Western Sydney Parklands Trust

PRELIMINARY CONSTRUCTION MANAGEMENT PLAN

Bringelly Road Business Hub

State Significant Development application (SSD 6324)

January 2015

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1. INTRODUCTION

Western Sydney Parklands Trust (WSPT) has prepared a Preliminary Construction Management Plan (CMP) for the infrastructure and earthworks of the site known as Bringelly Road Business Hub (BRBH). The site is located near the north-west corner of the intersection of Bringelly Road and Cowpasture Road in Horningsea Park and is within Liverpool City Council. The CMP will form part of the State Significant Development (SSD) application for which Director General's Environmental Assessment Requirements (DGRs) were issued on 17 January 2014, identifying the application number for the project as 'SSD 6324'.

Specifically, the DGRs request a "*Construction Management Plan, inclusive of a Construction Traffic Management Plan and construction methodology*" which is provided for the Department of Planning and Environment (DPE) as part of the planning application. BRBH is approximately 21 hectares and the scope of the application (and hence this CMP) includes the following:

- Subdivision;
- Demolition and remediation;
- Bulk and detailed earthworks;
- Construction of estate infrastructure; and
- Estate landscaping.

The final development is proposed to be a business park accommodating large format retail, light industrial and service centre uses which will require additional planning approvals separate to the SSD application.

This Preliminary CMP will serve as a reference document for the Selected Contractor ('Contractor') of the infrastructure upgrade works and a Final Construction Management Plan will be prepared. Both CMP's will ensure the impacts of construction works on the public domain are accounted for, particularly impacts on traffic, health, safety, amenity and the environment.

The CMP will also include a preliminary Construction Traffic Management Plan (CTMP) which similar to the CMP, will be finalised by the Contractor selected for the infrastructure upgrade and earthworks when further detail is progressed. The CTMP will consider temporary interruptions to vehicular and pedestrian traffic during the construction works and amplification of services and ensure public safety is maintained and any interruption to the use of public space is minimised.

2. PRE-CONSTRUCTION

In initial site feasibility assessment and in preparation of the planning application for DPE as a State Significant Development (SSD), extensive reporting has been completed for BRBH. The following assessments are among those completed for the proposed development:

- Environmental Impact Statement.
- Urban Design Plans and Guidelines.
- Phase 1 Environmental Site Assessment (ESA).
- Geotechnical Investigation Report.
- Construction Noise & Vibration Management Plan.
- Flora & Fauna Assessment.
- Bush Fire Risk Assessment.
- Stormwater Management Plan.
- Detailed earthworks plan.
- Traffic Impact Assessment.
- Aboriginal and non-Aboriginal Archaeological & Cultural Heritage Assessment.
- Detailed Survey.
- Draft Plan of Subdivision.
- Landscaping Plans.

These reports will be factored into the both the preliminary and final CMPs.

3. DEMOLITION AND REMEDIATION

The proposed site currently contains four residential structures as follows (*images courtesy of SIX Maps*), all of which will be demolished as part of the proposed site development works as outlined in the Demolition Plan in *Appendix A*. An underground septic tank (#90) will be decommissioned and removed and the gas bottles (#32) will be appropriately disposed of.

90 Bringelly Road, Horningsea Park (Lot 1 DP29104)

50 Bringelly Road, Horningsea Park (Lot 13 DP29104)

32 Bringelly Road, Horningsea Park (Lot 11 DP29104)

20 Bringelly Road, Horningsea Park (Lot 10 DP29104)

No significant impact upon neighbours is expected as the site is green field and surrounding roads work act as buffers to the residential sites. Despite this, measures will be undertaken to ensure that any impact on traffic or nearby residences are minimised. Measures include:

- Work times will be planned to minimise impact of demolition works.
- Dust will be controlled by spraying water.
- Relevant accreditation/certification of demolition (sub) contractor.
- Machinery and equipment will be monitored to ensure noise pollution is controlled.
- Recycling of demolition waste where possible.
- Further measures as recommended in the Phase 1 ESA will be undertaken.
- No liquid or solid waste material will be buried at BRBH.

