ENERGY FIJI LIMITED

BIDDING DOCUMENT

ENGINEERING, PROCUREMENT AND CONSTRUCTION (EPC) OF 11kV/33kV SUBSTATION for 30MW POWER STATION AT VUDA

TENDER NO: MR 121/2024

Addendum No. 1

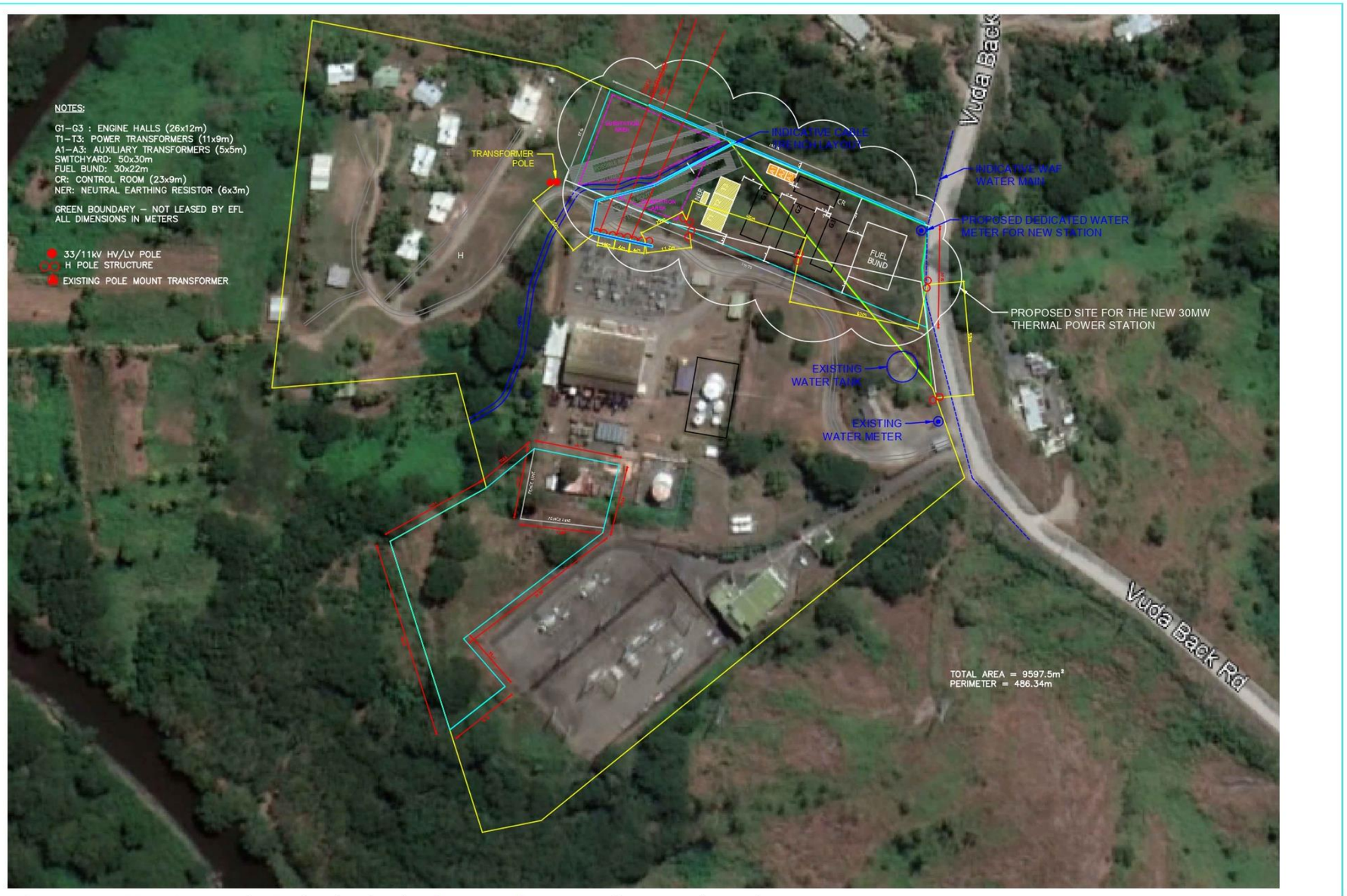
REVISION NOTES:

Date	Notes	Prepared By	Rev No.
26/04/24	Addendum No.1 compiled and issued	Ram Maharaj	1

