Sir Moses Montefiore Jewish Home
Part 3A Project Application, Randwick

Preliminary Construction Management Plan

Final
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Contents

1 Introduction

This Preliminary Construction Management Plan provides an overview of the proposed work at Montefiore's Randwick facility and the processes likely to be undertaken by the Head Contractor including the activities that will be co-ordinated on and around the site to ensure a safe working environment is maintained with minimum disruption to the surrounding residents.

The project will be under control of the Head Contractor, who will be appointed after the approval is granted, and upon familiarising themselves with the project will submit a Detailed Construction Management Plan relating to all site works. It is anticipated that the Detailed Construction Plan will be based on this Construction Management Plan, and should be completed by the Contractor early 2011.

2 Project Description

Sir Moses Montefiore Jewish Home is proposing an expansion of the existing Randwick facility, which will add much-needed additional capacity for ageing-in-place care for the Eastern Suburbs of Sydney. It is proposed that the expansion to the existing facility will provide 93 new High and Low Special Care rooms for residents suffering dementia and other cognitive impairment requiring specialised care in a secure, caring environment.

In conjunction with this provision by Montefiore of additional residential facilities, a 350 m² retail space will be provided and a 1,080m² landscaped public plaza for the general use of the local residents.

3 Construction Requirements

3.1 Hoarding and Fences

Prevention of unauthorised access to the site is of high priority and will be vigorously managed throughout the construction period. Prior to site works commencing the contractor will secure the site with fences and hoarding to a height of approximately 2.4m. The site boundary will generally be enclosed by interlocking Australian Temporary Fencing (ATF) or similar, with shadecloth. Where safety is likely to be issue, solid plywood panels will be erected as required. Refer to Appendix 2 for the proposed hoarding configuration.

3.2 Site Offices and Amenities

The contractor will establish site offices and amenities at the most suitable location on site to minimise disturbance to Montefiore's current operations. It is envisaged that this will be on the western side of Building C, subject to confirmation from the Head Contractor.

Site establishment will involve the installation of site sheds, toilets, amenities, offices, storage containers and off-loading areas within the construction zone.

3.3 Major Plant and Equipment

During excavation, heavy earthmoving equipment will be active on the site. This work will involve grading and top soil removal.

During the construction it is anticipated that following equipment will be required;

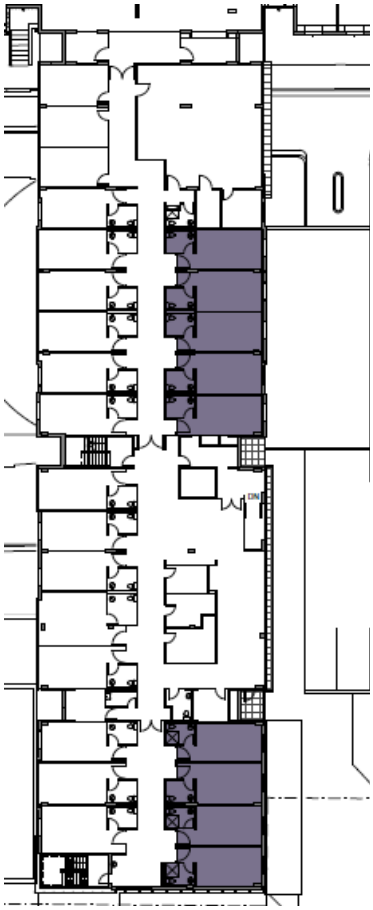
- Bulldozers, backhoes and excavators
- Articulated and fixed wheel trucks
- Mobile Cranes
- Fixed Cranes
- Concrete Delivery Trucks
- Concrete Pumps
- Man and material hoists
- Scissors and boom lifts
- Fork lifts

The proposed management of the noise created from the above Plant and Equipment will be discussed further in the Noise Management Plan.

