

**DELEGATED REPORT****TO:** COORDINATOR PLANNING & BUILDING**FROM:** Supervisor Planning & Building**FILE:** OPW/26/0003 (Amaroo Stage 15)**DATE:** 10 August 2026**APPLICATION DETAILS**

| <b>APPLICATION</b>              |                                                                                                                                                               | <b>PREMISES</b> |                                                                     |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------------------------------------------------------------|
| <b>FILE NO:</b>                 | OPW/26/0003<br>(Amaroo Stage 15)                                                                                                                              | <b>ADDRESS:</b> | Emerald End Road,<br>Karobean Drive and<br>Pontos Place,<br>Mareeba |
| <b>APPLICANT:</b>               | BTM & S Stankovich<br>Pty Ltd                                                                                                                                 | <b>RPD:</b>     | Lot 500 on<br>SP352770                                              |
| <b>LODGED BY:</b>               | Neon Consulting                                                                                                                                               | <b>AREA:</b>    | 16.21 ha                                                            |
| <b>DATE LODGED:</b>             | 27 May 2026                                                                                                                                                   | <b>OWNER:</b>   | BTM & S<br>Stankovich Pty<br>Ltd                                    |
| <b>TYPE OF APPROVAL:</b>        | Development Permit                                                                                                                                            |                 |                                                                     |
| <b>PROPOSED DEVELOPMENT:</b>    | Operational Works - Roadworks, Earthworks,<br>Stormwater Drainage and Water and Sewer Reticulation<br>for Development Permit RAL/25/0010 (Amaroo Stage<br>15) |                 |                                                                     |
| <b>PLANNING SCHEME:</b>         | Mareeba Shire Council Planning Scheme 2016                                                                                                                    |                 |                                                                     |
| <b>ZONE:</b>                    | Residential zone (Low Density)                                                                                                                                |                 |                                                                     |
| <b>LEVEL OF<br/>ASSESSMENT:</b> | Code Assessment                                                                                                                                               |                 |                                                                     |

**PREVIOUS APPLICATIONS & APPROVALS**

RAL/25/0010

**DESCRIPTION OF PROPOSED DEVELOPMENT**

The development application seeks a Development Permit for Operational Works - Roadworks, Earthworks, Stormwater Drainage and Water and Sewer Reticulation for Development Permit RAL/25/0010 (**Amaroo Stage 15**)

**ASSESSMENT****State Planning Policy**

Separate assessment against the State Planning Policy (SPP) is not required because the Mareeba Shire Council Planning Scheme appropriately integrates all relevant aspects of the SPP.

## Relevant Development Codes

The following Development Codes are considered to be applicable to the assessment of the application:

- 6.2.6 Low density residential zone code
- 9.4.4 Reconfiguring a lot code
- 9.4.5 Works, services and infrastructure code

The application did not include a planning report and assessment against the planning scheme. An officer assessment has found that the application satisfies the relevant acceptable solutions (or probable solutions/performance criteria where no acceptable solution applies) of the relevant codes set out below.

| Relevant Codes                          | Comments                                                                                                      |
|-----------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Low density residential zone code       | The application can be conditioned to comply with the relevant acceptable outcomes contained within the code. |
| Reconfiguring a lot code                | The application can be conditioned to comply with the relevant acceptable outcomes contained within the code. |
| Works, services and infrastructure code | The application can be conditioned to comply with the relevant acceptable outcomes contained within the code. |

## Compliance with conditions of earlier related approval

### RAL/25/0010

#### (a) Development assessable against the Planning Scheme

1. Development must be carried out generally in accordance with the approved plans and the facts and circumstances of the use as submitted with the application, and subject to any alterations:
  - found necessary by the Council's delegated officer at the time of examination of the engineering plans or during construction of the development because of particular engineering requirements; and
  - to ensure compliance with the following conditions of approval.
2. Timing of Effect
  - 2.1 The conditions of the development permit must be complied with to the satisfaction of Council's delegated officer prior to the endorsement of a Form 18B for each stage of the development, except where specified otherwise in these conditions of approval.
3. General
  - 3.1 The applicant/developer is responsible for the cost of necessary alterations to existing public utility mains, services or installations required by works in relation to the proposed development or any works required by condition(s) of this approval.
  - 3.2 All payments or bonds required to be made to the Council pursuant to any condition of this approval or the Adopted Infrastructure Charges Notice must be made prior to the endorsement of the plan of survey, or alternative documentation as approved by the Land Title Act and at the rate applicable at the time of payment.

- 3.3 The developer must relocate (in accordance with FNQROC standards) any services such as water, sewer, drainage, telecommunications and electricity that are not wholly located within the lots that are being created/serviced where required by the relevant authority, unless approved by Council's delegated officer.
- 3.4 Where utilities (such as sewers on non-standard alignments) traverse lots to service another lot, easements must be created in favour of Council for access and maintenance purposes. The developer is to pay all costs (including Council's legal expenses) to prepare and register the easement documents.
- 3.5 All works must be designed, constructed and carried out in accordance with FNQROC Development Manual requirements (as amended) and to the satisfaction of Council's delegated officer.
- 3.6 Charges
- All outstanding rates, charges, and expenses pertaining to the land are to be paid in full.
- 3.7 Bushfire Management
- A Bushfire hazard management plan for the subject land must be prepared by suitably qualified person to the satisfaction of Council's delegated officer.
- The future use of each lot must comply with the requirements of the bushfire hazard management plan at all times.
- 3.8 The following road names are approved:
- Alkira Court - new cul-de-sac off Karobean Drive
- 3.9 Flood Immunity
- Lots 254, 255, 258, 260-265, 271-276 & 280 must include survey markers that clearly identify the Q100 + 300mm flood immunity level of RL395.7m AHD on each lot, and a subsequent plan must be prepared for use by future owners/builders to help identify flood immune areas of each lot suitable for building.
- All dwellings and sheds constructed on these lots must be built to achieve a finished floor height of at least RL395.7m AHD.
- 3.10 The "Park" allotment shall be transferred to Council as freehold land at the same time or before the last residential allotment in Stage 14b or 15 is registered. The entirety of the costs involved with this transfer will be the responsibility of the applicant/developer.
- In accordance with the provision contained within the *Neighbourhood Disputes (Dividing Fences and Trees) Act 2011*, Council shall not be liable for contributing to the upkeep, maintenance or installation of any fencing with any adjoining lot. A notation will be placed on the rates notice of adjoining lots 332 and 333 on SP336235 and Lot 331 of Stage 15 advising of this exemption.

**At the Ordinary Council Meeting dated 20 May 2026, it was resolved that an additional condition be included within Council's Decision Notice issued on 18 September 2025 as follows:**

### **3.11 Park Contribution**

**In lieu of providing the "Park" allotment required by Condition 3.10, the applicant/developer may elect to instead pay a monetary contribution to Council,**

**with the contribution to be used specifically towards upgrades/improvements to the Mareeba East Destination Park.**

**The contribution amount is to be determined prior to the completion of Stage 15 and must be equivalent to 75% of the sale cost of the land (minus development costs), with the final contribution amount to be approved by Council's delegated officer.**

**If this condition is acted upon, the remaining saleable lot must be fully serviced to the same standards as all other Stage 15 lots in compliance with Conditions 4.1 – 4.10, to the satisfaction of Council's delegated officer.**

#### 4. Infrastructure Services and Standards

##### 4.1 Access

Access to each allotment must be constructed (from the edge of the road pavement to the property boundary of each lot) in accordance with the FNQROC Development Manual, to the satisfaction of Council's delegated officer.

The provision of layback/roll-over kerbing along the frontage of each allotment will satisfy this condition.

##### Lot 258, 275, 276 & 280 Access Handles

Lots 258, 275, 276 and 280 must include a minimum 3m wide reinforced concrete or asphalt driveway to be constructed for the full length of the access handle of each lot and connecting with the kerbing of each lots service road. The driveways must be designed so that the water collected on the driveway drains to a legal point of discharge.

A shared driveway with a width of 4 metres and where including reciprocal access and services easements is permitted for Lots 275 and 276.

##### 4.2 Stormwater Drainage

- (a) The applicant/developer must take all necessary steps to ensure a non-worsening effect on surrounding land as a consequence of the development.
- (b) Prior to works commencing the applicant must submit a Stormwater Management Plan and Report prepared and certified by a suitably qualified design engineer (RPEQ) that meets or exceeds the standards of design and construction set out in the Queensland Urban Drainage Manual (QUDM) and the FNQROC Development Manual to the satisfaction of Council's delegated officer.
- (c) Prior to works commencing the applicant must submit a Stormwater Quality Management Plan and Report prepared and certified by a suitably qualified design engineer (RPEQ) that meets or exceeds the standards of design and construction set out in the Urban Stormwater Quality Planning Guideline and the Queensland Water Quality Guideline to the satisfaction of Council's delegated officer.
- (d) The Stormwater Quality Management Plan must include an Erosion and Sediment Control Plan that meets or exceeds the Soil Erosion and Sedimentation Control Guidelines (Institute of Engineers Australia) to the satisfaction of Council's delegated officer.

- (e) The applicant/developer must construct the stormwater drainage infrastructure in accordance with the approved Stormwater Management Plan and/or Stormwater Quality Management Plan and Report.
- (f) Temporary drainage is to be provided and maintained during the construction phase of the development, discharged to a lawful point and not onto the construction site.
- (g) All stormwater channels through private property must be registered, with the easement for drainage purposes in favour of Council. All documentation leading to the registration of the easement must be completed at no cost to Council.
- (h) All stormwater drainage collected from the site must be discharged to an approved legal point of discharge.
- (i) The applicant (at their cost) must video all stormwater lines and submit the video for inspection by Council's delegated officer prior to the development being taken "off maintenance" to ensure that no defects have occurred during the 12 month maintenance period.
- (j) All drainage easements must be constructed to prevent erosion. Construction may be in the form of a concrete invert, with outlet protection.

#### 4.3 Earthworks

All earthworks must be carried out in accordance with the requirements of the FNQROC Development Manual (as amended) to the satisfaction of Council's delegated officer.

#### 4.4 Roadworks/footpaths – Internal

- (a) Alkira Court and Allambee Close are to be constructed to Access Street standard in accordance with the FNQROC Development Manual (as amended) to the satisfaction of Council's delegated officer.

Solid timber or steel (no composite plastic) bollards are to be erected at the cul-de-sac head of Allambee Close to ensure vehicles cannot gain access to the street directly from Emerald End Road.

- (b) Karobean Drive must be constructed to a Collector Road standard (of the same width as the existing section of Karobean Drive) in accordance with the FNQROC Development Manual (as amended) to the satisfaction of Council's delegated officer.
- (c) Any temporary turn-around areas situated at the ends of any semi-constructed stub roads must include a sealed cul-de-sac head (no kerbing required) of a size capable of allowing a garbage truck to turn around on.
- (d) 2-metre-wide concrete pedestrian footpaths must be installed on at least one (1) side of all proposed internal roads, including Alkira Court and Allambee Close. The horizontal alignment of all footpaths (with the exception of Karobean Drive) must comply with the FNQROC development Manual (specifically Standard Drawing S1004A) and **must not be constructed abutting the kerbing.**

Only the Karobean Drive footpath is permitted to be constructed abutting the kerbing to match the existing horizontal alignment.

