A PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT (AIA) FOR THE PROPOSED N2 NATIONAL ROUTE (N2-13) BETWEEN GRAHAMSTOWN AND THE FISH RIVER BRIDGE AS WELL AS SIX BORROW PITS AND THREE QUARRIES, EASTERN CAPE PROVINCE.

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Date: September 2013
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NOTE: The phase 1 archaeological impact assessment was conducted as a requirement of the National Heritage Resources Act 25 of 1999 (NHRA), Section 38 (1)(c)(i):

38. (1) Subject to the provisions of subsections (7), (8), and (9), any person who intends to undertake a development categorized as –

(a) the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
(c) any development or other activity which will change the character of the site –
   (i) exceeding 5000m² in extent

This report follows the minimum standard guidelines required by the South African Heritage Resources Agency (SAHRA) and the Eastern Cape Provincial Heritage Resources Agency (ECPHRA) for compiling a Phase 1 Archaeological Impact Assessment (AIA).

1. EXECUTIVE SUMMARY

1.1. Purpose of the Study

The purpose of the study was to conduct a phase 1 archaeological impact assessment (AIA) for the proposed N2 National Route (N2-13) road upgrade between Grahamstown and the Fish River Bridge and an alternative section proposed for the N2 route, as well as six borrow pits and three quarries associated to the construction of the road upgrade. The survey was conducted to establish the range and importance of the exposed and in situ archaeological heritage material remains, sites and features; to establish the potential impact of the development; and to make recommendations to minimize possible damage to the archaeological heritage.

1.2. Brief Summary of Findings

No pre-colonial archaeological heritage resources were observed along the N2 National Route or the N2 alternative route section within or adjacent to the road reserve. A few historical structures and one informal burial area were encountered adjacent to the N2 National Route road reserve and are situated on private land. These included the remains of abandoned farmhouses and dry packed stone walling. Three stone walling features were also documented along the route situated on private land between 10 m and 40 m from the current road reserve fence line. One informal burial area that may be negatively affected by the proposed road upgrade was documented on private land.
situated approximately 10 m from the boundary of the current road reserve but on the boundary of the proposed road reserve layout for the road upgrade.

The Frasers Camp Signal Tower is situated along the alternative route proposed for the upgrade of the N2 National Route. The fortified structure was declared a National Monument in 1938 and since the inception of the National Heritage Resources Act 25 of 1999 is regarded a Grade II status Provincial Heritage Site (PHS).

Isolated scatters of Middle and Later Stone Age stone artefacts were encountered on the areas proposed for Borrow Pit 7 (BP7). Later Stone Age and historical artefacts were encountered on the area proposed for Borrow Pit 5 (BP5) situated along the R72 between Grahamstown and Fort Beaufort. One informal burial area was identified on the area proposed for Quarry 6 (Q6).

1.3. Summary of Recommendations

The areas investigated (N2 National Route and associated borrow pits and quarries) are of a low pre-colonial archaeological and a medium – high historical cultural sensitivity owing to the location stone walling structures and the provincial heritage site along the route investigated. Most of the historical built environment recorded along the N2 National Route is unlikely to be negatively affected. Two of the stonewalling features are likely to be impacted by the construction activities. The informal burial area along the N2 route will be negatively affected and the informal burial area on the site proposed for Quarry 6 (Q6) may be negatively affected if the appropriate mitigation measures are not adhered to. In cases where the development may impede negatively on these heritage resources the appropriate mitigation and conservation measures must be considered and implemented before development commences and continue during the development, construction, and quarrying activities. The following recommendations must be considered (see Section 11 for full recommendations and mitigation measures):

1. Borrow Pit 6 (BP6): The stone artefact occurrences are considered to be in a secondary context. The developer must apply for a destruction permit before the commencement of borrowing activities.

2. Borrow Pit 7 (BP7): It is preferred that the historical scatter area be avoided and that the borrow pit be extended towards the north and south of the current borrow pit area.

