

# Preliminary Infrastructure and Servicing Report

## Waterloo Corner & Bolivar Corridor - Growth Framework

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# Preliminary Infrastructure and Servicing Report

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# 1. Introduction

The City of Salisbury's City Plan 2035 (June 2020) has a critical action to develop a structure plan for the land west of Port Wakefield Road, to open up new development opportunities. Holmes Dyer were appointed as the lead planning consultant to prepare a Strategic Growth Framework that supports and guides a staged (precinct based) Code Amendment rollout, which could be initiated by State Government, Council or the private sector. The strategic Growth Area extents are shown in Figure 1 below.



Figure 1: Strategic Growth Area - Bolivar/Waterloo

Meetings were held with the Strategic Growth Framework project team, including staff of the City of Salisbury, Holmes Dyer, CIRQA and GREENHILL. To discuss the project objectives, share information and review the site. Based on this information, Holms Dyer prepared a series of Structure Plans to assist with the investigations based on those discussions, these plans are included in Appendix A. These plans were used as the basis for the investigations.

Holms Dyer have identified four major precincts within the greater strategic growth area and analysed the potential yield and development timings. The result of this work giving estimates on developable area, anticipated mix of likely land uses, potential floorspaces, consequent workforce generation and likely development timings, this breakdown is included in Appendix B. While the market will determine the ultimate development yield, for the purposes of this report, Holms Dyer's land use mix, development timings and yield analysis has been assumed.

## 2. Previous Investigations

Tonkin have undertaken stormwater management investigations for both the City of Salisbury and the City of Playford that encompass portions of the strategic growth area and prepared reports. These reports are entitled “Greater Edinburgh Parks Stormwater Management Strategy, 2011 & December 2016” and “Greater Edinburgh Parks and St Kilda Catchment Stormwater Management Plan, May 2020”. Additionally, InfraPlan developed a Northern Connector study for the Department of Infrastructure and Transport, entitled “Northern Connector Land Use & Transport Study” The key findings or recommendations of the study are summarised below:

- A significant portion of the northern suburbs of Adelaide drain into Gulf St Vincent via the Little Parra River and Helps Road Drain.
- North of the Helps Road Drain, stormwater runoff enters the Growth Area via the Greater Edinburgh Parks and St Kilda sub-catchments.
- There are limited opportunities for discharging stormwater runoff to the Barker Inlet/Gulf St Vincent with existing outlets including:
  - The Little Para River
  - The Gap outfall channel
  - Existing syphons under the Bolivar Outfall Channel (located at the Bolivar WWTP and north of Symes Road).
- The Growth Area is flat, which presents difficulty in constructing channels with a grade sufficient to the drain water.
- Drain alignments may be constrained by alignments of existing services infrastructure within the area, particularly SEA Gas and Epic Energy.
- The depth to groundwater is very shallow in the Growth Area which is likely to limit excavation depths for stormwater infrastructure.
- Given the largely undeveloped nature of the study area and lack of existing infrastructure, there is an opportunity to enhance water quality within the catchment through water sensitive urban design (WSUD). The incorporation of new WSUD measures can potentially treat a significant portion of the site.
- It is anticipated that individual developments will undertake site specific water quality control measures, such as installing oil and grit separators, prior to discharging water from their site.
- Several detention basins have been proposed to the north-west of the Growth Area. The final two of which are proposed to be located within the Growth Area at the intersection of Port Wakefield, Greyhound and Mumford Roads. These detention basins would help manage the stormwater runoff entering the Growth Area from the Greater Edinburgh Parks and St Kilda sub-catchments. None of these basins are yet to be constructed.
- The proposed stormwater channel, extending west from the North-South Motorway/Waterloo Corner interchange and running around the northern end of the Bolivar WWTP Lagoons, has been constructed but stops short of the Bolivar Outfall Channel.

- Additional Syphon(s) under the Bolivar Outfall Channel were proposed, due to the limited capacity of the existing syphons but are yet to be constructed.
- Eight bridges/culverts were constructed as part of the North South Motorway project. Allowing locations for stormwater to pass under this raised carriageway.

The City of Salisbury have provided the following reports:

- City Plan 2035;
- Biodiversity Corridors Action Plan;
- North Western Sustainable Precincts Plan;
- Precinct Plan West Port Wakefield Road; and
- The 30-Year Plan for Greater Adelaide report.

We have referred to the above reports and utilised as a basis for discussions with relevant service authorities. Advice received from authorities is as outlined below.

### **3. Infrastructure Review and Assessment**

The following provides a summary of the existing infrastructure and advice in relation to likely new infrastructure required for the purpose of servicing the proposed development.

#### **3.1 Existing Infrastructure**

Information in relation to the existing infrastructure has been sought directly with the relevant authorities, including an assessment of the additional infrastructure likely to be required for the proposed growth area development.

The existing infrastructure includes the following:

- Sewer (SA Water);
- Potable water (SA Water);
- Recycled Water (SA Water)
- Stormwater (Local Government);
- Telecommunications (NBN Co and Telstra);
- Gas (Epic Energy, SEA Gas and AGN/APA Group); and
- Electrical (SAPN and ElectraNet).

DBYD information of the above services is included in Appendix D. Authority responses to requests for infrastructure advice are included in Appendix E.

#### **3.2 Growth Area Topography & Soils**

##### **3.2.1 Topography**

In general, the natural site topography of the growth area falls from east to west, with multiple 'high-points' located along the Port Wakefield Road corridor. From the publicly available State Government contour data the Growth Area is seen to have grades generally between 0.2% and 0.4%. Some steeper grades are seen locally; however, the general gradient is very flat.

Due to the very flat existing gradients, it is anticipated that any new development will require filling to enable minimum gradients to be achieved for construction of new roads and gravity pipe systems, such as stormwater and sewer. Filling may also be required to protect new properties from inundation of flood waters. Opportunities within development sites for quarrying of material may be limited and it is anticipated that most development sites will require importation of suitable material for filling.

##### **3.2.2 Underlying Soils**

A review of publicly available soil information suggest that the underlying soils would comprise of the following:

- Hard loamy sand over red clay



- Loam over poorly structured red clay
- Calcareous, gradational clay loam
- Layered sediments of mixed marine and river origin-sands, silts clays and organic deposits.

In general, the soils are expected to be more “clayey” away from the Barker Inlet/Little Para and transitioning to sandy soils approaching the Barker Inlet/Little Para.

Natural vegetation is expected to be found throughout the Growth Area, and this vegetation may be re-used in the wetland or open space areas of reserves.

Our investigation does not include an assessment of environmental or geotechnical conditions within the Growth Area. Environmental and geotechnical investigations will be required to understand any constraints upon future development that may be associated with the underlying soils; including identification of topsoil depth, groundwater level, areas of unstable soils, uncontrolled fill, extent of calcrete and strength of underlying subgrade (CBR testing) for pavement design purposes.

### 3.3 Stormwater Drainage

#### 3.3.1 Waterloo Corner & Bolivar Corridor Stormwater Catchments

The Waterloo Corner & Bolivar Corridor Growth Area lies within two surface water catchments, these being the Little Para River and the Smith & Adams Creeks as shown in Figure 2 below. The Little Para Catchment component is located at the southern extremity of the Growth Area, generally south of Bolivar Road. The component within the Smith & Adams Creeks catchment extends north from Bolivar Road across the remainder of the Growth Area. This catchment is split by a series of minor ridges and as such numerous natural outlets exist to the Barker Inlet/Gulf St Vincent.



Figure 2: Watercourses and Catchments (Nature Maps 25/05/2022)

The Bolivar WWTP Lagoons, now require stormwater from this dispersed catchment to be funnelled through limited, specific drainage pathways.

As such, all newly generated stormwater runoff from future development within the Growth Area will be required to direct stormwater to these existing drainage pathways and limit their discharge such that the capacity of these outfalls is not exceeded.

Generally, there are seen to be three available discharge/drainage pathways for the Growth Area.

- The Little Para River
- 'The Gap'
- The St Kilda Road Channel (partially constructed in late 2018)



The St Kilda Road Channel is seen to extend from the North South Motorway/Waterloo Corner Interchange, northwest around the northern Bolivar WWTP Lagoons. It connects into the Bolivar stormwater drainage system, which discharges via the two existing Bolivar Outfall Channel syphons, one located within the Bolivar site and the second just north of Symes Road. The Greater Edinburgh Parks and St Kilda Catchment, Stormwater Management Plan (May 2020), suggested that new syphon(s) be constructed under the Bolivar Outfall Channel, thereby discharging stormwater to the Barker Inlet between the Ridley Salt Ponds.

The cost of a new syphon may be prohibitive expensive and discharging stormwater into the Bolivar Outfall directly may be the better option. However, this option requires further investigation as well as consultation with SA Water.

The Growth Area was divided into Stormwater Precincts (refer Figure 3 below), each with differing stormwater management measures or strategies.

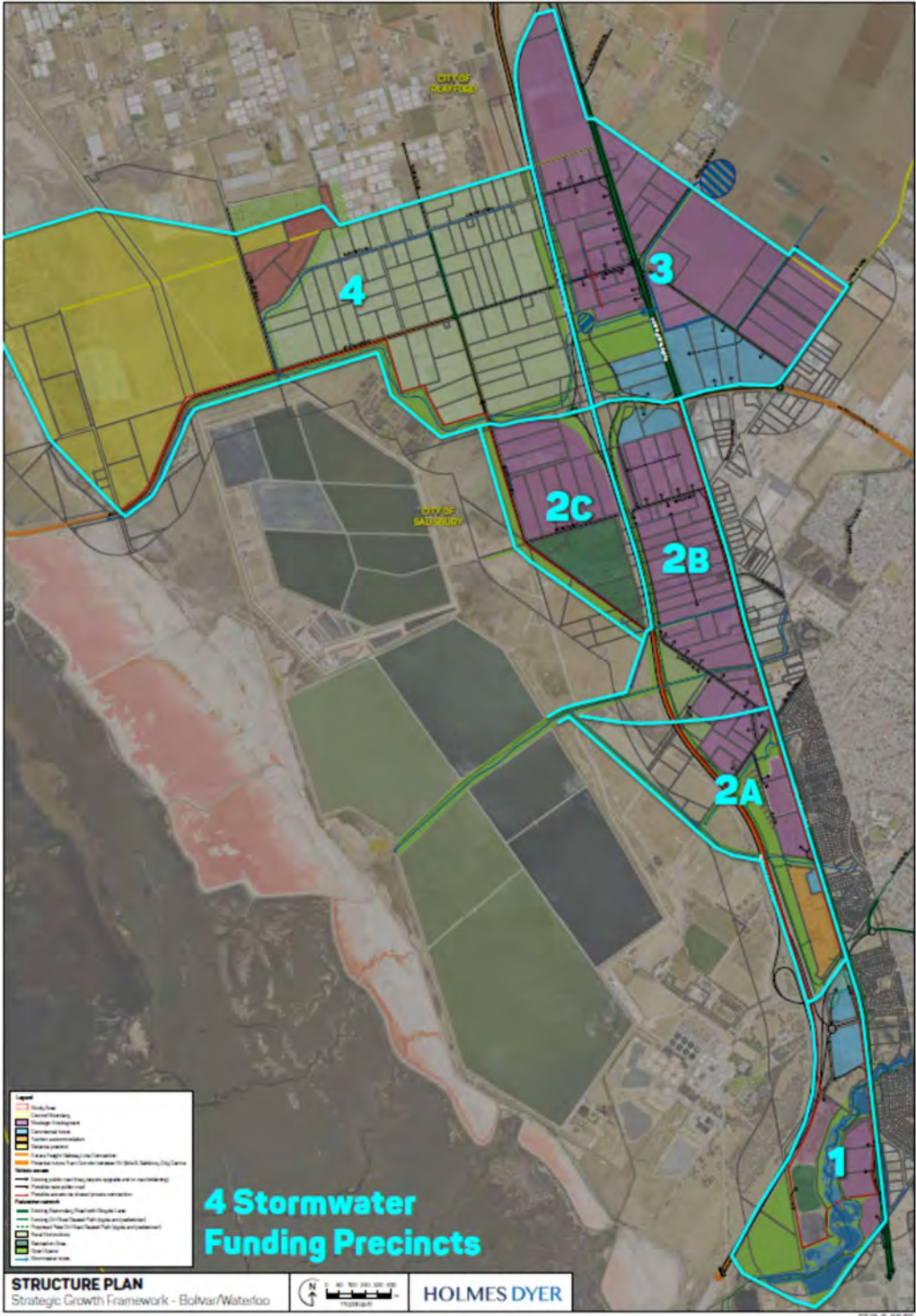


Figure 3: Stormwater Funding Precincts

3.3.2 Stormwater Precinct 1

Stormwater Precinct 1 makes up the southern extent of the Bolivar/Waterloo Strategic Growth Area, bounded by Bolivar Road to the north, Port Wakefield Road to the east and the North-South Motorway to the west. The Little Para River runs through the Precinct from the north-east to the south-west.



As can be seen from the currently available flood mapping (refer figure 4 below), Stormwater Precinct 1 is subject to stormwater inundation during the 1% Annual Exceedance Probability (AEP) rainfall event. However, it should be noted that this flood mapping pre-dates the construction of the North-South Motorway, which has altered the local topography and stormwater pathways within the immediate area.



Figure 4: Stormwater Precinct 1 Flood Inundation Mapping

The existing Port Wakefield Road stormwater crossings are located at natural ground level, at several locations within this precinct. The formalisation and continuation of these drainage paths through the precinct to the Little Para River, will likely lessen the flooding impact currently predicted.

Two main drainage paths are noted within this precinct. The first is the Little Para River itself, and the second is an open channel system, extending from the Hodgson Road Services, crossing under and then running along, the western side of the North South Motorway, before connecting with the Little Para River at its outlet. Refer figure 5 below for existing and proposed stormwater drainage paths and figure 6 for existing stormwater infrastructure.

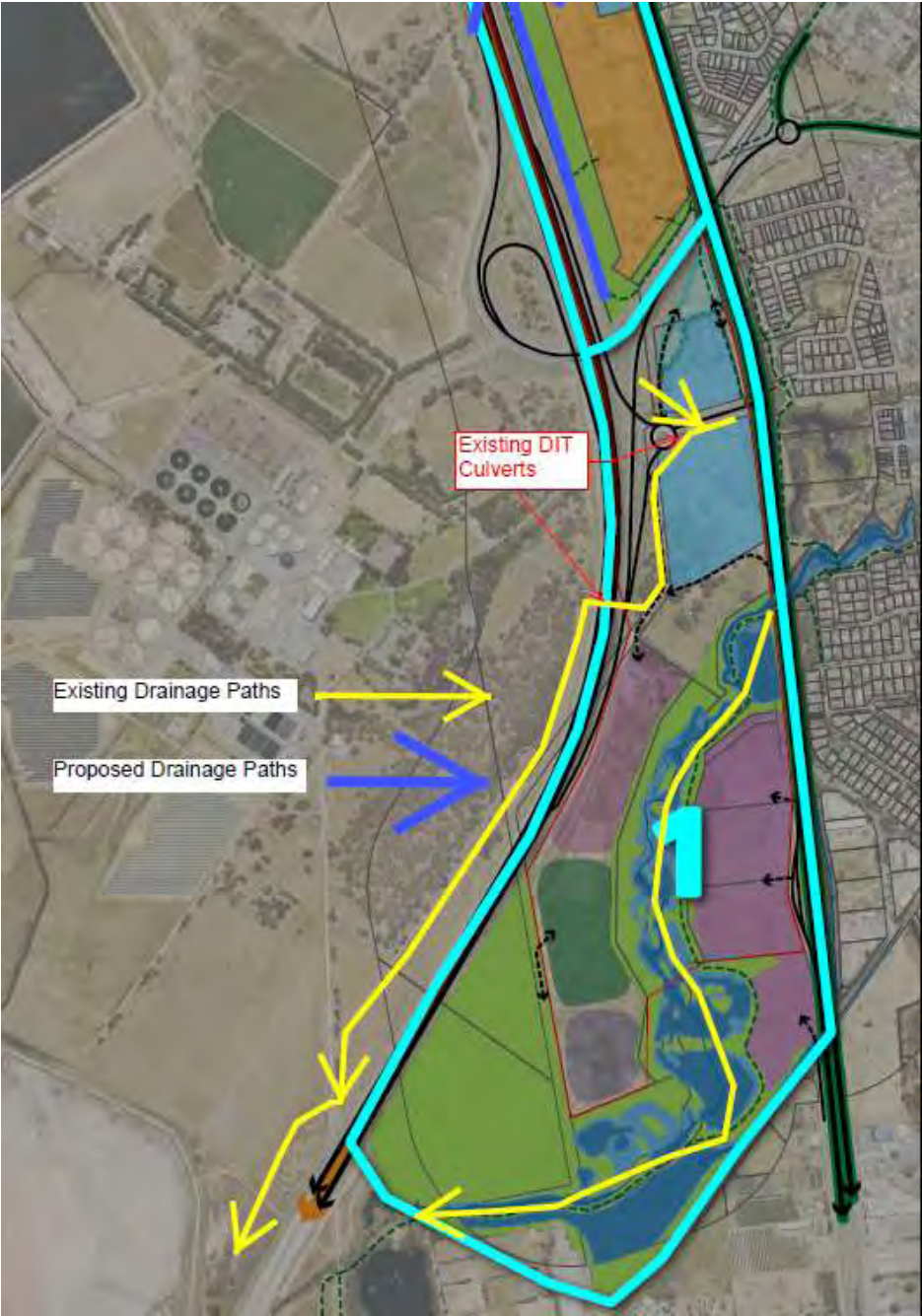


Figure 5: Stormwater Precinct 1 Drainage Paths



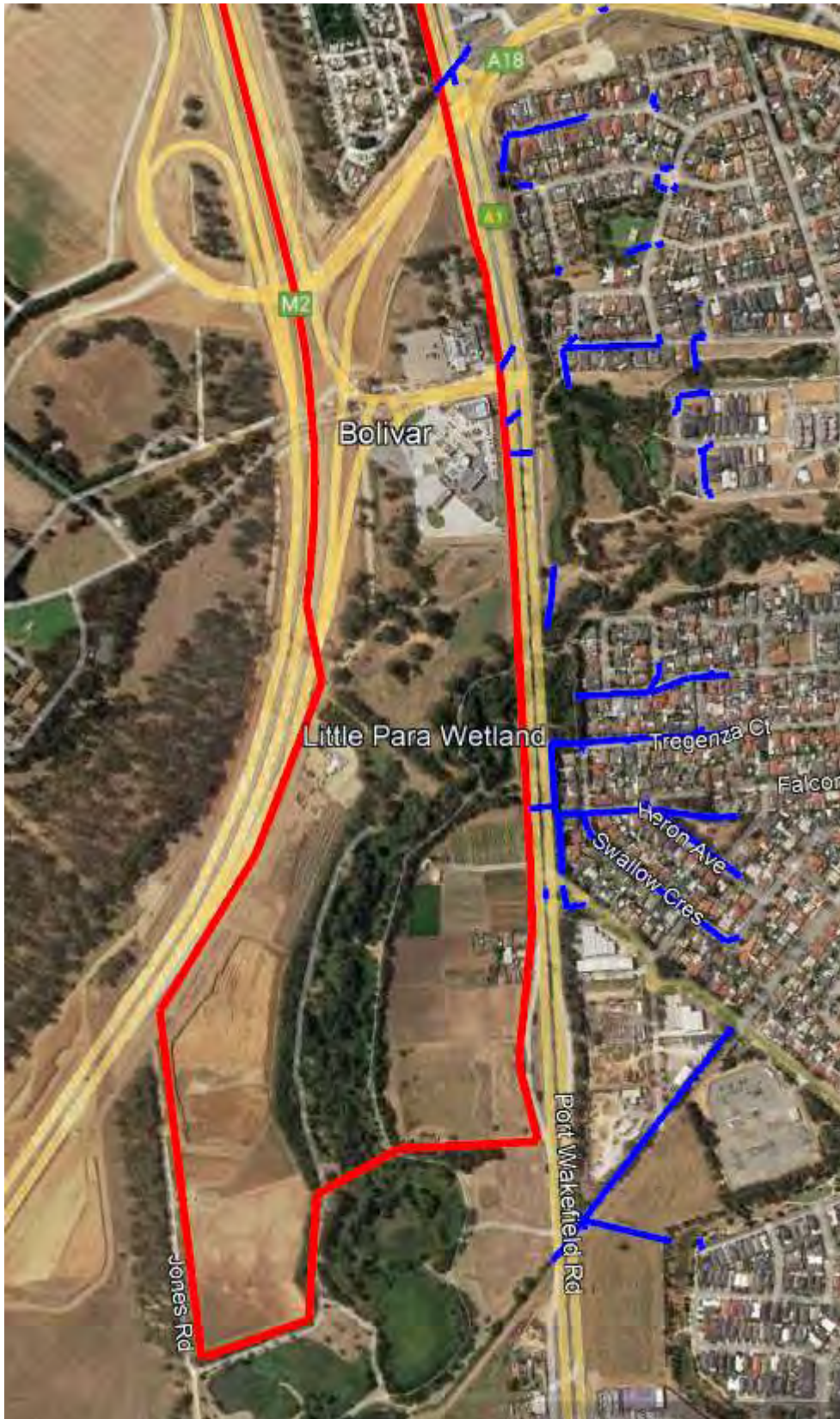


Figure 6: Stormwater Precinct 1 Existing Stormwater Drainage Infrastructure

With the major stormwater drainage path/outlet of the Little Para River through this Precinct, stormwater management in the form of detention storage is seen to be less critical. Due to the disproportionate shape of the Little Para Catchment, with the majority of its surface area at the upstream end, tapering to a relatively thin corridor through its suburban section, peak flows within the river are expected to be the result of longer duration storm events. Therefore, it may be preferable to allow stormwater runoff the Growth Area to flow unconstrained to the stormwater outlets and the Little Para River.

Stormwater quality treatment measures will still be required and important to treat the quality of stormwater runoff, prior to outlet into the Little Para River/Barker Inlet. A combination of precinct scale vegetated open channels, wetlands, biofiltration basins and street scale raingardens and gross pollutant traps will likely be required to meet South Australia's state-wide performance targets for stormwater runoff quality.

A wholistic approach would see stormwater quality treatment measures, including wetland/s or the equivalent, constructed to the south of Stormwater Precinct 1, near the unmade Whites Road Reserve. The western drainage channel's catchment is mostly developed with the Hodgson Road Services and Whitehorse Inn Hotel. Therefore, the use of GPT's and other commercially available water treatment systems are likely more practical for any further development in this area.

Conversely, individual treatments could be designed and constructed, as each land parcel is developed. This would likely be a less optimised solution, however may prove the more practical as intermittent development is likely to occur.



**3.3.3 Stormwater Precinct 2**

Stormwater Precinct 2 makes up the central portion of the Bolivar/Waterloo Strategic Growth Area. Bounded by Waterloo Corner to the north, Port Wakefield Road to the east the Robinson Road/North South Motorway to the west and Bolivar Road to the south.

As for Precinct 1, it can be seen from the currently available flood mapping (refer figure 7 below) that portions of Precinct 2 are also subject to stormwater inundation during the 1% Annual Exceedance Probability (AEP) rainfall event, although, once again this flood mapping pre-dates the construction of the North South Motorway.

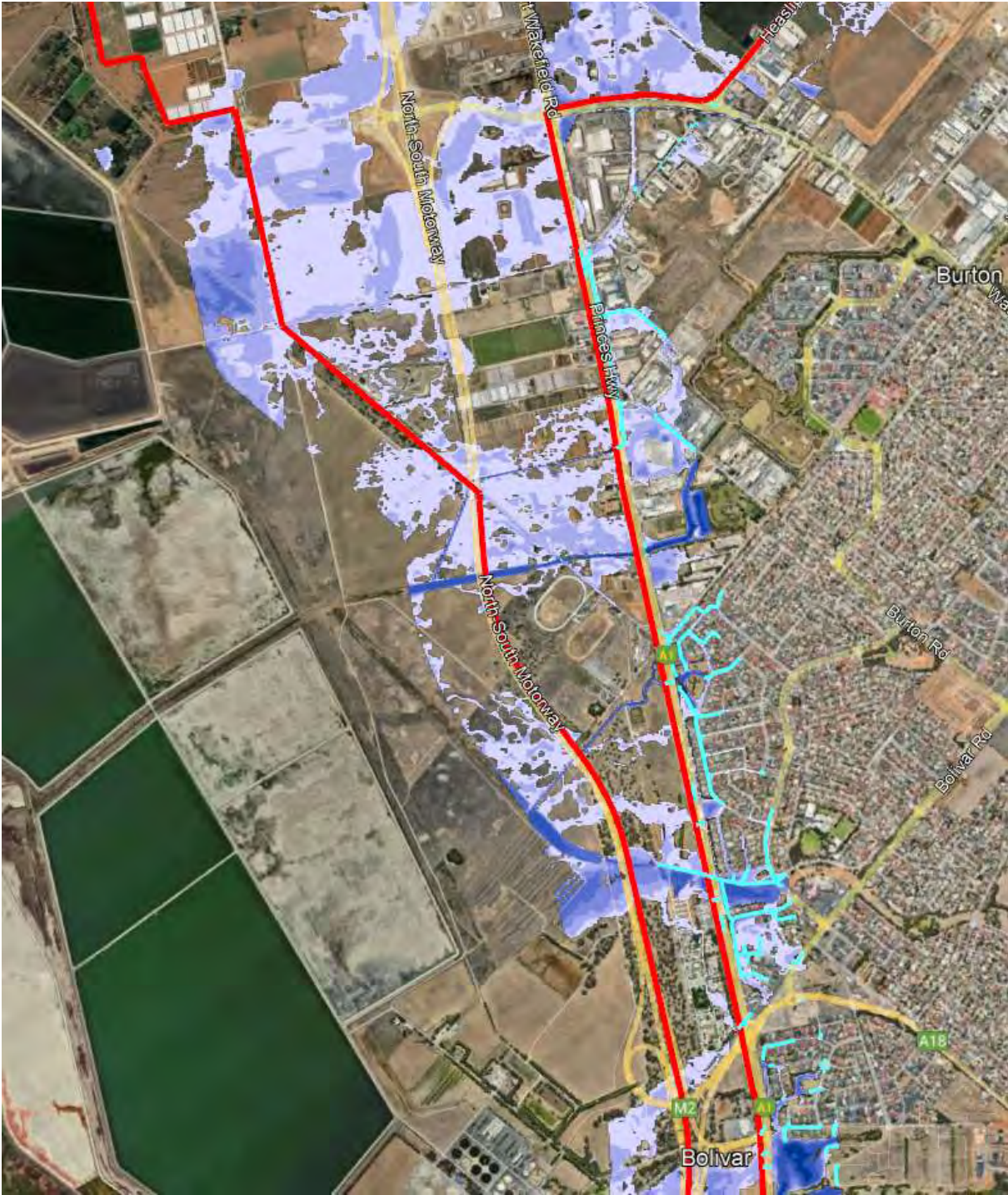


Figure 7: Stormwater Precinct 2 Flood Inundation Mapping



Existing Port Wakefield Road stormwater crossings outlet into a number of existing open drainage channels across this precinct. The two larger of these channels, the Little Para Overflow channel and the Helps Road Drain, converge at 'The Gap' stormwater channel located between Bolivar Waste Water Treatment Plant (WWTP) Lagoons. The smaller stormwater channels within this precinct take flows into the Little Para Overflow/Helps Road Drain, prior to 'The Gap'. These existing channels have been provided with stormwater culvert crossings as part of the North South Motorway project.

Additional open channel and culvert crossings, to the north of the Stormwater Precinct 2, were also constructed as part of the North South Motorway works. The channel extending south from Precinct 3, crossing the Waterloo Corner Interchange Connector Road, crosses the Motorway and then continues west. A culvert crossing under Robinson Road was constructed, but past this point, stormwater is seen to be allowed to sheet across Bolivar WWTP/SA Water land. This channel should be extended south to 'The Gap', its primary outfall location. Refer figure 8 below for existing and proposed stormwater drainage paths and figure 9 for existing stormwater infrastructure.



Figure 8: Stormwater Precinct 2 Drainage Paths





Figure 9: Stormwater Precinct 2 Existing Stormwater Drainage Infrastructure

This Precinct has a number of key locations where the capacity of stormwater infrastructure is limited or constrained, including the North South Motorway culvert crossings as well as ‘The Gap’ stormwater channel itself.

Provision of stormwater detention measures are critical for ‘The Gap’, which is known to have capacity limitations. Stormwater detention measures will also critical to control stormwater flows arriving at existing major road culverts (North-South Motorway and Port Wakefield Road)

As for Precinct 1, stormwater quality treatment measures will also be required and integrated with development, to treat the quality of stormwater runoff prior to discharge into the Barker Inlet.



**3.3.4 Stormwater Precinct 3**

Stormwater Precinct 3 makes up the north eastern portion of the Bolivar/Waterloo Strategic Growth Area and is bounded by Waterloo Corner to the south, Heaslip Road and Mill Road to the east and the North-South Motorway to the north and west. The existing stormwater infrastructure in this precinct predominantly consists of roadside swales.

It is seen from the currently available flood mapping (refer figure 10 below); portions of Stormwater Precinct 3 are also subject to stormwater inundation in the 1% Annual Exceedance Probability (AEP) rainfall event, although once again, this flood mapping pre-dates the construction of the North-South Motorway.

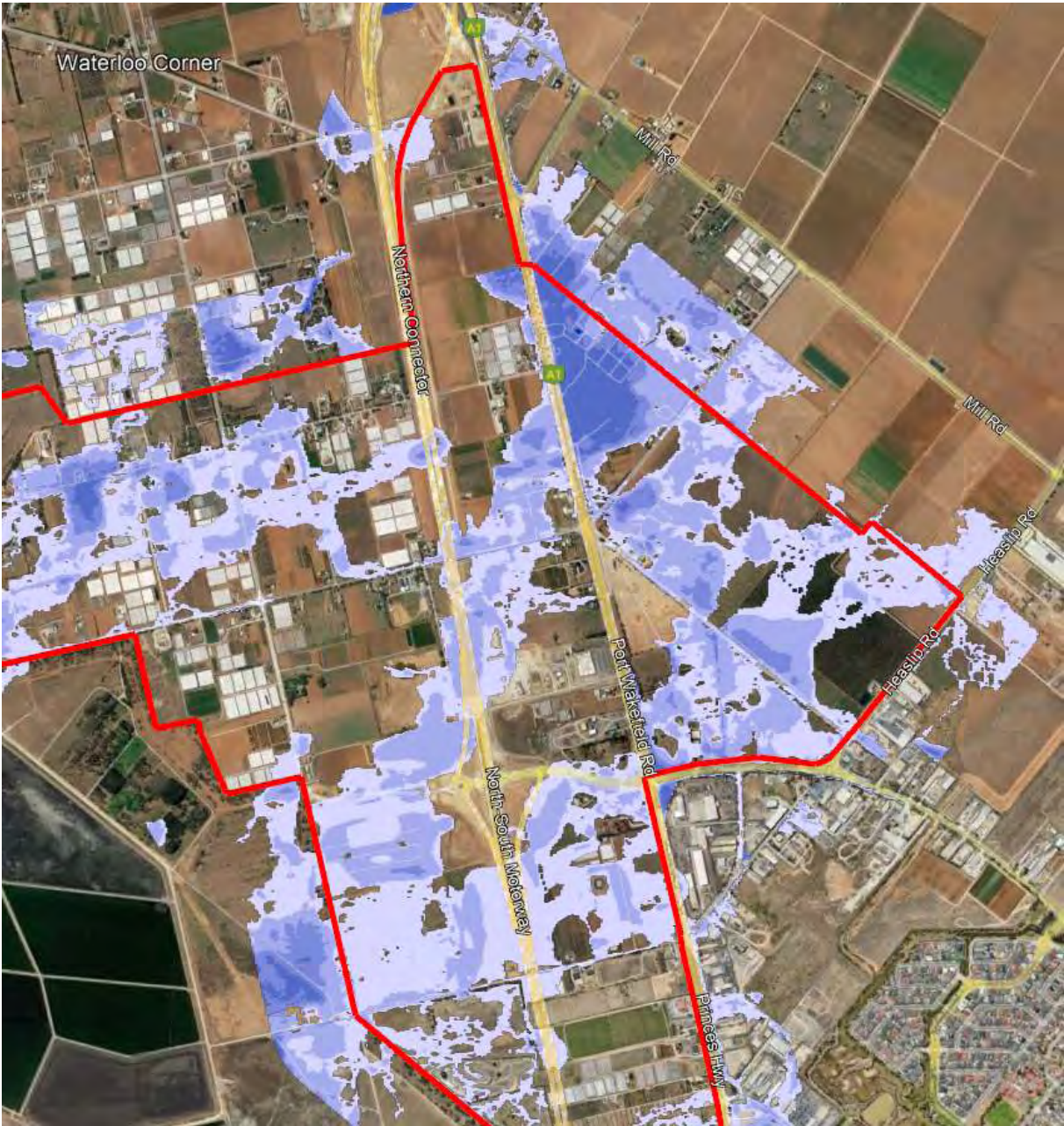


Figure 10: Stormwater Precinct 3 Flood Inundation Mapping



The flood mapping indicates that stormwater overland flows arrive at the eastern side of Port Wakefield Road and results in significant inundation of low-lying areas between Anjanto Road and St Kilda Road. There are roadside swales at Greyhound Road and St Kilda Road, and roadside channels on Port Wakefield Road that outlet to the St Kilda Road drain. The flood mapping suggests that upgrades to these channel systems in conjunction with stormwater detention would be required to intercept and alleviate flooding.

Similarly, flood waters appear to be ponding on the eastern side of Port Wakefield Road, Mumford Road and Waterloo Corner Road, with stormwater overland flows being blocked and stored in local depressions.

Provision of stormwater detention is critical for these Precinct's, so as not to exceed the capacity of the existing St Kilda Road Channel, because 'The Gap' located downstream, is known to have capacity limitations. Stormwater appears to discharge to Barker Inlet via the Smith Creek's outlet. Stormwater detention and swales to intercept stormwater overland flows from upstream of the Precinct boundary should also be considered.

Refer figure 11 below for existing and proposed stormwater drainage paths and figure 12 for existing stormwater infrastructure.

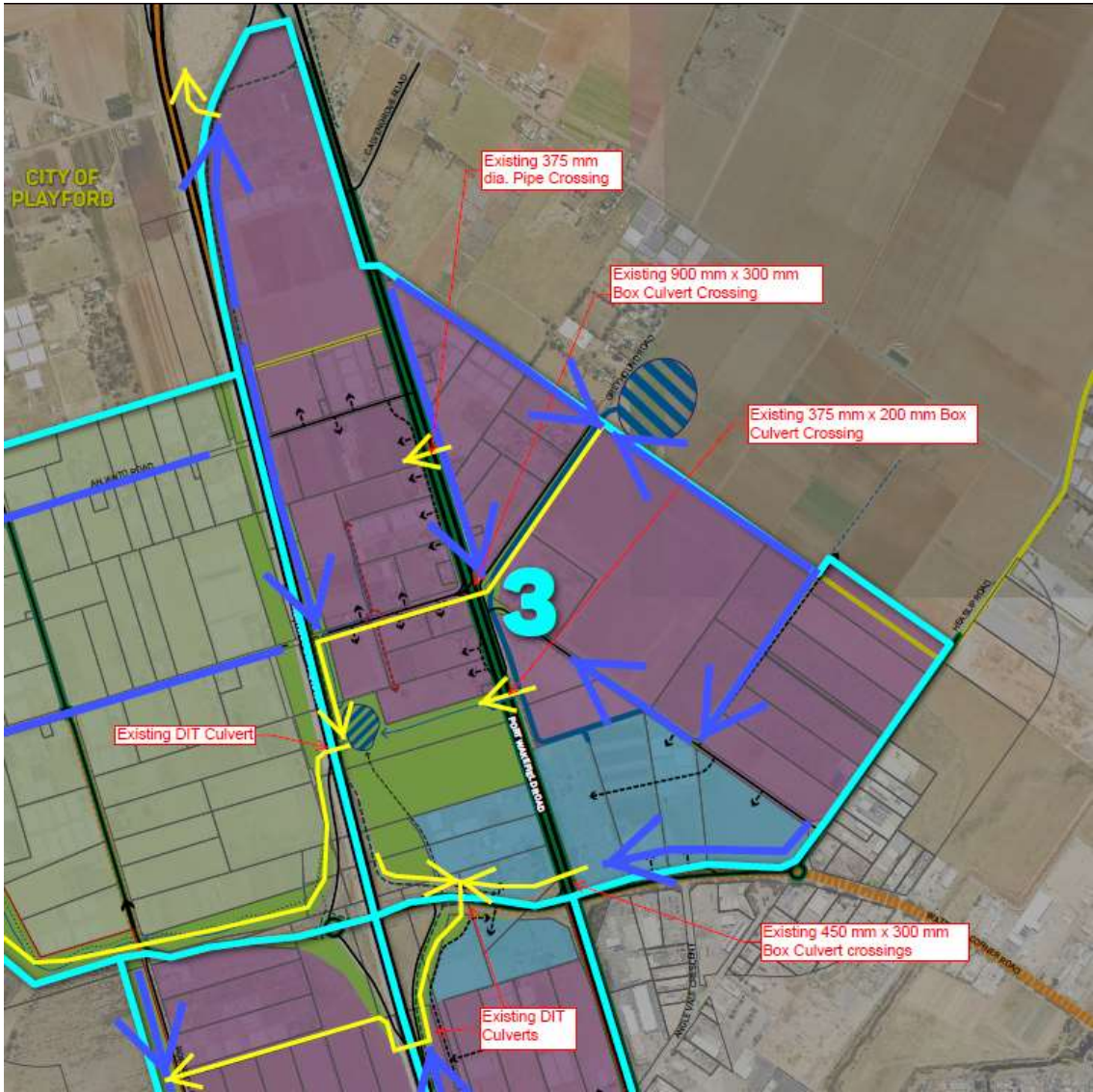


Figure 11: Stormwater Precinct 3 Drainage Paths



Figure 12: Stormwater Precinct 3 Existing Stormwater Drainage Infrastructure



### 3.3.5 Stormwater Precinct 4

Stormwater Precinct 4 makes up the north western portion of the Bolivar/Waterloo Strategic Growth Area. It is bounded by Waterloo Corner and St Kilda Road to the south, the North-South Motorway to the east, Defence land to the west, and existing horticultural lands to the north.

The currently available flood mapping (refer figure 13 below) show portions of Stormwater Precinct 4 are subject to stormwater inundation in a 1% Annual Exceedance Probability (AEP) event, although again, this flood mapping pre-dates the construction of the North South Motorway.



Figure 13: Stormwater Precinct 4 Flood Inundation Mapping

Stormwater inundates low lying areas, generally to the south of Barker Road and Anjanto Road, and north of St Kilda Road. There is also inundation to a portion of the northern western area adjacent the existing drain from the Bolivar Waste Water treatment plant and to the northern western side of the North South Motorway. The flooding appears to be the result of insufficient stormwater infrastructure within the local catchment on the western side of the North-South Motorway.

The existing stormwater infrastructure in this precinct predominantly consists of shallow roadside swales with the occasional small culvert road crossing. On the southern extents of Precinct 4, the St Kilda open drain has recently been constructed with large culverts under Robinson Road discharging into the SA Water Bolivar WWTP land towards the west. The recently constructed St Kilda Road drain on the northern western corner of the North South Motorway, at the intersection with Waterloo Corner Road, may have also reduced the incidence of flooding at this location.

Stormwater management measures provided as part of Precinct 3 may alleviate some of the overland stormwater flows into this Precinct.

Tonkin indicated in the Greater Edinburgh Parks and St Kilda Catchment Stormwater Management Plan, that the St Kilda channel outfall is restricted to the capacity of the syphon under the Bolivar treatment plant outfall channel. Upgrading the capacity of the system would require significant capital expenditure including a new larger syphon under the Bolivar channel and significant widening of almost 2.0 km of open channel through the salt fields.

It is anticipated new trunk open channels would capture stormwater flows in this precinct and direct to the St Kilda drain. A precinct solution for stormwater detention may be provided adjacent the outlet of the catchment. This would significantly impact the land available for development as they would be in the form of large shallow basins.

Alternatively, new development may provide on-site detention storage so that the discharge from each development side does not overload the capacity of the proposed truck drainage system.

Refer figure 14 below for existing and proposed stormwater drainage paths and figure 15 for existing stormwater infrastructure.

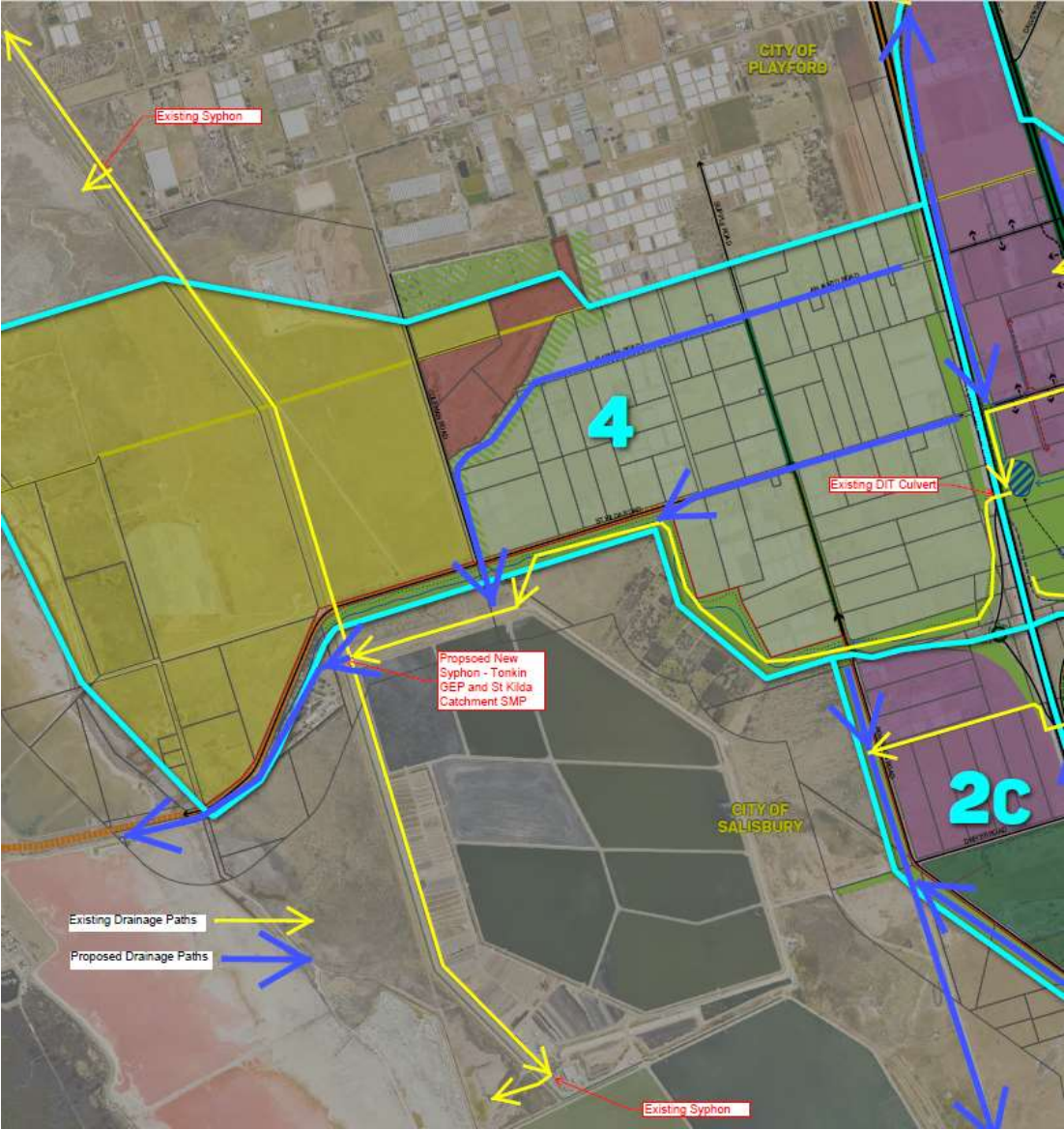


Figure 14: Stormwater Precinct 4 Drainage Paths





Figure 15: Stormwater Precinct 4 Existing Stormwater Drainage Infrastructure

### **3.3.6 Growth Area Stormwater Management Outcomes**

Further investigation would be required to develop a stormwater management plan for stormwater infrastructure for the Strategic Growth Area. Given the very flat grades of the existing land it is anticipated that grassed swales/channels would be the most appropriate form of stormwater infrastructure as it would be difficult to achieve minimum grade on stormwater pipes.

It is anticipated that any development within the strategic growth area would be required to meet with the Environmental Protection Authorities (EPA) water quality reduction targets. Water quality measures would include grasses swales, biofiltration systems, water treatment ponds, and wetlands. Opportunities for storage and reuse may also be considered if the need is of a scale that would be beneficial.

Consideration of catchment wide solutions such as detention and wetlands should be made at key locations to reduce the reliance on developments providing individual stormwater management systems. This will provide the opportunity for less constrained developable land within each of the precincts.

Stormwater runoff from the Growth Area is anticipated to be managed as outlined below:

- Individual land development allotments are to drain into a road drainage system within the proposed road network.
- The road drainage system will flow into stormwater swales, channels, or floodway, within public road or public open space areas.
- A network of stormwater channels will convey the stormwater flows towards a detention basin and water treatment system.
- WSUD principles are to be incorporated in the drainage network in accordance with best engineering practice

A layout plan of the proposed stormwater management outcomes for the Growth Area is included in Appendix C.



### 3.4 Sewer

SA Water have an extensive gravity sewer system to the south-east of the Growth Area, generally to the east of Port Wakefield Road and south of Waterloo Corner. The Bolivar Sewage Treatment Works is located to the west and south-west of the Growth Area, which incorporates the plant itself, pumping mains and waste water treatment lagoons.

To the north of Waterloo Corner, and generally to the west of Port Wakefield Road, there is very little existing SA Water sewer infrastructure.

SA Water were contacted and provided an 'interim response' on key existing infrastructure, based on the 'Northern', 'Central' and 'Southern' Road Infrastructure Precinct's. SA Water's response is included in Appendix E.

An assessment by SA Water is now underway, to investigate and to provide further information relating to the future servicing of the Growth area to identify areas of constraint or where upgrades are required. However, due to the complexity of this assessment it is anticipated it will take a number of months to complete. In addition, SA Water are also currently completing master planning works as part of SA Water's Regulatory Determination 2024, which in part includes the Waterloo Corner & Bolivar Corridor Growth Area.

SA Water provided a plan of the existing waste water infrastructure within the strategic growth area, as well as a summary within each of the nominated precincts, as described below:

### 3.4.1 Precinct Area 1 - Southern

There is a 1000 mm diameter PVCu trunk sewer from Bolivar Road to the Bolivar Road Waste Water Treatment Plant (WWTP).

There is an existing 675 mm diameter PVCu trunk sewer from Victoria Drive Parafield Gardens, running north across Port Wakefield Road via easement, to the WWTP.

Refer to figure 16 below for locations of existing sewer infrastructure within Precinct 1.



Figure 16: Precinct Area 1 - Southern - Existing SA Water Wastewater Infrastructure



**3.4.2 Precinct Areas 2 & 4 - Central**

There is limited infrastructure in this area with some smaller 150 mm and 225 mm diameter mains on the eastern side of Port Wakefield Rd in the Burton area; however, this network has capacity constraints.

It is likely that a catchment pump station will be required to service this area.

Refer to figure 17 below for locations of existing sewer infrastructure within Precinct 2 & 4



Figure 17: Precinct Areas 2 & 4 - Central - Existing SA Water Wastewater Infrastructure

### 3.4.3 Precinct Areas 2, 3 & 4 - Northern

There is no wastewater network currently available in this area. SA Water is currently completing the Virginia Trunk Sewer network, which includes a re-lift Waste Water Pump Station (WWPS) being constructed within the SA Water Bolivar WWTP site, near the south-eastern corner of St Kilda Road and Coleman Road. There is currently no capacity allowance in this WWPS for development in the surrounding area; however, there may be an opportunity for upgrades of this station to occur to accommodate additional discharge. This would need to be assessed.

Refer to figure 18 below for locations of existing sewer infrastructure within Precinct 2, 3 & 4



Figure 18: Precinct Areas 2, 3 & 4 – Northern - Existing SA Water Wastewater Infrastructure

The Growth Area shall generate additional wastewater that will ultimately have to be catered for within the Bolivar Sewerage Treatment Works. We have used the Water Service Association of Australia (WSA) Sewerage Code of Australia, to estimate the Average Dry Weather Flow (ADWF) generated from the development. The ADWF does not account for peak dry weather flow, groundwater infiltration or the peak inflow and infiltration into the sewerage system.

We have used the 'Yield Analysis' undertaken by Holms Dyer to estimate the Equivalent Persons (EP) generated by the anticipated development activity composition. The following assumptions have been made:

| <b>Classification</b>   | <b>Unit</b>   | <b>EP per Unit</b> | <b>Quantity</b>  |
|-------------------------|---------------|--------------------|--|
| Local Commercial        | Gross Hectare | 75                 | Floorspace for Service, Store, Office and Retail activities as estimated by Holms Dyer |
| Future Industrial Areas | Gross Hectare | 150                | Floorspace for Manufacturing activities as estimated by Holms Dyer                     |

As prescribed by the WSA Sewerage Code, an average daily sanitary flow of 180 L/d/EP was applied to the EP generated from the development. This resulted in an ADWF of approximately 150 ML/day generated by the total Growth Area.

It is anticipated that SA Water's waste water network may be extended to service the development and may require a system of both gravity and pumped network solutions. Due to the anticipated high ground water table, pressure or vacuum sewer systems may also be considered, particularly for the areas west of Port Wakefield Road.

#### **3.4.4 Growth Area Sewer Outcomes**

Further information is required to be provided by SA Water to confirm the requirements for sewer networks to service the Growth Area. Due the scale and anticipated timing of development it is anticipated SA Water will address development through individual site investigation as parcels of land within the Growth Area proceed to development.



### 3.5 Potable Water Supply

Potable Water is able to be supplied to the Strategic Growth Area, by SA Water, generally via mains located within Port Wakefield Road and Waterloo Corner Road.

SA Water were contacted and provided an 'interim response' on key existing infrastructure, based on the 'North', 'Central' and 'South' Road Infrastructure Precinct's. SA Waters response is included in Appendix E.

An assessment by SA Water is now underway, to investigate and to provide further information relating to the future servicing of the Growth area to identify areas of constraint or where upgrades are required. However, due to the complexity of this assessment it is anticipated it will take a number of months to complete. In addition, SA Water are also currently completing master planning works as part of SA Water's Regulatory Determination 2024, within which the Waterloo Corner & Bolivar Corridor Growth Area forms part.

SA Water provided a plan of the existing potable water infrastructure within the strategic growth area as well as a summary within each of the nominated precincts as described below:

#### 3.5.1 Precinct Area 1 - Southern

Dual 150 Asbestos Cement (AC) mains are located within Port Wakefield Road. A 600 m section has been upsized to a single 200 AC main, located approximately between Victoria Drive and the northern end of Ryans Road/Port Wakefield service road.

A 200 AC main is located to the west of the North-South Motorway. Connection under the Motorway would be required to provide a supply from this main.

Refer to figure 19 below for locations of existing water infrastructure within Precinct 1



Figure 19: Precinct Area 1 - Southern - Existing SA Water Potable Water Infrastructure

### 3.5.2 Precinct Areas 2 & 4 - Central

Dual 150 AC mains are located on both the western and eastern sides of Port Wakefield Road, between Summer Road and Burton Road.

A 150 AC and 200 AC mains are located on the western and eastern sides of Port Wakefield Road respectively, between Burton Road and Undo Road/Angle Vale Crescent.

A single 200 AC main heads north, on the western side of Port Wakefield Road from Undo Road to Dunn/Mumford Roads.

A 450 Mild Steel Cement Lined (MSCL) main and a 100 DICL (Ductile Iron Cement Lined) are both located within Driver/Undo Roads, crossing the Motorway.

Refer to figure 20 below for locations of existing water infrastructure within Precinct 2 & 4



Figure 20: Precinct Areas 2 & 4 - Central - Existing SA Water Potable Water Infrastructure

### 3.5.3 Precinct Areas 2, 3 & 4 - Northern

Dual 150 AC mains are located on both the western and eastern sides of Port Wakefield Road, between Dunn Road and Symes Road.

A 300 DICL main is located within Mumford Road for its full length.

Dual 150 AC and 100 polyethylene (PE) mains extend west from Port Wakefield Road along Dunn Road and continue, crossing the Motorway, along St Kilda Road. The 100 PE main terminates just west of Wilson Street.



A 150 PE main, extends north from St Kilda Road and terminates near Berno Road.

A 100 AC main extends west from Port Wakefield Road along Anjanto Road, crossing the Motorway, and continuing west into barker road.

Refer to figure 21 below for locations of existing water infrastructure within Precinct 2, 3 & 4



Figure 21: Precinct Areas 2, 3 & 4 - Northern- Existing SA Water Potable Water Infrastructure

SA Water also advised that an assessment was completed in the St Kilda area for the Defence site, on the corner of St Kilda and Coleman Roads. This assessment identified constraints within the network should further development occur, with SA Water advising that 2.3 km of DN250 mains would be required to be re-laid in Dunn Road.

### 3.5.4 Growth Area Water Supply Outcomes

It is anticipated that SA Waters potable water network may be extended to service the development. Further information is required to be provided by SA Water to confirm the requirements for potable water networks to service the Growth Area. Due the scale and anticipated timing of development it is anticipated SA Water will address development though individual site investigation as parcels of land within the Growth Area proceed to development.



### 3.6 Recycled Water Supply

A number of recycled/reclaimed water mains are located throughout the Bolivar WWTP site, as well as to the north of the Growth Area. These mains being associated with the treatment works and the Virginia Pipeline Scheme (VPS).

SA Water have advised that there may be an option for mains extensions, off the Bolivar Treatment Plant infrastructure. However, to the north of the Growth Area, the VPS network is currently at full allocation.

With the Northern Adelaide Irrigation Scheme (NAIS) network being in close proximity, there may be an opportunity to provide recycled water via this network. However, further assessment of this option will need to be undertaken.

SA Waters response to our request for information is included in Appendix E.

SA Water provided a plan of the existing recycled water infrastructure within the strategic growth area as shown below in figure 22, 23 and 24:



Figure 22: Precinct Area 1 – Southern - Existing SA Water Recycled Water Infrastructure





Figure 24: Precinct Areas 2 & 4 - Central - Existing SA Water Recycled Water Infrastructure



Figure 23: Precinct Areas 2, 3 & 4 - Northern- Existing SA Water Recycled Water Infrastructure



In addition to the SA Water recycled water network the City of Salisbury also operate a recycled water network. A recycled water network is located within Precinct 2 (areas 2A and 2B). A 150 mm diameter PVC distribution main extends from the Burton Wetlands at Burton Road, through Precinct 2 to the reserve at Liberator Drive on the eastern side of Port Wakefield Road as shown in figure 25 below.



Figure 25: Precinct Area 2 (2A & 2B) - Existing City of Salisbury Recycled Water Infrastructure



A 180 mm diameter distribution main located the intersection of Waterloo Corner Road and Heaslip Road intersection. The main is located on the south eastern extent of Precinct 3 as shown in figure 26 below.



Figure 26: Precinct Area 3 - Existing City of Salisbury Recycled Water Infrastructure

A recycled water system is located on the eastern side of Port Wakefield Road opposite Hodgson Road located in the reserve at Walpole Road reserve and wetlands. This system feeds recycled water to the Willowbrook Reserve approximately 200 m to the north of the Walpole Road wetlands as shown in figure 27 below.



Figure 27: Precinct Area 1 - Existing City of Salisbury Recycled Water Infrastructure



The City of Salisbury operates a bore at the Little Para River Linear Park on the eastern side of Port Wakefield Road adjacent Precinct 1 as shown in figure 28 below.



Figure 28: Precinct Area 3 - Existing City of Salisbury Community Bore

### 3.6.1 Growth Area Recycled Water Supply Outcomes

Further discussion with SA Water and/or the City of Salisbury would be required to explore the opportunity for recycled water for a future development. If reserves are provided as part of future development, which include water quality treatment systems such as wetlands, then there may be the opportunity to store water for reuse for irrigation of open spaces or industry.



### 3.7 Groundwater Wells

There are a significant number of ground water wells within the strategic growth area as shown below in figures 29, 30 and 31. Existing ground water wells are managed by the government of South Australia's Department for Environment and Water. Information on existing bores has been obtained from the WaterConnect, groundwater database. Future development may need to consider removal of existing bores. There may be the potential to retain existing wells if accompanied with a suitable licence for use of the water. Further discussions with the Department for Environment and Water would be required to confirm the potential for use of ground water.



Figure 29: Precinct Area 1 (left) and Precinct Area 2 (right) - Existing groundwater wells



Figure 30: Precinct Area 3 - Existing groundwater wells

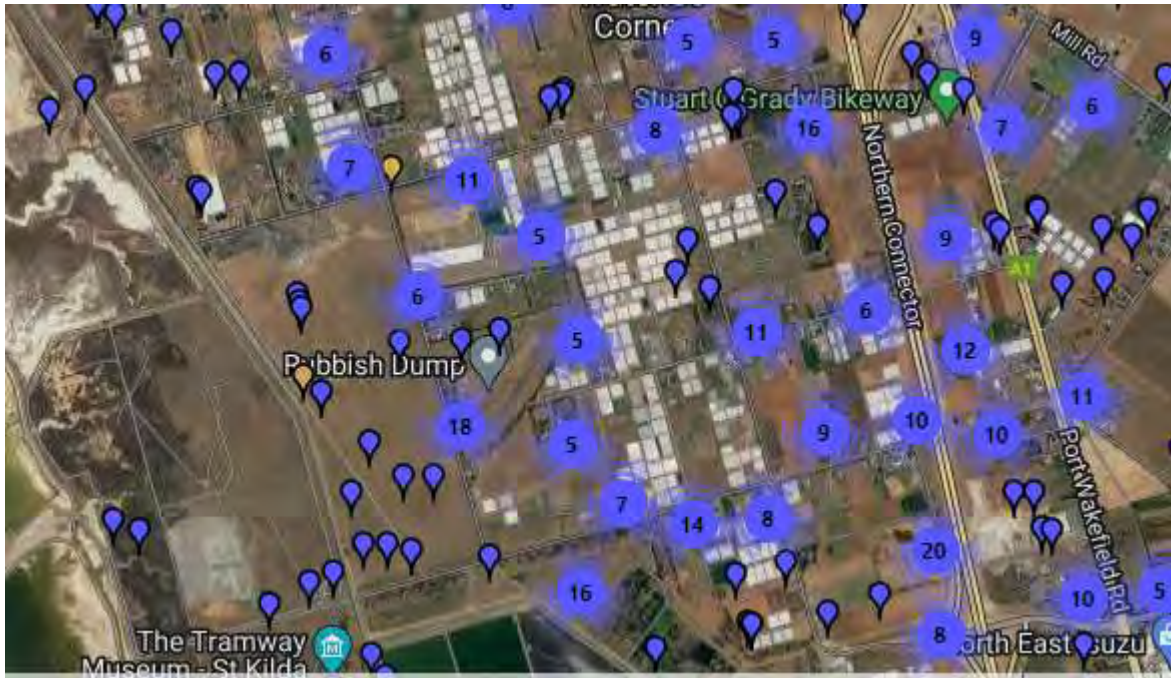


Figure 31: Precinct Area 4 - Existing groundwater wells



### 3.8 Electrical Supply

#### 3.8.1 All Precincts

Both SAPN and ElectraNet were contacted, with regards to providing feedback and influencing desired outcomes, if any. At the time of writing, only SAPN have responded; however, it's understood that ElectraNet are still progressing a review. SAPN's response is included in Appendix E.

SAPN have advised that 'The Waterloo Corner and Bolivar Corridor Growth Area' is currently supplied by four sub-stations; at Direk, Paralowie, Parafield Gardens and Cavan as shown in figure 32 below:



Figure 32: SAPN Substation Network

The corridor is currently being serviced by an existing 11 kV high voltage network. However, the corridor is also seen to be located at the far extent of the substation areas, which results in network constraints due to end of line voltage drop. The existing feeder network therefore will require extension and 'strengthening' to supply any significant additional load.



SAPN have provided additional detail relating to the corridor's 'Road Infrastructure Precinct's', as follows.

### **3.8.2 Detail Area North & Central – Precinct's 3B – 9**

This area will require a new 11kV Feeder(s) from a nearby substation(s) as existing infrastructure in the area is already constrained by thermal/voltage limits and the existing load is approaching capacity limits. Feeder backbone upgrades are also likely to be required if demand for future strategic employment area increases. Substation capacity is also forecasted to be exceeded due to the increase in number and size of generation and load connections. This capacity limit, will impact project timing and the balance between precinct development and substation upgrade works will need to be considered.

### **3.8.3 Detail Area South – Precinct's 1A – 2C**

Existing feeders within this area are seen to have spare capacity for increased demand. However, voltages will require management for 'end of the line' connections, especially on the weaker section of the feeders. SAPN suggests the available capacity would permit preliminary establishment of the precinct before new feeder extension would be required.

### **3.8.4 Salt Pans Master Planned Development & Shunting Yard and Cavan Industry Additional Comments**

SAPN also provided comment on the area bounded by Globe Derby Drive, Port Wakefield Road, Churchill Road, Salisbury Highway and the North South Motorway. Stating that this area will require new 11kV feeder(s) or possibly a new zone substation to service this large a scale of residential development.

### **3.8.5 Growth Area Electrical Supply Outcomes**

It is anticipated that SAPN's electricity network may be extended to service the Growth Area. Further information is required to be provided by SAPN to confirm the requirements for electricity networks to service the Growth Area. Due the scale and anticipated timing of development it is anticipated SAPN will address development though individual site investigation as parcels of land within the Growth Area proceed to development. The cost of new electricity infrastructure that is provided by development may be rebated by SAPN if it will benefit other uses and would be determined at the time of application.

New electrical infrastructure for the growth areas is assumed to be installed as an underground electrical reticulation and lighting scheme as part of a common services trench along with telecommunications and gas services as required.

### 3.9 Telecommunication Supply

#### 3.9.1 All Precincts

There is existing Telstra/NBN infrastructure within Port Wakefield, St Kilda and Robinson Roads.

Both Telstra and NBN Co. were contacted, with regards to their providing feedback and influencing desired outcomes, if any.

Telstra advised that they were unable to provide further advice and to refer to Telstra Infracore Network Integrity Section for retention, protection or relocation of existing Telstra infrastructure, if required.

NBN Co. have advised that generally they have access to sufficient network duct capacity via the Telstra Network. The entire strategic growth area is available for service as shown shaded in purple in figure 33 below:

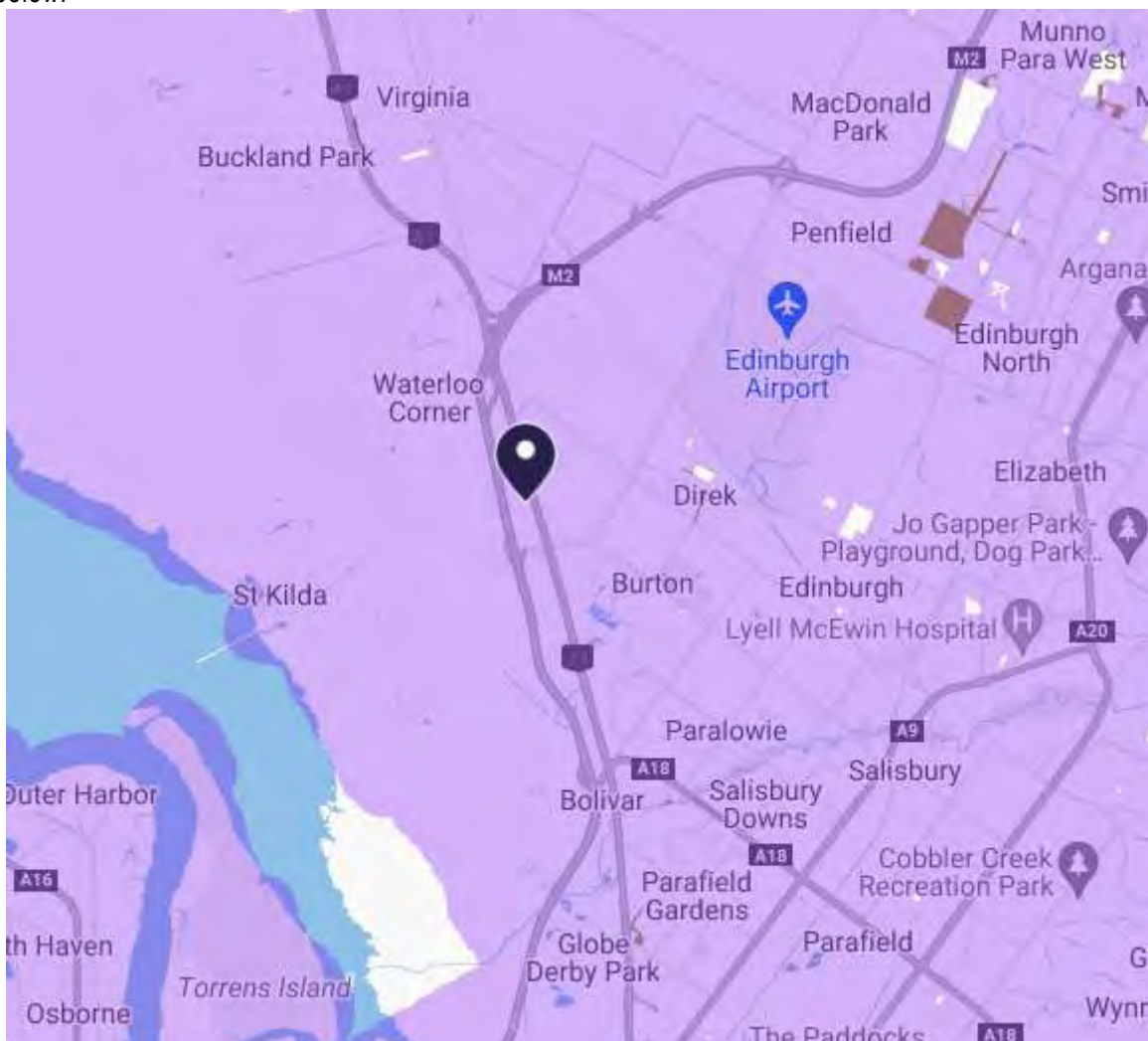


Figure 33: Strategic Growth Area, NBN Co. Service Available Area (Source: NBN rollout Map, nbnco.com.au)

Any development that would occur west of Port Wakefield Road would be required to install new NBN pit and pipe infrastructure to connect to the existing network. It is also an expectation of NBN that as part of any new road creation, within the Growth Area, an NBN pit and pipe installation would be incorporated as part of the overall services to ensure continuity of service pathways.

NBN Co. and Telstra's response is included in Appendix E.

### **3.9.2 Growth Area Telecommunications Supply Outcomes**

It is anticipated that a telecommunications network may be extended to service the Growth Area. Further information is required to be provided by NBN Co. or other service providers to confirm the requirements for telecommunications networks to service the Growth Area. Due the scale and anticipated timing of development it is anticipated telecommunication providers will address development though individual site investigation as parcels of land within the Growth Area proceed to development.

A typical underground pit and pipe system for telecommunications infrastructure is assumed to be required for development within the growth area.

New telecommunications infrastructure for the growth areas is assumed to be installed as an underground scheme as part of a common services trench along with electrical and gas services as required.



### 3.10 Gas Supply

#### 3.10.1 All Precincts

AGN/APA, Epic Energy and SEA Gas were all contacted to provide feedback and input regarding the Strategic Growth Area.

Three major gas transmission pipelines extend through the Waterloo Corner & Bolivar Corridor Strategic Growth Area. The Moomba to Adelaide Pipeline System (MAPS), the Wasleys Loop, which is a loop line of the MAPS pipeline both of which are operated by Epic Energy and the Port Campbell to Adelaide (PCA) pipeline, operated by SEA Gas. As shown in the figure 34 below:



Figure 34: Strategic Growth Area existing gas networks

Epic Energy and SEAGas, as operators of major gas transmission pipelines, rather than consumer gas reticulation networks, have been made aware of the potential for future development within the area, and have provided mapping and GIS data of their assets. However, they did not provide comment or feedback on the potential rezoning/code amendment.

SEAGas advised as follows:

The Port Campbell to Adelaide Pipeline (PCA) currently delivers approximately 50% of the State's gas demand on average. South Australia relies heavily upon natural gas for power generation, for industrial and commercial application and for domestic use. As such, the PCA meets the definition of 'essential infrastructure' in the Act and is also considered by the State to be 'critical infrastructure'.

The design, construction and maintenance of high-pressure gas transmission pipelines in Australia (of which the PCA is typical) is required by legislation to be governed by Australian Standard (AS) 2885. A licence is required to construct and to operate a high-pressure gas transmission pipeline (in South Australia, the PCA is licensed under the *Petroleum and Geothermal Energy Act 2000* (P&GE Act)).

For any new development a detailed Safety Management Study in accordance with AS2885 would need to be undertaken at the design stage to ensure the risk to the pipeline (and therefore the population around the pipeline) will remain acceptable. This is to determine any further controls or design changes to the development that may be required. Road crossings, changes to drainage patterns, and placement of fill over the pipeline or reduction of cover are all key issues that would need to be considered in addition to land use change and service crossings.

The existing pipeline would typically be located in a 15- 20 m wide easement, but may be as a fee simple ownership, lease or as provision for access through a license agreement. Limited third-party activity is allowed within the easement in order to ensure physical protection of the pipeline. Where no easement exists (e.g. in roads), consistent with AS2885.3, encroachment should be controlled within 6m of the pipeline centreline.

The type of development may also be constrained within a nominated distance of the existing gas pipeline. Development within the *Measurement Length* of High-Pressure Gas Pipelines may increase the risk to public safety or introduce a threat to both pipeline integrity and the security of the state's gas supply. The consequences of a pipeline failure may have implications for life, property, the environment and the State's economy. The Measurement Length, as defined in AS 2885, is a width that is measured laterally from the axis of the pipeline and is defined as the radial distance within which a person would be unlikely to survive for more than 30 seconds, without severe injury in the highly unlikely event of a full-bore rupture from a High-Pressure Gas Pipeline. For example, In the case of the 450 mm diameter, 15,300 kPa pressure PCA, the Measurement Length is 585 metres (or an overall width of 1170 metres). Industrial land uses need to be considered for increased population density as well as event escalation resulting from a pipeline failure.

Relocation of the main would be extremely costly and would take in the order of 18 months to facilitate. For this reason, this is not considered a potential option and other solutions would be required to be considered that would not require relocation of the existing gas pipeline. SEAGAS advised that other services may cross the existing gas pipeline but would be preferred to pass over the main. A minimum of 500 mm separation to other services is required, however, there may be circumstances where greater separation is required (e.g., large 2 m by 1 m concrete

stormwater culvert). A case-by-case assessment would need to be undertaken. It is preferable for service crossings to be as close as possible to perpendicular, with number of service crossing points minimised. Physical protection in the form of concrete or HDPE protection slabs above the pipeline would be required at service locations.

The existing main is located at a depth of approximately 1 m which will likely coincided with any proposed stormwater infrastructure. This is of particular concern for the southern areas of the growth area and may prove challenging for new gravity infrastructure if required to cross the existing gas pipeline.

In 2021, two overlays relating to High Pressure gas Pipeline were introduced under the South Australia's Planning and Design Code, being:

- The Gas and Liquid Petroleum Pipeline Overlay; and
- The Gas and Liquid Petroleum Pipeline (Facilities) Overlay

The desired planning outcome from these overlays aligns with the objectives of both the Planning Policy and the PGE Act, which is to manage the risk to public safety, the environment and security of energy supply from the encroachment of development on strategic gas and liquid petroleum pipelines.

For the PCA, within built up areas, the pipeline overlay varies between 115m and 160m which corresponds to the 4.7kW/m<sup>2</sup> radiation contour for the largest credible hole for the PCA based on current risk assessment work and largest credible threat to the pipeline. It should be noted that this distance is currently smaller than the measurement length, however changes in the threat profile to the pipeline may change the size of these overlays in the future.

The overlays contain deemed to satisfy (DTS) criteria that need to be satisfied for new developments within this area, otherwise the development will trigger a referral to the Department for Energy and Mining (DEM) for further assessment. The DTS criteria limits land uses around the pipeline, including industrial uses such as fuel depots.

Consumer gas reticulation infrastructure, owned and operated by AGN/APA is seen to exist to the east of the Growth Area, within the existing developed areas. When contacted, it was advised that additional information would be required to undertake a meaningful investigation, this information including:

- Required gas loads;
- Specific load locations;
- What the loads would be required for; and
- Timing of when individual loads would be required.

At a broader perspective it was advised that gas infrastructure could be extended into the Growth Area. The eventual timing and loadings would determine the cost of this infrastructure; however, it is expected that an indicative cost to service the Growth Area would be in the order of \$10 million.

SEAGAS, Epic Energy and APA Group's response is included in Appendix E.



### **3.10.2 Growth Area Gas Supply Outcomes**

It is anticipated that a gas network may be extended to service the Growth Area. Further information is required to be provided by AGN/APA to confirm the requirements for gas networks to service the Growth Area. Due the scale and anticipated timing of development it is anticipated AGN/APA will address development through individual site investigation as parcels of land within the Growth Area proceed to development. New gas infrastructure for the growth areas is assumed to be installed as an underground scheme as part of a common services trench along with electrical and telecommunications services as required.

Consideration of Epic Energy and SEAGAS mains will need to be made when considering the type of development proposed within proximity to distribution mains and the provision of new infrastructure that may cross the existing distribution mains.

## **4. Order of Cost**

An order of cost is contingent upon the nature of the proposed Development within the Growth Area.

An order of cost for the infrastructure required to support development of the growth area has not been able to be determined. Further analysis is required from each of the authorities to enable the extent of augmentation works or infrastructure upgrades to be defined.

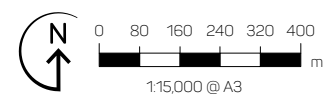
Further discussions with Authorities when the nature of the proposed development has been defined.

**Appendix A - Strategic Growth Framework Plans**



# NORTH - STRUCTURE PLAN

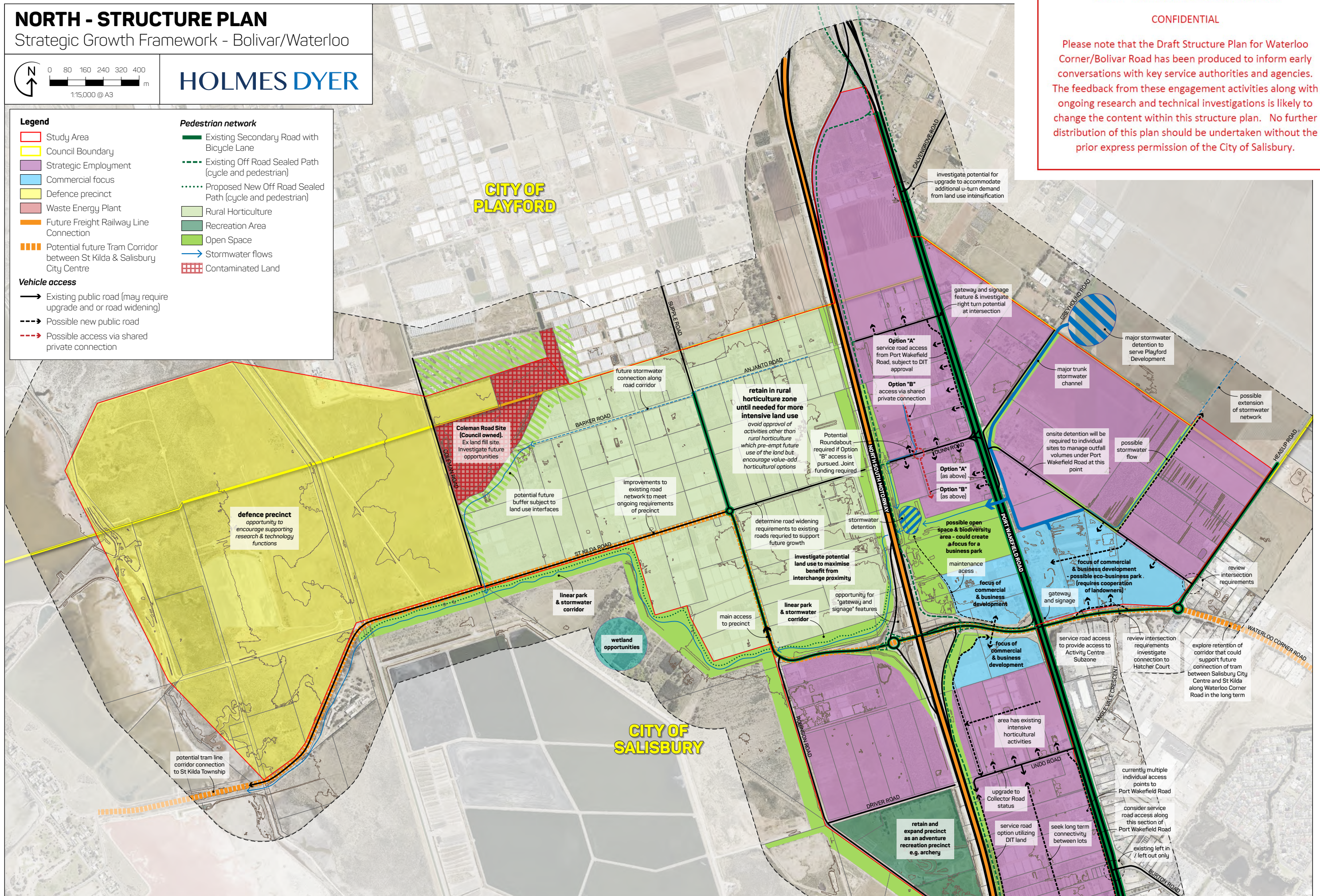
Strategic Growth Framework - Bolivar/Waterloo



HOLMES DYER

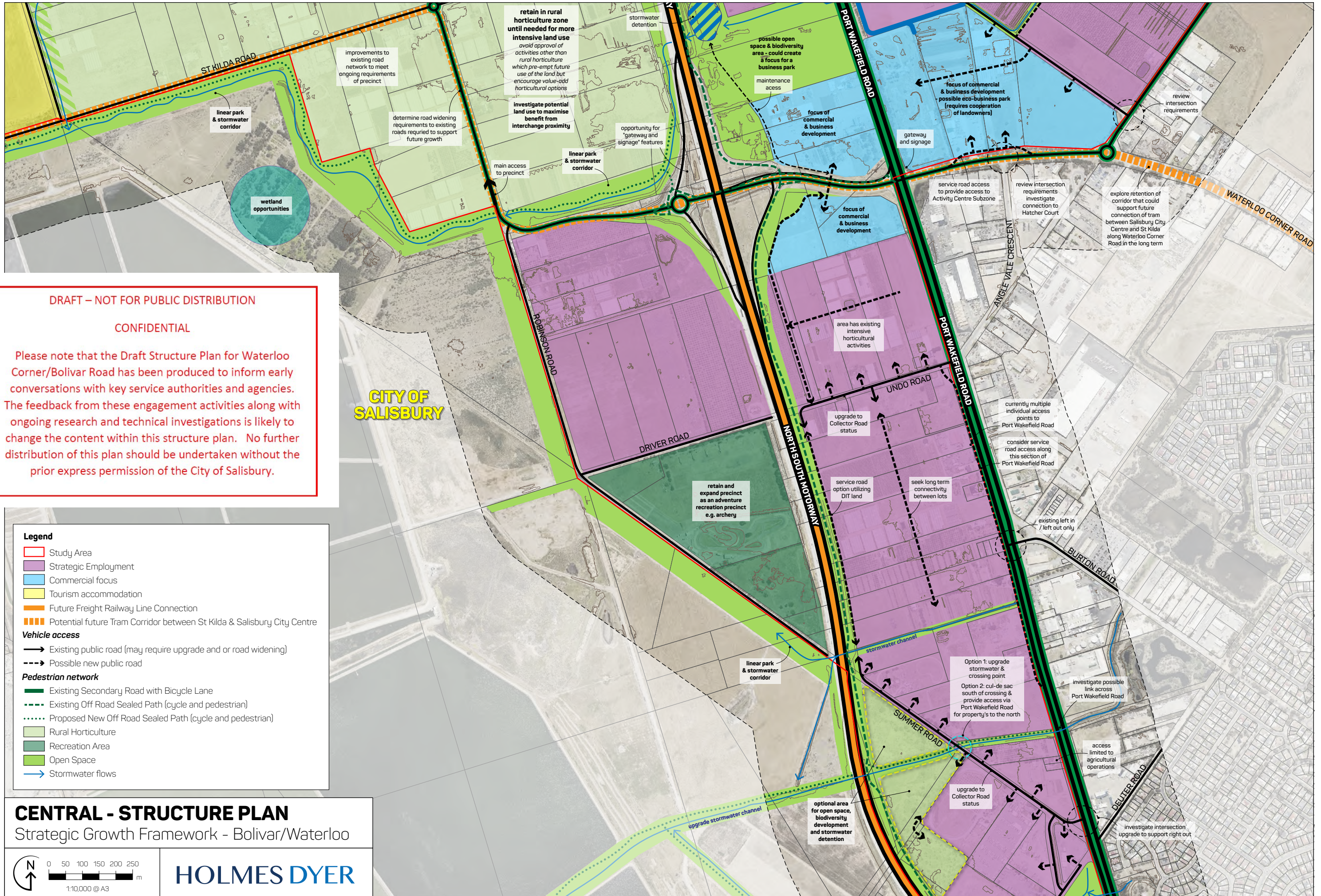
**Legend**

- |   |  |
|---|--|
| Study Area  | Existing Secondary Road with Bicycle Lane                |
| Council Boundary  | Existing Off Road Sealed Path (cycle and pedestrian)     |
| Strategic Employment  | Proposed New Off Road Sealed Path (cycle and pedestrian) |
| Commercial focus  | Rural Horticulture                                       |
| Defence precinct  | Recreation Area  |
| Waste Energy Plant  | Open Space   |
| Future Freight Railway Line Connection                                  | Stormwater flows   |
| Potential future Tram Corridor between St Kilda & Salisbury City Centre | Contaminated Land  |
- 
- Vehicle access**
- Existing public road (may require upgrade and or road widening)
  - Possible new public road
  - Possible access via shared private connection



Please note that the Draft Structure Plan for Waterloo Corner/Bolivar Road has been produced to inform early conversations with key service authorities and agencies. The feedback from these engagement activities along with ongoing research and technical investigations is likely to change the content within this structure plan. No further distribution of this plan should be undertaken without the prior express permission of the City of Salisbury.





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**Legend**

- Study Area
- Strategic Employment
- Commercial focus
- Tourism accommodation
- Future Freight Railway Line Connection
- Potential future Tram Corridor between St Kilda & Salisbury City Centre

**Vehicle access**

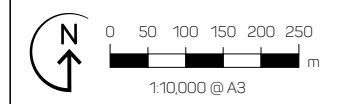
- Existing public road (may require upgrade and or road widening)
- Possible new public road

**Pedestrian network**

- Existing Secondary Road with Bicycle Lane
- Existing Off Road Sealed Path (cycle and pedestrian)
- Proposed New Off Road Sealed Path (cycle and pedestrian)

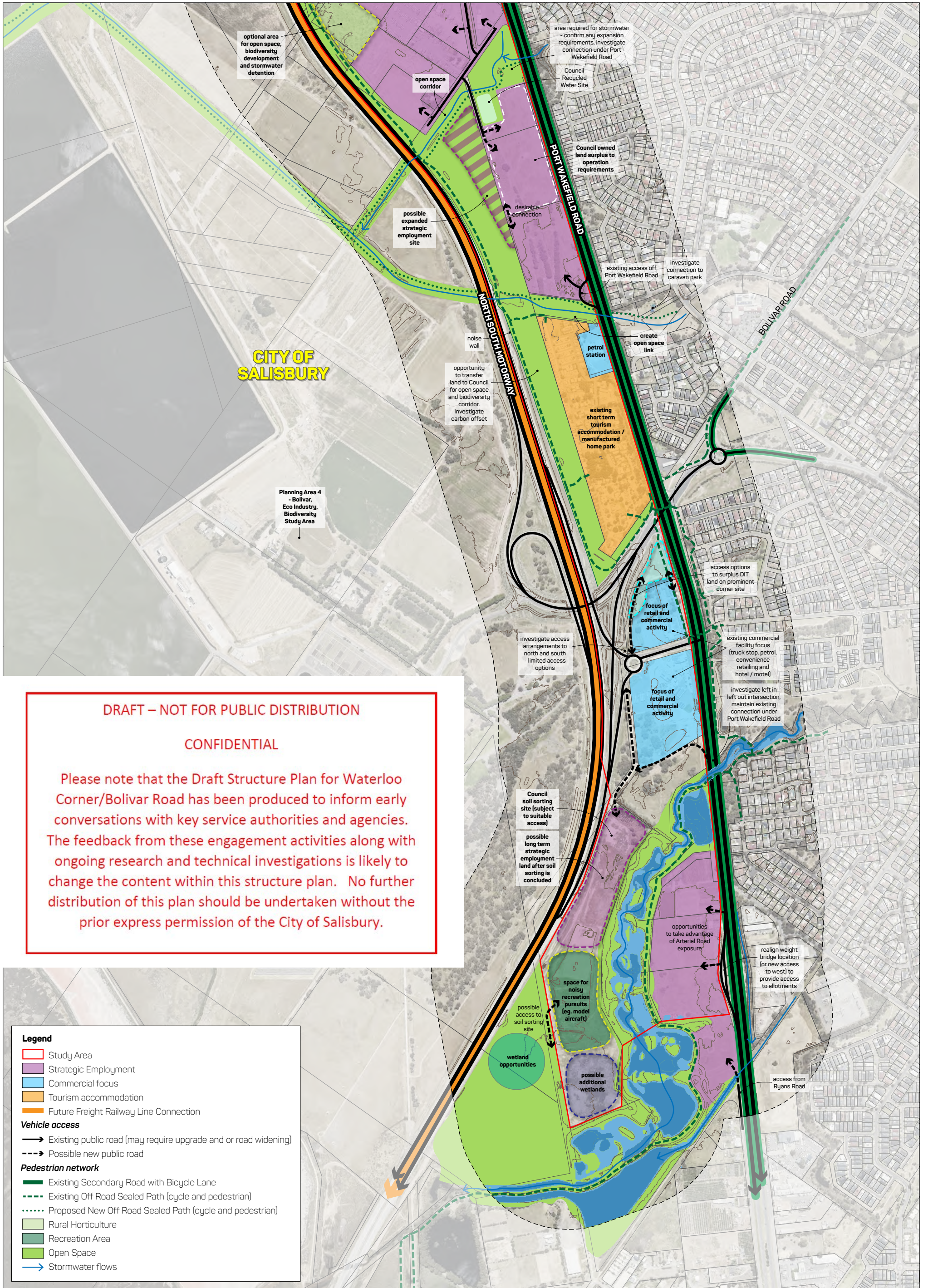
Rural Horticulture  
Recreation Area  
Open Space  
Stormwater flows

**CENTRAL - STRUCTURE PLAN**  
Strategic Growth Framework - Bolivar/Waterloo



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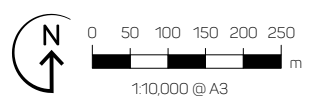
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**STRUCTURE PLAN - SOUTH**

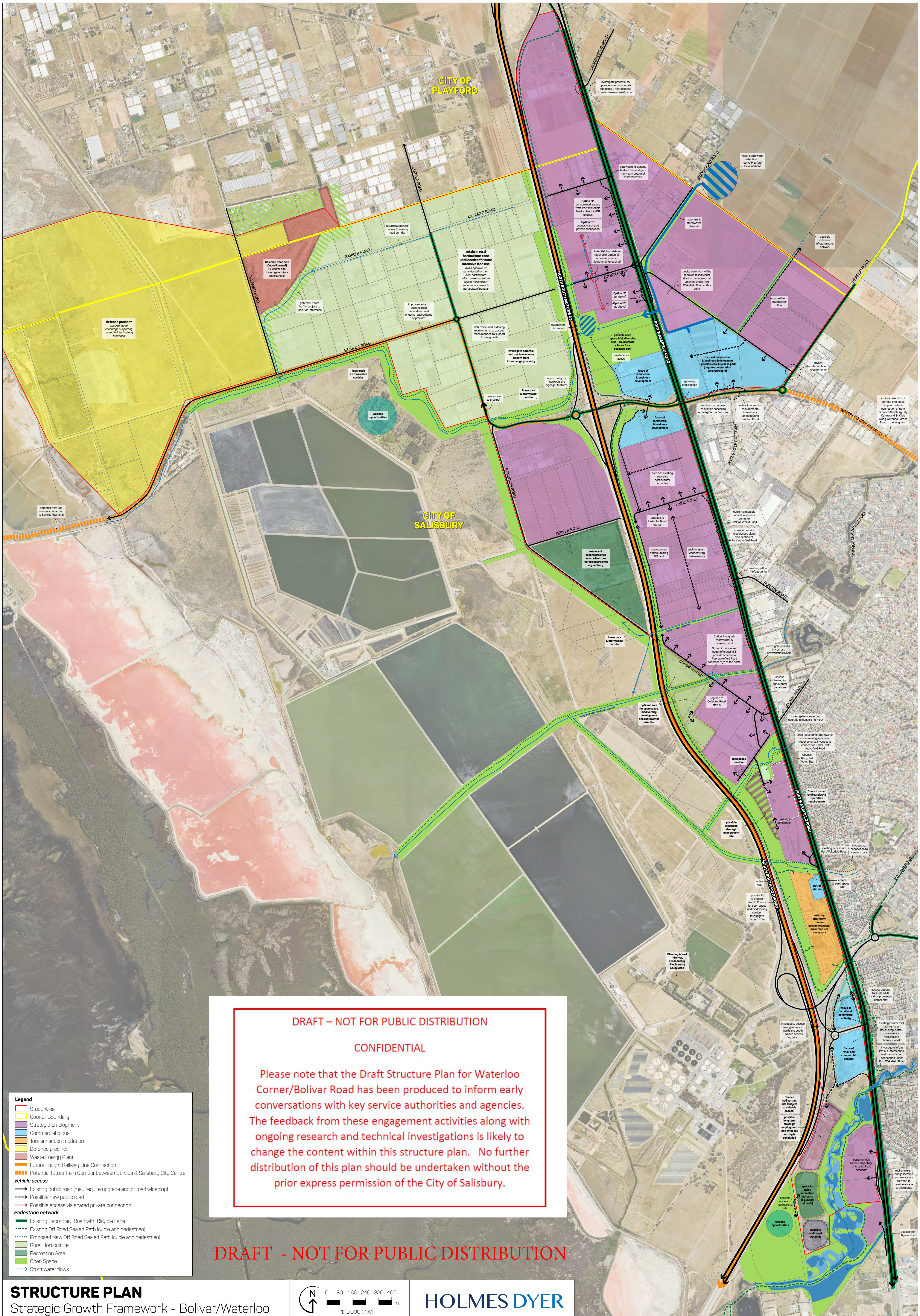
Strategic Growth Framework - Bolivar/Waterloo

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**Legend**

- Study Area
- Council Boundary
- Strategic Employment
- Commercial focus
- Tourism accommodation
- Defence precinct
- Waste Energy Plant
- Future Freight Railway Line Connection
- Potential future Tram Corridor between St Kilda & Salisbury City Centre

**Vehicle access**

- Existing public road (may require upgrade and/or road widening)
- Possible new public road
- Possible access via shared private connection

**Pedestrian network**

- Existing Secondary Road with Bicycle Lane
- Existing Off Road Sealed Path (cycle and pedestrian)
- Proposed New Off Road Sealed Path (cycle and pedestrian)
- Rural Horticulture
- Recreation Area
- Open Space
- Stormwater flows



**Appendix B - Proposed Development Yield**



## Development Activity Composition and Workforce

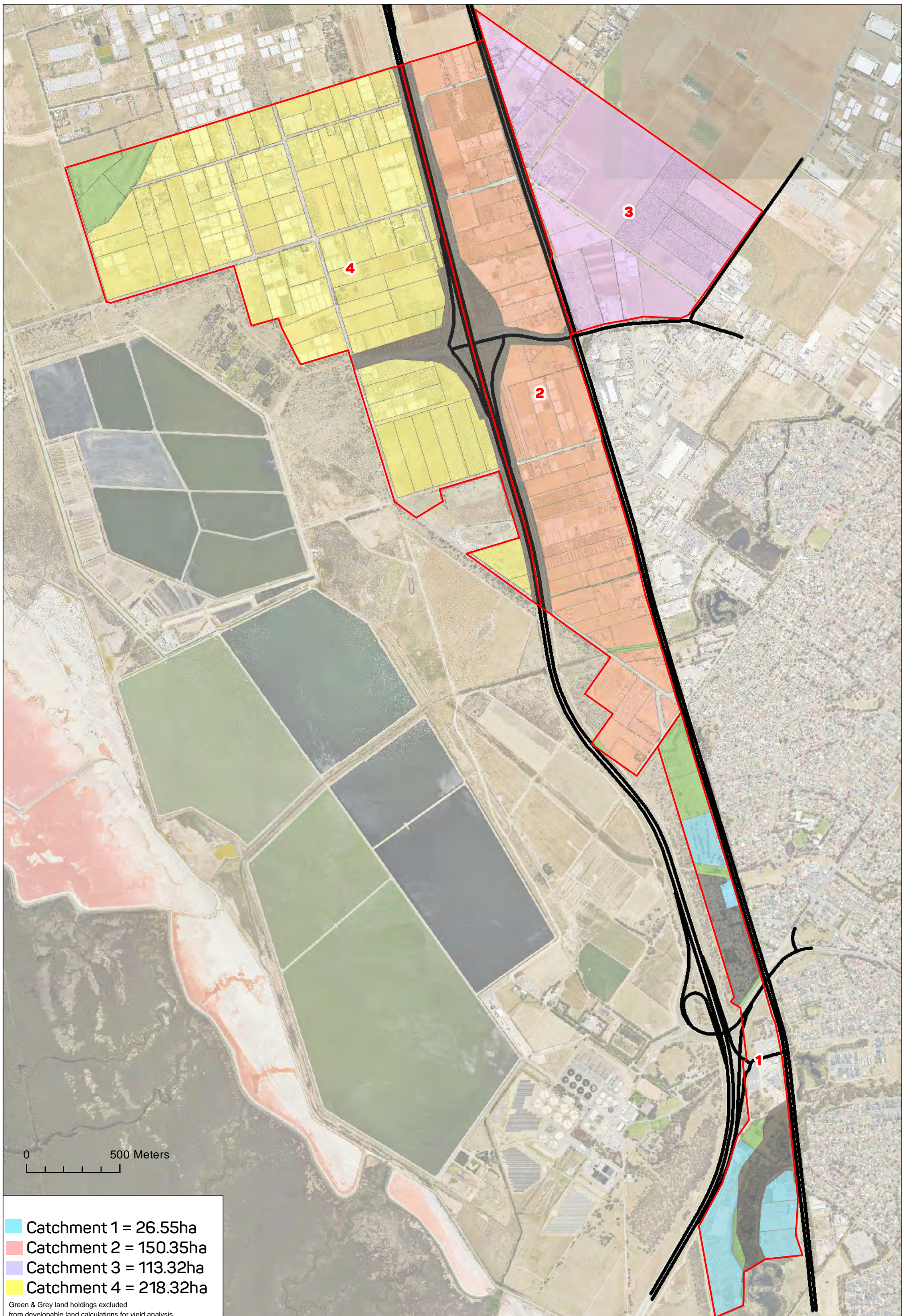
| Precinct | Development Timeframe (years) | Development Area (ha) | Developable Area (ha) | Floorspace (m <sup>2</sup> ) | Floorspace Typology (m <sup>2</sup> )  | Workforce (pax) |
|----------|-------------------------------|-----------------------|-----------------------|------------------------------|--|-----------------|
| 1        | 1 – 5                         | 26.6ha                | 16.0ha                | 48,000m <sup>2</sup>         | Manufacturing 20% 9,600m <sup>2</sup>  | 50              |
|          |                               |                       |                       |                              | Service 30% 14,400m <sup>2</sup>       | 105             |
|          |                               |                       |                       |                              | Store 40% 19,200m <sup>2</sup>         | 45              |
|          |                               |                       |                       |                              | Office 5% 2,400m <sup>2</sup>          | 115             |
|          |                               |                       |                       |                              | Retail 5% 2,400m <sup>2</sup>          | <u>85</u>       |
|          |                               |                       |                       |                              |  | 400             |
| 2        | 1 – 15                        | 150.4ha               | 90.2ha                | 270,000m <sup>2</sup>        | Manufacturing 20% 54,000m <sup>2</sup> | 285             |
|          |                               |                       |                       |                              | Service 30% 81,000m <sup>2</sup>       | 590             |
|          |                               |                       |                       |                              | Store 40% 108,000m <sup>2</sup>        | 250             |
|          |                               |                       |                       |                              | Office 5% 13,500m <sup>2</sup>         | 645             |
|          |                               |                       |                       |                              | Retail 5% 13,500m <sup>2</sup>         | <u>465</u>      |
|          |                               |                       |                       |                              |  | 2,235           |
| 3        | 10 – 20                       | 113.3ha               | 68.0ha                | 204,000m <sup>2</sup>        | Manufacturing 20% 40,800m <sup>2</sup> | 215             |
|          |                               |                       |                       |                              | Service 30% 61,200m <sup>2</sup>       | 445             |
|          |                               |                       |                       |                              | Store 40% 81,600m <sup>2</sup>         | 190             |
|          |                               |                       |                       |                              | Office 5% 10,200m <sup>2</sup>         | 485             |
|          |                               |                       |                       |                              | Retail 5% 10,200m <sup>2</sup>         | <u>350</u>      |
|          |                               |                       |                       |                              |  | 1,685           |
| 4        | 20 – 35                       | 218.3ha               | 131.0ha               | 393,000m <sup>2</sup>        | Manufacturing 20% 78,600m <sup>2</sup> | 415             |
|          |                               |                       |                       |                              | Service 25% 98,250m <sup>2</sup>       | 715             |
|          |                               |                       |                       |                              | Store 50% 196,500m <sup>2</sup>        | 455             |
|          |                               |                       |                       |                              | Office 2.5% 9,825m <sup>2</sup>        | 470             |
|          |                               |                       |                       |                              | Retail 2.5% 9,825m <sup>2</sup>        | <u>340</u>      |
|          |                               |                       |                       |                              |  | 2,395           |



## Annual Average Development Activity

| Precinct             | Years of Development (years) | Average Net Area of Lots Developed (ha) | Average Area of Floorspace (m <sup>2</sup> ) | Workforce (pax) |
|----------------------|------------------------------|---|--|-----------------|
| 1                    | 1 – 5 (2023 – 2028)          | 3.2ha                                   | 9,600m <sup>2</sup>                          | 80              |
| 2                    | 1 – 15 (2023 – 2038)         | 6.0ha                                   | 18,000m <sup>2</sup>                         | 150             |
| 3                    | 10 – 20 (2033 – 2043)        | 6.8ha                                   | 20,400m <sup>2</sup>                         | 170             |
| 4                    | 20 – 35 (2043 – 2058)        | 8.7ha                                   | 39,300m <sup>2</sup>                         | 160             |
| <b>All Precincts</b> | <b>1 – 35 (2023 – 2058)</b>  | <b>8.7ha</b>                            | <b>26,160m<sup>2</sup></b>                   | <b>190</b>      |

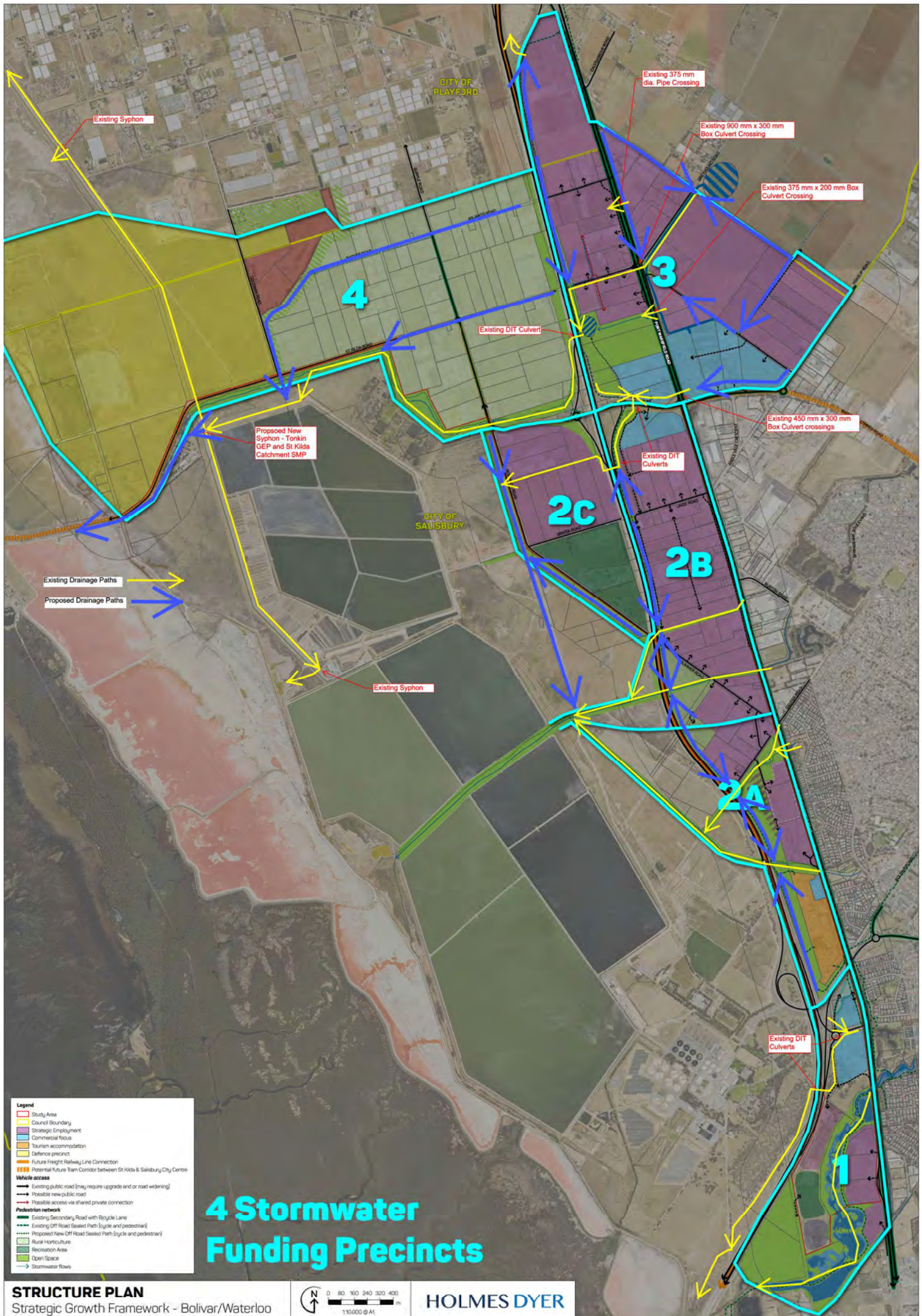






**Appendix C - Preliminary Stormwater Management Options**





Existing Syphon

Existing 375 mm dia. Pipe Crossing

Existing 900 mm x 300 mm Box Culvert Crossing

Existing 375 mm x 200 mm Box Culvert Crossing

Existing DIT Culvert

Existing 450 mm x 300 mm Box Culvert crossings

Proposed New Syphon - Tonkin GEP and St Kilda Catchment SMP

Existing DIT Culverts

Existing Drainage Paths

Proposed Drainage Paths

Existing Syphon

Existing DIT Culverts

**Legend**

- Study Area
- Council Boundary
- Strategic Employment
- Commercial focus
- Tourism accommodation
- Defence precinct
- Future Freight Railway Line Connection
- Potential Future Tram Corridor between St Kilda & Salisbury City Centre
- Vehicle access
  - Existing public road (may require upgrades and/or road widening)
  - Possible new public road
  - Possible access via shared private connection
- Pedestrian network
  - Existing Secondary Road with Bicycle Lane
  - Existing Off Road Sealed Path (cycle and pedestrian)
  - Proposed New Off Road Sealed Path (cycle and pedestrian)
- Rural Horticulture
- Recreation Area
- Open Space
- Stormwater flows

# 4 Stormwater Funding Precincts



**Appendix D - Dial Before You Dig Information**



## Caller Details

|   |   |                              |
|---|---|------------------------------|
| <b>Contact:</b> Karion Dickson-Abbott                         | <b>Caller Id:</b> 3002096                               | <b>Phone:</b> (08) 8406 1300 |
| <b>Company:</b> Greenhill                                     |   |                              |
| <b>Address:</b> Level 1 178 Fullarton Road<br>Dulwich SA 5065 | <b>Email:</b> KDickson-Abbott@greenhillaustralia.com.au |                              |

## Dig Site and Enquiry Details

**WARNING:** The map below only displays the location of the proposed dig site and does not display any asset owners' pipe or cables. The area highlighted has been used only to identify the participating asset owners, who will send information to you directly.



|  |                               |
|--|-------------------------------|
| <b>User Reference:</b> 21-2894                         |                               |
| <b>Working on Behalf of:</b> Utility City of Salisbury |                               |
| <b>Enquiry Date:</b> 06/04/2022                        | <b>Start Date:</b> 07/04/2022 |
|  | <b>End Date:</b> 21/04/2022   |

**Address:**  
79-81 Robinson Road  
Waterloo Corner SA 5110

**Job Purpose:**  
Design

**Location of Workplace:**  
Both

**Onsite Activities:**  
Planning & Design, Subdivision

**Location in Road:**  
Road, Footpath, Nature Strip

- Check that the location of the dig site is correct. If not you must submit a new enquiry.
- Should the scope of works change, or plan validity dates expire, you must submit a new enquiry.
- Do NOT dig without plans. Safe excavation is your responsibility. If you do not understand the plans or how to proceed safely, please contact the relevant asset owners.

**Notes/Description of Works:**  
Telstra not required

## Your Responsibilities and Duty of Care

- The lodgement of an enquiry does not authorise the project to commence. You must obtain all necessary information from any and all likely impacted asset owners prior to excavation.
- If plans are not received within 2 working days, contact the asset owners directly & quote their Sequence No.
- ALWAYS perform an onsite inspection for the presence of assets. Should you require an onsite location, contact the asset owners directly. Please remember, plans do not detail the exact location of assets.
- Pothole to establish the exact location of all underground assets using a hand shovel, before using heavy machinery.
- Ensure you adhere to any State legislative requirements regarding Duty of Care and safe digging requirements.
- If you damage an underground asset you MUST advise the asset owner immediately.
- By using this service, you agree to Privacy Policy and the terms and disclaimers set out at [www.1100.com.au](http://www.1100.com.au)
- For more information on safe excavation practices, visit [www.1100.com.au](http://www.1100.com.au)

## Asset Owner Details

The assets owners listed below have been requested to contact you with information about their asset locations within 2 working days. Additional time should be allowed for information issued by post. It is **your responsibility** to identify the presence of any underground assets in and around your proposed dig site. Please be aware, that not all asset owners are registered with the Dial Before You Dig service, so it is **your responsibility** to identify and contact any asset owners not listed here directly.

\*\* Asset owners highlighted by asterisks \*\* require that you visit their offices to collect plans.

# Asset owners highlighted with a hash # require that you call them to discuss your enquiry or to obtain plans.

| Seq. No.  | Authority Name          | Phone          | Status   |
|-----------|-------------------------|----------------|----------|
| 210057747 | Alano Utilities Pty Ltd | (08) 8240 2733 | NOTIFIED |
| 210057764 | APA SA                  | 1800 085 628   | NOTIFIED |
| 210057763 | APA SA                  | 1800 085 628   | NOTIFIED |
| 210057762 | APA SA                  | 1800 085 628   | NOTIFIED |
| 210057761 | APA SA                  | 1800 085 628   | NOTIFIED |
| 210057760 | APA SA                  | 1800 085 628   | NOTIFIED |
| 210057765 | APA SA                  | 1800 085 628   | NOTIFIED |
| 210057744 | City of Playford        | (08) 8256 0454 | NOTIFIED |
| 210057745 | City of Salisbury       | (08) 8406 8344 | NOTIFIED |
| 210057746 | City of Salisbury       | (08) 8406 8344 | NOTIFIED |
| 210057743 | Epic Energy SA          | (08) 8343 8100 | NOTIFIED |



| <b>Seq. No.</b> | <b>Authority Name</b>  | <b>Phone</b>   | <b>Status</b> |
|-----------------|------------------------|----------------|---------------|
| 210057742       | Epic Energy SA         | (08) 8343 8100 | NOTIFIED      |
| 210057753       | NBN Co SANT            | 1800 687 626   | NOTIFIED      |
| 210057752       | NBN Co SANT            | 1800 687 626   | NOTIFIED      |
| 210057749       | Optus and or Uecomm Sa | 1800 505 777   | NOTIFIED      |
| 210057750       | Optus and or Uecomm Sa | 1800 505 777   | NOTIFIED      |
| 210057754       | SA Power Networks      | (08) 8292 0218 | NOTIFIED      |
| 210057755       | SA Power Networks      | (08) 8292 0218 | NOTIFIED      |
| 210057756       | SA Power Networks      | (08) 8292 0218 | NOTIFIED      |
| 210057758       | SA Power Networks      | (08) 8292 0218 | NOTIFIED      |
| 210057757       | SA Power Networks      | (08) 8292 0218 | NOTIFIED      |
| 210057759       | SA Power Networks      | (08) 8292 0218 | NOTIFIED      |
| 210057751       | SA Water               | (08) 7424 1117 | NOTIFIED      |
| 210057741       | SEA Gas (SA)           | 1800 808 008   | NOTIFIED      |
| 210057748       | Telstra SANT           | 1800 653 935   | NOTIFIED      |

END OF UTILITIES LIST



## Cindy Oliver

---

**From:** dbyd@1100.com.au  
**Sent:** Wednesday, 6 April 2022 11:33 AM  
**To:** Karion Dickson-Abbott  
**Subject:** DBYD JOB: 31721481 - 79-81 Robinson Road Waterloo Corner SA 5110  
**Attachments:** 31721481.PDF

[Enquiry details](#) | [Asset owners](#) | [Phone app](#)



## Job 31721481

### ENQUIRER (USUALLY YOU)

**Karion Dickson-Abbott**

Level 1 178 Fullarton Road Dulwich SA 5065

KDickson-Abbott@greenhillaustralia.com.au

(08) 8406 1300

### YOUR DIG SITE

79-81 ROBINSON ROAD WATERLOO CORNER SA 5110





This map only displays the location of your proposed dig site (not showing any asset owner's pipes or cables). The area highlighted was used to identify the participating asset owners. They'll email their asset map information to you directly.

#### THE ENQUIRY DETAILS

Your reference:21-2894

Working on behalf of:City of Salisbury

**Start date: 07/04/2022**

**End date: 21/04/2022**

Enquiry date:06/04/2022 11:33am ACST

Address:79-81 Robinson Road Waterloo Corner SA 5110

Job purpose:Design

Onsite activities: Planning & Design, Subdivision

Location of workplace: Both

Location in road: Road, Footpath, Nature Strip

Notes: Telstra not required

Check that the location of the dig site is correct. If not you must submit a new enquiry.  
Should the scope of works change, or plan validity dates expire, you must submit a new enquiry.  
**Do not dig without plans.** Safe excavation is your responsibility.  
If you don't understand plans or how to proceed safely, please contact the relevant asset owners.

**THESE ASSET OWNERS WILL BE IN TOUCH WITH YOU**

**Alano Utilities Pty Ltd**

Referral ID: 210057747

Status: Waiting for responses

Typical wait: 113 hours

Phone: [\(08\) 8240 2733](tel:0882402733)

Email: [dbyd@alano.com.au](mailto:dbyd@alano.com.au)

**APA SA**

Referral ID: 210057764



Status:Waiting for responses

Typical wait:9 minutes

Phone: [1800 085 628](tel:1800085628)

Email: [dbydnetworksapa@apa.com.au](mailto:dbydnetworksapa@apa.com.au)

**APA SA**

Referral ID:210057763

Status:Waiting for responses

Typical wait:9 minutes

Phone: [1800 085 628](tel:1800085628)

Email: [dbydnetworksapa@apa.com.au](mailto:dbydnetworksapa@apa.com.au)

**APA SA**

Referral ID:210057762

Status:Waiting for responses

Typical wait:9 minutes

Phone: [1800 085 628](tel:1800085628)

Email: [dbydnetworksapa@apa.com.au](mailto:dbydnetworksapa@apa.com.au)

**APA SA**

Referral ID:210057761

Status:Waiting for responses

Typical wait:9 minutes

Phone: [1800 085 628](tel:1800085628)

Email: [dbydnetworksapa@apa.com.au](mailto:dbydnetworksapa@apa.com.au)

**APA SA**

Referral ID:210057760

Status:Waiting for responses

Typical wait:9 minutes

Phone: [1800 085 628](tel:1800085628)

Email: [dbydnetworksapa@apa.com.au](mailto:dbydnetworksapa@apa.com.au)



**APA SA**

Referral ID:210057765

Status:Waiting for responses

Typical wait:9 minutes

Phone: [1800 085 628](tel:1800085628)

Email: [dbydnetworksapa@apa.com.au](mailto:dbydnetworksapa@apa.com.au)

**City of Playford**

Referral ID:210057744

Status:Waiting for responses

Typical wait:< 2 minutes

Phone: [\(08\) 8256 0454](tel:0882560454)

Email: [playford@automate.smarterwx.com.au](mailto:playford@automate.smarterwx.com.au)

**City of Salisbury**

Referral ID:210057745

Status:Waiting for responses

Typical wait:< 2 minutes

Phone: [\(08\) 8406 8344](tel:(08)84068344)

Email: [jcorletto@salisbury.sa.gov.au](mailto:jcorletto@salisbury.sa.gov.au)

### **City of Salisbury**

Referral ID:210057746

Status:Waiting for responses

Typical wait:< 2 minutes

Phone: [\(08\) 8406 8344](tel:(08)84068344)

Email: [jcorletto@salisbury.sa.gov.au](mailto:jcorletto@salisbury.sa.gov.au)

### **Epic Energy SA**

Referral ID:210057743

Status:Waiting for responses

Typical wait:53 minutes



Phone: [\(08\) 8343 8100](tel:(08)83438100)

Email: [DBYD-XInfo@epic.com.au](mailto:DBYD-XInfo@epic.com.au),[one.call@epic.com.au](mailto:one.call@epic.com.au)

**Epic Energy SA**

Referral ID:210057742

Status:Waiting for responses

Typical wait:53 minutes

Phone: [\(08\) 8343 8100](tel:(08)83438100)

Email: [DBYD-XInfo@epic.com.au](mailto:DBYD-XInfo@epic.com.au),[one.call@epic.com.au](mailto:one.call@epic.com.au)

**NBN Co SANT**

Referral ID:210057753

Status:Waiting for responses

Typical wait:5 hours

Phone: [1800 687 626](tel:1800687626)

Email: [dbyd@nbnco.com.au](mailto:dbyd@nbnco.com.au)

**NBN Co SANT**

Referral ID:210057752

Status:Waiting for responses

Typical wait:5 hours

Phone: [1800 687 626](tel:1800687626)

Email: [dbyd@nbnco.com.au](mailto:dbyd@nbnco.com.au)

**Optus and or Uecomm Sa**

Referral ID:210057749

Status:Waiting for responses

Typical wait:8 hours

Phone: [1800 505 777](tel:1800505777)

Email: [fibre.locations@optus.com.au](mailto:fibre.locations@optus.com.au)

**Optus and or Uecomm Sa**

Referral ID:210057750



Status:Waiting for responses

Typical wait:8 hours

Phone: [1800 505 777](tel:1800505777)

Email: [fibre.locations@optus.com.au](mailto:fibre.locations@optus.com.au)

### **SA Power Networks**

Referral ID:210057754

Status:Waiting for responses

Typical wait:< 2 minutes

Phone: [\(08\) 8292 0218](tel:0882920218)

Email: [DBYDAssetLocatorGroup@sapowernetworks.com.au](mailto:DBYDAssetLocatorGroup@sapowernetworks.com.au)

### **SA Power Networks**

Referral ID:210057755

Status:Waiting for responses

Typical wait:< 2 minutes

Phone: [\(08\) 8292 0218](tel:(08)82920218)

Email: [DBYDAssetLocatorGroup@sapowernetworks.com.au](mailto:DBYDAssetLocatorGroup@sapowernetworks.com.au)

**SA Power Networks**

Referral ID:210057756

Status:Waiting for responses

Typical wait:< 2 minutes

Phone: [\(08\) 8292 0218](tel:(08)82920218)

Email: [DBYDAssetLocatorGroup@sapowernetworks.com.au](mailto:DBYDAssetLocatorGroup@sapowernetworks.com.au)

**SA Power Networks**

Referral ID:210057758

Status:Waiting for responses

Typical wait:< 2 minutes

Phone: [\(08\) 8292 0218](tel:(08)82920218)

Email: [DBYDAssetLocatorGroup@sapowernetworks.com.au](mailto:DBYDAssetLocatorGroup@sapowernetworks.com.au)



**SA Power Networks**

Referral ID:210057757

Status:Waiting for responses

Typical wait:< 2 minutes

Phone: [\(08\) 8292 0218](tel:(08)82920218)

Email: [DBYDAssetLocatorGroup@sapowernetworks.com.au](mailto:DBYDAssetLocatorGroup@sapowernetworks.com.au)

**SA Power Networks**

Referral ID:210057759

Status:Waiting for responses

Typical wait:< 2 minutes

Phone: [\(08\) 8292 0218](tel:(08)82920218)

Email: [DBYDAssetLocatorGroup@sapowernetworks.com.au](mailto:DBYDAssetLocatorGroup@sapowernetworks.com.au)

**SA Water**

Referral ID:210057751

Status:Waiting for responses

Typical wait:6 minutes

Phone: [\(08\) 7424 1117](tel:(08)74241117)

Email: [dialbefore.youdig@sawater.com.au](mailto:dialbefore.youdig@sawater.com.au)

### **SEA Gas (SA)**

Referral ID:210057741

Status:Waiting for responses

Typical wait:5 minutes

Phone: [1800 808 008](tel:1800808008)

Email: [DBYD@seagas.com.au](mailto:DBYD@seagas.com.au)

### **Telstra SANT**

Referral ID:210057748

Status:Waiting for responses

Typical wait:8 minutes



Phone: [1800 653 935](tel:1800653935)

Email: [Telstra.Plans@team.telstra.com](mailto:Telstra.Plans@team.telstra.com)

## THE FINE PRINT

### Your responsibilities and Duty of Care

If plans are not received within 2 working days, contact the asset owners directly & quote their Sequence No.

ALWAYS perform an onsite inspection for the presence of assets. Should you require an onsite location, contact the asset owners directly. Please remember, plans do not detail the exact location of assets.

Pothole to establish the exact location of all underground assets using a hand shovel, before using heavy machinery.

Ensure you adhere to any State legislative requirements regarding Duty of Care and safe digging requirements.

If you damage an underground asset you MUST advise the asset owner immediately.

By using this service, you agree to Privacy Policy and the terms and disclaimers set out at [www.1100.com.au](http://www.1100.com.au)

For more information on safe excavation practices, visit [www.1100.com.au](http://www.1100.com.au)

### Asset owner details

The assets owners listed below have been requested to contact you with information about their asset locations within 2 working days.

Additional time should be allowed for information issued by post. It is your responsibility to identify the presence of any underground assets in and around your proposed dig site. Please be aware, that not all asset owners are registered with the Dial Before You Dig service, so it is your responsibility to identify and contact any asset owners not listed here directly.

**\*\* Asset owners highlighted by asterisks \*\*** require that you visit their offices to collect plans.

**# Asset owners highlighted with a hash** require that you call them to discuss your enquiry or to obtain plans.

Association of Australian Dial Before You Dig Services Ltd does not maintain information regarding the location of underground assets. DBYD merely facilitates communication between the users of this service and Members/Participants. DBYD is not responsible for the accuracy of information received from users of this service, as to proposed excavation activity. There are also owners of underground assets which do not participate in the referral service operated by DBYD. Therefore, DBYD cannot make any representation or warranty as to the accuracy, reliability or completeness of the information contained in this notice. DBYD and its employees, agents and consultants shall have no liability (except insofar as liability under any statute cannot be excluded) arising in respect thereof or in any other way for errors or omissions including responsibility to any person by reason of negligence.

All users of this service acknowledge that they have a duty of care to observe with regards to underground networks when digging or excavating. Please refer to your confirmation advice for further details.

All users of this service acknowledge and agree that they have read and understood the terms and disclaimers on which this service is provided, which is set out at [www.1100.com.au](http://www.1100.com.au).

**Please do not reply to this email**, it was automatically generated and replies are not monitored. Call 1100 to advise DBYD of any issues with this enquiry. [Download our user kit](#) for service details, safe excavation information and more.

**Get the new DBYD app for your phone**



## Cindy Oliver

---

**From:** Karion Dickson-Abbott  
**Sent:** Monday, 11 April 2022 1:27 PM  
**To:** Min Soo Lee  
**Subject:** FW: DBYD - Job 31721481 - Referral 210057747 - 21-2894  
**Attachments:** 120591-C02-0.pdf; 120591-C01-0.pdf; 120591-C11-0.pdf; 120591-C10-0.pdf; 120591-C08-0.pdf; 120591-C07-0.pdf; 120591-C06-0.pdf; 120591-C05-0.pdf; 120591-C04-0.pdf; 120591-C03-0.pdf; Duty of Care 2021.pdf

Regards,

**Karion Dickson-Abbott**  
Technical Officer

## GREENHILL

Level 1, 178 Fullarton Road, Dulwich SA 5065  
T 08 8406 1300 | [www.greenhillaustralia.com.au](http://www.greenhillaustralia.com.au)

### DISCLAIMER

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---

**From:** DBYD - Alano Utilities Pty Ltd <dbyd@1100.com.au>  
**Sent:** Monday, 11 April 2022 12:32 PM  
**To:** Karion Dickson-Abbott <KDickson-Abbott@greenhillaustralia.com.au>  
**Subject:** DBYD - Job 31721481 - Referral 210057747 - 21-2894

This content was sent by email from Alano Utilities Pty Ltd in response to your Dial Before You Dig enquiry.

|                  |  |
|------------------|--|
| Original subject | DBYD JOB:31721481 SEQ:210057747 - 79-81 Robinson Road, Waterloo Corner, SA, 5110 |
| Original sender  | Dave West < <a href="mailto:Dave@alano.com.au">Dave@alano.com.au</a> >           |
| Received         | 11 Apr 2022 12:31:12pm ACST  |

SEQUENCE NO= 210057747  
JOB NUMBER= 31721481

To;

[CALLER DETAILS]  
CUSTOMER ID= 3002096  
CONTACT NAME= Karion Dickson-Abbott  
COMPANY= Greenhill



ADDRESS= Level 1,178 Fullarton Road  
SUBURB= Dulwich  
STATE= SA  
POSTCODE= 5065  
TELEPHONE= +61884061300  
EMAIL ADDRESS= [2og3l81db5bbiw.ry0nn5yp3hg6jv@smarterwx-mail.1100.com.au](mailto:2og3l81db5bbiw.ry0nn5yp3hg6jv@smarterwx-mail.1100.com.au)  
REGISTERED EMAIL= [KDickson-Abbott@greenhillaustralia.com.au](mailto:KDickson-Abbott@greenhillaustralia.com.au)

[LOCATION DETAILS]

ADDRESS= 79-81 Robinson Road  
SUBURB= Waterloo Corner  
STATE= SA  
POSTCODE= 5110  
ACTIVITY DESCRIPTION= Planning & Design,Subdivision  
PRIVATE/ROAD/BOTH= Both  
LOCATION IN ROAD= Road,Footpath,Nature Strip  
MESSAGE= Telstra not required  
DBYDMESSAGE= SmarterWX Sentinel generated referral

If you require further information, please contact Alano on 08 82402733 or [admin@alano.com.au](mailto:admin@alano.com.au)

This enquiry is valid for 30 days from the enquiry date.

**Important Notice:** This enquiry response, including any associated documentation, has been assessed and compiled from the information detailed within the DBYD enquiry outlined above. Please ensure that the DBYD enquiry details and this response accurately reflect your proposed works.

**Please note:** When working in the vicinity of Alano assets you have a legal 'Duty of Care' that must be observed.

Please ensure that you read the 'Duty of Care' document (attached) - it contains important information including essential steps that must be undertaken prior to commencing construction activities. We recommend that you engage the services of a DBYD Certified Locator. (mandatory requirements for DBYD Certified Locators include having appropriate training, equipment and having current insurance).

### Important Information

In particular Alano wishes to advise:

- The actual location of any Alano assets may differ significantly from the position shown on the attached plans. (refer to the attached Duty of Care for further information on the accuracy of supplied information). The information supplied is only general indicative information as to the presence of Alano assets and the information may not be current or accurate. Alano shall accept no responsibility for any inaccuracy in the information provided.
- All Alano assets, including underground network, must be validated (physically sighted and identified), prior to commencing any excavation. (refer to the attached Duty of Care for further information)

- All Alano assets once validated must be protected from damage. (refer to the attached Duty of Care for further information)
- If your project is dependent on the position of the Alano assets, then it is recommended that you validate the position of the network prior to finalising your design. (refer to the attached Duty of Care for further information)
- Plans are valid for 30 days after issue and must be replaced if required after the 30 days
- Asset correction (incorrect plans) – Please advise if there are any errors or incorrect locations shown on the plans by contacting Alano on [admin@alano.com.au](mailto:admin@alano.com.au) or use the DBYD web link at Asset Location Feedback SA/NT
- Any damage to Alano owned infrastructure or property must be reported immediately to 08 82402733 and follow the prompts to lodge the “Emergency”.
- Alano shall accept no liability in respect of any personal injury, death, loss, or damage from the provision of or reliance upon the information.
- It is an offence under the Water Industry Act 2012 (SA) to interfere, destroy or damage water/sewer infrastructure.
- It is required under the Water Industry Act 2012 (SA) for at least 14 days’ notice to be given to Alano if there is a risk of equipment or a structure coming into close proximity to Alano’s water/sewer infrastructure or if the work may interfere with water/sewer infrastructure in some way.
- The user accepts the information supplied based on the conditions outlined in this document.
- If you are connecting to Alano’s infrastructure then you will need to comply with Alano’s Connection Policy and submit the required application form and pay the connection fee – please contact Alano at [admin@alano.com.au](mailto:admin@alano.com.au) for a copy of current documentation.

Further Information

- <http://www.dbydlocator.com/certified-locators/>
- <https://www.1100.com.au/sa-nt/asset-location-feedback-sant/>
- Dial Before You Dig Best Practices
- PDF Map Files - free viewing software is available from the internet e.g. Adobe Acrobat Reader ( <http://get.adobe.com/reader/> ), or Foxit Reader (<http://www.foxitsoftware.com/downloads/>)

If you require further information, please contact the Alano on 08 82402733 or [admin@alano.com.au](mailto:admin@alano.com.au)

Dave West

4b Fisher St, Port Adelaide SA 5015  
 P +61 (08) 8240 2733  
 M 0411660091  
 E [dave@alano.com.au](mailto:dave@alano.com.au)  
 W [www.alano.com.au](http://www.alano.com.au)



Utilities | Water Infrastructure | Energy | Construction Materials

 Please consider the environment before printing this e-mail



## General Responsibilities and Duty of Care

### Duty of Care

- This enquiry is valid for 30 days from the enquiry date
- Asset location plans are intended to be indicative only, completeness and accuracy of the information provided cannot be guaranteed
- Alano infrastructure is not to be altered by any third party without prior approval and reserves the right to recover compensation for loss or damage to infrastructure or any property
- Location of underground assets must be confirmed by field investigation. It is recommended a DBYD Certified service locator be engaged for the locating of assets

### Alano endorses the 5Ps of Safe Excavation to prevent damage

#### **Plan > Prepare > Pothole > Protect > Proceed**

##### **1 PLAN:**

You must have current plans and information via the DBYD process. Alano advises that the accuracy of the information provided conforms to Quality Level D as defined in AS5488-2013. This means the information is indicative only, not a precise location.

##### **2 PREPARE:**

Prepare for your works by reviewing the plans and information and contacting Alano if you need assistance. Look for on-site asset and infrastructure clues such as pit lids, marker posts and connection points. These on-site clues will assist you to identify the potential location of assets on site from the plans and also identify any other assets and infrastructure that may not be marked on the plans

It is then recommended to engage a DBYD Certified Locator.

<http://www.dbydlocator.com/certified-locators/>

##### **3 POTHOLE:**

- When assets are in the vicinity of the excavation site then potholing (i.e.: careful hand digging or hydro vacuum excavation) must be carried out prior to excavation to validate the position of existing services
- The use of a DBYD Certified Locator when potholing will minimise the amount of exploratory potholing and save costs and assist in validating the correct asset when exposed
- When potholing only utilises non-destructive methods. Methods can include careful hand digging and hydro vacuum excavation
- On completion of potholing the reinstatement and restoration must meet the requirements of Alano. The site must be left in a condition such that no safety hazards associated with the locating work activities remain. Please ensure that the reinstatement standards applicable to the service

type (i.e. Gas, Water, Telecommunications etc) are adhered to and using like for like material (e.g. asphalt, concrete, crush rock etc).

#### 4 PROTECT:

- Located asset information should be communicated to all on site, the assets must be clearly marked or flagged and if necessary, have protective barriers, supports erected or other methods in accordance with Alano requirements
- Any Asset Owner Member or industry regulated No Go Zones or Exclusion Zones must be adhered to and enforced on site
- Utilise SWMS (Safe Work Method Statements) and /or JSA (Job Safety Analysis)
- All recorded information/measurements of any subsurface utilities (from locating, potholing etc.) should be recorded in accordance with AS5488 - 2013 and have the correct Quality Levels specified i.e. A, B, C or D to prevent future damage
- Isolate the work near underground assets from the public at all times
- Comply with all South Australian State and Federal Australian Government Acts, Regulations and Laws.
- Comply with All Alano requirements
- **You must maintain the following minimum clearance distances between construction activity and the validated position of underground assets.**

|  |   |
|--|---|
| Jackhammers/Pneumatic Breakers                         | <i>Not within 1.0m of <b>actual validated location</b>.</i>   |
| Vibrating Plate or Wacker Packer Compactor             | <i>Not within 0.5m of <b>actual validated location</b> of conduits.<br/>300mm compact clearance cover before compactor can be used across infrastructure.</i> |
| Boring Equipment (in-line, horizontal and vertical)    | <i>Not within 2.0m of <b>actual validated location</b>.<br/>Constructor to hand dig or use non-destructive water jet method (pothole) and expose plant.</i>   |
| Heavy Vehicle Traffic (over 3 tonnes)                  | <i>Not to be driven across Conduits (or plant) with less than 600mm cover.<br/>Constructor to check actual depth via hand digging.</i>                        |
| Mechanical Excavators, Farm ploughing and Tree Removal | <i>Not within 1.0m of <b>actual validated location</b>.<br/>Constructor to hand dig or use non-destructive water jet method (pot-hole) and expose plant.</i>  |

#### 5 PROCEED:

**You should only proceed with your excavation work after:**

- The first four steps above have been completed
- You have verified that all the information in the preceding steps is still current. If the use by date of the plans have expired, you will need to obtain current plans and if necessary, re-validate any changes that may have occurred
- If requested advise other DBYD members when works are to be undertaken near their asset or area of interest
- You have met all the requirements of the SafeWork SA Code of Practice and Regulations



# MARK LEE FISH FARM

58 ST KILDA ROAD, WATERLOO CORNER

## WASTEWATER DISPOSAL MAIN



PLAN  
NOT TO SCALE

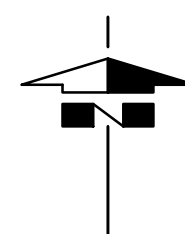
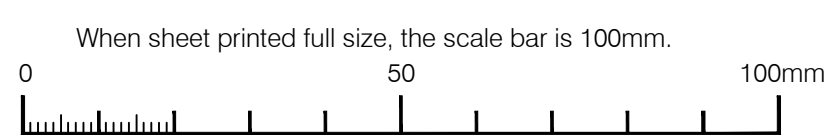
### DRAWING INDEX

| DRAWING NUMBER | TITLE                         |
|----------------|-------------------------------|
| 120591-C01     | LAYOUT PLAN & DRAWING INDEX   |
| 120591-C02     | PLAN AND LONG. SECTION 1 OF 7 |
| 120591-C03     | PLAN AND LONG. SECTION 2 OF 7 |
| 120591-C04     | PLAN AND LONG. SECTION 3 OF 7 |
| 120591-C05     | PLAN AND LONG. SECTION 4 OF 7 |
| 120591-C06     | PLAN AND LONG. SECTION 5 OF 7 |
| 120591-C07     | PLAN AND LONG. SECTION 6 OF 7 |
| 120591-C08     | PLAN AND LONG. SECTION 7 OF 7 |
| 120591-C10     | STANDARD DETAILS 1 OF 2       |
| 120591-C11     | STANDARD DETAILS 2 OF 2       |

### NOTES

- ALL DRAWINGS TO BE READ IN CONJUNCTION WITH THE SPECIFICATION
- ALL EXISTING SERVICES TO BE LOCATED & DEPTHEDED PRIOR TO CONSTRUCTION.
- CLEARANCES BETWEEN WASTEWATER MAIN AND OTHER UNDERGROUND SERVICES TO BE IN ACCORDANCE WITH TABLE 4.2 OF THE SEWERAGE CODE OF AUSTRALIA (WSA 02-2002-2.2).
- WHERE THE PROPOSED PIPELINE IS SHOWN ON THE DRAWINGS TO BE IN CLOSE PROXIMITY TO NATIVE VEGETATION, THE CONTRACTOR IS TO COORDINATE WITH COUNCIL PRIOR TO COMMENCEMENT OF THE CONSTRUCTION. THE PROPOSED MAIN AS SHOWN MAY NEED TO CHANGE TO AVOID NATIVE VEGETATION AS DIRECTED.
- MINIMUM 3.0m HORIZONTAL CLEARANCE FROM ALL SAPN ELECTRICITY PILLARS TO BE MAINTAINED FOR ALL PIPE WORK.
- ALL WORK WITHIN PRIVATE PROPERTY SHALL BE CARRIED OUT, COMPLETED AND REINSTATED TO THE SATISFACTION OF THE OWNER.
- THE CONTRACTOR SHALL NOTIFY SUPERINTENDENT AND THE COUNCIL WHEN ROOTS GREATER THAN 75mm DIAMETER ARE ENCOUNTERED AND IF ANY LOCAL PRUNING OF ROOTS OR BRANCHES IS REQUIRED.
- DETECTABLE WARNING TAPE SHALL BE LAID ABOVE ALL PRESSURE PIPES AT 150mm BELOW FINISHED GROUND LEVEL. NON DETECTABLE WARNING TAPE SHALL BE LAID 150mm ABOVE ALL PRESSURE PIPES.
- BACKGROUND AERIAL PHOTOGRAPHS AND CADASTRE BOUNDARIES SHOWN SERVE AS A REFERENCE ONLY.
- 900mm MINIMUM COVER TO PIPE.

1/20/21/120591 - 120591 - Fish Farm Recycled Water Scheme/120591-C01.dwg, 0, 19/02/2015 10:11 AM, bharris



CONSTRUCTION ISSUE

| REV. | DATE     | DESCRIPTION      | DRAFT | ENG. | CHKD |
|------|----------|------------------|-------|------|------|
| A    | 04.07.14 | FOR REVIEW       | SRC   | JC   |      |
| B    | 23.09.14 | FOR TENDER       | JJW   | JC   | NS   |
| 0    | 19.02.15 | FOR CONSTRUCTION | BJH   | LC   | NS   |
|      |          |                  |       |      |      |
|      |          |                  |       |      |      |

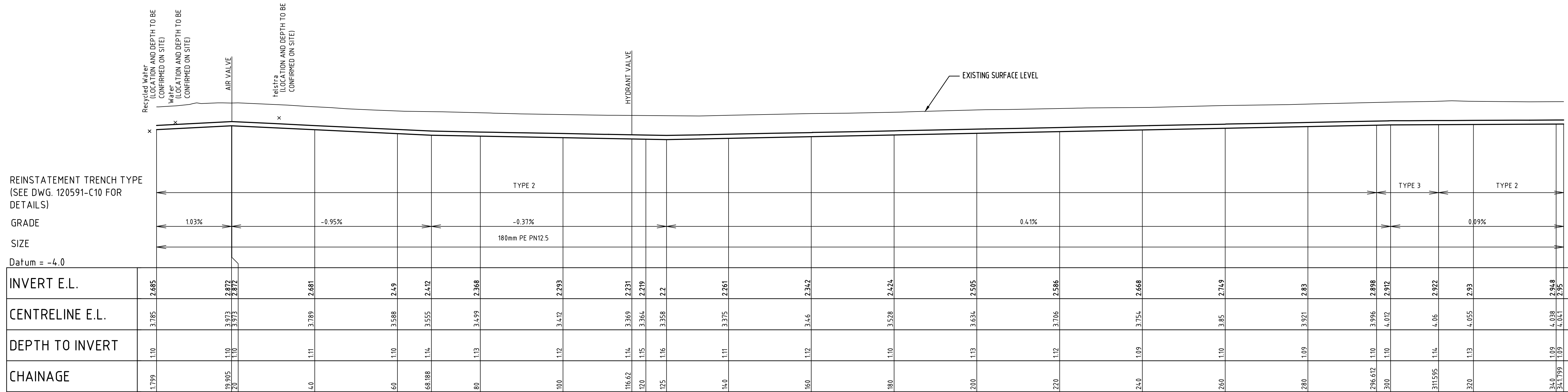
**W&G**  
WALLBRIDGE & GILBERT  
Consulting Engineers

60 Wyatt Street Adelaide South Australia 5000  
Telephone (08) 8223 7433 Facsimile (08) 8232 0967  
Email adelaide@wngeng.com  
W&G Engineers Pty Ltd ACN 052 528 926  
trading as Wallbridge & Gilbert

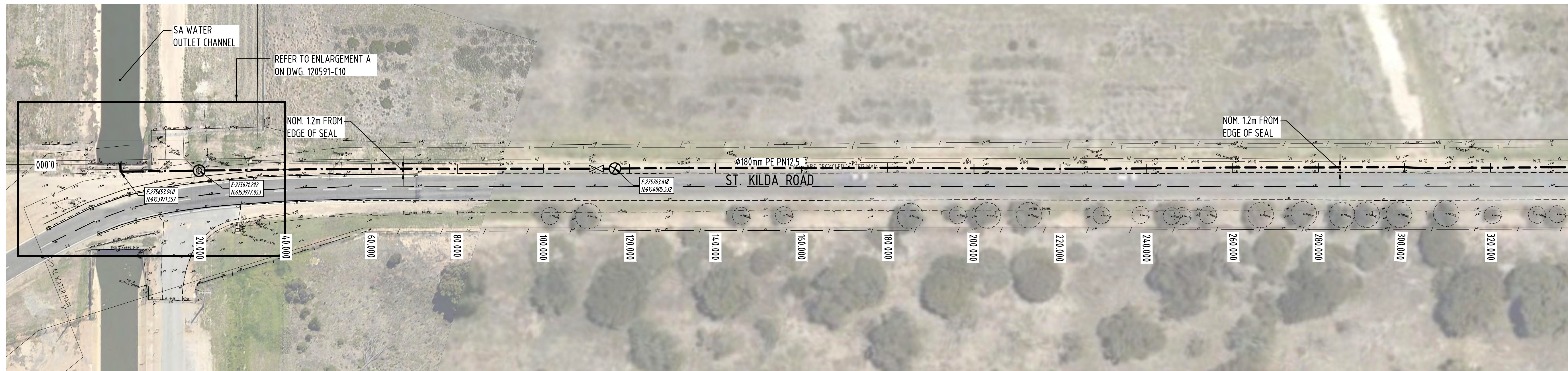
**MARK LEE FISH FARM**  
58 ST KILDA ROAD, WATERLOO CORNER  
WASTEWATER DISPOSAL MAIN  
LAYOUT PLAN & DRAWING INDEX

| DRAWING NUMBER |              | Rev. |
|----------------|--------------|------|
| Job Number     | Sheet No.    |      |
| A1             | 120591       | C01  |
| Design<br>JC   | Drawn<br>SRC |      |





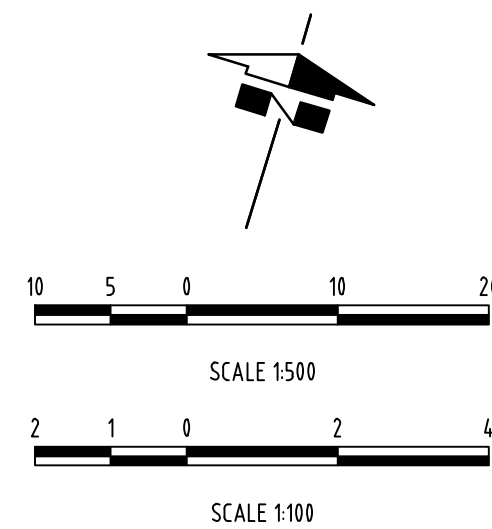
LONGITUDINAL SECTION  
 HORIZONTAL SCALE 1:500  
 VERTICAL SCALE 1:100



PLAN  
 SCALE 1:500

LEGEND:

- RISING MAIN 180mm PE PN12.5
  - RISING MAIN 180mm PE PN12.5 (ABOVE GROUND MAIN SHEET 10)
  - AIR VALVE
  - ⊗ STOP VALVE, HYDRANT VALVE
  - EXISTING WATERMAIN
  - EXISTING TELSTRA CABLE
  - EXISTING UG E.T.S.A.
  - EXISTING UG E.T.S.A. (HV)
  - EXISTING UG RECYCLED WATER
  - EXISTING FENCE
  - EXISTING EDGE OF BITUMEN
  - TBM No./PSM/NAIL
- SERVICES HAVE NOT BEEN DEPTHEID OR LOCATED AND ARE INDICATIVE ONLY



CONSTRUCTION ISSUE

| REV. | DATE     | DESCRIPTION      | DRAFT | ENG. | CHKD |
|------|----------|------------------|-------|------|------|
| A    | 04.07.14 | FOR REVIEW       | SRC   | JC   |      |
| B    | 23.09.14 | FOR TENDER       | JJW   | JC   | NS   |
| 0    | 19.02.15 | FOR CONSTRUCTION | BJH   | LC   | NS   |

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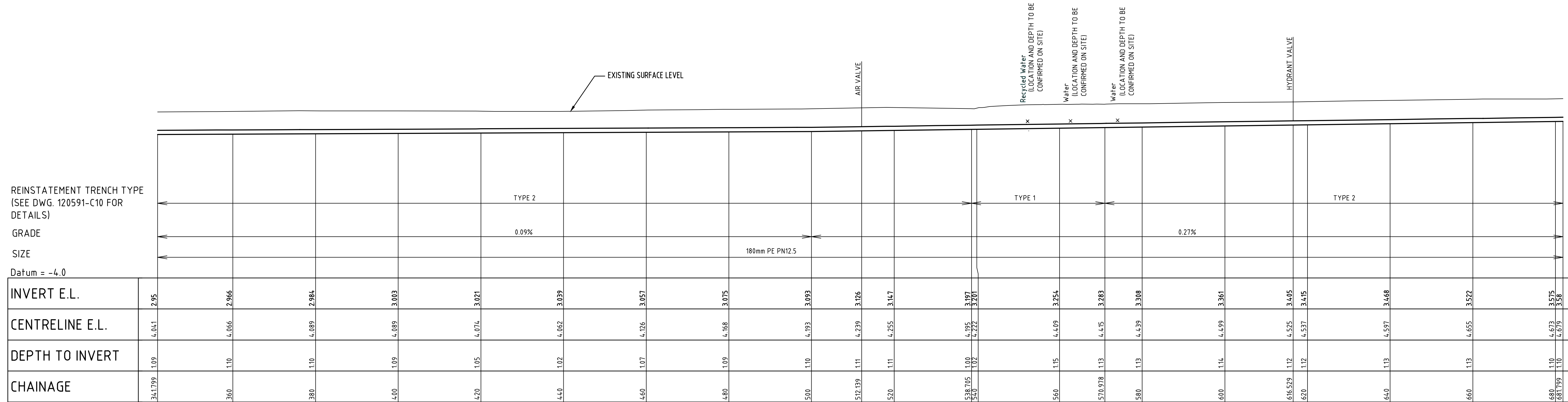
**MARK LEE FISH FARM**  
 58 ST KILDA ROAD, WATERLOO CORNER  
 WASTEWATER DISPOSAL MAIN  
 PLAN AND LONG. SECTION 1 OF 7

**A1** DRAWING NUMBER  
 Job Number Sheet No. Rev.

Design Drawn  
 JC SRC

120591 C02



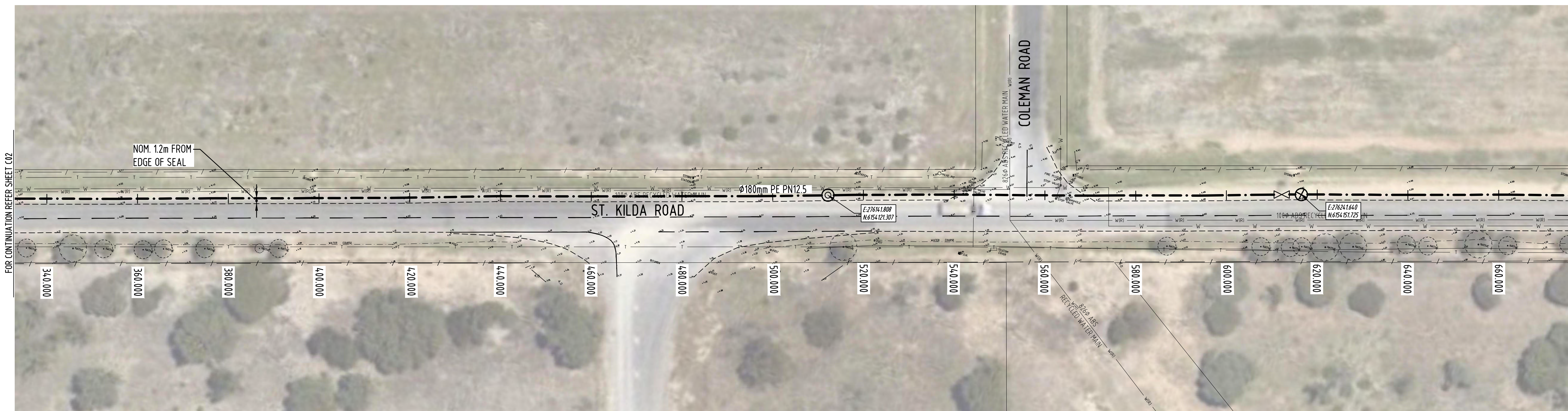


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(SEE DWG. 120591-C10 FOR  
DETAILS)  
GRADE  
SIZE  
Datum = -4.0

| INVERT E.L.     | 341.799 | 360   | 380   | 400   | 420   | 440   | 460   | 480   | 500   | 512.139 | 520   | 538.705 | 540   | 560   | 570.978 | 580   | 600   | 616.529 | 620   | 640   | 660   | 680   | 681.799 |
|-----------------|---------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|---------|-------|-------|---------|-------|-------|---------|-------|-------|-------|-------|---------|
| CENTRELINE E.L. | 4.041   | 4.066 | 4.089 | 4.089 | 4.074 | 4.062 | 4.126 | 4.168 | 4.193 | 4.239   | 4.255 | 4.195   | 4.222 | 4.409 | 4.415   | 4.439 | 4.499 | 4.525   | 4.537 | 4.597 | 4.655 | 4.673 | 4.679   |
| DEPTH TO INVERT | 1.09    | 1.10  | 1.10  | 1.09  | 1.05  | 1.02  | 1.07  | 1.09  | 1.10  | 1.11    | 1.11  | 1.00    | 1.02  | 1.15  | 1.13    | 1.13  | 1.14  | 1.12    | 1.12  | 1.13  | 1.13  | 1.10  | 1.10    |
| CHAINAGE        | 341.799 | 360   | 380   | 400   | 420   | 440   | 460   | 480   | 500   | 512.139 | 520   | 538.705 | 540   | 560   | 570.978 | 580   | 600   | 616.529 | 620   | 640   | 660   | 680   | 681.799 |

**LONGITUDINAL SECTION**

HORIZONTAL SCALE 1:500  
VERTICAL SCALE 1:100

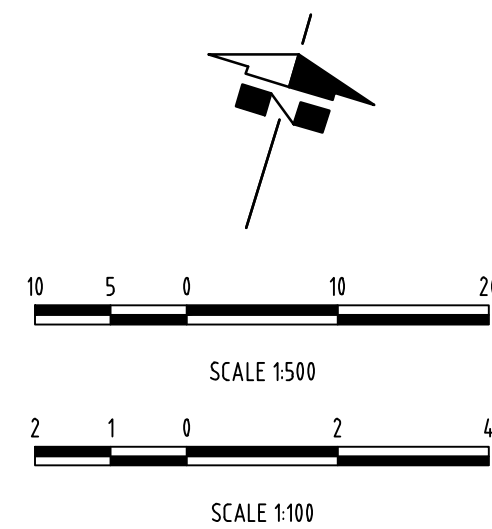


**PLAN**  
SCALE 1:500

**LEGEND:**

- RISING MAIN 180# PE PN12.5
- RISING MAIN 180# PE PN12.5 (ABOVE GROUND MAIN SHEET 10)
- AIR VALVE
- ⊗ STOP VALVE, HYDRANT VALVE
- W EXISTING WATERMAIN
- T EXISTING TELSTRA CABLE
- E EXISTING UG EISA
- E EXISTING UG EISA (HV)
- WR EXISTING UG RECYCLED WATER
- / EXISTING FENCE
- - - EXISTING EDGE OF BITUMEN
- TBM No./PSM/NAIL

SERVICES HAVE NOT BEEN  
DEPTHED OR LOCATED  
AND ARE INDICATIVE ONLY



**CONSTRUCTION ISSUE**

| REV. | DATE     | DESCRIPTION      | DRAFT | ENG. | CHKD |
|------|----------|------------------|-------|------|------|
| A    | 04.07.14 | FOR REVIEW       | SRC   | JC   |      |
| B    | 23.09.14 | FOR TENDER       | JJW   | JC   | NS   |
| 0    | 19.02.15 | FOR CONSTRUCTION | BJH   | LC   | NS   |

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W&G Engineers Pty Ltd ACN 052 528 926  
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**MARK LEE FISH FARM**  
58 ST KILDA ROAD, WATERLOO CORNER  
WASTEWATER DISPOSAL MAIN  
**PLAN AND LONG. SECTION 2 OF 7**

**A1** DRAWING NUMBER  
Job Number 120591 Sheet No. C03 Rev. 0

1:2012/120591 - 120591 - Fish Farm Recycled Water Scheme/120591-C03.dwg, 0, 19/02/2015 11:02 AM, b.harris

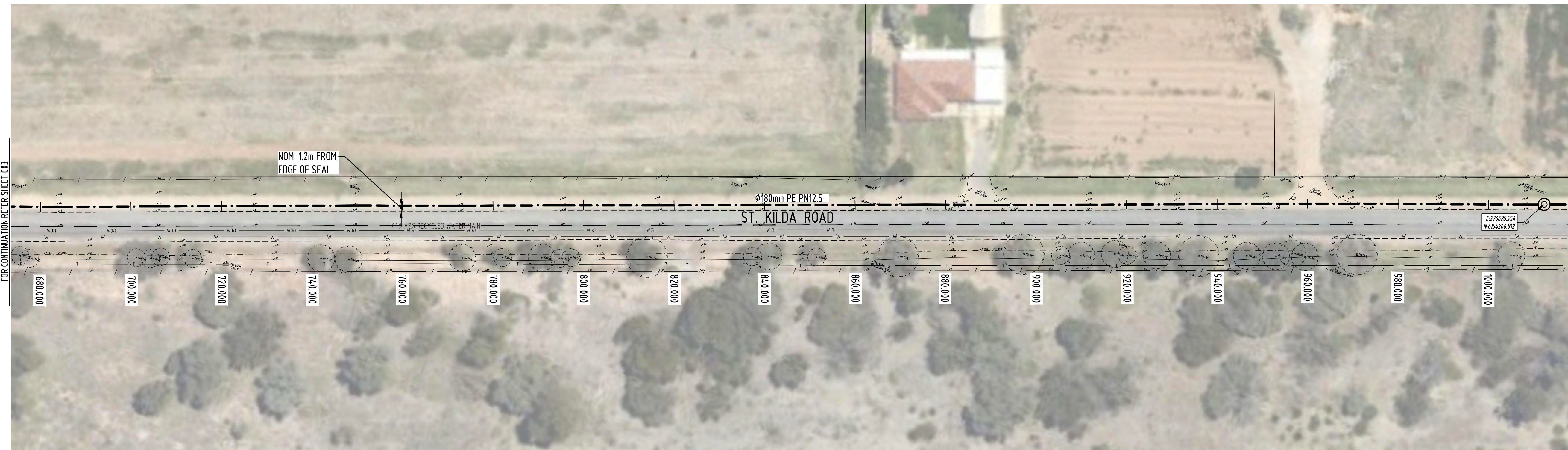
When sheet printed full size, the scale bar is 100mm.