#### 4.5 Water Supply

- (a) A water service connection must be provided to each proposed lot in accordance with FNQROC Development Manual standards (as amended) to the satisfaction of Council's delegated officer

**A 50mm water connection must be provided to the "Park" allotment.**

- (b) Where the existing reticulated water supply does not currently service the site or is not at an adequate capacity, the developer is required to extend or upgrade the reticulated water supply infrastructure to connect the site to Council's existing infrastructure at a point that has sufficient capacity to service the development in accordance with FNQROC Development Manual standards (as amended).

#### 4.6 Sewerage Connection

- (a) The developer must connect the proposed development, including the "Park" allotment to Council's reticulated sewerage system in accordance with FNQROC Development Manual standards (as amended) to the satisfaction of Council's delegated officer.
- (b) Where sewerage connections are not available to the site, or where existing connections are not satisfactory for the proposed development, the developer is required to extend or upgrade the reticulated sewerage infrastructure to connect the site to Council's existing infrastructure at a point that has sufficient capacity to service the development in accordance with FNQROC Development Manual standards (as amended).

#### 4.7 Electricity provision/supply

The applicant/developer must ensure that an appropriate level of electricity supply is provided to each allotment, including the "Park" allotment, in accordance with FNQROC Development Manual standards (as amended) to the satisfaction of Council's delegated officer.

Written advice from an Electricity Service Provider is to be provided to Council indicating that an agreement has been made for the provision of **underground** power reticulation.

#### 4.8 Telecommunications

The applicant/developer must enter into an agreement with a telecommunication carrier to provide telecommunication services to each allotment and arrange provision of necessary conduits and enveloping pipes.

#### 4.9 Lighting

Street lighting must be provided to all roads in accordance with FNQROC Development requirements (as amended) and to the satisfaction of Council's delegated officer.

#### 4.10 Street Trees

One (1) street tree must be at the planted at centre of each lot's road frontage. Corner allotments must have a street tree planted on each frontage.

All street trees must be provided in accordance with the FNQROC Development Manual - Design Manual D9 Landscaping.

**Plans for the development works required under Conditions 4.1 - 4.10 must be submitted to Council for approval as part of a subsequent application for operational works.**

## FNQROC Regional Development Manual

| Section                            | Assessment |
|------------------------------------|------------|
| DP1 - Development Principles       | Complies   |
| AP1 - Application Procedures       | Complies   |
| D1 - Road Geometry                 | Complies   |
| D2 - Site Regrading                | Complies   |
| D3 - Road Pavements                | Complies   |
| D4 - Stormwater Drainage           | Complies   |
| D5 - Stormwater Quality Management | Complies   |
| D6 - Water Reticulation            | Complies   |
| D7 - Sewerage System               | Complies   |
| D8 - Utilities                     | Complies   |
| D9 - Landscaping                   | Complies   |

## REFERRALS

Nil

## Internal Consultation

Technical Services

**OFFICER'S RECOMMENDATION**

1. That in relation to this operational works development application:

| <b>APPLICATION</b>          |                                                                                                                                                               | <b>PREMISES</b> |                                                            |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------------------------------------------------------|
| <b>APPLICANT:</b>           | BTM & S Stankovich Pty Ltd                                                                                                                                    | <b>ADDRESS:</b> | Emerald End Road, Karobean Drive and Pontos Place, Mareeba |
| <b>DATE LODGED</b>          | 27 May 2026                                                                                                                                                   | <b>RPD:</b>     | Lot 500 on SP352770                                        |
| <b>TYPE OF APPROVAL</b>     | Development Permit                                                                                                                                            |                 |                                                            |
| <b>PROPOSED DEVELOPMENT</b> | Operational Works - Roadworks, Earthworks, Stormwater Drainage and Water and Sewer Reticulation for Development Permit RAL/25/0010 ( <b>Amaroo Stage 15</b> ) |                 |                                                            |

and in accordance with the Planning Act 2016, as amended, the applicant be notified that the application for operational works:

Approved subject to the following assessment manager conditions:

**(A) APPROVED DEVELOPMENT:** Development Permit for Operational Works - Roadworks, Earthworks, Stormwater Drainage and Water and Sewer Reticulation for Development Permit RAL/25/0010 (**Amaroo Stage 15**)

**(B) APPROVED PLANS:**

| <b>Plan/Document Number</b>  | <b>Plan/Document Title</b>                  | <b>Prepared by</b> | <b>Dated</b> |
|------------------------------|---------------------------------------------|--------------------|--------------|
| 048-2501-15-DRG-0101 Issue C | Locality Plan                               | Neon Consulting    | 30/10/25     |
| 048-2501-15-DRG-0102 Issue B | Project Notes                               | Neon Consulting    | 30/10/25     |
| 048-2501-15-DRG-0103 Issue D | General Arrangement                         | Neon Consulting    | 30/10/25     |
| 048-2501-15-DRG-0201 Issue C | Earthworks Plan                             | Neon Consulting    | 30/10/25     |
| 048-2501-15-DRG-0301 Issue C | Typical Sections and Details – Sheet 1 of 2 | Neon Consulting    | 30/10/25     |
| 048-2501-15-DRG-0302 Issue B | Typical Sections and Details – Sheet 2 of 2 | Neon Consulting    | 30/10/25     |
| 048-2501-15-DRG-0303 Issue D | Intersection Details                        | Neon Consulting    | 30/10/25     |
| 048-2501-15-DRG-0401 Issue D | Stormwater Drainage Plan                    | Neon Consulting    | 30/10/25     |
| 048-2501-15-DRG-0402 Issue C | Stormwater Drainage Longitudinal Sections   | Neon Consulting    | 30/10/25     |
| 048-2501-15-DRG-0501 Issue D | Sewerage Plan                               | Neon Consulting    | 30/10/25     |
| 048-2501-15-DRG-0502 Issue B | Sewerage Longitudinal Sections              | Neon Consulting    | 30/10/25     |



|                              |                                                                   |                 |          |
|------------------------------|-------------------------------------------------------------------|-----------------|----------|
| 048-2501-15-DRG-0601 Issue D | Water Reticulation                                                | Neon Consulting | 30/10/25 |
| 048-2501-15-DRG-0701 Issue C | Site Based Stormwater Management Plan, Phase 1: Topsoil Stripping | Neon Consulting | 30/10/25 |
| 048-2501-15-DRG-0702 Issue C | Site Based Stormwater Management Plan, Phase 2: Earthworks        | Neon Consulting | 30/10/25 |
| 048-2501-15-DRG-0703 Issue D | Site Based Stormwater Management Plan, Phase 3: Roadworks         | Neon Consulting | 30/10/25 |
| 048-2501-15-DRG-0801 Issue D | Master Services Plan                                              | Neon Consulting | 30/10/25 |
| 048-2501-15-DRG-0901 Issue B | Road Longitudinal Sections Karobean Drive                         | Neon Consulting | 30/10/25 |
| 048-2501-15-DRG-0902 Issue B | Road Longitudinal Sections Alkira Court                           | Neon Consulting | 30/10/25 |
| 048-2501-15-DRG-0903 Issue B | Road Cross Sections Karobean Drive                                | Neon Consulting | 30/10/25 |
| 048-2501-15-DRG-0904 Issue A | Road Cross Sections Alkira Court                                  | Neon Consulting | 30/10/25 |

(C) ASSESSMENT MANAGER'S CONDITIONS (COUNCIL)

**For Stage 15 Only**

**1 General**

- 1.1 This development permit authorises works for **Stages 15 only**.
- 1.2 "For Construction" issue engineered drawings must be approved and certified by a suitably qualified Registered Professional Engineer of Queensland (RPEQ) and submitted to Council for review prior to the pre-start. The plans must be amended to include any changes required by these conditions of approval.
- 1.3 All operational works must be designed and constructed in accordance with the procedures as set out in the FNQROC Development Manual.
- 1.4 Development must be carried out substantially in accordance with the approved plans and the facts and circumstances of the use as submitted with the application, and subject to any alterations:
  - found necessary by the Council's Delegated Officer at the time of examination of the engineering plans or during construction of the development because of particular engineering requirements;
  - to ensure the works comply in all respects with the requirements and procedures of the FNQROC Development Manual, Queensland Urban Drainage Manual and good engineering practice; and
  - to ensure compliance with the following conditions of approval.

- 1.5 Council's examination of the documents should not be taken to mean that the documents have been checked in detail and Council takes no responsibility for their accuracy. If during construction, inadequacies of the design are discovered, it is the responsibility of the Principal Consulting Engineer to resubmit amended plans to Council for approval and rectify works accordingly.
- 1.6 All earthworks must be undertaken in accordance with Australian Standard 3798-2007, guidelines on Earthworks for Commercial and Residential Developments; additionally, further certification is to occur when works are completed and test results are compiled. This information must be provided to Council prior to Works Acceptance.
- 1.7 A street tree plan is to be provided to Council for review and approval prior to pre-start. The street tree plan must include 1 street tree for each allotment frontage (generally located in the centre of frontage however alternate alignment will be considered), on each side of the road. Corner lots must have a street tree on each frontage. The street tree species used must be approved by Council's delegated officer.  
  
The "for construction" plans, in particular road cross section plans must be amended to include street trees to ensure their position and alignment does not interfere with any other service infrastructure.
- 1.8 The "for construction" plans must be amended to include a 2m wide pedestrian footpath along 1 side of Alkira Court. Footpath alignment including the location of any kerb ramps must be constructed in accordance with FNQROC Development Manual standards as well as Australian Standard AS1428.1, to the satisfaction of Council's delegated officer.
- 1.9 Where co-located water/electrical services are proposed separate approval must be sought from Council. Such a request must be accompanied by an engineered design endorsed by a suitably qualified RPEQ. If approved, the consulting engineer must also provide final certification that the constructed works comply with the endorsed design prior to works acceptance.

## **2 Pre-start Meeting**

- 2.1 In addition to the requirements of Clause CP1.07 and CP1.08 of the FNQROC Development Manual; after documentation has been approved by Council, a pre-start meeting is to be held on site prior to the commencement of work. Construction Monitoring Fees are to be paid prior to pre-start.

## **3 Inspections**

- 3.1 Inspections are to be carried out as detailed in the FNQROC Manual unless advised otherwise at the pre-start meeting.

## **4 Construction Security Bond and Defects Liability Bond**

- 4.1 In addition to Clauses CP1.06 and CP1.20 of the FNQROC Development Manual; the Construction Security Bond and Defects Liability Bond shall each be a minimum of \$1000 and Bank Guarantees shall have no termination date.

- 4.2 During the Defects Liability period, it is the responsibility of the developer to rectify any works found to be defective due to design faults and or found to exhibit faults attributed to the performance of the construction activities in terms of quality and conformance with design and specifications. The bond will be returned on satisfactory correction of any defective work and after expiration of the maintenance period. Failure to comply with a Council issued instruction to correct defective work may result in the call up of the bond to have the work completed.

