Development application

Proposed development: Installation of electric vehicle charging equipment to serve one existing car parking space in the on-street car parking area on Noyes Street near the junction with Franklin Street (Tasman Highway). Ancillary equipment includes a pole with a parking control sign, credit card reader and supplementary motion activated spot lighting and a new main electrical switch board to supply the site.

Zone: 20.0 Local Business, and adjacent to the Franklin Street zoned 28.0 Utilities

Use class: Vehicle Parking, subsidiary use: Utilities (minor)

Development Status:

The property address is given as Noyes Street, 'Road' and the site is part of the road reserve.

Looking west along Noyes Street: site is two unmarked car park bays in front of the Give Way sign. Large interpretation panel in Merv Lewis Park has been removed since this photo was taken.

Looking east along Noyes Street: site is on the left side. Photos from Google Street View.

1. Introduction

This Development Application (DA) is submitted by Electric Highway Tasmania (EHT) for the installation of electric vehicle charging equipment to serve two currently unmarked on-street parking bays in Swansea.

1.1. The need for Electric Vehicle chargers

The introduction of electric vehicles (EVs) will be essential to reduce transport greenhouse gas emissions, Tasmania's largest sector of emissions. Using 100% renewable energy, emissions can be drastically cut relative to existing petrol and diesel driven transport.

The vast majority (90%-95%) of EV charging will occur at home, fleet base or for travellers, at their overnight accommodation so the use of public fast chargers will not be nearly as great as petrol stations are at present. With a typical range of 200-400 km for new EVs, most journeys can be completed without the need to recharge while away from home.

Nonetheless an essential requirement for the adoption of EVs will be the availability of fast charging infrastructure to permit EVs to travel beyond the range of their battery by recharging on the road.

The proposed Swansea charger is one of a network of 17 fast charger sites being deployed across Tasmania by a number of providers. Twelve of these sites, including the Swansea site, have received support from the Tasmanian Climate Change Office to a maximum of $50,000 per site. The TCCO and State Government recognise the critical role of seeding the state with enough fast chargers to enable easy movement of EVs around the state.

Two charger sites being developed by EHT will provide coverage to the east coast of Tasmania: St Helens and Swansea. This will complement sites on the Midland Highway and Scottsdale to be developed by others. In addition, EHT is developing sites at Queenstown, Derwent Bridge, Burnie and Smithton to serve the west of the state, with additional sites under consideration.

All EHT sites will initially be fitted with a single 50kW DC fast charger and a 22kW three phase AC charger. The much slower AC charger will serve the few EV models unable to use the DC charger and provides backup if the DC charger is unavailable or out of service.

It is anticipated that the adoption of EVs will increase rapidly toward 2025, when it is expected that the cost to buy an EV will be equal to or lower than internal combustion vehicles, and the infrastructure to support their use is well established. This expansion has already begun, with the availability of new models in 2019 leading to more than doubling the number of EVs on the road in Australia and Tasmania last year.

As demand increases, EHT will negotiate with Glamorgan Spring Bay Council to install a higher capacity charger at the site (ie to charge newer models faster). If further expansion is required, EHT would seek an additional site elsewhere in Swansea or other Glamorgan Spring Bay community.

2. The site

The nominated site is designated as Noyes Street, 'Road' and the site is two unmarked on-street parking bays in front of Merv Lewis Park. The nominated site was selected in consultation with Glamorgan Spring Bay Council officers.

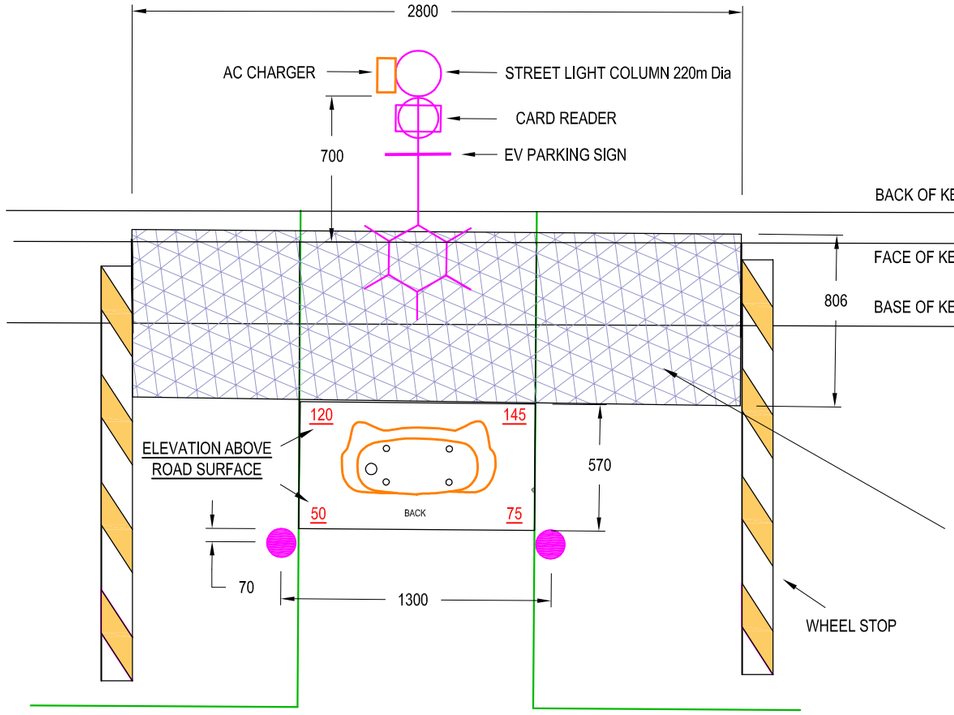
A letter was provided by Glamorgan Spring Bay Council in support of Electric Highway Tasmania's application for funding for the charging equipment, submitted to the Tasmanian Climate Change Office in May 2019.

