa, espressa in [kN]
M _r	Momento ribaltante, espresso in [kNm]
M _s	Momento stabilizzante, espresso in [kNm]
ecc	Eccentricità risultante, espressa in [m]

Ic	N [kN]	T [kN]	M _r [kNm]	M _s [kNm]	ecc [m]
1 - STR (A1-M1-R3)	261.71	57.13	99.21	559.35	0.242
2 - STR (A1-M1-R3)	257.18	113.78	168.75	547.80	0.526
3 - GEO (A2-M2-R2)	257.18	58.94	89.40	547.80	0.218
4 - GEO (A2-M2-R2)	257.18	113.78	168.75	547.80	0.526
5 - SLER	257.18	42.10	71.18	547.80	0.147
6 - SLEF	257.18	32.93	29.74	547.80	-0.014
7 - SLEQ	257.18	27.98	28.08	547.80	-0.021
8 - SLEF	257.18	34.16	58.70	547.80	0.098

Scarichi in testa ai pali

Simbologia adottata

Cmb	Indice/Tipo combinazione
Ip	Indice palo
N	Sforzo normale, espresso in [kN]
M	Momento, espresso in [kNm]
T	Taglio, espresso in [kN]

Cmb	Ip	N [kN]	M [kNm]	T [kN]
2 - STR (A1-M1-R3) H	1	110.81	-75.00	-136.54
	2	506.43	-75.00	-136.54

Verifiche geotecniche

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Quadro riassuntivo coeff. di sicurezza calcolati

Simbologia adottata

Cmb	Indice/Tipo combinazione
S	Sisma (H: componente orizzontale, V: componente verticale)
FS _{SCO}	Coeff. di sicurezza allo scorrimento
FS _{RIB}	Coeff. di sicurezza al ribaltamento
FS _{QLIM}	Coeff. di sicurezza a carico limite
FS _{STAB}	Coeff. di sicurezza a stabilità globale
FS _{HYD}	Coeff. di sicurezza a sifonamento
FS _{UPL}	Coeff. di sicurezza a sollevamento

Cmb	Sismica	FS _{SCO}	FS _{RIB}	FS _{QLIM}	FS _{STAB}	FS _{HYD}	FS _{UPL}
1 - STR (A1-M1-R3)		6.971					
2 - STR (A1-M1-R3)	H	3.639					
3 - GEO (A2-M2-R2)					5.284		
4 - GEO (A2-M2-R2)	H				3.543		

Verifiche portanza trasversale (scorrimento)

Simbologia adottata

Ic	Indice/Tipo combinazione
Ip	Indice palo
T	Carico orizzontale agente alla testa del palo, espresso in [kN]
Td	Portanza trasversale di progetto, espresso in [kN]
FS _o	Fattore di sicurezza (Td/T)

Ic	Ip	T [kN]	Td [kN]	FS _o
2 - STR (A1-M1-R3) H	1	-136.54	429.88	3.148
	2	-136.54	496.92	3.639

Verifiche portanza verticale

Simbologia adottata

Ic	Indice/Tipo combinazione
Ip	Indice palo
N	Carico verticale agente alla testa del palo, espresso in [kN]
Pd	Portanza di progetto, espresso in [kN]
FS _v	Fattore di sicurezza (Pd/N)

Ic	Ip	N [kN]	Pd [kN]	FS _v
1 - STR (A1-M1-R3)	1	226.46	1441.82	6.367
	2	401.64	1441.82	3.590
2 - STR (A1-M1-R3) H	1	110.81	1441.82	13.012
	2	506.43	1441.82	2.847

Verifica stabilità globale muro + terreno

Simbologia adottata

Ic	Indice/Tipo combinazione
C	Centro superficie di scorrimento, espresso in [m]
R	Raggio, espresso in [m]
FS	Fattore di sicurezza

Ic	C [m]	R [m]	FS
4 - GEO (A2-M2-R2) H	-3.00; 4.50	18.51	3.543

Dettagli strisce verifiche stabilità

Simbologia adottata

Le ascisse X	sono considerate positive verso monte
Le ordinate Y	sono considerate positive verso l'alto
Origine in testa al muro	(spigolo contro terra)
W	peso della striscia espresso in [kN]
Qy	carico sulla striscia espresso in [kN]

APPALTATORE: TELESE S.c.a r.l. Consorzio Telese Società Consortile a Responsabilità Limitata	ITINERARIO NAPOLI – BARI RADDOPPIO TRATTA CANCELLO-BENEVENTO II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO 2° SUBLOTTO TELESE – SAN LORENZO PROGETTO ESECUTIVO												
PROGETTAZIONE: Mandatario: SYSTRA S.A. Mandante: SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.													
Relazione di calcolo IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX	<table border="1"> <tr> <td>COMMESSA</td> <td>LOTTO</td> <td>CODIFICA</td> <td>DOCUMENTO</td> <td>REV.</td> <td>FOGLIO</td> </tr> <tr> <td>IF2R</td> <td>2.2.E.ZZ</td> <td>CL</td> <td>TR.16.0.5.009</td> <td>A</td> <td>15 di 91</td> </tr> </table>	COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO	IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	15 di 91
COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO								
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	15 di 91								

Q_f carico acqua sulla striscia espresso in [kN]
 α angolo fra la base della striscia e l'orizzontale espresso in [°] (positivo antiorario)
 ϕ angolo d'attrito del terreno lungo la base della striscia
 c coesione del terreno lungo la base della striscia espressa in [kPa]
 b larghezza della striscia espressa in [m]
 u pressione neutra lungo la base della striscia espressa in [kPa]
 $T_x; T_y$ Resistenza al taglio fornita dai tiranti in direzione X ed Y espressa in [kPa]

n°	W [kN]	Qy [kN]	Qf [kN]	b [m]	α [°]	ϕ [°]	c [kPa]	u [kPa]	Tx; Ty [kN]
1	32.63	0.00	0.00	13.93 - 1.33	61.577	38.000	0	0.0	
2	88.94	0.00	0.00	1.33	53.959	25.000	5	0.0	
3	131.34	0.00	0.00	1.33	47.419	34.000	0	0.0	
4	165.42	0.00	0.00	1.33	41.624	34.000	0	0.0	
5	193.92	18.48	0.00	1.33	36.318	34.000	0	0.0	
6	217.66	34.36	0.00	1.33	31.354	34.000	0	0.0	
7	237.28	34.36	0.00	1.33	26.643	34.000	0	0.0	
8	253.32	34.44	0.00	1.33	22.120	34.000	0	0.0	
9	265.13	7.44	0.00	1.33	17.738	34.000	0	0.0	
10	282.02	7.44	0.00	1.33	13.463	34.000	0	0.0	
11	348.18	6.91	0.00	1.33	9.262	34.000	0	0.0	
12	259.82	0.00	0.00	1.33	5.112	34.000	0	0.0	
13	254.92	0.00	0.00	1.33	0.988	34.000	0	0.0	
14	254.26	0.00	0.00	1.33	-3.130	34.000	0	0.0	
15	251.04	0.00	0.00	1.33	-7.265	34.000	0	0.0	
16	245.22	0.00	0.00	1.33	-11.438	34.000	0	0.0	
17	236.69	0.00	0.00	1.33	-15.674	34.000	0	0.0	
18	225.31	0.00	0.00	1.33	-20.001	34.000	0	0.0	
19	210.85	0.00	0.00	1.33	-24.451	34.000	0	0.0	
20	193.01	0.00	0.00	1.33	-29.065	34.000	0	0.0	
21	171.33	0.00	0.00	1.33	-33.898	34.000	0	0.0	
22	145.16	0.00	0.00	1.33	-39.026	34.000	0	0.0	
23	114.00	0.00	0.00	1.33	-44.563	34.000	0	0.0	
24	76.01	0.00	0.00	1.33	-50.701	25.000	5	0.0	
25	27.38	0.00	0.00	-19.29 - 1.33	-57.561	25.000	5	0.0	

Resistenza al taglio pali 0.00 [kN]

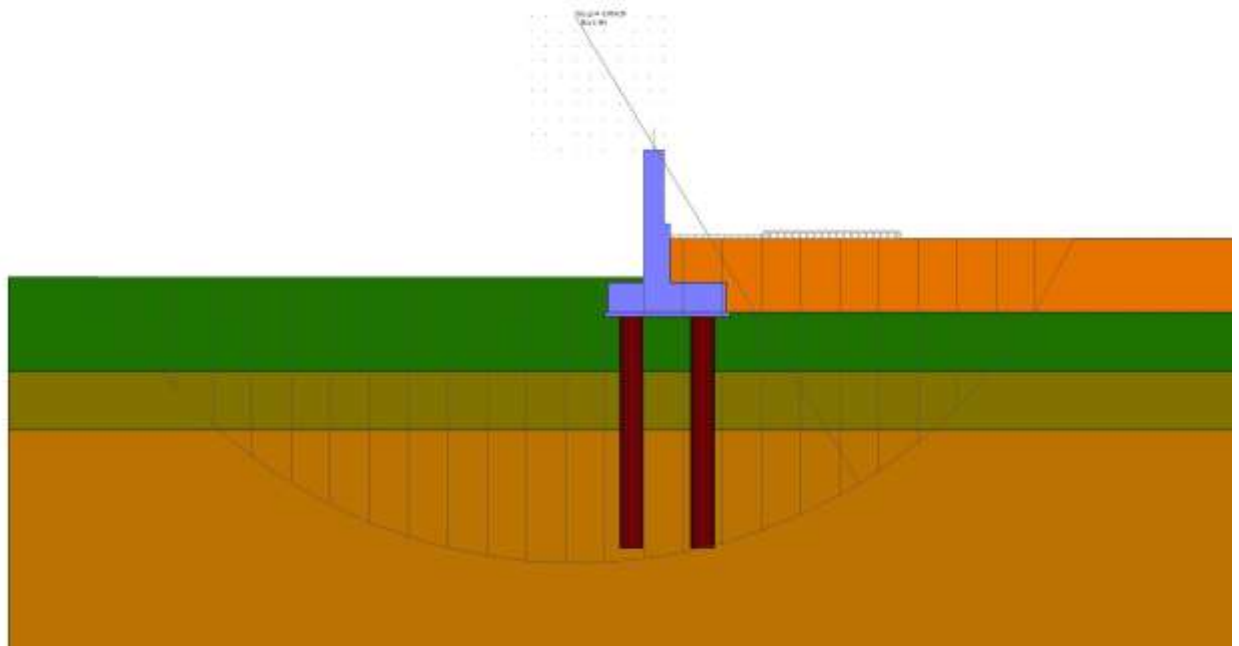


Fig. 6 - Stabilità fronte di scavo - Cerchio critico (Combinazione n° 4)

Sollecitazioni

APPALTATORE: TELESE S.c.a r.l. Consorzio Telese Società Consortile a Responsabilità Limitata	ITINERARIO NAPOLI – BARI RADDOPPIO TRATTA CANCELLO-BENEVENTO II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO 2° SUBLOTTO TELESE – SAN LORENZO					
PROGETTAZIONE: Mandatario: SYSTRA S.A. Mandante: SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.	PROGETTO ESECUTIVO					
Relazione di calcolo IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX	COMMESSA IF2R	LOTTO 2.2.E.ZZ	CODIFICA CL	DOCUMENTO TR.16.0.5.009	REV. A	FOGLIO 16 di 91

Elementi calcolati a trave

Simbologia adottata

- N Sforzo normale, espresso in [kN]. Positivo se di compressione.
T Taglio, espresso in [kN]. Positivo se diretto da monte verso valle
M Momento, espresso in [kNm]. Positivo se tende le fibre contro terra (a monte)

Elementi calcolati a piastra

Simbologia adottata

- Mx, My Momenti flettenti, espresso in [kNm]
Mxy Momento torcente, espresso in [kNm]. Positivo se diretto da monte verso valle
Tx, Ty Tagli, espresso in [kN]. Positivo se tende le fibre contro terra (a monte)
I momenti flettenti sono positivi se tendono le fibre inferiori (intradosso fondazione, paramento esterno)

Paramento

n°	X [m]	Nmin [kN]	Nmax [kN]	Tmin [kN]	Tmax [kN]	Mmin [kNm]	Mmax [kNm]
1	0.00	5.00	6.50	0.00	10.15	0.00	2.90
2	-0.10	6.72	8.22	0.00	10.15	0.00	3.91
3	-0.20	8.43	9.93	0.00	10.15	0.00	4.93
4	-0.30	10.15	11.65	0.00	10.15	0.00	5.94
5	-0.40	11.86	13.36	0.00	10.15	0.00	6.96
6	-0.50	13.58	15.08	0.00	10.15	0.00	7.97
7	-0.60	15.29	16.79	0.00	10.15	0.00	8.99
8	-0.70	17.01	18.51	0.00	10.15	0.00	10.00
9	-0.80	18.72	20.22	0.00	10.15	0.00	11.02
10	-0.90	20.44	21.94	0.00	10.15	0.00	12.03
11	-1.00	22.16	23.66	0.00	10.15	0.00	13.05
12	-1.10	23.87	25.37	0.00	10.15	0.00	14.06
13	-1.20	25.59	27.09	0.00	10.15	0.00	15.08
14	-1.30	27.30	28.80	0.00	10.15	0.00	16.09
15	-1.40	29.02	30.52	0.00	10.15	0.00	17.10
16	-1.50	30.73	32.23	0.00	10.15	0.00	18.12
17	-1.60	32.45	33.95	0.00	10.15	0.00	19.13
18	-1.70	34.16	35.66	0.00	10.15	0.00	20.15
19	-1.80	35.88	37.38	0.00	10.15	0.00	21.16
20	-1.90	37.59	39.09	0.00	10.15	0.00	22.18
21	-2.00	39.31	40.81	0.00	10.15	0.00	23.19
22	-2.10	41.03	42.53	0.00	10.15	0.00	24.21
23	-2.20	42.74	44.24	0.00	10.26	0.00	25.22
24	-2.30	44.46	45.96	0.00	10.67	0.00	26.24
25	-2.40	46.17	47.67	0.00	11.08	0.00	27.25
26	-2.50	47.89	49.39	0.00	11.50	0.00	28.26
27	-2.50	48.93	50.43	0.00	11.74	4.41	32.84
28	-2.60	51.13	52.63	0.00	12.27	4.41	33.86
29	-2.70	53.34	54.84	0.00	12.80	4.41	34.87
30	-2.80	55.54	57.04	0.00	13.33	4.41	35.88
31	-2.90	57.74	59.24	0.00	13.86	4.41	36.90
32	-3.00	59.95	61.45	0.00	14.39	4.41	37.91
33	-3.10	62.15	63.65	0.26	15.62	4.42	38.94
34	-3.20	64.36	65.86	0.61	16.92	4.46	40.01
35	-3.30	66.56	68.06	1.03	18.31	4.54	41.13
36	-3.40	68.76	70.26	1.54	19.77	4.67	42.31
37	-3.50	70.97	72.47	2.10	21.29	4.85	43.56
38	-3.60	73.17	74.67	2.71	22.86	5.09	44.89
39	-3.70	75.38	76.88	3.37	24.48	5.40	46.29
40	-3.80	77.58	79.08	4.07	26.15	5.77	47.79
41	-3.90	79.78	81.28	4.83	27.87	6.21	49.38
42	-4.00	81.99	83.49	5.63	29.63	6.73	51.07
43	-4.10	84.19	85.69	6.48	31.44	7.34	52.87
44	-4.20	86.40	87.90	7.38	33.30	8.03	54.79
45	-4.30	88.60	90.10	8.33	35.21	8.81	57.98
46	-4.30	88.64	90.14	8.35	35.25	8.83	58.05
47	-4.40	90.84	92.34	9.34	37.19	9.71	61.66
48	-4.50	93.04	94.54	10.37	39.19	10.69	65.46

APPALTATORE:

TELESE S.c.a r.l.
 Consorzio Telese Società Consortile a Responsabilità Limitata

**ITINERARIO NAPOLI – BARI
 RADDOPPIO TRATTA CANCELLO-BENEVENTO
 II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
 2° SUBLOTTO TELESE – SAN LORENZO**

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	17 di 91

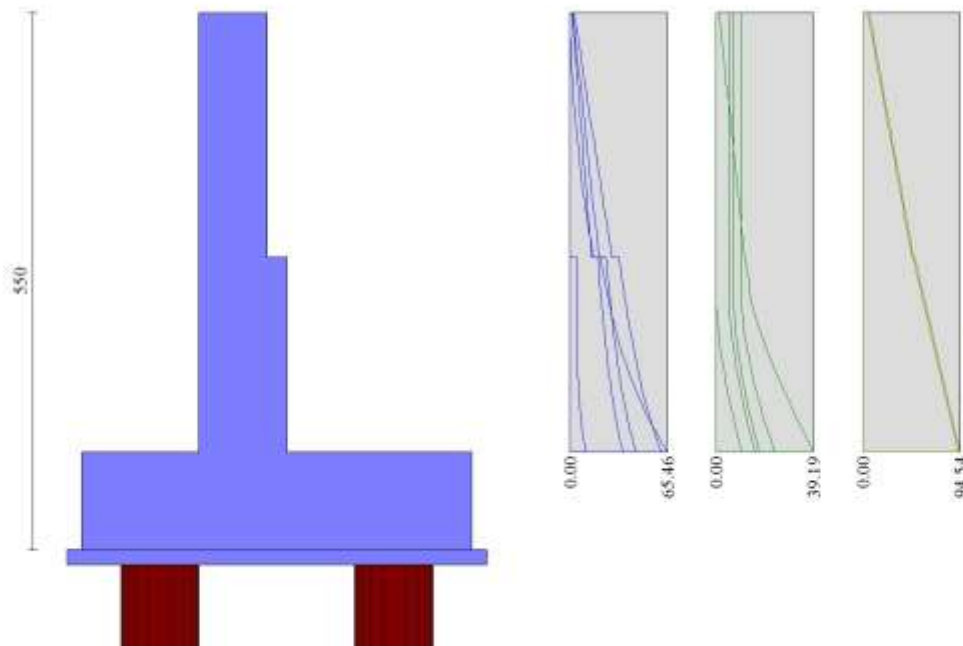



Fig. 7 - Paramento

Piastra fondazione

In	Mx [kNm]	My [kNm]	Mxy [kNm]	Tx [kN]	Ty [kN]	
1	-0.46	1.19	-0.40	2.35	7.83	MAX
	-0.64	0.55	-1.20	-3.33	3.74	MIN
2	-6.72	-4.33	-1.06	3.80	-3.67	MAX
	-10.64	-8.23	-2.36	-3.97	-6.29	MIN
3	2.45	-1.12	-0.57	31.97	-10.01	MAX
	0.78	-3.49	-2.13	22.25	-16.88	MIN
4	2.65	1.73	1.10	11.56	7.05	MAX
	1.70	0.82	0.83	7.66	3.77	MIN
5	-14.55	0.50	-3.57	3.87	19.47	MAX
	-22.67	-0.15	-7.61	-3.41	14.90	MIN
6	-20.54	-16.52	-4.66	27.63	-8.65	MAX
	-32.28	-29.29	-9.72	20.56	-16.35	MIN
7	9.20	7.39	7.95	32.50	-22.07	MAX
	6.18	3.74	5.24	20.10	-39.92	MIN
8	5.07	11.00	5.67	7.36	8.12	MAX
	3.41	6.79	3.95	4.29	4.91	MIN
9	16.19	-2.86	0.52	239.51	-63.41	MAX
	10.71	-11.25	-10.33	153.17	-103.41	MIN
10	-16.65	13.41	0.18	-5.75	10.67	MAX
	-24.93	6.01	0.11	-8.71	2.10	MIN
11	-16.59	50.18	0.83	-4.72	133.77	MAX
	-22.35	20.02	0.54	-7.17	100.67	MIN
12	-99.20	-93.90	1.47	-3.34	-109.09	MAX
	-154.57	-152.55	0.96	-5.04	-207.10	MIN
13	6.73	22.43	11.81	0.00	-27.71	MAX
	3.70	12.35	7.91	0.00	-51.55	MIN
14	5.59	18.63	11.64	0.00	9.76	MAX
	2.85	9.49	7.72	0.00	5.75	MIN
15	14.47	48.22	13.81	0.00	-94.63	MAX
	8.63	28.77	9.34	0.00	-154.67	MIN
16	22.29	74.30	1.40	0.00	-412.49	MAX
	12.53	41.77	0.92	0.00	-679.64	MIN
17	-8.77	0.77	8.13	-13.13	19.72	MAX
	-13.83	0.29	3.91	-18.01	15.05	MIN
18	-15.49	-15.93	11.69	-29.80	-8.65	MAX
	-24.64	-28.46	6.05	-41.52	-16.32	MIN
19	21.26	-1.27	14.16	-159.61	-63.72	MAX
	14.08	-9.08	2.26	-249.20	-103.86	MIN
20	15.16	50.54	-6.96	0.00	-95.09	MAX

APPALTATORE:	 Consorzio Telese Società Consortile a Responsabilità Limitata	
PROGETTAZIONE:		
Mandataria:	Mandante:	
SYSTRA S.A.	SWS Engineering S.p.A.	SYSTRA-SOTECNI S.p.A.
Relazione di calcolo		
IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX		

ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO
PROGETTO ESECUTIVO

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	18 di 91

In	Mx [kNm]	My [kNm]	Mxy [kNm]	Tx [kN]	Ty [kN]	
21	9.09	30.29	-10.20	0.00	-155.36	MIN
	15.16	50.54	-6.96	0.00	-95.09	MAX
	9.09	30.29	-10.20	0.00	-155.36	MIN
22	15.16	50.54	-6.96	0.00	-95.09	MAX
	9.09	30.29	-10.20	0.00	-155.36	MIN
23	15.16	50.54	-6.96	0.00	-95.09	MAX
	9.09	30.29	-10.20	0.00	-155.36	MIN
24	15.16	50.54	-6.96	0.00	-95.09	MAX
	9.09	30.29	-10.20	0.00	-155.36	MIN
25	15.16	50.54	-6.96	0.00	-95.09	MAX
	9.09	30.29	-10.20	0.00	-155.36	MIN
26	7.17	-4.23	2.79	-11.42	-4.33	MAX
	4.75	-7.79	1.33	-15.87	-7.31	MIN
27	16.97	-0.96	4.14	-29.13	-11.81	MAX
	10.69	-3.25	1.97	-42.24	-19.53	MIN
28	20.91	11.04	-2.39	-25.41	-26.09	MAX
	13.95	6.60	-3.63	-40.48	-46.01	MIN
29	8.87	29.56	-3.84	0.00	-32.79	MAX
	5.13	17.10	-5.67	0.00	-59.29	MIN
30	8.87	29.56	-3.84	0.00	-32.79	MAX
	5.13	17.10	-5.67	0.00	-59.29	MIN
31	8.87	29.56	-3.84	0.00	-32.79	MAX
	5.13	17.10	-5.67	0.00	-59.29	MIN
32	8.87	29.56	-3.84	0.00	-32.79	MAX
	5.13	17.10	-5.67	0.00	-59.29	MIN
33	8.87	29.56	-3.84	0.00	-32.79	MAX
	5.13	17.10	-5.67	0.00	-59.29	MIN
34	8.87	29.56	-3.84	0.00	-32.79	MAX
	5.13	17.10	-5.67	0.00	-59.29	MIN
35	8.87	29.56	-3.84	0.00	-32.79	MAX
	5.13	17.10	-5.67	0.00	-59.29	MIN
36	8.87	29.56	-3.84	0.00	-32.79	MAX
	5.13	17.10	-5.67	0.00	-59.29	MIN
37	22.70	0.63	-0.15	-1.94	-3.07	MAX
	14.42	0.24	-0.22	-2.94	-5.64	MIN
38	20.79	2.56	-0.16	-1.00	-8.01	MAX
	13.96	1.37	-0.24	-1.51	-13.92	MIN
39	20.85	13.39	-0.19	-0.40	-14.72	MAX
	13.88	8.39	-0.29	-0.61	-28.37	MIN
40	7.47	24.91	-0.14	0.00	-16.48	MAX
	4.10	13.67	-0.21	0.00	-33.72	MIN
41	7.47	24.91	-0.14	0.00	-16.48	MAX
	4.10	13.67	-0.21	0.00	-33.72	MIN
42	7.47	24.91	-0.14	0.00	-16.48	MAX
	4.10	13.67	-0.21	0.00	-33.72	MIN
43	6.40	21.33	-3.36	0.00	1.50	MAX
	-10.21	-34.02	-9.73	0.00	-59.92	MIN
44	5.13	17.09	-1.35	0.00	-41.07	MAX
	-10.77	-35.90	-11.53	0.00	-68.79	MIN
45	11.67	38.91	-3.20	0.00	27.89	MAX
	-7.42	-24.74	-7.12	0.00	-56.90	MIN
46	14.62	48.73	-0.76	0.00	39.84	MAX
	-5.50	-18.34	-2.18	0.00	-56.69	MIN
47	13.25	44.16	2.10	0.00	31.62	MAX
	-6.78	-22.61	1.56	0.00	-55.23	MIN
48	10.18	33.94	2.68	0.00	14.49	MAX
	-8.76	-29.18	1.63	0.00	-54.80	MIN
49	8.66	28.86	-0.01	0.00	4.83	MAX
	-9.56	-31.87	-0.02	0.00	-55.54	MIN
50	8.51	-4.17	-1.62	10.63	-4.06	MAX
	5.63	-7.71	-3.18	5.69	-6.97	MIN
51	18.17	-0.95	-2.26	38.71	-11.24	MAX
	11.48	-3.23	-4.52	26.80	-18.67	MIN
52	21.57	10.80	3.22	38.80	-24.97	MAX
	14.38	6.41	2.11	24.31	-44.31	MIN
53	8.53	28.43	5.40	0.00	-31.42	MAX
	4.91	16.35	3.66	0.00	-57.22	MIN
54	8.53	28.43	5.40	0.00	-31.42	MAX
	4.91	16.35	3.66	0.00	-57.22	MIN
55	8.53	28.43	5.40	0.00	-31.42	MAX
	4.91	16.35	3.66	0.00	-57.22	MIN
56	10.05	33.49	-1.73	0.00	12.53	MAX
	-8.79	-29.30	-2.88	0.00	-55.44	MIN
57	0.59	18.70	-4.54	2.90	8.68	MAX
	-2.24	-13.43	-9.78	-1.93	-46.92	MIN
58	1.76	20.41	-2.92	2.61	-30.15	MAX
	1.08	-12.32	-7.79	-0.71	-58.65	MIN
59	-0.51	28.87	-6.51	1.67	43.27	MAX
	-5.78	-4.56	-10.56	-3.50	-44.02	MIN
60	0.09	39.13	-0.95	-1.50	54.43	MAX
	-6.20	8.07	-2.56	-5.25	-51.50	MIN
61	3.94	32.84	4.76	1.21	46.78	MAX

APPALTATORE:	TELESE S.c.a r.l. <small>Consorzio Telese Società Consortile a Responsabilità Limitata</small>	
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SYSTRA S.A.	SWS Engineering S.p.A.	SYSTRA-SOTECNI S.p.A.
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ITINERARIO NAPOLI – BARI
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PROGETTO ESECUTIVO

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	19 di 91

In	Mx [kNm]	My [kNm]	Mxy [kNm]	Tx [kN]	Ty [kN]	
	-3.70	-3.23	4.06	-10.29	-42.68	MIN
62	10.95	26.55	3.94	1.48	20.15	MAX
	-1.58	-11.06	2.61	-8.59	-42.93	MIN
63	15.59	26.90	0.01	-0.41	11.41	MAX
	0.42	-11.28	-0.01	-1.11	-44.44	MIN
64	11.90	26.80	-2.72	6.02	18.47	MAX
	-1.23	-10.95	-4.14	-2.41	-43.49	MIN
65	-6.59	0.95	-4.08	11.83	20.47	MAX
	-10.53	0.50	-8.36	7.07	15.55	MIN
66	-13.53	-15.83	-6.08	36.48	-7.56	MAX
	-21.67	-28.31	-11.72	26.45	-14.67	MIN
67	22.99	-1.50	-2.16	246.23	-61.56	MAX
	15.22	-9.38	-14.01	157.64	-100.59	MIN
68	14.58	48.62	10.42	0.00	-92.44	MAX
	8.71	29.02	7.10	0.00	-151.36	MIN
69	14.58	48.62	10.42	0.00	-92.44	MAX
	8.71	29.02	7.10	0.00	-151.36	MIN
70	14.58	48.62	10.42	0.00	-92.44	MAX
	8.71	29.02	7.10	0.00	-151.36	MIN
71	13.14	43.78	-1.87	0.00	28.19	MAX
	-6.79	-22.64	-2.90	0.00	-56.32	MIN
72	6.10	33.67	-4.71	6.69	43.86	MAX
	-2.88	-2.88	-5.67	-2.41	-43.63	MIN
73	2.71	12.89	-5.50	19.60	16.77	MAX
	1.18	-3.06	-8.19	0.85	-24.43	MIN
74	1.53	12.02	-3.04	5.61	-11.53	MAX
	0.44	-2.97	-4.24	0.04	-37.82	MIN
75	-8.32	1.04	-9.86	21.52	43.06	MAX
	-17.56	-12.32	-12.22	-2.41	-22.93	MIN
76	1.58	55.83	-0.92	-1.95	162.67	MAX
	-16.02	23.24	-2.24	-6.33	-24.29	MIN
77	-6.54	2.96	7.99	-1.25	45.94	MAX
	-12.26	-11.10	6.35	-33.95	-22.21	MIN
78	14.91	15.58	4.17	-3.80	25.67	MAX
	6.40	-1.17	3.44	-29.59	-22.09	MIN
79	18.40	17.41	0.05	-0.70	18.83	MAX
	5.65	-0.99	0.00	-1.91	-24.20	MIN
80	16.53	15.96	-3.57	25.42	24.57	MAX
	6.99	-0.91	-4.28	2.30	-22.47	MIN
81	-5.27	3.87	-6.98	28.81	44.09	MAX
	-9.94	-10.47	-8.33	-0.50	-22.86	MIN
82	-12.23	13.90	-0.06	-0.39	11.41	MAX
	-18.23	6.36	-0.09	-0.59	3.11	MIN
83	-12.68	50.66	-0.09	-0.04	135.94	MAX
	-16.47	20.36	-0.13	-0.05	102.12	MIN
84	-96.82	-93.75	-0.12	0.16	-106.27	MAX
	-150.97	-152.31	-0.18	0.11	-202.82	MIN
85	21.82	72.72	-0.10	0.00	-409.05	MAX
	11.97	39.90	-0.15	0.00	-674.42	MIN
86	21.82	72.72	-0.10	0.00	-409.05	MAX
	11.97	39.90	-0.15	0.00	-674.42	MIN
87	21.82	72.72	-0.10	0.00	-409.05	MAX
	11.97	39.90	-0.15	0.00	-674.42	MIN
88	14.87	49.57	0.26	0.00	36.20	MAX
	-5.35	-17.84	0.09	0.00	-57.71	MIN
89	4.05	41.22	0.34	0.16	51.45	MAX
	-3.80	8.87	0.12	0.05	-52.40	MIN
90	3.68	56.44	0.38	-0.05	160.98	MAX
	-10.71	24.35	0.13	-0.11	-24.95	MIN
91	0.44	4.27	-2.60	28.34	12.21	MAX
	0.32	-2.55	-3.11	9.94	-10.22	MIN
92	1.88	5.65	-1.99	12.18	-0.63	MAX
	0.51	-1.46	-2.40	3.72	-18.04	MIN
93	-0.38	-0.56	-8.00	147.54	17.44	MAX
	-1.62	-10.37	-20.17	56.02	-11.79	MIN
94	-38.48	-28.88	-0.75	-2.24	-3.00	MAX
	-102.75	-87.00	-1.69	-6.30	-94.34	MIN
95	5.10	-0.37	18.60	-60.59	19.48	MAX
	2.19	-10.01	5.01	-159.69	-11.43	MIN
96	13.12	4.95	1.29	-13.96	18.61	MAX
	5.53	-2.19	0.61	-37.84	-8.44	MIN
97	18.71	8.48	0.10	-0.89	16.77	MAX
	7.81	0.52	0.02	-2.42	-8.68	MIN
98	15.26	5.29	-0.60	32.73	18.07	MAX
	6.32	-1.96	-1.32	12.10	-8.65	MIN
99	9.67	-0.11	-5.46	153.88	18.63	MAX
	3.87	-9.54	-18.85	58.50	-11.79	MIN
100	-35.67	-28.50	0.41	-0.17	-3.64	MAX
	-95.05	-85.94	0.14	-0.44	-94.75	MIN
101	-6.60	0.94	8.17	-8.44	20.64	MAX
	-10.55	0.49	3.94	-12.97	15.66	MIN
102	-13.57	-15.90	11.45	-26.61	-7.36	MAX

APPALTATORE:	TELESE S.c.a r.l. <small>Consorzio Telese Società Consortile a Responsabilità Limitata</small>	
PROGETTAZIONE:		
Mandataria:	Mandante:	
SYSTRA S.A.	SWS Engineering S.p.A.	SYSTRA-SOTECNI S.p.A.
Relazione di calcolo		
IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX		

ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO
PROGETTO ESECUTIVO

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	20 di 91

In	Mx [kNm]	My [kNm]	Mxy [kNm]	Tx [kN]	Ty [kN]	
	-21.73	-28.40	5.88	-36.72	-14.38	MIN
103	22.89	-1.70	13.64	-157.48	-61.24	MAX
	15.15	-9.66	1.89	-245.98	-100.10	MIN
104	14.44	48.12	-7.30	0.00	-92.08	MAX
	8.61	28.69	-10.71	0.00	-150.82	MIN
105	14.44	48.12	-7.30	0.00	-92.08	MAX
	8.61	28.69	-10.71	0.00	-150.82	MIN
106	14.44	48.12	-7.30	0.00	-92.08	MAX
	8.61	28.69	-10.71	0.00	-150.82	MIN
107	12.86	42.88	3.38	0.00	27.04	MAX
	-6.89	-22.95	2.03	0.00	-56.73	MIN
108	6.11	33.18	6.30	2.46	42.82	MAX
	-2.87	-3.05	5.00	-6.51	-44.00	MIN
109	-5.19	3.65	9.03	0.34	43.29	MAX
	-9.79	-10.62	7.44	-29.20	-23.15	MIN
110	10.05	-0.13	19.11	-58.90	18.12	MAX
	4.02	-9.57	6.12	-154.91	-11.97	MIN
111	-2.72	2.13	0.06	31.49	4.89	MAX
	-3.80	-1.28	-2.64	18.74	-3.41	MIN
112	0.62	1.57	-0.17	12.70	2.08	MAX
	0.33	-0.31	-0.80	6.53	-7.65	MIN
113	-8.76	1.33	1.16	32.51	-9.13	MAX
	-25.09	-10.99	-5.04	23.15	-15.12	MIN
114	-19.23	-6.31	-0.41	-2.33	-111.99	MAX
	-29.96	-38.16	-0.90	-5.95	-149.17	MIN
115	-6.10	1.28	4.29	-27.71	-8.09	MAX
	-18.79	-11.05	-2.67	-43.55	-14.81	MIN
116	7.90	1.91	2.15	-22.58	8.17	MAX
	2.32	-1.56	-1.03	-39.80	-1.53	MIN
117	15.42	2.43	0.13	-1.06	9.31	MAX
	7.62	0.18	0.03	-2.90	-0.62	MIN
118	10.40	1.99	1.14	33.84	8.03	MAX
	3.25	-1.42	-2.12	20.38	-1.64	MIN
119	-4.12	1.43	2.51	37.19	-8.29	MAX
	-13.53	-10.70	-4.40	25.32	-15.02	MIN
120	-15.98	-5.88	0.31	-0.33	-112.16	MAX
	-21.55	-37.97	0.11	-0.90	-149.24	MIN
121	-3.92	1.44	4.60	-26.03	-8.51	MAX
	-13.01	-10.68	-2.00	-39.12	-15.16	MIN
122	8.57	-4.18	2.97	-7.66	-3.82	MAX
	5.67	-7.72	1.46	-12.27	-6.67	MIN
123	18.16	-1.07	4.24	-27.23	-10.81	MAX
	11.48	-3.40	2.05	-39.35	-18.03	MIN
124	21.44	10.34	-2.36	-24.30	-24.26	MAX
	14.30	6.05	-3.59	-38.80	-43.24	MIN
125	8.22	27.39	-3.86	0.00	-30.62	MAX
	4.70	15.66	-5.70	0.00	-56.00	MIN
126	8.22	27.39	-3.86	0.00	-30.62	MAX
	4.70	15.66	-5.70	0.00	-56.00	MIN
127	8.22	27.39	-3.86	0.00	-30.62	MAX
	4.70	15.66	-5.70	0.00	-56.00	MIN
128	9.53	31.76	3.25	0.00	10.21	MAX
	-8.97	-29.90	1.85	0.00	-56.27	MIN
129	11.99	25.90	4.63	2.32	16.36	MAX
	-1.19	-11.25	2.89	-6.22	-44.25	MIN
130	17.07	15.59	4.84	-2.65	22.96	MAX
	7.21	-1.14	3.81	-26.31	-23.04	MIN
131	16.17	5.21	1.53	-12.68	17.08	MAX
	6.67	-2.00	1.12	-34.27	-9.00	MIN
132	11.60	2.01	2.29	-21.26	7.61	MAX
	3.70	-1.38	-0.72	-36.21	-1.91	MIN
133	-2.21	2.48	0.18	23.24	2.87	MAX
	-7.94	-1.67	-1.63	16.78	-1.18	MIN
134	-0.01	0.02	-0.07	16.33	1.46	MAX
	-0.64	-0.11	-1.22	11.73	-3.64	MIN
135	-6.64	1.69	0.71	22.47	-19.89	MAX
	-18.55	1.32	-3.78	15.95	-25.66	MIN
136	-10.54	0.96	-0.13	-2.27	-29.63	MAX
	-23.30	-7.08	-0.28	-5.68	-37.58	MIN
137	-4.15	1.53	3.58	-24.19	-19.82	MAX
	-12.36	1.27	-1.16	-30.07	-25.19	MIN
138	3.19	1.87	1.54	-23.27	4.50	MAX
	1.72	-2.03	-0.40	-28.94	-0.28	MIN
139	13.20	-0.05	0.19	-1.47	4.57	MAX
	4.48	-0.27	0.06	-4.11	-0.24	MIN
140	5.73	1.91	0.67	23.04	4.49	MAX
	2.67	-1.95	-1.44	17.47	-0.29	MIN
141	-2.11	1.69	1.28	23.69	-19.86	MAX
	-7.00	1.40	-3.55	18.49	-25.18	MIN
142	-7.20	1.14	0.23	-0.78	-29.60	MAX
	-14.69	-6.99	0.08	-2.16	-37.65	MIN
143	-1.91	1.72	3.70	-21.70	-19.89	MAX

APPALTATORE:	TELESE S.c.a r.l. <small>Consorzio Telese Società Consortile a Responsabilità Limitata</small>	
PROGETTAZIONE:		
Mandataria:	Mandante:	
SYSTRA S.A.	SWS Engineering S.p.A.	SYSTRA-SOTECNI S.p.A.
Relazione di calcolo		
IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX		

ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO
PROGETTO ESECUTIVO

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	21 di 91

In	Mx [kNm]	My [kNm]	Mxy [kNm]	Tx [kN]	Ty [kN]	
	-6.46	1.42	-0.90	-26.42	-25.28	MIN
144	6.96	1.93	1.58	-20.93	4.32	MAX
	3.14	-1.90	-0.32	-25.40	-0.40	MIN
145	23.13	0.64	-0.01	-0.03	-2.69	MAX
	14.71	0.25	-0.02	-0.04	-5.16	MIN
146	21.09	2.38	-0.02	0.06	-7.30	MAX
	14.16	1.23	-0.03	0.04	-12.86	MIN
147	20.86	12.60	-0.03	0.08	-13.50	MAX
	13.88	7.86	-0.04	0.06	-26.52	MIN
148	6.97	23.25	-0.02	0.00	-15.07	MAX
	3.77	12.56	-0.04	0.00	-31.58	MIN
149	6.97	23.25	-0.02	0.00	-15.07	MAX
	3.77	12.56	-0.04	0.00	-31.58	MIN
150	6.97	23.25	-0.02	0.00	-15.07	MAX
	3.77	12.56	-0.04	0.00	-31.58	MIN
151	7.95	26.49	0.14	0.00	1.30	MAX
	-9.80	-32.68	0.05	0.00	-56.79	MIN
152	15.96	25.79	0.19	0.21	8.23	MAX
	0.57	-11.65	0.07	0.07	-45.57	MIN
153	19.53	17.02	0.21	0.16	16.45	MAX
	6.08	-1.11	0.08	0.05	-25.05	MIN
154	20.45	8.47	0.23	0.04	15.34	MAX
	8.47	0.53	0.08	0.01	-9.19	MIN
155	17.62	2.48	0.17	-0.07	8.72	MAX
	8.45	0.27	0.06	-0.18	-1.01	MIN
156	15.47	-0.02	0.12	-0.30	4.35	MAX
	5.34	-0.18	0.04	-0.81	-0.39	MIN
157	8.50	-4.19	-1.49	12.16	-3.80	MAX
	5.63	-7.73	-3.01	7.53	-6.64	MIN
158	18.08	-1.09	-2.10	39.46	-10.78	MAX
	11.42	-3.43	-4.31	27.30	-17.97	MIN
159	21.38	10.28	3.50	38.98	-24.22	MAX
	14.26	6.00	2.29	24.42	-43.17	MIN
160	8.19	27.29	5.62	0.00	-30.57	MAX
	4.68	15.59	3.81	0.00	-55.93	MIN
161	8.19	27.29	5.62	0.00	-30.57	MAX
	4.68	15.59	3.81	0.00	-55.93	MIN
162	8.19	27.29	5.62	0.00	-30.57	MAX
	4.68	15.59	3.81	0.00	-55.93	MIN
163	9.39	31.31	-1.75	0.00	9.83	MAX
	-9.02	-30.06	-2.97	0.00	-56.41	MIN
164	11.90	25.59	-2.75	6.62	16.00	MAX
	-1.22	-11.36	-4.26	-2.18	-44.38	MIN
165	17.02	15.40	-3.64	26.59	22.66	MAX
	7.19	-1.26	-4.42	2.74	-23.15	MIN
166	16.16	5.12	-0.74	34.30	16.86	MAX
	6.67	-2.06	-1.37	12.67	-9.08	MIN
167	11.61	2.00	1.02	35.78	7.50	MAX
	3.71	-1.39	-2.17	21.10	-1.99	MIN
168	6.99	1.93	0.53	24.08	4.26	MAX
	3.15	-1.90	-1.49	19.82	-0.44	MIN
169	-6.70	0.93	-3.99	12.73	20.73	MAX
	-10.70	0.48	-8.23	8.15	15.72	MIN
170	-13.67	-15.95	-5.95	36.78	-7.28	MAX
	-21.89	-28.47	-11.54	26.65	-14.25	MIN
171	22.76	-1.82	-1.99	246.16	-61.13	MAX
	15.07	-9.82	-13.77	157.60	-99.94	MIN
172	14.36	47.88	10.61	0.00	-91.97	MAX
	8.56	28.53	7.23	0.00	-150.64	MIN
173	14.36	47.88	10.61	0.00	-91.97	MAX
	8.56	28.53	7.23	0.00	-150.64	MIN
174	14.36	47.88	10.61	0.00	-91.97	MAX
	8.56	28.53	7.23	0.00	-150.64	MIN
175	12.59	41.97	-1.94	0.00	26.24	MAX
	-6.98	-23.28	-3.10	0.00	-57.03	MIN
176	5.94	32.58	-4.87	6.82	42.06	MAX
	-2.93	-3.27	-5.94	-2.35	-44.28	MIN
177	-5.21	3.29	-7.17	29.34	42.66	MAX
	-9.83	-10.85	-8.63	-0.30	-23.38	MIN
178	10.06	-0.18	-5.74	154.77	17.67	MAX
	4.03	-9.68	-18.96	58.84	-12.13	MIN
179	-3.89	1.43	2.29	38.52	-8.75	MAX
	-12.94	-10.72	-4.49	25.81	-15.31	MIN
180	-1.87	1.72	1.10	24.60	-19.93	MAX
	-6.37	1.42	-3.62	20.46	-25.39	MIN
181	-12.35	13.88	0.00	0.00	11.52	MAX
	-18.42	6.34	0.00	0.00	3.27	MIN
182	-12.82	50.55	0.00	0.00	136.18	MAX
	-16.69	20.28	0.00	0.00	102.28	MIN
183	-96.95	-93.94	0.00	0.00	-106.04	MAX
	-151.16	-152.60	0.00	0.00	-202.47	MIN
184	21.71	72.35	0.00	0.00	-408.80	MAX

APPALTATORE:	 Consorzio Telese Società Consortile a Responsabilità Limitata		ITINERARIO NAPOLI – BARI RADDOPPIO TRATTA CANCELLO-BENEVENTO II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO 2° SUBLOTTO TELESE – SAN LORENZO PROGETTO ESECUTIVO				
PROGETTAZIONE:	Mandataria: SYSTRA S.A. Mandante: SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.						
Relazione di calcolo	IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX	COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
		IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	22 di 91

In	Mx [kNm]	My [kNm]	Mxy [kNm]	Tx [kN]	Ty [kN]	
	11.84	39.46	0.00	0.00	-674.05	MIN
185	21.71	72.35	0.00	0.00	-408.80	MAX
	11.84	39.46	0.00	0.00	-674.05	MIN
186	21.71	72.35	0.00	0.00	-408.80	MAX
	11.84	39.46	0.00	0.00	-674.05	MIN
187	14.46	48.20	0.00	0.00	34.88	MAX
	-5.50	-18.32	0.00	0.00	-58.19	MIN
188	3.85	40.34	0.00	0.00	50.22	MAX
	-3.93	8.56	0.00	0.00	-52.85	MIN
189	3.68	56.27	0.00	0.00	159.98	MAX
	-10.73	24.03	0.00	0.00	-25.31	MIN
190	-35.61	-28.58	0.00	0.00	-4.24	MAX
	-94.92	-86.16	0.00	0.00	-94.99	MIN
191	-15.88	-5.92	0.00	0.00	-112.29	MAX
	-21.31	-37.98	0.00	0.00	-149.58	MIN
192	-7.09	1.15	0.00	0.00	-29.75	MAX
	-14.42	-6.98	0.00	0.00	-37.71	MIN
193	-6.70	0.93	8.23	-8.15	20.73	MAX
	-10.70	0.48	3.99	-12.73	15.72	MIN
194	-13.67	-15.95	11.54	-26.65	-7.28	MAX
	-21.89	-28.47	5.95	-36.78	-14.25	MIN
195	22.76	-1.82	13.77	-157.60	-61.13	MAX
	15.07	-9.82	1.99	-246.16	-99.94	MIN
196	14.36	47.88	-7.23	0.00	-91.97	MAX
	8.56	28.53	-10.61	0.00	-150.64	MIN
197	14.36	47.88	-7.23	0.00	-91.97	MAX
	8.56	28.53	-10.61	0.00	-150.64	MIN
198	14.36	47.88	-7.23	0.00	-91.97	MAX
	8.56	28.53	-10.61	0.00	-150.64	MIN
199	12.59	41.97	3.10	0.00	26.24	MAX
	-6.98	-23.28	1.94	0.00	-57.03	MIN
200	5.94	32.58	5.94	2.35	42.06	MAX
	-2.93	-3.27	4.87	-6.82	-44.28	MIN
201	-5.21	3.29	8.63	0.30	42.66	MAX
	-9.83	-10.85	7.17	-29.34	-23.38	MIN
202	10.06	-0.18	18.96	-58.84	17.67	MAX
	4.03	-9.68	5.74	-154.77	-12.13	MIN
203	-3.89	1.43	4.49	-25.81	-8.75	MAX
	-12.94	-10.72	-2.29	-38.52	-15.31	MIN
204	-1.87	1.72	3.62	-20.46	-19.93	MAX
	-6.37	1.42	-1.10	-24.60	-25.39	MIN
205	8.50	-4.19	3.01	-7.53	-3.80	MAX
	5.63	-7.73	1.49	-12.16	-6.64	MIN
206	18.08	-1.09	4.31	-27.30	-10.78	MAX
	11.42	-3.43	2.10	-39.46	-17.97	MIN
207	21.38	10.28	-2.29	-24.42	-24.22	MAX
	14.26	6.00	-3.50	-38.98	-43.17	MIN
208	8.19	27.29	-3.81	0.00	-30.57	MAX
	4.68	15.59	-5.62	0.00	-55.93	MIN
209	8.19	27.29	-3.81	0.00	-30.57	MAX
	4.68	15.59	-5.62	0.00	-55.93	MIN
210	8.19	27.29	-3.81	0.00	-30.57	MAX
	4.68	15.59	-5.62	0.00	-55.93	MIN
211	9.39	31.31	2.97	0.00	9.83	MAX
	-9.02	-30.06	1.75	0.00	-56.41	MIN
212	11.90	25.59	4.26	2.18	16.00	MAX
	-1.22	-11.36	2.75	-6.62	-44.38	MIN
213	17.02	15.40	4.42	-2.74	22.66	MAX
	7.19	-1.26	3.64	-26.59	-23.15	MIN
214	16.16	5.12	1.37	-12.67	16.86	MAX
	6.67	-2.06	0.74	-34.30	-9.08	MIN
215	11.61	2.00	2.17	-21.10	7.50	MAX
	3.71	-1.39	-1.02	-35.78	-1.99	MIN
216	6.99	1.93	1.49	-19.82	4.26	MAX
	3.15	-1.90	-0.53	-24.08	-0.44	MIN
217	23.13	0.64	0.02	0.04	-2.69	MAX
	14.71	0.25	0.01	0.03	-5.16	MIN
218	21.09	2.38	0.03	-0.04	-7.30	MAX
	14.16	1.23	0.02	-0.06	-12.86	MIN
219	20.86	12.60	0.04	-0.06	-13.50	MAX
	13.88	7.86	0.03	-0.08	-26.52	MIN
220	6.97	23.25	0.04	0.00	-15.07	MAX
	3.77	12.56	0.02	0.00	-31.58	MIN
221	6.97	23.25	0.04	0.00	-15.07	MAX
	3.77	12.56	0.02	0.00	-31.58	MIN
222	6.97	23.25	0.04	0.00	-15.07	MAX
	3.77	12.56	0.02	0.00	-31.58	MIN
223	7.95	26.49	-0.05	0.00	1.30	MAX
	-9.80	-32.68	-0.14	0.00	-56.79	MIN
224	15.96	25.79	-0.07	-0.07	8.23	MAX
	0.57	-11.65	-0.19	-0.21	-45.57	MIN
225	19.53	17.02	-0.08	-0.05	16.45	MAX

APPALTATORE:

TELESE S.c.a r.l.
Consorzio Telese Società Consortile a Responsabilità Limitata

**ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO**

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA LOTTO CODIFICA DOCUMENTO REV. FOGLIO
IF2R 2.2.E.ZZ CL TR.16.0.5.009 A 23 di 91

In	Mx [kNm]	My [kNm]	Mxy [kNm]	Tx [kN]	Ty [kN]	
	6.08	-1.11	-0.21	-0.16	-25.05	MIN
226	20.45	8.47	-0.08	-0.01	15.34	MAX
	8.47	0.53	-0.23	-0.04	-9.19	MIN
227	17.62	2.48	-0.06	0.18	8.72	MAX
	8.45	0.27	-0.17	0.07	-1.01	MIN
228	15.47	-0.02	-0.04	0.81	4.35	MAX
	5.34	-0.18	-0.12	0.30	-0.39	MIN
229	8.57	-4.18	-1.46	12.27	-3.82	MAX
	5.67	-7.72	-2.97	7.66	-6.67	MIN
230	18.16	-1.07	-2.05	39.35	-10.81	MAX
	11.48	-3.40	-4.24	27.23	-18.03	MIN
231	21.44	10.34	3.59	38.80	-24.26	MAX
	14.30	6.05	2.36	24.30	-43.24	MIN
232	8.22	27.39	5.70	0.00	-30.62	MAX
	4.70	15.66	3.86	0.00	-56.00	MIN
233	8.22	27.39	5.70	0.00	-30.62	MAX
	4.70	15.66	3.86	0.00	-56.00	MIN
234	8.22	27.39	5.70	0.00	-30.62	MAX
	4.70	15.66	3.86	0.00	-56.00	MIN
235	9.53	31.76	-1.85	0.00	10.21	MAX
	-8.97	-29.90	-3.25	0.00	-56.27	MIN
236	11.99	25.90	-2.89	6.22	16.36	MAX
	-1.19	-11.25	-4.63	-2.32	-44.25	MIN
237	17.07	15.59	-3.81	26.31	22.96	MAX
	7.21	-1.14	-4.84	2.65	-23.04	MIN
238	16.17	5.21	-1.12	34.27	17.08	MAX
	6.67	-2.00	-1.53	12.68	-9.00	MIN
239	11.60	2.01	0.72	36.21	7.61	MAX
	3.70	-1.38	-2.29	21.26	-1.91	MIN
240	6.96	1.93	0.32	25.40	4.32	MAX
	3.14	-1.90	-1.58	20.93	-0.40	MIN
241	-6.60	0.94	-3.94	12.97	20.64	MAX
	-10.55	0.49	-8.17	8.44	15.66	MIN
242	-13.57	-15.90	-5.88	36.72	-7.36	MAX
	-21.73	-28.40	-11.45	26.61	-14.38	MIN
243	22.89	-1.70	-1.89	245.98	-61.24	MAX
	15.15	-9.66	-13.64	157.48	-100.10	MIN
244	14.44	48.12	10.71	0.00	-92.08	MAX
	8.61	28.69	7.30	0.00	-150.82	MIN
245	14.44	48.12	10.71	0.00	-92.08	MAX
	8.61	28.69	7.30	0.00	-150.82	MIN
246	14.44	48.12	10.71	0.00	-92.08	MAX
	8.61	28.69	7.30	0.00	-150.82	MIN
247	12.86	42.88	-2.03	0.00	27.04	MAX
	-6.89	-22.95	-3.38	0.00	-56.73	MIN
248	6.11	33.18	-5.00	6.51	42.82	MAX
	-2.87	-3.05	-6.30	-2.46	-44.00	MIN
249	-5.19	3.65	-7.44	29.20	43.29	MAX
	-9.79	-10.62	-9.03	-0.34	-23.15	MIN
250	10.05	-0.13	-6.12	154.91	18.12	MAX
	4.02	-9.57	-19.11	58.90	-11.97	MIN
251	-3.92	1.44	2.00	39.12	-8.51	MAX
	-13.01	-10.68	-4.60	26.03	-15.16	MIN
252	-1.91	1.72	0.90	26.42	-19.89	MAX
	-6.46	1.42	-3.70	21.70	-25.28	MIN
253	-12.23	13.90	0.09	0.59	11.41	MAX
	-18.23	6.36	0.06	0.39	3.11	MIN
254	-12.68	50.66	0.13	0.05	135.94	MAX
	-16.47	20.36	0.09	0.04	102.12	MIN
255	-96.82	-93.75	0.18	-0.11	-106.27	MAX
	-150.97	-152.31	0.12	-0.16	-202.82	MIN
256	21.82	72.72	0.15	0.00	-409.05	MAX
	11.97	39.90	0.10	0.00	-674.42	MIN
257	21.82	72.72	0.15	0.00	-409.05	MAX
	11.97	39.90	0.10	0.00	-674.42	MIN
258	21.82	72.72	0.15	0.00	-409.05	MAX
	11.97	39.90	0.10	0.00	-674.42	MIN
259	14.87	49.57	-0.09	0.00	36.20	MAX
	-5.35	-17.84	-0.26	0.00	-57.71	MIN
260	4.05	41.22	-0.12	-0.05	51.45	MAX
	-3.80	8.87	-0.34	-0.16	-52.40	MIN
261	3.68	56.44	-0.13	0.11	160.98	MAX
	-10.71	24.35	-0.38	0.05	-24.95	MIN
262	-35.67	-28.50	-0.14	0.44	-3.64	MAX
	-95.05	-85.94	-0.41	0.17	-94.75	MIN
263	-15.98	-5.88	-0.11	0.90	-112.16	MAX
	-21.55	-37.97	-0.31	0.33	-149.24	MIN
264	-7.20	1.14	-0.08	2.16	-29.60	MAX
	-14.69	-6.99	-0.23	0.78	-37.65	MIN
265	-6.59	0.95	8.36	-7.07	20.47	MAX
	-10.53	0.50	4.08	-11.83	15.55	MIN
266	-13.53	-15.83	11.72	-26.45	-7.56	MAX

APPALTATORE:	TELESE S.c.a r.l. <small>Consorzio Telese Società Consortile a Responsabilità Limitata</small>	
PROGETTAZIONE:		
Mandatario:	Mandante:	
SYSTRA S.A.	SWS Engineering S.p.A.	SYSTRA-SOTECNI S.p.A.
Relazione di calcolo		
IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX		

ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO
PROGETTO ESECUTIVO

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	24 di 91

In	Mx [kNm]	My [kNm]	Mxy [kNm]	Tx [kN]	Ty [kN]	
	-21.67	-28.31	6.08	-36.48	-14.67	MIN
267	22.99	-1.50	14.01	-157.64	-61.56	MAX
	15.22	-9.38	2.16	-246.23	-100.59	MIN
268	14.58	48.62	-7.10	0.00	-92.44	MAX
	8.71	29.02	-10.42	0.00	-151.36	MIN
269	14.58	48.62	-7.10	0.00	-92.44	MAX
	8.71	29.02	-10.42	0.00	-151.36	MIN
270	14.58	48.62	-7.10	0.00	-92.44	MAX
	8.71	29.02	-10.42	0.00	-151.36	MIN
271	13.14	43.78	2.90	0.00	28.19	MAX
	-6.79	-22.64	1.87	0.00	-56.32	MIN
272	6.10	33.67	5.67	2.41	43.86	MAX
	-2.88	-2.88	4.71	-6.69	-43.63	MIN
273	-5.27	3.87	8.33	0.50	44.09	MAX
	-9.94	-10.47	6.98	-28.81	-22.86	MIN
274	9.67	-0.11	18.85	-58.50	18.63	MAX
	3.87	-9.54	5.46	-153.88	-11.79	MIN
275	-4.12	1.43	4.40	-25.32	-8.29	MAX
	-13.53	-10.70	-2.51	-37.19	-15.02	MIN
276	-2.11	1.69	3.55	-18.49	-19.86	MAX
	-7.00	1.40	-1.28	-23.69	-25.18	MIN
277	8.51	-4.17	3.18	-5.69	-4.06	MAX
	5.63	-7.71	1.62	-10.63	-6.97	MIN
278	18.17	-0.95	4.52	-26.80	-11.24	MAX
	11.48	-3.23	2.26	-38.71	-18.67	MIN
279	21.57	10.80	-2.11	-24.31	-24.97	MAX
	14.38	6.41	-3.22	-38.80	-44.31	MIN
280	8.53	28.43	-3.66	0.00	-31.42	MAX
	4.91	16.35	-5.40	0.00	-57.22	MIN
281	8.53	28.43	-3.66	0.00	-31.42	MAX
	4.91	16.35	-5.40	0.00	-57.22	MIN
282	8.53	28.43	-3.66	0.00	-31.42	MAX
	4.91	16.35	-5.40	0.00	-57.22	MIN
283	10.05	33.49	2.88	0.00	12.53	MAX
	-8.79	-29.30	1.73	0.00	-55.44	MIN
284	11.90	26.80	4.14	2.41	18.47	MAX
	-1.23	-10.95	2.72	-6.02	-43.49	MIN
285	16.53	15.96	4.28	-2.30	24.57	MAX
	6.99	-0.91	3.57	-25.42	-22.47	MIN
286	15.26	5.29	1.32	-12.10	18.07	MAX
	6.32	-1.96	0.60	-32.73	-8.65	MIN
287	10.40	1.99	2.12	-20.38	8.03	MAX
	3.25	-1.42	-1.14	-33.84	-1.64	MIN
288	5.73	1.91	1.44	-17.47	4.49	MAX
	2.67	-1.95	-0.67	-23.04	-0.29	MIN
289	22.70	0.63	0.22	2.94	-3.07	MAX
	14.42	0.24	0.15	1.94	-5.64	MIN
290	20.79	2.56	0.24	1.51	-8.01	MAX
	13.96	1.37	0.16	1.00	-13.92	MIN
291	20.85	13.39	0.29	0.61	-14.72	MAX
	13.88	8.39	0.19	0.40	-28.37	MIN
292	7.47	24.91	0.21	0.00	-16.48	MAX
	4.10	13.67	0.14	0.00	-33.72	MIN
293	7.47	24.91	0.21	0.00	-16.48	MAX
	4.10	13.67	0.14	0.00	-33.72	MIN
294	7.47	24.91	0.21	0.00	-16.48	MAX
	4.10	13.67	0.14	0.00	-33.72	MIN
295	8.66	28.86	0.02	0.00	4.83	MAX
	-9.56	-31.87	0.01	0.00	-55.54	MIN
296	15.59	26.90	0.01	1.11	11.41	MAX
	0.42	-11.28	-0.01	0.41	-44.44	MIN
297	18.40	17.41	0.00	1.91	18.83	MAX
	5.65	-0.99	-0.05	0.70	-24.20	MIN
298	18.71	8.48	-0.02	2.42	16.77	MAX
	7.81	0.52	-0.10	0.89	-8.68	MIN
299	15.42	2.43	-0.03	2.90	9.31	MAX
	7.62	0.18	-0.13	1.06	-0.62	MIN
300	13.20	-0.05	-0.06	4.11	4.57	MAX
	4.48	-0.27	-0.19	1.47	-0.24	MIN
301	7.17	-4.23	-1.33	15.87	-4.33	MAX
	4.75	-7.79	-2.79	11.42	-7.31	MIN
302	16.97	-0.96	-1.97	42.24	-11.81	MAX
	10.69	-3.25	-4.14	29.13	-19.53	MIN
303	20.91	11.04	3.63	40.48	-26.09	MAX
	13.95	6.60	2.39	25.41	-46.01	MIN
304	8.87	29.56	5.67	0.00	-32.79	MAX
	5.13	17.10	3.84	0.00	-59.29	MIN
305	8.87	29.56	5.67	0.00	-32.79	MAX
	5.13	17.10	3.84	0.00	-59.29	MIN
306	8.87	29.56	5.67	0.00	-32.79	MAX
	5.13	17.10	3.84	0.00	-59.29	MIN
307	10.18	33.94	-1.63	0.00	14.49	MAX

APPALTATORE:

TELESE S.c.a r.l.
Consorzio Telese Società Consortile a Responsabilità Limitata

**ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO**

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA LOTTO CODIFICA DOCUMENTO REV. FOGLIO
IF2R 2.2.E.ZZ CL TR.16.0.5.009 A 25 di 91

In	Mx [kNm]	My [kNm]	Mxy [kNm]	Tx [kN]	Ty [kN]	
	-8.76	-29.18	-2.68	0.00	-54.80	MIN
308	10.95	26.55	-2.61	8.59	20.15	MAX
	-1.58	-11.06	-3.94	-1.48	-42.93	MIN
309	14.91	15.58	-3.44	29.59	25.67	MAX
	6.40	-1.17	-4.17	3.80	-22.09	MIN
310	13.12	4.95	-0.61	37.84	18.61	MAX
	5.53	-2.19	-1.29	13.96	-8.44	MIN
311	7.90	1.91	1.03	39.80	8.17	MAX
	2.32	-1.56	-2.15	22.58	-1.53	MIN
312	3.19	1.87	0.40	28.94	4.50	MAX
	1.72	-2.03	-1.54	23.27	-0.28	MIN
313	-8.77	0.77	-3.91	18.01	19.72	MAX
	-13.83	0.29	-8.13	13.13	15.05	MIN
314	-15.49	-15.93	-6.05	41.52	-8.65	MAX
	-24.64	-28.46	-11.69	29.80	-16.32	MIN
315	21.26	-1.27	-2.26	249.20	-63.72	MAX
	14.08	-9.08	-14.16	159.61	-103.86	MIN
316	15.16	50.54	10.20	0.00	-95.09	MAX
	9.09	30.29	6.96	0.00	-155.36	MIN
317	15.16	50.54	10.20	0.00	-95.09	MAX
	9.09	30.29	6.96	0.00	-155.36	MIN
318	15.16	50.54	10.20	0.00	-95.09	MAX
	9.09	30.29	6.96	0.00	-155.36	MIN
319	13.25	44.16	-1.56	0.00	31.62	MAX
	-6.78	-22.61	-2.10	0.00	-55.23	MIN
320	3.94	32.84	-4.06	10.29	46.78	MAX
	-3.70	-3.23	-4.76	-1.21	-42.68	MIN
321	-6.54	2.96	-6.35	33.95	45.94	MAX
	-12.26	-11.10	-7.99	1.25	-22.21	MIN
322	5.10	-0.37	-5.01	159.69	19.48	MAX
	2.19	-10.01	-18.60	60.59	-11.43	MIN
323	-6.10	1.28	2.67	43.55	-8.09	MAX
	-18.79	-11.05	-4.29	27.71	-14.81	MIN
324	-4.15	1.53	1.16	30.07	-19.82	MAX
	-12.36	1.27	-3.58	24.19	-25.19	MIN
325	-16.65	13.41	-0.11	8.71	10.67	MAX
	-24.93	6.01	-0.18	5.75	2.10	MIN
326	-16.59	50.18	-0.54	7.17	133.77	MAX
	-22.35	20.02	-0.83	4.72	100.67	MIN
327	-99.20	-93.90	-0.96	5.04	-109.09	MAX
	-154.57	-152.55	-1.47	3.34	-207.10	MIN
328	22.29	74.30	-0.92	0.00	-412.49	MAX
	12.53	41.77	-1.40	0.00	-679.64	MIN
329	22.29	74.30	-0.92	0.00	-412.49	MAX
	12.53	41.77	-1.40	0.00	-679.64	MIN
330	22.29	74.30	-0.92	0.00	-412.49	MAX
	12.53	41.77	-1.40	0.00	-679.64	MIN
331	14.62	48.73	2.18	0.00	39.84	MAX
	-5.50	-18.34	0.76	0.00	-56.69	MIN
332	0.09	39.13	2.56	5.25	54.43	MAX
	-6.20	8.07	0.95	1.50	-51.50	MIN
333	1.58	55.83	2.24	6.33	162.67	MAX
	-16.02	23.24	0.92	1.95	-24.29	MIN
334	-38.48	-28.88	1.69	6.30	-3.00	MAX
	-102.75	-87.00	0.75	2.24	-94.34	MIN
335	-19.23	-6.31	0.90	5.95	-111.99	MAX
	-29.96	-38.16	0.41	2.33	-149.17	MIN
336	-10.54	0.96	0.28	5.68	-29.63	MAX
	-23.30	-7.08	0.13	2.27	-37.58	MIN
337	-14.55	0.50	7.61	3.41	19.47	MAX
	-22.67	-0.15	3.57	-3.87	14.90	MIN
338	-20.54	-16.52	9.72	-20.56	-8.65	MAX
	-32.28	-29.29	4.66	-27.63	-16.35	MIN
339	16.19	-2.86	10.33	-153.17	-63.41	MAX
	10.71	-11.25	-0.52	-239.51	-103.41	MIN
340	14.47	48.22	-9.34	0.00	-94.63	MAX
	8.63	28.77	-13.81	0.00	-154.67	MIN
341	14.47	48.22	-9.34	0.00	-94.63	MAX
	8.63	28.77	-13.81	0.00	-154.67	MIN
342	14.47	48.22	-9.34	0.00	-94.63	MAX
	8.63	28.77	-13.81	0.00	-154.67	MIN
343	11.67	38.91	7.12	0.00	27.89	MAX
	-7.42	-24.74	3.20	0.00	-56.90	MIN
344	-0.51	28.87	10.56	3.50	43.27	MAX
	-5.78	-4.56	6.51	-1.67	-44.02	MIN
345	-8.32	1.04	12.22	2.41	43.06	MAX
	-17.56	-12.32	9.86	-21.52	-22.93	MIN
346	-0.38	-0.56	20.17	-56.02	17.44	MAX
	-1.62	-10.37	8.00	-147.54	-11.79	MIN
347	-8.76	1.33	5.04	-23.15	-9.13	MAX
	-25.09	-10.99	-1.16	-32.51	-15.12	MIN
348	-6.64	1.69	3.78	-15.95	-19.89	MAX

APPALTATORE:

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Consorzio Telese Società Consortile a Responsabilità Limitata

**ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO**

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	26 di 91

In	Mx [kNm]	My [kNm]	Mxy [kNm]	Tx [kN]	Ty [kN]	
	-18.55	1.32	-0.71	-22.47	-25.66	MIN
349	-6.72	-4.33	2.36	3.97	-3.67	MAX
	-10.64	-8.23	1.06	-3.80	-6.29	MIN
350	2.45	-1.12	2.13	-22.25	-10.11	MAX
	0.78	-3.49	0.57	-31.97	-16.88	MIN
351	9.20	7.39	-5.24	-20.10	-22.07	MAX
	6.18	3.74	-7.95	-32.50	-39.92	MIN
352	6.73	22.43	-7.91	0.00	-27.71	MAX
	3.70	12.35	-11.81	0.00	-51.55	MIN
353	6.73	22.43	-7.91	0.00	-27.71	MAX
	3.70	12.35	-11.81	0.00	-51.55	MIN
354	6.73	22.43	-7.91	0.00	-27.71	MAX
	3.70	12.35	-11.81	0.00	-51.55	MIN
355	6.40	21.33	9.73	0.00	1.50	MAX
	-10.21	-34.02	3.36	0.00	-59.92	MIN
356	0.59	18.70	9.78	1.93	8.68	MAX
	-2.24	-13.43	4.54	-2.90	-46.92	MIN
357	2.71	12.89	8.19	-0.85	16.77	MAX
	1.18	-3.06	5.50	-19.60	-24.43	MIN
358	0.44	4.27	3.11	-9.94	12.21	MAX
	0.32	-2.55	2.60	-28.34	-10.22	MIN
359	-2.72	2.13	2.64	-18.74	4.89	MAX
	-3.80	-1.28	-0.06	-31.49	-3.41	MIN
360	-2.21	2.48	1.63	-16.78	2.87	MAX
	-7.94	-1.67	-0.18	-23.24	-1.18	MIN
361	-0.46	1.19	1.20	3.33	7.83	MAX
	-0.64	0.55	0.40	-2.35	3.74	MIN
362	2.65	1.73	-0.83	-7.66	7.05	MAX
	1.70	0.82	-1.10	-11.56	3.77	MIN
363	5.07	11.00	-3.95	-4.29	8.12	MAX
	3.41	6.79	-5.67	-7.36	4.91	MIN
364	5.59	18.63	-7.72	0.00	9.76	MAX
	2.85	9.49	-11.64	0.00	5.75	MIN
365	5.59	18.63	-7.72	0.00	9.76	MAX
	2.85	9.49	-11.64	0.00	5.75	MIN
366	5.59	18.63	-7.72	0.00	9.76	MAX
	2.85	9.49	-11.64	0.00	5.75	MIN
367	5.13	17.09	11.53	0.00	-41.07	MAX
	-10.77	-35.90	1.35	0.00	-68.79	MIN
368	1.76	20.41	7.79	0.71	-30.15	MAX
	1.08	-12.32	2.92	-2.61	-58.65	MIN
369	1.53	12.02	4.24	-0.04	-11.53	MAX
	0.44	-2.97	3.04	-5.61	-37.82	MIN
370	1.88	5.65	2.40	-3.72	-0.63	MAX
	0.51	-1.46	1.99	-12.18	-18.04	MIN
371	0.62	1.57	0.80	-6.53	2.08	MAX
	0.33	-0.31	0.17	-12.70	-7.65	MIN
372	-0.01	0.02	1.22	-11.73	1.46	MAX
	-0.64	-0.11	0.07	-16.33	-3.64	MIN

APPALTATORE: TELESE S.c.a r.l. Consorzio Telese Società Consortile a Responsabilità Limitata	ITINERARIO NAPOLI – BARI RADDOPPIO TRATTA CANCELLO-BENEVENTO II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO 2° SUBLOTTO TELESE – SAN LORENZO PROGETTO ESECUTIVO					
PROGETTAZIONE: Mandatario: SYSTRA S.A. Mandante: SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.	COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
Relazione di calcolo IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX	IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	27 di 91

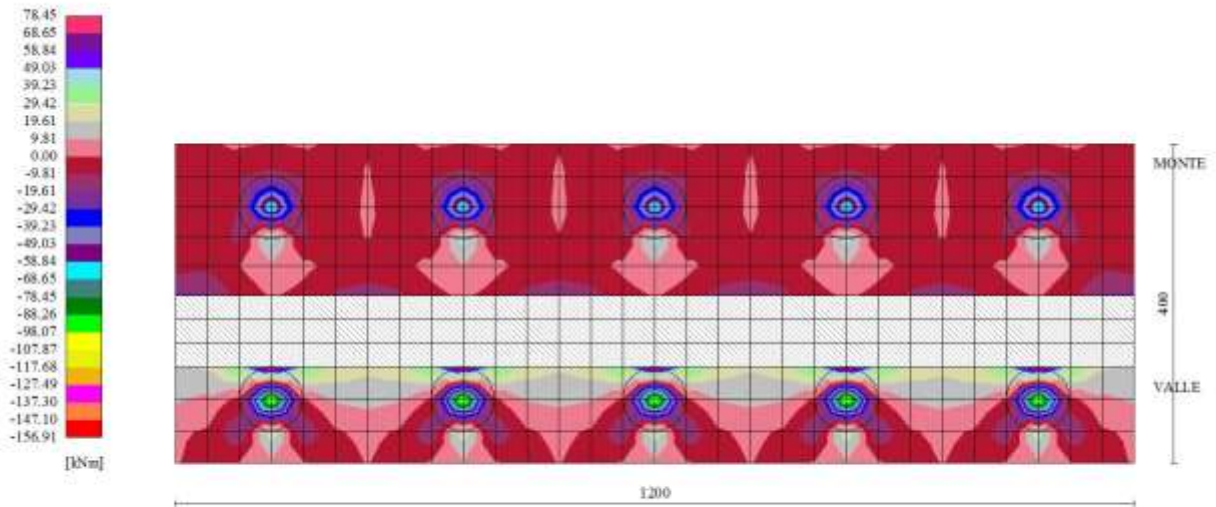


Fig. 8 - Piastra fondazione - Momento M_{yMAX} (Combinazione n° 1)

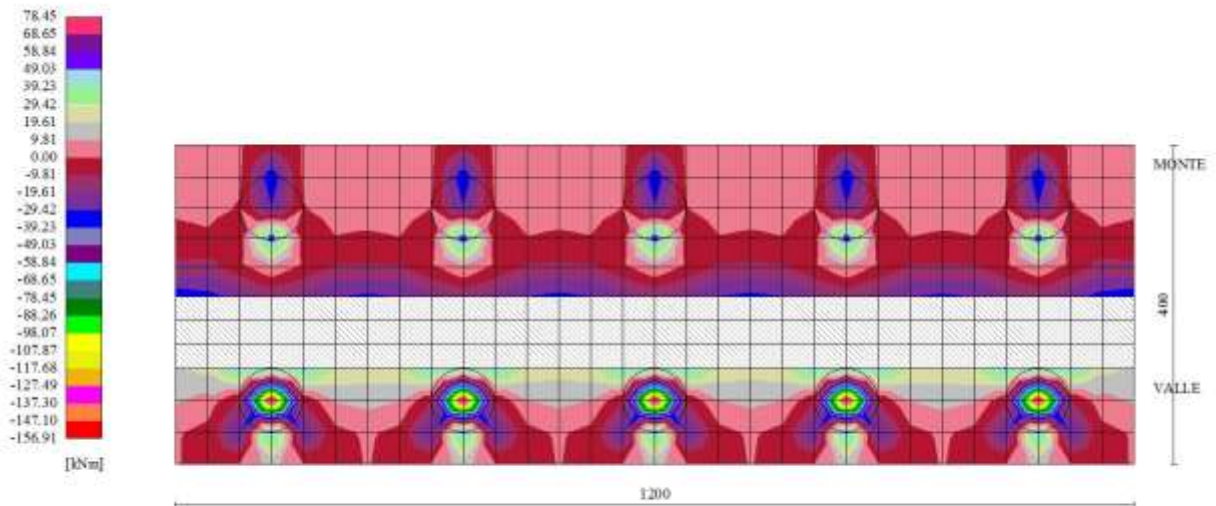


Fig. 9 - Piastra fondazione - Momento M_{yMIN} (Combinazione n° 2)

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PROGETTAZIONE: Mandatario: SYSTRA S.A. Mandante: SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.	COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
Relazione di calcolo IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX	IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	28 di 91

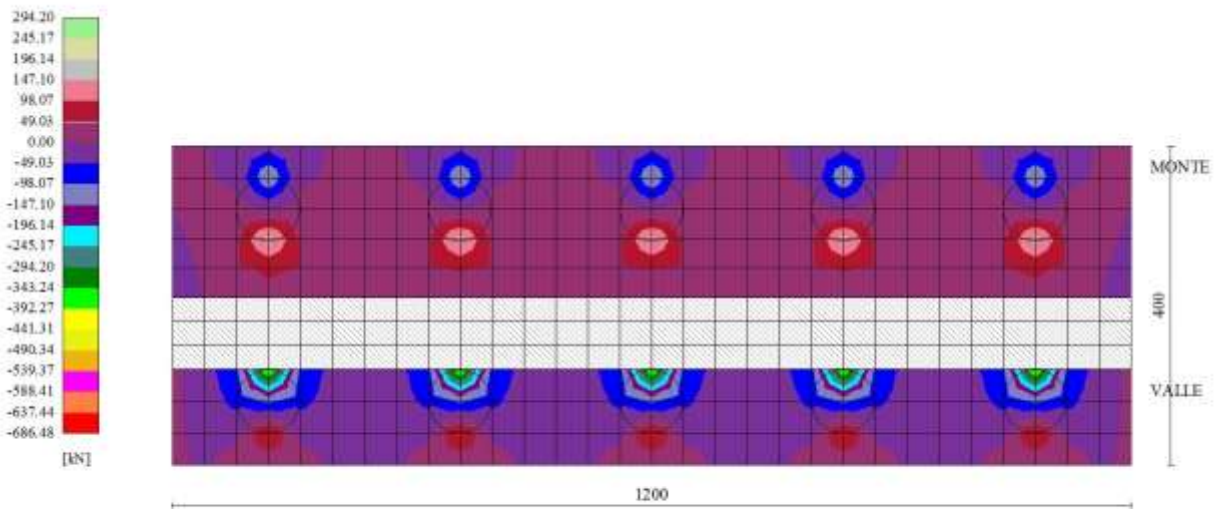


Fig. 10 - Piastra fondazione - Taglio T_{yMAX} (Combinazione n° 7)

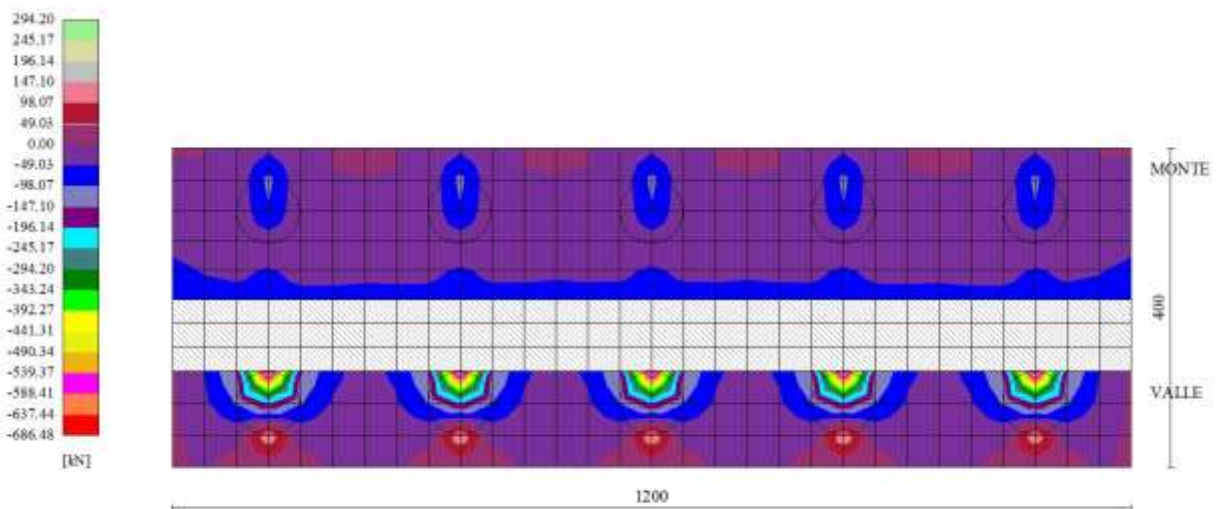


Fig. 11 - Piastra fondazione - Taglio T_{yMIN} (Combinazione n° 2)

Sollecitazioni pali

Simbologia adottata

APPALTATORE:

TELESE S.c.a r.l.
Consorzio Telese Società Consortile a Responsabilità Limitata

ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
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2° SUBLOTTO TELESE – SAN LORENZO

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA LOTTO CODIFICA DOCUMENTO REV. FOGLIO
IF2R 2.2.E.ZZ CL TR.16.0.5.009 A 29 di 91

N Sforzo normale, espresso in [kN]. Positivo se di compressione.
T Taglio, espresso in [kN]. Positivo se diretto da monte verso valle
M Momento, espresso in [kNm]. Positivo se tende le fibre contro terra (a monte)

Palo n° 1

n°	Y [m]	Ne [kN]	Nr [kN]	Te [kN]	Tr [kN]	Me [kNm]	Mr [kNm]
1	0.00	226.46	3460.00	-68.55	-535.60	-29.17	-227.87
30	2.32	251.30	3419.11	0.59	-280.75	38.46	812.51
52	4.08	265.99	3343.70	10.80	224.66	25.37	890.26
101	8.00	284.64	0.00	0.15	8.27	0.00	0.00

Palo n° 2

n°	Y [m]	Ne [kN]	Nr [kN]	Te [kN]	Tr [kN]	Me [kNm]	Mr [kNm]
1	0.00	401.64	3460.10	-68.55	-621.27	-29.17	-264.33
30	2.32	424.45	3419.21	0.59	-365.17	38.46	973.24
52	4.08	435.37	3343.79	10.80	188.48	25.37	1193.21
81	6.40	440.58	3180.78	5.60	366.15	4.66	340.40

Palo n° 1

n°	Y [m]	Ne [kN]	Nr [kN]	Te [kN]	Tr [kN]	Me [kNm]	Mr [kNm]
1	0.00	110.81	2769.96	-136.54	-558.84	-75.00	-306.95
31	2.40	137.81	2726.52	0.22	-285.30	88.40	811.67
54	4.24	155.60	2644.75	25.11	241.52	56.87	868.30
101	8.00	183.36	0.00	0.38	8.68	0.00	0.00

Palo n° 2

n°	Y [m]	Ne [kN]	Nr [kN]	Te [kN]	Tr [kN]	Me [kNm]	Mr [kNm]
1	0.00	506.43	3460.10	-136.54	-645.99	-75.00	-354.82
31	2.40	528.58	3416.67	0.22	-370.68	88.37	970.66
54	4.24	537.13	3334.90	25.10	224.18	56.85	1172.94
67	5.28	538.46	3268.60	21.67	421.67	31.90	820.78

Palo n° 1

n°	Y [m]	Ne [kN]	Nr [kN]	Te [kN]	Tr [kN]	Me [kNm]	Mr [kNm]
1	0.00	251.38	3460.12	-50.52	-542.53	-23.39	-251.17
31	2.40	276.66	3416.68	0.49	-268.99	25.55	828.32
53	4.16	290.63	3339.41	7.22	235.16	16.72	876.74
101	8.00	306.45	0.00	0.10	8.39	0.00	0.00

Palo n° 2

n°	Y [m]	Ne [kN]	Nr [kN]	Te [kN]	Tr [kN]	Me [kNm]	Mr [kNm]
1	0.00	365.86	3460.01	-50.52	-628.98	-23.39	-291.19
31	2.40	389.74	3416.58	0.49	-354.00	25.55	993.89
53	4.16	401.18	3339.30	7.22	210.11	16.72	1182.75
87	6.88	407.87	3137.88	2.73	289.73	1.60	181.67

Palo n° 1

n°	Y [m]	Ne [kN]	Nr [kN]	Te [kN]	Tr [kN]	Me [kNm]	Mr [kNm]
1	0.00	285.91	3460.06	-39.52	-610.87	-31.68	-489.74
38	2.96	315.46	3396.49	0.39	-189.01	13.40	908.45
60	4.72	327.21	3306.09	4.02	291.86	8.35	778.65
101	8.00	336.69	0.00	0.08	9.68	0.00	0.00

Palo n° 2

n°	Y [m]	Ne [kN]	Nr [kN]	Te [kN]	Tr [kN]	Me [kNm]	Mr [kNm]
1	0.00	331.33	3460.07	-39.52	-702.47	-31.68	-563.18
38	2.96	360.06	3396.48	0.39	-277.38	13.40	1100.83
60	4.72	370.64	3306.06	4.02	331.86	8.35	1081.34
94	7.44	376.75	3083.93	1.01	177.00	0.31	55.24

APPALTATORE:

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 II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
 2° SUBLOTTO TELESE – SAN LORENZO**

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	30 di 91

Palo n° 1

n°	Y [m]	Ne [kN]	Nr [kN]	Te [kN]	Tr [kN]	Me [kNm]	Mr [kNm]
1	0.00	290.76	3460.04	-33.58	-616.96	-27.85	-511.67
38	2.96	320.23	3396.47	0.13	-195.10	11.03	904.55
61	4.80	332.27	3300.97	3.33	299.36	6.74	759.91
101	8.00	340.94	0.00	0.07	9.80	0.00	0.00

Palo n° 2

n°	Y [m]	Ne [kN]	Nr [kN]	Te [kN]	Tr [kN]	Me [kNm]	Mr [kNm]
1	0.00	326.48	3460.04	-33.58	-709.32	-27.85	-588.27
38	2.96	355.30	3396.47	0.13	-284.07	11.03	1095.75
61	4.80	366.37	3300.98	3.33	348.56	6.74	1060.83
95	7.52	372.43	3075.96	0.73	154.35	0.19	41.57

Palo n° 1

n°	Y [m]	Ne [kN]	Nr [kN]	Te [kN]	Tr [kN]	Me [kNm]	Mr [kNm]
1	0.00	266.08	3460.08	-40.99	-550.52	-20.73	-278.34
32	2.48	291.90	3414.03	0.45	-257.66	19.35	842.48
54	4.24	305.34	3334.89	5.51	244.84	12.56	863.02
101	8.00	319.33	0.00	0.08	8.53	0.00	0.00

Palo n° 2

n°	Y [m]	Ne [kN]	Nr [kN]	Te [kN]	Tr [kN]	Me [kNm]	Mr [kNm]
1	0.00	351.16	3460.01	-40.99	-637.47	-20.73	-322.30
32	2.48	375.86	3413.96	0.45	-343.00	19.35	1011.96
54	4.24	387.39	3334.82	5.51	230.45	12.56	1170.15
90	7.12	394.55	3115.30	1.70	241.11	0.79	117.60

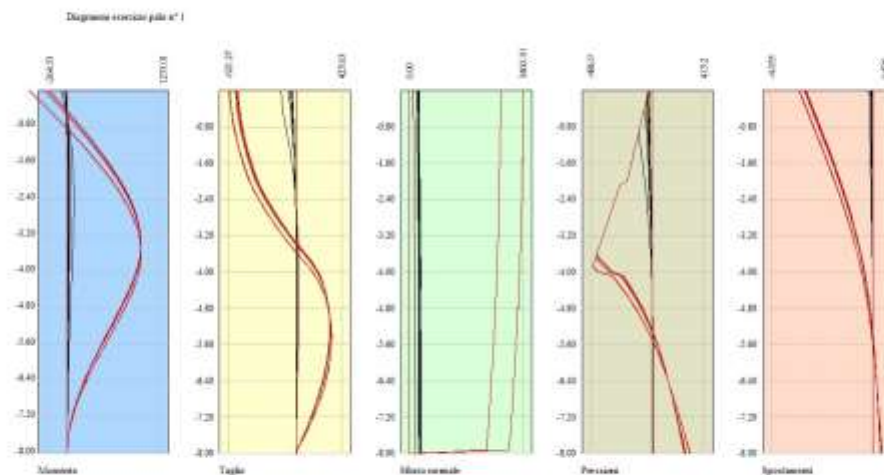


Fig. 12 - Sollecitazioni palo (Palo n° 1) (Inviluppo)

APPALTATORE: TELESE S.c.a r.l. Consorzio Telese Società Consortile a Responsabilità Limitata	ITINERARIO NAPOLI – BARI RADDOPPIO TRATTA CANCELLO-BENEVENTO II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO 2° SUBLOTTO TELESE – SAN LORENZO PROGETTO ESECUTIVO												
PROGETTAZIONE: Mandatario: SYSTRA S.A. Mandante: SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.													
Relazione di calcolo IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX	<table border="1"> <tr> <td>COMMESSA</td> <td>LOTTO</td> <td>CODIFICA</td> <td>DOCUMENTO</td> <td>REV.</td> <td>FOGLIO</td> </tr> <tr> <td>IF2R</td> <td>2.2.E.ZZ</td> <td>CL</td> <td>TR.16.0.5.009</td> <td>A</td> <td>31 di 91</td> </tr> </table>	COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO	IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	31 di 91
COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO								
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	31 di 91								

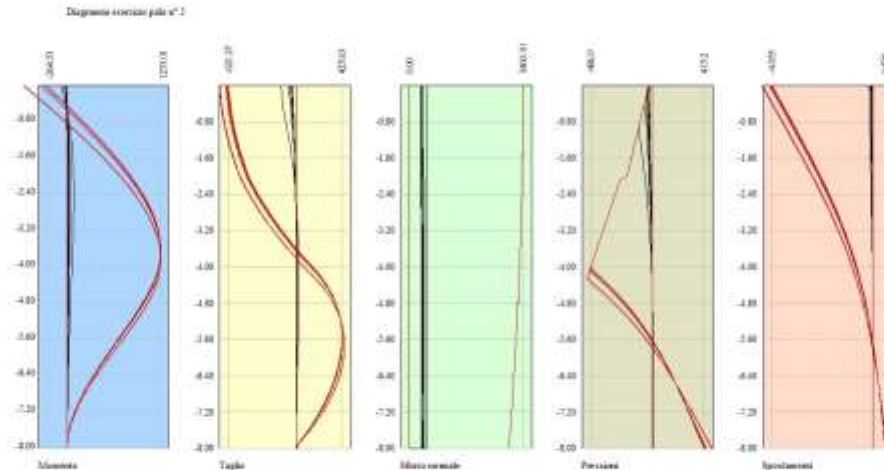


Fig. 13 - Sollecitazioni palo (Palo n° 2) (Inviluppo)

Verifiche strutturali

Verifiche a flessione

Elementi calcolati a trave

Simbologia adottata

n°	indice sezione
Y	ordinata sezione espressa in [m]
B	larghezza sezione espressa in [cm]
H	altezza sezione espressa in [cm]
Afi	area ferri inferiori espressa in [cmq]
Afs	area ferri superiori espressa in [cmq]
M	momento agente espressa in [kNm]
N	sforzo normale agente espressa in [kN]
Mu	momento ultimi espresso in [kNm]
Nu	sforzo normale ultimo espressa in [kN]
FS	fattore di sicurezza (rapporto tra sollecitazione ultima e sollecitazione agente)

Elementi calcolati a piastra

Simbologia adottata

n°	indice sezione
Y	ordinata sezione espressa in [m]
B	larghezza sezione espressa in [cm]
H	altezza sezione espressa in [cm]
Afi, Afs	area ferri inferiori e superiori, espresso in [cmq]
Mp, Mn	momento positivo e negativo agente espressa in [kNm]
Mu	momento ultimi espresso in [kNm]
FS	fattore di sicurezza (rapporto tra sollecitazione ultima e sollecitazione agente)

Paramento

n°	B [cm]	H [cm]	Afi [cmq]	Afs [cmq]	M [kNm]	N [kN]	Mu [kNm]	Nu [kN]	FS
1	100	70	5.65	7.70	2.90	6.50	571.89	1281.82	197.203
2	100	70	5.65	7.70	3.91	8.22	519.48	1090.23	132.704
3	100	70	5.65	7.70	4.93	9.93	492.91	993.08	99.998
4	100	70	5.65	7.70	5.94	11.65	476.84	934.35	80.225
5	100	70	5.65	7.70	6.96	13.36	466.08	895.01	66.981
6	100	70	5.65	7.70	7.97	15.08	458.37	866.81	57.490

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PROGETTAZIONE:

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PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA LOTTO CODIFICA DOCUMENTO REV. FOGLIO
IF2R 2.2.E.ZZ CL TR.16.0.5.009 A 32 di 91

n°	B [cm]	H [cm]	Afi [cmq]	Afs [cmq]	M [kNm]	N [kN]	Mu [kNm]	Nu [kN]	FS
7	100	70	5.65	7.70	8.99	16.79	452.02	844.58	50.294
8	100	70	5.65	7.70	10.00	18.51	446.18	825.63	44.608
9	100	70	5.65	7.70	11.02	20.22	441.52	810.53	40.077
10	100	70	5.65	7.70	12.03	21.94	437.73	798.21	36.382
11	100	70	5.65	7.70	13.05	23.66	434.57	787.97	33.311
12	100	70	5.65	7.70	14.06	25.37	431.91	779.33	30.718
13	100	70	5.65	7.70	15.08	27.09	429.63	771.93	28.499
14	100	70	5.65	7.70	16.09	28.80	427.66	765.53	26.579
15	100	70	5.65	7.70	17.10	30.52	425.93	759.94	24.902
16	100	70	5.65	7.70	18.12	32.23	424.41	755.01	23.424
17	100	70	5.65	7.70	19.13	33.95	423.07	750.64	22.111
18	100	70	5.65	7.70	20.15	35.66	421.86	746.72	20.938
19	100	70	5.65	7.70	21.16	37.38	420.78	743.21	19.883
20	100	70	5.65	7.70	22.18	39.09	419.80	740.03	18.929
21	100	70	5.65	7.70	23.19	40.81	418.91	737.14	18.063
22	100	70	5.65	7.70	24.21	42.53	418.10	734.50	17.272
23	100	70	5.65	7.70	25.22	44.24	417.35	732.09	16.548
24	100	70	5.65	7.70	26.24	45.96	416.67	729.87	15.882
25	100	70	5.65	7.70	27.25	47.67	416.04	727.82	15.267
26	100	70	5.65	7.70	28.26	49.39	415.45	725.92	14.699
27	100	90	5.65	7.70	32.84	50.43	650.36	998.58	19.803
28	100	90	5.65	7.70	33.86	52.63	663.33	1031.18	19.593
29	100	90	5.65	7.70	34.87	54.84	676.03	1063.10	19.387
30	100	90	5.65	7.70	35.88	57.04	688.47	1094.35	19.186
31	100	90	5.65	7.70	36.90	59.24	700.65	1124.96	18.989
32	100	90	5.65	7.70	37.91	61.45	712.58	1154.95	18.796
33	100	90	5.65	7.70	38.94	63.65	721.09	1178.64	18.517
34	100	90	5.65	7.70	40.01	65.86	727.98	1198.18	18.194
35	100	90	5.65	7.70	41.13	68.06	733.38	1213.52	17.830
36	100	90	5.65	7.70	42.31	70.26	737.08	1224.03	17.421
37	100	90	5.65	7.70	43.56	72.47	738.95	1229.33	16.964
38	100	90	5.65	7.70	44.89	74.67	738.94	1229.30	16.463
39	100	90	5.65	7.70	46.29	76.88	737.07	1223.99	15.922
40	100	90	5.65	7.70	47.79	79.08	733.40	1213.59	15.346
41	100	90	5.65	7.70	49.38	81.28	728.06	1198.41	14.744
42	100	90	5.65	7.70	51.07	83.49	721.16	1178.85	14.120
43	100	90	5.65	7.70	52.87	85.69	712.49	1154.72	13.475
44	100	90	5.65	7.70	54.56	86.40	683.95	1082.99	12.535
45	100	90	5.65	7.70	57.98	88.60	645.47	986.30	11.132
46	100	90	5.65	7.70	58.05	88.64	644.76	984.50	11.106
47	100	90	5.65	7.70	61.66	90.84	611.51	900.93	9.918
48	100	90	5.65	7.70	65.46	93.04	582.40	827.77	8.897

Fondazione

Is	Afi [cmq]	Afs [cmq]	Mp [kNm]	Mn [kNm]	Mu [kNm]	FS
1-1-P	9.24	9.24	0.83	-0.04	1142.20	100.000 (1)
1-2-P	9.24	9.24	0.58	-0.85	1142.20	100.000 (1)
1-3-P	9.24	9.24	0.00	-3.63	1142.20	100.000 (1)
1-4-P	9.24	9.24	0.00	-13.34	-1142.20	85.591 (2)
1-5-P	9.24	9.24	0.06	-17.76	-1142.20	64.318 (2)
1-6-P	9.24	9.24	0.02	-19.06	-1142.20	59.938 (2)
1-7-P	9.24	9.24	0.05	-12.95	-1142.20	88.230 (2)
1-8-P	9.24	9.24	0.36	-2.80	1142.20	100.000 (1)
1-9-P	9.24	9.24	6.75	-0.03	1142.20	100.000 (1)
1-10-P	9.24	9.24	9.12	0.00	1142.20	100.000 (1)
1-11-P	9.24	9.24	11.93	0.00	1142.20	95.749 (2)
1-12-P	9.24	9.24	7.75	-0.02	1142.20	100.000 (1)
1-13-P	9.24	9.24	1.42	-0.98	1142.20	100.000 (1)
1-14-P	9.24	9.24	0.02	-7.46	1142.20	100.000 (1)
1-15-P	9.24	9.24	0.05	-14.72	-1142.20	77.572 (2)
1-16-P	9.24	9.24	0.09	-13.78	-1142.20	82.915 (2)
1-17-P	9.24	9.24	0.02	-6.48	1142.20	100.000 (1)
1-18-P	9.24	9.24	2.61	-0.46	1142.20	100.000 (1)
1-19-P	9.24	9.24	8.18	-0.01	1142.20	100.000 (1)
1-20-P	9.24	9.24	12.56	0.00	1142.20	90.939 (2)
1-21-P	9.24	9.24	9.00	0.00	1142.20	100.000 (1)
1-22-P	9.24	9.24	5.64	-0.09	1142.20	100.000 (1)
1-23-P	9.24	9.24	0.32	-3.40	1142.20	100.000 (1)
1-24-P	9.24	9.24	0.14	-11.93	-1142.20	95.760 (2)
1-25-P	9.24	9.24	0.00	-17.08	-1142.20	66.866 (2)
1-26-P	9.24	9.24	0.14	-11.93	-1142.20	95.760 (2)
1-27-P	9.24	9.24	0.32	-3.40	1142.20	100.000 (1)
1-28-P	9.24	9.24	5.64	-0.09	1142.20	100.000 (1)
1-29-P	9.24	9.24	9.00	0.00	1142.20	100.000 (1)
1-30-P	9.24	9.24	12.56	0.00	1142.20	90.939 (2)
1-31-P	9.24	9.24	8.18	-0.01	1142.20	100.000 (1)
1-32-P	9.24	9.24	2.61	-0.46	1142.20	100.000 (1)

APPALTATORE:

TELESE S.c.a r.l.
Consorzio Telese Società Consortile a Responsabilità Limitata

**ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO**

PROGETTAZIONE:

Mandatario:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	33 di 91

Is	Afi [cmq]	Afs [cmq]	Mp [kNm]	Mn [kNm]	Mu [kNm]	FS
1-33-P	9.24	9.24	0.02	-6.48	1142.20	100.000 (1)
1-34-P	9.24	9.24	0.09	-13.78	-1142.20	82.915 (2)
1-35-P	9.24	9.24	0.05	-14.72	-1142.20	77.572 (2)
1-36-P	9.24	9.24	0.02	-7.46	1142.20	100.000 (1)
1-37-P	9.24	9.24	1.42	-0.98	1142.20	100.000 (1)
1-38-P	9.24	9.24	7.75	-0.02	1142.20	100.000 (1)
1-39-P	9.24	9.24	11.93	0.00	1142.20	95.749 (2)
1-40-P	9.24	9.24	9.12	0.00	1142.20	100.000 (1)
1-41-P	9.24	9.24	6.75	-0.03	1142.20	100.000 (1)
1-42-P	9.24	9.24	0.36	-2.80	1142.20	100.000 (1)
1-43-P	9.24	9.24	0.05	-12.95	-1142.20	88.230 (2)
1-44-P	9.24	9.24	0.02	-19.06	-1142.20	59.938 (2)
1-45-P	9.24	9.24	0.06	-17.76	-1142.20	64.318 (2)
1-46-P	9.24	9.24	0.00	-13.34	-1142.20	85.591 (2)
1-47-P	9.24	9.24	0.00	-3.63	1142.20	100.000 (1)
1-48-P	9.24	9.24	0.58	-0.85	1142.20	100.000 (1)
1-49-P	9.24	9.24	0.83	-0.04	1142.20	100.000 (1)
2-1-P	9.24	9.24	2.60	-0.03	1142.20	100.000 (1)
2-2-P	9.24	9.24	3.51	0.00	1142.20	100.000 (1)
2-3-P	9.24	9.24	4.59	-0.01	1142.20	100.000 (1)
2-4-P	9.24	9.24	5.87	-0.03	1142.20	100.000 (1)
2-5-P	9.24	9.24	0.49	-23.37	-1142.20	44.218 (2)
2-6-P	9.24	9.24	0.22	-45.19	-1142.20	24.073 (2)
2-7-P	9.24	9.24	1.33	-5.19	1142.20	100.000 (1)
2-8-P	9.24	9.24	8.26	-0.02	1142.20	100.000 (1)
2-9-P	9.24	9.24	8.59	0.00	1142.20	100.000 (1)
2-10-P	9.24	9.24	8.54	0.00	1142.20	100.000 (1)
2-11-P	9.24	9.24	8.57	0.00	1142.20	100.000 (1)
2-12-P	9.24	9.24	8.75	0.00	1142.20	100.000 (1)
2-13-P	9.24	9.24	8.68	0.00	1142.20	100.000 (1)
2-14-P	9.24	9.24	3.28	-0.58	1142.20	100.000 (1)
2-15-P	9.24	9.24	0.24	-36.22	-1142.20	30.030 (2)
2-16-P	9.24	9.24	0.34	-28.71	-1142.20	36.001 (2)
2-17-P	9.24	9.24	8.61	-0.10	1142.20	100.000 (1)
2-18-P	9.24	9.24	8.62	0.00	1142.20	100.000 (1)
2-19-P	9.24	9.24	8.63	0.00	1142.20	100.000 (1)
2-20-P	9.24	9.24	8.47	0.00	1142.20	100.000 (1)
2-21-P	9.24	9.24	8.55	0.00	1142.20	100.000 (1)
2-22-P	9.24	9.24	8.64	0.00	1142.20	100.000 (1)
2-23-P	9.24	9.24	8.54	-0.03	1142.20	100.000 (1)
2-24-P	9.24	9.24	0.60	-13.94	-1142.20	65.566 (2)
2-25-P	9.24	9.24	0.17	-51.55	-1142.20	21.104 (2)
2-26-P	9.24	9.24	0.60	-13.94	-1142.20	65.566 (2)
2-27-P	9.24	9.24	8.54	-0.03	1142.20	100.000 (1)
2-28-P	9.24	9.24	8.64	0.00	1142.20	100.000 (1)
2-29-P	9.24	9.24	8.55	0.00	1142.20	100.000 (1)
2-30-P	9.24	9.24	8.47	0.00	1142.20	100.000 (1)
2-31-P	9.24	9.24	8.63	0.00	1142.20	100.000 (1)
2-32-P	9.24	9.24	8.62	0.00	1142.20	100.000 (1)
2-33-P	9.24	9.24	8.61	-0.10	1142.20	100.000 (1)
2-34-P	9.24	9.24	0.34	-28.71	-1142.20	36.001 (2)
2-35-P	9.24	9.24	0.24	-36.22	-1142.20	30.030 (2)
2-36-P	9.24	9.24	3.28	-0.58	1142.20	100.000 (1)
2-37-P	9.24	9.24	8.68	0.00	1142.20	100.000 (1)
2-38-P	9.24	9.24	8.75	0.00	1142.20	100.000 (1)
2-39-P	9.24	9.24	8.57	0.00	1142.20	100.000 (1)
2-40-P	9.24	9.24	8.54	0.00	1142.20	100.000 (1)
2-41-P	9.24	9.24	8.59	0.00	1142.20	100.000 (1)
2-42-P	9.24	9.24	8.26	-0.02	1142.20	100.000 (1)
2-43-P	9.24	9.24	1.33	-5.19	1142.20	100.000 (1)
2-44-P	9.24	9.24	0.22	-45.19	-1142.20	24.073 (2)
2-45-P	9.24	9.24	0.49	-23.37	-1142.20	44.218 (2)
2-46-P	9.24	9.24	5.87	-0.03	1142.20	100.000 (1)
2-47-P	9.24	9.24	4.59	-0.01	1142.20	100.000 (1)
2-48-P	9.24	9.24	3.51	0.00	1142.20	100.000 (1)
2-49-P	9.24	9.24	2.60	-0.03	1142.20	100.000 (1)
4-1-P	13.85	13.85	1.76	-2.08	1715.66	100.000 (1)
4-2-P	13.85	13.85	1.76	-2.82	1715.66	100.000 (1)
4-3-P	13.85	13.85	1.18	-4.28	1715.66	100.000 (1)
4-4-P	13.85	13.85	0.61	-7.71	1715.66	100.000 (1)
4-5-P	13.85	13.85	0.53	-10.51	1715.66	100.000 (1)
4-6-P	13.85	13.85	0.04	-11.28	1715.66	100.000 (1)
4-7-P	13.85	13.85	0.15	-7.28	1715.66	100.000 (1)
4-8-P	13.85	13.85	0.57	-2.77	1715.66	100.000 (1)
4-9-P	13.85	13.85	4.07	-0.80	1715.66	100.000 (1)
4-10-P	13.85	13.85	5.06	-0.43	1715.66	100.000 (1)
4-11-P	13.85	13.85	5.47	-0.41	1715.66	100.000 (1)
4-12-P	13.85	13.85	4.78	-0.65	1715.66	100.000 (1)
4-13-P	13.85	13.85	1.82	-1.86	1715.66	100.000 (1)
4-14-P	13.85	13.85	0.50	-5.19	1715.66	100.000 (1)
4-15-P	13.85	13.85	0.05	-8.18	1715.66	100.000 (1)

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Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	34 di 91

Is	Afi [cmq]	Afs [cmq]	Mp [kNm]	Mn [kNm]	Mu [kNm]	FS
4-16-P	13.85	13.85	0.20	-7.63	1715.66	100.000 (1)
4-17-P	13.85	13.85	0.76	-4.73	1715.66	100.000 (1)
4-18-P	13.85	13.85	2.63	-1.57	1715.66	100.000 (1)
4-19-P	13.85	13.85	5.15	-0.65	1715.66	100.000 (1)
4-20-P	13.85	13.85	6.02	-0.45	1715.66	100.000 (1)
4-21-P	13.85	13.85	5.42	-0.51	1715.66	100.000 (1)
4-22-P	13.85	13.85	3.98	-0.97	1715.66	100.000 (1)
4-23-P	13.85	13.85	0.99	-3.02	1715.66	100.000 (1)
4-24-P	13.85	13.85	0.37	-6.50	1715.66	100.000 (1)
4-25-P	13.85	13.85	0.00	-9.59	1715.66	100.000 (1)
4-26-P	13.85	13.85	0.37	-6.50	1715.66	100.000 (1)
4-27-P	13.85	13.85	0.99	-3.02	1715.66	100.000 (1)
4-28-P	13.85	13.85	3.98	-0.97	1715.66	100.000 (1)
4-29-P	13.85	13.85	5.42	-0.51	1715.66	100.000 (1)
4-30-P	13.85	13.85	6.02	-0.45	1715.66	100.000 (1)
4-31-P	13.85	13.85	5.15	-0.65	1715.66	100.000 (1)
4-32-P	13.85	13.85	2.63	-1.57	1715.66	100.000 (1)
4-33-P	13.85	13.85	0.76	-4.73	1715.66	100.000 (1)
4-34-P	13.85	13.85	0.20	-7.63	1715.66	100.000 (1)
4-35-P	13.85	13.85	0.05	-8.18	1715.66	100.000 (1)
4-36-P	13.85	13.85	0.50	-5.19	1715.66	100.000 (1)
4-37-P	13.85	13.85	1.82	-1.86	1715.66	100.000 (1)
4-38-P	13.85	13.85	4.78	-0.65	1715.66	100.000 (1)
4-39-P	13.85	13.85	5.47	-0.41	1715.66	100.000 (1)
4-40-P	13.85	13.85	5.06	-0.43	1715.66	100.000 (1)
4-41-P	13.85	13.85	4.07	-0.80	1715.66	100.000 (1)
4-42-P	13.85	13.85	0.57	-2.77	1715.66	100.000 (1)
4-43-P	13.85	13.85	0.15	-7.28	1715.66	100.000 (1)
4-44-P	13.85	13.85	0.04	-11.28	1715.66	100.000 (1)
4-45-P	13.85	13.85	0.53	-10.51	1715.66	100.000 (1)
4-46-P	13.85	13.85	0.61	-7.71	1715.66	100.000 (1)
4-47-P	13.85	13.85	1.18	-4.28	1715.66	100.000 (1)
4-48-P	13.85	13.85	1.76	-2.82	1715.66	100.000 (1)
4-49-P	13.85	13.85	1.76	-2.08	1715.66	100.000 (1)
5-1-P	13.85	13.85	1.04	-0.34	1715.66	100.000 (1)
5-2-P	13.85	13.85	0.54	-1.59	1715.66	100.000 (1)
5-3-P	13.85	13.85	0.36	-4.75	1715.66	100.000 (1)
5-4-P	13.85	13.85	0.40	-10.53	1715.66	100.000 (1)
5-5-P	13.85	13.85	0.00	-25.41	-1715.66	100.000 (1)
5-6-P	13.85	13.85	0.00	-35.47	-1715.66	86.945 (1)
5-7-P	13.85	13.85	0.00	-15.13	1715.66	100.000 (1)
5-8-P	13.85	13.85	1.24	-3.35	1715.66	100.000 (1)
5-9-P	13.85	13.85	6.05	-0.01	1715.66	100.000 (1)
5-10-P	13.85	13.85	9.37	0.00	1715.66	100.000 (1)
5-11-P	13.85	13.85	10.41	0.00	1715.66	100.000 (1)
5-12-P	13.85	13.85	8.02	0.00	1715.66	100.000 (1)
5-13-P	13.85	13.85	2.41	-0.54	1715.66	100.000 (1)
5-14-P	13.85	13.85	0.00	-7.62	1715.66	100.000 (1)
5-15-P	13.85	13.85	0.00	-26.66	-1715.66	100.000 (1)
5-16-P	13.85	13.85	0.00	-22.74	-1715.66	100.000 (1)
5-17-P	13.85	13.85	1.58	-5.08	1715.66	100.000 (1)
5-18-P	13.85	13.85	3.97	-0.13	1715.66	100.000 (1)
5-19-P	13.85	13.85	9.36	0.00	1715.66	100.000 (1)
5-20-P	13.85	13.85	12.11	0.00	1715.66	100.000 (1)
5-21-P	13.85	13.85	10.46	0.00	1715.66	100.000 (1)
5-22-P	13.85	13.85	6.81	-0.02	1715.66	100.000 (1)
5-23-P	13.85	13.85	1.99	-2.53	1715.66	100.000 (1)
5-24-P	13.85	13.85	0.00	-14.97	1715.66	100.000 (1)
5-25-P	13.85	13.85	0.00	-34.14	-1715.66	89.597 (1)
5-26-P	13.85	13.85	0.00	-14.97	1715.66	100.000 (1)
5-27-P	13.85	13.85	1.99	-2.53	1715.66	100.000 (1)
5-28-P	13.85	13.85	6.81	-0.02	1715.66	100.000 (1)
5-29-P	13.85	13.85	10.46	0.00	1715.66	100.000 (1)
5-30-P	13.85	13.85	12.11	0.00	1715.66	100.000 (1)
5-31-P	13.85	13.85	9.36	0.00	1715.66	100.000 (1)
5-32-P	13.85	13.85	3.97	-0.13	1715.66	100.000 (1)
5-33-P	13.85	13.85	1.58	-5.08	1715.66	100.000 (1)
5-34-P	13.85	13.85	0.00	-22.74	-1715.66	100.000 (1)
5-35-P	13.85	13.85	0.00	-26.66	-1715.66	100.000 (1)
5-36-P	13.85	13.85	0.00	-7.62	1715.66	100.000 (1)
5-37-P	13.85	13.85	2.41	-0.54	1715.66	100.000 (1)
5-38-P	13.85	13.85	8.02	0.00	1715.66	100.000 (1)
5-39-P	13.85	13.85	10.41	0.00	1715.66	100.000 (1)
5-40-P	13.85	13.85	9.37	0.00	1715.66	100.000 (1)
5-41-P	13.85	13.85	6.05	-0.01	1715.66	100.000 (1)
5-42-P	13.85	13.85	1.24	-3.35	1715.66	100.000 (1)
5-43-P	13.85	13.85	0.00	-15.13	1715.66	100.000 (1)
5-44-P	13.85	13.85	0.00	-35.47	-1715.66	86.945 (1)
5-45-P	13.85	13.85	0.00	-25.41	-1715.66	100.000 (1)
5-46-P	13.85	13.85	0.40	-10.53	1715.66	100.000 (1)
5-47-P	13.85	13.85	0.36	-4.75	1715.66	100.000 (1)

APPALTATORE:

TELESE S.c.a r.l.
 Consorzio Telese Società Consortile a Responsabilità Limitata

**ITINERARIO NAPOLI – BARI
 RADDOPPIO TRATTA CANCELLO-BENEVENTO
 II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
 2° SUBLOTTO TELESE – SAN LORENZO**

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	35 di 91

Is	Afi [cmq]	Afs [cmq]	Mp [kNm]	Mn [kNm]	Mu [kNm]	FS
5-48-P	13.85	13.85	0.54	-1.59	1715.66	100.000 (1)
5-49-P	13.85	13.85	1.04	-0.34	1715.66	100.000 (1)
6-1-S	15.39	15.39	0.53	-1.93	1903.67	100.000 (1)
6-2-S	15.39	15.39	0.05	-4.02	1903.67	100.000 (1)
6-3-S	15.39	15.39	0.80	-5.68	1903.67	100.000 (1)
6-4-S	15.39	15.39	3.46	-5.92	1903.67	100.000 (1)
6-5-S	15.39	15.39	11.02	-0.20	1903.67	100.000 (1)
6-6-S	15.39	15.39	31.70	-0.05	1903.67	60.046 (2)
6-7-S	15.39	15.39	0.00	-30.37	-1903.67	62.689 (2)
6-8-S	15.39	15.39	0.71	-8.51	-1903.67	100.000 (1)
6-9-S	15.39	15.39	1.51	-5.79	1903.67	100.000 (1)
6-10-S	15.39	15.39	0.97	-5.88	1903.67	100.000 (1)
6-11-S	15.39	15.39	0.70	-7.81	1903.67	100.000 (1)
6-12-S	15.39	15.39	0.28	-7.96	1903.67	100.000 (1)
6-13-S	15.39	15.39	0.04	-5.26	1903.67	100.000 (1)
6-14-S	15.39	15.39	0.00	-2.61	1903.67	100.000 (1)
6-15-S	15.39	15.39	0.33	-0.25	1903.67	100.000 (1)
7-1-S	15.39	15.39	3.21	-1.28	1903.67	100.000 (1)
7-2-S	15.39	15.39	4.51	-3.56	1903.67	100.000 (1)
7-3-S	15.39	15.39	0.09	-7.41	1903.67	100.000 (1)
7-4-S	15.39	15.39	1.14	-44.72	-1903.67	36.486 (2)
7-5-S	15.39	15.39	6.56	-22.61	-1903.67	50.527 (2)
7-6-S	15.39	15.39	50.29	0.00	1903.67	44.098 (1)
7-7-S	15.39	15.39	0.00	-22.54	-1903.67	84.464 (2)
7-8-S	15.39	15.39	2.34	-1.53	-1903.67	100.000 (1)
7-9-S	15.39	15.39	4.51	-1.45	1903.67	100.000 (1)
7-10-S	15.39	15.39	5.85	-2.99	1903.67	100.000 (1)
7-11-S	15.39	15.39	0.21	-17.07	1903.67	100.000 (1)
7-12-S	15.39	15.39	0.10	-25.87	1903.67	100.000 (1)
7-13-S	15.39	15.39	0.00	-12.93	1903.67	100.000 (1)
7-14-S	15.39	15.39	0.00	-5.21	1903.67	100.000 (1)
7-15-S	15.39	15.39	0.30	-0.15	1903.67	100.000 (1)
8-1-S	15.39	15.39	0.14	-2.72	1903.67	100.000 (1)
8-2-S	15.39	15.39	0.41	-1.76	1903.67	100.000 (1)
8-3-S	15.39	15.39	2.47	-0.67	1903.67	100.000 (1)
8-4-S	15.39	15.39	8.80	0.00	1903.67	100.000 (1)
8-5-S	15.39	15.39	16.76	0.00	1903.67	100.000 (1)
8-6-S	15.39	15.39	28.26	0.00	1903.67	67.370 (2)
8-7-S	15.39	15.39	0.00	-29.97	-1903.67	63.520 (2)
8-8-S	15.39	15.39	0.11	-6.29	-1903.67	100.000 (1)
8-9-S	15.39	15.39	0.47	-2.65	1903.67	100.000 (1)
8-10-S	15.39	15.39	0.48	-1.59	1903.67	100.000 (1)
8-11-S	15.39	15.39	0.18	-1.42	1903.67	100.000 (1)
8-12-S	15.39	15.39	0.04	-1.38	1903.67	100.000 (1)
8-13-S	15.39	15.39	0.00	-1.23	1903.67	100.000 (1)
8-14-S	15.39	15.39	0.01	-0.99	1903.67	100.000 (1)
8-15-S	15.39	15.39	0.01	-0.68	1903.67	100.000 (1)
9-1-S	15.39	15.39	4.14	-0.74	1903.67	100.000 (1)
9-2-S	15.39	15.39	9.13	-4.25	1903.67	83.376 (2)
9-3-S	15.39	15.39	0.00	-8.95	1903.67	100.000 (1)
9-4-S	15.39	15.39	0.58	-52.27	-1903.67	36.421 (2)
9-5-S	15.39	15.39	2.94	-24.72	-1903.67	61.616 (2)
9-6-S	15.39	15.39	52.73	0.00	1903.67	43.248 (1)
9-7-S	15.39	15.39	0.00	-21.11	-1903.67	90.163 (2)
9-8-S	15.39	15.39	3.56	-0.79	-1903.67	100.000 (1)
9-9-S	15.39	15.39	5.93	-1.08	1903.67	100.000 (1)
9-10-S	15.39	15.39	20.25	-1.42	1903.67	94.003 (2)
9-11-S	15.39	15.39	0.18	-18.81	1903.67	100.000 (1)
9-12-S	15.39	15.39	0.11	-29.03	1903.67	100.000 (1)
9-13-S	15.39	15.39	0.00	-14.46	1903.67	100.000 (1)
9-14-S	15.39	15.39	0.00	-5.64	1903.67	100.000 (1)
9-15-S	15.39	15.39	0.59	-0.01	1903.67	100.000 (1)
10-1-S	15.39	15.39	0.40	-2.34	1903.67	100.000 (1)
10-2-S	15.39	15.39	0.32	-3.18	1903.67	100.000 (1)
10-3-S	15.39	15.39	1.88	-2.94	1903.67	100.000 (1)
10-4-S	15.39	15.39	6.66	-0.49	1903.67	100.000 (1)
10-5-S	15.39	15.39	15.75	0.00	1903.67	100.000 (1)
10-6-S	15.39	15.39	30.07	0.00	1903.67	63.304 (2)
10-7-S	15.39	15.39	0.00	-29.49	-1903.67	64.550 (2)
10-8-S	15.39	15.39	0.36	-6.22	-1903.67	100.000 (1)
10-9-S	15.39	15.39	0.74	-3.17	1903.67	100.000 (1)
10-10-S	15.39	15.39	0.44	-3.09	1903.67	100.000 (1)
10-11-S	15.39	15.39	0.39	-3.04	1903.67	100.000 (1)
10-12-S	15.39	15.39	0.19	-2.76	1903.67	100.000 (1)
10-13-S	15.39	15.39	0.00	-2.39	1903.67	100.000 (1)
10-14-S	15.39	15.39	0.00	-1.50	1903.67	100.000 (1)
10-15-S	15.39	15.39	0.16	-0.44	1903.67	100.000 (1)
11-1-S	15.39	15.39	2.30	-2.10	1903.67	100.000 (1)
11-2-S	15.39	15.39	2.41	-3.91	1903.67	100.000 (1)
11-3-S	15.39	15.39	0.46	-6.38	1903.67	100.000 (1)
11-4-S	15.39	15.39	2.56	-27.41	-1903.67	46.306 (2)

