

SOGGETTO PROPONENTE:



SMARTENERGY

SMARTENERGYIT2111 S.R.L.
P.zza Cavour n.1. 20121 Milano (MI)

COMUNE DI GRAVINA IN PUGLIA (BA)

Località MASSERIA PELLICCIARI

**PROGETTO PER LA REALIZZAZIONE DI UN NUOVO IMPIANTO AGRIVOLTAICO
E DELLE RELATIVE OPERE DI CONNESSIONE ALLA RTN**

POTENZA NOMINALE 35,09 MW

DENOMINAZIONE IMPIANTO - AFV_Pellicciari

PROGETTO DEFINITIVO

PROCEDURA DI AUTORIZZAZIONE UNICA REGIONALE di cui all'art.12 del D.lgs 387/2003 - Linee Guida Decr. MISE 10/09/2010
PROCEDURA DI VALUTAZIONE DI IMPATTO AMBIENTALE PRESSO IL MiTE ai sensi dell'art. 31, c.6 del DL 77/21
PROGETTAZIONE AGRIVOLTAICA ai sensi dell'articolo 65, comma 1-quater e 1-quinquies, del decreto-legge 24 gennaio 2012, n. 1
e delle LINEE GUIDA IMPIANTI AGRIVOLTAICI pubblicate dal MiTE il 06/06/2022

Serie calcoli preliminari

Relazione preliminare di calcolo delle strutture

codice interno

rev

RC 002

denominazione elaborato

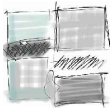
2L7CDF0_CalcoliPreliminariStrutture.pdf

2L7CDF0

PROGETTAZIONE DELLE OPERE:

firma / timbro progettista

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida

Via Cannolaro, 33 - 89047 Roccella Ionica (RC)
Via Gandino, 21 - 00167 Roma (RM)

Strutture e supporto tecnico opere civili:



Studio La Monaca Srl

Via Cilicia, 35 - 00179 Roma (RM)

Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida

Via Cannolaro, 33 - 89047 Roccella Ionica (RC)

Progettazione elettrica



Energy Cliet Service Srl

Via F. Corridoni, 93
24124 Bergamo

firma / timbro committente

02						COD. DOCUMENTO C477_RC_002 FOGLIO DI
01						
00	07/2022	prima emissione	GS	AG	AG	
REV.	DATA	DESCRIZIONE MODIFICA	REDATTO	APPROVATO	AUTORIZZATO	



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SOGGETTO PROPONENTE**SMARTENERGY**

SMARTENERGYIT2111 S.R.L.

Comune di Gravina in Puglia (BA) - Località Masseria Pellicciari
 Progetto per la realizzazione di un Nuovo Impianto Agrivoltaico e delle relative opere di
 connessione alla RTN
 Potenza nominale 35,09 MW

PROGETTO DEFINITIVO**Relazione di calcolo preliminare delle strutture**

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Arch. Andrea Giuffrida

**Agronomia e studi colturali**

Dott. Agr. Gianfranco Giuffrida





PREMESSA

La presente relazione di calcolo, in conformità al §10.1 del DM 17/01/18, è comprensiva di una descrizione generale dell'opera e dei criteri generali di analisi e verifica. Segue inoltre le indicazioni fornite al §10.2 del DM stesso per quanto concerne analisi e verifiche svolte con l'ausilio di codici di calcolo.

Tale documento è da ritenersi preliminare

In sintesi i contenuti del presente documento:

- Origine e Caratteristiche dei Codici di Calcolo
- Affidabilità dei codici utilizzati e validazione
- Tipo di analisi svolta
- Dati di ingresso
- Normative prese a riferimento
- Criteri seguiti nella schematizzazione della struttura, dei vincoli e degli eventuali sconessioni
- Legami costitutivi adottati per la modellazione dei materiali e dei terreni
- Schematizzazione delle azioni, condizioni e combinazioni di carico
- Metodologie numeriche utilizzate per l'analisi strutturale
- Metodologie numeriche utilizzate per la progettazione e la verifica degli elementi strutturali
- Risultati

Origine e Caratteristiche dei Codici di Calcolo	
Codice di calcolo:	PRO_SAP PROFESSIONAL Structural Analysis Program
Versione:	PROFESSIONAL (build 2022-06-196)
Produttore - Distributore:	2S.I. Software e Servizi per l'Ingegneria s.r.l. Via Garibaldi, 90 44121 Ferrara FE (Italy) Tel. +39 0532 200091 - www.2si.it
Codice Licenza:	Licenza dsi4667

In merito al punto 10.2 delle Norme Tecniche per le Costruzioni (*Affidabilità dei codici utilizzati*), si fa riferimento al Documento di Affidabilità "Test di validazione del software di calcolo PRO_SAP e dei moduli aggiuntivi PRO_SAP Modulo Geotecnico, PRO_CAD nodi acciaio e PRO_MST" disponibile per il download sul sito: <https://www.2si.it/it/prodotti/affidabilita/>

Descrizione generale dell'opera

Il presente documento ha come oggetto la progettazione e la verifica degli elementi strutturali che costituiscono i supporti ai pannelli dell'impianto agrivoltaico. Detto impianto avrà potenza massima di immissione in rete pari a circa 35,0 MWp, con pannelli posizionati su strutture infisse a terra in località "Fermata Pellicciari" nel Comune di Gravina in Puglia (Provincia di Bari) in un sito a destinazione agricola. Il parco fotovoltaico nel suo complesso sarà formato da 5 sottocampi distinti denominati sottocampo A-B-C-D-E.

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Denominazione Sottocampo	Inseguitori 2x12 moduli	Inseguitori 2x24 moduli	Inseguitori 2x48 moduli	Moduli totali	Potenza unitaria dei moduli [Wp]	Potenza Sottocampo [kWp]
A	73	60	256	29208	610	17.816.880
B	30	18	72	8496	610	5.182.560
C	49	56	84	11928	610	7.276.080
D	4	3	18	1968	610	1.200.480
E	25	25	43	5928	610	3.616.080
TOTALE				57528		35.092.080



Inquadramento delle aree di impianto su ortofoto

Individuazione del sito

Ubicazione	Comune di GRAVINA IN PUGLIA (BA) (Regione PUGLIA)
	Località GRAVINA IN PUGLIA (BA)
	Longitudine 16.420, Latitudine 40.819

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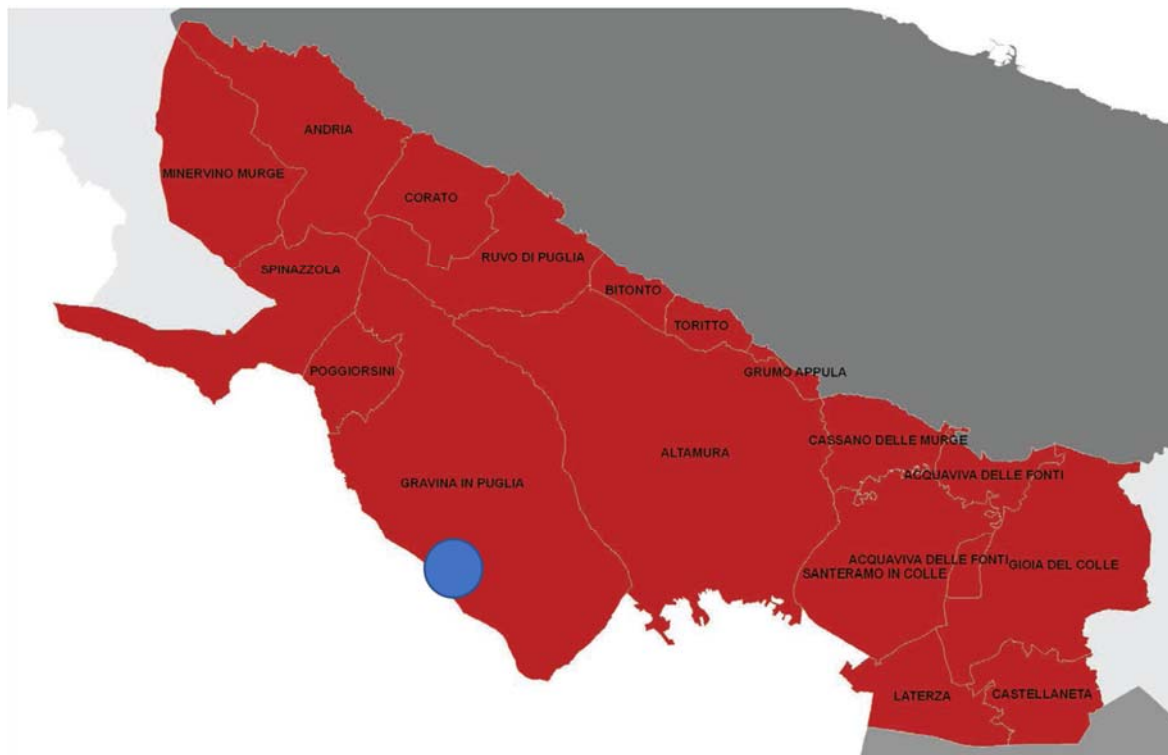


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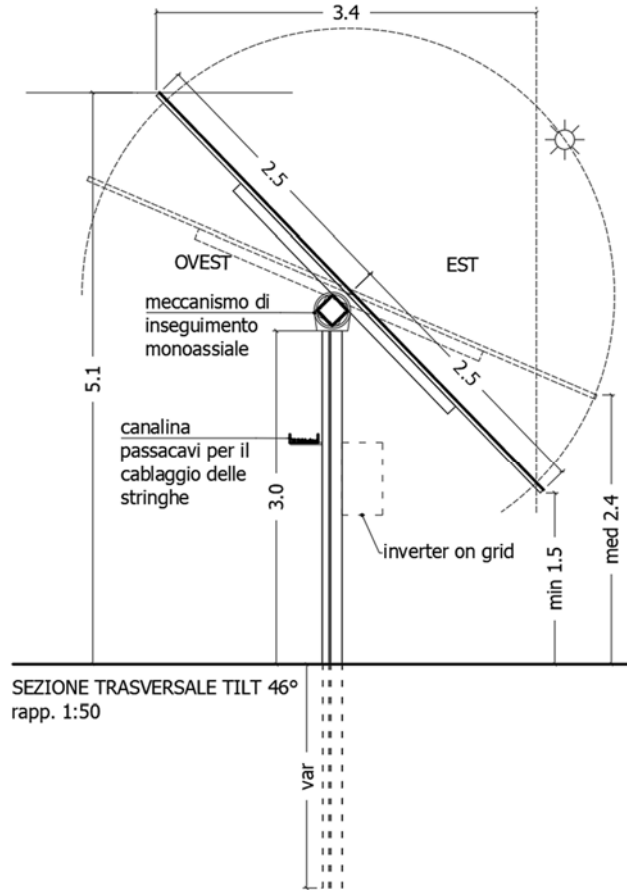


individuazione dell'area di impianto all'interno dell'ambito 6 - Alta Murgia

L'impianto è ad inseguimento di tipo mono-assiale. Gli inseguitori utilizzano una tecnologia elettromeccanica per seguire ogni giorno l'esposizione solare Est-Ovest su un asse di rotazione orizzontale Nord-Sud, posizionando così i pannelli sempre con la perfetta angolazione. Essi sono quindi in grado di orientarsi al sole durante l'arco della giornata, massimizzando così la radiazione solare incidente sulla superficie dei moduli e una generazione di energia che arriva fino al +30% di un analogo impianto che vede i moduli installati su strutture fisse.

Nel caso in esame riferito da un impianto agrivoltaico, le strutture di supporto saranno realizzate con le idonee altezze e opportunamente distanziate da terra e tra di loro. La finalità è consentire l'agevole transito di macchine operatrici adatte alle colture da installare tra le file di inseguitori.

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Sezione di dettaglio dello shelter utilizzato

La cabina di connessione e le cabine di campo dell'impianto e sono costituite da elementi modulari prefabbricati in CAV che verranno fondate su elemento di fondazione prefabbricato allettato su un letto di sabbia, previa bonifica dei terreni di fondazione. Le strutture prefabbricate sono prodotte in stabilimento da un costruttore che ne fornirà i calcoli e/o i certificati di prodotto. In fase esecutiva, a seguito di Autorizzazione e definizione del fornitore, verrà prodotta la relazione di calcolo ed il progetto esecutivo delle strutture e tutta la documentazione necessaria ai fini delle autorizzazioni di legge.

Parametri della struttura			
Classe d'uso	Vita Vn [anni]	Coeff. Uso	Periodo Vr [anni]
II	50.0	1.0	50.0

Si adotta una struttura a comportamento non dissipativo quindi il fattore di comportamento (q) si assume pari a 1.

Quadro normativo di riferimento adottato

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Progetto-verifica degli elementi	
Progetto acciaio	D.M. 17-01-2018
Azione sismica	
Norma applicata per l'azione sismica	D.M. 17-01-2018

Le norme ed i documenti assunti quale riferimento per la progettazione strutturale vengono indicati di seguito.

Azioni di progetto sulla costruzione

Nei capitoli "modellazione delle azioni" e "schematizzazione dei casi di carico" sono indicate le azioni sulla costruzione.

Nel prosieguo si indicano tipo di analisi strutturale condotta (statico, dinamico, lineare o non lineare) e il metodo adottato per la risoluzione del problema strutturale nonché le metodologie seguite per la verifica o per il progetto-verifica delle sezioni. Si riportano le combinazioni di carico adottate e, nel caso di calcoli non lineari, i percorsi di carico seguiti; le configurazioni studiate per la struttura in esame sono risultate effettivamente esaustive per la progettazione-verifica.

La verifica della sicurezza degli elementi strutturali avviene con i metodi della scienza delle costruzioni. L'analisi strutturale è condotta con il metodo degli spostamenti per la valutazione dello stato tensodeformativo indotto da carichi statici. L'analisi strutturale è condotta con il metodo dell'analisi modale e dello spettro di risposta in termini di accelerazione per la valutazione dello stato tensodeformativo indotto da carichi dinamici (tra cui quelli di tipo sismico).

L'analisi strutturale viene effettuata con il metodo degli elementi finiti. Il metodo sopraindicato si basa sulla schematizzazione della struttura in elementi connessi solo in corrispondenza di un numero prefissato di punti denominati nodi. I nodi sono definiti dalle tre coordinate cartesiane in un sistema di riferimento globale. Le incognite del problema (nell'ambito del metodo degli spostamenti) sono le componenti di spostamento dei nodi riferite al sistema di riferimento globale (traslazioni secondo X, Y, Z, rotazioni attorno X, Y, Z). La soluzione del problema si ottiene con un sistema di equazioni algebriche lineari i cui termini noti sono costituiti dai carichi agenti sulla struttura opportunamente concentrati ai nodi:

$$\mathbf{K} * \mathbf{u} = \mathbf{F} \text{ dove } \begin{array}{l} \mathbf{K} = \text{matrice di rigidezza} \\ \mathbf{u} = \text{vettore spostamenti nodali} \\ \mathbf{F} = \text{vettore forze nodali} \end{array}$$

Dagli spostamenti ottenuti con la risoluzione del sistema vengono quindi dedotte le sollecitazioni e/o le tensioni di ogni elemento, riferite generalmente ad una terna locale all'elemento stesso.

Il sistema di riferimento utilizzato è costituito da una terna cartesiana destrorsa XYZ. Si assume l'asse Z verticale ed orientato verso l'alto.

Gli elementi utilizzati per la modellazione dello schema statico della struttura sono i seguenti:

- Elemento tipo **BEAM** (trave-D2)
- Elemento tipo **MEMBRANE** (membrana-D3)

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Modello numerico

In questa parte viene descritto il modello numerico utilizzato (o i modelli numerici utilizzati) per l'analisi della struttura. La presentazione delle informazioni deve essere, coerentemente con le prescrizioni del paragrafo 10.2 e relativi sottoparagrafi delle NTC-2018, tale da garantirne la leggibilità, la corretta interpretazione e la riproducibilità

È stato preso in considerazione il "modulo" più esteso con dimensione longitudinale pari a circa 59.20 m e dimensione trasversale pari a 5.00 m. Al centro, in direzione longitudinale, sono collocati 9 appoggi fondati su un sistema di pali, costituiti da profili metallici in acciaio infissi mediante battitura o vibro-infissione.

I sostegni verticali in acciaio presentano un'altezza di circa 3.30 m e sono costituiti da travi HEB220, il corrente superiore in acciaio si estende nella mezzera per tutta la lunghezza della struttura ha una sezione trasversale di 0.15x0.15 m e spessore di 10 mm.

Gli elementi in acciaio sono del tipo S355 e sono stati modellati come elementi di tipo trave (monodimensionali). Al solo scopo di trasferire i carichi agenti sui pannelli solari (pressione del vento, carico della neve, ecc.) si è adottato un elemento bidimensionale (tipo shell) con spessore di 1 cm e costituito da un materiale infinitamente rigido che avesse peso equivalente a quello dei pannelli solari comprensivi della struttura di alloggiamento e degli elementi accessori (sensori, collegamenti, ecc.).

Tipo di analisi strutturale

Sismica dinamica lineare	SI
Analisi lineare	SI

Di seguito si indicano l'origine e le caratteristiche dei codici di calcolo utilizzati riportando titolo, produttore e distributore, versione, estremi della licenza d'uso:

Informazioni sul codice di calcolo

Titolo:	PRO_SAP PROfessional Structural Analysis Program
Versione:	PROFESSIONAL (build 2022-06-196)
Produttore-Distributore:	2S.I. Software e Servizi per l'Ingegneria s.r.l., Ferrara
Codice Licenza:	Licenza dsi4667

Un attento esame preliminare della documentazione a corredo del software ha consentito di valutarne l'affidabilità e soprattutto l'idoneità al caso specifico. La documentazione, fornita dal produttore e distributore del software, contiene una esauriente descrizione delle basi teoriche e degli algoritmi impiegati, l'individuazione dei campi d'impiego, nonché casi prova interamente risolti e commentati, corredati dei file di input necessari a riprodurre l'elaborazione:

Affidabilità dei codici utilizzati

2S.I. ha verificato l'affidabilità e la robustezza del codice di calcolo attraverso un numero significativo di casi prova in cui i risultati dell'analisi numerica sono stati confrontati con soluzioni teoriche. È possibile reperire la documentazione contenente alcuni dei più significativi casi trattati al seguente link: <https://www.2si.it/it/prodotti/affidabilita/>

Modellazione della geometria e proprietà meccaniche:

nodi	294
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Dott. Agr. Gianfranco Giuffrida





elementi D2 (per aste, travi, pilastri...)	173
elementi D3 (per pareti, platee, gusci...)	216
Dimensione del modello strutturale [cm]:	
X min =	0.00
Xmax =	5920.00
Ymin =	-232.38
Ymax =	232.38
Zmin =	0.00
Zmax =	422.18
Strutture verticali:	
Pilastri	SI
Strutture non verticali:	
Travi	SI
Gusci	SI
Tipo di vincoli:	
Nodi vincolati rigidamente	SI

Modellazione delle azioni

Si veda il capitolo "Schematizzazione dei casi di carico" per le informazioni necessarie alla comprensione ed alla ricostruzione delle azioni applicate al modello numerico, coerentemente con quanto indicato nella parte "2.6. Azioni di progetto sulla costruzione".

Combinazioni e/o percorsi di carico

Si veda il capitolo "Definizione delle combinazioni" in cui sono indicate le combinazioni di carico adottate e, nel caso di calcoli non lineari, i percorsi di carico seguiti.

Combinazioni dei casi di carico	
APPROCCIO PROGETTUALE	Approccio 2
SLU	SI
SLV (SLU con sisma)	SI
SLD	SI
Combinazione caratteristica (rara)	SI
Combinazione frequente	SI
Combinazione quasi permanente (SLE)	SI

Principali risultati

I risultati che si ritiene di interesse per la descrizione e la comprensione del/i modello/i e del comportamento della struttura:

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Per l'analisi modale:

- periodi dei modi di vibrare della struttura
- masse eccitate dai singoli modi
- massa eccitata totale

Deformate e sollecitazioni:

- spostamenti e rotazioni dei singoli nodi della struttura
- reazioni vincolari (nel caso siano presenti nodi vincolati rigidamente)
- pressioni sul terreno (nel caso siano presenti elementi di fondazione)
- sollecitazioni sugli elementi d2 nelle combinazioni di calcolo più significative
- tensioni sugli elementi d3 nelle combinazioni di calcolo più significative
- sollecitazioni sui macroelementi da elementi d3 nelle combinazioni di calcolo più significative

La presente relazione, illustra i dati in ingresso e i risultati delle analisi in forma tabellare. In particolare:

Per i dati in ingresso:

- modello solido della struttura
- numerazione di nodi e ed elementi
- configurazioni di carico statiche
- configurazioni di carico sismiche con baricentri delle masse e eccentricità

Per le combinazioni più significative:

- configurazioni deformate
- diagrammi e involuipi delle azioni interne
- mappe delle tensioni
- reazioni vincolari
- mappe delle pressioni sul terreno

Per il progetto-verifica degli elementi:

- armatura
- percentuali di sfruttamento
- verifiche più significative per i vari stati limite

Verifiche agli stati limite ultimi

Nel capitolo relativo alla progettazione degli elementi strutturali agli SLU vengono indicate, con riferimento alla normativa adottata, le modalità ed i criteri seguiti per valutare la sicurezza della struttura nei confronti delle possibili situazioni di crisi ed i risultati delle valutazioni svolte. In via generale, oltre alle verifiche di resistenza e di spostamento, devono essere prese in considerazione verifiche nei confronti dei fenomeni di instabilità, locale e globale, di fatica, di duttilità, di degrado.

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Progetto per la realizzazione di un Nuovo Impianto Agrivoltaico e delle relative opere di
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Relazione di calcolo preliminare delle strutture

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Verifiche agli stati limite di esercizio

Nel capitolo relativo alla progettazione degli elementi strutturali agli SLE vengono indicate, con riferimento alla normativa adottata, le modalità seguite per valutare l'affidabilità della struttura nei confronti delle possibili situazioni di perdita di funzionalità (per eccessive deformazioni, fessurazioni, vibrazioni, etc.) ed i risultati delle valutazioni svolte.

Materiali

Il capitolo materiali riportata informazioni esaustive relative all'elenco dei materiali impiegati e loro modalità di posa in opera e ai valori di calcolo.

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NORMATIVA DI RIFERIMENTO

1. D.Min. Infrastrutture Min. Interni e Prot. Civile 17 Gennaio 2018 e allegate "Norme tecniche per le costruzioni".
2. Circolare 21/01/19, n. 7 C.S.LL.PP "Istruzioni per l'applicazione dell'aggiornamento delle Norme Tecniche delle Costruzioni di cui al decreto ministeriale 17 gennaio 2018"
3. D.Min. Infrastrutture e trasporti 14 Settembre 2005 e allegate "Norme tecniche per le costruzioni".
4. D.M. LL.PP. 9 Gennaio 1996 "Norme tecniche per il calcolo, l'esecuzione ed il collaudo delle strutture in cemento armato, normale e precompresso e per le strutture metalliche".
5. D.M. LL.PP. 16 Gennaio 1996 "Norme tecniche relative ai <<Criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi>>".
6. D.M. LL.PP. 16 Gennaio 1996 "Norme tecniche per le costruzioni in zone sismiche".
7. Circolare 4/07/96, n.156AA.GG./STC. istruzioni per l'applicazione delle "Norme tecniche relative ai <<Criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi>>" di cui al D.M. 16/01/96.
8. Circolare 10/04/97, n.65AA.GG. istruzioni per l'applicazione delle "Norme tecniche per le costruzioni in zone sismiche" di cui al D.M. 16/01/96.
9. D.M. LL.PP. 20 Novembre 1987 "Norme tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento".
10. Circolare 4 Gennaio 1989 n. 30787 "Istruzioni in merito alle norme tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento".
11. D.M. LL.PP. 11 Marzo 1988 "Norme tecniche riguardanti le indagini sui terreni e sulle rocce, la stabilità dei pendii naturali e delle scarpate, i criteri generali e le prescrizioni per la progettazione, l'esecuzione e il collaudo delle opere di sostegno delle terre e delle opere di fondazione".
12. D.M. LL.PP. 3 Dicembre 1987 "Norme tecniche per la progettazione, esecuzione e collaudo delle costruzioni prefabbricate".
13. UNI 9502 - Procedimento analitico per valutare la resistenza al fuoco degli elementi costruttivi di conglomerato cementizio armato, normale e precompresso - edizione maggio 2001
14. Ordinanza del Presidente del Consiglio dei Ministri n. 3274 del 20 marzo 2003 "Primi elementi in materia di criteri generali per la classificazione sismica del territorio nazionale e di normative tecniche per le costruzioni in zona sismica" e successive modificazioni e integrazioni.
15. UNI EN 1990:2006 13/04/2006 Eurocodice 0 - Criteri generali di progettazione strutturale.
16. UNI EN 1991-1-1:2004 01/08/2004 Eurocodice 1 - Azioni sulle strutture - Parte 1-1: Azioni in generale - Pesi per unità di volume, pesi propri e sovraccarichi per gli edifici.
17. UNI EN 1991-2:2005 01/03/2005 Eurocodice 1 - Azioni sulle strutture - Parte 2: Carichi da traffico sui ponti.
18. UNI EN 1991-1-3:2004 01/10/2004 Eurocodice 1 - Azioni sulle strutture - Parte 1-3: Azioni in generale - Carichi da neve.
19. UNI EN 1991-1-4:2005 01/07/2005 Eurocodice 1 - Azioni sulle strutture - Parte 1-4: Azioni in generale - Azioni del vento.
20. UNI EN 1991-1-5:2004 01/10/2004 Eurocodice 1 - Azioni sulle strutture - Parte 1-5: Azioni in generale - Azioni termiche.
21. UNI EN 1992-1-1:2005 24/11/2005 Eurocodice 2 - Progettazione delle strutture di calcestruzzo - Parte 1-1: Regole generali e regole per gli edifici.
22. UNI EN 1992-1-2:2005 01/04/2005 Eurocodice 2 - Progettazione delle strutture di calcestruzzo - Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio.

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23. UNI EN 1993-1-1:2005 01/08/2005 Eurocodice 3 - Progettazione delle strutture di acciaio - Parte 1-1: Regole generali e regole per gli edifici.
24. UNI EN 1993-1-8:2005 01/08/2005 Eurocodice 3 - Progettazione delle strutture di acciaio - Parte 1-8: Progettazione dei collegamenti.
25. UNI EN 1994-1-1:2005 01/03/2005 Eurocodice 4 - Progettazione delle strutture composte acciaio-calcestruzzo - Parte 1-1: Regole generali e regole per gli edifici.
26. UNI EN 1994-2:2006 12/01/2006 Eurocodice 4 - Progettazione delle strutture composte acciaio-calcestruzzo - Parte 2: Regole generali e regole per i ponti.
27. UNI EN 1995-1-1:2005 01/02/2005 Eurocodice 5 - Progettazione delle strutture di legno - Parte 1-1: Regole generali – Regole comuni e regole per gli edifici.
28. UNI EN 1995-2:2005 01/01/2005 Eurocodice 5 - Progettazione delle strutture di legno - Parte 2: Ponti.
29. UNI EN 1996-1-1:2006 26/01/2006 Eurocodice 6 - Progettazione delle strutture di muratura - Parte 1-1: Regole generali per strutture di muratura armata e non armata.
30. UNI EN 1996-3:2006 09/03/2006 Eurocodice 6 - Progettazione delle strutture di muratura - Parte 3: Metodi di calcolo semplificato per strutture di muratura non armata.
31. UNI EN 1997-1:2005 01/02/2005 Eurocodice 7 - Progettazione geotecnica - Parte 1: Regole generali.
32. UNI EN 1998-1:2005 01/03/2005 Eurocodice 8 - Progettazione delle strutture per la resistenza sismica - Parte 1: Regole generali, azioni sismiche e regole per gli edifici.
33. UNI EN 1998-3:2005 01/08/2005 Eurocodice 8 - Progettazione delle strutture per la resistenza sismica - Parte 3: Valutazione e adeguamento degli edifici.
34. UNI EN 1998-5:2005 01/01/2005 Eurocodice 8 - Progettazione delle strutture per la resistenza sismica - Parte 5: Fondazioni, strutture di contenimento ed aspetti geotecnici.

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CARATTERISTICHE MATERIALI UTILIZZATI

Legenda tabella dati materiali

Sono previsti i seguenti tipi di materiale:

2	materiale tipo acciaio
---	------------------------

I materiali utilizzati nella modellazione sono individuati da una sigla identificativa ed un codice numerico (gli elementi strutturali richiamano quest'ultimo nella propria descrizione). Per ogni materiale vengono riportati in tabella i seguenti dati:

Young	modulo di elasticità normale E
Poisson	coefficiente di contrazione trasversale ν
G	modulo di elasticità tangenziale
Gamma	peso specifico
Alfa	coefficiente di dilatazione termica
Elasto-plastico	Materiale elastico perfettamente plastico per aste non lineari
Fattore attrito	Coefficiente di attrito per aste non lineari

I dati soprariportati vengono utilizzati per la modellazione dello schema statico e per la determinazione dei carichi inerziali e termici. In relazione al tipo di materiale vengono riportati inoltre:

2	acciaio		
	Tensione f_t		Valore della tensione di rottura
	Tensione f_y		Valore della tensione di snervamento
	Resistenza f_d		Resistenza di calcolo per SL CNR-UNI 10011
	Resistenza $f_d (>40)$		Resistenza di calcolo per SL CNR-UNI 10011 per spessori $> 40\text{mm}$
	Tensione ammissibile		Tensione ammissibile CNR-UNI 10011
	Tensione ammissibile (>40)		Tensione ammissibile CNR-UNI 10011 per spessori $> 40\text{mm}$

Vengono inoltre riportate le tabelle contenenti il riassunto delle informazioni assegnate nei criteri di progetto in uso.

Id	Tipo / Note	V. caratt.	V. medio	Young	Poisson	G	Gamma	Alfa	Altri
13	Acciaio Fe510 - S355-acciaio Fe510-S355	daN/cm ²	daN/cm ²	daN/cm ²		daN/cm ²	daN/cm ³		
	Tensione f_t	5100.0		2.100e+06	0.30	8.077e+05	7.85e-03	1.20e-05	
	Resistenza f_d	3550.0							
	Resistenza $f_d (>40)$	3150.0							
	Tensione ammissibile	2400.0							
	Tensione ammissibile (>40)	2100.0							
	Rapporto HRDb								1.00e-05
	Rapporto HRDv								1.00e-05
157	Materiale inf. rigido no peso E = 1.000e+07- materiale E = 1.000e+07			1.000e+07	0.0	5.000e+06	0.0	1.20e-05	
	Rapporto HRDb								1.00e-05
	Rapporto HRDv								1.00e-05

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IMPIANTI FOTOVOLTAICI, EOLICI E TECNOLOGICI



PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

Id	Tipo / Note	V. caratt.	V. medio	Young	Poisson	G	Gamma	Alfa	Altri
158	Materiale inf. rigido ppp E = 1.000e+07-materiale E = 1.000e+07			1.000e+07	0.0	5.000e+06	1.50e-03	1.20e-05	
	Rapporto HRDb								1.00e-05
	Rapporto HRDv								1.00e-05

Pilastrici acc.	1/	2/	3/
Lunghezze libere			
Metodo di calcolo 2-2	Assegnato	Assegnato	Assegnato
2-2 Beta assegnato	2.00	2.00	2.00
2-2 Beta * L assegnato [cm]	0.0	0.0	0.0
Metodo di calcolo 3-3	Assegnato	Assegnato	Assegnato
3-3 Beta assegnato	2.00	2.00	2.00
3-3 Beta * L assegnato [cm]	0.0	0.0	0.0
1-1 Beta assegnato	1.00	1.00	1.00
1-1 Beta * L assegnato [cm]	0.0	0.0	0.0
Generalità			
Coefficiente gamma M0	1.05	1.05	1.05
Coefficiente gamma M1	1.05	1.05	1.05
Coefficiente gamma M2	1.25	1.25	1.25
Effetti del 2 ordine	SI	SI	SI
Momenti equivalenti	SI	SI	SI
Usa condizioni I e II	SI	SI	SI

Travi acc.	1	2	3
Lunghezze libere			
3-3 Beta * L automatico	SI	SI	SI
3-3 Beta assegnato	1.00	1.00	1.00
3-3 Beta assegnato [cm]	0.0	0.0	0.0
2-2 Beta * L automatico	SI	SI	SI
2-2 Beta assegnato	1.00	1.00	1.00
2-2 Beta * L assegnato [cm]	0.0	0.0	0.0
1-1 Beta * L automatico	SI	SI	SI
1-1 Beta assegnato	1.00	1.00	1.00
1-1 Beta * L assegnato [cm]	0.0	0.0	0.0
Generalità			
Coefficiente gamma M0	1.05	1.05	1.05
Coefficiente gamma M1	1.05	1.05	1.05
Coefficiente gamma M2	1.25	1.25	1.25
Luce di taglio per GR [cm]	1.00	1.00	1.00
Usa condizioni I e II	SI	SI	SI
Momenti equivalenti	SI	SI	SI

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MODELLAZIONE DELLE SEZIONI

Legenda tabella dati sezioni

Le sezioni utilizzate nella modellazione sono individuate da una sigla identificativa ed un codice numerico (gli elementi strutturali richiamano quest'ultimo nella propria descrizione). Per ogni sezione vengono riportati in tabella i seguenti dati:

Area	area della sezione
A V2	area della sezione/fattore di taglio (per il taglio in direzione 2)
A V3	area della sezione/fattore di taglio (per il taglio in direzione 3)
Jt	fattore torsionale di rigidezza
J2-2	momento d'inerzia della sezione riferito all'asse 2
J3-3	momento d'inerzia della sezione riferito all'asse 3
W2-2	modulo di resistenza della sezione riferito all'asse 2
W3-3	modulo di resistenza della sezione riferito all'asse 3
Wp2-2	modulo di resistenza plastico della sezione riferito all'asse 2
Wp3-3	modulo di resistenza plastico della sezione riferito all'asse 3

I dati sopra riportati vengono utilizzati per la determinazione dei carichi inerziali e per la definizione delle rigidezze degli elementi strutturali; qualora il valore di Area V2 (e/o Area V3) sia nullo la deformabilità per taglio V2 (e/o V3) è trascurata. La valutazione delle caratteristiche inerziali delle sezioni è condotta nel riferimento 2-3 dell'elemento.

rettangolare	a T	a T rovescia	a T di colmo	a L	a L specchiata
a L specchiata rovescia	a L rovescia	a L di colmo	a doppio T	a quattro specchiata	a quattro
a U	a C	a croce	circolare	rettangolare cava	circolare cava



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Per quanto concerne i profilati semplici ed accoppiati l'asse 2 del riferimento coincide con l'asse x riportato nei più diffusi profilati.

Per quanto concerne le sezioni di tipo generico (tipo 1.):

- i valori dimensionali con prefisso B sono riferiti all'asse 2
- i valori dimensionali con prefisso H sono riferiti all'asse 3

Id	Tipo	Area	A V2	A V3	Jt	J 2-2	J 3-3	W 2-2	W 3-3	Wp 2-2	Wp 3-3
		cm2	cm2	cm2	cm4	cm4	cm4	cm3	cm3	cm3	cm3
15	HEB 220	91.00	0.0	0.0	76.60	2843.00	8091.00	258.50	735.50	393.90	827.00
16	T.QU 150x150x10	52.57	0.0	0.0	2839.24	1652.53	1652.53	220.34	220.34	269.17	269.17

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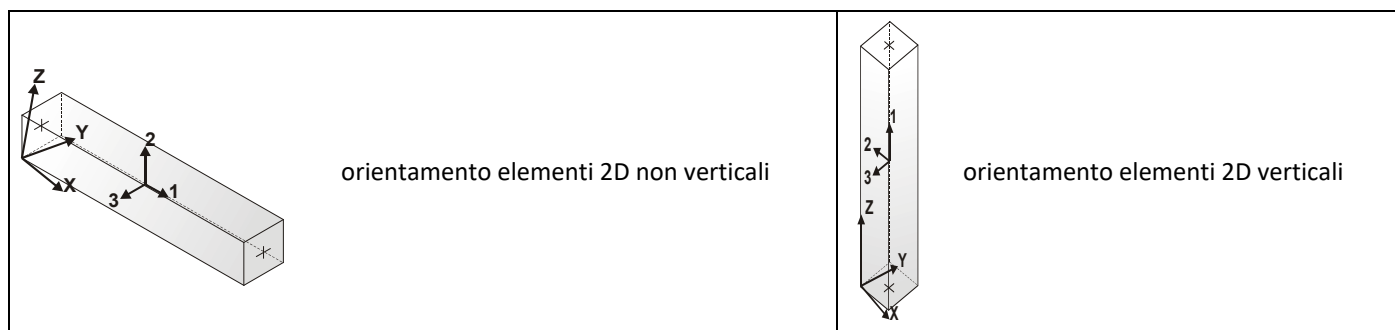
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MODELLAZIONE STRUTTURA: ELEMENTI TRAVE

Tabella dati travi

Il programma utilizza per la modellazione elementi a due nodi denominati in generale travi. Ogni elemento trave è individuato dal nodo iniziale e dal nodo finale. Ogni elemento è caratterizzato da un insieme di proprietà riportate in tabella che ne completano la modellazione.



In particolare per ogni elemento viene indicato in tabella:

Elem.	numero dell'elemento
Note	codice di comportamento: trave, trave di fondazione, pilastro, asta, asta tesa, asta compressa,
Nodo I (J)	numero del nodo iniziale (finale)
Mat.	codice del materiale assegnato all'elemento
Sez.	codice della sezione assegnata all'elemento
Rotaz.	valore della rotazione dell'elemento, attorno al proprio asse, nel caso in cui l'orientamento di default non sia adottabile; l'orientamento di default prevede per gli elementi non verticali l'asse 2 contenuto nel piano verticale e l'asse 3 orizzontale, per gli elementi verticali l'asse 2 diretto secondo X negativo e l'asse 3 diretto secondo Y negativo
Svincolo I (J)	codici di svincolo per le azioni interne; i primi sei codici si riferiscono al nodo iniziale, i restanti sei al nodo finale (il valore 1 indica che la relativa azione interna non è attiva)
Wink V	costante di sottofondo (coefficiente di Winkler) per la modellazione della trave su suolo elastico
Wink O	costante di sottofondo (coefficiente di Winkler) per la modellazione del suolo elastico orizzontale

Elem.	Note	Nodo I	Nodo J	Mat.	Sez.	Crit.	Rotaz. gradi	Svincolo I	Svincolo J	Wink V daN/cm3	Wink O daN/cm3
105	Trave	69	77	13	16	3					
106	Trave	70	78	13	16	3					
107	Trave	71	79	13	16	3					
108	Trave	72	80	13	16	3					
109	Trave	73	81	13	16	3					
110	Trave	74	82	13	16	3					
111	Trave	75	71	13	16	3					
112	Trave	76	72	13	16	3					

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113	Trave	77	73	13	16	3	
114	Trave	78	74	13	16	3	
115	Trave	79	69	13	16	3	
116	Trave	80	70	13	16	3	
117	Trave	81	11	13	16	3	
118	Trave	82	283	13	16	3	
119	Pilas.	1	8	13	15	3	90.00
120	Pilas.	2	9	13	15	3	90.00
121	Pilas.	3	61	13	15	3	90.00
122	Pilas.	4	11	13	15	3	90.00
123	Pilas.	5	65	13	15	3	90.00
124	Pilas.	6	13	13	15	3	90.00
125	Pilas.	7	14	13	15	3	90.00
126	Trave	15	35	13	16	3	
127	Trave	8	47	13	16	3	
128	Trave	9	58	13	16	3	
129	Trave	10	273	13	16	3	
130	Trave	11	76	13	16	3	
131	Trave	12	65	13	16	3	
132	Trave	13	48	13	16	3	
133	Trave	14	36	13	16	3	
134	Trave	35	8	13	16	3	
135	Trave	36	16	13	16	3	
136	Trave	41	49	13	16	3	
137	Trave	42	50	13	16	3	
138	Trave	43	51	13	16	3	
139	Trave	44	52	13	16	3	
140	Trave	45	53	13	16	3	
141	Trave	46	54	13	16	3	
142	Trave	47	43	13	16	3	
143	Trave	48	44	13	16	3	
144	Trave	49	45	13	16	3	
145	Trave	50	46	13	16	3	
146	Trave	51	41	13	16	3	
147	Trave	52	42	13	16	3	
148	Trave	53	9	13	16	3	
149	Trave	54	14	13	16	3	
150	Trave	55	59	13	16	3	
151	Trave	56	60	13	16	3	
152	Trave	57	61	13	16	3	
153	Trave	58	56	13	16	3	
154	Trave	59	57	13	16	3	
155	Trave	60	55	13	16	3	
156	Trave	61	10	13	16	3	
157	Trave	62	66	13	16	3	
158	Trave	63	67	13	16	3	
159	Trave	64	68	13	16	3	
160	Trave	65	63	13	16	3	
161	Trave	66	64	13	16	3	
162	Trave	67	62	13	16	3	
163	Trave	68	13	13	16	3	
168	Trave	278	12	13	16	3	
169	Trave	273	288	13	16	3	
170	Trave	283	278	13	16	3	
171	Trave	288	75	13	16	3	
172	Pilas.	293	71	13	15	3	90.00
173	Pilas.	294	74	13	15	3	90.00

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MODELLAZIONE DELLE AZIONI

Legenda tabella dati azioni

Le azioni utilizzate nella modellazione sono individuate da una sigla identificativa ed un codice numerico (gli elementi strutturali richiamano quest'ultimo nella propria descrizione). Per ogni azione applicata alla struttura viene di riportato il codice, il tipo e la sigla identificativa. Le tabelle successive dettagliano i valori caratteristici di ogni azione in relazione al tipo. Le tabelle riportano infatti i seguenti dati in relazione al tipo:

1	carico concentrato nodale 6 dati (forza Fx, Fy, Fz, momento Mx, My, Mz)
2	spostamento nodale impresso 6 dati (spostamento Tx,Ty,Tz, rotazione Rx,Ry,Rz)
3	carico distribuito globale su elemento tipo trave 7 dati (fx,fy,fz,mx,my,mz,ascissa di inizio carico) 7 dati (fx,fy,fz,mx,my,mz,ascissa di fine carico)
4	carico distribuito locale su elemento tipo trave 7 dati (f1,f2,f3,m1,m2,m3,ascissa di inizio carico) 7 dati (f1,f2,f3,m1,m2,m3,ascissa di fine carico)
5	carico concentrato globale su elemento tipo trave 7 dati (Fx,Fy,Fz,Mx,My,Mz,ascissa di carico)
6	carico concentrato locale su elemento tipo trave 7 dati (F1, F2, F3, M1, M2, M3, ascissa di carico)
7	variazione termica applicata ad elemento tipo trave 7 dati (variazioni termiche: uniforme, media e differenza in altezza e larghezza al nodo iniziale e finale)
8	carico di pressione uniforme su elemento tipo piastra 1 dato (pressione)
9	carico di pressione variabile su elemento tipo piastra 4 dati (pressione, quota, pressione, quota)
10	variazione termica applicata ad elemento tipo piastra 2 dati (variazioni termiche: media e differenza nello spessore)
11	carico variabile generale su elementi tipo trave e piastra 1 dato descrizione della tipologia 4 dati per segmento (posizione, valore, posizione, valore) la tipologia precisa l'ascissa di definizione, la direzione del carico, la modalità di carico e la larghezza d'influenza per gli elementi tipo trave
12	gruppo di carichi con impronta su piastra 9 dati (numero di ripetizioni in direzione X e Y, valore di ciascun carico, posizione centrale del primo, dimensioni dell'impronta, interasse tra i carichi)





	Carico concentrato nodale		Spostamento impresso
	Carico distribuito globale		Carico distribuito locale
	Carico concentrato globale		Carico concentrato locale
	Carico termico 2D		Carico termico 3D
	Carico pressione uniforme		Carico pressione variabile

Tipo carico distribuito locale su trave

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Id	Tipo	Pos.	f1	f2	f3	m1	m2	m3
		cm	daN/cm	daN/cm	daN/cm	daN	daN	daN
9	Vento +-DL:F2i=-3.75 F2f=-3.75	0.0	0.0	-3.75	0.0	0.0	0.0	0.0
		0.0	0.0	-3.75	0.0	0.0	0.0	0.0
10	Vento --DL:F2i=5.87 F2f=5.87	0.0	0.0	5.87	0.0	0.0	0.0	0.0
		0.0	0.0	5.87	0.0	0.0	0.0	0.0
12	DL:F1i=-2.08 F1f=-2.08	0.0	-2.08	0.0	0.0	0.0	0.0	0.0
		0.0	-2.08	0.0	0.0	0.0	0.0	0.0

Tipo carico variabile generale

Id	Tipo	ascissa	valore	ascissa	valore
		cm	daN/cm2	cm	daN/cm2
15	Neve-QV:unif - Qz - Proiez.				
	Unif. Qz Proiez. L2=0.0		-8.90e-03		

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SCHEMATIZZAZIONE DEI CASI DI CARICO

Legenda tabella casi di carico

Sono previsti i seguenti tipi di casi di carico:

	Sigla	Tipo	Descrizione
1	Ggk	A	caso di carico comprensivo del peso proprio struttura
3	Qk	NA	caso di carico con azioni variabili
6	Qnk	A	caso di carico comprensivo dei carichi di neve
7	Qtk	SA	caso di carico comprensivo di una variazione termica agente sulla struttura
8	Qvk	NA	caso di carico comprensivo di azioni da vento sulla struttura
10	Edk	SA	caso di carico sismico con analisi dinamica

Sono di tipo automatico A (ossia non prevedono introduzione dati da parte dell'utente) i seguenti casi di carico: 1-Ggk; 6-Qnk.

Sono di tipo semi-automatico SA (ossia prevedono una minima introduzione dati da parte dell'utente) i seguenti casi di carico:

7-Qtk, in quanto richiede solo il valore della variazione termica; 10-Edk, in quanto richiedono il valore dell'angolo di ingresso del sisma e l'individuazione dei casi di carico partecipanti alla definizione delle masse.

Sono di tipo non automatico NA ossia prevedono la diretta applicazione di carichi generici agli elementi strutturali (si veda il precedente punto Modellazione delle Azioni) i restanti casi di carico.

Nella tabella successiva vengono riportati i casi di carico agenti sulla struttura, con l'indicazione dei dati relativi al caso di carico stesso:

Numero Tipo e Sigla identificativa, Valore di riferimento del caso di carico (se previsto).

In successione, per i casi di carico non automatici, viene riportato l'elenco di nodi ed elementi direttamente caricati con la sigla identificativa del carico.

Per i casi di carico di tipo sismico (10-Edk), viene riportata la tabella di definizione delle masse: per ogni caso di carico partecipante alla definizione delle masse viene indicata la relativa aliquota (partecipazione) considerata. Si precisa che per i casi di carico 6-Qnk la partecipazione è prevista localmente e pertanto la loro partecipazione è di norma pari a uno.

CDC	Tipo	Sigla Id	Note
1	Ggk	CDC=Ggk (peso proprio della struttura)	
2	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)	partecipazione: 1.00 per 1 CDC=Ggk (peso proprio della struttura)
3	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)	come precedente CDC sismico
4	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)	come precedente CDC sismico
5	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)	come precedente CDC sismico
6	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)	come precedente CDC sismico
7	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)	come precedente CDC sismico
8	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)	come precedente CDC sismico
9	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)	come precedente CDC sismico
10	Qvk	CDC=QvkTu+	Azioni applicate:
11	Qvk	CDC=QvkTu-	Azioni applicate:
12	Qvk	CDC=QvkTd+	Azioni applicate:
13	Qvk	CDC=QvkTd-	Azioni applicate:
14	Qvk	CDC=Qvkf	Azioni applicate:
			D2 :da 105 a 118 Azione : DL:F1i=-2.08 F1f=-2.08
			D2 :da 126 a 163 Azione : DL:F1i=-2.08 F1f=-2.08

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SMARTENERGYIT2111 S.R.L.

Comune di Gravina in Puglia (BA) - Località Masseria Pellicciari
 Progetto per la realizzazione di un Nuovo Impianto Agrivoltaico e delle relative opere di
 connessione alla RTN
 Potenza nominale 35,09 MW

PROGETTO DEFINITIVO**Relazione di calcolo preliminare delle strutture**

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CDC	Tipo	Sigla Id	Note
			D2 :da 168 a 171 Azione : DL:F1i=-2.08 F1f=-2.08
15	Qtk	CDC=Qtk (carico termico) dT= 42.00	variazione termica:42.00
16	Qk	CDC=Qkneve	Azioni applicate:

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DEFINIZIONE DELLE COMBINAZIONI

Legenda tabella combinazioni di carico

Il programma combina i diversi tipi di casi di carico (CDC) secondo le regole previste dalla normativa vigente. Le combinazioni previste sono destinate al controllo di sicurezza della struttura ed alla verifica degli spostamenti e delle sollecitazioni.

La prima tabella delle combinazioni riportata di seguito comprende le seguenti informazioni: Numero, Tipo, Sigla identificativa. Una seconda tabella riporta il peso nella combinazione assunto per ogni caso di carico. Ai fini delle verifiche degli stati limite si definiscono le seguenti combinazioni delle azioni:

Combinazione fondamentale SLU

$$\gamma G1 \cdot G1 + \gamma G2 \cdot G2 + \gamma P \cdot P + \gamma Q1 \cdot Qk1 + \gamma Q2 \cdot \psi 02 \cdot Qk2 + \gamma Q3 \cdot \psi 03 \cdot Qk3 + \dots$$

Combinazione caratteristica (rara) SLE

$$G1 + G2 + P + Qk1 + \psi 02 \cdot Qk2 + \psi 03 \cdot Qk3 + \dots$$

Combinazione frequente SLE

$$G1 + G2 + P + \psi 11 \cdot Qk1 + \psi 22 \cdot Qk2 + \psi 23 \cdot Qk3 + \dots$$

Combinazione quasi permanente SLE

$$G1 + G2 + P + \psi 21 \cdot Qk1 + \psi 22 \cdot Qk2 + \psi 23 \cdot Qk3 + \dots$$

Combinazione sismica, impiegata per gli stati limite ultimi e di esercizio connessi all'azione sismica E

$$E + G1 + G2 + P + \psi 21 \cdot Qk1 + \psi 22 \cdot Qk2 + \dots$$

Combinazione eccezionale, impiegata per gli stati limite connessi alle azioni eccezionali

$$G1 + G2 + Ad + P + \psi 21 \cdot Qk1 + \psi 22 \cdot Qk2 + \dots$$

Dove:

NTC 2018 Tabella 2.5.I

Destinazione d'uso/azione	$\psi 0$	$\psi 1$	$\psi 2$
Categoria A residenziali	0,70	0,50	0,30
Categoria B uffici	0,70	0,50	0,30
Categoria C ambienti suscettibili di affollamento	0,70	0,70	0,60
Categoria D ambienti ad uso commerciale	0,70	0,70	0,60
Categoria E biblioteche, archivi, magazzini, ...	1,00	0,90	0,80
Categoria F Rimesse e parcheggi (autoveicoli $\leq 30kN$)	0,70	0,70	0,60
Categoria G Rimesse e parcheggi (autoveicoli $> 30kN$)	0,70	0,50	0,30
Categoria H Coperture	0,00	0,00	0,00
Vento	0,60	0,20	0,00

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Neve a quota <= 1000 m	0,50	0,20	0,00
Neve a quota > 1000 m	0,70	0,50	0,20
Variazioni Termiche	0,60	0,50	0,00

Nelle verifiche possono essere adottati in alternativa due diversi approcci progettuali:

- per l'approccio 1 si considerano due diverse combinazioni di gruppi di coefficienti di sicurezza parziali per le azioni, per i materiali e per la resistenza globale (combinazione 1 con coefficienti A1 e combinazione 2 con coefficienti A2),
- per l'approccio 2 si definisce un'unica combinazione per le azioni, per la resistenza dei materiali e per la resistenza globale (con coefficienti A1).

NTC 2018 Tabella 2.6.I

		Coefficiente γ_f	EQU	A1	A2
Carichi permanenti	Favorevoli	γ_{G1}	0,9	1,0	1,0
	Sfavorevoli		1,1	1,3	1,0
Carichi permanenti non strutturali (Non compiutamente definiti)	Favorevoli	γ_{G2}	0,8	0,8	0,8
	Sfavorevoli		1,5	1,5	1,3
Carichi variabili	Favorevoli	γ_{Qi}	0,0	0,0	0,0
	Sfavorevoli		1,5	1,5	1,3

Cmb	Tipo	Sigla Id
1	SLU	Comb. SLU A1 1
2	SLU	Comb. SLU A1 2
3	SLU	Comb. SLU A1 3
4	SLU	Comb. SLU A1 4
5	SLU	Comb. SLU A1 5
6	SLU	Comb. SLU A1 6
7	SLU	Comb. SLU A1 7
8	SLU	Comb. SLU A1 8
9	SLU	Comb. SLU A1 9
10	SLU	Comb. SLU A1 10
11	SLU	Comb. SLU A1 11
12	SLU	Comb. SLU A1 12
13	SLU	Comb. SLU A1 13
14	SLU	Comb. SLU A1 14
15	SLU	Comb. SLU A1 15
16	SLU	Comb. SLU A1 16
17	SLU	Comb. SLU A1 17
18	SLU	Comb. SLU A1 18
19	SLU	Comb. SLU A1 19
20	SLU	Comb. SLU A1 20
21	SLU	Comb. SLU A1 21
22	SLU	Comb. SLU A1 22
23	SLU	Comb. SLU A1 23
24	SLU	Comb. SLU A1 24
25	SLU	Comb. SLU A1 25
26	SLU	Comb. SLU A1 26
27	SLU	Comb. SLU A1 27
28	SLU	Comb. SLU A1 28
29	SLU	Comb. SLU A1 29
30	SLU	Comb. SLU A1 30
31	SLU	Comb. SLU A1 31

Progettazione civile e inserimento ambientale

Agronomia e studi culturali

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SOGGETTO PROPONENTE



SMARTENERGY

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PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

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Cmb	Tipo	Sigla Id
32	SLU	Comb. SLU A1 32
33	SLU	Comb. SLU A1 33
34	SLU	Comb. SLU A1 34
35	SLU	Comb. SLU A1 35
36	SLU	Comb. SLU A1 36
37	SLU	Comb. SLU A1 37
38	SLU	Comb. SLU A1 38
39	SLU	Comb. SLU A1 39
40	SLU	Comb. SLU A1 40
41	SLU	Comb. SLU A1 41
42	SLU	Comb. SLU A1 42
43	SLU	Comb. SLU A1 43
44	SLU	Comb. SLU A1 44
45	SLU	Comb. SLU A1 45
46	SLU	Comb. SLU A1 46
47	SLU	Comb. SLU A1 47
48	SLU	Comb. SLU A1 48
49	SLU	Comb. SLU A1 49
50	SLU	Comb. SLU A1 50
51	SLU	Comb. SLU A1 51
52	SLU	Comb. SLU A1 52
53	SLU	Comb. SLU A1 53
54	SLU	Comb. SLU A1 54
55	SLU	Comb. SLU A1 55
56	SLU	Comb. SLU A1 56
57	SLU	Comb. SLU A1 57
58	SLU	Comb. SLU A1 58
59	SLU	Comb. SLU A1 59
60	SLU	Comb. SLU A1 60
61	SLU	Comb. SLU A1 61
62	SLU	Comb. SLU A1 62
63	SLU	Comb. SLU A1 63
64	SLU	Comb. SLU A1 64
65	SLU	Comb. SLU A1 65
66	SLU	Comb. SLU A1 66
67	SLU	Comb. SLU A1 67
68	SLU	Comb. SLU A1 68
69	SLU	Comb. SLU A1 69
70	SLU	Comb. SLU A1 70
71	SLU	Comb. SLU A1 71
72	SLU	Comb. SLU A1 72
73	SLU	Comb. SLU A1 73
74	SLU	Comb. SLU A1 74
75	SLU	Comb. SLU A1 75
76	SLU	Comb. SLU A1 76
77	SLU	Comb. SLU A1 77
78	SLU	Comb. SLU A1 78
79	SLU	Comb. SLU A1 79
80	SLU	Comb. SLU A1 80
81	SLU	Comb. SLU A1 81
82	SLU	Comb. SLU A1 82
83	SLU	Comb. SLU A1 83
84	SLU	Comb. SLU A1 84
85	SLU	Comb. SLU A1 85
86	SLU	Comb. SLU A1 86
87	SLU	Comb. SLU A1 87
88	SLU	Comb. SLU A1 88
89	SLU	Comb. SLU A1 89
90	SLU	Comb. SLU A1 90

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Cmb	Tipo	Sigla Id
91	SLU	Comb. SLU A1 91
92	SLU	Comb. SLU A1 92
93	SLU	Comb. SLU A1 93
94	SLU	Comb. SLU A1 94
95	SLU	Comb. SLU A1 95
96	SLU	Comb. SLU A1 96
97	SLU	Comb. SLU A1 97
98	SLU	Comb. SLU A1 98
99	SLU	Comb. SLU A1 99
100	SLU	Comb. SLU A1 100
101	SLU	Comb. SLU A1 101
102	SLU	Comb. SLU A1 102
103	SLU	Comb. SLU A1 103
104	SLU	Comb. SLU A1 104
105	SLU	Comb. SLU A1 105
106	SLU	Comb. SLU A1 106
107	SLU	Comb. SLU A1 107
108	SLU	Comb. SLU A1 108
109	SLU	Comb. SLU A1 109
110	SLU	Comb. SLU A1 110
111	SLU	Comb. SLU A1 111
112	SLU	Comb. SLU A1 112
113	SLU	Comb. SLU A1 113
114	SLU	Comb. SLU A1 114
115	SLU	Comb. SLU A1 115
116	SLU	Comb. SLU A1 116
117	SLU	Comb. SLU A1 117
118	SLU	Comb. SLU A1 118
119	SLU	Comb. SLU A1 119
120	SLU	Comb. SLU A1 120
121	SLU	Comb. SLU A1 121
122	SLU	Comb. SLU A1 122
123	SLU	Comb. SLU A1 123
124	SLU	Comb. SLU A1 124
125	SLU	Comb. SLU A1 (SLV sism.) 125
126	SLU	Comb. SLU A1 (SLV sism.) 126
127	SLU	Comb. SLU A1 (SLV sism.) 127
128	SLU	Comb. SLU A1 (SLV sism.) 128
129	SLU	Comb. SLU A1 (SLV sism.) 129
130	SLU	Comb. SLU A1 (SLV sism.) 130
131	SLU	Comb. SLU A1 (SLV sism.) 131
132	SLU	Comb. SLU A1 (SLV sism.) 132
133	SLU	Comb. SLU A1 (SLV sism.) 133
134	SLU	Comb. SLU A1 (SLV sism.) 134
135	SLU	Comb. SLU A1 (SLV sism.) 135
136	SLU	Comb. SLU A1 (SLV sism.) 136
137	SLU	Comb. SLU A1 (SLV sism.) 137
138	SLU	Comb. SLU A1 (SLV sism.) 138
139	SLU	Comb. SLU A1 (SLV sism.) 139
140	SLU	Comb. SLU A1 (SLV sism.) 140
141	SLU	Comb. SLU A1 (SLV sism.) 141
142	SLU	Comb. SLU A1 (SLV sism.) 142
143	SLU	Comb. SLU A1 (SLV sism.) 143
144	SLU	Comb. SLU A1 (SLV sism.) 144
145	SLU	Comb. SLU A1 (SLV sism.) 145
146	SLU	Comb. SLU A1 (SLV sism.) 146
147	SLU	Comb. SLU A1 (SLV sism.) 147
148	SLU	Comb. SLU A1 (SLV sism.) 148
149	SLU	Comb. SLU A1 (SLV sism.) 149

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

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Progettazione elettrica





Cmb	Tipo	Sigla Id
150	SLU	Comb. SLU A1 (SLV sism.) 150
151	SLU	Comb. SLU A1 (SLV sism.) 151
152	SLU	Comb. SLU A1 (SLV sism.) 152
153	SLU	Comb. SLU A1 (SLV sism.) 153
154	SLU	Comb. SLU A1 (SLV sism.) 154
155	SLU	Comb. SLU A1 (SLV sism.) 155
156	SLU	Comb. SLU A1 (SLV sism.) 156
157	SLE(sis)	Comb. SLE (SLD Danno sism.) 157
158	SLE(sis)	Comb. SLE (SLD Danno sism.) 158
159	SLE(sis)	Comb. SLE (SLD Danno sism.) 159
160	SLE(sis)	Comb. SLE (SLD Danno sism.) 160
161	SLE(sis)	Comb. SLE (SLD Danno sism.) 161
162	SLE(sis)	Comb. SLE (SLD Danno sism.) 162
163	SLE(sis)	Comb. SLE (SLD Danno sism.) 163
164	SLE(sis)	Comb. SLE (SLD Danno sism.) 164
165	SLE(sis)	Comb. SLE (SLD Danno sism.) 165
166	SLE(sis)	Comb. SLE (SLD Danno sism.) 166
167	SLE(sis)	Comb. SLE (SLD Danno sism.) 167
168	SLE(sis)	Comb. SLE (SLD Danno sism.) 168
169	SLE(sis)	Comb. SLE (SLD Danno sism.) 169
170	SLE(sis)	Comb. SLE (SLD Danno sism.) 170
171	SLE(sis)	Comb. SLE (SLD Danno sism.) 171
172	SLE(sis)	Comb. SLE (SLD Danno sism.) 172
173	SLE(sis)	Comb. SLE (SLD Danno sism.) 173
174	SLE(sis)	Comb. SLE (SLD Danno sism.) 174
175	SLE(sis)	Comb. SLE (SLD Danno sism.) 175
176	SLE(sis)	Comb. SLE (SLD Danno sism.) 176
177	SLE(sis)	Comb. SLE (SLD Danno sism.) 177
178	SLE(sis)	Comb. SLE (SLD Danno sism.) 178
179	SLE(sis)	Comb. SLE (SLD Danno sism.) 179
180	SLE(sis)	Comb. SLE (SLD Danno sism.) 180
181	SLE(sis)	Comb. SLE (SLD Danno sism.) 181
182	SLE(sis)	Comb. SLE (SLD Danno sism.) 182
183	SLE(sis)	Comb. SLE (SLD Danno sism.) 183
184	SLE(sis)	Comb. SLE (SLD Danno sism.) 184
185	SLE(sis)	Comb. SLE (SLD Danno sism.) 185
186	SLE(sis)	Comb. SLE (SLD Danno sism.) 186
187	SLE(sis)	Comb. SLE (SLD Danno sism.) 187
188	SLE(sis)	Comb. SLE (SLD Danno sism.) 188
189	SLE(r)	Comb. SLE(rara) 189
190	SLE(r)	Comb. SLE(rara) 190
191	SLE(r)	Comb. SLE(rara) 191
192	SLE(r)	Comb. SLE(rara) 192
193	SLE(r)	Comb. SLE(rara) 193
194	SLE(r)	Comb. SLE(rara) 194
195	SLE(r)	Comb. SLE(rara) 195
196	SLE(r)	Comb. SLE(rara) 196
197	SLE(r)	Comb. SLE(rara) 197
198	SLE(r)	Comb. SLE(rara) 198
199	SLE(r)	Comb. SLE(rara) 199
200	SLE(r)	Comb. SLE(rara) 200
201	SLE(r)	Comb. SLE(rara) 201
202	SLE(r)	Comb. SLE(rara) 202
203	SLE(r)	Comb. SLE(rara) 203
204	SLE(r)	Comb. SLE(rara) 204
205	SLE(r)	Comb. SLE(rara) 205
206	SLE(r)	Comb. SLE(rara) 206
207	SLE(r)	Comb. SLE(rara) 207
208	SLE(r)	Comb. SLE(rara) 208





Cmb	Tipo	Sigla Id
209	SLE(r)	Comb. SLE(rara) 209
210	SLE(r)	Comb. SLE(rara) 210
211	SLE(r)	Comb. SLE(rara) 211
212	SLE(r)	Comb. SLE(rara) 212
213	SLE(r)	Comb. SLE(rara) 213
214	SLE(r)	Comb. SLE(rara) 214
215	SLE(r)	Comb. SLE(rara) 215
216	SLE(r)	Comb. SLE(rara) 216
217	SLE(r)	Comb. SLE(rara) 217
218	SLE(r)	Comb. SLE(rara) 218
219	SLE(r)	Comb. SLE(rara) 219
220	SLE(r)	Comb. SLE(rara) 220
221	SLE(r)	Comb. SLE(rara) 221
222	SLE(r)	Comb. SLE(rara) 222
223	SLE(r)	Comb. SLE(rara) 223
224	SLE(r)	Comb. SLE(rara) 224
225	SLE(r)	Comb. SLE(rara) 225
226	SLE(r)	Comb. SLE(rara) 226
227	SLE(r)	Comb. SLE(rara) 227
228	SLE(r)	Comb. SLE(rara) 228
229	SLE(r)	Comb. SLE(rara) 229
230	SLE(r)	Comb. SLE(rara) 230
231	SLE(r)	Comb. SLE(rara) 231
232	SLE(r)	Comb. SLE(rara) 232
233	SLE(r)	Comb. SLE(rara) 233
234	SLE(r)	Comb. SLE(rara) 234
235	SLE(r)	Comb. SLE(rara) 235
236	SLE(r)	Comb. SLE(rara) 236
237	SLE(r)	Comb. SLE(rara) 237
238	SLE(r)	Comb. SLE(rara) 238
239	SLE(r)	Comb. SLE(rara) 239
240	SLE(r)	Comb. SLE(rara) 240
241	SLE(r)	Comb. SLE(rara) 241
242	SLE(r)	Comb. SLE(rara) 242
243	SLE(r)	Comb. SLE(rara) 243
244	SLE(r)	Comb. SLE(rara) 244
245	SLE(r)	Comb. SLE(rara) 245
246	SLE(r)	Comb. SLE(rara) 246
247	SLE(r)	Comb. SLE(rara) 247
248	SLE(r)	Comb. SLE(rara) 248
249	SLE(r)	Comb. SLE(rara) 249
250	SLE(r)	Comb. SLE(rara) 250
251	SLE(f)	Comb. SLE(freq.) 251
252	SLE(f)	Comb. SLE(freq.) 252
253	SLE(f)	Comb. SLE(freq.) 253
254	SLE(f)	Comb. SLE(freq.) 254
255	SLE(f)	Comb. SLE(freq.) 255
256	SLE(f)	Comb. SLE(freq.) 256
257	SLE(f)	Comb. SLE(freq.) 257
258	SLE(f)	Comb. SLE(freq.) 258
259	SLE(f)	Comb. SLE(freq.) 259
260	SLE(p)	Comb. SLE(perm.) 260





Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
1	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
2	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
3	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0	0.0
	0.0	0.0												
4	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0	0.0
	0.0	0.0												
5	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0	0.0
	0.0	0.0												
6	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0	0.0
	0.0	0.0												
7	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0
	0.0	0.0												
8	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0
	0.0	0.0												
9	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0
	0.0	0.0												
10	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0
	0.0	0.0												
11	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0
	0.0	0.0												
12	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0
	0.0	0.0												
13	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0
	0.0	0.0												
14	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0
	0.0	0.0												
15	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0
	0.0	0.0												
16	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0
	0.0	0.0												
17	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0
	0.0	0.0												
18	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0
	0.0	0.0												
19	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90
	0.0	0.0												
20	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90
	0.0	0.0												
21	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50
	0.0	0.0												
22	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50
	0.0	0.0												
23	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	-0.90	0.0												
24	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.90	0.0												
25	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	-0.90	0.0												
26	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.90	0.0												
27	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	-1.50	0.0												
28	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	1.50	0.0												
29	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	-1.50	0.0												

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida





Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
30	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	1.50	0.0												
31	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0	0.0
	-0.90	0.0												
32	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0	0.0
	0.90	0.0												
33	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0	0.0
	-0.90	0.0												
34	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0	0.0
	0.90	0.0												
35	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0	0.0
	-0.90	0.0												
36	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0	0.0
	0.90	0.0												
37	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0	0.0
	-0.90	0.0												
38	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0	0.0
	0.90	0.0												
39	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0	0.0
	-1.50	0.0												
40	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0	0.0
	1.50	0.0												
41	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0	0.0
	-1.50	0.0												
42	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0	0.0
	1.50	0.0												
43	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0
	-0.90	0.0												
44	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0
	0.90	0.0												
45	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0
	-0.90	0.0												
46	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0
	0.90	0.0												
47	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0
	-0.90	0.0												
48	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0
	0.90	0.0												
49	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0
	-0.90	0.0												
50	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0
	0.90	0.0												
51	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0
	-1.50	0.0												
52	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0
	1.50	0.0												
53	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0
	-1.50	0.0												
54	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0
	1.50	0.0												
55	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0
	-0.90	0.0												
56	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0
	0.90	0.0												
57	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0
	-0.90	0.0												
58	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0
	0.90	0.0												

Progettazione civile e inserimento ambientale



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Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida





Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
59	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0
	-0.90	0.0												
60	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0
	0.90	0.0												
61	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0
	-0.90	0.0												
62	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0
	0.90	0.0												
63	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0
	-1.50	0.0												
64	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0
	1.50	0.0												
65	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0
	-1.50	0.0												
66	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0
	1.50	0.0												
67	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0
	-0.90	0.0												
68	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0
	0.90	0.0												
69	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0
	-0.90	0.0												
70	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0
	0.90	0.0												
71	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0
	-0.90	0.0												
72	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0
	0.90	0.0												
73	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0
	-0.90	0.0												
74	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0
	0.90	0.0												
75	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0
	-1.50	0.0												
76	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0
	1.50	0.0												
77	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0
	-1.50	0.0												
78	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0
	1.50	0.0												
79	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90
	-0.90	0.0												
80	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90
	0.90	0.0												
81	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90
	-0.90	0.0												
82	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90
	0.90	0.0												
83	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50
	-0.90	0.0												
84	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50
	0.90	0.0												
85	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50
	-0.90	0.0												
86	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50
	0.90	0.0												
87	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90
	-1.50	0.0												

Progettazione civile e inserimento ambientale



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Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
88	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90
	1.50	0.0												
89	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90
	-1.50	0.0												
90	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90
	1.50	0.0												
91	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.75												
92	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.75												
93	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	1.50												
94	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	1.50												
95	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0	0.0
	0.0	0.75												
96	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0	0.0
	0.0	0.75												
97	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0	0.0
	0.0	0.75												
98	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0	0.0
	0.0	0.75												
99	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0	0.0
	0.0	1.50												
100	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0	0.0
	0.0	1.50												
101	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0
	0.0	0.75												
102	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0
	0.0	0.75												
103	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0
	0.0	0.75												
104	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0	0.0
	0.0	0.75												
105	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0
	0.0	1.50												
106	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0	0.0
	0.0	1.50												
107	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0
	0.0	0.75												
108	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0
	0.0	0.75												
109	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0
	0.0	0.75												
110	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0	0.0
	0.0	0.75												
111	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0
	0.0	1.50												
112	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0	0.0
	0.0	1.50												
113	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0
	0.0	0.75												
114	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0
	0.0	0.75												
115	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0
	0.0	0.75												
116	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50	0.0
	0.0	0.75												

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117	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0
	0.0	1.50												
118	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90	0.0
	0.0	1.50												
119	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90
	0.0	0.75												
120	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90
	0.0	0.75												
121	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50
	0.0	0.75												
122	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.50
	0.0	0.75												
123	1.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90
	0.0	1.50												
124	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.90
	0.0	1.50												
125	1.00	-1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
126	1.00	-1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
127	1.00	1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
128	1.00	1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
129	1.00	-1.00	0.0	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
130	1.00	-1.00	0.0	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
131	1.00	1.00	0.0	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
132	1.00	1.00	0.0	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
133	1.00	0.0	-1.00	-0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
134	1.00	0.0	-1.00	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
135	1.00	0.0	1.00	-0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
136	1.00	0.0	1.00	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
137	1.00	0.0	-1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
138	1.00	0.0	-1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
139	1.00	0.0	1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
140	1.00	0.0	1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
141	1.00	-0.30	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
142	1.00	-0.30	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
143	1.00	0.30	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
144	1.00	0.30	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
145	1.00	0.0	-0.30	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida





Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
146	1.00	0.0	-0.30	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
147	1.00	0.0	0.30	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
148	1.00	0.0	0.30	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
149	1.00	-0.30	0.0	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
150	1.00	-0.30	0.0	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
151	1.00	0.30	0.0	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
152	1.00	0.30	0.0	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
153	1.00	0.0	-0.30	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
154	1.00	0.0	-0.30	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
155	1.00	0.0	0.30	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
156	1.00	0.0	0.30	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
157	1.00	0.0	0.0	0.0	0.0	-1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
158	1.00	0.0	0.0	0.0	0.0	-1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
159	1.00	0.0	0.0	0.0	0.0	1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
160	1.00	0.0	0.0	0.0	0.0	1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
161	1.00	0.0	0.0	0.0	0.0	-1.00	0.0	0.0	-0.30	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
162	1.00	0.0	0.0	0.0	0.0	-1.00	0.0	0.0	0.30	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
163	1.00	0.0	0.0	0.0	0.0	1.00	0.0	0.0	-0.30	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
164	1.00	0.0	0.0	0.0	0.0	1.00	0.0	0.0	0.30	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
165	1.00	0.0	0.0	0.0	0.0	0.0	-1.00	-0.30	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
166	1.00	0.0	0.0	0.0	0.0	0.0	-1.00	0.30	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
167	1.00	0.0	0.0	0.0	0.0	0.0	1.00	-0.30	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
168	1.00	0.0	0.0	0.0	0.0	0.0	1.00	0.30	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
169	1.00	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
170	1.00	0.0	0.0	0.0	0.0	0.0	-1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
171	1.00	0.0	0.0	0.0	0.0	0.0	1.00	0.0	-0.30	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
172	1.00	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.30	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
173	1.00	0.0	0.0	0.0	0.0	-0.30	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
174	1.00	0.0	0.0	0.0	0.0	-0.30	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida





Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
175	1.00	0.0	0.0	0.0	0.0	0.30	0.0	-1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
176	1.00	0.0	0.0	0.0	0.0	0.30	0.0	1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
177	1.00	0.0	0.0	0.0	0.0	0.0	-0.30	-1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
178	1.00	0.0	0.0	0.0	0.0	0.0	-0.30	1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
179	1.00	0.0	0.0	0.0	0.0	0.0	0.30	-1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
180	1.00	0.0	0.0	0.0	0.0	0.0	0.30	1.00	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
181	1.00	0.0	0.0	0.0	0.0	-0.30	0.0	0.0	-1.00	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
182	1.00	0.0	0.0	0.0	0.0	-0.30	0.0	0.0	1.00	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
183	1.00	0.0	0.0	0.0	0.0	0.30	0.0	0.0	-1.00	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
184	1.00	0.0	0.0	0.0	0.0	0.30	0.0	0.0	1.00	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
185	1.00	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	-1.00	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
186	1.00	0.0	0.0	0.0	0.0	0.0	-0.30	0.0	1.00	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
187	1.00	0.0	0.0	0.0	0.0	0.0	0.30	0.0	-1.00	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
188	1.00	0.0	0.0	0.0	0.0	0.0	0.30	0.0	1.00	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
189	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
190	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	0.0	0.0
	0.0	0.0												
191	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	0.0	0.0
	0.0	0.0												
192	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	0.0
	0.0	0.0												
193	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	0.0
	0.0	0.0												
194	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0
	0.0	0.0												
195	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0
	0.0	0.0												
196	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0
	0.0	0.0												
197	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.0												
198	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60
	0.0	0.0												
199	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00
	0.0	0.0												
200	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	-0.60	0.0												
201	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.60	0.0												
202	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	-1.00	0.0												
203	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	1.00	0.0												

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida





Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
204	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	0.0	0.0
	-0.60	0.0												
205	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	0.0	0.0
	0.60	0.0												
206	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	0.0	0.0
	-0.60	0.0												
207	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	0.0	0.0
	0.60	0.0												
208	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	0.0	0.0
	-1.00	0.0												
209	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	0.0	0.0
	1.00	0.0												
210	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	0.0
	-0.60	0.0												
211	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	0.0
	0.60	0.0												
212	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	0.0
	-0.60	0.0												
213	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	0.0
	0.60	0.0												
214	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	0.0
	-1.00	0.0												
215	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	0.0
	1.00	0.0												
216	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0
	-0.60	0.0												
217	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0
	0.60	0.0												
218	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0
	-0.60	0.0												
219	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0
	0.60	0.0												
220	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0
	-1.00	0.0												
221	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0
	1.00	0.0												
222	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0
	-0.60	0.0												
223	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0
	0.60	0.0												
224	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	-0.60	0.0												
225	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.60	0.0												
226	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0
	-1.00	0.0												
227	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0
	1.00	0.0												
228	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60
	-0.60	0.0												
229	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60
	0.60	0.0												
230	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00
	-0.60	0.0												
231	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00
	0.60	0.0												
232	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60
	-1.00	0.0												

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Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida





Cmb	CDC 1/15...	CDC 2/16...	CDC 3/17...	CDC 4/18...	CDC 5/19...	CDC 6/20...	CDC 7/21...	CDC 8/22...	CDC 9/23...	CDC 10/24...	CDC 11/25...	CDC 12/26...	CDC 13/27...	CDC 14/28...
233	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60
	1.00	0.0												
234	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.50												
235	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	1.00												
236	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	0.0	0.0
	0.0	0.50												
237	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	0.0	0.0
	0.0	0.50												
238	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	0.0	0.0
	0.0	1.00												
239	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	0.0
	0.0	0.50												
240	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0	0.0
	0.0	0.50												
241	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0	0.0
	0.0	1.00												
242	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0
	0.0	0.50												
243	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0	0.0
	0.0	0.50												
244	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0	0.0
	0.0	1.00												
245	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0
	0.0	0.50												
246	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	0.0
	0.0	0.50												
247	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	0.0
	0.0	1.00												
248	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60
	0.0	0.50												
249	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00
	0.0	0.50												
250	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60
	0.0	1.00												
251	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												
252	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.20	0.0	0.0	0.0	0.0
	0.0	0.0												
253	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.20	0.0	0.0	0.0
	0.0	0.0												
254	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.20	0.0	0.0
	0.0	0.0												
255	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.20	0.0
	0.0	0.0												
256	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.20
	0.0	0.0												
257	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	-0.50	0.0												
258	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.50	0.0												
259	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.20												
260	1.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0												

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



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Dott. Agr. Gianfranco Giuffrida





AZIONE SISMICA

Valutazione dell'azione sismica

L'azione sismica sulle costruzioni è valutata a partire dalla "pericolosità sismica di base", in condizioni ideali di sito di riferimento rigido con superficie topografica orizzontale.

Allo stato attuale, la pericolosità sismica su reticolo di riferimento nell'intervallo di riferimento è fornita dai dati pubblicati sul sito <http://esse1.mi.ingv.it/>. Per punti non coincidenti con il reticolo di riferimento e periodi di ritorno non contemplati direttamente si opera come indicato nell'allegato alle NTC (rispettivamente media pesata e interpolazione).

L'azione sismica viene definita in relazione ad un periodo di riferimento V_r che si ricava, per ciascun tipo di costruzione, moltiplicandone la vita nominale per il coefficiente d'uso (vedi tabella Parametri della struttura). Fissato il periodo di riferimento V_r e la probabilità di superamento P_{ver} associata a ciascuno degli stati limite considerati, si ottiene il periodo di ritorno T_r e i relativi parametri di pericolosità sismica (vedi tabella successiva):

ag: accelerazione orizzontale massima del terreno;

Fo: valore massimo del fattore di amplificazione dello spettro in accelerazione orizzontale;

T*c: periodo di inizio del tratto a velocità costante dello spettro in accelerazione orizzontale;

Parametri della struttura					
Classe d'uso	Vita V_n [anni]	Coeff. Uso	Periodo V_r [anni]	Tipo di suolo	Categoria topografica
II	50.0	1.0	50.0	C	T1

Individuati su reticolo di riferimento i parametri di pericolosità sismica si valutano i parametri spettrali riportati in tabella:

S è il coefficiente che tiene conto della categoria di sottosuolo e delle condizioni topografiche mediante la relazione seguente $S = S_s * S_t$ (3.2.3)

Fo è il fattore che quantifica l'amplificazione spettrale massima, su sito di riferimento rigido orizzontale

Fv è il fattore che quantifica l'amplificazione spettrale massima verticale, in termini di accelerazione orizzontale massima del terreno ag su sito di riferimento rigido orizzontale

Tb è il periodo corrispondente all'inizio del tratto dello spettro ad accelerazione costante.

Tc è il periodo corrispondente all'inizio del tratto dello spettro a velocità costante.

Td è il periodo corrispondente all'inizio del tratto dello spettro a spostamento costante.

Lo spettro di risposta elastico in accelerazione della componente orizzontale del moto sismico, S_e , è definito dalle seguenti espressioni:

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$$0 \leq T < T_B \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left[\frac{T}{T_B} + \frac{1}{\eta \cdot F_o} \left(1 - \frac{T}{T_B} \right) \right]$$

$$T_B \leq T < T_C \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o$$

$$T_C \leq T < T_D \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left(\frac{T_C}{T} \right)$$

$$T_D \leq T \quad S_e(T) = a_g \cdot S \cdot \eta \cdot F_o \cdot \left(\frac{T_C \cdot T_D}{T^2} \right)$$

Dove per sottosuolo di categoria **A** i coefficienti S_s e C_c valgono 1; mentre per le categorie di sottosuolo B, C, D, E i coefficienti S_s e C_c vengono calcolati mediante le espressioni riportate nella seguente Tabella

Categoria sottosuolo	S_s	C_c
A	1,00	1,00
B	$1,00 \leq 1,40 - 0,40 \cdot F_o \cdot \frac{a_g}{g} \leq 1,20$	$1,10 \cdot (T_C^*)^{-0,20}$
C	$1,00 \leq 1,70 - 0,60 \cdot F_o \cdot \frac{a_g}{g} \leq 1,50$	$1,05 \cdot (T_C^*)^{-0,33}$
D	$0,90 \leq 2,40 - 1,50 \cdot F_o \cdot \frac{a_g}{g} \leq 1,80$	$1,25 \cdot (T_C^*)^{-0,50}$
E	$1,00 \leq 2,00 - 1,10 \cdot F_o \cdot \frac{a_g}{g} \leq 1,60$	$1,15 \cdot (T_C^*)^{-0,40}$

Per tenere conto delle condizioni topografiche e in assenza di specifiche analisi di risposta sismica locale, si utilizzano i valori del coefficiente topografico S_T riportati nella seguente Tabella

Categoria topografica	Ubicazione dell'opera o dell'intervento	S_T
T1	-	1,0
T2	In corrispondenza della sommità del pendio	1,2
T3	In corrispondenza della cresta di un rilievo con pendenza media minore o uguale a 30°	1,2
T4	In corrispondenza della cresta di un rilievo con pendenza media maggiore di 30°	1,4

Lo spettro di risposta elastico in accelerazione della componente verticale del moto sismico, S_{ve} , è definito dalle espressioni:

$$0 \leq T < T_B \quad S_{ve}(T) = a_g \cdot S \cdot \eta \cdot F_v \cdot \left[\frac{T}{T_B} + \frac{1}{\eta \cdot F_o} \left(1 - \frac{T}{T_B} \right) \right]$$

$$T_B \leq T < T_C \quad S_{ve}(T) = a_g \cdot S \cdot \eta \cdot F_v$$

$$T_C \leq T < T_D \quad S_{ve}(T) = a_g \cdot S \cdot \eta \cdot F_v \cdot \left(\frac{T_C}{T} \right)$$

$$T_D \leq T \quad S_{ve}(T) = a_g \cdot S \cdot \eta \cdot F_v \cdot \left(\frac{T_C \cdot T_D}{T^2} \right)$$

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Dott. Agr. Gianfranco Giuffrida

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SOGGETTO PROPONENTE



SMARTENERGY

SMARTENERGYIT2111 S.R.L.

Comune di Gravina in Puglia (BA) - Località Masseria Pellicciari
Progetto per la realizzazione di un Nuovo Impianto Agrivoltaico e delle relative opere di
connessione alla RTN
Potenza nominale 35,09 MW

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I valori di S_s , T_B , T_C e T_D , sono riportati nella seguente Tabella

Categoria di sottosuolo	S_s	T_B	T_C	T_D
A, B, C, D, E	1,0	0,05 s	0,15 s	1,0 s

Id nodo	Longitudine	Latitudine	Distanza
			Km
Loc.	16.420	40.819	
33233	16.396	40.798	3.219
33234	16.462	40.796	4.378
33012	16.464	40.846	4.649
33011	16.398	40.848	3.664

SL	Pver	Tr	ag	Fo	T*c
		Anni	g		sec
SLO	81.0	30.1	0.036	2.513	0.268
SLD	63.0	50.3	0.046	2.501	0.313
SLV	10.0	474.6	0.109	2.616	0.435
SLC	5.0	974.8	0.137	2.680	0.450

SL	ag	S	Fo	Fv	Tb	Tc	Td
	g				sec	sec	sec
SLO	0.036	1.500	2.513	0.648	0.145	0.435	1.746
SLD	0.046	1.500	2.501	0.722	0.161	0.482	1.783
SLV	0.109	1.500	2.616	1.166	0.200	0.601	2.036
SLC	0.137	1.479	2.680	1.340	0.205	0.615	2.149

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RISULTATI ANALISI SISMICHE

Legenda tabella analisi sismiche

Il programma consente l'analisi di diverse configurazioni sismiche.

Sono previsti, infatti, i seguenti casi di carico:

10. Edk caso di carico sismico con analisi dinamica

Ciascun caso di carico è caratterizzato da un angolo di ingresso e da una configurazione di masse determinante la forza sismica complessiva (si rimanda al capitolo relativo ai casi di carico per chiarimenti inerenti questo aspetto).

Nella colonna Note, in funzione della norma in uso sono riportati i parametri fondamentali che caratterizzano l'azione sismica: in particolare possono essere presenti i seguenti valori:

Angolo di ingresso	Angolo di ingresso dell'azione sismica orizzontale
Fattore di importanza	Fattore di importanza dell'edificio, in base alla categoria di appartenenza
Zona sismica	Zona sismica
Accelerazione ag	Accelerazione orizzontale massima sul suolo
Categoria suolo	Categoria di profilo stratigrafico del suolo di fondazione
Fattore q	Fattore di struttura/di comportamento. Dipendente dalla tipologia strutturale
Amplificazione ND	Coefficiente di amplificazione q/q_{ND} delle azioni sismiche (solo per elementi progettati in campo non dissipativo)
Fattore di sito S	Fattore dipendente dalla stratigrafia e dal profilo topografico
Classe di duttilità CD	Classe di duttilità della struttura – "A" duttilità alta, "B" duttilità bassa
Fattore riduz. SLD	Fattore di riduzione dello spettro elastico per lo stato limite di danno
Periodo proprio T1	Periodo proprio di vibrazione della struttura
Coefficiente Lambda	Coefficiente dipendente dal periodo proprio T1 e dal numero di piani della struttura
Ordinata spettro $S_d(T_1)$	Valore delle ordinate dello spettro di progetto per lo stato limite ultimo, componente orizzontale (verticale S_{vd})
Ordinata spettro $S_e(T_1)$	Valore delle ordinate dello spettro elastico ridotta del fattore SLD per lo stato limite di danno, componente orizzontale (verticale S_{ve})
Ordinata spettro $S(T_b-T_c)$	Valore dell'ordinata dello spettro in uso nel tratto costante
numero di modi considerati	Numero di modi di vibrare della struttura considerati nell'analisi dinamica

Nel caso di elementi progettati in campo non dissipativo vengono adottate le sollecitazioni calcolate con un fattore q_{ND} ricavato come da 7.3.2 in funzione del fattore di comportamento q utilizzato per la struttura: $1 < q_{ND} = 2/3 * q < 1.5$

Il coefficiente di amplificazione delle azioni sismiche rispetto alle azioni calcolate con il fattore di comportamento globale viene indicato nelle relative tabelle.