The selected site was favoured because:

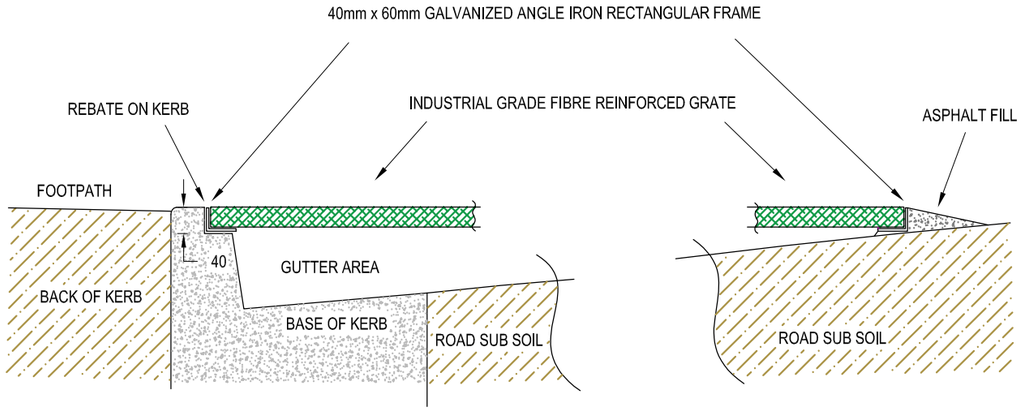
- It is a moderate demand car park that receives less use because most cars have to do a U turn to be able to park there.
- It is on a secondary road, but easily found by visitors to the region
- There is a power supply of sufficient capacity on an adjacent pole to feed the relatively high demands of electric vehicle charging.
- Entry and exit to the proposed parking configuration do not create traffic conflicts.
- It is relatively central to the town and services, including food and beverage, toilets and attractions of interest to visitors, and is opposite the visitor information centre.
- It has a limited impact on residential areas
- Use of the space for charging does not result in significant change in traffic movements.

The approximate site boundaries are shown in the image below, overlaid on an aerial photo (from theLIST).

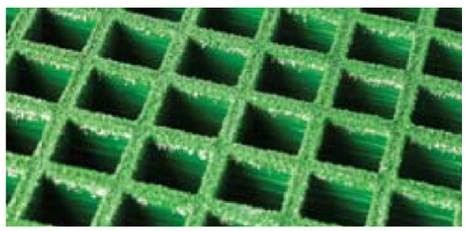
Swansea site (green rectangle)



INDUSTRIAL GRADE FIBRE REINFORCED GRATING IS TO BE INSTALLED AS SHOWN.
A RECTANGULAR 40mm x 60mm GALVANIZED ANGLE IRON FRAME IS TO BE CONSTRUCTED TO HOUSE THE FIBRE GRATE.
THE PEDESTRIAN SIDE TOP SURFACE OF THE ANGLE IRON FRAME IS TO REBATED INTO THE KERB TO PROVIDE A FLUSH FINISH. THE ROAD SIDE EDGE IS TO BE INSTALLED ONTO THE ROAD WAY SURFACE. THE FIBRE GRATE WILL SIT IN THE ANGLE IRON FRAME. THIS WILL PROVIDE FLAT SURFACE FROM THE ROAD WAY TO THE FOOTPATH FOR DISABILITY USERS. THE FIBRE GRATE CAN BE EASILY REMOVED IF CLEANING OF THE GUTTER BECOMES A REQUIREMENT.



ROADWAY CONSTRUCTION CROSS SECTION



INDUSTRIAL GRADE FIBRE REINFORCED PLASTIC GRATING
REFER LOCKER GROUP CATALOGUE - SAFE FLOORING SOLUTIONS GRATING.

SITE SPECIFIC DETAILS

1. CARE TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATION IS TO UNDERTAKEN OVER EXISTING SERVICES. HAND EXCAVATE IN THESE AREAS ONLY.
2. ALL CONCRETE FOUNDATION SLABS TO HAVE A TYPICAL DEPTH OF 120mm, THICKNESS WILL VARY UP TO 145mm FOR THE BASE OF THE CHARGE STATION TO COMPENSATE FOR THE DIFFERENCE IN ROAD ELEVATION. CONSTRUCTION AS PER THE SHOWN DIMENSIONS. THE CONCRETE POUR TO BE 25MPa. ALSO REFER TO DRAWING 101106 - E001 FOR SITE GEOMETRY LAYOUT.
3. ALL CONCRETE SURFACES NEAR THE CHARGE STATION MUST HAVE A SMOOTH FINISH SO AS TO VOID DAMAGE AND WEAR TO THE CHARGE CABLE.
4. SUBGRADE IS BE COMPACTED TO 90% MMDD.
5. 75mm DGB20 BASE MATERIAL IS TO BE PLACED UNDER ALL CONCRETE PAVING WORKS.
6. ELECTRIC HIGHWAY TASMANIA TO PROVIDE PARKING SIGNAGE.

CONSTRUCTION NOTES

1. DC & AC CHARGE STATIONS TO BE SUPPLIED BY ELECTRIC HIGHWAY TASMANIA. DC CHARGE STATION IS TO INCLUDE SPECIFIC BASE MOUNTING PLATE.
2. THE DC CHARGE STATION AND NEW MAIN SWITCHBOARD ARE TO BE LOCATED ON SEPARATE NEW CONCRETE FOUNDATIONS AS SHOWN ON SITE GEOMETRY DRAWING 101106 - E001. THE MULTI FUNCTIONAL STREET LIGHTING COLUMN WILL HAVE IT OWN FOUNDATION FOOTING.
3. AT THE LOCATION OF DC CHARGE STATION ON THE CONCRETE SLAB, THE CONCRETE IS BE POURED WITH 40mm OD POWER CABLE ENTRY CONDUIT AND A 25mm OD ETHERNET CONDUIT. THE TOP OF BOTH CONDUITS TO BE POSITIONED A MINIMUM OF 150mm ABOVE FOUNDATION SURFACE. PLEASE NOTE ALL CONDUIT AND CABLE ENTRIES IN TO THE CHARGE STATION MUST BE SEALED TO PREVENT MOISTURE AND HUMIDITY INGRESS.
4. THE FOUNDATION MUST BE AT LEAST 25MPa WITH 6mm STEEL RE-ENFORCMENT POSITIONED 60mm FROM THE TOP SURFACE. POSITION RE-ENFORDMENT GRID BARS IN THE CONCRETE SO AS TO PROVIDE A MINIMUM OF 20mm CLEARANCE FROM WHERE THE BASE PLATE MOUNTING HOLES WILL BE DRILLED.
5. BASE PLATE FASTENERS TO BE 4 x M16 AND TO BE PROVIDED BY THE INSTALLER.

