

25 November 2019

NSW Department of Planning, Industry and Environment
Attn: Ms Tatsiana Bandaruk
320 Pitt Street
Sydney NSW 2001

Dear Ms Tatsiana Bandaruk,

**Wellington Solar Farm Modification Application (SSD 8573 Mod 1)
Amendment to Modification Application**

I am writing to formally amend the modification application currently being assessed by the Department of Planning, Industry and Environment for the Wellington Solar Farm (SSD 8573 Mod 1). The modification application now seeks approval for an additional area to accommodate the fill and batter required to support the Wellington Substation bench extension. Refer to the attached drawings, Annexure A.

The additional area equates to 0.1 hectares (ha). We have estimated that approximately 700 cubic metres of fill would be required for the batter; 140 cubic metres of this would be road base.

Aspects of the amended modified project where there are potential material changes to the predicted environmental impacts include Aboriginal heritage, biodiversity and traffic, transport and road safety. These areas are discussed further below.

Aboriginal heritage

As with the original modification application, the amended modified development footprint was sufficiently assessed and surveyed during the field work previously undertaken by NGH Environmental archaeologists and Aboriginal community representatives for the Wellington Solar Farm and Wellington North Solar Farm. During these previous surveys, the general area surrounding the Wellington Substation was deemed to have low archaeological sensitivity and to have been highly disturbed and modified by the construction and maintenance of the Wellington Substation and its associated transmission lines. No Aboriginal objects/sites or areas of potential archaeological deposits were identified within or adjacent to the modified development footprint.

As such, the amended modification application in no way alters or affects the assessment or recommendations in the Wellington Solar Farm Aboriginal Cultural Heritage Assessment Report (NGH 2018) or Cultural Heritage Management Plan (CHMP) that has been developed for the project.



In regard to consultation with the Registered Aboriginal Parties (RAPs), the notification letter provided to the RAPs for the original modification application included the additional area required for the fill and batter. Refer to the attached letter, dated 14 August 2019, Annexure C. The RAPs provided support for the modification application in letter responses, dated 22 August 2019.

Biodiversity

The additional area for the batter is comprised of 0.1 ha of Vegetation Zone 5 (PCT 266) – White Box grassy woodland derived grassland (moderate to low condition). The location of the additional area is within the project site previously surveyed by NGH, hence Plant Community Types (PCTs) and BAM plot data are available for this area.

With the inclusion of this additional area, the modification application would require 0.78 ha of ground disturbance, comprised of the following vegetation communities:

- Vegetation Zone 2 (PCT 266) - White Box grassy woodland – planted (moderate to good condition) - 0.02 hectares (ha)
- Vegetation Zone 5 (PCT 266) - White Box grassy woodland derived grassland (moderate to low condition) - 0.46 ha
- Vegetation Zone 6 (PCT 266) - White Box grassy woodland derived grassland (low condition) – 0.30 ha

Refer to Figure 1.

As with the original modification application, of the 0.78 ha that would be impacted by the amended modification application, 0.32 ha would have been impacted by the approved overhead transmission line alignment, including the 0.02 ha of White Box grassy woodland – planted (moderate to good condition).

Re-running the Biodiversity Assessment Method (BAM) calculator on 21 November 2019, for this small change in area for Zone 5 did not require any additional plot data; the minimum plot requirements of the BAM have been met. Further, no habitat features would be impacted. Refer to Figure 1 for expanded fill area and location of existing plots and habitat features.

Re-running the BAM calculator returned the following candidate species, all of which have previously been assessed for the site in targeted surveys in suitable habitat (2017 and 2019, as referenced in the Biodiversity Development Assessment Report, Wellington Solar Farm Substation Expansion; NGH 2019):

- Silky Swainson-pea (*Swainsona sericea*)
- Euphrasia arguta (*Euphrasia arguta*)
- Tumut Grevillea (*Grevillea wilkinsonii*)
- Ausfelds Wattle (*Acacia ausfeldii*)



Re-running the BAM calculator for this small change in area for Zone 5, returns no change in biodiversity credits required for the project (refer Annexure B).

The additional 0.1 ha of Vegetation Zone 5 (PCT 266) – White Box grassy woodland derived grassland (moderate to low condition) that would be impacted would not alter the ecosystem and species credit requirements generated by the original modification application. Further, the relevant mitigation strategies in the Development Consent would apply equally to the amended modification application.

