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# **Huntlee Project Stage 1**

## **Physical Infrastructure Report**



301017-00364-CI-REP-0001

November 2012

**Infrastructure & Environment**

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### PROJECT 301017-00364 HUNTLEE STAGE 1 PROJECT APPLICATION

| REV | DESCRIPTION                         | ORIG                                                                                      | REVIEW                                                                                    | WORLEY-PARSONS APPROVAL                                                                      | DATE       | CLIENT APPROVAL | DATE |
|-----|-------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|------------|-----------------|------|
| A   | Draft for Client Review             | GS / KB                                                                                   | B.P.                                                                                      | <br>B.P. | 9/12/2010  |                 |      |
| B   | Final Issue                         | GS / KB                                                                                   | B.P.                                                                                      | <br>B.P. | 17/12/2010 |                 |      |
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| E   | Preferred Project Report Submission | CD                                                                                        | GS                                                                                        | GS                                                                                           | 0208/2012  |                 |      |
| F   | Final PPR Report                    | <br>CD | <br>GS | <br>GS   | 15/11/2012 |                 |      |





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## **1 INTRODUCTION**

### **1.1 Background**

The Huntlee Project is located to the south of the township of Branxton in the Hunter Valley, bounded by the main north railway, Black Creek to the west, and the existing village of North Rothbury to the south.

The overall project is intended to comprise:

- Up to 5,600 dwellings in residential zones of varying sizes covering up to 612 hectares;
- Employment lands totalling up to 200 hectares including a mixed use town centre with up to 1,700 residential dwellings;
- Rural residential development covering up to 93 hectares to achieve approximately 200 lots;
- The provision of associated infrastructure including upgrades to road, sewerage and water infrastructure and the dedication of land for education and health services, community facilities and utilities;
- Dedication of 780 hectares of conservation land within Huntlee; and
- Dedication of Persoonia Park (17 hectares).

The Stage 1 development which is the subject of this project application submission will comprise:

- Up to 1,900 residential lots;
- Up to 120 rural residential lots;
- 68 Ha of town centre including up to 300 dwellings; and
- Associated roads and other essential infrastructure and landscaping.

### **1.2 Purpose of this Report**

Whilst this report discusses in general the overall infrastructure requirements for the Huntlee project, it is intended to specifically relate to the physical infrastructure required for Stage 1 of the Huntlee Project. The intention of this report is to demonstrate that the development is able to be serviced by essential infrastructure and that it satisfies the statutory requirements, including specific items as outlined in the Director General's Requirements (DGR's) and other known general requirements of other state and local authorities.

This report is not intended to supply detailed design details for the Stage 1 infrastructure, but rather identify the design principles, techniques and strategies to be adopted for the infrastructure, and where relevant, selection of performance criteria to be met as part of the future detailed infrastructure



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design. This document will therefore identify the minimum infrastructure and construction management requirements for the development moving forward into the next approval stages.



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## 2 SITE TOPOGRAPHY

### 2.1 Existing Conditions

The Stage 1 project area is located within the catchment area of two tributaries of Anvil Creek. The tributaries located on the site are both unnamed ephemeral creeks flowing from south to north. For this and other reports, these two Anvil Creek tributaries are referred to as “Anvil Creek Tributary 1” (eastern tributary) and “Anvil Creek Tributary 2” (western tributary).

Both Anvil Creek Tributaries are currently in a relatively degraded state with deep incising of the stream invert evident in certain sections as well as the presence of farm dams at regular intervals in both tributaries.

Current land use in the Stage 1 project area predominantly consists of agricultural activities and forested areas, with the only significant development in the area being the existing township of North Rothbury in the southern portion of the Anvil Creek Tributary 2 catchment.

The terrain is generally undulating with grades generally of the order of 5 – 10%, reducing to 0-5% at the bottom of the site near the main northern railway line.

The large lot areas which are part of the Stage 1 Project Application are located within the Black Creek catchment to the west of Anvil Creek tributaries. This area is currently used for grazing or forested and undulating with grades of the order of 5 – 10 %.

### 2.2 Site Earthworks

At this stage in the planning process, detailed earthworks plans for the site have not been prepared, these would be undertaken as part of the construction certificate stage following approval of project applications, however there is sufficient information available on the infrastructure to provide a general indication of where earthworks will be undertaken with the Stage 1 Project Area.

The areas of potential earthworks which will change the natural surface topography and the management thereof are discussed in the following sections.

#### 2.2.1 Proposed Cut / Fill Areas

The main areas of cut / fill are expected to include the following:

- Most roads will involve some adjustment to existing surface levels, however in general the design principle is to maintain an overall cut/fill balance in the road design. It is expected that the roads will vary from either cut or fill and therefore earthworks batters from the edge of the road reserve will extend into the adjacent lots by a distance which will be relative to the height of cut or fill at the road centreline;





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- Above ground detention and water quality basins will require adjustments to existing surface levels, both cut and fill, to achieve the necessary embankment heights and floor depths / grades within the basins;
- Development areas along Black Creek and other watercourses may require filling to ensure building areas are located above the expected 100 yr ARI flood level;
- The removal of dams from within the site will require appropriate earthworks, however this will serve to return these areas to the natural or proposed topography;
- Any proposed re-alignments of ephemeral watercourses will require the filling of existing gullies and creation of new watercourses by cut and fill to achieve the desired cross sectional shape. Wherever possible, natural stream forms will be adopted, including the provision of pool and riffles, a meandering low flow channel, natural erosion protection (e.g. rock rip rap), the introduction of rock bars at regular intervals to act as bed control structures and dense “three storey” indigenous riparian vegetation planting along the core riparian zones;
- Some filling of development lot areas may occur to smooth out any localised surface high or low points which might affect the development lot. This would assist with ensuring that surface runoff occurs in a sheet flow manner rather than concentrating into small gullies which may produce erosion problems and drainage issues for newly constructed buildings; and
- Landscaping of open spaces may involve some shaping and regrading of the natural surface, however it would be expected that this would be minor and not impact on existing vegetation.

### 2.2.2 Earthworks and Spoil Management

All earthworks required as part of the Stage 1 project application would be detailed on the construction plans and go through the appropriate approvals process, including any necessary controlled activity permits for works within defined watercourses.

Management of the earthworks operations would be based on protocols which will respect the relevant authority consent conditions and the approved Construction Management Plan (CMP) which will detail erosion and sediment control requirements, waste management minimisation measures and general requirements for earthworks management.

In relation to specific earthworks and spoil management, the following outlines the minimum expected protocols that would be included in the CMP:

- Only undertake earthworks operations in the areas as defined on the approved plans, i.e. no works to be within designated no-go areas;
- Ensure erosion and sediment controls are in place prior to commencing clearing operations;
- Initial tree / vegetation clearing to be undertaken in accordance with the environmental requirements of the CMP;



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- Re-use of cleared trees and vegetation for protection of disturbed areas or other landscaping purposes (mulching);
- Classify and separate spoil into various groups such as VENM, ASS soils, topsoil and other various waste classifications as may be appropriate including stockpiling as appropriate. Particularly noting the specific handling of potentially saline soils in accordance with the recommendations of the Stormwater Management and Flooding Report (WorleyParsons December 2010);
- Maximize the reuse of suitable materials on site in preference to importing fill or disposal to landfill;
- Attempt where possible to maximize the reuse of fill materials unsuitable for engineering purposes for alternative non-structural uses such as landscaping;
- Stockpiles of spoil material awaiting reuse on site or off site disposal should be located and managed in line with the following;
  - Locate stockpiles within proposed road reserves or areas of future development. These should be identified and approved prior to the commencement of construction and be shown on the sediment and erosion control plans;
  - Locate away from native vegetation and not within the drip line of any trees proposed to be retained;
  - Locate on areas of shallow grade and away from areas of concentrated water flow;
  - Locate away from sensitive areas such as creeks and existing residences;
  - The stockpile should be accessible for the purpose of dust suppression;
  - Provide sediment fences down-slope and earth bank up-slope to divert water from impacting on the stockpile; and
  - Long term stockpiles should be protected from wind and rain erosion by covering with geo-textile or stabilised with hydro-seeding or similar.
- Dispose of materials off site in accordance with the approved waste management plan; and
- Revegetation and restoration of areas as soon as works are completed in accordance with the approved sediment and erosion control plan.



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## 3 ROAD NETWORK

### 3.1 Existing Road Network

Wine Country Drive (MR220) is the only existing road which provides direct access to the Huntlee site. This road provides a link between the New England Highway and the proposed F3 Freeway extension, providing access to the Hunters Wineries and also serving as a route for interstate trunk movements.

The road is typically a two way, two lane road of approximately 7.5m, with only local widening at intersections along the road.

This road is intended to remain as an important backbone for the proposed Huntlee site, however is expected to require upgrade from the current rural road (one lane each way) in order to accommodate the proposed additional traffic volumes.

### 3.2 Proposed Interfaces with Existing Road Network

The key existing road network interfaces for the development will comprise Wine Country Drive and the New England Highway and ultimately the Hunter Expressway (under construction).

The traffic report prepared by Hyder Consulting addresses all of the traffic issues including site access and upgrades to existing roads. It is noted that the traffic report includes an interim intersection on Wine Country Drive which can accommodate the first 500 residential lots, prior to requiring the full upgrade of Wine Country Drive. This is illustrated on the Interim Infrastructure Plan included in **Appendix 1**.

### 3.3 Proposed Road Characteristics

The roads within Stage 1 of the Huntlee development have been designed in accordance with best practices for traffic management, pedestrian/cyclist safety and amenity as well as the urban design philosophies of the overall development.

Carriageways have been kept narrow to reduce the perceived speed environment and avoid where possible the need for unsightly retro-fit of physical traffic management structures such as speed humps or chicanes.

Roads have been classified into several types to highlight differences in their vehicle or pedestrian usage, adjacent land uses and general urban design treatment. A summary of the main road classifications is provided below:

- Main Street, 21 - 22.4m road reserve with 11.2 - 13.8m pavement for two way traffic and parking;



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- Town Centre Streets, 19.2 - 21.2m road reserve with 11.2m pavement for two way traffic and parking;
- Collector Streets, 20.7m road reserve with 11.2m pavement for two way traffic and parking;
- Avenue Streets, 30m road reserve with 10.2m pavement. Large central median divides traffic lanes;
- Village 1 Entry Road, 15.6m road reserve with 9.1m pavement for two way traffic and parking on one side;
- Local Streets, 15.2 to 16.2m road reserve with 7.2m pavement for two way traffic.

Typical road cross-sections for part of the Stage 1 residential area and the Town Centre are shown in **Appendix 1** and provide an overview of the road treatment within Stage 1.

Preliminary long sections have been prepared for a selection of roads to show the general design intent within the Stage 1 of the development; these are also contained in **Appendix 1**.

## 3.4 Engineering Requirements

### 3.4.1 Design Requirements

The detailed design for new roads within Stage 1 of the Huntlee Development would be carried out based on Cessnock City Council's (CCC) "Engineering Requirements for Development" and would require CCC approval. The design of upgrades to Wine Country Drive would need to be undertaken in accordance with the NSW Roads and Traffic Authority (RTA) design guide and approved by the RTA.

The CCC engineering requirements for roads refers to both the RTA Road design manual and AUSTROADs "Guide to Traffic Engineering Practice" for detailed design of intersections and roundabouts, as well as general horizontal and vertical road design.

The documents referred to above will set out the following road design requirements;

- Road crossfalls and superelevation;
- Minimum carriageway widths;
- Maximum and minimum longitudinal grades;
- Design speeds;
- Horizontal & vertical curve details;
- Intersection/roundabout geometry and setout;
- Traffic control devices;
- Footpaths and cycleways; and



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- Signposting / linemarking

### **3.4.2 Materials and Technical Specifications**

Technical specifications for roads and infrastructure will be based on CCC's "Engineering Requirements for Development" and also specifications based on AUS-SPEC or a purpose built document prepared by the infrastructure design consultant.

Upgrade works to Wine Country Drive may be handled separately and require the use of the RTA's standard construction specifications.

### **3.4.3 Pavement Design**

Pavement design will be based on the requirements of CCC's "Engineering Requirements for Development" for all internal development roads except Wine Country Drive. This design will be undertaken by geotechnical engineers as part of the detailed infrastructure design following site investigation and laboratory testing. Again for Wine Country Drive, RTA pavement specifications will be utilised by the geotechnical engineer to design pavements.

### **3.4.4 Service Vehicle Access**

The road design and layout in general, particularly junctions and any turning heads will need to ensure access for service vehicles is possible, i.e. garbage trucks and emergency vehicles such as fire trucks.

Additionally, due to the size of the development, bus services will be expected within the development, whilst bus routes have not yet been confirmed, an initial strategy as outlined in the traffic impact assessment discusses a bus route within Stage 1 on the ring road and connecting back to Wine Country Drive. Accommodation for wider traffic lanes will be made along proposed bus routes.



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## **4 STORMWATER MANAGEMENT AND FLOODING**

WorleyParsons have produced a report titled “Stormwater Management and Flooding Assessment” (November 2012), this report identifies flood extents within watercourses and documents the detention storage and water quality treatment requirements of the development to ensure no increase in downstream flood levels.

The report concludes that with the proposed detention structures within the development, no increase to downstream flood levels within Anvil Creek will occur. Additionally, no upgrade to the existing railway culverts is required to eliminate upstream backwater impacts on the proposed Huntlee development.

In addition, the report also includes an investigation of the potential development impacts on receiving water quality and also consideration of the impacts to existing riparian corridors within the site.

The report recommends the strategy for mitigating the water quality impacts through the inclusion within the development of bio-retention rain gardens, swales and basins and a permanent water quality control pond adjacent to the proposed town centre which will also serve as a recreational focal point for the development.

In the majority of cases, key existing riparian corridors within the development have been maintained and will be enhanced, however in some locations, removal or minor realignments have been required. Certain areas of the site and watercourses are degraded due to previous land uses, and this has been taken into account in retention or realignment decisions.

The overall strategy however is to maintain important areas of riparian vegetation and when none exists, landscaping using local indigenous natural species is proposed to improve on the current condition.

The report concludes that the proposed management measures will ensure that riparian corridors through the site are either maintained or improved, and that proposed water quality control devices will mitigate the impacts of development on the receiving waterways downstream.



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## **5 ESSENTIAL INFRASTRUCTURE**

### **5.1 Potable Water**

The water supply authority responsible for the proposed development area is Hunter Water Corporation (*HWC*).

Extensive engagement with Hunter Water has been undertaken to date with regard to provision of water services to the Huntlee Development. A developer-funded servicing strategy has been approved by Hunter Water (27 July 2009). This strategy was prepared for Stage 1 (~2,400 Equivalent Tenements), with a high-level approach taken for the remaining stages.

Given the time which has elapsed since the approval of the strategy, Huntlee Holdings has been liaising with Hunter Water to ensure that advice is still current, and that sufficient capacity will be available for Huntlee as the development is constructed. Hunter Water have indicated that trunk water capacity for the development can be made available via a combination of developer-funded and Hunter Water-funded works. Hunter Water's most recent correspondence regarding trunk servicing for the site is included as Appendix 5.

#### **5.1.1 Regional Infrastructure**

The proposed Huntlee site is located at the extremity of the existing Maitland North Rothbury water supply system. Water is supplied to the existing township of Branxton via trunk water mains along the New England Highway from Harpers Hill Reservoir. North Rothbury is serviced from the North Rothbury Reservoir, with a small portion of the town serviced off the North Rothbury Water Pumping Station (WPS).

The demands identified for the Huntlee development exceed any existing infrastructure capabilities in the vicinity of the site.

Hunter Water have completed forward infrastructure planning for the Maitland North Rothbury water network with a planning horizon of 20 years, Huntlee is included in this planning.

Ultimately, Hunter Water has a capital works program to cater for growth in the Maitland to Branxton area upgrading existing water pipes and water pump stations in six stages. This upgrade will be progressively undertaken to release capacity to the area, ultimately providing for an additional 6,000 ET at Branxton.

It is pertinent to note that current Hunter Water Corporation water infrastructure planning for Branxton only extends to approximately 6,000 ET connected to the proposed upgraded New England Highway water supply trunk system. However, the current Huntlee concept plan will see an ultimate water demand for Huntlee of 9,100 ET.



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It is understood that Hunter Water is considering establishing a strategic link between the Maitland North Rothbury water supply system and the Cessnock water supply system. This will provide a greater flexibility and a higher level of security of supply within the area in the long term. Therefore, the potential connection point for the final stage of the proposed development may be in the Cessnock system via Pokolbin. As such, boundary conditions beyond 6,000 ET (Stage 6 of upgrade works) have not yet been provided by Hunter Water, as they will change if this connection proceeds. Hunter Water have indicated that they will work with the developer to provide adequate trunk capacity to supply potable water to Huntlee as the development is constructed, via a combination of developer-funded and Hunter Water-funded works.

#### 5.1.2 Internal Infrastructure

Due to the difference in elevation across the site, two pressure zones will be required to meet Hunter Water requirements. A reservoir is proposed to service the high-level zone, and will be sited on the ridge line adjacent to the proposed Persoonia Park. The lower zone will be directly fed from the New England Highway connection. For Stage 1, there will be a single connection to the New England Highway and emergency storage will be supplied by the proposed Huntlee reservoir. In later stages, additional connection points will be brought across from the New England Highway, providing security of supply to the low-level zone. Security of supply for the high level zone will still be provided from the reservoir. Additionally, a small high-level tank is required for the Old North Road rural residential lots (approximately 80 lots), as they are too high to be serviced by the proposed Huntlee reservoir.

The proposed works recommended by the study are outlined on Figure 3.

#### 5.2 Wastewater

The wastewater supply authority responsible for the proposed development area is Hunter Water Corporation (*HWC*).

Extensive engagement with Hunter Water has been undertaken to date with regard to provision of wastewater services to the Huntlee Development. A developer-funded servicing strategy has been approved by Hunter Water (21 May 2009). This strategy was prepared for Stage 1 (~2,400 ET), with a high-level approach taken for the remaining stages.

Given the time which has elapsed since the approval of the strategy, Huntlee Holdings has been liaising with Hunter Water to ensure that advice is still current, and that sufficient capacity will be available for Huntlee as the development is constructed. Hunter Water has indicated that trunk wastewater capacity for the development can be made available via a combination of developer-funded and Hunter Water-funded works. Hunter Water's most recent correspondence regarding trunk servicing for the site is included as Appendix 5.





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### 5.2.1 Regional Infrastructure

The nearest reticulated wastewater system to the Huntlee Development Area is located at Branxton. There is no reticulated wastewater infrastructure south of the Main Northern Railway, with the township of North Rothbury and Hanwood currently not sewered. It is understood that there are no plans in place to sewer these areas in the short term. Hunter Water have nominated Branxton Wastewater Treatment Works as the wastewater connection point for the Huntlee development.

At the time of strategy preparation, there were approximately 1,800 equivalent tenements (ETs) currently connected to the Branxton sewerage transportation system. The existing township is serviced mainly by gravity, with 3 pump stations (Branxton 1, Branxton 2 and Branxton 3) delivering wastewater to Branxton Wastewater Treatment Works. Huntlee would include a Wastewater Pumping Station (WWPS) that would pump flows directly to the Branxton WWTW.

Stage 3 of the Branxton WWTW upgrade works has been completed by Hunter Water and increases plant capacity to 13,000 Equivalent Persons (EP). Further upgrades beyond 13,000 EP will be required to meet the ultimate projected development within the WWTW catchment. The staging and timing of these upgrades will be determined based on the observed rate of development within the catchment. Hunter Water have indicated that this provides sufficient lead time to ensure that wastewater treatment capacity is not a constraint to development at Huntlee.

### 5.2.2 Internal Infrastructure

The internal sewer system is proposed to be developed on a sub-catchment basis, with each sub-catchment draining to a wastewater pumping station (WWPS). At this stage, 11 WWPS sites have been identified, each located at the low point of the particular catchment.

Investigation was undertaken into the use of low pressure sewer in the southern large lot areas. It was found economically preferable to service the majority of the lots with conventional gravity sewerage, with pump stations and rising mains. A small portion of land at the very southern extent, which grades away from the remainder of the Huntlee site will need low pressure sewer, as the number of lots are too small for a conventional wastewater pump station.

The proposed works recommended by the study are outlined on Figure 4.

## 5.3 Recycled Water

Huntlee is investigating the use of recycled water at the Huntlee site and is progressing discussions with Hunter Water. Generally the use of dual reticulated recycled water is technically feasible and has the potential to become a viable water-saving measure for this development, thereby reducing overall potable water demands.

If recycled water is supplied to the site, the source of recycled water will be from the Branxton WWTW. An upgrade of this WWTW was undertaken by Hunter Water, and included a membrane bioreactor (MBR) which allows the treatment of wastewater effluent for distribution to The Vintage



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Golf Club at Rothbury. Supply to The Vintage will be via a dedicated pumping station and trunk main. Currently, effluent discharging to Branxton WWTW will be fully utilised by The Vintage and other existing customers. Additional WWTW upgrades would be required to supply recycled water for dual reticulation.

Huntlee is progressing discussions regarding the provision of recycled water with Hunter Water.

## **5.4 Electricity**

The energy supply authority responsible for network supply to the proposed development area is Energy Australia (EA).

Energy Australia has carried out preliminary studies to determine a concept plan to supply electricity to the development. The required electricity supply upgrade works would be constructed in stages as needed to service the staged development of the Huntlee site.

The existing feeder from the North Rothbury Zone Substation can supply around 400 lots in its present configuration. With a conductor upgrade, this feeder could supply up to 1200 lots. Beyond this, a new Zone Substation would need to be constructed in the Huntlee development.

The Huntlee substation would require approximately 200x200m of land. The 132kV overhead feeders would be constructed as overhead lines following easement routes, normally 30m wide. Around ten 11kV underground feeders may be needed from the new substation to service the final development. Design and construction of a zone substation is anticipated to take approximately 5 years.

EA have indicated that the large-lot residential areas can be serviced from the existing North Rothbury Substation.

The internal electrical reticulation within the development will be designed by the developer and typically handed over to Energy Australia to maintain and operate as the network authority.

Full details of the negotiations with Energy Australia are contained within **Appendix 4**.

## **5.5 Telecommunications**

With the government announcement of the National Broadband Network (NBN), changes have also been made to the way the telecommunications infrastructure will be provided in greenfield developments. Telstra will no longer be deploying copper infrastructure as standard practice. All new greenfield developments will require fibre-to-the-premises (FTTP) infrastructure to be installed.

NBN Co will act as wholesale provider of last resort in new developments constructed within, or adjacent to, NBN Co's long term fibre footprint. Developers will be required to cover the costs of trenching and ducting. NBN Co will cover the other costs of installing fibre infrastructure in the development, including backhaul (*the mid-to-long-distance transport of data from a series of disparate locations back to a more centralised location*).



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These arrangements will not prevent developers from using other companies to roll-out fibre networks in new developments if they wish, but such networks will need to comply with the technical specifications of the NBN and be operated on an open access basis, and just like the NBN wholesale services would be offered on an equivalent basis.

As part of the detailed design phase, Huntlee will negotiate with relevant authorities to determine detailed infrastructure requirements for the development.

Full details of the negotiations with Telstra are contained within **Appendix 5**.

## **5.6 Natural Gas**

AGL Energy Limited currently provide reticulated gas to the townships of Branxton and Rothbury. It is proposed that natural gas will be provided throughout Huntlee to facilitate efficient and sustainable energy usage. Natural gas will be designed, constructed and funded by AGL as part of the normal land development process. Further consultation with AGL regarding takeoff locations, sizing and programming will be undertaken during the detailed design and assessment phase.



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## 6 CONSTRUCTION MANAGEMENT PLAN FRAMEWORK

The following framework is intended to guide the future preparation of detailed Construction Management Plans (CMP's) prepared by the construction contractors. The framework identifies key environmental issues to be considered, potential impacts due to construction activities and suggests management measures which should be included in the CMP's prepared by contractors.

This framework has been prepared to specifically cover the subdivision and infrastructure construction aspects of the development, and not built form on individual allotments.

### 6.1 Roles and Responsibilities

A key component for the successful implementation in any CMP is ensuring that the project personnel are aware of their roles and responsibilities. All project personnel have a role to play in ensuring the construction site is a safety workplace and that the key environmental objectives are also met.

These roles and responsibilities have been outlined below.

#### 6.1.1 Developer

The developer would normally have an in-house project manager as well as an external contract manager during the construction stage. The contract manager would be expected to check on the status of the site CMP's and undertake checks or formal audits, which may be carried out by the developers own environmental or QA team. The developer and contract manager would also be involved in liaison with government authorities and in providing specific advice or directions in regards to specific environmental requirements for the site.

#### 6.1.2 Government Authorities

Several government agencies will have a role to play during the construction process to cover various aspects of the development. Agencies that may be involved are Cessnock City Council, DECCW (comprising various sub-agencies such as national parks, NSW Office of Water, EPA etc) and potentially NSW Workcover.

#### 6.1.3 Subdivision Infrastructure Contractor

The subdivision contractor will have several representatives who will be involved in the preparation, implementation and ongoing responsibilities for the construction management plan.

- Construction / Project Manager: would have overall responsibility for the site management plans and ensuring that these are implemented and communicated to all site personnel and sub-contractors. The site manager reporting to the construction manager will undertake most of these tasks on a day to day basis.



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- Environmental representative: The contractor may have a specialist environmental representative involved on the project depending on the nature and complexity of the environmental issues to be managed during the construction process.
- Site Manager: The site manager will be responsible for ensuring that the requirements of the CMP are being undertaken on site on a day to day basis; including ensuring inductions are undertaken and running weekly site toolkit meetings as required.
- Sub-contractors: All sub-contractors would be expected to go through a site specific induction or if responsible for a significant subcontract, may also have their own construction management plan which would be expected to include those key requirements of the overall site CMP.
- Site personnel: All site personnel would be expected to go through a site specific induction process which would train them in the relevant site specific OH&S and environmental issues.

## 6.2 Key CMP Considerations

### 6.2.1 Air Quality

The construction of the subdivision infrastructure has the potential to impact on the air quality in the local area due to construction activities such as:

- Soil disturbance due to movement of vehicles / machinery.
- Vehicle / machinery exhaust emissions.
- Wind disturbance of material stockpiles or areas of exposed ground.
- Uncovered material loads being delivered to site.

Statutory requirements for air quality would fall under the Protection of the Environment Operations Act 1997 and it would also be expected that conditions on air quality during construction would be included in the development consent and / or the construction certificate.

Strategies to limit the impacts on air quality during construction which should be included in the contractor's CMP are outlined below:

- Limiting areas of the site available to the movement of machinery (i.e. designated no-go areas).
- Limiting of the actual area of exposed soil on the site at any one time, ensure disturbed areas are treated as quickly as possible prior to moving on to the next area (i.e. staging of works, re-vegetation / mulching etc).



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- Areas designated for vehicle movement or disturbance (i.e. earthworks areas) should be regularly watered by tanker. Stockpiles which are not covered should also be wet down regularly to prevent dust movement.
- Areas adjacent or near to existing residences or workplaces should be dealt with more stringently during periods of high wind, i.e. minimising work in sensitive areas for short times or applying more dust suppression measures.
- All trucks to / from the site should be covered.
- Long term stockpiles should be covered or vegetated.
- Wash bays or shakedown facilities should be provided at all entry and egress points to ensure vehicles do not track material onto public roads.
- Regular street cleaning should be undertaken to remove any material tracked or blown onto nearby public roads.
- Undertake regular visual monitoring on site and ensure communication with sensitive receptors so that problems are identified and resolved quickly.

#### 6.2.2 Sediment and Erosion Control

Water quality and soil erosion control would be a primary consideration during construction and one which would be high on the agenda of DECCW and local Council's.

The site contains two tributaries of Anvil Creek and therefore prevention of large amounts of sediment and other pollutants into this system is an important consideration during construction. Sediment runoff is considered a significant contributor to high nutrient levels in wet weather conditions, these elevated nutrient levels often promote excessive growth of algae which can release toxic compounds into the water killing aquatic organisms as well as restricting fish migration, fishing and recreational activities. The direct build-up of sediment in creeks also has several negative impacts on aquatic plant and fish life, as well as reducing the storage and conveyance properties of the watercourse.

The tributaries of Anvil Creek are also classified under the Rivers and Foreshores Improvement Act 1948, and therefore any proposed works within the protected zones of these watercourses would be undertaken in accordance with the conditions of a 3A Permit issued by DECCW.

Various best practice guidelines exist to assist in preparing management plans for water quality and erosion control, such as Managing Urban Stormwater: Soils and Construction, Volume 1 (Landcom 4<sup>th</sup> Edition, reprinted 2006) and Volume 2 (DECCW 2008).

There are also several pieces of legislation which may need to be considered in the preparation and implementation of appropriate construction water quality and erosion control measures, such as;

- Protection of the Environment Operations Act 1997;
- Fisheries Management Act 1984;



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- Soil Conservation Act 1938; and
- Water Management Act 2000.

The above referenced documents would be expected to form the basis for the preparation of the relevant sections of the CMP by the contractor, however, the key measures to be included are outlined below;

- A soil and water management plan shall be prepared for the subdivision construction works (as part of the CMP) and submitted to the relevant authorities for approval. This would be submitted at the Construction Certificate application. All construction activities are to be undertaken in accordance with the approval soil and water management plan.
- Implementation of erosion and sediment controls prior to significant construction or site disturbance commencing.
- Regular inspections and maintenance of erosion and sediment controls
- Maximize the retention of riparian and mature native or threatened vegetation.
- Frequent monitoring of turbidity downstream of the construction works.
- Creation of designated no-go areas to minimise site disturbance
- Minimise areas of earthworks or trenches open at any one time.
- Progressive revegetation of disturbed areas
- Regular cleaning of public roads which are used by construction traffic.
- Construction of temporary surface drains to minimise the flow of clean runoff into the construction site. Where possible, surface flows should also be directed away from material stockpiles and open trenches.

### **6.2.3 Ecological**

The CMP shall include various protocols and management measures to protect existing flora and fauna on the site during the construction phase.

The general strategies to be included in the CMP prepared by the contractor should include the following along with any additional specific requirements of the construction consent conditions or ecological consultants;

- Areas of ecological (e.g. areas of trees or individual trees) or heritage significance shall be clearly fenced to prevent unauthorized disturbance by construction works and vehicles.
- Construction areas adjacent to any proposed conservation areas shall be given special consideration, including the potential provision of buffer zones between the conservation area and any construction works. Special attention shall also be given to ensure no contaminated /



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sediment laden runoff is able to enter conservation areas from adjacent construction areas through provision of erosion and sediment control structures, bunding/diversion channels or restriction of construction vehicle access.

- Works adjacent to or within watercourses will need to be undertaken in accordance with consent conditions imposed by DECCW (NOW). Typically, all possible measures shall be undertaken to prevent erosion or contamination/sedimentation of watercourses or unnecessary destruction of aquatic flora or fauna. All watercourses shall be fenced off to prevent access with appropriate vegetated buffer zones also in place. Construction zones upstream of watercourses shall have appropriate sediment and erosion control measures in place, offline of the watercourse, to prevent sedimentation occurring.
- Where possible, any required works within watercourses shall not be undertaken when rain is forecast to occur.
- Monitoring of the effectiveness of management measures in relation to watercourses and conservation areas shall be regularly undertaken by the contractor, with written records of inspections kept on site, detailing any failures of the management measures and actions taken to remedy the situation. Watercourses should be checked after each rainfall event to check for sedimentation or erosion, and where found, corrective action and repairs undertaken immediately.
- A protocol for dealing with injured animals found on site shall be included in the CMP, i.e. contact numbers for local WIRES representative.
- A procedure for tree removal in approved construction areas shall be prepared by an appropriately qualified ecologist and included in the CMP. This procedure should consist of the following as a minimum;
  - A pre clearing survey shall be undertaken by appropriate ecological consultant to determine potential habitat trees. These trees should be examined for the presence of fauna.
  - Where detected, animals should be given time to leave or removed by the ecologist.
  - Following clearing activities, the area should be examined for injured animals. Should any injured animals be discovered, the local WIRES representative should be called.
  - The loss of tree hollows should be offset by the placement of nest boxes, the number and location to be advised by the ecologist.





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## **6.2.4 Heritage**

The CMP should include the consideration of Aboriginal or European heritage considerations. At this stage, there are no known artefacts or areas of importance within the Stage 1 project area. The general strategies to be included in the CMP prepared by the contractor should include the following along with any additional specific requirements of the construction consent or ecological / heritage consultants;

- Areas of heritage significance shall be clearly fenced to prevent unauthorized disturbance by construction works and vehicles.
- In areas where known artefacts are likely to be impacted by construction works (none presently identified for Stage 1), it would be expected that the heritage consultant would manage the appropriate consents / permits and remove any artefacts. The Contractor shall not remove any artefacts and shall provide appropriate safe site access to allow artefact removal, no construction works shall commence in the area of the artefact removal until written confirmation has been provided by the Contract Manager or developer.
- A protocol shall be included in the CMP and communicated to all site personnel to be followed should previously unidentified heritage artefacts be encountered during construction. This protocol would need to be agreed with National Parks, the heritage consultant and the developer.

## **6.2.5 Site Safety & Emergency Response Plan**

Various statutory requirements would normally be incorporated into the CMP by the contractor, including the following:

- Occupational Health and Safety Act 2000;
- Occupational Health and Safety Regulation 2001;
- Protection of the Environment Operations Act 1997.

All construction personnel would need to have completed the General Construction Industry Health and Safety Induction training, but would also be required to undergo the site specific induction for the site which would be the responsibility of the principal contractor. The site induction would include all relevant safety issues as well as any site specific environmental requirements of the site, such as the protection of specific flora or fauna and their habitat.

The site OH&S and emergency response plan would form part of the overall CMP and would be included in the induction undertaken by all construction personnel; this would be expected to include the following as a minimum;

- Roles and responsibilities;
- Emergency contact phone numbers including prioritized list of contact names;



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- Procedures for incident reporting and investigation;
- Emergency evacuation points;
- Identification of site specific risks;
- Identification of site specific environmental requirements;
- Work method statements;
- Safe operation of equipment and maintenance procedures;
- Storage and handling of hazardous materials and material safety data sheets; and
- Standard forms for reporting and recording various site activities.

## **6.2.6 Waste**

The construction of the subdivision infrastructure would be expected to generate waste materials such as concrete, cleared vegetation, demolition material, sanitary/domestic wastes, packaging, oils and greases, timber and plastics.

The waste hierarchy established under the [Waste Avoidance and Resource Recovery Act 2001](#), is one that ensures that resource management options are considered against the following priorities:

1. Avoidance, including action to reduce the amount of waste generated by households, industry and all levels of government.
2. Resource Recovery, including reuse, recycling, reprocessing and energy recovery, consistent with the most efficient use of the recovered resources.
3. Disposal, including management of all disposal options in the most environmentally responsible manner.

The following strategy outlines the approach for waste management for the construction of Stage 1;

- A waste management plan shall be prepared by the contractor prior to construction and submitted for approval by the developer and council.
- Details of waste material types, quantities, destination details and date of removal off site should be recorded by the contractor and provided to the developer as part of weekly or monthly reports.
- The approved waste management plan is to be adhered to by all sub-contractors of the principal contractor for the duration of the works, with the relevant certificates and records provided to the developer.
- The storage, transportation, recycling, reuse and disposal of wastes shall be in accordance with statutory requirements and shall be undertaken by appropriately licensed contractors.



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- Hazardous and industrial wastes shall be stored and disposed of in accordance with EPA guidelines.
- No waste shall be disposed of on site or burnt.
- Vegetation which has been cleared should be mulched on site and used for landscaping and for stabilising disturbed areas.

Following the completion of construction the waste records maintained by the contractor would be examined to assess areas of potential future improvement on later project stages.

#### 6.2.7 Construction Noise

For the purposes of this Stage 1 project application, reference is made to the document “Construction Noise Guideline” (DECCW, 2009), which has been prepared by DECCW in consultation with the NSW Department of Planning, RTA, WorkCover, NSW Health and various local councils.

The guideline is specifically aimed at managing noise on construction sites regulated by DECCW; however it is expected that even where local councils are responsible for managing noise from a particular construction activity, the local council may seek guidance from DECCW. The “Construction Noise Guideline” is therefore also expected to be used as a point of reference for council.

The general steps for managing noise impacts from construction are;

1. Identify sensitive land uses;
2. Identify construction hours;
3. Identify noise impacts; and
4. Select and apply the best work practices.

The above steps are briefly discussed below in order to provide an overall direction for noise management for the construction of Stage 1, however the contractor as part of the CMP will finalise the management measures for noise during construction and undertake any monitoring or further investigations required.

##### 6.2.7.1 SENSITIVE LAND USES

There are two sensitive areas in proximity to the Stage 1 project area, these being the North Rothbury and Hanwood residential areas. The North Rothbury township is located approximately 150m away from the Stage 1 project area at its closest point, whilst part of the Hanwood area is immediately adjacent to the proposed rural residential area 1 which forms part of the Stage 1 project application.

Both residential areas are also immediately adjacent to Wine Country Drive, an existing road which will provide access for construction vehicles.



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The residential areas of Branxton are more than 350m away from the boundary of the Stage 1 project application area.

### 6.2.7.2 CONSTRUCTION HOURS

The recommended standards hours for construction work are shown below. There are some situations where construction work may need to be undertaken outside of these hours, and this may be acceptable however required prior approval by the relevant authority, Cessnock City Council for this project.

| Work Type           | Recommended standard hours of work <sup>(1)</sup>                                               |
|---------------------|-------------------------------------------------------------------------------------------------|
| Normal Construction | Monday to Friday 7am to 6pm<br>Saturday 8am to 1pm<br>No work on Sundays or Public Holidays     |
| Blasting            | Monday to Friday 9am to 5pm<br>Saturday 9am to 1pm<br>No blasting on Sundays or public holidays |

Note: (1) Subject to relevant authority conditions of consent.

### 6.2.7.3 NOISE IMPACTS

In order to determine the impacts of construction noise for the development, it is required to select an assessment method (quantitative or qualitative) appropriate for the construction works.

The quantitative assessment method involves predicting noise levels and comparing them with the levels in the DECCW guidelines. Guidance levels are given for airborne noise at sensitive land uses, ground-borne noise and sleep disturbance. The qualitative method for assessing noise is a simplified way to identify the cause of potential noise impacts and avoids the need to perform complex predictions by using a checklist approach to assessing and managing noise.

At this stage it has been assumed that a qualitative approach is satisfactory, the work areas in close proximity to existing residential development would not be long term construction areas, i.e. works in those areas will occur intermittently and for relatively short periods at any one time. All significant construction works would also be expected to occur during normal construction hours as outlined above and would not be expected to require high noise generating equipment such as rock drilling, jack hammering, rock breaking or impact piling.



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Based on a qualitative assessment approach, the work practices outlined in the following section should be part of the contractors overall CMP for noise management as a minimum. Additional detailed assessment may be required as a result of consent conditions by the relevant authority or due to specialist construction activities being identified as required in close proximity to the existing residential developments.

#### **6.2.7.4 WORK PRACTICES**

In order to reduce the potential impacts of construction noise at the site, the following work practices would be expected to be employed by the contractor;

1. Universal Work Practices
  - Regularly train workers and contractors to use equipment in ways to minimise noise;
  - Ensure site managers periodically check the site and nearby residences for noise problems so that solutions can be quickly applied;
  - Keep vehicle operators informed of designated vehicle routes, parking locations, acceptable delivery hours or other relevant practices;
  - Avoid mobile plant clustering near residences and other sensitive land uses.
2. Consultation and Notification
  - Provide information to neighbours before and during construction through media such as letterbox drops, meetings or individual contact;
  - Maintain good communication between the community and project staff;
  - Provide a toll free contact phone number for enquiries during works;
  - Have a documented complaints process, including an escalation procedure so that if a complaint is not satisfied there is a clear path to follow;
  - Implement all feasible and reasonable measures to address the source of the complaint;
  - Keep a register of any complaints, including details of the complaint such as date, time, person receiving complaint, complainants contact number and name, description of the complaint, time of verbal response and timeframe for written response.
3. Plant and Equipment
  - Regularly inspect and maintain equipment to ensure it is in good working order;
  - Where possible and feasible, select plant for particular work based on lowest noise rating;
  - Operate in a quiet and efficient manner.
4. Site Planning



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- Restrict areas in which mobile plant can operate so that it is away from residences and other sensitive land uses at particular times;
- Locate site vehicle entrances away from residences and other sensitive land uses;
- Use natural landform as a noise barrier – place fixed equipment in site low points or behind earth berms;
- Note the presence of any large reflecting surfaces on and off site that might increase noise levels, and avoid placing noise producing equipment in locations where reflected noise will increase noise exposure.

#### 5. Work Scheduling

- Where possible, provide respite periods for particularly noisy construction operations;
- Schedule activities to minimise noise impacts; and
- Organise deliveries and access to less sensitive times of the day.

### 6.2.8 Construction Vibration

Vibration can occur as a result of construction activities, particularly compaction of roads or earthworks areas. If vibration is excessive and sensitive buildings are located close to the source of vibration, damage to buildings can occur.

Vibration and its associated effects are normally classified as continuous, impulsive or intermittent as defined below;

- *Continuous* – vibration continues uninterrupted for a defined period
- *Impulsive* – vibration is a rapid build up to a peak followed a damped decay
- *Intermittent* – this vibration can be defined as interrupted periods of continuous or repeated periods of impulsive vibration.

Vibration is not expected to be a significant issue, however the CMP will contain management and complaint handling procedures to ensure that any issues with vibration are identified quickly and remedial actions taken before damage occurs.

The following management measures are to be included in the CMP, with reference made to the DECCW document titled “*Assessing Vibration: A technical Guideline*”;

- Prior warnings are to be provided to potentially effected premises where vibration levels are expected to be in excess of the nominated levels, including how long the activity is expected to occur;
- If vibration complaints are received, the following control measures may need to be implemented;



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- Choose alternative lower-impact equipment or methods wherever possible;
- Scheduling the use of vibration causing equipment at the least sensitive time of the day;
- Routing, operating or locating high vibration sources far away from sensitive receptors;
- Sequencing operations so that vibration causing activities do not occur simultaneously; and
- Restricting the use of roads near sensitive areas for construction traffic, alternatively limit vehicle speeds or ensure road surface is maintained and kept smooth.

Vibration monitoring is not expected to be required during construction, however should complaints be received or the contractor unsure in regards to the impacts of a particular construction activity, independent monitoring should be undertaken.

Monitoring would be undertaken in accordance with DECCW requirements and a report completed including the following information as a minimum;

- Relevant guideline or policy that has been applied;
- Details of any background measurements that have been undertaken;
- Details of instruments and methodology used for measurements (including calibration details);
- Site map showing location of vibration sources, measurement locations and receivers;
- Vibration criteria;
- Vibration predictions for the proposed activity;
- A discussion of the proposed mitigation measures, the vibration reduction likely and the feasibility of these measures; and
- Compliance measurement.

#### 6.2.9 Hazardous Materials

The following strategies should be incorporated into the CMP to ensure that no hazardous materials cause soil contamination or adversely impact on human health or the local environment in any other way;

- Emergency procedures should be well defined to cater for hazardous material spills, spill kits should be kept on site and all spills should be cleaned up immediately.