Per ciascun caso di carico sismico viene riportato l'insieme di dati sotto riportati (le masse sono espresse in unità di forza):

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a) analisi sismica statica equivalente:

- quota, posizione del centro di applicazione e azione orizzontale risultante, posizione del baricentro delle rigidezze, rapporto r/Ls (per strutture a nucleo), indici di regolarità e/r secondo EC8 4.2.3.2
- azione sismica complessiva

b) analisi sismica dinamica con spettro di risposta:

- quota, posizione del centro di massa e massa risultante, posizione del baricentro delle rigidezze, rapporto r/Ls (per strutture a nucleo) , indici di regolarità e/r secondo EC8 4.2.3.2
- frequenza, periodo, accelerazione spettrale, massa eccitata nelle tre direzioni globali per tutti i modi
- massa complessiva ed aliquota di massa complessiva eccitata.

Per ciascuna combinazione sismica definita SLD o SLO viene riportato il livello di deformazione ϵ_{dT} (dr) degli elementi strutturali verticali. Per semplicità di consultazione il livello è espresso anche in unità $1000 \cdot \epsilon_{dT}/h$ da confrontare direttamente con i valori forniti nella norma (es. 5 per edifici con tamponamenti collegati rigidamente alla struttura, 10.0 per edifici con tamponamenti collegati elasticamente, 3 per edifici in muratura ordinaria, 4 per edifici in muratura armata).

Calcolo dei fattori di comportamento secondo il D.M. 17/01/2018. La costruzione, nuova, è caratterizzata da regolarità in pianta e non regolarità in altezza ed è progettata considerando un comportamento non dissipativo (ND). A seguire si riportano i valori dei fattori nelle direzioni x e y.

Fattori di comportamento utilizzati

	Dissipativi	Non dissipativi
q SLU x	1.760	1.173
q SLU y	1.760	1.173
q SLU z	1.000	1.000

CDC	Tipo	Sigla Id	Note
2	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. +)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto T_b - T_c) = 0.428 g
			angolo di ingresso: 0.0
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.171 sec.
			fattore q: 1.000
			amplificazione ND (non dissipativi): 1.000
			fattore per spost. μ d: 1.000
			classe di duttilità CD: ND
			numero di modi considerati: 25
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
422.18	554.06	2960.00	-232.38	0.0	0.0	0.0	0.0	0.0	0.0	0.0
376.09	1108.12	2960.00	-116.19	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330.00	4611.97	2960.00	0.0	0.0	0.0	2960.00	0.0	1.035	0.0	0.0
283.91	1108.12	2960.00	116.19	0.0	0.0	0.0	0.0	0.0	0.0	0.0
237.82	554.06	2960.00	232.38	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	7936.33									

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Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%
	Hz	sec	g	daN		daN		daN	
1	4.312	0.232	0.428	0.0	0.0	1619.40	20.4	46.67	0.6
2	4.356	0.230	0.428	0.32	3.97e-03	0.0	0.0	0.0	0.0
3	4.676	0.214	0.428	0.0	0.0	13.78	0.2	0.09	1.13e-03
4	5.281	0.189	0.414	2.71	3.42e-02	0.0	0.0	0.0	0.0
5	5.399	0.185	0.409	0.0	0.0	3.18	4.01e-02	10.22	0.1
6	5.562	0.180	0.401	225.65	2.8	0.0	0.0	0.0	0.0
7	5.638	0.177	0.398	0.0	0.0	962.71	12.1	1686.00	21.2
8	5.659	0.177	0.397	562.20	7.1	0.0	0.0	0.0	0.0
9	5.795	0.173	0.392	0.0	0.0	333.72	4.2	513.21	6.5
10	5.831	0.171	0.390	6375.64	80.3	0.0	0.0	0.0	0.0
11	5.904	0.169	0.388	298.99	3.8	0.0	0.0	0.0	0.0
12	5.939	0.168	0.386	0.0	0.0	11.38	0.1	13.35	0.2
13	6.069	0.165	0.382	211.17	2.7	0.0	0.0	0.0	0.0
14	6.976	0.143	0.353	0.0	0.0	311.19	3.9	88.27	1.1
15	7.026	0.142	0.352	0.73	9.18e-03	1.24e-06	0.0	2.07e-06	0.0
16	7.111	0.141	0.350	0.0	0.0	6.53	8.23e-02	0.93	1.17e-02
17	7.324	0.137	0.344	0.0	0.0	18.61	0.2	1.73e-05	0.0
18	7.331	0.136	0.344	37.42	0.5	0.0	0.0	0.0	0.0
19	7.376	0.136	0.343	0.0	0.0	4.73	5.97e-02	2.19e-03	2.76e-05
20	7.571	0.132	0.338	3.55	4.47e-02	2.48e-05	0.0	1.93e-05	0.0
21	7.584	0.132	0.338	8.83e-05	1.11e-06	14.56	0.2	1.80	2.27e-02
22	7.663	0.130	0.336	4.25e-05	0.0	4477.42	56.4	515.49	6.5
23	7.673	0.130	0.336	6.09	7.68e-02	4.53e-03	5.71e-05	4.75e-04	5.98e-06
24	7.775	0.129	0.334	8.84	0.1	2.05e-04	2.59e-06	0.0	0.0
25	7.986	0.125	0.329	5.56e-06	0.0	21.20	0.3	1.90	2.39e-02
Risulta				7733.31		7798.43		2877.92	
In percentuale				97.44		98.26		36.26	

CDC	Tipo	Sigla Id	Note
3	Edk	CDC=Ed (dinamico SLU) alfa=0.0 (ecc. -)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.428 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.171 sec.
			fattore q: 1.000
			amplificazione ND (non dissipativi): 1.000
			fattore per spost. mu d: 1.000
			classe di duttilità CD: ND
			numero di modi considerati: 25
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
422.18	554.06	2960.00	-232.38	0.0	0.0	0.0	0.0	0.0	0.0	0.0
376.09	1108.12	2960.00	-116.19	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330.00	4611.97	2960.00	0.0	0.0	0.0	2960.00	0.0	1.035	0.0	0.0
283.91	1108.12	2960.00	116.19	0.0	0.0	0.0	0.0	0.0	0.0	0.0
237.82	554.06	2960.00	232.38	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	7936.33									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%
	Hz	sec	g	daN		daN		daN	
1	4.312	0.232	0.428	0.0	0.0	1619.40	20.4	46.67	0.6
2	4.356	0.230	0.428	0.32	3.97e-03	0.0	0.0	0.0	0.0
3	4.676	0.214	0.428	0.0	0.0	13.78	0.2	0.09	1.13e-03

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%
4	5.281	0.189	0.414	2.71	3.42e-02	0.0	0.0	0.0	0.0
5	5.399	0.185	0.409	0.0	0.0	3.18	4.01e-02	10.22	0.1
6	5.562	0.180	0.401	225.65	2.8	0.0	0.0	0.0	0.0
7	5.638	0.177	0.398	0.0	0.0	962.71	12.1	1686.00	21.2
8	5.659	0.177	0.397	562.20	7.1	0.0	0.0	0.0	0.0
9	5.795	0.173	0.392	0.0	0.0	333.72	4.2	513.21	6.5
10	5.831	0.171	0.390	6375.64	80.3	0.0	0.0	0.0	0.0
11	5.904	0.169	0.388	298.99	3.8	0.0	0.0	0.0	0.0
12	5.939	0.168	0.386	0.0	0.0	11.38	0.1	13.35	0.2
13	6.069	0.165	0.382	211.17	2.7	0.0	0.0	0.0	0.0
14	6.976	0.143	0.353	0.0	0.0	311.19	3.9	88.27	1.1
15	7.026	0.142	0.352	0.73	9.18e-03	1.24e-06	0.0	2.07e-06	0.0
16	7.111	0.141	0.350	0.0	0.0	6.53	8.23e-02	0.93	1.17e-02
17	7.324	0.137	0.344	0.0	0.0	18.61	0.2	1.73e-05	0.0
18	7.331	0.136	0.344	37.42	0.5	0.0	0.0	0.0	0.0
19	7.376	0.136	0.343	0.0	0.0	4.73	5.97e-02	2.19e-03	2.76e-05
20	7.571	0.132	0.338	3.55	4.47e-02	2.48e-05	0.0	1.93e-05	0.0
21	7.584	0.132	0.338	8.83e-05	1.11e-06	14.56	0.2	1.80	2.27e-02
22	7.663	0.130	0.336	4.25e-05	0.0	4477.42	56.4	515.49	6.5
23	7.673	0.130	0.336	6.09	7.68e-02	4.53e-03	5.71e-05	4.75e-04	5.98e-06
24	7.775	0.129	0.334	8.84	0.1	2.05e-04	2.59e-06	0.0	0.0
25	7.986	0.125	0.329	5.56e-06	0.0	21.20	0.3	1.90	2.39e-02
Risulta				7733.31		7798.43		2877.92	
In percentuale				97.44		98.26		36.26	

CDC	Tipo	Sigla Id	Note
4	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. +)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.428 g
			angolo di ingresso: 90.00
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.127 sec.
			fattore q: 1.000
			amplificazione ND (non dissipativi): 1.000
			fattore per spost. mu d: 1.000
			classe di duttilità CD: ND
			numero di modi considerati: 25
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
422.18	554.06	2960.00	-232.38	296.00	0.0	0.0	0.0	0.0	0.0	0.0
376.09	1108.12	2960.00	-116.19	296.00	0.0	0.0	0.0	0.0	0.0	0.0
330.00	4611.97	2960.00	0.0	296.00	0.0	2960.00	0.0	1.035	0.0	0.0
283.91	1108.12	2960.00	116.19	296.00	0.0	0.0	0.0	0.0	0.0	0.0
237.82	554.06	2960.00	232.38	296.00	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	7936.33									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%
	Hz	sec	g	daN		daN		daN	
1	4.206	0.238	0.428	0.16	1.96e-03	1264.00	15.9	31.53	0.4
2	4.441	0.225	0.428	0.14	1.82e-03	453.68	5.7	14.87	0.2
3	4.687	0.213	0.428	1.18e-03	1.49e-05	6.15	7.75e-02	2.08e-03	2.62e-05
4	5.254	0.190	0.415	3.85	4.85e-02	9.93	0.1	6.84	8.62e-02
5	5.408	0.185	0.408	10.42	0.1	87.80	1.1	85.48	1.1
6	5.496	0.182	0.404	110.61	1.4	476.22	6.0	434.82	5.5
7	5.625	0.178	0.399	4.78	6.02e-02	37.81	0.5	95.76	1.2

Progettazione civile e inserimento ambientale

Agronomia e studi colturali

Progettazione elettrica



Arch. Andrea Giuffrida



Dott. Agr. Gianfranco Giuffrida





Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%
8	5.738	0.174	0.394	1681.10	21.2	534.49	6.7	1204.03	15.2
9	5.782	0.173	0.392	591.67	7.5	143.38	1.8	135.18	1.7
10	5.845	0.171	0.390	4553.86	57.4	36.32	0.5	216.31	2.7
11	5.878	0.170	0.389	424.71	5.4	3.44	4.33e-02	3.34	4.21e-02
12	5.985	0.167	0.385	103.74	1.3	17.07	0.2	32.87	0.4
13	6.073	0.165	0.381	188.89	2.4	0.07	8.87e-04	0.78	9.79e-03
14	6.881	0.145	0.356	1.90	2.40e-02	434.21	5.5	122.72	1.5
15	7.046	0.142	0.351	0.88	1.11e-02	22.00	0.3	8.70	0.1
16	7.166	0.140	0.348	2.73	3.43e-02	63.67	0.8	9.67	0.1
17	7.171	0.139	0.348	17.46	0.2	201.17	2.5	24.38	0.3
18	7.309	0.137	0.345	3.15	3.96e-02	1208.42	15.2	199.46	2.5
19	7.373	0.136	0.343	0.26	3.30e-03	1.14	1.43e-02	0.19	2.42e-03
20	7.461	0.134	0.341	13.62	0.2	0.03	3.17e-04	1.22	1.54e-02
21	7.511	0.133	0.340	2.12	2.67e-02	200.91	2.5	23.96	0.3
22	7.665	0.130	0.336	6.87	8.66e-02	31.48	0.4	4.42	5.57e-02
23	7.766	0.129	0.334	10.27	0.1	1.38	1.74e-02	3.23e-03	4.07e-05
24	7.853	0.127	0.332	0.05	5.87e-04	1346.84	17.0	132.18	1.7
25	8.083	0.124	0.327	4.60e-03	5.80e-05	440.29	5.5	36.77	0.5
Risulta				7733.24		7021.89		2825.49	
In percentuale				97.44		88.48		35.60	

CDC	Tipo	Sigla Id	Note
5	Edk	CDC=Ed (dinamico SLU) alfa=90.00 (ecc. -)	categoria suolo: C fattore di sito S = 1.500 ordinata spettro (tratto Tb-Tc) = 0.428 g angolo di ingresso:90.00 eccentricità aggiuntiva: negativa periodo proprio T1: 0.127 sec. fattore q: 1.000 amplificazione ND (non dissipativi): 1.000 fattore per spost. mu di: 1.000 classe di duttilità CD: ND numero di modi considerati: 25 combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
422.18	554.06	2960.00	-232.38	-296.00	0.0	0.0	0.0	0.0	0.0	0.0
376.09	1108.12	2960.00	-116.19	-296.00	0.0	0.0	0.0	0.0	0.0	0.0
330.00	4611.97	2960.00	0.0	-296.00	0.0	2960.00	0.0	1.035	0.0	0.0
283.91	1108.12	2960.00	116.19	-296.00	0.0	0.0	0.0	0.0	0.0	0.0
237.82	554.06	2960.00	232.38	-296.00	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	7936.33									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%
	Hz	sec	g	daN		daN		daN	
1	4.206	0.238	0.428	0.16	1.96e-03	1264.00	15.9	31.53	0.4
2	4.441	0.225	0.428	0.14	1.82e-03	453.68	5.7	14.87	0.2
3	4.687	0.213	0.428	1.18e-03	1.49e-05	6.15	7.75e-02	2.08e-03	2.62e-05
4	5.254	0.190	0.415	3.85	4.85e-02	9.93	0.1	6.84	8.62e-02
5	5.408	0.185	0.408	10.42	0.1	87.80	1.1	85.48	1.1
6	5.496	0.182	0.404	110.61	1.4	476.22	6.0	434.82	5.5
7	5.625	0.178	0.399	4.78	6.02e-02	37.81	0.5	95.76	1.2
8	5.738	0.174	0.394	1681.11	21.2	534.49	6.7	1204.03	15.2
9	5.782	0.173	0.392	591.66	7.5	143.38	1.8	135.18	1.7
10	5.845	0.171	0.390	4553.86	57.4	36.32	0.5	216.32	2.7
11	5.878	0.170	0.389	424.71	5.4	3.44	4.33e-02	3.34	4.21e-02

Progettazione civile e inserimento ambientale

Agronomia e studi culturali

Progettazione elettrica



Arch. Andrea Giuffrida



Dott. Agr. Gianfranco Giuffrida





Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%
12	5.985	0.167	0.385	103.74	1.3	17.07	0.2	32.87	0.4
13	6.073	0.165	0.381	188.89	2.4	0.07	8.87e-04	0.78	9.79e-03
14	6.881	0.145	0.356	1.90	2.40e-02	434.22	5.5	122.76	1.5
15	7.046	0.142	0.351	0.88	1.11e-02	22.01	0.3	8.71	0.1
16	7.166	0.140	0.348	2.73	3.44e-02	63.71	0.8	9.68	0.1
17	7.171	0.139	0.348	17.45	0.2	201.11	2.5	24.34	0.3
18	7.309	0.137	0.345	3.14	3.96e-02	1208.45	15.2	199.55	2.5
19	7.373	0.136	0.343	0.27	3.34e-03	1.14	1.43e-02	0.19	2.42e-03
20	7.461	0.134	0.341	13.56	0.2	0.03	3.16e-04	1.21	1.53e-02
21	7.511	0.133	0.340	2.12	2.67e-02	200.91	2.5	23.95	0.3
22	7.665	0.130	0.336	6.82	8.59e-02	31.50	0.4	4.39	5.53e-02
23	7.766	0.129	0.334	10.29	0.1	1.35	1.70e-02	4.29e-03	5.41e-05
24	7.853	0.127	0.332	0.05	6.68e-04	1347.49	17.0	132.41	1.7
25	8.083	0.124	0.327	7.67e-03	9.66e-05	439.16	5.5	36.41	0.5
Risulta				7733.14		7021.43		2825.42	
In percentuale				97.44		88.47		35.60	

CDC	Tipo	Sigla Id	Note
6	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. +)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.171 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.171 sec.
			numero di modi considerati: 25
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
422.18	554.06	2960.00	-232.38	0.0	0.0	0.0	0.0	0.0	0.0	0.0
376.09	1108.12	2960.00	-116.19	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330.00	4611.97	2960.00	0.0	0.0	0.0	2960.00	0.0	1.035	0.0	0.0
283.91	1108.12	2960.00	116.19	0.0	0.0	0.0	0.0	0.0	0.0	0.0
237.82	554.06	2960.00	232.38	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	7936.33									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%
	Hz	sec	g	daN		daN		daN	
1	4.312	0.232	0.171	0.0	0.0	1619.40	20.4	46.67	0.6
2	4.356	0.230	0.171	0.32	3.97e-03	0.0	0.0	0.0	0.0
3	4.676	0.214	0.171	0.0	0.0	13.78	0.2	0.09	1.13e-03
4	5.281	0.189	0.171	2.71	3.42e-02	0.0	0.0	0.0	0.0
5	5.399	0.185	0.171	0.0	0.0	3.18	4.01e-02	10.22	0.1
6	5.562	0.180	0.171	225.65	2.8	0.0	0.0	0.0	0.0
7	5.638	0.177	0.171	0.0	0.0	962.71	12.1	1686.00	21.2
8	5.659	0.177	0.171	562.20	7.1	0.0	0.0	0.0	0.0
9	5.795	0.173	0.171	0.0	0.0	333.72	4.2	513.21	6.5
10	5.831	0.171	0.171	6375.64	80.3	0.0	0.0	0.0	0.0
11	5.904	0.169	0.171	298.99	3.8	0.0	0.0	0.0	0.0
12	5.939	0.168	0.171	0.0	0.0	11.38	0.1	13.35	0.2
13	6.069	0.165	0.171	211.17	2.7	0.0	0.0	0.0	0.0
14	6.976	0.143	0.160	0.0	0.0	311.19	3.9	88.27	1.1
15	7.026	0.142	0.160	0.73	9.18e-03	1.24e-06	0.0	2.07e-06	0.0
16	7.111	0.141	0.158	0.0	0.0	6.53	8.23e-02	0.93	1.17e-02
17	7.324	0.137	0.156	0.0	0.0	18.61	0.2	1.73e-05	0.0
18	7.331	0.136	0.156	37.42	0.5	0.0	0.0	0.0	0.0
19	7.376	0.136	0.155	0.0	0.0	4.73	5.97e-02	2.19e-03	2.76e-05

Progettazione civile e inserimento ambientale

Agronomia e studi colturali

Progettazione elettrica



Arch. Andrea Giuffrida



Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%
20	7.571	0.132	0.153	3.55	4.47e-02	2.48e-05	0.0	1.93e-05	0.0
21	7.584	0.132	0.153	8.83e-05	1.11e-06	14.56	0.2	1.80	2.27e-02
22	7.663	0.130	0.152	4.25e-05	0.0	4477.42	56.4	515.49	6.5
23	7.673	0.130	0.152	6.09	7.68e-02	4.53e-03	5.71e-05	4.75e-04	5.98e-06
24	7.775	0.129	0.151	8.84	0.1	2.05e-04	2.59e-06	0.0	0.0
25	7.986	0.125	0.149	5.56e-06	0.0	21.20	0.3	1.90	2.39e-02
Risulta				7733.31		7798.43		2877.92	
In percentuale				97.44		98.26		36.26	

CDC	Tipo	Sigla Id	Note
7	Edk	CDC=Ed (dinamico SLD) alfa=0.0 (ecc. -)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.171 g
			angolo di ingresso:0.0
			eccentricità aggiuntiva: negativa
			periodo proprio T1: 0.171 sec.
			numero di modi considerati: 25
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
422.18	554.06	2960.00	-232.38	0.0	0.0	0.0	0.0	0.0	0.0	0.0
376.09	1108.12	2960.00	-116.19	0.0	0.0	0.0	0.0	0.0	0.0	0.0
330.00	4611.97	2960.00	0.0	0.0	0.0	2960.00	0.0	1.035	0.0	0.0
283.91	1108.12	2960.00	116.19	0.0	0.0	0.0	0.0	0.0	0.0	0.0
237.82	554.06	2960.00	232.38	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	7936.33									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%
	Hz	sec	g	daN		daN		daN	
1	4.312	0.232	0.171	0.0	0.0	1619.40	20.4	46.67	0.6
2	4.356	0.230	0.171	0.32	3.97e-03	0.0	0.0	0.0	0.0
3	4.676	0.214	0.171	0.0	0.0	13.78	0.2	0.09	1.13e-03
4	5.281	0.189	0.171	2.71	3.42e-02	0.0	0.0	0.0	0.0
5	5.399	0.185	0.171	0.0	0.0	3.18	4.01e-02	10.22	0.1
6	5.562	0.180	0.171	225.65	2.8	0.0	0.0	0.0	0.0
7	5.638	0.177	0.171	0.0	0.0	962.71	12.1	1686.00	21.2
8	5.659	0.177	0.171	562.20	7.1	0.0	0.0	0.0	0.0
9	5.795	0.173	0.171	0.0	0.0	333.72	4.2	513.21	6.5
10	5.831	0.171	0.171	6375.64	80.3	0.0	0.0	0.0	0.0
11	5.904	0.169	0.171	298.99	3.8	0.0	0.0	0.0	0.0
12	5.939	0.168	0.171	0.0	0.0	11.38	0.1	13.35	0.2
13	6.069	0.165	0.171	211.17	2.7	0.0	0.0	0.0	0.0
14	6.976	0.143	0.160	0.0	0.0	311.19	3.9	88.27	1.1
15	7.026	0.142	0.160	0.73	9.18e-03	1.24e-06	0.0	2.07e-06	0.0
16	7.111	0.141	0.158	0.0	0.0	6.53	8.23e-02	0.93	1.17e-02
17	7.324	0.137	0.156	0.0	0.0	18.61	0.2	1.73e-05	0.0
18	7.331	0.136	0.156	37.42	0.5	0.0	0.0	0.0	0.0
19	7.376	0.136	0.155	0.0	0.0	4.73	5.97e-02	2.19e-03	2.76e-05
20	7.571	0.132	0.153	3.55	4.47e-02	2.48e-05	0.0	1.93e-05	0.0
21	7.584	0.132	0.153	8.83e-05	1.11e-06	14.56	0.2	1.80	2.27e-02
22	7.663	0.130	0.152	4.25e-05	0.0	4477.42	56.4	515.49	6.5
23	7.673	0.130	0.152	6.09	7.68e-02	4.53e-03	5.71e-05	4.75e-04	5.98e-06
24	7.775	0.129	0.151	8.84	0.1	2.05e-04	2.59e-06	0.0	0.0
25	7.986	0.125	0.149	5.56e-06	0.0	21.20	0.3	1.90	2.39e-02
Risulta				7733.31		7798.43		2877.92	
In percentuale				97.44		98.26		36.26	

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida





CDC	Tipo	Sigla Id	Note
8	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. +)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.171 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: positiva
			periodo proprio T1: 0.127 sec.
			numero di modi considerati: 25
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
422.18	554.06	2960.00	-232.38	296.00	0.0	0.0	0.0	0.0	0.0	0.0
376.09	1108.12	2960.00	-116.19	296.00	0.0	0.0	0.0	0.0	0.0	0.0
330.00	4611.97	2960.00	0.0	296.00	0.0	2960.00	0.0	1.035	0.0	0.0
283.91	1108.12	2960.00	116.19	296.00	0.0	0.0	0.0	0.0	0.0	0.0
237.82	554.06	2960.00	232.38	296.00	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	7936.33									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%
	Hz	sec	g	daN		daN		daN	
1	4.206	0.238	0.171	0.16	1.96e-03	1264.00	15.9	31.53	0.4
2	4.441	0.225	0.171	0.14	1.82e-03	453.68	5.7	14.87	0.2
3	4.687	0.213	0.171	1.18e-03	1.49e-05	6.15	7.75e-02	2.08e-03	2.62e-05
4	5.254	0.190	0.171	3.85	4.85e-02	9.93	0.1	6.84	8.62e-02
5	5.408	0.185	0.171	10.42	0.1	87.80	1.1	85.48	1.1
6	5.496	0.182	0.171	110.61	1.4	476.22	6.0	434.82	5.5
7	5.625	0.178	0.171	4.78	6.02e-02	37.81	0.5	95.76	1.2
8	5.738	0.174	0.171	1681.10	21.2	534.49	6.7	1204.03	15.2
9	5.782	0.173	0.171	591.67	7.5	143.38	1.8	135.18	1.7
10	5.845	0.171	0.171	4553.86	57.4	36.32	0.5	216.31	2.7
11	5.878	0.170	0.171	424.71	5.4	3.44	4.33e-02	3.34	4.21e-02
12	5.985	0.167	0.171	103.74	1.3	17.07	0.2	32.87	0.4
13	6.073	0.165	0.171	188.89	2.4	0.07	8.87e-04	0.78	9.79e-03
14	6.881	0.145	0.161	1.90	2.40e-02	434.21	5.5	122.72	1.5
15	7.046	0.142	0.159	0.88	1.11e-02	22.00	0.3	8.70	0.1
16	7.166	0.140	0.158	2.73	3.43e-02	63.67	0.8	9.67	0.1
17	7.171	0.139	0.158	17.46	0.2	201.17	2.5	24.38	0.3
18	7.309	0.137	0.156	3.15	3.96e-02	1208.42	15.2	199.46	2.5
19	7.373	0.136	0.155	0.26	3.30e-03	1.14	1.43e-02	0.19	2.42e-03
20	7.461	0.134	0.154	13.62	0.2	0.03	3.17e-04	1.22	1.54e-02
21	7.511	0.133	0.154	2.12	2.67e-02	200.91	2.5	23.96	0.3
22	7.665	0.130	0.152	6.87	8.66e-02	31.48	0.4	4.42	5.57e-02
23	7.766	0.129	0.151	10.27	0.1	1.38	1.74e-02	3.23e-03	4.07e-05
24	7.853	0.127	0.150	0.05	5.87e-04	1346.84	17.0	132.18	1.7
25	8.083	0.124	0.148	4.60e-03	5.80e-05	440.29	5.5	36.77	0.5
Risulta				7733.24		7021.89		2825.49	
In percentuale				97.44		88.48		35.60	

CDC	Tipo	Sigla Id	Note
9	Edk	CDC=Ed (dinamico SLD) alfa=90.00 (ecc. -)	
			categoria suolo: C
			fattore di sito S = 1.500
			ordinata spettro (tratto Tb-Tc) = 0.171 g
			angolo di ingresso:90.00
			eccentricità aggiuntiva: negativa

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

CDC	Tipo	Sigla Id	Note
			periodo proprio T1: 0.127 sec.
			numero di modi considerati: 25
			combinaz. modale: CQC

Quota	M Sismica x g	Pos. GX	Pos. GY	E agg. X-X	E agg. Y-Y	Pos. KX	Pos. KY	(r/Ls)^2	rapp. ex/rx	rapp. ey/ry
cm	daN	cm	cm	cm	cm	cm	cm			
422.18	554.06	2960.00	-232.38	-296.00	0.0	0.0	0.0	0.0	0.0	0.0
376.09	1108.12	2960.00	-116.19	-296.00	0.0	0.0	0.0	0.0	0.0	0.0
330.00	4611.97	2960.00	0.0	-296.00	0.0	2960.00	0.0	1.035	0.0	0.0
283.91	1108.12	2960.00	116.19	-296.00	0.0	0.0	0.0	0.0	0.0	0.0
237.82	554.06	2960.00	232.38	-296.00	0.0	0.0	0.0	0.0	0.0	0.0
Risulta	7936.33									

Modo	Frequenza	Periodo	Acc. Spettrale	M efficace X x g	%	M efficace Y x g	%	M efficace Z x g	%
	Hz	sec	g	daN		daN		daN	
1	4.206	0.238	0.171	0.16	1.96e-03	1264.00	15.9	31.53	0.4
2	4.441	0.225	0.171	0.14	1.82e-03	453.68	5.7	14.87	0.2
3	4.687	0.213	0.171	1.18e-03	1.49e-05	6.15	7.75e-02	2.08e-03	2.62e-05
4	5.254	0.190	0.171	3.85	4.85e-02	9.93	0.1	6.84	8.62e-02
5	5.408	0.185	0.171	10.42	0.1	87.80	1.1	85.48	1.1
6	5.496	0.182	0.171	110.61	1.4	476.22	6.0	434.82	5.5
7	5.625	0.178	0.171	4.78	6.02e-02	37.81	0.5	95.76	1.2
8	5.738	0.174	0.171	1681.11	21.2	534.49	6.7	1204.03	15.2
9	5.782	0.173	0.171	591.66	7.5	143.38	1.8	135.18	1.7
10	5.845	0.171	0.171	4553.86	57.4	36.32	0.5	216.32	2.7
11	5.878	0.170	0.171	424.71	5.4	3.44	4.33e-02	3.34	4.21e-02
12	5.985	0.167	0.171	103.74	1.3	17.07	0.2	32.87	0.4
13	6.073	0.165	0.171	188.89	2.4	0.07	8.87e-04	0.78	9.79e-03
14	6.881	0.145	0.161	1.90	2.40e-02	434.22	5.5	122.76	1.5
15	7.046	0.142	0.159	0.88	1.11e-02	22.01	0.3	8.71	0.1
16	7.166	0.140	0.158	2.73	3.44e-02	63.71	0.8	9.68	0.1
17	7.171	0.139	0.158	17.45	0.2	201.11	2.5	24.34	0.3
18	7.309	0.137	0.156	3.14	3.96e-02	1208.45	15.2	199.55	2.5
19	7.373	0.136	0.155	0.27	3.34e-03	1.14	1.43e-02	0.19	2.42e-03
20	7.461	0.134	0.154	13.56	0.2	0.03	3.16e-04	1.21	1.53e-02
21	7.511	0.133	0.154	2.12	2.67e-02	200.91	2.5	23.95	0.3
22	7.665	0.130	0.152	6.82	8.59e-02	31.50	0.4	4.39	5.53e-02
23	7.766	0.129	0.151	10.29	0.1	1.35	1.70e-02	4.29e-03	5.41e-05
24	7.853	0.127	0.150	0.05	6.68e-04	1347.49	17.0	132.41	1.7
25	8.083	0.124	0.148	7.67e-03	9.66e-05	439.16	5.5	36.41	0.5
Risulta				7733.14		7021.43		2825.42	
In percentuale				97.44		88.47		35.60	

Cmb	Pilas. 1000 etaT/h	etaT	inter. h	Pilas. 1000 etaT/h	etaT	inter. h	Pilas. 1000 etaT/h	etaT	inter. h			
		cm	cm		cm	cm		cm	cm			
157	119	0.37	0.12	330.0	120	0.37	0.12	330.0	121	0.37	0.12	330.0
	122	0.37	0.12	330.0	123	0.37	0.12	330.0	124	0.38	0.12	330.0
	125	0.38	0.13	330.0	172	0.37	0.12	330.0	173	0.37	0.12	330.0
158	119	0.36	0.12	330.0	120	0.36	0.12	330.0	121	0.36	0.12	330.0
	122	0.37	0.12	330.0	123	0.37	0.12	330.0	124	0.37	0.12	330.0
	125	0.37	0.12	330.0	172	0.36	0.12	330.0	173	0.37	0.12	330.0
159	119	0.36	0.12	330.0	120	0.36	0.12	330.0	121	0.36	0.12	330.0
	122	0.37	0.12	330.0	123	0.37	0.12	330.0	124	0.37	0.12	330.0
	125	0.37	0.12	330.0	172	0.36	0.12	330.0	173	0.37	0.12	330.0
160	119	0.37	0.12	330.0	120	0.37	0.12	330.0	121	0.37	0.12	330.0
	122	0.37	0.12	330.0	123	0.37	0.12	330.0	124	0.38	0.12	330.0
	125	0.38	0.13	330.0	172	0.37	0.12	330.0	173	0.37	0.12	330.0
161	119	0.37	0.12	330.0	120	0.37	0.12	330.0	121	0.37	0.12	330.0

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida

Progettazione elettrica



SOGGETTO PROPONENTE



SMARTENERGYIT2111 S.R.L.

Comune di Gravina in Puglia (BA) - Località Masseria Pellicciari
 Progetto per la realizzazione di un Nuovo Impianto Agrivoltaico e delle relative opere di
 connessione alla RTN
 Potenza nominale 35,09 MW

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

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	122	0.37	0.12	330.0	123	0.36	0.12	330.0	124	0.36	0.12	330.0
	125	0.36	0.12	330.0	172	0.37	0.12	330.0	173	0.36	0.12	330.0
162	119	0.38	0.13	330.0	120	0.38	0.12	330.0	121	0.37	0.12	330.0
	122	0.37	0.12	330.0	123	0.37	0.12	330.0	124	0.37	0.12	330.0
	125	0.37	0.12	330.0	172	0.37	0.12	330.0	173	0.37	0.12	330.0
163	119	0.38	0.13	330.0	120	0.38	0.12	330.0	121	0.37	0.12	330.0
	122	0.37	0.12	330.0	123	0.37	0.12	330.0	124	0.37	0.12	330.0
	125	0.37	0.12	330.0	172	0.37	0.12	330.0	173	0.37	0.12	330.0
164	119	0.37	0.12	330.0	120	0.37	0.12	330.0	121	0.37	0.12	330.0
	122	0.37	0.12	330.0	123	0.36	0.12	330.0	124	0.36	0.12	330.0
	125	0.36	0.12	330.0	172	0.37	0.12	330.0	173	0.36	0.12	330.0
165	119	0.37	0.12	330.0	120	0.37	0.12	330.0	121	0.37	0.12	330.0
	122	0.37	0.12	330.0	123	0.37	0.12	330.0	124	0.38	0.12	330.0
	125	0.38	0.13	330.0	172	0.37	0.12	330.0	173	0.37	0.12	330.0
166	119	0.36	0.12	330.0	120	0.36	0.12	330.0	121	0.36	0.12	330.0
	122	0.37	0.12	330.0	123	0.37	0.12	330.0	124	0.37	0.12	330.0
	125	0.37	0.12	330.0	172	0.36	0.12	330.0	173	0.37	0.12	330.0
167	119	0.36	0.12	330.0	120	0.36	0.12	330.0	121	0.36	0.12	330.0
	122	0.37	0.12	330.0	123	0.37	0.12	330.0	124	0.37	0.12	330.0
	125	0.37	0.12	330.0	172	0.36	0.12	330.0	173	0.37	0.12	330.0
168	119	0.37	0.12	330.0	120	0.37	0.12	330.0	121	0.37	0.12	330.0
	122	0.37	0.12	330.0	123	0.37	0.12	330.0	124	0.38	0.12	330.0
	125	0.38	0.13	330.0	172	0.37	0.12	330.0	173	0.37	0.12	330.0
169	119	0.37	0.12	330.0	120	0.37	0.12	330.0	121	0.37	0.12	330.0
	122	0.37	0.12	330.0	123	0.36	0.12	330.0	124	0.36	0.12	330.0
	125	0.36	0.12	330.0	172	0.37	0.12	330.0	173	0.36	0.12	330.0
170	119	0.38	0.13	330.0	120	0.38	0.12	330.0	121	0.37	0.12	330.0
	122	0.37	0.12	330.0	123	0.37	0.12	330.0	124	0.37	0.12	330.0
	125	0.37	0.12	330.0	172	0.37	0.12	330.0	173	0.37	0.12	330.0
171	119	0.38	0.13	330.0	120	0.38	0.12	330.0	121	0.37	0.12	330.0
	122	0.37	0.12	330.0	123	0.37	0.12	330.0	124	0.37	0.12	330.0
	125	0.37	0.12	330.0	172	0.37	0.12	330.0	173	0.37	0.12	330.0
172	119	0.37	0.12	330.0	120	0.37	0.12	330.0	121	0.37	0.12	330.0
	122	0.37	0.12	330.0	123	0.36	0.12	330.0	124	0.36	0.12	330.0
	125	0.36	0.12	330.0	172	0.37	0.12	330.0	173	0.36	0.12	330.0
173	119	0.14	0.05	330.0	120	0.16	0.05	330.0	121	0.19	0.06	330.0
	122	0.22	0.07	330.0	123	0.25	0.08	330.0	124	0.28	0.09	330.0
	125	0.31	0.10	330.0	172	0.20	0.07	330.0	173	0.24	0.08	330.0
174	119	0.14	0.05	330.0	120	0.16	0.05	330.0	121	0.18	0.06	330.0
	122	0.21	0.07	330.0	123	0.25	0.08	330.0	124	0.26	0.09	330.0
	125	0.30	0.10	330.0	172	0.19	0.06	330.0	173	0.24	0.08	330.0
175	119	0.14	0.05	330.0	120	0.16	0.05	330.0	121	0.18	0.06	330.0
	122	0.21	0.07	330.0	123	0.25	0.08	330.0	124	0.26	0.09	330.0
	125	0.30	0.10	330.0	172	0.19	0.06	330.0	173	0.24	0.08	330.0
176	119	0.14	0.05	330.0	120	0.16	0.05	330.0	121	0.19	0.06	330.0
	122	0.22	0.07	330.0	123	0.25	0.08	330.0	124	0.28	0.09	330.0
	125	0.31	0.10	330.0	172	0.20	0.07	330.0	173	0.24	0.08	330.0
177	119	0.14	0.05	330.0	120	0.16	0.05	330.0	121	0.19	0.06	330.0
	122	0.22	0.07	330.0	123	0.25	0.08	330.0	124	0.28	0.09	330.0
	125	0.31	0.10	330.0	172	0.20	0.07	330.0	173	0.24	0.08	330.0
178	119	0.14	0.05	330.0	120	0.16	0.05	330.0	121	0.18	0.06	330.0
	122	0.21	0.07	330.0	123	0.25	0.08	330.0	124	0.26	0.09	330.0
	125	0.30	0.10	330.0	172	0.19	0.06	330.0	173	0.24	0.08	330.0
179	119	0.14	0.05	330.0	120	0.16	0.05	330.0	121	0.18	0.06	330.0
	122	0.21	0.07	330.0	123	0.25	0.08	330.0	124	0.26	0.09	330.0
	125	0.30	0.10	330.0	172	0.19	0.06	330.0	173	0.24	0.08	330.0
180	119	0.14	0.05	330.0	120	0.16	0.05	330.0	121	0.19	0.06	330.0
	122	0.22	0.07	330.0	123	0.25	0.08	330.0	124	0.28	0.09	330.0
	125	0.31	0.10	330.0	172	0.20	0.07	330.0	173	0.24	0.08	330.0
181	119	0.30	0.10	330.0	120	0.26	0.09	330.0	121	0.25	0.08	330.0
	122	0.21	0.07	330.0	123	0.18	0.06	330.0	124	0.16	0.05	330.0
	125	0.14	0.05	330.0	172	0.24	0.08	330.0	173	0.19	0.06	330.0

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida



SOGGETTO PROPONENTE**SMARTENERGY**

SMARTENERGYIT2111 S.R.L.

Comune di Gravina in Puglia (BA) - Località Masseria Pellicciari
 Progetto per la realizzazione di un Nuovo Impianto Agrivoltaico e delle relative opere di
 connessione alla RTN
 Potenza nominale 35,09 MW

PROGETTO DEFINITIVO**Relazione di calcolo preliminare delle strutture**

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182	119	0.31	0.10	330.0	120	0.28	0.09	330.0	121	0.25	0.08	330.0
	122	0.22	0.07	330.0	123	0.19	0.06	330.0	124	0.16	0.05	330.0
	125	0.14	0.05	330.0	172	0.24	0.08	330.0	173	0.20	0.07	330.0
183	119	0.31	0.10	330.0	120	0.28	0.09	330.0	121	0.25	0.08	330.0
	122	0.22	0.07	330.0	123	0.19	0.06	330.0	124	0.16	0.05	330.0
	125	0.14	0.05	330.0	172	0.24	0.08	330.0	173	0.20	0.07	330.0
184	119	0.30	0.10	330.0	120	0.26	0.09	330.0	121	0.25	0.08	330.0
	122	0.21	0.07	330.0	123	0.18	0.06	330.0	124	0.16	0.05	330.0
	125	0.14	0.05	330.0	172	0.24	0.08	330.0	173	0.19	0.06	330.0
185	119	0.30	0.10	330.0	120	0.26	0.09	330.0	121	0.25	0.08	330.0
	122	0.21	0.07	330.0	123	0.18	0.06	330.0	124	0.16	0.05	330.0
	125	0.14	0.05	330.0	172	0.24	0.08	330.0	173	0.19	0.06	330.0
186	119	0.31	0.10	330.0	120	0.28	0.09	330.0	121	0.25	0.08	330.0
	122	0.22	0.07	330.0	123	0.19	0.06	330.0	124	0.16	0.05	330.0
	125	0.14	0.05	330.0	172	0.24	0.08	330.0	173	0.20	0.07	330.0
187	119	0.31	0.10	330.0	120	0.28	0.09	330.0	121	0.25	0.08	330.0
	122	0.22	0.07	330.0	123	0.19	0.06	330.0	124	0.16	0.05	330.0
	125	0.14	0.05	330.0	172	0.24	0.08	330.0	173	0.20	0.07	330.0
188	119	0.30	0.10	330.0	120	0.26	0.09	330.0	121	0.25	0.08	330.0
	122	0.21	0.07	330.0	123	0.18	0.06	330.0	124	0.16	0.05	330.0
	125	0.14	0.05	330.0	172	0.24	0.08	330.0	173	0.19	0.06	330.0
Cmb	1000 etaT/h											
	0.38											

Progettazione civile e inserimento ambientale

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Progettazione elettrica



RISULTATI ELEMENTI TIPO TRAVE

Legenda risultati elementi tipo trave

Il controllo dei risultati delle analisi condotte, per quanto concerne gli elementi tipo trave, è possibile in relazione alle tabelle sotto riportate.

Gli elementi vengono suddivisi in relazione alle proprietà in elementi:

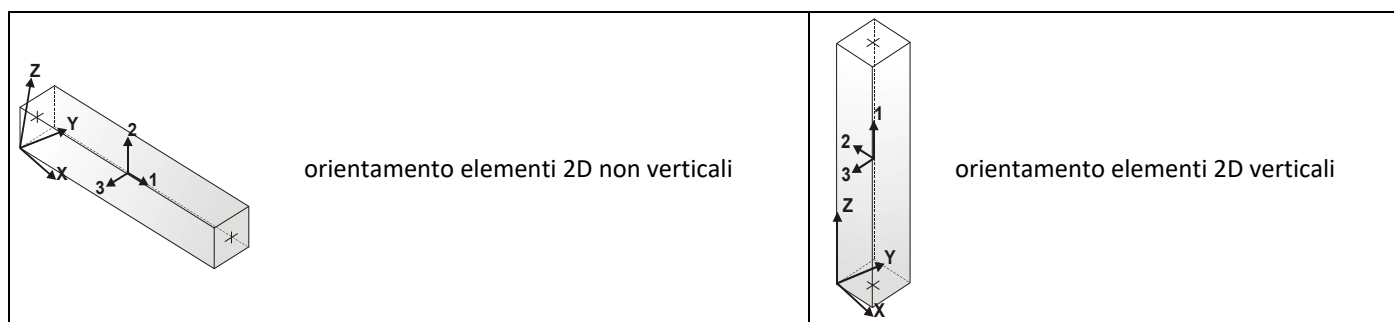
- tipo pilastro
- tipo trave in elevazione

Per ogni elemento e per ogni combinazione (o caso di carico) vengono riportati i risultati più significativi.

Per gli elementi tipo pilastro sono riportati in tabella i seguenti valori:

Pilas.	numero dell'elemento pilastro
Cmb	combinazione in cui si verificano i valori riportati
M3 mx/mn	momento flettente in campata M3 max (prima riga) / min (seconda riga)
M2 mx/mn	momento flettente in campata M2 max (prima riga) / min (seconda riga)
D2/D3	freccia massima in direzione 2 (prima riga) / direzione 3 (seconda riga)
Q2/Q3	carico totale in direzione 2 (prima riga) / direzione 3 (seconda riga)
Pos.	ascissa del punto iniziale e finale dell'elemento
N, V2, ecc..	sei componenti di sollecitazione al piede ed in sommità dell'elemento

Per gli elementi tipo trave in elevazione sono riportati, oltre al numero dell'elemento, i medesimi risultati visti per i pilastri.



Pilas.	Cmb	M3 mx/mn daN cm	M2 mx/mn daN cm	D 2 / D 3 cm	Q 2 / Q 3 daN	Pos. cm	N daN	V 2 daN	V 3 daN	T daN cm	M 2 daN cm	M 3 daN cm
119	33	9.266e+05	1.440e+05	2.42	0.0	0.0	-3483.61	-1546.70	-49.54	-558.04	1.440e+05	9.266e+05
		4.162e+05	1.277e+05	1.26	0.0	165.0	-3365.74	-1546.70	-49.54	-558.04	1.359e+05	6.714e+05
119	48	-6.515e+05	-1.311e+05	-3.80	0.0	0.0	3017.83	2421.78	-67.97	583.95	-1.311e+05	-1.451e+06
		-1.451e+06	-1.535e+05	-1.26	0.0	165.0	3171.06	2421.78	-67.97	583.95	-1.423e+05	-1.051e+06
119	53	-3.909e+05	5.141e+05	-2.28	0.0	0.0	2156.63	1450.59	-2575.18	-364.32	5.141e+05	-8.696e+05

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PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

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				-8.696e+05	-3.357e+05	2.10	0.0	165.0	2274.49	1450.59	-2575.18	-364.32	8.917e+04	-6.303e+05
								330.0	2392.36	1450.59	-2575.18			
119	73	6.515e+05	4.013e+05	0.87	0.0	0.0	0.0	0.0	4038.69	1732.50	-2389.53	-22.94	4.013e+05	7.979e+04
								165.0	4156.56	1732.50	-2389.53	-22.94	7003.81	3.657e+05
								330.0	4274.43	1732.50	-2389.53			6.515e+05
119	88	35.89	3.300e+05	-2.64e-03	0.0	0.0	0.0	0.0	-1783.60	3.90	3054.01	710.85	-6.778e+05	-1251.98
								165.0	-1630.38	3.90	3054.01	710.85	-1.739e+05	-608.04
								330.0	-1477.15	3.90	3054.01	710.85	3.300e+05	35.89
119	111	-3.142e+04	3.719e+05	-0.33	0.0	0.0	0.0	0.0	-6497.21	-661.42	1689.96	-387.16	-1.858e+05	-3.142e+04
								165.0	-6343.99	-661.42	1689.96	-387.16	9.306e+04	-1.406e+05
								330.0	-6190.76	-661.42	1689.96	-387.16	3.719e+05	-2.497e+05
119	132	2.175e+04	6.292e+04	0.05	0.0	0.0	0.0	0.0	-948.44	-55.62	420.53	27.59	-7.616e+04	2.175e+04
								165.0	-830.57	-55.62	420.53	27.59	-6621.63	8598.56
								330.0	-712.71	-55.62	420.53	27.59	6.292e+04	-4557.39
119	150	1.040e+05	4.285e+04	0.23	0.0	0.0	0.0	0.0	-769.19	-304.59	154.33	-75.82	-8041.91	1.040e+05
								165.0	-651.32	-304.59	154.33	-75.82	1.740e+04	3.983e+04
								330.0	-533.46	-304.59	154.33	-75.82	4.285e+04	-2.437e+04
119	151	2.438e+04	3.335e+04	-0.23	0.0	0.0	0.0	0.0	-1025.14	305.51	191.94	-3.39	-3.003e+04	-1.043e+05
								165.0	-907.27	305.51	191.94	-3.39	1661.88	-3.997e+04
								330.0	-789.40	305.51	191.94	-3.39	3.335e+04	2.438e+04
119	164	8936.73	4.901e+04	0.02	0.0	0.0	0.0	0.0	-920.14	-23.53	281.78	-10.20	-4.411e+04	8936.73
								165.0	-802.27	-23.53	281.78	-10.20	2449.54	3553.20
								330.0	-684.40	-23.53	281.78	-10.20	4.901e+04	-1830.32
119	182	4.381e+04	3.995e+04	0.10	0.0	0.0	0.0	0.0	-840.87	-131.32	163.88	-55.45	-1.411e+04	4.381e+04
								165.0	-723.00	-131.32	163.88	-55.45	1.292e+04	1.686e+04
								330.0	-605.13	-131.32	163.88	-55.45	3.995e+04	-1.010e+04
119	183	1.011e+04	3.625e+04	-0.10	0.0	0.0	0.0	0.0	-953.46	132.23	182.38	-23.76	-2.395e+04	-4.410e+04
								165.0	-835.59	132.23	182.38	-23.76	6145.72	-1.700e+04
								330.0	-717.72	132.23	182.38	-23.76	3.625e+04	1.011e+04
119	204	6.177e+05	9.782e+04	1.62	0.0	0.0	0.0	0.0	-2621.46	-1030.98	24.68	-385.23	8.967e+04	6.177e+05
								165.0	-2503.59	-1030.98	24.68	-385.23	9.375e+04	4.476e+05
								330.0	-2385.72	-1030.98	24.68	-385.23	9.782e+04	2.775e+05
119	213	-4.343e+05	-8.994e+04	-2.53	0.0	0.0	0.0	0.0	1892.27	1614.58	-22.23	384.02	-8.994e+04	-9.671e+05
								165.0	2010.14	1614.58	-22.23	384.02	-9.361e+04	-7.007e+05
								330.0	2128.00	1614.58	-22.23	384.02	-9.728e+04	-4.343e+05
119	214	-2.606e+05	3.364e+05	-1.52	0.0	0.0	0.0	0.0	1138.70	967.21	-1659.07	-256.08	3.364e+05	-5.798e+05
								165.0	1256.56	967.21	-1659.07	-256.08	6.262e+04	-4.202e+05
								330.0	1374.43	967.21	-1659.07	-256.08	-2.111e+05	-2.606e+05
119	224	4.343e+05	2.612e+05	0.58	0.0	0.0	0.0	0.0	2393.41	1155.15	-1535.31	-28.49	2.612e+05	5.315e+04
								165.0	2511.27	1155.15	-1535.31	-28.49	7847.00	2.437e+05
								330.0	2629.14	1155.15	-1535.31	-28.49	-2.455e+05	4.343e+05
119	233	24.75	2.251e+05	-1.80e-03	0.0	0.0	0.0	0.0	-1308.69	2.66	2059.09	468.62	-4.544e+05	-854.02
								165.0	-1190.82	2.66	2059.09	468.62	-1.147e+05	-414.63
								330.0	-1072.96	2.66	2059.09	468.62	2.251e+05	24.75
119	244	-2.097e+04	2.530e+05	-0.22	0.0	0.0	0.0	0.0	-4451.10	-440.89	1149.73	-263.39	-1.264e+05	-2.097e+04
								165.0	-4333.23	-440.89	1149.73	-263.39	6.331e+04	-9.371e+04
								330.0	-4215.36	-440.89	1149.73	-263.39	2.530e+05	-1.665e+05
119	252	1.234e+05	6.487e+04	0.32	0.0	0.0	0.0	0.0	-1273.98	-205.68	294.77	-67.20	-3.241e+04	1.234e+05
								165.0	-1156.12	-205.68	294.77	-67.20	1.623e+04	8.944e+04
								330.0	-1038.25	-205.68	294.77	-67.20	6.487e+04	5.550e+04
119	253	-8.686e+04	1897.69	-0.51	0.0	0.0	0.0	0.0	-307.32	323.13	-17.26	3.59	1897.69	-1.935e+05
								165.0	-189.45	323.13	-17.26	3.59	-950.59	-1.402e+05
								330.0	-71.58	323.13	-17.26	3.59	-3798.87	-8.686e+04
119	255	8.688e+04	1894.51	0.12	0.0	0.0	0.0	0.0	-271.01	231.55	-17.23	4.15	1894.51	1.046e+04
								165.0	-153.14	231.55	-17.23	4.15	-948.92	4.867e+04
								330.0	-35.27	231.55	-17.23	4.15	-3792.34	8.688e+04
119	257	59.06	1.273e+05	1.28e-04	0.0	0.0	0.0	0.0	-764.00	-0.17	-457.38	-212.64	1.273e+05	59.06
								165.0	-646.14	-0.17	-457.38	-212.64	5.180e+04	30.55
								330.0	-528.27	-0.17	-457.38	-212.64	-2.366e+04	2.05
119	258	10.31	9.986e+04	-7.36e-04	0.0	0.0	0.0	0.0	-1030.33	1.09	803.64	133.43	-1.653e+05	-349.51
								165.0	-912.46	1.09	803.64	133.43	-3.274e+04	-169.60
								330.0	-794.59	1.09	803.64	133.43	9.986e+04	10.31

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida





SMARTENERGYIT2111 S.R.L.

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

119	259	10.43	6.503e+04	-5.08e-04	0.0	0.0	-1367.94	0.77	295.48	-67.59	-3.248e+04	-242.94
		-242.94	-3.248e+04	-0.04	0.0	165.0	-1250.08	0.77	295.48	-67.59	1.627e+04	-116.25
						330.0	-1132.21	0.77	295.48	-67.59	6.503e+04	10.43
119	260	6.18	3.810e+04	-3.04e-04	0.0	0.0	-897.17	0.46	173.13	-39.60	-1.903e+04	-145.22
		-145.22	-1.903e+04	-0.03	0.0	165.0	-779.30	0.46	173.13	-39.60	9533.38	-69.52
						330.0	-661.43	0.46	173.13	-39.60	3.810e+04	6.18
120	50	-8.783e+05	1.719e+05	-3.79	0.0	0.0	6370.31	1376.68	1223.48	118.37	-2.319e+05	-1.333e+06
		-1.333e+06	-2.319e+05	-0.89	0.0	165.0	6488.18	1376.68	1223.48	118.37	-3.001e+04	-1.105e+06
						330.0	6606.05	1376.68	1223.48	118.37	1.719e+05	-8.783e+05
120	74	8.784e+05	1.719e+05	0.86	0.0	0.0	5814.81	2777.93	1223.44	123.08	-2.319e+05	-3.829e+04
		-3.829e+04	-2.319e+05	-0.89	0.0	165.0	5932.68	2777.93	1223.44	123.08	-3.001e+04	4.201e+05
						330.0	6050.55	2777.93	1223.44	123.08	1.719e+05	8.784e+05
120	86	14.04	4.023e+05	-2.81e-04	0.0	0.0	-1035.60	0.46	3111.71	452.14	-6.246e+05	-138.72
		-138.72	-6.246e+05	-2.57	0.0	165.0	-917.73	0.46	3111.71	452.14	-1.111e+05	-62.34
						330.0	-799.87	0.46	3111.71	452.14	4.023e+05	14.04
120	99	5.111e+05	2.027e+04	1.45	0.0	0.0	-9699.48	-528.69	-183.71	42.59	2.027e+04	5.111e+05
		3.366e+05	-4.035e+04	0.03	0.0	165.0	-9546.25	-528.69	-183.71	42.59	-1.004e+04	4.238e+05
						330.0	-9393.02	-528.69	-183.71	42.59	-4.035e+04	3.366e+05
120	130	3.134e+04	6.910e+04	0.07	0.0	0.0	-1321.02	-98.96	-354.71	-41.68	6.910e+04	3.134e+04
		-1.156e+04	-4.802e+04	0.28	0.0	165.0	-1203.15	-98.96	-354.71	-41.68	1.054e+04	9887.30
						330.0	-1085.29	-98.96	-354.71	-41.68	-4.802e+04	-1.156e+04
120	131	1.155e+04	3.974e+04	-0.07	0.0	0.0	-1118.19	98.63	317.01	50.15	-6.494e+04	-3.124e+04
		-3.124e+04	-6.494e+04	-0.28	0.0	165.0	-1000.32	98.63	317.01	50.15	-1.260e+04	-9846.75
						330.0	-882.45	98.63	317.01	50.15	3.974e+04	1.155e+04
120	150	8.736e+04	2.552e+04	0.20	0.0	0.0	-1396.30	-256.81	-146.32	2.52	2.552e+04	8.736e+04
		-3.118e+04	-2.283e+04	0.09	0.0	165.0	-1278.43	-256.81	-146.32	2.52	1345.15	2.809e+04
						330.0	-1160.56	-256.81	-146.32	2.52	-2.283e+04	-3.118e+04
120	151	3.116e+04	1.455e+04	-0.20	0.0	0.0	-1042.91	256.48	108.62	5.95	-2.136e+04	-8.726e+04
		-8.726e+04	-2.136e+04	-0.09	0.0	165.0	-925.04	256.48	108.62	5.95	-3405.33	-2.805e+04
						330.0	-807.17	256.48	108.62	5.95	1.455e+04	3.116e+04
120	162	1.340e+04	3.143e+04	0.03	0.0	0.0	-1263.04	-43.42	-165.74	-16.05	3.143e+04	1.340e+04
		-4801.59	-2.329e+04	0.12	0.0	165.0	-1145.17	-43.42	-165.74	-16.05	4066.44	4300.46
						330.0	-1027.31	-43.42	-165.74	-16.05	-2.329e+04	-4801.59
120	163	4787.60	1.501e+04	-0.03	0.0	0.0	-1176.16	43.09	128.04	24.53	-2.727e+04	-1.331e+04
		-1.331e+04	-2.727e+04	-0.12	0.0	165.0	-1058.30	43.09	128.04	24.53	6126.62	-4259.91
						330.0	-940.43	43.09	128.04	24.53	1.501e+04	4787.60
120	182	3.713e+04	1.231e+04	0.08	0.0	0.0	-1295.48	-112.66	-74.35	3.26	1.231e+04	3.713e+04
		-1.282e+04	-1.226e+04	0.04	0.0	165.0	-1177.61	-112.66	-74.35	3.26	26.24	1.216e+04
						330.0	-1059.75	-112.66	-74.35	3.26	-1.226e+04	-1.282e+04
120	183	1.281e+04	3975.45	-0.08	0.0	0.0	-1143.73	112.33	36.65	5.22	-8148.29	-3.704e+04
		-3.704e+04	-8148.29	-0.04	0.0	165.0	-1025.86	112.33	36.65	5.22	-2086.42	-1.212e+04
						330.0	-907.99	112.33	36.65	5.22	3975.45	1.281e+04
120	213	-5.855e+05	1.132e+05	-2.52	0.0	0.0	3840.34	917.73	809.37	80.32	-1.539e+05	-8.884e+05
		-8.884e+05	-1.539e+05	-0.59	0.0	165.0	3958.21	917.73	809.37	80.32	-2.035e+04	-7.369e+05
						330.0	4076.08	917.73	809.37	80.32	1.132e+05	-5.855e+05
120	225	5.856e+05	1.132e+05	0.57	0.0	0.0	3470.01	1851.90	809.34	83.47	-1.539e+05	-2.551e+04
		-2.551e+04	-1.539e+05	-0.59	0.0	165.0	3587.88	1851.90	809.34	83.47	-2.035e+04	2.801e+05
						330.0	3705.74	1851.90	809.34	83.47	1.132e+05	5.856e+05
120	231	7.03	2.668e+05	-1.56e-04	0.0	0.0	-1096.94	0.25	2068.19	302.84	-4.157e+05	-76.64
		-76.64	-4.157e+05	-1.72	0.0	165.0	-979.07	0.25	2068.19	302.84	-7.443e+04	-34.80
						330.0	-861.20	0.25	2068.19	302.84	2.668e+05	7.03
120	238	3.407e+05	1.379e+04	0.97	0.0	0.0	-6628.93	-352.48	-124.99	28.96	1.379e+04	3.407e+05
		2.244e+05	-2.745e+04	0.02	0.0	165.0	-6511.06	-352.48	-124.99	28.96	-6829.79	2.826e+05
						330.0	-6393.19	-352.48	-124.99	28.96	-2.745e+04	2.244e+05
120	253	-1.171e+05	304.02	-0.50	0.0	0.0	-223.01	183.35	1.39	-0.76	-153.09	-1.776e+05
		-1.776e+05	-153.09	-2.06e-04	0.0	165.0	-105.15	183.35	1.39	-0.76	75.47	-1.474e+05
						330.0	12.72	183.35	1.39	-0.76	304.02	-1.171e+05
120	255	1.171e+05	302.70	0.11	0.0	0.0	-297.08	370.18	1.38	-0.13	-152.38	-5042.00
		-5042.00	-152.38	-2.05e-04	0.0	165.0	-179.21	370.18	1.38	-0.13	75.16	5.604e+04
						330.0	-61.35	370.18	1.38	-0.13	302.70	1.171e+05
120	257	137.99	1.228e+05	2.83e-04	0.0	0.0	-1283.77	-0.45	-624.72	-79.98	1.228e+05	137.99
		-10.96	-8.340e+04	0.49	0.0	165.0	-1165.90	-0.45	-624.72	-79.98	1.967e+04	63.51

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida



SOGGETTO PROPONENTE



SMARTENERGYIT2111 S.R.L.

Comune di Gravina in Puglia (BA) - Località Masseria Pellicciari
 Progetto per la realizzazione di un Nuovo Impianto Agrivoltaico e delle relative opere di
 connessione alla RTN
 Potenza nominale 35,09 MW

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

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120	258	-3.02	7.512e+04	-9.49e-05	0.0	330.0	-1048.03	-0.45	-624.72	-79.98	-8.340e+04	-10.96
		-42.91	-1.186e+05	-0.49	0.0	0.0	-1155.44	0.12	587.02	88.45	-1.186e+05	-42.91
					0.0	165.0	-1037.57	0.12	587.02	88.45	-2.173e+04	-22.96
						330.0	-919.70	0.12	587.02	88.45	7.512e+04	-3.02
120	259	82.93	3566.71	1.64e-04	0.0	0.0	-1919.47	-0.29	-32.32	7.27	3566.71	82.93
		-11.97	-7099.23	4.78e-03	0.0	165.0	-1801.60	-0.29	-32.32	7.27	-1766.26	35.48
						330.0	-1683.74	-0.29	-32.32	7.27	-7099.23	-11.97
120	260	47.54	2080.25	9.41e-05	0.0	0.0	-1219.60	-0.17	-18.85	4.24	2080.25	47.54
		-6.99	-4140.43	2.79e-03	0.0	165.0	-1101.74	-0.17	-18.85	4.24	-1030.09	20.27
						330.0	-983.87	-0.17	-18.85	4.24	-4140.43	-6.99
121	32	9.191e+05	-4.478e+04	2.41	0.0	0.0	-4165.30	-1524.99	-117.15	266.47	-4.478e+04	9.191e+05
		4.158e+05	-8.344e+04	-0.53	0.0	165.0	-4012.07	-1524.99	-117.15	266.47	-6.411e+04	6.674e+05
						330.0	-3858.84	-1524.99	-117.15	266.47	-8.344e+04	4.158e+05
121	49	-6.509e+05	1.026e+05	-3.77	0.0	0.0	3699.79	2386.55	204.21	-287.74	3.520e+04	-1.438e+06
		-1.438e+06	3.520e+04	0.53	0.0	165.0	3817.65	2386.55	204.21	-287.74	6.890e+04	-1.045e+06
						330.0	3935.52	2386.55	204.21	-287.74	1.026e+05	-6.509e+05
121	73	6.508e+05	1.026e+05	0.85	0.0	0.0	3951.58	1751.19	204.38	-282.59	3.519e+04	7.289e+04
		7.289e+04	3.519e+04	0.53	0.0	165.0	4069.44	1751.19	204.38	-282.59	6.891e+04	3.618e+05
						330.0	4187.31	1751.19	204.38	-282.59	1.026e+05	6.508e+05
121	86	1438.81	3.978e+05	2.97e-03	0.0	0.0	-1900.58	-4.65	2911.58	334.78	-5.630e+05	1438.81
		-95.45	-5.630e+05	-2.21	0.0	165.0	-1782.71	-4.65	2911.58	334.78	-8.258e+04	671.68
						330.0	-1664.84	-4.65	2911.58	334.78	3.978e+05	-95.45
121	111	-2.798e+04	1.381e+05	-0.33	0.0	0.0	-6486.07	-671.05	-1255.39	285.60	1.381e+05	-2.798e+04
		-2.494e+05	-2.762e+05	0.18	0.0	165.0	-6332.84	-671.05	-1255.39	285.60	-6.901e+04	-1.387e+05
						330.0	-6179.61	-671.05	-1255.39	285.60	-2.762e+05	-2.494e+05
121	126	1.289e+04	8.694e+04	0.03	0.0	0.0	-735.79	-33.07	-516.55	-9.82	8.694e+04	1.289e+04
		-2651.33	-8.354e+04	0.27	0.0	165.0	-617.92	-33.07	-516.55	-9.82	1697.87	5117.23
						330.0	-500.05	-33.07	-516.55	-9.82	-8.354e+04	-2651.33
121	130	2.142e+04	8.684e+04	0.05	0.0	0.0	-727.55	-60.26	-516.88	-3.60	8.684e+04	2.142e+04
		7006.62	-8.376e+04	0.28	0.0	165.0	-609.68	-60.26	-516.88	-3.60	1537.89	1.421e+04
						330.0	-491.81	-60.26	-516.88	-3.60	-8.376e+04	7006.62
121	131	-7003.15	2.729e+04	-0.05	0.0	0.0	-1066.91	60.20	260.15	62.09	-5.859e+04	-2.140e+04
		-2.140e+04	-5.859e+04	-0.28	0.0	165.0	-949.04	60.20	260.15	62.09	-1.565e+04	-1.420e+04
						330.0	-831.17	60.20	260.15	62.09	2.729e+04	-7003.15
121	149	-1.908e+04	3.294e+04	-0.18	0.0	0.0	-937.97	236.92	-218.12	3.62	3.294e+04	-7.971e+04
		-7.971e+04	-3.893e+04	0.08	0.0	165.0	-820.10	236.92	-218.12	3.62	-2991.04	-4.940e+04
						330.0	-702.23	236.92	-218.12	3.62	-3.893e+04	-1.908e+04
121	152	7.974e+04	-4697.00	0.18	0.0	0.0	-856.49	-236.98	-38.60	54.88	-4697.00	7.974e+04
		1.908e+04	-1.755e+04	-0.08	0.0	165.0	-738.62	-236.98	-38.60	54.88	-1.112e+04	4.941e+04
						330.0	-620.75	-236.98	-38.60	54.88	-1.755e+04	1.908e+04
121	158	5501.30	4.606e+04	0.01	0.0	0.0	-826.17	-14.59	-298.62	12.08	4.606e+04	5501.30
		-1056.82	-5.249e+04	0.12	0.0	165.0	-708.30	-14.59	-298.62	12.08	-3217.45	2222.24
						330.0	-590.44	-14.59	-298.62	12.08	-5.249e+04	-1056.82
121	162	9123.21	4.600e+04	0.02	0.0	0.0	-822.57	-26.39	-298.65	14.77	4.600e+04	9123.21
		2913.57	-5.257e+04	0.12	0.0	165.0	-704.70	-26.39	-298.65	14.77	-3284.24	6018.39
						330.0	-586.83	-26.39	-298.65	14.77	-5.257e+04	2913.57
121	163	-2910.09	-3904.87	-0.02	0.0	0.0	-971.89	26.34	41.92	43.72	-1.775e+04	-9101.14
		-9101.14	-1.775e+04	-0.12	0.0	165.0	-854.02	26.34	41.92	43.72	-1.083e+04	-6005.61
						330.0	-736.15	26.34	41.92	43.72	-3904.87	-2910.09
121	181	-7881.38	2.243e+04	-0.07	0.0	0.0	-915.31	103.57	-168.15	18.16	2.243e+04	-3.400e+04
		-3.400e+04	-3.301e+04	0.04	0.0	165.0	-797.44	103.57	-168.15	18.16	-5286.66	-2.094e+04
						330.0	-679.57	103.57	-168.15	18.16	-3.301e+04	-7881.38
121	184	3.403e+04	5813.49	0.07	0.0	0.0	-879.15	-103.63	-88.58	40.34	5813.49	3.403e+04
		7884.85	-2.347e+04	-0.03	0.0	165.0	-761.28	-103.63	-88.58	40.34	-8826.79	2.096e+04
						330.0	-643.41	-103.63	-88.58	40.34	-2.347e+04	7884.85
121	205	6.127e+05	-2.797e+04	1.61	0.0	0.0	-2896.49	-1016.67	-95.21	181.55	-2.797e+04	6.127e+05
		2.772e+05	-5.939e+04	-0.35	0.0	165.0	-2778.63	-1016.67	-95.21	181.55	-4.368e+04	4.450e+05
						330.0	-2660.76	-1016.67	-95.21	181.55	-5.939e+04	2.772e+05
121	212	-4.339e+05	5.898e+04	-2.51	0.0	0.0	2167.45	1591.02	93.35	-182.08	2.818e+04	-9.590e+05
		-9.590e+05	2.818e+04	0.35	0.0	165.0	2285.32	1591.02	93.35	-182.08	4.358e+04	-6.964e+05
						330.0	2403.18	1591.02	93.35	-182.08	5.898e+04	-4.339e+05
121	224	4.339e+05	5.901e+04	0.57	0.0	0.0	2335.31	1167.45	93.47	-178.64	2.816e+04	4.860e+04

Progettazione civile e inserimento ambientale

Agronomia e studi colturali

Progettazione elettrica



Arch. Andrea Giuffrida



Dott. Agr. Gianfranco Giuffrida



SOGGETTO PROPONENTE



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PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

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		4.860e+04	2.816e+04	0.35	0.0	165.0	2453.18	1167.45	93.47	-178.64	4.359e+04	2.412e+05
						330.0	2571.04	1167.45	93.47	-178.64	5.901e+04	4.339e+05
121	231	962.88	2.558e+05	1.99e-03	0.0	0.0	-1566.13	-3.11	1898.27	232.94	-3.706e+05	962.88
		-63.06	-3.706e+05	-1.48	0.0	165.0	-1448.26	-3.11	1898.27	232.94	-5.740e+04	449.91
						330.0	-1330.39	-3.11	1898.27	232.94	2.558e+05	-63.06
121	244	-1.865e+04	9.397e+04	-0.22	0.0	0.0	-4443.68	-447.37	-854.04	194.30	9.397e+04	-1.865e+04
		-1.663e+05	-1.879e+05	0.13	0.0	165.0	-4325.81	-447.37	-854.04	194.30	-4.695e+04	-9.247e+04
						330.0	-4207.94	-447.37	-854.04	194.30	-1.879e+05	-1.663e+05
121	252	1.225e+05	2.404e+04	0.32	0.0	0.0	-1274.14	-203.24	-218.53	50.13	2.404e+04	1.225e+05
		5.545e+04	-4.807e+04	0.03	0.0	165.0	-1156.27	-203.24	-218.53	50.13	-1.201e+04	8.898e+04
						330.0	-1038.41	-203.24	-218.53	50.13	-4.807e+04	5.545e+04
121	253	-8.679e+04	2809.95	-0.50	0.0	0.0	-307.23	318.07	12.77	-3.44	-1405.51	-1.917e+05
		-1.917e+05	-1405.51	-1.88e-03	0.0	165.0	-189.36	318.07	12.77	-3.44	702.22	-1.393e+05
						330.0	-71.50	318.07	12.77	-3.44	2809.95	-8.679e+04
121	255	8.677e+04	2815.10	0.11	0.0	0.0	-273.66	233.35	12.80	-2.75	-1408.06	9763.48
		9763.48	-1408.06	-1.88e-03	0.0	165.0	-155.79	233.35	12.80	-2.75	703.52	4.827e+04
						330.0	-37.92	233.35	12.80	-2.75	2815.10	8.677e+04
121	257	12.74	9.054e+04	-2.78e-04	0.0	0.0	-801.64	0.45	-531.67	-10.66	9.054e+04	-136.45
		-136.45	-8.491e+04	0.29	0.0	165.0	-683.78	0.45	-531.67	-10.66	2812.14	-61.86
						330.0	-565.91	0.45	-531.67	-10.66	-8.491e+04	12.74
121	259	16.54	2.414e+04	3.86e-05	0.0	0.0	-1367.50	-0.04	-219.39	49.99	2.414e+04	16.54
		3.05	-4.826e+04	0.03	0.0	165.0	-1249.63	-0.04	-219.39	49.99	-1.206e+04	9.79
						330.0	-1131.76	-0.04	-219.39	49.99	-4.826e+04	3.05
121	260	11.03	1.412e+04	2.54e-05	0.0	0.0	-897.23	-0.03	-128.36	29.25	1.412e+04	11.03
		1.74	-2.824e+04	0.02	0.0	165.0	-779.36	-0.03	-128.36	29.25	-7056.73	6.39
						330.0	-661.49	-0.03	-128.36	29.25	-2.824e+04	1.74
122	49	-8.508e+05	7.44e-06	-3.77	0.0	0.0	5914.05	1477.89	0.0	0.0	7.44e-06	-1.339e+06
		-1.339e+06	-2.25e-05	0.0	0.0	165.0	6031.92	1477.89	0.0	0.0	-7.52e-06	-1.095e+06
						330.0	6149.79	1477.89	0.0	0.0	-2.25e-05	-8.508e+05
122	50	-8.508e+05	1.01e-05	-3.77	0.0	0.0	6028.52	1476.50	0.0	0.0	1.01e-05	-1.338e+06
		-1.338e+06	-2.41e-05	0.0	0.0	165.0	6146.39	1476.50	0.0	0.0	-7.01e-06	-1.094e+06
						330.0	6264.26	1476.50	0.0	0.0	-2.41e-05	-8.508e+05
122	83	-4.50	2.526e+05	-1.35e-04	0.0	0.0	-1598.53	0.17	1989.25	308.62	-4.038e+05	-60.90
		-60.90	-4.038e+05	-1.69	0.0	165.0	-1445.30	0.17	1989.25	308.62	-7.561e+04	-32.70
						330.0	-1292.07	0.17	1989.25	308.62	2.526e+05	-4.50
122	95	8.555e+05	1.51e-05	2.41	0.0	0.0	-8647.60	-945.50	0.0	0.0	-5.69e-06	8.555e+05
		5.435e+05	-5.69e-06	0.0	0.0	165.0	-8494.37	-945.50	0.0	0.0	4.73e-06	6.995e+05
						330.0	-8341.14	-945.50	0.0	0.0	1.51e-05	5.435e+05
122	99	5.138e+05	9.33e-06	1.45	0.0	0.0	-9352.92	-568.96	0.0	0.0	-3.52e-06	5.138e+05
		3.261e+05	-3.52e-06	0.0	0.0	165.0	-9199.69	-568.96	0.0	0.0	2.90e-06	4.200e+05
						330.0	-9046.46	-568.96	0.0	0.0	9.33e-06	3.261e+05
122	125	6568.90	6.377e+04	-0.04	0.0	0.0	-1150.57	57.37	-306.40	-52.57	6.377e+04	-1.908e+04
		-1.908e+04	-3.749e+04	0.28	0.0	165.0	-1032.70	57.37	-306.40	-52.57	1.314e+04	-6253.29
						330.0	-914.84	57.37	-306.40	-52.57	-3.749e+04	6568.90
122	128	1.933e+04	3.749e+04	0.04	0.0	0.0	-1220.65	-58.17	306.40	52.57	-6.377e+04	1.933e+04
		-6582.03	-6.377e+04	-0.28	0.0	165.0	-1102.78	-58.17	306.40	52.57	-1.314e+04	6372.21
						330.0	-984.92	-58.17	306.40	52.57	3.749e+04	-6582.03
122	142	6.413e+04	1.755e+04	0.14	0.0	0.0	-1302.38	-192.99	-82.06	-23.84	1.755e+04	6.413e+04
		-2.193e+04	-9367.88	0.08	0.0	165.0	-1184.51	-192.99	-82.06	-23.84	4093.09	2.110e+04
						330.0	-1066.64	-192.99	-82.06	-23.84	-9367.88	-2.193e+04
122	143	2.191e+04	9367.88	-0.14	0.0	0.0	-1068.85	192.19	82.06	23.84	-1.755e+04	-6.388e+04
		-6.388e+04	-1.755e+04	-0.08	0.0	165.0	-950.98	192.19	82.06	23.84	-4093.09	-2.099e+04
						330.0	-833.11	192.19	82.06	23.84	9367.88	2.191e+04
122	149	2.191e+04	1.756e+04	-0.14	0.0	0.0	-1068.77	192.20	-82.08	-23.84	1.756e+04	-6.388e+04
		-6.388e+04	-9372.74	0.08	0.0	165.0	-950.90	192.20	-82.08	-23.84	4091.43	-2.098e+04
						330.0	-833.04	192.20	-82.08	-23.84	-9372.74	2.191e+04
122	152	6.413e+04	9372.74	0.14	0.0	0.0	-1302.45	-193.00	82.08	23.84	-1.756e+04	6.413e+04
		-2.193e+04	-1.756e+04	-0.08	0.0	165.0	-1184.58	-193.00	82.08	23.84	-4091.43	2.110e+04
						330.0	-1066.72	-193.00	82.08	23.84	9372.74	-2.193e+04
122	157	2700.75	2.800e+04	-0.02	0.0	0.0	-1170.35	25.22	-134.71	-23.03	2.800e+04	-8139.79
		-8139.79	-1.652e+04	0.12	0.0	165.0	-1052.48	25.22	-134.71	-23.03	5741.35	-2719.52
						330.0	-934.61	25.22	-134.71	-23.03	-1.652e+04	2700.75

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida



SOGGETTO PROPONENTE



SMARTENERGYIT2111 S.R.L.