Precision Electrical Design
Power and NBN
ABN: 47 926 962 988

Digitally signed by Ted Lambert
DN: cn= Ted Lambert
o=PrecisionElectricalDesign
email=admin@precisionelectricaldesign.com.au
c=AU
Date:2020.05.06

REV	AMENDMENT DETAILS	DRN	CHKD	ISSUED BY	ISSUED DATE
A	CD90 Civil Works Design	EEL	EEL	EEL	06/05/20

Note:
1. THE INTENSION OF THIS DESIGN IS THAT OF A CONSTRUCTION DRAWING DEPICTING ELECTRICAL REQUIREMENTS . THIS DESIGN IS NOT TO BE USED OR COPIED BY ANY ANOTHER PERSON OR COMPANY THE POWER AUTHORITY ACCEPTS NO RESPONSIBILITY FOR ANY LOSS OR DAMAGE SUFFERED HOWEVER ARISING TO ANY PERSON OR CORPORATION WHO MAY RELY ON THIS PLAN IN CONTRAVENTION OF THIS CLAUSE OR CLAUSE 2 AND 3 HERE OF.
2. DIMENSIONS, AREA AND NUMBERS OF LOTS SHOWN ON THIS DESIGN ARE APPROXIMATE ONLY AND MAY VARY. THE ELECTRICAL DESIGN SHOWN MAY BE SUBJECT TO VARIATION DEPENDING ON SITE CONDITIONS ENCOUNTERED DURING INSTALLATION.
3. THIS DESIGN MAY NOT BE REPRODUCED UNLESS THIS NOTE IS INCLUDED.

SCALE 1:XXXX | SHEET SIZE A3

FOR CONSTRUCTION
ONLY IF APPROVED
ELECTRIC HIGHWAY TASMANIA

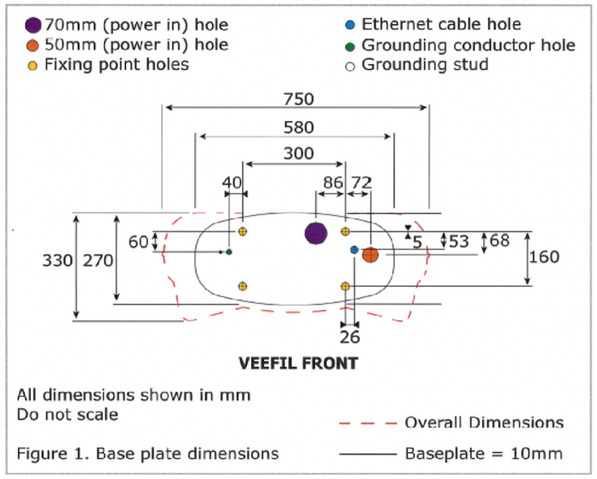
Precision Electrical Design
Power and NBN
ABN: 47 926 962 988
Accreditation level 3 - 5240
P: 0455 677 455 - 0265823444
E: admin@precisionelectricaldesign.com.au
A: 3 Seamist Place Port Macquarie NSW 2444.

PROJECT

ELECTRIC HIGHWAY TASMANIA
24 FRANKIN STREET SWANSEA
TASMANIA 7190.

CD90 - CIVIL WORK DETAILS

10113 - E004	REV A
	Sheet No. 1 / No. of Sheets 2



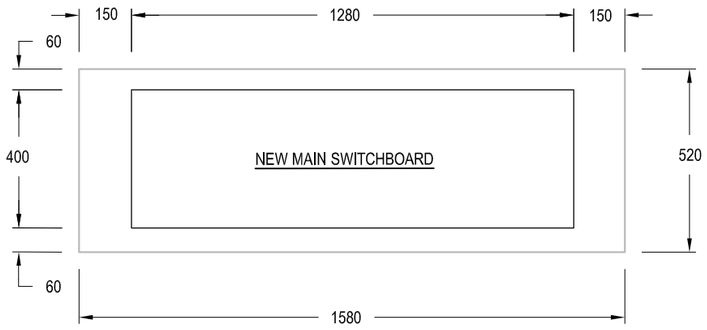
CHARGE STATION BASE PLANT DETAILS

Precision Electrical Design
Power and NBN

ABN: 47 926 962 988

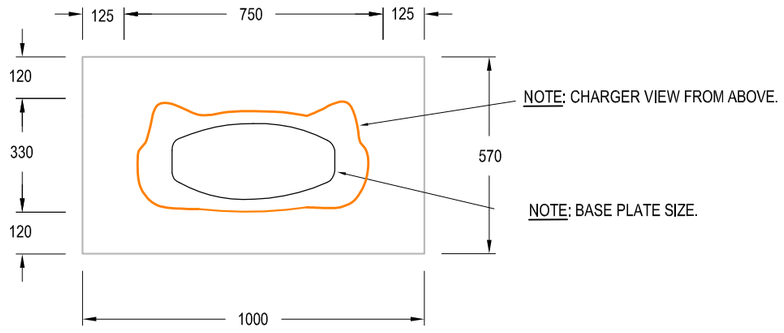
Digitally signed by Ted Lambert
DN: cn= Ted Lambert
o=PrecisionElectricalDesign
email=admin@precisionelectricaldesign.com.au
c=AU
Date:2020.05.06

50kVA DC TRITIUM CHARGER

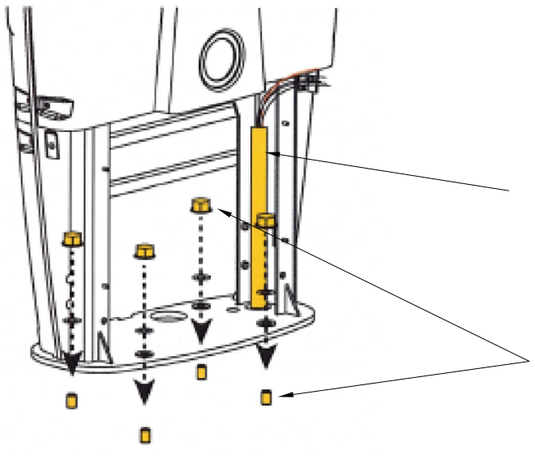


SWITCHBOARD CONCRETE FOUNDATION DETAILS

THE CONCRETE FOUNDATION SLAB FOR THE CHARGE STATION IS BE INSTALLED LEVEL. REFER TO SHEET DRAWING AND NOTE THE CORNER ELEVATIONS ABOVE THE ROAD SURFACE.



CHARGE STATION CONCRETE FOUNDATION DETAILS



CHARGE STATION MOUNTING DETAILS

SITE SPECIFIC DETAILS

1. CARE TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATION IS TO UNDERTAKEN OVER EXISTING SERVICES. HAND EXCAVATE IN THESE AREAS ONLY.
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3. ALL CONCRETE SURFACES NEAR THE CHARGE STATION MUST HAVE A SMOOTH FINISH SO AS TO VOID DAMAGE AND WEAR TO THE CHARGE CABLE.
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6. ELECTRIC HIGHWAY TASMANIA TO PROVIDE PARKING SIGNAGE.

