

Specification

Design and Construct Transportable Building

for

Gabi Bidi – Water Pathways Project



1 Background

The Peel-Harvey Catchment Council (PHCC) was allocated funding from the Western Australia State Government Royalties for Regions project in 2021 towards delivering infrastructure proposed through the Peel Waterways Research Infrastructure Project business case. The business case was prepared by PHCC and the project aim is to;

'...provide research and community engagement infrastructure to facilitate ongoing scientific research and monitoring activities on the Peel-Harvey waterways...to support a co-ordinated effort to monitor and manage the Peel-Harvey waterways...'

A deliverable for this project is to provide a building that will serve as a multi-purpose facility that can be located remotely from the PHCC offices, to support the intentions of this project and provide a base for technicians, scientists and researchers to continue to study and monitor the condition of the Peel-Harvey waterways. This building is the subject of this Specification document.

2 Description of Works

The works include the design, fabrication and delivery of a transportable building for the Gabi Bidi – Water Pathways Project. The complete project includes the following components;

- Design and construction documentation and certification
- Compliance and licensing permits
- Trailer foundation for the building
- Exterior: Exterior framing, enclosure, roofing awnings and fittings.
- Interiors: Interior construction, finishes and fixtures
- Services: Mechanical, hydraulic and electrical services and associated fixtures

The Contractor shall allow for the construction of all works shown, described or inferred by the Specification (this document) and Concept Drawings (Attachment A) and shall comply with any instructions issued by PHCC.

3 Building Requirements

A summary of the facilities required in the building, as listed in the Financial Assistance Agreement, is as follows:

- A laboratory equipped appropriately to enable analysis of samples of water and sediment from water quality and river health monitoring programs (including a sample processing area and refrigeration)
- Secure storage for scientific equipment e.g. water quality meters, fish nets, surveying gear
- Facilities to enable overnight visitations, on-site meetings/field trips, teaching facilities and similar

3.1 General Design Requirements

The built structure/facilities are to meet the following design requirements;

Compliance

Best practice and statutory requirements are to be complied with. As a minimum the contractor is to comply with;

- All current, applicable industry and Australian Standards
- Applicable Statutory Authority Regulations and By-laws
- Relevant requirements of the Building Code of Australia
- Vehicle Standards bulletin VSB1
- Applicable requirements outlined in the Australian Tiny House Association 'Tiny House Construction Guide 2021'

As a minimum certification by an independent Chartered Structural Engineer shall be provided for the skid and connection of the building to the skid and where relevant all other framing components and Certificate of Design Compliance and Construction Compliance shall be provided by a qualified building surveying practitioner.

Vandal Resistant and Secure

The design and construction shall reduce or remove the opportunity for crime and damage to occur through structurally sound, robust, vandal resistant and secure materials and assembly without detracting from the aesthetics of the building.

Maintenance

Maintenance and cleaning shall be minimised and made easy by providing:

- Elements and finishes designed to minimise maintenance.
- Easy access to elements, with the required working clearances for maintenance, and access doors and panels.

Safe and Comfortable

The space is to be safe and comfortable for users through environmentally passive design that provides natural light and connection with the outdoors and considers appropriate window placement, awning cover, air-conditioning and ventilation.

A cooking appliance using combustible fuel will not be installed but it should be noted that the client may choose to use a portable butane camping stove or similar and adequate ventilation must be provided for this.

Multi-functional

Ensure spaces and fixtures allow for flexibility in use and ability to respond to changing requirements over time.

Aesthetics and Brand Style

The physical appearance shall be visually appealing and contemporary, invite usage and instil a sense of pride.

The external facade shall allow for artwork, vinyl wrap or similar to be applied for branding of the project building.

The branding guidelines and colour palette for the Gabi Bidi – Water Pathways project is shown in **Attachment B** and although these colours do not have to be used in all aspects of the design they should be used to inform the colour selection of the internal and external features of the building.

Sustainable Materials

The design should focus on using products and materials that are recycled or developed using innovative and sustainable manufacturing solutions that reduce environmental impact and are durable and long lasting.

Energy Efficiency

Environmentally passive design principles to be used where possible with ample windows to allow for natural lighting.