REINSTATEMENT TRENCH TYPE  
(SEE DWG. 120591-C10 FOR  
DETAILS)  
GRADE  
SIZE  
Datum = 0.0

| INVERT E.L.     | 681.799 | 700   | 720   | 740   | 760   | 780   | 800  | 820  | 840   | 860   | 880   | 895.059 | 900   | 920   | 940   | 953.797 | 960   | 966.479 | 980   | 1000 | 1012.23 | 1020  |
|-----------------|---------|-------|-------|-------|-------|-------|------|------|-------|-------|-------|---------|-------|-------|-------|---------|-------|---------|-------|------|---------|-------|
| CENTRELINE E.L. | 4.679   | 4.729 | 4.764 | 4.797 | 4.842 | 4.863 | 4.87 | 4.86 | 5.012 | 5.013 | 5.035 | 5.039   | 5.069 | 5.159 | 5.235 | 5.301   | 5.323 | 5.371   | 5.439 | 5.52 | 5.563   | 5.593 |
| DEPTH TO INVERT | 1.10    | 1.10  | 1.10  | 1.10  | 1.11  | 1.10  | 1.07 | 1.13 | 1.15  | 1.11  | 1.10  | 1.08    | 1.10  | 1.10  | 1.08  | 1.09    | 1.08  | 1.09    | 1.11  | 1.10 | 1.13    | 1.15  |
| CHAINAGE        | 681.799 | 700   | 720   | 740   | 760   | 780   | 800  | 820  | 840   | 860   | 880   | 895.059 | 900   | 920   | 940   | 953.797 | 960   | 966.479 | 980   | 1000 | 1012.23 | 1020  |

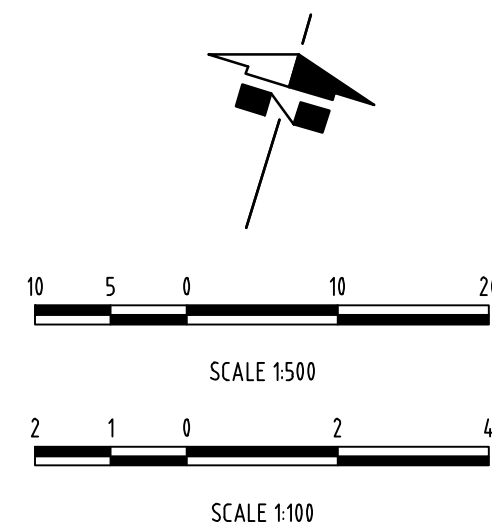
**LONGITUDINAL SECTION**  
HORIZONTAL SCALE 1:500  
VERTICAL SCALE 1:100



- LEGEND:**
- RISING MAIN 180# PE PN12.5
  - RISING MAIN 180# PE PN12.5 (ABOVE GROUND MAIN SHEET 10)
  - AIR VALVE
  - ⊗ STOP VALVE, HYDRANT VALVE
  - W EXISTING WATERMAIN
  - T EXISTING TELSTRA CABLE
  - E EXISTING UG EISA
  - E EXISTING UG EISA (HV)
  - WR EXISTING UG RECYCLED WATER
  - / EXISTING FENCE
  - - - EXISTING EDGE OF BITUMEN
  - ▲ TBM No./PSM/NAIL

SERVICES HAVE NOT BEEN  
DEPTHED OR LOCATED  
AND ARE INDICATIVE ONLY

**PLAN**  
SCALE 1:500



CONSTRUCTION ISSUE

| REV. | DATE     | DESCRIPTION      | DRAFT | ENG. | CHKD |
|------|----------|------------------|-------|------|------|
| A    | 04.07.14 | FOR REVIEW       | SRC   | JC   |      |
| B    | 23.09.14 | FOR TENDER       | JJW   | JC   | NS   |
| 0    | 19.02.15 | FOR CONSTRUCTION | BJH   | LC   | NS   |

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**MARK LEE FISH FARM**  
58 ST KILDA ROAD, WATERLOO CORNER  
WASTEWATER DISPOSAL MAIN  
**PLAN AND LONG. SECTION 3 OF 7**

**A1** DRAWING NUMBER  
Job Number Sheet No. Rev.  
Design Drawn  
JC SRC  
**120591** **C04**



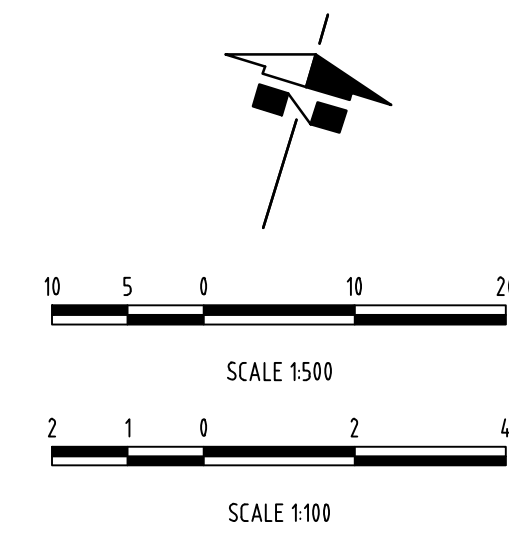
| REINSTATEMENT TRENCH TYPE<br>(SEE DWG. 120591-C10 FOR<br>DETAILS) | TYPE 2          |       |       |          |         |       |          |          |       |          |       |       |       |       |       | TYPE 3   |       |          | TYPE 2 |         |          | TYPE 3 |       |          | TYPE 2 |       |       |          |       |          |
|---|-----------------|-------|-------|----------|---------|-------|----------|----------|-------|----------|-------|-------|-------|-------|-------|----------|-------|----------|--------|---------|----------|--------|-------|----------|--------|-------|-------|----------|-------|----------|
| GRADE   | 0.12%           |       |       |          |         |       |          |          |       |          |       |       |       |       |       | 0.26%    |       |          | 0.47%  |         |          | 0.26%  |       |          | 0.47%  |       |       |          |       |          |
| SIZE  | 180mm PE PN12.5 |       |       |          |         |       |          |          |       |          |       |       |       |       |       |          |       |          |        |         |          |        |       |          |        |       |       |          |       |          |
| Datum = -4.0  |                 |       |       |          |         |       |          |          |       |          |       |       |       |       |       |          |       |          |        |         |          |        |       |          |        |       |       |          |       |          |
| INVERT E.L.   | 4.447           | 4.447 | 4.495 | 4.503    | 4.517   | 4.519 | 4.529    | 4.544    | 4.544 | 4.565    | 4.569 | 4.594 | 4.618 | 4.643 | 4.668 | 4.688    | 4.693 | 4.7      | 4.717  | 4.722   | 4.735    | 4.742  | 4.767 | 4.784    | 4.8    | 4.852 | 4.905 | 4.913    | 4.982 | 5.001    |
| CENTRELINE E.L.   | 5.6             | 5.621 | 5.632 | 5.646    | 5.673   | 5.673 | 5.749    | 5.688    | 5.684 | 5.72     | 5.728 | 5.754 | 5.781 | 5.817 | 5.812 | 5.842    | 5.891 | 5.86     | 5.865  | 5.873   | 5.878    | 5.888  | 5.97  | 5.996    | 6.025  | 6.075 | 6.088 | 6.088    | 6.095 | 6.098    |
| DEPTH TO INVERT   | 1.15            | 1.15  | 1.14  | 1.14     | 1.16    | 1.15  | 1.22     | 1.14     | 1.14  | 1.16     | 1.16  | 1.16  | 1.16  | 1.17  | 1.14  | 1.15     | 1.20  | 1.16     | 1.15   | 1.15    | 1.14     | 1.15   | 1.20  | 1.21     | 1.22   | 1.22  | 1.18  | 1.17     | 1.10  | 1.10     |
| CHAINAGE  | 1021.799        | 1040  | 1060  | 1067.073 | 1078.21 | 1080  | 1087.842 | 1099.761 | 1100  | 1116.627 | 1120  | 1140  | 1160  | 1180  | 1200  | 1216.379 | 1220  | 1225.652 | 1240   | 1244.01 | 1253.996 | 1260   | 1280  | 1294.081 | 1300   | 1320  | 1340  | 1343.215 | 1360  | 1367.799 |

**LONGITUDINAL SECTION**  
 HORIZONTAL SCALE 1:500  
 VERTICAL SCALE 1:100



**PLAN**  
 SCALE 1:500

- LEGEND:**
- RISING MAIN 180mm PE PN12.5
  - — — RISING MAIN 180mm PE PN12.5 (ABOVE GROUND MAIN SHEET 10)
  - ⊙ AIR VALVE
  - ⊗ STOP VALVE, HYDRANT VALVE
  - W — EXISTING WATERMAIN
  - T — EXISTING TELSTRA CABLE
  - E — EXISTING UG E.T.S.A.
  - HV — EXISTING UG E.T.S.A. (HV)
  - WRI — EXISTING UG RECYCLED WATER
  - / — EXISTING FENCE
  - - - - EXISTING EDGE OF BITUMEN
  - ▲ TBM No./PSM/NAIL
- SERVICES HAVE NOT BEEN DEPTHED OR LOCATED AND ARE INDICATIVE ONLY



**CONSTRUCTION ISSUE**

| REV. | DATE     | DESCRIPTION      | DRAFT | ENG. | CHKD |
|------|----------|------------------|-------|------|------|
| A    | 04.07.14 | FOR REVIEW       | SRC   | JC   |      |
| B    | 23.09.14 | FOR TENDER       | JJW   | JC   | NS   |
| 0    | 19.02.15 | FOR CONSTRUCTION | BJH   | LC   | NS   |

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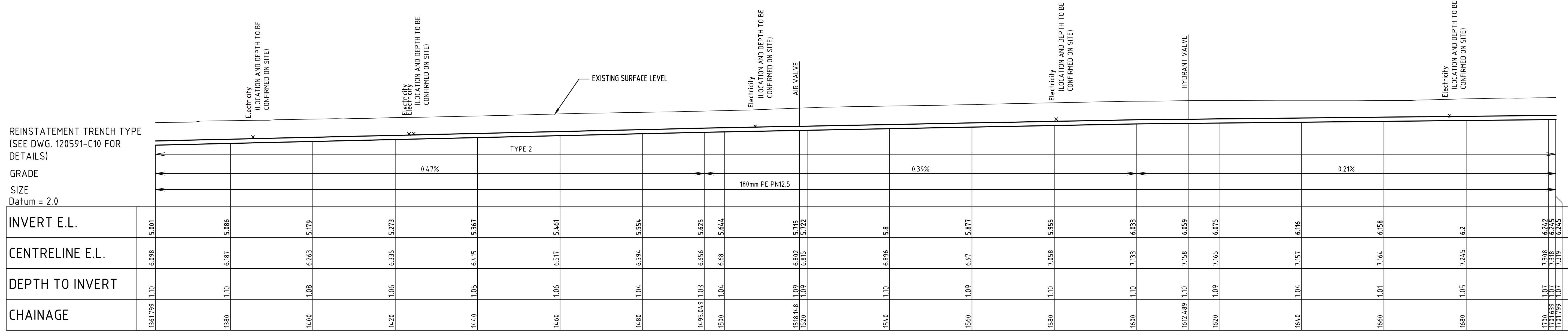
**MARK LEE FISH FARM**  
 58 ST KILDA ROAD, WATERLOO CORNER  
 WASTEWATER DISPOSAL MAIN  
**PLAN AND LONG. SECTION 4 OF 7**

**A1** DRAWING NUMBER  
 Job Number Sheet No. Rev.  
 Design Drawn  
 JC SRC  
**120591** **C05**

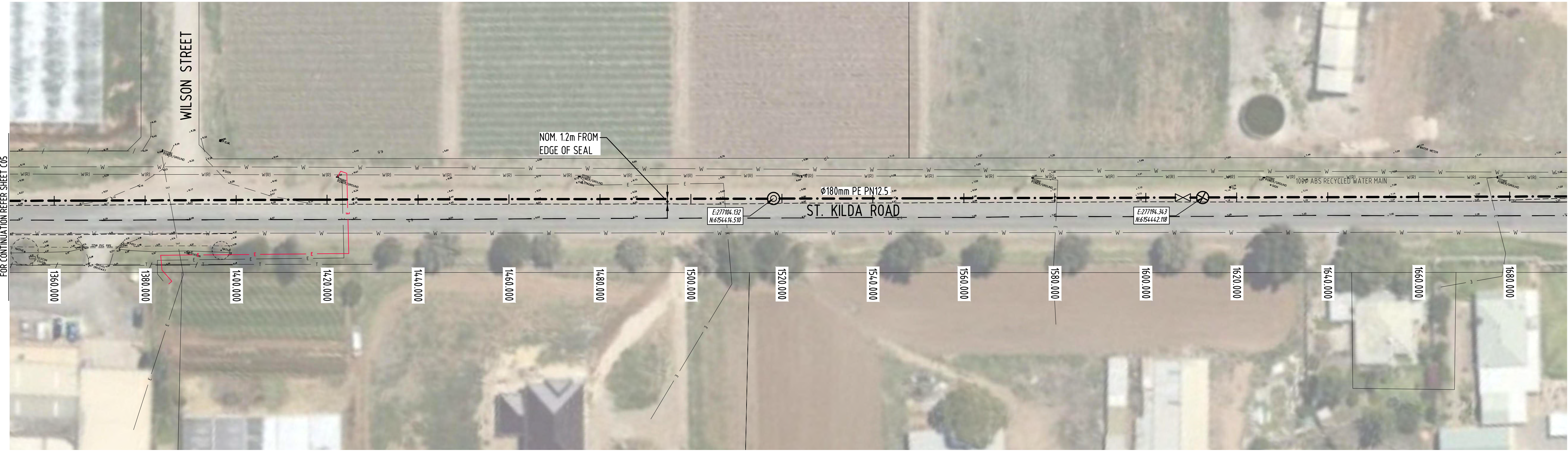
1:20/21/2020/1 - 120591 - Fish Farm Recycled Water Scheme/120591-C05.dwg, 0, 19/2/2016 11:05 AM, b.harris

When sheet printed full size, the scale bar is 100mm.





**LONGITUDINAL SECTION**  
HORIZONTAL SCALE 1:500  
VERTICAL SCALE 1:100



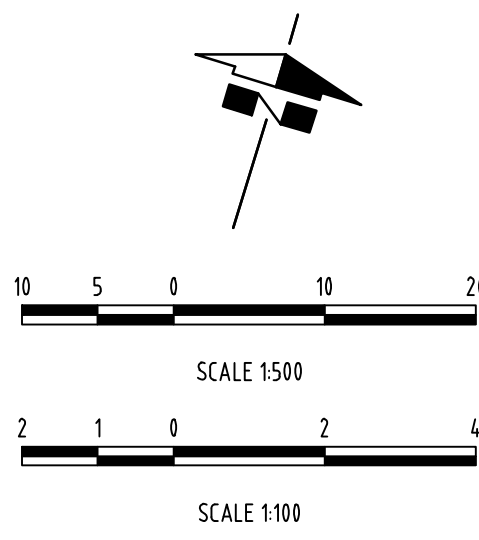
FOR CONTINUATION REFER SHEET C05

FOR CONTINUATION REFER SHEET C07

- LEGEND:**
- RISING MAIN 180# PE PN12.5
  - RISING MAIN 180# PE PN12.5 (ABOVE GROUND MAIN SHEET 10)
  - AIR VALVE
  - ⊗ STOP VALVE, HYDRANT VALVE
  - W EXISTING WATERMAIN
  - T EXISTING TELSTRA CABLE
  - E EXISTING UG E.T.S.A.
  - E EXISTING UG E.T.S.A. (HV)
  - WR EXISTING UG RECYCLED WATER
  - / EXISTING FENCE
  - - - EXISTING EDGE OF BITUMEN
  - ▲ TBM No./PSM/NAIL

SERVICES HAVE NOT BEEN DEPTED OR LOCATED AND ARE INDICATIVE ONLY

**PLAN**  
SCALE 1:500



**CONSTRUCTION ISSUE**

| REV. | DATE     | DESCRIPTION      | DRAFT | ENG. | CHKD |
|------|----------|------------------|-------|------|------|
| A    | 04.07.14 | FOR REVIEW       | SRC   | JC   |      |
| B    | 23.09.14 | FOR TENDER       | JJW   | JC   | NS   |
| 0    | 19.02.15 | FOR CONSTRUCTION | BJH   | LC   | NS   |

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**MARK LEE FISH FARM**  
58 ST KILDA ROAD, WATERLOO CORNER  
WASTEWATER DISPOSAL MAIN  
**PLAN AND LONG. SECTION 5 OF 7**

**A1**  
Design Drawn  
JC SRC

**DRAWING NUMBER**  
Job Number Sheet No. Rev.

**120591**  
**C06**

1/20/21/120591 - 120591 - Fish Farm Recycled Water Scheme/120591-C06.dwg, 0, 19/2/2015 11:14:AM, b.harris

When sheet printed full size, the scale bar is 100mm.



REINSTATEMENT TRENCH TYPE (SEE DWG. 120591-C10 FOR DETAILS)

GRADE

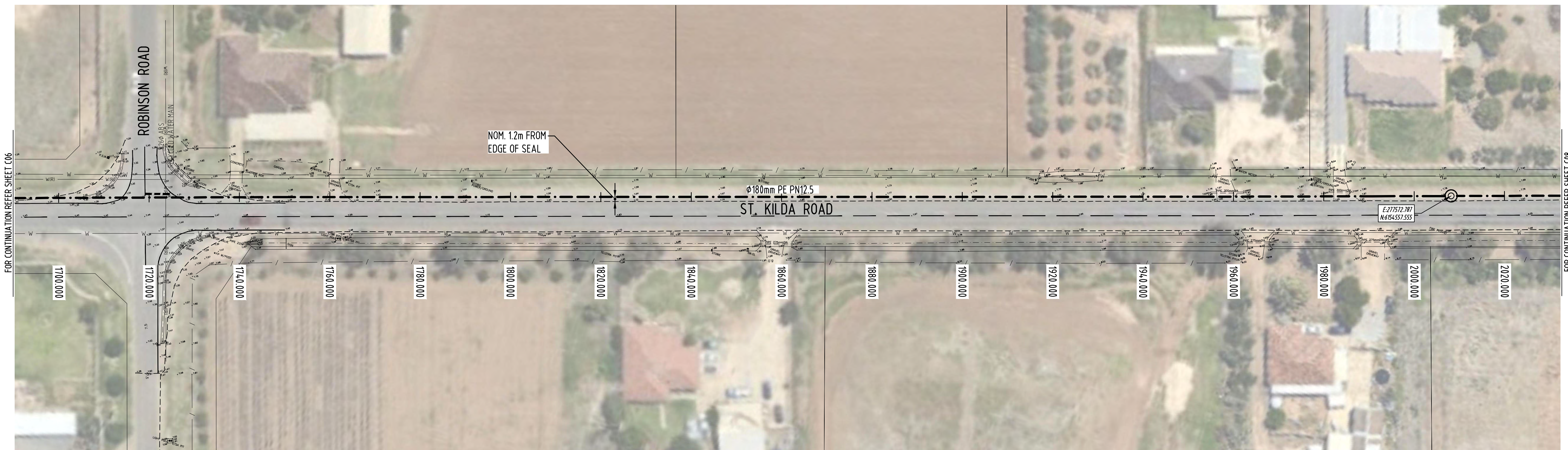
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Datum = 3.0

|                 | 1700.000 | 1720.000 | 1736.88 | 1740.000 | 1742.15 | 1758.335 | 1760.000 | 1762.245 | 1780.000 | 1800.000 | 1820.000 | 1840.000 | 1860.000 | 1880.000 | 1900.000 | 1920.000 | 1940.000 | 1954.433 | 1960.000 | 1962.712 | 1980.000 | 1987.342 | 2000.000 | 2008.148 | 2020.000 | 2040.000 | 2047.999 |
|-----------------|----------|----------|---------|----------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| INVERT E.L.     | 6.245    | 6.283    | 6.319   | 6.325    | 6.327   | 6.363    | 6.367    | 6.374    | 6.408    | 6.45     | 6.502    | 6.553    | 6.605    | 6.656    | 6.708    | 6.731    | 6.754    | 6.77     | 6.777    | 6.778    | 6.8      | 6.808    | 6.823    | 6.832    | 6.846    | 6.869    | 6.871    |
| CENTRELINE E.L. | 7.319    | 7.342    | 7.36    | 7.36     | 7.362   | 7.386    | 7.386    | 7.392    | 7.474    | 7.55     | 7.625    | 7.676    | 7.738    | 7.781    | 7.808    | 7.812    | 7.818    | 7.895    | 7.919    | 7.949    | 7.971    | 7.917    | 7.89     | 7.889    | 7.867    | 7.928    | 7.929    |
| DEPTH TO INVERT | 1.07     | 1.06     | 1.04    | 1.04     | 1.03    | 1.02     | 1.02     | 1.02     | 1.07     | 1.10     | 1.12     | 1.12     | 1.13     | 1.12     | 1.10     | 1.08     | 1.06     | 1.12     | 1.17     | 1.11     | 1.11     | 1.17     | 1.07     | 1.06     | 1.02     | 1.06     | 1.06     |
| CHAINAGE        | 1701.999 | 1720     | 1736.88 | 1740     | 1742.15 | 1758.335 | 1760     | 1762.245 | 1780     | 1800     | 1820     | 1840     | 1860     | 1880     | 1900     | 1920     | 1940     | 1954.433 | 1960     | 1962.712 | 1980     | 1987.342 | 2000     | 2008.148 | 2020     | 2040     | 2047.999 |

LONGITUDINAL SECTION

HORIZONTAL SCALE 1:500  
VERTICAL SCALE 1:100

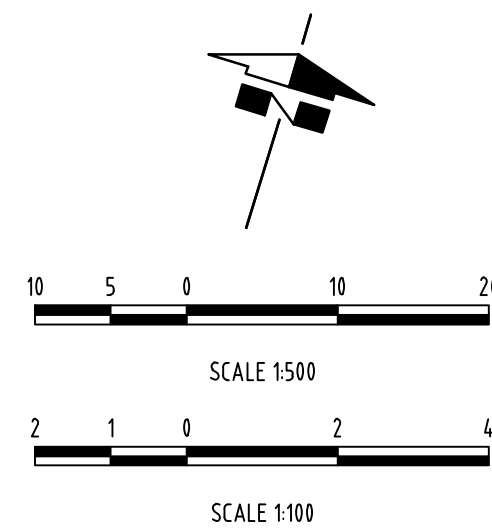


PLAN  
SCALE 1:500

LEGEND:

- RISING MAIN 180# PE PN12.5
- RISING MAIN 180# PE PN12.5 (ABOVE GROUND MAIN SHEET 10)
- AIR VALVE
- ⊗ STOP VALVE, HYDRANT VALVE
- W EXISTING WATERMAIN
- T EXISTING TELSTRA CABLE
- E EXISTING UG EISA
- E EXISTING UG EISA (HV)
- WR EXISTING UG RECYCLED WATER
- / EXISTING FENCE
- - - EXISTING EDGE OF BITUMEN
- ▲ TBM No./PSM/NAIL

SERVICES HAVE NOT BEEN DEPTHED OR LOCATED AND ARE INDICATIVE ONLY



CONSTRUCTION ISSUE

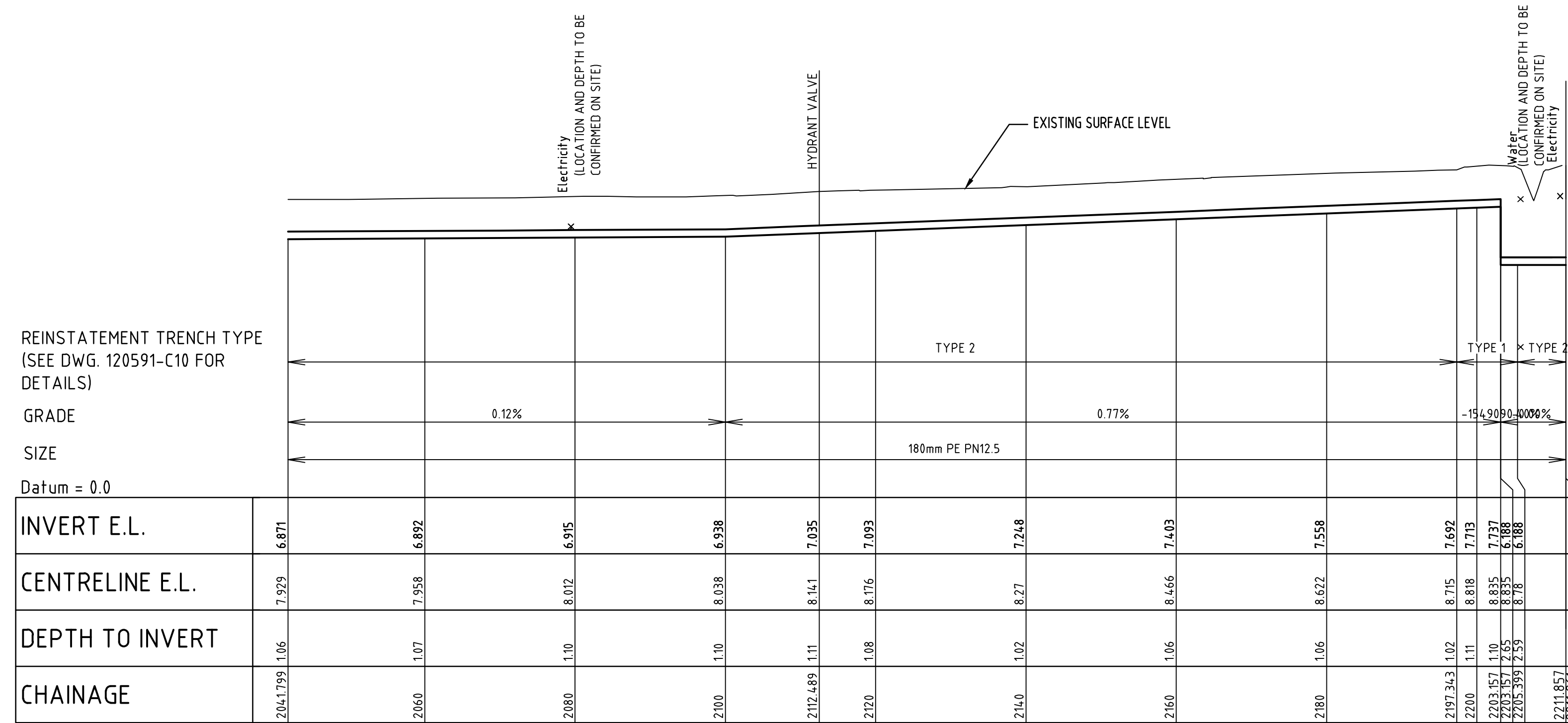
| REV. | DATE     | DESCRIPTION      | DRAFT | ENG. | CHKD |
|------|----------|------------------|-------|------|------|
| A    | 04.07.14 | FOR REVIEW       | SRC   | JC   |      |
| B    | 23.09.14 | FOR TENDER       | JJW   | JC   | NS   |
| C    | 19.02.15 | FOR CONSTRUCTION | BJH   | LC   | NS   |

**W&G**  
WALLBRIDGE & GILBERT  
Consulting Engineers  
60 Wyatt Street Adelaide South Australia 5000  
Telephone (08) 8223 7433 Facsimile (08) 8232 0967  
Email adelaide@wngeng.com  
W&G Engineers Pty Ltd ACN 052 528 926  
trading as Wallbridge & Gilbert

**MARK LEE FISH FARM**  
58 ST KILDA ROAD, WATERLOO CORNER  
WASTEWATER DISPOSAL MAIN  
PLAN AND LONG. SECTION 6 OF 7

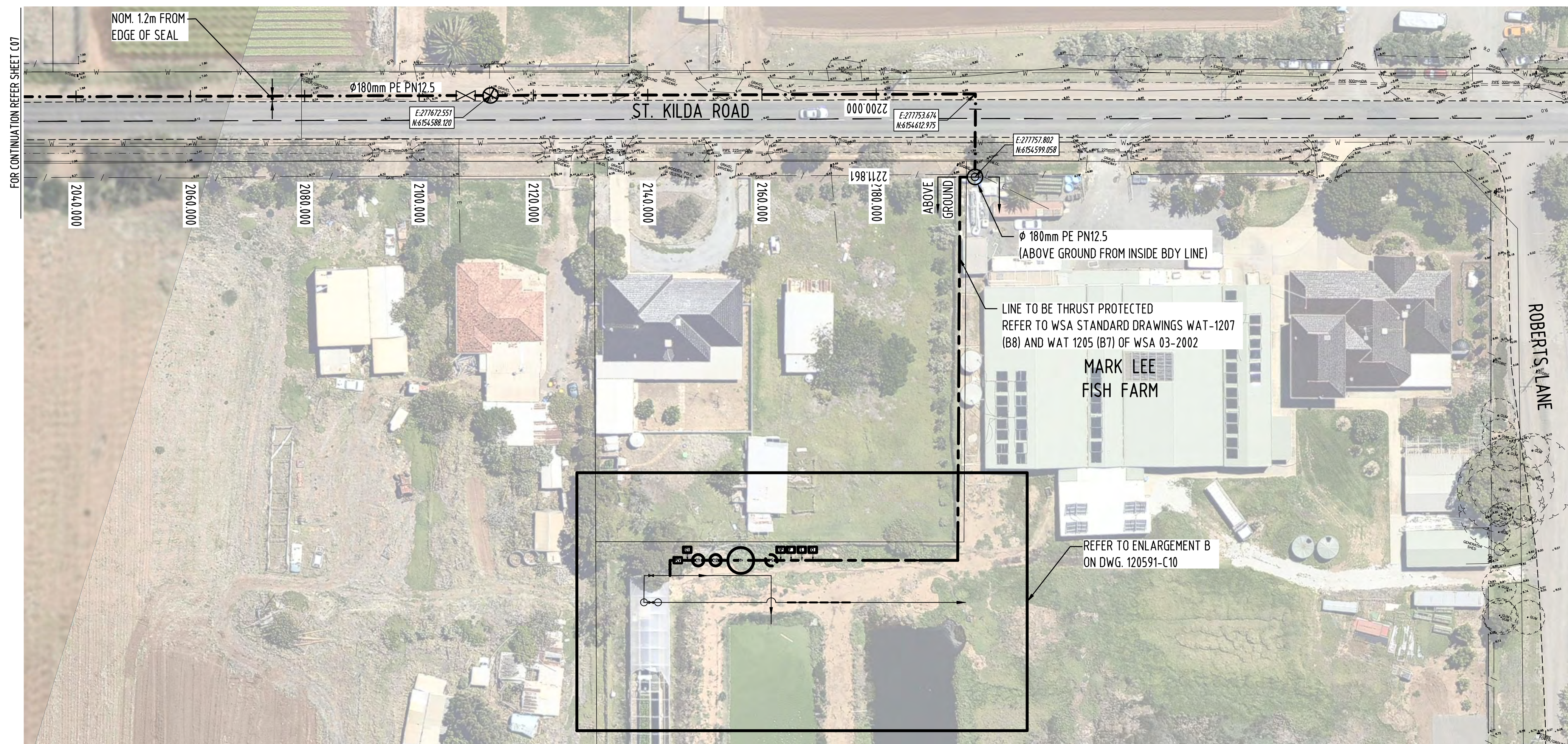
**A1** DRAWING NUMBER  
Job Number 120591 Sheet No. C07 Rev.





**LONGITUDINAL SECTION**

HORIZONTAL SCALE 1:500  
VERTICAL SCALE 1:100

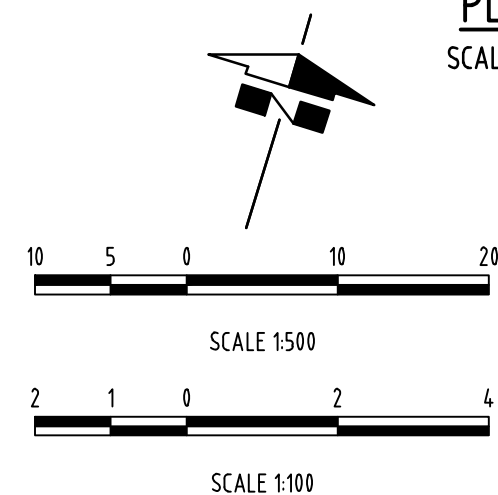


**LEGEND:**

- RISING MAIN 180# PE PN12.5
- RISING MAIN 180# PE PN12.5 (ABOVE GROUND MAIN SHEET 10)
- AIR VALVE
- ⊗ STOP VALVE, HYDRANT VALVE
- w— EXISTING WATERMAIN
- t— EXISTING TELSTRA CABLE
- e— EXISTING UG E.T.S.A.
- e— EXISTING UG E.T.S.A. (HV)
- WR— EXISTING UG RECYCLED WATER
- /— EXISTING FENCE
- EXISTING EDGE OF BITUMEN
- ▲ TBM No./PSM/NAIL

SERVICES HAVE NOT BEEN DEPTHEID OR LOCATED AND ARE INDICATIVE ONLY

**PLAN**  
SCALE 1:500



CONSTRUCTION ISSUE

| REV. | DATE     | DESCRIPTION      | DRAFT | ENG. | CHKD |
|------|----------|------------------|-------|------|------|
| A    | 04.07.14 | FOR REVIEW       | SRC   | JC   |      |
| B    | 23.09.14 | FOR TENDER       | JJW   | JC   | NS   |
| C    | 19.02.15 | FOR CONSTRUCTION | BJH   | LC   | NS   |

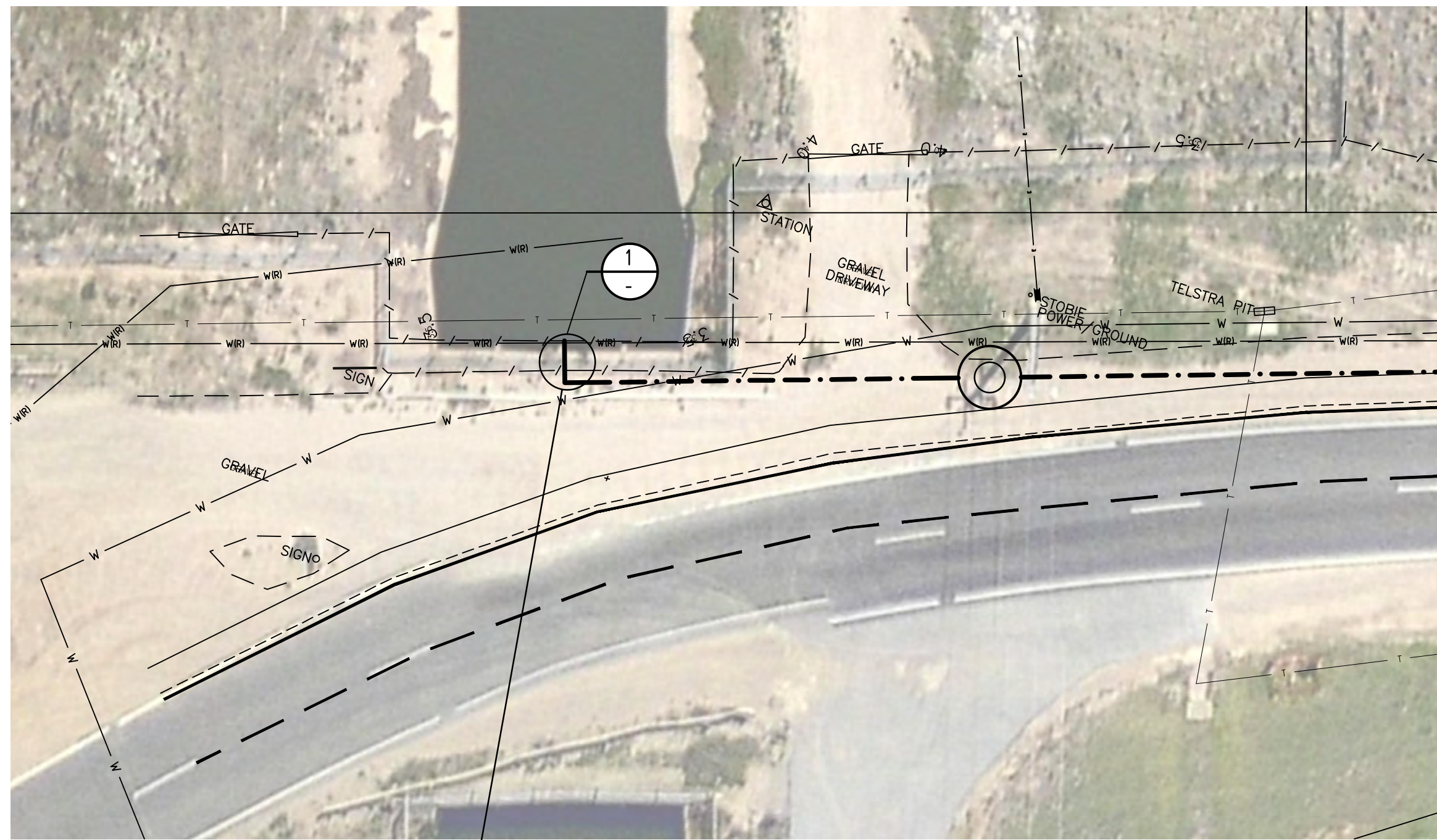
**W&G**  
WALLBRIDGE & GILBERT  
Consulting Engineers  
60 Wyatt Street Adelaide South Australia 5000  
Telephone (08) 8223 7433 Facsimile (08) 8232 0967  
Email [adelaide@wgeng.com](mailto:adelaide@wgeng.com)  
W&G Engineers Pty Ltd ACN 052 528 926  
trading as Wallbridge & Gilbert

**MARK LEE FISH FARM**  
58 ST KILDA ROAD, WATERLOO CORNER  
WASTEWATER DISPOSAL MAIN  
PLAN AND LONG. SECTION 7 OF 7

**A1** DRAWING NUMBER  
Job Number Sheet No. Rev.

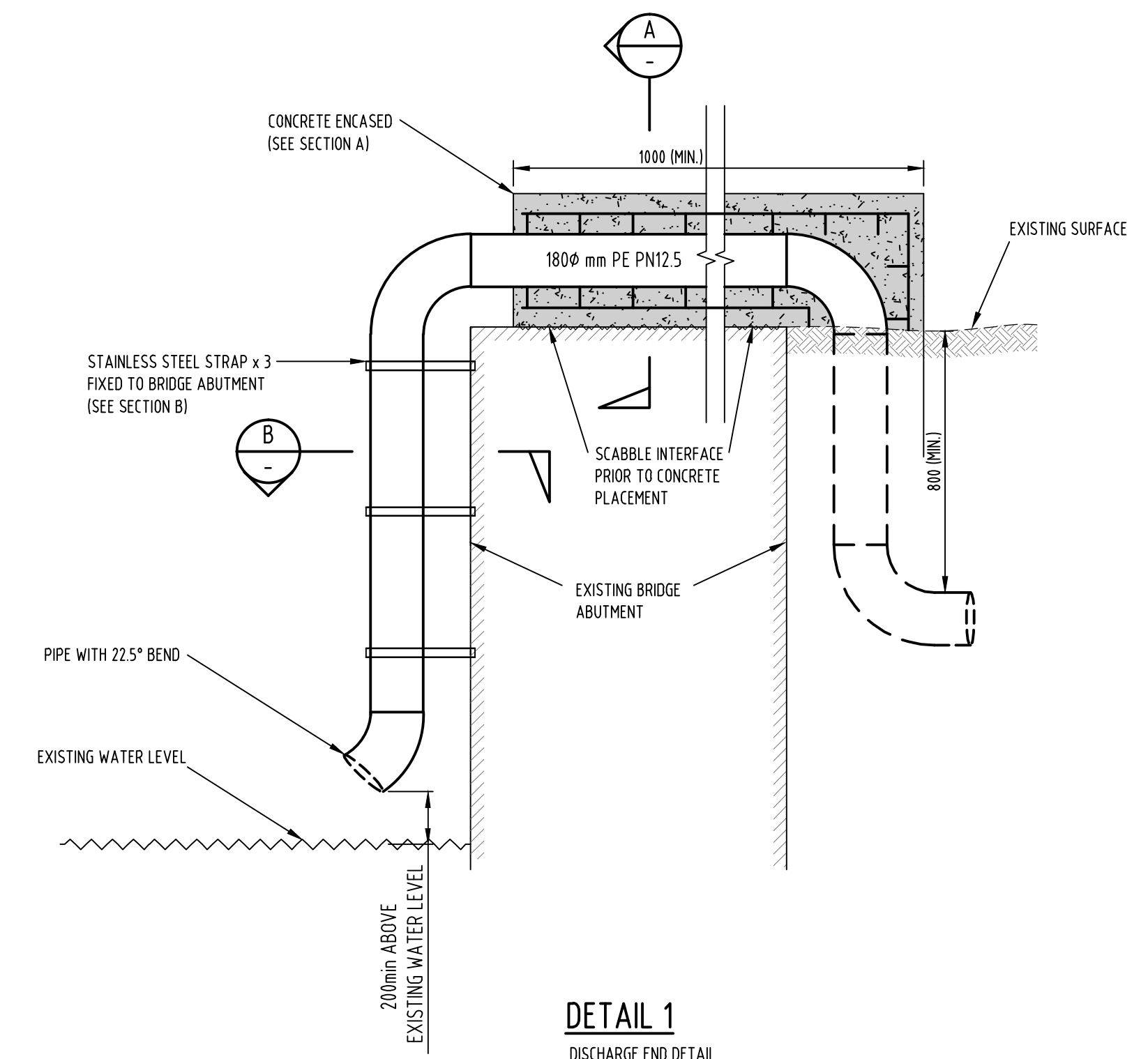
Design Drawn  
JC SRC  
**120591** **C08**



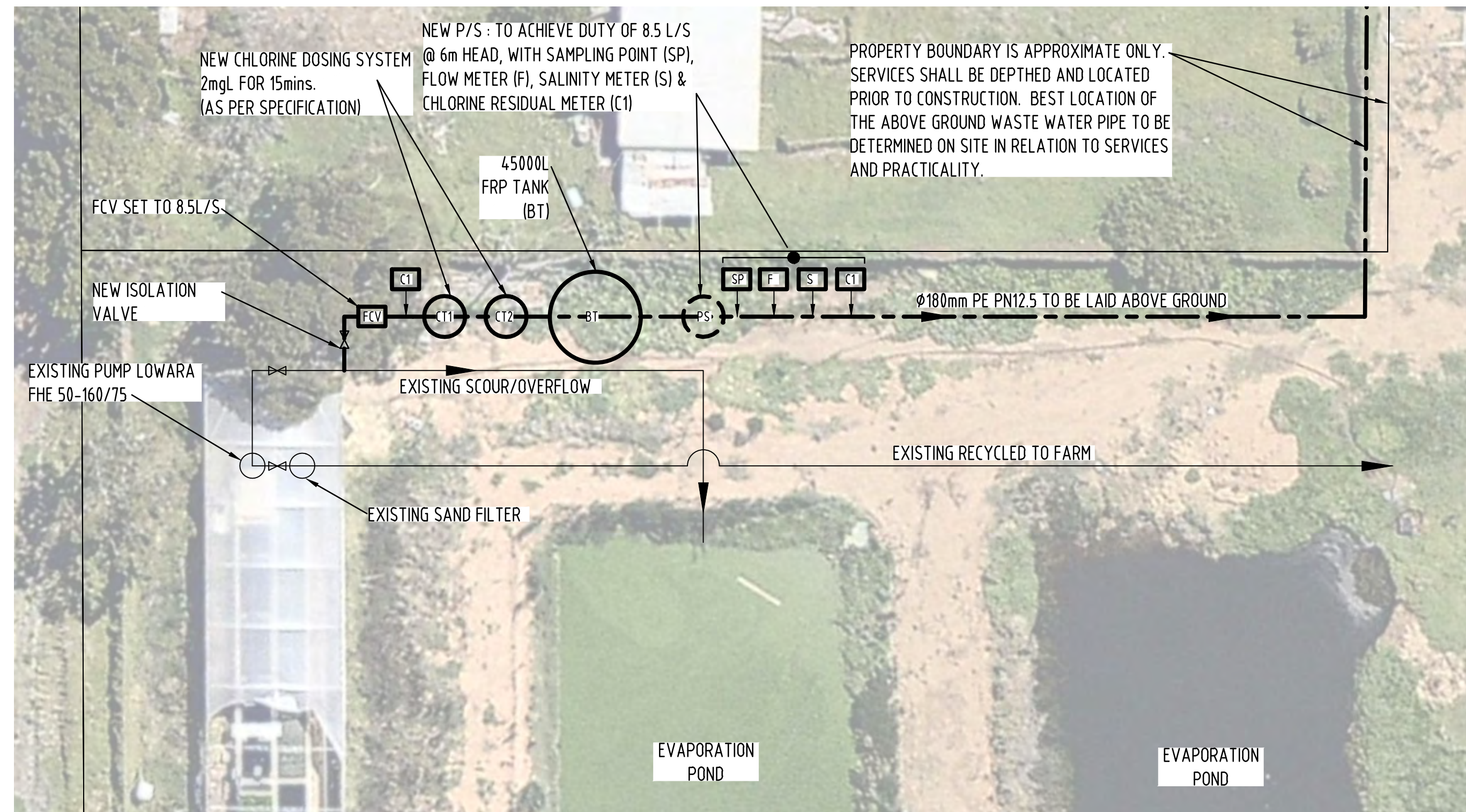


PROPERTY BOUNDARY AND SERVICE LOCATIONS/DEPTHS ARE APPROXIMATE ONLY. SERVICES SHALL BE DEPTHEDED AND LOCATED PRIOR TO CONSTRUCTION. BEST LOCATION OF THE ABOVE GROUND WASTE WATER PIPE TO BE DETERMINED ON SITE IN RELATION TO SERVICES AND PRACTICALITY.

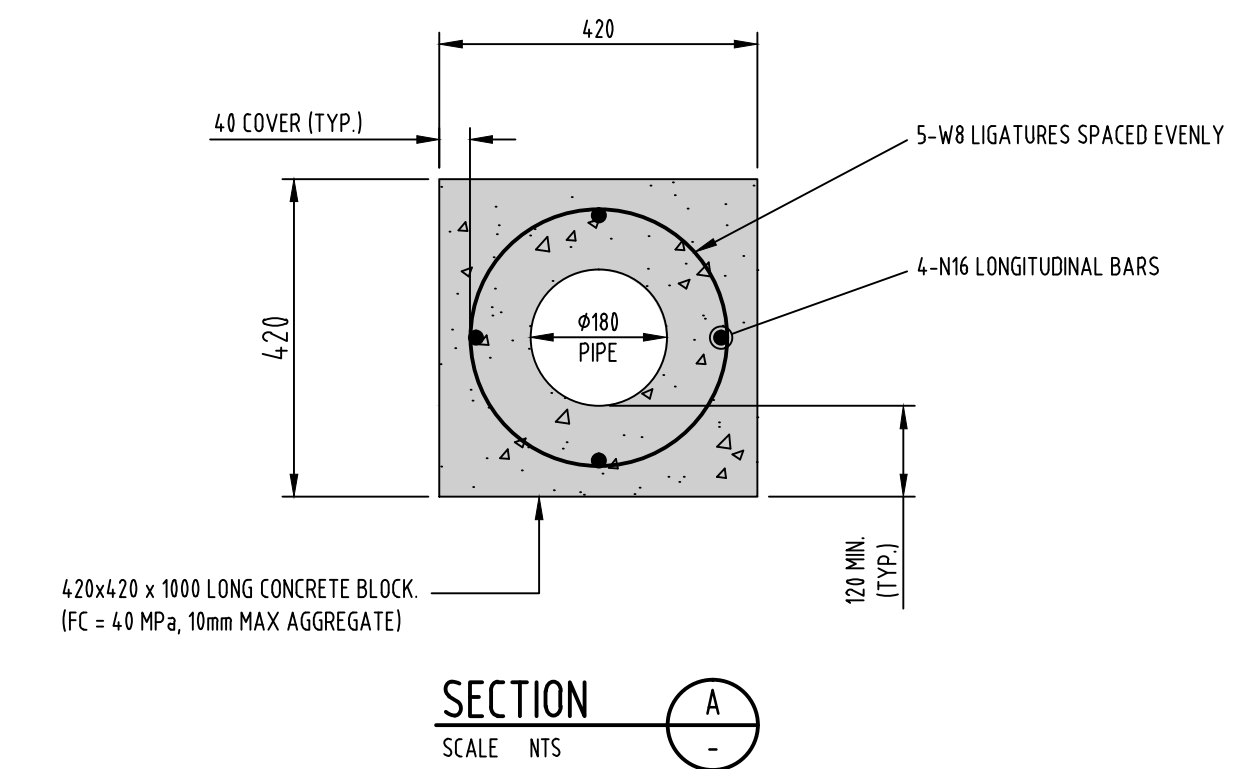
### ENLARGEMENT A



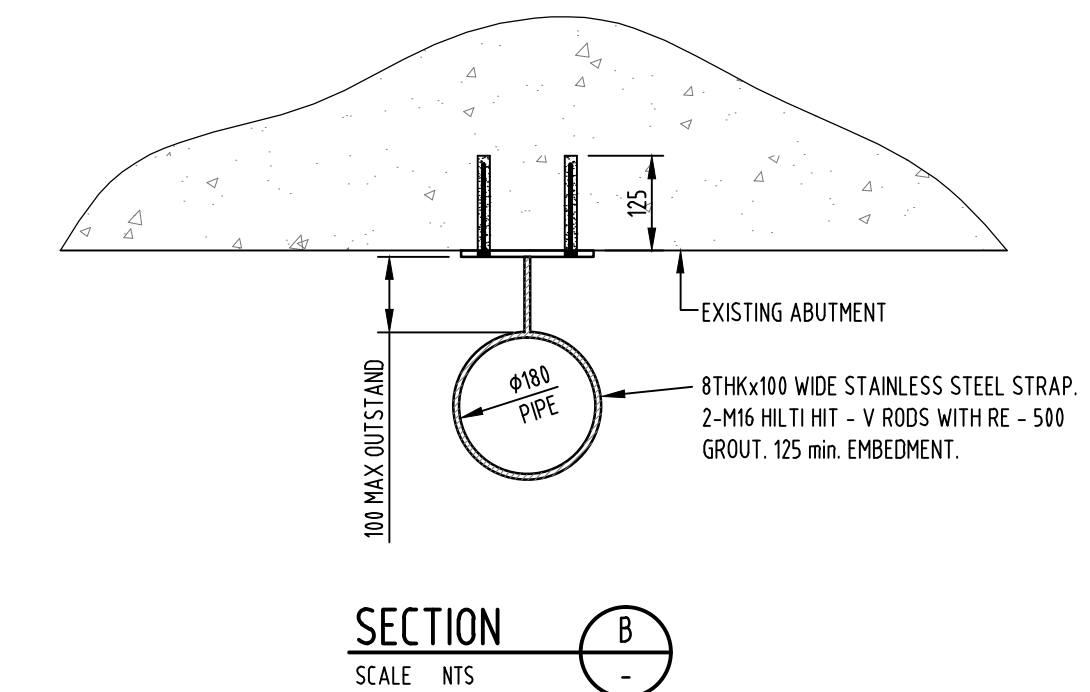
**DETAIL 1**  
DISCHARGE END DETAIL  
SCALE: N.T.S.



### ENLARGEMENT B



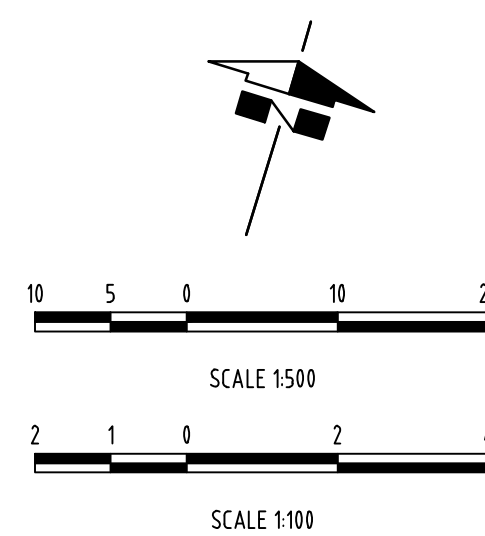
**SECTION A**  
SCALE: N.T.S.



**SECTION B**  
SCALE: N.T.S.

- LEGEND:**
- RISING MAIN 180 $\phi$  PE PN12.5
  - RISING MAIN 180 $\phi$  PE PN12.5 (ABOVE GROUND MAIN SHEET 10)
  - AIR VALVE
  - ⊗ STOP VALVE, HYDRANT VALVE
  - W EXISTING WATERMAIN
  - T EXISTING TELSTRA CABLE
  - E EXISTING UG ETSA
  - E EXISTING UG ETSA (HV)
  - WR EXISTING UG RECYCLED WATER
  - / EXISTING FENCE
  - - - EXISTING EDGE OF BITUMEN
  - Δ TBM No./PSM/NAIL
- SERVICES HAVE NOT BEEN DEPTHEDED OR LOCATED AND ARE INDICATIVE ONLY

When sheet printed full size, the scale bar is 100mm.



CONSTRUCTION ISSUE

| REV. | DATE     | DESCRIPTION      | DRAFT | ENG. | CHKD |
|------|----------|------------------|-------|------|------|
| A    | 04.07.14 | FOR REVIEW       | SRG   | JC   |      |
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| 0    | 19.02.15 | FOR CONSTRUCTION | BJH   | LC   | NS   |

60 Wyatt Street Adelaide South Australia 5000  
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Email adel@w&geng.com

W&G Engineers Pty Ltd ACN 052 528 926  
trading as Wallbridge & Gilbert

**MARK LEE FISH FARM**  
58 ST KILDA ROAD, WATERLOO CORNER  
WASTEWATER DISPOSAL MAIN  
**STANDARD DETAILS 1 OF 2**

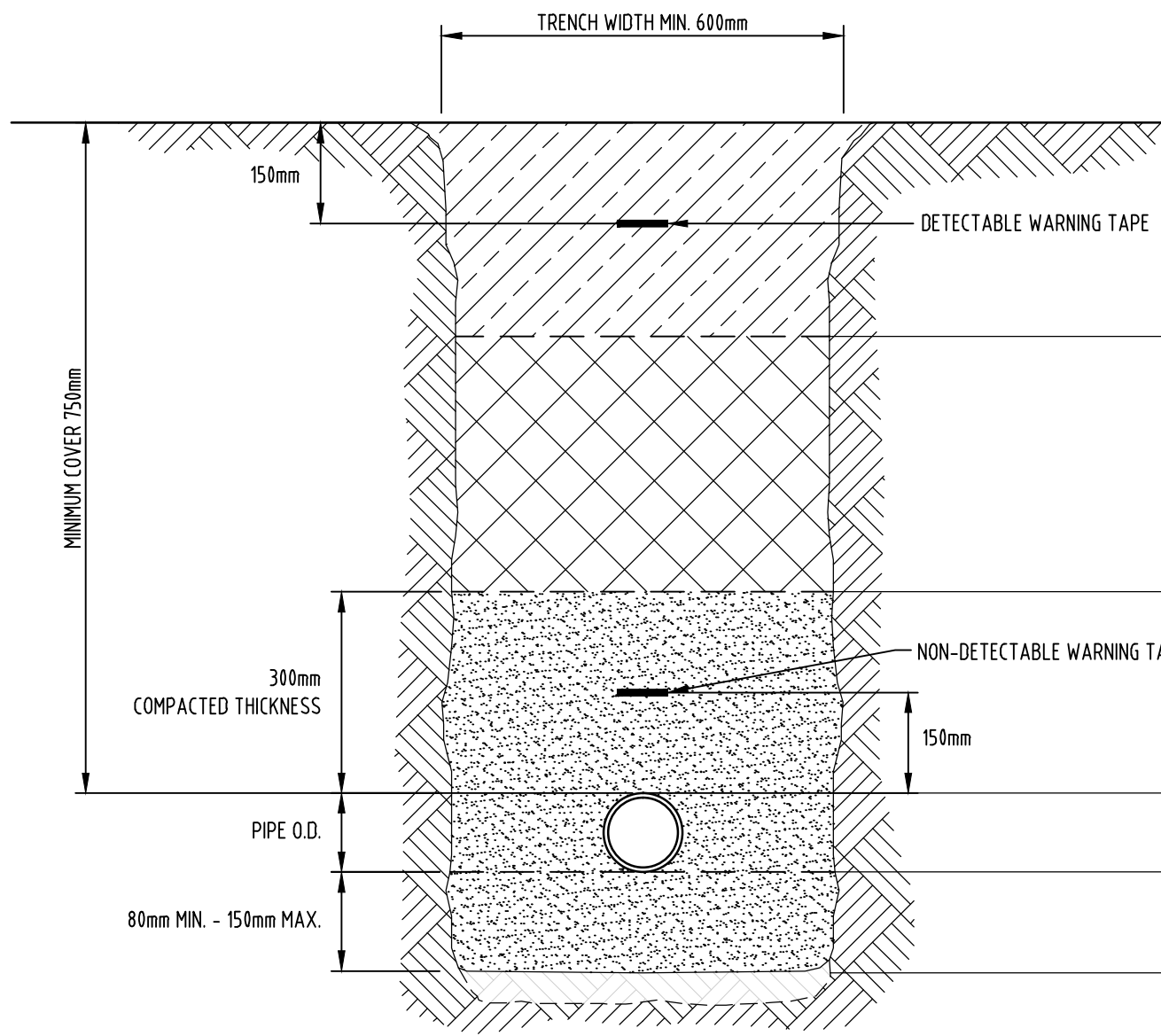
**A1** DRAWING NUMBER  
Job Number Sheet No. Rev.

Design Drawn  
JC SRC

**120591 C10**

I:\2015\120591 - 120591 - Fish Farm Recycled Water Scheme\120591-C10.dwg, 0. 19/2/2015 11:23 AM, b.harris





| ZONE  | MATERIAL  |
|---|---|
| TRENCH REINSTATEMENT<br>REFER TO LONGITUDINAL SECTION FOR LOCATION AND TYPE | TYPE 1 - 35mm AC ON 150mm PM 1/20 ON 2 x 125mm PM 2/20 SUB BASE COMPACTED TO 98% OF MMDD.<br>TYPE 2 - 200mm PM 1/20 COMPACTED TO 98% OF MMDD<br>TYPE 3 - 150mm PM 1/20 COMPACTED TO 98% OF MMDD   |
| TRENCH FILL   | TYPE 1 & 2<br>TS 4 SAND COMPACTED TO NOT LESS THAN 100% OF SMDD (NOTE 5 & 7). PLACE ALL MATERIALS IN LAYERS PARALLEL TO THE SURFACE WITH A LOOSE THICKNESS NOT GREATER THAN 200mm. EACH LAYER TO BE COMPACTED SEPARATELY.<br>TYPE 3<br>INORGANIC FILL WITH A MAXIMUM STONE SIZE OF 75MM, COMPACTED TO NOT LESS THAN 95% OF SMDD (NOTE 5). |
| EMBEDMENT   | OVERLAY<br>VERGES/EASEMENTS - PLACE ALL OF SIDE SUPPORT AND OVERLAY SAND IN ONE LAYER. COMPACT USING A VIBRATING PLATE OVER THE FULL WIDTH OF THE TRENCH TO GIVE NOT LESS THAN 98% OF SMDD AS TESTED IN THE TOP 150mm. (SEE NOTES 5 & 7)<br>SIDE SUPPORT<br>REFER NOTE 7<br>BEDDING<br>REFER NOTE 7                                       |
| OVER-EXCAVATION IN SOIL OR ROCK   |   |

**EXCAVATION, EMBEDMENT, PIPE COVER AND TRENCH FILL DETAILS**

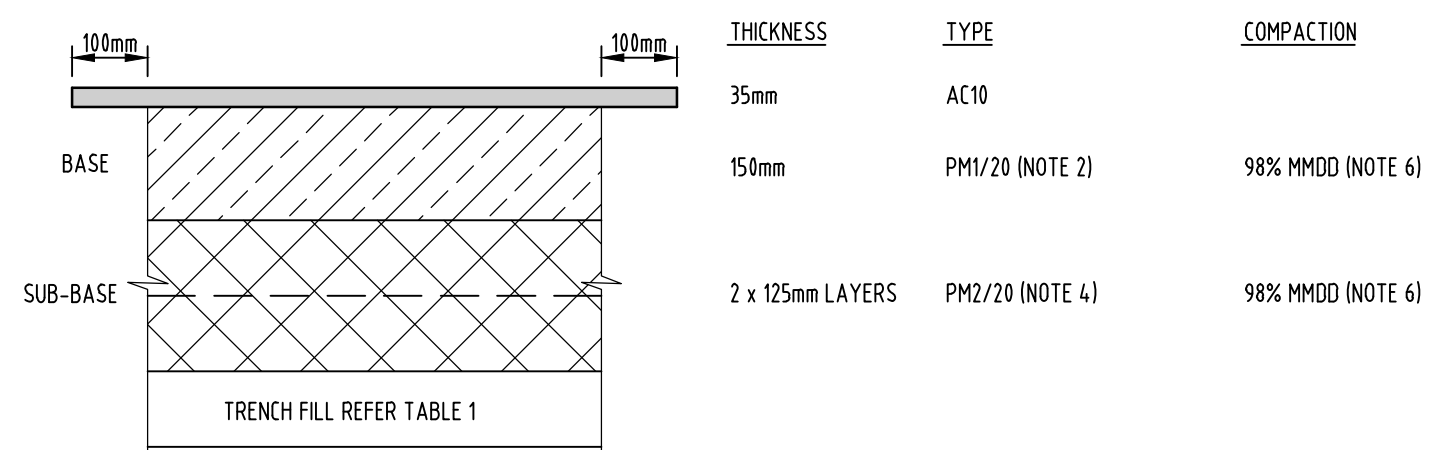
SCALE N.T.S.

**NOTES:**

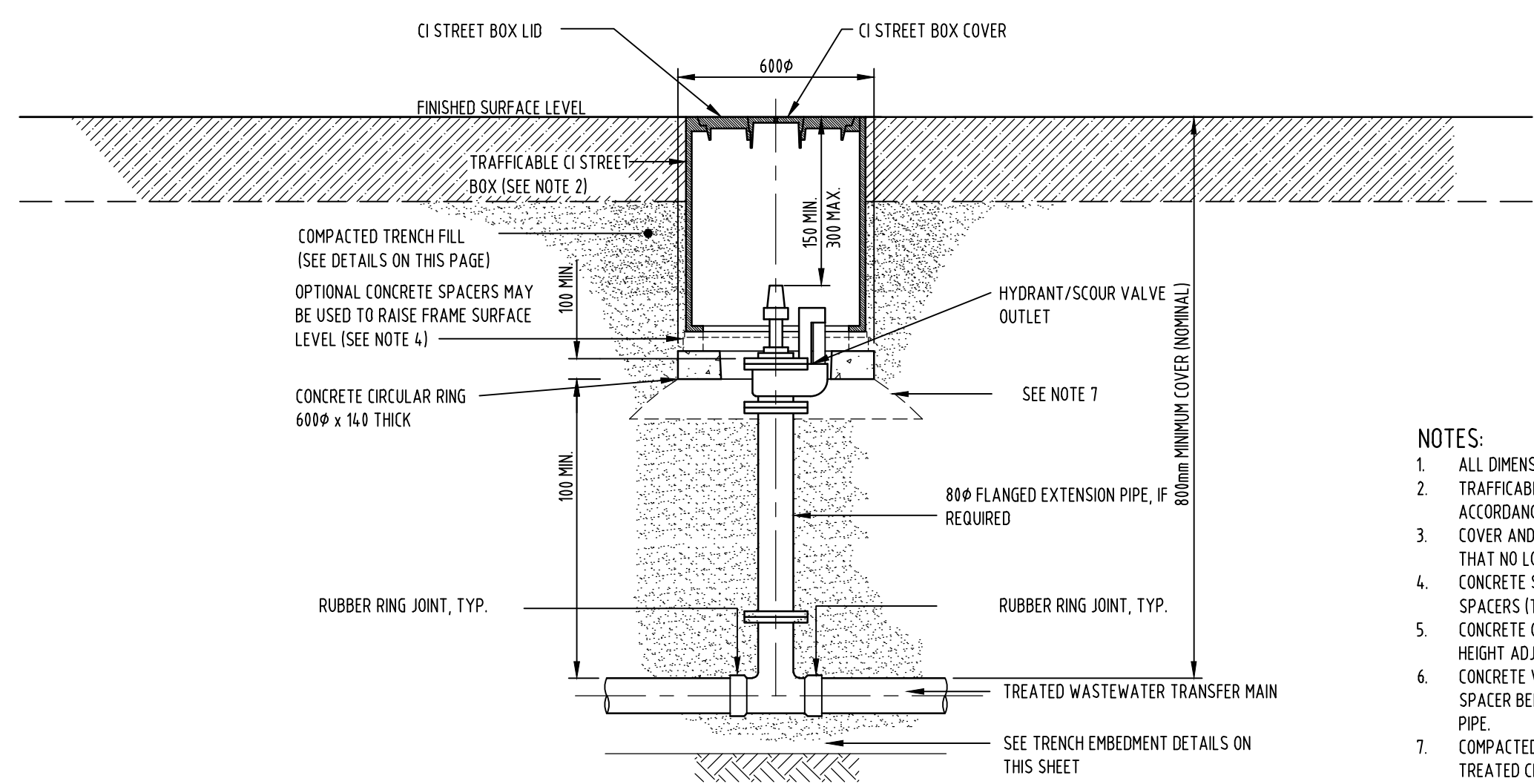
- ALL PIPE RISERS & HYDRANT RISERS SHALL BE SURROUNDED BY A MINIMUM 300mm OF COMPACTED EMBEDMENT MATERIAL EXTENDING UP TO CONCRETE SPACER RING.
- PM1/20 = 20mm CLASS 1 QUARRIED PAVEMENT MATERIAL (PM1/200G) OR 20mm CLASS 1 RECYCLED PAVEMENT MATERIAL. 20mm (PM1/20RG).
- PM2/20G = 20mm CLASS 2 QUARRIED PAVEMENT MATERIAL. RECYCLED MATERIAL SHALL NOT BE USED WHERE IT WILL BE EXPOSED AT THE SURFACE.
- PM2/20 = 20mm CLASS 2 PAVEMENT MATERIAL. IT MAY BE EITHER QUARRIED OR RECYCLED.
- SMDD = STANDARD MAXIMUM DRY DENSITY (AS 1289.5.1.1).
- MMDD = MODIFIED MAXIMUM DRY DENSITY (AS 1289.5.1.1).
- IF THE TS 4 SAND DOES NOT DISPLAY A DEFINED MOISTURE-DENSITY CURVE (SEE NOTE 1. OF AS 1289.5.1) THEN THE DENSITY INDEX (DI) METHOD (AS 1289.5.6.1) SHALL BE USED FOR COMPACTION CONTROL - AN ID OF 90% SHALL BE TAKEN AS EQUIVALENT TO 100% OF SMDD.
- AC - ASPHALIC CONCRETE SURFACE SEAL TO MATCH THE EXISTING AS PER CLAUSE 3.3.7(C) OF E&RRP(TSA STANDARD SPECIFICATION, JULY 2003). THE AC SHALL EXTEND 100mm EITHER SIDE OF THE EXCAVATED TRENCH AND THE OUTER EDGE SHALL BE SAW CUT.

**TRENCH FLOOR PREPARATION**

- ENSURE THAT THE TRENCH FLOOR IS SMOOTH AND FIRM, AND WITHIN THE DESIGN TRENCH FLOOR LEVEL LIMITS OF 80mm MINIMUM TO 150mm MAXIMUM BELOW THE BOTTOM OF THE PIPE, BEFORE PLACING ANY BEDDING.
- IF THE TRENCH FLOOR IS IN FIRM NATURAL SOIL AND AN EXCAVATOR IS BEING USED, IT WILL NORMALLY BE SUFFICIENT TO TRIM IT SMOOTH WITH THE EXCAVATOR BUCKET.
- IF THE TRENCH FLOOR IS IN ROCK, BACKFILL BETWEEN PEAKS OVER 30mm HIGH WITH SAND COMPACTED TO 100% OF SMDD BEFORE PLACING ANY BEDDING.
- IF THE TRENCH FLOOR HAS BEEN OVER EXCAVATED BELOW DESIGN TRENCH FLOOR LEVEL, BACKFILL WITH SAND COMPACTED TO 100% OF SMDD TO BRING IT BACK UP TO DESIGN TRENCH FLOOR LEVEL BEFORE PLACING ANY BEDDING.
- REMOVE LOOSE SOIL OR ROCK RUBBLE FROM THE FLOOR OF THE TRENCH.
- IF THE TRENCH FLOOR WHOLLY OR PARTIALLY CONSISTS OF: VERY SOFT CLAY, LOOSE SAND, OLD OR NON-ENGINEERED FILL, OR REFUSE, OR HAS ISOLATED OUTCROPS OF ROCK IN IT, OR HAS BEEN DISTURBED BY GROUNDWATER INFLOW, CONSULT THE SUPERINTENDENT OR REFER TO TECHNICAL SPECIFICATIONS.



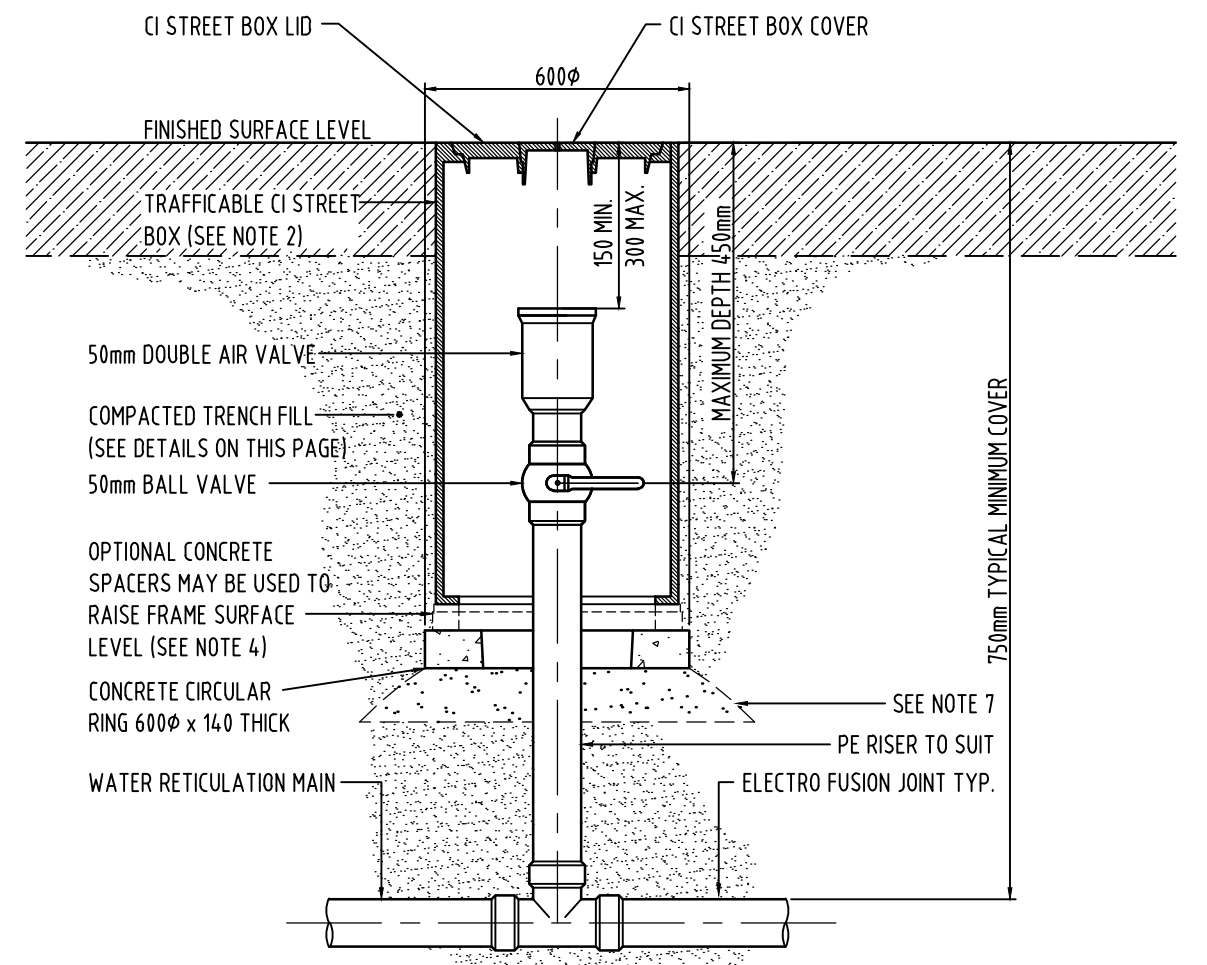
**TYPE 1 REINSTATEMENT**  
LIGHT TRAFFIC



**HV HYDRANT VALVE (SCOUR VALVE) DETAIL**  
SCALE N.T.S. (ALL DEPTHS)

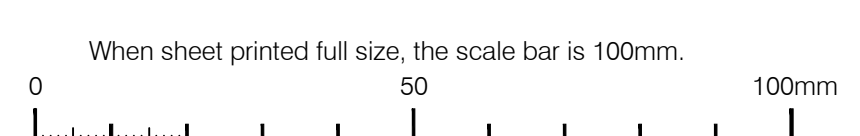
**NOTES:**

- ALL DIMENSIONS IN MILLIMETERS UNLESS NOTED OTHERWISE.
- TRAFFICABLE CI (CAST IRON) STREET BOX COVERS AND FRAMES TO BE IN ACCORDANCE WITH AS 3996, CLASS D LOADING.
- COVER AND FRAME, CONCRETE RING AND SPACERS TO BE INSTALLED SO THAT NO LOADING IS TRANSMITTED TO THE VALVE OR PIPE.
- CONCRETE SPACERS - PLACE THICKEST IN BOTTOM POSITION. EXTRA SPACERS (THICK OR THIN) ARE THEN ADDED TO GIVE THE FINISHED LEVEL. CONCRETE OR FIBRE BOARD PACKING SEGMENTS SHALL NOT BE USED FOR HEIGHT ADJUSTMENTS.
- CONCRETE VALVE CHAMBER SPINDLE SLEEVE AND BOTTOM CONCRETE SPACER BEDDED SO THAT NO ROAD LOADING IS TRANSMITTED TO VALVE OR PIPE.
- COMPACTED QUARRY RUBBLE FOR LIGHT TRAFFIC AREAS AND CEMENT TREATED CRUSHED ROCK FOR HEAVY TRAFFIC ROADS. TO BE +100mm BELOW VALVE GLAND AND -100 ABOVE PIPE.
- ALL HYDRANT/SCOUR VALVE CHAMBERS TO BE MARKED WITH POST SIGNED "WARNING - HIGH PRESSURE HYDRANT/SCOUR VALVE - xx metres, xx (direction)"



**AIR VALVE DETAIL**  
SCALE N.T.S.

1:20/21/2020/1 - 120591 - Fish Farm Recycled Water Scheme/120591-C11.dwg, 0. 19/2/2016 11:24 AM, b.harris



**CONSTRUCTION ISSUE**

| REV. | DATE     | DESCRIPTION      | DRAFT | ENG. | CHKD |
|------|----------|------------------|-------|------|------|
| A    | 04.07.14 | FOR REVIEW       | SRC   | JC   |      |
| B    | 23.09.14 | FOR TENDER       | JJW   | JC   | NS   |
| Ø    | 19.02.15 | FOR CONSTRUCTION | B.JH  | LC   | NS   |

|  |   |  |
|--|---|--|
| <p><b>W&amp;G</b><br/>WALLBRIDGE &amp; GILBERT<br/>Consulting Engineers</p> <p>80 Wyatt Street, Adelaide South Australia 5000<br/>Telephone (08) 8223 7433 Facsimile (08) 8232 0967<br/>Email adelade@w&amp;g.com</p> <p>W&amp;G Engineers Pty Ltd ACN 052 528 926<br/>trading as Wallbridge &amp; Gilbert</p> | <p><b>MARK LEE FISH FARM</b><br/>58 ST KILDA ROAD, WATERLOO CORNER<br/>WASTEWATER DISPOSAL MAIN<br/>STANDARD DETAILS 2 OF 2</p> |  |
|  | <p><b>A1</b><br/>Design<br/>JC</p>  | <p><b>120591</b><br/>Drawn<br/>SRC</p> |





APA Group  
PO Box 6014 Halifax Street  
South Australia 5000



For your immediate information **THERE IS A CRITICAL GAS PIPELINE AND/OR ASSOCIATED INFRASTRUCTURE** in the area of your works.

06/04/2022

Company: Greenhill  
Karion Dickson-Abbott  
Level 1,178 Fullarton Road  
Dulwich  
SA 5065  
KDickson-Abbott@greenhillaustralia.com.au

Dear Karion Dickson-Abbott

Sequence Number: 210057760  
Worksite Address: 79-81 Robinson Road  
Waterloo Corner  
SA 5110

Thank you for your Dial Before You Dig enquiry regarding the location of Gas Assets. We can confirm that the APA Group has **Critical Gas Assets** in the vicinity of the above location.

You are hereby notified that **before you commence any works** you are required to complete the attached **'Work In The Vicinity Of Critical Gas Assets'** request form and forward this to APA as soon as practicable.

As laid out in the **Duty of Care** requirements supplied, any activity in the vicinity of Critical Gas Assets operated by APA requires an Authority to Work Permit and potentially attendance on site by an APA representative during any work. Please ensure you read and comply with all the relevant requirements. Should you have any questions with regards to the attached information please contact our DBYD officer - 1800 085 628.

**Caution - Damage to gas assets could result in possible explosion and fire with the risk of personal injury. For Gas Emergencies please call 1800 GAS LEAK (1800 427 532)**

Please find enclosed the following information:-

- APA's Duty of Care, If you are unclear of your obligations under these requirements please contact the APA Representative listed above immediately
- An overview map with your requested area highlighted to assist in locating APA's Gas Assets
- A map(s) showing APA's Gas Assets in the requested area, this information is valid for 30 days from the date of this response, **please check this represents the area you requested**, if it does not, please contact the APA Representative listed above immediately
- A 'Work In The Vicinity Of Critical Gas Assets' request form, please complete and forward to APA as soon as practicable via [DBYDNetworksAPA@apa.com.au](mailto:DBYDNetworksAPA@apa.com.au), or the address above. **A minimum of 2 business days advance notification is required to process Authority To Work Request applications**

The outcome of this request may be that a qualified APA Group Representative will be required on site when you undertake your proposed works, if this is the case, this will need to be arranged dependent on their availability. Whilst we will aim to facilitate this within 2 business days from a decision, **this cannot be guaranteed**.

**Please Note:** For some DBYD enquiries, you might receive 2 responses from the APA Group. Please read both responses carefully as they will relate to different assets. It is your responsibility to action all requirements set out in APA Group responses.



Please take some time to review the entire response document and check the information supplied and please let us have any feedback by sending an email to [DBYDNetworksAPA@apa.com.au](mailto:DBYDNetworksAPA@apa.com.au) or contacting us direct on 1800 085 628.

## Duty of Care - Working Around Gas Assets

### General Conditions

- This location enquiry is valid for 30 days from the enquiry date
- Expired locations, i.e., over 30 days from the date of this response, require a new Dial Before You Dig request to validate location information
- The location information supplied in this document shall be used as a guide only. APA Group shall not be liable or responsible for the accuracy of any such information supplied pursuant to this request
- It is the responsibility of the excavator to expose all Gas Assets, including Gas Service pipes (see below), Gas Asset depths may vary according to ground conditions
- Gas Services (inlet service) connecting Gas Assets in the street to the gas meter on the property are typically **not** marked on the map
- Some Gas Assets are installed inside of a casing. The locations where a Gas Asset changes from inserted to direct burial are not marked on the map unless otherwise stated
- This information has been generated by an automated system based on the area highlighted in your DBYD request and has not been independently verified. It is your responsibility to ensure that the information supplied in this response matches the dig site you defined when submitting your Dial Before You Dig enquiry. If the information does not match the dig site or you have any question, please contact APA immediately using the details listed on the first page and / or please resubmit your enquiry
- For **Gas Emergencies** please call **1800 GAS LEAK (1800 427 532)**

### Critical Gas Assets - Conditions

It is your responsibility to follow these important conditions when working in the vicinity of Critical Gas Assets

- A 'Work In The Vicinity Of Critical Gas Assets' request form must be submitted to APA Group PRIOR to any work commencing, a minimum of **2 business days** are required to arrange attendance by an APA Group representative
- Whilst we will aim to facilitate this within **2 business days** from a decision, **this cannot be guaranteed**. Charges for APA Group supervision may apply
- Any works in the vicinity of Critical Gas Assets requires approval from APA via **APA's 'Authority to work' permit** and supervision by an APA Group representative unless expressed otherwise on the "Authority to work" permit.
- Penalties apply to excavators commencing work in the vicinity of Critical Gas Assets **prior to receiving an APA Group 'Authority to Work' permit and an APA Group representative is present**



### Rates applicable to APA on-site representation for supervision or location

| Item                             | Rate  |
|----------------------------------|---|
| Site Watch - Normal Hours        | \$143.42 (hr)   |
| Site Watch - After Hours         | \$175.06 (hr)   |
| Electronic Locate – Normal Hours | \$143.42 (hr)   |
| Electronic Locate – After Hours  | \$175.06 (hr)   |
| Cancellation                     | 2 hrs (where less than 1 business day notice is provided) |
| Mains Proving                    | As quoted by APA  |

Notes:

- All prices are exclusive of GST
- All partial hours will be charged at a full hour rate for the first hour, 1hr minimum charge.
- Cancellations must be received 1 business day prior to the booked supervision otherwise a 2hr charge will be incurred.
- Contact us for State specific hours of business.

## APA CHANGE NOTIFICATION

The map below may have different symbols to those you are familiar with.

APA recently upgraded the asset mapping software utilised for Dial Before You Dig requests.

To avoid confusion, please carefully review the legend along with the map.

Please direct any questions to [DBYDNetworksAPA@apa.com.au](mailto:DBYDNetworksAPA@apa.com.au)



|              |  |             |           |
|--------------|--|-------------|-----------|
| Site Address | 79-81 Robinson Road<br>Waterloo Corner<br>5110 | Sequence No | 210057760 |
| Name         | Karion Dickson-Abbott                          |             |           |
| Email        | KDickson-Abbott@greenhillaustralia.com.au      |             |           |



Scale 1: 10000



Enquiry Area



Map Key Area



APA Group does not guarantee the accuracy or completeness of the map and does not make any warranty about the data. APA Group is not under any liability to the user for any loss or damage (including consequential loss or damage) which the user may suffer resulting from the use of this map.

Mapping information is provided as AS5488-2013 Quality Level D

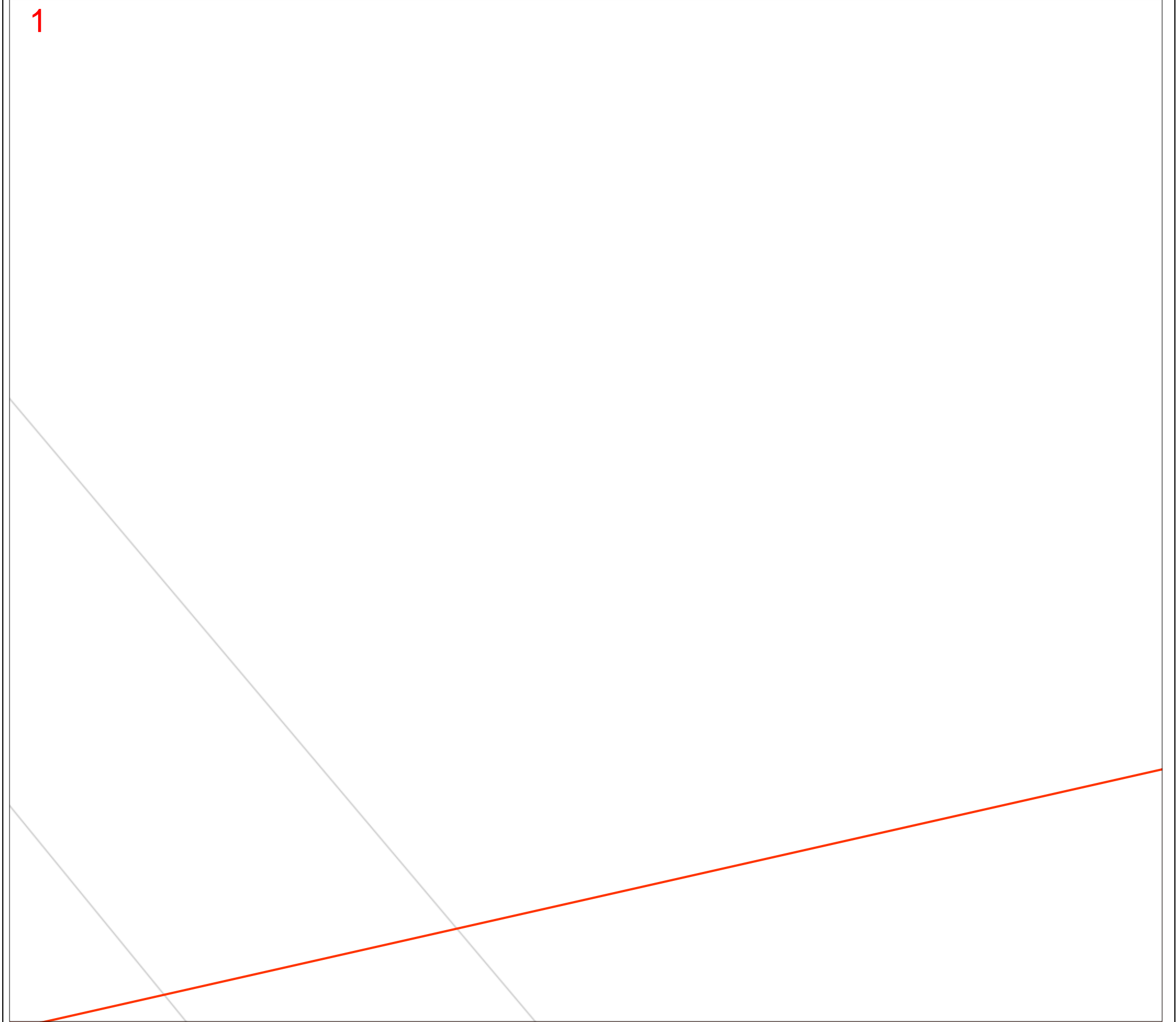
APA Group • PO Box 6014 Halifax Street SA 5000 • Email: [DBYDNetworksAPA@apa.com.au](mailto:DBYDNetworksAPA@apa.com.au) • Template: SA Critical Jan 2022

Page 4 of 15 • 06/04/2022



|              |   |             |           |
|--------------|---|-------------|-----------|
| Site Address | 79-81 Robinson Road<br>Waterloo Corner 5110 | Sequence No | 210057760 |
|--------------|---|-------------|-----------|

Before you commence any works you are required to complete the attached 'Work In The Vicinity Of Critical Gas Assets' request form and forward this to APA asap



**LEGEND**

| PIPE AND BOUNDARIES           | PIPE CODE / MATERIALS  | OBJECTS or TERMS     |
|-------------------------------|--|----------------------|
| LOW PRESSURES                 | C# (e.g. C2) Cast Iron   | VALVES               |
| MEDIUM PRESSURES              | CU Copper  | BURIED VALVES        |
| HIGH PRESSURES                | N2 Nylon   | REGULATORS           |
| TRANSMISSION PRESSURES        | P# (e.g. P6) Polyethylene (PE)   | GAS SUPPLIED = YES   |
| PRIORITY MAIN (BEHIND PIPE)   | P6,P7,P9-P12 Medium Density PE   | CP RECTIFIER UNIT    |
| PROPOSED (COLOUR BY PRESSURE) | P2,P4,P8 High Density PE   | CP TEST POINT/ ANODE |
| LPG (COLOUR BY PRESSURE)      | S# (e.g. S8) Steel   | SYPHON               |
| ABANDONED                     | W2 Wrought Galv. Iron  | TRACE WIRE POINT     |
| IDLE                          | W3 Poly Coat Wrought Galv. Iron  | PIPELINE MARKER      |
| SLEEVE                        | Pipe diameter in millimetres is shown before pipe code                     | NOT TIED IN          |
| CASING / SPLIT (BEHIND PIPE)  | e.g. 40P6 = 40mm nominal diameter  | DEPTH OF COVER       |
| EASEMENT/ JURISDICTION        |  | BACK / FRONT OF KERB |
| <b>EXAMPLES</b>               |  |                      |
| 40P6 in 80C2                  | 40mm High Pressure Medium Density Polyethylene in an 80mm Cast Iron Casing |                      |
| 63S8                          | 63mm Medium Pressure Steel   |                      |

Map Key

|   |   |   |   |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 |

Line / Polygon Request

This map is created in colour and shall be printed in colour

Scale 1:700

0 0.008km



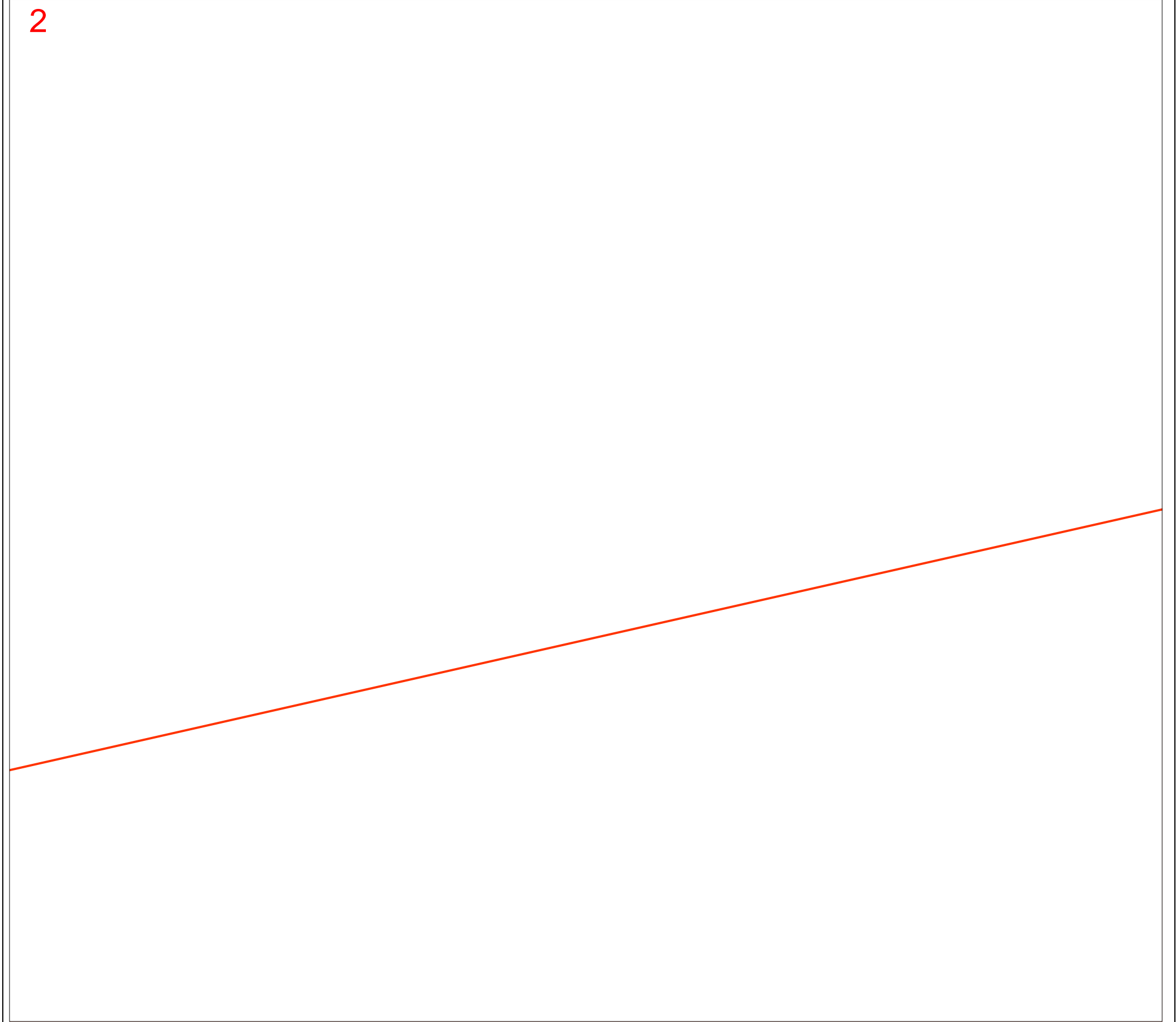
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|              |   |             |           |
|--------------|---|-------------|-----------|
| Site Address | 79-81 Robinson Road<br>Waterloo Corner 5110 | Sequence No | 210057760 |
|--------------|---|-------------|-----------|

Before you commence any works you are required to complete the attached 'Work In The Vicinity Of Critical Gas Assets' request form and forward this to APA asap

2



**LEGEND**

| PIPE AND BOUNDARIES           | PIPE CODE / MATERIALS  | OBJECTS or TERMS     |
|-------------------------------|--|----------------------|
| LOW PRESSURES                 | C# (e.g. C2) Cast Iron   | VALVES               |
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| <b>EXAMPLES</b>               |  |                      |
| 40P6 in 80C2                  | 40mm High Pressure Medium Density Polyethylene in an 80mm Cast Iron Casing |                      |
| 63S8                          | 63mm Medium Pressure Steel   |                      |

Map Key



Line / Polygon Request

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Scale 1:700

0 0.008km



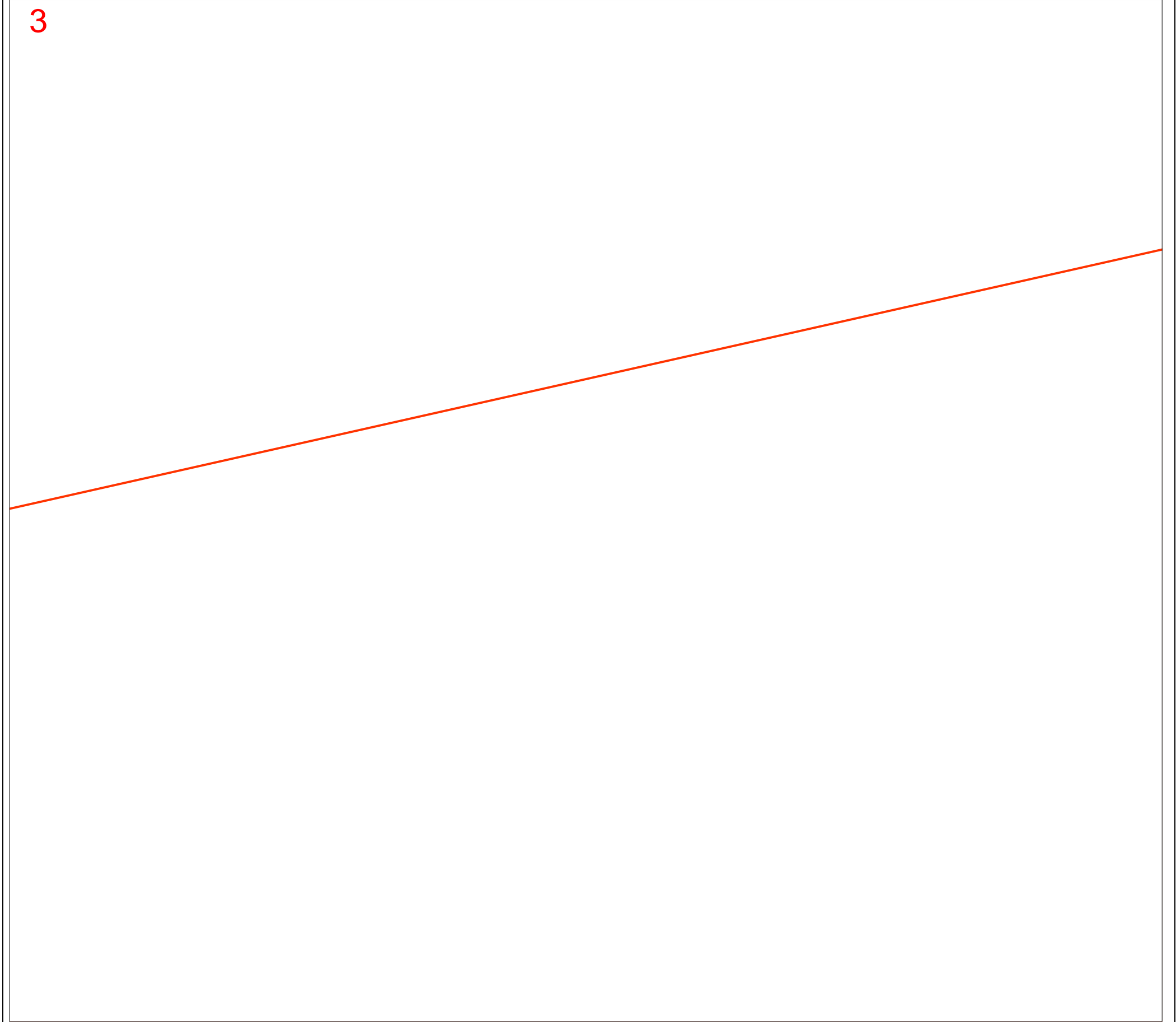
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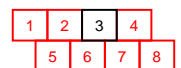
3



**LEGEND**

| PIPE AND BOUNDARIES           | PIPE CODE / MATERIALS  | OBJECTS or TERMS     |
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Map Key



Line / Polygon Request

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Scale 1:700

0 0.008km



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**LEGEND**

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| <b>EXAMPLES</b>               |  |                      |
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Map Key



Line / Polygon Request

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Scale 1:700

0 0.008km



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**LEGEND**

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| <b>EXAMPLES</b>               |  |                      |
| 40P6 in 80C2                  | 40mm High Pressure Medium Density Polyethylene in an 80mm Cast Iron Casing |                      |
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Map Key



Line / Polygon Request

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Scale 1:700

0 0.008km



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| Site Address | 79-81 Robinson Road<br>Waterloo Corner 5110 | Sequence No | 210057760 |
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6

**LEGEND**

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| <b>EXAMPLES</b>               |  |                      |
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Map Key



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Scale 1:700

0 0.008km



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7

**LEGEND**

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| <b>EXAMPLES</b>               |  |                      |
| 40P6 in 80C2                  | 40mm High Pressure Medium Density Polyethylene in an 80mm Cast Iron Casing |                      |
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Map Key



Line / Polygon Request

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Scale 1:700

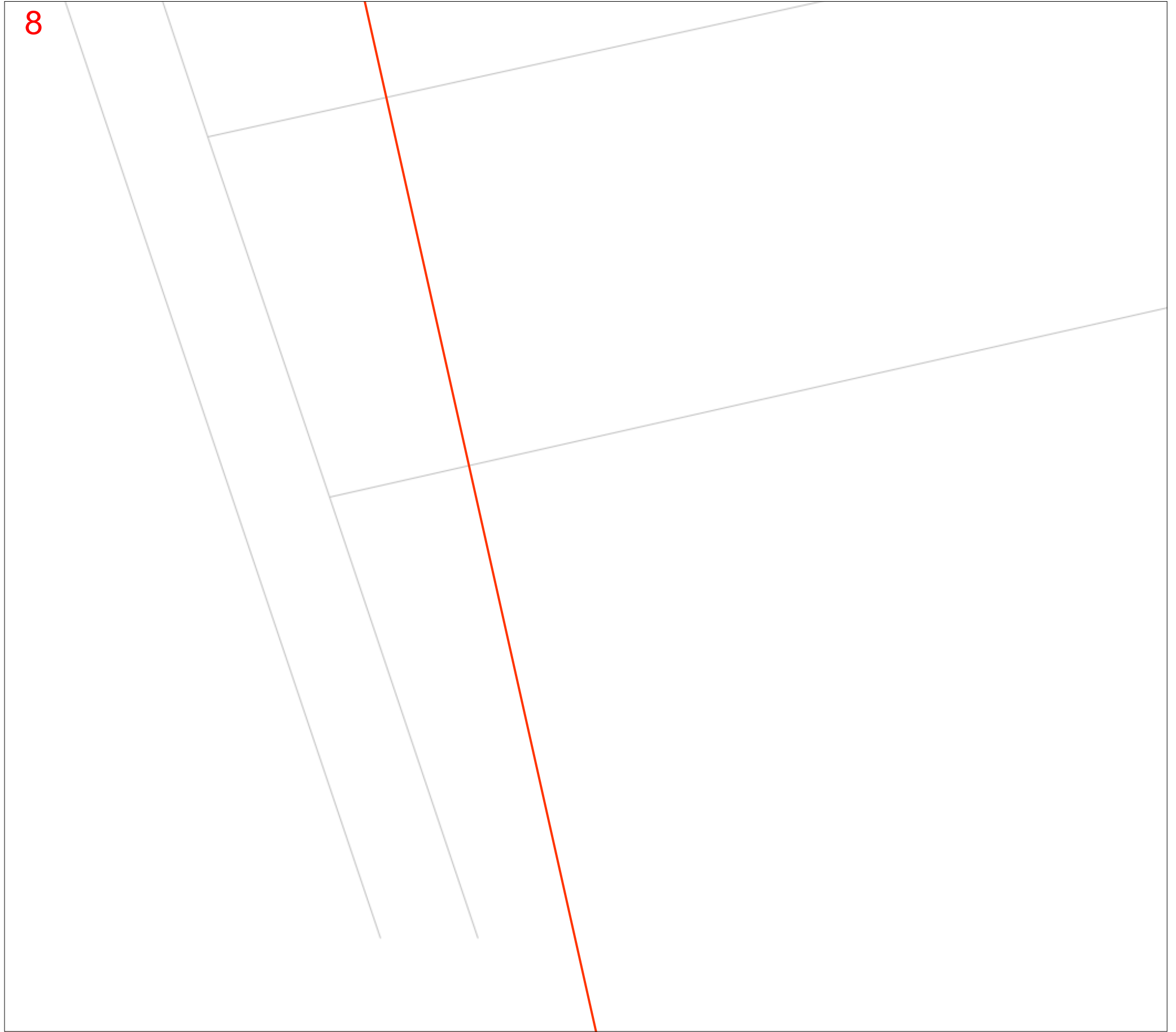
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|   |   |   |   |
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0 0.008km



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## WORK IN THE VICINITY OF CRITICAL GAS ASSETS

It is your responsibility to read and complete this request form

1. This request form must be received by the APA Group via the options below at least **2 business days prior to excavation or site location work commencement**
2. Excavation / works must not commence on site until you have received a 'Authority to Work Permit' from the APA Group
3. This request form must be accompanied by a detailed schedule of works
4. Penalties apply to excavators commencing work in the vicinity of Critical Gas Assets **prior to receiving an APA Group 'Authority to Work Permit'**

For further information refer to:-

- NSW Gas Supply Act 1996 – Sec 64 C, Requirements in relation to carrying out of certain excavation work
- Victoria: Pipelines Act 2005 – Section 118, Digging near pipelines and Section 119, Interference with pipeline
- South Australia: Gas Industry Act 1997 – Section 83, Notice of work that may affect gas infrastructure.
- Northern Territory: Energy Pipelines Act as in force at 8 March 2007 – Section 66, Threat to pipeline.

---

**Return to:** [DBYDNetworksAPA@apa.com.au](mailto:DBYDNetworksAPA@apa.com.au)

**Enquiries:**

Should you have any questions with regards to the attached information please contact our Dial Before You Dig officer - 1800 085 628.

---

**Work / Excavation Site Details:**

|   |         |
|---|---------|
| Number:   | Street: |
| Suburb:   | State:  |
| Sequence Number: 210057760                      |         |
| Requestors Name:                                |         |
| Company Name:                                   |         |
| Name of Authorised Company Site Representative: |         |
| Email:  |         |

|            |         |
|------------|---------|
| Phone:     | Mobile: |
| Signature: |         |

**Description of Work / Excavation:**

|   |                          |                         |                          |
|---|--------------------------|-------------------------|--------------------------|
| Activity/Excavation Details:                              |                          |                         |                          |
| <b>Tick Applicable Box</b>                                |                          |                         |                          |
| Excavation  | <input type="checkbox"/> | Change to surface level | <input type="checkbox"/> |
| Service crossing  | <input type="checkbox"/> | Boring                  | <input type="checkbox"/> |
| Proving   | <input type="checkbox"/> | Other (provide details) | <input type="checkbox"/> |
| Earthworks  | <input type="checkbox"/> |                         |                          |
| Excavator Size, Tooth Type & Tooth Size (provide details) |                          |                         |                          |

Work / Excavation Drawings Attached (circle):                      Yes                      No

**Proposed Dates and Times:**

|            | From |       | To   |       |
|------------|------|-------|------|-------|
|            | Date | Time  | Date | Time  |
| Excavation | / /  | am/pm | / /  | am/pm |
| Backfill   | / /  | am/pm | / /  | am/pm |

|                             |   |   |   |
|-----------------------------|---|---|---|
| <b>Work is assessed as:</b> | <b>Class 1</b><br>Works crossing a critical gas asset | <b>Class 2</b><br>Works within 3m of a critical gas asset | <b>Class 3</b><br>Works involving large excavations, vibrations or blasting beyond 3m of the critical gas asset |
|-----------------------------|---|---|---|

**Insurer and Policy Details**

|   |  |                           |  |
|---|--|---------------------------|--|
| <b>Policy Number</b>                              |  | <b>Policy Expiry Date</b> |  |
| <b>Insurance Cover – Current Level (\$amount)</b> |  |                           |  |



**Third Party Works Authorisation requested by (mandatory fields required for invoicing):**

|                      |                       |
|----------------------|-----------------------|
| Company/Biller Name: |                       |
| Billing Address:     |                       |
| Purchase Order:      | Billing Email:        |
| Biller Phone:        |                       |
| Requestors Name:     | Requesters Signature: |

**NOTES**

5. This Authority to Work applies only to work in the vicinity of the Gas Mains. It does not authorise work near or on the Gas Mains itself
6. A minimum of 2 business days must be allowed between receipt by APA Group of this Request and a response. However, more time for notification may be necessary
7. For any gas leak related work this application must be accompanied by a detailed sequence of events, outlining all aspects of work involved and work is not permitted until an Authority to Work is issued
8. For class 1 and 2 Dial Before You Dig, APA Group will arrange for an inspector to be on site as necessary during the work. An inspector must be present at all times for works involving excavation within 1m of the Gas Mains. APA Group will advise the requirement for an inspector for other works within 3m of the Gas Mains
9. The applicant is responsible for any damage resulting from the work and all consequential damages and losses arising from such damage and therefore must insure against every liability of the contractor in respect of or arising out of any loss of life, loss of or damage to property of person (both real and personal), arising out of or in any way connected to this permit
10. Rates applicable to APA on-site representation for supervision or location exclude GST.



APA Group  
PO Box 6014 Halifax Street  
South Australia 5000



**For your immediate information THERE IS A GAS DISTRIBUTION PIPELINE AND/OR ASSOCIATED INFRASTRUCTURE in the area of your works.**

06/04/2022

Company: Greenhill  
Karion Dickson-Abbott  
Level 1, 178 Fullarton Road  
Dulwich  
SA 5065

KDickson-Abbott@greenhillaustralia.com.au

Dear Karion Dickson-Abbott

Sequence Number: 210057761  
Worksite Address: 79-81 Robinson Road  
Waterloo Corner  
SA 5110

You are hereby notified that the attached Duty of Care requirements apply to any activity in the vicinity of Gas Assets operated by APA, please ensure you read and comply with all the relevant requirements.

Should you have any questions with regards to the attached information please contact our Dial Before You Dig officer - 1800 085 628.

**Caution - Damage to gas assets could result in possible explosion and fire with the risk of personal injury.  
For Gas Emergencies please call 1800 GAS LEAK (1800 427 532).**

Please find enclosed the following information:

- APA's Duty of Care, If you are unclear of your obligations under these requirements please contact the APA Representative listed above immediately
- An overview map with your requested area highlighted to assist in identifying the location of APA's Gas Assets
- A map(s) showing APA's Gas Assets in the requested area, this information is valid for 30 days from the date of this response, **please check this represents the area you requested**, if it does not, please contact the APA Representative listed above immediately

**Please Note:** For some DBYD enquiries, you might receive 2 responses from the APA Group. Please read both responses carefully as they will relate to different assets. It is your responsibility to action all requirements set out in APA Group responses.

Please take some time to review the entire response document and check the information supplied and please let us have any feedback by sending an email to [DBYDNetworksAPA@apa.com.au](mailto:DBYDNetworksAPA@apa.com.au) or contacting us direct on 1800 085 628.

Yours Faithfully,

**Dial Before You Dig Officer**  
**APA Group**  
**Email: [DBYDNetworksAPA@apa.com.au](mailto:DBYDNetworksAPA@apa.com.au)**



## Duty of Care - Working Around Gas Assets

### General Conditions

- This location enquiry is valid for 30 days from the date of this response
- Expired locations, i.e., over 30 days from the date of this response, require a new Dial Before You Dig request to validate location information
- The location information supplied in this document shall be used as a guide only. APA Group shall not be liable or responsible for the accuracy of any such information supplied pursuant to this request
- It is the responsibility of the excavator to expose all Gas Assets, including Gas Service pipes (see below), **by hand**. Gas Asset depths may vary according to ground conditions
- Gas Service (inlet service) connecting Gas Assets in the street to the gas meter on the property are typically **not** marked on the map
- Generally, a map of the inlet service connection installation may be found inside the gas meter box
- The use of Non Destructive Digging (hydro-excavation) is permitted only if the following are adhered to:
  - a) maximum water pressure of 1000psi
  - b) impacting the gas asset must be prevented at all times
  - c) vertical movements in the vicinity of the gas asset such as pushing the pressure wand nozzle or vacuum tube into the soil to break it up is prohibited
  - d) the use of root cutting heads/turbo nozzles is prohibited at all times
  - e) a minimum distance of 100mm shall be maintained between the end of the pressure wand nozzle and the gas asset. Aiming directly at the gas asset shall be avoided at all times
  - f) a dead man trigger or similar, shall be installed on the wand
  - g) once a gas asset has been exposed via hydro-excavation methods, a visual check must be undertaken to ensure no damage has occurred to the pipe or it's coating
- This information has been generated by an automated system based on the area highlighted in your DBYD request and has not been independently verified. **It is your responsibility** to ensure that the information supplied in this response matches the dig site you defined when submitting your Dial Before You Dig enquiry. If the information does not match the dig site or you have any question, please contact APA immediately using the details listed on the first page and / or please resubmit your enquiry
- For **Gas Emergencies** please call 1800 GAS LEAK (1800 427 532).

## **APA CHANGE NOTIFICATION**

The map below may have different symbols to those you are familiar with.

APA recently upgraded the asset mapping software utilised for Dial Before You Dig requests.

To avoid confusion, please carefully review the legend along with the map.

Please direct any questions to [DBYDNetworksAPA@apa.com.au](mailto:DBYDNetworksAPA@apa.com.au)



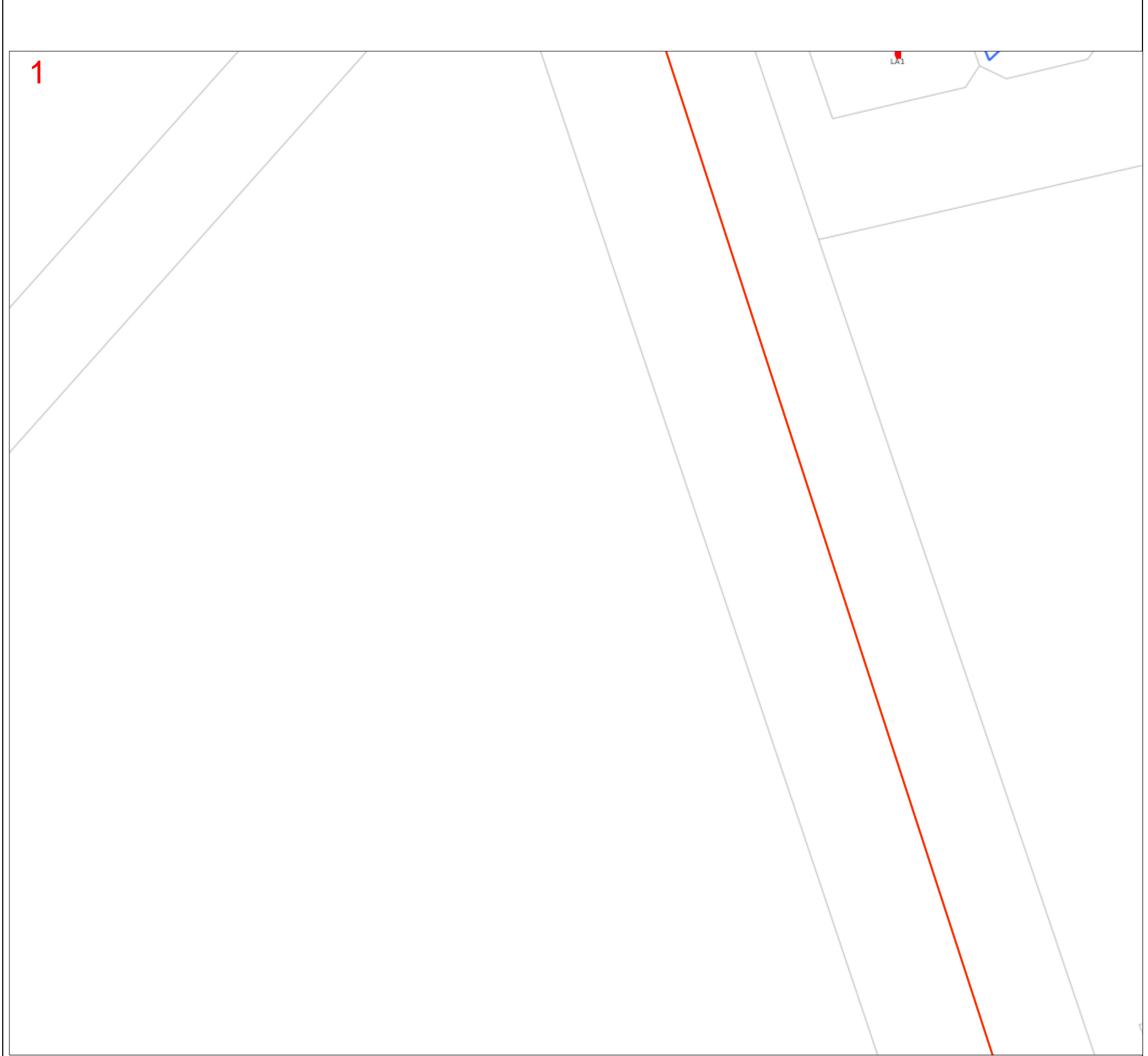
|              |  |             |           |
|--------------|--|-------------|-----------|
| Site Address | 79-81 Robinson Road<br>Waterloo Corner<br>5110 | Sequence No | 210057761 |
| Name         | Karion Dickson-Abbott                          |             |           |
| Email        | KDickson-Abbott@greenhillaustralia.com.au      |             |           |



|                |  |              |              |
|----------------|--|--------------|--------------|
| Scale 1: 10500 |  | Enquiry Area | Map Key Area |
|----------------|--|--------------|--------------|

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|              |   |             |           |
|--------------|---|-------------|-----------|
| Site Address | 79-81 Robinson Road<br>Waterloo Corner 5110 | Sequence No | 210057761 |
|--------------|---|-------------|-----------|



| LEGEND                        |                        | PIPE CODE / MATERIALS   |  | OBJECTS or TERMS     |         |
|-------------------------------|------------------------|---|--|----------------------|---------|
| <b>PIPE AND BOUNDARIES</b>    |                        | <b>C# (e.g. C2)</b>   | Cast Iron  | <b>VALVES</b>        |         |
| LOW PRESSURES                 |                        | CU  | Copper   | BURIED VALVES        |         |
| MEDIUM PRESSURES              |                        | N2  | Nylon  | REGULATORS           |         |
| HIGH PRESSURES                |                        | <b>P# (e.g. P6)</b>   | Polyethylene (PE)  | GAS SUPPLIED = YES   |         |
| TRANSMISSION PRESSURES        |                        | P6,P7,P9-P12  | Medium Density PE  | CP RECTIFIER UNIT    |         |
| PRIORITY MAIN (BEHIND PIPE)   |                        | P2,P4,P8  | High Density PE  | CP TEST POINT/ ANODE |         |
| PROPOSED (COLOUR BY PRESSURE) |                        | S# (e.g. S8)  | Steel  | SYPHON               |         |
| LPG (COLOUR BY PRESSURE)      |                        | W2  | Wrought Galv. Iron   | TRACE WIRE POINT     |         |
| ABANDONED                     |                        | W3  | Poly Coat Wrought Galv. Iron   | PIPELINE MARKER      |         |
| IDLE                          |                        | <i>Pipe diameter in millimetres is shown before pipe code</i> |  | NOT TIED IN          | N.T.I.  |
| SLEEVE                        |                        | <i>e.g. 40P6 = 40mm nominal diameter</i>                      |  | DEPTH OF COVER       | C       |
| CASING / SPLIT (BEHIND PIPE)  |                        |   |  | BACK / FRONT OF KERB | Bok Fok |
| EASEMENT/ JURISDICTION        |                        |   |  |                      |         |
| <b>EXAMPLES</b>               |                        | 40P6 in 80C2  | 40mm High Pressure Medium Density Polyethylene in an 80mm Cast Iron Casing |                      |         |
|                               |                        | 63S8  | 63mm Medium Pressure Steel   |                      |         |
|                               | Line / Polygon Request |   |  |                      |         |

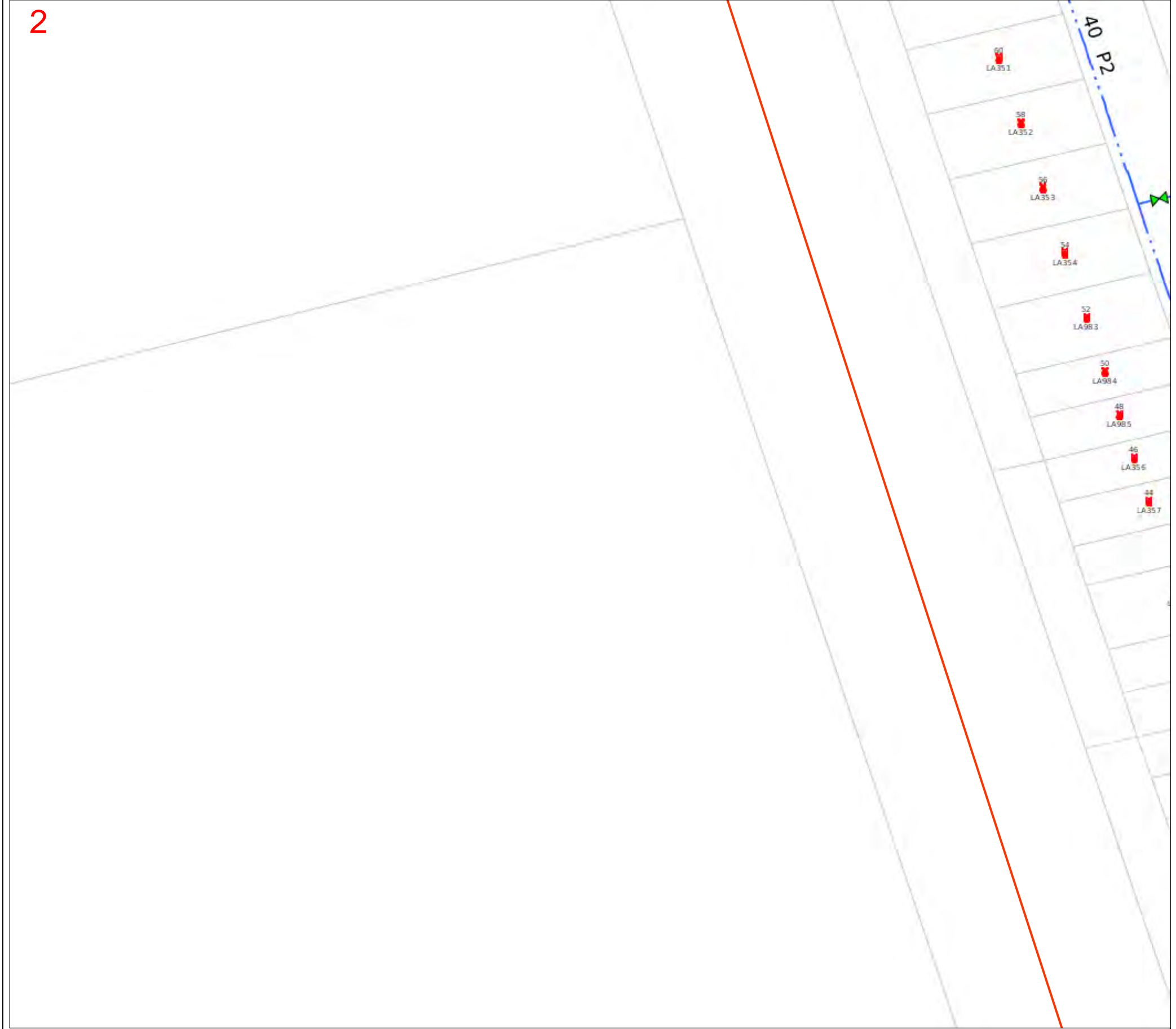
Map Key

Scale 1:700 0 0.008km

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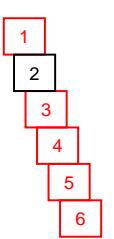
|              |   |             |           |
|--------------|---|-------------|-----------|
| Site Address | 79-81 Robinson Road<br>Waterloo Corner 5110 | Sequence No | 210057761 |
|--------------|---|-------------|-----------|



**LEGEND**

| PIPE AND BOUNDARIES           | PIPE CODE / MATERIALS                                  | OBJECTS or TERMS     |
|-------------------------------|--|----------------------|
| LOW PRESSURES                 | C# (e.g. C2) Cast Iron                                 | VALVES               |
| MEDIUM PRESSURES              | CU Copper  | BURIED VALVES        |
| HIGH PRESSURES                | N2 Nylon   | REGULATORS           |
| TRANSMISSION PRESSURES        | P# (e.g. P6) Polyethylene (PE)                         | GAS SUPPLIED = YES   |
| PRIORITY MAIN (BEHIND PIPE)   | P6,P7,P9-P12 Medium Density PE                         | CP RECTIFIER UNIT    |
| PROPOSED (COLOUR BY PRESSURE) | P2,P4,P8 High Density PE                               | CP TEST POINT/ ANODE |
| LPG (COLOUR BY PRESSURE)      | S# (e.g. S8) Steel                                     | SYPHON               |
| ABANDONED                     | W2 Wrought Galv. Iron                                  | TRACE WIRE POINT     |
| IDLE                          | W3 Poly Coat Wrought Galv. Iron                        | PIPELINE MARKER      |
| SLEEVE                        | Pipe diameter in millimetres is shown before pipe code | NOT TIED IN          |
| CASING / SPLIT (BEHIND PIPE)  | e.g. 40P6 = 40mm nominal diameter                      | DEPTH OF COVER       |
| EASEMENT/ JURISDICTION        |  | BACK / FRONT OF KERB |

**Map Key**



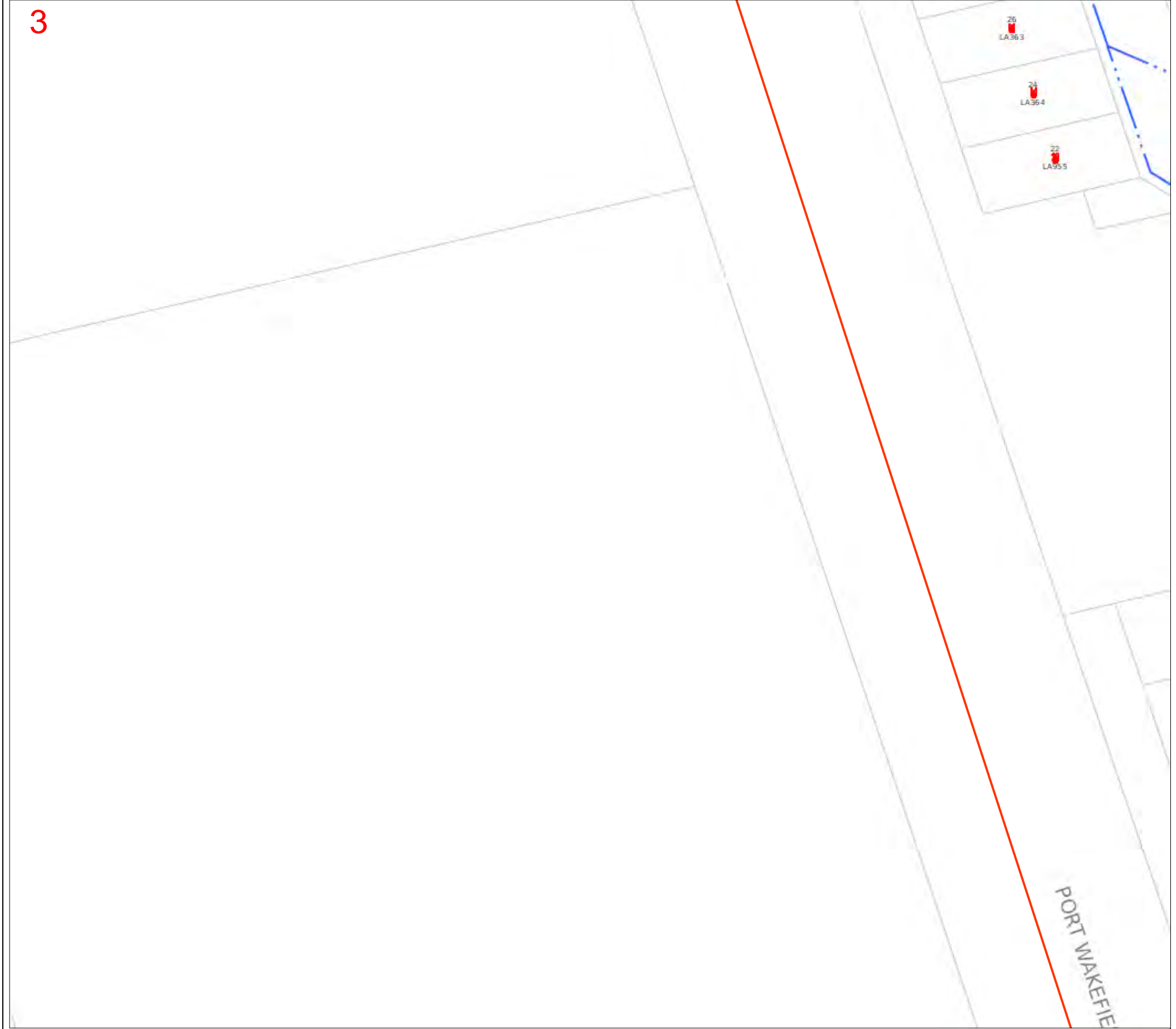
— Line / Polygon Request

This map is created in colour and shall be printed in colour

|             |           |  |
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| Scale 1:700 | 0 0.008km |  |
|-------------|-----------|--|

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|              |   |             |           |
|--------------|---|-------------|-----------|
| Site Address | 79-81 Robinson Road<br>Waterloo Corner 5110 | Sequence No | 210057761 |
|--------------|---|-------------|-----------|



**LEGEND**

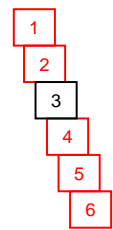
| PIPE AND BOUNDARIES           | PIPE CODE / MATERIALS   | OBJECTS or TERMS     |
|-------------------------------|---|----------------------|
| LOW PRESSURES                 | C# (e.g. C2) Cast Iron  | VALVES               |
| MEDIUM PRESSURES              | CU Copper   | BURIED VALVES        |
| HIGH PRESSURES                | N2 Nylon  | REGULATORS           |
| TRANSMISSION PRESSURES        | P# (e.g. P6) Polyethylene (PE)                                | GAS SUPPLIED = YES   |
| PRIORITY MAIN (BEHIND PIPE)   | P6,P7,P9-P12 Medium Density PE                                | CP RECTIFIER UNIT    |
| PROPOSED (COLOUR BY PRESSURE) | P2,P4,P8 High Density PE                                      | CP TEST POINT/ ANODE |
| LPG (COLOUR BY PRESSURE)      | S# (e.g. S8) Steel  | SYPHON               |
| ABANDONED                     | W2 Wrought Galv. Iron   | TRACE WIRE POINT     |
| IDLE                          | W3 Poly Coat Wrought Galv. Iron                               | PIPELINE MARKER      |
| SLEEVE                        | <i>Pipe diameter in millimetres is shown before pipe code</i> | NOT TIED IN          |
| CASING / SPLIT (BEHIND PIPE)  | <i>e.g. 40P6 = 40mm nominal diameter</i>                      | DEPTH OF COVER       |
| EASEMENT/ JURISDICTION        |   | BACK / FRONT OF KERB |

**EXAMPLES**  
 40P6 in 80C2 40mm High Pressure Medium Density Polyethylene in an 80mm Cast Iron Casing  
 63S8 63mm Medium Pressure Steel

— Line / Polygon Request

This map is created in colour and shall be printed in colour

**Map Key**



Scale 1:700

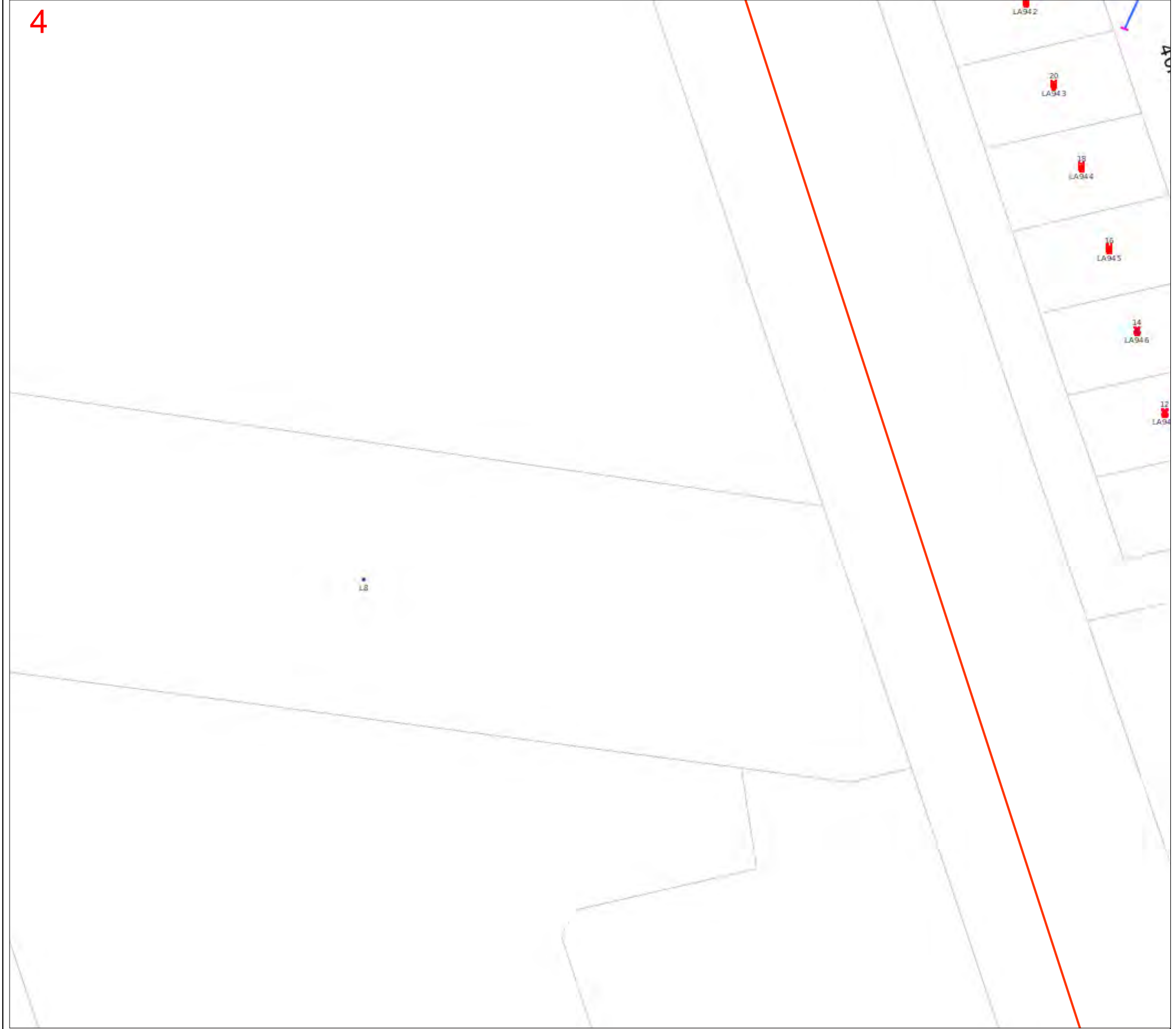
0 0.008km



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|              |   |             |           |
|--------------|---|-------------|-----------|
| Site Address | 79-81 Robinson Road<br>Waterloo Corner 5110 | Sequence No | 210057761 |
|--------------|---|-------------|-----------|



**LEGEND**

| PIPE AND BOUNDARIES           | PIPE CODE / MATERIALS   | OBJECTS or TERMS     |
|-------------------------------|---|----------------------|
| LOW PRESSURES                 | C# (e.g. C2) Cast Iron  | VALVES               |
| MEDIUM PRESSURES              | CU Copper   | BURIED VALVES        |
| HIGH PRESSURES                | N2 Nylon  | REGULATORS           |
| TRANSMISSION PRESSURES        | P# (e.g. P6) Polyethylene (PE)                                | GAS SUPPLIED = YES   |
| PRIORITY MAIN (BEHIND PIPE)   | P6,P7,P9-P12 Medium Density PE                                | CP RECTIFIER UNIT    |
| PROPOSED (COLOUR BY PRESSURE) | P2,P4,P8 High Density PE                                      | CP TEST POINT/ ANODE |
| LPG (COLOUR BY PRESSURE)      | S# (e.g. S8) Steel  | SYPHON               |
| ABANDONED                     | W2 Wrought Galv. Iron   | TRACE WIRE POINT     |
| IDLE                          | W3 Poly Coat Wrought Galv. Iron                               | PIPELINE MARKER      |
| SLEEVE                        | <i>Pipe diameter in millimetres is shown before pipe code</i> | NOT TIED IN          |
| CASING / SPLIT (BEHIND PIPE)  | <i>e.g. 40P6 = 40mm nominal diameter</i>                      | DEPTH OF COVER       |
| EASEMENT/ JURISDICTION        |   | BACK / FRONT OF KERB |

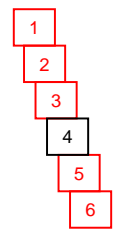
**EXAMPLES**

|  |              |  |
|--|--------------|--|
|  | 40P6 in 80C2 | 40mm High Pressure Medium Density Polyethylene in an 80mm Cast Iron Casing |
|  | 63S8         | 63mm Medium Pressure Steel   |

Line / Polygon Request

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**Map Key**



Scale 1:700

0 0.008km



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|--------------|---|-------------|-----------|
| Site Address | 79-81 Robinson Road<br>Waterloo Corner 5110 | Sequence No | 210057761 |
|--------------|---|-------------|-----------|



**LEGEND**

| PIPE AND BOUNDARIES           | PIPE CODE / MATERIALS   | OBJECTS or TERMS     |
|-------------------------------|---|----------------------|
| LOW PRESSURES                 | C# (e.g. C2) Cast Iron  | VALVES               |
| MEDIUM PRESSURES              | CU Copper   | BURIED VALVES        |
| HIGH PRESSURES                | N2 Nylon  | REGULATORS           |
| TRANSMISSION PRESSURES        | P# (e.g. P6) Polyethylene (PE)                                | GAS SUPPLIED = YES   |
| PRIORITY MAIN (BEHIND PIPE)   | P6,P7,P9-P12 Medium Density PE                                | CP RECTIFIER UNIT    |
| PROPOSED (COLOUR BY PRESSURE) | P2,P4,P8 High Density PE                                      | CP TEST POINT/ ANODE |
| LPG (COLOUR BY PRESSURE)      | S# (e.g. S8) Steel  | SYPHON               |
| ABANDONED                     | W2 Wrought Galv. Iron   | TRACE WIRE POINT     |
| IDLE                          | W3 Poly Coat Wrought Galv. Iron                               | PIPELINE MARKER      |
| SLEEVE                        | <i>Pipe diameter in millimetres is shown before pipe code</i> | NOT TIED IN          |
| CASING / SPLIT (BEHIND PIPE)  | <i>e.g. 40P6 = 40mm nominal diameter</i>                      | DEPTH OF COVER       |
| EASEMENT/ JURISDICTION        |   | BACK / FRONT OF KERB |

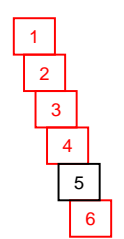
**EXAMPLES**

|  |  |
|--|--|
|  | 40mm High Pressure Medium Density Polyethylene in an 80mm Cast Iron Casing |
|  | 63mm Medium Pressure Steel   |

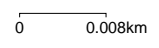
Line / Polygon Request

This map is created in colour and shall be printed in colour

**Map Key**



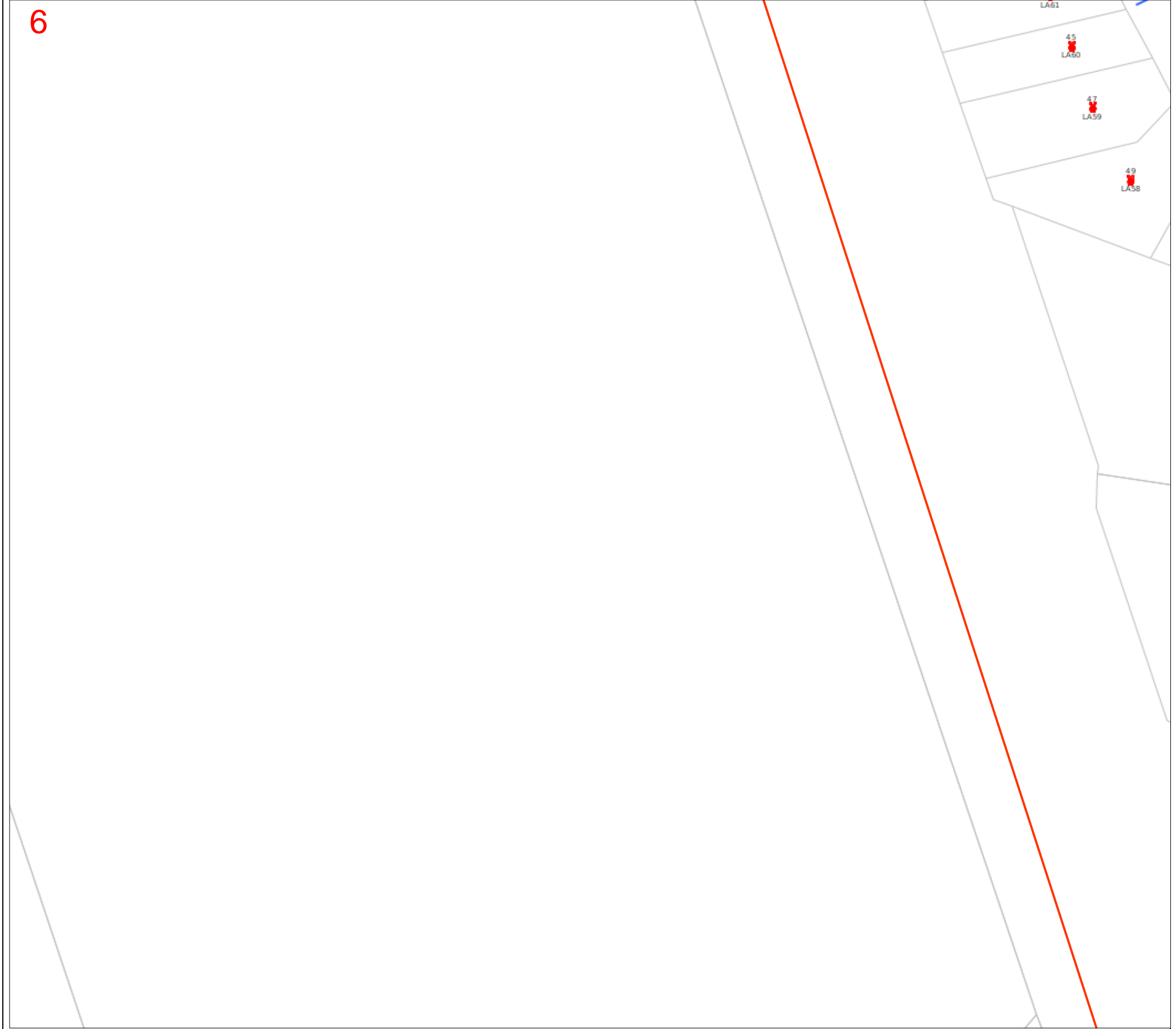
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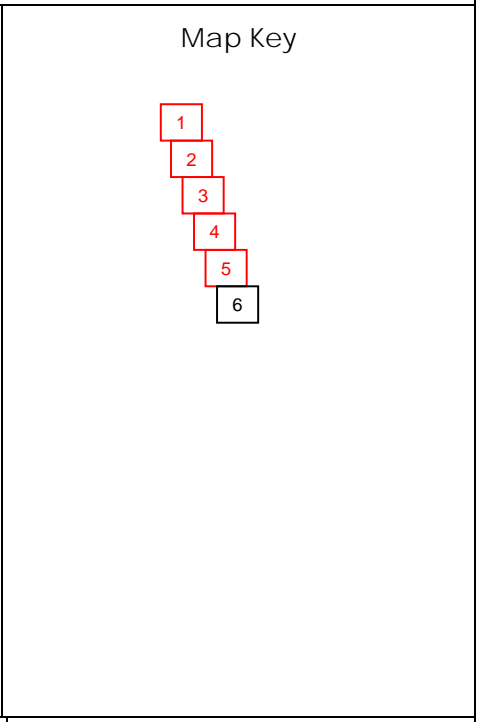
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|              |   |             |           |
|--------------|---|-------------|-----------|
| Site Address | 79-81 Robinson Road<br>Waterloo Corner 5110 | Sequence No | 210057761 |
|--------------|---|-------------|-----------|



| LEGEND                        |              | PIPE CODE / MATERIALS  |                              | OBJECTS or TERMS     |         |
|-------------------------------|--------------|--|------------------------------|----------------------|---------|
| <b>PIPE AND BOUNDARIES</b>    |              |  |                              |                      |         |
| LOW PRESSURES                 |              | C# (e.g. C2)   | Cast Iron                    | VALVES               |         |
| MEDIUM PRESSURES              |              | CU   | Copper                       | BURIED VALVES        |         |
| HIGH PRESSURES                |              | N2   | Nylon                        | REGULATORS           |         |
| TRANSMISSION PRESSURES        |              | P# (e.g. P6)   | Polyethylene (PE)            | GAS SUPPLIED = YES   |         |
| PRIORITY MAIN (BEHIND PIPE)   |              | P6,P7,P9-P12   | Medium Density PE            | CP RECTIFIER UNIT    |         |
| PROPOSED (COLOUR BY PRESSURE) |              | P2,P4,P8   | High Density PE              | CP TEST POINT/ ANODE |         |
| LPG (COLOUR BY PRESSURE)      |              | S# (e.g. S8)   | Steel                        | SYPHON               |         |
| ABANDONED                     |              | W2   | Wrought Galv. Iron           | TRACE WIRE POINT     |         |
| IDLE                          |              | W3   | Poly Coat Wrought Galv. Iron | PIPELINE MARKER      |         |
| SLEEVE                        |              | <i>Pipe diameter in millimetres is shown before pipe code</i>              |                              | NOT TIED IN          | N.T.I.  |
| CASING / SPLIT (BEHIND PIPE)  |              | <i>e.g. 40P6 = 40mm nominal diameter</i>                                   |                              | DEPTH OF COVER       | C       |
| EASEMENT/ JURISDICTION        |              |  |                              | BACK / FRONT OF KERB | Bok Fok |
| <b>EXAMPLES</b>               | 40P6 in 80C2 | 40mm High Pressure Medium Density Polyethylene in an 80mm Cast Iron Casing |                              |                      |         |
|                               | 63S8         | 63mm Medium Pressure Steel   |                              |                      |         |
| Line / Polygon Request        |              |  |                              |                      |         |



Scale 1:700 0 0.008km

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APA Group  
PO Box 6014 Halifax Street  
South Australia 5000

06/04/2022

Company: Greenhill  
Karion Dickson-Abbott  
Level 1,178 Fullarton Road  
Dulwich  
SA 5065

KDickson-Abbott@greenhillaustralia.com.au

Dear Karion Dickson-Abbott

**Sequence Number:** 210057762  
**Worksite Address:** 79-81 Robinson Road  
Waterloo Corner  
SA 5110

Thank you for your Dial Before You Dig enquiry regarding the location of Gas Assets. We can confirm that the APA Network's Division has **no** underground Gas Assets in the vicinity of the above location.