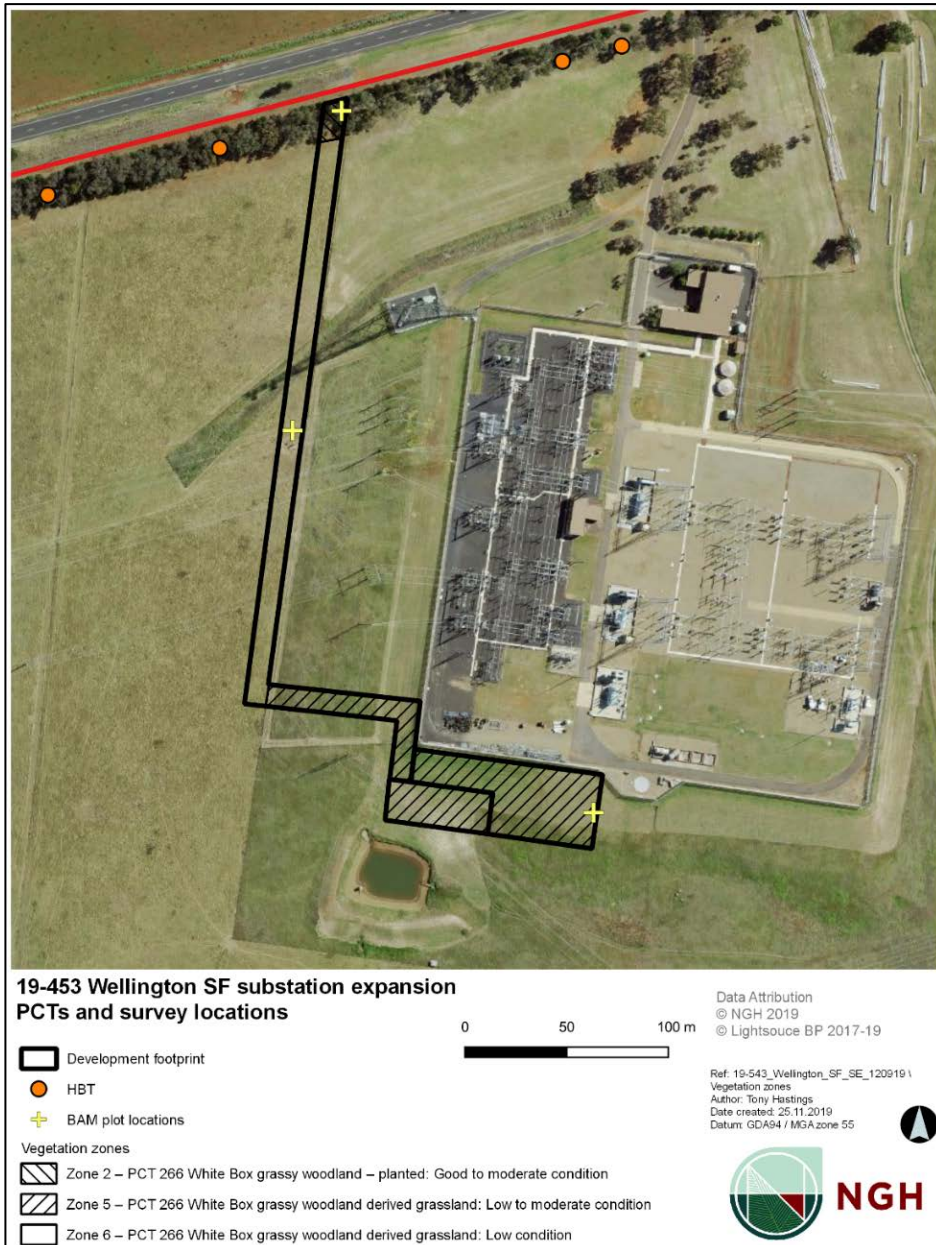


Figure 1: Updated substation expansion footprint

Traffic, transport and road safety

Additional consideration has been undertaken regarding traffic and access. No changes to equipment traffic movements or impact types are relevant to the addition of 0.1 ha to the bench area. The EIS (NGH 2017) stated that during the peak construction period there would be a maximum of 100 heavy vehicles and 300 light vehicles.

With regard to the original modification application, with the exception of two over-dimensional vehicles required to deliver the transformer and 33 kV GIS building, the other vehicles were accounted for in the EIS assessment.

Specific to the 700 cubic metres of fill now estimated to be required to expand the bench area, 30 heavy vehicles (i.e. truck and dog) would be required to transport this fill to site, which would average out to 3 heavy vehicle movements per day over a 10-day period towards the beginning of the construction period. As the original application and subsequent modification application had conservatively estimated 100 heavy vehicle movements per day, these additional 3 heavy vehicle movements per day have been adequately accounted for.

Effective management of the traffic, transport and road safety impacts will be achieved by following the existing environmental management strategies (updated by the modification application); no changes are proposed.

Soil

Additional consideration has been given to soil impacts. This was considered a lower risk issue in the EIS. In the original modification application, the substation footprint changes were noted as requiring a minor additional area ground disturbance on relatively flat land that is not considered a high erosion risk or near to natural waterways (Wuuluman Creek is over 700 metres to the north and a tributary of the Macquarie River is located over 350 metres to the south east).

Existing mitigation measures for the project are considered sufficient to address the additional 0.1 ha impacts now proposed. The works will be marginally closer to a farm dam but this can be managed with the existing measures including:

- establishing a 'no go' area to manage indirect impacts; and
- preparation, implementation and monitoring of a Soil and Water Management Plan (SWMP) (with erosion and sediment control plans) in accordance with Landcom (2004), to minimise soil (and water) impacts.

The conditions of consent would not need to be updated to take into account soil and water management.

General matters

No impacts on any other key issue would result from the changes. No historic heritage, noise, visual amenity or cumulative impacts are considered relevant to this small expansion of the substation area to accommodate the batter.



As with the original modification application, the Development consent conditions will need to be altered to include a revised general layout of development figure (provided in Annexure D) to reflect the amended modified development footprint.