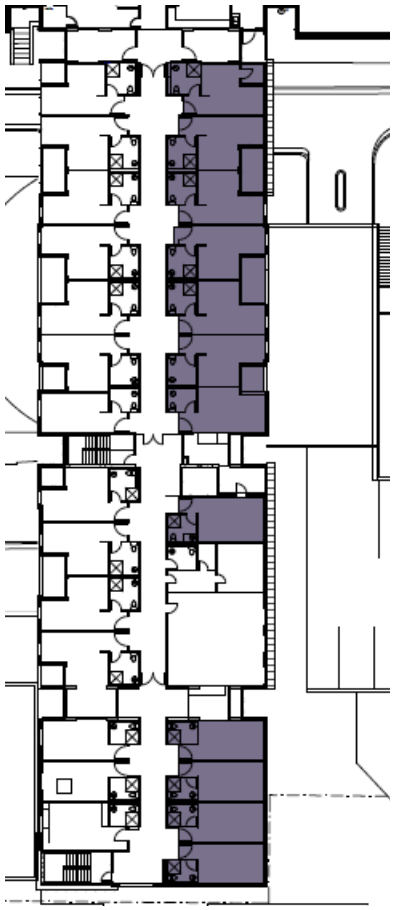
4 Montefiore Residents

4.1 Tenant Relocation Process

It is the intention of Montefiore to relocate the residents on the eastern side of Building C who will be closest in proximity to the construction site to other rooms located within the Randwick facility. The relocation of these residents will occur prior to any works commencing on site and will be done so to eliminate residents being located adjoining the construction site to reduce the impact as result of construction works, whilst also removing them from any potential OHS risks that could potentially arise due the proximity of their residence to construction site.



Level 4 of Building C



Level 5 of Building C

Purple shading indicates the rooms to be decanted prior to commencement of works.

The number of residents to be relocated prior to commencement is twenty-one (Nine residents on Level 4 and twelve residents from within Level 5 of Building C). Montefiore will accommodate these residents within their current facility for the duration of construction which will minimise the disruption to these residents.

5 Traffic Management

5.1 Construction Traffic

The purpose of this section of the Construction Management Plan is to provide an overview of the projected construction traffic impacts associated with the proposed development works.

The following information is general in nature, however it discusses the key areas to be detailed by the Contractor. The Head Contractor will be required to provide a detailed assessment of the impact of the construction traffic and the proposed management measures that will be undertaken once the detailed methodology is confirmed.

The site location is bounded to the south by King Street; to the east by Dangar Street; and residential buildings on the northern and western sides. It is proposed that access to the site for larger construction vehicles will be on the eastern side of the Burger Centre at a point on Dangar Street to be determined by the contractor to eliminate obstructions from the round-about on the corner King and Dangar. This should allow for some queuing of trucks whilst loading and unloading on site, and minimise the disruption to surrounding traffic from large construction vehicles.

The contractor will be required to have appropriate traffic controls in place during construction to avoid congestion, maintain continued pedestrian access on both King and Dangar Streets and also ensure that it is in accordance with standard RTA traffic control plans. This will involve the use of safety equipment such as directional signage, bollards, safety barriers etc.

It will be the responsibility of the contractor to implement a traffic management plan that carefully organises truck movements to control the flow of construction-related vehicular movements. This is vital in reducing the amount of time that trucks are within the surrounding streets to assist with the safety of pedestrians and cyclist who will be sharing these roads.

The control of site traffic will be particularly important so as not to interrupt the peak bus movements to and from Randwick Bus Depot, which are detailed within section 5 of Halcrow's Traffic Assessment. The Head Contractor will notify all drivers of site-related vehicles of the location of the Randwick Bus Depot situated on King Street and highlight its times of peak movements to ensure that the access to the bus depot is not impaired at these times. The Head Contractor will also maintain regular contact with the Depot throughout the site works to identify and resolve any traffic concerns that may be raised. A detailed construction traffic management plan will be developed when the contractor is engaged.

To assist in minimising the disruption to pedestrians, cyclists and bus traffic during peak times, it is proposed that the large truck movements occur generally outside these peak movement times in the surrounding streets. This will be done specifically to avoid drop off and pick up times at the childcare facility, neighboring schools and the bus depot's peak movement times.

It is estimated that there would be approximately 35 trucks attending site during peak activity based on prior experience with sites of similar magnitude. The access both on and off of site of these vehicles will be controlled by traffic management staff.

Deliveries, maintenance vehicles, general public access, emergency vehicles, access/egress to the existing facility will be generally maintained through the current access which is via either of the main entrances on King or Dangar Street.

It is intended that adequate temporary on site car parking facilities will be provided on the western side of the Burger Centre to accommodate the majority of construction worker vehicles and some small vehicle deliveries to and from the site.

This information is a preliminary overview of the traffic impact from the proposed site works, however as stated previously detailed analysis of the construction methodology will provided by the Head Contractor prior to commencement.

