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**REDEVELOPMENT OF WILLIS ISLAND  
METEOROLOGICAL OFFICE, CORAL SEA**

Statement of Evidence and Supporting Drawings for Presentation  
to the Parliamentary Standing Committee on Public Works

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# Introduction

## Background

1. Willis Island is located 240 nautical miles (approximately 450 km) east of Cairns in the Coral Sea. The Willis Island Meteorological Office provides observation data and early warning monitoring of cyclones using radar and other observation technology. This supports the Bureau's national operations and severe weather warning services for the north Queensland coast.

2. The island's meteorological station commenced operation in 1921, with most of the existing Willis Island building infrastructure constructed in either 1950 or 1968. Refurbishment and maintenance has continued, but the 50-year-old facilities useful life, in this harsh environment, is nearing its end.

Assessment of the scientific value of Willis Island is complex and revolves around its unique maritime location, its long (80 years) climatological history and its front-line warning capability for tropical cyclones approaching NE Queensland. It is highly valued for its contribution to routine weather forecasting and tropical cyclone warning services.

3. From a climate perspective the importance of Willis Island is internationally acknowledged. Willis Island plays an important role in the monitoring and detection of long-term climate change. The Secretary-General of WMO recently requested Willis Island be designated as a member of the Global Upper Air Network. This would improve coverage in the Western Pacific/Coral Sea area and assist in the understanding of global climate change.

4. The Bureau initiated a temporary (18 month) de-staffing of Willis Island Observing Office on 2 June 2004 to enable refurbishment of the aged infrastructure and facilities, and replacement of key observing equipment, at an estimated equipment value of \$1.3M. Ongoing synoptic observations from Willis Island are being provided by an Automatic Weather Station (AWS) system to monitor basic parameters until the full operations are restored.

5. Detailed design of the new facilities has been completed and construction is planned to commence immediately with completion targeted before the commencement of the 2005-06 tropical cyclone season. Costing for the rebuilding/replacement works has been completed and a final Quantity Survey (QS) cost estimate of \$7 million has been determined.

## Existing Buildings and Structures

6. The existing facilities date from the late 1940's/ early 1950's with substantial refurbishment since that time. A recreation room facility has been added to the existing living accommodation.

The small parcel of land (total island is 7.7 hectares) accommodates eight (8) buildings of varying structure as follows:

- a) The Main Building housing recreation, kitchen/dining, sleeping, office and equipment room constructed in 1950;
- b) The Main Store constructed in 1950;
- c) The Laundry Building constructed in 1950;
- d) The Bunker/Cyclone Shelter constructed in 1950;
- e) The Generator Building constructed in 1968;
- f) The Fire Pump Building constructed in 1968;
- g) The Flammable Liquids Bunker constructed in 1968; and
- h) The Balloon filling and Hydrogen Storage Building constructed 1950 (recently condemned).

Personal living accommodation is provided in a barracks-like wing between the meteorological office and the kitchen-living room area.

Construction is typically timber-framed on a coral shingle concrete slab. The existing footings have 200 x 200 x 1800 mm deep reinforced concrete piers at nominally 2700 mm centres around the perimeter. External cladding is painted weatherboard. The roof structure is a low pitch truss with corrugated asbestos cement sheeting. A variety of outbuildings are of similar construction.

Meteorological equipment includes a defined equipment enclosure and a 7.0m high radar tower plus dome.

There are a variety of standing slabs and a partially buried rubble pile on the northeastern side of the meteorological office.

### **Adequacy of Existing Buildings, Structures and Engineering facilities**

7. A Report on Structural Adequacy of Islands Infrastructure – Willis Island Meteorological Office – July 2001 whilst confirming the structural adequacy for some of the Island facilities found others have experienced significant deterioration. The presence of asbestos in the buildings present a potential health hazard.

The continuing performance of existing structures is based on a high level of ongoing building fabric and systems maintenance, which will increase as buildings get older and deteriorate further.

The existing Hydrogen Store, Drinking Water Storage and three smaller sheds on the north east side of the station are not considered structurally adequate and would require extensive remedial works to meet an acceptable standard. The water storage tanks (2 off polypropylene tanks) footings/platforms were stabilised during the 2002 personnel change over visit.

8. Engineering facilities are maintained to a good standard to meet operational requirements in a remote location.

Several system elements are proposed for reuse on the island due to their age and continuing maintenance, including:

- ▶ Desalination plant
- ▶ Fire and salt water pumps
- ▶ Enviro-cycle sewage treatment plant
- ▶ Fuel storage tanks and refilling pump

Reticulation systems have evolved with the various site upgrades and cyclic maintenance and will not support redevelopment proposals. It is understood that redundant services have been left in-ground and are unrecorded.

## **Requirement Summary**

9. The meteorological observations on the island commenced in 1921, with most of the existing Willis Island building infrastructure constructed in either 1950 or 1968. Refurbishment and maintenance has continued, but the 50-year-old facilities useful life, in this harsh environment, is nearing its end.

The Bureau has assessed the facilities located on Willis Island and has identified:

- ▶ The existing infrastructure has substantial structural support damage and some areas can no longer be made safe for operational use;
- ▶ The presence of asbestos in the buildings, although contained, is a hazard to people on the island and visitors, such as maintenance staff;
- ▶ Services infrastructure is 45 years old, including electrical wiring and plumbing, and represents a safety hazard for staff and visitors;
- ▶ Staffing of the office is difficult and the current deteriorated state of the facility detracts from the station's desirability as a staff posting;
- ▶ The infrastructure costs associated with maintaining the existing facility in this remote and harsh environment is considerable, and are expected to increase in time.

10. As the facilities on Willis Island have exceeded their respective economic lives, the Bureau has completed the redevelopment plans for the replacement of the facilities as part of its ongoing asset replacement program.

## **Cost Implications**

11. The proposed redevelopment of the facilities at Willis Island will involve the demolition of existing facilities and the construction of new buildings, which will comprise an operational field office, staff accommodation and messing facilities. The estimated 2004-05 out-turn cost for the construction is \$7 Million with a further \$1.662 Million required for re-equipment of the site.

