NAGAL PASS

PUBLIC ART PROJECT

LEANNE BRAY
Visual Artist

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THIS BRIEF CONTAINS

Please also find attached

Quotes from suppliers

Material notes

Drawings that include:

- *Placement of layers*
- *Individual sections and the related panels*

PROPOSED ARTWORK - OUTLINE AND THE INTENT

The City of Nedlands has a proud history and in the years before European settlement, its river, beach and bushlands provided a bounteous home and environment for the Noongar peoples. The Noongar are recognised as the traditional owners of this area, and it is easy to bring to mind the abundance of our endemic native flora and fauna as it would have been realized in those early days - before the clearing, the agriculture, the establishment of the townships and the introduction of a railway line.

As the environment continues to rapidly change and the endemic species are pushed into smaller and smaller areas, slowly diminishing, it becomes an important 'record keeping' process to indicate where once species grew in abundance - to offer a kind of marker to that past abundance and a reminder of how we can be fairly ruthless when it comes to progress.

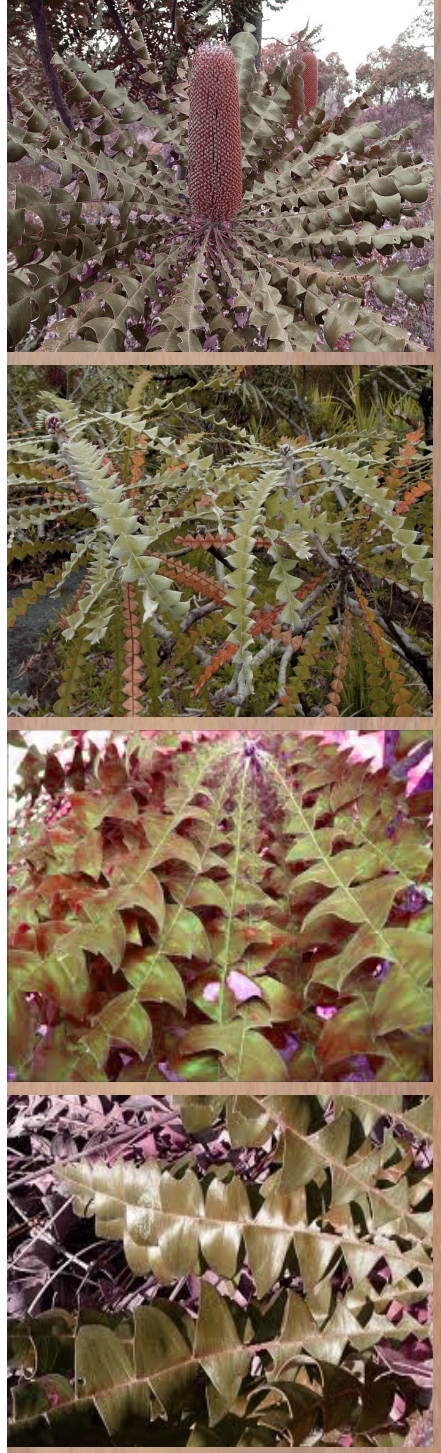
The artwork intended for the Nagal Pass has been developed through careful consideration of a design theme that offers an ageless and holistic solution that will do justice to 'the record keeping' in this vibrant and influential corridor of Perth.

The intention is to produce site specific artwork that celebrates and responds to just one family of plant life: the Banksia. I was attracted to the concept of finding a design solution or symbolic connection to place - and the 'grandis' leaf offers splendid opportunity to embrace rich bush colour, dynamic patterning - and it becomes the symbol of the surrounding native bushlands. The very nature of the Banksia grandis offers dynamic inspiration on which to base the robust creative possibilities.

This project has provided a wonderful opportunity to explore and develop design solutions that offer significant and high impact artwork - that will very much offer a connection to place. I am determined that the work becomes an iconic place marker for the City of Nedlands.