Prior to demolition works an assessment will be undertaken to investigate the existence of asbestos and other hazardous which may have been used as building materials. In the event such materials are identified, an inventory will be recorded and a qualified professional will be engaged to remedy the issues.

4. CONSTRUCTION

a. Scope of works

The planning application for Bringelly Road Business Hub and CMP relate to the following works for proposed development:

- Subdivision;
- Demolition and remediation;
- Bulk and detailed earthworks;
- Construction of estate infrastructure; and
- Estate landscaping.

The CMP addresses the broad principles and methodologies which will be utilised to control impacts on items such as environmental and traffic aspects which arise as a result of the construction works.

Further specification will be provided in the Final CMP regarding the following key sites issues:

- Access and egress;
- Site Security;
- Site Inductions;
- Construction zones;
- Emergency Management.

b. Project Programme

Ultimately the timing of the works will be dictated by planning approvals and the demand for lots of the market. The infrastructure of the project will be staged subject to market demand.

c. Hours of work

Hours of work for the proposed site development will be restricted to the following (subject to approval from Liverpool City Council):

- Monday to Friday 7:00am to 6:00pm
- Saturday 8:00am to 1:00pm
- Sunday & Public Holidays No work.

The Contractor can apply to Liverpool City Council the proposed working hours if necessary.

d. Subdivision

The project team has completed various assessments which impact on the proposed design of the lot layout including earthworks, existing title boundaries, stormwater drainage, geotechnical investigation and others. All factors have been considered in preparation of the layout and a registered surveyor has prepared a draft Plan of Subdivision as part of the planning application.

e. Bulk and detailed earthworks

The detailed survey shows that extensive earthworks including importation of materials will be required to provide separate lots as proposed at BRBH. A full investigation of earthworks and retaining is included in the Civil and Environmental Engineering Report and Plans.

f. Construction of estate infrastructure

Section 4 of the Civil and Environmental Engineering Report details the utilities amplifications required to service the site based on capacities generated by the proposed uses. In summary:

- Potable water: a 150mm water main is existing on the northern side of the existing Bringelly Road and has capacity to service BRBH.
- Sewer: Two existing trunk 225mm sewer mains are located 300m east of BRBH and have capacity to service BRBH.
- Power: BRBH will connect to the Prestons Zone Substation approximately 2.5kms east.
- Gas: A 550mm diameter gas main is located within the existing Bringelly Road which is proposed as the internal access road for BRBH.

Access will be provided by an intersection to the realigned Bringelly Road for which the Roads & Maritime Services (RMS) is about to commence construction. The application proposes that the new alignment is connected to the current alignment for access. WSPT has worked closely with the RMS to design an intersection which can accommodate the proposed development.

g. Estate landscaping

Although much of the landscaping will be addressed on a lot-development basis, WSPT has endeavoured to provide a detailed assessment upfront for the estate as well. Included in the planning application is a Landscape Concept Plan which addresses the landscaping works which will be completed with the infrastructure upgrades and earthworks such as treatment along Bringelly Road, estate boundaries and the internal access road.

5. ENVIRONMENTAL

The purpose of the Preliminary CMP is to provide a reference document and outline key items which must be addressed in the final version. This document is specific to Bringelly Road Business Hub and will assist DPE and Liverpool City Council (LCC) to assess the planning application.

a. Sedimentation

Due to the extent proposed demolition and excavation upgrades at BRBH, the Contractor will be required to manage the volume of sedimentation created as a result of construction-associated works and avoid sedimentation entering the local stormwater system. Sedimentation control will be measured by:

- Visual inspection of the sedimentation control measures utilised and the volume of silt trapped.
- Regular audits conducted by the Contractor of the sedimentation control procedures and practices.
- Relevant authorities including LCC, the Environmental Protection Authority (EPA) and the Soil Conservation Service.