## **5 Hours of Work**

- 5.1 Work involving the operation of construction plant and equipment of any description, shall only be carried out on site during the following times:
- 7.00am to 6.00pm, Monday to Friday;
  - 7.00am to 1.00pm Saturdays;
  - No work is permitted on Sundays or Public Holidays.
- 5.2 No variation to the above working hours is allowed unless otherwise agreed in writing by Council.

## **6 Transportation of Soil**

- 6.1 All soil transported to or from the site must be covered to prevent dust or spillage during transport. If soil is tracked or spilt onto the road pavement from works on the subject land, it must be removed no later than at the end of each working day. Sediment must not enter Council's stormwater drainage network.

### **(D) RELEVANT PERIOD**

When approval lapses if development not started (s.85)

- Two (2) years (starting the day the approval takes effect).

### **(E) OTHER NECESSARY DEVELOPMENT PERMITS AND/OR COMPLIANCE PERMITS**

- Nil

DECISION BY DELEGATE

**DECISION**

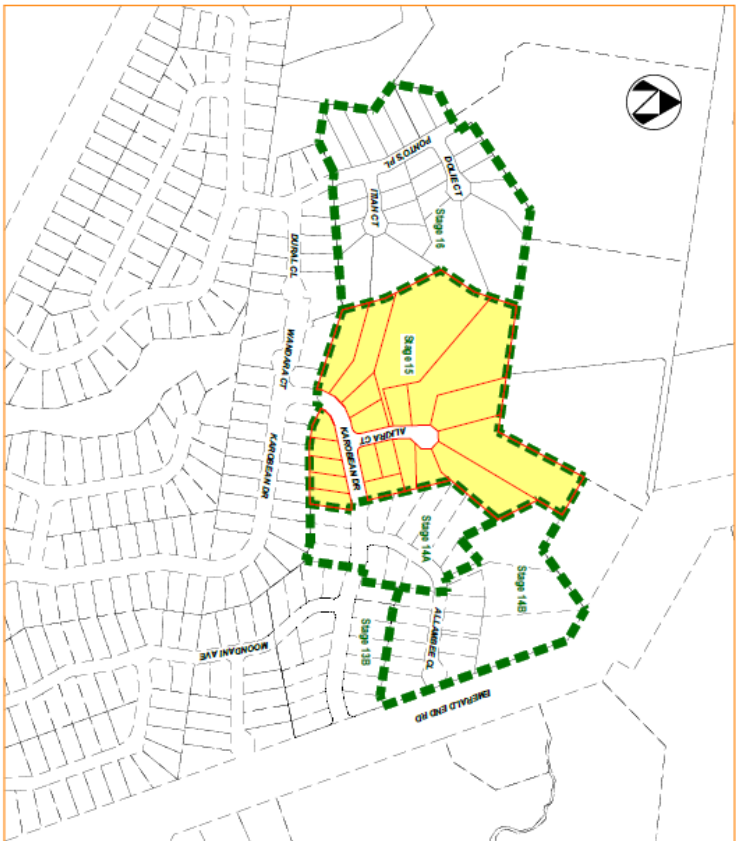
Having considered the Planning Officer's report detailed above, I approve, as delegate of Council, the application subject to the conditions listed in the report.

Dated the 10<sup>TH</sup> day of AUGUST 2026



**BRIAN MILLARD**  
**COORDINATOR PLANNING SERVICES**

MAREEBA SHIRE  
AS DELEGATE OF THE COUNCIL

AMAROO ESTATE SUBDIVISION, MAREEBA  
STAGE 15

| DRAWING INDEX      |                                                                 |
|--------------------|-----------------------------------------------------------------|
| DRAWING NO.        | DRAWING TITLE                                                   |
| 04-3200-15-002-001 | LOCALITY PLAN                                                   |
| 04-3200-15-002-002 | PROJECT NOTES                                                   |
| 04-3200-15-002-003 | GENERAL ARRANGEMENT                                             |
| 04-3200-15-002-004 | EXISTING WORK PLAN                                              |
| 04-3200-15-002-005 | TYPICAL SECTIONS AND DETAILS, SHEET 1 OF 2                      |
| 04-3200-15-002-006 | TYPICAL SECTIONS AND DETAILS, SHEET 2 OF 2                      |
| 04-3200-15-002-007 | INTERSECTION DETAILS                                            |
| 04-3200-15-002-008 | STORMWATER DRAINAGE PLAN                                        |
| 04-3200-15-002-009 | STORMWATER DRAINAGE/STORMWATER SEPARATION SECTIONS              |
| 04-3200-15-002-010 | SEWERAGE PLAN                                                   |
| 04-3200-15-002-011 | SEWERAGE/STORMWATER SEPARATION SECTIONS                         |
| 04-3200-15-002-012 | WATER RETENTION                                                 |
| 04-3200-15-002-013 | STORMWATER TREATMENT/RETENTION PLAN, PHASE 1: TOPICAL STRIPPING |
| 04-3200-15-002-014 | STORMWATER TREATMENT/RETENTION PLAN, PHASE 2: BENTHONICS        |
| 04-3200-15-002-015 | STORMWATER TREATMENT/RETENTION PLAN, PHASE 3: ROOMWORKS         |
| 04-3200-15-002-016 | WATER SERVICES PLAN                                             |
| 04-3200-15-002-017 | ROAD/LOCAL/STANDARD SECTIONS, KAPPOORE DRIVE                    |
| 04-3200-15-002-018 | ROAD/LOCAL/STANDARD SECTIONS, ALVARA COURT                      |
| 04-3200-15-002-019 | ROAD/CROSS SECTIONS, KAPPOORE DRIVE                             |
| 04-3200-15-002-020 | ROAD/CROSS SECTIONS, ALVARA COURT                               |

| DRAWINGS      |                        |
|---------------|------------------------|
| DRAWING No.   | DRAWING TITLE          |
| S1000 - S1110 | ROOMWORKS AND DRAINAGE |
| S2000 - S2025 | WATER                  |
| S3000 - S3015 | SEWERAGE               |

| DRAWING NO. | DRAWING TITLE                              |
|-------------|--------------------------------------------|
| SD000       | VALUE BOX INSTALLATION                     |
| SD001       | 4" ORIENT. BOARD INSTALLATION              |
| SD015       | THURST BLOCK DETAILS                       |
| SD016       | WIND CONNECTION DETAILS                    |
| SD004       | DORMER TO WATER SERVICE CONNECTION DETAILS |

**INSTITUTE OF PUBLIC WORKS ENGINEERING**  
**AUSTRALIA STANDARD DRAWINGS**

| DRAWING No. | DRAWING TITLE                                                                 |
|-------------|-------------------------------------------------------------------------------|
| D-040       | SEDIMENT CONTROL DEVICES- SEDIMENT FENCE, ENRICHED SEDIMENT TRAP              |
| D-041       | SEDIMENT CONTROL DEVICES- KOPS AND FIELD INLETS, CHECK DAMS, STRAW BALE BANKS |

## GENERAL ARRANGEMENT

WELLED

- [illegible]

## STORMWATER DRAINAGE

- [illegible]

## SEWERAGE

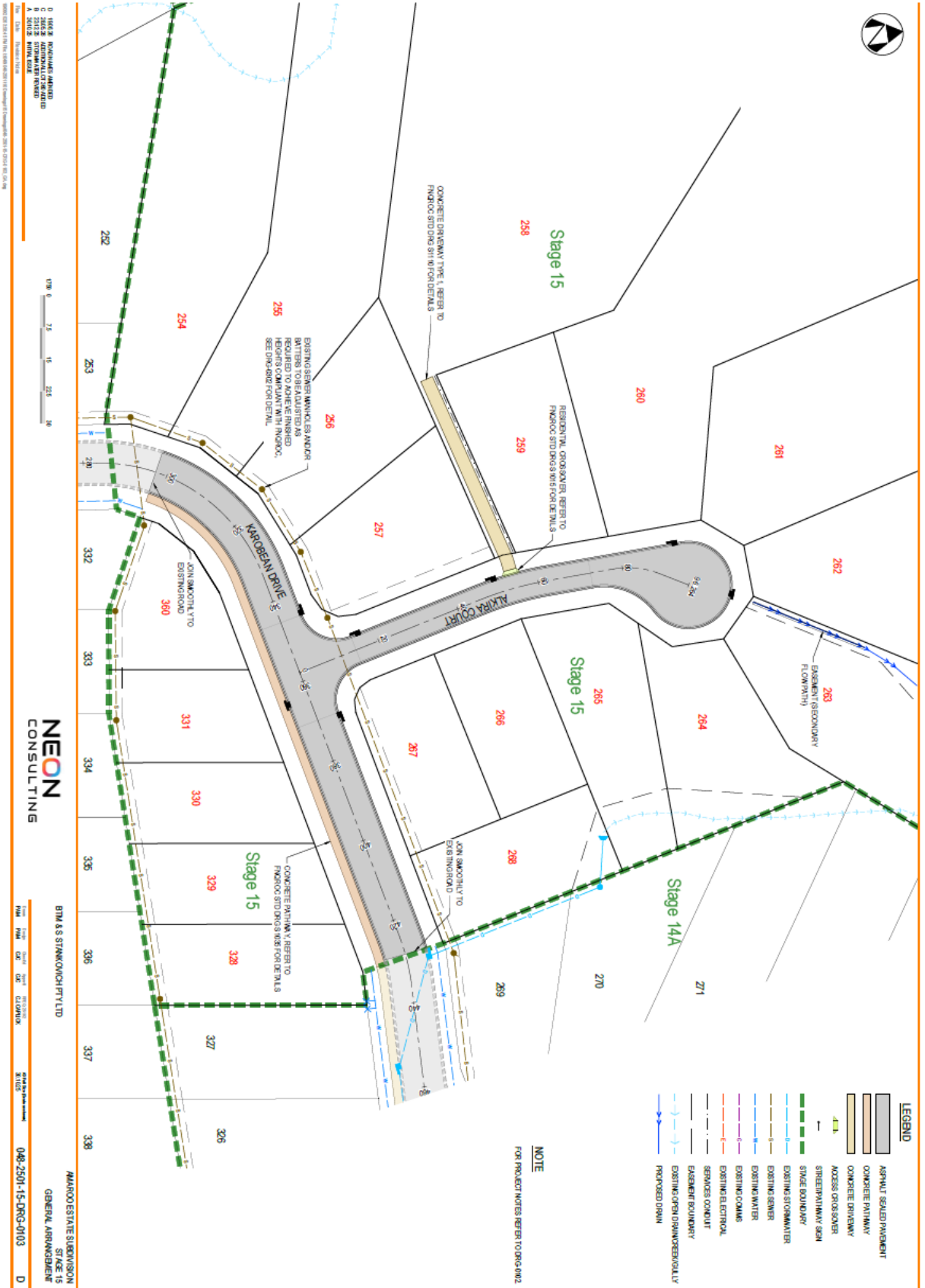
61. ALL SENIORS MUST BE IN ONE CLASS IN A (W.O.)
62. FOR A STUDENT TO BE A SENIOR, HE OR SHE MUST BE IN THE SENIORS CLASS
63. ALL WORKS ARE TO BE IN ACCORDANCE WITH THE SENIORS DEVELOPMENT MANUAL SPECIFICATION 98
64. CONNECTIONS TO EXISTING COUNCIL ARE TO BE MADE BY COUNCIL
65. EVERY APPLICATION IS TO BE CONSIDERED FOR ALL NEW SENIORS FOR COUNCIL ASSESSMENT