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- Chemicals should be stored in appropriately labelled containers in designated areas away from sensitive areas. Storage and refuelling areas should be bunded to prevent migration of any spills that may occur.
- The storage of hazardous materials on site should be minimised where possible. Records should be kept on site of all hazardous material types, including material safety data sheets and quantities.

#### 6.2.10 Traffic Management

It is recognised that an increase in heavy vehicles in the area due to the construction of the subdivision may have impacts on the existing road network. These potential impacts include;

- Increased traffic noise;
- Damage to the existing road pavements if not designed for heavy vehicles;
- Additional traffic delays at intersections or generally on the roads due to slow vehicles;
- Tracking of construction materials and soil on the existing road network.

It is envisaged that the primary construction access to the site will be off Wine Country Drive as this provides the main point of access for the Huntlee site.

The CMP prepared by the contractor for the construction works would be required to include a construction traffic management plan covering the following issues;

- Authority requirements and consents/licenses;
- Consideration of risks and incident management;
- Identify main site access points;
- Consideration of vehicle access routes for workers/visitors to site offices and trucks to material / machinery delivery areas. Include consideration of parking requirements for workers vehicles on the site;
- Consider impacts to the existing road networks and any temporary road diversions;
- Consider access to other properties and how this will be maintained during construction. If required, consider communication strategy to affected properties;
- Identify speed zones through construction areas;
- Consider staging of the construction and changing traffic control requirements;
- Review possible types of traffic control devices and signage requirements; and





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- Prepare drawings showing the adopted traffic control devices, traffic control staging, road diversions (if any), main access routes for different vehicle categories and all signage requirements.

The site inductions carried out by all construction personnel should include the key points from the traffic management plan to ensure that all persons are aware of the main vehicle access points and routes through the site as well as the key areas of risk.

FIGURE 1



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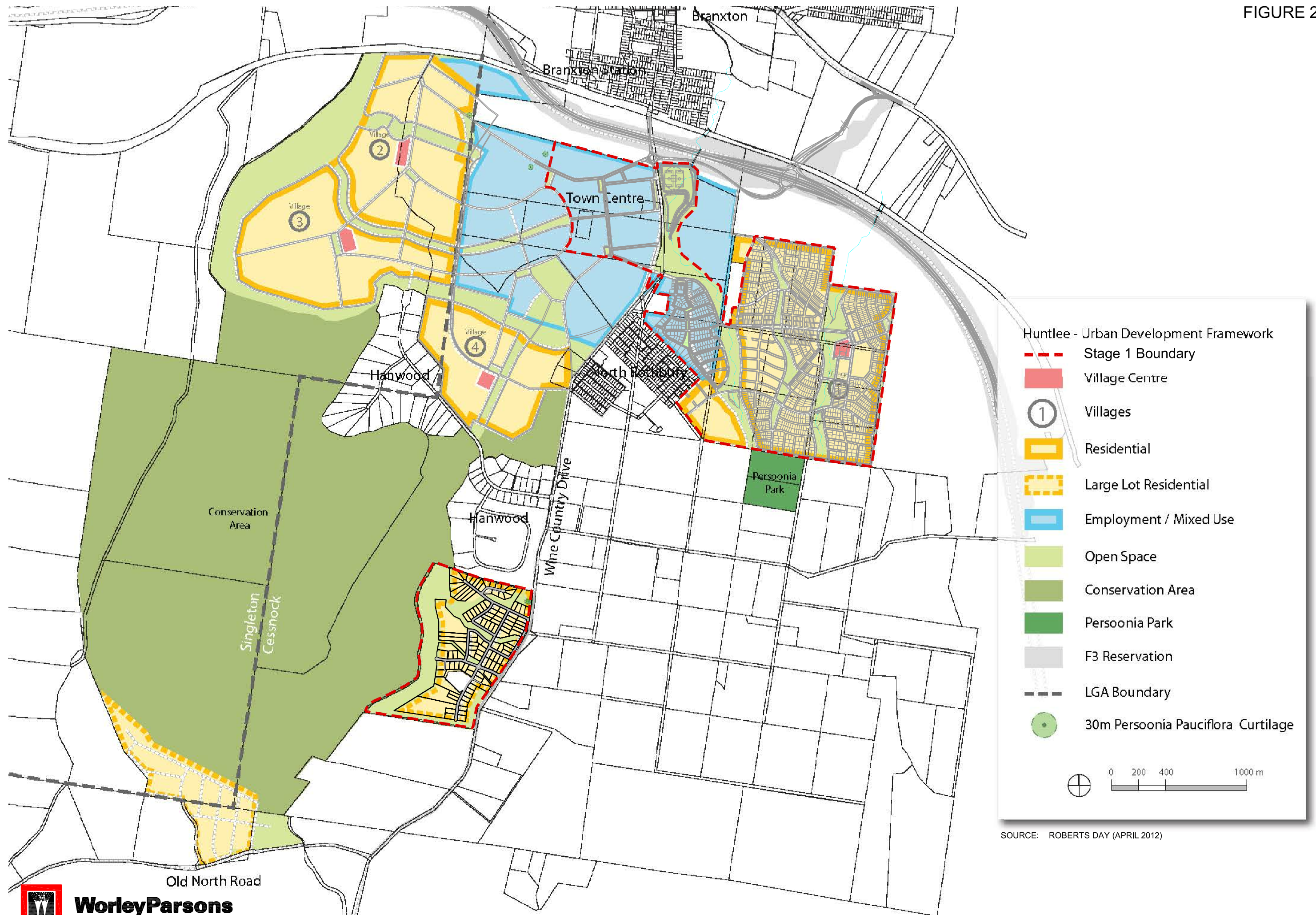


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resources & energy



FIGURE 2



SOURCE: ROBERTS DAY (APRIL 2012)



FIGURE 3

**LEGEND**

- STAGE 1 BOUNDARY
- HIGH LEVEL RESERVOIR
- WATER MAIN
- HUNTLEE HIGH LEVEL SYSTEM -  
LOTS WHICH CANNOT BE SERVICED  
FROM 84.5m BOUNDARY CONDITION  
AT NEW ENGLAND HWY (COMPLETION  
OF HWC STAGE 4 WORKS)
- HUNTLEE HIGH LEVEL SYSTEM -  
LOTS WHICH CANNOT BE SERVICED  
FROM 89.1m BOUNDARY CONDITION  
AT NEW ENGLAND HWY (COMPLETION  
OF HWC STAGE 6 WORKS)
- UNSERVICABLE AREA -  
LOTS WHICH CANNOT BE SERVICED  
BY A PROPOSED RESERVOIR WITH  
BWL=105m AHD
- LOTS WHICH CANNOT BE SERVICED  
FROM EXISTING NORTH ROTHBURY  
RESERVOIR (BWL = 93.8m AHD)
- F3 RESERVATION

0 1000 m  
1:25000 (A3)

SOURCE: ROBERTS DAY (APRIL 2012)

**Huntlee - Urban Development Framework**

- Village Centre
- 1 Villages
- Residential
- Large Lot Residential
- Employment
- Open Space
- Conservation Area
- Persoonia Park
- F3 Reservation

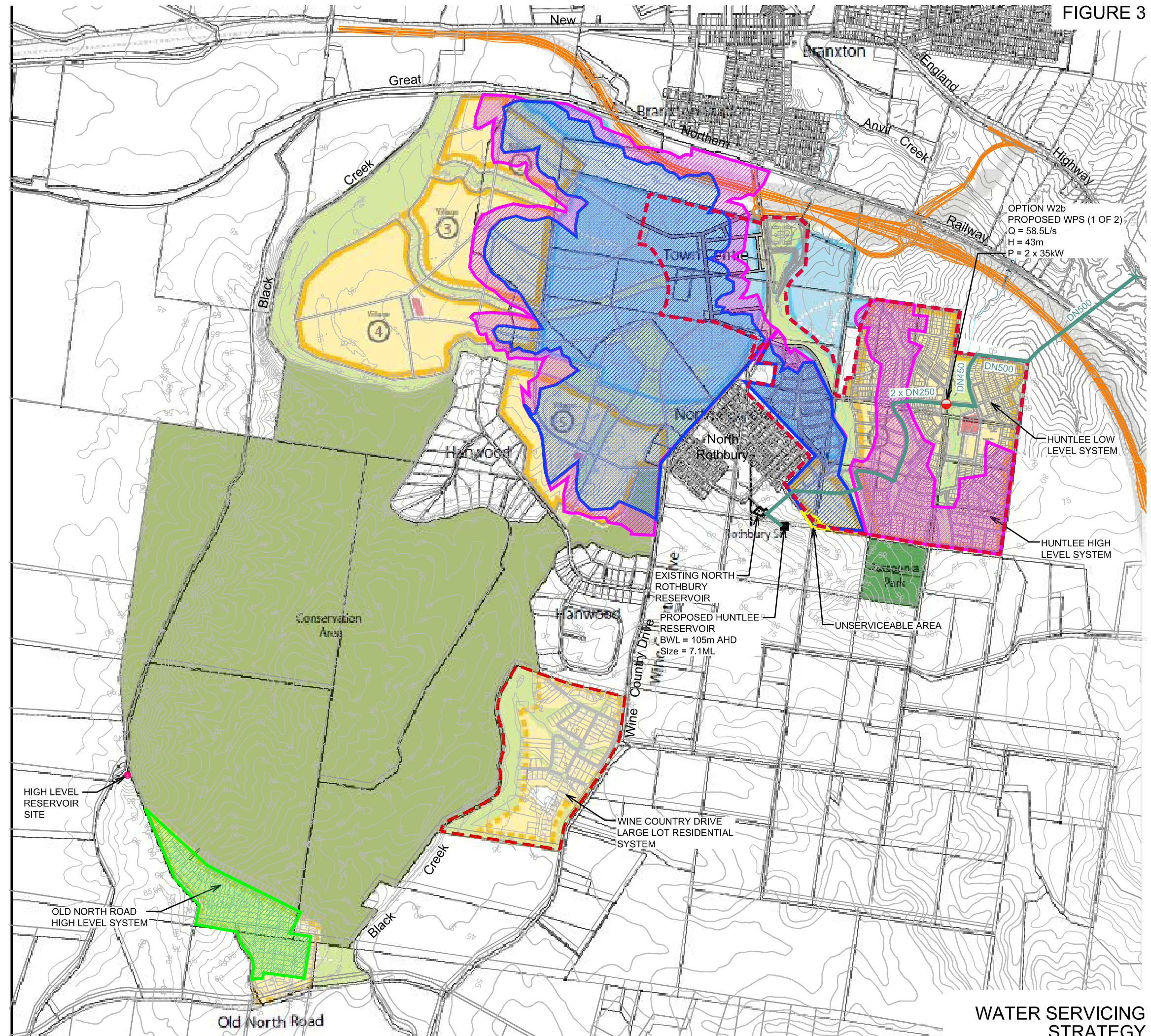
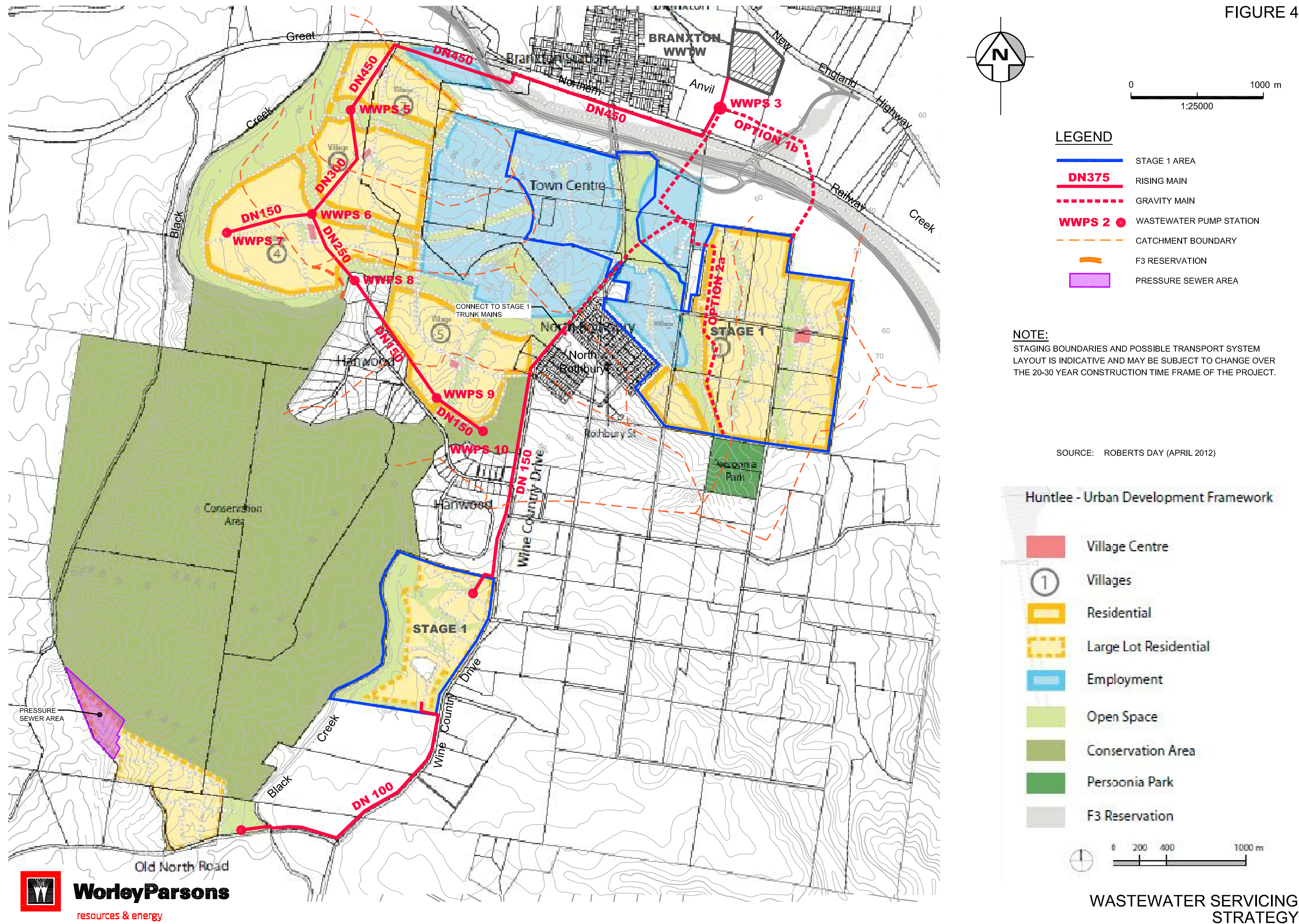




FIGURE 4





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**Eco**Nomics™

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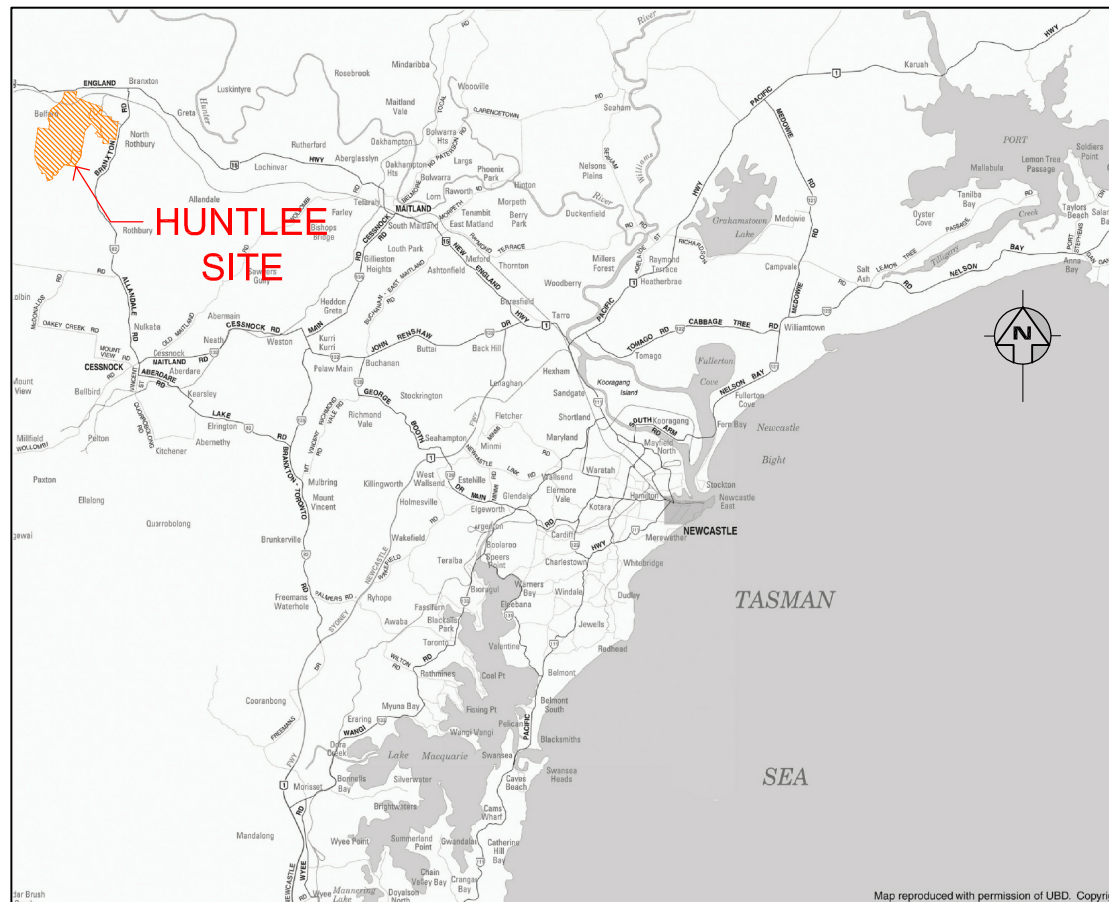
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## **Appendix 1      Preliminary Residential Area Road Designs & Typical Sections**



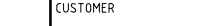
PROJECT  
HUNTLEE  
STAGE 1  
PROJECT APPLICATION  
CLIENT  
HUNTLEE PTY LTD



LOCALITY PLAN  
N.T.S

| DRAWING LIST     |                                                                                   |
|------------------|-----------------------------------------------------------------------------------|
| 301017-00364-001 | COVER SHEET, DRAWING LIST & LOCALITY PLAN                                         |
| 301017-00364-002 | SITE PLAN                                                                         |
| 301017-00364-003 | GENERAL ARRANGEMENT - STAGE 1 RELEASE AREA - SHEET 1                              |
| 301017-00364-004 | GENERAL ARRANGEMENT - STAGE 1 RELEASE AREA - SHEET 2                              |
| 301017-00364-005 | GENERAL ARRANGEMENT - STAGE 1 RELEASE AREA - SHEET 3                              |
| 301017-00364-006 | GENERAL ARRANGEMENT - WINE COUNTRY DRIVE - SHEET 1                                |
| 301017-00364-007 | GENERAL ARRANGEMENT - WINE COUNTRY DRIVE - SHEET 2                                |
| 301017-00364-008 | GENERAL ARRANGEMENT - WINE COUNTRY DRIVE - SHEET 3                                |
| 301017-00364-009 | GENERAL ARRANGEMENT - WINE COUNTRY DRIVE - SHEET 4                                |
| 301017-00364-010 | GENERAL ARRANGEMENT - WINE COUNTRY DRIVE - SHEET 5                                |
| 301017-00364-011 | ROAD CLASSIFICATIONS                                                              |
| 301017-00364-012 | TYPICAL ROAD CROSS SECTIONS - SHEET 1                                             |
| 301017-00364-013 | TYPICAL BIORETENTION SYSTEM                                                       |
| 301017-00364-014 | INTERIM INFRASTRUCTURE PLAN - STAGE 1 RELEASE AREA                                |
| 301017-00364-101 | LONGITUDINAL SECTIONS - STAGE 1 RELEASE AREA - ROAD 1 - SHEET 1                   |
| 301017-00364-102 | LONGITUDINAL SECTIONS - STAGE 1 RELEASE AREA - ROADS 2 & 3 - SHEET 2              |
| 301017-00364-103 | LONGITUDINAL SECTIONS - STAGE 1 RELEASE AREA - ROAD 4 - SHEET 3                   |
| 301017-00364-104 | LONGITUDINAL SECTIONS - STAGE 1 RELEASE AREA - ROADS 5 & 6 - SHEET 4              |
| 301017-00364-105 | LONGITUDINAL SECTIONS - STAGE 1 RELEASE AREA - ROADS 7, 8, 9, 10, 11 & 12 SHEET 5 |
| 301017-00364-106 | LONGITUDINAL SECTIONS - STAGE 1 RELEASE AREA - ROADS 13 & 14 - SHEET 6            |
| 301017-00364-107 | LONGITUDINAL SECTIONS - STAGE 1 RELEASE AREA - ROADS 15 & 16 - SHEET 7            |
| 301017-00364-108 | LONGITUDINAL SECTIONS - STAGE 1 RELEASE AREA - ROADS 17, 18 & 19 - SHEET 8        |
| 301017-00364-109 | LONGITUDINAL SECTIONS - STAGE 1 RELEASE AREA - ROAD 20 - SHEET 9                  |
| 301017-00364-110 | LONGITUDINAL SECTIONS - WINE COUNTRY DRIVE - SHEET 1                              |
| 301017-00364-111 | LONGITUDINAL SECTIONS - WINE COUNTRY DRIVE - SHEET 2                              |
| 301017-00364-201 | GENERAL ARRANGEMENT - STAGE 1 RESIDENTIAL - SHEET 1                               |
| 301017-00364-202 | GENERAL ARRANGEMENT - STAGE 1 RESIDENTIAL - SHEET 2                               |
| 301017-00364-203 | GENERAL ARRANGEMENT - STAGE 1 RESIDENTIAL - SHEET 3                               |
| 301017-00364-204 | GENERAL ARRANGEMENT - STAGE 1 RESIDENTIAL - SHEET 4                               |
| 301017-00364-205 | GENERAL ARRANGEMENT - STAGE 1 RESIDENTIAL - SHEET 5                               |
| 301017-00364-206 | GENERAL ARRANGEMENT - STAGE 1 RESIDENTIAL - SHEET 6                               |
| 301017-00364-207 | GENERAL ARRANGEMENT - STAGE 1 TOWN CENTRE - SHEET 1                               |
| 301017-00364-208 | GENERAL ARRANGEMENT - STAGE 1 TOWN CENTRE - SHEET 2                               |
| 301017-00364-301 | LONGITUDINAL SECTIONS - STAGE 1 RESIDENTIAL - MAIN ROAD 1 - SHEET 1               |
| 301017-00364-302 | LONGITUDINAL SECTIONS - STAGE 1 RESIDENTIAL - MAIN ROAD 1 - SHEET 2               |
| 301017-00364-303 | LONGITUDINAL SECTIONS - STAGE 1 RESIDENTIAL - MAIN ROAD 2 - SHEET 3               |
| 301017-00364-304 | LONGITUDINAL SECTIONS - STAGE 1 RESIDENTIAL - MAIN ROAD 3 - SHEET 4               |
| 301017-00364-305 | LONGITUDINAL SECTIONS - STAGE 1 RESIDENTIAL - MAIN ROAD 3 - SHEET 5               |

| DRAWING LIST     |                                                                           |
|------------------|---------------------------------------------------------------------------|
| 301017-00364-306 | LONGITUDINAL SECTIONS - STAGE 1 RESIDENTIAL - MAIN ROAD 4 & 5 - SHEET 6   |
| 301017-00364-307 | LONGITUDINAL SECTIONS - STAGE 1 RESIDENTIAL - MAIN ROAD 6 - SHEET 7       |
| 301017-00364-308 | LONGITUDINAL SECTIONS - STAGE 1 RESIDENTIAL - MAIN ROAD 6 - SHEET 8       |
| 301017-00364-309 | LONGITUDINAL SECTIONS - STAGE 1 RESIDENTIAL - MAIN ROAD 7 - SHEET 9       |
| 301017-00364-310 | LONGITUDINAL SECTIONS - STAGE 1 RESIDENTIAL - MAIN ROAD 7 - SHEET 10      |
| 301017-00364-311 | LONGITUDINAL SECTIONS - STAGE 1 RESIDENTIAL - MAIN ROAD 8 - SHEET 11      |
| 301017-00364-312 | LONGITUDINAL SECTIONS - STAGE 1 RESIDENTIAL - MAIN ROAD 9 - SHEET 12      |
| 301017-00364-313 | LONGITUDINAL SECTIONS - STAGE 1 RESIDENTIAL - MAIN ROAD 10 - SHEET 13     |
| 301017-00364-314 | LONGITUDINAL SECTIONS - STAGE 1 RESIDENTIAL - MAIN ROAD 11 - SHEET 14     |
| 301017-00364-315 | LONGITUDINAL SECTIONS - STAGE 1 RESIDENTIAL - MAIN ROAD 12 - SHEET 15     |
| 301017-00364-316 | LONGITUDINAL SECTIONS - STAGE 1 RESIDENTIAL - MAIN ROAD 12 - SHEET 16     |
| 301017-00364-317 | LONGITUDINAL SECTIONS - STAGE 1 TOWN CENTRE - ROAD 13 - SHEET 17          |
| 301017-00364-318 | LONGITUDINAL SECTIONS - STAGE 1 TOWN CENTRE - ROAD 14 - SHEET 18          |
| 301017-00364-319 | LONGITUDINAL SECTIONS - STAGE 1 TOWN CENTRE - ROAD 14 - SHEET 19          |
| 301017-00364-320 | LONGITUDINAL SECTIONS - STAGE 1 TOWN CENTRE - ROAD 15 - SHEET 20          |
| 301017-00364-321 | LONGITUDINAL SECTIONS - STAGE 1 TOWN CENTRE - ROAD 16 & 17 - SHEET 21     |
| 301017-00364-322 | LONGITUDINAL SECTIONS - STAGE 1 TOWN CENTRE - ROAD 18 - SHEET 22          |
| 301017-00364-323 | LONGITUDINAL SECTIONS - STAGE 1 TOWN CENTRE - ROAD 19, 20 & 21 - SHEET 23 |
| 301017-00364-401 | STORMWATER MANAGEMENT & RECREATION FACILITY - BASIN AND POND PLAN         |
| 301017-00364-402 | STORMWATER MANAGEMENT & RECREATION FACILITY - TYPICAL SECTIONS            |
| 301017-00364-501 | LOT DETAILS - GENERAL SHEET LAYOUT PLAN                                   |
| 301017-00364-502 | LOT DETAILS - STAGE 1, RELEASE AREA 1 - SHEET 1                           |
| 301017-00364-503 | LOT DETAILS - STAGE 1, RELEASE AREA 1 - SHEET 2                           |
| 301017-00364-504 | LOT DETAILS - SUPER LOTS                                                  |
| 301017-00364-505 | LOT DETAILS - BALANCE OF STAGE 1 RESIDENTIAL - SHEET 1                    |
| 301017-00364-506 | LOT DETAILS - BALANCE OF STAGE 1 RESIDENTIAL - SHEET 2                    |
| 301017-00364-507 | LOT DETAILS - BALANCE OF STAGE 1 RESIDENTIAL - SHEET 3                    |
| 301017-00364-508 | LOT DETAILS - BALANCE OF STAGE 1 RESIDENTIAL - SHEET 4                    |
| 301017-00364-509 | LOT DETAILS - BALANCE OF STAGE 1 RESIDENTIAL - SHEET 5                    |
| 301017-00364-510 | LOT DETAILS - BALANCE OF STAGE 1 RESIDENTIAL - SHEET 6                    |
| 301017-00364-511 | LOT DETAILS - BALANCE OF STAGE 1 RESIDENTIAL - SHEET 7                    |
| 301017-00364-601 | INDICATIVE BULK EARTHWORKS - STAGE 1 RELEASE AREA - SHEET 1               |
| 301017-00364-602 | INDICATIVE BULK EARTHWORKS - STAGE 1 RELEASE AREA - SHEET 2               |
| 301017-00364-603 | INDICATIVE BULK EARTHWORKS - STAGE 1 RELEASE AREA - SHEET 3               |
| 301017-00364-701 | LINEMARKING & SIGNAGE PLAN - SHEET 1                                      |
| 301017-00364-702 | LINEMARKING & SIGNAGE PLAN - SHEET 2                                      |
| 301017-00364-703 | LINEMARKING & SIGNAGE PLAN - SHEET 3                                      |

|     |          |                                                   |       |           |          |         |          |          |                |                         |                                                                                                                     |                           |                                              |                                                                                                                                                                                                         |          |                                     |        |                  |     |
|-----|----------|---------------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|---------------------------------------------------------------------------------------------------------------------|---------------------------|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------|--------|------------------|-----|
| E   | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION         | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         | A1 SHEET                                                                                                            | SCALE                     | NOT TO SCALE                                 |  <b>WorleyParsons</b><br>resources & energy<br>Copyright ©<br>WorleyParsons Services Pty Ltd<br>ABN 61 001 279 812 | CUSTOMER | HUNTLEE STAGE 1 PROJECT APPLICATION |        |                  |     |
| D   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION               | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |  <b>OneWay</b><br>to zero harm | WORLEYPARSONS PROJECT No. | COVER SHEET, DRAWING LIST<br>& LOCALITY PLAN |                                                                                                                                                                                                         |          |                                     |        |                  |     |
| C   | 09.03.11 | ISSUED FOR CLIENT APPROVAL                        | NAH   | PMM       | NAH      | GS      | CG       |          |                |                         |                                                                                                                     |                           |                                              |                                                                                                                                                                                                         |          | 301017-00364                        | DRG No | 301017-00364-001 | REV |
| B   | 07.03.11 | ISSUED FOR CLIENT APPROVAL                        | NAH   | PMM       | NAH      | GS      | CG       |          |                |                         |                                                                                                                     |                           |                                              |                                                                                                                                                                                                         |          |                                     |        |                  |     |
| F   | 15.11.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION UPDATED | NAH   | PMM       | NAH      | PMM     | BGP      |          |                |                         |                                                                                                                     |                           |                                              |                                                                                                                                                                                                         |          |                                     |        |                  |     |
| REV | DATE     | REVISION DESCRIPTION                              | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |                                                                                                                     |                           |                                              |                                                                                                                                                                                                         |          |                                     |        |                  |     |











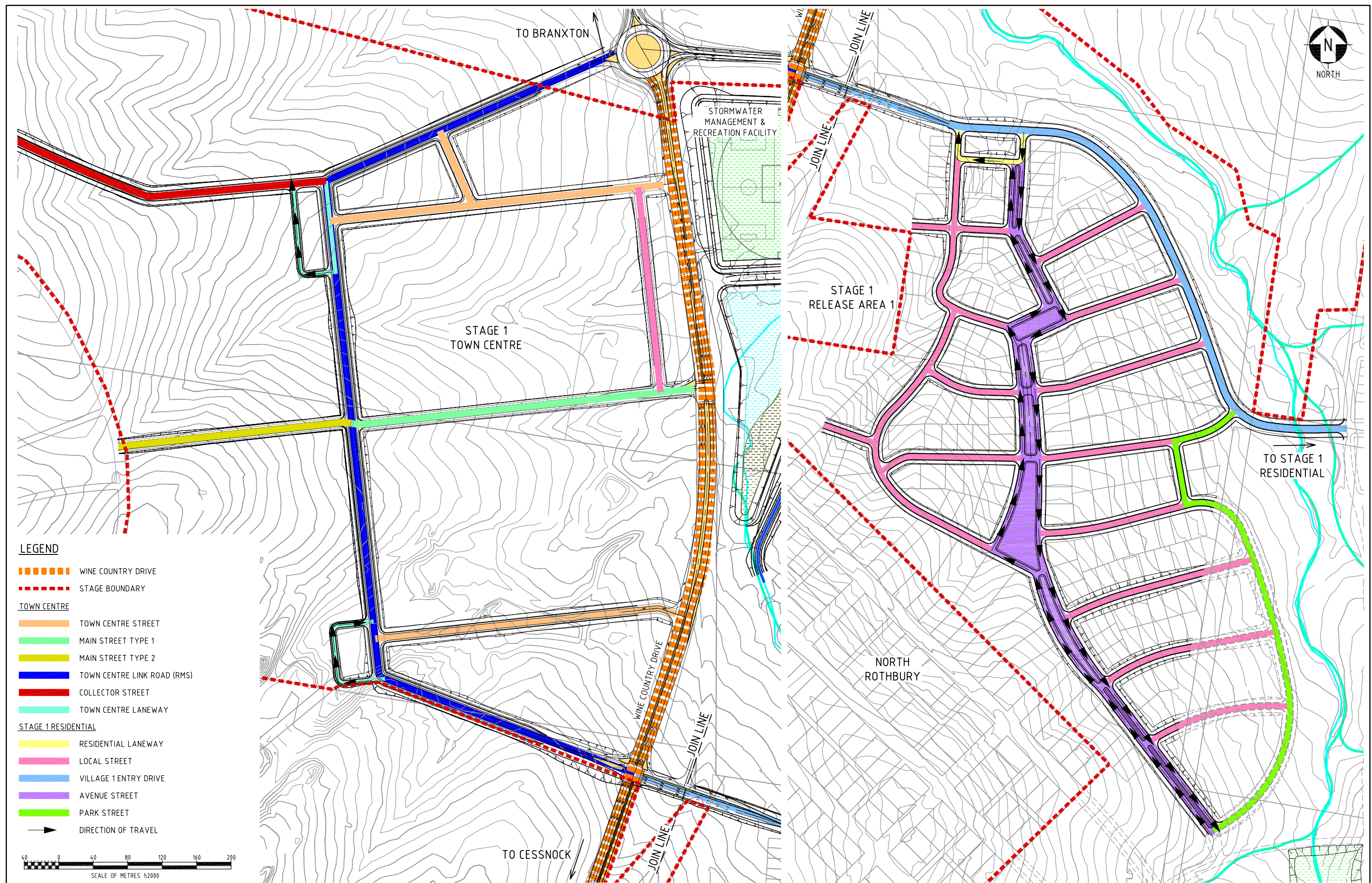


|     |          |                                                   |       |           |          |         |          |          |                |                         |                                           |       |                                                                                                                                                                                                            |          |                                                                                               |     |
|-----|----------|---------------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|-------------------------------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------|-----|
| E   | 15.11.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION UPDATED | NAH   | PMM       | NAH      | GS      | GS       |          |                | A1 SHEET                | SCALE                                     | 1:750 | <br><b>WorleyParsons</b><br>resources & energy<br>Copyright ©<br>WorleyParsons Services Pty Ltd<br>ABN 61 001 279 812 | CUSTOMER | HUNTLEE STAGE 1 PROJECT APPLICATION<br>GENERAL ARRANGEMENT<br>STAGE 1 RELEASE AREA<br>SHEET 2 |     |
| D   | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION         | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                           |       |                                                                                                                                                                                                            |          |                                                                                               |     |
| C   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION               | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                           |       |                                                                                                                                                                                                            |          |                                                                                               |     |
| B   | 07.03.11 | DESIGN CONTOURS ADDED                             | PMM   | NAH       | PMM      | GS      | GS       |          |                |                         |                                           |       |                                                                                                                                                                                                            |          |                                                                                               |     |
| A   | 15.12.10 | ISSUED FOR CLIENT APPROVAL                        | NAH   | PMM       | NAH      | GS      | BGP      |          |                |                         |                                           |       |                                                                                                                                                                                                            |          |                                                                                               |     |
| REV | DATE     | REVISION DESCRIPTION                              | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE | WORLEYPARSONS PROJECT No.<br>301017-00364 |       |                                                                                                                                                                                                            |          | DRG No                                                                                        | REV |
|     |          |                                                   |       |           |          |         |          |          |                |                         |                                           |       |                                                                                                                                                                                                            |          | 301017-00364-004                                                                              | E   |



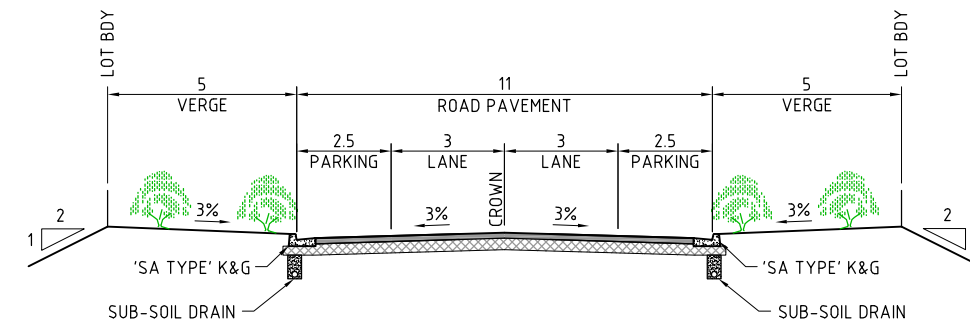




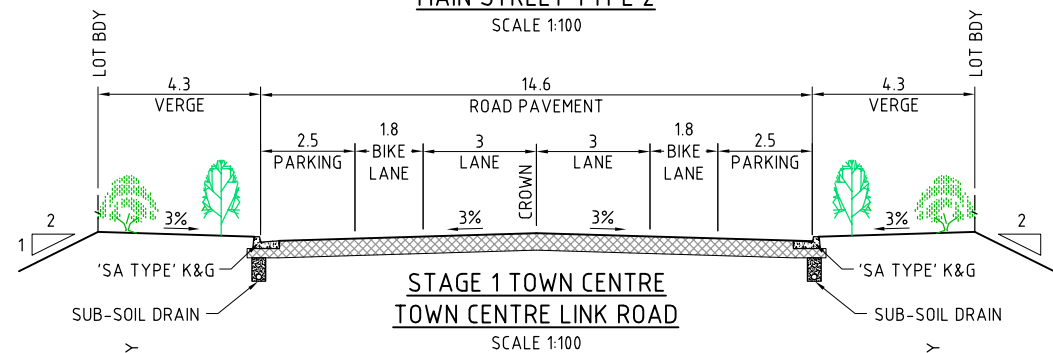


|     |          |                                                   |       |           |          |         |          |          |                |                                           |                 |        |                                                                                                       |                                                                                                                                                                                                            |          |                                     |  |                  |
|-----|----------|---------------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------------------------|-----------------|--------|-------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------|--|------------------|
| E   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION               | NAH   | PMM       | NAH      | GS      | GS       |          |                | A1 SHEET                                  | SCALE           | 1:3000 | <br>to zero harm | <br><b>WorleyParsons</b><br>resources & energy<br>Copyright ©<br>WorleyParsons Services Pty Ltd<br>ABN 61 001 279 812 | CUSTOMER | HUNTLEE STAGE 1 PROJECT APPLICATION |  |                  |
| D   | 09.03.11 | ISSUED FOR CLIENT APPROVAL                        | NAH   | PMM       | NAH      | GS      | CG       |          |                | WORLEYPARSONS PROJECT No.<br>301017-00364 | HUNTLEE PTY LTD |        |                                                                                                       |                                                                                                                                                                                                            |          |                                     |  |                  |
| C   | 07.03.11 | ISSUED FOR CLIENT APPROVAL                        | NAH   | PMM       | NAH      | GS      | CG       |          |                |                                           |                 |        |                                                                                                       |                                                                                                                                                                                                            |          | ROAD CLASSIFICATIONS                |  |                  |
| G   | 15.11.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION UPDATED | NAH   | PMM       | NAH      | GS      | GS       |          |                |                                           | 301017-00364    | DRG No |                                                                                                       |                                                                                                                                                                                                            |          |                                     |  | 301017-00364-011 |
| F   | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION         | NAH   | PMM       | NAH      | GS      | GS       |          |                |                                           |                 |        |                                                                                                       |                                                                                                                                                                                                            |          |                                     |  |                  |
| REV | DATE     | REVISION DESCRIPTION                              | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE                   |                 |        |                                                                                                       |                                                                                                                                                                                                            |          |                                     |  |                  |

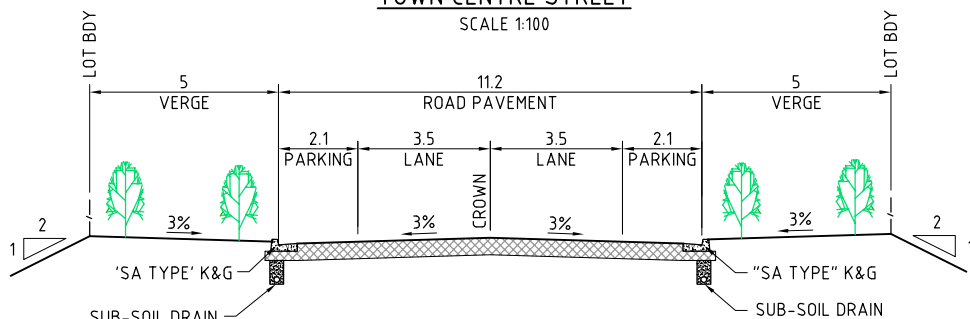




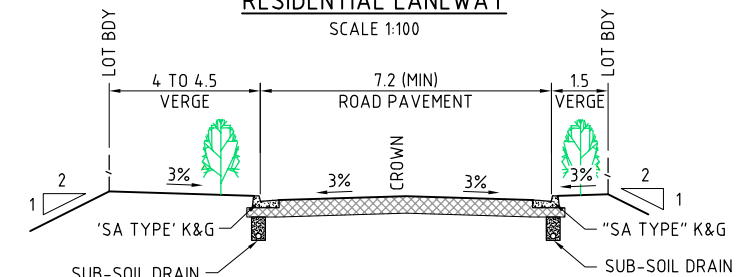
STAGE 1 TOWN CENTRE  
MAIN STREET TYPE 1  
SCALE 1:100



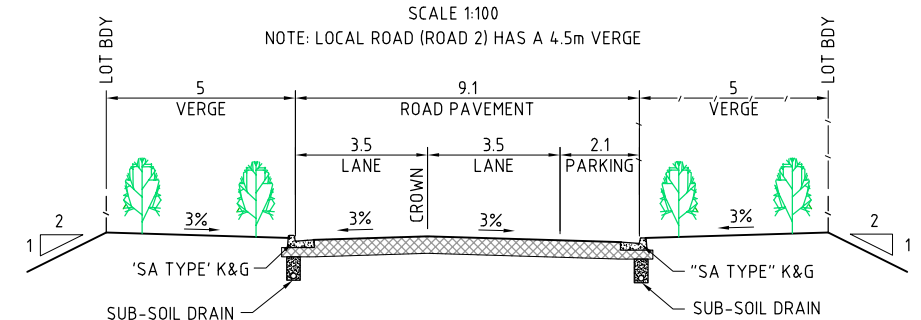
STAGE 1 TOWN CENTRE  
TOWN CENTRE LINK ROAD  
SCALE 1:100



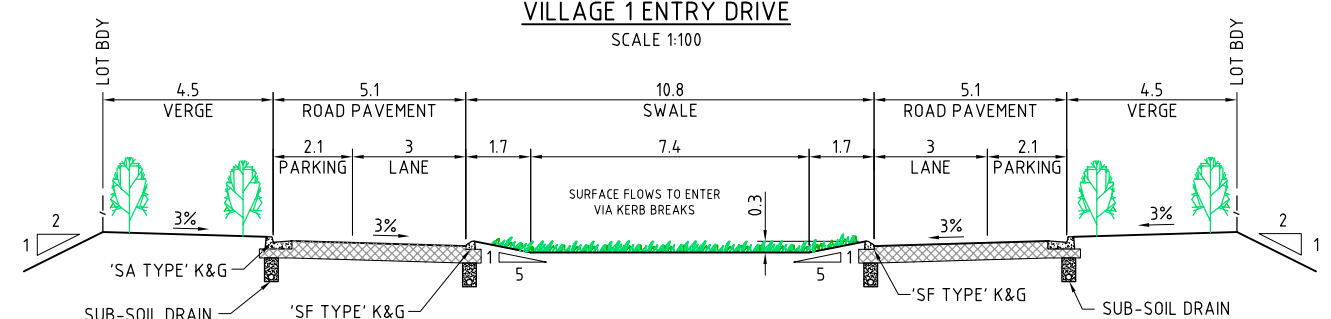
STAGE 1 TOWN CENTRE  
COLLECTOR STREET  
SCALE 1:100



