



SITE LAYOUT PLAN  
SCALE 1:10,000

SCOPE OF WORKS.

- (H1) EXCAVATE AND INSTALL NEW 400HV BETWEEN EXISTING SHELL ROADHOUSE RMU AND NEW MERCURE AIRPORT HOTEL RMU INCLUDING TERMINATIONS, STRAIGHT JOINTS AND CABLE MARKERS AS WELL AS 35HV CABLES AS SHOWN ON DESIGN DRAWING  
CU HU2-400 x 4.0, HU2-95 x 6, CN4-6 x 1060m, CN53 x 9550m, CN54 x 30, CN61 x 11roll, CN64 x 55, DCSD R58
- (H2) LOCATE, EXPOSE AND OPEN EXISTING 185HV CABLE NEAR POLES 2387 & 2444 CUT EXISTING CABLES AND STRAIGHT JOINT INTO NEW 400HV CABLE CAP THE REMAINDER OF EXISTING CABLE  
CU HU2 x 2, CN73-SMALL x 2  
NON CU N/A  
DCSD N/A
- (H3) INSTALL NEW 63kVA/22kV TRANSFORMER AND 2-1 SWITCHGEAR TO DSM-3-26 AND DSM-3-27 RESPECTIVELY, INCLUDING 25LV CABLE TO EXISTING PILLAR, AS NOTED ON DRAWING  
CU HU6 x 1, HU55 x 2, HU66 x 1, HU75 x 1, HU83 x 1, LU10-CABTERM x 1  
NON CU N/A  
DCSD DSM-3-26, DSM-3-27, G4-1/1, G4-1/2, G4-2/3, G4-2/4, G4-4/1, G4-4/2, G4-4/3, G4-4/4, G5-01, G5-03, G5-06, G6-11/2 AND U8
- (H4) INSTALL NEW 2-1 SWITCHGEAR TO DSM-3-27 AS NOTED ON DRAWING  
CU HU6 x 1, HU55 x 1  
NON CU N/A  
DCSD DSM-3-27, G4-2/3, G4-2/4, G4-4/1, G4-4/2, G4-4/3, G4-4/4 AND G6-11/9
- (H5) INSTALL NEW 63kVA/22kV TRANSFORMER, 3-0 SWITCHGEAR, 3-1 SWITCHGEAR AND METERING TRANSFORMER TO DSM-3-23 AND DSM-3-26 RESPECTIVELY AS NOTED ON DRAWING  
CU HU5 x 1, HU8 x 1, HU55 x 1, HU66 x 1, HU75 x 1, HU83 x 1, HU84 x 1  
NON CU N/A  
DCSD DSM-3-23, DSM-3-26, G4-1/1, G4-1/2, G4-2/3, G4-2/4, G4-4/1, G4-4/2, G4-4/3, G4-4/4, G5-01, G5-03, G5-06 AND G6-11/2
- (H6) LOCATE, EXPOSE AND OPEN EXISTING 35HV AND 240LV CABLES NEAR POLES P2456, P2457, P2458 & P2462 CUT EXISTING CABLES AND STRAIGHT JOINT INTO NEW 35HV AND 240LV CABLES CAP THE REMAINDER OF EXISTING CABLE  
CU HU2 x 3, LU2 x 2, CN54 x 10, CN73-SMALL x 6  
NON CU N/A  
DCSD N/A
- (H7) INSTALL NEW MINI PILLAR AND 25LV CABLE NEAR POLE P2461 TERMINATE AND TEE JOINT 25LV CABLE IN PILLAR AND ONTO 240LV CABLE CUT EXISTING CABLE ON POLE P2461, REROUTE CABLE AND TERMINATE IN PILLAR CAP AND ABANDON REMAINDER OF CABLE  