12. The proposed works have been included as a specific measure of the 2005/06 Federal budget and will be funded from Bureau budget appropriations. The current estimate of the construction and re-equipment is approximately \$8.62 million.

# Objectives

## Functions

13. The re-development of the Willis Island Meteorological Office and associated staff accommodation facilities will provide for the recommencement of a full observations program at the site. This will reinstate a full and enhanced service to the Australian community by virtue of its front-line warning capability for tropical cyclones approaching NE Queensland and its contribution to routine weather forecasting and tropical cyclone warning services.

14. From a climate perspective the importance of Willis Island is internationally acknowledged. Willis Island plays an important role in the monitoring and detection of long-term climate change. The Secretary-General of WMO recently requested that Willis Island be designated for inclusion in the baseline Global Upper Air Network. This would improve coverage in the Western Pacific/Coral Sea area and assist in the understanding of climate change, both globally and in the environmentally sensitive Coral Sea Region.

## Bureau Objectives

15. The re-establishment of a full observations program at Willis Island will contribute directly to our agreement with government that "Australia benefits from meteorological and related sciences and services" by the provision of enhanced forecasting and warning services.

## Date for Completion

16. Subject to parliamentary approval, it is planned that work will commence mid 2005 and be completed by the end of 2005.

## Options

17. There is a broad continuum of options for the observing program on Willis Island, including:

- a) Restoration of the year round fully staffed observations and monitoring program, including surface and upper air programs and radar weather watch;
- b) Restoration of a manual program, including surface and upper air programs, with or without weather watch radar but only staffing it for the tropical wet season;
- c) Termination of the manual program but retention of an automated surface observing program.

18. The Bureau has considered each of these options (see table below) concluding that full restoration of operations at Willis Island is the only acceptable option. Automation of anything other than a basic surface observing program proved costly and extremely high risk at critical times. Staffing the station only during the wet season did not reduce significantly the cost of refurbishment, but exposed the facility to security risks during unoccupied periods.

19. To this end, the Bureau, has undertaken a detailed design and costing for the project to restore a year round fully staffed program at Willis Island. It has committed to proceeding to tender, and to commence construction immediately with completion in late 2005.



Option	Description	Capital, Rebuild Cost (2005 \$s)	Capital Re-equip Cost	Annual Operating Cost excl. salaries & allowances (2005 \$s)	Meeting science-based requirements	Feasibility
1	Fully staffed observations program supported with a full facility redevelopment.	\$7030K	\$1600K	\$906K	Meets all requirements	Proven to be feasible; and responsive to all Meteorological requirements.
2	Two-person staffed station, upper air, radar and AWS	\$7000K	\$1600K	\$705K	Provides hourly surface obs;  Limited upper air obs; and  Limited climate data.	Technically feasible; offers very little saving;  Issues: 1) OH&S compliance; 2) Social aspects (two staff) 3) Emergency response.
3	Remote radar and AWS only – would require renewable energy generation system development	\$3300K		\$380K	Meets climate and some weather requirements, but not Qld RFC; No upper air data; high risk in TC situations	AWS feasible;  Renewable energy system for radar untried – high risk (re cost, operational reliability and security).
4	Remote AWS only	\$1100K		\$280K	Meets basic climate and weather requirements only, but not Qld RFC; higher community risk in cyclone situations.	Proven feasible; increased cyclone & climate record risk;  High maintenance costs and low data reliability.

# The Proposal

20. The redevelopment of the Bureau of Meteorology facilities at Willis Island, Coral Sea, seeks to replace the existing operational meteorological observation monitoring facility, and staff accommodation infrastructure in support of the Bureau's mission. The proposed works includes the demolition, removal and replacement of the existing facilities and replacement with a new and more appropriate facility, which meets current and foreseeable future operational, amenity and accommodation requirements.

21. The works will commence with the demolition and removal of the following facilities:

- ▶ Meteorological office, accommodation, messing and recreational structures;
- ▶ Power house and paint store;
- ▶ Balloon filling and Hydrogen storage building; cyclone shelter and flammable storage bunkers;
- ▶ Fresh water storage tanks;
- ▶ External paths and paving; and
- ▶ Underground services.

22. The island infrastructure includes the meteorological observations office and field support equipment, staff amenities and accommodation, station energy generation and management, and life support facilities. The planned redevelopment in total supports a four-person deployment with six monthly resupply and staff changeover. During staff changeover an additional fifteen persons (i.e. the incoming crew, Bureau support personnel and maintenance support contractors) are required to be accommodated on the Island for a period of about three days.

23. Scope of the construction works include the following new facilities and services:

- ▶ Meteorological office, messing area, accommodation, recreational area, powerhouse;
- ▶ Hydrogen generator building and gas storage, including associated site works;
- ▶ Relocate the fuel storage tanks to a new concrete bunded diesel fuel area;
- ▶ New underground services (including: communications, power distribution, water, sewage and fire hose reel services);
- ▶ Relocate satellite dishes and radar tower; and
- ▶ Refurbish the salt water pump building.

# Design Considerations

## Design

24. The proposed facility design provides a series of 5 functional wings linked by a central north-south circulation corridor/covered way. The primary facilities are internally linked.

Working from the south, the following wings are provided (refer to drawings at Appendix A)

- ▶ Meteorological Office (east of spine)

All working accommodation is provided in this wing with the observers' work areas at the eastern end providing maximum view towards the prevailing weather direction.

This wing is in close proximity to the equipment enclosure. The existing radar tower will be relocated to adjacent the equipment room.

- ▶ Living Accommodation (west of spine)

This wing provides all of the daily living facilities and is located adjacent the access track from the sea to facilitate supply deliveries.

The recreation area has been marginally increased to accommodate existing functions.

A covered outdoor area is provided on the northern side of the wing and is sheltered from the prevailing weather.

- ▶ Personal Accommodation (east of spine)

This wing provides 4 individual bedrooms with adjoining bathrooms.

- ▶ Laundry/Visiting Personnel (west of spine)

This wing provides a laundry and a gymnasium area, which also serves as visiting persons' room accommodating up to 10 people. This wing is provided with 2 ensuite bathrooms, one of which contains a bath for use by stationed personnel when visitors are not present. A mattress store is provided for storage of mattresses when not in use.