STAGE 1 RELEASE AREA  
PARK STREET  
SCALE 1:100



STAGE 1 RELEASE AREA  
VILLAGE 1 ENTRY DRIVE  
SCALE 1:100

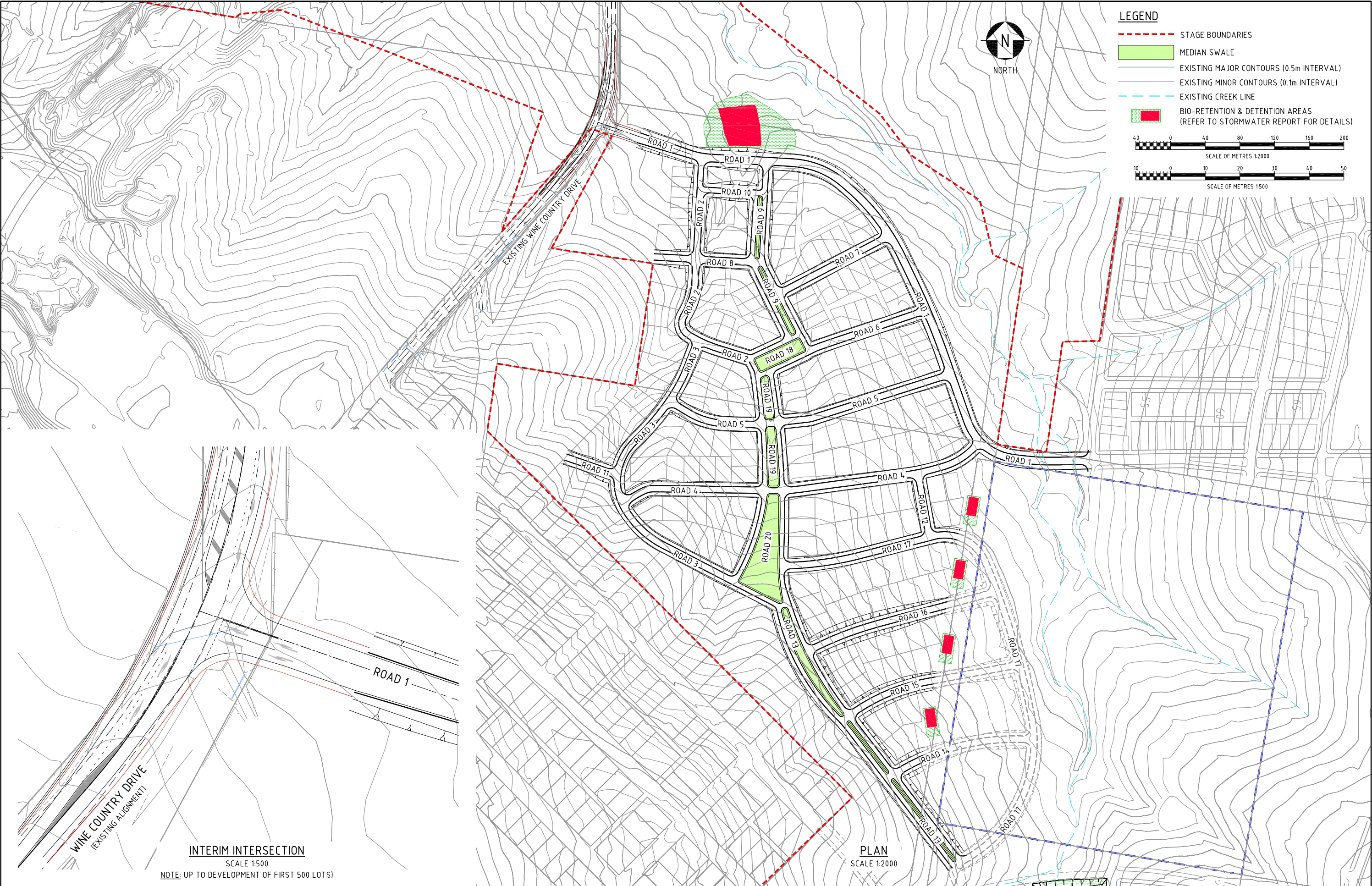


STAGE 1 RELEASE AREA  
AVENUE STREET  
SCALE 1:100

|     |          |                                           |       |           |          |         |          |          |                |                         |                                                                                                                                 |                                               |                             |                                                                                                                                                                                                                            |          |                                                |  |  |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------------------|--|--|
| E   | 0108.12  | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         | A1 SHEET                                                                                                                        | SCALE                                         | 1:100                       |  <div><b>WorleyParsons</b><br/>resources &amp; energy<br/>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER | HUNTLEE STAGE 1 PROJECT APPLICATION            |  |  |
| D   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION       | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |  <div><b>OneWay</b><br/>to zero harm</div> | WORLEYPARSONS PROJECT No.<br><br>301017-00364 | TYPICAL ROAD CROSS SECTIONS |                                                                                                                                                                                                                            |          |                                                |  |  |
| C   | 09.03.11 | ISSUED FOR CLIENT APPROVAL                | NAH   | PMM       | NAH      | GS      | CG       |          |                |                         |                                                                                                                                 |                                               |                             |                                                                                                                                                                                                                            |          | DRG No<br><br>301017-00364-012<br><br>REV<br>E |  |  |
| B   | 07.03.11 | ISSUED FOR CLIENT APPROVAL                | NAH   | PMM       | NAH      | GS      | CG       |          |                |                         |                                                                                                                                 |                                               |                             |                                                                                                                                                                                                                            |          |                                                |  |  |
| A   | 15.12.10 | ISSUED FOR CLIENT APPROVAL                | NAH   | PMM       | NAH      | GS      | BGP      |          |                |                         |                                                                                                                                 |                                               |                             |                                                                                                                                                                                                                            |          |                                                |  |  |
| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |                                                                                                                                 |                                               |                             |                                                                                                                                                                                                                            |          |                                                |  |  |







|     |          |                                                   |  |  |       |           |          |         |          |                           |                                                                     |                         |                 |  |                                                                                            |  |  |  |
|-----|----------|---------------------------------------------------|--|--|-------|-----------|----------|---------|----------|---------------------------|---------------------------------------------------------------------|-------------------------|-----------------|--|--------------------------------------------------------------------------------------------|--|--|--|
|     |          |                                                   |  |  |       |           |          |         |          | A1 SHEET SCALE            |                                                                     |                         | CUSTOMER        |  | HUNTLEE STAGE 1 PROJECT APPLICATION<br>INTERIM INFRASTRUCTURE PLAN<br>STAGE 1 RELEASE AREA |  |  |  |
|     |          |                                                   |  |  |       |           |          |         |          |                           |                                                                     |                         | HUNTLEE PTY LTD |  | DRG No                                                                                     |  |  |  |
|     |          |                                                   |  |  |       |           |          |         |          | WORLEYPARSONS PROJECT No. | Copyright ©<br>WorleyParsons Services Pty Ltd<br>ABN 61 001 279 812 |                         |                 |  | 301017-00364-014                                                                           |  |  |  |
| REV | DATE     | REVISION DESCRIPTION                              |  |  | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER                  | REF DRAWING No                                                      | REFERENCE DRAWING TITLE |                 |  | REV                                                                                        |  |  |  |
| A   | 15.11.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION UPDATED |  |  | NAH   | PMM       | NAH      | GS      | GS       |                           |                                                                     |                         |                 |  | A                                                                                          |  |  |  |

LOCATION: 0:\301017\00364 - HUNTLEE PROJECT APPLICATION (GS)\110 DRAWINGS\CAD\301017-00364\_014\_INTERIM INFRASTRUCTURE PLAN.DWG  
USER NAME: nathan.hole  
DATE & TIME: 15/11/2012 5:15:15 PM



NOTE

1. ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2. FOR STAGE 1 RELEASE AREA GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 003 TO 005

HORIZONTAL  
VERT.RADIUS  
GRADE  
DATUM 44

| FINISHED<br>SURFACE LEVEL | 52.339  | 52.486  | 52.592  | 52.605  | 52.590  | 52.478  | 52.257  | 51.927  | 51.530  | 51.428  | 51.238  | 51.170  | 50.921  | 50.782  | 50.714  | 50.647  | 50.631  | 50.587  | 50.585  | 50.638  | 50.841  | 51.188  | 51.308  |
|---------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| EXISTING<br>SURFACE       | 52.510  | 52.630  | 52.704  | 52.675  | 52.654  | 52.402  | 52.049  | 51.808  | 51.602  | 51.524  | 51.284  | 51.172  | 50.793  | 50.528  | 50.500  | 50.500  | 50.500  | 50.500  | 50.500  | 50.500  | 50.288  | 51.154  | 51.309  |
| CHAINAGE                  | 680.000 | 690.000 | 700.000 | 704.787 | 710.000 | 720.000 | 730.000 | 740.000 | 750.000 | 752.569 | 757.856 | 760.000 | 770.000 | 780.000 | 790.000 | 800.000 | 802.457 | 810.000 | 811.609 | 820.000 | 830.000 | 840.000 | 843.112 |

LONGITUDINAL SECTION - ROAD 1

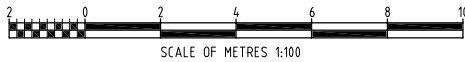
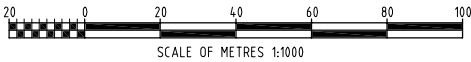
SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100

HORIZONTAL  
VERT.RADIUS  
GRADE  
DATUM 37

|                           |        |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| FINISHED<br>SURFACE LEVEL | 51.075 | 50.785 | 50.495 | 50.205 | 49.915 | 49.625 | 49.335 | 49.045 | 48.755 | 48.465 | 48.175  | 47.885  | 47.595  | 47.308  | 47.047  | 46.815  | 46.612  | 46.438  | 46.294  | 46.254  | 46.178  | 46.092  | 46.044  | 46.035  | 46.006  | 46.003  | 46.008  | 46.038  | 46.097  | 46.186  | 46.304  | 46.447  | 46.594  | 46.742  | 46.778  | 46.889  | 47.036  | 47.183  | 47.331  | 47.478  | 47.625  | 47.749  | 47.773  | 47.852  | 47.920  | 48.067  | 48.215  | 48.362  | 48.509  | 48.656  | 48.804  | 48.951  | 49.098  | 49.246  | 49.346  | 49.393  | 49.540  | 49.687  | 49.764  | 49.835  | 49.982  | 50.129  | 50.277  | 50.424  | 50.571  | 50.719  | 50.866  | 51.013  | 51.160  | 51.253  | 51.308  | 51.455  | 51.602  | 51.750  | 51.897  | 52.044  | 52.191  | 52.339  |
| EXISTING<br>SURFACE       | 52.548 | 51.943 | 51.377 | 50.981 | 50.673 | 50.395 | 50.050 | 49.772 | 50.052 | 49.419 | 49.112  | 49.040  | 48.878  | 48.597  | 48.364  | 48.045  | 47.405  | 47.319  | 47.061  | 46.756  | 46.056  | 45.688  | 45.425  | 45.363  | 46.006  | 46.003  | 46.638  | 46.342  | 46.096  | 46.480  | 46.823  | 46.889  | 47.099  | 47.187  | 47.253  | 47.354  | 47.467  | 47.521  | 47.622  | 47.641  | 47.644  | 47.702  | 47.884  | 47.910  | 48.064  | 48.221  | 48.425  | 48.643  | 48.848  | 49.038  | 49.280  | 49.394  | 49.450  | 49.695  | 49.912  | 49.972  | 50.050  | 50.175  | 50.267  | 50.315  | 50.353  | 50.376  | 50.439  | 50.602  | 50.768  | 50.968  | 51.077  | 51.161  | 51.341  | 51.543  | 51.757  | 51.979  | 52.169  | 52.339  | 52.510  |         |         |         |
| CHAINAGE                  | 0.000  | 10.000 | 20.000 | 30.000 | 40.000 | 50.000 | 60.000 | 70.000 | 80.000 | 90.000 | 100.000 | 110.000 | 120.000 | 130.000 | 140.000 | 150.000 | 160.000 | 170.000 | 180.000 | 183.165 | 190.000 | 200.000 | 208.001 | 210.000 | 220.000 | 224.621 | 230.000 | 240.000 | 250.000 | 260.000 | 270.000 | 280.000 | 290.000 | 300.000 | 302.500 | 310.000 | 320.000 | 330.000 | 340.000 | 350.000 | 360.000 | 368.419 | 370.000 | 375.384 | 380.000 | 390.000 | 400.000 | 410.000 | 420.000 | 430.000 | 440.000 | 450.000 | 460.000 | 470.000 | 476.840 | 480.000 | 490.000 | 500.000 | 505.196 | 510.000 | 520.000 | 530.000 | 540.000 | 550.000 | 560.000 | 570.000 | 580.000 | 590.000 | 600.000 | 606.315 | 610.000 | 620.000 | 630.000 | 640.000 | 650.000 | 660.000 | 670.000 | 680.000 |

LONGITUDINAL SECTION - ROAD 1

SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100



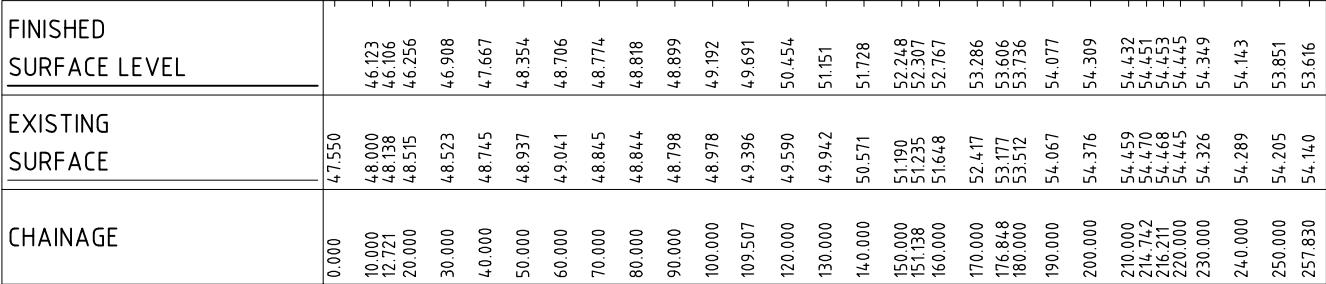
| REV | DATE     | REVISION DESCRIPTION                              | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE | A1 SHEET SCALE 1:1000H & 1:100V | WorleyParsons PROJECT No. | CUSTOMER        | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 RELEASE AREA<br>ROAD 1 - SHEET 1 | DRG No           | REV |
|-----|----------|---------------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|---------------------------------|---------------------------|-----------------|---------------------------------------------------------------------------------------------------------|------------------|-----|
| C   | 15.11.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION UPDATED | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         | OneWay<br>to zero harm          | 301017-00364              | HUNTLEE PTY LTD |                                                                                                         | 301017-00364-101 | C   |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION               | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                 |                           |                 |                                                                                                         |                  |     |
| A   | 15.12.10 | ISSUED FOR CLIENT APPROVAL                        | NAH   | PMM       | NAH      | GS      | BGP      |          |                |                         |                                 |                           |                 |                                                                                                         |                  |     |

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resources & energy  
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ABN 61 001 279 812

NOTE

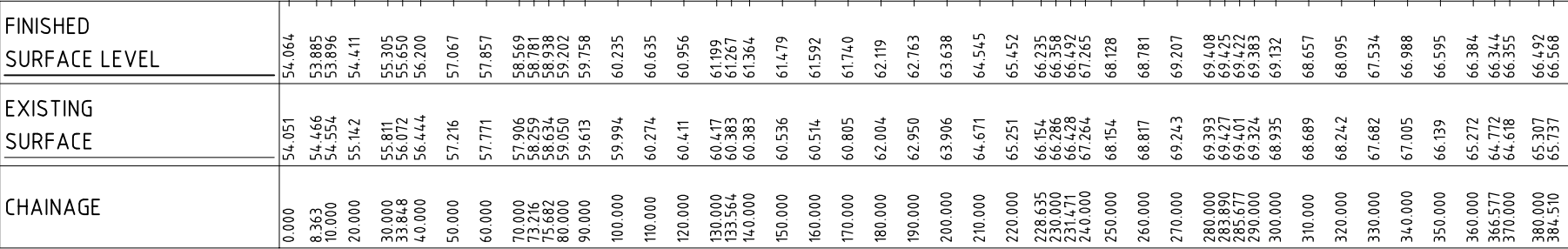
1. ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2. FOR STAGE 1 RELEASE AREA GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 003 TO 005

HORIZONTAL  
VERT.RADIUS  
GRADE  
DATUM 4.0

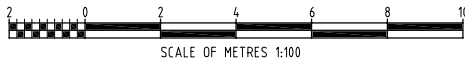
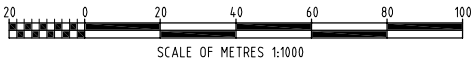


LONGITUDINAL SECTION - ROAD 2  
SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100

HORIZONTAL  
VERT.RADIUS  
GRADE  
DATUM 4.7



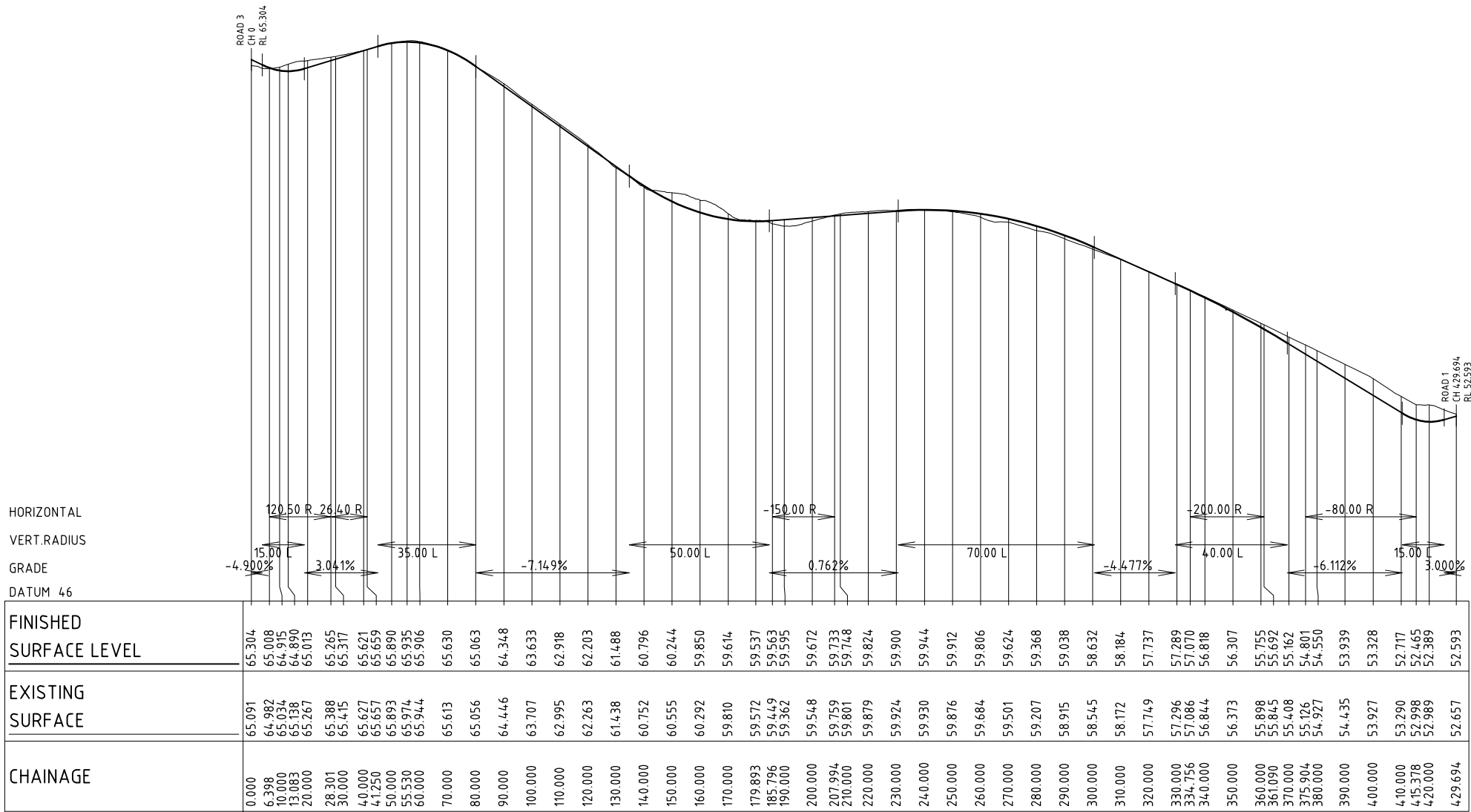
LONGITUDINAL SECTION - ROAD 3  
SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100



|     |          |                                                   |       |           |          |         |          |          |                |                         |                                 |                                                                                                                                  |                 |                                                                                                              |
|-----|----------|---------------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------------------------------------------------------------------------------------------|
|     |          |                                                   |       |           |          |         |          |          |                |                         | A1 SHEET SCALE 1:1000H & 1:100V |                                                                                                                                  | CUSTOMER        | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 RELEASE AREA<br>ROADS 2 & 3 - SHEET 2 |
| C   | 15.11.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION UPDATED | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         | <b>OneWay</b><br>to zero harm   |  <b>WorleyParsons</b><br>resources & energy | HUNTLEE PTY LTD | DRG No                                                                                                       |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION               | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         | WORLEYPARSONS PROJECT No.       | Copyright ©<br>WorleyParsons Services Pty Ltd<br>ABN 61 001 279 812                                                              |                 | REV                                                                                                          |
| A   | 15.12.10 | ISSUED FOR CLIENT APPROVAL                        | NAH   | PMM       | NAH      | GS      | BGP      |          |                |                         | 301017-00364                    |                                                                                                                                  |                 |                                                                                                              |
| REV | DATE     | REVISION DESCRIPTION                              | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |                                 |                                                                                                                                  |                 | 301017-00364-102                                                                                             |

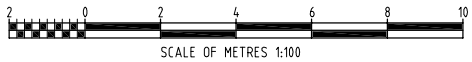
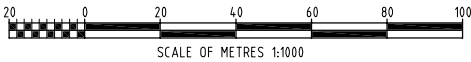
NOTE

1. ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2. FOR STAGE 1 RELEASE AREA GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 003 TO 005



LONGITUDINAL SECTION - ROAD 4

SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100



|     |          |                                                   |       |           |          |         |          |          |                |                         |                                               |                                                                                                                                                                                                                            |                                        |                                                                                                         |              |  |
|-----|----------|---------------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------------------------------------------------|--------------|--|
|     |          |                                                   |       |           |          |         |          |          |                |                         | A1 SHEET SCALE 1:1000H & 1:100V               |  <div><b>WorleyParsons</b><br/>resources &amp; energy<br/>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER<br><br><b>HUNTLEE PTY LTD</b> | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 RELEASE AREA<br>ROAD 4 - SHEET 3 |              |  |
| C   | 15.11.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION UPDATED | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         | WORLEYPARSONS PROJECT No.<br><br>301017-00364 |                                                                                                                                                                                                                            |                                        | DRG No<br><br>301017-00364-103                                                                          | REV<br><br>C |  |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION               | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                               |                                                                                                                                                                                                                            |                                        |                                                                                                         |              |  |
| A   | 14.12.10 | ISSUED FOR CLIENT APPROVAL                        | NAH   | PMM       | NAH      | GS      | BGP      |          |                |                         |                                               |                                                                                                                                                                                                                            |                                        |                                                                                                         |              |  |
| REV | DATE     | REVISION DESCRIPTION                              | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |                                               |                                                                                                                                                                                                                            |                                        |                                                                                                         |              |  |



1. ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2. FOR STAGE 1 RELEASE AREA GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 003 TO 005

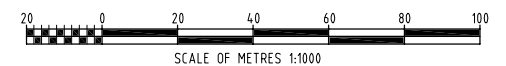


The profile view shows the vertical alignment of a road section. The horizontal axis represents stationing from 0+00 to 3+39.748. The vertical axis represents elevation in feet. The profile includes a parabolic curve with a high point at station 0+50.00 (elevation 59.066) and a low point at station 1+22.766 (elevation 55.861). The grades are: -3.400% (0+00 to 0+15.00), 4.706% (0+15.00 to 0+30.00), -9.120% (0+30.00 to 0+60.00), -4.821% (0+60.00 to 0+90.00), -50.00% (0+90.00 to 0+100.00), 4.000% (0+100.00 to 0+140.00), 17.47% (0+140.00 to 0+210.00), -4.748% (0+210.00 to 0+270.00), 30.00% (0+270.00 to 0+300.00), -7.800% (0+300.00 to 0+330.00), and 3.050% (0+330.00 to 0+339.748). The horizontal curve data is: 15.00' L (0+00 to 0+15.00), 20.00' L (0+15.00 to 0+30.00), 40.00' L (0+30.00 to 0+60.00), 30.00' L (0+60.00 to 0+90.00), 70.00' L (0+90.00 to 0+160.00), 30.00' L (0+160.00 to 0+190.00), 15.00' L (0+190.00 to 0+205.00), and 3.050% (0+205.00 to 0+210.00). The road is labeled ROAD 3 at station 0+00 and ROAD 19 at station 1+22.766.

| Station | Elevation (ft) | Grade (%) | Horizontal Curve (ft) |
|---------|----------------|-----------|-----------------------|
| 0+00    | 58.859         | -3.400%   | 15.00' L              |
| 0+10    | 59.555         | 4.706%    | 20.00' L              |
| 0+20    | 59.800         | -9.120%   | 40.00' L              |
| 0+30    | 59.313         | -4.821%   | 30.00' L              |
| 0+40    | 59.464         | -50.00%   | 70.00' L              |
| 0+50    | 59.066         | 4.000%    | 30.00' L              |
| 0+60    | 58.978         | 17.47%    | 15.00' L              |
| 0+70    | 58.496         | -4.748%   | 3.050%                |
| 0+80    | 58.013         |           |                       |
| 0+90    | 57.914         |           |                       |
| 0+100   | 57.531         |           |                       |
| 0+110   | 57.049         |           |                       |
| 0+120   | 56.567         |           |                       |
| 0+130   | 56.612         |           |                       |
| 0+140   | 56.099         |           |                       |
| 0+150   | 55.357         |           |                       |
| 0+160   | 55.408         |           |                       |
| 0+170   | 55.896         |           |                       |
| 0+180   | 56.234         |           |                       |
| 0+190   | 56.348         |           |                       |
| 0+200   | 56.350         |           |                       |
| 0+210   | 56.495         |           |                       |
| 0+220   | 56.453         |           |                       |
| 0+230   | 56.553         |           |                       |
| 0+240   | 56.675         |           |                       |
| 0+250   | 56.749         |           |                       |
| 0+260   | 56.796         |           |                       |
| 0+270   | 56.792         |           |                       |
| 0+280   | 56.841         |           |                       |
| 0+290   | 56.772         |           |                       |
| 0+300   | 56.697         |           |                       |
| 0+310   | 56.459         |           |                       |
| 0+320   | 56.142         |           |                       |
| 0+330   | 55.785         |           |                       |
| 0+340   | 55.362         |           |                       |
| 0+350   | 54.919         |           |                       |
| 0+360   | 54.462         |           |                       |
| 0+370   | 53.940         |           |                       |
| 0+380   | 53.481         |           |                       |
| 0+390   | 52.948         |           |                       |
| 0+400   | 52.430         |           |                       |
| 0+410   | 51.651         |           |                       |
| 0+420   | 51.278         |           |                       |
| 0+430   | 51.945         |           |                       |
| 0+440   | 51.399         |           |                       |

|     |          |                                                   |       |           |          |         |          |          |                |                         |                                                                                                                                                    |                                                                                                                                                                                                                            |                                        |                                                                                                              |              |
|-----|----------|---------------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|--------------------------------------------------------------------------------------------------------------|--------------|
|     |          |                                                   |       |           |          |         |          |          |                |                         | A1 SHEET   SCALE 1:100H & 1:100V                                                                                                                   |  <div><b>WorleyParsons</b><br/>resources &amp; energy<br/>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER<br><br><b>HUNTLEE PTY LTD</b> | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 RELEASE AREA<br>ROADS 5 & 6 – SHEET 4 |              |
| C   | 15.11.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION UPDATED | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |  <div>WORLEYPARSONS PROJECT No.<br/><b>301017-00364</b></div> |                                                                                                                                                                                                                            |                                        | DRG No<br><br>301017-00364-104                                                                               | REV<br><br>C |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION               | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                                                                                                                                    |                                                                                                                                                                                                                            |                                        |                                                                                                              |              |
| A   | 15.12.10 | ISSUED FOR CLIENT APPROVAL                        | NAH   | PMM       | NAH      | GS      | BGP      |          |                |                         |                                                                                                                                                    |                                                                                                                                                                                                                            |                                        |                                                                                                              |              |
| REV | DATE     | REVISION DESCRIPTION                              | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |                                                                                                                                                    |                                                                                                                                                                                                                            |                                        |                                                                                                              |              |

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2. FOR STAGE 1 RELEASE AREA GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 003 TO 005

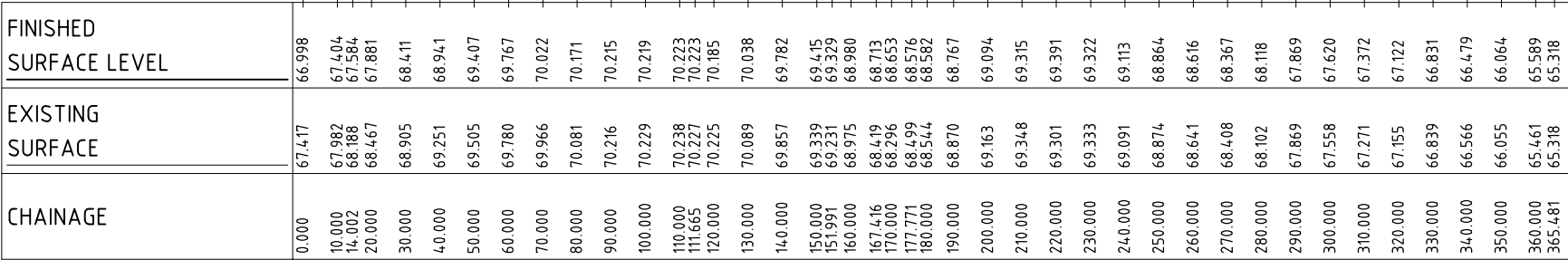


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NOTE

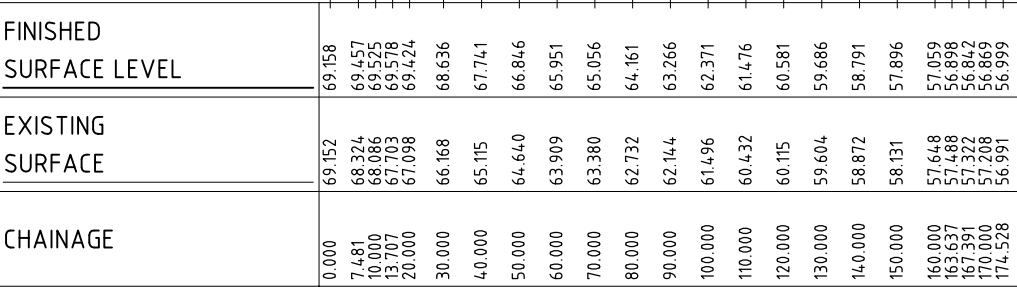
1. ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2. FOR STAGE 1 RELEASE AREA GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 003 TO 005

HORIZONTAL  
VERT.RADIUS  
GRADE  
DATUM 59

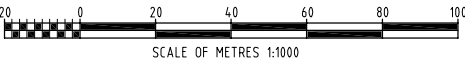
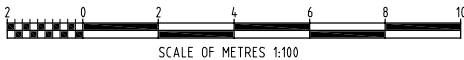


LONGITUDINAL SECTION - ROAD 13  
SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100

HORIZONTAL  
VERT.RADIUS  
GRADE  
DATUM 50



LONGITUDINAL SECTION - ROAD 14  
SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100

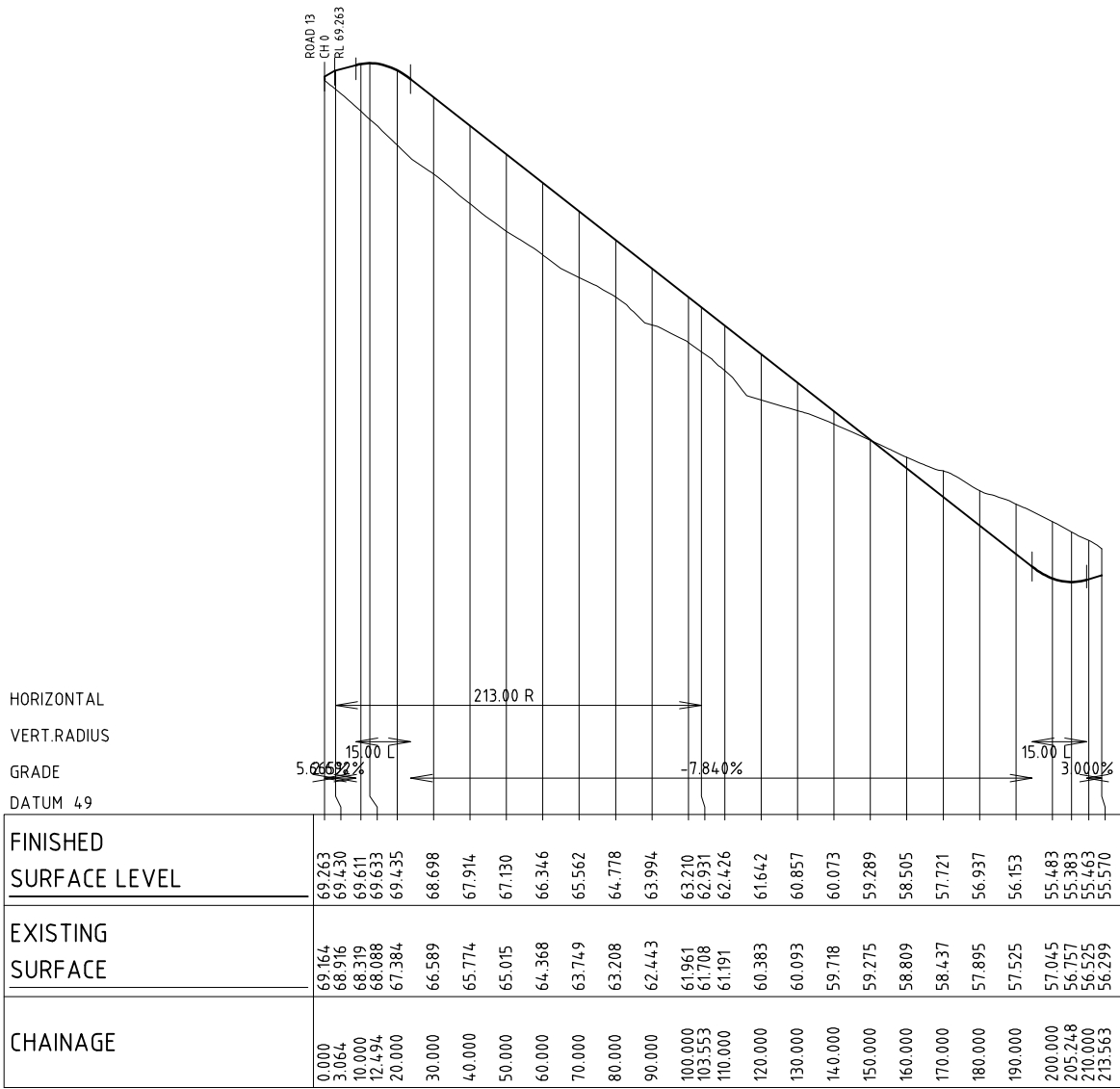


|     |          |                                                   |       |           |          |         |          |          |                |                         |                                 |                                                                                                      |                                                                                                                                      |                                 |                                                                                                                |   |
|-----|----------|---------------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|---------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------|---|
|     |          |                                                   |       |           |          |         |          |          |                |                         | A1 SHEET SCALE 1:1000H & 1:100V | <div>OneWay<sup>™</sup><br/>to zero harm</div> <div>WorleyParsons PROJECT No.<br/>301017-00364</div> | <div>WorleyParsons<br/>resources &amp; energy</div> <div>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER<br><br>HUNTLEE PTY LTD | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 RELEASE AREA<br>ROADS 13 & 14 - SHEET 6 |   |
| C   | 15.11.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION UPDATED | NAH   | PMM       | NAH      | GS      | GS       |          |                | DRG No                  | 301017-00364-106                |                                                                                                      |                                                                                                                                      |                                 | REV                                                                                                            | C |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION               | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                 |                                                                                                      |                                                                                                                                      |                                 |                                                                                                                |   |
| A   | 15.12.10 | ISSUED FOR CLIENT APPROVAL                        | NAH   | PMM       | NAH      | GS      | BGP      |          |                |                         |                                 |                                                                                                      |                                                                                                                                      |                                 |                                                                                                                |   |
| REV | DATE     | REVISION DESCRIPTION                              | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |                                 |                                                                                                      |                                                                                                                                      |                                 |                                                                                                                |   |

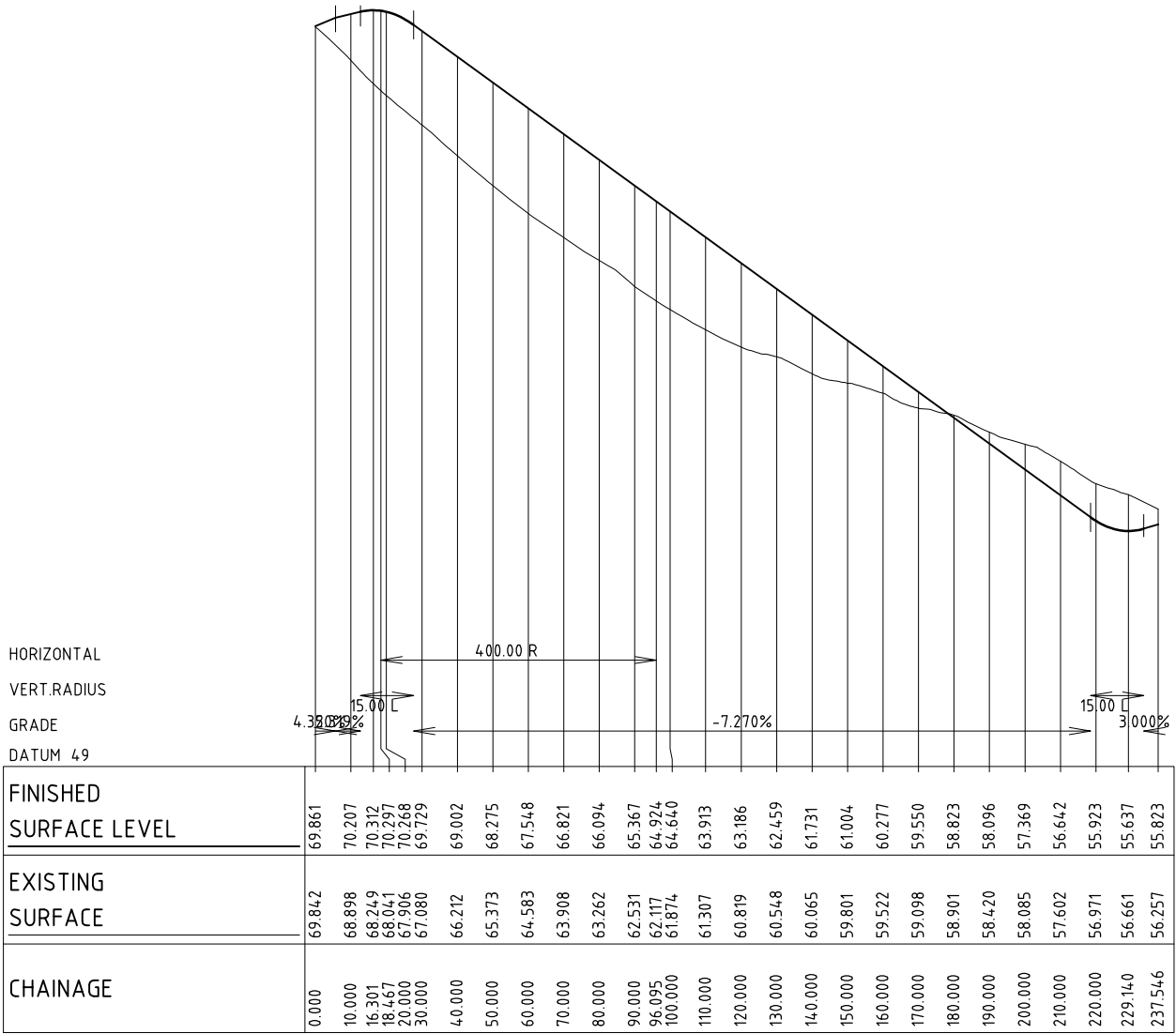


NOTE

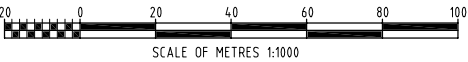
1.
- ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2.
- FOR STAGE 1 RELEASE AREA GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 003 TO 005



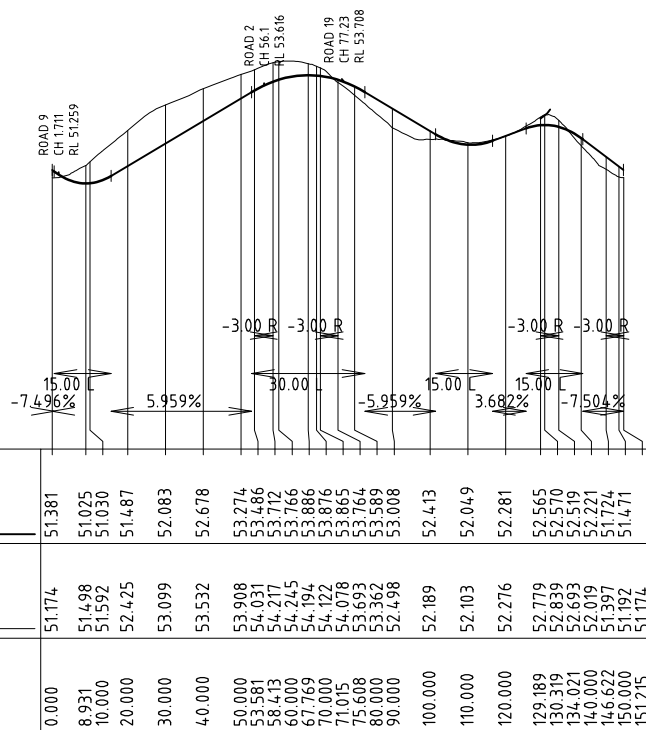
LONGITUDINAL SECTION - ROAD 15  
SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100



