

CASE STUDY



Customer	NSW National Parks and Wildlife Services / NSW Department of Public Works
Product	Five Custom Stand-A-Lone Restrooms
Project	Warrumbungle National Park
Location	Coonabarrabran, New South Wales
Designer	NSW National Parks and Wildlife Services Specification
Installer	Landmark Products, 2015
Ref No	26217

landmarkpro.com.au | 1300 768 230
brisbane | sydney | melbourne | adelaide | perth | auckland



Landmark
open space structures & solutions

Landmark Products Case Study:

Customer NSW National Parks and Wildlife Services / NSW Department of Public Works

Product Custom Stand-A-Lone Restroom

Overview:

The Warrumbungle National Park is in country New South Wales approximately 470km's drive west of Port Macquarie, and 24km's west of Coonabarabran.

Back in 2013 the park was ravaged by bush fires which has since become a major research and recovery program by NSW National Parks.

Part of this recovery has been the installation of five (5) straight pump-out stand-alone restrooms.

Restroom Design:

All restrooms have two (2) unisex cubicles, one (1) accessible and one (1) ambulant. All restrooms are to NPWS specifications and includes;

- HDG steel finished in Dulux Weathermax HBR
- Ampelite Webglas Ice Clear roof
- Colorbond custom orb cladding
- SS316 3mm mesh infills
- Sealeck ultraguard doors
- Aluminium composite and mini orb corrugation inside lining
- 240W photovoltaic panels

Treatment System:

All of these restrooms are stand-alone units with a 5000 litre pump out straight drop toilet system.

The holding tanks are concrete and installed underground below each of the restrooms.

We used a Gough Plastics non flush paper dampener pedestal pan and seat.

Fit Out:

The flooring inside the cubicles is 18mm Fibre Cement sheeting coated in an anti-slip finish that provides a strong easy surface to maintain.

Stainless steel single bowl basins, grab rails, toilet roll holders and mirrors are used.

We used a Gough Plastics non flush paper dampener pedestal pan and seat.



Landmark Products Case Study:

Customer NSW National Parks and Wildlife Services / NSW Department of Public Works
Product Custom Stand-A-Lone Restroom

24 Volt Electrical:

Lighting is powered by a 24V system using; 2x 250W photovoltaic solar panels connected to a 220ah Victron gel battery . It is controlled by a Victron 24V DC/DC converter and MPPT controller.

The electrical fit-out is housed in an externally accessible steel cabinet and finished in Dulux Ferrdor 810 PC552 , Windspray as per all other steel.

Lighting:

The lighting used on the outside is a Vision X dual 24" LED to mining specifications. It produces 3500 Lumens with a 150 degree of spread.

The interior light is a Vision X single 24" LED to mining specifications. It produces 1750 Lumens with a 120 degree of spread.

Both lights are wired using motion sensors and dawn to dusk controller.

Roofing:

Roofing comprises of both Custom Orb XRW and Ampelite Webglas.

The larger part is Ampelite Webglas in Ice Clear. This provides a bright interior during daylight hours and allows users to see the interior lights shining through when in use at night.

SS316 grade with 3mm aperture mesh infills close gaps preventing insects and the like.

Installation:

The whole project was installed and project managed by our Sydney operation.

All these restrooms were installed by Landmark Products and a team of selected skilled subcontractors deployed from Sydney.

Local materials and trades were used where possible.



Landmark Products Case Study:

Customer NSW National Parks and Wildlife Services / NSW Department of Public Works
Product Custom Stand-A-Lone Restroom

Design:

These restrooms were designed by NPWS and specified with exacting requirements.

Site:

The site is fairly remote and the distance between the five (5) restrooms is approximately a few kilometres from each other. They are situated at camp sites for day use and car park areas within the National Park.

Installation:

We provided the installation and project management from our Sydney operation, with support from our Brisbane head office.

Outcome:

The finished result delivered five (5) high quality restrooms throughout the National Park that will enable visitors to come back to the park since the fires of 2013.