- ▶ Stores/Workshop (east of spine)

The meteorological store and adjacent containerised power plant is located at the northern end of the spine.

Additional facilities include a maintenance workshop, with external work area, and desalination plant room.

The containerised plant is screened from the living accommodation by the stores wing enhancing acoustic separation of the facilities. Its location ensures exhaust fumes are blown away from the living accommodation by prevailing winds.

25. The proposed building forms provide simple shallow curved roof forms. The central spine roof is proposed to have a similarly curved roof reflecting the existing topographical form of the island.

This combination of roofs minimises the amount of roof steps/ledges, which are attractive to roosting birds.

26. Associated structures include support platforms for photovoltaic arrays, which are arranged to optimise solar collection and follow the natural contours, and the fowl run and vegetable garden, which have been relocated to the western side of the complex.

27. Buildings are orientated along an east-west axis to optimise passive solar control features, passive cross ventilation from the prevailing weather direction and take advantage of the available development site.

# Building Works and Services

28. The construction system proposed optimises the balance between on-site and off-site fabrication and the transport and access limitations presented by Willis Island's isolation.

A fully timber-framed structure using heavily galvanised steel bolted and plated connections is proposed. It is anticipated that frames and trusses will be pre-fabricated in manageable sections and demounted prior to shipment.

29. The proposed building's external cladding system is pre-finished profiled aluminium panels at high level combined with naturally weathering timber at low level. The abrasive action of wind blown coral grit has been considered with the selection of these materials. Extensive use of a single cladding material (roofs and walls) may result in a relatively industrial environment for what is substantially a residential/administrative facility.

The design team carried out a comprehensive assessment of cladding materials for comparison purposes prior to the final selection of materials.

## Structural Design

### Sub-Structure

30. The use of hot dip galvanised, screw in pile foundations to support the floor chassis is proposed. Screw in foundations are economical, can be installed by a powerful bobcat or 12 tonne excavator with the appropriate attachment and create very little spoil as there are not excavations required.

The expected rate of corrosion to the piles will be determined and the wall thickness sized to give the required life of 50 years.

### Floor Framing

31. Seasoned Tallow wood framing is proposed for the floor framing. It is a durable, relatively strong and readily available hardwood. All fixings will be heavy duty galvanised in enclosed floor cavities.

### Cyclonic Performance

32. The building design for the Meteorological Office zone is engineered to ensure personal safety of Bureau staff in the event of cyclonic conditions. This includes incorporation of design elements such as increased bracing, cyclonic glazing and plywood sheathing to walls and roof levels.

### Engineering Facilities

33. Significant emphasis has been placed on the application of energy efficient, environmentally responsible, low maintenance engineering services systems.

Systems proposed will not compromise the effective operation of the station.

### **Water**

34. Potable water will be provided by utilising the existing packaged desalination plant drawing seawater from the existing well.

Storage will be provided by new 30,000 litre non-corrosive polyethylene tanks.

Allowance has been included for new pumping equipment and reticulation.

Hot water generation will be by means of a heat exchange system.

### **Sewerage**

35. Sewerage will be treated by the existing package treatment system (Envirocycle). It is proposed treated effluent will be disposed of by land irrigation in accordance with current practice.

### **Stormwater**

36. It is proposed that rainwater be collected via a gutter and downpipe system and discharged to ground. Rainwater harvesting has not been implemented due to the high level of marine bird life and guano deposits.

### **Fire Protection**

37. A fully reticulated fire hose reel system will be provided to provide coverage to all parts of the facility.

The system will draw saltwater via the existing pump system.

The hose reel system will be supplemented by chemical fire extinguishers at key locations.

A hard-wired interconnected smoke detection system with audible and visual alarms will be provided.

### **Power Generation**

38. The proposal is to provide on-site power generation, in a manner that is not only economical, but one that minimises the risk of pollution to the environment and also minimises the production of Greenhouse Gas emissions.

Power generation for the proposed facility comprises a hybrid system of a diesel generator combined with a wind generator and a photovoltaic array (solar power).

Due to the remoteness of the site a full level of redundancy is provided by an additional larger diesel generator serving as a backup should the hybrid system fail.

The advantages of the hybrid system, incorporating renewable plus diesel fuel sources, include minimising risk of pollution through reduced transportation and use of fuel oil, reduction of greenhouse gas emission, reduced maintenance of the diesel generator sets.

## Timetable

39. Subject to parliamentary approval it is proposed to commence construction immediately with the objective of completing an operational facility by December 2005. The timing of the project is endeavouring to have the facility operational for the coming cyclone season and to limit the risks of construction during this period.

## Economic, Environmental and Social Impacts

40. Willis Island is controlled by the Commonwealth of Australia and occupied by the Bureau of Meteorology for meteorological purposes under the authority of the Coral Sea Act. As such development controls are vested in the Commonwealth.

All works are to comply with the requirements of the Building Code of Australia and its referenced Codes and Standards.

41. The Bureau is planning to construct its new facilities within the confines of the existing site. The Bureau will comply with the Environmental Protection and Biodiversity and Conservation Act 1999, and other relevant codes to ensure that any impact on the surrounding environs is minimal.

Extensive consultation with the Department of the Environment and Heritage regarding environmental management has been undertaken. As a result of this consultation protection of the resident green turtle population, island bird hatcheries and the surrounding coral reefs are to be incorporated in the building contractor's Environmental Management Plan. This Environmental Management Plan will particularly cover site access and site protection during the construction period. The use of a hybrid (renewable/non-renewable (diesel)) energy system will have a positive environmental impact through reduced fossil fuel use, while supporting sustained operation of the station in all weather conditions.

42. The operations associated with this proposal will not generate any revenue. The redevelopment will result in lower maintenance costs and the use of alternative renewable energy sources will achieve some minor savings. The construction activity will provide opportunities for Australian businesses engaged in the redevelopment, which is expected, to be completed within six months.

43. The isolation of the site means that the redevelopment will have minimal impact on the local community. The provision of enhanced forecasting and warning services will provide improved services to the communities along the NE QLD coastline.