**Please Note:** For some DBYD enquiries, you might receive 2 responses from the APA Group. Please read both responses carefully as they will relate to different assets. It is your responsibility to action all requirements set out in APA Group responses.

You are hereby notified that the attached Duty of Care requirements apply to any activity in the vicinity of Gas Assets operated by APA, please ensure you read and comply with all the relevant requirements. Should you have any questions with regards to the attached information please contact our Dial Before You Dig officer - 1800 085 628.

**Caution - Damage to gas assets could result in possible explosion and fire with the risk of personal injury.  
For Gas Emergencies please call 1800 GAS LEAK (1800 427 532)**

Please find enclosed the following information:

- APA's Duty of Care, if you are unclear of your obligations under these requirements please contact the APA Representative listed above immediately
- An overview map with your requested area highlighted to assist in identifying the location of APA's Gas Assets
- A map(s) showing APA's Gas Assets in the requested area, this information is valid for 30 days from the date of this response, **please check this represents the area you requested**, if it does not, please contact the APA Representative listed above immediately

Please ensure you review all the information contained in this response carefully and please do not hesitate to contact us for further information by sending an email to [DBYDNetworksAPA@apa.com.au](mailto:DBYDNetworksAPA@apa.com.au) or contacting us direct on 1800 085 628.

Yours Faithfully,

**Dial Before You Dig Officer**  
**APA Group**  
**Email: DBYDNetworksAPA@apa.com.au**



## Duty of Care - Working Around Gas Assets

### General Conditions

- This location enquiry is valid for 30 days from the date of this response
- Expired locations, i.e., over 30 days from the date of this response, require a new Dial Before You Dig request to validate location information
- The location information supplied in this document shall be used as a guide only. APA Group shall not be liable or responsible for the accuracy of any such information supplied pursuant to this request
- It is the responsibility of the excavator to expose all Gas Assets, including Gas Service pipe (see below), **by hand** (Please Note: Do not use vacuum excavation systems as damage to Gas Assets may occur). Gas Asset depths may vary according to ground conditions
- Gas Service (inlet service) connecting Gas Assets in the street to the gas meter on the property are typically **not** marked on the map unless otherwise stated
- Generally, a map of the Gas Service (inlet service) connection may be found inside the gas meter box
- Some Gas Assets are installed inside of a casing. The locations where a Gas Asset changes from inserted to direct burial are not marked on the map
- This information has been generated by an automated system based on the area highlighted in your DBYD request and has not been independently verified. **It is your responsibility** to ensure that the information supplied in this response matches the dig site you defined when submitting your Dial Before You Dig enquiry. If the information does not match the dig site or you have any question, please contact APA immediately using the details listed on the first page and / or please resubmit your enquiry
- For **Gas Emergencies** please call 1800 GAS LEAK (1800 427 532)

### APA CHANGE NOTIFICATION

The map below may have different symbols to those you are familiar with.

APA recently upgraded the asset mapping software utilised for Dial Before You Dig requests.

To avoid confusion, please carefully review the legend along with the map.

Please direct any questions to [DBYDNetworksAPA@apa.com.au](mailto:DBYDNetworksAPA@apa.com.au)

|              |   |           |
|--------------|---|-----------|
| Site Address | 79-81 Robinson Road<br>Waterloo Corner 5110 | 210057762 |
| Name         | Karion Dickson-Abbott                       |           |
| Email        | KDickson-Abbott@greenhillaustralia.com.au   |           |



|               |  |              |              |
|---------------|--|--------------|--------------|
| Scale 1: 8500 |  | Enquiry Area | Map Key Area |
|---------------|--|--------------|--------------|

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APA Group  
PO Box 6014 Halifax Street  
South Australia 5000

06/04/2022

Company: Greenhill  
Karion Dickson-Abbott  
Level 1,178 Fullarton Road  
Dulwich  
SA 5065

KDickson-Abbott@greenhillaustralia.com.au

Dear Karion Dickson-Abbott

**Sequence Number:** 210057763  
**Worksite Address:** 79-81 Robinson Road  
Waterloo Corner  
SA 5110

Thank you for your Dial Before You Dig enquiry regarding the location of Gas Assets. We can confirm that the APA Network's Division has **no** underground Gas Assets in the vicinity of the above location.

**Please Note:** For some DBYD enquiries, you might receive 2 responses from the APA Group. Please read both responses carefully as they will relate to different assets. It is your responsibility to action all requirements set out in APA Group responses.

You are hereby notified that the attached Duty of Care requirements apply to any activity in the vicinity of Gas Assets operated by APA, please ensure you read and comply with all the relevant requirements. Should you have any questions with regards to the attached information please contact our Dial Before You Dig officer - 1800 085 628.

**Caution - Damage to gas assets could result in possible explosion and fire with the risk of personal injury.  
For Gas Emergencies please call 1800 GAS LEAK (1800 427 532)**

Please find enclosed the following information:

- APA's Duty of Care, if you are unclear of your obligations under these requirements please contact the APA Representative listed above immediately
- An overview map with your requested area highlighted to assist in identifying the location of APA's Gas Assets
- A map(s) showing APA's Gas Assets in the requested area, this information is valid for 30 days from the date of this response, **please check this represents the area you requested**, if it does not, please contact the APA Representative listed above immediately

Please ensure you review all the information contained in this response carefully and please do not hesitate to contact us for further information by sending an email to [DBYDNetworksAPA@apa.com.au](mailto:DBYDNetworksAPA@apa.com.au) or contacting us direct on 1800 085 628.

Yours Faithfully,

**Dial Before You Dig Officer**  
**APA Group**  
**Email: DBYDNetworksAPA@apa.com.au**

## Duty of Care - Working Around Gas Assets

### General Conditions

- This location enquiry is valid for 30 days from the date of this response
- Expired locations, i.e., over 30 days from the date of this response, require a new Dial Before You Dig request to validate location information
- The location information supplied in this document shall be used as a guide only. APA Group shall not be liable or responsible for the accuracy of any such information supplied pursuant to this request
- It is the responsibility of the excavator to expose all Gas Assets, including Gas Service pipe (see below), **by hand** (Please Note: Do not use vacuum excavation systems as damage to Gas Assets may occur). Gas Asset depths may vary according to ground conditions
- Gas Service (inlet service) connecting Gas Assets in the street to the gas meter on the property are typically **not** marked on the map unless otherwise stated
- Generally, a map of the Gas Service (inlet service) connection may be found inside the gas meter box
- Some Gas Assets are installed inside of a casing. The locations where a Gas Asset changes from inserted to direct burial are not marked on the map
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- For **Gas Emergencies** please call 1800 GAS LEAK (1800 427 532)

### APA CHANGE NOTIFICATION

The map below may have different symbols to those you are familiar with.

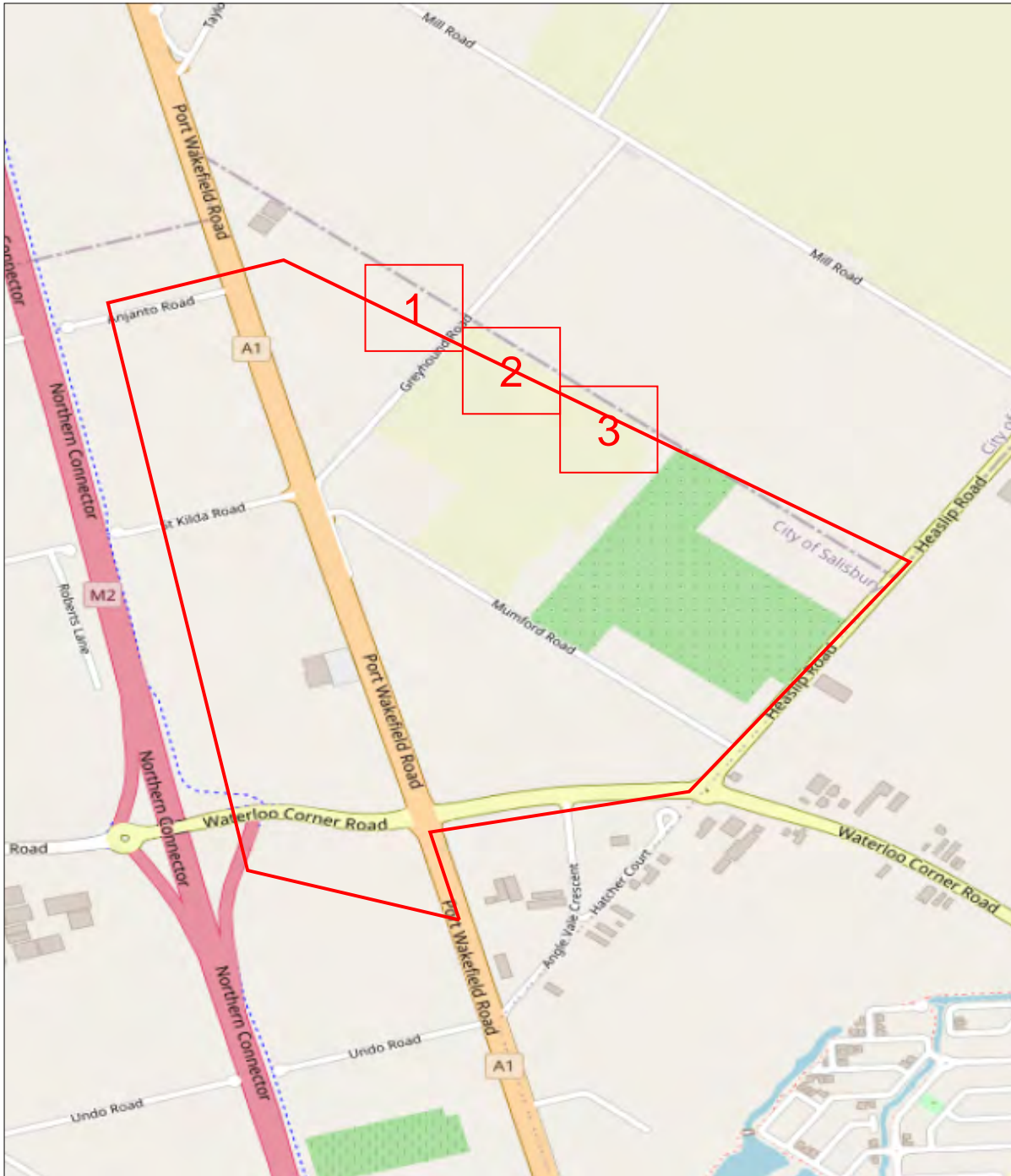
APA recently upgraded the asset mapping software utilised for Dial Before You Dig requests.

To avoid confusion, please carefully review the legend along with the map.

Please direct any questions to [DBYDNetworksAPA@apa.com.au](mailto:DBYDNetworksAPA@apa.com.au)



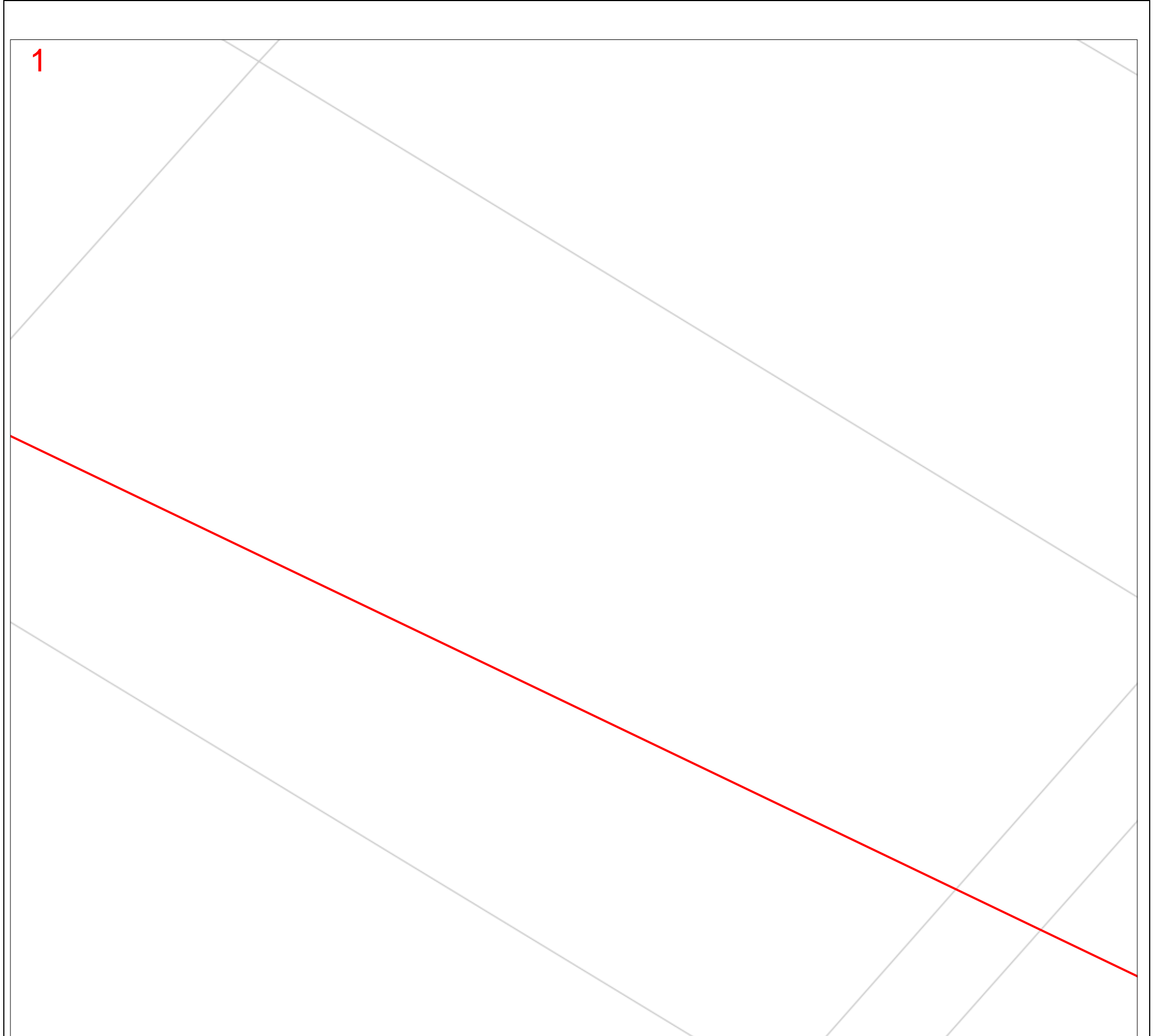
|              |   |           |
|--------------|---|-----------|
| Site Address | 79-81 Robinson Road<br>Waterloo Corner 5110 | 210057763 |
| Name         | Karion Dickson-Abbott                       |           |
| Email        | KDickson-Abbott@greenhillaustralia.com.au   |           |



|                |   |  |  |
|----------------|---|--|--|
| Scale 1: 12500 |  | Enquiry Area  | Map Key Area  |
|----------------|---|--|--|

APA Group does not guarantee the accuracy or completeness of the map and does not make any warranty about the data. APA Group is not under any liability to the user for any loss or damage (including consequential loss or damage) which the user may suffer resulting from the use of this map

|              |   |             |           |
|--------------|---|-------------|-----------|
| Site Address | 79-81 Robinson Road<br>Waterloo Corner 5110 | Sequence No | 210057763 |
|--------------|---|-------------|-----------|



| LEGEND                        |                        | PIPE CODE / MATERIALS  |                              | OBJECTS or TERMS            |         |
|-------------------------------|------------------------|--|------------------------------|-----------------------------|---------|
| <b>PIPE AND BOUNDARIES</b>    |                        | <b>C# (e.g. C2)</b>  | Cast Iron                    | <b>VALVES</b>               |         |
| LOW PRESSURES                 |                        | <b>CU</b>  | Copper                       | <b>BURIED VALVES</b>        |         |
| MEDIUM PRESSURES              |                        | <b>N2</b>  | Nylon                        | <b>REGULATORS</b>           |         |
| HIGH PRESSURES                |                        | <b>P# (e.g. P6)</b>  | Polyethylene (PE)            | <b>GAS SUPPLIED = YES</b>   |         |
| TRANSMISSION PRESSURES        |                        | <b>P6,P7,P9-P12</b>  | Medium Density PE            | <b>CP RECTIFIER UNIT</b>    |         |
| PRIORITY MAIN (BEHIND PIPE)   |                        | <b>P2,P4,P8</b>  | High Density PE              | <b>CP TEST POINT/ ANODE</b> |         |
| PROPOSED (COLOUR BY PRESSURE) |                        | <b>S# (e.g. S8)</b>  | Steel                        | <b>SYPHON</b>               |         |
| LPG (COLOUR BY PRESSURE)      |                        | <b>W2</b>  | Wrought Galv. Iron           | <b>TRACE WIRE POINT</b>     |         |
| ABANDONED                     |                        | <b>W3</b>  | Poly Coat Wrought Galv. Iron | <b>PIPELINE MARKER</b>      |         |
| IDLE                          |                        | <i>Pipe diameter in millimetres is shown before pipe code</i>              |                              | <b>NOT TIED IN</b>          | N.T.I.  |
| SLEEVE                        |                        | <i>e.g. 40P6 = 40mm nominal diameter</i>                                   |                              | <b>DEPTH OF COVER</b>       | C       |
| CASING / SPLIT (BEHIND PIPE)  |                        |  |                              | <b>BACK / FRONT OF KERB</b> | Bok Fok |
| EASEMENT/ JURISDICTION        |                        |  |                              |                             |         |
| <b>EXAMPLES</b>               | 40P6 in 80C2           | 40mm High Pressure Medium Density Polyethylene in an 80mm Cast Iron Casing |                              |                             |         |
|                               | 63S8                   | 63mm Medium Pressure Steel   |                              |                             |         |
|                               | Line / Polygon Request |  |                              |                             |         |

Map Key

|             |           |  |
|-------------|-----------|--|
| Scale 1:700 | 0 0.008km |  |
|-------------|-----------|--|

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|              |   |             |           |
|--------------|---|-------------|-----------|
| Site Address | 79-81 Robinson Road<br>Waterloo Corner 5110 | Sequence No | 210057763 |
|--------------|---|-------------|-----------|



| LEGEND                        |                        | PIPE CODE / MATERIALS  |                              | OBJECTS or TERMS            |         |
|-------------------------------|------------------------|--|------------------------------|-----------------------------|---------|
| <b>PIPE AND BOUNDARIES</b>    |                        | <b>C# (e.g. C2)</b>  | Cast Iron                    | <b>VALVES</b>               |         |
| LOW PRESSURES                 |                        | <b>CU</b>  | Copper                       | <b>BURIED VALVES</b>        |         |
| MEDIUM PRESSURES              |                        | <b>N2</b>  | Nylon                        | <b>REGULATORS</b>           |         |
| HIGH PRESSURES                |                        | <b>P# (e.g. P6)</b>  | Polyethylene (PE)            | <b>GAS SUPPLIED = YES</b>   |         |
| TRANSMISSION PRESSURES        |                        | <b>P6,P7,P9-P12</b>  | Medium Density PE            | <b>CP RECTIFIER UNIT</b>    |         |
| PRIORITY MAIN (BEHIND PIPE)   |                        | <b>P2,P4,P8</b>  | High Density PE              | <b>CP TEST POINT/ ANODE</b> |         |
| PROPOSED (COLOUR BY PRESSURE) |                        | <b>S# (e.g. S8)</b>  | Steel                        | <b>SYPHON</b>               |         |
| LPG (COLOUR BY PRESSURE)      |                        | <b>W2</b>  | Wrought Galv. Iron           | <b>TRACE WIRE POINT</b>     |         |
| ABANDONED                     |                        | <b>W3</b>  | Poly Coat Wrought Galv. Iron | <b>PIPELINE MARKER</b>      |         |
| IDLE                          |                        | <i>Pipe diameter in millimetres is shown before pipe code</i>              |                              | <b>NOT TIED IN</b>          | N.T.I.  |
| SLEEVE                        |                        | <i>e.g. 40P6 = 40mm nominal diameter</i>                                   |                              | <b>DEPTH OF COVER</b>       | C       |
| CASING / SPLIT (BEHIND PIPE)  |                        |  |                              | <b>BACK / FRONT OF KERB</b> | Bok Fok |
| EASEMENT/ JURISDICTION        |                        |  |                              |                             |         |
| <b>EXAMPLES</b>               |                        | 40mm High Pressure Medium Density Polyethylene in an 80mm Cast Iron Casing |                              |                             |         |
|                               |                        | 63mm Medium Pressure Steel   |                              |                             |         |
|                               | Line / Polygon Request |  |                              |                             |         |

Map Key

|             |           |  |
|-------------|-----------|--|
| Scale 1:700 | 0 0.008km |  |
|-------------|-----------|--|

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|              |   |             |           |
|--------------|---|-------------|-----------|
| Site Address | 79-81 Robinson Road<br>Waterloo Corner 5110 | Sequence No | 210057763 |
|--------------|---|-------------|-----------|



| LEGEND                        |                        | PIPE CODE / MATERIALS  |                              | OBJECTS or TERMS            |         |
|-------------------------------|------------------------|--|------------------------------|-----------------------------|---------|
| <b>PIPE AND BOUNDARIES</b>    |                        | <b>C# (e.g. C2)</b>  | Cast Iron                    | <b>VALVES</b>               |         |
| LOW PRESSURES                 |                        | <b>CU</b>  | Copper                       | <b>BURIED VALVES</b>        |         |
| MEDIUM PRESSURES              |                        | <b>N2</b>  | Nylon                        | <b>REGULATORS</b>           |         |
| HIGH PRESSURES                |                        | <b>P# (e.g. P6)</b>  | Polyethylene (PE)            | <b>GAS SUPPLIED = YES</b>   |         |
| TRANSMISSION PRESSURES        |                        | <b>P6,P7,P9-P12</b>  | Medium Density PE            | <b>CP RECTIFIER UNIT</b>    |         |
| PRIORITY MAIN (BEHIND PIPE)   |                        | <b>P2,P4,P8</b>  | High Density PE              | <b>CP TEST POINT/ ANODE</b> |         |
| PROPOSED (COLOUR BY PRESSURE) |                        | <b>S# (e.g. S8)</b>  | Steel                        | <b>SYPHON</b>               |         |
| LPG (COLOUR BY PRESSURE)      |                        | <b>W2</b>  | Wrought Galv. Iron           | <b>TRACE WIRE POINT</b>     |         |
| ABANDONED                     |                        | <b>W3</b>  | Poly Coat Wrought Galv. Iron | <b>PIPELINE MARKER</b>      |         |
| IDLE                          |                        | <i>Pipe diameter in millimetres is shown before pipe code</i>              |                              | <b>NOT TIED IN</b>          | N.T.I.  |
| SLEEVE                        |                        | <i>e.g. 40P6 = 40mm nominal diameter</i>                                   |                              | <b>DEPTH OF COVER</b>       | C       |
| CASING / SPLIT (BEHIND PIPE)  |                        |  |                              | <b>BACK / FRONT OF KERB</b> | Bok Fok |
| EASEMENT/ JURISDICTION        |                        |  |                              |                             |         |
| <b>EXAMPLES</b>               | 40P6 in 80C2           | 40mm High Pressure Medium Density Polyethylene in an 80mm Cast Iron Casing |                              |                             |         |
|                               | 63S8                   | 63mm Medium Pressure Steel   |                              |                             |         |
|                               | Line / Polygon Request | This map is created in colour and shall be printed in colour               |                              |                             |         |

Map Key

|             |           |  |
|-------------|-----------|--|
| Scale 1:700 | 0 0.008km |  |
|-------------|-----------|--|

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APA Group  
PO Box 6014 Halifax Street  
South Australia 5000



For your immediate information **THERE IS A CRITICAL GAS PIPELINE AND/OR ASSOCIATED INFRASTRUCTURE** in the area of your works.

06/04/2022

Company: Greenhill  
Karion Dickson-Abbott  
Level 1,178 Fullarton Road  
Dulwich  
SA 5065  
KDickson-Abbott@greenhillaustralia.com.au

Dear Karion Dickson-Abbott

Sequence Number: 210057764  
Worksite Address: 79-81 Robinson Road  
Waterloo Corner  
SA 5110

Thank you for your Dial Before You Dig enquiry regarding the location of Gas Assets. We can confirm that the APA Group has **Critical Gas Assets** in the vicinity of the above location.

You are hereby notified that **before you commence any works** you are required to complete the attached **'Work In The Vicinity Of Critical Gas Assets'** request form and forward this to APA as soon as practicable.

As laid out in the **Duty of Care** requirements supplied, any activity in the vicinity of Critical Gas Assets operated by APA requires an Authority to Work Permit and potentially attendance on site by an APA representative during any work. Please ensure you read and comply with all the relevant requirements. Should you have any questions with regards to the attached information please contact our DBYD officer - 1800 085 628.

**Caution - Damage to gas assets could result in possible explosion and fire with the risk of personal injury. For Gas Emergencies please call 1800 GAS LEAK (1800 427 532)**

Please find enclosed the following information:-

- APA's Duty of Care, If you are unclear of your obligations under these requirements please contact the APA Representative listed above immediately
- An overview map with your requested area highlighted to assist in locating APA's Gas Assets
- A map(s) showing APA's Gas Assets in the requested area, this information is valid for 30 days from the date of this response, **please check this represents the area you requested**, if it does not, please contact the APA Representative listed above immediately
- A 'Work In The Vicinity Of Critical Gas Assets' request form, please complete and forward to APA as soon as practicable via [DBYDNetworksAPA@apa.com.au](mailto:DBYDNetworksAPA@apa.com.au), or the address above. **A minimum of 2 business days advance notification is required to process Authority To Work Request applications**

The outcome of this request may be that a qualified APA Group Representative will be required on site when you undertake your proposed works, if this is the case, this will need to be arranged dependent on their availability. Whilst we will aim to facilitate this within 2 business days from a decision, **this cannot be guaranteed**.

**Please Note:** For some DBYD enquiries, you might receive 2 responses from the APA Group. Please read both responses carefully as they will relate to different assets. It is your responsibility to action all requirements set out in APA Group responses.

Please take some time to review the entire response document and check the information supplied and please let us have any feedback by sending an email to [DBYDNetworksAPA@apa.com.au](mailto:DBYDNetworksAPA@apa.com.au) or contacting us direct on 1800 085 628.

## Duty of Care - Working Around Gas Assets

### General Conditions

- This location enquiry is valid for 30 days from the enquiry date
- Expired locations, i.e., over 30 days from the date of this response, require a new Dial Before You Dig request to validate location information
- The location information supplied in this document shall be used as a guide only. APA Group shall not be liable or responsible for the accuracy of any such information supplied pursuant to this request
- It is the responsibility of the excavator to expose all Gas Assets, including Gas Service pipes (see below), Gas Asset depths may vary according to ground conditions
- Gas Services (inlet service) connecting Gas Assets in the street to the gas meter on the property are typically **not** marked on the map
- Some Gas Assets are installed inside of a casing. The locations where a Gas Asset changes from inserted to direct burial are not marked on the map unless otherwise stated
- This information has been generated by an automated system based on the area highlighted in your DBYD request and has not been independently verified. It is your responsibility to ensure that the information supplied in this response matches the dig site you defined when submitting your Dial Before You Dig enquiry. If the information does not match the dig site or you have any question, please contact APA immediately using the details listed on the first page and / or please resubmit your enquiry
- For **Gas Emergencies** please call **1800 GAS LEAK (1800 427 532)**

### Critical Gas Assets - Conditions

It is your responsibility to follow these important conditions when working in the vicinity of Critical Gas Assets

- A 'Work In The Vicinity Of Critical Gas Assets' request form must be submitted to APA Group PRIOR to any work commencing, a minimum of **2 business days** are required to arrange attendance by an APA Group representative
- Whilst we will aim to facilitate this within **2 business days** from a decision, **this cannot be guaranteed**. Charges for APA Group supervision may apply
- Any works in the vicinity of Critical Gas Assets requires approval from APA via **APA's 'Authority to work' permit** and supervision by an APA Group representative unless expressed otherwise on the "Authority to work" permit.
- Penalties apply to excavators commencing work in the vicinity of Critical Gas Assets **prior to receiving an APA Group 'Authority to Work' permit and an APA Group representative is present**



### Rates applicable to APA on-site representation for supervision or location

| Item                             | Rate  |
|----------------------------------|---|
| Site Watch - Normal Hours        | \$143.42 (hr)   |
| Site Watch - After Hours         | \$175.06 (hr)   |
| Electronic Locate – Normal Hours | \$143.42 (hr)   |
| Electronic Locate – After Hours  | \$175.06 (hr)   |
| Cancellation                     | 2 hrs (where less than 1 business day notice is provided) |
| Mains Proving                    | As quoted by APA  |

Notes:

- All prices are exclusive of GST
- All partial hours will be charged at a full hour rate for the first hour, 1hr minimum charge.
- Cancellations must be received 1 business day prior to the booked supervision otherwise a 2hr charge will be incurred.
- Contact us for State specific hours of business.

## APA CHANGE NOTIFICATION

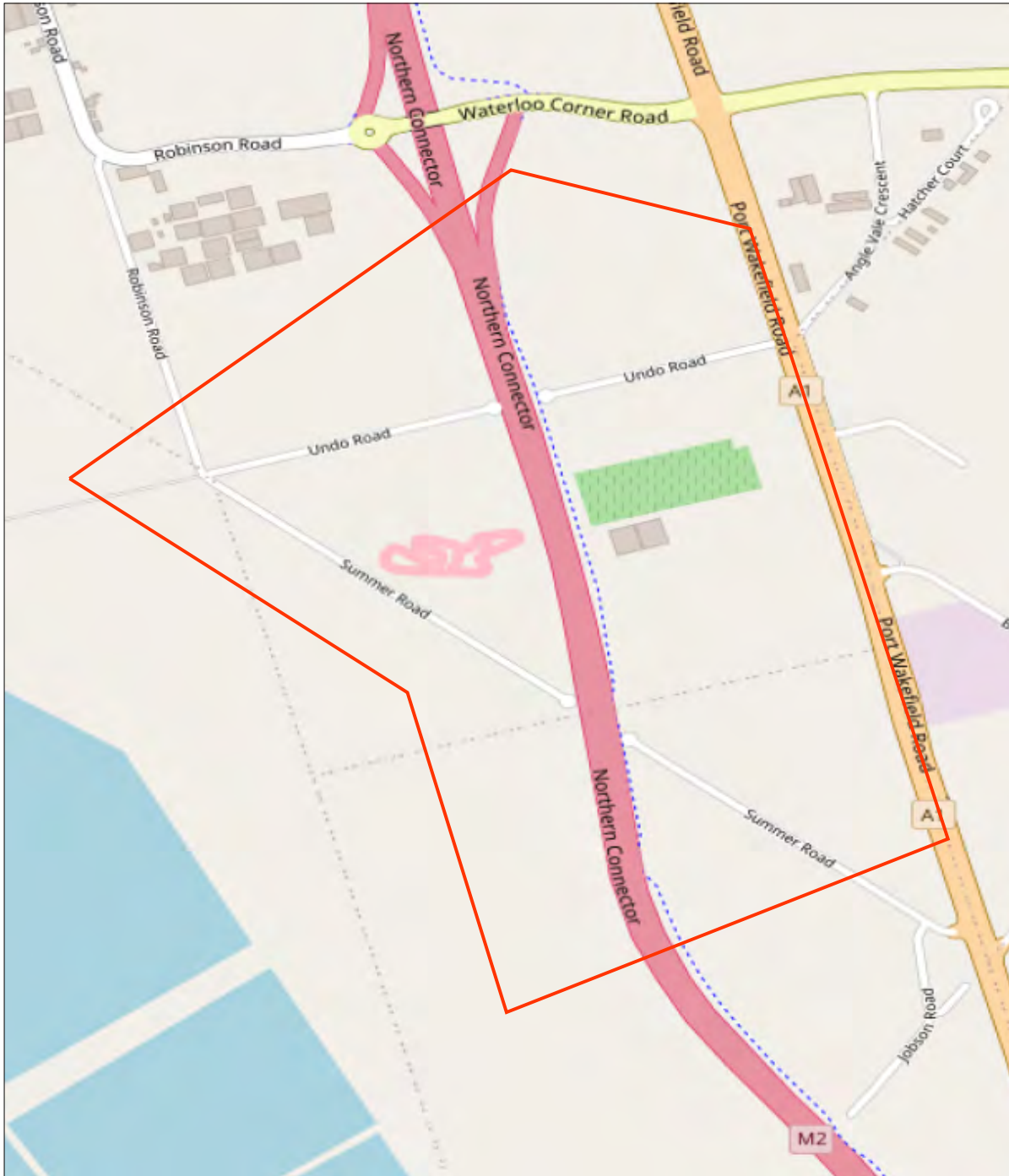
The map below may have different symbols to those you are familiar with.




APA recently upgraded the asset mapping software utilised for Dial Before You Dig requests.

To avoid confusion, please carefully review the legend along with the map.

Please direct any questions to [DBYDNetworksAPA@apa.com.au](mailto:DBYDNetworksAPA@apa.com.au)

|              |  |             |           |
|--------------|--|-------------|-----------|
| Site Address | 79-81 Robinson Road<br>Waterloo Corner<br>5110 | Sequence No | 210057764 |
| Name         | Karion Dickson-Abbott                          |             |           |
| Email        | KDickson-Abbott@greenhillaustralia.com.au      |             |           |



|                |   |  |  |
|----------------|---|--|--|
| Scale 1: 11000 |  | Enquiry Area  | Map Key Area  |
|----------------|---|--|--|

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## WORK IN THE VICINITY OF CRITICAL GAS ASSETS

It is your responsibility to read and complete this request form

1. This request form must be received by the APA Group via the options below at least **2 business days prior to excavation or site location work commencement**
2. Excavation / works must not commence on site until you have received a 'Authority to Work Permit' from the APA Group
3. This request form must be accompanied by a detailed schedule of works
4. Penalties apply to excavators commencing work in the vicinity of Critical Gas Assets **prior to receiving an APA Group 'Authority to Work Permit'**

For further information refer to:-

- NSW Gas Supply Act 1996 – Sec 64 C, Requirements in relation to carrying out of certain excavation work
- Victoria: Pipelines Act 2005 – Section 118, Digging near pipelines and Section 119, Interference with pipeline
- South Australia: Gas Industry Act 1997 – Section 83, Notice of work that may affect gas infrastructure.
- Northern Territory: Energy Pipelines Act as in force at 8 March 2007 – Section 66, Threat to pipeline.

---

**Return to:** [DBYDNetworksAPA@apa.com.au](mailto:DBYDNetworksAPA@apa.com.au)

**Enquiries:**

Should you have any questions with regards to the attached information please contact our Dial Before You Dig officer - 1800 085 628.

---

**Work / Excavation Site Details:**

|   |         |
|---|---------|
| Number:   | Street: |
| Suburb:   | State:  |
| Sequence Number: 210057764                      |         |
| Requestors Name:                                |         |
| Company Name:                                   |         |
| Name of Authorised Company Site Representative: |         |
| Email:  |         |

|            |         |
|------------|---------|
| Phone:     | Mobile: |
| Signature: |         |

**Description of Work / Excavation:**

|   |                          |                         |                          |
|---|--------------------------|-------------------------|--------------------------|
| Activity/Excavation Details:                              |                          |                         |                          |
| <b>Tick Applicable Box</b>                                |                          |                         |                          |
| Excavation  | <input type="checkbox"/> | Change to surface level | <input type="checkbox"/> |
| Service crossing  | <input type="checkbox"/> | Boring                  | <input type="checkbox"/> |
| Proving   | <input type="checkbox"/> | Other (provide details) | <input type="checkbox"/> |
| Earthworks  | <input type="checkbox"/> |                         |                          |
| Excavator Size, Tooth Type & Tooth Size (provide details) |                          |                         |                          |

Work / Excavation Drawings Attached (circle):                      Yes                      No

**Proposed Dates and Times:**

|            | From |       | To   |       |
|------------|------|-------|------|-------|
|            | Date | Time  | Date | Time  |
| Excavation | / /  | am/pm | / /  | am/pm |
| Backfill   | / /  | am/pm | / /  | am/pm |

|                             |   |   |   |
|-----------------------------|---|---|---|
| <b>Work is assessed as:</b> | <b>Class 1</b><br>Works crossing a critical gas asset | <b>Class 2</b><br>Works within 3m of a critical gas asset | <b>Class 3</b><br>Works involving large excavations, vibrations or blasting beyond 3m of the critical gas asset |
|-----------------------------|---|---|---|

**Insurer and Policy Details**

|   |  |                           |  |
|---|--|---------------------------|--|
| <b>Policy Number</b>                              |  | <b>Policy Expiry Date</b> |  |
| <b>Insurance Cover – Current Level (\$amount)</b> |  |                           |  |



**Third Party Works Authorisation requested by (mandatory fields required for invoicing):**

|                      |                       |
|----------------------|-----------------------|
| Company/Biller Name: |                       |
| Billing Address:     |                       |
| Purchase Order:      | Billing Email:        |
| Biller Phone:        |                       |
| Requestors Name:     | Requesters Signature: |

**NOTES**

5. This Authority to Work applies only to work in the vicinity of the Gas Mains. It does not authorise work near or on the Gas Mains itself
6. A minimum of 2 business days must be allowed between receipt by APA Group of this Request and a response. However, more time for notification may be necessary
7. For any gas leak related work this application must be accompanied by a detailed sequence of events, outlining all aspects of work involved and work is not permitted until an Authority to Work is issued
8. For class 1 and 2 Dial Before You Dig, APA Group will arrange for an inspector to be on site as necessary during the work. An inspector must be present at all times for works involving excavation within 1m of the Gas Mains. APA Group will advise the requirement for an inspector for other works within 3m of the Gas Mains
9. The applicant is responsible for any damage resulting from the work and all consequential damages and losses arising from such damage and therefore must insure against every liability of the contractor in respect of or arising out of any loss of life, loss of or damage to property of person (both real and personal), arising out of or in any way connected to this permit
10. Rates applicable to APA on-site representation for supervision or location exclude GST.



APA Group  
PO Box 6014 Halifax Street  
South Australia 5000

06/04/2022

Company: Greenhill  
Karion Dickson-Abbott  
Level 1,178 Fullarton Road  
Dulwich  
SA 5065

KDickson-Abbott@greenhillaustralia.com.au

Dear Karion Dickson-Abbott

**Sequence Number:** 210057765  
**Worksite Address:** 79-81 Robinson Road  
Waterloo Corner  
SA 5110

Thank you for your Dial Before You Dig enquiry regarding the location of Gas Assets. We can confirm that the APA Network's Division has **no** underground Gas Assets in the vicinity of the above location.

**Please Note:** For some DBYD enquiries, you might receive 2 responses from the APA Group. Please read both responses carefully as they will relate to different assets. It is your responsibility to action all requirements set out in APA Group responses.

You are hereby notified that the attached Duty of Care requirements apply to any activity in the vicinity of Gas Assets operated by APA, please ensure you read and comply with all the relevant requirements. Should you have any questions with regards to the attached information please contact our Dial Before You Dig officer - 1800 085 628.

**Caution - Damage to gas assets could result in possible explosion and fire with the risk of personal injury.  
For Gas Emergencies please call 1800 GAS LEAK (1800 427 532)**

Please find enclosed the following information:

- APA's Duty of Care, if you are unclear of your obligations under these requirements please contact the APA Representative listed above immediately
- An overview map with your requested area highlighted to assist in identifying the location of APA's Gas Assets
- A map(s) showing APA's Gas Assets in the requested area, this information is valid for 30 days from the date of this response, **please check this represents the area you requested**, if it does not, please contact the APA Representative listed above immediately

Please ensure you review all the information contained in this response carefully and please do not hesitate to contact us for further information by sending an email to [DBYDNetworksAPA@apa.com.au](mailto:DBYDNetworksAPA@apa.com.au) or contacting us direct on 1800 085 628.

Yours Faithfully,

**Dial Before You Dig Officer**  
**APA Group**  
**Email: DBYDNetworksAPA@apa.com.au**



## Duty of Care - Working Around Gas Assets

### General Conditions

- This location enquiry is valid for 30 days from the date of this response
- Expired locations, i.e., over 30 days from the date of this response, require a new Dial Before You Dig request to validate location information
- The location information supplied in this document shall be used as a guide only. APA Group shall not be liable or responsible for the accuracy of any such information supplied pursuant to this request
- It is the responsibility of the excavator to expose all Gas Assets, including Gas Service pipe (see below), **by hand** (Please Note: Do not use vacuum excavation systems as damage to Gas Assets may occur). Gas Asset depths may vary according to ground conditions
- Gas Service (inlet service) connecting Gas Assets in the street to the gas meter on the property are typically **not** marked on the map unless otherwise stated
- Generally, a map of the Gas Service (inlet service) connection may be found inside the gas meter box
- Some Gas Assets are installed inside of a casing. The locations where a Gas Asset changes from inserted to direct burial are not marked on the map
- This information has been generated by an automated system based on the area highlighted in your DBYD request and has not been independently verified. **It is your responsibility** to ensure that the information supplied in this response matches the dig site you defined when submitting your Dial Before You Dig enquiry. If the information does not match the dig site or you have any question, please contact APA immediately using the details listed on the first page and / or please resubmit your enquiry
- For **Gas Emergencies** please call 1800 GAS LEAK (1800 427 532)

### APA CHANGE NOTIFICATION

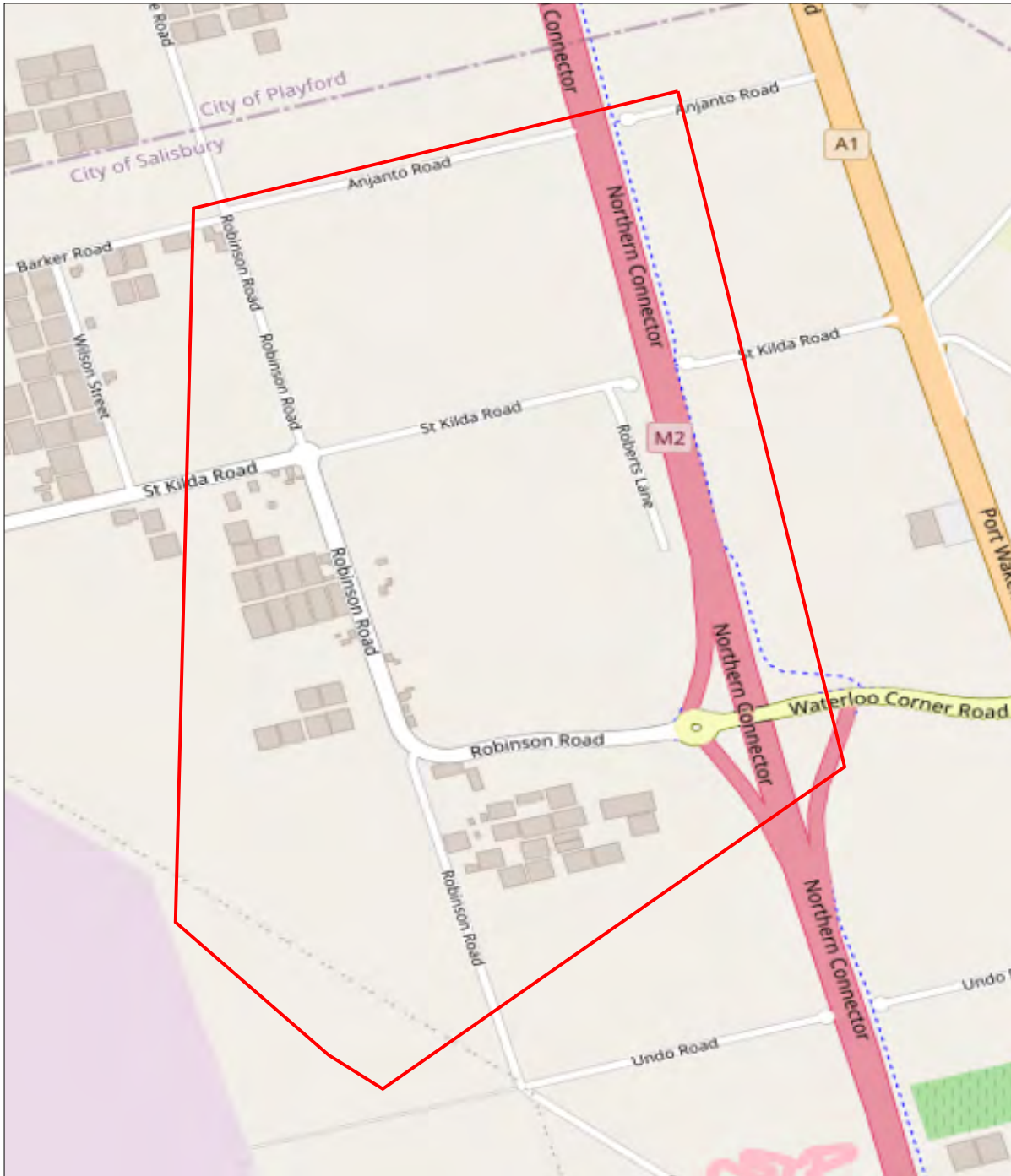
The map below may have different symbols to those you are familiar with.

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To avoid confusion, please carefully review the legend along with the map.

Please direct any questions to [DBYDNetworksAPA@apa.com.au](mailto:DBYDNetworksAPA@apa.com.au)

|              |   |           |
|--------------|---|-----------|
| Site Address | 79-81 Robinson Road<br>Waterloo Corner 5110 | 210057765 |
| Name         | Karion Dickson-Abbott                       |           |
| Email        | KDickson-Abbott@greenhillaustralia.com.au   |           |



|                |  |              |              |
|----------------|--|--------------|--------------|
| Scale 1: 10500 |  | Enquiry Area | Map Key Area |
|----------------|--|--------------|--------------|

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## Cindy Oliver

---

**From:** DBYD - City of Playford <dbyd@1100.com.au>  
**Sent:** Wednesday, 6 April 2022 11:34 AM  
**To:** Karion Dickson-Abbott  
**Subject:** DBYD - Job 31721481 - Referral 210057744 - 21-2894

This content was uploaded by City of Playford in response to your Dial Before You Dig enquiry.

Uploaded

06 Apr 2022 11:33:35am

Thank you for your Dial Before You Dig (DBYD) enquiry.

Job Number: 31721481  
Sequence Number: 210057744

Dig Site Location: Level 1 178 Fullarton Road, Dulwich, SA, 5065

Attention: Karion Dickson-Abbott

**Playford City Council assets are present within your dig site.**

A detailed plan is normally attached to this response. However, due to the large area we are unable to automatically produce a map for your dig site. Our DBYD response service restricts the maximum size of enquiry based on the size and number of assets present at your dig site. You may either re-submit your enquiry by breaking it down into smaller dig sites or contact our team.

For further enquiries or assistance with interpretation of plans, please contact our support team at:

Email: [crsdbyd@playford.sa.gov.au](mailto:crsdbyd@playford.sa.gov.au)  
Telephone: [08 8256 0333](tel:0882560333)

Thank you,  
Playford City Council

Disclaimer

This is an automatically generated email. Please DO NOT SEND A REPLY to this email address as replies are not monitored.

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## Cindy Oliver

---

**From:** DBYD - City of Salisbury <dbyd@1100.com.au>  
**Sent:** Wednesday, 6 April 2022 11:34 AM  
**To:** Karion Dickson-Abbott  
**Subject:** DBYD - Job 31721481 - Referral 210057746 - 21-2894

This content was uploaded by City of Salisbury in response to your Dial Before You Dig enquiry.

Uploaded

06 Apr 2022 11:33:45am

Thank you for your Dial Before You Dig (DBYD) enquiry.

Job Number: 31721481  
Sequence Number: 210057746

Dig Site Location: Level 1 178 Fullarton Road, Dulwich, SA, 5065

Attention: Karion Dickson-Abbott

### **City of Salisbury assets are present within your dig site.**

A detailed plan is normally attached to this response. However, due to the large area we are unable to automatically produce a map for your dig site. Our DBYD response service restricts the maximum size of enquiry based on the size and number of assets present at your dig site. You may either re-submit your enquiry by breaking it down into smaller dig sites or contact our team.

For further enquiries or assistance with interpretation of plans, please contact our support team at:

Email: [dbyd@salisbury.sa.gov.au](mailto:dbyd@salisbury.sa.gov.au)  
Telephone: [08 8406 8222](tel:084068222)

Thank you,  
City of Salisbury

### Disclaimer

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## Cindy Oliver

---

**From:** DBYD - City of Salisbury <dbyd@1100.com.au>  
**Sent:** Wednesday, 6 April 2022 11:34 AM  
**To:** Karion Dickson-Abbott  
**Subject:** DBYD - Job 31721481 - Referral 210057745 - 21-2894

This content was uploaded by City of Salisbury in response to your Dial Before You Dig enquiry.

Uploaded

06 Apr 2022 11:33:38am

Thank you for your Dial Before You Dig (DBYD) enquiry.

Job Number: 31721481  
Sequence Number: 210057745

Dig Site Location: Level 1 178 Fullarton Road, Dulwich, SA, 5065

Attention: Karion Dickson-Abbott

### **City of Salisbury assets are present within your dig site.**

A detailed plan is normally attached to this response. However, due to the large area we are unable to automatically produce a map for your dig site. Our DBYD response service restricts the maximum size of enquiry based on the size and number of assets present at your dig site. You may either re-submit your enquiry by breaking it down into smaller dig sites or contact our team.

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Epic Energy South Australia Pty Limited  
ACN 068 599 815  
26 High Street  
PO Box 2450 Dry Creek SA 5094  
Telephone (08) 8343 8100  
Facsimile (08) 8349 6493  
Web Site  
[www.epicenergy.com.au](http://www.epicenergy.com.au)

06/04/2022

Karion Dickson-Abbott  
Level 1,178 Fullarton Road

KDickson-Abbott@greenhillaustralia.com.au

Dear Karion Dickson-Abbott

**DBYD Sequence No.** 210057742  
**Worksite Address:** 79-81 Robinson Road  
Waterloo Corner

## Dial Before You Dig Inquiry Response

Thank you for your DBYD enquiry regarding the location of our High Pressure Gas Pipelines, we can confirm that Epic Energy **does have a high pressure gas transmission pipeline and infrastructure** in the vicinity of your proposed works.

Epic Energy's pipeline asset **IS AFFECTED** by the activity of Planning and Design,Subdivision

There is to be **NO ATTEMPT TO PHYSICALLY LOCATE THE PIPELINE**. Only an **Epic representative** can locate the pipeline.

**NO WORKS ARE TO BE CARRIED OUT NEAR A GAS TRANSMISSION PIPELINE WITHOUT AN EPIC ENERGY REPRESENTATIVE ON SITE AND AN ACCURATE LOCATION OF THE PIPELINE IS PROVIDED BY EPIC ENERGY.**

Damage to a gas transmission pipeline could result in :-

- possible explosion and fire;
- substantial repair and gas restoration liability damage costs.
- gas escaping at pressures of up to 7,000 kPa;
- loss of gas to thousands of customers;

**Please Note:** This is an automated response. Please **DO NOT REPLY** to this email. If you require further information in relation to this Dial Before You Dig response, please contact Epic Energy's Pipeline Awareness Officer, on (08) 83438100 if any further information is required, and/or to arrange for Epic to identify the location of the pipeline for you. A minimum of 48 hours notice is required for location identifications to be booked.

Please note that this is **not** an approval to carry out work within Epic Energy's pipeline easement.

Detailed plans of the proposed construction work or activity to be carried out in the vicinity of the pipeline must be forwarded to Epic Energy for approval and to assess any impacts on the pipeline or easement prior to any work being carried out.

For the location of all other gas mains and services, you should contact the relevant utilities in the area.

The information contained in this response is only valid for **30 days** from the enquiry date. After 30 days you must submit a new Dial Before You Dig request, to validate the location information for the site listed.

**Epic reserves all rights to recover all costs and expenses, for the loss or damage to its pipelines or other property including consequential losses as a result of work or activity at or near its pipelines.**

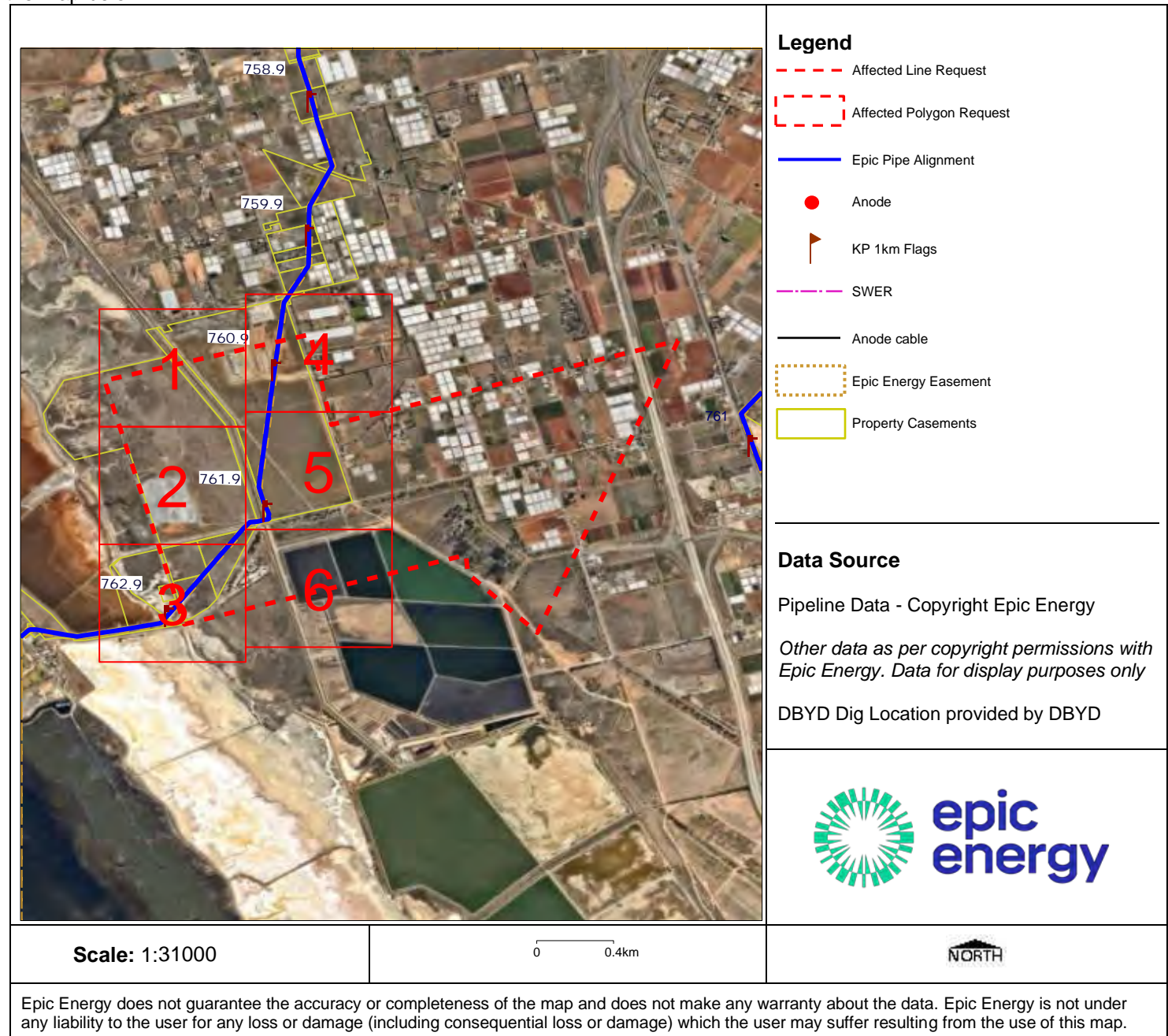


**DBYD Enquiry Number:** 210057742                      **DBYD Enquiry Date:** 06/04/2022  
**Location:** 79-81 Robinson Road Waterloo Corner  
**Enquirer's Name:** Karion Dickson-Abbott            **Enquirer's Phone:** +61884061300  
**Enquirer's Address:** Level 1,178 Fullarton Road  
**Response email** : KDickson-Abbott@greenhillaustralia.com.au

Thank you for the notification of your interest or proposed works near the underground services at the above location. Epic Energy operates and maintains this high pressure gas infrastructure in the area of your interest, which is:

**THIS DBYD REQUEST DOES AFFECT OUR HIGH PRESSURE GAS PIPELINES**

The location of the high pressure gas infrastructure operated by Epic Energy in the area of your interest is indicated on the Map below:



Epic Energy does not guarantee the accuracy or completeness of the map and does not make any warranty about the data. Epic Energy is not under any liability to the user for any loss or damage (including consequential loss or damage) which the user may suffer resulting from the use of this map.

Thank you for your interest in maintaining a safe and secure gas pipeline network.

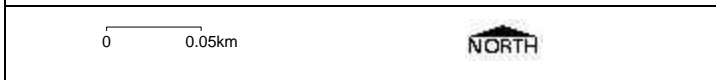
**Epic Energy South Australia Pty Limited**  
 26 High Street  
 PO Box 2450 Dry Creek SA 5094  
 Telephone (08) 8343 8100  
 Facsimile (08) 8349 6493  
 Web Site [www.epicenergy.com.au](http://www.epicenergy.com.au)





210057742 Map Sheet: 1

Scale: 1: 4000




**Map Key:**

|   |   |
|---|---|
| 1 | 4 |
| 2 | 5 |
| 3 | 6 |

**Legend**

- - - Affected Line Request
- Affected Polygon Request
- Epic Pipe Alignment
- Anode
- ▴ KP 1km Flags
- - - SWER
- Anode cable
- Epic Energy Easement
- Property Casements



**Data Source**  
 Pipeline Data - Copyright Epic Energy.  
 Other data as per copyright permissions with Epic Energy.  
 Data for display purposes only  
 DBYD Dig Location provided by DBYD

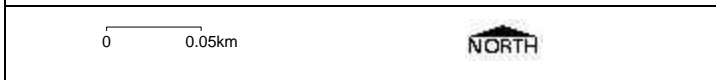
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210057742 Map Sheet: 2

Scale: 1: 4000




**Map Key:**

|   |   |
|---|---|
| 1 | 4 |
| 2 | 5 |
| 3 | 6 |

**Legend**

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210057742 Map Sheet: 3

Scale: 1: 4000

0 0.05km



**Map Key:**

|   |   |
|---|---|
| 1 | 4 |
| 2 | 5 |
| 3 | 6 |

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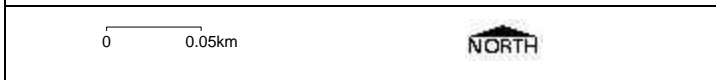
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210057742 Map Sheet: 4

Scale: 1: 4000




**Map Key:**

|   |   |
|---|---|
| 1 | 4 |
| 2 | 5 |
| 3 | 6 |

**Legend**

- - - Affected Line Request
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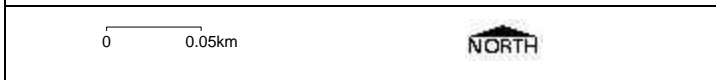
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210057742 Map Sheet: 5

Scale: 1: 4000




**Map Key:**

|   |   |
|---|---|
| 1 | 4 |
| 2 | 5 |
| 3 | 6 |

**Legend**

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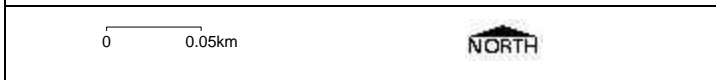
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210057742 Map Sheet: 6

Scale: 1: 4000




**Map Key:**

|   |   |
|---|---|
| 1 | 4 |
| 2 | 5 |
| 3 | 6 |

**Legend**

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# Standard Conditions Form



## MINIMUM STANDARD CONDITIONS WHEN WORKING NEAR A HIGH PRESSURE GAS PIPELINE

1. All works within the pipeline easement must be approved and supervised by an Epic Energy representative.
2. Activities over the pipeline easement will require approval from Epic Energy and can only be performed under our Safe Systems of Work, which may require a job hazard analysis to be completed.
3. Once construction is complete, Epic will have the right to access the pipeline for any operation and maintenance work. Epic is only responsible to reinstate the area to the original condition.
4. An Epic field maintenance officer must locate and mark the high pressure gas pipeline to identify the depth of cover over the pipeline and to supervise and approve all works within the pipeline easement.
5. To adequately assess any possible impacts of the proposed works on the high pressure gas pipeline, Epic may request depth of cover data to be obtained at the cost of the applicant. If required, the depth of cover (i.e. depth from the ground surface to the top of pipeline) must be physically confirmed on site by a vacuum truck in the presence of an Epic representative.
6. Drawings and a work plan (including activities, duration and dates) must be prepared and submitted to Epic prior to the commencement of works. No work shall commence until the drawings and work plan are approved by Epic. At least five working days prior notice is to be provided to Epic for construction works and a schedule to be arranged by contacting the Epic Pipeline Awareness Officer on (08) 8343 8100.
7. The area over and in the vicinity of the pipeline must be excavated only by hand digging or in accordance with advice from the Epic maintenance officer on site. Epic's excavation procedure must be strictly followed for any proposed earth works. No depth of cover is to be permanently removed from the pipeline easement.
8. Epic must approve any engineering design configurations that cause other pipes to be closer than 600mm to its high pressure gas pipeline, including crossings under the pipeline and any future connections.
9. Horizontal boring and directional drilling is not permitted, unless approved by Epic and conducted under explicit on-site direction from an Epic representative.
10. Blasting is not permitted.
11. The separation distance between the Epic high pressure gas pipeline and any proposed pipe crossings must not be less than 300mm. However, the integrity of other pipes will be affected if the high pressure gas pipeline needs emergency repairs or maintenance. Therefore a 600mm separation is recommended. The type and design of the crossing, use of barriers and other technical details must be developed in consultation with Epic.
12. Any new crossings must be as close as possible to a right angle to the pipeline.
13. Existing crossings must be protected and pipeline depth of cover is to be maintained at all times during construction.



14. Epic has installed above ground test points and leak detection points along the pipelines. If as a result of the proposed works they need to be relocated, Epic approval must be obtained prior to the commencement of the proposed works.
15. If compacting is required:
  - only a light compactor or roller compactor may be utilised in the easement;
  - Epic must approve the type of compactor or roller used;
  - only water aided compacting methods are permitted for the area five metres either side of the easement;
  - Epic personnel must supervise the compacting/rolling process;
  - no vibrating machinery is to be used within ten metres either side of the easement;
  - only light machinery is to be used near the easement; and
  - stockpiling and parking of heavy equipment is not permitted on the easement.
16. Potential environmental effects must be assessed before conducting new activities and risks must be assessed by an independent expert and approved by Epic before starting a new activity or decommissioning a facility or site. The pipeline easement must be carefully restored after completion of the works so that it is consistent with the surrounding environment.
17. All practical measures must be taken to prevent environmental harm or damage. Contingency procedures must be developed and maintained in order to minimise any impacts if an incident occurs. Any environmental incidents (including follow up actions) must be reported in writing to the Epic Environmental Officer on (08) 8343 8100. An initial report to be is to be provided to Epic within 24 hours of the incident occurring, with a full written report to be provided within seven days.
18. On completion of any pipeline crossings, “as built” drawings are to be supplied to Epic within 30 days, at the cost of the proponent.
19. Epic will erect pipeline danger signs on each side of new vehicle cross over points as part of its routine activities within the area.
20. Epic introduced detailed COVID-19 personal hygiene and social distancing measures as part of a widespread COVID-19 Management Plan implemented in March 2020. We continue to implement fitness for work declarations as well as personal hygiene and social distancing measures to assist workforce and stakeholders. Whilst conducting DBYD assessments, all personnel shall observe appropriate strategies to reduce the risk of COVID-19 transmission.

I ask that you acknowledge your acceptance of the above terms and conditions by signing where indicated below and returning a copy of this letter to an Epic Energy representative.

I hereby acknowledge the above conditions and restrictions:

Name: \_\_\_\_\_  
Date: \_\_\_\_\_  
Signature: \_\_\_\_\_

Epic Energy representative witness:

Name: \_\_\_\_\_  
Date: \_\_\_\_\_  
Signature: \_\_\_\_\_



Epic Energy South Australia Pty Limited  
ACN 068 599 815  
26 High Street  
PO Box 2450 Dry Creek SA 5094  
Telephone (08) 8343 8100  
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Web Site  
[www.epicenergy.com.au](http://www.epicenergy.com.au)

06/04/2022

Karion Dickson-Abbott  
Level 1,178 Fullarton Road

KDickson-Abbott@greenhillaustralia.com.au

Dear Karion Dickson-Abbott

**DBYD Sequence No.** 210057743  
**Worksite Address:** 79-81 Robinson Road  
Waterloo Corner

## Dial Before You Dig Inquiry Response

Thank you for your DBYD enquiry regarding the location of our High Pressure Gas Pipelines, we can confirm that Epic Energy **does have a high pressure gas transmission pipeline and infrastructure** in the vicinity of your proposed works.

Epic Energy's pipeline asset **IS AFFECTED** by the activity of Planning and Design, Subdivision

There is to be **NO ATTEMPT TO PHYSICALLY LOCATE THE PIPELINE**. Only an **Epic representative** can locate the pipeline.

**NO WORKS ARE TO BE CARRIED OUT NEAR A GAS TRANSMISSION PIPELINE WITHOUT AN EPIC ENERGY REPRESENTATIVE ON SITE AND AN ACCURATE LOCATION OF THE PIPELINE IS PROVIDED BY EPIC ENERGY.**

Damage to a gas transmission pipeline could result in :-

- possible explosion and fire;
- substantial repair and gas restoration liability damage costs.
- gas escaping at pressures of up to 7,000 kPa;
- loss of gas to thousands of customers;

**Please Note:** This is an automated response. Please **DO NOT REPLY** to this email. If you require further information in relation to this Dial Before You Dig response, please contact Epic Energy's Pipeline Awareness Officer, on (08) 83438100 if any further information is required, and/or to arrange for Epic to identify the location of the pipeline for you. A minimum of 48 hours notice is required for location identifications to be booked.

Please note that this is **not** an approval to carry out work within Epic Energy's pipeline easement.

Detailed plans of the proposed construction work or activity to be carried out in the vicinity of the pipeline must be forwarded to Epic Energy for approval and to assess any impacts on the pipeline or easement prior to any work being carried out.

For the location of all other gas mains and services, you should contact the relevant utilities in the area.

The information contained in this response is only valid for **30 days** from the enquiry date. After 30 days you must submit a new Dial Before You Dig request, to validate the location information for the site listed.

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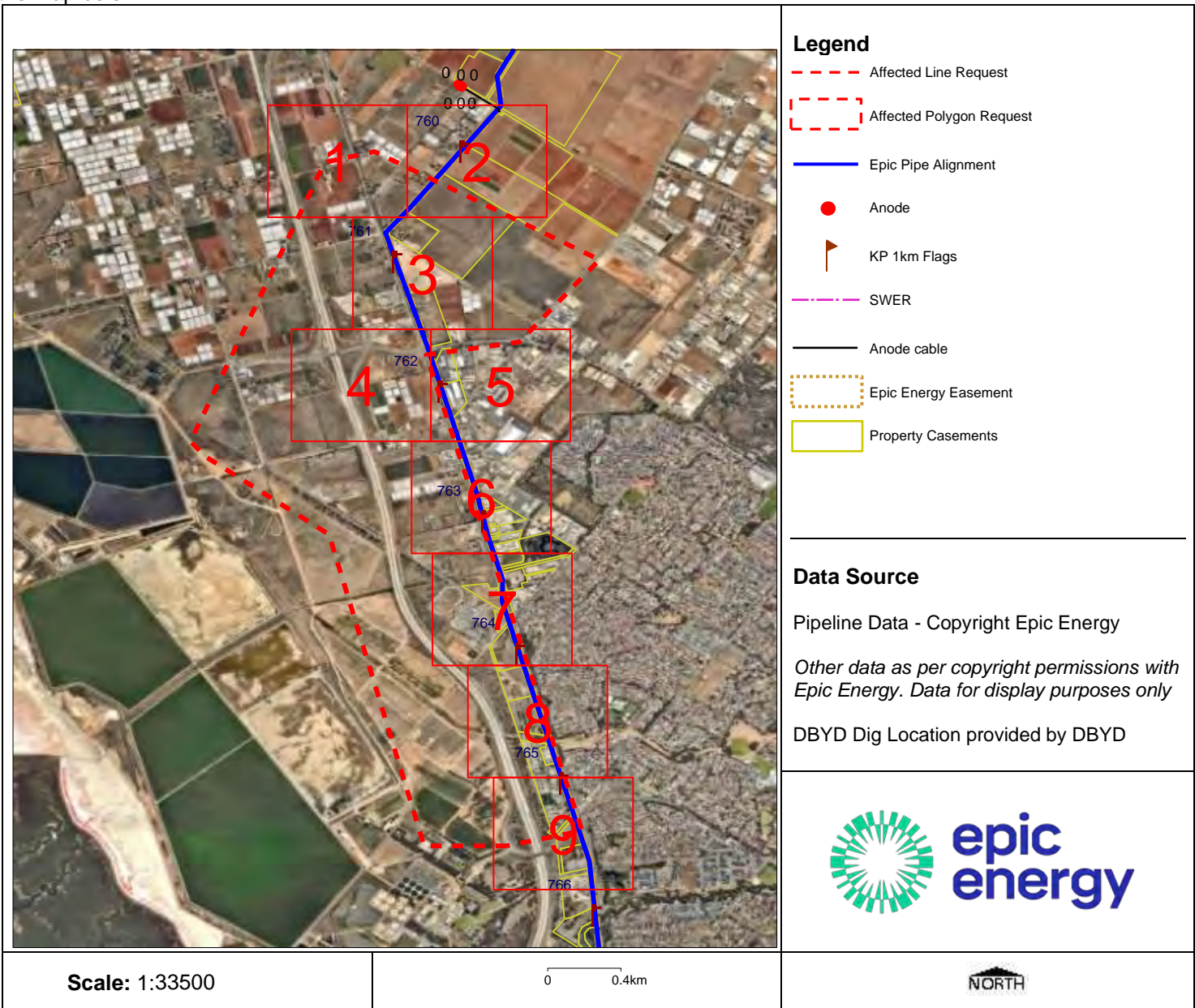


**DBYD Enquiry Number:** 210057743                      **DBYD Enquiry Date:** 06/04/2022  
**Location:** 79-81 Robinson Road Waterloo Corner  
**Enquirer's Name:** Karion Dickson-Abbott              **Enquirer's Phone:** +61884061300  
**Enquirer's Address:** Level 1,178 Fullarton Road  
**Response email :** KDickson-Abbott@greenhillaustralia.com.au

Thank you for the notification of your interest or proposed works near the underground services at the above location. Epic Energy operates and maintains this high pressure gas infrastructure in the area of your interest, which is:

**THIS DBYD REQUEST DOES AFFECT OUR HIGH PRESSURE GAS PIPELINES**

The location of the high pressure gas infrastructure operated by Epic Energy in the area of your interest is indicated on the Map below:



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Thank you for your interest in maintaining a safe and secure gas pipeline network.

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 PO Box 2450 Dry Creek SA 5094  
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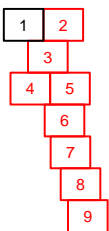
210057743 Map Sheet: 1

Scale: 1: 4000

0 0.05km



**Map Key:**



**Legend**

- - - Affected Line Request
- Affected Polygon Request
- Epic Pipe Alignment
- Anode
- ▴ KP 1km Flags
- - - SWER
- Anode cable
- Epic Energy Easement
- Property Casements



**Data Source**  
 Pipeline Data - Copyright Epic Energy.  
 Other data as per copyright  
 permissions with Epic Energy.  
 Data for display purposes only  
 DBYD Dig Location provided by DBYD

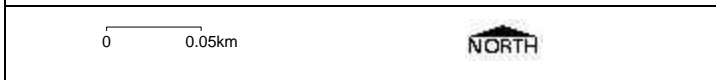
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210057743 Map Sheet: 2


Scale: 1: 4000



**Map Key:**

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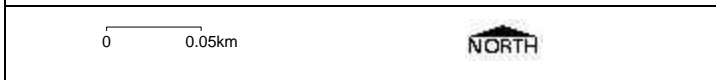
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210057743 Map Sheet: 3

Scale: 1: 4000



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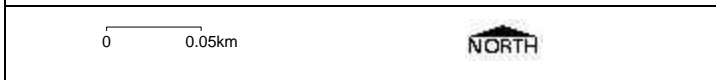
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210057743 Map Sheet: 4


Scale: 1: 4000



**Map Key:**

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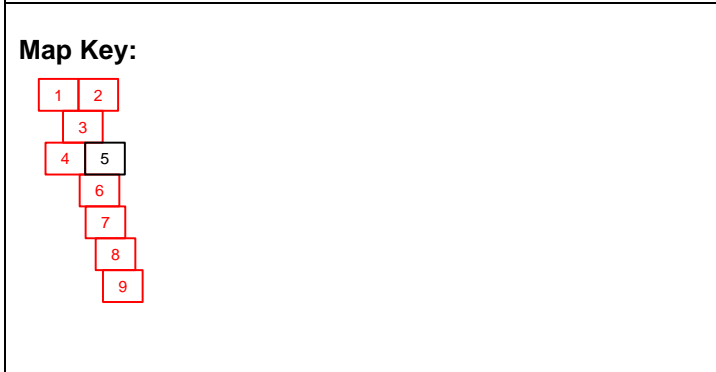
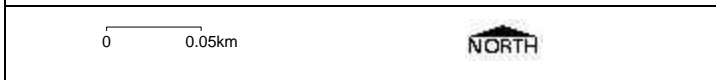
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210057743 Map Sheet: 5

Scale: 1: 4000



**Legend**

- - - Affected Line Request
- [ - - - ] Affected Polygon Request
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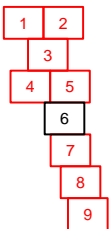
210057743 Map Sheet: 6

Scale: 1: 4000

0 0.05km



**Map Key:**



**Legend**

- - - Affected Line Request
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- Epic Pipe Alignment
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- Anode cable
- Epic Energy Easement
- Property Casements



**Data Source**  
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 Other data as per copyright permissions with Epic Energy.  
 Data for display purposes only  
 DBYD Dig Location provided by DBYD

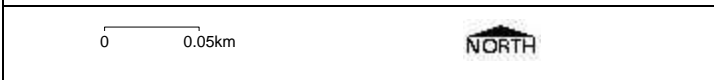
Epic Energy does not guarantee the accuracy or completeness of the map and does not make any warranty about the data. Epic Energy is not under any liability to the user for any loss or damage (including consequential loss or damage) which the user may suffer resulting from the use of this map.






210057743 Map Sheet: 7

Scale: 1: 4000



**Legend**

- - - - - Affected Line Request
- - - - - Affected Polygon Request
- Epic Pipe Alignment
- Anode
- 🚩 KP 1km Flags
- - - - - SWER
- Anode cable
- - - - - Epic Energy Easement
- ▭ Property Casements



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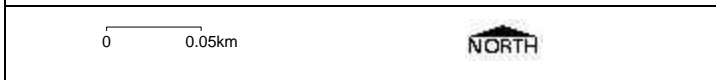
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210057743 Map Sheet: 8

Scale: 1: 4000



**Legend**

- - - - - Affected Line Request
- - - - - Affected Polygon Request
- Epic Pipe Alignment
- Anode
- 🚩 KP 1km Flags
- - - - - SWER
- Anode cable
- ⋯ Epic Energy Easement
- Property Casements



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 Data for display purposes only  
 DBYD Dig Location provided by DBYD

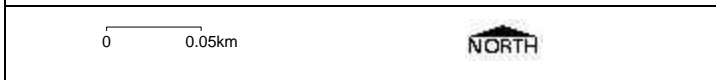
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210057743 Map Sheet: 9

Scale: 1: 4000



**Legend**

- - - Affected Line Request
- Affected Polygon Request
- Epic Pipe Alignment
- Anode
- ▬ KP 1km Flags
- · - · - SWER
- Anode cable
- Epic Energy Easement
- Property Casements



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 Other data as per copyright permissions with Epic Energy.  
 Data for display purposes only  
 DBYD Dig Location provided by DBYD

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# Standard Conditions Form



## MINIMUM STANDARD CONDITIONS WHEN WORKING NEAR A HIGH PRESSURE GAS PIPELINE

1. All works within the pipeline easement must be approved and supervised by an Epic Energy representative.
2. Activities over the pipeline easement will require approval from Epic Energy and can only be performed under our Safe Systems of Work, which may require a job hazard analysis to be completed.
3. Once construction is complete, Epic will have the right to access the pipeline for any operation and maintenance work. Epic is only responsible to reinstate the area to the original condition.
4. An Epic field maintenance officer must locate and mark the high pressure gas pipeline to identify the depth of cover over the pipeline and to supervise and approve all works within the pipeline easement.
5. To adequately assess any possible impacts of the proposed works on the high pressure gas pipeline, Epic may request depth of cover data to be obtained at the cost of the applicant. If required, the depth of cover (i.e. depth from the ground surface to the top of pipeline) must be physically confirmed on site by a vacuum truck in the presence of an Epic representative.
6. Drawings and a work plan (including activities, duration and dates) must be prepared and submitted to Epic prior to the commencement of works. No work shall commence until the drawings and work plan are approved by Epic. At least five working days prior notice is to be provided to Epic for construction works and a schedule to be arranged by contacting the Epic Pipeline Awareness Officer on (08) 8343 8100.
7. The area over and in the vicinity of the pipeline must be excavated only by hand digging or in accordance with advice from the Epic maintenance officer on site. Epic's excavation procedure must be strictly followed for any proposed earth works. No depth of cover is to be permanently removed from the pipeline easement.
8. Epic must approve any engineering design configurations that cause other pipes to be closer than 600mm to its high pressure gas pipeline, including crossings under the pipeline and any future connections.
9. Horizontal boring and directional drilling is not permitted, unless approved by Epic and conducted under explicit on-site direction from an Epic representative.
10. Blasting is not permitted.
11. The separation distance between the Epic high pressure gas pipeline and any proposed pipe crossings must not be less than 300mm. However, the integrity of other pipes will be affected if the high pressure gas pipeline needs emergency repairs or maintenance. Therefore a 600mm separation is recommended. The type and design of the crossing, use of barriers and other technical details must be developed in consultation with Epic.
12. Any new crossings must be as close as possible to a right angle to the pipeline.
13. Existing crossings must be protected and pipeline depth of cover is to be maintained at all times during construction.

14. Epic has installed above ground test points and leak detection points along the pipelines. If as a result of the proposed works they need to be relocated, Epic approval must be obtained prior to the commencement of the proposed works.
15. If compacting is required:
  - only a light compactor or roller compactor may be utilised in the easement;
  - Epic must approve the type of compactor or roller used;
  - only water aided compacting methods are permitted for the area five metres either side of the easement;
  - Epic personnel must supervise the compacting/rolling process;
  - no vibrating machinery is to be used within ten metres either side of the easement;
  - only light machinery is to be used near the easement; and
  - stockpiling and parking of heavy equipment is not permitted on the easement.
16. Potential environmental effects must be assessed before conducting new activities and risks must be assessed by an independent expert and approved by Epic before starting a new activity or decommissioning a facility or site. The pipeline easement must be carefully restored after completion of the works so that it is consistent with the surrounding environment.
17. All practical measures must be taken to prevent environmental harm or damage. Contingency procedures must be developed and maintained in order to minimise any impacts if an incident occurs. Any environmental incidents (including follow up actions) must be reported in writing to the Epic Environmental Officer on (08) 8343 8100. An initial report to be is to be provided to Epic within 24 hours of the incident occurring, with a full written report to be provided within seven days.
18. On completion of any pipeline crossings, “as built” drawings are to be supplied to Epic within 30 days, at the cost of the proponent.
19. Epic will erect pipeline danger signs on each side of new vehicle cross over points as part of its routine activities within the area.
20. Epic introduced detailed COVID-19 personal hygiene and social distancing measures as part of a widespread COVID-19 Management Plan implemented in March 2020. We continue to implement fitness for work declarations as well as personal hygiene and social distancing measures to assist workforce and stakeholders. Whilst conducting DBYD assessments, all personnel shall observe appropriate strategies to reduce the risk of COVID-19 transmission.

I ask that you acknowledge your acceptance of the above terms and conditions by signing where indicated below and returning a copy of this letter to an Epic Energy representative.

I hereby acknowledge the above conditions and restrictions:

Name: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Signature: \_\_\_\_\_

Epic Energy representative witness:

Name: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Signature: \_\_\_\_\_





# Working near nbn™ cables

**nbn** has partnered with Dial Before You Dig to give you a single point of contact to get information about **nbn** underground services owned by **nbn** and other utility/service providers in your area including communications, electricity, gas and other services. Contact with underground power cables and gas services can result in serious injury to the worker, and damage and costly repairs. You must familiarise yourself with all of the Referral Conditions (meaning the referral conditions referred to in the DBYD Notice provided by **nbn**).

## Practice safe work habits

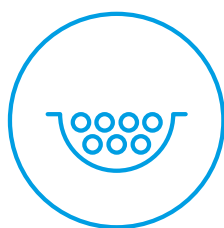
Once the DBYD plans are reviewed, the Five P's of Excavation should be adopted in conjunction with your safe work practices (which must be compliant with the relevant state Electrical Safety Act and Safe Work Australia "Excavation Work Code of Practice", as a minimum) to ensure the risk of any contact with underground **nbn** assets are minimised.



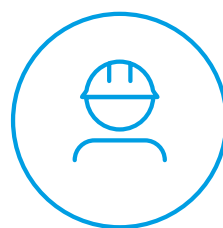
**Plan:** Plan your job by ensuring the plans received are current and apply to the work to be performed. Also check for any visual cues that may indicate the presence of services not covered in the DBYD plans.



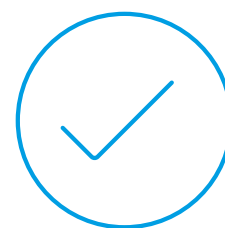
**Prepare:** Prepare for your job by engaging a DBYD Certified Plant Locator to help interpret plans and identify on-site assets. Contact **nbn** should you require further assistance.



**Pothole:** Non-destructive potholing (i.e. hand digging or hydro excavation) should be used to positively locate **nbn** underground assets with minimal risk of contact and service damage.

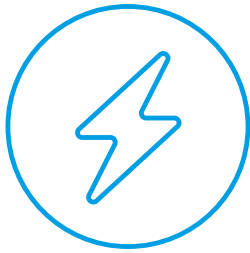


**Protect:** Protecting and supporting the exposed **nbn** underground asset is the responsibility of the worker. Exclusion zones for **nbn** assets are clearly stated in the plan and appropriate controls must be implemented to ensure that encroachment into the exclusion zone by machinery or activities with the potential to damage the asset is prevented.

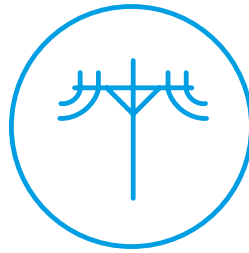


**Proceed:** Proceed only when the appropriate planning, preparation, potholing and protective measures are in place.

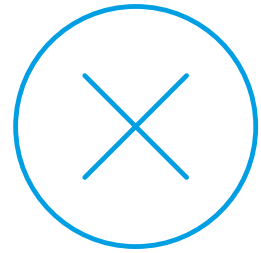
# Working near **nbn**<sup>TM</sup> cables



Identify all electrical hazards, assess the risks and establish control measures.



When using excavators and other machinery, also check the location of overhead power lines.



Workers and equipment must maintain safety exclusion zones around power lines.

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Once all work is completed, the excavation should be re-instated with the same type of excavated material unless specified by **nbn**. Please note:

- Construction Partners of **nbn** may require additional controls to be in place when performing excavation activities.
- The information contained within this pamphlet must be used in conjunction with other material supplied as part of this request for information to adequately control the risk of potential asset damage.

## Contact

All **nbn**<sup>TM</sup> network facility damages must be reported online [here](#).  
For enquiries related to your DBYD request please call 1800 626 329.

### Disclaimer

This brochure is a guide only. It does not address all the matters you need to consider when working near our cables. You must familiarise yourself with other material provided (including the Referral Conditions) and make your own inquiries as appropriate.


**nbn** will not be liable or responsible for any loss, damage or costs incurred as a result of reliance on this brochure.

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**To:** Karion Dickson-Abbott  
**Phone:** Not Supplied  
**Fax:** Not Supplied  
**Email:** KDickson-Abbott@greenhillaustralia.com.au

|                                   |   |   |
|-----------------------------------|---|---|
| <b>Dial before you dig Job #:</b> | 31721481  |  |
| <b>Sequence #</b>                 | 210057752   |   |
| <b>Issue Date:</b>                | 06/04/2022  |   |
| <b>Location:</b>                  | 79-81 Robinson Road , Waterloo Corner , SA , 5110 |   |

## Information

The area of interest requested by you contains one or more assets.

| <b>nbn™ Assets</b>    | <b>Search Results</b> |
|-----------------------|-----------------------|
| <b>Communications</b> | Asset identified      |
| <b>Electricity</b>    | No assets             |

In this notice **nbn™ Facilities** means *underground fibre optic, telecommunications and/or power facilities, including but not limited to cables, owned and controlled by nbn™*

## Location of nbn™ Underground Assets

We thank you for your enquiry. In relation to your enquiry at the above address:

- **nbn's** records indicate that there **ARE nbn™** Facilities in the vicinity of the location identified above ("Location").
- **nbn** indicative plan/s are attached with this notice ("Indicative Plans").
- The Indicative Plan/s show general depth and alignment information only and are not an exact, scale or accurate depiction of the location, depth and alignment of **nbn™** Facilities shown on the Plan/s.
- In particular, the fact that the Indicative Plans show that a facility is installed in a straight line, or at uniform depth along its length cannot be relied upon as evidence that the facility is, in fact, installed in a straight line or at uniform depth.
- You should read the Indicative Plans in conjunction with this notice and in particular, the notes below.
- You should note that, at the present time, the Indicative Plans are likely to be more accurate in showing location of fibre optics and telecommunications cables than power cables. There may be a variation between the line depicted on the Indicative Plans and the location of any power cables. As such, consistent with the notes below, particular care must be taken by you to make your own enquiries and investigations to precisely locate any power cables and manage the risk arising from such cables accordingly.
- The information contained in the Indicative Plan/s is valid for 28 days from the date of issue set out above. You are expected to make your own inquiries and perform your own investigations (including engaging appropriately qualified plant locators, e.g DBYD Certified Locators, at your cost to locate **nbn™**

Facilities during any activities you carry out on site).

We thank you for your enquiry and appreciate your continued use of the Dial Before You Dig Service. For any enquiries related to moving assets or Planning and Design activities, please visit the [nbn Commercial Works](#) website to complete the online application form. If you are planning to excavate and require further information, please email [dbyd@nbnc.com.au](mailto:dbyd@nbnc.com.au) or call 1800 626 329.

#### Notes:

1. You are now aware that there are **nbn**<sup>TM</sup> Facilities in the vicinity of the above property that could be damaged as a result activities carried out (or proposed to be carried out) by you in the vicinity of the Location.
2. You should have regard to section 474.6 and 474.7 of the *Criminal Code Act 1995* (CoA) which deals with the consequences of interfering or tampering with a telecommunications facility. Only persons authorised by **nbn** can interact with **nbn**'s network facilities.
3. Any information provided is valid only for **28 days** from the date of issue set out above.

## Referral Conditions

The following are conditions on which **nbn** provides you with the Indicative Plans. By accepting the plans, you are agreeing to these conditions. These conditions are in addition, and not in replacement of, any duties and obligations you have under applicable law.

1. **nbn** does not accept any responsibility for any inaccuracies of its plans including the Indicative Plans. You are expected to make your own inquiries and perform your own investigations (including engaging appropriately qualified plant locators, e.g. DBYD Certified Locators, at your cost to locate **nbn**<sup>TM</sup> Facilities during any activities you carry out on site).
2. You acknowledge that **nbn** has specifically notified you above that the Indicative Plans are likely to be more accurate in showing location of fibre optics and telecommunications cables than power cables. There may be a variation between the line depicted on the Indicative Plans and the location of any power cables.
3. You should not assume that **nbn**<sup>TM</sup> Facilities follow straight lines or are installed at uniformed depths along their lengths, even if they are indicated on plans provided to you. Careful onsite investigations are essential to locate the exact position of cables.
4. In carrying out any works in the vicinity of **nbn**<sup>TM</sup> Facilities, you must maintain the following minimum clearances:
  - 300mm when laying assets inline, horizontally or vertically.
  - 500mm when operating vibrating equipment, for example: jackhammers or vibrating plates.
  - 1000mm when operating mechanical excavators.
  - Adherence to clearances as directed by other asset owner's instructions and take into account any uncertainty for power cables.
5. You are aware that there are inherent risks and dangers associated with carrying out work in the vicinity of underground facilities (such as **nbn**<sup>TM</sup> fibre optic, copper and coaxial cables, and power cable feed to **nbn**<sup>TM</sup> assets). Damage to underground electric cables may result in:
  - Injury from electric shock or severe burns, with the possibility of death.
  - Interruption of the electricity supply to wide areas of the city.
  - Damage to your excavating plant.
  - Responsibility for the cost of repairs.
6. You must take all reasonable precautions to avoid damaging **nbn**<sup>TM</sup> Facilities. These precautions may include but not limited to the following:
  - All excavation sites should be examined for underground cables by careful hand excavation. Cable cover slabs if present must not be disturbed. Hand excavation needs to be undertaken with extreme care to minimise the likelihood of damage to the cable, for example: the blades of hand equipment should be aligned parallel to the line of the cable rather than digging across the cable.
  - If any undisclosed underground cables are located, notify **nbn** immediately.



- All personnel must be properly briefed, particularly those associated with the use of earth-moving equipment, trenching, boring and pneumatic equipment.
  - The safety of the public and other workers must be ensured.
  - All excavations must be undertaken in accordance with all relevant legislation and regulations.
7. You will be responsible for all damage to **nbn**<sup>TM</sup> Facilities that are connected whether directly, or indirectly with work you carry out (or work that is carried out for you or on your behalf) at the Location. This will include, without limitation, all losses expenses incurred by **nbn** as a result of any such damage.
  8. You must immediately report any damage to the **nbn**<sup>TM</sup> network that you are/become aware of. Notification may be by telephone - 1800 626 329.
  9. Except to the extent that liability may not be capable of lawful exclusion, **nbn** and its servants and agents and the related bodies corporate of **nbn** and their servants and agents shall be under no liability whatsoever to any person for any loss or damage (including indirect or consequential loss or damage) however caused (including, without limitation, breach of contract negligence and/or breach of statute) which may be suffered or incurred from or in connection with this information sheet or any plans(including Indicative Plans) attached hereto. Except as expressly provided to the contrary in this information sheet or the attached plans(including Indicative Plans), all terms, conditions, warranties, undertakings or representations (whether expressed or implied) are excluded to the fullest extent permitted by law.

All works undertaken shall be in accordance with all relevant legislations, acts and regulations applicable to the particular state or territory of the Location. The following table lists all relevant documents that shall be considered and adhered to.

| State/Territory | Documents  |
|-----------------|--|
| <b>National</b> | Work Health and Safety Act 2011  |
|                 | Work Health and Safety Regulations 2011  |
|                 | Safe Work Australia - Working in the Vicinity of Overhead and Underground Electric Lines (Draft) |
|                 | Occupational Health and Safety Act 1991  |
| <b>NSW</b>      | Electricity Supply Act 1995  |
|                 | Work Cover NSW - Work Near Underground Assets Guide  |
|                 | Work Cover NSW - Excavation Work: Code of Practice   |
| <b>VIC</b>      | Electricity Safety Act 1998  |
|                 | Electricity Safety (Network Asset) Regulations 1999  |
| <b>QLD</b>      | Electrical Safety Act 2002   |
|                 | Code of Practice for Working Near Exposed Live Parts   |
| <b>SA</b>       | Electricity Act 1996   |
| <b>TAS</b>      | Tasmanian Electricity Supply Industry Act 1995   |
| <b>WA</b>       | Electricity Act 1945   |
|                 | Electricity Regulations 1947   |
| <b>NT</b>       | Electricity Reform Act 2005  |
|                 | Electricity Reform (Safety and Technical) Regulations 2005                                       |
| <b>ACT</b>      | Electricity Act 1971   |

Thank You,

**nbn DBYD**


Date: 06/04/2022

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**To:** Karion Dickson-Abbott  
**Phone:** Not Supplied  
**Fax:** Not Supplied  
**Email:** KDickson-Abbott@greenhillaustralia.com.au

|                                   |   |   |
|-----------------------------------|---|---|
| <b>Dial before you dig Job #:</b> | 31721481  |  |
| <b>Sequence #</b>                 | 210057752   |   |
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| <b>Location:</b>                  | 79-81 Robinson Road , Waterloo Corner , SA , 5110 |   |






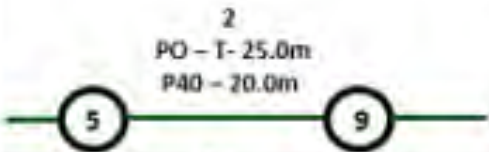
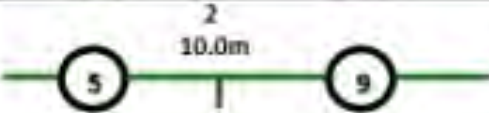





## Indicative Plans

|    |    |    |    |    |    |    |     |     |     |     |
|----|----|----|----|----|----|----|-----|-----|-----|-----|
| 2  | 15 | 28 | 41 | 54 | 67 | 80 | 93  | 106 | 119 | 132 |
| 3  | 16 | 29 | 42 | 55 | 68 | 81 | 94  | 107 | 120 | 133 |
| 4  | 17 | 30 | 43 | 56 | 69 | 82 | 95  | 108 | 121 | 134 |
| 5  | 18 | 31 | 44 | 57 | 70 | 83 | 96  | 109 | 122 | 135 |
| 6  | 19 | 32 | 45 | 58 | 71 | 84 | 97  | 110 | 123 | 136 |
| 7  | 20 | 33 | 46 | 59 | 72 | 85 | 98  | 111 | 124 | 137 |
| 8  | 21 | 34 | 47 | 60 | 73 | 86 | 99  | 112 | 125 | 138 |
| 9  | 22 | 35 | 48 | 61 | 74 | 87 | 100 | 113 | 126 | 139 |
| 10 | 23 | 36 | 49 | 62 | 75 | 88 | 101 | 114 | 127 | 140 |
| 11 | 24 | 37 | 50 | 63 | 76 | 89 | 102 | 115 | 128 | 141 |
| 12 | 25 | 38 | 51 | 64 | 77 | 90 | 103 | 116 | 129 | 142 |
| 13 | 26 | 39 | 52 | 65 | 78 | 91 | 104 | 117 | 130 | 143 |



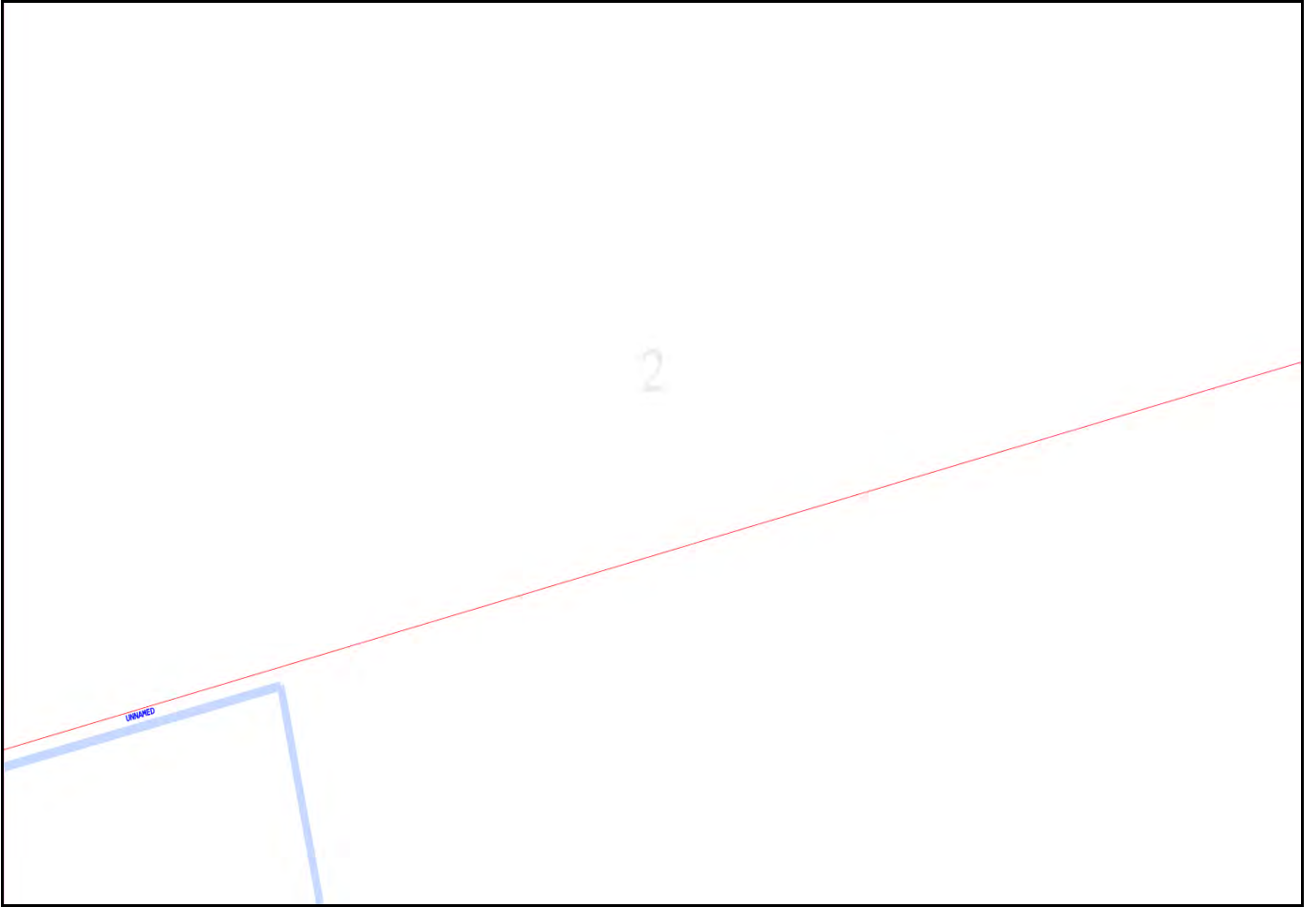
## LEGEND



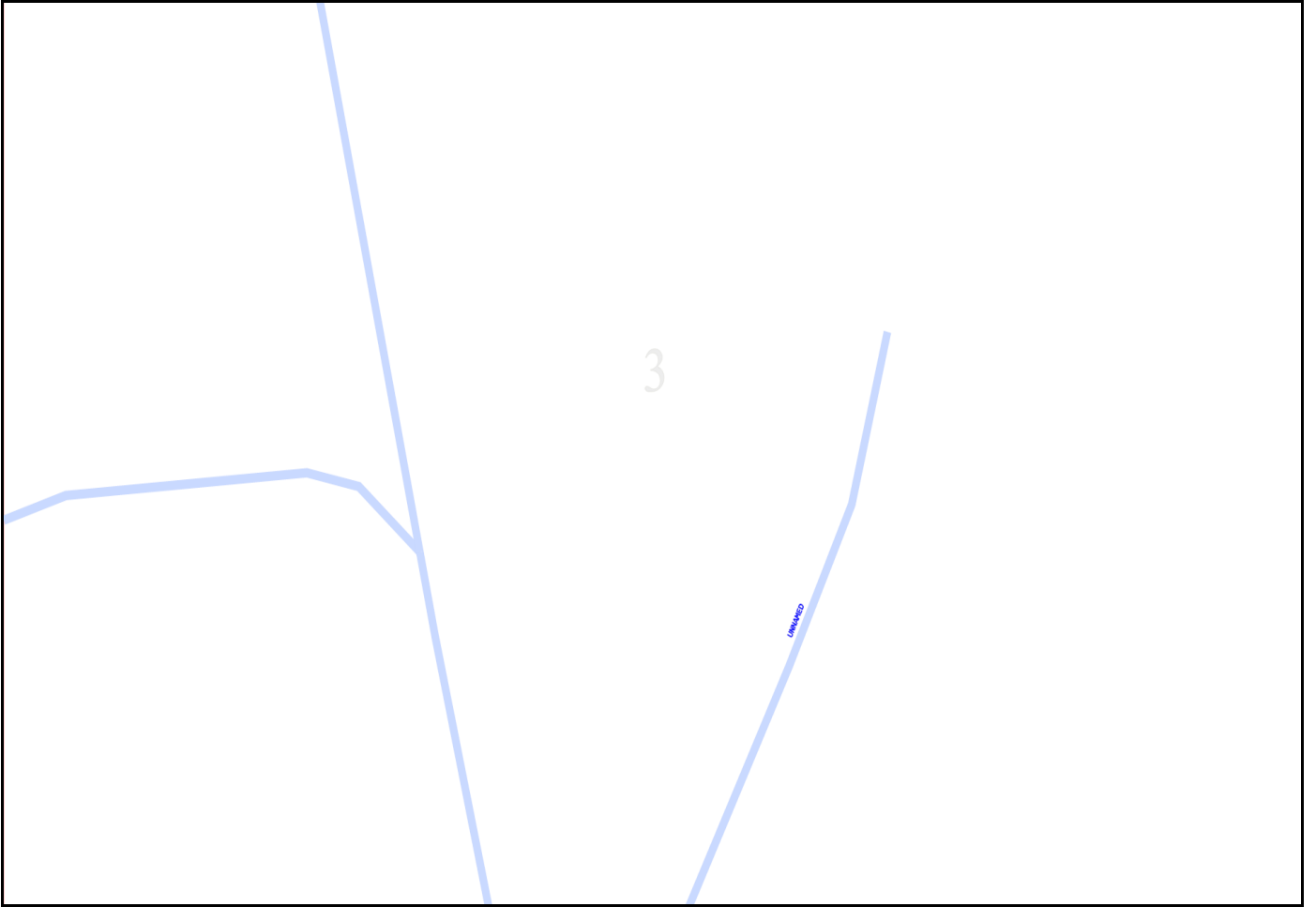
|   |  |
|---|--|
|    | Parcel and the location  |
|    | Pit with size "5"  |
|    | Power Pit with size "2E".<br>Valid PIT Size: e.g. 2E, 5E, 6E, 8E, 9E, E, null.   |
|    | Manhole  |
|   | Pillar   |
|  | Cable count of trench is 2.<br>One "Other size" PVC conduit (PO) owned by Telstra (-T-), between pits of sizes, "5" and "9" are 25.0m apart.<br>One 40mm PVC conduit (P40) owned by NBN, between pits of sizes, "5" and "9" are 20.0m apart. |
|  | 2 Direct buried cables between pits of sizes, "5" and "9" are 10.0m apart.   |
|  | Trench containing any <b>INSERVICE/CONSTRUCTED</b> (Copper/RF/Fibre) cables.   |
|  | Trench containing only <b>DESIGNED/PLANNED</b> (Copper/RF/Fibre/Power) cables.   |
|  | Trench containing any <b>INSERVICE/CONSTRUCTED</b> (Power) cables.   |
|  | Road and the street name "Broadway ST"   |
| Scale   | 0 20 40 60 Meters<br>1:2000<br>1 cm equals 20 m<br>   |



1

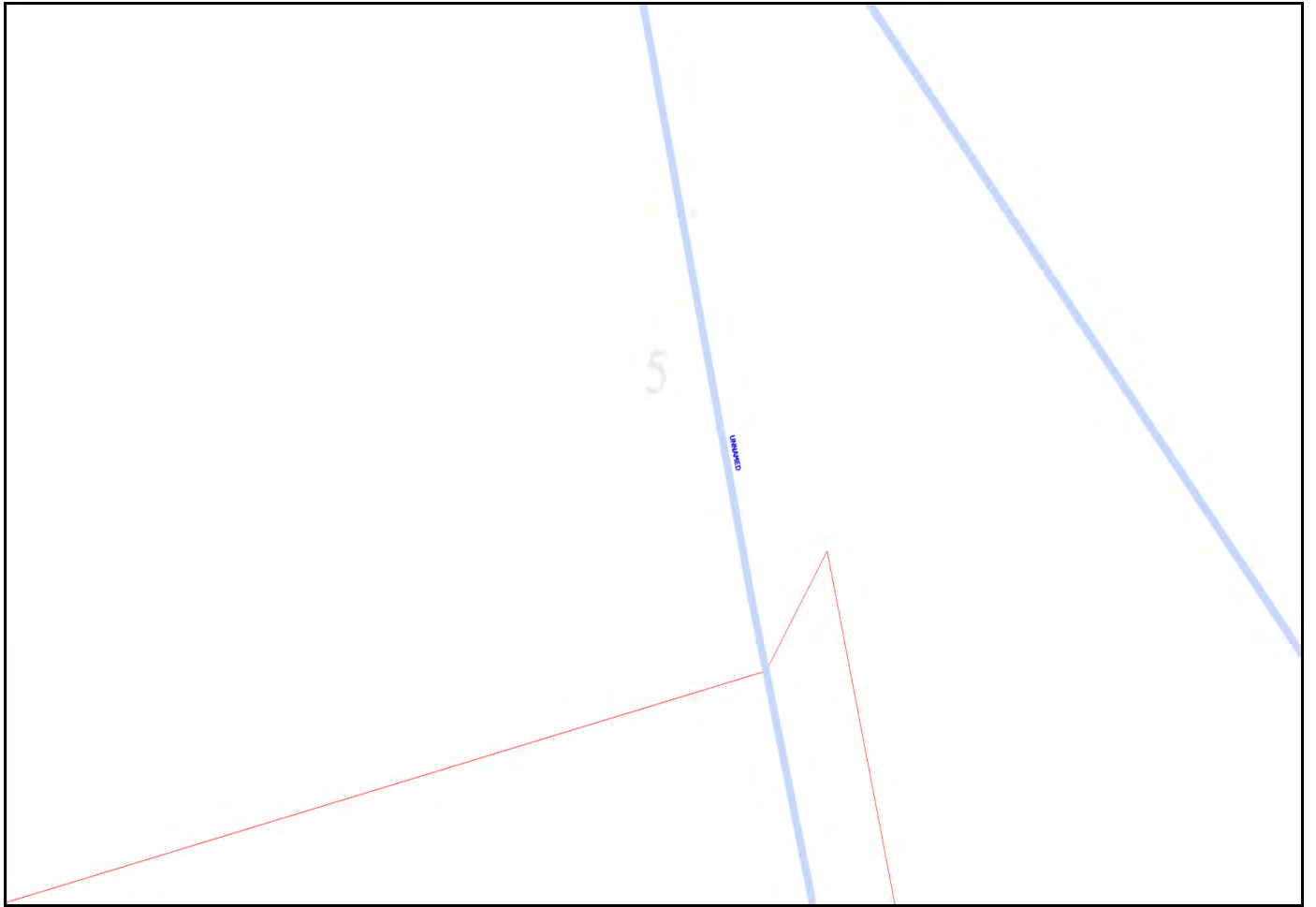


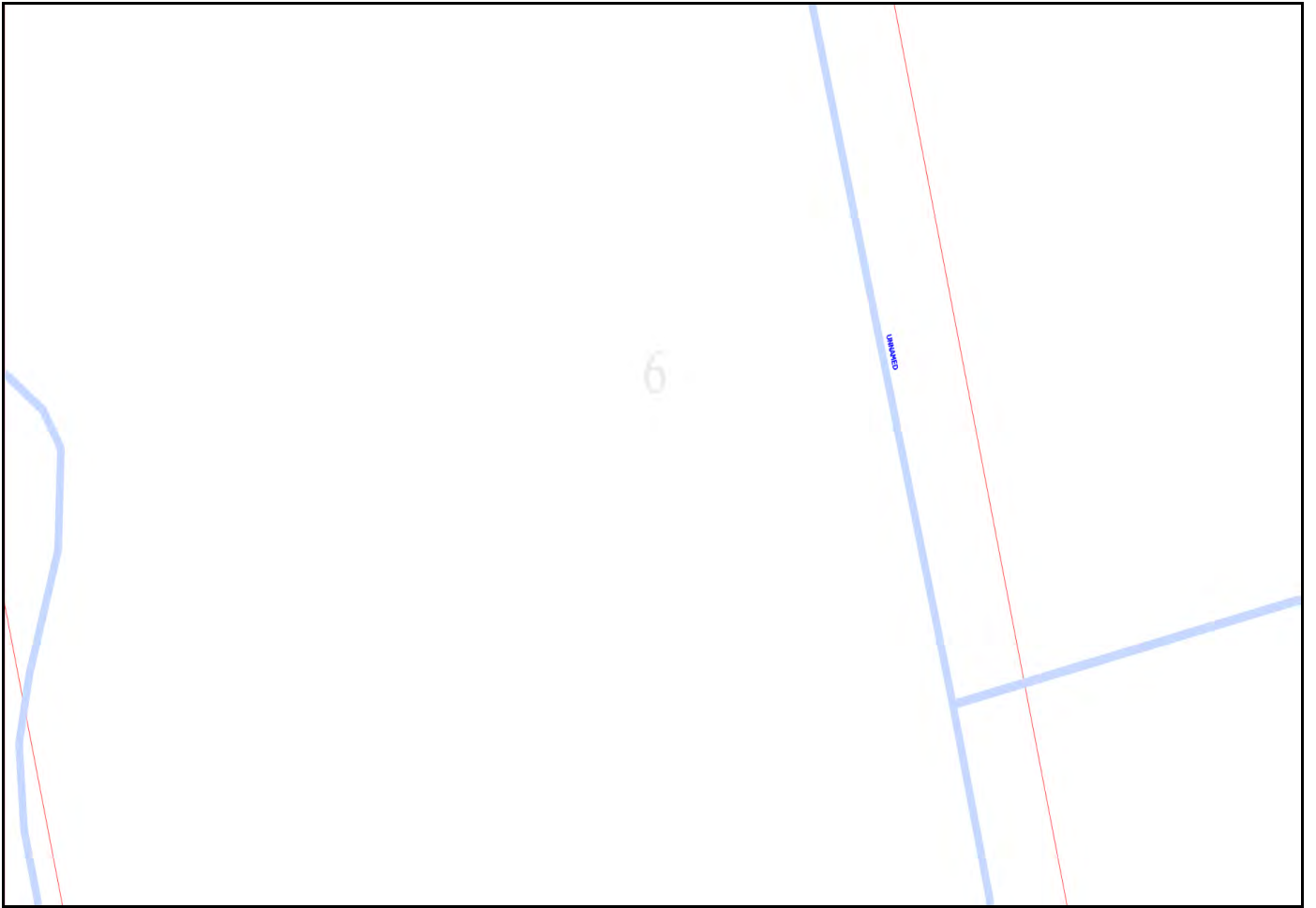




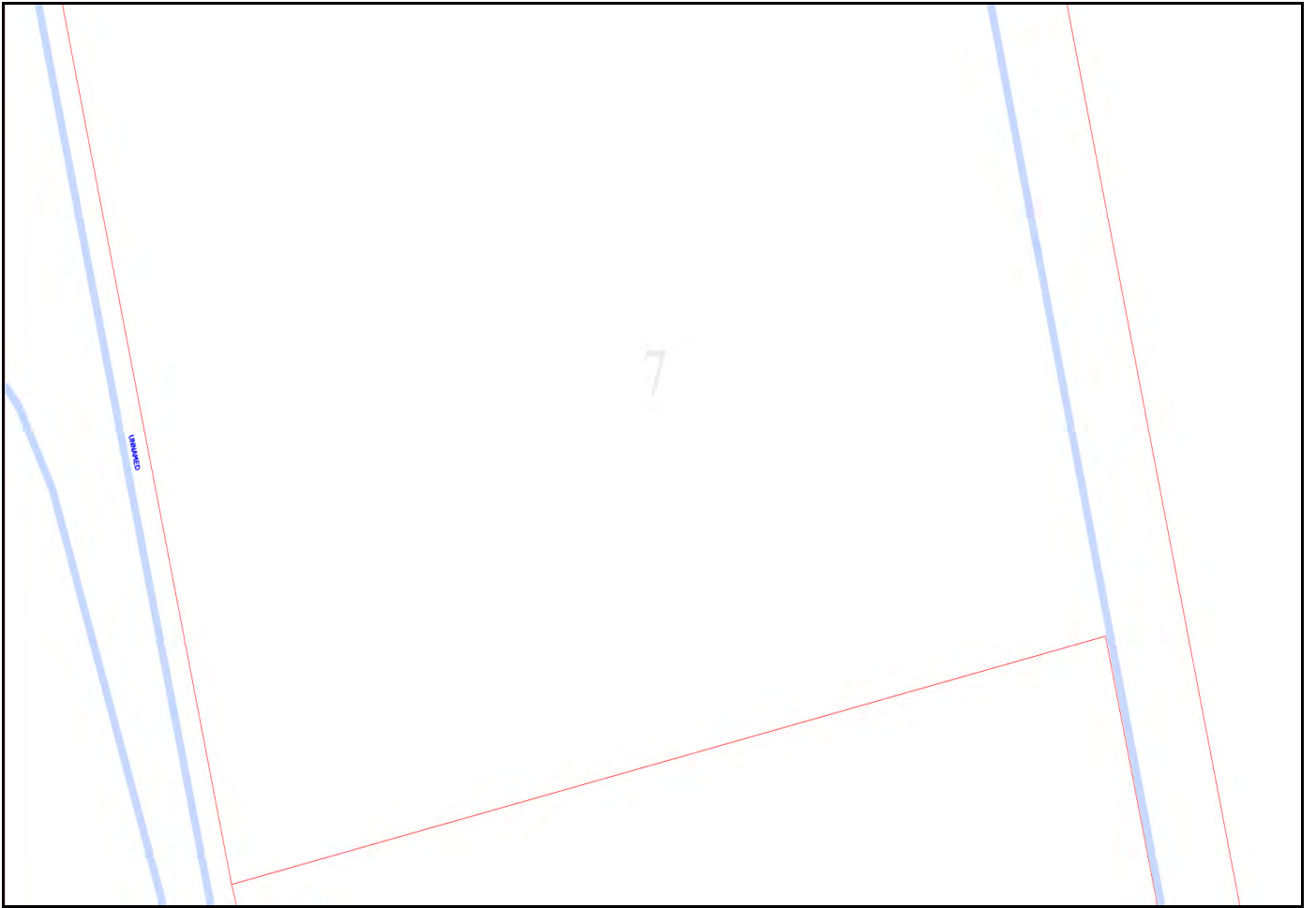


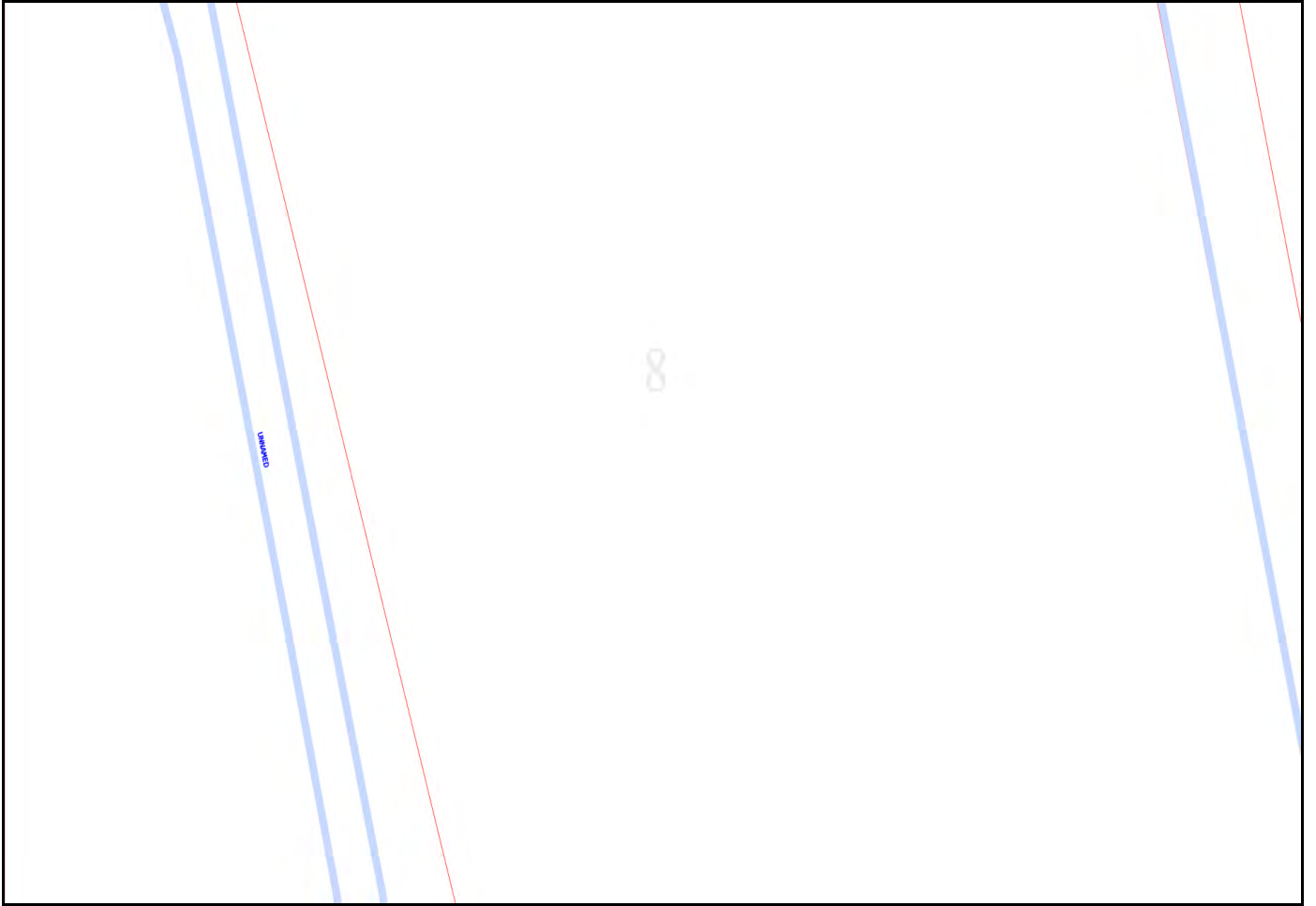




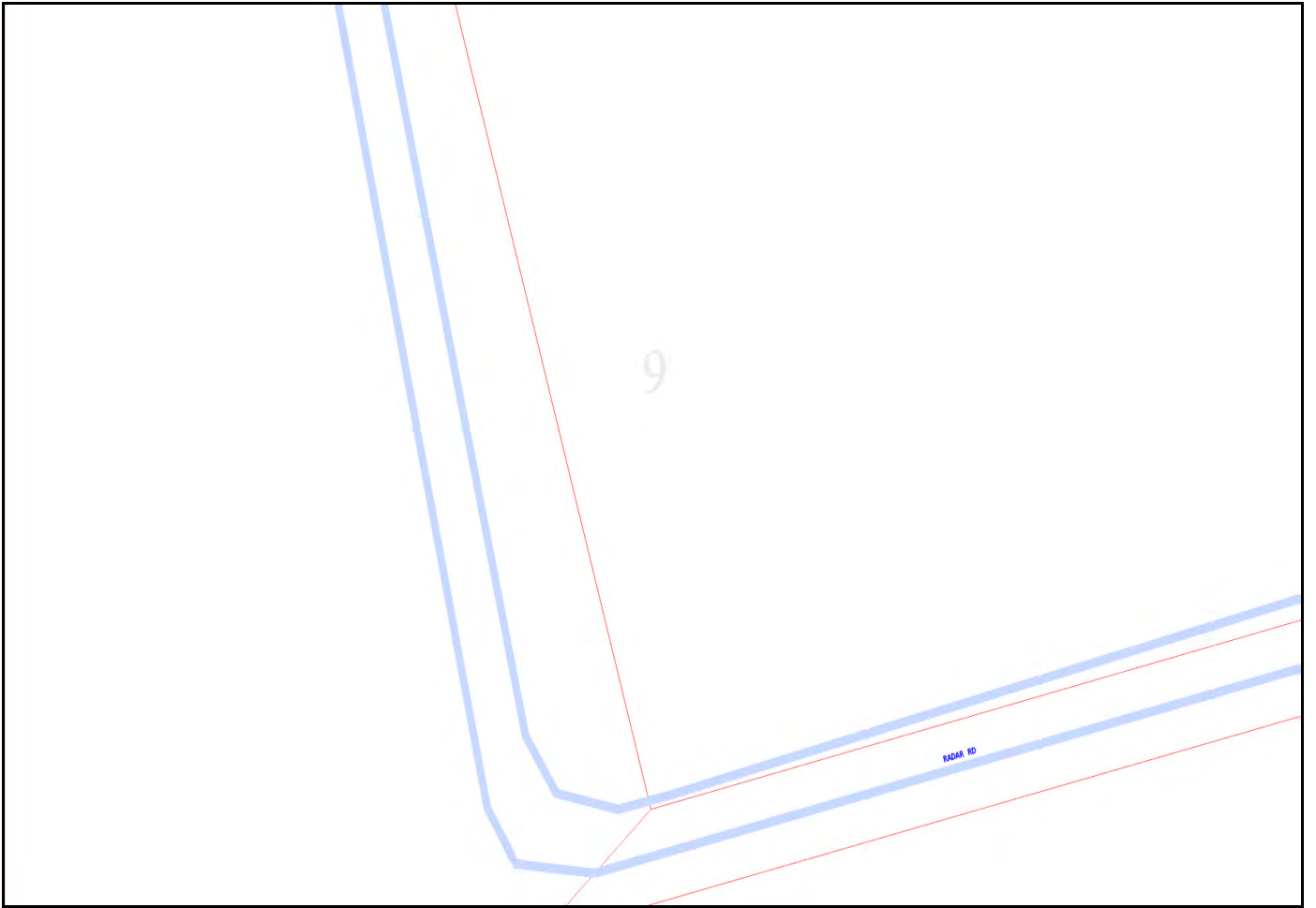


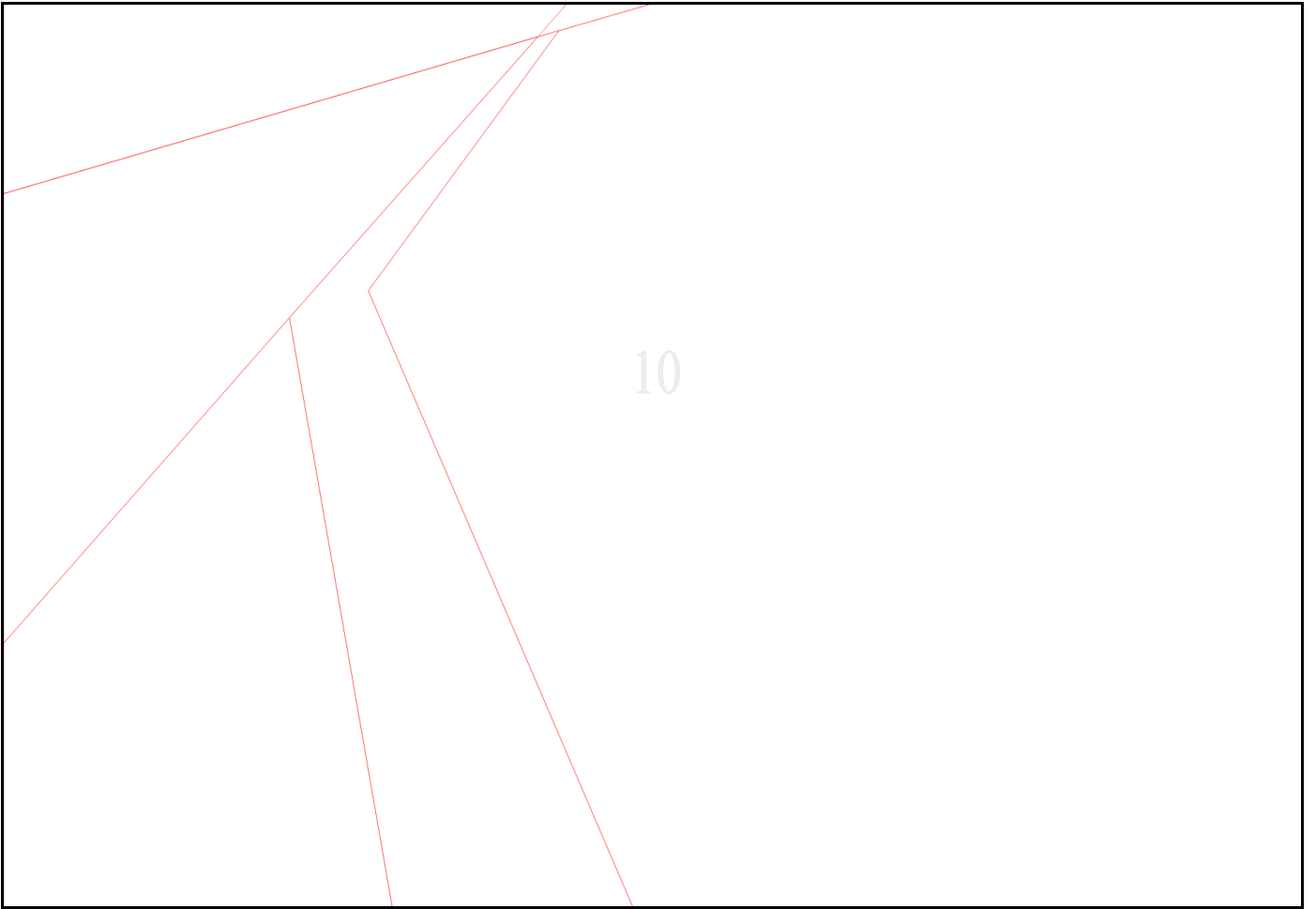




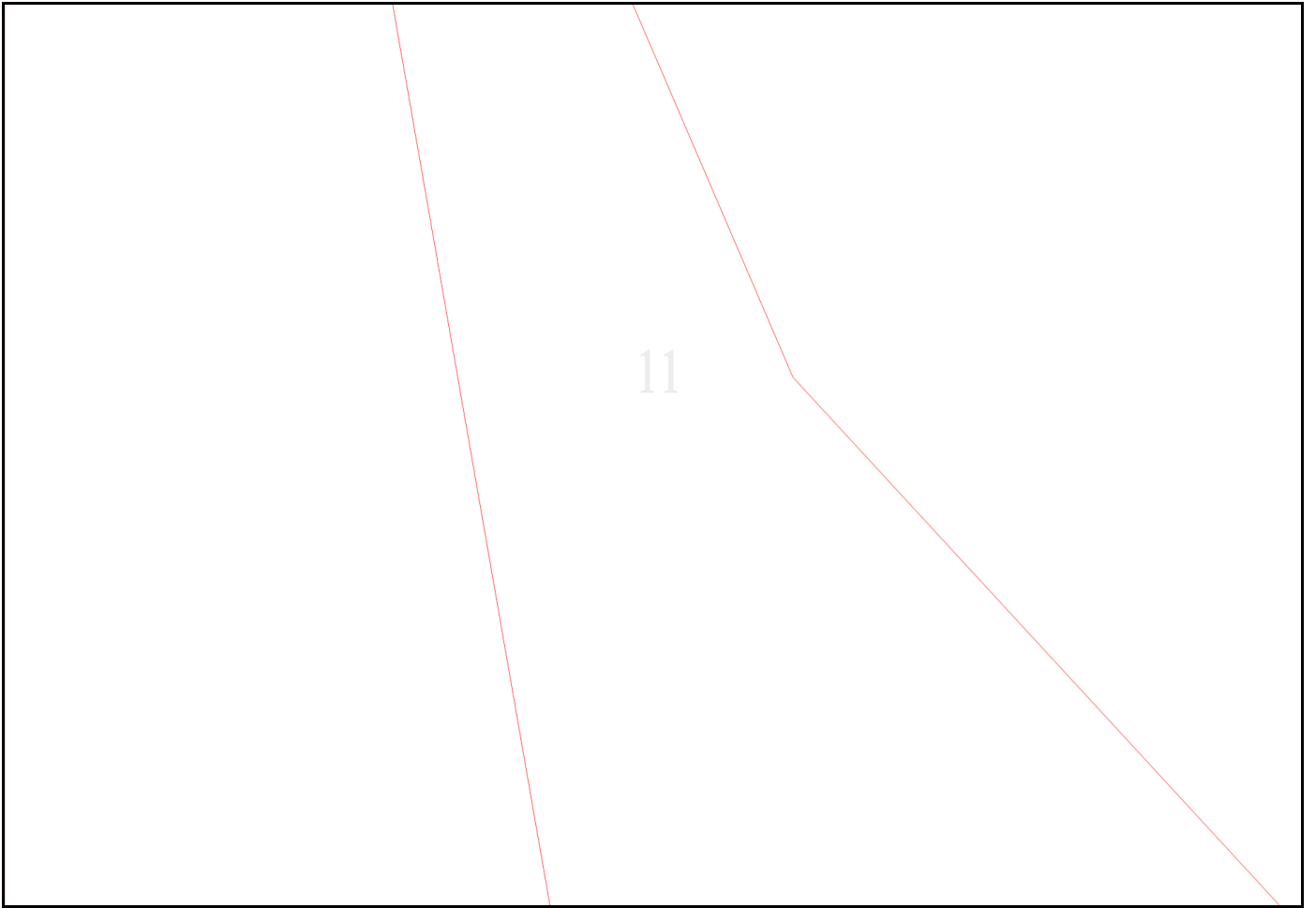












11

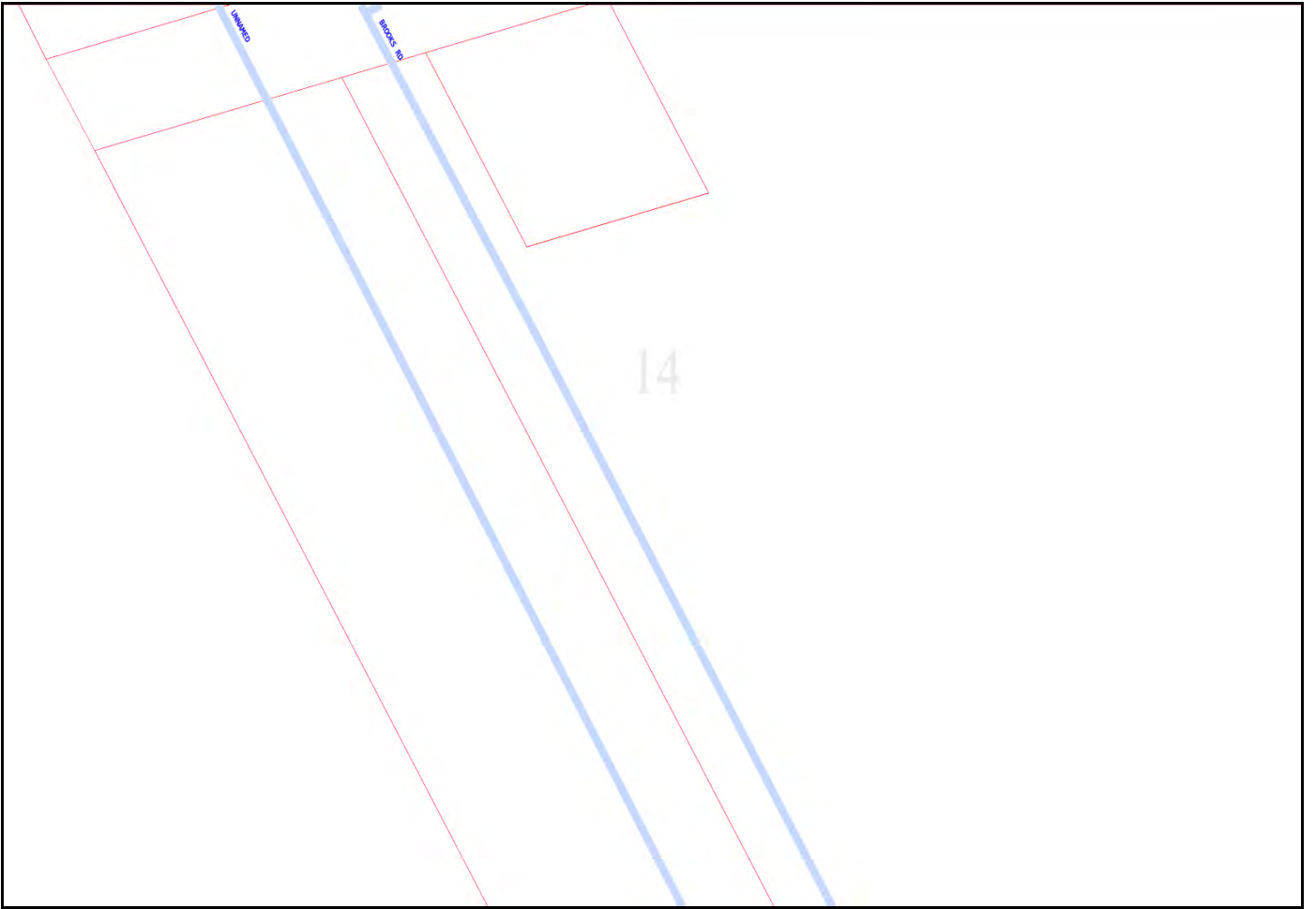
12

ST KILDA RD

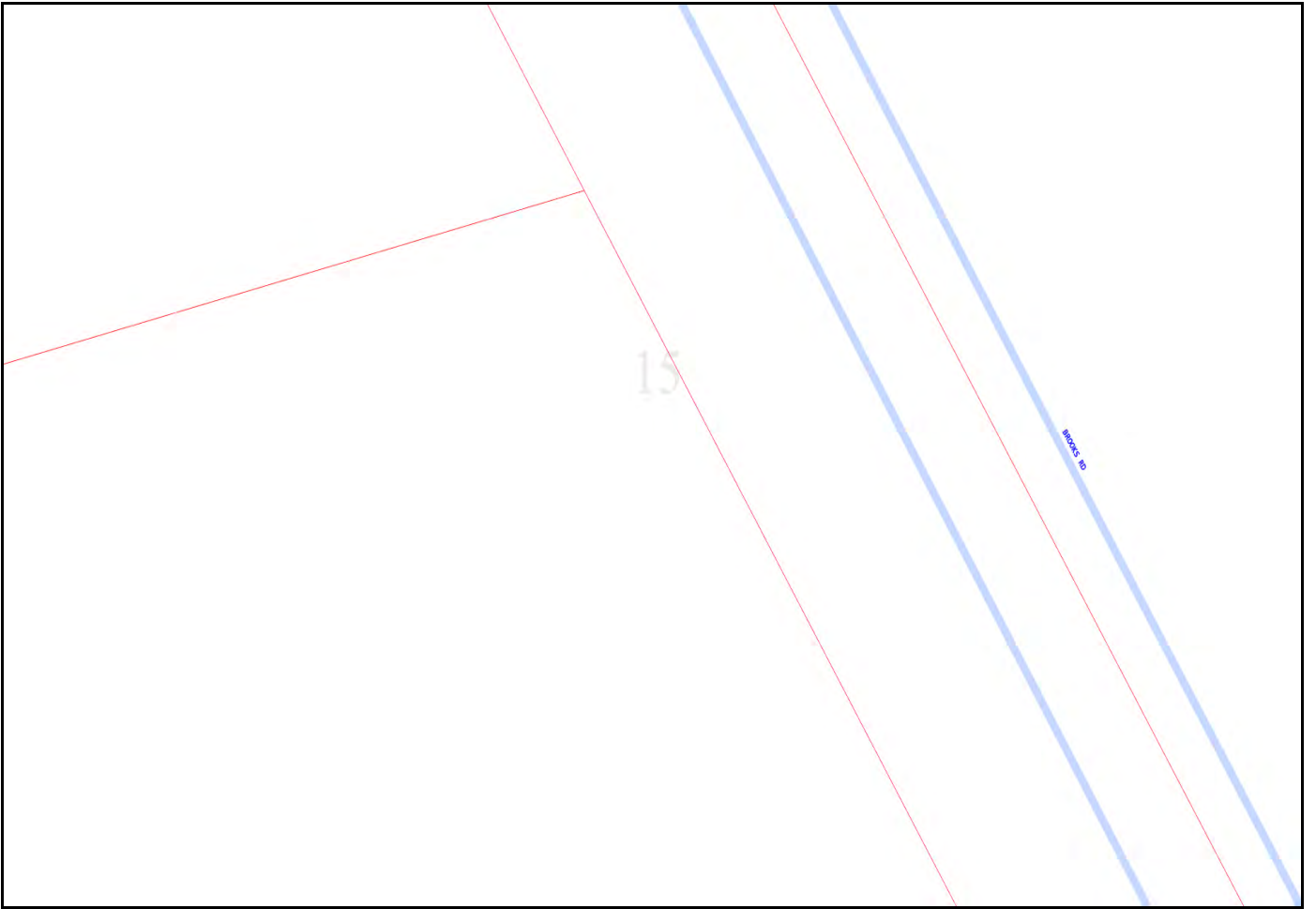


ST KILDA RD

13

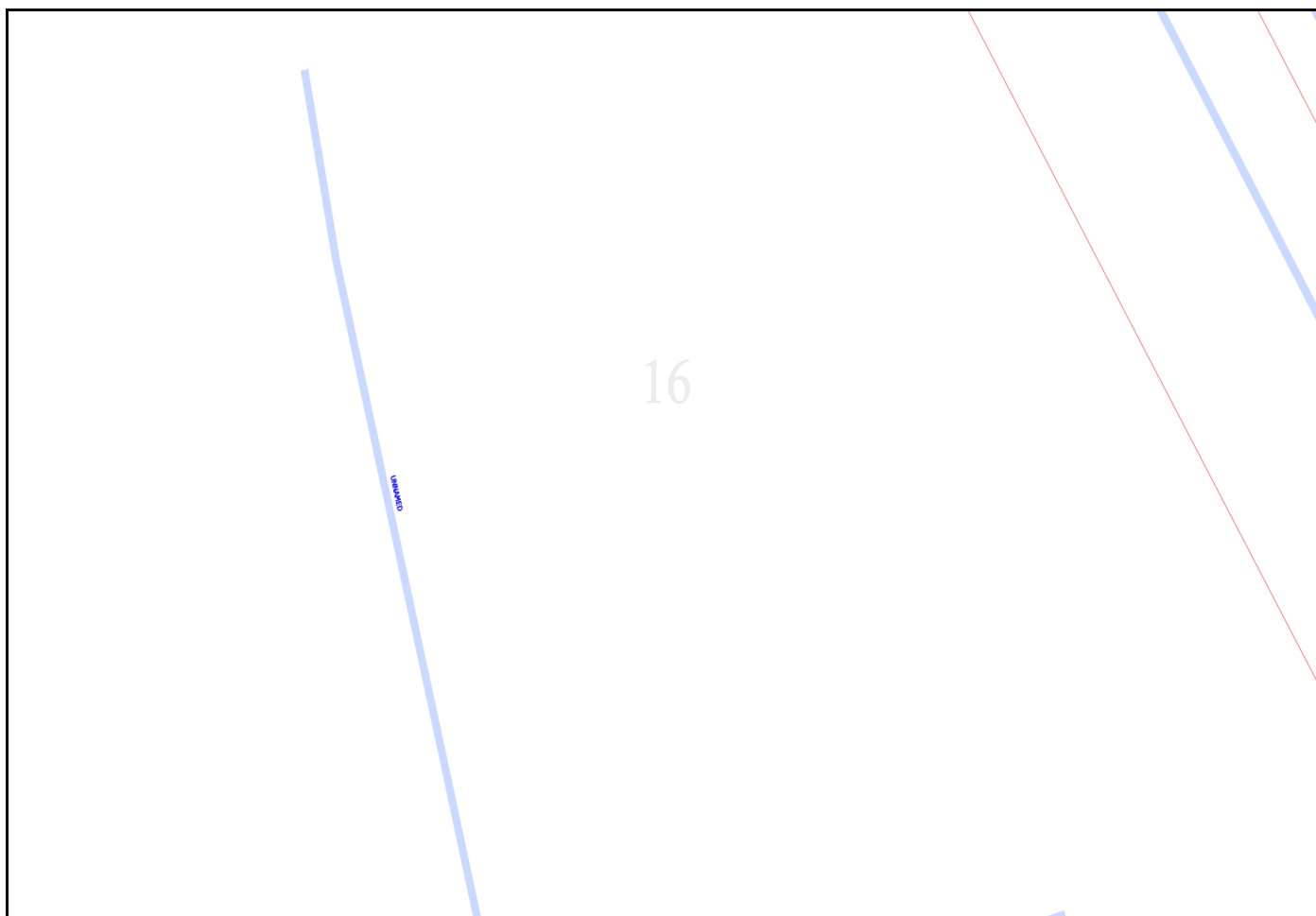




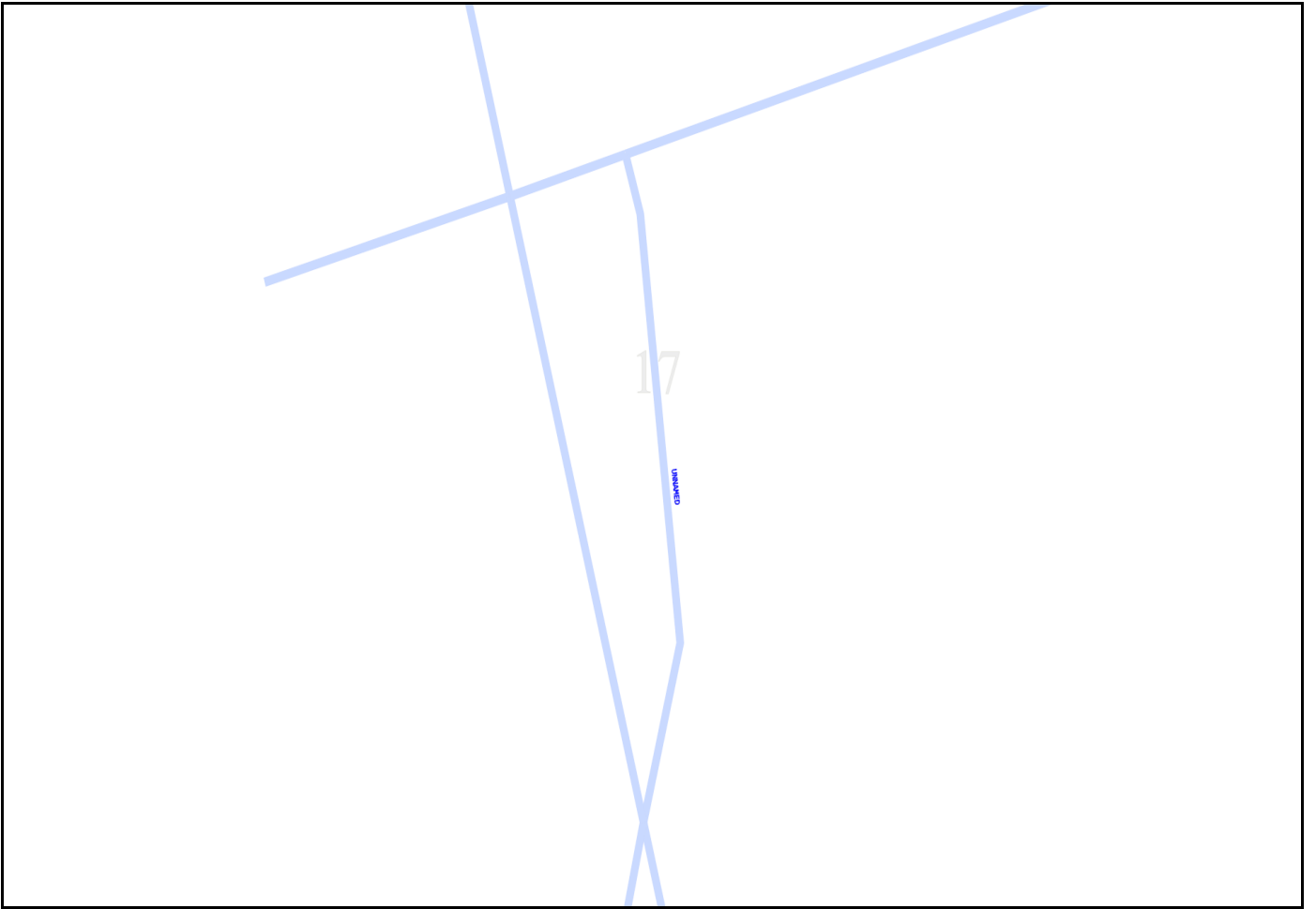


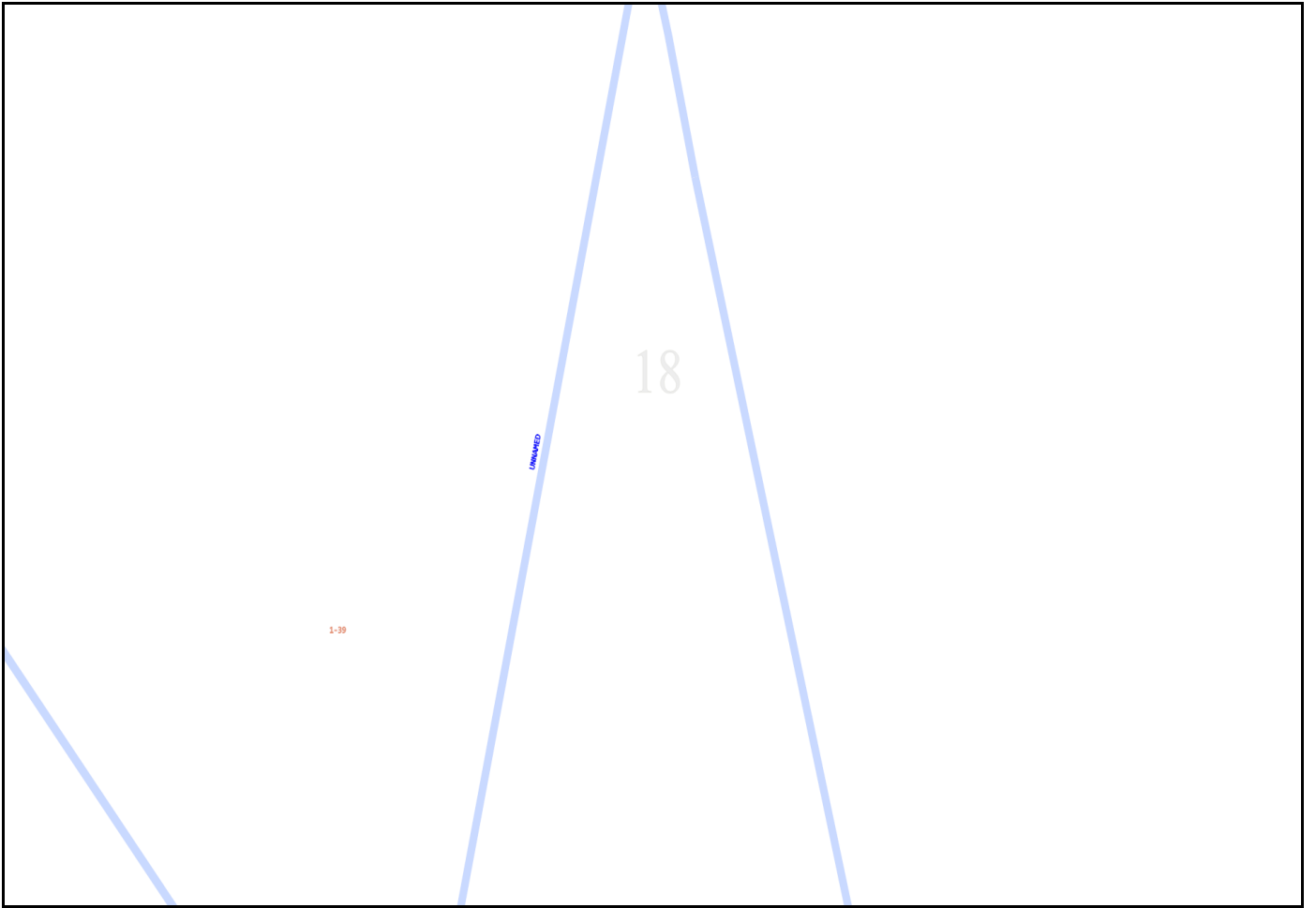
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СВЕТЛО