APPALTATORE:

TELESE S.c.a r.l.
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ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO

PROGETTAZIONE:

Mandatario:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	36 di 91

Is	Afi [cmq]	Afs [cmq]	Mp [kNm]	Mn [kNm]	Mu [kNm]	FS
11-5-S	15.39	15.39	9.30	-12.50	-1903.67	60.903 (2)
11-6-S	15.39	15.39	40.20	0.00	1903.67	50.404 (1)
11-7-S	15.39	15.39	0.00	-25.13	-1903.67	75.752 (2)
11-8-S	15.39	15.39	1.68	-3.34	-1903.67	100.000 (1)
11-9-S	15.39	15.39	3.23	-2.36	1903.67	100.000 (1)
11-10-S	15.39	15.39	3.45	-3.36	1903.67	100.000 (1)
11-11-S	15.39	15.39	0.33	-11.57	1903.67	100.000 (1)
11-12-S	15.39	15.39	0.16	-16.46	1903.67	100.000 (1)
11-13-S	15.39	15.39	0.00	-8.88	1903.67	100.000 (1)
11-14-S	15.39	15.39	0.00	-3.84	1903.67	100.000 (1)
11-15-S	15.39	15.39	0.38	-0.29	1903.67	100.000 (1)
12-1-S	15.39	15.39	2.30	-2.10	1903.67	100.000 (1)
12-2-S	15.39	15.39	2.41	-3.91	1903.67	100.000 (1)
12-3-S	15.39	15.39	0.46	-6.38	1903.67	100.000 (1)
12-4-S	15.39	15.39	2.56	-27.41	-1903.67	46.306 (2)
12-5-S	15.39	15.39	9.30	-12.50	-1903.67	60.903 (2)
12-6-S	15.39	15.39	40.20	0.00	1903.67	50.404 (1)
12-7-S	15.39	15.39	0.00	-25.13	-1903.67	75.752 (2)
12-8-S	15.39	15.39	1.68	-3.34	-1903.67	100.000 (1)
12-9-S	15.39	15.39	3.23	-2.36	1903.67	100.000 (1)
12-10-S	15.39	15.39	3.45	-3.36	1903.67	100.000 (1)
12-11-S	15.39	15.39	0.33	-11.57	1903.67	100.000 (1)
12-12-S	15.39	15.39	0.16	-16.46	1903.67	100.000 (1)
12-13-S	15.39	15.39	0.00	-8.88	1903.67	100.000 (1)
12-14-S	15.39	15.39	0.00	-3.84	1903.67	100.000 (1)
12-15-S	15.39	15.39	0.38	-0.29	1903.67	100.000 (1)
13-1-S	15.39	15.39	0.40	-2.34	1903.67	100.000 (1)
13-2-S	15.39	15.39	0.32	-3.18	1903.67	100.000 (1)
13-3-S	15.39	15.39	1.88	-2.94	1903.67	100.000 (1)
13-4-S	15.39	15.39	6.66	-0.49	1903.67	100.000 (1)
13-5-S	15.39	15.39	15.75	0.00	1903.67	100.000 (1)
13-6-S	15.39	15.39	30.07	0.00	1903.67	63.304 (2)
13-7-S	15.39	15.39	0.00	-29.49	-1903.67	64.550 (2)
13-8-S	15.39	15.39	0.36	-6.22	-1903.67	100.000 (1)
13-9-S	15.39	15.39	0.74	-3.17	1903.67	100.000 (1)
13-10-S	15.39	15.39	0.44	-3.09	1903.67	100.000 (1)
13-11-S	15.39	15.39	0.39	-3.04	1903.67	100.000 (1)
13-12-S	15.39	15.39	0.19	-2.76	1903.67	100.000 (1)
13-13-S	15.39	15.39	0.00	-2.39	1903.67	100.000 (1)
13-14-S	15.39	15.39	0.00	-1.50	1903.67	100.000 (1)
13-15-S	15.39	15.39	0.16	-0.44	1903.67	100.000 (1)
14-1-S	15.39	15.39	4.14	-0.74	1903.67	100.000 (1)
14-2-S	15.39	15.39	9.13	-4.25	1903.67	83.376 (2)
14-3-S	15.39	15.39	0.00	-8.95	1903.67	100.000 (1)
14-4-S	15.39	15.39	0.58	-52.27	-1903.67	36.421 (2)
14-5-S	15.39	15.39	2.94	-24.72	-1903.67	61.616 (2)
14-6-S	15.39	15.39	52.73	0.00	1903.67	43.248 (1)
14-7-S	15.39	15.39	0.00	-21.11	-1903.67	90.163 (2)
14-8-S	15.39	15.39	3.56	-0.79	-1903.67	100.000 (1)
14-9-S	15.39	15.39	5.93	-1.08	1903.67	100.000 (1)
14-10-S	15.39	15.39	20.25	-1.42	1903.67	94.003 (2)
14-11-S	15.39	15.39	0.18	-18.81	1903.67	100.000 (1)
14-12-S	15.39	15.39	0.11	-29.03	1903.67	100.000 (1)
14-13-S	15.39	15.39	0.00	-14.46	1903.67	100.000 (1)
14-14-S	15.39	15.39	0.00	-5.64	1903.67	100.000 (1)
14-15-S	15.39	15.39	0.59	-0.01	1903.67	100.000 (1)
15-1-S	15.39	15.39	0.14	-2.72	1903.67	100.000 (1)
15-2-S	15.39	15.39	0.41	-1.76	1903.67	100.000 (1)
15-3-S	15.39	15.39	2.47	-0.67	1903.67	100.000 (1)
15-4-S	15.39	15.39	8.80	0.00	1903.67	100.000 (1)
15-5-S	15.39	15.39	16.76	0.00	1903.67	100.000 (1)
15-6-S	15.39	15.39	28.26	0.00	1903.67	67.370 (2)
15-7-S	15.39	15.39	0.00	-29.97	-1903.67	63.520 (2)
15-8-S	15.39	15.39	0.11	-6.29	-1903.67	100.000 (1)
15-9-S	15.39	15.39	0.47	-2.65	1903.67	100.000 (1)
15-10-S	15.39	15.39	0.48	-1.59	1903.67	100.000 (1)
15-11-S	15.39	15.39	0.18	-1.42	1903.67	100.000 (1)
15-12-S	15.39	15.39	0.04	-1.38	1903.67	100.000 (1)
15-13-S	15.39	15.39	0.00	-1.23	1903.67	100.000 (1)
15-14-S	15.39	15.39	0.01	-0.99	1903.67	100.000 (1)
15-15-S	15.39	15.39	0.01	-0.68	1903.67	100.000 (1)
16-1-S	15.39	15.39	3.21	-1.28	1903.67	100.000 (1)
16-2-S	15.39	15.39	4.51	-3.56	1903.67	100.000 (1)
16-3-S	15.39	15.39	0.09	-7.41	1903.67	100.000 (1)
16-4-S	15.39	15.39	1.14	-44.72	-1903.67	36.486 (2)
16-5-S	15.39	15.39	6.56	-22.61	-1903.67	50.527 (2)
16-6-S	15.39	15.39	50.29	0.00	1903.67	44.098 (1)
16-7-S	15.39	15.39	0.00	-22.54	-1903.67	84.464 (2)
16-8-S	15.39	15.39	2.34	-1.53	-1903.67	100.000 (1)
16-9-S	15.39	15.39	4.51	-1.45	1903.67	100.000 (1)
16-10-S	15.39	15.39	5.85	-2.99	1903.67	100.000 (1)

APPALTATORE:

TELESE S.c.a r.l.
Consorzio Telese Società Consortile a Responsabilità Limitata

**ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO**

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	37 di 91

Is	Afi [cmq]	Afs [cmq]	Mp [kNm]	Mn [kNm]	Mu [kNm]	FS
16-11-S	15.39	15.39	0.21	-17.07	1903.67	100.000 (1)
16-12-S	15.39	15.39	0.10	-25.87	1903.67	100.000 (1)
16-13-S	15.39	15.39	0.00	-12.93	1903.67	100.000 (1)
16-14-S	15.39	15.39	0.00	-5.21	1903.67	100.000 (1)
16-15-S	15.39	15.39	0.30	-0.15	1903.67	100.000 (1)
17-1-S	15.39	15.39	0.53	-1.93	1903.67	100.000 (1)
17-2-S	15.39	15.39	0.05	-4.02	1903.67	100.000 (1)
17-3-S	15.39	15.39	0.80	-5.68	1903.67	100.000 (1)
17-4-S	15.39	15.39	3.46	-5.92	1903.67	100.000 (1)
17-5-S	15.39	15.39	11.02	-0.20	1903.67	100.000 (1)
17-6-S	15.39	15.39	31.70	-0.05	1903.67	60.046 (2)
17-7-S	15.39	15.39	0.00	-30.37	-1903.67	62.689 (2)
17-8-S	15.39	15.39	0.71	-8.51	-1903.67	100.000 (1)
17-9-S	15.39	15.39	1.51	-5.79	1903.67	100.000 (1)
17-10-S	15.39	15.39	0.97	-5.88	1903.67	100.000 (1)
17-11-S	15.39	15.39	0.70	-7.81	1903.67	100.000 (1)
17-12-S	15.39	15.39	0.28	-7.96	1903.67	100.000 (1)
17-13-S	15.39	15.39	0.04	-5.26	1903.67	100.000 (1)
17-14-S	15.39	15.39	0.00	-2.61	1903.67	100.000 (1)
17-15-S	15.39	15.39	0.33	-0.25	1903.67	100.000 (1)

Pali in c.a.

Ip	Is	Ar [cmq]	M [kNm]	N [kN]	Mu [kNm]	Nu [kN]	FS
1	31	40.72	88.40	137.81	910.73	1419.81	10.302
2	32	62.83	88.35	529.12	918.55	5500.77	10.396

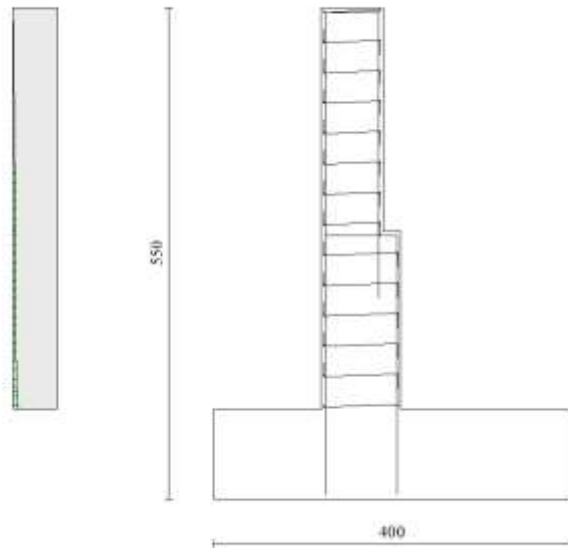


Fig. 14 - Paramento (Inviluppo)

APPALTATORE: TELESE S.c.a r.l. Consorzio Telese Società Consortile a Responsabilità Limitata	ITINERARIO NAPOLI – BARI RADDOPPIO TRATTA CANCELLO-BENEVENTO II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO 2° SUBLOTTO TELESE – SAN LORENZO PROGETTO ESECUTIVO												
PROGETTAZIONE: <u>Mandatario:</u> <u>Mandante:</u> SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.													
Relazione di calcolo IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX	<table border="1"> <thead> <tr> <th>COMMESSA</th> <th>LOTTO</th> <th>CODIFICA</th> <th>DOCUMENTO</th> <th>REV.</th> <th>FOGLIO</th> </tr> </thead> <tbody> <tr> <td>IF2R</td> <td>2.2.E.ZZ</td> <td>CL</td> <td>TR.16.0.5.009</td> <td>A</td> <td>38 di 91</td> </tr> </tbody> </table>	COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO	IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	38 di 91
COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO								
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	38 di 91								

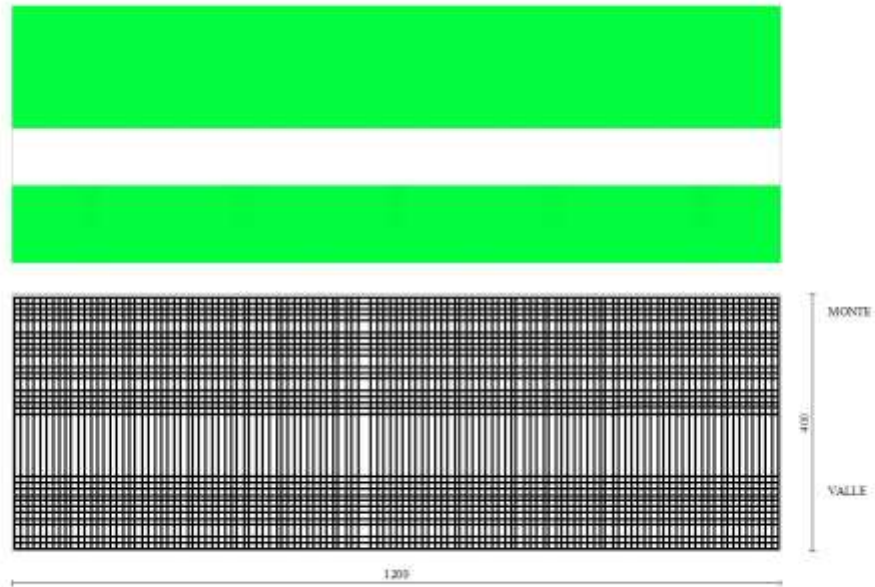


Fig. 15 - Piastra fondazione dir. X (Inviluppo)

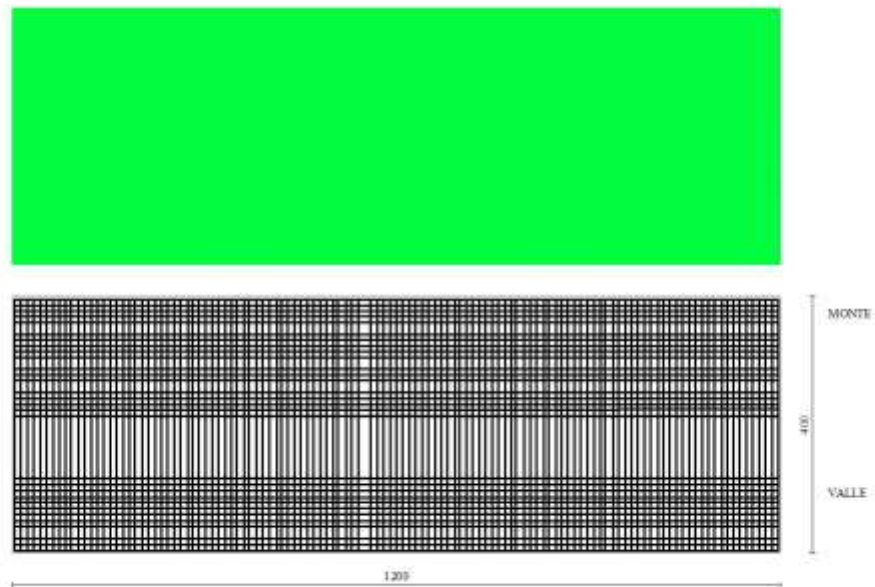


Fig. 16 - Piastra fondazione dir. Y (Inviluppo)

APPALTATORE: TELESE S.c.a r.l. Consorzio Telese Società Consortile a Responsabilità Limitata	ITINERARIO NAPOLI – BARI RADDOPPIO TRATTA CANCELLO-BENEVENTO II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO 2° SUBLOTTO TELESE – SAN LORENZO PROGETTO ESECUTIVO					
PROGETTAZIONE: <u>Mandatario:</u> SYSTRA S.A. <u>Mandante:</u> SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.	COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
Relazione di calcolo IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX	IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	39 di 91

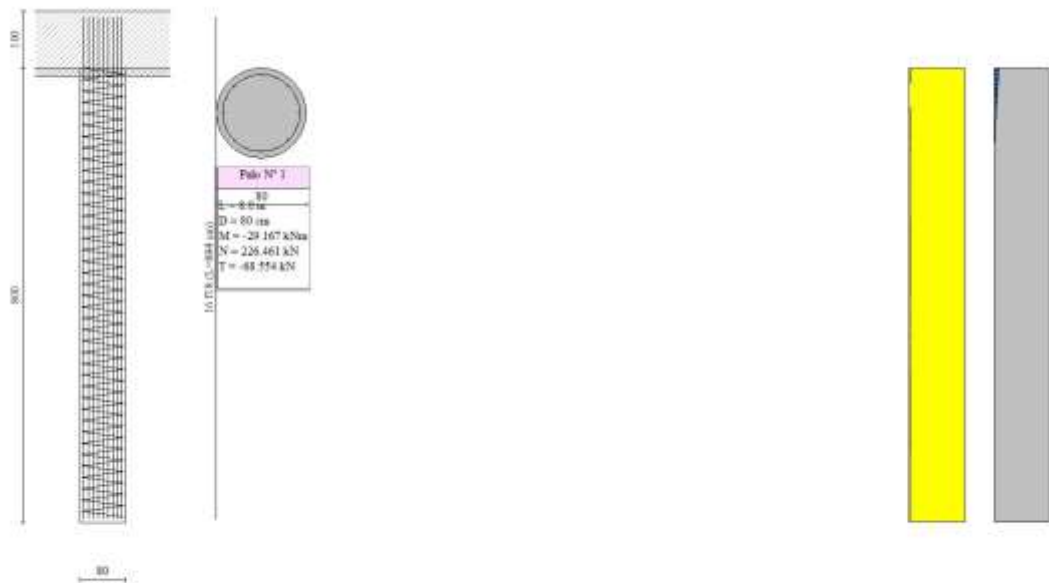


Fig. 17 - Pali (Palo n° 1) (Inviluppo)

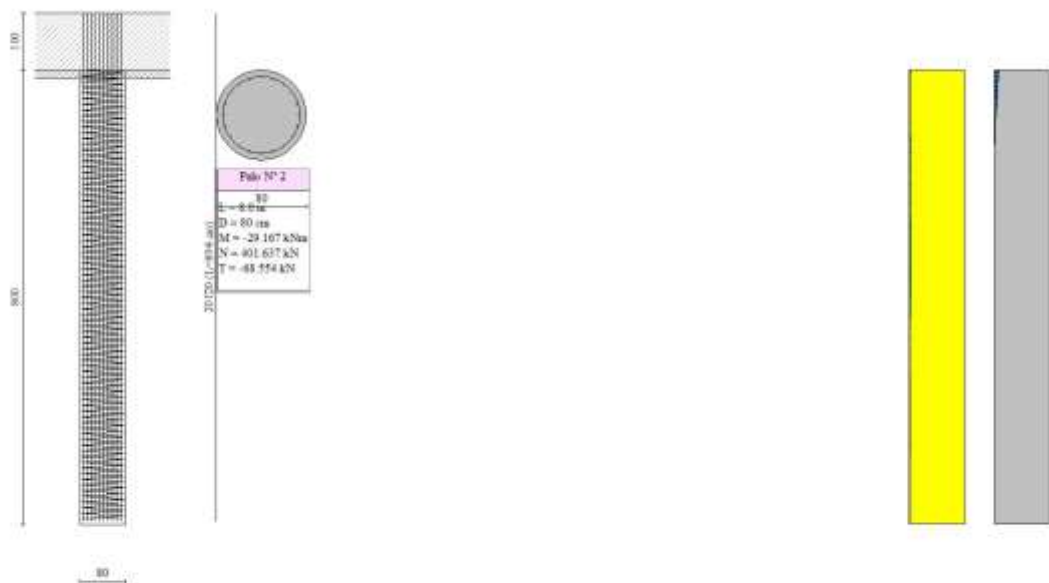


Fig. 18 - Pali (Palo n° 2) (Inviluppo)

Verifiche a taglio

Simbologia adottata

APPALTATORE:

TELESE S.c.a r.l.

Consorzio Telese Società Consortile a Responsabilità Limitata

ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO

PROGETTAZIONE:

Mandatario:

Mandante:

SYSTRA S.A.

SWS Engineering S.p.A.

SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA

LOTTO

CODIFICA

DOCUMENTO

REV.

FOGLIO

IF2R

2.2.E.ZZ

CL

TR.16.0.5.009

A

40 di 91

Is	indice sezione
Y	ordinata sezione espressa in [m]
B	larghezza sezione espressa in [cm]
H	altezza sezione espressa in [cm]
A _{sw}	area ferri a taglio espressa in [cmq]
cotgθ	inclinazione delle bielle compresse, θ inclinazione dei puntoni di calcestruzzo
V _{Rcd}	resistenza di progetto a 'taglio compressione' espressa in [kN]
V _{Rsd}	resistenza di progetto a 'taglio trazione' espressa in [kN]
V _{Rd}	resistenza di progetto a taglio espressa in [kN]. Per elementi con armature trasversali resistenti al taglio (A _{sw} >0.0) V _{Rd} =min(V _{Rcd} , V _{Rsd}).
T	taglio agente espressa in [kN]
FS	fattore di sicurezza (rapporto tra sollecitazione resistente e sollecitazione agente)

Paramento

n°	B [cm]	H [cm]	A _{sw} [cmq]	cotθ	V _{Rcd} [kN]	V _{Rsd} [kN]	V _{Rd} [kN]	T [kN]	FS
1	100	70	0.00	--	0.00	0.00	260.59	10.15	25.674
2	100	70	0.00	--	0.00	0.00	260.83	10.15	25.698
3	100	70	0.00	--	0.00	0.00	261.07	10.15	25.721
4	100	70	0.00	--	0.00	0.00	261.32	10.15	25.745
5	100	70	0.00	--	0.00	0.00	261.56	10.15	25.769
6	100	70	0.00	--	0.00	0.00	261.80	10.15	25.793
7	100	70	0.00	--	0.00	0.00	262.04	10.15	25.817
8	100	70	0.00	--	0.00	0.00	262.29	10.15	25.841
9	100	70	0.00	--	0.00	0.00	262.53	10.15	25.865
10	100	70	0.00	--	0.00	0.00	262.77	10.15	25.889
11	100	70	0.00	--	0.00	0.00	263.01	10.15	25.913
12	100	70	0.00	--	0.00	0.00	263.26	10.15	25.937
13	100	70	0.00	--	0.00	0.00	263.50	10.15	25.960
14	100	70	0.00	--	0.00	0.00	263.74	10.15	25.984
15	100	70	0.00	--	0.00	0.00	263.98	10.15	26.008
16	100	70	0.00	--	0.00	0.00	264.23	10.15	26.032
17	100	70	0.00	--	0.00	0.00	264.47	10.15	26.056
18	100	70	0.00	--	0.00	0.00	264.71	10.15	26.080
19	100	70	0.00	--	0.00	0.00	264.95	10.15	26.104
20	100	70	0.00	--	0.00	0.00	265.20	10.15	26.128
21	100	70	0.00	--	0.00	0.00	265.44	10.15	26.152
22	100	70	0.00	--	0.00	0.00	265.68	10.15	26.176
23	100	70	0.00	--	0.00	0.00	265.71	10.26	25.898
24	100	70	0.00	--	0.00	0.00	265.96	10.67	24.922
25	100	70	0.00	--	0.00	0.00	266.20	11.08	24.018
26	100	70	0.00	--	0.00	0.00	266.44	11.50	23.178
27	100	90	0.00	--	0.00	0.00	323.28	11.74	27.526
28	100	90	0.00	--	0.00	0.00	323.59	12.27	26.365
29	100	90	0.00	--	0.00	0.00	323.91	12.80	25.300
30	100	90	0.00	--	0.00	0.00	324.23	13.33	24.320
31	100	90	0.00	--	0.00	0.00	324.54	13.86	23.414
32	100	90	0.00	--	0.00	0.00	324.86	14.39	22.571
33	100	90	0.00	--	0.00	0.00	325.17	15.62	20.822
34	100	90	0.00	--	0.00	0.00	325.49	16.92	19.235
35	100	90	0.00	--	0.00	0.00	325.81	18.31	17.797
36	100	90	0.00	--	0.00	0.00	326.12	19.77	16.495
37	100	90	0.00	--	0.00	0.00	326.44	21.29	15.331
38	100	90	0.00	--	0.00	0.00	326.75	22.86	14.291
39	100	90	0.00	--	0.00	0.00	327.07	24.48	13.359
40	100	90	0.00	--	0.00	0.00	327.39	26.15	12.519
41	100	90	0.00	--	0.00	0.00	327.70	27.87	11.759
42	100	90	0.00	--	0.00	0.00	328.02	29.63	11.070
43	100	90	0.00	--	0.00	0.00	328.33	31.44	10.443
44	100	90	0.00	--	0.00	0.00	328.65	33.30	9.869
45	100	90	0.00	--	0.00	0.00	328.97	35.21	9.344
46	100	90	0.00	--	0.00	0.00	328.97	35.25	9.334
47	100	90	0.00	--	0.00	0.00	329.29	37.19	8.854
48	100	90	0.00	--	0.00	0.00	329.60	39.19	8.411

Fondazione

Is	B [cm]	H [cm]	A _{sw} [cmq]	cotg (θ)	V _{Rcd} [kN]	V _{Rsd} [kN]	V _{Rd} [kN]	T [kN]	FS
1-1-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-2-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-3-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-4-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-5-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-6-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-7-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-8-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-9-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-10-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)

APPALTATORE:

TELESE S.c.a r.l.
Consorzio Telese Società Consortile a Responsabilità Limitata

PROGETTAZIONE:

Mandataria: Mandante:

SYSTRA S.A. **SWS Engineering S.p.A.** **SYSTRA-SOTECNI S.p.A.**

Relazione di calcolo
IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO

PROGETTO ESECUTIVO

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	41 di 91

Is	B [cm]	H [cm]	A _{sw} [cmq]	cotg (θ)	V _{Rcd} [kN]	V _{Rsd} [kN]	V _{Rd} [kN]	T [kN]	FS
1-11-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-12-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-13-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-14-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-15-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-16-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-17-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-18-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-19-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-20-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-21-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-22-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-23-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-24-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-25-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-26-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-27-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-28-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-29-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-30-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-31-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-32-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-33-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-34-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-35-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-36-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-37-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-38-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-39-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-40-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-41-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-42-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-43-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-44-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-45-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-46-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-47-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-48-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
1-49-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-1-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-2-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-3-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-4-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-5-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-6-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-7-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-8-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-9-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-10-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-11-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-12-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-13-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-14-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-15-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-16-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-17-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-18-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-19-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-20-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-21-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-22-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-23-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-24-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-25-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-26-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-27-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-28-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-29-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-30-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-31-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-32-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-33-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-34-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-35-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-36-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-37-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-38-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-39-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-40-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-41-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-42-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)

APPALTATORE: **TELESE S.c.a r.l.**
Consorzio Telese Società Consortile a Responsabilità Limitata

PROGETTAZIONE:
 Mandataria: SYSTRA S.A. Mandante: SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

Relazione di calcolo
 IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO

PROGETTO ESECUTIVO

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	42 di 91

Is	B [cm]	H [cm]	A _{sw} [cmq]	cotg (θ)	V _{Rcd} [kN]	V _{Rsd} [kN]	V _{Rd} [kN]	T [kN]	FS
2-43-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-44-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-45-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-46-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-47-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-48-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
2-49-P	60	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-1-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-2-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-3-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-4-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-5-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-6-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-7-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-8-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-9-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-10-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-11-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-12-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-13-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-14-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-15-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-16-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-17-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-18-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-19-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-20-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-21-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-22-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-23-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-24-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-25-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-26-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-27-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-28-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-29-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-30-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-31-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-32-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-33-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-34-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-35-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-36-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-37-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-38-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-39-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-40-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-41-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-42-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-43-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-44-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-45-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-46-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-47-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-48-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
4-49-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-1-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-2-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-3-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-4-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-5-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-6-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-7-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-8-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-9-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-10-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-11-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-12-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-13-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-14-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-15-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-16-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-17-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-18-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-19-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-20-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-21-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-22-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-23-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-24-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-25-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)

APPALTATORE: **TELESE S.c.a r.l.**
Consorzio Telese Società Consortile a Responsabilità Limitata

PROGETTAZIONE:
 Mandataria: SYSTRA S.A. Mandante: SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

Relazione di calcolo
 IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO

PROGETTO ESECUTIVO

COMMESSA LOTTO CODIFICA DOCUMENTO REV. FOGLIO
 IF2R 2.2.E.ZZ CL TR.16.0.5.009 A 43 di 91

Is	B [cm]	H [cm]	A _{sw} [cmq]	cotg (θ)	V _{Rcd} [kN]	V _{Rsd} [kN]	V _{Rd} [kN]	T [kN]	FS
5-26-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-27-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-28-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-29-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-30-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-31-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-32-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-33-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-34-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-35-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-36-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-37-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-38-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-39-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-40-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-41-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-42-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-43-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-44-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-45-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-46-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-47-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-48-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
5-49-P	95	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
6-1-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
6-2-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
6-3-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
6-4-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
6-5-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
6-6-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
6-7-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
6-8-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
6-9-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
6-10-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
6-11-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
6-12-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
6-13-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
6-14-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
6-15-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
7-1-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
7-2-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
7-3-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
7-4-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
7-5-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
7-6-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
7-7-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
7-8-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
7-9-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
7-10-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
7-11-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
7-12-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
7-13-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
7-14-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
7-15-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
8-1-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
8-2-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
8-3-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
8-4-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
8-5-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
8-6-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
8-7-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
8-8-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
8-9-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
8-10-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
8-11-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
8-12-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
8-13-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
8-14-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
8-15-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
9-1-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
9-2-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
9-3-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
9-4-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
9-5-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
9-6-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
9-7-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
9-8-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
9-9-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
9-10-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
9-11-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
9-12-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)

APPALTATORE:

TELESE S.c.a r.l.
Consorzio Telese Società Consortile a Responsabilità Limitata

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

ITINERARIO NAPOLI – BARI

RADDOPPIO TRATTA CANCELLO-BENEVENTO

II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO

2° SUBLOTTO TELESE – SAN LORENZO

PROGETTO ESECUTIVO

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	44 di 91

Is	B [cm]	H [cm]	A _{sw} [cmq]	cotg (θ)	V _{Rcd} [kN]	V _{Rsd} [kN]	V _{Rd} [kN]	T [kN]	FS
9-13-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
9-14-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
9-15-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
10-1-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
10-2-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
10-3-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
10-4-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
10-5-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
10-6-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
10-7-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
10-8-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
10-9-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
10-10-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
10-11-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
10-12-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
10-13-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
10-14-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
10-15-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
11-1-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
11-2-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
11-3-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
11-4-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
11-5-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
11-6-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
11-7-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
11-8-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
11-9-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
11-10-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
11-11-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
11-12-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
11-13-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
11-14-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
11-15-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
12-1-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
12-2-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
12-3-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
12-4-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
12-5-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
12-6-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
12-7-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
12-8-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
12-9-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
12-10-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
12-11-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
12-12-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
12-13-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
12-14-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
12-15-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
13-1-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
13-2-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
13-3-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
13-4-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
13-5-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
13-6-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
13-7-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
13-8-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
13-9-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
13-10-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
13-11-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
13-12-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
13-13-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
13-14-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
13-15-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
14-1-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
14-2-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
14-3-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
14-4-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
14-5-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
14-6-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
14-7-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
14-8-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
14-9-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
14-10-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
14-11-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
14-12-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
14-13-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
14-14-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
14-15-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
15-1-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
15-2-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
15-3-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)

APPALTATORE: TELESE S.c.a r.l. Consorzio Telese Società Consortile a Responsabilità Limitata	ITINERARIO NAPOLI – BARI RADDOPPIO TRATTA CANCELLO-BENEVENTO II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO 2° SUBLOTTO TELESE – SAN LORENZO PROGETTO ESECUTIVO												
PROGETTAZIONE: Mandatario: SYSTRA S.A. Mandante: SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.													
Relazione di calcolo IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX	<table border="1"> <tr> <td>COMMESSA</td> <td>LOTTO</td> <td>CODIFICA</td> <td>DOCUMENTO</td> <td>REV.</td> <td>FOGLIO</td> </tr> <tr> <td>IF2R</td> <td>2.2.E.ZZ</td> <td>CL</td> <td>TR.16.0.5.009</td> <td>A</td> <td>45 di 91</td> </tr> </table>	COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO	IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	45 di 91
COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO								
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	45 di 91								

Is	B [cm]	H [cm]	A _{sw} [cmq]	cotg (θ)	V _{Rcd} [kN]	V _{Rsd} [kN]	V _{Rd} [kN]	T [kN]	FS
15-4-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
15-5-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
15-6-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
15-7-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
15-8-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
15-9-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
15-10-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
15-11-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
15-12-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
15-13-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
15-14-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
15-15-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
16-1-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
16-2-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
16-3-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
16-4-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
16-5-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
16-6-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
16-7-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
16-8-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
16-9-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
16-10-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
16-11-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
16-12-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
16-13-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
16-14-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
16-15-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
17-1-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
17-2-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
17-3-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
17-4-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
17-5-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
17-6-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
17-7-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
17-8-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
17-9-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
17-10-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
17-11-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
17-12-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
17-13-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
17-14-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)
17-15-S	100	100	0.00	0.000	0.00	0.00	0.00	0.00	100.000 (1)

Pali in c.a.

La verifica a taglio sui pali circolari in c.a. viene eseguita considerando una sezione quadrata inscritta nella circonferenza. Se D è il diametro del palo, il lato della sezione quadrata sulla quale si esegue la verifica è $L = 2^{0.5}/2 D$.

Ip	Is	L [cm]	A _{sw} [cmq]	s [cm]	cotgθ	V _{Rcd} [kN]	V _{Rsd} [kN]	V _{Rd} [kN]	T [kN]	FS
1	1	56.57	2.26	10	2.500	642.11	1755.74	642.11	136.54	4.703
2	1	56.57	2.26	10	2.500	696.99	3511.48	696.99	136.54	5.105

APPALTATORE: TELESE S.c.a r.l. Consorzio Telese Società Consortile a Responsabilità Limitata	ITINERARIO NAPOLI – BARI RADDOPPIO TRATTA CANCELLO-BENEVENTO II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO 2° SUBLOTTO TELESE – SAN LORENZO PROGETTO ESECUTIVO												
PROGETTAZIONE: <u>Mandatario:</u> <u>Mandante:</u> SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.													
Relazione di calcolo IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX	<table border="1"> <thead> <tr> <th>COMMESSA</th> <th>LOTTO</th> <th>CODIFICA</th> <th>DOCUMENTO</th> <th>REV.</th> <th>FOGLIO</th> </tr> </thead> <tbody> <tr> <td>IF2R</td> <td>2.2.E.ZZ</td> <td>CL</td> <td>TR.16.0.5.009</td> <td>A</td> <td>46 di 91</td> </tr> </tbody> </table>	COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO	IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	46 di 91
COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO								
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	46 di 91								

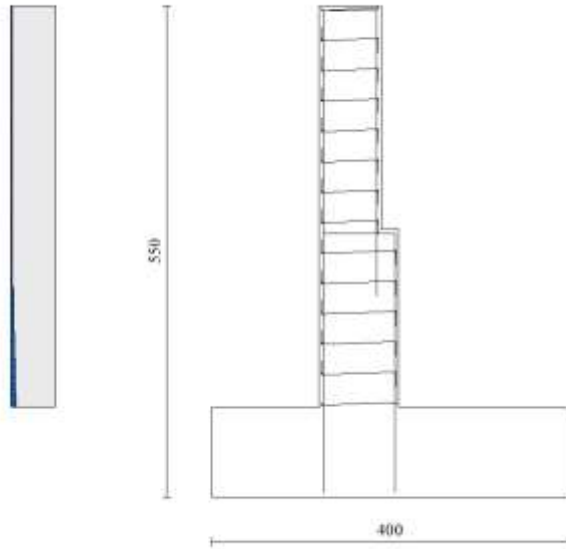


Fig. 19 - Paramento (Inviluppo)

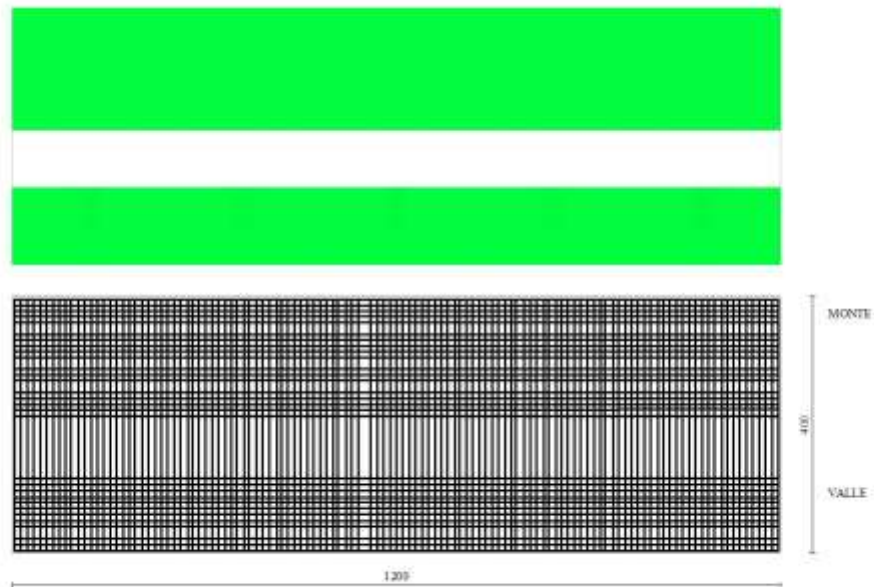


Fig. 20 - Piastra fondazione dir. X (Inviluppo)

APPALTATORE: TELESE S.c.a r.l. <i>Consorzio Telese Società Consortile a Responsabilità Limitata</i>	ITINERARIO NAPOLI – BARI RADDOPPIO TRATTA CANCELLO-BENEVENTO II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO 2° SUBLOTTO TELESE – SAN LORENZO PROGETTO ESECUTIVO					
PROGETTAZIONE: <u>Mandatario:</u> SYSTRA S.A. <u>Mandante:</u> SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.	COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
Relazione di calcolo IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX	IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	47 di 91

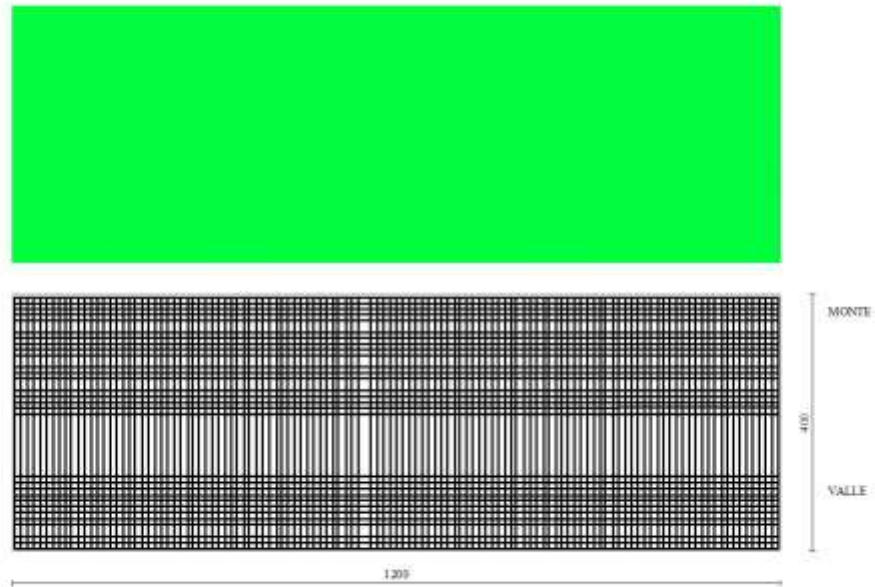


Fig. 21 - Piastra fondazione dir. Y (Inviluppo)

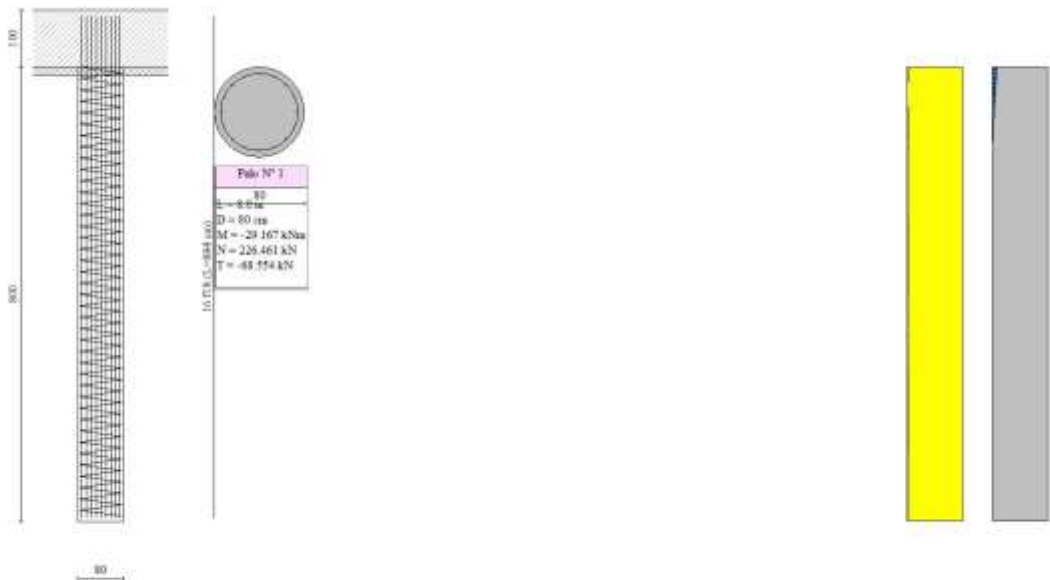


Fig. 22 - Pali (Palo n° 1) (Inviluppo)

APPALTATORE: TELESE S.c.a r.l. Consorzio Telese Società Consortile a Responsabilità Limitata	ITINERARIO NAPOLI – BARI RADDOPPIO TRATTA CANCELLO-BENEVENTO II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO 2° SUBLOTTO TELESE – SAN LORENZO					
PROGETTAZIONE: Mandatario: SYSTRA S.A. Mandante: SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.	PROGETTO ESECUTIVO					
Relazione di calcolo IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX	COMMESSA IF2R	LOTTO 2.2.E.ZZ	CODIFICA CL	DOCUMENTO TR.16.0.5.009	REV. A	FOGLIO 48 di 91

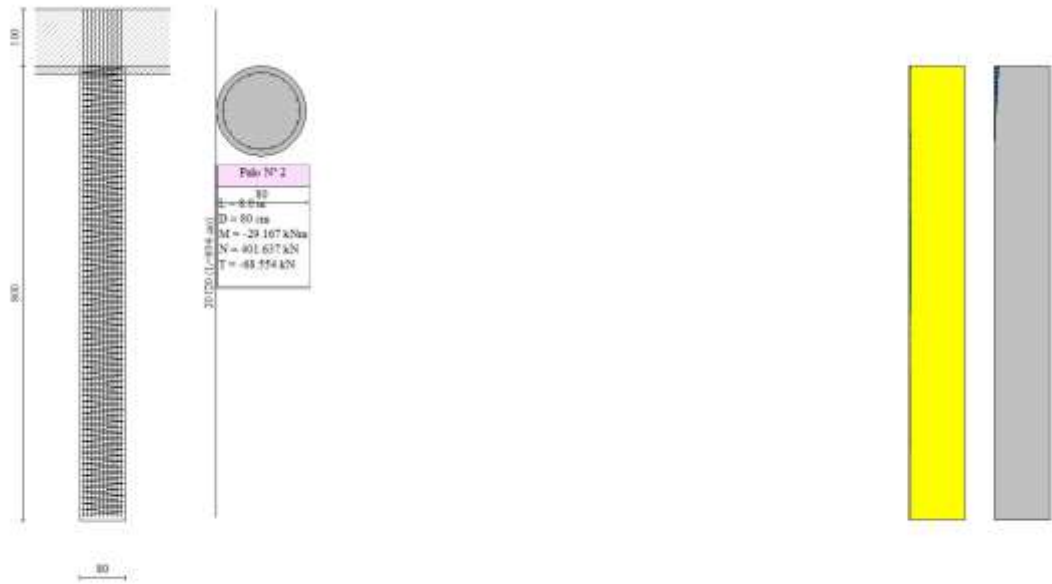


Fig. 23 - Pali (Palo n° 2) (Inviluppo)

Verifica delle tensioni

Simbologia adottata

n°	indice sezione
Y	ordinata sezione, espressa in [m]
B	larghezza sezione, espresso in [cm]
H	altezza sezione, espressa in [cm]
Afi	area ferri inferiori, espresso in [cmq]
Afs	area ferri superiori, espressa in [cmq]
M	momento agente, espressa in [kNm]
N	sforzo normale agente, espressa in [kN]
σ_c	tensione di compressione nel cls, espressa in [kPa]
σ_{fi}	tensione nei ferri inferiori, espressa in [kPa]
σ_{fs}	tensione nei ferri superiori, espressa in [kPa]

Combinazioni SLER

Paramento

Tensione massima di compressione nel calcestruzzo	19920	[kPa]
Tensione massima di trazione dell'acciaio	360000	[kPa]

n°	B [cm]	H [cm]	Afi [cmq]	Afs [cmq]	M [kNm]	N [kN]	σ_c [kPa]	σ_{fi} [kPa]	σ_{fs} [kPa]
1	100	70	5.65	7.70	2.00	5.00	50 (5)	1399 (5)	598 (5)
2	100	70	5.65	7.70	2.70	6.72	68 (5)	1903 (5)	808 (5)
3	100	70	5.65	7.70	3.40	8.43	86 (5)	2408 (5)	1017 (5)
4	100	70	5.65	7.70	4.10	10.15	103 (5)	2913 (5)	1227 (5)
5	100	70	5.65	7.70	4.80	11.86	121 (5)	3417 (5)	1437 (5)
6	100	70	5.65	7.70	5.50	13.58	139 (5)	3922 (5)	1646 (5)
7	100	70	5.65	7.70	6.20	15.29	156 (5)	4426 (5)	1856 (5)
8	100	70	5.65	7.70	6.90	17.01	174 (5)	4931 (5)	2065 (5)
9	100	70	5.65	7.70	7.60	18.72	192 (5)	5436 (5)	2275 (5)
10	100	70	5.65	7.70	8.30	20.44	209 (5)	5940 (5)	2484 (5)
11	100	70	5.65	7.70	9.00	22.16	227 (5)	6445 (5)	2694 (5)
12	100	70	5.65	7.70	9.70	23.87	245 (5)	6950 (5)	2904 (5)

APPALTATORE:

TELESE S.c.a r.l.

Consorzio Telese Società Consortile a Responsabilità Limitata

ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	49 di 91

n°	B [cm]	H [cm]	Afi [cmq]	Afs [cmq]	M [kNm]	N [kN]	σc [kPa]	σfi [kPa]	σfs [kPa]
13	100	70	5.65	7.70	10.40	25.59	262 (5)	7454 (5)	3113 (5)
14	100	70	5.65	7.70	11.10	27.30	280 (5)	7959 (5)	3323 (5)
15	100	70	5.65	7.70	11.80	29.02	298 (5)	8464 (5)	3532 (5)
16	100	70	5.65	7.70	12.50	30.73	315 (5)	8968 (5)	3742 (5)
17	100	70	5.65	7.70	13.20	32.45	333 (5)	9473 (5)	3951 (5)
18	100	70	5.65	7.70	13.90	34.16	350 (5)	9978 (5)	4161 (5)
19	100	70	5.65	7.70	14.59	35.88	368 (5)	10482 (5)	4370 (5)
20	100	70	5.65	7.70	15.29	37.59	386 (5)	10987 (5)	4580 (5)
21	100	70	5.65	7.70	15.99	39.31	403 (5)	11492 (5)	4790 (5)
22	100	70	5.65	7.70	16.69	41.03	421 (5)	11996 (5)	4999 (5)
23	100	70	5.65	7.70	17.39	42.74	439 (5)	12501 (5)	5209 (5)
24	100	70	5.65	7.70	18.09	44.46	456 (5)	13005 (5)	5418 (5)
25	100	70	5.65	7.70	18.79	46.17	474 (5)	13510 (5)	5628 (5)
26	100	70	5.65	7.70	19.49	47.89	492 (5)	14015 (5)	5837 (5)
27	100	90	5.65	7.70	23.91	48.93	379 (5)	11116 (5)	4765 (5)
28	100	90	5.65	7.70	24.61	51.13	388 (5)	11116 (5)	4890 (5)
29	100	90	5.65	7.70	25.31	53.34	397 (5)	11121 (5)	5015 (5)
30	100	90	5.65	7.70	26.01	55.54	406 (5)	11131 (5)	5139 (5)
31	100	90	5.65	7.70	26.71	57.74	415 (5)	11145 (5)	5263 (5)
32	100	90	5.65	7.70	27.41	59.95	423 (5)	11164 (5)	5387 (5)
33	100	90	5.65	7.70	28.12	62.15	433 (5)	11203 (5)	5513 (5)
34	100	90	5.65	7.70	28.86	64.36	442 (5)	11283 (5)	5647 (5)
35	100	90	5.65	7.70	29.64	66.56	453 (5)	11412 (5)	5790 (5)
36	100	90	5.65	7.70	30.47	68.76	464 (5)	11600 (5)	5944 (5)
37	100	90	5.65	7.70	31.35	70.97	477 (5)	11854 (5)	6111 (5)
38	100	90	5.65	7.70	32.29	73.17	491 (5)	12180 (5)	6292 (5)
39	100	90	5.65	7.70	33.29	75.38	507 (5)	12583 (5)	6489 (5)
40	100	90	5.65	7.70	34.36	77.58	524 (5)	13069 (5)	6702 (5)
41	100	90	5.65	7.70	35.51	79.78	542 (5)	13646 (5)	6934 (5)
42	100	90	5.65	7.70	36.73	81.99	562 (5)	14319 (5)	7184 (5)
43	100	90	5.65	7.70	38.03	84.19	585 (5)	15098 (5)	7453 (5)
44	100	90	5.65	7.70	39.42	86.40	609 (5)	15989 (5)	7744 (5)
45	100	90	5.65	7.70	40.91	88.60	635 (5)	17002 (5)	8057 (5)
46	100	90	5.65	7.70	40.94	88.64	635 (5)	17024 (5)	8063 (5)
47	100	90	5.65	7.70	42.51	90.84	663 (5)	18165 (5)	8398 (5)
48	100	90	5.65	7.70	44.19	93.04	693 (5)	19446 (5)	8756 (5)

Piastra fondazione

Tensione massima di compressione nel calcestruzzo

17430

[kPa]

Tensione massima di trazione dell'acciaio

1255271

[kPa]

Is	B [cm]	H [cm]	Afi [cmq]	Afs [cmq]	Mp [kNm]	Mn [kNm]	σc [kPa]	σfi [kPa]	σfs [kPa]
1-1-P	60	100	9.24	9.24	0.76	-0.03	13 (5)	869 (5)	180 (5)
1-2-P	60	100	9.24	9.24	0.52	-0.78	22 (5)	1487 (5)	1493 (5)
1-3-P	60	100	9.24	9.24	0.00	-3.32	56 (5)	649 (5)	3819 (5)
1-4-P	60	100	9.24	9.24	0.00	-9.51	161 (5)	1854 (5)	10912 (5)
1-5-P	60	100	9.24	9.24	0.01	-13.37	226 (5)	2615 (5)	15387 (5)
1-6-P	60	100	9.24	9.24	0.01	-14.88	253 (5)	2916 (5)	17160 (5)
1-7-P	60	100	9.24	9.24	0.01	-9.40	159 (5)	1836 (5)	10806 (5)
1-8-P	60	100	9.24	9.24	0.32	-2.53	43 (5)	1782 (5)	2888 (5)
1-9-P	60	100	9.24	9.24	6.13	-0.03	103 (5)	7029 (5)	1194 (5)
1-10-P	60	100	9.24	9.24	8.31	0.00	141 (5)	9546 (5)	1622 (5)
1-11-P	60	100	9.24	9.24	8.89	0.00	150 (5)	10212 (5)	1735 (5)
1-12-P	60	100	9.24	9.24	7.04	-0.02	119 (5)	8080 (5)	1373 (5)
1-13-P	60	100	9.24	9.24	1.14	-0.91	21 (6)	1426 (6)	957 (6)
1-14-P	60	100	9.24	9.24	0.02	-6.79	115 (5)	1324 (5)	7789 (5)
1-15-P	60	100	9.24	9.24	0.02	-11.42	194 (5)	2238 (5)	13168 (5)
1-16-P	60	100	9.24	9.24	0.03	-10.51	178 (5)	2058 (5)	12112 (5)
1-17-P	60	100	9.24	9.24	0.01	-5.88	99 (5)	1144 (5)	6733 (5)
1-18-P	60	100	9.24	9.24	2.10	-0.45	40 (6)	2685 (6)	456 (6)
1-19-P	60	100	9.24	9.24	7.44	-0.01	126 (5)	8541 (5)	1451 (5)
1-20-P	60	100	9.24	9.24	9.39	0.00	159 (5)	10789 (5)	1833 (5)
1-21-P	60	100	9.24	9.24	8.20	0.00	139 (5)	9416 (5)	1600 (5)
1-22-P	60	100	9.24	9.24	5.12	-0.08	86 (5)	5874 (5)	998 (5)
1-23-P	60	100	9.24	9.24	0.27	-3.07	51 (5)	740 (5)	3498 (5)
1-24-P	60	100	9.24	9.24	0.02	-8.74	148 (5)	1708 (5)	10054 (5)
1-25-P	60	100	9.24	9.24	0.00	-13.53	230 (5)	2654 (5)	15621 (5)
1-26-P	60	100	9.24	9.24	0.02	-8.74	148 (5)	1708 (5)	10054 (5)
1-27-P	60	100	9.24	9.24	0.27	-3.07	51 (5)	740 (5)	3498 (5)
1-28-P	60	100	9.24	9.24	5.12	-0.08	86 (5)	5874 (5)	998 (5)
1-29-P	60	100	9.24	9.24	8.20	0.00	139 (5)	9416 (5)	1600 (5)
1-30-P	60	100	9.24	9.24	9.39	0.00	159 (5)	10789 (5)	1833 (5)
1-31-P	60	100	9.24	9.24	7.44	-0.01	126 (5)	8541 (5)	1451 (5)
1-32-P	60	100	9.24	9.24	2.10	-0.45	40 (6)	2685 (6)	456 (6)
1-33-P	60	100	9.24	9.24	0.01	-5.88	99 (5)	1144 (5)	6733 (5)

APPALTATORE:

TELESE S.c.a r.l.