CU LU10 x 1, LU5 x 1, CN42 x 8m, CN54 x 2, CN73-25LV x 2  
NON CU N/A  
DCSD U8, U8-1
- (H8) INSTALL 10.5m STREETLIGHT POLES WITH 53W LED LUMINAIRES ALONG REDBANK ROAD INCLUDING 20A RED SPOT FUSES IN PILLARS  
CU UM3-R x 3, SL9 x 3, SL24-LU3 x 3, CN41 x 90m, CN54 x 8, CN73-SL x 6  
NON CU N/A  
DCSD S9, S9-1, U8-1, U9-1
- (H9) INSTALL NEW 2-1 SWITCHGEAR TO DSM-3-27 AS NOTED ON DRAWING  
CU HU6 x 1, HU55 x 1  
NON CU N/A  
DCSD DSM-3-27, G4-2/3, G4-2/4, G4-4/1, G4-4/2, G4-4/3, G4-4/4 AND G6-11/9
- (H10) INSTALL NEW 2-2 SWITCHGEAR TO DSM-3-27 AS NOTED ON DRAWING LOCATE, EXPOSE, CUT AND REROUTE EXISTING 35HV CABLE INTO NEW SWITCHGEAR AND TERMINATE  
CU HU7 x 1, HU55 x 2  
NON CU N/A  
DCSD DSM-3-27, G4-2/3, G4-2/4, G4-4/1, G4-4/2, G4-4/3, G4-4/4 AND G6-11/9
- (H11) LOCATE, EXPOSE, CUT AND REROUTE EXISTING 35HV CABLE INTO EXISTING TRANSFORMER AND TERMINATE  
CU HU66 x 1  
NON CU N/A  
DCSD DSM-3-1 AND G6-11/1
- (H12) INSTALL NEW 2-2 MOTORISED SWITCHGEAR TO DSM-3-27 AS NOTED ON DRAWING  
CU HU7-A400 x 1, HU55 x 2  
NON CU N/A  
DCSD DSM-3-27, G4-2/3, G4-2/4, G4-4/1, G4-4/2, G4-4/3, G4-4/4 AND G6-11/9
- (H13) CUT EXISTING CABLES ON POLE P2567, P2488 AND P2533 REROUTE CABLES AND STRAIGHT JOINT ONTO NEW 400HV CABLES CAP AND ABANDON REMAINDER OF CABLE  
CU HU2 x 3, CN54 x 6, CN73-SMALL x 6  
NON CU N/A  
DCSD N/A
- (H14) INSTALL FLOOD PREVENTION RETAINING WALLS THAT WILL BE CONSTRUCTED UP TO A MAXIMUM HEIGHT OF 1m STEPS TO BE FITTED WITH APPROPRIATE HAND AND GUARD RAILS METALLIC HAND AND GUARD RAILS SHALL BE BONDED TO THE EARTH DUCTS TO BE PROVIDED FOR CABLE ACCESS COMPACTED BACKFILL MATERIAL IS TO BE SAND AND TOP LAYER AGGREGATE WITH MINIMUM DEPTH OF 50mm SUBSTATION TO BE DESIGNED TO DIMENSIONS SHOWN ON DETAIL DRAWINGS  
CU N/A  
NON CU 150 ID CONDUIT x 15m, 100 ID CONDUIT x 10m  
DCSD G9-04/1, G9-04/2, G9-04/3
- (H15) ALL POLES, POLE MOUNTED TRANSFORMERS, GROUND STAYS AND AERIAL CONDUCTORS TO BE REMOVED