To provide energy efficiency and thermal resistance the following R-values are required;

- Walls to have a total R value 2.0
- Roof to have a total R value 4.0
- Subfloor to have a total R value 1.0
- External glazing to be 4mm thickness low-e glass

Energy consumption and greenhouse gas emissions are to be minimised through provision of appliances with a high energy star rating.

Accessible and Inclusive

The facilities shall be accessible and inclusive through the application of universal design and access for all design and construction where possible.

Easily Transportable

The building and trailer shall;

- Meet the technical requirements of the Vehicle Standards bulletin VSB1.
- Be towable with standard 4WD vehicle rated to maximum 3500kgs braked towing capacity.
- Be suitable for being transported via road and able to go off-road and traverse uneven and soft terrain.
- Be inspected for road worthiness and licenced by the Government of Western Department of Transport.

3.2 Functional Requirements and Amenities

The built Structure shall include the following functional requirements and amenities;

- An office/work area for between 2 and 4 people.
- 2 x work/sleep station Murphy style single bed with fold out desk. Provide option in design layouts to have booth style work station that converts to double bed.
- Wet area with shower, basin and toilet with suitable connection to mains water supply where this service is available and supply of water tank and waste tank where water supply and sewer/drain is not available.
- 2 x fridges of approximately 100L (or similar) capacity, at least one with freezer compartment
- Space and electrical provision for microwave in cupboard space.
- Stainless steel (or approved similar product) bench (minimum 1800mm x 700mm) with double sink with drainer and mixer tap for sample collection equipment, sample preparation and instrument calibration
- Connection to water supply and waste to be provided as per wet area connections described above (with consideration for washing down of chemicals).
- Lockable cupboards to maximise storage
- Roller shutters on windows
- Retractable awning over entrance door/windows/side of building likely to be orientated north
- Combination white-board/s and pin-board/s
- Externally mounted hose point with water supply to allow for wash down of boots, equipment etc. with water supply as specified above.
- First aid cabinet.
- Fire extinguisher.
- External storage if practical.
- External shower/hose connection.

3.3 Utilities

The building shall be designed to function in both **off grid** and **connected** service areas. Connections for electrical, water supply and waste/storm water in serviced areas to be provided.

Supplier to advise any issues that may be required from local government for these connections.

Supplier to specify options and install approved solar panels/battery and/or generator options for power supply in remote locations.

Water supply tank and waste tank for sink, shower and basin to be included for use in remote locations. Supplier to specify options and install approved toilet type and waste management that will be compliant for use in remote locations.

3.4 Electrical Requirements

The building structure shall include;

- Reverse cycle air-conditioning.
- Power point for microwave connection.
- Minimum Power points 2 x double GPO at kitchen bench, 2 x double GPO at each bed/work station and additional where practical to maximise access.
- LED interior and exterior lighting.
- Smoke alarm fitted to industry standard.

3.5 Layout

Conceptual layout designs are attached but the supplier shall prepare design options to meet the functional and compliance requirements outlined in this specification.

4 Design Documentation Requirements

The contractor shall prepare and submit the following for review and approval;

- Schematic Design Drawings including;
 - Floor plans;
 - Building elevations and sections and
 - Exterior and interior colour schemes.
- Schematic Design materials/product board and visuals.
- Draft Construction Design drawings (including floor plans, building elevations, building sections, construction details, interior and exterior fittings and fixtures detailing, mechanical, hydraulic and electrical services layouts).
- Draft Construction Specification (including detailed description of level of quality, standards, workmanship, materials, products schedules and completion of work).
- Final Design Drawings (including floor plans, building elevations, building sections, construction details, interior and exterior fittings and fixtures detailing, mechanical, hydraulic and electrical services layouts).
- Final Construction Specification (including detailed description of level of quality, standards, workmanship, materials, products schedules and completion of work).

Drawings are to be of an appropriate scale and drafted in accordance with accepted industry standards with required level of detail and information to adequately communicate the design and provide required detail for engineering certification and construction.

5 Contractors responsibilities

The Contractor will be responsible for the provision of a full range of services including the design, certification, manufacturing, assembly, licencing and transport of transportable building.