Consorzio Telese Società Consortile a Responsabilità Limitata

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

ITINERARIO NAPOLI – BARI

RADDOPPIO TRATTA CANCELLO-BENEVENTO

II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO

PROGETTO ESECUTIVO

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	50 di 91

Is	B [cm]	H [cm]	Afi [cmq]	Afs [cmq]	Mp [kNm]	Mn [kNm]	sc [kPa]	ofi [kPa]	ofs [kPa]
1-34-P	60	100	9.24	9.24	0.03	-10.51	178 (5)	2058 (5)	12112 (5)
1-35-P	60	100	9.24	9.24	0.02	-11.42	194 (5)	2238 (5)	13168 (5)
1-36-P	60	100	9.24	9.24	0.02	-6.79	115 (5)	1324 (5)	7789 (5)
1-37-P	60	100	9.24	9.24	1.14	-0.91	21 (6)	1426 (6)	957 (6)
1-38-P	60	100	9.24	9.24	7.04	-0.02	119 (5)	8080 (5)	1373 (5)
1-39-P	60	100	9.24	9.24	8.89	0.00	150 (5)	10212 (5)	1735 (5)
1-40-P	60	100	9.24	9.24	8.31	0.00	141 (5)	9546 (5)	1622 (5)
1-41-P	60	100	9.24	9.24	6.13	-0.03	103 (5)	7029 (5)	1194 (5)
1-42-P	60	100	9.24	9.24	0.32	-2.53	43 (5)	1782 (5)	2888 (5)
1-43-P	60	100	9.24	9.24	0.01	-9.40	159 (5)	1836 (5)	10806 (5)
1-44-P	60	100	9.24	9.24	0.01	-14.88	253 (5)	2916 (5)	17160 (5)
1-45-P	60	100	9.24	9.24	0.01	-13.37	226 (5)	2615 (5)	15387 (5)
1-46-P	60	100	9.24	9.24	0.00	-9.51	161 (5)	1854 (5)	10912 (5)
1-47-P	60	100	9.24	9.24	0.00	-3.32	56 (5)	649 (5)	3819 (5)
1-48-P	60	100	9.24	9.24	0.52	-0.78	22 (5)	1487 (5)	1493 (5)
1-49-P	60	100	9.24	9.24	0.76	-0.03	13 (5)	869 (5)	180 (5)
2-1-P	60	100	9.24	9.24	2.09	-0.22	40 (6)	2712 (6)	461 (6)
2-2-P	60	100	9.24	9.24	3.15	0.00	53 (5)	3596 (5)	611 (5)
2-3-P	60	100	9.24	9.24	4.13	-0.01	69 (5)	4721 (5)	802 (5)
2-4-P	60	100	9.24	9.24	5.27	-0.01	89 (5)	6018 (5)	1023 (5)
2-5-P	60	100	9.24	9.24	0.83	-15.82	311 (5)	3594 (5)	21153 (5)
2-6-P	60	100	9.24	9.24	0.68	-30.74	573 (5)	6614 (5)	38923 (5)
2-7-P	60	100	9.24	9.24	1.22	-4.73	133 (5)	3523 (5)	9052 (5)
2-8-P	60	100	9.24	9.24	7.46	-0.01	126 (5)	8541 (5)	1451 (5)
2-9-P	60	100	9.24	9.24	7.77	0.00	131 (5)	8903 (5)	1513 (5)
2-10-P	60	100	9.24	9.24	7.72	0.00	130 (5)	8846 (5)	1503 (5)
2-11-P	60	100	9.24	9.24	7.75	0.00	131 (5)	8883 (5)	1510 (5)
2-12-P	60	100	9.24	9.24	7.91	0.00	133 (5)	9064 (5)	1540 (5)
2-13-P	60	100	9.24	9.24	7.84	0.00	132 (5)	8985 (5)	1527 (5)
2-14-P	60	100	9.24	9.24	2.21	-0.64	62 (6)	4193 (6)	939 (6)
2-15-P	60	100	9.24	9.24	0.70	-24.50	482 (5)	5566 (5)	32755 (5)
2-16-P	60	100	9.24	9.24	0.75	-19.33	380 (5)	4391 (5)	25840 (5)
2-17-P	60	100	9.24	9.24	7.69	-0.08	129 (5)	8791 (5)	1494 (5)
2-18-P	60	100	9.24	9.24	7.80	0.00	131 (5)	8931 (5)	1518 (5)
2-19-P	60	100	9.24	9.24	7.80	0.00	132 (5)	8938 (5)	1519 (5)
2-20-P	60	100	9.24	9.24	7.66	0.00	129 (5)	8772 (5)	1491 (5)
2-21-P	60	100	9.24	9.24	7.73	0.00	130 (5)	8857 (5)	1505 (5)
2-22-P	60	100	9.24	9.24	7.81	0.00	132 (5)	8947 (5)	1520 (5)
2-23-P	60	100	9.24	9.24	7.71	-0.02	130 (5)	8825 (5)	1500 (5)
2-24-P	60	100	9.24	9.24	0.97	-9.25	195 (5)	2826 (5)	13252 (5)
2-25-P	60	100	9.24	9.24	0.66	-35.03	653 (5)	7535 (5)	44342 (5)
2-26-P	60	100	9.24	9.24	0.97	-9.25	195 (5)	2826 (5)	13252 (5)
2-27-P	60	100	9.24	9.24	7.71	-0.02	130 (5)	8825 (5)	1500 (5)
2-28-P	60	100	9.24	9.24	7.81	0.00	132 (5)	8947 (5)	1520 (5)
2-29-P	60	100	9.24	9.24	7.73	0.00	130 (5)	8857 (5)	1505 (5)
2-30-P	60	100	9.24	9.24	7.66	0.00	129 (5)	8772 (5)	1491 (5)
2-31-P	60	100	9.24	9.24	7.80	0.00	132 (5)	8938 (5)	1519 (5)
2-32-P	60	100	9.24	9.24	7.80	0.00	131 (5)	8931 (5)	1518 (5)
2-33-P	60	100	9.24	9.24	7.69	-0.08	129 (5)	8791 (5)	1494 (5)
2-34-P	60	100	9.24	9.24	0.75	-19.33	380 (5)	4391 (5)	25840 (5)
2-35-P	60	100	9.24	9.24	0.70	-24.50	482 (5)	5566 (5)	32755 (5)
2-36-P	60	100	9.24	9.24	2.21	-0.64	62 (6)	4193 (6)	939 (6)
2-37-P	60	100	9.24	9.24	7.84	0.00	132 (5)	8985 (5)	1527 (5)
2-38-P	60	100	9.24	9.24	7.91	0.00	133 (5)	9064 (5)	1540 (5)
2-39-P	60	100	9.24	9.24	7.75	0.00	131 (5)	8883 (5)	1510 (5)
2-40-P	60	100	9.24	9.24	7.72	0.00	130 (5)	8846 (5)	1503 (5)
2-41-P	60	100	9.24	9.24	7.77	0.00	131 (5)	8903 (5)	1513 (5)
2-42-P	60	100	9.24	9.24	7.46	-0.01	126 (5)	8541 (5)	1451 (5)
2-43-P	60	100	9.24	9.24	1.22	-4.73	133 (5)	3523 (5)	9052 (5)
2-44-P	60	100	9.24	9.24	0.68	-30.74	573 (5)	6614 (5)	38923 (5)
2-45-P	60	100	9.24	9.24	0.83	-15.82	311 (5)	3594 (5)	21153 (5)
2-46-P	60	100	9.24	9.24	5.27	-0.01	89 (5)	6018 (5)	1023 (5)
2-47-P	60	100	9.24	9.24	4.13	-0.01	69 (5)	4721 (5)	802 (5)
2-48-P	60	100	9.24	9.24	3.15	0.00	53 (5)	3596 (5)	611 (5)
2-49-P	60	100	9.24	9.24	2.09	-0.22	40 (6)	2712 (6)	461 (6)
4-1-P	95	100	13.85	13.85	2.80	-1.39	32 (8)	2229 (8)	1105 (8)
4-2-P	95	100	13.85	13.85	3.33	-1.13	38 (7)	2632 (7)	1747 (7)
4-3-P	95	100	13.85	13.85	3.63	-2.96	42 (6)	2449 (6)	2948 (6)
4-4-P	95	100	13.85	13.85	2.29	-6.81	97 (8)	1824 (8)	6781 (8)
4-5-P	95	100	13.85	13.85	2.76	-9.41	153 (7)	1751 (7)	10649 (7)
4-6-P	95	100	13.85	13.85	2.72	-10.71	187 (7)	2140 (7)	13011 (7)
4-7-P	95	100	13.85	13.85	3.30	-5.10	104 (6)	1717 (6)	7277 (6)
4-8-P	95	100	13.85	13.85	3.29	-1.03	38 (8)	2619 (8)	2059 (8)
4-9-P	95	100	13.85	13.85	11.71	0.00	99 (7)	6909 (7)	1136 (7)
4-10-P	95	100	13.85	13.85	13.57	0.00	119 (7)	8274 (7)	1361 (7)
4-11-P	95	100	13.85	13.85	14.19	0.00	125 (7)	8721 (7)	1434 (7)
4-12-P	95	100	13.85	13.85	12.96	0.00	112 (7)	7790 (7)	1281 (7)
4-13-P	95	100	13.85	13.85	7.70	0.00	59 (6)	4085 (6)	672 (6)
4-14-P	95	100	13.85	13.85	4.52	-2.83	64 (7)	2332 (7)	4440 (7)
4-15-P	95	100	13.85	13.85	3.72	-6.88	145 (7)	1959 (7)	10137 (7)
4-16-P	95	100	13.85	13.85	3.82	-5.98	128 (7)	2032 (7)	8933 (7)

APPALTATORE:

TELESE S.c.a r.l.

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Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

ITINERARIO NAPOLI – BARI

RADDOPPIO TRATTA CANCELLO-BENEVENTO

II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO

PROGETTO ESECUTIVO

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	51 di 91

Is	B [cm]	H [cm]	Afi [cmq]	Afs [cmq]	Mp [kNm]	Mn [kNm]	sc [kPa]	ofi [kPa]	ofs [kPa]
4-17-P	95	100	13.85	13.85	5.23	-2.52	56 (7)	2580 (7)	3912 (7)
4-18-P	95	100	13.85	13.85	9.07	0.00	71 (6)	4960 (6)	816 (6)
4-19-P	95	100	13.85	13.85	13.47	0.00	117 (7)	8159 (7)	1342 (7)
4-20-P	95	100	13.85	13.85	14.90	0.00	132 (7)	9226 (7)	1517 (7)
4-21-P	95	100	13.85	13.85	14.00	0.00	123 (7)	8560 (7)	1408 (7)
4-22-P	95	100	13.85	13.85	11.53	0.00	97 (7)	6750 (7)	1110 (7)
4-23-P	95	100	13.85	13.85	3.79	-1.16	43 (8)	3023 (8)	2314 (8)
4-24-P	95	100	13.85	13.85	3.92	-4.28	95 (7)	2112 (7)	6623 (7)
4-25-P	95	100	13.85	13.85	3.54	-8.29	181 (6)	2081 (6)	12652 (6)
4-26-P	95	100	13.85	13.85	3.92	-4.28	95 (7)	2112 (7)	6623 (7)
4-27-P	95	100	13.85	13.85	3.79	-1.16	43 (8)	3023 (8)	2314 (8)
4-28-P	95	100	13.85	13.85	11.53	0.00	97 (7)	6750 (7)	1110 (7)
4-29-P	95	100	13.85	13.85	14.00	0.00	123 (7)	8560 (7)	1408 (7)
4-30-P	95	100	13.85	13.85	14.90	0.00	132 (7)	9226 (7)	1517 (7)
4-31-P	95	100	13.85	13.85	13.47	0.00	117 (7)	8159 (7)	1342 (7)
4-32-P	95	100	13.85	13.85	9.07	0.00	71 (6)	4960 (6)	816 (6)
4-33-P	95	100	13.85	13.85	5.23	-2.52	56 (7)	2580 (7)	3912 (7)
4-34-P	95	100	13.85	13.85	3.82	-5.98	128 (7)	2032 (7)	8933 (7)
4-35-P	95	100	13.85	13.85	3.72	-6.88	145 (7)	1959 (7)	10137 (7)
4-36-P	95	100	13.85	13.85	4.52	-2.83	64 (7)	2332 (7)	4440 (7)
4-37-P	95	100	13.85	13.85	7.70	0.00	59 (6)	4085 (6)	672 (6)
4-38-P	95	100	13.85	13.85	12.96	0.00	112 (7)	7790 (7)	1281 (7)
4-39-P	95	100	13.85	13.85	14.19	0.00	125 (7)	8721 (7)	1434 (7)
4-40-P	95	100	13.85	13.85	13.57	0.00	119 (7)	8274 (7)	1361 (7)
4-41-P	95	100	13.85	13.85	11.71	0.00	99 (7)	6909 (7)	1136 (7)
4-42-P	95	100	13.85	13.85	3.29	-1.03	38 (8)	2619 (8)	2059 (8)
4-43-P	95	100	13.85	13.85	3.30	-5.10	104 (6)	1717 (6)	7277 (6)
4-44-P	95	100	13.85	13.85	2.72	-10.71	187 (7)	2140 (7)	13011 (7)
4-45-P	95	100	13.85	13.85	2.76	-9.41	153 (7)	1751 (7)	10649 (7)
4-46-P	95	100	13.85	13.85	2.29	-6.81	97 (8)	1824 (8)	6781 (8)
4-47-P	95	100	13.85	13.85	3.63	-2.96	42 (6)	2449 (6)	2948 (6)
4-48-P	95	100	13.85	13.85	3.33	-1.13	38 (7)	2632 (7)	1747 (7)
4-49-P	95	100	13.85	13.85	2.80	-1.39	32 (8)	2229 (8)	1105 (8)
5-1-P	95	100	13.85	13.85	0.82	-0.07	9 (7)	629 (7)	230 (7)
5-2-P	95	100	13.85	13.85	0.45	-1.96	21 (7)	683 (7)	1445 (7)
5-3-P	95	100	13.85	13.85	0.57	-6.40	65 (7)	818 (7)	4509 (7)
5-4-P	95	100	13.85	13.85	0.57	-13.81	142 (7)	1627 (7)	9892 (7)
5-5-P	95	100	13.85	13.85	0.00	-32.46	338 (7)	3878 (7)	23581 (7)
5-6-P	95	100	13.85	13.85	0.00	-45.02	469 (7)	5379 (7)	32703 (7)
5-7-P	95	100	13.85	13.85	0.00	-19.04	200 (7)	2295 (7)	13951 (7)
5-8-P	95	100	13.85	13.85	1.92	-4.15	43 (7)	3009 (7)	2996 (7)
5-9-P	95	100	13.85	13.85	8.45	0.00	86 (7)	5978 (7)	983 (7)
5-10-P	95	100	13.85	13.85	12.76	0.00	130 (7)	9057 (7)	1490 (7)
5-11-P	95	100	13.85	13.85	14.19	0.00	144 (7)	10062 (7)	1655 (7)
5-12-P	95	100	13.85	13.85	11.27	0.00	114 (7)	7948 (7)	1307 (7)
5-13-P	95	100	13.85	13.85	3.84	-0.42	46 (6)	3213 (6)	528 (6)
5-14-P	95	100	13.85	13.85	0.00	-8.71	95 (7)	1093 (7)	6646 (7)
5-15-P	95	100	13.85	13.85	0.00	-32.80	345 (7)	3962 (7)	24086 (7)
5-16-P	95	100	13.85	13.85	0.00	-27.82	294 (7)	3369 (7)	20482 (7)
5-17-P	95	100	13.85	13.85	2.43	-5.87	62 (7)	3620 (7)	4296 (7)
5-18-P	95	100	13.85	13.85	6.06	-0.03	59 (7)	4136 (7)	680 (7)
5-19-P	95	100	13.85	13.85	13.11	0.00	133 (7)	9241 (7)	1520 (7)
5-20-P	95	100	13.85	13.85	16.58	0.00	168 (7)	11743 (7)	1931 (7)
5-21-P	95	100	13.85	13.85	14.50	0.00	147 (7)	10243 (7)	1685 (7)
5-22-P	95	100	13.85	13.85	9.84	-0.01	98 (7)	6868 (7)	1130 (7)
5-23-P	95	100	13.85	13.85	3.07	-2.69	71 (7)	4973 (7)	2040 (7)
5-24-P	95	100	13.85	13.85	0.00	-17.97	192 (7)	2197 (7)	13357 (7)
5-25-P	95	100	13.85	13.85	0.00	-42.26	444 (7)	5087 (7)	30929 (7)
5-26-P	95	100	13.85	13.85	0.00	-17.97	192 (7)	2197 (7)	13357 (7)
5-27-P	95	100	13.85	13.85	3.07	-2.69	71 (7)	4973 (7)	2040 (7)
5-28-P	95	100	13.85	13.85	9.84	-0.01	98 (7)	6868 (7)	1130 (7)
5-29-P	95	100	13.85	13.85	14.50	0.00	147 (7)	10243 (7)	1685 (7)
5-30-P	95	100	13.85	13.85	16.58	0.00	168 (7)	11743 (7)	1931 (7)
5-31-P	95	100	13.85	13.85	13.11	0.00	133 (7)	9241 (7)	1520 (7)
5-32-P	95	100	13.85	13.85	6.06	-0.03	59 (7)	4136 (7)	680 (7)
5-33-P	95	100	13.85	13.85	2.43	-5.87	62 (7)	3620 (7)	4296 (7)
5-34-P	95	100	13.85	13.85	0.00	-27.82	294 (7)	3369 (7)	20482 (7)
5-35-P	95	100	13.85	13.85	0.00	-32.80	345 (7)	3962 (7)	24086 (7)
5-36-P	95	100	13.85	13.85	0.00	-8.71	95 (7)	1093 (7)	6646 (7)
5-37-P	95	100	13.85	13.85	3.84	-0.42	46 (6)	3213 (6)	528 (6)
5-38-P	95	100	13.85	13.85	11.27	0.00	114 (7)	7948 (7)	1307 (7)
5-39-P	95	100	13.85	13.85	14.19	0.00	144 (7)	10062 (7)	1655 (7)
5-40-P	95	100	13.85	13.85	12.76	0.00	130 (7)	9057 (7)	1490 (7)
5-41-P	95	100	13.85	13.85	8.45	0.00	86 (7)	5978 (7)	983 (7)
5-42-P	95	100	13.85	13.85	1.92	-4.15	43 (7)	3009 (7)	2996 (7)
5-43-P	95	100	13.85	13.85	0.00	-19.04	200 (7)	2295 (7)	13951 (7)
5-44-P	95	100	13.85	13.85	0.00	-45.02	469 (7)	5379 (7)	32703 (7)
5-45-P	95	100	13.85	13.85	0.00	-32.46	338 (7)	3878 (7)	23581 (7)
5-46-P	95	100	13.85	13.85	0.57	-13.81	142 (7)	1627 (7)	9892 (7)
5-47-P	95	100	13.85	13.85	0.57	-6.40	65 (7)	818 (7)	4509 (7)
5-48-P	95	100	13.85	13.85	0.45	-1.96	21 (7)	683 (7)	1445 (7)

APPALTATORE:

TELESE S.c.a r.l.

Consorzio Telese Società Consortile a Responsabilità Limitata

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A.

SWS Engineering S.p.A.

SYSTRA-SOTECNI S.p.A.

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO

PROGETTO ESECUTIVO

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	52 di 91

Is	B [cm]	H [cm]	Afi [cmq]	Afs [cmq]	Mp [kNm]	Mn [kNm]	σc [kPa]	σfi [kPa]	σfs [kPa]
5-49-P	95	100	13.85	13.85	0.82	-0.07	9 (7)	629 (7)	230 (7)
6-1-S	100	100	15.39	15.39	0.47	-1.77	23 (6)	1584 (6)	1139 (6)
6-2-S	100	100	15.39	15.39	0.05	-3.63	46 (5)	528 (5)	3107 (5)
6-3-S	100	100	15.39	15.39	0.70	-5.16	87 (5)	1207 (5)	5895 (5)
6-4-S	100	100	15.39	15.39	3.05	-5.38	136 (5)	2611 (5)	9213 (5)
6-5-S	100	100	15.39	15.39	9.72	-0.22	98 (5)	6635 (5)	1127 (5)
6-6-S	100	100	15.39	15.39	26.21	-0.03	263 (5)	17882 (5)	3039 (5)
6-7-S	100	100	15.39	15.39	28.05	-0.05	163 (7)	11093 (7)	1885 (7)
6-8-S	100	100	15.39	15.39	25.23	-0.13	157 (7)	10699 (7)	1818 (7)
6-9-S	100	100	15.39	15.39	20.16	-0.57	127 (6)	8645 (6)	1469 (6)
6-10-S	100	100	15.39	15.39	12.20	-1.39	68 (6)	4597 (6)	1469 (6)
6-11-S	100	100	15.39	15.39	5.52	-3.40	50 (6)	2391 (6)	3416 (6)
6-12-S	100	100	15.39	15.39	2.07	-6.06	70 (7)	975 (7)	4736 (7)
6-13-S	100	100	15.39	15.39	0.12	-4.89	52 (8)	596 (8)	3506 (8)
6-14-S	100	100	15.39	15.39	0.00	-2.69	28 (8)	328 (8)	1930 (8)
6-15-S	100	100	15.39	15.39	0.39	-0.52	10 (8)	701 (8)	371 (8)
7-1-S	100	100	15.39	15.39	2.94	-1.19	28 (6)	1884 (6)	746 (6)
7-2-S	100	100	15.39	15.39	4.29	-3.26	61 (6)	4149 (6)	2199 (6)
7-3-S	100	100	15.39	15.39	0.07	-7.06	73 (5)	845 (5)	4973 (5)
7-4-S	100	100	15.39	15.39	1.03	-28.49	378 (5)	4365 (5)	25685 (5)
7-5-S	100	100	15.39	15.39	4.04	-11.40	138 (6)	7330 (6)	9400 (6)
7-6-S	100	100	15.39	15.39	46.30	0.00	474 (5)	32183 (5)	5469 (5)
7-7-S	100	100	15.39	15.39	43.45	0.00	299 (7)	20327 (7)	3454 (7)
7-8-S	100	100	15.39	15.39	36.87	0.00	257 (7)	17485 (7)	2971 (7)
7-9-S	100	100	15.39	15.39	29.34	-0.02	198 (6)	13428 (6)	2282 (6)
7-10-S	100	100	15.39	15.39	20.36	-0.35	121 (6)	8215 (6)	1396 (6)
7-11-S	100	100	15.39	15.39	0.64	-15.45	204 (8)	2355 (8)	13862 (8)
7-12-S	100	100	15.39	15.39	0.30	-27.22	283 (7)	3266 (7)	19220 (7)
7-13-S	100	100	15.39	15.39	0.00	-12.76	127 (6)	1471 (6)	8659 (6)
7-14-S	100	100	15.39	15.39	0.01	-4.95	44 (6)	514 (6)	3023 (6)
7-15-S	100	100	15.39	15.39	0.79	-0.27	10 (8)	711 (8)	197 (8)
8-1-S	100	100	15.39	15.39	0.12	-2.41	24 (5)	278 (5)	1633 (5)
8-2-S	100	100	15.39	15.39	0.19	-1.69	26 (7)	299 (7)	1758 (7)
8-3-S	100	100	15.39	15.39	1.15	-0.82	30 (6)	1517 (6)	2017 (6)
8-4-S	100	100	15.39	15.39	7.83	0.00	79 (5)	5361 (5)	911 (5)
8-5-S	100	100	15.39	15.39	14.77	0.00	148 (5)	10045 (5)	1707 (5)
8-6-S	100	100	15.39	15.39	22.06	0.00	220 (5)	14948 (5)	2540 (5)
8-7-S	100	100	15.39	15.39	32.24	0.00	193 (7)	13125 (7)	2230 (7)
8-8-S	100	100	15.39	15.39	28.93	0.00	185 (7)	12550 (7)	2132 (7)
8-9-S	100	100	15.39	15.39	23.73	0.00	156 (6)	10598 (6)	1801 (6)
8-10-S	100	100	15.39	15.39	16.49	0.00	103 (6)	7007 (6)	1191 (6)
8-11-S	100	100	15.39	15.39	10.04	0.00	56 (6)	3828 (6)	651 (6)
8-12-S	100	100	15.39	15.39	4.76	0.00	22 (6)	1491 (6)	855 (6)
8-13-S	100	100	15.39	15.39	1.44	-0.38	16 (7)	335 (7)	1106 (7)
8-14-S	100	100	15.39	15.39	0.23	-0.67	10 (7)	117 (7)	690 (7)
8-15-S	100	100	15.39	15.39	0.03	-1.15	12 (8)	140 (8)	826 (8)
9-1-S	100	100	15.39	15.39	3.74	-0.70	36 (6)	2454 (6)	419 (6)
9-2-S	100	100	15.39	15.39	4.34	-2.81	93 (6)	6334 (6)	1988 (6)
9-3-S	100	100	15.39	15.39	0.00	-8.51	88 (5)	1017 (5)	5985 (5)
9-4-S	100	100	15.39	15.39	0.11	-33.06	351 (5)	4051 (5)	23838 (5)
9-5-S	100	100	15.39	15.39	1.92	-10.91	107 (7)	4131 (7)	7249 (7)
9-6-S	100	100	15.39	15.39	48.71	0.00	499 (5)	33920 (5)	5764 (5)
9-7-S	100	100	15.39	15.39	45.41	0.00	318 (7)	21617 (7)	3673 (7)
9-8-S	100	100	15.39	15.39	39.26	0.00	280 (7)	18992 (7)	3227 (7)
9-9-S	100	100	15.39	15.39	31.60	0.00	217 (6)	14737 (6)	2504 (6)
9-10-S	100	100	15.39	15.39	21.87	-0.47	133 (6)	9066 (6)	1540 (6)
9-11-S	100	100	15.39	15.39	0.30	-17.38	184 (8)	2119 (8)	12470 (8)
9-12-S	100	100	15.39	15.39	0.16	-31.03	321 (7)	3709 (7)	21830 (7)
9-13-S	100	100	15.39	15.39	0.00	-14.55	143 (6)	1656 (6)	9747 (6)
9-14-S	100	100	15.39	15.39	0.00	-5.37	47 (6)	543 (6)	3193 (6)
9-15-S	100	100	15.39	15.39	1.24	-0.08	13 (8)	887 (8)	151 (8)
10-1-S	100	100	15.39	15.39	0.35	-2.10	21 (6)	237 (6)	1393 (6)
10-2-S	100	100	15.39	15.39	0.12	-2.88	47 (7)	545 (7)	3207 (7)
10-3-S	100	100	15.39	15.39	0.89	-3.01	66 (6)	1436 (6)	4473 (6)
10-4-S	100	100	15.39	15.39	3.81	-0.97	59 (6)	4027 (6)	1341 (6)
10-5-S	100	100	15.39	15.39	13.87	0.00	139 (5)	9433 (5)	1603 (5)
10-6-S	100	100	15.39	15.39	23.22	0.00	232 (5)	15739 (5)	2674 (5)
10-7-S	100	100	15.39	15.39	32.11	0.00	193 (7)	13099 (7)	2226 (7)
10-8-S	100	100	15.39	15.39	28.98	0.00	185 (7)	12600 (7)	2141 (7)
10-9-S	100	100	15.39	15.39	23.22	0.00	151 (6)	10237 (6)	1740 (6)
10-10-S	100	100	15.39	15.39	14.73	-0.27	89 (6)	6025 (6)	1845 (6)
10-11-S	100	100	15.39	15.39	8.72	-0.51	48 (6)	3241 (6)	3208 (6)
10-12-S	100	100	15.39	15.39	3.74	-0.97	40 (7)	1332 (7)	2714 (7)
10-13-S	100	100	15.39	15.39	0.50	-2.11	56 (8)	642 (8)	3781 (8)
10-14-S	100	100	15.39	15.39	0.04	-1.61	28 (8)	328 (8)	1929 (8)
10-15-S	100	100	15.39	15.39	0.16	-0.78	8 (8)	114 (8)	560 (8)
11-1-S	100	100	15.39	15.39	2.08	-1.91	20 (6)	1364 (6)	1239 (6)
11-2-S	100	100	15.39	15.39	2.27	-3.67	35 (6)	2227 (6)	2406 (6)
11-3-S	100	100	15.39	15.39	0.40	-5.96	76 (5)	881 (5)	5187 (5)
11-4-S	100	100	15.39	15.39	2.41	-16.80	297 (5)	3428 (5)	20175 (5)
11-5-S	100	100	15.39	15.39	5.61	-6.26	108 (6)	7348 (6)	7353 (6)

APPALTATORE:

TELESE S.c.a r.l.
Consorzio Telese Società Consortile a Responsabilità Limitata

PROGETTAZIONE:

Mandataria: SYSTRA S.A. Mandante: SWS Engineering S.p.A.

SYSTRA-SOTECNI S.p.A.

Relazione di calcolo
IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO

PROGETTO ESECUTIVO

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	53 di 91

Is	B [cm]	H [cm]	Afi [cmq]	Afs [cmq]	Mp [kNm]	Mn [kNm]	sc [kPa]	ofi [kPa]	ofs [kPa]
11-6-S	100	100	15.39	15.39	36.50	0.00	371 (5)	25202 (5)	4282 (5)
11-7-S	100	100	15.39	15.39	38.71	0.00	255 (7)	17355 (7)	2949 (7)
11-8-S	100	100	15.39	15.39	33.82	0.00	230 (7)	15615 (7)	2653 (7)
11-9-S	100	100	15.39	15.39	26.87	0.00	179 (6)	12130 (6)	2061 (6)
11-10-S	100	100	15.39	15.39	17.51	-0.38	103 (6)	7026 (6)	1194 (6)
11-11-S	100	100	15.39	15.39	1.79	-9.28	163 (8)	2141 (8)	11097 (8)
11-12-S	100	100	15.39	15.39	1.27	-16.09	214 (7)	2466 (7)	14513 (7)
11-13-S	100	100	15.39	15.39	0.26	-8.33	108 (7)	1247 (7)	7336 (7)
11-14-S	100	100	15.39	15.39	0.02	-3.51	36 (6)	414 (6)	2437 (6)
11-15-S	100	100	15.39	15.39	0.72	-0.58	8 (8)	517 (8)	414 (8)
12-1-S	100	100	15.39	15.39	2.08	-1.91	20 (6)	1364 (6)	1239 (6)
12-2-S	100	100	15.39	15.39	2.27	-3.67	35 (6)	2227 (6)	2406 (6)
12-3-S	100	100	15.39	15.39	0.40	-5.96	76 (5)	881 (5)	5187 (5)
12-4-S	100	100	15.39	15.39	2.41	-16.80	297 (5)	3428 (5)	20175 (5)
12-5-S	100	100	15.39	15.39	5.61	-6.26	108 (6)	7348 (6)	7353 (6)
12-6-S	100	100	15.39	15.39	36.50	0.00	371 (5)	25202 (5)	4282 (5)
12-7-S	100	100	15.39	15.39	38.71	0.00	255 (7)	17355 (7)	2949 (7)
12-8-S	100	100	15.39	15.39	33.82	0.00	230 (7)	15615 (7)	2653 (7)
12-9-S	100	100	15.39	15.39	26.87	0.00	179 (6)	12130 (6)	2061 (6)
12-10-S	100	100	15.39	15.39	17.51	-0.38	103 (6)	7026 (6)	1194 (6)
12-11-S	100	100	15.39	15.39	1.79	-9.28	163 (8)	2141 (8)	11097 (8)
12-12-S	100	100	15.39	15.39	1.27	-16.09	214 (7)	2466 (7)	14513 (7)
12-13-S	100	100	15.39	15.39	0.26	-8.33	108 (7)	1247 (7)	7336 (7)
12-14-S	100	100	15.39	15.39	0.02	-3.51	36 (6)	414 (6)	2437 (6)
12-15-S	100	100	15.39	15.39	0.72	-0.58	8 (8)	517 (8)	414 (8)
13-1-S	100	100	15.39	15.39	0.35	-2.10	21 (6)	237 (6)	1393 (6)
13-2-S	100	100	15.39	15.39	0.12	-2.88	47 (7)	545 (7)	3207 (7)
13-3-S	100	100	15.39	15.39	0.89	-3.01	66 (6)	1436 (6)	4473 (6)
13-4-S	100	100	15.39	15.39	3.81	-0.97	59 (6)	4027 (6)	1341 (6)
13-5-S	100	100	15.39	15.39	13.87	0.00	139 (5)	9433 (5)	1603 (5)
13-6-S	100	100	15.39	15.39	23.22	0.00	232 (5)	15739 (5)	2674 (5)
13-7-S	100	100	15.39	15.39	32.11	0.00	193 (7)	13099 (7)	2226 (7)
13-8-S	100	100	15.39	15.39	28.98	0.00	185 (7)	12600 (7)	2141 (7)
13-9-S	100	100	15.39	15.39	23.22	0.00	151 (6)	10237 (6)	1740 (6)
13-10-S	100	100	15.39	15.39	14.73	-0.27	89 (6)	6025 (6)	1845 (6)
13-11-S	100	100	15.39	15.39	8.72	-0.51	48 (6)	3241 (6)	3208 (6)
13-12-S	100	100	15.39	15.39	3.74	-0.97	40 (7)	1332 (7)	2714 (7)
13-13-S	100	100	15.39	15.39	0.50	-2.11	56 (8)	642 (8)	3781 (8)
13-14-S	100	100	15.39	15.39	0.04	-1.61	28 (8)	328 (8)	1929 (8)
13-15-S	100	100	15.39	15.39	0.16	-0.78	8 (8)	114 (8)	560 (8)
14-1-S	100	100	15.39	15.39	3.74	-0.70	36 (6)	2454 (6)	419 (6)
14-2-S	100	100	15.39	15.39	4.34	-2.81	93 (6)	6334 (6)	1988 (6)
14-3-S	100	100	15.39	15.39	0.00	-8.51	88 (5)	1017 (5)	5985 (5)
14-4-S	100	100	15.39	15.39	0.11	-33.06	351 (5)	4051 (5)	23838 (5)
14-5-S	100	100	15.39	15.39	1.92	-10.91	107 (7)	4131 (7)	7249 (7)
14-6-S	100	100	15.39	15.39	48.71	0.00	499 (5)	33920 (5)	5764 (5)
14-7-S	100	100	15.39	15.39	45.41	0.00	318 (7)	21617 (7)	3673 (7)
14-8-S	100	100	15.39	15.39	39.26	0.00	280 (7)	18992 (7)	3227 (7)
14-9-S	100	100	15.39	15.39	31.60	0.00	217 (6)	14737 (6)	2504 (6)
14-10-S	100	100	15.39	15.39	21.87	-0.47	133 (6)	9066 (6)	1540 (6)
14-11-S	100	100	15.39	15.39	0.30	-17.38	184 (8)	2119 (8)	12470 (8)
14-12-S	100	100	15.39	15.39	0.16	-31.03	321 (7)	3709 (7)	21830 (7)
14-13-S	100	100	15.39	15.39	0.00	-14.55	143 (6)	1656 (6)	9747 (6)
14-14-S	100	100	15.39	15.39	0.00	-5.37	47 (6)	543 (6)	3193 (6)
14-15-S	100	100	15.39	15.39	1.24	-0.08	13 (8)	887 (8)	151 (8)
15-1-S	100	100	15.39	15.39	0.12	-2.41	24 (5)	278 (5)	1633 (5)
15-2-S	100	100	15.39	15.39	0.19	-1.69	26 (7)	299 (7)	1758 (7)
15-3-S	100	100	15.39	15.39	1.15	-0.82	30 (6)	1517 (6)	2017 (6)
15-4-S	100	100	15.39	15.39	7.83	0.00	79 (5)	5361 (5)	911 (5)
15-5-S	100	100	15.39	15.39	14.77	0.00	148 (5)	10045 (5)	1707 (5)
15-6-S	100	100	15.39	15.39	22.06	0.00	220 (5)	14948 (5)	2540 (5)
15-7-S	100	100	15.39	15.39	32.24	0.00	193 (7)	13125 (7)	2230 (7)
15-8-S	100	100	15.39	15.39	28.93	0.00	185 (7)	12550 (7)	2132 (7)
15-9-S	100	100	15.39	15.39	23.73	0.00	156 (6)	10598 (6)	1801 (6)
15-10-S	100	100	15.39	15.39	16.49	0.00	103 (6)	7007 (6)	1191 (6)
15-11-S	100	100	15.39	15.39	10.04	0.00	56 (6)	3828 (6)	651 (6)
15-12-S	100	100	15.39	15.39	4.76	0.00	22 (6)	1491 (6)	855 (6)
15-13-S	100	100	15.39	15.39	1.44	-0.38	16 (7)	335 (7)	1106 (7)
15-14-S	100	100	15.39	15.39	0.23	-0.67	10 (7)	117 (7)	690 (7)
15-15-S	100	100	15.39	15.39	0.03	-1.15	12 (8)	140 (8)	826 (8)
16-1-S	100	100	15.39	15.39	2.94	-1.19	28 (6)	1884 (6)	746 (6)
16-2-S	100	100	15.39	15.39	4.29	-3.26	61 (6)	4149 (6)	2199 (6)
16-3-S	100	100	15.39	15.39	0.07	-7.06	73 (5)	845 (5)	4973 (5)
16-4-S	100	100	15.39	15.39	1.03	-28.49	378 (5)	4365 (5)	25685 (5)
16-5-S	100	100	15.39	15.39	4.04	-11.40	138 (6)	7330 (6)	9400 (6)
16-6-S	100	100	15.39	15.39	46.30	0.00	474 (5)	32183 (5)	5469 (5)
16-7-S	100	100	15.39	15.39	43.45	0.00	299 (7)	20327 (7)	3454 (7)
16-8-S	100	100	15.39	15.39	36.87	0.00	257 (7)	17485 (7)	2971 (7)
16-9-S	100	100	15.39	15.39	29.34	-0.02	198 (6)	13428 (6)	2282 (6)
16-10-S	100	100	15.39	15.39	20.36	-0.35	121 (6)	8215 (6)	1396 (6)
16-11-S	100	100	15.39	15.39	0.64	-15.45	204 (8)	2355 (8)	13862 (8)

APPALTATORE:

TELESE S.c.a r.l.

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II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	54 di 91

Is	B [cm]	H [cm]	Afi [cmq]	Afs [cmq]	Mp [kNm]	Mn [kNm]	σ_c [kPa]	σ_{fi} [kPa]	σ_{fs} [kPa]
16-12-S	100	100	15.39	15.39	0.30	-27.22	283 (7)	3266 (7)	19220 (7)
16-13-S	100	100	15.39	15.39	0.00	-12.76	127 (6)	1471 (6)	8659 (6)
16-14-S	100	100	15.39	15.39	0.01	-4.95	44 (6)	514 (6)	3023 (6)
16-15-S	100	100	15.39	15.39	0.79	-0.27	10 (8)	711 (8)	197 (8)
17-1-S	100	100	15.39	15.39	0.47	-1.77	23 (6)	1584 (6)	1139 (6)
17-2-S	100	100	15.39	15.39	0.05	-3.63	46 (5)	528 (5)	3107 (5)
17-3-S	100	100	15.39	15.39	0.70	-5.16	87 (5)	1207 (5)	5895 (5)
17-4-S	100	100	15.39	15.39	3.05	-5.38	136 (5)	2611 (5)	9213 (5)
17-5-S	100	100	15.39	15.39	9.72	-0.22	98 (5)	6635 (5)	1127 (5)
17-6-S	100	100	15.39	15.39	26.21	-0.03	263 (5)	17882 (5)	3039 (5)
17-7-S	100	100	15.39	15.39	28.05	-0.05	163 (7)	11093 (7)	1885 (7)
17-8-S	100	100	15.39	15.39	25.23	-0.13	157 (7)	10699 (7)	1818 (7)
17-9-S	100	100	15.39	15.39	20.16	-0.57	127 (6)	8645 (6)	1469 (6)
17-10-S	100	100	15.39	15.39	12.20	-1.39	68 (6)	4597 (6)	1469 (6)
17-11-S	100	100	15.39	15.39	5.52	-3.40	50 (6)	2391 (6)	3416 (6)
17-12-S	100	100	15.39	15.39	2.07	-6.06	70 (7)	975 (7)	4736 (7)
17-13-S	100	100	15.39	15.39	0.12	-4.89	52 (8)	596 (8)	3506 (8)
17-14-S	100	100	15.39	15.39	0.00	-2.69	28 (8)	328 (8)	1930 (8)
17-15-S	100	100	15.39	15.39	0.39	-0.52	10 (8)	701 (8)	371 (8)

Pali in c.a.

Ip	Is	Ar [cmq]	σ_c [kPa]	σ_{fi} [kPa]	τ_c [kPa]	σ_{sf} [kPa]
1	1	40.72	1063	14261		
1	2	40.72	1010	13636		
1	3	40.72	960	13046		
1	4	40.72	913	12484		
1	5	40.72	868	11950		
1	6	40.72	825	11444		
1	7	40.72	785	10965		
1	8	40.72	746	10511		
1	9	40.72	710	10083		
1	10	40.72	677	9717		
1	11	40.72	650	9395		
1	12	40.72	634	9093		
1	13	40.72	669	9420		
1	14	40.72	701	9813		
1	15	40.72	731	10174		
1	16	40.72	758	10506		
1	17	40.72	783	10810		
1	18	40.72	806	11087		
1	19	40.72	827	11338		
1	20	40.72	845	11564		
1	21	40.72	862	11767		
1	22	40.72	877	11947		
1	23	40.72	889	12106		
1	24	40.72	901	12244		
1	25	40.72	910	12364		
1	26	40.72	918	12465		
1	27	40.72	925	12548		
1	28	40.72	930	12616		
1	29	40.72	934	12667		
1	30	40.72	937	12705		
1	31	40.72	939	12729		
1	32	40.72	939	12740		
1	33	40.72	939	12739		
1	34	40.72	938	12727		
1	35	40.72	935	12705		
1	36	40.72	932	12673		
1	37	40.72	929	12633		
1	38	40.72	924	12584		
1	39	40.72	919	12528		
1	40	40.72	914	12465		
1	41	40.72	908	12395		
1	42	40.72	901	12320		
1	43	40.72	894	12240		
1	44	40.72	887	12155		
1	45	40.72	879	12066		
1	46	40.72	871	11973		
1	47	40.72	863	11878		
1	48	40.72	854	11780		
1	49	40.72	846	11679		
1	50	40.72	837	11577		
1	51	40.72	828	11473		
1	52	40.72	819	11368		
1	53	40.72	810	11262		
1	54	40.72	801	11156		
1	55	40.72	792	11050		

APPALTATORE:

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II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO**

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	55 di 91

Ip	Is	Ar [cmq]	σ_c [kPa]	σ_f [kPa]	τ_c [kPa]	σ_{sf} [kPa]
1	56	40.72	782	10943		
1	57	40.72	773	10837		
1	58	40.72	764	10732		
1	59	40.72	755	10627		
1	60	40.72	746	10523		
1	61	40.72	738	10442		
1	62	40.72	729	10386		
1	63	40.72	720	10330		
1	64	40.72	712	10274		
1	65	40.72	705	10218		
1	66	40.72	700	10163		
1	67	40.72	695	10108		
1	68	40.72	691	10053		
1	69	40.72	686	9999		
1	70	40.72	681	9946		
1	71	40.72	677	9893		
1	72	40.72	672	9842		
1	73	40.72	668	9791		
1	74	40.72	664	9741		
1	75	40.72	660	9693		
1	76	40.72	656	9651		
1	77	40.72	652	9613		
1	78	40.72	648	9576		
1	79	40.72	644	9541		
1	80	40.72	641	9506		
1	81	40.72	638	9473		
1	82	40.72	636	9441		
1	83	40.72	633	9410		
1	84	40.72	630	9380		
1	85	40.72	628	9352		
1	86	40.72	626	9326		
1	87	40.72	624	9300		
1	88	40.72	622	9277		
1	89	40.72	620	9254		
1	90	40.72	618	9234		
1	91	40.72	616	9215		
1	92	40.72	615	9198		
1	93	40.72	613	9182		
1	94	40.72	612	9168		
1	95	40.72	611	9156		
1	96	40.72	610	9146		
1	97	40.72	610	9138		
1	98	40.72	609	9132		
1	99	40.72	609	9127		
1	100	40.72	608	9125		
1	101	40.72	608	9124		
2	1	62.83	1073	14511		
2	2	62.83	1024	13936		
2	3	62.83	978	13387		
2	4	62.83	934	12865		
2	5	62.83	892	12369		
2	6	62.83	852	11898		
2	7	62.83	814	11453		
2	8	62.83	778	11031		
2	9	62.83	745	10633		
2	10	62.83	715	10467		
2	11	62.83	753	10925		
2	12	62.83	789	11350		
2	13	62.83	821	11743		
2	14	62.83	851	12108		
2	15	62.83	879	12443		
2	16	62.83	905	12751		
2	17	62.83	928	13032		
2	18	62.83	949	13289		
2	19	62.83	968	13521		
2	20	62.83	986	13730		
2	21	62.83	1001	13918		
2	22	62.83	1015	14084		
2	23	62.83	1026	14231		
2	24	62.83	1037	14358		
2	25	62.83	1046	14468		
2	26	62.83	1053	14561		
2	27	62.83	1059	14637		
2	28	62.83	1064	14698		
2	29	62.83	1068	14744		
2	30	62.83	1070	14778		
2	31	62.83	1072	14798		
2	32	62.83	1072	14806		
2	33	62.83	1072	14804		
2	34	62.83	1070	14791		
2	35	62.83	1068	14768		

APPALTATORE:

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PROGETTAZIONE:

Mandataria:

Mandante:

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PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	56 di 91

Ip	Is	Ar [cmq]	σ_c [kPa]	σ_f [kPa]	τ_c [kPa]	σ_{sf} [kPa]
2	36	62.83	1065	14736		
2	37	62.83	1062	14696		
2	38	62.83	1057	14649		
2	39	62.83	1052	14594		
2	40	62.83	1047	14533		
2	41	62.83	1041	14466		
2	42	62.83	1035	14393		
2	43	62.83	1028	14316		
2	44	62.83	1021	14234		
2	45	62.83	1014	14149		
2	46	62.83	1006	14060		
2	47	62.83	998	13968		
2	48	62.83	990	13873		
2	49	62.83	982	13777		
2	50	62.83	973	13678		
2	51	62.83	965	13578		
2	52	62.83	956	13477		
2	53	62.83	947	13376		
2	54	62.83	939	13274		
2	55	62.83	930	13171		
2	56	62.83	921	13069		
2	57	62.83	912	12967		
2	58	62.83	904	12865		
2	59	62.83	895	12763		
2	60	62.83	887	12663		
2	61	62.83	878	12563		
2	62	62.83	870	12465		
2	63	62.83	861	12367		
2	64	62.83	853	12271		
2	65	62.83	845	12176		
2	66	62.83	837	12083		
2	67	62.83	829	11992		
2	68	62.83	822	11902		
2	69	62.83	814	11814		
2	70	62.83	807	11728		
2	71	62.83	800	11644		
2	72	62.83	793	11562		
2	73	62.83	786	11482		
2	74	62.83	780	11404		
2	75	62.83	773	11329		
2	76	62.83	767	11256		
2	77	62.83	761	11185		
2	78	62.83	755	11117		
2	79	62.83	750	11051		
2	80	62.83	744	10988		
2	81	62.83	739	10927		
2	82	62.83	734	10868		
2	83	62.83	730	10813		
2	84	62.83	725	10759		
2	85	62.83	721	10709		
2	86	62.83	717	10661		
2	87	62.83	713	10616		
2	88	62.83	710	10573		
2	89	62.83	706	10534		
2	90	62.83	703	10497		
2	91	62.83	700	10462		
2	92	62.83	698	10431		
2	93	62.83	695	10402		
2	94	62.83	693	10376		
2	95	62.83	691	10353		
2	96	62.83	690	10333		
2	97	62.83	688	10316		
2	98	62.83	687	10302		
2	99	62.83	686	10290		
2	100	62.83	685	10282		
2	101	62.83	685	10276		

Combinazioni SLEF

Paramento

Tensione massima di compressione nel calcestruzzo
 Tensione massima di trazione dell'acciaio

33200 [kPa]
 450000 [kPa]

n°	B	H	Afi	Afs	M	N	σ_c	σ_f	σ_{fs}
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APPALTATORE:

TELESE S.c.a r.l.

Consorzio Telese Società Consortile a Responsabilità Limitata

**ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO**

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	57 di 91

	[cm]	[cm]	[cmq]	[cmq]	[kNm]	[kN]	[kPa]	[kPa]	[kPa]
1	100	70	5.65	7.70	1.50	5.00	34 (8)	580 (8)	432 (8)
2	100	70	5.65	7.70	2.02	6.72	46 (8)	793 (8)	584 (8)
3	100	70	5.65	7.70	2.55	8.43	58 (8)	1006 (8)	735 (8)
4	100	70	5.65	7.70	3.07	10.15	70 (8)	1219 (8)	887 (8)
5	100	70	5.65	7.70	3.60	11.86	82 (8)	1432 (8)	1039 (8)
6	100	70	5.65	7.70	4.12	13.58	94 (8)	1646 (8)	1191 (8)
7	100	70	5.65	7.70	4.65	15.29	106 (8)	1859 (8)	1342 (8)
8	100	70	5.65	7.70	5.17	17.01	118 (8)	2072 (8)	1494 (8)
9	100	70	5.65	7.70	5.70	18.72	130 (8)	2285 (8)	1646 (8)
10	100	70	5.65	7.70	6.22	20.44	142 (8)	2498 (8)	1797 (8)
11	100	70	5.65	7.70	6.75	22.16	154 (8)	2711 (8)	1949 (8)
12	100	70	5.65	7.70	7.27	23.87	166 (8)	2925 (8)	2101 (8)
13	100	70	5.65	7.70	7.80	25.59	178 (8)	3138 (8)	2253 (8)
14	100	70	5.65	7.70	8.32	27.30	190 (8)	3351 (8)	2404 (8)
15	100	70	5.65	7.70	8.85	29.02	202 (8)	3564 (8)	2556 (8)
16	100	70	5.65	7.70	9.37	30.73	214 (8)	3777 (8)	2708 (8)
17	100	70	5.65	7.70	9.90	32.45	226 (8)	3991 (8)	2859 (8)
18	100	70	5.65	7.70	10.42	34.16	238 (8)	4204 (8)	3011 (8)
19	100	70	5.65	7.70	10.95	35.88	250 (8)	4417 (8)	3163 (8)
20	100	70	5.65	7.70	11.47	37.59	262 (8)	4630 (8)	3315 (8)
21	100	70	5.65	7.70	12.00	39.31	274 (8)	4843 (8)	3466 (8)
22	100	70	5.65	7.70	12.52	41.03	286 (8)	5056 (8)	3618 (8)
23	100	70	5.65	7.70	13.05	42.74	298 (8)	5270 (8)	3770 (8)
24	100	70	5.65	7.70	13.57	44.46	310 (8)	5483 (8)	3921 (8)
25	100	70	5.65	7.70	14.09	46.17	322 (8)	5696 (8)	4073 (8)
26	100	70	5.65	7.70	14.62	47.89	334 (8)	5909 (8)	4225 (8)
27	100	90	5.65	7.70	19.04	48.93	273 (8)	5263 (8)	3579 (8)
28	100	90	5.65	7.70	19.56	51.13	278 (8)	5164 (8)	3659 (8)
29	100	90	5.65	7.70	20.09	53.34	283 (8)	5074 (8)	3738 (8)
30	100	90	5.65	7.70	20.61	55.54	289 (8)	4993 (8)	3818 (8)
31	100	90	5.65	7.70	21.14	57.74	294 (8)	4920 (8)	3898 (8)
32	100	90	5.65	7.70	21.66	59.95	300 (8)	4854 (8)	3979 (8)
33	100	90	5.65	7.70	22.20	62.15	305 (8)	4805 (8)	4063 (8)
34	100	90	5.65	7.70	22.76	64.36	312 (8)	4787 (8)	4154 (8)
35	100	90	5.65	7.70	23.37	66.56	319 (8)	4806 (8)	4255 (8)
36	100	90	5.65	7.70	24.02	68.76	327 (8)	4864 (8)	4367 (8)
37	100	90	5.65	7.70	24.73	70.97	336 (8)	4967 (8)	4492 (8)
38	100	90	5.65	7.70	25.49	73.17	347 (8)	5118 (8)	4631 (8)
39	100	90	5.65	7.70	26.32	75.38	358 (8)	5321 (8)	4784 (8)
40	100	90	5.65	7.70	27.21	77.58	371 (8)	5581 (8)	4954 (8)
41	100	90	5.65	7.70	28.18	79.78	386 (8)	5903 (8)	5141 (8)
42	100	90	5.65	7.70	29.23	81.99	402 (8)	6294 (8)	5347 (8)
43	100	90	5.65	7.70	30.36	84.19	420 (8)	6763 (8)	5574 (8)
44	100	90	5.65	7.70	31.58	86.40	439 (8)	7318 (8)	5821 (8)
45	100	90	5.65	7.70	32.88	88.60	461 (8)	7969 (8)	6092 (8)
46	100	90	5.65	7.70	32.91	88.64	461 (8)	7983 (8)	6098 (8)
47	100	90	5.65	7.70	34.31	90.84	485 (8)	8741 (8)	6392 (8)
48	100	90	5.65	7.70	35.82	93.04	511 (8)	9617 (8)	6712 (8)

Piastra fondazione

Tensione massima di compressione nel calcestruzzo

17430

[kPa]

Tensione massima di trazione dell'acciaio

1255271

[kPa]

Is	B	H	Afi	Afs	Mp	Mn	σc	σfi	σfs
	[cm]	[cm]	[cmq]	[cmq]	[kNm]	[kNm]	[kPa]	[kPa]	[kPa]
1-1-P	60	100	9.24	9.24	0.76	-0.03	13 (5)	869 (5)	180 (5)
1-2-P	60	100	9.24	9.24	0.52	-0.78	22 (5)	1487 (5)	1493 (5)
1-3-P	60	100	9.24	9.24	0.00	-3.32	56 (5)	649 (5)	3819 (5)
1-4-P	60	100	9.24	9.24	0.00	-9.51	161 (5)	1854 (5)	10912 (5)
1-5-P	60	100	9.24	9.24	0.01	-13.37	226 (5)	2615 (5)	15387 (5)
1-6-P	60	100	9.24	9.24	0.01	-14.88	253 (5)	2916 (5)	17160 (5)
1-7-P	60	100	9.24	9.24	0.01	-9.40	159 (5)	1836 (5)	10806 (5)
1-8-P	60	100	9.24	9.24	0.32	-2.53	43 (5)	1782 (5)	2888 (5)
1-9-P	60	100	9.24	9.24	6.13	-0.03	103 (5)	7029 (5)	1194 (5)
1-10-P	60	100	9.24	9.24	8.31	0.00	141 (5)	9546 (5)	1622 (5)
1-11-P	60	100	9.24	9.24	8.89	0.00	150 (5)	10212 (5)	1735 (5)
1-12-P	60	100	9.24	9.24	7.04	-0.02	119 (5)	8080 (5)	1373 (5)
1-13-P	60	100	9.24	9.24	1.14	-0.91	21 (6)	1426 (6)	957 (6)
1-14-P	60	100	9.24	9.24	0.02	-6.79	115 (5)	1324 (5)	7789 (5)
1-15-P	60	100	9.24	9.24	0.02	-11.42	194 (5)	2238 (5)	13168 (5)
1-16-P	60	100	9.24	9.24	0.03	-10.51	178 (5)	2058 (5)	12112 (5)
1-17-P	60	100	9.24	9.24	0.01	-5.88	99 (5)	1144 (5)	6733 (5)
1-18-P	60	100	9.24	9.24	2.10	-0.45	40 (6)	2685 (6)	456 (6)
1-19-P	60	100	9.24	9.24	7.44	-0.01	126 (5)	8541 (5)	1451 (5)
1-20-P	60	100	9.24	9.24	9.39	0.00	159 (5)	10789 (5)	1833 (5)
1-21-P	60	100	9.24	9.24	8.20	0.00	139 (5)	9416 (5)	1600 (5)
1-22-P	60	100	9.24	9.24	5.12	-0.08	86 (5)	5874 (5)	998 (5)

APPALTATORE:

TELESE S.c.a r.l.

Consorzio Telese Società Consortile a Responsabilità Limitata

PROGETTAZIONE:

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**ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO****PROGETTO ESECUTIVO**

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA

LOTTO

CODIFICA

DOCUMENTO

REV.

