

1

INTRODUCTION

Chapter 1 - Introduction

ES figure no.	Drawing title
1.1	Site Location
1.2	Planning Application Boundary
1.3	Infrastructure Layout
1.4	Wind turbine elevation
1.5	Control Building & Substation Compound Layout Plan
1.6	Control Building Elevations
1.7	Control Building and Substation Compound Elevations (12 Pages)
1.8	Energy Storage Compound Plan and Elevation
1.9	Typical Energy Storage Container Elevation
1.10	Site Entrance
1.11	Typical Access Track Design
1.12	Temporary Construction Compound Layout Plan
1.13	Temporary Construction Compound Elevation
1.14	Wind Turbine Foundation
1.15	Crane Hardstanding General Arrangement
1.16	Cross Section of Underground Cable Trench
1.17	Typical Drainage Details
1.18	Typical Water Crossing Design
1.19	Temporary Compound





**UNSHINAGH
WIND FARM**

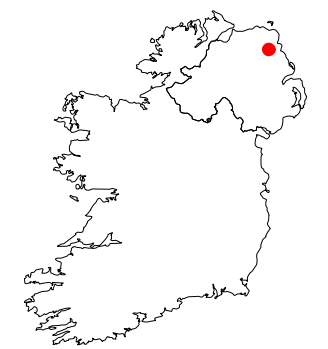
FIGURE 1.1

SITE LOCATION PLAN

THE LAND & PROPERTY SERVICES INTELLECTUAL PROPERTY IS CROWN COPYRIGHT AND IS REPRODUCED WITH THE PERMISSION OF LAND & PROPERTY SERVICES UNDER DELEGATED AUTHORITY FROM THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE. © CROWN COPYRIGHT AND DATABASE RIGHT 2021 LICENCE NO. 242.

KEY

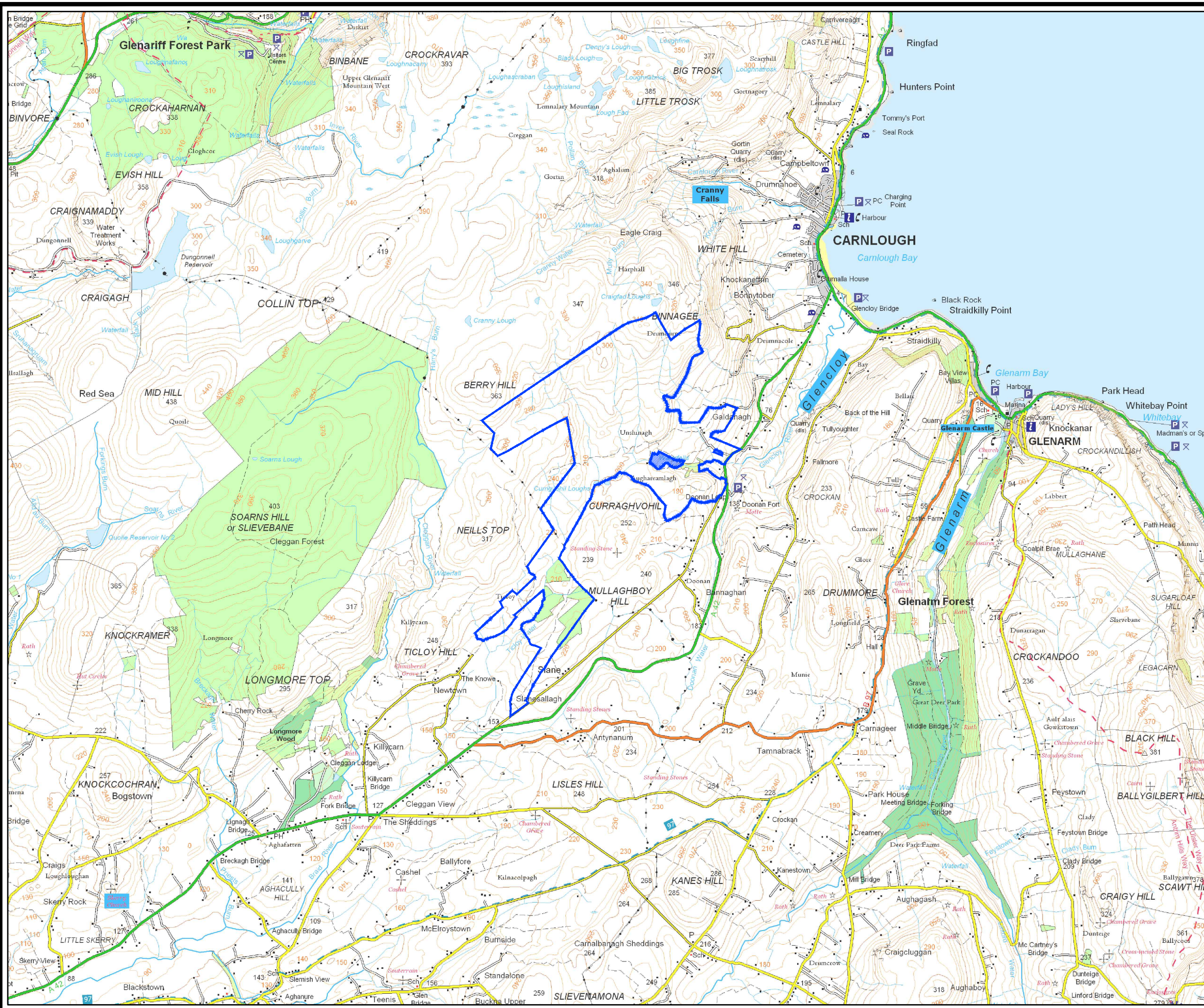
-  SITE LOCATION
-  LAND NOT INCLUDED



SITE LOCATION - NOT TO SCALE



LAYOUT DWG	N/A	T-LAYOUT NO.	N/A
DRAWING NUMBER	04291-RES-LAY-DR-LE-016		
SCALE - AS SHOWN @ A3			
ENVIRONMENTAL STATEMENT			
2021			
THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION			





UNSHINAGH WIND FARM

FIGURE 1.2

PLANNING APPLICATION BOUNDARY

THE LAND & PROPERTY SERVICES INTELLECTUAL PROPERTY IS CROWN COPYRIGHT AND IS REPRODUCED WITH THE PERMISSION OF LAND & PROPERTY SERVICES UNDER DELEGATED AUTHORITY FROM THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE. © CROWN COPYRIGHT AND DATABASE RIGHT 2021 LICENCE NO. 242.

KEY

- PLANNING APPLICATION BOUNDARY (OUTSIDE EDGE OF LINE DENOTES BOUNDARY)
- LANDOWNER'S BOUNDARIES (INSIDE EDGE OF LINE DENOTES BOUNDARY)
- AREA NOT INCLUDED



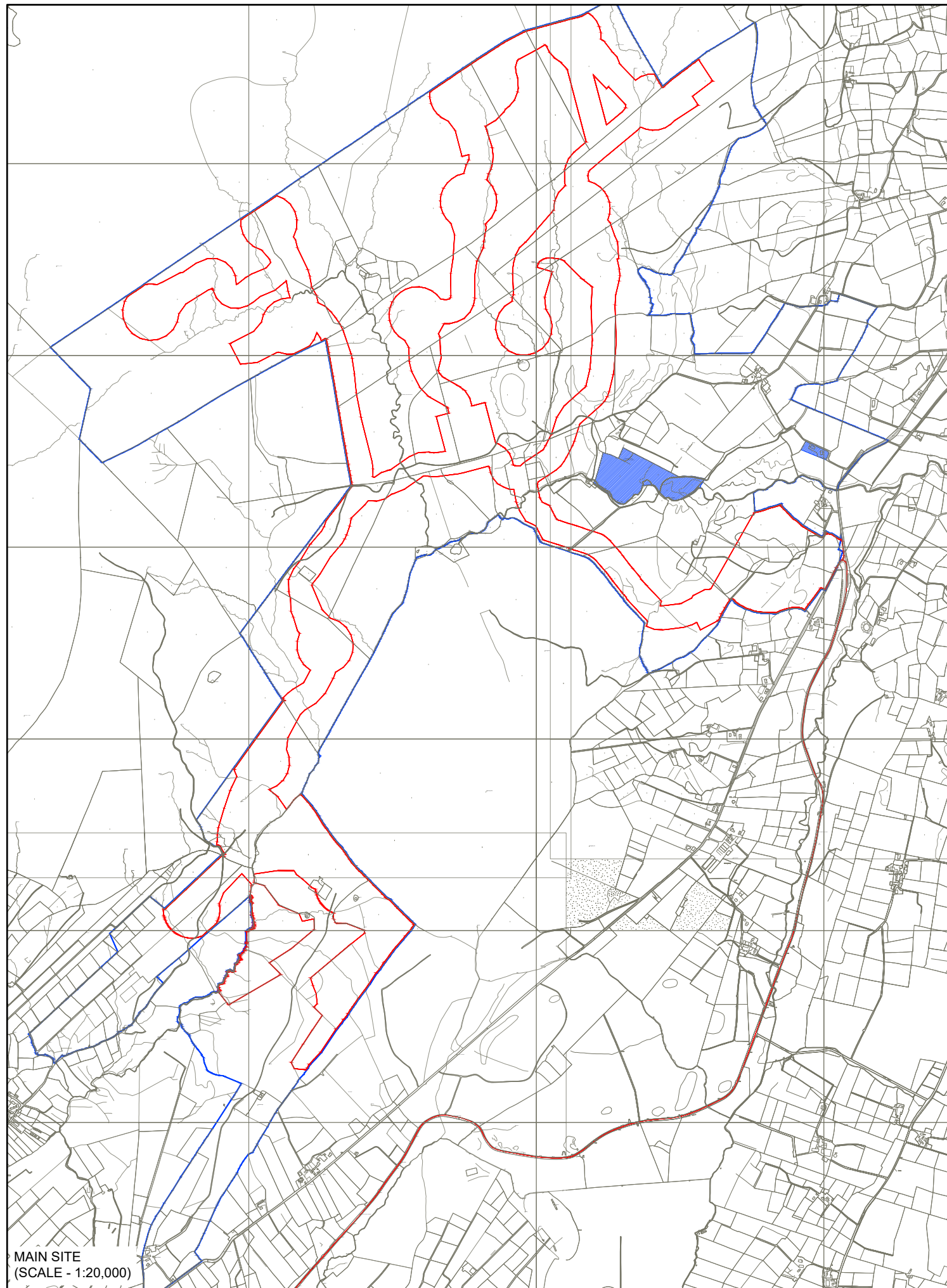
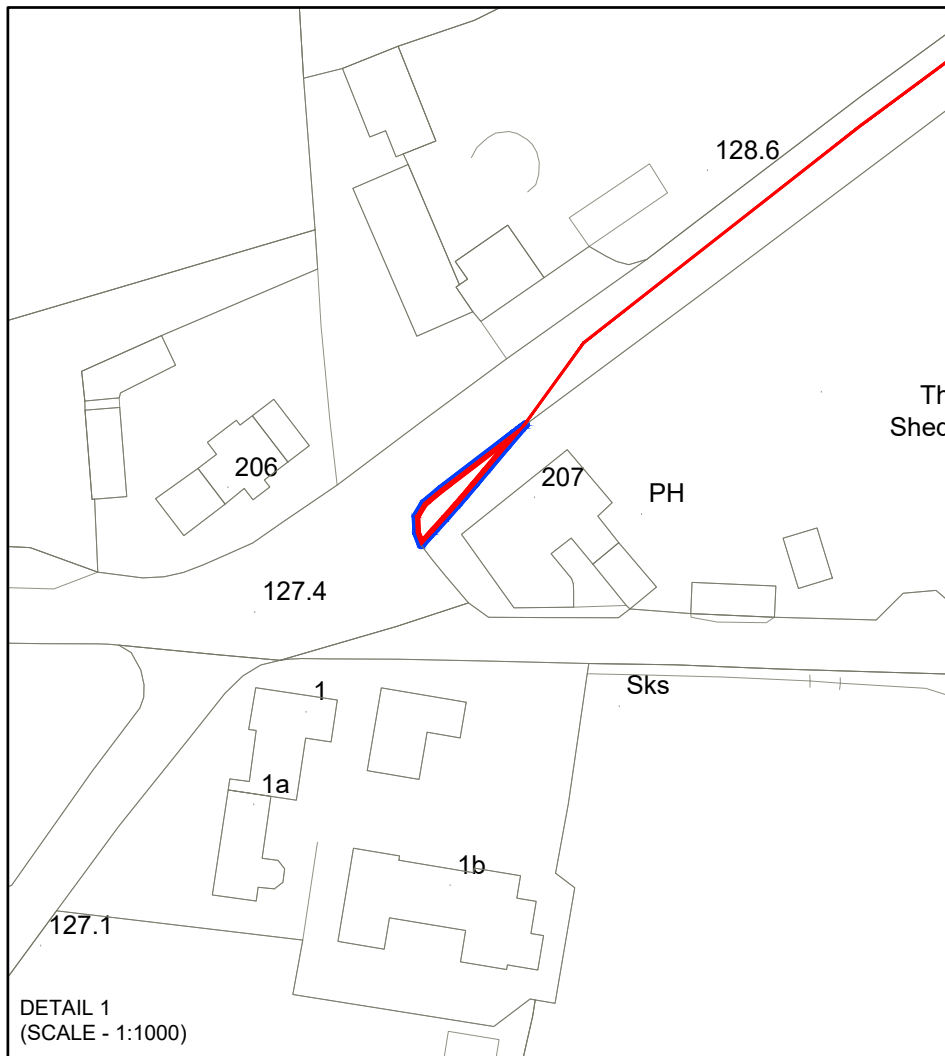
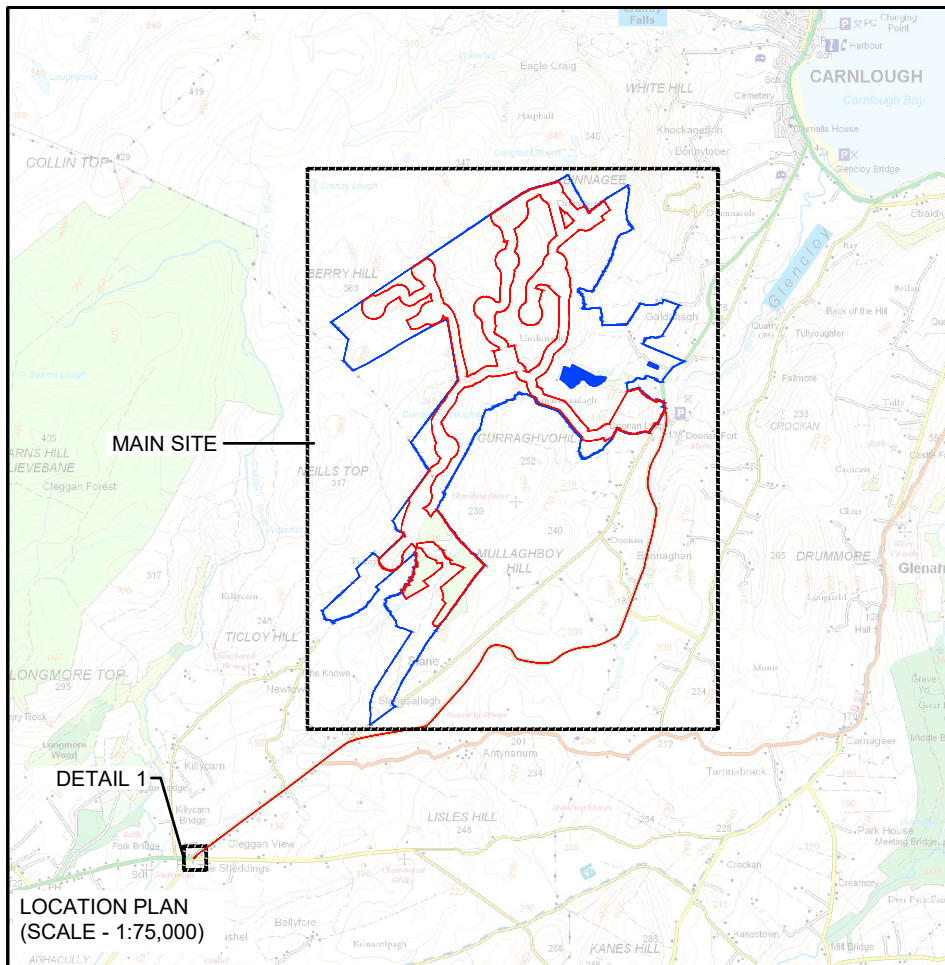
LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
04291-RES-LAY-DR-LE-018

SCALE - AS SHOWN @ A3

**ENVIRONMENTAL STATEMENT
2021**

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION





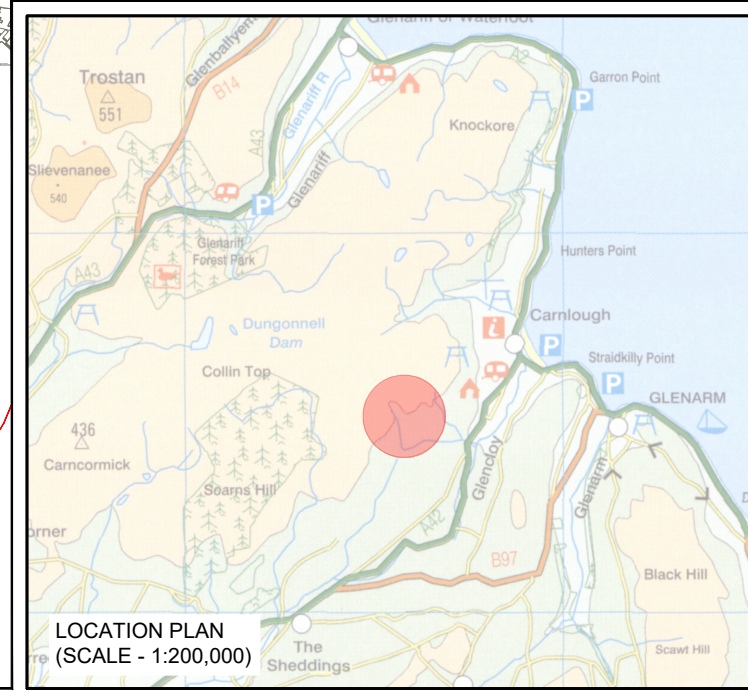
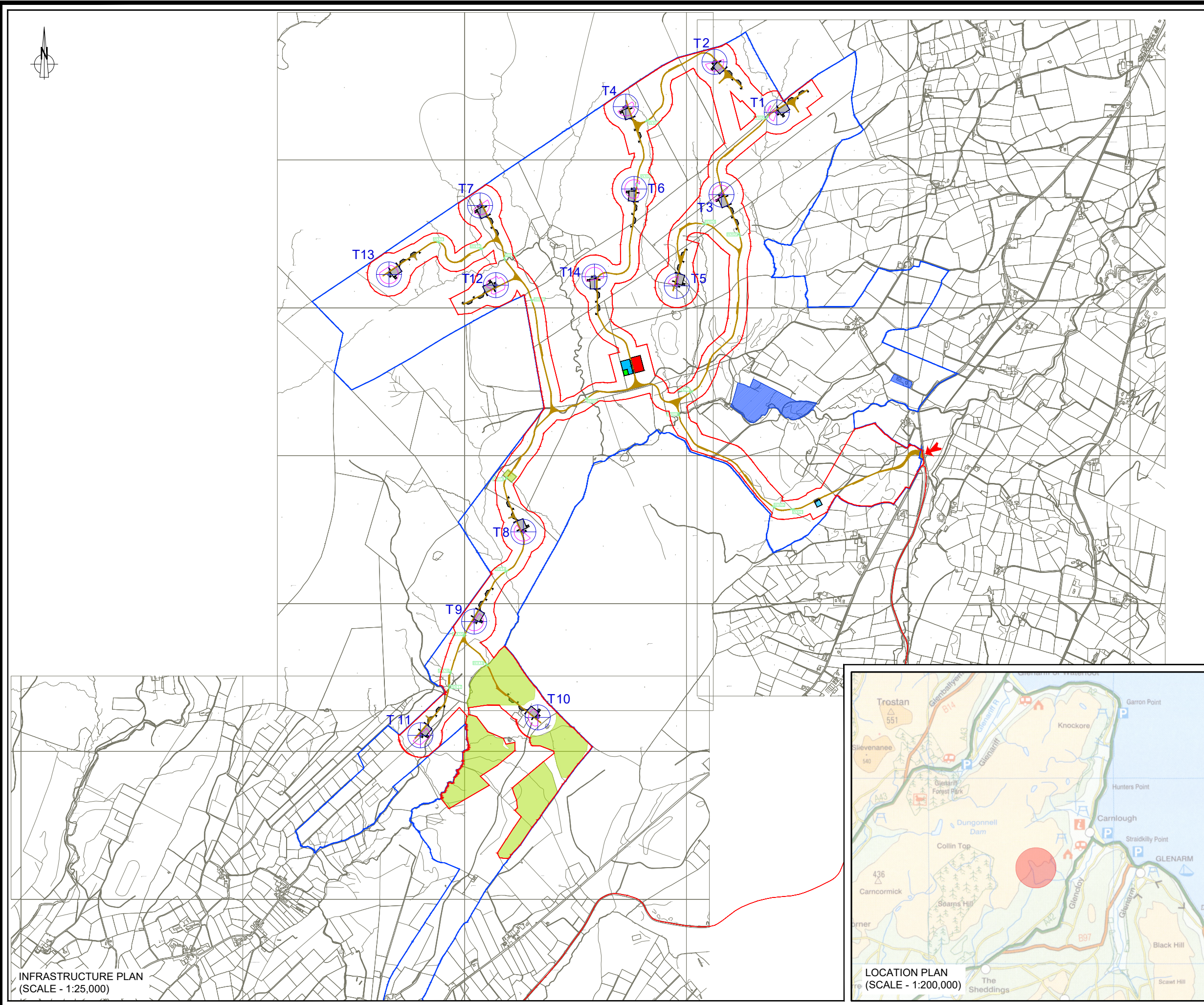
UNSHINAGH WIND FARM

FIGURE 1.3

INFRASTRUCTURE LAYOUT

THE LAND & PROPERTY SERVICES INTELLECTUAL PROPERTY IS CROWN COPYRIGHT AND IS REPRODUCED WITH THE PERMISSION OF LAND & PROPERTY SERVICES UNDER DELEGATED AUTHORITY FROM THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE. © CROWN COPYRIGHT AND DATABASE RIGHT 2021 LICENCE NO. 242.

- KEY**
- PLANNING APPLICATION BOUNDARY
 - LAND UNDER APPLICANTS CONTROL
 - LAND NOT INCLUDED
 - ⊕ WIND TURBINE LOCATION
 - ⊕ TURBINE MICROSITING
 - NEW SITE TRACKS
 - WATERCOURSE CROSSING
 - ⊕ CRANE HARDSTANDING AREA
 - PERMANENT
 - TEMPORARY
 - TEMPORARY CONSTRUCTION COMPOUND
 - ENERGY STORAGE COMPOUND
 - TEMPORARY ENABLING WORKS COMPOUND
 - WATERLESS WHEEL WASH
 - CONTROL BUILDING & SUBSTATION COMPOUND WITH PERMANENT HARDSTANDING AREA
 - ➔ SITE ENTRANCE LOCATION
 - FORESTRY TO BE REMOVED



INFRASTRUCTURE PLAN
(SCALE - 1:25,000)

LOCATION PLAN
(SCALE - 1:200,000)

LAYOUT DWG N/A T-LAYOUT NO. PNIRuns024

DRAWING NUMBER
04291-RES-LAY-DR-PE-001

SCALE - AS SHOWN @ A3

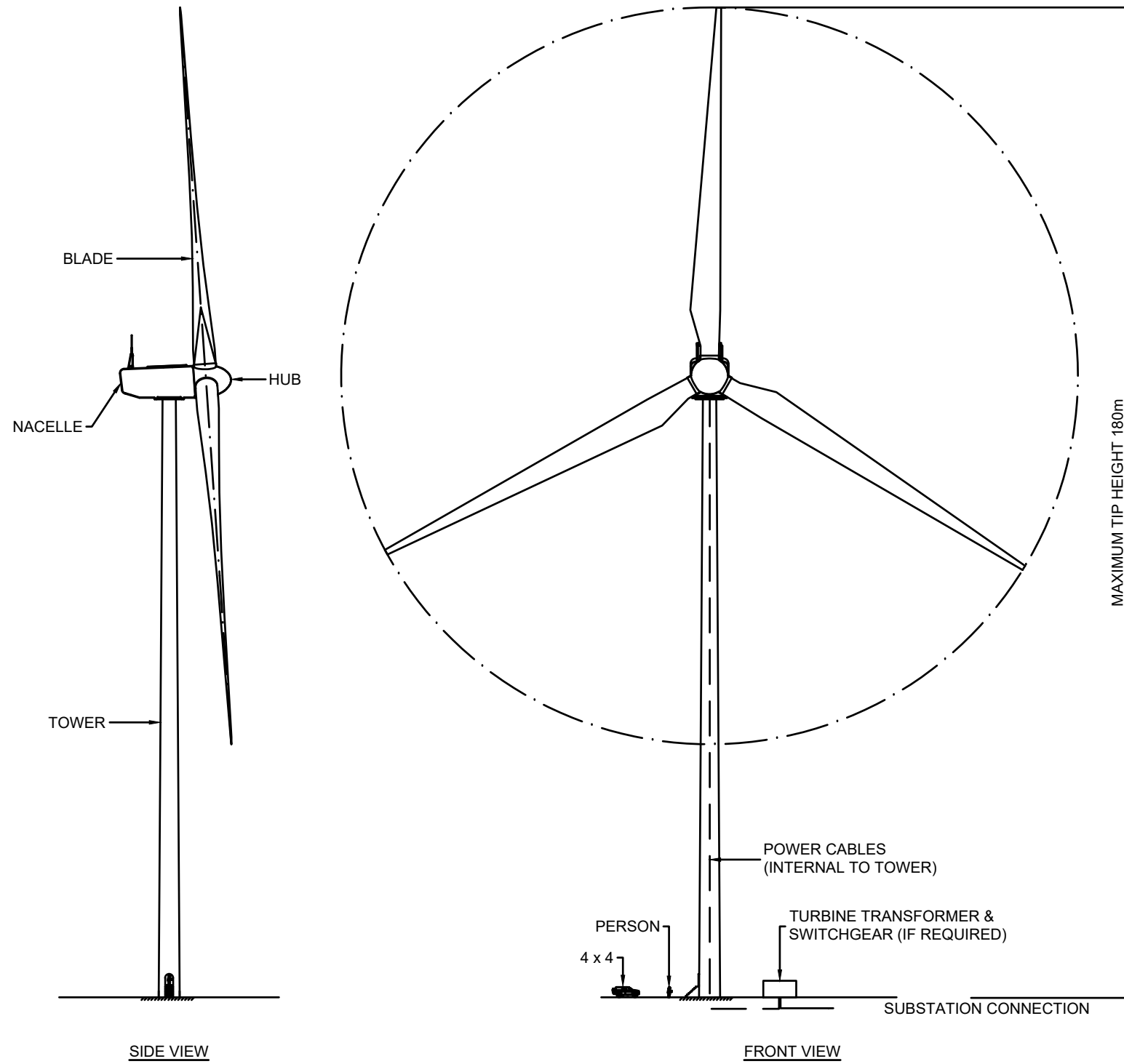
**ENVIRONMENTAL STATEMENT
2021**

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION



**UNSHINAGH
WIND FARM**

**FIGURE 1.4
TURBINE ELEVATION**



PHOTOGRAPH OF TYPICAL TURBINE

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
04291-RES-WTG-DR-PT-001

SCALE - **1:1000 @ A3**

**ENVIRONMENTAL STATEMENT
2021**

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION



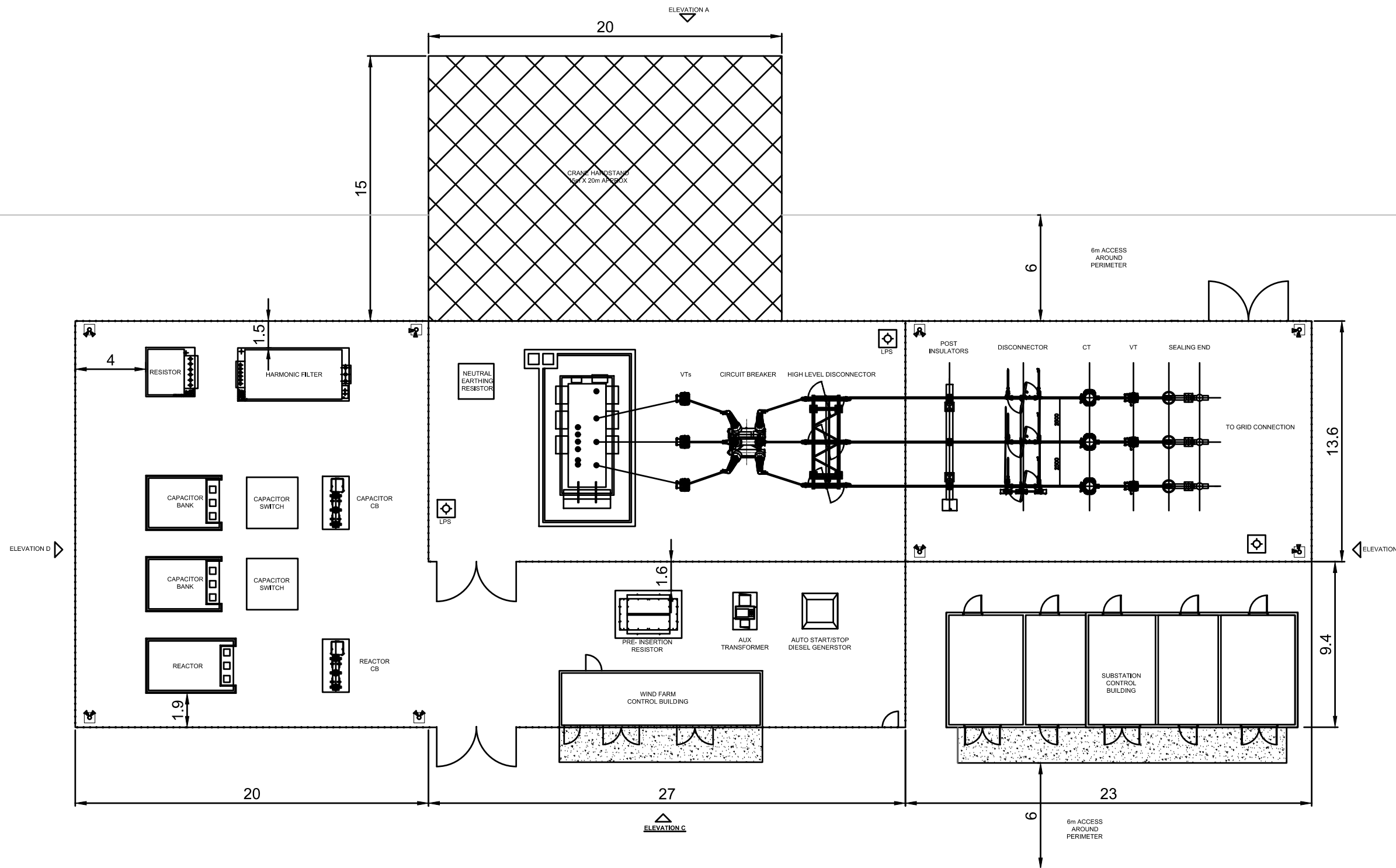
**UNSHINAGH
WIND FARM**

FIGURE 1.5

**CONTROL BUILDING
AND COMPOUND
LAYOUT PLAN**

NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
3. THIS DRAWING IS BASED ON 04291-RES-LAY-DR-EE-001



LAYOUT DWG	N/A	T-LAYOUT NO.	N/A
------------	-----	--------------	-----

DRAWING NUMBER
04291-RES-LAY-DR-PT-001

SCALE - **1:250 @ A3**

**ENVIRONMENTAL STATEMENT
2021**

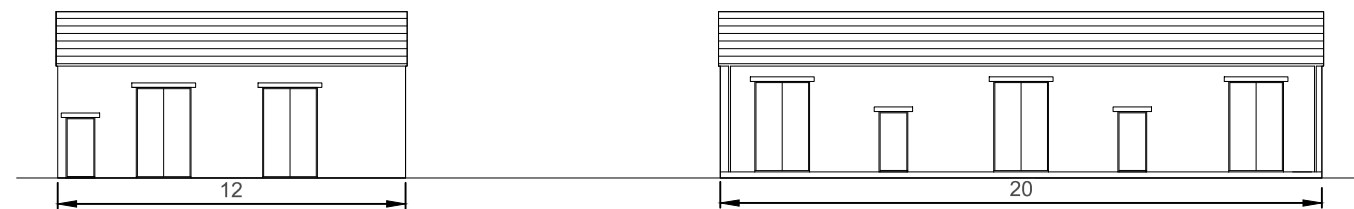
THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION



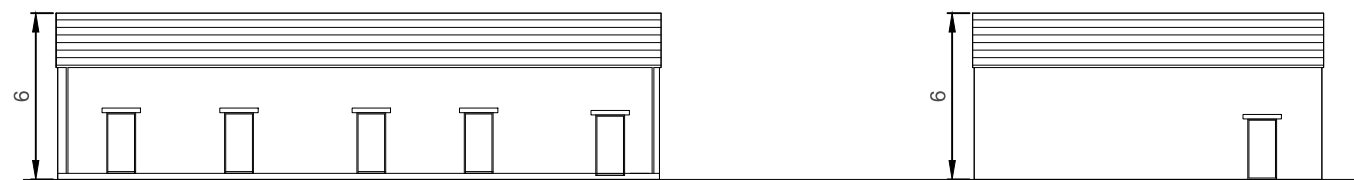
**UNSHINAGH
WIND FARM**

FIGURE 1.6

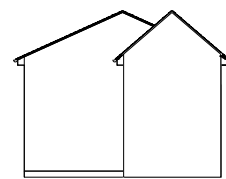
**CONTROL BUILDING
ELEVATIONS**



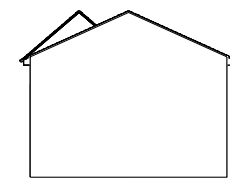
WIND FARM CONTROL BUILDING
ELEVATION C
SCALE 1:250



SUBSTATION CONTROL BUILDING
ELEVATION A
SCALE 1:250



WIND FARM CONTROL BUILDING
ELEVATION D
SCALE 1:250



WIND FARM CONTROL BUILDING
ELEVATION B
SCALE 1:250

NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.