CONSTRUCTION NOTES

1. DC & AC CHARGE STATIONS TO BE SUPPLIED BY ELECTRIC HIGHWAY TASMANIA. DC CHARGE STATION IS TO INCLUDE SPECIFIC BASE MOUNTING PLATE.
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3. AT THE LOCATION OF DC CHARGE STATION ON THE CONCRETE SLAB, THE CONCRETE IS BE POURED WITH 40mm OD POWER CABLE ENTRY CONDUIT AND A 25mm OD ETHERNET CONDUIT. THE TOP OF BOTH CONDUITS TO BE POSITIONED A MINIMUM OF 150mm ABOVE FOUNDATION SURFACE. PLEASE NOTE ALL CONDUIT AND CABLE ENTRIES IN TO THE CHARGE STATION MUST BE SEALED TO PREVENT MOISTURE AND HUMIDITY INGRESS.
4. THE FOUNDATION MUST BE AT LEAST 25MPa WITH 6mm STEEL RE-ENFORCMENT POSITIONED 60mm FROM THE TOP SURFACE. POSITION RE-ENFORDMENT GRID BARS IN THE CONCRETE SO AS TO PROVIDE A MINIMUM OF 20mm CLEARANCE FROM WHERE THE BASE PLATE MOUNTING HOLES WILL BE DRILLED.
5. BASE PLATE FASTENERS TO BE 4 x M16 AND TO BE PROVIDED BY THE INSTALLER.

REV	AMENDMENT DETAILS	DRN	CHKD	ISSUED BY	ISSUED DATE
A	CD90 Civil Works Design	EEL	EEL	EEL	06/05/20

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SCALE: 1:XXXX
SHEET SIZE: A3

FOR CONSTRUCTION
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ELECTRIC HIGHWAY TASMANIA

Precision Electrical Design
Power and NBN
ABN: 47 926 962 988
Accreditation level 3 - 5240
P: 0455 677 455 - 0265823444
E: admin@precisionelectricaldesign.com.au
A: 3 Seamist Place Port Macquarie NSW 2444.

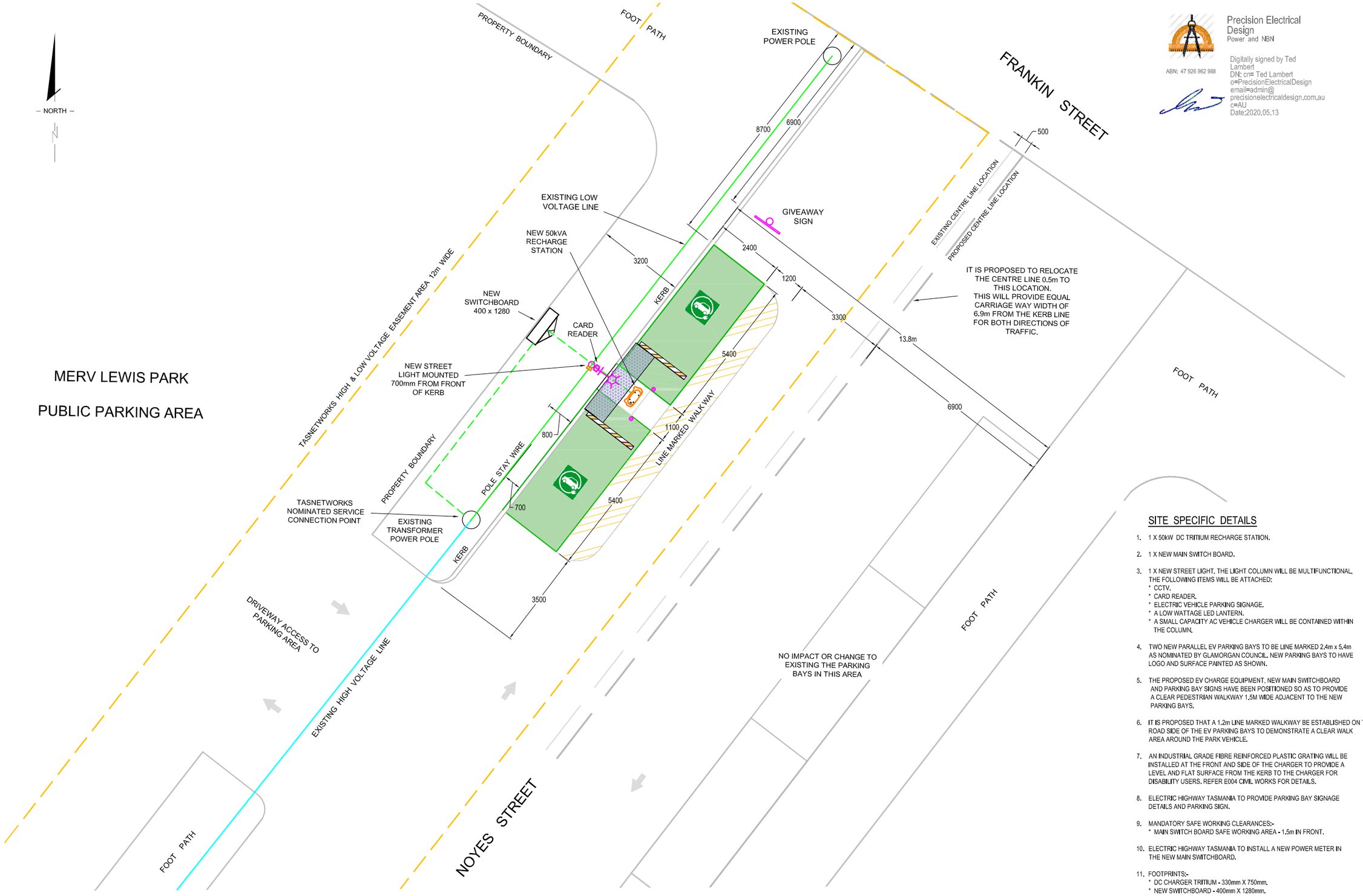
PROJECT

ELECTRIC HIGHWAY TASMANIA
24 FRANKIN STREET SWANSEA
TASMANIA 7190.