I believe that I have developed a sound understanding of the project requirements based on the information provided and localised research. I acknowledge the project related issues, embracing the established goals towards innovative public art within the environment.

I embrace the opportunity provided within this project. I am really keen to add a credible and innovative response.



Banksia grandis

DEVELOPMENT OF THE DESIGN

As my work has always been inspired by natural history and having a deep affinity for the process of patterning, I used this opportunity to combine the two and play with the idea of using a positive and negative design elements to create the overall design solution.

Having focused on the Banksia grandis as a thematic guide - it was then an exciting part of the design development to explore the possible shapes that can be created with the leaf design. Breaking the leaf down into an abstracted form - it evolved into a strong geometric design solution that matched the robust quality of the leaves.

By utalising a grid like approach, I broke the design down into sections and balanced out a series of panels that share a combination of both cutting and folding - to assist in the creation of the vertical leaf shapes.

As a contrast to the strong visual statement being developed - this geometric approach is softened with a shifting attitude and implied movement through the use of natural lighting and shadows. It is intended that the artwork would sit slightly proud of the retaining wall and be complimented by the echoing of the patterns through these cast shadows - weaving complexities into both the design and the surrounding surfaces.

This design documentation demonstrates the details of artwork:

- The materiality
- The placement of the work in relationship to the retaining wall
- The fabrication stages
- The installation process
- Related scheduling

My intention would be about adding dynamic artwork to the community and enriching the location. I have focused attention on the artwork having maximum impact and I have tailored the design to support the unique location and to work well within the local environment.

This image shows a rendering of the final artwork in situ – demonstrating the scale of the work in proportion to the existing wall.
The work will take up approximately one third of the overall (30m) length – occupying the central area where the wall is at its maximum depth of 3.1m.
The painted finish (as part of the artwork) will offer complete coverage of the whole wall – offering a sound and connected (colour base) for the artwork.

This image shows the breakdown of the intended colours that will be used on the individual panels - using the grey/green tonal mix for the lower half of the design and the rust/red tones on the top of the wall (offering an extension/continuity of the rust finish on the wall.)

The artwork is 9.85m in length and 4.85m in height.

ARTWORK NOTES/DESCRIPTION

It is intended that:

- The completed artwork would obviously be of high quality and sound overall finish.
- It will be created /manufactured to be strong, durable, wind resistant and easy to maintain.
- Offering good solutions against the harsh weather conditions and longevity against wear and tear and vandalism.
- The work would be of sound construction that meets all the required health and safety issues as well as engineers recommendations.
- There would be no climbing aspects and no sharp edges.
- The elevated position of the artwork means that there will be little or no interference to passing traffic/pedestrians.
- The artwork has been designed for ease of installation.

METHODOLOGY

The methodology process:

- The artwork design has been finalized in the studio and the final drawings have been done to scale.
- These drawings are waiting on the final certification by the nominated structural Engineer - who has advised on the final framework applications
- Once certified - the completed drawings will be delivered in the appropriate format (DXF Files) to CTech Engineering
- C-Tech will be doing the fabrication of the artwork .
- I will work directly with Marc Abonnel at CTech resolving the final details and the completion of the work.
- The artwork will be made up of panels /sections - designed for easy installation *(see notes below.)*
- The panels will contain the design as both a laser cut and folded patterning process
- Produced from 5mm aluminum panels and then powder-coated separately in the nominated colours
- The artwork will be pre-fabricated off-site in section - ready for easy installation
- The artwork will be bolted to a steel frame work that will be in turn bolted to the top of the retaining wall at the installation stage
- The install will happen on the nominated date based on considered planning with both the City of Nedlands and QTM.

MATERIALS

The work will be produced with laser cut aluminium plate as the main component. Its lightweight quality will offer the longevity to the project and offer the ideal base material for the colouring process. The nominated colours for the artwork will be applied to the various panels by means of powder-coating.
There are two main material components to the artwork:

- The aluminium panels
- The steel framework that will be positioned according to a carefully delivered plan

PROCESS

- The panels will be cut to capture the established design. Because of the complexity of the design - they will be waterjet cut to avoid warpage.

