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Infrastructure Australia

Australia's Future Infrastructure Requirements.

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**Quality
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Company**

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1 Rothgard International Pty Ltd

Rothgard International is an independent Management Consultancy based in Perth, Western Australia and Brisbane, Queensland.

We are ISO certificated under AS/NZS 9001:2000 for our methods and management systems.

1.1 Why Rothgard

- Our company, which is privately owned, has been providing Strategic Planning and a range of associated business consulting services to industry and commerce since 1998.
- Rothgard consists of experienced professional consultants and Project Managers. The skill-sets and experience of this group is the equal of any in Australasia
- We are completely independent of all suppliers.
- Our consultants are highly experienced both in Australia and overseas across a wide spectrum of industry, commerce and government assignments.
- We are presently the lead consultants for a multi-faceted precinct development which embraces many of the issues and opportunities for strategic integration of education, sustainability, community benefits, technology, employment and utilities.
- Rothgard's structured methodology, **TransAct®**, is designed to identify clear objectives and to subject them to rigorous scrutiny and test against risk criteria.
- Program and Project management are the lynchpin of our solution delivery. We have been long-standing suppliers of significant project management to international industrial companies.
- We also have our own Program/Project Management system, '**PEPPER**' which focuses on Front End Loading i.e. the concept of phasing projects such that decisions are made at each phase before moving forward. In this manner many potential problems are highlighted and actions taken to minimise any impact on the overall delivery program.

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- With on-line access to our own range of consulting methodologies and tools, as well as our quality-approved management systems, our consulting assignments are delivered to the highest standard and consistently produce successful outcomes.
- We are different in our approach. Our manner is consultative, empathetic, and relationship-driven and we seek a long-term partnership with our clients.

We believe that this submission, although brief, offers an opportunity for strategic planning of great import and demands a collaborative partnership amongst the stakeholders – Federal, States, Defence, Communities and local authorities.

2 Our approach to this submission

We have taken a holistic approach to our submission. We have however, at this stage of the process, focussed our submission on the Northern region of Australia.

Our considered view is that we, as an Australian company, should be conscious of the long-term value of delivering an integrated set of facilities, services and infrastructure that will enable our diverse and dispersed communities, industries and services to thrive and to establish the strategic defence of our country.

We believe that a pivotal nation-building opportunity now presents itself. We see it as a bold approach that promises long-term, nation and life-changing benefits. We are also aware that it carries with it complex hurdles demanding of multiple stakeholders sharing the vision and the will to succeed.

With the advent of the Federal Governments Future Fund and the directions expressed during the recent Western Australian election campaign, Rothgard believes that a coordinated approach across all agencies from Infrastructure Australia, State & Territory Governments, the Australian Defence Forces, Department of Families, Housing, Community Services and Indigenous Affairs, and other stakeholders such as the Resources and Tourism Industries to form an integrated and sustainable population base in northern Australia.

3 Fundamental issues

The following bullet points raise a number of fundamental issues, the responses to which will determine the degree of support for an integrated multi-faceted approach to the diverse needs of the nation.

1. **Is there cross-political commitment to creating an economic environment which can support a vibrant connected Northern Australia?**
2. **Socio-economic needs must be the baseline.**
 - Transport infrastructure
 - Energy and Water
 - Employment
 - Education standards for all
 - Health services
 - Aged care services
 - Communications infrastructure
 - Security and defence
 - Social and recreational facilities
3. **Defence – are we going to extend our Defence presence in the north and fulfil our national security strategies?**
4. **Commercial – are we planning commercial sustainability for the region?**
5. **Tourism – is this in the mix?**
6. **Agriculture – the 'Food Bowl'. Is there the will in government to make this happen, including improving routes to international markets?**

4 Enablers for success

There exist a number of enabling factors which would provide an important degree of risk mitigation through their existing and extended presence and facilities in a number of strategic locations around the Top-end.

1. The Resources sector represents the major industrial presence across much of the territory and, in most cases the workforce operates on a 'fly-in-fly out' basis. This culture is costly and does not positively benefit the communities impacted in a sustainable manner.
2. The potential 'Food Bowl' of the nation, primarily in the Lake Argyle area, due to its abundant water supply and availability of land has not reached the potential that was originally envisaged for it. Delays on opening additional irrigated land areas and the regions remoteness to markets have hindered its development. Additional infrastructure such as rail links to primary markets in Darwin or Perth, increased irrigated area, additional tourism facilities could enable Kununurra to really become a significant sustainable food bowl for Australia.
3. Tourism, and access for tourism, and an extension of its reach, and the quality and availability of realistically located visitor accommodation are other enablers for success. Recent international advertising campaigns are highlighting this area of Australia to the world.
4. The Australian Defence Force already has a significant presence in the northern region of Australia in the way of permanent bases and also deployments via the Northern Territory Emergency Response. The bases have a variety of functions and facilities and provide a degree of civilian employment. A strategic placement and extension to the military presence in the region would significantly improve the Nation's ability to protect our vulnerable northern region. The extended sustainable commercial facilities and Defence presence should provide quality accommodation and the associated facilities for families that will encourage longer Defence service retention. They would also offer civilian employment and a stimulus for secondary economic, social and infrastructure leverage.

We at Rothgard have discussed each of these primary enablers at some length and further analysis should be undertaken to complete the current picture against a projected future model.

5 What is Infrastructure?

Infrastructure by itself provides specific physical facilities to Industry, Commerce and Communities at varying levels of service in some cases according to a perceived need rather than a strategic improvement across the spectrum.

In physical terms infrastructure (physical, digital and collaborative) takes several forms some of which are defined in Infrastructure Australia's Discussion Paper 1.