CD90 - CIVIL WORK DETAILS

10113 - E004 | REV A

Sheet No. 2 | No. of Sheets 2



Precision Electrical Design
Power and NBN

ABN: 47 926 962 988

Digitally signed by Ted Lambert
DN: cn= Ted Lambert
o=PrecisionElectricalDesign
email=admin@precisionelectricaldesign.com.au
c=AU
Date:2020.05.13

SITE SPECIFIC DETAILS

1. 1 X 50kW DC TRITIUM RECHARGE STATION.
2. 1 X NEW MAIN SWITCH BOARD.
3. 1 X NEW STREET LIGHT. THE LIGHT COLUMN WILL BE MULTIFUNCTIONAL. THE FOLLOWING ITEMS WILL BE ATTACHED:
   * CCTV.
   * CARD READER.
   * ELECTRIC VEHICLE PARKING SIGNAGE.
   * A LOW WATTAGE LED LANTERN.
   * A SMALL CAPACITY AC VEHICLE CHARGER WILL BE CONTAINED WITHIN THE COLUMN.
4. TWO NEW PARALLEL EV PARKING BAYS TO BE LINE MARKED 2.4m x 5.4m AS NOMINATED BY GLAMORGAN COUNCIL. NEW PARKING BAYS TO HAVE LOGO AND SURFACE PAINTED AS SHOWN.
5. THE PROPOSED EV CHARGE EQUIPMENT, NEW MAIN SWITCHBOARD AND PARKING BAY SIGNS HAVE BEEN POSITIONED SO AS TO PROVIDE A CLEAR PEDESTRIAN WALKWAY 1.5M WIDE ADJACENT TO THE NEW PARKING BAYS.
6. IT IS PROPOSED THAT A 1.2m LINE MARKED WALKWAY BE ESTABLISHED ON THE ROAD SIDE OF THE EV PARKING BAYS TO DEMONSTRATE A CLEAR WALK AREA AROUND THE PARK VEHICLE.
7. AN INDUSTRIAL GRADE FIBRE REINFORCED PLASTIC GRATING WILL BE INSTALLED AT THE FRONT AND SIDE OF THE CHARGER TO PROVIDE A LEVEL AND FLAT SURFACE FROM THE KERB TO THE CHARGER FOR DISABILITY USERS. REFER E004 CIVIL WORKS FOR DETAILS.
8. ELECTRIC HIGHWAY TASMANIA TO PROVIDE PARKING BAY SIGNAGE DETAILS AND PARKING SIGN.
9. MANDATORY SAFE WORKING CLEARANCES:-
   * MAIN SWITCH BOARD SAFE WORKING AREA - 1.5m IN FRONT.
10. ELECTRIC HIGHWAY TASMANIA TO INSTALL A NEW POWER METER IN THE NEW MAIN SWITCHBOARD.
11. FOOTPRINTS:-
    * DC CHARGER TRITIUM - 330mm X 750mm.
    * NEW SWITCHBOARD - 400mm X 1280mm.

REV	AMENDMENT DETAILS	DRN	CHKD	ISSUED BY	ISSUED DATE
C	CD100 Site Geometry Design Add Walkway Dimension	EEL	EEL	EEL	13/05/20
B	CD100 Site Geometry Design Add Grate System	EEL	EEL	EEL	05/04/20
A	CD100 Site Geometry Design for Review	EEL	EEL	EEL	22/04/20

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SCALE	SHEET SIZE
1:200	A3

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ABN: 47 926 962 988
Accreditation level 3 - 5240
P: 0455 677 455 - 0265823444
E: admin@precisionelectricaldesign.com.au
A: 3 Seamist Place Port Macquarie NSW 2444.

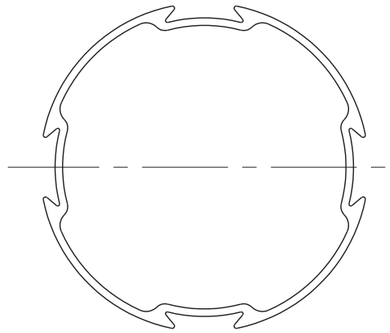
PROJECT

ELECTRIC HIGHWAY TASMANIA
24 FRANKIN STREET SWANSEA
TASMANIA 7190.

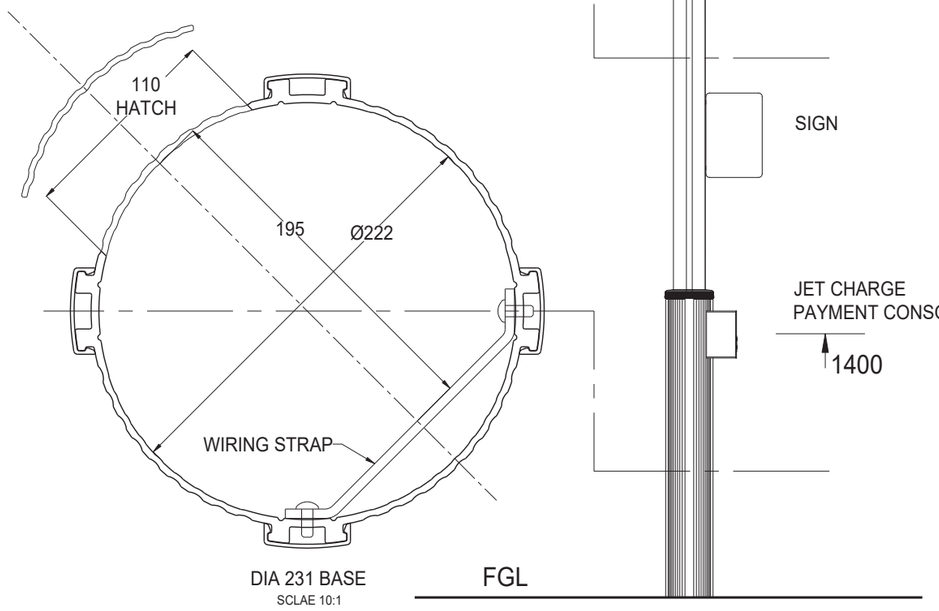
CD100 - SITE GEOMETRY

PROJECT No 10113 - E001	REV C
Sheet No. 1	No. of Sheets 1

ISSUE	C.O. No.	REVISION	LOCATION	BY	DATE



DIA 175 MAST
SCALE 10:1



DIA 231 BASE
SCLAE 10:1

Foundation Bolts
M20 @ 300 PCD

NOTE
All poles manufactured in accordance with relevant standards

Soil testing, footing design and certification services available on request.