LAYOUT DWG	N/A	T-LAYOUT NO.	N/A
DRAWING NUMBER	04291-RES-SUB-DR-PT-001		
SCALE	1:250 @ A3		
ENVIRONMENTAL STATEMENT 2021			
THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION			



UNSHINAGH WIND FARM

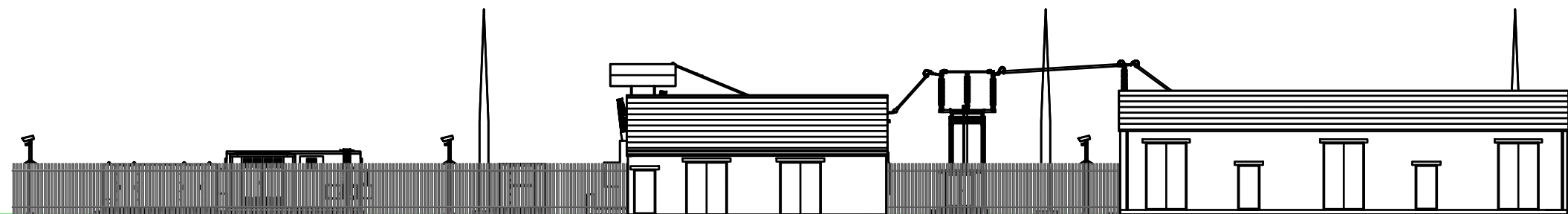
FIGURE 1.7

CONTROL BUILDING AND SUBSTATION ELEVATIONS

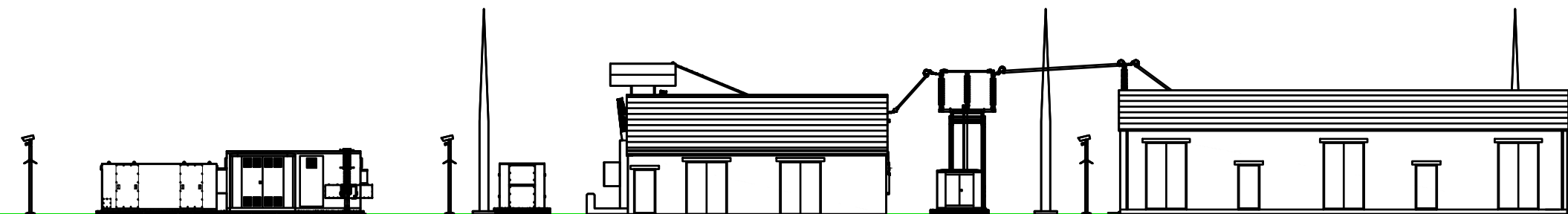
NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
3. THIS DRAWING IS BASED ON 04291-RES-SUB-DR-EE-002

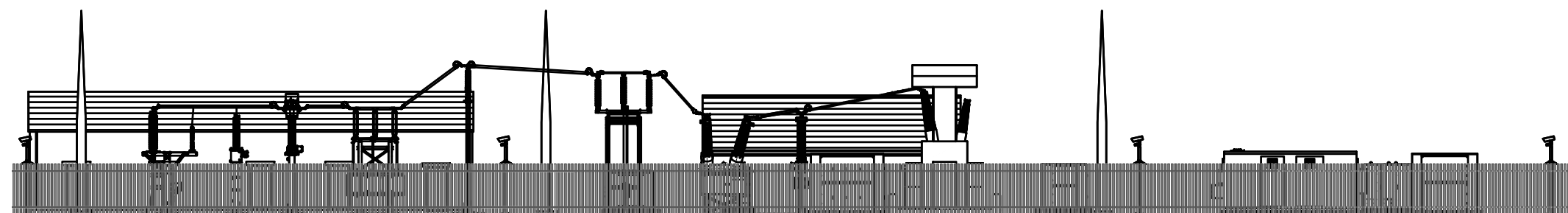
COMPOUND ELEVATIONS
SHEET 1 OF 22.



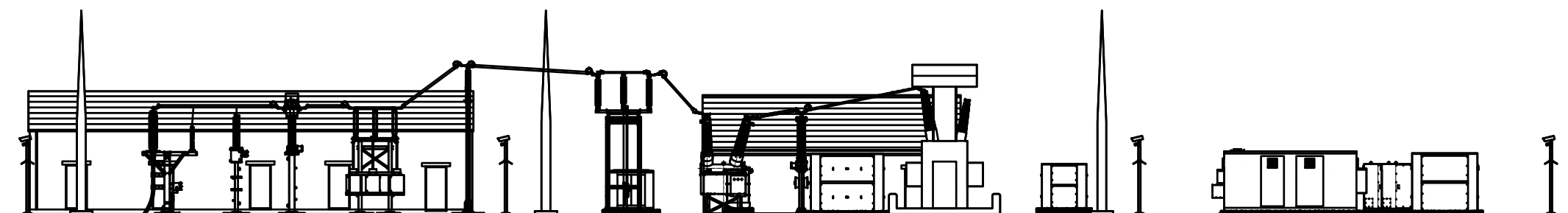
SUBSTATION COMPOUND ELEVATION C
SCALE 1:250



SUBSTATION COMPOUND ELEVATION C
(WITHOUT FENCE)
SCALE 1:250



SUBSTATION COMPOUND ELEVATION A
SCALE 1:250



SUBSTATION COMPOUND ELEVATION A
(WITHOUT FENCE)
SCALE 1:250

LAYOUT DWG	N/A	T-LAYOUT NO.	N/A
DRAWING NUMBER	04291-RES-SUB-DR-PT-002		
SCALE	1:250 @ A3		
ENVIRONMENTAL STATEMENT 2021			
THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION			



**UNSHINAGH
WIND FARM**

FIGURE 1.7

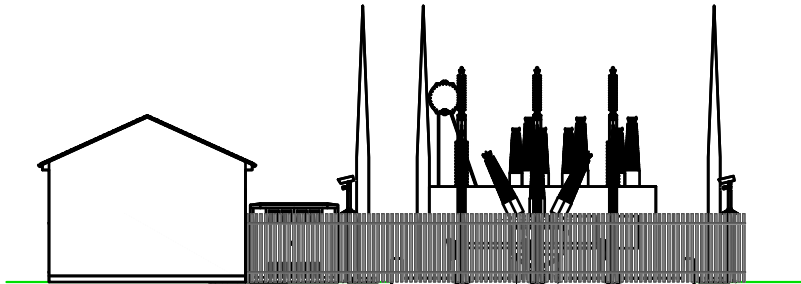
**CONTROL BUILDING
AND SUBSTATION
ELEVATIONS**

NOTES

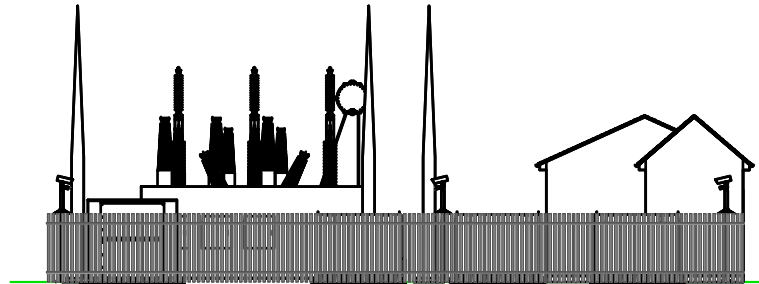
1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
3. THIS DRAWING IS BASED ON 04291-RES-SUB-DR-EE-002

COMPOUND ELEVATIONS
SHEET 2 OF 22.

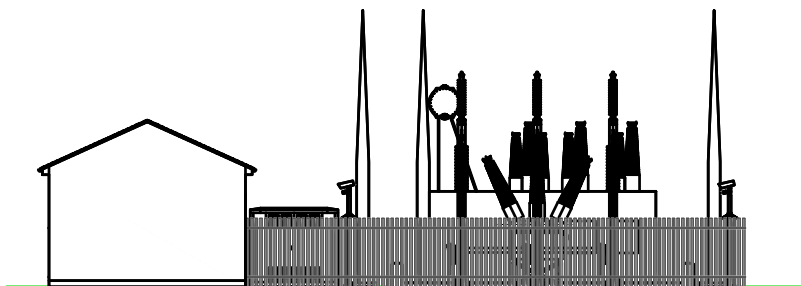
SUBSTATION COMPOUND ELEVATION B
SCALE 1:250



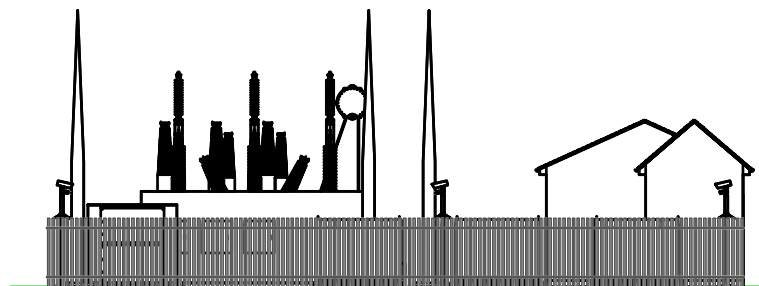
SUBSTATION COMPOUND ELEVATION D
SCALE 1:250



SUBSTATION COMPOUND ELEVATION B
(WITHOUT FENCE)
SCALE 1:250



SUBSTATION COMPOUND ELEVATION D
(WITHOUT FENCE)
SCALE 1:250



LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
04291-RES-SUB-DR-PT-002

SCALE - **1:250 @ A3**

**ENVIRONMENTAL STATEMENT
2021**

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION



**UNSHINAGH
WIND FARM**

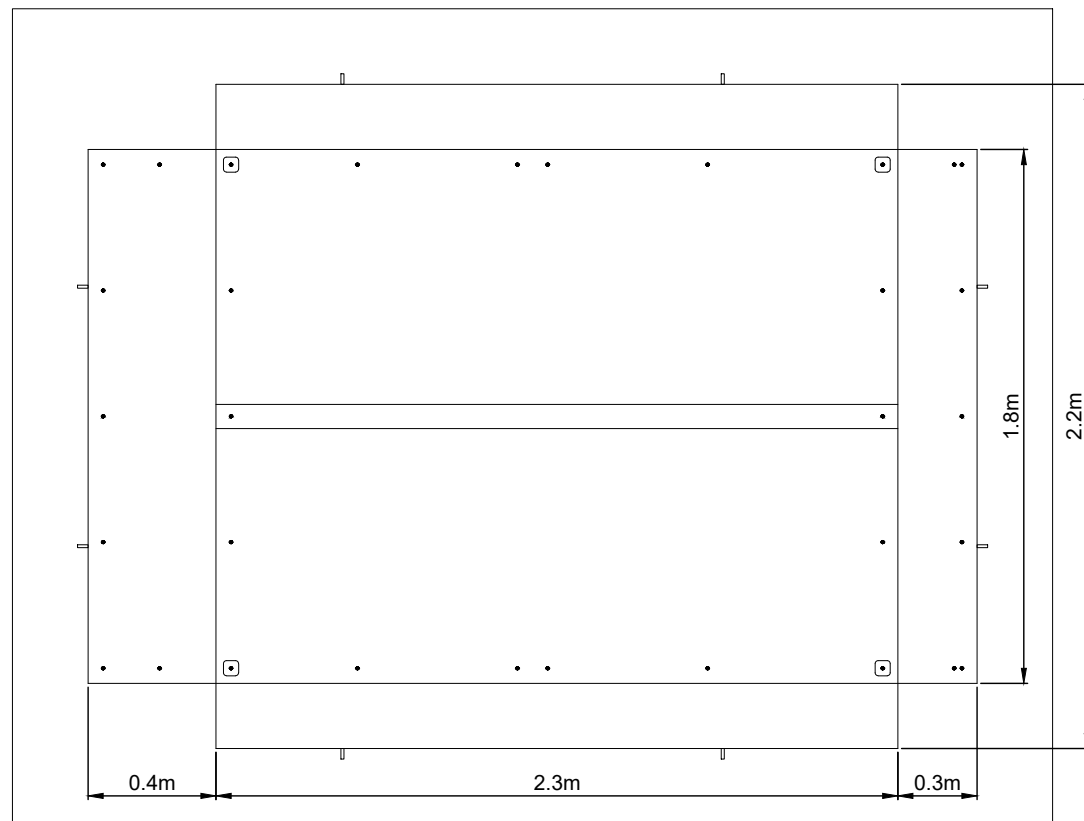
FIGURE 1.7

**CONTROL BUILDING
AND SUBSTATION
ELEVATIONS**

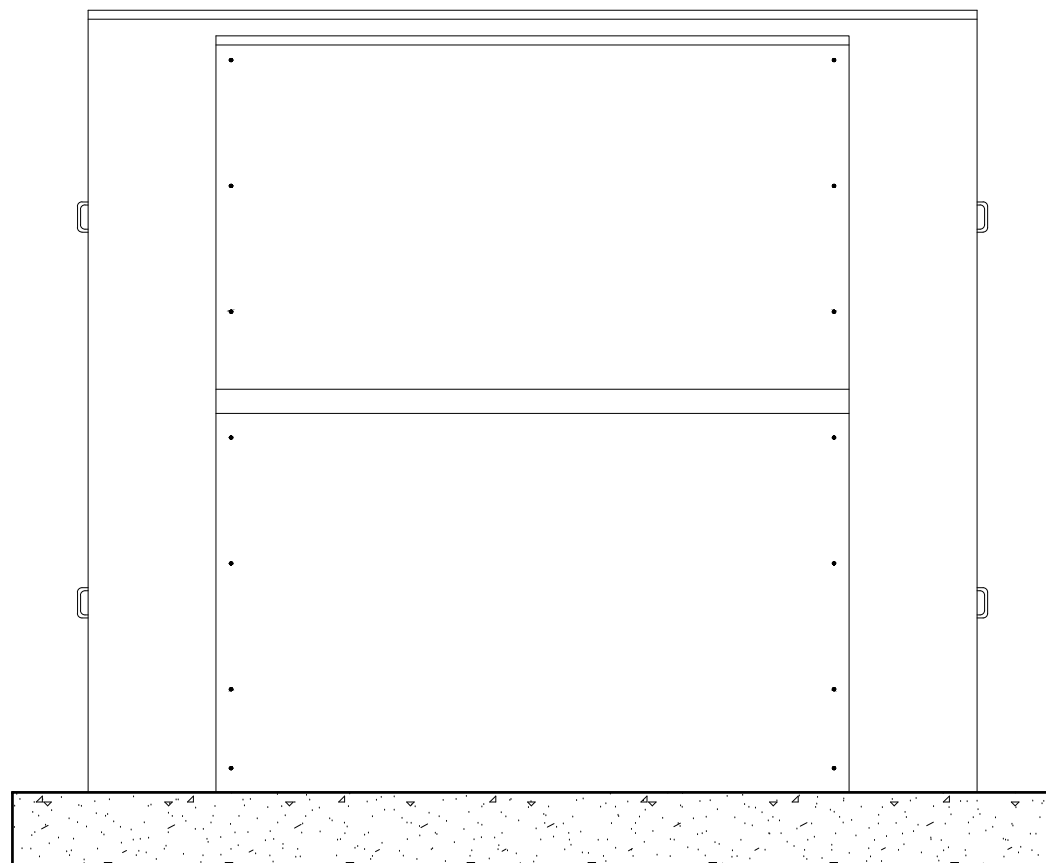
NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
3. THIS DRAWING IS BASED ON 04291-RES-SUB-DR-EE-002

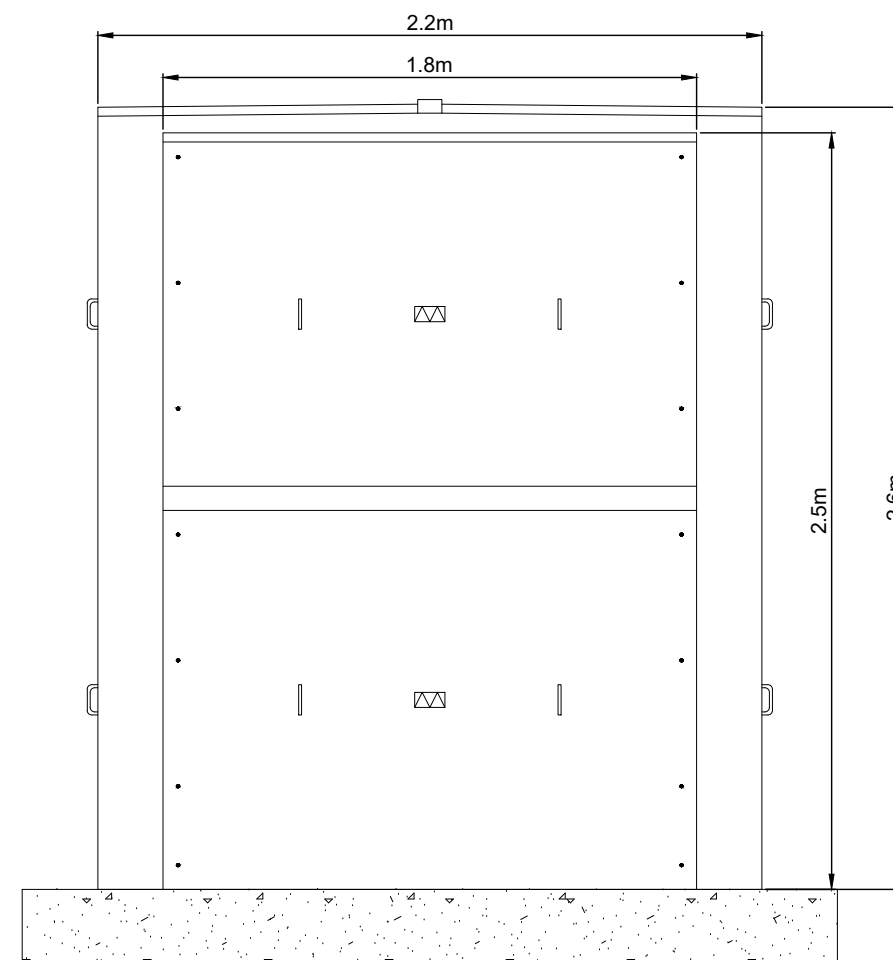
INDICATIVE RESISTOR
SHEET 3 OF 22.



INDICATIVE RESISTOR - PLAN VIEW
SCALE - 1:25



INDICATIVE RESISTOR - FRONT ELEVATION
SCALE - 1:25



INDICATIVE RESISTOR - SIDE ELEVATION
SCALE - 1:25

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
04291-RES-SUB-DR-PT-002

SCALE - 1:25 @ A3

**ENVIRONMENTAL STATEMENT
2021**

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION



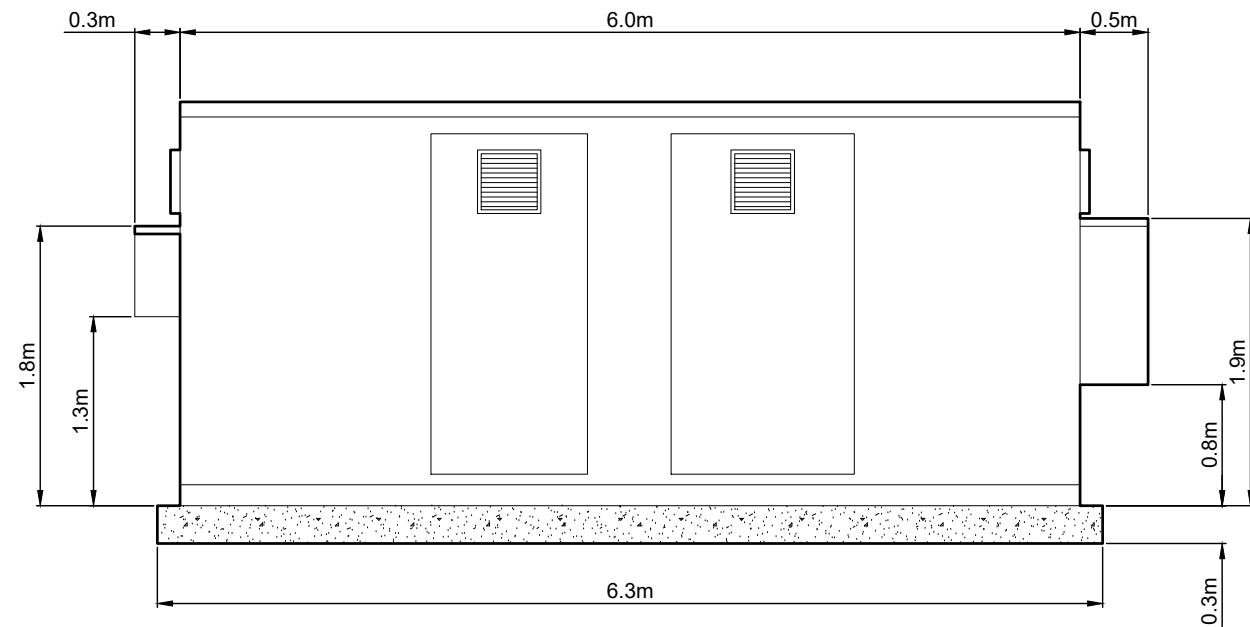
**UNSHINAGH
WIND FARM**

FIGURE 1.7

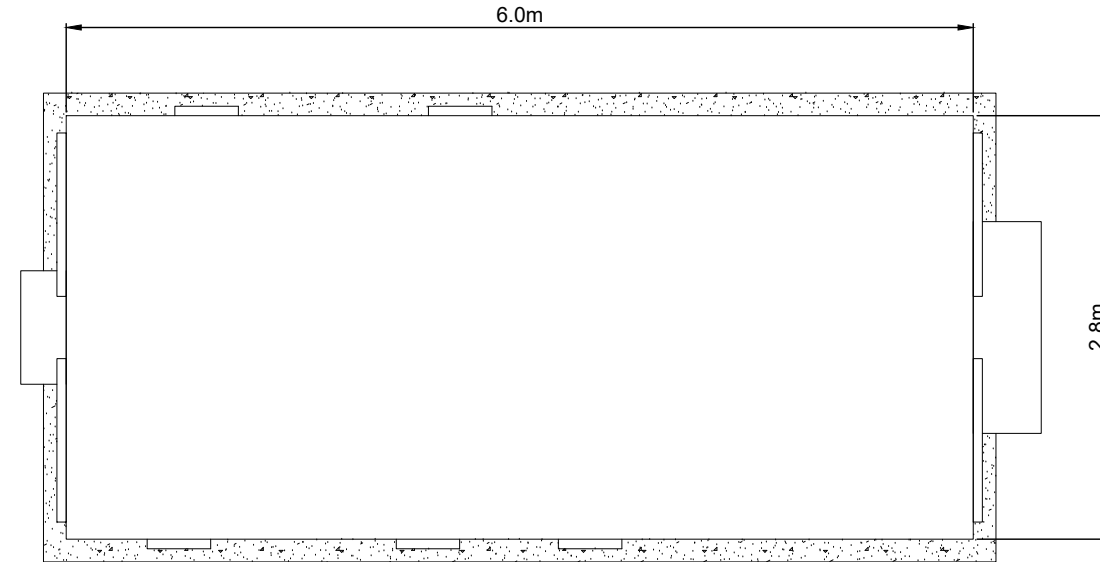
**CONTROL BUILDING
AND SUBSTATION
ELEVATIONS**

NOTES

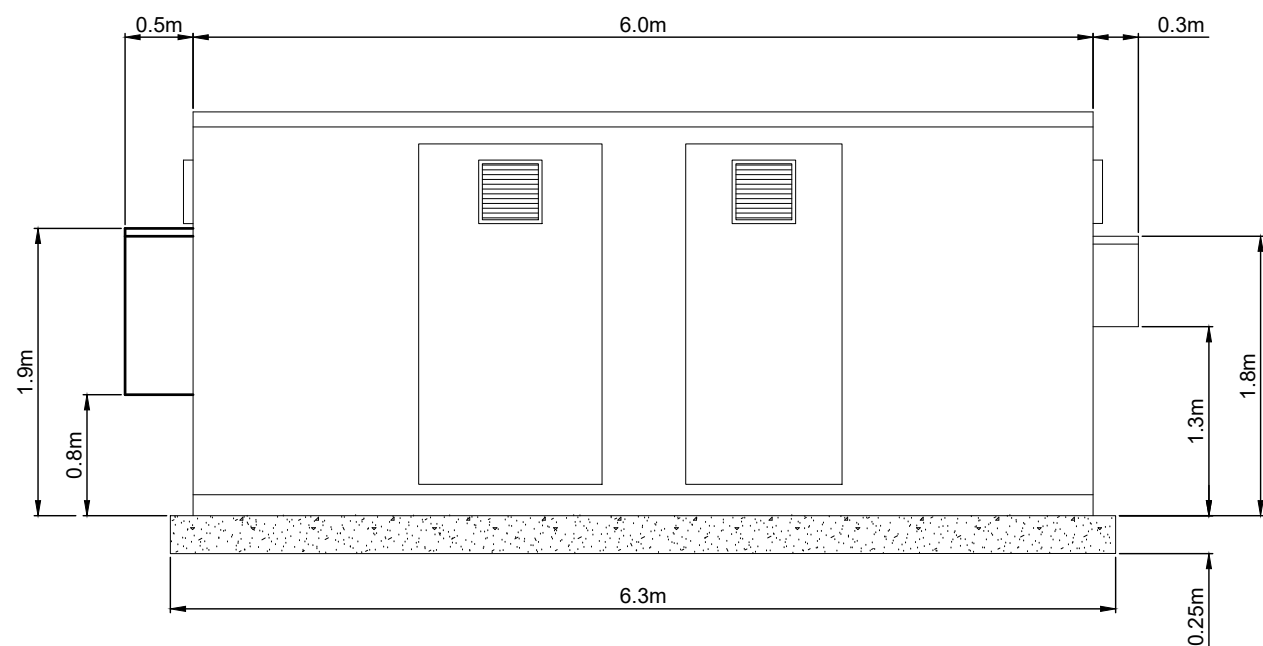
1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
3. THIS DRAWING IS BASED ON 04291-RES-SUB-DR-EE-002



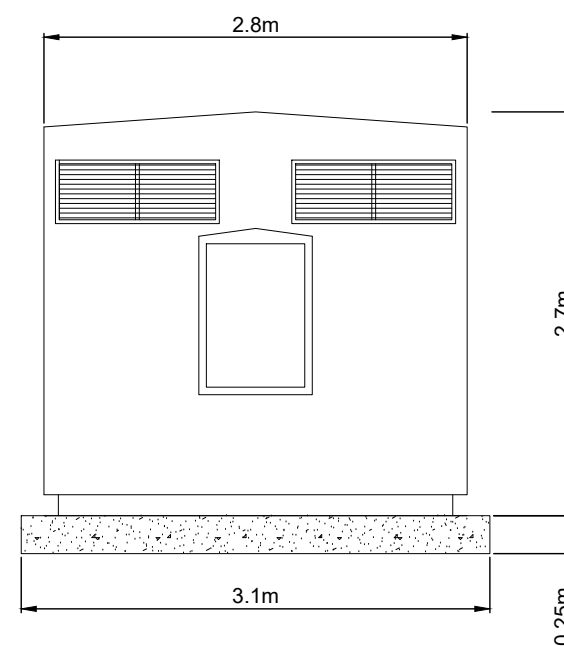
INDICATIVE HARMONIC FILTER - FRONT ELEVATION
SCALE - 1:50



INDICATIVE HARMONIC FILTER - PLAN VIEW
SCALE - 1:50



INDICATIVE HARMONIC FILTER - REAR ELEVATION
SCALE - 1:50



INDICATIVE HARMONIC FILTER - SIDE ELEVATION
SCALE - 1:50

**INDICATIVE HARMONIC
FILTER
SHEET 4 OF 22.**

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
04291-RES-SUB-DR-PT-002

SCALE - 1:50 @ A3

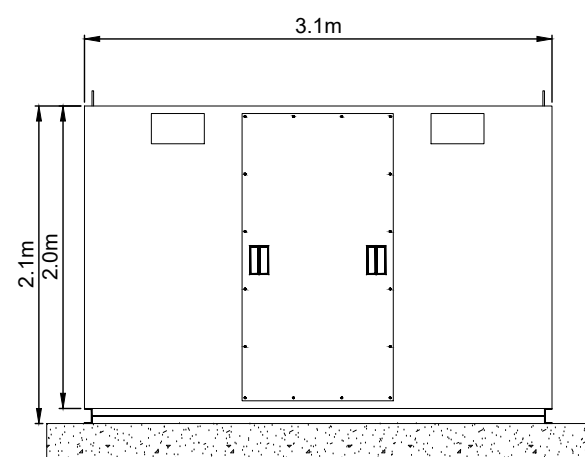
**ENVIRONMENTAL STATEMENT
2021**

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION

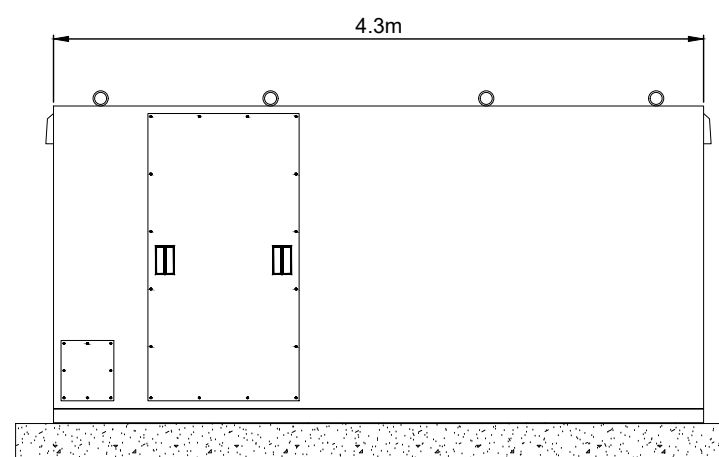
**UNSHINAGH
WIND FARM**

FIGURE 1.7

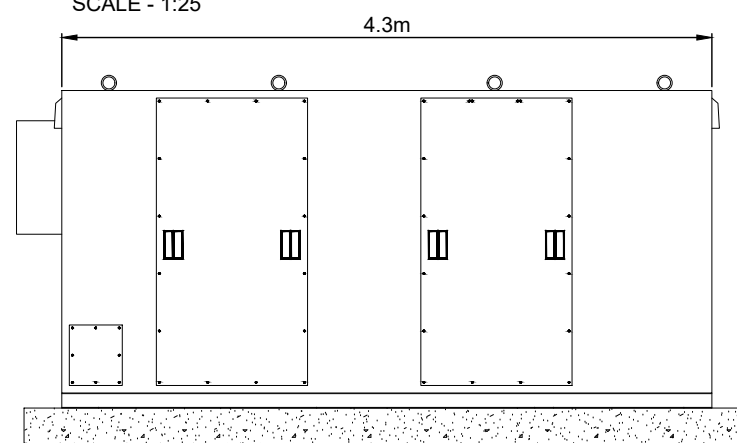
**CONTROL BUILDING
AND SUBSTATION
ELEVATIONS**



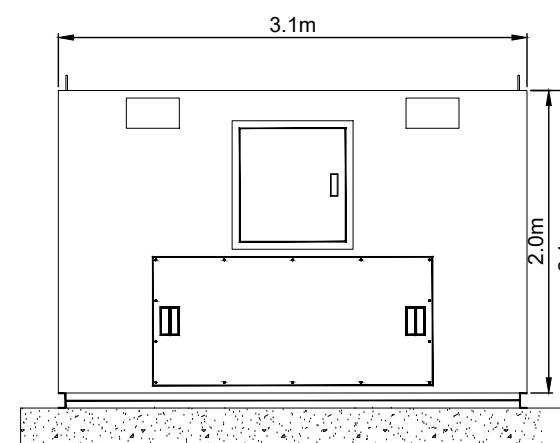
INDICATIVE CAPACITOR BANK - EXTERNAL LHS
SCALE - 1:25



INDICATIVE CAPACITOR BANK - EXTERNAL FRONT
SCALE - 1:25



INDICATIVE CAPACITOR BANK - EXTERNAL REAR
SCALE - 1:25



INDICATIVE CAPACITOR BANK - EXTERNAL RHS
SCALE - 1:25

NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
3. THIS DRAWING IS BASED ON 04291-RES-SUB-DR-EE-002

**INDICATIVE CAPACITOR
BANK**
SHEET 5 OF 22.

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
04291-RES-SUB-DR-PT-002

SCALE - 1:25 @ A3

**ENVIRONMENTAL STATEMENT
2021**

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION

**UNSHINAGH
WIND FARM**

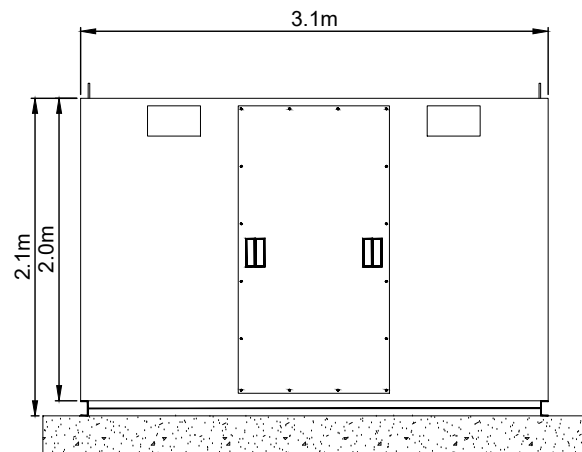
FIGURE 1.7

**CONTROL BUILDING
AND SUBSTATION
ELEVATIONS**

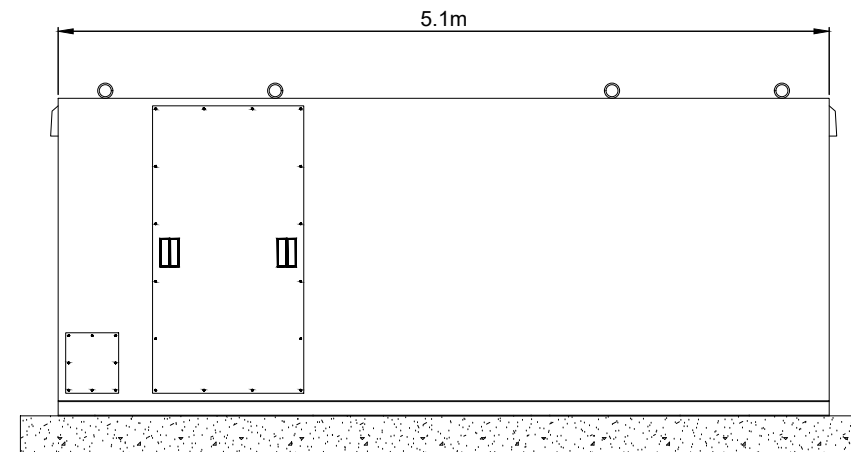
NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
3. THIS DRAWING IS BASED ON 04291-RES-SUB-DR-EE-002

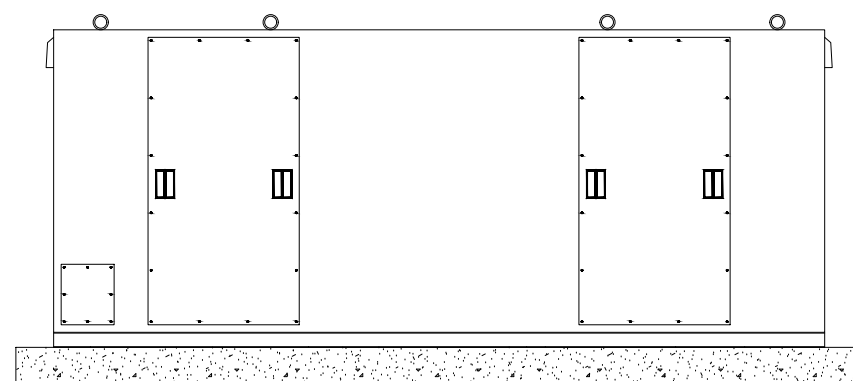
INDICATIVE REACTOR
SHEET 6 OF 22.