## WATER

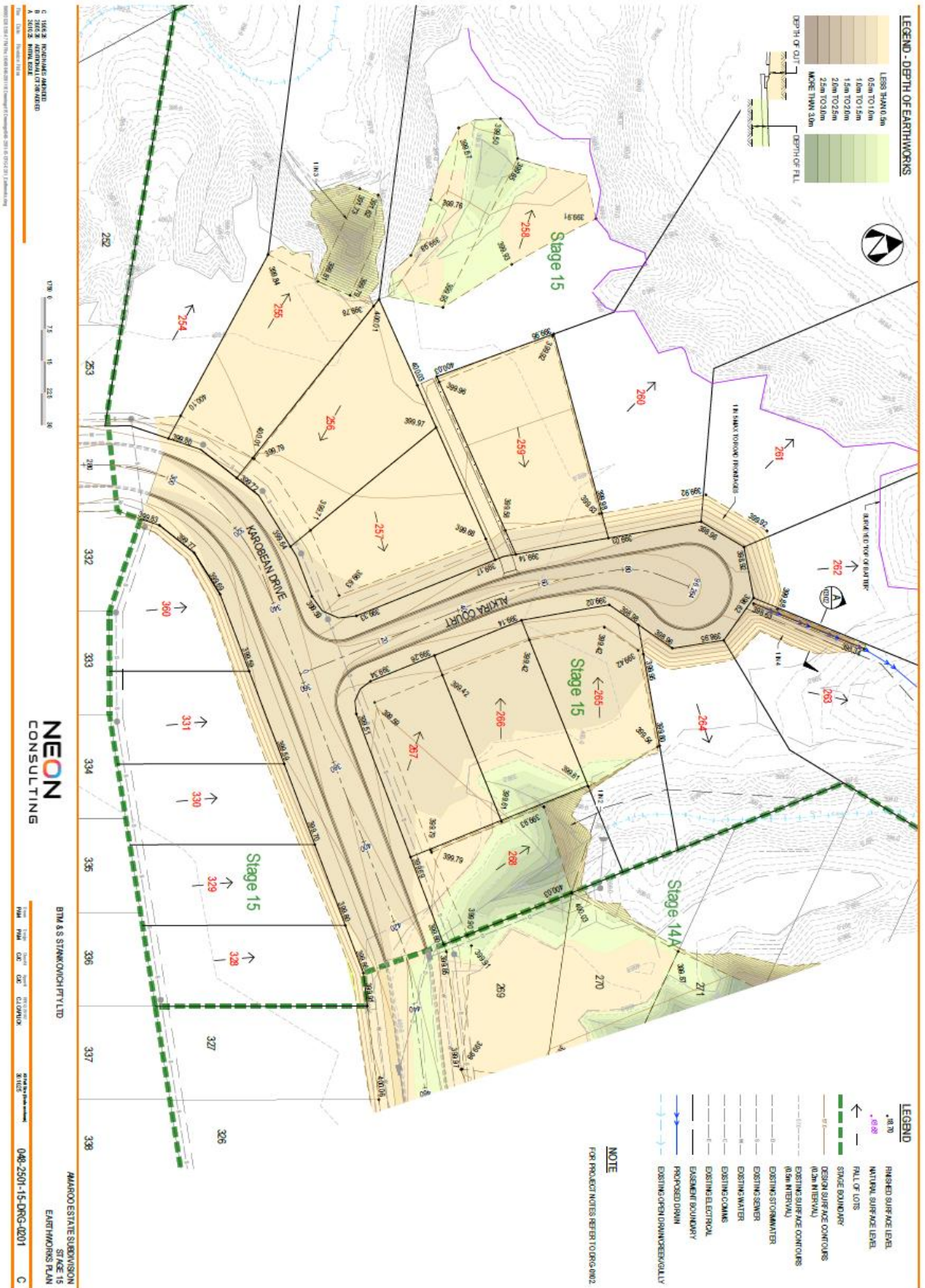
- [illegible]

## EROSION AND SEDIMENT CONTROL STRATEGY

- N1. ALL WATERS ARE PART OF A SINGLE CONTINENT FROM SOURCE TO MOUTH.
- N2. FISH ARE TAKEN BY THE SAME METHOD, SITUATION, SEASON TO CATCH INCLAVE AND MOUTH AND USED TO SPOIL.
- N3. ALL WATERS ARE TO BE IN ACCORDANCE WITH NATURE DEVELOPMENT NATURAL SITUATION.
- N4. CONNECTION TO DESIGN CONTROL WANTS TO BE MADE BY CONTROL AND DESIGNING TO BE IN ACCORDANCE.
- N5. CONNECTION AND CONTROL WANTS TO BE MADE BY CONTROL AND DESIGNING TO BE IN ACCORDANCE.
- N6. CONNECTION AND CONTROL WANTS TO BE MADE BY CONTROL AND DESIGNING TO BE IN ACCORDANCE.
- N7. PROVIDE COMPRESSIBLE LAYER BETWEEN ALL DESIGN AND PROPOSED HOISTING OR WALL SUPPORTS WITH VENTURES OF CONCRETE.









CONTROL LINE KAROBEN DR SETOUT

| CHANCE   | C.O. COORDINATES |            |            | BEARING     | DESIGN ISO | RADIUS OF CURVATURE | TANGENT LENGTH | ARC LENGTH |
|----------|------------------|------------|------------|-------------|------------|---------------------|----------------|------------|
| 20.002   | 335701.36        | 812008.09  | 812008.09  | 7° 14' 27"  | 46.00      | 20.00               | 20.00          | 90.298     |
| P 20.028 | 335701.84        | 812008.56  | 812008.56  | 77° 42' 21" | 50.00      | 50.00               | 50.00          | 12.287     |
| 40.047   | 330327.23        | 812001.401 | 812001.401 | -           | 50.00      | 50.00               | 50.00          | 12.287     |
| P 40.051 | 330327.25        | 812001.500 | 812001.500 | 91° 27' 10" | 50.00      | 50.00               | 50.00          | 12.287     |
| 40.054   | 330328.85        | 812001.502 | 812001.502 | -           | 50.00      | 50.00               | 50.00          | 12.287     |

CONTROL LINE ALARA COURT SETOUT

| CHANCE   | C.O. COORDINATES |            |            | BEARING     | DESIGN ISO | RADIUS OF CURVATURE | TANGENT LENGTH | ARC LENGTH |
|----------|------------------|------------|------------|-------------|------------|---------------------|----------------|------------|
| 0.000    | 335701.09        | 812008.02  | 812008.02  | 30° 22' 41" | 50.00      | 50.00               | 50.00          | 12.287     |
| P 0.010  | 335701.37        | 812008.403 | 812008.403 | 30° 22' 41" | 50.00      | 50.00               | 50.00          | 12.287     |
| 10.014   | 335701.37        | 812008.403 | 812008.403 | 30° 22' 41" | 50.00      | 50.00               | 50.00          | 12.287     |
| P 10.014 | 335701.37        | 812008.403 | 812008.403 | 30° 22' 41" | 50.00      | 50.00               | 50.00          | 12.287     |
| 20.018   | 335701.37        | 812008.403 | 812008.403 | 30° 22' 41" | 50.00      | 50.00               | 50.00          | 12.287     |
| P 20.018 | 335701.37        | 812008.403 | 812008.403 | 30° 22' 41" | 50.00      | 50.00               | 50.00          | 12.287     |
| 30.022   | 335701.37        | 812008.403 | 812008.403 | 30° 22' 41" | 50.00      | 50.00               | 50.00          | 12.287     |
| P 30.022 | 335701.37        | 812008.403 | 812008.403 | 30° 22' 41" | 50.00      | 50.00               | 50.00          | 12.287     |

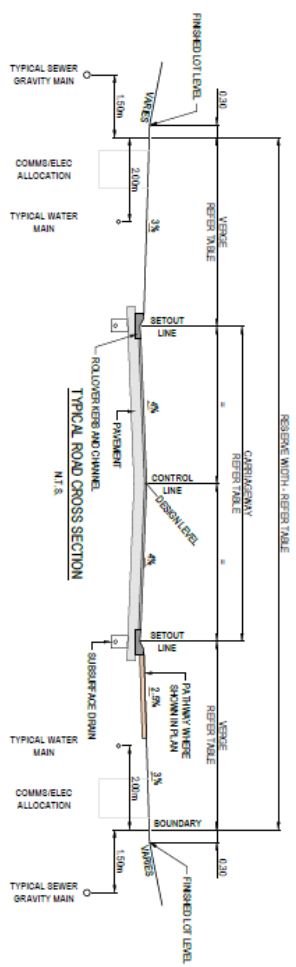
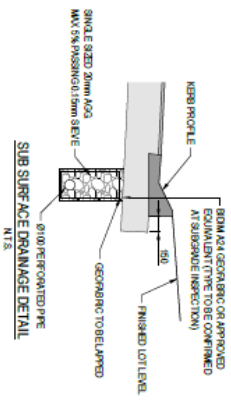
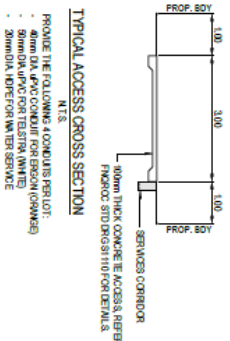
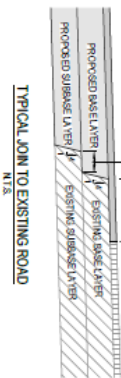
TABLE OF WIDTHS

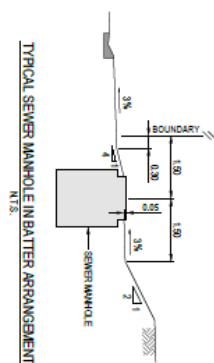
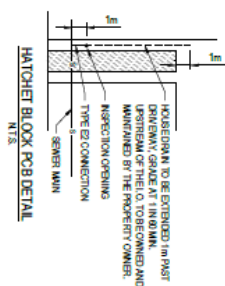
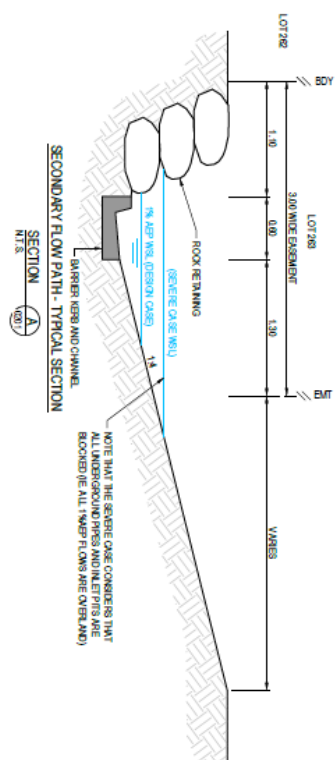
| ROAD       | CHALKWAY | VERGE WIDTH | RESERVE |
|------------|----------|-------------|---------|
|            | WIDTH    | WIDTH       | WIDTH   |
| KAROBEN DR | 0.00     | 4.00        | 2.00    |
| ALARA CT   | 0.00     | 4.00        | 2.00    |