To reduce the environmental effects of erosion and sedimentation the following measures may be utilised by the Contractor (or the respective sub-contractor):

- Silt fences are to be placed around the perimeter of the work area.
- Sand, hay bales or gravel bags require being used to protect inlets and direct flow.
- Sediment collected on silt fences or around sandbags will be disposed within site landscaping or in other suitable locations.
- Vehicles must enter and leave the site on the access driveway to limit the tracking of mud and/or soil on to public roads
- Muddy or dirty vehicles must go through the site washout bay before leaving site to limit the tracking of mud and/or soil on to public roads.
- Preserve as much grassed or vegetated area as possible to filter sedimentation from stormwater runoff.
- All soil, sand and cement stockpiles should be placed wholly on the construction site and behind a sediment barrier. These stockpiles should also be covered at the end of each day if rain or excessive wind is likely.
- Activities that generate surplus wastewater with sediment (such as brick cutting) must only be carried out on site. This wastewater should be recycled or discharged into a contained area for drying by soakage.
- Should dirt and/or mud traffic onto public roads and footpaths, site staff must sweep rather than hose off the sediment.
- Undertake dewatering of trenches, excavations (etc.) when necessary, ensuring that the water is taken away from site and disposed at a location approved by the EPA and/or relevant authorities. This water cannot be deposited into the local stormwater system.

b. Dust Control Plan (DCP)

The DCP will aim to minimise the amount of dust generated, reduce the nuisance that dust may cause to the community and site personnel and ensure the dust is controlled in accordance with the EPA guidelines so as to minimise the impact on air quality.

To ensure that all site personnel adequately control the creation and spread of dust, the Contractor may monitor the site workers by:

- Visually viewing site works and utilising digital photos to record and witness dust control procedures during random site inspections.
- Undertaking audits on a regular basis to review dust control procedures and practices.
- Reporting on a monthly basis to the Project Control Group. Such reports to include:
    - Relevant Trade Contractor reports for the period.
    - Other Important information / events that generated dust and how it was controlled (if not covered by the Trade Contractor reports).
    - Overall assessment of dust control practices and procedures for the month.

During dry conditions, on-site construction activities have the potential to generate dust. The following activities are those identified as a specific potential source of dust generation:

- Earthmoving activities including clearing of topsoil;
- Movement of vehicles and construction machinery;
- Stockpiling of materials; and
- Build-up of material around erosion and sedimentation controls.

To reduce the environmental nuisance of dust generation, Trade Contractor's and site staff should implement the following measures:

- In the event of dust levels on site becoming a nuisance or unacceptable, introduce controls such as ground watering.
- Cover trucks transporting material from the site immediately after loading to prevent wind-blown dust
- Where or whenever necessary, erect appropriate barriers to control dust generated as a result of construction-associated works.

c. Noise Control Plan (NCP)

BRBH is generally located in amongst vacant parklands and rural residential holdings however the Contractor will ensure construction noise impacts from the site are managed so as to minimise the disturbance to surrounding property owners, in accordance with EPA guidelines.

Acoustic Logic Consulting has prepared a "Construction Noise and Vibration Management Plan" as requested in the DGR's.

d. Water Management Control Plan

The Contractor is to implement water-saving practices and technologies to ensure on-site water consumption is minimised. This will be monitored through sub-metering and visual inspection by the Contractor to ensure measures are being actively utilised by sub-contractors. To ensure that all site personnel adequately control the consumption of water, the Contractor will monitor site staff by:

- Visually viewing site works and utilising digital photos to record and witness water management procedures during random site inspections.
- Undertaking audits on a regular basis to review water control procedures and practices.
- Reporting on a monthly basis to the Project Control Group. Such reports to include:
    - Relevant Trade Contractor reports for the period
    - Other Important information / events that reduced water consumption (if not covered by the Trade Contractor reports).
    - Overall assessment of water management practices and procedures for the month.