3. Quarry 6 (Q6): An area of 40 m x 30 m was identified as containing graves in an informal burial area. This area must be regarded as a no-go development area during the quarrying activities and an additional 25 m boundary area must be added and clearly demarcated to avoid any negative impact.
4. **N2 BE2**: The ruin of the farmhouse is situated approximately 100 m north of the current N2 National Route. According to the layout of the proposed N2 road upgrade the structure will not be negatively affected during the construction activities. However, if the layout changes and it is possible that the changes would require that the structure be affected or demolished a historical archaeologist, historical architect, or historical built environment specialist be appointed to assess the significance of the ruins and make further recommendations.

5. **N2 BE5**: This structure is situated approximately 25 m north of the current N2 National Route. According to the layout of the proposed N2 road upgrade the structure will not be negatively affected during the construction activities. However, if the layout changes and it is possible that the changes would require that the structure be affected or demolished a historical archaeologist, historical architect, or historical built environment specialist should be appointed to assess the significance of the structure and make further recommendations.

6. **N2 BE14**: The Original Fraser’s Camp farmhouse is situated almost 100 m south of the current N2 National Route. According to the layout of the N2 road upgrade layout, this section of the road is proposed to be widened therefore decreasing the distance between the proposed N2 road reserve boundary and the structure to 40 m, however, it is not expected that the structure will be negatively affected by the construction of the N2. A 40 m boundary area around the structure must be established and clearly demarcated so as to avoid any possible negative impact during construction activities. However, if the layout changes and it is possible that the changes would require that the structure be affected or demolished a historical archaeologist, historical architect, or historical built environment specialist be appointed to assess the significance of the structure and make further recommendations.

7. **N2 BE18**: The Fraser’s Camp fortified watchtower is situated on the route proposed for the alternative N2 section. The layout of the proposed N2 alternative route must be planned to avoid negative impact to the historically significant provincial heritage site.

8. **N2 BE20**: The farmhouse is situated approximately 100 m from the current N2 National Route. According to the layout of the proposed N2 road upgrade the structure will not be negatively affected during the construction activities. However, if the layout changes and it is possible that the changes would require that the structure be affected or demolished a historical archaeologist, historical architect, or historical built environment specialist be appointed to assess the significance of the ruins and make further recommendations.

9. **N2 SW1**: The dry packed stone wall is situated between 15 m and 30 m from the current N2 National Route and extends for almost 700 m running parallel to the N2 National road. According to the layout of the proposed N2 road upgrade the structure...
will not be negatively affected during the construction activities. A 15 m boundary area around the structure must be established and clearly demarcated so as to avoid any possible negative impact during construction activities. However, if the layout changes and it is possible that the changes would require that the structure be affected or demolished a historical archaeologist, historical architect, or historical built environment specialist be appointed to assess the significance of the ruins and make further recommendations.

10. N2 SW2 and N2 SW3: The dry packed circular pen (N2 SW2) and dry packed stone wall are situated between 10 m and 20 m from the current boundary of the road reserve. According to the layout of the proposed N2 road upgrade the structures may be negatively affected by during the construction activities. This section of the road is proposed to be widened, therefore, decreasing the distance between the proposed N2 road and the features to between 0 m and 10 m. It is recommended that construction activities do not occur within the road reserve on this section of the proposed road upgrade.

11. N2 G1: A possible 7 graves within an informal burial area, demarcated to 20 m x 20 m, were documented situated approximately 25 m from the current N2 National Route road reserve. According to the layout of the proposed N2 road upgrade the graves are situated within proposed layout and construction activity area for the road upgrade and will be negatively affected by the construction activities. It is recommended that this area be considered a no-go area and that construction activities do not occur within the road reserve on this section of the proposed road upgrade.

12. If concentrations of archaeological heritage material and human remains are uncovered during construction, all work must cease immediately and be reported to the Albany Museum and/or the Eastern Cape Provincial Heritage Resources Agency (ECPHRA) so that systematic and professional investigation/excavation can be undertaken.