Thank you and do not hesitate to contact me on 0409 601 473 to discuss.

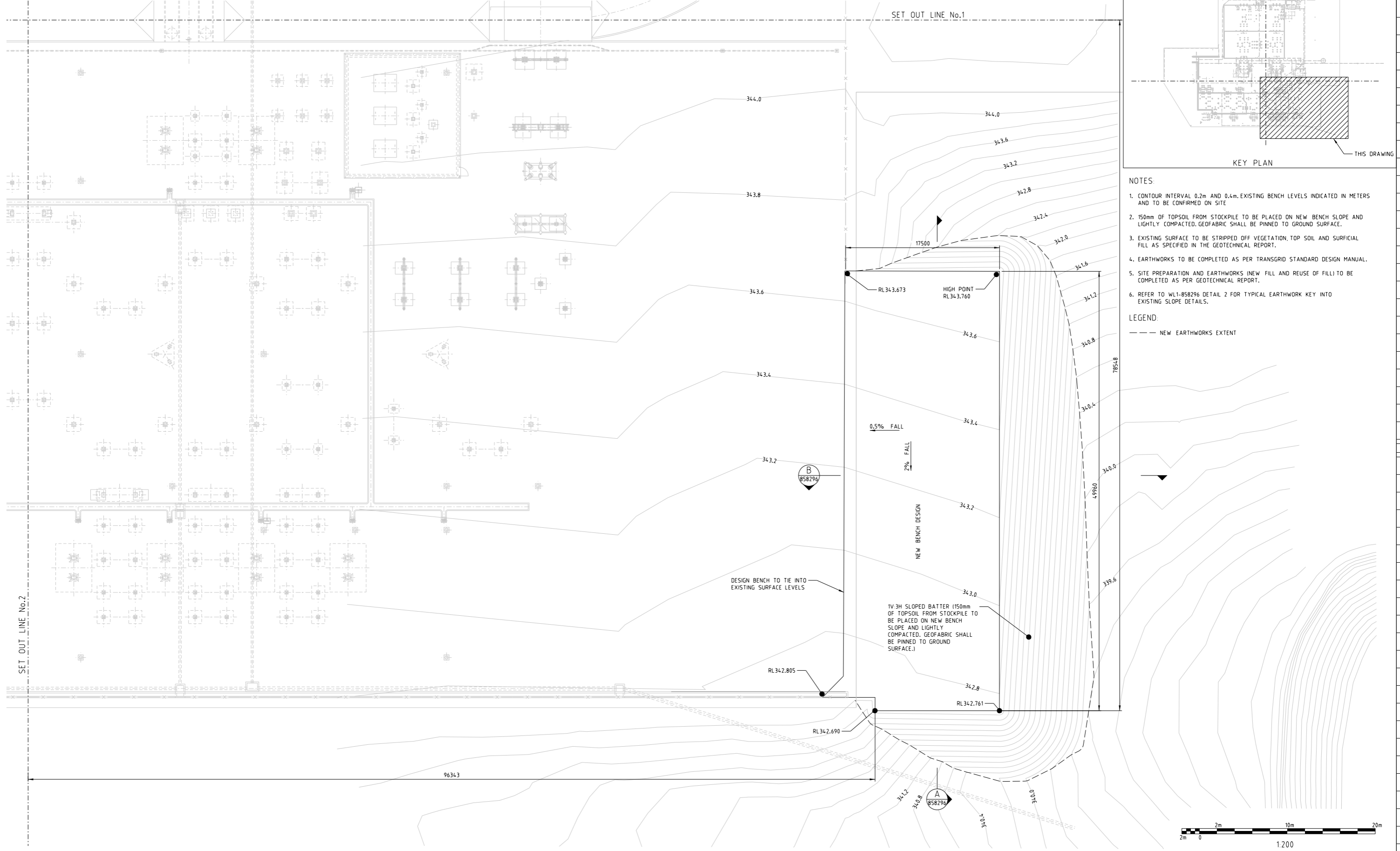
Kind regards,



Diana Mitchell
Principal Environmental Planner

Enclosed:

- Annexure A – Drawings
- Annexure B – Updated BAM Credit Summary Report
- Annexure C - RAP consultation letter, dated 14 August 2019
- Annexure D – Amended General Layout of Development Figure



- NOTES**
1. CONTOUR INTERVAL 0.2m AND 0.4m. EXISTING BENCH LEVELS INDICATED IN METERS AND TO BE CONFIRMED ON SITE.
 2. 150mm OF TOPSOIL FROM STOCKPILE TO BE PLACED ON NEW BENCH LEVELS AND LIGHTLY COMPACTED. GEOTEXTILE SHALL BE PINNED TO GROUND SURFACE.
 3. EXISTING SURFACE TO BE STRIPPED OFF VEGETATION, TOP SOIL AND SURFICIAL FILL AS SPECIFIED IN THE GEOTECHNICAL REPORT.
 4. EARTHWORKS TO BE COMPLETED AS PER TRANSGRID STANDARD DESIGN MANUAL.
 5. SITE PREPARATION AND EARTHWORKS (NEW FILL AND REUSE OF FILL) TO BE COMPLETED AS PER GEOTECHNICAL REPORT.
 6. REFER TO WL1-858296 DETAIL 2 FOR TYPICAL EARTHWORK KEY INTO EXISTING SLOPE DETAILS.