To increase the environmental benefits of reducing water consumption and recycling water, the following measures should be undertaken by the Contractor and sub-contractors as a minimum during the construction works:

- Rainwater collection for use when washing down concrete pumps, trucks and other vehicles leaving site.
- Introduce water-less urinals to the site amenities.
- Educate site workers about water consumption and simple measures to save water (e.g. utilise collected rainwater for cleaning equipment, ensure taps are not left running etc.)
- Sub-metering of water consumption.

e. Waste Management Control Plan

In order to reduce onsite waste during the construction process due to waste water recycling and re-use practices plus to minimise the project's contribution to landfill, the Contractor implement an assessment strategy which measures the volume of materials recycled, re-used or taken to landfill and carry out inspections to ensure waste management procedures are being implemented by site staff.

To ensure that all site personnel adequately control waste, the Contractor will monitor site staff by:

- Visually viewing site works and utilising digital photos to record and witness waste management procedures during random site inspections.
- Undertaking audits on a regular basis to review waste management procedures and practices.
- Reporting on a monthly basis to the Project Control Group.

To increase the environmental benefits of reducing waste, the following measures should be undertaken by the Contractor and site staff:

- Separate waste generated during the construction process into the appropriate recycling containers / bins provided.
- Return unnecessary and/or unwanted packaging back to the supplier so as they become aware that such packaging is not required.
- Promote participation in local and state authority waste reduction policies.

6. TRAFFIC

This section of the Preliminary CMP and the attached Preliminary Traffic Management Plan (*Appendix C*) are provided as reference for preparation of final management plans to be completed prior to approval of any construction certificates. This report should be considered in conjunction with the Traffic Impact Assessment completed by Transport and Traffic Planning Associates (TTPA) for the BRBH project.

The Final Traffic Management Plan should provide detailed assessment of the following:

- Access and egress to BRBH at a designated and assessed location.
- Pedestrian access in vicinity of the site.
- Safety measures for public road users and pedestrians.
- Entry of vehicles onto the public road network (eg washed so as to not spread mud over roads).
- Effect of the construction works on local residents and their expected vehicle movements and the impact on the existing road network.
- Parking spaces on-site to cater for essential personnel and services but avoid affecting public roads (likely to be Cowpasture Road).

APPENDIX A: Demolition Plan

NOTES

* CONTOURS IF SHOWN ARE AN INDICATION OF THE TOPOGRAPHY AND SHOULD ONLY BE USED FOR PLANNING PURPOSES. IF DETAILED DESIGN IS TO BE UNDERTAKEN, SPOT LEVELS SHOULD BE USED.
* DO NOT SCALE OFF THIS PLAN – RELATIONSHIP OF IMPROVEMENTS AND DETAIL TO BOUNDARIES IS DIAGRAMMATIC AND IF CRITICAL SHOULD BE CONFIRMED BY A BOUNDARY SURVEY.

The boundary information has been compiled from relevant plans and documentation that are available from the LPI, any additional information shown has been provided by design consultants.

Dimensions, Areas & easement locations could change following construction and are subject to final survey.

If Areas, dimensions & easements locations are to be accurately calculated LandPartners Limited recommends that a full plan of Redefinition/Consolidation be undertaken to confirm the final Survey Plan.