The successful Contractor shall be responsible for the following;

- Preparation of Schematic Design Documentation for review/approval by Client prior to proceeding to Detailed Construction Documentation.
- Preparation of Detailed Construction Documentation in compliance with the applicable federal and state codes, rules, regulations, ordinances, and standards to facilitate manufacturing process and engineering/compliance certification.
- Engaging independent Structural Engineer to certify design drawings and structure.
- Obtaining independent Building Compliance Design and Construction certification.
- Obtaining vehicle Registration and licencing permits.
- Fabrication and assembly of complete transportable building including trailer foundation, exterior building components, interior fit-out, finishes and fixtures, mechanical, hydraulic and electrical services and associated fixtures.
- Providing product and material options and finishes that available including associated benefits product types, materials and finishes and associated costings.
- Transporting the completed building to 58 Sutton Street Mandurah or a nominated site within the City of Mandurah municipality.
- Providing detailed instructions for specific maintenance requirements for the transportable building.
- In addition to any product warranty, the contractor shall provide a minimum of 12 months Defect Liability Period from the date of practical completion, as accepted by PHCC.

6 PHCC Responsibilities

PHCC responsibilities include;

- Timely review and approval or design documentation.
- Where product and material options and finishes are available, selection of the final product and material options/finishes.

7 Establishment, Maintenance and Defects Liability

The Contractor shall be liable for defects for all works undertaken within this contract for a period of fifty two (52) weeks to run after the date of Practical Completion to the satisfaction of PHCC.

Upon acceptance of Works by the Principal, the Supplier shall provide written instructions for inspection frequencies, elements to be inspected and maintenance requirements for each item of equipment based on their knowledge of their product.

8 Staging and Timing

The timeline is subject to change due to the RFQ and evaluation process. The project will commence once the contract is fully executed.

The final program shall be agreed with the successful contractor(s). As part of the RFQ submission, the Contractor shall develop a detailed program to demonstrate their methodology for meeting the target timeframes as indicated in the below table.

Timeframe	Activity
Nov 2022	RFQ Advertised
Dec 2022	Tender evaluated and tender awarded
Jan-Feb 2023	 Schematic Design developed and reviewed (allow 1 week review) Draft Detail Design and Construction Documentation developed and reviewed (allow 2 weeks review) Final Design and Construction Documentation developed and reviewed (allow 2 weeks review) Engineering Certification and Building Design and Construction
	Compliance
March-June 2023	Fabrication and Assembly
June 2022	Building Completion and Vehicle Licencing
12 months from completion	Defects Period

9 Payment Schedule

Progress Payments will be made on completion of works to the satisfaction of PHCC and in accordance to the terms outlined in the contract agreement and progress stages detailed below;

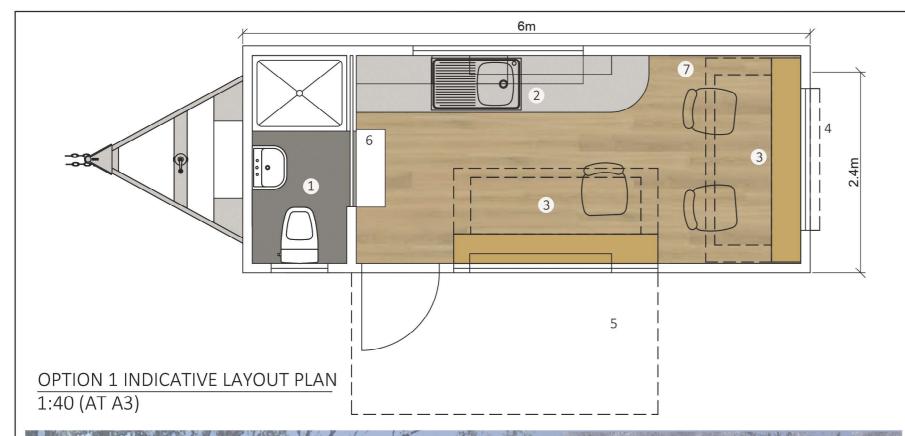
No.	Milestone	Amount (% of lump sum contract value)
1	Signing of Agreement	10%