Comune di Gravina in Puglia (BA) - Località Masseria Pellicciari
 Progetto per la realizzazione di un Nuovo Impianto Agrivoltaico e delle relative opere di
 connessione alla RTN
 Potenza nominale 35,09 MW

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

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122	160	8390.76 -2713.89	1.652e+04 -2.800e+04	0.02 -0.12	0.0 0.0	0.0 165.0	-1200.88 -1083.01	-26.02 -26.02	134.71 134.71	23.03 23.03	-2.800e+04 -5741.35	8390.76 2838.43
						330.0	-965.14	-26.02	134.71	23.03	1.652e+04	-2713.89
122	174	2.768e+04 -9031.32	7726.77 -4140.47	0.06 0.03	0.0 0.0	0.0 165.0	-1236.48 -1118.61	-85.80 -85.80	-36.18 -36.18	-10.27 -10.27	7726.77 1793.15	2.768e+04 9323.80
						330.0	-1000.74	-85.80	-36.18	-10.27	-4140.47	-9031.32
122	175	9018.18 -2.743e+04	4140.47 -7726.77	-0.06 -0.03	0.0 0.0	0.0 165.0	-1134.75 -1016.88	85.00 85.00	36.18 36.18	10.27 10.27	-7726.77 -1793.15	-2.743e+04 -9204.89
						330.0	-899.01	85.00	36.18	10.27	4140.47	9018.18
122	181	9018.68 -2.743e+04	7727.49 -4142.74	-0.06 0.03	0.0 0.0	0.0 165.0	-1134.71 -1016.84	85.01 85.01	-36.18 -36.18	-10.27 -10.27	7727.49 1792.38	-2.743e+04 -9204.31
						330.0	-898.97	85.01	-36.18	-10.27	-4142.74	9018.68
122	184	2.768e+04 -9031.81	4142.74 -7727.49	0.06 -0.03	0.0 0.0	0.0 165.0	-1236.51 -1118.65	-85.81 -85.81	36.18 36.18	10.27 10.27	-7727.49 -1792.38	2.768e+04 9323.22
						330.0	-1000.78	-85.81	36.18	10.27	4142.74	-9031.81
122	212	-5.672e+05 -8.923e+05	4.96e-06 -1.50e-05	-2.51 0.0	0.0 0.0	0.0 165.0	3547.50 3665.37	985.12 985.12	0.0 0.0	0.0 0.0	4.96e-06 -5.00e-06	-8.923e+05 -7.298e+05
						330.0	3783.23	985.12	0.0	0.0	-1.50e-05	-5.672e+05
122	213	-5.672e+05 -8.920e+05	6.74e-06 -1.61e-05	-2.51 0.0	0.0 0.0	0.0 165.0	3623.81 3741.68	984.20 984.20	0.0 0.0	0.0 0.0	6.74e-06 -4.66e-06	-8.920e+05 -7.296e+05
						330.0	3859.55	984.20	0.0	0.0	-1.61e-05	-5.672e+05
122	230	-3.87 -23.87	1.684e+05 -2.692e+05	-5.51e-05 -1.12	0.0 0.0	0.0 165.0	-1223.77 -1105.90	0.06 0.06	1326.17 1326.17	205.75 205.75	-2.692e+05 -5.041e+04	-23.87 -13.87
						330.0	-988.03	0.06	1326.17	205.75	1.684e+05	-3.87
122	236	5.704e+05 3.623e+05	1.01e-05 -3.79e-06	1.61 0.0	0.0 0.0	0.0 165.0	-5923.15 -5805.28	-630.39 -630.39	0.0 0.0	0.0 0.0	-3.79e-06 3.16e-06	5.704e+05 4.664e+05
						330.0	-5687.41	-630.39	0.0	0.0	1.01e-05	3.623e+05
122	238	3.426e+05 2.174e+05	6.23e-06 -2.35e-06	0.96 0.0	0.0 0.0	0.0 165.0	-6393.36 -6275.49	-379.36 -379.36	0.0 0.0	0.0 0.0	-2.35e-06 1.94e-06	3.426e+05 2.800e+05
						330.0	-6157.63	-379.36	0.0	0.0	6.23e-06	2.174e+05
122	252	1.141e+05 7.247e+04	2.04e-06 0.0	0.32 0.0	0.0 0.0	0.0 165.0	-1795.23 -1677.36	-126.26 -126.26	0.0 0.0	0.0 0.0	0.0 0.0	1.141e+05 9.330e+04
						330.0	-1559.49	-126.26	0.0	0.0	2.04e-06	7.247e+04
122	253	-1.134e+05 -1.783e+05	1.17e-06 -3.06e-06	-0.50 0.0	0.0 0.0	0.0 165.0	-231.36 -113.49	196.61 196.61	0.0 0.0	0.0 0.0	1.17e-06 0.0	-1.783e+05 -1.459e+05
						330.0	4.38	196.61	0.0	0.0	-3.06e-06	-1.134e+05
122	256	125.48 -6.57	3.368e+04 -5.384e+04	2.61e-04 -0.22	0.0 0.0	0.0 165.0	-1185.61 -1067.74	-0.40 -0.40	265.23 265.23	41.15 41.15	-5.384e+04 -1.008e+04	125.48 59.46
						330.0	-949.88	-0.40	265.23	41.15	3.368e+04	-6.57
122	259	211.84 -11.26	0.0 0.0	4.41e-04 0.0	0.0 0.0	0.0 165.0	-1861.39 -1743.52	-0.68 -0.68	0.0 0.0	0.0 0.0	0.0 0.0	211.84 100.29
						330.0	-1625.66	-0.68	0.0	0.0	0.0	-11.26
122	260	125.48 -6.57	0.0 0.0	2.61e-04 0.0	0.0 0.0	0.0 165.0	-1185.61 -1067.74	-0.40 -0.40	0.0 0.0	0.0 0.0	0.0 0.0	125.48 59.46
						330.0	-949.88	-0.40	0.0	0.0	0.0	-6.57
123	32	9.191e+05 4.158e+05	8.344e+04 4.478e+04	2.41 0.53	0.0 0.0	0.0 165.0	-4165.30 -4012.07	-1524.99 -1524.99	117.15 117.15	-266.47 -266.47	4.478e+04 6.411e+04	9.191e+05 6.674e+05
						330.0	-3858.84	-1524.99	117.15	-266.47	8.344e+04	4.158e+05
123	49	-6.509e+05 -1.438e+06	-3.520e+04 -1.026e+05	-3.77 -0.53	0.0 0.0	0.0 165.0	3699.79 3817.65	2386.55 2386.55	-204.21 -204.21	287.74 287.74	-3.520e+04 -6.890e+04	-1.438e+06 -1.045e+06
						330.0	3935.52	2386.55	-204.21	287.74	-1.026e+05	-6.509e+05
123	73	6.508e+05 7.289e+04	-3.519e+04 -1.026e+05	0.85 -0.53	0.0 0.0	0.0 165.0	3951.58 4069.44	1751.19 1751.19	-204.38 -204.38	282.59 282.59	-3.519e+04 -6.891e+04	7.289e+04 3.618e+05
						330.0	4187.31	1751.19	-204.38	282.59	-1.026e+05	6.508e+05
123	83	99.45 -1413.43	4.628e+05 -5.955e+05	-2.91e-03 -2.21	0.0 0.0	0.0 165.0	-163.04 -9.82	4.58 4.58	3206.82 3206.82	267.51 267.51	-5.955e+05 -6.634e+04	-1413.43 -656.99
						330.0	143.41	4.58	3206.82	267.51	4.628e+05	99.45
123	111	-2.798e+04 -2.494e+05	2.762e+05 -1.381e+05	-0.33 -0.18	0.0 0.0	0.0 165.0	-6486.07 -6332.84	-671.05 -671.05	1255.39 1255.39	-285.60 -285.60	-1.381e+05 6.901e+04	-2.798e+04 -1.387e+05
						330.0	-6179.61	-671.05	1255.39	-285.60	2.762e+05	-2.494e+05
123	125	-7003.84 -2.140e+04	5.859e+04 -2.729e+04	-0.05 0.28	0.0 0.0	0.0 165.0	-1066.88 -949.01	60.20 60.20	-260.15 -260.15	-62.09 -62.09	5.859e+04 1.565e+04	-2.140e+04 -1.420e+04

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

123	128	2.142e+04	8.376e+04	0.05	0.0	0.0	0.0	-727.57	-60.26	516.88	3.60	-8.684e+04	2.142e+04
		7007.32	-8.684e+04	-0.28	0.0	165.0	0.0	-609.71	-60.26	516.88	3.60	-1537.80	1.421e+04
						330.0	0.0	-491.84	-60.26	516.88	3.60	8.376e+04	7007.32
123	132	1.288e+04	8.354e+04	0.03	0.0	0.0	0.0	-735.78	-33.05	516.55	9.81	-8.694e+04	1.288e+04
		-2650.89	-8.694e+04	-0.27	0.0	165.0	0.0	-617.92	-33.05	516.55	9.81	-1697.66	5115.38
						330.0	0.0	-500.05	-33.05	516.55	9.81	8.354e+04	-2650.89
123	142	7.973e+04	1.755e+04	0.18	0.0	0.0	0.0	-856.58	-236.97	38.60	-54.87	4696.84	7.973e+04
		1.908e+04	4696.84	0.08	0.0	165.0	0.0	-738.71	-236.97	38.60	-54.87	1.112e+04	4.941e+04
						330.0	0.0	-620.84	-236.97	38.60	-54.87	1.755e+04	1.908e+04
123	143	-1.908e+04	3.893e+04	-0.18	0.0	0.0	0.0	-937.87	236.92	218.12	-3.62	-3.294e+04	-7.971e+04
		-7.971e+04	-3.294e+04	-0.08	0.0	165.0	0.0	-820.01	236.92	218.12	-3.62	2991.05	-4.939e+04
						330.0	0.0	-702.14	236.92	218.12	-3.62	3.893e+04	-1.908e+04
123	157	-2910.43	1.775e+04	-0.02	0.0	0.0	0.0	-971.88	26.34	-41.92	-43.72	1.775e+04	-9100.33
		-9100.33	3904.69	0.12	0.0	165.0	0.0	-854.01	26.34	-41.92	-43.72	1.083e+04	-6005.38
						330.0	0.0	-736.14	26.34	-41.92	-43.72	3904.69	-2910.43
123	160	9122.40	5.257e+04	0.02	0.0	0.0	0.0	-822.58	-26.39	298.65	-14.77	-4.600e+04	9122.40
		2913.91	-4.600e+04	-0.12	0.0	165.0	0.0	-704.71	-26.39	298.65	-14.77	3200.29	6018.15
						330.0	0.0	-586.84	-26.39	298.65	-14.77	5.257e+04	2913.91
123	164	5499.34	5.249e+04	0.01	0.0	0.0	0.0	-826.17	-14.58	298.62	-12.08	-4.606e+04	5499.34
		-1056.60	-4.606e+04	-0.12	0.0	165.0	0.0	-708.30	-14.58	298.62	-12.08	3217.55	-2221.37
						330.0	0.0	-590.44	-14.58	298.62	-12.08	5.249e+04	-1056.60
123	174	3.402e+04	2.347e+04	0.07	0.0	0.0	0.0	-879.19	-103.63	88.58	-40.33	-5813.56	3.402e+04
		7885.73	-5813.56	0.03	0.0	165.0	0.0	-761.32	-103.63	88.58	-40.33	8826.79	2.096e+04
						330.0	0.0	-643.45	-103.63	88.58	-40.33	2.347e+04	7885.73
123	175	-7882.26	3.301e+04	-0.07	0.0	0.0	0.0	-915.27	103.57	168.15	-18.16	-2.243e+04	-3.400e+04
		-3.400e+04	-2.243e+04	-0.04	0.0	165.0	0.0	-797.40	103.57	168.15	-18.16	5286.67	-2.094e+04
						330.0	0.0	-679.53	103.57	168.15	-18.16	3.301e+04	-7882.26
123	205	6.127e+05	5.939e+04	1.61	0.0	0.0	0.0	-2896.49	-1016.67	95.21	-181.55	2.797e+04	6.127e+05
		2.772e+05	2.797e+04	0.35	0.0	165.0	0.0	-2778.63	-1016.67	95.21	-181.55	4.368e+04	4.450e+05
						330.0	0.0	-2660.76	-1016.67	95.21	-181.55	5.939e+04	2.772e+05
123	212	-4.339e+05	-2.818e+04	-2.51	0.0	0.0	0.0	2167.45	1591.02	-93.35	182.08	-2.818e+04	-9.590e+05
		-9.590e+05	-5.898e+04	-0.35	0.0	165.0	0.0	2285.32	1591.02	-93.35	182.08	-4.358e+04	-6.964e+05
						330.0	0.0	2403.18	1591.02	-93.35	182.08	-5.898e+04	-4.339e+05
123	224	4.339e+05	-2.816e+04	0.57	0.0	0.0	0.0	2335.31	1167.45	-93.47	178.64	-2.816e+04	4.860e+04
		4.860e+04	-5.901e+04	-0.35	0.0	165.0	0.0	2453.18	1167.45	-93.47	178.64	-4.359e+04	2.412e+05
						330.0	0.0	2571.04	1167.45	-93.47	178.64	-5.901e+04	4.339e+05
123	230	66.53	3.123e+05	-1.94e-03	0.0	0.0	0.0	-228.33	3.05	2154.99	174.44	-3.989e+05	-940.82
		-940.82	-3.989e+05	-1.48	0.0	165.0	0.0	-110.46	3.05	2154.99	174.44	-4.329e+04	-437.14
						330.0	0.0	7.41	3.05	2154.99	174.44	3.123e+05	66.53
123	244	-1.865e+04	1.879e+05	-0.22	0.0	0.0	0.0	-4443.68	-447.37	854.04	-194.30	-9.397e+04	-1.865e+04
		-1.663e+05	-9.397e+04	-0.13	0.0	165.0	0.0	-4325.81	-447.37	854.04	-194.30	4.695e+04	-9.247e+04
						330.0	0.0	-4207.94	-447.37	854.04	-194.30	1.879e+05	-1.663e+05
123	252	1.225e+05	4.807e+04	0.32	0.0	0.0	0.0	-1274.14	-203.24	218.53	-50.13	-2.404e+04	1.225e+05
		5.545e+04	-2.404e+04	-0.03	0.0	165.0	0.0	-1156.27	-203.24	218.53	-50.13	1.201e+04	8.898e+04
						330.0	0.0	-1038.41	-203.24	218.53	-50.13	4.807e+04	5.545e+04
123	253	-8.679e+04	1405.51	-0.50	0.0	0.0	0.0	-307.23	318.07	-12.77	3.44	1405.51	-1.917e+05
		-1.917e+05	-2809.95	1.88e-03	0.0	165.0	0.0	-189.36	318.07	-12.77	3.44	-702.22	-1.393e+05
						330.0	0.0	-71.50	318.07	-12.77	3.44	-2809.95	-8.679e+04
123	255	8.677e+04	1408.06	0.11	0.0	0.0	0.0	-273.66	233.35	-12.80	2.75	1408.06	9763.48
		9763.48	-2815.10	1.88e-03	0.0	165.0	0.0	-155.79	233.35	-12.80	2.75	-703.52	4.827e+04
						330.0	0.0	-37.92	233.35	-12.80	2.75	-2815.10	8.677e+04
123	257	12.74	8.491e+04	-2.78e-04	0.0	0.0	0.0	-801.64	0.45	531.67	10.66	-9.054e+04	-136.45
		-136.45	-9.054e+04	-0.29	0.0	165.0	0.0	-683.78	0.45	531.67	10.66	-2812.14	-61.86
						330.0	0.0	-565.91	0.45	531.67	10.66	8.491e+04	12.74
123	259	16.54	4.826e+04	3.86e-05	0.0	0.0	0.0	-1367.50	-0.04	219.39	-49.99	-2.414e+04	16.54
		3.05	-2.414e+04	-0.03	0.0	165.0	0.0	-1249.63	-0.04	219.39	-49.99	1.206e+04	9.79
						330.0	0.0	-1131.76	-0.04	219.39	-49.99	4.826e+04	3.05
123	260	11.03	2.824e+04	2.54e-05	0.0	0.0	0.0	-897.23	-0.03	128.36	-29.25	-1.412e+04	11.03
		1.74	-1.412e+04	-0.02	0.0	165.0	0.0	-779.36	-0.03	128.36	-29.25	7056.73	6.39
						330.0	0.0	-661.49	-0.03	128.36	-29.25	2.824e+04	1.74
124	50	-8.783e+05	2.319e+05	-3.79	0.0	0.0	0.0	6370.31	1376.68	-1223.48	-118.37	2.319e+05	-1.333e+06

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida



IMPIANTI FOTOVOLTAICI, EOLICI E TECNOLOGICI



PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

124	260	47.54 -6.99	4140.43 -2080.25	9.41e-05 -2.79e-03	0.0 0.0	0.0 165.0	-1219.60 -1101.74	-0.17 -0.17	18.85 18.85	-4.24 -4.24	-2080.25 1030.09	47.54 20.27
						330.0	-983.87	-0.17	18.85	-4.24	4140.43	-6.99
125	33	9.266e+05 4.162e+05	-1.277e+05 -1.440e+05	2.42 -1.26	0.0 0.0	0.0 165.0	-3483.61 -3365.74	-1546.70 -1546.70	49.54 49.54	558.04 558.04	-1.440e+05 -1.277e+05	9.266e+05 4.162e+05
						330.0	-3247.87	-1546.70	49.54	558.04	-1.277e+05	4.162e+05
125	40	5.550e+05 2.497e+05	5.238e+05 -3.553e+05	1.45 2.10	0.0 0.0	0.0 165.0	-3261.48 -3108.25	-925.12 -925.12	-2663.95 -2663.95	-343.44 -343.44	5.238e+05 8.428e+04	5.550e+05 4.024e+05
						330.0	-2955.03	-925.12	-2663.95	-343.44	-3.553e+05	2.497e+05
125	48	-6.515e+05 -1.451e+06	1.535e+05 1.311e+05	-3.80 1.26	0.0 0.0	0.0 165.0	3017.83 3171.06	2421.78 2421.78	67.97 67.97	-583.95 -583.95	1.311e+05 1.423e+05	-1.451e+06 -1.051e+06
						330.0	3324.29	2421.78	67.97	-583.95	1.535e+05	-6.515e+05
125	73	6.515e+05 7.979e+04	3.873e+05 -4.013e+05	0.87 -1.26	0.0 0.0	0.0 165.0	4038.69 4156.56	1732.50 1732.50	2389.53 2389.53	22.94 22.94	-4.013e+05 -7003.81	7.979e+04 3.657e+05
						330.0	4274.43	1732.50	2389.53	22.94	3.873e+05	6.515e+05
125	89	917.97 -21.68	2.424e+05 -6.340e+05	1.94e-03 -3.12	0.0 0.0	0.0 165.0	-279.88 -162.01	-2.85 -2.85	2655.81 2655.81	801.94 801.94	-6.340e+05 -1.958e+05	917.97 448.14
						330.0	-44.14	-2.85	2655.81	801.94	2.424e+05	-21.68
125	111	-3.142e+04 -2.497e+05	1.858e+05 -3.719e+05	-0.33 0.25	0.0 0.0	0.0 165.0	-6497.21 -6343.99	-661.42 -661.42	-1689.96 -1689.96	387.16 387.16	1.858e+05 -9.306e+04	-3.142e+04 -1.406e+05
						330.0	-6190.76	-661.42	-1689.96	387.16	-3.719e+05	-2.497e+05
125	126	2.176e+04 -4557.41	7.616e+04 -6.292e+04	0.05 0.27	0.0 0.0	0.0 165.0	-948.41 -830.55	-55.62 -55.62	-420.53 -420.53	-27.59 -27.59	7.616e+04 6621.27	2.176e+04 8598.89
						330.0	-712.68	-55.62	-420.53	-27.59	-6.292e+04	-4557.41
125	141	2.438e+04 -1.043e+05	3.003e+04 -3.335e+04	-0.23 0.09	0.0 0.0	0.0 165.0	-1025.21 -907.34	305.52 305.52	-191.94 -191.94	3.39 3.39	3.003e+04 -1661.93	-1.043e+05 -3.997e+04
						330.0	-789.47	305.52	-191.94	3.39	-3.335e+04	2.438e+04
125	144	1.040e+05 -2.437e+04	8041.88 -4.285e+04	0.23 -0.09	0.0 0.0	0.0 165.0	-769.12 -651.25	-304.60 -304.60	-154.32 -154.32	75.82 75.82	8041.88 -1.740e+04	1.040e+05 3.983e+04
						330.0	-533.39	-304.60	-154.32	75.82	-4.285e+04	-2.437e+04
125	158	8937.05 -1830.34	4.411e+04 -4.901e+04	0.02 0.12	0.0 0.0	0.0 165.0	-920.13 -802.26	-23.53 -23.53	-281.78 -281.78	10.20 10.20	4.411e+04 -2449.70	8937.05 3553.36
						330.0	-684.39	-23.53	-281.78	10.20	-4.901e+04	-1830.34
125	173	1.011e+04 -4.411e+04	2.395e+04 -3.625e+04	-0.10 0.05	0.0 0.0	0.0 165.0	-953.49 -835.63	132.24 132.24	-182.38 -182.38	23.76 23.76	2.395e+04 -6145.74	-4.411e+04 -1.700e+04
						330.0	-717.76	132.24	-182.38	23.76	-3.625e+04	1.011e+04
125	176	4.382e+04 -1.010e+04	1.411e+04 -3.995e+04	0.10 -0.04	0.0 0.0	0.0 165.0	-840.84 -722.97	-131.32 -131.32	-163.88 -163.88	55.45 55.45	1.411e+04 -1.292e+04	4.382e+04 1.686e+04
						330.0	-605.10	-131.32	-163.88	55.45	-3.995e+04	-1.010e+04
125	204	6.177e+05 2.775e+05	-8.967e+04 -9.782e+04	1.62 -0.84	0.0 0.0	0.0 165.0	-2621.46 -2503.59	-1030.98 -1030.98	-24.68 -24.68	385.23 385.23	-8.967e+04 -9.375e+04	6.177e+05 4.476e+05
						330.0	-2385.72	-1030.98	-24.68	385.23	-9.782e+04	2.775e+05
125	209	3.700e+05 1.665e+05	3.518e+05 -2.419e+05	0.97 1.40	0.0 0.0	0.0 165.0	-2293.94 -2176.08	-616.69 -616.69	-1799.05 -1799.05	-223.68 -223.68	3.518e+05 5.492e+04	3.700e+05 2.683e+05
						330.0	-2058.21	-616.69	-1799.05	-223.68	-2.419e+05	1.665e+05
125	213	-4.343e+05 -9.671e+05	9.728e+04 8.994e+04	-2.53 0.84	0.0 0.0	0.0 165.0	1892.27 2010.14	1614.58 1614.58	22.23 22.23	-384.02 -384.02	8.994e+04 9.361e+04	-9.671e+05 -7.007e+05
						330.0	2128.00	1614.58	22.23	-384.02	9.728e+04	-4.343e+05
125	224	4.343e+05 5.315e+04	2.455e+05 -2.612e+05	0.58 -0.84	0.0 0.0	0.0 165.0	2393.41 2511.27	1155.15 1155.15	1535.31 1535.31	28.49 28.49	-2.612e+05 -7847.00	5.315e+04 2.437e+05
						330.0	2629.14	1155.15	1535.31	28.49	2.455e+05	4.343e+05
125	232	563.57 -12.39	1.489e+05 -4.163e+05	1.19e-03 -2.08	0.0 0.0	0.0 165.0	-485.64 -367.77	-1.75 -1.75	1712.83 1712.83	547.83 547.83	-4.163e+05 -1.337e+05	563.57 275.59
						330.0	-249.90	-1.75	1712.83	547.83	1.489e+05	-12.39
125	244	-2.097e+04 -1.665e+05	1.264e+05 -2.530e+05	-0.22 0.17	0.0 0.0	0.0 165.0	-4451.10 -4333.23	-440.89 -440.89	-1149.73 -1149.73	263.39 263.39	1.264e+05 -6.331e+04	-2.097e+04 -9.371e+04
						330.0	-4215.36	-440.89	-1149.73	263.39	-2.530e+05	-1.665e+05
125	252	1.234e+05 5.550e+04	3.241e+04 -6.487e+04	0.32 0.04	0.0 0.0	0.0 165.0	-1273.98 -1156.12	-205.68 -205.68	-294.77 -294.77	67.20 67.20	3.241e+04 -1.623e+04	1.234e+05 8.944e+04
						330.0	-1038.25	-205.68	-294.77	67.20	-6.487e+04	5.550e+04
125	253	-8.686e+04 -1.935e+05	3798.87 -1897.69	-0.51 -2.53e-03	0.0 0.0	0.0 165.0	-307.32 -189.45	323.13 323.13	17.26 17.26	-3.59 -3.59	-1897.69 950.59	-1.935e+05 -1.402e+05

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida



SOGGETTO PROPONENTE



SMARTENERGYIT2111 S.R.L.

Comune di Gravina in Puglia (BA) - Località Masseria Pellicciari
 Progetto per la realizzazione di un Nuovo Impianto Agrivoltaico e delle relative opere di
 connessione alla RTN
 Potenza nominale 35,09 MW

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

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125	255	8.688e+04	3792.34	0.12	0.0	0.0	-271.01	231.55	17.23	-4.15	3798.87	-8.686e+04
		1.046e+04	-1894.51	-2.52e-03	0.0	165.0	-153.14	231.55	17.23	-4.15	948.92	4.867e+04
						330.0	-35.27	231.55	17.23	-4.15	3792.34	8.688e+04
125	257	59.06	2.366e+04	1.28e-04	0.0	0.0	-764.00	-0.17	457.38	212.64	-1.273e+05	59.06
		2.05	-1.273e+05	-0.70	0.0	165.0	-646.14	-0.17	457.38	212.64	-5.180e+04	30.55
						330.0	-528.27	-0.17	457.38	212.64	2.366e+04	2.05
125	258	10.31	1.653e+05	-7.36e-04	0.0	0.0	-1030.33	1.09	-803.64	-133.43	1.653e+05	-349.51
		-349.51	-9.986e+04	0.70	0.0	165.0	-912.46	1.09	-803.64	-133.43	3.274e+04	-169.60
						330.0	-794.59	1.09	-803.64	-133.43	-9.986e+04	10.31
125	259	10.43	3.248e+04	-5.08e-04	0.0	0.0	-1367.94	0.77	-295.48	67.59	3.248e+04	-242.94
		-242.94	-6.503e+04	0.04	0.0	165.0	-1250.08	0.77	-295.48	67.59	-1.627e+04	-116.25
						330.0	-1132.21	0.77	-295.48	67.59	-6.503e+04	10.43
125	260	6.18	1.903e+04	-3.04e-04	0.0	0.0	-897.17	0.46	-173.13	39.60	-1.73e+04	-145.22
		-145.22	-3.810e+04	0.03	0.0	165.0	-779.30	0.46	-173.13	39.60	-9533.38	-69.52
						330.0	-661.43	0.46	-173.13	39.60	-3.810e+04	6.18
172	32	9.196e+05	2.504e+05	2.41	0.0	0.0	-3695.52	-1535.93	1315.98	-139.67	-1.838e+05	9.196e+05
		4.128e+05	-1.838e+05	-0.40	0.0	165.0	-3542.29	-1535.93	1315.98	-139.67	3.330e+04	6.662e+05
						330.0	-3389.06	-1535.93	1315.98	-139.67	2.504e+05	4.128e+05
172	49	-6.461e+05	1.932e+05	-3.77	0.0	0.0	3229.56	2403.79	-1401.17	159.30	1.932e+05	-1.439e+06
		-1.439e+06	-2.692e+05	0.41	0.0	165.0	3347.42	2403.79	-1401.17	159.30	-3.799e+04	-1.043e+06
						330.0	3465.29	2403.79	-1401.17	159.30	-2.692e+05	-6.461e+05
172	74	6.460e+05	8330.65	0.85	0.0	0.0	4031.49	1730.23	-431.43	259.82	8330.65	7.499e+04
		7.499e+04	-1.340e+05	-0.36	0.0	165.0	4149.36	1730.23	-431.43	259.82	-6.285e+04	3.605e+05
						330.0	4267.23	1730.23	-431.43	259.82	-1.340e+05	6.460e+05
172	84	660.34	4.302e+05	1.44e-03	0.0	0.0	-70.30	-1.91	2973.93	244.93	-5.512e+05	660.34
		29.07	-5.512e+05	-2.04	0.0	165.0	82.93	-1.91	2973.93	244.93	-6.054e+04	344.71
						330.0	236.16	-1.91	2973.93	244.93	4.302e+05	29.07
172	111	-2.854e+04	2.727e+05	-0.33	0.0	0.0	-6437.55	-663.76	1239.20	-283.04	-1.363e+05	-2.854e+04
		-2.476e+05	-1.363e+05	-0.18	0.0	165.0	-6284.33	-663.76	1239.20	-283.04	6.819e+04	-1.381e+05
						330.0	-6131.10	-663.76	1239.20	-283.04	2.727e+05	-2.476e+05
172	121	558.49	4.368e+05	1.22e-03	0.0	0.0	-2084.78	-1.61	2826.31	117.48	-4.959e+05	558.49
		28.42	-4.959e+05	-1.69	0.0	165.0	-1931.56	-1.61	2826.31	117.48	-2.955e+04	293.46
						330.0	-1778.33	-1.61	2826.31	117.48	4.368e+05	28.42
172	129	4815.31	5.985e+04	-0.05	0.0	0.0	-1053.00	73.76	-270.49	-61.92	5.985e+04	-2.405e+04
		-2.405e+04	-2.944e+04	0.27	0.0	165.0	-935.13	73.76	-270.49	-61.92	1.521e+04	-9615.32
						330.0	-817.26	73.76	-270.49	-61.92	-2.944e+04	4815.31
172	132	2.409e+04	8.521e+04	0.05	0.0	0.0	-730.54	-73.89	523.95	4.04	-8.772e+04	2.409e+04
		-4810.59	-8.772e+04	-0.27	0.0	165.0	-612.67	-73.89	523.95	4.04	-1.259e+05	9641.59
						330.0	-494.80	-73.89	523.95	4.04	8.521e+04	-4810.59
172	149	1.764e+04	1.150e+04	-0.17	0.0	0.0	-1010.28	231.30	-18.79	-32.37	1.150e+04	-7.630e+04
		-7.630e+04	5245.25	0.08	0.0	165.0	-892.41	231.30	-18.79	-32.37	8373.71	-2.933e+04
						330.0	-774.54	231.30	-18.79	-32.37	5245.25	1.764e+04
172	152	7.635e+04	5.052e+04	0.17	0.0	0.0	-773.26	-231.43	272.26	-25.51	-3.938e+04	7.635e+04
		-1.764e+04	-3.938e+04	-0.08	0.0	165.0	-655.39	-231.43	272.26	-25.51	5573.93	2.936e+04
						330.0	-537.52	-231.43	272.26	-25.51	5.052e+04	-1.764e+04
172	161	2002.63	1.840e+04	-0.02	0.0	0.0	-963.32	32.30	-47.27	-43.46	1.840e+04	-1.029e+04
		-1.029e+04	2791.61	0.12	0.0	165.0	-845.45	32.30	-47.27	-43.46	1.060e+04	-4144.05
						330.0	-727.58	32.30	-47.27	-43.46	2791.61	2002.63
172	164	1.034e+04	5.298e+04	0.02	0.0	0.0	-820.22	-32.43	300.74	-14.42	-4.628e+04	1.034e+04
		-1997.91	-4.628e+04	-0.12	0.0	165.0	-702.35	-32.43	300.74	-14.42	3350.74	4170.32
						330.0	-584.49	-32.43	300.74	-14.42	5.298e+04	-1997.91
172	181	7364.42	1.801e+04	-0.07	0.0	0.0	-944.27	101.36	63.12	-30.51	-2800.91	-3.265e+04
		-3.265e+04	-2800.91	0.03	0.0	165.0	-826.40	101.36	63.12	-30.51	7602.47	-1.264e+04
						330.0	-708.53	101.36	63.12	-30.51	1.801e+04	7364.42
172	184	3.270e+04	3.776e+04	0.07	0.0	0.0	-839.27	-101.49	190.35	-27.37	-2.507e+04	3.270e+04
		-7359.70	-2.507e+04	-0.04	0.0	165.0	-721.40	-101.49	190.35	-27.37	6345.17	1.267e+04
						330.0	-603.53	-101.49	190.35	-27.37	3.776e+04	-7359.70
172	205	6.131e+05	1.707e+05	1.60	0.0	0.0	-2582.58	-1023.96	894.22	-96.97	-1.244e+05	6.131e+05
		2.752e+05	-1.244e+05	-0.27	0.0	165.0	-2464.71	-1023.96	894.22	-96.97	2.313e+04	4.441e+05
						330.0	-2346.85	-1023.96	894.22	-96.97	1.707e+05	2.752e+05
172	212	-4.307e+05	1.242e+05	-2.51	0.0	0.0	1855.78	1602.50	-891.87	96.55	1.242e+05	-9.595e+05

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

		-9.595e+05	-1.702e+05	0.27	0.0	0.0	165.0	1973.65	1602.50	-891.87	96.55	-2.300e+04	-6.951e+05
							330.0	2091.52	1602.50	-891.87	96.55	-1.702e+05	-4.307e+05
172	225	4.306e+05	908.01	0.57	0.0	0.0	0.0	2390.40	1153.47	-245.37	163.57	908.01	5.000e+04
		5.000e+04	-8.007e+04	-0.24	0.0	0.0	165.0	2508.27	1153.47	-245.37	163.57	-3.958e+04	2.403e+05
							330.0	2626.14	1153.47	-245.37	163.57	-8.007e+04	4.306e+05
172	231	443.42	2.905e+05	9.68e-04	0.0	0.0	0.0	-165.77	-1.28	1999.51	159.43	-3.694e+05	443.42
		19.69	-3.694e+05	-1.36	0.0	0.0	165.0	-47.90	-1.28	1999.51	159.43	-3.943e+04	231.55
							330.0	69.97	-1.28	1999.51	159.43	2.905e+05	19.69
172	244	-1.902e+04	1.855e+05	-0.22	0.0	0.0	0.0	-4410.61	-442.51	843.03	-192.55	-9.271e+04	-1.902e+04
		-1.651e+05	-9.271e+04	-0.12	0.0	0.0	165.0	-4292.74	-442.51	843.03	-192.55	4.639e+04	-9.204e+04
							330.0	-4174.87	-442.51	843.03	-192.55	1.855e+05	-1.651e+05
172	249	375.52	2.949e+05	8.23e-04	0.0	0.0	0.0	-1508.76	-1.08	1901.10	74.46	-3.325e+05	375.52
		19.26	-3.325e+05	-1.12	0.0	0.0	165.0	-1390.89	-1.08	1901.10	74.46	-1.877e+04	197.39
							330.0	-1273.02	-1.08	1901.10	74.46	2.949e+05	19.26
172	252	1.226e+05	4.743e+04	0.32	0.0	0.0	0.0	-1265.61	-204.79	215.57	-49.27	-2.371e+04	1.226e+05
		5.503e+04	-2.371e+04	-0.03	0.0	0.0	165.0	-1147.75	-204.79	215.57	-49.27	1.186e+04	8.882e+04
							330.0	-1029.88	-204.79	215.57	-49.27	4.743e+04	5.503e+04
172	253	-8.614e+04	1355.81	-0.50	0.0	0.0	0.0	-306.58	320.39	-12.33	2.88	1355.81	-1.919e+05
		-1.919e+05	-2712.68	1.81e-03	0.0	0.0	165.0	-188.71	320.39	-12.33	2.88	-678.44	-1.390e+05
							330.0	-70.84	320.39	-12.33	2.88	-2712.68	-8.614e+04
172	255	8.613e+04	1357.64	0.11	0.0	0.0	0.0	-271.02	230.70	-12.35	2.84	1357.64	9998.55
		9998.55	-2716.29	1.81e-03	0.0	0.0	165.0	-153.15	230.70	-12.35	2.84	-679.33	4.806e+04
							330.0	-35.28	230.70	-12.35	2.84	-2716.29	8.613e+04
172	256	87.41	7.139e+04	1.92e-04	0.0	0.0	0.0	-782.25	-0.25	436.63	2.01	-7.269e+04	87.41
		4.86	-7.269e+04	-0.22	0.0	0.0	165.0	-664.38	-0.25	436.63	2.01	-650.19	46.13
							330.0	-546.52	-0.25	436.63	2.01	7.139e+04	4.86
172	259	37.55	4.768e+04	8.46e-05	0.0	0.0	0.0	-1357.60	-0.10	216.68	-49.48	-2.383e+04	37.55
		4.12	-2.383e+04	-0.03	0.0	0.0	165.0	-1239.73	-0.10	216.68	-49.48	1.192e+04	20.83
							330.0	-1121.86	-0.10	216.68	-49.48	4.768e+04	4.12
172	260	23.91	2.788e+04	5.36e-05	0.0	0.0	0.0	-891.77	-0.07	126.73	-28.94	-1.394e+04	23.91
		2.36	-1.394e+04	-0.02	0.0	0.0	165.0	-773.90	-0.07	126.73	-28.94	6973.82	13.13
							330.0	-656.03	-0.07	126.73	-28.94	2.788e+04	2.36
173	32	9.196e+05	1.838e+05	2.41	0.0	0.0	0.0	-3695.52	-1535.93	-1315.98	139.67	1.838e+05	9.196e+05
		4.128e+05	-2.504e+05	0.40	0.0	0.0	165.0	-3542.29	-1535.93	-1315.98	139.67	-3.330e+04	6.662e+05
							330.0	-3389.06	-1535.93	-1315.98	139.67	-2.504e+05	4.128e+05
173	49	-6.461e+05	2.692e+05	-3.77	0.0	0.0	0.0	3229.56	2403.79	1401.17	-159.30	-1.932e+05	-1.439e+06
		-1.439e+06	-1.932e+05	-0.41	0.0	0.0	165.0	3347.42	2403.79	1401.17	-159.30	3.799e+04	-1.043e+06
							330.0	3465.29	2403.79	1401.17	-159.30	2.692e+05	-6.461e+05
173	74	6.460e+05	1.340e+05	0.85	0.0	0.0	0.0	4031.49	1730.23	431.43	-259.82	-8330.65	7.499e+04
		7.499e+04	-8330.65	0.36	0.0	0.0	165.0	4149.36	1730.23	431.43	-259.82	6.285e+04	3.605e+05
							330.0	4267.23	1730.23	431.43	-259.82	1.340e+05	6.460e+05
173	85	-23.64	3.660e+05	-1.32e-03	0.0	0.0	0.0	-1980.77	1.76	2682.44	311.49	-5.192e+05	-605.36
		-605.36	-5.192e+05	-2.04	0.0	0.0	165.0	-1862.90	1.76	2682.44	311.49	-7.658e+04	-314.50
							330.0	-1745.03	1.76	2682.44	311.49	3.660e+05	-23.64
173	111	-2.854e+04	1.363e+05	-0.33	0.0	0.0	0.0	-6437.55	-663.76	-1239.20	283.04	1.363e+05	-2.854e+04
		-2.476e+05	-2.727e+05	0.18	0.0	0.0	165.0	-6284.33	-663.76	-1239.20	283.04	-6.819e+04	-1.381e+05
							330.0	-6131.10	-663.76	-1239.20	283.04	-2.727e+05	-2.476e+05
173	126	2.409e+04	8.772e+04	0.05	0.0	0.0	0.0	-730.54	-73.88	-523.95	-4.04	8.772e+04	2.409e+04
		-4810.53	-8.520e+04	0.27	0.0	0.0	165.0	-612.67	-73.88	-523.95	-4.04	1259.77	9641.27
							330.0	-494.80	-73.88	-523.95	-4.04	-8.520e+04	-4810.53
173	127	4815.25	2.944e+04	-0.05	0.0	0.0	0.0	-1053.00	73.75	270.48	61.92	-5.985e+04	-2.405e+04
		-2.405e+04	-5.985e+04	-0.27	0.0	0.0	165.0	-935.13	73.75	270.48	61.92	-1.521e+04	-9615.00
							330.0	-817.27	73.75	270.48	61.92	2.944e+04	4815.25
173	142	7.635e+04	3.938e+04	0.17	0.0	0.0	0.0	-773.27	-231.41	-272.26	25.51	3.938e+04	7.635e+04
		-1.764e+04	-5.052e+04	0.08	0.0	0.0	165.0	-655.40	-231.41	-272.26	25.51	-5573.99	2.935e+04
							330.0	-537.53	-231.41	-272.26	25.51	-5.052e+04	-1.764e+04
173	143	1.764e+04	-5245.15	-0.17	0.0	0.0	0.0	-1010.27	231.28	18.79	32.37	-1.150e+04	-7.630e+04
		-7.630e+04	-1.150e+04	-0.08	0.0	0.0	165.0	-892.40	231.28	18.79	32.37	-8373.65	-2.933e+04
							330.0	-774.53	231.28	18.79	32.37	-5245.15	1.764e+04
173	158	1.034e+04	4.628e+04	0.02	0.0	0.0	0.0	-820.22	-32.43	-300.74	14.42	4.628e+04	1.034e+04
		-1997.89	-5.298e+04	0.12	0.0	0.0	165.0	-702.35	-32.43	-300.74	14.42	-3350.70	4170.16
							330.0	-584.48	-32.43	-300.74	14.42	-5.298e+04	-1997.89

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

173	159	2002.60	-2791.80	-0.02	0.0	0.0	-963.32	32.30	47.27	43.46	-1.840e+04	-1.029e+04
		-1.029e+04	-1.840e+04	-0.12	0.0	165.0	-845.45	32.30	47.27	43.46	-1.060e+04	-4143.89
						330.0	-727.58	32.30	47.27	43.46	-2791.80	2002.60
173	174	3.269e+04	2.507e+04	0.07	0.0	0.0	-839.27	-101.49	-190.35	27.37	2.507e+04	3.269e+04
		-7359.65	-3.776e+04	0.04	0.0	165.0	-721.40	-101.49	-190.35	27.37	-6345.20	1.267e+04
						330.0	-603.54	-101.49	-190.35	27.37	-3.776e+04	-7359.65
173	175	7364.37	2800.92	-0.07	0.0	0.0	-944.26	101.35	-63.12	30.51	2800.92	-3.265e+04
		-3.265e+04	-1.801e+04	-0.03	0.0	165.0	-826.40	101.35	-63.12	30.51	-7602.45	-1.264e+04
						330.0	-708.53	101.35	-63.12	30.51	-1.801e+04	7364.37
173	205	6.131e+05	1.244e+05	1.60	0.0	0.0	-2582.58	-1023.96	-894.22	96.97	1.244e+05	6.131e+05
		2.752e+05	-1.707e+05	0.27	0.0	165.0	-2464.71	-1023.96	-894.22	96.97	-2.313e+04	4.441e+05
						330.0	-2346.85	-1023.96	-894.22	96.97	-1.707e+05	2.752e+05
173	212	-4.307e+05	1.702e+05	-2.51	0.0	0.0	1855.78	1602.50	891.87	-96.55	-1.242e+05	-9.595e+05
		-9.595e+05	-1.242e+05	-0.27	0.0	165.0	1973.65	1602.50	891.87	-96.55	2.300e+04	-6.951e+05
						330.0	2091.52	1602.50	891.87	-96.55	1.702e+05	-4.307e+05
173	225	4.306e+05	8.007e+04	0.57	0.0	0.0	2390.40	1153.47	245.37	-163.57	-908.01	5.000e+04
		5.000e+04	-908.01	0.24	0.0	165.0	2508.27	1153.47	245.37	-163.57	3.958e+04	2.403e+05
						330.0	2626.14	1153.47	245.37	-163.57	8.007e+04	4.306e+05
173	230	-14.97	2.347e+05	-8.61e-04	0.0	0.0	-1617.77	1.15	1746.05	217.31	-3.415e+05	-395.60
		-395.60	-3.415e+05	-1.36	0.0	165.0	-1499.90	1.15	1746.05	217.31	-5.338e+04	-205.29
						330.0	-1382.03	1.15	1746.05	217.31	2.347e+05	-14.97
173	244	-1.902e+04	9.271e+04	-0.22	0.0	0.0	-4410.61	-442.51	-843.03	192.55	9.271e+04	-1.902e+04
		-1.651e+05	-1.855e+05	0.12	0.0	165.0	-4292.74	-442.51	-843.03	192.55	-4.639e+04	-9.204e+04
						330.0	-4174.87	-442.51	-843.03	192.55	-1.855e+05	-1.651e+05
173	252	1.226e+05	2.371e+04	0.32	0.0	0.0	-1265.61	-204.79	-215.57	49.27	2.371e+04	1.226e+05
		5.503e+04	-4.743e+04	0.03	0.0	165.0	-1147.75	-204.79	-215.57	49.27	-1.186e+04	8.882e+04
						330.0	-1029.88	-204.79	-215.57	49.27	-4.743e+04	5.503e+04
173	253	-8.614e+04	2712.68	-0.50	0.0	0.0	-306.58	320.39	12.33	-2.88	-1355.81	-1.919e+05
		-1.919e+05	-1355.81	-1.81e-03	0.0	165.0	-188.71	320.39	12.33	-2.88	678.44	-1.390e+05
						330.0	-70.84	320.39	12.33	-2.88	2712.68	-8.614e+04
173	255	8.613e+04	2716.29	0.11	0.0	0.0	-271.02	230.70	12.35	-2.84	-1357.64	9998.55
		9998.55	-1357.64	-1.81e-03	0.0	165.0	-153.15	230.70	12.35	-2.84	679.33	4.806e+04
						330.0	-35.28	230.70	12.35	-2.84	2716.29	8.613e+04
173	258	108.92	6.530e+04	2.40e-04	0.0	0.0	-743.09	-0.31	-396.14	0.93	6.530e+04	108.92
		6.38	-6.543e+04	0.20	0.0	165.0	-625.22	-0.31	-396.14	0.93	-68.16	57.65
						330.0	-507.35	-0.31	-396.14	0.93	-6.543e+04	6.38
173	259	37.55	2.383e+04	8.46e-05	0.0	0.0	-1357.60	-0.10	-216.68	49.48	2.383e+04	37.55
		4.12	-4.768e+04	0.03	0.0	165.0	-1239.73	-0.10	-216.68	49.48	-1.192e+04	20.83
						330.0	-1121.86	-0.10	-216.68	49.48	-4.768e+04	4.12
173	260	23.91	1.394e+04	5.36e-05	0.0	0.0	-891.77	-0.07	-126.73	28.94	1.394e+04	23.91
		2.36	-2.788e+04	0.02	0.0	165.0	-773.90	-0.07	-126.73	28.94	-6973.82	13.13
						330.0	-656.03	-0.07	-126.73	28.94	-2.788e+04	2.36
Pilas.	M3 mx/mn	M2 mx/mn	D 2 / D 3	Q 2 / Q 3		N	V 2	V 3	T			
	-1.451e+06	-6.778e+05	-3.80	0.0		-9699.48	-1546.70	-2663.95	-583.95			
	9.266e+05	5.238e+05	2.42	0.0		6606.05	2777.93	3206.82	801.94			
Trave	Cmb	M3 mx/mn	M2 mx/mn	D 2 / D 3	Q 2 / Q 3	Pos.	N	V 2	V 3	T	M 2	M 3
		daN cm	daN cm	cm	daN	cm	daN	daN	daN	daN cm	daN cm	daN cm
105	50	-1.556e+05	7.358e+04	0.34	-54.16	0.0	-51.15	-51.49	29.87	-6.310e+04	6.191e+04	-1.556e+05
		-1.854e+05	6.191e+04	-0.13	0.0	65.6	-51.15	-78.58	29.87	-6.310e+04	6.774e+04	-1.696e+05
						131.2	-51.15	-105.66	29.87	-6.310e+04	7.358e+04	-1.854e+05
105	74	-1.556e+05	7.355e+04	0.34	-54.16	0.0	-51.48	-51.74	29.13	6.305e+04	6.198e+04	-1.556e+05
		-1.855e+05	6.198e+04	-0.13	0.0	65.6	-51.48	-78.83	29.13	6.305e+04	6.776e+04	-1.696e+05
						131.2	-51.48	-105.91	29.13	6.305e+04	7.355e+04	-1.855e+05
105	84	3.001e+04	-908.04	-0.29	-70.41	0.0	-268.84	120.14	-25.52	-9.15	-908.04	-1693.10
		-1693.10	-1.241e+04	0.12	0.0	65.6	-64.09	84.93	-25.52	-9.15	-6659.90	1.531e+04
						131.2	140.66	49.73	-25.52	-9.15	-1.241e+04	3.001e+04
105	85	2.897e+04	-2273.32	-0.25	-54.16	0.0	-112.87	96.23	-21.41	-13.08	-2273.32	3103.48
		3103.48	-1.175e+04	0.10	0.0	65.6	91.88	69.14	-21.41	-13.08	-7009.56	1.693e+04
						131.2	296.63	42.06	-21.41	-13.08	-1.175e+04	2.897e+04

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida

Progettazione elettrica



SOGGETTO PROPONENTE



SMARTENERGYIT2111 S.R.L.

Comune di Gravina in Puglia (BA) - Località Masseria Pellicciari
 Progetto per la realizzazione di un Nuovo Impianto Agrivoltaico e delle relative opere di
 connessione alla RTN
 Potenza nominale 35,09 MW

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

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105	99	2.478e+05	-8.207e+04	-0.47	-70.41	0.0	-35.22	151.77	-41.87	2.421e+04	-8.207e+04	2.037e+05
		2.037e+05	-9.898e+04	0.19	0.0	65.6	-35.22	116.56	-41.87	2.421e+04	-9.053e+04	2.269e+05
						131.2	-35.22	81.35	-41.87	2.421e+04	-9.898e+04	2.478e+05
105	111	2.478e+05	-8.209e+04	-0.47	-70.41	0.0	-35.10	151.86	-41.58	-2.415e+04	-8.209e+04	2.037e+05
		2.037e+05	-9.897e+04	0.19	0.0	65.6	-35.10	116.66	-41.58	-2.415e+04	-9.053e+04	2.269e+05
						131.2	-35.10	81.45	-41.58	-2.415e+04	-9.897e+04	2.478e+05
105	129	2.557e+04	-8670.26	0.02	-54.16	0.0	-1.48	38.58	-4.26	602.19	-8670.26	2.107e+04
		2.107e+04	-1.040e+04	-6.91e-03	0.0	65.6	-1.48	11.50	-4.26	602.19	-9534.15	2.421e+04
						131.2	-1.48	-15.58	-4.26	602.19	-1.040e+04	2.557e+04
105	132	2.438e+04	-8194.18	-0.11	-54.16	0.0	-5.72	39.52	-4.24	-597.19	-8194.18	1.983e+04
		1.983e+04	-9923.68	0.05	0.0	65.6	-5.72	12.44	-4.24	-597.19	-9058.93	2.299e+04
						131.2	-5.72	-14.65	-4.24	-597.19	-9923.68	2.438e+04
105	150	2.973e+04	-1.032e+04	-0.04	-54.16	0.0	-3.73	39.00	-4.28	-1842.30	-1.032e+04	2.521e+04
		2.521e+04	-1.205e+04	0.01	0.0	65.6	-3.73	11.91	-4.28	-1842.30	-1.118e+04	2.836e+04
						131.2	-3.73	-15.17	-4.28	-1842.30	-1.205e+04	2.973e+04
105	151	2.021e+04	-6545.63	-0.06	-54.16	0.0	-3.47	39.10	-4.22	1847.30	-6545.63	1.570e+04
		1.570e+04	-8271.98	0.03	0.0	65.6	-3.47	12.02	-4.22	1847.30	-7408.80	1.884e+04
						131.2	-3.47	-15.06	-4.22	1847.30	-8271.98	2.021e+04
105	161	2.528e+04	-8552.77	-0.03	-54.16	0.0	-2.68	38.84	-4.26	257.63	-8552.77	2.076e+04
		2.076e+04	-1.028e+04	0.01	0.0	65.6	-2.68	11.76	-4.26	257.63	-9416.91	2.391e+04
						131.2	-2.68	-15.32	-4.26	257.63	-1.028e+04	2.528e+04
105	164	2.467e+04	-8311.66	-0.08	-54.16	0.0	-4.53	39.25	-4.24	-252.63	-8311.66	2.014e+04
		2.014e+04	-1.004e+04	0.03	0.0	65.6	-4.53	12.17	-4.24	-252.63	-9176.17	2.329e+04
						131.2	-4.53	-14.91	-4.24	-252.63	-1.004e+04	2.467e+04
105	182	2.703e+04	-9246.83	-0.05	-54.16	0.0	-3.65	39.02	-4.26	-780.26	-9246.83	2.251e+04
		2.251e+04	-1.098e+04	0.02	0.0	65.6	-3.65	11.94	-4.26	-780.26	-1.011e+04	2.566e+04
						131.2	-3.65	-15.14	-4.26	-780.26	-1.098e+04	2.703e+04
105	183	2.292e+04	-7617.60	-0.05	-54.16	0.0	-3.55	39.07	-4.24	785.26	-7617.60	1.840e+04
		1.840e+04	-9345.28	0.02	0.0	65.6	-3.55	11.99	-4.24	785.26	-8481.44	2.155e+04
						131.2	-3.55	-15.09	-4.24	785.26	-9345.28	2.292e+04
105	213	-9.690e+04	4.567e+04	0.21	-54.16	0.0	-35.30	-21.31	18.49	-4.207e+04	3.846e+04	-9.690e+04
		-1.153e+05	3.846e+04	-0.08	0.0	65.6	-35.30	-48.40	18.49	-4.207e+04	4.206e+04	-1.052e+05
						131.2	-35.30	-75.48	18.49	-4.207e+04	4.567e+04	-1.153e+05
105	225	-9.689e+04	4.565e+04	0.21	-54.16	0.0	-35.52	-21.48	18.00	4.203e+04	3.851e+04	-9.689e+04
		-1.153e+05	3.851e+04	-0.08	0.0	65.6	-35.52	-48.56	18.00	4.203e+04	4.208e+04	-1.052e+05
						131.2	-35.52	-75.64	18.00	4.203e+04	4.565e+04	-1.153e+05
105	230	2.764e+04	-4326.29	-0.19	-54.16	0.0	-76.45	77.17	-15.69	-7.89	-4326.29	8886.22
		8886.22	-1.122e+04	0.07	0.0	65.6	60.05	50.09	-15.69	-7.89	-7771.88	1.915e+04
						131.2	196.55	23.00	-15.69	-7.89	-1.122e+04	2.764e+04
105	231	2.334e+04	-1729.65	-0.20	-54.16	0.0	-179.71	85.30	-17.58	-5.77	-1729.65	1598.16
		1598.16	-9629.28	0.08	0.0	65.6	-43.21	58.22	-17.58	-5.77	-5679.47	1.336e+04
						131.2	93.29	31.14	-17.58	-5.77	-9629.28	2.334e+04
105	238	1.685e+05	-5.584e+04	-0.32	-54.16	0.0	-23.96	106.38	-28.48	1.614e+04	-5.584e+04	1.385e+05
		1.385e+05	-6.734e+04	0.13	0.0	65.6	-23.96	79.30	-28.48	1.614e+04	-6.159e+04	1.544e+05
						131.2	-23.96	52.22	-28.48	1.614e+04	-6.734e+04	1.685e+05
105	244	1.685e+05	-5.585e+04	-0.32	-54.16	0.0	-23.88	106.45	-28.29	-1.610e+04	-5.585e+04	1.385e+05
		1.385e+05	-6.734e+04	0.13	0.0	65.6	-23.88	79.37	-28.29	-1.610e+04	-6.160e+04	1.544e+05
						131.2	-23.88	52.28	-28.29	-1.610e+04	-6.734e+04	1.685e+05
105	253	-1572.96	846.00	4.10e-03	-54.16	0.0	0.38	26.16	0.49	-8411.47	686.78	-2289.91
		-2650.55	686.78	-1.67e-03	0.0	65.6	0.38	-0.92	0.49	-8411.47	766.39	-1581.61
						131.2	0.38	-28.00	0.49	-8411.47	846.00	-2650.55
105	255	-1573.02	841.79	4.06e-03	-54.16	0.0	0.34	26.13	0.39	8408.60	695.92	-2288.59
		-2652.41	695.92	-1.62e-03	0.0	65.6	0.34	-0.95	0.39	8408.60	768.86	-1581.88
						131.2	0.34	-28.03	0.39	8408.60	841.79	-2652.41
105	257	2.677e+04	-9514.15	-0.04	-54.16	0.0	39.42	35.66	-3.46	1.62	-9514.15	2.349e+04
		2.349e+04	-1.082e+04	0.02	0.0	65.6	39.42	8.58	-3.46	1.62	-1.017e+04	2.602e+04
						131.2	39.42	-18.50	-3.46	1.62	-1.082e+04	2.677e+04
105	258	2.318e+04	-7350.29	-0.05	-54.16	0.0	-46.63	42.44	-5.04	3.38	-7350.29	1.742e+04
		1.742e+04	-9499.11	0.02	0.0	65.6	-46.63	15.35	-5.04	3.38	-8424.70	2.119e+04
						131.2	-46.63	-11.73	-5.04	3.38	-9499.11	2.318e+04
105	259	4.309e+04	-1.442e+04	-0.08	-54.16	0.0	-6.15	47.58	-7.28	4.29	-1.442e+04	3.535e+04
		3.535e+04	-1.738e+04	0.03	0.0	65.6	-6.15	20.49	-7.28	4.29	-1.590e+04	4.011e+04

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida



Progettazione elettrica



PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

105	260	2.497e+04	-8432.22	-0.05	-54.16	131.2	-6.15	-6.59	-7.28	4.29	-1.738e+04	4.309e+04
		2.045e+04	-1.016e+04	0.02	0.0	65.6	-3.60	11.97	-4.25	2.50	-8432.22	2.045e+04
						131.2	-3.60	-15.12	-4.25	2.50	-1.016e+04	2.497e+04
106	50	-1.805e+04	5.269e+04	-1.00	-54.16	0.0	-52.53	327.56	-115.45	1.835e+05	5.269e+04	-1.323e+05
		-1.323e+05	7844.13	0.40	0.0	65.6	-52.53	300.48	-115.45	1.835e+05	3.027e+04	-7.430e+04
						131.2	-52.53	273.40	-115.45	1.835e+05	7844.13	-1.805e+04
106	74	-1.800e+04	5.276e+04	-1.00	-54.16	0.0	-52.80	327.95	-114.37	-1.835e+05	5.276e+04	-1.323e+05
		-1.323e+05	8060.56	0.40	0.0	65.6	-52.80	300.87	-114.37	-1.835e+05	3.041e+04	-7.428e+04
						131.2	-52.80	273.79	-114.37	-1.835e+05	8060.56	-1.800e+04
106	84	4.831e+04	-1.752e+04	0.07	-70.41	0.0	-232.21	40.46	6.25	-19.07	-1.811e+04	4.643e+04
		4.643e+04	-1.811e+04	-0.03	0.0	65.6	-27.46	5.25	6.25	-19.07	-1.782e+04	4.822e+04
						131.2	177.29	-29.96	6.25	-19.07	-1.752e+04	4.770e+04
106	85	6.490e+04	-2.043e+04	0.07	-54.16	0.0	-72.11	59.74	0.62	-14.97	-2.043e+04	5.364e+04
		5.364e+04	-2.312e+04	-0.03	0.0	65.6	132.64	32.65	0.62	-14.97	-2.178e+04	6.016e+04
						131.2	337.39	5.57	0.62	-14.97	-2.312e+04	6.490e+04
106	99	1.710e+05	-7245.86	1.34	-70.41	0.0	-36.15	-386.50	155.39	-7.037e+04	-6.909e+04	1.710e+05
		1.111e+04	-6.909e+04	-0.53	0.0	65.6	-36.15	-421.70	155.39	-7.037e+04	-3.817e+04	9.219e+04
						131.2	-36.15	-456.91	155.39	-7.037e+04	-7245.86	1.111e+04
106	111	1.710e+05	-7328.82	1.34	-70.41	0.0	-36.05	-386.65	154.98	7.031e+04	-6.912e+04	1.710e+05
		1.110e+04	-6.912e+04	-0.53	0.0	65.6	-36.05	-421.85	154.98	7.031e+04	-3.822e+04	9.218e+04
						131.2	-36.05	-457.06	154.98	7.031e+04	-7328.82	1.110e+04
106	125	9678.81	2239.93	0.14	-54.16	0.0	-8.07	-16.28	16.54	-1315.66	-4177.18	9678.81
		-6716.50	-4177.18	-0.06	0.0	65.6	-8.07	-43.37	16.54	-1315.66	-968.62	2369.77
						131.2	-8.07	-70.45	16.54	-1315.66	2239.93	-6716.50
106	126	1.068e+04	1851.18	0.15	-54.16	0.0	-8.58	-16.42	16.63	1612.25	-4577.11	1.068e+04
		-5728.76	-4577.11	-0.06	0.0	65.6	-8.58	-43.50	16.63	1612.25	-1362.97	3366.29
						131.2	-8.58	-70.58	16.63	1612.25	1851.18	-5728.76
106	127	2.351e+04	-3411.00	0.12	-54.16	0.0	1.19	-15.95	14.98	-1617.32	-9626.93	2.351e+04
		7151.87	-9626.93	-0.05	0.0	65.6	1.19	-43.03	14.98	-1617.32	-6518.96	1.622e+04
						131.2	1.19	-70.11	14.98	-1617.32	-3411.00	7151.87
106	128	2.452e+04	-3799.75	0.13	-54.16	0.0	0.68	-16.08	15.07	1310.59	-1.003e+04	2.452e+04
		8139.61	-1.003e+04	-0.05	0.0	65.6	0.68	-43.16	15.07	1310.59	-6913.30	1.722e+04
						131.2	0.68	-70.24	15.07	1310.59	-3799.75	8139.61
106	157	1.384e+04	545.95	0.14	-54.16	0.0	-5.62	-16.23	16.12	-543.62	-5817.69	1.384e+04
		-2549.98	-5817.69	-0.06	0.0	65.6	-5.62	-43.31	16.12	-543.62	-2635.87	6533.82
						131.2	-5.62	-70.39	16.12	-543.62	545.95	-2549.98
106	158	1.427e+04	379.92	0.14	-54.16	0.0	-5.83	-16.28	16.16	670.65	-5988.55	1.427e+04
		-2128.02	-5988.55	-0.06	0.0	65.6	-5.83	-43.37	16.16	670.65	-2804.32	6959.54
						131.2	-5.83	-70.45	16.16	670.65	379.92	-2128.02
106	159	1.993e+04	-1939.74	0.13	-54.16	0.0	-1.56	-16.08	15.45	-675.71	-8215.49	1.993e+04
		3551.13	-8215.49	-0.05	0.0	65.6	-1.56	-43.16	15.45	-675.71	-5077.61	1.263e+04
						131.2	-1.56	-70.24	15.45	-675.71	-1939.74	3551.13
106	160	2.036e+04	-2105.76	0.14	-54.16	0.0	-1.78	-16.14	15.49	538.56	-8386.35	2.036e+04
		3973.09	-8386.35	-0.05	0.0	65.6	-1.78	-43.22	15.49	538.56	-5246.06	1.305e+04
						131.2	-1.78	-70.30	15.49	538.56	-2105.76	3973.09
106	213	-1.179e+04	3.276e+04	-0.62	-54.16	0.0	-36.25	212.98	-71.70	1.224e+05	3.276e+04	-8.253e+04
		-8.253e+04	4969.45	0.25	0.0	65.6	-36.25	185.90	-71.70	1.224e+05	1.886e+04	-4.627e+04
						131.2	-36.25	158.82	-71.70	1.224e+05	4969.45	-1.179e+04
106	225	-1.176e+04	3.281e+04	-0.62	-54.16	0.0	-36.43	213.24	-70.98	-1.223e+05	3.281e+04	-8.252e+04
		-8.252e+04	5113.74	0.25	0.0	65.6	-36.43	186.16	-70.98	-1.223e+05	1.896e+04	-4.625e+04
						131.2	-36.43	159.08	-70.98	-1.223e+05	5113.74	-1.176e+04
106	230	4.366e+04	-1.567e+04	0.09	-54.16	0.0	-49.31	34.43	5.68	-10.83	-1.599e+04	4.146e+04
		4.146e+04	-1.599e+04	-0.04	0.0	65.6	87.19	7.35	5.68	-10.83	-1.583e+04	4.337e+04
						131.2	223.69	-19.73	5.68	-10.83	-1.567e+04	4.350e+04
106	231	3.358e+04	-1.178e+04	0.07	-54.16	0.0	-155.30	24.81	6.28	-13.05	-1.302e+04	3.323e+04
		3.190e+04	-1.302e+04	-0.03	0.0	65.6	-18.80	-2.27	6.28	-13.05	-1.240e+04	3.345e+04
						131.2	117.70	-29.35	6.28	-13.05	-1.178e+04	3.190e+04
106	238	1.162e+05	-4934.56	0.91	-54.16	0.0	-24.59	-259.82	105.70	-4.691e+04	-4.701e+04	1.162e+05
		7504.51	-4.701e+04	-0.36	0.0	65.6	-24.59	-286.90	105.70	-4.691e+04	-2.597e+04	6.277e+04
						131.2	-24.59	-313.99	105.70	-4.691e+04	-4934.56	7504.51
106	244	1.162e+05	-4989.87	0.91	-54.16	0.0	-24.53	-259.92	105.42	4.687e+04	-4.702e+04	1.162e+05

Progettazione civile e inserimento ambientale

Agronomia e studi colturali

Progettazione elettrica



Arch. Andrea Giuffrida



Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

		7492.35	-4.702e+04	-0.36	0.0	65.6	-24.53	-287.00	105.42	4.687e+04	-2.601e+04	6.276e+04
						131.2	-24.53	-314.08	105.42	4.687e+04	-4989.87	7492.35
106	257	2.053e+04	-2399.72	0.15	-54.16	0.0	40.47	-12.18	15.56	-1.61	-8339.35	2.053e+04
		5548.58	-8339.35	-0.06	0.0	65.6	40.47	-39.26	15.56	-1.61	-5369.54	1.393e+04
						131.2	40.47	-66.34	15.56	-1.61	-2399.72	5548.58
106	258	1.367e+04	839.91	0.13	-54.16	0.0	-47.86	-20.19	16.05	-3.46	-5864.69	1.367e+04
		-4125.47	-5864.69	-0.05	0.0	65.6	-47.86	-47.27	16.05	-3.46	-2512.39	5660.80
						131.2	-47.86	-74.35	16.05	-3.46	839.91	-4125.47
106	259	2.961e+04	-1319.10	0.23	-54.16	0.0	-6.31	-46.97	27.05	-4.34	-1.214e+04	2.961e+04
		1556.51	-1.214e+04	-0.09	0.0	65.6	-6.31	-74.06	27.05	-4.34	-6730.01	1.647e+04
						131.2	-6.31	-101.14	27.05	-4.34	-1319.10	1556.51
106	260	1.710e+04	-779.91	0.14	-54.16	0.0	-3.70	-16.18	15.81	-2.53	-7102.02	1.710e+04
		711.55	-7102.02	-0.05	0.0	65.6	-3.70	-43.26	15.81	-2.53	-3940.96	9793.55
						131.2	-3.70	-70.35	15.81	-2.53	-779.91	711.55
107	49	2.681e+05	-1.882e+04	0.78	-54.16	0.0	248.54	-543.88	205.32	-3.217e+05	-1.018e+05	2.681e+05
		5.189e+04	-1.018e+05	-0.31	0.0	65.6	248.54	-570.96	205.32	-3.217e+05	-6.032e+04	1.609e+05
						131.2	248.54	-598.04	205.32	-3.217e+05	-1.882e+04	5.189e+04
107	53	1.605e+05	-1.389e+04	0.36	-54.16	0.0	305.08	-295.92	110.51	-1.930e+05	-5.994e+04	1.605e+05
		3.862e+04	-5.994e+04	-0.14	0.0	65.6	305.08	-323.00	110.51	-1.930e+05	-3.691e+04	1.005e+05
						131.2	305.08	-350.08	110.51	-1.930e+05	-1.389e+04	3.862e+04
107	73	2.683e+05	-1.860e+04	0.78	-54.16	0.0	248.47	-544.45	203.77	3.217e+05	-1.014e+05	2.683e+05
		5.194e+04	-1.014e+05	-0.31	0.0	65.6	248.47	-571.53	203.77	3.217e+05	-6.000e+04	1.610e+05
						131.2	248.47	-598.61	203.77	3.217e+05	-1.860e+04	5.194e+04
107	84	-8.132e+04	5.306e+04	0.14	-70.41	0.0	-542.76	237.69	-42.70	-8.83	5.306e+04	-1.557e+05
		-1.557e+05	2.848e+04	-0.05	0.0	65.6	-338.01	202.48	-42.70	-8.83	4.077e+04	-1.174e+05
						131.2	-133.26	167.28	-42.70	-8.83	2.848e+04	-8.132e+04
107	99	-5.951e+04	1.323e+05	-1.15	-70.41	0.0	-131.27	800.61	-277.04	1.233e+05	1.323e+05	-3.495e+05
		-3.495e+05	2.077e+04	0.46	0.0	65.6	-131.27	765.40	-277.04	1.233e+05	7.654e+04	-2.033e+05
						131.2	-131.27	730.20	-277.04	1.233e+05	2.077e+04	-5.951e+04
107	111	-5.952e+04	1.321e+05	-1.15	-70.41	0.0	-131.24	800.83	-276.44	-1.233e+05	1.321e+05	-3.495e+05
		-3.495e+05	2.068e+04	0.46	0.0	65.6	-131.24	765.62	-276.44	-1.233e+05	7.641e+04	-2.034e+05
						131.2	-131.24	730.42	-276.44	-1.233e+05	2.068e+04	-5.952e+04
107	129	8346.31	7812.09	-0.14	-54.16	0.0	0.03	104.00	-30.38	2816.12	7812.09	-2.117e+04
		-2.117e+04	-3885.25	0.06	0.0	65.6	0.03	76.92	-30.38	2816.12	1963.42	-5523.13
						131.2	0.03	49.83	-30.38	2816.12	-3885.25	8346.31
107	132	-2.140e+04	1.918e+04	-0.09	-54.16	0.0	-26.90	107.18	-26.02	-2810.80	1.918e+04	-5.133e+04
		-5.133e+04	8066.90	0.03	0.0	65.6	-26.90	80.10	-26.02	-2810.80	1.362e+04	-3.548e+04
						131.2	-26.90	53.01	-26.02	-2810.80	8066.90	-2.140e+04
107	161	-37.60	1.102e+04	-0.13	-54.16	0.0	-7.54	104.89	-29.16	1176.75	1.102e+04	-2.967e+04
		-2.967e+04	-516.40	0.05	0.0	65.6	-7.54	77.81	-29.16	1176.75	5250.22	-1.397e+04
						131.2	-7.54	50.73	-29.16	1176.75	-516.40	-37.60
107	164	-1.301e+04	1.598e+04	-0.11	-54.16	0.0	-19.33	106.28	-27.25	-1171.43	1.598e+04	-4.283e+04
		-4.283e+04	4698.05	0.04	0.0	65.6	-19.33	79.20	-27.25	-1171.43	1.034e+04	-2.703e+04
						131.2	-19.33	52.12	-27.25	-1171.43	4698.05	-1.301e+04
107	212	1.667e+05	-1.185e+04	0.48	-54.16	0.0	161.22	-327.39	127.48	-2.145e+05	-6.338e+04	1.667e+05
		3.242e+04	-6.338e+04	-0.19	0.0	65.6	161.22	-354.47	127.48	-2.145e+05	-3.762e+04	1.004e+05
						131.2	161.22	-381.55	127.48	-2.145e+05	-1.185e+04	3.242e+04
107	214	9.494e+04	-8561.74	0.20	-54.16	0.0	198.91	-162.08	64.27	-1.287e+05	-3.546e+04	9.494e+04
		2.357e+04	-3.546e+04	-0.08	0.0	65.6	198.91	-189.17	64.27	-1.287e+05	-2.201e+04	6.015e+04
						131.2	198.91	-216.25	64.27	-1.287e+05	-8561.74	2.357e+04
107	224	1.668e+05	-1.171e+04	0.48	-54.16	0.0	161.17	-327.77	126.45	2.144e+05	-6.310e+04	1.668e+05
		3.245e+04	-6.310e+04	-0.19	0.0	65.6	161.17	-354.85	126.45	2.144e+05	-3.740e+04	1.005e+05
						131.2	161.17	-381.93	126.45	2.144e+05	-1.171e+04	3.245e+04
107	231	-5.508e+04	3.717e+04	0.08	-54.16	0.0	-363.63	172.54	-32.23	-5.53	3.717e+04	-1.086e+05
		-1.086e+05	1.927e+04	-0.03	0.0	65.6	-227.13	145.46	-32.23	-5.53	2.822e+04	-8.097e+04
						131.2	-90.63	118.37	-32.23	-5.53	1.927e+04	-5.508e+04
107	238	-4.054e+04	9.000e+04	-0.78	-54.16	0.0	-89.30	547.82	-188.45	8.222e+04	9.000e+04	-2.378e+05
		-2.378e+05	1.412e+04	0.31	0.0	65.6	-89.30	520.74	-188.45	8.222e+04	5.206e+04	-1.383e+05
						131.2	-89.30	493.65	-188.45	8.222e+04	1.412e+04	-4.054e+04
107	244	-4.055e+04	8.990e+04	-0.78	-54.16	0.0	-89.28	547.96	-188.05	-8.218e+04	8.990e+04	-2.379e+05
		-2.379e+05	1.407e+04	0.31	0.0	65.6	-89.28	520.88	-188.05	-8.218e+04	5.198e+04	-1.383e+05
						131.2	-89.28	493.80	-188.05	-8.218e+04	1.407e+04	-4.055e+04

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida





SMARTENERGYIT2111 S.R.L.

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

107	253	2635.13	-268.63	0.01	-54.16	0.0	1.33	20.47	3.11	-4.289e+04	-1350.22	2567.07
		1.37	-1350.22	-4.29e-03	0.0	65.6	1.33	-6.61	3.11	-4.289e+04	-809.42	2172.84
						131.2	1.33	-33.69	3.11	-4.289e+04	-268.63	1.37
107	255	2648.59	-239.54	0.01	-54.16	0.0	1.32	20.40	2.90	4.289e+04	-1293.55	2581.63
		7.12	-1293.55	-4.24e-03	0.0	65.6	1.32	-6.69	2.90	4.289e+04	-766.54	2183.00
						131.2	1.32	-33.77	2.90	4.289e+04	-239.54	7.12
107	257	-1266.79	1.129e+04	-0.15	-54.16	0.0	70.59	99.43	-28.93	1.60	1.129e+04	-2.888e+04
		-2.888e+04	303.72	0.06	0.0	65.6	70.59	72.34	-28.93	1.60	5795.84	-1.419e+04
						131.2	70.59	45.26	-28.93	1.60	303.72	-1266.79
107	258	-1.178e+04	1.570e+04	-0.08	-54.16	0.0	-97.46	111.75	-27.47	3.72	1.570e+04	-4.362e+04
		-4.362e+04	3877.93	0.03	0.0	65.6	-97.46	84.67	-27.47	3.72	9791.00	-2.681e+04
						131.2	-97.46	57.59	-27.47	3.72	3877.93	-1.178e+04
107	259	-1.083e+04	2.311e+04	-0.20	-54.16	0.0	-22.95	161.41	-48.25	4.57	2.311e+04	-6.169e+04
		-6.169e+04	3593.10	0.08	0.0	65.6	-22.95	134.33	-48.25	4.57	1.335e+04	-3.537e+04
						131.2	-22.95	107.24	-48.25	4.57	3593.10	-1.083e+04
107	260	-6525.54	1.350e+04	-0.12	-54.16	0.0	-13.43	105.59	-28.20	2.66	1.350e+04	-3.625e+04
		-3.625e+04	2090.82	0.05	0.0	65.6	-13.43	78.51	-28.20	2.66	7793.42	-2.050e+04
						131.2	-13.43	51.42	-28.20	2.66	2090.82	-6525.54
108	50	-1.288e+05	7.207e+04	0.53	-54.16	0.0	-49.45	-111.30	54.92	-5.419e+04	5.110e+04	-1.288e+05
		-1.816e+05	5.110e+04	-0.21	0.0	65.6	-49.45	-138.38	54.92	-5.419e+04	6.159e+04	-1.543e+05
						131.2	-49.45	-165.46	54.92	-5.419e+04	7.207e+04	-1.816e+05
108	74	-1.288e+05	7.204e+04	0.53	-54.16	0.0	-49.66	-110.99	55.81	5.424e+04	5.095e+04	-1.288e+05
		-1.816e+05	5.095e+04	-0.21	0.0	65.6	-49.66	-138.07	55.81	5.424e+04	6.149e+04	-1.543e+05
						131.2	-49.66	-165.15	55.81	5.424e+04	7.204e+04	-1.816e+05
108	84	2.109e+04	2696.24	-0.26	-70.41	0.0	-253.53	116.49	-26.74	-18.78	2696.24	-9455.93
		-9455.93	-8700.11	0.10	0.0	65.6	-48.78	81.29	-26.74	-18.78	-3001.94	6974.65
						131.2	155.97	46.08	-26.74	-18.78	-8700.11	2.109e+04
108	85	1.879e+04	4639.01	-0.29	-54.16	0.0	-105.98	114.38	-28.29	-14.87	4639.01	-1.399e+04
		-1.399e+04	-7530.09	0.12	0.0	65.6	98.77	87.30	-28.29	-14.87	-1445.54	3287.55
						131.2	303.52	60.22	-28.29	-14.87	-7530.09	1.879e+04
108	99	2.436e+05	-6.990e+04	-0.69	-70.41	0.0	-31.95	215.90	-71.97	2.075e+04	-6.990e+04	1.745e+05
		1.745e+05	-9.732e+04	0.27	0.0	65.6	-31.95	180.70	-71.97	2.075e+04	-8.361e+04	2.102e+05
						131.2	-31.95	145.49	-71.97	2.075e+04	-9.732e+04	2.436e+05
108	111	2.436e+05	-6.984e+04	-0.69	-70.41	0.0	-31.87	215.78	-72.32	-2.081e+04	-6.984e+04	1.745e+05
		1.745e+05	-9.731e+04	0.27	0.0	65.6	-31.87	180.58	-72.32	-2.081e+04	-8.357e+04	2.102e+05
						131.2	-31.87	145.37	-72.32	-2.081e+04	-9.731e+04	2.436e+05
108	126	3.111e+04	-9792.54	-0.05	-54.16	0.0	-3.23	45.27	-7.31	631.80	-9792.54	2.408e+04
		2.408e+04	-1.259e+04	0.02	0.0	65.6	-3.23	18.18	-7.31	631.80	-1.119e+04	2.848e+04
						131.2	-3.23	-8.90	-7.31	631.80	-1.259e+04	3.111e+04
108	127	1.798e+04	-4573.25	-0.09	-54.16	0.0	-3.31	45.93	-7.41	-636.84	-4573.25	1.087e+04
		1.087e+04	-7387.60	0.04	0.0	65.6	-3.31	18.84	-7.41	-636.84	-5980.43	1.531e+04
						131.2	-3.31	-8.24	-7.41	-636.84	-7387.60	1.798e+04
108	141	2.220e+04	-6261.36	-0.05	-54.16	0.0	-2.54	45.38	-7.30	-1780.99	-6261.36	1.516e+04
		1.516e+04	-9061.60	0.02	0.0	65.6	-2.54	18.30	-7.30	-1780.99	-7661.48	1.957e+04
						131.2	-2.54	-8.78	-7.30	-1780.99	-9061.60	2.220e+04
108	144	2.689e+04	-8104.43	-0.09	-54.16	0.0	-4.00	45.81	-7.42	1775.94	-8104.43	1.979e+04
		1.979e+04	-1.092e+04	0.04	0.0	65.6	-4.00	18.73	-7.42	1775.94	-9512.13	2.422e+04
						131.2	-4.00	-8.35	-7.42	1775.94	-1.092e+04	2.689e+04
108	158	2.739e+04	-8314.80	-0.06	-54.16	0.0	-3.25	45.45	-7.34	262.67	-8314.80	2.034e+04
		2.034e+04	-1.112e+04	0.02	0.0	65.6	-3.25	18.37	-7.34	262.67	-9717.28	2.475e+04
						131.2	-3.25	-8.71	-7.34	262.67	-1.112e+04	2.739e+04
108	159	2.170e+04	-6050.99	-0.08	-54.16	0.0	-3.29	45.74	-7.38	-267.72	-6050.99	1.461e+04
		1.461e+04	-8861.68	0.03	0.0	65.6	-3.29	18.66	-7.38	-267.72	-7456.33	1.904e+04
						131.2	-3.29	-8.42	-7.38	-267.72	-8861.68	2.170e+04
108	173	2.355e+04	-6790.51	-0.06	-54.16	0.0	-2.96	45.50	-7.33	-741.49	-6790.51	1.649e+04
		1.649e+04	-9595.07	0.02	0.0	65.6	-2.96	18.42	-7.33	-741.49	-8192.79	2.091e+04
						131.2	-2.96	-8.66	-7.33	-741.49	-9595.07	2.355e+04
108	176	2.554e+04	-7575.28	-0.08	-54.16	0.0	-3.58	45.69	-7.39	736.45	-7575.28	1.846e+04
		1.846e+04	-1.039e+04	0.03	0.0	65.6	-3.58	18.61	-7.39	736.45	-8980.82	2.289e+04
						131.2	-3.58	-8.47	-7.39	736.45	-1.039e+04	2.554e+04
108	213	-8.003e+04	4.472e+04	0.33	-54.16	0.0	-34.06	-59.00	34.16	-3.613e+04	3.168e+04	-8.003e+04
		-1.129e+05	3.168e+04	-0.13	0.0	65.6	-34.06	-86.08	34.16	-3.613e+04	3.820e+04	-9.558e+04

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

108	225	-8.006e+04	4.470e+04	0.33	-54.16	131.2	-34.06	-113.16	34.16	-3.613e+04	4.472e+04	-1.129e+05
		-1.129e+05	3.157e+04	-0.13	0.0	65.6	-34.20	-85.87	34.75	3.616e+04	3.157e+04	-8.006e+04
						131.2	-34.20	-112.96	34.75	3.616e+04	3.813e+04	-9.560e+04
108	230	2.071e+04	698.37	-0.22	-54.16	0.0	-71.75	91.45	-21.31	-10.76	698.37	-3502.03
		-3502.03	-8350.30	0.09	0.0	65.6	64.75	64.37	-21.31	-10.76	-3825.96	9490.83
						131.2	201.25	37.29	-21.31	-10.76	-8350.30	2.071e+04
108	231	1.734e+04	839.77	-0.18	-54.16	0.0	-169.46	83.74	-18.81	-12.86	839.77	-3974.28
		-3974.28	-7132.17	0.07	0.0	65.6	-32.96	56.66	-18.81	-12.86	-3146.20	7569.42
						131.2	103.54	29.58	-18.81	-12.86	-7132.17	1.734e+04
108	238	1.657e+05	-4.756e+04	-0.47	-54.16	0.0	-21.74	150.01	-48.96	1.383e+04	-4.756e+04	1.187e+05
		1.187e+05	-6.621e+04	0.19	0.0	65.6	-21.74	122.93	-48.96	1.383e+04	-5.688e+04	1.431e+05
						131.2	-21.74	95.85	-48.96	1.383e+04	-6.621e+04	1.657e+05
108	244	1.657e+05	-4.752e+04	-0.47	-54.16	0.0	-21.68	149.93	-49.19	-1.387e+04	-4.752e+04	1.187e+05
		1.187e+05	-6.620e+04	0.19	0.0	65.6	-21.68	122.85	-49.19	-1.387e+04	-5.686e+04	1.431e+05
						131.2	-21.68	95.77	-49.19	-1.387e+04	-6.620e+04	1.657e+05
108	253	-1380.45	829.29	6.28e-03	-54.16	0.0	0.34	25.45	0.69	-7226.83	574.55	-1980.44
		-2608.43	574.55	-2.46e-03	0.0	65.6	0.34	-1.63	0.69	-7226.83	701.92	-1405.81
						131.2	0.34	-28.72	0.69	-7226.83	829.29	-2608.43
108	255	-1384.12	824.85	6.32e-03	-54.16	0.0	0.32	25.49	0.81	7229.71	553.97	-1985.98
		-2609.69	553.97	-2.51e-03	0.0	65.6	0.32	-1.59	0.81	7229.71	689.41	-1409.22
						131.2	0.32	-28.67	0.81	7229.71	824.85	-2609.69
108	257	2.595e+04	-7241.81	-0.09	-54.16	0.0	37.44	48.81	-8.41	-1.65	-7241.81	1.767e+04
		1.767e+04	-1.050e+04	0.03	0.0	65.6	37.44	21.73	-8.41	-1.65	-8870.04	2.270e+04
						131.2	37.44	-5.35	-8.41	-1.65	-1.050e+04	2.595e+04
108	258	2.314e+04	-7123.98	-0.06	-54.16	0.0	-43.98	42.38	-6.32	-3.40	-7123.98	1.728e+04
		1.728e+04	-9483.16	0.02	0.0	65.6	-43.98	15.30	-6.32	-3.40	-8303.57	2.110e+04
						131.2	-43.98	-11.78	-6.32	-3.40	-9483.16	2.314e+04
108	259	4.236e+04	-1.228e+04	-0.12	-54.16	0.0	-5.58	58.76	-12.60	-4.33	-1.228e+04	3.026e+04
		3.026e+04	-1.709e+04	0.05	0.0	65.6	-5.58	31.67	-12.60	-4.33	-1.469e+04	3.720e+04
						131.2	-5.58	4.59	-12.60	-4.33	-1.709e+04	4.236e+04
108	260	2.455e+04	-7182.89	-0.07	-54.16	0.0	-3.27	45.60	-7.36	-2.52	-7182.89	1.747e+04
		1.747e+04	-9990.72	0.03	0.0	65.6	-3.27	18.51	-7.36	-2.52	-8586.80	2.190e+04
						131.2	-3.27	-8.57	-7.36	-2.52	-9990.72	2.455e+04
109	49	3.407e+04	3.922e+04	-0.99	-54.16	0.0	96.91	375.12	-137.34	1.761e+05	3.922e+04	-9.865e+04
		-9.865e+04	-1.333e+04	0.39	0.0	65.6	96.91	348.04	-137.34	1.761e+05	1.295e+04	-3.140e+04
						131.2	96.91	320.96	-137.34	1.761e+05	-1.333e+04	3.407e+04
109	73	3.396e+04	3.907e+04	-0.99	-54.16	0.0	96.81	374.51	-138.98	-1.762e+05	3.907e+04	-9.869e+04
		-9.869e+04	-1.371e+04	0.39	0.0	65.6	96.81	347.43	-138.98	-1.762e+05	1.268e+04	-3.147e+04
						131.2	96.81	320.35	-138.98	-1.762e+05	-1.371e+04	3.396e+04
109	84	5.973e+04	-2.196e+04	0.14	-70.41	0.0	-236.20	44.17	6.40	-8.87	-2.227e+04	5.697e+04
		5.697e+04	-2.227e+04	-0.06	0.0	65.6	-31.45	8.97	6.40	-8.87	-2.211e+04	5.939e+04
						131.2	173.30	-26.24	6.40	-8.87	-2.196e+04	5.950e+04
109	85	5.613e+04	-2.027e+04	0.15	-54.16	0.0	-88.81	39.44	4.81	-12.89	-2.027e+04	5.229e+04
		5.229e+04	-2.052e+04	-0.06	0.0	65.6	115.94	12.36	4.81	-12.89	-2.039e+04	5.510e+04
						131.2	320.69	-14.72	4.81	-12.89	-2.052e+04	5.613e+04
109	99	1.334e+05	1.902e+04	1.39	-70.41	0.0	-31.84	-448.12	188.55	-6.749e+04	-5.360e+04	1.334e+05
		-5.068e+04	-5.360e+04	-0.55	0.0	65.6	-31.84	-483.33	188.55	-6.749e+04	-1.729e+04	4.254e+04
						131.2	-31.84	-518.54	188.55	-6.749e+04	1.902e+04	-5.068e+04
109	111	1.335e+05	1.917e+04	1.39	-70.41	0.0	-31.80	-447.89	189.18	6.755e+04	-5.354e+04	1.335e+05
		-5.064e+04	-5.354e+04	-0.55	0.0	65.6	-31.80	-483.10	189.18	6.755e+04	-1.719e+04	4.256e+04
						131.2	-31.80	-518.30	189.18	6.755e+04	1.917e+04	-5.064e+04
109	129	3284.25	5926.30	0.13	-54.16	0.0	-5.46	-22.48	19.73	1631.72	-1566.49	3284.25
		-1.558e+04	-1566.49	-0.05	0.0	65.6	-5.46	-49.57	19.73	1631.72	2179.90	-5260.87
						131.2	-5.46	-76.65	19.73	1631.72	5926.30	-1.558e+04
109	130	3874.49	5700.03	0.14	-54.16	0.0	-5.85	-22.65	19.80	-1291.04	-1801.10	3874.49
		-1.501e+04	-1801.10	-0.06	0.0	65.6	-5.85	-49.73	19.80	-1291.04	1949.47	-4680.69
						131.2	-5.85	-76.81	19.80	-1291.04	5700.03	-1.501e+04
109	131	2.265e+04	-1863.20	0.14	-54.16	0.0	-0.67	-22.28	18.70	1296.26	-9225.22	2.265e+04
		3802.99	-9225.22	-0.06	0.0	65.6	-0.67	-49.36	18.70	1296.26	-5544.21	1.412e+04
						131.2	-0.67	-76.44	18.70	1296.26	-1863.20	3802.99
109	132	2.324e+04	-2089.46	0.16	-54.16	0.0	-1.06	-22.44	18.77	-1626.50	-9459.83	2.324e+04

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

		4373.10	-9459.83	-0.06	0.0	65.6	-1.06	-49.53	18.77	-1626.50	-5774.64	1.470e+04
						131.2	-1.06	-76.61	18.77	-1626.50	-2089.46	4373.10
109	161	8901.76	3670.35	0.14	-54.16	0.0	-4.23	-22.48	19.46	674.69	-3788.26	8901.76
		-9966.37	-3788.26	-0.05	0.0	65.6	-4.23	-49.56	19.46	674.69	-58.96	356.32
						131.2	-4.23	-76.64	19.46	674.69	3670.35	-9966.37
109	162	9157.17	3572.41	0.14	-54.16	0.0	-4.40	-22.55	19.49	-523.99	-3889.79	9157.17
		-9719.56	-3889.79	-0.06	0.0	65.6	-4.40	-49.63	19.49	-523.99	-158.69	607.42
						131.2	-4.40	-76.71	19.49	-523.99	3572.41	-9719.56
109	163	1.737e+04	264.42	0.14	-54.16	0.0	-2.12	-22.38	19.01	529.21	-7136.53	1.737e+04
		-1490.57	-7136.53	-0.06	0.0	65.6	-2.12	-49.47	19.01	529.21	-3436.05	8827.90
						131.2	-2.12	-76.55	19.01	529.21	264.42	-1490.57
109	164	1.762e+04	166.49	0.15	-54.16	0.0	-2.29	-22.45	19.04	-669.47	-7238.05	1.762e+04
		-1243.76	-7238.05	-0.06	0.0	65.6	-2.29	-49.54	19.04	-669.47	-3535.78	9079.01
						131.2	-2.29	-76.62	19.04	-669.47	166.49	-1243.76
109	212	2.085e+04	2.431e+04	-0.61	-54.16	0.0	63.52	242.59	-85.14	1.174e+05	2.431e+04	-6.135e+04
		-6.135e+04	-8247.43	0.24	0.0	65.6	63.52	215.51	-85.14	1.174e+05	8031.20	-1.936e+04
						131.2	63.52	188.43	-85.14	1.174e+05	-8247.43	2.085e+04
109	224	2.077e+04	2.421e+04	-0.61	-54.16	0.0	63.45	242.19	-86.24	-1.175e+05	2.421e+04	-6.137e+04
		-6.137e+04	-8497.75	0.24	0.0	65.6	63.45	215.10	-86.24	-1.175e+05	7854.01	-1.941e+04
						131.2	63.45	188.02	-86.24	-1.175e+05	-8497.75	2.077e+04
109	230	3.928e+04	-1.304e+04	0.15	-54.16	0.0	-60.29	18.81	9.62	-7.72	-1.535e+04	3.928e+04
		3.555e+04	-1.535e+04	-0.06	0.0	65.6	76.21	-8.28	9.62	-7.72	-1.419e+04	3.830e+04
						131.2	212.71	-35.36	9.62	-7.72	-1.304e+04	3.555e+04
109	231	4.027e+04	-1.439e+04	0.11	-54.16	0.0	-157.90	26.45	6.83	-5.57	-1.558e+04	3.975e+04
		3.892e+04	-1.558e+04	-0.04	0.0	65.6	-21.40	-0.63	6.83	-5.57	-1.498e+04	4.022e+04
						131.2	115.10	-27.71	6.83	-5.57	-1.439e+04	3.892e+04
109	238	9.073e+04	1.294e+04	0.95	-54.16	0.0	-21.66	-301.74	128.27	-4.499e+04	-3.647e+04	9.073e+04
		-3.454e+04	-3.647e+04	-0.37	0.0	65.6	-21.66	-328.83	128.27	-4.499e+04	-1.176e+04	2.899e+04
						131.2	-21.66	-355.91	128.27	-4.499e+04	1.294e+04	-3.454e+04
109	244	9.074e+04	1.303e+04	0.95	-54.16	0.0	-21.64	-301.59	128.69	4.503e+04	-3.643e+04	9.074e+04
		-3.451e+04	-3.643e+04	-0.37	0.0	65.6	-21.64	-328.67	128.69	4.503e+04	-1.170e+04	2.901e+04
						131.2	-21.64	-355.75	128.69	4.503e+04	1.303e+04	-3.451e+04
109	254	2.277e+04	3335.42	0.24	-54.16	0.0	-5.55	-56.77	32.91	1.501e+04	-9295.57	2.277e+04
		-9190.38	-9295.57	-0.10	0.0	65.6	-5.55	-83.85	32.91	1.501e+04	-2980.08	7678.01
						131.2	-5.55	-110.93	32.91	1.501e+04	3335.42	-9190.38
109	257	1.307e+04	2480.26	0.16	-54.16	0.0	37.41	-25.65	20.41	1.71	-5417.11	1.307e+04
		-7007.31	-5417.11	-0.06	0.0	65.6	37.41	-52.73	20.41	1.71	-1468.42	3919.60
						131.2	37.41	-79.82	20.41	1.71	2480.26	-7007.31
109	258	1.346e+04	1356.57	0.13	-54.16	0.0	-43.93	-19.28	18.09	3.51	-5609.20	1.346e+04
		-4202.82	-5609.20	-0.05	0.0	65.6	-43.93	-46.36	18.09	3.51	-2126.32	5515.73
						131.2	-43.93	-73.44	18.09	3.51	1356.57	-4202.82
109	259	2.306e+04	3291.26	0.24	-54.16	0.0	-5.56	-57.71	32.94	4.48	-9426.53	2.306e+04
		-9234.38	-9426.53	-0.10	0.0	65.6	-5.56	-84.79	32.94	4.48	-3067.63	7798.99
						131.2	-5.56	-111.87	32.94	4.48	3291.26	-9234.38
109	260	1.326e+04	1918.42	0.14	-54.16	0.0	-3.26	-22.46	19.25	2.61	-5513.16	1.326e+04
		-5605.06	-5513.16	-0.06	0.0	65.6	-3.26	-49.55	19.25	2.61	-1797.37	4717.66
						131.2	-3.26	-76.63	19.25	2.61	1918.42	-5605.06
110	50	1.438e+05	-1.863e+04	-0.17	-54.16	0.0	-137.51	-236.02	117.02	-1.339e+05	-6.040e+04	1.438e+05
		4.270e+04	-6.040e+04	0.07	0.0	65.6	-137.51	-263.10	117.02	-1.339e+05	-3.951e+04	9.414e+04
						131.2	-137.51	-290.18	117.02	-1.339e+05	-1.863e+04	4.270e+04
110	74	1.439e+05	-1.819e+04	-0.17	-54.16	0.0	-137.60	-236.30	116.34	1.339e+05	-5.987e+04	1.439e+05
		4.278e+04	-5.987e+04	0.07	0.0	65.6	-137.60	-263.39	116.34	1.339e+05	-3.903e+04	9.424e+04
						131.2	-137.60	-290.47	116.34	1.339e+05	-1.819e+04	4.278e+04
110	83	-8.710e+04	8.136e+04	0.16	-70.41	0.0	-272.78	401.54	-111.80	-38.38	8.136e+04	-2.241e+05
		-2.241e+05	3.141e+04	-0.06	0.0	65.6	-68.03	366.33	-111.80	-38.38	5.639e+04	-1.545e+05
						131.2	136.72	331.12	-111.80	-38.38	3.141e+04	-8.710e+04
110	86	-5.597e+04	5.036e+04	0.11	-54.16	0.0	-433.17	250.07	-66.85	-28.75	5.036e+04	-1.393e+05
		-1.393e+05	2.015e+04	-0.04	0.0	65.6	-228.42	222.99	-66.85	-28.75	3.526e+04	-9.674e+04
						131.2	-23.67	195.90	-66.85	-28.75	2.015e+04	-5.597e+04
110	87	-7.042e+04	6.764e+04	0.13	-70.41	0.0	-75.20	341.69	-95.74	-28.40	6.764e+04	-1.852e+05
		-1.852e+05	2.549e+04	-0.05	0.0	65.6	47.65	306.48	-95.74	-28.40	4.656e+04	-1.267e+05
						131.2	170.50	271.27	-95.74	-28.40	2.549e+04	-7.042e+04

Progettazione civile e inserimento ambientale

Agronomia e studi colturali

Progettazione elettrica



Arch. Andrea Giuffrida



Dott. Agr. Gianfranco Giuffrida



SOGGETTO PROPONENTE



SMARTENERGYIT2111 S.R.L.