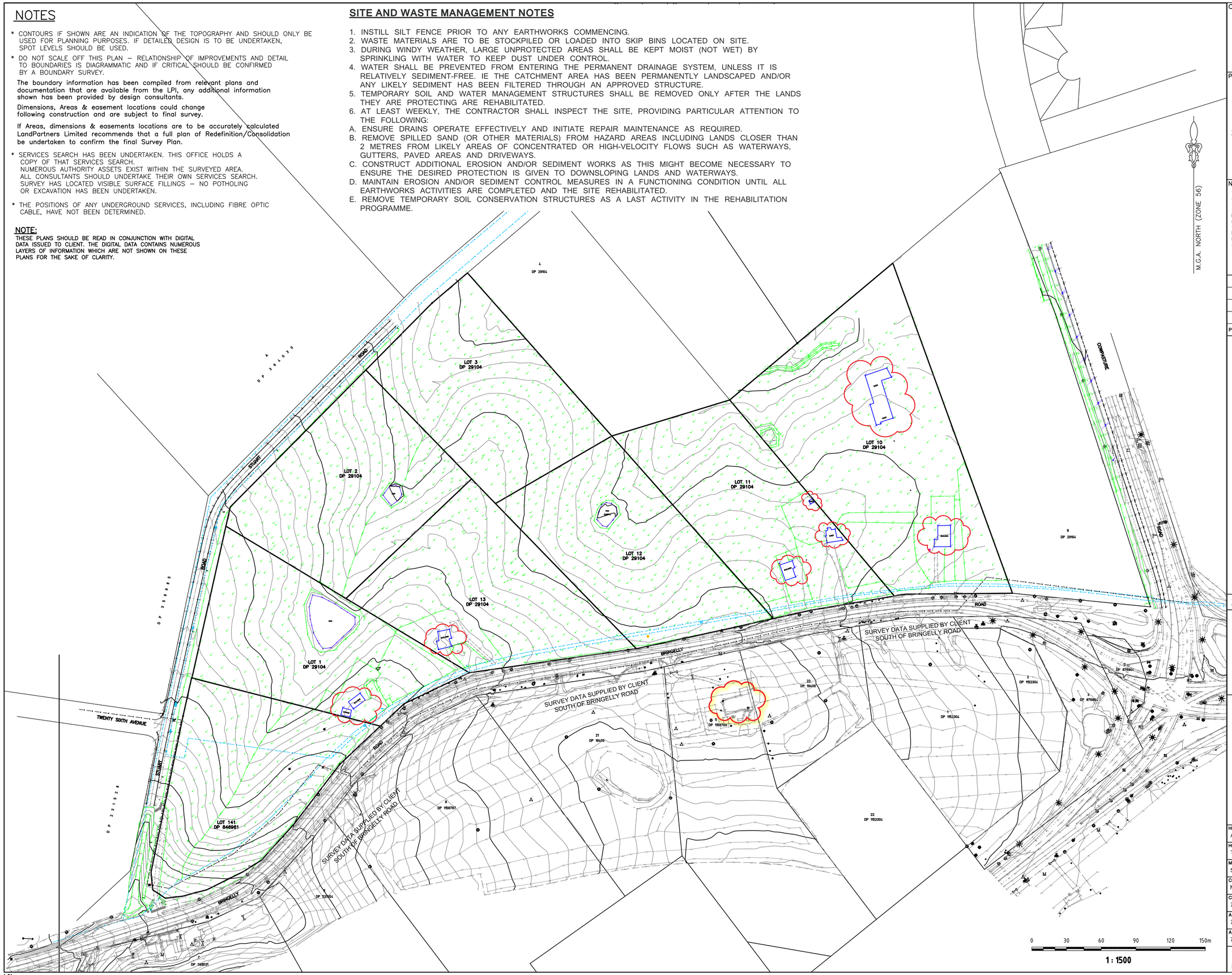
* SERVICES SEARCH HAS BEEN UNDERTAKEN. THIS OFFICE HOLDS A COPY OF THAT SERVICES SEARCH. NUMEROUS AUTHORITY ASSETS EXIST WITHIN THE SURVEYED AREA. ALL CONSULTANTS SHOULD UNDERTAKE THEIR OWN SERVICES SEARCH. SURVEY HAS LOCATED VISIBLE SURFACE FILLINGS – NO POTHOLING OR EXCAVATION HAS BEEN UNDERTAKEN.
* THE POSITIONS OF ANY UNDERGROUND SERVICES, INCLUDING FIBRE OPTIC CABLE, HAVE NOT BEEN DETERMINED.

NOTE:
THESE PLANS SHOULD BE READ IN CONJUNCTION WITH DIGITAL DATA ISSUED TO CLIENT. THE DIGITAL DATA CONTAINS NUMEROUS LAYERS OF INFORMATION WHICH ARE NOT SHOWN ON THESE PLANS FOR THE SAKE OF CLARITY.