2	Completion of Design and Construction Documentation and Certification	20%
3	Completion of Trailer Foundation, Framing, Floors, Walls, Windows and Roof	30%
4	Practical Completion and Final completion including all finishes, fit-out, fixings and appliances	35%
5	Completion of Defect Liability Period	5%
Total		100%

10 Attachments

Attachment A: Concept Layout Designs

Attachment B: Gabi Bidi – Water Pathways brand guideline





OPTION 1 INDICATIVE SECTION 1 1:40 (AT A3)

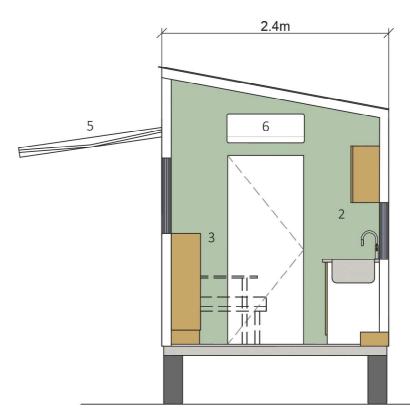
PEEL HARVEY CATCHMENT COUNCIL
WATER RESEARCH INFRASTRUCTURE PROJECT (WRIP)
INDICATIVE CONCEPT - TRANSPORTABLE BUILDING - LAYOUT OPTION 1

LEGEND

- 1 WET AREA TOILET, BASIN, SHOWER
- 2 KITCHEN / WATER SAMPLING PREPARATION AREA:
 - STAINLESS STEEL BENCH TOP
 - LARGE BASIN / DRAINER
 - OVERHEAD LOCKABLE CUPBOARDS
 - 2 X UNDER-BENCH FRIDGES, ONE WITH FREEZER SECTION
 - UNDER-BENCH CUPBOARDS
 - 2 x DOUBLE GPOs
- 3 WORK/SLEEP STATION:
 - MURPHY STYLE SINGLE BED WITH FOLD OUT DESK
 - 2 x DOUBLE GPOs
- 4 ROLLER SHUTTER TO PICTURE WINDOW (POTENTIAL WEST-FACING ASPECT)
- 5 RETRACTABLE AWNING (POTENTIAL NORTH-FACING ASPECT)
- 6 REVERSE CYCLE SPLIT SYSTEM AIR CONDITIONER
- 7 COMBINATION WHITE-BOARD AND CORK PIN-BOARD

NOTES

THIS DRAWING IS CONCEPTUAL ONLY AND IS SUBJECT TO FURTHER DEVELOPMENT TO MEET PHCC'S FUNCTIONAL AND AESTHETIC REQUIREMENTS AS WELL ALL REQUIRED INDUSTRY AND LEGISLATIVE DESIGN AND CONSTRUCTION REQUIREMENTS



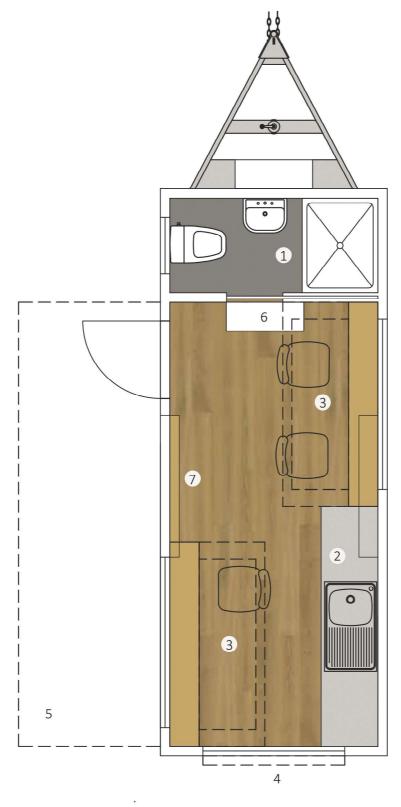
OPTION 1 INDICATIVE SECTION 2 1:40 (AT A3)





REV. A - 8/9/2022

OPTION 2 INDICATIVE LAYOUT PLAN 1:40 (AT A3)



OPTION 3 INDICATIVE LAYOUT PLAN 1:40 (AT A3)