5.2 Pedestrian Footpaths

Pedestrian access will be maintained along the footpaths of King and Dangar Streets during construction. Whilst the proposed entrances to and from the site for deliveries may cross the footpath on both King and Dangar, there will be traffic management staff controlling vehicular movement during construction hours, and these footpaths should remain active throughout construction.

6 Site Access

6.1 Construction Vehicle Access to Site

As discussed in section 5.1, larger vehicles accessing the site including the loading and unloading of larger vehicle will enter the site via King Street and will exit via a temporary exit on Dangar Street.

Refer to Appendix 2 Proposed Site Layout identifying construction vehicle access to site and alternative egress routes.

Contractors parking personal vehicles will be instructed to use the temporary on-site parking that is to be created on the western side of the Burger Centre.

6.2 Hydrotherapy Centre

During the construction of Building D, all access to the east of Building C will need to relocated to prevent any OH&S issues due to the proximity of the construction site. It is proposed that during site works, the entrance on the western side of Building C will become the main entrance. Access to the Hydrotherapy Centre will also be available through the elevators within Building C at the south end of the Hydrotherapy Centre.

6.3 Vehicular Emergency Access

The nominated access point for all emergency vehicles is currently off Dangar Street, down the drive way and into the main entrance of the facility. The site works will not disrupt this access during construction. In the event that a disruption did occur, a temporary access plan for emergency vehicles would be created and all relevant emergency services would be notified.

6.4 Site Deliveries

Deliveries in and out of the facility currently occur through both the Dangar and the King Street entrances. This continued access will be maintained through construction with coordination between Montefiore and the Head Contractor.

6.5 Child Care Facility

The child care facility currently located on King Street should not be impacted by the works proposed at Randwick. As discussed in section 5.1, large vehicular movements will be coordinated so as not to occur during peak activities (pick up/drop off at the child care).

It is estimated that the movements of the individual sub-contractors who will be parking within the temporary car park, should not occur during these peak times of the child care as well, however all contractors will be made aware of the facility and its peak times as part of the site induction.

6.6 Bus Parking

There are currently a small number of minibuses that transport both permanent and day-care residents to and from the facility. The drop off points for these buses will remain at the front of the Burger centre and also at through the main entrance within the facility.

The current bus parking is within the parking space that will be temporarily removed during construction. During this time buses will be advised to park within the temporary carparking created on the western side of Building C.

7 Temporary Services and Facilities

The recommendation from the Mechanical, Electrical, Hydraulic & Fire Service Consultants is that the services to the site can be maintained during construction; however services currently located on the eastern side of Building C will require some relocation prior to commencement on site as part of a early works. These works will mainly include hydraulic and fire services relocations, but will also include some operational relocations.

- Hydraulic services will require minimal relocation as the majority of the below ground hydraulic services were designed in contemplation of future expansions.

- The bulk of the alterations to fire services that will be required involves the deletion and capping of sprinkler services that were installed underneath the concrete veranda to meet BCA requirements. This veranda is to be demolished as part of the construction of Building D, and the fire services being affected will be reinstated to suit Building Code of Australia regulations.

- The majority of the works to Electrical Services will involve the deletion and relocation of Carpark and external lighting. Some statutory signage currently in place will no longer be required, as these areas will be within a construction site and not accessible to the general public.

During the construction period there will be some alterations to the internal operations of the facility, however these will be minimal.

7.1 Emergency Exits

During construction there will be some minor changes to the emergency exits on the eastern side of Building C. The advice given from the Building Code of Australia Consultant is that temporary measures could be implemented in conjunction with temporary emergency evacuation plans and procedures. These would need to be circumstance specific to ensure that an acceptable level of fire and life safety is maintained to residents and staff during site works.

8 Noise and Vibration Mitigation

Where applicable the formal position is that the Environmental Protection Agency (EPA) guidelines shall be adopted for the duration of construction, and compliance verified by noise monitoring conducted as part of an Environmental Monitoring Program. All possible steps shall be taken to minimise construction plant and equipment in accordance with EPA Environmental Noise Control Guidelines. Any short term exceedance of the minimum noise criteria shall be managed through the scheduling of construction activities such that plant operation is limited in location and duration, and through the implementation of noise mitigation measures.