Comune di Gravina in Puglia (BA) - Località Masseria Pellicciari
 Progetto per la realizzazione di un Nuovo Impianto Agrivoltaico e delle relative opere di
 connessione alla RTN
 Potenza nominale 35,09 MW

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

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110	121	-8.259e+04 -2.237e+05	8.371e+04 3.063e+04	0.19 -0.07	-70.41 0.0	0.0 65.6	-330.06 -125.31	409.88 374.68	-126.51 -126.51	-35.20 -35.20	8.371e+04 5.717e+04	-2.237e+05 -1.520e+05
						131.2	79.44	339.47	-126.51	-35.20	3.063e+04	-8.259e+04
110	126	1.390e+04 3255.51	-687.82 -5566.38	7.57e-03 -2.37e-03	-54.16 0.0	0.0 65.6	19.88 19.88	53.27 26.19	-15.89 -15.89	1284.99 1284.99	-687.82 -3127.10	3255.51 9466.13
						131.2	19.88	-0.89	-15.89	1284.99	-5566.38	1.390e+04
110	127	-2.258e+04 -3.387e+04	1.339e+04 9116.87	0.04 -0.02	-54.16 0.0	0.0 65.6	-3.63 -3.63	57.75 30.67	-10.12 -10.12	-1286.32 -1286.32	1.339e+04 1.125e+04	-3.387e+04 -2.733e+04
						131.2	-3.63	3.59	-10.12	-1286.32	9116.87	-2.258e+04
110	129	1.479e+04 4143.71	-1057.73 -5925.70	4.52e-03 -2.08e-03	-54.16 0.0	0.0 65.6	19.63 19.63	53.21 26.13	-14.90 -14.90	781.01 781.01	-1057.73 -3491.72	4143.71 1.035e+04
						131.2	19.63	-0.95	-14.90	781.01	-5925.70	1.479e+04
110	132	-2.347e+04 -3.476e+04	1.376e+04 9476.19	0.04 -0.02	-54.16 0.0	0.0 65.6	-3.38 -3.38	57.81 30.73	-11.10 -11.10	-782.34 -782.34	1.376e+04 1.162e+04	-3.476e+04 -2.822e+04
						131.2	-3.38	3.64	-11.10	-782.34	9476.19	-2.347e+04
110	158	3679.45 -7144.87	3256.04 -1452.55	0.02 -5.86e-03	-54.16 0.0	0.0 65.6	13.27 13.27	54.53 27.45	-14.28 -14.28	540.59 540.59	3256.04 901.75	-7144.87 -844.09
						131.2	13.27	0.36	-14.28	540.59	-1452.55	3679.45
110	159	-1.236e+04 -2.347e+04	9446.94 5003.04	0.03 -0.01	-54.16 0.0	0.0 65.6	2.98 2.98	56.49 29.41	-11.73 -11.73	-541.91 -541.91	9446.94 7224.99	-2.347e+04 -1.702e+04
						131.2	2.98	2.33	-11.73	-541.91	5003.04	-1.236e+04
110	161	4060.34 -6763.90	3097.54 -1607.39	0.01 -5.75e-03	-54.16 0.0	0.0 65.6	13.16 13.16	54.50 27.42	-13.84 -13.84	319.46 319.46	3097.54 745.08	-1607.39 -463.16
						131.2	13.16	0.34	-13.84	319.46	-1607.39	4060.34
110	164	-1.274e+04 -2.385e+04	9605.44 5157.88	0.03 -0.01	-54.16 0.0	0.0 65.6	3.08 3.08	56.52 29.44	-12.16 -12.16	-320.78 -320.78	9605.44 7381.66	-2.385e+04 -1.741e+04
						131.2	3.08	2.36	-12.16	-320.78	5157.88	-1.274e+04
110	213	9.077e+04 2.702e+04	-1.183e+04 -3.815e+04	-0.11 0.04	-54.16 0.0	0.0 65.6	-88.97 -88.97	-138.84 -165.93	73.68 73.68	-8.929e+04 -8.929e+04	-3.815e+04 -2.499e+04	9.077e+04 5.978e+04
						131.2	-88.97	-193.01	73.68	-8.929e+04	-1.183e+04	2.702e+04
110	225	9.085e+04 2.708e+04	-1.154e+04 -3.780e+04	-0.11 0.04	-54.16 0.0	0.0 65.6	-89.02 -89.02	-139.03 -166.11	73.23 73.23	8.927e+04 8.927e+04	-3.780e+04 -2.467e+04	9.085e+04 5.985e+04
						131.2	-89.02	-193.20	73.23	8.927e+04	-1.154e+04	2.708e+04
110	230	-5.864e+04 -1.515e+05	5.509e+04 2.118e+04	0.11 -0.04	-54.16 0.0	0.0 65.6	-180.77 -44.27	275.09 248.01	-76.27 -76.27	-25.67 -25.67	5.509e+04 3.813e+04	-1.515e+05 -1.042e+05
						131.2	92.23	220.93	-76.27	-25.67	2.118e+04	-5.864e+04
110	231	-3.876e+04 -9.796e+04	3.569e+04 1.403e+04	0.08 -0.03	-54.16 0.0	0.0 65.6	-286.07 -149.57	185.22 158.13	-48.90 -48.90	-19.39 -19.39	3.569e+04 2.486e+04	-9.796e+04 -6.747e+04
						131.2	-13.07	131.05	-48.90	-19.39	1.403e+04	-3.876e+04
110	232	-4.753e+04 -1.255e+05	4.594e+04 1.723e+04	0.09 -0.03	-54.16 0.0	0.0 65.6	-49.05 32.85	235.19 208.11	-65.56 -65.56	-19.02 -19.02	4.594e+04 3.158e+04	-1.255e+05 -8.564e+04
						131.2	114.75	181.03	-65.56	-19.02	1.723e+04	-4.753e+04
110	249	-5.564e+04 -1.512e+05	5.665e+04 2.066e+04	0.13 -0.05	-54.16 0.0	0.0 65.6	-218.95 -82.45	280.66 253.57	-86.08 -86.08	-23.55 -23.55	5.665e+04 3.865e+04	-1.512e+05 -1.025e+05
						131.2	54.05	226.49	-86.08	-23.55	2.066e+04	-5.564e+04
110	256	-1.321e+04 -3.719e+04	1.416e+04 4940.52	0.03 -0.01	-54.16 0.0	0.0 65.6	-40.19 -12.89	90.44 63.36	-22.92 -22.92	-5.04 -5.04	1.416e+04 9549.98	-3.719e+04 -2.431e+04
						131.2	14.41	36.28	-22.92	-5.04	4940.52	-1.321e+04
110	257	-1.263e+04 -3.759e+04	1.443e+04 4754.83	0.03 -0.01	-54.16 0.0	0.0 65.6	52.00 52.00	92.96 65.88	-24.41 -24.41	-3.28 -3.28	1.443e+04 9593.81	-3.759e+04 -2.422e+04
						131.2	52.00	38.80	-24.41	-3.28	4754.83	-1.263e+04
110	258	7001.10 3944.60	-1204.34 -1729.80	0.02 -6.61e-03	-54.16 0.0	0.0 65.6	-35.75 -35.75	18.06 -9.02	-1.60 -1.60	1.96 1.96	-1729.80 -1467.07	6982.71 6352.27
						131.2	-35.75	-36.10	-1.60	1.96	-1204.34	7001.10
110	260	-4340.21 -1.531e+04	6351.49 1775.25	0.02 -8.59e-03	-54.16 0.0	0.0 65.6	8.12 8.12	55.51 28.43	-13.00 -13.00	-0.66 -0.66	6351.49 4063.37	-1.531e+04 -8934.35
						131.2	8.12	1.35	-13.00	-0.66	1775.25	-4340.21
111	86	1.889e+05 7.712e+04	-2.733e+04 -6.675e+04	0.07 -0.03	-54.16 0.0	0.0 65.6	-370.21 -165.46	328.02 300.94	-81.90 -81.90	-36.86 -36.86	-2.733e+04 -4.704e+04	7.712e+04 1.339e+05
						131.2	39.29	273.86	-81.90	-36.86	-6.675e+04	1.889e+05
111	88	1.454e+05 5.914e+04	-2.087e+04 -5.112e+04	-0.05 0.02	-70.41 0.0	0.0 65.6	-467.65 -344.80	267.77 232.57	-61.93 -61.93	-26.68 -26.68	-2.087e+04 -3.600e+04	5.914e+04 1.034e+05

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

111	89	1.629e+04	-3529.72	0.01	-54.16	131.2	-221.95	197.36	-61.93	-26.68	-5.112e+04	1.454e+05
		1.073e+04	-4540.37	-4.59e-03	0.0	65.6	419.09	16.40	2.59	-11.16	-3529.72	1.073e+04
						131.2	541.94	-10.68	2.59	-11.16	-4540.37	1.629e+04
111	99	-3.877e+04	6.205e+04	-0.21	-70.41	0.0	-17.29	-239.17	129.35	-5.134e+04	1.725e+04	-3.877e+04
		-1.449e+05	1.725e+04	0.08	0.0	65.6	-17.29	-274.37	129.35	-5.134e+04	3.965e+04	-9.069e+04
						131.2	-17.29	-309.58	129.35	-5.134e+04	6.205e+04	-1.449e+05
111	111	-3.880e+04	6.184e+04	-0.21	-70.41	0.0	-17.27	-239.28	129.09	5.133e+04	1.708e+04	-3.880e+04
		-1.450e+05	1.708e+04	0.08	0.0	65.6	-17.27	-274.48	129.09	5.133e+04	3.946e+04	-9.073e+04
						131.2	-17.27	-309.69	129.09	5.133e+04	6.184e+04	-1.450e+05
111	126	-2.347e+04	1.376e+04	-0.04	-54.16	0.0	-13.29	-3.64	11.10	782.41	9476.11	-2.347e+04
		-3.476e+04	9476.11	0.02	0.0	65.6	-13.29	-30.73	11.10	782.41	1.162e+04	-2.822e+04
						131.2	-13.29	-57.81	11.10	782.41	1.376e+04	-3.476e+04
111	127	1.479e+04	-1057.68	-8.64e-03	-54.16	0.0	9.72	0.95	14.90	-781.08	-5925.61	1.479e+04
		4143.55	-5925.61	3.24e-03	0.0	65.6	9.72	-26.13	14.90	-781.08	-3491.65	1.035e+04
						131.2	9.72	-53.21	14.90	-781.08	-1057.68	4143.55
111	129	-2.258e+04	1.339e+04	-0.04	-54.16	0.0	-13.54	-3.58	10.12	1286.23	9116.86	-2.258e+04
		-3.387e+04	9116.86	0.01	0.0	65.6	-13.54	-30.67	10.12	1286.23	1.125e+04	-2.733e+04
						131.2	-13.54	-57.75	10.12	1286.23	1.339e+04	-3.387e+04
111	132	1.390e+04	-687.77	-9.88e-03	-54.16	0.0	9.97	0.89	15.89	-1284.91	-5566.37	1.390e+04
		3255.44	-5566.37	3.18e-03	0.0	65.6	9.97	-26.19	15.89	-1284.91	-3127.07	9466.05
						131.2	9.97	-53.27	15.89	-1284.91	-687.77	3255.44
111	158	-1.274e+04	9605.42	-0.03	-54.16	0.0	-6.83	-2.36	12.16	320.81	5157.84	-1.274e+04
		-2.385e+04	5157.84	0.01	0.0	65.6	-6.83	-29.44	12.16	320.81	7381.63	-1.741e+04
						131.2	-6.83	-56.52	12.16	320.81	9605.42	-2.385e+04
111	159	4060.28	3097.56	-0.01	-54.16	0.0	3.25	-0.34	13.84	-319.49	-1607.35	4060.28
		-6763.97	-1607.35	5.75e-03	0.0	65.6	3.25	-27.42	13.84	-319.49	745.11	-463.23
						131.2	3.25	-54.50	13.84	-319.49	3097.56	-6763.97
111	161	-1.236e+04	9446.92	-0.03	-54.16	0.0	-6.94	-2.33	11.73	541.87	5003.03	-1.236e+04
		-2.347e+04	5003.03	0.01	0.0	65.6	-6.94	-29.41	11.73	541.87	7224.98	-1.702e+04
						131.2	-6.94	-56.49	11.73	541.87	9446.92	-2.347e+04
111	164	3679.41	3256.06	-0.02	-54.16	0.0	3.36	-0.36	14.28	-540.55	-1452.54	3679.41
		-7144.90	-1452.54	5.86e-03	0.0	65.6	3.36	-27.45	14.28	-540.55	901.76	-844.12
						131.2	3.36	-54.53	14.28	-540.55	3256.06	-7144.90
111	231	1.208e+05	-1.763e+04	0.04	-54.16	0.0	-247.40	218.23	-50.26	-24.35	-1.763e+04	4.996e+04
		4.996e+04	-4.239e+04	-0.02	0.0	65.6	-110.90	191.15	-50.26	-24.35	-3.001e+04	8.629e+04
						131.2	25.60	164.07	-50.26	-24.35	-4.239e+04	1.208e+05
111	232	6620.91	-909.75	-3.88e-03	-54.16	0.0	196.90	28.54	6.06	-7.22	-1761.40	5707.71
		5707.71	-1761.40	7.42e-04	0.0	65.6	278.80	1.46	6.06	-7.22	-1335.57	6620.91
						131.2	360.70	-25.62	6.06	-7.22	-909.75	5756.86
111	233	9.491e+04	-1.368e+04	-0.03	-54.16	0.0	-312.00	178.34	-39.55	-17.70	-1.368e+04	3.885e+04
		3.885e+04	-3.323e+04	0.01	0.0	65.6	-230.10	151.25	-39.55	-17.70	-2.346e+04	6.777e+04
						131.2	-148.20	124.17	-39.55	-17.70	-3.323e+04	9.491e+04
111	238	-2.643e+04	4.221e+04	-0.14	-54.16	0.0	-11.77	-159.62	87.97	-3.422e+04	1.173e+04	-2.643e+04
		-9.866e+04	1.173e+04	0.06	0.0	65.6	-11.77	-186.71	87.97	-3.422e+04	2.697e+04	-6.165e+04
						131.2	-11.77	-213.79	87.97	-3.422e+04	4.221e+04	-9.866e+04
111	244	-2.645e+04	4.208e+04	-0.14	-54.16	0.0	-11.75	-159.70	87.79	3.422e+04	1.162e+04	-2.645e+04
		-9.869e+04	1.162e+04	0.06	0.0	65.6	-11.75	-186.78	87.79	3.422e+04	2.685e+04	-6.168e+04
						131.2	-11.75	-213.86	87.79	3.422e+04	4.208e+04	-9.869e+04
111	257	-1.263e+04	1.443e+04	-0.03	-54.16	0.0	125.44	-38.80	24.41	3.28	4754.83	-1.263e+04
		-3.759e+04	4754.83	0.01	0.0	65.6	125.44	-65.88	24.41	3.28	9593.81	-2.422e+04
						131.2	125.44	-92.96	24.41	3.28	1.443e+04	-3.759e+04
111	258	7001.10	-1204.34	-0.02	-54.16	0.0	-129.01	36.10	1.60	-1.96	-1204.34	3944.60
		3944.60	-1729.80	6.61e-03	0.0	65.6	-129.01	9.02	1.60	-1.96	-1467.07	6352.27
						131.2	-129.01	-18.06	1.60	-1.96	-1729.80	6982.71
111	260	-4340.21	6351.49	-0.02	-54.16	0.0	-1.79	-1.35	13.00	0.66	1775.25	-4340.21
		-1.531e+04	1775.25	8.59e-03	0.0	65.6	-1.79	-28.43	13.00	0.66	4063.37	-8934.35
						131.2	-1.79	-55.51	13.00	0.66	6351.49	-1.531e+04
112	49	3.407e+04	3.922e+04	0.99	-54.16	0.0	96.72	-320.96	137.34	-1.761e+05	-1.333e+04	3.407e+04
		-9.865e+04	-1.333e+04	-0.39	0.0	65.6	96.72	-348.04	137.34	-1.761e+05	1.295e+04	-3.140e+04
						131.2	96.72	-375.12	137.34	-1.761e+05	3.922e+04	-9.865e+04
112	73	3.396e+04	3.907e+04	0.99	-54.16	0.0	96.78	-320.35	138.98	1.762e+05	-1.371e+04	3.396e+04

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

	-9.869e+04	-1.371e+04	-0.39	0.0	65.6	96.78	-347.43	138.98	1.762e+05	1.268e+04	-3.147e+04	
					131.2	96.78	-374.51	138.98	1.762e+05	3.907e+04	-9.869e+04	
112	84	-2.178e+04	2.493e+04	-0.18	-70.41	0.0	-279.33	161.52	-39.47	-18.90	2.493e+04	-6.902e+04
		-6.902e+04	7586.77	0.07	0.0	65.6	-74.58	126.32	-39.47	-18.90	1.626e+04	-4.425e+04
						131.2	130.17	91.11	-39.47	-18.90	7586.77	-2.178e+04
112	85	-2.646e+04	2.637e+04	-0.19	-54.16	0.0	-132.04	150.01	-37.87	-14.88	2.637e+04	-7.239e+04
		-7.239e+04	9586.48	0.07	0.0	65.6	72.71	122.92	-37.87	-14.88	1.798e+04	-4.854e+04
						131.2	277.46	95.84	-37.87	-14.88	9586.48	-2.646e+04
112	99	1.334e+05	1.902e+04	-1.39	-70.41	0.0	-31.72	518.54	-188.55	6.749e+04	1.902e+04	-5.068e+04
		-5.068e+04	-5.360e+04	0.55	0.0	65.6	-31.72	483.33	-188.55	6.749e+04	-1.729e+04	4.254e+04
						131.2	-31.72	448.12	-188.55	6.749e+04	-5.360e+04	1.334e+05
112	111	1.335e+05	1.917e+04	-1.39	-70.41	0.0	-31.74	518.30	-189.18	-6.755e+04	1.917e+04	-5.064e+04
		-5.064e+04	-5.354e+04	0.55	0.0	65.6	-31.74	483.10	-189.18	-6.755e+04	-1.719e+04	4.256e+04
						131.2	-31.74	447.89	-189.18	-6.755e+04	-5.354e+04	1.335e+05
112	125	2.265e+04	-1863.24	-0.14	-54.16	0.0	-0.66	76.44	-18.70	-1296.21	-1863.24	3803.13
		3803.13	-9225.27	0.06	0.0	65.6	-0.66	49.36	-18.70	-1296.21	-5544.26	1.412e+04
						131.2	-0.66	22.28	-18.70	-1296.21	-9225.27	2.265e+04
112	126	2.324e+04	-2089.63	-0.16	-54.16	0.0	-1.05	76.61	-18.77	1626.46	-2089.63	4373.51
		4373.51	-9459.99	0.06	0.0	65.6	-1.05	49.53	-18.77	1626.46	-5774.81	1.470e+04
						131.2	-1.05	22.44	-18.77	1626.46	-9459.99	2.324e+04
112	127	3283.84	5926.47	-0.13	-54.16	0.0	-5.45	76.65	-19.73	-1631.68	5926.47	-1.558e+04
		-1.558e+04	-1566.32	0.05	0.0	65.6	-5.45	49.57	-19.73	-1631.68	2180.07	-5261.28
						131.2	-5.45	22.48	-19.73	-1631.68	-1566.32	3283.84
112	128	3874.36	5700.08	-0.14	-54.16	0.0	-5.84	76.81	-19.80	1290.98	5700.08	-1.501e+04
		-1.501e+04	-1801.04	0.06	0.0	65.6	-5.84	49.73	-19.80	1290.98	1949.52	-4680.83
						131.2	-5.84	22.65	-19.80	1290.98	-1801.04	3874.36
112	157	1.737e+04	264.40	-0.14	-54.16	0.0	-2.11	76.55	-19.01	-529.19	264.40	-1490.51
		-1490.51	-7136.55	0.06	0.0	65.6	-2.11	49.47	-19.01	-529.19	-3436.07	8827.96
						131.2	-2.11	22.38	-19.01	-529.19	-7136.55	1.737e+04
112	158	1.762e+04	166.41	-0.15	-54.16	0.0	-2.28	76.62	-19.04	669.45	166.41	-1243.58
		-1243.58	-7238.13	0.06	0.0	65.6	-2.28	49.54	-19.04	669.45	-3535.86	9079.20
						131.2	-2.28	22.45	-19.04	669.45	-7238.13	1.762e+04
112	159	8901.57	3670.42	-0.14	-54.16	0.0	-4.22	76.64	-19.46	-674.67	3670.42	-9966.55
		-9966.55	-3788.19	0.05	0.0	65.6	-4.22	49.56	-19.46	-674.67	-58.88	356.13
						131.2	-4.22	22.48	-19.46	-674.67	-3788.19	8901.57
112	160	9157.11	3572.43	-0.14	-54.16	0.0	-4.39	76.71	-19.49	523.96	3572.43	-9719.62
		-9719.62	-3889.76	0.06	0.0	65.6	-4.39	49.63	-19.49	523.96	-158.67	607.37
						131.2	-4.39	22.55	-19.49	523.96	-3889.76	9157.11
112	212	2.085e+04	2.431e+04	0.61	-54.16	0.0	63.40	-188.43	85.14	-1.174e+05	-8247.43	2.085e+04
		-6.135e+04	-8247.43	-0.24	0.0	65.6	63.40	-215.51	85.14	-1.174e+05	8031.20	-1.936e+04
						131.2	63.40	-242.59	85.14	-1.174e+05	2.431e+04	-6.135e+04
112	224	2.077e+04	2.421e+04	0.61	-54.16	0.0	63.43	-188.02	86.24	1.175e+05	-8497.75	2.077e+04
		-6.137e+04	-8497.75	-0.24	0.0	65.6	63.43	-215.10	86.24	1.175e+05	7854.01	-1.941e+04
						131.2	63.43	-242.19	86.24	1.175e+05	2.421e+04	-6.137e+04
112	230	-1.322e+04	1.822e+04	-0.17	-54.16	0.0	-89.11	125.55	-31.67	-10.79	1.822e+04	-5.013e+04
		-5.013e+04	4553.27	0.07	0.0	65.6	47.39	98.47	-31.67	-10.79	1.139e+04	-3.078e+04
						131.2	183.89	71.38	-31.67	-10.79	4553.27	-1.322e+04
112	231	-1.275e+04	1.687e+04	-0.14	-54.16	0.0	-186.65	117.90	-28.88	-12.95	1.687e+04	-4.676e+04
		-4.676e+04	4322.76	0.05	0.0	65.6	-50.15	90.82	-28.88	-12.95	1.060e+04	-2.887e+04
						131.2	86.35	63.73	-28.88	-12.95	4322.76	-1.275e+04
112	238	9.073e+04	1.294e+04	-0.95	-54.16	0.0	-21.58	355.91	-128.27	4.499e+04	1.294e+04	-3.454e+04
		-3.454e+04	-3.647e+04	0.37	0.0	65.6	-21.58	328.83	-128.27	4.499e+04	-1.176e+04	2.899e+04
						131.2	-21.58	301.74	-128.27	4.499e+04	-3.647e+04	9.073e+04
112	244	9.074e+04	1.303e+04	-0.95	-54.16	0.0	-21.59	355.75	-128.69	-4.503e+04	1.303e+04	-3.451e+04
		-3.451e+04	-3.643e+04	0.37	0.0	65.6	-21.59	328.67	-128.69	-4.503e+04	-1.170e+04	2.901e+04
						131.2	-21.59	301.59	-128.69	-4.503e+04	-3.643e+04	9.074e+04
112	256	8013.01	5044.43	-0.15	-54.16	0.0	-30.18	85.65	-21.46	-4.46	5044.43	-1.417e+04
		-1.417e+04	-3522.92	0.06	0.0	65.6	-2.88	58.57	-21.46	-4.46	760.75	-2191.27
						131.2	24.42	31.48	-21.46	-4.46	-3522.92	8013.01
112	257	1.307e+04	2480.26	-0.16	-54.16	0.0	37.39	79.82	-20.41	-1.71	2480.26	-7007.31
		-7007.31	-5417.11	0.06	0.0	65.6	37.39	52.73	-20.41	-1.71	-1468.42	3919.60
						131.2	37.39	25.65	-20.41	-1.71	-5417.11	1.307e+04

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida



SOGGETTO PROPONENTE



SMARTENERGYIT2111 S.R.L.

Comune di Gravina in Puglia (BA) - Località Masseria Pellicciari
 Progetto per la realizzazione di un Nuovo Impianto Agrivoltaico e delle relative opere di
 connessione alla RTN
 Potenza nominale 35,09 MW

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

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112	258	1.346e+04	1356.57	-0.13	-54.16	0.0	-43.89	73.44	-18.09	-3.51	1356.57	-4202.82
		-4202.82	-5609.20	0.05	0.0	65.6	-43.89	46.36	-18.09	-3.51	-2126.32	5515.73
						131.2	-43.89	19.28	-18.09	-3.51	-5609.20	1.346e+04
112	259	2.306e+04	3291.26	-0.24	-54.16	0.0	-5.55	111.87	-32.94	-4.48	3291.26	-9234.38
		-9234.38	-9426.53	0.10	0.0	65.6	-5.55	84.79	-32.94	-4.48	-3067.63	7798.99
						131.2	-5.55	57.71	-32.94	-4.48	-9426.53	2.306e+04
112	260	1.326e+04	1918.42	-0.14	-54.16	0.0	-3.25	76.63	-19.25	-2.61	1918.42	-5605.06
		-5605.06	-5513.16	0.06	0.0	65.6	-3.25	49.55	-19.25	-2.61	-1797.37	4717.66
						131.2	-3.25	22.46	-19.25	-2.61	-5513.16	1.326e+04
113	50	-1.288e+05	7.207e+04	-0.53	-54.16	0.0	-49.61	165.46	-54.92	5.419e+04	7.207e+04	-1.816e+05
		-1.816e+05	5.110e+04	0.21	0.0	65.6	-49.61	138.38	-54.92	5.419e+04	6.159e+04	-1.543e+05
						131.2	-49.61	111.30	-54.92	5.419e+04	5.110e+04	-1.288e+05
113	74	-1.288e+05	7.204e+04	-0.53	-54.16	0.0	-49.96	165.15	-55.81	-5.424e+04	7.204e+04	-1.816e+05
		-1.816e+05	5.095e+04	0.21	0.0	65.6	-49.96	138.07	-55.81	-5.424e+04	6.149e+04	-1.543e+05
						131.2	-49.96	110.99	-55.81	-5.424e+04	5.095e+04	-1.288e+05
113	84	5.418e+04	-1.545e+04	-0.13	-70.41	0.0	-250.78	79.93	-11.36	-9.07	-1.545e+04	3.767e+04
		3.767e+04	-2.116e+04	0.05	0.0	65.6	-46.03	44.72	-11.36	-9.07	-1.830e+04	4.708e+04
						131.2	158.72	9.51	-11.36	-9.07	-2.116e+04	5.418e+04
113	85	4.964e+04	-1.428e+04	-0.10	-54.16	0.0	-101.96	65.79	-9.81	-12.98	-1.428e+04	3.536e+04
		3.536e+04	-1.922e+04	0.04	0.0	65.6	102.79	38.70	-9.81	-12.98	-1.675e+04	4.339e+04
						131.2	307.54	11.62	-9.81	-12.98	-1.922e+04	4.964e+04
113	99	2.436e+05	-6.990e+04	0.69	-70.41	0.0	-32.52	-145.49	71.97	-2.075e+04	-9.732e+04	2.436e+05
		1.745e+05	-9.732e+04	-0.27	0.0	65.6	-32.52	-180.70	71.97	-2.075e+04	-8.361e+04	2.102e+05
						131.2	-32.52	-215.90	71.97	-2.075e+04	-6.990e+04	1.745e+05
113	111	2.436e+05	-6.984e+04	0.69	-70.41	0.0	-32.39	-145.37	72.32	2.081e+04	-9.731e+04	2.436e+05
		1.745e+05	-9.731e+04	-0.27	0.0	65.6	-32.39	-180.58	72.32	2.081e+04	-8.357e+04	2.102e+05
						131.2	-32.39	-215.78	72.32	2.081e+04	-6.984e+04	1.745e+05
113	129	1.798e+04	-4573.39	0.09	-54.16	0.0	-3.36	8.24	7.41	636.77	-7387.74	1.798e+04
		1.087e+04	-7387.74	-0.04	0.0	65.6	-3.36	-18.84	7.41	636.77	-5980.57	1.531e+04
						131.2	-3.36	-45.93	7.41	636.77	-4573.39	1.087e+04
113	132	3.111e+04	-9792.39	0.05	-54.16	0.0	-3.29	8.90	7.31	-631.72	-1.259e+04	3.111e+04
		2.408e+04	-1.259e+04	-0.02	0.0	65.6	-3.29	-18.18	7.31	-631.72	-1.119e+04	2.848e+04
						131.2	-3.29	-45.27	7.31	-631.72	-9792.39	2.408e+04
113	150	2.688e+04	-8104.18	0.09	-54.16	0.0	-4.05	8.35	7.42	-1775.69	-1.092e+04	2.688e+04
		1.979e+04	-1.092e+04	-0.04	0.0	65.6	-4.05	-18.73	7.42	-1775.69	-9511.88	2.422e+04
						131.2	-4.05	-45.81	7.42	-1775.69	-8104.18	1.979e+04
113	151	2.221e+04	-6261.61	0.05	-54.16	0.0	-2.59	8.78	7.30	1780.73	-9061.86	2.221e+04
		1.516e+04	-9061.86	-0.02	0.0	65.6	-2.59	-18.30	7.30	1780.73	-7661.73	1.957e+04
						131.2	-2.59	-45.38	7.30	1780.73	-6261.61	1.516e+04
113	161	2.170e+04	-6051.05	0.08	-54.16	0.0	-3.35	8.42	7.38	267.68	-8861.74	2.170e+04
		1.461e+04	-8861.74	-0.03	0.0	65.6	-3.35	-18.66	7.38	267.68	-7456.40	1.904e+04
						131.2	-3.35	-45.74	7.38	267.68	-6051.05	1.461e+04
113	164	2.739e+04	-8314.73	0.06	-54.16	0.0	-3.30	8.71	7.34	-262.64	-1.112e+04	2.739e+04
		2.034e+04	-1.112e+04	-0.02	0.0	65.6	-3.30	-18.37	7.34	-262.64	-9717.21	2.475e+04
						131.2	-3.30	-45.45	7.34	-262.64	-8314.73	2.034e+04
113	182	2.554e+04	-7575.17	0.08	-54.16	0.0	-3.64	8.47	7.39	-736.32	-1.039e+04	2.554e+04
		1.846e+04	-1.039e+04	-0.03	0.0	65.6	-3.64	-18.61	7.39	-736.32	-8980.71	2.289e+04
						131.2	-3.64	-45.69	7.39	-736.32	-7575.17	1.846e+04
113	183	2.355e+04	-6790.62	0.06	-54.16	0.0	-3.01	8.66	7.33	741.37	-9595.18	2.355e+04
		1.649e+04	-9595.18	-0.02	0.0	65.6	-3.01	-18.42	7.33	741.37	-8192.90	2.091e+04
						131.2	-3.01	-45.50	7.33	741.37	-6790.62	1.649e+04
113	213	-8.003e+04	4.472e+04	-0.33	-54.16	0.0	-34.18	113.16	-34.16	3.613e+04	4.472e+04	-1.129e+05
		-1.129e+05	3.168e+04	0.13	0.0	65.6	-34.18	86.08	-34.16	3.613e+04	3.820e+04	-9.558e+04
						131.2	-34.18	59.00	-34.16	3.613e+04	3.168e+04	-8.003e+04
113	225	-8.006e+04	4.470e+04	-0.33	-54.16	0.0	-34.42	112.96	-34.75	-3.616e+04	4.470e+04	-1.129e+05
		-1.129e+05	3.157e+04	0.13	0.0	65.6	-34.42	85.87	-34.75	-3.616e+04	3.813e+04	-9.560e+04
						131.2	-34.42	58.79	-34.75	-3.616e+04	3.157e+04	-8.006e+04
113	230	3.892e+04	-1.285e+04	-0.05	-54.16	0.0	-69.08	46.71	-4.08	-7.81	-1.285e+04	3.175e+04
		3.175e+04	-1.521e+04	0.02	0.0	65.6	67.42	19.63	-4.08	-7.81	-1.403e+04	3.623e+04
						131.2	203.92	-7.45	-4.08	-7.81	-1.521e+04	3.892e+04
113	231	3.845e+04	-1.163e+04	-0.08	-54.16	0.0	-167.63	54.43	-6.59	-5.71	-1.163e+04	2.838e+04
		2.838e+04	-1.506e+04	0.03	0.0	65.6	-31.13	27.34	-6.59	-5.71	-1.335e+04	3.430e+04

Progettazione civile e inserimento ambientale

Agronomia e studi colturali

Progettazione elettrica



Arch. Andrea Giuffrida



Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

113	238	1.657e+05	-4.756e+04	0.47	-54.16	131.2	105.37	0.26	-6.59	-5.71	-1.506e+04	3.845e+04
		1.187e+05	-6.621e+04	-0.19	0.0	65.6	-22.12	-95.85	48.96	-1.383e+04	-6.621e+04	1.657e+05
						131.2	-22.12	-122.93	48.96	-1.383e+04	-5.688e+04	1.431e+05
						131.2	-22.12	-150.01	48.96	-1.383e+04	-4.756e+04	1.187e+05
113	244	1.657e+05	-4.752e+04	0.47	-54.16	0.0	-22.03	-95.77	49.19	1.387e+04	-6.620e+04	1.657e+05
		1.187e+05	-6.620e+04	-0.19	0.0	65.6	-22.03	-122.85	49.19	1.387e+04	-5.686e+04	1.431e+05
						131.2	-22.03	-149.93	49.19	1.387e+04	-4.752e+04	1.187e+05
113	253	-1380.45	829.29	-6.28e-03	-54.16	0.0	0.36	28.72	-0.69	7226.83	829.29	-2608.43
		-2608.43	574.55	2.46e-03	0.0	65.6	0.36	1.63	-0.69	7226.83	701.92	-1405.81
						131.2	0.36	-25.45	-0.69	7226.83	574.55	-1980.44
113	255	-1384.12	824.85	-6.32e-03	-54.16	0.0	0.31	28.67	-0.81	-7229.71	824.85	-2609.69
		-2609.69	553.97	2.51e-03	0.0	65.6	0.31	1.59	-0.81	-7229.71	689.41	-1409.22
						131.2	0.31	-25.49	-0.81	-7229.71	553.97	-1985.98
113	257	2.595e+04	-7241.81	0.09	-54.16	0.0	37.74	5.35	8.41	1.65	-1.050e+04	2.595e+04
		1.767e+04	-1.050e+04	-0.03	0.0	65.6	37.74	-21.73	8.41	1.65	-8870.04	2.270e+04
						131.2	37.74	-48.81	8.41	1.65	-7241.81	1.767e+04
113	258	2.314e+04	-7123.98	0.06	-54.16	0.0	-44.39	11.78	6.32	3.40	-9483.16	2.314e+04
		1.728e+04	-9483.16	-0.02	0.0	65.6	-44.39	-15.30	6.32	3.40	-8303.57	2.110e+04
						131.2	-44.39	-42.38	6.32	3.40	-7123.98	1.728e+04
113	259	4.236e+04	-1.228e+04	0.12	-54.16	0.0	-5.67	-4.59	12.60	4.33	-1.709e+04	4.236e+04
		3.026e+04	-1.709e+04	-0.05	0.0	65.6	-5.67	-31.67	12.60	4.33	-1.469e+04	3.720e+04
						131.2	-5.67	-58.76	12.60	4.33	-1.228e+04	3.026e+04
113	260	2.455e+04	-7182.89	0.07	-54.16	0.0	-3.32	8.57	7.36	2.52	-9990.72	2.455e+04
		1.747e+04	-9990.72	-0.03	0.0	65.6	-3.32	-18.51	7.36	2.52	-8586.80	2.190e+04
						131.2	-3.32	-45.60	7.36	2.52	-7182.89	1.747e+04
114	49	2.681e+05	-1.882e+04	-0.78	-54.16	0.0	126.47	598.04	-205.32	3.217e+05	-1.882e+04	5.189e+04
		5.189e+04	-1.018e+05	0.31	0.0	65.6	126.47	570.96	-205.32	3.217e+05	-6.032e+04	1.609e+05
						131.2	126.47	543.88	-205.32	3.217e+05	-1.018e+05	2.681e+05
114	73	2.683e+05	-1.860e+04	-0.78	-54.16	0.0	126.35	598.61	-203.77	-3.217e+05	-1.860e+04	5.194e+04
		5.194e+04	-1.014e+05	0.31	0.0	65.6	126.35	571.53	-203.77	-3.217e+05	-6.000e+04	1.610e+05
						131.2	126.35	544.45	-203.77	-3.217e+05	-1.014e+05	2.683e+05
114	85	7.234e+04	-2.202e+04	0.38	-54.16	0.0	-39.91	49.00	22.17	-14.95	-2.368e+04	6.631e+04
		6.631e+04	-2.368e+04	-0.15	0.0	65.6	164.84	21.92	22.17	-14.95	-2.285e+04	7.021e+04
						131.2	369.59	-5.16	22.17	-14.95	-2.202e+04	7.234e+04
114	88	1.376e+04	5244.68	0.17	-70.41	0.0	-240.84	-31.74	30.07	-15.15	-5450.67	1.376e+04
		-1.204e+04	-5450.67	-0.07	0.0	65.6	-117.99	-66.94	30.07	-15.15	-102.99	2016.67
						131.2	4.86	-102.15	30.07	-15.15	5244.68	-1.204e+04
114	99	-5.951e+04	1.323e+05	1.15	-70.41	0.0	-43.19	-730.20	277.04	-1.233e+05	2.077e+04	-5.951e+04
		-3.495e+05	2.077e+04	-0.46	0.0	65.6	-43.19	-765.40	277.04	-1.233e+05	7.654e+04	-2.033e+05
						131.2	-43.19	-800.61	277.04	-1.233e+05	1.323e+05	-3.495e+05
114	111	-5.952e+04	1.321e+05	1.15	-70.41	0.0	-43.15	-730.42	276.44	1.233e+05	2.068e+04	-5.952e+04
		-3.495e+05	2.068e+04	-0.46	0.0	65.6	-43.15	-765.62	276.44	1.233e+05	7.641e+04	-2.034e+05
						131.2	-43.15	-800.83	276.44	1.233e+05	1.321e+05	-3.495e+05
114	126	-2.140e+04	1.918e+04	0.09	-54.16	0.0	-17.88	-53.01	26.02	2810.69	8066.91	-2.140e+04
		-5.133e+04	8066.91	-0.03	0.0	65.6	-17.88	-80.10	26.02	2810.69	1.362e+04	-3.548e+04
						131.2	-17.88	-107.18	26.02	2810.69	1.918e+04	-5.133e+04
114	127	8346.34	7812.07	0.14	-54.16	0.0	9.04	-49.83	30.38	-2816.01	-3885.26	8346.34
		-2.117e+04	-3885.26	-0.06	0.0	65.6	9.04	-76.92	30.38	-2816.01	1963.40	-5523.10
						131.2	9.04	-104.00	30.38	-2816.01	7812.07	-2.117e+04
114	158	-1.301e+04	1.598e+04	0.11	-54.16	0.0	-10.32	-52.12	27.25	1171.37	4698.06	-1.301e+04
		-4.283e+04	4698.06	-0.04	0.0	65.6	-10.32	-79.20	27.25	1171.37	1.034e+04	-2.703e+04
						131.2	-10.32	-106.28	27.25	1171.37	1.598e+04	-4.283e+04
114	159	-37.59	1.102e+04	0.13	-54.16	0.0	1.47	-50.73	29.16	-1176.70	-516.41	-37.59
		-2.967e+04	-516.41	-0.05	0.0	65.6	1.47	-77.81	29.16	-1176.70	5250.22	-1.397e+04
						131.2	1.47	-104.89	29.16	-1176.70	1.102e+04	-2.967e+04
114	212	1.667e+05	-1.185e+04	-0.48	-54.16	0.0	82.84	381.55	-127.48	2.145e+05	-1.185e+04	3.242e+04
		3.242e+04	-6.338e+04	0.19	0.0	65.6	82.84	354.47	-127.48	2.145e+05	-3.762e+04	1.004e+05
						131.2	82.84	327.39	-127.48	2.145e+05	-6.338e+04	1.667e+05
114	224	1.668e+05	-1.171e+04	-0.48	-54.16	0.0	82.76	381.93	-126.45	-2.144e+05	-1.171e+04	3.245e+04
		3.245e+04	-6.310e+04	0.19	0.0	65.6	82.76	354.85	-126.45	-2.144e+05	-3.740e+04	1.005e+05
						131.2	82.76	327.77	-126.45	-2.144e+05	-6.310e+04	1.668e+05
114	230	4.203e+04	-1.018e+04	0.30	-54.16	0.0	-28.08	15.53	24.18	-10.86	-1.509e+04	4.203e+04

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PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

		3.614e+04	-1.509e+04	-0.12	0.0	65.6	108.42	-11.56	24.18	-10.86	-1.263e+04	3.998e+04
						131.2	244.92	-38.64	24.18	-10.86	-1.018e+04	3.614e+04
114	233	8304.04	5295.92	0.13	-54.16	0.0	-161.15	-28.02	23.81	-10.45	-3355.00	8304.04
		-1.286e+04	-3355.00	-0.05	0.0	65.6	-79.25	-55.10	23.81	-10.45	970.46	-1388.79
						131.2	2.65	-82.18	23.81	-10.45	5295.92	-1.286e+04
114	238	-4.054e+04	9.000e+04	0.78	-54.16	0.0	-29.39	-493.65	188.45	-8.222e+04	1.412e+04	-4.054e+04
		-2.378e+05	1.412e+04	-0.31	0.0	65.6	-29.39	-520.74	188.45	-8.222e+04	5.206e+04	-1.383e+05
						131.2	-29.39	-547.82	188.45	-8.222e+04	9.000e+04	-2.378e+05
114	244	-4.055e+04	8.990e+04	0.78	-54.16	0.0	-29.36	-493.80	188.05	8.218e+04	1.407e+04	-4.055e+04
		-2.379e+05	1.407e+04	-0.31	0.0	65.6	-29.36	-520.88	188.05	8.218e+04	5.198e+04	-1.383e+05
						131.2	-29.36	-547.96	188.05	8.218e+04	8.990e+04	-2.379e+05
114	253	2635.13	-268.63	-0.01	-54.16	0.0	0.45	33.69	-3.11	4.289e+04	-268.63	1.37
		1.37	-1350.22	4.29e-03	0.0	65.6	0.45	6.61	-3.11	4.289e+04	-809.42	2172.84
						131.2	0.45	-20.47	-3.11	4.289e+04	-1350.22	2567.07
114	255	2648.59	-239.54	-0.01	-54.16	0.0	0.44	33.77	-2.90	-4.289e+04	-239.54	7.12
		7.12	-1293.55	4.24e-03	0.0	65.6	0.44	6.69	-2.90	-4.289e+04	-766.54	2183.00
						131.2	0.44	-20.40	-2.90	-4.289e+04	-1293.55	2581.63
114	257	-1266.79	1.129e+04	0.15	-54.16	0.0	47.98	-45.26	28.93	-1.60	303.72	-1266.79
		-2.888e+04	303.72	-0.06	0.0	65.6	47.98	-72.34	28.93	-1.60	5795.84	-1.419e+04
						131.2	47.98	-99.43	28.93	-1.60	1.129e+04	-2.888e+04
114	258	-1.178e+04	1.570e+04	0.08	-54.16	0.0	-56.82	-57.59	27.47	-3.72	3877.93	-1.178e+04
		-4.362e+04	3877.93	-0.03	0.0	65.6	-56.82	-84.67	27.47	-3.72	9791.00	-2.681e+04
						131.2	-56.82	-111.75	27.47	-3.72	1.570e+04	-4.362e+04
114	259	-1.083e+04	2.311e+04	0.20	-54.16	0.0	-7.55	-107.24	48.25	-4.57	3593.10	-1.083e+04
		-6.169e+04	3593.10	-0.08	0.0	65.6	-7.55	-134.33	48.25	-4.57	1.335e+04	-3.537e+04
						131.2	-7.55	-161.41	48.25	-4.57	2.311e+04	-6.169e+04
114	260	-6525.54	1.350e+04	0.12	-54.16	0.0	-4.42	-51.42	28.20	-2.66	2090.82	-6525.54
		-3.625e+04	2090.82	-0.05	0.0	65.6	-4.42	-78.51	28.20	-2.66	7793.42	-2.050e+04
						131.2	-4.42	-105.59	28.20	-2.66	1.350e+04	-3.625e+04
115	50	-1.805e+04	5.269e+04	1.00	-54.16	0.0	-55.80	-273.40	115.45	-1.835e+05	7844.13	-1.805e+04
		-1.323e+05	7844.13	-0.40	0.0	65.6	-55.80	-300.48	115.45	-1.835e+05	3.027e+04	-7.430e+04
						131.2	-55.80	-327.56	115.45	-1.835e+05	5.269e+04	-1.323e+05
115	74	-1.800e+04	5.276e+04	1.00	-54.16	0.0	-55.96	-273.79	114.37	1.835e+05	8060.56	-1.800e+04
		-1.323e+05	8060.56	-0.40	0.0	65.6	-55.96	-300.87	114.37	1.835e+05	3.041e+04	-7.428e+04
						131.2	-55.96	-327.95	114.37	1.835e+05	5.276e+04	-1.323e+05
115	84	-1.432e+04	2.132e+04	-0.25	-70.41	0.0	-312.67	167.37	-35.73	-9.15	2.132e+04	-6.326e+04
		-6.326e+04	4099.82	0.10	0.0	65.6	-107.92	132.16	-35.73	-9.15	1.271e+04	-3.764e+04
						131.2	96.83	96.95	-35.73	-9.15	4099.82	-1.432e+04
115	85	-7104.93	1.573e+04	-0.24	-54.16	0.0	-129.29	131.84	-30.10	-13.25	1.573e+04	-4.606e+04
		-4.606e+04	1776.03	0.10	0.0	65.6	75.46	104.76	-30.10	-13.25	8751.36	-2.570e+04
						131.2	280.21	77.68	-30.10	-13.25	1776.03	-7104.93
115	99	1.710e+05	-7245.86	-1.34	-70.41	0.0	-47.27	456.91	-155.39	7.037e+04	-7245.86	1.111e+04
		1.111e+04	-6.909e+04	0.53	0.0	65.6	-47.27	421.70	-155.39	7.037e+04	-3.817e+04	9.219e+04
						131.2	-47.27	386.50	-155.39	7.037e+04	-6.909e+04	1.710e+05
115	111	1.710e+05	-7328.82	-1.34	-70.41	0.0	-47.21	457.06	-154.98	-7.031e+04	-7328.82	1.110e+04
		1.110e+04	-6.912e+04	0.53	0.0	65.6	-47.21	421.85	-154.98	-7.031e+04	-3.822e+04	9.218e+04
						131.2	-47.21	386.65	-154.98	-7.031e+04	-6.912e+04	1.710e+05
115	129	2.351e+04	-3410.83	-0.12	-54.16	0.0	0.05	70.11	-14.98	1617.40	-3410.83	7151.44
		7151.44	-9626.76	0.05	0.0	65.6	0.05	43.03	-14.98	1617.40	-6518.79	1.622e+04
						131.2	0.05	15.95	-14.98	1617.40	-9626.76	2.351e+04
115	130	2.452e+04	-3799.60	-0.13	-54.16	0.0	-0.46	70.24	-15.07	-1310.70	-3799.60	8139.24
		8139.24	-1.003e+04	0.05	0.0	65.6	-0.46	43.16	-15.07	-1310.70	-6913.16	1.722e+04
						131.2	-0.46	16.08	-15.07	-1310.70	-1.003e+04	2.452e+04
115	131	9679.18	2239.79	-0.14	-54.16	0.0	-9.21	70.45	-16.54	1315.76	2239.79	-6716.13
		-6716.13	-4177.33	0.06	0.0	65.6	-9.21	43.37	-16.54	1315.76	-968.77	2370.14
						131.2	-9.21	16.28	-16.54	1315.76	-4177.33	9679.18
115	132	1.068e+04	1851.01	-0.15	-54.16	0.0	-9.72	70.58	-16.63	-1612.34	1851.01	-5728.33
		-5728.33	-4577.28	0.06	0.0	65.6	-9.72	43.50	-16.63	-1612.34	-1363.13	3366.72
						131.2	-9.72	16.42	-16.63	-1612.34	-4577.28	1.068e+04
115	161	1.993e+04	-1939.66	-0.13	-54.16	0.0	-2.70	70.24	-15.45	675.76	-1939.66	3550.95
		3550.95	-8215.41	0.05	0.0	65.6	-2.70	43.16	-15.45	675.76	-5077.54	1.263e+04
						131.2	-2.70	16.08	-15.45	675.76	-8215.41	1.993e+04

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida



SOGGETTO PROPONENTE



SMARTENERGYIT2111 S.R.L.

Comune di Gravina in Puglia (BA) - Località Masseria Pellicciari
 Progetto per la realizzazione di un Nuovo Impianto Agrivoltaico e delle relative opere di
 connessione alla RTN
 Potenza nominale 35,09 MW

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

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115	162	2.036e+04	-2105.70	-0.14	-54.16	0.0	-2.92	70.30	-15.49	-538.61	-2105.70	3972.93
		3972.93	-8386.29	0.05	0.0	65.6	-2.92	43.22	-15.49	-538.61	-5246.00	1.305e+04
						131.2	-2.92	16.14	-15.49	-538.61	-8386.29	2.036e+04
115	163	1.384e+04	545.88	-0.14	-54.16	0.0	-6.75	70.39	-16.12	543.67	545.88	-2549.82
		-2549.82	-5817.75	0.06	0.0	65.6	-6.75	43.31	-16.12	543.67	-2635.93	6533.98
						131.2	-6.75	16.23	-16.12	543.67	-5817.75	1.384e+04
115	164	1.427e+04	379.85	-0.14	-54.16	0.0	-6.97	70.45	-16.16	-670.69	379.85	-2127.84
		-2127.84	-5988.63	0.06	0.0	65.6	-6.97	43.37	-16.16	-670.69	-2804.39	6959.72
						131.2	-6.97	16.28	-16.16	-670.69	-5988.63	1.427e+04
115	213	-1.179e+04	3.276e+04	0.62	-54.16	0.0	-38.81	-158.82	71.70	-1.224e+05	4969.45	-1.179e+04
		-8.253e+04	4969.45	-0.25	0.0	65.6	-38.81	-185.90	71.70	-1.224e+05	1.886e+04	-4.627e+04
						131.2	-38.81	-212.98	71.70	-1.224e+05	3.276e+04	-8.253e+04
115	225	-1.176e+04	3.281e+04	0.62	-54.16	0.0	-38.92	-159.08	70.98	1.223e+05	5113.74	-1.176e+04
		-8.252e+04	5113.74	-0.25	0.0	65.6	-38.92	-186.16	70.98	1.223e+05	1.896e+04	-4.625e+04
						131.2	-38.92	-213.24	70.98	1.223e+05	3.281e+04	-8.252e+04
115	230	962.81	1.022e+04	-0.21	-54.16	0.0	-87.81	111.34	-25.34	-7.99	1.022e+04	-3.047e+04
		-3.047e+04	-1183.32	0.08	0.0	65.6	48.69	84.26	-25.34	-7.99	4520.58	-1.387e+04
						131.2	185.19	57.18	-25.34	-7.99	-1183.32	962.81
115	231	-7265.49	1.411e+04	-0.18	-54.16	0.0	-209.09	120.96	-25.93	-5.76	1.411e+04	-4.208e+04
		-4.208e+04	1786.28	0.07	0.0	65.6	-72.59	93.88	-25.93	-5.76	7949.16	-2.378e+04
						131.2	63.91	66.79	-25.93	-5.76	1786.28	-7265.49
115	238	1.162e+05	-4934.56	-0.91	-54.16	0.0	-32.16	313.99	-105.70	4.691e+04	-4934.56	7504.51
		7504.51	-4.701e+04	0.36	0.0	65.6	-32.16	286.90	-105.70	4.691e+04	-2.597e+04	6.277e+04
						131.2	-32.16	259.82	-105.70	4.691e+04	-4.701e+04	1.162e+05
115	244	1.162e+05	-4989.87	-0.91	-54.16	0.0	-32.12	314.08	-105.42	-4.687e+04	-4989.87	7492.35
		7492.35	-4.702e+04	0.36	0.0	65.6	-32.12	287.00	-105.42	-4.687e+04	-2.601e+04	6.276e+04
						131.2	-32.12	259.92	-105.42	-4.687e+04	-4.702e+04	1.162e+05
115	256	1.305e+04	1809.73	-0.15	-54.16	0.0	-33.56	79.51	-17.77	0.65	1809.73	-6686.11
		-6686.11	-5621.32	0.06	0.0	65.6	-6.26	52.42	-17.77	0.65	-1905.80	4069.75
						131.2	21.04	25.34	-17.77	0.65	-5621.32	1.305e+04
115	257	2.053e+04	-2399.72	-0.15	-54.16	0.0	45.70	66.34	-15.56	1.61	-2399.72	5548.58
		5548.58	-8339.35	0.06	0.0	65.6	45.70	39.26	-15.56	1.61	-5369.54	1.393e+04
						131.2	45.70	12.18	-15.56	1.61	-8339.35	2.053e+04
115	258	1.367e+04	839.91	-0.13	-54.16	0.0	-55.37	74.35	-16.05	3.46	839.91	-4125.47
		-4125.47	-5864.69	0.05	0.0	65.6	-55.37	47.27	-16.05	3.46	-2512.39	5660.80
						131.2	-55.37	20.19	-16.05	3.46	-5864.69	1.367e+04
115	259	2.961e+04	-1319.10	-0.23	-54.16	0.0	-8.26	101.14	-27.05	4.34	-1319.10	1556.51
		1556.51	-1.214e+04	0.09	0.0	65.6	-8.26	74.06	-27.05	4.34	-6730.01	1.647e+04
						131.2	-8.26	46.97	-27.05	4.34	-1.214e+04	2.961e+04
115	260	1.710e+04	-779.91	-0.14	-54.16	0.0	-4.84	70.35	-15.81	2.53	-779.91	711.55
		711.55	-7102.02	0.05	0.0	65.6	-4.84	43.26	-15.81	2.53	-3940.96	9793.55
						131.2	-4.84	16.18	-15.81	2.53	-7102.02	1.710e+04
116	50	-1.556e+05	7.358e+04	-0.33	-54.16	0.0	-49.84	105.66	-29.87	6.310e+04	7.358e+04	-1.854e+05
		-1.854e+05	6.191e+04	0.13	0.0	65.6	-49.84	78.58	-29.87	6.310e+04	6.774e+04	-1.696e+05
						131.2	-49.84	51.49	-29.87	6.310e+04	6.191e+04	-1.556e+05
116	74	-1.556e+05	7.355e+04	-0.33	-54.16	0.0	-50.22	105.91	-29.13	-6.305e+04	7.355e+04	-1.855e+05
		-1.855e+05	6.198e+04	0.13	0.0	65.6	-50.22	78.83	-29.13	-6.305e+04	6.776e+04	-1.696e+05
						131.2	-50.22	51.74	-29.13	-6.305e+04	6.198e+04	-1.556e+05
116	84	4.394e+04	-1.162e+04	-0.14	-70.41	0.0	-241.05	76.83	-11.64	-18.83	-1.162e+04	2.847e+04
		2.847e+04	-1.712e+04	0.06	0.0	65.6	-36.30	41.62	-11.64	-18.83	-1.437e+04	3.736e+04
						131.2	168.45	6.42	-11.64	-18.83	-1.712e+04	4.394e+04
116	85	4.873e+04	-1.096e+04	-0.18	-54.16	0.0	-91.12	84.49	-15.75	-14.90	-1.096e+04	2.743e+04
		2.743e+04	-1.849e+04	0.07	0.0	65.6	113.63	57.41	-15.75	-14.90	-1.472e+04	3.897e+04
						131.2	318.38	30.33	-15.75	-14.90	-1.849e+04	4.873e+04
116	99	2.478e+05	-8.207e+04	0.47	-70.41	0.0	-32.94	-81.35	41.87	-2.421e+04	-9.898e+04	2.478e+05
		2.037e+05	-9.898e+04	-0.19	0.0	65.6	-32.94	-116.56	41.87	-2.421e+04	-9.053e+04	2.269e+05
						131.2	-32.94	-151.77	41.87	-2.421e+04	-8.207e+04	2.037e+05
116	111	2.478e+05	-8.209e+04	0.47	-70.41	0.0	-32.79	-81.45	41.58	2.415e+04	-9.897e+04	2.478e+05
		2.037e+05	-9.897e+04	-0.19	0.0	65.6	-32.79	-116.66	41.58	2.415e+04	-9.053e+04	2.269e+05
						131.2	-32.79	-151.86	41.58	2.415e+04	-8.209e+04	2.037e+05
116	126	2.438e+04	-8194.14	0.11	-54.16	0.0	-5.49	14.65	4.24	597.23	-9923.65	2.438e+04
		1.983e+04	-9923.65	-0.05	0.0	65.6	-5.49	-12.44	4.24	597.23	-9058.89	2.299e+04

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Arch. Andrea Giuffrida



Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

116	127	2.557e+04	-8670.30	-0.03	-54.16	0.0	-1.25	15.58	4.26	-602.23	-1.040e+04	2.557e+04
		2.107e+04	-1.040e+04	9.82e-03	0.0	65.6	-1.25	-11.50	4.26	-602.23	-9534.18	2.421e+04
						131.2	-1.25	-38.58	4.26	-602.23	-8670.30	2.107e+04
116	141	2.021e+04	-6545.42	0.06	-54.16	0.0	-3.24	15.06	4.22	-1847.43	-8271.77	2.021e+04
		1.570e+04	-8271.77	-0.03	0.0	65.6	-3.24	-12.02	4.22	-1847.43	-7408.59	1.884e+04
						131.2	-3.24	-39.10	4.22	-1847.43	-6545.42	1.570e+04
116	144	2.974e+04	-1.032e+04	0.04	-54.16	0.0	-3.50	15.17	4.28	1842.43	-1.205e+04	2.974e+04
		2.521e+04	-1.205e+04	-9.27e-03	0.0	65.6	-3.50	-11.91	4.28	1842.43	-1.118e+04	2.836e+04
						131.2	-3.50	-39.00	4.28	1842.43	-1.032e+04	2.521e+04
116	158	2.467e+04	-8311.64	0.08	-54.16	0.0	-4.29	14.91	4.24	252.65	-1.004e+04	2.467e+04
		2.014e+04	-1.004e+04	-0.03	0.0	65.6	-4.29	-12.17	4.24	252.65	-9176.15	2.329e+04
						131.2	-4.29	-39.25	4.24	252.65	-8311.64	2.014e+04
116	159	2.528e+04	-8552.79	0.02	-54.16	0.0	-2.44	15.32	4.26	-257.65	-1.028e+04	2.528e+04
		2.076e+04	-1.028e+04	-7.62e-03	0.0	65.6	-2.44	-11.76	4.26	-257.65	-9416.92	2.391e+04
						131.2	-2.44	-38.84	4.26	-257.65	-8552.79	2.076e+04
116	173	2.292e+04	-7617.51	0.05	-54.16	0.0	-3.32	15.09	4.24	-785.33	-9345.19	2.292e+04
		1.840e+04	-9345.19	-0.02	0.0	65.6	-3.32	-11.99	4.24	-785.33	-8481.35	2.155e+04
						131.2	-3.32	-39.07	4.24	-785.33	-7617.51	1.840e+04
116	176	2.703e+04	-9246.92	0.04	-54.16	0.0	-3.42	15.14	4.26	780.33	-1.098e+04	2.703e+04
		2.251e+04	-1.098e+04	-0.01	0.0	65.6	-3.42	-11.94	4.26	780.33	-1.011e+04	2.566e+04
						131.2	-3.42	-39.02	4.26	780.33	-9246.92	2.251e+04
116	213	-9.690e+04	4.567e+04	-0.20	-54.16	0.0	-34.35	75.48	-18.49	4.207e+04	4.567e+04	-1.153e+05
		-1.153e+05	3.846e+04	0.08	0.0	65.6	-34.35	48.40	-18.49	4.207e+04	4.206e+04	-1.052e+05
						131.2	-34.35	21.31	-18.49	4.207e+04	3.846e+04	-9.690e+04
116	225	-9.689e+04	4.565e+04	-0.20	-54.16	0.0	-34.60	75.64	-18.00	-4.203e+04	4.565e+04	-1.153e+05
		-1.153e+05	3.851e+04	0.08	0.0	65.6	-34.60	48.56	-18.00	-4.203e+04	4.208e+04	-1.052e+05
						131.2	-34.60	21.48	-18.00	-4.203e+04	3.851e+04	-9.689e+04
116	230	3.931e+04	-1.069e+04	-0.11	-54.16	0.0	-61.87	61.37	-9.08	-10.77	-1.069e+04	2.661e+04
		2.661e+04	-1.513e+04	0.04	0.0	65.6	74.63	34.28	-9.08	-10.77	-1.291e+04	3.385e+04
						131.2	211.13	7.20	-9.08	-10.77	-1.513e+04	3.931e+04
116	231	3.202e+04	-9104.24	-0.09	-54.16	0.0	-161.15	53.23	-7.19	-12.89	-9104.24	2.231e+04
		2.231e+04	-1.254e+04	0.04	0.0	65.6	-24.65	26.15	-7.19	-12.89	-1.082e+04	2.805e+04
						131.2	111.85	-0.93	-7.19	-12.89	-1.254e+04	3.202e+04
116	238	1.685e+05	-5.584e+04	0.32	-54.16	0.0	-22.41	-52.22	28.48	-1.614e+04	-6.734e+04	1.685e+05
		1.385e+05	-6.734e+04	-0.13	0.0	65.6	-22.41	-79.30	28.48	-1.614e+04	-6.159e+04	1.544e+05
						131.2	-22.41	-106.38	28.48	-1.614e+04	-5.584e+04	1.385e+05
116	244	1.685e+05	-5.585e+04	0.32	-54.16	0.0	-22.31	-52.28	28.29	1.610e+04	-6.734e+04	1.685e+05
		1.385e+05	-6.734e+04	-0.13	0.0	65.6	-22.31	-79.37	28.29	1.610e+04	-6.160e+04	1.544e+05
						131.2	-22.31	-106.45	28.29	1.610e+04	-5.585e+04	1.385e+05
116	253	-1572.96	846.00	-4.08e-03	-54.16	0.0	0.36	28.00	-0.49	8411.47	846.00	-2650.55
		-2650.55	686.78	1.66e-03	0.0	65.6	0.36	0.92	-0.49	8411.47	766.39	-1581.61
						131.2	0.36	-26.16	-0.49	8411.47	686.78	-2289.91
116	255	-1573.02	841.79	-4.03e-03	-54.16	0.0	0.31	28.03	-0.39	-8408.60	841.79	-2652.41
		-2652.41	695.92	1.61e-03	0.0	65.6	0.31	0.95	-0.39	-8408.60	768.86	-1581.88
						131.2	0.31	-26.13	-0.39	-8408.60	695.92	-2288.59
116	257	2.677e+04	-9514.15	0.04	-54.16	0.0	38.00	18.50	3.46	-1.62	-1.082e+04	2.677e+04
		2.349e+04	-1.082e+04	-0.02	0.0	65.6	38.00	-8.58	3.46	-1.62	-1.017e+04	2.602e+04
						131.2	38.00	-35.66	3.46	-1.62	-9514.15	2.349e+04
116	258	2.318e+04	-7350.29	0.05	-54.16	0.0	-44.73	11.73	5.04	-3.38	-9499.11	2.318e+04
		1.742e+04	-9499.11	-0.02	0.0	65.6	-44.73	-15.35	5.04	-3.38	-8424.70	2.119e+04
						131.2	-44.73	-42.44	5.04	-3.38	-7350.29	1.742e+04
116	259	4.309e+04	-1.442e+04	0.08	-54.16	0.0	-5.74	6.59	7.28	-4.29	-1.738e+04	4.309e+04
		3.535e+04	-1.738e+04	-0.03	0.0	65.6	-5.74	-20.49	7.28	-4.29	-1.590e+04	4.011e+04
						131.2	-5.74	-47.58	7.28	-4.29	-1.442e+04	3.535e+04
116	260	2.497e+04	-8432.22	0.05	-54.16	0.0	-3.37	15.12	4.25	-2.50	-1.016e+04	2.497e+04
		2.045e+04	-1.016e+04	-0.02	0.0	65.6	-3.37	-11.97	4.25	-2.50	-9296.54	2.360e+04
						131.2	-3.37	-39.05	4.25	-2.50	-8432.22	2.045e+04
117	50	3.287e+05	-3.859e+04	-0.65	-54.16	0.0	-49.64	633.04	-238.44	3.204e+05	-3.859e+04	9.770e+04
		9.770e+04	-1.300e+05	0.26	0.0	65.6	-49.64	605.96	-238.44	3.204e+05	-8.427e+04	2.141e+05
						131.2	-49.64	578.88	-238.44	3.204e+05	-1.300e+05	3.287e+05
117	74	3.285e+05	-3.897e+04	-0.65	-54.16	0.0	-49.51	632.14	-240.82	-3.205e+05	-3.897e+04	9.760e+04

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PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

	9.760e+04 -1.306e+05	0.26	0.0	65.6	-49.51	605.06	-240.82	-3.205e+05	-8.481e+04	2.139e+05
				131.2	-49.51	577.98	-240.82	-3.205e+05	-1.306e+05	3.285e+05
117	84 5.759e+04 -1.520e+04	0.42	-70.41	0.0	-219.29	18.37	28.13	-8.33	-2.121e+04	5.759e+04
	4.954e+04 -2.121e+04	-0.17	0.0	65.6	-14.54	-16.83	28.13	-8.33	-1.820e+04	5.472e+04
				131.2	190.21	-52.04	28.13	-8.33	-1.520e+04	4.954e+04
117	85 5.525e+04 -1.615e+04	0.42	-54.16	0.0	-72.01	23.55	22.90	-12.76	-2.016e+04	5.523e+04
	5.225e+04 -2.016e+04	-0.17	0.0	65.6	132.74	-3.53	22.90	-12.76	-1.816e+04	5.463e+04
				131.2	337.49	-30.61	22.90	-12.76	-1.615e+04	5.225e+04
117	99 -1.297e+05 1.735e+05	0.87	-70.41	0.0	-31.69	-784.82	319.49	-1.228e+05	5.035e+04	-1.297e+05
	-4.419e+05 5.035e+04	-0.35	0.0	65.6	-31.69	-820.03	319.49	-1.228e+05	1.119e+05	-2.846e+05
				131.2	-31.69	-855.23	319.49	-1.228e+05	1.735e+05	-4.419e+05
117	111 -1.296e+05 1.737e+05	0.87	-70.41	0.0	-31.74	-784.48	320.40	1.229e+05	5.050e+04	-1.296e+05
	-4.419e+05 5.050e+04	-0.35	0.0	65.6	-31.74	-819.68	320.40	1.229e+05	1.121e+05	-2.846e+05
				131.2	-31.74	-854.89	320.40	1.229e+05	1.737e+05	-4.419e+05
117	130 -2.862e+04 2.350e+04	0.05	-54.16	0.0	-12.43	-58.03	31.16	-2304.20	1.110e+04	-2.862e+04
	-6.076e+04 1.110e+04	-0.02	0.0	65.6	-12.43	-85.11	31.16	-2304.20	1.730e+04	-4.380e+04
				131.2	-12.43	-112.19	31.16	-2304.20	2.350e+04	-6.076e+04
117	131 1225.38 1.195e+04	0.15	-54.16	0.0	5.93	-55.94	34.08	2309.98	-841.57	1225.38
	-3.064e+04 -841.57	-0.06	0.0	65.6	5.93	-83.02	34.08	2309.98	5554.33	-1.382e+04
				131.2	5.93	-110.10	34.08	2309.98	1.195e+04	-3.064e+04
117	162 -2.024e+04 2.026e+04	0.07	-54.16	0.0	-7.29	-57.44	31.98	-938.44	7746.71	-2.024e+04
	-5.230e+04 7746.71	-0.03	0.0	65.6	-7.29	-84.53	31.98	-938.44	1.400e+04	-3.538e+04
				131.2	-7.29	-111.61	31.98	-938.44	2.026e+04	-5.230e+04
117	163 -7152.02 1.519e+04	0.12	-54.16	0.0	0.79	-56.52	33.26	944.22	2509.77	-7152.02
	-3.909e+04 2509.77	-0.05	0.0	65.6	0.79	-83.60	33.26	944.22	8851.75	-2.223e+04
				131.2	0.79	-110.69	33.26	944.22	1.519e+04	-3.909e+04
117	213 2.039e+05 -2.402e+04	-0.40	-54.16	0.0	-34.17	403.03	-148.09	2.136e+05	-2.402e+04	6.057e+04
	6.057e+04 -8.073e+04	0.16	0.0	65.6	-34.17	375.95	-148.09	2.136e+05	-5.237e+04	1.331e+05
				131.2	-34.17	348.87	-148.09	2.136e+05	-8.073e+04	2.039e+05
117	225 2.037e+05 -2.427e+04	-0.40	-54.16	0.0	-34.09	402.43	-149.67	-2.137e+05	-2.427e+04	6.050e+04
	6.050e+04 -8.119e+04	0.16	0.0	65.6	-34.09	375.35	-149.67	-2.137e+05	-5.273e+04	1.330e+05
				131.2	-34.09	348.27	-149.67	-2.137e+05	-8.119e+04	2.037e+05
117	230 3.225e+04 -4860.43	0.31	-54.16	0.0	-49.09	-3.29	26.14	-7.55	-1.173e+04	3.225e+04
	1.960e+04 -1.173e+04	-0.12	0.0	65.6	87.41	-30.38	26.14	-7.55	-8294.80	2.681e+04
				131.2	223.91	-57.46	26.14	-7.55	-4860.43	1.960e+04
117	231 3.657e+04 -7768.55	0.29	-54.16	0.0	-146.62	4.65	23.10	-5.17	-1.345e+04	3.657e+04
	2.693e+04 -1.345e+04	-0.12	0.0	65.6	-10.12	-22.43	23.10	-5.17	-1.061e+04	3.264e+04
				131.2	126.38	-49.51	23.10	-5.17	-7768.55	2.693e+04
117	238 -8.827e+04 1.180e+05	0.59	-54.16	0.0	-21.56	-530.81	217.34	-8.186e+04	3.425e+04	-8.827e+04
	-3.007e+05 3.425e+04	-0.24	0.0	65.6	-21.56	-557.89	217.34	-8.186e+04	7.613e+04	-1.936e+05
				131.2	-21.56	-584.98	217.34	-8.186e+04	1.180e+05	-3.007e+05
117	244 -8.824e+04 1.182e+05	0.59	-54.16	0.0	-21.59	-530.58	217.95	8.191e+04	3.435e+04	-8.824e+04
	-3.007e+05 3.435e+04	-0.24	0.0	65.6	-21.59	-557.66	217.95	8.191e+04	7.626e+04	-1.936e+05
				131.2	-21.59	-584.75	217.95	8.191e+04	1.182e+05	-3.007e+05
117	253 3526.58 -528.59	-7.80e-03	-54.16	0.0	0.32	34.23	-3.22	4.272e+04	-528.59	724.92
	724.92 -1672.74	3.10e-03	0.0	65.6	0.32	7.14	-3.22	4.272e+04	-1100.66	2992.33
				131.2	0.32	-19.94	-3.22	4.272e+04	-1672.74	3482.50
117	255 3500.08 -578.89	-7.81e-03	-54.16	0.0	0.34	34.11	-3.53	-4.273e+04	-578.89	711.11
	711.11 -1765.17	3.13e-03	0.0	65.6	0.34	7.02	-3.53	-4.273e+04	-1172.03	2971.27
				131.2	0.34	-20.06	-3.53	-4.273e+04	-1765.17	3454.20
117	257 -1.549e+04 1.894e+04	0.10	-54.16	0.0	37.39	-60.29	33.89	1.90	5846.83	-1.549e+04
	-4.876e+04 5846.83	-0.04	0.0	65.6	37.39	-87.38	33.89	1.90	1.239e+04	-3.124e+04
				131.2	37.39	-114.46	33.89	1.90	1.894e+04	-4.876e+04
117	258 -1.190e+04 1.652e+04	0.08	-54.16	0.0	-43.89	-53.67	31.36	3.88	4409.65	-1.190e+04
	-4.264e+04 4409.65	-0.03	0.0	65.6	-43.89	-80.75	31.36	3.88	1.046e+04	-2.638e+04
				131.2	-43.89	-107.84	31.36	3.88	1.652e+04	-4.264e+04
117	259 -2.308e+04 3.035e+04	0.15	-54.16	0.0	-5.54	-116.79	55.83	4.96	8784.52	-2.308e+04
	-7.785e+04 8784.52	-0.06	0.0	65.6	-5.54	-143.87	55.83	4.96	1.957e+04	-4.958e+04
				131.2	-5.54	-170.95	55.83	4.96	3.035e+04	-7.785e+04
117	260 -1.370e+04 1.773e+04	0.09	-54.16	0.0	-3.25	-56.98	32.62	2.89	5128.24	-1.370e+04
	-4.570e+04 5128.24	-0.04	0.0	65.6	-3.25	-84.07	32.62	2.89	1.143e+04	-2.881e+04
				131.2	-3.25	-111.15	32.62	2.89	1.773e+04	-4.570e+04

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida



SOGGETTO PROPONENTE



SMARTENERGYIT2111 S.R.L.

Comune di Gravina in Puglia (BA) - Località Masseria Pellicciari
 Progetto per la realizzazione di un Nuovo Impianto Agrivoltaico e delle relative opere di
 connessione alla RTN
 Potenza nominale 35,09 MW

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

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118	50	3.006e+04	-6763.57	0.02	-27.34	0.0	-313.91	-74.91	38.08	-2.214e+04	-1.362e+04	3.006e+04
		1.327e+04	-1.362e+04	-6.59e-03	0.0	33.1	-313.91	-88.58	38.08	-2.214e+04	-1.019e+04	2.189e+04
						66.2	-313.91	-102.25	38.08	-2.214e+04	-6763.57	1.327e+04
118	74	3.013e+04	-5640.48	0.02	-27.34	0.0	-313.98	-70.85	48.36	2.211e+04	-1.318e+04	3.013e+04
		1.362e+04	-1.318e+04	-6.56e-03	0.0	33.1	-313.98	-84.52	48.36	2.211e+04	-9407.96	2.210e+04
						66.2	-313.98	-98.19	48.36	2.211e+04	-5640.48	1.362e+04
118	83	2011.98	1.990e+04	-0.12	-35.54	0.0	192.91	341.44	-83.21	-41.62	1.990e+04	-5.808e+04
		-5.808e+04	-943.94	0.05	0.0	33.1	296.26	323.67	-83.21	-41.62	9478.29	-2.774e+04
						66.2	399.61	305.90	-83.21	-41.62	-943.94	2011.98
118	88	-6557.06	5424.23	-0.01	-35.54	0.0	-631.01	64.65	-11.09	-14.26	5424.23	-1.520e+04
		-1.520e+04	2493.95	4.71e-03	0.0	33.1	-569.00	46.87	-11.09	-14.26	3959.09	-1.058e+04
						66.2	-506.99	29.10	-11.09	-14.26	2493.95	-6557.06
118	89	3980.97	1.553e+04	-0.10	-27.34	0.0	466.22	279.07	-69.49	-30.41	1.553e+04	-4.536e+04
		-4.536e+04	-1669.02	0.04	0.0	33.1	528.23	265.40	-69.49	-30.41	6931.93	-2.046e+04
						66.2	590.24	251.73	-69.49	-30.41	-1669.02	3980.97
118	125	1554.96	-433.94	0.02	-27.34	0.0	4.15	15.97	7.75	-236.74	-433.94	924.55
		924.55	-732.31	-0.01	0.0	33.1	4.15	2.30	7.75	-236.74	-583.12	1454.00
						66.2	4.15	-11.37	7.75	-236.74	-732.31	1530.63
118	128	-5317.88	2698.48	-0.02	-27.34	0.0	-8.19	19.42	-13.32	235.03	2698.48	-6363.11
		-6363.11	2184.80	0.01	0.0	33.1	-8.19	5.75	-13.32	235.03	2441.64	-5614.09
						66.2	-8.19	-7.91	-13.32	235.03	2184.80	-5317.88
118	157	-379.06	443.24	8.99e-03	-27.34	0.0	0.68	16.98	1.93	-94.46	443.24	-1117.80
		-1117.80	85.17	-5.34e-03	0.0	33.1	0.68	3.31	1.93	-94.46	264.21	-525.86
						66.2	0.68	-10.36	1.93	-94.46	85.17	-386.73
118	160	-3400.52	1821.31	-7.00e-03	-27.34	0.0	-4.71	18.42	-7.49	92.74	1821.31	-4320.75
		-4320.75	1367.32	4.55e-03	0.0	33.1	-4.71	4.75	-7.49	92.74	1594.31	-3634.23
						66.2	-4.71	-8.92	-7.49	92.74	1367.32	-3400.52
118	213	1.913e+04	-4266.97	0.01	-27.34	0.0	-209.94	-44.04	24.46	-1.476e+04	-8699.60	1.913e+04
		8218.28	-8699.60	-4.53e-03	0.0	33.1	-209.94	-57.71	24.46	-1.476e+04	-6483.28	1.390e+04
						66.2	-209.94	-71.38	24.46	-1.476e+04	-4266.97	8218.28
118	225	1.918e+04	-3518.24	0.01	-27.34	0.0	-209.99	-41.34	31.32	1.474e+04	-8406.20	1.918e+04
		8446.59	-8406.20	-4.51e-03	0.0	33.1	-209.99	-55.01	31.32	1.474e+04	-5962.22	1.404e+04
						66.2	-209.99	-68.68	31.32	1.474e+04	-3518.24	8446.59
118	230	1088.84	1.342e+04	-0.08	-27.34	0.0	128.33	229.98	-55.85	-27.86	1.342e+04	-3.908e+04
		-3.908e+04	-532.46	0.03	0.0	33.1	197.23	216.31	-55.85	-27.86	6442.76	-1.877e+04
						66.2	266.13	202.64	-55.85	-27.86	-532.46	1088.84
118	232	2022.77	1.073e+04	-0.07	-27.34	0.0	310.14	191.95	-47.26	-20.56	1.073e+04	-3.115e+04
		-3.115e+04	-870.60	0.03	0.0	33.1	351.48	178.28	-47.26	-20.56	4931.04	-1.434e+04
						66.2	392.82	164.61	-47.26	-20.56	-870.60	2022.77
118	233	-4623.86	3767.12	-7.94e-03	-27.34	0.0	-420.94	45.46	-7.77	-9.62	3767.12	-1.049e+04
		-1.049e+04	1759.47	3.09e-03	0.0	33.1	-379.60	31.79	-7.77	-9.62	2763.29	-7332.42
						66.2	-338.26	18.12	-7.77	-9.62	1759.47	-4623.86
118	256	-1695.93	3171.48	-0.01	-27.34	0.0	-19.81	51.37	-11.03	-5.60	3171.48	-8752.99
		-8752.99	632.31	4.59e-03	0.0	33.1	-6.03	37.70	-11.03	-5.60	1901.90	-4998.05
						66.2	7.75	24.03	-11.03	-5.60	632.31	-1695.93
118	257	-231.97	2873.66	-0.01	-27.34	0.0	180.76	54.32	-12.66	-3.59	2873.66	-7882.59
		-7882.59	68.73	5.34e-03	0.0	33.1	180.76	40.65	-12.66	-3.59	1471.20	-3830.87
						66.2	180.76	26.98	-12.66	-3.59	68.73	-231.97
118	258	2444.03	1383.76	0.02	-27.34	0.0	-184.79	-18.93	7.09	1.88	-609.12	2444.03
		-3555.28	-609.12	-6.13e-03	0.0	33.1	-184.79	-32.59	7.09	1.88	387.32	-329.22
						66.2	-184.79	-46.26	7.09	1.88	1383.76	-3555.28
118	260	-1892.16	1132.27	1.01e-03	-27.34	0.0	-2.02	17.70	-2.78	-0.86	1132.27	-2719.28
		-2719.28	726.25	-4.07e-04	0.0	33.1	-2.02	4.03	-2.78	-0.86	929.26	-2080.04
						66.2	-2.02	-9.64	-2.78	-0.86	726.25	-1892.16
126	49	1.378e+04	290.82	-0.15	-35.08	0.0	-0.96	72.09	-46.98	4.556e+04	290.82	-733.16
		-733.16	-7619.35	0.06	0.0	42.5	-0.96	54.55	-46.98	4.556e+04	-3664.26	6895.19
						85.0	-0.96	37.01	-46.98	4.556e+04	-7619.35	1.378e+04
126	74	1.573e+04	273.22	0.56	-35.08	0.0	-0.05	82.76	-36.59	-4.556e+04	273.22	-688.80
		-688.80	-7151.10	-0.22	0.0	42.5	-0.05	65.22	-36.59	-4.556e+04	-3438.94	7893.60
						85.0	-0.05	47.68	-36.59	-4.556e+04	-7151.10	1.573e+04
126	84	-46.70	1794.33	0.78	-45.60	0.0	-103.67	22.76	16.42	-0.47	85.25	-214.91
		-1009.01	85.25	-0.31	0.0	42.5	28.93	-0.04	16.42	-0.47	939.79	-127.46

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

						85.0	161.53	-22.84	16.42	-0.47	1794.33	-1009.01
126	85	-197.07	1152.58	0.08	-35.08	0.0	-104.60	10.33	6.44	-0.29	78.17	-197.07
		-2139.10	78.17	-0.03	0.0	42.5	28.00	-7.20	6.44	-0.29	615.38	-795.39
						85.0	160.60	-24.74	6.44	-0.29	1152.58	-2139.10
126	99	-579.97	1.066e+04	-0.27	-45.60	0.0	0.68	-64.90	52.58	-1.746e+04	230.06	-579.97
		-2.306e+04	230.06	0.11	0.0	42.5	0.68	-87.70	52.58	-1.746e+04	5444.15	-1.133e+04
						85.0	0.68	-110.50	52.58	-1.746e+04	1.066e+04	-2.306e+04
126	111	-579.97	1.060e+04	-0.27	-45.60	0.0	0.67	-65.17	51.89	1.746e+04	230.06	-579.97
		-2.308e+04	230.06	0.11	0.0	42.5	0.67	-87.97	51.89	1.746e+04	5414.97	-1.135e+04
						85.0	0.67	-110.77	51.89	1.746e+04	1.060e+04	-2.308e+04
126	129	-634.62	1231.88	-0.11	-35.08	0.0	-1.60	8.67	5.03	-364.65	251.73	-634.62
		-2993.06	251.73	0.04	0.0	42.5	-1.60	-8.87	5.03	-364.65	741.81	-1441.14
						85.0	-1.60	-26.41	5.03	-364.65	1231.88	-2993.06
126	130	-781.99	1287.56	-0.12	-35.08	0.0	-1.42	8.55	4.87	-667.69	310.19	-781.99
		-3148.83	310.19	0.04	0.0	42.5	-1.42	-8.98	4.87	-667.69	798.87	-1592.71
						85.0	-1.42	-26.52	4.87	-667.69	1287.56	-3148.83
126	131	367.32	883.97	0.06	-35.08	0.0	1.56	7.92	4.36	-667.83	-145.71	367.32
		-1928.48	-145.71	-0.02	0.0	42.5	1.56	-9.62	4.36	-667.83	369.13	-407.88
						85.0	1.56	-27.15	4.36	-667.83	883.97	-1928.48
126	132	219.96	939.65	0.05	-35.08	0.0	1.74	7.81	4.20	364.51	-87.25	219.96
		-2084.25	-87.25	-0.02	0.0	42.5	1.74	-9.73	4.20	364.51	426.20	-559.45
						85.0	1.74	-27.27	4.20	364.51	939.65	-2084.25
126	161	-395.38	1149.83	-0.06	-35.08	0.0	-0.66	8.43	4.80	-152.64	156.84	-395.38
		-2738.76	156.84	0.03	0.0	42.5	-0.66	-9.11	4.80	-152.64	653.33	-1194.38
						85.0	-0.66	-26.65	4.80	-152.64	1149.83	-2738.76
126	162	-460.01	1174.64	-0.07	-35.08	0.0	-0.59	8.38	4.73	284.01	182.47	-460.01
		-2806.89	182.47	0.03	0.0	42.5	-0.59	-9.16	4.73	284.01	678.56	-1260.76
						85.0	-0.59	-26.70	4.73	284.01	1174.64	-2806.89
126	163	45.35	996.89	0.01	-35.08	0.0	0.73	8.10	4.50	-284.15	-17.99	45.35
		-2270.42	-17.99	-3.42e-03	0.0	42.5	0.73	-9.44	4.50	-284.15	489.45	-739.84
						85.0	0.73	-26.98	4.50	-284.15	996.89	-2270.42
126	164	-19.28	1021.70	8.55e-03	-35.08	0.0	0.80	8.05	4.43	152.50	7.65	-19.28
		-2338.54	7.65	-4.05e-03	0.0	42.5	0.80	-9.49	4.43	152.50	514.67	-806.21
						85.0	0.80	-27.03	4.43	152.50	1021.70	-2338.54
126	212	8339.22	221.30	-0.11	-35.08	0.0	-0.61	50.81	-29.78	3.037e+04	221.30	-557.88
		-557.88	-4717.64	0.04	0.0	42.5	-0.61	33.27	-29.78	3.037e+04	-2248.17	4263.36
						85.0	-0.61	15.73	-29.78	3.037e+04	-4717.64	8339.22
126	225	9640.85	209.56	0.36	-35.08	0.0	-8.07e-03	57.92	-22.86	-3.037e+04	209.56	-528.31
		-528.31	-4405.48	-0.14	0.0	42.5	-8.07e-03	40.38	-22.86	-3.037e+04	-2097.96	4928.97
						85.0	-8.07e-03	22.84	-22.86	-3.037e+04	-4405.48	9640.85
126	230	-200.49	1130.31	0.04	-35.08	0.0	-69.71	9.64	5.83	-0.21	79.53	-200.49
		-2272.28	79.53	-0.02	0.0	42.5	18.69	-7.90	5.83	-0.21	604.92	-863.69
						85.0	107.09	-25.44	5.83	-0.21	1130.31	-2272.28
126	231	-101.35	1340.99	0.51	-35.08	0.0	-69.10	16.27	11.56	-0.32	67.80	-170.92
		-1011.16	67.80	-0.20	0.0	42.5	19.30	-1.26	11.56	-0.32	704.39	-218.34
						85.0	107.70	-18.80	11.56	-0.32	1340.99	-1011.16
126	238	-414.29	7250.26	-0.18	-35.08	0.0	0.46	-42.17	35.67	-1.164e+04	164.34	-414.29
		-1.571e+04	164.34	0.07	0.0	42.5	0.46	-59.71	35.67	-1.164e+04	3707.30	-7689.28
						85.0	0.46	-77.24	35.67	-1.164e+04	7250.26	-1.571e+04
126	244	-414.29	7211.36	-0.18	-35.08	0.0	0.46	-42.35	35.21	1.164e+04	164.34	-414.29
		-1.573e+04	164.34	0.07	0.0	42.5	0.46	-59.89	35.21	1.164e+04	3687.85	-7697.04
						85.0	0.46	-77.43	35.21	1.164e+04	7211.36	-1.573e+04
126	253	116.97	108.88	3.91e-03	-35.08	0.0	-7.06e-03	17.42	-1.69	6074.35	108.88	-274.48
		-274.48	-53.85	-1.38e-03	0.0	42.5	-7.06e-03	-0.12	-1.69	6074.35	27.52	116.97
						85.0	-7.06e-03	-17.66	-1.69	6074.35	-53.85	-236.97
126	255	121.02	108.88	3.90e-03	-35.08	0.0	-6.71e-03	17.51	-1.45	-6074.51	108.88	-274.48
		-274.48	-33.55	-1.64e-03	0.0	42.5	-6.71e-03	-0.03	-1.45	-6074.51	37.66	121.02
						85.0	-6.71e-03	-17.57	-1.45	-6074.51	-33.55	-228.87
126	256	-203.01	1115.74	0.03	-35.08	0.0	-13.83	9.18	5.43	-0.11	80.53	-203.01
		-2359.27	80.53	-0.01	0.0	42.5	3.85	-8.36	5.43	-0.11	598.13	-908.44
						85.0	21.53	-25.90	5.43	-0.11	1115.74	-2359.27
126	259	-274.46	1881.84	-0.05	-35.08	0.0	0.12	1.68	8.41	-0.12	108.87	-274.46

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida



SOGGETTO PROPONENTE



SMARTENERGYIT2111 S.R.L.