LEGEND

- 1 WET AREA TOILET, BASIN, SHOWER
- 2 KITCHEN / WATER SAMPLING PREPARATION AREA:
 - STAINLESS STEEL BENCH TOP
 - LARGE BASIN / DRAINER
 - OVERHEAD LOCKABLE CUPBOARDS
 - 2 X UNDER-BENCH FRIDGES, ONE WITH FREEZER SECTION
 - UNDER-BENCH CUPBOARDS
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- 3 WORK/SLEEP STATION:
 - MURPHY STYLE SINGLE BED WITH FOLD OUT DESK
 - 2 x DOUBLE GPOs
- 4 ROLLER SHUTTER TO PICTURE WINDOW (POTENTIAL WEST-FACING ASPECT)
- 5 RETRACTABLE AWNING (POTENTIAL NORTH-FACING ASPECT)
- 6 REVERSE CYCLE SPLIT SYSTEM AIR CONDITIONER
- 7 COMBINATION WHITE-BOARD AND CORK PIN-BOARD
- 8 WORK/SLEEP STATION:
 - BOOTH STYLE SEATING FOR GROUP MEETING THAT CONVERTS TO DOUBLE BED
 - STORAGE UNDER SEATING
 - 2 x DOUBLE GPOs

NOTES

THIS DRAWING IS CONCEPTUAL ONLY AND IS SUBJECT TO FURTHER DEVELOPMENT TO MEET PHCC'S FUNCTIONAL AND AESTHETIC REQUIREMENTS AS WELL ALL REQUIRED INDUSTRY AND LEGISLATIVE DESIGN AND CONSTRUCTION REQUIREMENTS

PEEL HARVEY CATCHMENT COUNCIL
WATER RESEARCH INFRASTRUCTURE PROJECT (WRIP)
INDICATIVE CONCEPT - TRANSPORTABLE BUILDING - LAYOUT OPTIONS 2 & 3





GABI BIDI PATHWAYS

PRIMARY LOGO

The Gabi Bidi logo is a simple yet powerful logo that captures the essence of the brand through its typography.

The rounded edges give the logo a relaxed, organic feel which reflects the idea of nature, while the boldness allows the logo to stand-out with confidence.

This is the primary logo and should be the first choice for all applications. It is essential to the brand that the logo is always applied with care. This includes ensuring the legibility of the logo by not reducing it smaller than the minimum size as well as keeping a minimum clear space to isolate the logo from other competing graphics. The minimum clear space can be determined by the height of the 'i'. These rules can be used as guidelines for all logo options.

GABIBIDI PATHWAYS





Minimum clear space

35mm length minimum size

HORIZONTAL LOGO OPTIONS

Centre aligned horizontal logo

Centre aligned horizontal logo with tagline



GABIBIDI WATER PATHWAYS

Working Together on Waterways Science

STACKED LOGO OPTION

A stacked version of the logo can also be used as a secondary option.







Minimum clear space

22mm length minimum size

STACKED LOGO OPTIONS

Centre aligned stacked logo

Centre aligned stacked logo with tagline





Working Together on Waterways Science

LOGO REVERSED

When placing the logo on a dark background ensure there is adequate contrast by using the reversed version.

When colour isn't available a 100% white logo can be used.

GABI BIDI PATHWAYS

GABIBIDI PATHWAYS

LOGO OPTIONS REVERSED

GABIBIDI WATER PATHWAYS

Working Together on Waterways Science

GABI BDD WATER PATHWAYS WATER

GABI

BIDI

PATHWAYS

GABIBIDI WATER PATHWAYS

Working Together on Waterways Science

GABI BIDI WATER PATHWAYS

Working Together on Waterways Science

WATER

GABI

BIDI

PATHWAYS

LOGO BLACK

When colour isn't available on a light background, black can be used as denoted on the colours page.



LOGO FILES EXPLAINED

A filename extension is an identifier specified as a suffix to the name of a computer file. The extension indicates a characteristic of the file contents or its intended use.

Raster vs. Vector:

Raster image files are constructed by a series of pixels to form an image. Raster files include JPEG, GIF and PNG. Every image is made with a certain level of resolution - or amount of pixels - so it is important to remember not to stretch the image bigger than its original size because this action will cause pixelated images. Raster images are great for use online where it is beneficial to keep the file size small.