FOGLIO

IF2R

2.2.E.ZZ

CL

TR.16.0.5.009

A

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Is	B [cm]	H [cm]	Afi [cmq]	Afs [cmq]	Mp [kNm]	Mn [kNm]	sc [kPa]	ofi [kPa]	ofs [kPa]
1-23-P	60	100	9.24	9.24	0.27	-3.07	51 (5)	740 (5)	3498 (5)
1-24-P	60	100	9.24	9.24	0.02	-8.74	148 (5)	1708 (5)	10054 (5)
1-25-P	60	100	9.24	9.24	0.00	-13.53	230 (5)	2654 (5)	15621 (5)
1-26-P	60	100	9.24	9.24	0.02	-8.74	148 (5)	1708 (5)	10054 (5)
1-27-P	60	100	9.24	9.24	0.27	-3.07	51 (5)	740 (5)	3498 (5)
1-28-P	60	100	9.24	9.24	5.12	-0.08	86 (5)	5874 (5)	998 (5)
1-29-P	60	100	9.24	9.24	8.20	0.00	139 (5)	9416 (5)	1600 (5)
1-30-P	60	100	9.24	9.24	9.39	0.00	159 (5)	10789 (5)	1833 (5)
1-31-P	60	100	9.24	9.24	7.44	-0.01	126 (5)	8541 (5)	1451 (5)
1-32-P	60	100	9.24	9.24	2.10	-0.45	40 (6)	2685 (6)	456 (6)
1-33-P	60	100	9.24	9.24	0.01	-5.88	99 (5)	1144 (5)	6733 (5)
1-34-P	60	100	9.24	9.24	0.03	-10.51	178 (5)	2058 (5)	12112 (5)
1-35-P	60	100	9.24	9.24	0.02	-11.42	194 (5)	2238 (5)	13168 (5)
1-36-P	60	100	9.24	9.24	0.02	-6.79	115 (5)	1324 (5)	7789 (5)
1-37-P	60	100	9.24	9.24	1.14	-0.91	21 (6)	1426 (6)	957 (6)
1-38-P	60	100	9.24	9.24	7.04	-0.02	119 (5)	8080 (5)	1373 (5)
1-39-P	60	100	9.24	9.24	8.89	0.00	150 (5)	10212 (5)	1735 (5)
1-40-P	60	100	9.24	9.24	8.31	0.00	141 (5)	9546 (5)	1622 (5)
1-41-P	60	100	9.24	9.24	6.13	-0.03	103 (5)	7029 (5)	1194 (5)
1-42-P	60	100	9.24	9.24	0.32	-2.53	43 (5)	1782 (5)	2888 (5)
1-43-P	60	100	9.24	9.24	0.01	-9.40	159 (5)	1836 (5)	10806 (5)
1-44-P	60	100	9.24	9.24	0.01	-14.88	253 (5)	2916 (5)	17160 (5)
1-45-P	60	100	9.24	9.24	0.01	-13.37	226 (5)	2615 (5)	15387 (5)
1-46-P	60	100	9.24	9.24	0.00	-9.51	161 (5)	1854 (5)	10912 (5)
1-47-P	60	100	9.24	9.24	0.00	-3.32	56 (5)	649 (5)	3819 (5)
1-48-P	60	100	9.24	9.24	0.52	-0.78	22 (5)	1487 (5)	1493 (5)
1-49-P	60	100	9.24	9.24	0.76	-0.03	13 (5)	869 (5)	180 (5)
2-1-P	60	100	9.24	9.24	2.09	-0.22	40 (6)	2712 (6)	461 (6)
2-2-P	60	100	9.24	9.24	3.15	0.00	53 (5)	3596 (5)	611 (5)
2-3-P	60	100	9.24	9.24	4.13	-0.01	69 (5)	4721 (5)	802 (5)
2-4-P	60	100	9.24	9.24	5.27	-0.01	89 (5)	6018 (5)	1023 (5)
2-5-P	60	100	9.24	9.24	0.83	-15.82	311 (5)	3594 (5)	21153 (5)
2-6-P	60	100	9.24	9.24	0.68	-30.74	573 (5)	6614 (5)	38923 (5)
2-7-P	60	100	9.24	9.24	1.22	-4.73	133 (5)	3523 (5)	9052 (5)
2-8-P	60	100	9.24	9.24	7.46	-0.01	126 (5)	8541 (5)	1451 (5)
2-9-P	60	100	9.24	9.24	7.77	0.00	131 (5)	8903 (5)	1513 (5)
2-10-P	60	100	9.24	9.24	7.72	0.00	130 (5)	8846 (5)	1503 (5)
2-11-P	60	100	9.24	9.24	7.75	0.00	131 (5)	8883 (5)	1510 (5)
2-12-P	60	100	9.24	9.24	7.91	0.00	133 (5)	9064 (5)	1540 (5)
2-13-P	60	100	9.24	9.24	7.84	0.00	132 (5)	8985 (5)	1527 (5)
2-14-P	60	100	9.24	9.24	2.21	-0.64	62 (6)	4193 (6)	939 (6)
2-15-P	60	100	9.24	9.24	0.70	-24.50	482 (5)	5566 (5)	32755 (5)
2-16-P	60	100	9.24	9.24	0.75	-19.33	380 (5)	4391 (5)	25840 (5)
2-17-P	60	100	9.24	9.24	7.69	-0.08	129 (5)	8791 (5)	1494 (5)
2-18-P	60	100	9.24	9.24	7.80	0.00	131 (5)	8931 (5)	1518 (5)
2-19-P	60	100	9.24	9.24	7.80	0.00	132 (5)	8938 (5)	1519 (5)
2-20-P	60	100	9.24	9.24	7.66	0.00	129 (5)	8772 (5)	1491 (5)
2-21-P	60	100	9.24	9.24	7.73	0.00	130 (5)	8857 (5)	1505 (5)
2-22-P	60	100	9.24	9.24	7.81	0.00	132 (5)	8947 (5)	1520 (5)
2-23-P	60	100	9.24	9.24	7.71	-0.02	130 (5)	8825 (5)	1500 (5)
2-24-P	60	100	9.24	9.24	0.97	-9.25	195 (5)	2826 (5)	13252 (5)
2-25-P	60	100	9.24	9.24	0.66	-35.03	653 (5)	7535 (5)	44342 (5)
2-26-P	60	100	9.24	9.24	0.97	-9.25	195 (5)	2826 (5)	13252 (5)
2-27-P	60	100	9.24	9.24	7.71	-0.02	130 (5)	8825 (5)	1500 (5)
2-28-P	60	100	9.24	9.24	7.81	0.00	132 (5)	8947 (5)	1520 (5)
2-29-P	60	100	9.24	9.24	7.73	0.00	130 (5)	8857 (5)	1505 (5)
2-30-P	60	100	9.24	9.24	7.66	0.00	129 (5)	8772 (5)	1491 (5)
2-31-P	60	100	9.24	9.24	7.80	0.00	132 (5)	8938 (5)	1519 (5)
2-32-P	60	100	9.24	9.24	7.80	0.00	131 (5)	8931 (5)	1518 (5)
2-33-P	60	100	9.24	9.24	7.69	-0.08	129 (5)	8791 (5)	1494 (5)
2-34-P	60	100	9.24	9.24	0.75	-19.33	380 (5)	4391 (5)	25840 (5)
2-35-P	60	100	9.24	9.24	0.70	-24.50	482 (5)	5566 (5)	32755 (5)
2-36-P	60	100	9.24	9.24	2.21	-0.64	62 (6)	4193 (6)	939 (6)
2-37-P	60	100	9.24	9.24	7.84	0.00	132 (5)	8985 (5)	1527 (5)
2-38-P	60	100	9.24	9.24	7.91	0.00	133 (5)	9064 (5)	1540 (5)
2-39-P	60	100	9.24	9.24	7.75	0.00	131 (5)	8883 (5)	1510 (5)
2-40-P	60	100	9.24	9.24	7.72	0.00	130 (5)	8846 (5)	1503 (5)
2-41-P	60	100	9.24	9.24	7.77	0.00	131 (5)	8903 (5)	1513 (5)
2-42-P	60	100	9.24	9.24	7.46	-0.01	126 (5)	8541 (5)	1451 (5)
2-43-P	60	100	9.24	9.24	1.22	-4.73	133 (5)	3523 (5)	9052 (5)
2-44-P	60	100	9.24	9.24	0.68	-30.74	573 (5)	6614 (5)	38923 (5)
2-45-P	60	100	9.24	9.24	0.83	-15.82	311 (5)	3594 (5)	21153 (5)
2-46-P	60	100	9.24	9.24	5.27	-0.01	89 (5)	6018 (5)	1023 (5)
2-47-P	60	100	9.24	9.24	4.13	-0.01	69 (5)	4721 (5)	802 (5)
2-48-P	60	100	9.24	9.24	3.15	0.00	53 (5)	3596 (5)	611 (5)
2-49-P	60	100	9.24	9.24	2.09	-0.22	40 (6)	2712 (6)	461 (6)
4-1-P	95	100	13.85	13.85	2.80	-1.39	32 (8)	2229 (8)	1105 (8)
4-2-P	95	100	13.85	13.85	3.33	-1.13	38 (7)	2632 (7)	1747 (7)
4-3-P	95	100	13.85	13.85	3.63	-2.96	42 (6)	2449 (6)	2948 (6)
4-4-P	95	100	13.85	13.85	2.29	-6.81	97 (8)	1824 (8)	6781 (8)
4-5-P	95	100	13.85	13.85	2.76	-9.41	153 (7)	1751 (7)	10649 (7)

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IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

ITINERARIO NAPOLI – BARI

RADDOPPIO TRATTA CANCELLO-BENEVENTO

II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO

PROGETTO ESECUTIVO

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	59 di 91

Is	B [cm]	H [cm]	Afi [cmq]	Afs [cmq]	Mp [kNm]	Mn [kNm]	sc [kPa]	ofi [kPa]	ofs [kPa]
4-6-P	95	100	13.85	13.85	2.72	-10.71	187 (7)	2140 (7)	13011 (7)
4-7-P	95	100	13.85	13.85	3.30	-5.10	104 (6)	1717 (6)	7277 (6)
4-8-P	95	100	13.85	13.85	3.29	-1.03	38 (8)	2619 (8)	2059 (8)
4-9-P	95	100	13.85	13.85	11.71	0.00	99 (7)	6909 (7)	1136 (7)
4-10-P	95	100	13.85	13.85	13.57	0.00	119 (7)	8274 (7)	1361 (7)
4-11-P	95	100	13.85	13.85	14.19	0.00	125 (7)	8721 (7)	1434 (7)
4-12-P	95	100	13.85	13.85	12.96	0.00	112 (7)	7790 (7)	1281 (7)
4-13-P	95	100	13.85	13.85	7.70	0.00	59 (6)	4085 (6)	672 (6)
4-14-P	95	100	13.85	13.85	4.52	-2.83	64 (7)	2332 (7)	4440 (7)
4-15-P	95	100	13.85	13.85	3.72	-6.88	145 (7)	1959 (7)	10137 (7)
4-16-P	95	100	13.85	13.85	3.82	-5.98	128 (7)	2032 (7)	8933 (7)
4-17-P	95	100	13.85	13.85	5.23	-2.52	56 (7)	2580 (7)	3912 (7)
4-18-P	95	100	13.85	13.85	9.07	0.00	71 (6)	4960 (6)	816 (6)
4-19-P	95	100	13.85	13.85	13.47	0.00	117 (7)	8159 (7)	1342 (7)
4-20-P	95	100	13.85	13.85	14.90	0.00	132 (7)	9226 (7)	1517 (7)
4-21-P	95	100	13.85	13.85	14.00	0.00	123 (7)	8560 (7)	1408 (7)
4-22-P	95	100	13.85	13.85	11.53	0.00	97 (7)	6750 (7)	1110 (7)
4-23-P	95	100	13.85	13.85	3.79	-1.16	43 (8)	3023 (8)	2314 (8)
4-24-P	95	100	13.85	13.85	3.92	-4.28	95 (7)	2112 (7)	6623 (7)
4-25-P	95	100	13.85	13.85	3.54	-8.29	181 (6)	2081 (6)	12652 (6)
4-26-P	95	100	13.85	13.85	3.92	-4.28	95 (7)	2112 (7)	6623 (7)
4-27-P	95	100	13.85	13.85	3.79	-1.16	43 (8)	3023 (8)	2314 (8)
4-28-P	95	100	13.85	13.85	11.53	0.00	97 (7)	6750 (7)	1110 (7)
4-29-P	95	100	13.85	13.85	14.00	0.00	123 (7)	8560 (7)	1408 (7)
4-30-P	95	100	13.85	13.85	14.90	0.00	132 (7)	9226 (7)	1517 (7)
4-31-P	95	100	13.85	13.85	13.47	0.00	117 (7)	8159 (7)	1342 (7)
4-32-P	95	100	13.85	13.85	9.07	0.00	71 (6)	4960 (6)	816 (6)
4-33-P	95	100	13.85	13.85	5.23	-2.52	56 (7)	2580 (7)	3912 (7)
4-34-P	95	100	13.85	13.85	3.82	-5.98	128 (7)	2032 (7)	8933 (7)
4-35-P	95	100	13.85	13.85	3.72	-6.88	145 (7)	1959 (7)	10137 (7)
4-36-P	95	100	13.85	13.85	4.52	-2.83	64 (7)	2332 (7)	4440 (7)
4-37-P	95	100	13.85	13.85	7.70	0.00	59 (6)	4085 (6)	672 (6)
4-38-P	95	100	13.85	13.85	12.96	0.00	112 (7)	7790 (7)	1281 (7)
4-39-P	95	100	13.85	13.85	14.19	0.00	125 (7)	8721 (7)	1434 (7)
4-40-P	95	100	13.85	13.85	13.57	0.00	119 (7)	8274 (7)	1361 (7)
4-41-P	95	100	13.85	13.85	11.71	0.00	99 (7)	6909 (7)	1136 (7)
4-42-P	95	100	13.85	13.85	3.29	-1.03	38 (8)	2619 (8)	2059 (8)
4-43-P	95	100	13.85	13.85	3.30	-5.10	104 (6)	1717 (6)	7277 (6)
4-44-P	95	100	13.85	13.85	2.72	-10.71	187 (7)	2140 (7)	13011 (7)
4-45-P	95	100	13.85	13.85	2.76	-9.41	153 (7)	1751 (7)	10649 (7)
4-46-P	95	100	13.85	13.85	2.29	-6.81	97 (8)	1824 (8)	6781 (8)
4-47-P	95	100	13.85	13.85	3.63	-2.96	42 (6)	2449 (6)	2948 (6)
4-48-P	95	100	13.85	13.85	3.33	-1.13	38 (7)	2632 (7)	1747 (7)
4-49-P	95	100	13.85	13.85	2.80	-1.39	32 (8)	2229 (8)	1105 (8)
5-1-P	95	100	13.85	13.85	0.82	-0.07	9 (7)	629 (7)	230 (7)
5-2-P	95	100	13.85	13.85	0.45	-1.96	21 (7)	683 (7)	1445 (7)
5-3-P	95	100	13.85	13.85	0.57	-6.40	65 (7)	818 (7)	4509 (7)
5-4-P	95	100	13.85	13.85	0.57	-13.81	142 (7)	1627 (7)	9892 (7)
5-5-P	95	100	13.85	13.85	0.00	-32.46	338 (7)	3878 (7)	23581 (7)
5-6-P	95	100	13.85	13.85	0.00	-45.02	469 (7)	5379 (7)	32703 (7)
5-7-P	95	100	13.85	13.85	0.00	-19.04	200 (7)	2295 (7)	13951 (7)
5-8-P	95	100	13.85	13.85	1.92	-4.15	43 (7)	3009 (7)	2996 (7)
5-9-P	95	100	13.85	13.85	8.45	0.00	86 (7)	5978 (7)	983 (7)
5-10-P	95	100	13.85	13.85	12.76	0.00	130 (7)	9057 (7)	1490 (7)
5-11-P	95	100	13.85	13.85	14.19	0.00	144 (7)	10062 (7)	1655 (7)
5-12-P	95	100	13.85	13.85	11.27	0.00	114 (7)	7948 (7)	1307 (7)
5-13-P	95	100	13.85	13.85	3.84	-0.42	46 (6)	3213 (6)	528 (6)
5-14-P	95	100	13.85	13.85	0.00	-8.71	95 (7)	1093 (7)	6646 (7)
5-15-P	95	100	13.85	13.85	0.00	-32.80	345 (7)	3962 (7)	24086 (7)
5-16-P	95	100	13.85	13.85	0.00	-27.82	294 (7)	3369 (7)	20482 (7)
5-17-P	95	100	13.85	13.85	2.43	-5.87	62 (7)	3620 (7)	4296 (7)
5-18-P	95	100	13.85	13.85	6.06	-0.03	59 (7)	4136 (7)	680 (7)
5-19-P	95	100	13.85	13.85	13.11	0.00	133 (7)	9241 (7)	1520 (7)
5-20-P	95	100	13.85	13.85	16.58	0.00	168 (7)	11743 (7)	1931 (7)
5-21-P	95	100	13.85	13.85	14.50	0.00	147 (7)	10243 (7)	1685 (7)
5-22-P	95	100	13.85	13.85	9.84	-0.01	98 (7)	6868 (7)	1130 (7)
5-23-P	95	100	13.85	13.85	3.07	-2.69	71 (7)	4973 (7)	2040 (7)
5-24-P	95	100	13.85	13.85	0.00	-17.97	192 (7)	2197 (7)	13357 (7)
5-25-P	95	100	13.85	13.85	0.00	-42.26	444 (7)	5087 (7)	30929 (7)
5-26-P	95	100	13.85	13.85	0.00	-17.97	192 (7)	2197 (7)	13357 (7)
5-27-P	95	100	13.85	13.85	3.07	-2.69	71 (7)	4973 (7)	2040 (7)
5-28-P	95	100	13.85	13.85	9.84	-0.01	98 (7)	6868 (7)	1130 (7)
5-29-P	95	100	13.85	13.85	14.50	0.00	147 (7)	10243 (7)	1685 (7)
5-30-P	95	100	13.85	13.85	16.58	0.00	168 (7)	11743 (7)	1931 (7)
5-31-P	95	100	13.85	13.85	13.11	0.00	133 (7)	9241 (7)	1520 (7)
5-32-P	95	100	13.85	13.85	6.06	-0.03	59 (7)	4136 (7)	680 (7)
5-33-P	95	100	13.85	13.85	2.43	-5.87	62 (7)	3620 (7)	4296 (7)
5-34-P	95	100	13.85	13.85	0.00	-27.82	294 (7)	3369 (7)	20482 (7)
5-35-P	95	100	13.85	13.85	0.00	-32.80	345 (7)	3962 (7)	24086 (7)
5-36-P	95	100	13.85	13.85	0.00	-8.71	95 (7)	1093 (7)	6646 (7)
5-37-P	95	100	13.85	13.85	3.84	-0.42	46 (6)	3213 (6)	528 (6)

APPALTATORE:

TELESE S.c.a r.l.

Consorzio Telese Società Consortile a Responsabilità Limitata

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

**ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO****PROGETTO ESECUTIVO**

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	60 di 91

Is	B [cm]	H [cm]	Afi [cmq]	Afs [cmq]	Mp [kNm]	Mn [kNm]	sc [kPa]	ofi [kPa]	ofs [kPa]
5-38-P	95	100	13.85	13.85	11.27	0.00	114 (7)	7948 (7)	1307 (7)
5-39-P	95	100	13.85	13.85	14.19	0.00	144 (7)	10062 (7)	1655 (7)
5-40-P	95	100	13.85	13.85	12.76	0.00	130 (7)	9057 (7)	1490 (7)
5-41-P	95	100	13.85	13.85	8.45	0.00	86 (7)	5978 (7)	983 (7)
5-42-P	95	100	13.85	13.85	1.92	-4.15	43 (7)	3009 (7)	2996 (7)
5-43-P	95	100	13.85	13.85	0.00	-19.04	200 (7)	2295 (7)	13951 (7)
5-44-P	95	100	13.85	13.85	0.00	-45.02	469 (7)	5379 (7)	32703 (7)
5-45-P	95	100	13.85	13.85	0.00	-32.46	338 (7)	3878 (7)	23581 (7)
5-46-P	95	100	13.85	13.85	0.57	-13.81	142 (7)	1627 (7)	9892 (7)
5-47-P	95	100	13.85	13.85	0.57	-6.40	65 (7)	818 (7)	4509 (7)
5-48-P	95	100	13.85	13.85	0.45	-1.96	21 (7)	683 (7)	1445 (7)
5-49-P	95	100	13.85	13.85	0.82	-0.07	9 (7)	629 (7)	230 (7)
6-1-S	100	100	15.39	15.39	0.47	-1.77	23 (6)	1584 (6)	1139 (6)
6-2-S	100	100	15.39	15.39	0.05	-3.63	46 (5)	528 (5)	3107 (5)
6-3-S	100	100	15.39	15.39	0.70	-5.16	87 (5)	1207 (5)	5895 (5)
6-4-S	100	100	15.39	15.39	3.05	-5.38	136 (5)	2611 (5)	9213 (5)
6-5-S	100	100	15.39	15.39	9.72	-0.22	98 (5)	6635 (5)	1127 (5)
6-6-S	100	100	15.39	15.39	26.21	-0.03	263 (5)	17882 (5)	3039 (5)
6-7-S	100	100	15.39	15.39	28.05	-0.05	163 (7)	11093 (7)	1885 (7)
6-8-S	100	100	15.39	15.39	25.23	-0.13	157 (7)	10699 (7)	1818 (7)
6-9-S	100	100	15.39	15.39	20.16	-0.57	127 (6)	8645 (6)	1469 (6)
6-10-S	100	100	15.39	15.39	12.20	-1.39	68 (6)	4597 (6)	1469 (6)
6-11-S	100	100	15.39	15.39	5.52	-3.40	50 (6)	2391 (6)	3416 (6)
6-12-S	100	100	15.39	15.39	2.07	-6.06	70 (7)	975 (7)	4736 (7)
6-13-S	100	100	15.39	15.39	0.12	-4.89	52 (8)	596 (8)	3506 (8)
6-14-S	100	100	15.39	15.39	0.00	-2.69	28 (8)	328 (8)	1930 (8)
6-15-S	100	100	15.39	15.39	0.39	-0.52	10 (8)	701 (8)	371 (8)
7-1-S	100	100	15.39	15.39	2.94	-1.19	28 (6)	1884 (6)	746 (6)
7-2-S	100	100	15.39	15.39	4.29	-3.26	61 (6)	4149 (6)	2199 (6)
7-3-S	100	100	15.39	15.39	0.07	-7.06	73 (5)	845 (5)	4973 (5)
7-4-S	100	100	15.39	15.39	1.03	-28.49	378 (5)	4365 (5)	25685 (5)
7-5-S	100	100	15.39	15.39	4.04	-11.40	138 (6)	7330 (6)	9400 (6)
7-6-S	100	100	15.39	15.39	46.30	0.00	474 (5)	32183 (5)	5469 (5)
7-7-S	100	100	15.39	15.39	43.45	0.00	299 (7)	20327 (7)	3454 (7)
7-8-S	100	100	15.39	15.39	36.87	0.00	257 (7)	17485 (7)	2971 (7)
7-9-S	100	100	15.39	15.39	29.34	-0.02	198 (6)	13428 (6)	2282 (6)
7-10-S	100	100	15.39	15.39	20.36	-0.35	121 (6)	8215 (6)	1396 (6)
7-11-S	100	100	15.39	15.39	0.64	-15.45	204 (8)	2355 (8)	13862 (8)
7-12-S	100	100	15.39	15.39	0.30	-27.22	283 (7)	3266 (7)	19220 (7)
7-13-S	100	100	15.39	15.39	0.00	-12.76	127 (6)	1471 (6)	8659 (6)
7-14-S	100	100	15.39	15.39	0.01	-4.95	44 (6)	514 (6)	3023 (6)
7-15-S	100	100	15.39	15.39	0.79	-0.27	10 (8)	711 (8)	197 (8)
8-1-S	100	100	15.39	15.39	0.12	-2.41	24 (5)	278 (5)	1633 (5)
8-2-S	100	100	15.39	15.39	0.19	-1.69	26 (7)	299 (7)	1758 (7)
8-3-S	100	100	15.39	15.39	1.15	-0.82	30 (6)	1517 (6)	2017 (6)
8-4-S	100	100	15.39	15.39	7.83	0.00	79 (5)	5361 (5)	911 (5)
8-5-S	100	100	15.39	15.39	14.77	0.00	148 (5)	10045 (5)	1707 (5)
8-6-S	100	100	15.39	15.39	22.06	0.00	220 (5)	14948 (5)	2540 (5)
8-7-S	100	100	15.39	15.39	32.24	0.00	193 (7)	13125 (7)	2230 (7)
8-8-S	100	100	15.39	15.39	28.93	0.00	185 (7)	12550 (7)	2132 (7)
8-9-S	100	100	15.39	15.39	23.73	0.00	156 (6)	10598 (6)	1801 (6)
8-10-S	100	100	15.39	15.39	16.49	0.00	103 (6)	7007 (6)	1191 (6)
8-11-S	100	100	15.39	15.39	10.04	0.00	56 (6)	3828 (6)	651 (6)
8-12-S	100	100	15.39	15.39	4.76	0.00	22 (6)	1491 (6)	855 (6)
8-13-S	100	100	15.39	15.39	1.44	-0.38	16 (7)	335 (7)	1106 (7)
8-14-S	100	100	15.39	15.39	0.23	-0.67	10 (7)	117 (7)	690 (7)
8-15-S	100	100	15.39	15.39	0.03	-1.15	12 (8)	140 (8)	826 (8)
9-1-S	100	100	15.39	15.39	3.74	-0.70	36 (6)	2454 (6)	419 (6)
9-2-S	100	100	15.39	15.39	4.34	-2.81	93 (6)	6334 (6)	1988 (6)
9-3-S	100	100	15.39	15.39	0.00	-8.51	88 (5)	1017 (5)	5985 (5)
9-4-S	100	100	15.39	15.39	0.11	-33.06	351 (5)	4051 (5)	23838 (5)
9-5-S	100	100	15.39	15.39	1.92	-10.91	107 (7)	4131 (7)	7249 (7)
9-6-S	100	100	15.39	15.39	48.71	0.00	499 (5)	33920 (5)	5764 (5)
9-7-S	100	100	15.39	15.39	45.41	0.00	318 (7)	21617 (7)	3673 (7)
9-8-S	100	100	15.39	15.39	39.26	0.00	280 (7)	18992 (7)	3227 (7)
9-9-S	100	100	15.39	15.39	31.60	0.00	217 (6)	14737 (6)	2504 (6)
9-10-S	100	100	15.39	15.39	21.87	-0.47	133 (6)	9066 (6)	1540 (6)
9-11-S	100	100	15.39	15.39	0.30	-17.38	184 (8)	2119 (8)	12470 (8)
9-12-S	100	100	15.39	15.39	0.16	-31.03	321 (7)	3709 (7)	21830 (7)
9-13-S	100	100	15.39	15.39	0.00	-14.55	143 (6)	1656 (6)	9747 (6)
9-14-S	100	100	15.39	15.39	0.00	-5.37	47 (6)	543 (6)	3193 (6)
9-15-S	100	100	15.39	15.39	1.24	-0.08	13 (8)	887 (8)	151 (8)
10-1-S	100	100	15.39	15.39	0.35	-2.10	21 (6)	237 (6)	1393 (6)
10-2-S	100	100	15.39	15.39	0.12	-2.88	47 (7)	545 (7)	3207 (7)
10-3-S	100	100	15.39	15.39	0.89	-3.01	66 (6)	1436 (6)	4473 (6)
10-4-S	100	100	15.39	15.39	3.81	-0.97	59 (6)	4027 (6)	1341 (6)
10-5-S	100	100	15.39	15.39	13.87	0.00	139 (5)	9433 (5)	1603 (5)
10-6-S	100	100	15.39	15.39	23.22	0.00	232 (5)	15739 (5)	2674 (5)
10-7-S	100	100	15.39	15.39	32.11	0.00	193 (7)	13099 (7)	2226 (7)
10-8-S	100	100	15.39	15.39	28.98	0.00	185 (7)	12600 (7)	2141 (7)
10-9-S	100	100	15.39	15.39	23.22	0.00	151 (6)	10237 (6)	1740 (6)

APPALTATORE:

TELESE S.c.a r.l.

Consorzio Telese Società Consortile a Responsabilità Limitata

PROGETTAZIONE:

Mandatario:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO
PROGETTO ESECUTIVO

Relazione di calcolo
 IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	61 di 91

Is	B [cm]	H [cm]	Afi [cmq]	Afs [cmq]	Mp [kNm]	Mn [kNm]	sc [kPa]	ofi [kPa]	ofs [kPa]
10-10-S	100	100	15.39	15.39	14.73	-0.27	89 (6)	6025 (6)	1845 (6)
10-11-S	100	100	15.39	15.39	8.72	-0.51	48 (6)	3241 (6)	3208 (6)
10-12-S	100	100	15.39	15.39	3.74	-0.97	40 (7)	1332 (7)	2714 (7)
10-13-S	100	100	15.39	15.39	0.50	-2.11	56 (8)	642 (8)	3781 (8)
10-14-S	100	100	15.39	15.39	0.04	-1.61	28 (8)	328 (8)	1929 (8)
10-15-S	100	100	15.39	15.39	0.16	-0.78	8 (8)	114 (8)	560 (8)
11-1-S	100	100	15.39	15.39	2.08	-1.91	20 (6)	1364 (6)	1239 (6)
11-2-S	100	100	15.39	15.39	2.27	-3.67	35 (6)	2227 (6)	2406 (6)
11-3-S	100	100	15.39	15.39	0.40	-5.96	76 (5)	881 (5)	5187 (5)
11-4-S	100	100	15.39	15.39	2.41	-16.80	297 (5)	3428 (5)	20175 (5)
11-5-S	100	100	15.39	15.39	5.61	-6.26	108 (6)	7348 (6)	7353 (6)
11-6-S	100	100	15.39	15.39	36.50	0.00	371 (5)	25202 (5)	4282 (5)
11-7-S	100	100	15.39	15.39	38.71	0.00	255 (7)	17355 (7)	2949 (7)
11-8-S	100	100	15.39	15.39	33.82	0.00	230 (7)	15615 (7)	2653 (7)
11-9-S	100	100	15.39	15.39	26.87	0.00	179 (6)	12130 (6)	2061 (6)
11-10-S	100	100	15.39	15.39	17.51	-0.38	103 (6)	7026 (6)	1194 (6)
11-11-S	100	100	15.39	15.39	1.79	-9.28	163 (8)	2141 (8)	11097 (8)
11-12-S	100	100	15.39	15.39	1.27	-16.09	214 (7)	2466 (7)	14513 (7)
11-13-S	100	100	15.39	15.39	0.26	-8.33	108 (7)	1247 (7)	7336 (7)
11-14-S	100	100	15.39	15.39	0.02	-3.51	36 (6)	414 (6)	2437 (6)
11-15-S	100	100	15.39	15.39	0.72	-0.58	8 (8)	517 (8)	414 (8)
12-1-S	100	100	15.39	15.39	2.08	-1.91	20 (6)	1364 (6)	1239 (6)
12-2-S	100	100	15.39	15.39	2.27	-3.67	35 (6)	2227 (6)	2406 (6)
12-3-S	100	100	15.39	15.39	0.40	-5.96	76 (5)	881 (5)	5187 (5)
12-4-S	100	100	15.39	15.39	2.41	-16.80	297 (5)	3428 (5)	20175 (5)
12-5-S	100	100	15.39	15.39	5.61	-6.26	108 (6)	7348 (6)	7353 (6)
12-6-S	100	100	15.39	15.39	36.50	0.00	371 (5)	25202 (5)	4282 (5)
12-7-S	100	100	15.39	15.39	38.71	0.00	255 (7)	17355 (7)	2949 (7)
12-8-S	100	100	15.39	15.39	33.82	0.00	230 (7)	15615 (7)	2653 (7)
12-9-S	100	100	15.39	15.39	26.87	0.00	179 (6)	12130 (6)	2061 (6)
12-10-S	100	100	15.39	15.39	17.51	-0.38	103 (6)	7026 (6)	1194 (6)
12-11-S	100	100	15.39	15.39	1.79	-9.28	163 (8)	2141 (8)	11097 (8)
12-12-S	100	100	15.39	15.39	1.27	-16.09	214 (7)	2466 (7)	14513 (7)
12-13-S	100	100	15.39	15.39	0.26	-8.33	108 (7)	1247 (7)	7336 (7)
12-14-S	100	100	15.39	15.39	0.02	-3.51	36 (6)	414 (6)	2437 (6)
12-15-S	100	100	15.39	15.39	0.72	-0.58	8 (8)	517 (8)	414 (8)
13-1-S	100	100	15.39	15.39	0.35	-2.10	21 (6)	237 (6)	1393 (6)
13-2-S	100	100	15.39	15.39	0.12	-2.88	47 (7)	545 (7)	3207 (7)
13-3-S	100	100	15.39	15.39	0.89	-3.01	66 (6)	1436 (6)	4473 (6)
13-4-S	100	100	15.39	15.39	3.81	-0.97	59 (6)	4027 (6)	1341 (6)
13-5-S	100	100	15.39	15.39	13.87	0.00	139 (5)	9433 (5)	1603 (5)
13-6-S	100	100	15.39	15.39	23.22	0.00	232 (5)	15739 (5)	2674 (5)
13-7-S	100	100	15.39	15.39	32.11	0.00	193 (7)	13099 (7)	2226 (7)
13-8-S	100	100	15.39	15.39	28.98	0.00	185 (7)	12600 (7)	2141 (7)
13-9-S	100	100	15.39	15.39	23.22	0.00	151 (6)	10237 (6)	1740 (6)
13-10-S	100	100	15.39	15.39	14.73	-0.27	89 (6)	6025 (6)	1845 (6)
13-11-S	100	100	15.39	15.39	8.72	-0.51	48 (6)	3241 (6)	3208 (6)
13-12-S	100	100	15.39	15.39	3.74	-0.97	40 (7)	1332 (7)	2714 (7)
13-13-S	100	100	15.39	15.39	0.50	-2.11	56 (8)	642 (8)	3781 (8)
13-14-S	100	100	15.39	15.39	0.04	-1.61	28 (8)	328 (8)	1929 (8)
13-15-S	100	100	15.39	15.39	0.16	-0.78	8 (8)	114 (8)	560 (8)
14-1-S	100	100	15.39	15.39	3.74	-0.70	36 (6)	2454 (6)	419 (6)
14-2-S	100	100	15.39	15.39	4.34	-2.81	93 (6)	6334 (6)	1988 (6)
14-3-S	100	100	15.39	15.39	0.00	-8.51	88 (5)	1017 (5)	5985 (5)
14-4-S	100	100	15.39	15.39	0.11	-33.06	351 (5)	4051 (5)	23838 (5)
14-5-S	100	100	15.39	15.39	1.92	-10.91	107 (7)	4131 (7)	7249 (7)
14-6-S	100	100	15.39	15.39	48.71	0.00	499 (5)	33920 (5)	5764 (5)
14-7-S	100	100	15.39	15.39	45.41	0.00	318 (7)	21617 (7)	3673 (7)
14-8-S	100	100	15.39	15.39	39.26	0.00	280 (7)	18992 (7)	3227 (7)
14-9-S	100	100	15.39	15.39	31.60	0.00	217 (6)	14737 (6)	2504 (6)
14-10-S	100	100	15.39	15.39	21.87	-0.47	133 (6)	9066 (6)	1540 (6)
14-11-S	100	100	15.39	15.39	0.30	-17.38	184 (8)	2119 (8)	12470 (8)
14-12-S	100	100	15.39	15.39	0.16	-31.03	321 (7)	3709 (7)	21830 (7)
14-13-S	100	100	15.39	15.39	0.00	-14.55	143 (6)	1656 (6)	9747 (6)
14-14-S	100	100	15.39	15.39	0.00	-5.37	47 (6)	543 (6)	3193 (6)
14-15-S	100	100	15.39	15.39	1.24	-0.08	13 (8)	887 (8)	151 (8)
15-1-S	100	100	15.39	15.39	0.12	-2.41	24 (5)	278 (5)	1633 (5)
15-2-S	100	100	15.39	15.39	0.19	-1.69	26 (7)	299 (7)	1758 (7)
15-3-S	100	100	15.39	15.39	1.15	-0.82	30 (6)	1517 (6)	2017 (6)
15-4-S	100	100	15.39	15.39	7.83	0.00	79 (5)	5361 (5)	911 (5)
15-5-S	100	100	15.39	15.39	14.77	0.00	148 (5)	10045 (5)	1707 (5)
15-6-S	100	100	15.39	15.39	22.06	0.00	220 (5)	14948 (5)	2540 (5)
15-7-S	100	100	15.39	15.39	32.24	0.00	193 (7)	13125 (7)	2230 (7)
15-8-S	100	100	15.39	15.39	28.93	0.00	185 (7)	12550 (7)	2132 (7)
15-9-S	100	100	15.39	15.39	23.73	0.00	156 (6)	10598 (6)	1801 (6)
15-10-S	100	100	15.39	15.39	16.49	0.00	103 (6)	7007 (6)	1191 (6)
15-11-S	100	100	15.39	15.39	10.04	0.00	56 (6)	3828 (6)	651 (6)
15-12-S	100	100	15.39	15.39	4.76	0.00	22 (6)	1491 (6)	855 (6)
15-13-S	100	100	15.39	15.39	1.44	-0.38	16 (7)	335 (7)	1106 (7)
15-14-S	100	100	15.39	15.39	0.23	-0.67	10 (7)	117 (7)	690 (7)
15-15-S	100	100	15.39	15.39	0.03	-1.15	12 (8)	140 (8)	826 (8)

APPALTATORE:

TELESE S.c.a r.l.

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**ITINERARIO NAPOLI – BARI
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II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO**

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	62 di 91

Is	B [cm]	H [cm]	Afi [cmq]	Afs [cmq]	Mp [kNm]	Mn [kNm]	σc [kPa]	σfi [kPa]	σfs [kPa]
16-1-S	100	100	15.39	15.39	2.94	-1.19	28 (6)	1884 (6)	746 (6)
16-2-S	100	100	15.39	15.39	4.29	-3.26	61 (6)	4149 (6)	2199 (6)
16-3-S	100	100	15.39	15.39	0.07	-7.06	73 (5)	845 (5)	4973 (5)
16-4-S	100	100	15.39	15.39	1.03	-28.49	378 (5)	4365 (5)	25685 (5)
16-5-S	100	100	15.39	15.39	4.04	-11.40	138 (6)	7330 (6)	9400 (6)
16-6-S	100	100	15.39	15.39	46.30	0.00	474 (5)	32183 (5)	5469 (5)
16-7-S	100	100	15.39	15.39	43.45	0.00	299 (7)	20327 (7)	3454 (7)
16-8-S	100	100	15.39	15.39	36.87	0.00	257 (7)	17485 (7)	2971 (7)
16-9-S	100	100	15.39	15.39	29.34	-0.02	198 (6)	13428 (6)	2282 (6)
16-10-S	100	100	15.39	15.39	20.36	-0.35	121 (6)	8215 (6)	1396 (6)
16-11-S	100	100	15.39	15.39	0.64	-15.45	204 (8)	2355 (8)	13862 (8)
16-12-S	100	100	15.39	15.39	0.30	-27.22	283 (7)	3266 (7)	19220 (7)
16-13-S	100	100	15.39	15.39	0.00	-12.76	127 (6)	1471 (6)	8659 (6)
16-14-S	100	100	15.39	15.39	0.01	-4.95	44 (6)	514 (6)	3023 (6)
16-15-S	100	100	15.39	15.39	0.79	-0.27	10 (8)	711 (8)	197 (8)
17-1-S	100	100	15.39	15.39	0.47	-1.77	23 (6)	1584 (6)	1139 (6)
17-2-S	100	100	15.39	15.39	0.05	-3.63	46 (5)	528 (5)	3107 (5)
17-3-S	100	100	15.39	15.39	0.70	-5.16	87 (5)	1207 (5)	5895 (5)
17-4-S	100	100	15.39	15.39	3.05	-5.38	136 (5)	2611 (5)	9213 (5)
17-5-S	100	100	15.39	15.39	9.72	-0.22	98 (5)	6635 (5)	1127 (5)
17-6-S	100	100	15.39	15.39	26.21	-0.03	263 (5)	17882 (5)	3039 (5)
17-7-S	100	100	15.39	15.39	28.05	-0.05	163 (7)	11093 (7)	1885 (7)
17-8-S	100	100	15.39	15.39	25.23	-0.13	157 (7)	10699 (7)	1818 (7)
17-9-S	100	100	15.39	15.39	20.16	-0.57	127 (6)	8645 (6)	1469 (6)
17-10-S	100	100	15.39	15.39	12.20	-1.39	68 (6)	4597 (6)	1469 (6)
17-11-S	100	100	15.39	15.39	5.52	-3.40	50 (6)	2391 (6)	3416 (6)
17-12-S	100	100	15.39	15.39	2.07	-6.06	70 (7)	975 (7)	4736 (7)
17-13-S	100	100	15.39	15.39	0.12	-4.89	52 (8)	596 (8)	3506 (8)
17-14-S	100	100	15.39	15.39	0.00	-2.69	28 (8)	328 (8)	1930 (8)
17-15-S	100	100	15.39	15.39	0.39	-0.52	10 (8)	701 (8)	371 (8)

Pali in c.a.

Ip	Is	Ar [cmq]	σc [kPa]	σf [kPa]	τc [kPa]	σsf [kPa]
1	1	40.72	1063	14261		
1	2	40.72	1010	13636		
1	3	40.72	960	13046		
1	4	40.72	913	12484		
1	5	40.72	868	11950		
1	6	40.72	825	11444		
1	7	40.72	785	10965		
1	8	40.72	746	10511		
1	9	40.72	710	10083		
1	10	40.72	677	9717		
1	11	40.72	650	9395		
1	12	40.72	634	9093		
1	13	40.72	669	9420		
1	14	40.72	701	9813		
1	15	40.72	731	10174		
1	16	40.72	758	10506		
1	17	40.72	783	10810		
1	18	40.72	806	11087		
1	19	40.72	827	11338		
1	20	40.72	845	11564		
1	21	40.72	862	11767		
1	22	40.72	877	11947		
1	23	40.72	889	12106		
1	24	40.72	901	12244		
1	25	40.72	910	12364		
1	26	40.72	918	12465		
1	27	40.72	925	12548		
1	28	40.72	930	12616		
1	29	40.72	934	12667		
1	30	40.72	937	12705		
1	31	40.72	939	12729		
1	32	40.72	939	12740		
1	33	40.72	939	12739		
1	34	40.72	938	12727		
1	35	40.72	935	12705		
1	36	40.72	932	12673		
1	37	40.72	929	12633		
1	38	40.72	924	12584		
1	39	40.72	919	12528		
1	40	40.72	914	12465		
1	41	40.72	908	12395		
1	42	40.72	901	12320		
1	43	40.72	894	12240		
1	44	40.72	887	12155		

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II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO

PROGETTAZIONE:

Mandataria:

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COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	63 di 91

Ip	Is	Ar [cmq]	σ_c [kPa]	σ_f [kPa]	τ_c [kPa]	σ_{sf} [kPa]
1	45	40.72	879	12066		
1	46	40.72	871	11973		
1	47	40.72	863	11878		
1	48	40.72	854	11780		
1	49	40.72	846	11679		
1	50	40.72	837	11577		
1	51	40.72	828	11473		
1	52	40.72	819	11368		
1	53	40.72	810	11262		
1	54	40.72	801	11156		
1	55	40.72	792	11050		
1	56	40.72	782	10943		
1	57	40.72	773	10837		
1	58	40.72	764	10732		
1	59	40.72	755	10627		
1	60	40.72	746	10523		
1	61	40.72	738	10442		
1	62	40.72	729	10386		
1	63	40.72	720	10330		
1	64	40.72	712	10274		
1	65	40.72	705	10218		
1	66	40.72	700	10163		
1	67	40.72	695	10108		
1	68	40.72	691	10053		
1	69	40.72	686	9999		
1	70	40.72	681	9946		
1	71	40.72	677	9893		
1	72	40.72	672	9842		
1	73	40.72	668	9791		
1	74	40.72	664	9741		
1	75	40.72	660	9693		
1	76	40.72	656	9651		
1	77	40.72	652	9613		
1	78	40.72	648	9576		
1	79	40.72	644	9541		
1	80	40.72	641	9506		
1	81	40.72	638	9473		
1	82	40.72	636	9441		
1	83	40.72	633	9410		
1	84	40.72	630	9380		
1	85	40.72	628	9352		
1	86	40.72	626	9326		
1	87	40.72	624	9300		
1	88	40.72	622	9277		
1	89	40.72	620	9254		
1	90	40.72	618	9234		
1	91	40.72	616	9215		
1	92	40.72	615	9198		
1	93	40.72	613	9182		
1	94	40.72	612	9168		
1	95	40.72	611	9156		
1	96	40.72	610	9146		
1	97	40.72	610	9138		
1	98	40.72	609	9132		
1	99	40.72	609	9127		
1	100	40.72	608	9125		
1	101	40.72	608	9124		
2	1	62.83	1073	14511		
2	2	62.83	1024	13936		
2	3	62.83	978	13387		
2	4	62.83	934	12865		
2	5	62.83	892	12369		
2	6	62.83	852	11898		
2	7	62.83	814	11453		
2	8	62.83	778	11031		
2	9	62.83	745	10633		
2	10	62.83	715	10467		
2	11	62.83	753	10925		
2	12	62.83	789	11350		
2	13	62.83	821	11743		
2	14	62.83	851	12108		
2	15	62.83	879	12443		
2	16	62.83	905	12751		
2	17	62.83	928	13032		
2	18	62.83	949	13289		
2	19	62.83	968	13521		
2	20	62.83	986	13730		
2	21	62.83	1001	13918		
2	22	62.83	1015	14084		
2	23	62.83	1026	14231		
2	24	62.83	1037	14358		

APPALTATORE:

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PROGETTAZIONE:

Mandataria:

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PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	64 di 91

Ip	Is	Ar [cmq]	σ_c [kPa]	σ_f [kPa]	τ_c [kPa]	σ_{sf} [kPa]
2	25	62.83	1046	14468		
2	26	62.83	1053	14561		
2	27	62.83	1059	14637		
2	28	62.83	1064	14698		
2	29	62.83	1068	14744		
2	30	62.83	1070	14778		
2	31	62.83	1072	14798		
2	32	62.83	1072	14806		
2	33	62.83	1072	14804		
2	34	62.83	1070	14791		
2	35	62.83	1068	14768		
2	36	62.83	1065	14736		
2	37	62.83	1062	14696		
2	38	62.83	1057	14649		
2	39	62.83	1052	14594		
2	40	62.83	1047	14533		
2	41	62.83	1041	14466		
2	42	62.83	1035	14393		
2	43	62.83	1028	14316		
2	44	62.83	1021	14234		
2	45	62.83	1014	14149		
2	46	62.83	1006	14060		
2	47	62.83	998	13968		
2	48	62.83	990	13873		
2	49	62.83	982	13777		
2	50	62.83	973	13678		
2	51	62.83	965	13578		
2	52	62.83	956	13477		
2	53	62.83	947	13376		
2	54	62.83	939	13274		
2	55	62.83	930	13171		
2	56	62.83	921	13069		
2	57	62.83	912	12967		
2	58	62.83	904	12865		
2	59	62.83	895	12763		
2	60	62.83	887	12663		
2	61	62.83	878	12563		
2	62	62.83	870	12465		
2	63	62.83	861	12367		
2	64	62.83	853	12271		
2	65	62.83	845	12176		
2	66	62.83	837	12083		
2	67	62.83	829	11992		
2	68	62.83	822	11902		
2	69	62.83	814	11814		
2	70	62.83	807	11728		
2	71	62.83	800	11644		
2	72	62.83	793	11562		
2	73	62.83	786	11482		
2	74	62.83	780	11404		
2	75	62.83	773	11329		
2	76	62.83	767	11256		
2	77	62.83	761	11185		
2	78	62.83	755	11117		
2	79	62.83	750	11051		
2	80	62.83	744	10988		
2	81	62.83	739	10927		
2	82	62.83	734	10868		
2	83	62.83	730	10813		
2	84	62.83	725	10759		
2	85	62.83	721	10709		
2	86	62.83	717	10661		
2	87	62.83	713	10616		
2	88	62.83	710	10573		
2	89	62.83	706	10534		
2	90	62.83	703	10497		
2	91	62.83	700	10462		
2	92	62.83	698	10431		
2	93	62.83	695	10402		
2	94	62.83	693	10376		
2	95	62.83	691	10353		
2	96	62.83	690	10333		
2	97	62.83	688	10316		
2	98	62.83	687	10302		
2	99	62.83	686	10290		
2	100	62.83	685	10282		
2	101	62.83	685	10276		

Combinazioni SLEQ

APPALTATORE: TELESE S.c.a r.l. Consorzio Telese Società Consortile a Responsabilità Limitata	ITINERARIO NAPOLI – BARI RADDOPPIO TRATTA CANCELLO-BENEVENTO II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO 2° SUBLOTTO TELESE – SAN LORENZO												
PROGETTAZIONE: Mandataria: SYSTRA S.A. Mandante: SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.	PROGETTO ESECUTIVO												
Relazione di calcolo IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX	<table border="1"> <tr> <td>COMMESSA</td> <td>LOTTO</td> <td>CODIFICA</td> <td>DOCUMENTO</td> <td>REV.</td> <td>FOGLIO</td> </tr> <tr> <td>IF2R</td> <td>2.2.E.ZZ</td> <td>CL</td> <td>TR.16.0.5.009</td> <td>A</td> <td>65 di 91</td> </tr> </table>	COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO	IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	65 di 91
COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO								
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	65 di 91								

Paramento

Tensione massima di compressione nel calcestruzzo 14940 [kPa]
Tensione massima di trazione dell'acciaio 450000 [kPa]

n°	B [cm]	H [cm]	Afi [cmq]	Afs [cmq]	M [kNm]	N [kN]	σc [kPa]	σfi [kPa]	σfs [kPa]
1	100	70	5.65	7.70	0.00	5.00	7 (7)	103 (7)	105 (7)
2	100	70	5.65	7.70	0.00	6.72	9 (7)	139 (7)	141 (7)
3	100	70	5.65	7.70	0.00	8.43	12 (7)	174 (7)	177 (7)
4	100	70	5.65	7.70	0.00	10.15	14 (7)	209 (7)	213 (7)
5	100	70	5.65	7.70	0.00	11.86	17 (7)	245 (7)	249 (7)
6	100	70	5.65	7.70	0.00	13.58	19 (7)	280 (7)	285 (7)
7	100	70	5.65	7.70	0.00	15.29	21 (7)	316 (7)	322 (7)
8	100	70	5.65	7.70	0.00	17.01	24 (7)	351 (7)	358 (7)
9	100	70	5.65	7.70	0.00	18.72	26 (7)	386 (7)	394 (7)
10	100	70	5.65	7.70	0.00	20.44	29 (7)	422 (7)	430 (7)
11	100	70	5.65	7.70	0.00	22.16	31 (7)	457 (7)	466 (7)
12	100	70	5.65	7.70	0.00	23.87	34 (7)	493 (7)	502 (7)
13	100	70	5.65	7.70	0.00	25.59	36 (7)	528 (7)	538 (7)
14	100	70	5.65	7.70	0.00	27.30	38 (7)	564 (7)	574 (7)
15	100	70	5.65	7.70	0.00	29.02	41 (7)	599 (7)	610 (7)
16	100	70	5.65	7.70	0.00	30.73	43 (7)	634 (7)	646 (7)
17	100	70	5.65	7.70	0.00	32.45	46 (7)	670 (7)	682 (7)
18	100	70	5.65	7.70	0.00	34.16	48 (7)	705 (7)	718 (7)
19	100	70	5.65	7.70	0.00	35.88	50 (7)	741 (7)	754 (7)
20	100	70	5.65	7.70	0.00	37.59	53 (7)	776 (7)	790 (7)
21	100	70	5.65	7.70	0.00	39.31	55 (7)	811 (7)	827 (7)
22	100	70	5.65	7.70	0.00	41.03	58 (7)	847 (7)	863 (7)
23	100	70	5.65	7.70	0.00	42.74	60 (7)	882 (7)	899 (7)
24	100	70	5.65	7.70	0.00	44.46	62 (7)	918 (7)	935 (7)
25	100	70	5.65	7.70	0.00	46.17	65 (7)	953 (7)	971 (7)
26	100	70	5.65	7.70	0.00	47.89	67 (7)	988 (7)	1007 (7)
27	100	90	5.65	7.70	4.41	48.93	85 (7)	377 (7)	1222 (7)
28	100	90	5.65	7.70	4.41	51.13	87 (7)	412 (7)	1258 (7)
29	100	90	5.65	7.70	4.41	53.34	90 (7)	448 (7)	1294 (7)
30	100	90	5.65	7.70	4.41	55.54	92 (7)	484 (7)	1330 (7)
31	100	90	5.65	7.70	4.41	57.74	94 (7)	519 (7)	1366 (7)
32	100	90	5.65	7.70	4.41	59.95	97 (7)	555 (7)	1403 (7)
33	100	90	5.65	7.70	4.42	62.15	99 (7)	589 (7)	1440 (7)
34	100	90	5.65	7.70	4.46	64.36	102 (7)	621 (7)	1480 (7)
35	100	90	5.65	7.70	4.54	66.56	105 (7)	649 (7)	1524 (7)
36	100	90	5.65	7.70	4.67	68.76	108 (7)	673 (7)	1573 (7)
37	100	90	5.65	7.70	4.85	70.97	112 (7)	691 (7)	1626 (7)
38	100	90	5.65	7.70	5.09	73.17	116 (7)	704 (7)	1685 (7)
39	100	90	5.65	7.70	5.40	75.38	121 (7)	711 (7)	1750 (7)
40	100	90	5.65	7.70	5.77	77.58	126 (7)	712 (7)	1821 (7)
41	100	90	5.65	7.70	6.21	79.78	131 (7)	706 (7)	1900 (7)
42	100	90	5.65	7.70	6.73	81.99	137 (7)	693 (7)	1985 (7)
43	100	90	5.65	7.70	7.34	84.19	144 (7)	671 (7)	2079 (7)
44	100	90	5.65	7.70	8.03	86.40	151 (7)	642 (7)	2181 (7)
45	100	90	5.65	7.70	8.81	88.60	159 (7)	604 (7)	2291 (7)
46	100	90	5.65	7.70	8.83	88.64	159 (7)	603 (7)	2293 (7)
47	100	90	5.65	7.70	9.71	90.84	168 (7)	556 (7)	2413 (7)
48	100	90	5.65	7.70	10.69	93.04	177 (7)	499 (7)	2542 (7)

Piastra fondazione

Tensione massima di compressione nel calcestruzzo 17430 [kPa]
Tensione massima di trazione dell'acciaio 1255271 [kPa]

Is	B [cm]	H [cm]	Afi [cmq]	Afs [cmq]	Mp [kNm]	Mn [kNm]	σc [kPa]	σfi [kPa]	σfs [kPa]
1-1-P	60	100	9.24	9.24	0.76	-0.03	13 (5)	869 (5)	180 (5)
1-2-P	60	100	9.24	9.24	0.52	-0.78	22 (5)	1487 (5)	1493 (5)
1-3-P	60	100	9.24	9.24	0.00	-3.32	56 (5)	649 (5)	3819 (5)
1-4-P	60	100	9.24	9.24	0.00	-9.51	161 (5)	1854 (5)	10912 (5)
1-5-P	60	100	9.24	9.24	0.01	-13.37	226 (5)	2615 (5)	15387 (5)
1-6-P	60	100	9.24	9.24	0.01	-14.88	253 (5)	2916 (5)	17160 (5)
1-7-P	60	100	9.24	9.24	0.01	-9.40	159 (5)	1836 (5)	10806 (5)
1-8-P	60	100	9.24	9.24	0.32	-2.53	43 (5)	1782 (5)	2888 (5)
1-9-P	60	100	9.24	9.24	6.13	-0.03	103 (5)	7029 (5)	1194 (5)
1-10-P	60	100	9.24	9.24	8.31	0.00	141 (5)	9546 (5)	1622 (5)

APPALTATORE:

TELESE S.c.a r.l.
Consorzio Telese Società Consortile a Responsabilità Limitata

PROGETTAZIONE:

Mandataria: Mandante:

SYSTRA S.A. **SWS Engineering S.p.A.** **SYSTRA-SOTECNI S.p.A.**

Relazione di calcolo
IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO

PROGETTO ESECUTIVO

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	66 di 91

Is	B [cm]	H [cm]	Afi [cmq]	Afs [cmq]	Mp [kNm]	Mn [kNm]	sc [kPa]	ofi [kPa]	ofs [kPa]
1-11-P	60	100	9.24	9.24	8.89	0.00	150 (5)	10212 (5)	1735 (5)
1-12-P	60	100	9.24	9.24	7.04	-0.02	119 (5)	8080 (5)	1373 (5)
1-13-P	60	100	9.24	9.24	1.14	-0.91	21 (6)	1426 (6)	957 (6)
1-14-P	60	100	9.24	9.24	0.02	-6.79	115 (5)	1324 (5)	7789 (5)
1-15-P	60	100	9.24	9.24	0.02	-11.42	194 (5)	2238 (5)	13168 (5)
1-16-P	60	100	9.24	9.24	0.03	-10.51	178 (5)	2058 (5)	12112 (5)
1-17-P	60	100	9.24	9.24	0.01	-5.88	99 (5)	1144 (5)	6733 (5)
1-18-P	60	100	9.24	9.24	2.10	-0.45	40 (6)	2685 (6)	456 (6)
1-19-P	60	100	9.24	9.24	7.44	-0.01	126 (5)	8541 (5)	1451 (5)
1-20-P	60	100	9.24	9.24	9.39	0.00	159 (5)	10789 (5)	1833 (5)
1-21-P	60	100	9.24	9.24	8.20	0.00	139 (5)	9416 (5)	1600 (5)
1-22-P	60	100	9.24	9.24	5.12	-0.08	86 (5)	5874 (5)	998 (5)
1-23-P	60	100	9.24	9.24	0.27	-3.07	51 (5)	740 (5)	3498 (5)
1-24-P	60	100	9.24	9.24	0.02	-8.74	148 (5)	1708 (5)	10054 (5)
1-25-P	60	100	9.24	9.24	0.00	-13.53	230 (5)	2654 (5)	15621 (5)
1-26-P	60	100	9.24	9.24	0.02	-8.74	148 (5)	1708 (5)	10054 (5)
1-27-P	60	100	9.24	9.24	0.27	-3.07	51 (5)	740 (5)	3498 (5)
1-28-P	60	100	9.24	9.24	5.12	-0.08	86 (5)	5874 (5)	998 (5)
1-29-P	60	100	9.24	9.24	8.20	0.00	139 (5)	9416 (5)	1600 (5)
1-30-P	60	100	9.24	9.24	9.39	0.00	159 (5)	10789 (5)	1833 (5)
1-31-P	60	100	9.24	9.24	7.44	-0.01	126 (5)	8541 (5)	1451 (5)
1-32-P	60	100	9.24	9.24	2.10	-0.45	40 (6)	2685 (6)	456 (6)
1-33-P	60	100	9.24	9.24	0.01	-5.88	99 (5)	1144 (5)	6733 (5)
1-34-P	60	100	9.24	9.24	0.03	-10.51	178 (5)	2058 (5)	12112 (5)
1-35-P	60	100	9.24	9.24	0.02	-11.42	194 (5)	2238 (5)	13168 (5)
1-36-P	60	100	9.24	9.24	0.02	-6.79	115 (5)	1324 (5)	7789 (5)
1-37-P	60	100	9.24	9.24	1.14	-0.91	21 (6)	1426 (6)	957 (6)
1-38-P	60	100	9.24	9.24	7.04	-0.02	119 (5)	8080 (5)	1373 (5)
1-39-P	60	100	9.24	9.24	8.89	0.00	150 (5)	10212 (5)	1735 (5)
1-40-P	60	100	9.24	9.24	8.31	0.00	141 (5)	9546 (5)	1622 (5)
1-41-P	60	100	9.24	9.24	6.13	-0.03	103 (5)	7029 (5)	1194 (5)
1-42-P	60	100	9.24	9.24	0.32	-2.53	43 (5)	1782 (5)	2888 (5)
1-43-P	60	100	9.24	9.24	0.01	-9.40	159 (5)	1836 (5)	10806 (5)
1-44-P	60	100	9.24	9.24	0.01	-14.88	253 (5)	2916 (5)	17160 (5)
1-45-P	60	100	9.24	9.24	0.01	-13.37	226 (5)	2615 (5)	15387 (5)
1-46-P	60	100	9.24	9.24	0.00	-9.51	161 (5)	1854 (5)	10912 (5)
1-47-P	60	100	9.24	9.24	0.00	-3.32	56 (5)	649 (5)	3819 (5)
1-48-P	60	100	9.24	9.24	0.52	-0.78	22 (5)	1487 (5)	1493 (5)
1-49-P	60	100	9.24	9.24	0.76	-0.03	13 (5)	869 (5)	180 (5)
2-1-P	60	100	9.24	9.24	2.09	-0.22	40 (6)	2712 (6)	461 (6)
2-2-P	60	100	9.24	9.24	3.15	0.00	53 (5)	3596 (5)	611 (5)
2-3-P	60	100	9.24	9.24	4.13	-0.01	69 (5)	4721 (5)	802 (5)
2-4-P	60	100	9.24	9.24	5.27	-0.01	89 (5)	6018 (5)	1023 (5)
2-5-P	60	100	9.24	9.24	0.83	-15.82	311 (5)	3594 (5)	21153 (5)
2-6-P	60	100	9.24	9.24	0.68	-30.74	573 (5)	6614 (5)	38923 (5)
2-7-P	60	100	9.24	9.24	1.22	-4.73	133 (5)	3523 (5)	9052 (5)
2-8-P	60	100	9.24	9.24	7.46	-0.01	126 (5)	8541 (5)	1451 (5)
2-9-P	60	100	9.24	9.24	7.77	0.00	131 (5)	8903 (5)	1513 (5)
2-10-P	60	100	9.24	9.24	7.72	0.00	130 (5)	8846 (5)	1503 (5)
2-11-P	60	100	9.24	9.24	7.75	0.00	131 (5)	8883 (5)	1510 (5)
2-12-P	60	100	9.24	9.24	7.91	0.00	133 (5)	9064 (5)	1540 (5)
2-13-P	60	100	9.24	9.24	7.84	0.00	132 (5)	8985 (5)	1527 (5)
2-14-P	60	100	9.24	9.24	2.21	-0.64	62 (6)	4193 (6)	939 (6)
2-15-P	60	100	9.24	9.24	0.70	-24.50	482 (5)	5566 (5)	32755 (5)
2-16-P	60	100	9.24	9.24	0.75	-19.33	380 (5)	4391 (5)	25840 (5)
2-17-P	60	100	9.24	9.24	7.69	-0.08	129 (5)	8791 (5)	1494 (5)
2-18-P	60	100	9.24	9.24	7.80	0.00	131 (5)	8931 (5)	1518 (5)
2-19-P	60	100	9.24	9.24	7.80	0.00	132 (5)	8938 (5)	1519 (5)
2-20-P	60	100	9.24	9.24	7.66	0.00	129 (5)	8772 (5)	1491 (5)
2-21-P	60	100	9.24	9.24	7.73	0.00	130 (5)	8857 (5)	1505 (5)
2-22-P	60	100	9.24	9.24	7.81	0.00	132 (5)	8947 (5)	1520 (5)
2-23-P	60	100	9.24	9.24	7.71	-0.02	130 (5)	8825 (5)	1500 (5)
2-24-P	60	100	9.24	9.24	0.97	-9.25	195 (5)	2826 (5)	13252 (5)
2-25-P	60	100	9.24	9.24	0.66	-35.03	653 (5)	7535 (5)	44342 (5)
2-26-P	60	100	9.24	9.24	0.97	-9.25	195 (5)	2826 (5)	13252 (5)
2-27-P	60	100	9.24	9.24	7.71	-0.02	130 (5)	8825 (5)	1500 (5)
2-28-P	60	100	9.24	9.24	7.81	0.00	132 (5)	8947 (5)	1520 (5)
2-29-P	60	100	9.24	9.24	7.73	0.00	130 (5)	8857 (5)	1505 (5)
2-30-P	60	100	9.24	9.24	7.66	0.00	129 (5)	8772 (5)	1491 (5)
2-31-P	60	100	9.24	9.24	7.80	0.00	132 (5)	8938 (5)	1519 (5)
2-32-P	60	100	9.24	9.24	7.80	0.00	131 (5)	8931 (5)	1518 (5)
2-33-P	60	100	9.24	9.24	7.69	-0.08	129 (5)	8791 (5)	1494 (5)
2-34-P	60	100	9.24	9.24	0.75	-19.33	380 (5)	4391 (5)	25840 (5)
2-35-P	60	100	9.24	9.24	0.70	-24.50	482 (5)	5566 (5)	32755 (5)
2-36-P	60	100	9.24	9.24	2.21	-0.64	62 (6)	4193 (6)	939 (6)
2-37-P	60	100	9.24	9.24	7.84	0.00	132 (5)	8985 (5)	1527 (5)
2-38-P	60	100	9.24	9.24	7.91	0.00	133 (5)	9064 (5)	1540 (5)
2-39-P	60	100	9.24	9.24	7.75	0.00	131 (5)	8883 (5)	1510 (5)
2-40-P	60	100	9.24	9.24	7.72	0.00	130 (5)	8846 (5)	1503 (5)
2-41-P	60	100	9.24	9.24	7.77	0.00	131 (5)	8903 (5)	1513 (5)
2-42-P	60	100	9.24	9.24	7.46	-0.01	126 (5)	8541 (5)	1451 (5)

APPALTATORE:

TELESE S.c.a r.l.