Comune di Gravina in Puglia (BA) - Località Masseria Pellicciari
 Progetto per la realizzazione di un Nuovo Impianto Agrivoltaico e delle relative opere di
 connessione alla RTN
 Potenza nominale 35,09 MW

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

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		-4290.61	108.87	0.02	0.0	42.5	0.12	-15.86	8.41	-0.12	995.36	-1909.84
						85.0	0.12	-33.40	8.41	-0.12	1881.84	-4290.61
126	260	-207.33	1085.76	-0.03	-35.08	0.0	0.07	8.24	4.62	-0.07	82.24	-207.33
		-2538.65	82.24	0.01	0.0	42.5	0.07	-9.30	4.62	-0.07	584.00	-1000.30
						85.0	0.07	-26.84	4.62	-0.07	1085.76	-2538.65
127	49	3.789e+05	-6.575e+04	0.45	-42.81	0.0	257.59	-675.17	230.53	-3.572e+05	-1.433e+05	3.789e+05
		1.714e+05	-1.433e+05	-0.18	0.0	51.9	257.59	-696.58	230.53	-3.572e+05	-1.045e+05	2.757e+05
						103.8	257.59	-717.99	230.53	-3.572e+05	-6.575e+04	1.714e+05
127	53	3.051e+05	-6.611e+04	-0.15	-42.81	0.0	277.56	-428.59	137.83	-2.143e+05	-1.148e+05	3.051e+05
		1.717e+05	-1.148e+05	0.06	0.0	51.9	277.56	-450.00	137.83	-2.143e+05	-9.045e+04	2.389e+05
						103.8	277.56	-471.41	137.83	-2.143e+05	-6.611e+04	1.717e+05
127	73	3.790e+05	-6.552e+04	0.45	-42.81	0.0	257.45	-676.20	227.83	3.572e+05	-1.428e+05	3.790e+05
		1.715e+05	-1.428e+05	-0.18	0.0	51.9	257.45	-697.61	227.83	3.572e+05	-1.042e+05	2.758e+05
						103.8	257.45	-719.02	227.83	3.572e+05	-6.552e+04	1.715e+05
127	84	-1.876e+05	9.923e+04	0.56	-55.66	0.0	-434.67	301.49	-65.75	34.13	9.923e+04	-2.676e+05
		-2.676e+05	7.194e+04	-0.22	0.0	51.9	-272.82	273.66	-65.75	34.13	8.559e+04	-2.269e+05
						103.8	-110.97	245.83	-65.75	34.13	7.194e+04	-1.876e+05
127	99	-1.402e+05	1.496e+05	-1.03	-55.66	0.0	-182.13	894.23	-291.33	1.369e+05	1.496e+05	-3.983e+05
		-3.983e+05	5.263e+04	0.41	0.0	51.9	-182.13	866.40	-291.33	1.369e+05	1.011e+05	-2.685e+05
						103.8	-182.13	838.57	-291.33	1.369e+05	5.263e+04	-1.402e+05
127	111	-1.402e+05	1.494e+05	-1.03	-55.66	0.0	-182.08	894.63	-290.30	-1.369e+05	1.494e+05	-3.984e+05
		-3.984e+05	5.255e+04	0.41	0.0	51.9	-182.08	866.80	-290.30	-1.369e+05	1.010e+05	-2.686e+05
						103.8	-182.08	838.97	-290.30	-1.369e+05	5.255e+04	-1.402e+05
127	129	5594.46	7338.45	-0.17	-42.81	0.0	-9.65	108.69	-30.65	2431.11	7338.45	-2.071e+04
		-2.071e+04	-2702.49	0.05	0.0	51.9	-9.65	87.29	-30.65	2431.11	2317.98	-7003.06
						103.8	-9.65	65.88	-30.65	2431.11	-2702.49	5594.46
127	132	-3.485e+04	2.318e+04	-0.04	-42.81	0.0	-27.66	111.95	-28.35	-2420.86	2.318e+04	-6.148e+04
		-6.148e+04	1.342e+04	0.03	0.0	51.9	-27.66	90.54	-28.35	-2420.86	1.830e+04	-4.761e+04
						103.8	-27.66	69.13	-28.35	-2420.86	1.342e+04	-3.485e+04
127	161	-5750.92	1.178e+04	-0.13	-42.81	0.0	-14.70	109.61	-30.01	975.60	1.178e+04	-3.215e+04
		-3.215e+04	1821.14	0.05	0.0	51.9	-14.70	88.20	-30.01	975.60	6802.50	-1.839e+05
						103.8	-14.70	66.79	-30.01	975.60	1821.14	-5750.92
127	164	-2.350e+04	1.874e+04	-0.08	-42.81	0.0	-22.61	111.03	-29.00	-965.35	1.874e+04	-5.004e+04
		-5.004e+04	8900.26	0.04	0.0	51.9	-22.61	89.63	-29.00	-965.35	1.382e+04	-3.622e+04
						103.8	-22.61	68.22	-29.00	-965.35	8900.26	-2.350e+04
127	212	2.389e+05	-4.205e+04	0.27	-42.81	0.0	165.50	-413.34	143.85	-2.381e+05	-9.044e+04	2.389e+05
		1.094e+05	-9.044e+04	-0.11	0.0	51.9	165.50	-434.75	143.85	-2.381e+05	-6.624e+04	1.747e+05
						103.8	165.50	-456.16	143.85	-2.381e+05	-4.205e+04	1.094e+05
127	214	1.897e+05	-4.229e+04	-0.12	-42.81	0.0	178.82	-248.95	82.05	-1.429e+05	-7.143e+04	1.897e+05
		1.096e+05	-7.143e+04	0.05	0.0	51.9	178.82	-270.36	82.05	-1.429e+05	-5.686e+04	1.502e+05
						103.8	178.82	-291.77	82.05	-1.429e+05	-4.229e+04	1.096e+05
127	224	2.390e+05	-4.190e+04	0.27	-42.81	0.0	165.41	-414.03	142.05	2.381e+05	-9.010e+04	2.390e+05
		1.094e+05	-9.010e+04	-0.11	0.0	51.9	165.41	-435.44	142.05	2.381e+05	-6.600e+04	1.748e+05
						103.8	165.41	-456.84	142.05	2.381e+05	-4.190e+04	1.094e+05
127	231	-1.270e+05	6.819e+04	0.36	-42.81	0.0	-292.27	215.70	-47.77	23.44	6.819e+04	-1.839e+05
		-1.839e+05	4.868e+04	-0.14	0.0	51.9	-184.37	194.30	-47.77	23.44	5.843e+04	-1.549e+05
						103.8	-76.47	172.89	-47.77	23.44	4.868e+04	-1.270e+05
127	238	-9.539e+04	1.018e+05	-0.70	-42.81	0.0	-123.91	610.86	-198.15	9.130e+04	1.018e+05	-2.710e+05
		-2.710e+05	3.580e+04	0.28	0.0	51.9	-123.91	589.46	-198.15	9.130e+04	6.879e+04	-1.827e+05
						103.8	-123.91	568.05	-198.15	9.130e+04	3.580e+04	-9.539e+04
127	244	-9.540e+04	1.016e+05	-0.70	-42.81	0.0	-123.87	611.13	-197.47	-9.125e+04	1.016e+05	-2.711e+05
		-2.711e+05	3.575e+04	0.28	0.0	51.9	-123.87	589.72	-197.47	-9.125e+04	6.870e+04	-1.827e+05
						103.8	-123.87	568.31	-197.47	-9.125e+04	3.575e+04	-9.540e+04
127	257	2.429e+04	-2923.80	-0.28	-42.81	0.0	49.30	75.10	-23.61	1.70	-2923.80	7959.73
		7959.73	-9640.60	0.11	0.0	51.9	49.30	53.70	-23.61	1.70	-6282.20	1.668e+04
						103.8	49.30	32.29	-23.61	1.70	-9640.60	2.429e+04
127	258	-5.354e+04	3.345e+04	0.07	-42.81	0.0	-86.61	145.54	-35.40	8.55	3.345e+04	-9.015e+04
		-9.015e+04	2.036e+04	-0.03	0.0	51.9	-86.61	124.13	-35.40	8.55	2.690e+04	-7.129e+04
						103.8	-86.61	102.72	-35.40	8.55	2.036e+04	-5.354e+04
127	260	-1.463e+04	1.526e+04	-0.11	-42.81	0.0	-18.66	110.32	-29.50	5.12	1.526e+04	-4.110e+04
		-4.110e+04	5360.70	0.04	0.0	51.9	-18.66	88.91	-29.50	5.12	1.031e+04	-2.731e+04
						103.8	-18.66	67.51	-29.50	5.12	5360.70	-1.463e+04

Progettazione civile e inserimento ambientale

Agronomia e studi culturali

Progettazione elettrica



Arch. Andrea Giuffrida



Dott. Agr. Gianfranco Giuffrida





SMARTENERGYIT2111 S.R.L.

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

128	49	3.897e+05	-6.639e+04	0.33	-46.94	0.0	147.72	-643.97	249.02	-3.361e+05	-1.517e+05	3.897e+05
		1.701e+05	-1.517e+05	-0.13	0.0	56.9	147.72	-667.44	249.02	-3.361e+05	-1.091e+05	2.806e+05
						113.8	147.72	-690.91	249.02	-3.361e+05	-6.639e+04	1.701e+05
128	73	3.894e+05	-6.685e+04	0.33	-46.94	0.0	147.92	-642.45	252.97	3.363e+05	-1.526e+05	3.894e+05
		1.700e+05	-1.526e+05	-0.13	0.0	56.9	147.92	-665.92	252.97	3.363e+05	-1.097e+05	2.804e+05
						113.8	147.92	-689.39	252.97	3.363e+05	-6.685e+04	1.700e+05
128	84	-1.333e+05	7.519e+04	0.35	-61.02	0.0	-456.93	274.03	-51.20	39.95	7.519e+04	-2.108e+05
		-2.108e+05	4.961e+04	-0.14	0.0	56.9	-279.48	243.52	-51.20	39.95	6.240e+04	-1.711e+05
						113.8	-102.03	213.00	-51.20	39.95	4.961e+04	-1.333e+05
128	89	-6342.51	1.360e+04	-0.15	-46.94	0.0	30.46	96.91	-37.07	-1.82	1.360e+04	-3.113e+04
		-3.113e+04	2867.73	0.06	0.0	56.9	136.93	73.44	-37.07	-1.82	8235.65	-1.807e+04
						113.8	243.40	49.97	-37.07	-1.82	2867.73	-6342.51
128	99	-1.859e+05	1.846e+05	-0.66	-61.02	0.0	-17.34	886.91	-335.14	1.288e+05	1.846e+05	-4.686e+05
		-4.686e+05	7.300e+04	0.26	0.0	56.9	-17.34	856.40	-335.14	1.288e+05	7.300e+04	-3.264e+05
						113.8	-17.34	825.89	-335.14	1.288e+05	7.300e+04	-1.859e+05
128	111	-1.858e+05	1.850e+05	-0.66	-61.02	0.0	-17.42	886.33	-336.66	-1.289e+05	1.850e+05	-4.685e+05
		-4.685e+05	7.318e+04	0.26	0.0	56.9	-17.42	855.82	-336.66	-1.289e+05	1.291e+05	-3.263e+05
						113.8	-17.42	825.30	-336.66	-1.289e+05	7.318e+04	-1.858e+05
128	129	-4015.48	1.297e+04	-0.11	-46.94	0.0	6.92	109.72	-36.31	2388.19	1.297e+04	-3.282e+04
		-3.282e+04	1310.08	0.03	0.0	56.9	6.92	86.25	-36.31	2388.19	7139.70	-1.775e+04
						113.8	6.92	62.78	-36.31	2388.19	1310.08	-4015.48
128	132	-3.469e+04	2.479e+04	-0.02	-46.94	0.0	-10.48	112.83	-32.07	-2390.47	2.479e+04	-6.384e+04
		-6.384e+04	1.360e+04	0.02	0.0	56.9	-10.48	89.36	-32.07	-2390.47	1.920e+04	-4.860e+04
						113.8	-10.48	65.89	-32.07	-2390.47	1.360e+04	-3.469e+04
128	161	-1.264e+04	1.629e+04	-0.09	-46.94	0.0	2.03	110.59	-35.12	972.75	1.629e+04	-4.153e+04
		-4.153e+04	4765.04	0.03	0.0	56.9	2.03	87.12	-35.12	972.75	1.053e+04	-2.642e+04
						113.8	2.03	63.65	-35.12	972.75	4765.04	-1.264e+04
128	164	-2.607e+04	2.147e+04	-0.05	-46.94	0.0	-5.58	111.96	-33.26	-975.03	2.147e+04	-5.512e+04
		-5.512e+04	1.015e+04	0.02	0.0	56.9	-5.58	88.48	-33.26	-975.03	1.581e+04	-3.993e+04
						113.8	-5.58	65.01	-33.26	-975.03	1.015e+04	-2.607e+04
128	212	2.437e+05	-4.178e+04	0.20	-46.94	0.0	97.89	-392.22	154.62	-2.241e+05	-9.485e+04	2.437e+05
		1.070e+05	-9.485e+04	-0.08	0.0	56.9	97.89	-415.69	154.62	-2.241e+05	-6.831e+04	1.760e+05
						113.8	97.89	-439.17	154.62	-2.241e+05	-4.178e+04	1.070e+05
128	224	2.435e+05	-4.208e+04	0.20	-46.94	0.0	98.02	-391.21	157.25	2.242e+05	-9.546e+04	2.435e+05
		1.069e+05	-9.546e+04	-0.08	0.0	56.9	98.02	-414.68	157.25	2.242e+05	-6.877e+04	1.759e+05
						113.8	98.02	-438.15	157.25	2.242e+05	-4.208e+04	1.069e+05
128	231	-9.142e+04	5.264e+04	0.23	-46.94	0.0	-304.86	197.52	-38.69	26.48	5.264e+04	-1.470e+05
		-1.470e+05	3.406e+04	-0.09	0.0	56.9	-186.56	174.05	-38.69	26.48	4.335e+04	-1.185e+05
						113.8	-68.26	150.58	-38.69	26.48	3.406e+04	-9.142e+04
128	232	-1.068e+04	1.536e+04	-0.13	-46.94	0.0	19.72	101.70	-36.11	-1.59	1.536e+04	-3.686e+04
		-3.686e+04	4397.59	0.05	0.0	56.9	19.72	78.23	-36.11	-1.59	9879.66	-2.310e+04
						113.8	161.68	54.76	-36.11	-1.59	4397.59	-1.068e+04
128	238	-1.265e+05	1.256e+05	-0.45	-46.94	0.0	-11.80	606.11	-227.99	8.589e+04	1.256e+05	-3.188e+05
		-3.188e+05	4.966e+04	0.18	0.0	56.9	-11.80	582.64	-227.99	8.589e+04	8.764e+04	-2.220e+05
						113.8	-11.80	559.17	-227.99	8.589e+04	4.966e+04	-1.265e+05
128	244	-1.265e+05	1.258e+05	-0.45	-46.94	0.0	-11.85	605.72	-229.00	-8.594e+04	1.258e+05	-3.188e+05
		-3.188e+05	4.978e+04	0.18	0.0	56.9	-11.85	582.25	-229.00	-8.594e+04	8.781e+04	-2.219e+05
						113.8	-11.85	558.78	-229.00	-8.594e+04	4.978e+04	-1.265e+05
128	253	3843.22	-710.96	6.00e-03	-46.94	0.0	0.21	15.99	3.50	-4.482e+04	-1769.68	3843.22
		1327.23	-1769.68	-2.12e-03	0.0	56.9	0.21	-7.48	3.50	-4.482e+04	-1240.32	3252.68
						113.8	0.21	-30.96	3.50	-4.482e+04	-710.96	1327.23
128	255	3804.89	-771.59	6.01e-03	-46.94	0.0	0.24	16.19	4.03	4.484e+04	-1890.73	3804.89
		1310.20	-1890.73	-2.53e-03	0.0	56.9	0.24	-7.28	4.03	4.484e+04	-1331.16	3224.72
						113.8	0.24	-30.75	4.03	4.484e+04	-771.59	1310.20
128	257	-267.61	1.014e+04	-0.15	-46.94	0.0	72.98	88.73	-33.90	-7.40	1.014e+04	-2.236e+04
		-2.236e+04	463.16	0.06	0.0	56.9	72.98	65.26	-33.90	-7.40	5300.15	-1.064e+04
						113.8	72.98	41.79	-33.90	-7.40	463.16	-267.61
128	258	-3.844e+04	2.762e+04	0.04	-46.94	0.0	-76.54	133.82	-34.48	5.12	2.762e+04	-7.430e+04
		-7.430e+04	1.445e+04	-0.01	0.0	56.9	-76.54	110.35	-34.48	5.12	2.104e+04	-5.570e+04
						113.8	-76.54	86.88	-34.48	5.12	1.445e+04	-3.844e+04
128	259	-3.285e+04	3.231e+04	-0.12	-46.94	0.0	-3.02	173.72	-58.50	-2.06	3.231e+04	-8.243e+04
		-8.243e+04	1.277e+04	0.05	0.0	56.9	-3.02	150.25	-58.50	-2.06	2.254e+04	-5.698e+04

Progettazione civile e inserimento ambientale

Agronomia e studi culturali

Progettazione elettrica



Arch. Andrea Giuffrida



Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

128	260	-1.935e+04	1.888e+04	-0.07	-46.94	0.0	-1.78	111.28	-34.19	-1.14	1.888e+04	-4.833e+04
		-4.833e+04	7457.30	0.03	0.0	56.9	-1.78	87.80	-34.19	-1.14	1.317e+04	-3.317e+04
						113.8	-1.78	64.33	-34.19	-1.14	7457.30	-1.935e+04
129	49	4.747e+04	-1.175e+04	3.73e-03	-24.76	0.0	383.42	-113.80	47.82	-4.338e+04	-2.011e+04	4.747e+04
		2.605e+04	-2.011e+04	1.90e-03	0.0	30.0	383.42	-126.18	47.82	-4.338e+04	-1.593e+04	3.695e+04
						60.0	383.42	-138.56	47.82	-4.338e+04	-1.175e+04	2.605e+04
129	73	4.754e+04	-1.048e+04	3.48e-03	-24.76	0.0	383.35	-108.31	61.67	4.343e+04	-1.967e+04	4.754e+04
		2.645e+04	-1.967e+04	-1.90e-03	0.0	30.0	383.35	-120.69	61.67	4.343e+04	-1.508e+04	3.718e+04
						60.0	383.35	-133.07	61.67	4.343e+04	-1.048e+04	2.645e+04
129	84	-3.135e+04	3.118e+04	-0.09	-32.19	0.0	-441.33	344.01	-84.74	-40.00	3.118e+04	-8.631e+04
		-8.631e+04	1.210e+04	0.04	0.0	30.0	-347.73	327.92	-84.74	-40.00	2.164e+04	-5.859e+04
						60.0	-254.13	311.82	-84.74	-40.00	1.210e+04	-3.135e+04
129	88	-2.845e+04	2.676e+04	-0.07	-32.19	0.0	-657.33	288.19	-69.51	-28.93	2.676e+04	-7.401e+04
		-7.401e+04	1.100e+04	0.03	0.0	30.0	-601.17	272.09	-69.51	-28.93	1.888e+04	-5.099e+04
						60.0	-545.01	256.00	-69.51	-28.93	1.100e+04	-2.845e+04
129	89	-1118.22	3660.95	-0.01	-24.76	0.0	566.41	61.58	-17.59	-12.35	3660.95	-9569.48
		-9569.48	424.26	5.44e-03	0.0	30.0	622.57	49.20	-17.59	-12.35	2042.61	-5158.15
						60.0	678.73	36.82	-17.59	-12.35	424.26	-1118.22
129	129	4929.01	-1461.18	0.02	-24.76	0.0	-5.28	14.04	6.21	549.57	-1461.18	3567.14
		3567.14	-2204.23	-3.64e-03	0.0	30.0	-5.28	1.66	6.21	549.57	-1832.70	4433.78
						60.0	-5.28	-10.72	6.21	549.57	-2204.23	4929.01
129	130	4251.63	-1192.67	0.02	-24.76	0.0	-5.76	19.01	-6.21	-315.47	-1192.67	2882.74
		2882.74	-1483.92	-4.27e-03	0.0	30.0	-5.76	6.63	-6.21	-315.47	-1338.30	3752.89
						60.0	-5.76	-5.75	-6.21	-315.47	-1483.92	4251.63
129	131	-8479.22	4310.87	-0.01	-24.76	0.0	1.34	24.70	-3.47	317.24	4310.87	-1.046e+04
		-1.046e+04	3144.13	2.99e-03	0.0	30.0	1.34	12.32	-3.47	317.24	3727.50	-9283.24
						60.0	1.34	-0.06	-3.47	317.24	3144.13	-8479.22
129	132	-9156.61	4579.38	-0.01	-24.76	0.0	0.87	29.66	-15.89	-547.81	4579.38	-1.114e+04
		-1.114e+04	3864.43	2.36e-03	0.0	30.0	0.87	17.28	-15.89	-547.81	4221.91	-9964.13
						60.0	0.87	4.90	-15.89	-547.81	3864.43	-9156.61
129	161	971.04	236.01	7.62e-03	-24.76	0.0	-3.56	18.38	7.88e-03	239.97	236.01	-564.43
		-564.43	-506.31	-1.98e-03	0.0	30.0	-3.56	6.00	7.88e-03	239.97	-135.15	389.01
						60.0	-3.56	-6.38	7.88e-03	239.97	-506.31	971.04
129	162	677.21	352.65	7.78e-03	-24.76	0.0	-3.76	20.60	-5.55	-136.85	352.65	-861.47
		-861.47	-184.86	-2.20e-03	0.0	30.0	-3.76	8.22	-5.55	-136.85	83.89	93.57
						60.0	-3.76	-4.16	-5.55	-136.85	-184.86	677.21
129	163	-4904.81	2765.55	-4.51e-03	-24.76	0.0	-0.66	23.10	-4.13	138.62	2765.55	-6714.46
		-6714.46	1845.07	9.23e-04	0.0	30.0	-0.66	10.72	-4.13	138.62	2305.31	-5623.93
						60.0	-0.66	-1.66	-4.13	138.62	1845.07	-4904.81
129	164	-5198.64	2882.19	-4.35e-03	-24.76	0.0	-0.86	25.33	-9.69	-238.21	2882.19	-7011.49
		-7011.49	2166.51	7.02e-04	0.0	30.0	-0.86	12.95	-9.69	-238.21	2524.35	-5919.36
						60.0	-0.86	0.57	-9.69	-238.21	2166.51	-5198.64
129	212	3.038e+04	-7559.69	3.03e-03	-24.76	0.0	254.88	-68.58	30.26	-2.892e+04	-1.289e+04	3.038e+04
		1.666e+04	-1.289e+04	1.12e-03	0.0	30.0	254.88	-80.96	30.26	-2.892e+04	-1.022e+04	2.371e+04
						60.0	254.88	-93.34	30.26	-2.892e+04	-7559.69	1.666e+04
129	224	3.043e+04	-6711.59	2.86e-03	-24.76	0.0	254.83	-64.92	39.50	2.895e+04	-1.260e+04	3.043e+04
		1.693e+04	-1.260e+04	-1.48e-03	0.0	30.0	254.83	-77.30	39.50	2.895e+04	-9654.06	2.387e+04
						60.0	254.83	-89.68	39.50	2.895e+04	-6711.59	1.693e+04
129	231	-2.118e+04	2.100e+04	-0.06	-24.76	0.0	-294.51	232.26	-57.14	-26.55	2.100e+04	-5.804e+04
		-5.804e+04	8179.45	0.02	0.0	30.0	-232.11	219.88	-57.14	-26.55	1.459e+04	-3.943e+04
						60.0	-169.71	207.50	-57.14	-26.55	8179.45	-2.118e+04
129	232	-1450.08	2960.34	-8.62e-03	-24.76	0.0	376.87	48.34	-13.34	-7.94	2960.34	-7642.31
		-7642.31	559.54	3.42e-03	0.0	30.0	414.31	35.96	-13.34	-7.94	1759.94	-4360.49
						60.0	451.75	23.58	-13.34	-7.94	559.54	-1450.08
129	233	-1.925e+04	1.805e+04	-0.05	-24.76	0.0	-438.52	195.04	-46.99	-19.17	1.805e+04	-4.985e+04
		-4.985e+04	7442.14	0.02	0.0	30.0	-401.08	182.66	-46.99	-19.17	1.275e+04	-3.436e+04
						60.0	-363.64	170.28	-46.99	-19.17	7442.14	-1.925e+04
129	257	6763.13	-890.55	0.01	-24.76	0.0	201.64	-14.82	3.57	3.69	-2213.36	6763.13
		2336.57	-2213.36	-4.54e-03	0.0	30.0	201.64	-27.20	3.57	3.69	-1551.95	4735.55
						60.0	201.64	-39.58	3.57	3.69	-890.55	2336.57
129	258	-6564.17	5331.56	-8.16e-03	-24.76	0.0	-206.06	58.53	-13.25	-1.93	5331.56	-1.434e+04

Progettazione civile e inserimento ambientale



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Progettazione elettrica





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

		-1.434e+04	2550.75	3.26e-03	0.0	30.0	-206.06	46.15	-13.25	-1.93	3941.16	-1.027e+04
						60.0	-206.06	33.77	-13.25	-1.93	2550.75	-6564.17
129	260	-2113.80	1559.10	1.64e-03	-24.76	0.0	-2.21	21.85	-4.84	0.88	1559.10	-3787.96
		-3787.96	830.10	-6.39e-04	0.0	30.0	-2.21	9.47	-4.84	0.88	1194.60	-2765.18
						60.0	-2.21	-2.91	-4.84	0.88	830.10	-2113.80
130	50	3.287e+05	-3.859e+04	0.65	-54.16	0.0	-49.68	-578.88	238.44	-3.204e+05	-1.300e+05	3.287e+05
		9.770e+04	-1.300e+05	-0.26	0.0	65.6	-49.68	-605.96	238.44	-3.204e+05	-8.427e+04	2.141e+05
						131.2	-49.68	-633.04	238.44	-3.204e+05	-3.859e+04	9.770e+04
130	74	3.285e+05	-3.897e+04	0.65	-54.16	0.0	-49.52	-577.98	240.82	3.205e+05	-1.306e+05	3.285e+05
		9.760e+04	-1.306e+05	-0.26	0.0	65.6	-49.52	-605.06	240.82	3.205e+05	-8.481e+04	2.139e+05
						131.2	-49.52	-632.14	240.82	3.205e+05	-3.897e+04	9.760e+04
130	84	-8.673e+04	5.693e+04	0.22	-70.41	0.0	-416.61	225.02	-52.13	-19.41	5.693e+04	-1.574e+05
		-1.574e+05	3.195e+04	-0.09	0.0	65.6	-211.86	189.82	-52.13	-19.41	4.444e+04	-1.209e+05
						131.2	-7.11	154.61	-52.13	-19.41	3.195e+04	-8.673e+04
130	89	-6.239e+04	4.300e+04	0.10	-54.16	0.0	-84.81	172.97	-43.62	-8.24	4.300e+04	-1.169e+05
		-1.169e+05	2.323e+04	-0.04	0.0	65.6	38.04	145.89	-43.62	-8.24	3.312e+04	-8.877e+04
						131.2	160.89	118.81	-43.62	-8.24	2.323e+04	-6.239e+04
130	99	-1.297e+05	1.735e+05	-0.87	-70.41	0.0	-31.69	855.23	-319.49	1.228e+05	1.735e+05	-4.419e+05
		-4.419e+05	5.035e+04	0.35	0.0	65.6	-31.69	820.03	-319.49	1.228e+05	1.119e+05	-2.846e+05
						131.2	-31.69	784.82	-319.49	1.228e+05	5.035e+04	-1.297e+05
130	111	-1.296e+05	1.737e+05	-0.87	-70.41	0.0	-31.75	854.89	-320.40	-1.229e+05	1.737e+05	-4.419e+05
		-4.419e+05	5.050e+04	0.35	0.0	65.6	-31.75	819.68	-320.40	-1.229e+05	1.121e+05	-2.846e+05
						131.2	-31.75	784.48	-320.40	-1.229e+05	5.050e+04	-1.296e+05
130	125	1225.38	1.195e+04	-0.15	-54.16	0.0	5.93	110.10	-34.08	-2309.94	1.195e+04	-3.064e+04
		-3.064e+04	-841.56	0.06	0.0	65.6	5.93	83.02	-34.08	-2309.94	5554.33	-1.382e+04
						131.2	5.93	55.94	-34.08	-2309.94	-841.56	1225.38
130	128	-2.862e+04	2.350e+04	-0.03	-54.16	0.0	-12.43	112.19	-31.16	2304.16	2.350e+04	-6.076e+04
		-6.076e+04	1.110e+04	0.01	0.0	65.6	-12.43	85.11	-31.16	2304.16	1.730e+04	-4.380e+04
						131.2	-12.43	58.03	-31.16	2304.16	1.110e+04	-2.862e+04
130	157	-7152.02	1.519e+04	-0.12	-54.16	0.0	0.79	110.69	-33.26	-944.20	1.519e+04	-3.909e+04
		-3.909e+04	2509.77	0.05	0.0	65.6	0.79	83.60	-33.26	-944.20	8851.76	-2.223e+04
						131.2	0.79	56.52	-33.26	-944.20	2509.77	-7152.02
130	160	-2.024e+04	2.026e+04	-0.06	-54.16	0.0	-7.29	111.61	-31.98	938.42	2.026e+04	-5.230e+04
		-5.230e+04	7746.71	0.03	0.0	65.6	-7.29	84.53	-31.98	938.42	1.400e+04	-3.538e+04
						131.2	-7.29	57.44	-31.98	938.42	7746.71	-2.024e+04
130	213	2.039e+05	-2.402e+04	0.40	-54.16	0.0	-34.20	-348.87	148.09	-2.136e+05	-8.073e+04	2.039e+05
		6.057e+04	-8.073e+04	-0.16	0.0	65.6	-34.20	-375.95	148.09	-2.136e+05	-5.237e+04	1.331e+05
						131.2	-34.20	-403.03	148.09	-2.136e+05	-2.402e+04	6.057e+04
130	225	2.037e+05	-2.427e+04	0.40	-54.16	0.0	-34.09	-348.27	149.67	2.137e+05	-8.119e+04	2.037e+05
		6.050e+04	-8.119e+04	-0.16	0.0	65.6	-34.09	-375.35	149.67	2.137e+05	-5.273e+04	1.330e+05
						131.2	-34.09	-402.43	149.67	2.137e+05	-2.427e+04	6.050e+04
130	231	-5.965e+04	4.032e+04	0.14	-54.16	0.0	-278.18	164.84	-39.10	-13.32	4.032e+04	-1.110e+05
		-1.110e+05	2.199e+04	-0.05	0.0	65.6	-141.68	137.75	-39.10	-13.32	3.115e+04	-8.443e+04
						131.2	-5.18	110.67	-39.10	-13.32	2.199e+04	-5.965e+04
130	232	-4.616e+04	3.458e+04	0.06	-54.16	0.0	-57.63	152.36	-39.95	-6.46	3.458e+04	-9.319e+04
		-9.319e+04	1.720e+04	-0.02	0.0	65.6	24.27	125.28	-39.95	-6.46	2.589e+04	-6.879e+04
						131.2	106.17	98.20	-39.95	-6.46	1.720e+04	-4.616e+04
130	238	-8.827e+04	1.180e+05	-0.59	-54.16	0.0	-21.56	584.98	-217.34	8.186e+04	1.180e+05	-3.007e+05
		-3.007e+05	3.425e+04	0.24	0.0	65.6	-21.56	557.89	-217.34	8.186e+04	7.613e+04	-1.936e+05
						131.2	-21.56	530.81	-217.34	8.186e+04	3.425e+04	-8.827e+04
130	244	-8.824e+04	1.182e+05	-0.59	-54.16	0.0	-21.60	584.75	-217.95	-8.191e+04	1.182e+05	-3.007e+05
		-3.007e+05	3.435e+04	0.24	0.0	65.6	-21.60	557.66	-217.95	-8.191e+04	7.626e+04	-1.936e+05
						131.2	-21.60	530.58	-217.95	-8.191e+04	3.435e+04	-8.824e+04
130	253	3526.58	-528.59	7.80e-03	-54.16	0.0	0.32	19.94	3.22	-4.272e+04	-1672.74	3482.50
		724.92	-1672.74	-3.10e-03	0.0	65.6	0.32	-7.14	3.22	-4.272e+04	-1100.66	2992.33
						131.2	0.32	-34.23	3.22	-4.272e+04	-528.59	724.92
130	255	3500.08	-578.89	7.81e-03	-54.16	0.0	0.34	20.06	3.53	4.273e+04	-1765.17	3454.20
		711.11	-1765.17	-3.13e-03	0.0	65.6	0.34	-7.02	3.53	4.273e+04	-1172.03	2971.27
						131.2	0.34	-34.11	3.53	4.273e+04	-578.89	711.11
130	256	-2.332e+04	2.254e+04	-0.05	-54.16	0.0	-48.48	122.68	-34.22	-4.74	2.254e+04	-5.949e+04
		-5.949e+04	8672.19	0.02	0.0	65.6	-21.18	95.60	-34.22	-4.74	1.560e+04	-4.052e+04
						131.2	6.12	68.52	-34.22	-4.74	8672.19	-2.332e+04

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Arch. Andrea Giuffrida



Dott. Agr. Gianfranco Giuffrida





SMARTENERGYIT2111 S.R.L.

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

130	257	-1.549e+04 -4.876e+04	1.894e+04 5846.83	-0.10 0.04	-54.16 0.0	0.0 65.6	37.41 37.41	114.46 87.38	-33.89 -33.89	-1.90 -1.90	1.894e+04 1.239e+04	-4.876e+04 -3.124e+04
						131.2	37.41	60.29	-33.89	-1.90	5846.83	-1.549e+04
130	259	-2.308e+04 -7.785e+04	3.035e+04 8784.52	-0.15 0.06	-54.16 0.0	0.0 65.6	-5.54 -5.54	170.95 143.87	-55.83 -55.83	-4.96 -4.96	3.035e+04 1.957e+04	-7.785e+04 -4.958e+04
						131.2	-5.54	116.79	-55.83	-4.96	8784.52	-2.308e+04
130	260	-1.370e+04 -4.570e+04	1.773e+04 5128.24	-0.09 0.04	-54.16 0.0	0.0 65.6	-3.25 -3.25	111.15 84.07	-32.62 -32.62	-2.89 -2.89	1.773e+04 1.143e+04	-4.570e+04 -2.881e+04
						131.2	-3.25	56.98	-32.62	-2.89	5128.24	-1.370e+04
131	85	1.974e+05 9.958e+04	-3.632e+04 -6.940e+04	0.12 -0.05	-46.94 0.0	0.0 56.9	109.58 287.03	329.86 306.39	-71.18 -71.18	-42.60 -42.60	-3.632e+04 -5.286e+04	9.958e+04 1.492e+05
						113.8	464.48	282.92	-71.18	-42.60	-6.940e+04	1.974e+05
131	88	2439.79 1468.99	338.60 -399.52	-0.03 0.01	-61.02 0.0	0.0 56.9	-518.90 -412.43	31.03 0.52	5.56 5.56	-13.67 -13.67	-399.52 -30.46	1675.21 2439.79
						113.8	-305.96	-29.99	5.56	-13.67	338.60	1468.99
131	89	1.620e+05 8.305e+04	-3.022e+04 -5.659e+04	0.10 -0.04	-46.94 0.0	0.0 56.9	339.77 446.24	271.11 247.64	-54.93 -54.93	-31.79 -31.79	-3.022e+04 -4.341e+04	8.305e+04 1.232e+05
						113.8	552.71	224.17	-54.93	-31.79	-5.659e+04	1.620e+05
131	99	-5.119e+04 -1.508e+05	6.441e+04 2.197e+04	-0.21 0.08	-61.02 0.0	0.0 56.9	-14.71 -14.71	-266.27 -296.79	143.33 143.33	-5.492e+04 -5.492e+04	2.197e+04 4.319e+04	-5.119e+04 -1.001e+05
						113.8	-14.71	-327.30	143.33	-5.492e+04	6.441e+04	-1.508e+05
131	111	-5.121e+04 -1.509e+05	6.421e+04 2.180e+04	-0.21 0.08	-61.02 0.0	0.0 56.9	-14.68 -14.68	-266.39 -296.90	143.03 143.03	5.492e+04 5.492e+04	2.180e+04 4.300e+04	-5.121e+04 -1.002e+05
						113.8	-14.68	-327.42	143.03	5.492e+04	6.421e+04	-1.509e+05
131	126	-2.652e+04 -3.717e+04	1.473e+04 1.068e+04	-0.04 0.02	-46.94 0.0	0.0 56.9	-8.04 -8.04	-10.73 -34.20	12.44 12.44	1223.24 1223.24	1.068e+04 1.270e+04	-2.652e+04 -3.118e+04
						113.8	-8.04	-57.67	12.44	1223.24	1.473e+04	-3.717e+04
131	127	1.548e+04 5528.16	-1563.54 -6185.32	-5.69e-03 -2.71e-03	-46.94 0.0	0.0 56.9	4.99 4.99	-3.90 -27.37	16.34 16.34	-1224.98 -1224.98	-6185.32 -3874.43	1.548e+04 1.117e+04
						113.8	4.99	-50.85	16.34	-1224.98	-1563.54	5528.16
131	129	-2.558e+04 -3.624e+04	1.433e+04 1.031e+04	-0.04 0.02	-46.94 0.0	0.0 56.9	-8.27 -8.27	-10.64 -34.11	11.16 11.16	980.79 980.79	1.031e+04 1.232e+04	-2.558e+04 -3.024e+04
						113.8	-8.27	-57.58	11.16	980.79	1.433e+04	-3.624e+04
131	132	1.454e+04 4594.66	-1168.05 -5814.94	-6.75e-03 -2.60e-03	-46.94 0.0	0.0 56.9	5.22 5.22	-3.99 -27.46	17.62 17.62	-982.54 -982.54	-5814.94 -3491.50	1.454e+04 1.024e+04
						113.8	5.22	-50.93	17.62	-982.54	-1168.05	4594.66
131	158	-1.473e+04 -2.519e+04	1.015e+04 5943.22	-0.03 0.01	-46.94 0.0	0.0 56.9	-4.38 -4.38	-8.81 -32.28	13.55 13.55	514.89 514.89	5943.22 8047.86	-1.473e+04 -1.929e+04
						113.8	-4.38	-55.75	13.55	514.89	1.015e+04	-2.519e+04
131	159	3689.23 -6460.14	3009.06 -1450.81	-0.01 3.57e-03	-46.94 0.0	0.0 56.9	1.33 1.33	-5.82 -29.29	15.23 15.23	-516.64 -516.64	-1450.81 779.13	3689.23 -718.00
						113.8	1.33	-52.76	15.23	-516.64	3009.06	-6460.14
131	161	-1.433e+04 -2.478e+04	9982.39 5783.42	-0.03 0.01	-46.94 0.0	0.0 56.9	-4.49 -4.49	-8.77 -32.24	12.98 12.98	400.83 400.83	5783.42 7882.90	-1.433e+04 -1.889e+04
						113.8	-4.49	-55.71	12.98	400.83	9982.39	-2.478e+04
131	164	3285.31 -6861.81	3179.17 -1291.01	-0.01 3.54e-03	-46.94 0.0	0.0 56.9	1.44 1.44	-5.86 -29.33	15.79 15.79	-402.57 -402.57	-1291.01 944.08	3285.31 -1120.80
						113.8	1.44	-52.80	15.79	-402.57	3179.17	-6861.81
131	230	1.263e+05 6.455e+04	-2.346e+04 -4.407e+04	0.07 -0.03	-46.94 0.0	0.0 56.9	72.55 190.85	217.47 194.00	-42.66 -42.66	-28.69 -28.69	-2.346e+04 -3.377e+04	6.455e+04 9.611e+04
						113.8	309.15	170.53	-42.66	-28.69	-4.407e+04	1.263e+05
131	232	1.027e+05 5.353e+04	-1.940e+04 -3.554e+04	0.06 -0.02	-46.94 0.0	0.0 56.9	226.00 296.98	178.30 154.83	-31.82 -31.82	-21.49 -21.49	-1.940e+04 -2.747e+04	5.353e+04 7.878e+04
						113.8	367.96	131.36	-31.82	-21.49	-3.554e+04	1.027e+05
131	233	504.16 -1130.46	1103.17 33.15	-0.02 8.91e-03	-46.94 0.0	0.0 56.9	-346.14 -275.16	19.71 -3.76	5.63 5.63	-9.23 -9.23	33.15 568.16	380.79 292.61
						113.8	-204.18	-27.23	5.63	-9.23	1103.17	-1130.46
131	238	-3.486e+04 -1.027e+05	4.382e+04 1.494e+04	-0.14 0.06	-46.94 0.0	0.0 56.9	-10.01 -10.01	-178.49 -201.96	97.47 97.47	-3.661e+04 -3.661e+04	1.494e+04 2.938e+04	-3.486e+04 -6.810e+04
						113.8	-10.01	-225.43	97.47	-3.661e+04	4.382e+04	-1.027e+05
131	244	-3.488e+04 -1.027e+05	4.368e+04 1.483e+04	-0.14 0.06	-46.94 0.0	0.0 56.9	-9.99 -9.99	-178.57 -202.04	97.27 97.27	3.661e+04 3.661e+04	1.483e+04 2.926e+04	-3.488e+04 -6.812e+04

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

131	257	1.014e+04	-2579.05	-4.52e-03	-46.94	0.0	141.51	32.33	5.03	-3.94	-2611.57	7767.02	113.8	-9.99	-225.51	97.27	3.661e+04	4.368e+04	-1.027e+05
		7767.02	-2611.57	1.27e-03	0.0	56.9	141.51	8.86	5.03	-3.94	-2595.31	9618.14	113.8	-14.61	-46.96	5.03	-3.94	-2579.05	1.013e+04
131	258	-1.881e+04	1.574e+04	-0.04	-46.94	0.0	-144.56	-46.96	23.75	2.19	7103.98	-1.881e+04	113.8	-144.56	-93.90	23.75	2.19	1.574e+04	-4.178e+04
		-4.178e+04	7103.98	0.02	0.0	56.9	-144.56	-70.43	23.75	2.19	1.142e+04	-2.963e+04	113.8	-144.56	-93.90	23.75	2.19	1.574e+04	-4.178e+04
131	260	-5520.15	6580.78	-0.02	-46.94	0.0	-1.52	-7.31	14.39	-0.87	2246.21	-5520.15	113.8	-1.52	-54.26	14.39	-0.87	6580.78	-1.582e+04
		-1.582e+04	2246.21	8.31e-03	0.0	56.9	-1.52	-30.79	14.39	-0.87	4413.49	-1.000e+04	113.8	-1.52	-54.26	14.39	-0.87	6580.78	-1.582e+04
132	50	4.414e+05	-8.600e+04	0.41	-42.81	0.0	103.51	-716.57	266.88	-3.572e+05	-1.710e+05	4.414e+05	103.8	103.51	-737.97	266.88	-3.572e+05	-1.285e+05	2.204e+05
		2.204e+05	-1.710e+05	-0.17	0.0	51.9	103.51	-737.97	266.88	-3.572e+05	-1.285e+05	3.314e+05	103.8	103.51	-759.38	266.88	-3.572e+05	-8.600e+04	2.204e+05
132	74	4.411e+05	-8.643e+04	0.41	-42.81	0.0	103.70	-714.73	271.60	3.572e+05	-1.719e+05	4.411e+05	103.8	103.70	-714.73	271.60	3.572e+05	-1.719e+05	2.203e+05
		2.203e+05	-1.719e+05	-0.16	0.0	51.9	103.70	-736.13	271.60	3.572e+05	-1.292e+05	3.312e+05	103.8	103.70	-757.54	271.60	3.572e+05	-8.643e+04	2.203e+05
132	78	3.197e+05	-6.925e+04	0.10	-42.81	0.0	130.44	-453.34	157.41	2.143e+05	-1.221e+05	3.197e+05	103.8	130.44	-496.16	157.41	2.143e+05	-6.925e+04	1.784e+05
		1.784e+05	-1.221e+05	-0.04	0.0	51.9	130.44	-474.75	157.41	2.143e+05	-9.568e+04	2.496e+05	103.8	130.44	-496.16	157.41	2.143e+05	-6.925e+04	1.784e+05
132	83	-1.701e+05	9.277e+04	0.27	-55.66	0.0	-406.30	322.50	-62.86	16.07	9.277e+04	-2.557e+05	103.8	-406.30	294.67	-62.86	16.07	7.859e+04	-2.557e+05
		-2.557e+05	6.441e+04	-0.11	0.0	51.9	-244.45	266.84	-62.86	16.07	6.441e+04	-1.701e+05	103.8	-406.30	294.67	-62.86	16.07	7.859e+04	-2.557e+05
132	99	-2.296e+05	1.978e+05	-0.72	-55.66	0.0	-51.11	946.72	-348.64	1.369e+05	1.978e+05	-5.057e+05	103.8	-51.11	918.89	-348.64	1.369e+05	1.438e+05	-5.057e+05
		-5.057e+05	8.988e+04	0.29	0.0	51.9	-51.11	918.89	-348.64	1.369e+05	1.438e+05	-3.669e+05	103.8	-51.11	891.06	-348.64	1.369e+05	8.988e+04	-5.057e+05
132	111	-2.296e+05	1.981e+05	-0.72	-55.66	0.0	-51.18	946.01	-350.45	-1.369e+05	1.981e+05	-5.056e+05	103.8	-51.18	918.18	-350.45	-1.369e+05	1.441e+05	-5.056e+05
		-5.056e+05	9.005e+04	0.28	0.0	51.9	-51.18	890.35	-350.45	-1.369e+05	9.005e+04	-2.296e+05	103.8	-51.18	890.35	-350.45	-1.369e+05	9.005e+04	-2.296e+05
132	125	-3757.31	1.247e+04	-0.11	-42.81	0.0	8.58	113.34	-38.05	-5167.13	1.247e+04	-3.182e+04	103.8	8.58	70.52	-38.05	-5167.13	1172.04	-3757.31
		-3.182e+04	1172.04	0.06	0.0	51.9	8.58	91.93	-38.05	-5167.13	6822.35	-1.723e+04	103.8	8.58	70.52	-38.05	-5167.13	1172.04	-3757.31
132	128	-4.381e+04	2.798e+04	-0.04	-42.81	0.0	-19.07	117.94	-33.02	5156.96	2.798e+04	-7.235e+04	103.8	-19.07	96.53	-33.02	5156.96	2.259e+04	-7.235e+04
		-7.235e+04	1.721e+04	-0.01	0.0	51.9	-19.07	96.53	-33.02	5156.96	2.259e+04	-5.753e+04	103.8	-19.07	75.12	-33.02	5156.96	1.721e+04	-7.235e+04
132	157	-1.512e+04	1.687e+04	-0.09	-42.81	0.0	0.79	114.65	-36.64	-2151.18	1.687e+04	-4.332e+04	103.8	0.79	71.83	-36.64	-2151.18	1.130e+04	-4.332e+04
		-4.332e+04	5719.75	0.04	0.0	51.9	0.79	93.24	-36.64	-2151.18	1.130e+04	-2.866e+04	103.8	0.79	71.83	-36.64	-2151.18	5719.75	-4.332e+04
132	160	-3.245e+04	2.358e+04	-0.06	-42.81	0.0	-11.28	116.63	-34.43	2141.00	2.358e+04	-6.086e+04	103.8	-11.28	95.22	-34.43	2141.00	1.812e+04	-6.086e+04
		-6.086e+04	1.266e+04	0.01	0.0	51.9	-11.28	95.22	-34.43	2141.00	1.812e+04	-4.610e+04	103.8	-11.28	73.82	-34.43	2141.00	1.266e+04	-4.610e+04
132	213	2.769e+05	-5.427e+04	0.25	-42.81	0.0	67.26	-439.16	166.08	-2.381e+05	-1.072e+05	2.769e+05	103.8	67.26	-460.57	166.08	-2.381e+05	-8.076e+04	-5.427e+04
		1.390e+05	-1.072e+05	-0.10	0.0	51.9	67.26	-460.57	166.08	-2.381e+05	-8.076e+04	2.085e+05	103.8	67.26	-481.98	166.08	-2.381e+05	-5.427e+04	-1.390e+05
132	225	2.767e+05	-5.456e+04	0.25	-42.81	0.0	67.39	-437.94	169.22	2.381e+05	-1.079e+05	2.767e+05	103.8	67.39	-459.34	169.22	2.381e+05	-8.121e+04	-5.456e+04
		1.389e+05	-1.079e+05	-0.10	0.0	51.9	67.39	-459.34	169.22	2.381e+05	-8.121e+04	2.084e+05	103.8	67.39	-480.75	169.22	2.381e+05	-5.456e+04	-1.389e+05
132	227	1.958e+05	-4.310e+04	-0.04	-42.81	0.0	85.21	-263.68	93.10	1.429e+05	-7.467e+04	1.958e+05	103.8	85.21	-306.50	93.10	1.429e+05	-4.310e+04	-4.310e+04
		1.110e+05	-7.467e+04	-0.02	0.0	51.9	85.21	-285.09	93.10	1.429e+05	-5.888e+04	1.539e+05	103.8	85.21	-306.50	93.10	1.429e+05	-4.310e+04	-1.110e+05
132	230	-1.166e+05	6.454e+04	0.17	-42.81	0.0	-271.57	230.42	-46.64	10.03	6.454e+04	-1.774e+05	103.8	-271.57	209.01	-46.64	10.03	5.435e+04	-1.774e+05
		-1.774e+05	4.416e+04	-0.07	0.0	51.9	-163.67	209.01	-46.64	10.03	5.435e+04	-1.464e+05	103.8	-163.67	187.60	-46.64	10.03	4.416e+04	-1.774e+05
132	238	-1.562e+05	1.345e+05	-0.49	-42.81	0.0	-34.77	646.56	-237.17	9.125e+04	1.345e+05	-3.441e+05	103.8	-34.77	625.16	-237.17	9.125e+04	9.784e+04	-3.441e+05
		-3.441e+05	6.115e+04	0.19	0.0	51.9	-34.77	625.16	-237.17	9.125e+04	9.784e+04	-2.496e+05	103.8	-34.77	603.75	-237.17	9.125e+04	6.115e+04	-3.441e+05
132	244	-1.562e+05	1.348e+05	-0.49	-42.81	0.0	-34.82	646.09	-238.37	-9.130e+04	1.348e+05	-3.440e+05	103.8	-34.82	624.69	-238.37	-9.130e+04	9.801e+04	-3.440e+05
		-3.440e+05	6.126e+04	0.19	0.0	51.9	-34.82	624.69	-238.37	-9.130e+04	9.801e+04	-2.496e+05	103.8	-34.82	603.28	-238.37	-9.130e+04	6.126e+04	-3.440e+05
132	255	4179.84	-925.64	6.37e-03	-42.81	0.0	0.49	13.77	4.33	4.762e+04	-2009.11	4179.84	103.8	0.49	-7.64	4.33	4.762e+04	-1467.38	-925.64
		1789.54	-2009.11	-2.45e-03	0.0	51.9	0.49	-7.64	4.33	4.762e+04	-1467.38	3539.94	103.8	0.49	-29.05	4.33	4.762e+04	-925.64	-2009.11
132	256	-3.538e+04	2.571e+04	-0.04	-42.81	0.0	-49.72	129.75	-36.67	-2.72	2.571e+04	-6.767e+04	103.8	-49.72	129.75	-36.67	-2.72	2.571e+04	-6.767e+04

Progettazione civile e inserimento ambientale

Agronomia e studi colturali

Progettazione elettrica



Arch. Andrea Giuffrida



Dott. Agr. Gianfranco Giuffrida



SOGGETTO PROPONENTE



SMARTENERGYIT2111 S.R.L.

Comune di Gravina in Puglia (BA) - Località Masseria Pellicciari
 Progetto per la realizzazione di un Nuovo Impianto Agrivoltaico e delle relative opere di
 connessione alla RTN
 Potenza nominale 35,09 MW

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

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	-6.767e+04	1.355e+04	0.02	0.0	51.9	-28.14	108.34	-36.67	-2.72	1.963e+04	-5.097e+04	
					103.8	-6.56	86.93	-36.67	-2.72	1.355e+04	-3.538e+04	
132	257	-5.280e+04	3.432e+04	0.02	-42.81	0.0	-41.86	152.49	-40.05	-2.37	3.432e+04	-9.162e+04
		-9.162e+04	2.016e+04	-8.58e-03	0.0	51.9	-41.86	131.09	-40.05	-2.37	2.724e+04	-7.166e+04
						103.8	-41.86	109.68	-40.05	-2.37	2.016e+04	-5.280e+04
132	258	5235.43	6130.11	-0.14	-42.81	0.0	31.38	78.78	-31.02	-7.81	6130.11	-1.255e+04
		-1.255e+04	-1783.20	0.05	0.0	51.9	31.38	57.38	-31.02	-7.81	2173.46	-3103.62
						103.8	31.38	35.97	-31.02	-7.81	-1783.20	5235.43
132	259	-4.047e+04	3.461e+04	-0.13	-42.81	0.0	-8.96	182.68	-60.82	-8.61	3.461e+04	-8.890e+04
		-8.890e+04	1.573e+04	0.05	0.0	51.9	-8.96	161.28	-60.82	-8.61	2.517e+04	-6.413e+04
						103.8	-8.96	139.87	-60.82	-8.61	1.573e+04	-4.047e+04
132	260	-2.378e+04	2.022e+04	-0.07	-42.81	0.0	-5.24	115.64	-35.53	-5.09	2.022e+04	-5.209e+04
		-5.209e+04	9190.08	0.03	0.0	51.9	-5.24	94.23	-35.53	-5.09	1.471e+04	-3.738e+04
						103.8	-5.24	72.82	-35.53	-5.09	9190.08	-2.378e+04
133	49	7.226e+04	-1.193e+04	0.10	-35.08	0.0	-200.22	-161.56	141.28	-1.467e+05	-3.679e+04	7.226e+04
		2.465e+04	-3.679e+04	-0.04	0.0	42.5	-200.22	-179.10	141.28	-1.467e+05	-2.436e+04	4.883e+04
						85.0	-200.22	-196.64	141.28	-1.467e+05	-1.193e+04	2.465e+04
133	64	-1.488e+04	2.299e+04	-0.43	-45.60	0.0	223.27	119.75	-96.32	-5.622e+04	2.299e+04	4.157e+04
		-4.157e+04	7476.98	0.17	0.0	42.5	223.27	96.95	-96.32	-5.622e+04	1.523e+04	-2.774e+04
						85.0	223.27	74.15	-96.32	-5.622e+04	7476.98	-1.488e+04
133	74	8.083e+04	-1.171e+04	-0.61	-35.08	0.0	-10.11	-193.96	113.05	1.467e+05	-3.545e+04	8.083e+04
		2.722e+04	-3.545e+04	0.24	0.0	42.5	-10.11	-211.50	113.05	1.467e+05	-2.358e+04	5.440e+04
						85.0	-10.11	-229.04	113.05	1.467e+05	-1.171e+04	2.722e+04
133	85	-7196.55	3924.96	0.85	-35.08	0.0	-334.16	83.49	13.99	-1.64	3924.96	-2.156e+04
		-2.156e+04	1641.71	-0.34	0.0	42.5	-201.56	65.95	13.99	-1.64	2783.33	-1.400e+04
						85.0	-68.96	48.41	13.99	-1.64	1641.71	-7196.55
133	99	-3.893e+04	4.964e+04	0.34	-45.60	0.0	141.62	297.33	-164.63	5.622e+04	4.964e+04	-1.094e+05
		-1.094e+05	1.696e+04	-0.14	0.0	42.5	141.62	274.53	-164.63	5.622e+04	3.330e+04	-7.367e+04
						85.0	141.62	251.73	-164.63	5.622e+04	1.696e+04	-3.893e+04
133	111	-3.895e+04	4.947e+04	0.34	-45.60	0.0	141.66	297.83	-163.38	-5.622e+04	4.947e+04	-1.094e+05
		-1.094e+05	1.690e+04	-0.14	0.0	42.5	141.66	275.03	-163.38	-5.622e+04	3.318e+04	-7.372e+04
						85.0	141.66	252.23	-163.38	-5.622e+04	1.690e+04	-3.895e+04
133	125	-1933.94	3983.65	-0.05	-35.08	0.0	20.74	45.49	-18.16	2100.06	3983.65	-9205.76
		-9205.76	887.92	0.05	0.0	42.5	20.74	27.95	-18.16	2100.06	2435.79	-5197.16
						85.0	20.74	10.42	-18.16	2100.06	887.92	-1933.94
133	126	-2668.03	4309.49	-0.04	-35.08	0.0	21.59	45.27	-18.98	-1099.93	4309.49	-9943.51
		-9943.51	1169.60	0.05	0.0	42.5	21.59	27.73	-18.98	-1099.93	2739.54	-5933.07
						85.0	21.59	10.19	-18.98	-1099.93	1169.60	-2668.03
133	127	-5664.68	5753.01	0.11	-35.08	0.0	7.43	46.55	-13.60	1100.66	5753.01	-1.287e+04
		-1.287e+04	2293.25	-0.07	0.0	42.5	7.43	29.01	-13.60	1100.66	4023.13	-8894.18
						85.0	7.43	11.47	-13.60	1100.66	2293.25	-5664.68
133	128	-6398.76	6078.84	0.12	-35.08	0.0	8.29	46.32	-14.41	-2099.32	6078.84	-1.361e+04
		-1.361e+04	2574.93	-0.07	0.0	42.5	8.29	28.78	-14.41	-2099.32	4326.89	-9630.09
						85.0	8.29	11.24	-14.41	-2099.32	2574.93	-6398.76
133	157	-3184.87	4571.30	-2.80e-03	-35.08	0.0	17.26	45.72	-17.13	889.08	4571.30	-1.044e+04
		-1.044e+04	1360.35	0.01	0.0	42.5	17.26	28.18	-17.13	889.08	2965.83	-6438.97
						85.0	17.26	10.65	-17.13	889.08	1360.35	-3184.87
133	158	-3502.16	4710.63	1.97e-03	-35.08	0.0	17.62	45.62	-17.47	-454.58	4710.63	-1.076e+04
		-1.076e+04	1482.58	0.01	0.0	42.5	17.62	28.08	-17.47	-454.58	3096.60	-6757.40
						85.0	17.62	10.54	-17.47	-454.58	1482.58	-3502.16
133	159	-4830.55	5351.87	0.07	-35.08	0.0	11.40	46.19	-15.11	455.32	5351.87	-1.205e+04
		-1.205e+04	1980.27	-0.04	0.0	42.5	11.40	28.65	-15.11	455.32	3666.07	-8069.85
						85.0	11.40	11.11	-15.11	455.32	1980.27	-4830.55
133	160	-5147.84	5491.19	0.07	-35.08	0.0	11.76	46.09	-15.45	-888.34	5491.19	-1.237e+04
		-1.237e+04	2102.50	-0.04	0.0	42.5	11.76	28.55	-15.45	-888.34	3796.84	-8388.28
						85.0	11.76	11.01	-15.45	-888.34	2102.50	-5147.84
133	212	4.437e+04	-7377.77	0.08	-35.08	0.0	-128.64	-92.41	88.75	-9.778e+04	-2.285e+04	4.437e+04
		1.505e+04	-2.285e+04	-0.03	0.0	42.5	-128.64	-109.95	88.75	-9.778e+04	-1.511e+04	3.008e+04
						85.0	-128.64	-127.48	88.75	-9.778e+04	-7377.77	1.505e+04
133	221	-1.047e+04	1.599e+04	-0.28	-35.08	0.0	150.78	85.95	-66.39	-3.748e+04	1.599e+04	-2.924e+04
		-2.924e+04	5215.51	0.11	0.0	42.5	150.78	68.42	-66.39	-3.748e+04	1.060e+04	-1.948e+04
						85.0	150.78	50.88	-66.39	-3.748e+04	5215.51	-1.047e+04

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida



SOGGETTO PROPONENTE



SMARTENERGYIT2111 S.R.L.

Comune di Gravina in Puglia (BA) - Località Masseria Pellicciari
 Progetto per la realizzazione di un Nuovo Impianto Agrivoltaico e delle relative opere di
 connessione alla RTN
 Potenza nominale 35,09 MW

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

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133	225	5.008e+04	-7227.42	-0.40	-35.08	0.0	-1.90	-114.01	69.94	9.778e+04	-2.196e+04	5.008e+04
		1.675e+04	-2.196e+04	0.16	0.0	42.5	-1.90	-131.54	69.94	9.778e+04	-1.459e+04	3.379e+04
						85.0	-1.90	-149.08	69.94	9.778e+04	-7227.42	1.675e+04
133	230	-6186.49	4293.72	0.58	-35.08	0.0	-217.94	70.96	3.90	-0.97	4293.72	-1.817e+04
		-1.817e+04	1671.61	-0.23	0.0	42.5	-129.54	53.42	3.90	-0.97	2982.67	-1.181e+04
						85.0	-41.14	35.89	3.90	-0.97	1671.61	-6186.49
133	238	-2.651e+04	3.376e+04	0.23	-35.08	0.0	96.35	204.34	-111.93	3.748e+04	3.376e+04	-7.444e+04
		-7.444e+04	1.153e+04	-0.09	0.0	42.5	96.35	186.80	-111.93	3.748e+04	2.265e+04	-5.010e+04
						85.0	96.35	169.26	-111.93	3.748e+04	1.153e+04	-2.651e+04
133	244	-2.653e+04	3.365e+04	0.23	-35.08	0.0	96.38	204.67	-111.09	-3.748e+04	3.365e+04	-7.448e+04
		-7.448e+04	1.150e+04	-0.09	0.0	42.5	96.38	187.13	-111.09	-3.748e+04	2.257e+04	-5.013e+04
						85.0	96.38	169.59	-111.09	-3.748e+04	1.150e+04	-2.653e+04
133	253	483.67	-85.53	-4.04e-03	-35.08	0.0	-1.44	16.17	3.06	-1.956e+04	-484.21	309.06
		-157.11	-484.21	1.42e-03	0.0	42.5	-1.44	-1.37	3.06	-1.956e+04	-284.87	448.67
						85.0	-1.44	-18.91	3.06	-1.956e+04	-85.53	-157.11
133	255	502.00	-65.23	-4.03e-03	-35.08	0.0	-1.45	16.00	2.62	1.956e+04	-426.84	332.03
		-148.99	-426.84	1.67e-03	0.0	42.5	-1.45	-1.54	2.62	1.956e+04	-246.04	464.22
						85.0	-1.45	-19.08	2.62	1.956e+04	-65.23	-148.99
133	257	-4861.77	4780.05	0.23	-35.08	0.0	-38.33	54.54	-9.36	0.13	4780.05	-1.374e+04
		-1.374e+04	1711.05	-0.09	0.0	42.5	-38.33	37.01	-9.36	0.13	3245.55	-8927.79
						85.0	-38.33	19.47	-9.36	0.13	1711.05	-4861.77
133	258	-3470.94	5282.44	-0.16	-35.08	0.0	67.35	37.27	-23.22	0.61	5282.44	-9073.38
		-9073.38	1751.80	0.06	0.0	42.5	67.35	19.73	-23.22	0.61	3517.12	-5899.46
						85.0	67.35	2.19	-23.22	0.61	1751.80	-3470.94
133	259	-7098.28	8663.30	0.06	-35.08	0.0	24.77	66.20	-28.00	0.62	8663.30	-1.952e+04
		-1.952e+04	2995.56	-0.02	0.0	42.5	24.77	48.66	-28.00	0.62	5829.43	-1.294e+04
						85.0	24.77	31.12	-28.00	0.62	2995.56	-7098.28
133	260	-4166.35	5031.25	0.04	-35.08	0.0	14.51	45.91	-16.29	0.37	5031.25	-1.141e+04
		-1.141e+04	1731.42	-0.01	0.0	42.5	14.51	28.37	-16.29	0.37	3381.34	-7413.63
						85.0	14.51	10.83	-16.29	0.37	1731.42	-4166.35
134	49	7.226e+04	-1.193e+04	-0.10	-35.08	0.0	-41.82	196.64	-141.28	1.467e+05	-1.193e+04	2.465e+04
		2.465e+04	-3.679e+04	0.04	0.0	42.5	-41.82	179.10	-141.28	1.467e+05	-2.436e+04	4.883e+04
						85.0	-41.82	161.56	-141.28	1.467e+05	-3.679e+04	7.226e+04
134	74	8.083e+04	-1.171e+04	0.61	-35.08	0.0	-2.14	229.04	-113.05	-1.467e+05	-1.171e+04	2.722e+04
		2.722e+04	-3.545e+04	-0.24	0.0	42.5	-2.14	211.50	-113.05	-1.467e+05	-2.358e+04	5.440e+04
						85.0	-2.14	193.96	-113.05	-1.467e+05	-3.545e+04	8.083e+04
134	84	-2386.06	7646.91	0.77	-45.60	0.0	-46.17	23.51	51.46	-2.49	2340.57	-2386.06
		-4676.99	2340.57	-0.31	0.0	42.5	86.43	0.71	51.46	-2.49	4993.74	-3047.02
						85.0	219.03	-22.09	51.46	-2.49	7646.91	-4676.99
134	85	-3639.64	5233.24	0.07	-35.08	0.0	-86.83	-4.34	21.62	-1.50	1747.80	-3639.64
		-9653.58	1747.80	-0.03	0.0	42.5	45.77	-21.88	21.62	-1.50	3490.52	-6273.91
						85.0	178.37	-39.42	21.62	-1.50	5233.24	-9653.58
134	99	-3.893e+04	4.964e+04	-0.34	-45.60	0.0	29.59	-251.73	164.63	-5.622e+04	1.696e+04	-3.893e+04
		-1.094e+05	1.696e+04	0.14	0.0	42.5	29.59	-274.53	164.63	-5.622e+04	3.330e+04	-7.367e+04
						85.0	29.59	-297.33	164.63	-5.622e+04	4.964e+04	-1.094e+05
134	111	-3.895e+04	4.947e+04	-0.34	-45.60	0.0	29.62	-252.23	163.38	5.622e+04	1.690e+04	-3.895e+04
		-1.094e+05	1.690e+04	0.14	0.0	42.5	29.62	-275.03	163.38	5.622e+04	3.318e+04	-7.372e+04
						85.0	29.62	-297.83	163.38	5.622e+04	4.947e+04	-1.094e+05
134	129	-5665.41	5753.28	-0.11	-35.08	0.0	-4.05	-11.47	13.60	-1100.47	2293.56	-5665.41
		-1.287e+04	2293.56	0.07	0.0	42.5	-4.05	-29.01	13.60	-1100.47	4023.42	-8894.92
						85.0	-4.05	-46.55	13.60	-1100.47	5753.28	-1.287e+04
134	130	-6398.84	6078.92	-0.12	-35.08	0.0	-3.19	-11.24	14.41	2099.07	2574.93	-6398.84
		-1.361e+04	2574.93	0.07	0.0	42.5	-3.19	-28.78	14.41	2099.07	4326.93	-9630.15
						85.0	-3.19	-46.32	14.41	2099.07	6078.92	-1.361e+04
134	131	-1933.87	3983.58	0.05	-35.08	0.0	9.26	-10.42	18.16	-2099.81	887.92	-1933.87
		-9205.72	887.92	-0.05	0.0	42.5	9.26	-27.95	18.16	-2099.81	2435.75	-5197.10
						85.0	9.26	-45.49	18.16	-2099.81	3983.58	-9205.72
134	132	-2667.30	4309.22	0.04	-35.08	0.0	10.12	-10.19	18.98	1099.74	1169.29	-2667.30
		-9942.75	1169.29	-0.05	0.0	42.5	10.12	-27.73	18.98	1099.74	2739.25	-5932.33
						85.0	10.12	-45.27	18.98	1099.74	4309.22	-9942.75
134	161	-4830.88	5352.00	-0.07	-35.08	0.0	-0.08	-11.11	15.11	-455.23	1980.41	-4830.88
		-1.205e+04	1980.41	0.04	0.0	42.5	-0.08	-28.65	15.11	-455.23	3666.20	-8070.18

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida



SOGGETTO PROPONENTE



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 Progetto per la realizzazione di un Nuovo Impianto Agrivoltaico e delle relative opere di
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 Potenza nominale 35,09 MW

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

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134	162	-5147.86	5491.22	-0.07	-35.08	85.0	-0.08	-46.19	15.11	-455.23	5352.00	-1.205e+04
		-1.237e+04	2102.49	0.04	0.0	0.0	0.28	-11.01	15.45	888.21	2102.49	-5147.86
						42.5	0.28	-28.55	15.45	888.21	3796.86	-8388.29
						85.0	0.28	-46.09	15.45	888.21	5491.22	-1.237e+04
134	163	-3184.85	4571.28	3.49e-03	-35.08	0.0	5.78	-10.65	17.13	-888.95	1360.36	-3184.85
		-1.044e+04	1360.36	-0.01	0.0	42.5	5.78	-28.18	17.13	-888.95	2965.82	-6438.97
						85.0	5.78	-45.72	17.13	-888.95	4571.28	-1.044e+04
134	164	-3501.83	4710.50	1.58e-03	-35.08	0.0	6.14	-10.54	17.47	454.49	1482.44	-3501.83
		-1.076e+04	1482.44	-0.01	0.0	42.5	6.14	-28.08	17.47	454.49	3096.47	-6757.07
						85.0	6.14	-45.62	17.47	454.49	4710.50	-1.076e+04
134	212	4.437e+04	-7377.77	-0.08	-35.08	0.0	-26.87	127.48	-88.75	9.778e+04	-7377.77	1.505e+04
		1.505e+04	-2.285e+04	0.03	0.0	42.5	-26.87	109.95	-88.75	9.778e+04	-1.511e+04	3.008e+04
						85.0	-26.87	92.41	-88.75	9.778e+04	-2.285e+04	4.437e+04
134	225	5.008e+04	-7227.42	0.40	-35.08	0.0	-0.41	149.08	-69.94	-9.778e+04	-7227.42	1.675e+04
		1.675e+04	-2.196e+04	-0.16	0.0	42.5	-0.41	131.54	-69.94	-9.778e+04	-1.459e+04	3.379e+04
						85.0	-0.41	114.01	-69.94	-9.778e+04	-2.196e+04	5.008e+04
134	230	-3815.21	5165.91	0.04	-35.08	0.0	-56.88	-6.50	19.84	-1.13	1742.34	-3815.21
		-1.024e+04	1742.34	-0.01	0.0	42.5	31.52	-24.04	19.84	-1.13	3454.12	-6653.82
						85.0	119.92	-41.58	19.84	-1.13	5165.91	-1.024e+04
134	231	-2146.22	5768.78	0.51	-35.08	0.0	-30.38	14.23	36.48	-1.71	1791.24	-2146.22
		-4638.83	1791.24	-0.20	0.0	42.5	58.02	-3.31	36.48	-1.71	3780.01	-3019.83
						85.0	146.42	-20.85	36.48	-1.71	5768.78	-4638.83
134	238	-2.651e+04	3.376e+04	-0.23	-35.08	0.0	20.13	-169.26	111.93	-3.748e+04	1.153e+04	-2.651e+04
		-7.444e+04	1.153e+04	0.09	0.0	42.5	20.13	-186.80	111.93	-3.748e+04	2.265e+04	-5.010e+04
						85.0	20.13	-204.34	111.93	-3.748e+04	3.376e+04	-7.444e+04
134	244	-2.653e+04	3.365e+04	-0.23	-35.08	0.0	20.15	-169.59	111.09	3.748e+04	1.150e+04	-2.653e+04
		-7.448e+04	1.150e+04	0.09	0.0	42.5	20.15	-187.13	111.09	3.748e+04	2.257e+04	-5.013e+04
						85.0	20.15	-204.67	111.09	3.748e+04	3.365e+04	-7.448e+04
134	253	483.67	-85.53	4.04e-03	-35.08	0.0	-0.30	18.91	-3.06	1.956e+04	-85.53	-157.11
		-157.11	-484.21	-1.42e-03	0.0	42.5	-0.30	1.37	-3.06	1.956e+04	-284.87	448.67
						85.0	-0.30	-16.17	-3.06	1.956e+04	-484.21	309.06
134	255	502.00	-65.23	4.03e-03	-35.08	0.0	-0.31	19.08	-2.62	-1.956e+04	-65.23	-148.99
		-148.99	-426.84	-1.67e-03	0.0	42.5	-0.31	1.54	-2.62	-1.956e+04	-246.04	464.22
						85.0	-0.31	-16.00	-2.62	-1.956e+04	-426.84	332.03
134	256	-3929.23	5118.47	0.03	-35.08	0.0	-6.30	-7.89	18.66	-0.58	1738.50	-3929.23
		-1.061e+04	1738.50	-0.01	0.0	42.5	11.38	-25.43	18.66	-0.58	3428.48	-6898.27
						85.0	29.06	-42.97	18.66	-0.58	5118.47	-1.061e+04
134	257	-4861.77	4780.05	-0.23	-35.08	0.0	-8.01	-19.47	9.36	-0.13	1711.05	-4861.77
		-1.374e+04	1711.05	0.09	0.0	42.5	-8.01	-37.01	9.36	-0.13	3245.55	-8927.79
						85.0	-8.01	-54.54	9.36	-0.13	4780.05	-1.374e+04
134	259	-7098.28	8663.30	-0.06	-35.08	0.0	5.18	-31.12	28.00	-0.62	2995.56	-7098.28
		-1.952e+04	2995.56	0.02	0.0	42.5	5.18	-48.66	28.00	-0.62	5829.43	-1.294e+04
						85.0	5.18	-66.20	28.00	-0.62	8663.30	-1.952e+04
134	260	-4166.35	5031.25	-0.04	-35.08	0.0	3.03	-10.83	16.29	-0.37	1731.42	-4166.35
		-1.141e+04	1731.42	0.01	0.0	42.5	3.03	-28.37	16.29	-0.37	3381.34	-7413.63
						85.0	3.03	-45.91	16.29	-0.37	5031.25	-1.141e+04
135	49	1.378e+04	290.82	0.15	-35.08	0.0	-27.74	-37.01	46.98	-4.556e+04	-7619.35	1.378e+04
		-733.16	-7619.35	-0.06	0.0	42.5	-27.74	-54.55	46.98	-4.556e+04	-3664.26	6895.19
						85.0	-27.74	-72.09	46.98	-4.556e+04	290.82	-733.16
135	74	1.573e+04	273.22	-0.56	-35.08	0.0	-1.43	-47.68	36.59	4.556e+04	-7151.10	1.573e+04
		-688.80	-7151.10	0.22	0.0	42.5	-1.43	-65.22	36.59	4.556e+04	-3438.94	7893.60
						85.0	-1.43	-82.76	36.59	4.556e+04	273.22	-688.80
135	84	-279.79	1344.68	0.14	-45.60	0.0	-122.92	36.99	-4.18	-0.13	1344.68	-3699.80
		-3699.80	110.99	-0.06	0.0	42.5	9.68	14.18	-4.18	-0.13	727.83	-1505.29
						85.0	142.28	-8.62	-4.18	-0.13	110.99	-279.79
135	85	-261.95	702.93	0.84	-35.08	0.0	-149.90	38.89	5.80	-0.31	702.93	-4829.90
		-4829.90	103.91	-0.33	0.0	42.5	-17.30	21.35	5.80	-0.31	403.42	-2173.22
						85.0	115.30	3.81	5.80	-0.31	103.91	-261.95
135	99	-579.97	1.066e+04	0.27	-45.60	0.0	19.63	110.50	-52.58	1.746e+04	1.066e+04	-2.306e+04
		-2.306e+04	230.06	-0.11	0.0	42.5	19.63	87.70	-52.58	1.746e+04	5444.15	-1.133e+04
						85.0	19.63	64.90	-52.58	1.746e+04	230.06	-579.97
135	111	-579.97	1.060e+04	0.27	-45.60	0.0	19.66	110.77	-51.89	-1.746e+04	1.060e+04	-2.308e+04

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

		-2.308e+04	230.06	-0.11	0.0	42.5	19.66	87.97	-51.89	-1.746e+04	5414.97	-1.135e+04
						85.0	19.66	65.17	-51.89	-1.746e+04	230.06	-579.97
135	125	367.31	883.95	-0.06	-35.08	0.0	3.50	27.15	-4.36	667.97	883.95	-1928.51
		-1928.51	-145.70	0.02	0.0	42.5	3.50	9.62	-4.36	667.97	369.12	-407.90
						85.0	3.50	-7.92	-4.36	667.97	-145.70	367.31
135	126	219.76	939.76	-0.05	-35.08	0.0	3.68	27.27	-4.20	-364.62	939.76	-2084.45
		-2084.45	-87.17	0.02	0.0	42.5	3.68	9.73	-4.20	-364.62	426.29	-559.65
						85.0	3.68	-7.81	-4.20	-364.62	-87.17	219.76
135	127	-634.42	1231.77	0.11	-35.08	0.0	0.34	26.41	-5.03	364.76	1231.77	-2992.86
		-2992.86	251.65	-0.04	0.0	42.5	0.34	8.87	-5.03	364.76	741.71	-1440.94
						85.0	0.34	-8.67	-5.03	364.76	251.65	-634.42
135	128	-781.97	1287.58	0.12	-35.08	0.0	0.52	26.52	-4.87	-667.83	1287.58	-3148.80
		-3148.80	310.18	-0.04	0.0	42.5	0.52	8.98	-4.87	-667.83	798.88	-1592.69
						85.0	0.52	-8.55	-4.87	-667.83	310.18	-781.97
135	157	45.35	996.88	-0.01	-35.08	0.0	2.67	26.98	-4.50	284.22	996.88	-2270.42
		-2270.42	-17.99	3.42e-03	0.0	42.5	2.67	9.44	-4.50	284.22	489.45	-739.84
						85.0	2.67	-8.10	-4.50	284.22	-17.99	45.35
135	158	-19.37	1021.74	-8.54e-03	-35.08	0.0	2.75	27.03	-4.43	-152.55	1021.74	-2338.63
		-2338.63	7.68	4.05e-03	0.0	42.5	2.75	9.49	-4.43	-152.55	514.71	-806.30
						85.0	2.75	-8.05	-4.43	-152.55	7.68	-19.37
135	159	-395.29	1149.79	0.06	-35.08	0.0	1.28	26.65	-4.80	152.69	1149.79	-2738.67
		-2738.67	156.80	-0.03	0.0	42.5	1.28	9.11	-4.80	152.69	653.29	-1194.29
						85.0	1.28	-8.43	-4.80	152.69	156.80	-395.29
135	160	-460.01	1174.65	0.07	-35.08	0.0	1.35	26.70	-4.73	-284.08	1174.65	-2806.88
		-2806.88	182.47	-0.03	0.0	42.5	1.35	9.16	-4.73	-284.08	678.56	-1260.75
						85.0	1.35	-8.38	-4.73	-284.08	182.47	-460.01
135	212	8339.22	221.30	0.11	-35.08	0.0	-17.82	-15.73	29.78	-3.037e+04	-4717.64	8339.22
		-557.88	-4717.64	-0.04	0.0	42.5	-17.82	-33.27	29.78	-3.037e+04	-2248.17	4263.36
						85.0	-17.82	-50.81	29.78	-3.037e+04	221.30	-557.88
135	225	9640.85	209.56	-0.36	-35.08	0.0	-0.28	-22.84	22.86	3.037e+04	-4405.48	9640.85
		-528.31	-4405.48	0.14	0.0	42.5	-0.28	-40.38	22.86	3.037e+04	-2097.96	4928.97
						85.0	-0.28	-57.92	22.86	3.037e+04	209.56	-528.31
135	230	-243.74	830.54	0.57	-35.08	0.0	-99.26	34.87	2.33	-0.18	830.54	-4066.15
		-4066.15	96.68	-0.22	0.0	42.5	-10.86	17.34	2.33	-0.18	463.61	-1782.25
						85.0	77.54	-0.20	2.33	-0.18	96.68	-243.74
135	231	-214.17	1041.22	0.10	-35.08	0.0	-81.68	28.24	-3.40	-0.08	1041.22	-2805.02
		-2805.02	84.96	-0.04	0.0	42.5	6.72	10.70	-3.40	-0.08	563.09	-1136.90
						85.0	95.12	-6.84	-3.40	-0.08	84.96	-214.17
135	238	-414.29	7250.26	0.18	-35.08	0.0	13.36	77.24	-35.67	1.164e+04	7250.26	-1.571e+04
		-1.571e+04	164.34	-0.07	0.0	42.5	13.36	59.71	-35.67	1.164e+04	3707.30	-7689.28
						85.0	13.36	42.17	-35.67	1.164e+04	164.34	-414.29
135	244	-414.29	7211.36	0.18	-35.08	0.0	13.37	77.43	-35.21	-1.164e+04	7211.36	-1.573e+04
		-1.573e+04	164.34	-0.07	0.0	42.5	13.37	59.89	-35.21	-1.164e+04	3687.85	-7697.04
						85.0	13.37	42.35	-35.21	-1.164e+04	164.34	-414.29
135	253	116.97	108.88	-3.91e-03	-35.08	0.0	-0.20	17.66	1.69	-6074.35	-53.85	-236.97
		-274.48	-53.85	1.38e-03	0.0	42.5	-0.20	0.12	1.69	-6074.35	27.52	116.97
						85.0	-0.20	-17.42	1.69	-6074.35	108.88	-274.48
135	255	121.02	108.88	-3.90e-03	-35.08	0.0	-0.20	17.57	1.45	6074.51	-33.55	-228.87
		-274.48	-33.55	1.64e-03	0.0	42.5	-0.20	0.03	1.45	6074.51	37.66	121.02
						85.0	-0.20	-17.51	1.45	6074.51	108.88	-274.48
135	256	-211.66	1055.79	0.09	-35.08	0.0	-16.48	27.78	-3.80	0.03	1055.79	-2718.04
		-2718.04	83.96	-0.04	0.0	42.5	1.20	10.24	-3.80	0.03	569.87	-1092.15
						85.0	18.88	-7.30	-3.80	0.03	83.96	-211.66
135	259	-274.46	1881.84	0.05	-35.08	0.0	3.43	33.40	-8.41	0.12	1881.84	-4290.61
		-4290.61	108.87	-0.02	0.0	42.5	3.43	15.86	-8.41	0.12	995.36	-1909.84
						85.0	3.43	-1.68	-8.41	0.12	108.87	-274.46
135	260	-207.33	1085.76	0.03	-35.08	0.0	2.01	26.84	-4.62	0.07	1085.76	-2538.65
		-2538.65	82.24	-0.01	0.0	42.5	2.01	9.30	-4.62	0.07	584.00	-1000.30
						85.0	2.01	-8.24	-4.62	0.07	82.24	-207.33
136	50	-1.613e+05	8.312e+04	-0.55	-42.81	0.0	3.50	181.69	-62.68	4.150e+04	8.312e+04	-2.096e+05
		-2.096e+05	6.404e+04	0.22	0.0	51.9	3.50	160.28	-62.68	4.150e+04	7.358e+04	-1.849e+05
						103.8	3.50	138.88	-62.68	4.150e+04	6.404e+04	-1.613e+05