Customer	NSW National Parks and Wildlife Services / NSW Department of Public Works
Product	Custom Stand-A-Lone Restroom

Architectural drawing showing two sets of plans (A and B) for a building, including floor plans, sections, and details. The drawing is titled "DRAWING ORIGINAL (MAF) 02/04/15" and includes a north arrow and scale bar.

GENERAL NOTES:

- DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVER STRESSED
- PRIOR TO COMMENCEMENT OF WORKS THE BUILDER SHALL SATISFY THEMSELVES OF THE CORRECT LOCATIONS OF ALL EXISTING SERVICES WHETHER INDICATED OR NOT ON THE PLANS.
- STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE TO THE FOLLOWING AUSTRALIAN STANDARDS:
 - AS1170.1, AS1170.2, AS1170.3, AS3600 AND AS4100, AS1664.
- STRUCTURE IS SUITABLE FOR N3 AREAS AND HAS BEEN DESIGNED WITH AN AVERAGE RECURRENCE INTERVAL OF 100 YEARS.
- SITE COVERAGE IS 23.04m² (ROOF AREA).
- THE FOOTING HAS BEEN DESIGNED ASSUMING:
 - SITE CLASS M
 - ALLOWABLE SOIL BEARING CAPACITY OF 100kPa
 - SOL: ADHESION OF 10kPa
- FOR SLABS ON GROUND, ALL TOPSOIL AND UPPER STRATA CONTAINING SOFT OR ORGANIC MATTER ARE TO BE REMOVED AND REPLACED WITH SELECT COMPACTED FILL.
- ALL FILL TO BE CLEAN, PLACED IN LAYERS NOT EXCEEDING 200mm AND COMPACTED TO 95% STANDARD COMPACTION.
- EARTHWORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH CRITERIA AND PROCEDURES SET OUT IN AS3798 GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS.

LEGEND

BTSA = RBA4330-020 UNISEX ACCESSIBLE TOILET SIGN (RH), SATIN STAINLESS STEEL FINISH
BTSD = RBA4330-020 UNISEX ACCESSIBLE TOILET SIGN (RH), SATIN STAINLESS STEEL FINISH
DR = RBA450-229 90° WRAPAROUND GRAB RAIL & BACKREST - RIGHT HAND
AR = "SMC GRABMOUNT" GRAB RAILS (AMBULANT PAIR - LEFT & RIGHT)
TRH = TRIM SMC TOILET ROLL HOLDER
WD = GOUGH PLASTICS NON FLUSH PAPER DAMPENER PEDESTAL PAN & SEAT
WA = GOUGH PLASTICS NON FLUSH PAPER DAMPENER PEDESTAL PAN & SEAT
MI = RBA 82908 -3639 MIRROR: SATIN STAINLESS STEEL FINISH
BL = SMC SWB2AP STAINLESS STEEL SINGLE BOWL BASIN WITH TRAP COVER, ONE TAP HOLE, THORNWATE PRESTO 705 (LEVER) TAP
BP = SMC SWB2AP STAINLESS STEEL SINGLE BOWL BASIN WITH TRAP COVER, ONE TAP HOLE, ENWARE B029K PILLAR TAP 15mm SPRING LOADED CAM ACTION
SH = B295-v-14 RBA SHELF
CH = COAT HOOK
SD = RBA7400-100 YELLOW SHARPS DISPOSAL BOX

CLIENT DESIGN APPROVAL

APPROVED: _____ DATE: _____

REVISION

REVISION	DATE	DRAWN BY	PROJECT	CLIENT NAME	PROJECT	CLIENT NAME	PROJECT	CLIENT NAME
1	2.4.15	26217-1	PINCHAM CARPARK, WARRUMBUNGLES NP, NSWCUSTOM 1C1D GABLE ROOF RESTROOM	NSW DEPARTMENT OF PUBLIC WORKS	PINCHAM CARPARK, WARRUMBUNGLES NP, NSWCUSTOM 1C1D GABLE ROOF RESTROOM	NSW DEPARTMENT OF PUBLIC WORKS	PINCHAM CARPARK, WARRUMBUNGLES NP, NSWCUSTOM 1C1D GABLE ROOF RESTROOM	NSW DEPARTMENT OF PUBLIC WORKS
2	9.3.15	101	1	1	1	1	1	1