Consorzio Telese Società Consortile a Responsabilità Limitata

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	67 di 91

Is	B [cm]	H [cm]	Afi [cmq]	Afs [cmq]	Mp [kNm]	Mn [kNm]	σc [kPa]	σfi [kPa]	σfs [kPa]
2-43-P	60	100	9.24	9.24	1.22	-4.73	133 (5)	3523 (5)	9052 (5)
2-44-P	60	100	9.24	9.24	0.68	-30.74	573 (5)	6614 (5)	38923 (5)
2-45-P	60	100	9.24	9.24	0.83	-15.82	311 (5)	3594 (5)	21153 (5)
2-46-P	60	100	9.24	9.24	5.27	-0.01	89 (5)	6018 (5)	1023 (5)
2-47-P	60	100	9.24	9.24	4.13	-0.01	69 (5)	4721 (5)	802 (5)
2-48-P	60	100	9.24	9.24	3.15	0.00	53 (5)	3596 (5)	611 (5)
2-49-P	60	100	9.24	9.24	2.09	-0.22	40 (6)	2712 (6)	461 (6)
4-1-P	95	100	13.85	13.85	2.80	-1.39	32 (8)	2229 (8)	1105 (8)
4-2-P	95	100	13.85	13.85	3.33	-1.13	38 (7)	2632 (7)	1747 (7)
4-3-P	95	100	13.85	13.85	3.63	-2.96	42 (6)	2449 (6)	2948 (6)
4-4-P	95	100	13.85	13.85	2.29	-6.81	97 (8)	1824 (8)	6781 (8)
4-5-P	95	100	13.85	13.85	2.76	-9.41	153 (7)	1751 (7)	10649 (7)
4-6-P	95	100	13.85	13.85	2.72	-10.71	187 (7)	2140 (7)	13011 (7)
4-7-P	95	100	13.85	13.85	3.30	-5.10	104 (6)	1717 (6)	7277 (6)
4-8-P	95	100	13.85	13.85	3.29	-1.03	38 (8)	2619 (8)	2059 (8)
4-9-P	95	100	13.85	13.85	11.71	0.00	99 (7)	6909 (7)	1136 (7)
4-10-P	95	100	13.85	13.85	13.57	0.00	119 (7)	8274 (7)	1361 (7)
4-11-P	95	100	13.85	13.85	14.19	0.00	125 (7)	8721 (7)	1434 (7)
4-12-P	95	100	13.85	13.85	12.96	0.00	112 (7)	7790 (7)	1281 (7)
4-13-P	95	100	13.85	13.85	7.70	0.00	59 (6)	4085 (6)	672 (6)
4-14-P	95	100	13.85	13.85	4.52	-2.83	64 (7)	2332 (7)	4440 (7)
4-15-P	95	100	13.85	13.85	3.72	-6.88	145 (7)	1959 (7)	10137 (7)
4-16-P	95	100	13.85	13.85	3.82	-5.98	128 (7)	2032 (7)	8933 (7)
4-17-P	95	100	13.85	13.85	5.23	-2.52	56 (7)	2580 (7)	3912 (7)
4-18-P	95	100	13.85	13.85	9.07	0.00	71 (6)	4960 (6)	816 (6)
4-19-P	95	100	13.85	13.85	13.47	0.00	117 (7)	8159 (7)	1342 (7)
4-20-P	95	100	13.85	13.85	14.90	0.00	132 (7)	9226 (7)	1517 (7)
4-21-P	95	100	13.85	13.85	14.00	0.00	123 (7)	8560 (7)	1408 (7)
4-22-P	95	100	13.85	13.85	11.53	0.00	97 (7)	6750 (7)	1110 (7)
4-23-P	95	100	13.85	13.85	3.79	-1.16	43 (8)	3023 (8)	2314 (8)
4-24-P	95	100	13.85	13.85	3.92	-4.28	95 (7)	2112 (7)	6623 (7)
4-25-P	95	100	13.85	13.85	3.54	-8.29	181 (6)	2081 (6)	12652 (6)
4-26-P	95	100	13.85	13.85	3.92	-4.28	95 (7)	2112 (7)	6623 (7)
4-27-P	95	100	13.85	13.85	3.79	-1.16	43 (8)	3023 (8)	2314 (8)
4-28-P	95	100	13.85	13.85	11.53	0.00	97 (7)	6750 (7)	1110 (7)
4-29-P	95	100	13.85	13.85	14.00	0.00	123 (7)	8560 (7)	1408 (7)
4-30-P	95	100	13.85	13.85	14.90	0.00	132 (7)	9226 (7)	1517 (7)
4-31-P	95	100	13.85	13.85	13.47	0.00	117 (7)	8159 (7)	1342 (7)
4-32-P	95	100	13.85	13.85	9.07	0.00	71 (6)	4960 (6)	816 (6)
4-33-P	95	100	13.85	13.85	5.23	-2.52	56 (7)	2580 (7)	3912 (7)
4-34-P	95	100	13.85	13.85	3.82	-5.98	128 (7)	2032 (7)	8933 (7)
4-35-P	95	100	13.85	13.85	3.72	-6.88	145 (7)	1959 (7)	10137 (7)
4-36-P	95	100	13.85	13.85	4.52	-2.83	64 (7)	2332 (7)	4440 (7)
4-37-P	95	100	13.85	13.85	7.70	0.00	59 (6)	4085 (6)	672 (6)
4-38-P	95	100	13.85	13.85	12.96	0.00	112 (7)	7790 (7)	1281 (7)
4-39-P	95	100	13.85	13.85	14.19	0.00	125 (7)	8721 (7)	1434 (7)
4-40-P	95	100	13.85	13.85	13.57	0.00	119 (7)	8274 (7)	1361 (7)
4-41-P	95	100	13.85	13.85	11.71	0.00	99 (7)	6909 (7)	1136 (7)
4-42-P	95	100	13.85	13.85	3.29	-1.03	38 (8)	2619 (8)	2059 (8)
4-43-P	95	100	13.85	13.85	3.30	-5.10	104 (6)	1717 (6)	7277 (6)
4-44-P	95	100	13.85	13.85	2.72	-10.71	187 (7)	2140 (7)	13011 (7)
4-45-P	95	100	13.85	13.85	2.76	-9.41	153 (7)	1751 (7)	10649 (7)
4-46-P	95	100	13.85	13.85	2.29	-6.81	97 (8)	1824 (8)	6781 (8)
4-47-P	95	100	13.85	13.85	3.63	-2.96	42 (6)	2449 (6)	2948 (6)
4-48-P	95	100	13.85	13.85	3.33	-1.13	38 (7)	2632 (7)	1747 (7)
4-49-P	95	100	13.85	13.85	2.80	-1.39	32 (8)	2229 (8)	1105 (8)
5-1-P	95	100	13.85	13.85	0.82	-0.07	9 (7)	629 (7)	230 (7)
5-2-P	95	100	13.85	13.85	0.45	-1.96	21 (7)	683 (7)	1445 (7)
5-3-P	95	100	13.85	13.85	0.57	-6.40	65 (7)	818 (7)	4509 (7)
5-4-P	95	100	13.85	13.85	0.57	-13.81	142 (7)	1627 (7)	8992 (7)
5-5-P	95	100	13.85	13.85	0.00	-32.46	338 (7)	3878 (7)	23581 (7)
5-6-P	95	100	13.85	13.85	0.00	-45.02	469 (7)	5379 (7)	32703 (7)
5-7-P	95	100	13.85	13.85	0.00	-19.04	200 (7)	2295 (7)	13951 (7)
5-8-P	95	100	13.85	13.85	1.92	-4.15	43 (7)	3009 (7)	2996 (7)
5-9-P	95	100	13.85	13.85	8.45	0.00	86 (7)	5978 (7)	983 (7)
5-10-P	95	100	13.85	13.85	12.76	0.00	130 (7)	9057 (7)	1490 (7)
5-11-P	95	100	13.85	13.85	14.19	0.00	144 (7)	10062 (7)	1655 (7)
5-12-P	95	100	13.85	13.85	11.27	0.00	114 (7)	7948 (7)	1307 (7)
5-13-P	95	100	13.85	13.85	3.84	-0.42	46 (6)	3213 (6)	528 (6)
5-14-P	95	100	13.85	13.85	0.00	-8.71	95 (7)	1093 (7)	6646 (7)
5-15-P	95	100	13.85	13.85	0.00	-32.80	345 (7)	3962 (7)	24086 (7)
5-16-P	95	100	13.85	13.85	0.00	-27.82	294 (7)	3369 (7)	20482 (7)
5-17-P	95	100	13.85	13.85	2.43	-5.87	62 (7)	3620 (7)	4296 (7)
5-18-P	95	100	13.85	13.85	6.06	-0.03	59 (7)	4136 (7)	680 (7)
5-19-P	95	100	13.85	13.85	13.11	0.00	133 (7)	9241 (7)	1520 (7)
5-20-P	95	100	13.85	13.85	16.58	0.00	168 (7)	11743 (7)	1931 (7)
5-21-P	95	100	13.85	13.85	14.50	0.00	147 (7)	10243 (7)	1685 (7)
5-22-P	95	100	13.85	13.85	9.84	-0.01	98 (7)	6868 (7)	1130 (7)
5-23-P	95	100	13.85	13.85	3.07	-2.69	71 (7)	4973 (7)	2040 (7)
5-24-P	95	100	13.85	13.85	0.00	-17.97	192 (7)	2197 (7)	13357 (7)
5-25-P	95	100	13.85	13.85	0.00	-42.26	444 (7)	5087 (7)	30929 (7)

APPALTATORE:

TELESE S.c.a r.l.

Consorzio Telese Società Consortile a Responsabilità Limitata

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A.

SWS Engineering S.p.A.

SYSTRA-SOTECNI S.p.A.

**ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO****PROGETTO ESECUTIVO****Relazione di calcolo
IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX**

COMMESSA

LOTTO

CODIFICA

DOCUMENTO

REV.

FOGLIO

IF2R

2.2.E.ZZ

CL

TR.16.0.5.009

A

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Is	B [cm]	H [cm]	Afi [cmq]	Afs [cmq]	Mp [kNm]	Mn [kNm]	sc [kPa]	ofi [kPa]	ofs [kPa]
5-26-P	95	100	13.85	13.85	0.00	-17.97	192 (7)	2197 (7)	13357 (7)
5-27-P	95	100	13.85	13.85	3.07	-2.69	71 (7)	4973 (7)	2040 (7)
5-28-P	95	100	13.85	13.85	9.84	-0.01	98 (7)	6868 (7)	1130 (7)
5-29-P	95	100	13.85	13.85	14.50	0.00	147 (7)	10243 (7)	1685 (7)
5-30-P	95	100	13.85	13.85	16.58	0.00	168 (7)	11743 (7)	1931 (7)
5-31-P	95	100	13.85	13.85	13.11	0.00	133 (7)	9241 (7)	1520 (7)
5-32-P	95	100	13.85	13.85	6.06	-0.03	59 (7)	4136 (7)	680 (7)
5-33-P	95	100	13.85	13.85	2.43	-5.87	62 (7)	3620 (7)	4296 (7)
5-34-P	95	100	13.85	13.85	0.00	-27.82	294 (7)	3369 (7)	20482 (7)
5-35-P	95	100	13.85	13.85	0.00	-32.80	345 (7)	3962 (7)	24086 (7)
5-36-P	95	100	13.85	13.85	0.00	-8.71	95 (7)	1093 (7)	6646 (7)
5-37-P	95	100	13.85	13.85	3.84	-0.42	46 (6)	3213 (6)	528 (6)
5-38-P	95	100	13.85	13.85	11.27	0.00	114 (7)	7948 (7)	1307 (7)
5-39-P	95	100	13.85	13.85	14.19	0.00	144 (7)	10062 (7)	1655 (7)
5-40-P	95	100	13.85	13.85	12.76	0.00	130 (7)	9057 (7)	1490 (7)
5-41-P	95	100	13.85	13.85	8.45	0.00	86 (7)	5978 (7)	983 (7)
5-42-P	95	100	13.85	13.85	1.92	-4.15	43 (7)	3009 (7)	2996 (7)
5-43-P	95	100	13.85	13.85	0.00	-19.04	200 (7)	2295 (7)	13951 (7)
5-44-P	95	100	13.85	13.85	0.00	-45.02	469 (7)	5379 (7)	32703 (7)
5-45-P	95	100	13.85	13.85	0.00	-32.46	338 (7)	3878 (7)	23581 (7)
5-46-P	95	100	13.85	13.85	0.57	-13.81	142 (7)	1627 (7)	9892 (7)
5-47-P	95	100	13.85	13.85	0.57	-6.40	65 (7)	818 (7)	4509 (7)
5-48-P	95	100	13.85	13.85	0.45	-1.96	21 (7)	683 (7)	1445 (7)
5-49-P	95	100	13.85	13.85	0.82	-0.07	9 (7)	629 (7)	230 (7)
6-1-S	100	100	15.39	15.39	0.47	-1.77	23 (6)	1584 (6)	1139 (6)
6-2-S	100	100	15.39	15.39	0.05	-3.63	46 (5)	528 (5)	3107 (5)
6-3-S	100	100	15.39	15.39	0.70	-5.16	87 (5)	1207 (5)	5895 (5)
6-4-S	100	100	15.39	15.39	3.05	-5.38	136 (5)	2611 (5)	9213 (5)
6-5-S	100	100	15.39	15.39	9.72	-0.22	98 (5)	6635 (5)	1127 (5)
6-6-S	100	100	15.39	15.39	26.21	-0.03	263 (5)	17882 (5)	3039 (5)
6-7-S	100	100	15.39	15.39	28.05	-0.05	163 (7)	11093 (7)	1885 (7)
6-8-S	100	100	15.39	15.39	25.23	-0.13	157 (7)	10699 (7)	1818 (7)
6-9-S	100	100	15.39	15.39	20.16	-0.57	127 (6)	8645 (6)	1469 (6)
6-10-S	100	100	15.39	15.39	12.20	-1.39	68 (6)	4597 (6)	1469 (6)
6-11-S	100	100	15.39	15.39	5.52	-3.40	50 (6)	2391 (6)	3416 (6)
6-12-S	100	100	15.39	15.39	2.07	-6.06	70 (7)	975 (7)	4736 (7)
6-13-S	100	100	15.39	15.39	0.12	-4.89	52 (8)	596 (8)	3506 (8)
6-14-S	100	100	15.39	15.39	0.00	-2.69	28 (8)	328 (8)	1930 (8)
6-15-S	100	100	15.39	15.39	0.39	-0.52	10 (8)	701 (8)	371 (8)
7-1-S	100	100	15.39	15.39	2.94	-1.19	28 (6)	1884 (6)	746 (6)
7-2-S	100	100	15.39	15.39	4.29	-3.26	61 (6)	4149 (6)	2199 (6)
7-3-S	100	100	15.39	15.39	0.07	-7.06	73 (5)	845 (5)	4973 (5)
7-4-S	100	100	15.39	15.39	1.03	-28.49	378 (5)	4365 (5)	25685 (5)
7-5-S	100	100	15.39	15.39	4.04	-11.40	138 (6)	7330 (6)	9400 (6)
7-6-S	100	100	15.39	15.39	46.30	0.00	474 (5)	32183 (5)	5469 (5)
7-7-S	100	100	15.39	15.39	43.45	0.00	299 (7)	20327 (7)	3454 (7)
7-8-S	100	100	15.39	15.39	36.87	0.00	257 (7)	17485 (7)	2971 (7)
7-9-S	100	100	15.39	15.39	29.34	-0.02	198 (6)	13428 (6)	2282 (6)
7-10-S	100	100	15.39	15.39	20.36	-0.35	121 (6)	8215 (6)	1396 (6)
7-11-S	100	100	15.39	15.39	0.64	-15.45	204 (8)	2355 (8)	13862 (8)
7-12-S	100	100	15.39	15.39	0.30	-27.22	283 (7)	3266 (7)	19220 (7)
7-13-S	100	100	15.39	15.39	0.00	-12.76	127 (6)	1471 (6)	8659 (6)
7-14-S	100	100	15.39	15.39	0.01	-4.95	44 (6)	514 (6)	3023 (6)
7-15-S	100	100	15.39	15.39	0.79	-0.27	10 (8)	711 (8)	197 (8)
8-1-S	100	100	15.39	15.39	0.12	-2.41	24 (5)	278 (5)	1633 (5)
8-2-S	100	100	15.39	15.39	0.19	-1.69	26 (7)	299 (7)	1758 (7)
8-3-S	100	100	15.39	15.39	1.15	-0.82	30 (6)	1517 (6)	2017 (6)
8-4-S	100	100	15.39	15.39	7.83	0.00	79 (5)	5361 (5)	911 (5)
8-5-S	100	100	15.39	15.39	14.77	0.00	148 (5)	10045 (5)	1707 (5)
8-6-S	100	100	15.39	15.39	22.06	0.00	220 (5)	14948 (5)	2540 (5)
8-7-S	100	100	15.39	15.39	32.24	0.00	193 (7)	13125 (7)	2230 (7)
8-8-S	100	100	15.39	15.39	28.93	0.00	185 (7)	12550 (7)	2132 (7)
8-9-S	100	100	15.39	15.39	23.73	0.00	156 (6)	10598 (6)	1801 (6)
8-10-S	100	100	15.39	15.39	16.49	0.00	103 (6)	7007 (6)	1191 (6)
8-11-S	100	100	15.39	15.39	10.04	0.00	56 (6)	3828 (6)	651 (6)
8-12-S	100	100	15.39	15.39	4.76	0.00	22 (6)	1491 (6)	855 (6)
8-13-S	100	100	15.39	15.39	1.44	-0.38	16 (7)	335 (7)	1106 (7)
8-14-S	100	100	15.39	15.39	0.23	-0.67	10 (7)	117 (7)	690 (7)
8-15-S	100	100	15.39	15.39	0.03	-1.15	12 (8)	140 (8)	826 (8)
9-1-S	100	100	15.39	15.39	3.74	-0.70	36 (6)	2454 (6)	419 (6)
9-2-S	100	100	15.39	15.39	4.34	-2.81	93 (6)	6334 (6)	1988 (6)
9-3-S	100	100	15.39	15.39	0.00	-8.51	88 (5)	1017 (5)	5985 (5)
9-4-S	100	100	15.39	15.39	0.11	-33.06	351 (5)	4051 (5)	23838 (5)
9-5-S	100	100	15.39	15.39	1.92	-10.91	107 (7)	4131 (7)	7249 (7)
9-6-S	100	100	15.39	15.39	48.71	0.00	499 (5)	33920 (5)	5764 (5)
9-7-S	100	100	15.39	15.39	45.41	0.00	318 (7)	21617 (7)	3673 (7)
9-8-S	100	100	15.39	15.39	39.26	0.00	280 (7)	18992 (7)	3227 (7)
9-9-S	100	100	15.39	15.39	31.60	0.00	217 (6)	14737 (6)	2504 (6)
9-10-S	100	100	15.39	15.39	21.87	-0.47	133 (6)	9066 (6)	1540 (6)
9-11-S	100	100	15.39	15.39	0.30	-17.38	184 (8)	2119 (8)	12470 (8)
9-12-S	100	100	15.39	15.39	0.16	-31.03	321 (7)	3709 (7)	21830 (7)

APPALTATORE:

TELESE S.c.a r.l.
Consorzio Telese Società Consortile a Responsabilità Limitata

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA LOTTO CODIFICA DOCUMENTO REV. FOGLIO
IF2R 2.2.E.ZZ CL TR.16.0.5.009 A 69 di 91

Is	B [cm]	H [cm]	Afi [cmq]	Afs [cmq]	Mp [kNm]	Mn [kNm]	sc [kPa]	ofi [kPa]	ofs [kPa]
9-13-S	100	100	15.39	15.39	0.00	-14.55	143 (6)	1656 (6)	9747 (6)
9-14-S	100	100	15.39	15.39	0.00	-5.37	47 (6)	543 (6)	3193 (6)
9-15-S	100	100	15.39	15.39	1.24	-0.08	13 (8)	887 (8)	151 (8)
10-1-S	100	100	15.39	15.39	0.35	-2.10	21 (6)	237 (6)	1393 (6)
10-2-S	100	100	15.39	15.39	0.12	-2.88	47 (7)	545 (7)	3207 (7)
10-3-S	100	100	15.39	15.39	0.89	-3.01	66 (6)	1436 (6)	4473 (6)
10-4-S	100	100	15.39	15.39	3.81	-0.97	59 (6)	4027 (6)	1341 (6)
10-5-S	100	100	15.39	15.39	13.87	0.00	139 (5)	9433 (5)	1603 (5)
10-6-S	100	100	15.39	15.39	23.22	0.00	232 (5)	15739 (5)	2674 (5)
10-7-S	100	100	15.39	15.39	32.11	0.00	193 (7)	13099 (7)	2226 (7)
10-8-S	100	100	15.39	15.39	28.98	0.00	185 (7)	12600 (7)	2141 (7)
10-9-S	100	100	15.39	15.39	23.22	0.00	151 (6)	10237 (6)	1740 (6)
10-10-S	100	100	15.39	15.39	14.73	-0.27	89 (6)	6025 (6)	1845 (6)
10-11-S	100	100	15.39	15.39	8.72	-0.51	48 (6)	3241 (6)	3208 (6)
10-12-S	100	100	15.39	15.39	3.74	-0.97	40 (7)	1332 (7)	2714 (7)
10-13-S	100	100	15.39	15.39	0.50	-2.11	56 (8)	642 (8)	3781 (8)
10-14-S	100	100	15.39	15.39	0.04	-1.61	28 (8)	328 (8)	1929 (8)
10-15-S	100	100	15.39	15.39	0.16	-0.78	8 (8)	114 (8)	560 (8)
11-1-S	100	100	15.39	15.39	2.08	-1.91	20 (6)	1364 (6)	1239 (6)
11-2-S	100	100	15.39	15.39	2.27	-3.67	35 (6)	2227 (6)	2406 (6)
11-3-S	100	100	15.39	15.39	0.40	-5.96	76 (5)	881 (5)	5187 (5)
11-4-S	100	100	15.39	15.39	2.41	-16.80	297 (5)	3428 (5)	20175 (5)
11-5-S	100	100	15.39	15.39	5.61	-6.26	108 (6)	7348 (6)	7353 (6)
11-6-S	100	100	15.39	15.39	36.50	0.00	371 (5)	25202 (5)	4282 (5)
11-7-S	100	100	15.39	15.39	38.71	0.00	255 (7)	17355 (7)	2949 (7)
11-8-S	100	100	15.39	15.39	33.82	0.00	230 (7)	15615 (7)	2653 (7)
11-9-S	100	100	15.39	15.39	26.87	0.00	179 (6)	12130 (6)	2061 (6)
11-10-S	100	100	15.39	15.39	17.51	-0.38	103 (6)	7026 (6)	1194 (6)
11-11-S	100	100	15.39	15.39	1.79	-9.28	163 (8)	2141 (8)	11097 (8)
11-12-S	100	100	15.39	15.39	1.27	-16.09	214 (7)	2466 (7)	14513 (7)
11-13-S	100	100	15.39	15.39	0.26	-8.33	108 (7)	1247 (7)	7336 (7)
11-14-S	100	100	15.39	15.39	0.02	-3.51	36 (6)	414 (6)	2437 (6)
11-15-S	100	100	15.39	15.39	0.72	-0.58	8 (8)	517 (8)	414 (8)
12-1-S	100	100	15.39	15.39	2.08	-1.91	20 (6)	1364 (6)	1239 (6)
12-2-S	100	100	15.39	15.39	2.27	-3.67	35 (6)	2227 (6)	2406 (6)
12-3-S	100	100	15.39	15.39	0.40	-5.96	76 (5)	881 (5)	5187 (5)
12-4-S	100	100	15.39	15.39	2.41	-16.80	297 (5)	3428 (5)	20175 (5)
12-5-S	100	100	15.39	15.39	5.61	-6.26	108 (6)	7348 (6)	7353 (6)
12-6-S	100	100	15.39	15.39	36.50	0.00	371 (5)	25202 (5)	4282 (5)
12-7-S	100	100	15.39	15.39	38.71	0.00	255 (7)	17355 (7)	2949 (7)
12-8-S	100	100	15.39	15.39	33.82	0.00	230 (7)	15615 (7)	2653 (7)
12-9-S	100	100	15.39	15.39	26.87	0.00	179 (6)	12130 (6)	2061 (6)
12-10-S	100	100	15.39	15.39	17.51	-0.38	103 (6)	7026 (6)	1194 (6)
12-11-S	100	100	15.39	15.39	1.79	-9.28	163 (8)	2141 (8)	11097 (8)
12-12-S	100	100	15.39	15.39	1.27	-16.09	214 (7)	2466 (7)	14513 (7)
12-13-S	100	100	15.39	15.39	0.26	-8.33	108 (7)	1247 (7)	7336 (7)
12-14-S	100	100	15.39	15.39	0.02	-3.51	36 (6)	414 (6)	2437 (6)
12-15-S	100	100	15.39	15.39	0.72	-0.58	8 (8)	517 (8)	414 (8)
13-1-S	100	100	15.39	15.39	0.35	-2.10	21 (6)	237 (6)	1393 (6)
13-2-S	100	100	15.39	15.39	0.12	-2.88	47 (7)	545 (7)	3207 (7)
13-3-S	100	100	15.39	15.39	0.89	-3.01	66 (6)	1436 (6)	4473 (6)
13-4-S	100	100	15.39	15.39	3.81	-0.97	59 (6)	4027 (6)	1341 (6)
13-5-S	100	100	15.39	15.39	13.87	0.00	139 (5)	9433 (5)	1603 (5)
13-6-S	100	100	15.39	15.39	23.22	0.00	232 (5)	15739 (5)	2674 (5)
13-7-S	100	100	15.39	15.39	32.11	0.00	193 (7)	13099 (7)	2226 (7)
13-8-S	100	100	15.39	15.39	28.98	0.00	185 (7)	12600 (7)	2141 (7)
13-9-S	100	100	15.39	15.39	23.22	0.00	151 (6)	10237 (6)	1740 (6)
13-10-S	100	100	15.39	15.39	14.73	-0.27	89 (6)	6025 (6)	1845 (6)
13-11-S	100	100	15.39	15.39	8.72	-0.51	48 (6)	3241 (6)	3208 (6)
13-12-S	100	100	15.39	15.39	3.74	-0.97	40 (7)	1332 (7)	2714 (7)
13-13-S	100	100	15.39	15.39	0.50	-2.11	56 (8)	642 (8)	3781 (8)
13-14-S	100	100	15.39	15.39	0.04	-1.61	28 (8)	328 (8)	1929 (8)
13-15-S	100	100	15.39	15.39	0.16	-0.78	8 (8)	114 (8)	560 (8)
14-1-S	100	100	15.39	15.39	3.74	-0.70	36 (6)	2454 (6)	419 (6)
14-2-S	100	100	15.39	15.39	4.34	-2.81	93 (6)	6334 (6)	1988 (6)
14-3-S	100	100	15.39	15.39	0.00	-8.51	88 (5)	1017 (5)	5985 (5)
14-4-S	100	100	15.39	15.39	0.11	-33.06	351 (5)	4051 (5)	23838 (5)
14-5-S	100	100	15.39	15.39	1.92	-10.91	107 (7)	4131 (7)	7249 (7)
14-6-S	100	100	15.39	15.39	48.71	0.00	499 (5)	33920 (5)	5764 (5)
14-7-S	100	100	15.39	15.39	45.41	0.00	318 (7)	21617 (7)	3673 (7)
14-8-S	100	100	15.39	15.39	39.26	0.00	280 (7)	18992 (7)	3227 (7)
14-9-S	100	100	15.39	15.39	31.60	0.00	217 (6)	14737 (6)	2504 (6)
14-10-S	100	100	15.39	15.39	21.87	-0.47	133 (6)	9066 (6)	1540 (6)
14-11-S	100	100	15.39	15.39	0.30	-17.38	184 (8)	2119 (8)	12470 (8)
14-12-S	100	100	15.39	15.39	0.16	-31.03	321 (7)	3709 (7)	21830 (7)
14-13-S	100	100	15.39	15.39	0.00	-14.55	143 (6)	1656 (6)	9747 (6)
14-14-S	100	100	15.39	15.39	0.00	-5.37	47 (6)	543 (6)	3193 (6)
14-15-S	100	100	15.39	15.39	1.24	-0.08	13 (8)	887 (8)	151 (8)
15-1-S	100	100	15.39	15.39	0.12	-2.41	24 (5)	278 (5)	1633 (5)
15-2-S	100	100	15.39	15.39	0.19	-1.69	26 (7)	299 (7)	1758 (7)
15-3-S	100	100	15.39	15.39	1.15	-0.82	30 (6)	1517 (6)	2017 (6)

APPALTATORE:

TELESE S.c.a r.l.
Consorzio Telese Società Consortile a Responsabilità Limitata

PROGETTAZIONE:

Mandataria: SYSTRA S.A. Mandante: SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

Relazione di calcolo
IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO
PROGETTO ESECUTIVO

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	70 di 91

Is	B [cm]	H [cm]	Afi [cmq]	Afs [cmq]	Mp [kNm]	Mn [kNm]	σc [kPa]	σfi [kPa]	σfs [kPa]
15-4-S	100	100	15.39	15.39	7.83	0.00	79 (5)	5361 (5)	911 (5)
15-5-S	100	100	15.39	15.39	14.77	0.00	148 (5)	10045 (5)	1707 (5)
15-6-S	100	100	15.39	15.39	22.06	0.00	220 (5)	14948 (5)	2540 (5)
15-7-S	100	100	15.39	15.39	32.24	0.00	193 (7)	13125 (7)	2230 (7)
15-8-S	100	100	15.39	15.39	28.93	0.00	185 (7)	12550 (7)	2132 (7)
15-9-S	100	100	15.39	15.39	23.73	0.00	156 (6)	10598 (6)	1801 (6)
15-10-S	100	100	15.39	15.39	16.49	0.00	103 (6)	7007 (6)	1191 (6)
15-11-S	100	100	15.39	15.39	10.04	0.00	56 (6)	3828 (6)	651 (6)
15-12-S	100	100	15.39	15.39	4.76	0.00	22 (6)	1491 (6)	855 (6)
15-13-S	100	100	15.39	15.39	1.44	-0.38	16 (7)	335 (7)	1106 (7)
15-14-S	100	100	15.39	15.39	0.23	-0.67	10 (7)	117 (7)	690 (7)
15-15-S	100	100	15.39	15.39	0.03	-1.15	12 (8)	140 (8)	826 (8)
16-1-S	100	100	15.39	15.39	2.94	-1.19	28 (6)	1884 (6)	746 (6)
16-2-S	100	100	15.39	15.39	4.29	-3.26	61 (6)	4149 (6)	2199 (6)
16-3-S	100	100	15.39	15.39	0.07	-7.06	73 (5)	845 (5)	4973 (5)
16-4-S	100	100	15.39	15.39	1.03	-28.49	378 (5)	4365 (5)	25685 (5)
16-5-S	100	100	15.39	15.39	4.04	-11.40	138 (6)	7330 (6)	9400 (6)
16-6-S	100	100	15.39	15.39	46.30	0.00	474 (5)	32183 (5)	5469 (5)
16-7-S	100	100	15.39	15.39	43.45	0.00	299 (7)	20327 (7)	3454 (7)
16-8-S	100	100	15.39	15.39	36.87	0.00	257 (7)	17485 (7)	2971 (7)
16-9-S	100	100	15.39	15.39	29.34	-0.02	198 (6)	13428 (6)	2282 (6)
16-10-S	100	100	15.39	15.39	20.36	-0.35	121 (6)	8215 (6)	1396 (6)
16-11-S	100	100	15.39	15.39	0.64	-15.45	204 (8)	2355 (8)	13862 (8)
16-12-S	100	100	15.39	15.39	0.30	-27.22	283 (7)	3266 (7)	19220 (7)
16-13-S	100	100	15.39	15.39	0.00	-12.76	127 (6)	1471 (6)	8659 (6)
16-14-S	100	100	15.39	15.39	0.01	-4.95	44 (6)	514 (6)	3023 (6)
16-15-S	100	100	15.39	15.39	0.79	-0.27	10 (8)	711 (8)	197 (8)
17-1-S	100	100	15.39	15.39	0.47	-1.77	23 (6)	1584 (6)	1139 (6)
17-2-S	100	100	15.39	15.39	0.05	-3.63	46 (5)	528 (5)	3107 (5)
17-3-S	100	100	15.39	15.39	0.70	-5.16	87 (5)	1207 (5)	5895 (5)
17-4-S	100	100	15.39	15.39	3.05	-5.38	136 (5)	2611 (5)	9213 (5)
17-5-S	100	100	15.39	15.39	9.72	-0.22	98 (5)	6635 (5)	1127 (5)
17-6-S	100	100	15.39	15.39	26.21	-0.03	263 (5)	17882 (5)	3039 (5)
17-7-S	100	100	15.39	15.39	28.05	-0.05	163 (7)	11093 (7)	1885 (7)
17-8-S	100	100	15.39	15.39	25.23	-0.13	157 (7)	10699 (7)	1818 (7)
17-9-S	100	100	15.39	15.39	20.16	-0.57	127 (6)	8645 (6)	1469 (6)
17-10-S	100	100	15.39	15.39	12.20	-1.39	68 (6)	4597 (6)	1469 (6)
17-11-S	100	100	15.39	15.39	5.52	-3.40	50 (6)	2391 (6)	3416 (6)
17-12-S	100	100	15.39	15.39	2.07	-6.06	70 (7)	975 (7)	4736 (7)
17-13-S	100	100	15.39	15.39	0.12	-4.89	52 (8)	596 (8)	3506 (8)
17-14-S	100	100	15.39	15.39	0.00	-2.69	28 (8)	328 (8)	1930 (8)
17-15-S	100	100	15.39	15.39	0.39	-0.52	10 (8)	701 (8)	371 (8)

Pali in c.a.

Ip	Is	Ar [cmq]	σc [kPa]	σf [kPa]	τc [kPa]	σstf [kPa]
1	1	40.72	1063	14261		
1	2	40.72	1010	13636		
1	3	40.72	960	13046		
1	4	40.72	913	12484		
1	5	40.72	868	11950		
1	6	40.72	825	11444		
1	7	40.72	785	10965		
1	8	40.72	746	10511		
1	9	40.72	710	10083		
1	10	40.72	677	9717		
1	11	40.72	650	9395		
1	12	40.72	634	9093		
1	13	40.72	669	9420		
1	14	40.72	701	9813		
1	15	40.72	731	10174		
1	16	40.72	758	10506		
1	17	40.72	783	10810		
1	18	40.72	806	11087		
1	19	40.72	827	11338		
1	20	40.72	845	11564		
1	21	40.72	862	11767		
1	22	40.72	877	11947		
1	23	40.72	889	12106		
1	24	40.72	901	12244		
1	25	40.72	910	12364		
1	26	40.72	918	12465		
1	27	40.72	925	12548		
1	28	40.72	930	12616		
1	29	40.72	934	12667		
1	30	40.72	937	12705		
1	31	40.72	939	12729		
1	32	40.72	939	12740		

APPALTATORE:

TELESE S.c.a r.l.
Consorzio Telese Società Consortile a Responsabilità Limitata

**ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO**

PROGETTAZIONE:

Mandatario:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	71 di 91

Ip	Is	Ar [cmq]	σ_c [kPa]	σ_f [kPa]	τ_c [kPa]	σ_{sf} [kPa]
1	33	40.72	939	12739		
1	34	40.72	938	12727		
1	35	40.72	935	12705		
1	36	40.72	932	12673		
1	37	40.72	929	12633		
1	38	40.72	924	12584		
1	39	40.72	919	12528		
1	40	40.72	914	12465		
1	41	40.72	908	12395		
1	42	40.72	901	12320		
1	43	40.72	894	12240		
1	44	40.72	887	12155		
1	45	40.72	879	12066		
1	46	40.72	871	11973		
1	47	40.72	863	11878		
1	48	40.72	854	11780		
1	49	40.72	846	11679		
1	50	40.72	837	11577		
1	51	40.72	828	11473		
1	52	40.72	819	11368		
1	53	40.72	810	11262		
1	54	40.72	801	11156		
1	55	40.72	792	11050		
1	56	40.72	782	10943		
1	57	40.72	773	10837		
1	58	40.72	764	10732		
1	59	40.72	755	10627		
1	60	40.72	746	10523		
1	61	40.72	738	10442		
1	62	40.72	729	10386		
1	63	40.72	720	10330		
1	64	40.72	712	10274		
1	65	40.72	705	10218		
1	66	40.72	700	10163		
1	67	40.72	695	10108		
1	68	40.72	691	10053		
1	69	40.72	686	9999		
1	70	40.72	681	9946		
1	71	40.72	677	9893		
1	72	40.72	672	9842		
1	73	40.72	668	9791		
1	74	40.72	664	9741		
1	75	40.72	660	9693		
1	76	40.72	656	9651		
1	77	40.72	652	9613		
1	78	40.72	648	9576		
1	79	40.72	644	9541		
1	80	40.72	641	9506		
1	81	40.72	638	9473		
1	82	40.72	636	9441		
1	83	40.72	633	9410		
1	84	40.72	630	9380		
1	85	40.72	628	9352		
1	86	40.72	626	9326		
1	87	40.72	624	9300		
1	88	40.72	622	9277		
1	89	40.72	620	9254		
1	90	40.72	618	9234		
1	91	40.72	616	9215		
1	92	40.72	615	9198		
1	93	40.72	613	9182		
1	94	40.72	612	9168		
1	95	40.72	611	9156		
1	96	40.72	610	9146		
1	97	40.72	610	9138		
1	98	40.72	609	9132		
1	99	40.72	609	9127		
1	100	40.72	608	9125		
1	101	40.72	608	9124		
2	1	62.83	1073	14511		
2	2	62.83	1024	13936		
2	3	62.83	978	13387		
2	4	62.83	934	12865		
2	5	62.83	892	12369		
2	6	62.83	852	11898		
2	7	62.83	814	11453		
2	8	62.83	778	11031		
2	9	62.83	745	10633		
2	10	62.83	715	10467		
2	11	62.83	753	10925		
2	12	62.83	789	11350		

APPALTATORE:	 Consorzio Telese Società Consortile a Responsabilità Limitata		ITINERARIO NAPOLI – BARI RADDOPPIO TRATTA CANCELLO-BENEVENTO II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO 2° SUBLOTTO TELESE – SAN LORENZO PROGETTO ESECUTIVO					
PROGETTAZIONE:	Mandataria: SYSTRA S.A. Mandante: SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.							
Relazione di calcolo	IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX		COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
			IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	72 di 91

Ip	Is	Ar [cmq]	σ_c [kPa]	σ_f [kPa]	τ_c [kPa]	σ_{sf} [kPa]
2	13	62.83	821	11743		
2	14	62.83	851	12108		
2	15	62.83	879	12443		
2	16	62.83	905	12751		
2	17	62.83	928	13032		
2	18	62.83	949	13289		
2	19	62.83	968	13521		
2	20	62.83	986	13730		
2	21	62.83	1001	13918		
2	22	62.83	1015	14084		
2	23	62.83	1026	14231		
2	24	62.83	1037	14358		
2	25	62.83	1046	14468		
2	26	62.83	1053	14561		
2	27	62.83	1059	14637		
2	28	62.83	1064	14698		
2	29	62.83	1068	14744		
2	30	62.83	1070	14778		
2	31	62.83	1072	14798		
2	32	62.83	1072	14806		
2	33	62.83	1072	14804		
2	34	62.83	1070	14791		
2	35	62.83	1068	14768		
2	36	62.83	1065	14736		
2	37	62.83	1062	14696		
2	38	62.83	1057	14649		
2	39	62.83	1052	14594		
2	40	62.83	1047	14533		
2	41	62.83	1041	14466		
2	42	62.83	1035	14393		
2	43	62.83	1028	14316		
2	44	62.83	1021	14234		
2	45	62.83	1014	14149		
2	46	62.83	1006	14060		
2	47	62.83	998	13968		
2	48	62.83	990	13873		
2	49	62.83	982	13777		
2	50	62.83	973	13678		
2	51	62.83	965	13578		
2	52	62.83	956	13477		
2	53	62.83	947	13376		
2	54	62.83	939	13274		
2	55	62.83	930	13171		
2	56	62.83	921	13069		
2	57	62.83	912	12967		
2	58	62.83	904	12865		
2	59	62.83	895	12763		
2	60	62.83	887	12663		
2	61	62.83	878	12563		
2	62	62.83	870	12465		
2	63	62.83	861	12367		
2	64	62.83	853	12271		
2	65	62.83	845	12176		
2	66	62.83	837	12083		
2	67	62.83	829	11992		
2	68	62.83	822	11902		
2	69	62.83	814	11814		
2	70	62.83	807	11728		
2	71	62.83	800	11644		
2	72	62.83	793	11562		
2	73	62.83	786	11482		
2	74	62.83	780	11404		
2	75	62.83	773	11329		
2	76	62.83	767	11256		
2	77	62.83	761	11185		
2	78	62.83	755	11117		
2	79	62.83	750	11051		
2	80	62.83	744	10988		
2	81	62.83	739	10927		
2	82	62.83	734	10868		
2	83	62.83	730	10813		
2	84	62.83	725	10759		
2	85	62.83	721	10709		
2	86	62.83	717	10661		
2	87	62.83	713	10616		
2	88	62.83	710	10573		
2	89	62.83	706	10534		
2	90	62.83	703	10497		
2	91	62.83	700	10462		
2	92	62.83	698	10431		
2	93	62.83	695	10402		

APPALTATORE:

TELESE S.c.a r.l.

Consorzio Telese Società Consortile a Responsabilità Limitata

ITINERARIO NAPOLI – BARI
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II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	73 di 91

Ip	Is	Ar [cmq]	σ_c [kPa]	σ_f [kPa]	τ_c [kPa]	σ_{sf} [kPa]
2	94	62.83	693	10376		
2	95	62.83	691	10353		
2	96	62.83	690	10333		
2	97	62.83	688	10316		
2	98	62.83	687	10302		
2	99	62.83	686	10290		
2	100	62.83	685	10282		
2	101	62.83	685	10276		

Verifica a fessurazione

Simbologia adottata

n°	indice sezione
Y	ordinata sezione espressa in [m]
B	larghezza sezione espressa in [cm]
H	altezza sezione espressa in [cm]
Af	area ferri zona tesa espressa in [cmq]
Aeff	area efficace espressa in [cmq]
M	momento agente espressa in [kNm]
Mpf	momento di prima fessurazione espressa in [kNm]
ε	deformazione espressa in %
Sm	spaziatura tra le fessure espressa in [mm]
w	apertura delle fessure espressa in [mm]

Combinazioni SLER

Paramento

Apertura limite fessure $w_{lim}=0.20$

n°	B [cm]	H [cm]	Af [cmq]	Aeff [cmq]	M [kNm]	Mpf [kNm]	ε [%]	Sm [mm]	w [mm]
1	100	70	7.70	1520.00	2.00	325.05	0.000000	0.00	0.000 (5)
2	100	70	7.70	1520.00	2.70	325.26	0.000000	0.00	0.000 (5)
3	100	70	7.70	1520.00	3.40	325.47	0.000000	0.00	0.000 (5)
4	100	70	7.70	1520.00	4.10	325.67	0.000000	0.00	0.000 (5)
5	100	70	7.70	1520.00	4.80	325.88	0.000000	0.00	0.000 (5)
6	100	70	7.70	1520.00	5.50	326.08	0.000000	0.00	0.000 (5)
7	100	70	7.70	1520.00	6.20	326.29	0.000000	0.00	0.000 (5)
8	100	70	7.70	1520.00	6.90	326.50	0.000000	0.00	0.000 (5)
9	100	70	7.70	1520.00	7.60	326.70	0.000000	0.00	0.000 (5)
10	100	70	7.70	1520.00	8.30	326.90	0.000000	0.00	0.000 (5)
11	100	70	7.70	1520.00	9.00	327.11	0.000000	0.00	0.000 (5)
12	100	70	7.70	1520.00	9.70	327.32	0.000000	0.00	0.000 (5)
13	100	70	7.70	1520.00	10.40	327.53	0.000000	0.00	0.000 (5)
14	100	70	7.70	1520.00	11.10	327.73	0.000000	0.00	0.000 (5)
15	100	70	7.70	1520.00	11.80	327.93	0.000000	0.00	0.000 (5)
16	100	70	7.70	1520.00	12.50	328.13	0.000000	0.00	0.000 (5)
17	100	70	7.70	1520.00	13.20	328.35	0.000000	0.00	0.000 (5)
18	100	70	7.70	1520.00	13.90	328.56	0.000000	0.00	0.000 (5)
19	100	70	7.70	1520.00	14.59	328.76	0.000000	0.00	0.000 (5)
20	100	70	7.70	1520.00	15.29	328.96	0.000000	0.00	0.000 (5)
21	100	70	7.70	1520.00	15.99	329.16	0.000000	0.00	0.000 (5)
22	100	70	7.70	1520.00	16.69	329.38	0.000000	0.00	0.000 (5)
23	100	70	7.70	1520.00	17.39	329.58	0.000000	0.00	0.000 (5)
24	100	70	7.70	1520.00	18.09	329.79	0.000000	0.00	0.000 (5)
25	100	70	7.70	1520.00	18.79	329.99	0.000000	0.00	0.000 (5)
26	100	70	7.70	1520.00	19.49	330.19	0.000000	0.00	0.000 (5)
27	100	90	7.70	1520.00	23.91	538.04	0.000000	0.00	0.000 (5)
28	100	90	7.70	1520.00	24.61	538.38	0.000000	0.00	0.000 (5)
29	100	90	7.70	1520.00	25.31	538.71	0.000000	0.00	0.000 (5)
30	100	90	7.70	1520.00	26.01	539.05	0.000000	0.00	0.000 (5)
31	100	90	7.70	1520.00	26.71	539.38	0.000000	0.00	0.000 (5)
32	100	90	7.70	1520.00	27.41	539.74	0.000000	0.00	0.000 (5)
33	100	90	7.70	1520.00	28.12	540.07	0.000000	0.00	0.000 (5)
34	100	90	7.70	1520.00	28.86	540.41	0.000000	0.00	0.000 (5)
35	100	90	7.70	1520.00	29.64	540.75	0.000000	0.00	0.000 (5)
36	100	90	7.70	1520.00	30.47	541.08	0.000000	0.00	0.000 (5)
37	100	90	7.70	1520.00	31.35	541.42	0.000000	0.00	0.000 (5)
38	100	90	7.70	1520.00	32.29	541.77	0.000000	0.00	0.000 (5)
39	100	90	7.70	1520.00	33.29	542.10	0.000000	0.00	0.000 (5)
40	100	90	7.70	1520.00	34.36	542.44	0.000000	0.00	0.000 (5)
41	100	90	7.70	1520.00	35.51	542.78	0.000000	0.00	0.000 (5)
42	100	90	7.70	1520.00	36.73	543.12	0.000000	0.00	0.000 (5)

APPALTATORE:

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II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO**

PROGETTAZIONE:

Mandataria:

Mandante:

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PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	74 di 91

n°	B [cm]	H [cm]	Af [cmq]	Aeff [cmq]	M [kNm]	Mpf [kNm]	ε [%]	Sm [mm]	w [mm]
43	100	90	7.70	1520.00	38.03	543.47	0.000000	0.00	0.000 (5)
44	100	90	7.70	1520.00	39.42	543.78	0.000000	0.00	0.000 (5)
45	100	90	7.70	1520.00	40.91	544.14	0.000000	0.00	0.000 (5)
46	100	90	7.70	1520.00	40.94	544.15	0.000000	0.00	0.000 (5)
47	100	90	7.70	1520.00	42.51	544.48	0.000000	0.00	0.000 (5)
48	100	90	7.70	1520.00	44.19	544.82	0.000000	0.00	0.000 (5)

Piastra fondazioneApertura limite fessure $w_{lim}=0.20$

Is	B [cm]	H [cm]	Af [cmq]	Aeff [cmq]	M [kNm]	Mpf [kNm]	ε [%]	Sm [mm]	w [mm]
1-1-P	60	100	9.24	2479.13	0.76	-378.88	0.000000	0.00	0.000
1-2-P	60	100	9.24	2479.13	-0.78	-378.88	0.000000	0.00	0.000
1-3-P	60	100	9.24	2479.13	-3.32	-378.88	0.000000	0.00	0.000
1-4-P	60	100	9.24	2479.13	-9.51	-378.88	0.000000	0.00	0.000
1-5-P	60	100	9.24	2479.13	-13.37	-378.88	0.000000	0.00	0.000
1-6-P	60	100	9.24	2479.13	-14.88	-378.88	0.000000	0.00	0.000
1-7-P	60	100	9.24	2479.13	-9.40	-378.88	0.000000	0.00	0.000
1-8-P	60	100	9.24	2479.13	-2.53	-378.88	0.000000	0.00	0.000
1-9-P	60	100	9.24	2479.13	6.13	-378.88	0.000000	0.00	0.000
1-10-P	60	100	9.24	912.00	8.31	378.88	0.000000	0.00	0.000
1-11-P	60	100	9.24	912.00	8.89	378.88	0.000000	0.00	0.000
1-12-P	60	100	9.24	2479.13	7.04	-378.88	0.000000	0.00	0.000
1-13-P	60	100	9.24	2479.13	1.26	-378.88	0.000000	0.00	0.000
1-14-P	60	100	9.24	2479.13	-6.79	-378.88	0.000000	0.00	0.000
1-15-P	60	100	9.24	2479.13	-11.42	-378.88	0.000000	0.00	0.000
1-16-P	60	100	9.24	2479.13	-10.51	-378.88	0.000000	0.00	0.000
1-17-P	60	100	9.24	2479.13	-5.88	-378.88	0.000000	0.00	0.000
1-18-P	60	100	9.24	2479.13	2.35	-378.88	0.000000	0.00	0.000
1-19-P	60	100	9.24	2479.13	7.44	-378.88	0.000000	0.00	0.000
1-20-P	60	100	9.24	912.00	9.39	378.88	0.000000	0.00	0.000
1-21-P	60	100	9.24	2479.13	8.20	-378.88	0.000000	0.00	0.000
1-22-P	60	100	9.24	2479.13	5.12	-378.88	0.000000	0.00	0.000
1-23-P	60	100	9.24	2479.13	-3.07	-378.88	0.000000	0.00	0.000
1-24-P	60	100	9.24	2479.13	-8.74	-378.88	0.000000	0.00	0.000
1-25-P	60	100	9.24	2479.13	-13.53	-378.88	0.000000	0.00	0.000
1-26-P	60	100	9.24	2479.13	-8.74	-378.88	0.000000	0.00	0.000
1-27-P	60	100	9.24	2479.13	-3.07	-378.88	0.000000	0.00	0.000
1-28-P	60	100	9.24	2479.13	5.12	-378.88	0.000000	0.00	0.000
1-29-P	60	100	9.24	2479.13	8.20	-378.88	0.000000	0.00	0.000
1-30-P	60	100	9.24	912.00	9.39	378.88	0.000000	0.00	0.000
1-31-P	60	100	9.24	2479.13	7.44	-378.88	0.000000	0.00	0.000
1-32-P	60	100	9.24	2479.13	2.35	-378.88	0.000000	0.00	0.000
1-33-P	60	100	9.24	2479.13	-5.88	-378.88	0.000000	0.00	0.000
1-34-P	60	100	9.24	2479.13	-10.51	-378.88	0.000000	0.00	0.000
1-35-P	60	100	9.24	2479.13	-11.42	-378.88	0.000000	0.00	0.000
1-36-P	60	100	9.24	2479.13	-6.79	-378.88	0.000000	0.00	0.000
1-37-P	60	100	9.24	2479.13	1.26	-378.88	0.000000	0.00	0.000
1-38-P	60	100	9.24	2479.13	7.04	-378.88	0.000000	0.00	0.000
1-39-P	60	100	9.24	912.00	8.89	378.88	0.000000	0.00	0.000
1-40-P	60	100	9.24	912.00	8.31	378.88	0.000000	0.00	0.000
1-41-P	60	100	9.24	2479.13	6.13	-378.88	0.000000	0.00	0.000
1-42-P	60	100	9.24	2479.13	-2.53	-378.88	0.000000	0.00	0.000
1-43-P	60	100	9.24	2479.13	-9.40	-378.88	0.000000	0.00	0.000
1-44-P	60	100	9.24	2479.13	-14.88	-378.88	0.000000	0.00	0.000
1-45-P	60	100	9.24	2479.13	-13.37	-378.88	0.000000	0.00	0.000
1-46-P	60	100	9.24	2479.13	-9.51	-378.88	0.000000	0.00	0.000
1-47-P	60	100	9.24	2479.13	-3.32	-378.88	0.000000	0.00	0.000
1-48-P	60	100	9.24	2479.13	-0.78	-378.88	0.000000	0.00	0.000
1-49-P	60	100	9.24	2479.13	0.76	-378.88	0.000000	0.00	0.000
2-1-P	60	100	9.24	2479.13	2.36	-378.88	0.000000	0.00	0.000
2-2-P	60	100	9.24	912.00	3.15	378.88	0.000000	0.00	0.000
2-3-P	60	100	9.24	2479.13	4.13	-378.88	0.000000	0.00	0.000
2-4-P	60	100	9.24	2479.13	5.27	-378.88	0.000000	0.00	0.000
2-5-P	60	100	9.24	2479.13	-15.82	-378.88	0.000000	0.00	0.000
2-6-P	60	100	9.24	2479.13	-30.74	-378.88	0.000000	0.00	0.000
2-7-P	60	100	9.24	2479.13	-4.73	-378.88	0.000000	0.00	0.000
2-8-P	60	100	9.24	2479.13	7.46	-378.88	0.000000	0.00	0.000
2-9-P	60	100	9.24	912.00	7.77	378.88	0.000000	0.00	0.000
2-10-P	60	100	9.24	912.00	7.72	378.88	0.000000	0.00	0.000
2-11-P	60	100	9.24	912.00	7.75	378.88	0.000000	0.00	0.000
2-12-P	60	100	9.24	912.00	7.91	378.88	0.000000	0.00	0.000
2-13-P	60	100	9.24	2479.13	7.84	-378.88	0.000000	0.00	0.000
2-14-P	60	100	9.24	2479.13	2.94	-378.88	0.000000	0.00	0.000
2-15-P	60	100	9.24	2479.13	-24.50	-378.88	0.000000	0.00	0.000
2-16-P	60	100	9.24	2479.13	-19.33	-378.88	0.000000	0.00	0.000

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IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	75 di 91

Is	B [cm]	H [cm]	Af [cmq]	Aeff [cmq]	M [kNm]	Mpf [kNm]	ε [%]	Sm [mm]	w [mm]
2-17-P	60	100	9.24	2479.13	7.69	-378.88	0.000000	0.00	0.000
2-18-P	60	100	9.24	912.00	7.80	378.88	0.000000	0.00	0.000
2-19-P	60	100	9.24	912.00	7.80	378.88	0.000000	0.00	0.000
2-20-P	60	100	9.24	912.00	7.66	378.88	0.000000	0.00	0.000
2-21-P	60	100	9.24	912.00	7.73	378.88	0.000000	0.00	0.000
2-22-P	60	100	9.24	912.00	7.81	378.88	0.000000	0.00	0.000
2-23-P	60	100	9.24	2479.13	7.71	-378.88	0.000000	0.00	0.000
2-24-P	60	100	9.24	2479.13	-9.25	-378.88	0.000000	0.00	0.000
2-25-P	60	100	9.24	2479.13	-35.03	-378.88	0.000000	0.00	0.000
2-26-P	60	100	9.24	2479.13	-9.25	-378.88	0.000000	0.00	0.000
2-27-P	60	100	9.24	2479.13	7.71	-378.88	0.000000	0.00	0.000
2-28-P	60	100	9.24	912.00	7.81	378.88	0.000000	0.00	0.000
2-29-P	60	100	9.24	912.00	7.73	378.88	0.000000	0.00	0.000
2-30-P	60	100	9.24	912.00	7.66	378.88	0.000000	0.00	0.000
2-31-P	60	100	9.24	912.00	7.80	378.88	0.000000	0.00	0.000
2-32-P	60	100	9.24	912.00	7.80	378.88	0.000000	0.00	0.000
2-33-P	60	100	9.24	2479.13	7.69	-378.88	0.000000	0.00	0.000
2-34-P	60	100	9.24	2479.13	-19.33	-378.88	0.000000	0.00	0.000
2-35-P	60	100	9.24	2479.13	-24.50	-378.88	0.000000	0.00	0.000
2-36-P	60	100	9.24	2479.13	2.94	-378.88	0.000000	0.00	0.000
2-37-P	60	100	9.24	2479.13	7.84	-378.88	0.000000	0.00	0.000
2-38-P	60	100	9.24	912.00	7.91	378.88	0.000000	0.00	0.000
2-39-P	60	100	9.24	912.00	7.75	378.88	0.000000	0.00	0.000
2-40-P	60	100	9.24	912.00	7.72	378.88	0.000000	0.00	0.000
2-41-P	60	100	9.24	912.00	7.77	378.88	0.000000	0.00	0.000
2-42-P	60	100	9.24	2479.13	7.46	-378.88	0.000000	0.00	0.000
2-43-P	60	100	9.24	2479.13	-4.73	-378.88	0.000000	0.00	0.000
2-44-P	60	100	9.24	2479.13	-30.74	-378.88	0.000000	0.00	0.000
2-45-P	60	100	9.24	2479.13	-15.82	-378.88	0.000000	0.00	0.000
2-46-P	60	100	9.24	2479.13	5.27	-378.88	0.000000	0.00	0.000
2-47-P	60	100	9.24	2479.13	4.13	-378.88	0.000000	0.00	0.000
2-48-P	60	100	9.24	912.00	3.15	378.88	0.000000	0.00	0.000
2-49-P	60	100	9.24	2479.13	2.36	-378.88	0.000000	0.00	0.000
4-1-P	95	100	13.85	3942.77	2.75	-596.67	0.000000	0.00	0.000
4-2-P	95	100	13.85	3942.77	3.21	-596.67	0.000000	0.00	0.000
4-3-P	95	100	13.85	3942.77	-3.95	-596.67	0.000000	0.00	0.000
4-4-P	95	100	13.85	3942.77	-6.73	-596.67	0.000000	0.00	0.000
4-5-P	95	100	13.85	3942.77	-9.18	-596.67	0.000000	0.00	0.000
4-6-P	95	100	13.85	3942.77	-10.37	-596.67	0.000000	0.00	0.000
4-7-P	95	100	13.85	3942.77	-5.53	-596.67	0.000000	0.00	0.000
4-8-P	95	100	13.85	3942.77	2.71	-596.67	0.000000	0.00	0.000
4-9-P	95	100	13.85	1444.00	7.61	596.67	0.000000	0.00	0.000
4-10-P	95	100	13.85	1444.00	9.21	596.67	0.000000	0.00	0.000
4-11-P	95	100	13.85	1444.00	9.73	596.67	0.000000	0.00	0.000
4-12-P	95	100	13.85	1444.00	8.65	596.67	0.000000	0.00	0.000
4-13-P	95	100	13.85	3942.77	4.39	-596.67	0.000000	0.00	0.000
4-14-P	95	100	13.85	3942.77	-3.23	-596.67	0.000000	0.00	0.000
4-15-P	95	100	13.85	3942.77	-6.91	-596.67	0.000000	0.00	0.000
4-16-P	95	100	13.85	3942.77	-6.13	-596.67	0.000000	0.00	0.000
4-17-P	95	100	13.85	3942.77	-2.92	-596.67	0.000000	0.00	0.000
4-18-P	95	100	13.85	3942.77	5.32	-596.67	0.000000	0.00	0.000
4-19-P	95	100	13.85	1444.00	9.08	596.67	0.000000	0.00	0.000
4-20-P	95	100	13.85	1444.00	10.32	596.67	0.000000	0.00	0.000
4-21-P	95	100	13.85	1444.00	9.55	596.67	0.000000	0.00	0.000
4-22-P	95	100	13.85	1444.00	7.41	596.67	0.000000	0.00	0.000
4-23-P	95	100	13.85	3942.77	3.21	-596.67	0.000000	0.00	0.000
4-24-P	95	100	13.85	3942.77	-4.64	-596.67	0.000000	0.00	0.000
4-25-P	95	100	13.85	3942.77	-8.61	-596.67	0.000000	0.00	0.000
4-26-P	95	100	13.85	3942.77	-4.64	-596.67	0.000000	0.00	0.000
4-27-P	95	100	13.85	3942.77	3.21	-596.67	0.000000	0.00	0.000
4-28-P	95	100	13.85	1444.00	7.41	596.67	0.000000	0.00	0.000
4-29-P	95	100	13.85	1444.00	9.55	596.67	0.000000	0.00	0.000
4-30-P	95	100	13.85	1444.00	10.32	596.67	0.000000	0.00	0.000
4-31-P	95	100	13.85	1444.00	9.08	596.67	0.000000	0.00	0.000
4-32-P	95	100	13.85	3942.77	5.32	-596.67	0.000000	0.00	0.000
4-33-P	95	100	13.85	3942.77	-2.92	-596.67	0.000000	0.00	0.000
4-34-P	95	100	13.85	3942.77	-6.13	-596.67	0.000000	0.00	0.000
4-35-P	95	100	13.85	3942.77	-6.91	-596.67	0.000000	0.00	0.000
4-36-P	95	100	13.85	3942.77	-3.23	-596.67	0.000000	0.00	0.000
4-37-P	95	100	13.85	3942.77	4.39	-596.67	0.000000	0.00	0.000
4-38-P	95	100	13.85	1444.00	8.65	596.67	0.000000	0.00	0.000
4-39-P	95	100	13.85	1444.00	9.73	596.67	0.000000	0.00	0.000
4-40-P	95	100	13.85	1444.00	9.21	596.67	0.000000	0.00	0.000
4-41-P	95	100	13.85	1444.00	7.61	596.67	0.000000	0.00	0.000
4-42-P	95	100	13.85	3942.77	2.71	-596.67	0.000000	0.00	0.000
4-43-P	95	100	13.85	3942.77	-5.53	-596.67	0.000000	0.00	0.000
4-44-P	95	100	13.85	3942.77	-10.37	-596.67	0.000000	0.00	0.000
4-45-P	95	100	13.85	3942.77	-9.18	-596.67	0.000000	0.00	0.000
4-46-P	95	100	13.85	3942.77	-6.73	-596.67	0.000000	0.00	0.000
4-47-P	95	100	13.85	3942.77	-3.95	-596.67	0.000000	0.00	0.000
4-48-P	95	100	13.85	3942.77	3.21	-596.67	0.000000	0.00	0.000

APPALTATORE:

TELESE S.c.a r.l.