## Longer Term Planning

44. The redevelopment of the Willis Island facility is part of the Bureau's Asset Replacement Program, boosted through specific measure in the 2005/06 Federal Budget decision, that endeavours to replace its Meteorological Field Offices on a thirty year cyclical program. There are no further developments proposed for this site over the next ten year planning horizon.

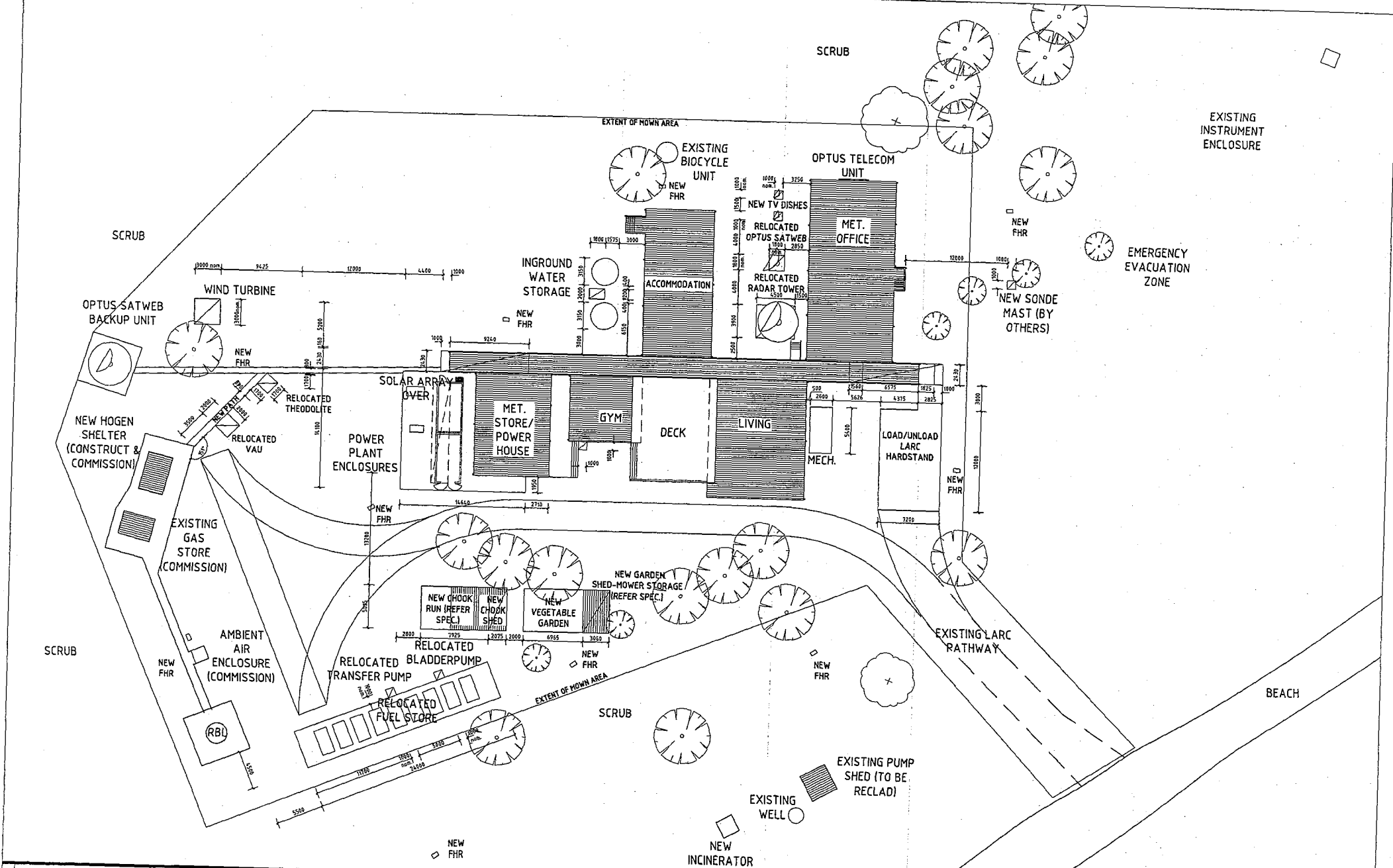
## Consultation

45. Discussions have been held with the following organisations:

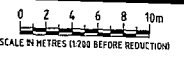
- ▶ Environment Australia
- ▶ Department of Territories and Regional Services.

A joint media release (see Appendix B) has been made by the Federal Member for Flinders (Parliamentary Secretary with responsibility for the Bureau of Meteorology), the Federal Member for Leichhardt and the Federal Member for Herbert.