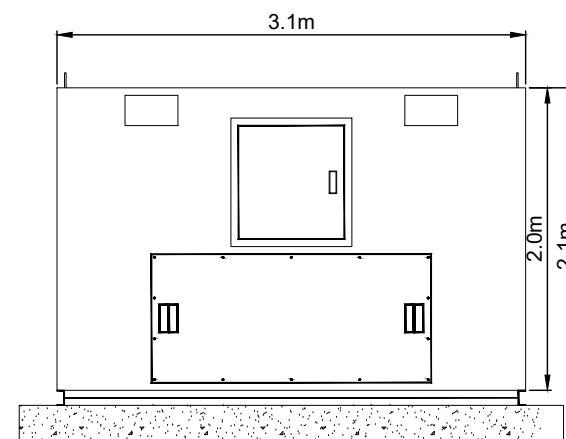
INDICATIVE REACTOR - EXTERNAL LHS
SCALE - 1:25



INDICATIVE REACTOR - EXTERNAL FRONT
SCALE - 1:25



INDICATIVE REACTOR - EXTERNAL REAR
SCALE - 1:25



INDICATIVE REACTOR - EXTERNAL RHS
SCALE - 1:25

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
04291-RES-SUB-DR-PT-002

SCALE - 1:25 @ A3

**ENVIRONMENTAL STATEMENT
2021**

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION



**UNSHINAGH
WIND FARM**

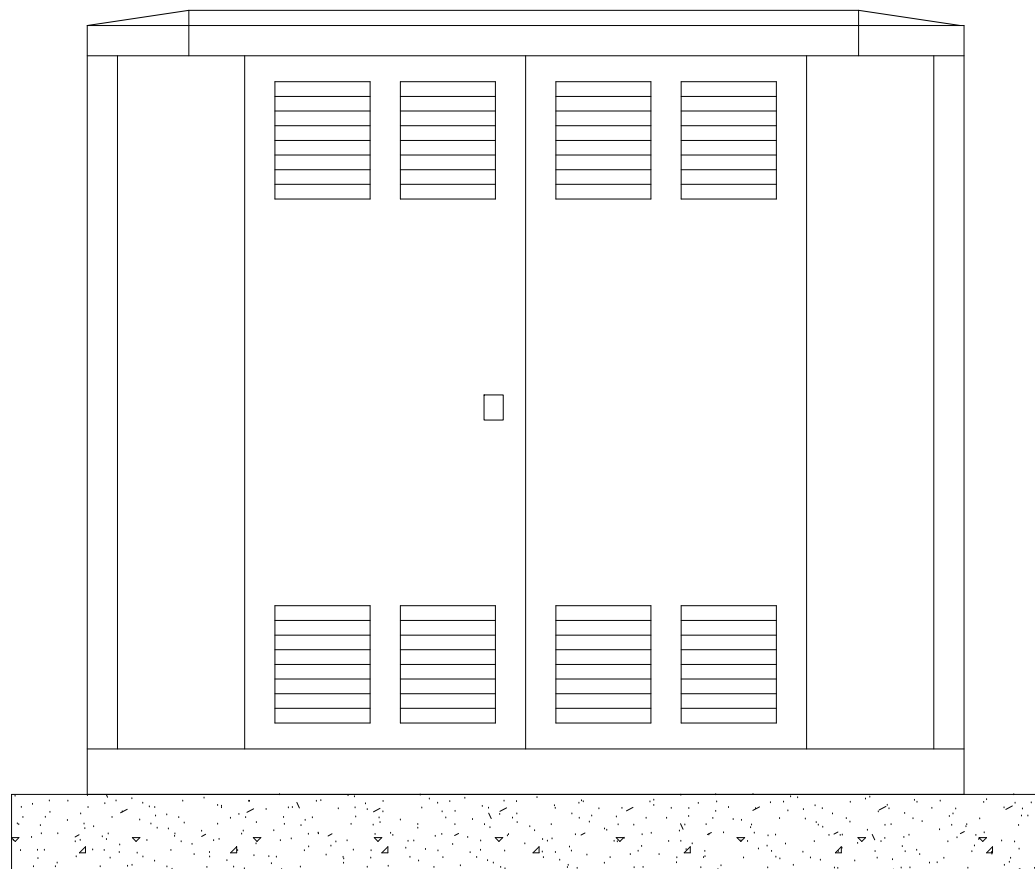
FIGURE 1.7

**CONTROL BUILDING
AND SUBSTATION
ELEVATIONS**

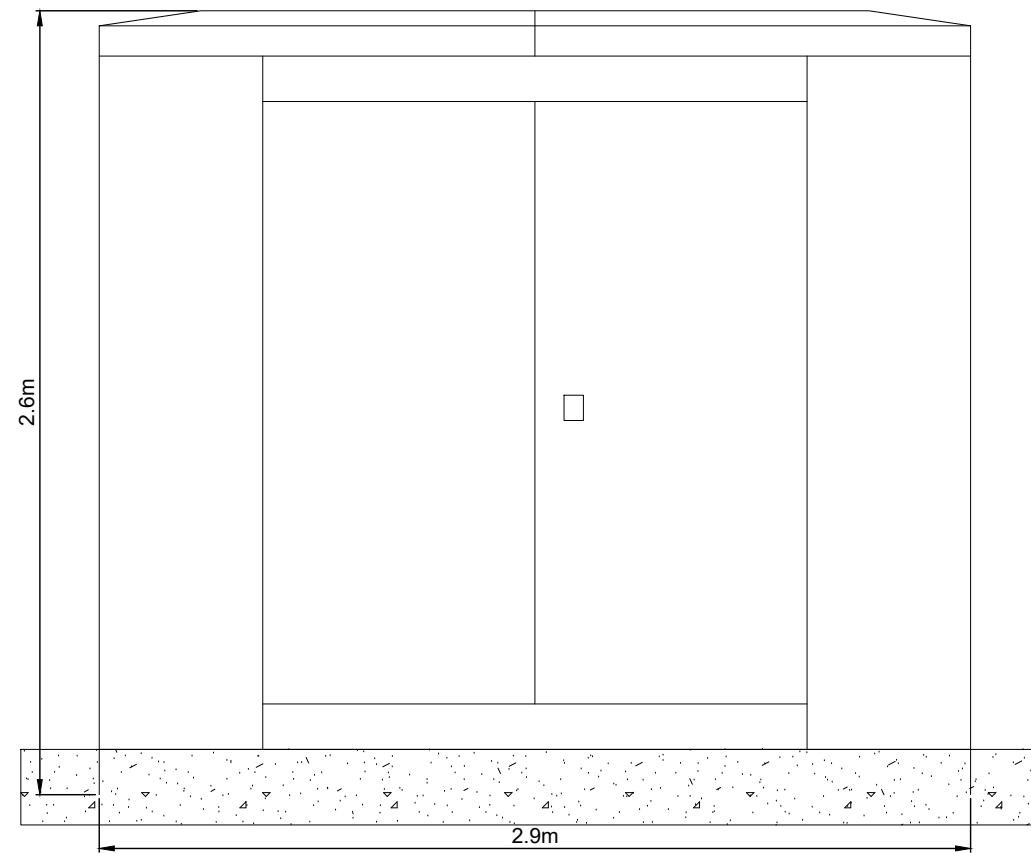
NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
3. THIS DRAWING IS BASED ON 04291-RES-SUB-DR-EE-002

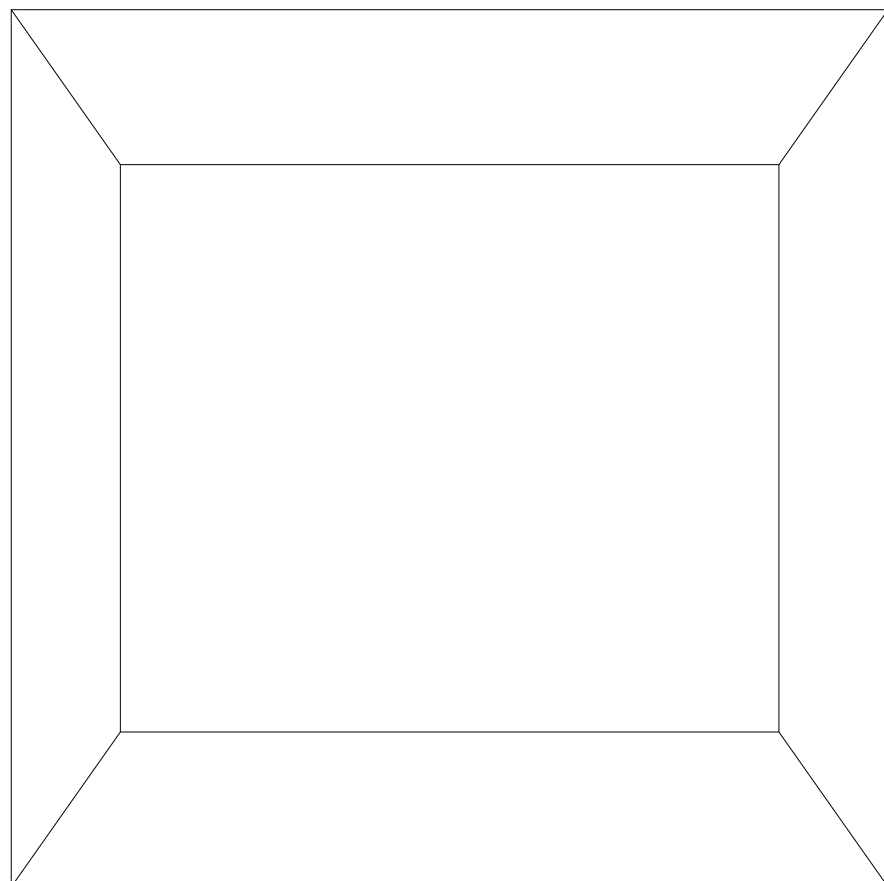
**INDICATIVE CAPACITOR
SWITCH
SHEET 7 OF 22.**



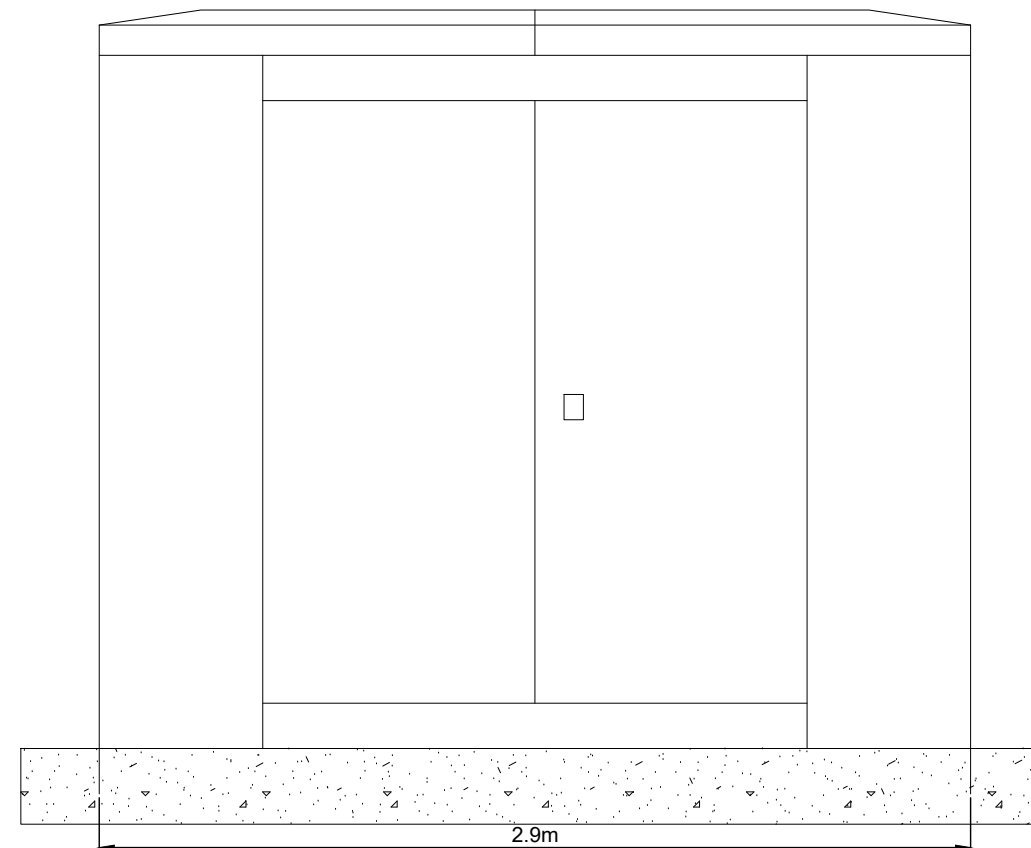
**INDICATIVE CAPACITOR SWITCH - FRONT
ELEVATION**
SCALE - 1:25



**INDICATIVE CAPACITOR SWITCH - REAR
ELEVATION**
SCALE - 1:25



INDICATIVE CAPACITOR SWITCH - PLAN
SCALE - 1:25



**INDICATIVE CAPACITOR SWITCH - SIDE
ELEVATION**
SCALE - 1:25

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
04291-RES-SUB-DR-PT-002

SCALE - 1:25 @ A3

**ENVIRONMENTAL STATEMENT
2021**

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION



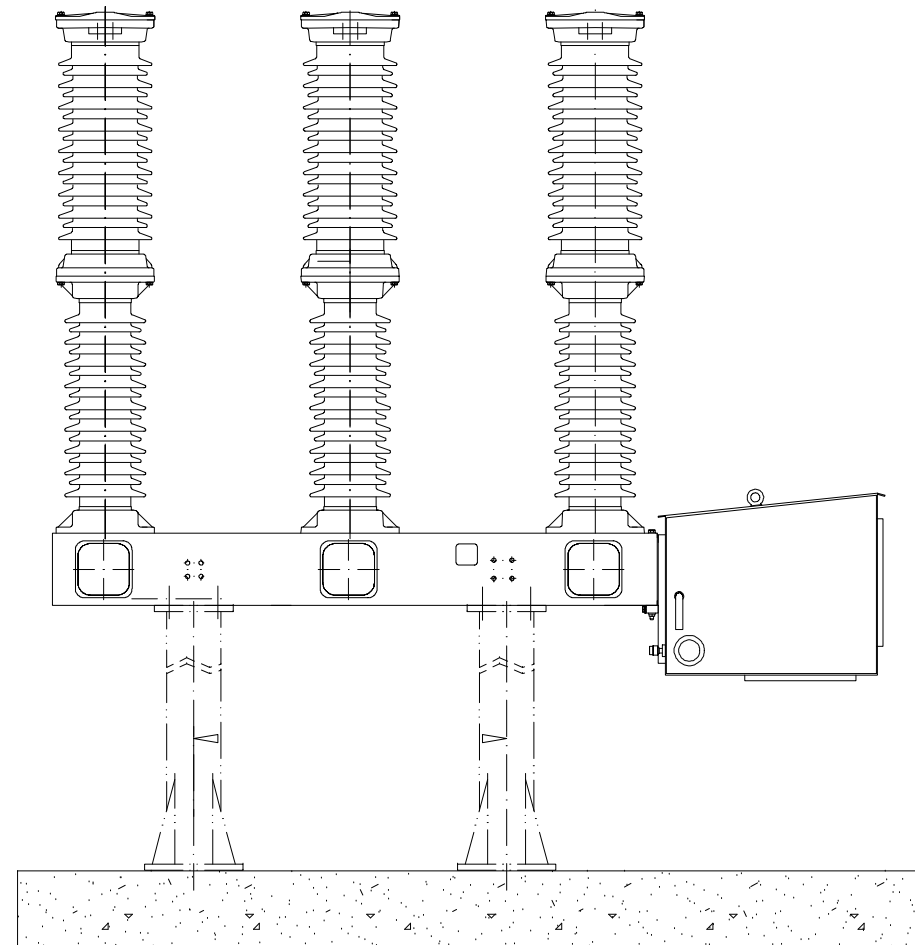
**UNSHINAGH
WIND FARM**

FIGURE 1.7

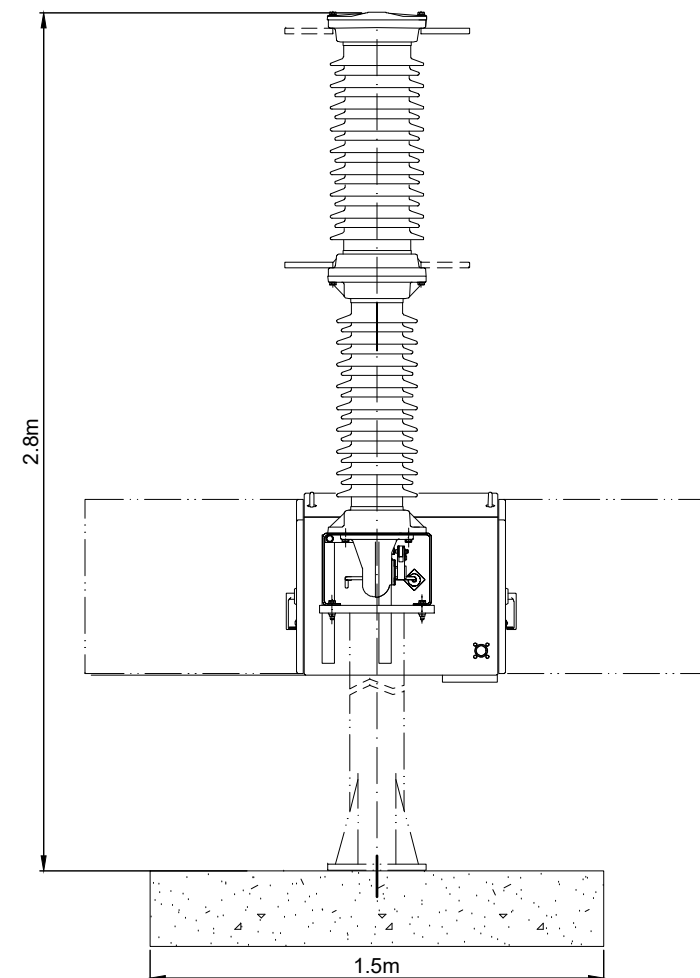
**CONTROL BUILDING
AND SUBSTATION
ELEVATIONS**

NOTES

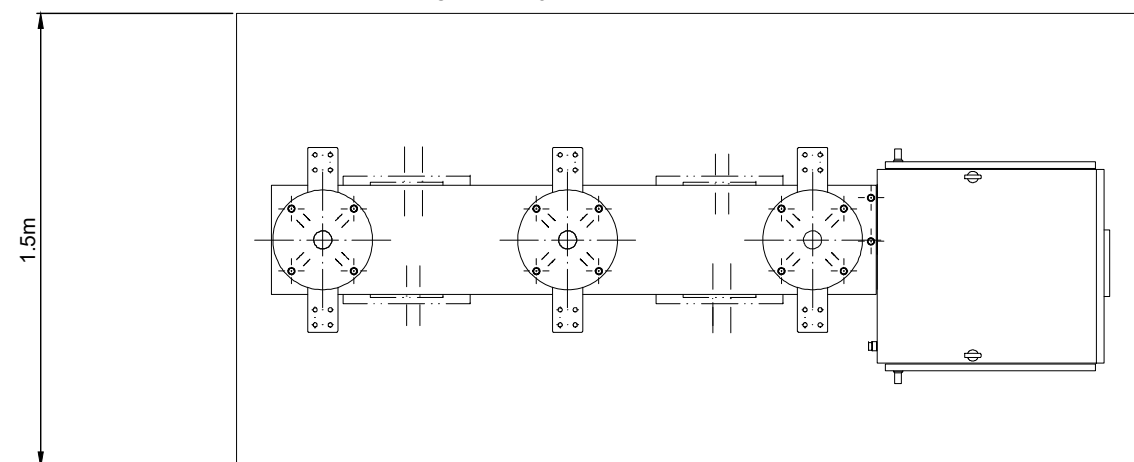
1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
3. THIS DRAWING IS BASED ON 04291-RES-SUB-DR-EE-002



**INDICATIVE CAPACITOR CIRCUIT BREAKER
- FRONT ELEVATION
SCALE - 1:25**



**INDICATIVE CAPACITOR CIRCUIT BREAKER
- SIDE ELEVATION
SCALE - 1:25**



**INDICATIVE CAPACITOR CIRCUIT BREAKER
- PLAN
SCALE - 1:25**

**INDICATIVE CAPACITOR
CIRCUIT BREAKER
SHEET 8 OF 22.**

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
04291-RES-SUB-DR-PT-002

SCALE - 1:25 @ A3

**ENVIRONMENTAL STATEMENT
2021**

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION



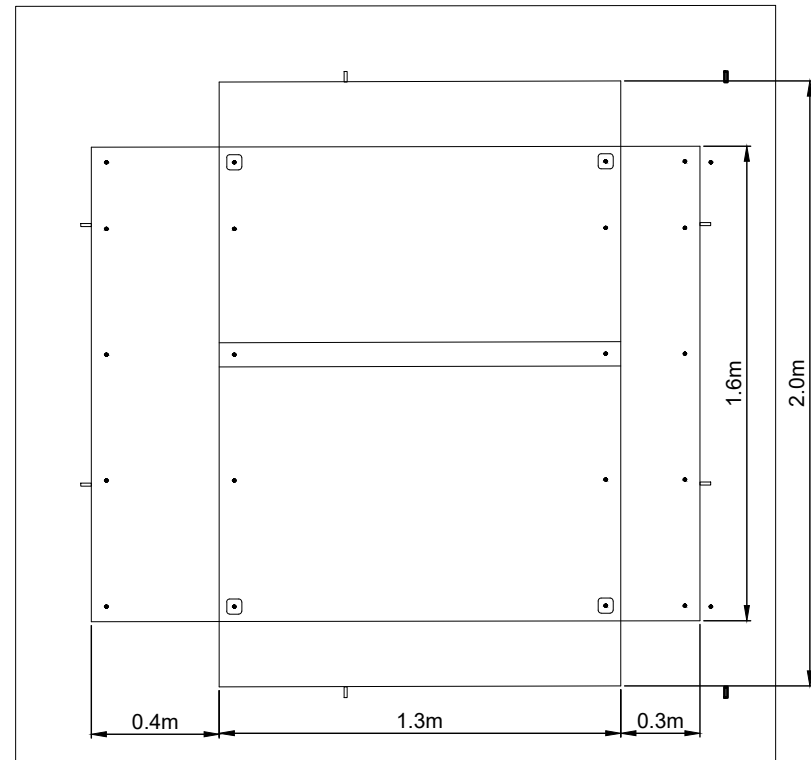
**UNSHINAGH
WIND FARM**

FIGURE 1.7

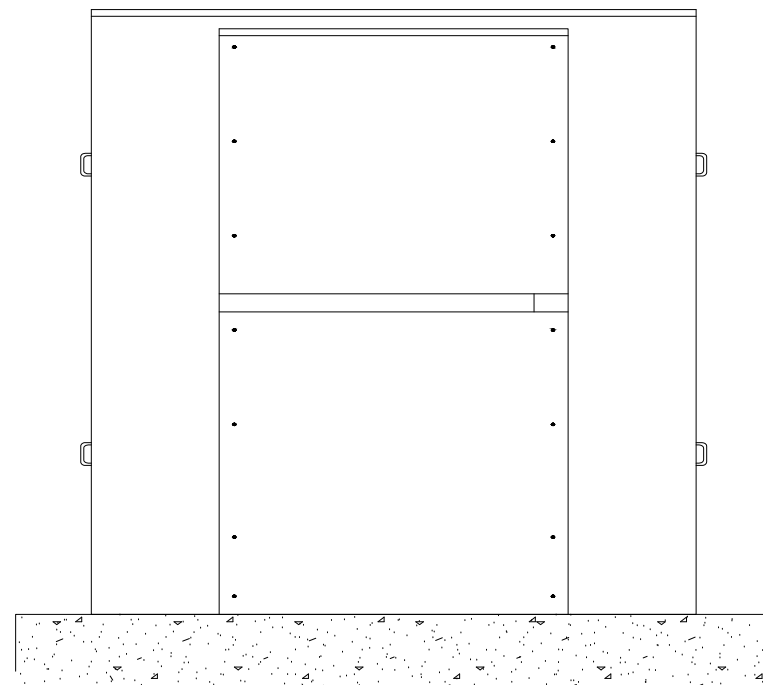
**CONTROL BUILDING
AND SUBSTATION
ELEVATIONS**

NOTES

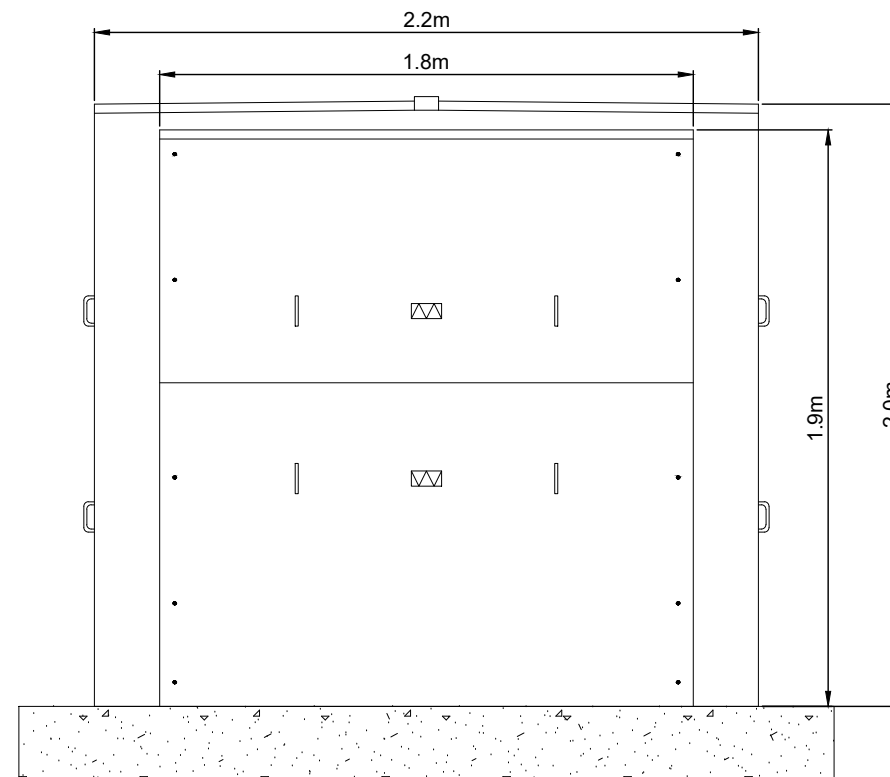
1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
3. THIS DRAWING IS BASED ON 04291-RES-SUB-DR-EE-002



**INDICATIVE NEUTRAL EARTHING
RESISTOR - PLAN VIEW**
SCALE - 1:25



**INDICATIVE NEUTRAL EARTHING RESISTOR -
FRONT ELEVATION**
SCALE - 1:25



**INDICATIVE NEUTRAL EARTHING RESISTOR - SIDE
ELEVATION**
SCALE - 1:25

INDICATIVE NEUTRAL
EARTHING RESISTOR
SHEET 9 OF 22.