Consorzio Telese Società Consortile a Responsabilità Limitata

PROGETTAZIONE:

Mandatario:

Mandante:

SYSTRA S.A.

SWS Engineering S.p.A.

SYSTRA-SOTECNI S.p.A.

ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA

LOTTO

CODIFICA

DOCUMENTO

REV.

FOGLIO

IF2R

2.2.E.ZZ

CL

TR.16.0.5.009

A

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Is	B [cm]	H [cm]	Af [cmq]	Aeff [cmq]	M [kNm]	Mpf [kNm]	ε [%]	Sm [mm]	w [mm]
4-49-P	95	100	13.85	3942.77	2.75	-596.67	0.000000	0.00	0.000
5-1-P	95	100	13.85	3942.77	0.79	-596.67	0.000000	0.00	0.000
5-2-P	95	100	13.85	3942.77	-1.75	-596.67	0.000000	0.00	0.000
5-3-P	95	100	13.85	3942.77	-5.39	-596.67	0.000000	0.00	0.000
5-4-P	95	100	13.85	3942.77	-11.77	-596.67	0.000000	0.00	0.000
5-5-P	95	100	13.85	3942.77	-28.04	-596.67	0.000000	0.00	0.000
5-6-P	95	100	13.85	3942.77	-38.94	-596.67	0.000000	0.00	0.000
5-7-P	95	100	13.85	3942.77	-16.58	-596.67	0.000000	0.00	0.000
5-8-P	95	100	13.85	3942.77	-3.60	-596.67	0.000000	0.00	0.000
5-9-P	95	100	13.85	3942.77	7.05	-596.67	0.000000	0.00	0.000
5-10-P	95	100	13.85	1444.00	10.73	596.67	0.000000	0.00	0.000
5-11-P	95	100	13.85	1444.00	11.92	596.67	0.000000	0.00	0.000
5-12-P	95	100	13.85	3942.77	9.38	-596.67	0.000000	0.00	0.000
5-13-P	95	100	13.85	3942.77	3.02	-596.67	0.000000	0.00	0.000
5-14-P	95	100	13.85	3942.77	-7.93	-596.67	0.000000	0.00	0.000
5-15-P	95	100	13.85	3942.77	-28.75	-596.67	0.000000	0.00	0.000
5-16-P	95	100	13.85	3942.77	-24.45	-596.67	0.000000	0.00	0.000
5-17-P	95	100	13.85	3942.77	-5.21	-596.67	0.000000	0.00	0.000
5-18-P	95	100	13.85	3942.77	4.86	-596.67	0.000000	0.00	0.000
5-19-P	95	100	13.85	1444.00	10.92	596.67	0.000000	0.00	0.000
5-20-P	95	100	13.85	1444.00	13.91	596.67	0.000000	0.00	0.000
5-21-P	95	100	13.85	1444.00	12.11	596.67	0.000000	0.00	0.000
5-22-P	95	100	13.85	3942.77	8.09	-596.67	0.000000	0.00	0.000
5-23-P	95	100	13.85	3942.77	-2.48	-596.67	0.000000	0.00	0.000
5-24-P	95	100	13.85	3942.77	-15.94	-596.67	0.000000	0.00	0.000
5-25-P	95	100	13.85	3942.77	-36.92	-596.67	0.000000	0.00	0.000
5-26-P	95	100	13.85	3942.77	-15.94	-596.67	0.000000	0.00	0.000
5-27-P	95	100	13.85	3942.77	-2.48	-596.67	0.000000	0.00	0.000
5-28-P	95	100	13.85	3942.77	8.09	-596.67	0.000000	0.00	0.000
5-29-P	95	100	13.85	1444.00	12.11	596.67	0.000000	0.00	0.000
5-30-P	95	100	13.85	1444.00	13.91	596.67	0.000000	0.00	0.000
5-31-P	95	100	13.85	1444.00	10.92	596.67	0.000000	0.00	0.000
5-32-P	95	100	13.85	3942.77	4.86	-596.67	0.000000	0.00	0.000
5-33-P	95	100	13.85	3942.77	-5.21	-596.67	0.000000	0.00	0.000
5-34-P	95	100	13.85	3942.77	-24.45	-596.67	0.000000	0.00	0.000
5-35-P	95	100	13.85	3942.77	-28.75	-596.67	0.000000	0.00	0.000
5-36-P	95	100	13.85	3942.77	-7.93	-596.67	0.000000	0.00	0.000
5-37-P	95	100	13.85	3942.77	3.02	-596.67	0.000000	0.00	0.000
5-38-P	95	100	13.85	3942.77	9.38	-596.67	0.000000	0.00	0.000
5-39-P	95	100	13.85	1444.00	11.92	596.67	0.000000	0.00	0.000
5-40-P	95	100	13.85	1444.00	10.73	596.67	0.000000	0.00	0.000
5-41-P	95	100	13.85	3942.77	7.05	-596.67	0.000000	0.00	0.000
5-42-P	95	100	13.85	3942.77	-3.60	-596.67	0.000000	0.00	0.000
5-43-P	95	100	13.85	3942.77	-16.58	-596.67	0.000000	0.00	0.000
5-44-P	95	100	13.85	3942.77	-38.94	-596.67	0.000000	0.00	0.000
5-45-P	95	100	13.85	3942.77	-28.04	-596.67	0.000000	0.00	0.000
5-46-P	95	100	13.85	3942.77	-11.77	-596.67	0.000000	0.00	0.000
5-47-P	95	100	13.85	3942.77	-5.39	-596.67	0.000000	0.00	0.000
5-48-P	95	100	13.85	3942.77	-1.75	-596.67	0.000000	0.00	0.000
5-49-P	95	100	13.85	3942.77	0.79	-596.67	0.000000	0.00	0.000
6-1-S	100	100	15.39	4131.88	-1.69	-631.47	0.000000	0.00	0.000
6-2-S	100	100	15.39	4131.88	-3.63	-631.47	0.000000	0.00	0.000
6-3-S	100	100	15.39	4131.88	-5.16	-631.47	0.000000	0.00	0.000
6-4-S	100	100	15.39	4131.88	-5.38	-631.47	0.000000	0.00	0.000
6-5-S	100	100	15.39	4131.88	9.72	-631.47	0.000000	0.00	0.000
6-6-S	100	100	15.39	4131.88	26.21	-631.47	0.000000	0.00	0.000
6-7-S	100	100	15.39	4131.88	10.89	-631.47	0.000000	0.00	0.000
6-8-S	100	100	15.39	4131.88	11.44	-631.47	0.000000	0.00	0.000
6-9-S	100	100	15.39	4131.88	9.76	-631.47	0.000000	0.00	0.000
6-10-S	100	100	15.39	4131.88	5.34	-631.47	0.000000	0.00	0.000
6-11-S	100	100	15.39	4131.88	-4.85	-631.47	0.000000	0.00	0.000
6-12-S	100	100	15.39	4131.88	-6.43	-631.47	0.000000	0.00	0.000
6-13-S	100	100	15.39	4131.88	-4.68	-631.47	0.000000	0.00	0.000
6-14-S	100	100	15.39	4131.88	-2.52	-631.47	0.000000	0.00	0.000
6-15-S	100	100	15.39	4131.88	-0.42	-631.47	0.000000	0.00	0.000
7-1-S	100	100	15.39	4131.88	2.80	-631.47	0.000000	0.00	0.000
7-2-S	100	100	15.39	4131.88	3.79	-631.47	0.000000	0.00	0.000
7-3-S	100	100	15.39	4131.88	-7.06	-631.47	0.000000	0.00	0.000
7-4-S	100	100	15.39	4131.88	-28.49	-631.47	0.000000	0.00	0.000
7-5-S	100	100	15.39	4131.88	-8.46	-631.47	0.000000	0.00	0.000
7-6-S	100	100	15.39	1520.00	46.30	631.47	0.000000	0.00	0.000
7-7-S	100	100	15.39	1520.00	22.39	631.47	0.000000	0.00	0.000
7-8-S	100	100	15.39	1520.00	20.10	631.47	0.000000	0.00	0.000
7-9-S	100	100	15.39	4131.88	16.16	-631.47	0.000000	0.00	0.000
7-10-S	100	100	15.39	4131.88	10.67	-631.47	0.000000	0.00	0.000
7-11-S	100	100	15.39	4131.88	-14.67	-631.47	0.000000	0.00	0.000
7-12-S	100	100	15.39	4131.88	-25.64	-631.47	0.000000	0.00	0.000
7-13-S	100	100	15.39	4131.88	-11.95	-631.47	0.000000	0.00	0.000
7-14-S	100	100	15.39	4131.88	-4.39	-631.47	0.000000	0.00	0.000
7-15-S	100	100	15.39	4131.88	0.62	-631.47	0.000000	0.00	0.000
8-1-S	100	100	15.39	4131.88	-2.41	-631.47	0.000000	0.00	0.000

APPALTATORE:



**ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO
PROGETTO ESECUTIVO**

PROGETTAZIONE:

Mandataria: SYSTRA S.A. Mandante: SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

Relazione di calcolo
IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA LOTTO CODIFICA DOCUMENTO REV. FOGLIO
IF2R 2.2.E.ZZ CL TR.16.0.5.009 A 77 di 91

Is	B [cm]	H [cm]	Af [cmq]	Aeff [cmq]	M [kNm]	Mpf [kNm]	ε [%]	Sm [mm]	w [mm]
8-2-S	100	100	15.39	4131.88	-1.56	-631.47	0.000000	0.00	0.000
8-3-S	100	100	15.39	4131.88	2.21	-631.47	0.000000	0.00	0.000
8-4-S	100	100	15.39	1520.00	7.83	631.47	0.000000	0.00	0.000
8-5-S	100	100	15.39	1520.00	14.77	631.47	0.000000	0.00	0.000
8-6-S	100	100	15.39	1520.00	22.06	631.47	0.000000	0.00	0.000
8-7-S	100	100	15.39	1520.00	12.73	631.47	0.000000	0.00	0.000
8-8-S	100	100	15.39	1520.00	13.25	631.47	0.000000	0.00	0.000
8-9-S	100	100	15.39	1520.00	11.79	631.47	0.000000	0.00	0.000
8-10-S	100	100	15.39	1520.00	7.98	631.47	0.000000	0.00	0.000
8-11-S	100	100	15.39	1520.00	4.36	631.47	0.000000	0.00	0.000
8-12-S	100	100	15.39	4131.88	1.76	-631.47	0.000000	0.00	0.000
8-13-S	100	100	15.39	4131.88	-0.59	-631.47	0.000000	0.00	0.000
8-14-S	100	100	15.39	4131.88	-0.84	-631.47	0.000000	0.00	0.000
8-15-S	100	100	15.39	4131.88	-0.99	-631.47	0.000000	0.00	0.000
9-1-S	100	100	15.39	4131.88	3.64	-631.47	0.000000	0.00	0.000
9-2-S	100	100	15.39	4131.88	3.85	-631.47	0.000000	0.00	0.000
9-3-S	100	100	15.39	4131.88	-8.51	-631.47	0.000000	0.00	0.000
9-4-S	100	100	15.39	4131.88	-33.06	-631.47	0.000000	0.00	0.000
9-5-S	100	100	15.39	4131.88	-8.67	-631.47	0.000000	0.00	0.000
9-6-S	100	100	15.39	1520.00	48.71	631.47	0.000000	0.00	0.000
9-7-S	100	100	15.39	1520.00	24.14	631.47	0.000000	0.00	0.000
9-8-S	100	100	15.39	1520.00	22.14	631.47	0.000000	0.00	0.000
9-9-S	100	100	15.39	4131.88	17.98	-631.47	0.000000	0.00	0.000
9-10-S	100	100	15.39	4131.88	11.96	-631.47	0.000000	0.00	0.000
9-11-S	100	100	15.39	4131.88	-16.56	-631.47	0.000000	0.00	0.000
9-12-S	100	100	15.39	4131.88	-29.08	-631.47	0.000000	0.00	0.000
9-13-S	100	100	15.39	4131.88	-13.46	-631.47	0.000000	0.00	0.000
9-14-S	100	100	15.39	4131.88	-4.69	-631.47	0.000000	0.00	0.000
9-15-S	100	100	15.39	4131.88	1.01	-631.47	0.000000	0.00	0.000
10-1-S	100	100	15.39	4131.88	-2.06	-631.47	0.000000	0.00	0.000
10-2-S	100	100	15.39	4131.88	-2.84	-631.47	0.000000	0.00	0.000
10-3-S	100	100	15.39	4131.88	-2.63	-631.47	0.000000	0.00	0.000
10-4-S	100	100	15.39	4131.88	5.90	-631.47	0.000000	0.00	0.000
10-5-S	100	100	15.39	1520.00	13.87	631.47	0.000000	0.00	0.000
10-6-S	100	100	15.39	1520.00	23.22	631.47	0.000000	0.00	0.000
10-7-S	100	100	15.39	1520.00	12.75	631.47	0.000000	0.00	0.000
10-8-S	100	100	15.39	1520.00	13.37	631.47	0.000000	0.00	0.000
10-9-S	100	100	15.39	4131.88	11.39	-631.47	0.000000	0.00	0.000
10-10-S	100	100	15.39	4131.88	6.81	-631.47	0.000000	0.00	0.000
10-11-S	100	100	15.39	4131.88	3.74	-631.47	0.000000	0.00	0.000
10-12-S	100	100	15.39	4131.88	1.63	-631.47	0.000000	0.00	0.000
10-13-S	100	100	15.39	4131.88	-1.97	-631.47	0.000000	0.00	0.000
10-14-S	100	100	15.39	4131.88	-1.46	-631.47	0.000000	0.00	0.000
10-15-S	100	100	15.39	4131.88	-0.66	-631.47	0.000000	0.00	0.000
11-1-S	100	100	15.39	4131.88	2.02	-631.47	0.000000	0.00	0.000
11-2-S	100	100	15.39	4131.88	-3.52	-631.47	0.000000	0.00	0.000
11-3-S	100	100	15.39	4131.88	-5.96	-631.47	0.000000	0.00	0.000
11-4-S	100	100	15.39	4131.88	-16.80	-631.47	0.000000	0.00	0.000
11-5-S	100	100	15.39	4131.88	8.58	-631.47	0.000000	0.00	0.000
11-6-S	100	100	15.39	1520.00	36.50	631.47	0.000000	0.00	0.000
11-7-S	100	100	15.39	1520.00	18.46	631.47	0.000000	0.00	0.000
11-8-S	100	100	15.39	1520.00	17.54	631.47	0.000000	0.00	0.000
11-9-S	100	100	15.39	4131.88	14.23	-631.47	0.000000	0.00	0.000
11-10-S	100	100	15.39	4131.88	8.72	-631.47	0.000000	0.00	0.000
11-11-S	100	100	15.39	4131.88	-8.91	-631.47	0.000000	0.00	0.000
11-12-S	100	100	15.39	4131.88	-15.54	-631.47	0.000000	0.00	0.000
11-13-S	100	100	15.39	4131.88	-8.02	-631.47	0.000000	0.00	0.000
11-14-S	100	100	15.39	4131.88	-3.40	-631.47	0.000000	0.00	0.000
11-15-S	100	100	15.39	4131.88	0.60	-631.47	0.000000	0.00	0.000
12-1-S	100	100	15.39	4131.88	2.02	-631.47	0.000000	0.00	0.000
12-2-S	100	100	15.39	4131.88	-3.52	-631.47	0.000000	0.00	0.000
12-3-S	100	100	15.39	4131.88	-5.96	-631.47	0.000000	0.00	0.000
12-4-S	100	100	15.39	4131.88	-16.80	-631.47	0.000000	0.00	0.000
12-5-S	100	100	15.39	4131.88	8.58	-631.47	0.000000	0.00	0.000
12-6-S	100	100	15.39	1520.00	36.50	631.47	0.000000	0.00	0.000
12-7-S	100	100	15.39	1520.00	18.46	631.47	0.000000	0.00	0.000
12-8-S	100	100	15.39	1520.00	17.54	631.47	0.000000	0.00	0.000
12-9-S	100	100	15.39	4131.88	14.23	-631.47	0.000000	0.00	0.000
12-10-S	100	100	15.39	4131.88	8.72	-631.47	0.000000	0.00	0.000
12-11-S	100	100	15.39	4131.88	-8.91	-631.47	0.000000	0.00	0.000
12-12-S	100	100	15.39	4131.88	-15.54	-631.47	0.000000	0.00	0.000
12-13-S	100	100	15.39	4131.88	-8.02	-631.47	0.000000	0.00	0.000
12-14-S	100	100	15.39	4131.88	-3.40	-631.47	0.000000	0.00	0.000
12-15-S	100	100	15.39	4131.88	0.60	-631.47	0.000000	0.00	0.000
13-1-S	100	100	15.39	4131.88	-2.06	-631.47	0.000000	0.00	0.000
13-2-S	100	100	15.39	4131.88	-2.84	-631.47	0.000000	0.00	0.000
13-3-S	100	100	15.39	4131.88	-2.63	-631.47	0.000000	0.00	0.000
13-4-S	100	100	15.39	4131.88	5.90	-631.47	0.000000	0.00	0.000
13-5-S	100	100	15.39	1520.00	13.87	631.47	0.000000	0.00	0.000
13-6-S	100	100	15.39	1520.00	23.22	631.47	0.000000	0.00	0.000
13-7-S	100	100	15.39	1520.00	12.75	631.47	0.000000	0.00	0.000

APPALTATORE:

TELESE S.c.a r.l.

Consorzio Telese Società Consortile a Responsabilità Limitata

ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	78 di 91

Is	B [cm]	H [cm]	Af [cmq]	Aeff [cmq]	M [kNm]	Mpf [kNm]	ε [%]	Sm [mm]	w [mm]
13-8-S	100	100	15.39	1520.00	13.37	631.47	0.000000	0.00	0.000
13-9-S	100	100	15.39	4131.88	11.39	-631.47	0.000000	0.00	0.000
13-10-S	100	100	15.39	4131.88	6.81	-631.47	0.000000	0.00	0.000
13-11-S	100	100	15.39	4131.88	3.74	-631.47	0.000000	0.00	0.000
13-12-S	100	100	15.39	4131.88	1.63	-631.47	0.000000	0.00	0.000
13-13-S	100	100	15.39	4131.88	-1.97	-631.47	0.000000	0.00	0.000
13-14-S	100	100	15.39	4131.88	-1.46	-631.47	0.000000	0.00	0.000
13-15-S	100	100	15.39	4131.88	-0.66	-631.47	0.000000	0.00	0.000
14-1-S	100	100	15.39	4131.88	3.64	-631.47	0.000000	0.00	0.000
14-2-S	100	100	15.39	4131.88	3.85	-631.47	0.000000	0.00	0.000
14-3-S	100	100	15.39	4131.88	-8.51	-631.47	0.000000	0.00	0.000
14-4-S	100	100	15.39	4131.88	-33.06	-631.47	0.000000	0.00	0.000
14-5-S	100	100	15.39	4131.88	-8.67	-631.47	0.000000	0.00	0.000
14-6-S	100	100	15.39	1520.00	48.71	631.47	0.000000	0.00	0.000
14-7-S	100	100	15.39	1520.00	24.14	631.47	0.000000	0.00	0.000
14-8-S	100	100	15.39	1520.00	22.14	631.47	0.000000	0.00	0.000
14-9-S	100	100	15.39	4131.88	17.98	-631.47	0.000000	0.00	0.000
14-10-S	100	100	15.39	4131.88	11.96	-631.47	0.000000	0.00	0.000
14-11-S	100	100	15.39	4131.88	-16.56	-631.47	0.000000	0.00	0.000
14-12-S	100	100	15.39	4131.88	-29.08	-631.47	0.000000	0.00	0.000
14-13-S	100	100	15.39	4131.88	-13.46	-631.47	0.000000	0.00	0.000
14-14-S	100	100	15.39	4131.88	-4.69	-631.47	0.000000	0.00	0.000
14-15-S	100	100	15.39	4131.88	1.01	-631.47	0.000000	0.00	0.000
15-1-S	100	100	15.39	4131.88	-2.41	-631.47	0.000000	0.00	0.000
15-2-S	100	100	15.39	4131.88	-1.56	-631.47	0.000000	0.00	0.000
15-3-S	100	100	15.39	4131.88	2.21	-631.47	0.000000	0.00	0.000
15-4-S	100	100	15.39	1520.00	7.83	631.47	0.000000	0.00	0.000
15-5-S	100	100	15.39	1520.00	14.77	631.47	0.000000	0.00	0.000
15-6-S	100	100	15.39	1520.00	22.06	631.47	0.000000	0.00	0.000
15-7-S	100	100	15.39	1520.00	12.73	631.47	0.000000	0.00	0.000
15-8-S	100	100	15.39	1520.00	13.25	631.47	0.000000	0.00	0.000
15-9-S	100	100	15.39	1520.00	11.79	631.47	0.000000	0.00	0.000
15-10-S	100	100	15.39	1520.00	7.98	631.47	0.000000	0.00	0.000
15-11-S	100	100	15.39	1520.00	4.36	631.47	0.000000	0.00	0.000
15-12-S	100	100	15.39	4131.88	1.76	-631.47	0.000000	0.00	0.000
15-13-S	100	100	15.39	4131.88	-0.59	-631.47	0.000000	0.00	0.000
15-14-S	100	100	15.39	4131.88	-0.84	-631.47	0.000000	0.00	0.000
15-15-S	100	100	15.39	4131.88	-0.99	-631.47	0.000000	0.00	0.000
16-1-S	100	100	15.39	4131.88	2.80	-631.47	0.000000	0.00	0.000
16-2-S	100	100	15.39	4131.88	3.79	-631.47	0.000000	0.00	0.000
16-3-S	100	100	15.39	4131.88	-7.06	-631.47	0.000000	0.00	0.000
16-4-S	100	100	15.39	4131.88	-28.49	-631.47	0.000000	0.00	0.000
16-5-S	100	100	15.39	4131.88	-8.46	-631.47	0.000000	0.00	0.000
16-6-S	100	100	15.39	1520.00	46.30	631.47	0.000000	0.00	0.000
16-7-S	100	100	15.39	1520.00	22.39	631.47	0.000000	0.00	0.000
16-8-S	100	100	15.39	1520.00	20.10	631.47	0.000000	0.00	0.000
16-9-S	100	100	15.39	4131.88	16.16	-631.47	0.000000	0.00	0.000
16-10-S	100	100	15.39	4131.88	10.67	-631.47	0.000000	0.00	0.000
16-11-S	100	100	15.39	4131.88	-14.67	-631.47	0.000000	0.00	0.000
16-12-S	100	100	15.39	4131.88	-25.64	-631.47	0.000000	0.00	0.000
16-13-S	100	100	15.39	4131.88	-11.95	-631.47	0.000000	0.00	0.000
16-14-S	100	100	15.39	4131.88	-4.39	-631.47	0.000000	0.00	0.000
16-15-S	100	100	15.39	4131.88	0.62	-631.47	0.000000	0.00	0.000
17-1-S	100	100	15.39	4131.88	-1.69	-631.47	0.000000	0.00	0.000
17-2-S	100	100	15.39	4131.88	-3.63	-631.47	0.000000	0.00	0.000
17-3-S	100	100	15.39	4131.88	-5.16	-631.47	0.000000	0.00	0.000
17-4-S	100	100	15.39	4131.88	-5.38	-631.47	0.000000	0.00	0.000
17-5-S	100	100	15.39	4131.88	9.72	-631.47	0.000000	0.00	0.000
17-6-S	100	100	15.39	4131.88	26.21	-631.47	0.000000	0.00	0.000
17-7-S	100	100	15.39	4131.88	10.89	-631.47	0.000000	0.00	0.000
17-8-S	100	100	15.39	4131.88	11.44	-631.47	0.000000	0.00	0.000
17-9-S	100	100	15.39	4131.88	9.76	-631.47	0.000000	0.00	0.000
17-10-S	100	100	15.39	4131.88	5.34	-631.47	0.000000	0.00	0.000
17-11-S	100	100	15.39	4131.88	-4.85	-631.47	0.000000	0.00	0.000
17-12-S	100	100	15.39	4131.88	-6.43	-631.47	0.000000	0.00	0.000
17-13-S	100	100	15.39	4131.88	-4.68	-631.47	0.000000	0.00	0.000
17-14-S	100	100	15.39	4131.88	-2.52	-631.47	0.000000	0.00	0.000
17-15-S	100	100	15.39	4131.88	-0.42	-631.47	0.000000	0.00	0.000

Pali in c.a.

Apertura limite fessure $w_{lim}=0.200$ mm

Ip	Is	Af [cmq]	Aeff [cmq]	Mpf [kNm]	M [kNm]	N [kN]	ε [%]	Sm [mm]	wm [mm]
1	1	27.99	4591.11	201.91	-29.17	226.46	0.000000	0.00	0.00
2	1	34.56	3617.50	226.82	-29.17	401.64	0.000000	0.00	0.00

APPALTATORE: TELESE S.c.a r.l. Consorzio Telese Società Consortile a Responsabilità Limitata	ITINERARIO NAPOLI – BARI RADDOPPIO TRATTA CANCELLO-BENEVENTO II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO 2° SUBLOTTO TELESE – SAN LORENZO PROGETTO ESECUTIVO					
PROGETTAZIONE: Mandatario: SYSTRA S.A. Mandante: SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.						
Relazione di calcolo IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX	COMMESSA IF2R	LOTTO 2.2.E.ZZ	CODIFICA CL	DOCUMENTO TR.16.0.5.009	REV. A	FOGLIO 79 di 91

Combinazioni SLEF

Paramento

Apertura limite fessure $w_{lim}=0.30$

n°	B [cm]	H [cm]	Af [cmq]	Aeff [cmq]	M [kNm]	Mpf [kNm]	ε [%]	Sm [mm]	w [mm]
1	100	70	0.00	0.00	0.00	0.00	0.000025	---	0.000 (6)
2	100	70	0.00	0.00	0.00	0.00	0.000034	---	0.000 (6)
3	100	70	0.00	0.00	0.00	0.00	0.000042	---	0.000 (6)
4	100	70	0.00	0.00	0.00	0.00	0.000051	---	0.000 (6)
5	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (6)
6	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (6)
7	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (6)
8	100	70	0.00	0.00	0.00	0.00	0.000085	---	0.000 (6)
9	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (6)
10	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (6)
11	100	70	0.00	0.00	0.00	0.00	0.000111	---	0.000 (6)
12	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (6)
13	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (6)
14	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (6)
15	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (6)
16	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (6)
17	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (6)
18	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (6)
19	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (6)
20	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (6)
21	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (6)
22	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (6)
23	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (6)
24	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (6)
25	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (6)
26	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (6)
27	100	90	7.70	1520.00	4.41	538.04	0.000000	0.00	0.000 (6)
28	100	90	7.70	1520.00	4.41	538.38	0.000000	0.00	0.000 (6)
29	100	90	7.70	1520.00	4.41	538.72	0.000000	0.00	0.000 (6)
30	100	90	7.70	1520.00	4.41	539.05	0.000000	0.00	0.000 (6)
31	100	90	7.70	1520.00	4.41	539.40	0.000000	0.00	0.000 (6)
32	100	90	7.70	1520.00	4.41	539.72	0.000000	0.00	0.000 (6)
33	100	90	7.70	1520.00	4.42	540.08	0.000000	0.00	0.000 (6)
34	100	90	7.70	1520.00	4.46	540.41	0.000000	0.00	0.000 (6)
35	100	90	7.70	1520.00	4.54	540.74	0.000000	0.00	0.000 (6)
36	100	90	7.70	1520.00	4.67	541.10	0.000000	0.00	0.000 (6)
37	100	90	7.70	1520.00	4.85	541.43	0.000000	0.00	0.000 (6)
38	100	90	7.70	1520.00	5.09	541.77	0.000000	0.00	0.000 (6)
39	100	90	7.70	1520.00	5.40	542.11	0.000000	0.00	0.000 (6)
40	100	90	7.70	1520.00	5.77	542.44	0.000000	0.00	0.000 (6)
41	100	90	7.70	1520.00	6.21	542.79	0.000000	0.00	0.000 (6)
42	100	90	7.70	1520.00	6.73	543.12	0.000000	0.00	0.000 (6)
43	100	90	7.70	1520.00	7.34	543.46	0.000000	0.00	0.000 (6)
44	100	90	7.70	1520.00	8.03	543.80	0.000000	0.00	0.000 (6)
45	100	90	7.70	1520.00	8.81	544.13	0.000000	0.00	0.000 (6)
46	100	90	7.70	1520.00	8.83	544.14	0.000000	0.00	0.000 (6)
47	100	90	7.70	1520.00	9.71	544.49	0.000000	0.00	0.000 (6)
48	100	90	7.70	1520.00	10.69	544.82	0.000000	0.00	0.000 (6)

Piastra fondazione

Apertura limite fessure $w_{lim}=0.30$

Is	B [cm]	H [cm]	Af [cmq]	Aeff [cmq]	M [kNm]	Mpf [kNm]	ε [%]	Sm [mm]	w [mm]
1-1-P	60	100	9.24	2479.13	0.71	-378.88	0.000000	0.00	0.000
1-2-P	60	100	9.24	2479.13	-0.66	-378.88	0.000000	0.00	0.000
1-3-P	60	100	9.24	2479.13	-2.95	-378.88	0.000000	0.00	0.000
1-4-P	60	100	9.24	2479.13	-8.66	-378.88	0.000000	0.00	0.000
1-5-P	60	100	9.24	2479.13	-11.93	-378.88	0.000000	0.00	0.000
1-6-P	60	100	9.24	2479.13	-13.12	-378.88	0.000000	0.00	0.000
1-7-P	60	100	9.24	2479.13	-8.53	-378.88	0.000000	0.00	0.000
1-8-P	60	100	9.24	2479.13	-2.41	-378.88	0.000000	0.00	0.000
1-9-P	60	100	9.24	2479.13	5.51	-378.88	0.000000	0.00	0.000
1-10-P	60	100	9.24	912.00	7.39	378.88	0.000000	0.00	0.000
1-11-P	60	100	9.24	912.00	7.90	378.88	0.000000	0.00	0.000
1-12-P	60	100	9.24	2479.13	6.30	-378.88	0.000000	0.00	0.000
1-13-P	60	100	9.24	2479.13	1.14	-378.88	0.000000	0.00	0.000

APPALTATORE:

TELESE S.c.a r.l.

Consorzio Telese Società Consortile a Responsabilità Limitata

**ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO**

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	80 di 91

Is	B [cm]	H [cm]	Af [cmq]	Aeff [cmq]	M [kNm]	Mpf [kNm]	ε [%]	Sm [mm]	w [mm]
1-14-P	60	100	9.24	2479.13	-6.29	-378.88	0.000000	0.00	0.000
1-15-P	60	100	9.24	2479.13	-10.13	-378.88	0.000000	0.00	0.000
1-16-P	60	100	9.24	2479.13	-9.39	-378.88	0.000000	0.00	0.000
1-17-P	60	100	9.24	2479.13	-5.53	-378.88	0.000000	0.00	0.000
1-18-P	60	100	9.24	2479.13	2.10	-378.88	0.000000	0.00	0.000
1-19-P	60	100	9.24	2479.13	6.64	-378.88	0.000000	0.00	0.000
1-20-P	60	100	9.24	912.00	8.33	378.88	0.000000	0.00	0.000
1-21-P	60	100	9.24	2479.13	7.30	-378.88	0.000000	0.00	0.000
1-22-P	60	100	9.24	2479.13	4.58	-378.88	0.000000	0.00	0.000
1-23-P	60	100	9.24	2479.13	-2.95	-378.88	0.000000	0.00	0.000
1-24-P	60	100	9.24	2479.13	-7.93	-378.88	0.000000	0.00	0.000
1-25-P	60	100	9.24	2479.13	-11.91	-378.88	0.000000	0.00	0.000
1-26-P	60	100	9.24	2479.13	-7.93	-378.88	0.000000	0.00	0.000
1-27-P	60	100	9.24	2479.13	-2.95	-378.88	0.000000	0.00	0.000
1-28-P	60	100	9.24	2479.13	4.58	-378.88	0.000000	0.00	0.000
1-29-P	60	100	9.24	2479.13	7.30	-378.88	0.000000	0.00	0.000
1-30-P	60	100	9.24	912.00	8.33	378.88	0.000000	0.00	0.000
1-31-P	60	100	9.24	2479.13	6.64	-378.88	0.000000	0.00	0.000
1-32-P	60	100	9.24	2479.13	2.10	-378.88	0.000000	0.00	0.000
1-33-P	60	100	9.24	2479.13	-5.53	-378.88	0.000000	0.00	0.000
1-34-P	60	100	9.24	2479.13	-9.39	-378.88	0.000000	0.00	0.000
1-35-P	60	100	9.24	2479.13	-10.13	-378.88	0.000000	0.00	0.000
1-36-P	60	100	9.24	2479.13	-6.29	-378.88	0.000000	0.00	0.000
1-37-P	60	100	9.24	2479.13	1.14	-378.88	0.000000	0.00	0.000
1-38-P	60	100	9.24	2479.13	6.30	-378.88	0.000000	0.00	0.000
1-39-P	60	100	9.24	912.00	7.90	378.88	0.000000	0.00	0.000
1-40-P	60	100	9.24	912.00	7.39	378.88	0.000000	0.00	0.000
1-41-P	60	100	9.24	2479.13	5.51	-378.88	0.000000	0.00	0.000
1-42-P	60	100	9.24	2479.13	-2.41	-378.88	0.000000	0.00	0.000
1-43-P	60	100	9.24	2479.13	-8.53	-378.88	0.000000	0.00	0.000
1-44-P	60	100	9.24	2479.13	-13.12	-378.88	0.000000	0.00	0.000
1-45-P	60	100	9.24	2479.13	-11.93	-378.88	0.000000	0.00	0.000
1-46-P	60	100	9.24	2479.13	-8.66	-378.88	0.000000	0.00	0.000
1-47-P	60	100	9.24	2479.13	-2.95	-378.88	0.000000	0.00	0.000
1-48-P	60	100	9.24	2479.13	-0.66	-378.88	0.000000	0.00	0.000
1-49-P	60	100	9.24	2479.13	0.71	-378.88	0.000000	0.00	0.000
2-1-P	60	100	9.24	2479.13	2.09	-378.88	0.000000	0.00	0.000
2-2-P	60	100	9.24	912.00	2.70	378.88	0.000000	0.00	0.000
2-3-P	60	100	9.24	2479.13	3.39	-378.88	0.000000	0.00	0.000
2-4-P	60	100	9.24	2479.13	4.41	-378.88	0.000000	0.00	0.000
2-5-P	60	100	9.24	2479.13	-14.92	-378.88	0.000000	0.00	0.000
2-6-P	60	100	9.24	2479.13	-28.76	-378.88	0.000000	0.00	0.000
2-7-P	60	100	9.24	2479.13	-4.70	-378.88	0.000000	0.00	0.000
2-8-P	60	100	9.24	2479.13	6.25	-378.88	0.000000	0.00	0.000
2-9-P	60	100	9.24	912.00	6.48	378.88	0.000000	0.00	0.000
2-10-P	60	100	9.24	912.00	6.44	378.88	0.000000	0.00	0.000
2-11-P	60	100	9.24	912.00	6.46	378.88	0.000000	0.00	0.000
2-12-P	60	100	9.24	912.00	6.61	378.88	0.000000	0.00	0.000
2-13-P	60	100	9.24	2479.13	6.57	-378.88	0.000000	0.00	0.000
2-14-P	60	100	9.24	2479.13	2.21	-378.88	0.000000	0.00	0.000
2-15-P	60	100	9.24	2479.13	-23.04	-378.88	0.000000	0.00	0.000
2-16-P	60	100	9.24	2479.13	-18.24	-378.88	0.000000	0.00	0.000
2-17-P	60	100	9.24	2479.13	6.53	-378.88	0.000000	0.00	0.000
2-18-P	60	100	9.24	912.00	6.51	378.88	0.000000	0.00	0.000
2-19-P	60	100	9.24	912.00	6.51	378.88	0.000000	0.00	0.000
2-20-P	60	100	9.24	912.00	6.38	378.88	0.000000	0.00	0.000
2-21-P	60	100	9.24	912.00	6.45	378.88	0.000000	0.00	0.000
2-22-P	60	100	9.24	912.00	6.52	378.88	0.000000	0.00	0.000
2-23-P	60	100	9.24	2479.13	6.49	-378.88	0.000000	0.00	0.000
2-24-P	60	100	9.24	2479.13	-8.90	-378.88	0.000000	0.00	0.000
2-25-P	60	100	9.24	2479.13	-32.74	-378.88	0.000000	0.00	0.000
2-26-P	60	100	9.24	2479.13	-8.90	-378.88	0.000000	0.00	0.000
2-27-P	60	100	9.24	2479.13	6.49	-378.88	0.000000	0.00	0.000
2-28-P	60	100	9.24	912.00	6.52	378.88	0.000000	0.00	0.000
2-29-P	60	100	9.24	912.00	6.45	378.88	0.000000	0.00	0.000
2-30-P	60	100	9.24	912.00	6.38	378.88	0.000000	0.00	0.000
2-31-P	60	100	9.24	912.00	6.51	378.88	0.000000	0.00	0.000
2-32-P	60	100	9.24	912.00	6.51	378.88	0.000000	0.00	0.000
2-33-P	60	100	9.24	2479.13	6.53	-378.88	0.000000	0.00	0.000
2-34-P	60	100	9.24	2479.13	-18.24	-378.88	0.000000	0.00	0.000
2-35-P	60	100	9.24	2479.13	-23.04	-378.88	0.000000	0.00	0.000
2-36-P	60	100	9.24	2479.13	2.21	-378.88	0.000000	0.00	0.000
2-37-P	60	100	9.24	2479.13	6.57	-378.88	0.000000	0.00	0.000
2-38-P	60	100	9.24	912.00	6.61	378.88	0.000000	0.00	0.000
2-39-P	60	100	9.24	912.00	6.46	378.88	0.000000	0.00	0.000
2-40-P	60	100	9.24	912.00	6.44	378.88	0.000000	0.00	0.000
2-41-P	60	100	9.24	912.00	6.48	378.88	0.000000	0.00	0.000
2-42-P	60	100	9.24	2479.13	6.25	-378.88	0.000000	0.00	0.000
2-43-P	60	100	9.24	2479.13	-4.70	-378.88	0.000000	0.00	0.000
2-44-P	60	100	9.24	2479.13	-28.76	-378.88	0.000000	0.00	0.000
2-45-P	60	100	9.24	2479.13	-14.92	-378.88	0.000000	0.00	0.000

APPALTATORE:

TELESE S.c.a r.l.

Consorzio Telese Società Consortile a Responsabilità Limitata

ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO

PROGETTAZIONE:

Mandatario:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	81 di 91

Is	B [cm]	H [cm]	Af [cmq]	Aeff [cmq]	M [kNm]	Mpf [kNm]	ε [%]	Sm [mm]	w [mm]
2-46-P	60	100	9.24	2479.13	4.41	-378.88	0.000000	0.00	0.000
2-47-P	60	100	9.24	2479.13	3.39	-378.88	0.000000	0.00	0.000
2-48-P	60	100	9.24	912.00	2.70	378.88	0.000000	0.00	0.000
2-49-P	60	100	9.24	2479.13	2.09	-378.88	0.000000	0.00	0.000
4-1-P	95	100	13.85	3942.77	2.74	-596.67	0.000000	0.00	0.000
4-2-P	95	100	13.85	3942.77	3.32	-596.67	0.000000	0.00	0.000
4-3-P	95	100	13.85	3942.77	3.63	-596.67	0.000000	0.00	0.000
4-4-P	95	100	13.85	3942.77	-6.69	-596.67	0.000000	0.00	0.000
4-5-P	95	100	13.85	3942.77	-9.09	-596.67	0.000000	0.00	0.000
4-6-P	95	100	13.85	3942.77	-10.26	-596.67	0.000000	0.00	0.000
4-7-P	95	100	13.85	3942.77	-5.10	-596.67	0.000000	0.00	0.000
4-8-P	95	100	13.85	3942.77	5.36	-596.67	0.000000	0.00	0.000
4-9-P	95	100	13.85	1444.00	11.68	596.67	0.000000	0.00	0.000
4-10-P	95	100	13.85	1444.00	13.49	596.67	0.000000	0.00	0.000
4-11-P	95	100	13.85	1444.00	14.10	596.67	0.000000	0.00	0.000
4-12-P	95	100	13.85	1444.00	12.91	596.67	0.000000	0.00	0.000
4-13-P	95	100	13.85	3942.77	7.70	-596.67	0.000000	0.00	0.000
4-14-P	95	100	13.85	3942.77	4.60	-596.67	0.000000	0.00	0.000
4-15-P	95	100	13.85	3942.77	-6.54	-596.67	0.000000	0.00	0.000
4-16-P	95	100	13.85	3942.77	-5.69	-596.67	0.000000	0.00	0.000
4-17-P	95	100	13.85	3942.77	5.31	-596.67	0.000000	0.00	0.000
4-18-P	95	100	13.85	3942.77	9.07	-596.67	0.000000	0.00	0.000
4-19-P	95	100	13.85	1444.00	13.41	596.67	0.000000	0.00	0.000
4-20-P	95	100	13.85	1444.00	14.79	596.67	0.000000	0.00	0.000
4-21-P	95	100	13.85	1444.00	13.92	596.67	0.000000	0.00	0.000
4-22-P	95	100	13.85	1444.00	11.51	596.67	0.000000	0.00	0.000
4-23-P	95	100	13.85	3942.77	6.05	-596.67	0.000000	0.00	0.000
4-24-P	95	100	13.85	3942.77	-4.08	-596.67	0.000000	0.00	0.000
4-25-P	95	100	13.85	3942.77	-8.29	-596.67	0.000000	0.00	0.000
4-26-P	95	100	13.85	3942.77	-4.08	-596.67	0.000000	0.00	0.000
4-27-P	95	100	13.85	3942.77	6.05	-596.67	0.000000	0.00	0.000
4-28-P	95	100	13.85	1444.00	11.51	596.67	0.000000	0.00	0.000
4-29-P	95	100	13.85	1444.00	13.92	596.67	0.000000	0.00	0.000
4-30-P	95	100	13.85	1444.00	14.79	596.67	0.000000	0.00	0.000
4-31-P	95	100	13.85	1444.00	13.41	596.67	0.000000	0.00	0.000
4-32-P	95	100	13.85	3942.77	9.07	-596.67	0.000000	0.00	0.000
4-33-P	95	100	13.85	3942.77	5.31	-596.67	0.000000	0.00	0.000
4-34-P	95	100	13.85	3942.77	-5.69	-596.67	0.000000	0.00	0.000
4-35-P	95	100	13.85	3942.77	-6.54	-596.67	0.000000	0.00	0.000
4-36-P	95	100	13.85	3942.77	4.60	-596.67	0.000000	0.00	0.000
4-37-P	95	100	13.85	3942.77	7.70	-596.67	0.000000	0.00	0.000
4-38-P	95	100	13.85	1444.00	12.91	596.67	0.000000	0.00	0.000
4-39-P	95	100	13.85	1444.00	14.10	596.67	0.000000	0.00	0.000
4-40-P	95	100	13.85	1444.00	13.49	596.67	0.000000	0.00	0.000
4-41-P	95	100	13.85	1444.00	11.68	596.67	0.000000	0.00	0.000
4-42-P	95	100	13.85	3942.77	5.36	-596.67	0.000000	0.00	0.000
4-43-P	95	100	13.85	3942.77	-5.10	-596.67	0.000000	0.00	0.000
4-44-P	95	100	13.85	3942.77	-10.26	-596.67	0.000000	0.00	0.000
4-45-P	95	100	13.85	3942.77	-9.09	-596.67	0.000000	0.00	0.000
4-46-P	95	100	13.85	3942.77	-6.69	-596.67	0.000000	0.00	0.000
4-47-P	95	100	13.85	3942.77	3.63	-596.67	0.000000	0.00	0.000
4-48-P	95	100	13.85	3942.77	3.32	-596.67	0.000000	0.00	0.000
4-49-P	95	100	13.85	3942.77	2.74	-596.67	0.000000	0.00	0.000
5-1-P	95	100	13.85	3942.77	0.80	-596.67	0.000000	0.00	0.000
5-2-P	95	100	13.85	3942.77	-1.95	-596.67	0.000000	0.00	0.000
5-3-P	95	100	13.85	3942.77	-6.37	-596.67	0.000000	0.00	0.000
5-4-P	95	100	13.85	3942.77	-13.66	-596.67	0.000000	0.00	0.000
5-5-P	95	100	13.85	3942.77	-32.01	-596.67	0.000000	0.00	0.000
5-6-P	95	100	13.85	3942.77	-44.43	-596.67	0.000000	0.00	0.000
5-7-P	95	100	13.85	3942.77	-18.72	-596.67	0.000000	0.00	0.000
5-8-P	95	100	13.85	3942.77	-4.13	-596.67	0.000000	0.00	0.000
5-9-P	95	100	13.85	3942.77	8.36	-596.67	0.000000	0.00	0.000
5-10-P	95	100	13.85	1444.00	12.64	596.67	0.000000	0.00	0.000
5-11-P	95	100	13.85	1444.00	14.05	596.67	0.000000	0.00	0.000
5-12-P	95	100	13.85	3942.77	11.16	-596.67	0.000000	0.00	0.000
5-13-P	95	100	13.85	3942.77	3.84	-596.67	0.000000	0.00	0.000
5-14-P	95	100	13.85	3942.77	-8.57	-596.67	0.000000	0.00	0.000
5-15-P	95	100	13.85	3942.77	-32.33	-596.67	0.000000	0.00	0.000
5-16-P	95	100	13.85	3942.77	-27.40	-596.67	0.000000	0.00	0.000
5-17-P	95	100	13.85	3942.77	-5.86	-596.67	0.000000	0.00	0.000
5-18-P	95	100	13.85	3942.77	6.04	-596.67	0.000000	0.00	0.000
5-19-P	95	100	13.85	1444.00	12.98	596.67	0.000000	0.00	0.000
5-20-P	95	100	13.85	1444.00	16.42	596.67	0.000000	0.00	0.000
5-21-P	95	100	13.85	1444.00	14.36	596.67	0.000000	0.00	0.000
5-22-P	95	100	13.85	3942.77	9.75	-596.67	0.000000	0.00	0.000
5-23-P	95	100	13.85	3942.77	3.13	-596.67	0.000000	0.00	0.000
5-24-P	95	100	13.85	3942.77	-17.65	-596.67	0.000000	0.00	0.000
5-25-P	95	100	13.85	3942.77	-41.68	-596.67	0.000000	0.00	0.000
5-26-P	95	100	13.85	3942.77	-17.65	-596.67	0.000000	0.00	0.000
5-27-P	95	100	13.85	3942.77	3.13	-596.67	0.000000	0.00	0.000
5-28-P	95	100	13.85	3942.77	9.75	-596.67	0.000000	0.00	0.000

APPALTATORE:

TELESE S.c.a r.l.

Consorzio Telese Società Consortile a Responsabilità Limitata

**ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO**

PROGETTAZIONE:

Mandatario:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.**PROGETTO ESECUTIVO**

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	82 di 91

Is	B [cm]	H [cm]	Af [cmq]	Aeff [cmq]	M [kNm]	Mpf [kNm]	ε [%]	Sm [mm]	w [mm]
5-29-P	95	100	13.85	1444.00	14.36	596.67	0.000000	0.00	0.000
5-30-P	95	100	13.85	1444.00	16.42	596.67	0.000000	0.00	0.000
5-31-P	95	100	13.85	1444.00	12.98	596.67	0.000000	0.00	0.000
5-32-P	95	100	13.85	3942.77	6.04	-596.67	0.000000	0.00	0.000
5-33-P	95	100	13.85	3942.77	-5.86	-596.67	0.000000	0.00	0.000
5-34-P	95	100	13.85	3942.77	-27.40	-596.67	0.000000	0.00	0.000
5-35-P	95	100	13.85	3942.77	-32.33	-596.67	0.000000	0.00	0.000
5-36-P	95	100	13.85	3942.77	-8.57	-596.67	0.000000	0.00	0.000
5-37-P	95	100	13.85	3942.77	3.84	-596.67	0.000000	0.00	0.000
5-38-P	95	100	13.85	3942.77	11.16	-596.67	0.000000	0.00	0.000
5-39-P	95	100	13.85	1444.00	14.05	596.67	0.000000	0.00	0.000
5-40-P	95	100	13.85	1444.00	12.64	596.67	0.000000	0.00	0.000
5-41-P	95	100	13.85	3942.77	8.36	-596.67	0.000000	0.00	0.000
5-42-P	95	100	13.85	3942.77	-4.13	-596.67	0.000000	0.00	0.000
5-43-P	95	100	13.85	3942.77	-18.72	-596.67	0.000000	0.00	0.000
5-44-P	95	100	13.85	3942.77	-44.43	-596.67	0.000000	0.00	0.000
5-45-P	95	100	13.85	3942.77	-32.01	-596.67	0.000000	0.00	0.000
5-46-P	95	100	13.85	3942.77	-13.66	-596.67	0.000000	0.00	0.000
5-47-P	95	100	13.85	3942.77	-6.37	-596.67	0.000000	0.00	0.000
5-48-P	95	100	13.85	3942.77	-1.95	-596.67	0.000000	0.00	0.000
5-49-P	95	100	13.85	3942.77	0.80	-596.67	0.000000	0.00	0.000
6-1-S	100	100	15.39	4131.88	-1.77	-631.47	0.000000	0.00	0.000
6-2-S	100	100	15.39	4131.88	-3.81	-631.47	0.000000	0.00	0.000
6-3-S	100	100	15.39	4131.88	-5.49	-631.47	0.000000	0.00	0.000
6-4-S	100	100	15.39	4131.88	-6.15	-631.47	0.000000	0.00	0.000
6-5-S	100	100	15.39	4131.88	6.08	-631.47	0.000000	0.00	0.000
6-6-S	100	100	15.39	4131.88	19.45	-631.47	0.000000	0.00	0.000
6-7-S	100	100	15.39	4131.88	27.48	-631.47	0.000000	0.00	0.000
6-8-S	100	100	15.39	4131.88	25.08	-631.47	0.000000	0.00	0.000
6-9-S	100	100	15.39	4131.88	20.16	-631.47	0.000000	0.00	0.000
6-10-S	100	100	15.39	4131.88	12.20	-631.47	0.000000	0.00	0.000
6-11-S	100	100	15.39	4131.88	5.52	-631.47	0.000000	0.00	0.000
6-12-S	100	100	15.39	4131.88	-5.86	-631.47	0.000000	0.00	0.000
6-13-S	100	100	15.39	4131.88	-4.36	-631.47	0.000000	0.00	0.000
6-14-S	100	100	15.39	4131.88	-2.34	-631.47	0.000000	0.00	0.000
6-15-S	100	100	15.39	4131.88	0.44	-631.47	0.000000	0.00	0.000
7-1-S	100	100	15.39	4131.88	2.94	-631.47	0.000000	0.00	0.000
7-2-S	100	100	15.39	4131.88	4.29	-631.47	0.000000	0.00	0.000
7-3-S	100	100	15.39	4131.88	-6.55	-631.47	0.000000	0.00	0.000
7-4-S	100	100	15.39	4131.88	-28.06	-631.47	0.000000	0.00	0.000
7-5-S	100	100	15.39	4131.88	-11.40	-631.47	0.000000	0.00	0.000
7-6-S	100	100	15.39	1520.00	33.41	631.47	0.000000	0.00	0.000
7-7-S	100	100	15.39	1520.00	42.82	631.47	0.000000	0.00	0.000
7-8-S	100	100	15.39	1520.00	36.83	631.47	0.000000	0.00	0.000
7-9-S	100	100	15.39	4131.88	29.34	-631.47	0.000000	0.00	0.000
7-10-S	100	100	15.39	4131.88	20.36	-631.47	0.000000	0.00	0.000
7-11-S	100	100	15.39	4131.88	-12.48	-631.47	0.000000	0.00	0.000
7-12-S	100	100	15.39	4131.88	-26.54	-631.47	0.000000	0.00	0.000
7-13-S	100	100	15.39	4131.88	-12.76	-631.47	0.000000	0.00	0.000
7-14-S	100	100	15.39	4131.88	-4.95	-631.47	0.000000	0.00	0.000
7-15-S	100	100	15.39	4131.88	0.53	-631.47	0.000000	0.00	0.000
8-1-S	100	100	15.39	4131.88	-2.40	-631.47	0.000000	0.00	0.000
8-2-S	100	100	15.39	4131.88	-1.83	-631.47	0.000000	0.00	0.000
8-3-S	100	100	15.39	4131.88	1.15	-631.47	0.000000	0.00	0.000
8-4-S	100	100	15.39	1520.00	5.10	631.47	0.000000	0.00	0.000
8-5-S	100	100	15.39	1520.00	10.43	631.47	0.000000	0.00	0.000
8-6-S	100	100	15.39	1520.00	16.06	631.47	0.000000	0.00	0.000
8-7-S	100	100	15.39	1520.00	31.59	631.47	0.000000	0.00	0.000
8-8-S	100	100	15.39	1520.00	28.64	631.47	0.000000	0.00	0.000
8-9-S	100	100	15.39	1520.00	23.73	631.47	0.000000	0.00	0.000
8-10-S	100	100	15.39	1520.00	16.49	631.47	0.000000	0.00	0.000
8-11-S	100	100	15.39	1520.00	10.04	631.47	0.000000	0.00	0.000
8-12-S	100	100	15.39	4131.88	4.76	-631.47	0.000000	0.00	0.000
8-13-S	100	100	15.39	4131.88	1.65	-631.47	0.000000	0.00	0.000
8-14-S	100	100	15.39	4131.88	-0.52	-631.47	0.000000	0.00	0.000
8-15-S	100	100	15.39	4131.88	-1.00	-631.47	0.000000	0.00	0.000
9-1-S	100	100	15.39	4131.88	3.74	-631.47	0.000000	0.00	0.000
9-2-S	100	100	15.39	4131.88	4.34	-631.47	0.000000	0.00	0.000
9-3-S	100	100	15.39	4131.88	-7.75	-631.47	0.000000	0.00	0.000
9-4-S	100	100	15.39	4131.88	-32.76	-631.47	0.000000	0.00	0.000
9-5-S	100	100	15.39	4131.88	-12.33	-631.47	0.000000	0.00	0.000
9-6-S	100	100	15.39	1520.00	35.00	631.47	0.000000	0.00	0.000
9-7-S	100	100	15.39	1520.00	44.78	631.47	0.000000	0.00	0.000
9-8-S	100	100	15.39	1520.00	39.26	631.47	0.000000	0.00	0.000
9-9-S	100	100	15.39	4131.88	31.60	-631.47	0.000000	0.00	0.000
9-10-S	100	100	15.39	4131.88	21.87	-631.47	0.000000	0.00	0.000
9-11-S	100	100	15.39	4131.88	-13.43	-631.47	0.000000	0.00	0.000
9-12-S	100	100	15.39	4131.88	-30.19	-631.47	0.000000	0.00	0.000
9-13-S	100	100	15.39	4131.88	-14.55	-631.47	0.000000	0.00	0.000
9-14-S	100	100	15.39	4131.88	-5.37	-631.47	0.000000	0.00	0.000
9-15-S	100	100	15.39	4131.88	0.95	-631.47	0.000000	0.00	0.000

APPALTATORE:

TELESE S.c.a r.l.