No	Description
1	Section 4 – Part 1, Item 2.0, Page 37 Change "*Design and Construction of Cable trench to accommodate 10 x 3 phase 33kV Circuits to divert existing overhead 33kV lines falling in the proximity of new Power Station and Substation site. The 33kV cables will be 630MM single core Aluminum XLPE PVC Cable*" to "*Design and Construction of Cable trench (Approximate Route Length = 320 meters) with appropriate covering to accommodate 10 x 3 phase 33kV Circuits to divert existing overhead 33kV lines falling in the proximity of new Power Station and Substation site. For road crossing (Approximate Route Length = 4.4 meters) conduits to be used with appropriate mechanical protection and backfill material. The 33kV cables will be 630MM single core Aluminum XLPE PVC Cable. The 33kV cable will be a free issue by EFL to the successful bidder. All the cable laying works (including communication & earth cables) shall be in the scope of the successful bidder. Kindly refer to "conceptual cable trench route .pdf" for indicative cable trench layout. Removal of EFL's existing Pole and overhead lines falling in the proximity of new Power Station and Substation site shall be in the scope of the successful bidder. EFL will carry out the termination works to existing EFL grid once the cable laying works is completed by the bidder.* "
2	**Section 10: Drawings** Replace "*Indicative Layout of Existing Vuda Substation with New Generation Project, Drawing Number A3 01* " With "*Indicative Layout of Existing Vuda Substation with New Generation Project Drawing Number 02-E10-VDNEW-SK01 rev 02*" refer Appendix 1.
	Section 10: Drawings Add "*Protection Single Line Diagram with drawing number 02-E10-VDNEW-SK02*" refer Appendix 2.
3	**Section 4** Employer's Requirements Technical Requirement Part 8 : CIVIL WORKS Page 135 Amended the following Clause by adding "8.3.1.6 Earth retaining structures" "*Where required during the course of contractions, the EPC contractor should design and erect retaining structures to prevent future soil wash away. The following steps needs to be considered for the design of retaining walls:* 1. *Determine the retaining wall type, length and height of walls and any surcharge loads.*

	2. *Determine the soil conditions – relevant geo-tech investigations to understand the soil material that is being retained and the soil material the structure is bearing on.* 3. *Check for sliding – the design of the wall and carry out several checks to ensure it works. The first check is to make sure the wall does not slide.* 4. *Check for overturning – The second check is to make sure the wall does not topple over.* 5. *Check bearing capacity – Check the ground bearing capacity can take the loads from the structure.* 6. *Check for overall stability – Check that the structure is stable and the factor of safety is in accordance with the design code.* 7. *Complete structural design – Once all the checks are made, then complete the structural design. Write up the report, print out the calculations and draw a section through the retaining wall.* *The following Retaining wall design types maybe considered:* • *Cantilever* • *Gravity* • *Soil Reinforcement* • *Anchors* *The creek crossing the Sub-Station site need to be concreted on the Creek backs to prevent from future soil wash away of creek bank. The approximate length of the creek is 85m and the EPC contractor needs to make relevant allowance for concreting of creek bank in their submission*"

APPENDIX 1



No.	REVISION	DATE	BY	CHK	PSD	APP

DRAWN	PRAVISHEK	30.04.24
CHECKED		
SURVEYOR		
TEAM LEADER DESIGN & PLANNING		
ENGINEER		
HEAD OF DEPARTMENT	KRISHNEEL.P	30.04.24