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

136	84	5.684e+04	-1.082e+04	-0.33	-55.66	0.0	-155.08	127.35	-37.26	30.33	-1.082e+04	2.694e+04
		2.694e+04	-2.245e+04	0.13	0.0	51.9	6.77	99.52	-37.26	30.33	-1.663e+04	4.261e+04
						103.8	168.62	71.69	-37.26	30.33	-2.245e+04	5.684e+04
136	85	3.458e+04	-1.277e+04	-0.02	-42.81	0.0	-105.78	30.30	-2.94	18.09	-1.277e+04	3.193e+04
		3.193e+04	-1.376e+04	9.50e-03	0.0	51.9	56.07	8.90	-2.94	18.09	-1.327e+04	3.381e+04
						103.8	217.92	-12.51	-2.94	18.09	-1.376e+04	3.458e+04
136	99	2.763e+05	-9.146e+04	0.53	-55.66	0.0	-36.96	-125.14	60.45	-1.587e+04	-1.098e+05	2.763e+05
		2.301e+05	-1.098e+05	-0.21	0.0	51.9	-36.96	-152.97	60.45	-1.587e+04	-1.006e+05	2.540e+05
						103.8	-36.96	-180.80	60.45	-1.587e+04	-9.146e+04	2.301e+05
136	130	2.689e+04	-8901.76	0.16	-42.81	0.0	-6.28	4.96	6.55	-858.27	-1.079e+04	2.689e+04
		2.213e+04	-1.079e+04	-0.08	0.0	51.9	-6.28	-16.45	6.55	-858.27	-9843.94	2.507e+04
						103.8	-6.28	-37.86	6.55	-858.27	-8901.76	2.213e+04
136	131	2.923e+04	-9852.40	-0.05	-42.81	0.0	-1.27	6.51	5.83	867.57	-1.172e+04	2.923e+04
		2.452e+04	-1.172e+04	0.04	0.0	51.9	-1.27	-14.90	5.83	867.57	-1.078e+04	2.743e+04
						103.8	-1.27	-36.31	5.83	867.57	-9852.40	2.452e+04
136	149	2.021e+04	-6269.64	0.07	-42.81	0.0	-3.33	5.73	6.20	2147.72	-8136.83	2.021e+04
		1.550e+04	-8136.83	-0.03	0.0	51.9	-3.33	-15.68	6.20	2147.72	-7203.23	1.841e+04
						103.8	-3.33	-37.09	6.20	2147.72	-6269.64	1.550e+04
136	152	3.591e+04	-1.248e+04	0.04	-42.81	0.0	-4.22	5.74	6.18	-2138.41	-1.437e+04	3.591e+04
		3.116e+04	-1.437e+04	-0.01	0.0	51.9	-4.22	-15.67	6.18	-2138.41	-1.343e+04	3.409e+04
						103.8	-4.22	-37.08	6.18	-2138.41	-1.248e+04	3.116e+04
136	162	2.750e+04	-9151.46	0.10	-42.81	0.0	-4.86	5.40	6.35	-358.92	-1.103e+04	2.750e+04
		2.276e+04	-1.103e+04	-0.05	0.0	51.9	-4.86	-16.01	6.35	-358.92	-1.009e+04	2.569e+04
						103.8	-4.86	-37.42	6.35	-358.92	-9151.46	2.276e+04
136	163	2.862e+04	-9602.70	0.01	-42.81	0.0	-2.69	6.07	6.03	368.23	-1.147e+04	2.862e+04
		2.390e+04	-1.147e+04	5.80e-03	0.0	51.9	-2.69	-15.34	6.03	368.23	-1.054e+04	2.681e+04
						103.8	-2.69	-36.75	6.03	368.23	-9602.70	2.390e+04
136	181	2.476e+04	-8069.17	0.06	-42.81	0.0	-3.60	5.73	6.20	900.09	-9940.68	2.476e+04
		2.003e+04	-9940.68	-0.03	0.0	51.9	-3.60	-15.68	6.20	900.09	-9004.92	2.295e+04
						103.8	-3.60	-37.09	6.20	900.09	-8069.17	2.003e+04
136	184	3.136e+04	-1.068e+04	0.05	-42.81	0.0	-3.95	5.74	6.18	-890.78	-1.256e+04	3.136e+04
		2.662e+04	-1.256e+04	-0.02	0.0	51.9	-3.95	-15.67	6.18	-890.78	-1.162e+04	2.955e+04
						103.8	-3.95	-37.08	6.18	-890.78	-1.068e+04	2.662e+04
136	213	-9.973e+04	5.167e+04	-0.35	-42.81	0.0	1.08	123.04	-39.72	2.767e+04	5.167e+04	-1.304e+05
		-1.304e+05	3.957e+04	0.14	0.0	51.9	1.08	101.63	-39.72	2.767e+04	4.562e+04	-1.145e+05
						103.8	1.08	80.22	-39.72	2.767e+04	3.957e+04	-9.973e+04
136	230	3.129e+04	-1.227e+04	-9.26e-03	-42.81	0.0	-71.78	22.11	0.10	13.61	-1.227e+04	3.064e+04
		3.064e+04	-1.230e+04	3.69e-03	0.0	51.9	36.12	0.71	0.10	13.61	-1.228e+04	3.129e+04
						103.8	144.02	-20.70	0.10	13.61	-1.230e+04	3.064e+04
136	231	4.100e+04	-8710.89	-0.21	-42.81	0.0	-103.89	85.66	-24.01	20.84	-8710.89	2.170e+04
		2.170e+04	-1.622e+04	0.08	0.0	51.9	4.01	64.26	-24.01	20.84	-1.246e+04	3.191e+04
						103.8	111.91	42.85	-24.01	20.84	-1.622e+04	4.100e+04
136	238	1.880e+05	-6.222e+04	0.36	-42.81	0.0	-25.14	-82.67	41.13	-1.058e+04	-7.467e+04	1.880e+05
		1.565e+05	-7.467e+04	-0.14	0.0	51.9	-25.14	-104.07	41.13	-1.058e+04	-6.845e+04	1.728e+05
						103.8	-25.14	-125.48	41.13	-1.058e+04	-6.222e+04	1.565e+05
136	253	-1942.39	976.64	-4.97e-03	-42.81	0.0	0.40	22.84	-0.58	5536.92	976.64	-2733.90
		-2733.90	803.24	2.18e-03	0.0	51.9	0.40	1.43	-0.58	5536.92	889.94	-1961.88
						103.8	0.40	-19.98	-0.58	5536.92	803.24	-2300.37
136	256	2.770e+04	-1.035e+04	0.02	-42.81	0.0	-20.59	15.36	2.56	7.17	-1.110e+04	2.768e+04
		2.585e+04	-1.110e+04	-9.07e-03	0.0	51.9	0.99	-6.04	2.56	7.17	-1.073e+04	2.732e+04
						103.8	22.57	-27.45	2.56	7.17	-1.035e+04	2.585e+04
136	259	4.824e+04	-1.604e+04	0.09	-42.81	0.0	-6.45	-5.39	10.58	7.86	-1.925e+04	4.824e+04
		4.015e+04	-1.925e+04	-0.04	0.0	51.9	-6.45	-26.80	10.58	7.86	-1.765e+04	4.475e+04
						103.8	-6.45	-48.21	10.58	7.86	-1.604e+04	4.015e+04
136	260	2.806e+04	-9377.08	0.05	-42.81	0.0	-3.78	5.73	6.19	4.65	-1.125e+04	2.806e+04
		2.333e+04	-1.125e+04	-0.02	0.0	51.9	-3.78	-15.68	6.19	4.65	-1.031e+04	2.625e+04
						103.8	-3.78	-37.08	6.19	4.65	-9377.08	2.333e+04
137	50	-2.138e+05	8.606e+04	-0.09	-42.81	0.0	3.30	32.28	-4.16	5.041e+04	8.606e+04	-2.170e+05
		-2.170e+05	8.479e+04	0.03	0.0	51.9	3.30	10.87	-4.16	5.041e+04	8.543e+04	-2.148e+05
						103.8	3.30	-10.54	-4.16	5.041e+04	8.479e+04	-2.138e+05
137	74	-2.138e+05	8.604e+04	-0.09	-42.81	0.0	2.85	32.36	-3.87	-5.044e+04	8.604e+04	-2.170e+05
		-2.170e+05	8.480e+04	0.04	0.0	51.9	2.85	10.95	-3.87	-5.044e+04	8.542e+04	-2.148e+05

Progettazione civile e inserimento ambientale

Agronomia e studi culturali

Progettazione elettrica



Arch. Andrea Giuffrida



Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

137	84	3.961e+04	-1.425e+04	-0.04	-55.66	0.0	-167.26	41.48	-5.28	7.54	-1.425e+04	3.549e+04
		3.549e+04	-1.587e+04	0.02	0.0	51.9	-5.41	13.65	-5.28	7.54	-1.506e+04	3.827e+04
						103.8	156.44	-14.18	-5.28	7.54	-1.587e+04	3.961e+04
137	85	8.327e+04	-1.988e+04	-0.32	-42.81	0.0	-116.98	132.77	-42.50	19.94	-1.988e+04	4.974e+04
		4.974e+04	-3.300e+04	0.13	0.0	51.9	44.87	111.37	-42.50	19.94	-2.644e+04	6.706e+04
						103.8	206.72	89.96	-42.50	19.94	-3.300e+04	8.327e+04
137	99	2.799e+05	-1.017e+05	0.31	-55.66	0.0	-37.32	-53.06	30.35	-1.936e+04	-1.112e+05	2.799e+05
		2.557e+05	-1.112e+05	-0.12	0.0	51.9	-37.32	-80.89	30.35	-1.936e+04	-1.065e+05	2.685e+05
						103.8	-37.32	-108.72	30.35	-1.936e+04	-1.017e+05	2.557e+05
137	111	2.799e+05	-1.017e+05	0.31	-55.66	0.0	-37.15	-53.10	30.24	1.930e+04	-1.112e+05	2.799e+05
		2.557e+05	-1.112e+05	-0.12	0.0	51.9	-37.15	-80.93	30.24	1.930e+04	-1.065e+05	2.685e+05
						103.8	-37.15	-108.76	30.24	1.930e+04	-1.017e+05	2.557e+05
137	141	1.954e+04	-6903.42	0.03	-42.81	0.0	-2.41	13.02	3.12	-2295.93	-7870.41	1.954e+04
		1.705e+04	-7870.41	-0.02	0.0	51.9	-2.41	-8.39	3.12	-2295.93	-7386.91	1.885e+04
						103.8	-2.41	-29.80	3.12	-2295.93	-6903.42	1.705e+04
137	144	3.732e+04	-1.396e+04	0.03	-42.81	0.0	-5.22	13.20	3.07	2286.62	-1.493e+04	3.732e+04
		3.484e+04	-1.493e+04	-8.67e-03	0.0	51.9	-5.22	-8.21	3.07	2286.62	-1.444e+04	3.644e+04
						103.8	-5.22	-29.62	3.07	2286.62	-1.396e+04	3.484e+04
137	173	2.470e+04	-8951.35	0.03	-42.81	0.0	-3.22	13.07	3.10	-993.62	-9918.10	2.470e+04
		2.221e+04	-9918.10	-0.01	0.0	51.9	-3.22	-8.34	3.10	-993.62	-9434.73	2.401e+04
						103.8	-3.22	-29.75	3.10	-993.62	-8951.35	2.221e+04
137	176	3.216e+04	-1.191e+04	0.03	-42.81	0.0	-4.41	13.15	3.08	984.30	-1.288e+04	3.216e+04
		2.968e+04	-1.288e+04	-0.01	0.0	51.9	-4.41	-8.26	3.08	984.30	-1.240e+04	3.147e+04
						103.8	-4.41	-29.66	3.08	984.30	-1.191e+04	2.968e+04
137	213	-1.338e+05	5.357e+04	-0.05	-42.81	0.0	0.93	25.89	-1.74	3.361e+04	5.357e+04	-1.352e+05
		-1.352e+05	5.305e+04	0.02	0.0	51.9	0.93	4.48	-1.74	3.361e+04	5.331e+04	-1.340e+05
						103.8	0.93	-16.93	-1.74	3.361e+04	5.305e+04	-1.339e+05
137	225	-1.338e+05	5.356e+04	-0.05	-42.81	0.0	0.63	25.94	-1.55	-3.363e+04	5.356e+04	-1.352e+05
		-1.352e+05	5.306e+04	0.02	0.0	51.9	0.63	4.54	-1.55	-3.363e+04	5.331e+04	-1.340e+05
						103.8	0.63	-16.87	-1.55	-3.363e+04	5.306e+04	-1.339e+05
137	230	6.416e+04	-1.705e+04	-0.20	-42.81	0.0	-79.26	92.89	-27.31	11.74	-1.705e+04	4.264e+04
		4.264e+04	-2.548e+04	0.08	0.0	51.9	28.64	71.48	-27.31	11.74	-2.127e+04	5.396e+04
						103.8	136.54	50.07	-27.31	11.74	-2.548e+04	6.416e+04
137	231	2.986e+04	-1.102e+04	-0.03	-42.81	0.0	-112.02	29.40	-3.10	4.40	-1.102e+04	2.745e+04
		2.745e+04	-1.197e+04	0.01	0.0	51.9	-4.12	7.99	-3.10	4.40	-1.149e+04	2.921e+04
						103.8	103.78	-13.41	-3.10	4.40	-1.197e+04	2.986e+04
137	238	1.904e+05	-6.922e+04	0.21	-42.81	0.0	-25.39	-33.63	20.64	-1.291e+04	-7.565e+04	1.904e+05
		1.739e+05	-7.565e+04	-0.08	0.0	51.9	-25.39	-55.04	20.64	-1.291e+04	-7.243e+04	1.827e+05
						103.8	-25.39	-76.44	20.64	-1.291e+04	-6.922e+04	1.739e+05
137	244	1.904e+05	-6.922e+04	0.21	-42.81	0.0	-25.28	-33.65	20.57	1.287e+04	-7.564e+04	1.904e+05
		1.739e+05	-7.564e+04	-0.08	0.0	51.9	-25.28	-55.06	20.57	1.287e+04	-7.243e+04	1.827e+05
						103.8	-25.28	-76.46	20.57	1.287e+04	-6.922e+04	1.739e+05
137	253	-2123.14	992.68	-2.55e-03	-42.81	0.0	0.41	22.01	-0.30	6718.40	992.68	-2774.34
		-2774.34	913.25	8.05e-04	0.0	51.9	0.41	0.61	-0.30	6718.40	952.97	-2126.09
						103.8	0.41	-20.80	-0.30	6718.40	913.25	-2588.35
137	255	-2122.93	990.27	-2.51e-03	-42.81	0.0	0.35	22.02	-0.26	6728.43	990.27	-2774.36
		-2774.36	915.05	1.10e-03	0.0	51.9	0.35	0.62	-0.26	6728.43	952.66	-2125.90
						103.8	0.35	-20.79	-0.26	6728.43	915.05	-2587.97
137	256	3.053e+04	-1.193e+04	-0.01	-42.81	0.0	-22.18	22.72	-0.57	-2.11	-1.193e+04	2.975e+04
		2.975e+04	-1.209e+04	4.12e-03	0.0	51.9	-0.60	1.31	-0.57	-2.11	-1.201e+04	3.051e+04
						103.8	20.98	-20.10	-0.57	-2.11	-1.209e+04	3.016e+04
137	259	4.887e+04	-1.784e+04	0.05	-42.81	0.0	-6.51	7.18	5.30	-7.86	-1.950e+04	4.887e+04
		4.460e+04	-1.950e+04	-0.02	0.0	51.9	-6.51	-14.23	5.30	-7.86	-1.867e+04	4.729e+04
						103.8	-6.51	-35.64	5.30	-7.86	-1.784e+04	4.460e+04
137	260	2.843e+04	-1.043e+04	0.03	-42.81	0.0	-3.81	13.11	3.09	-4.66	-1.140e+04	2.843e+04
		2.594e+04	-1.140e+04	-0.01	0.0	51.9	-3.81	-8.30	3.09	-4.66	-1.092e+04	2.774e+04
						103.8	-3.81	-29.71	3.09	-4.66	-1.043e+04	2.594e+04
138	50	-1.491e+05	8.102e+04	0.72	-42.81	0.0	3.25	-162.05	71.28	-1.435e+05	5.928e+04	-1.491e+05
		-2.043e+05	5.928e+04	-0.28	0.0	51.9	3.25	-183.46	71.28	-1.435e+05	7.015e+04	-1.761e+05
						103.8	3.25	-204.87	71.28	-1.435e+05	8.102e+04	-2.043e+05
138	74	-1.490e+05	8.104e+04	0.72	-42.81	0.0	2.97	-162.24	70.73	1.435e+05	5.935e+04	-1.490e+05

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida



SOGGETTO PROPONENTE



SMARTENERGYIT2111 S.R.L.

Comune di Gravina in Puglia (BA) - Località Masseria Pellicciari
 Progetto per la realizzazione di un Nuovo Impianto Agrivoltaico e delle relative opere di
 connessione alla RTN
 Potenza nominale 35,09 MW

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

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138	259	4.119e+04	-9961.27	-0.18	-42.81	0.0	-7.71	77.28	-20.94	7.95	-9961.27	2.442e+04
		2.442e+04	-1.649e+04	0.07	0.0	51.9	-7.71	55.87	-20.94	7.95	-1.322e+04	3.336e+04
						103.8	-7.71	34.47	-20.94	7.95	-1.649e+04	4.119e+04
138	260	2.395e+04	-5830.99	-0.11	-42.81	0.0	-4.52	54.04	-12.23	4.70	-5830.99	1.416e+04
		1.416e+04	-9641.30	0.04	0.0	51.9	-4.52	32.63	-12.23	4.70	-7736.14	1.961e+04
						103.8	-4.52	11.22	-12.23	4.70	-9641.30	2.395e+04
139	49	-9.024e+04	6.400e+04	0.73	-42.81	0.0	47.11	-214.88	94.75	-1.353e+05	3.558e+04	-9.024e+04
		-1.616e+05	3.558e+04	-0.29	0.0	51.9	47.11	-236.28	94.75	-1.353e+05	4.979e+04	-1.254e+05
						103.8	47.11	-257.69	94.75	-1.353e+05	6.400e+04	-1.616e+05
139	73	-9.027e+04	6.394e+04	0.73	-42.81	0.0	47.04	-214.53	95.69	1.353e+05	3.542e+04	-9.027e+04
		-1.616e+05	3.542e+04	-0.29	0.0	51.9	47.04	-235.94	95.69	1.353e+05	4.968e+04	-1.254e+05
						103.8	47.04	-257.35	95.69	1.353e+05	6.394e+04	-1.616e+05
139	84	1.311e+04	3534.02	-0.19	-55.66	0.0	-184.63	105.15	-28.56	7.22	3534.02	-1.006e+04
		-1.006e+04	-5439.80	0.08	0.0	51.9	-22.78	77.32	-28.56	7.22	-952.89	2244.96
						103.8	139.07	49.49	-28.56	7.22	-5439.80	1.311e+04
139	85	-1.772e+04	2.533e+04	-0.42	-42.81	0.0	-143.90	184.37	-58.38	19.29	2.533e+04	-6.645e+04
		-6.645e+04	6646.84	0.17	0.0	51.9	17.95	162.97	-58.38	19.29	1.599e+04	-4.153e+04
						103.8	179.80	141.56	-58.38	19.29	6646.84	-1.772e+04
139	99	2.035e+05	-3.465e+04	-1.18	-55.66	0.0	-36.77	416.64	-151.79	5.182e+04	-3.465e+04	8.629e+04
		8.629e+04	-8.087e+04	0.47	0.0	51.9	-36.77	388.81	-151.79	5.182e+04	-5.776e+04	1.456e+05
						103.8	-36.77	360.98	-151.79	5.182e+04	-8.087e+04	2.035e+05
139	111	2.035e+05	-3.459e+04	-1.18	-55.66	0.0	-36.74	416.51	-152.15	-5.188e+04	-3.459e+04	8.631e+04
		8.631e+04	-8.085e+04	0.47	0.0	51.9	-36.74	388.68	-152.15	-5.188e+04	-5.772e+04	1.456e+05
						103.8	-36.74	360.85	-152.15	-5.188e+04	-8.085e+04	2.035e+05
139	125	2.632e+04	-5846.10	-0.10	-42.81	0.0	0.30	60.30	-15.36	-2186.23	-5846.10	1.440e+04
		1.440e+04	-1.057e+04	0.04	0.0	51.9	0.30	38.89	-15.36	-2186.23	-8206.67	2.091e+04
						103.8	0.30	17.48	-15.36	-2186.23	-1.057e+04	2.632e+04
139	126	2.873e+04	-6790.20	-0.12	-42.81	0.0	-0.37	60.61	-15.48	1100.47	-6790.20	1.677e+04
		1.677e+04	-1.152e+04	0.05	0.0	51.9	-0.37	39.21	-15.48	1100.47	-9156.53	2.331e+04
						103.8	-0.37	17.80	-15.48	1100.47	-1.152e+04	2.873e+04
139	127	1.246e+04	-329.61	-0.12	-42.81	0.0	-7.16	61.91	-15.56	-1109.85	-329.61	401.36
		401.36	-5062.20	0.05	0.0	51.9	-7.16	40.50	-15.56	-1109.85	-2695.91	6987.07
						103.8	-7.16	19.09	-15.56	-1109.85	-5062.20	1.246e+04
139	128	1.487e+04	-1273.71	-0.14	-42.81	0.0	-7.84	62.22	-15.68	2176.85	-1273.71	2777.37
		2777.37	-6017.82	0.05	0.0	51.9	-7.84	40.81	-15.68	2176.85	-3645.76	9379.30
						103.8	-7.84	19.41	-15.68	2176.85	-6017.82	1.487e+04
139	157	2.316e+04	-4583.91	-0.11	-42.81	0.0	-2.00	60.85	-15.45	-912.24	-4583.91	1.119e+04
		1.119e+04	-9311.73	0.05	0.0	51.9	-2.00	39.44	-15.45	-912.24	-6947.82	1.773e+04
						103.8	-2.00	18.03	-15.45	-912.24	-9311.73	2.316e+04
139	158	2.417e+04	-4979.85	-0.12	-42.81	0.0	-2.28	60.98	-15.50	435.77	-4979.85	1.219e+04
		1.219e+04	-9712.44	0.05	0.0	51.9	-2.28	39.57	-15.50	435.77	-7346.14	1.873e+04
						103.8	-2.28	18.16	-15.50	435.77	-9712.44	2.417e+04
139	159	1.702e+04	-2139.96	-0.12	-42.81	0.0	-5.25	61.54	-15.54	-445.15	-2139.96	4989.48
		4989.48	-6872.63	0.05	0.0	51.9	-5.25	40.13	-15.54	-445.15	-4506.29	1.156e+04
						103.8	-5.25	18.73	-15.54	-445.15	-6872.63	1.702e+04
139	160	1.803e+04	-2535.89	-0.13	-42.81	0.0	-5.53	61.67	-15.59	902.86	-2535.89	5985.90
		5985.90	-7273.34	0.05	0.0	51.9	-5.53	40.27	-15.59	902.86	-4904.62	1.256e+04
						103.8	-5.53	18.86	-15.59	902.86	-7273.34	1.803e+04
139	212	-5.729e+04	3.990e+04	0.45	-42.81	0.0	30.15	-122.83	57.99	-9.019e+04	2.253e+04	-5.729e+04
		-1.009e+05	2.253e+04	-0.18	0.0	51.9	30.15	-144.24	57.99	-9.019e+04	3.122e+04	-7.853e+04
						103.8	30.15	-165.65	57.99	-9.019e+04	3.990e+04	-1.009e+05
139	224	-5.732e+04	3.986e+04	0.45	-42.81	0.0	30.11	-122.60	58.62	9.018e+04	2.243e+04	-5.732e+04
		-1.009e+05	2.243e+04	-0.18	0.0	51.9	30.11	-144.01	58.62	9.018e+04	3.114e+04	-7.854e+04
						103.8	30.11	-165.42	58.62	9.018e+04	3.986e+04	-1.009e+05
139	230	-4950.97	1.570e+04	-0.32	-42.81	0.0	-97.19	143.34	-44.09	11.30	1.570e+04	-4.144e+04
		-4.144e+04	1667.05	0.13	0.0	51.9	10.71	121.93	-44.09	11.30	8682.11	-2.264e+04
						103.8	118.61	100.52	-44.09	11.30	1667.05	-4950.97
139	231	1.149e+04	1881.36	-0.14	-42.81	0.0	-123.59	78.27	-21.11	4.19	1881.36	-5564.82
		-5564.82	-4732.20	0.06	0.0	51.9	-15.69	56.86	-21.11	4.19	-1425.42	3516.17
						103.8	92.21	35.45	-21.11	4.19	-4732.20	1.149e+04
139	238	1.384e+05	-2.358e+04	-0.80	-42.81	0.0	-25.02	285.93	-103.26	3.455e+04	-2.358e+04	5.867e+04
		5.867e+04	-5.502e+04	0.32	0.0	51.9	-25.02	264.52	-103.26	3.455e+04	-3.930e+04	9.908e+04

Progettazione civile e inserimento ambientale

Agronomia e studi culturali

Progettazione elettrica



Arch. Andrea Giuffrida



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PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

139	244	1.384e+05	-2.353e+04	-0.80	-42.81	103.8	-25.02	243.11	-103.26	3.455e+04	-5.502e+04	1.384e+05
		5.868e+04	-5.500e+04	0.32	0.0	0.0	-25.00	285.84	-103.50	-3.459e+04	-2.353e+04	5.868e+04
						51.9	-25.00	264.43	-103.50	-3.459e+04	-3.927e+04	9.909e+04
						103.8	-25.00	243.03	-103.50	-3.459e+04	-5.500e+04	1.384e+05
139	256	1.713e+04	-1090.07	-0.14	-42.81	0.0	-25.09	71.17	-18.94	-2.20	-1090.07	2170.13
		2170.13	-6940.54	0.06	0.0	51.9	-3.51	49.76	-18.94	-2.20	-4015.31	1.020e+04
						103.8	18.07	28.35	-18.94	-2.20	-6940.54	1.713e+04
139	257	1.375e+04	2196.68	-0.19	-42.81	0.0	7.24	88.37	-25.10	-1.73	2196.68	-6359.27
		-6359.27	-5626.18	0.08	0.0	51.9	7.24	66.96	-25.10	-1.73	-1714.75	4248.27
						103.8	7.24	45.56	-25.10	-1.73	-5626.18	1.375e+04
139	259	3.547e+04	-6092.18	-0.21	-42.81	0.0	-6.43	89.59	-26.55	-7.93	-6092.18	1.493e+04
		1.493e+04	-1.419e+04	0.08	0.0	51.9	-6.43	68.18	-26.55	-7.93	-1.014e+04	2.576e+04
						103.8	-6.43	46.77	-26.55	-7.93	-1.419e+04	3.547e+04
139	260	2.059e+04	-3559.90	-0.12	-42.81	0.0	-3.77	61.26	-15.52	-4.69	-3559.90	8588.08
		8588.08	-8292.53	0.05	0.0	51.9	-3.77	39.85	-15.52	-4.69	-5926.22	1.515e+04
						103.8	-3.77	18.44	-15.52	-4.69	-8292.53	2.059e+04
140	50	1.606e+05	-1595.72	-1.03	-42.81	0.0	8.97	539.61	-195.81	2.358e+05	-1595.72	5050.12
		5050.12	-6.229e+04	0.41	0.0	51.9	8.97	518.20	-195.81	2.358e+05	-3.194e+04	8.338e+04
						103.8	8.97	496.80	-195.81	2.358e+05	-6.229e+04	1.606e+05
140	74	1.605e+05	-1757.92	-1.03	-42.81	0.0	8.98	538.63	-198.36	-2.358e+05	-1757.92	5021.16
		5021.16	-6.272e+04	0.41	0.0	51.9	8.98	517.22	-198.36	-2.358e+05	-3.224e+04	8.331e+04
						103.8	8.98	495.81	-198.36	-2.358e+05	-6.272e+04	1.605e+05
140	84	1.054e+05	-3.563e+04	0.13	-55.66	0.0	-125.46	77.82	-3.02	29.81	-3.563e+04	9.155e+04
		9.155e+04	-3.940e+04	-0.05	0.0	51.9	36.39	50.00	-3.02	29.81	-3.752e+04	9.922e+04
						103.8	198.24	22.17	-3.02	29.81	-3.940e+04	1.054e+05
140	85	2.716e+04	-5740.34	0.17	-42.81	0.0	-87.43	-14.94	18.81	17.98	-1.067e+04	2.716e+04
		1.589e+04	-1.067e+04	-0.07	0.0	51.9	74.42	-36.34	18.81	17.98	-8203.64	2.208e+04
						103.8	236.27	-57.75	18.81	17.98	-5740.34	1.589e+04
140	99	3.624e+04	6.024e+04	1.34	-55.66	0.0	-36.95	-607.81	244.67	-9.035e+04	-1.479e+04	3.624e+04
		-1.549e+05	-1.479e+04	-0.53	0.0	51.9	-36.95	-635.64	244.67	-9.035e+04	2.272e+04	-5.861e+04
						103.8	-36.95	-663.47	244.67	-9.035e+04	6.024e+04	-1.549e+05
140	111	3.625e+04	6.041e+04	1.34	-55.66	0.0	-36.96	-607.44	245.64	9.041e+04	-1.473e+04	3.625e+04
		-1.548e+05	-1.473e+04	-0.53	0.0	51.9	-36.96	-635.27	245.64	9.041e+04	2.284e+04	-5.858e+04
						103.8	-36.96	-663.10	245.64	9.041e+04	6.041e+04	-1.548e+05
140	130	-8834.59	1.113e+04	0.14	-42.81	0.0	-10.52	-44.44	26.12	-3593.10	3331.50	-8834.59
		-2.848e+04	3331.50	-0.05	0.0	51.9	-10.52	-65.84	26.12	-3593.10	7228.56	-1.810e+04
						103.8	-10.52	-87.25	26.12	-3593.10	1.113e+04	-2.848e+04
140	131	1.575e+04	1181.08	0.13	-42.81	0.0	2.94	-43.09	23.82	3602.71	-6382.16	1.575e+04
		-3778.29	-6382.16	-0.05	0.0	51.9	2.94	-64.50	23.82	3602.71	-2600.54	6542.34
						103.8	2.94	-85.91	23.82	3602.71	1181.08	-3778.29
140	162	-1921.31	8328.94	0.14	-42.81	0.0	-6.72	-44.05	25.47	-1491.65	600.30	-1921.31
		-2.153e+04	600.30	-0.05	0.0	51.9	-6.72	-65.46	25.47	-1491.65	4464.62	-1.117e+04
						103.8	-6.72	-86.86	25.47	-1491.65	8328.94	-2.153e+04
140	163	8839.17	3977.76	0.14	-42.81	0.0	-0.85	-43.48	24.47	1501.26	-3650.96	8839.17
		-1.072e+04	-3650.96	-0.05	0.0	51.9	-0.85	-64.89	24.47	1501.26	163.40	-387.61
						103.8	-0.85	-86.29	24.47	1501.26	3977.76	-1.072e+04
140	213	1.017e+05	-1572.26	-0.64	-42.81	0.0	4.72	345.15	-122.21	1.572e+05	-1572.26	4519.72
		4519.72	-3.948e+04	0.25	0.0	51.9	4.72	323.74	-122.21	1.572e+05	-2.052e+04	5.366e+04
						103.8	4.72	302.34	-122.21	1.572e+05	-3.948e+04	1.017e+05
140	225	1.016e+05	-1680.39	-0.64	-42.81	0.0	4.73	344.50	-123.92	-1.572e+05	-1680.39	4500.42
		4500.42	-3.976e+04	0.25	0.0	51.9	4.73	323.09	-123.92	-1.572e+05	-2.072e+04	5.361e+04
						103.8	4.73	301.68	-123.92	-1.572e+05	-3.976e+04	1.016e+05
140	230	1.926e+04	-1775.77	0.16	-42.81	0.0	-59.55	-24.54	20.86	13.59	-7619.73	1.926e+04
		5215.28	-7619.73	-0.06	0.0	51.9	48.35	-45.95	20.86	13.59	-4697.75	1.279e+04
						103.8	156.25	-67.36	20.86	13.59	-1775.77	5215.28
140	231	6.814e+04	-2.396e+04	0.11	-42.81	0.0	-84.14	46.05	1.32	20.51	-2.396e+04	6.149e+04
		6.149e+04	-2.545e+04	-0.04	0.0	51.9	23.76	24.64	1.32	20.51	-2.470e+04	6.537e+04
						103.8	131.66	3.23	1.32	20.51	-2.545e+04	6.814e+04
140	238	2.462e+04	4.098e+04	0.91	-42.81	0.0	-25.14	-411.04	166.44	-6.023e+04	-1.007e+04	2.462e+04
		-1.054e+05	-1.007e+04	-0.36	0.0	51.9	-25.14	-432.45	166.44	-6.023e+04	1.546e+04	-3.984e+04
						103.8	-25.14	-453.86	166.44	-6.023e+04	4.098e+04	-1.054e+05
140	244	2.463e+04	4.109e+04	0.91	-42.81	0.0	-25.14	-410.79	167.09	6.028e+04	-1.002e+04	2.463e+04

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

		-1.054e+05	-1.002e+04	-0.36	0.0	51.9	-25.14	-432.20	167.09	6.028e+04	1.553e+04	-3.982e+04
						103.8	-25.14	-453.61	167.09	6.028e+04	4.109e+04	-1.054e+05
140	256	1.084e+04	2200.51	0.14	-42.81	0.0	-17.40	-32.86	22.20	7.25	-4378.06	1.084e+04
		-5567.44	-4378.06	-0.05	0.0	51.9	4.18	-54.27	22.20	7.25	-1088.77	3192.61
						103.8	25.76	-75.68	22.20	7.25	2200.51	-5567.44
140	257	-1.414e+04	1.602e+04	0.16	-42.81	0.0	6.46	-73.18	33.12	1.92	5282.35	-1.414e+04
		-4.235e+04	5282.35	-0.06	0.0	51.9	6.46	-94.58	33.12	1.92	1.065e+04	-2.769e+04
						103.8	6.46	-115.99	33.12	1.92	1.602e+04	-4.235e+04
140	258	2.106e+04	-3709.22	0.11	-42.81	0.0	-14.03	-14.35	16.83	7.69	-8333.02	2.106e+04
		1.009e+04	-8333.02	-0.05	0.0	51.9	-14.03	-35.76	16.83	7.69	-6021.12	1.613e+04
						103.8	-14.03	-57.16	16.83	7.69	-3709.22	1.009e+04
140	260	3458.93	6153.35	0.14	-42.81	0.0	-3.79	-43.76	24.97	4.80	-1525.33	3458.93
		-1.613e+04	-1525.33	-0.05	0.0	51.9	-3.79	-65.17	24.97	4.80	2314.01	-5779.85
						103.8	-3.79	-86.58	24.97	4.80	6153.35	-1.613e+04
141	40	-3.853e+04	5.343e+04	0.47	-55.66	0.0	-73.57	-316.62	120.50	-9.279e+04	1.435e+04	-3.853e+04
		-1.413e+05	1.435e+04	-0.18	0.0	51.9	-73.57	-344.45	120.50	-9.279e+04	3.389e+04	-8.918e+04
						103.8	-73.57	-372.28	120.50	-9.279e+04	5.343e+04	-1.413e+05
141	64	-3.854e+04	5.334e+04	0.47	-55.66	0.0	-73.48	-316.82	119.95	9.276e+04	1.432e+04	-3.854e+04
		-1.413e+05	1.432e+04	-0.19	0.0	51.9	-73.48	-344.65	119.95	9.276e+04	3.383e+04	-8.919e+04
						103.8	-73.48	-372.48	119.95	9.276e+04	5.334e+04	-1.413e+05
141	84	3.086e+04	-6561.23	0.18	-55.66	0.0	-152.86	-21.79	19.07	7.95	-1.241e+04	3.086e+04
		1.594e+04	-1.241e+04	-0.07	0.0	51.9	8.99	-49.62	19.07	7.95	-9487.94	2.412e+04
						103.8	170.84	-77.45	19.07	7.95	-6561.23	1.594e+04
141	85	1.484e+05	-5.012e+04	0.33	-42.81	0.0	-88.76	93.44	-18.27	20.98	-5.012e+04	1.273e+05
		1.273e+05	-5.738e+04	-0.13	0.0	51.9	73.09	72.03	-18.27	20.98	-5.375e+04	1.384e+05
						103.8	234.94	50.62	-18.27	20.98	-5.738e+04	1.484e+05
141	89	1.553e+05	-5.247e+04	0.36	-42.81	0.0	-21.75	96.78	-19.11	16.83	-5.247e+04	1.333e+05
		1.333e+05	-6.007e+04	-0.14	0.0	51.9	75.36	75.37	-19.11	16.83	-5.627e+04	1.449e+05
						103.8	172.47	53.97	-19.11	16.83	-6.007e+04	1.553e+05
141	125	-4469.33	8302.49	0.11	-42.81	0.0	-7.24	-37.27	21.48	-3706.66	1548.60	-4469.33
		-2.196e+04	1548.60	-0.05	0.0	51.9	-7.24	-58.68	21.48	-3706.66	4925.55	-1.266e+04
						103.8	-7.24	-80.09	21.48	-3706.66	8302.49	-2.196e+04
141	126	-4160.23	8198.61	0.13	-42.81	0.0	-8.20	-37.67	21.76	1653.24	1423.91	-4160.23
		-2.168e+04	1423.91	-0.05	0.0	51.9	-8.20	-59.08	21.76	1653.24	4811.26	-1.237e+04
						103.8	-8.20	-80.48	21.76	1653.24	8198.61	-2.168e+04
141	127	2.369e+04	-2967.69	0.16	-42.81	0.0	-1.36	-36.39	20.25	-1662.90	-9600.85	2.369e+04
		6269.42	-9600.85	-0.07	0.0	51.9	-1.36	-57.80	20.25	-1662.90	-6284.27	1.553e+04
						103.8	-1.36	-79.21	20.25	-1662.90	-2967.69	6269.42
141	128	2.400e+04	-3071.57	0.18	-42.81	0.0	-2.31	-36.79	20.52	3697.01	-9725.54	2.400e+04
		6544.04	-9725.54	-0.07	0.0	51.9	-2.31	-58.19	20.52	3697.01	-6398.56	1.583e+04
						103.8	-2.31	-79.60	20.52	3697.01	-3071.57	6544.04
141	158	3655.21	5064.78	0.14	-42.81	0.0	-6.28	-37.31	21.33	659.20	-1670.25	3655.21
		-1.384e+04	-1670.25	-0.05	0.0	51.9	-6.28	-58.72	21.33	659.20	1697.26	-4536.33
						103.8	-6.28	-80.12	21.33	659.20	5064.78	-1.384e+04
141	159	1.587e+04	166.14	0.15	-42.81	0.0	-3.27	-36.75	20.67	-668.86	-6506.68	1.587e+04
		-1575.71	-6506.68	-0.06	0.0	51.9	-3.27	-58.16	20.67	-668.86	-3170.27	7703.13
						103.8	-3.27	-79.57	20.67	-668.86	166.14	-1575.71
141	160	1.600e+04	122.90	0.16	-42.81	0.0	-3.67	-36.92	20.79	1549.36	-6558.37	1.600e+04
		-1461.61	-6558.37	-0.06	0.0	51.9	-3.67	-58.32	20.79	1549.36	-3217.74	7824.26
						103.8	-3.67	-79.73	20.79	1549.36	122.90	-1461.61
141	161	3528.81	5108.85	0.13	-42.81	0.0	-5.98	-37.19	21.25	93.81	-1619.44	3528.81
		-1.395e+04	-1619.44	-0.05	0.0	51.9	-5.98	-58.59	21.25	93.81	1744.71	-4657.43
						103.8	-5.98	-80.00	21.25	93.81	5108.85	-1.395e+04
141	209	-2.439e+04	3.597e+04	0.33	-42.81	0.0	-49.68	-216.02	83.13	-6.186e+04	9020.39	-2.439e+04
		-9.521e+04	9020.39	-0.13	0.0	51.9	-49.68	-237.42	83.13	-6.186e+04	2.249e+04	-5.924e+04
						103.8	-49.68	-258.83	83.13	-6.186e+04	3.597e+04	-9.521e+04
141	221	-2.439e+04	3.591e+04	0.33	-42.81	0.0	-49.62	-216.15	82.77	6.184e+04	9001.24	-2.439e+04
		-9.522e+04	9001.24	-0.13	0.0	51.9	-49.62	-237.56	82.77	6.184e+04	2.246e+04	-5.925e+04
						103.8	-49.62	-258.97	82.77	6.184e+04	3.591e+04	-9.522e+04
141	230	9.633e+04	-3.478e+04	0.27	-42.81	0.0	-60.77	49.95	-5.18	12.38	-3.478e+04	8.815e+04
		8.815e+04	-3.738e+04	-0.11	0.0	51.9	47.13	28.54	-5.18	12.38	-3.608e+04	9.280e+04
						103.8	155.03	7.13	-5.18	12.38	-3.738e+04	9.633e+04

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

141	231	2.188e+04	-4025.43	0.14	-42.81	0.0	-102.54	-19.46	15.51	4.66	-8821.56	2.188e+04
		9600.37	-8821.56	-0.05	0.0	51.9	5.36	-40.87	15.51	4.66	-6423.49	1.629e+04
						103.8	113.26	-62.28	15.51	4.66	-4025.43	9600.37
141	232	1.010e+05	-3.634e+04	0.29	-42.81	0.0	-16.09	52.18	-5.74	9.61	-3.634e+04	9.215e+04
		9.215e+04	-3.918e+04	-0.11	0.0	51.9	48.65	30.77	-5.74	9.61	-3.776e+04	9.712e+04
						103.8	113.39	9.36	-5.74	9.61	-3.918e+04	1.010e+05
141	256	1.881e+04	-2048.65	0.15	-42.81	0.0	-20.15	-26.58	17.83	-2.16	-7630.67	1.881e+04
		4427.79	-7630.67	-0.06	0.0	51.9	1.43	-47.98	17.83	-2.16	-4839.66	1.218e+04
						103.8	23.01	-69.39	17.83	-2.16	-2048.65	4427.79
141	257	3.738e+04	-1.128e+04	0.20	-42.81	0.0	12.63	-8.11	12.38	-1.61	-1.490e+04	3.738e+04
		2.843e+04	-1.490e+04	-0.08	0.0	51.9	12.63	-29.52	12.38	-1.61	-1.309e+04	3.346e+04
						103.8	12.63	-50.92	12.38	-1.61	-1.128e+04	2.843e+04
141	258	-1.785e+04	1.652e+04	0.09	-42.81	0.0	-22.18	-65.95	29.62	-8.04	6726.48	-1.785e+04
		-4.385e+04	6726.48	-0.03	0.0	51.9	-22.18	-87.36	29.62	-8.04	1.162e+04	-3.029e+04
						103.8	-22.18	-108.77	29.62	-8.04	1.652e+04	-4.385e+04
141	260	9763.33	2615.46	0.14	-42.81	0.0	-4.78	-37.03	21.00	-4.83	-4088.47	9763.33
		-7707.05	-4088.47	-0.06	0.0	51.9	-4.78	-58.44	21.00	-4.83	-736.50	1583.40
						103.8	-4.78	-79.85	21.00	-4.83	2615.46	-7707.05
142	53	1.365e+05	-1.653e+04	0.39	-42.81	0.0	96.60	-291.36	110.26	-1.452e+05	-5.212e+04	1.365e+05
		4.311e+04	-5.212e+04	-0.15	0.0	51.9	96.60	-312.77	110.26	-1.452e+05	-3.432e+04	9.033e+04
						103.8	96.60	-334.18	110.26	-1.452e+05	-1.653e+04	4.311e+04
142	77	1.365e+05	-1.648e+04	0.39	-42.81	0.0	96.50	-291.68	109.40	1.452e+05	-5.198e+04	1.365e+05
		4.312e+04	-5.198e+04	-0.16	0.0	51.9	96.50	-313.09	109.40	1.452e+05	-3.423e+04	9.036e+04
						103.8	96.50	-334.50	109.40	1.452e+05	-1.648e+04	4.312e+04
142	84	-1.049e+05	6.340e+04	0.06	-55.66	0.0	-222.04	234.27	-66.57	32.08	6.340e+04	-1.661e+05
		-1.661e+05	4.072e+04	-0.02	0.0	51.9	-60.19	206.44	-66.57	32.08	5.206e+04	-1.348e+05
						103.8	101.66	178.61	-66.57	32.08	4.072e+04	-1.049e+05
142	85	-8404.18	1.258e+04	-0.15	-42.81	0.0	-134.97	106.19	-29.24	19.05	1.258e+04	-3.367e+04
		-3.367e+04	3011.17	0.06	0.0	51.9	26.88	84.79	-29.24	19.05	7793.98	-2.048e+04
						103.8	188.73	63.38	-29.24	19.05	3011.17	-8404.18
142	88	-1.109e+05	6.609e+04	0.07	-55.66	0.0	-181.99	237.61	-67.42	27.94	6.609e+04	-1.730e+05
		-1.730e+05	4.307e+04	-0.03	0.0	51.9	-84.88	209.78	-67.42	27.94	5.458e+04	-1.412e+05
						103.8	12.23	181.95	-67.42	27.94	4.307e+04	-1.109e+05
142	129	2.369e+04	-2967.78	-0.16	-42.81	0.0	-3.07	79.21	-20.25	1662.89	-2967.78	6269.64
		6269.64	-9600.94	0.07	0.0	51.9	-3.07	57.80	-20.25	1662.89	-6284.36	1.553e+04
						103.8	-3.07	36.39	-20.25	1662.89	-9600.94	2.369e+04
142	130	2.400e+04	-3071.69	-0.18	-42.81	0.0	-4.02	79.60	-20.52	-3697.02	-3071.69	6544.36
		6544.36	-9725.67	0.07	0.0	51.9	-4.02	58.19	-20.52	-3697.02	-6398.68	1.583e+04
						103.8	-4.02	36.79	-20.52	-3697.02	-9725.67	2.400e+04
142	131	-4469.64	8302.61	-0.11	-42.81	0.0	-8.95	80.09	-21.48	3706.68	8302.61	-2.196e+04
		-2.196e+04	1548.73	0.05	0.0	51.9	-8.95	58.68	-21.48	3706.68	4925.67	-1.266e+04
						103.8	-8.95	37.27	-21.48	3706.68	1548.73	-4469.64
142	132	-4160.45	8198.70	-0.13	-42.81	0.0	-9.91	80.48	-21.76	-1653.24	8198.70	-2.168e+04
		-2.168e+04	1424.00	0.05	0.0	51.9	-9.91	59.08	-21.76	-1653.24	4811.35	-1.237e+04
						103.8	-9.91	37.67	-21.76	-1653.24	1424.00	-4160.45
142	159	3528.71	5108.90	-0.13	-42.81	0.0	-7.69	80.00	-21.25	-93.80	5108.90	-1.395e+04
		-1.395e+04	-1619.40	0.05	0.0	51.9	-7.69	58.59	-21.25	-93.80	1744.75	-4657.54
						103.8	-7.69	37.19	-21.25	-93.80	-1619.40	3528.71
142	161	1.587e+04	166.10	-0.15	-42.81	0.0	-4.98	79.57	-20.67	668.86	166.10	-1575.62
		-1575.62	-6506.72	0.06	0.0	51.9	-4.98	58.16	-20.67	668.86	-3170.31	7703.22
						103.8	-4.98	36.75	-20.67	668.86	-6506.72	1.587e+04
142	162	1.600e+04	122.85	-0.16	-42.81	0.0	-5.39	79.73	-20.79	-1549.36	122.85	-1461.47
		-1461.47	-6558.43	0.06	0.0	51.9	-5.39	58.32	-20.79	-1549.36	-3217.79	7824.39
						103.8	-5.39	36.92	-20.79	-1549.36	-6558.43	1.600e+04
142	164	3655.11	5064.82	-0.14	-42.81	0.0	-7.99	80.12	-21.33	-659.20	5064.82	-1.384e+04
		-1.384e+04	-1670.22	0.05	0.0	51.9	-7.99	58.72	-21.33	-659.20	1697.30	-4536.43
						103.8	-7.99	37.31	-21.33	-659.20	-1670.22	3655.11
142	220	8.608e+04	-1.969e+04	-0.55	-42.81	0.0	27.15	143.28	-48.29	-6.185e+04	-1.969e+04	4.933e+04
		4.933e+04	-3.426e+04	0.22	0.0	51.9	27.15	121.87	-48.29	-6.185e+04	-2.697e+04	6.826e+04
						103.8	27.15	100.46	-48.29	-6.185e+04	-3.426e+04	8.608e+04
142	226	8.842e+04	-1.235e+04	0.21	-42.81	0.0	62.17	-167.84	65.94	9.681e+04	-3.378e+04	8.842e+04
		3.200e+04	-3.378e+04	-0.08	0.0	51.9	62.17	-189.25	65.94	9.681e+04	-2.307e+04	6.077e+04

Progettazione civile e inserimento ambientale

Agronomia e studi colturali

Progettazione elettrica



Arch. Andrea Giuffrida



Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

142	230	-2348.34	9256.35	-0.15	-42.81	103.8	62.17	-210.65	65.94	9.681e+04	-1.235e+04	3.200e+04
		-2.501e+04	644.62	0.06	0.0	0.0	-92.14	97.41	-26.49	14.31	9256.35	-2.501e+04
						103.8	123.66	54.60	-26.49	14.31	4950.49	-1.313e+04
142	231	-6.863e+04	4.262e+04	0.03	-42.81	0.0	-148.89	166.82	-47.18	22.03	4.262e+04	-1.117e+05
		-1.117e+05	2.660e+04	-0.01	0.0	51.9	-40.99	145.42	-47.18	22.03	3.461e+04	-8.963e+04
						103.8	66.91	124.01	-47.18	22.03	2.660e+04	-6.863e+04
142	233	-7.262e+04	4.441e+04	0.04	-42.81	0.0	-122.19	169.05	-47.75	19.27	4.441e+04	-1.164e+05
		-1.164e+05	2.817e+04	-0.01	0.0	51.9	-57.45	147.65	-47.75	19.27	3.629e+04	-9.395e+04
						103.8	7.29	126.24	-47.75	19.27	2.817e+04	-7.262e+04
142	257	3.738e+04	-1.128e+04	-0.20	-42.81	0.0	17.16	50.92	-12.38	1.61	-1.128e+04	2.843e+04
		2.843e+04	-1.490e+04	0.08	0.0	51.9	17.16	29.52	-12.38	1.61	-1.309e+04	3.346e+04
						103.8	17.16	8.11	-12.38	1.61	-1.490e+04	3.738e+04
142	258	-1.785e+04	1.652e+04	-0.09	-42.81	0.0	-30.13	108.77	-29.62	8.04	1.652e+04	-4.385e+04
		-4.385e+04	6726.48	0.03	0.0	51.9	-30.13	87.36	-29.62	8.04	1.162e+04	-3.029e+04
						103.8	-30.13	65.95	-29.62	8.04	6726.48	-1.785e+04
142	260	9763.33	2615.46	-0.14	-42.81	0.0	-6.49	79.85	-21.00	4.83	2615.46	-7707.05
		-7707.05	-4088.47	0.06	0.0	51.9	-6.49	58.44	-21.00	4.83	-736.50	1583.40
						103.8	-6.49	37.03	-21.00	4.83	-4088.47	9763.33
143	50	1.606e+05	-1595.72	1.03	-42.81	0.0	20.03	-496.80	195.81	-2.358e+05	-6.229e+04	1.606e+05
		5050.12	-6.229e+04	-0.41	0.0	51.9	20.03	-518.20	195.81	-2.358e+05	-3.194e+04	8.338e+04
						103.8	20.03	-539.61	195.81	-2.358e+05	-1595.72	5050.12
143	74	1.605e+05	-1757.92	1.03	-42.81	0.0	20.16	-495.81	198.36	2.358e+05	-6.272e+04	1.605e+05
		5021.16	-6.272e+04	-0.41	0.0	51.9	20.16	-517.22	198.36	2.358e+05	-3.224e+04	8.331e+04
						103.8	20.16	-538.63	198.36	2.358e+05	-1757.92	5021.16
143	85	-8.359e+04	5.355e+04	-0.18	-42.81	0.0	-183.30	221.30	-60.45	18.77	5.355e+04	-1.425e+05
		-1.425e+05	3.212e+04	0.07	0.0	51.9	-21.45	199.89	-60.45	18.77	4.284e+04	-1.125e+05
						103.8	140.40	178.48	-60.45	18.77	3.212e+04	-8.359e+04
143	99	3.624e+04	6.024e+04	-1.34	-55.66	0.0	-38.59	663.47	-244.67	9.035e+04	6.024e+04	-1.549e+05
		-1.549e+05	-1.479e+04	0.53	0.0	51.9	-38.59	635.64	-244.67	9.035e+04	2.272e+04	-5.861e+04
						103.8	-38.59	607.81	-244.67	9.035e+04	-1.479e+04	3.624e+04
143	111	3.625e+04	6.041e+04	-1.34	-55.66	0.0	-38.64	663.10	-245.64	-9.041e+04	6.041e+04	-1.548e+05
		-1.548e+05	-1.473e+04	0.53	0.0	51.9	-38.64	635.27	-245.64	-9.041e+04	2.284e+04	-5.858e+04
						103.8	-38.64	607.44	-245.64	-9.041e+04	-1.473e+04	3.625e+04
143	121	-4.077e+04	5.405e+04	-0.55	-55.66	0.0	-203.50	368.13	-119.88	-0.30	5.405e+04	-1.423e+05
		-1.423e+05	1.534e+04	0.22	0.0	51.9	-41.65	340.30	-119.88	-0.30	3.470e+04	-9.082e+04
						103.8	120.20	312.47	-119.88	-0.30	1.534e+04	-4.077e+04
143	125	1.575e+04	1181.02	-0.13	-42.81	0.0	2.77	85.91	-23.82	-3602.74	1181.02	-3778.16
		-3778.16	-6382.22	0.05	0.0	51.9	2.77	64.50	-23.82	-3602.74	-2600.60	6542.48
						103.8	2.77	43.09	-23.82	-3602.74	-6382.22	1.575e+04
143	128	-8834.73	1.113e+04	-0.14	-42.81	0.0	-10.69	87.25	-26.12	3593.13	1.113e+04	-2.848e+04
		-2.848e+04	3331.56	0.05	0.0	51.9	-10.69	65.84	-26.12	3593.13	7228.62	-1.810e+04
						103.8	-10.69	44.44	-26.12	3593.13	3331.56	-8834.73
143	157	8839.24	3977.74	-0.14	-42.81	0.0	-1.02	86.29	-24.47	-1501.27	3977.74	-1.072e+04
		-1.072e+04	-3650.98	0.05	0.0	51.9	-1.02	64.89	-24.47	-1501.27	163.38	-387.54
						103.8	-1.02	43.48	-24.47	-1501.27	-3650.98	8839.24
143	160	-1921.37	8328.96	-0.14	-42.81	0.0	-6.89	86.86	-25.47	1491.67	8328.96	-2.153e+04
		-2.153e+04	600.32	0.05	0.0	51.9	-6.89	65.46	-25.47	1491.67	4464.64	-1.117e+04
						103.8	-6.89	44.05	-25.47	1491.67	600.32	-1921.37
143	213	1.017e+05	-1572.26	0.64	-42.81	0.0	12.03	-302.34	122.21	-1.572e+05	-3.948e+04	1.017e+05
		4519.72	-3.948e+04	-0.25	0.0	51.9	12.03	-323.74	122.21	-1.572e+05	-2.052e+04	5.366e+04
						103.8	12.03	-345.15	122.21	-1.572e+05	-1572.26	4519.72
143	225	1.016e+05	-1680.39	0.64	-42.81	0.0	12.12	-301.68	123.92	1.572e+05	-3.976e+04	1.016e+05
		4500.42	-3.976e+04	-0.25	0.0	51.9	12.12	-323.09	123.92	1.572e+05	-2.072e+04	5.361e+04
						103.8	12.12	-344.50	123.92	1.572e+05	-1680.39	4500.42
143	230	-5.457e+04	3.775e+04	-0.17	-42.81	0.0	-123.52	176.39	-48.62	10.91	3.775e+04	-1.004e+05
		-1.004e+05	2.091e+04	0.07	0.0	51.9	-15.62	154.98	-48.62	10.91	2.933e+04	-7.693e+04
						103.8	92.28	133.57	-48.62	10.91	2.091e+04	-5.457e+04
143	238	2.462e+04	4.098e+04	-0.91	-42.81	0.0	-26.25	453.86	-166.44	6.023e+04	4.098e+04	-1.054e+05
		-1.054e+05	-1.007e+04	0.36	0.0	51.9	-26.25	432.45	-166.44	6.023e+04	1.546e+04	-3.984e+04
						103.8	-26.25	411.04	-166.44	6.023e+04	-1.007e+04	2.462e+04
143	244	2.463e+04	4.109e+04	-0.91	-42.81	0.0	-26.29	453.61	-167.09	-6.028e+04	4.109e+04	-1.054e+05

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

144	224	-5.732e+04 -1.009e+05	3.986e+04 2.243e+04	-0.45 0.18	-42.81 0.0	0.0 51.9	31.58 31.58	165.42 144.01	-58.62 -58.62	-9.018e+04 -9.018e+04	3.986e+04 3.114e+04	-1.009e+05 -7.854e+04
144	230	2.970e+04 2.274e+04	-9001.17 -1.185e+04	0.10 -0.04	-42.81 0.0	0.0 51.9	-66.27 41.63	-1.44 -22.85	9.93 9.93	13.57 13.57	-1.185e+04 -1.043e+04	2.970e+04 2.678e+04
144	231	5.861e+04 4.614e+04	-1.825e+04 -2.282e+04	-0.08 0.03	-42.81 0.0	0.0 51.9	-95.97 11.93	63.63 42.22	-13.05 -13.05	20.68 20.68	-1.825e+04 -2.053e+04	4.614e+04 5.293e+04
144	238	1.384e+05 5.867e+04	-2.358e+04 -5.502e+04	0.80 -0.32	-42.81 0.0	0.0 51.9	-24.85 -24.85	-243.11 -264.52	103.26 103.26	-3.455e+04 -3.455e+04	-5.502e+04 -3.930e+04	1.384e+05 9.908e+04
144	244	1.384e+05 5.868e+04	-2.353e+04 -5.500e+04	0.80 -0.32	-42.81 0.0	0.0 51.9	-24.79 -24.79	-243.03 -264.43	103.50 103.50	3.459e+04 3.459e+04	-5.500e+04 -3.927e+04	1.384e+05 9.909e+04
144	256	2.406e+04 1.501e+04	-6029.74 -9644.52	0.10 -0.04	-42.81 0.0	0.0 51.9	-19.21 2.37	-8.54 -29.94	12.10 12.10	7.18 7.18	-9644.52 -7837.13	2.406e+04 2.009e+04
144	257	1.375e+04 -6359.27	2196.68 -5626.18	0.19 -0.08	-42.81 0.0	0.0 51.9	8.64 8.64	-45.56 -66.96	25.10 25.10	1.73 1.73	-5626.18 -1714.75	1.375e+04 4248.27
144	259	3.547e+04 1.493e+04	-6092.18 -1.419e+04	0.21 -0.08	-42.81 0.0	0.0 51.9	-6.38 -6.38	-46.77 -68.18	26.55 26.55	7.93 7.93	-1.419e+04 -1.014e+04	3.547e+04 2.576e+04
144	260	2.059e+04 8588.08	-3559.90 -8292.53	0.12 -0.05	-42.81 0.0	0.0 51.9	-3.74 -3.74	-18.44 -39.85	15.52 15.52	4.69 4.69	-8292.53 -5926.22	2.059e+04 1.515e+04
145	50	-1.491e+05 -2.043e+05	8.102e+04 5.928e+04	-0.72 0.28	-42.81 0.0	0.0 51.9	3.08 3.08	204.87 183.46	-71.28 -71.28	1.435e+05 1.435e+05	8.102e+04 7.015e+04	-2.043e+05 -1.761e+05
145	74	-1.490e+05 -2.043e+05	8.104e+04 5.935e+04	-0.72 0.29	-42.81 0.0	0.0 51.9	2.69 2.69	205.05 183.64	-70.73 -70.73	-1.435e+05 -1.435e+05	8.104e+04 7.019e+04	-2.043e+05 -1.761e+05
145	84	3.942e+04 3.413e+04	-1.371e+04 -1.580e+04	0.08 -0.03	-55.66 0.0	0.0 51.9	-160.04 1.81	10.23 -17.60	6.82 6.82	7.70 7.70	-1.580e+04 -1.475e+04	3.942e+04 3.750e+04
145	85	1.198e+05 9.308e+04	-3.689e+04 -4.712e+04	-0.07 0.03	-42.81 0.0	0.0 51.9	-105.50 56.35	110.71 89.30	-31.89 -31.89	20.33 20.33	-3.689e+04 -4.201e+04	9.308e+04 1.070e+05
145	99	2.362e+05 1.407e+05	-5.677e+04 -9.403e+04	1.05 -0.41	-55.66 0.0	0.0 51.9	-39.87 -39.87	-290.35 -318.18	119.95 119.95	-5.504e+04 -5.504e+04	-9.403e+04 -7.540e+04	2.362e+05 1.892e+05
145	111	2.362e+05 1.407e+05	-5.680e+04 -9.403e+04	1.05 -0.42	-55.66 0.0	0.0 51.9	-39.72 -39.72	-290.43 -318.26	119.74 119.74	5.498e+04 5.498e+04	-9.403e+04 -7.542e+04	2.362e+05 1.892e+05
145	125	1.248e+04 2635.87	-1268.83 -5088.01	0.11 -0.04	-42.81 0.0	0.0 51.9	-4.56 -4.56	-11.76 -33.17	12.34 12.34	-2270.08 -2270.08	-5088.01 -3178.42	1.248e+04 8111.07
145	128	3.542e+04 2.568e+04	-1.039e+04 -1.419e+04	0.11 -0.04	-42.81 0.0	0.0 51.9	-3.60 -3.60	-10.69 -32.09	12.12 12.12	2260.67 2260.67	-1.419e+04 -1.229e+04	3.542e+04 3.111e+04
145	142	2.598e+04 1.613e+04	-6619.72 -1.045e+04	0.14 -0.05	-42.81 0.0	0.0 51.9	-5.58 -5.58	-11.88 -33.28	12.41 12.41	5239.08 5239.08	-1.045e+04 -8533.74	2.598e+04 2.161e+04
145	143	2.191e+04 1.219e+04	-5042.26 -8834.84	0.08 -0.04	-42.81 0.0	0.0 51.9	-2.57 -2.57	-10.57 -31.98	12.04 12.04	-5248.49 -5248.49	-8834.84 -6938.55	2.191e+04 1.761e+04
145	157	1.899e+04 9177.58	-3859.52 -7673.94	0.11 -0.04	-42.81 0.0	0.0 51.9	-4.30 -4.30	-11.46 -32.87	12.28 12.28	-960.62 -960.62	-7673.94 -5766.73	1.899e+04 1.464e+04
145	160	2.891e+04 1.913e+04	-7802.46 -1.161e+04	0.11 -0.04	-42.81 0.0	0.0 51.9	-3.85 -3.85	-10.98 -32.39	12.18 12.18	951.21 951.21	-1.161e+04 -9705.56	2.891e+04 2.458e+04

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida



IMPIANTI FOTOVOLTAICI, EOLICI E TECNOLOGICI



PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

145	174	2.475e+04	-6139.02	0.12	-42.81	0.0	-4.71	-11.50	12.30	2175.88	-9956.80	2.475e+04
		1.492e+04	-9956.80	-0.04	0.0	51.9	-4.71	-32.91	12.30	2175.88	-8047.91	2.039e+04
						103.8	-4.71	-54.32	12.30	2175.88	-6139.02	1.492e+04
145	175	2.315e+04	-5522.96	0.09	-42.81	0.0	-3.44	-10.94	12.15	-2185.29	-9325.80	2.315e+04
		1.339e+04	-9325.80	-0.04	0.0	51.9	-3.44	-32.35	12.15	-2185.29	-7424.38	1.883e+04
						103.8	-3.44	-53.76	12.15	-2185.29	-5522.96	1.339e+04
145	213	-9.465e+04	5.080e+04	-0.44	-42.81	0.0	0.69	132.84	-43.44	9.567e+04	5.080e+04	-1.282e+05
		-1.282e+05	3.757e+04	0.17	0.0	51.9	0.69	111.43	-43.44	9.567e+04	4.419e+04	-1.109e+05
						103.8	0.69	90.02	-43.44	9.567e+04	3.757e+04	-9.465e+04
145	225	-9.464e+04	5.081e+04	-0.44	-42.81	0.0	0.43	132.96	-43.08	-9.569e+04	5.081e+04	-1.282e+05
		-1.282e+05	3.762e+04	0.18	0.0	51.9	0.43	111.55	-43.08	-9.569e+04	4.422e+04	-1.109e+05
						103.8	0.43	90.15	-43.08	-9.569e+04	3.762e+04	-9.464e+04
145	230	8.458e+04	-2.781e+04	-0.03	-42.81	0.0	-71.69	70.07	-17.18	11.99	-2.781e+04	7.003e+04
		7.003e+04	-3.336e+04	0.01	0.0	51.9	36.21	48.66	-17.18	11.99	-3.058e+04	7.786e+04
						103.8	144.11	27.25	-17.18	11.99	-3.336e+04	8.458e+04
145	231	2.948e+04	-9919.45	0.07	-42.81	0.0	-107.24	5.33	6.18	4.50	-1.182e+04	2.948e+04
		2.464e+04	-1.182e+04	-0.03	0.0	51.9	0.66	-16.08	6.18	4.50	-1.087e+04	2.761e+04
						103.8	108.56	-37.49	6.18	4.50	-9919.45	2.464e+04
145	238	1.607e+05	-3.863e+04	0.71	-42.81	0.0	-27.12	-195.07	81.60	-3.670e+04	-6.397e+04	1.607e+05
		9.567e+04	-6.397e+04	-0.28	0.0	51.9	-27.12	-216.47	81.60	-3.670e+04	-5.130e+04	1.287e+05
						103.8	-27.12	-237.88	81.60	-3.670e+04	-3.863e+04	9.567e+04
145	244	1.607e+05	-3.865e+04	0.71	-42.81	0.0	-27.02	-195.11	81.46	3.666e+04	-6.397e+04	1.607e+05
		9.567e+04	-6.397e+04	-0.28	0.0	51.9	-27.02	-216.52	81.46	3.666e+04	-5.131e+04	1.287e+05
						103.8	-27.02	-237.93	81.46	3.666e+04	-3.865e+04	9.567e+04
145	256	2.911e+04	-8992.55	0.09	-42.81	0.0	-21.15	-1.44	8.68	-2.11	-1.168e+04	2.911e+04
		2.225e+04	-1.168e+04	-0.04	0.0	51.9	0.43	-22.85	8.68	-2.11	-1.033e+04	2.623e+04
						103.8	22.01	-44.25	8.68	-2.11	-8992.55	2.225e+04
145	258	7050.75	3935.14	0.13	-42.81	0.0	-18.89	-38.20	21.96	-7.82	-2977.34	7050.75
		-1.082e+04	-2977.34	-0.05	0.0	51.9	-18.89	-59.61	21.96	-7.82	478.90	-1327.41
						103.8	-18.89	-81.01	21.96	-7.82	3935.14	-1.082e+04
145	259	4.119e+04	-9961.27	0.18	-42.81	0.0	-6.96	-34.47	20.94	-7.95	-1.649e+04	4.119e+04
		2.442e+04	-1.649e+04	-0.07	0.0	51.9	-6.96	-55.87	20.94	-7.95	-1.322e+04	3.336e+04
						103.8	-6.96	-77.28	20.94	-7.95	-9961.27	2.442e+04
145	260	2.395e+04	-5830.99	0.11	-42.81	0.0	-4.08	-11.22	12.23	-4.70	-9641.30	2.395e+04
		1.416e+04	-9641.30	-0.04	0.0	51.9	-4.08	-32.63	12.23	-4.70	-7736.14	1.961e+04
						103.8	-4.08	-54.04	12.23	-4.70	-5830.99	1.416e+04
146	50	-2.138e+05	8.606e+04	0.13	-42.81	0.0	3.09	10.54	4.16	-5.041e+04	8.479e+04	-2.138e+05
		-2.170e+05	8.479e+04	-0.05	0.0	51.9	3.09	-10.87	4.16	-5.041e+04	8.543e+04	-2.148e+05
						103.8	3.09	-32.28	4.16	-5.041e+04	8.606e+04	-2.170e+05
146	74	-2.138e+05	8.604e+04	0.13	-42.81	0.0	2.66	10.45	3.87	5.044e+04	8.480e+04	-2.138e+05
		-2.170e+05	8.480e+04	-0.05	0.0	51.9	2.66	-10.95	3.87	5.044e+04	8.542e+04	-2.148e+05
						103.8	2.66	-32.36	3.87	5.044e+04	8.604e+04	-2.170e+05
146	84	1.565e+04	9010.87	-0.39	-55.66	0.0	-166.47	158.28	-49.62	30.65	9010.87	-2.360e+04
		-2.360e+04	-6338.52	0.16	0.0	51.9	-4.62	130.45	-49.62	30.65	1336.17	-3254.49
						103.8	157.23	102.62	-49.62	30.65	-6338.52	1.565e+04
146	85	2.990e+04	-8125.35	-0.11	-42.81	0.0	-113.56	54.14	-12.39	18.24	-8125.35	2.006e+04
		2.006e+04	-1.197e+04	0.04	0.0	51.9	48.29	32.73	-12.39	18.24	-1.005e+04	2.554e+04
						103.8	210.14	11.33	-12.39	18.24	-1.197e+04	2.990e+04
146	99	2.799e+05	-1.017e+05	-0.31	-55.66	0.0	-38.79	108.72	-30.35	1.936e+04	-1.017e+05	2.557e+05
		2.557e+05	-1.112e+05	0.12	0.0	51.9	-38.79	80.89	-30.35	1.936e+04	-1.065e+05	2.685e+05
						103.8	-38.79	53.06	-30.35	1.936e+04	-1.112e+05	2.799e+05
146	111	2.799e+05	-1.017e+05	-0.31	-55.66	0.0	-38.63	108.76	-30.24	-1.930e+04	-1.017e+05	2.557e+05
		2.557e+05	-1.112e+05	0.13	0.0	51.9	-38.63	80.93	-30.24	-1.930e+04	-1.065e+05	2.685e+05
						103.8	-38.63	53.10	-30.24	-1.930e+04	-1.112e+05	2.799e+05
146	150	3.732e+04	-1.396e+04	-0.03	-42.81	0.0	-5.37	29.62	-3.07	-2286.94	-1.396e+04	3.484e+04
		3.484e+04	-1.493e+04	0.01	0.0	51.9	-5.37	8.21	-3.07	-2286.94	-1.444e+04	3.664e+04
						103.8	-5.37	-13.20	-3.07	-2286.94	-1.493e+04	3.732e+04
146	151	1.954e+04	-6903.48	-0.03	-42.81	0.0	-2.56	29.80	-3.12	2296.25	-6903.48	1.705e+04
		1.705e+04	-7870.47	0.02	0.0	51.9	-2.56	8.39	-3.12	2296.25	-7386.97	1.885e+04
						103.8	-2.56	-13.02	-3.12	2296.25	-7870.47	1.954e+04
146	182	3.216e+04	-1.191e+04	-0.03	-42.81	0.0	-4.56	29.66	-3.08	-984.46	-1.191e+04	2.968e+04

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

		2.968e+04	-1.288e+04	0.01	0.0	51.9	-4.56	8.26	-3.08	-984.46	-1.240e+04	3.147e+04
						103.8	-4.56	-13.15	-3.08	-984.46	-1.288e+04	3.216e+04
146	183	2.470e+04	-8951.39	-0.03	-42.81	0.0	-3.37	29.75	-3.10	993.77	-8951.39	2.221e+04
		2.221e+04	-9918.14	0.01	0.0	51.9	-3.37	8.34	-3.10	993.77	-9434.76	2.401e+04
						103.8	-3.37	-13.07	-3.10	993.77	-9918.14	2.470e+04
146	213	-1.338e+05	5.357e+04	0.08	-42.81	0.0	0.74	16.93	1.74	-3.361e+04	5.305e+04	-1.339e+05
		-1.352e+05	5.305e+04	-0.03	0.0	51.9	0.74	-4.48	1.74	-3.361e+04	5.331e+04	-1.340e+05
						103.8	0.74	-25.89	1.74	-3.361e+04	5.357e+04	-1.352e+05
146	225	-1.338e+05	5.356e+04	0.08	-42.81	0.0	0.45	16.87	1.55	3.363e+04	5.306e+04	-1.339e+05
		-1.352e+05	5.306e+04	-0.03	0.0	51.9	0.45	-4.54	1.55	3.363e+04	5.331e+04	-1.340e+05
						103.8	0.45	-25.94	1.55	3.363e+04	5.356e+04	-1.352e+05
146	230	2.941e+04	-8894.26	-0.09	-42.81	0.0	-77.03	46.00	-9.29	13.71	-8894.26	2.202e+04
		2.202e+04	-1.178e+04	0.03	0.0	51.9	30.87	24.59	-9.29	13.71	-1.034e+04	2.627e+04
						103.8	138.77	3.18	-9.29	13.71	-1.178e+04	2.941e+04
146	231	1.422e+04	4616.31	-0.27	-42.81	0.0	-111.51	109.48	-33.49	21.05	4616.31	-1.228e+04
		-1.228e+04	-5745.48	0.11	0.0	51.9	-3.61	88.07	-33.49	21.05	-564.59	1529.37
						103.8	104.29	66.67	-33.49	21.05	-5745.48	1.422e+04
146	238	1.904e+05	-6.922e+04	-0.21	-42.81	0.0	-26.39	76.44	-20.64	1.291e+04	-6.922e+04	1.739e+05
		1.739e+05	-7.565e+04	0.08	0.0	51.9	-26.39	55.04	-20.64	1.291e+04	-7.243e+04	1.827e+05
						103.8	-26.39	33.63	-20.64	1.291e+04	-7.565e+04	1.904e+05
146	244	1.904e+05	-6.922e+04	-0.21	-42.81	0.0	-26.28	76.46	-20.57	-1.287e+04	-6.922e+04	1.739e+05
		1.739e+05	-7.564e+04	0.09	0.0	51.9	-26.28	55.06	-20.57	-1.287e+04	-7.243e+04	1.827e+05
						103.8	-26.28	33.65	-20.57	-1.287e+04	-7.564e+04	1.904e+05
146	253	-2123.14	992.68	2.62e-03	-42.81	0.0	0.42	20.80	0.30	-6718.40	913.25	-2588.35
		-2774.34	913.25	-8.83e-04	0.0	51.9	0.42	-0.61	0.30	-6718.40	952.97	-2126.09
						103.8	0.42	-22.01	0.30	-6718.40	992.68	-2774.34
146	255	-2122.93	990.27	2.59e-03	-42.81	0.0	0.37	20.79	0.26	6728.43	915.05	-2587.97
		-2774.36	915.05	-1.13e-03	0.0	51.9	0.37	-0.62	0.26	6728.43	952.66	-2125.90
						103.8	0.37	-22.02	0.26	6728.43	990.27	-2774.36
146	256	2.711e+04	-8773.45	-0.06	-42.81	0.0	-22.03	39.31	-6.75	7.20	-8773.45	2.173e+04
		2.173e+04	-1.087e+04	0.02	0.0	51.9	-0.45	17.90	-6.75	7.20	-9822.28	2.497e+04
						103.8	21.13	-3.50	-6.75	7.20	-1.087e+04	2.711e+04
146	259	4.887e+04	-1.784e+04	-0.06	-42.81	0.0	-6.77	35.64	-5.30	7.86	-1.784e+04	4.460e+04
		4.460e+04	-1.950e+04	0.02	0.0	51.9	-6.77	14.23	-5.30	7.86	-1.867e+04	4.729e+04
						103.8	-6.77	-7.18	-5.30	7.86	-1.950e+04	4.887e+04
146	260	2.843e+04	-1.043e+04	-0.03	-42.81	0.0	-3.97	29.71	-3.09	4.66	-1.043e+04	2.594e+04
		2.594e+04	-1.140e+04	0.01	0.0	51.9	-3.97	8.30	-3.09	4.66	-1.092e+04	2.774e+04
						103.8	-3.97	-13.11	-3.09	4.66	-1.140e+04	2.843e+04
147	50	-1.613e+05	8.312e+04	0.55	-42.81	0.0	4.33	-138.88	62.68	-4.150e+04	6.404e+04	-1.613e+05
		-2.096e+05	6.404e+04	-0.22	0.0	51.9	4.33	-160.28	62.68	-4.150e+04	7.358e+04	-1.849e+05
						103.8	4.33	-181.69	62.68	-4.150e+04	8.312e+04	-2.096e+05
147	84	3.260e+04	-7806.47	-0.14	-55.66	0.0	-175.08	72.78	-17.18	7.39	-7806.47	1.908e+04
		1.908e+04	-1.310e+04	0.06	0.0	51.9	-13.23	44.95	-17.18	7.39	-1.046e+04	2.656e+04
						103.8	148.62	17.12	-17.18	7.39	-1.310e+04	3.260e+04
147	85	3.760e+04	880.15	-0.45	-42.81	0.0	-128.10	156.98	-51.49	19.63	880.15	-3185.82
		-3185.82	-1.506e+04	0.18	0.0	51.9	33.75	135.57	-51.49	19.63	-7090.85	1.776e+04
						103.8	195.60	114.16	-51.49	19.63	-1.506e+04	3.760e+04
147	99	2.763e+05	-9.146e+04	-0.53	-55.66	0.0	-36.57	180.80	-60.45	1.587e+04	-9.146e+04	2.301e+05
		2.301e+05	-1.098e+05	0.21	0.0	51.9	-36.57	152.97	-60.45	1.587e+04	-1.006e+05	2.540e+05
						103.8	-36.57	125.14	-60.45	1.587e+04	-1.098e+05	2.763e+05
147	125	2.923e+04	-9852.43	0.05	-42.81	0.0	-1.23	36.31	-5.83	-867.32	-9852.43	2.452e+04
		2.452e+04	-1.172e+04	-0.04	0.0	51.9	-1.23	14.90	-5.83	-867.32	-1.078e+04	2.743e+04
						103.8	-1.23	-6.51	-5.83	-867.32	-1.172e+04	2.923e+04
147	128	2.689e+04	-8901.72	-0.16	-42.81	0.0	-6.25	37.86	-6.55	858.02	-8901.72	2.213e+04
		2.213e+04	-1.079e+04	0.08	0.0	51.9	-6.25	16.45	-6.55	858.02	-9843.91	2.507e+04
						103.8	-6.25	-4.96	-6.55	858.02	-1.079e+04	2.689e+04
147	142	3.591e+04	-1.248e+04	-0.04	-42.81	0.0	-4.19	37.08	-6.18	2137.51	-1.248e+04	3.116e+04
		3.116e+04	-1.437e+04	0.01	0.0	51.9	-4.19	15.67	-6.18	2137.51	-1.343e+04	3.409e+04
						103.8	-4.19	-5.74	-6.18	2137.51	-1.437e+04	3.591e+04
147	143	2.021e+04	-6269.52	-0.07	-42.81	0.0	-3.29	37.09	-6.20	-2146.82	-6269.52	1.550e+04
		1.550e+04	-8136.72	0.03	0.0	51.9	-3.29	15.68	-6.20	-2146.82	-7203.12	1.841e+04
						103.8	-3.29	-5.73	-6.20	-2146.82	-8136.72	2.021e+04

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

147	157	2.862e+04	-9602.71	-0.02	-42.81	0.0	-2.66	36.75	-6.03	-368.10	-9602.71	2.390e+04
		2.390e+04	-1.147e+04	-3.18e-03	0.0	51.9	-2.66	15.34	-6.03	-368.10	-1.054e+04	2.681e+04
						103.8	-2.66	-6.07	-6.03	-368.10	-1.147e+04	2.862e+04
147	160	2.750e+04	-9151.44	-0.10	-42.81	0.0	-4.82	37.42	-6.35	358.80	-9151.44	2.276e+04
		2.276e+04	-1.103e+04	0.05	0.0	51.9	-4.82	16.01	-6.35	358.80	-1.009e+04	2.569e+04
						103.8	-4.82	-5.40	-6.35	358.80	-1.103e+04	2.750e+04
147	174	3.136e+04	-1.069e+04	-0.05	-42.81	0.0	-3.92	37.08	-6.18	890.34	-1.069e+04	2.662e+04
		2.662e+04	-1.256e+04	0.02	0.0	51.9	-3.92	15.67	-6.18	890.34	-1.162e+04	2.955e+04
						103.8	-3.92	-5.74	-6.18	890.34	-1.256e+04	3.136e+04
147	175	2.476e+04	-8069.11	-0.06	-42.81	0.0	-3.56	37.09	-6.20	-899.65	-8069.11	2.003e+04
		2.003e+04	-9940.62	0.03	0.0	51.9	-3.56	15.68	-6.20	-899.65	-9004.86	2.295e+04
						103.8	-3.56	-5.73	-6.20	-899.65	-9940.62	2.476e+04
147	213	-9.973e+04	5.167e+04	0.35	-42.81	0.0	1.64	-80.22	39.72	-2.767e+04	3.957e+04	-9.973e+04
		-1.304e+05	3.957e+04	-0.14	0.0	51.9	1.64	-101.63	39.72	-2.767e+04	4.562e+04	-1.145e+05
						103.8	1.64	-123.04	39.72	-2.767e+04	5.167e+04	-1.304e+05
147	230	3.442e+04	-2538.93	-0.32	-42.81	0.0	-86.64	117.01	-36.39	11.54	-2538.93	5652.27
		5652.27	-1.379e+04	0.13	0.0	51.9	21.26	95.61	-36.39	11.54	-8165.29	2.059e+04
						103.8	129.16	74.20	-36.39	11.54	-1.379e+04	3.442e+04
147	231	2.548e+04	-6454.59	-0.10	-42.81	0.0	-117.22	53.46	-12.28	4.31	-6454.59	1.583e+04
		1.583e+04	-1.024e+04	0.04	0.0	51.9	-9.32	32.06	-12.28	4.31	-8345.61	2.121e+04
						103.8	98.58	10.65	-12.28	4.31	-1.024e+04	2.548e+04
147	238	1.880e+05	-6.222e+04	-0.36	-42.81	0.0	-24.88	125.48	-41.13	1.058e+04	-6.222e+04	1.565e+05
		1.565e+05	-7.467e+04	0.14	0.0	51.9	-24.88	104.07	-41.13	1.058e+04	-6.845e+04	1.728e+05
						103.8	-24.88	82.67	-41.13	1.058e+04	-7.467e+04	1.880e+05
147	253	-1942.39	976.64	4.97e-03	-42.81	0.0	0.39	19.98	0.58	-5536.92	803.24	-2300.37
		-2733.90	803.24	-2.18e-03	0.0	51.9	0.39	-1.43	0.58	-5536.92	889.94	-1961.88
						103.8	0.39	-22.84	0.58	-5536.92	976.64	-2733.90
147	256	2.844e+04	-8401.01	-0.09	-42.81	0.0	-23.38	46.71	-9.82	-2.14	-8401.01	2.081e+04
		2.081e+04	-1.140e+04	0.03	0.0	51.9	-1.80	25.31	-9.82	-2.14	-9902.43	2.518e+04
						103.8	19.78	3.90	-9.82	-2.14	-1.140e+04	2.844e+04
147	259	4.824e+04	-1.604e+04	-0.09	-42.81	0.0	-6.38	48.21	-10.58	-7.86	-1.604e+04	4.015e+04
		4.015e+04	-1.925e+04	0.04	0.0	51.9	-6.38	26.80	-10.58	-7.86	-1.765e+04	4.475e+04
						103.8	-6.38	5.39	-10.58	-7.86	-1.925e+04	4.824e+04
147	260	2.806e+04	-9377.08	-0.05	-42.81	0.0	-3.74	37.08	-6.19	-4.65	-9377.08	2.333e+04
		2.333e+04	-1.125e+04	0.02	0.0	51.9	-3.74	15.68	-6.19	-4.65	-1.031e+04	2.625e+04
						103.8	-3.74	-5.73	-6.19	-4.65	-1.125e+04	2.806e+04
148	50	4.414e+05	-8.600e+04	-0.42	-42.81	0.0	21.18	759.38	-266.88	3.572e+05	-8.600e+04	2.204e+05
		2.204e+05	-1.710e+05	0.17	0.0	51.9	21.18	737.97	-266.88	3.572e+05	-1.285e+05	3.314e+05
						103.8	21.18	716.57	-266.88	3.572e+05	-1.710e+05	4.414e+05
148	74	4.411e+05	-8.643e+04	-0.42	-42.81	0.0	21.36	757.54	-271.60	-3.572e+05	-8.643e+04	2.203e+05
		2.203e+05	-1.719e+05	0.17	0.0	51.9	21.36	736.13	-271.60	-3.572e+05	-1.292e+05	3.312e+05
						103.8	21.36	714.73	-271.60	-3.572e+05	-1.719e+05	4.411e+05
148	85	1.091e+04	4488.63	0.21	-42.81	0.0	-71.18	-33.34	35.12	17.98	-3765.58	1.091e+04
		-6393.83	-3765.58	-0.08	0.0	51.9	90.67	-54.74	35.12	17.98	361.52	2812.92
						103.8	252.52	-76.15	35.12	17.98	4488.63	-6393.83
148	99	-2.296e+05	1.978e+05	0.72	-55.66	0.0	-38.74	-891.06	348.64	-1.369e+05	8.988e+04	-2.296e+05
		-5.057e+05	8.988e+04	-0.29	0.0	51.9	-38.74	-918.89	348.64	-1.369e+05	1.438e+05	-3.669e+05
						103.8	-38.74	-946.72	348.64	-1.369e+05	1.978e+05	-5.057e+05
148	111	-2.296e+05	1.981e+05	0.72	-55.66	0.0	-38.81	-890.35	350.45	1.369e+05	9.005e+04	-2.296e+05
		-5.056e+05	9.005e+04	-0.28	0.0	51.9	-38.81	-918.18	350.45	1.369e+05	1.441e+05	-3.669e+05
						103.8	-38.81	-946.01	350.45	1.369e+05	1.981e+05	-5.056e+05
148	121	-6547.74	3.914e+04	0.54	-55.66	0.0	-90.37	-240.26	132.48	37.59	3748.43	-6547.74
		-8.893e+04	3748.43	-0.22	0.0	51.9	71.48	-268.09	132.48	37.59	2.144e+04	-4.702e+04
						103.8	233.33	-295.92	132.48	37.59	3.914e+04	-8.893e+04
148	130	-4.381e+04	2.798e+04	0.04	-42.81	0.0	-17.80	-75.12	33.02	-5156.87	1.721e+04	-4.381e+04
		-7.235e+04	1.721e+04	-6.83e-03	0.0	51.9	-17.80	-96.53	33.02	-5156.87	2.259e+04	-5.753e+04
						103.8	-17.80	-117.94	33.02	-5156.87	2.798e+04	-7.235e+04
148	131	-3757.46	1.247e+04	0.11	-42.81	0.0	9.85	-70.52	38.05	5167.04	1172.10	-3757.46
		-3.182e+04	1172.10	-0.06	0.0	51.9	9.85	-91.93	38.05	5167.04	6822.41	-1.723e+04
						103.8	9.85	-113.34	38.05	5167.04	1.247e+04	-3.182e+04
148	162	-3.245e+04	2.358e+04	0.06	-42.81	0.0	-10.01	-73.82	34.43	-2140.96	1.266e+04	-3.245e+04
		-6.085e+04	1.266e+04	-0.02	0.0	51.9	-10.01	-95.22	34.43	-2140.96	1.812e+04	-4.610e+04