LAYOUT DWG	N/A	T-LAYOUT NO.	N/A
DRAWING NUMBER	04291-RES-SUB-DR-PT-002		
SCALE - 1:25 @ A3			
ENVIRONMENTAL STATEMENT 2021			
THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION			



**UNSHINAGH
WIND FARM**

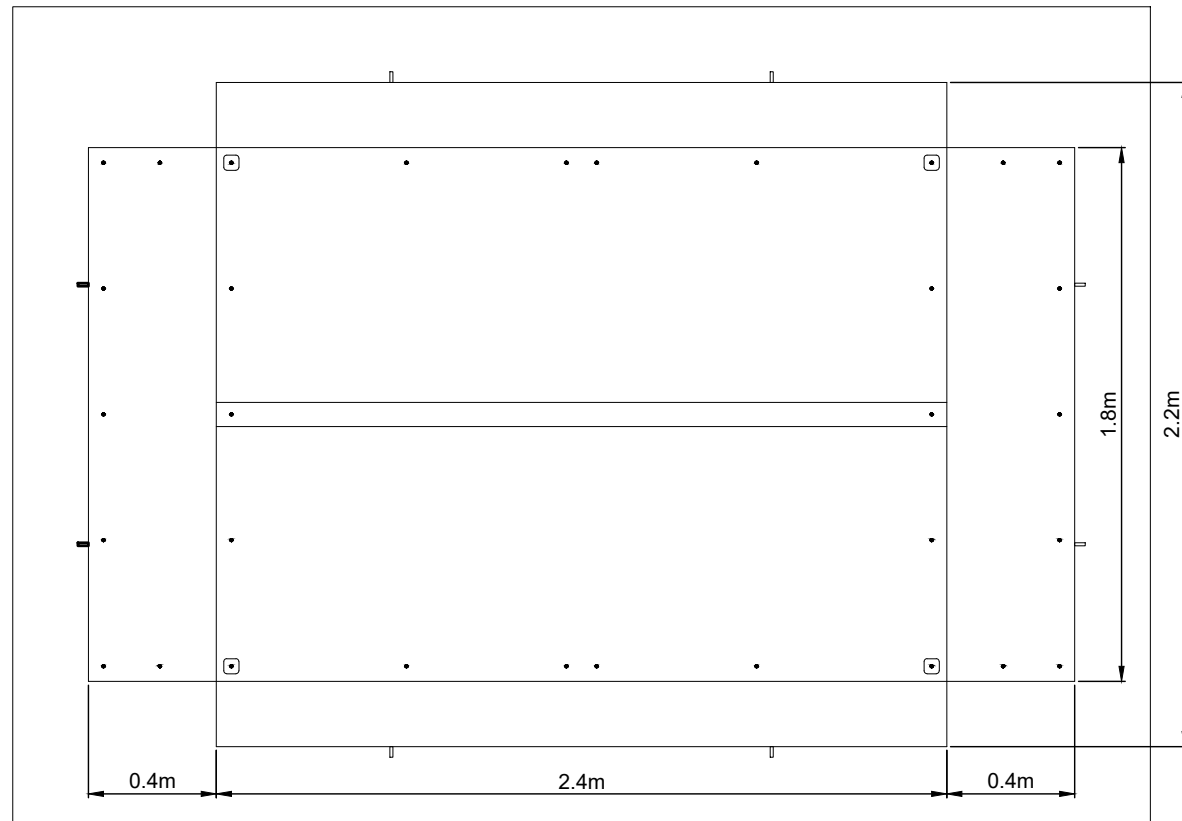
FIGURE 1.7

**CONTROL BUILDING
AND SUBSTATION
ELEVATIONS**

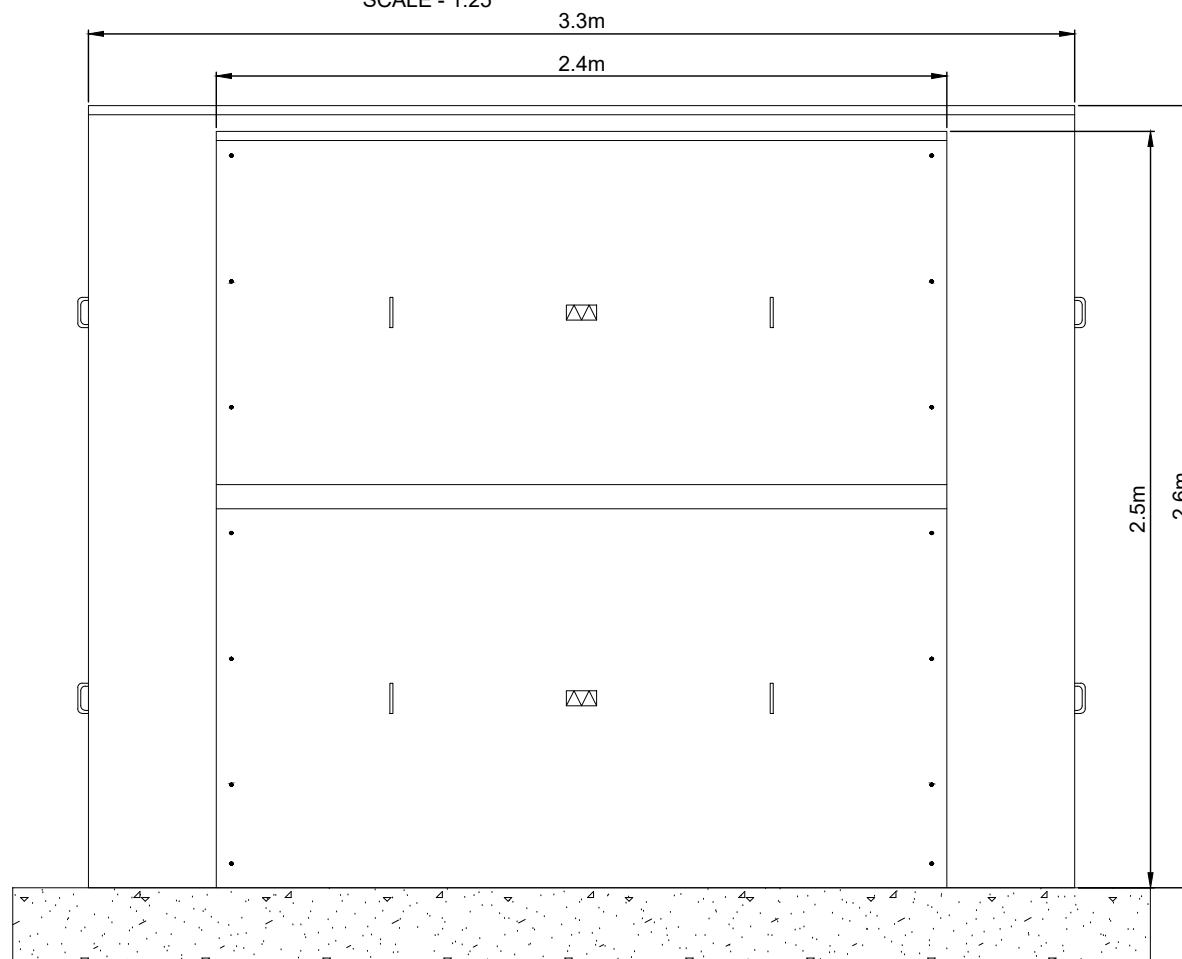
NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
3. THIS DRAWING IS BASED ON 04291-RES-SUB-DR-EE-002

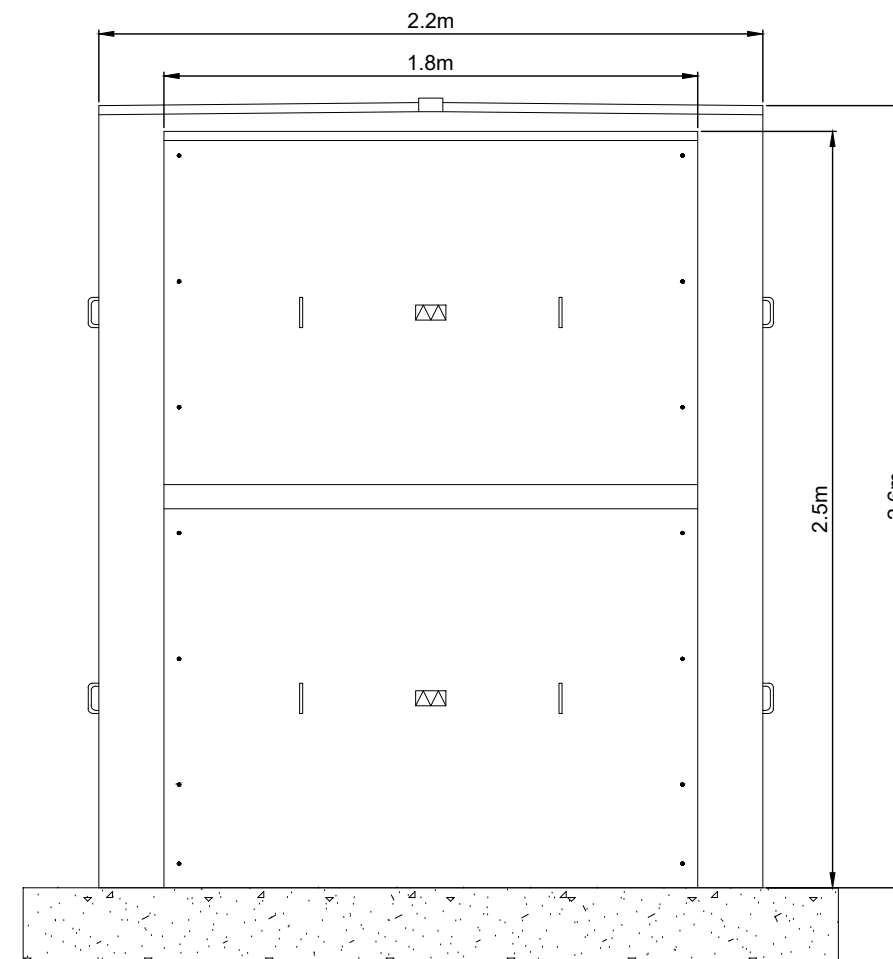
INDICATIVE
PRE-INSERTION
RESISTOR
SHEET 10 OF 22.



**INDICATIVE PRE-INSERTION RESISTOR -
PLAN VIEW**
SCALE - 1:25



**INDICATIVE PRE-INSERTION RESISTOR -
FRONT ELEVATION**
SCALE - 1:25



**INDICATIVE PRE-INSERTION RESISTOR -
SIDE ELEVATION**
SCALE - 1:25

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
04291-RES-SUB-DR-PT-002

SCALE - 1:25 @ A3

**ENVIRONMENTAL STATEMENT
2021**

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION



**UNSHINAGH
WIND FARM**

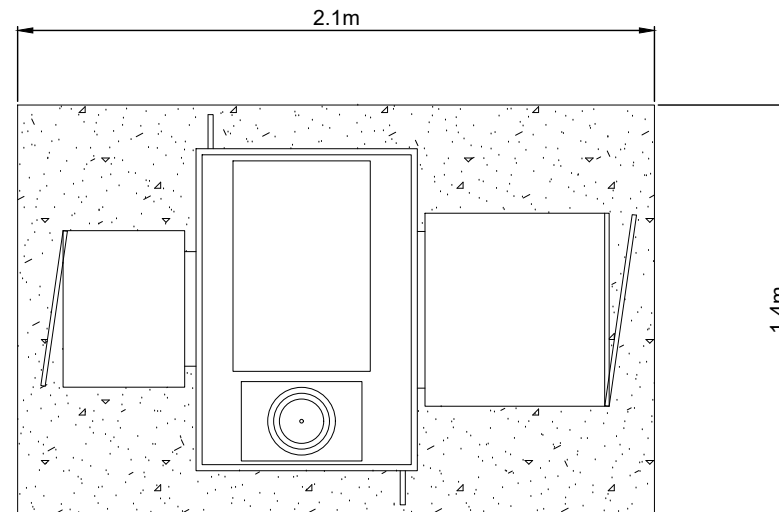
FIGURE 1.7

**CONTROL BUILDING
AND SUBSTATION
ELEVATIONS**

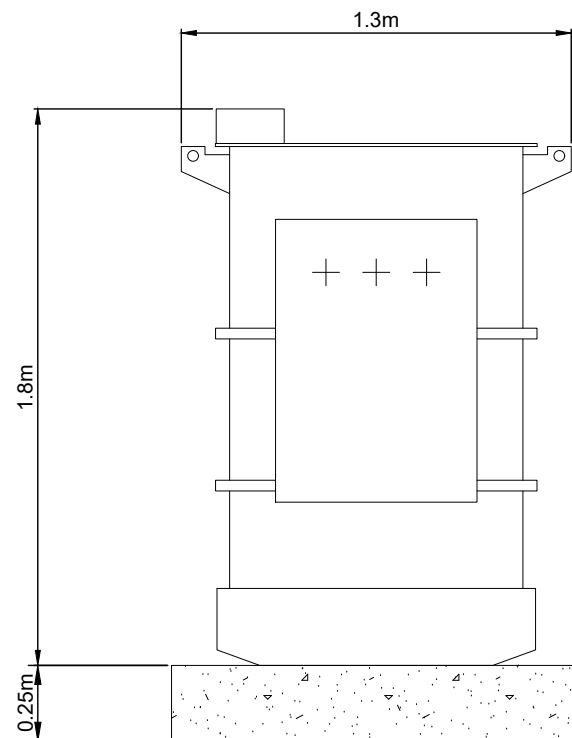
NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
3. THIS DRAWING IS BASED ON 04291-RES-SUB-DR-EE-002

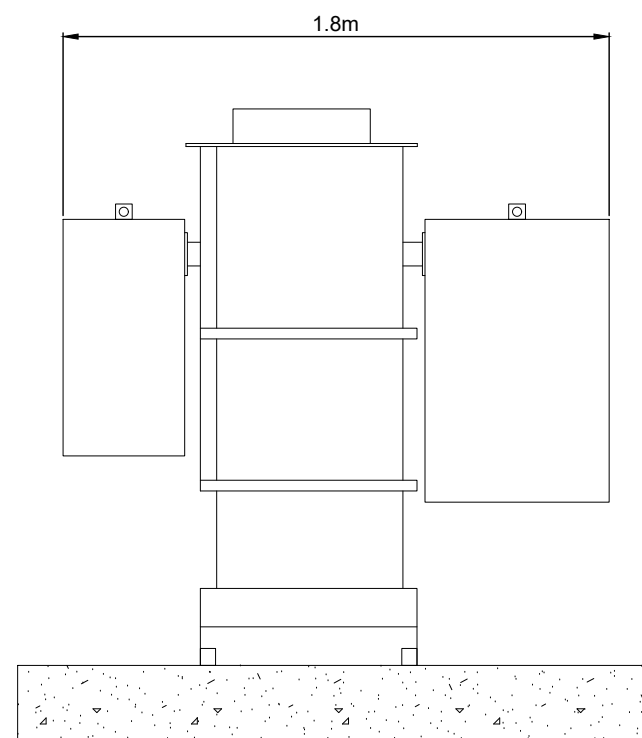
INDICATIVE AUXILIARY
TRANSFORMER
SHEET 11 OF 22.



**INDICATIVE AUXILIARY TRANSFORMER -
PLAN VIEW**
SCALE - 1:25



**INDICATIVE AUXILIARY TRANSFORMER -
SIDE ELEVATION**
SCALE - 1:25



**INDICATIVE AUXILIARY TRANSFORMER -
FRONT ELEVATION**
SCALE - 1:25

LAYOUT DWG	N/A	T-LAYOUT NO.	N/A
------------	-----	--------------	-----

DRAWING NUMBER	04291-RES-SUB-DR-PT-002
----------------	--------------------------------

SCALE	1:25 @ A3
-------	------------------

ENVIRONMENTAL STATEMENT 2021

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION



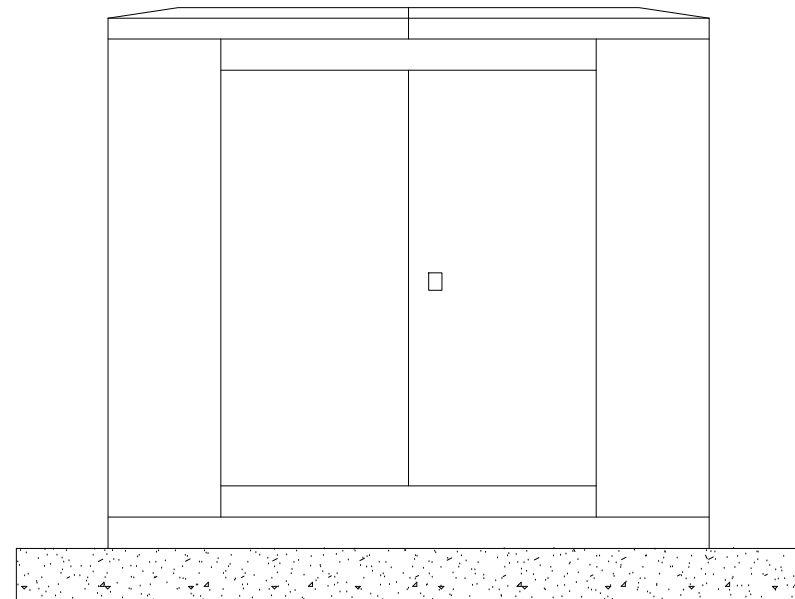
**UNSHINAGH
WIND FARM**

FIGURE 1.7

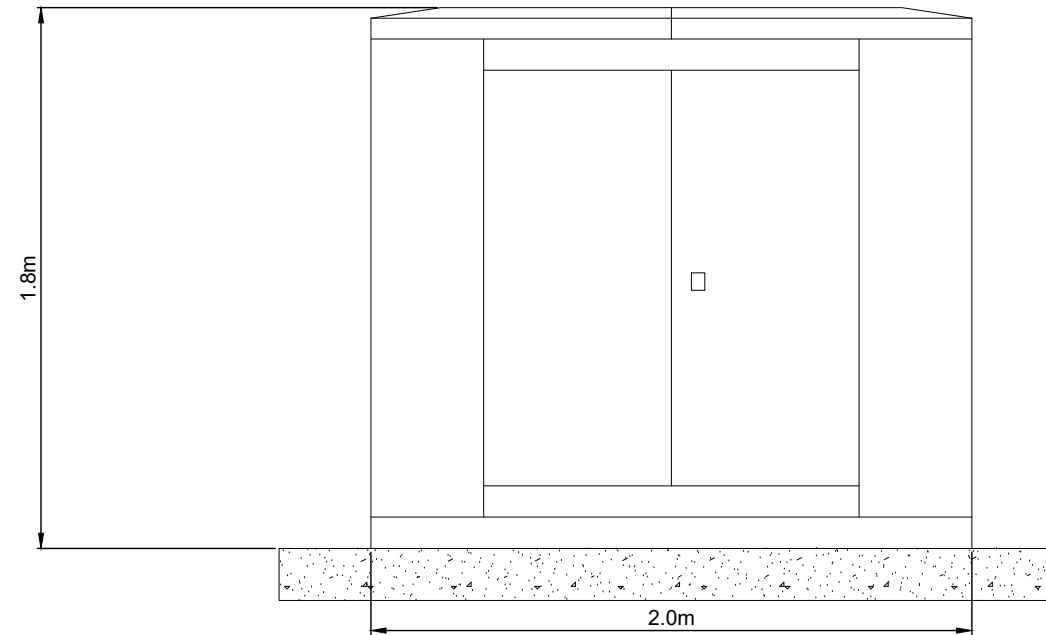
**CONTROL BUILDING
AND SUBSTATION
ELEVATIONS**

NOTES

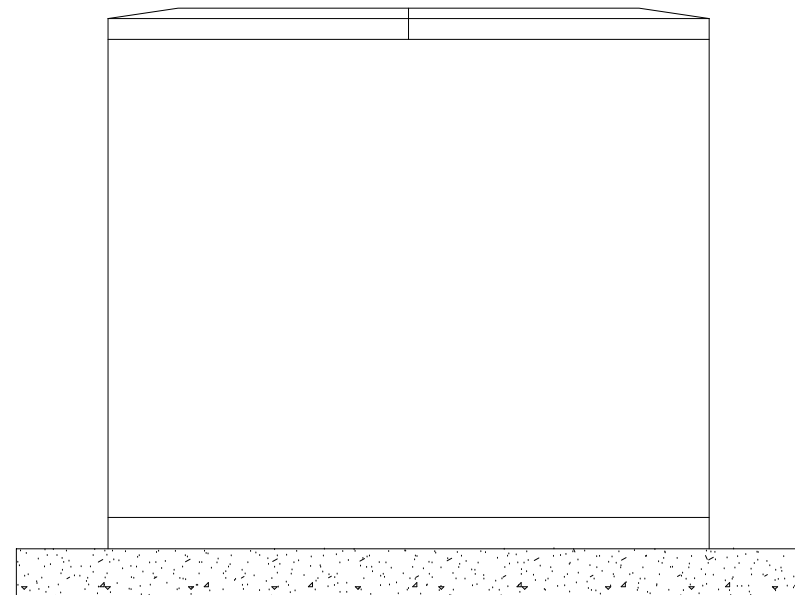
1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
3. THIS DRAWING IS BASED ON 04291-RES-SUB-DR-EE-002



**DIESEL GENERATOR - FRONT
ELEVATION**
SCALE - 1:25



DIESEL GENERATOR - REAR ELEVATION
SCALE - 1:25



DIESEL GENERATOR - SIDE VIEW
SCALE - 1:25

DIESEL GENERATOR
SHEET 12 OF 22.

LAYOUT DWG	N/A	T-LAYOUT NO.	N/A
DRAWING NUMBER	04291-RES-SUB-DR-PT-002		
SCALE	1:25 @ A3		
ENVIRONMENTAL STATEMENT 2021			
THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION			



**UNSHINAGH
WIND FARM**

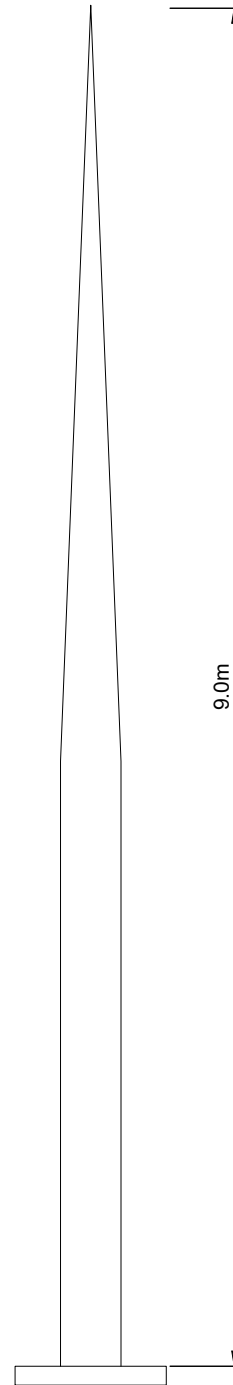
FIGURE 1.7

**CONTROL BUILDING
AND SUBSTATION
ELEVATIONS**

NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
3. THIS DRAWING IS BASED ON 04291-RES-SUB-DR-EE-002

LIGHTNING PROTECTION
COLUMN
SHEET 13 OF 22.



INDICATIVE LIGHTNING PROTECTION COLUMN
SCALE - 1:50

LAYOUT DWG	N/A	T-LAYOUT NO.	N/A
------------	-----	--------------	-----

DRAWING NUMBER
04291-RES-SUB-DR-PT-002

SCALE - 1:25 @ A3

**ENVIRONMENTAL STATEMENT
2021**

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION



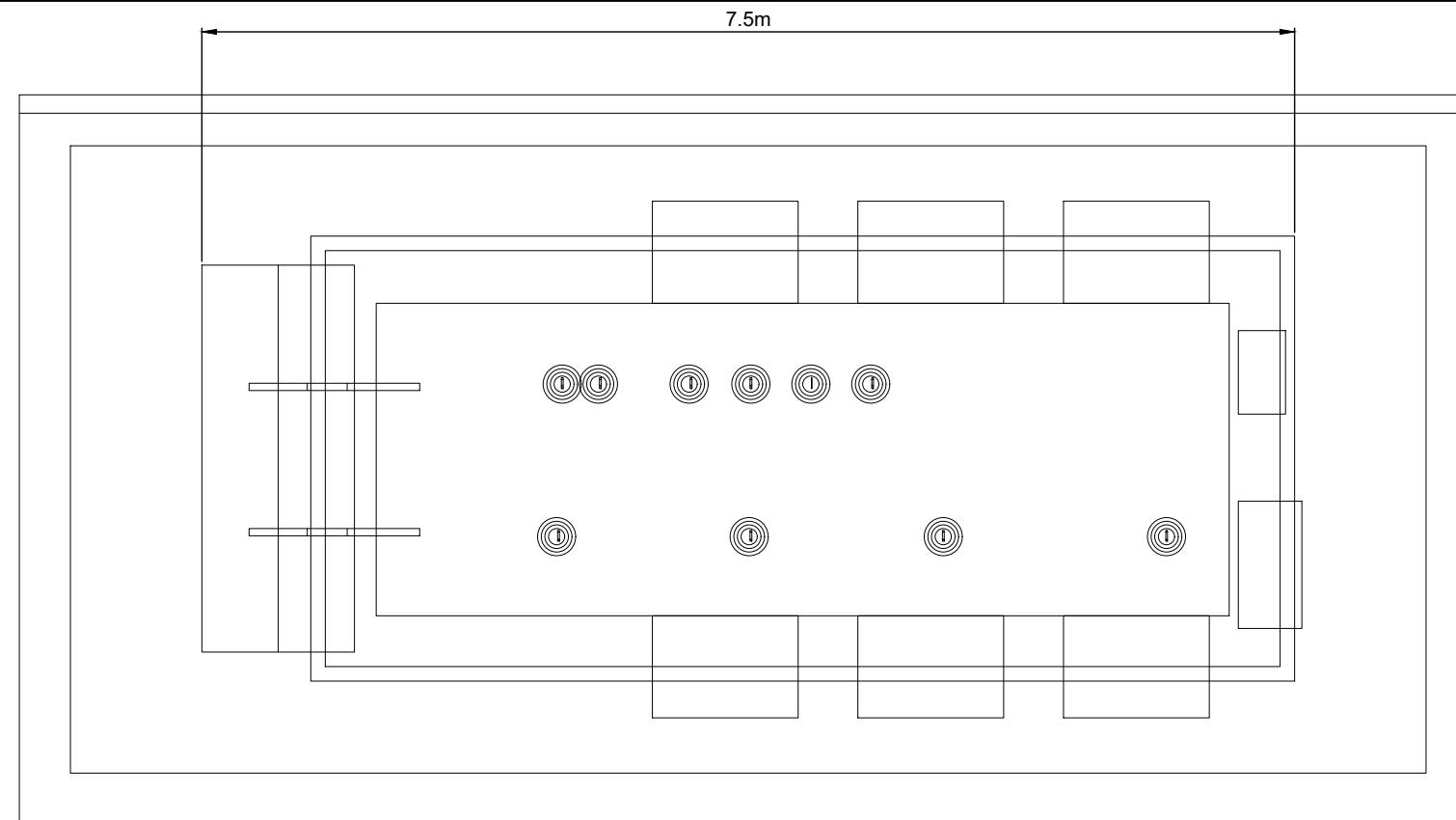
**UNSHINAGH
WIND FARM**

FIGURE 1.7

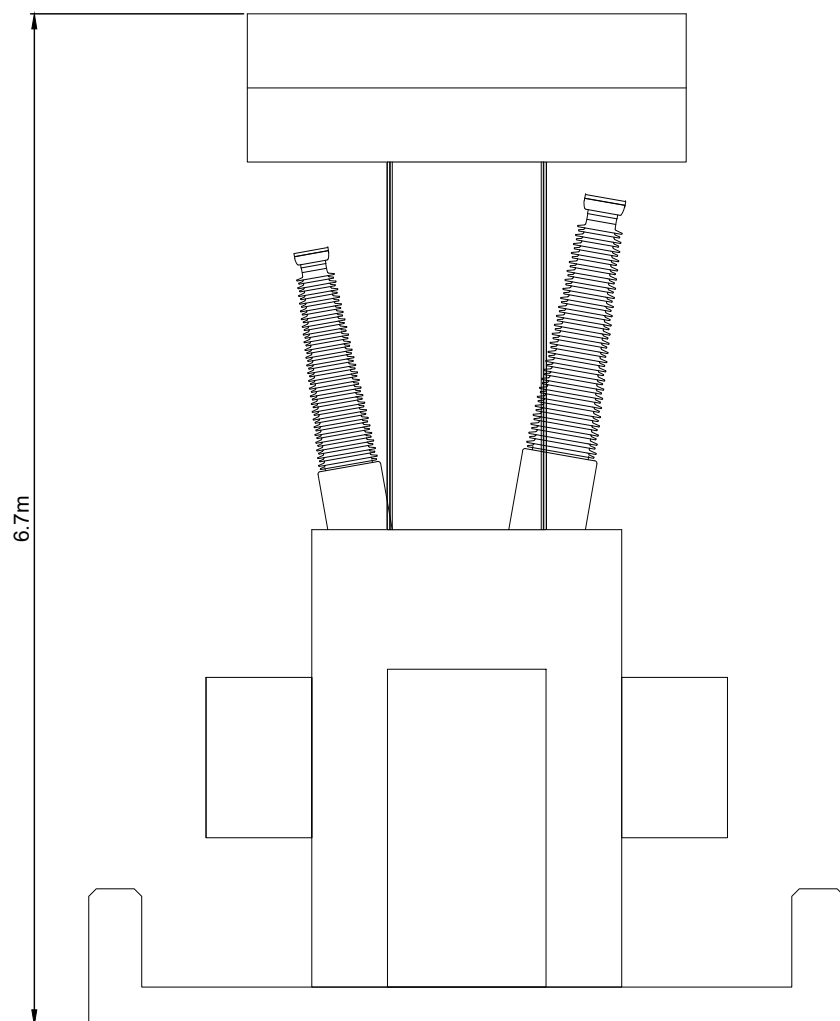
**CONTROL BUILDING
AND SUBSTATION
ELEVATIONS**

NOTES

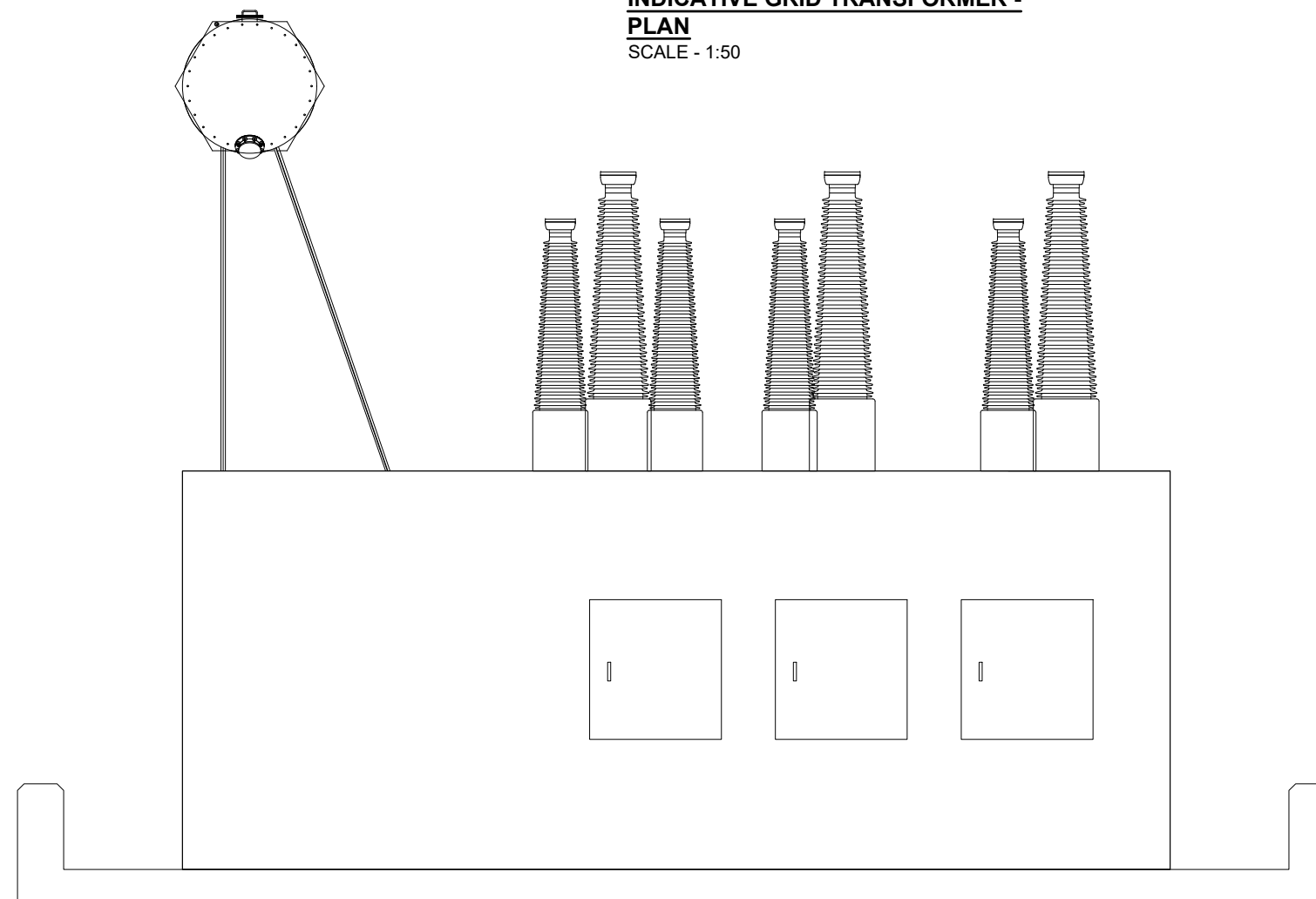
1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
3. THIS DRAWING IS BASED ON 04291-RES-SUB-DR-EE-002



**INDICATIVE GRID TRANSFORMER -
PLAN**
SCALE - 1:50



**INDICATIVE GRID TRANSFORMER -
FRONT ELEVATION**
SCALE - 1:50



**INDICATIVE GRID TRANSFORMER - SIDE
VIEW**
SCALE - 1:50

GRID TRANSFORMER
SHEET 14 OF 22.

LAYOUT DWG	N/A	T-LAYOUT NO.	N/A
DRAWING NUMBER	04291-RES-SUB-DR-PT-002		
SCALE - 1:50 @ A3			
ENVIRONMENTAL STATEMENT 2021			
THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION			



**UNSHINAGH
WIND FARM**

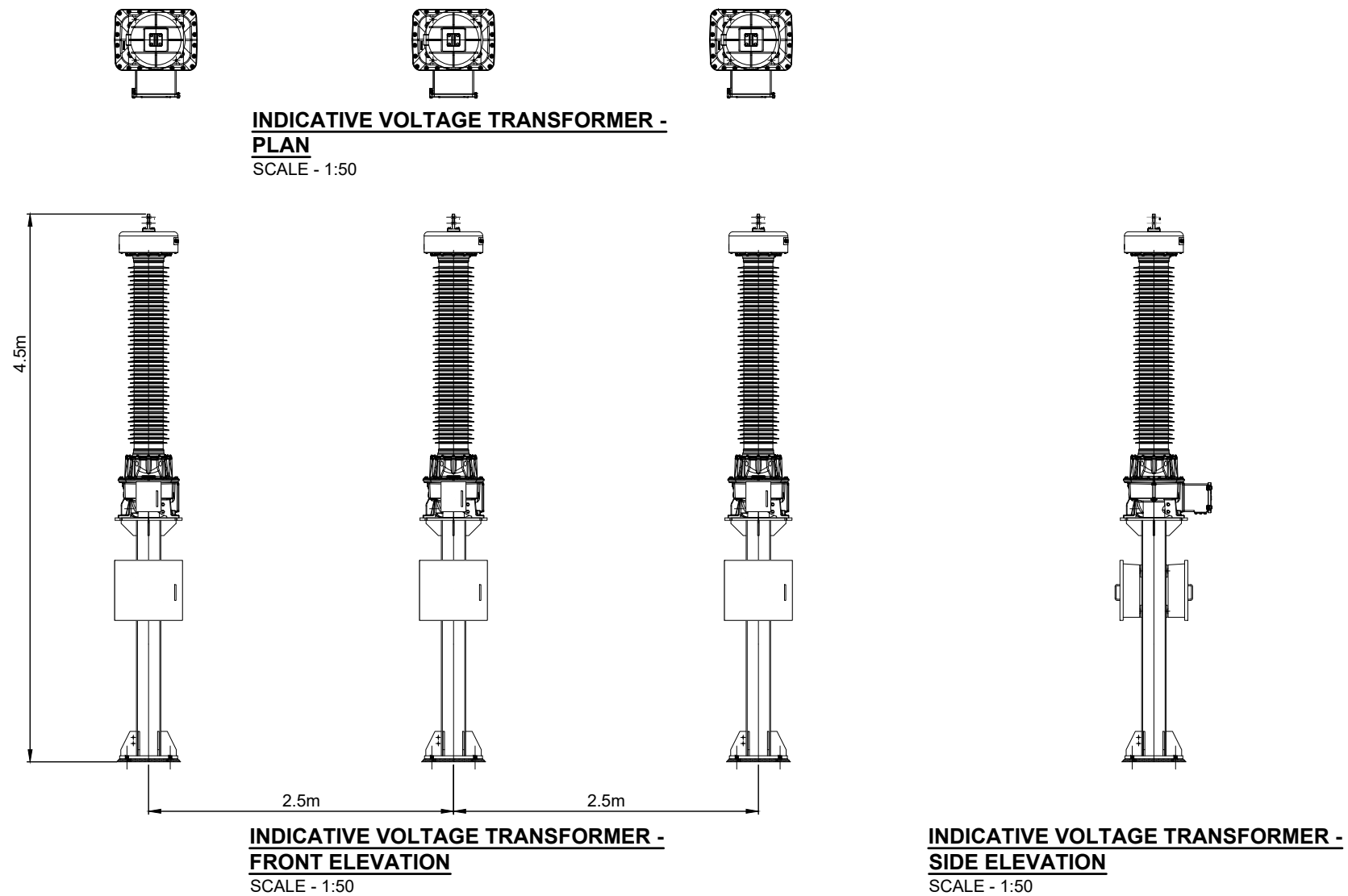
FIGURE 1.7

**CONTROL BUILDING
AND SUBSTATION
ELEVATIONS**

NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
3. THIS DRAWING IS BASED ON 04291-RES-SUB-DR-EE-002

VOLTAGE
TRANSFORMER
SHEET 15 OF 22.