LONGITUDINAL SECTION - ROAD 16  
SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100

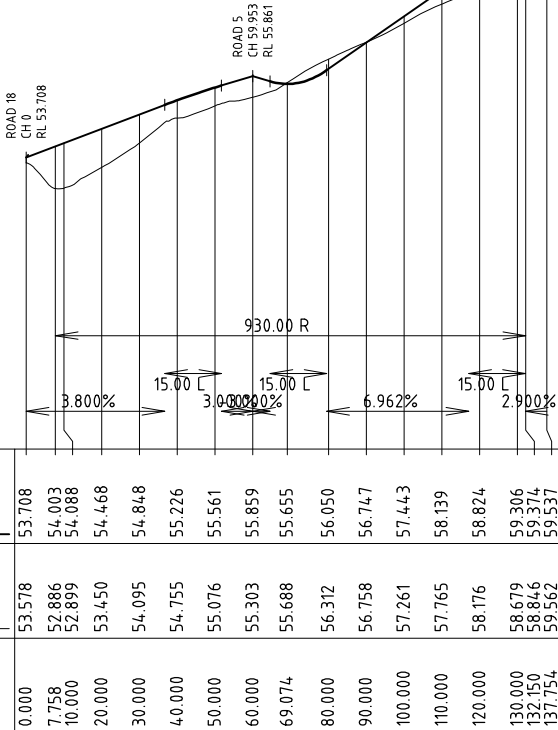


|     |          |                                                   |       |           |          |         |          |          |                |                         |  |                                                |                                                                                                                                                  |          |                 |                                                                                                                |                  |     |   |
|-----|----------|---------------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|--|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------|----------------------------------------------------------------------------------------------------------------|------------------|-----|---|
|     |          |                                                   |       |           |          |         |          |          |                |                         |  | A1 SHEET SCALE 1:1000H & 1:100V                |                                                                                                                                                  |          |                 |                                                                                                                |                  |     |   |
| C   | 15.11.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION UPDATED | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |  | <div>OneWay<sup>™</sup><br/>to zero harm</div> | <div> <b>WorleyParsons</b><br/>resources &amp; energy</div> | CUSTOMER | HUNTLEE PTY LTD | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 RELEASE AREA<br>ROADS 15 & 16 - SHEET 7 |                  |     |   |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION               | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |  | WORLEYPARSONS PROJECT No.                      | Copyright ©<br>WorleyParsons Services Pty Ltd<br>ABN 61 001 279 812                                                                              |          |                 | DRG No                                                                                                         | 301017-00364-107 | REV | C |
| A   | 15.12.10 | ISSUED FOR CLIENT APPROVAL                        | NAH   | PMM       | NAH      | GS      | BGP      |          |                |                         |  |                                                |                                                                                                                                                  |          |                 |                                                                                                                |                  |     |   |
| REV | DATE     | REVISION DESCRIPTION                              | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |  |                                                |                                                                                                                                                  |          |                 |                                                                                                                |                  |     |   |



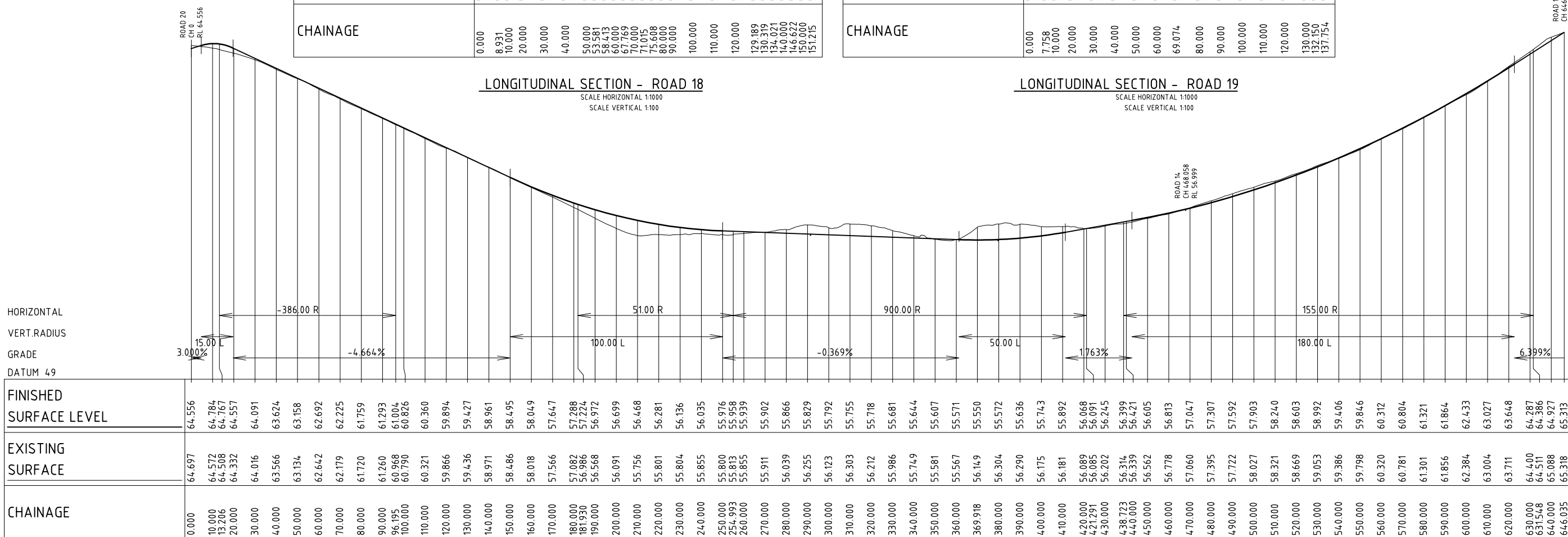
LONGITUDINAL SECTION - ROAD 18

SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100



LONGITUDINAL SECTION - ROAD 19

SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100



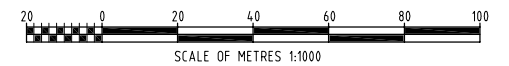
LONGITUDINAL SECTION - ROAD 17

SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100



|     |          |                                                   |       |           |          |         |          |          |                |                         |                                                                                                                                                                     |                                                                                                                                                                                                                                   |                 |                                                                                                                    |                  |          |
|-----|----------|---------------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------|------------------|----------|
|     |          |                                                   |       |           |          |         |          |          |                |                         | A1 SHEET   SCALE 1:1000H & 1:100V                                                                                                                                   |  <div><b>WorleyParsons</b><br/>resources &amp; energy</div> <div>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER        | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 RELEASE AREA<br>ROADS 17, 18 & 19 – SHEET 8 |                  |          |
| C   | 15.11.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION UPDATED | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |  <div>to zero harm</div> <div>WORLEYPARSONS PROJECT No.<br/>301017-00364</div> |                                                                                                                                                                                                                                   | HUNTLEE PTY LTD | DRG No                                                                                                             | 301017-00364-108 | REV<br>C |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION               | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                                                                                                                                                     |                                                                                                                                                                                                                                   |                 |                                                                                                                    |                  |          |
| A   | 15.12.10 | ISSUED FOR CLIENT APPROVAL                        | NAH   | PMM       | NAH      | GS      | BGP      |          |                |                         |                                                                                                                                                                     |                                                                                                                                                                                                                                   |                 |                                                                                                                    |                  |          |
| REV | DATE     | REVISION DESCRIPTION                              | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |                                                                                                                                                                     |                                                                                                                                                                                                                                   |                 |                                                                                                                    |                  |          |

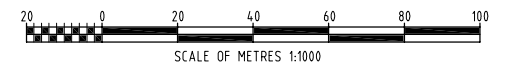
1. ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2. FOR STAGE 1 RELEASE AREA GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 003 TO 005



|     |          |                                                   |       |           |          |         |          |          |                |                                                                                                                                  |                                               |                                                                                                                                                                                                                            |                                 |                                                                                                          |        |                  |
|-----|----------|---------------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------------------------------------------------------------------------------------------------|--------|------------------|
|     |          |                                                   |       |           |          |         |          |          |                | A1 SHEET                                                                                                                         | SCALE 1:1000H & 1:100V                        |  <div><b>WorleyParsons</b><br/>resources &amp; energy<br/>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER<br><br>HUNTLEE PTY LTD | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 RELEASE AREA<br>ROAD 20 – SHEET 9 |        |                  |
| C   | 15.11.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION UPDATED | NAH   | PMM       | NAH      | GS      | GS       |          |                |  <div><b>OneWay™</b><br/>to zero harm</div> | WORLEYPARSONS PROJECT No.<br><br>301017-00364 |                                                                                                                                                                                                                            |                                 |                                                                                                          |        |                  |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION               | NAH   | PMM       | NAH      | GS      | GS       |          |                |                                                                                                                                  |                                               |                                                                                                                                                                                                                            |                                 |                                                                                                          |        |                  |
| A   | 15.12.10 | ISSUED FOR CLIENT APPROVAL                        | NAH   | PMM       | NAH      | GS      | BGP      |          |                |                                                                                                                                  |                                               |                                                                                                                                                                                                                            |                                 |                                                                                                          |        |                  |
| REV | DATE     | REVISION DESCRIPTION                              | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE                                                                                                          |                                               |                                                                                                                                                                                                                            |                                 |                                                                                                          | DRG No | 301017-00364-109 |



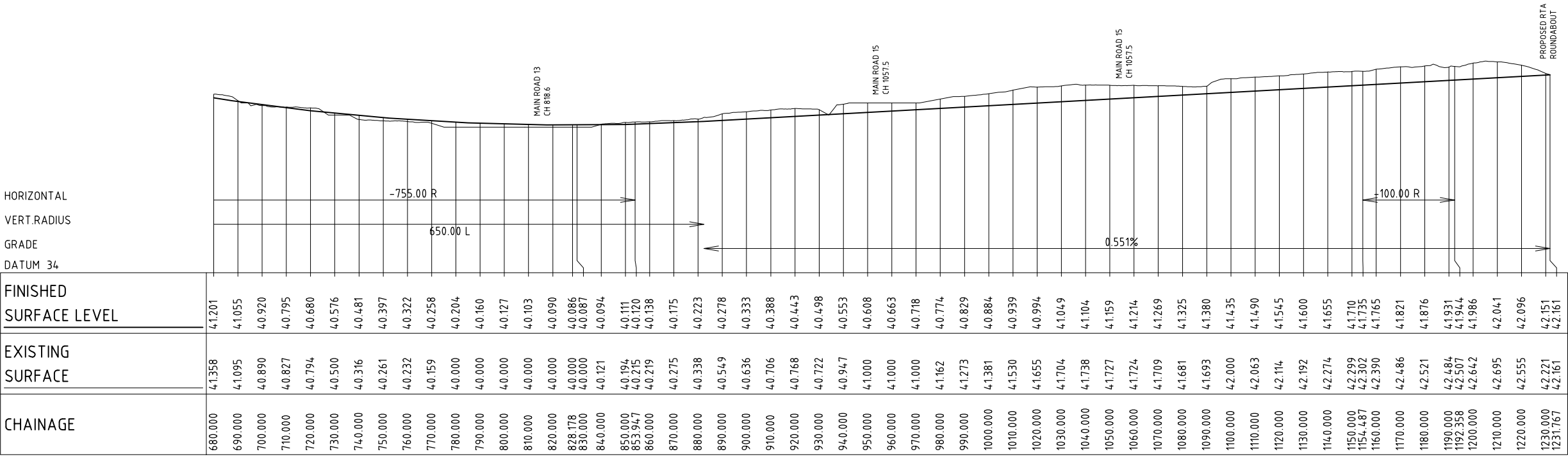
1. ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2. FOR STAGE 1 RELEASE AREA GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 003 TO 005



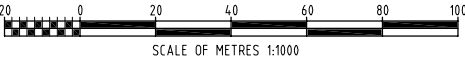
|     |          |                                                   |       |           |          |         |          |          |                |                         | A1 SHEET   SCALE 1:1000H & 1:100V                                                                                                |  <div><b>WorleyParsons</b><br/>resources &amp; energy<br/>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER<br><br>HUNTLEE PTY LTD | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>WINE COUNTRY DRIVE<br>SHEET 1 |                                |              |  |
|-----|----------|---------------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------------------------------------------------------------------------------------|--------------------------------|--------------|--|
| C   | 15.11.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION UPDATED | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |  <div><b>OneWay™</b><br/>to zero harm</div> |                                                                                                                                                                                                                            |                                 | WORLEYPARSONS PROJECT No.<br><br>301017-00364                                                | DRG No<br><br>301017-00364-110 | REV<br><br>C |  |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION               | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                                                                                                                  |                                                                                                                                                                                                                            |                                 |                                                                                              |                                |              |  |
| A   | 15.12.10 | ISSUED FOR CLIENT APPROVAL                        | NAH   | PMM       | NAH      | GS      | BGP      |          |                |                         |                                                                                                                                  |                                                                                                                                                                                                                            |                                 |                                                                                              |                                |              |  |
| REV | DATE     | REVISION DESCRIPTION                              | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |                                                                                                                                  |                                                                                                                                                                                                                            |                                 |                                                                                              |                                |              |  |

NOTE

1. ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2. FOR STAGE 1 RELEASE AREA GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 003 TO 005



LONGITUDINAL SECTION - WINE COUNTRY DR  
SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100



|     |          |                                                   |       |           |          |         |          |          |                |                         |                                 |                                                                                                                                                                                                                                           |                                        |                                                                                              |  |        |                  |
|-----|----------|---------------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|----------------------------------------------------------------------------------------------|--|--------|------------------|
|     |          |                                                   |       |           |          |         |          |          |                |                         | A1 SHEET SCALE 1:1000H & 1:100V |  <div><b>WorleyParsons</b><br/>resources &amp; energy<br/><small>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</small></div> | CUSTOMER<br><br><b>HUNTLEE PTY LTD</b> | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>WINE COUNTRY DRIVE<br>SHEET 2 |  |        |                  |
| C   | 15.11.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION UPDATED | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                 |                                                                                                                                                                                                                                           |                                        |                                                                                              |  |        |                  |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION               | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                 |                                                                                                                                                                                                                                           |                                        |                                                                                              |  |        |                  |
| A   | 15.12.10 | ISSUED FOR CLIENT APPROVAL                        | NAH   | PMM       | NAH      | GS      | BGP      |          |                |                         |                                 |                                                                                                                                                                                                                                           |                                        |                                                                                              |  |        |                  |
| REV | DATE     | REVISION DESCRIPTION                              | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE | 301017-00364                    |                                                                                                                                                                                                                                           |                                        |                                                                                              |  | DRG No | 301017-00364-111 |



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LOCATION: N:\301017\00364 HUNTLLEE PA VILLAGE \CAD\04 ORGS\04 REV A\301017-00364\_201 & 208\_GA\_MAIN ROAD STAGE 1.DWG

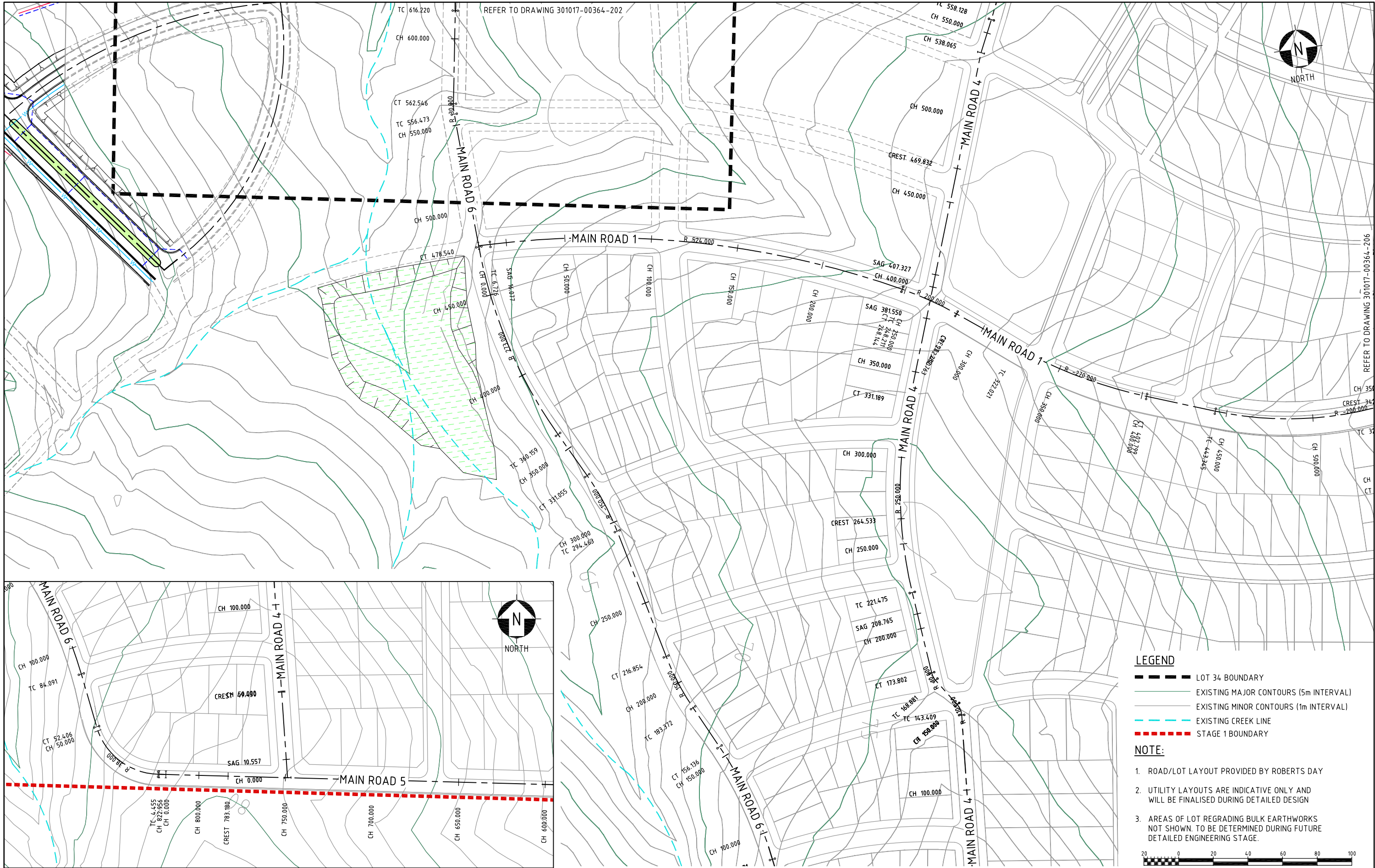
USER NAME: nathan.hole

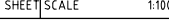
DATE & TIME: 21/09/2012 11:24 PM



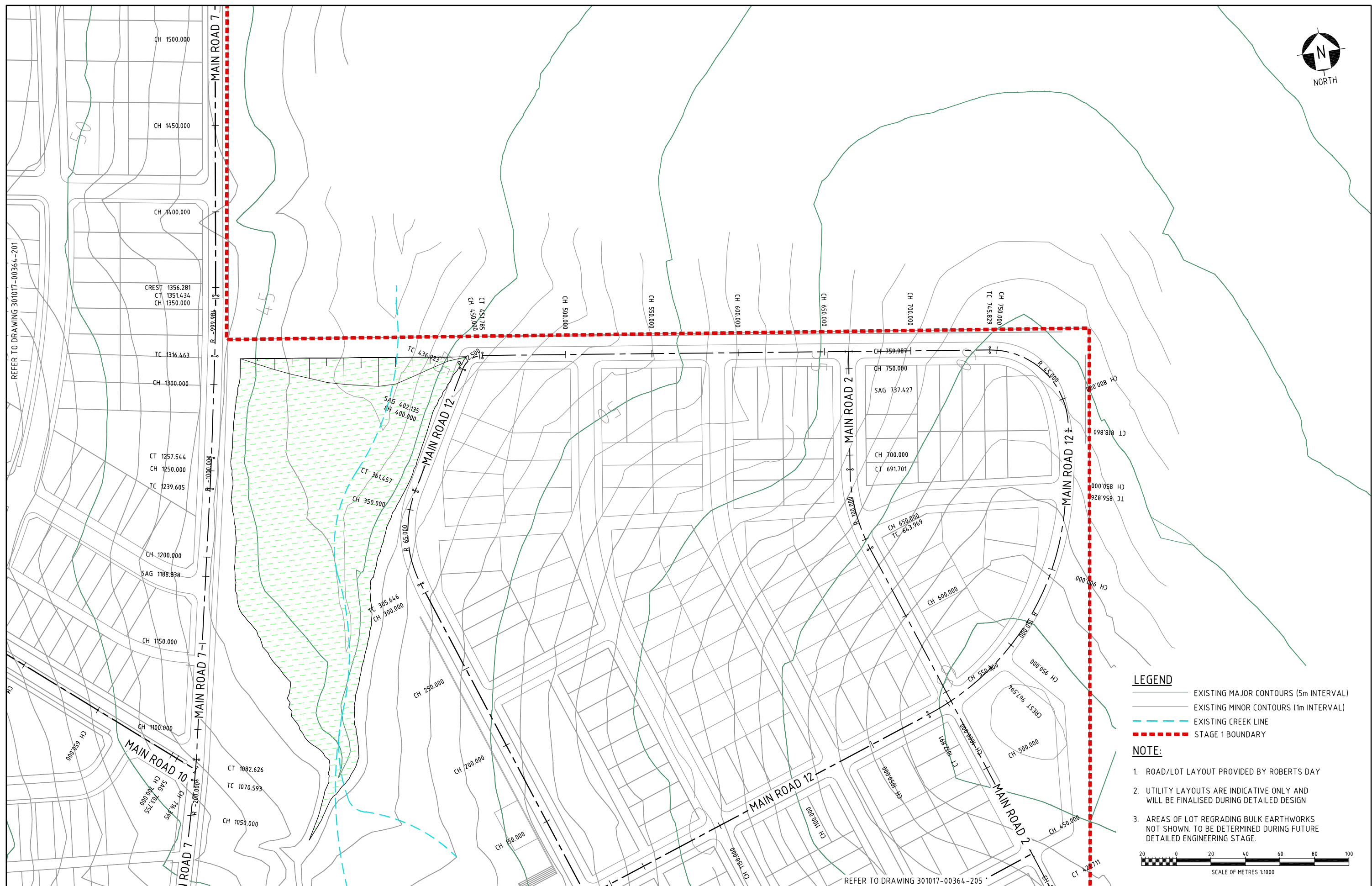






| INSERT |          |                                           |       |           |          |         |          |          |                | SEE INSERT FOR CONTINUATION                                                                                         |                                               | SCALE OF METRES 1:1000                                                                                                                                                                                  |                                 |                                                                                              |  |                                |              |
|--------|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------------------------------------------------------------------------------------|--|--------------------------------|--------------|
|        |          |                                           |       |           |          |         |          |          |                | A1 SHEET                                                                                                            | SCALE 1:1000                                  |  <b>WorleyParsons</b><br>resources & energy<br>Copyright ©<br>WorleyParsons Services Pty Ltd<br>ABN 61 001 279 812 | CUSTOMER<br><br>HUNTLEE PTY LTD | HUNTLEE STAGE 1 PROJECT APPLICATION<br>GENERAL ARRANGEMENT<br>STAGE 1 RESIDENTIAL<br>SHEET 3 |  |                                |              |
| D      | 2109.12  | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |  <b>OneWay</b><br>to zero harm | WORLEYPARSONS PROJECT No.<br><br>301017-00364 |                                                                                                                                                                                                         |                                 |                                                                                              |  | DRG No<br><br>301017-00364-203 | REV<br><br>D |
| C      | 0108.12  | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                                                                                                                     |                                               |                                                                                                                                                                                                         |                                 |                                                                                              |  |                                |              |
| B      | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION       | NAH   | PMM       | NAH      | GS      | GS       |          |                |                                                                                                                     |                                               |                                                                                                                                                                                                         |                                 |                                                                                              |  |                                |              |
| A      | 07.03.11 | ISSUED FOR CLIENT APPROVAL                | PMM   | NAH       | PMM      | GS      | CG       |          |                |                                                                                                                     |                                               |                                                                                                                                                                                                         |                                 |                                                                                              |  |                                |              |
| REV    | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE                                                                                             |                                               |                                                                                                                                                                                                         |                                 |                                                                                              |  |                                |              |

LOCATION: N:\301017\00364 HUNTLEE PA VILLAGE\1\CAD\04 DRGS\04 REV A\301017-00364\_201 & 208\_GA\_MAIN ROAD STAGE 1.DWG USER NAME: nathan.hole DATE & TIME: 21/09/2012 11:36 PM

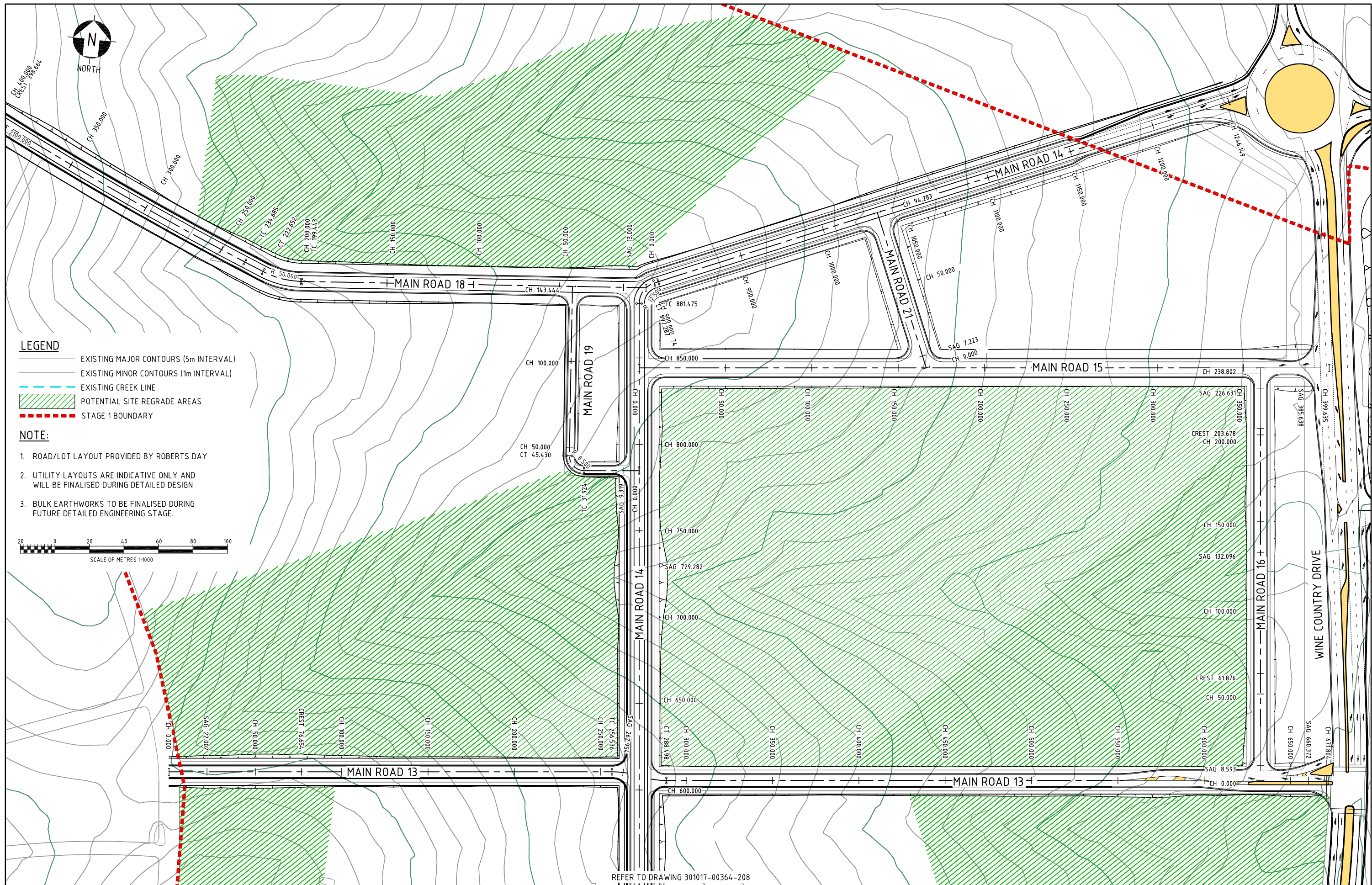
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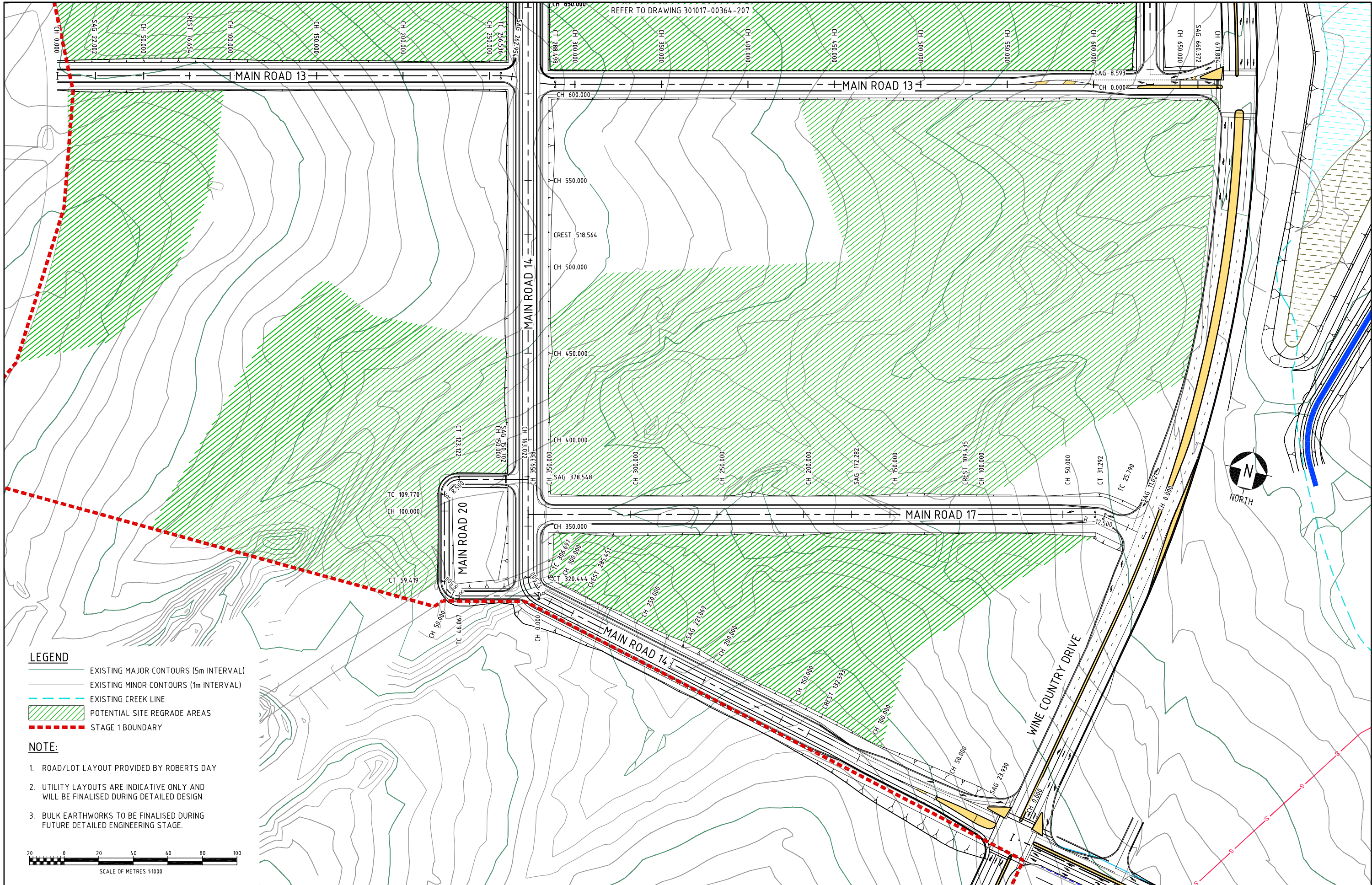






| REV | DATE    | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE | A1 SHEET SCALE | 1:1000 | WorleyParsons resources & energy | CUSTOMER | HUNTLEE PTY LTD | HUNTLEE STAGE 1 PROJECT APPLICATION<br>GENERAL ARRANGEMENT<br>STAGE 1 TOWN CENTRE<br>SHEET 1 | DRG No | 301017-00364-207 | REV | C |
|-----|---------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|----------------|--------|----------------------------------|----------|-----------------|----------------------------------------------------------------------------------------------|--------|------------------|-----|---|
| C   | 0108.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                |        |                                  |          |                 |                                                                                              |        |                  |     |   |
| B   | -       | NOT ISSUED                                |       |           |          |         |          |          |                |                         |                |        |                                  |          |                 |                                                                                              |        |                  |     |   |
| A   | -       | NOT ISSUED                                |       |           |          |         |          |          |                |                         |                |        |                                  |          |                 |                                                                                              |        |                  |     |   |



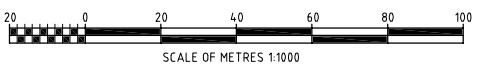


LEGEND

- EXISTING MAJOR CONTOURS (5m INTERVAL)
- EXISTING MINOR CONTOURS (1m INTERVAL)
- EXISTING CREEK LINE
- POTENTIAL SITE REGRADE AREAS
- STAGE 1 BOUNDARY

NOTE:

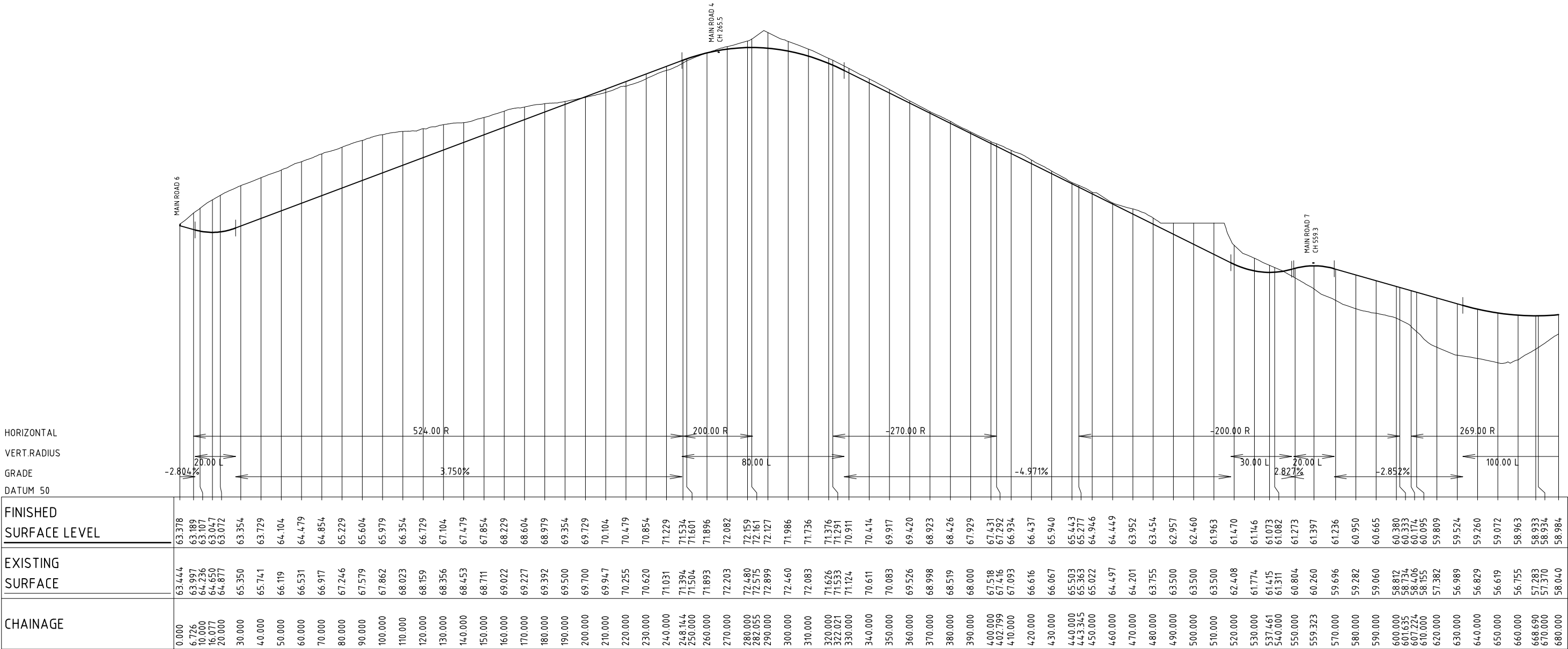
- ROAD/LOT LAYOUT PROVIDED BY ROBERTS DAY
- UTILITY LAYOUTS ARE INDICATIVE ONLY AND WILL BE FINALISED DURING DETAILED DESIGN
- BULK EARTHWORKS TO BE FINALISED DURING FUTURE DETAILED ENGINEERING STAGE.



| REV | DATE   | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE | A1 SHEET SCALE | 1:1000 | WorleyParsons to zero harm | WorleyParsons PROJECT No. | 301017-00364 | CUSTOMER | HUNTLEE PTY LTD | HUNTLEE STAGE 1 PROJECT APPLICATION<br>GENERAL ARRANGEMENT<br>STAGE 1 TOWN CENTRE<br>SHEET 2 | DRG No | 301017-00364-208 | REV | C |
|-----|--------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|----------------|--------|----------------------------|---------------------------|--------------|----------|-----------------|----------------------------------------------------------------------------------------------|--------|------------------|-----|---|
| C   | 010812 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                |        |                            |                           |              |          |                 |                                                                                              |        |                  |     |   |
| B   | -      | NOT ISSUED                                |       |           |          |         |          |          |                |                         |                |        |                            |                           |              |          |                 |                                                                                              |        |                  |     |   |
| A   | -      | NOT ISSUED                                |       |           |          |         |          |          |                |                         |                |        |                            |                           |              |          |                 |                                                                                              |        |                  |     |   |

NOTE

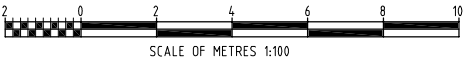
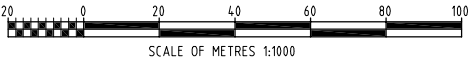
1. ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2. FOR STAGE 1 RESIDENTIAL GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 201 TO 206



LONGITUDINAL SECTION - MAIN ROAD 1

SCALE HORIZONTAL 1:1000

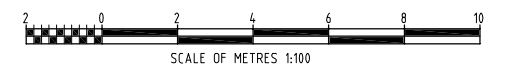
SCALE VERTICAL 1:100



|     |          |                                           |       |           |          |         |          |          |                |                         |                                                |                        |                                                                     |                 |                                                                                                             |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|------------------------------------------------|------------------------|---------------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------------------------------|
|     |          |                                           |       |           |          |         |          |          |                |                         | A1 SHEET                                       | SCALE 1:1000H & 1:100V |                                                                     | CUSTOMER        | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 RESIDENTIAL - MAIN ROAD 1<br>SHEET 1 |
| C   | 0108.12  | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         | <div>OneWay<sup>™</sup><br/>to zero harm</div> |                        | <div>WorleyParsons<br/>resources &amp; energy</div>                 | HUNTLEE PTY LTD | DRG No                                                                                                      |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION       | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         | WORLEYPARSONS PROJECT No.                      |                        | Copyright ©<br>WorleyParsons Services Pty Ltd<br>ABN 61 001 279 812 |                 | 301017-00364-301                                                                                            |
| A   | 07.03.11 | ISSUED FOR CLIENT APPROVAL                | PMM   | NAH       | PMM      | GS      | CG       |          |                |                         | 301017-00364                                   |                        |                                                                     |                 | REV                                                                                                         |
| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |                                                |                        |                                                                     |                 | C                                                                                                           |



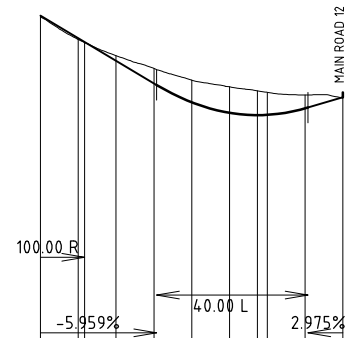
1. ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2. FOR STAGE 1 RESIDENTIAL GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 201 TO 206