LEGEND:
 --- NEW EARTHWORKS EXTENT

AMENDMENT:

T.M	ING	R.M	A.S	J.H	07/10/19
DRN	DES	CHK	VRT	APP	DATE

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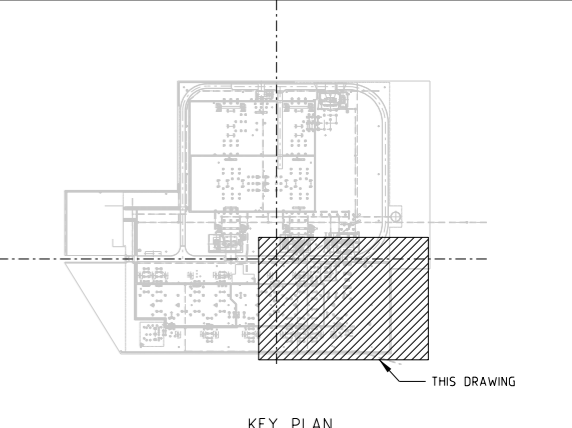
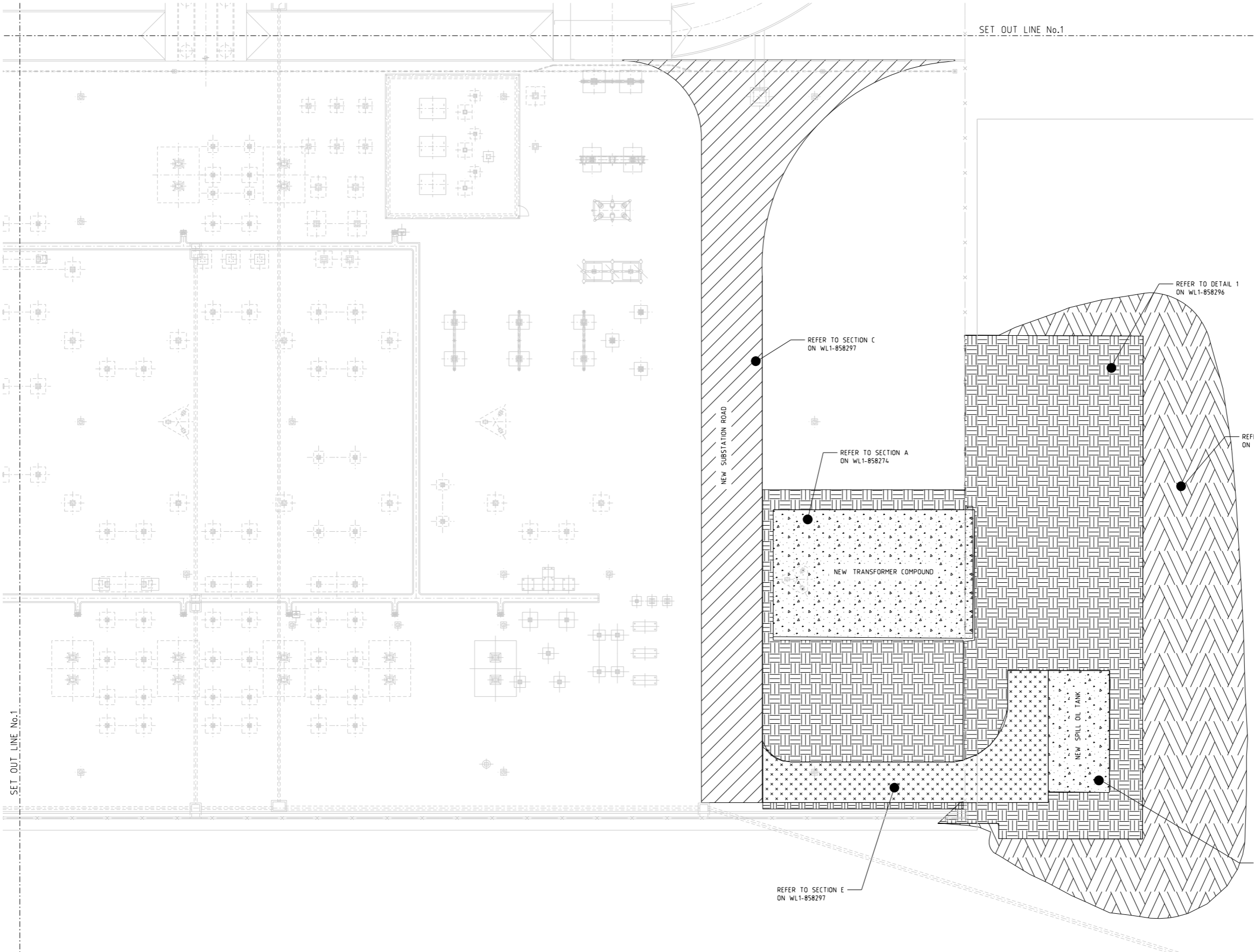







WL1-858296 BULK EARTHWORKS SECTIONS
 GEOTECHNICAL INVESTIGATION WELLINGTON 330/132KV
 SUBSTATION AUGMENTATION BY GOLDER ASSOCIATES (MAY.2005)