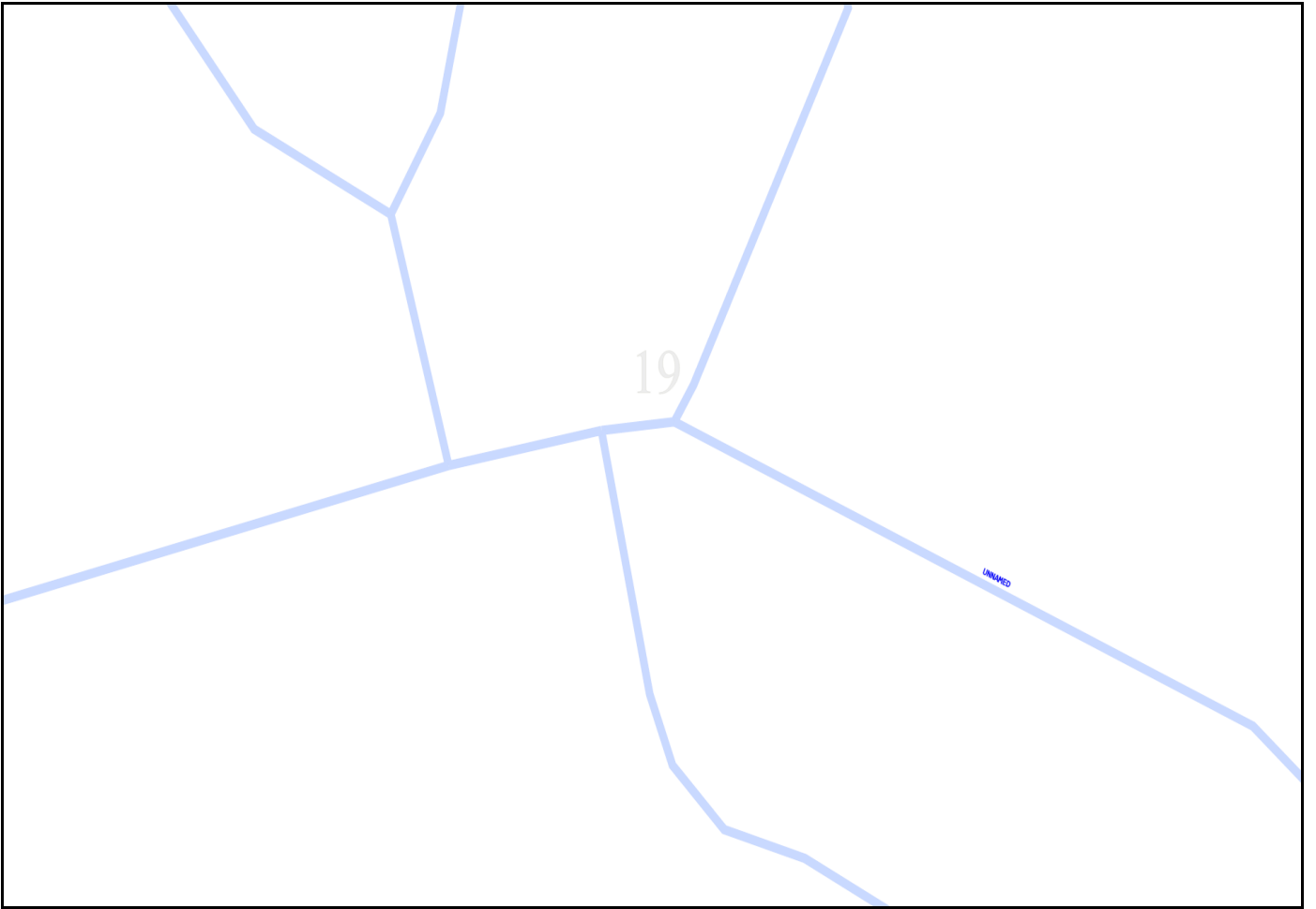






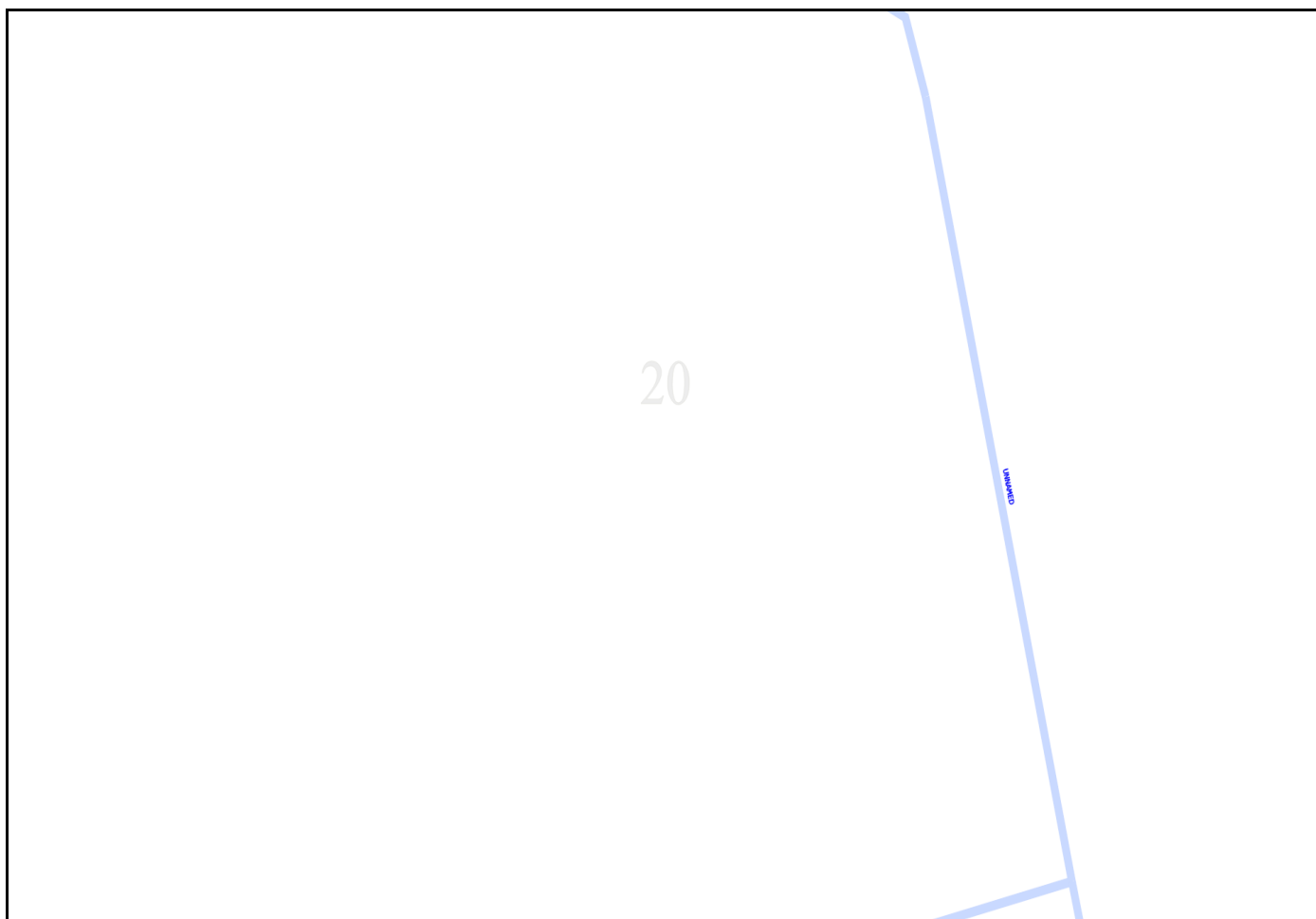




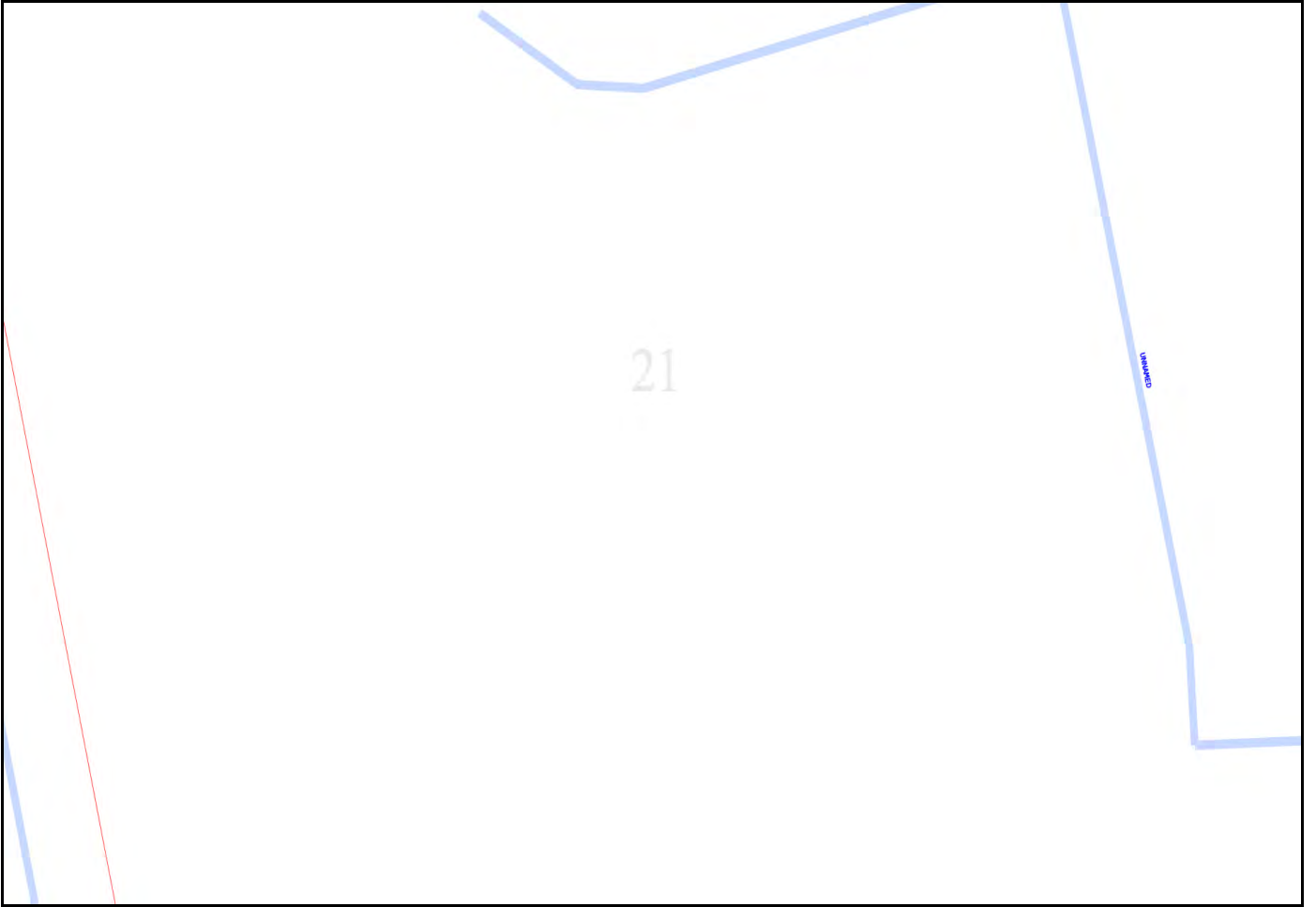


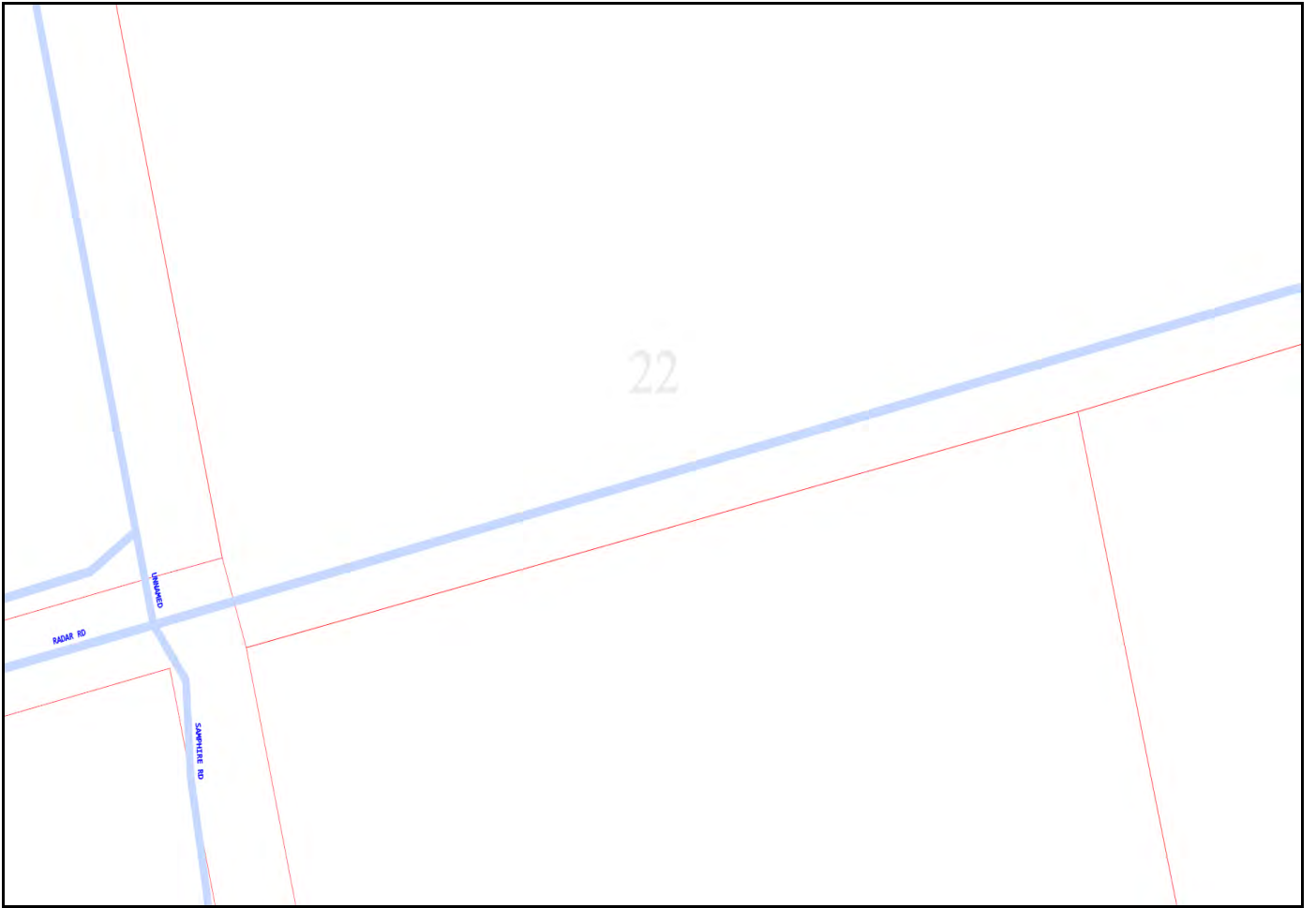
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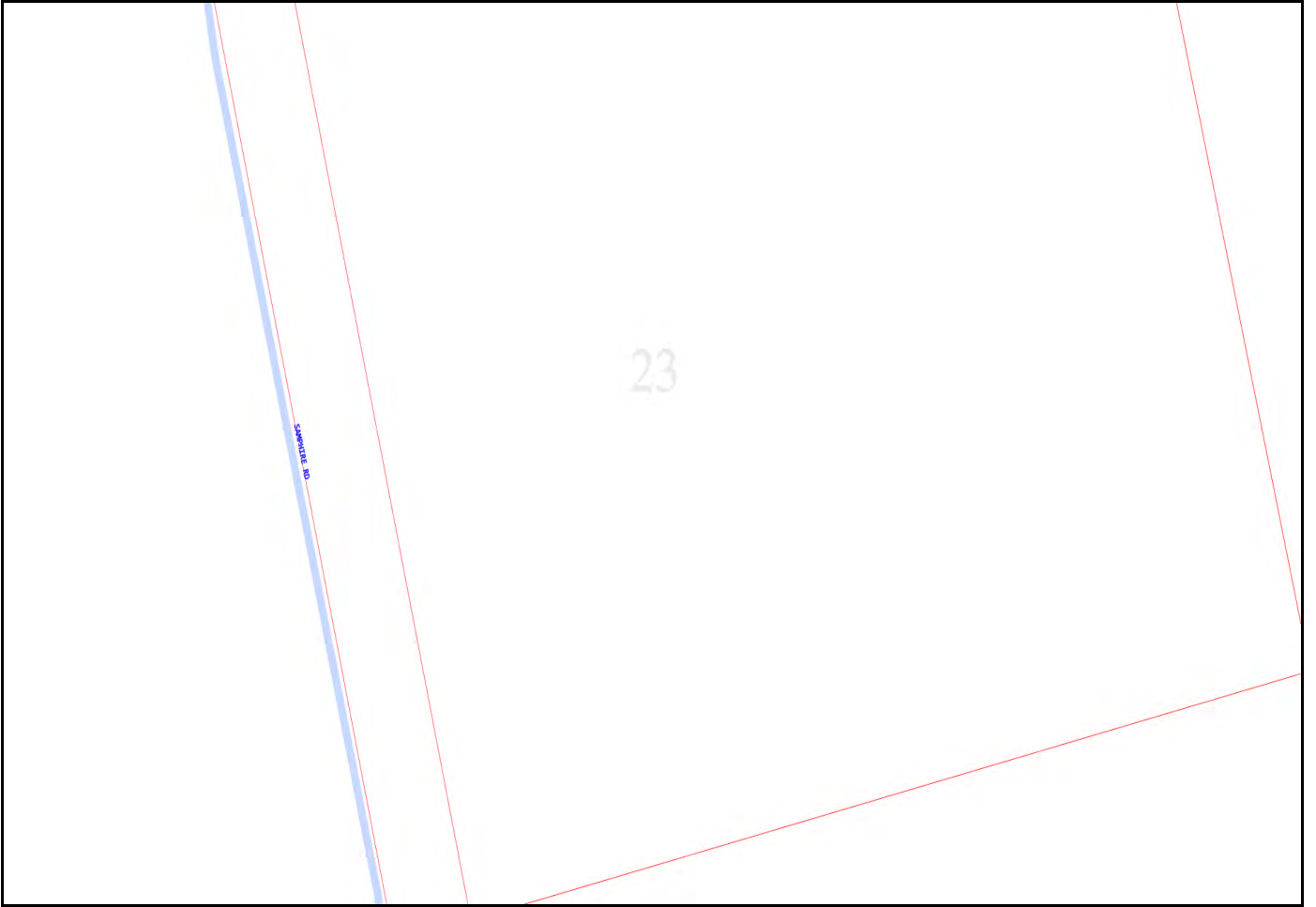


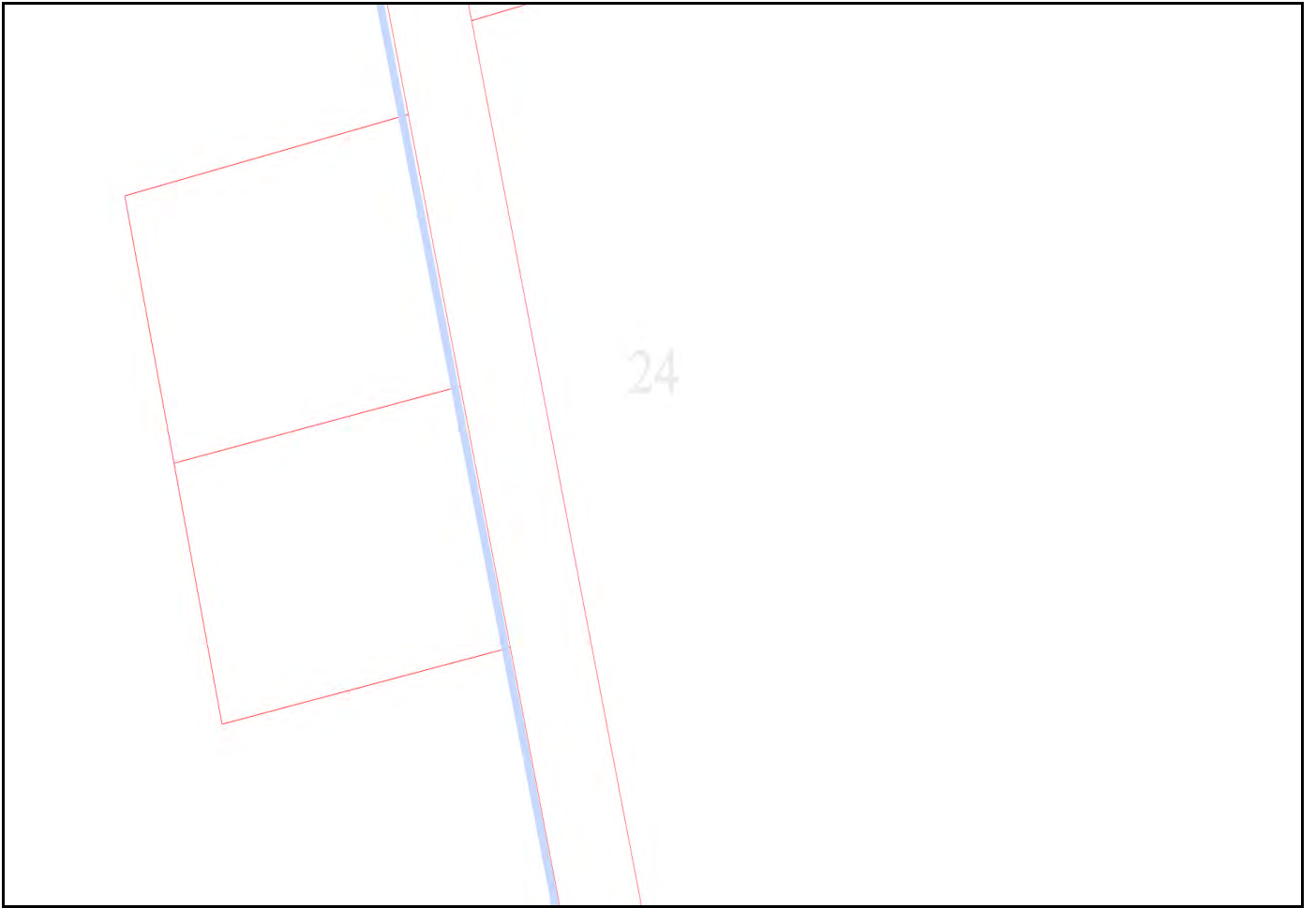




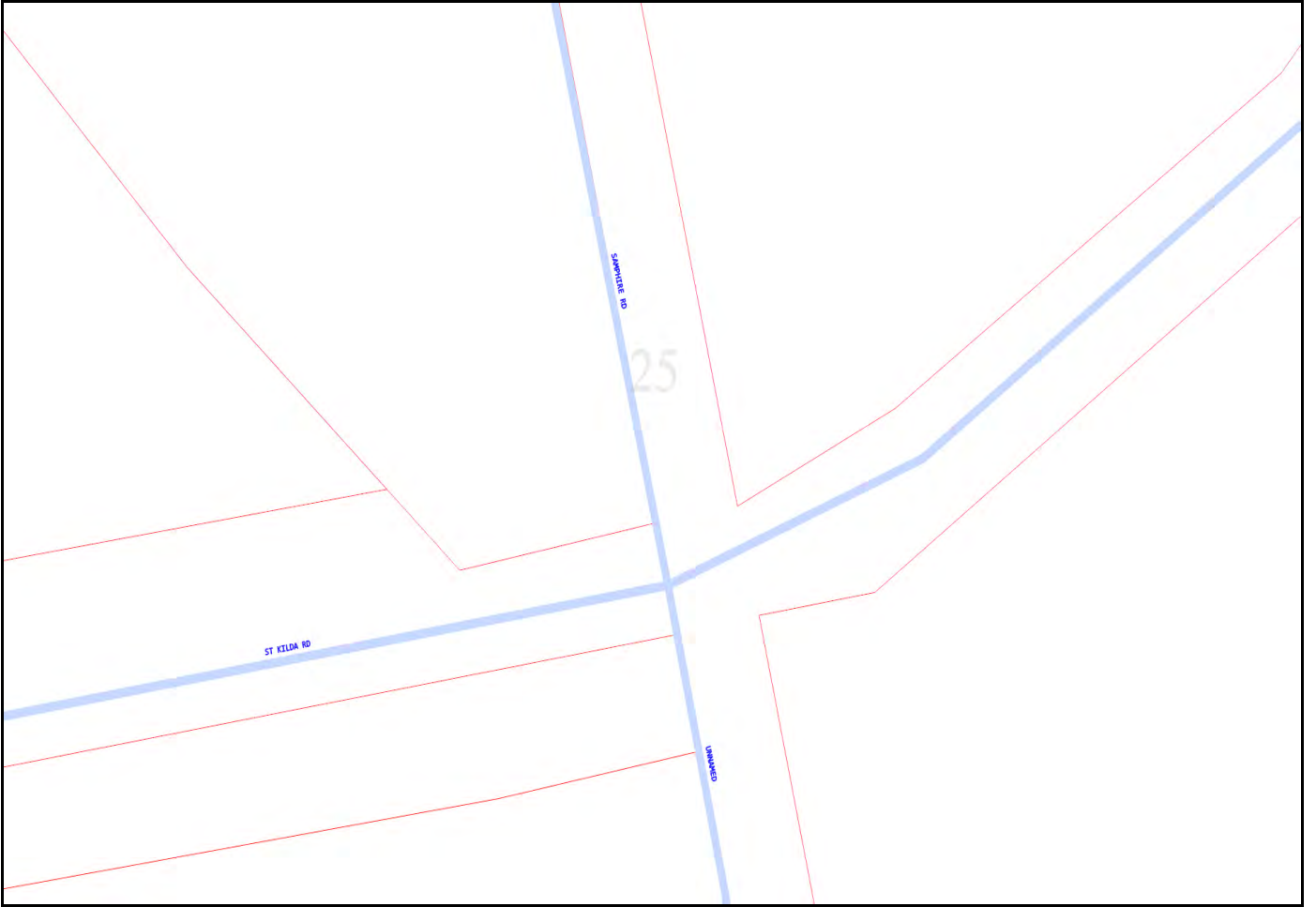
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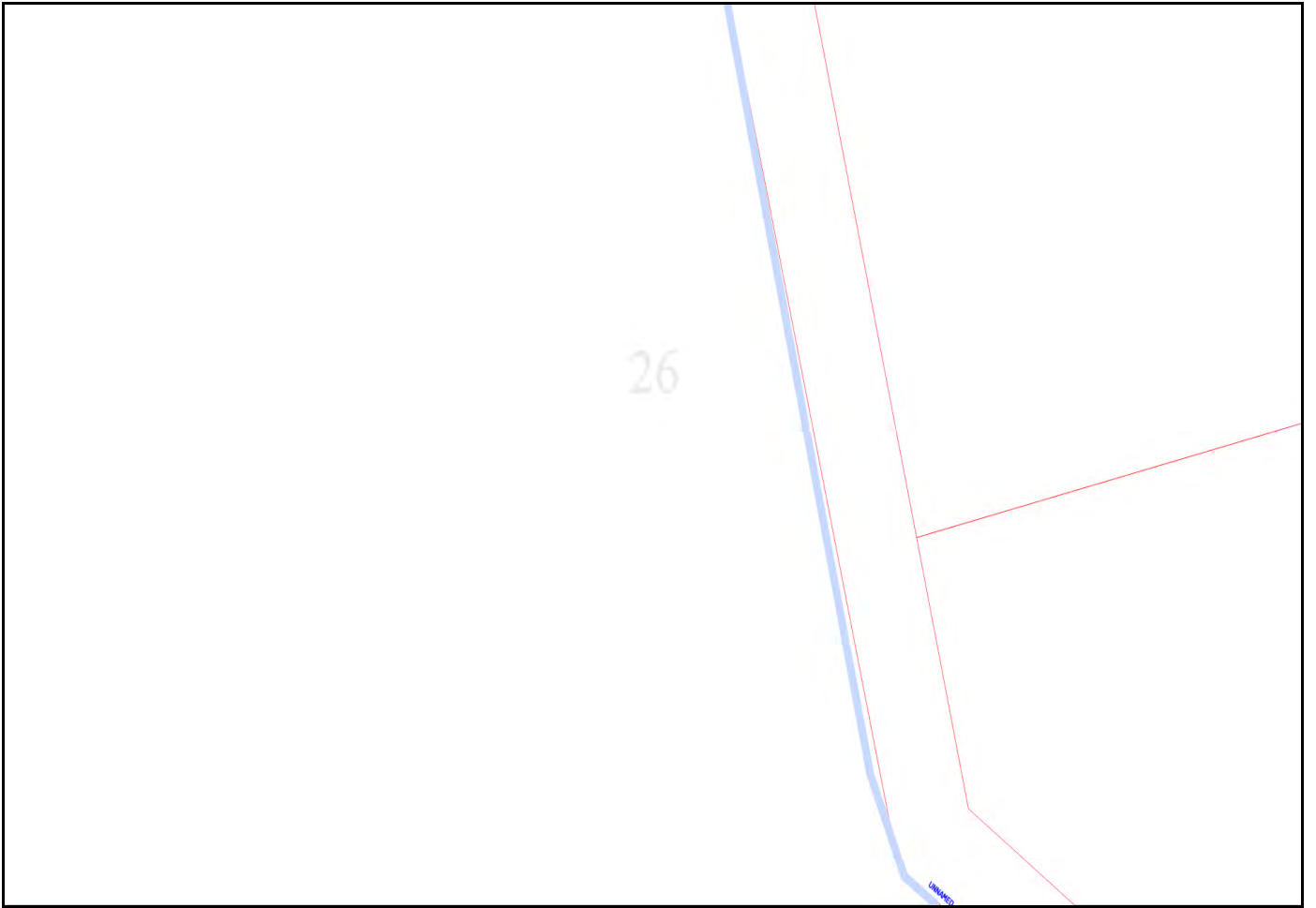
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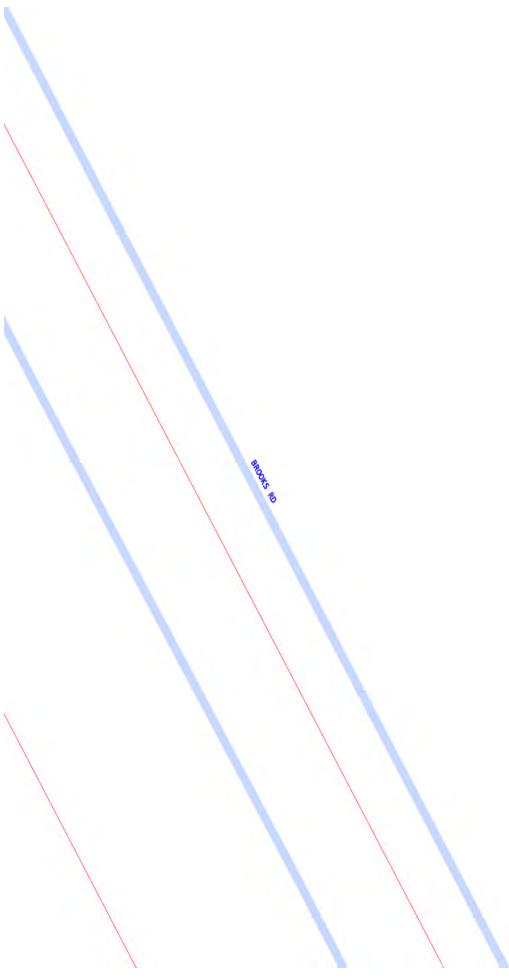


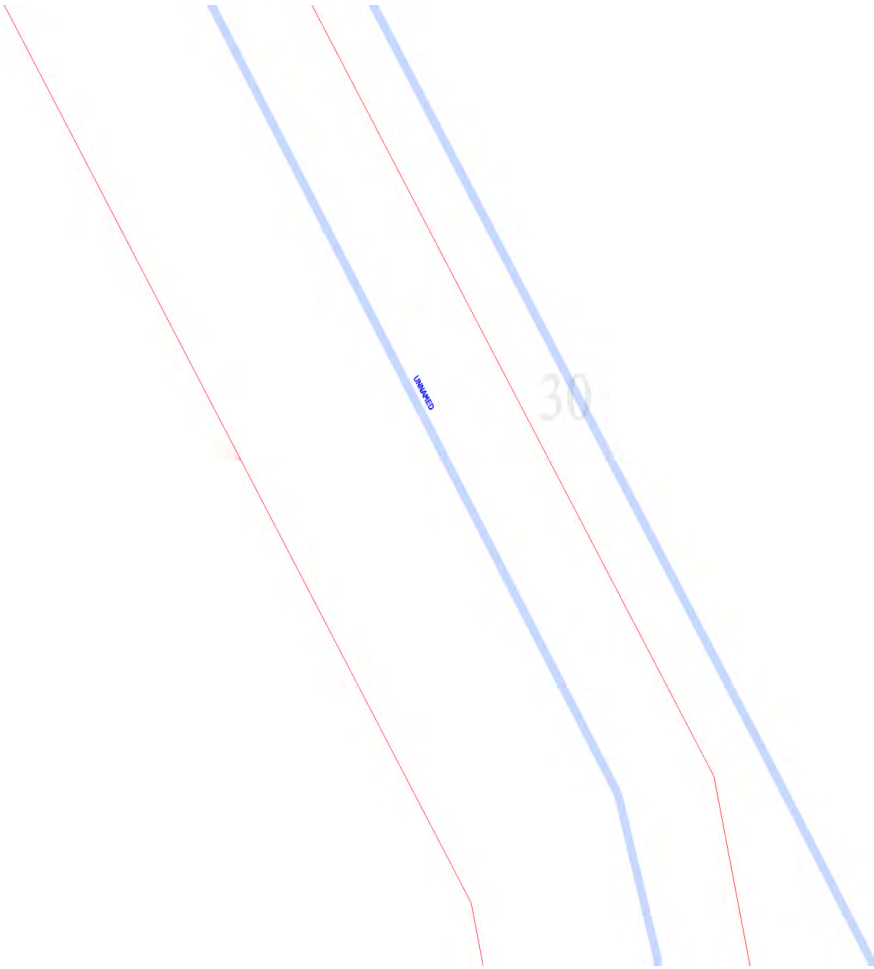








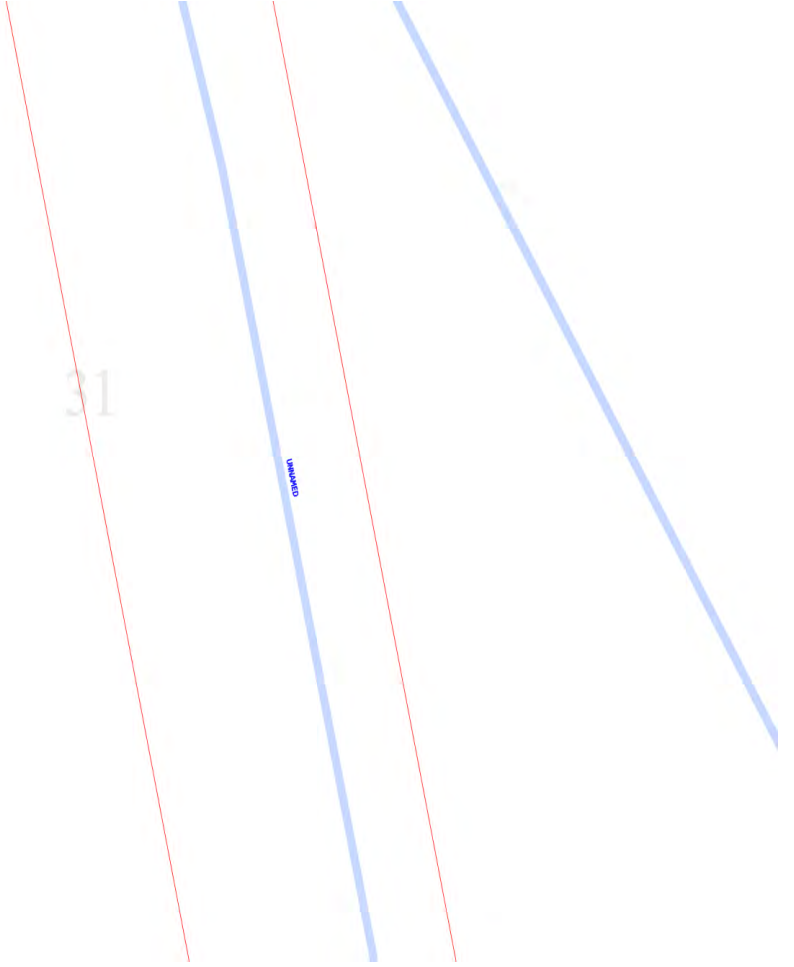




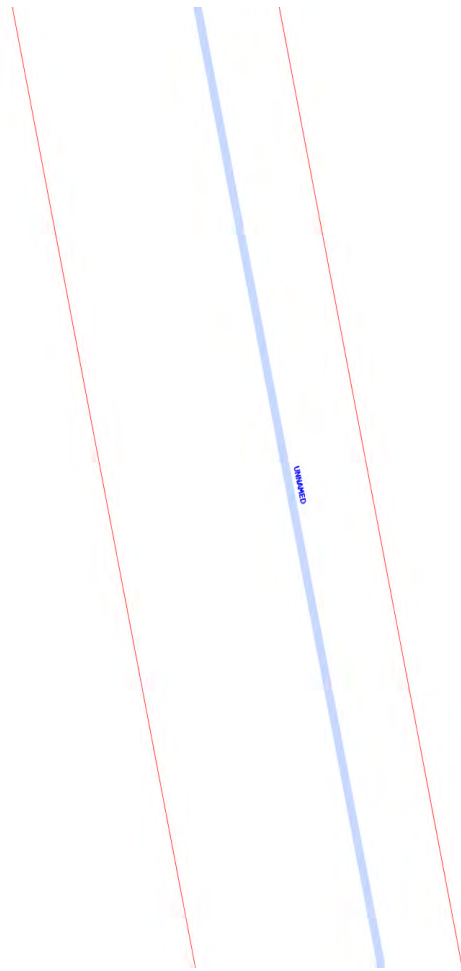


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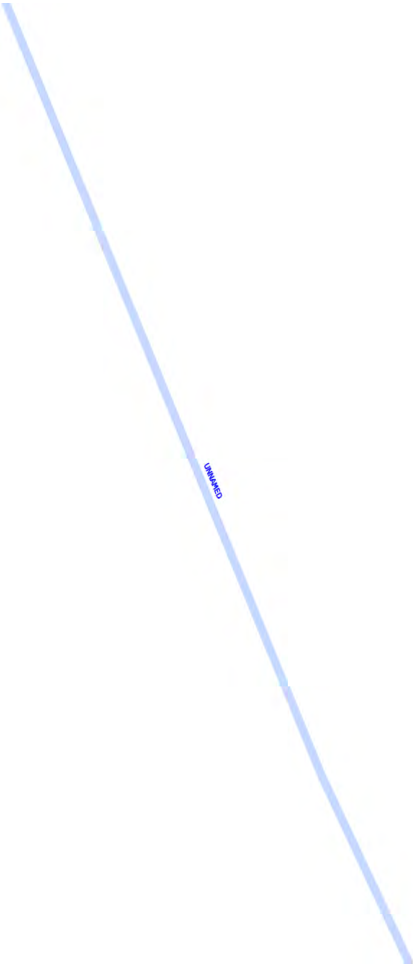
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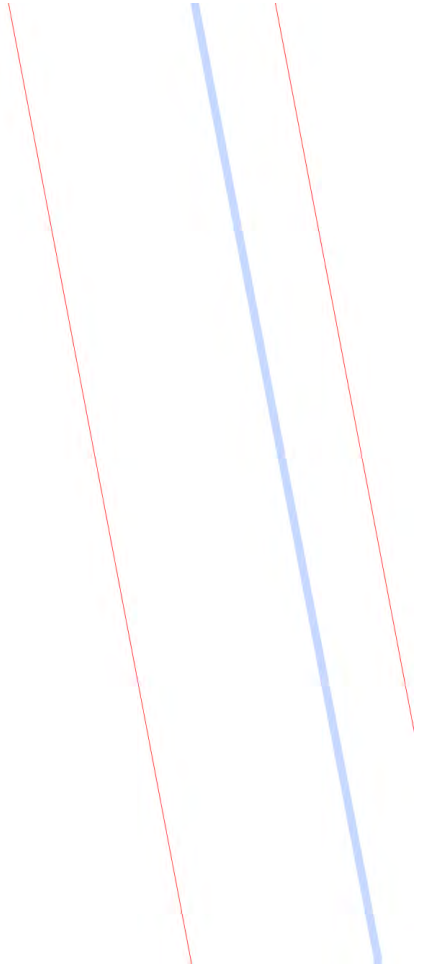






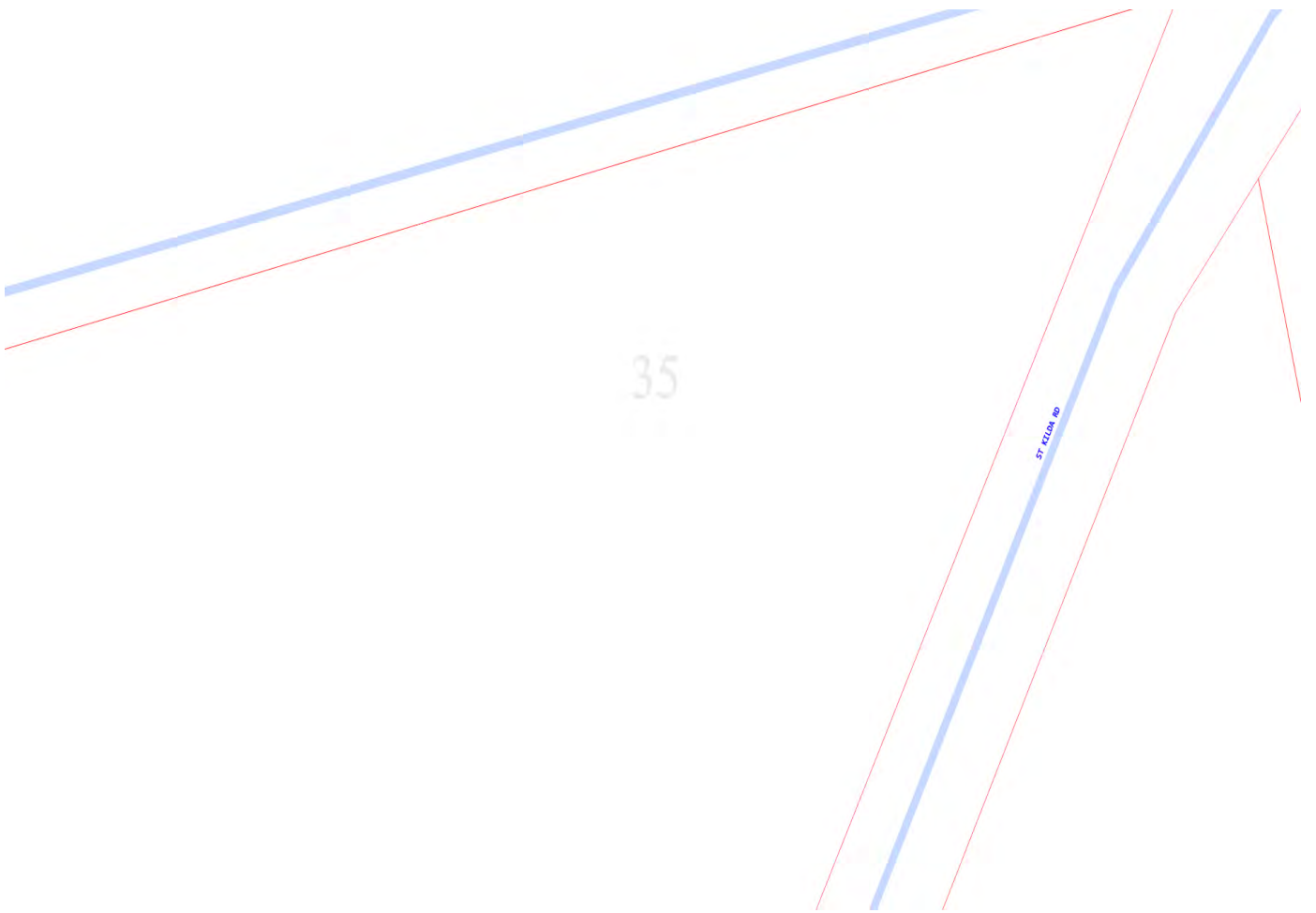
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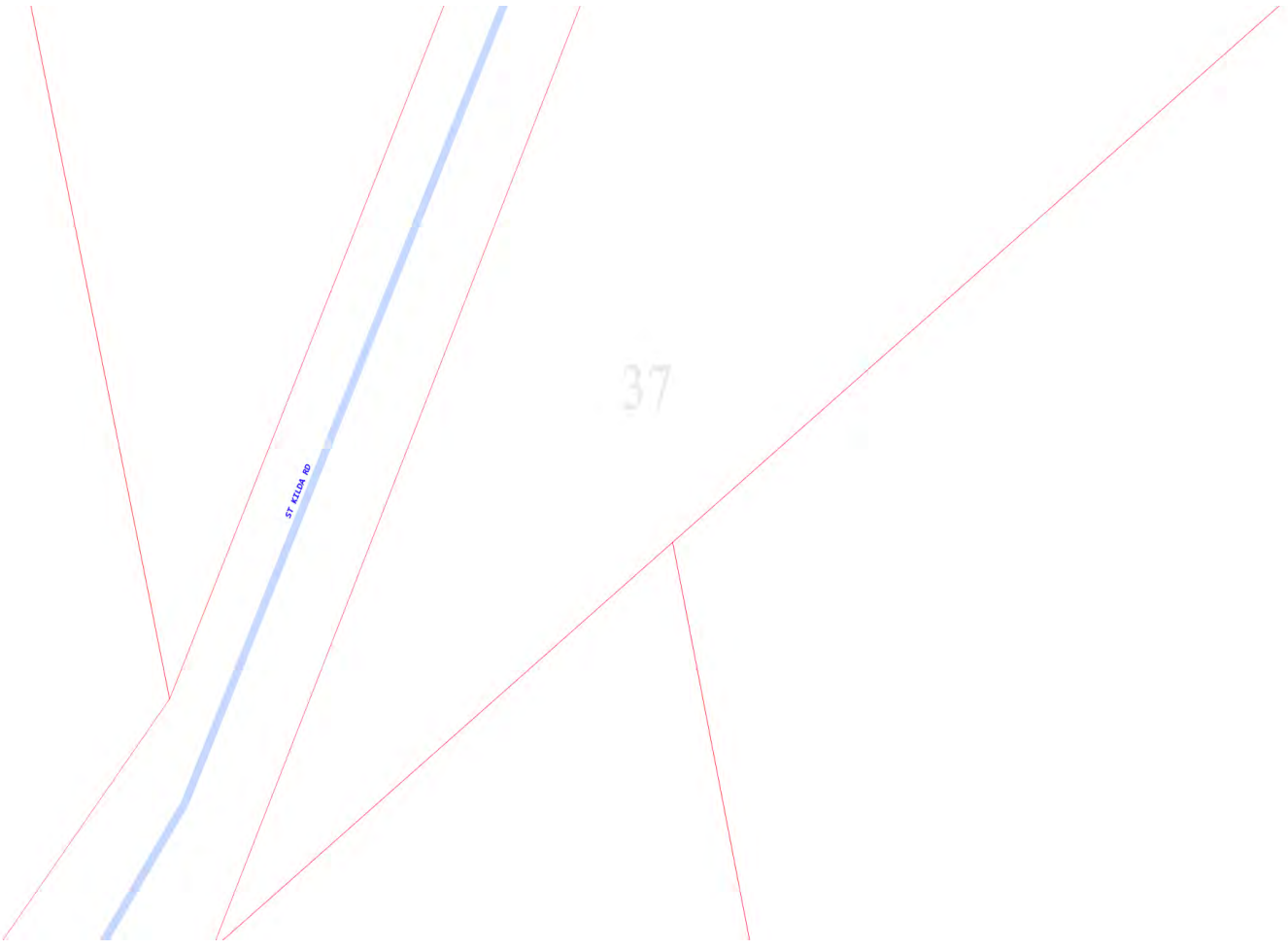
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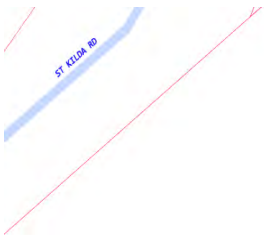
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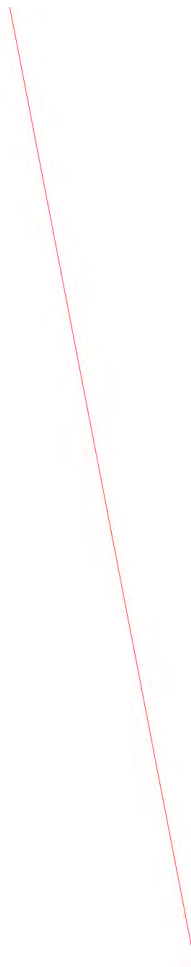
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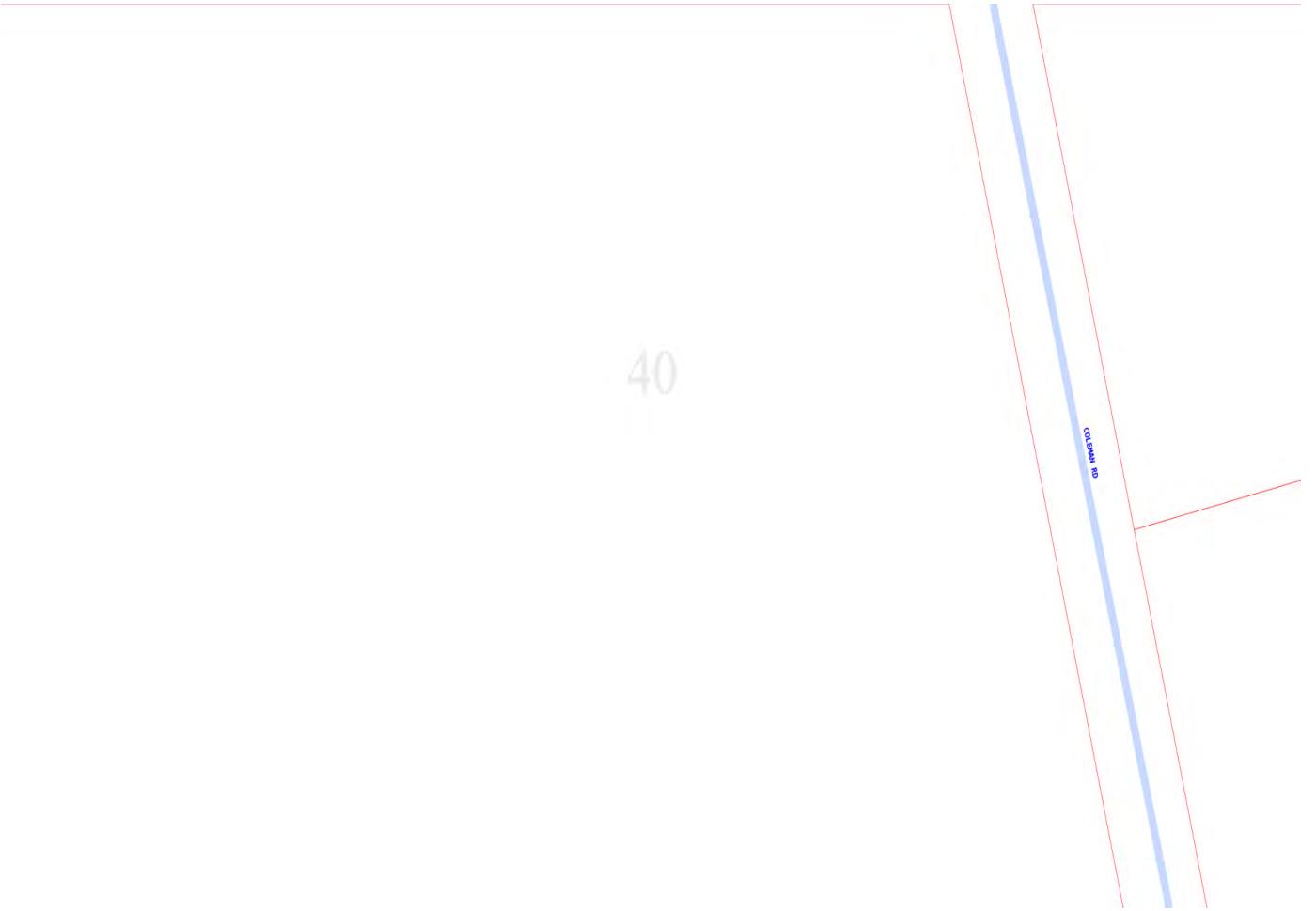






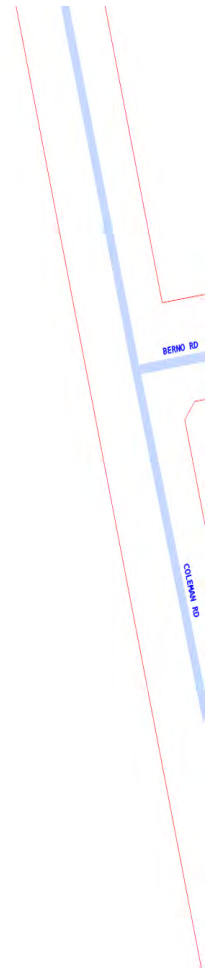
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CALSPAN 80





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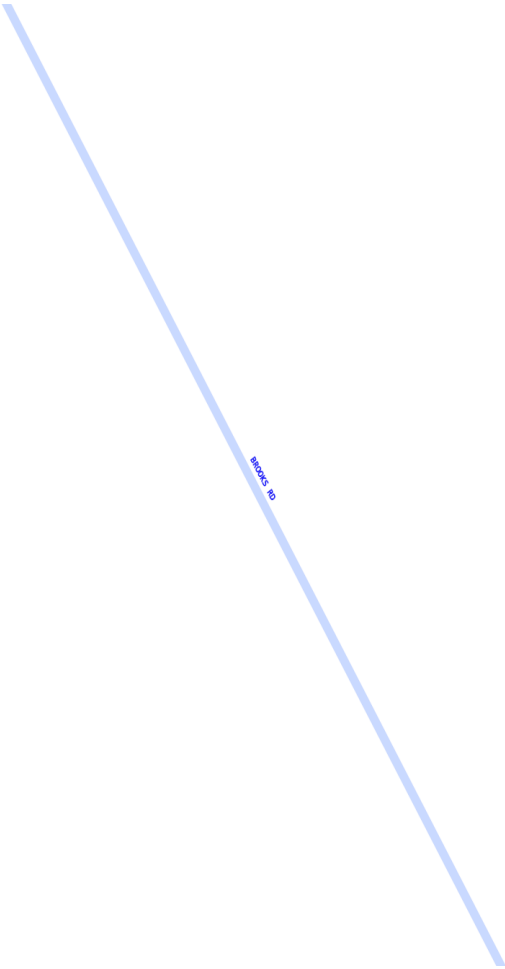




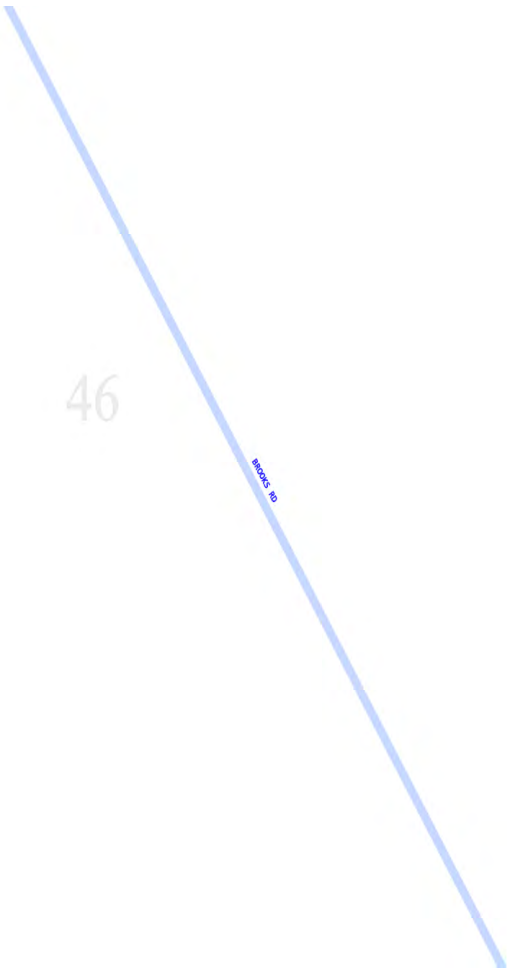




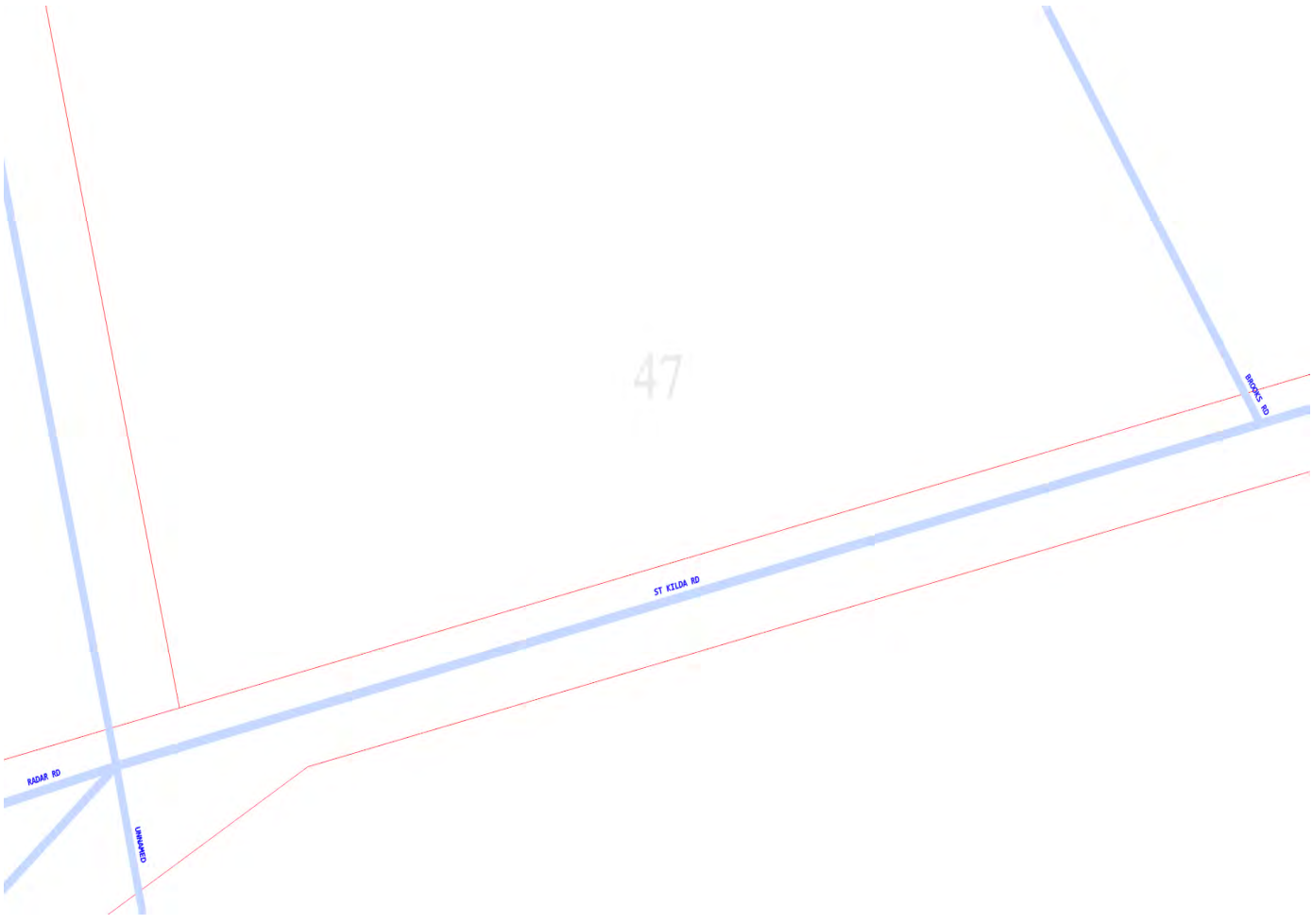




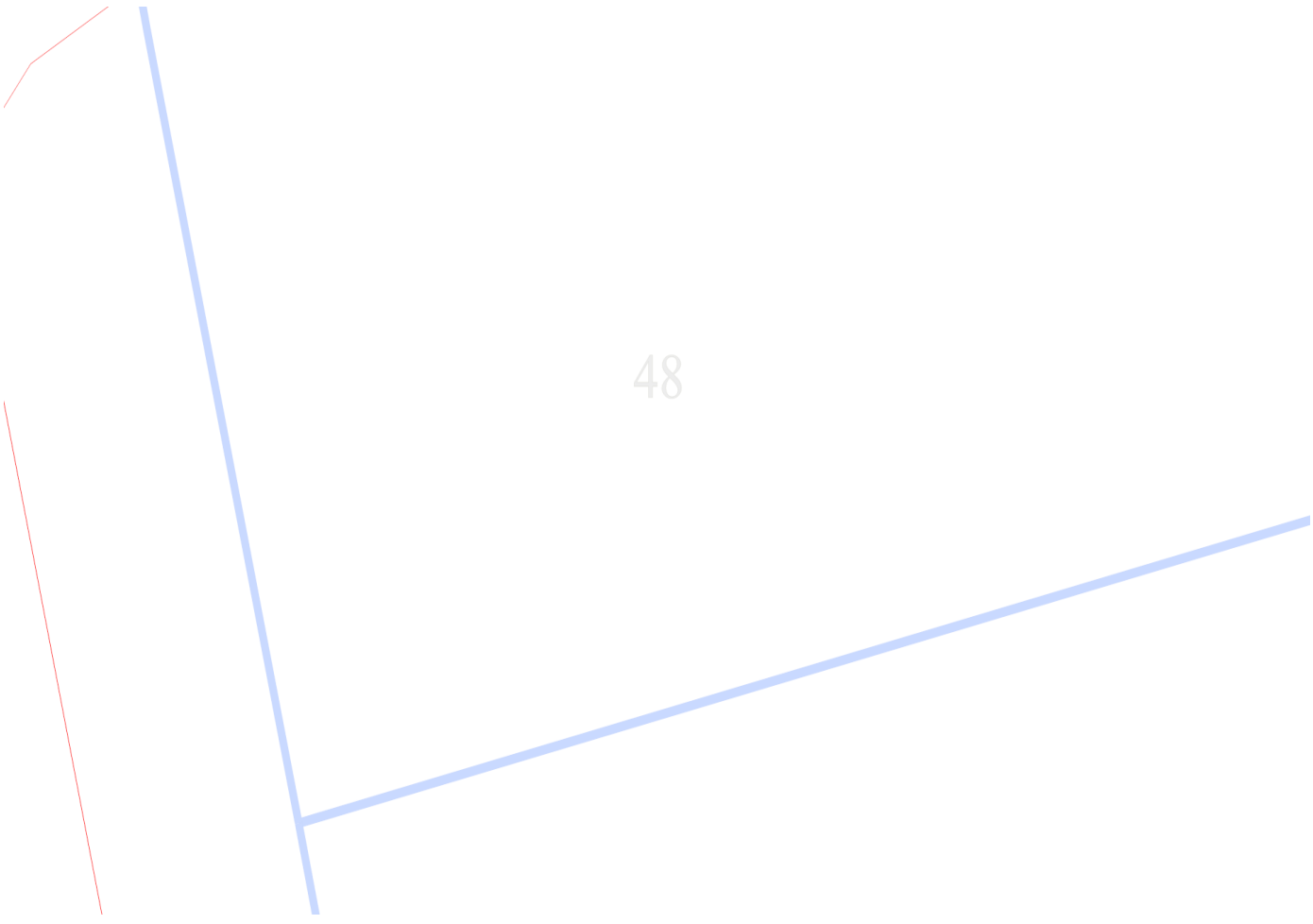
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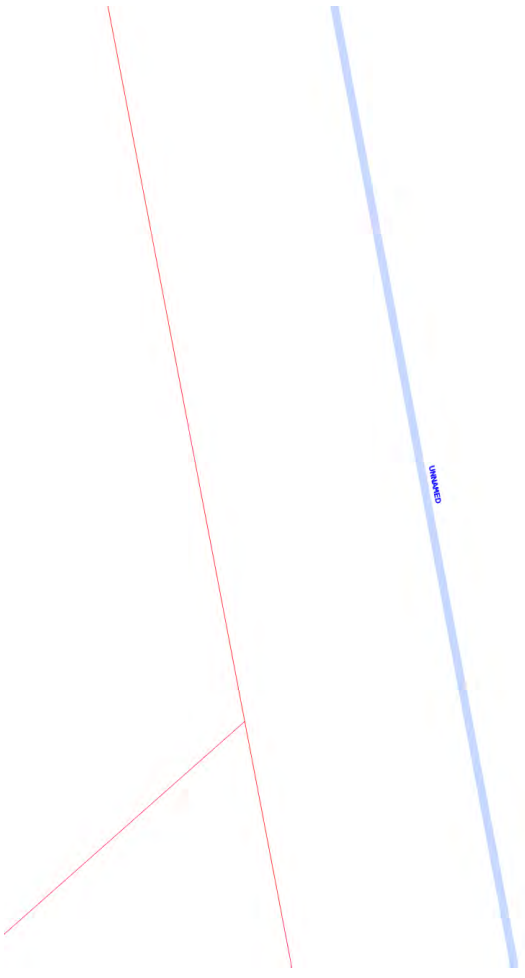
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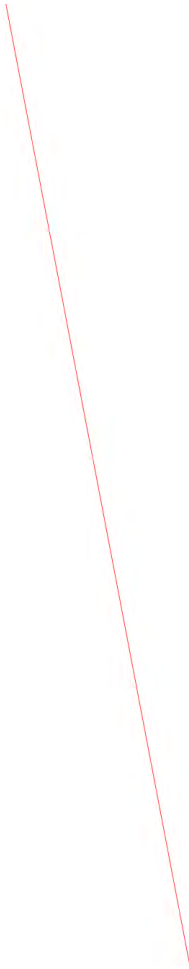




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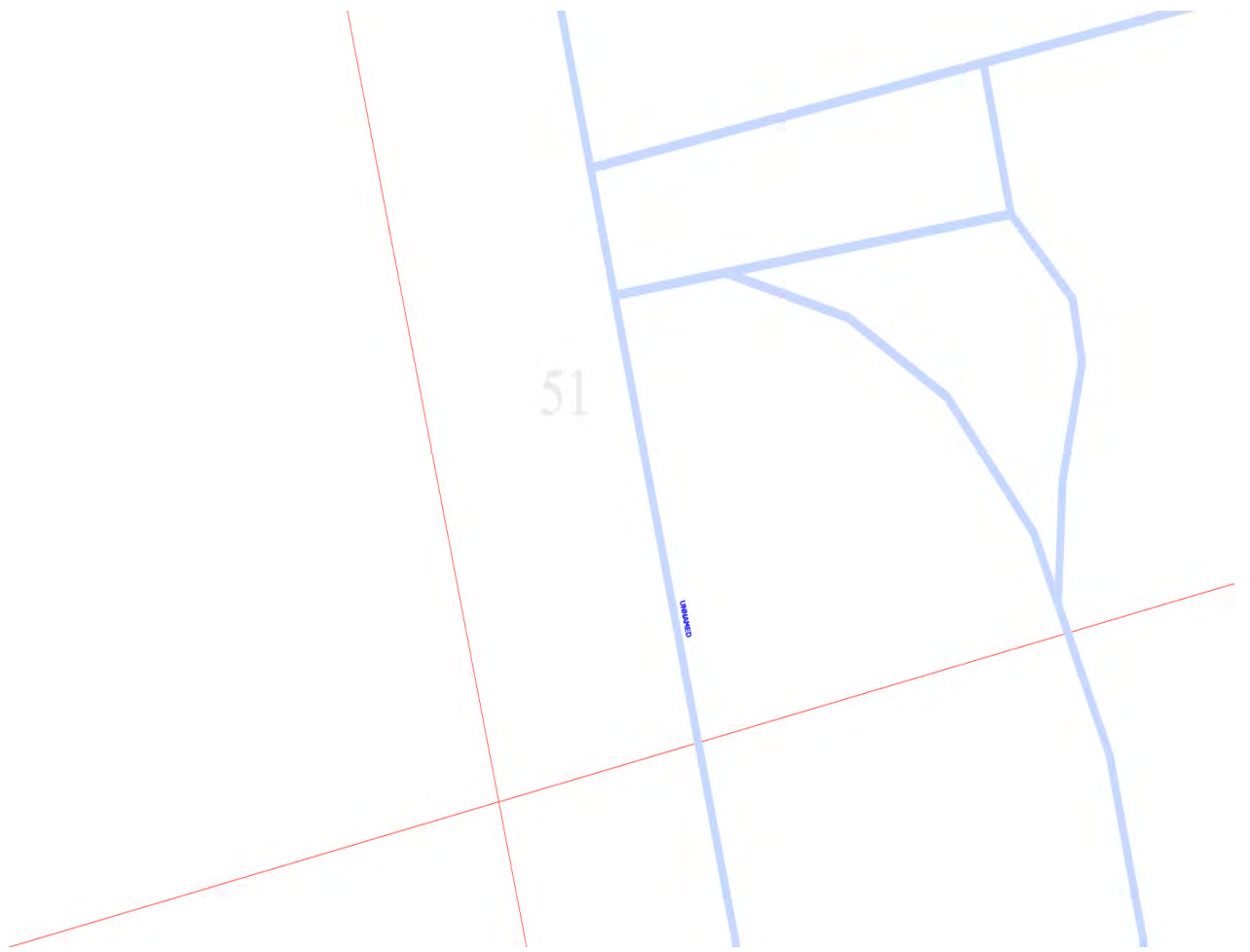


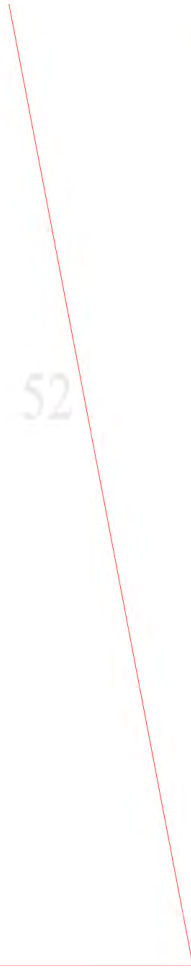
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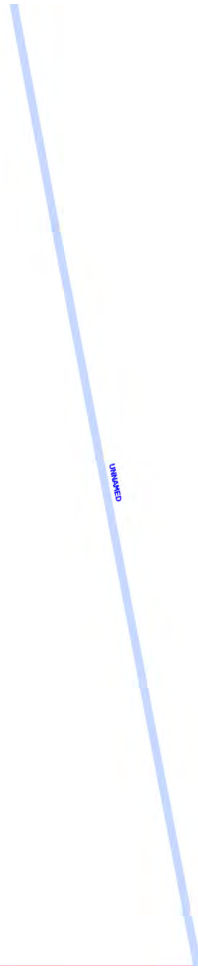






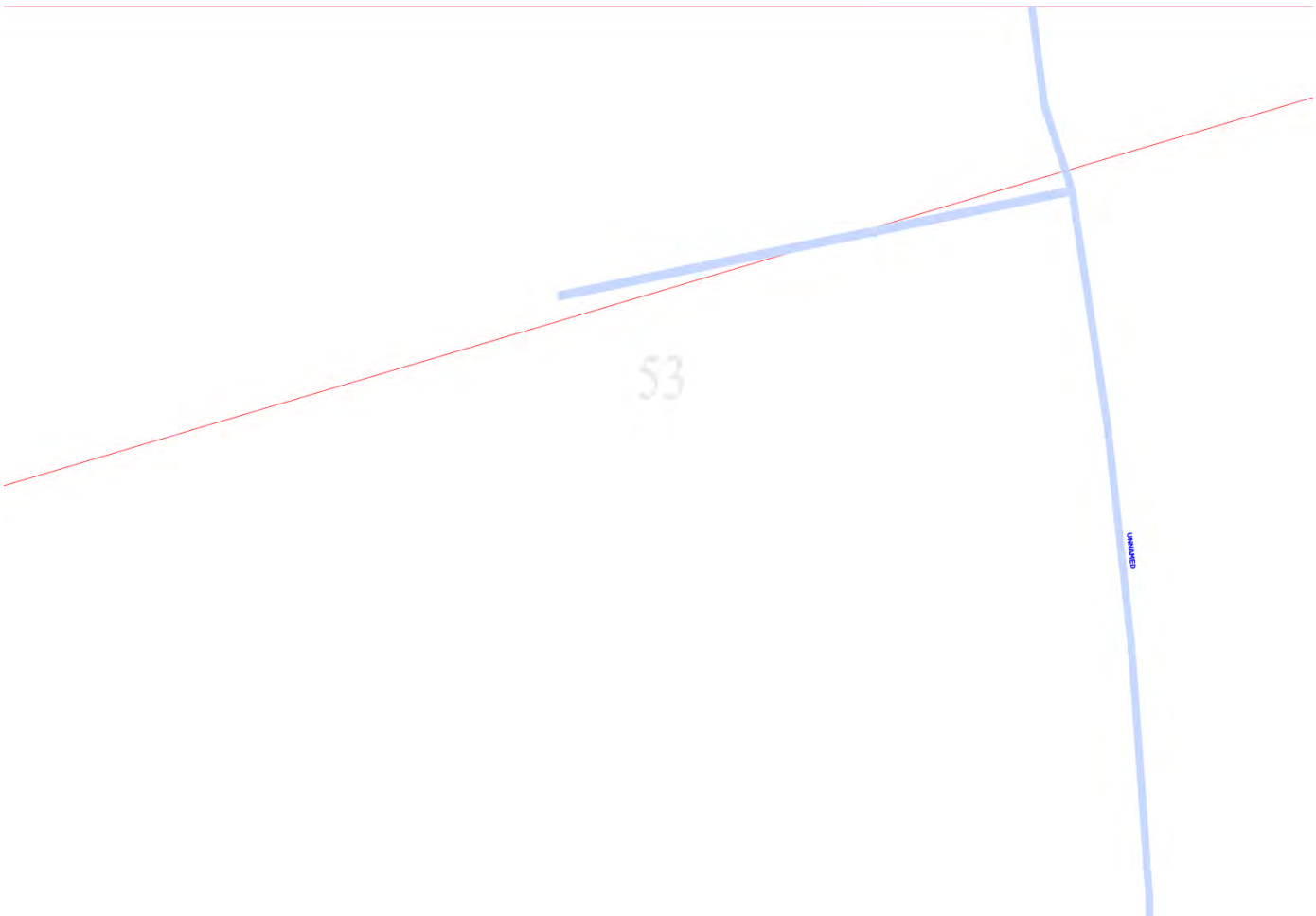


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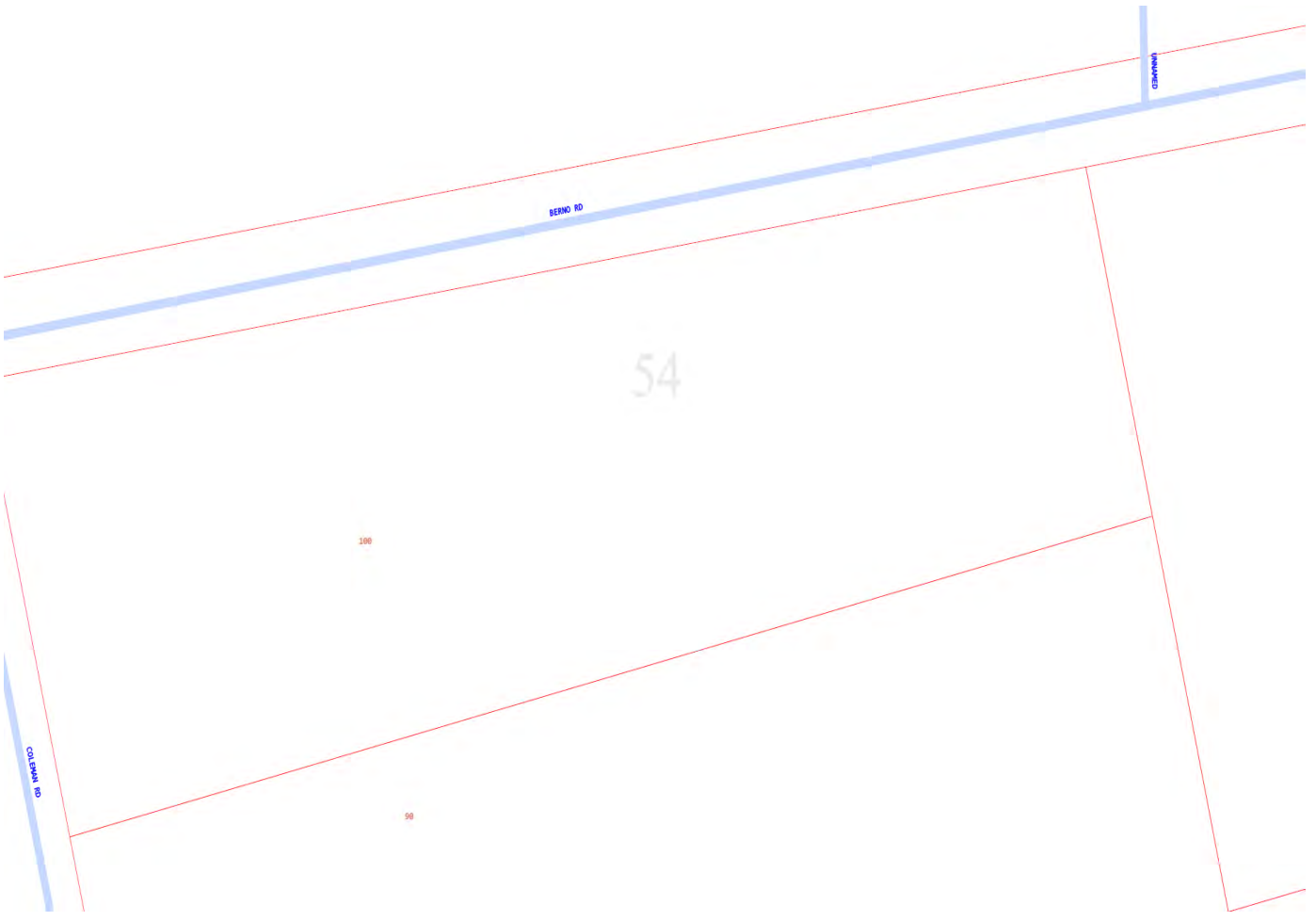


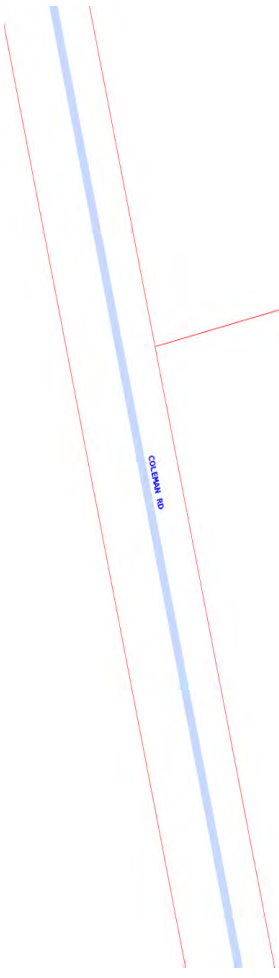
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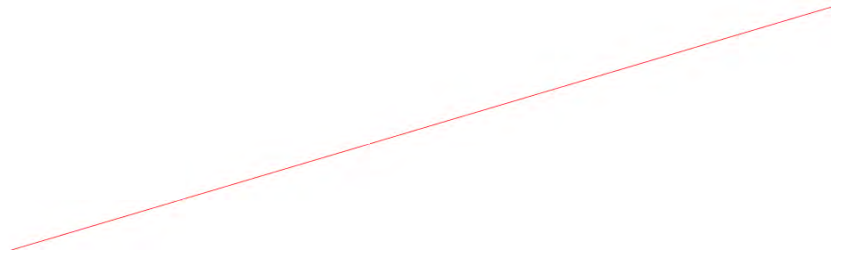


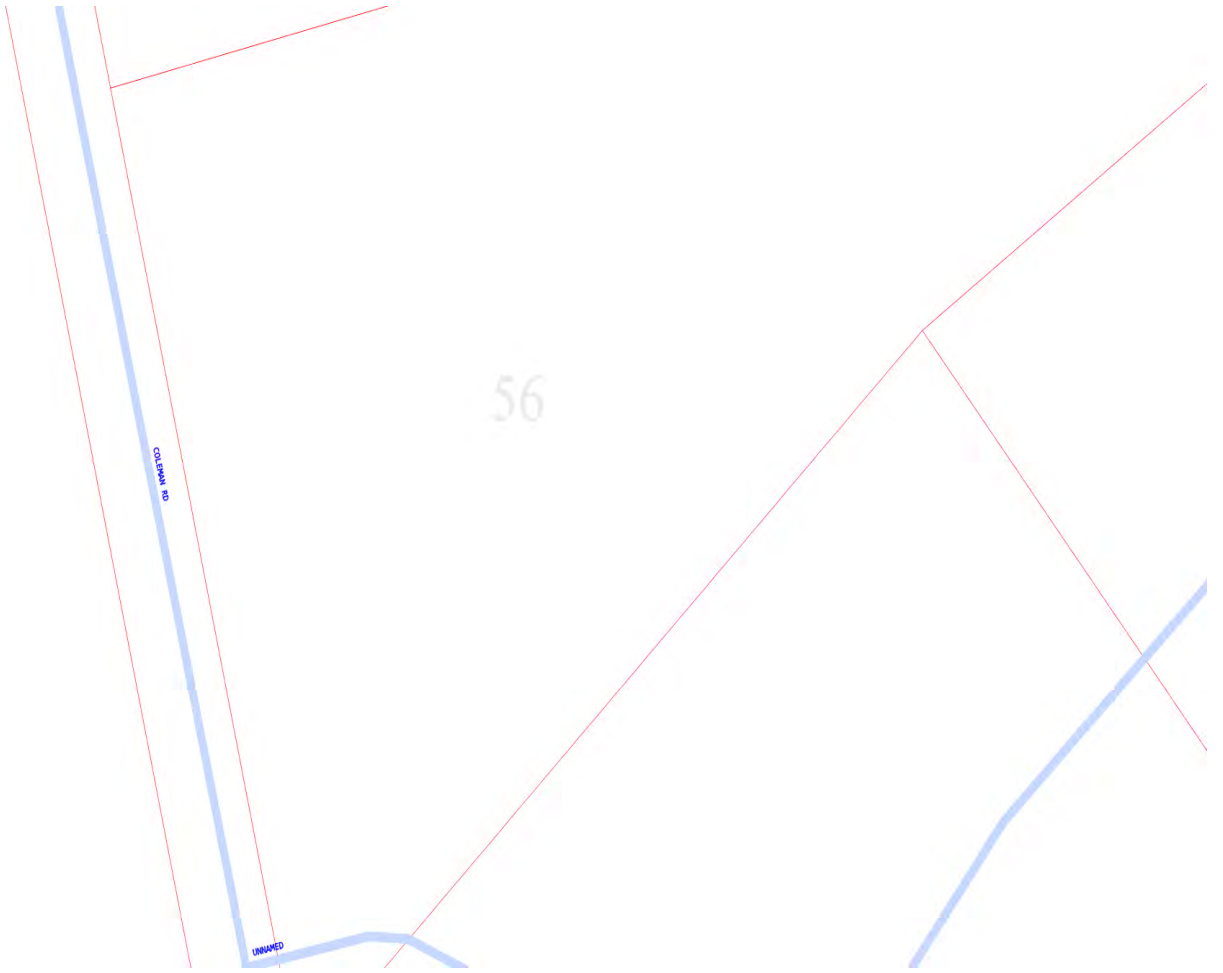






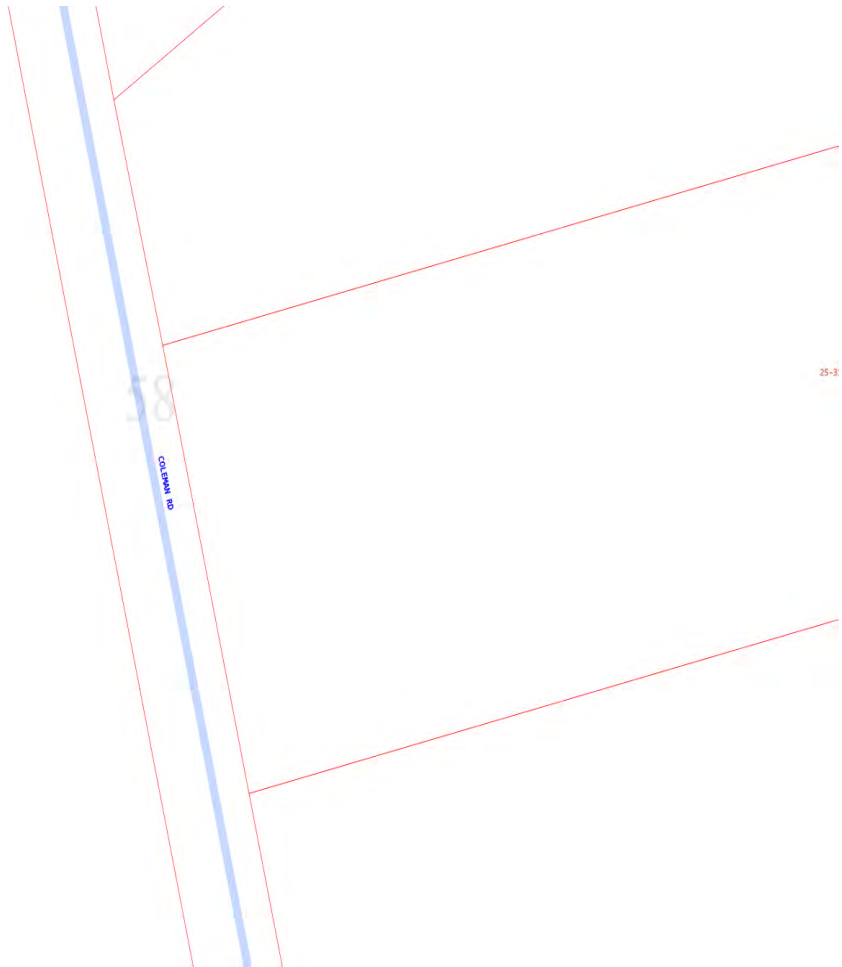
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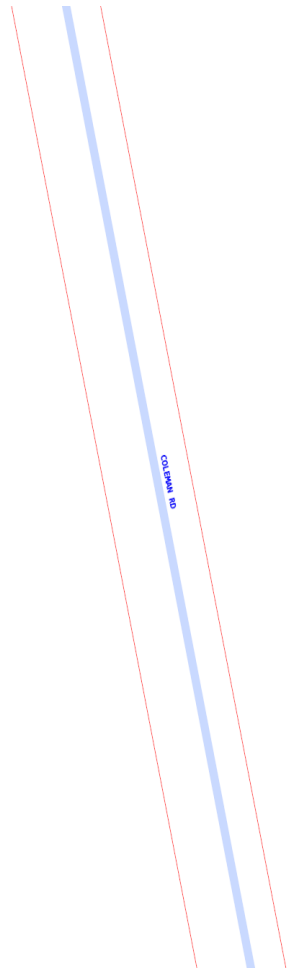


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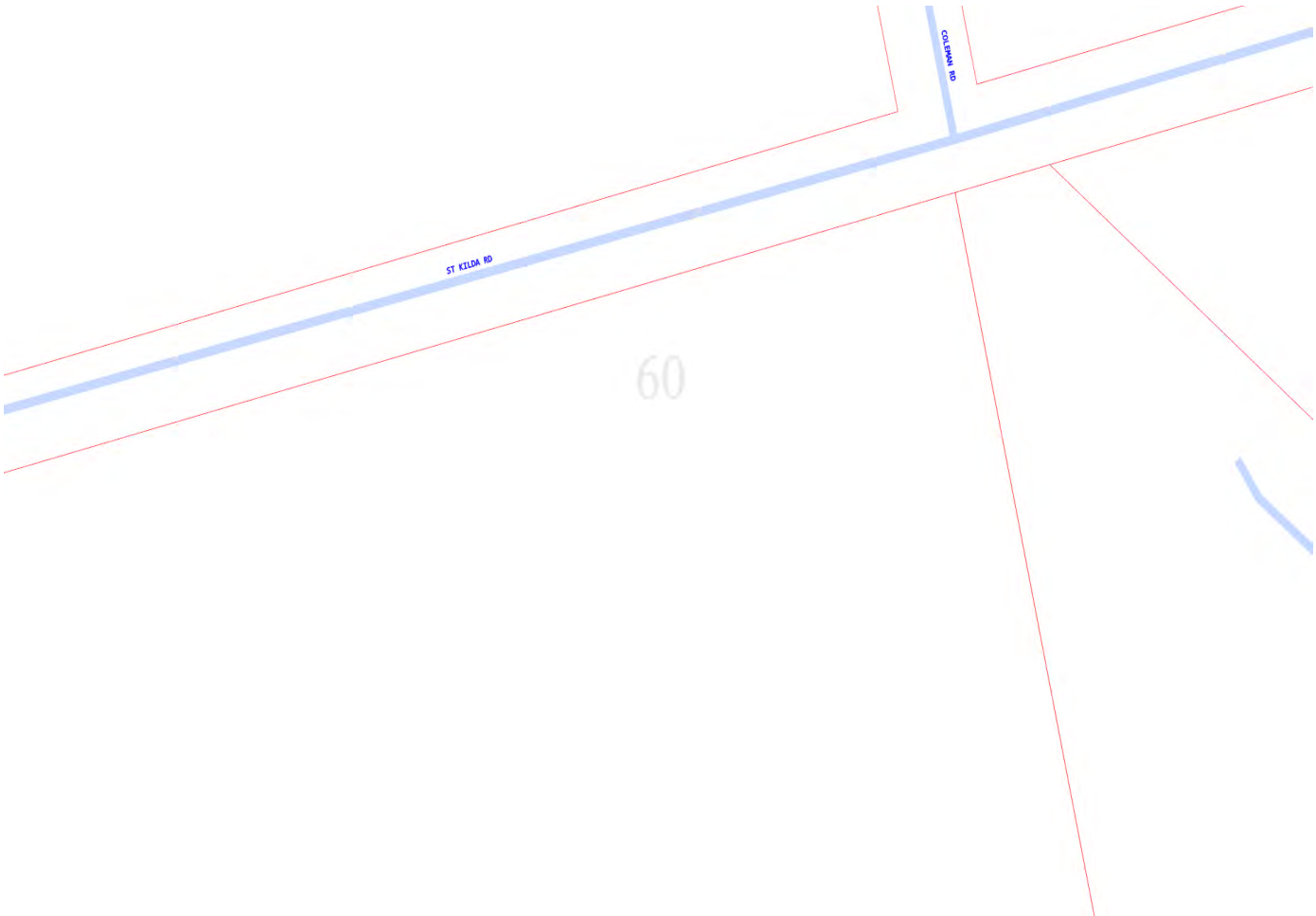
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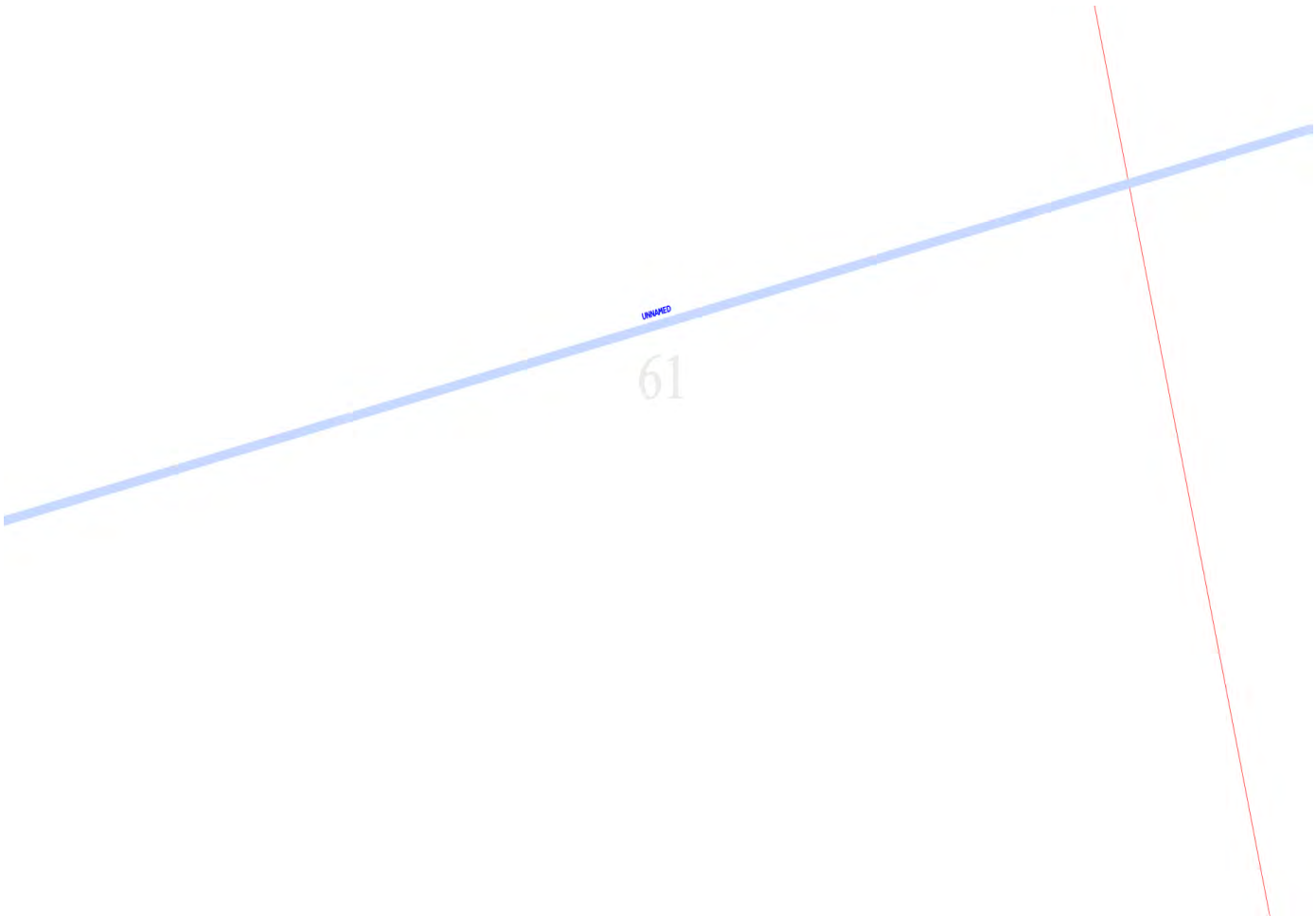
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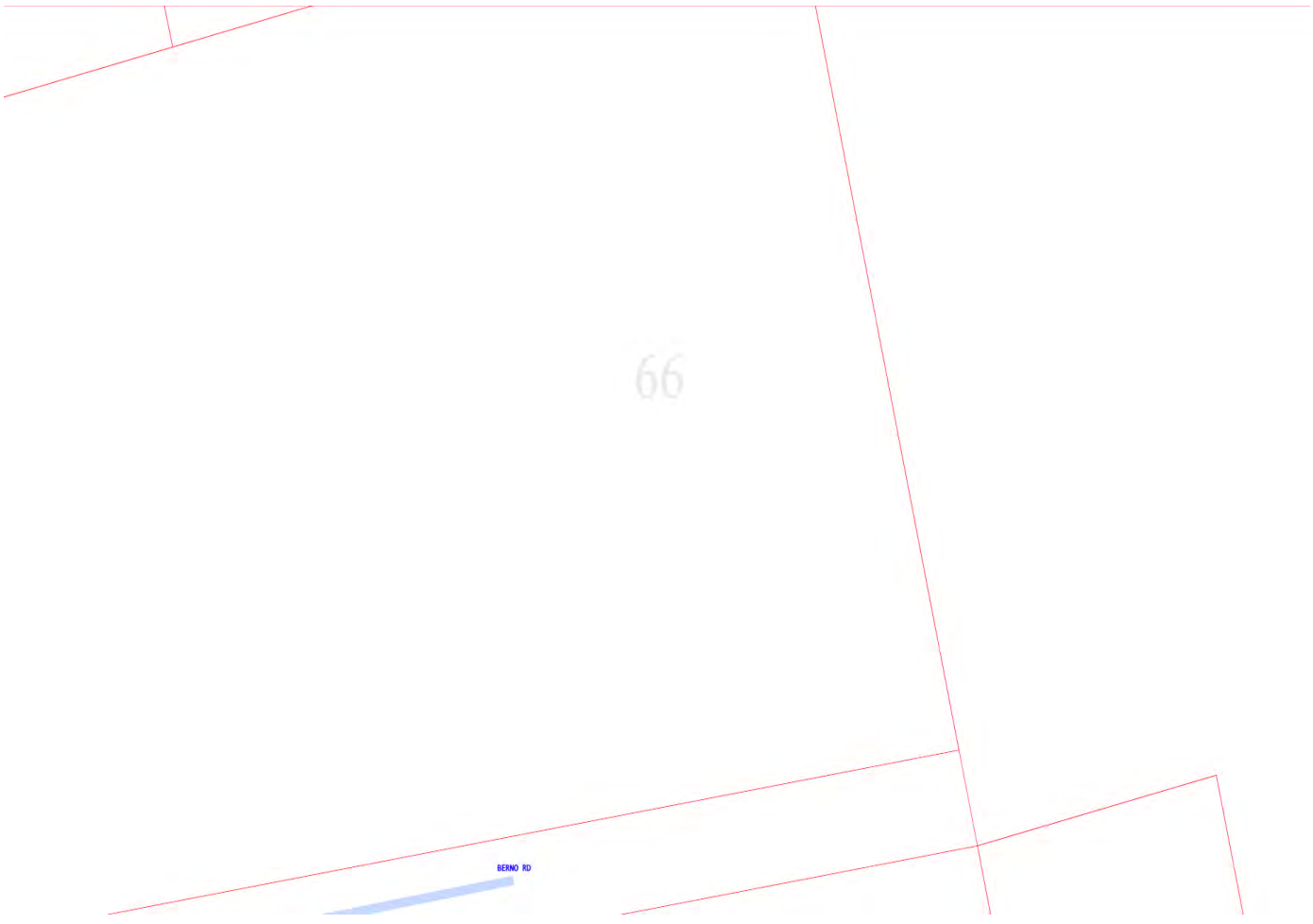




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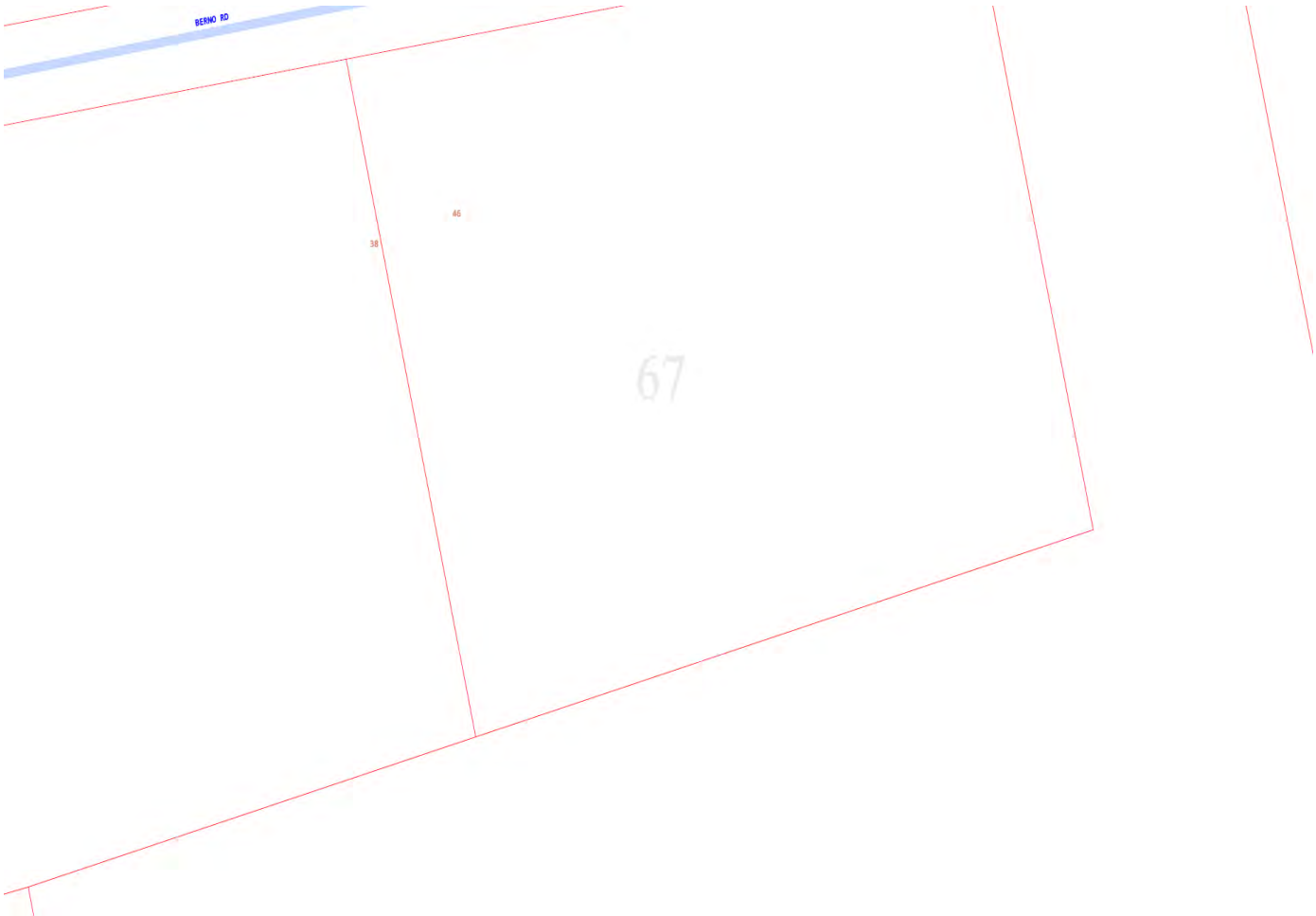






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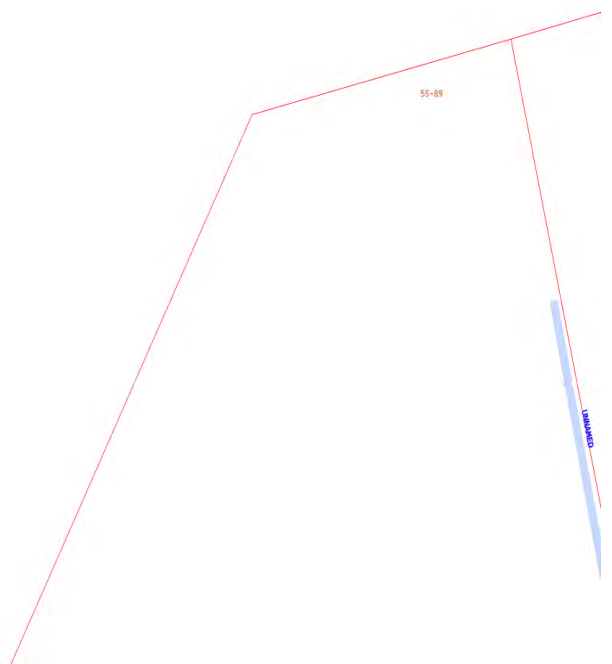
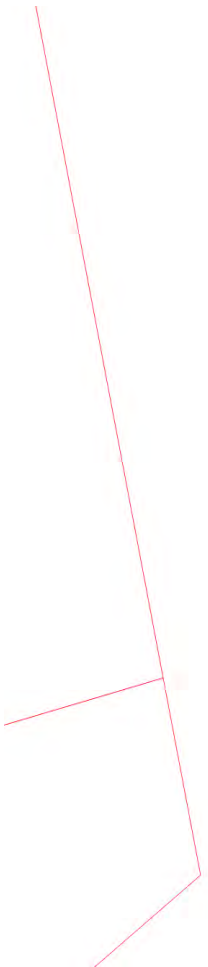
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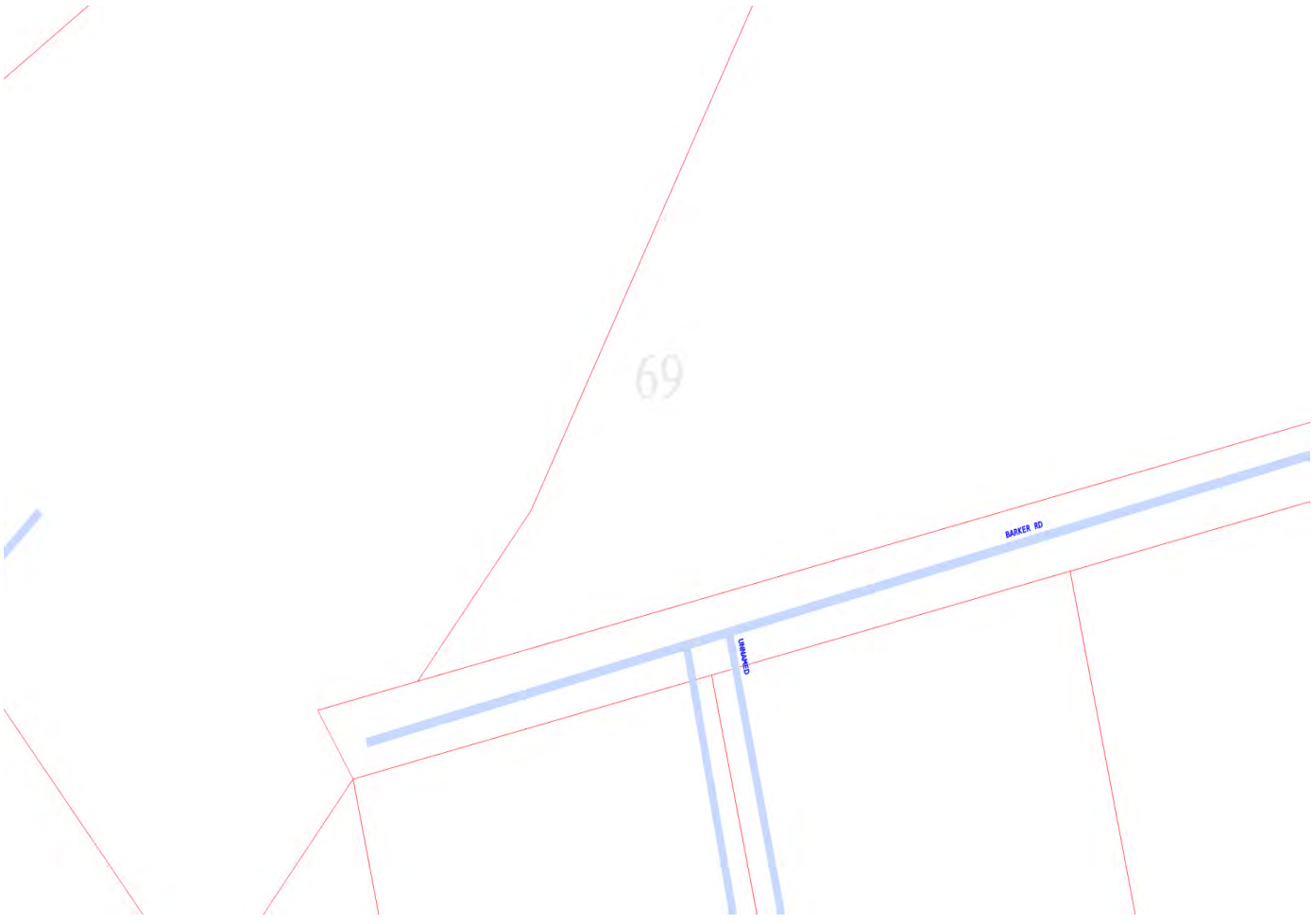
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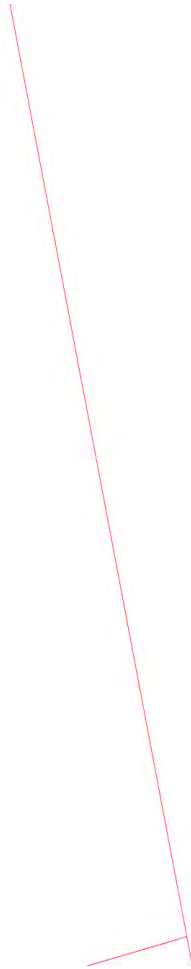
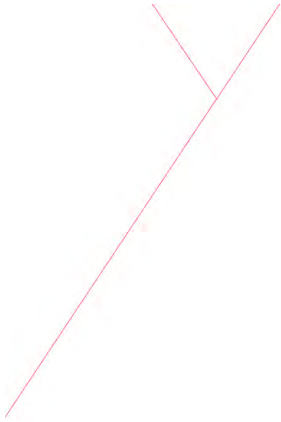
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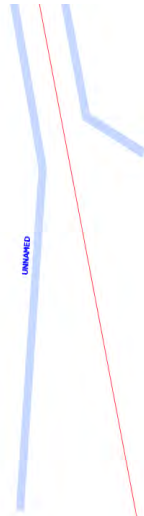




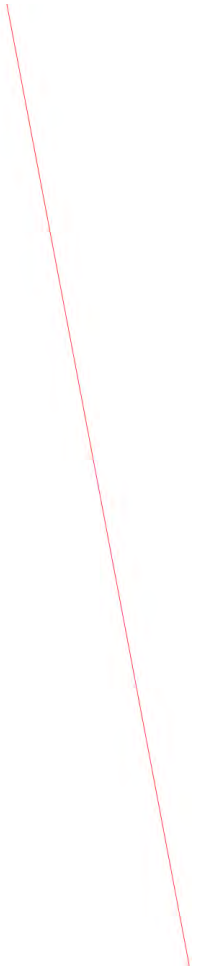


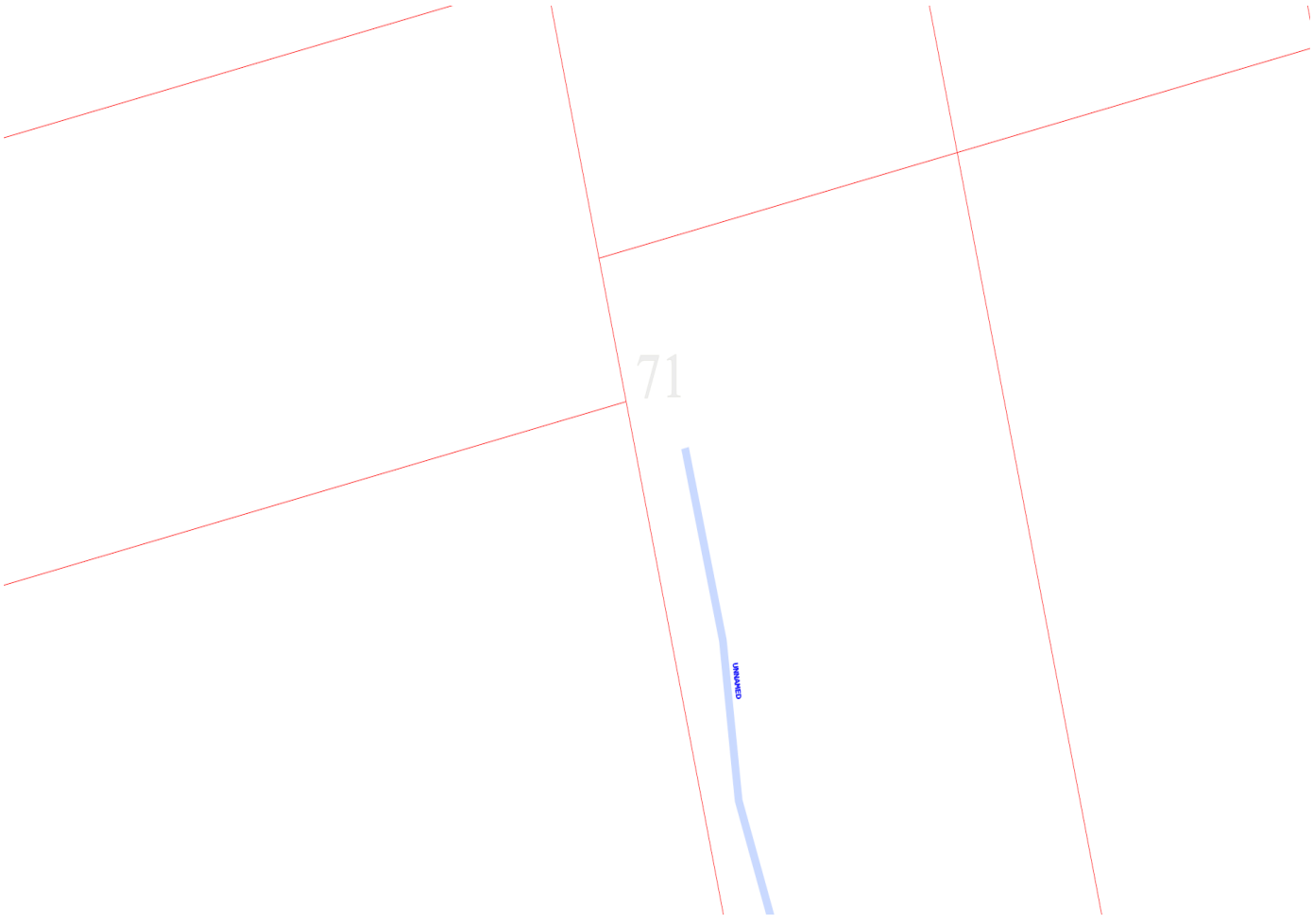
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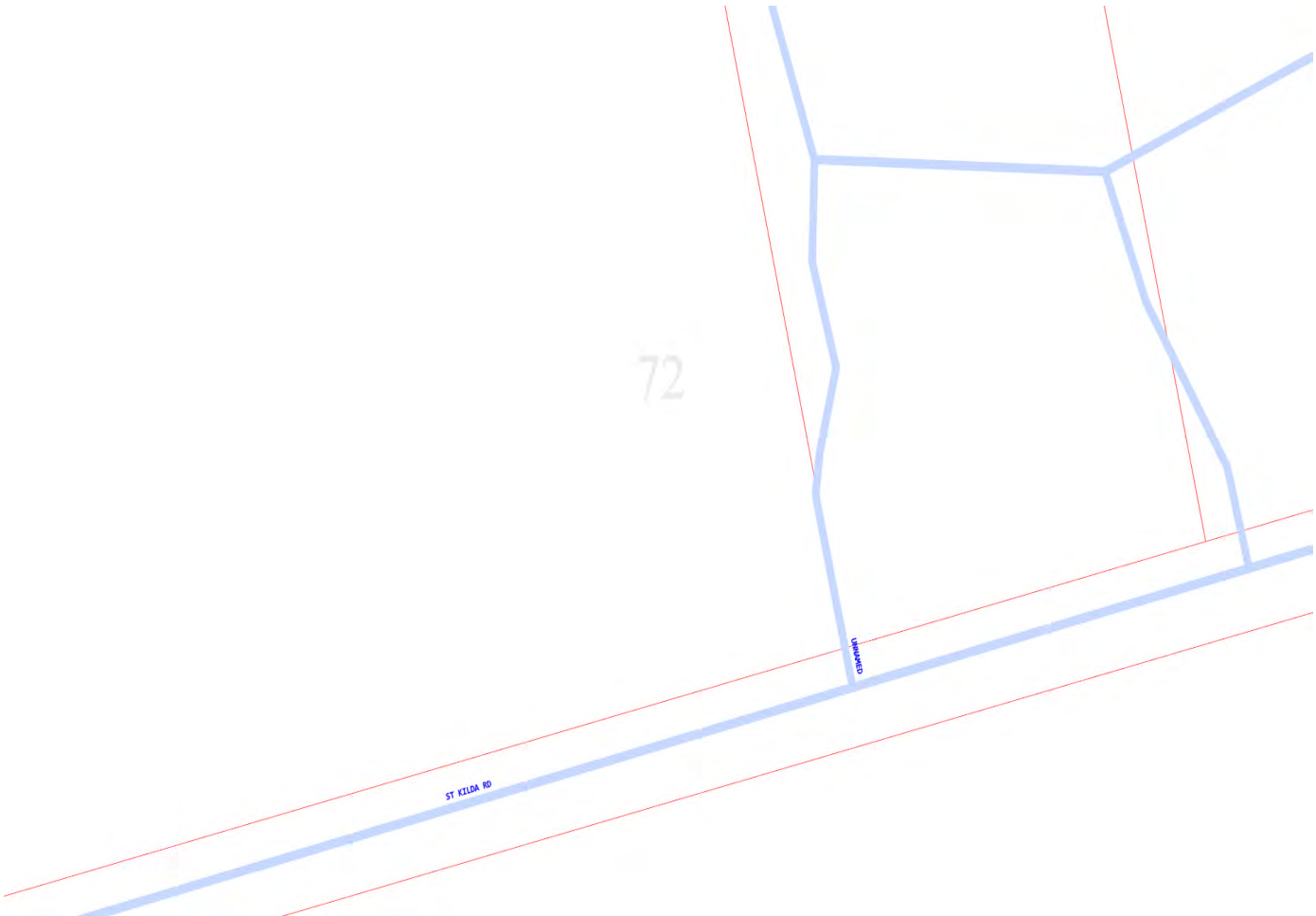


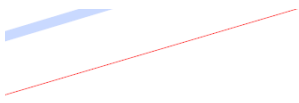


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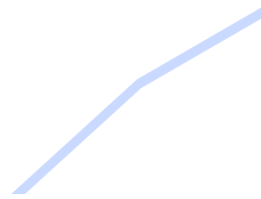
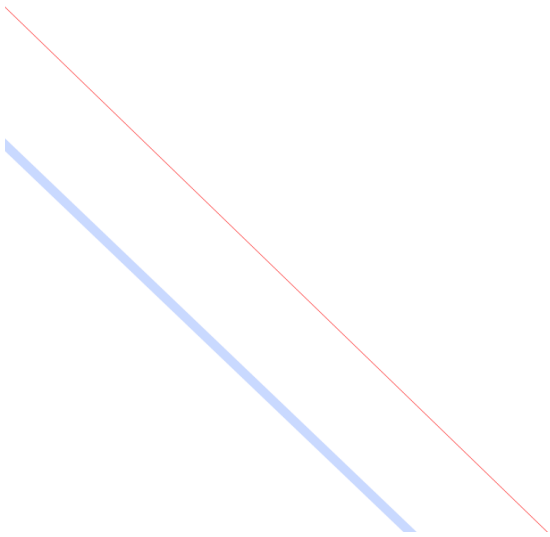
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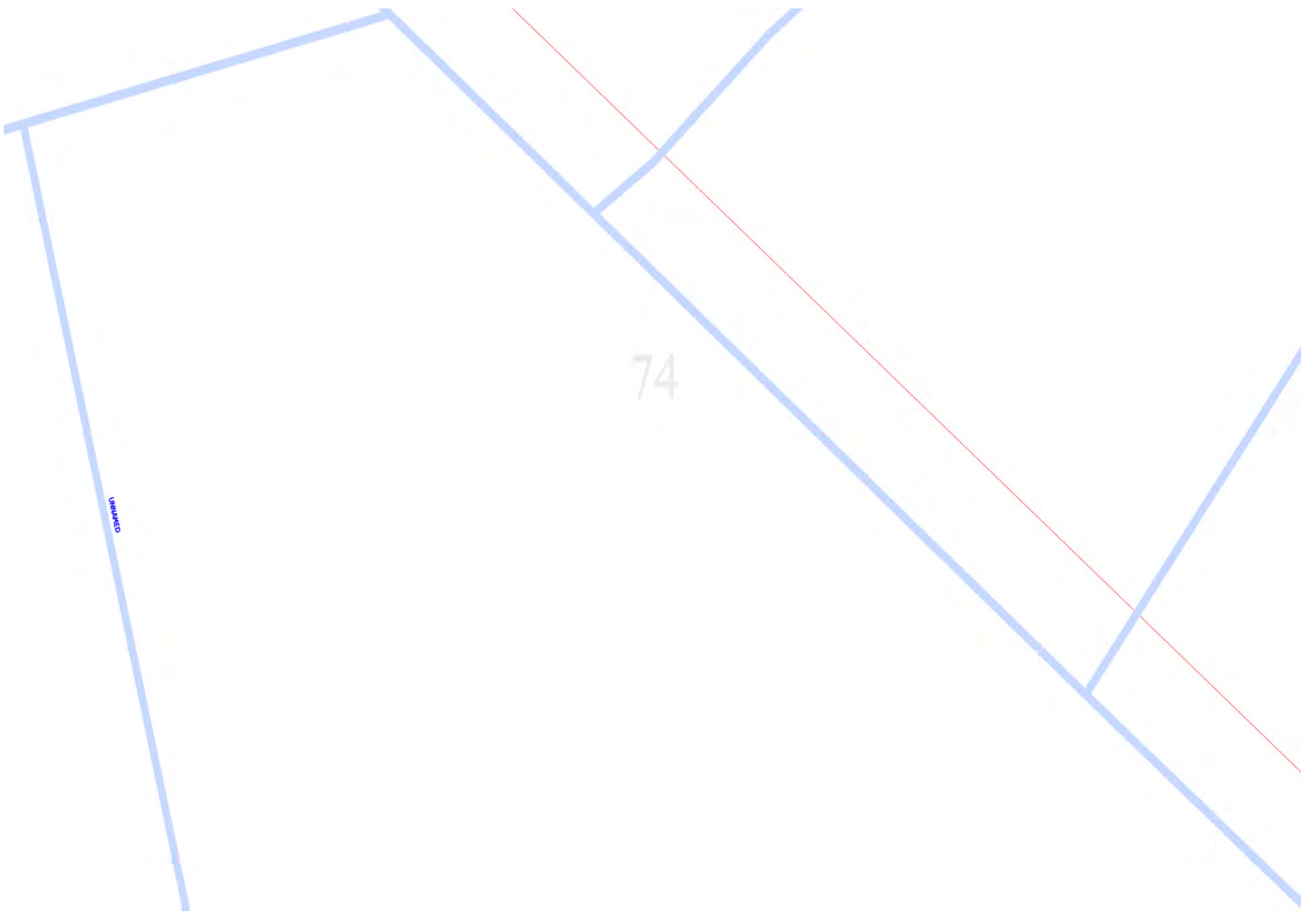
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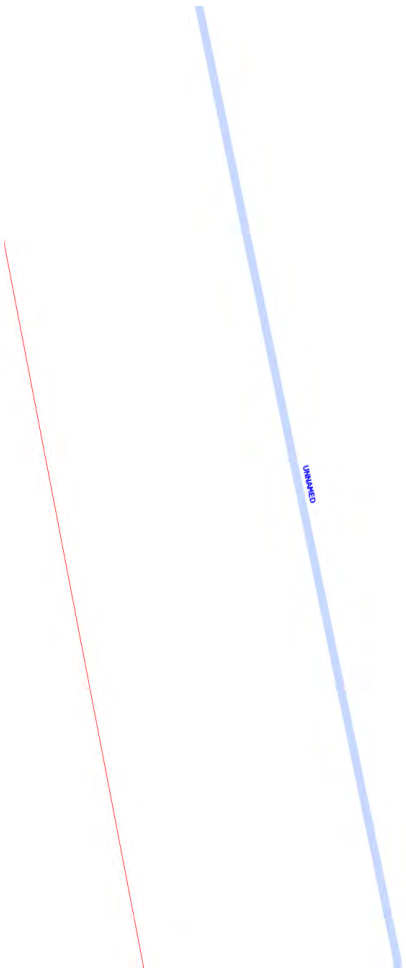


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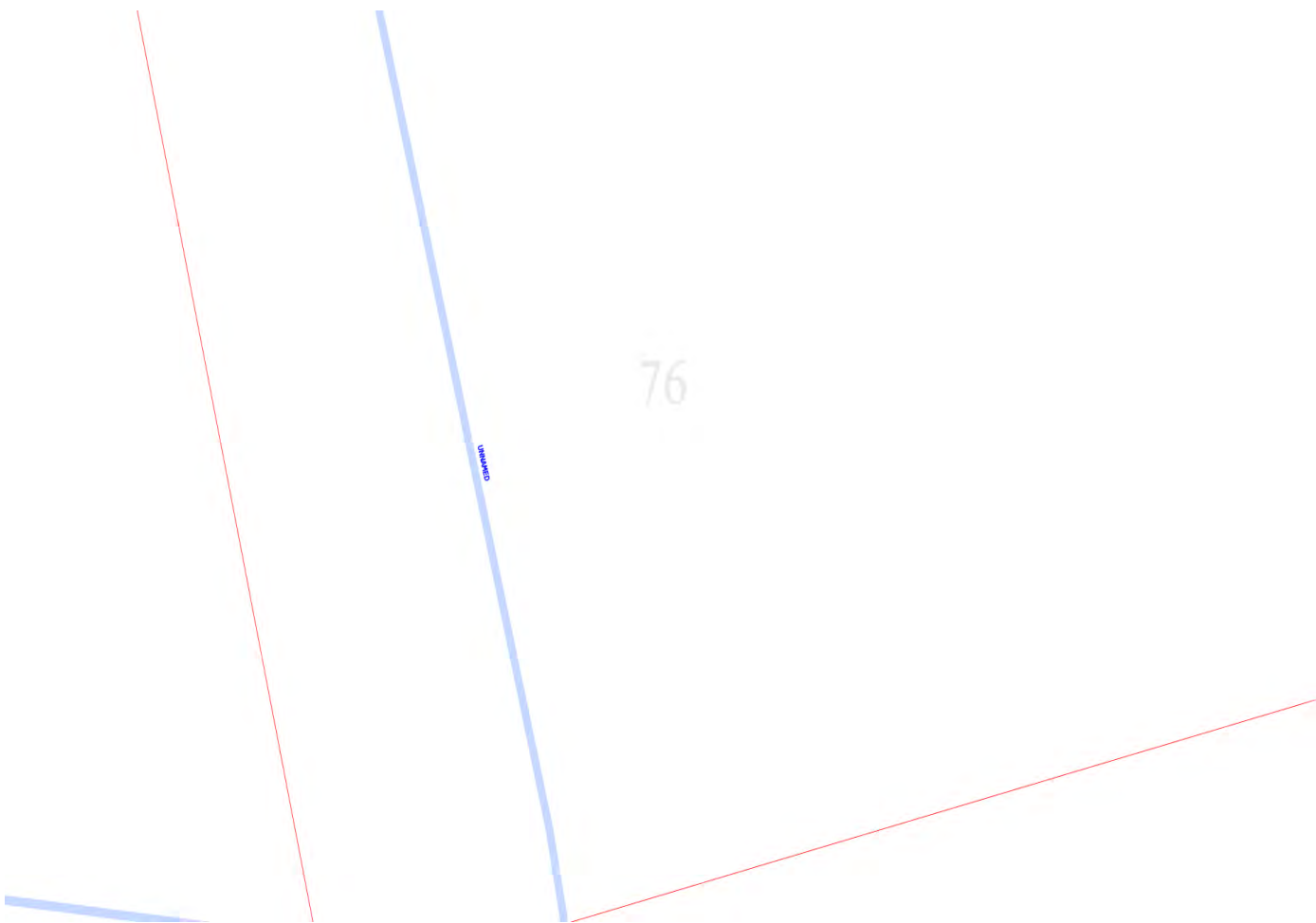


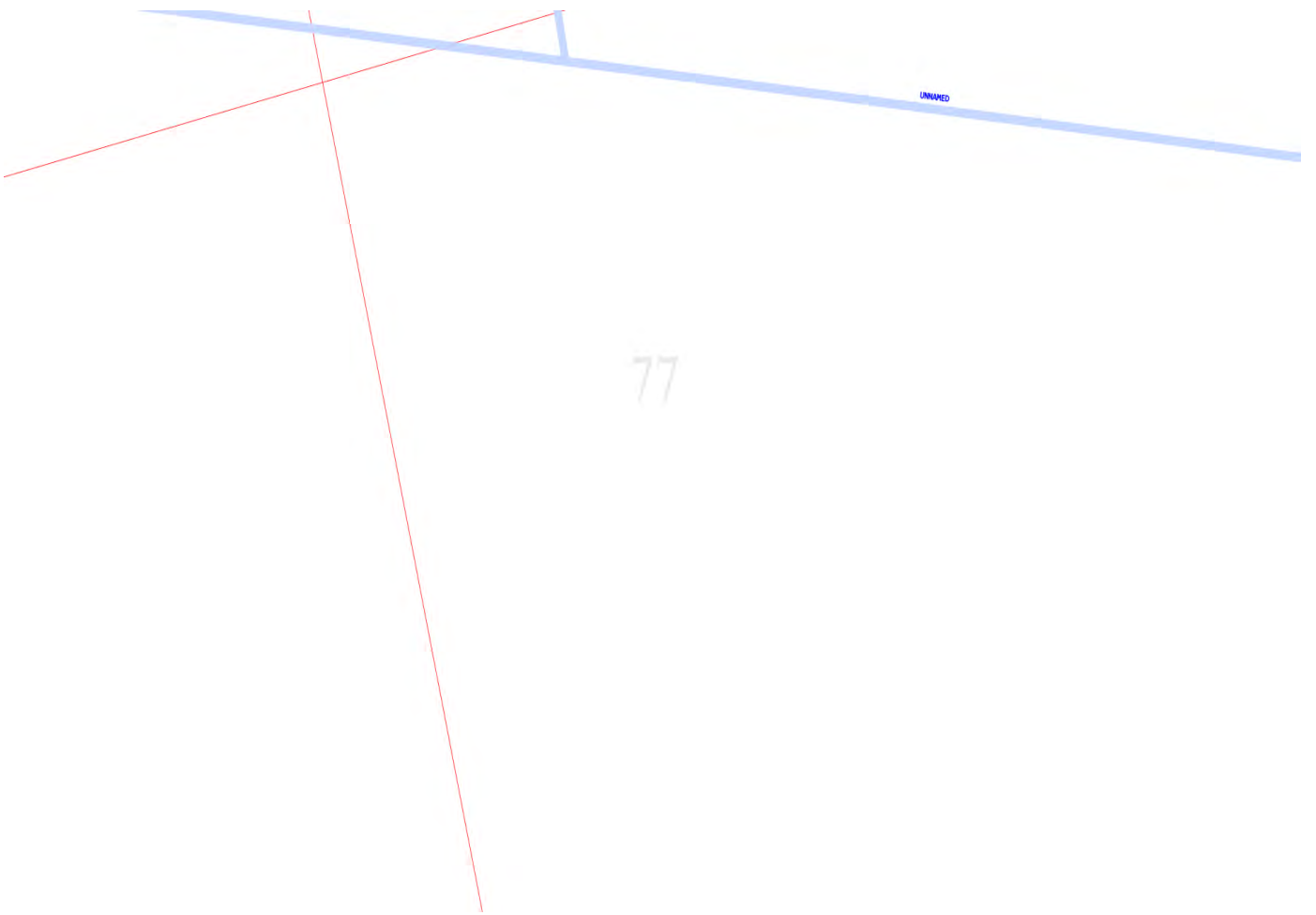


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САНКТ-ПЕТЕРБУРГ





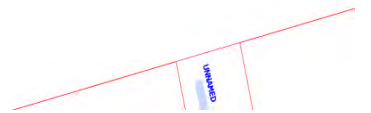
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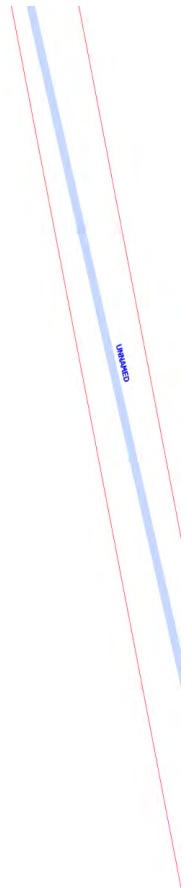
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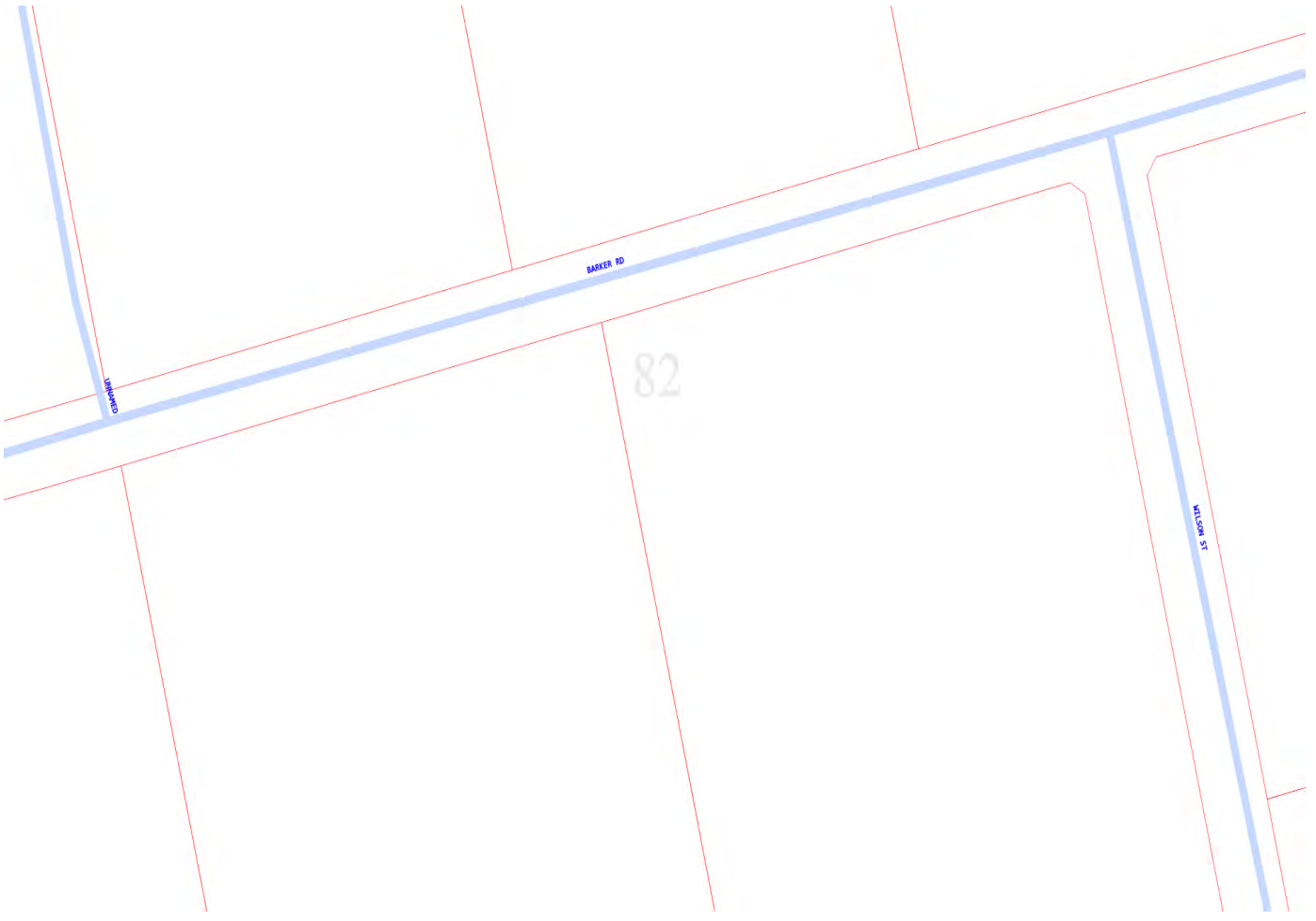