The control of noise and vibration will be achieved through the use of appropriately licensed and experienced contractors coupled with monitoring. Plant and equipment utilised during the project will be required to meet the relevant guidelines with regards to noise levels.

Noisy construction activities will include:

- Demolition and removal of existing concrete and steel structures
- Breaking up and removal of ground slab
- Noise from plant and equipment including piling rigs, mobile cranes, excavators, wagons, concrete pumps, concrete vibrators, compressors, jack-hammers, concrete saws, material hoists, screw guns (roof sheeting) etc
- Erection of scaffolding, formwork, steelwork, roof sheeting, cladding etc.

Measures to mitigate the affect intrusive noise include:

- Works to be undertaken only during specified construction periods
- Construction techniques which reduce periods of excessive noise (prefabrication etc)
- Piling should be bored (CFA) rather than impact driven
- Equipment to be fitted with noise suppression devices where possible.

During the construction process regular correspondence will be maintained with local residents and with the Montefiore residents and staff to provide updates on the construction and also to address any ongoing issues or concerns.

9 Consultation Process

9.1 Meetings & Communications

A Project Control Group Meeting (PCG), normally chaired by the Project Manager, will meet monthly with appropriate high-level representation from the Montefiore and the Contractor's Director. It will discuss progress and any major issues arising from the previous period and will also review work planned for the next month.

A Weekly Operations Meeting will also be held, normally chaired by the Project Manager, and attended by appropriate representatives from Montefiore, the Project Team and the Contractor. The meeting will discuss progress and will also review the planning of work for the next period. Any issues that cannot be resolved here will be dealt with by the PCG.

Appropriate communications and procedures will be implemented between Montefiore and the Project Manager to allow instant access to each other should urgent issues arise on a daily basis.

9.2 Complaints

Throughout the construction period the contact details of McLachlan Lister's Project Managers will be displayed on the external fencing of the construction site. These contact details will also be upon all correspondence sent to surrounding residents in the form of advertisements and letter drops, etc.

The Project Managers will be able to respond immediately to any concerns or complaints (assumed to be mainly from local residents) received during construction and ensure that at least a verbal response on what action is to be undertaken is provided to the complainant within 1 hour (unless the complainant agrees otherwise) and a detailed written response provided within 1 calendar day.

This information shall be made available to all relevant government agencies on request. The project managers will log, track and respond to complaints within the specified time-frames.

10 Construction Risks and Mitigation Measures

Table 1

Ref	Risks	Potential Mitigation Measures
1	Noise from Demolition Activities	▪ Excavator and smaller rock breaker will be used to break up the existing pods and slab. ▪ Noise mitigation equipment will be fitted to construction equipment. ▪ Close consultation with all stakeholders during the demolition phase to inform of timing and any works which may impact on their operations and amenity. ▪ Install noise sensors and alarms.
2	Noise from Major Construction Activities	▪ Implement a Noise Mitigation Strategy. ▪ Noise mitigation equipment can be fitted to construction equipment. ▪ Position concrete pumping operations in locations that minimize effect on hirers. ▪ Close consultation with all stakeholders during the piling and substructure phase to inform of timing of any works that may impact on their operations and amenity. ▪ Install noise sensors and alarms and agree permitted levels of noise
3	Noise from Construction Plant & Equipment	▪ Temporary sound barriers for stationary equipment (compressors, generators, jack-hammers etc). ▪ Fix mufflers & maintain equipment ▪ Locate equipment as far practicable from sensitive locations.
4	Vibration from Foundation Works	▪ Specify bored piles in lieu of driven piles. ▪ Close consultation with all stakeholders during the foundation phase to inform of timing of any works that may impact on their operations and amenity. ▪ Install vibration monitors and alarms where necessary.
5	Dust from Demolition and Construction Works	▪ Removal offsite of precast elements to allow crushing elsewhere. ▪ Hosing down of demolition vehicles. ▪ A water cart and vacuum for spraying to reduce dust generation on vehicle access routes. ▪ Regular cleaning of adjacent pavements and