SITE AND WASTE MANAGEMENT NOTES

1. INSTILL SILT FENCE PRIOR TO ANY EARTHWORKS COMMENCING.
2. WASTE MATERIALS ARE TO BE STOCKPILED OR LOADED INTO SKIP BINS LOCATED ON SITE.
3. DURING WINDY WEATHER, LARGE UNPROTECTED AREAS SHALL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.
4. WATER SHALL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM, UNLESS IT IS RELATIVELY SEDIMENT-FREE. IE THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED THROUGH AN APPROVED STRUCTURE.
5. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES SHALL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.
6. AT LEAST WEEKLY, THE CONTRACTOR SHALL INSPECT THE SITE, PROVIDING PARTICULAR ATTENTION TO THE FOLLOWING:

A. ENSURE DRAINS OPERATE EFFECTIVELY AND INITIATE REPAIR MAINTENANCE AS REQUIRED.
B. REMOVE SPILLED SAND (OR OTHER MATERIALS) FROM HAZARD AREAS INCLUDING LANDS CLOSER THAN 2 METRES FROM LIKELY AREAS OF CONCENTRATED OR HIGH-VELOCITY FLOWS SUCH AS WATERWAYS, GUTTERS, PAVED AREAS AND DRIVEWAYS.
C. CONSTRUCT ADDITIONAL EROSION AND/OR SEDIMENT WORKS AS THIS MIGHT BECOME NECESSARY TO ENSURE THE DESIRED PROTECTION IS GIVEN TO DOWNSLOPING LANDS AND WATERWAYS.
D. MAINTAIN EROSION AND/OR SEDIMENT CONTROL MEASURES IN A FUNCTIONING CONDITION UNTIL ALL EARTHWORKS ACTIVITIES ARE COMPLETED AND THE SITE REHABILITATED.
E. REMOVE TEMPORARY SOIL CONSERVATION STRUCTURES AS A LAST ACTIVITY IN THE REHABILITATION PROGRAMME.



CLIENT

WESTERN SYDNEY PARKLANDS TRUST

PROJECT

DEMOLITION PLAN

OF VARIOUS LOTS
LOTS 1-5 & 10-13 in DP29104, LOTS 141 & 142 IN DP846961, LOT 8 DP1156767, LOT 21 DP19406, LOT 55 DP1156760, LOT 22 DP19406 & LOT 1 DP876864
CNR STUART ROAD, BRINGELLY ROAD & COWPASTURE ROAD
LEPPINGTON

NOTES

The title boundaries shown hereon were not marked at the time of survey and have been determined by plan dimensions only and not by field survey.
Services shown hereon have been located where possible by field survey. If not able to be so located, services have been plotted from the records of relevant authorities where available and have been noted accordingly on the plan. Where such records do not exist or are inadequate a notation has been made hereon.
Prior to any demolition, excavation or construction on the site, the relevant authority should be contacted for possible location of further underground services and detailed locations of all services.

PPP/CF	LPL	DD/MM/YY	COMMENT

LEGEND

- Telephone Pit Lid (Single)
- Sign
- Bollard
- Power Pole
- Power Pole & Light
- Gate
- Gas Valve
- Bore Hole
- Water Meter
- Water Hydrant
- Water Stop Valve
- Water Tap
- Light Pole
- To be Demolished
- To be Demolished by RMS

Symbols shown are indicative only. The symbol size and orientation does not necessarily represent the real size or orientation of the feature.