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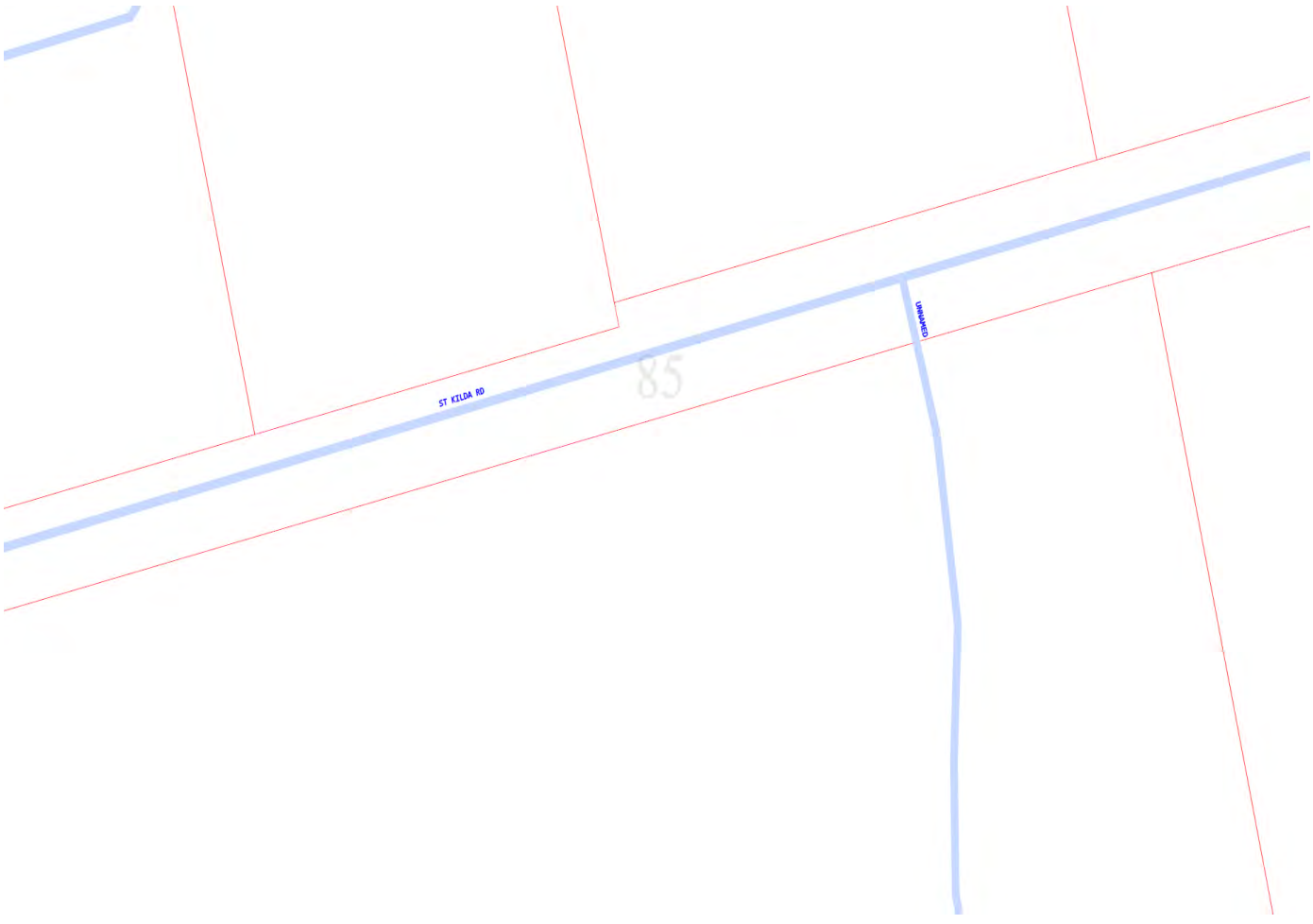


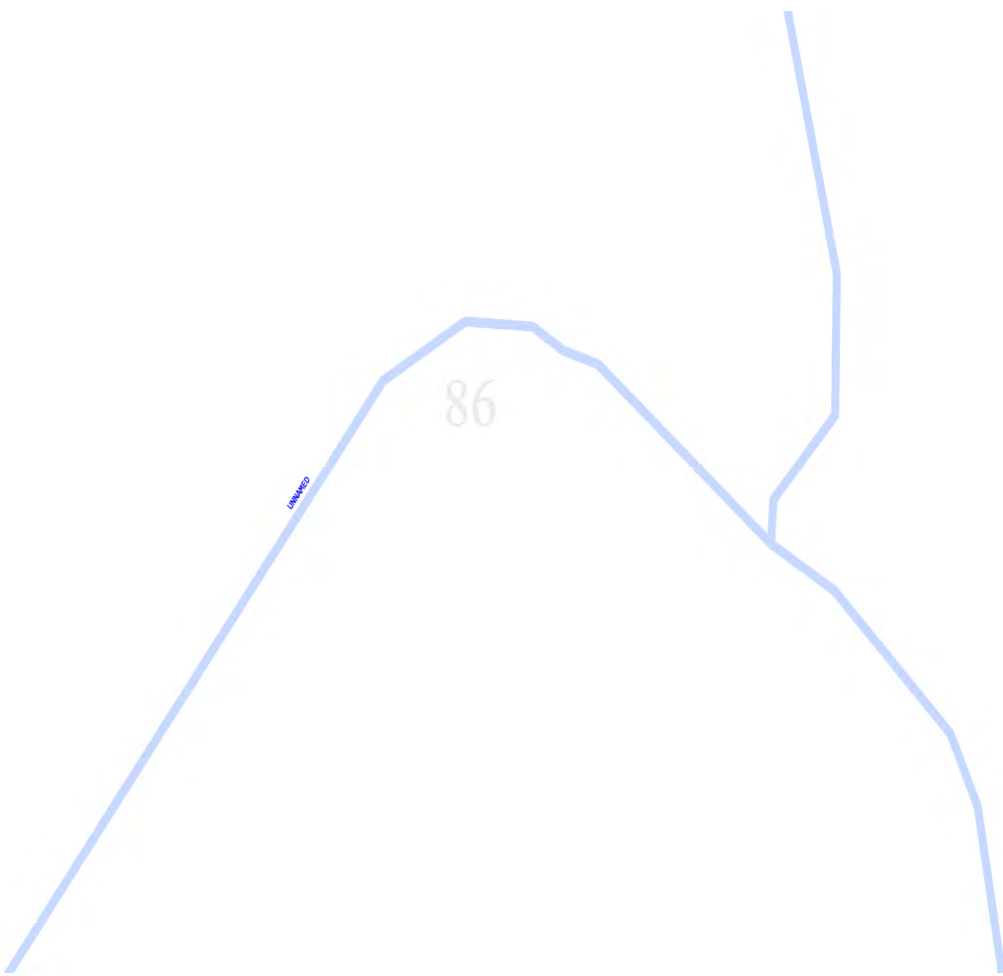








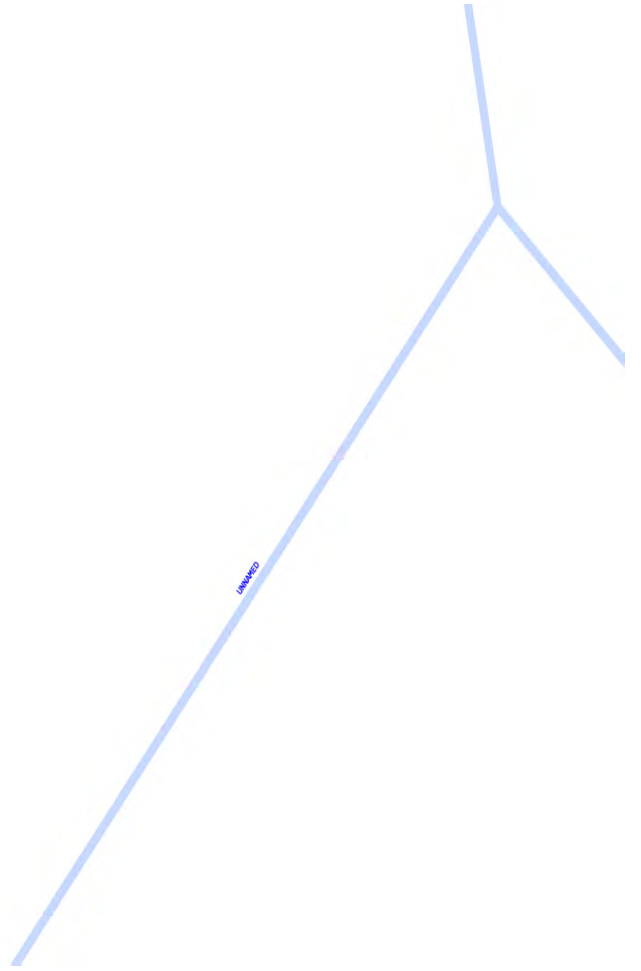


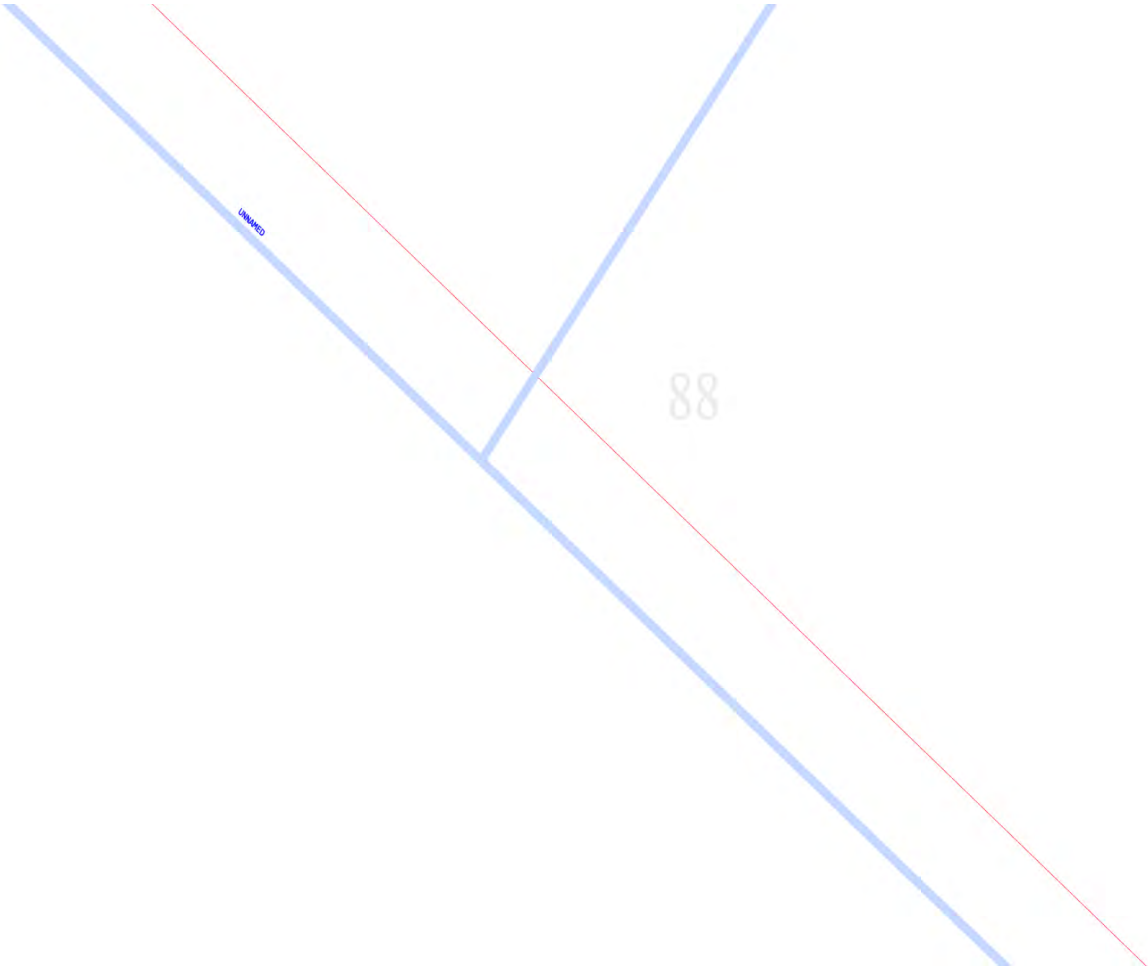




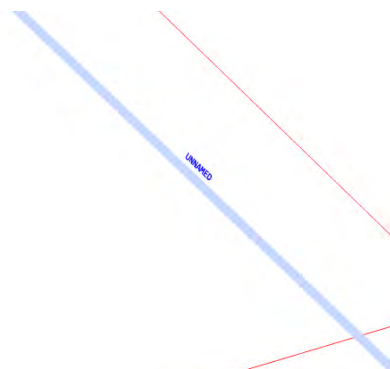


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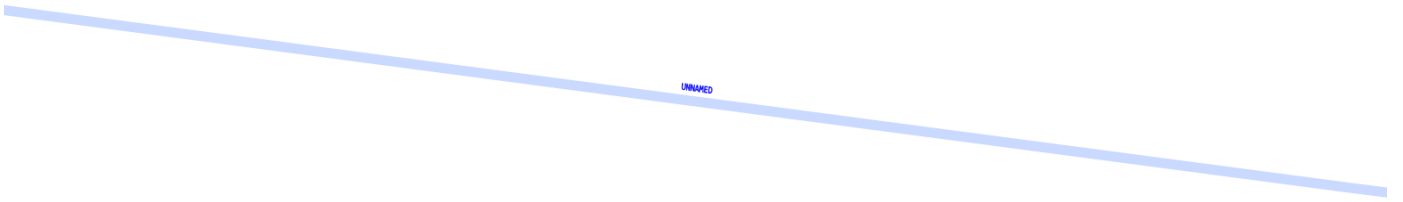




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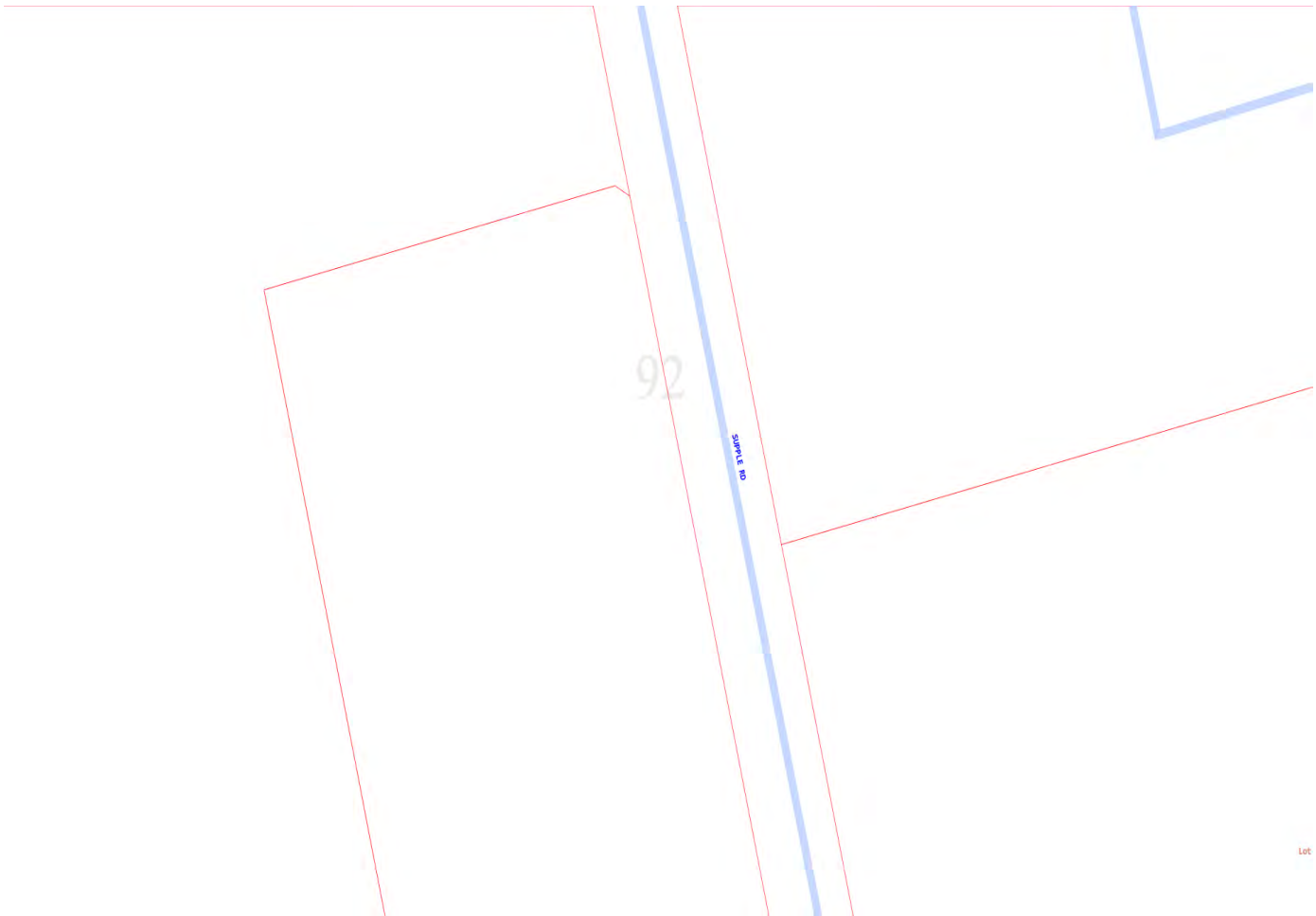




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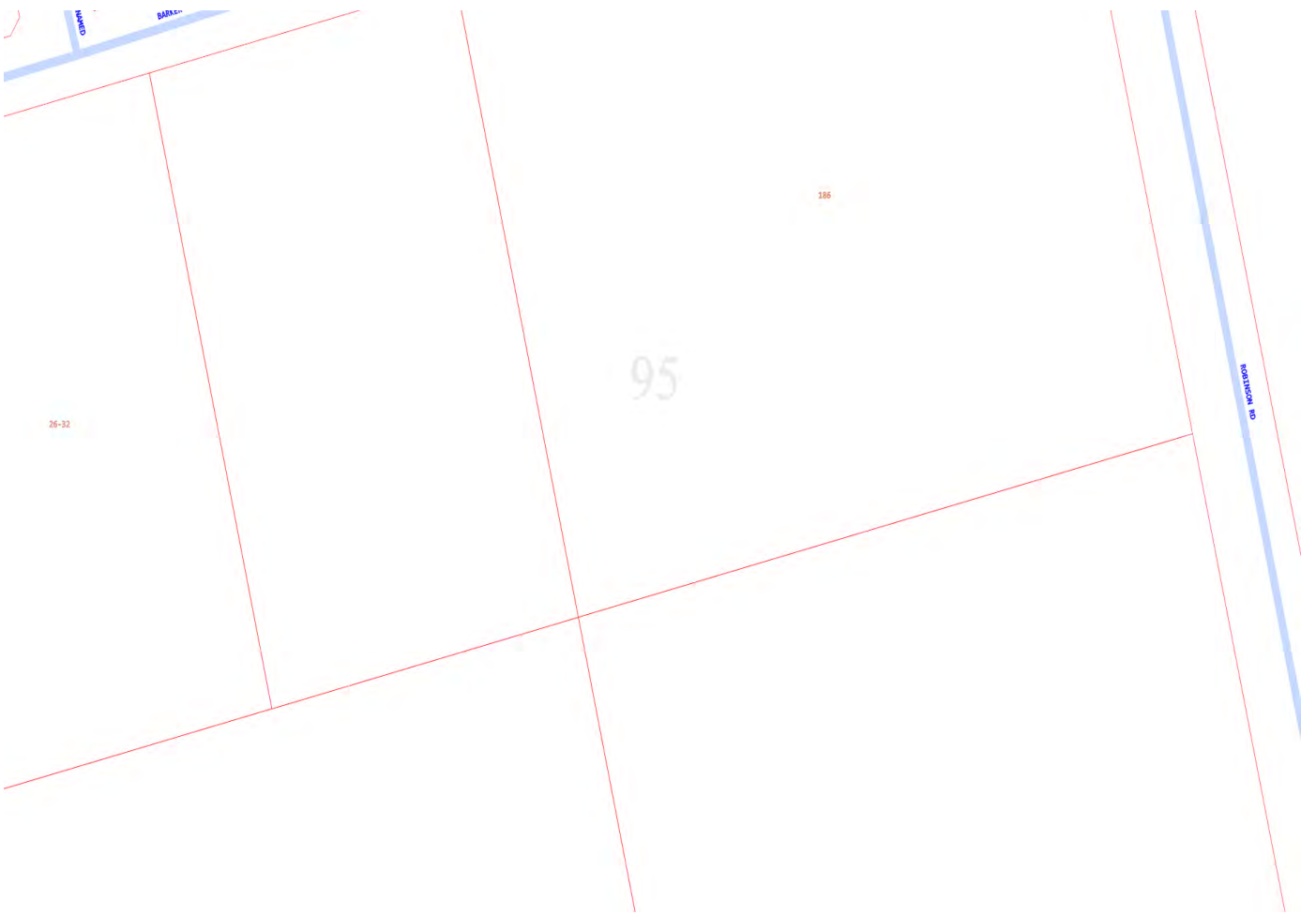
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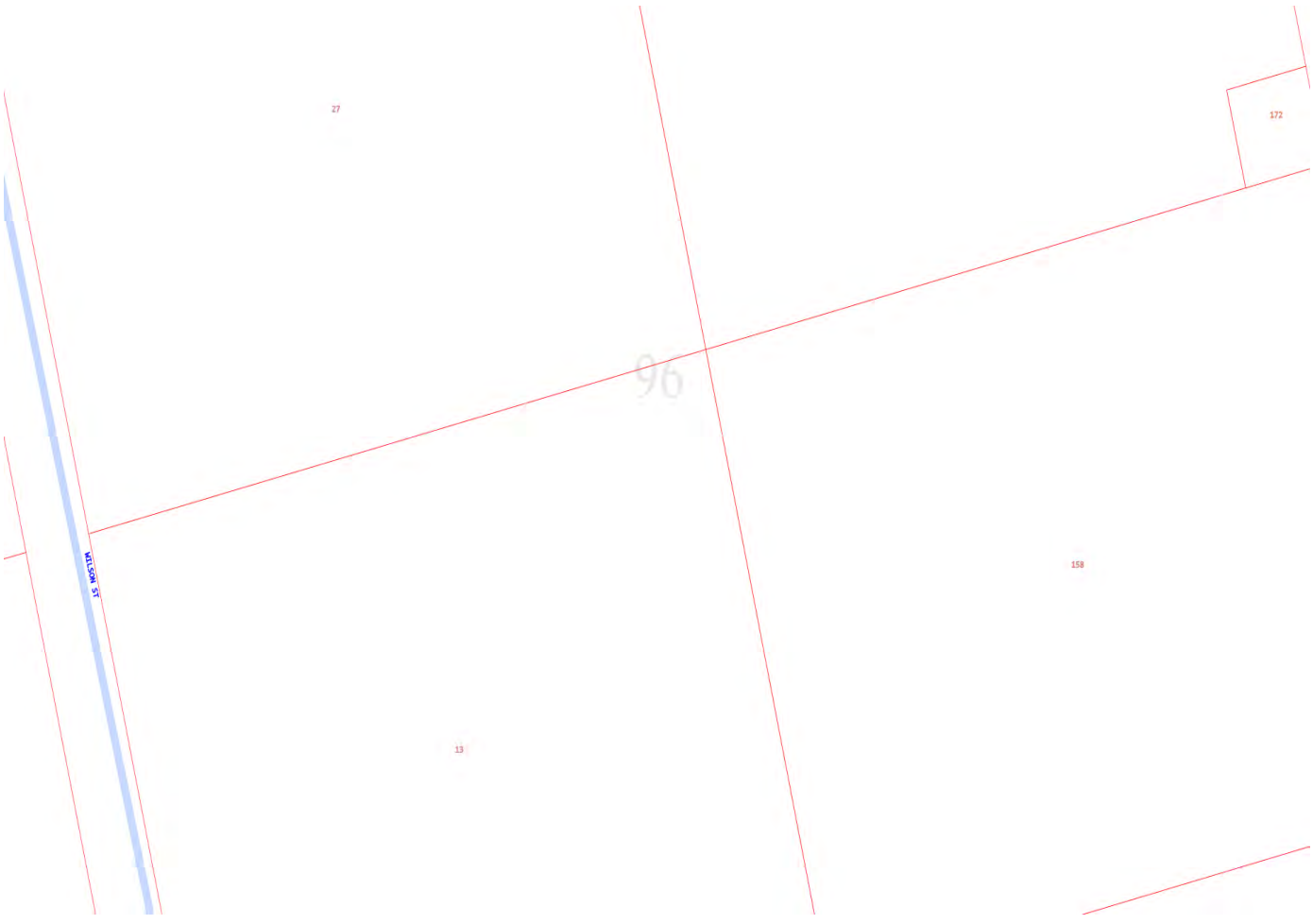
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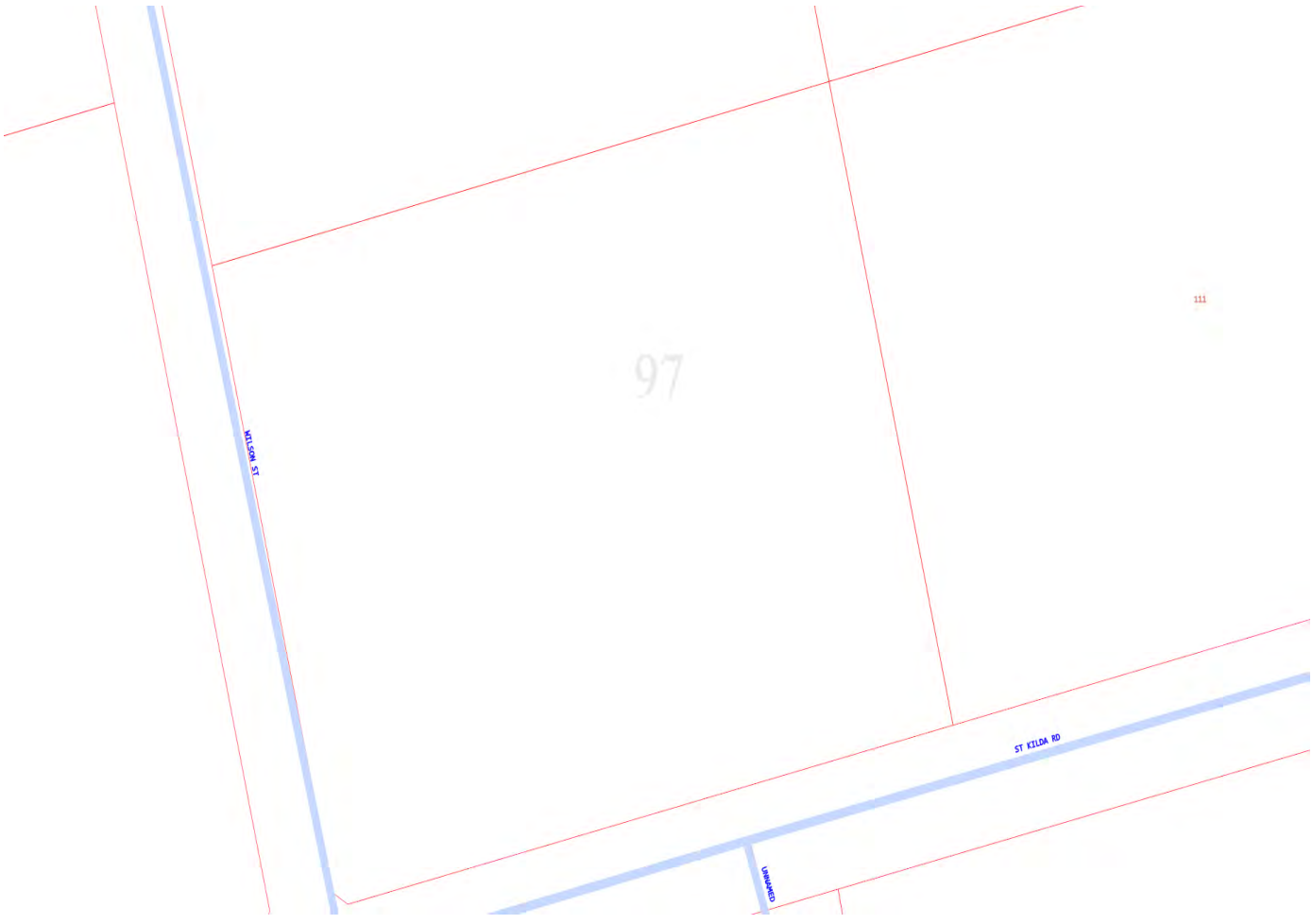
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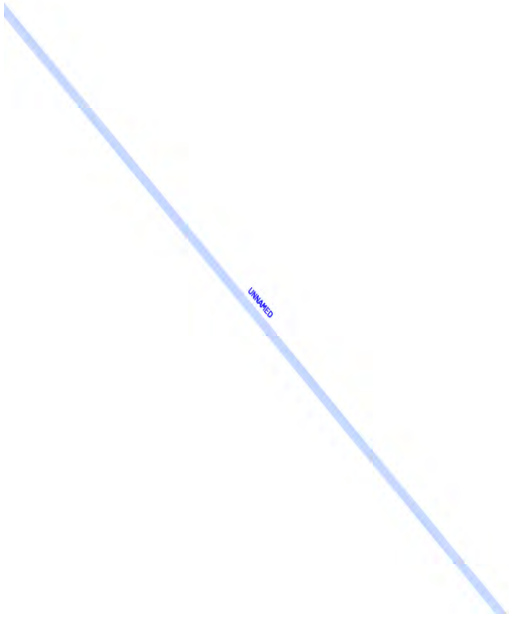




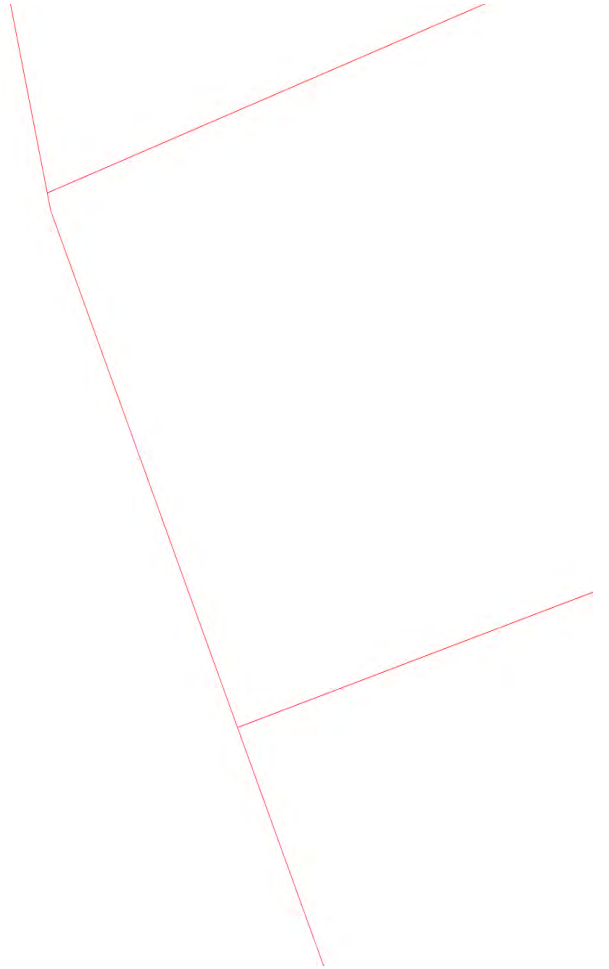


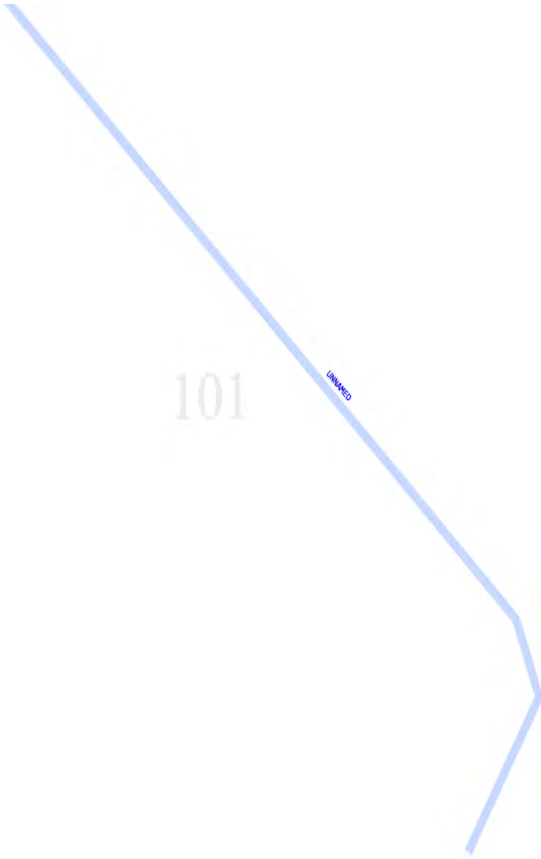
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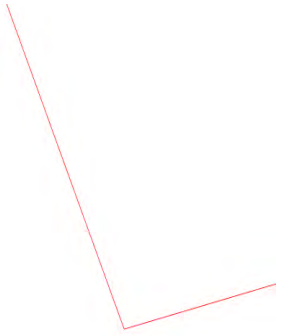
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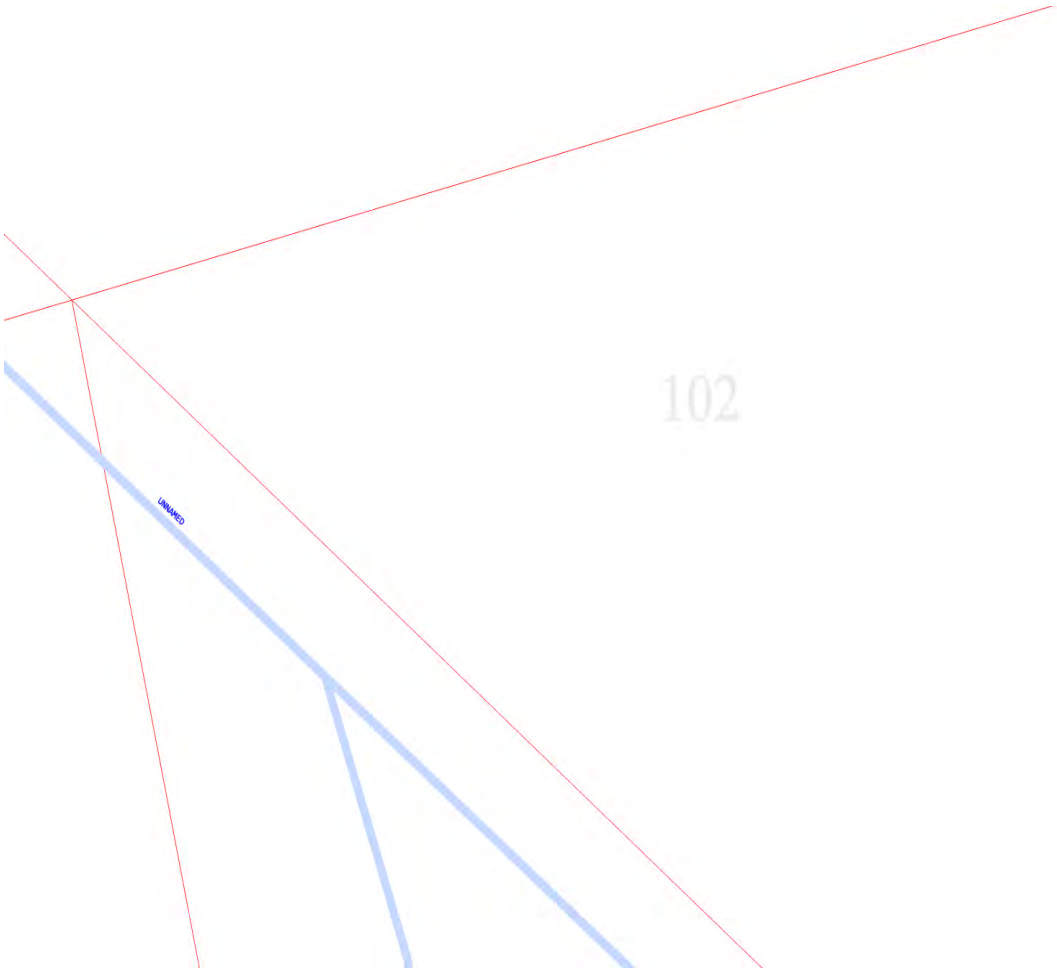


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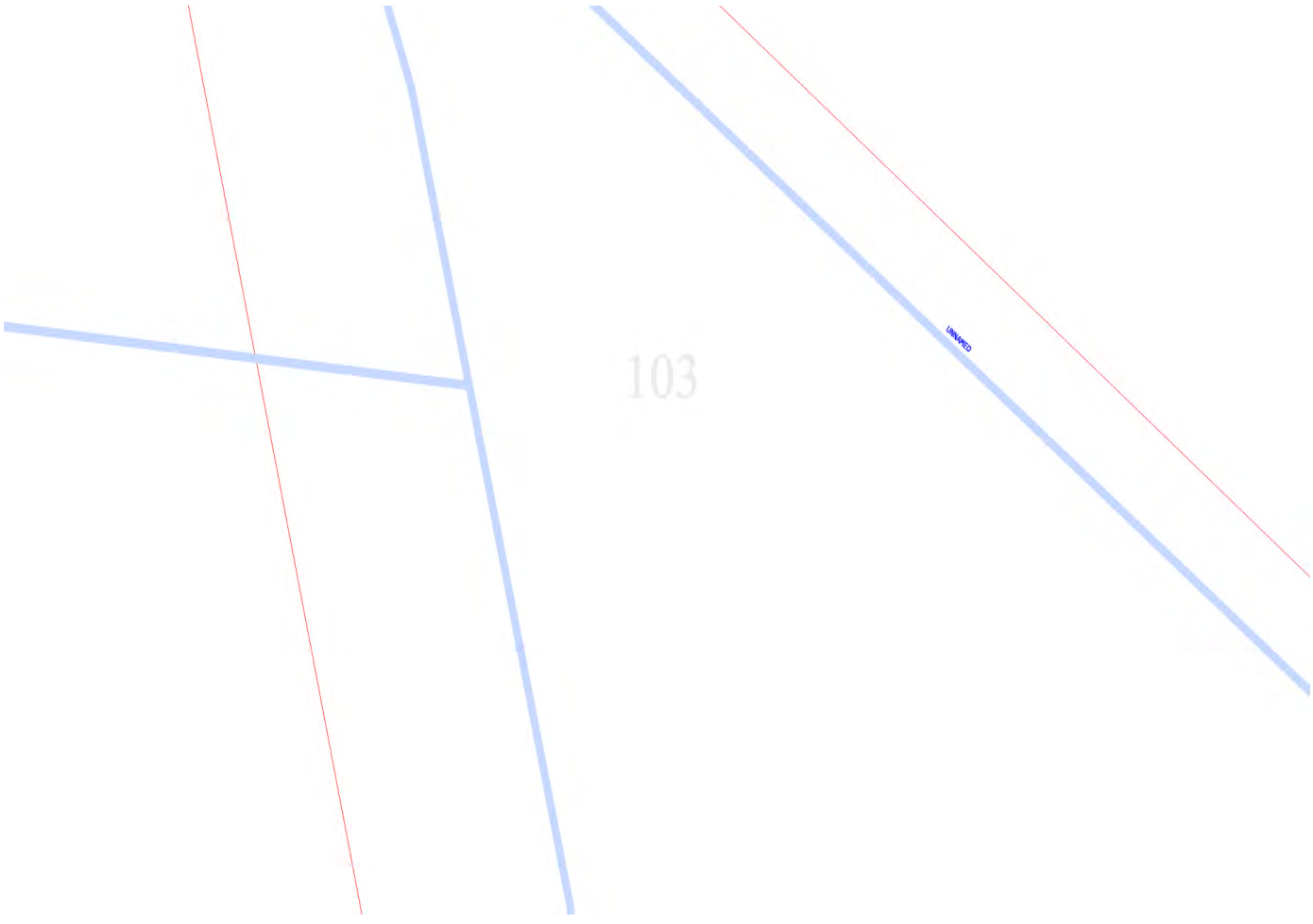






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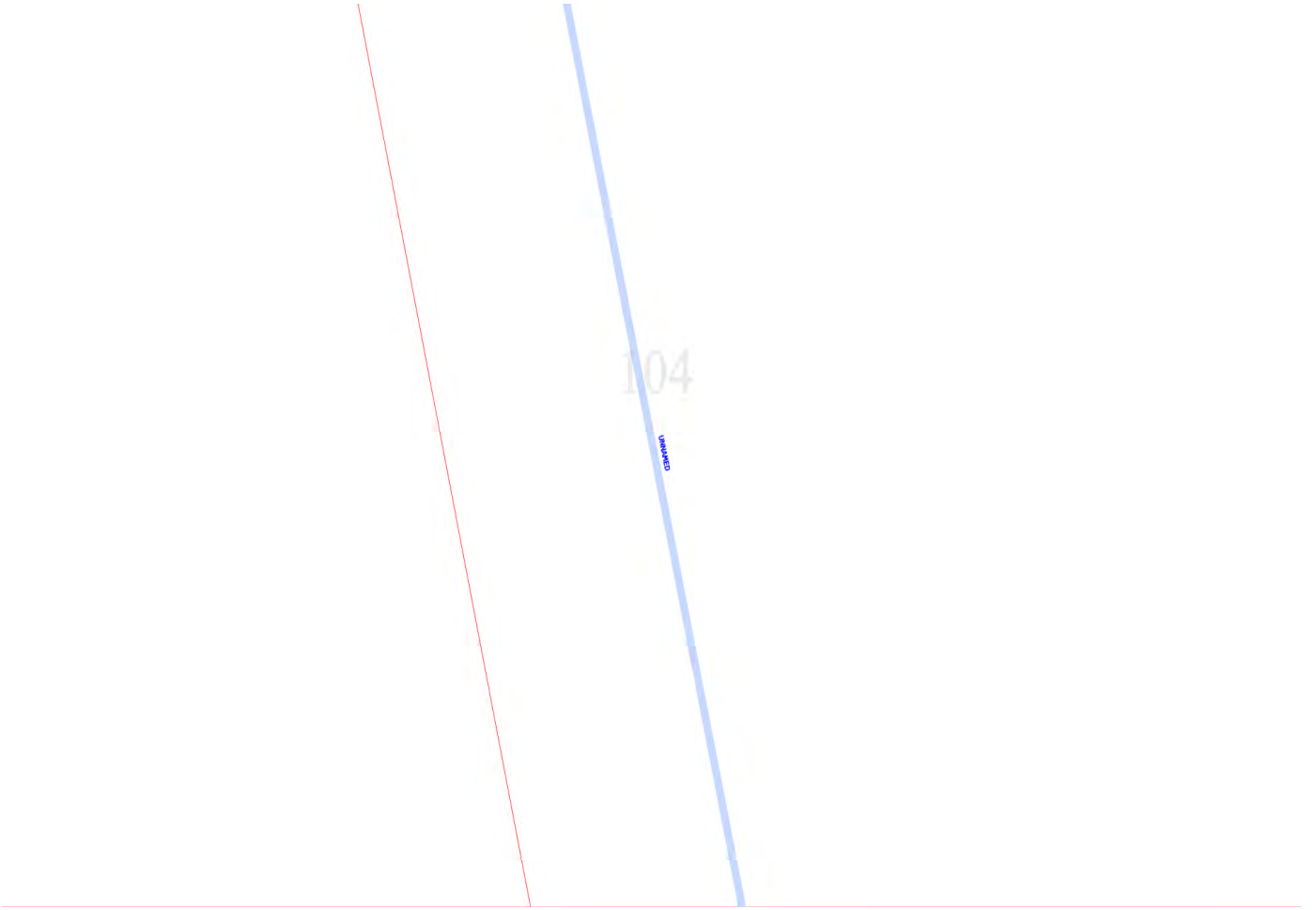


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UNWED

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Lot 7

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ADANTO RD

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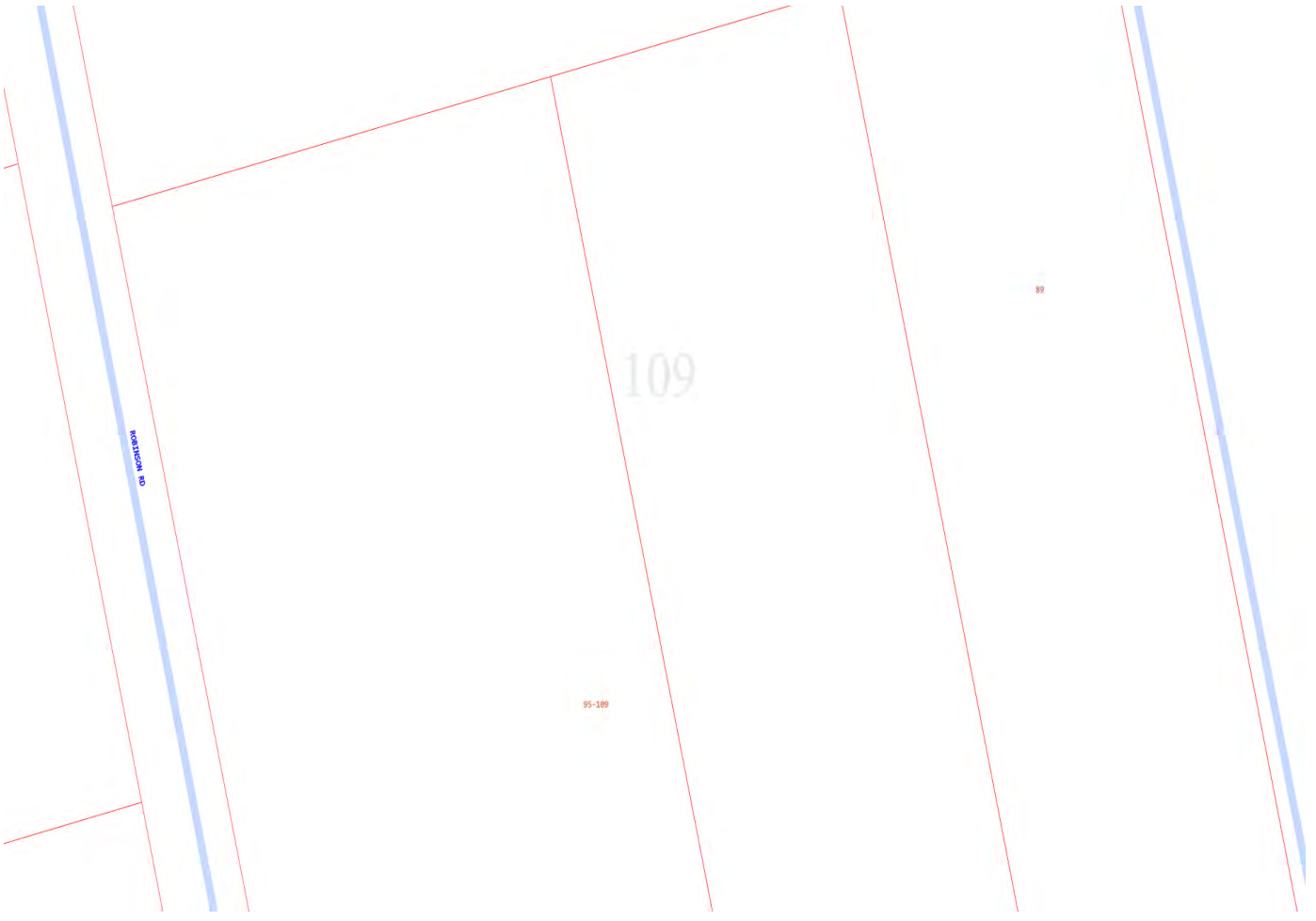


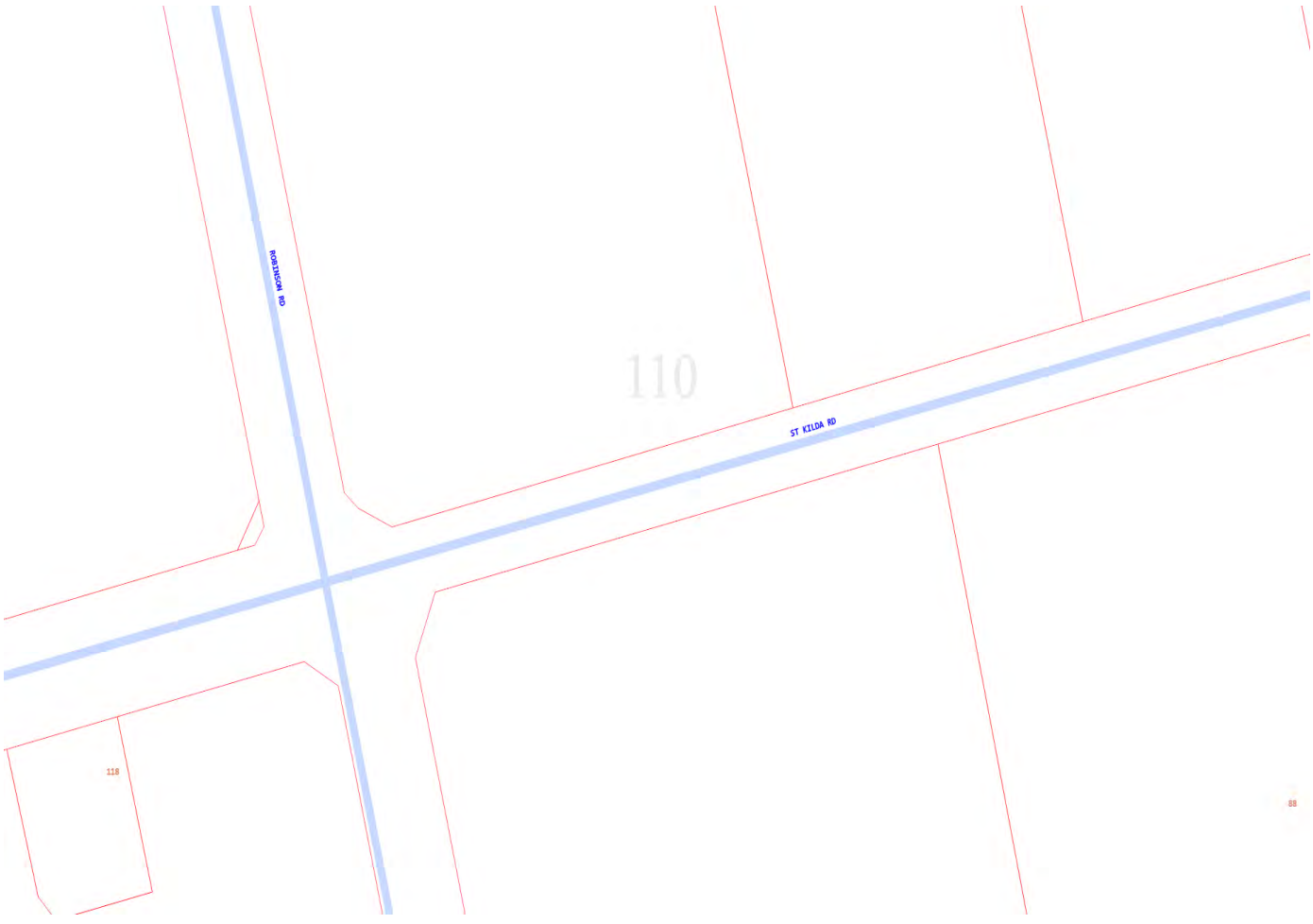




ON MONITOR

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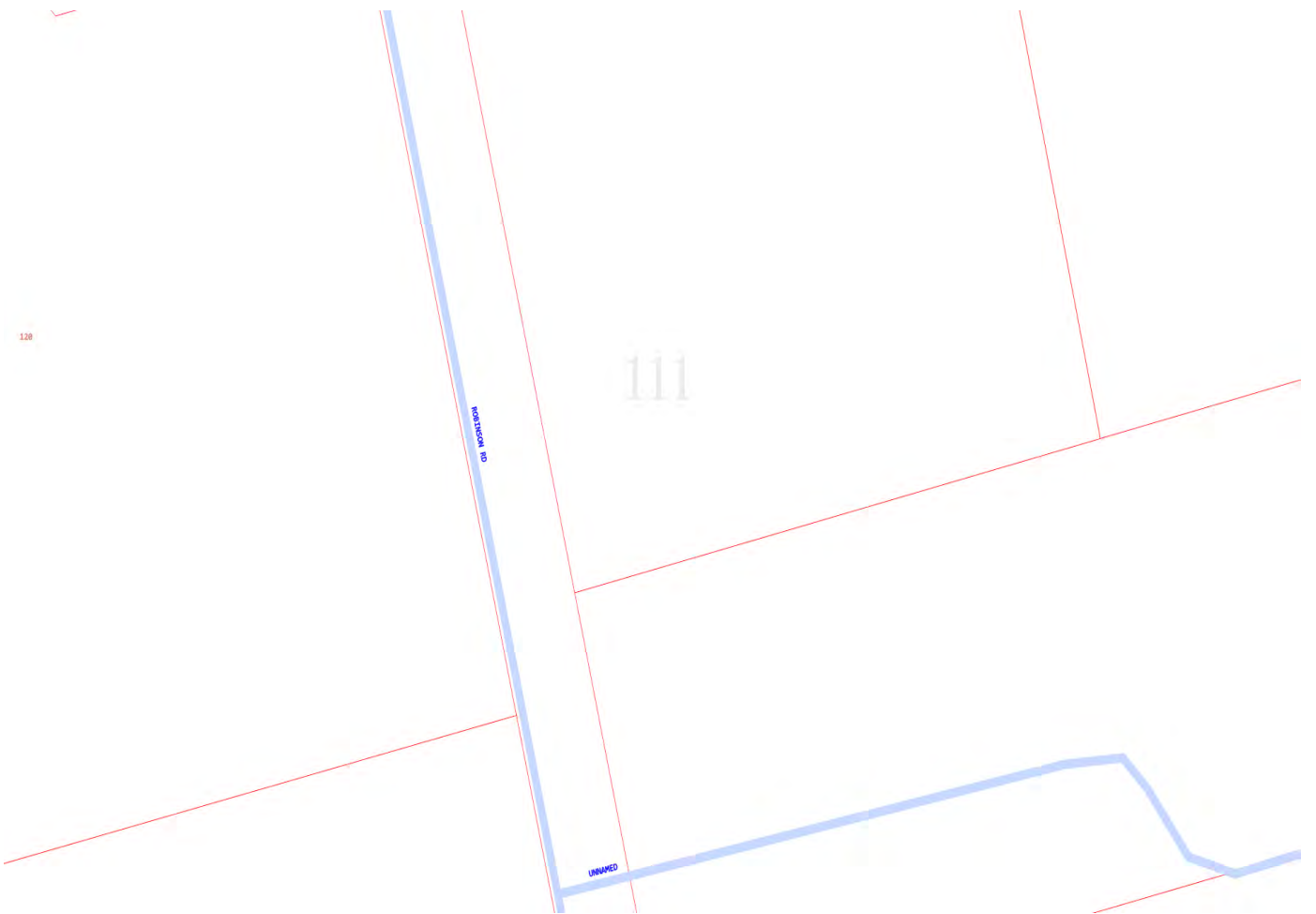
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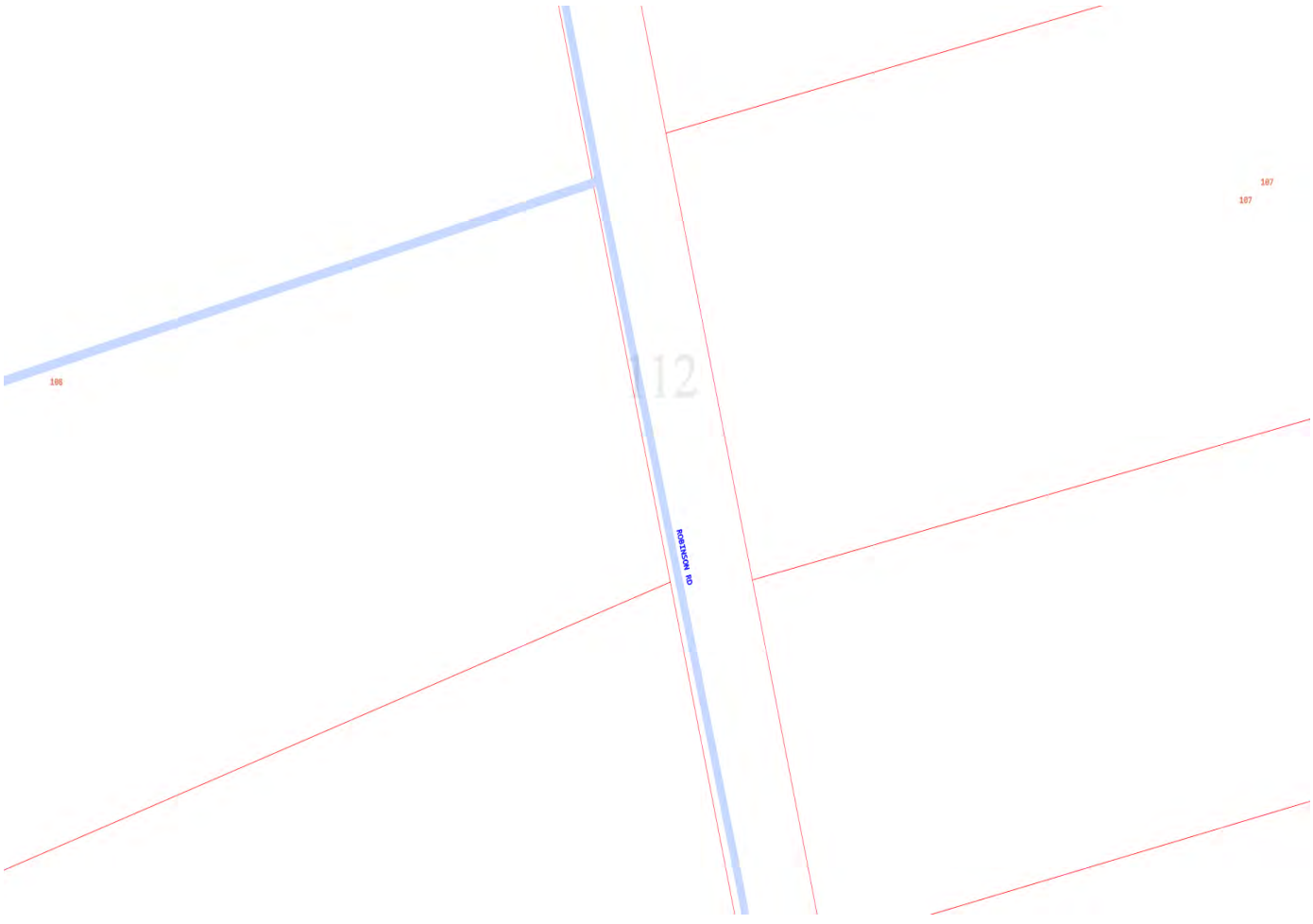
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CH. ROYALTON RD.

UNNAMED





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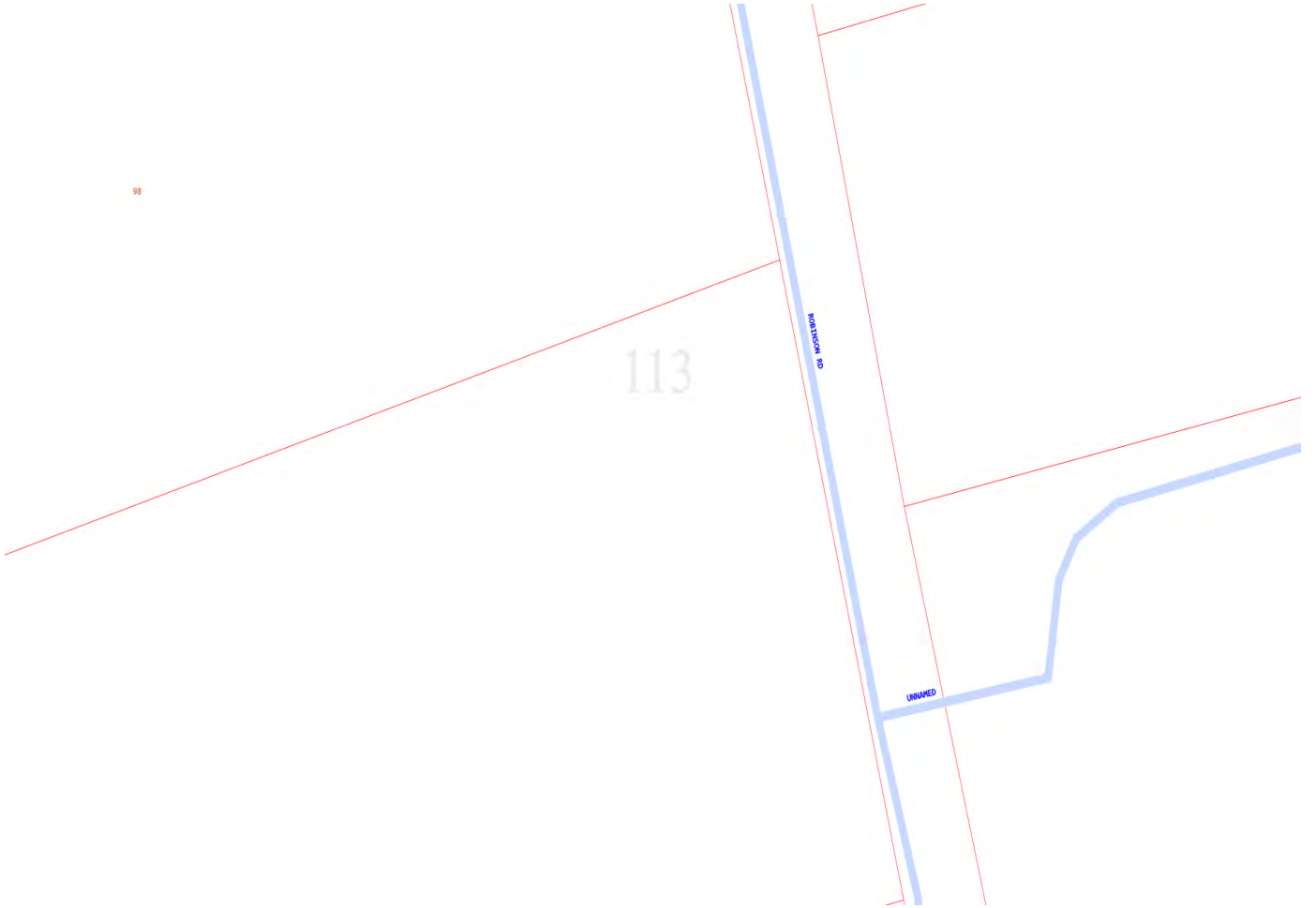
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ON MONTANA

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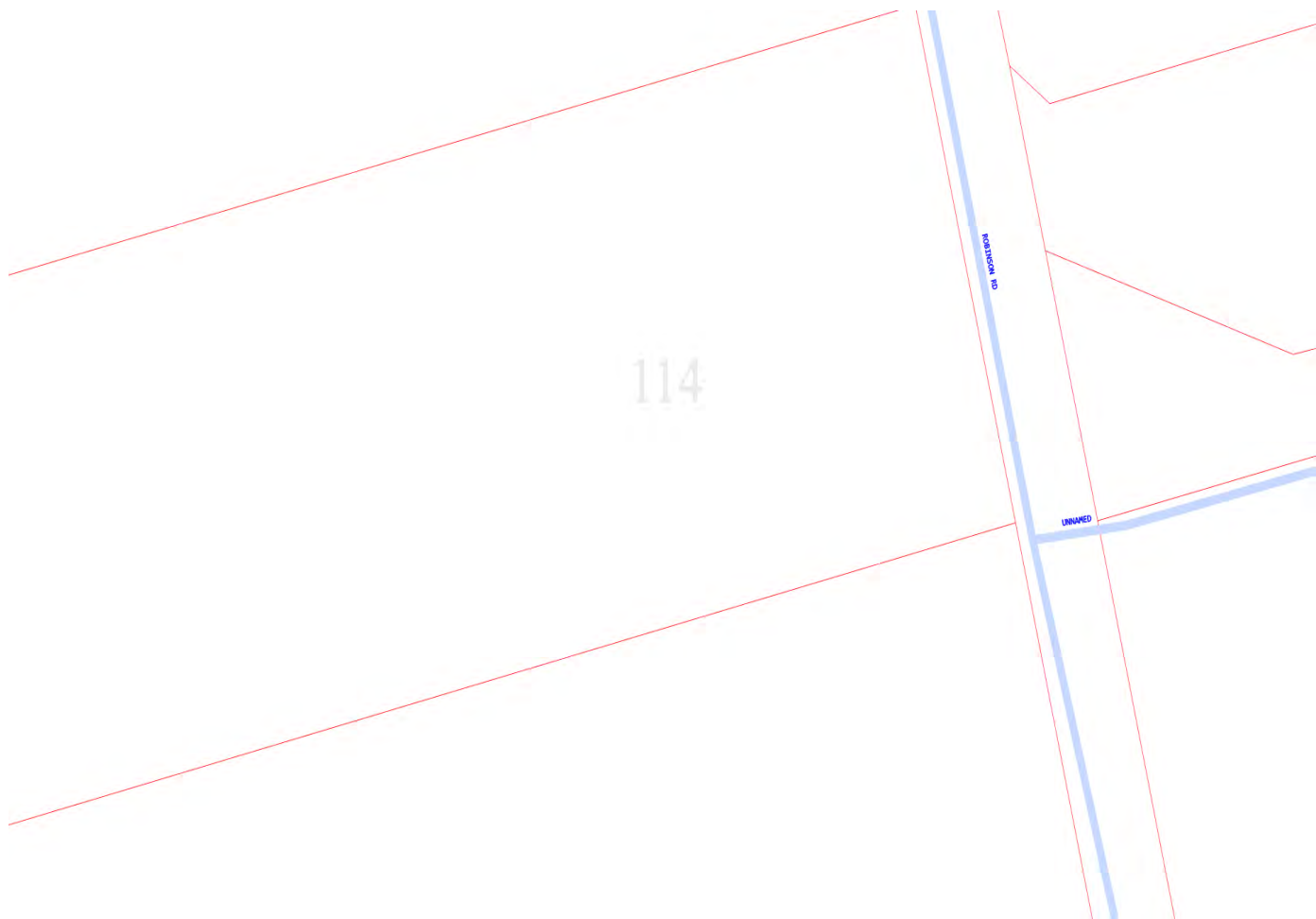




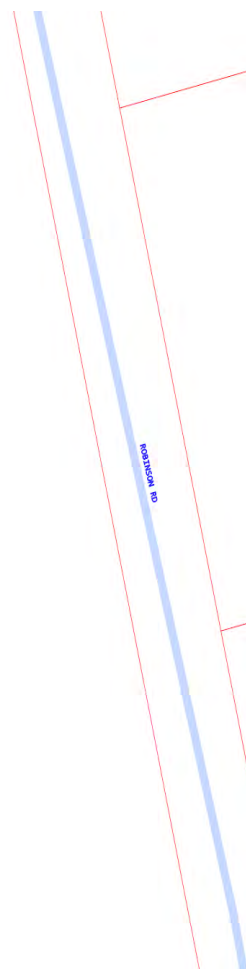
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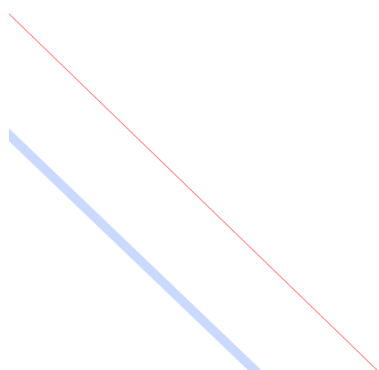
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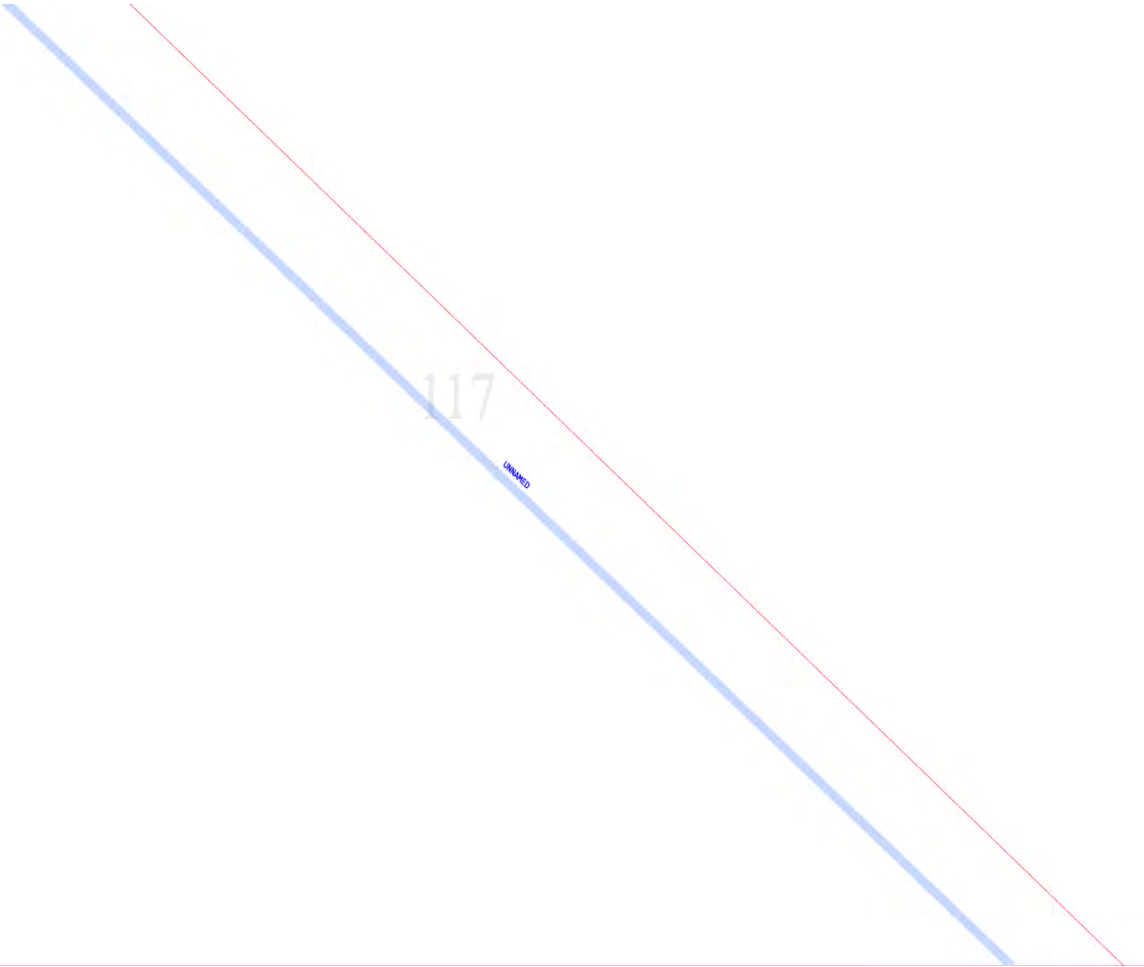


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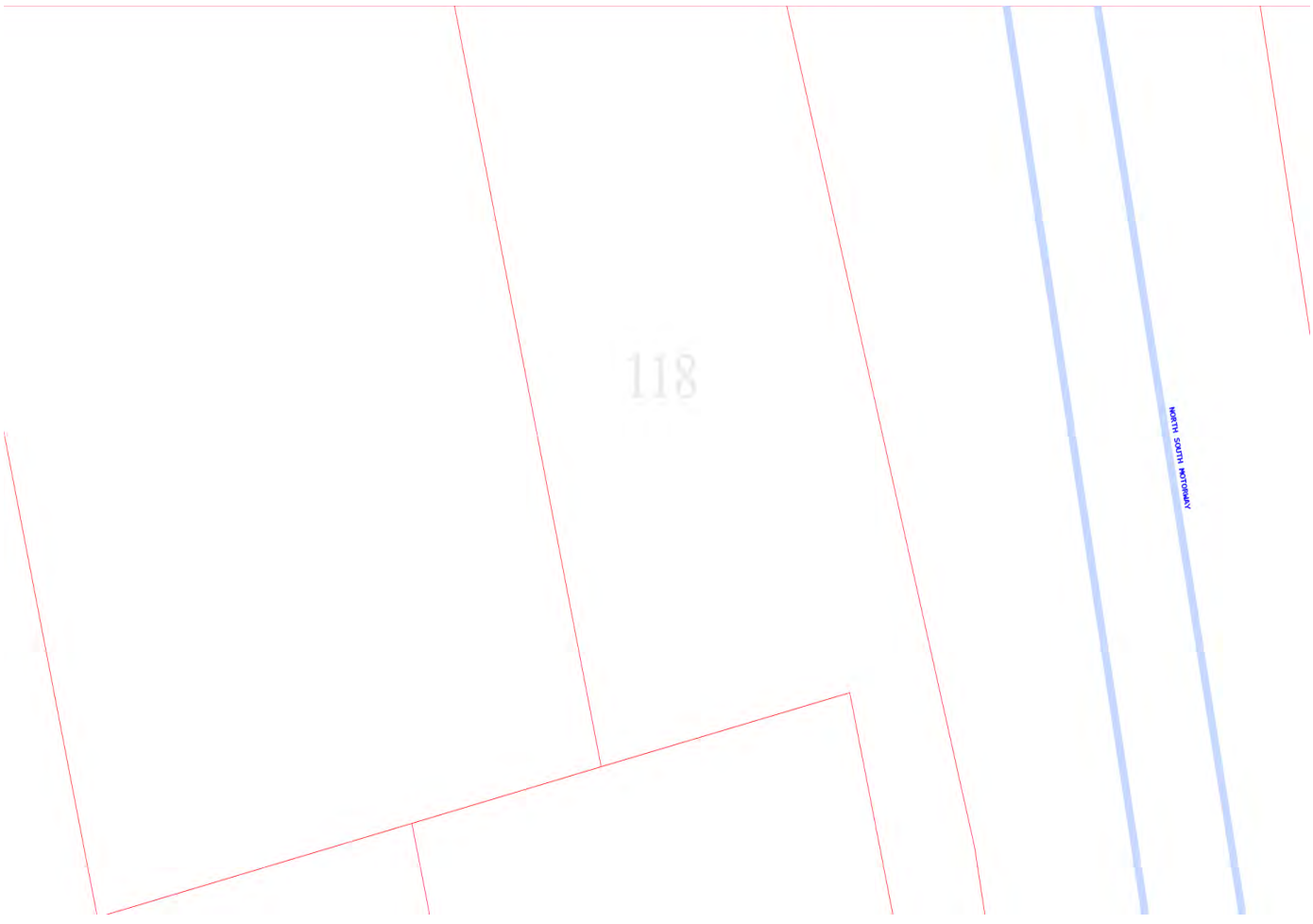






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AYRERLOW KILCROSS MOUNTAIN





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LOT252

ALVARADO RD

NORTH SOUTH HIGHWAY







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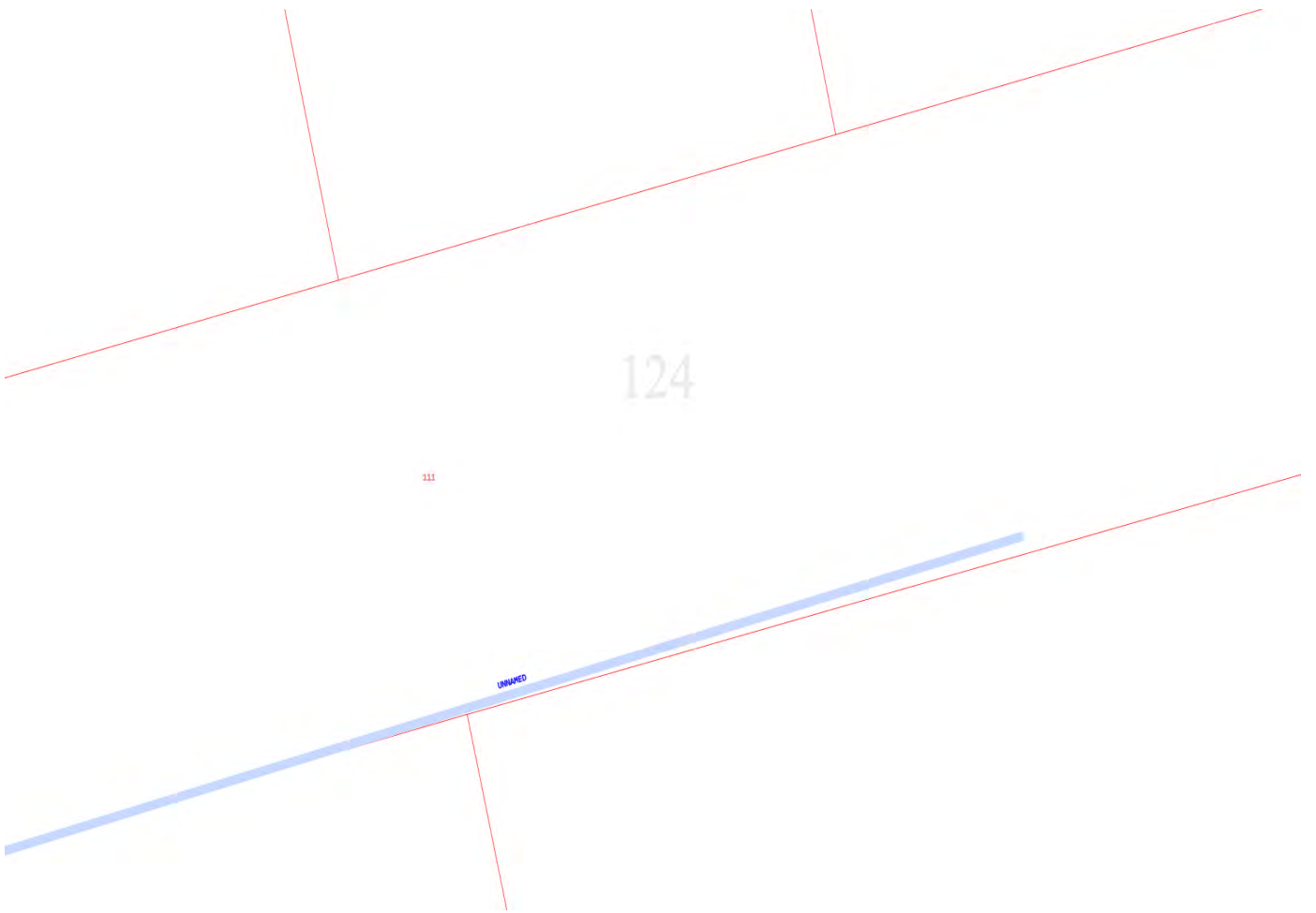
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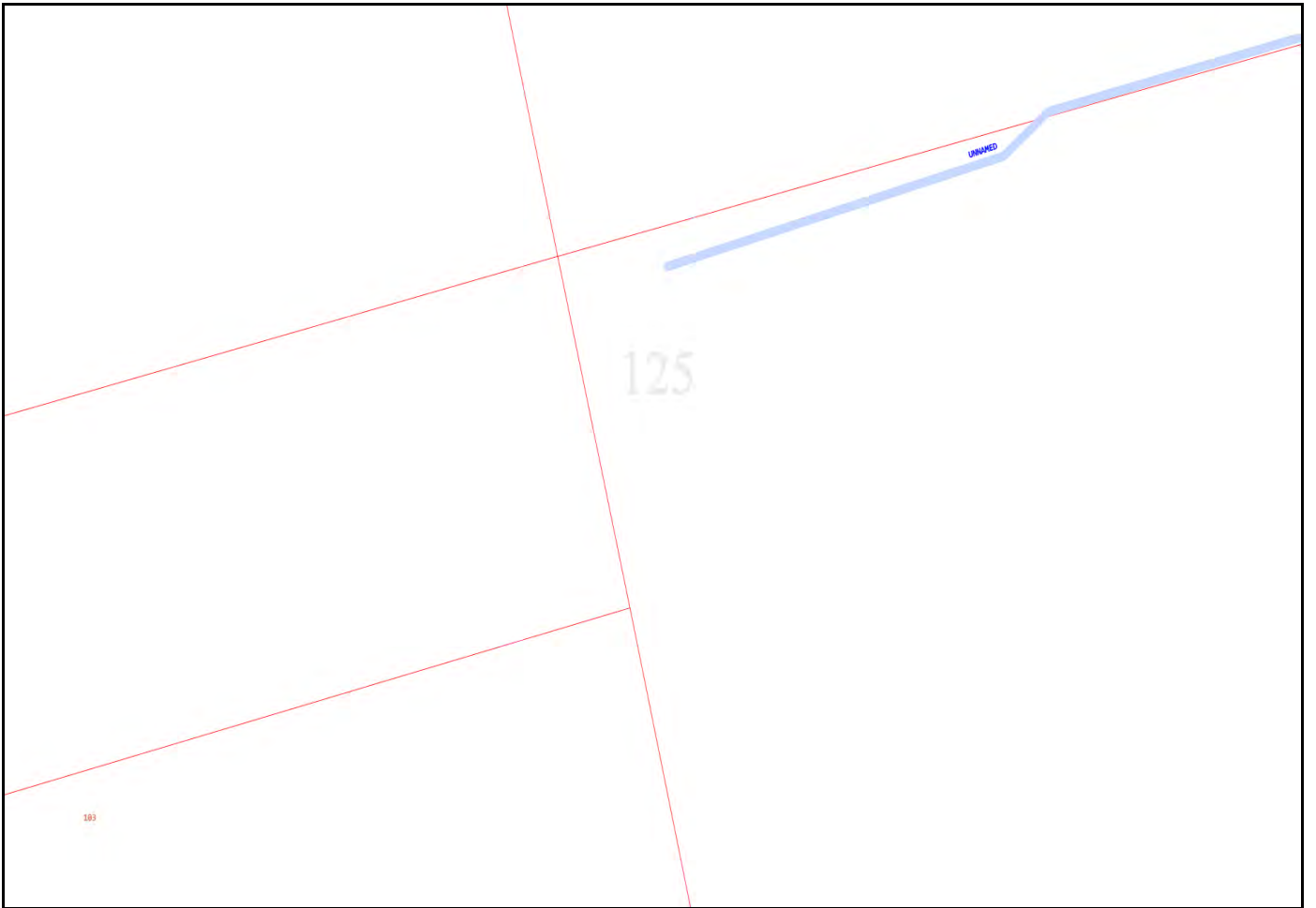




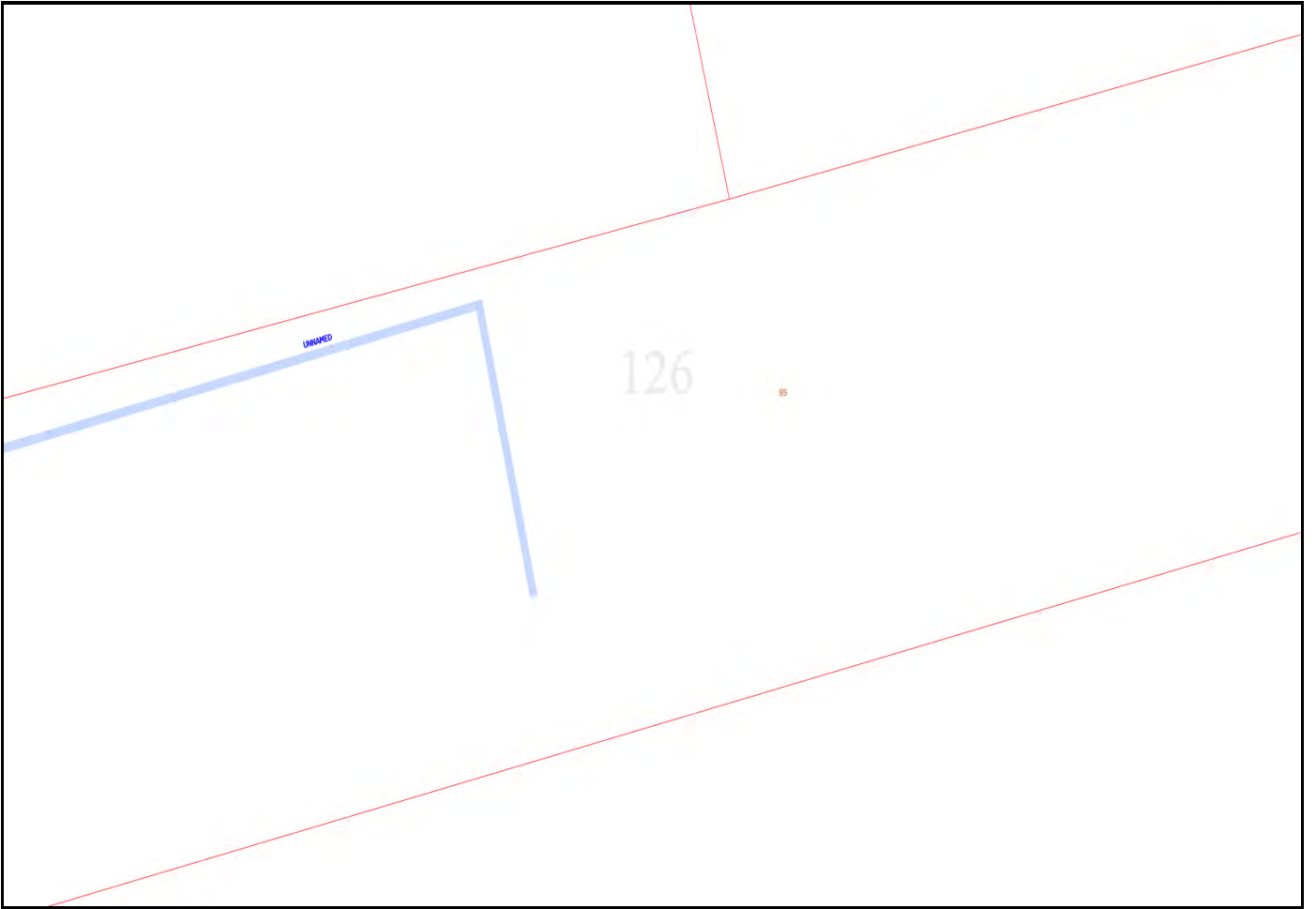


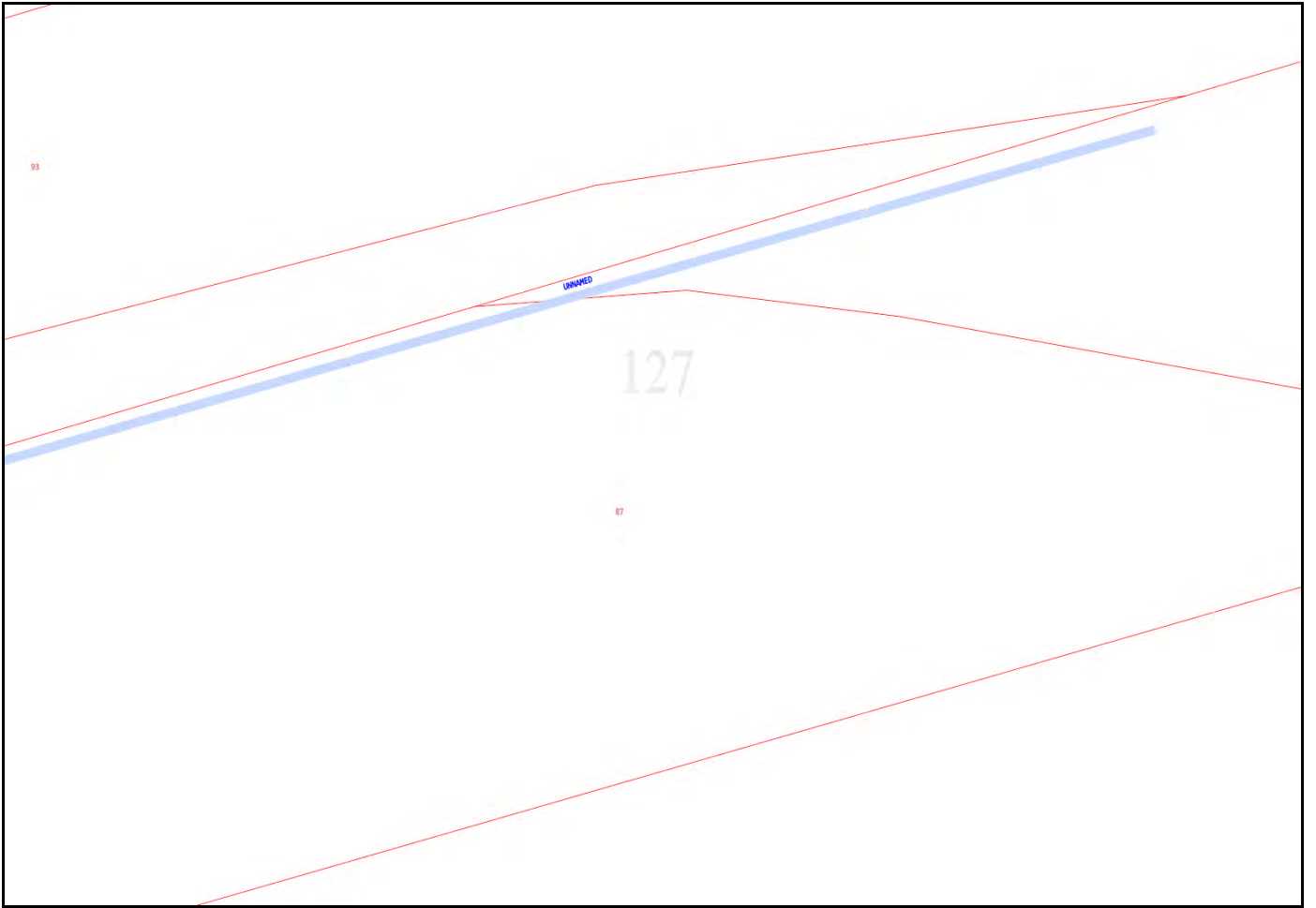
## Emergency Contacts

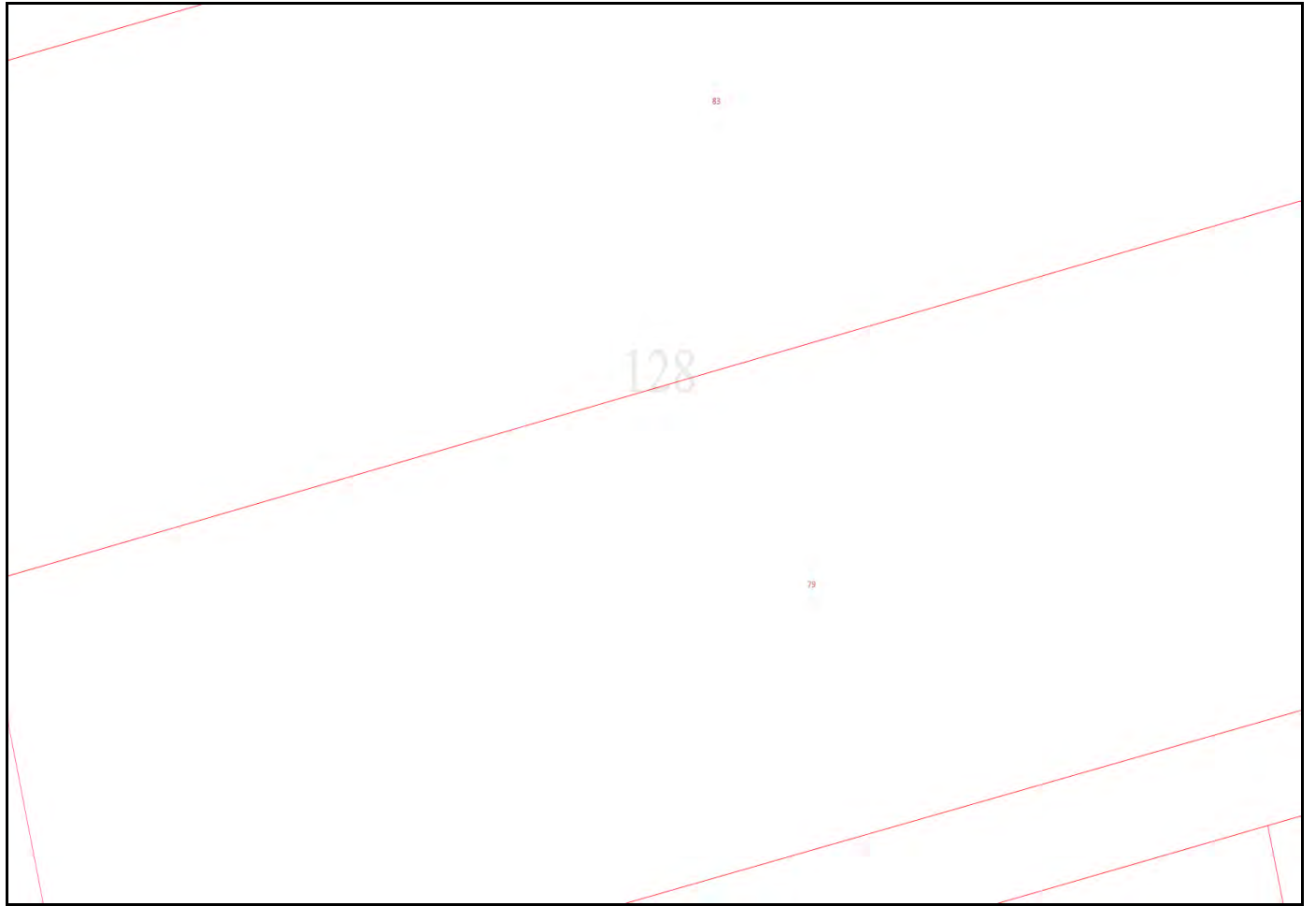
You must immediately report any damage to the **nbn**<sup>TM</sup> network that you are/become aware of. Notification may be by telephone - 1800 626 329.



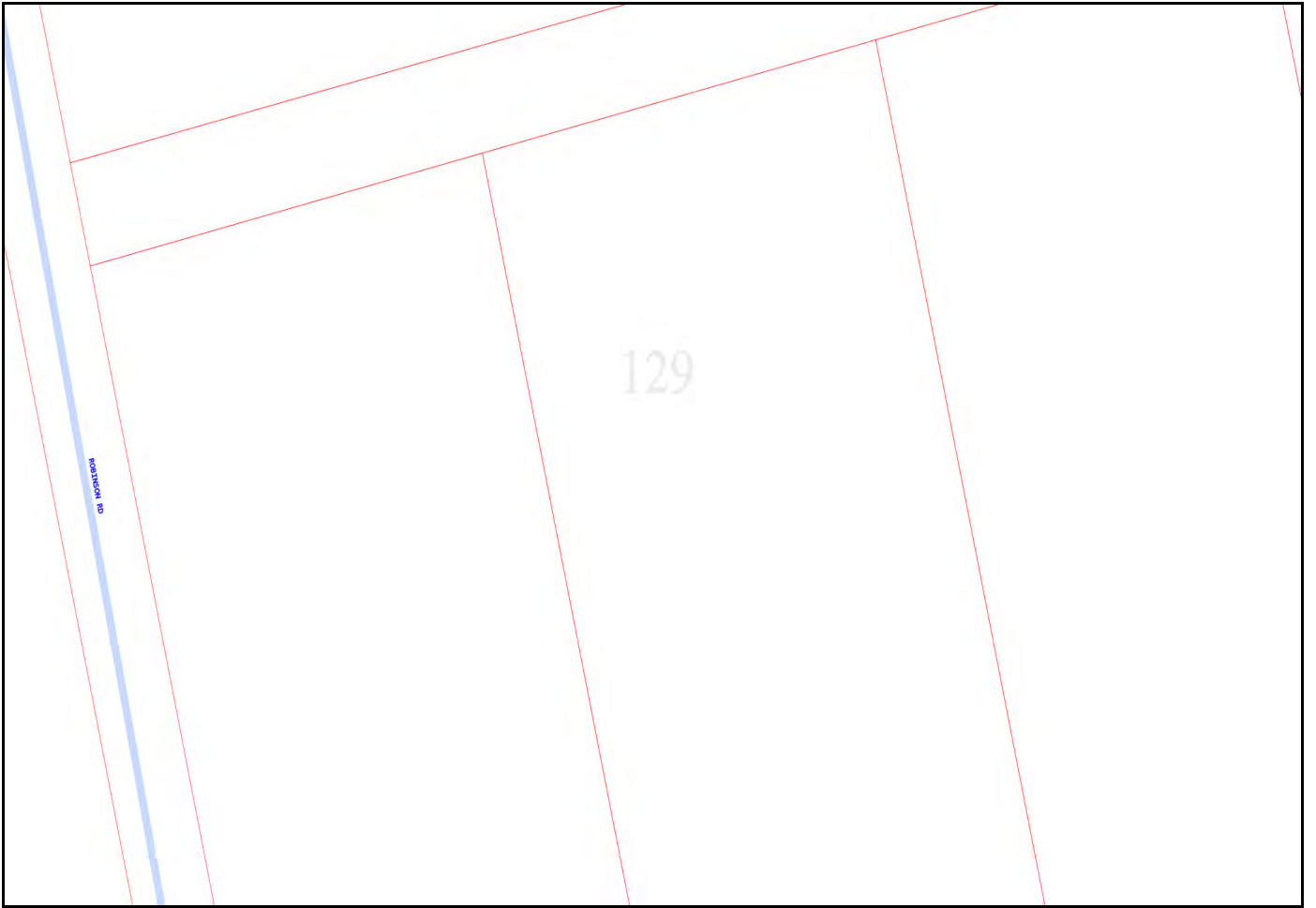


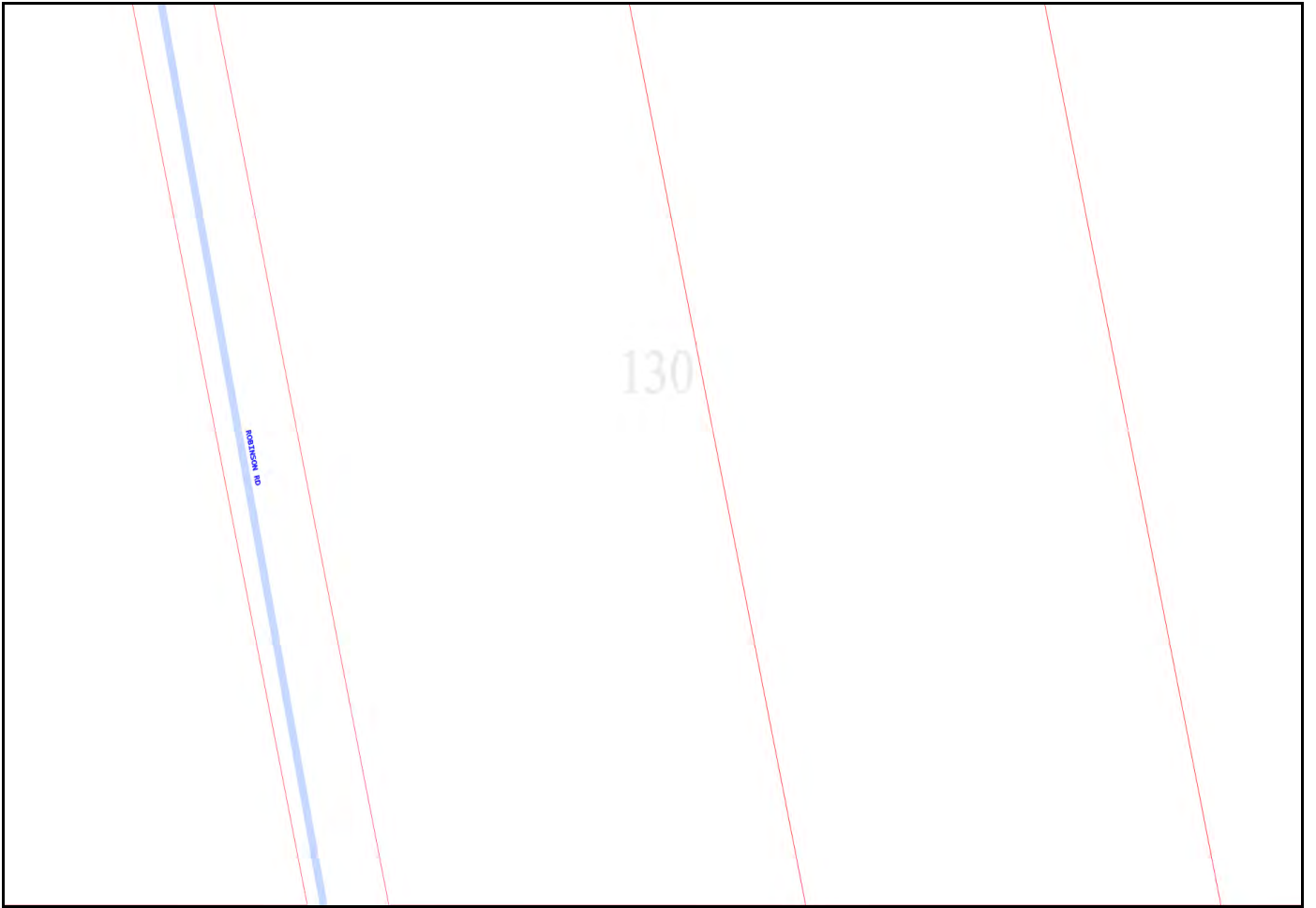


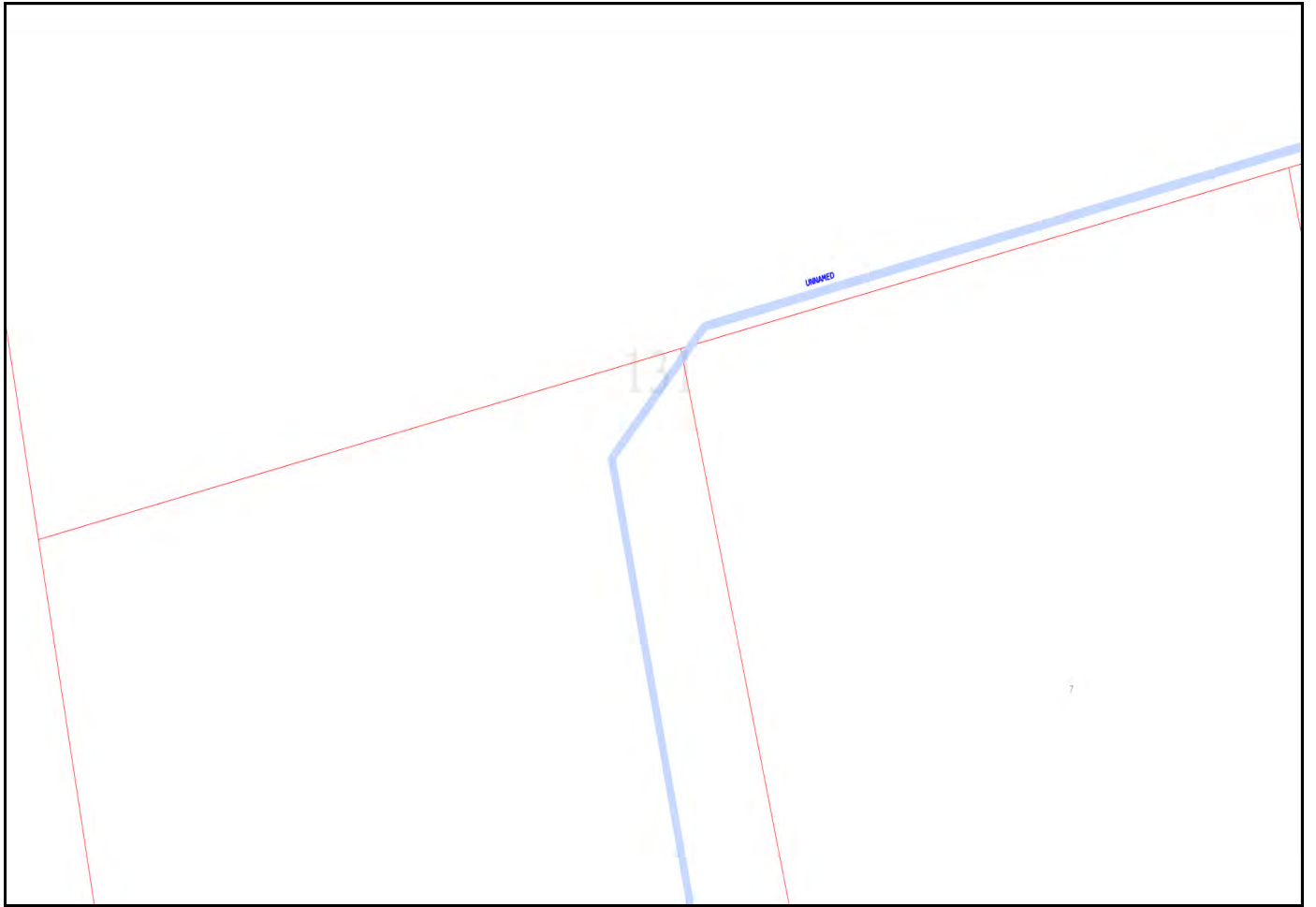




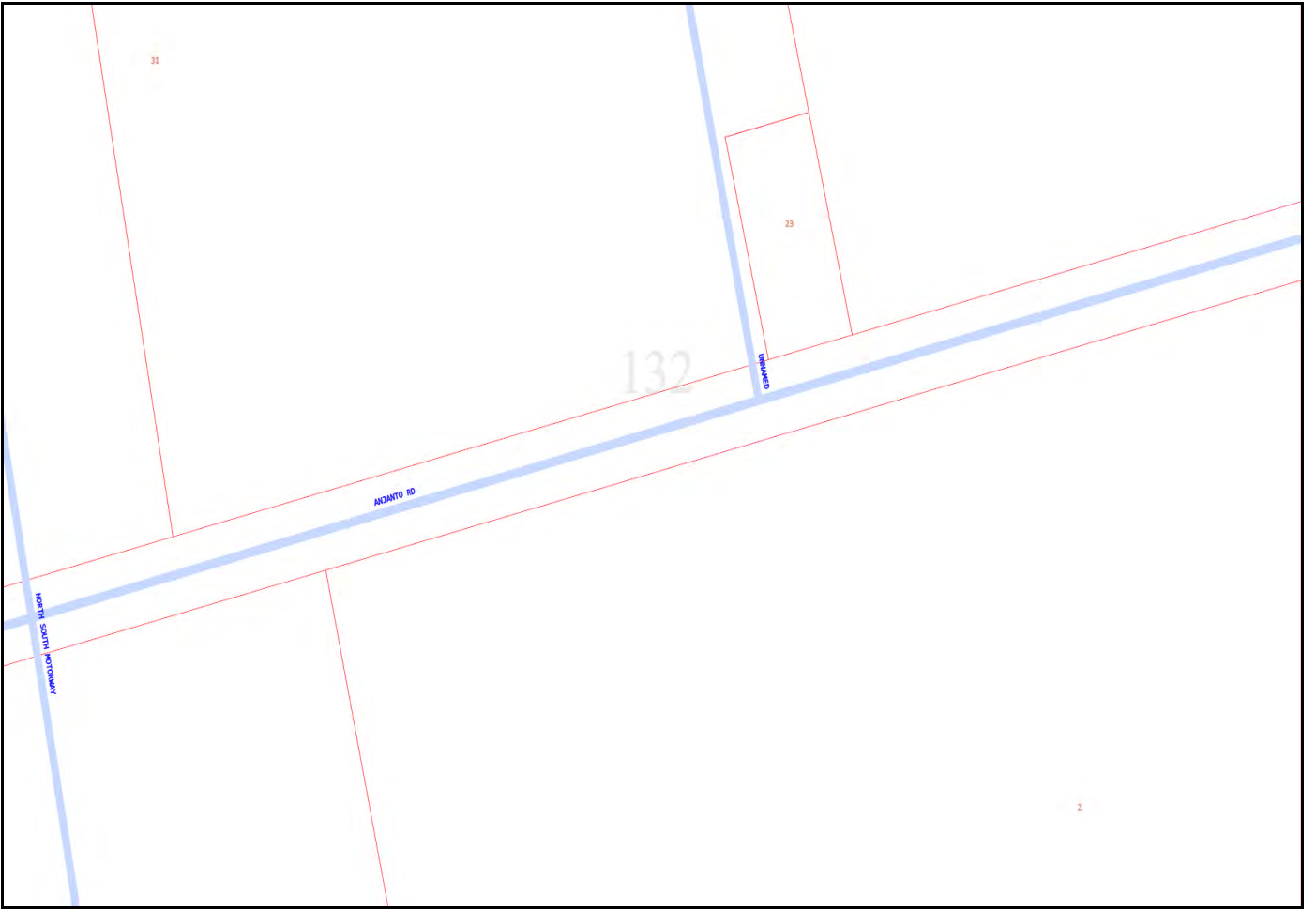


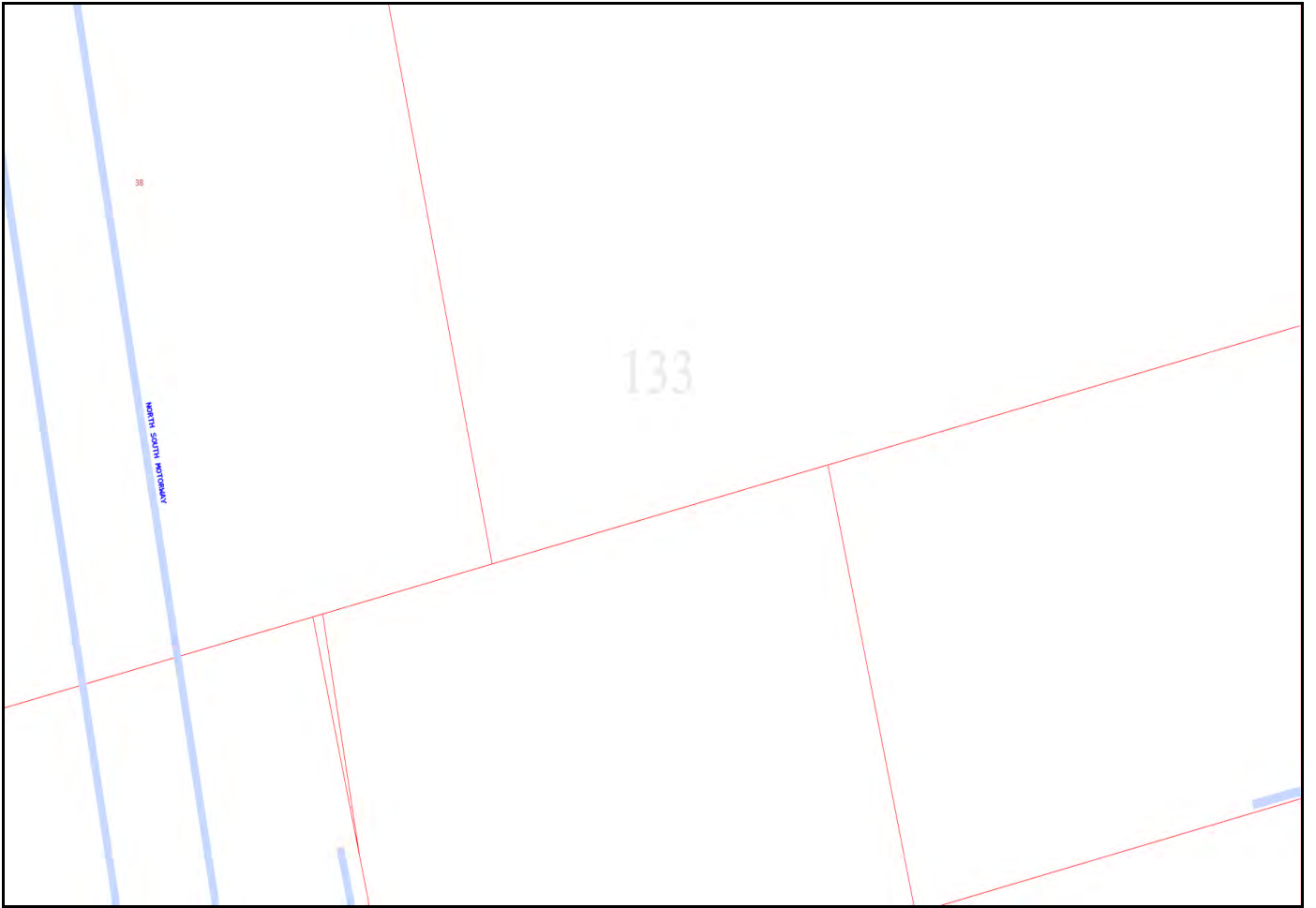


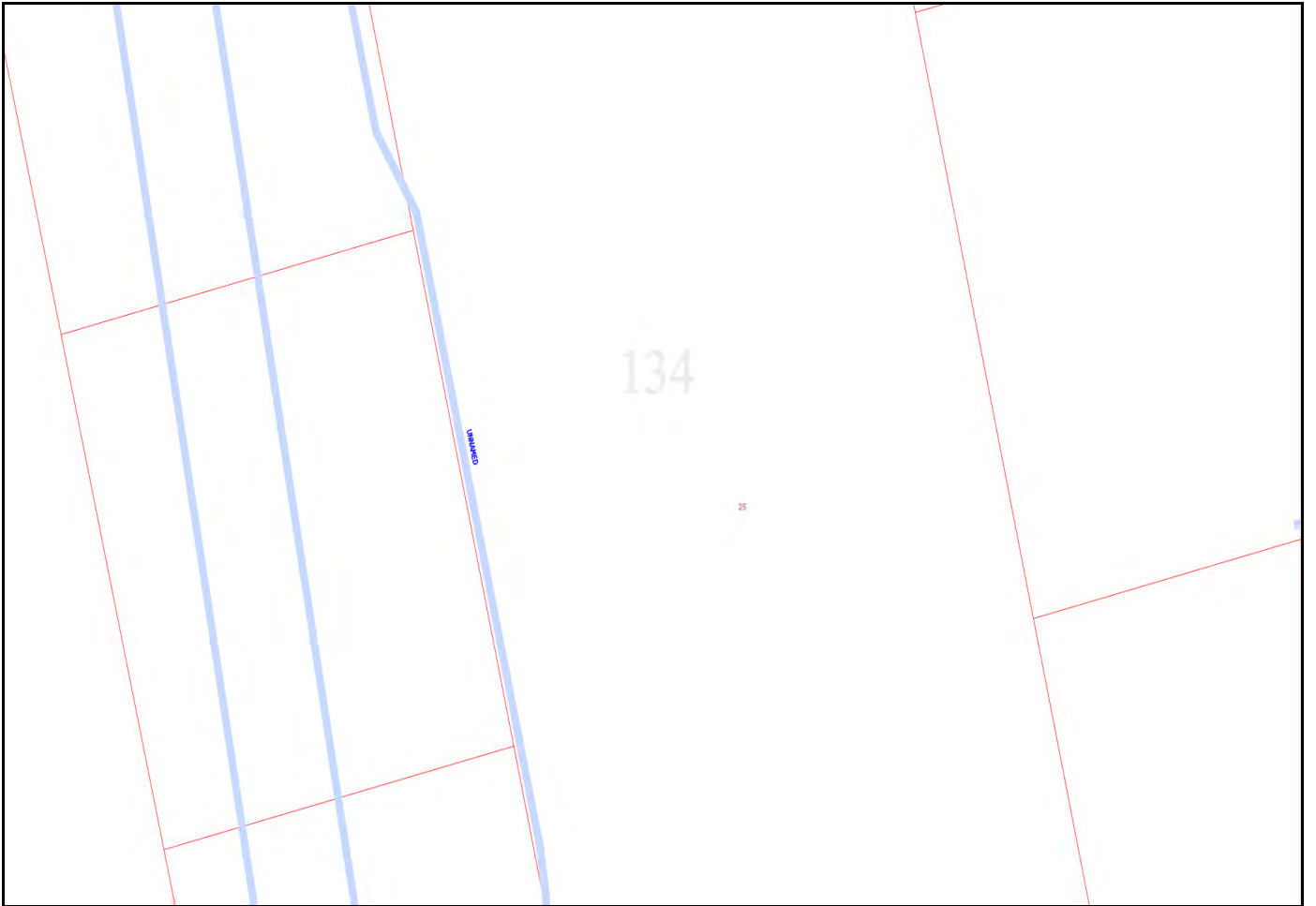


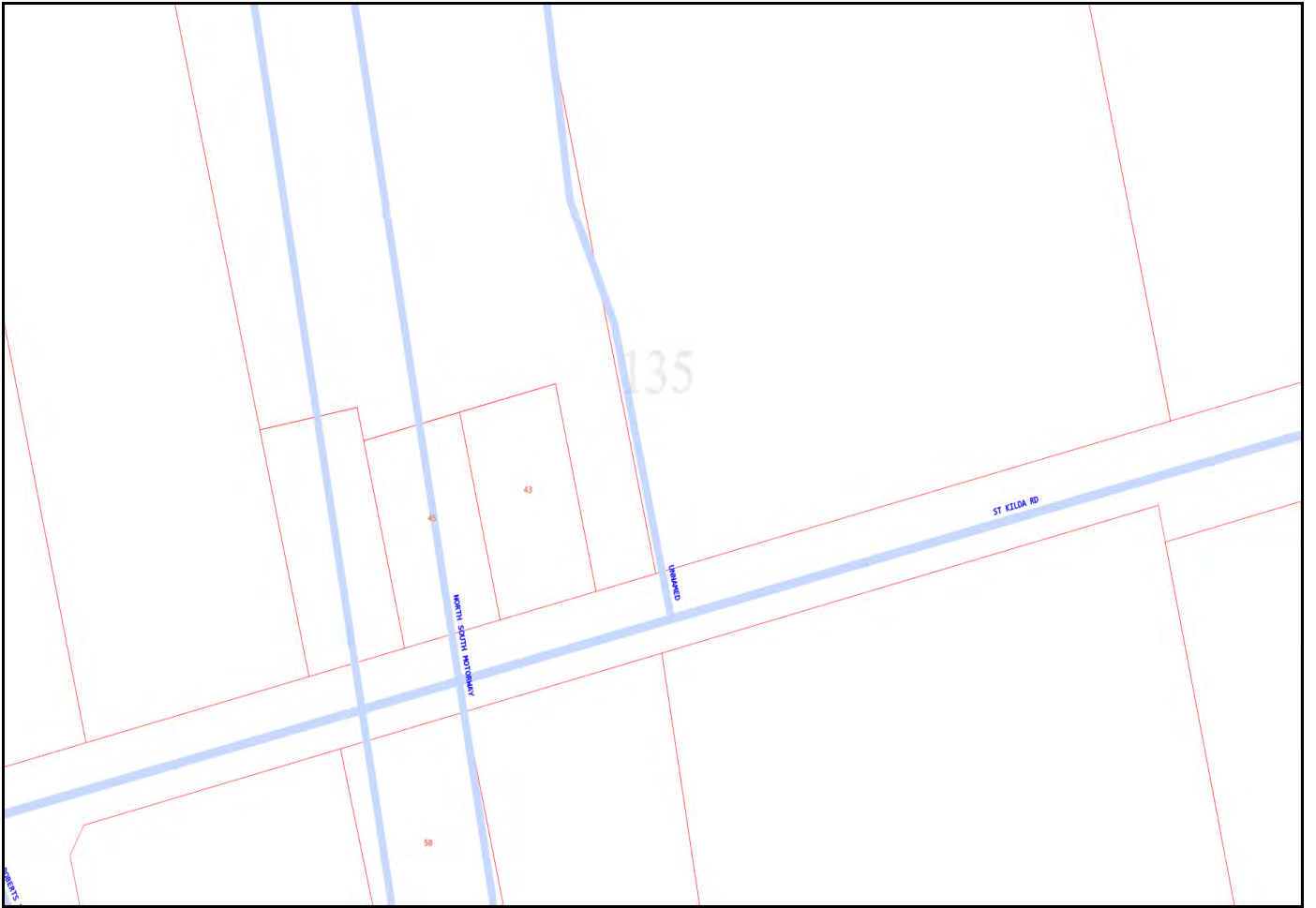




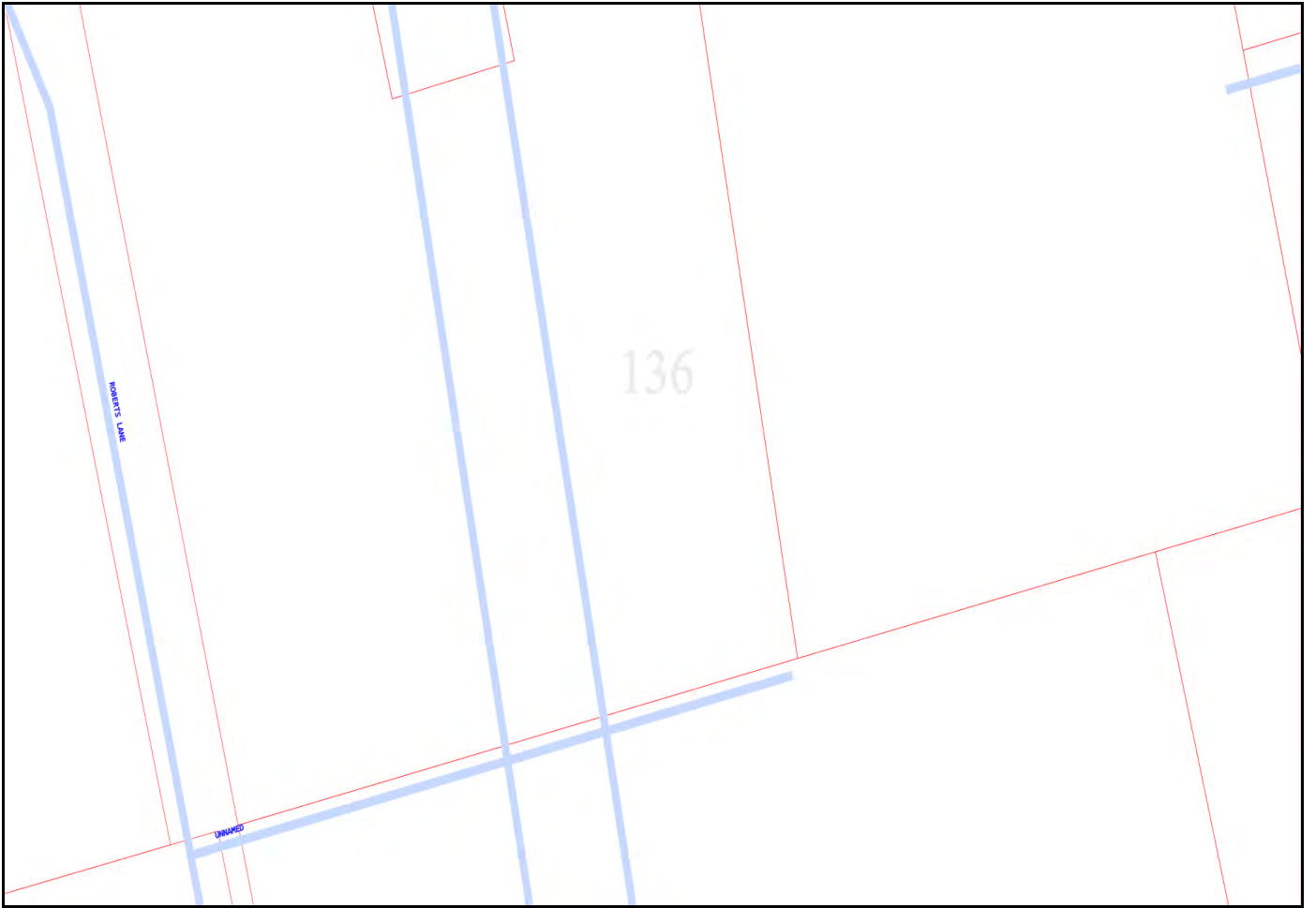


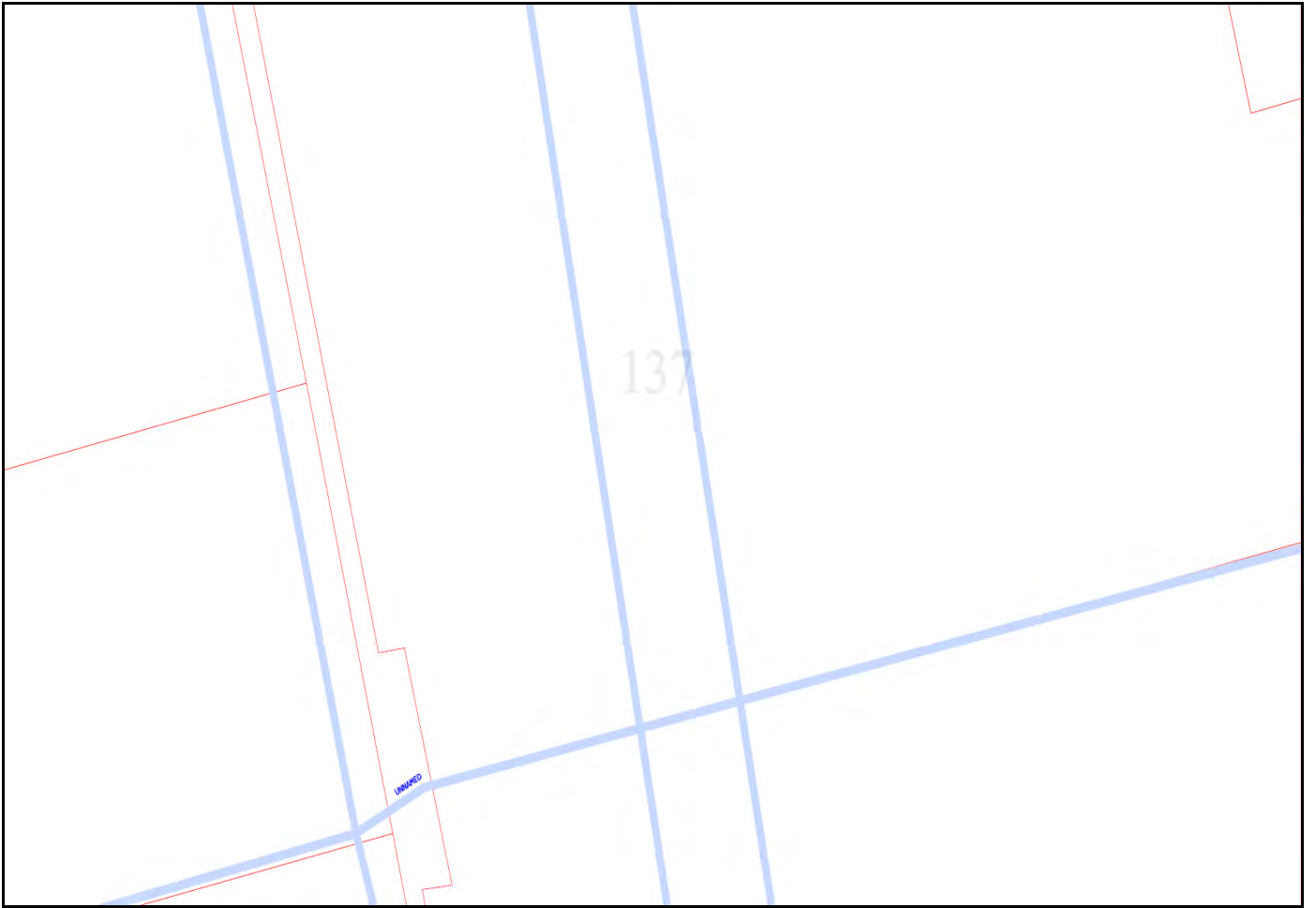


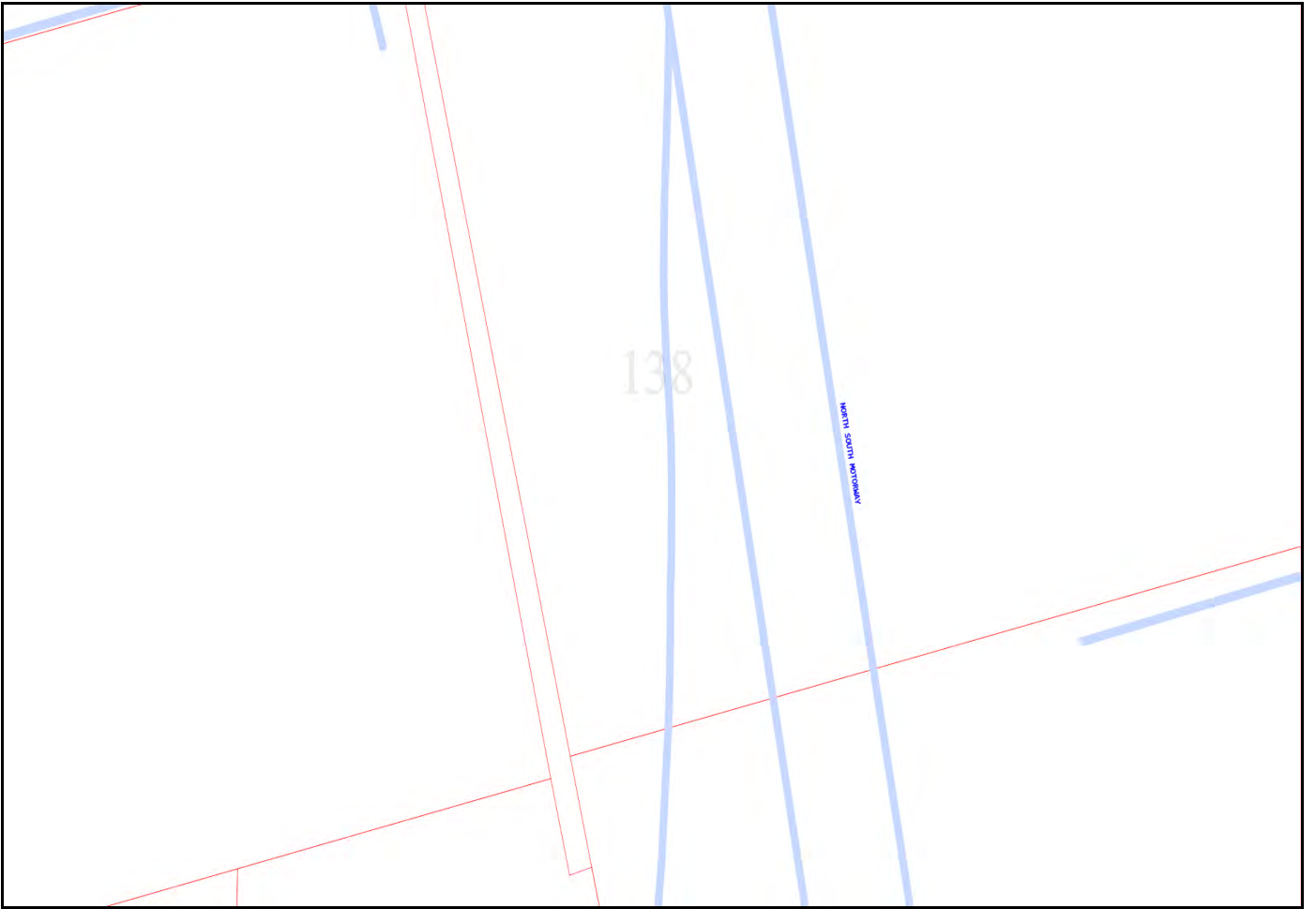


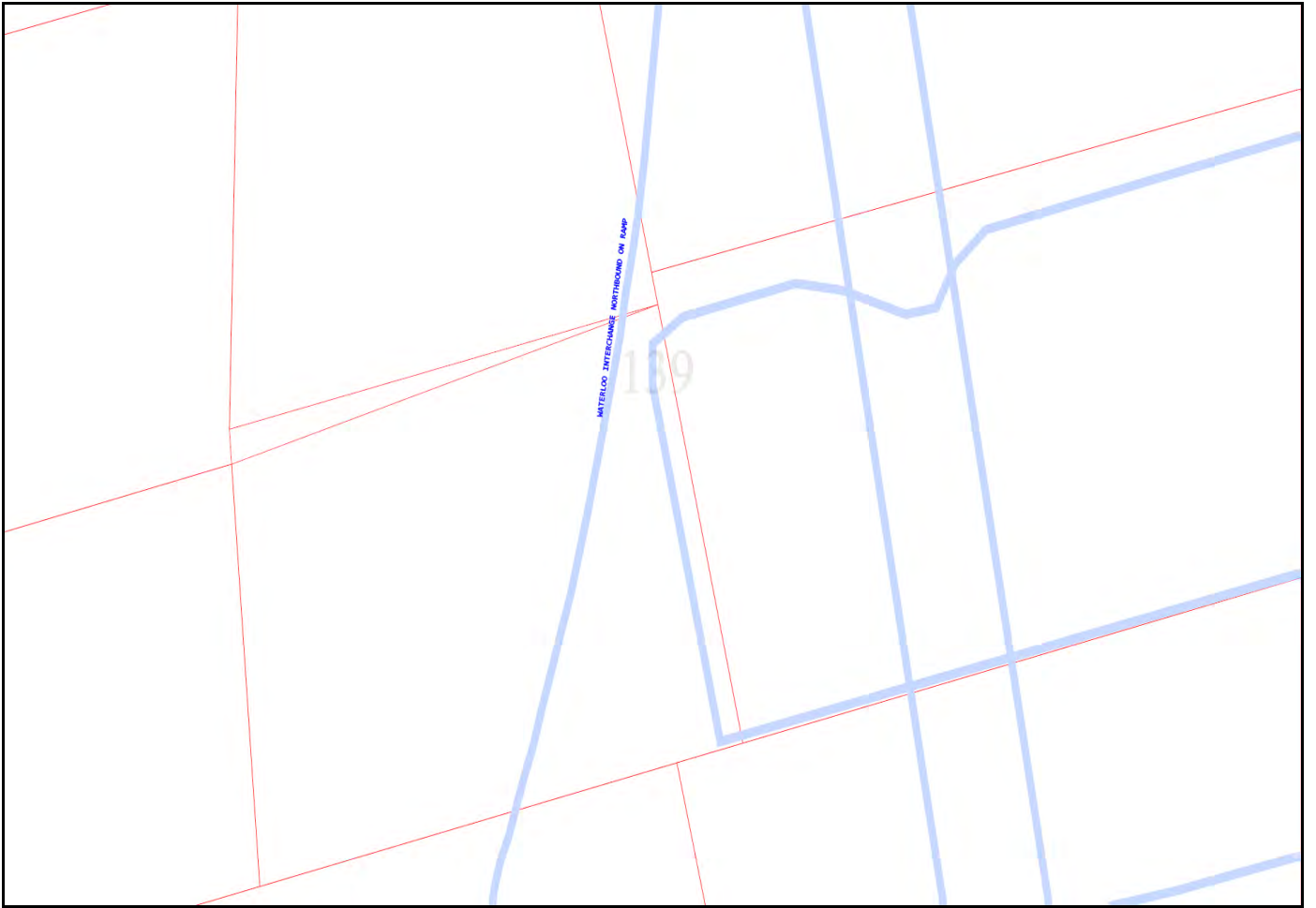




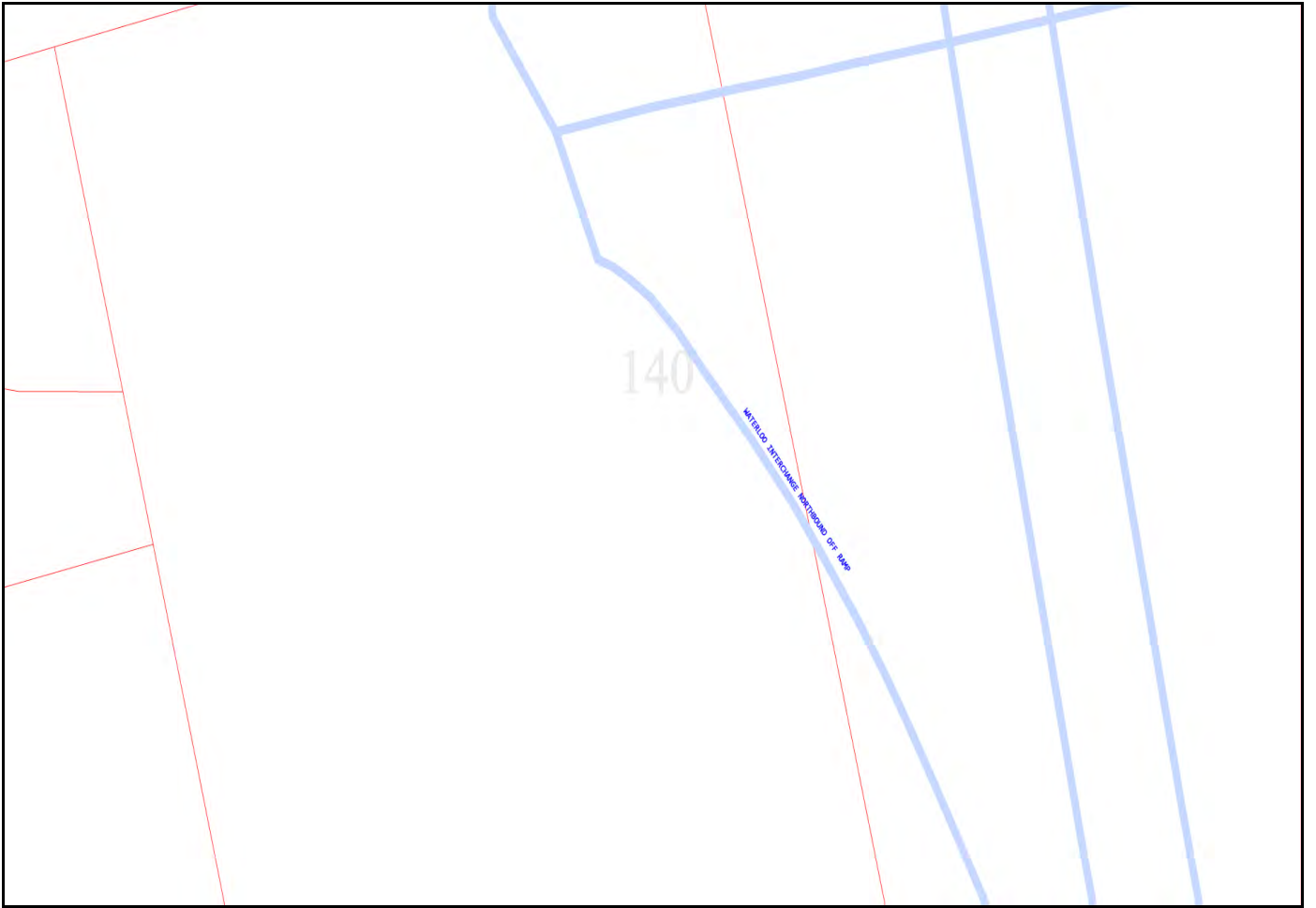


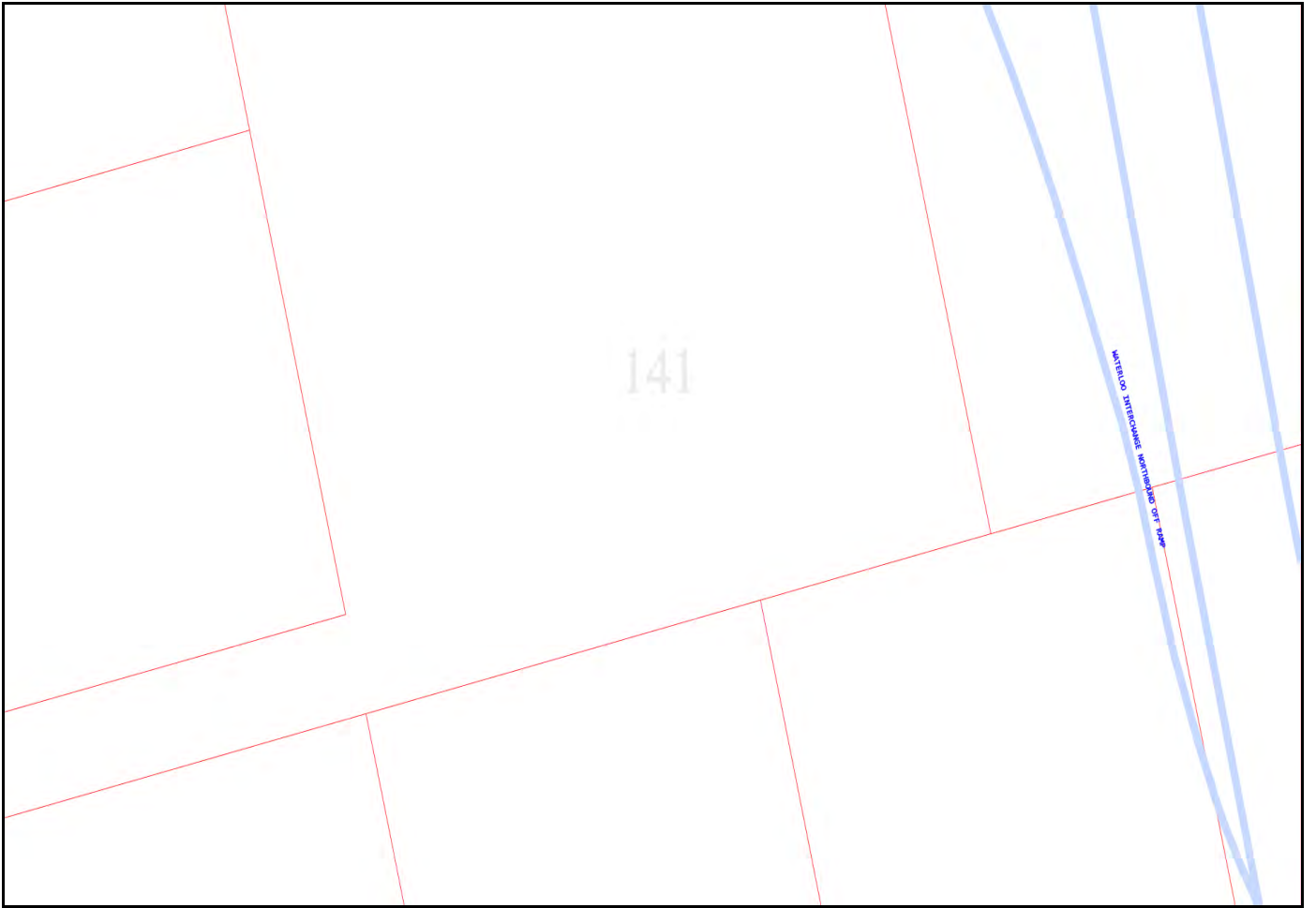


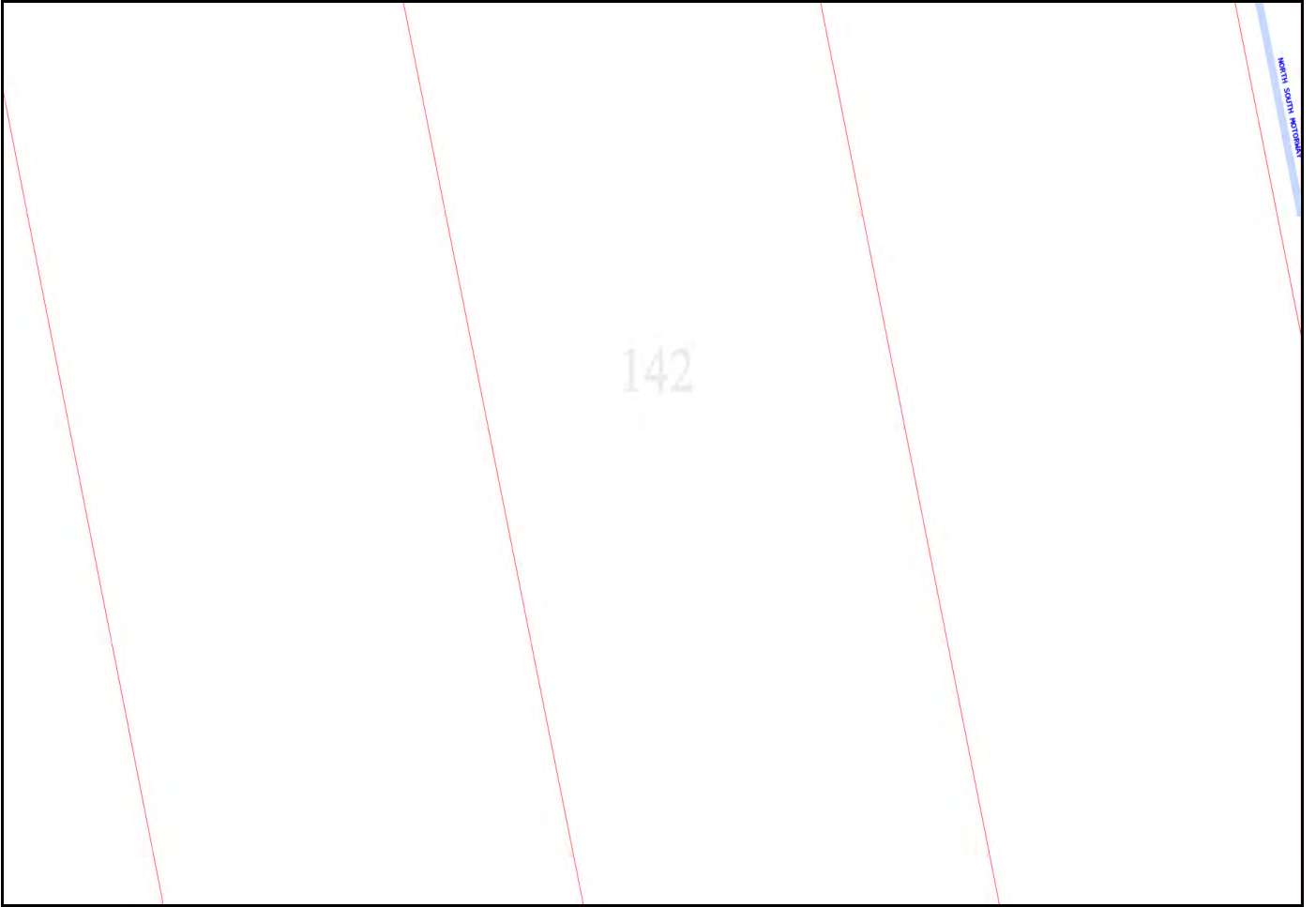


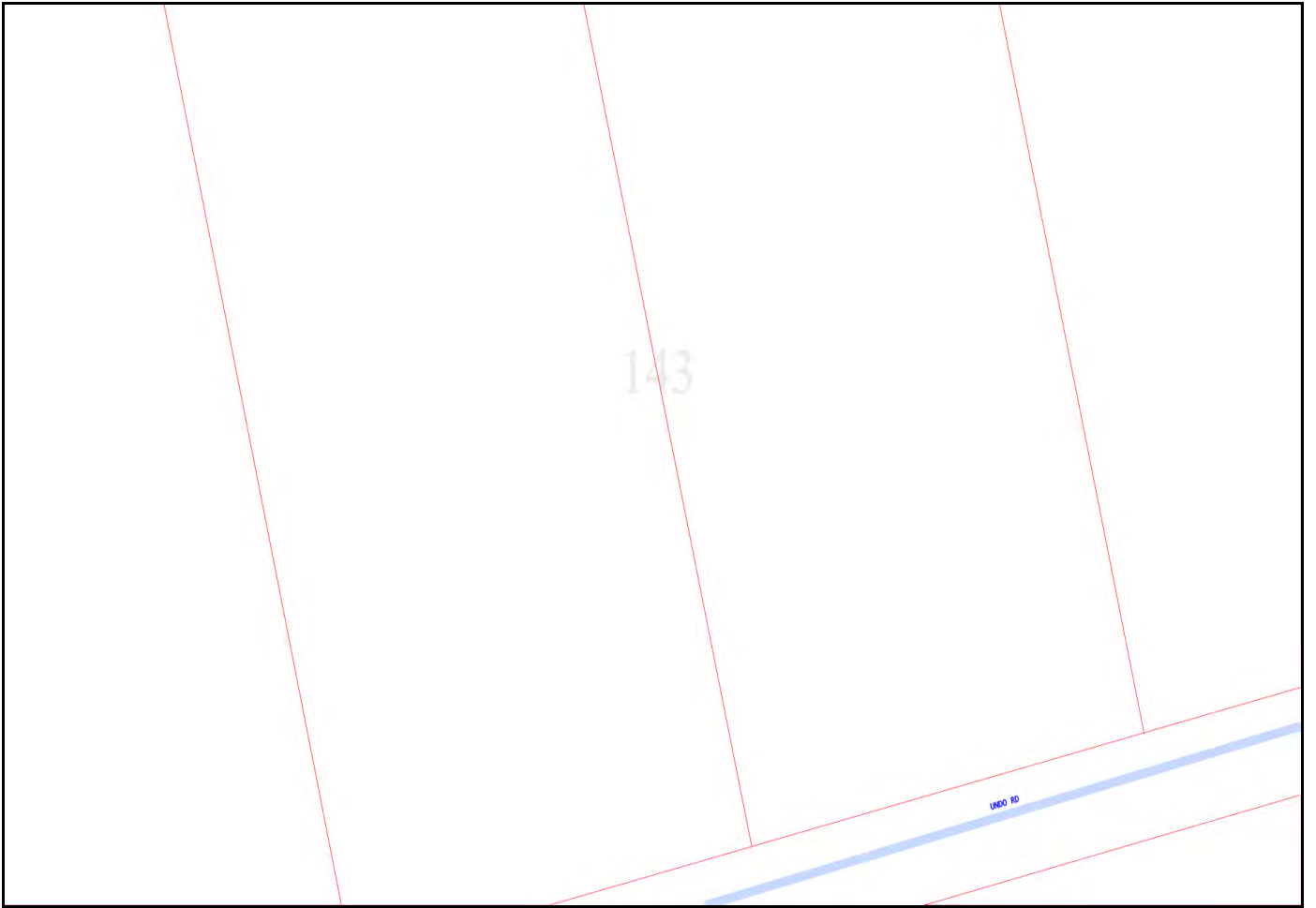















**To:** Karion Dickson-Abbott  
**Phone:** Not Supplied  
**Fax:** Not Supplied  
**Email:** KDickson-Abbott@greenhillaustralia.com.au

|                                   |   |   |
|-----------------------------------|---|---|
| <b>Dial before you dig Job #:</b> | 31721481  |  |
| <b>Sequence #</b>                 | 210057753   |   |
| <b>Issue Date:</b>                | 06/04/2022  |   |
| <b>Location:</b>                  | 79-81 Robinson Road , Waterloo Corner , SA , 5110 |   |

## Information

The area of interest requested by you contains one or more assets.

| <b>nbn™ Assets</b>    | <b>Search Results</b> |
|-----------------------|-----------------------|
| <b>Communications</b> | Asset identified      |
| <b>Electricity</b>    | Asset identified      |

In this notice **nbn™ Facilities** means *underground fibre optic, telecommunications and/or power facilities, including but not limited to cables, owned and controlled by nbn™*

## Location of nbn™ Underground Assets

We thank you for your enquiry. In relation to your enquiry at the above address:

- **nbn's** records indicate that there **ARE nbn™** Facilities in the vicinity of the location identified above ("Location").
- **nbn** indicative plan/s are attached with this notice ("Indicative Plans").
- The Indicative Plan/s show general depth and alignment information only and are not an exact, scale or accurate depiction of the location, depth and alignment of **nbn™** Facilities shown on the Plan/s.
- In particular, the fact that the Indicative Plans show that a facility is installed in a straight line, or at uniform depth along its length cannot be relied upon as evidence that the facility is, in fact, installed in a straight line or at uniform depth.
- You should read the Indicative Plans in conjunction with this notice and in particular, the notes below.
- You should note that, at the present time, the Indicative Plans are likely to be more accurate in showing location of fibre optics and telecommunications cables than power cables. There may be a variation between the line depicted on the Indicative Plans and the location of any power cables. As such, consistent with the notes below, particular care must be taken by you to make your own enquiries and investigations to precisely locate any power cables and manage the risk arising from such cables accordingly.
- The information contained in the Indicative Plan/s is valid for 28 days from the date of issue set out above. You are expected to make your own inquiries and perform your own investigations (including engaging appropriately qualified plant locators, e.g DBYD Certified Locators, at your cost to locate **nbn™**

Facilities during any activities you carry out on site).