Appendix A  
**Drawings**



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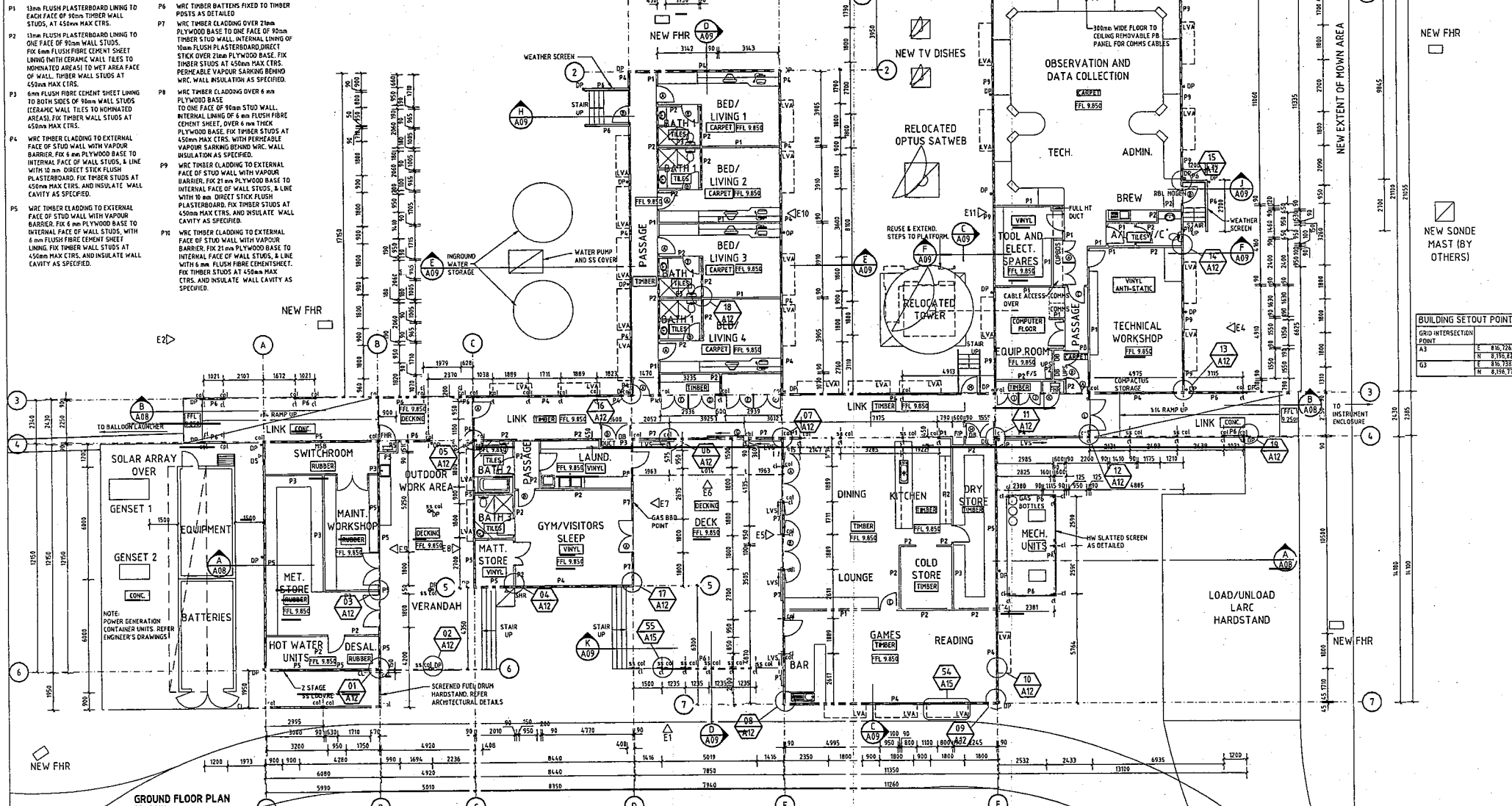
Client BUREAU OF METEOROLOGY  
Project WILLIS ISLAND REDEVELOPMENT  
Title PROPOSED SITE PLAN  
Original Size A1  
Drawing No: 33-10340-A003  
Rev: 0

### FIRST FLOOR PLAN

SCALE 1:100

#### PARTITION LEGEND:

- P1 13mm FLUSH PLASTERBOARD LINING TO EACH FACE OF 90mm TIMBER WALL STUDS, AT 450mm MAX CTRS.
- P2 13mm FLUSH PLASTERBOARD LINING TO ONE FACE OF 90mm WALL STUDS. FIX 6mm FLUSH FIBRE CEMENT SHEET LINING WITH CERAMIC WALL TILES TO NOMINATED AREAS TO WET AREA FACE OF WALL. TIMBER WALL STUDS AT 450mm MAX CTRS.
- P3 6mm FLUSH FIBRE CEMENT SHEET LINING TO BOTH SIDES OF 90mm WALL STUDS (CERAMIC WALL TILES TO NOMINATED AREAS). FIX TIMBER WALL STUDS AT 450mm MAX CTRS.
- P4 WRC TIMBER CLADDING TO EXTERNAL FACE OF STUD WALL WITH VAPOUR BARRIER. FIX 6mm PLYWOOD BASE TO INTERNAL FACE OF WALL STUDS, & LINE WITH 10mm CORRET STICK FLUSH PLASTERBOARD. FIX TIMBER STUDS AT 450mm MAX CTRS. AND INSULATE WALL CAVITY AS SPECIFIED.
- P5 WRC TIMBER CLADDING TO EXTERNAL FACE OF STUD WALL WITH VAPOUR BARRIER. FIX 6mm PLYWOOD BASE TO INTERNAL FACE OF WALL STUDS, WITH 6mm FLUSH FIBRE CEMENT SHEET LINING. FIX TIMBER WALL STUDS AT 450mm MAX CTRS. AND INSULATE WALL CAVITY AS SPECIFIED.
- P6 WRC TIMBER BATTENS FIXED TO TIMBER POSTS AS DETAILED
- P7 WRC TIMBER CLADDING OVER 21mm PLYWOOD BASE TO ONE FACE OF 90mm TIMBER STUD WALL. INTERNAL LINING OF 13mm FLUSH PLASTERBOARD DIRECT STICK OVER 21mm PLYWOOD BASE. FIX TIMBER STUDS AT 450mm MAX CTRS. PERMEABLE VAPOUR SARRING BEHIND WRC. WALL INSULATION AS SPECIFIED.
- P8 WRC TIMBER CLADDING OVER 6mm PLYWOOD BASE TO ONE FACE OF 90mm STUD WALL. INTERNAL LINING OF 6mm FLUSH FIBRE CEMENT SHEET, OVER 6mm THICK PLYWOOD BASE. FIX TIMBER STUDS AT 450mm MAX CTRS. WITH PERMEABLE VAPOUR SARRING BEHIND WRC. WALL DISULATION AS SPECIFIED.
- P9 WRC TIMBER CLADDING TO EXTERNAL FACE OF STUD WALL WITH VAPOUR BARRIER. FIX 21mm PLYWOOD BASE TO INTERNAL FACE OF WALL STUDS, & LINE WITH 10mm DIRECT STICK FLUSH PLASTERBOARD. FIX TIMBER STUDS AT 450mm MAX CTRS. AND INSULATE WALL CAVITY AS SPECIFIED.
- P10 WRC TIMBER CLADDING TO EXTERNAL FACE OF STUD WALL WITH VAPOUR BARRIER. FIX 21mm PLYWOOD BASE TO INTERNAL FACE OF WALL STUDS, & LINE WITH 6mm FLUSH FIBRE CEMENT SHEET. FIX TIMBER STUDS AT 450mm MAX CTRS. AND INSULATE WALL CAVITY AS SPECIFIED.