Vector image files are constructed using proportional formulas rather than pixels. Vector files include EPS, AI and PDF. These files can be scaled infinitely without losing quality - this is why your logo and brand graphics are originally created as a vector in a program such as Adobe Illustrator. Always provide printers and sign companies with a vector file so that your products look slick.

.IPEG

A really common file type that can be used for just about anything on the web - but pay close attention to the resolution as the quality of the image decreases easily.

Examples of where you could use a IPEG:

- Social media profile picture
- Microsoft Word document

.AI

Al is, by far, the image format most preferred by designers and the most reliable type of file format for using images in all types of projects from web to print.

Adobe Illustrator is the industry standard for creating artwork from scratch and was the program used to create your logo. Illustrator produces vector artwork, the easiest type of file to manipulate. Examples of where you could use an Al:

- Providing a designer with your logo file
- Keeping your logo safe for the future

.PNG

PNGs are great on the web, but are not suitable for print. While PNGs are "lossless," meaning you can edit them and not lose quality, they are still low resolution. A big draw card is the ability for a PNG image to have a transparent background - but only if it was originally created this way.

Examples of where you could use a PNG:

To place your logo (without a background) over the top of another image

.EPS

EPS is a file in vector format that has been designed to produce high-resolution graphics for print. Almost any kind of design software can create an EPS and open an existing EPS.

Examples of where you could use a EPS:

To safeguard a file transfer to a designer that might not yet be utilizing Adobe products

.GIF

This is a common file type for web projects where an image needs to load very quickly, as opposed to one that needs to retain a higher level of quality.

However, GIFs are more famous for their animated form. They are the moving images you see on banner ads, Tumblr and more recently, Facebook comments.

Examples of where you could use a GIF:

- Website, animated or not
- Social media posts

.PDF

PDFs were invented by Adobe with the goal of capturing and reviewing rich information from any application, on any computer, with anyone, anywhere.

If a designer saves your vector logo in PDF format, you can view it without any design editing software, making it the best universal tool for sharing graphics. Examples of where you could use a PDF:

- Provide a printer with graphics files
- Sharing multi-page documents on the web

LOGO USAGE





No cropping

Please make sure the logo is displayed in full.





No low contrast backgrounds

Please make sure the logo is only placed on backgrounds that allow for high legibility.





No warping

Please make sure the logo is not warped or scaled disproportionately.





No recolouring

Please make sure the logo is only presented in its original brand colours.





No effects

Please make sure that no effects or embellishments are added to the logo.





No cramping

Please maintain clarity by leaving clear space around the logo.

LOGO COMBINTIONS

An important part of Gabi Bidi's brand communications is recognising the Peel-Harvey Catchment Council (PHCC) as the project owner and the Department of Primary Industries and Regional Development (DPIRD) as a supporter.

This recognition can be delivered by featuring the PHCC and DPIRD logos side-by-side beneath the Gabi Bidi logo. The PHCC and DPIRD logos should be to a scale of about half the Gabi Bidi logo.

The phrase 'A Project of the Peel-Harvey Catchment Council' can also be used in place of or along side the logos.

GABI BIDI PATHWAYS





Working together on waterways science

COLOUR

Colour is a powerful tool that provides a strong means of visual recognition. The Gabi Bidi brand colours are inspired by the natural environment of the Peel-Harvey waterways. The colours have been selected as representations of the area's water, land, and vegetation.

When using colour try and stick to the colours in this guide. It is ok to use various tints of the brand colours.

CMYK and PMS are for print, RGB and HEX are for screen.