WARNING

IF WORKING IN THE VICINITY OF EXISTING OVERHEAD DISTRIBUTION OR TRANSMISSION LINES CONTRACTOR TO COMPLY WITH "WORKSAFE" CLEARANCES DURING CONSTRUCTION

INSTRUCTION TO CONSTRUCTION CREWS



IT IS A REQUIREMENT OF HORIZON POWER THAT ALL EXISTING CONDUCTOR / CABLES SIZES ARE CONFIRMED ONSITE TO ENSURE THAT ALL FITTINGS ARE OF THE APPROPRIATE SIZE AND ARE INSTALLED CORRECTLY IN ACCORDANCE TO HIM STANDARDS  
EG HELICAL TERMINATIONS, TIES, PG CLAMPS, LUGS, ETC



WARNING

BEWARE OF UNDERGROUND SERVICES

For clarity, the location of existing underground cables are not shown  
Underground cable locations must be checked on site  
Locate and identify all underground cables and services before commencement of work  
Refer to Worksafe Regulation 3.21

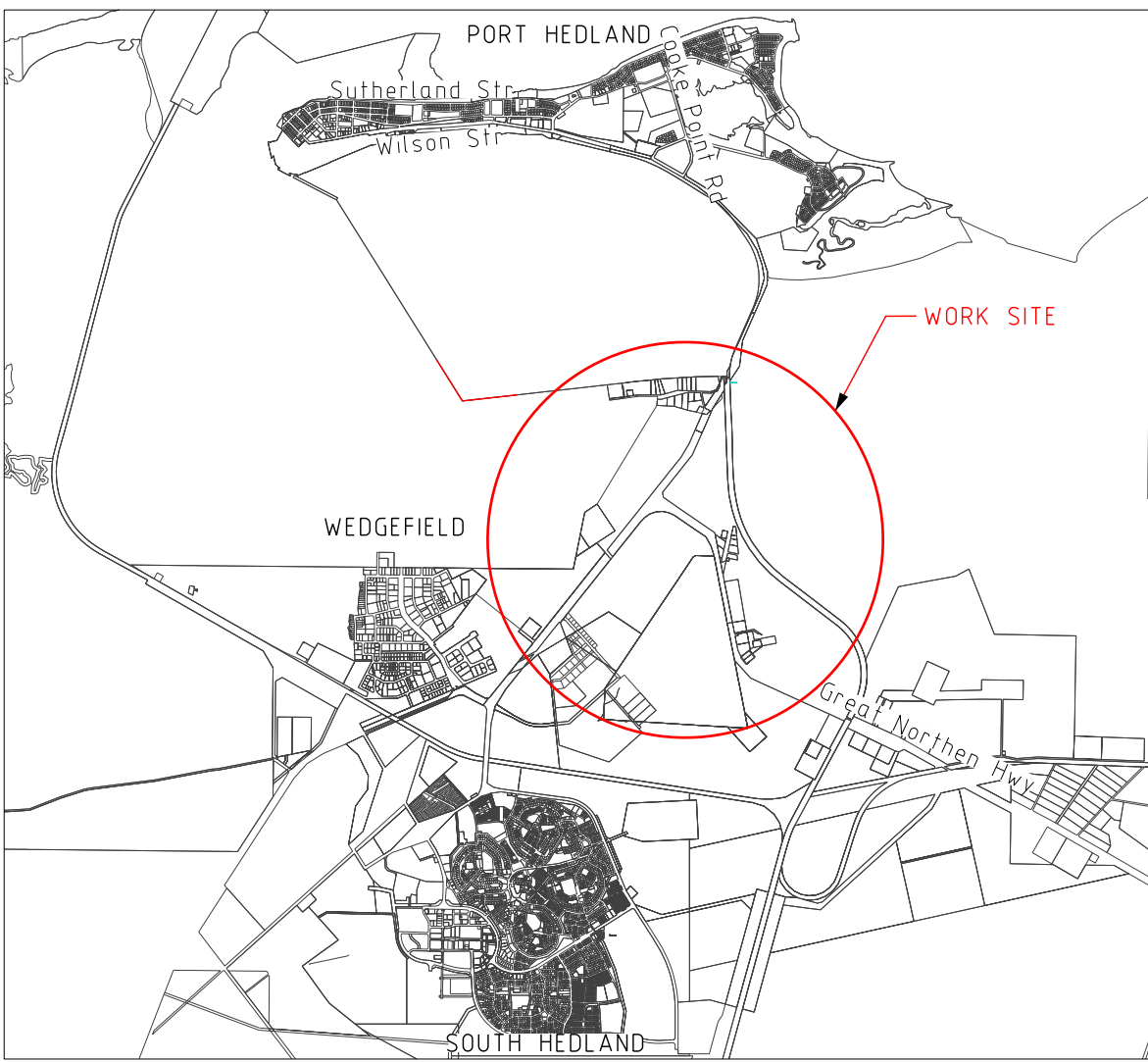


RESTORATION & REINSTATEMENT REQUIREMENTS

Restoration & reinstatement required for this project to be completed as per the Restoration and Reinstatement Specification for Local Gov'ts in WA  
The Construction Manager is responsible for all restoration and reinstatement until formally accepted by Horizon Power or Local Gov't Authority as appropriate  
See Field Instruction

GENERAL NOTES FOR CPM


- 1 CPM TO ENSURE WORK IS CARRIED OUT AS PER HIM AND DCM MANUALS
- 2 CPM TO LIASE WITH CONTRACTOR/CUSTOMER TO NEGOTIATE INSTALLATION DATE
- 3 CPM TO CONFIRM SPD PROTECTION SETTINGS GRADE WITH HORIZON POWER PROTECTIVE DEVICES