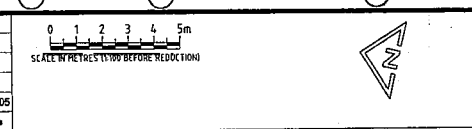


- #### LEGEND GENERAL:
- DB - DISTRIBUTION BOARD
  - DP - DOWNPIPE WITH BAN
  - DS - DOWNPIPE SMOOR AND EYE WASH
  - FP - FIRE BREAKER PANEL
  - F/S - FLEXER / SMOOR
  - LVA - METAL LOUVRES AVOIDING
  - LVS - METAL LOUVRES SLIDING
  - MSB - HAIR SMOOR BOARD
  - PB - PBOARD
  - SH - OPEN SHRELVES
  - WB - WATERBOARD
  - ⊙ - DENOTES DOOR NUMBERS WHERE MORE THAN ONE DOOR PER ROOM

#### BUILDING SETOUT POINTS

GRID INTERSECTION POINT	E	N
A3	E 876,726.78	N 8,185,821.02
G3	E 816,788.89	N 8,191,779.93

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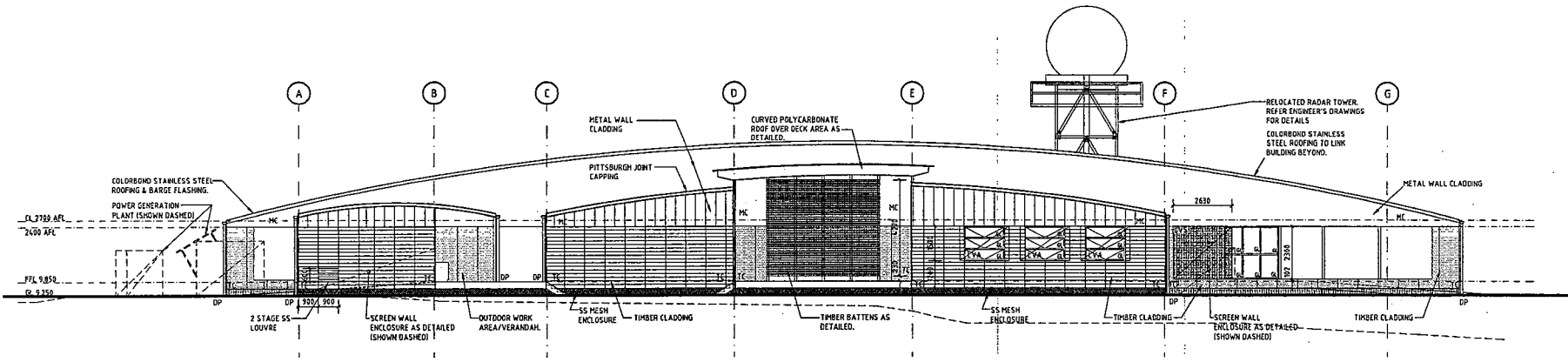
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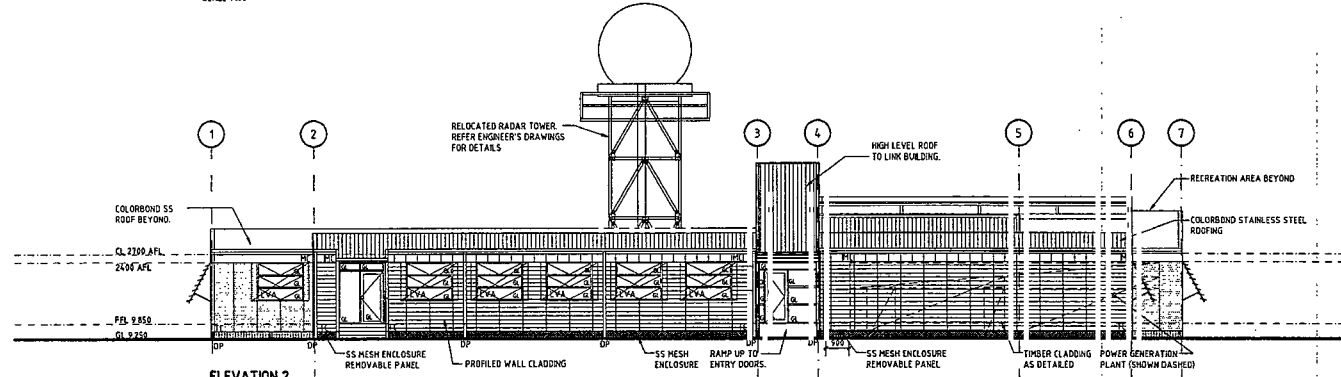
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 Project **WILLIS ISLAND REDEVELOPMENT**  
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 Drawing No: **33-10340-A005**  
 Rev: **0**

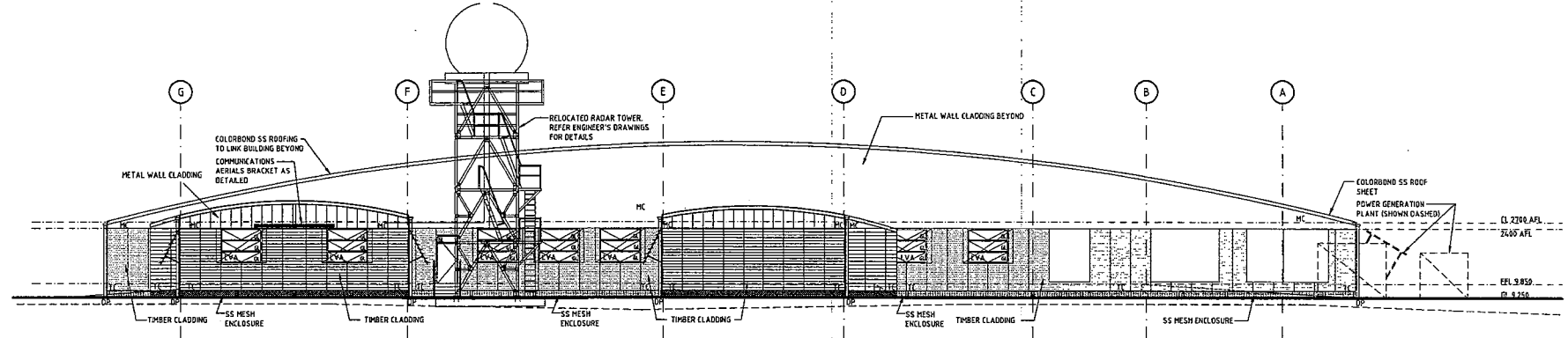
- LEGEND ELEVATIONS**
- DP SS DOWNPIPE
  - GL GLAZING AS SPECIFIED
  - GLF OPAQUE GLAZING AS SPECIFIED
  - LVA METAL LOUVER FINISH TYPE
  - LVS METAL LOUVER SLIDING TYPE
  - MC METAL WALL CLADDING AS SPECIFIED
  - TC TIMBER WALL CLADDING AS SPECIFIED