LAYOUT DWG	N/A	T-LAYOUT NO.	N/A
------------	-----	--------------	-----

DRAWING NUMBER
04291-RES-SUB-DR-PT-002

SCALE - 1:50 @ A3

**ENVIRONMENTAL STATEMENT
2021**

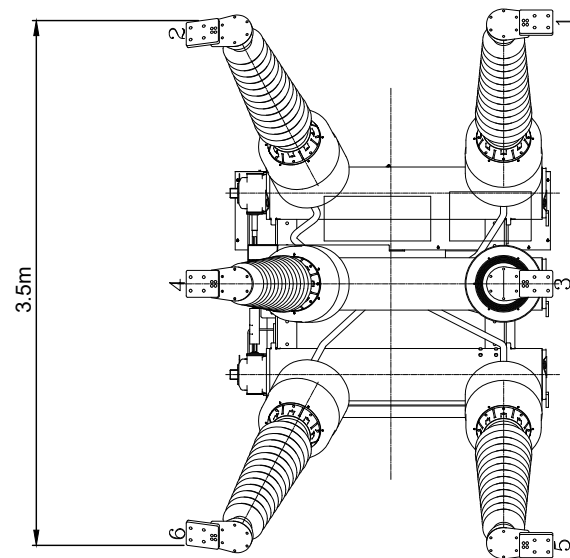
THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION



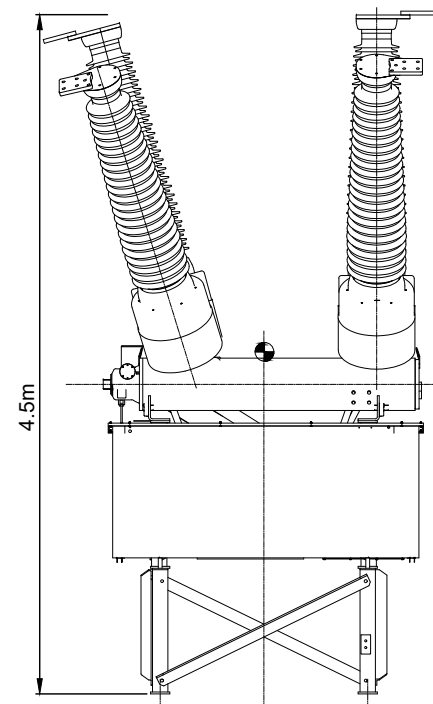
**UNSHINAGH
WIND FARM**

FIGURE 1.7

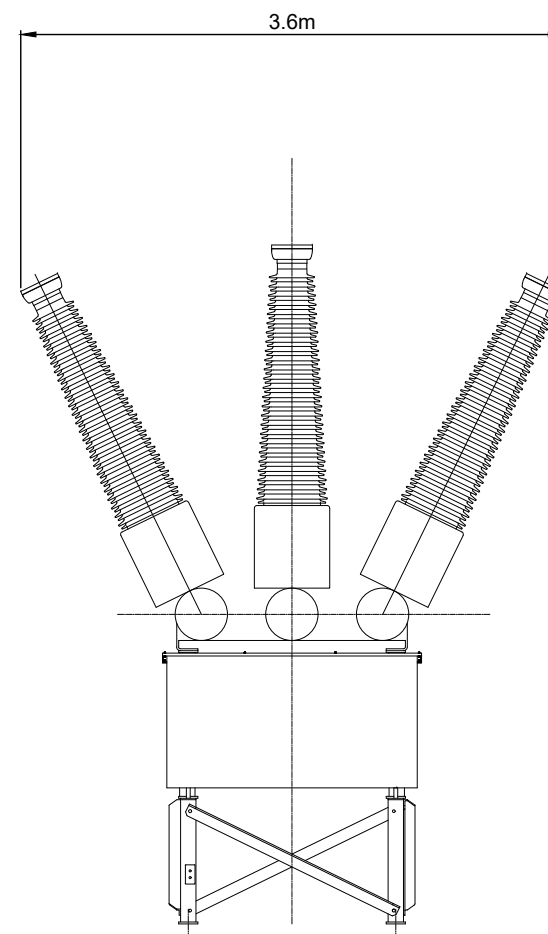
**CONTROL BUILDING
AND SUBSTATION
ELEVATIONS**



INDICATIVE 110kV CB - PLAN
SCALE - 1:50



INDICATIVE 110kV CB - SIDE ELEVATION
SCALE - 1:50



**INDICATIVE 110kV CB - FRONT
ELEVATION**
SCALE - 1:50

NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
3. THIS DRAWING IS BASED ON 04291-RES-SUB-DR-EE-002

110kV CIRCUIT BREAKER
SHEET 16 OF 22.

LAYOUT DWG	N/A	T-LAYOUT NO.	N/A
------------	-----	--------------	-----

DRAWING NUMBER	04291-RES-SUB-DR-PT-002
----------------	--------------------------------

SCALE - 1:50 @ A3

**ENVIRONMENTAL STATEMENT
2021**

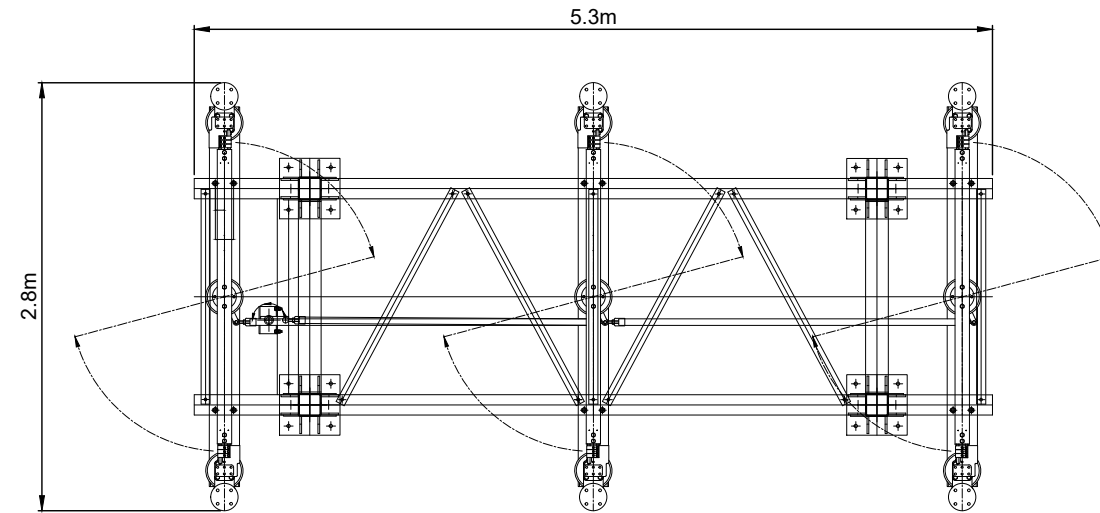
THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION



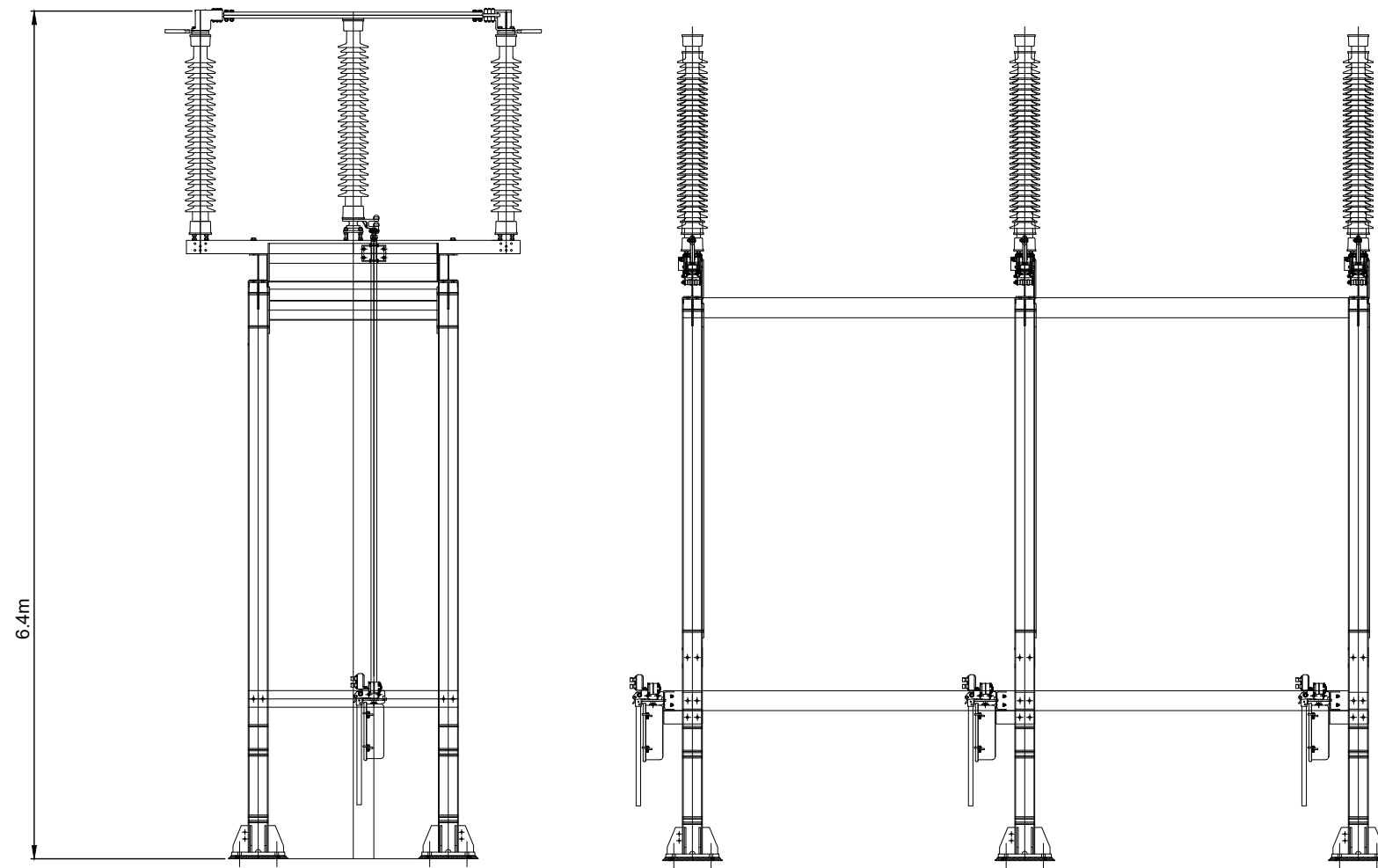
**UNSHINAGH
WIND FARM**

FIGURE 1.7

**CONTROL BUILDING
AND SUBSTATION
ELEVATIONS**



HIGH LEVEL DISCONNECTOR - PLAN
SCALE - 1:50



**HIGH LEVEL DISCONNECTOR - SIDE
ELEVATION**
SCALE - 1:50

**HIGH LEVEL DISCONNECTOR - FRONT
ELEVATION**
SCALE - 1:50

NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
3. THIS DRAWING IS BASED ON 04291-RES-SUB-DR-EE-002

110kV DISCONNECTOR
SHEET 17 OF 22.

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
04291-RES-SUB-DR-PT-002

SCALE - 1:50 @ A3

**ENVIRONMENTAL STATEMENT
2021**

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION



**UNSHINAGH
WIND FARM**

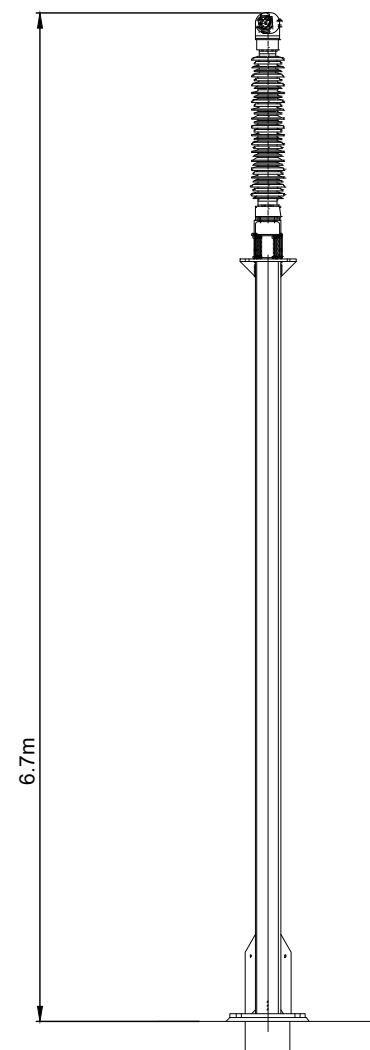
FIGURE 1.7

**CONTROL BUILDING
AND SUBSTATION
ELEVATIONS**

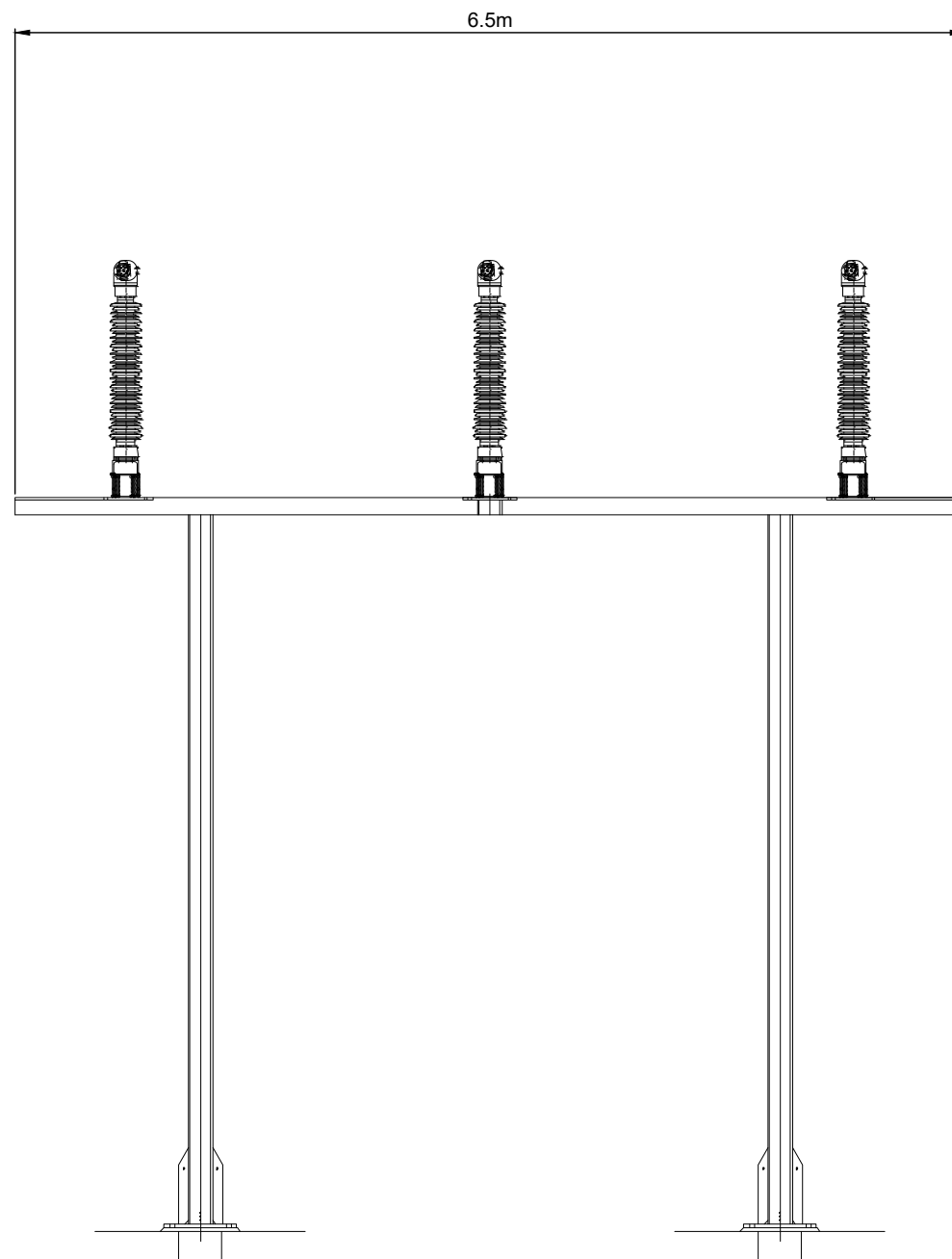
NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
3. THIS DRAWING IS BASED ON 04291-RES-SUB-DR-EE-002

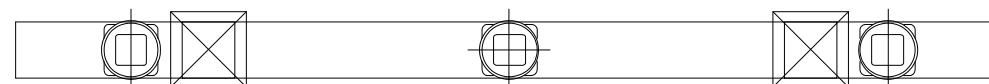
POST INSULATOR
SHEET 18 OF 22.



**INDICATIVE POST INSULATOR - SIDE
ELEVATION**
SCALE - 1:50



**INDICATIVE POST INSULATOR - FRONT
ELEVATION**
SCALE - 1:50



INDICATIVE POST INSULATOR - PLAN
SCALE - 1:50

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
04291-RES-SUB-DR-PT-002

SCALE - 1:50 @ A3

**ENVIRONMENTAL STATEMENT
2021**

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION



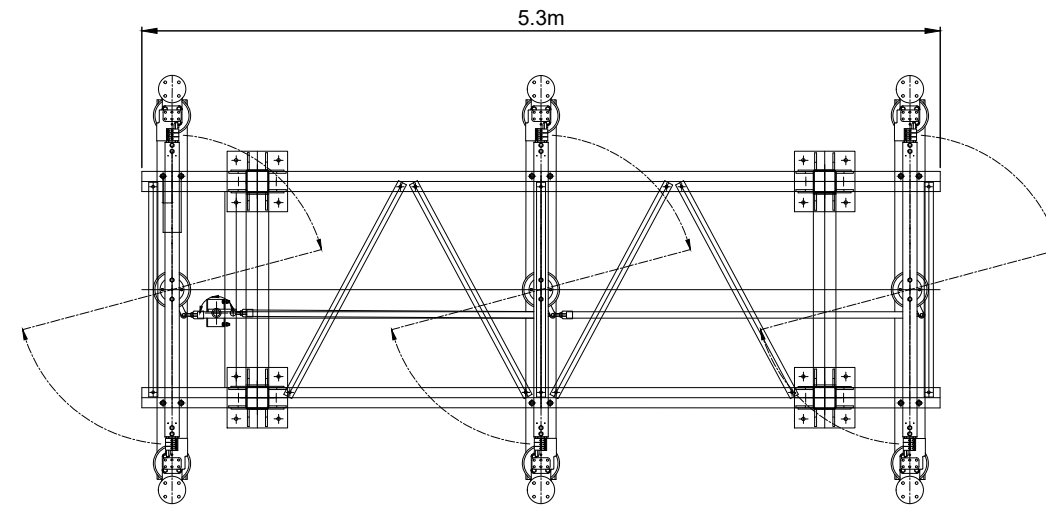
**UNSHINAGH
WIND FARM**

FIGURE 1.7

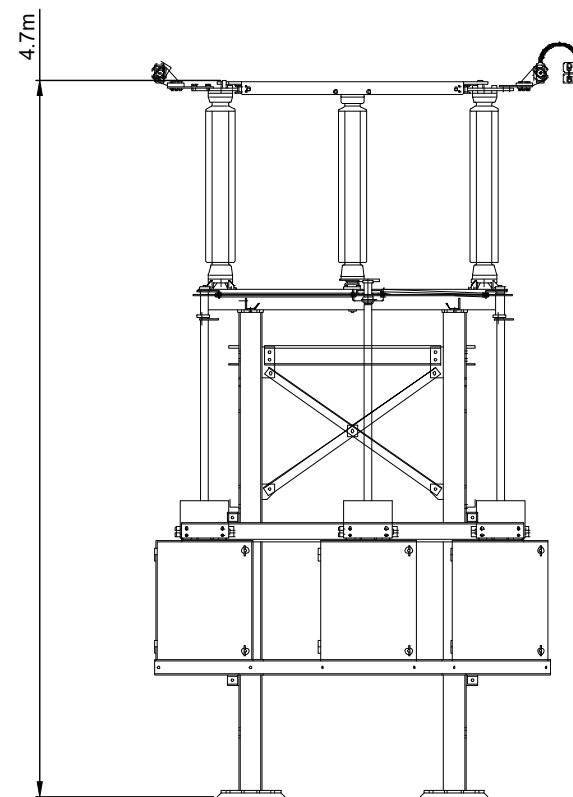
**CONTROL BUILDING
AND SUBSTATION
ELEVATIONS**

NOTES

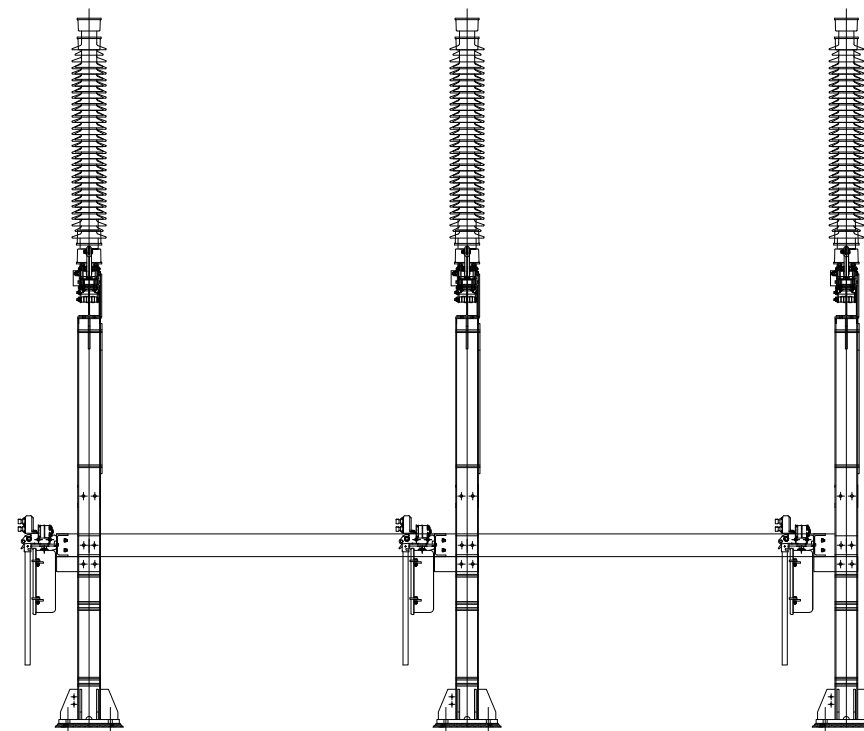
1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
3. THIS DRAWING IS BASED ON 04291-RES-SUB-DR-EE-002



DISCONNECTOR - PLAN
SCALE - 1:50



DISCONNECTOR - SIDE ELEVATION
SCALE - 1:50



DISCONNECTOR - FRONT ELEVATION
SCALE - 1:50

110kV DISCONNECTOR
SHEET 19 OF 22.

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
04291-RES-SUB-DR-PT-002

SCALE - 1:50 @ A3

ENVIRONMENTAL STATEMENT
2021

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION



**UNSHINAGH
WIND FARM**

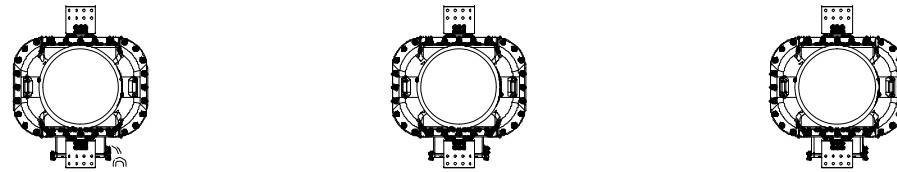
FIGURE 1.7

**CONTROL BUILDING
AND SUBSTATION
ELEVATIONS**

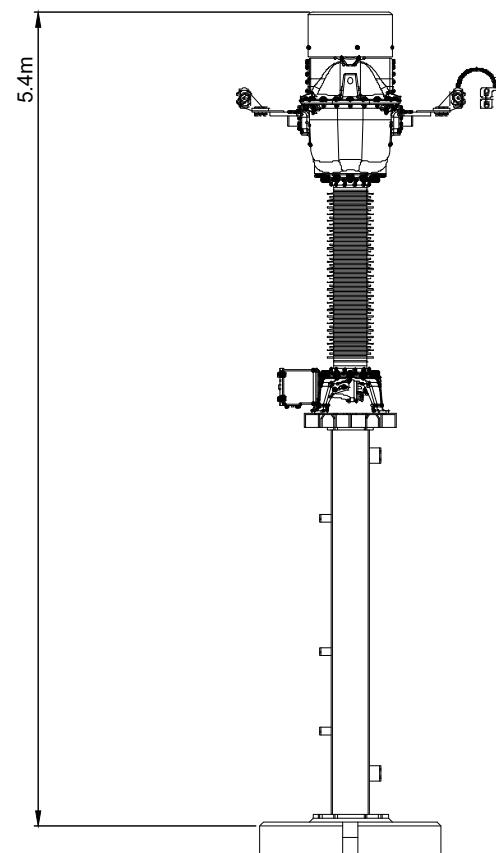
NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
3. THIS DRAWING IS BASED ON 04291-RES-SUB-DR-EE-002

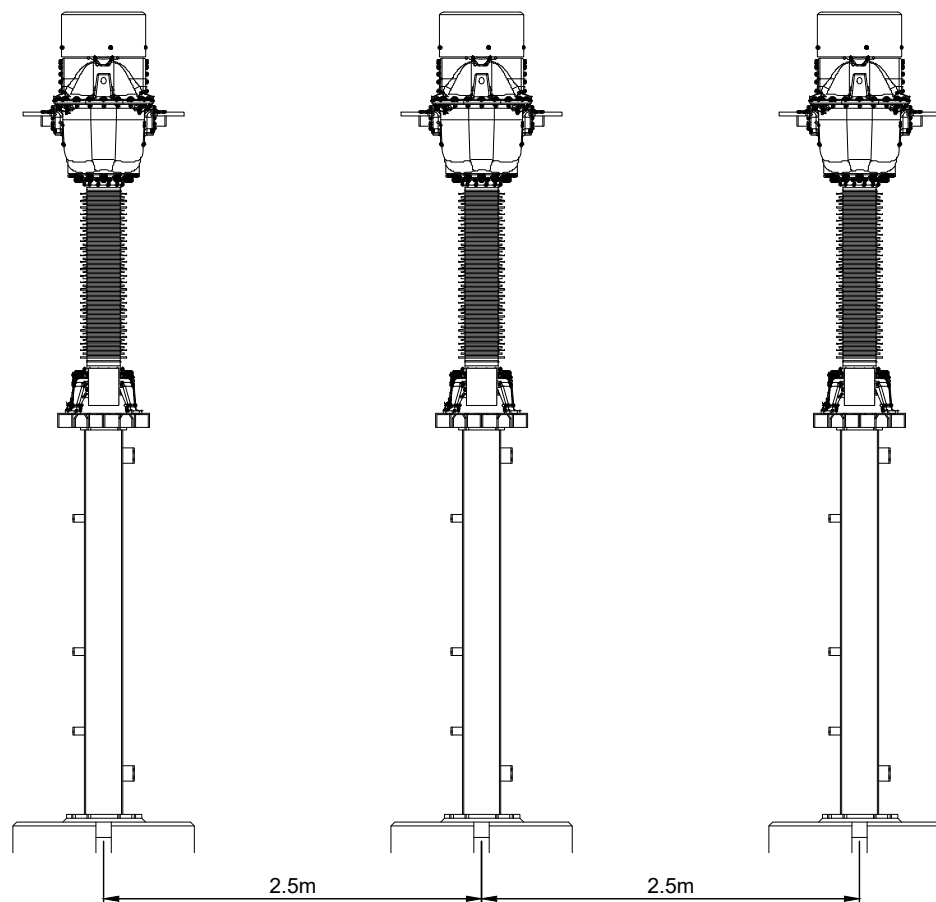
CURRENT
TRANSFORMER
SHEET 20 OF 22.



CURRENT TRANSFORMER- PLAN
SCALE - 1:50



**CURRENT TRANSFORMER- SIDE
ELEVATION**
SCALE - 1:50



**CURRENT TRANSFORMER- FRONT
ELEVATION**
SCALE - 1:50

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
04291-RES-SUB-DR-PT-002

SCALE - 1:50 @ A3

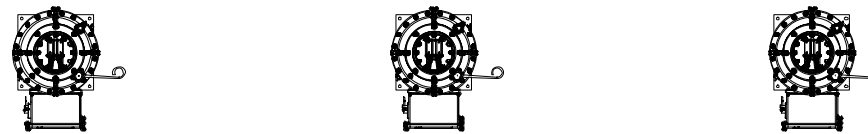
**ENVIRONMENTAL STATEMENT
2021**

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION

**UNSHINAGH
WIND FARM**

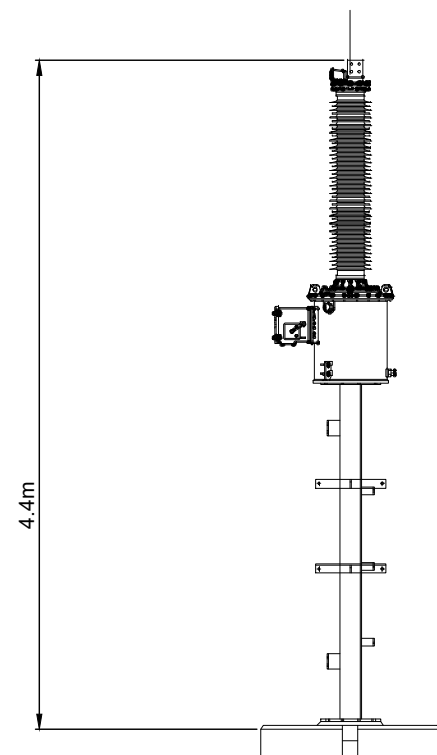
FIGURE 1.7

**CONTROL BUILDING
AND SUBSTATION
ELEVATIONS**



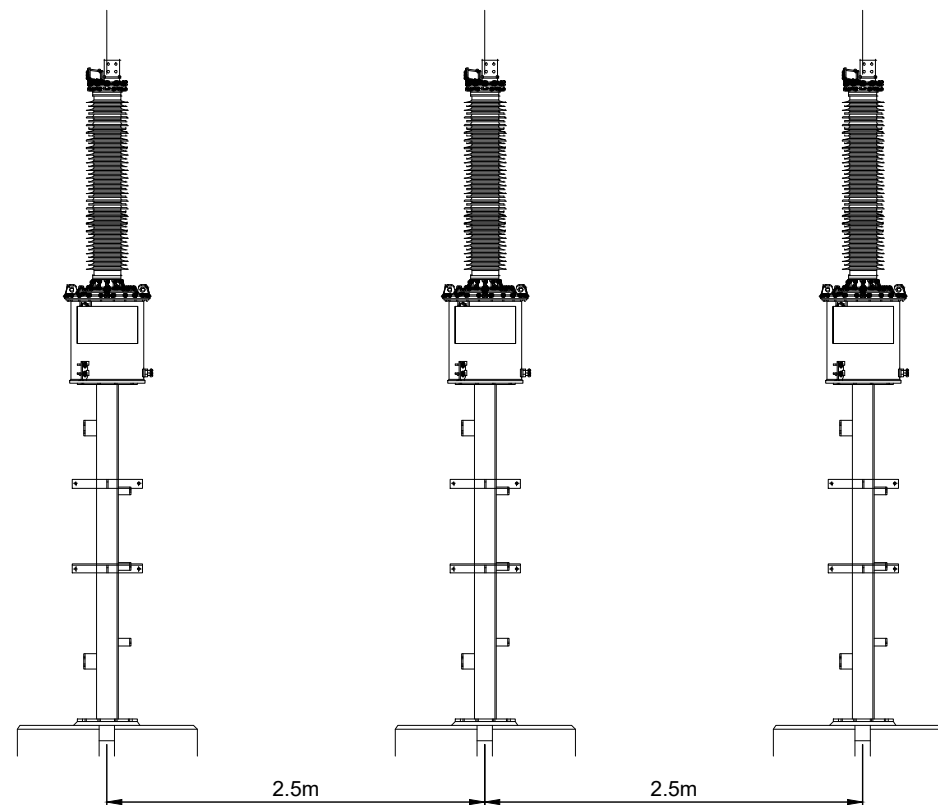
VOLTAGE TRANSFORMER- PLAN

SCALE - 1:50



**VOLTAGE TRANSFORMER- SIDE
ELEVATION**

SCALE - 1:50



**VOLTAGE TRANSFORMER- FRONT
ELEVATION**

SCALE - 1:50

NOTES

1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
3. THIS DRAWING IS BASED ON 04291-RES-SUB-DR-EE-002

VOLTAGE
TRANSFORMER
SHEET 21 OF 22.