NOTE
All extruded Aluminium components to be clear anodized 20-23Um

IP 65 rated electrical enclosures to be used for electrical connections.

All buried components to be coated with **DUREBILD STE** 150 microns

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IP AUSTRALIA PATENT APPLICATION 2018253613

DO NOT SCALE DRAWING
DIMENSIONS IN MILLIMETRES

THIRD ANGLE PROJECTION

DIMENSION TOLERANCES UNLESS OTHERWISE SPECIFIED
2 PLACE DECIMAL 0.00 ± 0.1mm
1 PLACE DECIMAL 0.0 ± 0.25mm
0 PLACE DECIMAL 0 ± 0.50mm
ANGULAR ± 15 MINUTES (0.25')

DRAWN BY AC	DATE 9.4.20	DOCUMENT No.
CHECKED BY	DATE	DISC FILE No.
APPROVED BY	DATE	SCALE
QUALITY APPROVED BY	DATE	ISSUE
		DATE RELEASED
		ITEM No.

SHEET

Urban Aluminium Pty Ltd
www.urban-al.com.au
info@urban-al.com.au

Unit 10, 7 Gundah Rd, Mt Kuring-Gai
NSW 2080 AUSTRALIA
Tel. +612 8921 5400

UrbanAluminium™
FUTURE SMART

TITLE
COMMUNITY MFP JETCHARGE

PROJECT	DRAWING No.
MULTI-FUNCTION POLES	UA-0311
PART No.	SHEET No.

The General Manager
Glamorgan Spring Bay Council
planning@freycinet.tas.gov.au

5 June 2020

Re: Electric Highway Tasmania P/L development application, for electric vehicle charging station, Noyes Street, Swansea

Planning ref: DA 2020 / 033
Property file: 3-3333-333

Dear Sir or Madam,

Correspondence received from Glamorgan Spring Bay Council on 4 June, requested the following additional information in respect of our application:

1. The maximum height above ground level of the proposed light over the card reader, and any design examples you can provide of what it might look like.

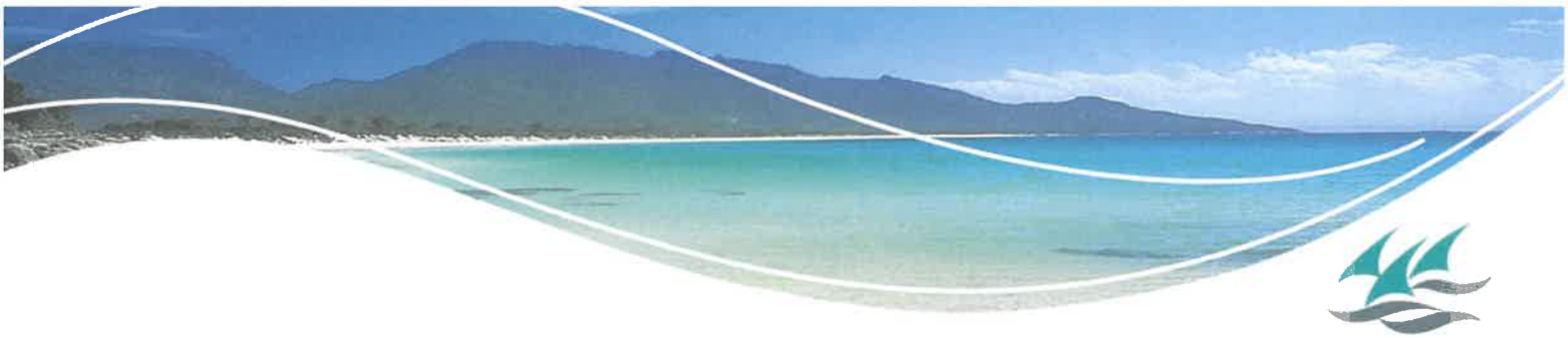
The height of the proposed light above ground level will be just under 3.5 m. A drawing showing the pole and reader is attached. The drawing shows the main elements accurately but does not include all of the final details of the design.

We have consulted with TasNetworks prior to determining this height to ensure that the location and height does not represent a conflict with the power lines running overhead.

Please let me know if further information is required.

Regards,

Clive Attwater
Managing Director
Electric Highway Tasmania P/L
0439 941 934



GLAMORGAN SPRING BAY COUNCIL

21 May 2019

Dear Sir/Madam,

Re: ChargeSmart Electric Vehicle Charging Grants – Letter of Support

Glamorgan Spring Bay Council (GSBC) strongly supports the Electric Highways Tasmania (EHT) application for funding a Fast Charging Station at Swansea on the east coast of Tasmania.

A fast charging station strategically located at Swansea will make a significant contribution to enabling safe and easy charging for electric vehicles throughout Tasmania.

GSBC views the installation of a fast charge stations as crucial for supporting the uptake of EVs by the tourism industry, local residents and visitors.

Locating fast charging capacity in Swansea would also alleviate the fear of getting stranded and being unable to recharge when driving on the east coast of Tasmania. A recent RACV survey identified 'range anxiety' as a major factor in the respondents' refusal to consider purchasing an electric vehicle.

GSBC is committed to reducing greenhouse gas emissions and actively seeks to identify opportunities for initiatives to achieve this. Transport is a key focus area as the transport sector is responsible for at least one third of community emissions in the GSB municipality.

We are extremely confident that the applicant EHT P/L has the expertise and market knowledge to install a suitable fast charger to meet the needs of not only our local area but also to the overall objective of providing convenient access and a positive user experience for users of the charging station.

If EHT P/L is successful in the application for grant funds, Council will enter into a formal site agreement with EHT to occupy the site for the purpose of providing fast charging services based on the outline framework proposed (attached). Council will support the operation of the site by providing enforcement of parking restrictions to EV charging only, and general maintenance of the site area (not the equipment).

Council recognises the advantages of being part of a wider network of fast chargers including EHT's provision of:

- Customer help line
- Responsive maintenance
- Billing Services
- Ability to expand capacity in a timely manner as EV ownership grows.

Yours sincerely,

Ian Pearce

ACTING GENERAL MANAGER

PO Box 6
9 Melbourne Street
TRIABUNNA TAS 7190
t: (03) 6256 4777
f: (03) 6256 4774
e: admin@freycinet.tas.gov.au
w: www.gsbc.tas.gov.au

Development application

Proposed development: Installation of electric vehicle charging equipment to serve one existing car parking space in the on-street car parking area on Noyes Street near the junction with Franklin Street (Tasman Highway). Ancillary equipment includes a pole with a parking control sign, credit card reader and supplementary motion activated spot lighting and a new main electrical switch board to supply the site.