13. Construction managers/foremen and/or the Environmental Control Officer (ECO) should be informed before construction starts on the possible types of heritage sites and cultural material they may encounter and the procedures to follow when they find sites.

2. BACKGROUND INFORMATION

The Department of Archaeology, Albany Museum, has been appointed by Coastal and Environmental Services (CES), Grahamstown, to conduct the Phase 1 Archaeological Impact Assessment (AIA) which has been prepared as part of the Environmental Impact Assessment (EIA) phase for the proposed project in accordance with the National Heritage Resources Act 25 of 1999, and guidelines by the South African Heritage
Resources Agency (SAHRA), and the Eastern Cape Heritage Resources Agency (ECPHRA).

The proposed project includes the upgrade of the N2 National Route (N2-13) between Grahamstown and the Fish River Bridge as well as an alternative section that runs south between of the current N2 National Route and Fraser’s Camp Adventures and Motel and Padstal. Six proposed borrow pit areas, some with existing borrow pits; have been identified to be used for the construction of the N2 upgrade. Three proposed quarry areas, some with existing quarries, have been identified of which the materials would be used for the construction activities. One borrow pit (BP15) and one quarry (Q1) are situated in the Amathole District Municipality.

2.1. Developer:

South African National Roads Agency (SANRAL)

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2.3. Terms of reference

The purpose of the study was to conduct a phase 1 archaeological impact assessment (AIA) for the proposed N2 National Route (N2-13) road upgrade between Grahamstown and the Fish River Bridge and an alternative section proposed for the N2 route as well as six associated borrow pits and three associated quarries that will be used for the construction of the road upgrade.

The survey was conducted to:

- establish the range and importance of the exposed and in situ archaeological heritage material remains, sites and features;
- establish the potential impact of the development; and
- make recommendations to minimize possible damage to the archaeological heritage.
3. BRIEF HERITAGE LEGISLATIVE REQUIREMENTS

Parts of sections 3, 27, 34, 35, 36 and 38 of the National Heritage Resources Act 25 of 1999 (NHRA 25 of 1999) apply (see Appendix A for full extracts from the NHRA):

**S3. National estate**

Includes heritage resources which are of cultural significance or other special value to the present community and are protected by heritage resources authorities. For this area it would include:
- Places, buildings and equipment of cultural significance;
- Places to which oral traditions are attached or which are associated with living heritage;
- Historical settlements and townscapes;
- Landscapes and natural features;
- Archaeological and palaeontological sites;
- Graves and burial grounds
  - Ancestral graves,
  - Historical graves and cemeteries, and
  - Other human remains which are not covered in terms of the Human Tissue Act 1983 (Act No. 65 of 1983);
- Movable objects
  - Objects recovered from the soil or waters of South Africa including archaeological and palaeontological objects and material, meteorites and rare geological specimens,
  - Objects to which oral traditions are attached or which are associated with living heritage, and
  - Objects of scientific or technological interest.

A place or objects is to be considered part of the national estate if it has cultural significance or other special value because of:
- Its importance in the community, or pattern of South Africa’s history;
- Its potential to yield information that will contribute to and understanding of South Africa’s natural or cultural heritage;
- Its importance in demonstrating the principal characteristics of a particular class of South Africa’s natural or cultural places or objects;
- Its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- Its importance in demonstrating a high degree of creative or technical achievement at a particular period;
- Its strong or special association with a particular community or cultural group for social, cultural, or spiritual reasons; and
- Its strong or special association with the life or work of a person, group or organisation of the importance in the history of South Africa.
S27. National heritage sites and provincial heritage sites

The Fraser’s Camp Signal Tower fortified structure was Gazetted as a National Monument on 4 February 1938. It has subsequently attained a Grade II status as a Provincial Heritage Site (PHS). Legislation guides the processes to follow when development is proposed to be undertaken on Provincial Heritage Sites and these must be followed, which includes consultation with the landowner/s and affected community/ies, and inevitably the final commenting authority for the proposed development/s is on the onus of the relevant provincial heritage resources authority, in this case, the Eastern Cape Heritage Resources Agency (ECPHRA).