We thank you for your enquiry and appreciate your continued use of the Dial Before You Dig Service. For any enquiries related to moving assets or Planning and Design activities, please visit the [nbn Commercial Works](#) website to complete the online application form. If you are planning to excavate and require further information, please email [dbyd@nbnco.com.au](mailto:dbyd@nbnco.com.au) or call 1800 626 329.

#### Notes:

1. You are now aware that there are **nbn**<sup>TM</sup> Facilities in the vicinity of the above property that could be damaged as a result activities carried out (or proposed to be carried out) by you in the vicinity of the Location.
2. You should have regard to section 474.6 and 474.7 of the *Criminal Code Act 1995 (CoA)* which deals with the consequences of interfering or tampering with a telecommunications facility. Only persons authorised by **nbn** can interact with **nbn**'s network facilities.
3. Any information provided is valid only for **28 days** from the date of issue set out above.

## Referral Conditions

The following are conditions on which **nbn** provides you with the Indicative Plans. By accepting the plans, you are agreeing to these conditions. These conditions are in addition, and not in replacement of, any duties and obligations you have under applicable law.

1. **nbn** does not accept any responsibility for any inaccuracies of its plans including the Indicative Plans. You are expected to make your own inquiries and perform your own investigations (including engaging appropriately qualified plant locators, e.g. DBYD Certified Locators, at your cost to locate **nbn**<sup>TM</sup> Facilities during any activities you carry out on site).
2. You acknowledge that **nbn** has specifically notified you above that the Indicative Plans are likely to be more accurate in showing location of fibre optics and telecommunications cables than power cables. There may be a variation between the line depicted on the Indicative Plans and the location of any power cables.
3. You should not assume that **nbn**<sup>TM</sup> Facilities follow straight lines or are installed at uniformed depths along their lengths, even if they are indicated on plans provided to you. Careful onsite investigations are essential to locate the exact position of cables.
4. In carrying out any works in the vicinity of **nbn**<sup>TM</sup> Facilities, you must maintain the following minimum clearances:
  - 300mm when laying assets inline, horizontally or vertically.
  - 500mm when operating vibrating equipment, for example: jackhammers or vibrating plates.
  - 1000mm when operating mechanical excavators.
  - Adherence to clearances as directed by other asset owner's instructions and take into account any uncertainty for power cables.
5. You are aware that there are inherent risks and dangers associated with carrying out work in the vicinity of underground facilities (such as **nbn**<sup>TM</sup> fibre optic, copper and coaxial cables, and power cable feed to **nbn**<sup>TM</sup> assets). Damage to underground electric cables may result in:
  - Injury from electric shock or severe burns, with the possibility of death.
  - Interruption of the electricity supply to wide areas of the city.
  - Damage to your excavating plant.
  - Responsibility for the cost of repairs.
6. You must take all reasonable precautions to avoid damaging **nbn**<sup>TM</sup> Facilities. These precautions may include but not limited to the following:
  - All excavation sites should be examined for underground cables by careful hand excavation. Cable cover slabs if present must not be disturbed. Hand excavation needs to be undertaken with extreme care to minimise the likelihood of damage to the cable, for example: the blades of hand equipment should be aligned parallel to the line of the cable rather than digging across the cable.
  - If any undisclosed underground cables are located, notify **nbn** immediately.

- All personnel must be properly briefed, particularly those associated with the use of earth-moving equipment, trenching, boring and pneumatic equipment.
  - The safety of the public and other workers must be ensured.
  - All excavations must be undertaken in accordance with all relevant legislation and regulations.
7. You will be responsible for all damage to **nbn**<sup>TM</sup> Facilities that are connected whether directly, or indirectly with work you carry out (or work that is carried out for you or on your behalf) at the Location. This will include, without limitation, all losses expenses incurred by **nbn** as a result of any such damage.
  8. You must immediately report any damage to the **nbn**<sup>TM</sup> network that you are/become aware of. Notification may be by telephone - 1800 626 329.
  9. Except to the extent that liability may not be capable of lawful exclusion, **nbn** and its servants and agents and the related bodies corporate of **nbn** and their servants and agents shall be under no liability whatsoever to any person for any loss or damage (including indirect or consequential loss or damage) however caused (including, without limitation, breach of contract negligence and/or breach of statute) which may be suffered or incurred from or in connection with this information sheet or any plans(including Indicative Plans) attached hereto. Except as expressly provided to the contrary in this information sheet or the attached plans(including Indicative Plans), all terms, conditions, warranties, undertakings or representations (whether expressed or implied) are excluded to the fullest extent permitted by law.

All works undertaken shall be in accordance with all relevant legislations, acts and regulations applicable to the particular state or territory of the Location. The following table lists all relevant documents that shall be considered and adhered to.

| State/Territory | Documents  |
|-----------------|--|
| <b>National</b> | Work Health and Safety Act 2011  |
|                 | Work Health and Safety Regulations 2011  |
|                 | Safe Work Australia - Working in the Vicinity of Overhead and Underground Electric Lines (Draft) |
|                 | Occupational Health and Safety Act 1991  |
| <b>NSW</b>      | Electricity Supply Act 1995  |
|                 | Work Cover NSW - Work Near Underground Assets Guide  |
|                 | Work Cover NSW - Excavation Work: Code of Practice   |
| <b>VIC</b>      | Electricity Safety Act 1998  |
|                 | Electricity Safety (Network Asset) Regulations 1999  |
| <b>QLD</b>      | Electrical Safety Act 2002   |
|                 | Code of Practice for Working Near Exposed Live Parts   |
| <b>SA</b>       | Electricity Act 1996   |
| <b>TAS</b>      | Tasmanian Electricity Supply Industry Act 1995   |
| <b>WA</b>       | Electricity Act 1945   |
|                 | Electricity Regulations 1947   |
| <b>NT</b>       | Electricity Reform Act 2005  |
|                 | Electricity Reform (Safety and Technical) Regulations 2005                                       |
| <b>ACT</b>      | Electricity Act 1971   |

Thank You,

**nbn DBYD**


Date: 06/04/2022

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To: Karion Dickson-Abbott  
 Phone: Not Supplied  
 Fax: Not Supplied  
 Email: KDickson-Abbott@greenhillaustralia.com.au

|                            |   |   |
|----------------------------|---|---|
| Dial before you dig Job #: | 31721481  |  |
| Sequence #                 | 210057753   |   |
| Issue Date:                | 06/04/2022  |   |
| Location:                  | 79-81 Robinson Road , Waterloo Corner , SA , 5110 |   |






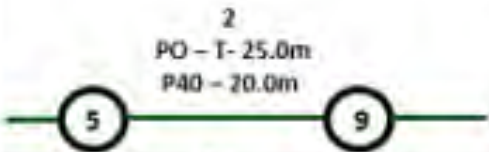
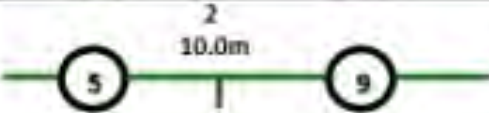





**Indicative Plans**

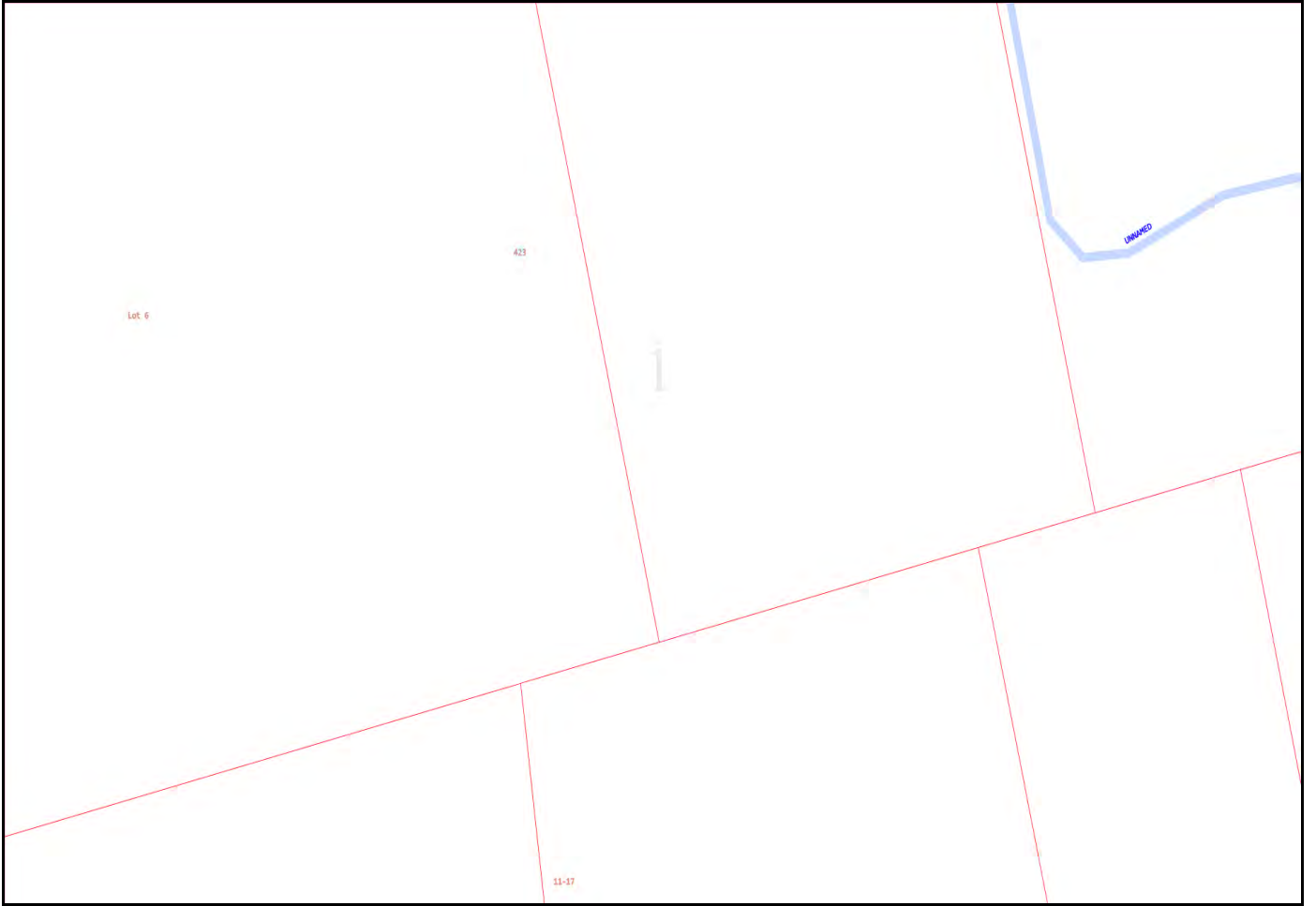
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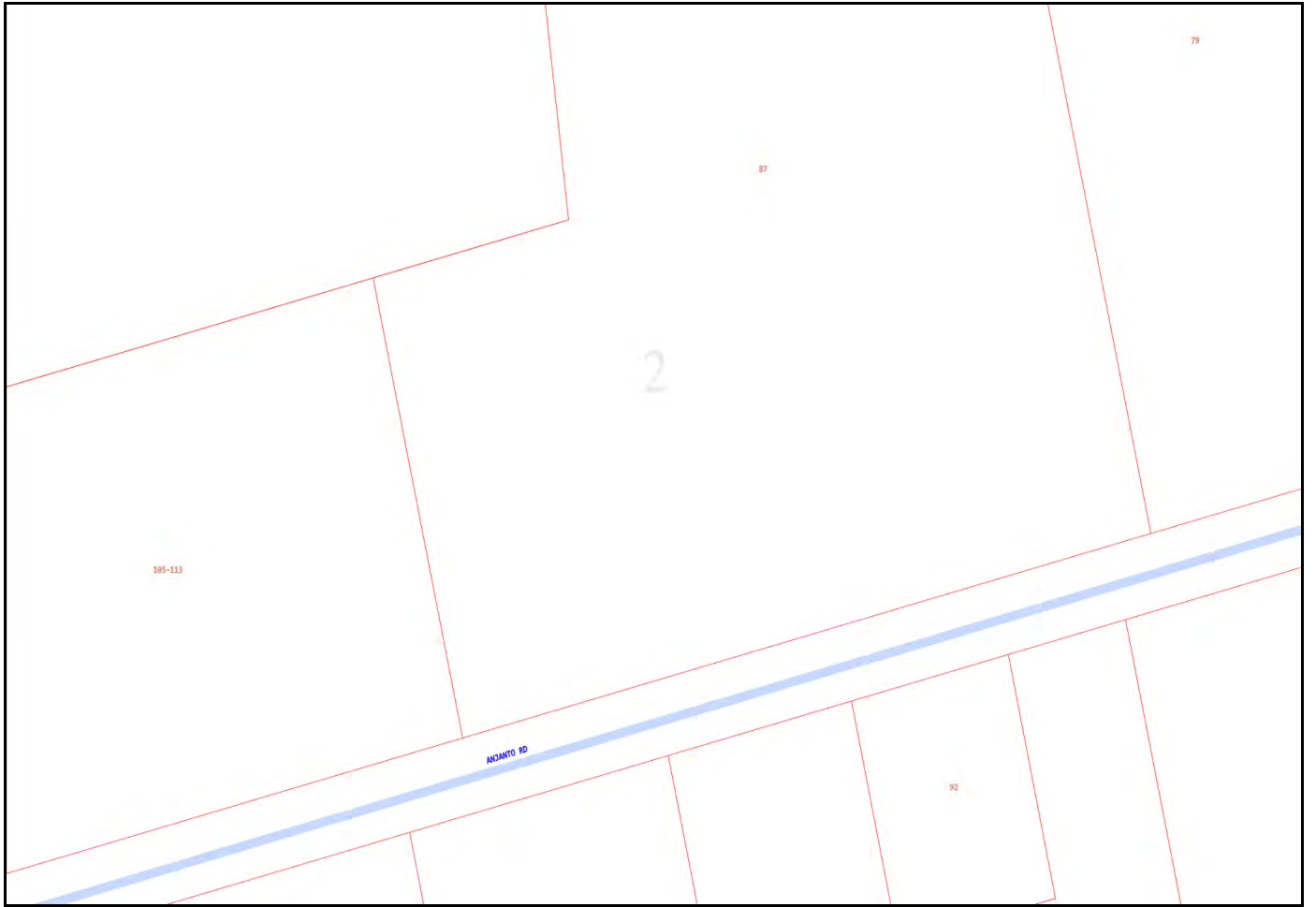


## LEGEND

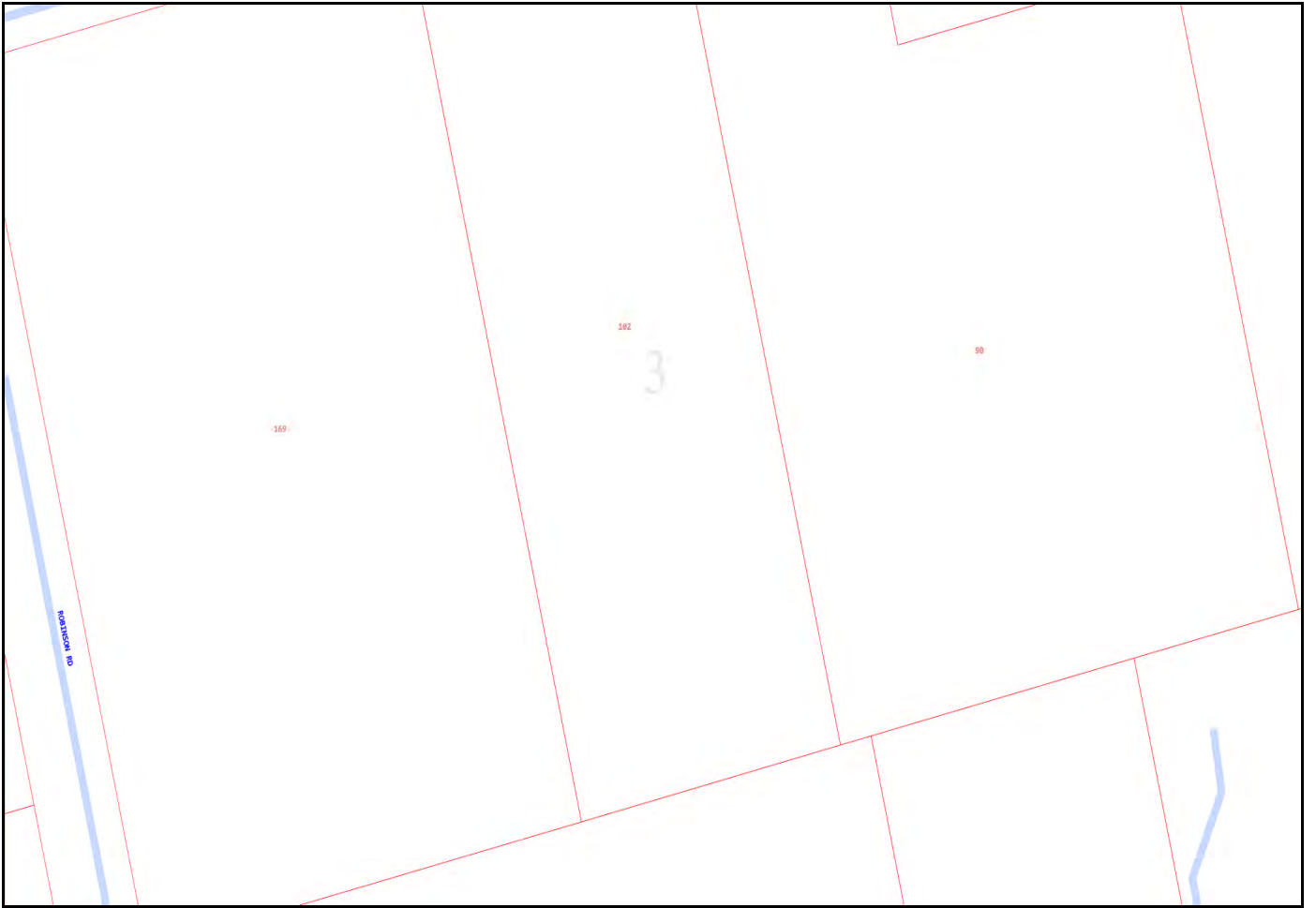


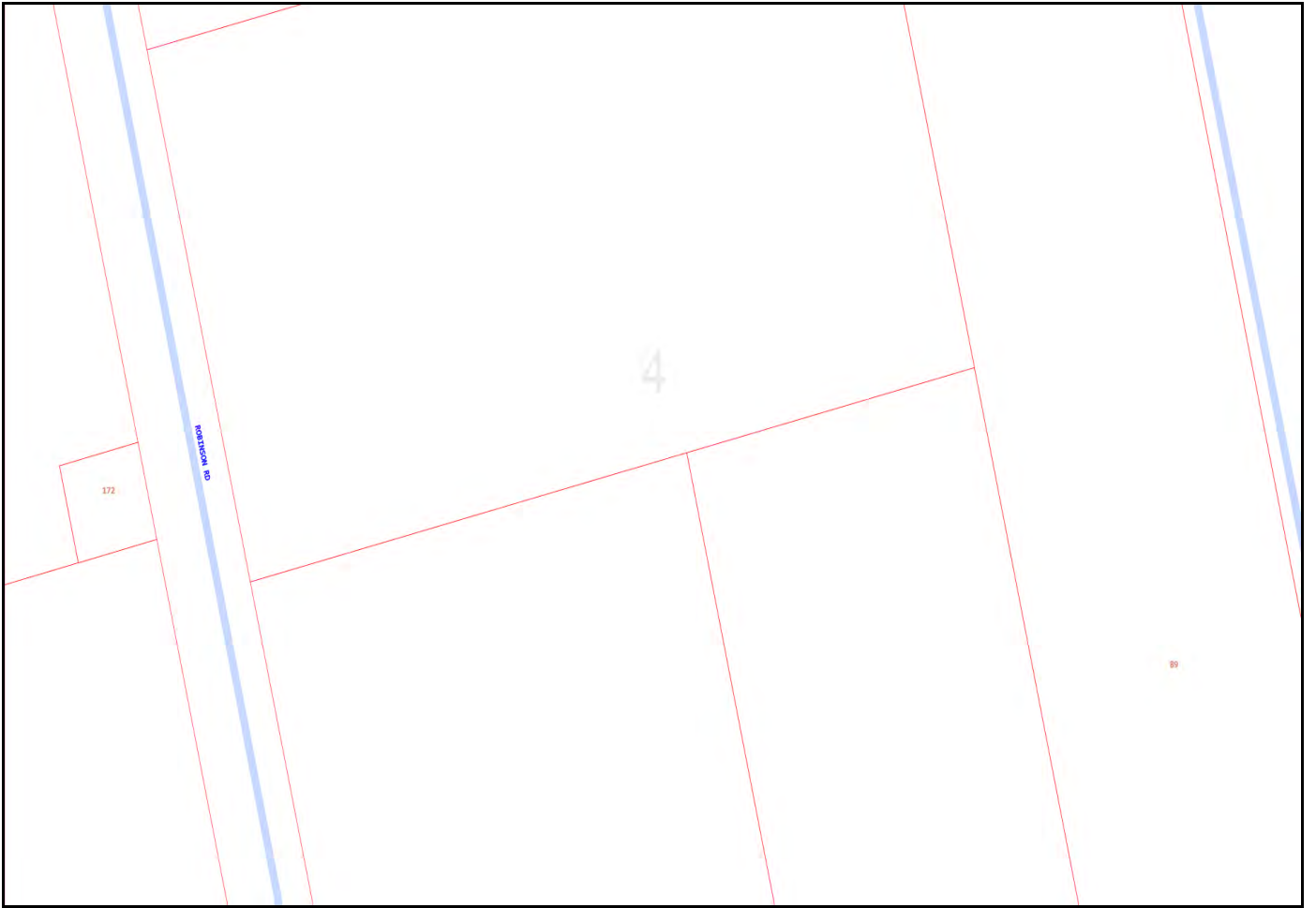
|   |  |
|---|--|
|    | Parcel and the location  |
|    | Pit with size "5"  |
|    | Power Pit with size "2E".<br>Valid PIT Size: e.g. 2E, 5E, 6E, 8E, 9E, E, null.   |
|    | Manhole  |
|   | Pillar   |
|  | Cable count of trench is 2.<br>One "Other size" PVC conduit (PO) owned by Telstra (-T-), between pits of sizes, "5" and "9" are 25.0m apart.<br>One 40mm PVC conduit (P40) owned by NBN, between pits of sizes, "5" and "9" are 20.0m apart. |
|  | 2 Direct buried cables between pits of sizes, "5" and "9" are 10.0m apart.   |
|  | Trench containing any <b>INSERVICE/CONSTRUCTED</b> (Copper/RF/Fibre) cables.   |
|  | Trench containing only <b>DESIGNED/PLANNED</b> (Copper/RF/Fibre/Power) cables.   |
|  | Trench containing any <b>INSERVICE/CONSTRUCTED</b> (Power) cables.   |
|  | Road and the street name "Broadway ST"   |
| Scale   | 0 20 40 60 Meters<br>1:2000<br>1 cm equals 20 m<br>   |

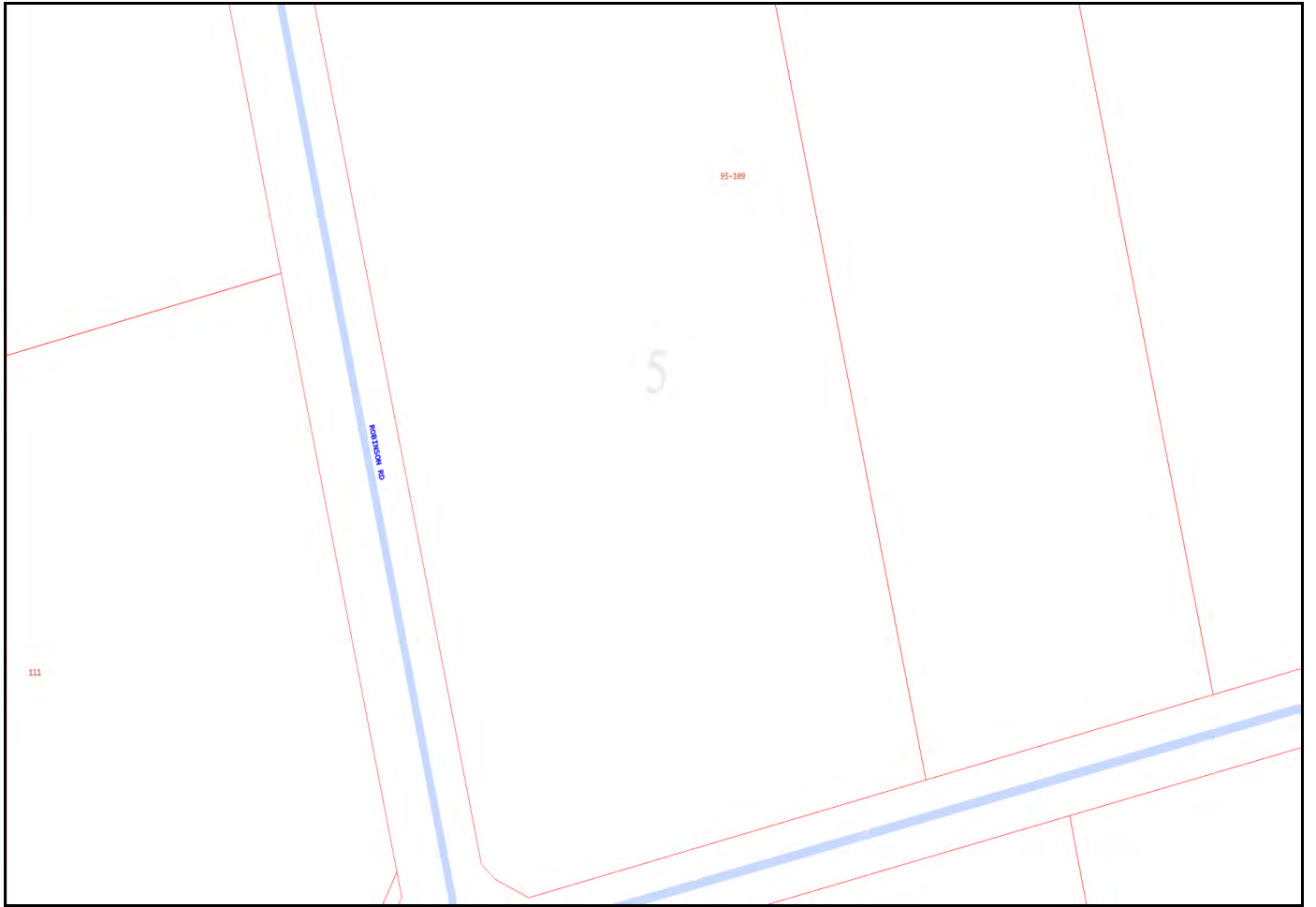


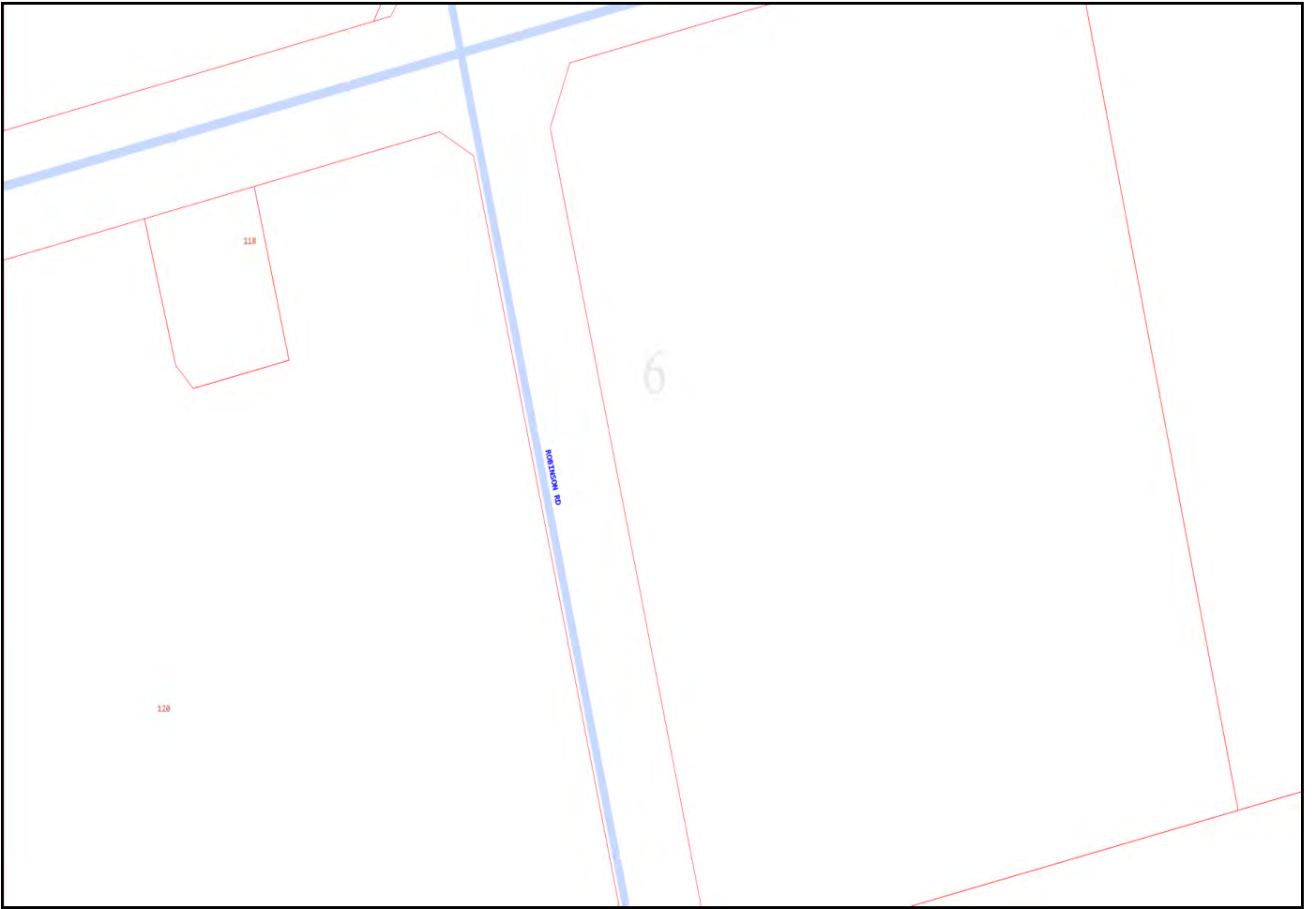




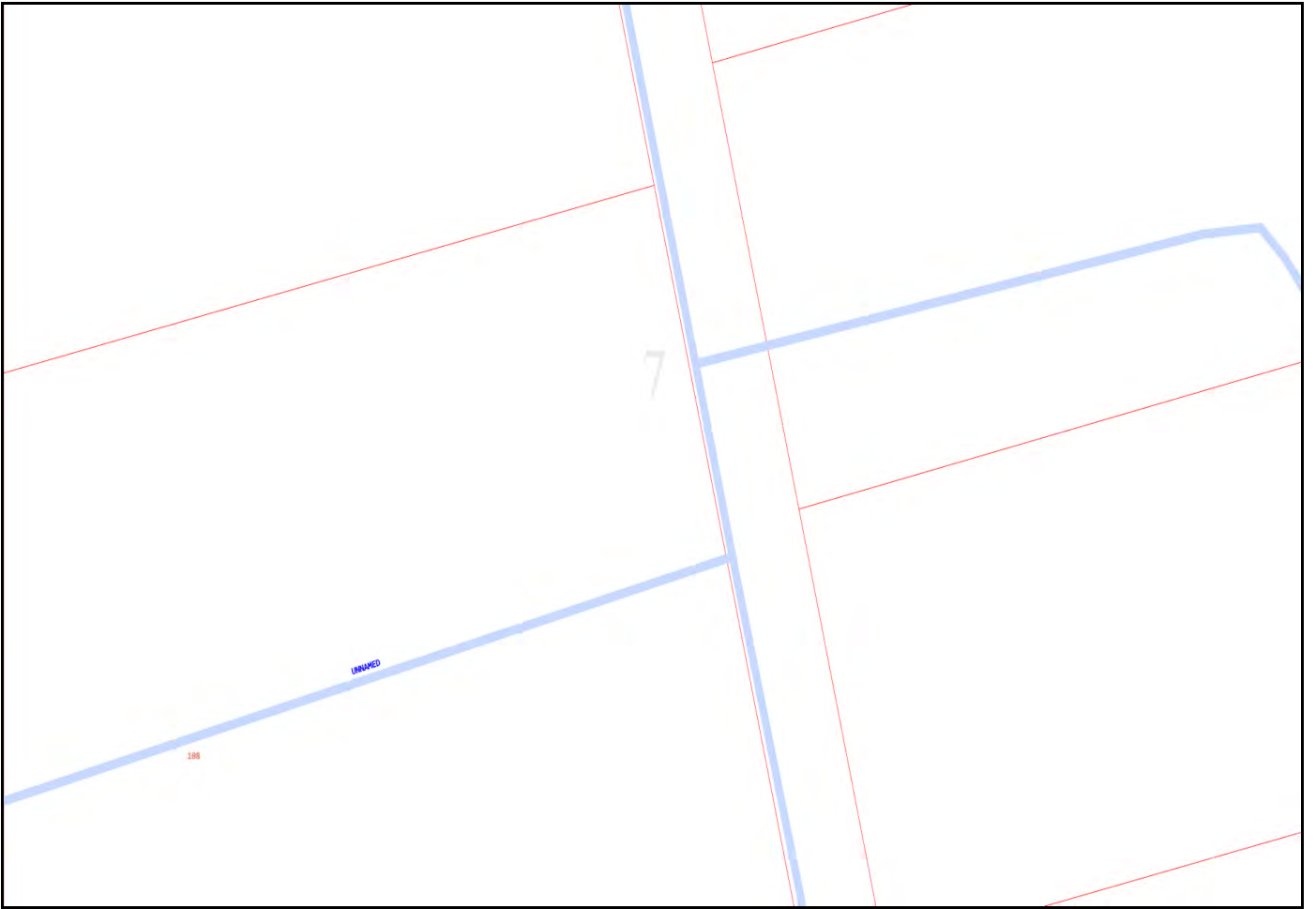


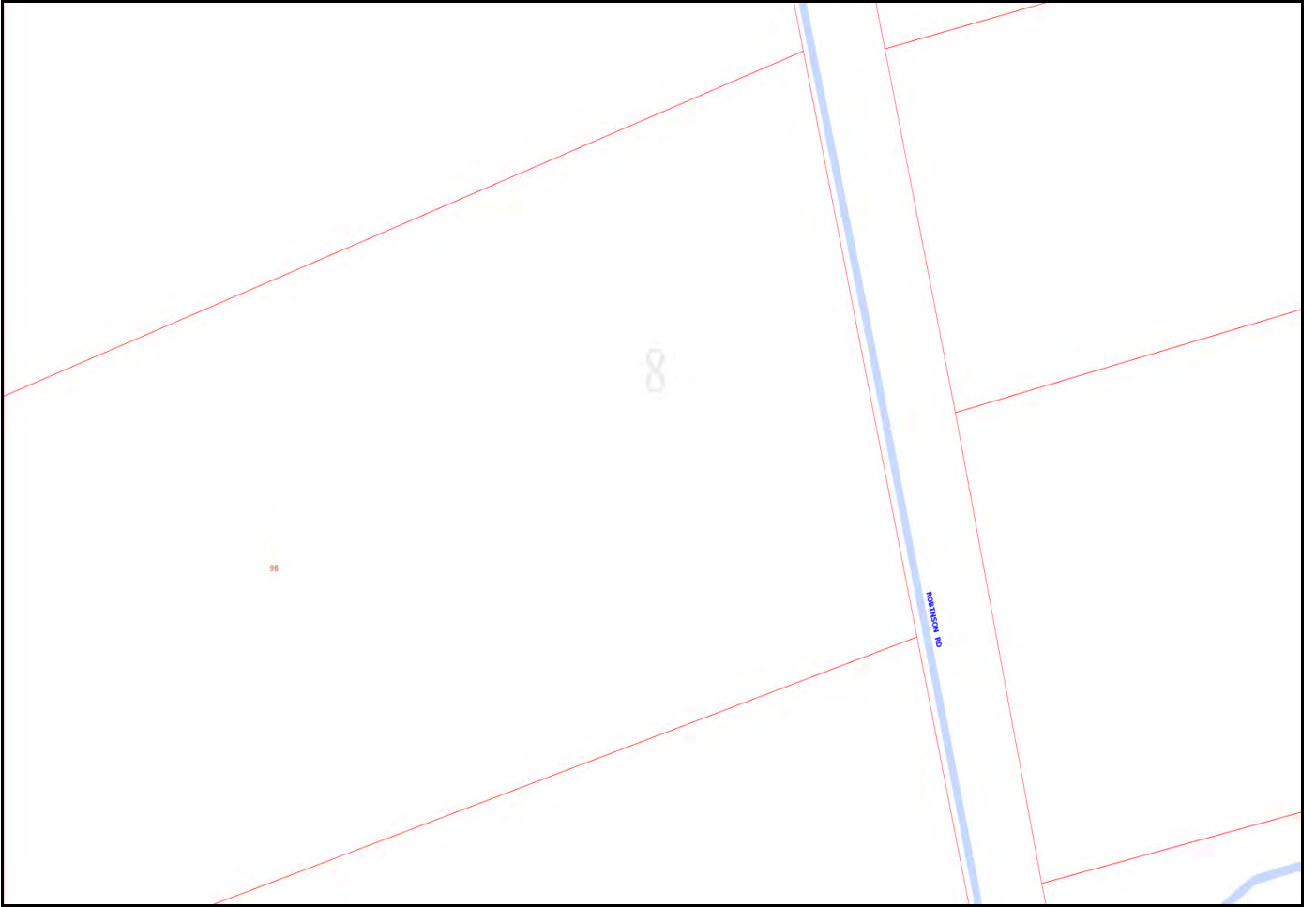


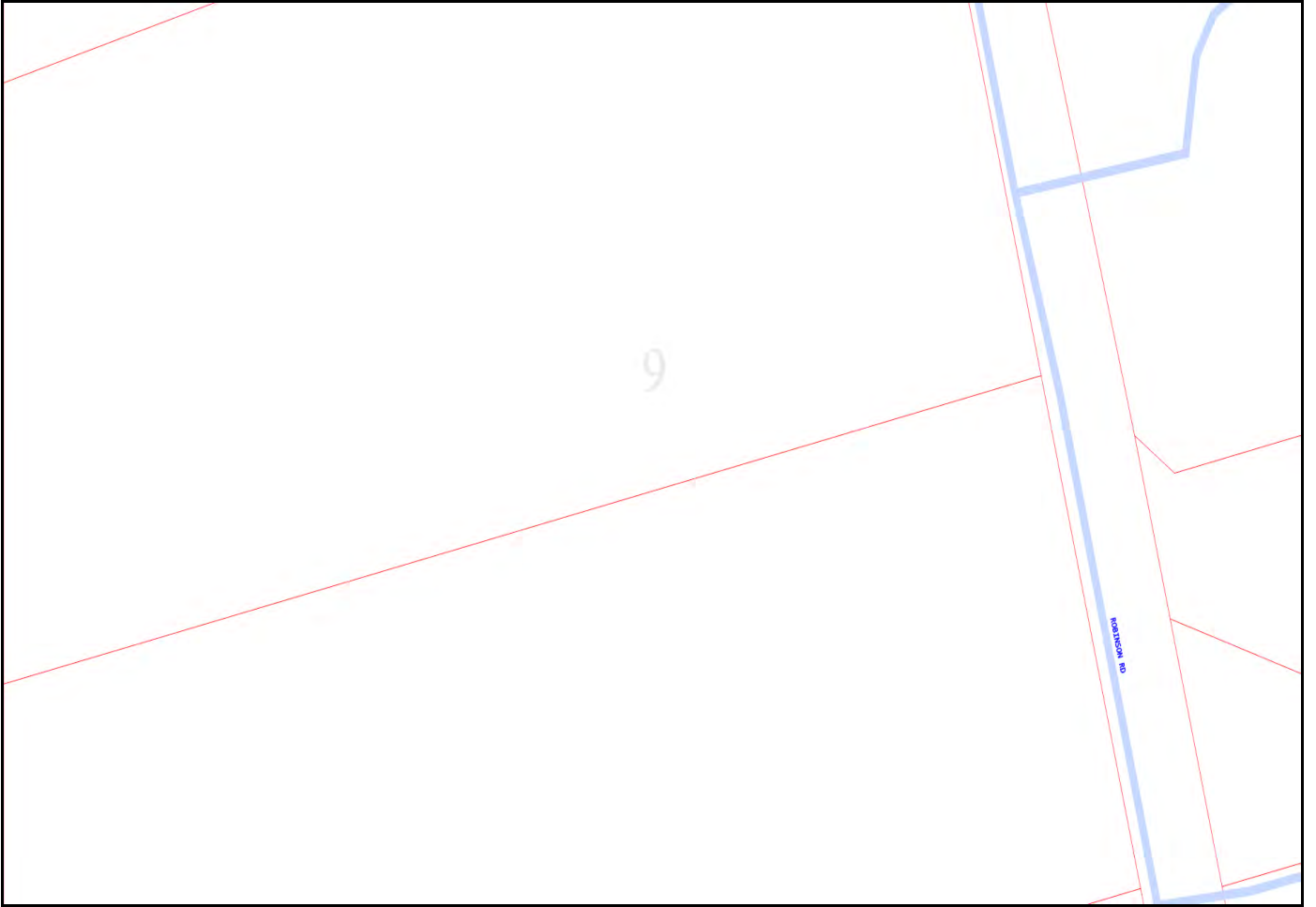


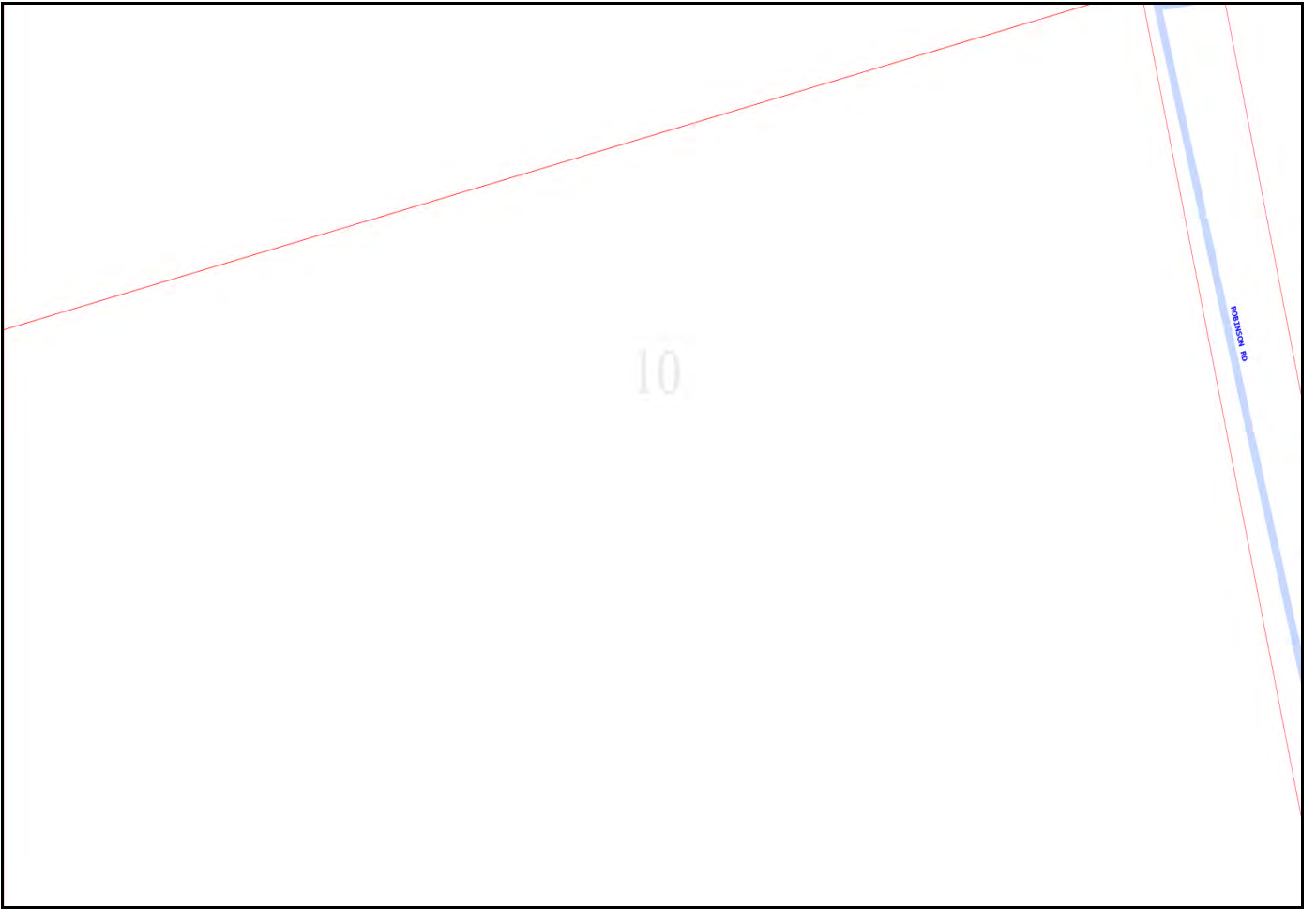






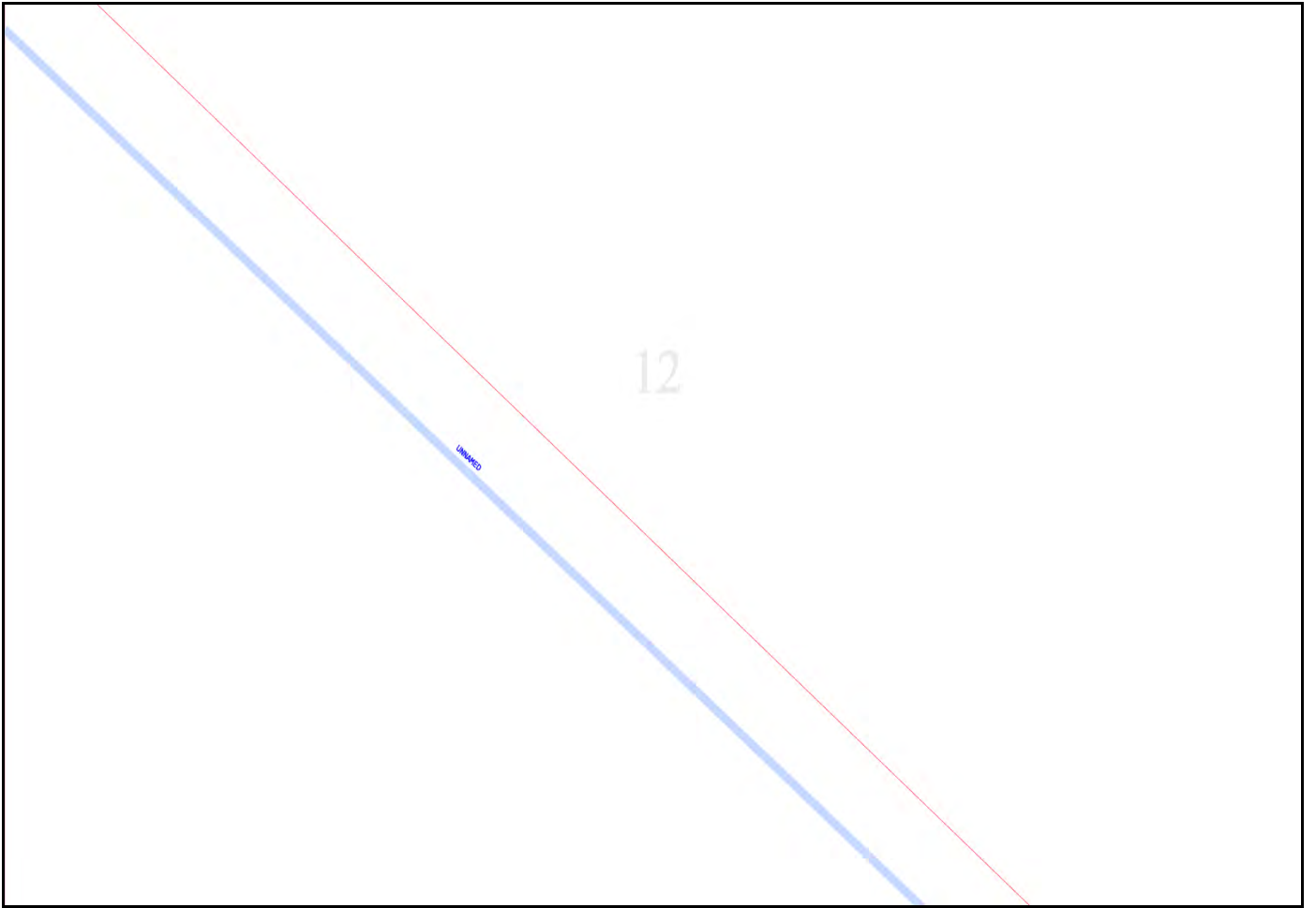






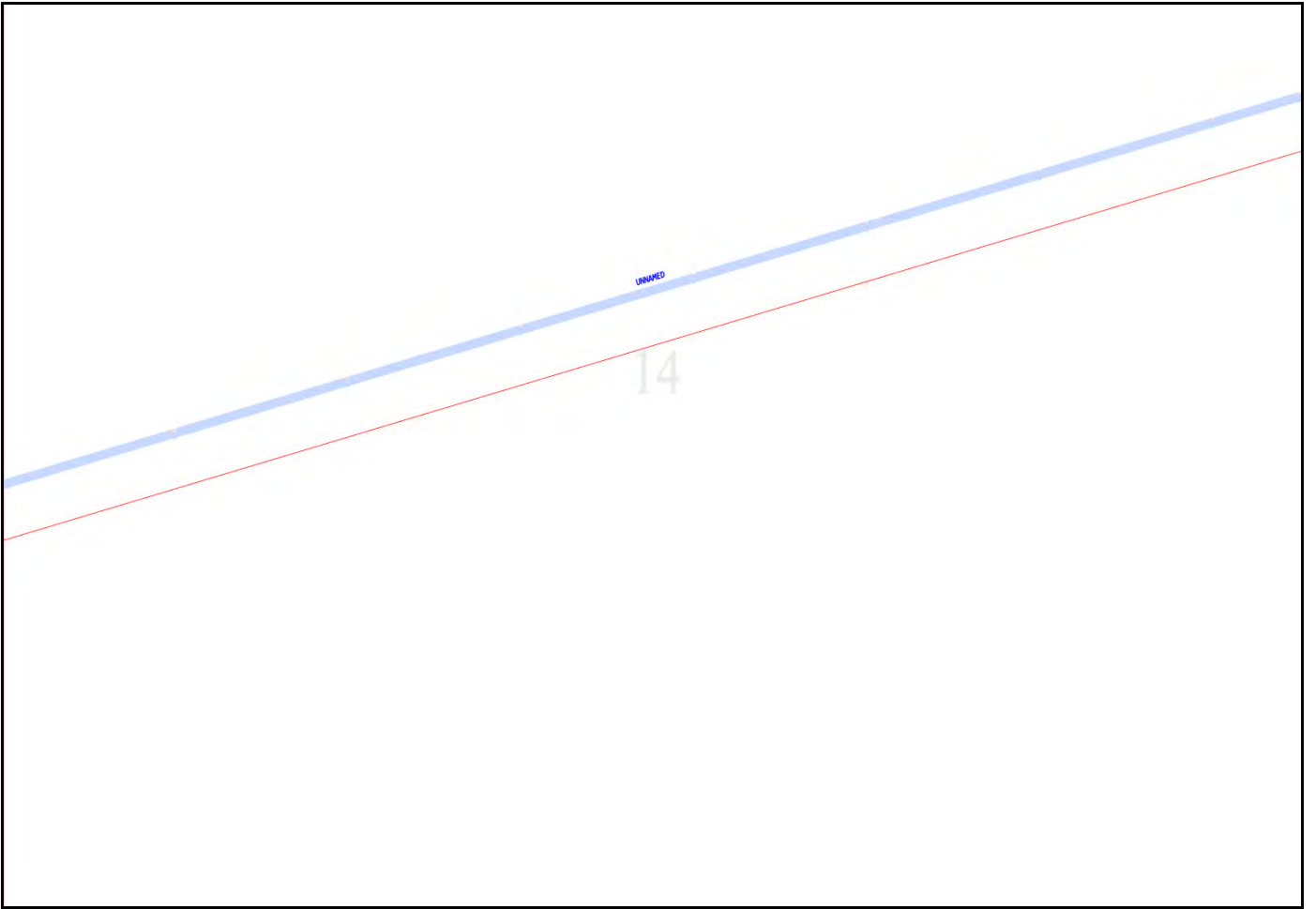






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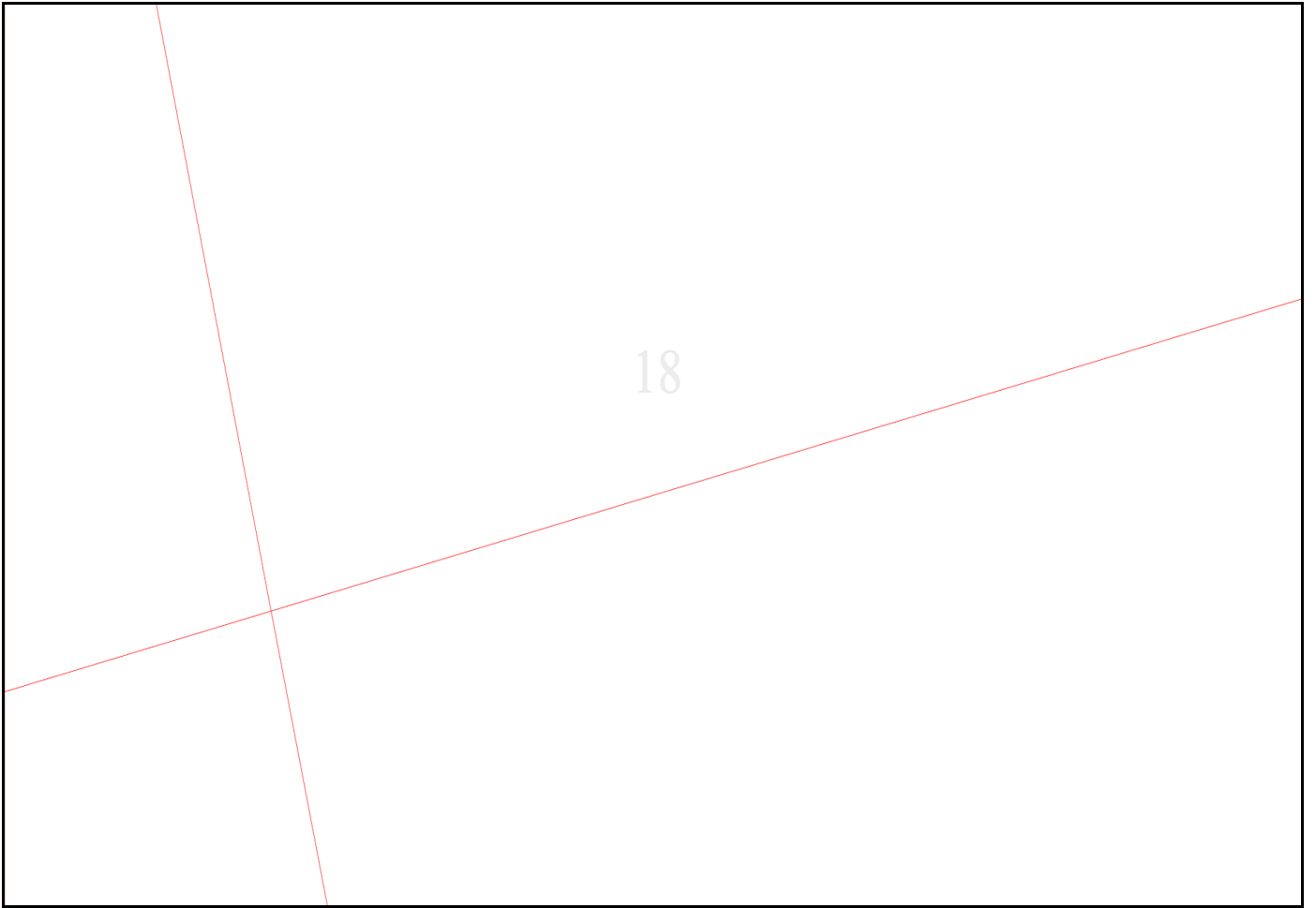








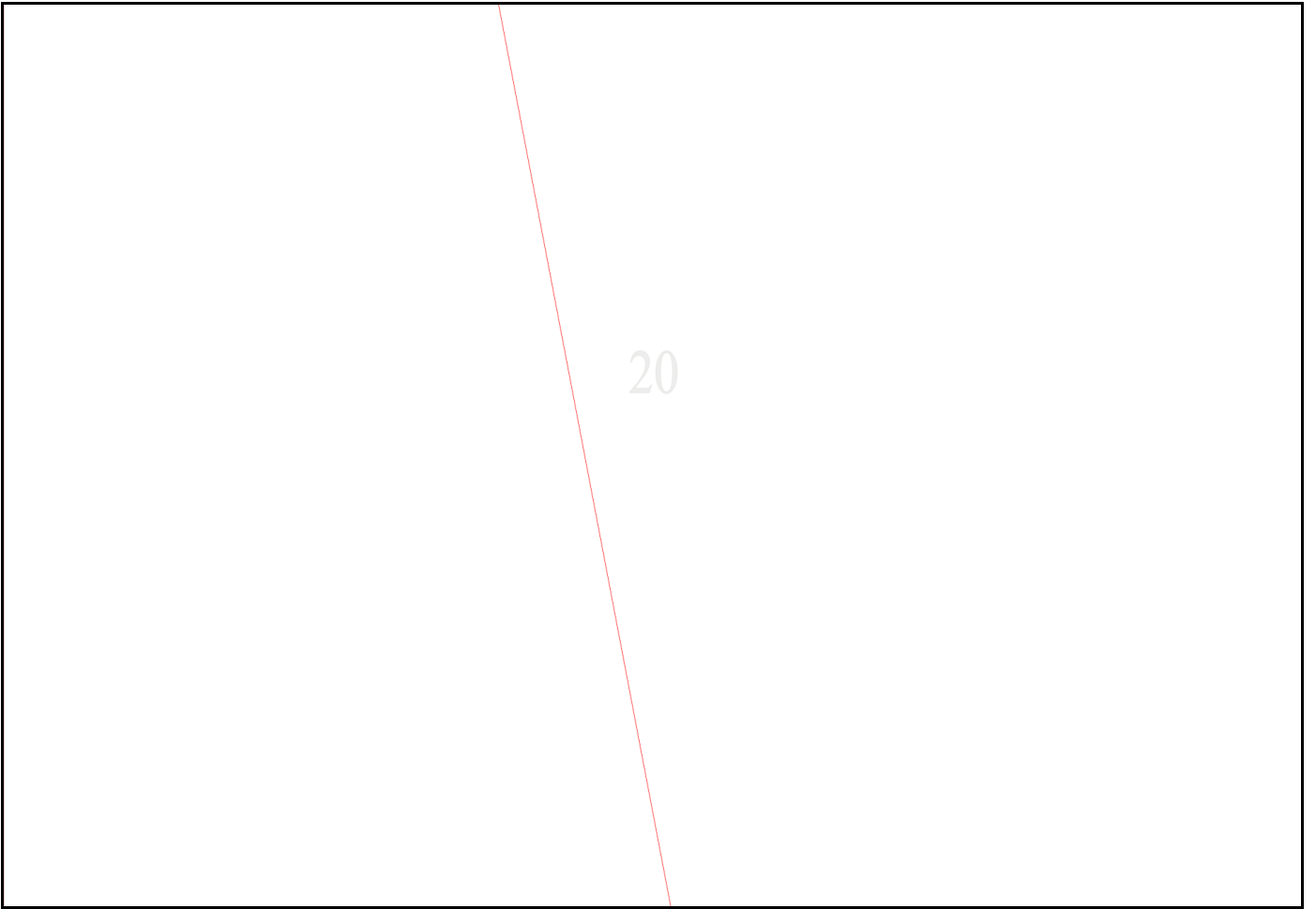
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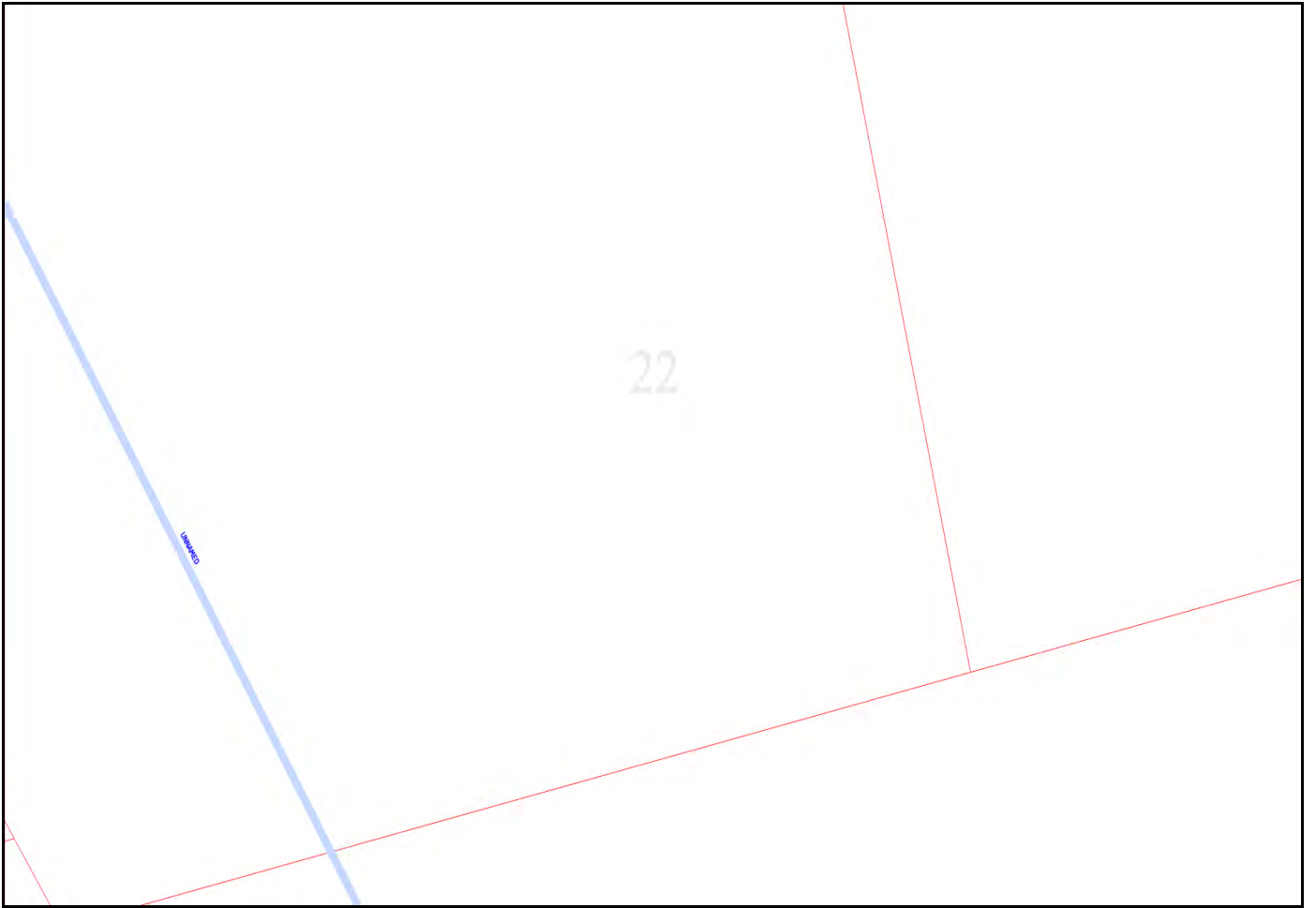


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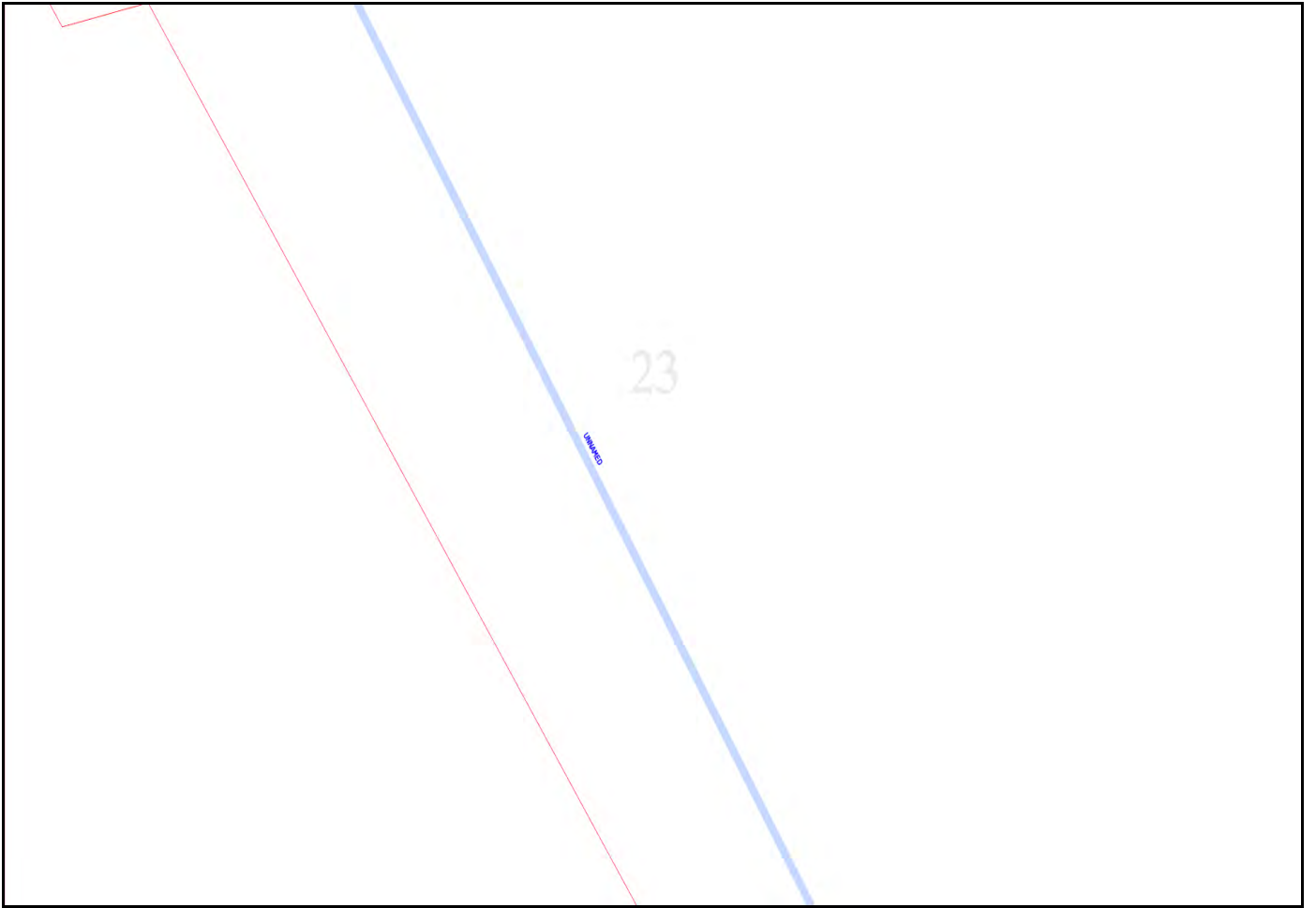


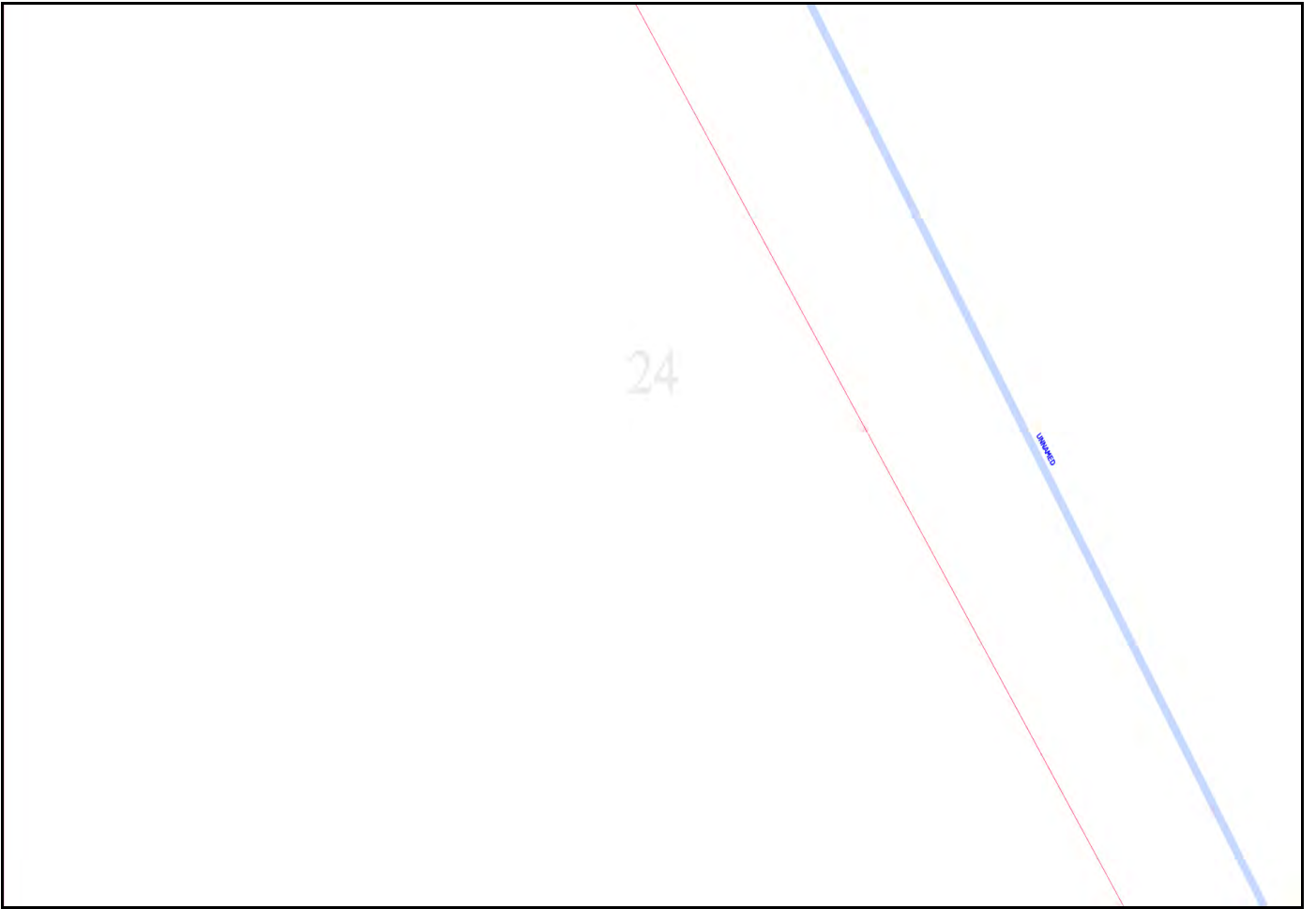


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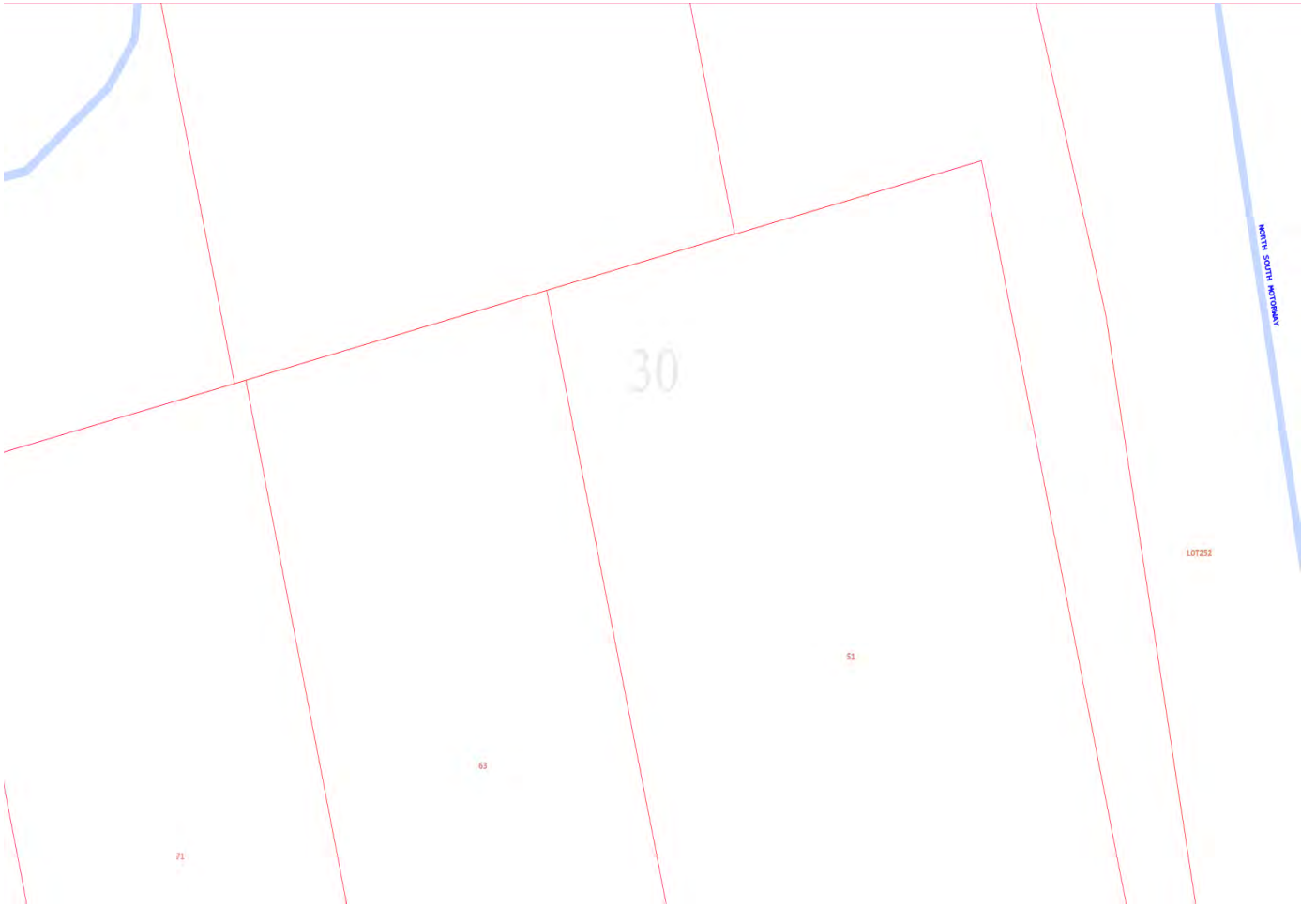
















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52



Универсальность

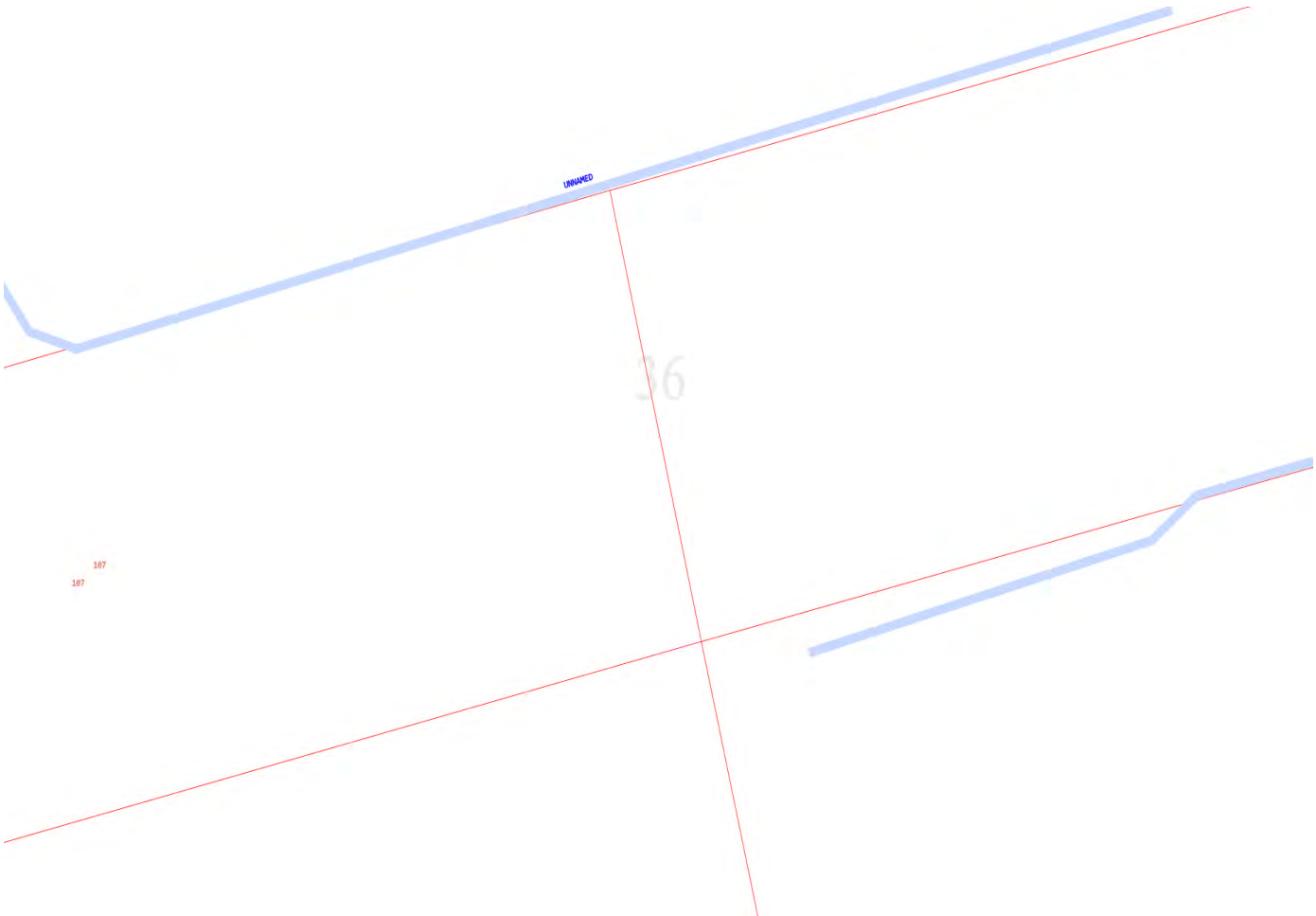
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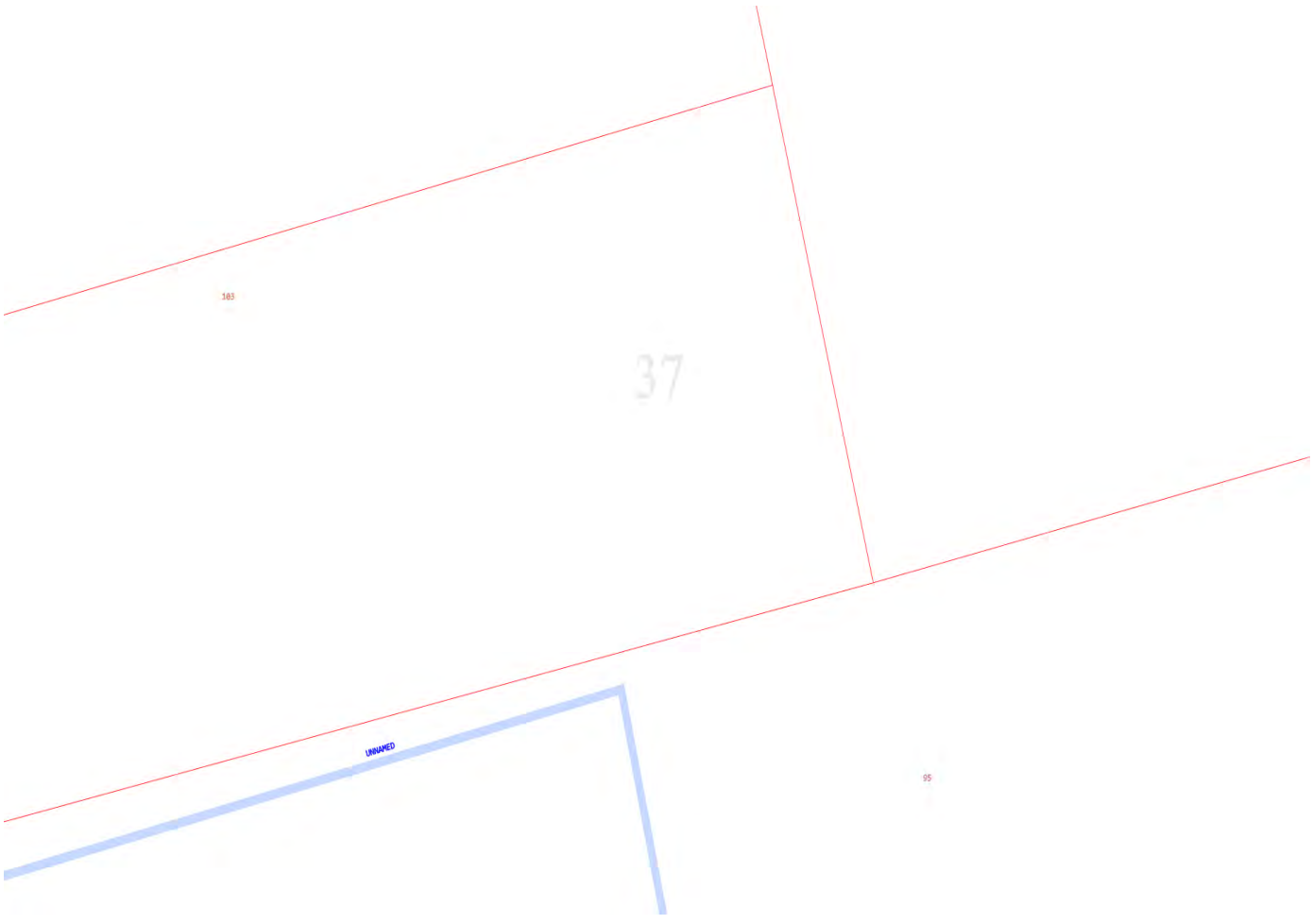
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99

UNAPED

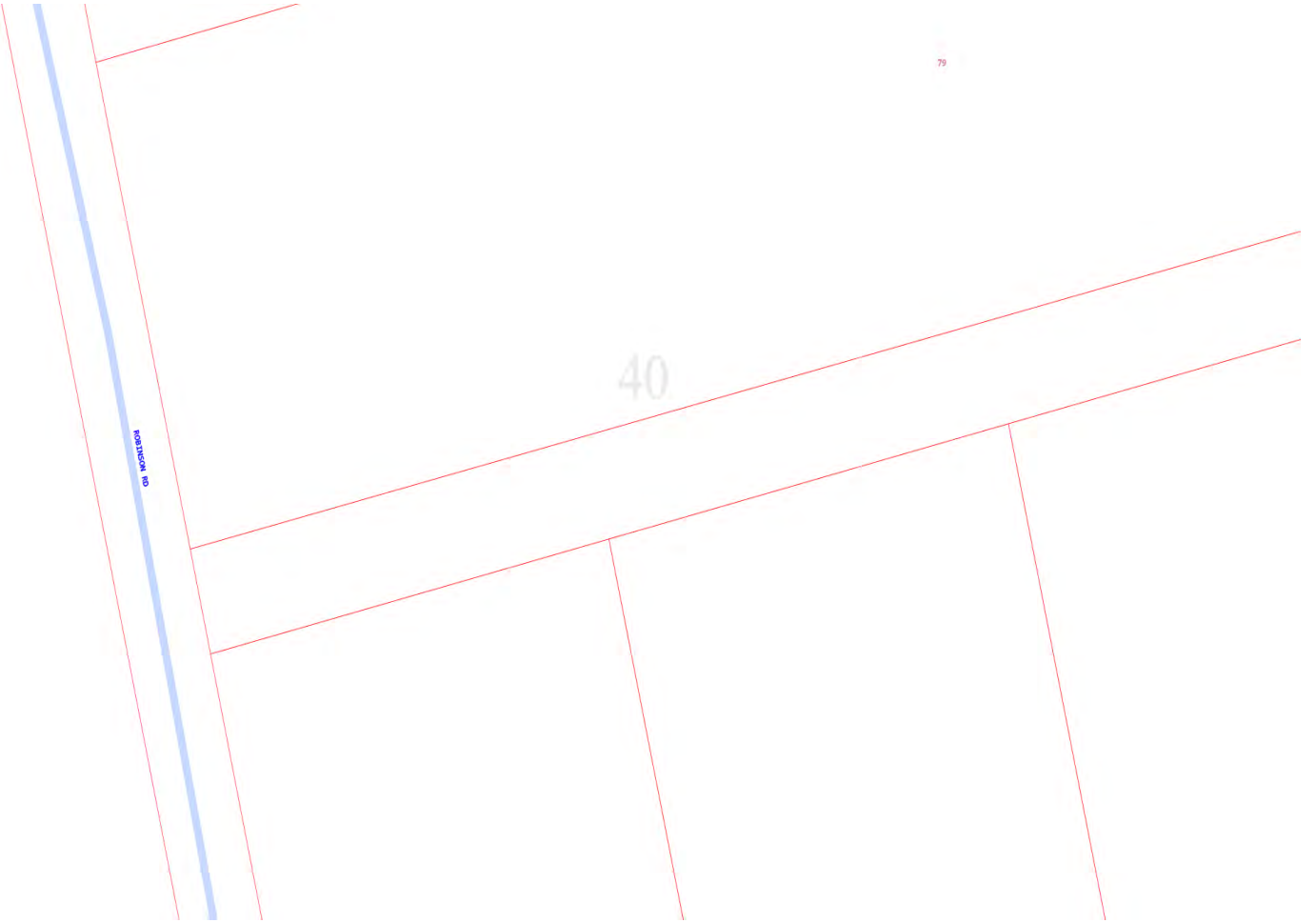
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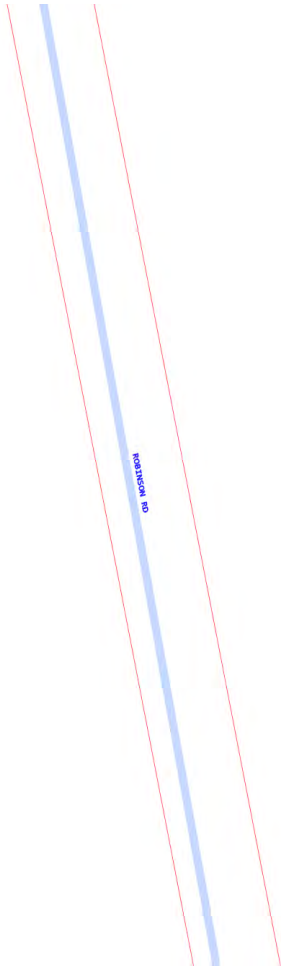


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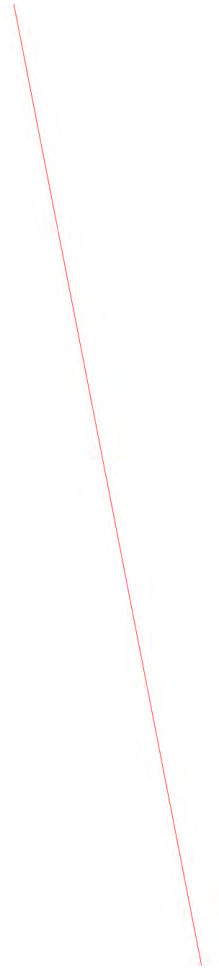
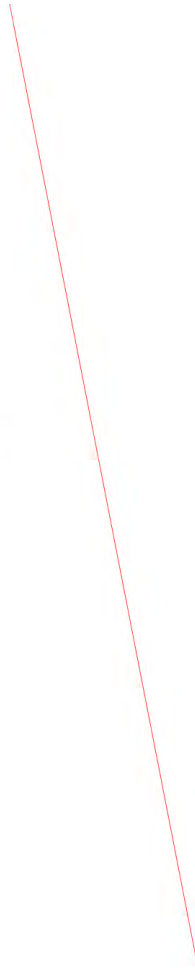
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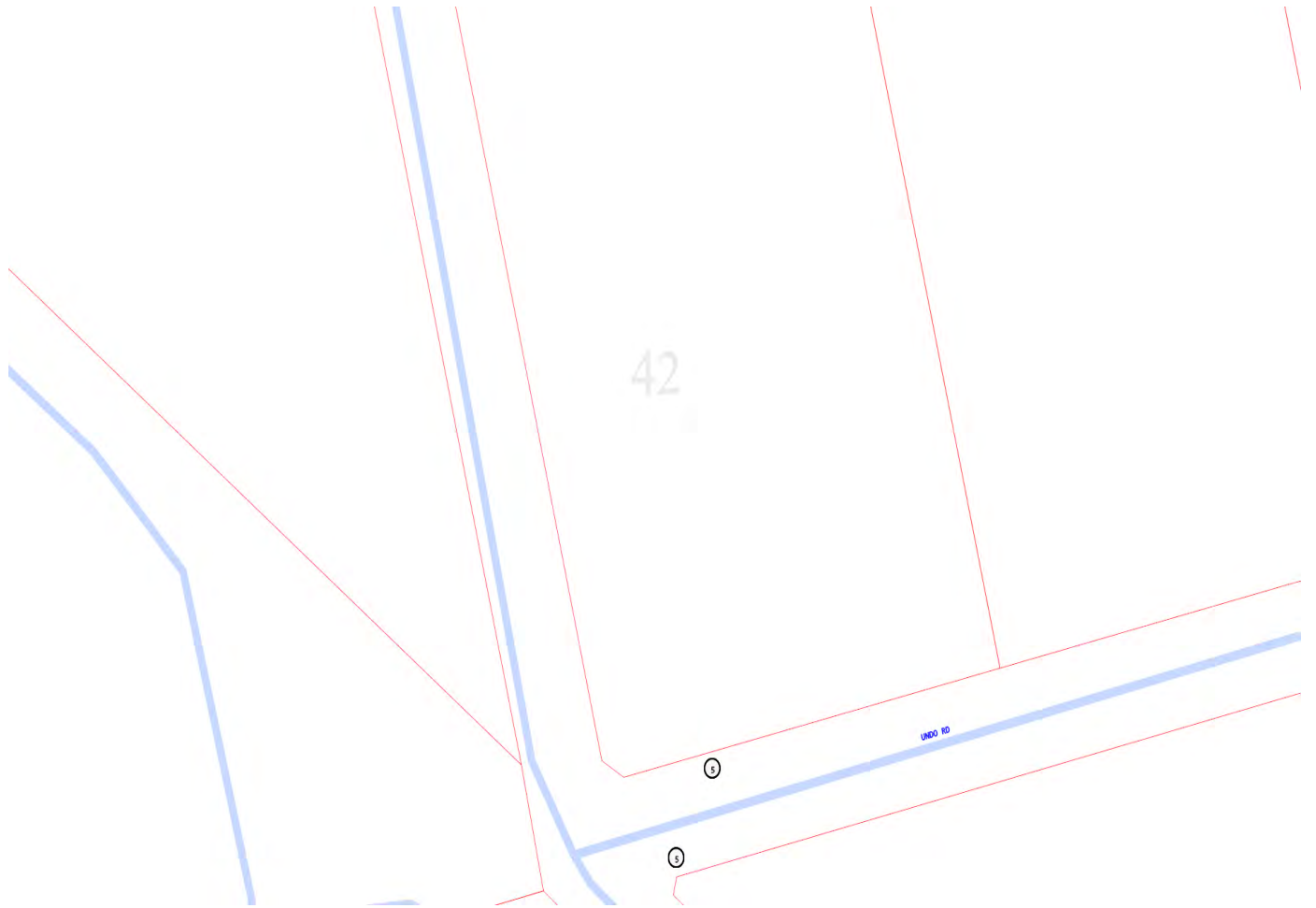




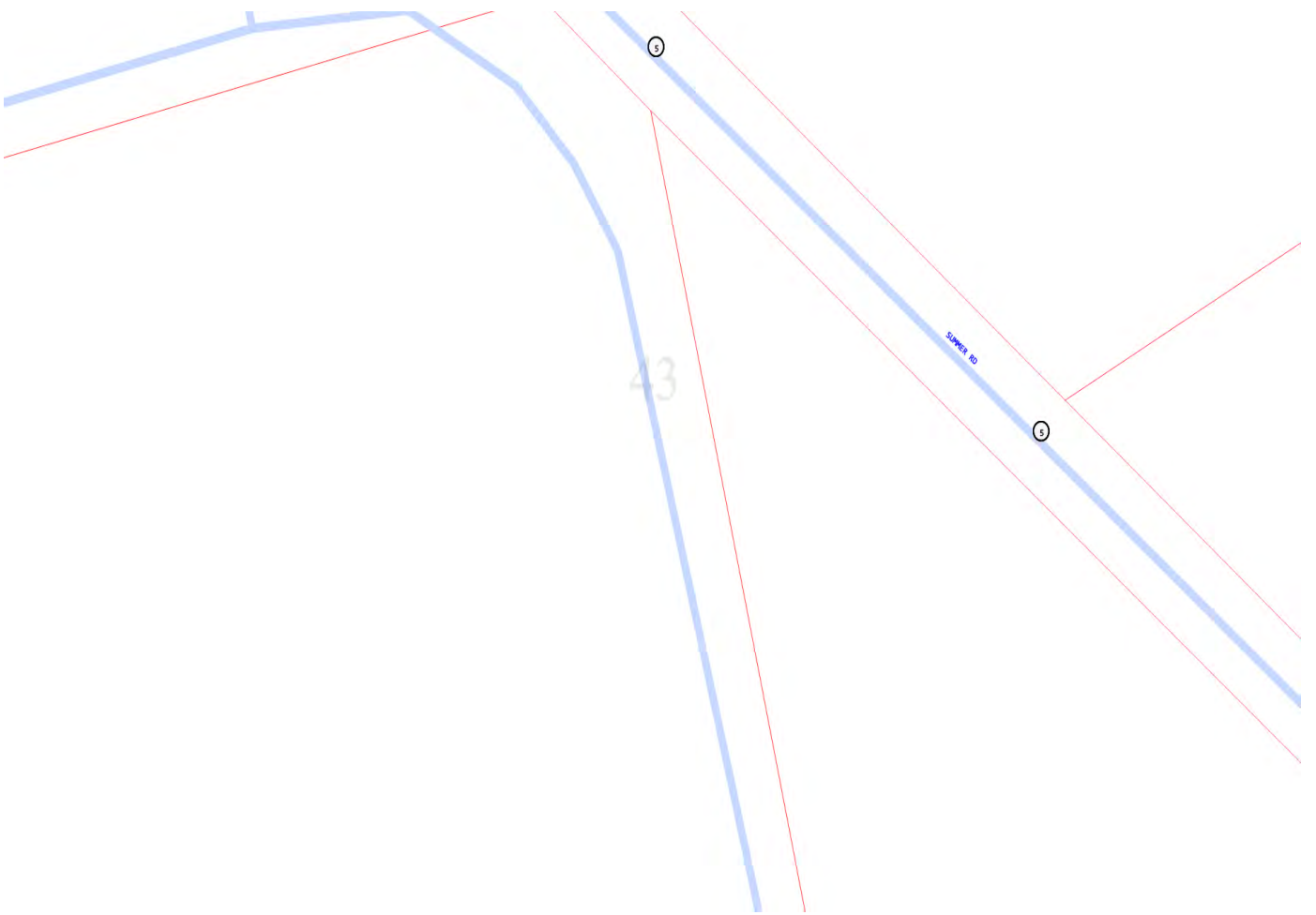
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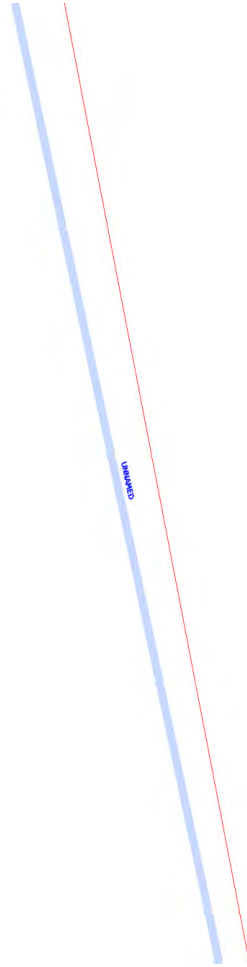
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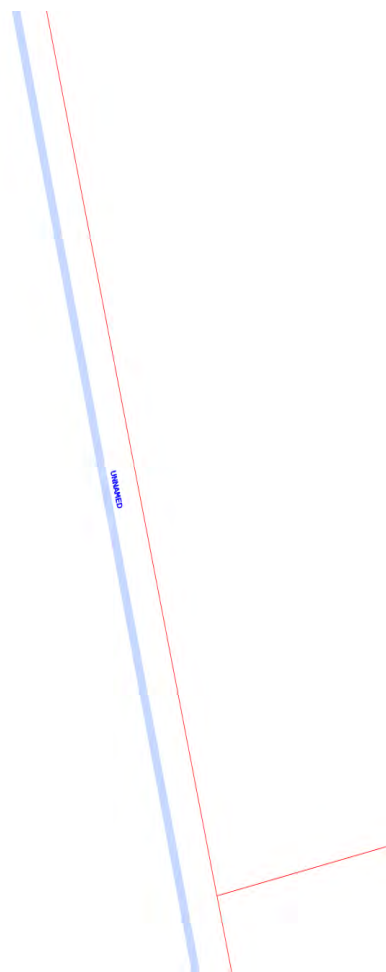




44



45



46















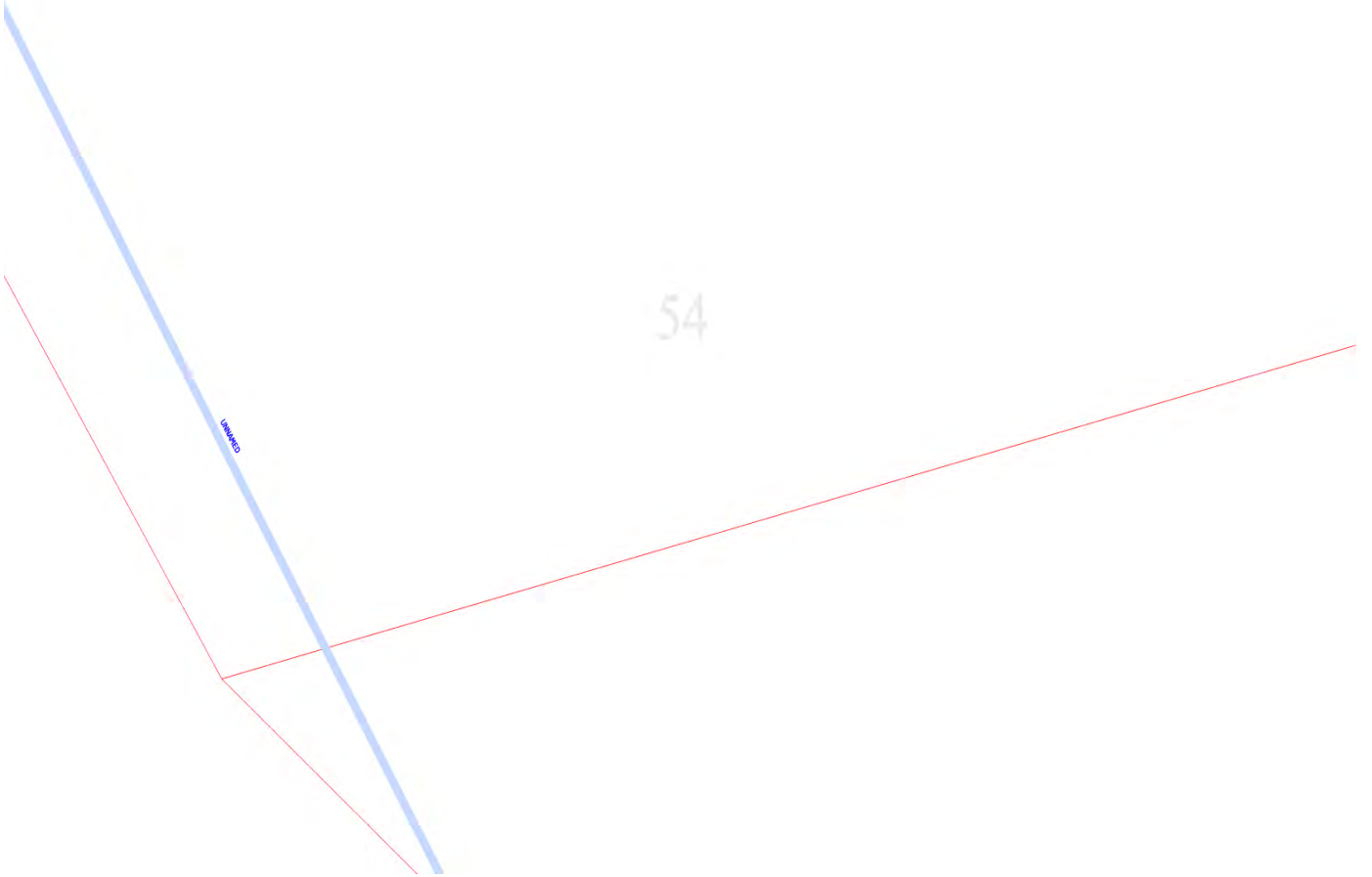




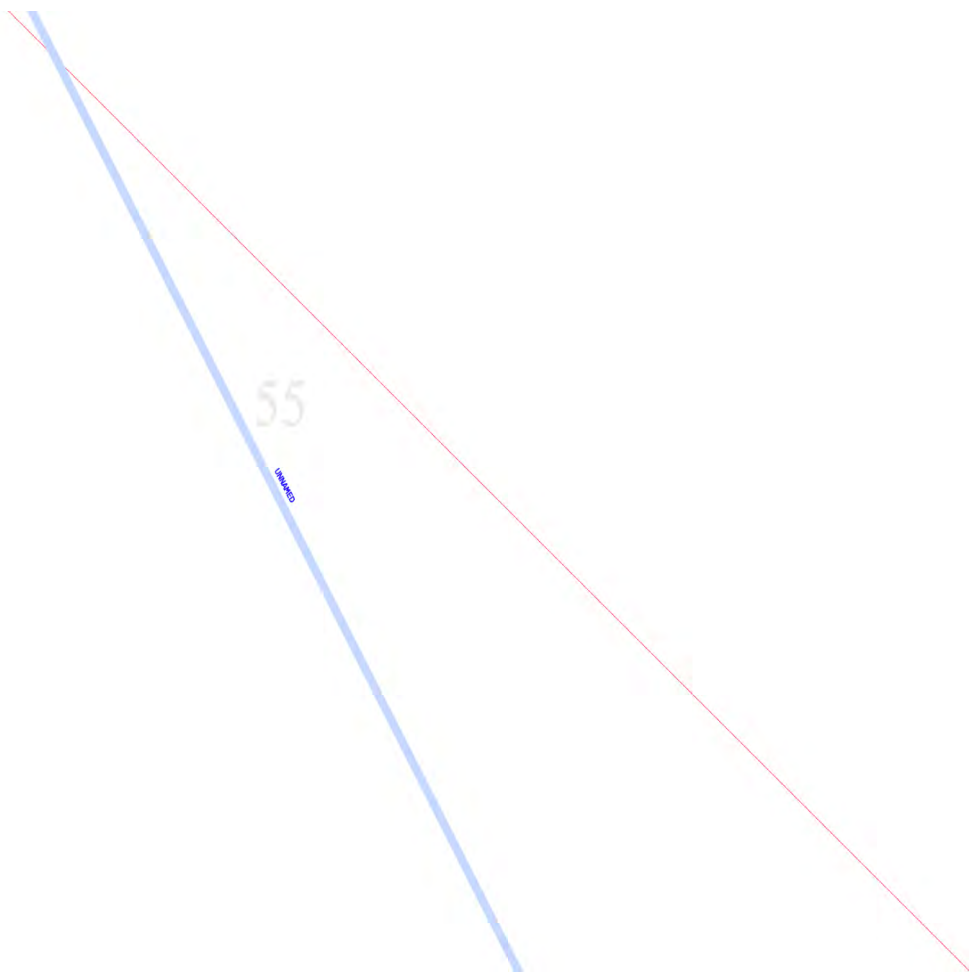


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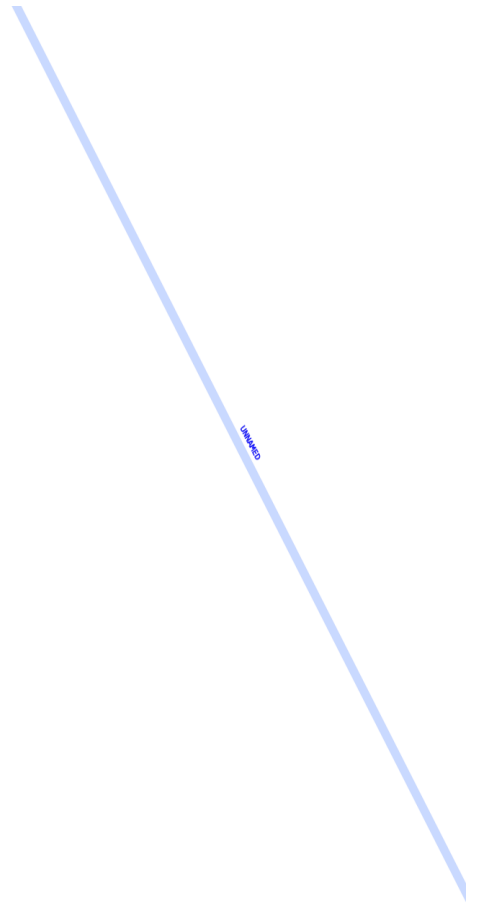
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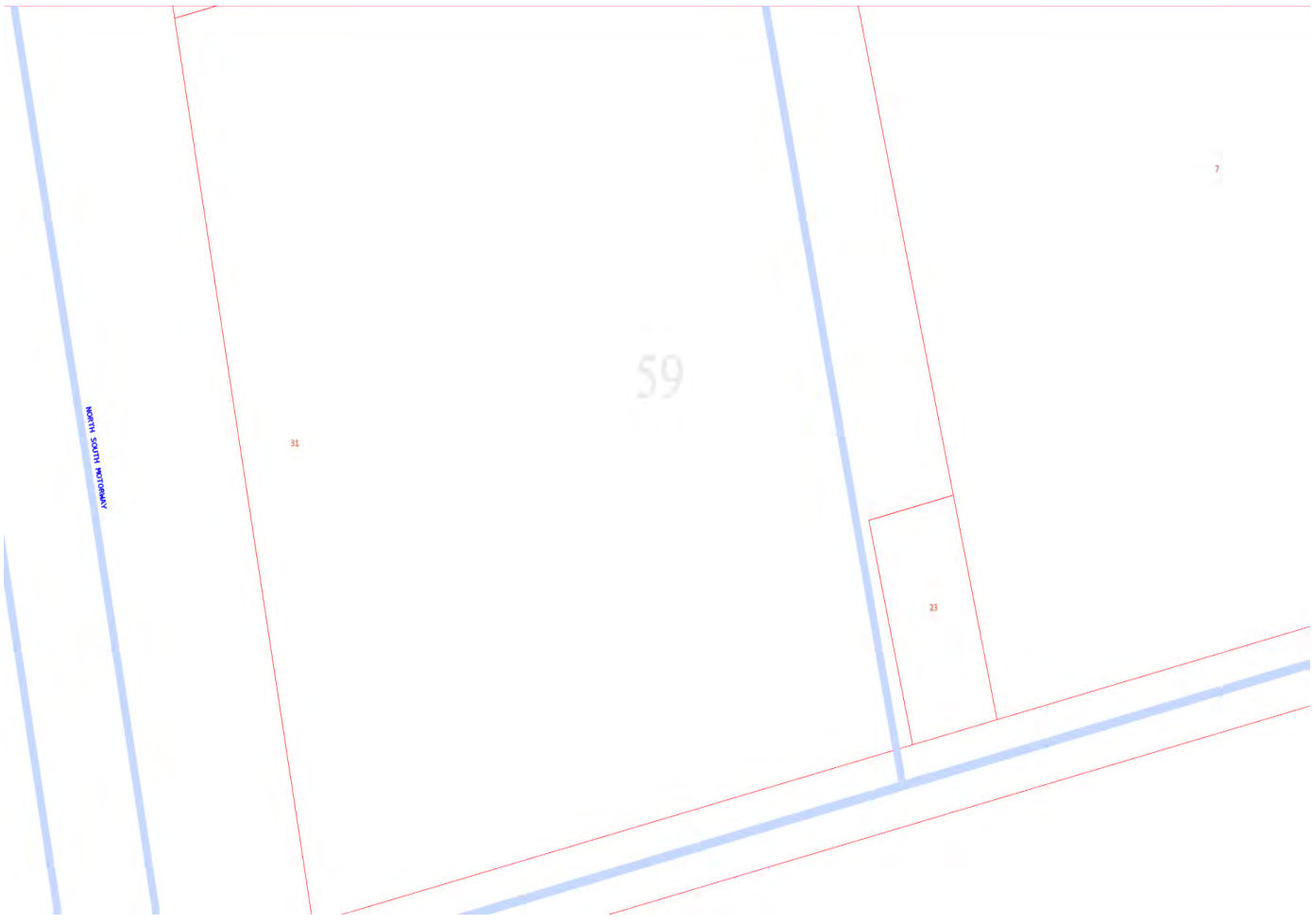
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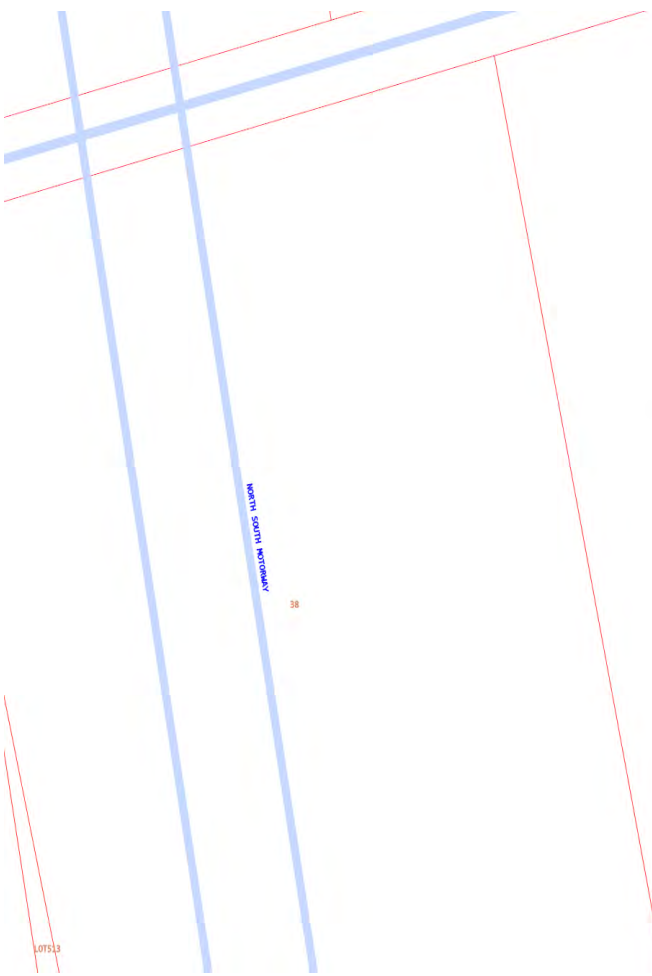








ANIMACION MUYOS NUBIA

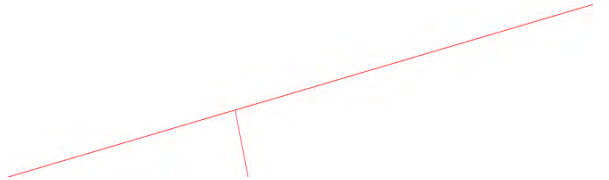


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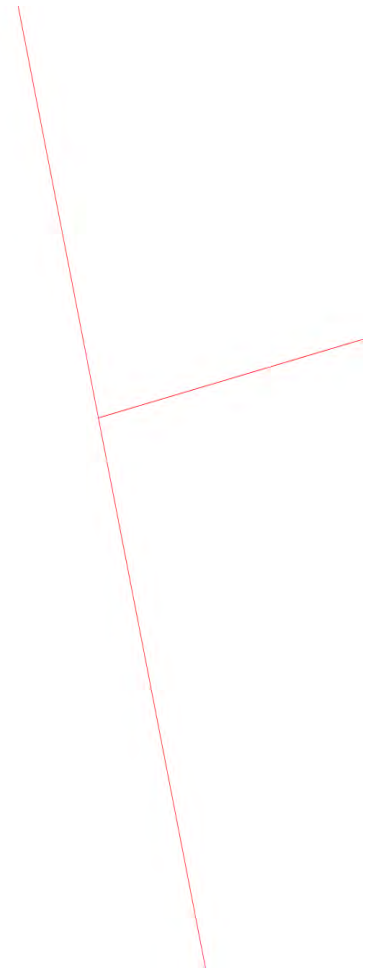
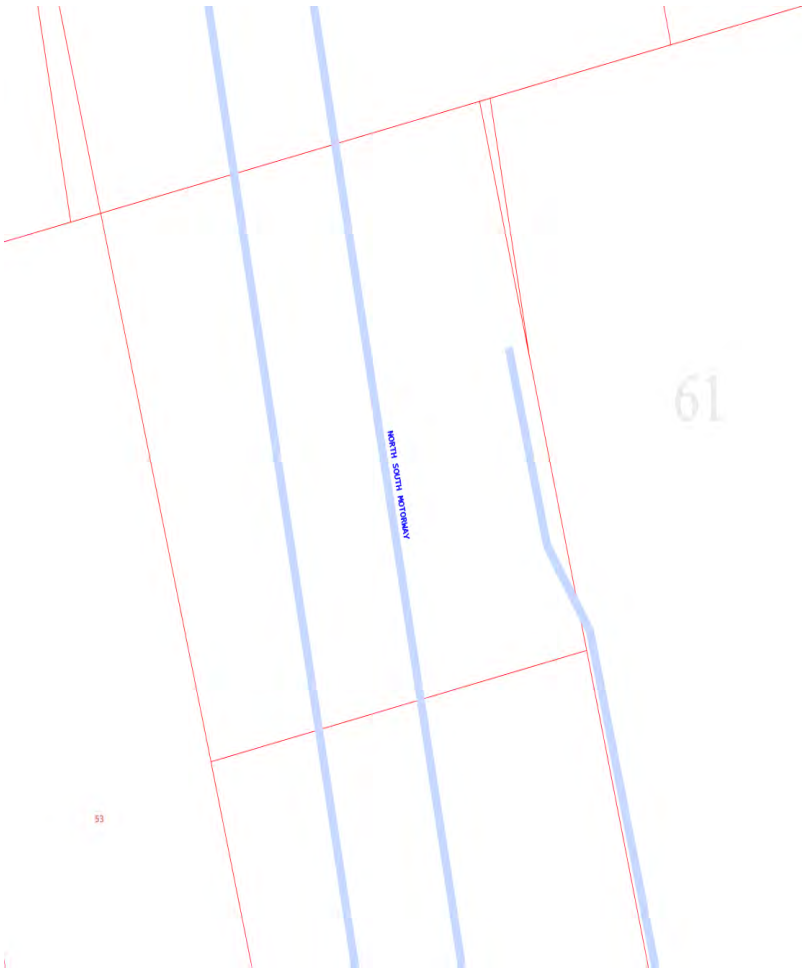
LOT 13

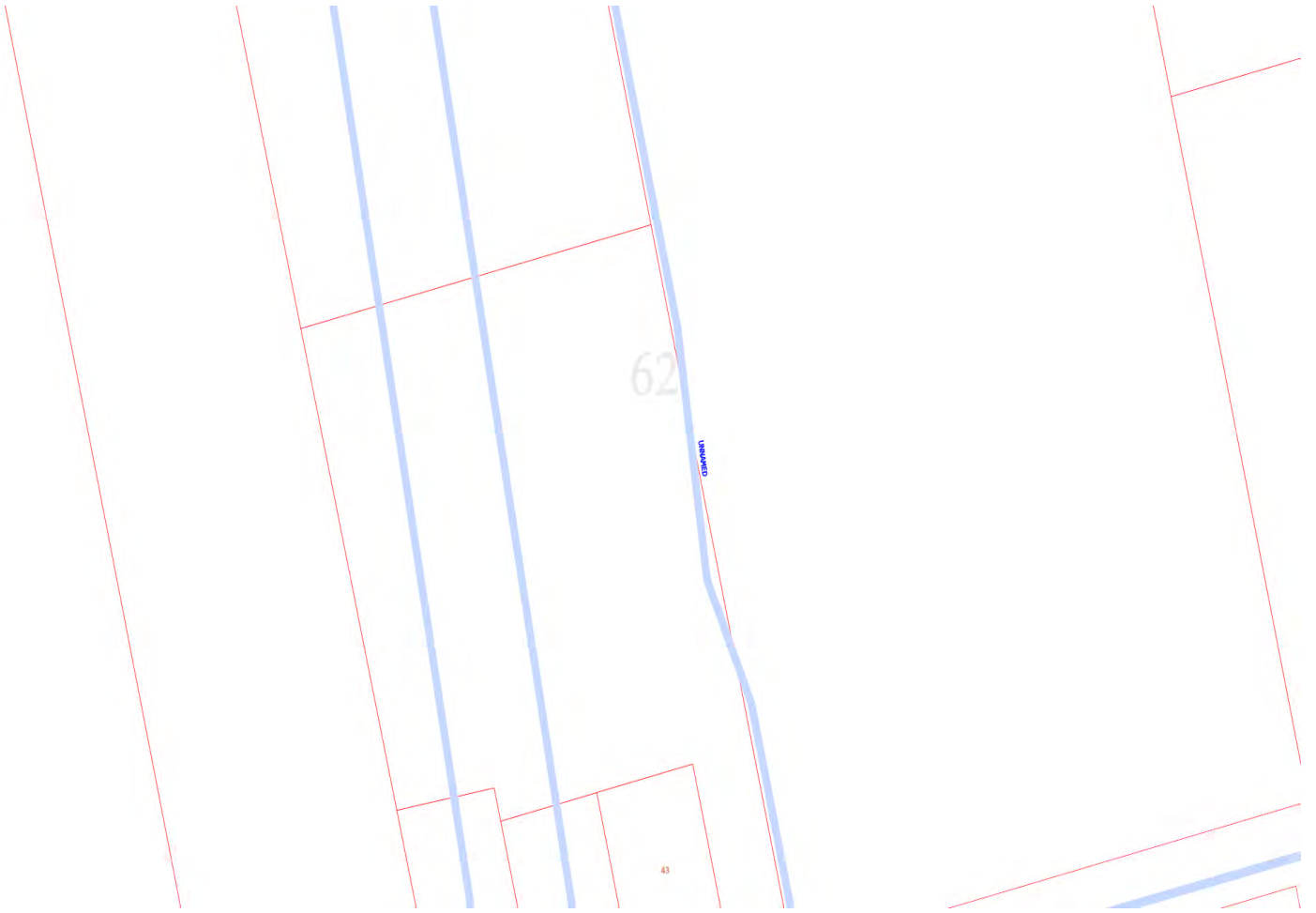
SECTION 11.000

38



1









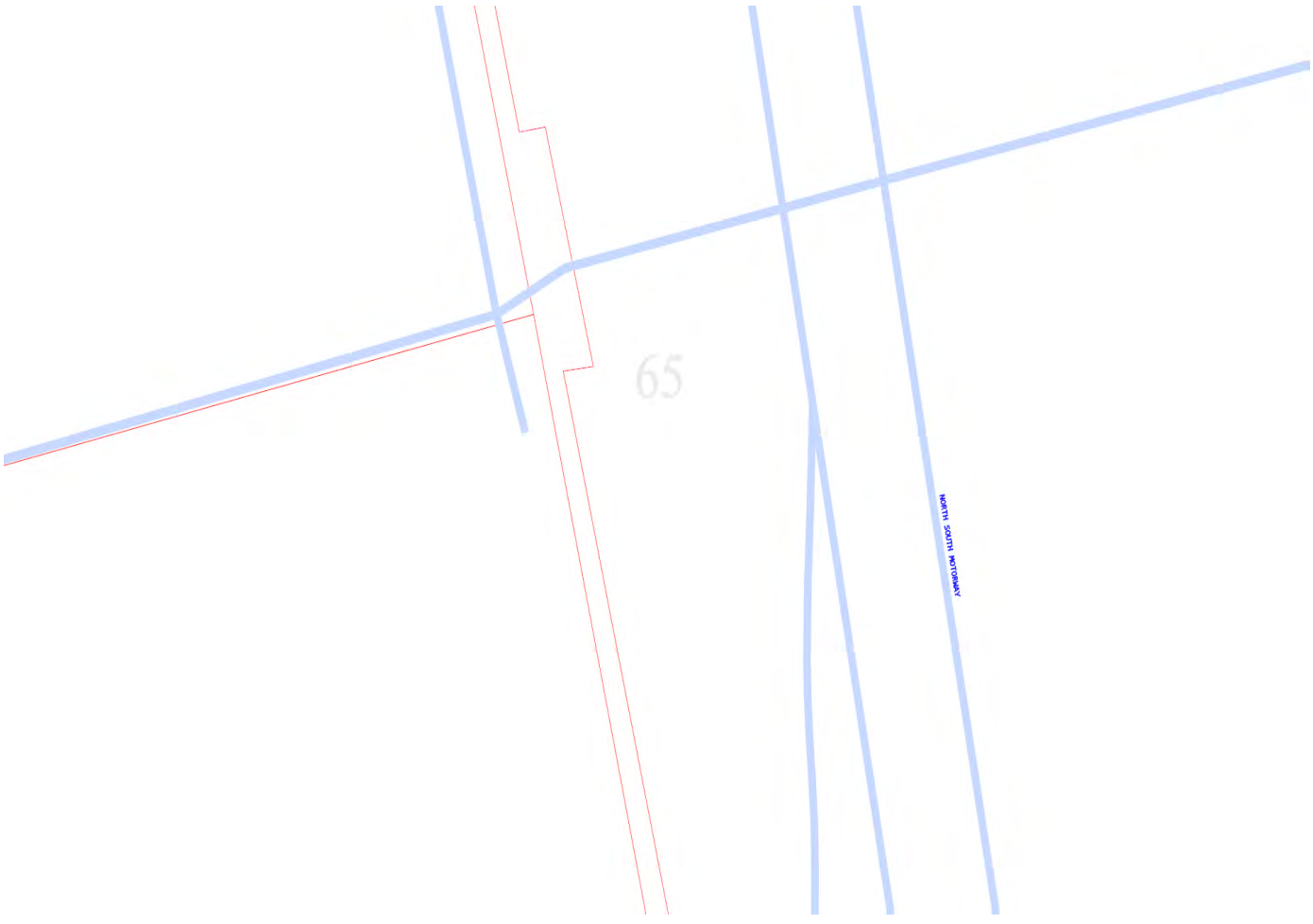
58

53

58-66

APPENDIX 11.2025 11.2025



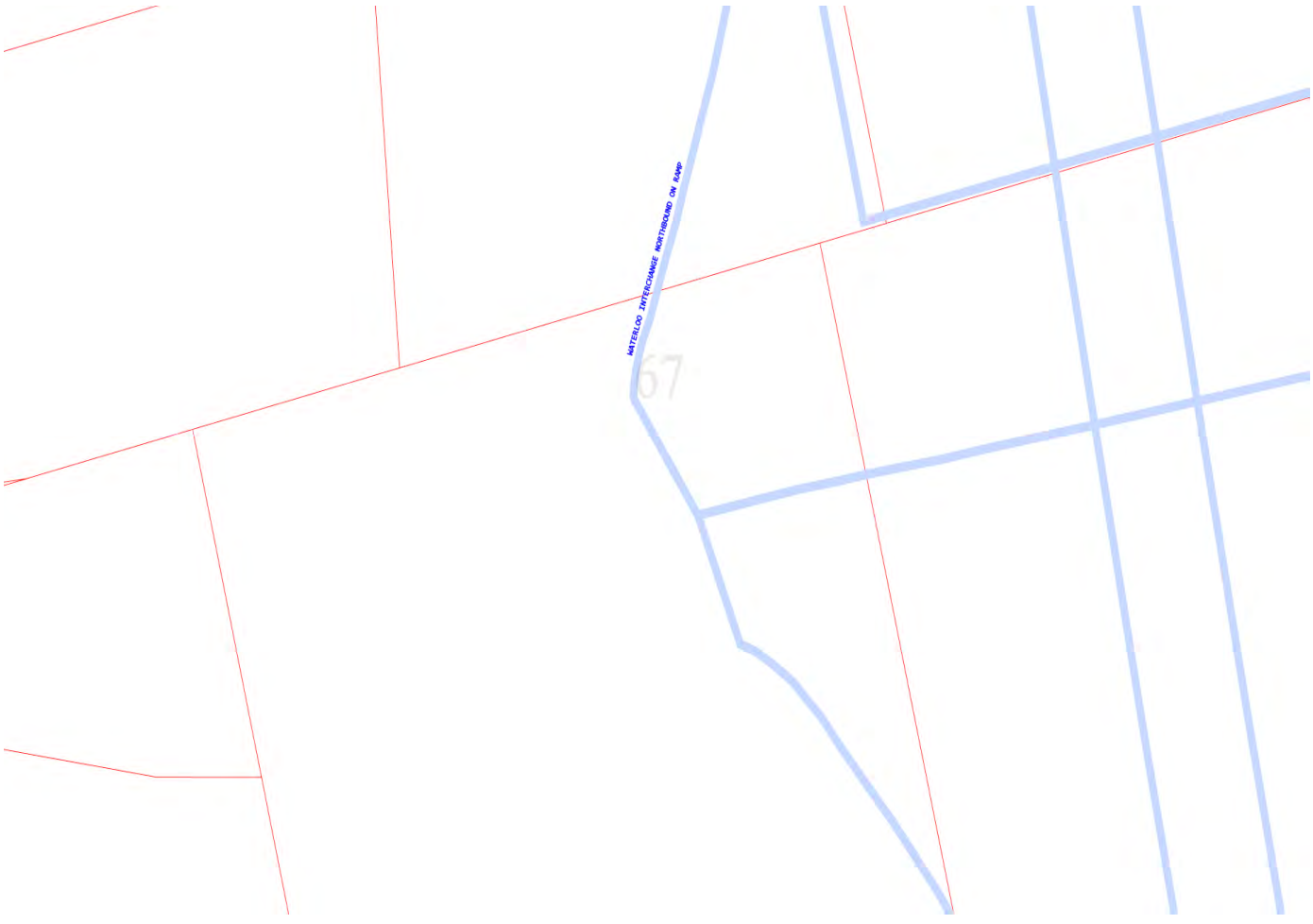


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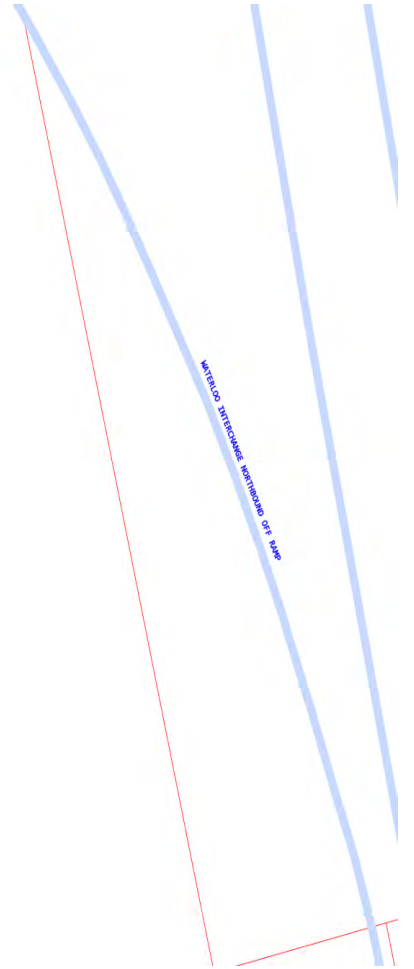
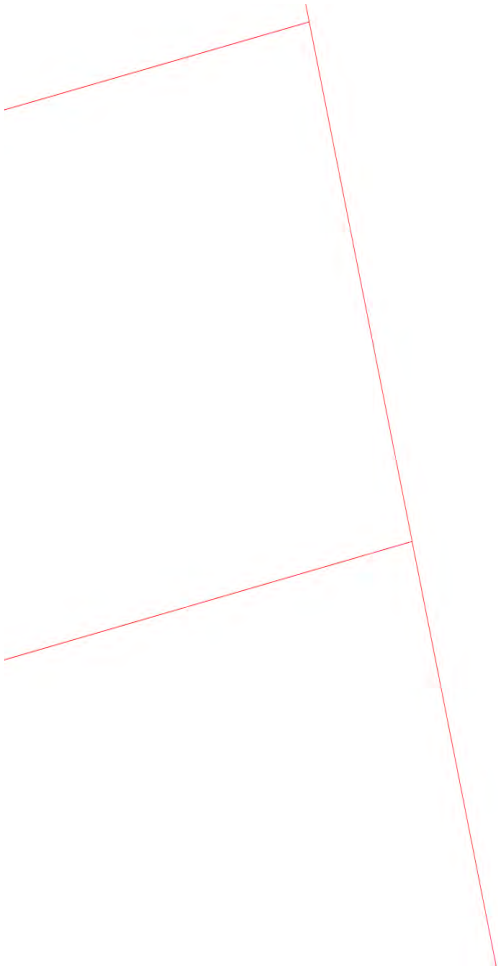
AMERICAN EXPRESS



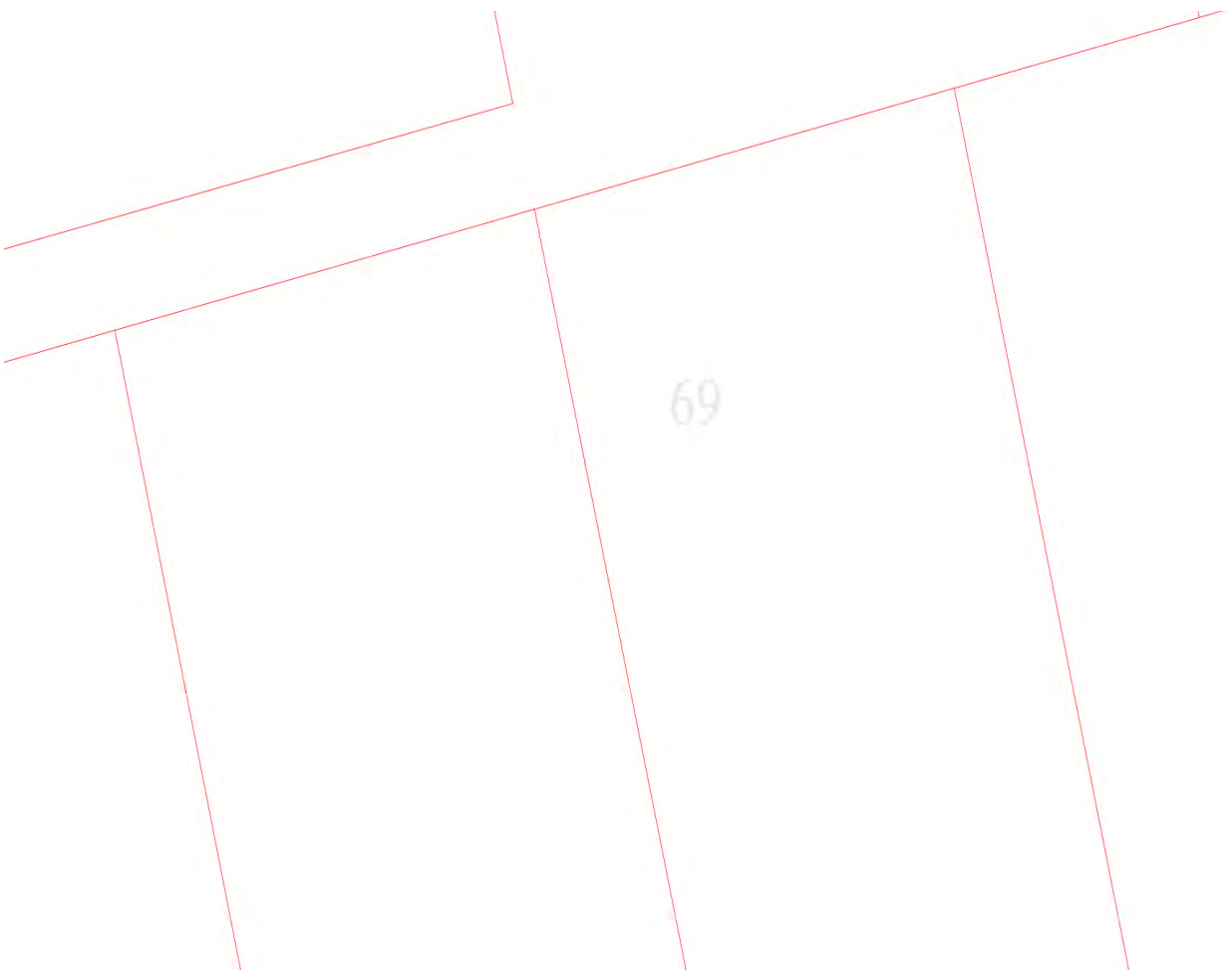




68



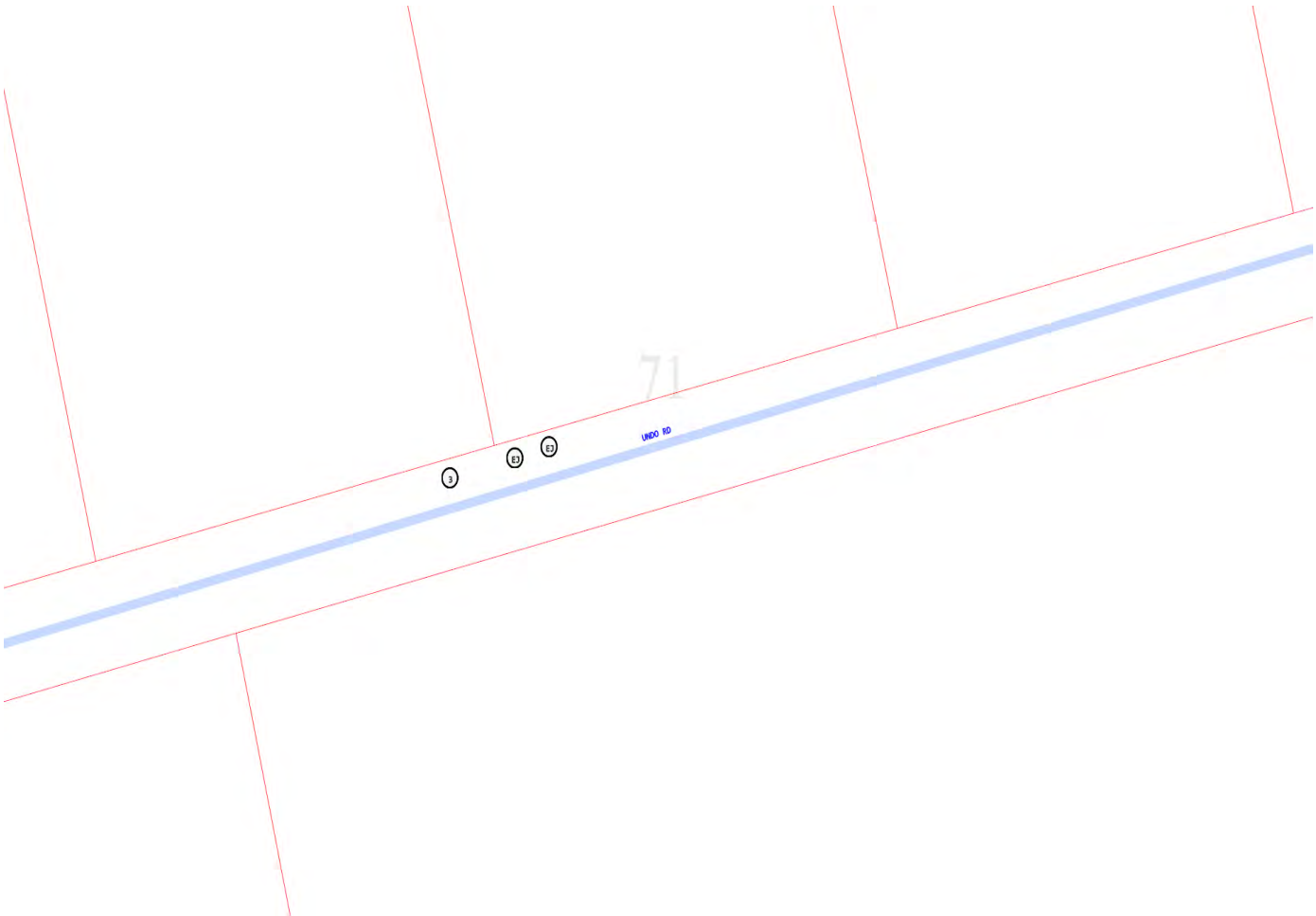
Vertical line segment perpendicular to base

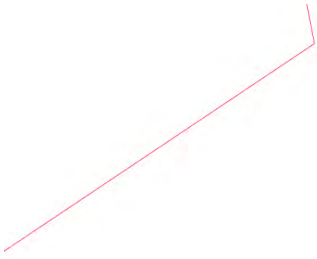


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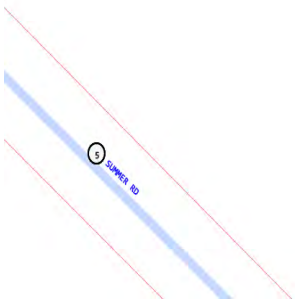