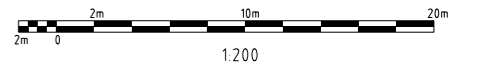
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APPROVED	
FOR CONSTRUCTION	
SCALE 1:200	

© TransGrid		
WELLINGTON 330KV SUBSTATION EARTHWORKS - BENCH EARTHWORKS - BENCH BULK EARTHWORKS LAYOUT		
A1	WL1858295	00
PREFIX	NUMBER	SHEET
INDEX	CLASS	AMDT
		02-20

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- LEGEND:**
-  80mm THICK LAYER OF CRUSHED QUARRIED BLUE METAL REFER TO DGN WL1-858296
 -  150mm OF TOPSOIL FROM STOCKPILE TO BE PLACED ON NEW BENCH SLOPE AND LIGHTLY COMPACTED. GEOTEXTILE SHALL BE PINNED TO GROUND SURFACE AS PER GEOTECHNICAL REPORT
 -  CONCRETE WORKS REFER TO DGN WL1-858274
 -  50mm CONSOLIDATED ASPHALTIC CONCRETE REFER TO DGN WL1-858299
 -  FOR VEHICLE PATH LAYERWORKS REFER TO SECTION E ON WL1-858297



AMENDMENT:

T.M	N.C.	R.M	A.S	A.P	12/09/19
DRN	DES	DD	VR	APP	DATE

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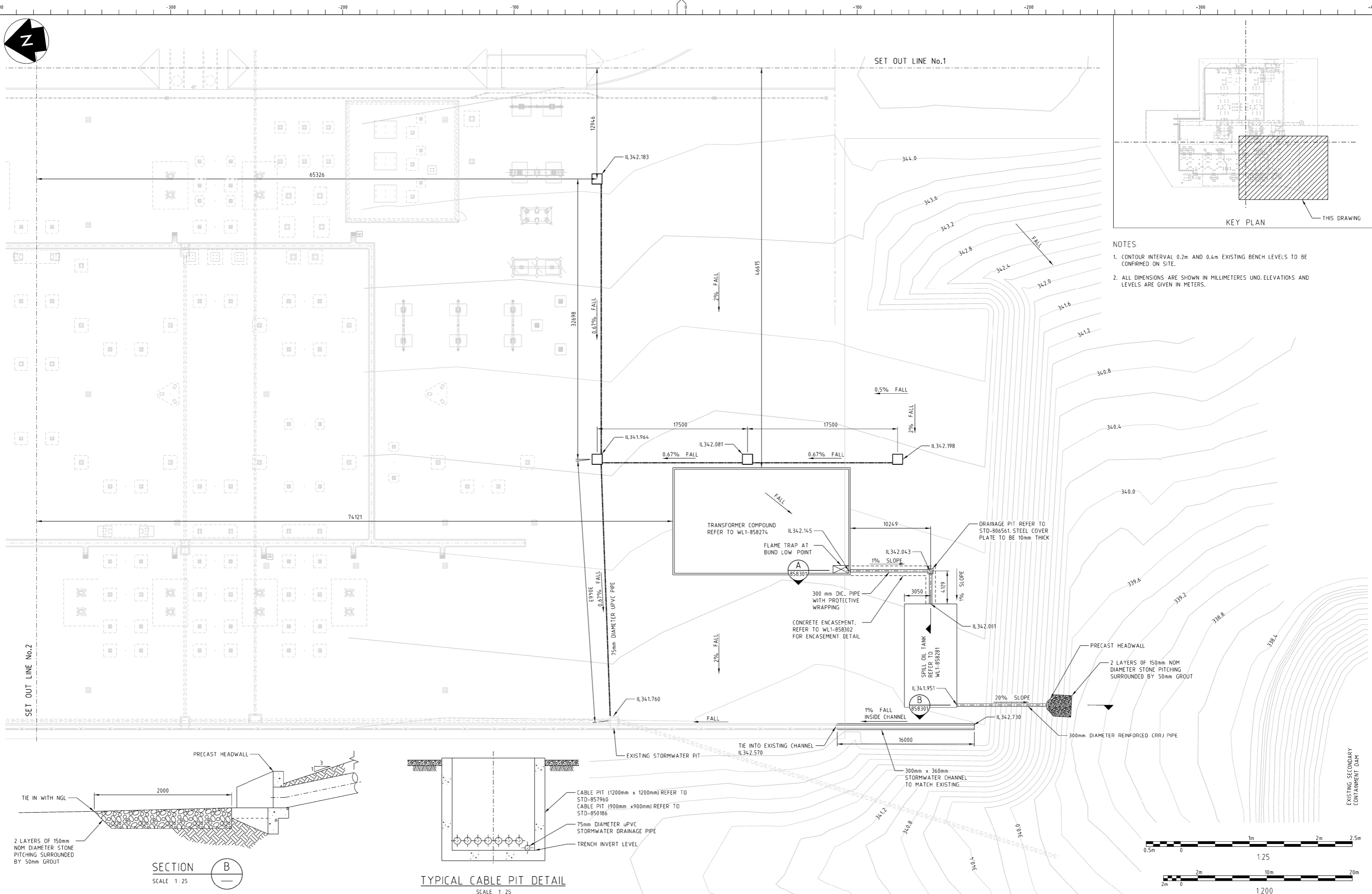