Zone: 20.0 Local Business, and adjacent to the Franklin Street zoned 28.0 Utilities

Use class: Vehicle Parking, subsidiary use: Utilities (minor)

Development Status:

The property address is given as Noyes Street, 'Road' and the site is part of the road reserve.

Looking west along Noyes Street: site is two unmarked car park bays in front of the Give Way sign. Large interpretation panel in Merv Lewis Park has been removed since this photo was taken.

Looking east along Noyes Street: site is on the left side. Photos from Google Street View.

1. Introduction

This Development Application (DA) is submitted by Electric Highway Tasmania (EHT) for the installation of electric vehicle charging equipment to serve two currently unmarked on-street parking bays in Swansea.

1.1. The need for Electric Vehicle chargers

The introduction of electric vehicles (EVs) will be essential to reduce transport greenhouse gas emissions, Tasmania's largest sector of emissions. Using 100% renewable energy, emissions can be drastically cut relative to existing petrol and diesel driven transport.

The vast majority (90%-95%) of EV charging will occur at home, fleet base or for travellers, at their overnight accommodation so the use of public fast chargers will not be nearly as great as petrol stations are at present. With a typical range of 200-400 km for new EVs, most journeys can be completed without the need to recharge while away from home.

Nonetheless an essential requirement for the adoption of EVs will be the availability of fast charging infrastructure to permit EVs to travel beyond the range of their battery by recharging on the road.

The proposed Swansea charger is one of a network of 17 fast charger sites being deployed across Tasmania by a number of providers. Twelve of these sites, including the Swansea site, have received support from the Tasmanian Climate Change Office to a maximum of $50,000 per site. The TCCO and State Government recognise the critical role of seeding the state with enough fast chargers to enable easy movement of EVs around the state.

Two charger sites being developed by EHT will provide coverage to the east coast of Tasmania: St Helens and Swansea. This will complement sites on the Midland Highway and Scottsdale to be developed by others. In addition, EHT is developing sites at Queenstown, Derwent Bridge, Burnie and Smithton to serve the west of the state, with additional sites under consideration.

All EHT sites will initially be fitted with a single 50kW DC fast charger and a 22kW three phase AC charger. The much slower AC charger will serve the few EV models unable to use the DC charger and provides backup if the DC charger is unavailable or out of service.

It is anticipated that the adoption of EVs will increase rapidly toward 2025, when it is expected that the cost to buy an EV will be equal to or lower than internal combustion vehicles, and the infrastructure to support their use is well established. This expansion has already begun, with the availability of new models in 2019 leading to more than doubling the number of EVs on the road in Australia and Tasmania last year.

As demand increases, EHT will negotiate with Glamorgan Spring Bay Council to install a higher capacity charger at the site (ie to charge newer models faster). If further expansion is required, EHT would seek an additional site elsewhere in Swansea or other Glamorgan Spring Bay community.

2. The site

The nominated site is designated as Noyes Street, 'Road' and the site is two unmarked on-street parking bays in front of Merv Lewis Park. The nominated site was selected in consultation with Glamorgan Spring Bay Council officers.

A letter was provided by Glamorgan Spring Bay Council in support of Electric Highway Tasmania's application for funding for the charging equipment, submitted to the Tasmanian Climate Change Office in May 2019.

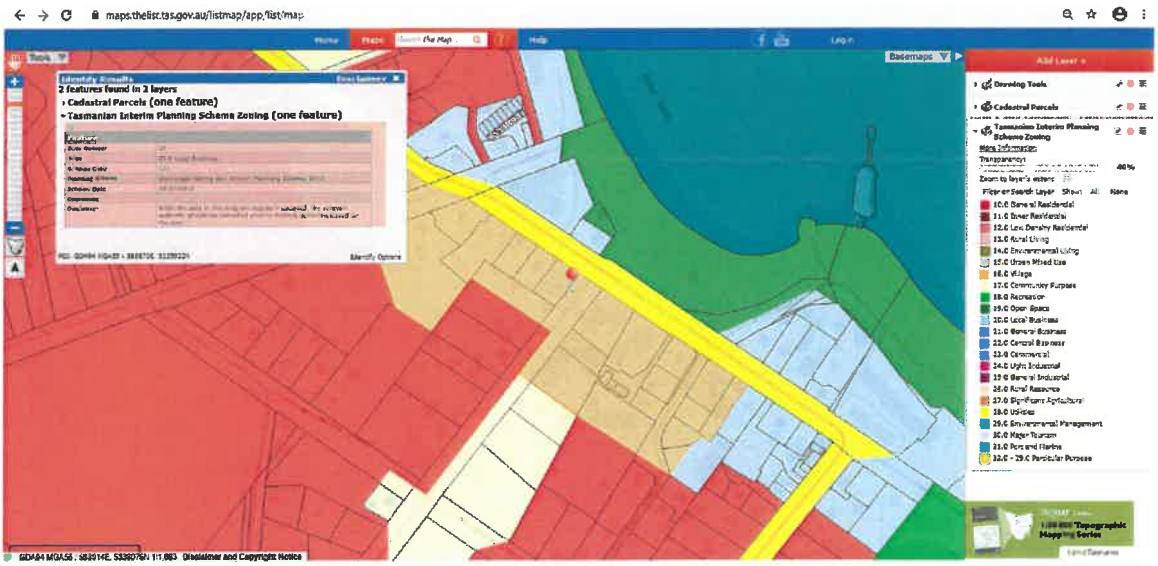
The selected site was favoured because:

- It is a moderate demand car park that receives less use because most cars have to do a U turn to be able to park there.
- It is on a secondary road, but easily found by visitors to the region
- There is a power supply of sufficient capacity on an adjacent pole to feed the relatively high demands of electric vehicle charging.
- Entry and exit to the proposed parking configuration do not create traffic conflicts.
- It is relatively central to the town and services, including food and beverage, toilets and attractions of interest to visitors, and is opposite the visitor information centre.
- It has a limited impact on residential areas
- Use of the space for charging does not result in significant change in traffic movements.

The approximate site boundaries are shown in the image below, overlaid on an aerial photo (from theLIST).

Swansea site (green rectangle)

The zoning for the site is shown in the image below, with the approximate location of the EV chargers identified with a pin.



Detailed site drawings are provided in the attachments illustrating the elements required to complete the development.