LAYOUT DWG	N/A	T-LAYOUT NO.	N/A
------------	-----	--------------	-----

DRAWING NUMBER
04291-RES-SUB-DR-PT-002

SCALE - 1:50 @ A3

**ENVIRONMENTAL STATEMENT
2021**

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION

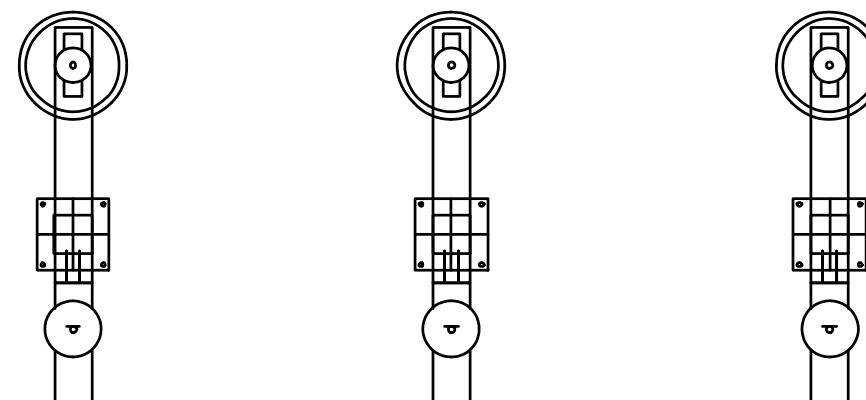
**UNSHINAGH
WIND FARM**

FIGURE 1.7

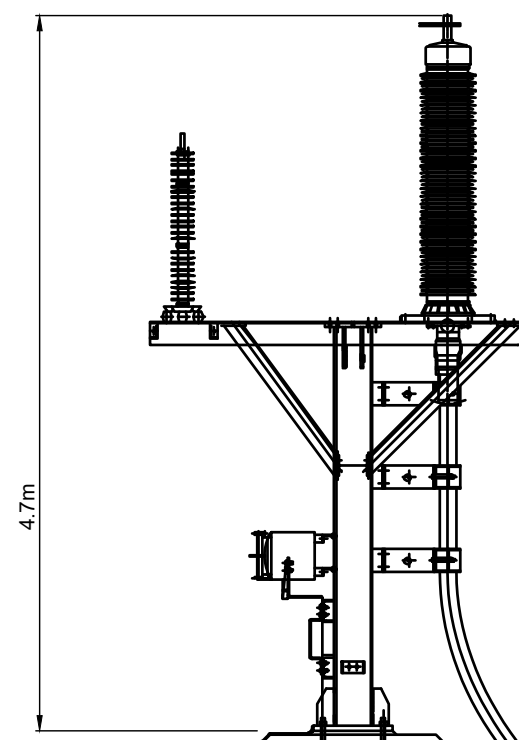
**CONTROL BUILDING
AND SUBSTATION
ELEVATIONS**

NOTES

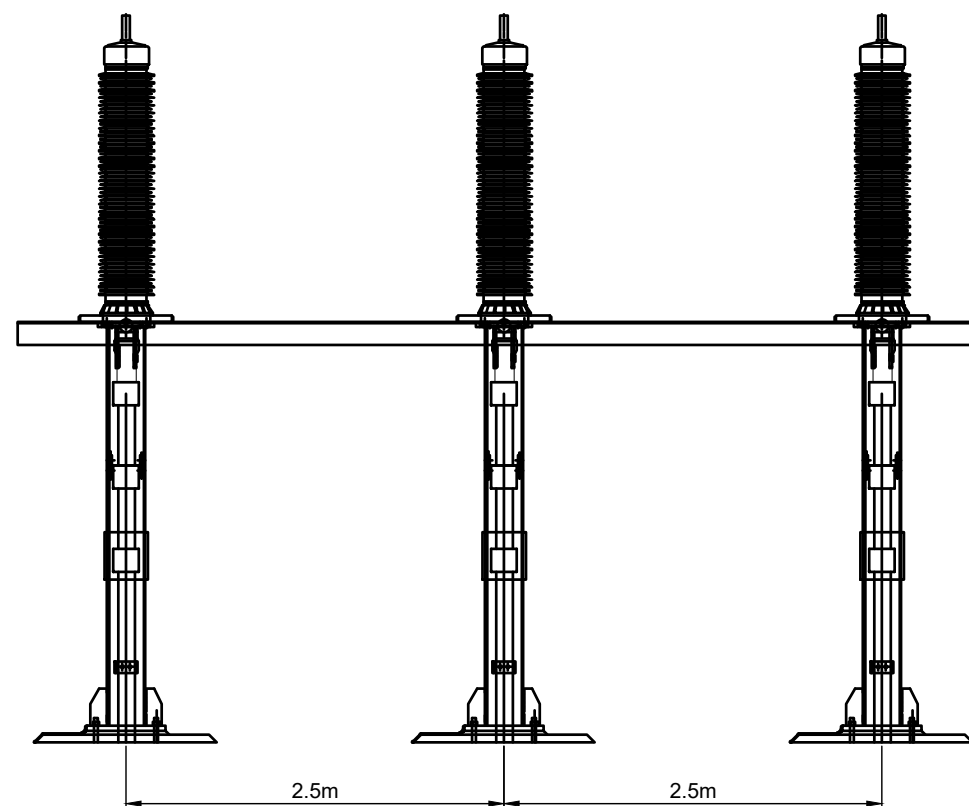
1. ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
2. THIS DRAWING IS PRELIMINARY AND SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
3. THIS DRAWING IS BASED ON 04291-RES-SUB-DR-EE-002



CABLE SEALING END- PLAN
SCALE - 1:50



CABLE SEALING END- SIDE ELEVATION
SCALE - 1:50



CABLE SEALING END- FRONT ELEVATION
SCALE - 1:50

CABLE SEALING END
AND SURGE ARRESTOR
SHEET 22 OF 22.

LAYOUT DWG	N/A	T-LAYOUT NO.	N/A
DRAWING NUMBER	04291-RES-SUB-DR-PT-002		

SCALE - 1:50 @ A3

**ENVIRONMENTAL STATEMENT
2021**

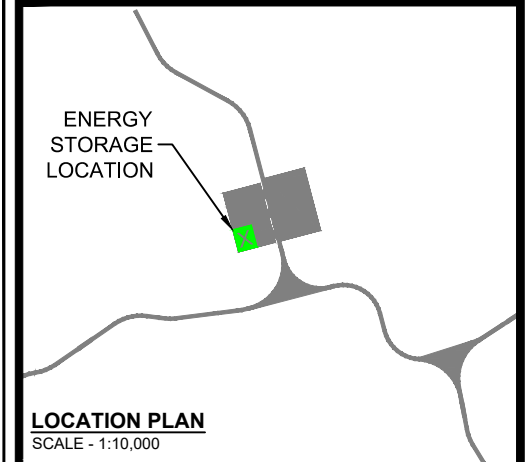
THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION



**UNSHINAGH
WIND FARM**

FIGURE 1.8

**ENERGY STORAGE COMPOUND
PLAN & ELEVATION
(SHEET 1 OF 3)
ELEVATIONS WITH FENCE**



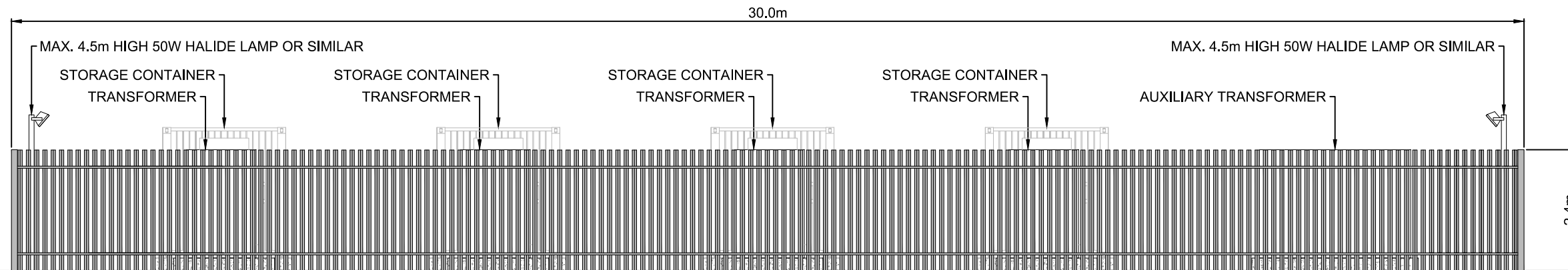
THE LAND & PROPERTY SERVICES INTELLECTUAL PROPERTY IS CROWN COPYRIGHT AND IS REPRODUCED WITH THE PERMISSION OF LAND & PROPERTY SERVICES UNDER DELEGATED AUTHORITY FROM THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE. © CROWN COPYRIGHT AND DATABASE RIGHT 2021 LICENCE NO. 242.

KEY:

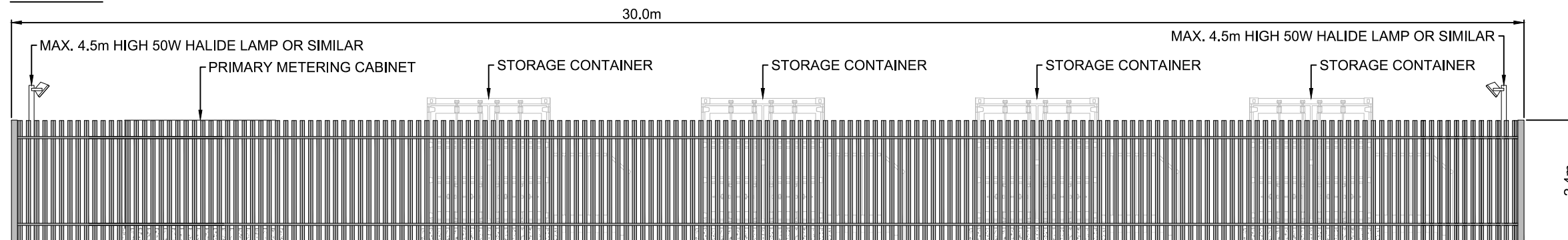
- INFRASTRUCTURE
- ENERGY STORAGE LOCATION

NOTE:

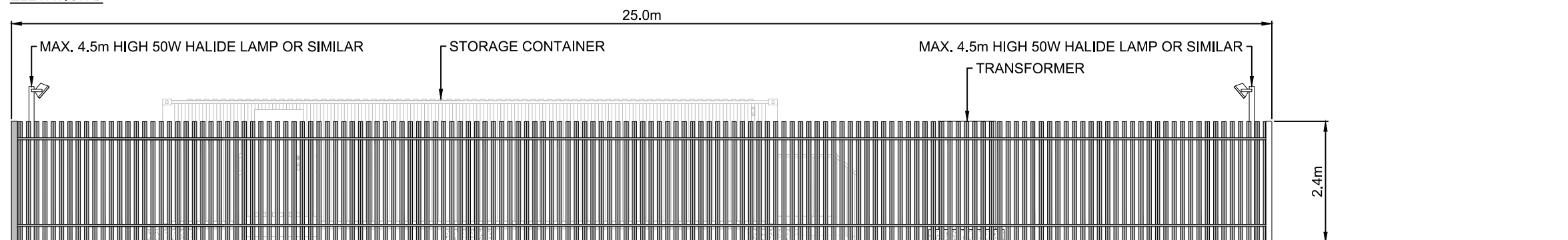
1. ALL DIMENSIONS ARE MAXIMUM ANTICIPATED AND SUBJECT TO DETAILED DESIGN.



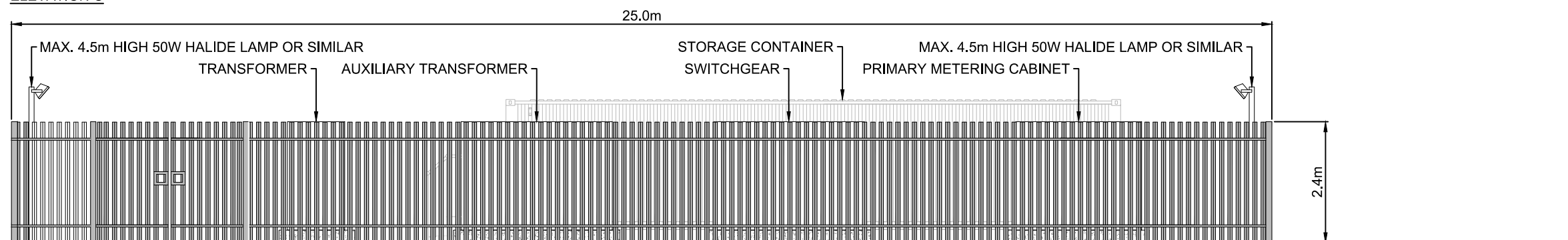
ELEVATION A



ELEVATION B



ELEVATION C



ELEVATION D



INDICATIVE PRIMARY METERING CABINET



INDICATIVE SWITCHGEAR



INDICATIVE TRANSFORMER

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
04291-RES-BAT-DR-EE-001

SCALE - 1:100 @ A3

**ENVIRONMENTAL STATEMENT
2021**

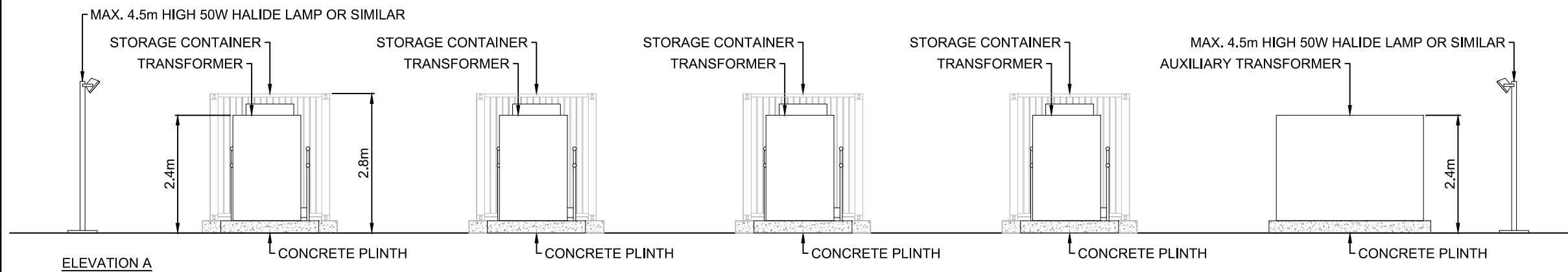
THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION



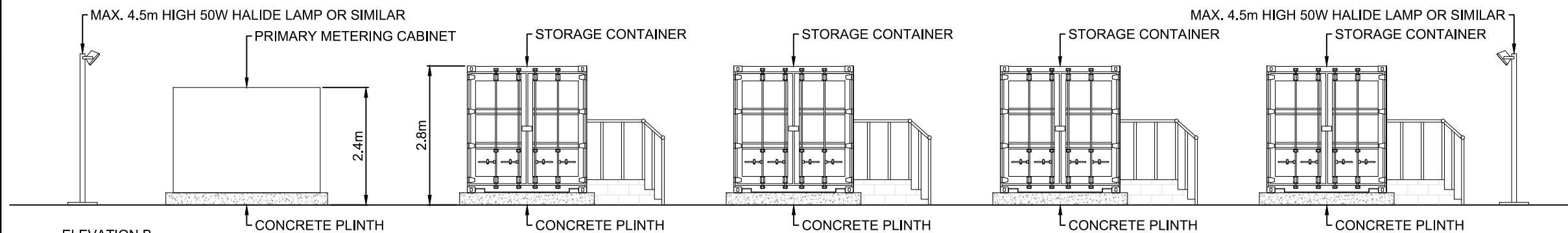
**UNSHINAGH
WIND FARM**

FIGURE 1.8

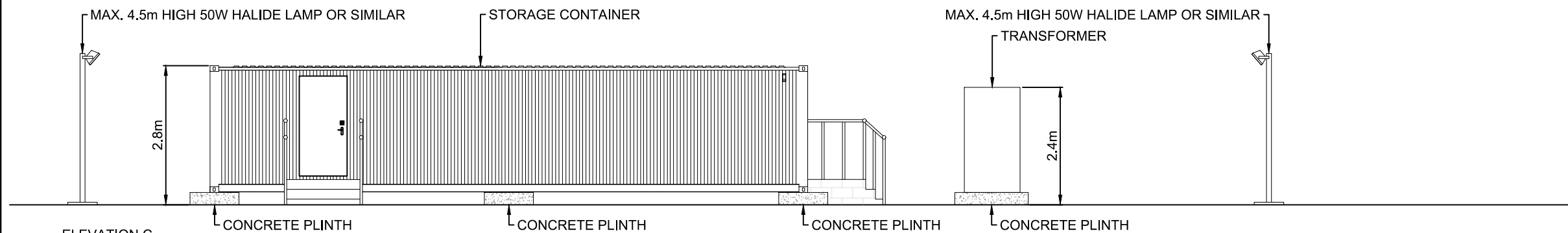
**ENERGY STORAGE COMPOUND
PLAN & ELEVATION
(SHEET 1 OF 3)
ELEVATIONS WITHOUT FENCE**



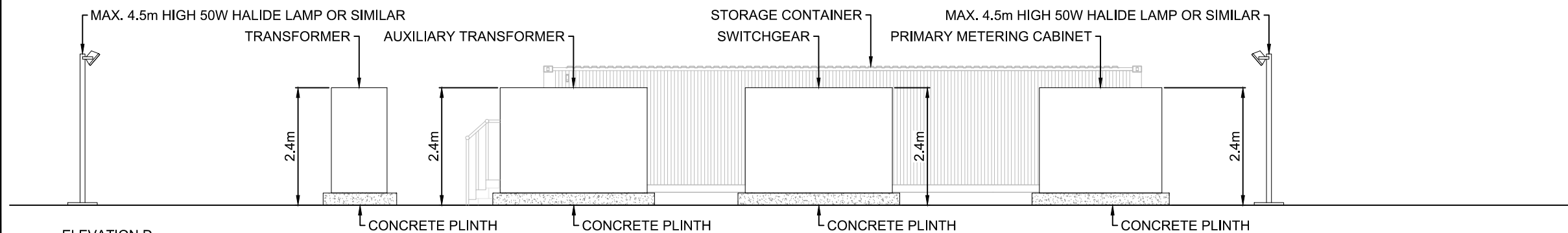
ELEVATION A



ELEVATION B



ELEVATION C



ELEVATION D



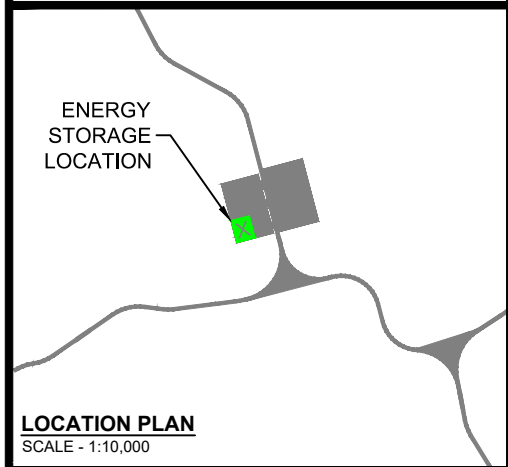
INDICATIVE PRIMARY METERING CABINET



INDICATIVE SWITCHGEAR



INDICATIVE TRANSFORMER



LOCATION PLAN

SCALE - 1:10,000

THE LAND & PROPERTY SERVICES INTELLECTUAL PROPERTY IS CROWN COPYRIGHT AND IS REPRODUCED WITH THE PERMISSION OF LAND & PROPERTY SERVICES UNDER DELEGATED AUTHORITY FROM THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE. © CROWN COPYRIGHT AND DATABASE RIGHT 2021 LICENCE NO. 242.

KEY:

- INFRASTRUCTURE
- ENERGY STORAGE LOCATION

NOTE:

1. ALL DIMENSIONS ARE MAXIMUM ANTICIPATED AND SUBJECT TO DETAILED DESIGN.

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
04291-RES-BAT-DR-EE-001

SCALE - 1:100 @ A3

**ENVIRONMENTAL STATEMENT
2021**

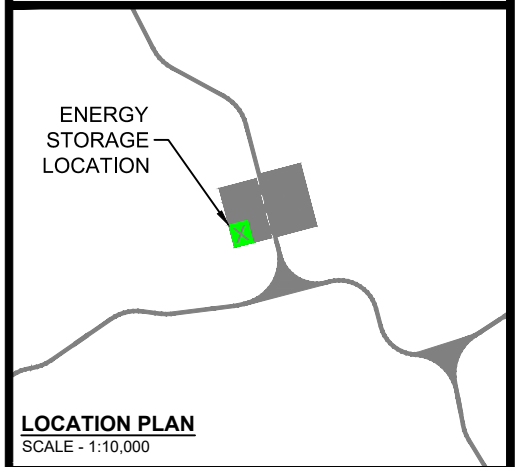
THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION



**UNSHINAGH
WIND FARM**

FIGURE 1.8

**ENERGY STORAGE COMPOUND
PLAN & ELEVATION
(SHEET 1 OF 3)
LAYOUT PLAN**



LOCATION PLAN
SCALE - 1:10,000

THE LAND & PROPERTY SERVICES INTELLECTUAL PROPERTY IS CROWN COPYRIGHT AND IS REPRODUCED WITH THE PERMISSION OF LAND & PROPERTY SERVICES UNDER DELEGATED AUTHORITY FROM THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE. © CROWN COPYRIGHT AND DATABASE RIGHT 2021 LICENCE NO. 242.

KEY:

- INFRASTRUCTURE
- 18-25mm GRADE, 150mm DEEP, CLEAN CRUSHED ROCK
- PALISADE FENCE 2.4m HIGH
- MAX. 4.5m HIGH 50W HALIDE LAMP OR SIMILAR. COLUMNS SHALL BE TELESCOPIC, HINGED OR SIMILAR TO FACILITATE GROUND LEVEL BULB REPLACEMENT. EXACT POSITIONS TBC BASED ON SELECTED PRODUCT(S).
- ENERGY STORAGE LOCATION

NOTE:

1. ALL DIMENSIONS ARE MAXIMUM ANTICIPATED AND SUBJECT TO DETAILED DESIGN.

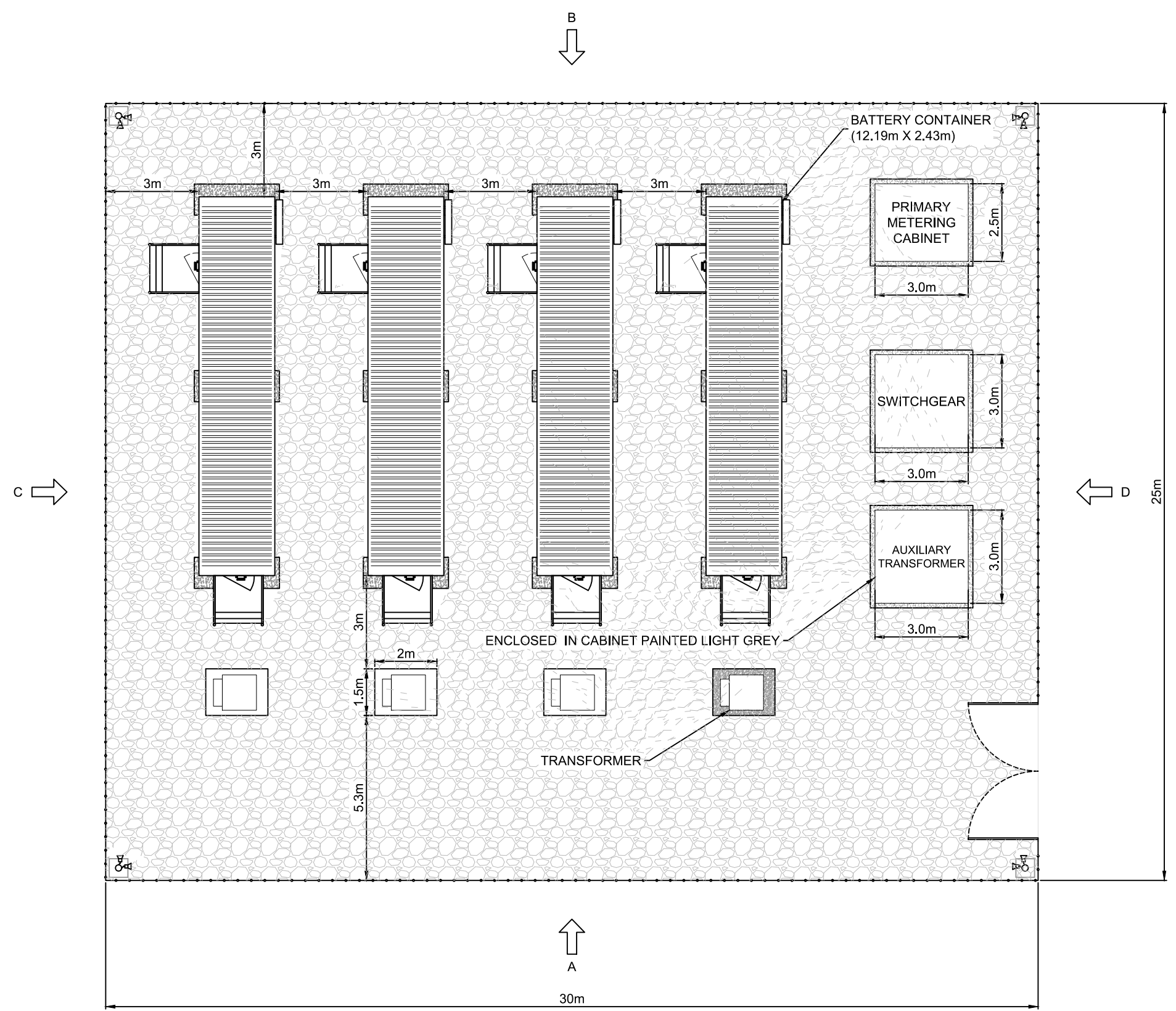
LAYOUT DWG	N/A	T-LAYOUT NO.	N/A
------------	-----	--------------	-----

DRAWING NUMBER
04291-RES-BAT-DR-EE-001

SCALE - 1:150 @ A3

**ENVIRONMENTAL STATEMENT
2021**

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION





**UNSHINAGH
WIND FARM**




FIGURE 1.9

**TYPICAL ENERGY
STORAGE
CONTAINER ELEVATION**

NOTES:

1. ALL DIMENSIONS ARE MAXIMUM ANTICIPATED AND SUBJECT TO DETAILED DESIGN
2. DOOR AND STEPS POSITIONS ARE INDICATIVE AND SUBJECT TO DETAILED DESIGN.
3. APPROXIMATE FINISHED FLOOR LEVEL 500mm ABOVE EXISTING GROUND LEVEL.
4. STEPS TO BE EITHER CONSTRUCTED ON SITE FROM MASS CONCRETE OR MASONRY BLOCKS OR PREFABRICATED OFF SITE AND INSTALLED ON SITE FOLLOWING POSITIONING OF THE STORAGE UNIT.
5. THE LOCATION AND SIZE OF ENERGY STORAGE UNIT WITHIN THE CONTAINER TO BE DETERMINED AT DETAILED DESIGN STAGE.
6. EXTERNAL COLOUR OF ENERGY STORAGE UNIT TO BE AGREED WITH PLANNING AUTHORITY

KEY:

-  DOOR
-  PASSIVE INFRARED LIGHTING (PLAN)
-  PASSIVE INFRARED LIGHTING (ELEVATION)

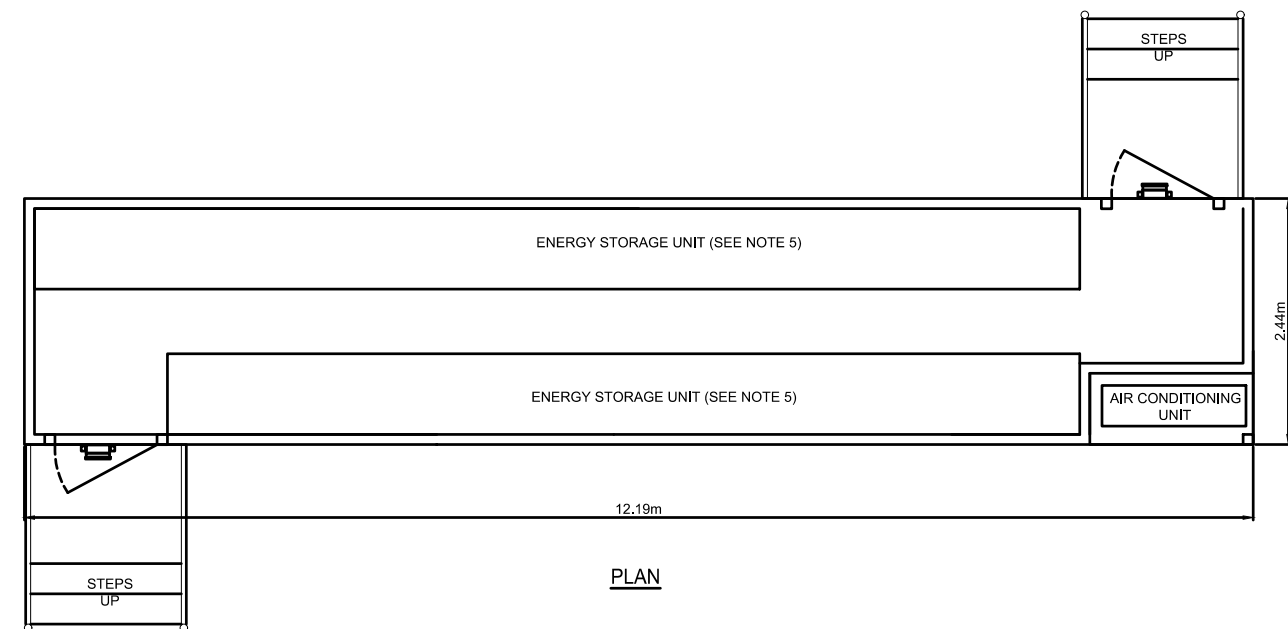
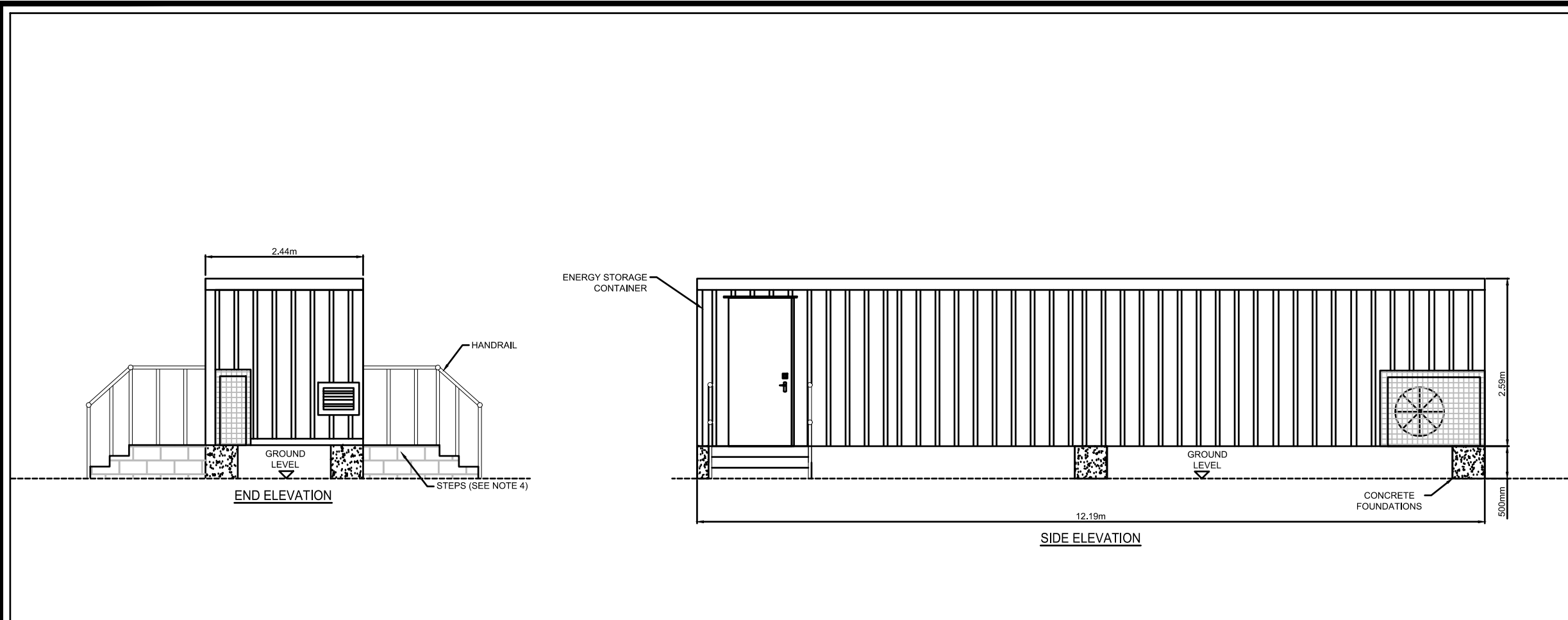
LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
04291-RES-BAT-DR-EE-002

SCALE - 1:150 @ A3

**ENVIRONMENTAL STATEMENT
2021**

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION





UNSHINAGH WIND FARM

FIGURE 1.10

SITE ENTRANCE SHEET 1 OF 2

THE LAND & PROPERTY SERVICES INTELLECTUAL PROPERTY IS CROWN COPYRIGHT AND IS REPRODUCED WITH THE PERMISSION OF LAND & PROPERTY SERVICES UNDER DELEGATED AUTHORITY FROM THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE. © CROWN COPYRIGHT AND DATABASE RIGHT 2021 LICENCE NO. 242.