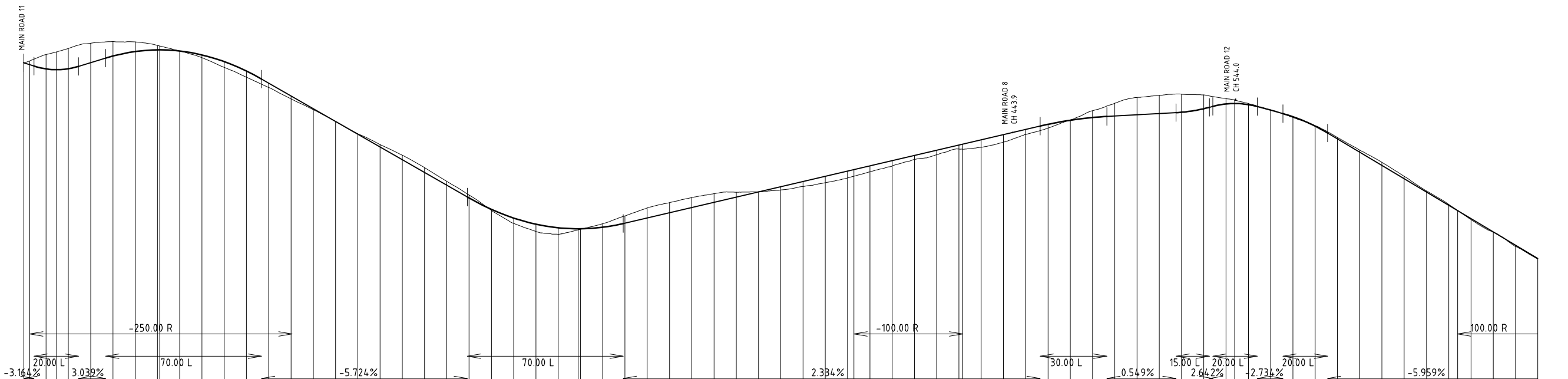
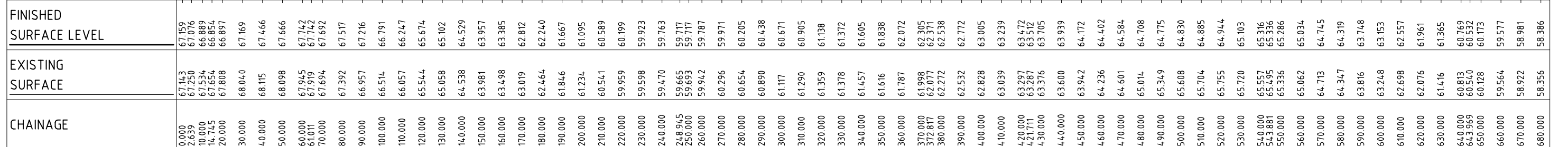
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|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------------------------------|------------------|----------|
|     |          |                                           |       |           |          |         |          |          |                |                         | A1 SHEET                                                                                                                        | SCALE 1:1000H & 1:100V                        |  <div><b>WorleyParsons</b><br/>resources &amp; energy<br/><br/>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER<br><br>HUNTLEE PTY LTD | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 RESIDENTIAL – MAIN ROAD 1<br>SHEET 2 |                  |          |
| C   | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |  <div><b>OneWay</b><br/>to zero harm</div> | WORLEYPARSONS PROJECT No.<br><br>301017-00364 |                                                                                                                                                                                                                                 |                                 | DRG No                                                                                                      | 301017-00364-302 | REV<br>C |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION       | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                                                                                                                 |                                               |                                                                                                                                                                                                                                 |                                 |                                                                                                             |                  |          |
| A   | 07.03.11 | ISSUED FOR CLIENT APPROVAL                | PMM   | NAH       | PMM      | GS      | CG       |          |                |                         |                                                                                                                                 |                                               |                                                                                                                                                                                                                                 |                                 |                                                                                                             |                  |          |
| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |                                                                                                                                 |                                               |                                                                                                                                                                                                                                 |                                 |                                                                                                             |                  |          |

1. ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2. FOR STAGE 1 RESIDENTIAL GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 201 TO 206

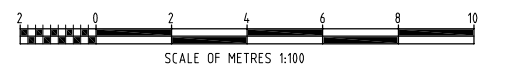
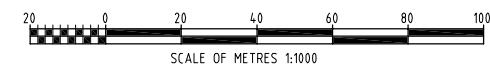
|                           |         |         |         |         |         |         |         |         |         |         |         |
|---------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| FINISHED<br>SURFACE LEVEL | 58.386  | 57.790  | 57.688  | 57.194  | 56.598  | 56.098  | 55.820  | 55.758  | 55.766  | 55.935  | 56.232  |
| EXISTING<br>SURFACE       | 58.356  | 57.759  | 57.678  | 57.330  | 56.995  | 56.685  | 56.506  | 56.399  | 56.362  | 56.288  | 56.207  |
| CHAINAGE                  | 680.000 | 690.000 | 691.701 | 700.000 | 710.000 | 720.000 | 730.000 | 737.427 | 740.000 | 750.000 | 759.987 |



SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100

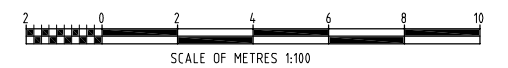


SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100



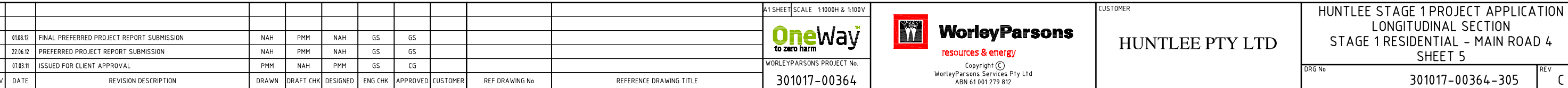
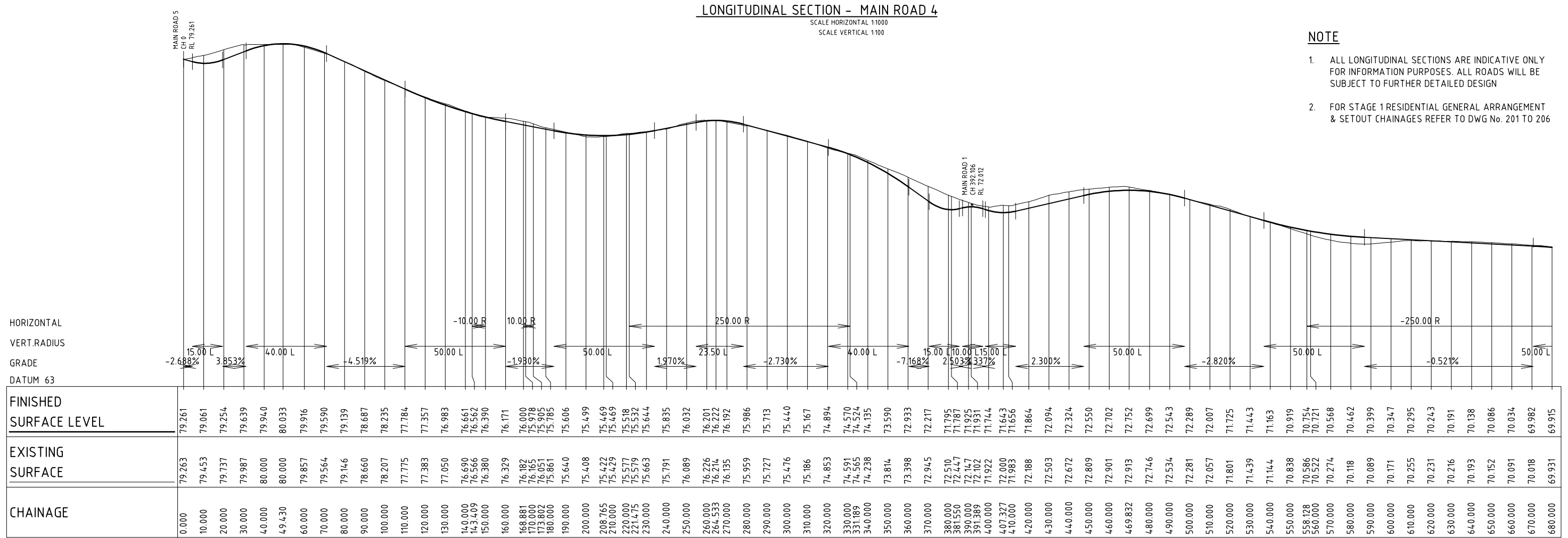
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|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------|---------------------------------------|---------------------|
|     |          |                                           |       |           |          |         |          |          |                |                         | A1 SHEET   SCALE 1:100H & 1:100V |  <div><b>WorleyParsons</b><br/>resources &amp; energy<br/>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER<br><br><b>HUNTLEE PTY LTD</b> | <b>HUNTLEE STAGE 1 PROJECT APPLICATION<br/>LONGITUDINAL SECTION<br/>STAGE 1 RESIDENTIAL – MAIN ROAD 2<br/>SHEET 3</b> |  |                                                      |                                       |                     |
| C   | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         | <b>OneWay™</b><br>to zero harm   |                                                                                                                                                                                                                            |                                        |                                                                                                                       |  | WORLEYPARSONS PROJECT No.<br><br><b>301017-00364</b> | DRG No<br><br><b>301017-00364-303</b> | REV<br><br><b>C</b> |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION       | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                  |                                                                                                                                                                                                                            |                                        |                                                                                                                       |  |                                                      |                                       |                     |
| A   | 07.03.11 | ISSUED FOR CLIENT APPROVAL                | PMM   | NAH       | PMM      | GS      | CG       |          |                |                         |                                  |                                                                                                                                                                                                                            |                                        |                                                                                                                       |  |                                                      |                                       |                     |
| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |                                  |                                                                                                                                                                                                                            |                                        |                                                                                                                       |  |                                                      |                                       |                     |

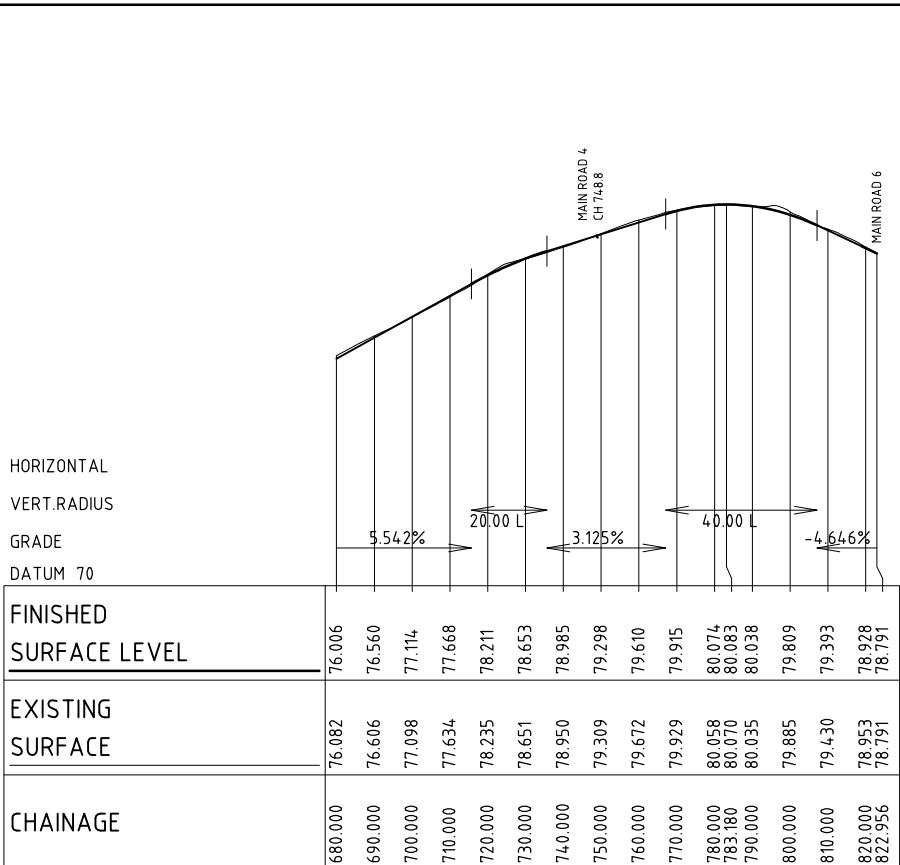
1. ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2. FOR STAGE 1 RESIDENTIAL GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 201 TO 206



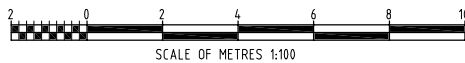
|     |          |                                           |       |           |          |         |          |          |                |                         | A1 SHEET | SCALE 1:1000H & 1:100V                                                                                |  <div><b>WorleyParsons</b><br/>resources &amp; energy<br/>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER<br><br>HUNTLEE PTY LTD | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 RESIDENTIAL – MAIN ROAD 3<br>SHEET 4 |                                |              |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|----------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------------------------------|--------------------------------|--------------|
| C   | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |          | <br>to zero harm |                                                                                                                                                                                                                            |                                 | WORLEYPARSONS PROJECT No.<br><br>301017-00364                                                               | DRG No<br><br>301017-00364-304 | REV<br><br>C |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION       | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |          |                                                                                                       |                                                                                                                                                                                                                            |                                 |                                                                                                             |                                |              |
| A   | 07.03.11 | ISSUED FOR CLIENT APPROVAL                | PMM   | NAH       | PMM      | GS      | CG       |          |                |                         |          |                                                                                                       |                                                                                                                                                                                                                            |                                 |                                                                                                             |                                |              |
| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |          |                                                                                                       |                                                                                                                                                                                                                            |                                 |                                                                                                             |                                |              |





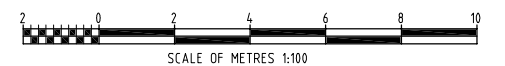


- |                           |        |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |        |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| HORIZONTAL                |        |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |        |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| VERT. RADIUS              |        |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |        |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| GRADE                     |        |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |        |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| DATUM 57                  |        |        |        |        |        |        |        |        |        |        |         |         |         |         |         |         |        |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| FINISHED<br>SURFACE LEVEL | 68.045 | 68.249 | 68.454 | 68.658 | 68.862 | 69.066 | 69.284 | 69.538 | 69.828 | 70.154 | 70.502  | 70.827  | 71.084  | 71.271  | 71.390  | 71.440  | 71.385 | 71.421  | 71.358  | 71.293  | 71.229  | 71.164  | 71.100  | 71.021  | 70.861  | 70.613  | 70.278  | 69.854  | 69.342  | 68.741  | 68.053  | 67.292  | 66.524  | 65.896  | 65.490  | 65.170  | 64.849  | 64.529  | 64.261  | 64.216  | 64.239  | 64.482  | 64.937  | 65.338  | 65.547  | 65.579  | 65.561  | 65.395  | 65.230  | 65.216  | 65.255  | 65.481  | 65.782  | 65.850  | 66.084  | 66.385  | 66.668  | 66.909  | 67.113  | 67.310  | 67.513  | 67.869  | 68.442  | 69.226  | 70.074  | 70.921  | 71.747  | 72.500  | 73.180  | 73.787  | 74.343  | 74.897  | 75.452  | 76.006  |
| EXISTING<br>SURFACE       | 68.045 | 68.289 | 68.586 | 68.777 | 69.008 | 69.208 | 69.425 | 69.471 | 69.805 | 70.219 | 70.654  | 70.887  | 71.199  | 71.303  | 71.366  | 71.392  | 71.385 | 71.370  | 71.349  | 71.306  | 71.244  | 71.175  | 71.136  | 70.930  | 70.722  | 70.551  | 70.174  | 69.848  | 69.511  | 68.902  | 68.112  | 67.252  | 66.457  | 65.913  | 65.504  | 65.178  | 64.875  | 64.532  | 64.224  | 64.109  | 64.211  | 64.444  | 65.016  | 65.325  | 65.584  | 65.606  | 65.591  | 65.385  | 65.232  | 65.207  | 65.218  | 65.479  | 65.788  | 65.848  | 66.054  | 66.430  | 66.705  | 66.958  | 67.107  | 67.327  | 67.566  | 67.805  | 68.354  | 69.019  | 69.853  | 70.832  | 71.664  | 72.393  | 73.077  | 73.717  | 74.314  | 74.905  | 75.511  | 76.082  |
| CHAINAGE                  | 0+000  | 10+000 | 20+000 | 30+000 | 40+000 | 50+000 | 60+000 | 70+000 | 80+000 | 90+000 | 100+000 | 110+000 | 120+000 | 130+000 | 140+000 | 150+000 | 152+58 | 160+000 | 170+000 | 180+000 | 190+000 | 200+000 | 210+000 | 220+000 | 230+000 | 240+000 | 250+000 | 260+000 | 270+000 | 280+000 | 290+000 | 300+000 | 310+000 | 320+000 | 330+000 | 340+000 | 350+000 | 360+000 | 370+000 | 375+825 | 380+000 | 390+000 | 400+000 | 410+000 | 420+000 | 425+765 | 430+000 | 440+000 | 450+000 | 453+769 | 460+000 | 470+000 | 480+000 | 482+251 | 490+000 | 500+000 | 510+000 | 520+000 | 530+000 | 540+000 | 550+000 | 560+000 | 570+000 | 580+000 | 590+000 | 600+000 | 610+000 | 620+000 | 630+000 | 640+000 | 650+000 | 660+000 | 670+000 | 680+000 |



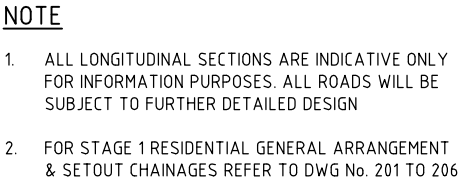
|     |          |                                           |       |           |          |         |          |          |                |                         |                                           |                        |                                                                                                                                                                                                                            |          |                                                                                                                 |                  |     |   |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|-------------------------------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------|------------------|-----|---|
|     |          |                                           |       |           |          |         |          |          |                |                         | A1 SHEET                                  | SCALE 1:1000H & 1:100V |  <div><b>WorleyParsons</b><br/>resources &amp; energy<br/>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 RESIDENTIAL - MAIN ROAD 4 & 5<br>SHEET 6 |                  |     |   |
| C   | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                           |                        |                                                                                                                                                                                                                            |          |                                                                                                                 |                  |     |   |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION       | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                           |                        |                                                                                                                                                                                                                            |          |                                                                                                                 |                  |     |   |
| A   | 07.03.11 | ISSUED FOR CLIENT APPROVAL                | PMM   | NAH       | PMM      | GS      | CG       |          |                |                         |                                           |                        |                                                                                                                                                                                                                            |          |                                                                                                                 |                  |     |   |
| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE | WORLEYPARSONS PROJECT No.<br>301017-00364 |                        |                                                                                                                                                                                                                            |          | DRG No                                                                                                          | 301017-00364-306 | REV | C |

1. ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2. FOR STAGE 1 RESIDENTIAL GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 201 TO 206

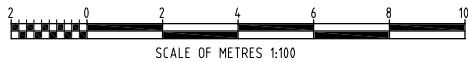
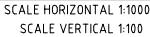


|     |          |                                           |       |           |          |         |          |          |                |                         | A1 SHEET                                                                                                                                     | SCALE 1:1000H & 1:100V                    |  <div><b>WorleyParsons</b><br/>resources &amp; energy<br/>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 RESIDENTIAL – MAIN ROAD 6<br>SHEET 7 |  |  |                            |          |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------------------------------------------------------------------------------------------------|--|--|----------------------------|----------|
| C   | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |  <div><b>OneWay</b><sup>TM</sup><br/>to zero harm</div> | WORLEYPARSONS PROJECT No.<br>301017-00364 |                                                                                                                                                                                                                            |          |                                                                                                             |  |  | DRG No<br>301017-00364-307 | REV<br>C |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION       | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                                                                                                                              |                                           |                                                                                                                                                                                                                            |          |                                                                                                             |  |  |                            |          |
| A   | 07.03.11 | ISSUED FOR CLIENT APPROVAL                | PMM   | NAH       | PMM      | GS      | CG       |          |                |                         |                                                                                                                                              |                                           |                                                                                                                                                                                                                            |          |                                                                                                             |  |  |                            |          |
| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |                                                                                                                                              |                                           |                                                                                                                                                                                                                            |          |                                                                                                             |  |  |                            |          |





SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100

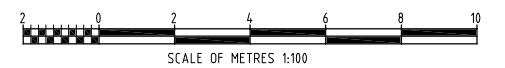


|     |          |                                           |       |           |          |         |          |          |                |                         | A1 SHEET | SCALE 1:1000H & 1:100V                                                                                                           |  <div><b>WorleyParsons</b><br/>resources &amp; energy<br/><small>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</small></div> | CUSTOMER<br><br><b>HUNTLEE PTY LTD</b> | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 RESIDENTIAL – MAIN ROAD 6<br>SHEET 8 |                  |     |                                               |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-------------------------------------------------------------------------------------------------------------|------------------|-----|-----------------------------------------------|
| C   | 0108.12  | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |          |  <div><b>OneWay™</b><br/>to zero harm</div> |                                                                                                                                                                                                                                           |                                        |                                                                                                             |                  |     | WORLEYPARSONS PROJECT No.<br><br>301017-00364 |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION       | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |          |                                                                                                                                  |                                                                                                                                                                                                                                           |                                        |                                                                                                             |                  |     |                                               |
| A   | 07.03.11 | ISSUED FOR CLIENT APPROVAL                | PMM   | NAH       | PMM      | GS      | CG       |          |                |                         |          |                                                                                                                                  |                                                                                                                                                                                                                                           |                                        |                                                                                                             |                  |     |                                               |
| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |          |                                                                                                                                  |                                                                                                                                                                                                                                           |                                        |                                                                                                             |                  |     |                                               |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                                                                                                                                  |                                                                                                                                                                                                                                           |                                        | DRG No                                                                                                      | 301017-00364-308 | REV | C                                             |

1. ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2. FOR STAGE 1 RESIDENTIAL GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 201 TO 206



SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100



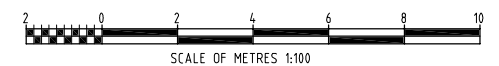
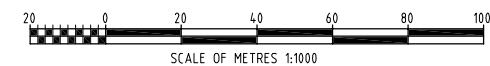
|     |          |                                           |       |           |          |         |          |          |                |                         |                                                                                                                                              |                                               |                                                                                                                                                                                                                            |                                 |                                                                                                             |              |  |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------------------------------|--------------|--|
|     |          |                                           |       |           |          |         |          |          |                |                         | A1 SHEET                                                                                                                                     | SCALE 1:1000H & 1:100V                        |  <div><b>WorleyParsons</b><br/>resources &amp; energy<br/>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER<br><br>HUNTLEE PTY LTD | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 RESIDENTIAL – MAIN ROAD 7<br>SHEET 9 |              |  |
| C   | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |  <div><b>OneWay</b><sup>TM</sup><br/>to zero harm</div> | WORLEYPARSONS PROJECT No.<br><br>301017-00364 |                                                                                                                                                                                                                            |                                 | DRG No<br><br>301017-00364-309                                                                              | REV<br><br>C |  |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION       | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                                                                                                                              |                                               |                                                                                                                                                                                                                            |                                 |                                                                                                             |              |  |
| A   | 07.03.11 | ISSUED FOR CLIENT APPROVAL                | PMM   | NAH       | PMM      | GS      | CG       |          |                |                         |                                                                                                                                              |                                               |                                                                                                                                                                                                                            |                                 |                                                                                                             |              |  |
| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |                                                                                                                                              |                                               |                                                                                                                                                                                                                            |                                 |                                                                                                             |              |  |

1. ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2. FOR STAGE 1 RESIDENTIAL GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 201 TO 206

| FINISHED<br>SURFACE LEVEL | 46.733   | 46.724   | 46.705   | 46.676   | 46.636   | 46.586   | 46.528   | 46.469   | 46.410   | 46.350   | 46.291   | 46.232   | 46.172   | 46.113   | 46.054   | 45.995   | 45.935   | 45.876   | 45.817   | 45.758   | 45.698   | 45.639   | 45.580   | 45.521   | 45.463   |
|---------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| EXISTING<br>SURFACE       | 46.695   | 46.698   | 46.551   | 46.049   | 46.452   | 46.533   | 46.510   | 46.362   | 46.195   | 46.049   | 45.972   | 45.908   | 45.945   | 46.033   | 46.094   | 46.218   | 46.326   | 46.396   | 46.400   | 46.320   | 46.131   | 46.164   | 46.073   | 45.677   | 45.508   |
| CHAINAGE                  | 1360.000 | 1370.000 | 1380.000 | 1390.000 | 1400.000 | 1410.000 | 1420.000 | 1430.000 | 1440.000 | 1450.000 | 1460.000 | 1470.000 | 1480.000 | 1490.000 | 1500.000 | 1510.000 | 1520.000 | 1530.000 | 1540.000 | 1550.000 | 1560.000 | 1570.000 | 1580.000 | 1590.000 | 1592.920 |



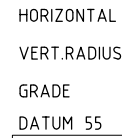
| CHAINAGE | EXISTING SURFACE | FINISHED SURFACE LEVEL |        |
|----------|------------------|------------------------|--------|
|          |                  | 55.486                 | 55.411 |
| 680.000  | 55.634           | 55.425                 | 55.351 |
| 690.000  | 55.425           | 55.222                 | 55.336 |
| 700.000  | 55.171           | 55.097                 | 55.261 |
| 710.000  | 54.953           | 54.797                 | 55.186 |
| 720.000  | 54.727           | 54.727                 | 55.111 |
| 730.000  | 54.692           | 54.692                 | 55.036 |
| 740.000  | 54.631           | 54.631                 | 54.961 |
| 750.000  | 54.645           | 54.645                 | 54.886 |
| 760.000  | 54.646           | 54.646                 | 54.811 |
| 770.000  | 54.687           | 54.687                 | 54.736 |
| 780.000  | 54.741           | 54.741                 | 54.661 |
| 790.000  | 54.704           | 54.704                 | 54.586 |
| 800.000  | 54.809           | 54.809                 | 54.511 |
| 810.000  | 54.876           | 54.876                 | 54.436 |
| 820.000  | 54.882           | 54.882                 | 54.421 |
| 822.028  | 54.966           | 54.966                 | 54.361 |
| 830.000  | 54.980           | 54.980                 | 54.286 |
| 840.000  | 54.981           | 54.981                 | 54.212 |
| 850.000  | 54.941           | 54.941                 | 54.137 |
| 860.000  | 54.822           | 54.822                 | 54.062 |
| 870.000  | 54.771           | 54.771                 | 53.986 |
| 880.000  | 54.709           | 54.709                 | 53.892 |
| 890.000  | 54.549           | 54.549                 | 53.771 |
| 900.000  | 54.266           | 54.266                 | 53.623 |
| 910.000  | 53.983           | 53.983                 | 53.448 |
| 920.000  | 53.658           | 53.658                 | 53.246 |
| 930.000  | 53.258           | 53.258                 | 53.016 |
| 940.000  | 52.848           | 52.848                 | 52.759 |
| 950.000  | 52.474           | 52.474                 | 52.475 |
| 960.000  | 52.327           | 52.327                 | 52.287 |
| 966.154  | 52.196           | 52.196                 | 52.164 |
| 970.000  | 51.786           | 51.786                 | 51.826 |
| 980.000  | 51.358           | 51.358                 | 51.479 |
| 990.000  | 50.932           | 50.932                 | 51.133 |
| 1000.000 | 50.434           | 50.434                 | 50.786 |
| 1010.000 | 49.891           | 49.891                 | 50.439 |
| 1020.000 | 49.770           | 49.770                 | 50.092 |
| 1030.000 | 49.847           | 49.847                 | 49.746 |
| 1040.000 | 49.675           | 49.675                 | 49.399 |
| 1050.000 | 49.317           | 49.317                 | 49.052 |
| 1060.000 | 48.848           | 48.848                 | 48.705 |
| 1070.000 | 48.373           | 48.373                 | 48.359 |
| 1080.000 | 48.231           | 48.231                 | 48.268 |
| 1082.626 | 47.883           | 47.883                 | 48.012 |
| 1090.000 | 47.544           | 47.544                 | 47.665 |
| 1100.000 | 47.214           | 47.214                 | 47.338 |
| 1110.000 | 47.117           | 47.117                 | 47.051 |
| 1120.000 | 46.958           | 46.958                 | 46.802 |
| 1130.000 | 46.793           | 46.793                 | 46.592 |
| 1140.000 | 46.630           | 46.630                 | 46.421 |
| 1150.000 | 46.506           | 46.506                 | 46.289 |
| 1160.000 | 46.380           | 46.380                 | 46.196 |
| 1170.000 | 46.343           | 46.343                 | 46.142 |
| 1180.000 | 46.320           | 46.320                 | 46.127 |
| 1188.838 | 46.330           | 46.330                 | 46.127 |
| 1190.000 | 46.361           | 46.361                 | 46.151 |
| 1200.000 | 46.312           | 46.312                 | 46.194 |
| 1210.000 | 46.271           | 46.271                 | 46.237 |
| 1220.000 | 46.246           | 46.246                 | 46.281 |
| 1230.000 | 46.263           | 46.263                 | 46.322 |
| 1239.605 | 46.287           | 46.287                 | 46.367 |
| 1250.000 | 46.312           | 46.312                 | 46.399 |
| 1257.544 | 46.317           | 46.317                 | 46.410 |
| 1260.000 | 46.375           | 46.375                 | 46.453 |
| 1270.000 | 46.448           | 46.448                 | 46.496 |
| 1280.000 | 46.486           | 46.486                 | 46.539 |
| 1290.000 | 46.535           | 46.535                 | 46.582 |
| 1300.000 | 46.602           | 46.602                 | 46.625 |
| 1310.000 | 46.623           | 46.623                 | 46.653 |
| 1316.463 | 46.609           | 46.609                 | 46.667 |
| 1320.000 | 46.620           | 46.620                 | 46.699 |
| 1330.000 | 46.630           | 46.630                 | 46.721 |
| 1340.000 | 46.661           | 46.661                 | 46.732 |
| 1350.000 | 46.673           | 46.673                 | 46.733 |
| 1351.434 | 46.684           | 46.684                 | 46.734 |
| 1356.281 | 46.695           | 46.695                 | 46.735 |
| 1360.000 |                  |                        |        |



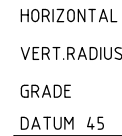
|     |          |                                           |       |           |          |         |          |          |                |                         | A1 SHEET   SCALE 1:100H & 1:100V                                                                                                            |  <div><b>WorleyParsons</b><br/>resources &amp; energy<br/>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 RESIDENTIAL - MAIN ROAD 7<br>SHEET 10 |                  |     |   |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------------------------------------------------------------------------------------------------|------------------|-----|---|
| C   | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |  <div>WORLEYPARSONS PROJECT No.<br/>301017-00364</div> |                                                                                                                                                                                                                            |          | DRG No                                                                                                       | 301017-00364-310 | REV | C |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION       | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                                                                                                                             |                                                                                                                                                                                                                            |          |                                                                                                              |                  |     |   |
| A   | 07.03.11 | ISSUED FOR CLIENT APPROVAL                | PMM   | NAH       | PMM      | GS      | CG       |          |                |                         |                                                                                                                                             |                                                                                                                                                                                                                            |          |                                                                                                              |                  |     |   |
| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |                                                                                                                                             |                                                                                                                                                                                                                            |          |                                                                                                              |                  |     |   |



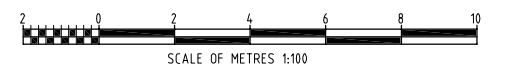
1. ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2. FOR STAGE 1 RESIDENTIAL GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 201 TO 206



SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100



SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100



|     |          |                                           |       |           |          |         |          |          |                |                         |                                                                                                                                              |                                           |                                                                                                                                                                                                                            |          |                                                                                                              |  |  |                            |          |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------------------------------------------------------------------------------------------------------------|--|--|----------------------------|----------|
|     |          |                                           |       |           |          |         |          |          |                |                         | A1 SHEET                                                                                                                                     | SCALE 1:1000H & 1:100V                    |  <div><b>WorleyParsons</b><br/>resources &amp; energy<br/>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 RESIDENTIAL – MAIN ROAD 8<br>SHEET 11 |  |  |                            |          |
| C   | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |  <div><b>OneWay</b><sup>TM</sup><br/>to zero harm</div> | WORLEYPARSONS PROJECT No.<br>301017-00364 |                                                                                                                                                                                                                            |          |                                                                                                              |  |  | DRG No<br>301017-00364-311 | REV<br>C |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION       | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                                                                                                                              |                                           |                                                                                                                                                                                                                            |          |                                                                                                              |  |  |                            |          |
| A   | 07.03.11 | ISSUED FOR CLIENT APPROVAL                | PMM   | NAH       | PMM      | GS      | CG       |          |                |                         |                                                                                                                                              |                                           |                                                                                                                                                                                                                            |          |                                                                                                              |  |  |                            |          |
| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |                                                                                                                                              |                                           |                                                                                                                                                                                                                            |          |                                                                                                              |  |  |                            |          |

NOTE

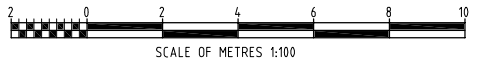
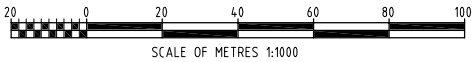
1. ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2. FOR STAGE 1 RESIDENTIAL GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 201 TO 206

HORIZONTAL  
VERT.RADIUS  
GRADE  
DATUM 41

| FINISHED<br>SURFACE LEVEL | 51.183 | 51.817 | 52.451 | 53.085 | 53.718 | 54.352 | 54.986 | 55.620 | 56.254 | 56.566 | 56.887 | 57.521  | 58.155  | 58.618  | 58.789  | 59.423  | 60.056  | 60.690  | 61.324  | 61.958  | 62.592  | 63.225  | 63.859  | 64.493  | 65.127  | 65.761  | 66.394  | 66.970  | 67.427  | 67.766  | 67.987  | 68.090  | 68.098  | 68.075  | 67.941  | 67.690  | 67.320  | 66.833  | 66.227  | 65.503  | 64.720  | 63.936  | 63.153  | 62.370  | 61.590  | 60.843  | 60.135  | 59.466  | 58.836  | 58.245  | 58.162  | 57.693  | 57.180  | 56.706  | 56.271  | 55.871  | 55.477  | 55.084  | 54.690  | 54.296  | 53.903  | 53.509  | 53.116  | 52.722  | 52.328  | 51.935  | 51.541  | 51.147  | 50.754  | 50.360  | 49.967  | 49.575  | 49.229  |         |
|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| EXISTING<br>SURFACE       | 51.267 | 52.136 | 52.994 | 53.697 | 54.324 | 54.879 | 55.424 | 55.953 | 56.488 | 56.757 | 57.034 | 57.600  | 58.202  | 58.649  | 58.811  | 59.417  | 60.054  | 60.642  | 61.259  | 61.916  | 62.578  | 63.238  | 63.877  | 64.495  | 65.138  | 65.722  | 66.233  | 66.734  | 67.259  | 67.719  | 68.083  | 67.980  | 67.414  | 66.722  | 66.054  | 65.411  | 64.698  | 63.843  | 63.101  | 62.424  | 61.757  | 61.102  | 60.511  | 59.767  | 58.966  | 58.202  | 58.089  | 57.592  | 57.090  | 56.978  | 56.680  | 56.199  | 55.760  | 55.329  | 54.963  | 54.564  | 54.188  | 53.789  | 53.341  | 52.894  | 52.449  | 52.121  | 51.874  | 51.525  | 51.113  | 50.659  | 50.148  | 49.448  | 48.035  | 47.393  |         |         |         |         |
| CHAINAGE                  | 0.000  | 10.000 | 20.000 | 30.000 | 40.000 | 50.000 | 60.000 | 70.000 | 80.000 | 84.933 | 90.000 | 100.000 | 110.000 | 117.304 | 120.000 | 130.000 | 140.000 | 150.000 | 160.000 | 170.000 | 180.000 | 190.000 | 200.000 | 210.000 | 220.000 | 230.000 | 240.000 | 250.000 | 260.000 | 270.000 | 280.000 | 290.000 | 293.711 | 300.000 | 310.000 | 320.000 | 330.000 | 340.000 | 350.000 | 360.000 | 370.000 | 380.000 | 390.000 | 400.000 | 410.000 | 420.000 | 430.000 | 440.000 | 450.000 | 460.000 | 461.461 | 470.000 | 480.000 | 482.505 | 490.000 | 500.000 | 510.000 | 520.000 | 530.000 | 540.000 | 550.000 | 560.000 | 570.000 | 580.000 | 590.000 | 600.000 | 610.000 | 620.000 | 630.000 | 640.000 | 650.000 | 660.000 | 670.000 | 680.000 |

LONGITUDINAL SECTION - MAIN ROAD 9

SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100

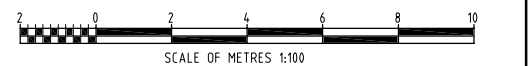


| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE | A1 SHEET SCALE 1:1000H & 1:100V | WorleyParsons PROJECT No. | CUSTOMER | HUNTLEE PTY LTD | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 RESIDENTIAL - MAIN ROAD 9<br>SHEET 12 | DRG No | REV |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|---------------------------------|---------------------------|----------|-----------------|--------------------------------------------------------------------------------------------------------------|--------|-----|
| C   | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         | OneWay<br>to zero harm          | 301017-00364              |          |                 |                                                                                                              |        | C   |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION       | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                 |                           |          |                 |                                                                                                              |        |     |
| A   | 07.03.11 | ISSUED FOR CLIENT APPROVAL                | PMM   | NAH       | PMM      | GS      | CG       |          |                |                         |                                 |                           |          |                 |                                                                                                              |        |     |



1. ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2. FOR STAGE 1 RESIDENTIAL GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 201 TO 206

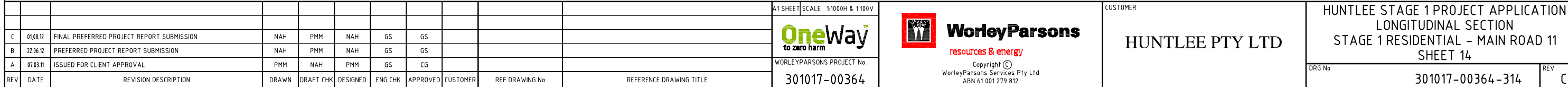
LONGITUDINAL SECTION - MAIN ROAD 10  
SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100



|     |          |                                           |       |           |          |         |          |          |                |                                                                                                                                                  |                                   |                                                                                                                                                                                                                                   |                                 |                                                                                                               |     |   |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------------------------------------------------------------------------------------------------------|-----|---|
|     |          |                                           |       |           |          |         |          |          |                |                                                                                                                                                  | A1 SHEET   SCALE 1:1000H & 1:100V |  <div><b>WorleyParsons</b><br/>resources &amp; energy</div> <div>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER<br><br>HUNTLEE PTY LTD | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 RESIDENTIAL – MAIN ROAD 10<br>SHEET 13 |     |   |
| C   | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |  <div>WORLEYPARSONS PROJECT No.<br/><br/>301017-00364</div> | DRG No                            |                                                                                                                                                                                                                                   |                                 | 301017-00364-313                                                                                              | REV | C |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION       | NAH   | PMM       | NAH      | GS      | GS       |          |                |                                                                                                                                                  |                                   |                                                                                                                                                                                                                                   |                                 |                                                                                                               |     |   |
| A   | 07.03.11 | ISSUED FOR CLIENT APPROVAL                | PMM   | NAH       | PMM      | GS      | CG       |          |                |                                                                                                                                                  |                                   |                                                                                                                                                                                                                                   |                                 |                                                                                                               |     |   |
| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No |                                                                                                                                                  | REFERENCE DRAWING TITLE           |                                                                                                                                                                                                                                   |                                 |                                                                                                               |     |   |



1. ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2. FOR STAGE 1 RESIDENTIAL GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 201 TO 206



NOTE

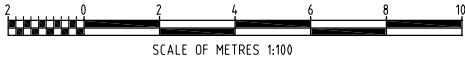
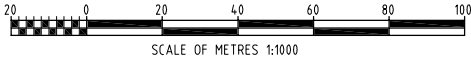
1. ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2. FOR STAGE 1 RESIDENTIAL GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 201 TO 206

HORIZONTAL  
VERT.RADIUS  
GRADE  
DATUM 36

| FINISHED<br>SURFACE LEVEL | 54.704 | 54.404 | 54.104 | 53.803 | 53.503 | 53.203 | 52.903 | 52.603 | 52.303 | 52.032 | 51.810  | 51.637  | 51.512  | 51.436  | 51.379  | 51.323  | 51.264  | 51.178  | 51.059  | 50.906  | 50.720  | 50.500  | 50.246  | 49.959  | 49.640  | 49.315  | 48.989  | 48.664  | 48.338  | 48.013  | 47.687  | 47.510  | 47.380  | 47.104  | 46.859  | 46.647  | 46.466  | 46.317  | 46.298  | 46.199  | 46.045  | 46.113  | 46.059  | 46.036  | 46.036  | 46.045  | 46.086  | 46.765  | 46.996  | 47.258  | 47.552  | 47.878  | 48.235  | 48.624  | 49.045  | 49.497  | 49.981  | 50.497  | 51.044  | 51.624  | 52.234  | 52.859  | 53.483  | 54.108  | 54.732  | 55.357  | 55.981  | 56.606  | 57.230  |         |         |         |         |         |
|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| EXISTING<br>SURFACE       | 52.767 | 52.671 | 52.608 | 52.475 | 52.280 | 52.116 | 51.929 | 51.849 | 51.736 | 51.678 | 51.609  | 51.535  | 51.489  | 51.443  | 51.425  | 51.349  | 51.319  | 51.254  | 51.131  | 50.853  | 50.555  | 50.329  | 50.126  | 49.844  | 49.573  | 49.308  | 49.012  | 48.691  | 48.450  | 48.145  | 47.818  | 47.585  | 47.435  | 47.103  | 46.924  | 46.671  | 46.323  | 46.248  | 46.249  | 46.333  | 46.364  | 46.310  | 46.264  | 46.249  | 46.197  | 46.079  | 45.974  | 45.801  | 45.759  | 45.924  | 45.988  | 46.383  | 46.840  | 47.258  | 47.633  | 47.981  | 48.236  | 48.434  | 48.628  | 48.728  | 49.188  | 49.783  | 50.454  | 51.043  | 51.632  | 52.228  | 52.844  | 53.495  | 54.088  | 54.756  | 55.395  | 55.987  | 56.531  | 57.110  |
| CHAINAGE                  | 0.000  | 10.000 | 20.000 | 30.000 | 40.000 | 50.000 | 60.000 | 70.000 | 80.000 | 90.000 | 100.000 | 110.000 | 120.000 | 130.000 | 140.000 | 150.000 | 160.000 | 170.000 | 180.000 | 190.000 | 200.000 | 210.000 | 220.000 | 230.000 | 240.000 | 250.000 | 260.000 | 270.000 | 280.000 | 290.000 | 300.000 | 305.646 | 310.000 | 320.000 | 330.000 | 340.000 | 350.000 | 360.000 | 361.457 | 370.000 | 380.000 | 390.000 | 400.000 | 402.135 | 410.000 | 420.000 | 430.000 | 436.923 | 440.000 | 450.000 | 451.785 | 460.000 | 470.000 | 480.000 | 490.000 | 500.000 | 510.000 | 520.000 | 530.000 | 540.000 | 550.000 | 560.000 | 570.000 | 580.000 | 590.000 | 600.000 | 610.000 | 620.000 | 630.000 | 640.000 | 650.000 | 660.000 | 670.000 | 680.000 |