PROVISIONAL PAVEMENT DETAILS

| LOCATION   | FINISHING    | BASE COURSE        | SUBGRADE           |
|------------|--------------|--------------------|--------------------|
| KAROBEN DR | 30mm ASPHALT | 30mm THICK CSR 6M  | 30mm THICK CSR 6M  |
| ALARA CT   | 30mm ASPHALT | 150mm THICK CSR 6M | 150mm THICK CSR 6M |

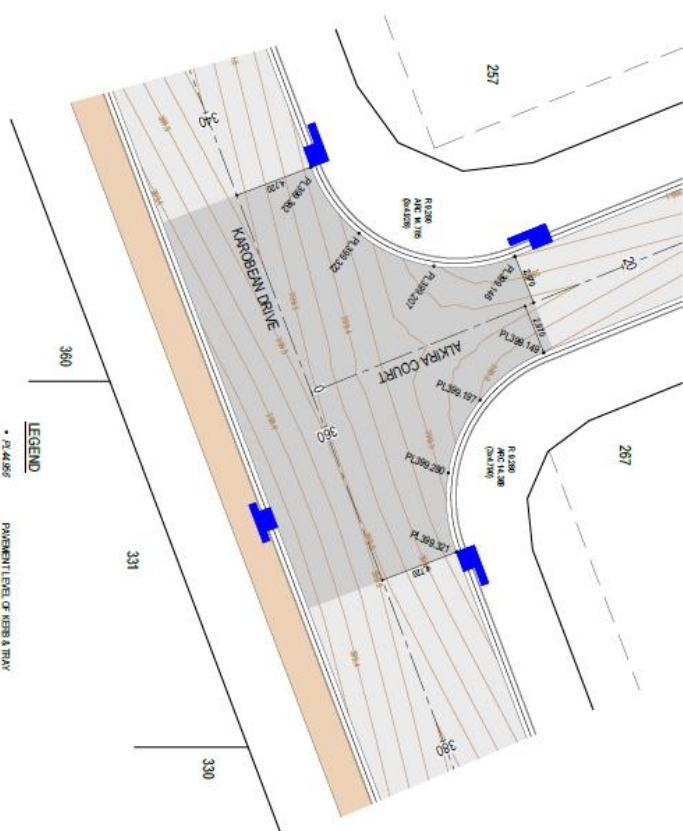
NOTES:  
PROVISIONAL PAVEMENT DESIGN IS BASED ON ASSUMED SUBGRADE STRENGTH AND TRAFFIC LOADS TO BE APPLIED TO THE PAVEMENT DESIGN. THE DESIGNER SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY DATA FOR THE PAVEMENT DESIGN. THE DESIGNER SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY DATA FOR THE PAVEMENT DESIGN. THE DESIGNER SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY DATA FOR THE PAVEMENT DESIGN.





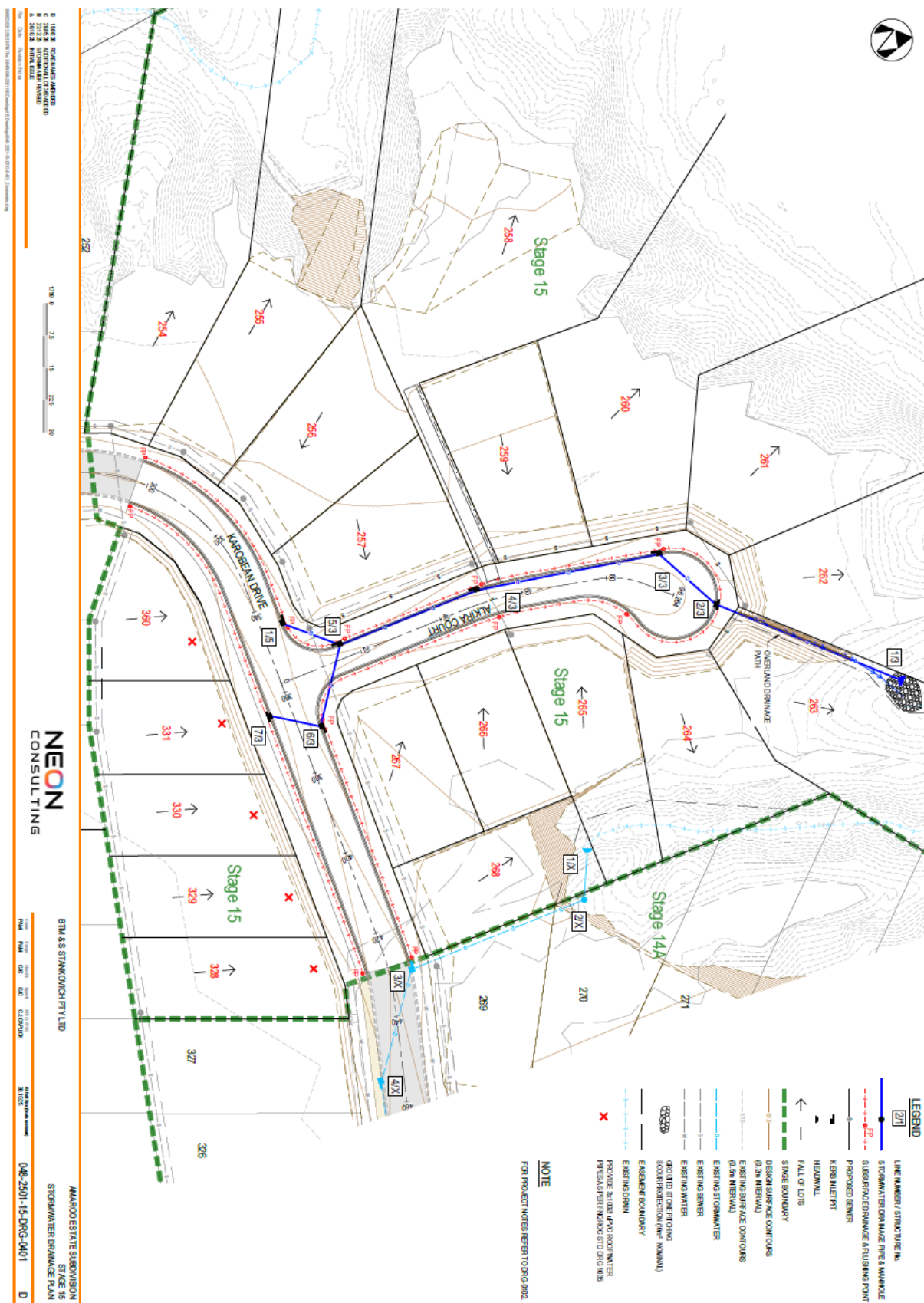


**NOTE**  
FOR PROJECT NOTES REFER TO DRG4112



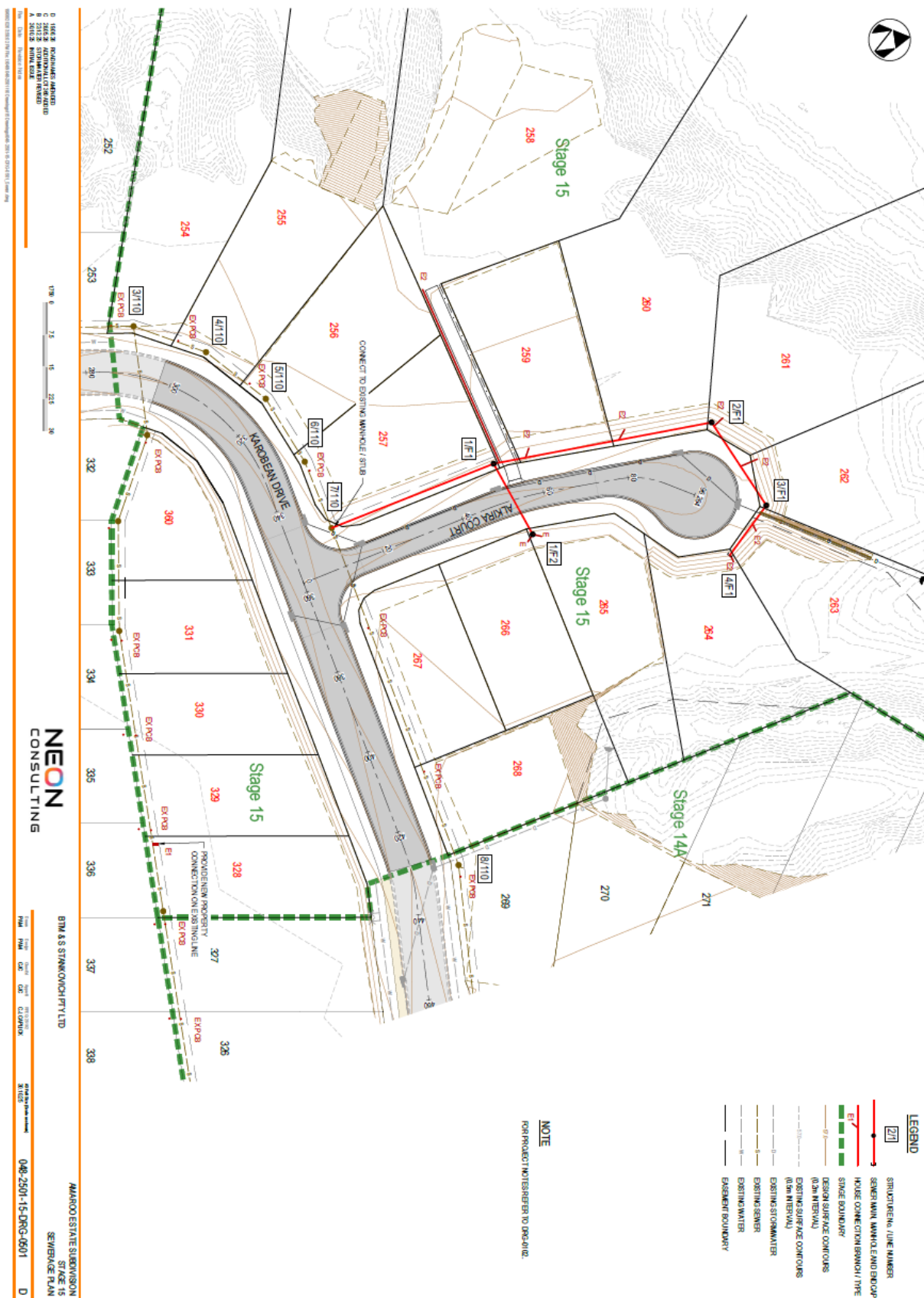
| SET OUT TABLE |             |              |
|---------------|-------------|--------------|
| PT NO         | X           | Y            |
| 1             | 334037.56.9 | 8121089.136  |
| 2             | 334038.101  | 81210018.067 |
| 3             | 334038.47.5 | 8121002.2.49 |

| LEGEND   |                                           |
|----------|-------------------------------------------|
| • 14.865 | PAYMENT LEVEL OF HERE & MAY               |
| •        | SET-OUT POINT                             |
| ②        | TANGENT POINT                             |
| 1/4"     | LAY-OUT, KEEP AND CHANGE                  |
| =====    | DESIGN SURFACE CONTOURS<br>(10' INTERVAL) |
| 5'-0"    | CONCRETE PAVEMENT (GRADE UNO.)            |
| =====    | EXISTING 30" DIA. ASPHALT THICKNESS       |
| =====    |                                           |