3. Scope of works and equipment to be installed

The site drawing shows the elements to be installed and their dimensions, including provision for some of the future equipment required if the site expands and offers faster charging.

Equipment to be installed initially:

- Main switchboard to service site against boundary wall
- 50 kW DC fast charger with two connectors (only one is active at any time)
- 22 kW AC charger with one connector mounted on a steel pole approx. 1.5 m high
- The two chargers will share a single concrete pad footing.
- Credit card reader, parking sign and CCTV camera mounted on light pole with motion activated locally focussed light
- Four bollards to protect the charging equipment from impact by vehicles
- Rubber wheel stops
- Logo painted on two parking bays identifying they are for EV charging only
- Ancillary works such as trenching and laying cable conduit as required to connect equipment listed.

In addition to the installation of the equipment, the centre line to Noyes Street needs to move 500 mm to the south in order to be centred and provide adequate clearances on both sides of the road. The current unmarked parking area will be marked, including showing a 'safe' zone for vehicle operators to plug in cars on the street side of their vehicles if required.

Parking bays will be formalised as two parallel parking bays with a gap between for the charger. This format is required so that vehicles can park facing in the direction of traffic flow while having a position that allows the charging cable to reach any possible charge port location on the car.

3.1. Equipment size and appearance

The picture on the left below shows a 50 kW DC fast charger installed in Launceston, the same model as the charger proposed for Swansea (but with a different graphic design). The position of the charger will be between the ends of the parking bays, not beside as shown in the picture. The much smaller AC charger on a post is shown in the picture in the centre to a similar scale. The third image below shows the proposed graphic design of the charger for the Swansea site.

The back side of the DC charger provides a large surface which we will use to provide customised local information about sights, activities, flora and fauna, history etc. We will develop the content of that in conjunction with Council officers.

3.2. Lighting

The car park currently has general illumination from street lights on Noyes Street. This lighting does not provide sufficient illumination to enable easy use of the EV charging equipment at night. A supplementary motion activated light will be installed adjacent to the charger to enable users to more easily see and insert the charge connector into their car.

The picture beside shows the lighting built into the DC fast charger which assists with locating the charger at night. The localised pattern of illumination is evident, providing reasonable night-time visibility without illuminating neighbouring areas.

The AC charger is unlit apart from a small status light.

3.3. Signs

Apart from the graphics on the chargers as discussed and illustrated above, the only vertical signs will be a parking control sign indicating the parking bays are for use by EVs while charging only. The parking sign will be in accordance with normal format for parking controls, 225mm x 450 mm in size.

Each item of charging equipment will include small panels with instructions as required to operate each device. There will be an image painted on the paved surface in the parking bays as shown on the site drawing.

4. Operations

4.1. Hours of operation

The EV chargers will be unattended, available for self-serve use 24 hours per day, seven days per week. While unattended, users will be supported by a 24-hour help desk should issues arise. The site will also be monitored by CCTV, accessible to our help desk.

4.2. On-site activity

Unlike a petrol station, EV charging does not require the driver to remain with the vehicle during the charging session. The cable locks into the car's charge port and cannot be removed until the car's owner releases it. Most people will choose to explore the area, go to a café, shop or visit and attraction nearby during their charge session. Our website will provide information about what is in the area at each of our charge sites including opening hours, location of public toilets, etc.

Billing and payment will be by credit card, an app, or a fleet account activated by an RFID card, as preferred by the user. There will be no cash on the site.

The charging app can be used to send a message to the user's phone when the charge reaches the desired level, so they can return in time to stop the charge and continue their journey.

No frequent servicing of the equipment or deliveries are required. The site will be visited and inspected periodically and may require maintenance from time to time. This will be by a single technician in a van or ute, a few times per year under normal circumstances.

4.3. Environmental impacts

Apart from the electricity supply and wireless telecommunications, no services are required for the chargers (water, waste removal, gas supply). The activity generates no waste or liquid or gaseous emissions, and no hazardous materials are involved in any way.

Electric vehicles generate very little noise, primarily only tire noise at low speeds (and some wind noise on the highway). There are also no tailpipe emissions from EVs resulting in very little impact from the vehicles on neighbours.

4.4. Traffic generation

Our operating model deems a charger to be at capacity when it is occupied an average of four hours per day over the year. In the summer season, occupancy would average closer to 6 hours with peak days reaching 12 hours or more. While there is a single fast charger on site, we would seek to expand to a larger capacity dual fast charger that can serve two cars simultaneously before this level of use is reached to reduce queuing and frustration for users. This is likely to be 2-4 years from now.

Charging times vary by context, varying from 10-20 minutes in large urban areas to much longer, 40-120 minutes on mainland routes with long distances between sites. In Swansea dwell times are expected to be longer than many other Tasmanian sites because of the relatively long distances to neighbouring settlements – and chargers – on some routes to and from the town. Dwell time of 40-90 minutes is expected for the DC charger and several hours for the AC charger.

This operating model implies an average of about four vehicle movements per day per bay over the year, with an average of about 6-8 during peak periods. This is comparable to levels of use of existing car parking spaces and is not anticipated to cause any noticeable change in traffic activity to the site.

The initial level of use will be much below this as there are currently few EVs on the road in Tasmania. Use is expected to build over the next 2-4 years.

4.5. Vehicle access, circulation and parking

The site is currently unmarked on-street car parking. It has been identified as having a lower level of use than some of the surrounding area parking because drivers usually enter from Franklin Street and must make a U turn or three-point turn in order to use these spaces. Our user app will direct drivers coming from the south to enter via Julia Street and Noyes Street, avoiding the U turn.

The proposed configuration allows cars to always park facing the direction of traffic flow while permitting the 3.8m charge cables (max length permitted by manufacturer) to reach charge ports on the car that may be located on the front, back, front left or front right, rear left or rear right of the vehicle.

The site plan makes provision for a safe walkway between the parking bays and the street. The bays are designed to avoid the power pole stay cable, poles and cabinets to be clear of opening car doors allow easy exit by passengers from vehicles. The layout is designed to avoid having charge cables crossing walkways thus minimising trip hazard.

225x450mm sign on aluminium

x2 225x450mm signs on aluminium

EYE SPY®

Job No. 68693
Electric Highway Tasmania
20/3/2020

WARNING

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Every effort has been made to ensure your artwork is correct and error free. HOWEVER, mistakes can happen! The final responsibility for the checking of spelling and layout rests with you – the client. Please carefully check:

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- ❑ Size
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Name .....

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263 Kennedy Drive Cambridge TAS Ph: 6248 5544