LONGITUDINAL SECTION - MAIN ROAD 12

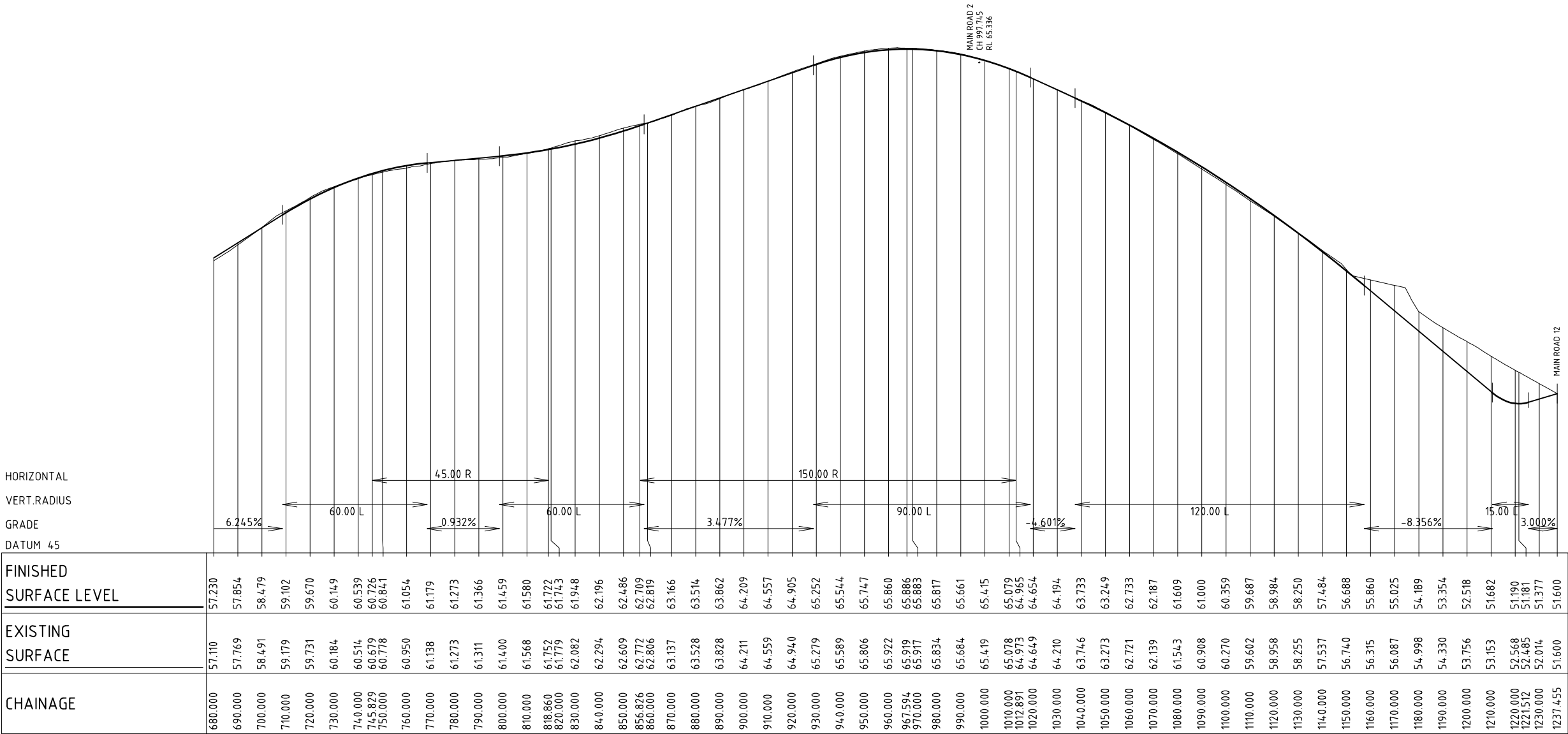
SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100



|     |          |                                           |  |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                            |                                        |                                                                                                               |                  |     |   |
|-----|----------|-------------------------------------------|--|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|----------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------------------------------------------------------|------------------|-----|---|
|     |          |                                           |  |       |           |          |         |          |          |                |                         | A1 SHEET | SCALE 1:1000H & 1:100V | <br><b>WorleyParsons</b><br>resources & energy<br>Copyright ©<br>WorleyParsons Services Pty Ltd<br>ABN 61 001 279 812 | CUSTOMER<br><br><b>HUNTLEE PTY LTD</b> | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 RESIDENTIAL – MAIN ROAD 12<br>SHEET 15 |                  |     |   |
| C   | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION |  | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |          |                        |                                                                                                                                                                                                            |                                        |                                                                                                               |                  |     |   |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION       |  | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |          |                        |                                                                                                                                                                                                            |                                        |                                                                                                               |                  |     |   |
| A   | 07.03.11 | ISSUED FOR CLIENT APPROVAL                |  | PMM   | NAH       | PMM      | GS      | CG       |          |                |                         |          |                        |                                                                                                                                                                                                            |                                        |                                                                                                               |                  |     |   |
| REV | DATE     | REVISION DESCRIPTION                      |  | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |          | 301017-00364           |                                                                                                                                                                                                            |                                        | DRG No                                                                                                        | 301017-00364-315 | REV | C |

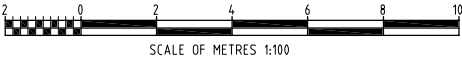
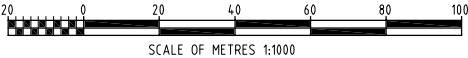
NOTE

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2. FOR STAGE 1 RESIDENTIAL GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 201 TO 206



LONGITUDINAL SECTION - MAIN ROAD 12

SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100



|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|----------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------------------------------------------------------|--|--|--|
|     |          |                                           |       |           |          |         |          |          |                |                         | A1 SHEET | SCALE 1:1000H & 1:100V | <div><div><b>WorleyParsons</b><br/>resources &amp; energy</div></div> <div>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER<br><br><b>HUNTLEE PTY LTD</b> | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 RESIDENTIAL – MAIN ROAD 12<br>SHEET 16 |  |  |  |
| C   | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION       | NAH   | PMM       | NAH      | GS      | CG       |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
| A   | 07.03.11 | ISSUED FOR CLIENT APPROVAL                | PMM   | NAH       | PMM      | GS      | CG       |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
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|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
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|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |                                                                                                                                                                                                                                             |                                        |                                                                                                               |  |  |  |



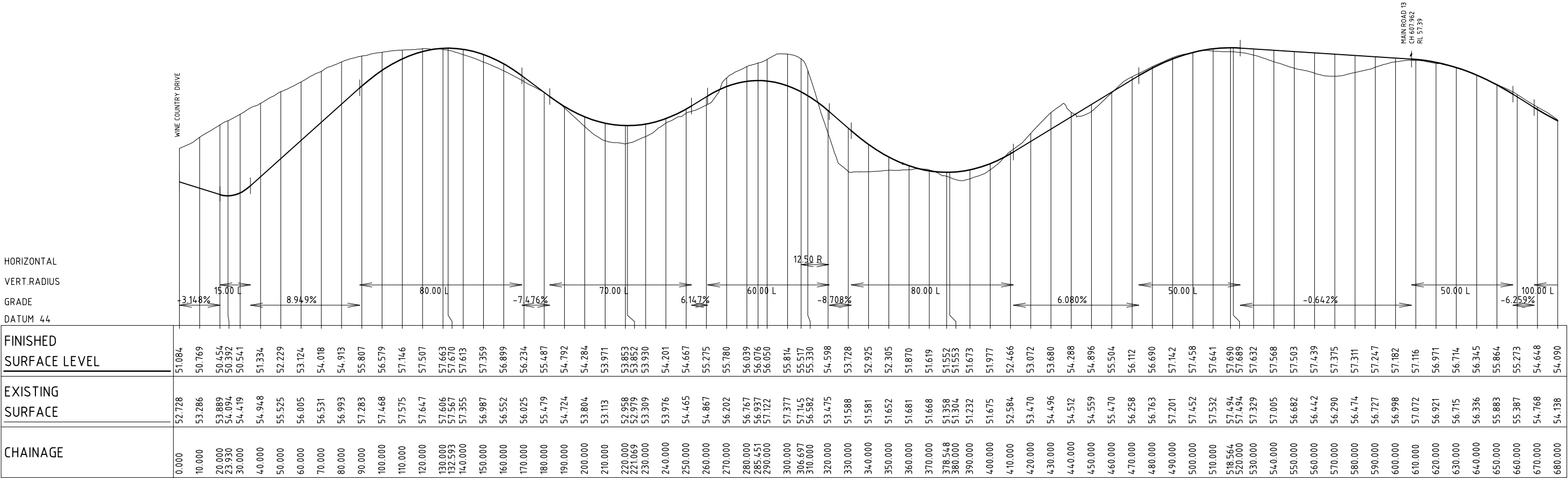
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2. FOR STAGE 1 TOWN CENTRE GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 207 & 208



|     |          |                                           |       |           |          |         |          |          |                |                         |                                               |                        |                                                                                                                                                                                                                            |                                        |                                                                                                          |                  |     |   |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|-----------------------------------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|----------------------------------------------------------------------------------------------------------|------------------|-----|---|
|     |          |                                           |       |           |          |         |          |          |                |                         | A1 SHEET                                      | SCALE 1:1000H & 1:100V |  <div><b>WorleyParsons</b><br/>resources &amp; energy<br/>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER<br><br><b>HUNTLEE PTY LTD</b> | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 TOWN CENTRE - ROAD 13<br>SHEET 17 |                  |     |   |
| C   | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         | WORLEYPARSONS PROJECT No.<br><br>301017-00364 |                        |                                                                                                                                                                                                                            |                                        | DRG No                                                                                                   | 301017-00364-317 | REV | C |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION       | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                               |                        |                                                                                                                                                                                                                            |                                        |                                                                                                          |                  |     |   |
| A   | 07.03.11 | ISSUED FOR CLIENT APPROVAL                | PMM   | NAH       | PMM      | GS      | CG       |          |                |                         |                                               |                        |                                                                                                                                                                                                                            |                                        |                                                                                                          |                  |     |   |
| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |                                               |                        |                                                                                                                                                                                                                            |                                        |                                                                                                          |                  |     |   |

NOTE

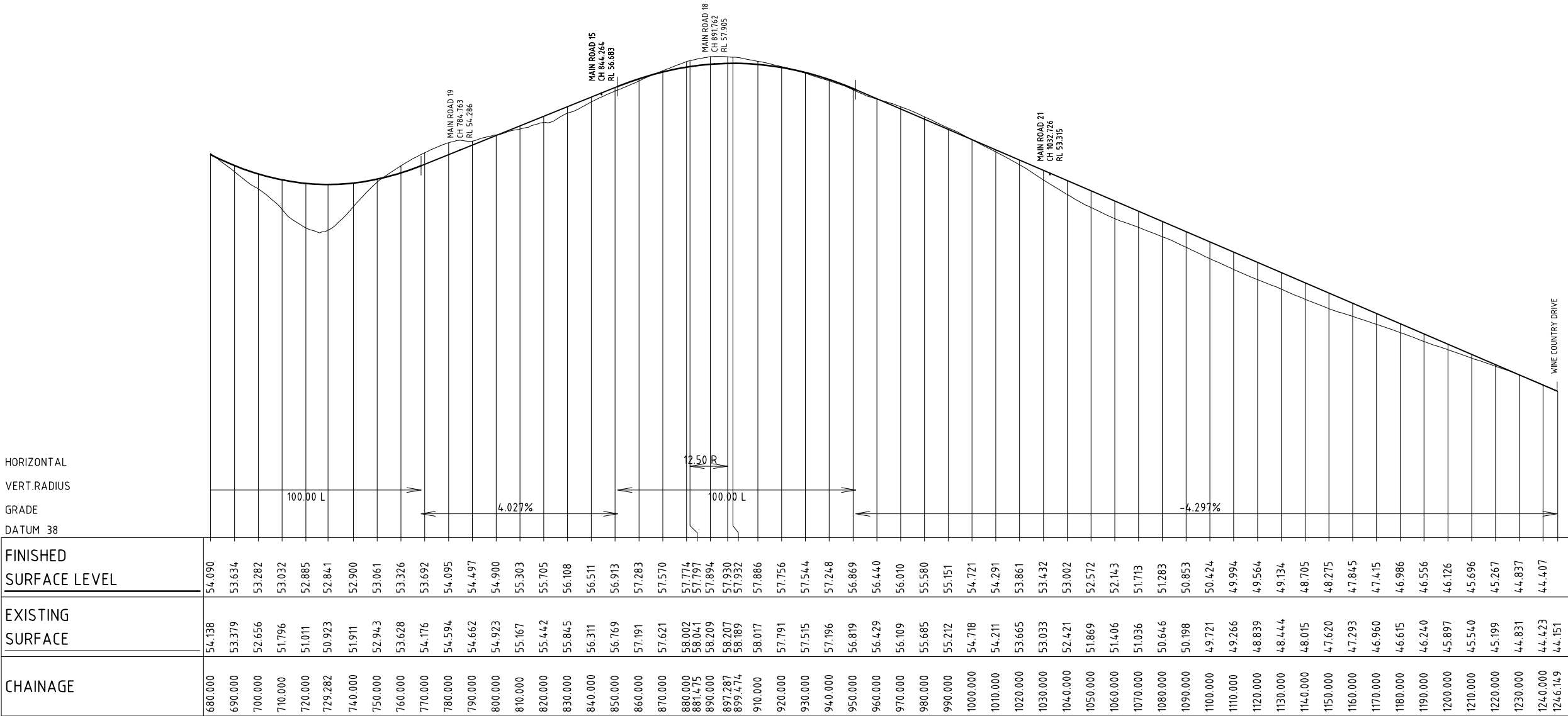
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2. FOR STAGE 1 TOWN CENTRE GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 207 & 208



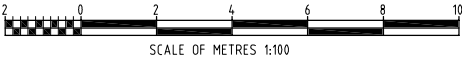
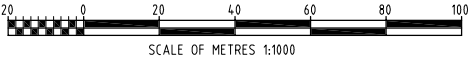
|     |          |                                           |       |           |          |         |          |          |                |                         |                                     |                                                                                                                                  |                 |                                                                                                          |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------|
|     |          |                                           |       |           |          |         |          |          |                |                         | A1 SHEET SCALE 1:1000H & 1:100V     |                                                                                                                                  | CUSTOMER        | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 TOWN CENTRE - ROAD 14<br>SHEET 18 |
| C   | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         | OneWay <sup>™</sup><br>to zero harm |  <b>WorleyParsons</b><br>resources & energy | HUNTLEE PTY LTD | DRG No                                                                                                   |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION       | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         | WORLEYPARSONS PROJECT No.           | Copyright ©<br>WorleyParsons Services Pty Ltd<br>ABN 61 001 279 812                                                              |                 | 301017-00364-318                                                                                         |
| A   | 07.03.11 | ISSUED FOR CLIENT APPROVAL                | PMM   | NAH       | PMM      | GS      | CG       |          |                |                         | 301017-00364                        |                                                                                                                                  |                 | REV                                                                                                      |
| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |                                     |                                                                                                                                  |                 | C                                                                                                        |

NOTE

1. ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2. FOR STAGE 1 TOWN CENTRE GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 207 & 208



LONGITUDINAL SECTION - MAIN ROAD 14  
SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100



|     |          |                                           |       |           |          |         |          |          |                |                         |          |                        |  |  |  |  |  |  |  |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|----------|------------------------|--|--|--|--|--|--|--|
|     |          |                                           |       |           |          |         |          |          |                |                         | A1 SHEET | SCALE 1:1000H & 1:100V |  |  |  |  |  |  |  |
| C   | 0108.12  | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |          |                        |  |  |  |  |  |  |  |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION       | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |          |                        |  |  |  |  |  |  |  |
| A   | 07.03.11 | ISSUED FOR CLIENT APPROVAL                | PMM   | NAH       | PMM      | GS      | CG       |          |                |                         |          |                        |  |  |  |  |  |  |  |
| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |          |                        |  |  |  |  |  |  |  |

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ABN 61 001 279 812

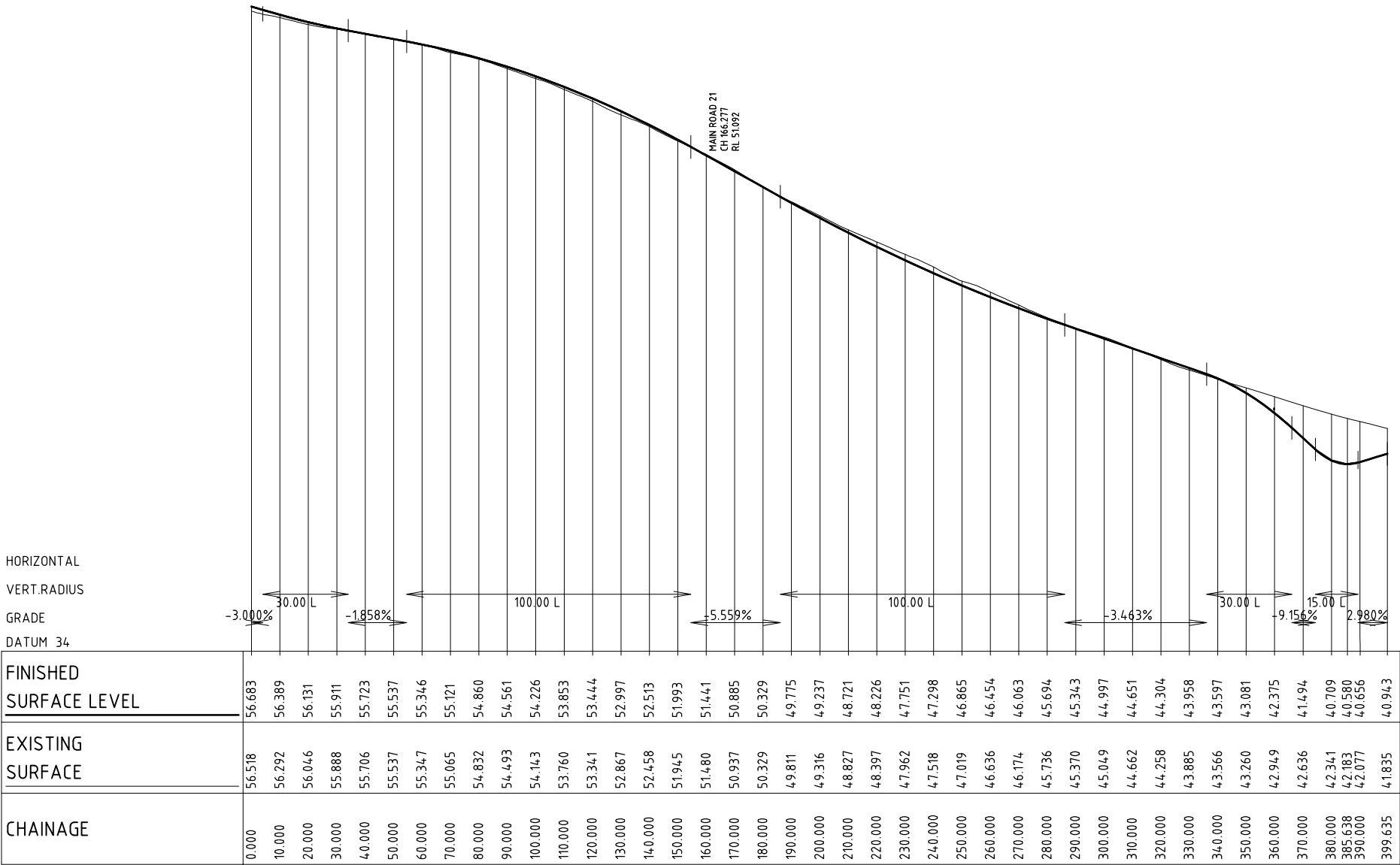
CUSTOMER  
  
HUNTLEE PTY LTD

HUNTLEE STAGE 1 PROJECT APPLICATION  
LONGITUDINAL SECTION  
STAGE 1 TOWN CENTRE - ROAD 14  
SHEET 19  
DRG No  
301017-00364-319  
REV  
C



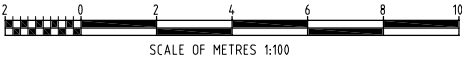
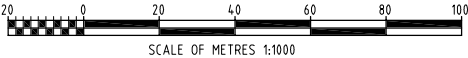
NOTE

1.
- ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2.
- FOR STAGE 1 TOWN CENTRE GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 207 & 208



LONGITUDINAL SECTION - MAIN ROAD 15

SCALE HORIZONTAL 1:1000  
SCALE VERTICAL 1:100



|     |          |                                           |       |           |          |         |          |          |                |                         |  |          |                        |  |  |  |  |  |  |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|--|----------|------------------------|--|--|--|--|--|--|
|     |          |                                           |       |           |          |         |          |          |                |                         |  | A1 SHEET | SCALE 1:1000H & 1:100V |  |  |  |  |  |  |
| C   | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |  |          |                        |  |  |  |  |  |  |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION       | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |  |          |                        |  |  |  |  |  |  |
| A   | 07.03.11 | ISSUED FOR CLIENT APPROVAL                | PMM   | NAH       | PMM      | GS      | CG       |          |                |                         |  |          |                        |  |  |  |  |  |  |
| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |  |          |                        |  |  |  |  |  |  |

OneWay<sup>TM</sup>  
to zero harm

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ABN 61 001 279 812

CUSTOMER

HUNTLEE PTY LTD

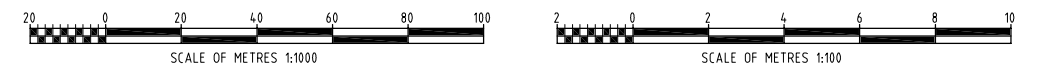
HUNTLEE STAGE 1 PROJECT APPLICATION  
LONGITUDINAL SECTION  
STAGE 1 TOWN CENTRE - ROAD 15  
SHEET 20

DRG No301017-00364-320

REV C

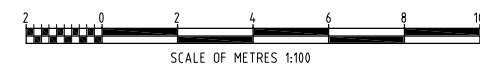


1. ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2. FOR STAGE 1 TOWN CENTRE GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 207 & 208



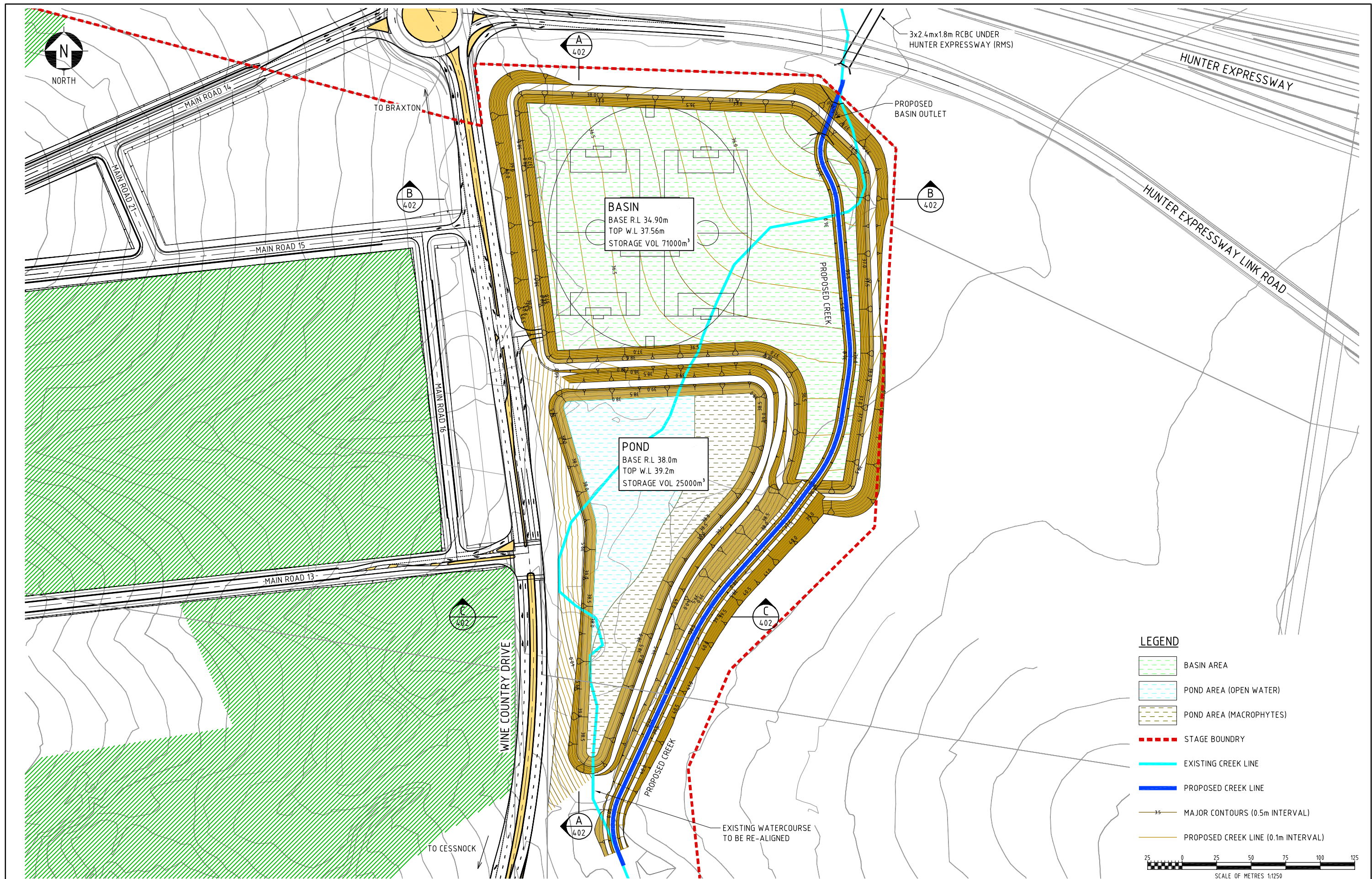
|     |          |                                           |       |           |          |         |          |          |                |                         | A1 SHEET   SCALE 1:100H & 1:100V                                                                                                            |  <div><b>WorleyParsons</b><br/>resources &amp; energy<br/>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER        | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 TOWN CENTRE - ROAD 18<br>SHEET 22 |                  |     |   |  |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------|------------------|-----|---|--|
| C   | 01/08/12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |  <div>WORLEYPARSONS PROJECT No.<br/>301017-00364</div> |                                                                                                                                                                                                                            | HUNTLEE PTY LTD | DRG No                                                                                                   | 301017-00364-322 | REV | B |  |
| B   | -        | NOT ISSUED                                |       |           |          |         |          |          |                |                         |                                                                                                                                             |                                                                                                                                                                                                                            |                 |                                                                                                          |                  |     |   |  |
| A   | -        | NOT ISSUED                                |       |           |          |         |          |          |                |                         |                                                                                                                                             |                                                                                                                                                                                                                            |                 |                                                                                                          |                  |     |   |  |
| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |                                                                                                                                             |                                                                                                                                                                                                                            |                 |                                                                                                          |                  |     |   |  |

1. ALL LONGITUDINAL SECTIONS ARE INDICATIVE ONLY FOR INFORMATION PURPOSES. ALL ROADS WILL BE SUBJECT TO FURTHER DETAILED DESIGN
2. FOR STAGE 1 TOWN CENTRE GENERAL ARRANGEMENT & SETOUT CHAINAGES REFER TO DWG No. 207 & 208



|     |          |                                           |       |           |          |         |          |          |                |                         |                                |                       |                                                                                                                                                                                                                            |                                 |                                                                                                                   |                                |              |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|--------------------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------|
|     |          |                                           |       |           |          |         |          |          |                |                         | A1 SHEET                       | SCALE 1:100H & 1:100V |  <div><b>WorleyParsons</b><br/>resources &amp; energy<br/>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER<br><br>HUNTLEE PTY LTD | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LONGITUDINAL SECTION<br>STAGE 1 TOWN CENTRE – ROAD 19, 20 & 21<br>SHEET 23 |                                |              |
| C   | 01/08/12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         | <b>OneWay™</b><br>to zero harm |                       |                                                                                                                                                                                                                            |                                 | WORLEYPARSONS PROJECT No.<br><br>301017-00364                                                                     | DRG No<br><br>301017-00364-323 | REV<br><br>C |
| B   | -        | NOT ISSUED                                |       |           |          |         |          |          |                |                         |                                |                       |                                                                                                                                                                                                                            |                                 |                                                                                                                   |                                |              |
| A   | -        | NOT ISSUED                                |       |           |          |         |          |          |                |                         |                                |                       |                                                                                                                                                                                                                            |                                 |                                                                                                                   |                                |              |
| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |                                |                       |                                                                                                                                                                                                                            |                                 |                                                                                                                   |                                |              |



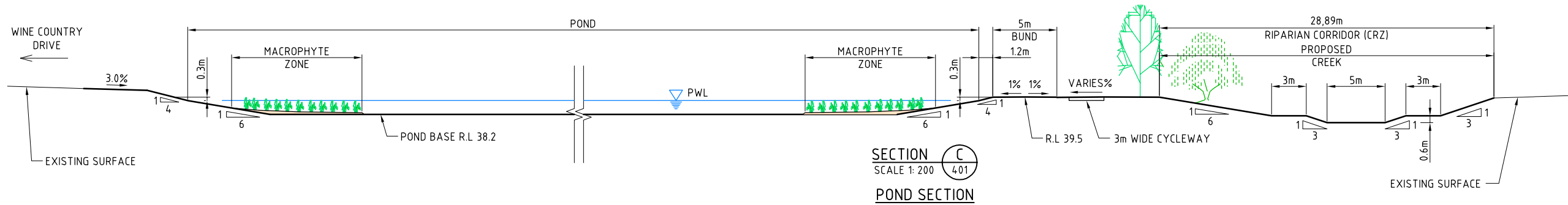
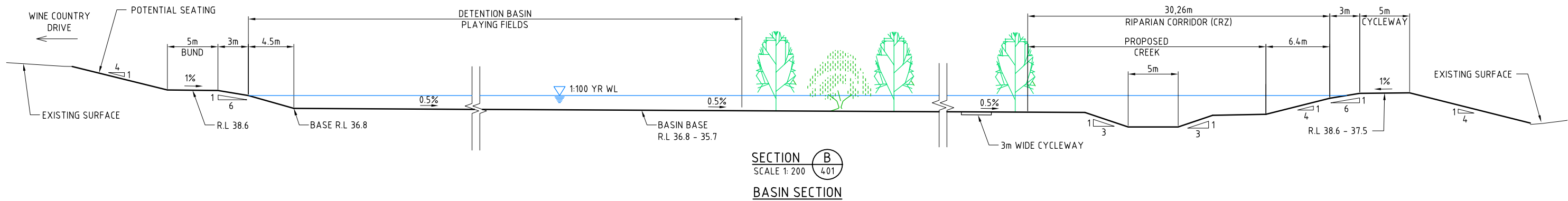
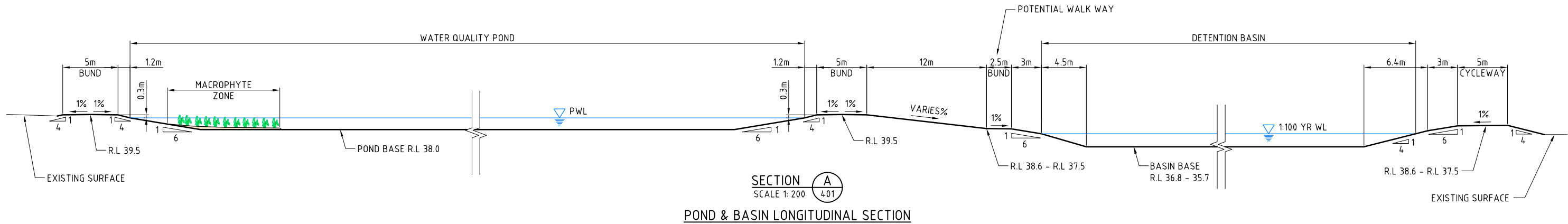


| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE | A1 SHEET SCALE | 1:1250 | WorleyParsons PROJECT No. | 301017-00364 | CUSTOMER | HUNTLÉE PTY LTD | HUNTLÉE STAGE 1 PROJECT APPLICATION<br>STORMWATER MANAGEMENT<br>& RECREATION FACILITY<br>BASIN AND POND PLAN | DRG No | 301017-00364-401 | REV | C |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|----------------|--------|---------------------------|--------------|----------|-----------------|--------------------------------------------------------------------------------------------------------------|--------|------------------|-----|---|
| C   | 01/08/12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                |        |                           |              |          |                 |                                                                                                              |        |                  |     |   |
| B   | 22/06/12 | PREFERRED PROJECT REPORT SUBMISSION       | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                |        |                           |              |          |                 |                                                                                                              |        |                  |     |   |
| A   | 07/03/11 | ISSUED FOR CLIENT APPROVAL                | NAH   | PMM       | PMM      | GS      | CG       |          |                |                         |                |        |                           |              |          |                 |                                                                                                              |        |                  |     |   |

LOCATION: N:\301017\00364 HUNTLÉE PA VILLAGE \ICAD\UA DRGS\UA REV A\301017-00364\_401\_BASIN & POND PLANDWG

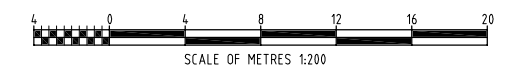
USER NAME: nathan.hole

DATE & TIME: 13/08/2012 4:25:34 PM



#### NOTE

1. TYPICAL POND & BASIN DETAILS SUBJECT TO DETAIL DESIGN & GEOTECHNICAL INVESTIGATION



|     |          |                                           |       |           |          |         |          |          |                |                         |                                                      |       |       |                                                                                                                                                                                                                                   |                                        |                                                                                                                         |                                       |                     |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|------------------------------------------------------|-------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------|
|     |          |                                           |       |           |          |         |          |          |                |                         | A1 SHEET                                             | SCALE | 1:200 |  <div><b>WorleyParsons</b><br/>resources &amp; energy</div> <div>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER<br><br><b>HUNTLEE PTY LTD</b> | <b>HUNTLEE STAGE 1 PROJECT APPLICATION<br/>STORMWATER MANAGEMENT<br/>&amp; RECREATION FACILITY<br/>TYPICAL SECTIONS</b> | DRG No<br><br><b>301017-00364-402</b> | REV<br><br><b>C</b> |
|     |          |                                           |       |           |          |         |          |          |                |                         |                                                      |       |       |                                                                                                                                                                                                                                   |                                        |                                                                                                                         |                                       |                     |
| C   | 01/08/12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                                      |       |       |                                                                                                                                                                                                                                   |                                        |                                                                                                                         |                                       |                     |
| B   | 22/06/12 | PREFERRED PROJECT REPORT SUBMISSION       | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                                      |       |       |                                                                                                                                                                                                                                   |                                        |                                                                                                                         |                                       |                     |
| A   | 07/03/11 | ISSUED FOR CLIENT APPROVAL                | NAH   | PMM       | PMM      | GS      | CG       |          |                |                         |                                                      |       |       |                                                                                                                                                                                                                                   |                                        |                                                                                                                         |                                       |                     |
| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE | WORLEYPARSONS PROJECT No.<br><br><b>301017-00364</b> |       |       |                                                                                                                                                                                                                                   |                                        |                                                                                                                         |                                       |                     |

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CUSTOMER

HUNTLEE PTY LTD

HUNTLEE STAGE 1 PROJECT APPLICATION  
STORMWATER MANAGEMENT  
& RECREATION FACILITY  
TYPICAL SECTIONS

DRG No

301017-00364-402

REV

C

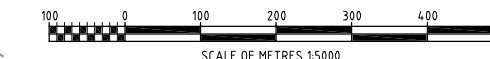




1. ROAD/LOT LAYOUT PROVIDED BY ROBERTS DAY
2. THIS PLAN IS PROVIDED FOR INFORMATION PURPOSES ONLY

### LEGEND

STAGE 1 BOUNDARY



MAIN NORTHERN RAILWAY LINE

HUNTER EXPRESSWAY

REFER DWG No. 301017-00364-504

STAGE 1  
TOWN CENTRE

• BASI

PONI

STORMWATER MANAGEMENT  
& RECREATION FACILITY

HUNTER EXPRESS  
LINK ROAD

REFER DWG No. 301017-00364-505

REFER DWG No. 301017-00364-508

REFER DWG No. 301017-00364-502

IC No 301017-00364-504

STAGE 1 RESIDENTIAL  
RELEASE AREA 1

DWG No. 301017-00364-503

REFER DWG No. 301017-00364-506

REFER DWG No. 301017-00364-509

STAGE 1 RESIDENTIAL

REFER DWG No. 301017-00364-507

REFER DWG No. 301017-00364-510

NORTH  
ROTHBURY

REFER DWG No. 301017-00364-511

|     |          |                                                   |       |           |          |         |          |          |                |                         |                                                                                                                                                                                                                                                                                                                                                   |                                                 |                  |       |
|-----|----------|---------------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|------------------|-------|
| E   | 15.11.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION UPDATED | NAH   | PMM       | NAH      | GS      | GS       |          |                | A1 SHEET / SCALE 1:5000 | <div><div><div>OneWay<sup>TM</sup></div><div>to zero harm</div></div><div><div><div><div></div></div></div><div><div>WorleyParsons</div><div>resources &amp; energy</div></div><div><div>Copyright ©</div><div>WorleyParsons Services Pty Ltd</div><div>ABN 61 001 279 812</div></div></div></div> <div>CUSTOMER</div> <div>HUNTLEE PTY LTD</div> | HUNTLEE STAGE 1 PROJECT APPLICATION LOT DETAILS |                  |       |
| D   | 21.09.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION         | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                                                                                                                                                                                                                                                                                                                                   |                                                 |                  |       |
| C   | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION         | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                                                                                                                                                                                                                                                                                                                                   |                                                 |                  |       |
| B   | -        | NOT ISSUED                                        |       |           |          |         |          |          |                |                         |                                                                                                                                                                                                                                                                                                                                                   |                                                 |                  |       |
| A   | -        | NOT ISSUED                                        |       |           |          |         |          |          |                |                         |                                                                                                                                                                                                                                                                                                                                                   |                                                 |                  |       |
| REV | DATE     | REVISION DESCRIPTION                              | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |                                                                                                                                                                                                                                                                                                                                                   | 301017-00364                                    |                  |       |
|     |          |                                                   |       |           |          |         |          |          |                |                         | WORLEYPARSONS PROJECT No.                                                                                                                                                                                                                                                                                                                         |                                                 |                  |       |
|     |          |                                                   |       |           |          |         |          |          |                |                         | 301017-00364                                                                                                                                                                                                                                                                                                                                      |                                                 |                  |       |
|     |          |                                                   |       |           |          |         |          |          |                |                         | DRG No                                                                                                                                                                                                                                                                                                                                            |                                                 | 301017-00364-501 | REV E |

LOCATION: 0:\301017\00364 - HUNTEE PROJECT APPLICATION (GS)\110 DRAWINGS\CAD\301017-00364\_501\_GENERAL SHEET LAYOUT PLANDWG

USER NAME: paul.mclean

DATE &amp; TIME: 15/11/2012 3:36:52 PM





JOINS DWG 502

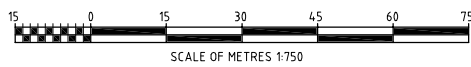


JOINS DWG 502

NOTES:

- ROAD/LOT LAYOUT PROVIDED BY ROBERTS DAY
- THIS PLAN IS PROVIDED FOR INFORMATION PURPOSES ONLY

robertsday



|     |          |                                                   |       |           |          |         |          |          |                |                         |  |                |       |  |  |  |  |  |  |
|-----|----------|---------------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|--|----------------|-------|--|--|--|--|--|--|
| E   | 15.11.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION UPDATED | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |  | A1 SHEET SCALE | 1:750 |  |  |  |  |  |  |
| D   | 21.09.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION         | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |  |                |       |  |  |  |  |  |  |
| C   | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION         | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |  |                |       |  |  |  |  |  |  |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION               | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |  |                |       |  |  |  |  |  |  |
| A   | 9.03.11  | ISSUED FOR CLIENT APPROVAL                        | NAH   | PMM       | NAH      | GS      | CG       |          |                |                         |  |                |       |  |  |  |  |  |  |
| REV | DATE     | REVISION DESCRIPTION                              | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |  |                |       |  |  |  |  |  |  |

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WORLEYPARSONS PROJECT No.