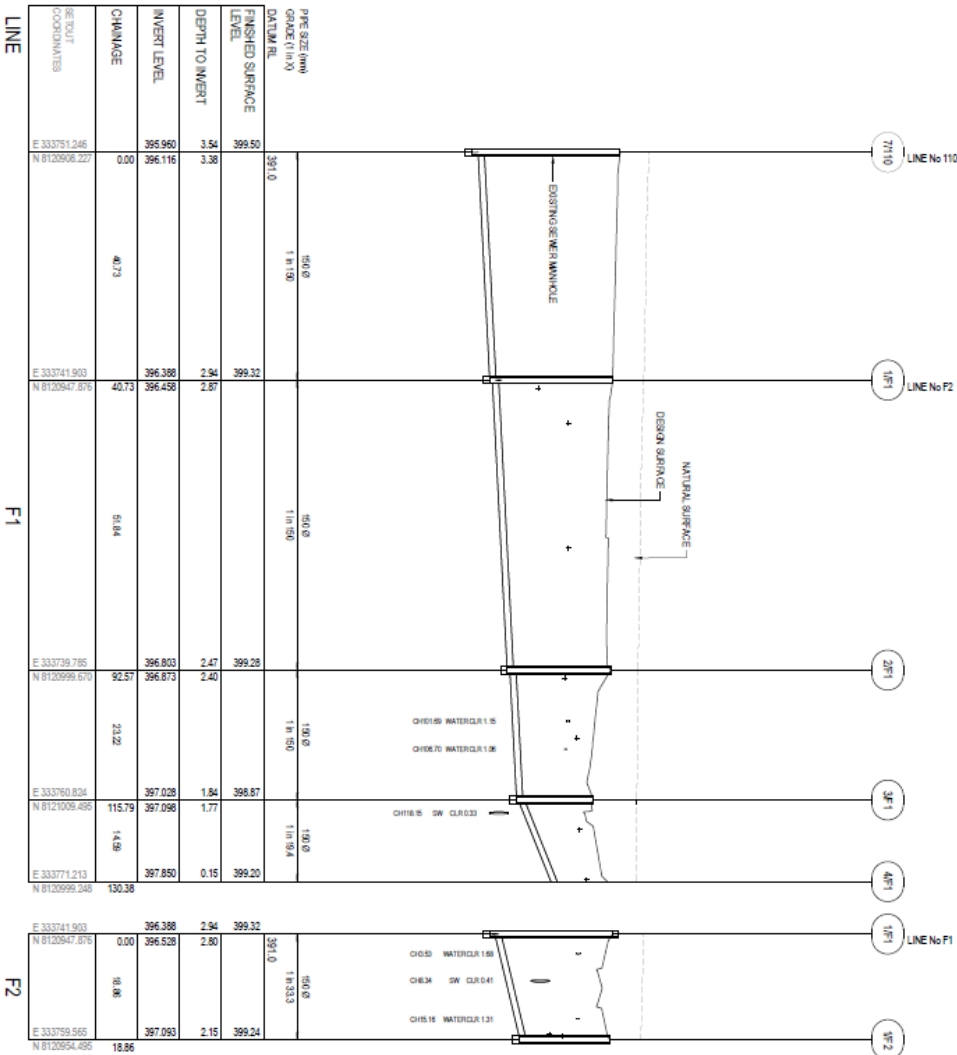


[illegible]





- LEGEND**
- + HOUSE CONNECTION BRANCH
- NOTES**
1. ALL UNWAKE DIAMETERS, DRAIN TYPES AND COVERS TO BE IN ACCORDANCE WITH PN2000 STD 090 S3000
2. FINISHED SURFACE AT BUILDINGS IS TO BE NO GREATER THAN 15mm ABOVE INVERT