KEY

- PLAN APPLICATION BOUNDARY
- EXISTING ROAD/TRACK SURFACE
- PROPOSED SITE ACCESS TRACK
- PROPOSED ABNORMAL LOADS: AREA WILL BE REINSTATED ON COMPLETION OF WIND FARM CONSTRUCTION
- 60mm SURFACE COURSE, 75mm BINDER COURSE
- MINIMUM 150mm TYPE 1 SUB-BASE SOFT AREAS AND UNSUITABLE MATERIAL (PEAT, TOPSOIL, SILT) TO BE REMOVED.
- MINIMUM FALL FROM ENTRANCE GATE TO PUBLIC ROAD 1:100.
- EXISTENCE OF SERVICES TO BE CHECKED WITH RELEVANT AUTHORITIES.
- MINIMUM REQUIREMENTS FOR VISIBILITY IN ACCORDANCE WITH THE DESIGN MANUAL FOR ROADS AND BRIDGES.
- VEGETATION TO BE TRIMMED OR REMOVED
- PROPOSED TEMPORARY STOCK PROOF FENCE WITH HEDGING & PLANTING INSIDE BOUNDARY
- PROPOSED GATE
- CUT EARTHWORKS
- PROPOSED PLANTING - REFER TO ES VOL 4 6.6.1 FOR FULL REPLANTING PLAN
- EXISTING PLANTING TO BE RETAINED
- ATTENUATION AREA



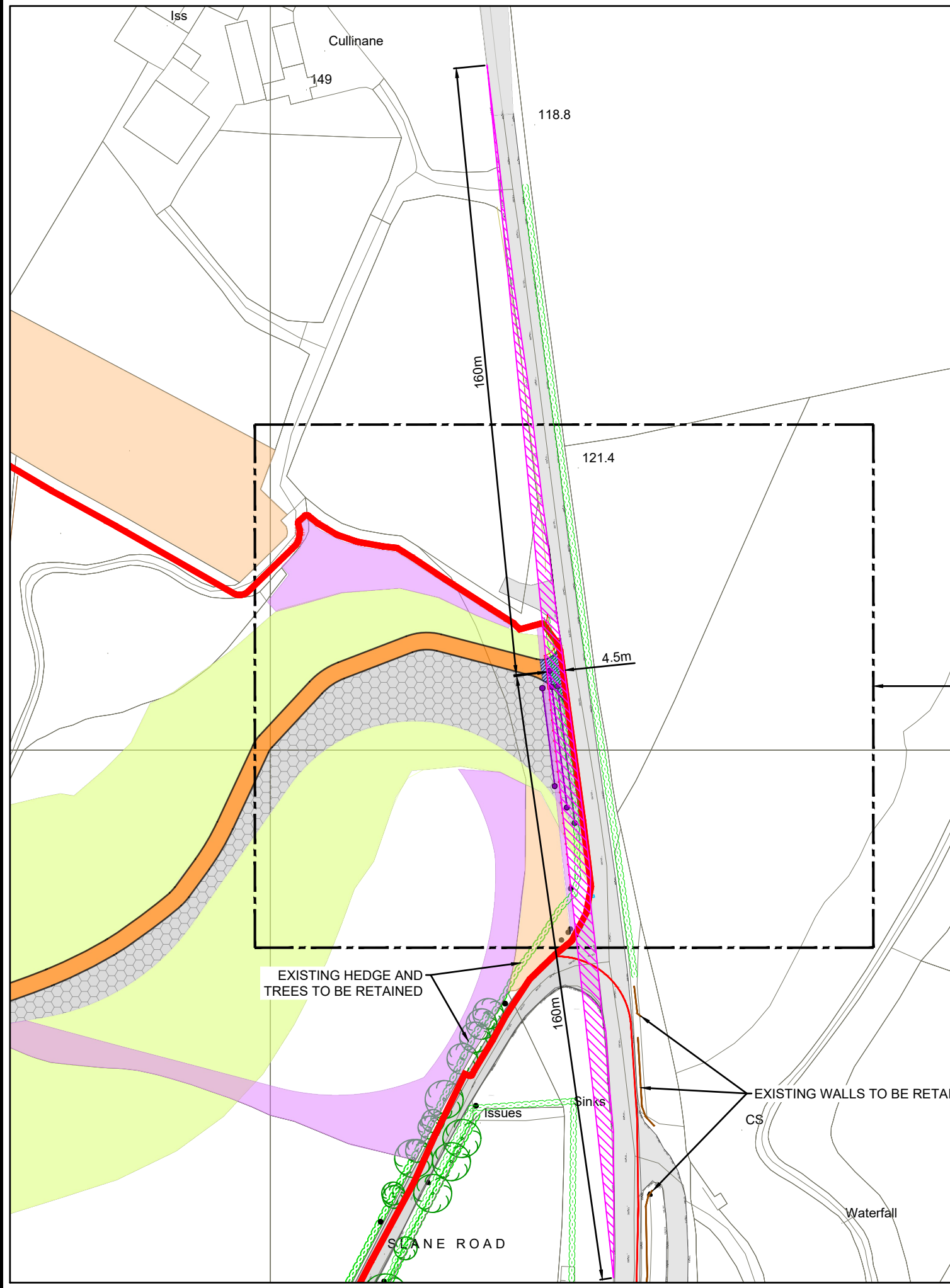
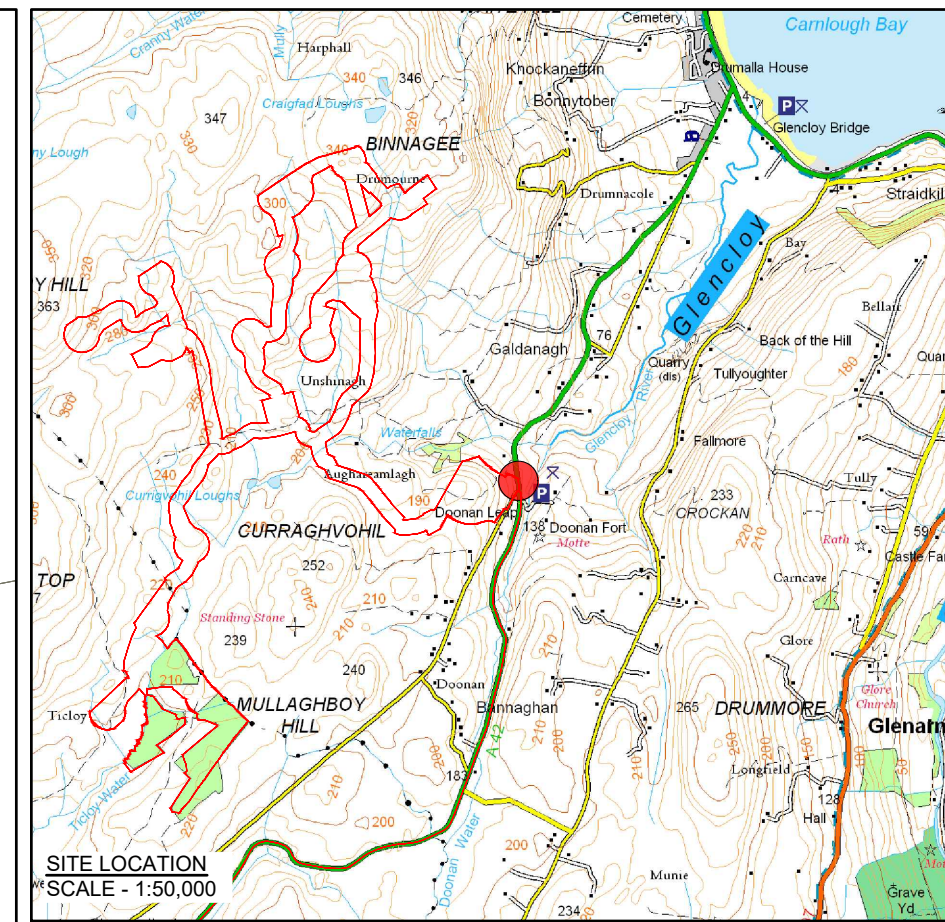
LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
04291-RES-ACC-DR-LO-008

SCALE - AS SHOWN @ A3

**ENVIRONMENTAL STATEMENT
2021**

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION



NOTES

1. DO NOT SCALE FROM DRAWING.
2. DETAILS AND DIMENSIONS ARE INDICATIVE ONLY AND SUBJECT TO CHANGES AT DETAILED DESIGN STAGE.
3. APPROPRIATE SUDS DESIGN MEASURES WILL BE EMPLOYED AT DETAIL DESIGN STAGE.
4. ALL VISIBILITY SPLAYS SHOWN ARE WITHIN LANDS UNDER APPLICANTS CONTROL. ANY PHYSICAL HINDRANCES WITHIN THE EXTENTS OF THE VISIBILITY SPLAYS WILL BE REMOVED. VEGETATION WILL BE TRIMMED TO A MAXIMUM OF 250MM ABOVE EGL.
5. RUNOFF FROM THE SITE ENTRANCE WILL BE INTERCEPTED AND DIVERTED TO EXISTING DRAINAGE/ ATTENUATION AREA PREVENTING ANY RUN OFF TO THE PUBLIC ROAD. SURFACE RUN OFF FROM THE MAIN SITE WILL BE DIRECTED TO VARIOUS SUDS FEATURES AS DESCRIBED WITHIN THE ES VOL 2.



UNSHINAGH WIND FARM

FIGURE 1.10

SITE ENTRANCE SHEET 2 OF 2

THE LAND & PROPERTY SERVICES INTELLECTUAL PROPERTY IS CROWN COPYRIGHT AND IS REPRODUCED WITH THE PERMISSION OF LAND & PROPERTY SERVICES UNDER DELEGATED AUTHORITY FROM THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE. © CROWN COPYRIGHT AND DATABASE RIGHT 2021 LICENCE NO. 242.

KEY

- EXISTING ROAD/TRACK SURFACE
- PROPOSED SITE ACCESS TRACK
- PROPOSED ABNORMAL LOADS: AREA WILL BE REINSTATED ON COMPLETION OF WIND FARM CONSTRUCTION
- 60mm SURFACE COURSE, 75mm BINDER COURSE
- MINIMUM 150mm TYPE 1 SUB-BASE SOFT AREAS AND UNSUITABLE MATERIAL (PEAT, TOPSOIL, SILT) TO BE REMOVED.
- MINIMUM FALL FROM ENTRANCE GATE TO PUBLIC ROAD 1:100.
- EXISTENCE OF SERVICES TO BE CHECKED WITH RELEVANT AUTHORITIES.
- MINIMUM REQUIREMENTS FOR VISIBILITY IN ACCORDANCE WITH THE DESIGN MANUAL FOR ROADS AND BRIDGES.
- VEGETATION TO BE TRIMMED OR REMOVED
- PROPOSED TEMPORARY STOCK PROOF FENCE WITH HEDGING & PLANTING INSIDE BOUNDARY
- PROPOSED GATE
- PROPOSED DRAINAGE CHANNEL (SHOWN INDICATIVE)
- CUT EARTHWORKS
- ATTENUATION AREA

PLANNING APPLICATION BOUNDARY AND PLANTING AREAS OMITTED FOR CLARITY

121.4

160m

4.5m

R5m

6m

R15m

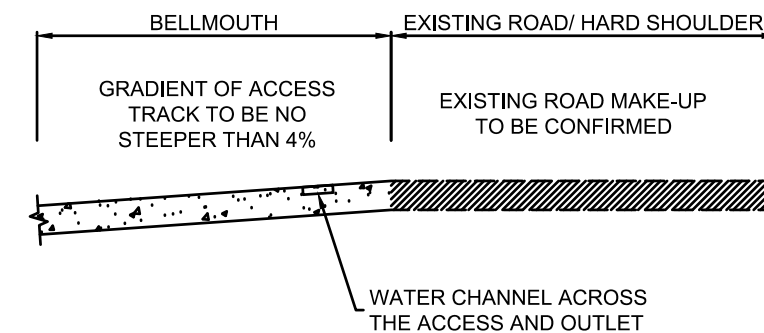
160m

PROPOSED DRAINAGE CHANNEL DISCHARGE TO EXISTING GULLEYS

EXISTING HEDGE TO BE RETAINED

NOTES

1. DO NOT SCALE FROM DRAWING.
2. DETAILS AND DIMENSIONS ARE INDICATIVE ONLY AND SUBJECT TO CHANGES AT DETAILED DESIGN STAGE.
3. APPROPRIATE SUDS DESIGN MEASURES WILL BE EMPLOYED AT DETAIL DESIGN STAGE.
4. RUNOFF FROM THE SITE ENTRANCE WILL BE INTERCEPTED AND DIVERTED TO EXISTING DRAINAGE/ ATTENUATION AREA PREVENTING ANY RUN OFF TO THE PUBLIC ROAD. SURFACE RUN OFF FROM THE MAIN SITE WILL BE DIRECTED TO VARIOUS SUDS FEATURES AS DESCRIBED WITHIN THE ES VOL 2.



INDICATIVE CROSS SECTION AT SITE ENTRANCE
SCALE - N.T.S.



LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
04291-RES-ACC-DR-LO-008

SCALE - AS SHOWN @ A3

**ENVIRONMENTAL STATEMENT
2021**

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION






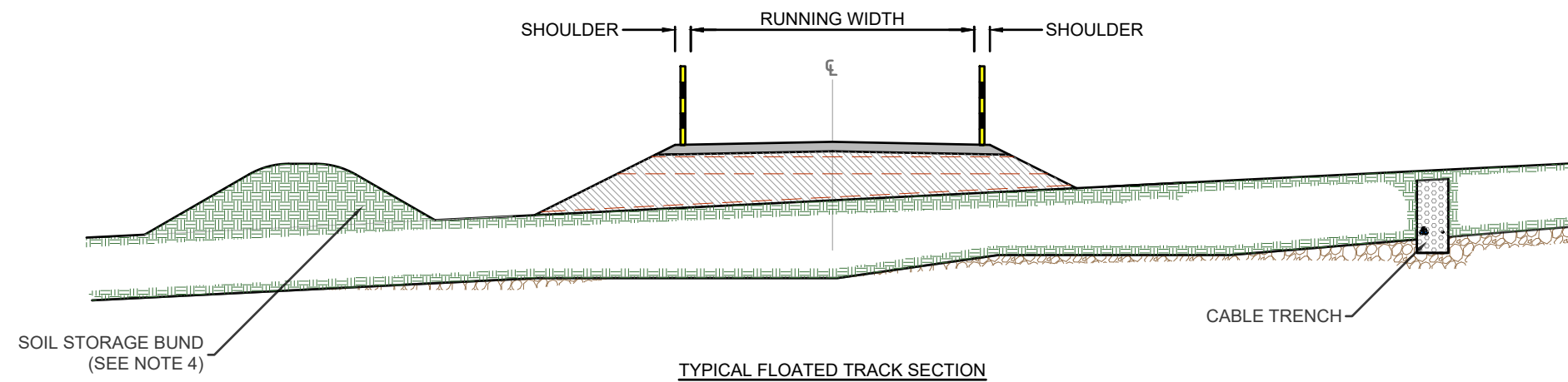
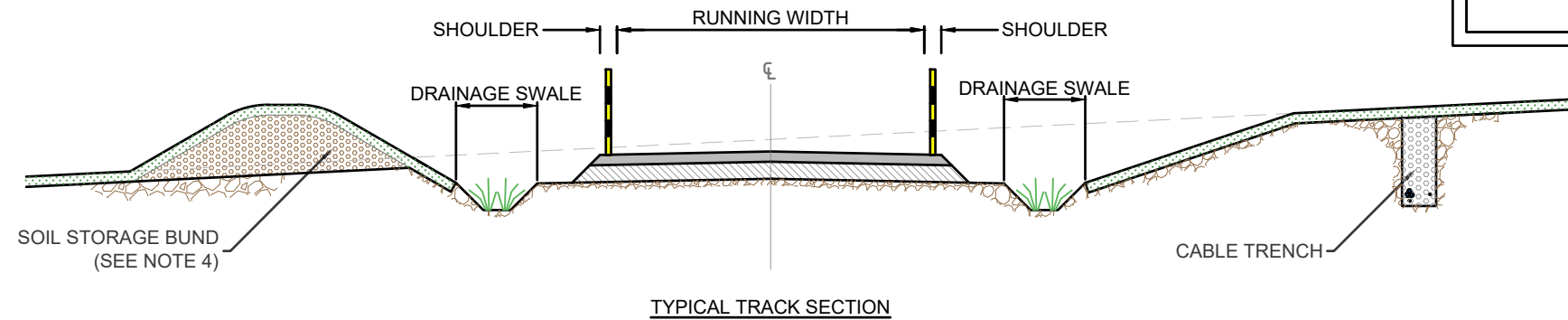
**UNSHINAGH
WIND FARM**

FIGURE 1.11

**TYPICAL ACCESS
TRACK DESIGN**

KEY:

-  RUNNING SURFACE
-  BASE/CAPPING LAYER
-  TOPSOIL
-  SUBGRADE
-  PEAT LAYER/SOFT GROUND
-  GEOGRID
-  EXISTING GROUND LEVEL
-  SNOW POLES
(WHERE REQUIRED)



NOTES:

1. DO NOT SCALE FROM THIS DRAWING.
2. TRACK WIDTH TO INCREASE ON BENDS AND PASSING PLACES.
3. ALL EMBANKMENT SLOPES TO BE PROVIDED AT A STABLE ANGLE BASED ON THE PROPERTIES OF THE MATERIAL ENCOUNTERED ON SITE.
4. EXCAVATED MATERIAL WILL BE PLACED IN AGREED LOCATIONS. REINSTATEMENT AND/OR SPOIL MANAGEMENT PLANS WILL BE DEVELOPED IN LINE WITH CURRENT BEST PRACTICE.
5. TRACK CONSTRUCTION TYPE TO BE DETERMINED DURING DETAILED DESIGN. LAYOUT OF DRAINAGE, CABLE TRENCHES AND STORAGE BUNDS MAY VARY.
6. RUNNING SURFACE AND BASE/CAPPING LAYER TO BE FORMED FROM SUITABLE MATERIALS COMPACTED IN LAYERS.
7. GEOSYNTHETIC REINFORCEMENT OR SOIL STABILISATION MAY BE USED TO REDUCE THE DEPTH OF TRACK CONSTRUCTION. REQUIREMENT TO BE DETERMINED DURING DETAILED DESIGN.

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
04291-RES-ACC-DR-PE-001

SCALE - NOT TO SCALE

**ENVIRONMENTAL STATEMENT
2021**

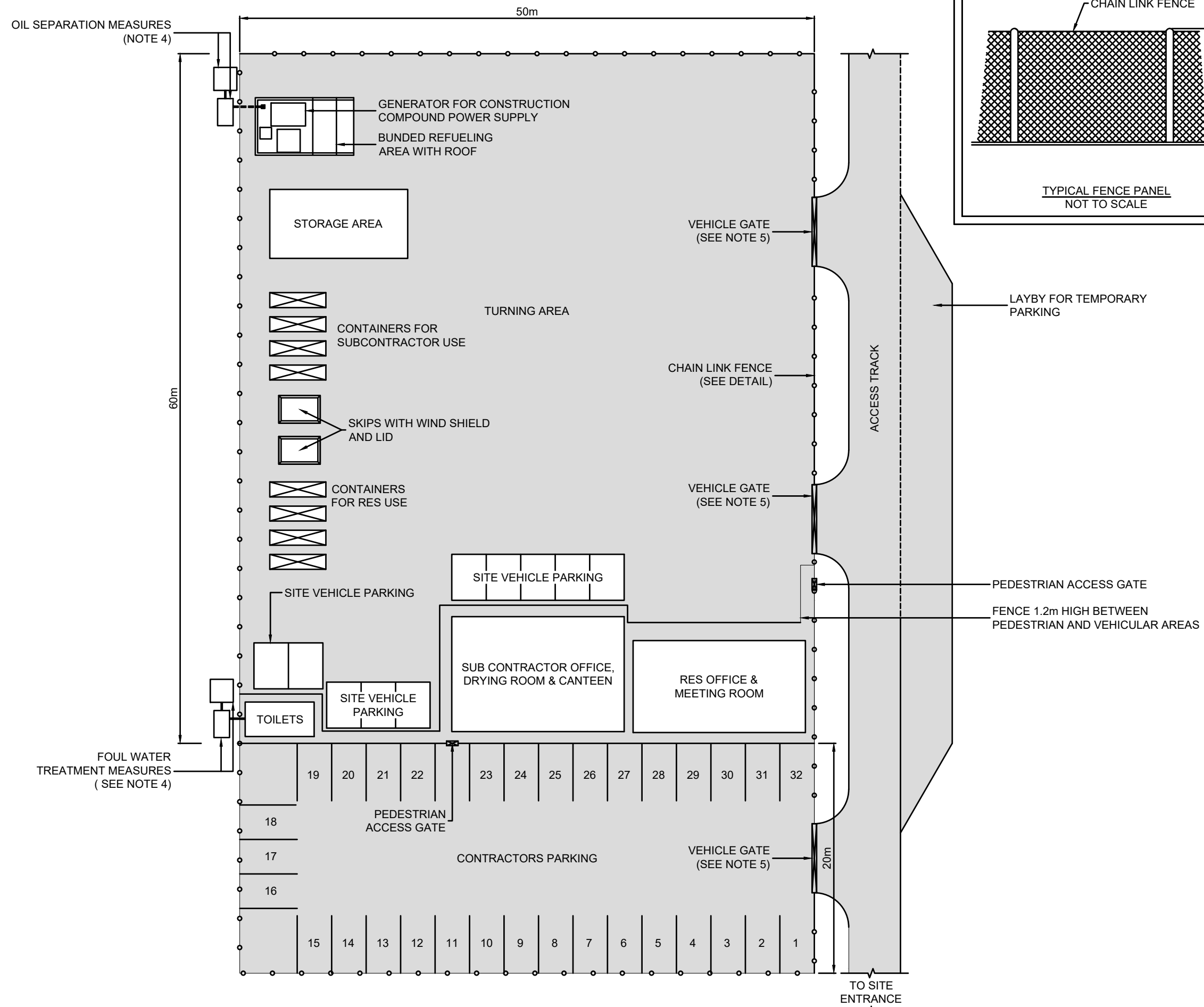
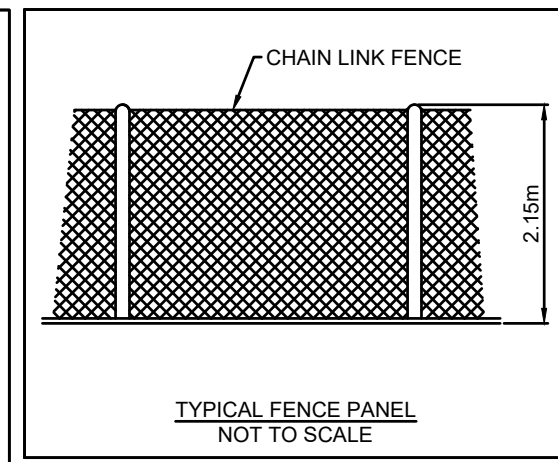
THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION



**UNSHINAGH
WIND FARM**

FIGURE 1.12

**TEMPORARY CONSTRUCTION
COMPOUND
LAYOUT PLAN**



NOTES

1. SIZE, NUMBER AND LOCATION OF COMPOUND EQUIPMENT AND FACILITIES ARE INDICATIVE ONLY
2. STRUCTURE TO BE TEMPORARY AND TO BE REMOVED AFTER CONSTRUCTION.
3. HARDSTANDING TO COMPOUND CONSISTING OF COMPACTED STONE OVER A LAYER OF GEOTEXTILE TO PROVIDE A CLEAN, FIRM, LEVEL AND FREE DRAINING SURFACE SUITABLE FOR CABINS AND HEAVY TRAFFIC.
4. APPROPRIATE MEASURES FOR SEPARATION OF OILS AND TREATMENT OF FOUL WATER TO BE AGREED WITH THE RELEVANT AUTHORITIES.
5. VEHICULAR GATES TO BE 6m WIDE CONSISTING OF 2 x 3m LEAVES

PLAN
SCALE - 1:350 @ A3

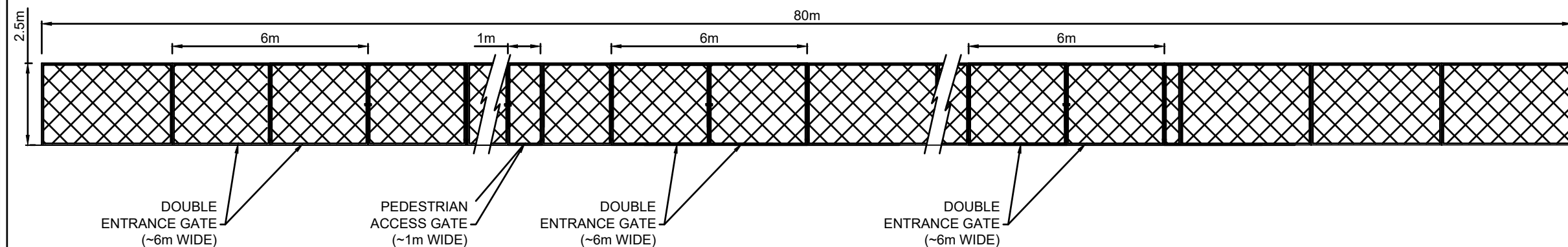
LAYOUT DWG	N/A	T-LAYOUT NO.	N/A
DRAWING NUMBER	04291-RES-BLD-DR-CO-001		
SCALE - AS SHOWN @ A3			
ENVIRONMENTAL STATEMENT 2021			
THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION			



**UNSHINAGH
WIND FARM**

FIGURE 1.13

**TEMPORARY CONSTRUCTION
COMPOUND ELEVATION**



SECURITY FENCE ELEVATION
SCALE - 1:150

LAYOUT DWG	N/A	T-LAYOUT NO.	N/A
DRAWING NUMBER	04291-RES-BLD-DR-CO-002		
SCALE - AS SHOWN			
ENVIRONMENTAL STATEMENT 2021			
THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION			

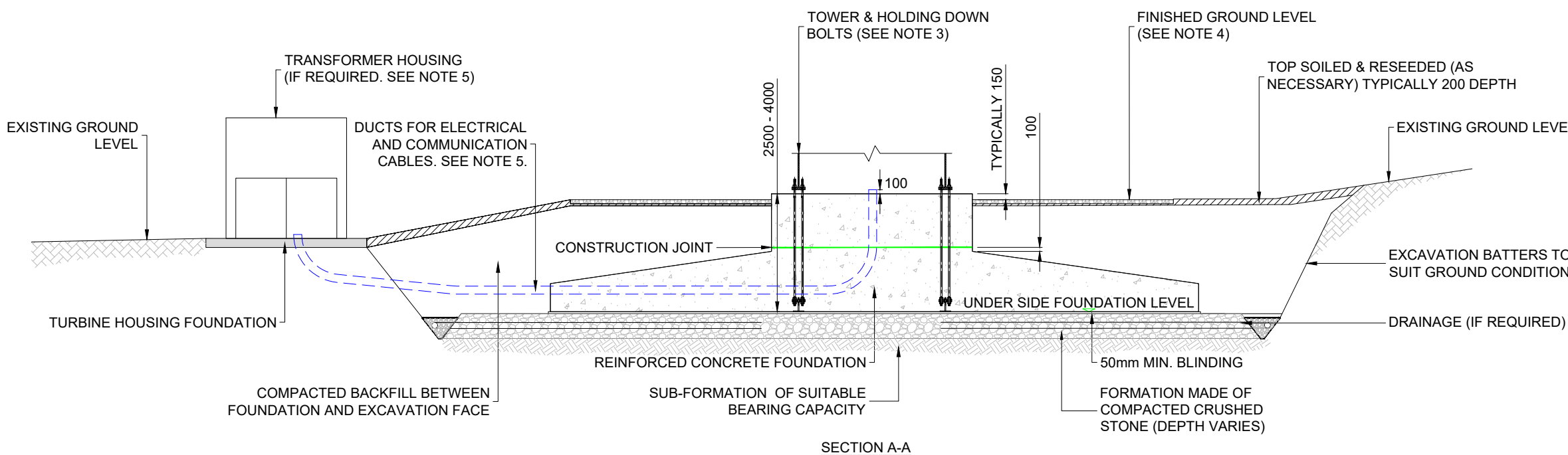
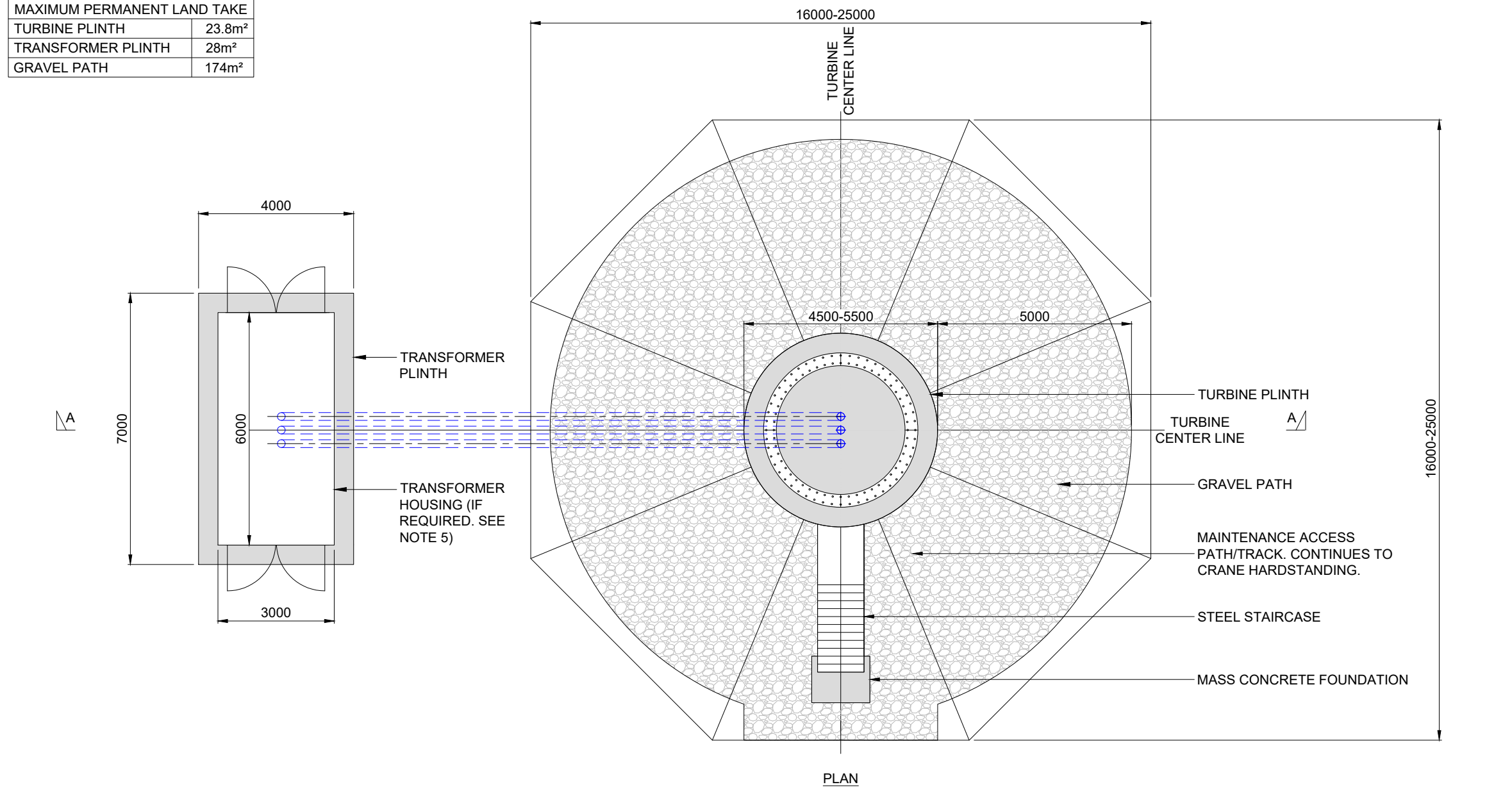


**UNSHINAGH
WIND FARM**

FIGURE 1.14

**WIND TURBINE
FOUNDATION**

MAXIMUM PERMANENT LAND TAKE	
TURBINE PLINTH	23.8m ²
TRANSFORMER PLINTH	28m ²
GRAVEL PATH	174m ²



NOTES:

1. DIMENSIONS AND DETAILS ARE INDICATIVE ONLY AND MAY VARY DUE TO SPECIFIC TURBINE OR GROUND CONDITIONS.
2. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED
3. THE HOLDING DOWN BOLT ARRANGEMENT SHOWN ON THIS DRAWING IS TYPICAL. HOWEVER ALTERNATIVE CAST IN ARRANGEMENTS ARE AVAILABLE AND MAY BE SUBSTITUTED DEPENDING ON ACTUAL TURBINE SELECTION.
4. GRADIENT OF FINISHED GROUND LEVEL OVER TURBINE BASE, MAX 1:12.
5. EXTERNAL TRANSFORMER NOT REQUIRED FOR ALL TURBINES AND NEED FOR TRANSFORMER HOUSING WILL DEPEND ON THE TURBINE SELECTED DURING DETAILED DESIGN.
6. MATERIALS ARISING FROM EXCAVATIONS TO BE SEGREGATED AND PLACED IN AGREED LOCATIONS ADJACENT TO THE WORKING AREA FOR RE-USE. REINSTATEMENT AND /OR PEAT MANAGEMENT PLANS WILL BE DEVELOPED DURING THE DETAILED DESIGN OF SITE INFRASTRUCTURE, IN LINE WITH CURRENT BEST PRACTICE.