Demolition Plan prepared by:

JBA

Survey Plan provided by:

LANDPARTNERS built environment consultants

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BSI ISO 9001:2008 FS 535063

HEIGHT DATUM: AHD	LOCAL AUTHORITY: LIVERPOOL COUNCIL
HEIGHT ORIGIN: TS 10704 RL 107.610	SCALE: 1:1500 (A1)
MERIDIAN: 56	CONTOUR INTERVAL: 1 Metre
CO-ORD SYSTEM: MGA	SURVEYOR: MC — DATE OF SURVEY: April 2014
CCAD FILE: 73409.000	DRAWN: LJMc — DATE: 05/05/14
AUTOCAD FILE: 73409.000	CHECKED: LPL — DATE: 05/05/14
ARCHIVE FILE: 73409.000	APPROVED: GKO — DATE: 05/05/14

Date: 21/01/2015

LJMc

APPENDIX B: Preliminary Traffic Management Plan

Western Sydney Parklands Trust

PRELIMINARY TRAFFIC MANAGEMENT PLAN

Bringelly Road Business Hub

State Significant Development application (SSD 6324)

January 2015

CONTENTS

1 LEGISLATION, STANDARDS AND CODES OF PRACTICE

Traffic shall be controlled in accordance with either of the following, depending on the contract or site conditions and requirements.

AS 1742.3	Manual for uniform traffic control devices, Part 3 – Traffic control devices for works on roads.
SAA HB81.1 to HB81.6	Field guides for traffic control at works on roads. Part 1 to Part 6 cover various examples of work on different roads and under different conditions.

2 SIGNS

The purpose of road signing or work site protection is:

- to provide a safe work area to work within; and
- to safely move traffic through, around and past a work site with minimum inconvenience.

2.1 Workers OHS

Any worker setting up temporary traffic control or modifying permanent traffic controls or directing traffic shall be suitably trained and will be issued with and use suitable Personal Protective Equipment (PPE).

2.2 Temporary Sign Placement

The selected contractor will appoint a site manager who is responsible for the placement of temporary signs and their location and shall observe the following guidelines:

- be placed at least 1 metre clear of traffic paths wherever possible;
- be mounted securely;
- be placed in the driver's line of sight;
- not be obscured by parked cars, trees, etc;
- not obscure the driver's view of other signs or other traffic; and
- not be a hazard to workers, pedestrians or other road users.

2.3 Existing Signs

Any existing signs that do not apply shall be covered.

3 PEDESTRIAN PATHS

Paths shall be safe and at least 1.2 metres wide.

4 MAINTENANCE OF EXISTING TRAFFIC FLOW

Existing traffic flows shall be maintained and only modified for short periods when other alternatives have been exhausted.

5 ROAD TEMPORARY SIGNAGE & TRAFFIC CONTROLS

The access points into the project will be indicated on a Traffic Control Plan along with Traffic Control Devices which will be put in place for the duration of the project and Temporary Traffic Control which will take place from time to time to bring in long or wide loads.

5.1 Site Access

The main entrance to the site shall be from the existing Bringelly Road, via the new access proposed by Roads & Maritime Services (RMS) to commence construction in 2015. Warning signs will be placed along approximately 150m from the main entrance in both directions to warn traffic that vehicles will be crossing. It is noted that the existing Bringelly Road (as opposed to the 'New Bringelly Road' alignment to be constructed by the RMS) will provide access to only one property other than the subject business hub, that property being 12 Bringelly Road, Horningsea Park.

5.1.1 Exiting Site

All vehicle drivers/operators are to come to a complete stop at the site gate before exiting the site compound. The drivers/operators are to observe the road regulations and give way to all passing traffic and pedestrians. Upon visual confirmation that all traffic and pedestrians have passed, the driver/operator is to slowly proceed over the public pathway and roadway.

5.1.2 Entering Site

All vehicle drivers/operators are to enter the site compound in a slow and controlled manner. The drivers/operators are to observe the road regulations and give way to all passing traffic and pedestrians. Upon visual confirmation that all traffic and pedestrians have passed, the drivers/operators are to slowly proceed over the public foot path and enter the site.

5.2 Traffic Management Report

Whilst traffic management is in operation, the traffic controller shall complete a Traffic Management Report daily and provide a copy to the Site Manager.

6 SPECIAL DELIVERIES

Any trucks that are long or wide loads will have specific traffic management in place to control traffic on Bringelly Road if appropriate. These loads, depending on RMS requirements, may require support vehicles or police escorts.