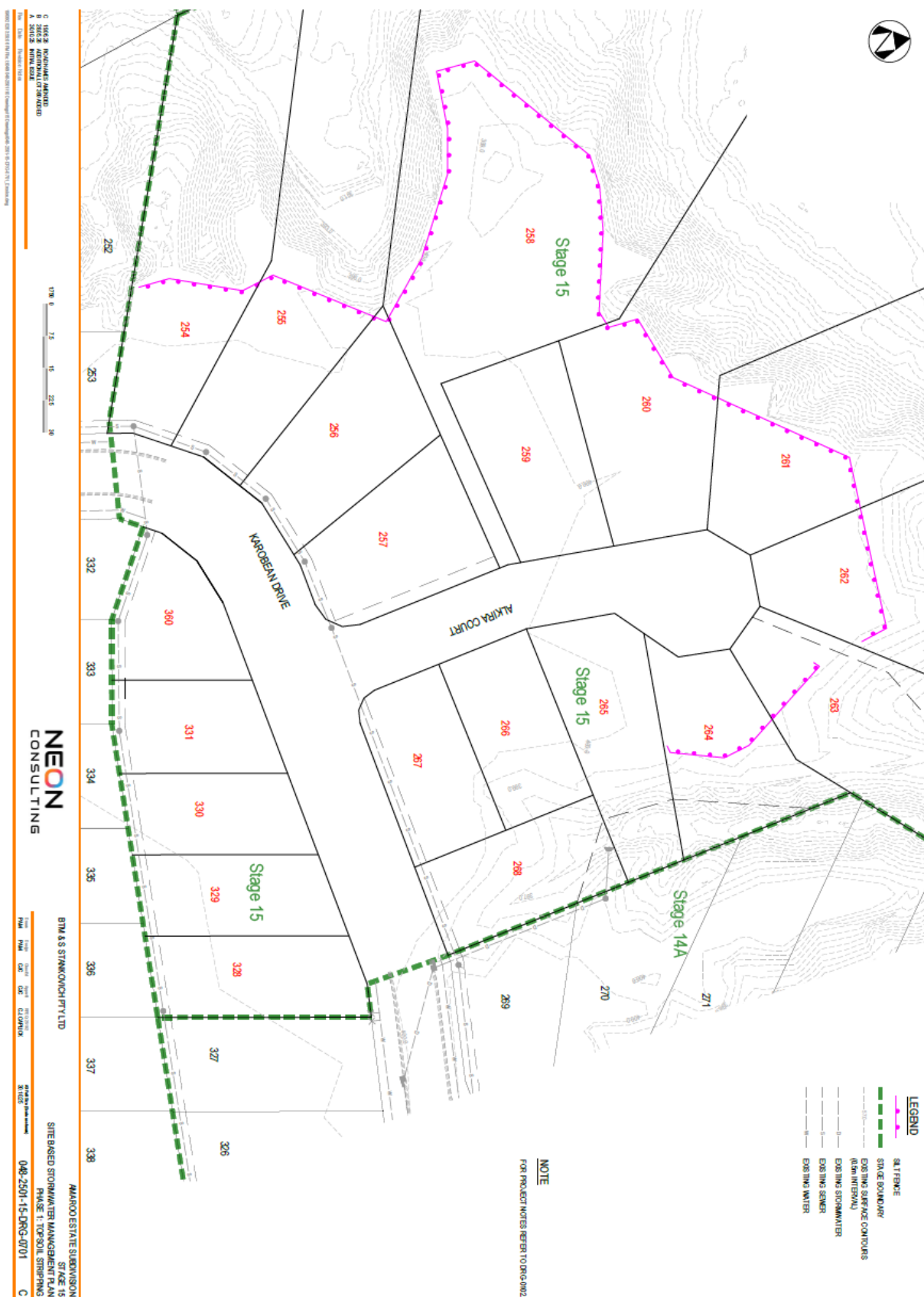
NEON CONSULTING

BTM & S STANKOVICH PTY LTD

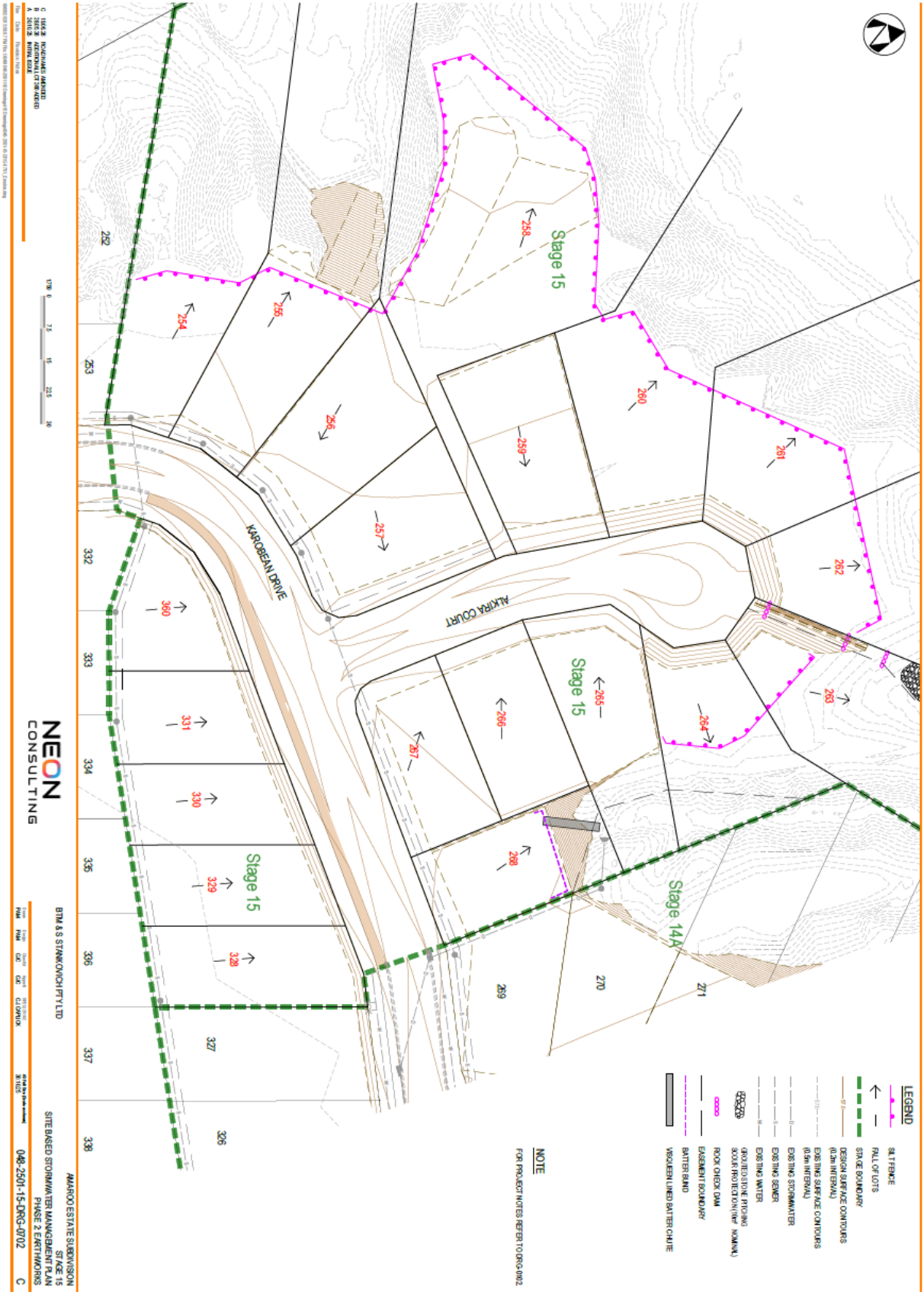
SEWERAGE LONGITUDINAL SECTIONS

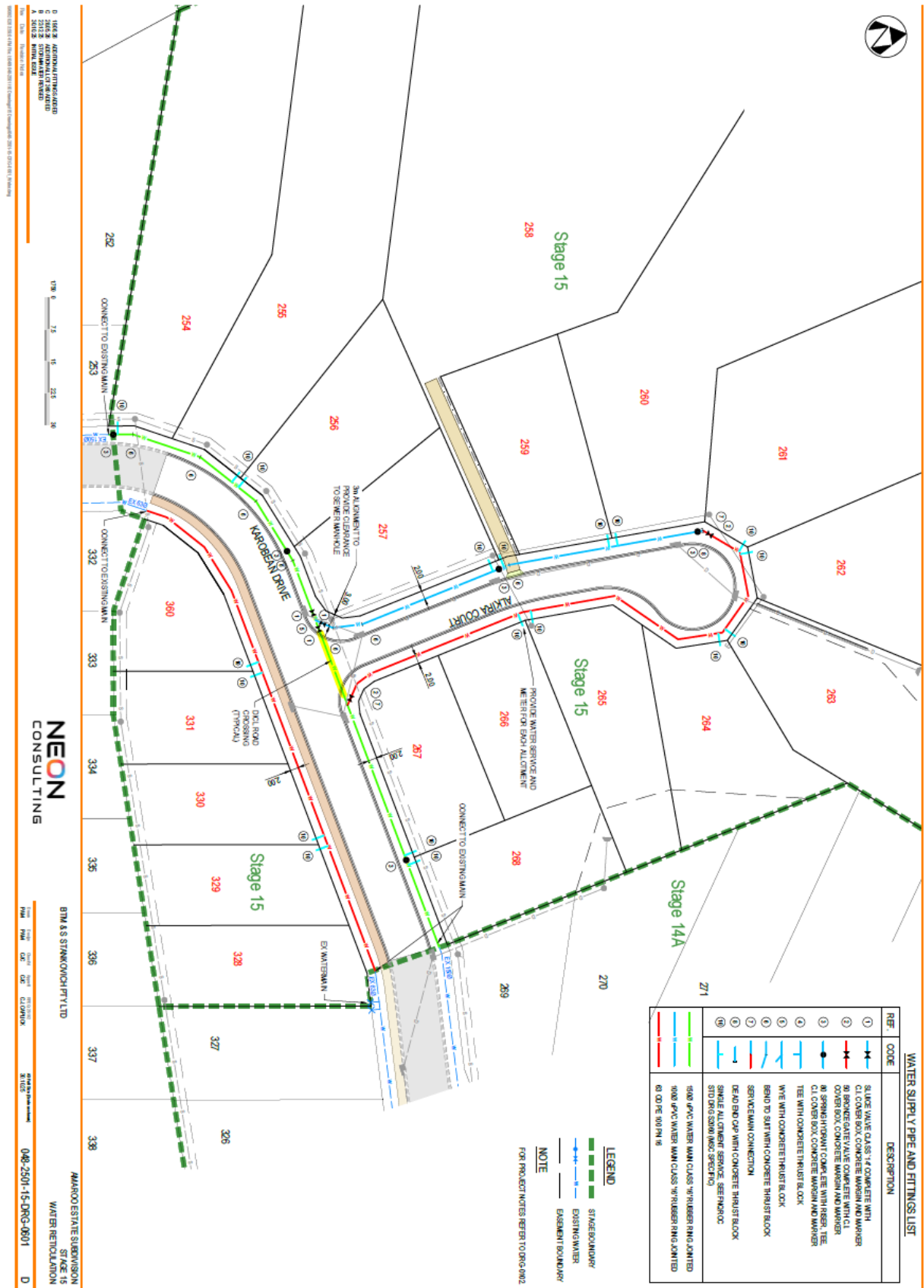
048-2501-15-DRC-0502

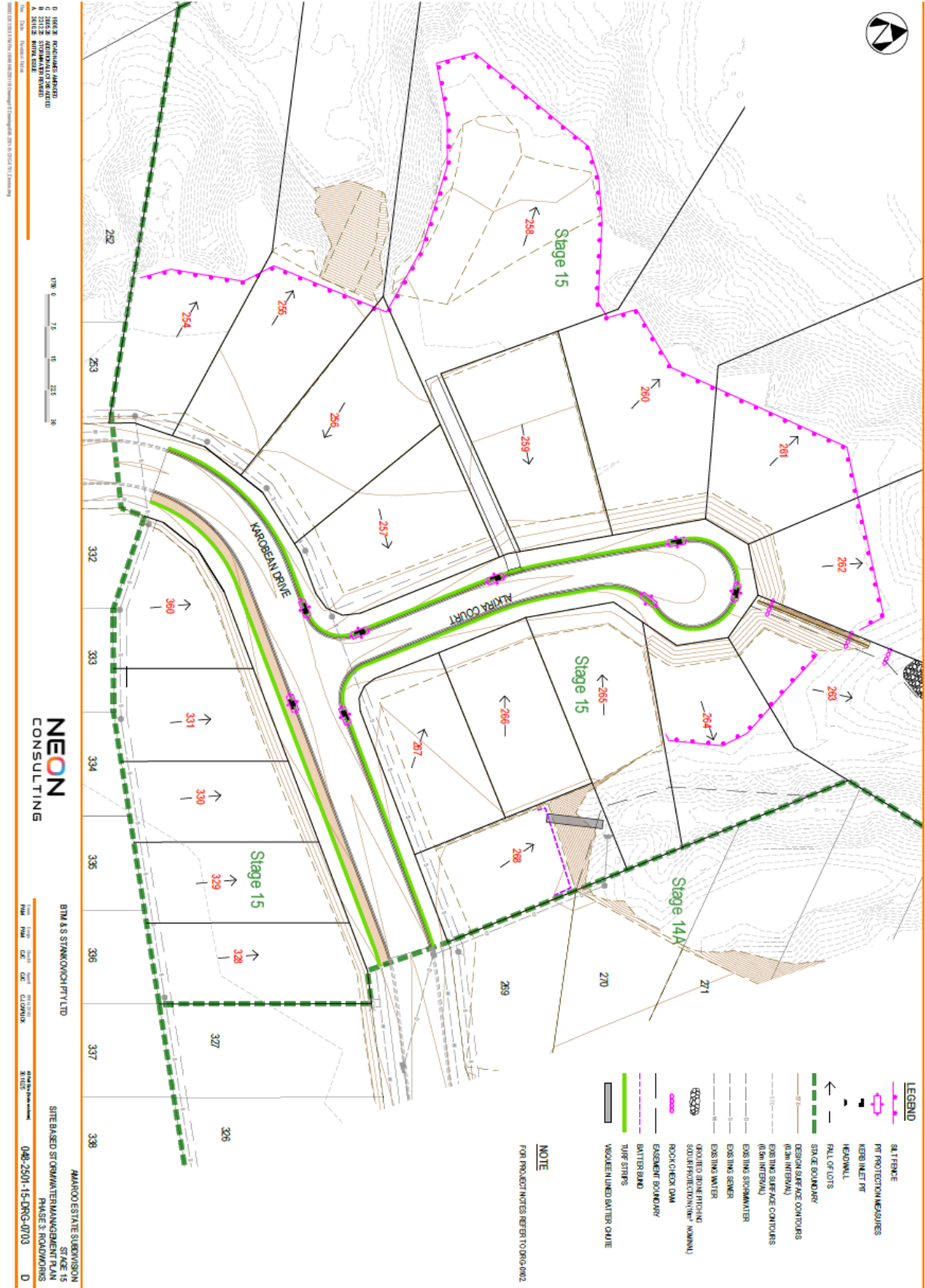
B

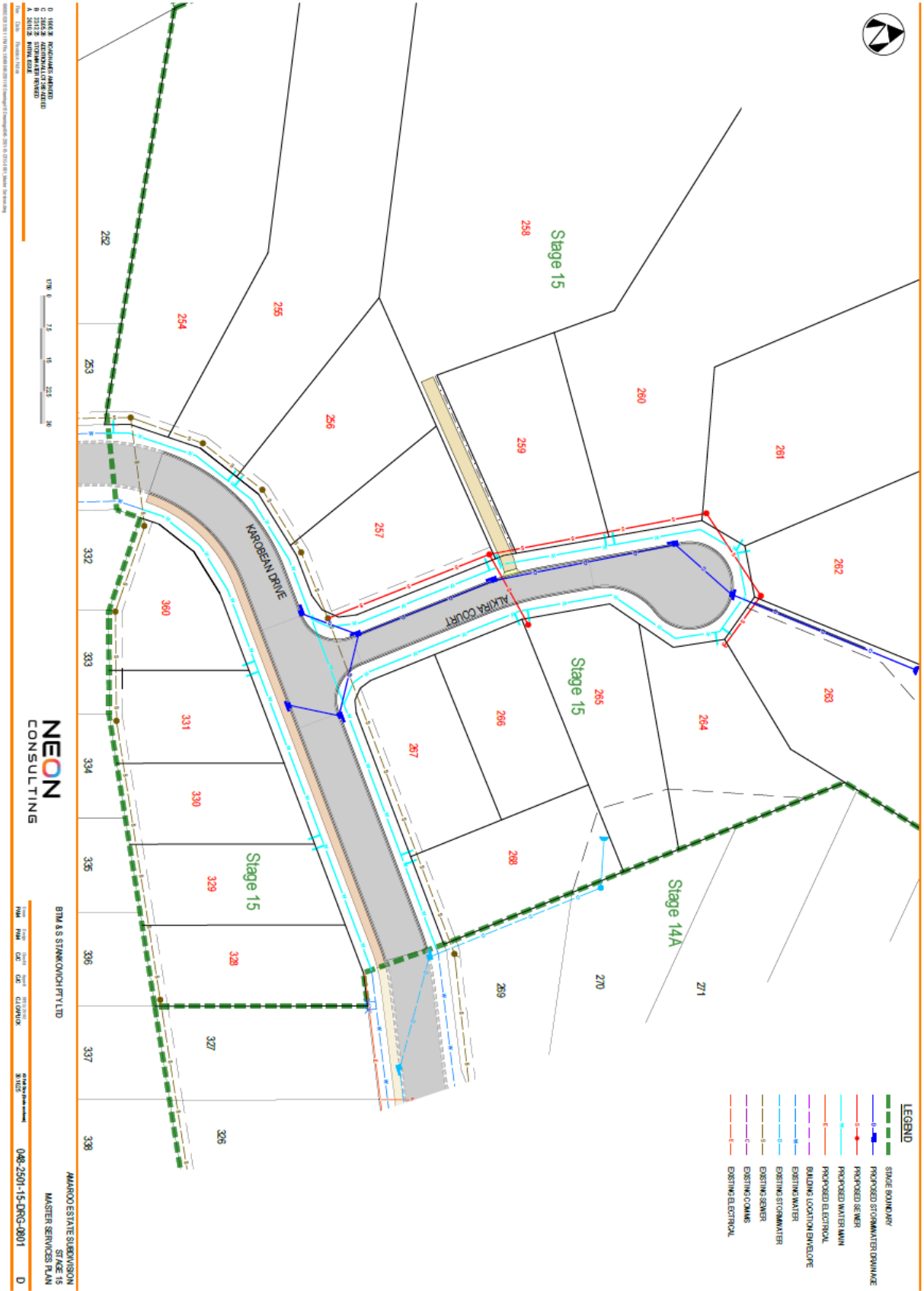