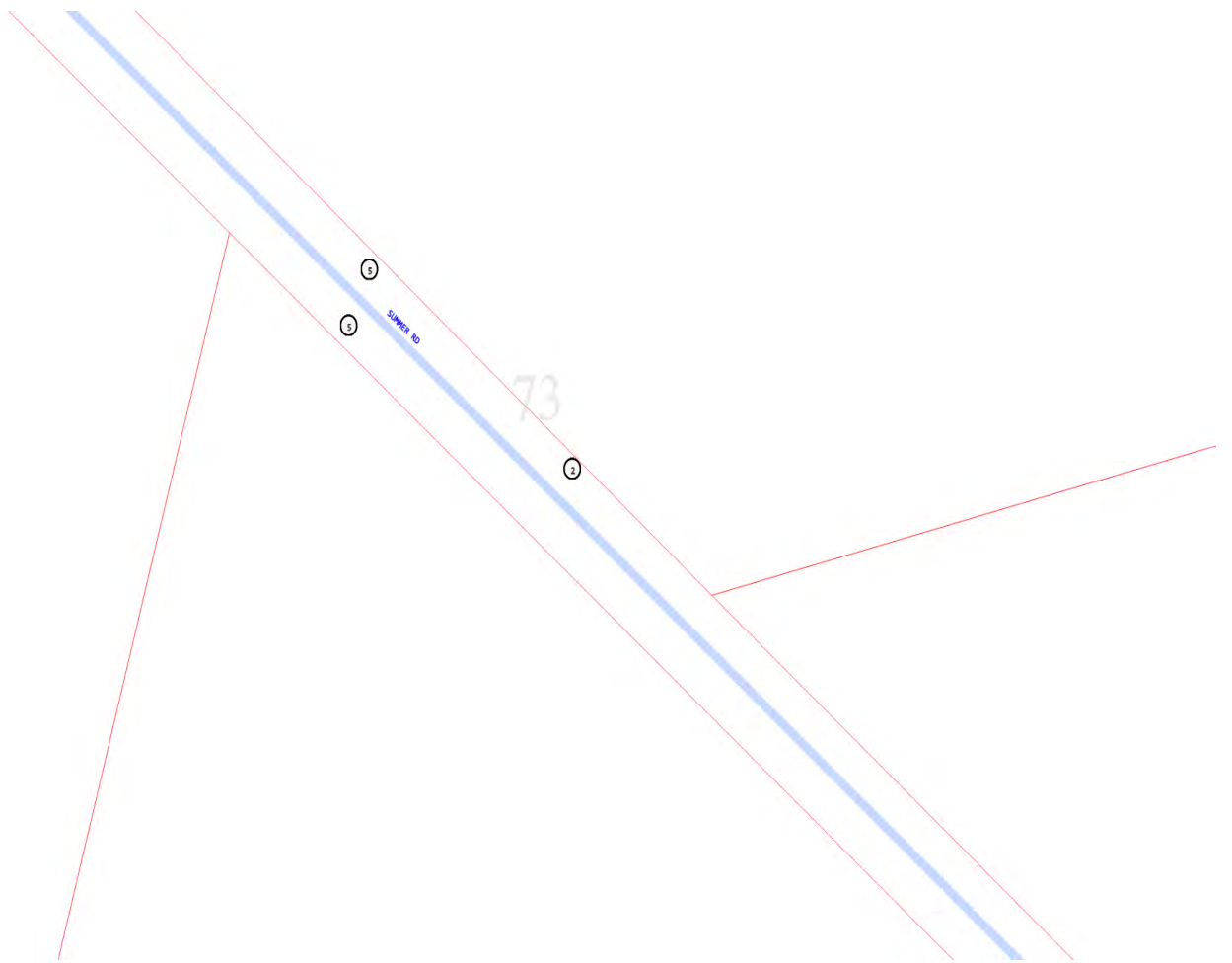




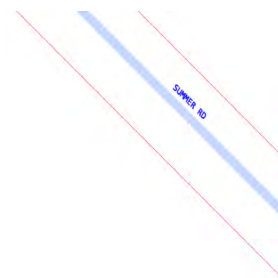


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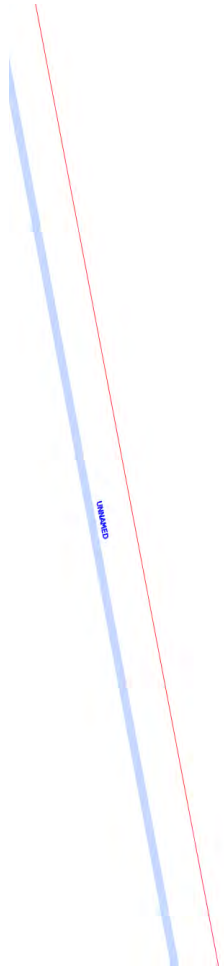


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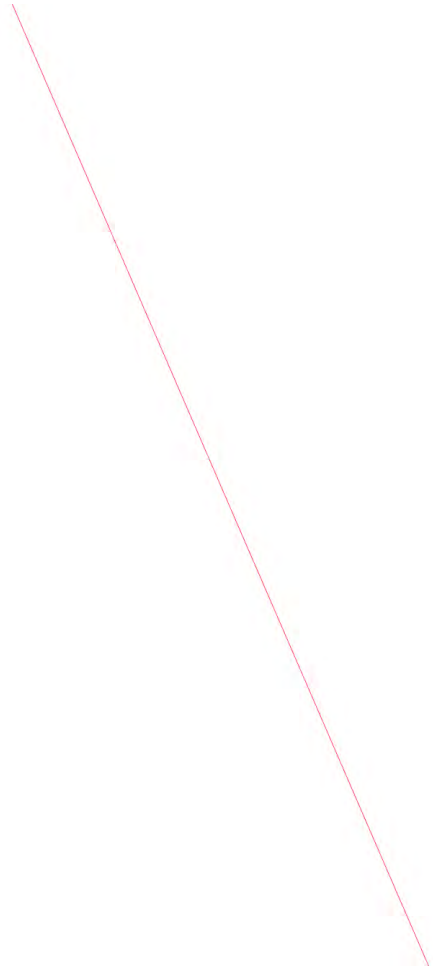


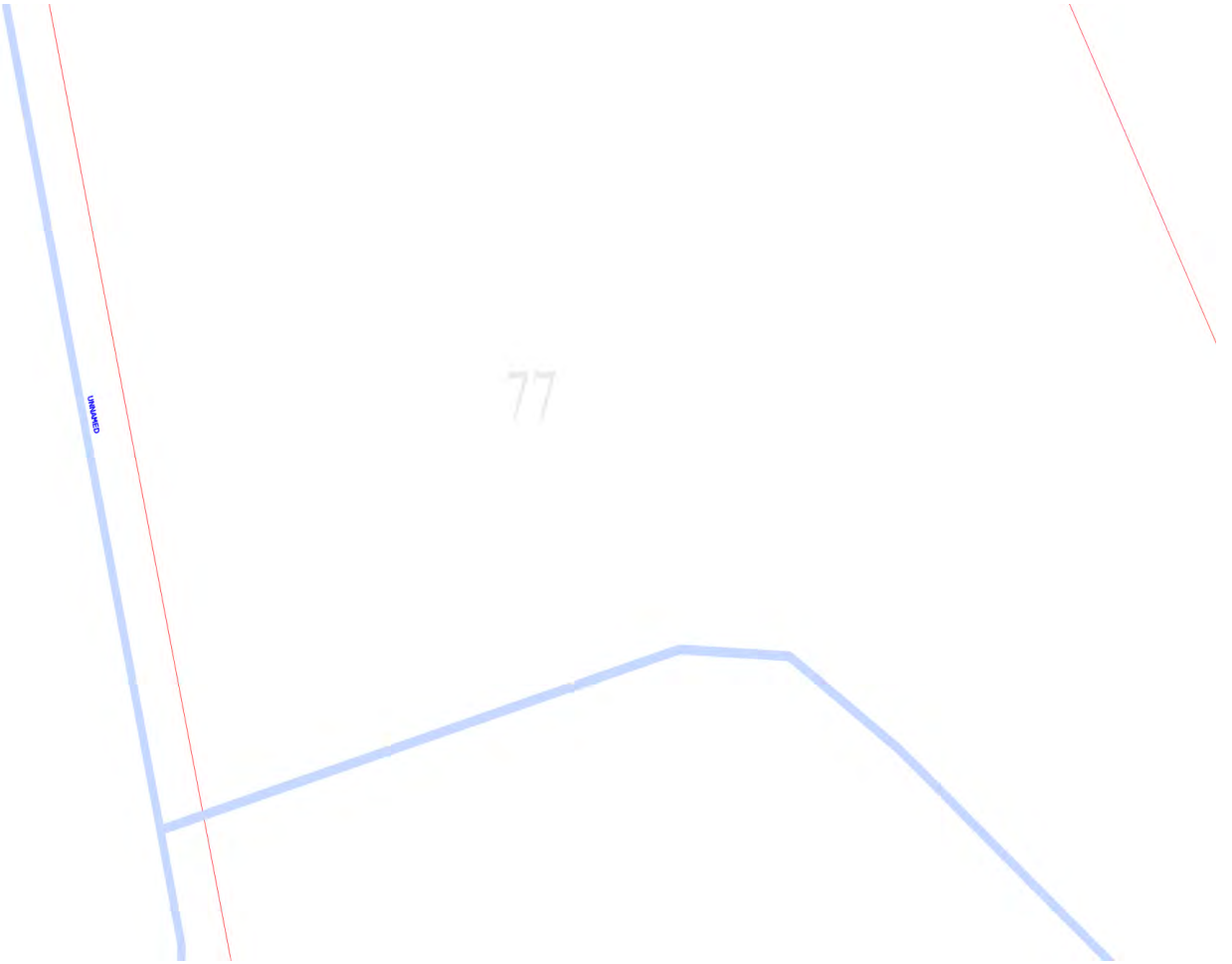






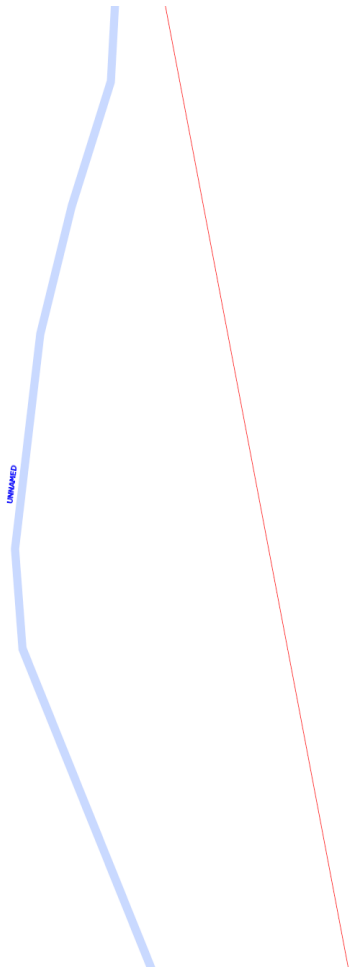
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77

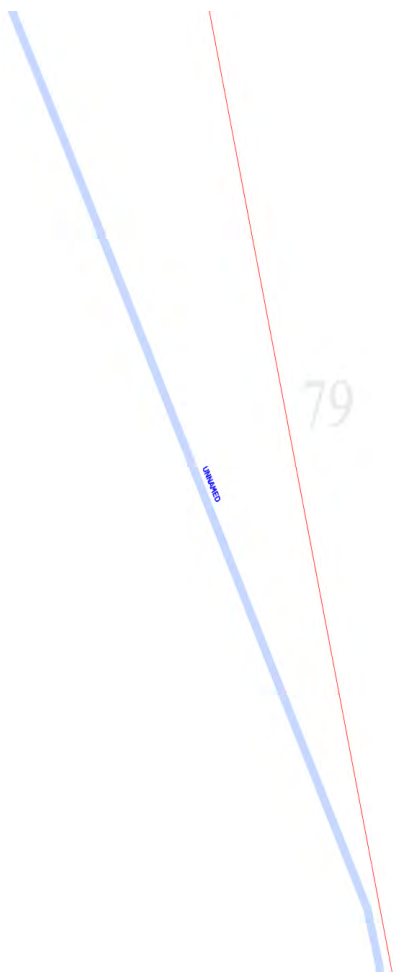
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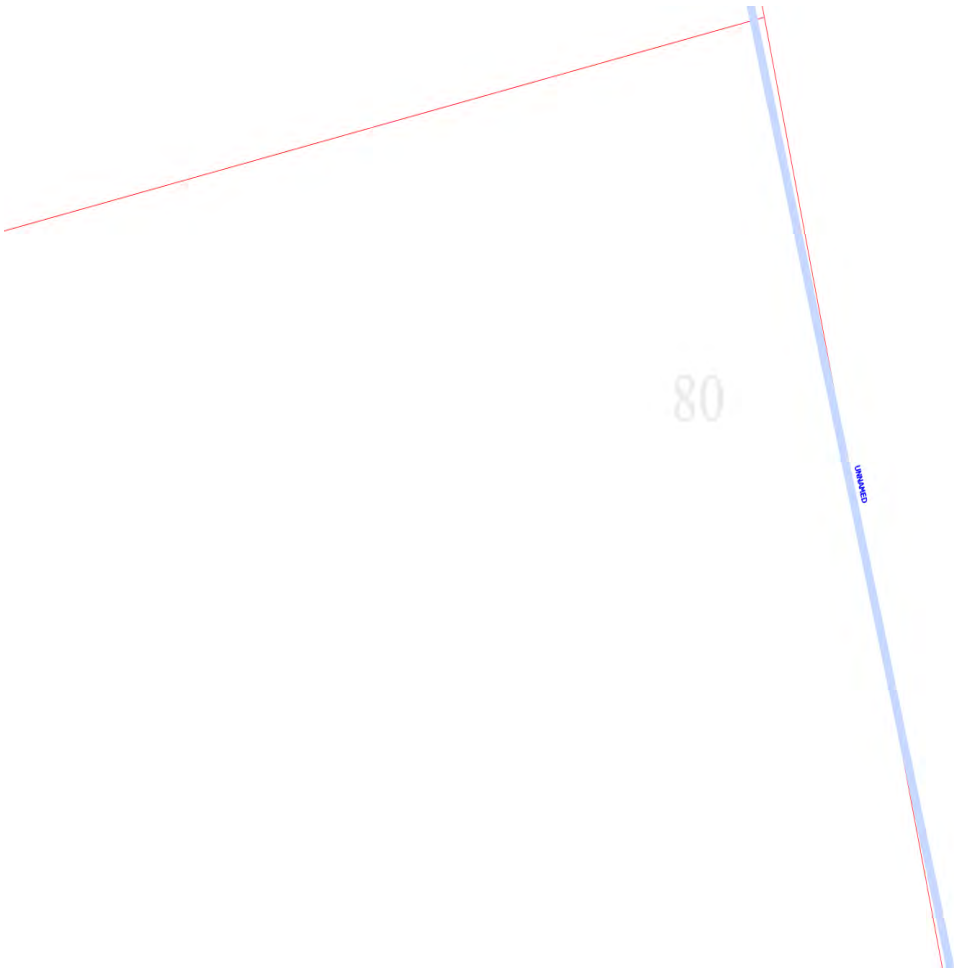


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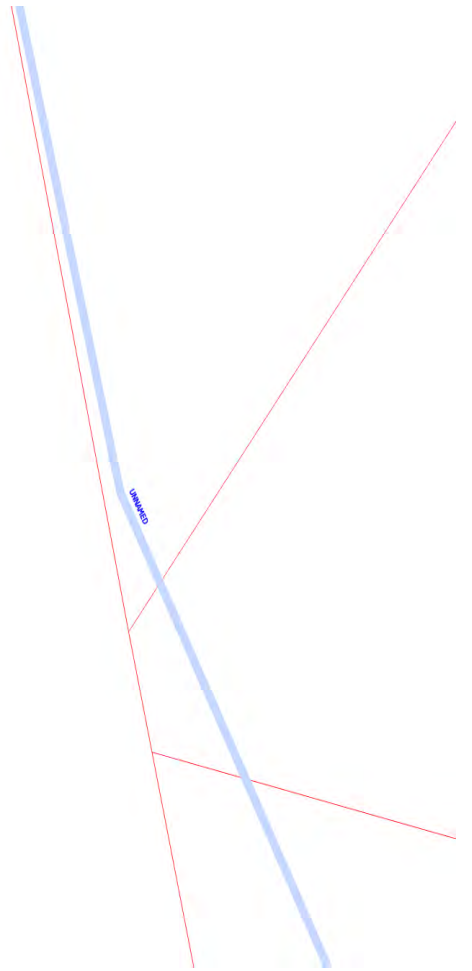


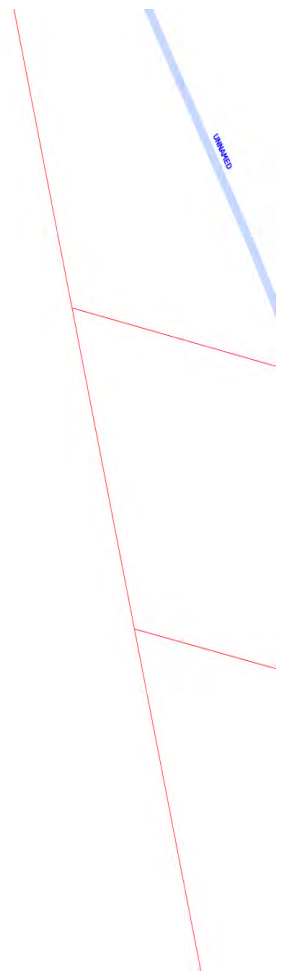






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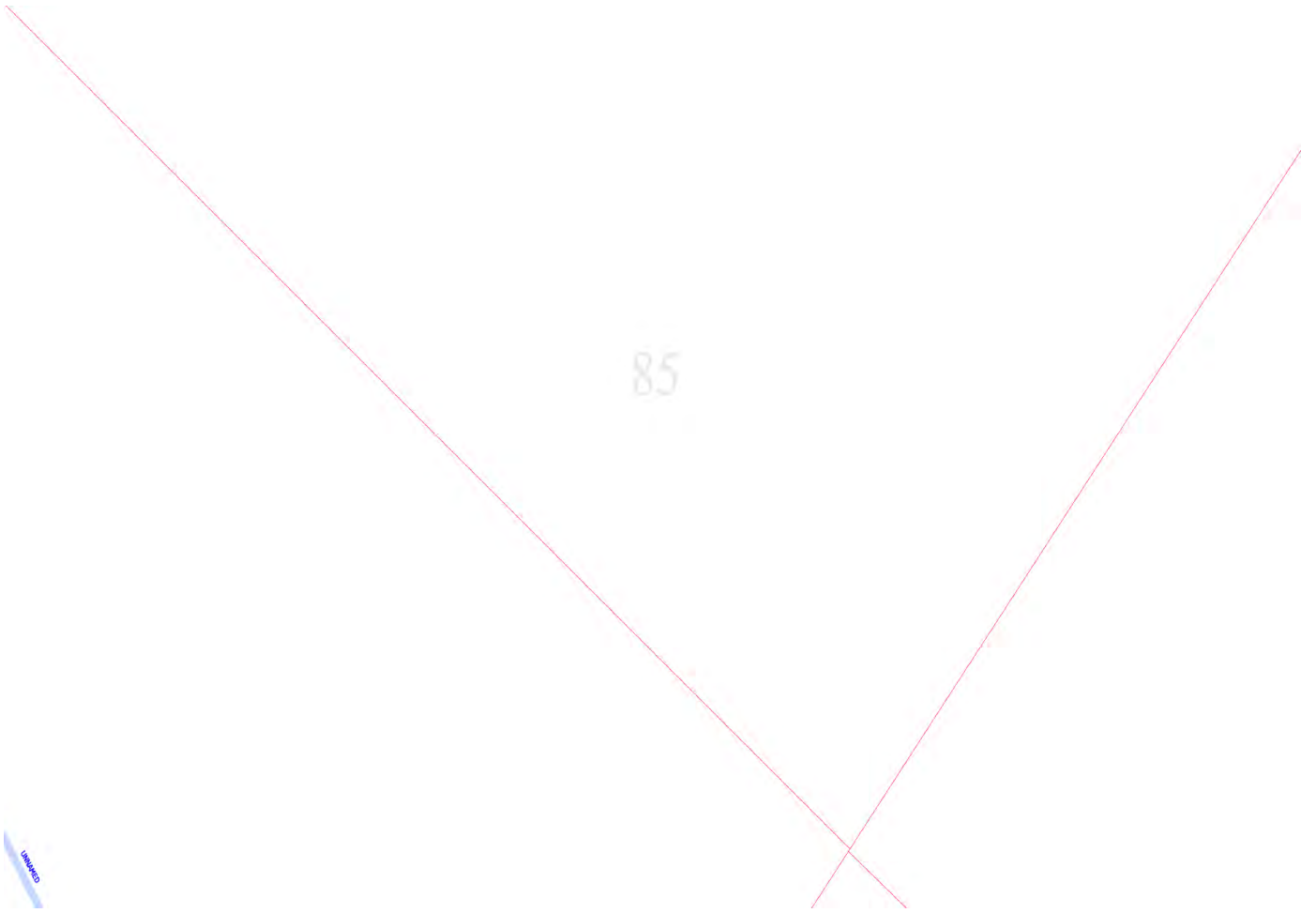


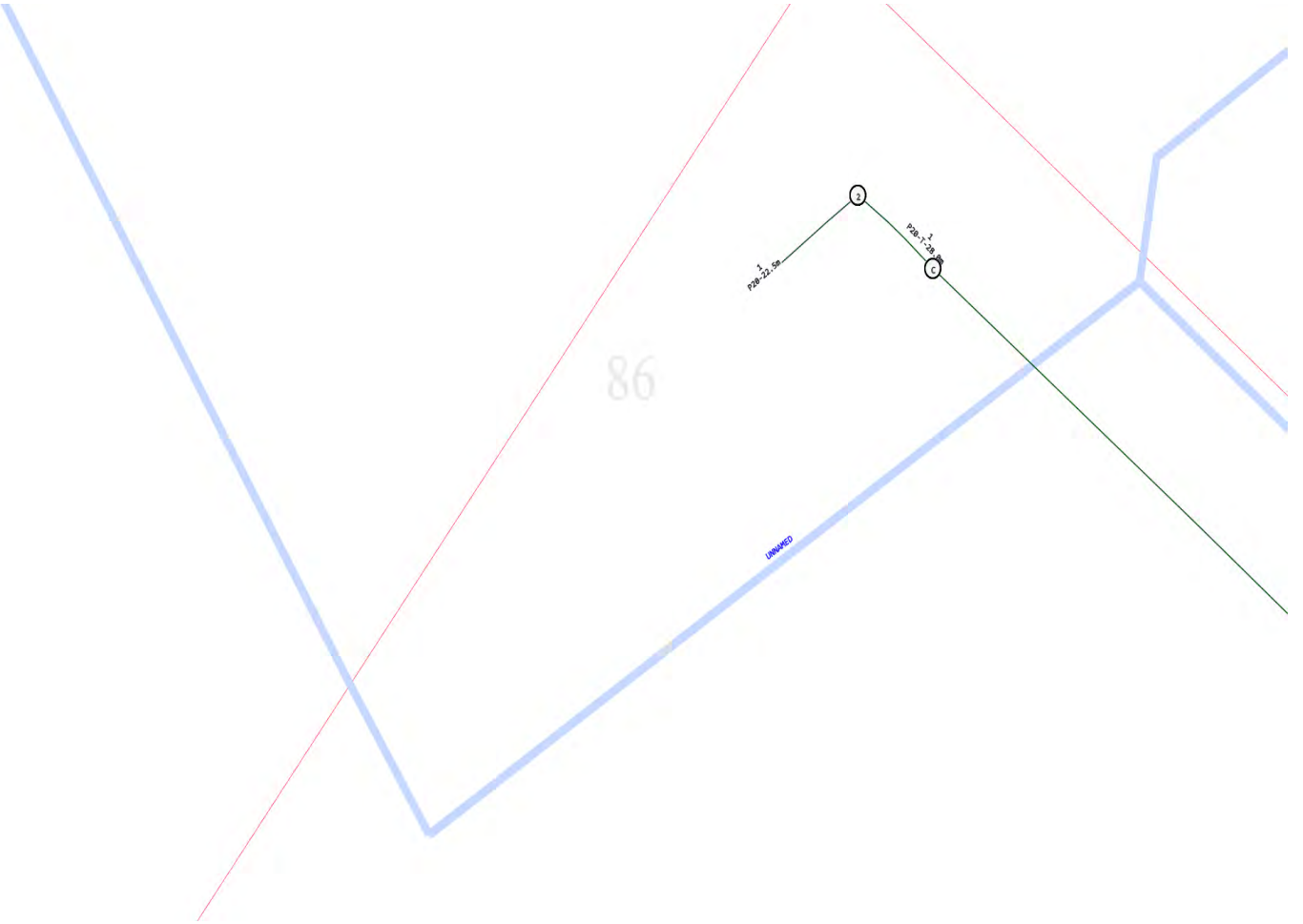






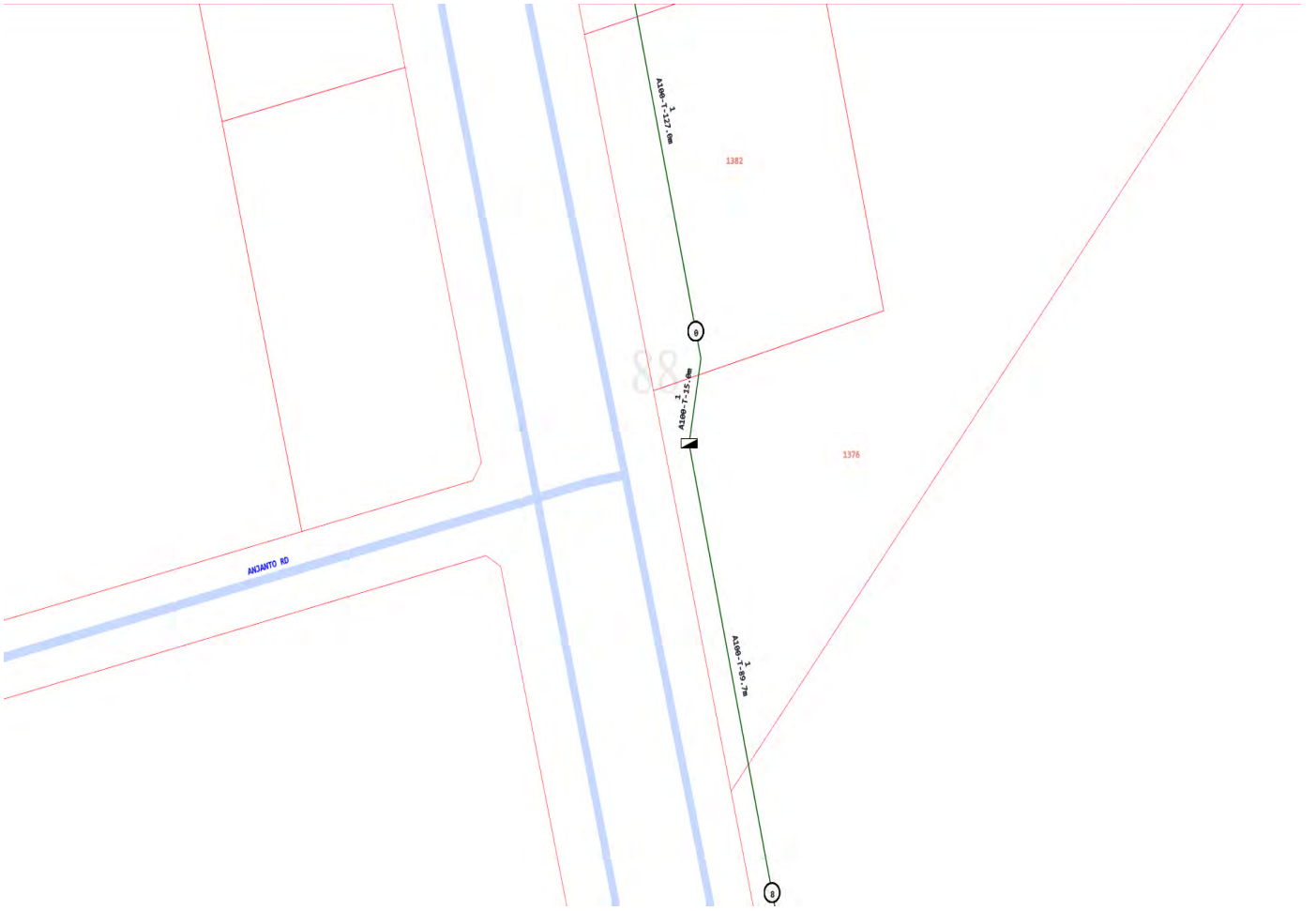












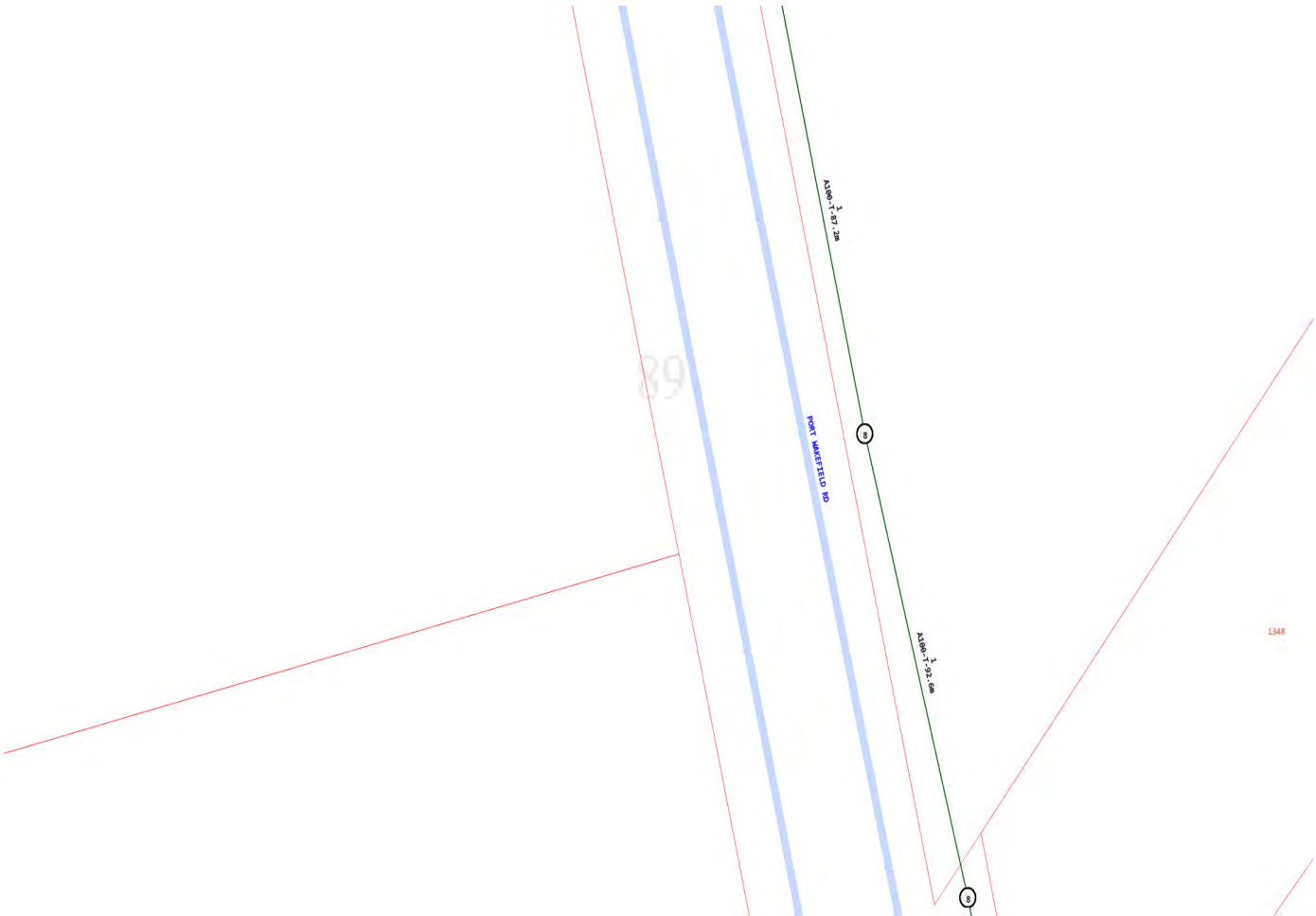
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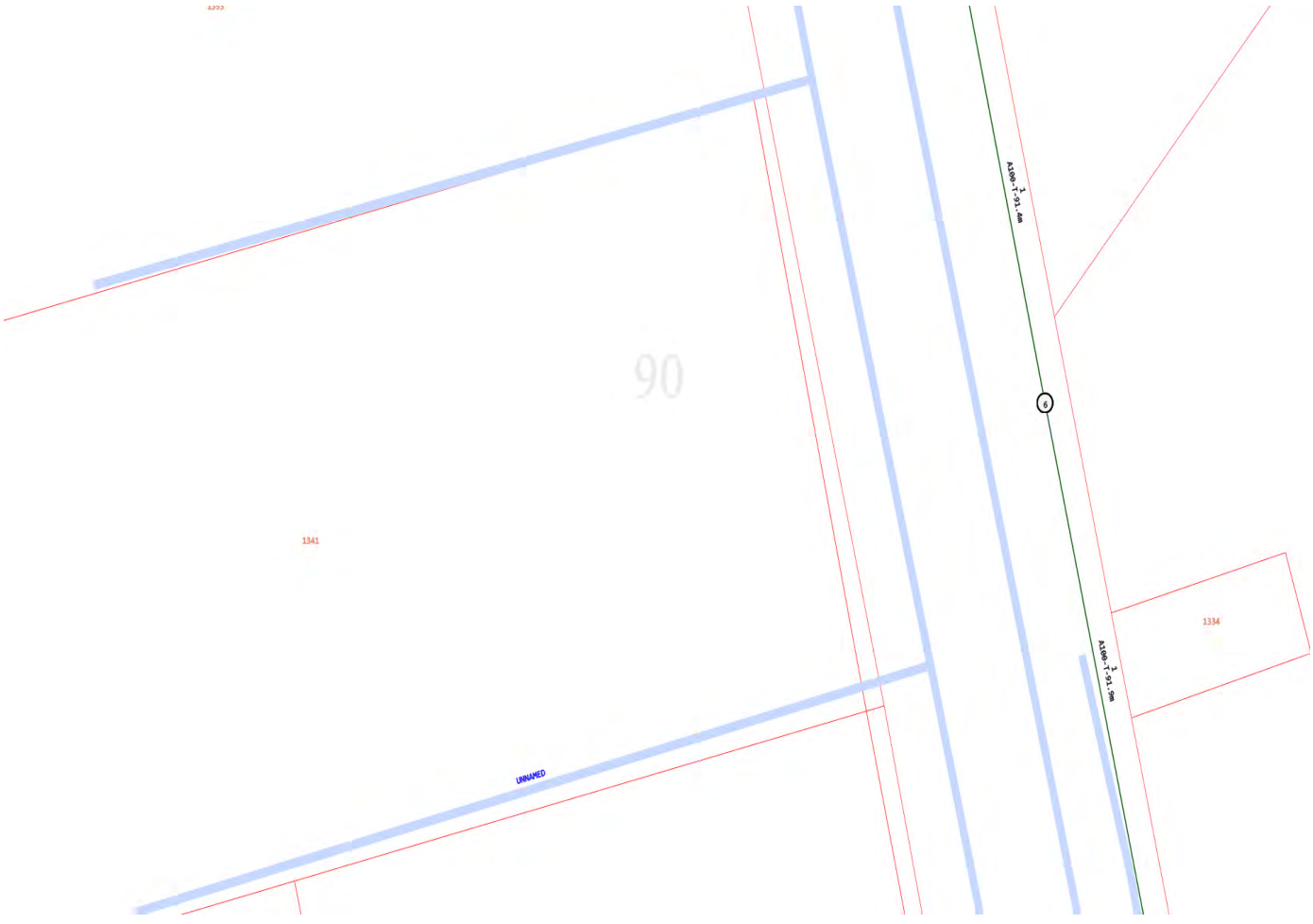
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POINT MARKER 1110

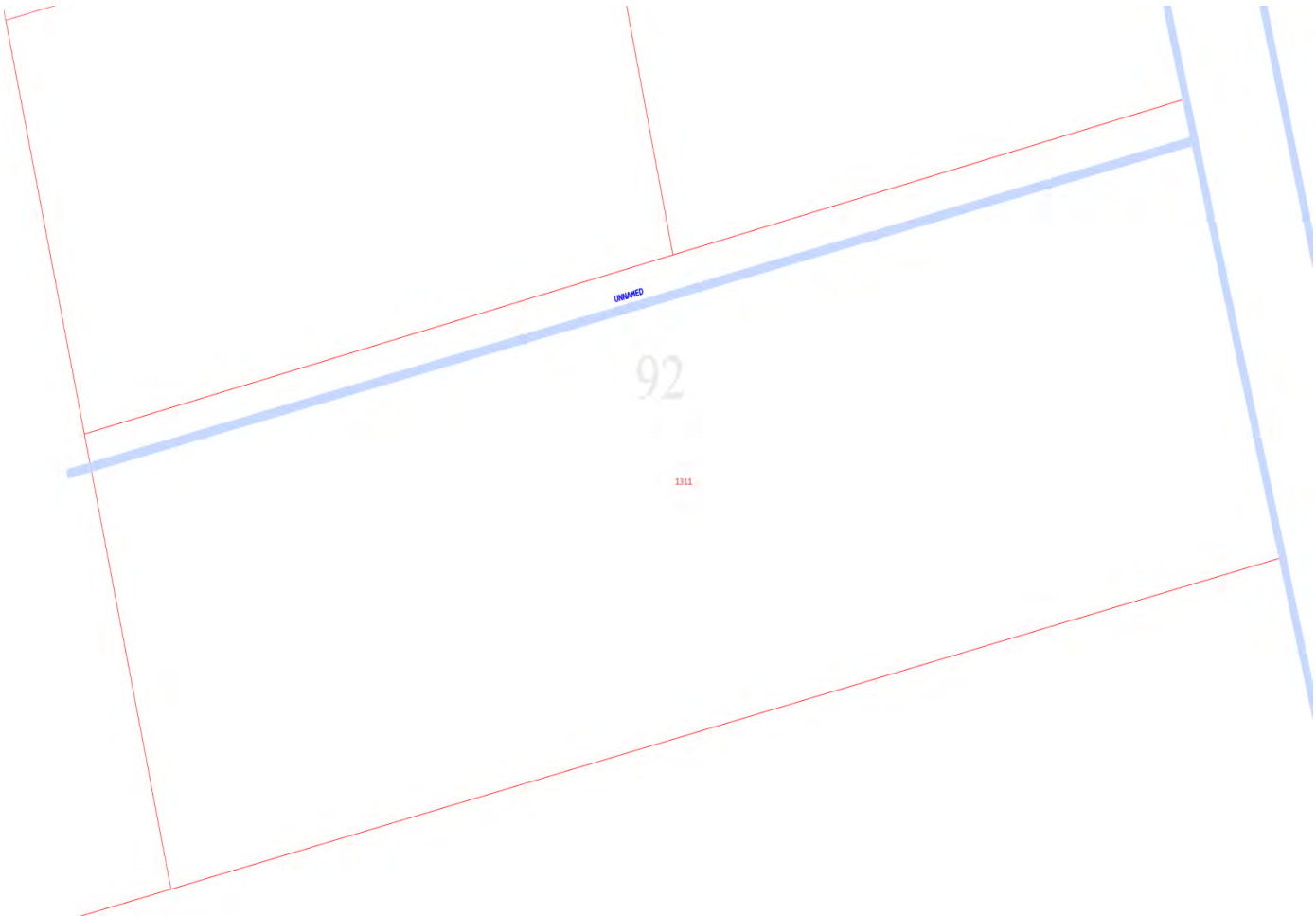
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1348

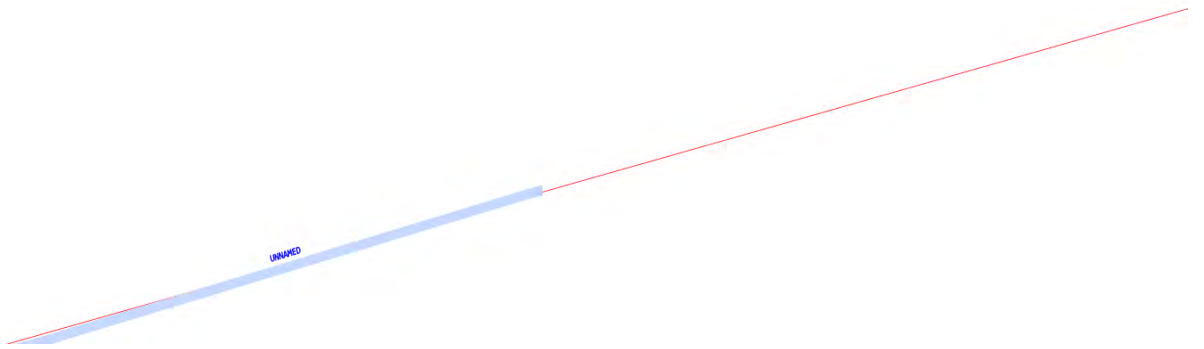
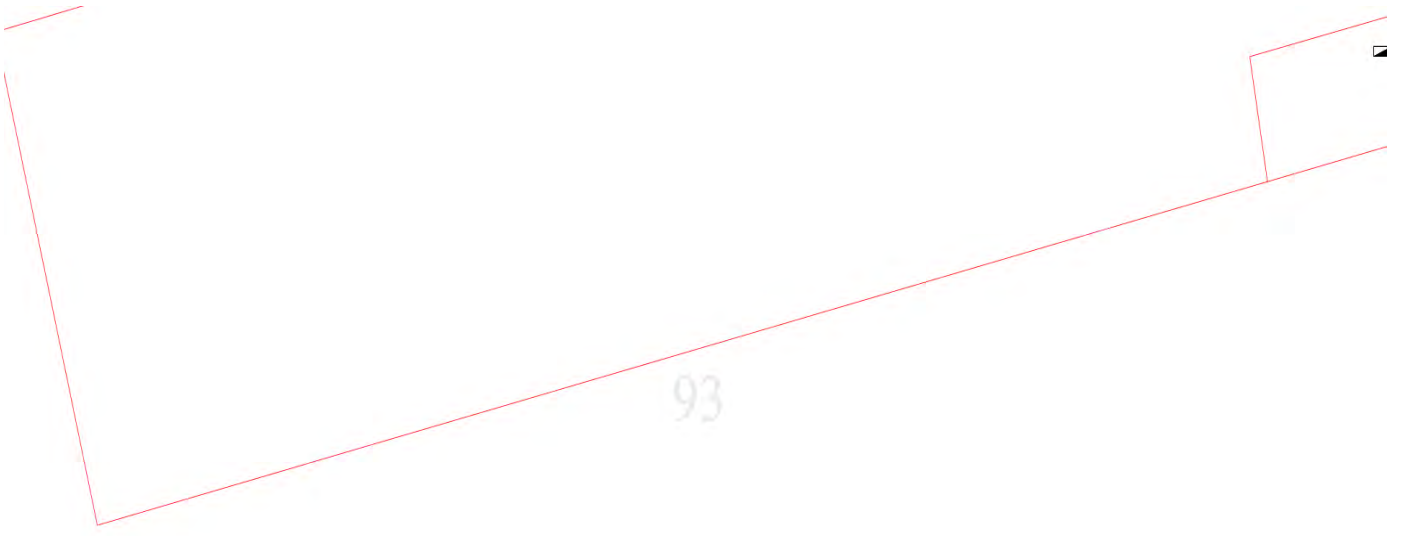


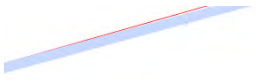






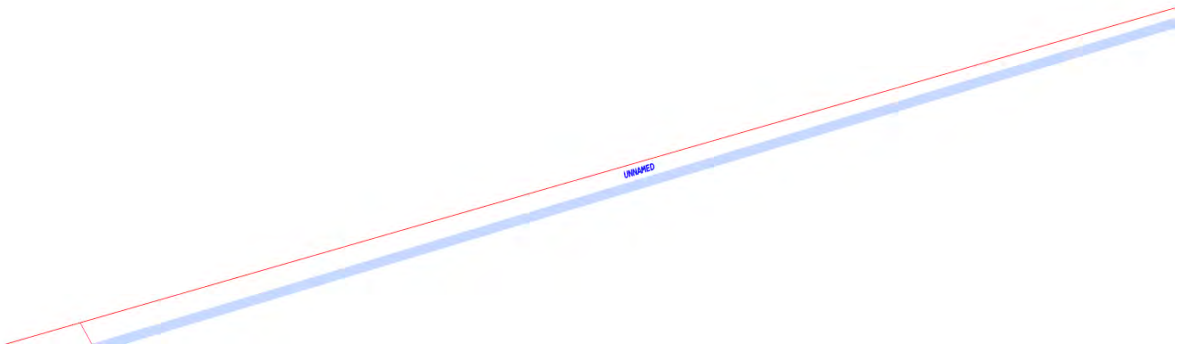


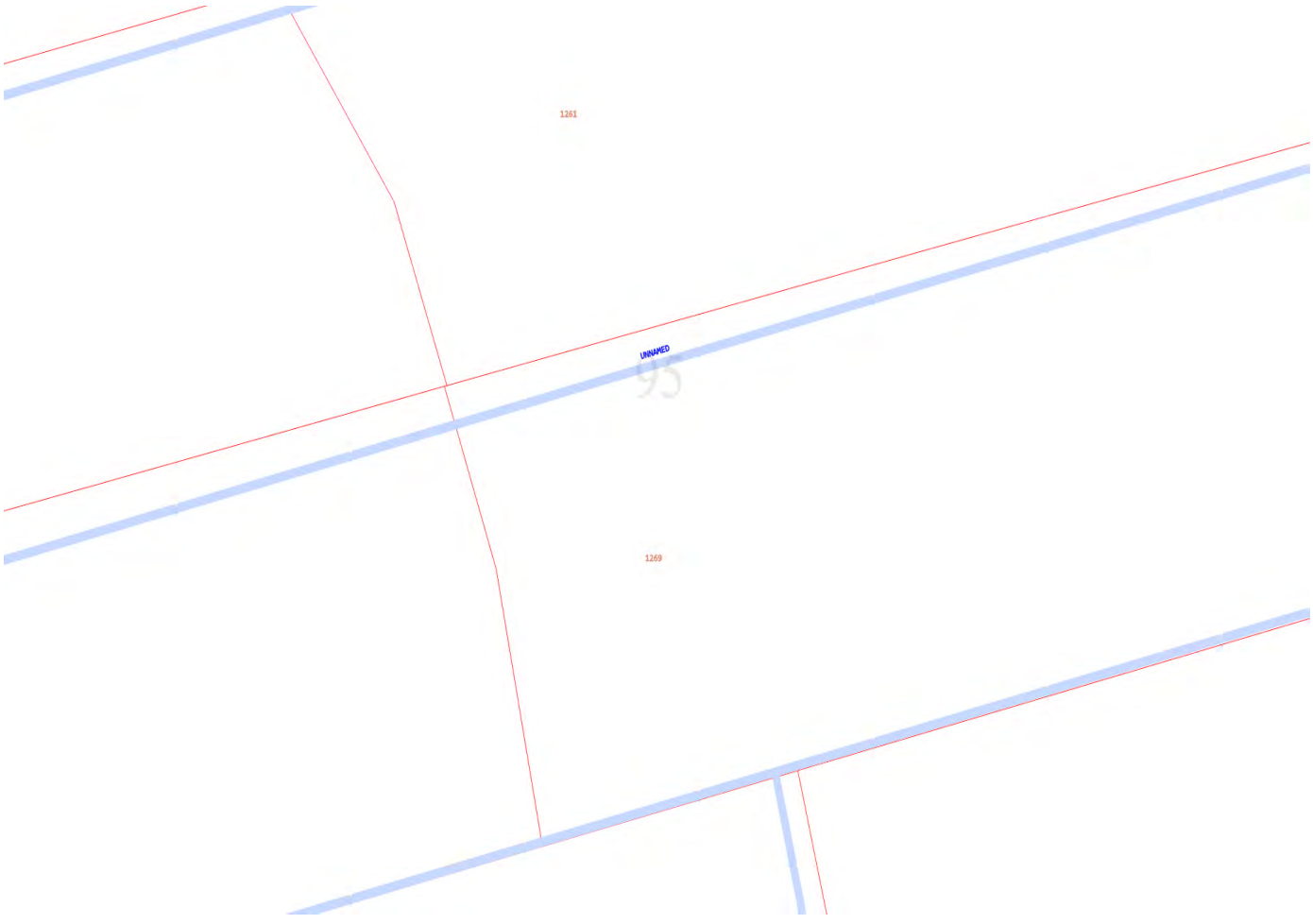




1777

94



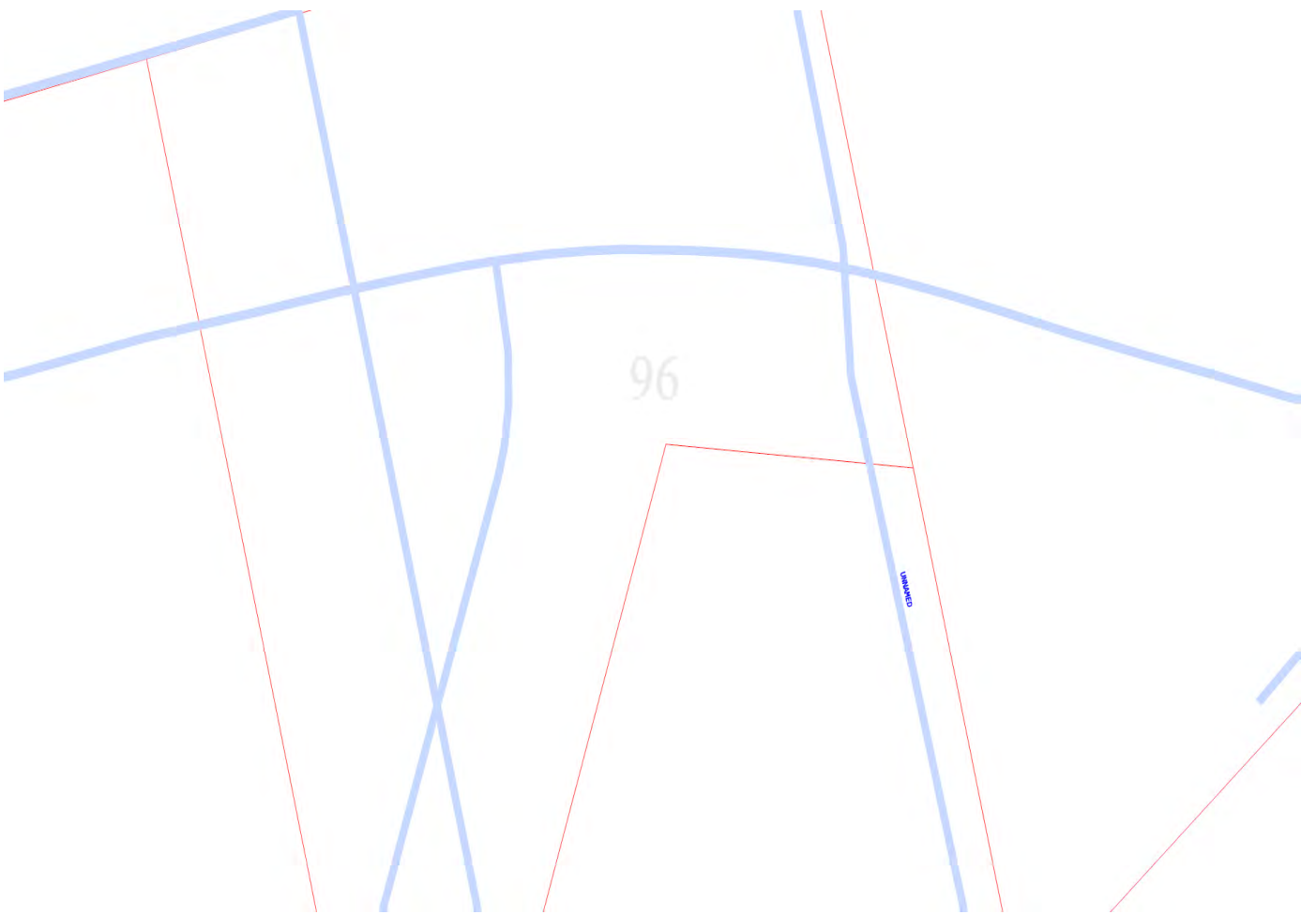


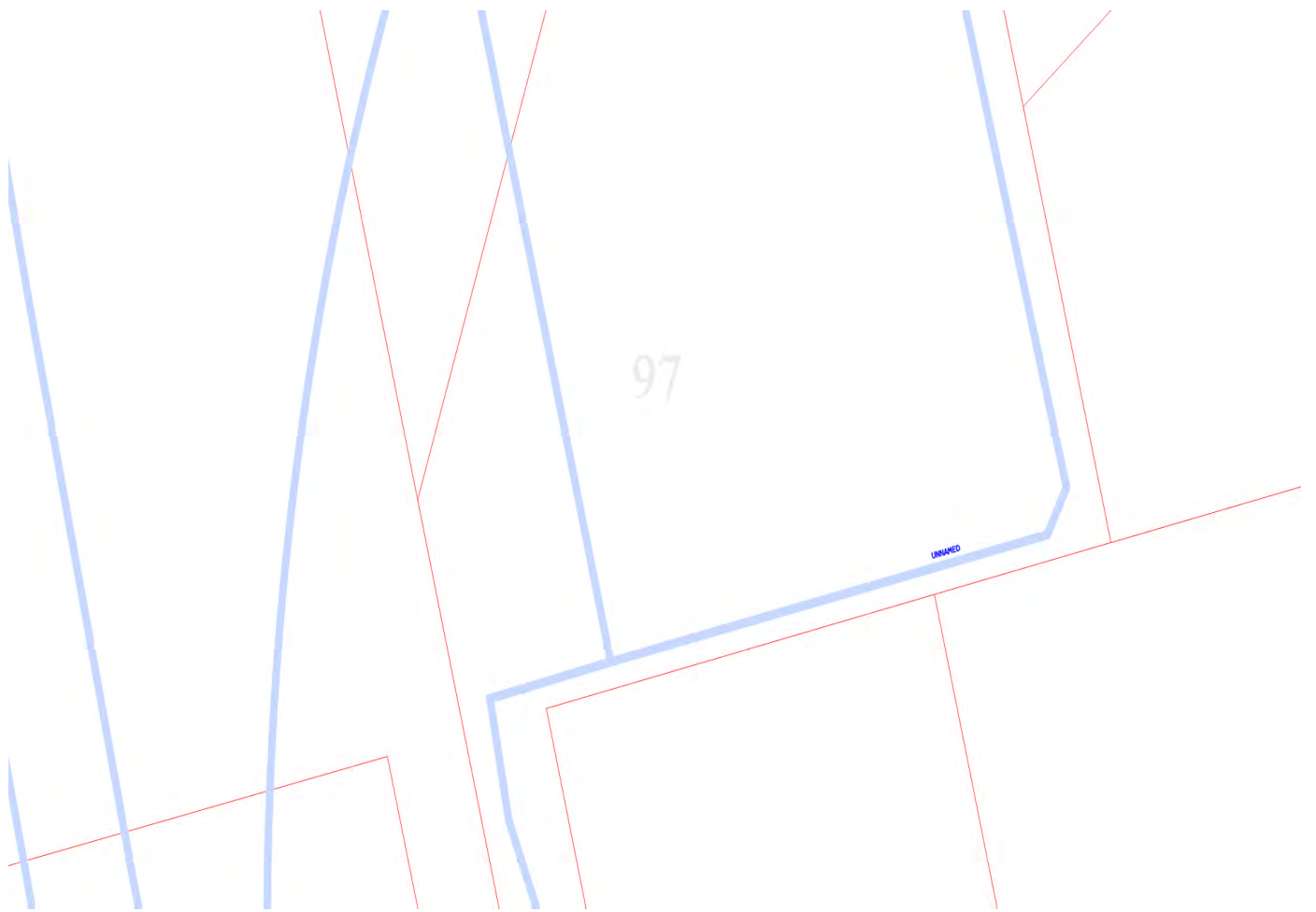
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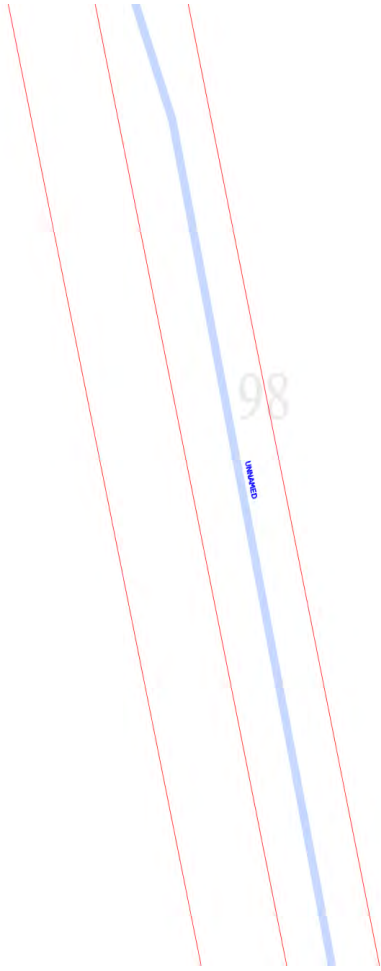
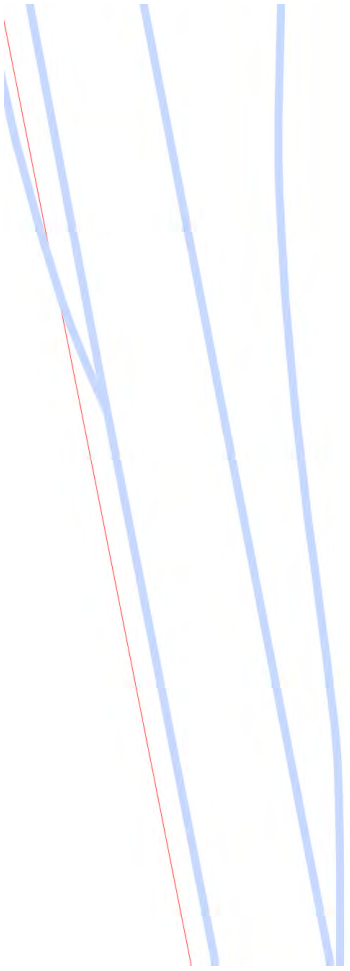
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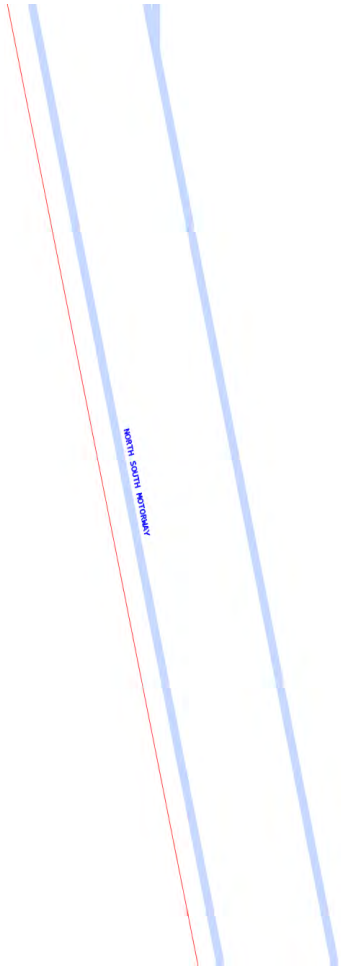
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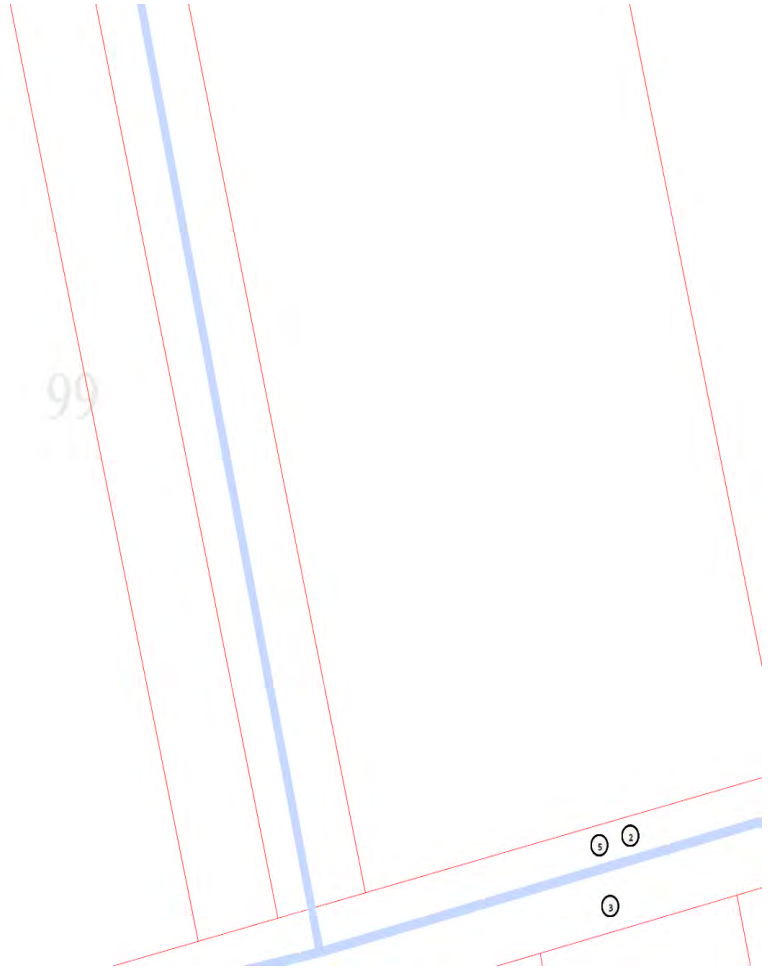






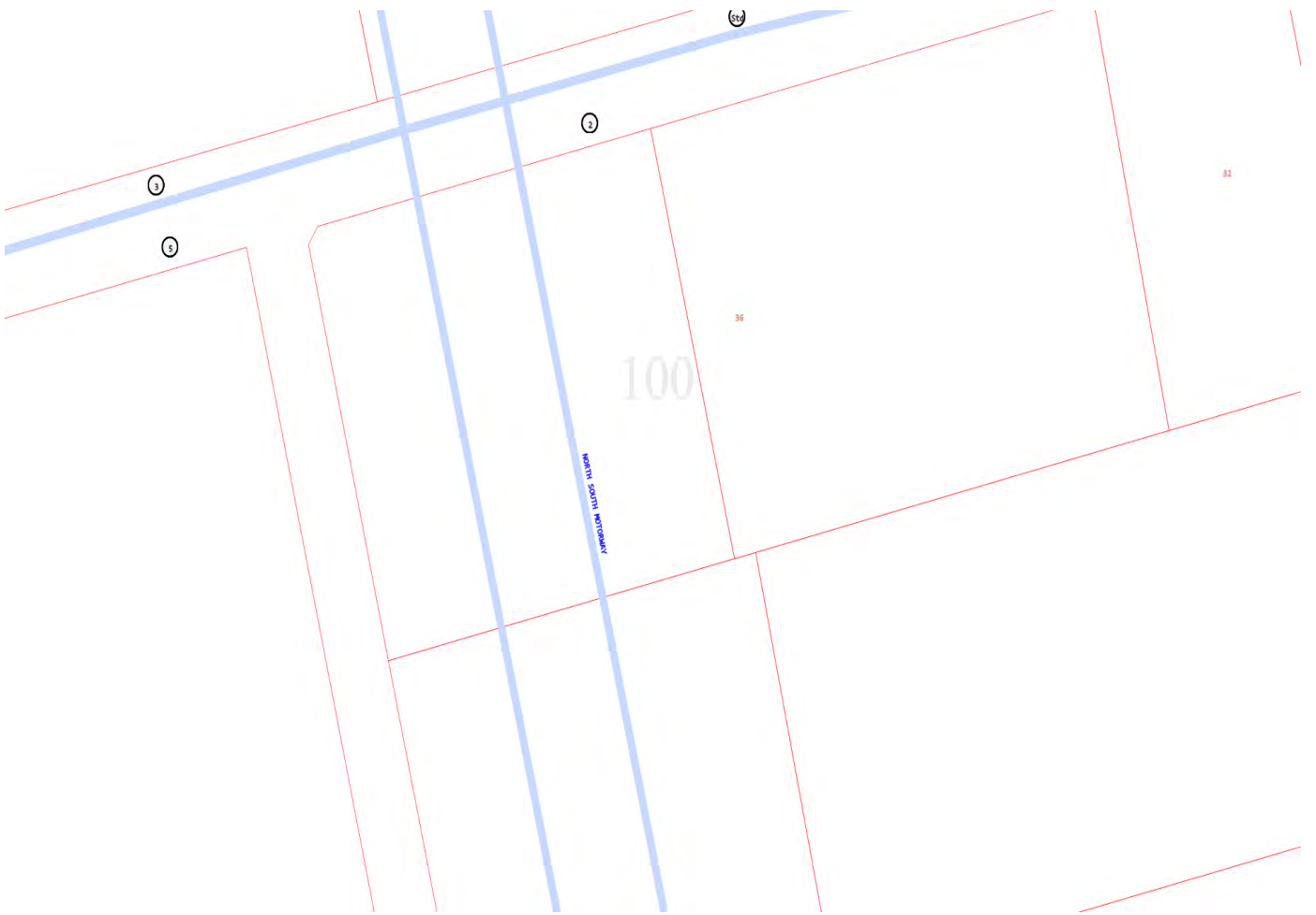


PROFILUJENI NASTAVAK



99

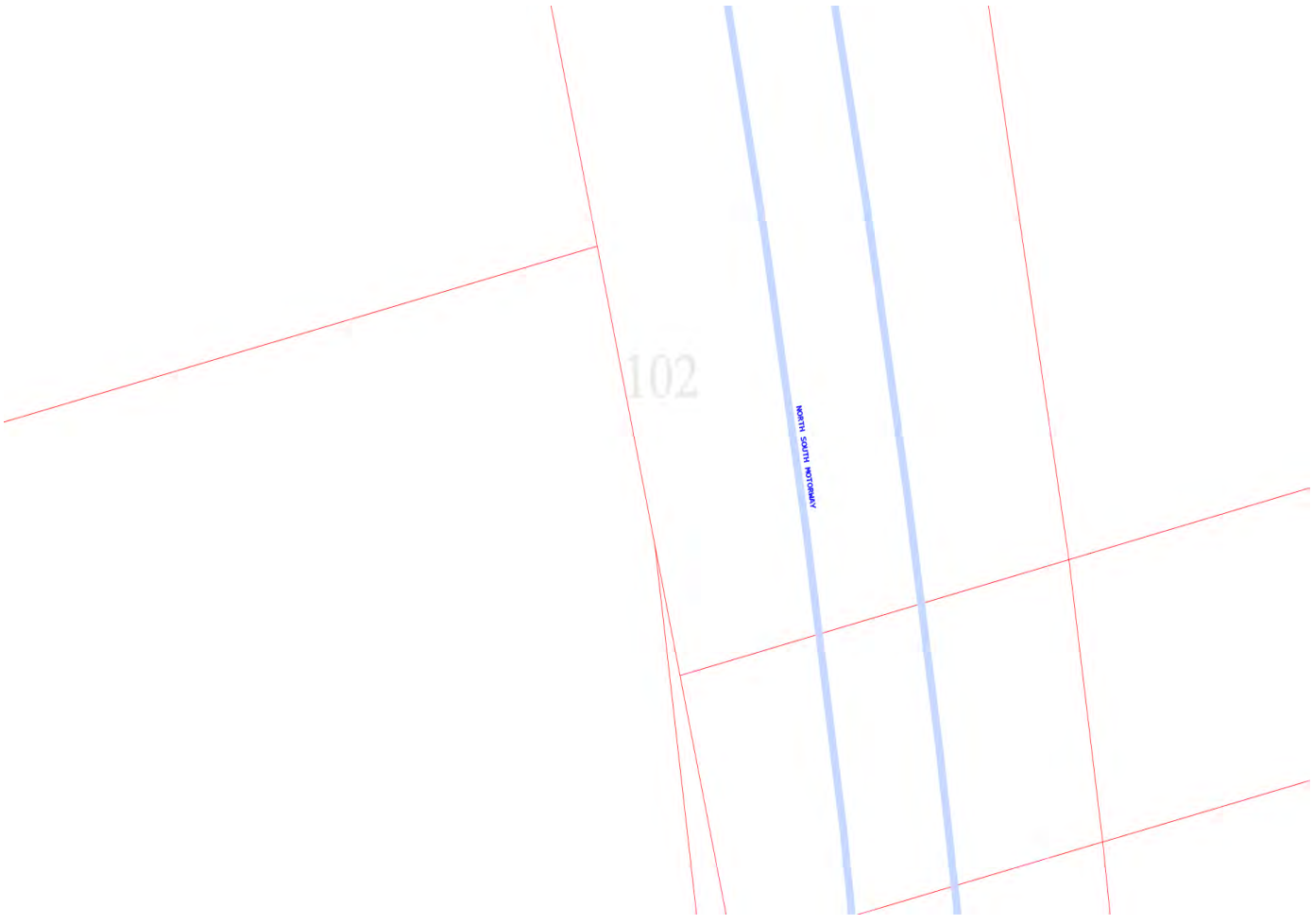
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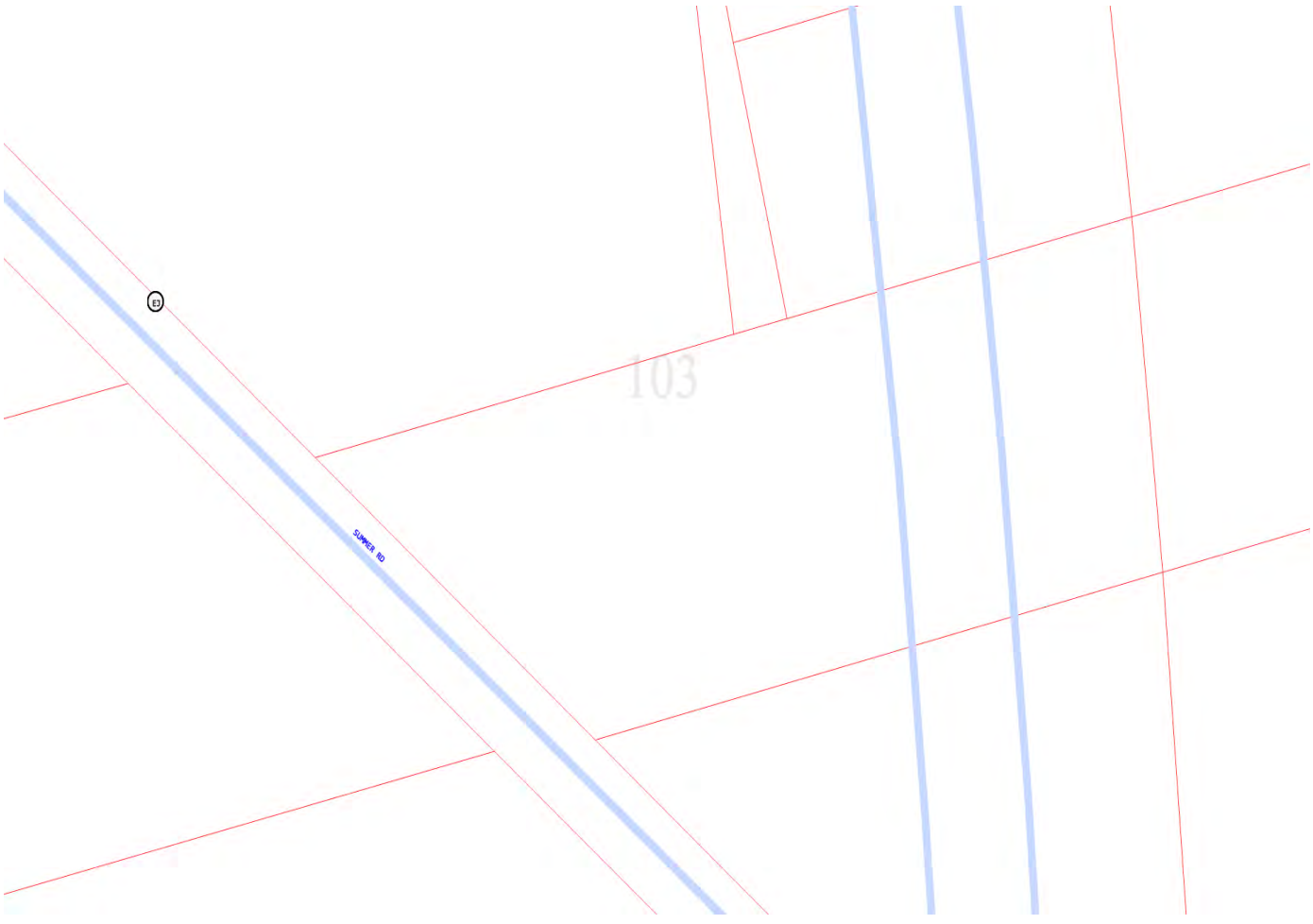


102

AYRHOUM HADIS' NUSON

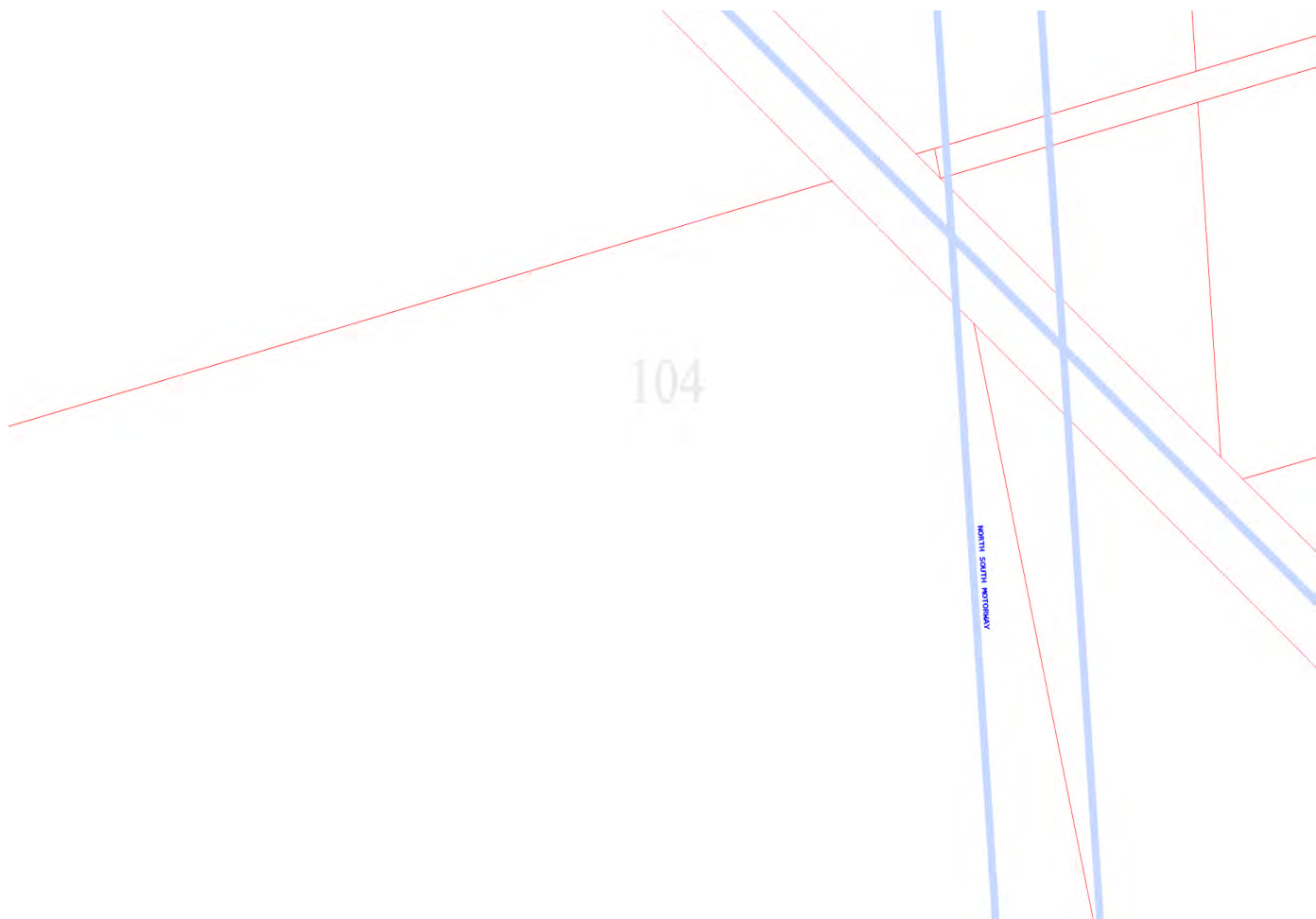




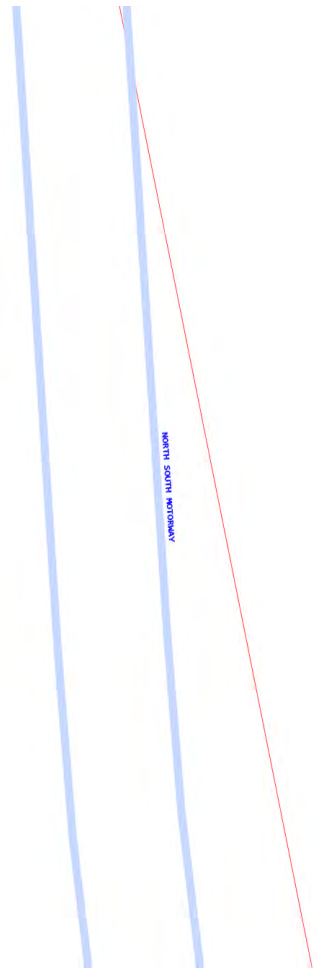


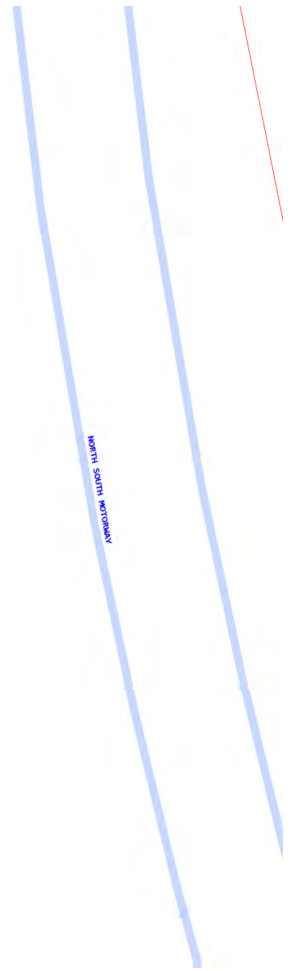
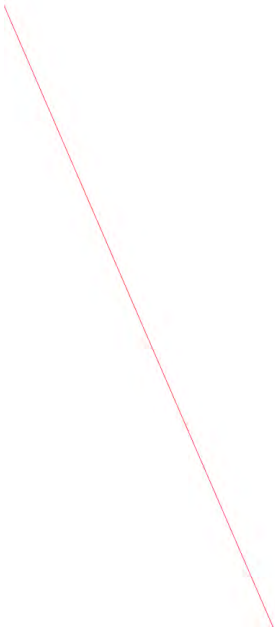
104

NORTH SOUTH HIGHWAY



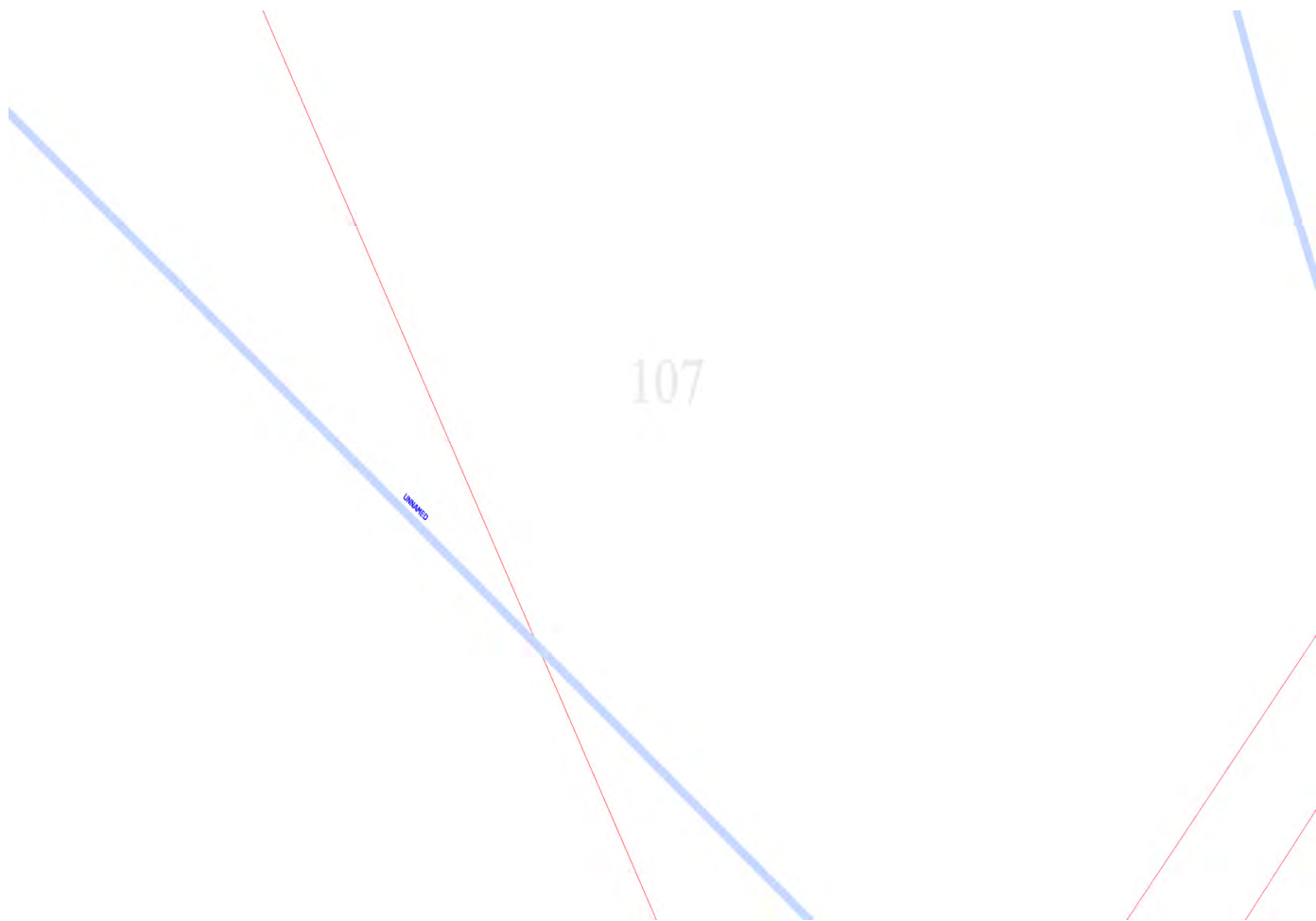
105





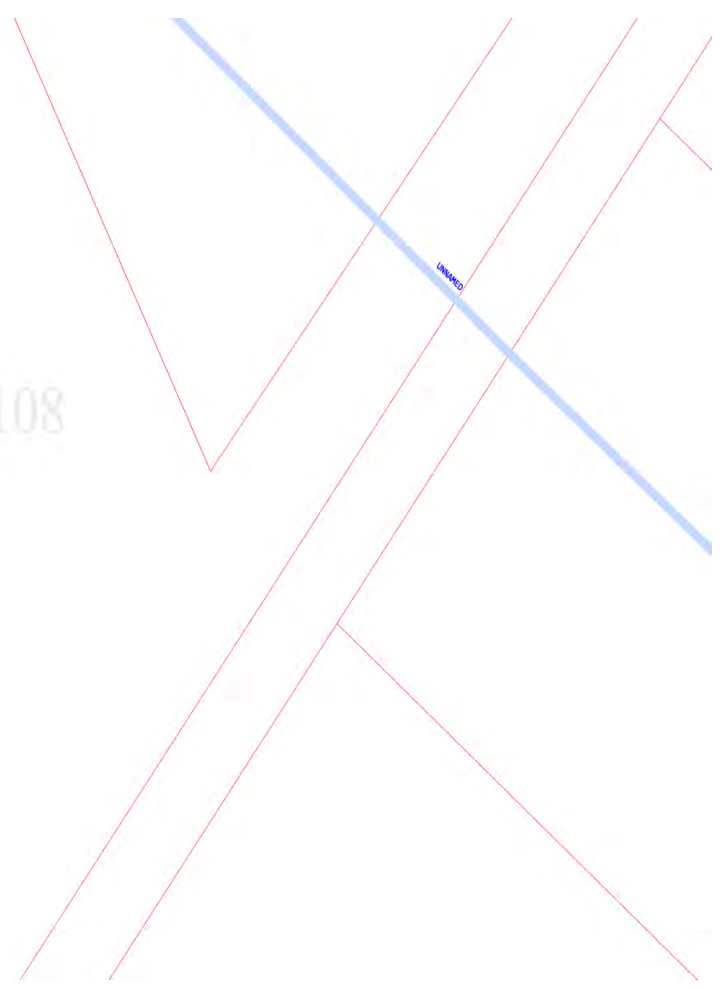
North South Mountain

107





108





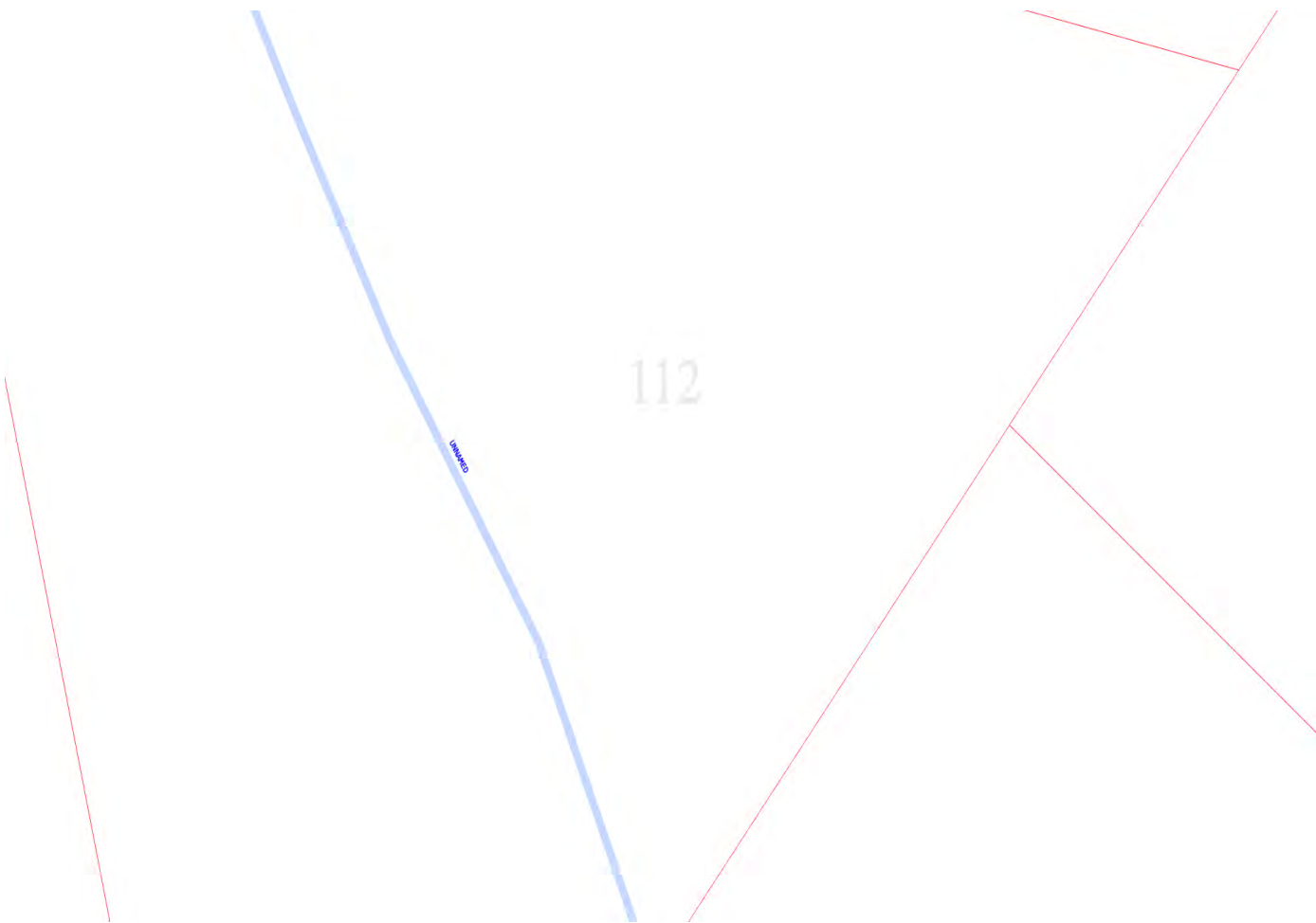


111

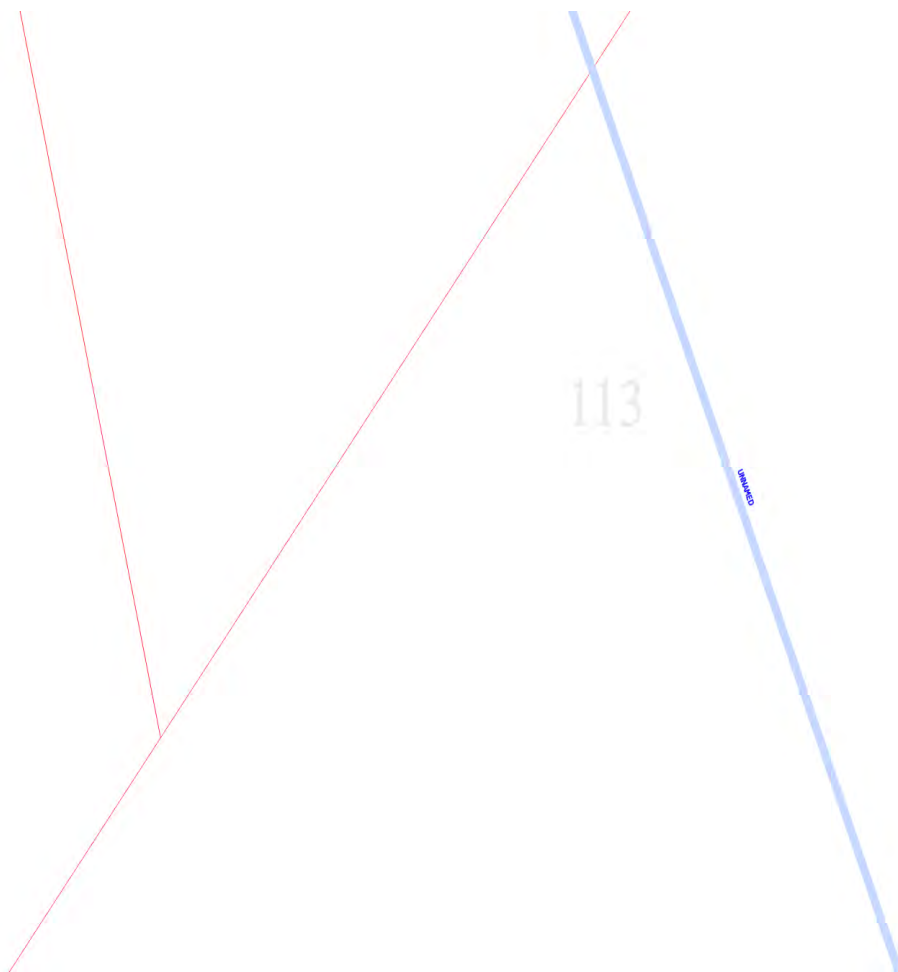
111111

112

112







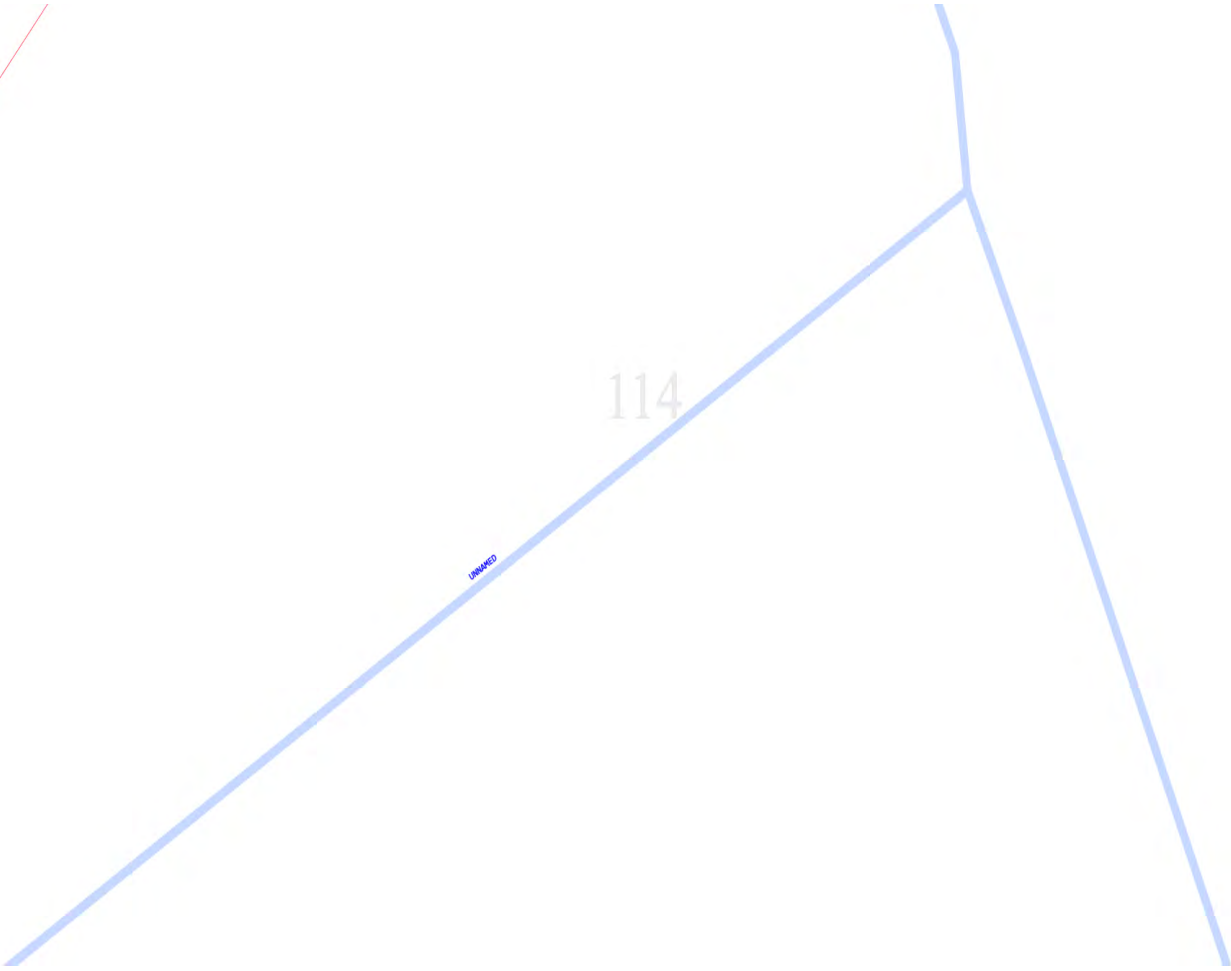
113

interse

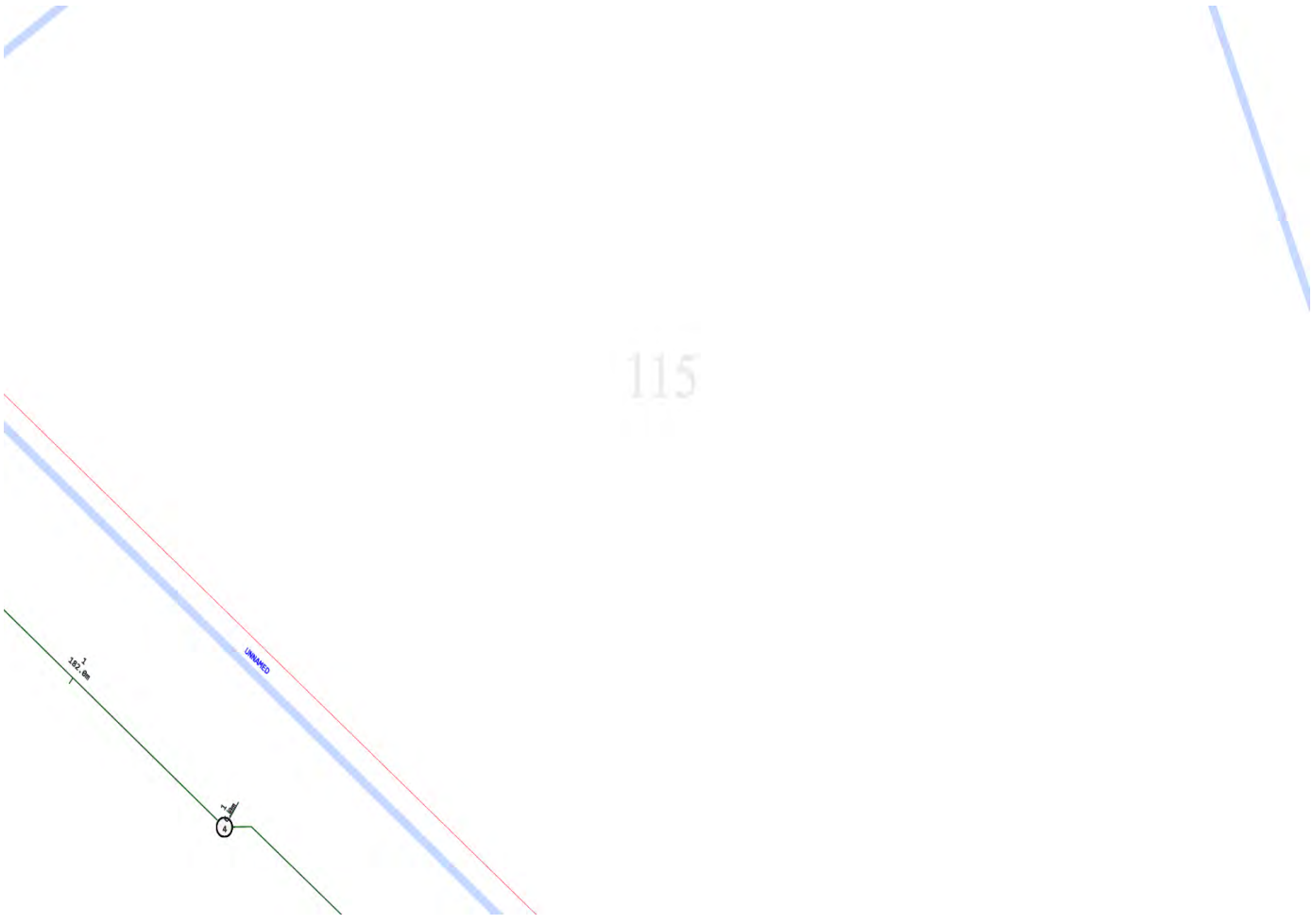


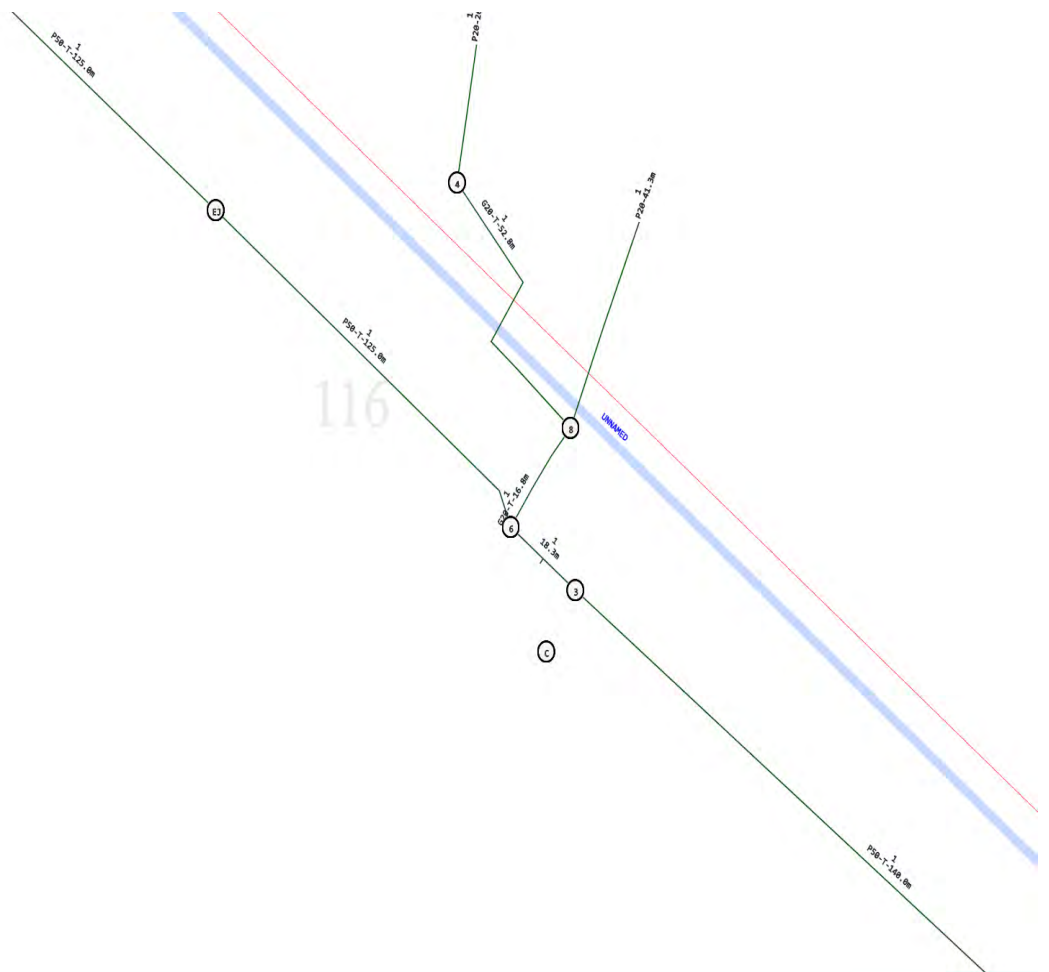
114

UNAPD



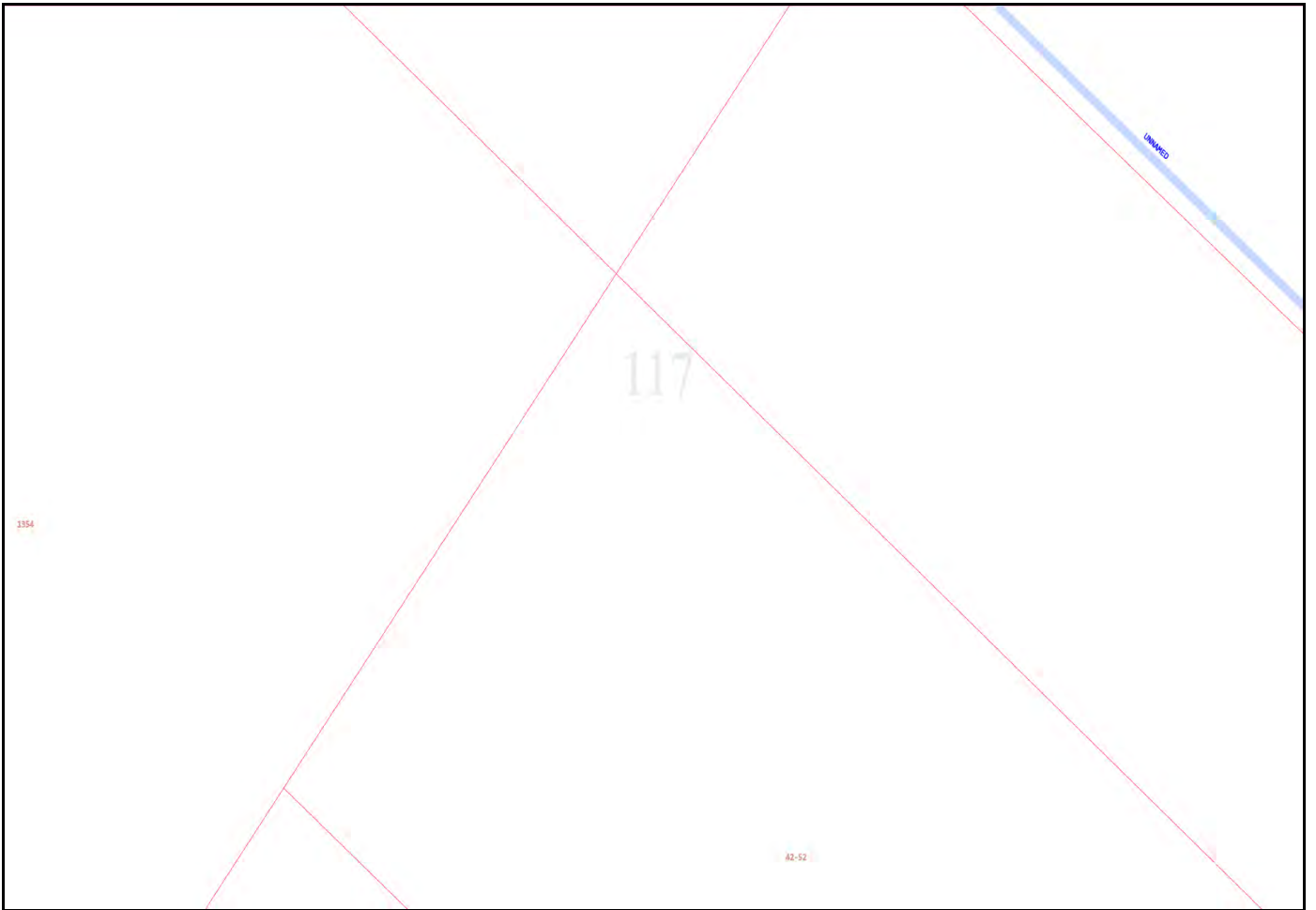
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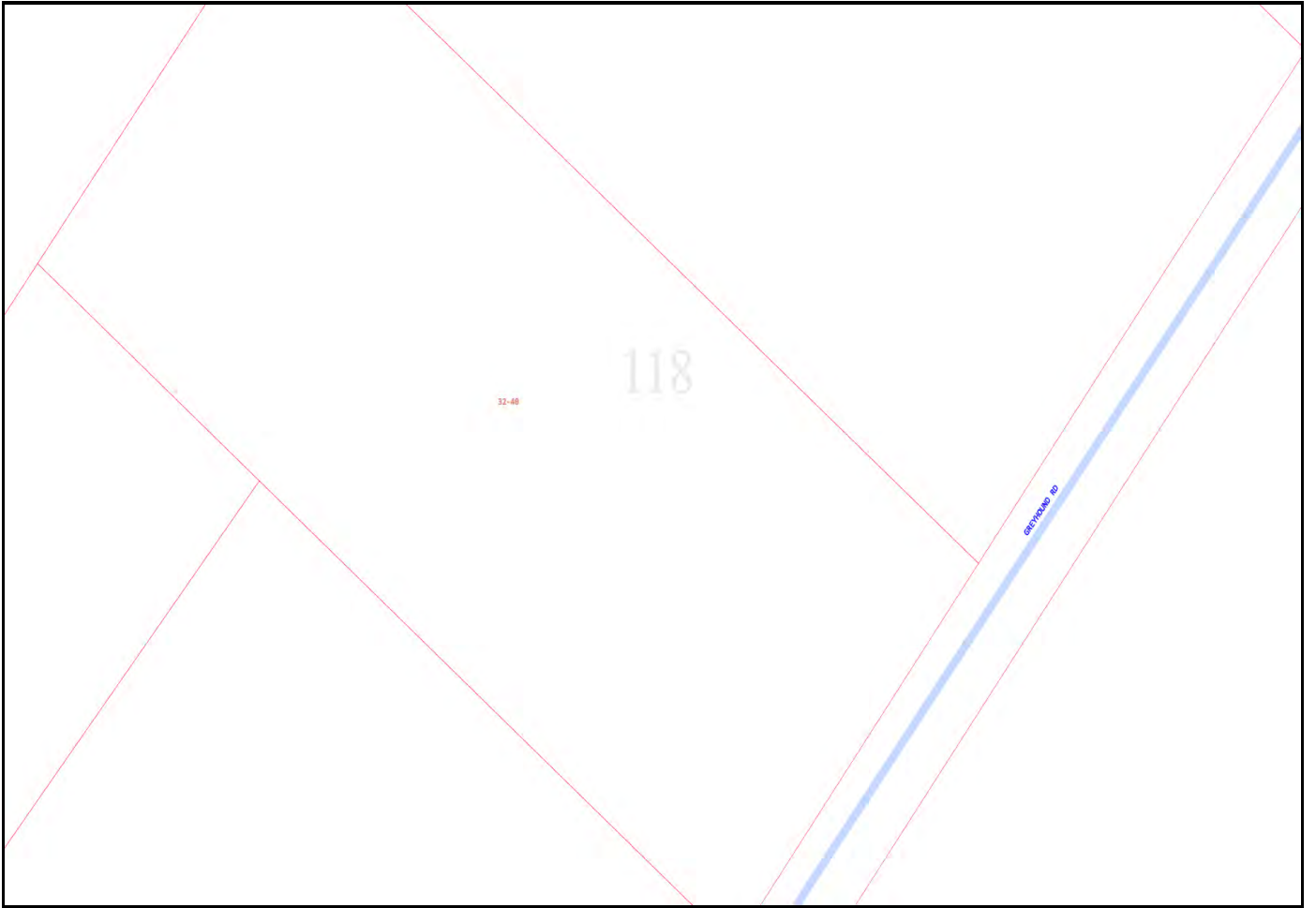


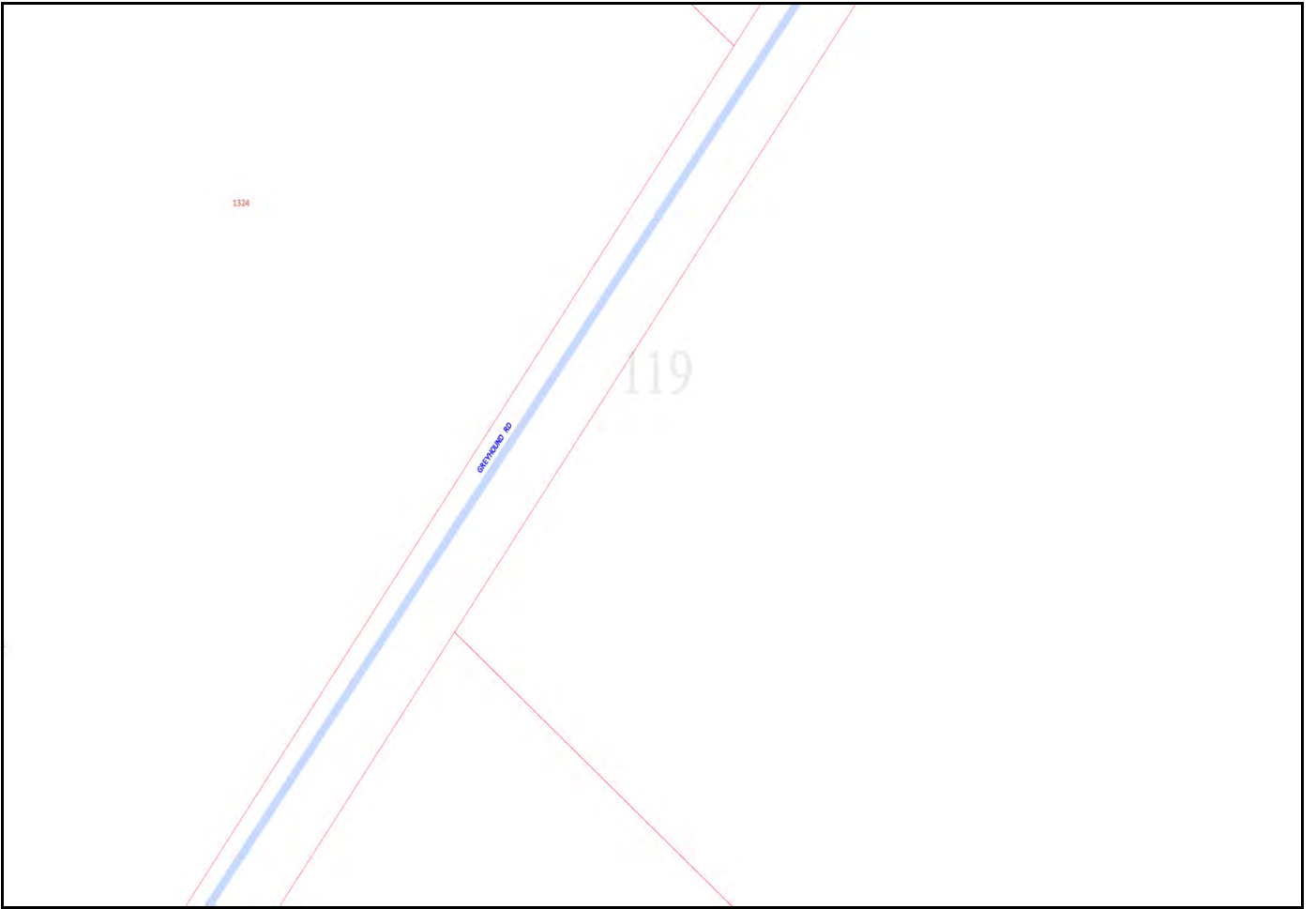
## Emergency Contacts

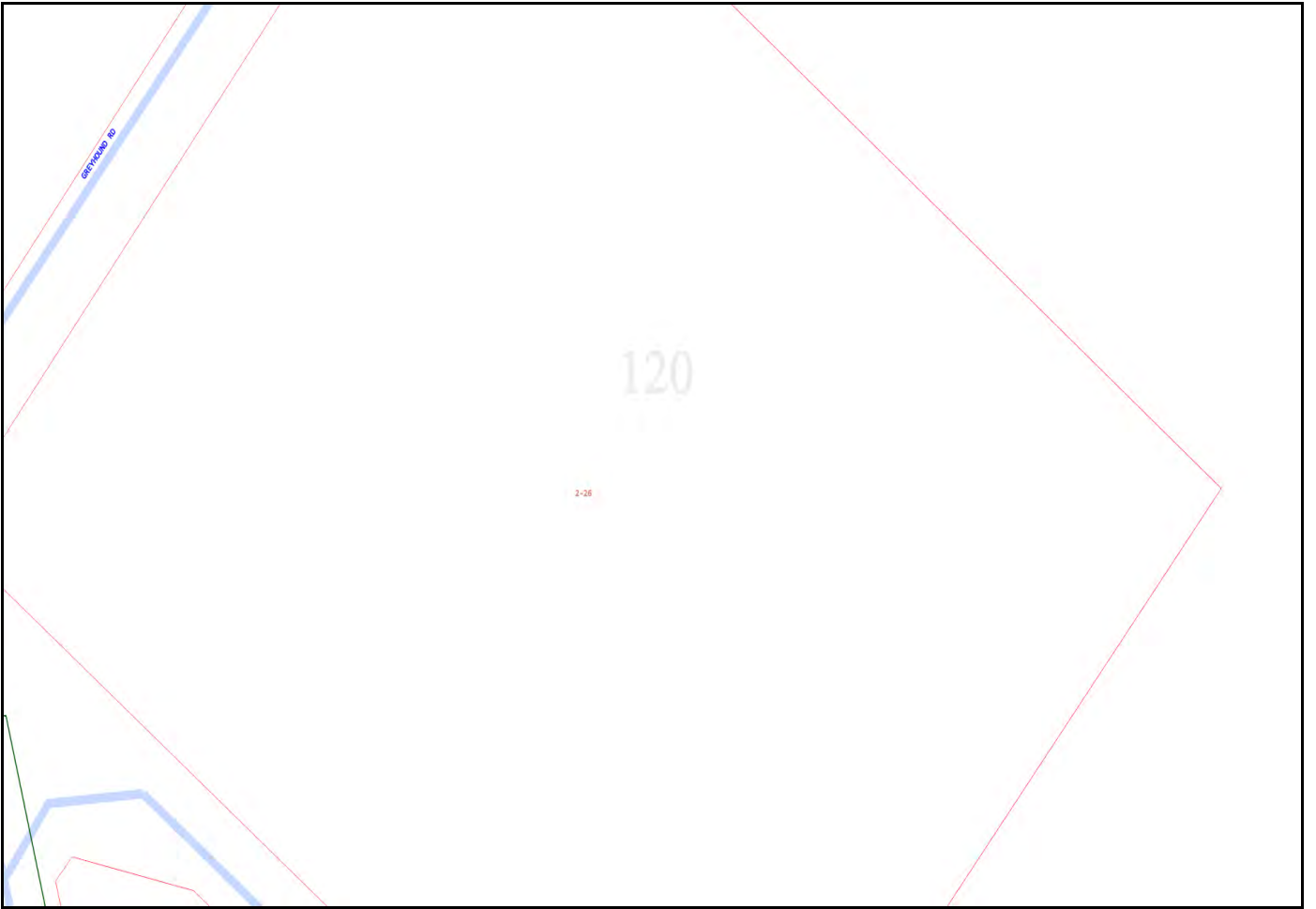
You must immediately report any damage to the **nbn**<sup>TM</sup> network that you are/become aware of. Notification may be by telephone - 1800 626 329.

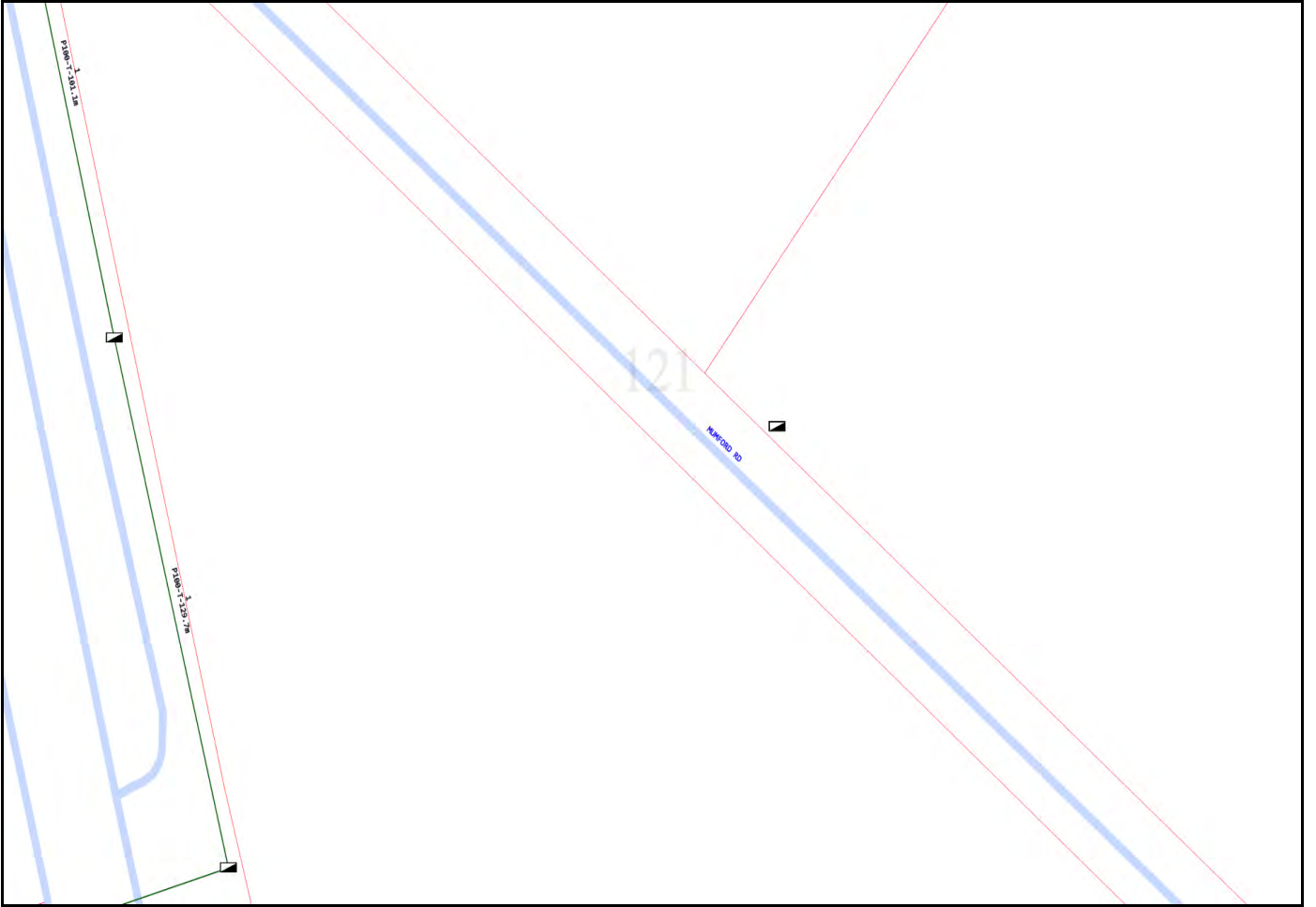


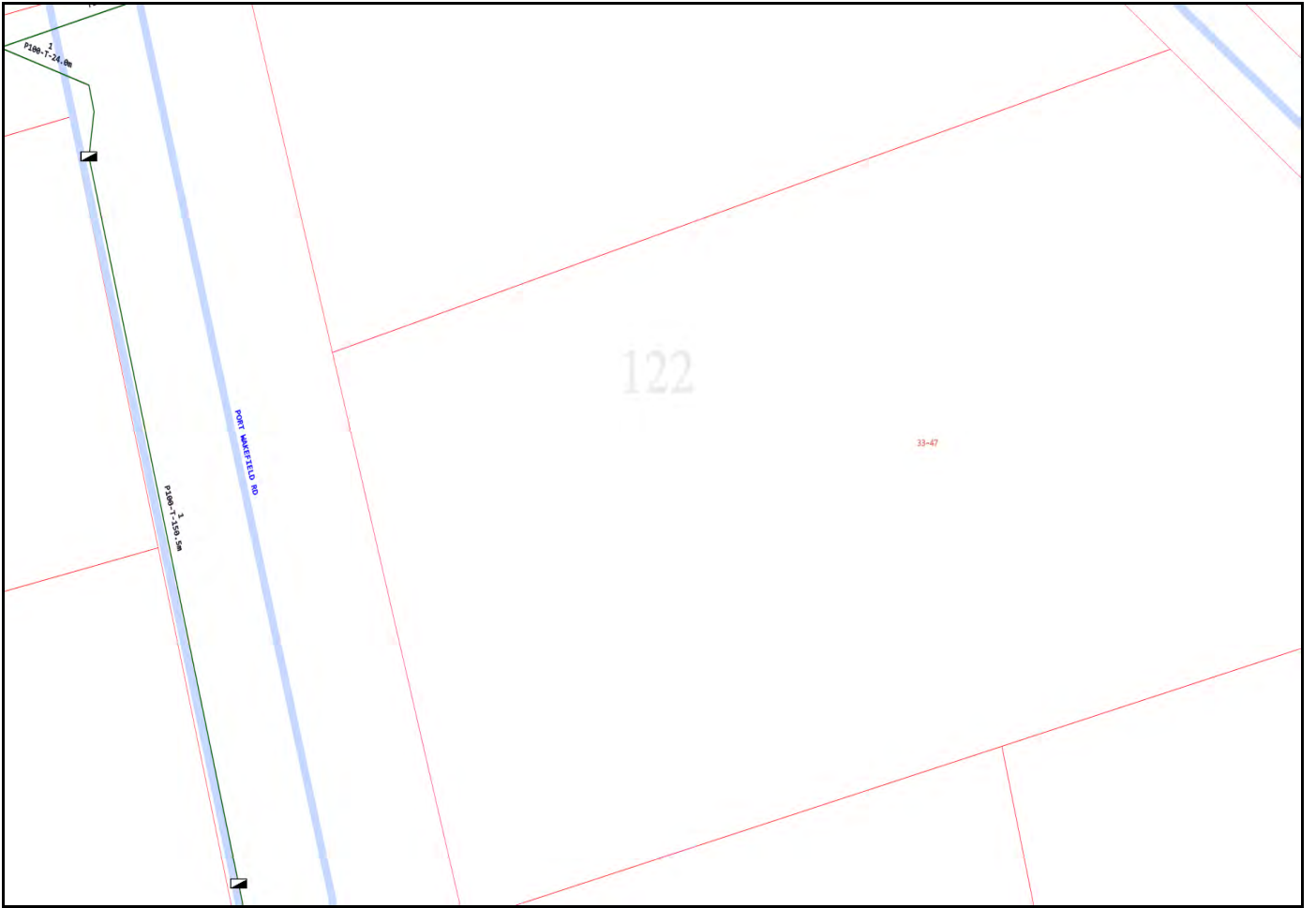




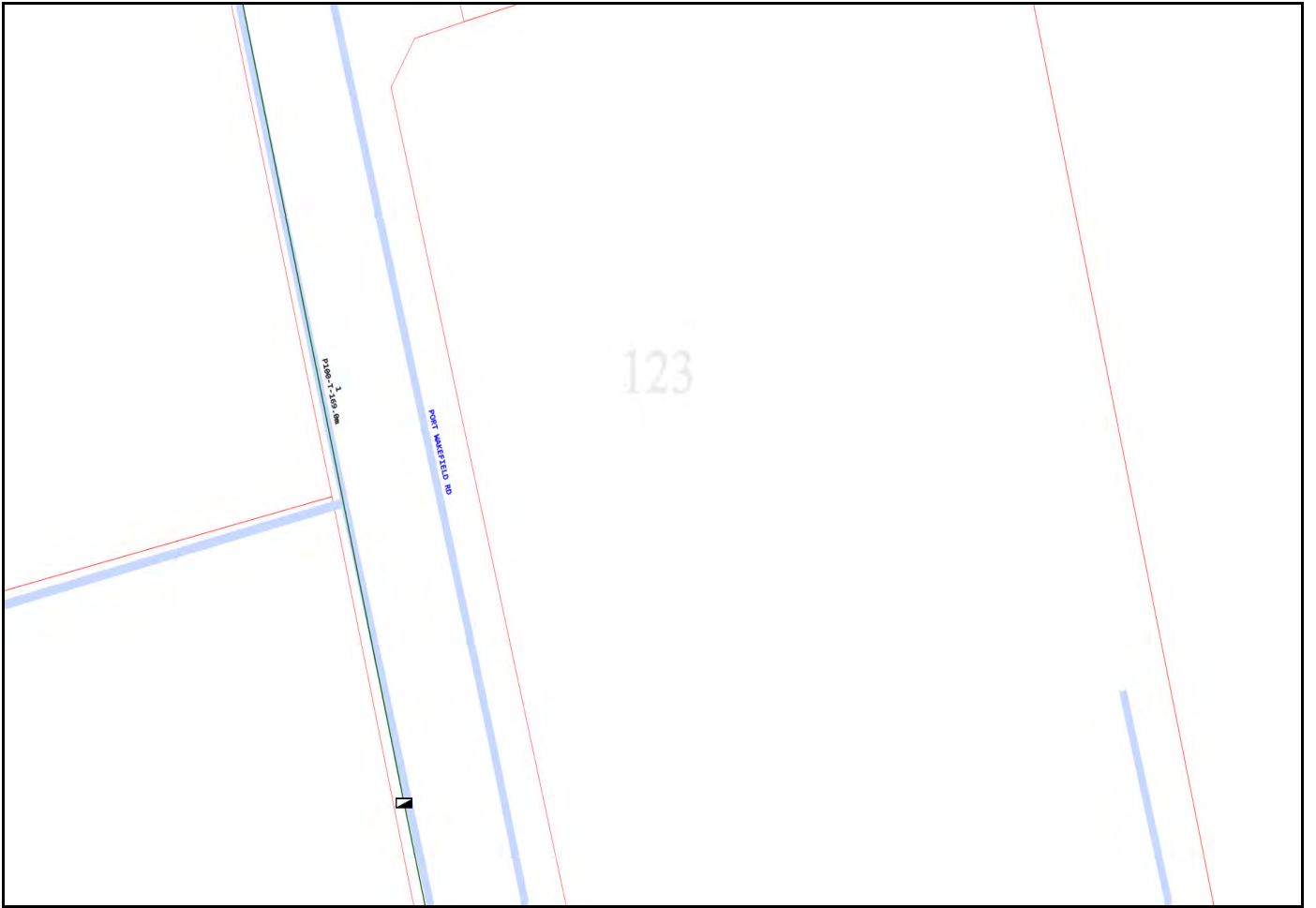












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POINT WAREFIELD RD

PPR-1-49.00

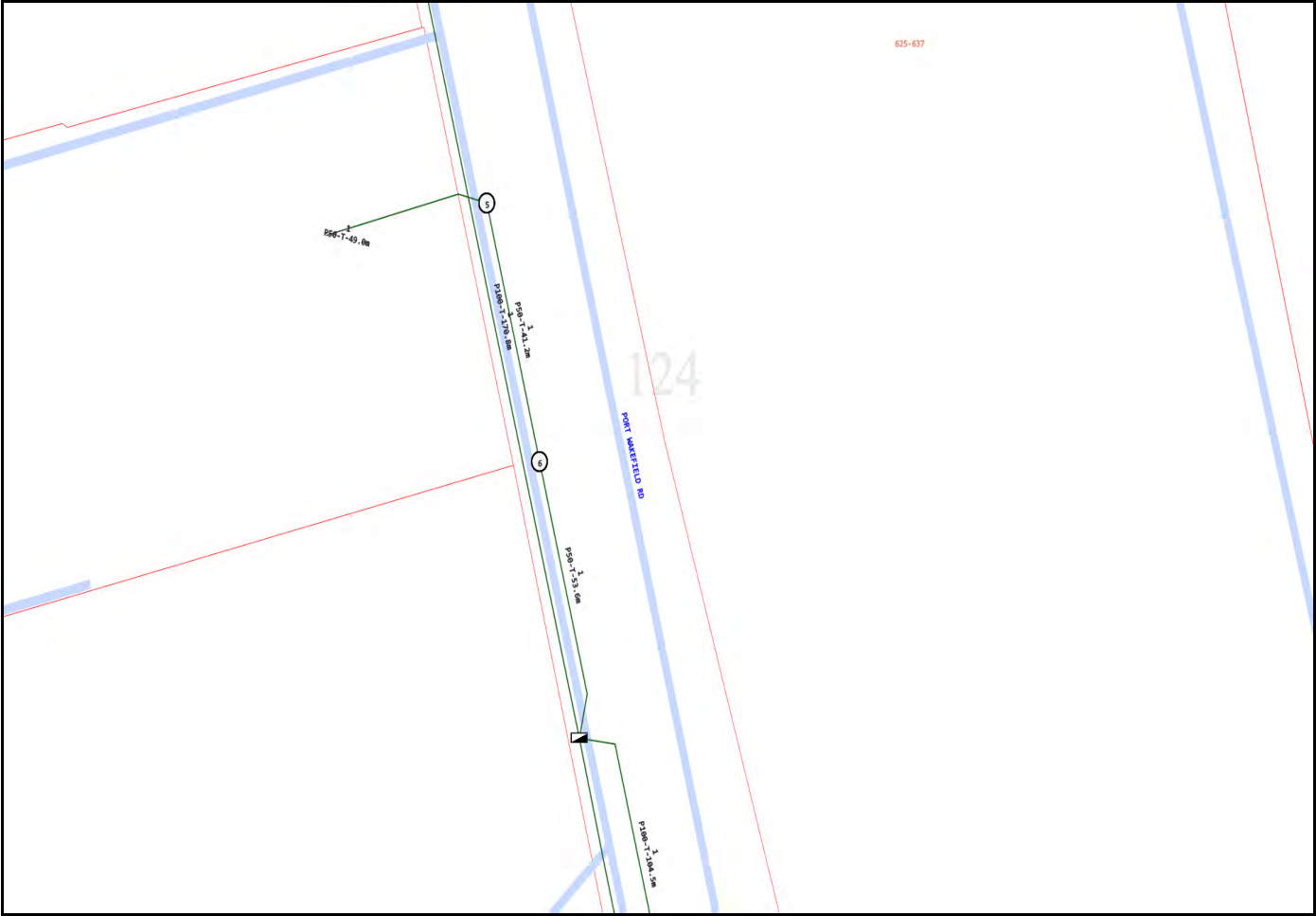
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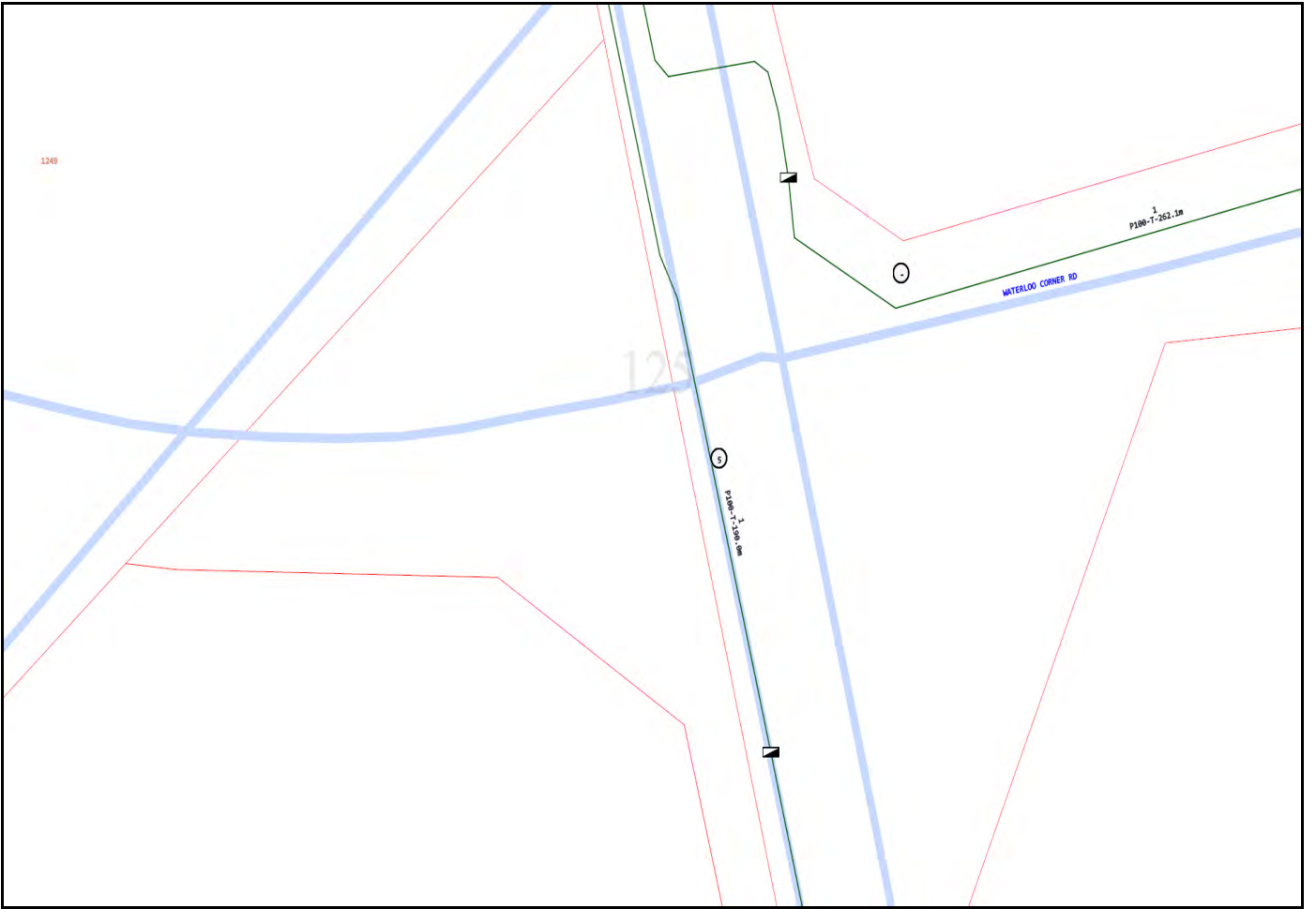
PPR-1-41.20  
PPR-1-21.00  
PPR-1-41.20