WL1-858295 BULK EARTHWORKS LAYOUT
 WL1-858297 INTERNAL ROAD PLAN
 WL1-858274 TRANSFORMER COMPOUND CONCRETE
 WL1-858281 SPILL OIL TANK CONCRETE
 GEOTECHNICAL INVESTIGATION WELLINGTON 330/132KV
 SUBSTATION AUGMENTATION BY GOLDER ASSOCIATES (MAY.2005)

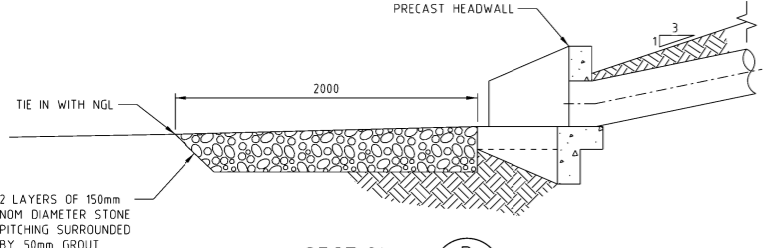
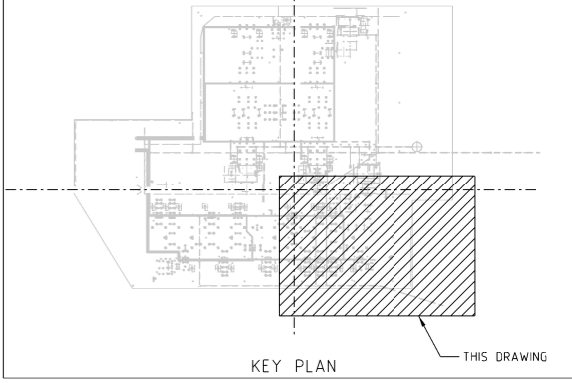
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FOR CONSTRUCTION	
APPROVAL STATUS	
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©TransGrid		
WELLINGTON 330KV SUBSTATION SWITCHYARD SURFACING SURFACING - SWITCHYARD SITE SURFACING LAYOUT		
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PREFIX	NUMBER	SHEET
INDEX	CLASS'N	AMDT
		02-90

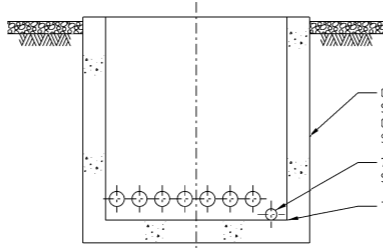
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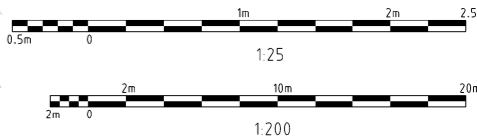
- NOTES:
1. CONTOUR INTERVAL 0.2m AND 0.4m EXISTING BENCH LEVELS TO BE CONFIRMED ON SITE.
 2. ALL DIMENSIONS ARE SHOWN IN MILLIMETERS UNO. ELEVATIONS AND LEVELS ARE GIVEN IN METERS.



SECTION B
SCALE 1:25



TYPICAL CABLE PIT DETAIL
SCALE 1:25



AMENDMENT:

DATE	APP	CHK	DES	DRN	T.M
09/10/19					

aurecon



- STD-350059 - CONCRETE HEADWALL DETAIL
- STD-506561 - DRAINAGE PIT
- STD-817771 - STORMWATER DRAIN
- WL1-858274 - TRANSFORMER COMPUND
- WL1-858281 - SPILL OIL TANK
- WL1-858301 - DRAINAGE SECTIONS
- WL1-858302 - ENCASMENT DETAILS
- WL1-85842 - 33KV SWITCHGEAR BUILDING CABLING TRENCHES
- STD-857360 - CABLE PIT (1200mm x 1200mm)
- STD-850186 - CABLE PIT (900mm x 900mm)

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APPROVED	
FOR CONSTRUCTION	
APPROVAL STATUS	
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©TransGrid		
WELLINGTON 330kV SUBSTATION DRAINAGE OR CABLE TRENCH - LAYOUT LAYOUT - SYSTEM DRAINAGE LAYOUT		
A1	WL1858300	00
PREFIX	NUMBER	SHEET
INDEX CLASS'N		AMDT
		02-40

Proposal Details

Assessment Id	Proposal Name	BAM data last updated *
00017614/BAAS19015/19/00017615	Wellington Solar Farm substation expansion Modification 2	30/10/2019
Assessor Name	Report Created	BAM Data version *
	21/11/2019	16
Assessor Number	BAM Case Status	Date Finalised
	Open	To be finalised
Assessment Revision	Assessment Type	
3	Major Projects	

* Disclaimer: BAM data last updated may indicate either complete or partial update of the BAM calculator database. BAM calculator database may not be completely aligned with Bionet.