LAYOUT DWG	N/A	T-LAYOUT NO.	N/A
DRAWING NUMBER	04291-RES-FOU-DR-PE-001		
SCALE	1:125 @ A3		
ENVIRONMENTAL STATEMENT 2021			
THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION			

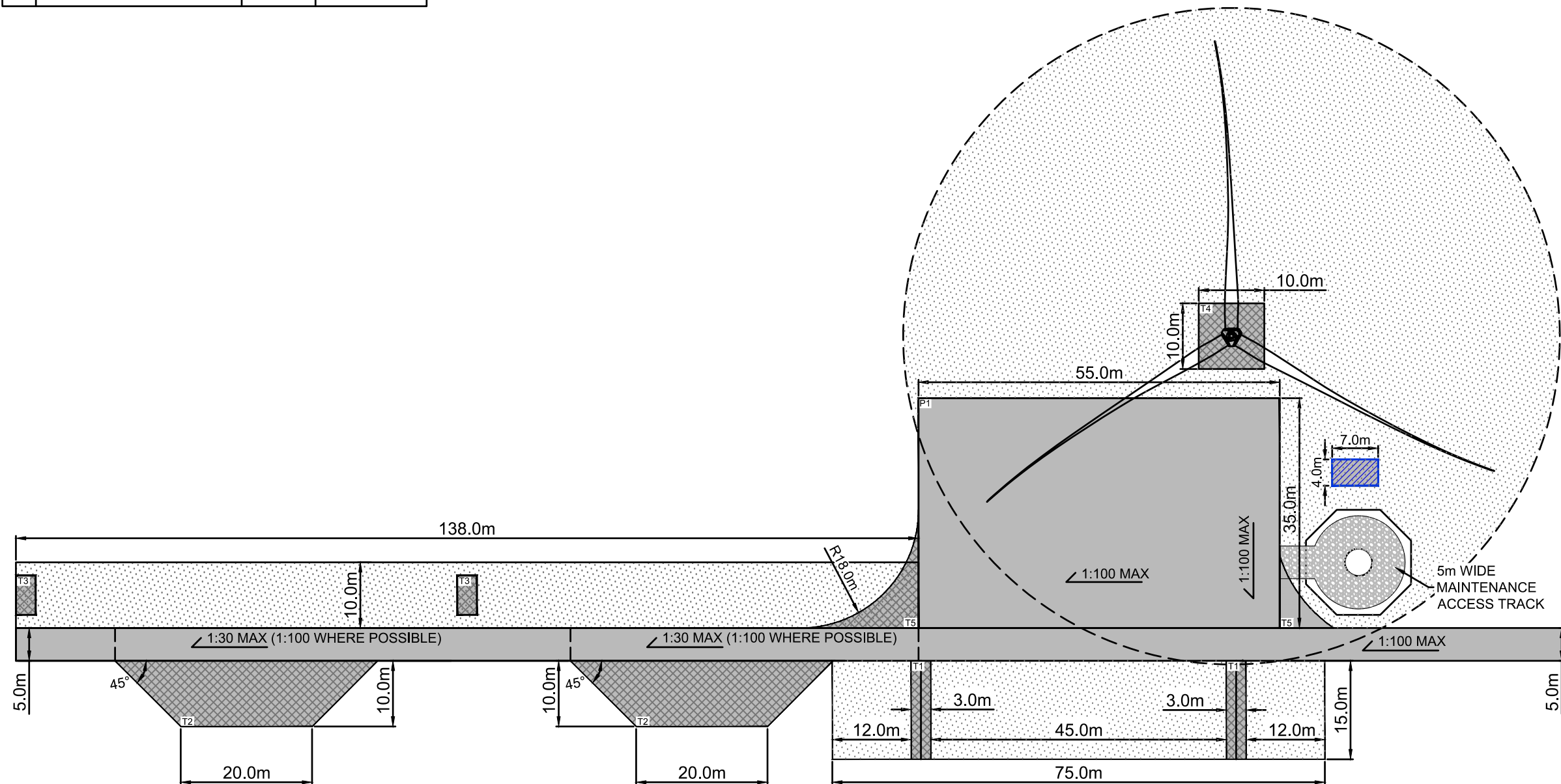


UNSHINAGH WIND FARM

FIGURE 1.15

CRANE HARDSTANDING GENERAL ARRANGEMENT

REF	DESCRIPTION	AREA (m ²)	MAINTENANCE
P1	MAIN HARDSTANDING	1925.0	PERMANENT
T1	BLADE LAYDOWN SUPPORTS	90.0	TEMPORARY
T2	ASSIST CRANE AREA	300.0	TEMPORARY
T3	BOOM SUPPORT	36.0	TEMPORARY
T4	ROTOR ASSEMBLY AREA	100.0	TEMPORARY
T5	TEMPORARY ACCESS	104.0	TEMPORARY



KEY

- PERMANENT WORKS
- TEMPORARY WORKS
- EXTERNAL TRANSFORMER AND SWITCHGEAR ENCLOSURE
- AREA TO BE FREE FROM TOPOGRAPHICAL AND ECOLOGICAL CONSTRAINTS
- MAINTENANCE ACCESS TRACK

NOTES

1. ALL DIMENSIONS IN METRES.
2. HARDSTANDING ARRANGEMENT SUBJECT TO CHANGE DEPENDANT ON SPECIFIC WIND TURBINE MODEL SELECTED FOR CONSTRUCTION.
3. ALL HARDSTANDINGS TO BE CONSTRUCTED ON SUITABLE FOUNDATION MATERIAL.
4. ALL HARDSTANDINGS TO BE FINISHED WITH CRUSHED ROCK, FORMING A FREE DRAINING SURFACE.
5. TRACK ADJACENT TO CRANE HARDSTANDING TO BE DESIGNED TO ACCEPT CRANE OUTRIGGER LOADING.
6. THE PRELIMINARY CRANE HARDSTANDING LAYOUT HAS BEEN DEVELOPED TO ACCOMMODATE EITHER A SINGLE BLADE LIFT OR FULL ROTOR LIFT.
7. TO PROTECT AGAINST INJURY, SUITABLE EDGE PROTECTION IS REQUIRED WHERE THERE IS A DIFFERENCE OF GREATER THAN 1M BETWEEN THE HARDSTAND SURFACE AND THE ADJACENT GROUND.
8. TO CONFIRM HARDSTAND SUITABILITY FOR HH >130m PLEASE REFER TO DOCUMENT [ENG01-2513505](#), WHICH SUMMARISES THE RATIONALE BEHIND THIS DESIGN AND DETAILS THE SPECIFICATIONS USED TO GATHER DESIGN DATA.

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
04291-RES-ERW-DR-PE-001

SCALE - 1:750 @ A3

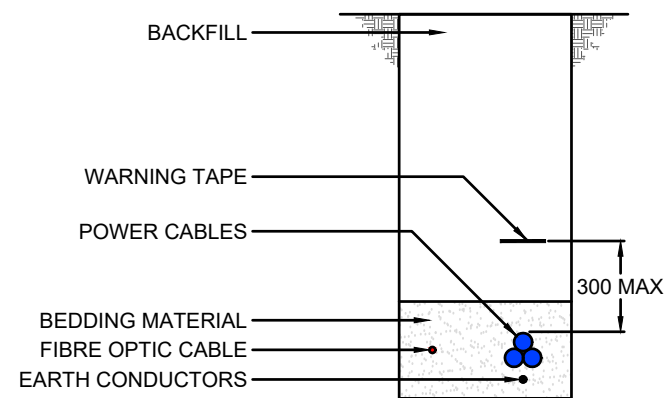
**ENVIRONMENTAL STATEMENT
2021**

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION

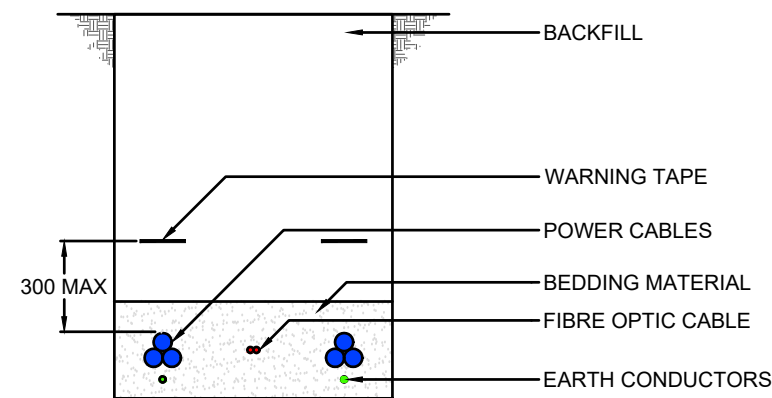
**UNSHINAGH
WIND FARM**

FIGURE 1.16

**CROSS SECTION OF
UNDERGROUND CABLE
TRENCH**

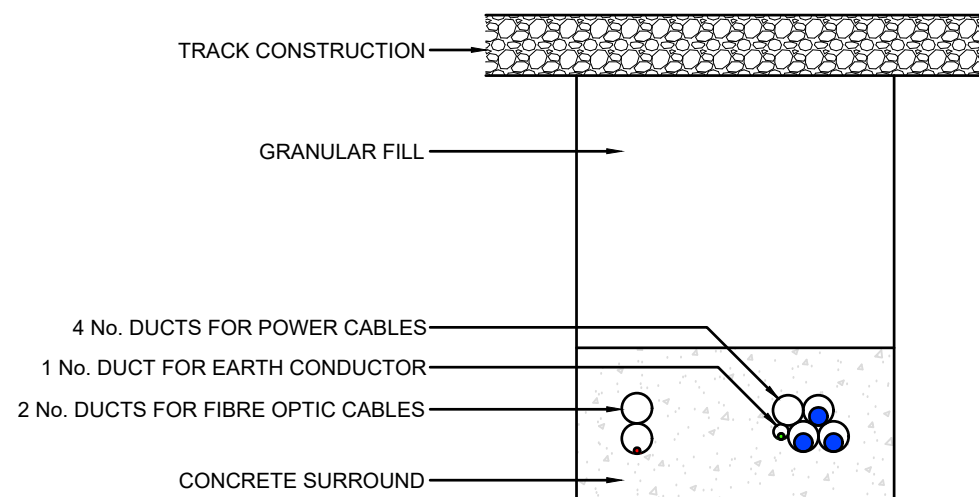


SINGLE CIRCUIT

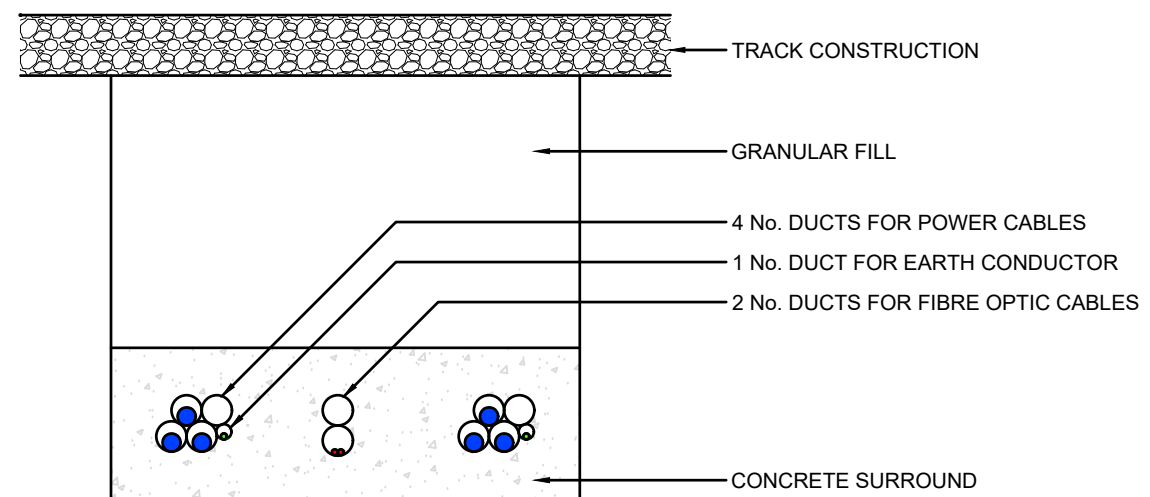


DOUBLE CIRCUIT

TYPICAL CABLE TRENCHES



SINGLE CIRCUIT



DOUBLE CIRCUIT

TYPICAL TRACK CROSSINGS

NOTES:

1. THIS DRAWING IS INDICATIVE ONLY AND IS SUBJECT TO CHANGE AT THE DETAILED DESIGN STAGE.
2. ALL DIMENSIONS IN mm.
3. CABLES MAY BE INSTALLED BY CABLE PLOUGH FOR DISTANCES GREATER THAN 1km.

LAYOUT DWG	N/A	T-LAYOUT NO.	N/A
------------	-----	--------------	-----

DRAWING NUMBER
04291-RES-CBL-DR-EE-001

SCALE - NOT TO SCALE

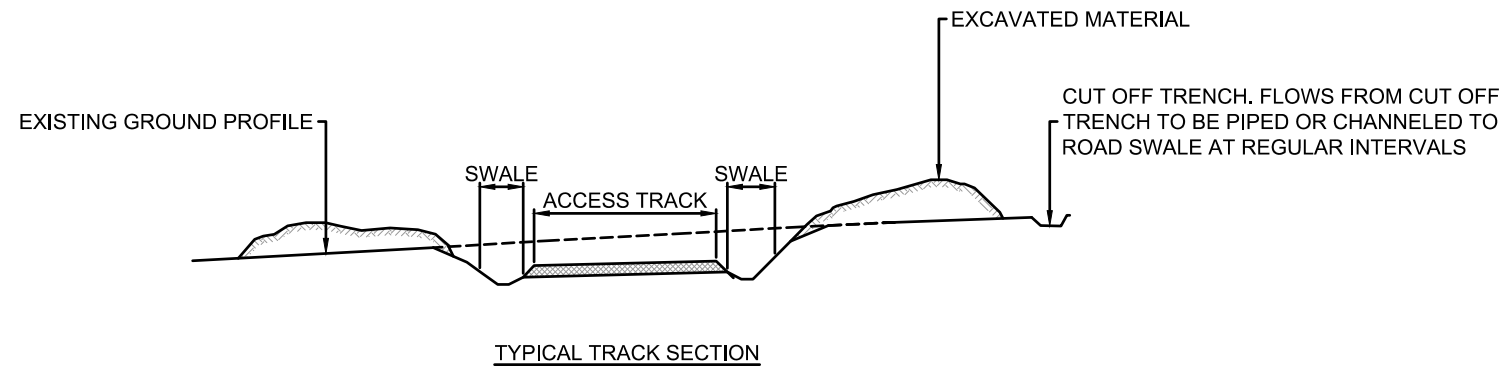
**ENVIRONMENTAL STATEMENT
2021**

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION

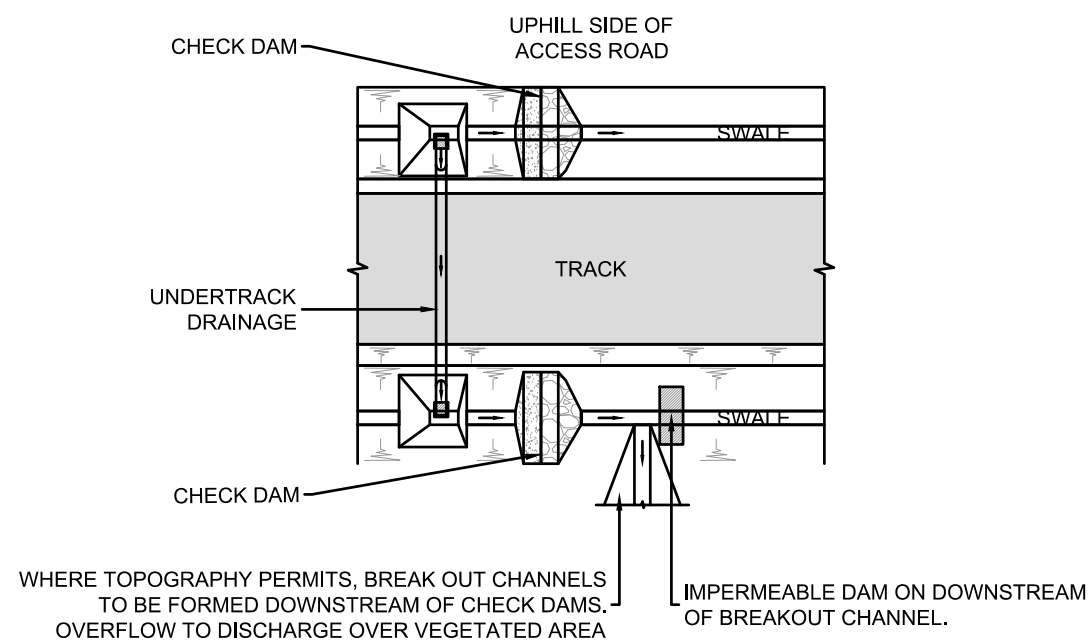
**UNSHINAGH
WIND FARM**

FIGURE 1.17

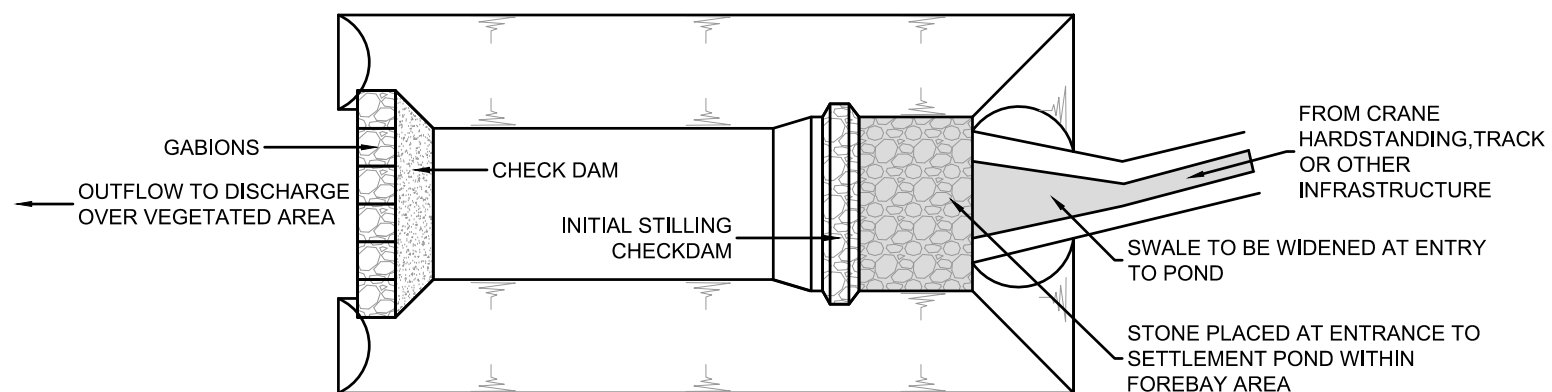
**TYPICAL DRAINAGE
DETAILS**



TYPICAL UNDER TRACK DRAINAGE



TYPICAL CHECK DAM



TYPICAL SETTLEMENT POND

NOTES:

1. SUDS SYSTEM TO BE CONSTRUCTED PRIOR TO, OR AT THE SAME TIME AS THE ACCESS ROAD.
2. SUSTAINABLE PREVENTION MEASURES SHOULD BE IN PLACE AT ALL TIMES TO PREVENT THE CONVEYANCE OF SILTS TO RECEIVING WATERCOURSE.
3. DRAINAGE SWALES TO BE EXCAVATED ADJACENT TO THE ACCESS TRACK. REGULAR CROSS DRAINS TO BE LOCATED ALONG ACCESS TRACKS TO PREVENT EXCESSIVE VOLUMES OF WATER COLLECTING IN THE SWALES.
4. ROADSIDE SWALES TO BE SHALLOW WITH MODERATE GRADIENTS TO PREVENT SCOURING. IN STEEP AREAS CHECK DAMS WILL BE DESIGNED TO REDUCE FLOW RATE AND PROVIDE SOURCE CONTROL SILT CONTAINMENT. WHERE NECESSARY THESE WILL BE DESIGNED IN CONJUNCTION WITH SETTLEMENT PONDS AND/OR CROSS DRAINS.
5. BUILD UP OF SILT LEVELS AT CHECK DAMS TO BE REMOVED AND DISPOSED OF APPROPRIATELY. SILT LEVELS AT CHECK DAMS TO BE VISUALLY INSPECTED AS PART OF AN ONGOING MAINTENANCE PROGRAMME.
6. SPACING AND FREQUENCY OF CHECK DAMS WILL BE DEPENDENT UPON LONGITUDINAL GRADIENT OF SWALE.

LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
04291-RES-DRN-DR-PE-001

SCALE - NOT TO SCALE

**ENVIRONMENTAL STATEMENT
2021**

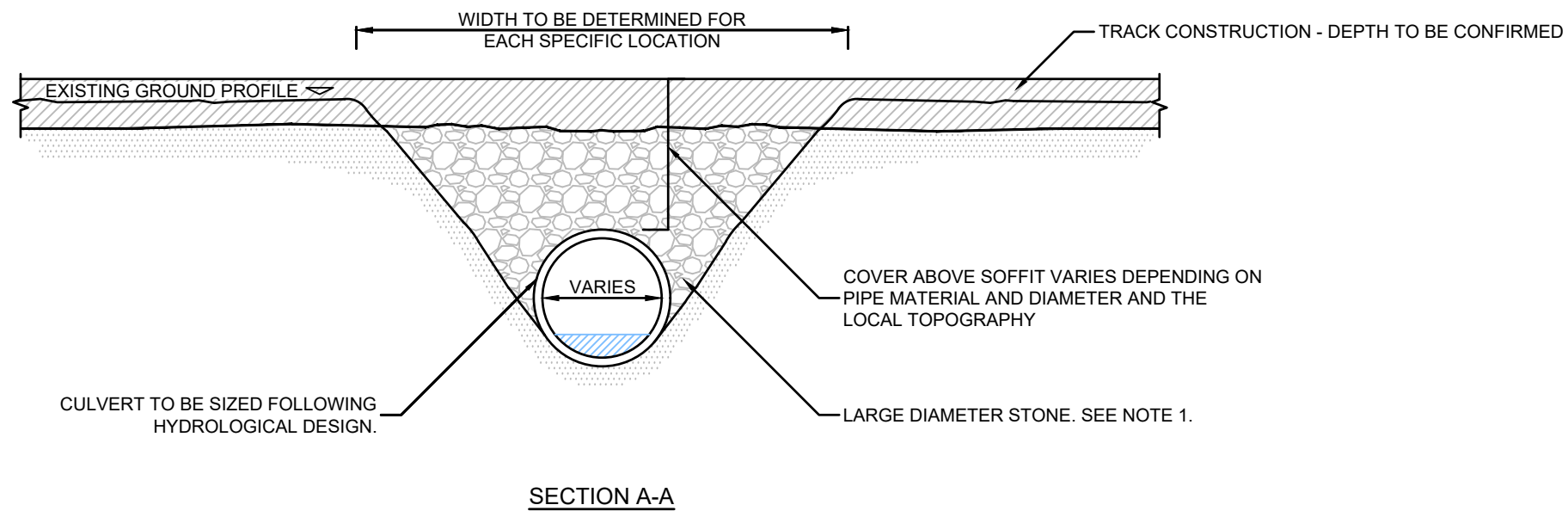
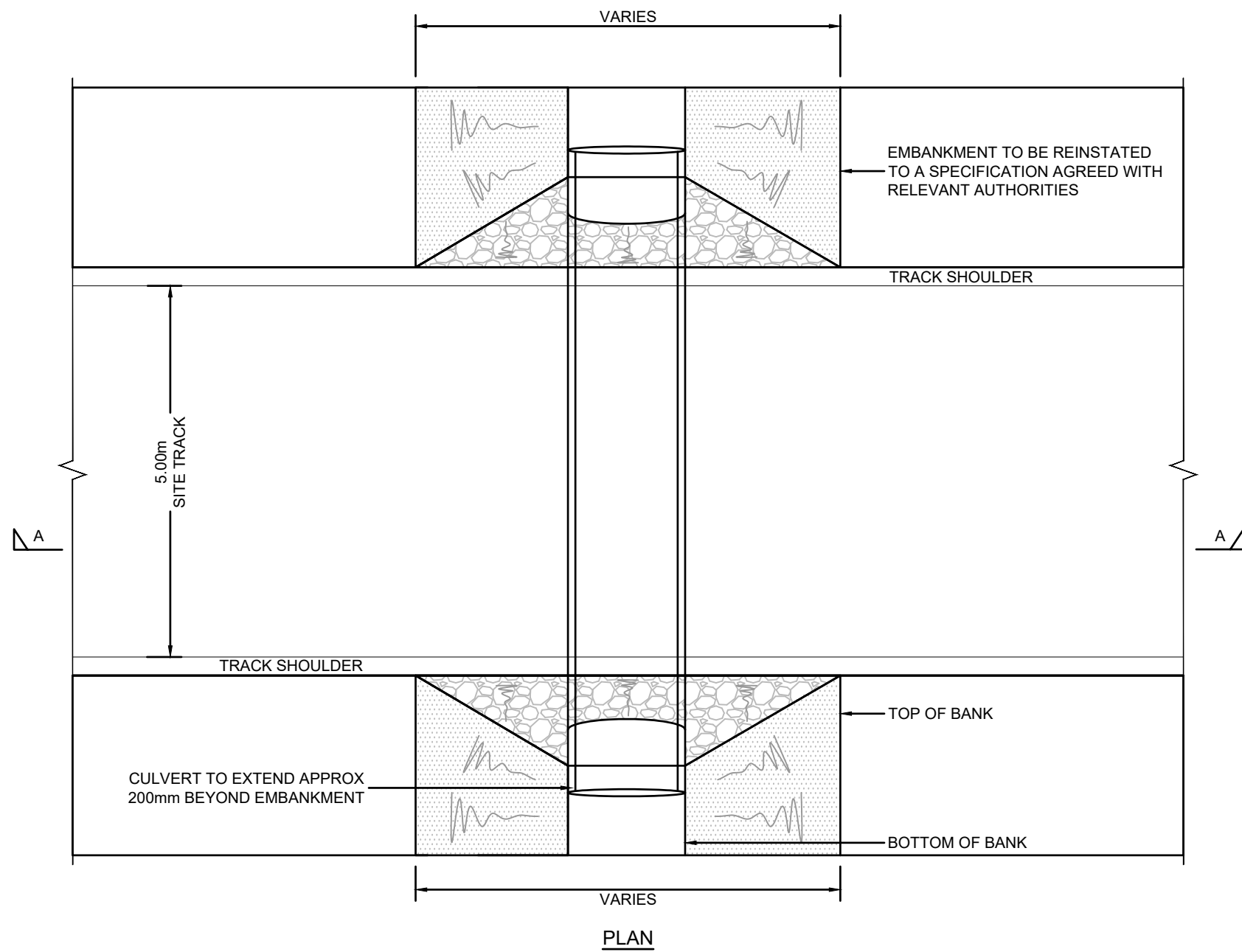
THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION



**UNSHINAGH
WIND FARM**

FIGURE 1.18

**TYPICAL WATER
CROSSING DESIGN**



NOTES:

1. FINAL SPECIFICATION AND INSTALLATION METHOD TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT AUTHORITIES.
2. CULVERT TYPE AND SIZING TO BE DEFINED DURING DESIGN OF ON-SITE DRAINAGE SYSTEMS.
3. INFILL MATERIAL TO BE CLEAN CRUSHED ROCK.

LAYOUT DWG	N/A	T-LAYOUT NO.	N/A
DRAWING NUMBER	04291-RES-ACC-DR-PE-002		
SCALE - NOT TO SCALE			
ENVIRONMENTAL STATEMENT 2021			
THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION			



**UNSHINAGH
WIND FARM**

FIGURE 1.19

**TEMPORARY ENABLING
WORKS COMPOUND**

NOTES

1. DO NOT SCALE FROM THIS DRAWING.
2. SIZE, NUMBER AND LOCATION OF COMPOUND EQUIPMENT AND FACILITIES ARE INDICATIVE ONLY AND SUBJECT TO CHANGE TO SUIT SITE CONDITIONS.
3. COMPOUND HARDSTANDING TO BE REMOVED FOLLOWING CONSTRUCTION WORKS BEING COMPLETED AND GROUND REINSTATED TO ORIGINAL CONDITION.
4. APPROPRIATE MEASURES FOR SEPARATION OF OILS AND TREATMENT OF FOUL WATER TO BE AGREED WITH THE RELEVANT AUTHORITIES
5. VEHICULAR GATES TO BE 6m WIDE CONSISTING OF 2 x 3m LEAVES.
6. COMPOUND HARDSTANDING TO CONSIST OF COMPACTED STONE OVER A LAYER OF GEOTEXTILE TO PROVIDE A CLEAN, FIRM, LEVEL AND FREE DRAINING SURFACE SUITABLE FOR CABINS/HEAVY TRAFFIC.
7. FOLLOWING MOBILISATION OF THE MAIN CONSTRUCTION COMPOUND, THE ENABLING WORKS COMPOUND AREA WILL BE REINSTATED.

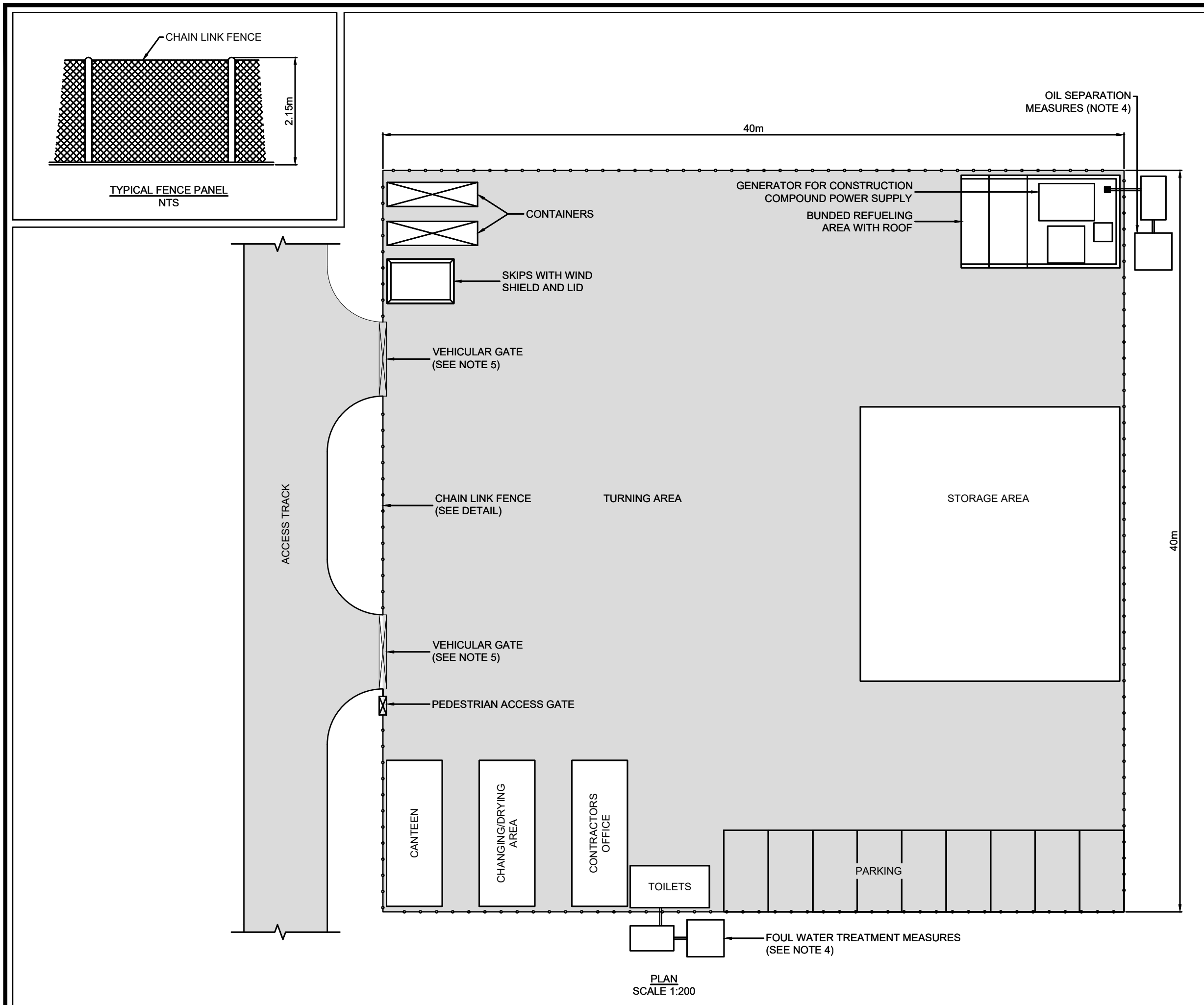
LAYOUT DWG N/A T-LAYOUT NO. N/A

DRAWING NUMBER
04291-RES-BLD-DR-CO-003

SCALE - AS SHOWN @ A3

**ENVIRONMENTAL STATEMENT
2021**

THIS DRAWING IS THE PROPERTY OF RENEWABLE ENERGY SYSTEMS LTD. AND NO REPRODUCTION MAY BE MADE IN WHOLE OR IN PART WITHOUT PERMISSION



PLAN
SCALE 1:200