301017-00364

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ABN 61 001 279 812

CUSTOMER

HUNTLEE PTY LTD

HUNTLEE STAGE 1 PROJECT APPLICATION

LOT DETAILS

STAGE 1, RELEASE AREA 1

SHEET 2

DRG No

301017-00364-503

REV

E

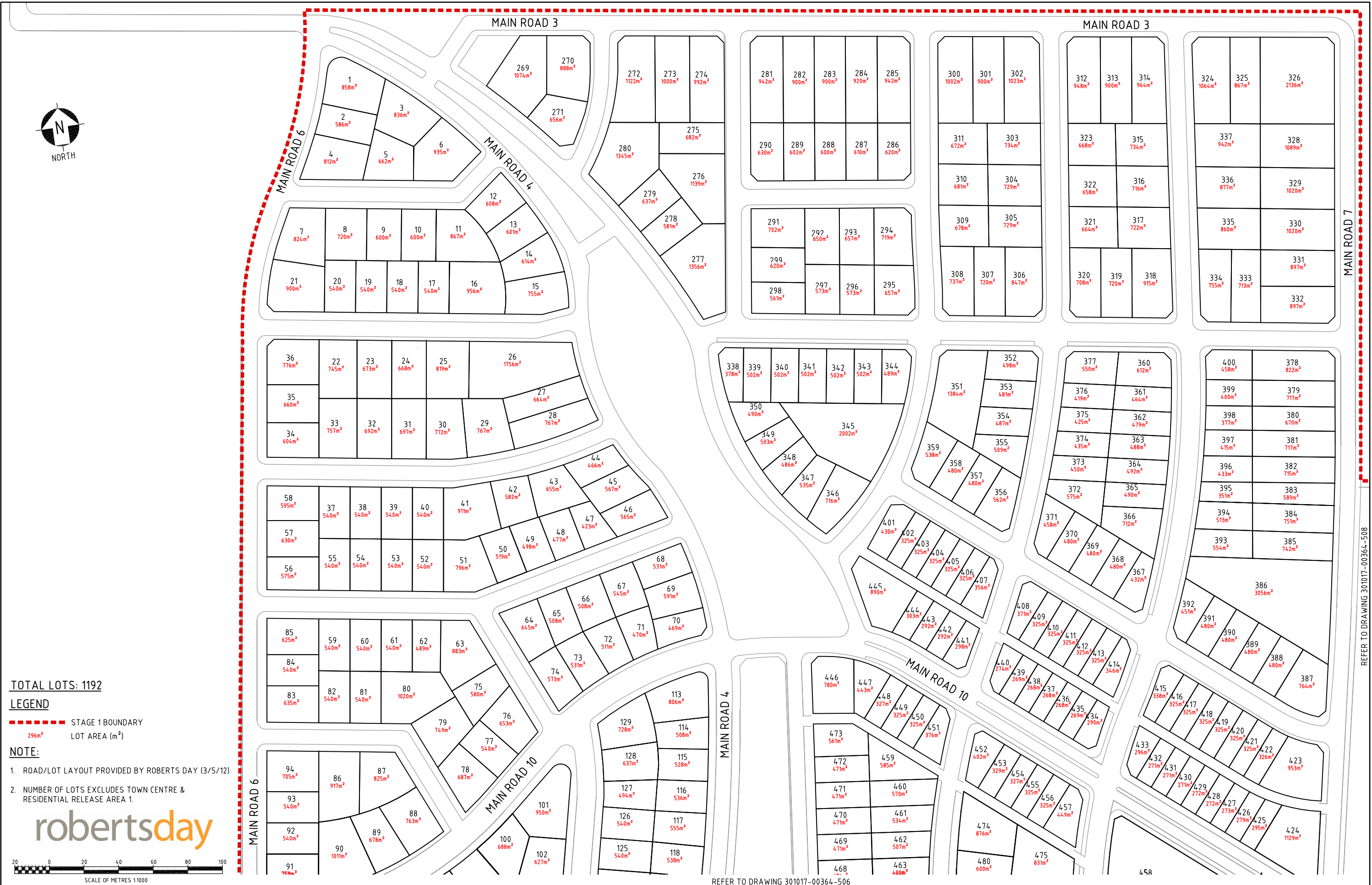
DATE & TIME: 15/11/2012 3:46:44 PM

USER NAME: paul.mclean

LOCATION: O:\301017\00364 - HUNTLEE PROJECT APPLICATION (GS)\110 DRAWINGS\CAD\301017-00364\_502 & 503\_STAGE 1 LOT DETAILS.DWG

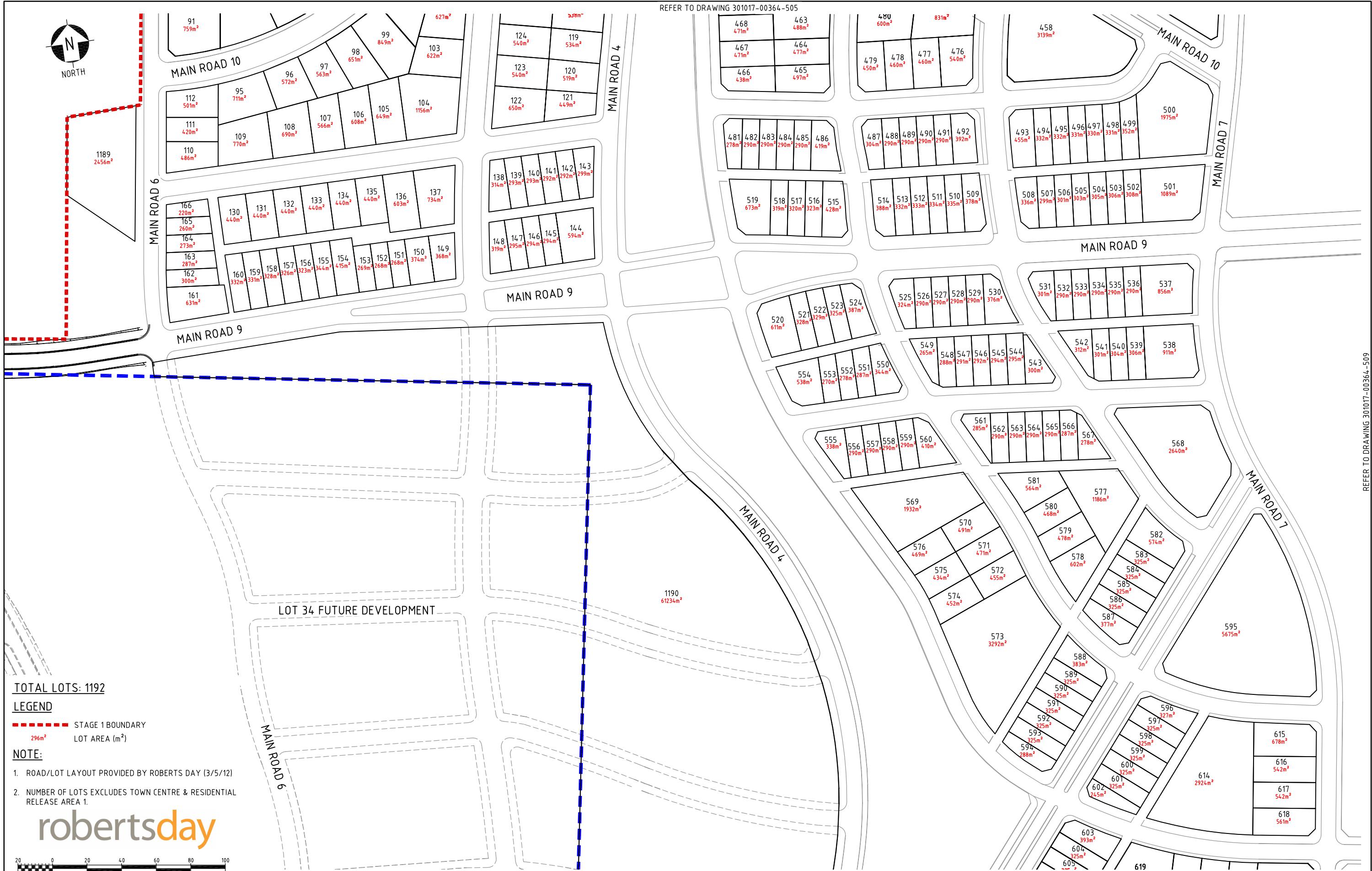




[illegible]

DATE &amp; TIME: 21/09/2012 1:15:46 PM





TOTAL LOTS: 1192

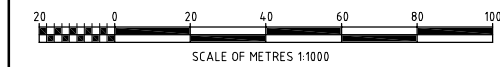
LEGEND

STAGE 1 BOUNDARY  
LOT AREA (m<sup>2</sup>)

NOTE:

- ROAD/LOT LAYOUT PROVIDED BY ROBERTS DAY (3/5/12)
- NUMBER OF LOTS EXCLUDES TOWN CENTRE & RESIDENTIAL RELEASE AREA 1.

robertsday



| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE | A1 SHEET SCALE                       | 1:1000 | CUSTOMER                                                            | HUNTLEE PTY LTD | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LOT DETAILS<br>BALANCE OF STAGE 1 RESIDENTIAL<br>SHEET 2 | DRG No | 301017-00364-506 | REV | C |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|--------------------------------------|--------|---------------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------------------|--------|------------------|-----|---|
| C   | 21/09/12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         | OneWay <sup>TM</sup><br>to zero harm |        | WorleyParsons<br>resources & energy                                 |                 |                                                                                                 |        |                  |     |   |
| B   | 01/08/12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         | WORLEYPARSONS PROJECT No.            |        | Copyright ©<br>WorleyParsons Services Pty Ltd<br>ABN 61 001 279 812 |                 |                                                                                                 |        |                  |     |   |
| A   | 25/07/12 | ISSUED FOR INFORMATION                    | GC    | PMM       | NAH      | GS      | GS       |          |                |                         | 301017-00364                         |        |                                                                     |                 |                                                                                                 |        |                  |     |   |

### LEGEND

STAGE 1 BOUNDARY  
LOT AREA (m<sup>2</sup>)

NOTE:

1. ROAD/LOT LAYOUT PROVIDED BY ROBERTS DAY (3/5/12)
2. NUMBER OF LOTS EXCLUDES TOWN CENTRE & RESIDENTIAL RELEASE AREA 1.

robertsday



REFER TO DRAWING 301017-00364-506



LOT 34 FUTURE DEVELOPMENT

1190  
61234m<sup>2</sup>

MAIN ROAD

MAIN ROAD 1

MAIN ROAD 4

MAIN ROAD 1

MAIN ROAD 4

MAIN ROAD

REFER TO DRAWING 301017-00364-508

REFER TO DRAWING 301017 -00364-510

USER NAME: nathan.hole

|   |   |                                    |
|---|---|------------------------------------|
| C | 2 | DATE & TIME: 21/09/2012 1:16:21 PM |
|---|---|------------------------------------|

|     |          |                                           |       |           |          |         |          |          |                |                         |  |          |       |        |                                                                                                                                                                                                                            |                                                                                                                                  |                                                                                                 |  |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|--|----------|-------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--|
|     |          |                                           |       |           |          |         |          |          |                |                         |  | A1 SHEET | SCALE | 1:1000 |  <div><b>WorleyParsons</b><br/>resources &amp; energy<br/>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER                                                                                                                         | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LOT DETAILS<br>BALANCE OF STAGE 1 RESIDENTIAL<br>SHEET 3 |  |
| C   | 21.09.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |  |          |       |        |                                                                                                                                                                                                                            |  <div><b>OneWay™</b><br/>to zero harm</div> | HUNTLEE PTY LTD                                                                                 |  |
| B   | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |  |          |       |        |                                                                                                                                                                                                                            |                                                                                                                                  |                                                                                                 |  |
| A   | 25.07.12 | ISSUED FOR INFORMATION                    | GC    | PMM       | NAH      | GS      | GS       |          |                |                         |  |          |       |        |                                                                                                                                                                                                                            |                                                                                                                                  |                                                                                                 |  |
| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |  |          |       |        |                                                                                                                                                                                                                            |                                                                                                                                  |                                                                                                 |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |  |          |       |        |                                                                                                                                                                                                                            |                                                                                                                                  |                                                                                                 |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |  |          |       |        | WORLEYPARSONS PROJECT No.                                                                                                                                                                                                  |                                                                                                                                  |                                                                                                 |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |  |          |       |        | 301017-00364                                                                                                                                                                                                               |                                                                                                                                  |                                                                                                 |  |





**TOTAL LOTS: 1192**

**LEGEND**

----- STAGE 1 BOUNDARY  
296m<sup>2</sup> LOT AREA (m<sup>2</sup>)

**NOTE:**

- ROAD/LOT LAYOUT PROVIDED BY ROBERTS DAY (3/5/12)
- NUMBER OF LOTS EXCLUDES TOWN CENTRE & RESIDENTIAL RELEASE AREA 1.

**robertsday**

20 0 20 40 60 80 100  
SCALE OF METRES 1:1000

| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE | A1 SHEET SCALE 1:1000                  | WorleyParsons resources & energy | CUSTOMER HUNTLEE PTY LTD | HUNTLEE STAGE 1 PROJECT APPLICATION LOT DETAILS BALANCE OF STAGE 1 RESIDENTIAL SHEET 4 | DRG No 301017-00364-508 | REV C |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|----------------------------------------|----------------------------------|--------------------------|----------------------------------------------------------------------------------------|-------------------------|-------|
| C   | 2109.12  | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         | OneWay to zero harm                    |                                  |                          |                                                                                        |                         |       |
| B   | 0108.12  | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         | WORLEYPARSONS PROJECT No. 301017-00364 |                                  |                          |                                                                                        |                         |       |
| A   | 25.07.12 | ISSUED FOR INFORMATION                    | GC    | PMM       | NAH      | GS      | GS       |          |                |                         |                                        |                                  |                          |                                                                                        |                         |       |





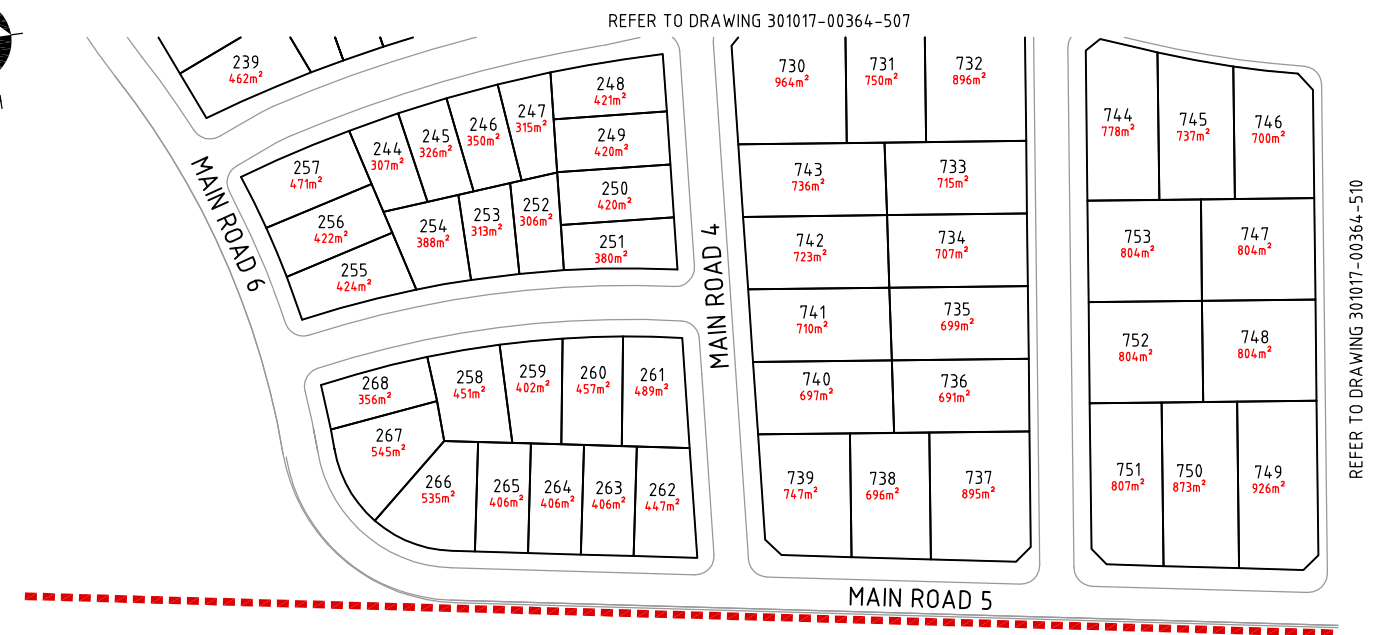
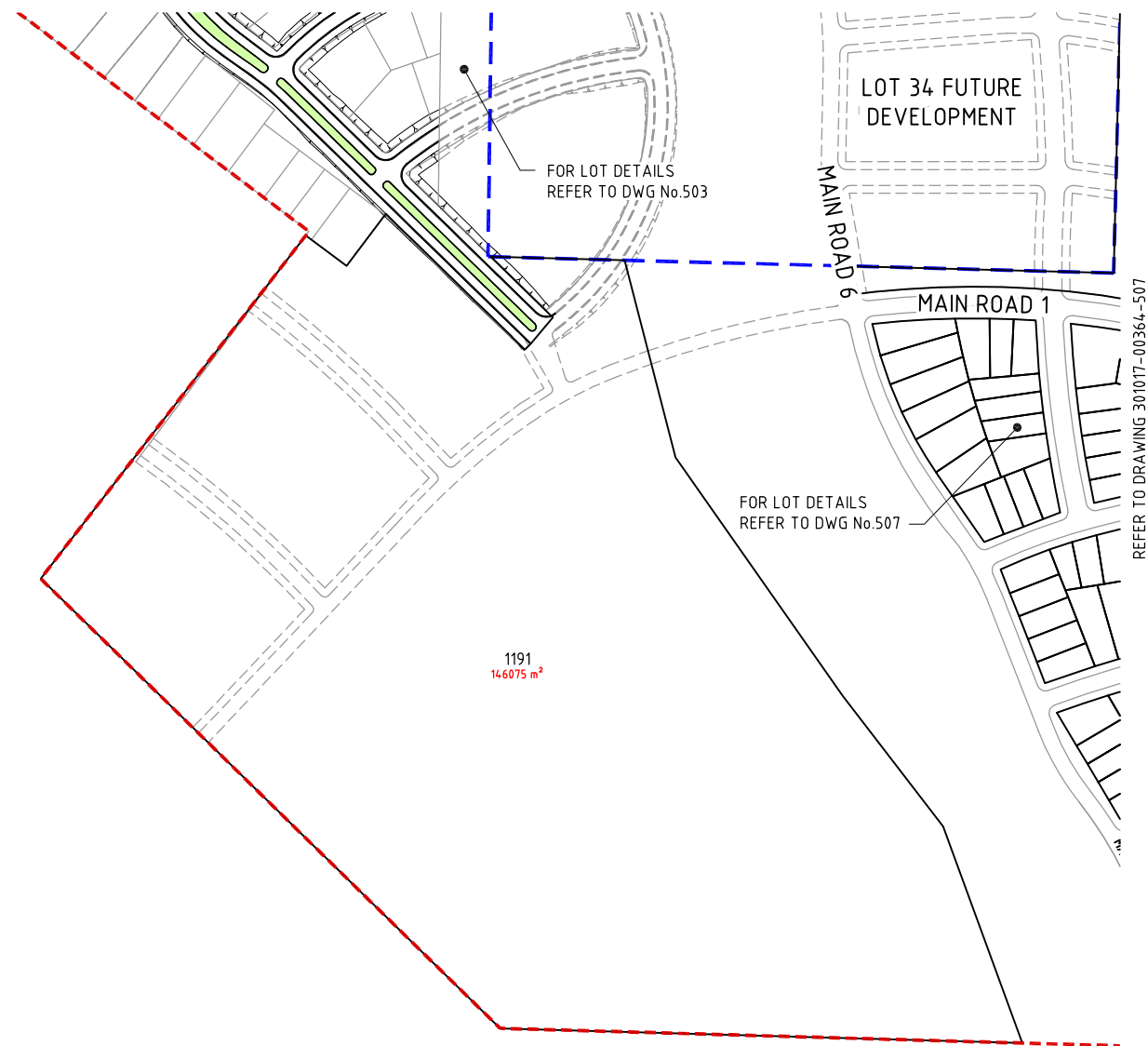


| REV | DATE   | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE | A1 SHEET SCALE            | 1:1000       | WorleyParsons resources & energy | CUSTOMER | HUNTLEE PTY LTD | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LOT DETAILS<br>BALANCE OF STAGE 1 RESIDENTIAL<br>SHEET 6 | DRG No | 301017-00364-510 | REV | C |
|-----|--------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|---------------------------|--------------|----------------------------------|----------|-----------------|-------------------------------------------------------------------------------------------------|--------|------------------|-----|---|
| C   | 210912 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                           |              |                                  |          |                 |                                                                                                 |        |                  |     |   |
| B   | 010812 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                           |              |                                  |          |                 |                                                                                                 |        |                  |     |   |
| A   | 250712 | ISSUED FOR INFORMATION                    | GC    | PMM       | NAH      | GS      | GS       |          |                |                         |                           |              |                                  |          |                 |                                                                                                 |        |                  |     |   |
| REV | DATE   | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE | WorleyParsons PROJECT No. | 301017-00364 |                                  |          |                 |                                                                                                 |        |                  |     |   |

LOCATION: N:\301017\00364 HUNTLEE PA VILLAGE\NCAD\DA ORGS\DA REV A\301017-00364\_505 - 511 LOT DETAILS.DWG

USER NAME: nathan.hole

DATE & TIME: 21/09/2012 11:02 PM



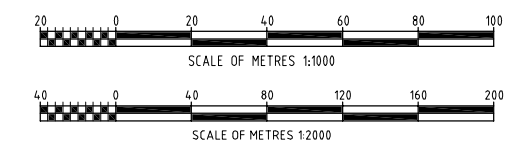
LEGEND

NOTE:

**NOTE:**

1. ROAD/LOT LAYOUT PROVIDED BY ROBERTS DAY (3/5/12)
2. NUMBER OF LOTS EXCLUDES TOWN CENTRE & RESIDENTIAL RELEASE AREA 1.

robertsday



|     |        |                                           |       |           |          |         |          |          |                |                                                                                       |          |                                               |          |                                                                                                                                                                                                                            |                                 |                                                                                                 |  |
|-----|--------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|---------------------------------------------------------------------------------------|----------|-----------------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------------------|--|
|     |        |                                           |       |           |          |         |          |          |                |                                                                                       | A1 SHEET | SCALE                                         | AS SHOWN |  <div><b>WorleyParsons</b><br/>resources &amp; energy<br/>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER<br><br>HUNTLEE PTY LTD | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LOT DETAILS<br>BALANCE OF STAGE 1 RESIDENTIAL<br>SHEET 7 |  |
| C   | 210912 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |  |          | WORLEYPARSONS PROJECT No.<br><br>301017-00364 | DRG No   |                                                                                                                                                                                                                            |                                 |                                                                                                 |  |
| B   | 010812 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                                                                                       |          |                                               |          |                                                                                                                                                                                                                            |                                 |                                                                                                 |  |
| A   | 250712 | ISSUED FOR INFORMATION                    | GC    | PMM       | NAH      | GS      | GS       |          |                |                                                                                       |          |                                               |          |                                                                                                                                                                                                                            |                                 |                                                                                                 |  |
| REV | DATE   | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE                                                               |          |                                               |          |                                                                                                                                                                                                                            |                                 |                                                                                                 |  |

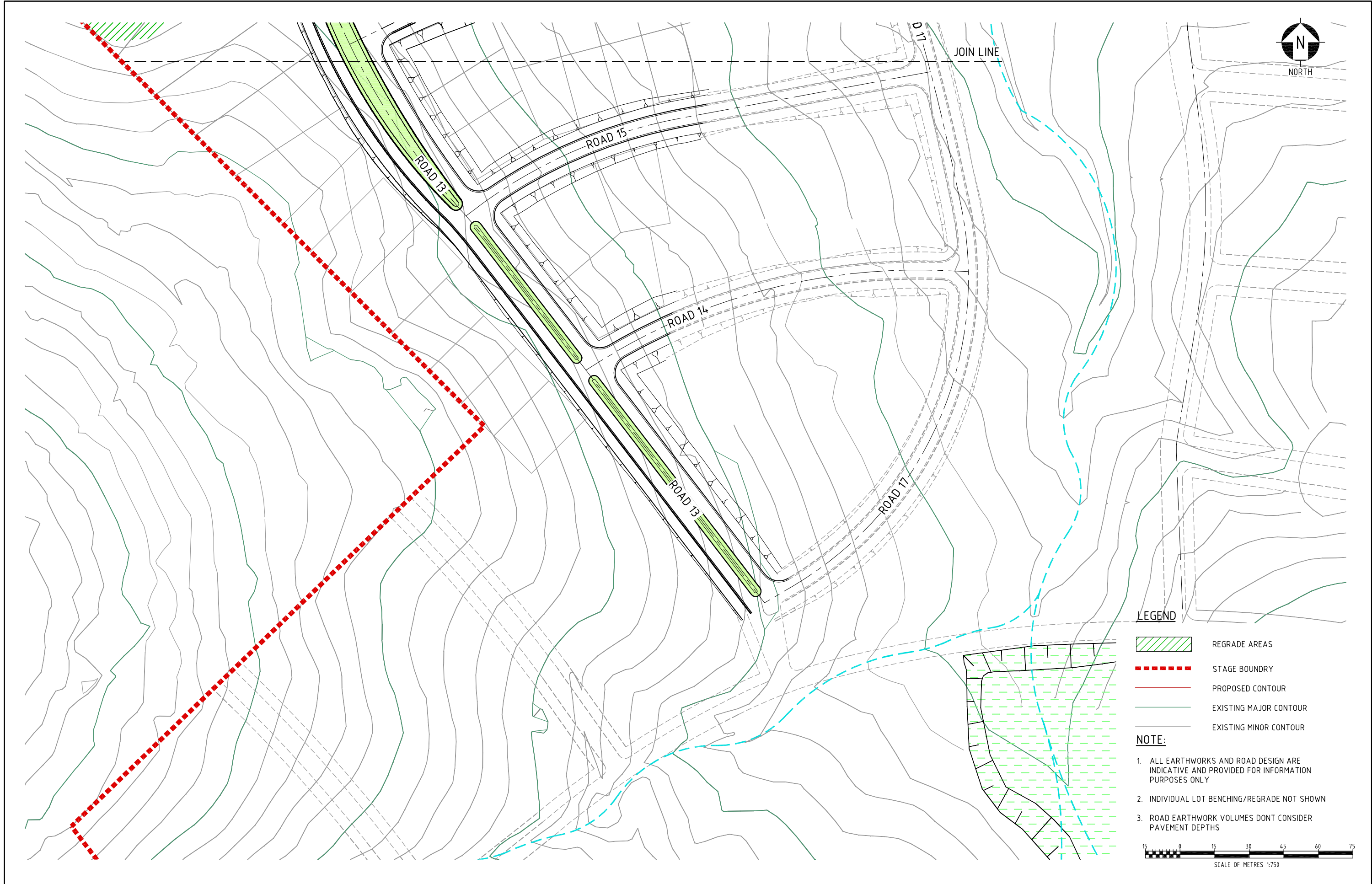












|     |          |                                                   |       |           |          |         |          |          |                |                                           |        |                                                                                                                                                                                                                            |          |                 |                                                                                                      |     |   |
|-----|----------|---------------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------------------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------|------------------------------------------------------------------------------------------------------|-----|---|
|     |          |                                                   |       |           |          |         |          |          |                | A1 SHEET SCALE                            | 1:750  |  <div>WorleyParsons<br/>resources &amp; energy</div> <div>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER | HUNTLEE PTY LTD | HUNTLEE STAGE 1 PROJECT APPLICATION<br>INDICATIVE BULK EARTHWORKS<br>STAGE 1 RELEASE AREA<br>SHEET 3 |     |   |
| D   | 15.11.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION UPDATED | NAH   | PMM       | NAH      | GS      | GS       |          |                |                                           |        |                                                                                                                                                                                                                            |          |                 |                                                                                                      |     |   |
| C   | 0108.12  | FINAL PREFERRED PROJECT REPORT SUBMISSION         | NAH   | PMM       | NAH      | GS      | GS       |          |                | WORLEYPARSONS PROJECT No.<br>301017-00364 | DRG No |                                                                                                                                                                                                                            |          |                 | 301017-00364-603                                                                                     | REV | D |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION               | NAH   | PMM       | NAH      | GS      | CG       |          |                |                                           |        |                                                                                                                                                                                                                            |          |                 |                                                                                                      |     |   |
| A   | 09.03.11 | ISSUED FOR CLIENT APPROVAL                        | PMM   | NAH       | PMM      | GS      | CG       |          |                |                                           |        |                                                                                                                                                                                                                            |          |                 |                                                                                                      |     |   |
| REV | DATE     | REVISION DESCRIPTION                              | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE                   |        |                                                                                                                                                                                                                            |          |                 |                                                                                                      |     |   |

LOCATION: 0:\30017\00364 - HUNTLEE PROJECT APPLICATION (GS)\110 DRAWINGS\CAD\301017-00364\_601 - 603\_BULK EARTHWORKS\_STAGE 1DWG

USER NAME: paul.mclean

DATE & TIME: 15/11/2012 3:53:42 PM









|                      |          |                                                   |       |           |          |         |          |          |                |                           |  |                                                                     |  |                                                                                                      |  |                                    |  |
|----------------------|----------|---------------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|---------------------------|--|---------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------|--|------------------------------------|--|
| A1 SHEET SCALE 1:750 |          |                                                   |       |           |          |         |          |          |                | CUSTOMER                  |  | HUNTLEE PTY LTD                                                     |  | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LINEMARKING & SIGNAGE PLAN<br>STAGE 1 RELEASE AREA<br>SHEET 2 |  | DATE & TIME: 15/11/2012 4:05:55 PM |  |
| C                    | 15.11.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION UPDATED | NAH   | PMM       | NAH      | GS      | GS       |          |                | OneWay™<br>to zero harm   |  | WorleyParsons<br>resources & energy                                 |  | HUNTLEE PTY LTD                                                                                      |  | 301017-00364-702                   |  |
| B                    | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION         | NAH   | PMM       | NAH      | GS      | GS       |          |                | WorleyParsons PROJECT No. |  | Copyright ©<br>WorleyParsons Services Pty Ltd<br>ABN 61 001 279 812 |  | HUNTLEE PTY LTD                                                                                      |  | 301017-00364-702                   |  |
| A                    | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION               | NAH   | PMM       | NAH      | GS      | GS       |          |                | WorleyParsons PROJECT No. |  | HUNTLEE PTY LTD                                                     |  | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LINEMARKING & SIGNAGE PLAN<br>STAGE 1 RELEASE AREA<br>SHEET 2 |  | 301017-00364-702                   |  |
| REV                  | DATE     | REVISION DESCRIPTION                              | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE   |  | HUNTLEE PTY LTD                                                     |  | HUNTLEE STAGE 1 PROJECT APPLICATION<br>LINEMARKING & SIGNAGE PLAN<br>STAGE 1 RELEASE AREA<br>SHEET 2 |  | 301017-00364-702                   |  |









# WorleyParsons

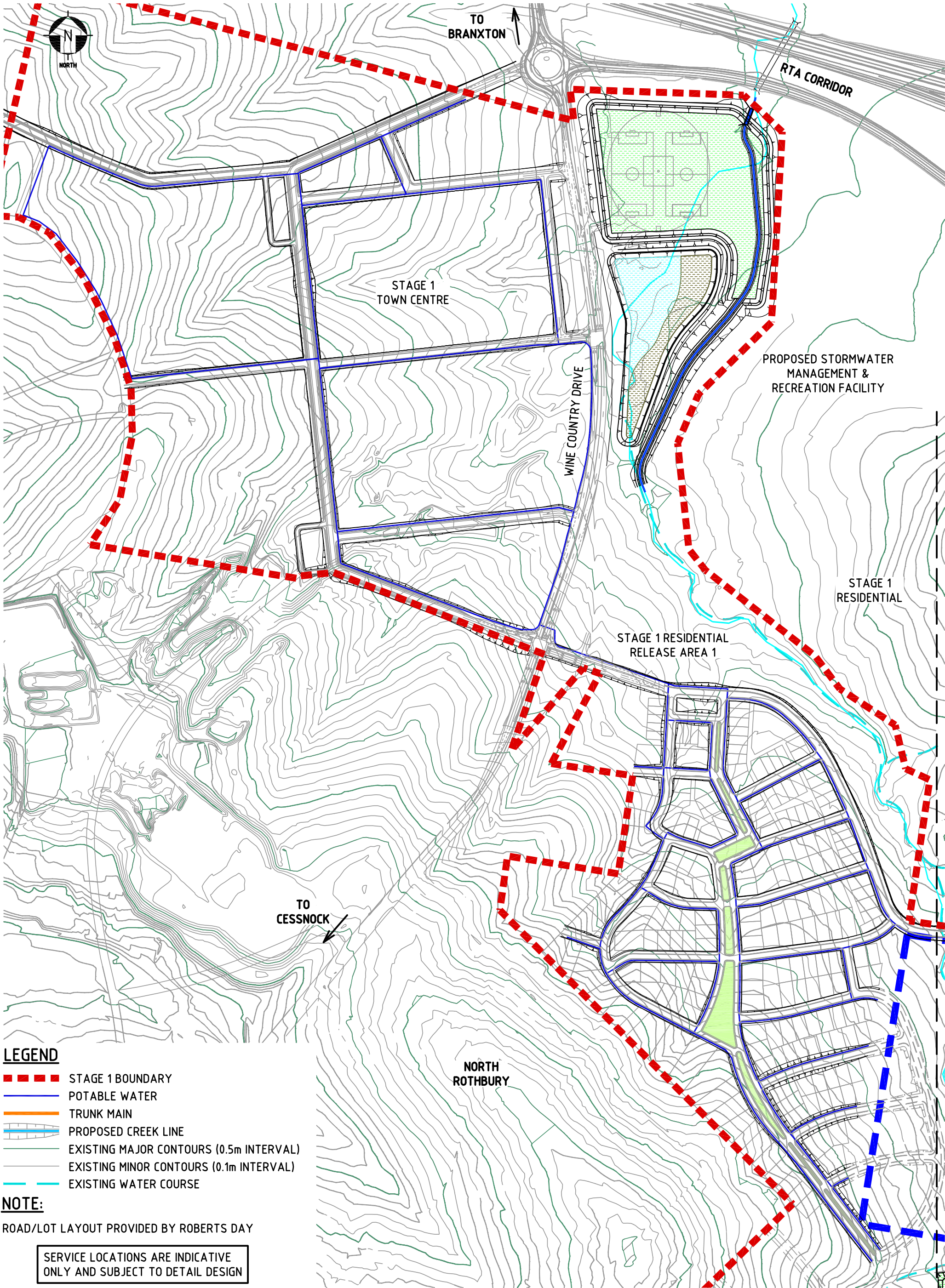
resources & energy

EcoNomics™

HUNTLEE PTY LTD  
STAGE 1 PROJECT APPLICATION  
PHYSICAL INFRASTRUCTURE REPORT

---

## Appendix 2 Preliminary Utility Layouts



LEGEND

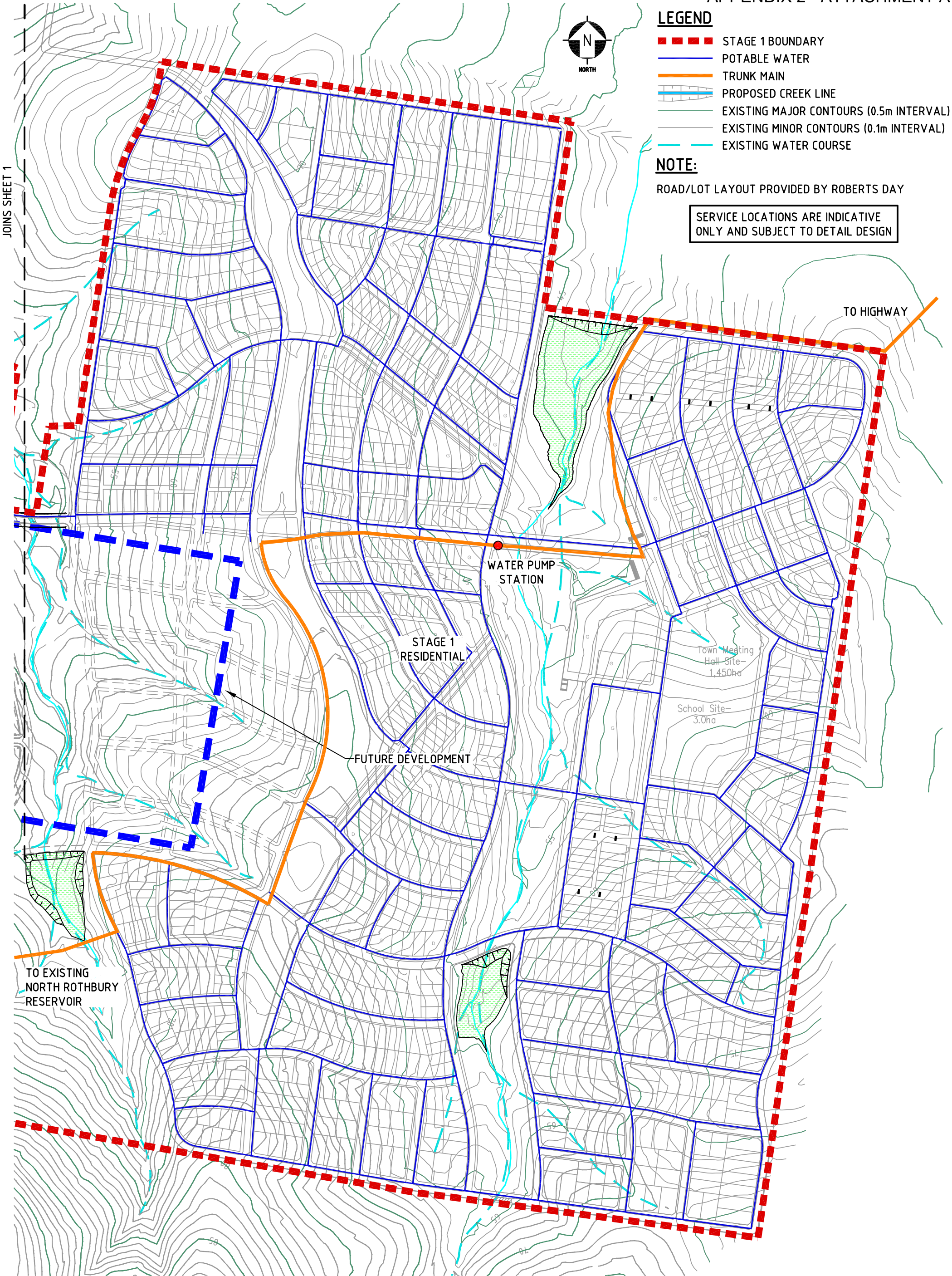
- STAGE 1 BOUNDARY
- POTABLE WATER
- TRUNK MAIN
- PROPOSED CREEK LINE
- EXISTING MAJOR CONTOURS (0.5m INTERVAL)
- EXISTING MINOR CONTOURS (0.1m INTERVAL)
- EXISTING WATER COURSE

NOTE:

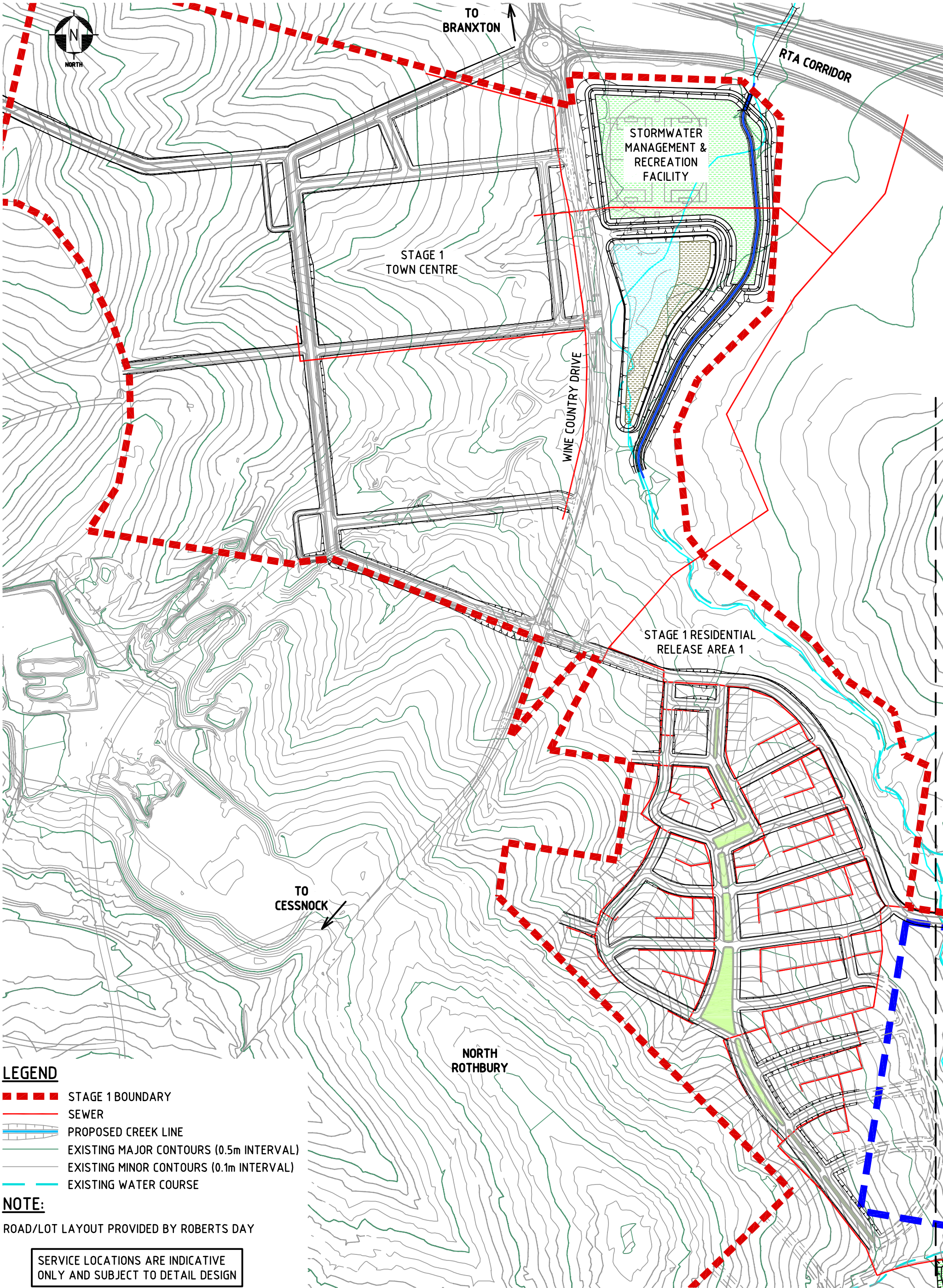
ROAD/LOT LAYOUT PROVIDED BY ROBERTS DAY

SERVICE LOCATIONS ARE INDICATIVE ONLY AND SUBJECT TO DETAIL DESIGN









**LEGEND**

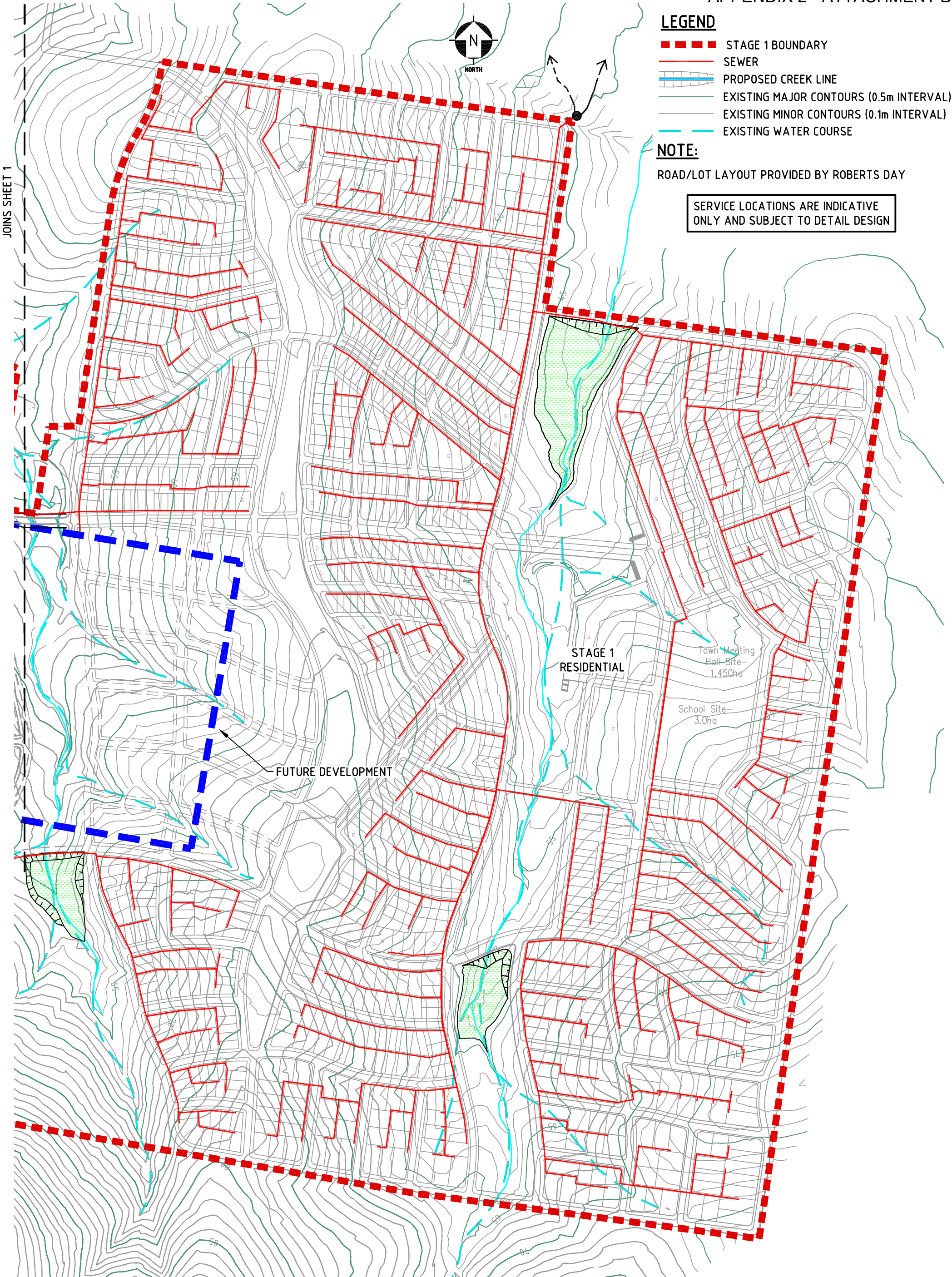
- STAGE 1 BOUNDARY
- SEWER
- PROPOSED CREEK LINE
- EXISTING MAJOR CONTOURS (0.5m INTERVAL)
- EXISTING MINOR CONTOURS (0.1m INTERVAL)
- EXISTING WATER COURSE