SITE LOCATION PLAN  
SCALE 1:100,000

GENERAL NOTES

- (A) THESE DRAWINGS MUST BE READ IN CONJUNCTION WITH UNDERGROUND DISTRIBUTION SCHEMES MANUAL AND ALL OTHER RELEVANT REQUIREMENTS
- (B) ALL CABLES TO BE INSTALLED IN THE 0-500mm ALIGNMENT UNLESS SPECIFIED IN DESIGN DRAWING WHEN CABLE IS INSTALLED BY MEANS OF OPEN TRENCHING THEN MARKER TAPE TO BE INSTALLED ABOVE
- (C) CABLE PROTECTOR SLABBING REQUIRED WHEN THE CABLE LEAVES THE STANDARD 0-500mm OR 2-4-3-0m ALIGNMENTS (REFER TO F1610) SLABBING LOCATIONS COMMON ARE WHEN
  - i. TERMINATE INTO STREETLIGHT POLE
  - ii. TERMINATE INTO PILLARS AND PITS
  - iii. ENTER ROAD CROSSING CONDUIT
  - iv. TO ALL HARDWARE EQUIPMENT INSTALLED
- (D) ALL CREEK AND DRAIN CROSSINGS TO BE BETWEEN 900mm AND 15m DEEP CABLE ENCASED IN CONDUITS AND ENCASED IN CONCRETE TO ALL SIDES AND EXTEND 15m BEYOND EDGES OF CREEK OR DRAIN CONTRACTOR TO FOLLOW THE UDS MANUAL FOR OPEN DRAINS, UDS 8.12.8 AND UDS 8.12.9
- (E) CABLE JOINT LOCATION ARE INDICATIVE ONLY THE HV CABLE AND ALL HV JOINTS WILL REQUIRE TERMITE PROTECTION TO HP APPROVAL
- (F) SUBSTATION SITE TO BE PEGGED AND CLEAR OF ALL SERVICES BENEATH SITE AND CLEAN SAND FILL TO DEPTH OF 1m IN SANDY SOILS AND TO A DEPTH OF 16m IN CLAY OR ROCK
- (G) SUBSTATION SITES INSTALLED ADJACENT TO METAL FENCES MUST HAVE 2m CLEARANCE
- (H) SUBSTATION SITES INSTALLED ADJACENT TO BUILDINGS MUST HAVE 6m CLEARANCE UNLESS 2 HOUR FIRE RATED SEE HP's DRAWING G5/1
- (I) CABLE TO FOLLOW CLEARANCE AS PER CONSTRUCTION DRAWING NUMBERS, R51 TO R59, UNLESS SPECIFIED IN DRAWING
- (J) ALL SERVICE PILLARS EARTH ELECTRODE REQUIRES 500mm SEPARATION FROM WATER SERVICE, SANITARY DRAINAGE AND GAS AND 600mm FROM STORMWATER DRAINAGE AS DEFINED IN AS/NZS 3000:2007 TABLE 3.7 REFER TO UDS FOR DETAILS
- (K) EXISTING SUBSTATION/CABLE LOCATION ARE APPROXIMATELY ONLY CONTRACTOR TO RECONFIRM ON SITE PRIOR TO START OF WORK
- (L) CPM TO ENSURE THAT APPROPRIATE RIGGING LICENCE REQUIREMENTS ARE CONSIDERED FOR USE OF CRANE/LIFTING EQUIPMENTS, IF REQUIRED
- (M) WHEN TRENCHES ARE OPEN, CONTRACTOR TO PROVIDE BARRICADES AROUND TRENCHES TO ENSURE PUBLIC SAFETY AT ALL TIMES CONTRACTORS TO ENSURE SAFETY ON SITE IN ACCORDANCE WITH THEIR SAFETY MANAGEMENT PLAN, HP SAFETY REQUIREMENTS AND WORKSAFE
- (N) CONTRACTOR TO ALLOW FOR SUPPLY & INSTALLATION OF CLEAN SCREENED SAND IN TRENCH TO HP REQUIREMENTS
- (O) NO OTHER UTILITY SERVICES SHALL PASS THROUGH OR BE LOCATED WITHIN THE SERVICE PILLAR EXCLUSION ZONE AS DEFINED IN AS/NZS 3000:2007 TABLE 3.7
- (P) CONTRACTOR TO FOLLOW HORIZON POWER'S NEW LABELLING STANDARDS TO LABEL ALL ASSETS INCLUDING CABLE TERMINATIONS
- (Q) EARTH PITS FOR SUBSTATION MUST BE INSTALLED DIAGONALLY AS SHOWN IN DSM-3-01
- (R) CONTRACTOR IS TO ENSURE A REASONABLE DISTANCE IS MAINTAINED BETWEEN ASBESTOS WATER PIPELINE AND SUBSTATION LOCATION
- (S) THE CONTRACTOR SHALL COMPLETE THE ELECTRICAL INSTALLATION IN ACCORDANCE WITH THE REQUIREMENTS OF ALL HP STANDARDS, OTHER RELEVANT AUSTRALIAN STANDARDS, REGULATIONS AND ACTS HP WEBPAGE <http://horizonpower.com.au/contractors-suppliers/>

										HORIZON POWER JOB / FILE No			EAST PILBARA ELECTRICAL LAYOUT UNDERGROUND 22KV MUNDA FEEDER FROM WEDGEFIELD TO PORT HEDLAND AIRPORT						
										DRN	D MAREE	04.03.21			DRAWING NUMBER	REV			
										CHK'D	W KARSLAKE	15.03.21			A				
										DES	D MAREE	04.03.21			EPR0034-01				
										DES APP'D	B BISHOP	15.03.21							
										APP'D	N MOYO	15.03.21			SCALE AS SHOWN	SHEET 1	SIZE A1		
REVISION DESCRIPTION										DRN	CHK'D	DES'D	DES APP'D	DRAWING NUMBER		DRAWING TITLE			
A 04.03.21 ISSUED FOR REVIEW										DM	WK	DM	BB	NM					
FILEPATH E:\02 Internally Funded Capital\EPR0034 Munda Feeder\EPR0034 Design Drawing (A).dgn																DATE 12/03/2021 4:58:25 PM		BY XGH0778	