**ELEVATION 1**  
SCALE 1/100



**ELEVATION 2**  
SCALE 1/100



**ELEVATION 3**  
SCALE 1/100



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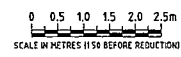
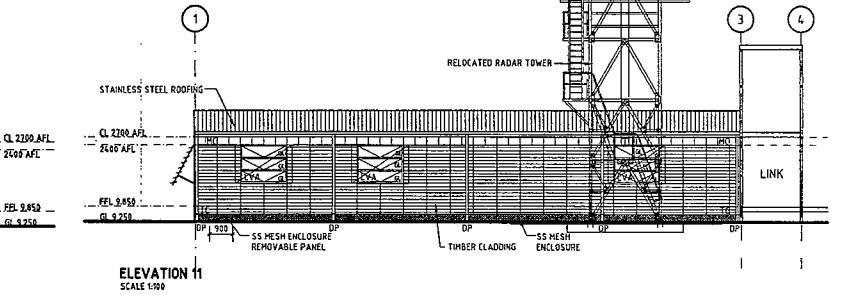
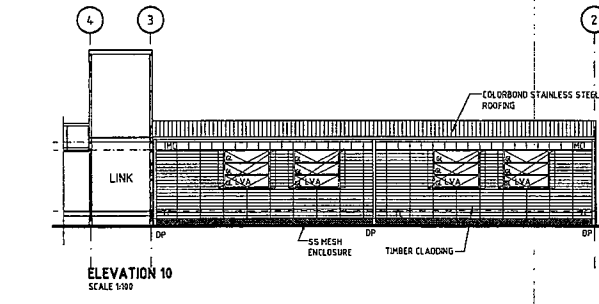
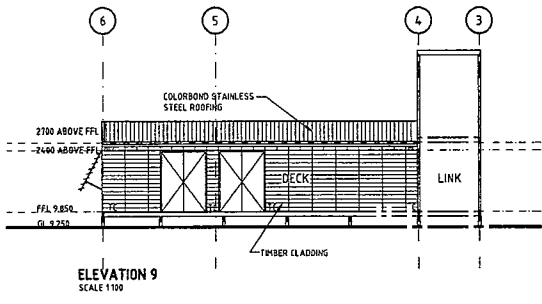
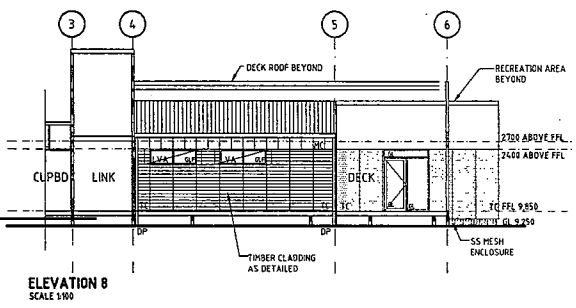
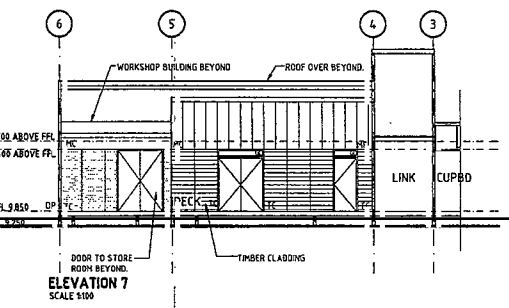
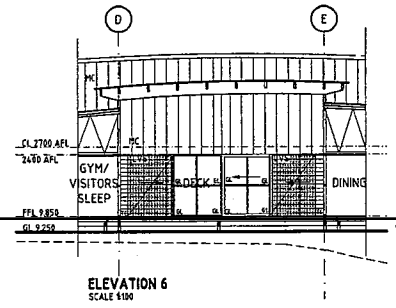
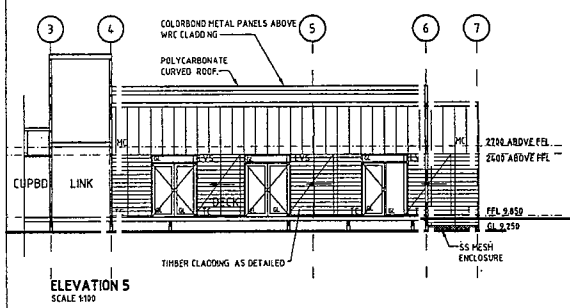
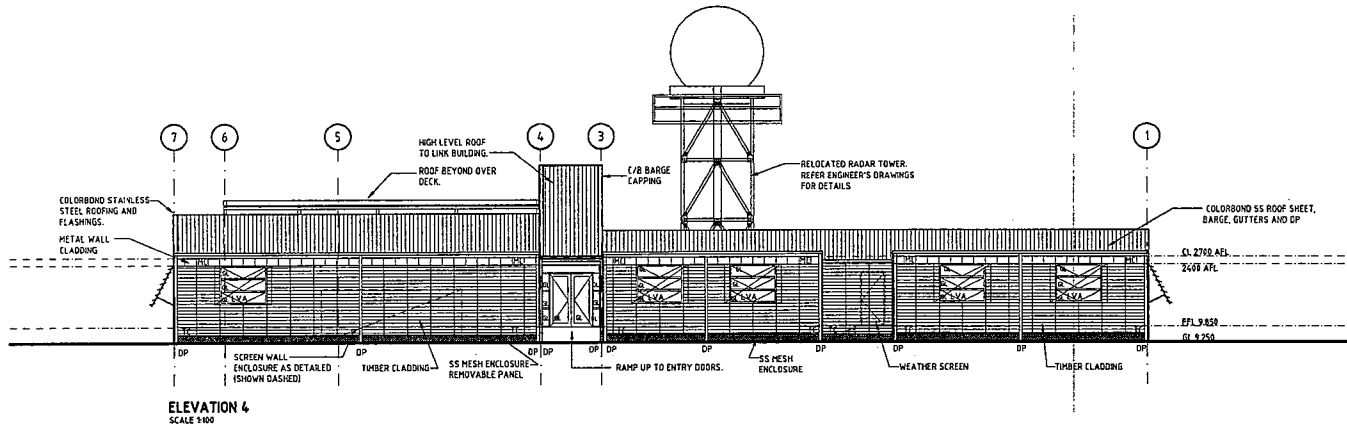
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Approved	<i>[Signature]</i>	01.04.09
Date		