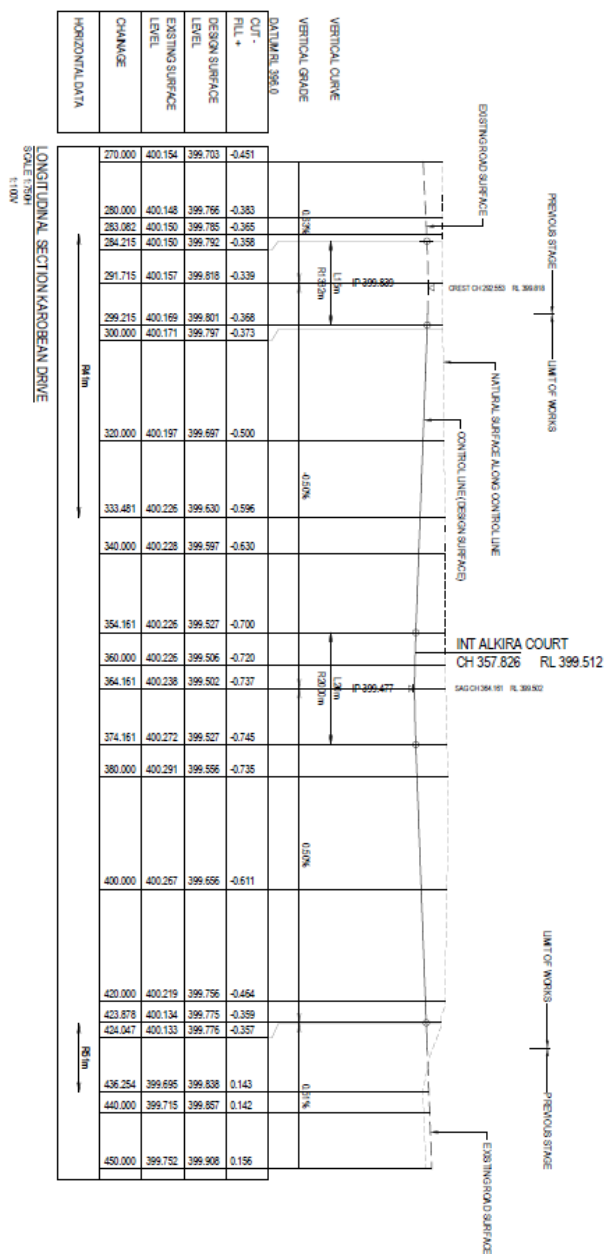


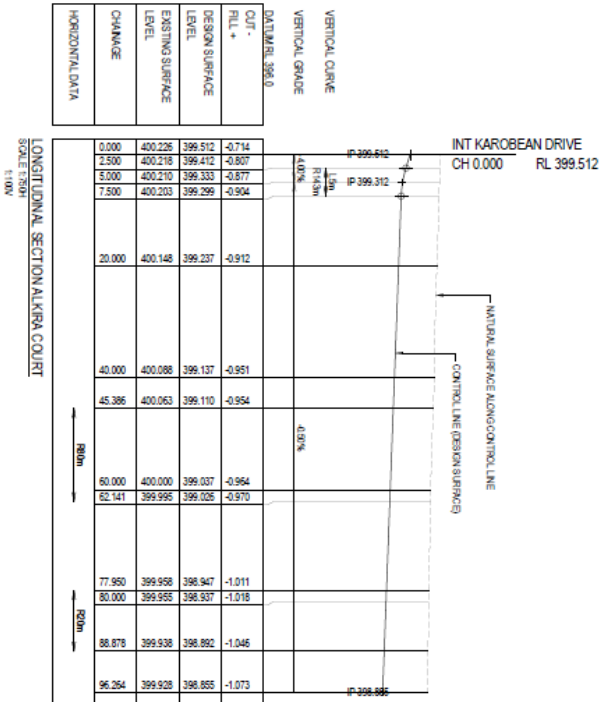




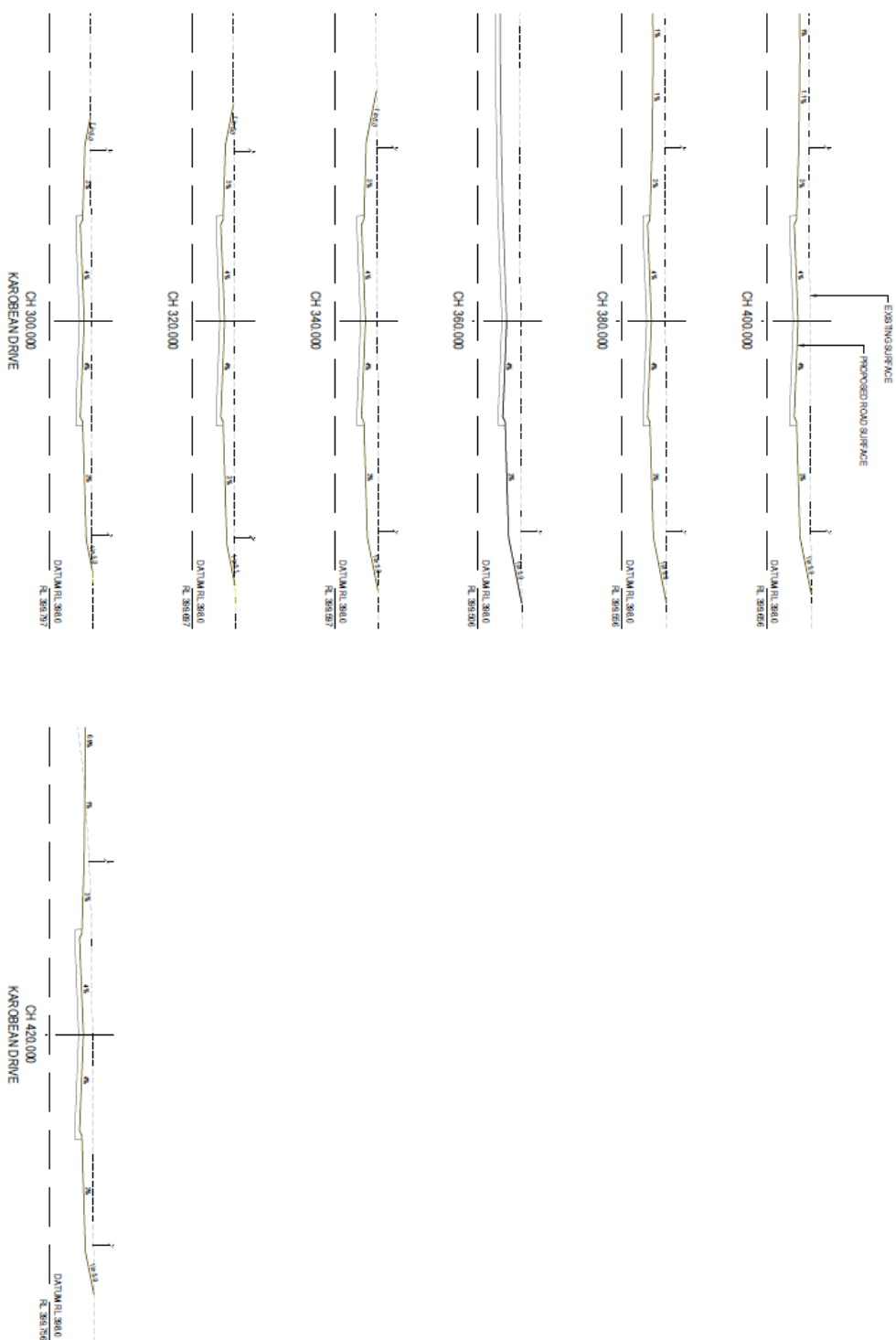




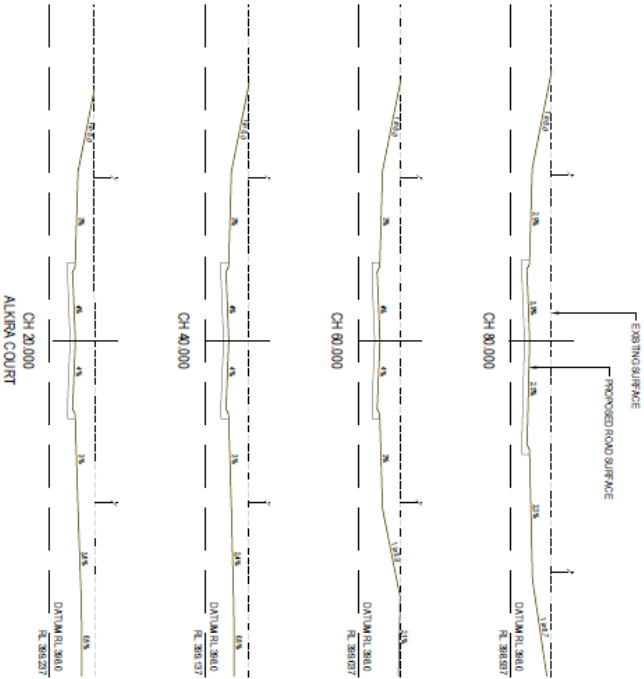












NEON  
CONSULTING

BTM & S STRANOVICH PTY LTD  
ROAD CROSS SECTIONS  
ALKIRA COURT  
048 2501 15 DRG-004  
A