- Aspects of the panels will be folded to create a small aspect of 3 dimensional design
- The panels will be cut from panels 2400mm in height and 1200mm in width.
- The aluminum plate will be 5mm in thickness
- The aluminum panels will be bolted onto the main framework structure at the installation stage and according to the engineer's recommendations.

The artwork will be produced as five components – the wall, the framework and three layers
(The accompanying drawings are provided at the rear of this presentation.)

The wall:
This is the base for the artwork and will offer a suitable surface on which the artwork will be secured.
- The retaining wall will be finished with a Porters Paint product *(please see the provided notes.)*
- It is a two process finish that will give the wall an authentic rusted iron quality.
- This finish will create a more natural and organic continuity with the surrounding retaining wall and environment.
- The textured tonal surface will work in contrast to the cleaner lines of the powder coated finish of the artwork.

The framework:
The artwork will be fabricated within the factory environment and will be created in such a way to simplify the process of application on site.
It is intended to offer a fixing process that can be installed over a short period of time.
Once the framework has been bolted into situ - the panels will then be connected to the framework.
Details as below:
- The artwork will be supported by framework that will be bolted/chemi anchored into the concrete wall.
- The main support/strength will come from the framework sections that are bolted through the concrete capping (75mm) on the top of the wall
- The front of the framework (front of the wall) will be secured / bolted into the reinforced (50mm) covering
- The framework is being built of two main materials. 50x50mm square-bar and 50mm x6mm flat bar that will welded into the required configuration
- The flat bar is intended for the front of the wall and the square bar for the top of the wall.
- The framework will be galvanized and them powder coated in headland red (or the same rust finish as the wall) as to be discrete.

Layer one: *(Please see Diagram.)*
This is the main layer of the artwork and it is also the supportive layer
- The artwork panels will sit proud of the retaining wall by approx. 100mm
- There are eight pieces/panels
- Each of the eight sections is connected to the wall independently
- Six of these panels will have a second panel attached as part of the second layer
- These panels will be bolted to the frame work

Layer two: *(Please see Diagram.)*
- There are six panels that will be attached as part of the second layer

- The second layered panels will sit approx. 60mm off the main layer. (A total of 160mm of the wall.)
- This layer is attached to layer one with spacers that are 60mm in length

Layer/Section three: *(Please see Diagram.)*
- The top section consists of five pieces that are secured to the top of the wall
- These five pieces will be supported by independent framework that will be connected to the main support framework
- These panels will be bolted to the frame work

Notes about the panels individual panel/pieces that make up the layers:
All 20 of the pieces/panels will be cut from 14 full sheets of Aluminum - 1200mm x 2400mm
- For the individual configuration of the sheets (Cutting) *(Please see Diagrams 4 -18)*
- These drawings show the location of the bolt holes through which the panel will be secured to the framework.
- The folded design aspects at the bottom of the design would essentially be almost 'closed' offering minimal protrusion - as the panels get toward the top section the folded pieces will become wide open.
- Any sharp edges have been rounded off to produce a friendlier aspect - in the case of any accident or collision.
- The artwork has been suitably designed to complement the location - following the curved bottom of the wall and offering textural interest to the location

The colours:
I have created a colour palette that I believe would best suit the artwork. The idea would be to produce each panel in a separate powder coated colour to offer glimpses of colour as the bottom layer shows through the gaps. The ideal colour selection would be based on the surrounding location.

These six colours have been carefully selected from the original palette and are the final selection from the Interpon Excel existing powder coat range *(please see samples provided.)*


Dune

Evening Haze


Sandbank


Bushland


Jasper


Headland

The headland red tone could be replaced with a finish that matches the authentic rusted iron quality

Cutting and colour notes:
This schedule shows the individual panel and the intended colour and the cutting plans used.