Progettazione civile e inserimento ambientale

Agronomia e studi culturali

Progettazione elettrica



Arch. Andrea Giuffrida



Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

148	163	-1.512e+04	1.687e+04	0.09	-42.81	0.0	103.8	-10.01	-116.63	34.43	-2140.96	2.358e+04	-6.085e+04
		-4.332e+04	5719.78	-0.04	0.0	51.9	103.8	2.06	-71.83	36.64	2151.13	5719.78	-1.512e+04
								2.06	-93.24	36.64	2151.13	1.130e+04	-2.866e+04
								2.06	-114.65	36.64	2151.13	1.687e+04	-4.332e+04
148	213	2.769e+05	-5.427e+04	-0.26	-42.81	0.0	103.8	12.80	481.98	-166.08	2.381e+05	-5.427e+04	1.390e+05
		1.390e+05	-1.072e+05	0.10	0.0	51.9	103.8	12.80	460.57	-166.08	2.381e+05	-8.076e+04	2.085e+05
								12.80	439.16	-166.08	2.381e+05	-1.072e+05	2.769e+05
148	225	2.767e+05	-5.456e+04	-0.26	-42.81	0.0	103.8	12.92	480.75	-169.22	-2.381e+05	-5.456e+04	1.389e+05
		1.389e+05	-1.079e+05	0.10	0.0	51.9	103.8	12.92	459.34	-169.22	-2.381e+05	-8.121e+04	2.084e+05
								12.92	437.94	-169.22	-2.381e+05	-1.079e+05	2.767e+05
148	230	-655.46	9734.00	0.17	-42.81	0.0	103.8	-48.78	-46.50	35.26	13.68	552.97	-655.46
		-2.162e+04	552.97	-0.07	0.0	51.9	103.8	59.12	-67.91	35.26	13.68	5143.49	-1.058e+04
								167.02	-89.31	35.26	13.68	9734.00	-2.162e+04
148	238	-1.562e+05	1.345e+05	0.49	-42.81	0.0	103.8	-26.36	-603.75	237.17	-9.125e+04	6.115e+04	-1.390e+05
		-3.441e+05	6.115e+04	-0.19	0.0	51.9	103.8	-26.36	-625.16	237.17	-9.125e+04	9.784e+04	-2.496e+05
								-26.36	-646.56	237.17	-9.125e+04	1.345e+05	-3.441e+05
148	244	-1.562e+05	1.348e+05	0.49	-42.81	0.0	103.8	-26.40	-603.28	238.37	9.130e+04	6.126e+04	-1.562e+05
		-3.440e+05	6.126e+04	-0.19	0.0	51.9	103.8	-26.40	-624.69	238.37	9.130e+04	9.801e+04	-2.496e+05
								-26.40	-646.09	238.37	9.130e+04	1.348e+05	-3.440e+05
148	249	-7536.46	2.879e+04	0.37	-42.81	0.0	103.8	-60.78	-169.88	93.06	25.74	3724.30	-7536.46
		-6.623e+04	3724.30	-0.15	0.0	51.9	103.8	47.12	-191.29	93.06	25.74	1.626e+04	-3.633e+04
								155.02	-212.70	93.06	25.74	2.879e+04	-6.623e+04
148	255	4179.84	-925.64	-6.37e-03	-42.81	0.0	103.8	0.40	29.05	-4.33	-4.762e+04	-925.64	1789.54
		1789.54	-2009.11	2.45e-03	0.0	51.9	103.8	0.40	7.64	-4.33	-4.762e+04	-1467.38	3539.94
								0.40	-13.77	-4.33	-4.762e+04	-2009.11	4179.84
148	256	-1.219e+04	1.474e+04	0.11	-42.81	0.0	103.8	-13.93	-58.71	34.40	7.46	4829.07	-1.219e+04
		-3.650e+04	4829.07	-0.04	0.0	51.9	103.8	7.65	-80.12	34.40	7.46	9786.48	-2.379e+04
								29.23	-101.53	34.40	7.46	1.474e+04	-3.650e+04
148	257	-5.280e+04	3.432e+04	0.03	-42.81	0.0	103.8	0.17	-109.68	40.05	2.37	2.016e+04	-5.280e+04
		-9.162e+04	2.016e+04	-0.01	0.0	51.9	103.8	0.17	-131.09	40.05	2.37	2.724e+04	-7.166e+04
								0.17	-152.49	40.05	2.37	3.432e+04	-9.162e+04
148	258	5235.43	6130.11	0.14	-42.81	0.0	103.8	-8.12	-35.97	31.02	7.81	-1783.20	5235.43
		-1.255e+04	-1783.20	-0.05	0.0	51.9	103.8	-8.12	-57.38	31.02	7.81	2173.46	-3103.62
								-8.12	-78.78	31.02	7.81	6130.11	-1.255e+04
148	259	-4.047e+04	3.461e+04	0.13	-42.81	0.0	103.8	-6.78	-139.87	60.82	8.61	1.573e+04	-4.047e+04
		-8.890e+04	1.573e+04	-0.05	0.0	51.9	103.8	-6.78	-161.28	60.82	8.61	2.517e+04	-6.413e+04
								-6.78	-182.68	60.82	8.61	3.461e+04	-8.890e+04
148	260	-2.378e+04	2.022e+04	0.07	-42.81	0.0	103.8	-3.97	-72.82	35.53	5.09	9190.08	-2.378e+04
		-5.209e+04	9190.08	-0.03	0.0	51.9	103.8	-3.97	-94.23	35.53	5.09	1.471e+04	-3.738e+04
								-3.97	-115.64	35.53	5.09	2.022e+04	-5.209e+04
149	49	3.789e+05	-6.575e+04	-0.45	-42.81	0.0	103.8	92.96	717.99	-230.53	3.572e+05	-6.575e+04	1.714e+05
		1.714e+05	-1.433e+05	0.18	0.0	51.9	103.8	92.96	696.58	-230.53	3.572e+05	-1.045e+05	2.757e+05
								92.96	675.17	-230.53	3.572e+05	-1.433e+05	3.789e+05
149	73	3.790e+05	-6.552e+04	-0.45	-42.81	0.0	103.8	92.81	719.02	-227.83	-3.572e+05	-6.552e+04	1.715e+05
		1.715e+05	-1.428e+05	0.18	0.0	51.9	103.8	92.81	697.61	-227.83	-3.572e+05	-1.042e+05	2.758e+05
								92.81	676.20	-227.83	-3.572e+05	-1.428e+05	3.790e+05
149	84	9488.67	5919.94	0.22	-55.66	0.0	103.8	-144.63	-56.46	32.18	8.48	-4001.41	9488.67
		-1.585e+04	-4001.41	-0.09	0.0	51.9	103.8	17.22	-84.29	32.18	8.48	959.27	-2459.99
								179.07	-112.12	32.18	8.48	5919.94	-1.585e+04
149	85	1.731e+05	-5.961e+04	0.80	-42.81	0.0	103.8	-54.36	90.57	2.11	22.35	-5.961e+04	1.540e+05
		1.540e+05	-6.413e+04	-0.32	0.0	51.9	103.8	107.49	69.16	2.11	22.35	-6.187e+04	1.641e+05
								269.34	47.75	2.11	22.35	-6.413e+04	1.731e+05
149	99	-1.402e+05	1.496e+05	1.03	-55.66	0.0	103.8	-65.70	-838.57	291.33	-1.369e+05	5.263e+04	-1.402e+05
		-3.983e+05	5.263e+04	-0.41	0.0	51.9	103.8	-65.70	-866.40	291.33	-1.369e+05	1.011e+05	-2.685e+05
								-65.70	-894.23	291.33	-1.369e+05	1.496e+05	-3.983e+05
149	111	-1.402e+05	1.494e+05	1.03	-55.66	0.0	103.8	-65.64	-838.97	290.30	1.369e+05	5.255e+04	-1.402e+05
		-3.984e+05	5.255e+04	-0.41	0.0	51.9	103.8	-65.64	-866.80	290.30	1.369e+05	1.010e+05	-2.686e+05
								-65.64	-894.63	290.30	1.369e+05	1.494e+05	-3.984e+05
149	126	-3.485e+04	2.318e+04	0.05	-42.81	0.0	103.8	-15.73	-69.13	28.35	2420.79	1.342e+04	-3.485e+04
		-6.148e+04	1.342e+04	-0.03	0.0	51.9	103.8	-15.73	-90.54	28.35	2420.79	1.830e+04	-4.761e+04
								-15.73	-111.95	28.35	2420.79	2.318e+04	-6.148e+04
149	127	5594.42	7338.48	0.17	-42.81	0.0	103.8	2.28	-65.88	30.65	-2431.04	-2702.48	5594.42

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

	-2.071e+04	-2702.48	-0.05	0.0	51.9	2.28	-87.29	30.65	-2431.04	2318.00	-7003.10
					103.8	2.28	-108.69	30.65	-2431.04	7338.48	-2.071e+04
149	158	-2.350e+04	1.874e+04	0.08	-42.81	0.0	-10.68	-68.22	29.00	965.32	8900.26
		-5.004e+04	8900.26	-0.04	0.0	51.9	-10.68	-89.63	29.00	965.32	1.382e+04
						103.8	-10.68	-111.03	29.00	965.32	1.874e+04
149	159	-5750.93	1.178e+04	0.13	-42.81	0.0	-2.77	-66.79	30.01	-975.56	1821.14
		-3.215e+04	1821.14	-0.05	0.0	51.9	-2.77	-88.20	30.01	-975.56	6802.50
						103.8	-2.77	-109.61	30.01	-975.56	1.178e+04
149	212	2.389e+05	-4.205e+04	-0.27	-42.81	0.0	59.73	456.16	-143.85	2.381e+05	-4.205e+04
		1.094e+05	-9.044e+04	0.11	0.0	51.9	59.73	434.75	-143.85	2.381e+05	-6.624e+04
						103.8	59.73	413.34	-143.85	2.381e+05	-9.044e+04
149	224	2.390e+05	-4.190e+04	-0.27	-42.81	0.0	59.63	456.84	-142.05	-2.381e+05	-4.190e+04
		1.094e+05	-9.010e+04	0.11	0.0	51.9	59.63	435.44	-142.05	-2.381e+05	-6.600e+04
						103.8	59.63	414.03	-142.05	-2.381e+05	-9.010e+04
149	230	1.017e+05	-3.766e+04	0.57	-42.81	0.0	-38.48	37.88	11.24	13.19	-3.796e+04
		9.777e+04	-3.796e+04	-0.23	0.0	51.9	69.42	16.47	11.24	13.19	-3.781e+04
						103.8	177.32	-4.94	11.24	13.19	-3.766e+04
149	231	4375.41	5981.52	0.16	-42.81	0.0	-97.32	-46.64	25.39	4.97	-1952.84
		-1.605e+04	-1952.84	-0.06	0.0	51.9	10.58	-68.05	25.39	4.97	2014.34
						103.8	118.48	-89.46	25.39	4.97	5981.52
149	238	-9.539e+04	1.018e+05	0.70	-42.81	0.0	-44.69	-568.05	198.15	-9.130e+04	3.580e+04
		-2.710e+05	3.580e+04	-0.28	0.0	51.9	-44.69	-589.46	198.15	-9.130e+04	6.879e+04
						103.8	-44.69	-610.86	198.15	-9.130e+04	1.018e+05
149	244	-9.540e+04	1.016e+05	0.70	-42.81	0.0	-44.66	-568.31	197.47	9.125e+04	3.575e+04
		-2.711e+05	3.575e+04	-0.28	0.0	51.9	-44.66	-589.72	197.47	9.125e+04	6.870e+04
						103.8	-44.66	-611.13	197.47	9.125e+04	1.016e+05
149	256	-1487.30	9041.14	0.16	-42.81	0.0	-18.96	-54.88	27.27	-2.28	297.68
		-2.431e+04	297.68	-0.06	0.0	51.9	2.62	-76.29	27.27	-2.28	4669.41
						103.8	24.20	-97.70	27.27	-2.28	9041.14
149	257	2.429e+04	-2923.80	0.28	-42.81	0.0	17.79	-32.29	23.61	-1.70	-9640.60
		7959.73	-9640.60	-0.11	0.0	51.9	17.79	-53.70	23.61	-1.70	-6282.20
						103.8	17.79	-75.10	23.61	-1.70	-2923.80
149	258	-5.354e+04	3.345e+04	-0.07	-42.81	0.0	-31.24	-102.72	35.40	-8.55	2.036e+04
		-9.015e+04	2.036e+04	0.03	0.0	51.9	-31.24	-124.13	35.40	-8.55	2.690e+04
						103.8	-31.24	-145.54	35.40	-8.55	3.345e+04
149	260	-1.463e+04	1.526e+04	0.11	-42.81	0.0	-6.73	-67.51	29.50	-5.12	5360.70
		-4.110e+04	5360.70	-0.04	0.0	51.9	-6.73	-88.91	29.50	-5.12	1.031e+04
						103.8	-6.73	-110.32	29.50	-5.12	1.526e+04
150	73	-1.321e+05	7.017e+04	-0.47	-46.94	0.0	74.23	159.48	-52.66	-1.069e+05	7.017e+04
		-1.769e+05	5.252e+04	0.18	0.0	56.9	74.23	136.01	-52.66	-1.069e+05	6.135e+04
						113.8	74.23	112.54	-52.66	-1.069e+05	5.252e+04
150	84	6.407e+04	-1.814e+04	-0.14	-61.02	0.0	-175.52	87.20	-16.31	40.32	-1.814e+04
		4.579e+04	-2.468e+04	0.06	0.0	56.9	1.93	56.69	-16.31	40.32	-2.141e+04
						113.8	179.38	26.18	-16.31	40.32	-2.468e+04
150	85	3.819e+04	-1.357e+04	-0.02	-46.94	0.0	-76.71	36.26	-2.23	18.45	-1.357e+04
		3.418e+04	-1.484e+04	7.81e-03	0.0	56.9	100.74	12.79	-2.23	18.45	-1.421e+04
						113.8	278.19	-10.68	-2.23	18.45	-1.484e+04
150	111	2.376e+05	-6.635e+04	0.75	-61.02	0.0	-34.22	-190.56	82.54	4.097e+04	-9.461e+04
		1.649e+05	-9.461e+04	-0.30	0.0	56.9	-34.22	-221.07	82.54	4.097e+04	-8.048e+04
						113.8	-34.22	-251.58	82.54	4.097e+04	-6.635e+04
150	130	2.176e+04	-5904.92	0.10	-46.94	0.0	-8.58	0.19	8.41	-1473.88	-8795.14
		1.423e+04	-8795.14	-0.04	0.0	56.9	-8.58	-23.28	8.41	-1473.88	-7350.03
						113.8	-8.58	-46.75	8.41	-1473.88	-5904.92
150	131	2.630e+04	-7716.21	0.05	-46.94	0.0	1.55	1.41	8.45	1472.56	-1.061e+04
		1.892e+04	-1.061e+04	-0.02	0.0	56.9	1.55	-22.07	8.45	1472.56	-9163.76
						113.8	1.55	-45.54	8.45	1472.56	-7716.21
150	149	1.889e+04	-4778.30	0.07	-46.94	0.0	-4.20	0.83	8.35	4146.42	-7662.69
		1.144e+04	-7662.69	-0.03	0.0	56.9	-4.20	-22.64	8.35	4146.42	-6220.49
						113.8	-4.20	-46.12	8.35	4146.42	-4778.30
150	152	2.917e+04	-8842.84	0.08	-46.94	0.0	-2.82	0.77	8.50	-4147.74	-1.174e+04
		2.171e+04	-1.174e+04	-0.03	0.0	56.9	-2.82	-22.70	8.50	-4147.74	-1.029e+04
						113.8	-2.82	-46.17	8.50	-4147.74	-8842.84

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida





SMARTENERGYIT2111 S.R.L.

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

150	162	2.301e+04	-6405.68	0.09	-46.94	0.0	-5.73	0.53	8.42	-612.64	-9297.24	2.301e+04
		1.553e+04	-9297.24	-0.03	0.0	56.9	-5.73	-22.94	8.42	-612.64	-7851.46	1.994e+04
						113.8	-5.73	-46.41	8.42	-612.64	-6405.68	1.553e+04
150	163	2.505e+04	-7215.46	0.07	-46.94	0.0	-1.30	1.06	8.44	611.32	-1.011e+04	2.505e+04
		1.762e+04	-1.011e+04	-0.03	0.0	56.9	-1.30	-22.41	8.44	611.32	-8662.34	2.200e+04
						113.8	-1.30	-45.88	8.44	611.32	-7215.46	1.762e+04
150	181	2.183e+04	-5939.22	0.07	-46.94	0.0	-3.83	0.81	8.39	1713.30	-8828.34	2.183e+04
		1.437e+04	-8828.34	-0.03	0.0	56.9	-3.83	-22.66	8.39	1713.30	-7383.78	1.877e+04
						113.8	-3.83	-46.13	8.39	1713.30	-5939.22	1.437e+04
150	184	2.623e+04	-7681.92	0.08	-46.94	0.0	-3.20	0.79	8.46	-1714.62	-1.058e+04	2.623e+04
		1.878e+04	-1.058e+04	-0.03	0.0	56.9	-3.20	-22.68	8.46	-1714.62	-9130.02	2.317e+04
						113.8	-3.20	-46.16	8.46	-1714.62	-7681.92	1.878e+04
150	224	-8.251e+04	4.355e+04	-0.29	-46.94	0.0	48.32	106.59	-32.30	-7.128e+04	4.355e+04	-1.099e+05
		-1.099e+05	3.274e+04	0.11	0.0	56.9	48.32	83.12	-32.30	-7.128e+04	3.815e+04	-9.556e+04
						113.8	48.32	59.64	-32.30	-7.128e+04	3.274e+04	-8.251e+04
150	230	3.156e+04	-1.216e+04	0.02	-46.94	0.0	-52.31	24.44	1.32	12.08	-1.228e+04	3.079e+04
		3.079e+04	-1.228e+04	-8.59e-03	0.0	56.9	65.99	0.97	1.32	12.08	-1.222e+04	3.156e+04
						113.8	184.29	-22.50	1.32	12.08	-1.216e+04	3.098e+04
150	231	4.492e+04	-1.338e+04	-0.08	-46.94	0.0	-117.48	58.24	-9.75	26.79	-1.338e+04	3.373e+04
		3.373e+04	-1.736e+04	0.03	0.0	56.9	0.82	34.77	-9.75	26.79	-1.537e+04	3.999e+04
						113.8	119.12	11.30	-9.75	26.79	-1.736e+04	4.492e+04
150	244	1.616e+05	-4.514e+04	0.51	-46.94	0.0	-23.28	-126.93	56.15	2.731e+04	-6.437e+04	1.616e+05
		1.121e+05	-6.437e+04	-0.20	0.0	56.9	-23.28	-150.40	56.15	2.731e+04	-5.476e+04	1.375e+05
						113.8	-23.28	-173.88	56.15	2.731e+04	-4.514e+04	1.121e+05
150	255	-1455.96	836.83	-6.62e-03	-46.94	0.0	0.34	25.34	-0.83	-1.425e+04	836.83	-2470.51
		-2470.51	580.28	2.52e-03	0.0	56.9	0.34	1.86	-0.83	-1.425e+04	708.56	-1492.01
						113.8	0.34	-21.61	-0.83	-1.425e+04	580.28	-1848.41
150	256	2.568e+04	-8401.26	0.06	-46.94	0.0	-19.79	8.91	5.90	3.36	-1.033e+04	2.568e+04
		2.085e+04	-1.033e+04	-0.02	0.0	56.9	3.87	-14.56	5.90	3.36	-9365.23	2.393e+04
						113.8	27.53	-38.04	5.90	3.36	-8401.26	2.085e+04
150	258	2.525e+04	-8977.66	0.03	-46.94	0.0	-30.67	14.88	3.81	5.47	-1.016e+04	2.525e+04
		2.238e+04	-1.016e+04	-0.01	0.0	56.9	-30.67	-8.59	3.81	5.47	-9570.00	2.449e+04
						113.8	-30.67	-32.06	3.81	5.47	-8977.66	2.238e+04
150	259	4.138e+04	-1.164e+04	0.13	-46.94	0.0	-5.99	-15.34	14.43	-1.24	-1.660e+04	4.138e+04
		2.862e+04	-1.660e+04	-0.05	0.0	56.9	-5.99	-38.81	14.43	-1.24	-1.412e+04	3.567e+04
						113.8	-5.99	-62.29	14.43	-1.24	-1.164e+04	2.862e+04
150	260	2.403e+04	-6810.57	0.08	-46.94	0.0	-3.51	0.80	8.43	-0.66	-9703.23	2.403e+04
		1.658e+04	-9703.23	-0.03	0.0	56.9	-3.51	-22.67	8.43	-0.66	-8256.90	2.097e+04
						113.8	-3.51	-46.14	8.43	-0.66	-6810.57	1.658e+04
151	50	-1.076e+05	6.755e+04	0.64	-46.94	0.0	-27.32	-166.52	77.60	-9.718e+04	4.229e+04	-1.076e+05
		-1.707e+05	4.229e+04	-0.25	0.0	56.9	-27.32	-189.99	77.60	-9.718e+04	5.492e+04	-1.385e+05
						113.8	-27.32	-213.46	77.60	-9.718e+04	6.755e+04	-1.707e+05
151	74	-1.076e+05	6.749e+04	0.64	-46.94	0.0	-27.42	-166.17	78.60	9.735e+04	4.211e+04	-1.076e+05
		-1.707e+05	4.211e+04	-0.25	0.0	56.9	-27.42	-189.64	78.60	9.735e+04	5.480e+04	-1.385e+05
						113.8	-27.42	-213.11	78.60	9.735e+04	6.749e+04	-1.707e+05
151	84	-2370.86	1.595e+04	-0.30	-61.02	0.0	-202.07	156.03	-42.79	39.50	1.595e+04	-4.335e+04
		-4.335e+04	496.78	0.12	0.0	56.9	-24.62	125.52	-42.79	39.50	8225.70	-2.199e+04
						113.8	152.83	95.00	-42.79	39.50	496.78	-2370.86
151	85	1.355e+04	2615.91	-0.18	-46.94	0.0	-99.32	88.46	-23.43	17.92	2615.91	-7771.74
		-7771.74	-5575.37	0.07	0.0	56.9	78.13	64.99	-23.43	17.92	-1479.73	3557.27
						113.8	255.58	41.52	-23.43	17.92	-5575.37	1.355e+04
151	99	2.169e+05	-4.774e+04	-0.93	-61.02	0.0	-31.58	324.97	-115.94	3.725e+04	-4.774e+04	1.195e+05
		1.195e+05	-8.626e+04	0.37	0.0	56.9	-31.58	294.45	-115.94	3.725e+04	-6.700e+04	1.691e+05
						113.8	-31.58	263.94	-115.94	3.725e+04	-8.626e+04	2.169e+05
151	111	2.169e+05	-4.767e+04	-0.93	-61.02	0.0	-31.54	324.83	-116.33	-3.731e+04	-4.767e+04	1.195e+05
		1.195e+05	-8.624e+04	0.37	0.0	56.9	-31.54	294.32	-116.33	-3.731e+04	-6.695e+04	1.691e+05
						113.8	-31.54	263.81	-116.33	-3.731e+04	-8.624e+04	2.169e+05
151	130	2.862e+04	-7563.63	-0.08	-46.94	0.0	-4.65	53.25	-11.92	-1163.09	-7563.63	1.869e+04
		1.869e+04	-1.151e+04	0.03	0.0	56.9	-4.65	29.78	-11.92	-1163.09	-9538.88	2.432e+04
						113.8	-4.65	6.31	-11.92	-1163.09	-1.151e+04	2.862e+04
151	131	1.521e+04	-2243.48	-0.11	-46.94	0.0	-1.81	54.04	-11.78	1161.63	-2243.48	5186.82
		5186.82	-6181.50	0.04	0.0	56.9	-1.81	30.57	-11.78	1161.63	-4212.49	1.087e+04

Progettazione civile e inserimento ambientale

Agronomia e studi culturali

Progettazione elettrica



Arch. Andrea Giuffrida



Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

151	162	2.485e+04	-6067.14	-0.09	-46.94	0.0	-3.85	53.47	-11.88	-491.19	-6067.14	1.489e+04	1.489e+04	-1.001e+04	0.03	0.0	56.9	-3.85	30.00	-11.88	-491.19	-8040.57	2.054e+04	113.8	-1.81	7.10	-11.78	1161.63	-6181.50	1.521e+04
151	163	1.898e+04	-3739.97	-0.10	-46.94	0.0	-2.61	53.82	-11.82	489.73	-3739.97	8984.46	8984.46	-7681.63	0.04	0.0	56.9	-2.61	30.35	-11.82	489.73	-5710.80	1.465e+04	113.8	-3.85	6.53	-11.88	-491.19	-1.001e+04	2.485e+04
151	213	-6.776e+04	4.209e+04	0.39	-46.94	0.0	-19.29	-93.13	47.79	-6.479e+04	2.656e+04	-1.065e+05	2.656e+04	-0.15	0.0	56.9	-19.29	-116.60	47.79	-6.479e+04	3.432e+04	-8.644e+04	1.065e+05	113.8	-2.61	6.88	-11.82	489.73	-7681.63	1.898e+04
151	225	-6.779e+04	4.204e+04	0.39	-46.94	0.0	-19.36	-92.89	48.45	6.490e+04	2.644e+04	-1.065e+05	2.644e+04	-0.16	0.0	56.9	-19.36	-116.37	48.45	6.490e+04	3.424e+04	-8.646e+04	1.065e+05	113.8	-19.36	-139.84	48.45	6.490e+04	4.204e+04	-1.065e+05
151	230	1.634e+04	109.42	-0.15	-46.94	0.0	-67.29	76.86	-19.57	11.70	109.42	-1202.10	-6666.18	0.06	0.0	56.9	51.01	53.39	-19.57	11.70	-3278.38	8235.95	113.8	169.31	29.92	-19.57	11.70	-6666.18	1.634e+04	
151	231	1341.36	9982.61	-0.21	-46.94	0.0	-135.14	111.17	-30.11	26.23	9982.61	-2.731e+04	-848.53	0.09	0.0	56.9	-16.84	87.70	-30.11	26.23	4567.04	-1.231e+04	113.8	101.46	64.23	-30.11	26.23	-848.53	1341.36	
151	238	1.475e+05	-3.248e+04	-0.63	-46.94	0.0	-21.49	223.80	-78.88	2.483e+04	-3.248e+04	8.126e+04	-5.869e+04	0.25	0.0	56.9	-21.49	200.33	-78.88	2.483e+04	-4.558e+04	1.151e+05	113.8	-21.49	176.85	-78.88	2.483e+04	-5.869e+04	1.475e+05	
151	244	1.475e+05	-3.243e+04	-0.63	-46.94	0.0	-21.46	223.71	-79.13	-2.488e+04	-3.243e+04	8.127e+04	-5.867e+04	0.25	0.0	56.9	-21.46	200.24	-79.13	-2.488e+04	-4.555e+04	1.151e+05	113.8	-21.46	176.77	-79.13	-2.488e+04	-5.867e+04	1.475e+05	
151	253	-1089.70	757.21	8.43e-03	-46.94	0.0	0.34	20.86	1.13	-1.296e+04	401.25	-2261.73	401.25	-3.05e-03	0.0	56.9	0.34	-2.61	1.13	-1.296e+04	579.23	-1159.05	113.8	0.34	-26.08	1.13	-1.296e+04	757.21	-2261.73	
151	255	-1094.15	748.85	8.47e-03	-46.94	0.0	0.33	20.91	1.26	1.298e+04	377.33	-2263.29	377.33	-3.47e-03	0.0	56.9	0.33	-2.56	1.26	1.298e+04	563.09	-1397.03	113.8	0.33	-26.03	1.26	1.298e+04	748.85	-2263.29	
151	257	2.816e+04	-9017.38	-0.07	-46.94	0.0	25.04	39.35	-7.46	-6.79	-9017.38	2.281e+04	-1.127e+04	0.03	0.0	56.9	25.04	15.88	-7.46	-6.79	-1.014e+04	2.616e+04	113.8	25.04	-7.59	-7.46	-6.79	-1.127e+04	2.816e+04	
151	258	1.567e+04	-789.73	-0.12	-46.94	0.0	-31.50	67.94	-16.24	5.32	-789.73	1060.73	-6423.79	0.05	0.0	56.9	-31.50	44.47	-16.24	5.32	-3606.76	9030.55	113.8	-31.50	21.00	-16.24	5.32	-6423.79	1.567e+04	
151	259	3.777e+04	-8384.95	-0.16	-46.94	0.0	-5.51	75.11	-20.28	-1.36	-8384.95	2.069e+04	-1.513e+04	0.06	0.0	56.9	-5.51	51.64	-20.28	-1.36	-1.176e+04	2.990e+04	113.8	-5.51	28.17	-20.28	-1.36	-1.513e+04	3.777e+04	
151	260	2.191e+04	-4903.56	-0.10	-46.94	0.0	-3.23	53.65	-11.85	-0.73	-4903.56	1.194e+04	-8847.82	0.04	0.0	56.9	-3.23	30.18	-11.85	-0.73	-6875.69	1.759e+04	113.8	-3.23	6.71	-11.85	-0.73	-8847.82	2.191e+04	
152	50	3.002e+05	-3.680e+04	-0.66	-46.94	0.0	-23.39	642.83	-215.15	3.371e+05	-3.680e+04	9.736e+04	-1.138e+05	0.26	0.0	56.9	-23.39	619.36	-215.15	3.371e+05	-7.530e+04	1.995e+05	113.8	-23.39	595.89	-215.15	3.371e+05	-1.138e+05	3.002e+05	
152	74	3.003e+05	-3.659e+04	-0.66	-46.94	0.0	-23.53	643.61	-213.06	-3.369e+05	-3.659e+04	9.740e+04	-1.133e+05	0.26	0.0	56.9	-23.53	620.14	-213.06	-3.369e+05	-7.496e+04	1.995e+05	113.8	-23.53	596.67	-213.06	-3.369e+05	-1.133e+05	3.003e+05	
152	85	3.121e+04	-4972.05	0.25	-46.94	0.0	-21.63	-3.15	30.44	21.04	-1.124e+04	2.111e+04	-1.124e+04	-0.10	0.0	56.9	155.82	-26.62	30.44	21.04	-8105.20	2.683e+04	113.8	333.27	-50.09	30.44	21.04	-4972.05	2.111e+04	
152	88	6.821e+04	-2.075e+04	0.34	-61.02	0.0	-156.78	36.96	31.72	39.63	-2.469e+04	6.729e+04	-2.469e+04	-0.13	0.0	56.9	-50.31	6.45	31.72	39.63	-2.272e+04	6.821e+04	113.8	56.16	-24.06	31.72	39.63	-2.075e+04	6.729e+04	
152	99	-1.005e+05	1.374e+05	0.97	-61.02	0.0	-51.56	-768.57	282.66	-1.292e+05	3.736e+04	-3.625e+05	3.736e+04	-0.38	0.0	56.9	-51.56	-799.09	282.66	-1.292e+05	8.737e+04	-2.306e+05	113.8	-51.56	-829.60	282.66	-1.292e+05	1.374e+05	-3.625e+05	
152	111	-1.005e+05	1.372e+05	0.97	-61.02	0.0	-51.51	-768.87	281.86	1.291e+05	3.728e+04	-3.625e+05	3.728e+04	-0.38	0.0	56.9	-51.51	-799.39	281.86	1.291e+05	8.724e+04	-2.307e+05	113.8	-51.51	-829.90	281.86	1.291e+05	1.372e+05	-3.625e+05	
152	130	-2.493e+04	1.945e+04	0.07	-46.94	0.0	-22.79	-60.47	25.85	-3948.52	9555.53	-2.493e+04	1.945e+04	0.07	0.0	56.9	-22.79	-60.47	25.85	-3948.52	9555.53	-2.493e+04	113.8	-22.79	-60.47	25.85	-3948.52	1.945e+04		

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

		-5.201e+04	9555.53	-0.03	0.0	56.9	-22.79	-83.94	25.85	-3948.52	1.450e+04	-3.780e+04
						113.8	-22.79	-107.42	25.85	-3948.52	1.945e+04	-5.201e+04
152	131	3675.38	8587.19	0.13	-46.94	0.0	12.24	-56.56	31.54	3947.09	-1960.24	3675.38
		-2.296e+04	-1960.24	-0.05	0.0	56.9	12.24	-80.03	31.54	3947.09	3313.47	-8975.21
						113.8	12.24	-103.50	31.54	3947.09	8587.19	-2.296e+04
152	162	-1.688e+04	1.639e+04	0.09	-46.94	0.0	-12.95	-59.37	27.45	-1638.80	6315.55	-1.688e+04
		-4.383e+04	6315.55	-0.03	0.0	56.9	-12.95	-82.84	27.45	-1638.80	1.135e+04	-2.969e+04
						113.8	-12.95	-106.31	27.45	-1638.80	1.639e+04	-4.383e+04
152	163	-4372.02	1.164e+04	0.11	-46.94	0.0	2.40	-57.66	29.94	1637.38	1279.73	-4372.02
		-3.113e+04	1279.73	-0.04	0.0	56.9	2.40	-81.13	29.94	1637.38	6461.21	-1.709e+04
						113.8	2.40	-104.61	29.94	1637.38	1.164e+04	-3.113e+04
152	213	1.877e+05	-2.327e+04	-0.41	-46.94	0.0	-17.35	409.05	-133.87	2.247e+05	-2.327e+04	6.137e+04
		6.137e+04	-7.119e+04	0.16	0.0	56.9	-17.35	385.58	-133.87	2.247e+05	-4.723e+04	1.252e+05
						113.8	-17.35	362.11	-133.87	2.247e+05	-7.119e+04	1.877e+05
152	225	1.877e+05	-2.312e+04	-0.41	-46.94	0.0	-17.44	409.57	-132.48	-2.246e+05	-2.312e+04	6.139e+04
		6.139e+04	-7.089e+04	0.16	0.0	56.9	-17.44	386.10	-132.48	-2.246e+05	-4.701e+04	1.252e+05
						113.8	-17.44	362.63	-132.48	-2.246e+05	-7.089e+04	1.877e+05
152	230	1.726e+04	1357.40	0.20	-46.94	0.0	-16.18	-21.61	29.86	13.79	-6226.35	1.726e+04
		1579.78	-6226.35	-0.08	0.0	56.9	102.12	-45.08	29.86	13.79	-2434.48	1.009e+04
						113.8	220.42	-68.55	29.86	13.79	1357.40	1579.78
152	233	4.351e+04	-1.196e+04	0.24	-46.94	0.0	-105.22	16.84	24.97	26.33	-1.595e+04	4.351e+04
		3.986e+04	-1.595e+04	-0.09	0.0	56.9	-34.24	-6.63	24.97	26.33	-1.396e+04	4.235e+04
						113.8	36.74	-30.10	24.97	26.33	-1.196e+04	3.986e+04
152	238	-6.843e+04	9.346e+04	0.66	-46.94	0.0	-35.08	-520.19	192.26	-8.614e+04	2.542e+04	-6.843e+04
		-2.467e+05	2.542e+04	-0.26	0.0	56.9	-35.08	-543.66	192.26	-8.614e+04	5.944e+04	-1.569e+05
						113.8	-35.08	-567.13	192.26	-8.614e+04	9.346e+04	-2.467e+05
152	244	-6.843e+04	9.334e+04	0.66	-46.94	0.0	-35.04	-520.38	191.73	8.609e+04	2.536e+04	-6.843e+04
		-2.467e+05	2.536e+04	-0.26	0.0	56.9	-35.04	-543.86	191.73	8.609e+04	5.935e+04	-1.569e+05
						113.8	-35.04	-567.33	191.73	8.609e+04	9.334e+04	-2.467e+05
152	253	2798.60	-403.83	-9.05e-03	-46.94	0.0	0.55	30.30	-3.43	4.494e+04	-403.83	472.82
		472.82	-1403.33	3.94e-03	0.0	56.9	0.55	6.83	-3.43	4.494e+04	-903.58	2297.25
						113.8	0.55	-16.64	-3.43	4.494e+04	-1403.33	2786.79
152	256	-1747.41	9862.24	0.13	-46.94	0.0	-15.70	-46.44	28.54	3.81	580.82	-1747.41
		-2.491e+04	580.82	-0.05	0.0	56.9	7.96	-69.91	28.54	3.81	5221.53	-1.266e+04
						113.8	31.62	-93.38	28.54	3.81	9862.24	-2.491e+04
152	258	3124.78	7256.79	0.13	-46.94	0.0	-39.62	-38.96	27.07	6.03	-1252.44	3124.78
		-1.766e+04	-1252.44	-0.05	0.0	56.9	-39.62	-62.43	27.07	6.03	3002.18	-6602.49
						113.8	-39.62	-85.90	27.07	6.03	7256.79	-1.766e+04
152	259	-1.793e+04	2.399e+04	0.17	-46.94	0.0	-9.00	-116.81	49.10	-1.34	6510.78	-1.793e+04
		-6.388e+04	6510.78	-0.07	0.0	56.9	-9.00	-140.28	49.10	-1.34	1.525e+04	-4.024e+04
						113.8	-9.00	-163.75	49.10	-1.34	2.399e+04	-6.388e+04
152	260	-1.063e+04	1.402e+04	0.10	-46.94	0.0	-5.28	-58.52	28.70	-0.71	3797.64	-1.063e+04
		-3.748e+04	3797.64	-0.04	0.0	56.9	-5.28	-81.99	28.70	-0.71	8906.97	-2.339e+04
						113.8	-5.28	-105.46	28.70	-0.71	1.402e+04	-3.748e+04
153	49	1.123e+05	1.308e+04	0.89	-46.94	0.0	83.42	-415.19	167.37	-2.057e+05	-4.348e+04	1.123e+05
		-3.215e+04	-4.348e+04	-0.35	0.0	56.9	83.42	-438.66	167.37	-2.057e+05	-1.520e+04	4.076e+04
						113.8	83.42	-462.13	167.37	-2.057e+05	1.308e+04	-3.215e+04
153	73	1.122e+05	1.290e+04	0.89	-46.94	0.0	83.54	-414.30	169.73	2.059e+05	-4.394e+04	1.122e+05
		-3.219e+04	-4.394e+04	-0.35	0.0	56.9	83.54	-437.77	169.73	2.059e+05	-1.552e+04	4.068e+04
						113.8	83.54	-461.24	169.73	2.059e+05	1.290e+04	-3.219e+04
153	84	-5.853e+04	4.180e+04	-0.11	-61.02	0.0	-239.47	201.18	-49.99	39.53	4.180e+04	-1.136e+05
		-1.136e+05	2.198e+04	0.04	0.0	56.9	-62.02	170.67	-49.99	39.53	3.189e+04	-8.518e+04
						113.8	115.43	140.16	-49.99	39.53	2.198e+04	-5.853e+04
153	85	-1.615e+04	1.760e+04	-0.14	-46.94	0.0	-115.98	118.66	-32.08	17.82	1.760e+04	-4.718e+04
		-4.718e+04	5941.19	0.05	0.0	56.9	61.47	95.19	-32.08	17.82	1.177e+04	-3.100e+04
						113.8	238.92	71.71	-32.08	17.82	5941.19	-1.615e+04
153	123	2.263e+04	4.413e+04	-0.84	-61.02	0.0	-124.59	451.29	-157.22	11.38	4.413e+04	-1.157e+05
		-1.157e+05	-9654.90	0.33	0.0	56.9	-18.12	420.78	-157.22	11.38	1.724e+04	-4.568e+04
						113.8	88.35	390.27	-157.22	11.38	-9654.90	2.263e+04
153	129	1.706e+04	450.27	-0.13	-46.94	0.0	-1.49	80.58	-21.49	1431.07	450.27	-1847.03
		-1847.03	-6919.42	0.05	0.0	56.9	-1.49	57.10	-21.49	1431.07	-3234.57	8275.04
						113.8	-1.49	33.63	-21.49	1431.07	-6919.42	1.706e+04

Progettazione civile e inserimento ambientale

Agronomia e studi culturali

Progettazione elettrica



Arch. Andrea Giuffrida



Dott. Agr. Gianfranco Giuffrida





SMARTENERGYIT2111 S.R.L.

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

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153	132	-2578.66 -2.153e+04	8383.92 837.37	-0.13 0.05	-46.94 0.0	0.0 56.9	-4.59 -4.59	81.10 57.63	-23.13 -23.13	-1432.76 -1432.76	8383.92 4610.64	-2.153e+04 -1.139e+04
153	161	1.156e+04 -7365.56	2674.62 -4744.85	-0.13 0.05	-46.94 0.0	0.0 56.9	-2.37 -2.37	80.72 57.25	-21.95 -21.95	586.82 586.82	2674.62 -1035.11	-7365.56 -7365.56
153	164	2927.61 -1.601e+04	6159.57 -1337.20	-0.13 0.05	-46.94 0.0	0.0 56.9	-3.72 -3.72	80.95 57.48	-22.67 -22.67	-588.52 -588.52	6159.57 2411.18	-1.601e+04 -5874.80
153	212	7.100e+04 -1.902e+04	7706.13 -2.752e+04	0.55 -0.22	-46.94 0.0	0.0 56.9	54.60 54.60	-249.85 -273.32	104.14 104.14	-1.372e+05 -1.372e+05	-2.752e+04 -9904.84	7.100e+04 2.666e+04
153	224	7.091e+04 -1.905e+04	7585.42 -2.782e+04	0.55 -0.22	-46.94 0.0	0.0 56.9	54.68 54.68	-249.25 -272.72	105.72 105.72	1.372e+05 1.372e+05	-2.782e+04 -1.012e+04	7.091e+04 2.660e+04
153	230	-8355.92 -3.535e+04	1.321e+04 2947.12	-0.13 0.05	-46.94 0.0	0.0 56.9	-78.34 39.96	106.05 82.58	-28.83 -28.83	11.60 11.60	1.321e+04 8077.84	-3.535e+04 -2.119e+04
153	231	-3.805e+04 -7.727e+04	2.845e+04 1.425e+04	-0.09 0.04	-46.94 0.0	0.0 56.9	-160.05 -41.75	144.90 121.43	-36.30 -36.30	26.24 26.24	2.845e+04 2.135e+04	-7.727e+04 -5.700e+04
153	250	1.605e+04 -7.871e+04	3.001e+04 -6842.07	-0.57 0.23	-46.94 0.0	0.0 56.9	-83.47 -12.49	311.64 288.17	-107.79 -107.79	7.48 7.48	3.001e+04 1.158e+04	-7.871e+04 -3.066e+04
153	257	1.962e+04 5777.73	-1934.83 -7748.87	-0.15 0.06	-46.94 0.0	0.0 56.9	31.00 31.00	64.65 41.18	-19.19 -19.19	-6.95 -6.95	-1934.83 -4841.85	5777.73 1.336e+04
153	258	-5132.22 -2.916e+04	1.077e+04 1666.83	-0.11 0.04	-46.94 0.0	0.0 56.9	-37.09 -37.09	97.02 73.55	-25.42 -25.42	5.25 5.25	1.077e+04 6217.92	-2.916e+04 -1.648e+04
153	260	7241.77 -1.169e+04	4417.09 -3041.02	-0.13 0.05	-46.94 0.0	0.0 56.9	-3.04 -3.04	80.84 57.37	-22.31 -22.31	-0.85 -0.85	4417.09 688.04	-1.169e+04 -1556.08
154	73	1806.38 -1.072e+05	4.266e+04 -122.21	-0.89 0.35	-46.94 0.0	0.0 56.9	81.40 81.40	354.13 330.66	-127.15 -127.15	-2.134e+05 -2.134e+05	4.266e+04 2.127e+04	-1.072e+05 -5.202e+04
154	84	7.683e+04 6.811e+04	-2.629e+04 -2.800e+04	0.10 -0.04	-61.02 0.0	0.0 56.9	-163.91 13.54	60.39 29.88	3.47 3.47	41.62 41.62	-2.629e+04 -2.715e+04	6.811e+04 7.334e+04
154	85	3.803e+04 3.409e+04	-1.238e+04 -1.478e+04	0.13 -0.05	-46.94 0.0	0.0 56.9	-57.94 119.51	13.25 -10.22	11.38 11.38	19.17 19.17	-1.478e+04 -1.358e+04	3.803e+04 3.673e+04
154	111	1.272e+05 -3.381e+04	1.082e+04 -5.142e+04	1.26 -0.50	-61.02 0.0	0.0 56.9	-39.09 -39.09	-459.84 -490.36	180.15 180.15	8.179e+04 8.179e+04	-5.142e+04 -2.030e+04	1.272e+05 4.756e+04
154	129	4246.20 -1.226e+04	4528.52 -1941.64	0.13 -0.05	-46.94 0.0	0.0 56.9	-11.79 -11.79	-26.83 -50.30	19.27 19.27	1802.11 1802.11	-1941.64 1293.44	4246.20 -3339.70
154	130	4895.58 -1.164e+04	4283.42 -2200.48	0.14 -0.06	-46.94 0.0	0.0 56.9	-12.34 -12.34	-27.05 -50.52	19.40 19.40	-2670.75 -2670.75	-2200.48 1041.47	4895.58 -2702.59
154	131	2.054e+04 4057.89	-2111.83 -8359.85	0.11 -0.05	-46.94 0.0	0.0 56.9	4.32 4.32	-26.60 -50.07	17.31 17.31	2669.42 2669.42	-8359.85 -5235.84	2.054e+04 1.297e+04
154	132	2.119e+04 4682.72	-2356.93 -8618.69	0.13 -0.05	-46.94 0.0	0.0 56.9	3.77 3.77	-26.82 -50.29	17.44 17.44	-1803.44 -1803.44	-8618.69 -5487.81	2.119e+04 1.360e+04
154	161	9003.96 -7502.67	2595.04 -3816.69	0.13 -0.05	-46.94 0.0	0.0 56.9	-7.42 -7.42	-26.83 -50.30	18.75 18.75	737.92 737.92	-3816.69 -610.82	9003.96 1418.10
154	162	9280.66 -7236.37	2490.61 -3926.98	0.13 -0.05	-46.94 0.0	0.0 56.9	-7.66 -7.66	-26.92 -50.39	18.81 18.81	-1109.25 -1109.25	-3926.98 -718.19	9280.66 1689.59

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

154	163	1.615e+04	-319.01	0.12	-46.94	0.0	-0.36	-26.73	17.90	1107.92	-6633.34	1.615e+04
		-341.41	-6633.34	-0.05	0.0	56.9	-0.36	-50.20	17.90	1107.92	-3476.18	8573.84
						113.8	-0.36	-73.67	17.90	1107.92	-319.01	-341.41
154	164	1.643e+04	-423.45	0.13	-46.94	0.0	-0.59	-26.82	17.95	-739.24	-6743.63	1.643e+04
		-75.11	-6743.63	-0.05	0.0	56.9	-0.59	-50.29	17.95	-739.24	-3583.54	8845.34
						113.8	-0.59	-73.76	17.95	-739.24	-423.45	-75.11
154	224	-58.71	2.668e+04	-0.55	-46.94	0.0	52.93	227.14	-78.65	-1.423e+05	2.668e+04	-6.722e+04
		-6.722e+04	280.46	0.22	0.0	56.9	52.93	203.67	-78.65	-1.423e+05	1.348e+04	-3.297e+04
						113.8	52.93	180.20	-78.65	-1.423e+05	280.46	-58.71
154	230	2.959e+04	-7893.01	0.13	-46.94	0.0	-39.97	-0.11	13.71	12.56	-1.161e+04	2.959e+04
		2.147e+04	-1.161e+04	-0.05	0.0	56.9	78.33	-23.58	13.71	12.56	-9752.71	2.620e+04
						113.8	196.63	-47.05	13.71	12.56	-7893.01	2.147e+04
154	231	5.071e+04	-1.823e+04	0.09	-46.94	0.0	-109.81	36.68	4.76	27.66	-1.823e+04	5.071e+04
		4.710e+04	-1.852e+04	-0.03	0.0	56.9	8.49	13.21	4.76	27.66	-1.838e+04	4.958e+04
						113.8	126.79	-10.26	4.76	27.66	-1.852e+04	5.071e+04
154	244	8.650e+04	7356.13	0.85	-46.94	0.0	-26.59	-310.14	122.55	5.452e+04	-3.499e+04	8.650e+04
		-2.305e+04	-3.499e+04	-0.34	0.0	56.9	-26.59	-333.61	122.55	5.452e+04	-1.381e+04	3.239e+04
						113.8	-26.59	-357.08	122.55	5.452e+04	7356.13	-2.305e+04
154	256	1.784e+04	-1773.10	0.12	-46.94	0.0	-18.18	-17.80	16.53	3.49	-7208.43	1.784e+04
		4186.82	-7208.43	-0.05	0.0	56.9	5.48	-41.27	16.53	3.49	-4490.76	1.168e+04
						113.8	29.14	-64.74	16.53	3.49	-1773.10	4186.82
154	257	5421.39	5515.53	0.15	-46.94	0.0	25.09	-42.15	22.08	-6.96	-2522.60	5421.39
		-1.598e+04	-2522.60	-0.06	0.0	56.9	25.09	-65.63	22.08	-6.96	1496.46	-4609.47
						113.8	25.09	-89.10	22.08	-6.96	5515.53	-1.598e+04
154	258	2.001e+04	-3343.94	0.11	-46.94	0.0	-33.11	-11.49	14.63	5.63	-8037.72	2.001e+04
		8397.45	-8037.72	-0.04	0.0	56.9	-33.11	-34.96	14.63	5.63	-5690.83	1.487e+04
						113.8	-33.11	-58.44	14.63	5.63	-3343.94	8397.45
154	259	2.202e+04	1870.62	0.22	-46.94	0.0	-6.84	-62.61	31.41	-1.25	-9024.97	2.202e+04
		-6233.59	-9024.97	-0.09	0.0	56.9	-6.84	-86.08	31.41	-1.25	-3577.18	8559.26
						113.8	-6.84	-109.55	31.41	-1.25	1870.62	-6233.59
154	260	1.272e+04	1085.80	0.13	-46.94	0.0	-4.01	-26.82	18.35	-0.66	-5280.16	1.272e+04
		-3788.89	-5280.16	-0.05	0.0	56.9	-4.01	-50.29	18.35	-0.66	-2097.18	5131.72
						113.8	-4.01	-73.77	18.35	-0.66	1085.80	-3788.89
155	74	-1.810e+05	7.238e+04	0.09	-46.94	0.0	-24.52	20.96	3.56	-5021.55	7.167e+04	-1.812e+05
		-1.823e+05	7.167e+04	-0.04	0.0	56.9	-24.52	-2.51	3.56	-5021.55	7.203e+04	-1.811e+05
						113.8	-24.52	-25.99	3.56	-5021.55	7.238e+04	-1.823e+05
155	84	3.815e+04	-3995.56	-0.29	-61.02	0.0	-186.70	119.66	-31.23	39.73	-3995.56	8954.29
		8954.29	-1.511e+04	0.12	0.0	56.9	-9.25	89.15	-31.23	39.73	-9550.53	2.442e+04
						113.8	168.20	58.63	-31.23	39.73	-1.511e+04	3.815e+04
155	85	3.153e+04	-7749.47	-0.13	-46.94	0.0	-88.63	61.60	-13.50	18.10	-7749.47	1.903e+04
		1.903e+04	-1.252e+04	0.05	0.0	56.9	88.82	38.13	-13.50	18.10	-1.014e+04	2.595e+04
						113.8	266.27	14.66	-13.50	18.10	-1.252e+04	3.153e+04
155	111	2.473e+05	-9.337e+04	-0.18	-61.02	0.0	-32.41	67.68	-16.22	1923.40	-9.337e+04	2.349e+05
		2.349e+05	-9.847e+04	0.07	0.0	56.9	-32.41	37.17	-16.22	1923.40	-9.592e+04	2.419e+05
						113.8	-32.41	6.66	-16.22	1923.40	-9.847e+04	2.473e+05
155	130	2.797e+04	-1.069e+04	0.03	-46.94	0.0	-6.48	26.88	-1.37	-447.41	-1.069e+04	2.655e+04
		2.655e+04	-1.118e+04	-0.01	0.0	56.9	-6.48	3.41	-1.37	-447.41	-1.094e+04	2.783e+04
						113.8	-6.48	-20.06	-1.37	-447.41	-1.118e+04	2.777e+04
155	131	2.245e+04	-8464.47	-0.06	-46.94	0.0	-0.17	27.67	-1.92	446.05	-8464.47	2.096e+04
		2.096e+04	-9015.77	0.02	0.0	56.9	-0.17	4.20	-1.92	446.05	-8740.12	2.229e+04
						113.8	-0.17	-19.27	-1.92	446.05	-9015.77	2.228e+04
155	150	3.046e+04	-1.167e+04	-0.02	-46.94	0.0	-4.92	27.20	-1.58	-1243.60	-1.167e+04	2.901e+04
		2.901e+04	-1.218e+04	4.28e-03	0.0	56.9	-4.92	3.73	-1.58	-1243.60	-1.192e+04	3.031e+04
						113.8	-4.92	-19.74	-1.58	-1243.60	-1.218e+04	3.027e+04
155	151	1.996e+04	-7490.05	-0.02	-46.94	0.0	-1.74	27.35	-1.72	1242.24	-7490.05	1.850e+04
		1.850e+04	-8019.21	0.01	0.0	56.9	-1.74	3.88	-1.72	1242.24	-7754.63	1.981e+04
						113.8	-1.74	-19.59	-1.72	1242.24	-8019.21	1.978e+04
155	162	2.640e+04	-1.006e+04	-9.04e-03	-46.94	0.0	-4.71	27.10	-1.53	-192.50	-1.006e+04	2.496e+04
		2.496e+04	-1.057e+04	3.33e-03	0.0	56.9	-4.71	3.63	-1.53	-192.50	-1.031e+04	2.625e+04
						113.8	-4.71	-19.84	-1.53	-192.50	-1.057e+04	2.621e+04
155	163	2.402e+04	-9097.55	-0.03	-46.94	0.0	-1.95	27.45	-1.77	191.14	-9097.55	2.255e+04

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

		2.255e+04	-9631.79	0.01	0.0	56.9	-1.95	3.98	-1.77	191.14	-9364.67	2.386e+04
						113.8	-1.95	-19.49	-1.77	191.14	-9631.79	2.384e+04
155	182	2.745e+04	-1.047e+04	-0.02	-46.94	0.0	-4.01	27.24	-1.62	-534.68	-1.047e+04	2.600e+04
		2.600e+04	-1.099e+04	5.92e-03	0.0	56.9	-4.01	3.77	-1.62	-534.68	-1.073e+04	2.730e+04
						113.8	-4.01	-19.70	-1.62	-534.68	-1.099e+04	2.727e+04
155	183	2.297e+04	-8685.57	-0.02	-46.94	0.0	-2.64	27.31	-1.68	533.32	-8685.57	2.151e+04
		2.151e+04	-9210.10	9.29e-03	0.0	56.9	-2.64	3.84	-1.68	533.32	-8947.83	2.281e+04
						113.8	-2.64	-19.63	-1.68	533.32	-9210.10	2.279e+04
155	225	-1.124e+05	4.489e+04	0.05	-46.94	0.0	-17.45	23.06	1.83	-3347.92	4.459e+04	-1.129e+05
		-1.132e+05	4.459e+04	-0.02	0.0	56.9	-17.45	-0.41	1.83	-3347.92	4.474e+04	-1.124e+05
						113.8	-17.45	-23.88	1.83	-3347.92	4.489e+04	-1.132e+05
155	230	2.936e+04	-8358.91	-0.09	-46.94	0.0	-60.20	50.16	-9.55	11.84	-8358.91	2.061e+04
		2.061e+04	-1.171e+04	0.03	0.0	56.9	58.10	26.69	-9.55	11.84	-1.004e+04	2.565e+04
						113.8	176.40	3.22	-9.55	11.84	-1.171e+04	2.936e+04
155	231	2.877e+04	-3940.75	-0.20	-46.94	0.0	-124.91	83.41	-21.04	26.40	-3940.75	9136.83
		9136.83	-1.142e+04	0.08	0.0	56.9	-6.61	59.94	-21.04	26.40	-7678.78	1.962e+04
						113.8	111.69	36.47	-21.04	26.40	-1.142e+04	2.877e+04
155	244	1.682e+05	-6.352e+04	-0.12	-46.94	0.0	-22.05	48.76	-11.03	1282.18	-6.352e+04	1.597e+05
		1.597e+05	-6.699e+04	0.05	0.0	56.9	-22.05	25.29	-11.03	1282.18	-6.526e+04	1.646e+05
						113.8	-22.05	1.82	-11.03	1282.18	-6.699e+04	1.682e+05
155	255	-1822.01	869.00	1.64e-03	-46.94	0.0	0.32	23.11	0.19	-671.58	813.92	-2427.33
		-2551.60	813.92	-7.51e-04	0.0	56.9	0.32	-0.36	0.19	-671.58	841.46	-1822.01
						113.8	0.32	-23.83	0.19	-671.58	869.00	-2551.60
155	256	2.584e+04	-8892.20	-0.04	-46.94	0.0	-21.17	35.18	-4.38	3.28	-8892.20	2.198e+04
		2.198e+04	-1.039e+04	0.02	0.0	56.9	2.49	11.71	-4.38	3.28	-9642.13	2.457e+04
						113.8	26.15	-11.76	-4.38	3.28	-1.039e+04	2.584e+04
155	258	2.478e+04	-7736.89	-0.06	-46.94	0.0	-30.29	41.13	-6.44	5.39	-7736.89	1.898e+04
		1.898e+04	-9974.72	0.02	0.0	56.9	-30.29	17.66	-6.44	5.39	-8855.80	2.255e+04
						113.8	-30.29	-5.81	-6.44	5.39	-9974.72	2.478e+04
155	259	4.311e+04	-1.638e+04	-0.03	-46.94	0.0	-5.67	29.97	-2.82	-1.27	-1.638e+04	4.092e+04
		4.092e+04	-1.727e+04	0.01	0.0	56.9	-5.67	6.50	-2.82	-1.27	-1.683e+04	4.267e+04
						113.8	-5.67	-16.97	-2.82	-1.27	-1.727e+04	4.311e+04
155	260	2.521e+04	-9577.79	-0.02	-46.94	0.0	-3.33	27.28	-1.65	-0.68	-9577.79	2.375e+04
		2.375e+04	-1.010e+04	7.42e-03	0.0	56.9	-3.33	3.81	-1.65	-0.68	-9838.23	2.506e+04
						113.8	-3.33	-19.67	-1.65	-0.68	-1.010e+04	2.521e+04
156	49	1.546e+05	-2.556e+04	-0.19	-46.94	0.0	121.85	-257.34	123.94	-1.433e+05	-6.405e+04	1.546e+05
		6.120e+04	-6.405e+04	0.08	0.0	56.9	121.85	-280.81	123.94	-1.433e+05	-4.481e+04	1.086e+05
						113.8	121.85	-304.28	123.94	-1.433e+05	-2.556e+04	6.120e+04
156	63	1.625e+04	1626.16	0.03	-61.02	0.0	344.16	43.79	-36.88	-5.492e+04	1626.16	9835.71
		9835.71	-4513.85	-0.01	0.0	56.9	344.16	13.28	-36.88	-5.492e+04	-1443.85	1.391e+04
						113.8	344.16	-17.23	-36.88	-5.492e+04	-4513.85	1.625e+04
156	73	1.547e+05	-2.512e+04	-0.19	-46.94	0.0	121.71	-257.64	123.16	1.433e+05	-6.352e+04	1.547e+05
		6.128e+04	-6.352e+04	0.08	0.0	56.9	121.71	-281.11	123.16	1.433e+05	-4.432e+04	1.087e+05
						113.8	121.71	-304.58	123.16	1.433e+05	-2.512e+04	6.128e+04
156	84	-1.123e+05	8.454e+04	0.18	-61.02	0.0	-498.45	407.71	-104.27	-40.59	8.454e+04	-2.338e+05
		-2.338e+05	4.149e+04	-0.07	0.0	56.9	-321.00	377.19	-104.27	-40.59	6.301e+04	-1.722e+05
						113.8	-143.55	346.68	-104.27	-40.59	4.149e+04	-1.123e+05
156	86	-1.106e+05	8.256e+04	0.17	-46.94	0.0	-501.01	391.43	-99.95	-40.86	8.256e+04	-2.291e+05
		-2.291e+05	4.081e+04	-0.07	0.0	56.9	-323.56	367.96	-99.95	-40.86	6.169e+04	-1.692e+05
						113.8	-146.11	344.49	-99.95	-40.86	4.081e+04	-1.106e+05
156	121	-1.022e+05	8.560e+04	0.19	-61.02	0.0	-291.99	418.68	-126.45	-32.95	8.560e+04	-2.285e+05
		-2.285e+05	3.861e+04	-0.07	0.0	56.9	-114.54	388.17	-126.45	-32.95	6.211e+04	-1.645e+05
						113.8	62.91	357.66	-126.45	-32.95	3.861e+04	-1.022e+05
156	126	1.454e+04	-1168.07	3.91e-03	-46.94	0.0	15.30	50.93	-17.62	982.68	-1168.07	4594.71
		4594.71	-5814.95	3.31e-03	0.0	56.9	15.30	27.46	-17.62	982.68	-3491.51	1.024e+04
						113.8	15.30	3.99	-17.62	982.68	-5814.95	1.454e+04
156	127	-2.558e+04	1.433e+04	0.04	-46.94	0.0	1.81	57.58	-11.16	-980.93	1.433e+04	-3.624e+04
		-3.624e+04	1.031e+04	-0.02	0.0	56.9	1.81	34.11	-11.16	-980.93	1.232e+04	-3.024e+04
						113.8	1.81	10.64	-11.16	-980.93	1.031e+04	-2.558e+04
156	129	1.548e+04	-1563.59	-4.61e-03	-46.94	0.0	15.07	50.85	-16.34	1225.08	-1563.59	5528.20
		5528.20	-6185.29	3.53e-03	0.0	56.9	15.07	27.37	-16.34	1225.08	-3874.44	1.117e+04
						113.8	15.07	3.90	-16.34	1225.08	-6185.29	1.548e+04

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

156	132	-2.652e+04	1.473e+04	0.04	-46.94	0.0	2.04	57.67	-12.44	-1223.33	1.473e+04	-3.718e+04
		-3.718e+04	1.068e+04	-0.02	0.0	56.9	2.04	34.20	-12.44	-1223.33	1.270e+04	-3.118e+04
						113.8	2.04	10.73	-12.44	-1223.33	1.068e+04	-2.652e+04
156	158	3285.33	3179.16	0.01	-46.94	0.0	11.52	52.80	-15.79	402.64	3179.16	-6861.79
		-6861.79	-1291.01	-3.54e-03	0.0	56.9	11.52	29.33	-15.79	402.64	944.08	-1120.77
						113.8	11.52	5.86	-15.79	402.64	-1291.01	3285.33
156	159	-1.433e+04	9982.40	0.03	-46.94	0.0	5.59	55.71	-12.98	-400.89	9982.40	-2.479e+04
		-2.479e+04	5783.42	-0.01	0.0	56.9	5.59	32.24	-12.98	-400.89	7882.91	-1.889e+04
						113.8	5.59	8.77	-12.98	-400.89	5783.42	-1.433e+04
156	161	3689.27	3009.04	0.01	-46.94	0.0	11.41	52.76	-15.23	516.68	3009.04	-6460.12
		-6460.12	-1450.79	-3.57e-03	0.0	56.9	11.41	29.29	-15.23	516.68	779.12	-717.97
						113.8	11.41	5.82	-15.23	516.68	-1450.79	3689.27
156	164	-1.473e+04	1.015e+04	0.03	-46.94	0.0	5.70	55.75	-13.55	-514.94	1.015e+04	-2.519e+04
		-2.519e+04	5943.20	-0.01	0.0	56.9	5.70	32.28	-13.55	-514.94	8047.86	-1.929e+04
						113.8	5.70	8.81	-13.55	-514.94	5943.20	-1.473e+04
156	212	9.781e+04	-1.629e+04	-0.12	-46.94	0.0	84.08	-153.47	77.83	-9.551e+04	-4.051e+04	9.781e+04
		3.896e+04	-4.051e+04	0.05	0.0	56.9	84.08	-176.94	77.83	-9.551e+04	-2.840e+04	6.906e+04
						113.8	84.08	-200.41	77.83	-9.551e+04	-1.629e+04	3.896e+04
156	220	1.010e+04	1961.55	0.02	-46.94	0.0	230.58	36.43	-26.51	-3.661e+04	1961.55	4447.35
		4447.35	-2709.74	-9.73e-03	0.0	56.9	230.58	12.96	-26.51	-3.661e+04	-374.10	7939.39
						113.8	230.58	-10.51	-26.51	-3.661e+04	-2709.74	1.010e+04
156	224	9.788e+04	-1.600e+04	-0.12	-46.94	0.0	83.99	-153.68	77.31	9.554e+04	-4.015e+04	9.788e+04
		3.901e+04	-4.015e+04	0.05	0.0	56.9	83.99	-177.15	77.31	9.554e+04	-2.808e+04	6.912e+04
						113.8	83.99	-200.62	77.31	9.554e+04	-1.600e+04	3.901e+04
156	231	-7.559e+04	5.723e+04	0.12	-46.94	0.0	-331.16	279.04	-71.43	-26.95	5.723e+04	-1.580e+05
		-1.580e+05	2.796e+04	-0.05	0.0	56.9	-212.86	255.57	-71.43	-26.95	4.260e+04	-1.161e+05
						113.8	-94.56	232.10	-71.43	-26.95	2.796e+04	-7.559e+04
156	249	-6.885e+04	5.794e+04	0.13	-46.94	0.0	-193.52	286.36	-86.22	-21.85	5.794e+04	-1.545e+05
		-1.545e+05	2.604e+04	-0.05	0.0	56.9	-75.22	262.89	-86.22	-21.85	4.199e+04	-1.110e+05
						113.8	43.08	239.41	-86.22	-21.85	2.604e+04	-6.885e+04
156	257	1.014e+04	-2579.05	-4.34e-03	-46.94	0.0	110.56	14.61	-5.03	3.94	-2579.05	1.013e+04
		7767.02	-2611.57	1.15e-03	0.0	56.9	110.56	-8.86	-5.03	3.94	-2595.31	9618.14
						113.8	110.56	-32.33	-5.03	3.94	-2611.57	7767.02
156	258	-1.881e+04	1.574e+04	0.04	-46.94	0.0	-93.45	93.90	-23.75	-2.19	1.574e+04	-4.178e+04
		-4.178e+04	7103.98	-0.02	0.0	56.9	-93.45	70.43	-23.75	-2.19	1.142e+04	-2.963e+04
						113.8	-93.45	46.96	-23.75	-2.19	7103.98	-1.881e+04
156	260	-5520.15	6580.78	0.02	-46.94	0.0	8.56	54.26	-14.39	0.87	6580.78	-1.582e+04
		-1.582e+04	2246.21	-8.31e-03	0.0	56.9	8.56	30.79	-14.39	0.87	4413.49	-1.000e+04
						113.8	8.56	7.31	-14.39	0.87	2246.21	-5520.15
157	74	-1.810e+05	7.238e+04	0.08	-46.94	0.0	-23.71	25.99	-3.56	5021.55	7.238e+04	-1.823e+05
		-1.823e+05	7.167e+04	-0.03	0.0	56.9	-23.71	2.51	-3.56	5021.55	7.203e+04	-1.811e+05
						113.8	-23.71	-20.96	-3.56	5021.55	7.167e+04	-1.812e+05
157	84	3.560e+04	-1.070e+04	-0.10	-61.02	0.0	-219.87	59.89	-9.70	19.67	-1.070e+04	2.603e+04
		2.603e+04	-1.428e+04	0.04	0.0	56.9	-42.42	29.38	-9.70	19.67	-1.249e+04	3.169e+04
						113.8	135.03	-1.14	-9.70	19.67	-1.428e+04	3.560e+04
157	85	4.568e+04	-8121.47	-0.26	-46.94	0.0	-121.83	103.87	-27.44	41.30	-8121.47	1.942e+04
		1.942e+04	-1.803e+04	0.10	0.0	56.9	55.62	80.39	-27.44	41.30	-1.308e+04	3.322e+04
						113.8	233.07	56.92	-27.44	41.30	-1.803e+04	4.568e+04
157	111	2.473e+05	-9.337e+04	0.12	-61.02	0.0	-33.47	-6.66	16.22	-1923.40	-9.847e+04	2.473e+05
		2.349e+05	-9.847e+04	-0.05	0.0	56.9	-33.47	-37.17	16.22	-1923.40	-9.592e+04	2.419e+05
						113.8	-33.47	-67.68	16.22	-1923.40	-9.337e+04	2.349e+05
157	125	2.245e+04	-8464.36	0.06	-46.94	0.0	-0.28	19.27	1.92	-446.02	-9015.66	2.228e+04
		2.096e+04	-9015.66	-0.02	0.0	56.9	-0.28	-4.20	1.92	-446.02	-8740.01	2.229e+04
						113.8	-0.28	-27.67	1.92	-446.02	-8464.36	2.096e+04
157	128	2.797e+04	-1.069e+04	-0.03	-46.94	0.0	-6.59	20.06	1.37	447.38	-1.118e+04	2.777e+04
		2.655e+04	-1.118e+04	0.01	0.0	56.9	-6.59	-3.41	1.37	447.38	-1.094e+04	2.783e+04
						113.8	-6.59	-26.88	1.37	447.38	-1.069e+04	2.655e+04
157	141	1.996e+04	-7490.08	0.02	-46.94	0.0	-1.85	19.59	1.72	-1241.99	-8019.24	1.978e+04
		1.850e+04	-8019.24	-0.01	0.0	56.9	-1.85	-3.88	1.72	-1241.99	-7754.66	1.981e+04
						113.8	-1.85	-27.35	1.72	-1241.99	-7490.08	1.850e+04
157	144	3.046e+04	-1.167e+04	-0.01	-46.94	0.0	-5.03	19.74	1.58	1243.35	-1.218e+04	3.027e+04
		2.901e+04	-1.218e+04	6.99e-03	0.0	56.9	-5.03	-3.73	1.58	1243.35	-1.192e+04	3.031e+04

Progettazione civile e inserimento ambientale

Agronomia e studi culturali

Progettazione elettrica



Arch. Andrea Giuffrida



Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

157	157	2.402e+04	-9097.50	0.03	-46.94	0.0	-2.06	19.49	1.77	-191.12	-9631.74	2.384e+04
		2.255e+04	-9631.74	-0.01	0.0	56.9	-2.06	-3.98	1.77	-191.12	-9364.62	2.386e+04
						113.8	-2.06	-27.45	1.77	-191.12	-9097.50	2.255e+04
157	160	2.640e+04	-1.006e+04	-0.02	-46.94	0.0	-4.82	19.84	1.53	192.48	-1.057e+04	2.621e+04
		2.496e+04	-1.057e+04	6.52e-03	0.0	56.9	-4.82	-3.63	1.53	192.48	-1.031e+04	2.625e+04
						113.8	-4.82	-27.10	1.53	192.48	-1.006e+04	2.496e+04
157	173	2.297e+04	-8685.59	0.02	-46.94	0.0	-2.75	19.63	1.68	-533.20	-9210.12	2.279e+04
		2.151e+04	-9210.12	-8.20e-03	0.0	56.9	-2.75	-3.84	1.68	-533.20	-8947.85	2.281e+04
						113.8	-2.75	-27.31	1.68	-533.20	-8685.59	2.151e+04
157	176	2.745e+04	-1.047e+04	-9.08e-03	-46.94	0.0	-4.12	19.70	1.62	534.56	-1.099e+04	2.727e+04
		2.600e+04	-1.099e+04	4.16e-03	0.0	56.9	-4.12	-3.77	1.62	534.56	-1.073e+04	2.730e+04
						113.8	-4.12	-27.24	1.62	534.56	-1.047e+04	2.600e+04
157	225	-1.124e+05	4.489e+04	0.05	-46.94	0.0	-16.95	23.88	-1.83	3347.92	4.489e+04	-1.132e+05
		-1.132e+05	4.459e+04	-0.02	0.0	56.9	-16.95	0.41	-1.83	3347.92	4.474e+04	-1.124e+05
						113.8	-16.95	-23.06	-1.83	3347.92	4.459e+04	-1.129e+05
157	230	3.837e+04	-8780.54	-0.17	-46.94	0.0	-82.36	75.80	-17.74	27.76	-8780.54	2.129e+04
		2.129e+04	-1.521e+04	0.07	0.0	56.9	35.94	52.33	-17.74	27.76	-1.200e+04	3.050e+04
						113.8	154.24	28.86	-17.74	27.76	-1.521e+04	3.837e+04
157	231	2.690e+04	-8483.04	-0.06	-46.94	0.0	-147.04	42.55	-6.25	13.20	-8483.04	2.069e+04
		2.069e+04	-1.080e+04	0.02	0.0	56.9	-28.74	19.08	-6.25	13.20	-9639.85	2.447e+04
						113.8	89.56	-4.39	-6.25	13.20	-1.080e+04	2.690e+04
157	244	1.682e+05	-6.352e+04	0.08	-46.94	0.0	-22.77	-1.82	11.03	-1282.18	-6.699e+04	1.682e+05
		1.597e+05	-6.699e+04	-0.03	0.0	56.9	-22.77	-25.29	11.03	-1282.18	-6.526e+04	1.646e+05
						113.8	-22.77	-48.76	11.03	-1282.18	-6.352e+04	1.597e+05
157	255	-1822.01	869.00	-1.24e-03	-46.94	0.0	0.33	23.83	-0.19	671.58	869.00	-2551.60
		-2551.60	813.92	6.00e-04	0.0	56.9	0.33	0.36	-0.19	671.58	841.46	-1822.01
						113.8	0.33	-23.11	-0.19	671.58	813.92	-2427.33
157	257	2.853e+04	-1.022e+04	-0.03	-46.94	0.0	23.51	33.52	-3.14	6.75	-1.022e+04	2.528e+04
		2.528e+04	-1.142e+04	0.01	0.0	56.9	23.51	10.05	-3.14	6.75	-1.082e+04	2.757e+04
						113.8	23.51	-13.42	-3.14	6.75	-1.142e+04	2.853e+04
157	258	2.478e+04	-7736.89	0.06	-46.94	0.0	-30.38	5.81	6.44	-5.39	-9974.72	2.478e+04
		1.898e+04	-9974.72	-0.02	0.0	56.9	-30.38	-17.66	6.44	-5.39	-8855.80	2.255e+04
						113.8	-30.38	-41.13	6.44	-5.39	-7736.89	1.898e+04
157	259	4.311e+04	-1.638e+04	0.02	-46.94	0.0	-5.86	16.97	2.82	1.27	-1.727e+04	4.309e+04
		4.092e+04	-1.727e+04	-8.51e-03	0.0	56.9	-5.86	-6.50	2.82	1.27	-1.683e+04	4.267e+04
						113.8	-5.86	-29.97	2.82	1.27	-1.638e+04	4.092e+04
157	260	2.521e+04	-9577.79	0.01	-46.94	0.0	-3.44	19.67	1.65	0.68	-1.010e+04	2.503e+04
		2.375e+04	-1.010e+04	-4.98e-03	0.0	56.9	-3.44	-3.81	1.65	0.68	-9838.23	2.506e+04
						113.8	-3.44	-27.28	1.65	0.68	-9577.79	2.375e+04
158	73	1806.38	4.266e+04	0.89	-46.94	0.0	93.41	-307.18	127.15	2.134e+05	-122.21	1806.38
		-1.072e+05	-122.21	-0.35	0.0	56.9	93.41	-330.66	127.15	2.134e+05	2.127e+04	-5.202e+04
						113.8	93.41	-354.13	127.15	2.134e+05	4.266e+04	-1.072e+05
158	84	-8782.89	1.488e+04	-0.16	-61.02	0.0	-275.28	135.97	-30.83	20.69	1.488e+04	-4.281e+04
		-4.281e+04	2634.15	0.06	0.0	56.9	-97.83	105.45	-30.83	20.69	8756.95	-2.493e+04
						113.8	79.62	74.94	-30.83	20.69	2634.15	-8782.89
158	85	-3.886e+04	3.050e+04	-0.19	-46.94	0.0	-163.50	169.03	-38.75	43.15	3.050e+04	-8.554e+04
		-8.554e+04	1.415e+04	0.08	0.0	56.9	13.95	145.56	-38.75	43.15	2.232e+04	-6.154e+04
						113.8	191.40	122.08	-38.75	43.15	1.415e+04	-3.886e+04
158	111	1.272e+05	1.082e+04	-1.26	-61.02	0.0	-51.57	520.87	-180.15	-8.179e+04	1.082e+04	-3.381e+04
		-3.381e+04	-5.142e+04	0.50	0.0	56.9	-51.57	490.36	-180.15	-8.179e+04	-2.030e+04	4.756e+04
						113.8	-51.57	459.84	-180.15	-8.179e+04	-5.142e+04	1.272e+05
158	125	2.054e+04	-2111.82	-0.11	-46.94	0.0	3.05	73.54	-17.31	-2669.67	-2111.82	4057.88
		4057.88	-8359.84	0.05	0.0	56.9	3.05	50.07	-17.31	-2669.67	-5235.83	1.297e+04
						113.8	3.05	26.60	-17.31	-2669.67	-8359.84	2.054e+04
158	126	2.119e+04	-2356.97	-0.13	-46.94	0.0	2.49	73.76	-17.44	1803.56	-2356.97	4682.80
		4682.80	-8618.72	0.05	0.0	56.9	2.49	50.29	-17.44	1803.56	-5487.85	1.360e+04
						113.8	2.49	26.82	-17.44	1803.56	-8618.72	2.119e+04
158	127	4246.11	4528.56	-0.13	-46.94	0.0	-13.06	73.77	-19.27	-1802.23	4528.56	-1.226e+04
		-1.226e+04	-1941.60	0.05	0.0	56.9	-13.06	50.30	-19.27	-1802.23	1293.48	-3339.79
						113.8	-13.06	26.83	-19.27	-1802.23	-1941.60	4246.11
158	128	4895.58	4283.41	-0.14	-46.94	0.0	-13.62	73.99	-19.40	2671.00	4283.41	-1.164e+04

Progettazione civile e inserimento ambientale



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Agronomia e studi culturali

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PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

		-1.164e+04	-2200.48	0.06	0.0	56.9	-13.62	50.52	-19.40	2671.00	1041.47	-2702.59
						113.8	-13.62	27.05	-19.40	2671.00	-2200.48	4895.58
158	157	1.615e+04	-319.01	-0.12	-46.94	0.0	-1.64	73.67	-17.90	-1108.05	-319.01	-341.41
		-341.41	-6633.34	0.05	0.0	56.9	-1.64	50.20	-17.90	-1108.05	-3476.18	8573.84
						113.8	-1.64	26.73	-17.90	-1108.05	-6633.34	1.615e+04
158	158	1.643e+04	-423.47	-0.13	-46.94	0.0	-1.87	73.76	-17.95	739.31	-423.47	-75.08
		-75.08	-6743.65	0.05	0.0	56.9	-1.87	50.29	-17.95	739.31	-3583.56	8845.38
						113.8	-1.87	26.82	-17.95	739.31	-6743.65	1.643e+04
158	159	9003.92	2595.06	-0.13	-46.94	0.0	-8.70	73.77	-18.75	-737.98	2595.06	-7502.71
		-7502.71	-3816.68	0.05	0.0	56.9	-8.70	50.30	-18.75	-737.98	-610.81	1418.06
						113.8	-8.70	26.83	-18.75	-737.98	-3816.68	9003.92
158	160	9280.66	2490.60	-0.13	-46.94	0.0	-8.93	73.86	-18.81	1109.37	2490.60	-7236.37
		-7236.37	-3926.98	0.05	0.0	56.9	-8.93	50.39	-18.81	1109.37	-718.19	1689.59
						113.8	-8.93	26.92	-18.81	1109.37	-3926.98	9280.66
158	224	-58.71	2.668e+04	0.55	-46.94	0.0	60.51	-180.20	78.65	1.423e+05	280.46	-58.71
		-6.722e+04	280.46	-0.22	0.0	56.9	60.51	-203.67	78.65	1.423e+05	1.348e+04	-3.297e+04
						113.8	60.51	-227.14	78.65	1.423e+05	2.668e+04	-6.722e+04
158	230	-2.167e+04	2.070e+04	-0.17	-46.94	0.0	-110.76	137.27	-31.95	28.99	2.070e+04	-5.829e+04
		-5.829e+04	7670.22	0.07	0.0	56.9	7.54	113.80	-31.95	28.99	1.418e+04	-3.931e+04
						113.8	125.84	90.33	-31.95	28.99	7670.22	-2.167e+04
158	231	-4159.60	1.006e+04	-0.13	-46.94	0.0	-184.22	100.48	-23.00	13.88	1.006e+04	-2.904e+04
		-2.904e+04	1052.08	0.05	0.0	56.9	-65.92	77.01	-23.00	13.88	5558.34	-1.593e+04
						113.8	52.38	53.54	-23.00	13.88	1052.08	-4159.60
158	244	8.650e+04	7356.13	-0.85	-46.94	0.0	-35.09	357.08	-122.55	-5.452e+04	7356.13	-2.305e+04
		-2.305e+04	-3.499e+04	0.34	0.0	56.9	-35.09	333.61	-122.55	-5.452e+04	-1.381e+04	3.239e+04
						113.8	-35.09	310.14	-122.55	-5.452e+04	-3.499e+04	8.650e+04
158	257	5421.39	5515.53	-0.15	-46.94	0.0	25.33	89.10	-22.08	6.96	5515.53	-1.598e+04
		-1.598e+04	-2522.60	0.06	0.0	56.9	25.33	65.63	-22.08	6.96	1496.46	-4609.47
						113.8	25.33	42.15	-22.08	6.96	-2522.60	5421.39
158	258	2.001e+04	-3343.94	-0.11	-46.94	0.0	-35.89	58.44	-14.63	-5.63	-3343.94	8397.45
		8397.45	-8037.72	0.04	0.0	56.9	-35.89	34.96	-14.63	-5.63	-5690.83	1.487e+04
						113.8	-35.89	11.49	-14.63	-5.63	-8037.72	2.001e+04
158	259	2.202e+04	1870.62	-0.22	-46.94	0.0	-9.02	109.55	-31.41	1.25	1870.62	-6233.59
		-6233.59	-9024.97	0.09	0.0	56.9	-9.02	86.08	-31.41	1.25	-3577.18	8559.26
						113.8	-9.02	62.61	-31.41	1.25	-9024.97	2.202e+04
158	260	1.272e+04	1085.80	-0.13	-46.94	0.0	-5.28	73.77	-18.35	0.66	1085.80	-3788.89
		-3788.89	-5280.16	0.05	0.0	56.9	-5.28	50.29	-18.35	0.66	-2097.18	5131.72
						113.8	-5.28	26.82	-18.35	0.66	-5280.16	1.272e+04
159	49	1.123e+05	1.308e+04	-0.89	-46.94	0.0	75.28	462.13	-167.37	2.057e+05	1.308e+04	-3.215e+04
		-3.215e+04	-4.348e+04	0.35	0.0	56.9	75.28	438.66	-167.37	2.057e+05	-1.520e+04	4.076e+04
						113.8	75.28	415.19	-167.37	2.057e+05	-4.348e+04	1.123e+05
159	73	1.122e+05	1.290e+04	-0.89	-46.94	0.0	75.27	461.24	-169.73	-2.059e+05	1.290e+04	-3.219e+04
		-3.219e+04	-4.394e+04	0.35	0.0	56.9	75.27	437.77	-169.73	-2.059e+05	-1.552e+04	4.068e+04
						113.8	75.27	414.30	-169.73	-2.059e+05	-4.394e+04	1.122e+05
159	84	3.281e+04	-7444.97	0.16	-61.02	0.0	-197.50	-6.24	19.22	19.77	-1.294e+04	3.281e+04
		2.030e+04	-1.294e+04	-0.06	0.0	56.9	-20.05	-36.76	19.22	19.77	-1.019e+04	2.742e+04
						113.8	157.40	-67.27	19.22	19.77	-7444.97	2.030e+04
159	85	8.669e+04	-2.897e+04	0.19	-46.94	0.0	-92.70	62.20	1.31	41.47	-2.897e+04	7.518e+04
		7.518e+04	-3.164e+04	-0.07	0.0	56.9	84.75	38.73	1.31	41.47	-3.030e+04	8.160e+04
						113.8	262.20	15.26	1.31	41.47	-3.164e+04	8.669e+04
159	99	7.367e+04	4.333e+04	1.25	-61.02	0.0	-31.34	-529.06	218.54	-7.885e+04	-2.956e+04	7.367e+04
		-1.111e+05	-2.956e+04	-0.50	0.0	56.9	-31.34	-559.57	218.54	-7.885e+04	6887.52	-1.782e+04
						113.8	-31.34	-590.08	218.54	-7.885e+04	4.333e+04	-1.111e+05
159	111	7.369e+04	4.350e+04	1.25	-61.02	0.0	-31.34	-528.72	219.45	7.892e+04	-2.949e+04	7.369e+04
		-1.110e+05	-2.949e+04	-0.50	0.0	56.9	-31.34	-559.23	219.45	7.892e+04	7009.04	-1.779e+04
						113.8	-31.34	-589.74	219.45	7.892e+04	4.350e+04	-1.110e+05
159	126	-2578.90	8384.01	0.13	-46.94	0.0	-4.76	-34.16	23.13	1432.67	837.47	-2578.90
		-2.153e+04	837.47	-0.05	0.0	56.9	-4.76	-57.63	23.13	1432.67	4610.74	-1.139e+04
						113.8	-4.76	-81.10	23.13	1432.67	8384.01	-2.153e+04
159	127	1.706e+04	450.18	0.13	-46.94	0.0	-1.66	-33.63	21.49	-1430.98	-6919.51	1.706e+04
		-1846.79	-6919.51	-0.05	0.0	56.9	-1.66	-57.10	21.49	-1430.98	-3234.66	8275.28
						113.8	-1.66	-80.58	21.49	-1430.98	450.18	-1846.79

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida





SMARTENERGYIT2111 S.R.L.