Ecosystem credits for plant communities types (PCT), ecological communities & threatened species habitat

Zone	Vegetation zone name	Vegetation integrity loss / gain	Area (ha)	Constant	Species sensitivity to gain class (for BRW)	Biodiversity risk weighting	Potential SAIL	Ecosystem credits
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White Box grassy woodland in the upper slopes sub-region of the NSW South Western Slopes Bioregion

1	266_Woodland-Mod-good	40.4	0.0	0.25	High Sensitivity to Potential Gain	2.00	TRUE	1
2	266_derivedgrassMod-Low	8.7	0.5	0.25	High Sensitivity to Potential Gain	2.00	TRUE	0
3	266_derivedgrasland_low	1.4	0.3	0.25	High Sensitivity to Potential Gain	2.00	TRUE	0
							Subtotal	1
							Total	1

Species credits for threatened species

Vegetation zone name	Habitat condition (HC)	Area (ha) / individual (HL)	Constant	Biodiversity risk weighting	Potential SAI	Species credits	
<i>Aprasia parapulchella</i> / Pink-tailed Legless Lizard (Fauna)							
266_Woodland-Mod-good	40.4	0.02	0.25	2	False	0	
266_derivedgrassMod-Low	8.7	0.46	0.25	2	False	2	
266_derivedgrasland_low	1.4	0.3	0.25	2	False	0	
						Subtotal	2

BAM Credit Summary Report

<i>Burhinus grillarius / Bush Stone-curlew (Fauna)</i>							
266_Woodland-Mod-good	40.4	0.02	0.25	2	False		0
266_derivedgrassMod-Low	8.7	0	0.25	2	False		0
266_derivedgrasland_low	1.4	0	0.25	2	False		0
						Subtotal	0
<i>Hieraaetus morphnoides / Little Eagle (Fauna)</i>							
266_Woodland-Mod-good	40.4	0.02	0.25	1.5	False		0
266_derivedgrassMod-Low	8.7	0	0.25	1.5	False		0
266_derivedgrasland_low	1.4	0	0.25	1.5	False		0
						Subtotal	0

14 August 2019

Wellington Local Aboriginal Lands Council

Via email: wellingtonlalc@yahoo.com



canberra

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bega

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wagga wagga

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f 02 6971 9693

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To whom it may concern,

RE – Wellington Solar Farm (SSD-8573) Notice of development footprint modification

As you would be aware, you are a Registered Aboriginal Party (RAP) for the Wellington Solar Farm project that was granted State Significant Development (SSD) planning approval on the 25 May 2018 for the construction and operation of a 174 megawatt (MW) photovoltaic (pv) solar farm and associated infrastructure including access tracks, overhead transmission lines, battery storage facility, substation and transformers. The Wellington Solar Farm will be located about 2 km north-east of Wellington in the Dubbo Regional Local Government Area (LGA).

Recently NGH Environmental was informed that a modification to the development footprint is required to connect the solar farm to the existing adjacent substation. The modification will impact approximately 1.8 hectares as shown in Figure 1 with the proposed transmission line roughly following an existing fence line before connecting to the south-western side of the substation.

A desktop review was undertaken to assess and identify if the proposed modification development footprint had been previously subject to assessment and if there are any known Aboriginal sites or objects located within or in proximity to the proposed modification development footprint.

The result of that assessment is that the proposed development footprint extension has been sufficiently assessed and surveyed during the field work previously conducted for both the Wellington Solar Farm and Wellington North Solar Plant projects by NGH archaeologists with yourselves and other Aboriginal community representatives. It should be noted that the Registered Aboriginal Parties for both projects were the same and therefore we believe review of field assessment data from both projects is considered to be acceptable in this instance. During the previous surveys conducted in proximity to the substation the landforms in the proposed modification development footprint and generally surrounding the existing substation were deemed to have low archaeological sensitivity and to have been highly disturbed and modified by the construction and maintenance of the existing substation and its associated transmission lines.

The desktop assessment, combined with the review of previous field data and results, have concluded that the proposed modification development footprint has previously been adequately assessed by archaeologist with Aboriginal community representatives and does not require further field assessment. No Aboriginal objects/sites or areas of potential archaeological deposit were identified within or adjacent to the proposed modification development footprint.

The desktop review and assessment of the proposed modification concluded that the development footprint will not impact upon previously recorded Aboriginal sites or areas of potential archaeological deposit. The desktop review and assessment noted that the area was deemed during previous investigations of the area to have low archaeological sensitivity and to have been highly disturbed. Therefore, the proposed modification to the development footprint in no way alters or affects the assessment or recommendations in the Wellington Solar Farm Aboriginal Cultural Heritage Assessment Report (NGH 2018) or Cultural Heritage Management Plan (CHMP) that has been developed for the project.

This letter is provided to ensure you are informed about the proposed changes to the development footprint. Please also be advised that we propose to write a small chapter in the modification report detailing the above assessment outcome and this will be submitted to the NSW Department of Planning, Industry and Environment (DPIE) for approval of the modification. Should you have any questions or concerns regarding this update please don't hesitate to contact me.

Yours Sincerely,

A handwritten signature in black ink, appearing to read 'Kirsten Bradley', with a horizontal line extending to the right.