Ref	Risks	Potential Mitigation Measures
		roadways. ▪ Trucks transporting materials off site shall be covered. ▪ Stockpiles of rubble on site shall be kept damp or stabilised to prevent generation of dust. ▪ Seal existing façade to prevent ingress of dust into the existing facility
6	Storm Water Runoff	▪ Use of silt socks and filter fabric in stormwater runoff pits and gutters.
7	Removal of Hazardous Materials	▪ Works will not commence until the hazardous material assessment has been completed and approved the removal and disposal methods developed.
8	Waste Water	▪ Waste water from construction activities will be collected and treated prior to disposal.
9	Air Quality	▪ The burning of timber and other combustible materials will not be permitted on site at any time.
10	Construction Traffic	▪ Ensure appropriate traffic control measures are employed to ensure separation of construction activities and public. ▪ Traffic controllers employed at access gate from King Street as necessary ▪ Pre-agreed safe public access pathways to be established and maintained. ▪ Provide alternative vehicular access routes from Dangar Street for Montefiore delivery vehicles. ▪ Ensure deliveries of large prefabricated components and steelwork sections are properly managed and co-ordinated. ▪ Ensure large vehicles coming to site are properly managed and co-ordinated (piling rigs, mobile cranes etc out of hours).

11 Safety

The Head Contractor will be required to establish a comprehensive Work Safety Plan before commencement on site that details safe work methods and procedures that need to be followed to ensure compliance with all WorkCover and EPA statutory requirements.

The initial identified safety risks during construction include:

- Stability of adjacent and retained structures
- Excavation supports
- Falls from heights
- Protection of the public and operational staff
- Traffic control at entry gate on Kings Street
- Traffic control at exit gate on Dangar Street
- Storage of fuel on site
- Falling debris during demolition
- Lifting of large steel and concrete sections during demolition and construction

Each identified risk activity will be subject to specific measures being developed and implemented. Approved Work Method Statements will be strictly adhered to by all site operatives with constant monitoring by supervisory staff. The Contractor will ensure that daily 'Tool Box Talks' will be held with operatives to ensure they are familiar with the agreed methods and procedures.

It will also be noted that all subcontractors, consultants and frequent site visitors will be required to complete site inductions prior to accessing the construction site. A Site Safety Committee will be formed by the Contractor which will make regular inspections of the site as the works proceed.

12 Waste Management

12.1 Recycling of Demolition Waste

The demolition contractor will be required to arrange the sorting of waste materials generally to ensure maximum recycling is achieved. The current target for recycling is approximately 80% of demolition materials. Some of this work will have to occur on site however the demolition contractor may remove components off-site crushing and recycling elsewhere where space restrictions, noise and dust are less of a problem.

12.2 Hazardous Materials

Prior to commencing demolition or excavation activities, appropriate investigations will be undertaken to assess all structures, coverings, finishes and soils to identify any hazardous materials that may exist. All hazardous materials will be handled and disposed of in strict accordance with statutory and EPA requirements and guidelines.

- All general mixed demolition waste materials will be disposed of at the nearest landfill facility
- Contaminated waste and/or hazardous materials will be disposed of at the nearest licensed facility
- Recycled and separated waste such as bricks, concrete and steelwork will be transported to the nearest facility.

All loads of rubbish shall be securely covered to prevent spillage during removal from site. Records of all contaminated waste and dockets showing disposal at legally operating waste management facilities shall be kept at all times.

12.3 Recycling of Construction Waste

All employees shall be informed of the need to maintain a clean working environment. Waste material generated by the works shall be minimised or recycled as appropriate. Separate bins are to be provided for the sorting of recyclable waste and records kept of all waste removed from site detailing where waste was taken, type of waste and how it was disposed of.

12.4 General Requirements

All waste management issues arising during demolition, construction and operational stages including likely quantities, proposed destinations and best practices for safe handling and disposal, will be in accordance with WorkCover's Occupational Health and Safety requirements.

13 Environmental Management Plans

The **Environmental Management Plan** (EMP) is a procedural document which outlines the environmental goals of the project including to following:

- Measures to be implemented
- Timing of the implementation in relation to the progress of the project
- Responsibilities for implementation and management
- Review process.

The EMP will be prepared to address each stage of the project including Site Preparation, Construction and Operation and will demonstrate a commitment to positive environmental management. The EMP will also address the need for environmental safeguards during the project and facilitates the adoption of environmentally sensitive work practices. In addition, the EMP will ensure that there is compliance with the environmental conditions of approval for the project by the Contractor and that all environmental risks are properly managed.

The EMP will incorporate both general environmental requirements that apply to most construction projects together with specific environmental initiatives for this project.