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

159	158	2927.51 -1.601e+04	6159.61 -1337.16	0.13 -0.05	-46.94 0.0	0.0 56.9	-3.89 -3.89	-34.01 -57.48	22.67 22.67	588.47 588.47	-1337.16 2411.22	2927.51 -5874.91
						113.8	-3.89	-80.95	22.67	588.47	6159.61	-1.601e+04
159	159	1.156e+04 -7365.46	2674.58 -4744.89	0.13 -0.05	-46.94 0.0	0.0 56.9	-2.53 -2.53	-33.78 -57.25	21.95 21.95	-586.78 -586.78	-4744.89 2674.58	1.156e+04 -7365.46
						113.8	-2.53	-80.72	21.95	-586.78	2674.58	-7365.46
159	212	7.100e+04 -1.902e+04	7706.13 -2.752e+04	-0.55 0.22	-46.94 0.0	0.0 56.9	49.12 49.12	296.79 273.32	-104.14 -104.14	1.372e+05 1.372e+05	7706.13 -9904.84	-1.902e+04 2.666e+04
						113.8	49.12	249.85	-104.14	1.372e+05	-2.752e+04	7.100e+04
159	224	7.091e+04 -1.905e+04	7585.42 -2.782e+04	-0.55 0.22	-46.94 0.0	0.0 56.9	49.11 49.11	296.19 272.72	-105.72 -105.72	-1.372e+05 -1.372e+05	7585.42 -1.012e+04	7.091e+04 2.660e+04
						113.8	49.11	249.25	-105.72	-1.372e+05	-2.782e+04	7.091e+04
159	230	5.406e+04 5.254e+04	-1.962e+04 -2.033e+04	0.17 -0.07	-46.94 0.0	0.0 56.9	-62.87 55.43	30.17 6.70	8.31 8.31	27.93 27.93	-2.033e+04 -4374.04	5.254e+04 5.388e+04
						113.8	173.73	-16.77	8.31	27.93	-1.962e+04	5.389e+04
159	231	2.284e+04 1.197e+04	-4374.37 -9029.17	0.12 -0.05	-46.94 0.0	0.0 56.9	-132.10 -13.80	-8.68 -32.15	15.79 15.79	13.29 13.29	-9029.17 -6701.77	2.284e+04 1.807e+04
						113.8	104.50	-55.62	15.79	13.29	-4374.37	1.197e+04
159	238	5.008e+04 -7.560e+04	2.948e+04 -2.011e+04	0.85 -0.34	-46.94 0.0	0.0 56.9	-21.32 -21.32	-357.22 -380.70	148.67 148.67	-5.256e+04 -5.256e+04	-2.011e+04 4683.42	5.008e+04 -1.209e+04
						113.8	-21.32	-404.17	148.67	-5.256e+04	2.948e+04	-7.560e+04
159	244	5.009e+04 -7.556e+04	2.959e+04 -2.006e+04	0.85 -0.34	-46.94 0.0	0.0 56.9	-21.32 -21.32	-357.00 -380.47	149.27 149.27	5.261e+04 5.261e+04	-2.006e+04 4764.43	5.009e+04 -1.207e+04
						113.8	-21.32	-403.94	149.27	5.261e+04	2.959e+04	-7.556e+04
159	257	1.962e+04 5777.73	-1934.83 -7748.87	0.15 -0.06	-46.94 0.0	0.0 56.9	25.64 25.64	-17.71 -41.18	19.19 19.19	6.95 6.95	-7748.87 -4841.85	1.962e+04 1.336e+04
						113.8	25.64	-64.65	19.19	6.95	-1934.83	5777.73
159	258	-5132.22 -2.916e+04	1.077e+04 1666.83	0.11 -0.04	-46.94 0.0	0.0 56.9	-32.05 -32.05	-50.08 -73.55	25.42 25.42	-5.25 -5.25	1666.83 6217.92	-5132.22 -1.648e+04
						113.8	-32.05	-97.02	25.42	-5.25	1.077e+04	-2.916e+04
159	260	7241.77 -1.169e+04	4417.09 -3041.02	0.13 -0.05	-46.94 0.0	0.0 56.9	-3.21 -3.21	-33.89 -57.37	22.31 22.31	0.85 0.85	-3041.02 688.04	7241.77 -1556.08
						113.8	-3.21	-80.84	22.31	0.85	4417.09	-1.169e+04
160	49	2.289e+05 4.786e+04	-1.862e+04 -8.946e+04	0.76 -0.31	-46.94 0.0	0.0 56.9	142.63 142.63	-525.46 -548.94	209.30 209.30	-3.371e+05 -3.371e+05	-8.946e+04 -5.404e+04	2.289e+05 1.390e+05
						113.8	142.63	-572.41	209.30	-3.371e+05	-1.862e+04	4.786e+04
160	50	3.002e+05 9.736e+04	-3.680e+04 -1.138e+05	0.66 -0.26	-46.94 0.0	0.0 56.9	66.66 66.66	-595.89 -619.36	215.15 215.15	-3.371e+05 -3.371e+05	1.138e+05 -7.530e+04	3.002e+05 1.995e+05
						113.8	66.66	-642.83	215.15	-3.371e+05	-3.680e+04	9.736e+04
160	74	3.003e+05 9.740e+04	-3.659e+04 -1.133e+05	0.66 -0.26	-46.94 0.0	0.0 56.9	66.56 66.56	-596.67 -620.14	213.06 213.06	3.369e+05 3.369e+05	-1.133e+05 -7.496e+04	3.003e+05 1.995e+05
						113.8	66.56	-643.61	213.06	3.369e+05	-3.659e+04	9.740e+04
160	99	-1.005e+05 -3.625e+05	1.374e+05 3.736e+04	-0.97 0.38	-61.02 0.0	0.0 56.9	-140.88 -140.88	829.60 799.09	-282.66 -282.66	1.292e+05 1.292e+05	1.374e+05 8.737e+04	-3.625e+05 -2.306e+05
						113.8	-140.88	768.57	-282.66	1.292e+05	3.736e+04	-1.005e+05
160	111	-1.005e+05 -3.625e+05	1.372e+05 3.728e+04	-0.97 0.38	-61.02 0.0	0.0 56.9	-140.84 -140.84	829.90 799.39	-281.86 -281.86	-1.291e+05 -1.291e+05	1.372e+05 8.724e+04	-3.625e+05 -2.307e+05
						113.8	-140.84	768.87	-281.86	-1.291e+05	3.728e+04	-1.005e+05
160	121	-1.078e+05 -2.420e+05	8.679e+04 3.924e+04	-0.19 0.07	-61.02 0.0	0.0 56.9	-438.97 -261.52	446.26 415.75	-114.99 -114.99	37.15 37.15	8.679e+04 6.302e+04	-2.420e+05 -1.740e+05
						113.8	-84.07	385.24	-114.99	37.15	3.924e+04	-1.078e+05
160	125	3675.45 -2.296e+04	8587.16 -1960.27	-0.13 0.05	-46.94 0.0	0.0 56.9	3.10 3.10	103.50 80.03	-31.54 -31.54	-3947.83 -3947.83	8587.16 3313.44	-2.296e+04 -8975.13
						113.8	3.10	56.56	-31.54	-3947.83	-1960.27	3675.45
160	128	-2.493e+04 -5.201e+04	1.945e+04 9555.56	-0.07 0.03	-46.94 0.0	0.0 56.9	-31.93 -31.93	107.42 83.94	-25.85 -25.85	3949.25 3949.25	1.945e+04 1.450e+04	-5.201e+04 -3.780e+04
						113.8	-31.93	60.47	-25.85	3949.25	9555.56	-2.493e+04
160	157	-4371.99 -3.113e+04	1.164e+04 1279.72	-0.11 0.04	-46.94 0.0	0.0 56.9	-6.74 -6.74	104.61 81.13	-29.94 -29.94	-1637.74 -1637.74	1.164e+04 6461.20	-3.113e+04 -1.709e+04
						113.8	-6.74	57.66	-29.94	-1637.74	1279.72	-4371.99
160	160	-1.688e+04 -4.383e+04	1.639e+04 6315.56	-0.09 0.03	-46.94 0.0	0.0 56.9	-22.09 -22.09	106.31 82.84	-27.45 -27.45	1639.16 1639.16	1.639e+04 1.135e+04	-4.383e+04 -2.969e+04

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida



IMPIANTI FOTOVOLTAICI, EOLICI E TECNOLOGICI



PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

160	212	1.401e+05	-1.115e+04	0.48	-46.94	0.0	113.8	-22.09	59.37	-27.45	1639.16	6315.56	-1.688e+04
		2.837e+04	-5.497e+04	-0.19	0.0	56.9	90.28	-315.16	129.97	-2.247e+05	-5.497e+04	1.401e+05	8.489e+04
						113.8	90.28	-362.10	129.97	-2.247e+05	-1.115e+04	2.837e+04	8.489e+04
160	213	1.877e+05	-2.327e+04	0.41	-46.94	0.0	39.64	-362.11	133.87	-2.247e+05	-7.119e+04	1.877e+05	1.252e+05
		6.137e+04	-7.119e+04	-0.16	0.0	56.9	39.64	-385.58	133.87	-2.247e+05	-4.723e+04	1.252e+05	1.252e+05
						113.8	39.64	-409.05	133.87	-2.247e+05	-2.327e+04	6.137e+04	1.252e+05
160	225	1.877e+05	-2.312e+04	0.41	-46.94	0.0	39.57	-362.63	132.48	2.246e+05	-7.089e+04	1.877e+05	1.252e+05
		6.139e+04	-7.089e+04	-0.16	0.0	56.9	39.57	-386.10	132.48	2.246e+05	-4.701e+04	1.252e+05	1.252e+05
						113.8	39.57	-409.57	132.48	2.246e+05	-2.312e+04	6.139e+04	1.252e+05
160	238	-6.843e+04	9.346e+04	-0.66	-46.94	0.0	-95.84	567.13	-192.26	8.614e+04	9.346e+04	-2.467e+05	1.252e+05
		-2.467e+05	2.542e+04	0.26	0.0	56.9	-95.84	543.66	-192.26	8.614e+04	5.944e+04	-1.569e+05	1.252e+05
						113.8	-95.84	520.19	-192.26	8.614e+04	2.542e+04	-6.843e+04	1.252e+05
160	244	-6.843e+04	9.334e+04	-0.66	-46.94	0.0	-95.81	567.33	-191.73	-8.609e+04	9.334e+04	-2.467e+05	1.252e+05
		-2.467e+05	2.536e+04	0.26	0.0	56.9	-95.81	543.86	-191.73	-8.609e+04	5.935e+04	-1.569e+05	1.252e+05
						113.8	-95.81	520.38	-191.73	-8.609e+04	2.536e+04	-6.843e+04	1.252e+05
160	249	-7.328e+04	5.973e+04	-0.14	-46.94	0.0	-294.57	311.57	-80.49	24.86	5.973e+04	-1.663e+05	1.252e+05
		-1.663e+05	2.666e+04	0.05	0.0	56.9	-176.27	288.10	-80.49	24.86	4.320e+04	-1.191e+05	1.252e+05
						113.8	-57.97	264.63	-80.49	24.86	2.666e+04	-7.328e+04	1.252e+05
160	253	2798.60	-403.83	9.05e-03	-46.94	0.0	1.46	16.64	3.43	-4.494e+04	-1403.33	2798.60	2798.60
		472.82	-1403.33	-3.94e-03	0.0	56.9	1.46	-6.83	3.43	-4.494e+04	-903.58	2297.25	2297.25
						113.8	1.46	-30.30	3.43	-4.494e+04	-403.83	472.82	2297.25
160	256	-1.950e+04	1.817e+04	-0.07	-46.94	0.0	-65.34	117.54	-28.85	5.23	1.817e+04	-5.005e+04	1.252e+05
		-5.005e+04	7014.46	0.03	0.0	56.9	-41.68	94.07	-28.85	5.23	1.259e+04	-3.411e+04	1.252e+05
						113.8	-18.02	70.60	-28.85	5.23	7014.46	-1.950e+04	1.252e+05
160	257	-2.438e+04	2.078e+04	-0.07	-46.94	0.0	6.69	125.02	-30.32	7.46	2.078e+04	-5.730e+04	1.252e+05
		-5.730e+04	8847.72	0.03	0.0	56.9	6.69	101.55	-30.32	7.46	1.481e+04	-4.017e+04	1.252e+05
						113.8	6.69	78.08	-30.32	7.46	8847.72	-2.438e+04	1.252e+05
160	258	3124.78	7256.79	-0.13	-46.94	0.0	-35.52	85.90	-27.07	-6.03	7256.79	-1.766e+04	1.252e+05
		-1.766e+04	-1252.44	0.05	0.0	56.9	-35.52	62.43	-27.07	-6.03	3002.18	-6602.49	1.252e+05
						113.8	-35.52	38.96	-27.07	-6.03	-1252.44	3124.78	1.252e+05
160	259	-1.793e+04	2.399e+04	-0.17	-46.94	0.0	-24.61	163.75	-49.10	1.34	2.399e+04	-6.388e+04	1.252e+05
		-6.388e+04	6510.78	0.07	0.0	56.9	-24.61	140.28	-49.10	1.34	1.525e+04	-4.024e+04	1.252e+05
						113.8	-24.61	116.81	-49.10	1.34	6510.78	-1.793e+04	1.252e+05
160	260	-1.063e+04	1.402e+04	-0.10	-46.94	0.0	-14.41	105.46	-28.70	0.71	1.402e+04	-3.748e+04	1.252e+05
		-3.748e+04	3797.64	0.04	0.0	56.9	-14.41	81.99	-28.70	0.71	8906.97	-2.339e+04	1.252e+05
						113.8	-14.41	58.52	-28.70	0.71	3797.64	-1.063e+04	1.252e+05
161	50	-1.076e+05	6.755e+04	-0.64	-46.94	0.0	-24.80	213.46	-77.60	9.718e+04	6.755e+04	-1.707e+05	1.252e+05
		-1.707e+05	4.229e+04	0.25	0.0	56.9	-24.80	189.99	-77.60	9.718e+04	5.492e+04	-1.385e+05	1.252e+05
						113.8	-24.80	166.52	-77.60	9.718e+04	4.229e+04	-1.076e+05	1.252e+05
161	74	-1.076e+05	6.749e+04	-0.64	-46.94	0.0	-25.07	213.11	-78.60	-9.735e+04	6.749e+04	-1.707e+05	1.252e+05
		-1.707e+05	4.211e+04	0.25	0.0	56.9	-25.07	189.64	-78.60	-9.735e+04	5.480e+04	-1.385e+05	1.252e+05
						113.8	-25.07	166.17	-78.60	-9.735e+04	4.211e+04	-1.076e+05	1.252e+05
161	84	3.710e+04	-1.389e+04	0.04	-61.02	0.0	-208.52	26.10	3.83	19.60	-1.477e+04	3.685e+04	1.252e+05
		3.523e+04	-1.477e+04	-0.01	0.0	56.9	-31.07	-4.41	3.83	19.60	-1.433e+04	3.691e+04	1.252e+05
						113.8	146.38	-34.93	3.83	19.60	-1.389e+04	3.523e+04	1.252e+05
161	85	7.080e+04	-2.085e+04	-0.09	-46.94	0.0	-109.73	79.58	-15.53	41.18	-2.085e+04	5.277e+04	1.252e+05
		5.277e+04	-2.723e+04	0.03	0.0	56.9	67.72	56.11	-15.53	41.18	-2.404e+04	6.246e+04	1.252e+05
						113.8	245.17	32.64	-15.53	41.18	-2.723e+04	7.080e+04	1.252e+05
161	99	2.169e+05	-4.774e+04	0.93	-61.02	0.0	-32.23	-263.94	115.94	-3.725e+04	-8.626e+04	2.169e+05	1.252e+05
		1.195e+05	-8.626e+04	-0.37	0.0	56.9	-32.23	-294.45	115.94	-3.725e+04	-6.700e+04	1.691e+05	1.252e+05
						113.8	-32.23	-324.97	115.94	-3.725e+04	-4.774e+04	1.195e+05	1.252e+05
161	111	2.169e+05	-4.767e+04	0.93	-61.02	0.0	-32.12	-263.81	116.33	3.731e+04	-8.624e+04	2.169e+05	1.252e+05
		1.195e+05	-8.624e+04	-0.37	0.0	56.9	-32.12	-294.32	116.33	3.731e+04	-6.695e+04	1.691e+05	1.252e+05
						113.8	-32.12	-324.83	116.33	3.731e+04	-4.767e+04	1.195e+05	1.252e+05
161	125	1.521e+04	-2243.35	0.11	-46.94	0.0	-1.87	-7.10	11.78	-1162.11	-6181.37	1.521e+04	1.252e+05
		5186.50	-6181.37	-0.04	0.0	56.9	-1.87	-30.57	11.78	-1162.11	-4212.36	1.087e+04	1.252e+05
						113.8	-1.87	-54.04	11.78	-1162.11	-2243.35	5186.50	1.252e+05
161	128	2.862e+04	-7563.76	0.08	-46.94	0.0	-4.72	-6.31	11.92	1163.57	-1.151e+04	2.862e+04	1.252e+05
		1.869e+04	-1.151e+04	-0.03	0.0	56.9	-4.72	-29.78	11.92	1163.57	-9539.01	2.432e+04	1.252e+05
						113.8	-4.72	-53.25	11.92	1163.57	-7563.76	1.869e+04	1.252e+05
161	157	1.898e+04	-3739.91	0.10	-46.94	0.0	-2.68	-6.88	11.82	-489.96	-7681.58	1.898e+04	1.252e+05

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

		8984.32	-7681.58	-0.04	0.0	56.9	-2.68	-30.35	11.82	-489.96	-5710.74	1.465e+04
						113.8	-2.68	-53.82	11.82	-489.96	-3739.91	8984.32
161	160	2.485e+04	-6067.20	0.09	-46.94	0.0	-3.92	-6.53	11.88	491.42	-1.001e+04	2.485e+04
		1.489e+04	-1.001e+04	-0.03	0.0	56.9	-3.92	-30.00	11.88	491.42	-8040.63	2.054e+04
						113.8	-3.92	-53.47	11.88	491.42	-6067.20	1.489e+04
161	213	-6.776e+04	4.209e+04	-0.39	-46.94	0.0	-17.63	140.07	-47.79	6.479e+04	4.209e+04	-1.065e+05
		-1.065e+05	2.656e+04	0.15	0.0	56.9	-17.63	116.60	-47.79	6.479e+04	3.432e+04	-8.644e+04
						113.8	-17.63	93.13	-47.79	6.479e+04	2.656e+04	-6.776e+04
161	225	-6.779e+04	4.204e+04	-0.39	-46.94	0.0	-17.81	139.84	-48.45	-6.490e+04	4.204e+04	-1.065e+05
		-1.065e+05	2.644e+04	0.16	0.0	56.9	-17.81	116.37	-48.45	-6.490e+04	3.424e+04	-8.646e+04
						113.8	-17.81	92.89	-48.45	-6.490e+04	2.644e+04	-6.779e+04
161	230	5.118e+04	-1.685e+04	-0.04	-46.94	0.0	-74.25	50.82	-6.40	27.70	-1.685e+04	4.249e+04
		4.249e+04	-1.979e+04	0.01	0.0	56.9	44.05	27.35	-6.40	27.70	-1.832e+04	4.750e+04
						113.8	162.35	3.88	-6.40	27.70	-1.979e+04	5.118e+04
161	231	2.750e+04	-9916.53	0.04	-46.94	0.0	-139.46	16.50	4.13	13.17	-1.103e+04	2.749e+04
		2.508e+04	-1.103e+04	-0.01	0.0	56.9	-21.16	-6.97	4.13	13.17	-1.047e+04	2.695e+04
						113.8	97.14	-30.44	4.13	13.17	-9916.53	2.508e+04
161	238	1.475e+05	-3.248e+04	0.63	-46.94	0.0	-21.92	-176.85	78.88	-2.483e+04	-5.869e+04	1.475e+05
		8.126e+04	-5.869e+04	-0.25	0.0	56.9	-21.92	-200.33	78.88	-2.483e+04	-4.558e+04	1.151e+05
						113.8	-21.92	-223.80	78.88	-2.483e+04	-3.248e+04	8.126e+04
161	244	1.475e+05	-3.243e+04	0.63	-46.94	0.0	-21.86	-176.77	79.13	2.488e+04	-5.867e+04	1.475e+05
		8.127e+04	-5.867e+04	-0.25	0.0	56.9	-21.86	-200.24	79.13	2.488e+04	-4.555e+04	1.151e+05
						113.8	-21.86	-223.71	79.13	2.488e+04	-3.243e+04	8.127e+04
161	253	-1089.70	757.21	-8.43e-03	-46.94	0.0	0.36	26.08	-1.13	1.296e+04	757.21	-2261.73
		-2261.73	401.25	3.05e-03	0.0	56.9	0.36	2.61	-1.13	1.296e+04	579.23	-1159.05
						113.8	0.36	-20.86	-1.13	1.296e+04	401.25	-1391.27
161	255	-1094.15	748.85	-8.47e-03	-46.94	0.0	0.32	26.03	-1.26	-1.298e+04	748.85	-2263.29
		-2263.29	377.33	3.47e-03	0.0	56.9	0.32	2.56	-1.26	-1.298e+04	563.09	-1162.71
						113.8	0.32	-20.91	-1.26	-1.298e+04	377.33	-1397.03
161	257	2.816e+04	-9017.38	0.07	-46.94	0.0	23.87	7.59	7.46	6.79	-1.127e+04	2.816e+04
		2.281e+04	-1.127e+04	-0.03	0.0	56.9	23.87	-15.88	7.46	6.79	-1.014e+04	2.616e+04
						113.8	23.87	-39.35	7.46	6.79	-9017.38	2.281e+04
161	258	1.567e+04	-789.73	0.12	-46.94	0.0	-30.46	-21.00	16.24	-5.32	-6423.79	1.567e+04
		1060.73	-6423.79	-0.05	0.0	56.9	-30.46	-44.47	16.24	-5.32	-3606.76	9030.55
						113.8	-30.46	-67.94	16.24	-5.32	-789.73	1060.73
161	259	3.777e+04	-8384.95	0.16	-46.94	0.0	-5.62	-28.17	20.28	1.36	-1.513e+04	3.777e+04
		2.069e+04	-1.513e+04	-0.06	0.0	56.9	-5.62	-51.64	20.28	1.36	-1.176e+04	2.990e+04
						113.8	-5.62	-75.11	20.28	1.36	-8384.95	2.069e+04
161	260	2.191e+04	-4903.56	0.10	-46.94	0.0	-3.30	-6.71	11.85	0.73	-8847.82	2.191e+04
		1.194e+04	-8847.82	-0.04	0.0	56.9	-3.30	-30.18	11.85	0.73	-6875.69	1.759e+04
						113.8	-3.30	-53.65	11.85	0.73	-4903.56	1.194e+04
162	73	-1.321e+05	7.017e+04	0.47	-46.94	0.0	78.36	-112.54	52.66	1.069e+05	5.252e+04	-1.321e+05
		-1.769e+05	5.252e+04	-0.18	0.0	56.9	78.36	-136.01	52.66	1.069e+05	6.135e+04	-1.538e+05
						113.8	78.36	-159.48	52.66	1.069e+05	7.017e+04	-1.769e+05
162	84	2.109e+04	-824.30	-0.18	-61.02	0.0	-236.95	95.45	-21.61	19.97	-824.30	-64.16
		-64.16	-8745.89	0.07	0.0	56.9	-59.50	64.94	-21.61	19.97	-4785.09	1.138e+04
						113.8	117.95	34.43	-21.61	19.97	-8745.89	2.109e+04
162	85	9485.64	9020.39	-0.32	-46.94	0.0	-134.52	132.31	-35.69	41.83	9020.39	-2.594e+04
		-2.594e+04	-4182.11	0.13	0.0	56.9	42.93	108.84	-35.69	41.83	2419.14	-7561.58
						113.8	220.38	85.37	-35.69	41.83	-4182.11	9485.64
162	111	2.376e+05	-6.635e+04	-0.75	-61.02	0.0	-37.37	251.58	-82.54	-4.097e+04	-6.635e+04	1.649e+05
		1.649e+05	-9.461e+04	0.30	0.0	56.9	-37.37	221.07	-82.54	-4.097e+04	-8.048e+04	2.021e+05
						113.8	-37.37	190.56	-82.54	-4.097e+04	-9.461e+04	2.376e+05
162	125	2.630e+04	-7716.23	-0.05	-46.94	0.0	1.23	45.54	-8.45	-1472.10	-7716.23	1.892e+04
		1.892e+04	-1.061e+04	0.02	0.0	56.9	1.23	22.07	-8.45	-1472.10	-9163.78	2.328e+04
						113.8	1.23	-1.41	-8.45	-1472.10	-1.061e+04	2.630e+04
162	128	2.176e+04	-5904.91	-0.10	-46.94	0.0	-8.90	46.75	-8.41	1473.42	-5904.91	1.423e+04
		1.423e+04	-8795.13	0.04	0.0	56.9	-8.90	23.28	-8.41	1473.42	-7350.02	1.866e+04
						113.8	-8.90	-0.19	-8.41	1473.42	-8795.13	2.176e+04
162	142	2.917e+04	-8842.85	-0.08	-46.94	0.0	-3.14	46.17	-8.50	4146.55	-8842.85	2.171e+04
		2.171e+04	-1.174e+04	0.03	0.0	56.9	-3.14	22.70	-8.50	4146.55	-1.029e+04	2.611e+04
						113.8	-3.14	-0.77	-8.50	4146.55	-1.174e+04	2.917e+04

Progettazione civile e inserimento ambientale

Agronomia e studi colturali

Progettazione elettrica



Arch. Andrea Giuffrida



Dott. Agr. Gianfranco Giuffrida



SOGGETTO PROPONENTE



SMARTENERGYIT2111 S.R.L.

Comune di Gravina in Puglia (BA) - Località Masseria Pellicciari
 Progetto per la realizzazione di un Nuovo Impianto Agrivoltaico e delle relative opere di
 connessione alla RTN
 Potenza nominale 35,09 MW

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

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162	143	1.889e+04	-4778.29	-0.07	-46.94	0.0	-4.52	46.12	-8.35	-4145.23	-4778.29	1.144e+04
		1.144e+04	-7662.68	0.03	0.0	56.9	-4.52	22.64	-8.35	-4145.23	-6220.48	1.583e+04
						113.8	-4.52	-0.83	-8.35	-4145.23	-7662.68	1.889e+04
162	157	2.505e+04	-7215.47	-0.07	-46.94	0.0	-1.62	45.88	-8.44	-611.10	-7215.47	1.762e+04
		1.762e+04	-1.011e+04	0.03	0.0	56.9	-1.62	22.41	-8.44	-611.10	-8662.34	2.200e+04
						113.8	-1.62	-1.06	-8.44	-611.10	-1.011e+04	2.505e+04
162	160	2.301e+04	-6405.67	-0.09	-46.94	0.0	-6.05	46.41	-8.42	612.42	-6405.67	1.553e+04
		1.553e+04	-9297.23	0.03	0.0	56.9	-6.05	22.94	-8.42	612.42	-7851.45	1.994e+04
						113.8	-6.05	-0.53	-8.42	612.42	-9297.23	2.301e+04
162	174	2.623e+04	-7681.92	-0.08	-46.94	0.0	-3.52	46.16	-8.46	1714.03	-7681.92	1.878e+04
		1.878e+04	-1.058e+04	0.03	0.0	56.9	-3.52	22.68	-8.46	1714.03	-9130.02	2.317e+04
						113.8	-3.52	-0.79	-8.46	1714.03	-1.058e+04	2.623e+04
162	175	2.183e+04	-5939.22	-0.07	-46.94	0.0	-4.15	46.13	-8.39	-1712.71	-5939.22	1.437e+04
		1.437e+04	-8828.34	0.03	0.0	56.9	-4.15	22.66	-8.39	-1712.71	-7383.78	1.877e+04
						113.8	-4.15	-0.81	-8.39	-1712.71	-8828.34	2.183e+04
162	224	-8.251e+04	4.355e+04	0.29	-46.94	0.0	50.96	-59.64	32.30	7.128e+04	3.274e+04	-8.251e+04
		-1.099e+05	3.274e+04	-0.11	0.0	56.9	50.96	-83.12	32.30	7.128e+04	3.815e+04	-9.556e+04
						113.8	50.96	-106.59	32.30	7.128e+04	4.355e+04	-1.099e+05
162	230	1.433e+04	3743.41	-0.24	-46.94	0.0	-90.96	103.59	-26.60	28.11	3743.41	-1.177e+04
		-1.177e+04	-6022.48	0.09	0.0	56.9	27.34	80.12	-26.60	28.11	-1139.54	1949.16
						113.8	145.64	56.65	-26.60	28.11	-6022.48	1.433e+04
162	231	1.727e+04	-1457.61	-0.13	-46.94	0.0	-158.47	69.79	-15.53	13.40	-1457.61	2167.30
		2167.30	-7124.36	0.05	0.0	56.9	-40.17	46.32	-15.53	13.40	-4290.98	1.038e+04
						113.8	78.12	22.84	-15.53	13.40	-7124.36	1.727e+04
162	244	1.616e+05	-4.514e+04	-0.51	-46.94	0.0	-25.42	173.88	-56.15	-2.731e+04	-4.514e+04	1.121e+05
		1.121e+05	-6.437e+04	0.20	0.0	56.9	-25.42	150.40	-56.15	-2.731e+04	-5.476e+04	1.375e+05
						113.8	-25.42	126.93	-56.15	-2.731e+04	-6.437e+04	1.616e+05
162	255	-1455.96	836.83	6.62e-03	-46.94	0.0	0.37	21.61	0.83	1.425e+04	580.28	-1848.41
		-2470.51	580.28	-2.52e-03	0.0	56.9	0.37	-1.86	0.83	1.425e+04	708.56	-1492.01
						113.8	0.37	-25.34	0.83	1.425e+04	836.83	-2470.51
162	257	2.281e+04	-4643.48	-0.12	-46.94	0.0	24.30	60.23	-13.04	6.79	-4643.48	1.077e+04
		1.077e+04	-9244.12	0.05	0.0	56.9	24.30	36.76	-13.04	6.79	-6943.80	1.746e+04
						113.8	24.30	13.29	-13.04	6.79	-9244.12	2.281e+04
162	258	2.525e+04	-8977.66	-0.03	-46.94	0.0	-31.97	32.06	-3.81	-5.47	-8977.66	2.238e+04
		2.238e+04	-1.016e+04	0.01	0.0	56.9	-31.97	8.59	-3.81	-5.47	-9570.00	2.449e+04
						113.8	-31.97	-14.88	-3.81	-5.47	-1.016e+04	2.525e+04
162	259	4.138e+04	-1.164e+04	-0.13	-46.94	0.0	-6.54	62.29	-14.43	1.24	-1.164e+04	2.862e+04
		2.862e+04	-1.660e+04	0.05	0.0	56.9	-6.54	38.81	-14.43	1.24	-1.412e+04	3.567e+04
						113.8	-6.54	15.34	-14.43	1.24	-1.660e+04	4.138e+04
162	260	2.403e+04	-6810.57	-0.08	-46.94	0.0	-3.83	46.14	-8.43	0.66	-6810.57	1.658e+04
		1.658e+04	-9703.23	0.03	0.0	56.9	-3.83	22.67	-8.43	0.66	-8256.90	2.097e+04
						113.8	-3.83	-0.80	-8.43	0.66	-9703.23	2.403e+04
163	49	3.897e+05	-6.639e+04	-0.35	-46.94	0.0	82.41	690.91	-249.02	3.361e+05	-6.639e+04	1.701e+05
		1.701e+05	-1.517e+05	0.14	0.0	56.9	82.41	667.44	-249.02	3.361e+05	-1.091e+05	2.806e+05
						113.8	82.41	643.97	-249.02	3.361e+05	-1.517e+05	3.897e+05
163	73	3.894e+05	-6.685e+04	-0.35	-46.94	0.0	82.59	689.39	-252.97	-3.363e+05	-6.685e+04	1.700e+05
		1.700e+05	-1.526e+05	0.14	0.0	56.9	82.59	665.92	-252.97	-3.363e+05	-1.097e+05	2.804e+05
						113.8	82.59	642.45	-252.97	-3.363e+05	-1.526e+05	3.894e+05
163	84	1.423e+04	5361.36	0.22	-61.02	0.0	-182.42	-35.42	38.73	20.39	-5037.47	1.423e+04
		-8379.01	-5037.47	-0.09	0.0	56.9	-4.97	-65.94	38.73	20.39	161.95	3793.31
						113.8	172.48	-96.45	38.73	20.39	5361.36	-8379.01
163	85	9.962e+04	-3.177e+04	0.51	-46.94	0.0	-61.13	65.04	27.44	42.58	-3.245e+04	8.874e+04
		8.874e+04	-3.245e+04	-0.20	0.0	56.9	116.32	41.57	27.44	42.58	-3.211e+04	9.485e+04
						113.8	293.77	18.10	27.44	42.58	-3.177e+04	9.962e+04
163	99	-1.859e+05	1.846e+05	0.66	-61.02	0.0	-29.86	-825.89	335.14	-1.288e+05	7.300e+04	-1.859e+05
		-4.686e+05	7.300e+04	-0.26	0.0	56.9	-29.86	-856.40	335.14	-1.288e+05	1.846e+05	-3.264e+05
						113.8	-29.86	-886.91	335.14	-1.288e+05	1.846e+05	-4.686e+05
163	111	-1.858e+05	1.850e+05	0.66	-61.02	0.0	-29.93	-825.30	336.66	1.289e+05	7.318e+04	-1.858e+05
		-4.685e+05	7.318e+04	-0.26	0.0	56.9	-29.93	-855.82	336.66	1.289e+05	1.291e+05	-3.263e+05
						113.8	-29.93	-886.33	336.66	1.289e+05	1.850e+05	-4.685e+05
163	126	-3.469e+04	2.479e+04	0.03	-46.94	0.0	-11.76	-65.89	32.07	2390.24	1.360e+04	-3.469e+04
		-6.384e+04	1.360e+04	-0.02	0.0	56.9	-11.76	-89.36	32.07	2390.24	1.920e+04	-4.860e+04

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Arch. Andrea Giuffrida



Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

163	127	-4015.79	1.297e+04	0.11	-46.94	113.8	-11.76	-112.83	32.07	2390.24	2.479e+04	-6.384e+04
		-3.282e+04	1310.21	-0.03	0.0	56.9	5.64	-62.78	36.31	-2387.96	1310.21	-4015.79
						113.8	5.64	-86.25	36.31	-2387.96	7139.82	-1.775e+04
163	158	-2.607e+04	2.147e+04	0.05	-46.94	113.8	-6.87	-65.01	33.26	974.92	1.015e+04	-2.607e+04
		-5.512e+04	1.015e+04	-0.02	0.0	56.9	-6.87	-88.48	33.26	974.92	1.581e+04	-3.993e+04
						113.8	-6.87	-111.96	33.26	974.92	2.147e+04	-5.512e+04
163	159	-1.264e+04	1.629e+04	0.09	-46.94	113.8	0.75	-63.65	35.12	-972.64	4765.10	-1.264e+04
		-4.153e+04	4765.10	-0.03	0.0	56.9	0.75	-87.12	35.12	-972.64	1.053e+04	-2.642e+04
						113.8	0.75	-110.59	35.12	-972.64	1.629e+04	-4.153e+04
163	212	2.437e+05	-4.178e+04	-0.21	-46.94	113.8	53.92	439.17	-154.62	2.241e+05	-4.178e+04	1.070e+05
		1.070e+05	-9.485e+04	0.08	0.0	56.9	53.92	415.69	-154.62	2.241e+05	-6.831e+04	1.760e+05
						113.8	53.92	392.22	-154.62	2.241e+05	-9.485e+04	2.437e+05
163	224	2.435e+05	-4.208e+04	-0.21	-46.94	113.8	54.04	438.15	-157.25	-2.242e+05	-4.208e+04	1.069e+05
		1.069e+05	-9.546e+04	0.09	0.0	56.9	54.04	414.68	-157.25	-2.242e+05	-6.877e+04	1.759e+05
						113.8	54.04	391.21	-157.25	-2.242e+05	-9.546e+04	2.435e+05
163	230	5.272e+04	-1.489e+04	0.36	-46.94	113.8	21.91	29.69	29.69	28.77	-1.915e+04	5.271e+04
		5.030e+04	-1.915e+04	-0.14	0.0	56.9	76.52	-1.56	29.69	28.77	-1.702e+04	5.217e+04
						113.8	194.82	-25.03	29.69	28.77	-1.489e+04	5.030e+04
163	231	6906.41	6091.32	0.16	-46.94	113.8	-122.02	-32.19	30.38	13.74	-2364.01	6906.41
		-1.203e+04	-2364.01	-0.06	0.0	56.9	-3.72	-55.67	30.38	13.74	1863.66	-1894.22
						113.8	114.58	-79.14	30.38	13.74	6091.32	-1.203e+04
163	238	-1.265e+05	1.256e+05	0.45	-46.94	113.8	-20.32	-559.17	227.99	-8.589e+04	4.966e+04	-1.265e+05
		-3.188e+05	4.966e+04	-0.18	0.0	56.9	-20.32	-582.64	227.99	-8.589e+04	8.764e+04	-2.220e+05
						113.8	-20.32	-606.11	227.99	-8.589e+04	1.256e+05	-3.188e+05
163	244	-1.265e+05	1.258e+05	0.45	-46.94	113.8	0.0	-558.78	229.00	8.594e+04	4.978e+04	-1.265e+05
		-3.188e+05	4.978e+04	-0.18	0.0	56.9	-20.36	-582.25	229.00	8.594e+04	8.781e+04	-2.219e+05
						113.8	-20.36	-605.72	229.00	8.594e+04	1.258e+05	-3.188e+05
163	253	3843.22	-710.96	-6.00e-03	-46.94	113.8	0.31	30.96	-3.50	4.482e+04	-710.96	1327.23
		1327.23	-1769.68	2.14e-03	0.0	56.9	0.31	7.48	-3.50	4.482e+04	-1240.32	3252.68
						113.8	0.31	-15.99	-3.50	4.482e+04	-1769.68	3843.22
163	255	3804.89	-771.59	-6.01e-03	-46.94	113.8	0.33	30.75	-4.03	-4.484e+04	-771.59	1310.20
		1310.20	-1890.73	2.53e-03	0.0	56.9	0.33	7.28	-4.03	-4.484e+04	-1331.16	3224.72
						113.8	0.33	-16.19	-4.03	-4.484e+04	-1890.73	3804.34
163	257	-267.61	1.014e+04	0.15	-46.94	113.8	30.37	-41.79	33.90	7.40	463.16	-267.61
		-2.236e+04	463.16	-0.06	0.0	56.9	30.37	-65.26	33.90	7.40	5300.15	-1.064e+04
						113.8	30.37	-88.73	33.90	7.40	1.014e+04	-2.236e+04
163	258	-3.844e+04	2.762e+04	-0.02	-46.94	113.8	0.0	-36.50	34.48	-5.12	1.445e+04	-3.844e+04
		-7.430e+04	1.445e+04	7.32e-03	0.0	56.9	-36.50	-110.35	34.48	-5.12	2.104e+04	-5.570e+04
						113.8	-36.50	-133.82	34.48	-5.12	2.762e+04	-7.430e+04
163	259	-3.285e+04	3.231e+04	0.12	-46.94	113.8	0.0	-5.22	58.50	2.06	1.277e+04	-3.285e+04
		-8.243e+04	1.277e+04	-0.05	0.0	56.9	-5.22	-150.25	58.50	2.06	2.254e+04	-5.698e+04
						113.8	-5.22	-173.72	58.50	2.06	3.231e+04	-8.243e+04
163	260	-1.935e+04	1.888e+04	0.07	-46.94	113.8	0.0	-3.06	34.19	1.14	7457.30	-1.935e+04
		-4.833e+04	7457.30	-0.03	0.0	56.9	-3.06	-87.80	34.19	1.14	1.317e+04	-3.317e+04
						113.8	-3.06	-111.28	34.19	1.14	1.888e+04	-4.833e+04
168	40	-2.383e+04	1.905e+04	0.02	-32.19	60.0	-1143.66	-132.94	45.91	-1.662e+04	9877.69	-2.383e+04
		-4.894e+04	9877.69	-8.08e-03	0.0	30.0	-1143.66	-149.03	45.91	-1.662e+04	1.446e+04	-3.614e+04
						60.0	-1143.66	-165.13	45.91	-1.662e+04	1.905e+04	-4.894e+04
168	64	-2.398e+04	1.888e+04	0.02	-32.19	60.0	-1143.64	-130.83	51.22	1.665e+04	9390.07	-2.398e+04
		-4.897e+04	9390.07	-8.67e-03	0.0	30.0	-1143.64	-146.93	51.22	1.665e+04	1.414e+04	-3.623e+04
						60.0	-1143.64	-163.02	51.22	1.665e+04	1.888e+04	-4.897e+04
168	85	7.760e+04	-1.019e+04	-0.09	-24.76	60.0	540.39	318.51	-73.61	-42.03	-1.019e+04	2.649e+04
		2.649e+04	-2.760e+04	0.04	0.0	30.0	633.99	306.13	-73.61	-42.03	-1.890e+04	5.223e+04
						60.0	727.59	293.75	-73.61	-42.03	-2.760e+04	7.760e+04
168	88	857.16	1484.97	-0.02	-32.19	60.0	-1199.85	43.51	-6.46	-14.37	1484.97	-3743.52
		-3743.52	-75.02	6.91e-03	0.0	30.0	-1143.69	27.41	-6.46	-14.37	704.98	-1201.76
						60.0	-1087.53	11.32	-6.46	-14.37	-75.02	857.16
168	89	6.530e+04	-9087.95	-0.08	-24.76	60.0	1037.25	262.69	-58.38	-30.96	-9087.95	2.359e+04
		2.359e+04	-2.318e+04	0.03	0.0	30.0	1093.41	250.31	-58.38	-30.96	-1.613e+04	4.463e+04
						60.0	1149.57	237.93	-58.38	-30.96	-2.318e+04	6.530e+04
168	125	-8478.96	4310.76	0.01	-24.76	60.0	-2.20	0.06	3.47	-317.27	3144.39	-8478.96

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

		-1.046e+04	3144.39	-2.99e-03	0.0	30.0	-2.20	-12.32	3.47	-317.27	3727.58	-9283.05
						60.0	-2.20	-24.70	3.47	-317.27	4310.76	-1.046e+04
168	126	-9156.53	4579.35	0.01	-24.76	0.0	-2.67	-4.90	15.88	547.83	3864.03	-9156.53
		-1.114e+04	3864.03	-2.36e-03	0.0	30.0	-2.67	-17.28	15.88	547.83	4221.69	-9963.98
						60.0	-2.67	-29.66	15.88	547.83	4579.35	-1.114e+04
168	127	4928.93	-1461.15	-0.02	-24.76	0.0	-8.82	10.71	-6.20	-549.60	-2203.83	4928.93
		3566.92	-2203.83	3.64e-03	0.0	30.0	-8.82	-1.67	-6.20	-549.60	-1832.49	4433.63
						60.0	-8.82	-14.05	-6.20	-549.60	-1461.15	3566.92
168	128	4251.36	-1192.56	-0.02	-24.76	0.0	-9.30	5.76	6.20	315.51	-1484.19	4251.36
		2882.62	-1484.19	4.27e-03	0.0	30.0	-9.30	-6.62	6.20	315.51	-1338.38	3752.70
						60.0	-9.30	-19.00	6.20	315.51	-1192.56	2882.62
168	157	-4904.69	2765.50	4.51e-03	-24.76	0.0	-4.20	1.65	4.13	-138.63	1845.19	-4904.69
		-6714.41	1845.19	-9.44e-04	0.0	30.0	-4.20	-10.73	4.13	-138.63	2305.35	-5623.84
						60.0	-4.20	-23.11	4.13	-138.63	2765.50	-6714.41
168	158	-5198.61	2882.18	4.35e-03	-24.76	0.0	-4.40	-0.56	9.68	238.22	2166.33	-5198.61
		-7011.39	2166.33	-7.77e-04	0.0	30.0	-4.40	-12.95	9.68	238.22	2524.26	-5919.30
						60.0	-4.40	-25.33	9.68	238.22	2882.18	-7011.39
168	159	971.01	236.02	-7.62e-03	-24.76	0.0	-7.10	6.38	-5.87e-03	-239.99	-506.13	971.01
		-564.53	-506.13	1.98e-03	0.0	30.0	-7.10	-6.00	-5.87e-03	-239.99	-135.05	388.94
						60.0	-7.10	-18.38	-5.87e-03	-239.99	236.02	-564.53
168	160	677.09	352.70	-7.78e-03	-24.76	0.0	-7.30	4.16	5.55	136.87	-184.99	677.09
		-861.52	-184.99	2.20e-03	0.0	30.0	-7.30	-8.22	5.55	136.87	83.86	93.49
						60.0	-7.30	-20.60	5.55	136.87	352.70	-861.52
168	209	-1.617e+04	1.291e+04	0.01	-24.76	0.0	-763.21	-88.24	31.25	-1.108e+04	6695.81	-1.617e+04
		-3.313e+04	6695.81	-5.30e-03	0.0	30.0	-763.21	-100.62	31.25	-1.108e+04	9801.53	-2.446e+04
						60.0	-763.21	-113.00	31.25	-1.108e+04	1.291e+04	-3.313e+04
168	221	-1.627e+04	1.279e+04	0.01	-24.76	0.0	-763.19	-86.83	34.79	1.110e+04	6370.73	-1.627e+04
		-3.315e+04	6370.73	-5.70e-03	0.0	30.0	-763.19	-99.21	34.79	1.110e+04	9582.74	-2.452e+04
						60.0	-763.19	-111.60	34.79	1.110e+04	1.279e+04	-3.315e+04
168	230	5.047e+04	-6519.24	-0.06	-24.76	0.0	358.34	213.31	-47.46	-28.31	-6519.24	1.696e+04
		1.696e+04	-1.788e+04	0.03	0.0	30.0	420.74	200.93	-47.46	-28.31	-1.220e+04	3.390e+04
						60.0	483.14	188.55	-47.46	-28.31	-1.788e+04	5.047e+04
168	232	4.227e+04	-5781.94	-0.05	-24.76	0.0	689.59	176.09	-37.31	-20.94	-5781.94	1.502e+04
		1.502e+04	-1.493e+04	0.02	0.0	30.0	727.03	163.71	-37.31	-20.94	-1.036e+04	2.883e+04
						60.0	764.47	151.33	-37.31	-20.94	-1.493e+04	4.227e+04
168	233	66.38	1100.66	-0.01	-24.76	0.0	-800.66	29.39	-3.66	-9.70	1100.66	-2777.52
		-2777.52	157.87	4.69e-03	0.0	30.0	-763.22	17.01	-3.66	-9.70	629.26	-1169.87
						60.0	-725.78	4.63	-3.66	-9.70	157.87	66.38
168	257	6763.13	-890.55	-0.01	-24.76	0.0	366.82	39.58	-3.57	-3.69	-890.55	2336.57
		2336.57	-2213.36	4.54e-03	0.0	30.0	366.82	27.20	-3.57	-3.69	-1551.95	4735.55
						60.0	366.82	14.82	-3.57	-3.69	-2213.36	6763.13
168	258	-6564.17	5331.56	8.16e-03	-24.76	0.0	-378.31	-33.77	13.25	1.93	2550.75	-6564.17
		-1.434e+04	2550.75	-3.26e-03	0.0	30.0	-378.31	-46.15	13.25	1.93	3941.16	-1.027e+04
						60.0	-378.31	-58.53	13.25	1.93	5331.56	-1.434e+04
168	260	-2113.80	1559.10	-1.64e-03	-24.76	0.0	-5.75	2.91	4.84	-0.88	830.10	-2113.80
		-3787.96	830.10	6.39e-04	0.0	30.0	-5.75	-9.47	4.84	-0.88	1194.60	-2765.18
						60.0	-5.75	-21.85	4.84	-0.88	1559.10	-3787.96
169	32	-1.797e+04	1.393e+04	-1.78e-03	-2.68	0.0	-3124.19	400.18	22.92	8022.64	1.381e+04	-1.997e+04
		-1.997e+04	1.381e+04	6.80e-04	0.0	2.5	-3124.19	398.84	22.92	8022.64	1.387e+04	-1.897e+04
						5.0	-3124.19	397.49	22.92	8022.64	1.393e+04	-1.797e+04
169	40	-1.719e+04	1.069e+04	-3.15e-03	-2.68	0.0	-5036.20	564.58	14.73	4808.50	1.062e+04	-2.001e+04
		-2.001e+04	1.062e+04	1.23e-03	0.0	2.5	-5036.20	563.24	14.73	4808.50	1.066e+04	-1.860e+04
						5.0	-5036.20	561.90	14.73	4808.50	1.069e+04	-1.719e+04
169	49	2.156e+04	-1.855e+04	1.76e-03	-2.06	0.0	3143.19	-409.39	-34.63	-1.256e+04	-1.855e+04	2.156e+04
		1.951e+04	-1.872e+04	-6.54e-04	0.0	2.5	3143.19	-410.42	-34.63	-1.256e+04	-1.864e+04	2.053e+04
						5.0	3143.19	-411.46	-34.63	-1.256e+04	-1.872e+04	1.951e+04
169	73	2.639e+04	-5887.06	1.76e-03	-2.06	0.0	3142.84	-378.00	44.39	1.262e+04	-6109.03	2.639e+04
		2.449e+04	-6109.03	-7.19e-04	0.0	2.5	3142.84	-379.03	44.39	1.262e+04	-5998.05	2.544e+04
						5.0	3142.84	-380.07	44.39	1.262e+04	-5887.06	2.449e+04
169	84	-1.700e+04	5483.71	-9.55e-03	-2.68	0.0	-2755.07	1443.27	-0.16	-41.75	5483.71	-2.421e+04
		-2.421e+04	5482.92	3.78e-03	0.0	2.5	-2747.27	1441.93	-0.16	-41.75	5483.32	-2.061e+04
						5.0	-2739.47	1440.58	-0.16	-41.75	5482.92	-1.700e+04

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida





SMARTENERGYIT2111 S.R.L.

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

169	89	904.94 -80.27	-780.77 -789.87	-1.28e-03 5.05e-04	-2.06 0.0	0.0 2.5 5.0	5031.19 5035.87 5040.55	198.07 197.04 196.01	-1.82 -1.82 -1.82	-13.03 -13.03 -13.03	-780.77 -785.32 -789.87	-80.27 413.62 904.94
169	130	-1786.53 -2442.79	-8934.59 -8963.15	1.29e-03 1.34e-05	-2.06 0.0	0.0 2.5 5.0	-75.41 -167.45 -75.41	-166.41 -167.45 -168.48	15.19 15.19 15.19	-271.84 -271.84 -271.84	-8934.59 -8948.87 -8963.15	-1786.53 -2113.37 -2442.79
169	131	-1347.92 -2157.11	1.030e+04 1.027e+04	-1.24e-03 -2.85e-05	-2.06 0.0	0.0 2.5 5.0	23.57 23.57 23.57	199.06 198.03 197.00	-14.65 -14.65 -14.65	273.69 273.69 273.69	1.027e+04 1.028e+04 1.030e+04	-2157.11 -1751.23 -1347.92
169	149	6654.98 6548.63	1.969e+04 1.963e+04	4.04e-04 1.21e-04	-2.06 0.0	0.0 2.5 5.0	-31.69 -31.69 -31.69	-53.55 -54.58 -55.61	-21.68 -21.68 -21.68	1517.63 1517.63 1517.63	1.963e+04 1.966e+04 1.969e+04	6654.98 6603.10 6548.63
169	150	-9072.01 -9246.26	-2.045e+04 -2.051e+04	4.03e-04 -1.08e-04	-2.06 0.0	0.0 2.5 5.0	-48.34 -48.34 -48.34	-25.93 -26.96 -27.99	26.80 26.80 26.80	-1415.46 -1415.46 -1415.46	-2.045e+04 -2.048e+04 -2.051e+04	-9072.01 -9157.85 -9246.26
169	151	5455.55 5128.38	2.185e+04 2.178e+04	-3.54e-04 8.91e-05	-2.06 0.0	0.0 2.5 5.0	-3.49 -3.49 -3.49	58.58 57.55 56.51	-26.27 -26.27 -26.27	1417.31 1417.31 1417.31	2.178e+04 2.181e+04 2.185e+04	5128.38 5293.25 5455.55
169	152	-1.034e+04 -1.060e+04	-1.829e+04 -1.835e+04	-3.55e-04 -1.39e-04	-2.06 0.0	0.0 2.5 5.0	-20.15 -20.15 -20.15	86.20 85.17 84.14	22.22 22.22 22.22	-1515.78 -1515.78 -1515.78	-1.829e+04 -1.832e+04 -1.835e+04	-1.060e+04 -1.047e+04 -1.034e+04
169	162	-1936.65 -2177.34	-3623.94 -3635.69	5.72e-04 4.25e-06	-2.06 0.0	0.0 2.5 5.0	-47.55 -47.55 -47.55	-63.98 -65.01 -66.04	6.63 6.63 6.63	-118.27 -118.27 -118.27	-3623.94 -3629.82 -3635.69	-1936.65 -2055.71 -2177.34
169	163	-1613.37 -2006.99	4971.84 4957.44	-5.23e-04 -2.05e-05	-2.06 0.0	0.0 2.5 5.0	-4.29 -4.29 -4.29	96.63 95.60 94.57	-6.10 -6.10 -6.10	120.12 120.12 120.12	4957.44 4964.64 4971.84	-2006.99 -1808.89 -1613.37
169	181	1875.12 1872.22	9187.52 9162.83	1.89e-04 4.29e-05	-2.06 0.0	0.0 2.5 5.0	-28.58 -28.58 -28.58	-14.17 -15.20 -16.23	-8.74 -8.74 -8.74	661.46 661.46 661.46	9162.83 9175.17 9187.52	1874.80 1874.80 1872.22
169	182	-5163.86 -5195.98	-8788.16 -8813.53	1.88e-04 -4.67e-05	-2.06 0.0	0.0 2.5 5.0	-35.60 -35.60 -35.60	-2.42 -3.46 -4.49	11.28 11.28 11.28	-616.15 -616.15 -616.15	-8788.16 -8800.84 -8813.53	-5163.86 -5178.63 -5195.98
169	183	1405.27 1220.22	1.015e+04 1.012e+04	-1.39e-04 2.81e-05	-2.06 0.0	0.0 2.5 5.0	-16.24 -16.24 -16.24	35.07 34.04 33.01	-10.75 -10.75 -10.75	618.00 618.00 618.00	1.012e+04 1.014e+04 1.015e+04	1220.22 1314.03 1405.27
169	184	-5662.93 -5818.43	-7829.33 -7851.37	-1.40e-04 -6.15e-05	-2.06 0.0	0.0 2.5 5.0	-23.26 -23.26 -23.26	46.82 45.78 44.75	9.27 9.27 9.27	-659.61 -659.61 -659.61	-7829.33 -7840.35 -7851.37	-5818.43 -5739.39 -5662.93
169	205	-1.223e+04 -1.357e+04	9375.47 9298.89	-1.18e-03 4.52e-04	-2.06 0.0	0.0 2.5 5.0	-2086.25 -2086.25 -2086.25	268.96 267.93 266.90	15.32 15.32 15.32	5348.55 5348.55 5348.55	9298.89 9337.18 9375.47	-1.357e+04 -1.290e+04 -1.223e+04
169	209	-1.171e+04 -1.360e+04	7218.51 7169.22	-2.09e-03 8.21e-04	-2.06 0.0	0.0 2.5 5.0	-3360.92 -3360.92 -3360.92	378.57 377.53 376.50	9.86 9.86 9.86	3205.79 3205.79 3205.79	7169.22 7193.87 7218.51	-1.360e+04 -1.266e+04 -1.171e+04
169	212	1.372e+04 1.237e+04	-1.214e+04 -1.226e+04	1.18e-03 -4.39e-04	-2.06 0.0	0.0 2.5 5.0	2086.82 2086.82 2086.82	-267.49 -268.52 -269.55	-23.00 -23.00 -23.00	-8371.86 -8371.86 -8371.86	-1.214e+04 -1.220e+04 -1.226e+04	1.372e+04 1.305e+04 1.237e+04
169	224	1.693e+04 1.570e+04	-3702.01 -3850.44	1.18e-03 -4.83e-04	-2.06 0.0	0.0 2.5 5.0	2086.59 2086.59 2086.59	-246.56 -247.59 -248.62	29.68 29.68 29.68	8410.90 8410.90 8410.90	-3702.01 -3776.23 -3850.44	1.693e+04 1.632e+04 1.570e+04
169	231	-1.159e+04 -1.641e+04	3744.71 3744.36	-6.36e-03 2.52e-03	-2.06 0.0	0.0 2.5 5.0	-1840.17 -1834.97 -1829.77	964.35 963.32 962.29	-0.07 -0.07 -0.07	-27.71 -27.71 -27.71	3744.71 3744.53 3744.36	-1.641e+04 -1.400e+04 -1.159e+04
169	232	-28.49 -710.79	-298.26 -303.89	-8.47e-04 3.34e-04	-2.06 0.0	0.0 2.5 5.0	3345.49 3348.61 3351.73	137.49 136.46 135.43	-1.13 -1.13 -1.13	-8.38 -8.38 -8.38	-298.26 -301.08 -303.89	-710.79 -368.35 -28.49
169	252	-3285.27 -3416.88	2160.93 2145.08	4.38e-05 -2.07e-05	-2.06 0.0	0.0 2.5 5.0	-44.46 -44.46 -44.46	27.35 26.32 25.29	3.17 3.17 3.17	1071.15 1071.15 1071.15	2145.08 2153.00 2160.93	-3416.88 -3349.79 -3285.27
169	253	290.18 280.33	-1647.33 -1668.74	-5.70e-06 8.45e-06	-2.06 0.0	0.0 2.5	3.10 3.10	-0.94 -1.97	-4.28 -4.28	-1674.33 -1674.33	-1647.33 -1658.04	290.18 286.55

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

						5.0	3.10	-3.00	-4.28	-1674.33	-1668.74	280.33
169	257	1675.63	-367.00	1.11e-03	-2.06	0.0	1613.77	-148.25	-0.17	3.82	-367.00	1675.63
		929.20	-367.86	-4.41e-04	0.0	2.5	1613.77	-149.29	-0.17	3.82	-367.43	1303.71
						5.0	1613.77	-150.32	-0.17	3.82	-367.86	929.20
169	258	-4719.92	1704.01	-1.06e-03	-2.06	0.0	-1665.61	180.90	0.70	-1.97	1700.49	-5619.27
		-5619.27	1700.49	4.23e-04	0.0	2.5	-1665.61	179.87	0.70	-1.97	1702.25	-5168.30
						5.0	-1665.61	178.84	0.70	-1.97	1704.01	-4719.92
169	260	-1895.36	668.08	2.45e-05	-2.06	0.0	-25.92	16.32	0.27	0.92	666.75	-1971.82
		-1971.82	666.75	-9.31e-06	0.0	2.5	-25.92	15.29	0.27	0.92	667.41	-1932.30
						5.0	-25.92	14.26	0.27	0.92	668.08	-1895.36
170	32	-1.797e+04	1.393e+04	1.78e-03	-2.68	0.0	-3124.19	-397.49	-22.92	-8022.64	1.393e+04	-1.797e+04
		-1.997e+04	1.381e+04	-6.80e-04	0.0	2.5	-3124.19	-398.84	-22.92	-8022.64	1.387e+04	-1.897e+04
						5.0	-3124.19	-400.18	-22.92	-8022.64	1.381e+04	-1.997e+04
170	49	2.156e+04	-1.855e+04	-1.76e-03	-2.06	0.0	3143.19	411.46	34.63	1.256e+04	-1.872e+04	1.951e+04
		1.951e+04	-1.872e+04	6.54e-04	0.0	2.5	3143.19	410.42	34.63	1.256e+04	-1.864e+04	2.053e+04
						5.0	3143.19	409.39	34.63	1.256e+04	-1.855e+04	2.156e+04
170	53	1.915e+04	-1.285e+04	-3.15e-03	-2.06	0.0	5023.75	557.16	21.51	7529.02	-1.296e+04	1.637e+04
		1.637e+04	-1.296e+04	1.23e-03	0.0	2.5	5023.75	556.13	21.51	7529.02	-1.290e+04	1.776e+04
						5.0	5023.75	555.10	21.51	7529.02	-1.285e+04	1.915e+04
170	60	-2.116e+04	5867.45	1.78e-03	-2.68	0.0	-3123.97	-377.44	27.56	8059.65	5729.64	-2.116e+04
		-2.305e+04	5729.64	-7.22e-04	0.0	2.5	-3123.97	-378.78	27.56	8059.65	5798.54	-2.210e+04
						5.0	-3123.97	-380.12	27.56	8059.65	5867.45	-2.305e+04
170	73	2.639e+04	-5887.06	-1.76e-03	-2.06	0.0	3142.84	380.07	-44.39	-1.262e+04	-5887.06	2.449e+04
		2.449e+04	-6109.03	7.19e-04	0.0	2.5	3142.84	379.03	-44.39	-1.262e+04	-5998.05	2.544e+04
						5.0	3142.84	378.00	-44.39	-1.262e+04	-6109.03	2.639e+04
170	88	-4454.91	2326.45	-1.34e-03	-2.68	0.0	-5100.16	163.21	-2.43	-15.15	2326.45	-5264.26
		-5264.26	2314.29	5.27e-04	0.0	2.5	-5095.48	161.87	-2.43	-15.15	2320.37	-4857.91
						5.0	-5090.80	160.53	-2.43	-15.15	2314.29	-4454.91
170	125	-1349.18	1.029e+04	1.24e-03	-2.06	0.0	23.57	-197.00	14.65	-273.74	1.029e+04	-1349.18
		-2158.28	1.026e+04	2.81e-05	0.0	2.5	23.57	-198.03	14.65	-273.74	1.028e+04	-1752.44
						5.0	23.57	-199.06	14.65	-273.74	1.026e+04	-2158.28
170	128	-1785.35	-8930.18	-1.29e-03	-2.06	0.0	-75.41	168.48	-15.19	271.89	-8958.76	-2441.53
		-2441.53	-8958.76	-9.50e-06	0.0	2.5	-75.41	167.45	-15.19	271.89	-8944.47	-2112.15
						5.0	-75.41	166.41	-15.19	271.89	-8930.18	-1785.35
170	141	5450.91	2.183e+04	3.54e-04	-2.06	0.0	-3.49	-56.52	26.27	-1417.48	2.183e+04	5450.91
		5123.84	2.177e+04	-8.91e-05	0.0	2.5	-3.49	-57.55	26.27	-1417.48	2.180e+04	5288.66
						5.0	-3.49	-58.58	26.27	-1417.48	2.177e+04	5123.84
170	142	-1.033e+04	-1.828e+04	3.54e-04	-2.06	0.0	-20.16	-84.13	-22.21	1515.95	-1.834e+04	-1.033e+04
		-1.059e+04	-1.834e+04	1.40e-04	0.0	2.5	-20.16	-85.16	-22.21	1515.95	-1.831e+04	-1.046e+04
						5.0	-20.16	-86.20	-22.21	1515.95	-1.828e+04	-1.059e+04
170	143	6650.32	1.967e+04	-4.03e-04	-2.06	0.0	-31.68	55.61	21.68	-1517.80	1.967e+04	6543.90
		6543.90	1.961e+04	-1.21e-04	0.0	2.5	-31.68	54.58	21.68	-1517.80	1.964e+04	6598.40
						5.0	-31.68	53.55	21.68	-1517.80	1.961e+04	6650.32
170	144	-9067.48	-2.043e+04	-4.03e-04	-2.06	0.0	-48.35	28.00	-26.80	1415.63	-2.050e+04	-9241.62
		-9241.62	-2.050e+04	1.08e-04	0.0	2.5	-48.35	26.96	-26.80	1415.63	-2.047e+04	-9153.26
						5.0	-48.35	25.93	-26.80	1415.63	-2.043e+04	-9067.48
170	157	-1613.95	4969.84	5.23e-04	-2.06	0.0	-4.29	-94.57	6.10	-120.15	4969.84	-1613.95
		-2007.52	4955.44	2.06e-05	0.0	2.5	-4.29	-95.60	6.10	-120.15	4962.64	-1809.45
						5.0	-4.29	-96.63	6.10	-120.15	4955.44	-2007.52
170	160	-1936.12	-3621.94	-5.72e-04	-2.06	0.0	-47.54	66.04	-6.63	118.30	-3633.69	-2176.76
		-2176.76	-3633.69	2.37e-06	0.0	2.5	-47.54	65.01	-6.63	118.30	-3627.82	-2055.15
						5.0	-47.54	63.98	-6.63	118.30	-3621.94	-1936.12
170	173	1403.16	1.014e+04	1.39e-04	-2.06	0.0	-16.23	-33.01	10.75	-618.08	1.014e+04	1403.16
		1218.15	1.012e+04	-2.86e-05	0.0	2.5	-16.23	-34.04	10.75	-618.08	1.013e+04	1311.95
						5.0	-16.23	-35.07	10.75	-618.08	1.012e+04	1218.15
170	174	-5660.78	-7822.91	1.40e-04	-2.06	0.0	-23.26	-44.75	-9.27	659.69	-7844.97	-5660.78
		-5816.32	-7844.97	6.15e-05	0.0	2.5	-23.26	-45.78	-9.27	659.69	-7833.94	-5737.26
						5.0	-23.26	-46.81	-9.27	659.69	-7822.91	-5816.32
170	175	1872.99	9181.12	-1.89e-04	-2.06	0.0	-28.58	16.23	8.74	-661.54	9181.12	1870.07
		1870.07	9156.41	-4.29e-05	0.0	2.5	-28.58	15.20	8.74	-661.54	9168.77	1872.66
						5.0	-28.58	14.17	8.74	-661.54	9156.41	1872.66
170	176	-5161.79	-8781.70	-1.88e-04	-2.06	0.0	-35.60	4.49	-11.28	616.23	-8807.09	-5193.87

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi culturali

Dott. Agr. Gianfranco Giuffrida





PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

		-5193.87	-8807.09	4.67e-05	0.0	2.5	-35.60	3.46	-11.28	616.23	-8794.39	-5176.54
						5.0	-35.60	2.42	-11.28	616.23	-8781.70	-5161.79
170	205	-1.223e+04	9375.47	1.18e-03	-2.06	0.0	-2086.25	-266.90	-15.32	-5348.55	9375.47	-1.223e+04
		-1.357e+04	9298.89	-4.52e-04	0.0	2.5	-2086.25	-267.93	-15.32	-5348.55	9337.18	-1.290e+04
						5.0	-2086.25	-268.96	-15.32	-5348.55	9298.89	-1.357e+04
170	212	1.372e+04	-1.214e+04	-1.18e-03	-2.06	0.0	2086.82	269.55	23.00	8371.86	-1.226e+04	1.237e+04
		1.237e+04	-1.226e+04	4.39e-04	0.0	2.5	2086.82	268.52	23.00	8371.86	-1.220e+04	1.305e+04
						5.0	2086.82	267.49	23.00	8371.86	-1.214e+04	1.372e+04
170	214	1.211e+04	-8342.98	-2.11e-03	-2.06	0.0	3340.53	366.69	14.25	5019.04	-8414.24	1.028e+04
		1.028e+04	-8414.24	8.20e-04	0.0	2.5	3340.53	365.65	14.25	5019.04	-8378.61	1.120e+04
						5.0	3340.53	364.62	14.25	5019.04	-8342.98	1.211e+04
170	219	-1.436e+04	4000.53	1.18e-03	-2.06	0.0	-2086.10	-253.53	18.34	5372.97	3908.84	-1.436e+04
		-1.563e+04	3908.84	-4.80e-04	0.0	2.5	-2086.10	-254.56	18.34	5372.97	3954.68	-1.499e+04
						5.0	-2086.10	-255.59	18.34	5372.97	4000.53	-1.563e+04
170	224	1.693e+04	-3702.01	-1.18e-03	-2.06	0.0	2086.59	248.62	-29.68	-8410.90	-3702.01	1.570e+04
		1.570e+04	-3850.44	4.83e-04	0.0	2.5	2086.59	247.59	-29.68	-8410.90	-3776.23	1.632e+04
						5.0	2086.59	246.56	-29.68	-8410.90	-3850.44	1.693e+04
170	233	-3232.85	1640.04	-8.96e-04	-2.06	0.0	-3403.57	106.91	-1.66	-10.22	1640.04	-3762.22
		-3762.22	1631.76	3.52e-04	0.0	2.5	-3400.45	105.87	-1.66	-10.22	1635.90	-3496.24
						5.0	-3397.33	104.84	-1.66	-10.22	1631.76	-3232.85
170	252	-3285.27	2160.93	-4.38e-05	-2.06	0.0	-44.46	-25.29	-3.17	-1071.15	2160.93	-3285.27
		-3416.88	2145.08	2.07e-05	0.0	2.5	-44.46	-26.32	-3.17	-1071.15	2153.00	-3349.79
						5.0	-44.46	-27.35	-3.17	-1071.15	2145.08	-3416.88
170	253	290.18	-1647.33	5.70e-06	-2.06	0.0	3.10	3.00	4.28	1674.33	-1668.74	280.33
		280.33	-1668.74	-8.45e-06	0.0	2.5	3.10	1.97	4.28	1674.33	-1658.04	286.55
						5.0	3.10	0.94	4.28	1674.33	-1647.33	290.18
170	257	1675.63	-367.00	-1.11e-03	-2.06	0.0	1613.77	150.32	0.17	-3.82	-367.86	929.20
		929.20	-367.86	4.41e-04	0.0	2.5	1613.77	149.29	0.17	-3.82	-367.43	1303.71
						5.0	1613.77	148.25	0.17	-3.82	-367.00	1675.63
170	258	-4719.92	1704.01	1.06e-03	-2.06	0.0	-1665.61	-178.84	-0.70	1.97	1704.01	-4719.92
		-5619.27	1700.49	-4.23e-04	0.0	2.5	-1665.61	-179.87	-0.70	1.97	1702.25	-5168.30
						5.0	-1665.61	-180.90	-0.70	1.97	1700.49	-5619.27
170	260	-1895.36	668.08	-2.45e-05	-2.06	0.0	-25.92	-14.26	-0.27	-0.92	668.08	-1895.36
		-1971.82	666.75	9.31e-06	0.0	2.5	-25.92	-15.29	-0.27	-0.92	667.41	-1932.30
						5.0	-25.92	-16.32	-0.27	-0.92	666.75	-1971.82
171	40	2954.11	6241.20	-0.05	-35.54	0.0	-1118.76	112.17	-17.15	-8496.28	6241.20	-1.441e+04
		-1.441e+04	699.23	0.02	0.0	33.1	-1118.76	94.40	-17.15	-8496.28	3470.21	-5432.15
						66.2	-1118.76	76.63	-17.15	-8496.28	699.23	2954.11
171	63	-4568.38	1.098e+04	0.04	-35.54	0.0	1067.69	-106.01	46.03	8481.91	1865.62	-4568.38
		-2.806e+04	1865.62	-0.02	0.0	33.1	1067.69	-123.78	46.03	8481.91	6422.25	-1.602e+04
						66.2	1067.69	-141.55	46.03	8481.91	1.098e+04	-2.806e+04
171	86	5.183e+04	2614.30	-0.12	-27.34	0.0	-687.51	328.07	-76.81	-39.64	2614.30	-6367.32
		-6367.32	-1.730e+04	0.05	0.0	33.1	-584.16	314.40	-76.81	-39.64	-7341.00	2.296e+04
						66.2	-480.81	300.73	-76.81	-39.64	-1.730e+04	5.183e+04
171	89	8942.49	-823.58	-0.01	-27.34	0.0	1072.00	51.28	-4.69	-12.28	-823.58	2201.72
		2201.72	-2820.00	5.62e-03	0.0	33.1	1134.01	37.61	-4.69	-12.28	-1821.79	5798.52
						66.2	1196.02	23.94	-4.69	-12.28	-2820.00	8942.49
171	99	-1.813e+04	1.206e+04	-0.01	-35.54	0.0	-54.74	-17.86	30.89	-8483.98	7945.49	-1.813e+04
		-2.569e+04	7945.49	4.03e-03	0.0	33.1	-54.74	-35.63	30.89	-8483.98	1.000e+04	-2.161e+04
						66.2	-54.74	-53.40	30.89	-8483.98	1.206e+04	-2.569e+04
171	130	-5317.54	2698.35	0.02	-27.34	0.0	-11.82	7.92	13.32	-235.03	2184.96	-5317.54
		-6362.84	2184.96	-0.01	0.0	33.1	-11.82	-5.75	13.32	-235.03	2441.65	-5613.79
						66.2	-11.82	-19.42	13.32	-235.03	2698.35	-6362.84
171	131	1554.63	-433.81	-0.02	-27.34	0.0	0.52	11.37	-7.76	236.74	-732.47	1530.29
		924.29	-732.47	0.01	0.0	33.1	0.52	-2.30	-7.76	236.74	-583.14	1453.70
						66.2	0.52	-15.97	-7.76	236.74	-433.81	924.29
171	162	-3400.36	1821.25	7.00e-03	-27.34	0.0	-8.35	8.92	7.50	-92.74	1367.39	-3400.36
		-4320.64	1367.39	-4.55e-03	0.0	33.1	-8.35	-4.75	7.50	-92.74	1594.32	-3634.09
						66.2	-8.35	-18.42	7.50	-92.74	1821.25	-4320.64
171	163	-379.21	443.30	-8.99e-03	-27.34	0.0	-2.96	10.36	-1.93	94.46	85.10	-386.89
		-1117.92	85.10	5.34e-03	0.0	33.1	-2.96	-3.31	-1.93	94.46	264.20	-525.99
						66.2	-2.96	-16.98	-1.93	94.46	443.30	-1117.92

Progettazione civile e inserimento ambientale



Arch. Andrea Giuffrida



Agronomia e studi colturali

Dott. Agr. Gianfranco Giuffrida



SOGGETTO PROPONENTE



SMARTENERGYIT2111 S.R.L.

Comune di Gravina in Puglia (BA) - Località Masseria Pellicciari
 Progetto per la realizzazione di un Nuovo Impianto Agrivoltaico e delle relative opere di
 connessione alla RTN
 Potenza nominale 35,09 MW

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

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171	209	1606.84 -9857.19	4257.63 617.12	-0.03 0.01	-27.34 0.0	0.0 33.1	-746.60 -746.60	76.07 62.40	-11.06 -11.06	-5664.07 -5664.07	4257.63 2437.38	-9857.19 -3898.77
						66.2	-746.60	48.73	-11.06	-5664.07	617.12	1606.84
171	220	-3298.07 -1.907e+04	7470.22 1340.58	0.03 -0.01	-27.34 0.0	0.0 33.1	711.04 711.04	-69.39 -83.06	31.06 31.06	5654.72 5654.72	1340.58 4405.40	-3298.07 -1.096e+04
						66.2	711.04	-96.72	31.06	5654.72	7470.22	-1.907e+04
171	231	3.365e+04 -4876.09	1984.95 -1.115e+04	-0.08 0.03	-27.34 0.0	0.0 33.1	-460.23 -391.33	221.93 208.26	-50.28 -50.28	-26.14 -26.14	1984.95 -4584.24	-4876.09 1.461e+04
						66.2	-322.43	194.59	-50.28	-26.14	-1.115e+04	3.365e+04
171	232	5055.24 836.61	-306.97 -1502.58	-9.93e-03 3.88e-03	-27.34 0.0	0.0 33.1	712.79 754.13	37.40 23.73	-2.20 -2.20	-7.90 -7.90	-306.97 -904.78	836.61 3172.33
						66.2	795.47	10.06	-2.20	-7.90	-1502.58	5055.24
171	238	-1.234e+04 -1.749e+04	8188.41 5393.82	-6.84e-03 2.74e-03	-27.34 0.0	0.0 33.1	-37.24 -37.24	-10.62 -24.29	20.97 20.97	-5655.87 -5655.87	5393.82 6791.12	-1.234e+04 -1.469e+04
						66.2	-37.24	-37.96	20.97	-5655.87	8188.41	-1.749e+04
171	256	3314.44 -2091.32	820.18 -906.94	-0.01 5.38e-03	-27.34 0.0	0.0 33.1	-9.11 4.67	43.31 29.64	-5.46 -5.46	-3.89 -3.89	820.18 -43.38	-2091.32 837.96
						66.2	18.45	15.97	-5.46	-3.89	-906.94	3314.44
171	257	-231.97 -7882.59	2873.66 68.73	0.01 -5.34e-03	-27.34 0.0	0.0 33.1	358.75 358.75	-26.98 -40.65	12.66 12.66	3.59 3.59	68.73 1471.20	-231.97 -3830.87
						66.2	358.75	-54.32	12.66	3.59	2873.66	-7882.59
171	258	2444.03 -3555.28	1383.76 -609.12	-0.02 6.13e-03	-27.34 0.0	0.0 33.1	-370.06 -370.06	46.26 32.59	-7.09 -7.09	-1.88 -1.88	1383.76 387.32	-3555.28 -329.22
						66.2	-370.06	18.93	-7.09	-1.88	-609.12	2444.03
171	260	-1892.16 -2719.28	1132.27 726.25	-9.98e-04 3.96e-04	-27.34 0.0	0.0 33.1	-5.65 -5.65	9.64 -4.03	2.78 2.78	0.86 0.86	726.25 929.26	-1893.63 -2080.04
						66.2	-5.65	-17.70	2.78	0.86	1132.27	-2719.28
Trave		M3 mx/mn	M2 mx/mn	D 2 / D 3	Q 2 / Q 3		N	V 2	V 3	T		
		-5.057e+05	-1.719e+05	-1.39	-70.41		-5100.16	-946.72	-350.45	-3.572e+05		
		4.414e+05	1.981e+05	1.39	0.0		5040.55	1443.27	350.45	3.572e+05		

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VERIFICHE PER ELEMENTI IN ACCIAIO

Legenda tabella verifiche per elementi in acciaio

L'esito delle verifiche è espresso con un codice come di seguito indicato

Ok: verifica con esito positivo

NV: verifica con esito negativo

Nr: verifica non richiesta.

Per comodità gli elementi vengono raggruppati in tabelle in relazione al tipo.

Ai fini delle verifiche (come da D.M. 17 Gennaio 2018 e circolare 21 Gennaio 2019 n. 7) i tipi elementi differiscono per i seguenti aspetti:

Verifica	Travi	Pilastri
4.2.3.1 Classificazione	X	X
4.2.4.1.2.1 Trazione	X	X
4.2.4.1.2.2 Compressione	X	X
4.2.4.1.2.4 Taglio	X	X
4.2.4.1.2.5 Torsione	X	X
Flessione, taglio e forza assiale	X	X
4.2.4.1.3.1 Aste compresse	X	X
4.2.4.1.3.2 Instabilità flesso-torsionale	X	X
4.2.4.1.3.3 Membrature inflesse e compresse	X	X

Le verifiche sono riportate in tabelle con il significato sotto indicato; le verifiche sono espresse dal rapporto tra l'azione di progetto e la capacità ultima, pertanto la verifica ha esito positivo per rapporti non superiori all'unità.

Asta	Trave	Pilastro	numero dell'elemento			
Stato			codice di verifica per resistenza, stabilità, svergolamento			
Note			sezione e materiali adottati per l'elemento			
V N			(ASTE) verifica come da par. 4.2.4.1.2 per punto (4.2.6) e (4.2.10)			
V V/T			(TRAVI E PILASTRI) verifica di resistenza come da par. 4.2.4.1.2 per azioni taglio-torsione (4.2.16 e 4.2.28)			
V N/M			(TRAVI E PILASTRI) verifica di resistenza come da par. 4.2.4.1.2 per azioni composte (4.2.33) con riduzione per taglio (4.2.40) ove richiesto			
N	M3	M2	V2	V3	T	sollecitazioni di interesse per la verifica
V stab			(ASTE) verifica come da par. 4.2.4.1.3.1 per punto (4.2.41)			
V stab			(TRAVI E PILASTRI) verifica come da par. 4.2.4.1.3 per punti (C4.2.32) o (C4.2.36) (membrature inflesse e compresse senza/con presenza di instabilità flesso-torsionale)			
BetaxL	B22xL	B33xL	lunghezze libere di inflessione (se indicato riferiti al piano di normale 22 o 33 rispettivamente)			

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Snellezza	snellezza massima
Classe	classe del profilo
Chi mn	coefficiente di riduzione (della capacità) per la modalità di instabilità pertinente
Rif. cmb	combinazioni in cui si sono rispettivamente attinti i valori di verifica più elevati
V flst	(TRAVI E PILASTRI) verifica di stabilità come da par. 4.2.4.1.3.2 per punto (4.2.48)
B1-1 x L	Beta1-1 x L: interasse tra i ritegni torsionali
Chi LT	coefficiente di riduzione (della capacità) per la modalità di instabilità flessio-torsionale
Snell adim	Valore della snellezza adimensionale, utilizzato per il controllo previsto al par. 7.5.5

Nel caso in cui lambda_S sia minore di 0.2, oppure nel caso in cui la sollecitazione di calcolo NEd sia inferiore a 0.04 Ncr, gli effetti legati ai fenomeni di instabilità sono trascurati, come da paragrafo 4.2.4.1.3.1

Trave	Stato	Note	V V/T	V N/M	V stab	Cl.LamS	22LamS	33	Snell.	Chi mn	V flstLamS	LT	Chi LT	Rif. cmb
105	oks=16,m=13		0.08	0.38		1	0.3	0.3	23.4	0.98				49,99,0,0
106	oks=16,m=13		0.24	0.26		1	0.3	0.3	23.4	0.98				49,111,0,0
107	oks=16,m=13		0.42	0.53		1	0.3	0.3	23.4	0.98				49,99,0,0
108	oks=16,m=13		0.07	0.37		1	0.3	0.3	23.4	0.98				73,99,0,0
109	oks=16,m=13		0.23	0.21		1	0.3	0.3	23.4	0.98				73,99,0,0
110	oks=16,m=13		0.18	0.34		1	0.3	0.3	23.4	0.98				47,121,0,0
111	oks=16,m=13		0.18	0.28		1	0.3	0.3	23.4	0.98				47,86,0,0
112	oks=16,m=13		0.23	0.21		1	0.3	0.3	23.4	0.98				73,99,0,0
113	oks=16,m=13		0.07	0.37		1	0.3	0.3	23.4	0.98				73,99,0,0
114	oks=16,m=13		0.42	0.53		1	0.3	0.3	23.4	0.98				49,99,0,0
115	oks=16,m=13		0.24	0.26		1	0.3	0.3	23.4	0.98				49,111,0,0
116	oks=16,m=13		0.08	0.38		1	0.3	0.3	23.4	0.98				49,99,0,0
117	oks=16,m=13		0.42	0.68		1	0.3	0.3	23.4	0.98				73,111,0,0
118	oks=16,m=13		0.03	0.09		1	0.2	0.2	11.8	1.00				47,83,0,0
126	oks=16,m=13		0.06	0.04		1	0.2	0.2	15.2	1.00				115,99,0,0
127	oks=16,m=13		0.47	0.60		1	0.2	0.2	18.5	0.99				115,99,0,0
128	oks=16,m=13		0.44	0.72		1	0.3	0.3	20.3	0.99				74,111,0,0
129	oks=16,m=13		0.06	0.13		1	0.1	0.1	10.7	1.00				71,84,0,0
130	oks=16,m=13		0.42	0.68		1	0.3	0.3	23.4	0.98				73,111,0,0
131	oks=16,m=13		0.19	0.30		1	0.3	0.3	20.3	0.99				71,85,0,0
132	oks=16,m=13		0.47	0.77		1	0.2	0.2	18.5	0.99				103,111,0,0
133	oks=16,m=13		0.19	0.18		1	0.2	0.2	15.2	1.00				115,99,0,0
134	oks=16,m=13		0.19	0.17		1	0.2	0.2	15.2	1.00				115,99,0,0
135	oks=16,m=13		0.06	0.04		1	0.2	0.2	15.2	1.00				115,99,0,0
136	oks=16,m=13		0.05	0.42		1	0.2	0.2	18.5	0.99				103,99,0,0
137	oks=16,m=13		0.07	0.43		1	0.2	0.2	18.5	0.99				115,99,0,0
138	oks=16,m=13		0.19	0.36		1	0.2	0.2	18.5	0.99				115,111,0,0
139	oks=16,m=13		0.18	0.31		1	0.2	0.2	18.5	0.99				103,99,0,0
140	oks=16,m=13		0.31	0.25		1	0.2	0.2	18.5	0.99				103,74,0,0
141	oks=16,m=13		0.32	0.24		1	0.2	0.2	18.5	0.99				115,89,0,0
142	oks=16,m=13		0.32	0.26		1	0.2	0.2	18.5	0.99				115,88,0,0
143	oks=16,m=13		0.31	0.25		1	0.2	0.2	18.5	0.99				103,74,0,0
144	oks=16,m=13		0.18	0.31		1	0.2	0.2	18.5	0.99				103,99,0,0
145	oks=16,m=13		0.19	0.36		1	0.2	0.2	18.5	0.99				115,111,0,0
146	oks=16,m=13		0.07	0.43		1	0.2	0.2	18.5	0.99				115,99,0,0
147	oks=16,m=13		0.05	0.42		1	0.2	0.2	18.5	0.99				103,99,0,0
148	oks=16,m=13		0.47	0.77		1	0.2	0.2	18.5	0.99				103,111,0,0
149	oks=16,m=13		0.47	0.60		1	0.2	0.2	18.5	0.99				115,99,0,0
150	oks=16,m=13		0.14	0.37		1	0.3	0.3	20.3	0.99				50,111,0,0
151	oks=16,m=13		0.13	0.33		1	0.3	0.3	20.3	0.99				74,99,0,0
152	oks=16,m=13		0.44	0.55		1	0.3	0.3	20.3	0.99				50,99,0,0

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SOGGETTO PROPONENTE



SMARTENERGY

SMARTENERGYIT2111 S.R.L.

Comune di Gravina in Puglia (BA) - Località Masseria Pellicciari
 Progetto per la realizzazione di un Nuovo Impianto Agrivoltaico e delle relative opere di
 connessione alla RTN
 Potenza nominale 35,09 MW

PROGETTO DEFINITIVO

Relazione di calcolo preliminare delle strutture

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153	oks=16,m=13	0.27	0.18	1	0.3	0.3	20.3	0.99					74,123,0,0
154	oks=16,m=13	0.28	0.20	1	0.3	0.3	20.3	0.99					50,111,0,0
155	oks=16,m=13	6.77e-03	0.38	1	0.3	0.3	20.3	0.99					50,111,0,0
156	oks=16,m=13	0.19	0.35	1	0.3	0.3	20.3	0.99					71,84,0,0
157	oks=16,m=13	6.77e-03	0.38	1	0.3	0.3	20.3	0.99					50,111,0,0
158	oks=16,m=13	0.28	0.20	1	0.3	0.3	20.3	0.99					50,111,0,0
159	oks=16,m=13	0.27	0.17	1	0.3	0.3	20.3	0.99					74,73,0,0
160	oks=16,m=13	0.44	0.55	1	0.3	0.3	20.3	0.99					50,99,0,0
161	oks=16,m=13	0.13	0.33	1	0.3	0.3	20.3	0.99					74,99,0,0
162	oks=16,m=13	0.14	0.37	1	0.3	0.3	20.3	0.99					50,111,0,0
163	oks=16,m=13	0.44	0.72	1	0.3	0.3	20.3	0.99					74,111,0,0
168	oks=16,m=13	0.06	0.12	1	0.1	0.1	10.7	1.00					71,85,0,0
169	oks=16,m=13	0.03	0.06	1	1.17e-02	1.17e-02	0.9	1.00					84,53,0,0
170	oks=16,m=13	0.03	0.06	1	1.17e-02	1.17e-02	0.9	1.00					85,53,0,0
171	oks=16,m=13	0.03	0.08	1	0.2	0.2	11.8	1.00					47,86,0,0

Trave	V V/T	V N/M	V stab	LamS 22	LamS 33	Snell.	Chi mn	V flst	LamS LT	Chi LT
	0.47	0.77		0.31	0.31	23.41	0.98			

Pilas.	Stato	Note	V V/T	V N/M	V stab	CI.LamS 22	LamS 33	Snell.	Chi mn	V flst	LamS LT	Chi LT	Rif. cmb	
119	oks=15,m=13		0.04	0.82	0.49	1	1.5	0.9	118.1	0.30	0.52	0.3	1.00	48,49,95,48
120	oks=15,m=13		0.05	0.65	0.42	1	1.5	0.9	118.1	0.30	0.48	0.3	1.00	74,50,31,50
121	oks=15,m=13		0.04	0.69	0.45	1	1.5	0.9	118.1	0.30	0.51	0.3	1.00	49,50,95,49
122	oks=15,m=13		0.05	0.48	0.36	1	1.5	0.9	118.1	0.30	0.48	0.3	1.00	73,49,95,49
123	oks=15,m=13		0.04	0.69	0.45	1	1.5	0.9	118.1	0.30	0.51	0.3	1.00	49,50,95,49
124	oks=15,m=13		0.05	0.65	0.42	1	1.5	0.9	118.1	0.30	0.48	0.3	1.00	74,50,31,50
125	oks=15,m=13		0.04	0.82	0.49	1	1.5	0.9	118.1	0.30	0.52	0.3	1.00	48,49,95,48
172	oks=15,m=13		0.04	0.66	0.45	1	1.5	0.9	118.1	0.30	0.51	0.3	1.00	50,49,95,49
173	oks=15,m=13		0.04	0.66	0.45	1	1.5	0.9	118.1	0.30	0.51	0.3	1.00	50,49,95,49

Pilas.	V V/T	V N/M	V stab	LamS 22	LamS 33	Snell.	Chi mn	V flst	LamS LT	Chi LT
	0.05	0.82	0.49	1.55	0.92	118.08	0.30	0.52	0.29	1.00

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STATI LIMITE D' ESERCIZIO ACCIAIO

Legenda tabella stati limite d' esercizio acciaio

In tabella vengono riportati i valori di interesse per il controllo degli stati limite d'esercizio.

In particolare vengono riportati, per gli elementi trave, i risultati relativi alle combinazioni considerate (rare o caratteristiche).

I valori di interesse sono i seguenti:

f*1000/L	massima deformazione normalizzata in combinazioni rare
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Si precisa che i valori di massima deformazione per travi sono riferiti ai due piani locali (1-2 con momenti flettenti 3-3 e 1-3 con momenti flettenti 2-2). Il valore riportato (massimo) è espresso in 1000/L per rendere agevole il confronto di più valori e in particolare di più range di valori (ad esempio 2 rappresenta L/500, 4 L/250 e così via).

Trave	f*1000/L	Trave	f*1000/L	Trave	f*1000/L	Trave	f*1000/L	Trave	f*1000/L	Trave	f*1000/L	Trave	f*1000/L
105	2.4	106	6.9	107	6.0	108	3.6	109	7.2	110	1.1	111	1.1
112	7.2	113	3.6	114	6.0	115	6.9	116	2.4	117	4.5	118	1.2
126	6.4	127	6.8	128	3.9	129	1.0	130	4.5	131	1.2	132	4.7
133	7.2	134	6.4	135	7.1	136	3.5	137	2.4	138	6.9	139	7.7
140	8.8	141	9.1	142	9.1	143	8.8	144	7.7	145	6.9	146	2.6
147	3.5	148	4.7	149	6.8	150	4.5	151	5.6	152	5.8	153	7.5
154	7.5	155	1.7	156	1.2	157	1.5	158	7.5	159	7.5	160	5.8
161	5.6	162	4.5	163	3.9	168	1.1	169	1.3	170	1.3	171	1.2

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