Layer one:	**Colour:**	**Material:**	
Panel 1.	Evening Haze	Cut from same sheet as panel 9	1
Panel 2.	Dune	Complete sheet	1
Panel 3.	Evening Haze	Complete sheet	1
Panel 4.	Sand bank	Complete sheet	1
Panel 5.	Jasper	Complete sheet	1
Panel 6.	Dune	Complete sheet	1
Panel 7.	Evening Haze	Complete sheet	1
Panel 8.	Jasper	Complete sheet	1
Layer two:			
Panel 9.	Bushland	Cut from same sheet as panel 1	
Panel 10.	Bushland	Complete sheet	1
Panel 11.	Bushland	Cut from same sheet as panel 14	1
Panel 12.	Jasper	Cut from same sheet as panel 13	1
Panel 13.	Jasper	Cut from same sheet as panel 12	
Panel 14.	Bushland	Cut from same sheet as panel 11	
Panel 15.	Bushland	Cut from same sheet as panel 8 (negative.)	
Top section:			
Panel 16.	Headland	Complete sheet	1
Panel 17.	Dune	Cut from same sheet as panel 16 (negative.)	
Panel 18.	Headland	Panel 18 and 19 cut together from one sheet	1
Panel 19.	Headland	Panel 18 and 19 cut together from one sheet	
Panel 20.	Headland	Cut from a single sheet	1
Total sheets of Aluminum			**14**

INSTALLATION

I am confident that the project will be installed smoothly and that I have taken into consideration all potential variables.
It is intended that the installation process should happen over a single night in order to minimise disruption to traffic flow.
The artwork would be installed in accordance with applicable requirements – with careful consideration to the OHS issues when working on site.

- The installation of the artwork will happen in accordance with the correct certification from the engineers
- The various components of the artwork will have been prepared offsite prior to the installation process
- The artwork will be designed / broken down in such a way to be easy to install into position.
- The installation will be completed by CTech during a weeknight with the appropriate road closures *(Please see notes regarding the traffic management)*
- it will require careful negotiation and considered planning with the stakeholders
- It is anticipated that the framework/artwork will be fixed to the retaining wall using a chemi-anchor process
- We will have the have a suitable crane on site to do the high reaching.
- We will need to be aware of relevant Health and Safety issues. I do have my White Card and working at heights certificate and will obviously be on site.
- I will have all the required documentation in place prior to the install – Engineering approval and City of Nedlands Approval.
- I have the public liability insurance and personal indemnity that is required (Please see attached document.)

Traffic management:
As part of the installation process we will liaise with QTM, the City of Nedlands' Traffic Management Term Contractor, who will provide a Traffic Management Plan (in compliance with AS1742.3 and Main Roads WA Traffic Management for Works on Roads- Code of Practice) as part of the installation process.
It is anticipated that we will need a team of 4 as part of the Traffic management and an installation team of 4 including myself.

CONTRACTORS DETAILS

Structural Engineering approval

Contact person: **Dave Meney**
Yenem Engineering Services Pty Ltd
Commercial 2, 36 Southport Street
West Leederville, WA 6007
Email: dave.meney@yenem.com.au
Phone: 08 9380 9365
Web: www.yenem.com.au

Fabrication and Installation

Contact person: **Marc Abonnel**
C-Tech Engineering
14B Hines Road,
O'Connor, WA
Phone: 08 9331 6211
Email: info@ctechengineering.com.au
www.ctechengineering.com.au

Traffic control

Contact person: **Simon Goodwin**
Quality Traffic Management Pty Ltd
36 Brookland St,
Beckenham WA 6107
Phone: 08 9352 7600
Email: Simon.Goodwin@qtm.net.au
www.qtm.net.au

MAINTENANCE

The materials used in this project are suited to the harsh weather conditions and unless the damage is man-made, the artwork has been designed in such a way that it should not require much maintenance at all and even then - relatively easy maintenance - by way of pressure hosing/washing down.
The surface areas are produced in such a way - with the intention of not offering a 'canvas' for vandals!
The artworks location would make a difficult place to target for vandals but the individual panels/sections can be repaired individually if they are damaged.