Kirsten Bradley
Senior Heritage Consultant
NGH Environmental

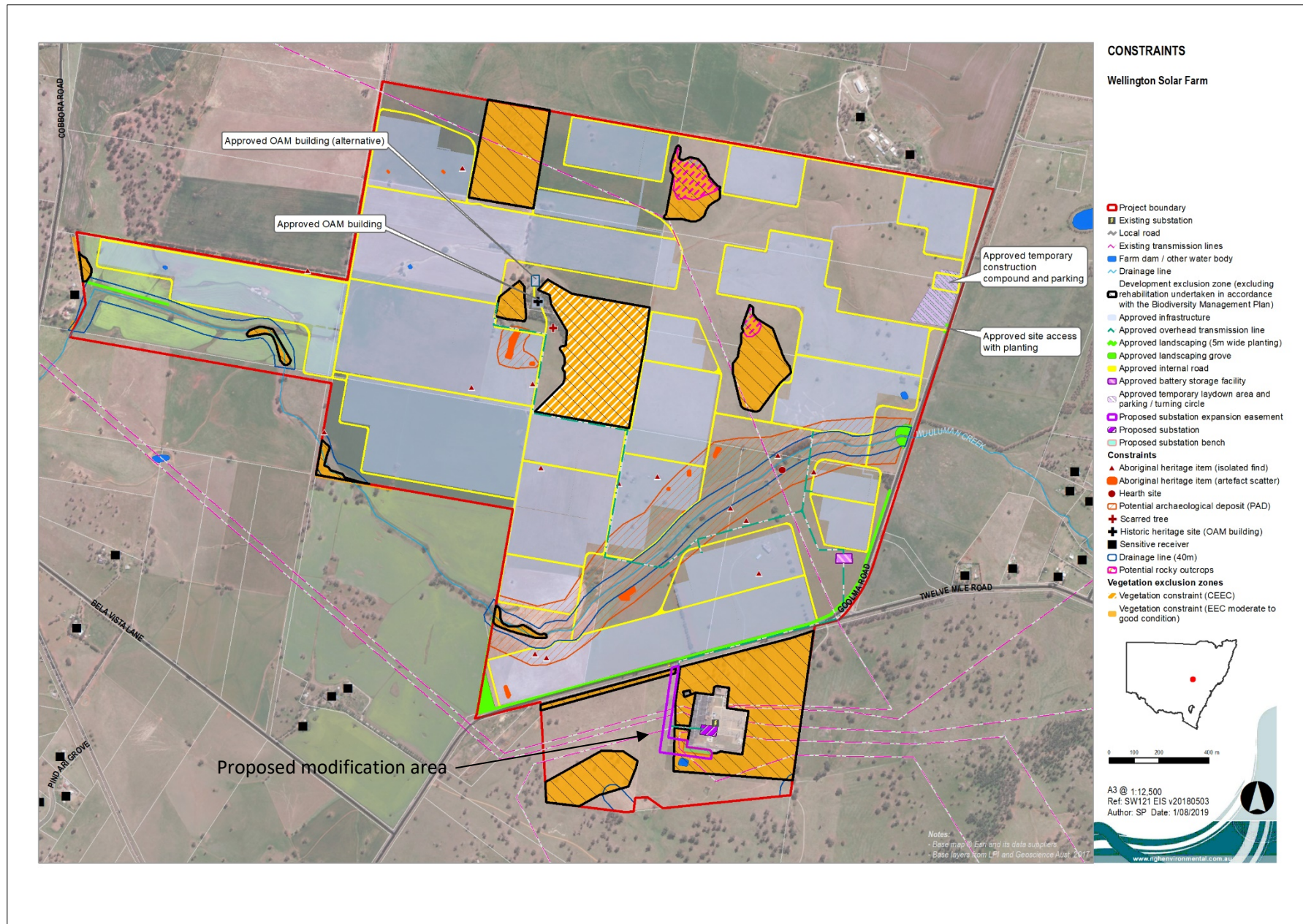
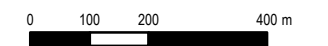
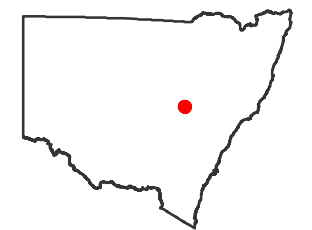


Figure 1. Proposed modification.

GENERAL LAYOUT OF DEVELOPMENT

Wellington Solar Farm



A3 @ 1:12,781
 Ref: SW121 EIS v20190913
 Author: TH Date: 25/11/2019


















Notes:
 - Base map © Esri and its data suppliers.
 - Base layers from LPI and Geoscience Aust, 2017



GENERAL LAYOUT OF DEVELOPMENT Substation expansion

Wellington Solar Farm

-  Development exclusion zone (excluding rehabilitation undertaken in accordance with the Biodiversity Management Plan)
-  Project boundary
-  Existing substation
-  Farm dam / other water body
-  Approved infrastructure
-  Approved overhead transmission line
-  Proposed underground transmission line
-  Approved internal road
-  Approved landscaping (5m wide planting)
-  Approved landscaping grove
-  Approved substation
-  Bench
-  Refined Cable Corridor
-  Vegetation constraint (CEEC)
-  Vegetation constraint (EEC moderate to good condition)

Notes:

- Data collected by ngh 2017-19
- Client data courtesy of Client, received 2011-19
- Base map Copyright © Esri and its data suppliers.

A4 @ 5,000
 Ref: SW121 EIS v20190913
 Author: T.Hastings 25/11/2019