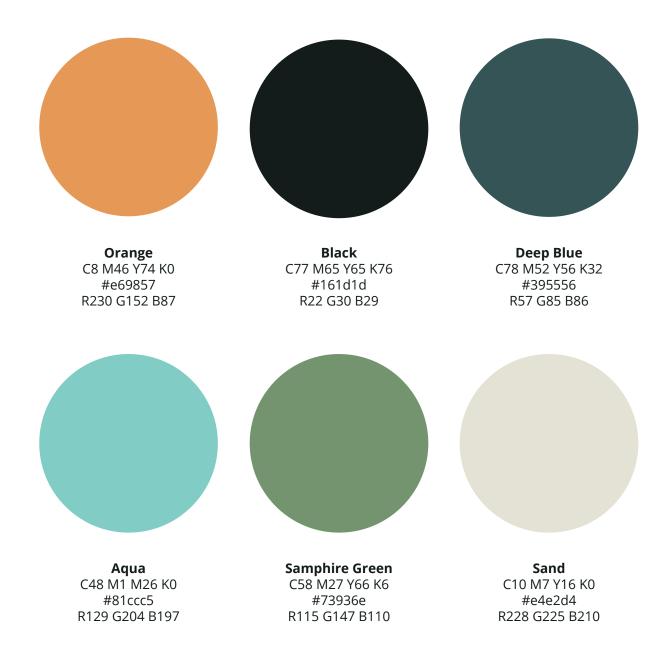
CMYK (four-colour process)
CMYK refers to the four inks used in color
printing: cyan, magenta, yellow, and key (black).
CMYK is the most widely used colour model for
printing.

Pantone (PMS)

Pantone is a standardised colour matching system that identifies colors by an allocated number. By standardising the colours, different manufacturers in different locations can all reference a Pantone numbered colour, making sure colors are precise and always match.

RGB and HEX

RGB refers to the primary colors of light - red, green and blue, that are used in monitors, television screens and mobiles. A HEX colour code is basically shorthand for its RGB values and used by web developers with HTML.



TYPOGRAPHY

The Gabi Bidi brand uses two fonts; Coastal Hand and Open Sans.

Coastal Hand has rounded, imperfect, handmade qualities, making it ideal for use as a display typeface. It can be used for headlines in designs that require a relaxed, natural, fun or bold look. It is the same typeface used in the logo for the words 'water pathways'.

Open Sans is a clean and modern sans-serif typeface designed for legibility across print and web. It is therefore ideal for all uses.

COASTAL HAND
THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG

COASTAL HAND ITALIC
THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG

Open Sans Light

The quick brown fox jumps over the lazy dog

Open Sans Regular

The quick brown fox jumps over the lazy dog

Open Semi Bold

The quick brown fox jumps over the lazy dog

Open Sans Bold

The quick brown fox jumps over the lazy dog

VISUAL DEVICES

The visual devices are an important component of the Gabi Bidi identity. The personality of the initiative is brought to life through simple illustrations that express the significance of the environment. The illustrations also give a subtle hint that although Gabi Bidi values research, it doesn't take itself too seriously and also embodies a community spirit.

The Gabi Bidi logo is quite minimal, so these visual devices are an addition to the brand that promote creativity. They can be used in an infinite number of ways, whether it be just as decoration or as a communication tactic. Just like you would expect from nature, these icons and illustrations are not perfect but rather symbols of the things that make Ramsar 482 special.

Each visual devices symbolises one of the five Ramsar criteria recognised as a distinct feature of the Peel-Harvey wetlands, rivers and lakes.



Samphire
Ramsar Criteria 1 & 3



Thrombolites
Ramsar Criteria 2 & 3



Bird migration Ramsar Criteria 4, 5 & 6



Bird footprints
Ramsar Criteria 4, 5 & 6



Fish and fish scales Ramsar Criteria 4 & 8

APPLICATION EXAMPLE



TEXTURES & MATERIALS

Texture and implied texture are great ways to add depth, personality, and interest to designs.

When selecting paper or materials, first ask yourself if you can reinforce the Gabi Bidi brand through your selection. When printing promotional material try using recycled paper. Natural textures such as linen or timber also support the Gabi Bidi brand.

Texture can also be simulated through the style of a design. Layers of shapes or the visual devices with degrees of transparency can also bring about the feeling of texture on screen.









IMAGERY

They say a picture is worth a thousand words, and this has never been truer as technology provides more and more opportunities to access stunning visuals.

For Gabi Bidi, imagery is an effective way to showcase the significance and uniqueness of the Ramsar 482. Professional, high-quality images are important in brand building and storytelling. Try and use images that reflect the Gabi Bidi brand and have something captivating about them, whether it be colour, composition or subject.











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