- **Physical** including transportation road and rail networks; ports, hospitals, schools and colleges etc.,
- **Utilities** including Water and Energy
- **Communications** systems
- **Social** and Community based infrastructure; Housing; education primary, secondary, tertiary and vocational and policing
- **Health** centres including child and aged care

It is important to recognise that physical and social infrastructure in an area or region must be that which is required to address the needs of local/national industry and commerce and bring inclusivity to the community

5.1 What are the problems?

Whoever first said 'there are no problems only opportunities' must have been a super-optimist, but there is a modicum of sense in the statement.

1. Our physical size and the tyranny of distance present one significant challenge to the development of our potential. Any long-term strategic plan must have at its core a focus on national rail and road networks linking Region-to-Region, State-to-State and Community-to-Community.

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2. As our submission is addressing the Northern Region of Australia, WA, NT and Queensland, the primary stumbling block to major growth across the region is the fragmentation and limited standard of road networks, where they exist. In addition there is an urgent need to plan such networks with the commercial and social needs of the regions and their communities uppermost in mind. This region of Australia has great potential to be the home for a much larger population and with its already prosperous resources base can be a significant target area for Australia future.

3. With the now widely accepted issue of Global Warming, the efficient use of transport will be crucial given the vast distances that make up the Australian continent. We need to revisit the more efficient modes of transport such as rail and sea, not just for freight, but also passenger services. A major extension of rail services, ideally around the whole country, but at least spanning the north from Townsville and Cairns in the east to Port Hedland and Kununurra in the west, with additional spurs to existing rail systems and ports that would provide distribution routes to market, for example, for food products into Southeast Asia. Integration between rail freight and passenger services as was seen in the development of the countries initial rail services could provide cost effective passenger services without being required to carry the entire burden of the operational cost. Such an integrated and expanded rail network could also link with the Adelaide-Darwin Ghan system, providing a major passenger and freight channel from the west coast to the east coast and from the country's south and southeast.

6 Virtual Town - Sustainable Communities

As a first step, it is necessary to identify what is a sustainable community. Sustainability covers not just the environmental and social aspects of a community, but also the economic as well. A number of existing communities in the northern half of Australia have a strong economic basis for their existence and were born out of the resources booms of the 60's and 70's, but many of these economic bases have been allowed to become less attractive to population growth with the advent of fly-in/fly-out resources operations. The following outlines some of the requirements that would make up a virtual sustainable town in this region.

1. Population

The population in the northern half of Australia is significantly lower than would appear to be sustainable. Towns, particularly in Western Australia and the Northern Territory, are substantially under populated given the areas economic opportunities. There is no location in the north of WA that would be considered a major population area. There should be a goal to establish a number of significant cities in this region in an arc from Exmouth in the West to Cairns in the east. Populations starting in the region of 20,000 increasing to the major population areas of Cairns, Townsville and Darwin which have achieved a critical mass for them to continue to expand.

2. Social / Cultural

The social and cultural welfare of communities is one of the great drivers to enable these communities to be maintained. Recreational, sporting, religious and cultural activities are required across all spectrums of society as part of the mix for a sustainable environment. Sporting activity is often the hub of social activity in smaller communities and enables interaction with other surrounding communities.

3. Health & Welfare

Health and welfare is one of the most critical elements for a sustainable community. These should cover all aspects including indigenous health, aged care, mental health, as well as the standard general health, dental, optical, hospitals and specialist requirements. A community should not feel that the moment someone becomes ill, pregnant or even just old, they need to leave town to where the required facilities are located. Smaller communities in close proximity to one another should be able to share some of the more specialised services, with each possibly concentrating on their own area of specialisation.

4. Educational

Education should be provided in all communities up to the completion of high school. Additional education opportunities in the way of trades training and also the potential for University campuses in association with major metropolitan establishments should be examined.

5. Environmental

Significant tracts of the northern region are recognised as precious environmental and traditional cultural areas. Initiatives of a commercial or resources nature must be subjected to the most rigorous scrutiny and care must be taken to ensure tourism is given similar attention to protect our flora and fauna.

6. Commercial

The region has few centres of the variety expected in regional towns in the south of the country. Careful planning will be required to balance the commercial growth to the expected population growth and commercial ventures should be encouraged where there is a clear synergy with the local community needs and the capacity to succeed.

7. Infrastructure

We have discussed specific types of infrastructure earlier in this submission. Of itself infrastructure can be a significant enabler if it forms a component of a strategic approach to managed growth of the region. It is particularly effective where it enhances community life and financial and physical health.

The strategic planning of beneficial, sustainable growth in the region presents a challenge and a unique opportunity for our country.

7 Existing Communities

The following table identifies existing communities of significant size, along with the median age of the population:

Community	Approximate Size (ABS 2006 Census Data – Urban Centre)	Median Age (ABS 2006 Census Data)
Exmouth	1844	37
Onslow	573	37
Karratha / Dampier	11,728 / 1,370	35
Newman	4,245	30
Tom Price / Paraburdoo	2,721 / 1,607	29 / 30
Port Hedland	11,959	31
Broome / Derby	11,547 / 3,093	32 / 31
Fitzroy Crossing	928	30
Halls Creek	1,211	28
Kununurra / Wyndham	3,748 / 669	31 / 34
Timber Creek	229	30
Katherine	5,849	30
Darwin	105,991	32
Nhulunbuy (Gove)	4,112	33
Tennant Creek	2,919	31
Alice Springs	21,622	32
Mt Isa	19,663	30
Townsville	143,328	32
Cairns	122,731	34

8 Conclusion

Rothgard International Pty Ltd is pleased to submit our initial understanding of the opportunities and challenges that will face Infrastructure Australia as you move this most important initiative forward.

We would be delighted to assist or participate in further discussions with Infrastructure Australia.

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Our website is www.rothgard.com

Thank you.