- If the damage is seen as neglect or bad workmanship on the Artists part - the cost of repairs will obviously be my own.
- If the damage done is malicious - and any sections will need to be repaired or replaced - the costs will be invoiced to the City of Nedlands.

On completion of this project a maintenance manual will be provided - that offers the artwork description, materials and suggested methods of maintenance.

TIMING SCHEDULE

Below is an approximate guide to the scheduled timing structure based on variable stages and timing of the project (subject to change.)

DATES	TARGETS
Friday 13 November 2015	Contracted for stage 1 - paperwork process to begin
	Resolution of any technical details /final preparation with artwork
	Drafting of drawings ready for fabrication – DXF files prepared
Friday 11 December 2015	Stage 1- Design Development and documentation completed
Wednesday 23 December 2016	Approval by City of Nedlands and Stage 2 will be contracted
Monday 4 January 2016	Fabrication to commence
Wednesday 22 April 2015	Installation
Wednesday 22 April 2016	Completion of installation
Within 30 days of install.	Documentation of work /maintenance plan provided

BUDGET

Please note that the costs related in the original budget have remained mostly consistent with a few variations based on the application of the wall finish.

- *The original contingency has been removed to allow for the material costs for the painting of the wall*
- *The artist fees have been reduced in order to pay for the painting process.*

DESIGN DOCUMENTATION AND PROJECT PREPARATION	Hours	Rate	Subtotal	Gst	TOTALS
Detailed drawings - suitable for laser cutting		$1,600.00	$1,600.00	$145.45	**$1,745.45**
Structural Engineers certification		$1,850.00	$1,850.00	$168.18	**$2,018.18**
Insurance			$300.00	$27.27	**$327.27**
Meetings	3	$87.77	$263.31	$23.94	**$287.25**
Administration based on Nava rates	5	$87.77	$438.85	$39.90	**$478.75**
Photography of project for records			$680.00	$61.82	**$741.82**
FABRICATION / C-TECH ENGINEERING					
Framework			$4,600.00	$418.18	**$5,018.18**
Laser-cutting panels			$23,000.00	$2,090.91	**$25,090.91**
Fabrication process			$6,000.00	$545.45	**$6,545.45**
Powder-coating panels			$3,400.00	$309.09	**$3,709.09**
SITE WORKS - Contractors					

Preparation of the artwork wall - including repairs and painting			$1,810.00	$164.55	**$1,974.55**
Materials - Porters paint			$2,100.00	$190.91	**$2,290.91**
Fixings			$480.00	$43.64	**$523.64**
C-Tech installation - 3 staff for 8 hours	24	120	$2,880.00	$261.82	**$3,141.82**
Rigger/dogman			$620.00	$56.36	**$676.36**
Delivery and crane			$720.00	$65.45	**$785.45**
Generator for Lighting/equipment			$340.00	$30.91	**$370.91**
QTM - 2 traffic controllers, 1 vehicle, signs + devices			$2,217.60	$201.60	**$2,419.20**
Design Traffic Management Plan + TCD(s) - Lump Sum (Inclusive of Report + Site Visit if required)			$723.00	$65.73	**$788.73**
Hire Delivery + Pickup from Site (per tower)			$136.25	$12.39	**$148.64**
Hire of Lighting Tower (per day)			$112.50	$10.23	**$122.73**
ARTISTS FEE					
Based on 22%			$16,100.00	$1,463.64	**$17,563.64**
TOTAL			**$70,371.51**		
TOTAL GST				$6,397.41	
TOTAL FOR PROJECT					**$76,768.92**

(Please find following copies of the quotes that have been issued in reference to this project.)