**NOTE:**

ROAD/LOT LAYOUT PROVIDED BY ROBERTS DAY

SERVICE LOCATIONS ARE INDICATIVE ONLY AND SUBJECT TO DETAIL DESIGN





**LEGEND**

- STAGE 1 BOUNDARY
- SEWER
- PROPOSED CREEK LINE
- EXISTING MAJOR CONTOURS (0.5m INTERVAL)
- EXISTING MINOR CONTOURS (0.1m INTERVAL)
- EXISTING WATER COURSE

**NOTE:**

ROAD/LOT LAYOUT PROVIDED BY ROBERTS DAY

SERVICE LOCATIONS ARE INDICATIVE ONLY AND SUBJECT TO DETAIL DESIGN



# **WorleyParsons**

resources & energy

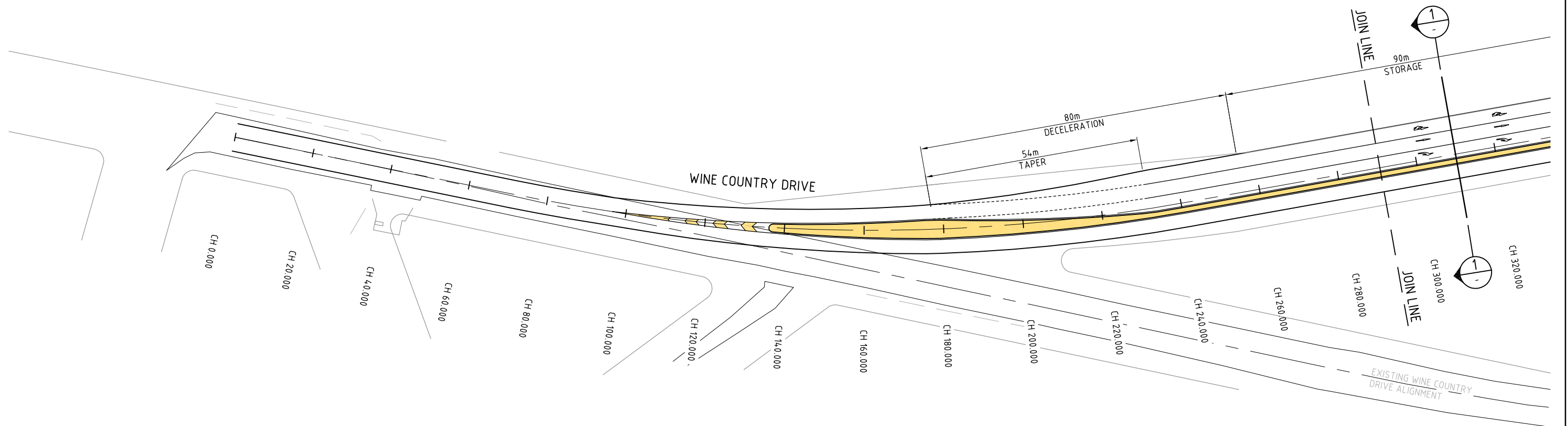
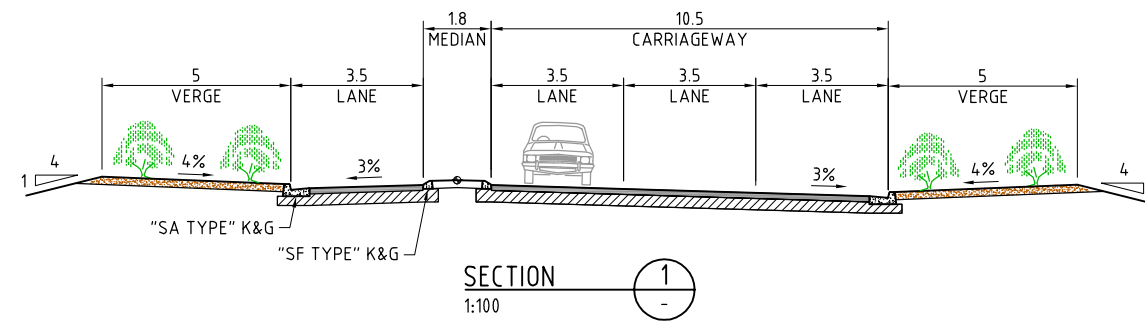
**Eco**Nomics™

HUNTLEE PTY LTD  
STAGE 1 PROJECT APPLICATION  
PHYSICAL INFRASTRUCTURE REPORT

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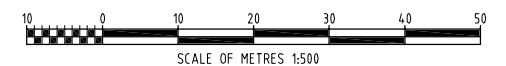
## **Appendix 3      Preliminary Wine Country Drive Details**



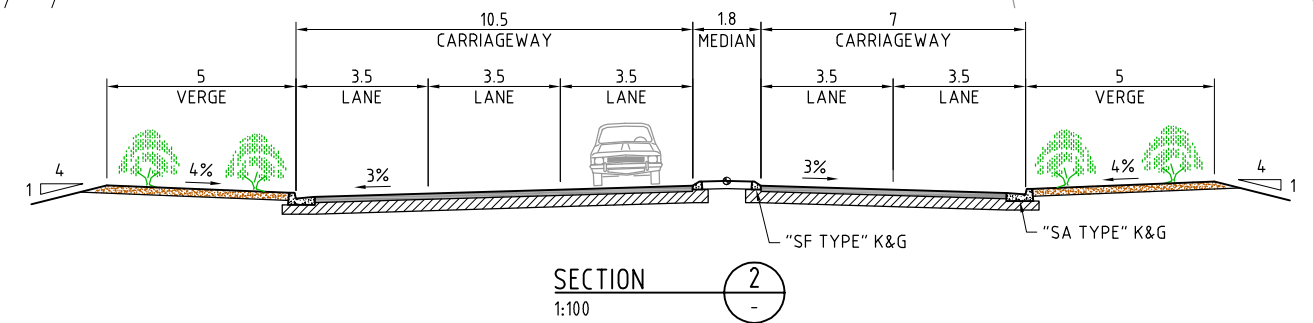
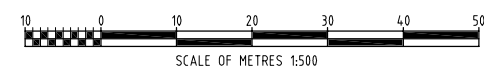
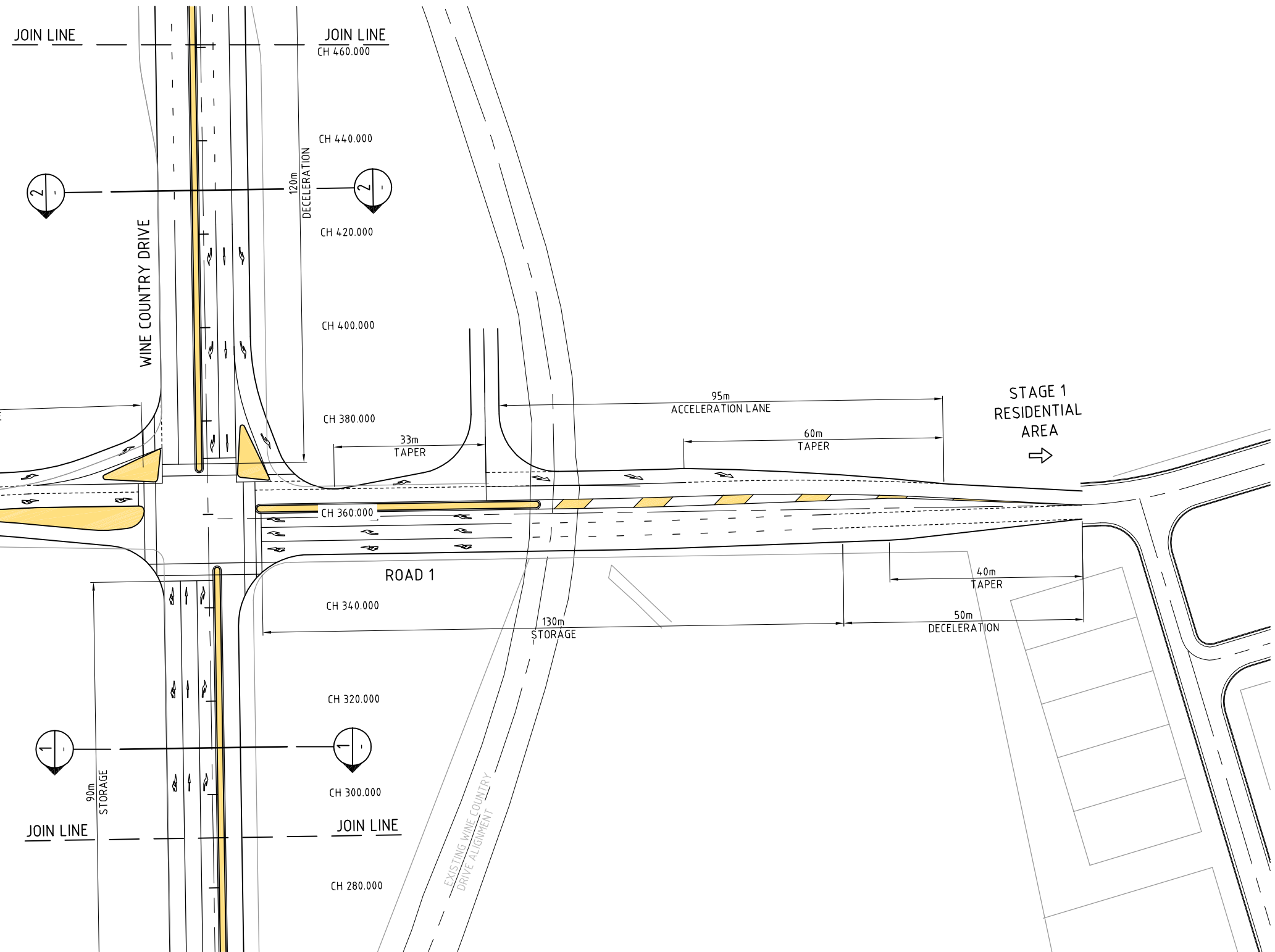


NOTES:

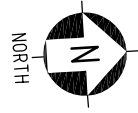
1. EXISTING AND PROPOSED UTILITIES NOT SHOWN FOR CLARITY.
2. 70 Km/h DESIGN SPEED HAS BEEN ADOPTED (WINE COUNTRY DRIVE)
3. DRAWINGS PROVIDED FOR DA PURPOSES ONLY AND SUBJECT TO DETAILED DESIGN REVIEW/APPROVAL PROCESS WITH RMS.



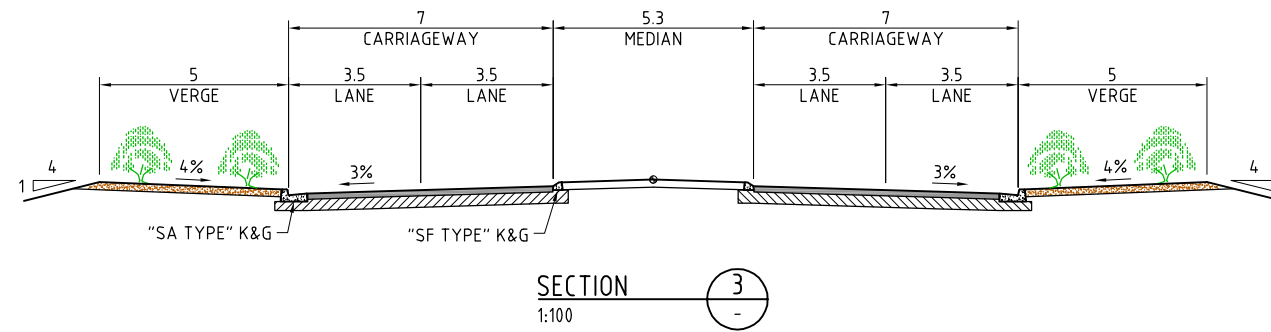
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|   |          |                                           |  |  |     |     |     |    |    | A1 SHEET SCALE 1:500 |  | <div><div><div><div>OneWay™</div><div>to zero harm</div></div><div><div><div>WorleyParsons</div><div>resources &amp; energy</div></div><div><div>Copyright ©</div><div>WorleyParsons Services Pty Ltd</div><div>ABN 61 001 279 812</div></div></div></div></div> | CUSTOMER<br><br>HUNTLEE PTY LTD |  | HUNTLEE STAGE 1 PROJECT APPLICATION<br>GENERAL ARRANGEMENT<br>WINE COUNTRY DRIVE<br>SHEET 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| D | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION |  |  | NAH | PMM | NAH | GS | GS |                      |  |                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                 |  |                                                                                             |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |



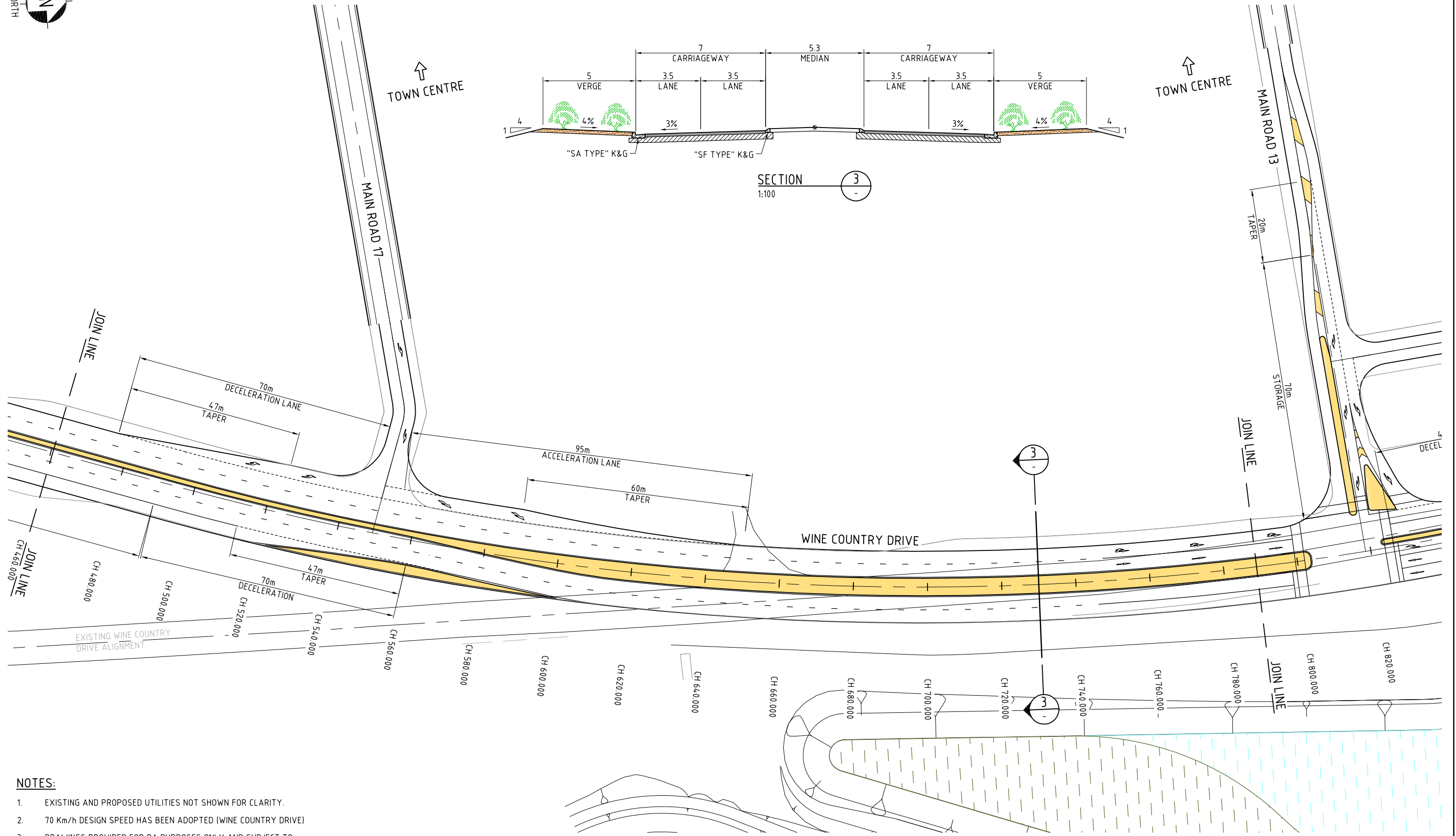
|     |          |                                           |       |           |          |         |          |          |                |                         |                                                                                                               |       |      |                                                                                                                                                                                                                                   |                                           |                                                                                             |                  |     |   |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|---------------------------------------------------------------------------------------------------------------|-------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------------|------------------|-----|---|
|     |          |                                           |       |           |          |         |          |          |                |                         | A1 SHEET                                                                                                      | SCALE | 1500 |  <div><b>WorleyParsons</b><br/>resources &amp; energy</div> <div>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER                                  | HUNTLEE STAGE 1 PROJECT APPLICATION<br>GENERAL ARRANGEMENT<br>WINE COUNTRY DRIVE<br>SHEET 2 |                  |     |   |
| C   | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |  <div>to zero harm</div> |       |      |                                                                                                                                                                                                                                   | WORLEYPARSONS PROJECT No.<br>301017-00364 | HUNTLEE PTY LTD                                                                             |                  |     |   |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION       | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |                                                                                                               |       |      |                                                                                                                                                                                                                                   |                                           | DRG No                                                                                      | 301017-00364-007 | REV | C |
| A   | 15.12.10 | ISSUED FOR CLIENT APPROVAL                | NAH   | PMM       | NAH      | GS      | BGP      |          |                |                         |                                                                                                               |       |      |                                                                                                                                                                                                                                   |                                           |                                                                                             |                  |     |   |
| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |                                                                                                               |       |      |                                                                                                                                                                                                                                   |                                           |                                                                                             |                  |     |   |



TOWN CENTRE

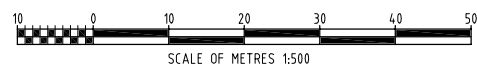


TOWN CENTRE



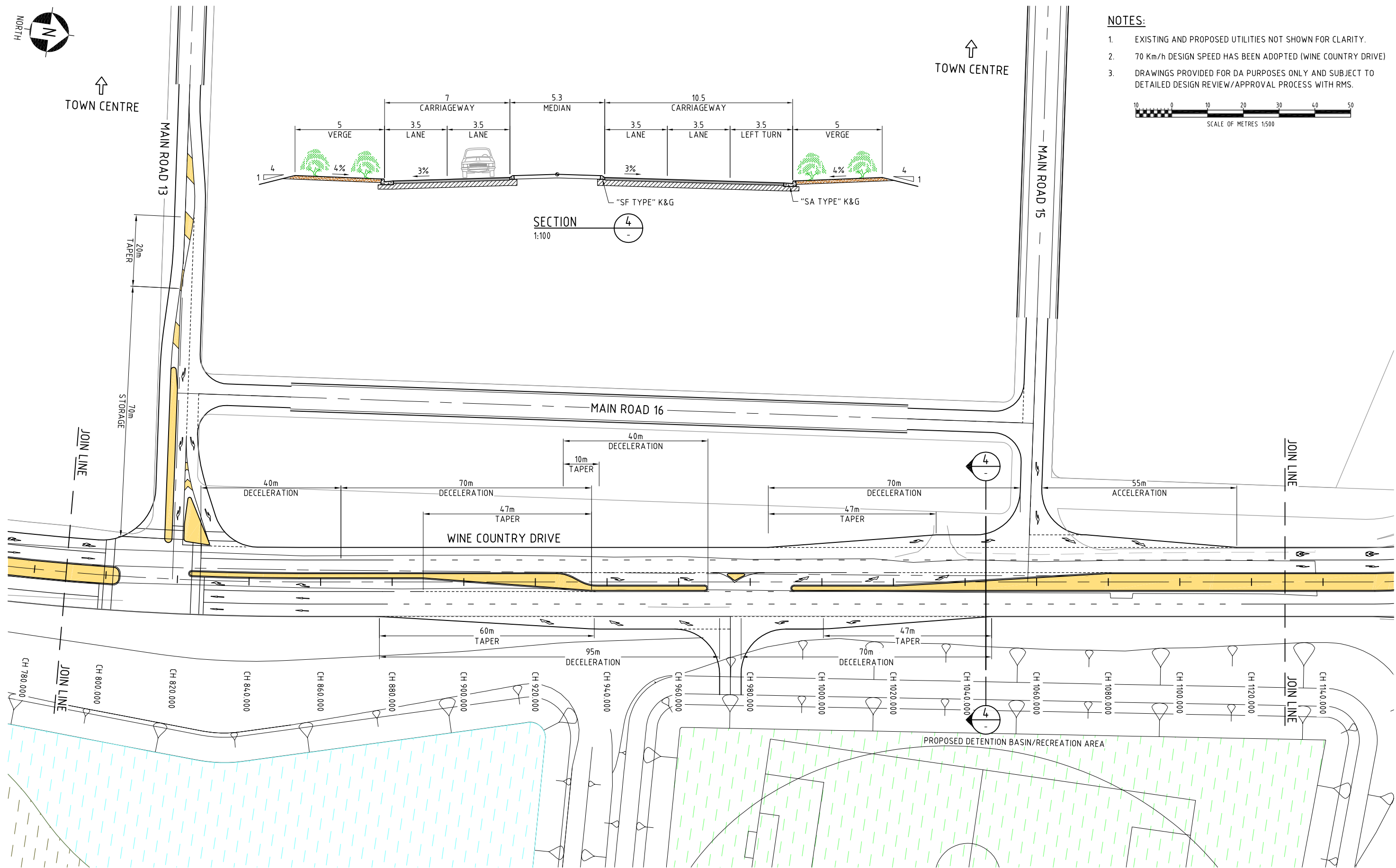
NOTES:

- EXISTING AND PROPOSED UTILITIES NOT SHOWN FOR CLARITY.
- 70 Km/h DESIGN SPEED HAS BEEN ADOPTED (WINE COUNTRY DRIVE)
- DRAWINGS PROVIDED FOR DA PURPOSES ONLY AND SUBJECT TO DETAILED DESIGN REVIEW/APPROVAL PROCESS WITH RMS.

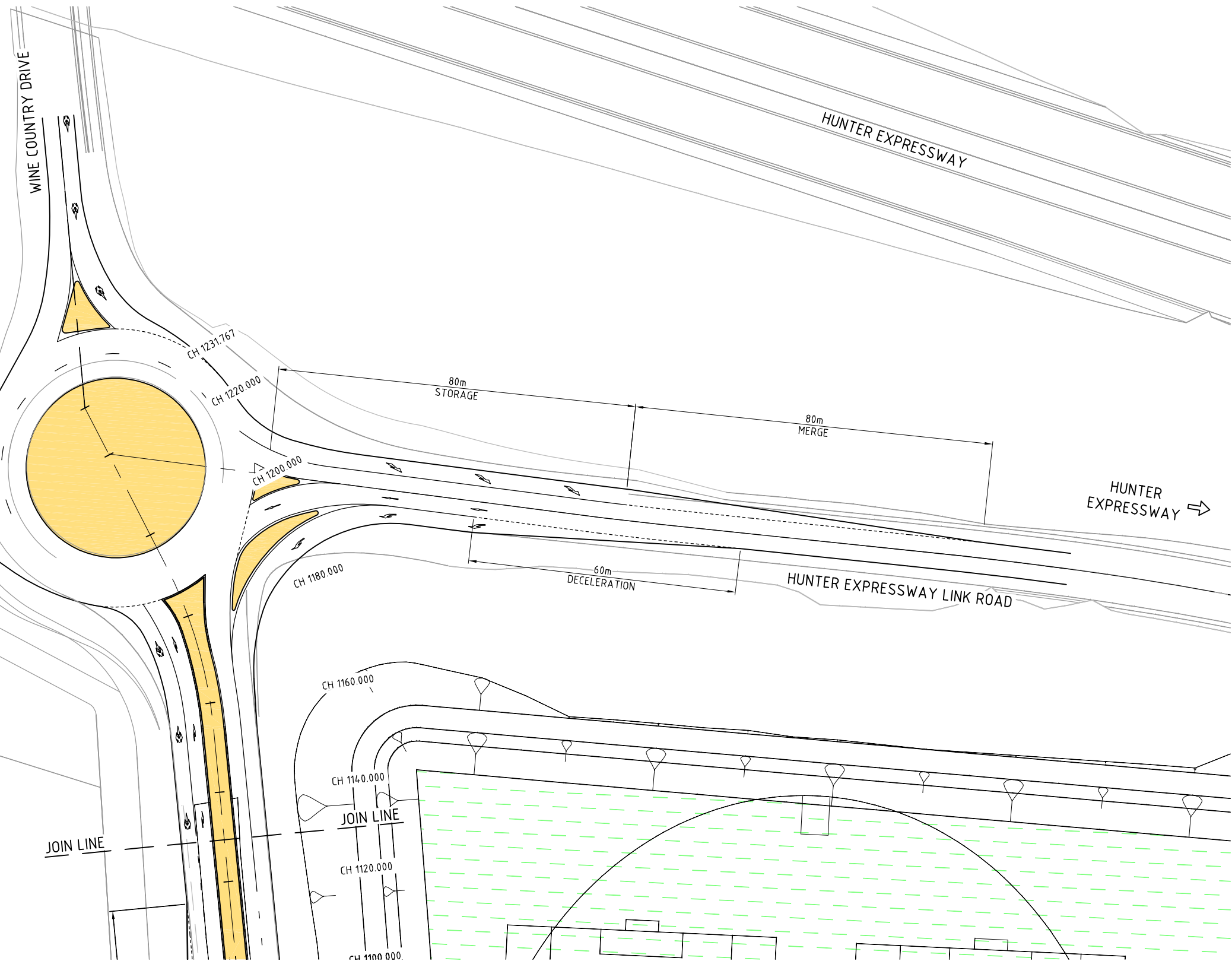


|     |          |                                           |       |           |          |         |          |          |                |                         |       |      |                                                                                                                                                                                                                            |                                 |                                                                                             |  |  |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------|-------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------------------------------------------------------------------------------------|--|--|
|     |          |                                           |       |           |          |         |          |          |                | A1 SHEET                | SCALE | 1500 |  <div><b>WorleyParsons</b><br/>resources &amp; energy<br/>Copyright ©<br/>WorleyParsons Services Pty Ltd<br/>ABN 61 001 279 812</div> | CUSTOMER<br><br>HUNTLEE PTY LTD | HUNTLEE STAGE 1 PROJECT APPLICATION<br>GENERAL ARRANGEMENT<br>WINE COUNTRY DRIVE<br>SHEET 3 |  |  |
|     |          |                                           |       |           |          |         |          |          |                |                         |       |      |                                                                                                                                                                                                                            |                                 |                                                                                             |  |  |
| C   | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |       |      |                                                                                                                                                                                                                            |                                 |                                                                                             |  |  |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION       | NAH   | PMM       | NAH      | GS      | GS       |          |                |                         |       |      |                                                                                                                                                                                                                            |                                 |                                                                                             |  |  |
| A   | 15.12.10 | ISSUED FOR CLIENT APPROVAL                | NAH   | PMM       | NAH      | GS      | BGP      |          |                |                         |       |      |                                                                                                                                                                                                                            |                                 |                                                                                             |  |  |
| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE |       |      |                                                                                                                                                                                                                            |                                 |                                                                                             |  |  |
|     |          |                                           |       |           |          |         |          |          |                | 301017-00364            |       |      |                                                                                                                                                                                                                            |                                 |                                                                                             |  |  |





|     |          |                                           |       |           |          |         |          |          |                |                                                                                                                         | A1 SHEET SCALE                                | 1500   | <br><b>WorleyParsons</b><br>resources & energy<br>Copyright ©<br>WorleyParsons Services Pty Ltd<br>ABN 61 001 279 812 | CUSTOMER<br><br><b>HUNTLEE PTY LTD</b><br><br>HUNTLEE STAGE 1 PROJECT APPLICATION<br>GENERAL ARRANGEMENT<br>WINE COUNTRY DRIVE<br>SHEET 4 |                  |          |  |
|-----|----------|-------------------------------------------|-------|-----------|----------|---------|----------|----------|----------------|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------|--|
| C   | 01.08.12 | FINAL PREFERRED PROJECT REPORT SUBMISSION | NAH   | PMM       | NAH      | GS      | GS       |          |                | <br><b>OneWay™</b><br>to zero harm | WORLEYPARSONS PROJECT No.<br><br>301017-00364 | DRG No |                                                                                                                                                                                                            |                                                                                                                                           | 301017-00364-009 | REV<br>C |  |
| B   | 22.06.12 | PREFERRED PROJECT REPORT SUBMISSION       | NAH   | PMM       | NAH      | GS      | GS       |          |                |                                                                                                                         |                                               |        |                                                                                                                                                                                                            |                                                                                                                                           |                  |          |  |
| A   | 15.12.10 | ISSUED FOR CLIENT APPROVAL                | NAH   | PMM       | NAH      | GS      | BGP      |          |                |                                                                                                                         |                                               |        |                                                                                                                                                                                                            |                                                                                                                                           |                  |          |  |
| REV | DATE     | REVISION DESCRIPTION                      | DRAWN | DRAFT CHK | DESIGNED | ENG CHK | APPROVED | CUSTOMER | REF DRAWING No | REFERENCE DRAWING TITLE                                                                                                 |                                               |        |                                                                                                                                                                                                            |                                                                                                                                           |                  |          |  |

[illegible]



# WorleyParsons

resources & energy

EcoNomics™

HUNTLEE PTY LTD  
STAGE 1 PROJECT APPLICATION  
PHYSICAL INFRASTRUCTURE REPORT

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## Appendix 4      Electrical Report



**Worley Parsons**

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**Huntlee  
Electrical Servicing**

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**November 2010**

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## 1. SCOPE

Power Solutions was commissioned by Worley Parsons to liaise with Energy Australia to ascertain what studies had been undertaken in the past by the energy supplier to establish the electrical servicing issues associated with the proposed Huntlee Urban Development.

The scope of work was to obtain details of any prior investigations that had been undertaken for the electrical supply strategy to service the Huntlee development from the Energy Australia network.

## 2. EXPECTED ELECTRICAL LOAD

### Residential

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The Huntlee site is 1,722 hectares in area and is identified in the Lower Hunter Regional Strategy as a major urban release area able to accommodate up to 7,500 residential lots.

The present development proposal is for a maximum of 5,600 standard residential lots and 200 large rural lots.

The Town Centre also includes 1,700 residential small lots.

Based on the above development density, we estimate the expected maximum electrical load for the residential component of Huntlee to be in the vicinity of 30 MVA. This is only a preliminary estimate and will require confirmation as the development plans are finalised.

### Employment Land

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The development also includes a Town Centre with 200ha of employment land.

At this time details are very limited regarding the likely occupiers of the proposed employment land. From a servicing perspective, this employment area has been estimated as being equivalent to approximately 2000 tenements.

Based on the above details, we estimate the likely electrical load for the employment land to be in the range of 8 to 18 MVA.

Thus the total electrical demand of the completed Huntlee development is likely to be in the order of 38 to 48 MVA.

### **3. DISCUSSIONS WITH ENERGY AUSTRALIA**

We spoke to Mr Greg Skinner, Area Manager Lower Hunter, Distribution Operations & Reliability, in order to determine what previous studies had been undertaken by Energy Australia associated with servicing the proposed Huntlee project.

Mr Skinner indicated that at this time, Energy Australia had not undertaken detailed planning or design works to service the Huntlee development. Preliminary studies were carried out some years ago to determine a concept plan to supply electricity to the development.

The electricity supply upgrade works would be constructed in stages as needed to service the staged development of the Huntlee site.

A letter from Mr Skinner is included as an Appendix to this report listing the planning options and servicing issues identified by Energy Australia.

### **4. SUMMARY OF ELECTRICAL SERVICING**

Based on the details provided by Energy Australia, the following is a summary of the likely approach to provide electrical services to Huntlee.

The following details provide only a high level overview of proposed works. As each stage of Huntlee is developed, a formal application would be required to Energy Australia who would advise the specific network extension works required to service that stage of the project.

#### **Large Lot Residential**

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The proposed large rural lots on Old North Road & Wine Country Drive can be serviced from the existing North Rothbury Zone Substation.

#### **Stage 1 Village & Employment Land**

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The existing feeder from North Rothbury Zone Substation can supply around 400 lots in its present configuration.

With a conductor upgrade, this feeder could supply up to 1200 lots.

Above this level, a new Zone Substation would need to be constructed in the Huntlee development.

#### **Huntlee Zone Substation**

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Energy Australia has indicated that their long term requirement is for a new 132/11kV zone substation to be constructed within the development area.



They will require approximately 200m x 200m of land. The 132kV feeders will be constructed as overhead lines following easement routes, normally 30m wide. Around ten 11kV underground feeders may be needed from the substation to service the final development.

If the land has already been secured, Energy Australia has indicated they can construct a zone substation in around 5 years.

It would be prudent in the early planning and design phase of the development to establish the location of the substation, and set aside the land and associated 132kV power line routes.

## **5. APPENDICES**

- Letter from Energy Australia advising of Preliminary Electrical Servicing Requirements



# WorleyParsons

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HUNTLEE PTY LTD  
STAGE 1 PROJECT APPLICATION  
PHYSICAL INFRASTRUCTURE REPORT

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## Appendix 5 Authority Correspondence



**Hunter Water Corporation**  
ABN 46 228 513 446  
Customer Enquiries 1300 657 657  
enquiries@hunterwater.com.au

PO Box 5171  
HRMC NSW 2310  
36 Honeysuckle Drive  
NEWCASTLE NSW 2300

22 June 2012

Ref:2007-1222

SMEC  
PO Box 1346  
**NEWCASTLE NSW 2300**

Att: Kate Beard

Dear Kate

**RE: Provision of Water and Sewerage Services to Huntlee New Town**

The purpose of this letter is to confirm the status of the provision of water and sewerage facilities to the Huntlee New Town development (Huntlee).

Hunter Water has been liaising with the developer, the LWP Property Group (LWP) and its consultants for over five years regarding the provision of water and sewerage facilities to Huntlee. LWP has prepared detailed water and sewer strategies for the site which were approved by Hunter Water in 2009.

Hunter Water has recently viewed the latest development proposal for Huntlee and understands that the overall yield is generally the same, although there is a revised rollout and staging for the development. Whilst the latest development proposal is broadly in line with the approved strategies, Hunter Water has requested that LWP revise the strategies to reflect these changes.

Overall, Huntlee can be serviced by a combination of developer-funded and Hunter Water-funded works. Hunter Water has a staged regional water supply upgrade program to increase the available system capacity in the Branxton area. The program identifies the progressive construction of works to increase capacity in four stages. Stages 1 and 2 are complete; with Stage 3 works (including the construction of a new reservoir at Windella and a new water pumping station at Lochinvar) are currently under way. The Stage 4 works (which include a new watermain from Lochinvar to Harpers Hill, a new reservoir at Harpers Hill and a new watermain from Harpers Hill to Greta) are currently scheduled for completion in 2017-18.

Water

Hunter Water's growth projection for the catchment includes an estimate of around 350 Equivalent Tenements (of actual customer demand on the system) from Huntlee prior to the Stage 4 regional upgrades. Whilst Hunter Water's ability to service development in the interim is dependent on actual growth over time, if growth is higher (or lower) than predicted, there are options available to cater for this; largely through optimising the timing/staging of developer works. Hunter Water will confirm the optimal strategy for servicing Huntlee at the time a revised developer servicing strategy is submitted for review.



### Wastewater

There is currently around 900 Equivalent Tenements spare capacity at Branxton Wastewater Treatment Works (WWTW). Branxton WWTW was upgraded in 2010 to a Membrane Bioreactor plant where membrane capacity is staged over time to match flows. To realise the additional plant capacity beyond 900ET, extra membrane cells and associated infrastructure need to be installed. Based on previous growth projections which excluded Huntlee, Hunter Water currently has the membrane upgrade work scheduled for the 2017-21 price path. However, this work can be brought forward (either through developer funding or Hunter Water funding) to cater for Huntlee or other growth in the catchment that exceeds Hunter Water's current forecast.

Hunter Water confirms that it has no objection to the Huntlee development provided that water and sewerage facilities are provided by the developer, in accordance with approved servicing strategies. Should you require further clarification or assistance please do not hesitate to contact me on 4979 9545.

Yours Sincerely

A handwritten signature in dark ink, appearing to read 'M. Withers', is written over a faint horizontal line.

**MALCOLM WITHERS**

Senior Developer Services Engineer

145 Newcastle Road  
Wallsend NSW 2287

Address all mail to  
PO Box 487 Newcastle  
NSW 2300 Australia

Telephone +61 2 13 15 25



26 November, 2010

Mr David Griffiths  
Power Solutions  
PO Box 278  
Charlestown NSW 2290

Dear David

## **RE: Huntlee New Town Electricity Supply**

This letter is in response to your email enquiry on 11 November requesting EnergyAustralia to provide preliminary comment on the electricity planning requirements associated with the Huntlee development. In particular, comment on electricity supply to the initial stages of development and longer term requirements to complete the development.

### **Introduction**

Information provided to Energy Australia in November 2010 provided a concept plan for the development. This concept plan shows four village centres with surrounding residential development, two areas of large rural lot residential development, and a proposed town centre with employment land.

The development proposal contains a total of up to 5,600 residential lots, 200 large rural lots, and 200 ha of employment land, equivalent to 3,700 lots.

Development is expected to commence with 125 residential lots in 2013, with annual releases steadily increasing to 350 per annum in 2017 and continuing to 2035.

As detailed loadings have not been provided a number of assumptions have been made for the purpose of this advice. It is noted that gas will be available within the Huntlee development which may affect the following analysis in terms of capacity and timing requirements of the development. In particular, the commercial and industrial customers may have significant impact on these assessments.

### **Existing Supply Arrangements in the Area**

#### **Zone Substation Capacity**

The Branxton 66/11kV zone substation is located less than one kilometre from the proposed development area, but is operating at full capacity.

The Rothbury 132/11kV zone substation is located approximately five kilometres from the proposed development area, and has some spare capacity. Rothbury zone substation is experiencing load growth of approximately 4% per annum. Any load supplied to Huntlee will be in addition to this growth.

### **11kV Feeder Capacity**

There are three 11kV feeders near to the proposed development which each have between 0.5MVA and 2MVA available capacity.

### **Huntlee Supply Options**

#### **Zone Substation Capacity**

The two zone substations near to the proposed development do not have sufficient capacity to supply the whole Huntlee town development. Projects required to increase the capacity of these zone substations would be extensive, and construction of a new zone substation within the Huntlee development is viewed as the most effective way to provide the capacity required for the whole development.

A zone substation within the Huntlee development is forecast to be required by 2018, when the addition of the Huntlee development to the forecast load for Rothbury shows that Rothbury zone substation will reach full capacity.

### **11kV Supply**

#### **Large Lot Residential**

The 11kV load forecast indicates that the proposed large lot residential areas on Old North Road and Wine Country drive can be supplied from existing Rothbury Feeders 34635 and 34641.

### **Stage 1 – Village 1 & Employment Land**

The existing Rothbury feeder 34641 to North Rothbury has the capacity to provide normal supply to approximately 2 MVA ( est. 400 lots). It is recommended that this feeder be re-built with larger conductor in 2015, which would provide capacity of 6 MVA which would service approximately 1200 new lots). Supply for development of greater than 6 MVA will require construction of a zone substation at Huntlee. It is expected that to support the total proposed load of the residential and employment land which has been assessed as approximately 48 MVA, a minimum of ten 11kV feeders would be required. Many of these feeders will need to be developed together, as the significant man made and natural boundaries restrict routes available for new works.

### **Recommendations**

Based on this preliminary high level analysis EnergyAustralia recommend the following be included in the planning and approval stages of the Huntlee development:

- A new 132/11kV zone substation will be required within the development area.
- A site for the substation should be selected in accordance with the requirements below, and be added to the concept plan.
- Routes for 132kV supply to the substation, and routes for 11kV feeders should be identified and added to the concept plan.
- Design of the 11kV supply within Huntlee should allow the future cut over of supply to the new Huntlee zone substation.



- It is forecast that the Huntlee zone substation will be required by 2018 dependant upon load growth including Huntlee on the existing Rothbury zone substation.
- Beyond 2018, up to ten 11kV feeders will need to be constructed from Huntlee zone substation to supply residential and employment land development.

#### **Zone substation site requirements**

Energy Australia will require a site approximately 200m x 200m. The site is required to have suitable council zoning, and be free of easements, environmental and/or native title constraints.

Items to be considered when selecting a site include :

- The site should be central to the load area.
- The site should be level, above the 1 in 100 year flood level, and be free of contamination, acid/sulphate soils, mine subsidence etc.
- The site must be suitable for access for a 20m low loader with 12 tonne axle loading, and have water suitable for fire fighting.

In conclusion, the above information has been provided to allow details of electricity supply infrastructure requirements to be included in the town planning and approval process. Detailed analysis of the proposal has not been made and this report does not constitute an application for connection. EnergyAustralia will require the proponent to submit a formal application for connection and comply with the relevant Network Standards and Electricity Supply requirements before connection will be allowed. When more detailed planning is available I recommend the proponent contact EnergyAustralia to advise short and long term supply requirements, staging of developments and any refined loading details. More detailed analysis may be required at that time.

Thankyou for your enquiry. Should you wish to discuss this proposal further please contact me during normal business hours on (02) 4934 9110.

Yours sincerely



Greg Skinner  
Area Manager Lower Hunter  
Distribution Operations & Reliability



7 December 2010

**Networks and Access Technologies**

Integrated Network Planning  
Locked Bag 6018  
Hunter Region Mail Centre 2310

Kate Beard (Worley Parsons)  
PO Box 668  
Newcastle

**Telephone** (02) 4924 9475  
**Facsimile** (02) 4924 9212

Edward.J.Bush@team.telstra.com

**Re: HUNTLEE – TELECOMMUNICATIONS SERVICES**

Dear Kate,

In response to your letter dated 16<sup>th</sup> Nov 2010, key planning issues that have been considered as having an impact on Telstra's existing telecommunications infrastructure include the following: NIL

You will be aware that there have been recent announcements relating to changes to the Government policies on the provision of infrastructure in new developments.

These can be viewed at

[http://www.dbcde.gov.au/broadband/national\\_broadband\\_network/policy\\_state\\_ments](http://www.dbcde.gov.au/broadband/national_broadband_network/policy_state_ments)

These changes to policy will have a significant impact on the way infrastructure is provided in your proposed development.

Telstra will work with Government, NBN Co and stakeholders on the implementation of the new policy on Greenfields estates.

Our key concerns during this period are to help ensure services to developers and end customers are maintained and meet our commercial and legal obligations. Until alternative arrangements are put in place, developers are requested to remain in contact with Telstra through the normal channels.

Planned property developments can be registered with Telstra via the [www.telstrasmartcommunity.com](http://www.telstrasmartcommunity.com) website.

The opportunity to respond and provide input is appreciated.

For future correspondence and enquiries regarding this matter, please contact the undersigned on 02 4924 9475.

Yours faithfully,

**Edward Bush**  
Area Planner