S34. Structures

Protects buildings and structures older than 60 years.

S35. Archaeology, palaeontology and meteorites

Protects and provides guidelines on all archaeological and palaeontological heritage resources as well as meteorite sites.

S36. Burial grounds and graves

The Act protects all graves and burial grounds older than 60 years. However, graves younger than 60 years that occur in informal burial areas or outside of formal cemeteries, graves of conflict, ancestral, and historical graves are also protected under the NHRA.

S38. Heritage resources management

Provides the appropriate legislative requirements for developments that require heritage impact assessments, the minimum requirements required in compiling impact assessments, and the procedures to follow on the outcome of certain recommendations as well as appeal processes.

4. BRIEF ARCHAEOLOGICAL BACKGROUND

The pre-colonial archaeological record of the Grahamstown region and surrounds includes traces of the Early Stone Age (ESA) (1.5 million – 250 000 years ago), Middle Stone Age (MSA) (250 000 – 30 000 years ago), Later Stone Age (LSA) (30 000 – recent), Khoekhoen pastoralists, and Later Iron Age farming communities within the last 2000 years. The historical archaeological record is relatively extensive owing to the area being infiltrated before the arrival of the 1820 British Settlers and then later settled by the 1820 British Settlers and the subsequent features established in relation to the
British – Xhosa Wars.

The archaeological literature and research within this area is limited and incomplete, although a few sites (pre-colonial and historical) have been excavated in the surrounding Grahamstown area. The Albany Museum Site Recording Database was consulted for archaeological sites nearby and within the surrounding area of the proposed area for the mining right application. Several archaeological and heritage impact assessments have been conducted near to and within the surrounding area of the proposed area for the N2 National Route upgrade, these have been consulted to assist in the awareness of the heritage resources that occur within the region (Van Ryneveld 2012a-b; Nilssen 2011; Binneman & Booth 2008, 2009; Booth 2011; Way-Jones 2011; Anderson 2009, 2011).

4.1. The Early Stone Age (ESA) (1.5 million-250 000 years ago)

The Early Stone Age that ranges between 1.5 million and 250 000 years ago refers to the earliest that Homo sapiens sapiens predecessors began making stone tools. The earliest stone tool industry was referred to as the Olduwan Industry originating from stone artefacts recorded at Olduvai Gorge, Tanzania. The Acheulian Industry, the predominant southern African Early Stone Age Industry, replaced the Olduwan Industry approximately 1.5 million years ago, is attested to in diverse environments and over wide geographical areas. The hallmark of the Acheulian Industry is its large cutting tools (LCTs or bifaces), primarily handaxes and cleavers. Bifaces emerged in East Africa more than 1.5 million years ago (mya) but have been reported from a wide range of areas, from South Africa to northern Europe and from India to the Iberian coast. The end products were similar across the geographical and chronological distribution of the Acheulian techno-complex: large flakes that were suitable in size and morphology for the production of handaxes and cleavers perfectly suited to the available raw materials (Sharon 2009).

The most well-known Early Stone Age site in southern Africa is Amanzi Springs, situated about 10km north-east of Uitenhage, near Port Elizabeth (Deacon 1970). In a series of spring deposits a large number of stone tools were found in situ to a depth of 3-4m. Wood and seed material preserved remarkably very well within the spring deposits, and possibly date to between 800 000 to 250 000 years old. Other Early Stone Age sites that contained preserved bone and plant material include Wonderwerk Cave in the Northern Province, near Kimberley and Montagu Cave in the Western Cape, near the small town of Montagu (Mitchell 2007). Early Stone Age sites have also been reported in the foothills of the Sneeuwberge Mountains (in Prins 2011). Systematic Early Stone Age research is currently being carried out in the Sundays River Valley which will add to the lack of information of this period within the surrounding area.

According to S.L. Hall (1985), classic Early Stone Age handaxes and cleavers had been found near the Grahamstown golf course that probably dates between 1 million and 200 000 years ago in comparison to similar artefacts documented throughout southern