The key objectives of the EMP include:

- Ensuring the works are carried out in accordance with statutory requirements
- Ensuring the works are carried out in such a way as to minimise the likelihood of environmental degradation occurring
- Ensuring the works are carried out in such a way as to minimise the impact of the works on neighbouring properties
- Ensuring that employees engaged in the works comply with the requirements of the EMP
- Providing clear procedures for management of environmental impacts including corrective actions
- Identifying management responsibilities and reporting requirements to demonstrate compliance with the EMP.

A **Construction Environmental Management Plan** (CEMP) and an **Operational Environmental Management Plan** (OEMP) would form an integral part of the EMP consistent with the requirements of ISO9001:2000 and ISO14001. These plans would be prepared prior to commencement of construction by the nominated Contractor. The CEMP and OEMP would be prepared following assessment of the project and would serve as a working document typically including the following:

- Establishment of environmental goals and objectives
- Conditions of project approval
- List of actions, timing and responsibilities

- Supervision protocols, fully identifying areas of responsibility for environmental management
- Statutory requirements, licenses and approvals required
- Structured reporting system detailing all relevant matters on a regular basis
- Procedures and forms for documentation and reporting of issues
- Standard specifications incorporating environmental safeguards
- Training of personnel in environmental awareness
- Guidelines for emergencies, contact names and corrective actions for non-conformance
- Process surveillance and auditing procedures
- Review procedures and protocols for modification of the CEMP and OEMP
- Complaint handling procedures
- Site management and control procedures
- Monitoring procedures
- Quality assurance procedures.

14 Erosion and Sediment Control

An Erosion and Sediment Control Plan shall be prepared detailing the location of temporary erosion and sedimentation control measures including fencing and silt traps as necessary and shall be installed prior to the commencement of works. Existing drainage lines likely to be affected by the worksite shall be identified and protected using siltation barriers, placed such that they intercept run-off from exposed surfaces. Temporary drainage controls for the site compound, including diversion drains and perimeter banks, shall be established as appropriate to cope with any significant quantities of stormwater coming into the site via temporary access created during site works. Stockpiles of materials or debris shall be kept clear of water courses and/or surrounded by sediment filter fencing, sandbags or straw bale barriers wrapped in geo-fabric securely fixed to the ground.

Erosion and sedimentation controls shall be monitored on a weekly basis and immediately following a rainfall. The controls shall be maintained or replaced as appropriate. Sediment shall be cleared when traps have collected 50-60% of capacity and the residue disposed of in an appropriate manner.

14.1 Tree Preservation & Protection Plan

The contractor is to provide a suitable Tree Protection Plan to ensure that any trees located on Dangar and King and on site are protected at all times. There is to be no excavation or works undertaken within the specified Tree Protection Zones.

15 Materials Handling

Materials and equipment for the project will generally be lifted and moved using a variety of mobile cranes, materials hoists, scissor hoists, forklift trucks and scaffold towers. The site is able to accommodate areas for the storage of materials in addition to providing reasonable vehicular access for the full length of the new structure.

The nature of the new building will allow a significant proportion of the works to be prefabricated and panelised enabling components to be directly lifted from the delivery vehicle into position and not have to stockpile on site with the subsequent double-handling.

Concrete pumps, either static or mobile, will be used for placing concrete.

Example of mobile crane

16 Program

16.1 Overall Duration and Assumptions

The Preliminary Master Program is based on the Montefiore's chosen procurement strategy of using a fixed price lump sum form of contract to deliver the project.

- Projected Start Date March 2011 – (Excluding Early Works).
- Project Completion Date May 2012

Estimated duration 12-14 months, including delay contingency.

16.2 Hours of Work

Generally, normal working construction times are as follows:
Monday – Friday 7.00am to 5.00pm
Saturday – 7.00am to 1.00pm
Sunday / Public Holidays – No work
Nominated High Holidays - TBC

17 Ameliorative Measures

This Construction Management Plan contains the details of predicted impacts and methodology likely to be adopted by the Main Contractor together with proposed solutions to ameliorate the environmental impact of the works on surrounding neighbours and Montefiore operations.

The effective implementation of the proposals contained within this Construction Management Plan need to be adopted by the successful tenderer and further developed with affected stakeholders to ensure all aspects of the construction process are properly managed and monitored.

18 Appendix 1 – Location Plan

Site Location

19 Appendix 2 – Proposed Site Layout