Client	<b>BUREAU OF METEOROLOGY</b>
Project	<b>WILLIS ISLAND REDEVELOPMENT</b>
Title	<b>ELEVATIONS 1-3</b>
Original Size	<b>A1</b>
Drawing No:	<b>33-10340-A006</b>
Rev:	<b>0</b>

No	Revision	Note	Date
0	ISSUE FOR TENDER		1.04.09

- LEGEND ELEVATIONS**
- DP SS DOWNPIPE
  - GL GLAZING AS SPECIFIED
  - GLF OP AQUE GLAZING AS SPECIFIED
  - LVA METAL LOUVER AWNING TYPE
  - LVS METAL LOUVER SLIDING TYPE
  - MC METAL WALL CLADDING AS SPECIFIED
  - TC TIMBER WALL CLADDING AS SPECIFIED



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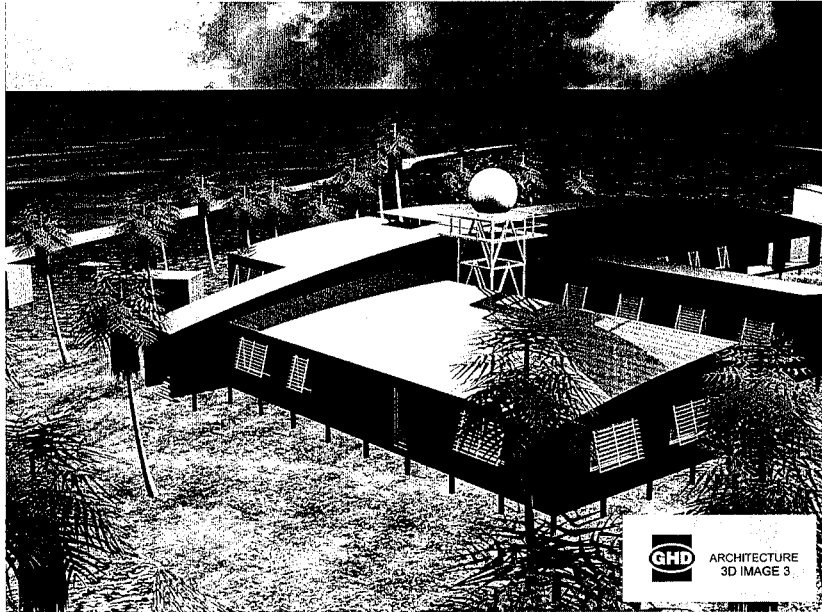


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Client BUREAU OF METEOROLOGY  
Project WILLIS ISLAND REDEVELOPMENT  
Title ELEVATIONS 4-10  
Original Size A1  
Drawing No: 33-10340-A007  
Rev: 0

No	Revision	Note	Drawn	Checked	Approved	Date
0			DHB	DP		1.04.05





Appendix B  
**Media Release**

**Joint Media Release**

**Greg Hunt MP**

**Parliamentary Secretary to the Minister for the Environment and Heritage**

**Federal Member for Flinders**

**&**

**Warren Entsch MP**

**Federal Member for Leichhardt**

**&**

**Peter Lindsay**

**Federal Member for Herbert**

11 May 2005

**GH05/054**

## **Federal budget delivers rebuild of weather office at Willis Island**

Mr Greg Hunt MP, Parliamentary Secretary with ministerial responsibility for the Australian Bureau of Meteorology, joined Member for Leichhardt, Mr Warren Entsch, and Member for Herbert, Mr Peter Lindsay, today to announce the rebuilding of Willis Island's meteorological office.

"Willis Island's field office is one of 12 being rebuilt over the next six years thanks to the Howard Government's \$19.8 million budget boost for the Bureau," Mr Hunt said.

"This new funding in the 2005-06 Budget demonstrates the Australian Government's commitment to delivering quality meteorological services to communities across Australia.

Mr Hunt congratulated Mr Entsch and Mr Lindsay for the work they have done to push for better services at Willis Island. The funding will combine with \$14.2 million of existing Bureau funding to rebuild the 12 offices, which are part of an Australia-wide network of 50 offices.

"Willis Island is the veteran of the offices to be replaced, located in an especially severe environment in the Coral Sea. The office was built in 1950 and is a vital element in the tropical cyclone warning system," Mr Entsch said.

"Field offices are vital components of the Bureau's surface and upper atmosphere observations and service delivery networks," Mr Lindsay said.

"They provide advice on local weather and feed data into the Global Observing System for monitoring weather and climate worldwide. Most operate weather-watch radars and also monitor the upper atmosphere with radar-tracked weather balloons."

The average age of the offices to be replaced is 40 years and many offices are in harsh climates and in exposed places.

"This latest investment by the Howard Government complements the current five-year \$62 million technological upgrade of the national weather service, which includes six Doppler radars and 15 new weather watch radars," Mr Entsch said.

Other offices to be rebuilt include Longreach and Charleville in Queensland; Sydney Airport in New South Wales; Ceduna in South Australia; and Albany, Carnarvon, Geraldton, Broome, Halls Creek, Esperance and Port Hedland in Western Australia. The Bureau's total resourcing for 2005-06 is \$237.1 million.

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