Consorzio Telese Società Consortile a Responsabilità Limitata

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A.

SWS Engineering S.p.A.

SYSTRA-SOTECNI S.p.A.

**ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO****PROGETTO ESECUTIVO**

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	83 di 91

Is	B [cm]	H [cm]	Af [cmq]	Aeff [cmq]	M [kNm]	Mpf [kNm]	ε [%]	Sm [mm]	w [mm]
10-1-S	100	100	15.39	4131.88	-2.10	-631.47	0.000000	0.00	0.000
10-2-S	100	100	15.39	4131.88	-3.08	-631.47	0.000000	0.00	0.000
10-3-S	100	100	15.39	4131.88	-3.01	-631.47	0.000000	0.00	0.000
10-4-S	100	100	15.39	4131.88	3.81	-631.47	0.000000	0.00	0.000
10-5-S	100	100	15.39	1520.00	9.57	631.47	0.000000	0.00	0.000
10-6-S	100	100	15.39	1520.00	17.18	631.47	0.000000	0.00	0.000
10-7-S	100	100	15.39	1520.00	31.47	631.47	0.000000	0.00	0.000
10-8-S	100	100	15.39	1520.00	28.72	631.47	0.000000	0.00	0.000
10-9-S	100	100	15.39	1520.00	23.22	631.47	0.000000	0.00	0.000
10-10-S	100	100	15.39	4131.88	14.73	-631.47	0.000000	0.00	0.000
10-11-S	100	100	15.39	4131.88	8.72	-631.47	0.000000	0.00	0.000
10-12-S	100	100	15.39	4131.88	4.11	-631.47	0.000000	0.00	0.000
10-13-S	100	100	15.39	4131.88	-1.57	-631.47	0.000000	0.00	0.000
10-14-S	100	100	15.39	4131.88	-1.20	-631.47	0.000000	0.00	0.000
10-15-S	100	100	15.39	4131.88	-0.64	-631.47	0.000000	0.00	0.000
11-1-S	100	100	15.39	4131.88	2.08	-631.47	0.000000	0.00	0.000
11-2-S	100	100	15.39	4131.88	-3.67	-631.47	0.000000	0.00	0.000
11-3-S	100	100	15.39	4131.88	-5.86	-631.47	0.000000	0.00	0.000
11-4-S	100	100	15.39	4131.88	-16.96	-631.47	0.000000	0.00	0.000
11-5-S	100	100	15.39	4131.88	-6.26	-631.47	0.000000	0.00	0.000
11-6-S	100	100	15.39	1520.00	26.58	631.47	0.000000	0.00	0.000
11-7-S	100	100	15.39	1520.00	38.09	631.47	0.000000	0.00	0.000
11-8-S	100	100	15.39	1520.00	33.69	631.47	0.000000	0.00	0.000
11-9-S	100	100	15.39	4131.88	26.87	-631.47	0.000000	0.00	0.000
11-10-S	100	100	15.39	4131.88	17.51	-631.47	0.000000	0.00	0.000
11-11-S	100	100	15.39	4131.88	-7.12	-631.47	0.000000	0.00	0.000
11-12-S	100	100	15.39	4131.88	-15.64	-631.47	0.000000	0.00	0.000
11-13-S	100	100	15.39	4131.88	-8.25	-631.47	0.000000	0.00	0.000
11-14-S	100	100	15.39	4131.88	-3.51	-631.47	0.000000	0.00	0.000
11-15-S	100	100	15.39	4131.88	0.58	-631.47	0.000000	0.00	0.000
12-1-S	100	100	15.39	4131.88	2.08	-631.47	0.000000	0.00	0.000
12-2-S	100	100	15.39	4131.88	-3.67	-631.47	0.000000	0.00	0.000
12-3-S	100	100	15.39	4131.88	-5.86	-631.47	0.000000	0.00	0.000
12-4-S	100	100	15.39	4131.88	-16.96	-631.47	0.000000	0.00	0.000
12-5-S	100	100	15.39	4131.88	-6.26	-631.47	0.000000	0.00	0.000
12-6-S	100	100	15.39	1520.00	26.58	631.47	0.000000	0.00	0.000
12-7-S	100	100	15.39	1520.00	38.09	631.47	0.000000	0.00	0.000
12-8-S	100	100	15.39	1520.00	33.69	631.47	0.000000	0.00	0.000
12-9-S	100	100	15.39	4131.88	26.87	-631.47	0.000000	0.00	0.000
12-10-S	100	100	15.39	4131.88	17.51	-631.47	0.000000	0.00	0.000
12-11-S	100	100	15.39	4131.88	-7.12	-631.47	0.000000	0.00	0.000
12-12-S	100	100	15.39	4131.88	-15.64	-631.47	0.000000	0.00	0.000
12-13-S	100	100	15.39	4131.88	-8.25	-631.47	0.000000	0.00	0.000
12-14-S	100	100	15.39	4131.88	-3.51	-631.47	0.000000	0.00	0.000
12-15-S	100	100	15.39	4131.88	0.58	-631.47	0.000000	0.00	0.000
13-1-S	100	100	15.39	4131.88	-2.10	-631.47	0.000000	0.00	0.000
13-2-S	100	100	15.39	4131.88	-3.08	-631.47	0.000000	0.00	0.000
13-3-S	100	100	15.39	4131.88	-3.01	-631.47	0.000000	0.00	0.000
13-4-S	100	100	15.39	4131.88	3.81	-631.47	0.000000	0.00	0.000
13-5-S	100	100	15.39	1520.00	9.57	631.47	0.000000	0.00	0.000
13-6-S	100	100	15.39	1520.00	17.18	631.47	0.000000	0.00	0.000
13-7-S	100	100	15.39	1520.00	31.47	631.47	0.000000	0.00	0.000
13-8-S	100	100	15.39	1520.00	28.72	631.47	0.000000	0.00	0.000
13-9-S	100	100	15.39	1520.00	23.22	631.47	0.000000	0.00	0.000
13-10-S	100	100	15.39	4131.88	14.73	-631.47	0.000000	0.00	0.000
13-11-S	100	100	15.39	4131.88	8.72	-631.47	0.000000	0.00	0.000
13-12-S	100	100	15.39	4131.88	4.11	-631.47	0.000000	0.00	0.000
13-13-S	100	100	15.39	4131.88	-1.57	-631.47	0.000000	0.00	0.000
13-14-S	100	100	15.39	4131.88	-1.20	-631.47	0.000000	0.00	0.000
13-15-S	100	100	15.39	4131.88	-0.64	-631.47	0.000000	0.00	0.000
14-1-S	100	100	15.39	4131.88	3.74	-631.47	0.000000	0.00	0.000
14-2-S	100	100	15.39	4131.88	4.34	-631.47	0.000000	0.00	0.000
14-3-S	100	100	15.39	4131.88	-7.75	-631.47	0.000000	0.00	0.000
14-4-S	100	100	15.39	4131.88	-32.76	-631.47	0.000000	0.00	0.000
14-5-S	100	100	15.39	4131.88	-12.33	-631.47	0.000000	0.00	0.000
14-6-S	100	100	15.39	1520.00	35.00	631.47	0.000000	0.00	0.000
14-7-S	100	100	15.39	1520.00	44.78	631.47	0.000000	0.00	0.000
14-8-S	100	100	15.39	1520.00	39.26	631.47	0.000000	0.00	0.000
14-9-S	100	100	15.39	4131.88	31.60	-631.47	0.000000	0.00	0.000
14-10-S	100	100	15.39	4131.88	21.87	-631.47	0.000000	0.00	0.000
14-11-S	100	100	15.39	4131.88	-13.43	-631.47	0.000000	0.00	0.000
14-12-S	100	100	15.39	4131.88	-30.19	-631.47	0.000000	0.00	0.000
14-13-S	100	100	15.39	4131.88	-14.55	-631.47	0.000000	0.00	0.000
14-14-S	100	100	15.39	4131.88	-5.37	-631.47	0.000000	0.00	0.000
14-15-S	100	100	15.39	4131.88	0.95	-631.47	0.000000	0.00	0.000
15-1-S	100	100	15.39	4131.88	-2.40	-631.47	0.000000	0.00	0.000
15-2-S	100	100	15.39	4131.88	-1.83	-631.47	0.000000	0.00	0.000
15-3-S	100	100	15.39	4131.88	1.15	-631.47	0.000000	0.00	0.000
15-4-S	100	100	15.39	1520.00	5.10	631.47	0.000000	0.00	0.000
15-5-S	100	100	15.39	1520.00	10.43	631.47	0.000000	0.00	0.000
15-6-S	100	100	15.39	1520.00	16.06	631.47	0.000000	0.00	0.000

APPALTATORE:

TELESE S.c.a r.l.

Consorzio Telese Società Consortile a Responsabilità Limitata

ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	84 di 91

Is	B [cm]	H [cm]	Af [cmq]	Aeff [cmq]	M [kNm]	Mpf [kNm]	ε [%]	Sm [mm]	w [mm]
15-7-S	100	100	15.39	1520.00	31.59	631.47	0.000000	0.00	0.000
15-8-S	100	100	15.39	1520.00	28.64	631.47	0.000000	0.00	0.000
15-9-S	100	100	15.39	1520.00	23.73	631.47	0.000000	0.00	0.000
15-10-S	100	100	15.39	1520.00	16.49	631.47	0.000000	0.00	0.000
15-11-S	100	100	15.39	1520.00	10.04	631.47	0.000000	0.00	0.000
15-12-S	100	100	15.39	4131.88	4.76	-631.47	0.000000	0.00	0.000
15-13-S	100	100	15.39	4131.88	1.65	-631.47	0.000000	0.00	0.000
15-14-S	100	100	15.39	4131.88	-0.52	-631.47	0.000000	0.00	0.000
15-15-S	100	100	15.39	4131.88	-1.00	-631.47	0.000000	0.00	0.000
16-1-S	100	100	15.39	4131.88	2.94	-631.47	0.000000	0.00	0.000
16-2-S	100	100	15.39	4131.88	4.29	-631.47	0.000000	0.00	0.000
16-3-S	100	100	15.39	4131.88	-6.55	-631.47	0.000000	0.00	0.000
16-4-S	100	100	15.39	4131.88	-28.06	-631.47	0.000000	0.00	0.000
16-5-S	100	100	15.39	4131.88	-11.40	-631.47	0.000000	0.00	0.000
16-6-S	100	100	15.39	1520.00	33.41	631.47	0.000000	0.00	0.000
16-7-S	100	100	15.39	1520.00	42.82	631.47	0.000000	0.00	0.000
16-8-S	100	100	15.39	1520.00	36.83	631.47	0.000000	0.00	0.000
16-9-S	100	100	15.39	4131.88	29.34	-631.47	0.000000	0.00	0.000
16-10-S	100	100	15.39	4131.88	20.36	-631.47	0.000000	0.00	0.000
16-11-S	100	100	15.39	4131.88	-12.48	-631.47	0.000000	0.00	0.000
16-12-S	100	100	15.39	4131.88	-26.54	-631.47	0.000000	0.00	0.000
16-13-S	100	100	15.39	4131.88	-12.76	-631.47	0.000000	0.00	0.000
16-14-S	100	100	15.39	4131.88	-4.95	-631.47	0.000000	0.00	0.000
16-15-S	100	100	15.39	4131.88	0.53	-631.47	0.000000	0.00	0.000
17-1-S	100	100	15.39	4131.88	-1.77	-631.47	0.000000	0.00	0.000
17-2-S	100	100	15.39	4131.88	-3.81	-631.47	0.000000	0.00	0.000
17-3-S	100	100	15.39	4131.88	-5.49	-631.47	0.000000	0.00	0.000
17-4-S	100	100	15.39	4131.88	-6.15	-631.47	0.000000	0.00	0.000
17-5-S	100	100	15.39	4131.88	6.08	-631.47	0.000000	0.00	0.000
17-6-S	100	100	15.39	4131.88	19.45	-631.47	0.000000	0.00	0.000
17-7-S	100	100	15.39	4131.88	27.48	-631.47	0.000000	0.00	0.000
17-8-S	100	100	15.39	4131.88	25.08	-631.47	0.000000	0.00	0.000
17-9-S	100	100	15.39	4131.88	20.16	-631.47	0.000000	0.00	0.000
17-10-S	100	100	15.39	4131.88	12.20	-631.47	0.000000	0.00	0.000
17-11-S	100	100	15.39	4131.88	5.52	-631.47	0.000000	0.00	0.000
17-12-S	100	100	15.39	4131.88	-5.86	-631.47	0.000000	0.00	0.000
17-13-S	100	100	15.39	4131.88	-4.36	-631.47	0.000000	0.00	0.000
17-14-S	100	100	15.39	4131.88	-2.34	-631.47	0.000000	0.00	0.000
17-15-S	100	100	15.39	4131.88	0.44	-631.47	0.000000	0.00	0.000

Pali in c.a.

Apertura limite fessure $w_{lim}=0.400$ mm

Ip	Is	Af [cmq]	Aeff [cmq]	Mpf [kNm]	M [kNm]	N [kN]	ε [%]	Sm [mm]	wm [mm]
1	1	27.99	4591.11	201.91	-29.17	226.46	0.000000	0.00	0.00
2	1	34.56	3617.50	226.82	-29.17	401.64	0.000000	0.00	0.00

Combinazioni SLEQ

Paramento

Apertura limite fessure $w_{lim}=0.20$

n°	B [cm]	H [cm]	Af [cmq]	Aeff [cmq]	M [kNm]	Mpf [kNm]	ε [%]	Sm [mm]	w [mm]
1	100	70	0.00	0.00	0.00	0.00	0.000025	---	0.000 (7)
2	100	70	0.00	0.00	0.00	0.00	0.000034	---	0.000 (7)
3	100	70	0.00	0.00	0.00	0.00	0.000042	---	0.000 (7)
4	100	70	0.00	0.00	0.00	0.00	0.000051	---	0.000 (7)
5	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (7)
6	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (7)
7	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (7)
8	100	70	0.00	0.00	0.00	0.00	0.000085	---	0.000 (7)
9	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (7)
10	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (7)
11	100	70	0.00	0.00	0.00	0.00	0.000111	---	0.000 (7)
12	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (7)
13	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (7)
14	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (7)
15	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (7)
16	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (7)

APPALTATORE:

TELESE S.c.a r.l.
Consorzio Telese Società Consortile a Responsabilità Limitata

ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	85 di 91

n°	B [cm]	H [cm]	Af [cmq]	Aeff [cmq]	M [kNm]	Mpf [kNm]	ε [%]	Sm [mm]	w [mm]
17	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (7)
18	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (7)
19	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (7)
20	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (7)
21	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (7)
22	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (7)
23	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (7)
24	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (7)
25	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (7)
26	100	70	0.00	0.00	0.00	0.00	0.000000	0.00	0.000 (7)
27	100	90	7.70	1520.00	4.41	538.04	0.000000	0.00	0.000 (7)
28	100	90	7.70	1520.00	4.41	538.38	0.000000	0.00	0.000 (7)
29	100	90	7.70	1520.00	4.41	538.72	0.000000	0.00	0.000 (7)
30	100	90	7.70	1520.00	4.41	539.05	0.000000	0.00	0.000 (7)
31	100	90	7.70	1520.00	4.41	539.40	0.000000	0.00	0.000 (7)
32	100	90	7.70	1520.00	4.41	539.72	0.000000	0.00	0.000 (7)
33	100	90	7.70	1520.00	4.42	540.08	0.000000	0.00	0.000 (7)
34	100	90	7.70	1520.00	4.46	540.41	0.000000	0.00	0.000 (7)
35	100	90	7.70	1520.00	4.54	540.74	0.000000	0.00	0.000 (7)
36	100	90	7.70	1520.00	4.67	541.10	0.000000	0.00	0.000 (7)
37	100	90	7.70	1520.00	4.85	541.43	0.000000	0.00	0.000 (7)
38	100	90	7.70	1520.00	5.09	541.77	0.000000	0.00	0.000 (7)
39	100	90	7.70	1520.00	5.40	542.11	0.000000	0.00	0.000 (7)
40	100	90	7.70	1520.00	5.77	542.44	0.000000	0.00	0.000 (7)
41	100	90	7.70	1520.00	6.21	542.79	0.000000	0.00	0.000 (7)
42	100	90	7.70	1520.00	6.73	543.12	0.000000	0.00	0.000 (7)
43	100	90	7.70	1520.00	7.34	543.46	0.000000	0.00	0.000 (7)
44	100	90	7.70	1520.00	8.03	543.80	0.000000	0.00	0.000 (7)
45	100	90	7.70	1520.00	8.81	544.13	0.000000	0.00	0.000 (7)
46	100	90	7.70	1520.00	8.83	544.14	0.000000	0.00	0.000 (7)
47	100	90	7.70	1520.00	9.71	544.49	0.000000	0.00	0.000 (7)
48	100	90	7.70	1520.00	10.69	544.82	0.000000	0.00	0.000 (7)

Piastra fondazione

Apertura limite fessure $w_{lim}=0.20$

Is	B [cm]	H [cm]	Af [cmq]	Aeff [cmq]	M [kNm]	Mpf [kNm]	ε [%]	Sm [mm]	w [mm]
1-1-P	60	100	9.24	2479.13	0.70	-378.88	0.000000	0.00	0.000
1-2-P	60	100	9.24	2479.13	-0.66	-378.88	0.000000	0.00	0.000
1-3-P	60	100	9.24	2479.13	-2.92	-378.88	0.000000	0.00	0.000
1-4-P	60	100	9.24	2479.13	-8.52	-378.88	0.000000	0.00	0.000
1-5-P	60	100	9.24	2479.13	-11.82	-378.88	0.000000	0.00	0.000
1-6-P	60	100	9.24	2479.13	-13.05	-378.88	0.000000	0.00	0.000
1-7-P	60	100	9.24	2479.13	-8.41	-378.88	0.000000	0.00	0.000
1-8-P	60	100	9.24	2479.13	-2.34	-378.88	0.000000	0.00	0.000
1-9-P	60	100	9.24	2479.13	5.43	-378.88	0.000000	0.00	0.000
1-10-P	60	100	9.24	912.00	7.31	378.88	0.000000	0.00	0.000
1-11-P	60	100	9.24	912.00	7.82	378.88	0.000000	0.00	0.000
1-12-P	60	100	9.24	2479.13	6.22	-378.88	0.000000	0.00	0.000
1-13-P	60	100	9.24	2479.13	1.11	-378.88	0.000000	0.00	0.000
1-14-P	60	100	9.24	2479.13	-6.17	-378.88	0.000000	0.00	0.000
1-15-P	60	100	9.24	2479.13	-10.07	-378.88	0.000000	0.00	0.000
1-16-P	60	100	9.24	2479.13	-9.31	-378.88	0.000000	0.00	0.000
1-17-P	60	100	9.24	2479.13	-5.40	-378.88	0.000000	0.00	0.000
1-18-P	60	100	9.24	2479.13	2.07	-378.88	0.000000	0.00	0.000
1-19-P	60	100	9.24	2479.13	6.56	-378.88	0.000000	0.00	0.000
1-20-P	60	100	9.24	912.00	8.25	378.88	0.000000	0.00	0.000
1-21-P	60	100	9.24	2479.13	7.22	-378.88	0.000000	0.00	0.000
1-22-P	60	100	9.24	2479.13	4.52	-378.88	0.000000	0.00	0.000
1-23-P	60	100	9.24	2479.13	-2.86	-378.88	0.000000	0.00	0.000
1-24-P	60	100	9.24	2479.13	-7.82	-378.88	0.000000	0.00	0.000
1-25-P	60	100	9.24	2479.13	-11.86	-378.88	0.000000	0.00	0.000
1-26-P	60	100	9.24	2479.13	-7.82	-378.88	0.000000	0.00	0.000
1-27-P	60	100	9.24	2479.13	-2.86	-378.88	0.000000	0.00	0.000
1-28-P	60	100	9.24	2479.13	4.52	-378.88	0.000000	0.00	0.000
1-29-P	60	100	9.24	2479.13	7.22	-378.88	0.000000	0.00	0.000
1-30-P	60	100	9.24	912.00	8.25	378.88	0.000000	0.00	0.000
1-31-P	60	100	9.24	2479.13	6.56	-378.88	0.000000	0.00	0.000
1-32-P	60	100	9.24	2479.13	2.07	-378.88	0.000000	0.00	0.000
1-33-P	60	100	9.24	2479.13	-5.40	-378.88	0.000000	0.00	0.000
1-34-P	60	100	9.24	2479.13	-9.31	-378.88	0.000000	0.00	0.000
1-35-P	60	100	9.24	2479.13	-10.07	-378.88	0.000000	0.00	0.000
1-36-P	60	100	9.24	2479.13	-6.17	-378.88	0.000000	0.00	0.000
1-37-P	60	100	9.24	2479.13	1.11	-378.88	0.000000	0.00	0.000
1-38-P	60	100	9.24	2479.13	6.22	-378.88	0.000000	0.00	0.000
1-39-P	60	100	9.24	912.00	7.82	378.88	0.000000	0.00	0.000

APPALTATORE:

TELESE S.c.a r.l.
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ITINERARIO NAPOLI – BARI
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II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO

PROGETTAZIONE:

Mandataria:

Mandante:

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PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	86 di 91

Is	B [cm]	H [cm]	Af [cmq]	Aeff [cmq]	M [kNm]	Mpf [kNm]	ε [%]	Sm [mm]	w [mm]
1-40-P	60	100	9.24	912.00	7.31	378.88	0.000000	0.00	0.000
1-41-P	60	100	9.24	2479.13	5.43	-378.88	0.000000	0.00	0.000
1-42-P	60	100	9.24	2479.13	-2.34	-378.88	0.000000	0.00	0.000
1-43-P	60	100	9.24	2479.13	-8.41	-378.88	0.000000	0.00	0.000
1-44-P	60	100	9.24	2479.13	-13.05	-378.88	0.000000	0.00	0.000
1-45-P	60	100	9.24	2479.13	-11.82	-378.88	0.000000	0.00	0.000
1-46-P	60	100	9.24	2479.13	-8.52	-378.88	0.000000	0.00	0.000
1-47-P	60	100	9.24	2479.13	-2.92	-378.88	0.000000	0.00	0.000
1-48-P	60	100	9.24	2479.13	-0.66	-378.88	0.000000	0.00	0.000
1-49-P	60	100	9.24	2479.13	0.70	-378.88	0.000000	0.00	0.000
2-1-P	60	100	9.24	2479.13	2.07	-378.88	0.000000	0.00	0.000
2-2-P	60	100	9.24	2479.13	2.68	-378.88	0.000000	0.00	0.000
2-3-P	60	100	9.24	2479.13	3.39	-378.88	0.000000	0.00	0.000
2-4-P	60	100	9.24	2479.13	4.38	-378.88	0.000000	0.00	0.000
2-5-P	60	100	9.24	2479.13	-14.57	-378.88	0.000000	0.00	0.000
2-6-P	60	100	9.24	2479.13	-28.12	-378.88	0.000000	0.00	0.000
2-7-P	60	100	9.24	2479.13	-4.54	-378.88	0.000000	0.00	0.000
2-8-P	60	100	9.24	2479.13	6.23	-378.88	0.000000	0.00	0.000
2-9-P	60	100	9.24	912.00	6.48	378.88	0.000000	0.00	0.000
2-10-P	60	100	9.24	912.00	6.43	378.88	0.000000	0.00	0.000
2-11-P	60	100	9.24	912.00	6.46	378.88	0.000000	0.00	0.000
2-12-P	60	100	9.24	912.00	6.60	378.88	0.000000	0.00	0.000
2-13-P	60	100	9.24	2479.13	6.56	-378.88	0.000000	0.00	0.000
2-14-P	60	100	9.24	2479.13	2.24	-378.88	0.000000	0.00	0.000
2-15-P	60	100	9.24	2479.13	-22.49	-378.88	0.000000	0.00	0.000
2-16-P	60	100	9.24	2479.13	-17.80	-378.88	0.000000	0.00	0.000
2-17-P	60	100	9.24	2479.13	6.48	-378.88	0.000000	0.00	0.000
2-18-P	60	100	9.24	2479.13	6.51	-378.88	0.000000	0.00	0.000
2-19-P	60	100	9.24	912.00	6.51	378.88	0.000000	0.00	0.000
2-20-P	60	100	9.24	912.00	6.38	378.88	0.000000	0.00	0.000
2-21-P	60	100	9.24	912.00	6.44	378.88	0.000000	0.00	0.000
2-22-P	60	100	9.24	912.00	6.52	378.88	0.000000	0.00	0.000
2-23-P	60	100	9.24	2479.13	6.46	-378.88	0.000000	0.00	0.000
2-24-P	60	100	9.24	2479.13	-8.66	-378.88	0.000000	0.00	0.000
2-25-P	60	100	9.24	2479.13	-32.01	-378.88	0.000000	0.00	0.000
2-26-P	60	100	9.24	2479.13	-8.66	-378.88	0.000000	0.00	0.000
2-27-P	60	100	9.24	2479.13	6.46	-378.88	0.000000	0.00	0.000
2-28-P	60	100	9.24	912.00	6.52	378.88	0.000000	0.00	0.000
2-29-P	60	100	9.24	912.00	6.44	378.88	0.000000	0.00	0.000
2-30-P	60	100	9.24	912.00	6.38	378.88	0.000000	0.00	0.000
2-31-P	60	100	9.24	912.00	6.51	378.88	0.000000	0.00	0.000
2-32-P	60	100	9.24	2479.13	6.51	-378.88	0.000000	0.00	0.000
2-33-P	60	100	9.24	2479.13	6.48	-378.88	0.000000	0.00	0.000
2-34-P	60	100	9.24	2479.13	-17.80	-378.88	0.000000	0.00	0.000
2-35-P	60	100	9.24	2479.13	-22.49	-378.88	0.000000	0.00	0.000
2-36-P	60	100	9.24	2479.13	2.24	-378.88	0.000000	0.00	0.000
2-37-P	60	100	9.24	2479.13	6.56	-378.88	0.000000	0.00	0.000
2-38-P	60	100	9.24	912.00	6.60	378.88	0.000000	0.00	0.000
2-39-P	60	100	9.24	912.00	6.46	378.88	0.000000	0.00	0.000
2-40-P	60	100	9.24	912.00	6.43	378.88	0.000000	0.00	0.000
2-41-P	60	100	9.24	912.00	6.48	378.88	0.000000	0.00	0.000
2-42-P	60	100	9.24	2479.13	6.23	-378.88	0.000000	0.00	0.000
2-43-P	60	100	9.24	2479.13	-4.54	-378.88	0.000000	0.00	0.000
2-44-P	60	100	9.24	2479.13	-28.12	-378.88	0.000000	0.00	0.000
2-45-P	60	100	9.24	2479.13	-14.57	-378.88	0.000000	0.00	0.000
2-46-P	60	100	9.24	2479.13	4.38	-378.88	0.000000	0.00	0.000
2-47-P	60	100	9.24	2479.13	3.39	-378.88	0.000000	0.00	0.000
2-48-P	60	100	9.24	2479.13	2.68	-378.88	0.000000	0.00	0.000
2-49-P	60	100	9.24	2479.13	2.07	-378.88	0.000000	0.00	0.000
4-1-P	95	100	13.85	3942.77	2.77	-596.67	0.000000	0.00	0.000
4-2-P	95	100	13.85	3942.77	3.33	-596.67	0.000000	0.00	0.000
4-3-P	95	100	13.85	3942.77	3.63	-596.67	0.000000	0.00	0.000
4-4-P	95	100	13.85	3942.77	-6.75	-596.67	0.000000	0.00	0.000
4-5-P	95	100	13.85	3942.77	-9.41	-596.67	0.000000	0.00	0.000
4-6-P	95	100	13.85	3942.77	-10.71	-596.67	0.000000	0.00	0.000
4-7-P	95	100	13.85	3942.77	-5.29	-596.67	0.000000	0.00	0.000
4-8-P	95	100	13.85	3942.77	5.32	-596.67	0.000000	0.00	0.000
4-9-P	95	100	13.85	1444.00	11.71	596.67	0.000000	0.00	0.000
4-10-P	95	100	13.85	1444.00	13.57	596.67	0.000000	0.00	0.000
4-11-P	95	100	13.85	1444.00	14.19	596.67	0.000000	0.00	0.000
4-12-P	95	100	13.85	1444.00	12.96	596.67	0.000000	0.00	0.000
4-13-P	95	100	13.85	1444.00	7.67	596.67	0.000000	0.00	0.000
4-14-P	95	100	13.85	3942.77	4.52	-596.67	0.000000	0.00	0.000
4-15-P	95	100	13.85	3942.77	-6.88	-596.67	0.000000	0.00	0.000
4-16-P	95	100	13.85	3942.77	-5.98	-596.67	0.000000	0.00	0.000
4-17-P	95	100	13.85	3942.77	5.23	-596.67	0.000000	0.00	0.000
4-18-P	95	100	13.85	1444.00	9.07	596.67	0.000000	0.00	0.000
4-19-P	95	100	13.85	1444.00	13.47	596.67	0.000000	0.00	0.000
4-20-P	95	100	13.85	1444.00	14.90	596.67	0.000000	0.00	0.000
4-21-P	95	100	13.85	1444.00	14.00	596.67	0.000000	0.00	0.000
4-22-P	95	100	13.85	1444.00	11.53	596.67	0.000000	0.00	0.000

APPALTATORE:

TELESE S.c.a r.l.

Consorzio Telese Società Consortile a Responsabilità Limitata

**ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO**

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	87 di 91

Is	B [cm]	H [cm]	Af [cmq]	Aeff [cmq]	M [kNm]	Mpf [kNm]	ε [%]	Sm [mm]	w [mm]
4-23-P	95	100	13.85	3942.77	6.00	-596.67	0.000000	0.00	0.000
4-24-P	95	100	13.85	3942.77	-4.28	-596.67	0.000000	0.00	0.000
4-25-P	95	100	13.85	3942.77	-8.73	-596.67	0.000000	0.00	0.000
4-26-P	95	100	13.85	3942.77	-4.28	-596.67	0.000000	0.00	0.000
4-27-P	95	100	13.85	3942.77	6.00	-596.67	0.000000	0.00	0.000
4-28-P	95	100	13.85	1444.00	11.53	596.67	0.000000	0.00	0.000
4-29-P	95	100	13.85	1444.00	14.00	596.67	0.000000	0.00	0.000
4-30-P	95	100	13.85	1444.00	14.90	596.67	0.000000	0.00	0.000
4-31-P	95	100	13.85	1444.00	13.47	596.67	0.000000	0.00	0.000
4-32-P	95	100	13.85	1444.00	9.07	596.67	0.000000	0.00	0.000
4-33-P	95	100	13.85	3942.77	5.23	-596.67	0.000000	0.00	0.000
4-34-P	95	100	13.85	3942.77	-5.98	-596.67	0.000000	0.00	0.000
4-35-P	95	100	13.85	3942.77	-6.88	-596.67	0.000000	0.00	0.000
4-36-P	95	100	13.85	3942.77	4.52	-596.67	0.000000	0.00	0.000
4-37-P	95	100	13.85	1444.00	7.67	596.67	0.000000	0.00	0.000
4-38-P	95	100	13.85	1444.00	12.96	596.67	0.000000	0.00	0.000
4-39-P	95	100	13.85	1444.00	14.19	596.67	0.000000	0.00	0.000
4-40-P	95	100	13.85	1444.00	13.57	596.67	0.000000	0.00	0.000
4-41-P	95	100	13.85	1444.00	11.71	596.67	0.000000	0.00	0.000
4-42-P	95	100	13.85	3942.77	5.32	-596.67	0.000000	0.00	0.000
4-43-P	95	100	13.85	3942.77	-5.29	-596.67	0.000000	0.00	0.000
4-44-P	95	100	13.85	3942.77	-10.71	-596.67	0.000000	0.00	0.000
4-45-P	95	100	13.85	3942.77	-9.41	-596.67	0.000000	0.00	0.000
4-46-P	95	100	13.85	3942.77	-6.75	-596.67	0.000000	0.00	0.000
4-47-P	95	100	13.85	3942.77	3.63	-596.67	0.000000	0.00	0.000
4-48-P	95	100	13.85	3942.77	3.33	-596.67	0.000000	0.00	0.000
4-49-P	95	100	13.85	3942.77	2.77	-596.67	0.000000	0.00	0.000
5-1-P	95	100	13.85	3942.77	0.82	-596.67	0.000000	0.00	0.000
5-2-P	95	100	13.85	3942.77	-1.96	-596.67	0.000000	0.00	0.000
5-3-P	95	100	13.85	3942.77	-6.40	-596.67	0.000000	0.00	0.000
5-4-P	95	100	13.85	3942.77	-13.81	-596.67	0.000000	0.00	0.000
5-5-P	95	100	13.85	3942.77	-32.46	-596.67	0.000000	0.00	0.000
5-6-P	95	100	13.85	3942.77	-45.02	-596.67	0.000000	0.00	0.000
5-7-P	95	100	13.85	3942.77	-19.04	-596.67	0.000000	0.00	0.000
5-8-P	95	100	13.85	3942.77	-4.15	-596.67	0.000000	0.00	0.000
5-9-P	95	100	13.85	3942.77	8.45	-596.67	0.000000	0.00	0.000
5-10-P	95	100	13.85	1444.00	12.76	596.67	0.000000	0.00	0.000
5-11-P	95	100	13.85	1444.00	14.19	596.67	0.000000	0.00	0.000
5-12-P	95	100	13.85	3942.77	11.27	-596.67	0.000000	0.00	0.000
5-13-P	95	100	13.85	3942.77	3.84	-596.67	0.000000	0.00	0.000
5-14-P	95	100	13.85	3942.77	-8.71	-596.67	0.000000	0.00	0.000
5-15-P	95	100	13.85	3942.77	-32.80	-596.67	0.000000	0.00	0.000
5-16-P	95	100	13.85	3942.77	-27.82	-596.67	0.000000	0.00	0.000
5-17-P	95	100	13.85	3942.77	-5.87	-596.67	0.000000	0.00	0.000
5-18-P	95	100	13.85	3942.77	6.06	-596.67	0.000000	0.00	0.000
5-19-P	95	100	13.85	1444.00	13.11	596.67	0.000000	0.00	0.000
5-20-P	95	100	13.85	1444.00	16.58	596.67	0.000000	0.00	0.000
5-21-P	95	100	13.85	1444.00	14.50	596.67	0.000000	0.00	0.000
5-22-P	95	100	13.85	3942.77	9.84	-596.67	0.000000	0.00	0.000
5-23-P	95	100	13.85	3942.77	3.07	-596.67	0.000000	0.00	0.000
5-24-P	95	100	13.85	3942.77	-17.97	-596.67	0.000000	0.00	0.000
5-25-P	95	100	13.85	3942.77	-42.26	-596.67	0.000000	0.00	0.000
5-26-P	95	100	13.85	3942.77	-17.97	-596.67	0.000000	0.00	0.000
5-27-P	95	100	13.85	3942.77	3.07	-596.67	0.000000	0.00	0.000
5-28-P	95	100	13.85	3942.77	9.84	-596.67	0.000000	0.00	0.000
5-29-P	95	100	13.85	1444.00	14.50	596.67	0.000000	0.00	0.000
5-30-P	95	100	13.85	1444.00	16.58	596.67	0.000000	0.00	0.000
5-31-P	95	100	13.85	1444.00	13.11	596.67	0.000000	0.00	0.000
5-32-P	95	100	13.85	3942.77	6.06	-596.67	0.000000	0.00	0.000
5-33-P	95	100	13.85	3942.77	-5.87	-596.67	0.000000	0.00	0.000
5-34-P	95	100	13.85	3942.77	-27.82	-596.67	0.000000	0.00	0.000
5-35-P	95	100	13.85	3942.77	-32.80	-596.67	0.000000	0.00	0.000
5-36-P	95	100	13.85	3942.77	-8.71	-596.67	0.000000	0.00	0.000
5-37-P	95	100	13.85	3942.77	3.84	-596.67	0.000000	0.00	0.000
5-38-P	95	100	13.85	3942.77	11.27	-596.67	0.000000	0.00	0.000
5-39-P	95	100	13.85	1444.00	14.19	596.67	0.000000	0.00	0.000
5-40-P	95	100	13.85	1444.00	12.76	596.67	0.000000	0.00	0.000
5-41-P	95	100	13.85	3942.77	8.45	-596.67	0.000000	0.00	0.000
5-42-P	95	100	13.85	3942.77	-4.15	-596.67	0.000000	0.00	0.000
5-43-P	95	100	13.85	3942.77	-19.04	-596.67	0.000000	0.00	0.000
5-44-P	95	100	13.85	3942.77	-45.02	-596.67	0.000000	0.00	0.000
5-45-P	95	100	13.85	3942.77	-32.46	-596.67	0.000000	0.00	0.000
5-46-P	95	100	13.85	3942.77	-13.81	-596.67	0.000000	0.00	0.000
5-47-P	95	100	13.85	3942.77	-6.40	-596.67	0.000000	0.00	0.000
5-48-P	95	100	13.85	3942.77	-1.96	-596.67	0.000000	0.00	0.000
5-49-P	95	100	13.85	3942.77	0.82	-596.67	0.000000	0.00	0.000
6-1-S	100	100	15.39	4131.88	-1.67	-631.47	0.000000	0.00	0.000
6-2-S	100	100	15.39	4131.88	-3.63	-631.47	0.000000	0.00	0.000
6-3-S	100	100	15.39	4131.88	-5.22	-631.47	0.000000	0.00	0.000
6-4-S	100	100	15.39	4131.88	-5.77	-631.47	0.000000	0.00	0.000
6-5-S	100	100	15.39	4131.88	6.31	-631.47	0.000000	0.00	0.000

APPALTATORE:

TELESE S.c.a r.l.
Consorzio Telese Società Consortile a Responsabilità Limitata

ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO

PROGETTAZIONE:

Mandataria:

Mandante:

SYSTRA S.A. SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.

PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	88 di 91

Is	B [cm]	H [cm]	Af [cmq]	Aeff [cmq]	M [kNm]	Mpf [kNm]	ε [%]	Sm [mm]	w [mm]
6-6-S	100	100	15.39	4131.88	19.78	-631.47	0.000000	0.00	0.000
6-7-S	100	100	15.39	4131.88	28.05	-631.47	0.000000	0.00	0.000
6-8-S	100	100	15.39	4131.88	25.23	-631.47	0.000000	0.00	0.000
6-9-S	100	100	15.39	4131.88	19.96	-631.47	0.000000	0.00	0.000
6-10-S	100	100	15.39	4131.88	11.71	-631.47	0.000000	0.00	0.000
6-11-S	100	100	15.39	4131.88	5.18	-631.47	0.000000	0.00	0.000
6-12-S	100	100	15.39	4131.88	-6.06	-631.47	0.000000	0.00	0.000
6-13-S	100	100	15.39	4131.88	-4.59	-631.47	0.000000	0.00	0.000
6-14-S	100	100	15.39	4131.88	-2.51	-631.47	0.000000	0.00	0.000
6-15-S	100	100	15.39	4131.88	-0.46	-631.47	0.000000	0.00	0.000
7-1-S	100	100	15.39	4131.88	2.77	-631.47	0.000000	0.00	0.000
7-2-S	100	100	15.39	4131.88	3.93	-631.47	0.000000	0.00	0.000
7-3-S	100	100	15.39	4131.88	-6.55	-631.47	0.000000	0.00	0.000
7-4-S	100	100	15.39	4131.88	-27.14	-631.47	0.000000	0.00	0.000
7-5-S	100	100	15.39	4131.88	-10.20	-631.47	0.000000	0.00	0.000
7-6-S	100	100	15.39	1520.00	34.85	631.47	0.000000	0.00	0.000
7-7-S	100	100	15.39	1520.00	43.45	631.47	0.000000	0.00	0.000
7-8-S	100	100	15.39	1520.00	36.87	631.47	0.000000	0.00	0.000
7-9-S	100	100	15.39	4131.88	28.73	-631.47	0.000000	0.00	0.000
7-10-S	100	100	15.39	4131.88	19.04	-631.47	0.000000	0.00	0.000
7-11-S	100	100	15.39	4131.88	-13.55	-631.47	0.000000	0.00	0.000
7-12-S	100	100	15.39	4131.88	-27.22	-631.47	0.000000	0.00	0.000
7-13-S	100	100	15.39	4131.88	-12.69	-631.47	0.000000	0.00	0.000
7-14-S	100	100	15.39	4131.88	-4.69	-631.47	0.000000	0.00	0.000
7-15-S	100	100	15.39	4131.88	0.69	-631.47	0.000000	0.00	0.000
8-1-S	100	100	15.39	4131.88	-2.29	-631.47	0.000000	0.00	0.000
8-2-S	100	100	15.39	4131.88	-1.69	-631.47	0.000000	0.00	0.000
8-3-S	100	100	15.39	4131.88	1.29	-631.47	0.000000	0.00	0.000
8-4-S	100	100	15.39	1520.00	5.36	631.47	0.000000	0.00	0.000
8-5-S	100	100	15.39	1520.00	10.69	631.47	0.000000	0.00	0.000
8-6-S	100	100	15.39	1520.00	16.29	631.47	0.000000	0.00	0.000
8-7-S	100	100	15.39	1520.00	32.24	631.47	0.000000	0.00	0.000
8-8-S	100	100	15.39	1520.00	28.93	631.47	0.000000	0.00	0.000
8-9-S	100	100	15.39	1520.00	23.70	631.47	0.000000	0.00	0.000
8-10-S	100	100	15.39	1520.00	16.20	631.47	0.000000	0.00	0.000
8-11-S	100	100	15.39	1520.00	9.67	631.47	0.000000	0.00	0.000
8-12-S	100	100	15.39	1520.00	4.38	631.47	0.000000	0.00	0.000
8-13-S	100	100	15.39	4131.88	1.44	-631.47	0.000000	0.00	0.000
8-14-S	100	100	15.39	4131.88	-0.67	-631.47	0.000000	0.00	0.000
8-15-S	100	100	15.39	4131.88	-1.13	-631.47	0.000000	0.00	0.000
9-1-S	100	100	15.39	4131.88	3.54	-631.47	0.000000	0.00	0.000
9-2-S	100	100	15.39	4131.88	3.98	-631.47	0.000000	0.00	0.000
9-3-S	100	100	15.39	4131.88	-7.76	-631.47	0.000000	0.00	0.000
9-4-S	100	100	15.39	4131.88	-31.66	-631.47	0.000000	0.00	0.000
9-5-S	100	100	15.39	4131.88	-10.91	-631.47	0.000000	0.00	0.000
9-6-S	100	100	15.39	1520.00	36.62	631.47	0.000000	0.00	0.000
9-7-S	100	100	15.39	1520.00	45.41	631.47	0.000000	0.00	0.000
9-8-S	100	100	15.39	1520.00	39.26	631.47	0.000000	0.00	0.000
9-9-S	100	100	15.39	1520.00	30.90	631.47	0.000000	0.00	0.000
9-10-S	100	100	15.39	4131.88	20.42	-631.47	0.000000	0.00	0.000
9-11-S	100	100	15.39	4131.88	-14.71	-631.47	0.000000	0.00	0.000
9-12-S	100	100	15.39	4131.88	-31.03	-631.47	0.000000	0.00	0.000
9-13-S	100	100	15.39	4131.88	-14.42	-631.47	0.000000	0.00	0.000
9-14-S	100	100	15.39	4131.88	-5.04	-631.47	0.000000	0.00	0.000
9-15-S	100	100	15.39	4131.88	1.14	-631.47	0.000000	0.00	0.000
10-1-S	100	100	15.39	4131.88	-1.99	-631.47	0.000000	0.00	0.000
10-2-S	100	100	15.39	4131.88	-2.88	-631.47	0.000000	0.00	0.000
10-3-S	100	100	15.39	4131.88	-2.82	-631.47	0.000000	0.00	0.000
10-4-S	100	100	15.39	4131.88	4.00	-631.47	0.000000	0.00	0.000
10-5-S	100	100	15.39	1520.00	9.86	631.47	0.000000	0.00	0.000
10-6-S	100	100	15.39	1520.00	17.37	631.47	0.000000	0.00	0.000
10-7-S	100	100	15.39	1520.00	32.11	631.47	0.000000	0.00	0.000
10-8-S	100	100	15.39	1520.00	28.98	631.47	0.000000	0.00	0.000
10-9-S	100	100	15.39	1520.00	23.16	631.47	0.000000	0.00	0.000
10-10-S	100	100	15.39	4131.88	14.41	-631.47	0.000000	0.00	0.000
10-11-S	100	100	15.39	4131.88	8.32	-631.47	0.000000	0.00	0.000
10-12-S	100	100	15.39	4131.88	3.74	-631.47	0.000000	0.00	0.000
10-13-S	100	100	15.39	4131.88	-1.76	-631.47	0.000000	0.00	0.000
10-14-S	100	100	15.39	4131.88	-1.38	-631.47	0.000000	0.00	0.000
10-15-S	100	100	15.39	4131.88	-0.74	-631.47	0.000000	0.00	0.000
11-1-S	100	100	15.39	4131.88	1.97	-631.47	0.000000	0.00	0.000
11-2-S	100	100	15.39	4131.88	-3.50	-631.47	0.000000	0.00	0.000
11-3-S	100	100	15.39	4131.88	-5.74	-631.47	0.000000	0.00	0.000
11-4-S	100	100	15.39	4131.88	-16.31	-631.47	0.000000	0.00	0.000
11-5-S	100	100	15.39	4131.88	5.81	-631.47	0.000000	0.00	0.000
11-6-S	100	100	15.39	1520.00	27.47	631.47	0.000000	0.00	0.000
11-7-S	100	100	15.39	1520.00	38.71	631.47	0.000000	0.00	0.000
11-8-S	100	100	15.39	1520.00	33.82	631.47	0.000000	0.00	0.000
11-9-S	100	100	15.39	1520.00	26.47	631.47	0.000000	0.00	0.000
11-10-S	100	100	15.39	4131.88	16.60	-631.47	0.000000	0.00	0.000
11-11-S	100	100	15.39	4131.88	-7.77	-631.47	0.000000	0.00	0.000

APPALTATORE:

TELESE S.c.a r.l.

Consorzio Telese Società Consortile a Responsabilità Limitata

PROGETTAZIONE:

Mandatario:

Mandante:

SYSTRA S.A.

SWS Engineering S.p.A.

SYSTRA-SOTECNI S.p.A.

ITINERARIO NAPOLI – BARI
RADDOPPIO TRATTA CANCELLO-BENEVENTO
II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO
2° SUBLOTTO TELESE – SAN LORENZO
PROGETTO ESECUTIVO

Relazione di calcolo

IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX

COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	89 di 91

Is	B [cm]	H [cm]	Af [cmq]	Aeff [cmq]	M [kNm]	Mpf [kNm]	ε [%]	Sm [mm]	w [mm]
11-12-S	100	100	15.39	4131.88	-16.09	-631.47	0.000000	0.00	0.000
11-13-S	100	100	15.39	4131.88	-8.33	-631.47	0.000000	0.00	0.000
11-14-S	100	100	15.39	4131.88	-3.49	-631.47	0.000000	0.00	0.000
11-15-S	100	100	15.39	4131.88	0.68	-631.47	0.000000	0.00	0.000
12-1-S	100	100	15.39	4131.88	1.97	-631.47	0.000000	0.00	0.000
12-2-S	100	100	15.39	4131.88	-3.50	-631.47	0.000000	0.00	0.000
12-3-S	100	100	15.39	4131.88	-5.74	-631.47	0.000000	0.00	0.000
12-4-S	100	100	15.39	4131.88	-16.31	-631.47	0.000000	0.00	0.000
12-5-S	100	100	15.39	4131.88	5.81	-631.47	0.000000	0.00	0.000
12-6-S	100	100	15.39	1520.00	27.47	631.47	0.000000	0.00	0.000
12-7-S	100	100	15.39	1520.00	38.71	631.47	0.000000	0.00	0.000
12-8-S	100	100	15.39	1520.00	33.82	631.47	0.000000	0.00	0.000
12-9-S	100	100	15.39	1520.00	26.47	631.47	0.000000	0.00	0.000
12-10-S	100	100	15.39	4131.88	16.60	-631.47	0.000000	0.00	0.000
12-11-S	100	100	15.39	4131.88	-7.77	-631.47	0.000000	0.00	0.000
12-12-S	100	100	15.39	4131.88	-16.09	-631.47	0.000000	0.00	0.000
12-13-S	100	100	15.39	4131.88	-8.33	-631.47	0.000000	0.00	0.000
12-14-S	100	100	15.39	4131.88	-3.49	-631.47	0.000000	0.00	0.000
12-15-S	100	100	15.39	4131.88	0.68	-631.47	0.000000	0.00	0.000
13-1-S	100	100	15.39	4131.88	-1.99	-631.47	0.000000	0.00	0.000
13-2-S	100	100	15.39	4131.88	-2.88	-631.47	0.000000	0.00	0.000
13-3-S	100	100	15.39	4131.88	-2.82	-631.47	0.000000	0.00	0.000
13-4-S	100	100	15.39	4131.88	4.00	-631.47	0.000000	0.00	0.000
13-5-S	100	100	15.39	1520.00	9.86	631.47	0.000000	0.00	0.000
13-6-S	100	100	15.39	1520.00	17.37	631.47	0.000000	0.00	0.000
13-7-S	100	100	15.39	1520.00	32.11	631.47	0.000000	0.00	0.000
13-8-S	100	100	15.39	1520.00	28.98	631.47	0.000000	0.00	0.000
13-9-S	100	100	15.39	1520.00	23.16	631.47	0.000000	0.00	0.000
13-10-S	100	100	15.39	4131.88	14.41	-631.47	0.000000	0.00	0.000
13-11-S	100	100	15.39	4131.88	8.32	-631.47	0.000000	0.00	0.000
13-12-S	100	100	15.39	4131.88	3.74	-631.47	0.000000	0.00	0.000
13-13-S	100	100	15.39	4131.88	-1.76	-631.47	0.000000	0.00	0.000
13-14-S	100	100	15.39	4131.88	-1.38	-631.47	0.000000	0.00	0.000
13-15-S	100	100	15.39	4131.88	-0.74	-631.47	0.000000	0.00	0.000
14-1-S	100	100	15.39	4131.88	3.54	-631.47	0.000000	0.00	0.000
14-2-S	100	100	15.39	4131.88	3.98	-631.47	0.000000	0.00	0.000
14-3-S	100	100	15.39	4131.88	-7.76	-631.47	0.000000	0.00	0.000
14-4-S	100	100	15.39	4131.88	-31.66	-631.47	0.000000	0.00	0.000
14-5-S	100	100	15.39	4131.88	-10.91	-631.47	0.000000	0.00	0.000
14-6-S	100	100	15.39	1520.00	36.62	631.47	0.000000	0.00	0.000
14-7-S	100	100	15.39	1520.00	45.41	631.47	0.000000	0.00	0.000
14-8-S	100	100	15.39	1520.00	39.26	631.47	0.000000	0.00	0.000
14-9-S	100	100	15.39	1520.00	30.90	631.47	0.000000	0.00	0.000
14-10-S	100	100	15.39	4131.88	20.42	-631.47	0.000000	0.00	0.000
14-11-S	100	100	15.39	4131.88	-14.71	-631.47	0.000000	0.00	0.000
14-12-S	100	100	15.39	4131.88	-31.03	-631.47	0.000000	0.00	0.000
14-13-S	100	100	15.39	4131.88	-14.42	-631.47	0.000000	0.00	0.000
14-14-S	100	100	15.39	4131.88	-5.04	-631.47	0.000000	0.00	0.000
14-15-S	100	100	15.39	4131.88	1.14	-631.47	0.000000	0.00	0.000
15-1-S	100	100	15.39	4131.88	-2.29	-631.47	0.000000	0.00	0.000
15-2-S	100	100	15.39	4131.88	-1.69	-631.47	0.000000	0.00	0.000
15-3-S	100	100	15.39	4131.88	1.29	-631.47	0.000000	0.00	0.000
15-4-S	100	100	15.39	1520.00	5.36	631.47	0.000000	0.00	0.000
15-5-S	100	100	15.39	1520.00	10.69	631.47	0.000000	0.00	0.000
15-6-S	100	100	15.39	1520.00	16.29	631.47	0.000000	0.00	0.000
15-7-S	100	100	15.39	1520.00	32.24	631.47	0.000000	0.00	0.000
15-8-S	100	100	15.39	1520.00	28.93	631.47	0.000000	0.00	0.000
15-9-S	100	100	15.39	1520.00	23.70	631.47	0.000000	0.00	0.000
15-10-S	100	100	15.39	1520.00	16.20	631.47	0.000000	0.00	0.000
15-11-S	100	100	15.39	1520.00	9.67	631.47	0.000000	0.00	0.000
15-12-S	100	100	15.39	1520.00	4.38	631.47	0.000000	0.00	0.000
15-13-S	100	100	15.39	4131.88	1.44	-631.47	0.000000	0.00	0.000
15-14-S	100	100	15.39	4131.88	-0.67	-631.47	0.000000	0.00	0.000
15-15-S	100	100	15.39	4131.88	-1.13	-631.47	0.000000	0.00	0.000
16-1-S	100	100	15.39	4131.88	2.77	-631.47	0.000000	0.00	0.000
16-2-S	100	100	15.39	4131.88	3.93	-631.47	0.000000	0.00	0.000
16-3-S	100	100	15.39	4131.88	-6.55	-631.47	0.000000	0.00	0.000
16-4-S	100	100	15.39	4131.88	-27.14	-631.47	0.000000	0.00	0.000
16-5-S	100	100	15.39	4131.88	-10.20	-631.47	0.000000	0.00	0.000
16-6-S	100	100	15.39	1520.00	34.85	631.47	0.000000	0.00	0.000
16-7-S	100	100	15.39	1520.00	43.45	631.47	0.000000	0.00	0.000
16-8-S	100	100	15.39	1520.00	36.87	631.47	0.000000	0.00	0.000
16-9-S	100	100	15.39	4131.88	28.73	-631.47	0.000000	0.00	0.000
16-10-S	100	100	15.39	4131.88	19.04	-631.47	0.000000	0.00	0.000
16-11-S	100	100	15.39	4131.88	-13.55	-631.47	0.000000	0.00	0.000
16-12-S	100	100	15.39	4131.88	-27.22	-631.47	0.000000	0.00	0.000
16-13-S	100	100	15.39	4131.88	-12.69	-631.47	0.000000	0.00	0.000
16-14-S	100	100	15.39	4131.88	-4.69	-631.47	0.000000	0.00	0.000
16-15-S	100	100	15.39	4131.88	0.69	-631.47	0.000000	0.00	0.000
17-1-S	100	100	15.39	4131.88	-1.67	-631.47	0.000000	0.00	0.000
17-2-S	100	100	15.39	4131.88	-3.63	-631.47	0.000000	0.00	0.000

APPALTATORE: TELESE S.c.a r.l. Consorzio Telese Società Consortile a Responsabilità Limitata	ITINERARIO NAPOLI – BARI RADDOPPIO TRATTA CANCELLO-BENEVENTO II LOTTO FUNZIONALE FRASSO TELESINO – VITULANO 2° SUBLOTTO TELESE – SAN LORENZO PROGETTO ESECUTIVO												
PROGETTAZIONE: Mandatario: SYSTRA S.A. Mandante: SWS Engineering S.p.A. SYSTRA-SOTECNI S.p.A.													
Relazione di calcolo IF2R.2.2.E.ZZ.CL.TR.16.0.5.009.A.DOCX	<table border="1"> <tr> <td>COMMESSA</td> <td>LOTTO</td> <td>CODIFICA</td> <td>DOCUMENTO</td> <td>REV.</td> <td>FOGLIO</td> </tr> <tr> <td>IF2R</td> <td>2.2.E.ZZ</td> <td>CL</td> <td>TR.16.0.5.009</td> <td>A</td> <td>90 di 91</td> </tr> </table>	COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO	IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	90 di 91
COMMESSA	LOTTO	CODIFICA	DOCUMENTO	REV.	FOGLIO								
IF2R	2.2.E.ZZ	CL	TR.16.0.5.009	A	90 di 91								

Is	B [cm]	H [cm]	Af [cmq]	Aeff [cmq]	M [kNm]	Mpf [kNm]	ε [%]	Sm [mm]	w [mm]
17-3-S	100	100	15.39	4131.88	-5.22	-631.47	0.000000	0.00	0.000
17-4-S	100	100	15.39	4131.88	-5.77	-631.47	0.000000	0.00	0.000
17-5-S	100	100	15.39	4131.88	6.31	-631.47	0.000000	0.00	0.000
17-6-S	100	100	15.39	4131.88	19.78	-631.47	0.000000	0.00	0.000
17-7-S	100	100	15.39	4131.88	28.05	-631.47	0.000000	0.00	0.000
17-8-S	100	100	15.39	4131.88	25.23	-631.47	0.000000	0.00	0.000
17-9-S	100	100	15.39	4131.88	19.96	-631.47	0.000000	0.00	0.000
17-10-S	100	100	15.39	4131.88	11.71	-631.47	0.000000	0.00	0.000
17-11-S	100	100	15.39	4131.88	5.18	-631.47	0.000000	0.00	0.000
17-12-S	100	100	15.39	4131.88	-6.06	-631.47	0.000000	0.00	0.000
17-13-S	100	100	15.39	4131.88	-4.59	-631.47	0.000000	0.00	0.000
17-14-S	100	100	15.39	4131.88	-2.51	-631.47	0.000000	0.00	0.000
17-15-S	100	100	15.39	4131.88	-0.46	-631.47	0.000000	0.00	0.000

Pali in c.a.

Apertura limite fessure $w_{lim}=0.300$ mm

Ip	Is	Af [cmq]	Aeff [cmq]	Mpf [kNm]	M [kNm]	N [kN]	ε [%]	Sm [mm]	wm [mm]
1	1	27.99	4591.11	201.91	-29.17	226.46	0.000000	0.00	0.00
2	1	34.56	3617.50	226.82	-29.17	401.64	0.000000	0.00	0.00