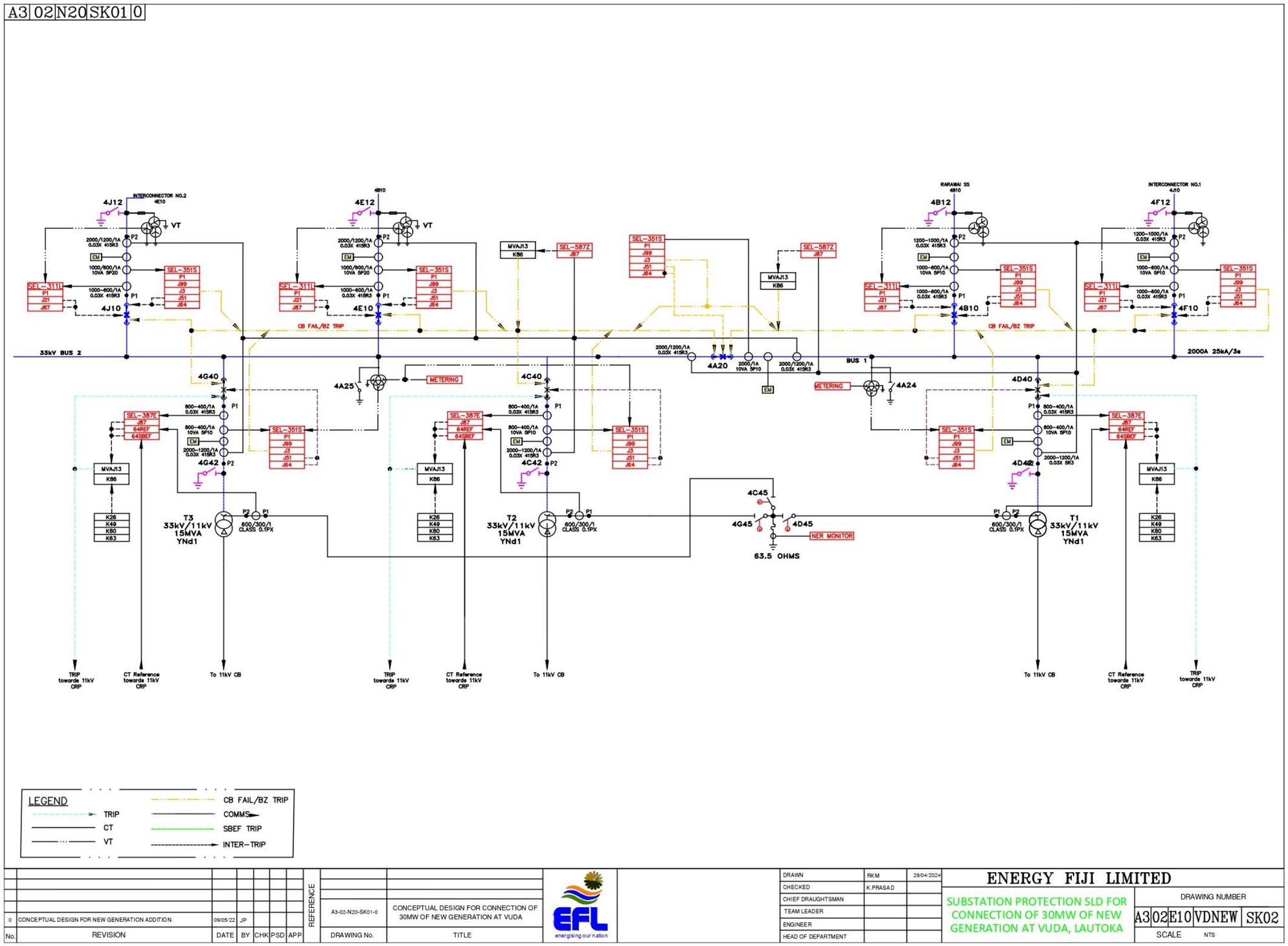
ENERGY FIJI LIMITED

PROPOSED LAND USAGE FOR THE NEW THERMAL GENERATION PROJECT AT VUDA

DRAWING NUMBER: A3 | E10 | VDNEW | SK01.R2

SCALE N.T.S

APPENDIX 2


A3 02 N20 SK01 0
INTERCONNECTOR NO.2
4E10
4J12
4E12
4B10
RARAWAI SS
4B12
INTERCONNECTOR NO.1
4J10
4F12
4F10
VT
SEL-311L
SEL-351S
SEL-587Z
MVAJ13
K86
CB FAIL/BZ TRIP
33kV BUS 2
BUS 1
2000A 25kA/3s
4A20
4A25
4A24
METERING
4G40
4C40
4D40
4G42
4C42
4D42
SEL-387E
64REF
64SBEF
4C45
4G45
4D45
63.5 OHMS
NER MONITOR
T3
T2
T1
33kV/11kV
15MVA
YNd1
K26
K49
K80
K83
TRIP towards 11kV CRP
CT Reference towards 11kV CRP
To 11kV CB
LEGEND
TRIP
CT
VT
CB FAIL/BZ TRIP
COMMS
SBEF TRIP
INTER-TRIP
ENERGY FIJI LIMITED
SUBSTATION PROTECTION SLD FOR CONNECTION OF 30MW OF NEW GENERATION AT VUDA, LAUTOKA
DRAWING NUMBER
A3 02 E10 VDNEW SK02
SCALE NTS
DRAWN RKM 29/04/2024
CHECKED K.PRASAD
CHIEF DRAUGHTSMAN
TEAM LEADER
ENGINEER
HEAD OF DEPARTMENT
A3-02-N20-SK01-0
CONCEPTUAL DESIGN FOR CONNECTION OF 30MW OF NEW GENERATION AT VUDA
DRAWING No.
TITLE
REFERENCE
0 CONCEPTUAL DESIGN FOR NEW GENERATION ADDITION. 09/05/22 JP
No. REVISION DATE BY CHK PSD APP
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