6

PPR-1-53.00

PPR-1-104.50





126

000 WEST 120TH

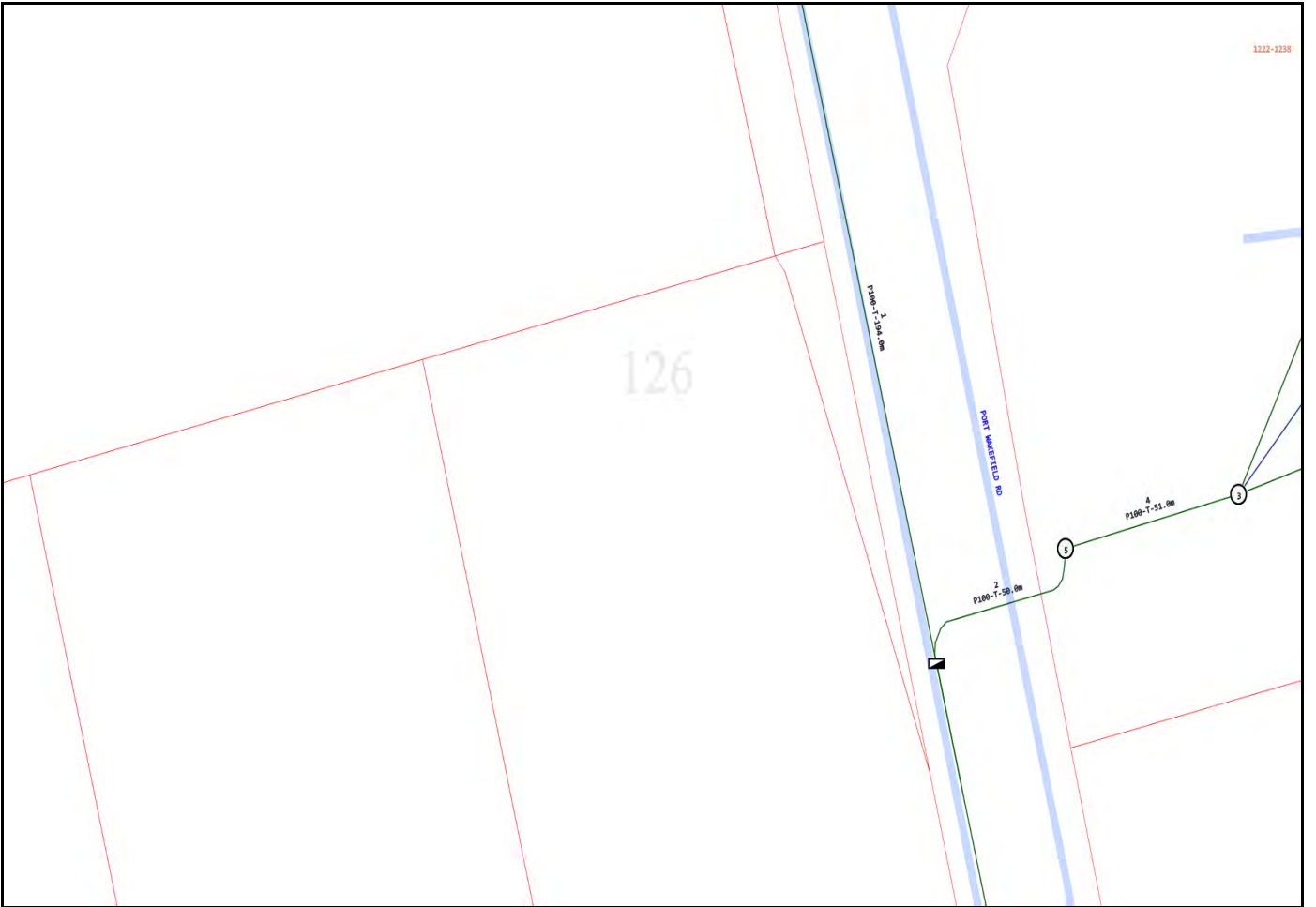
POWERSFIELD

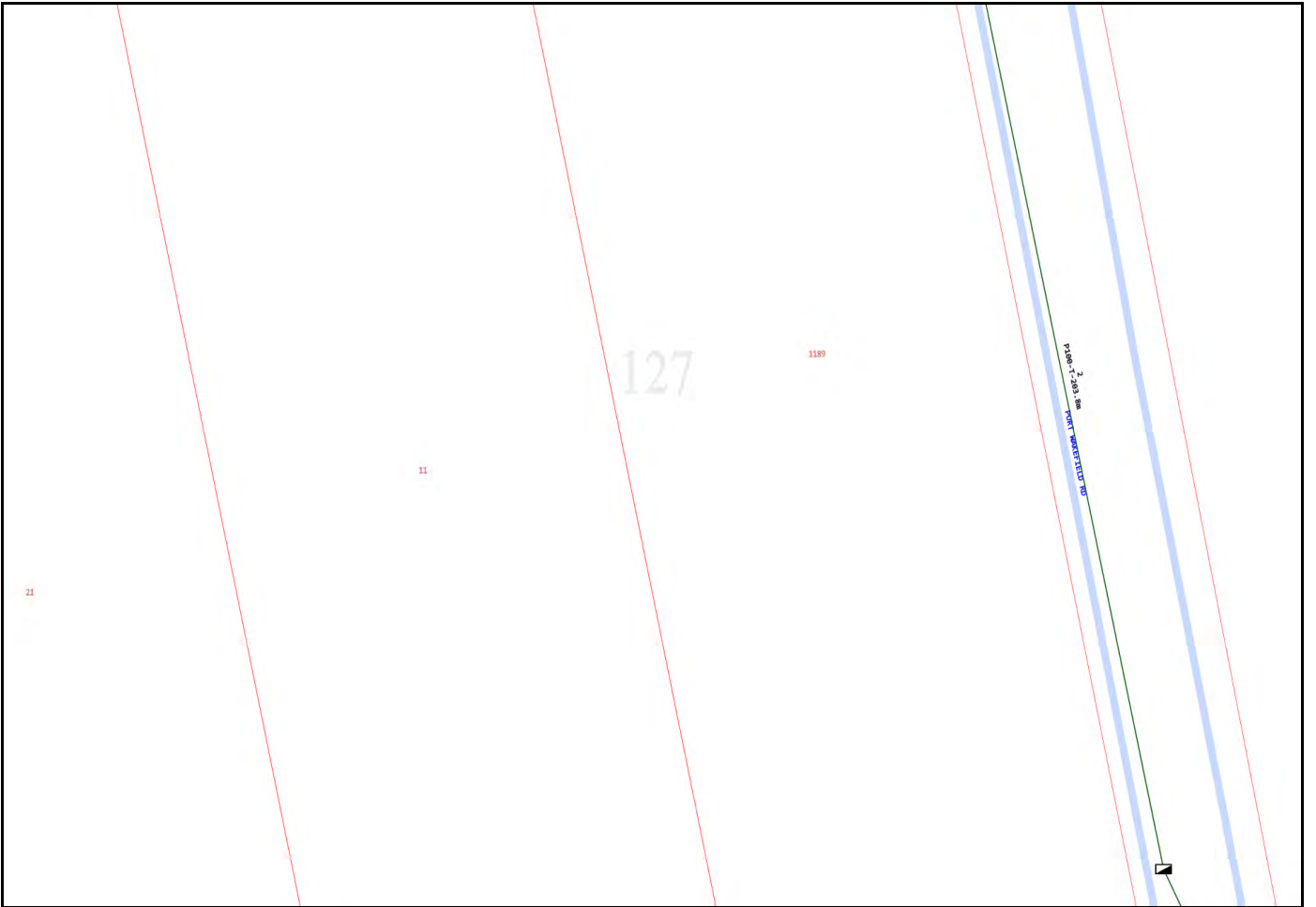
2  
P100-T-50.0m

4  
P100-T-51.0m

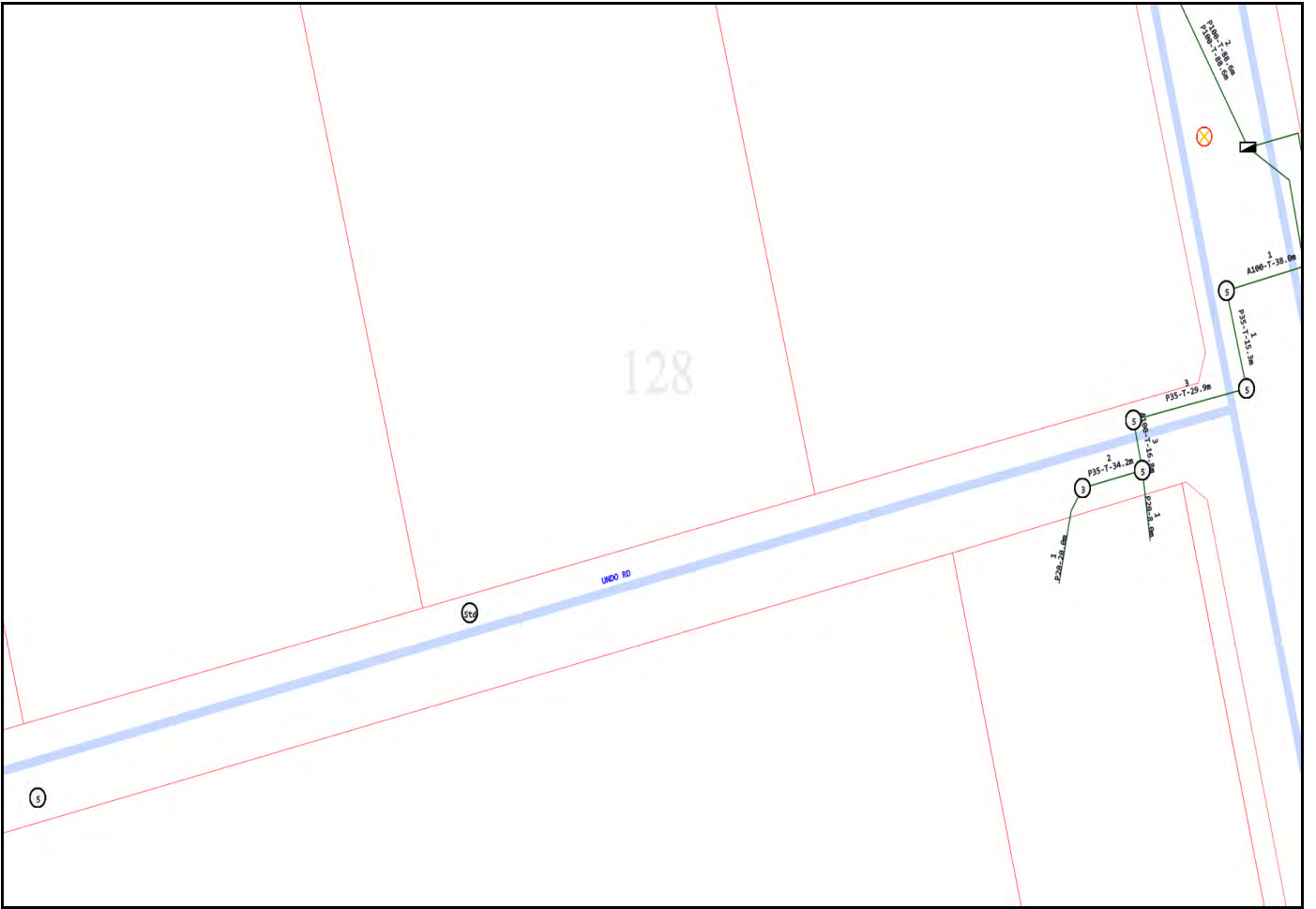
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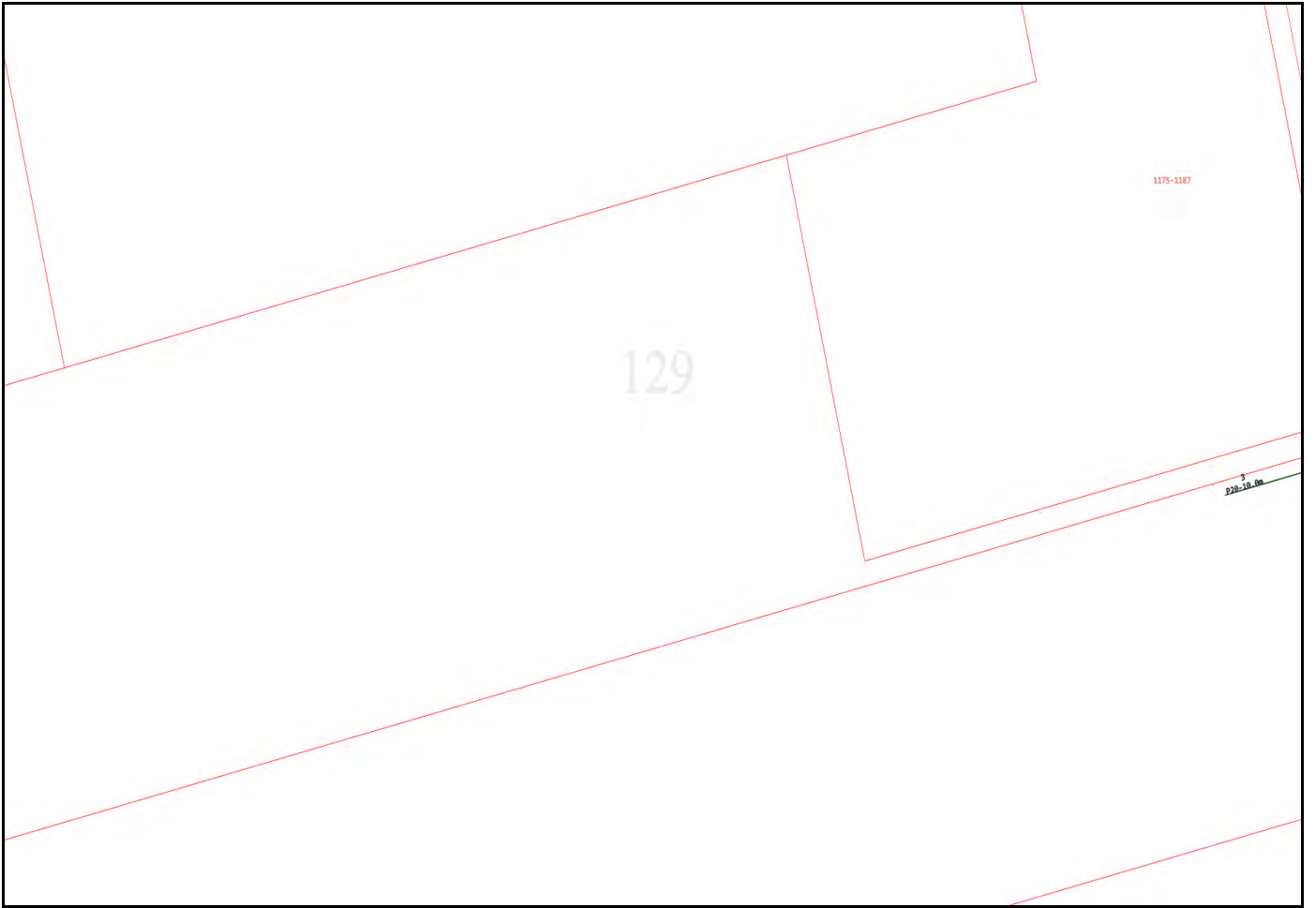
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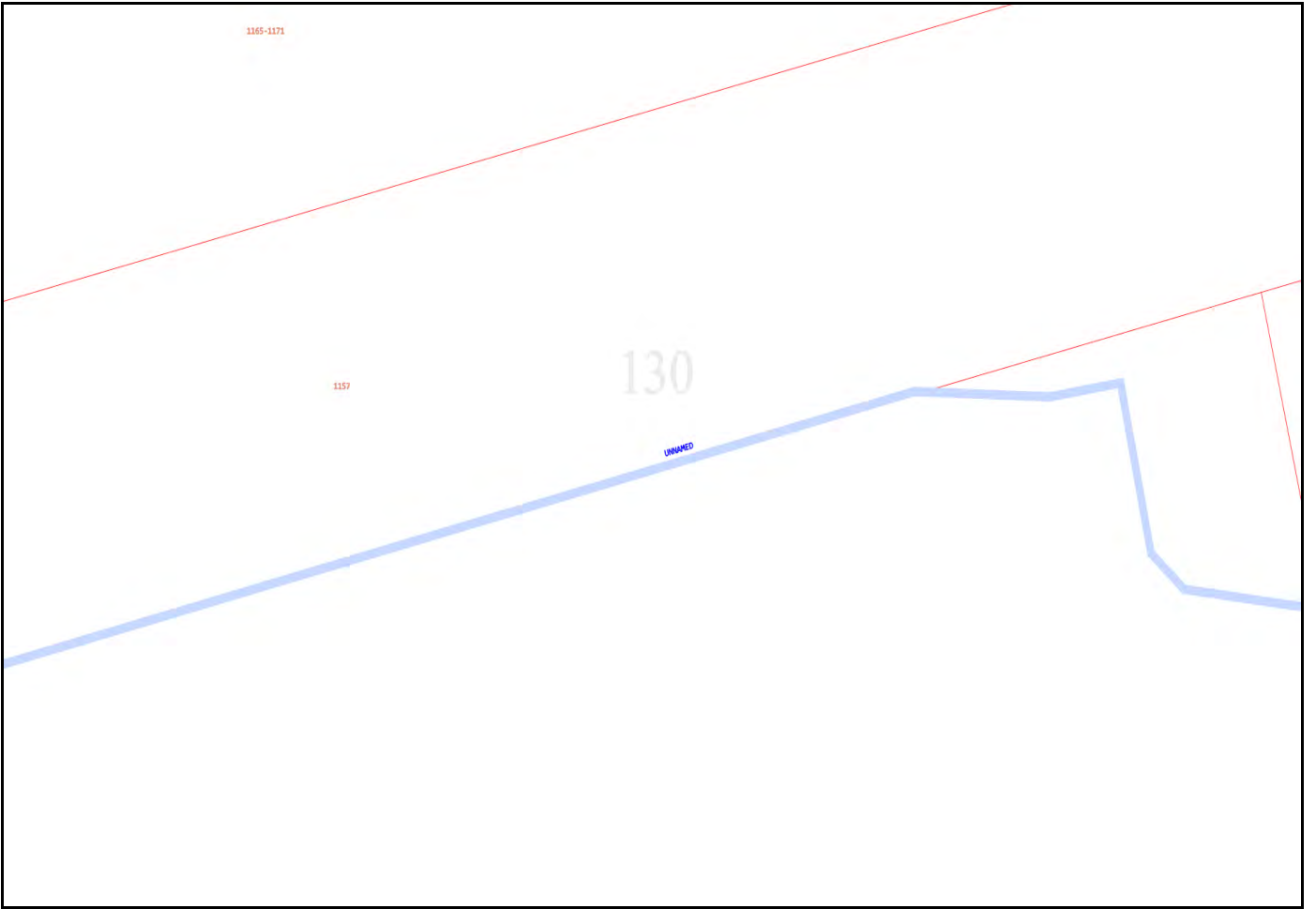








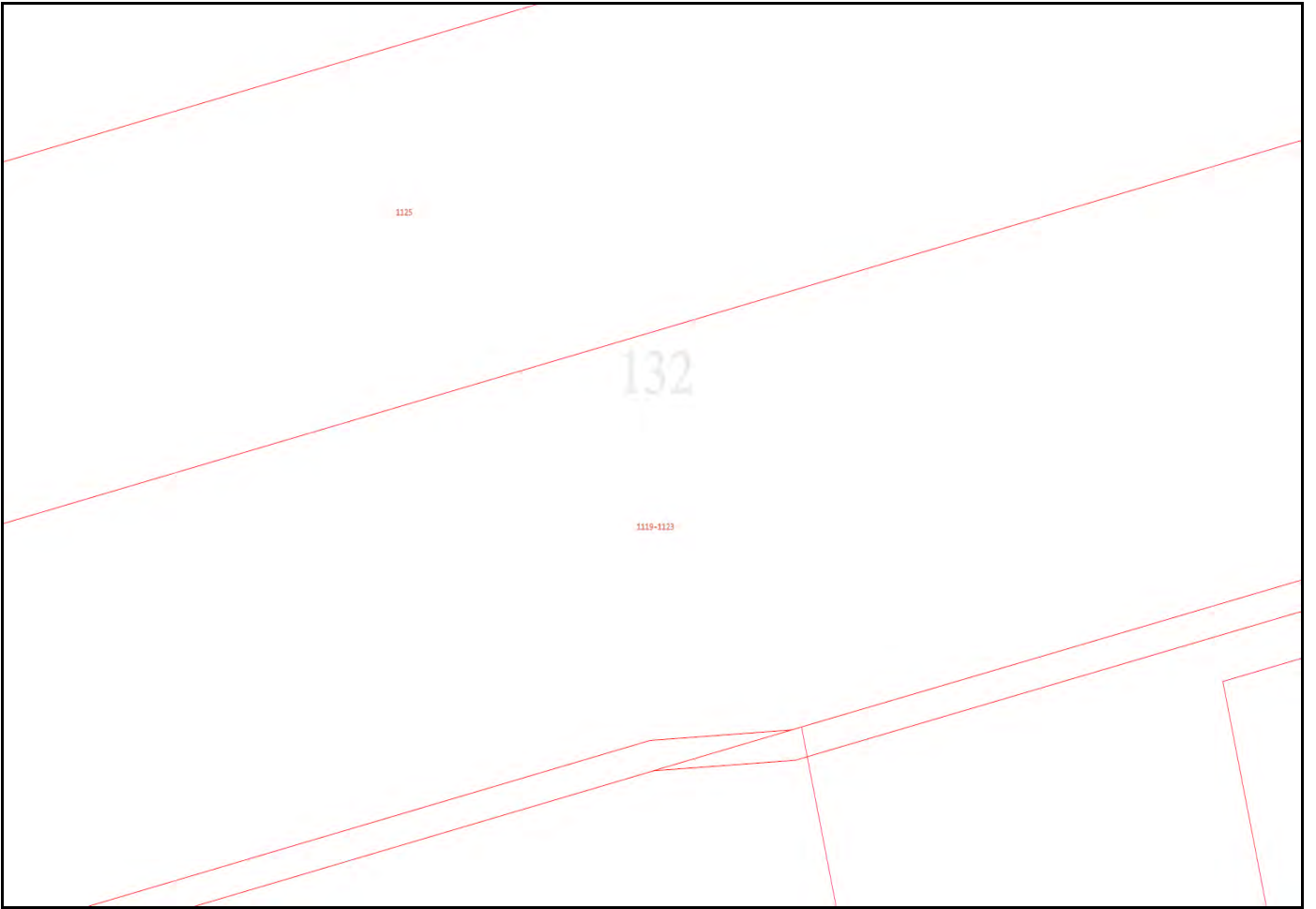




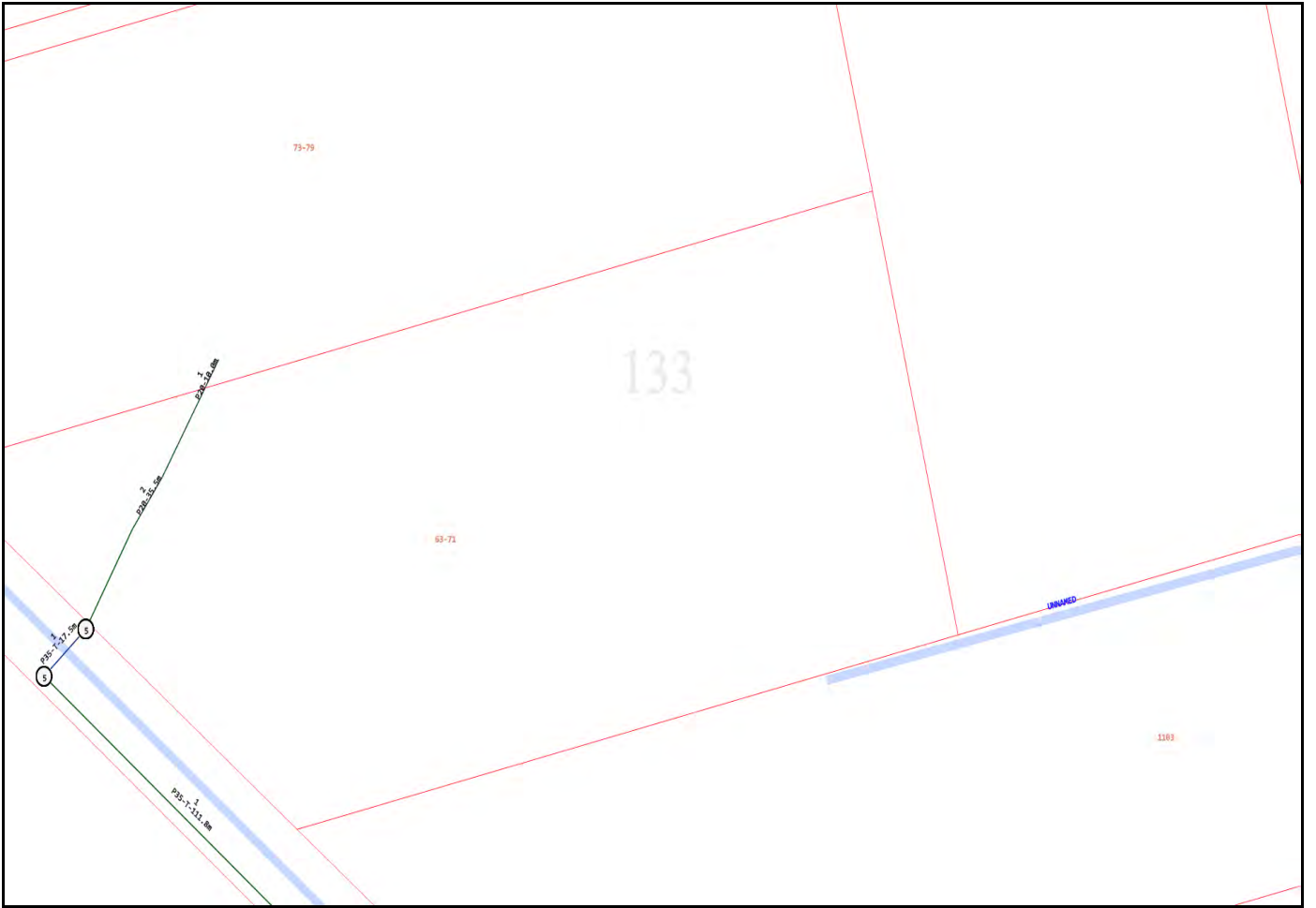
131

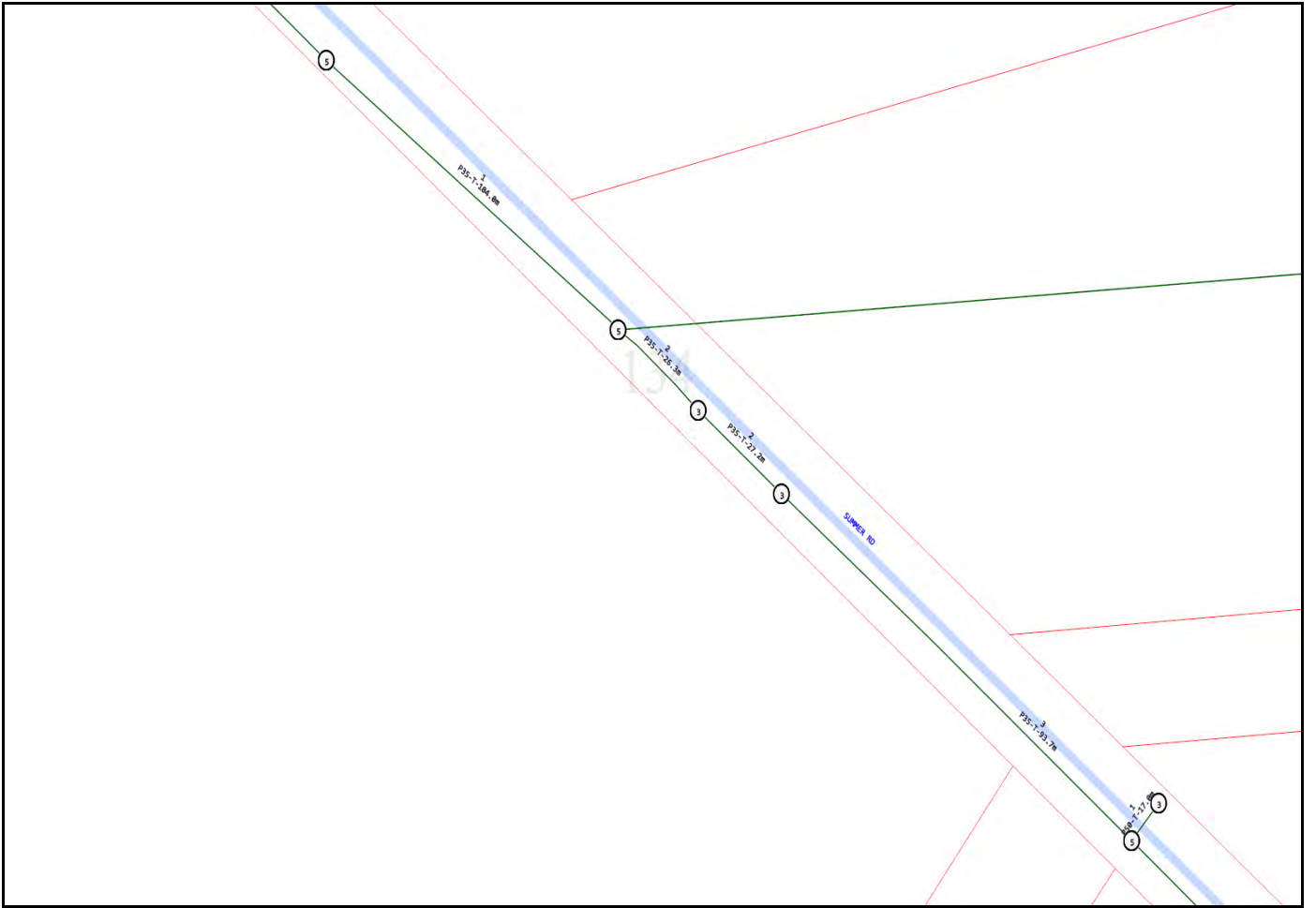
1137

1131-1135

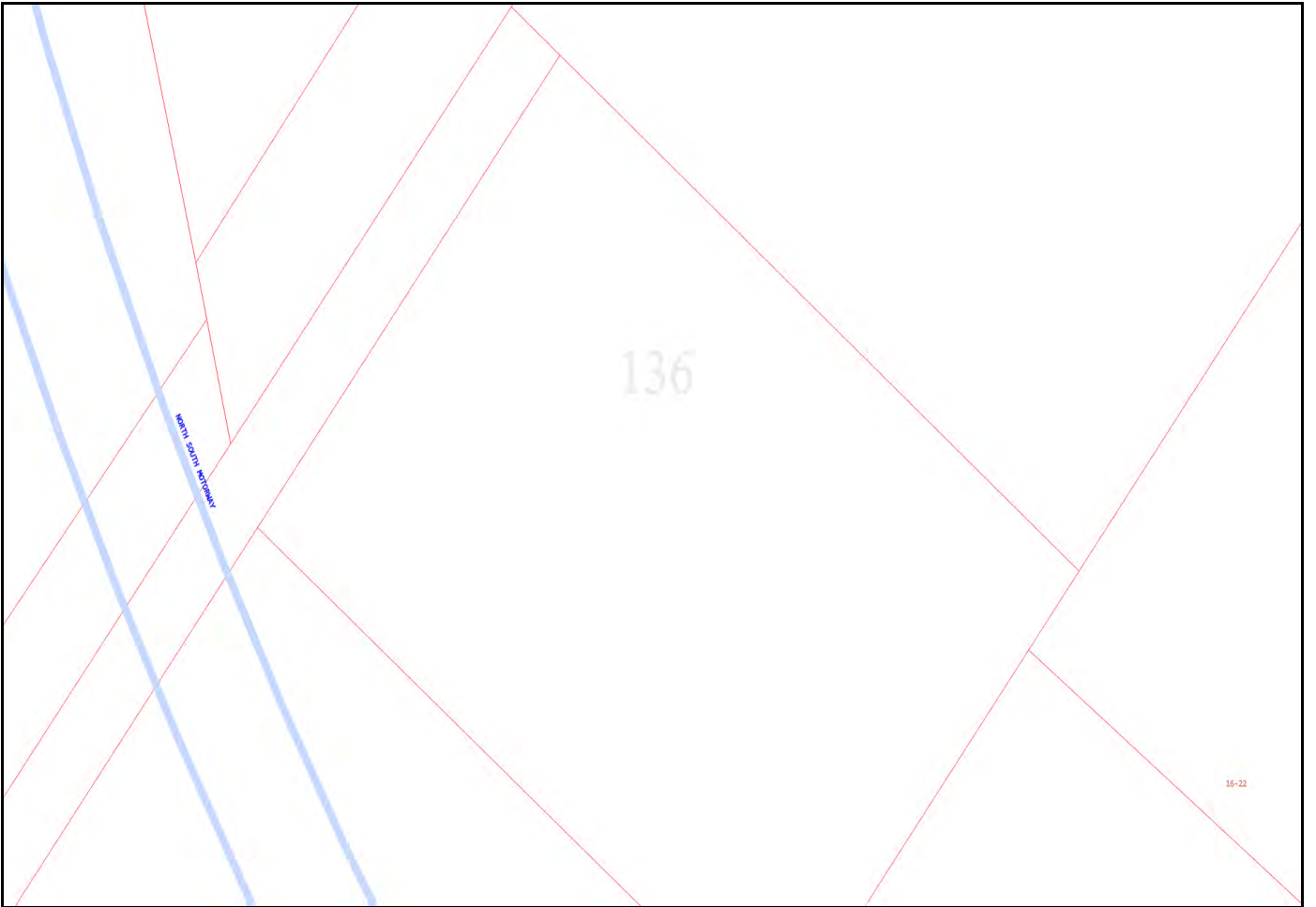


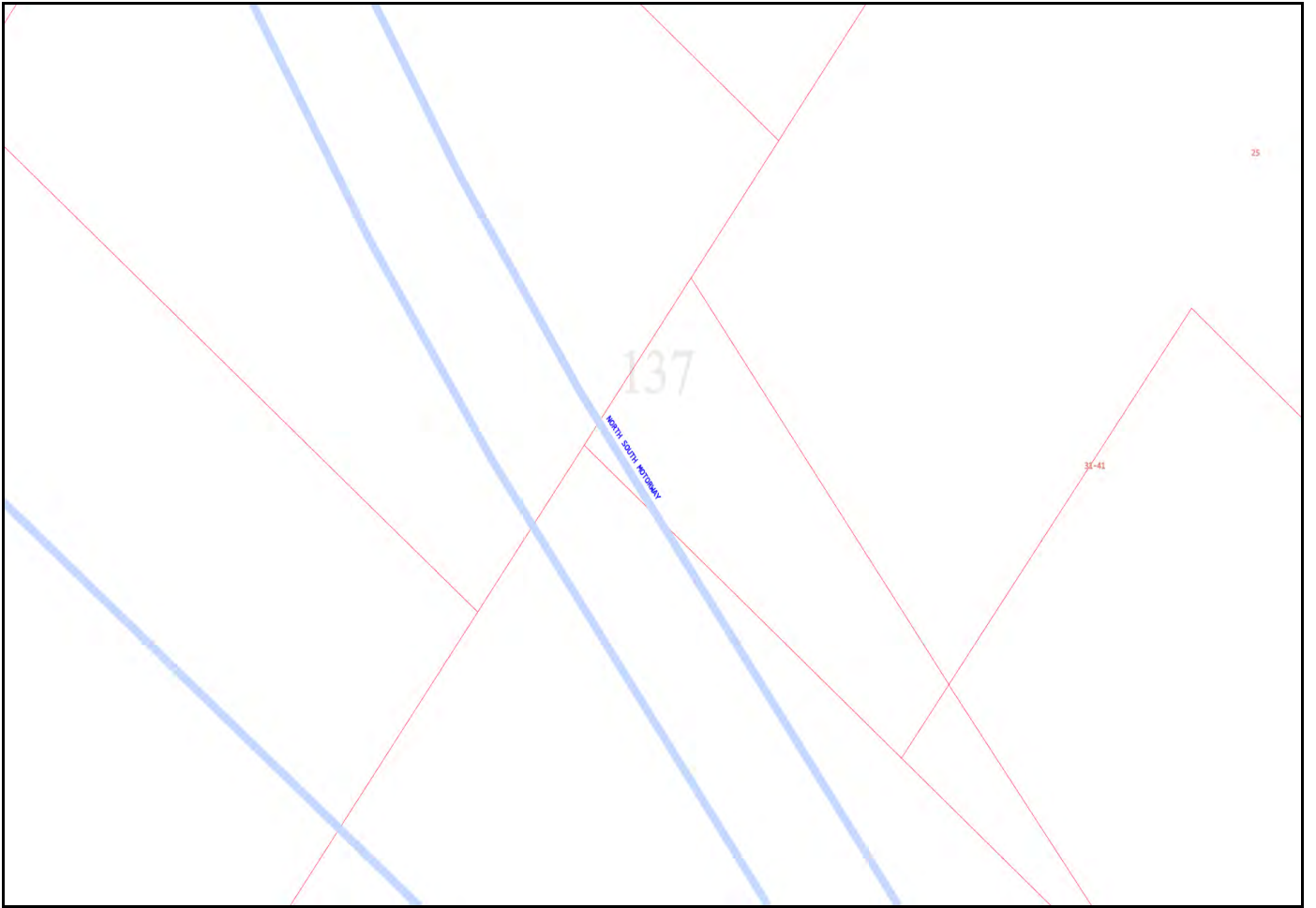




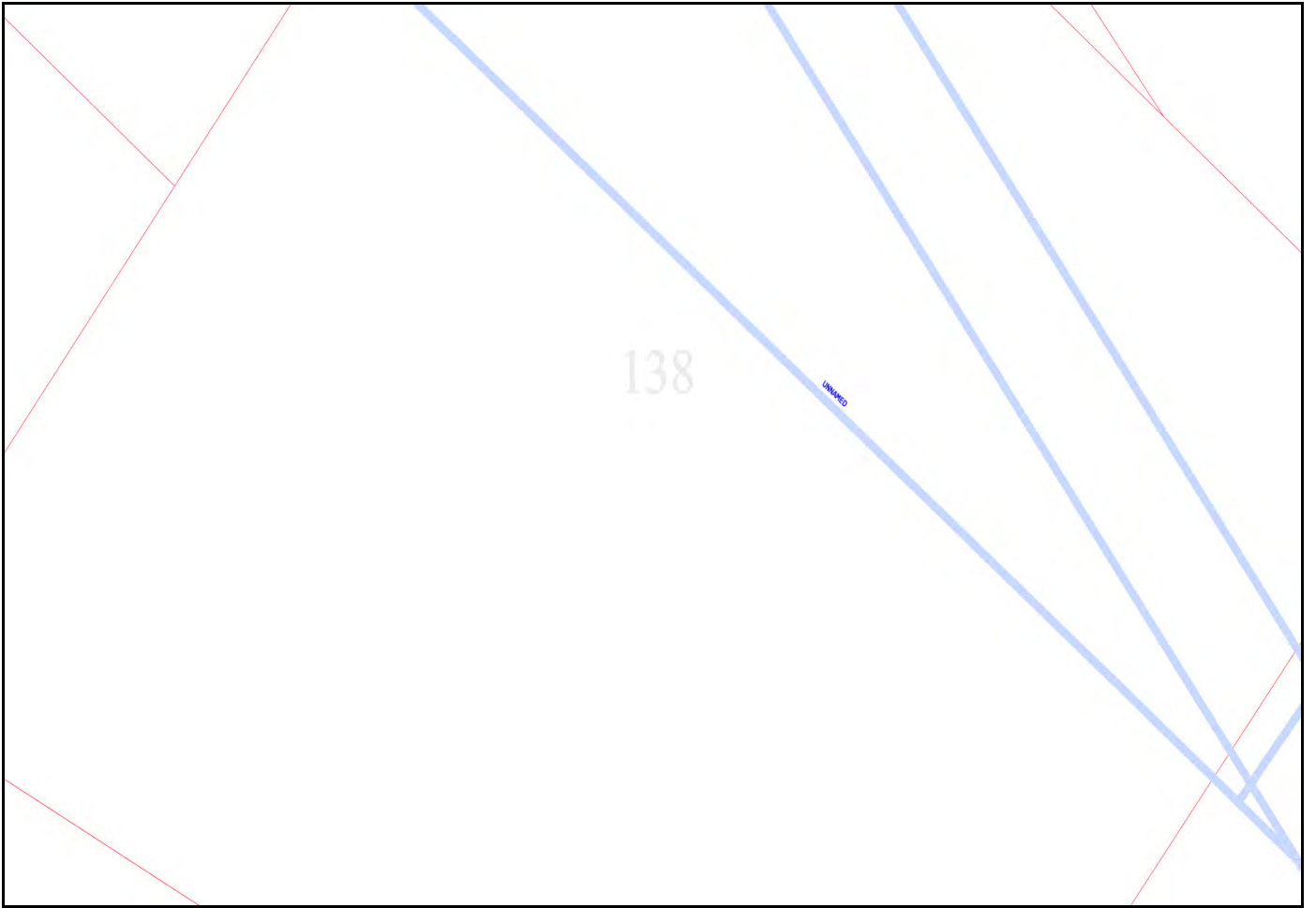


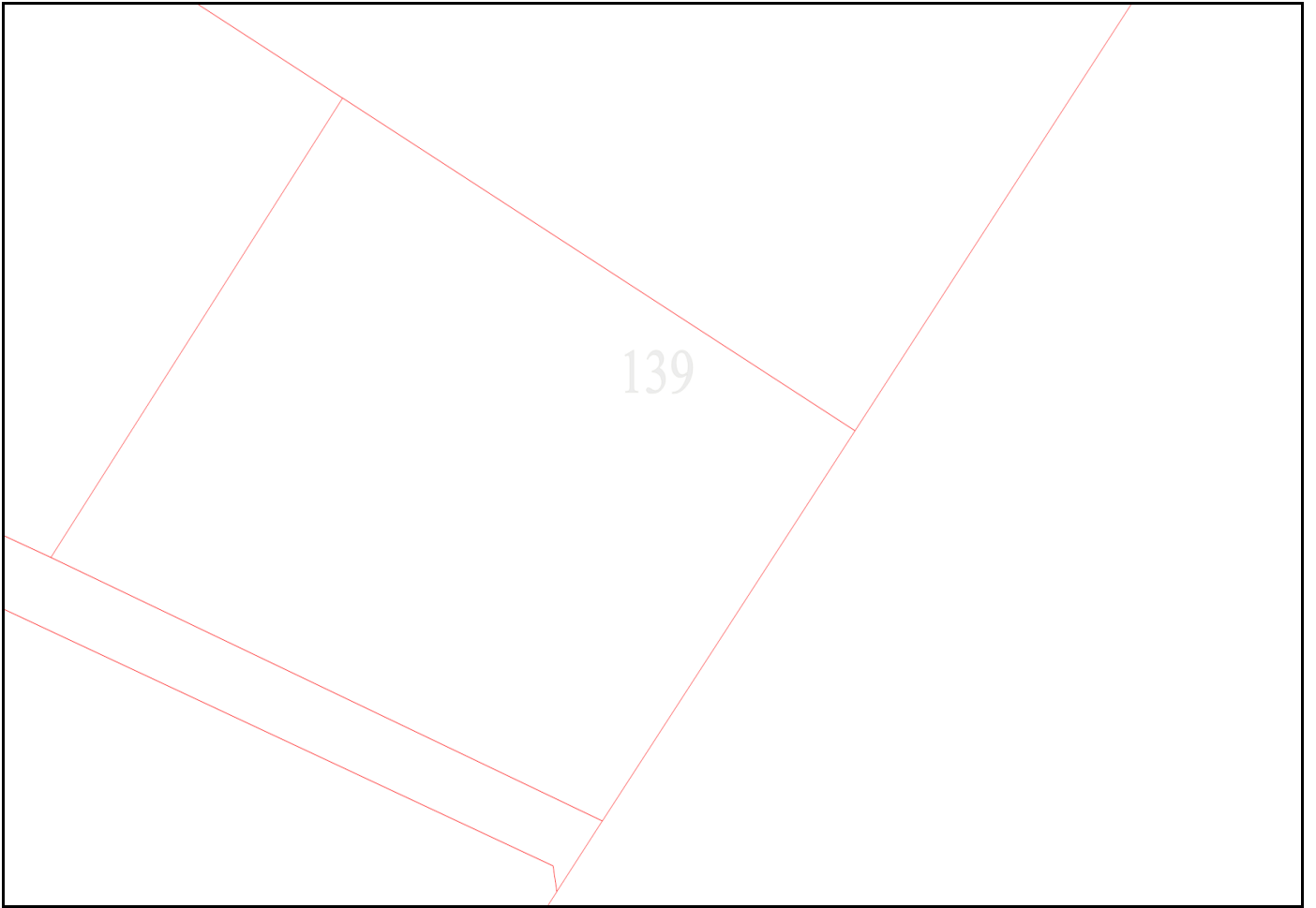


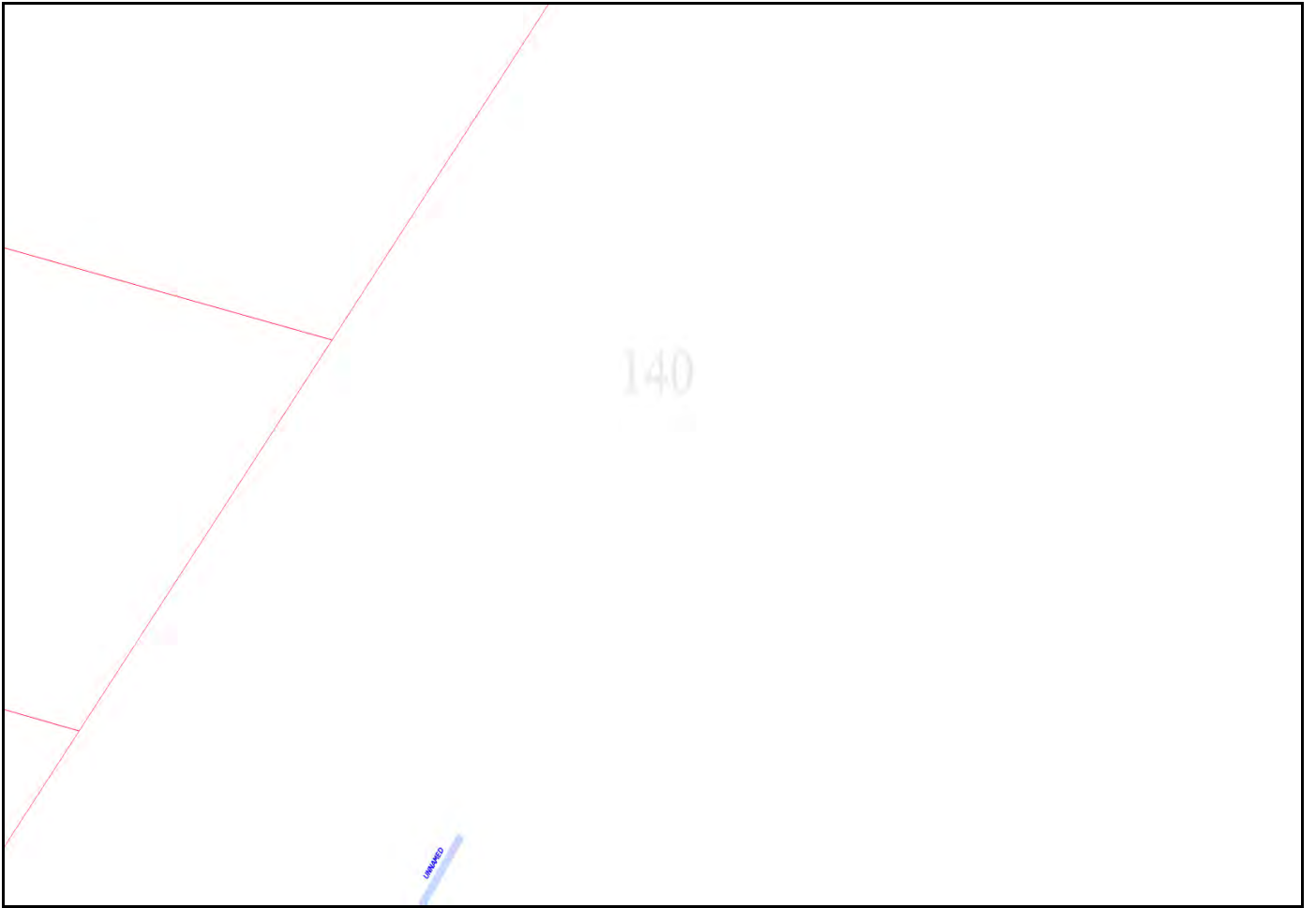


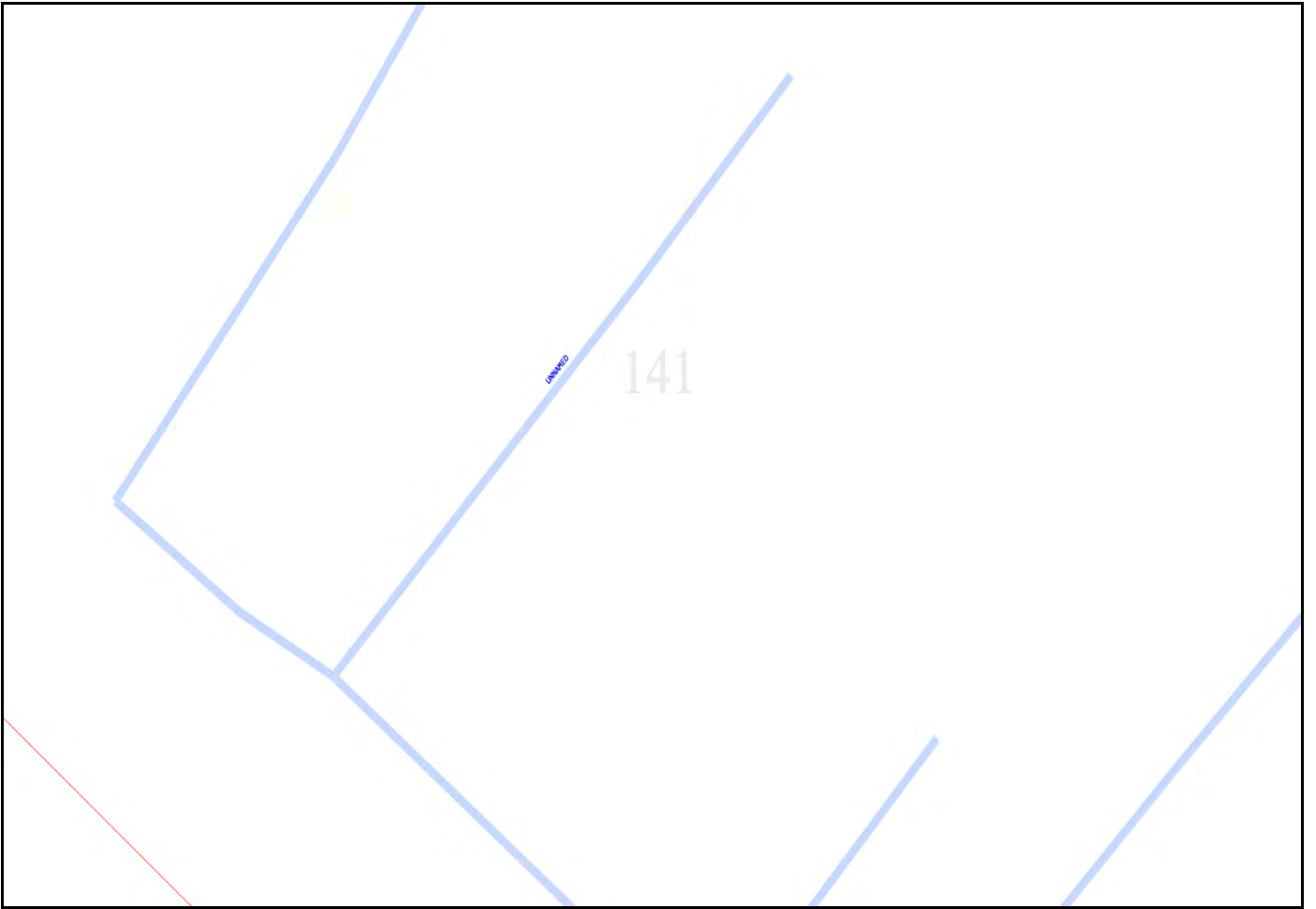


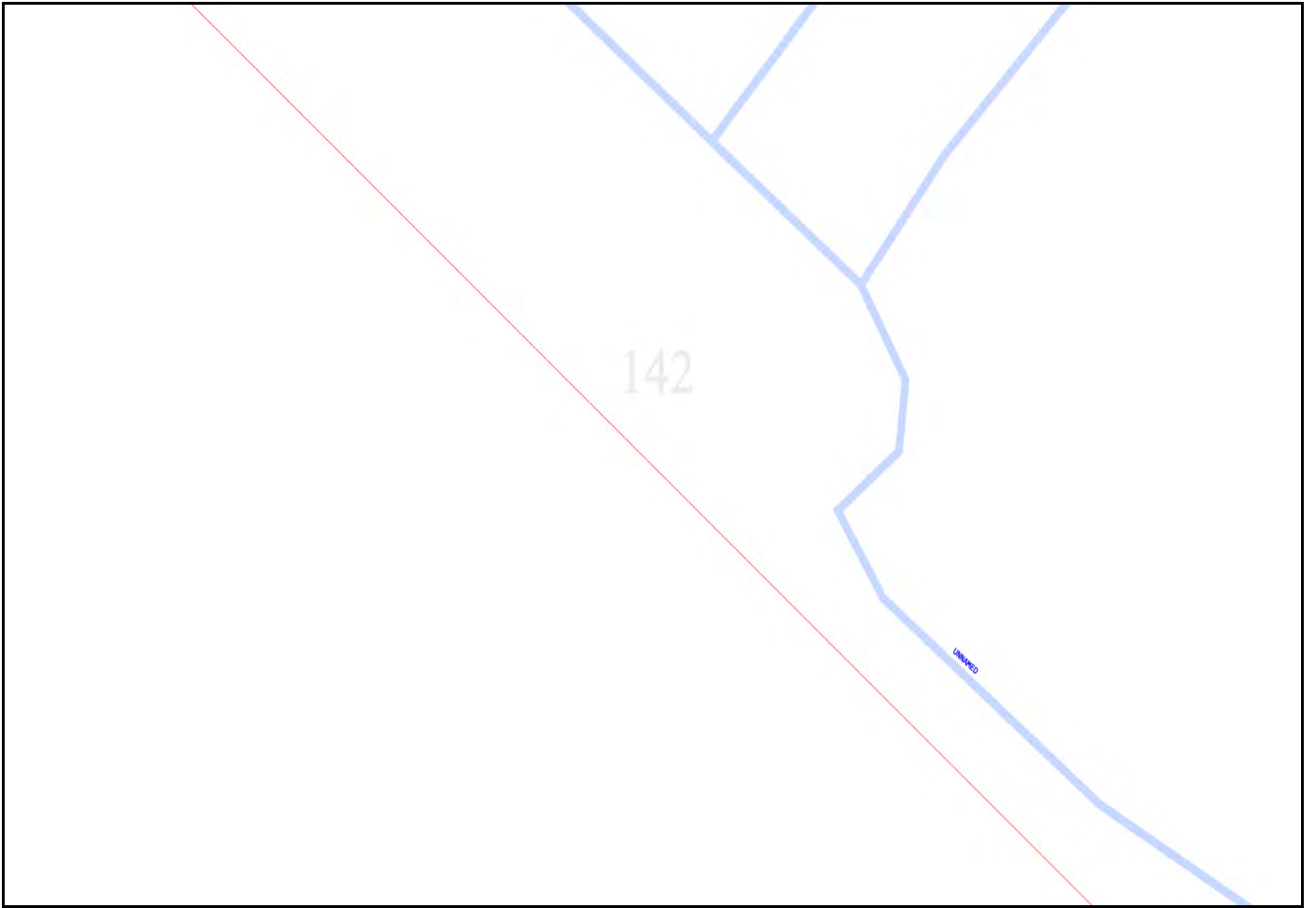






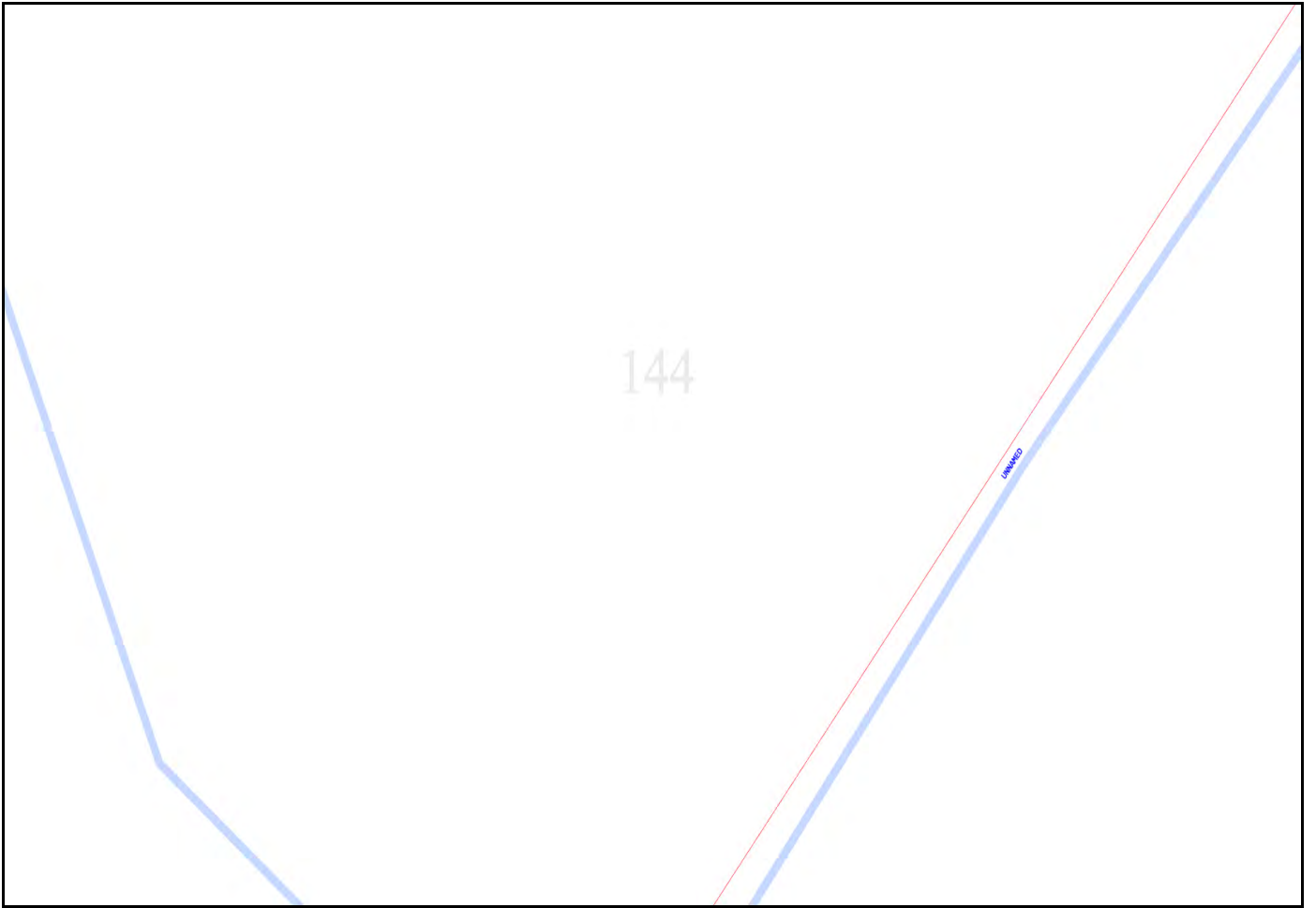


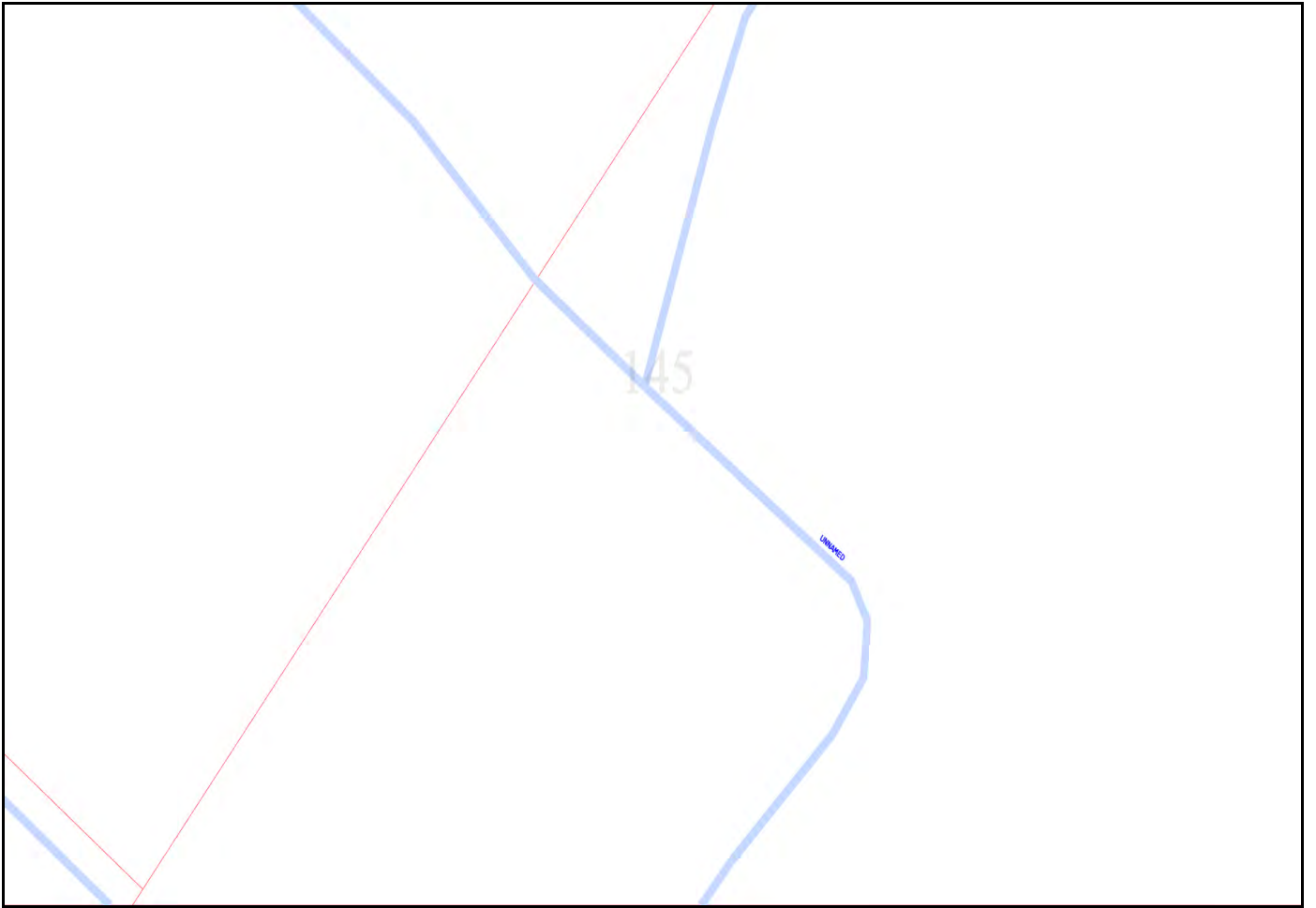


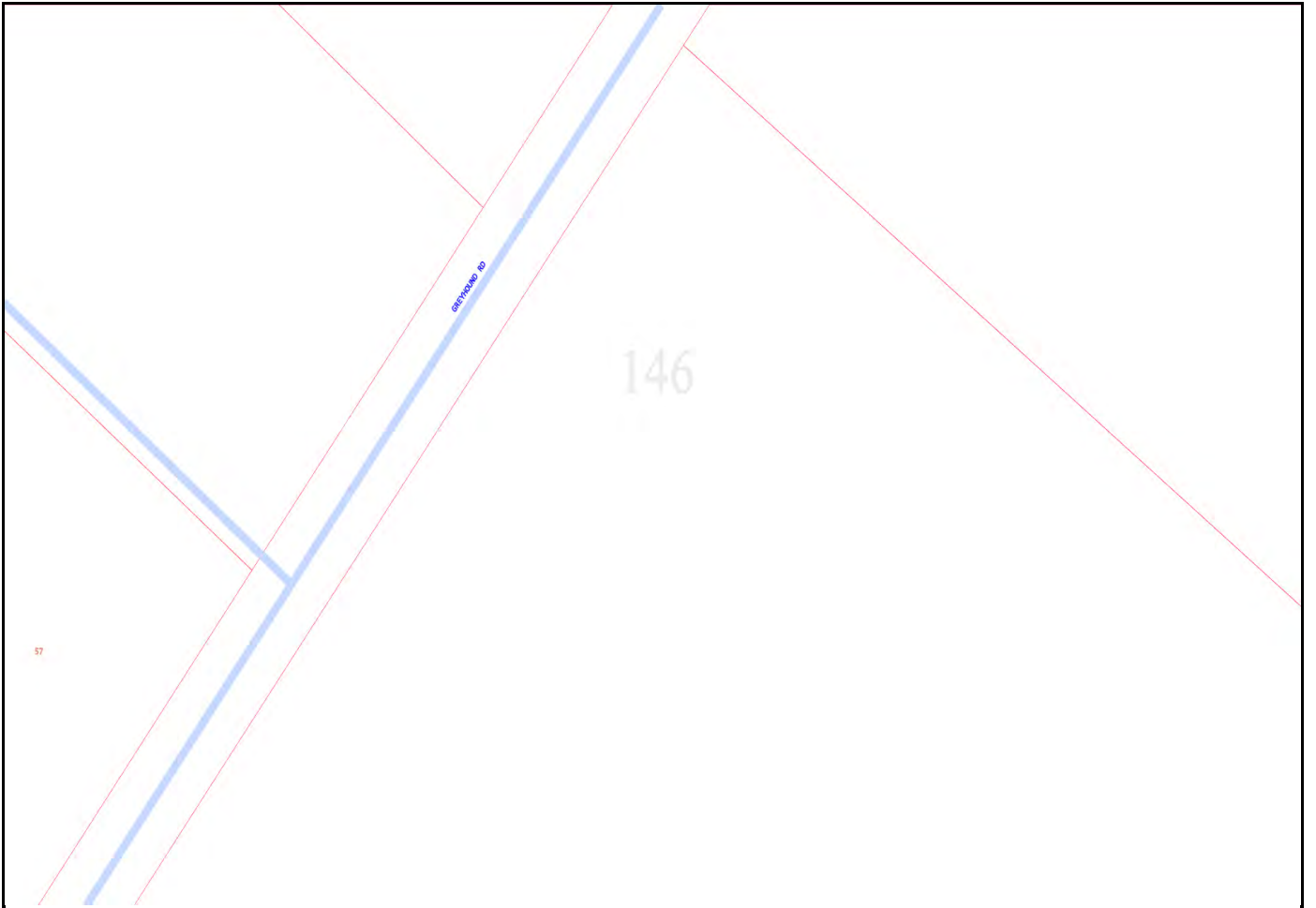




143









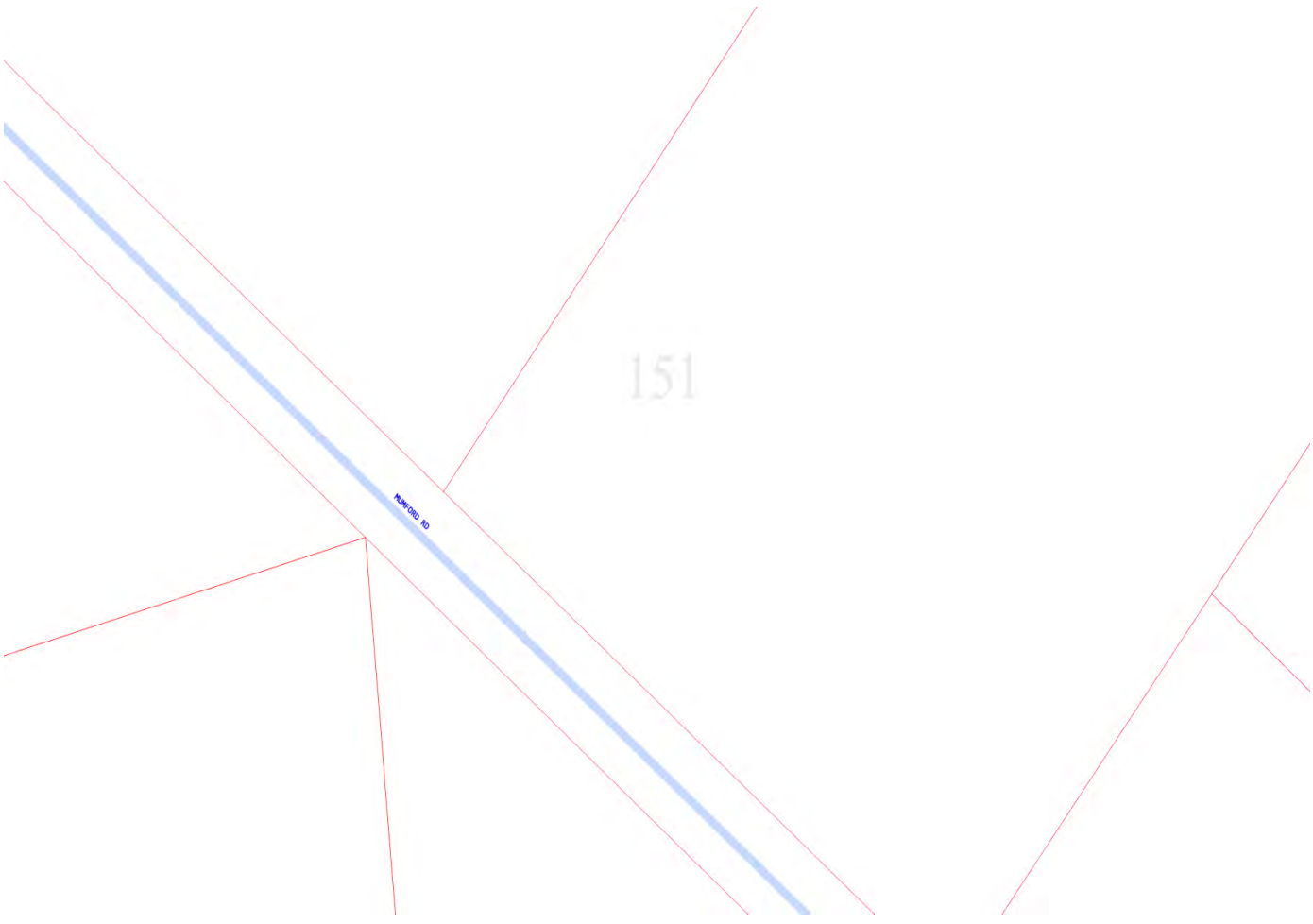
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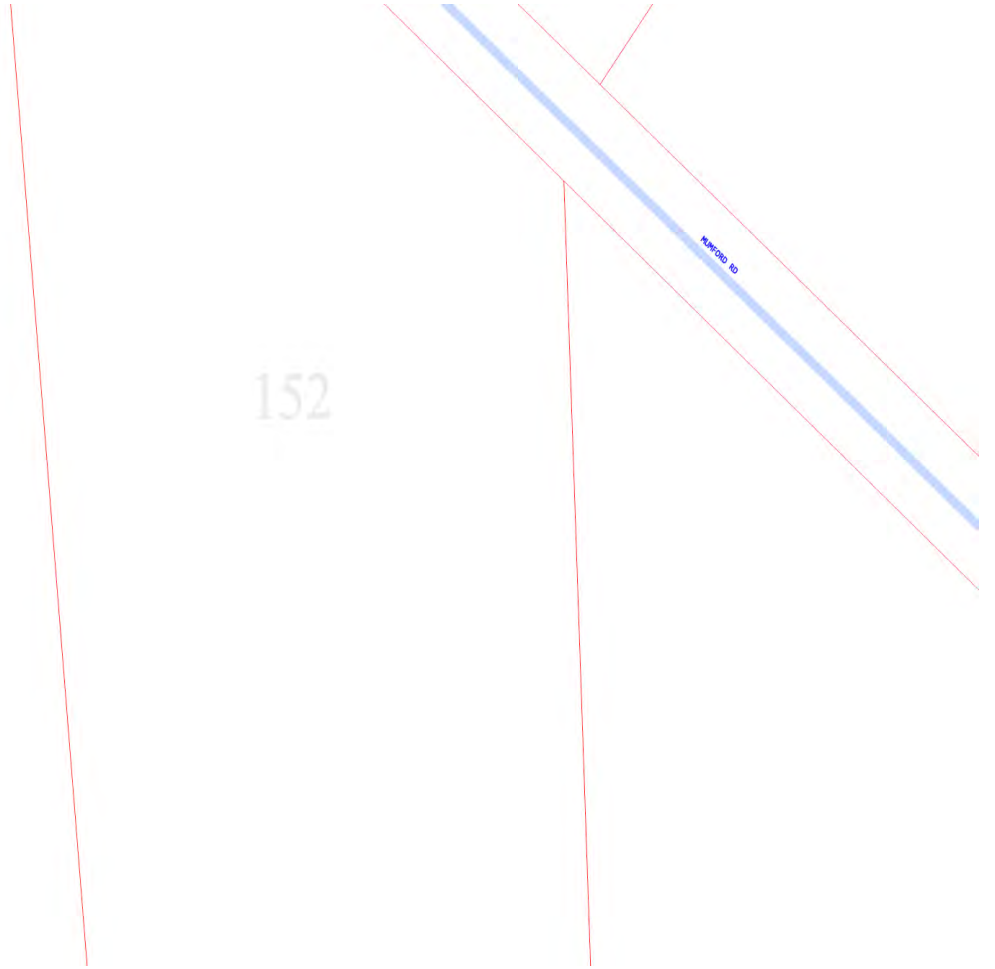




151

KAPAS 10

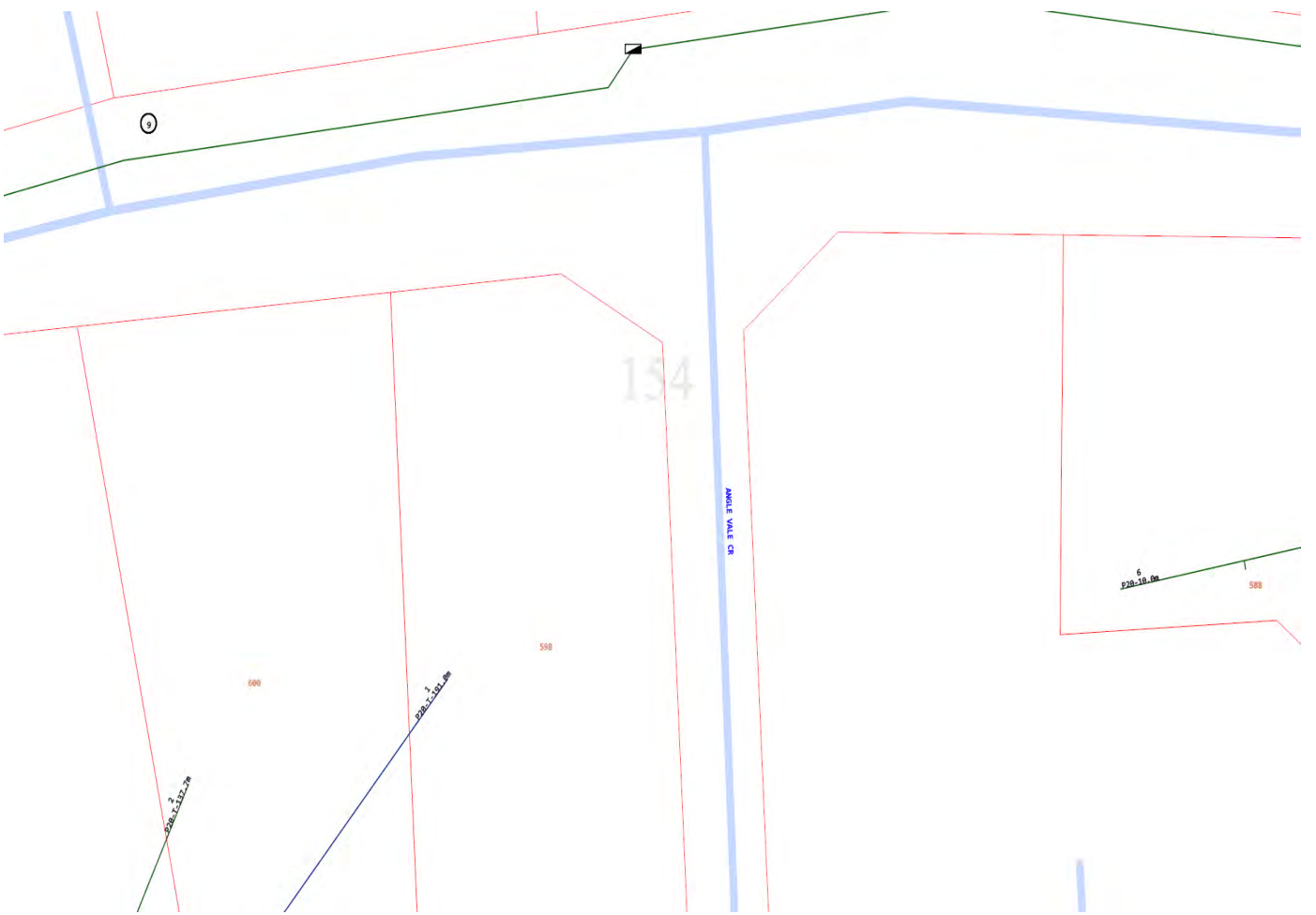
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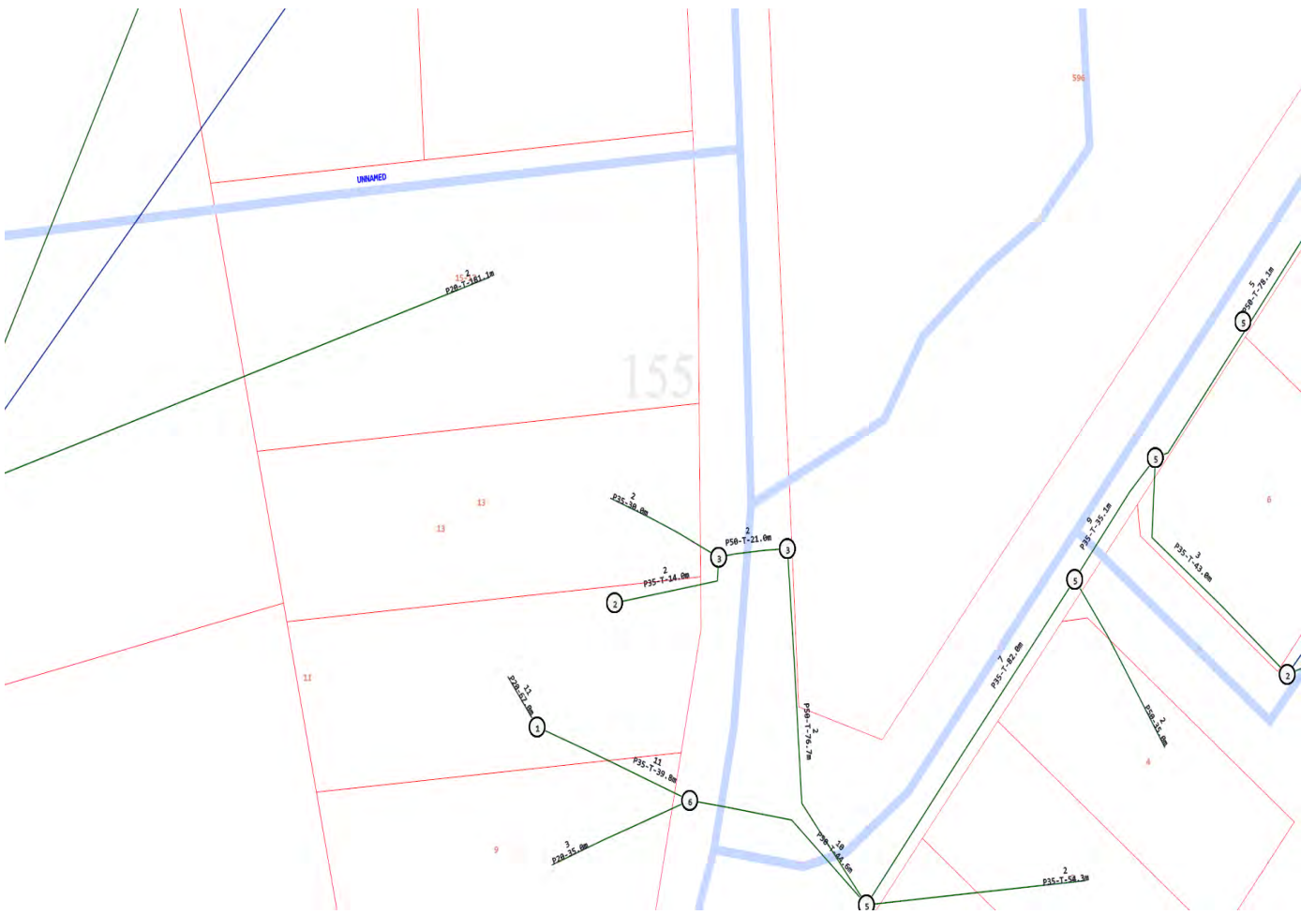




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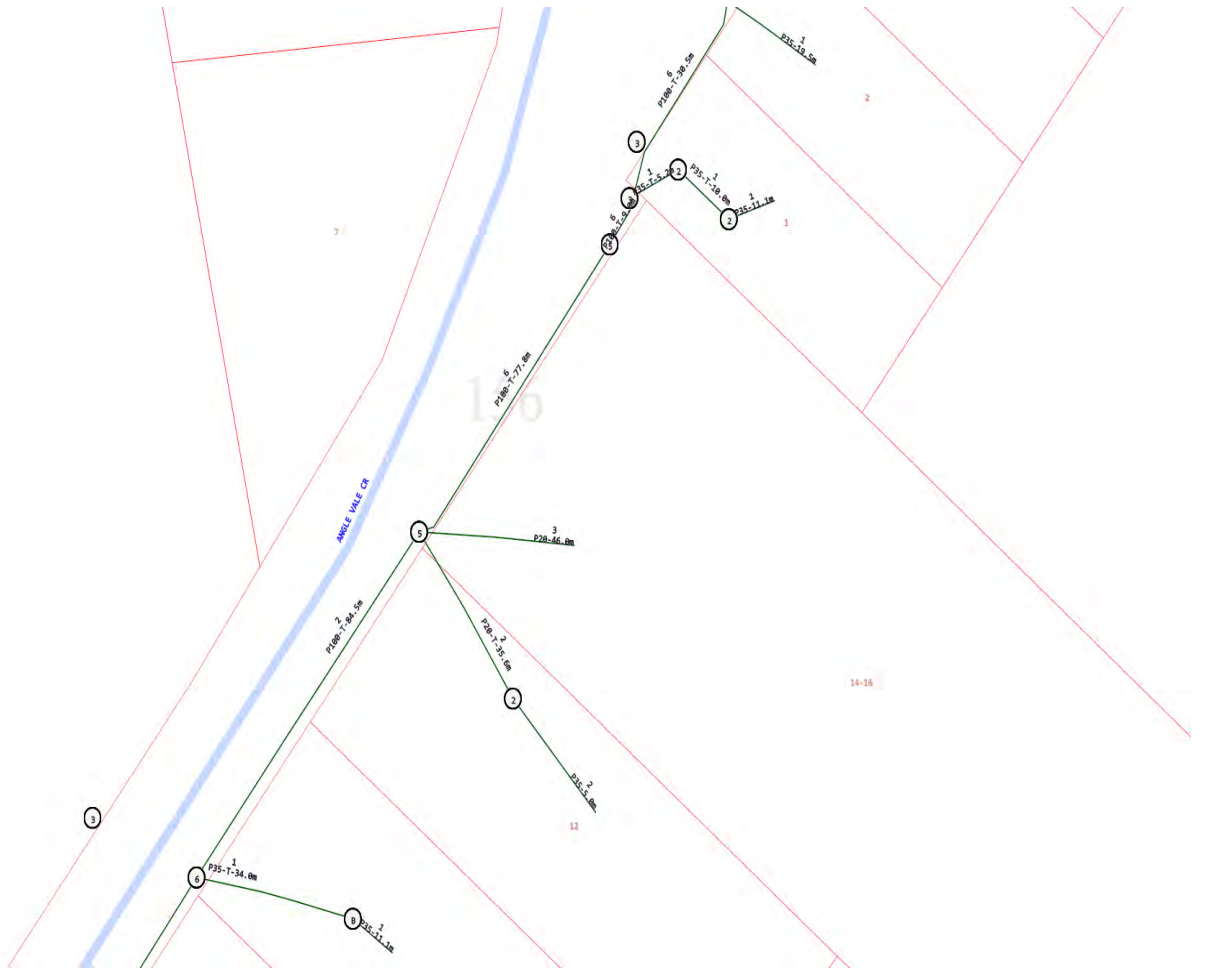


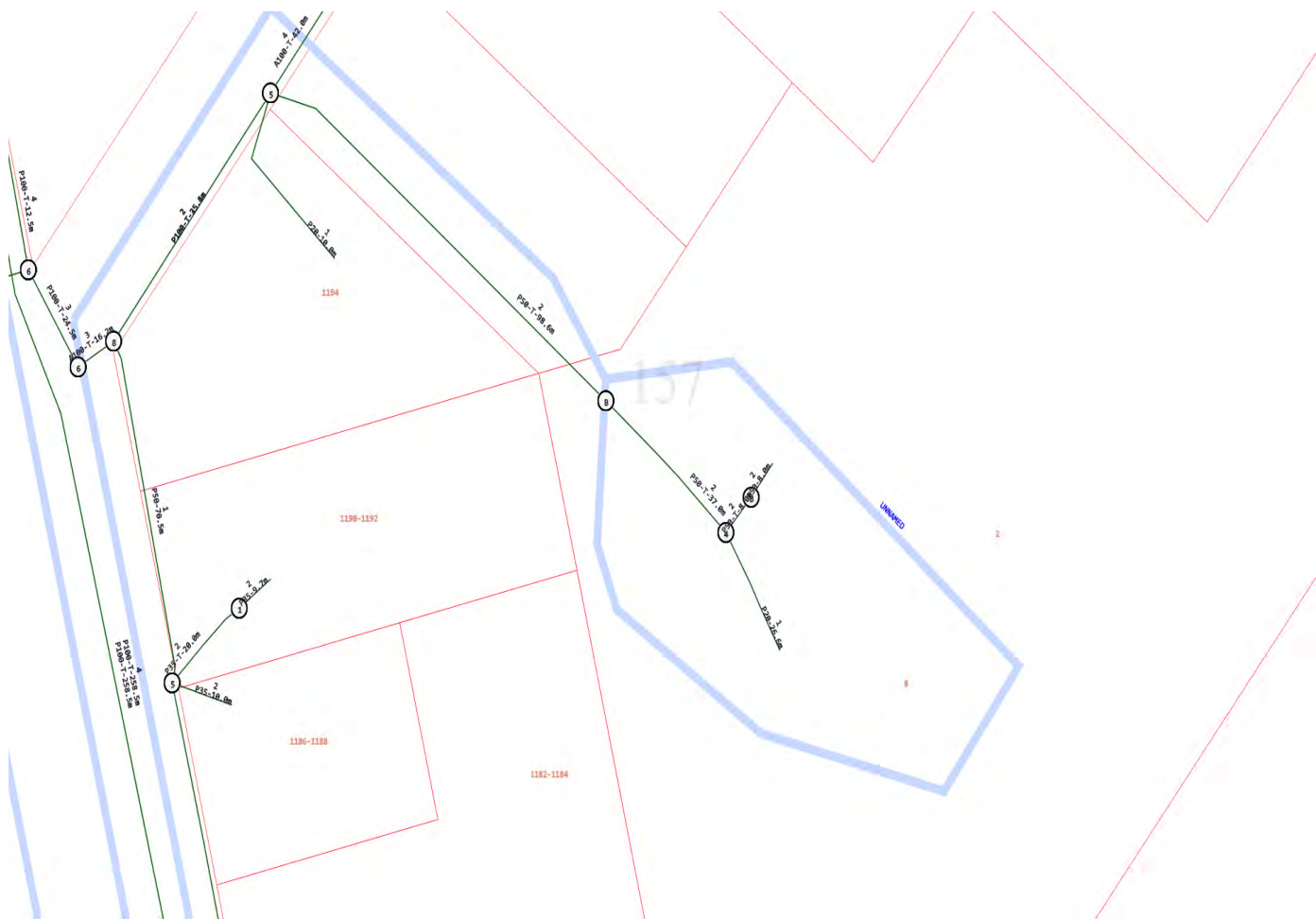




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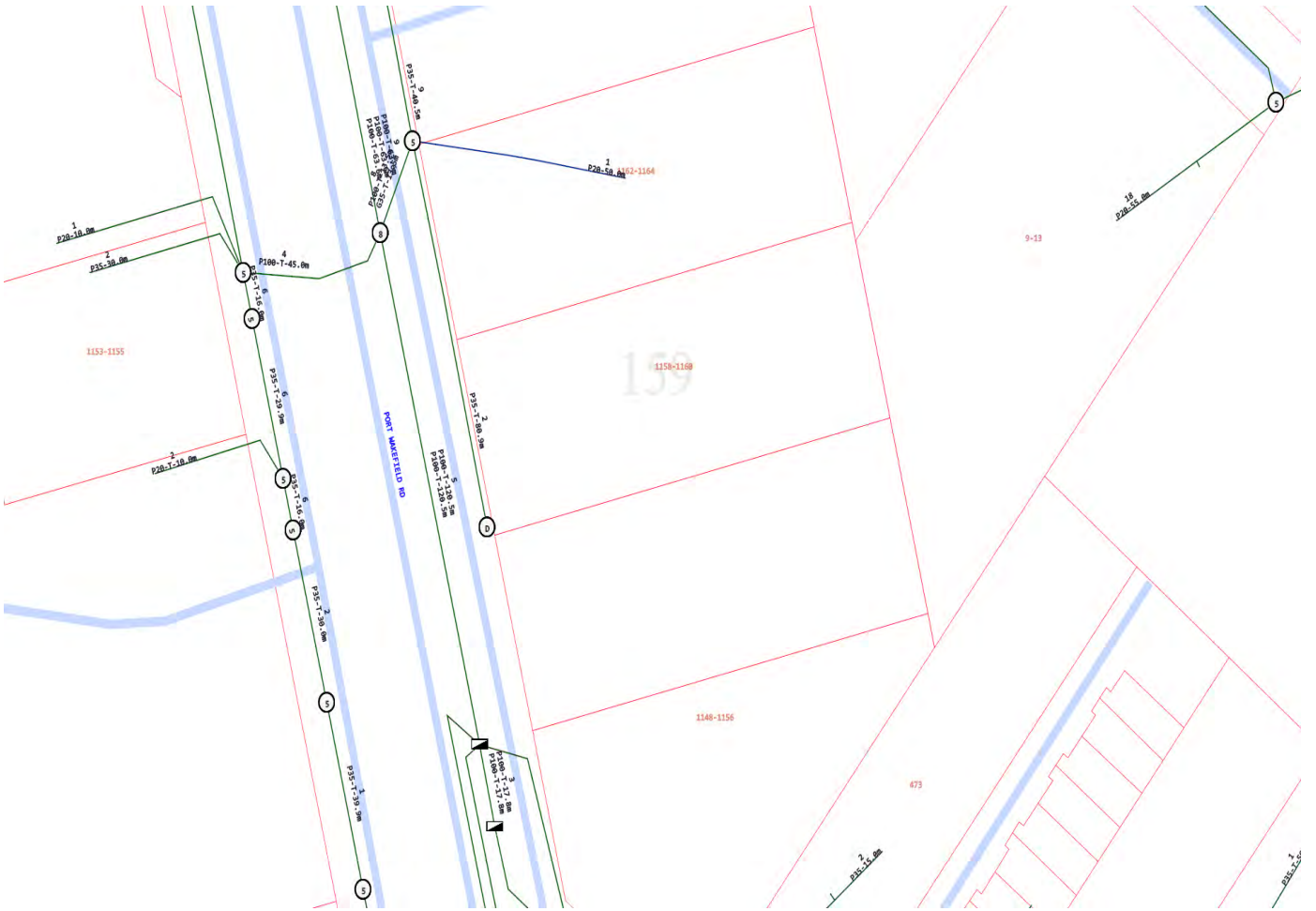
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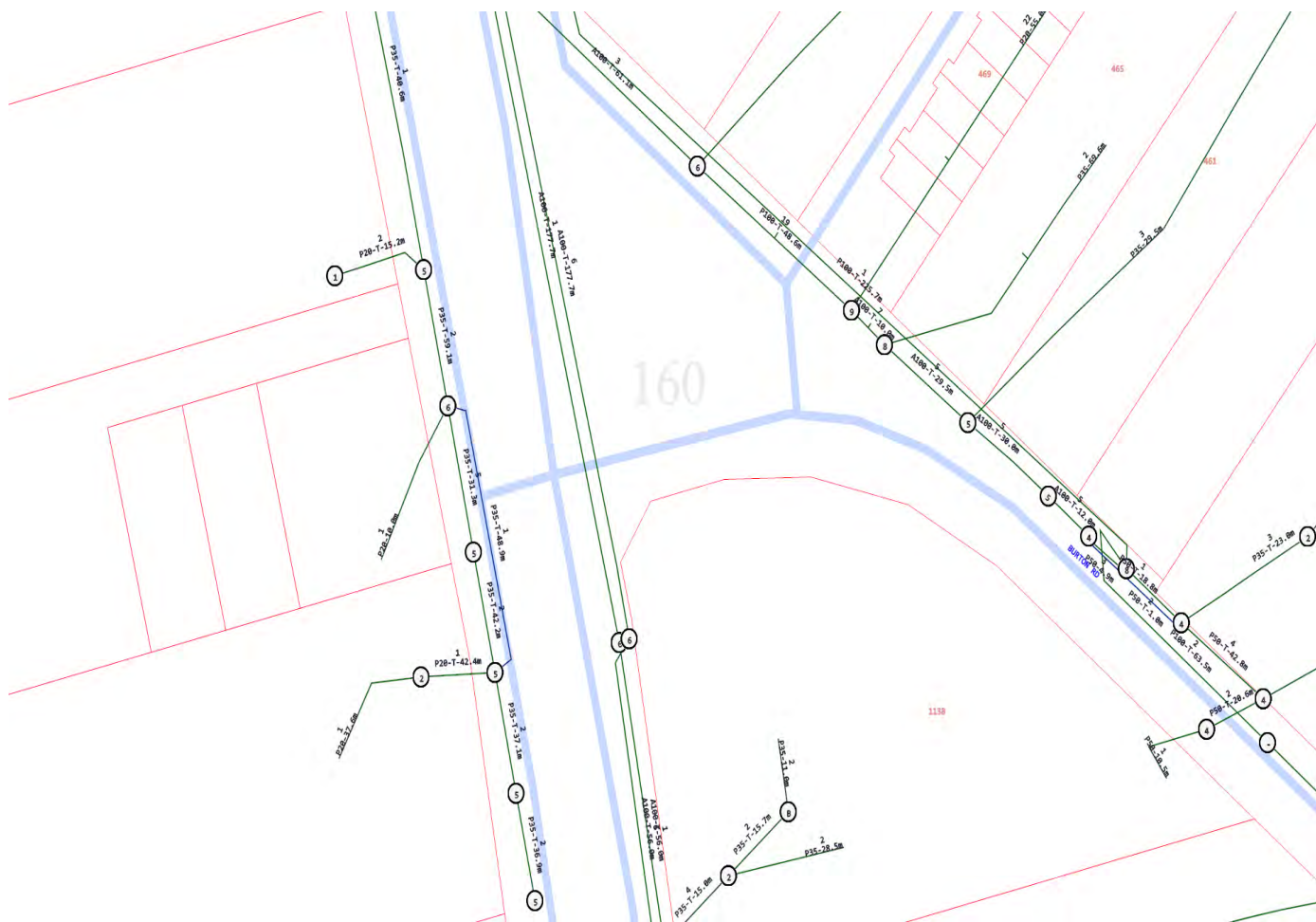






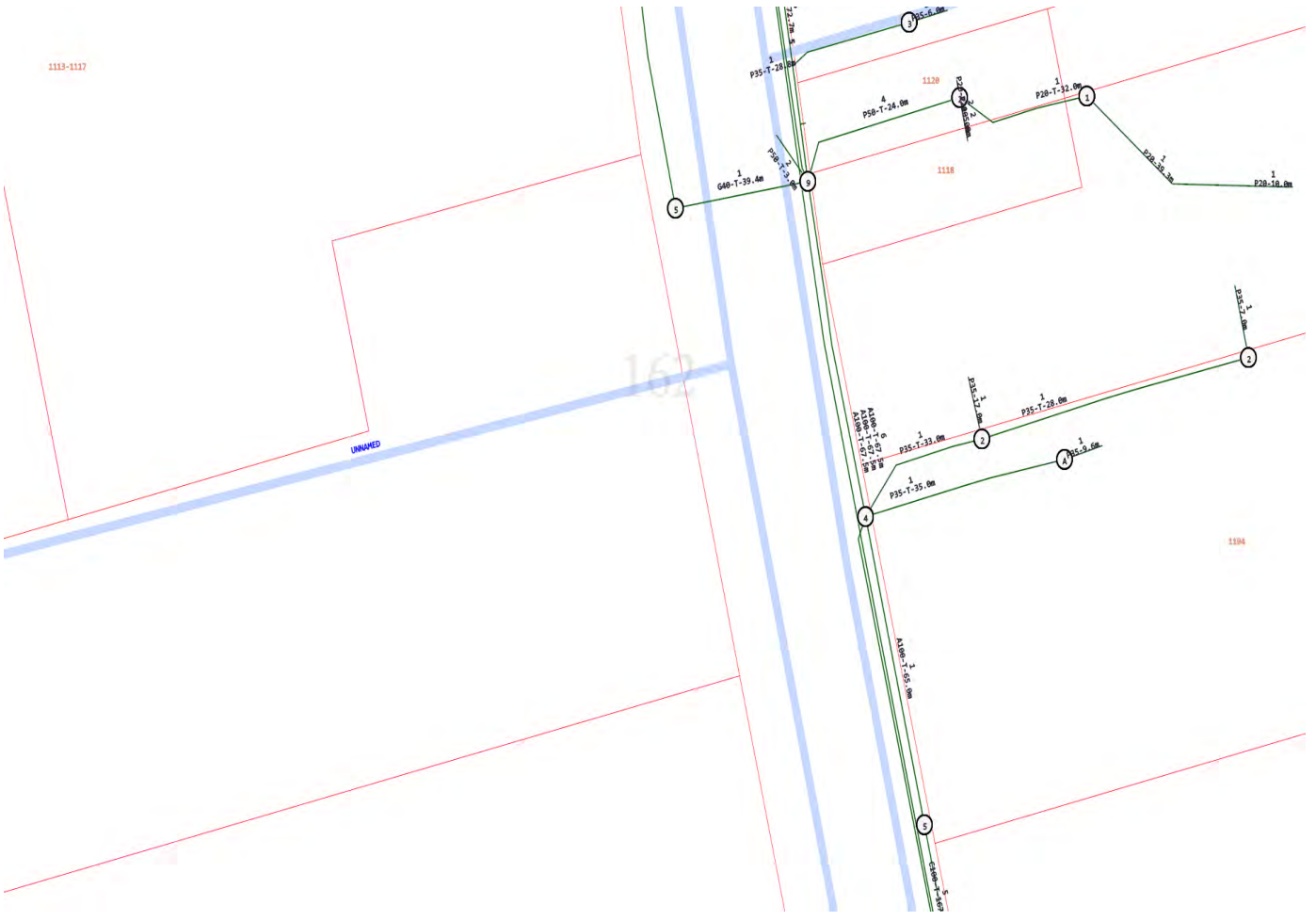








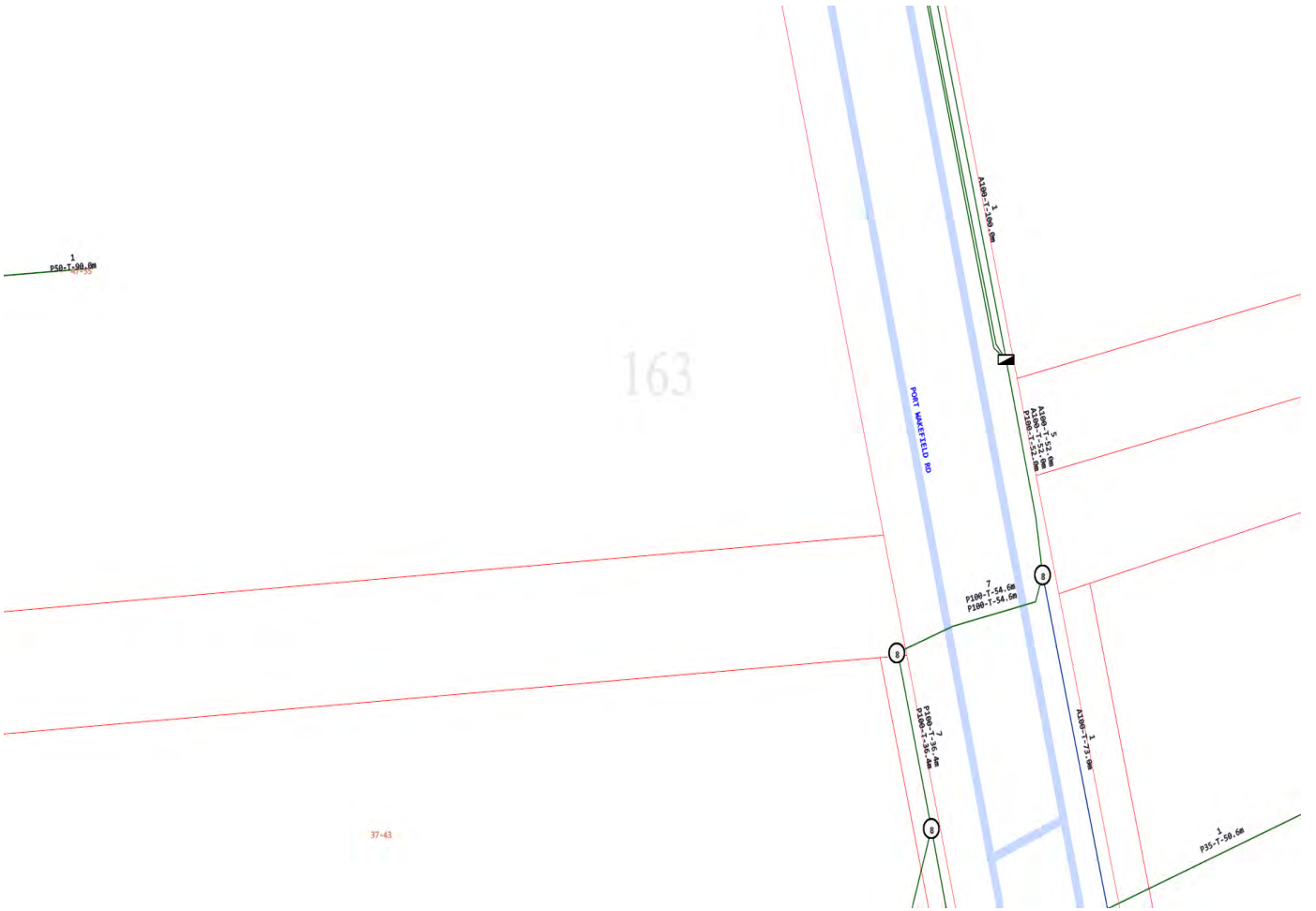
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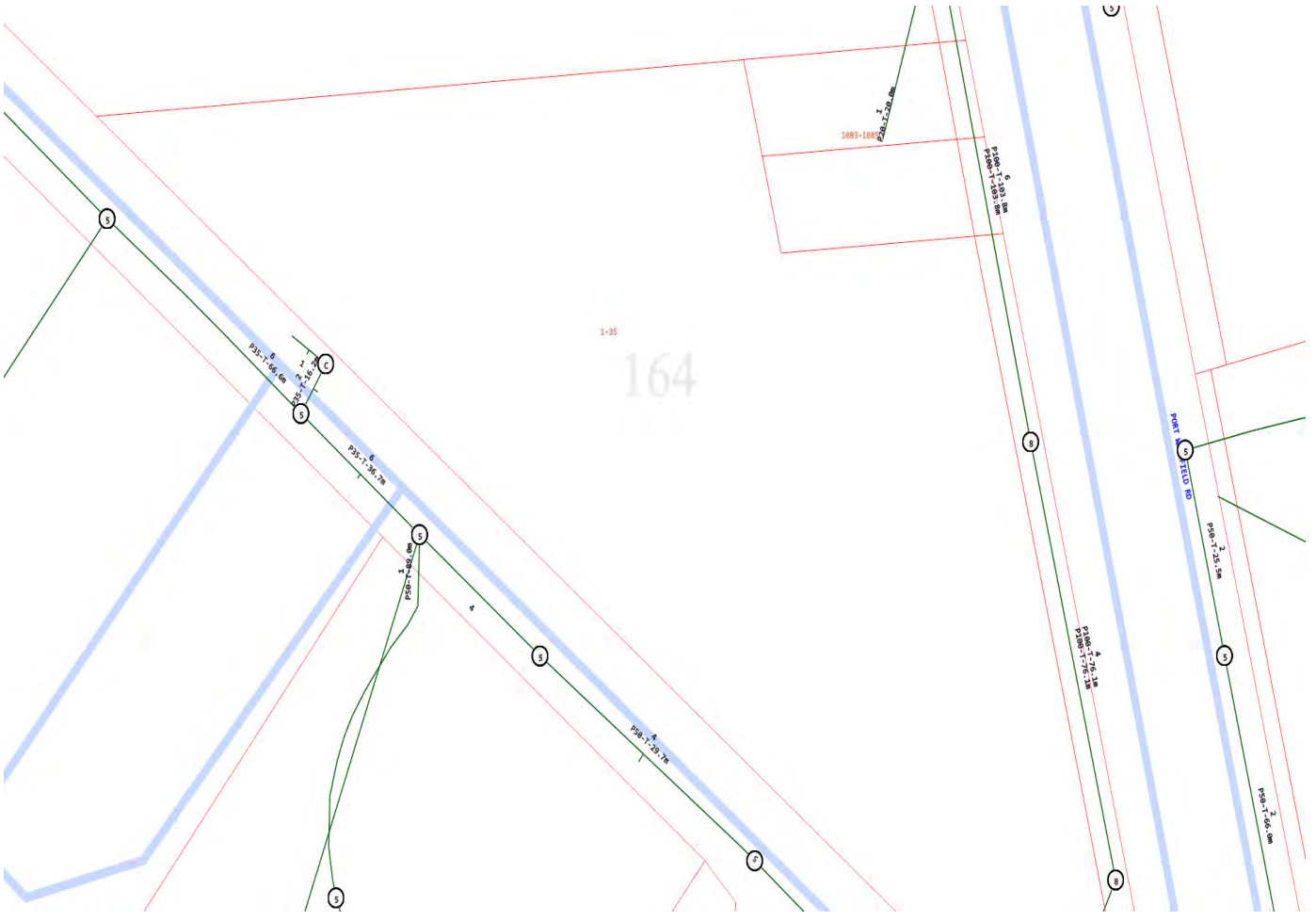


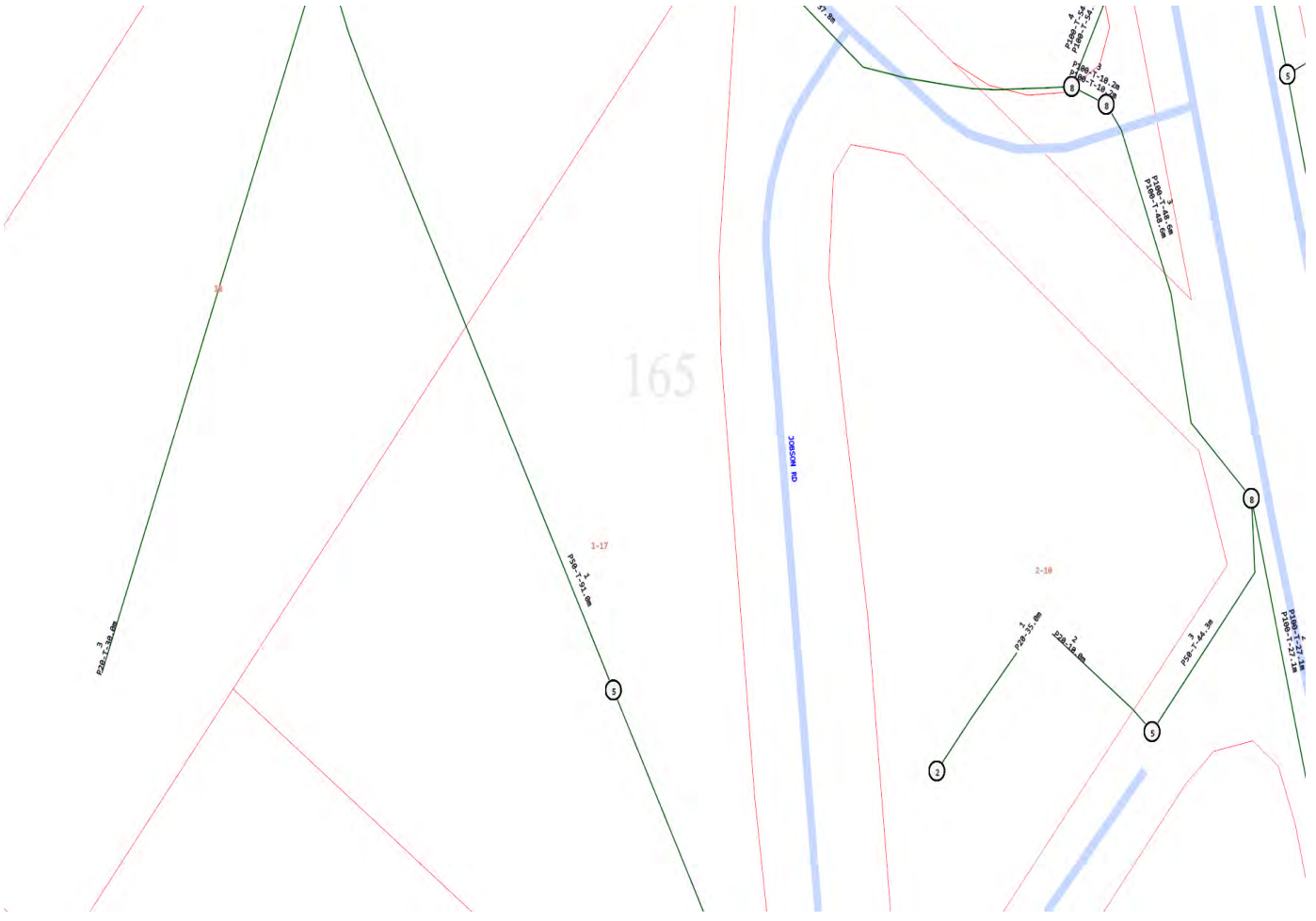
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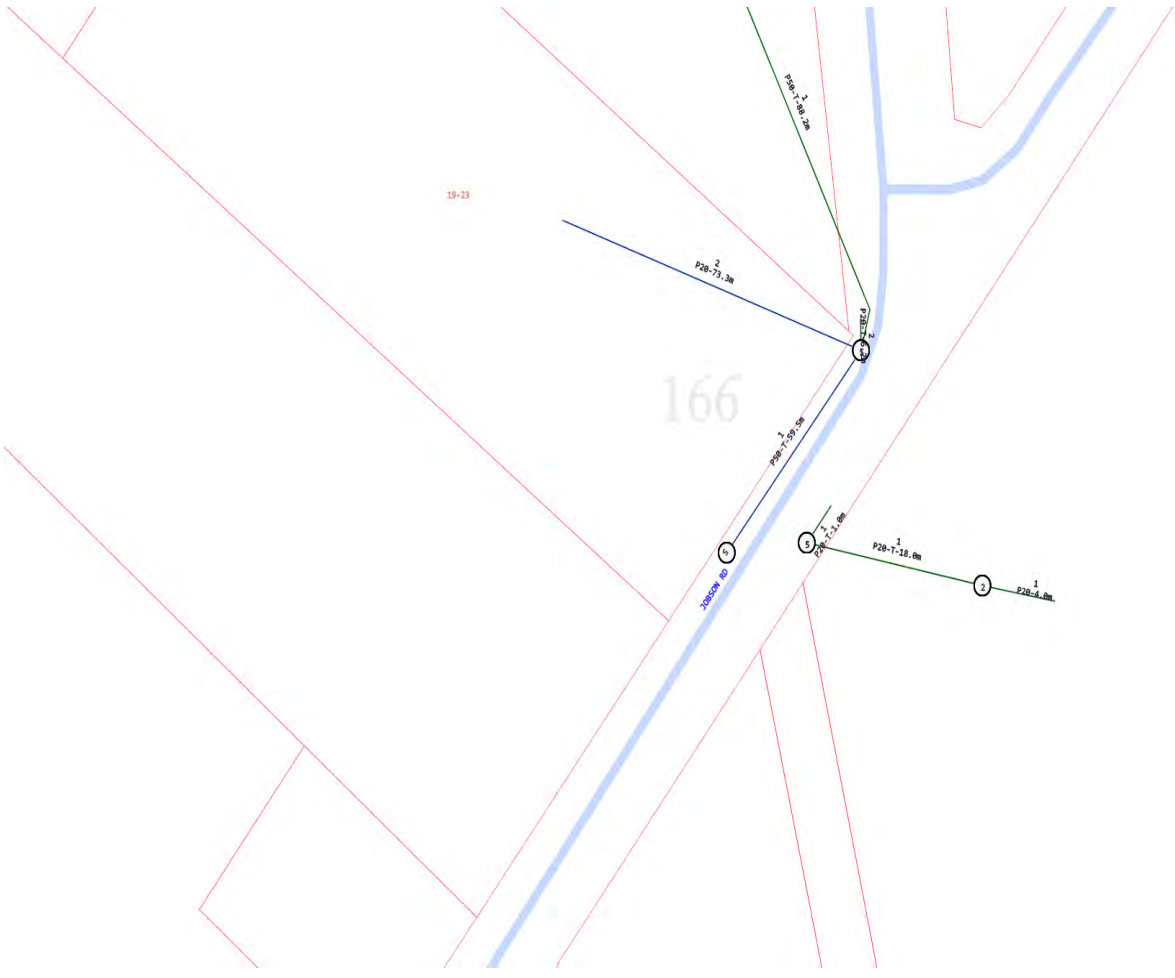
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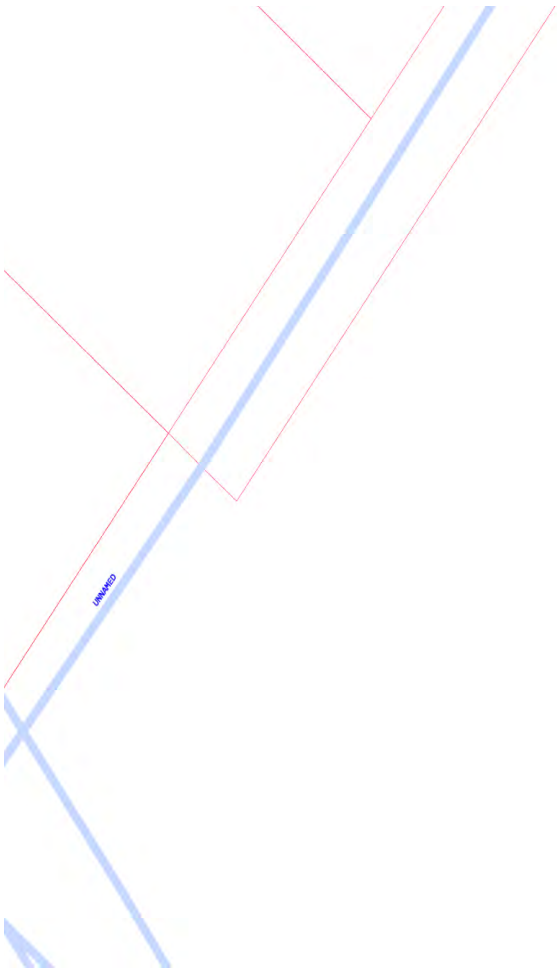


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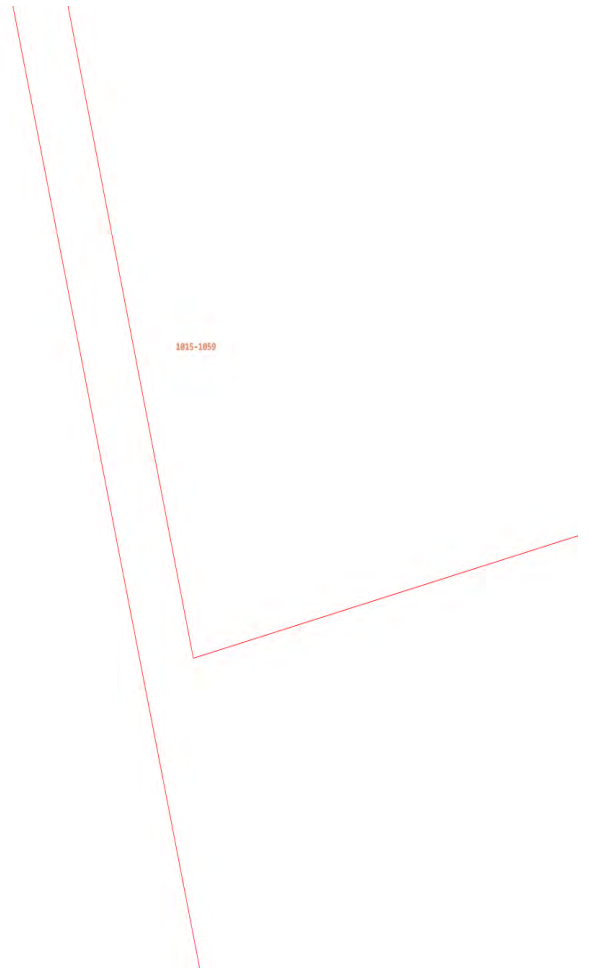






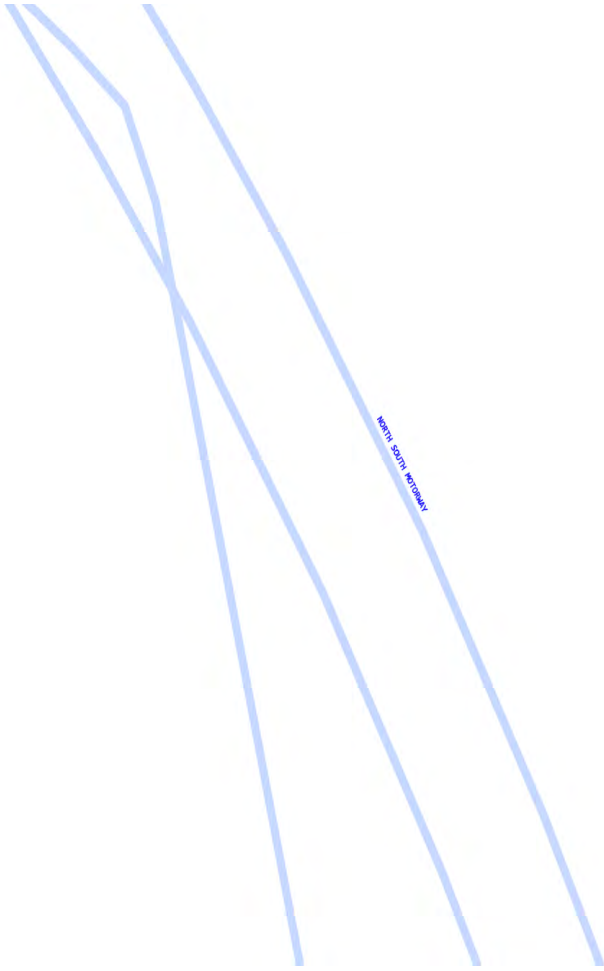


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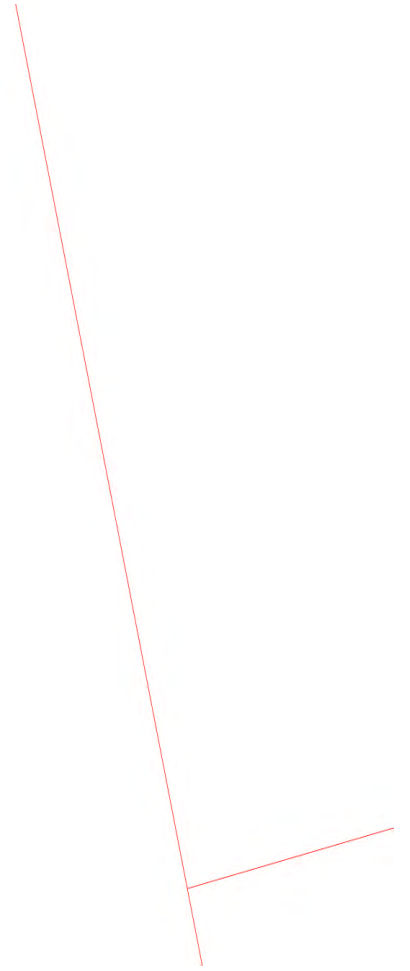


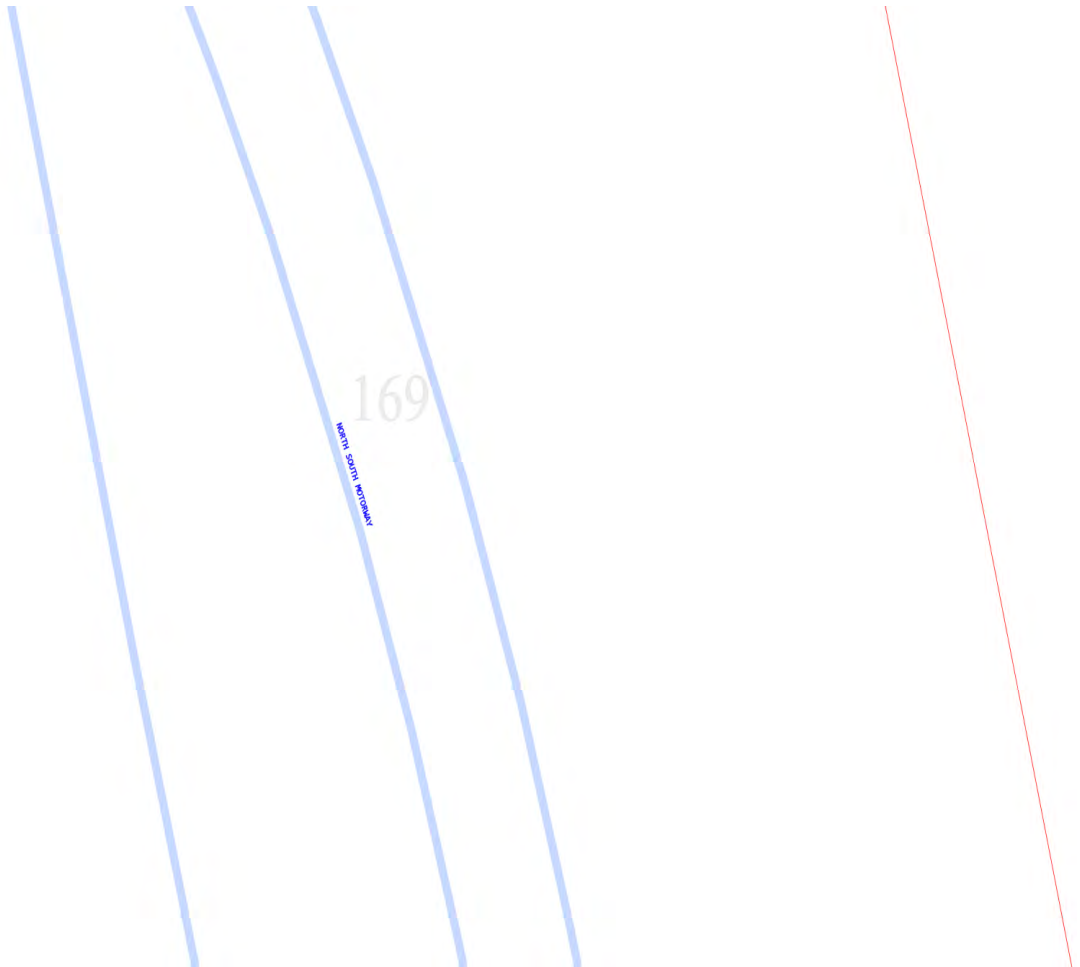
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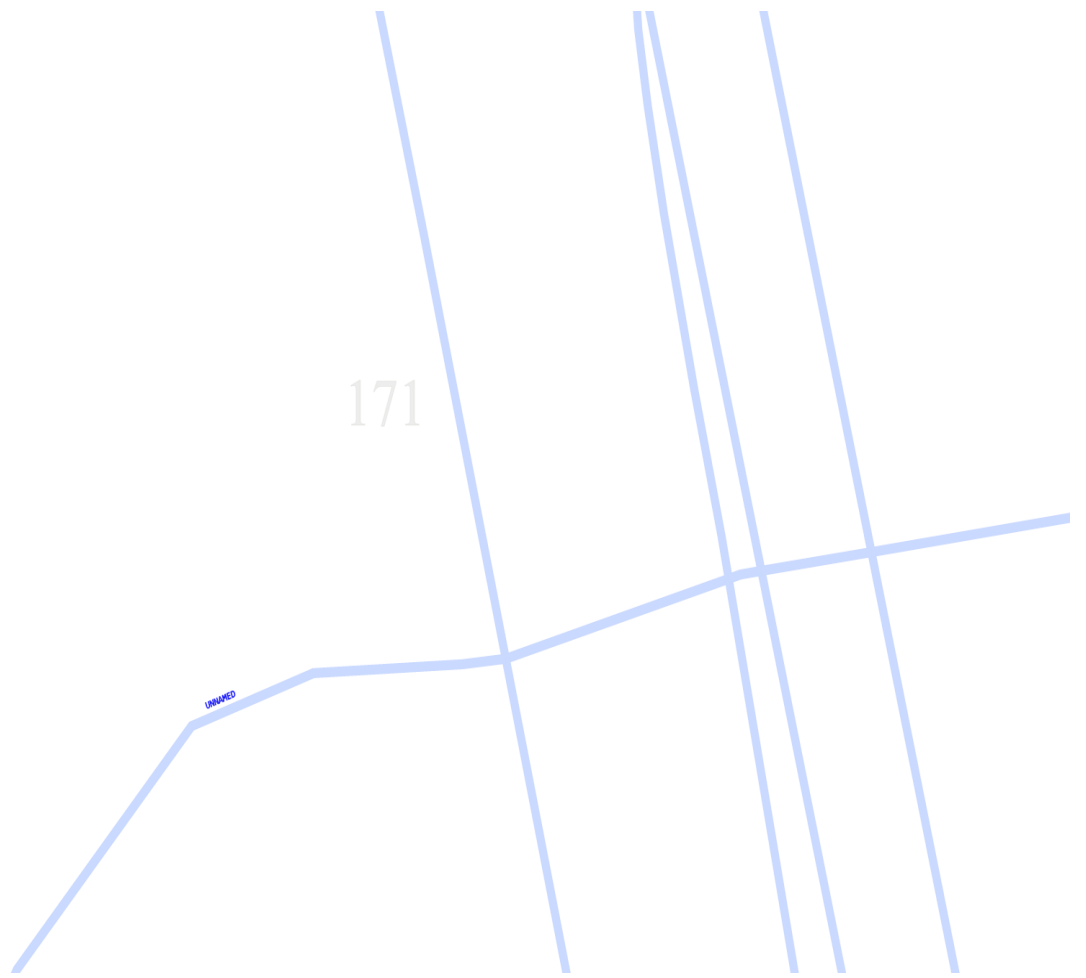
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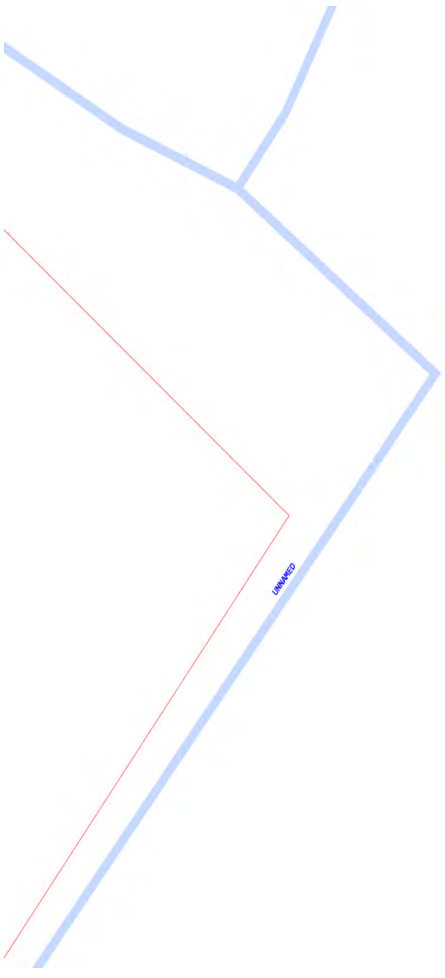




170

North South Highway



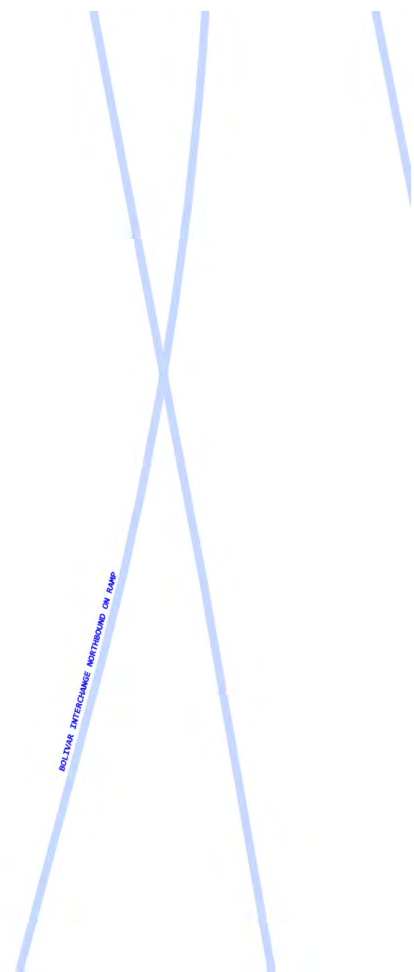


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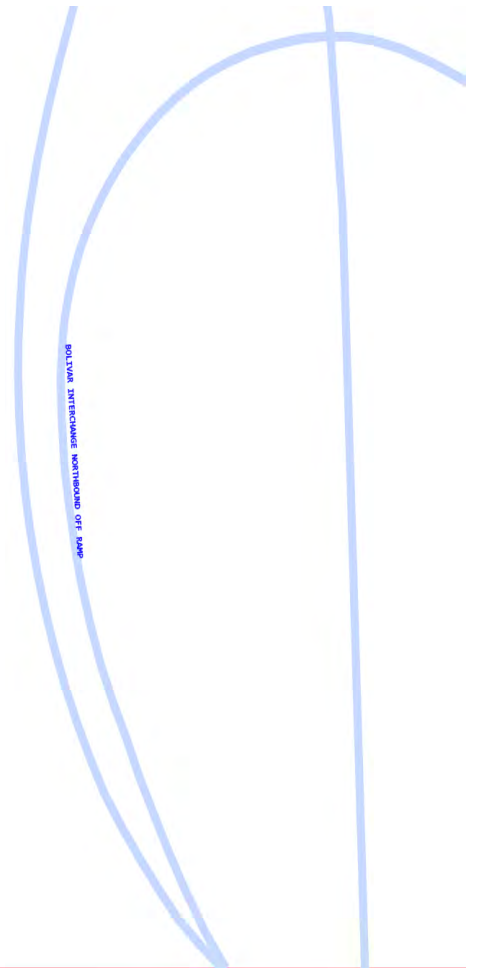




173



174











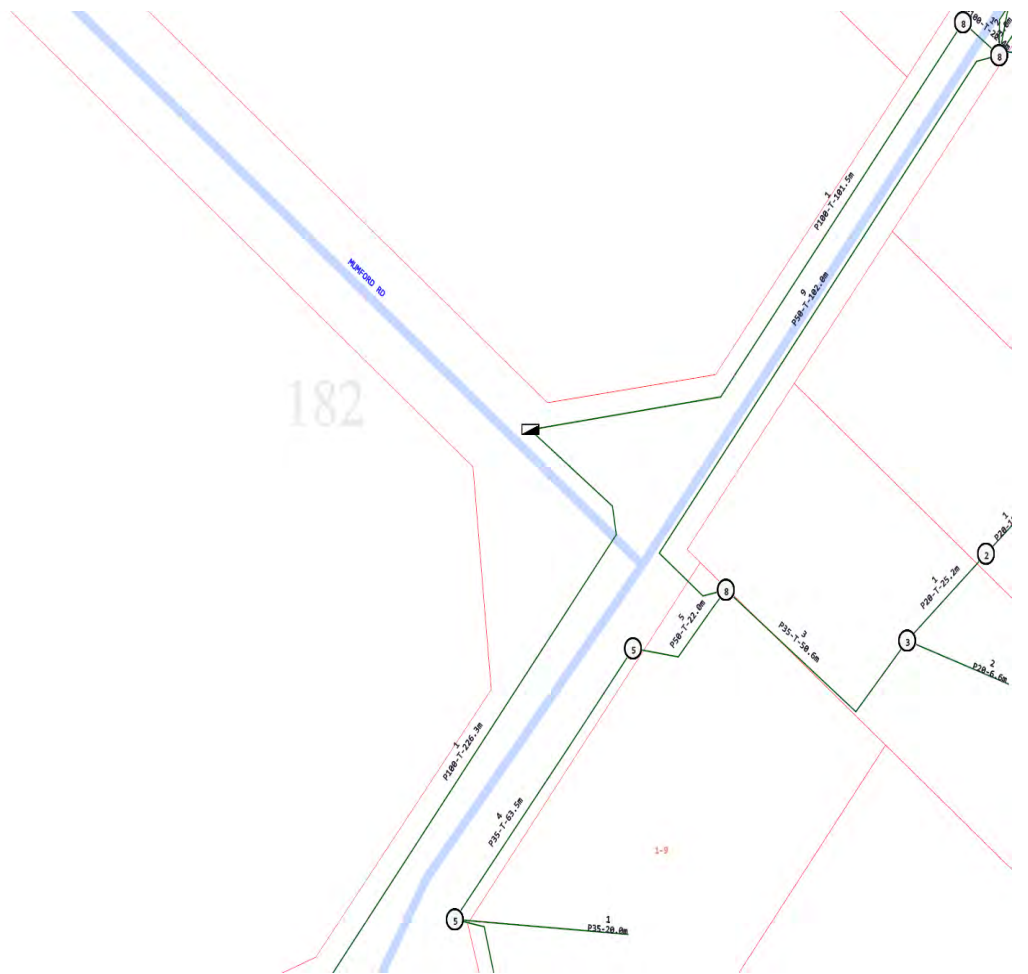




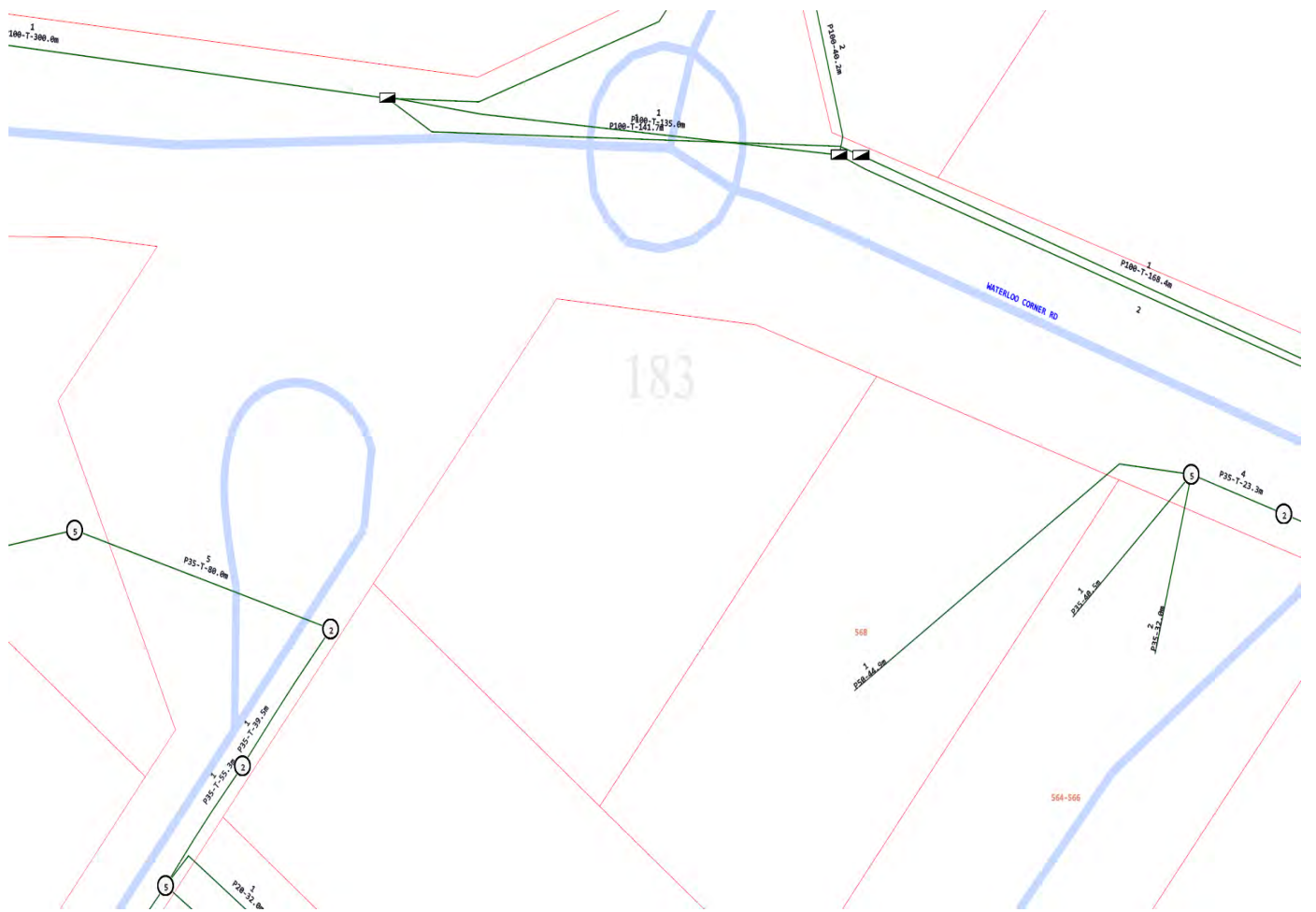


181

181





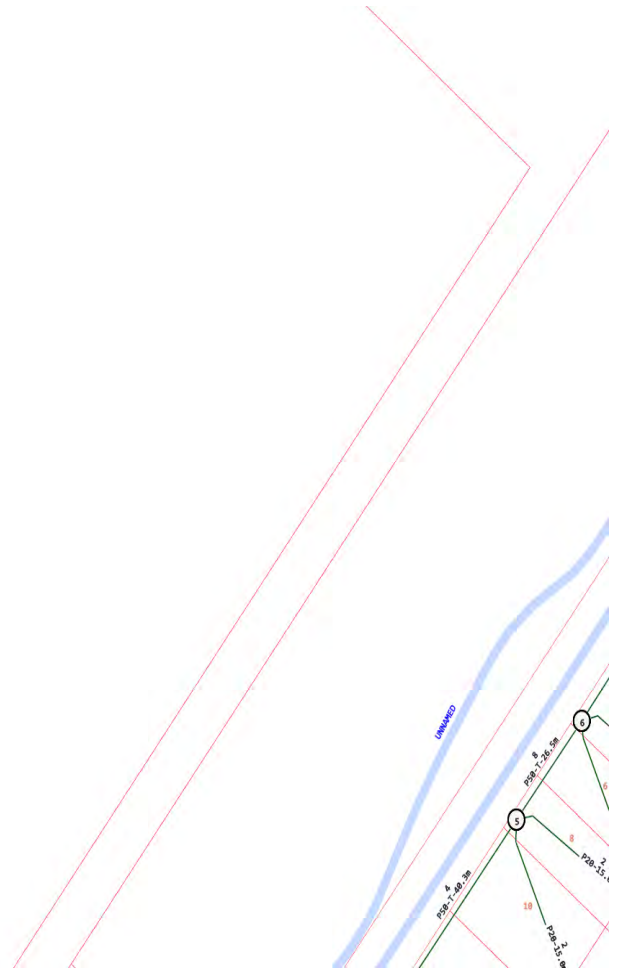
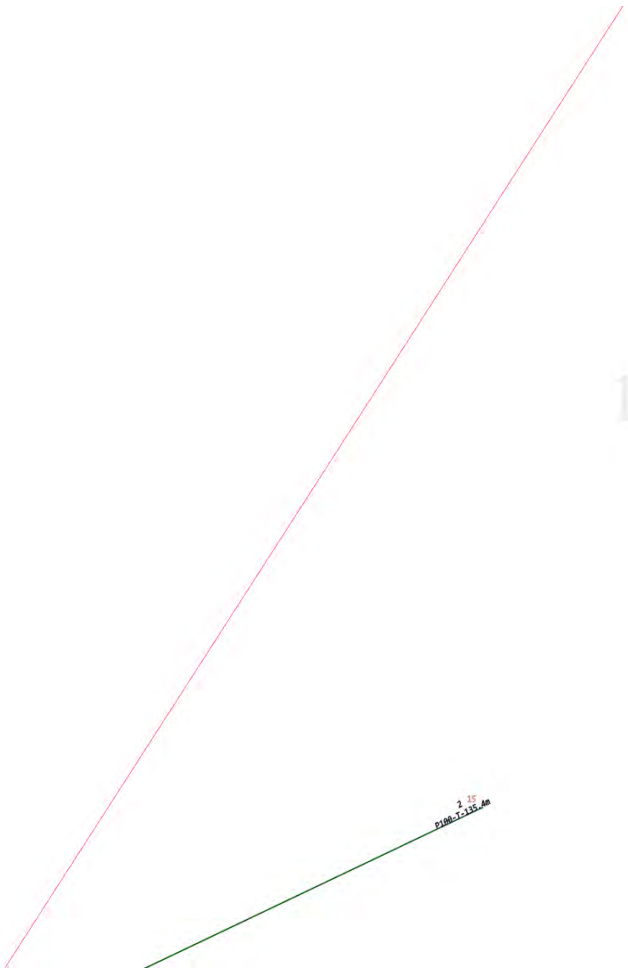




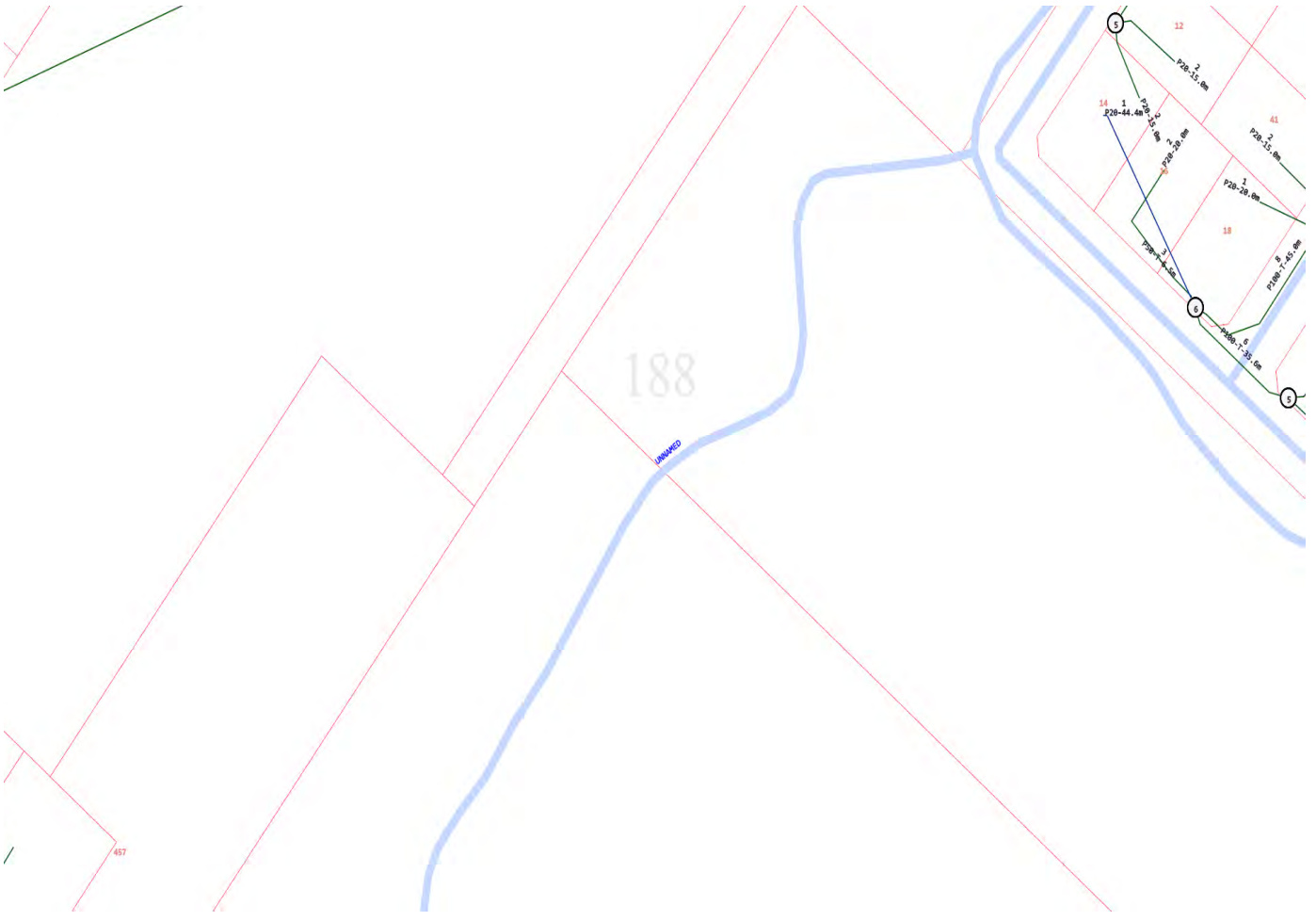




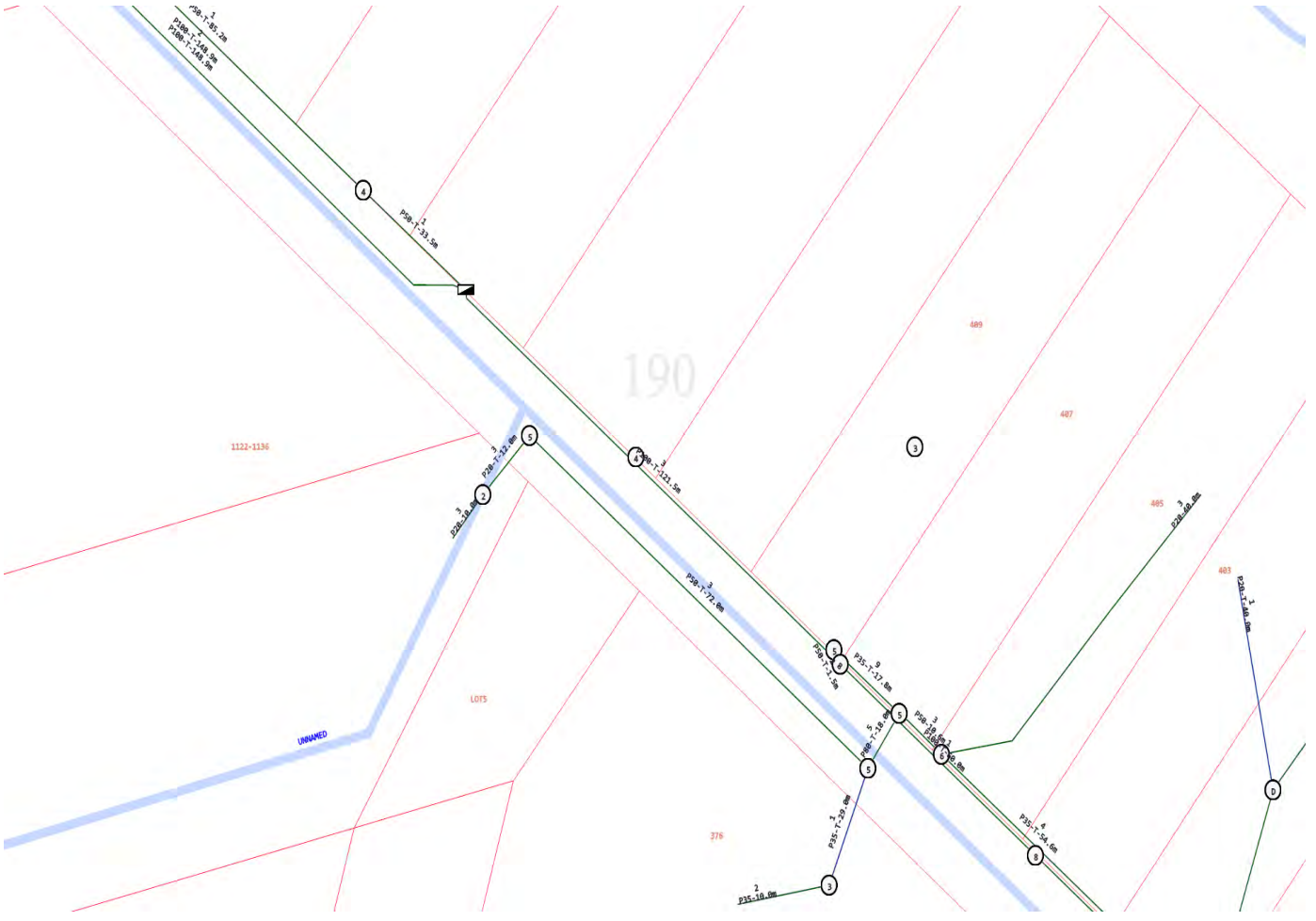
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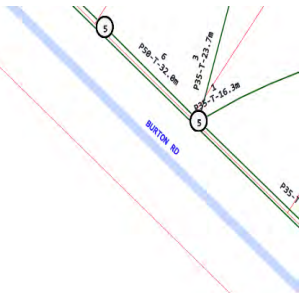
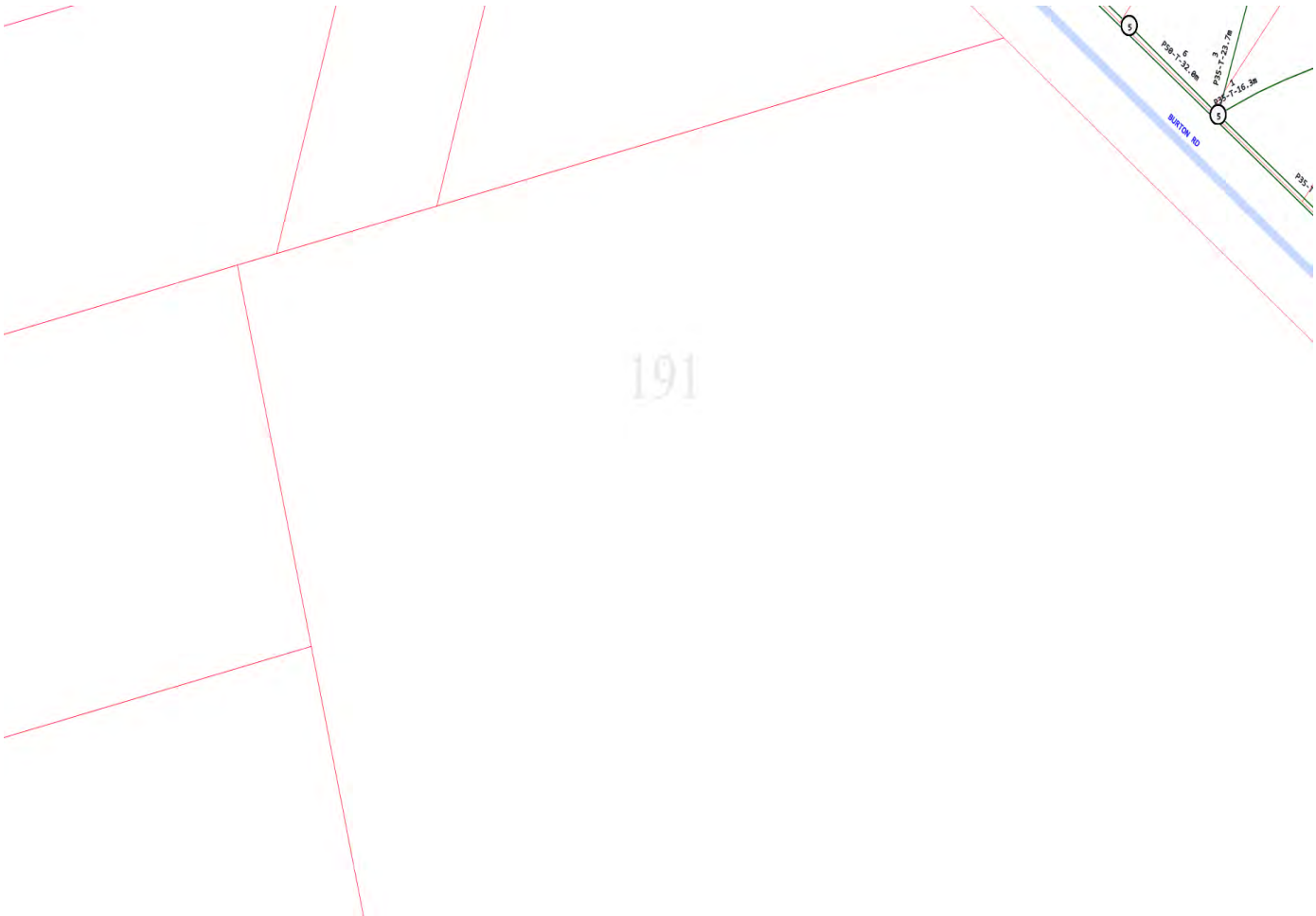






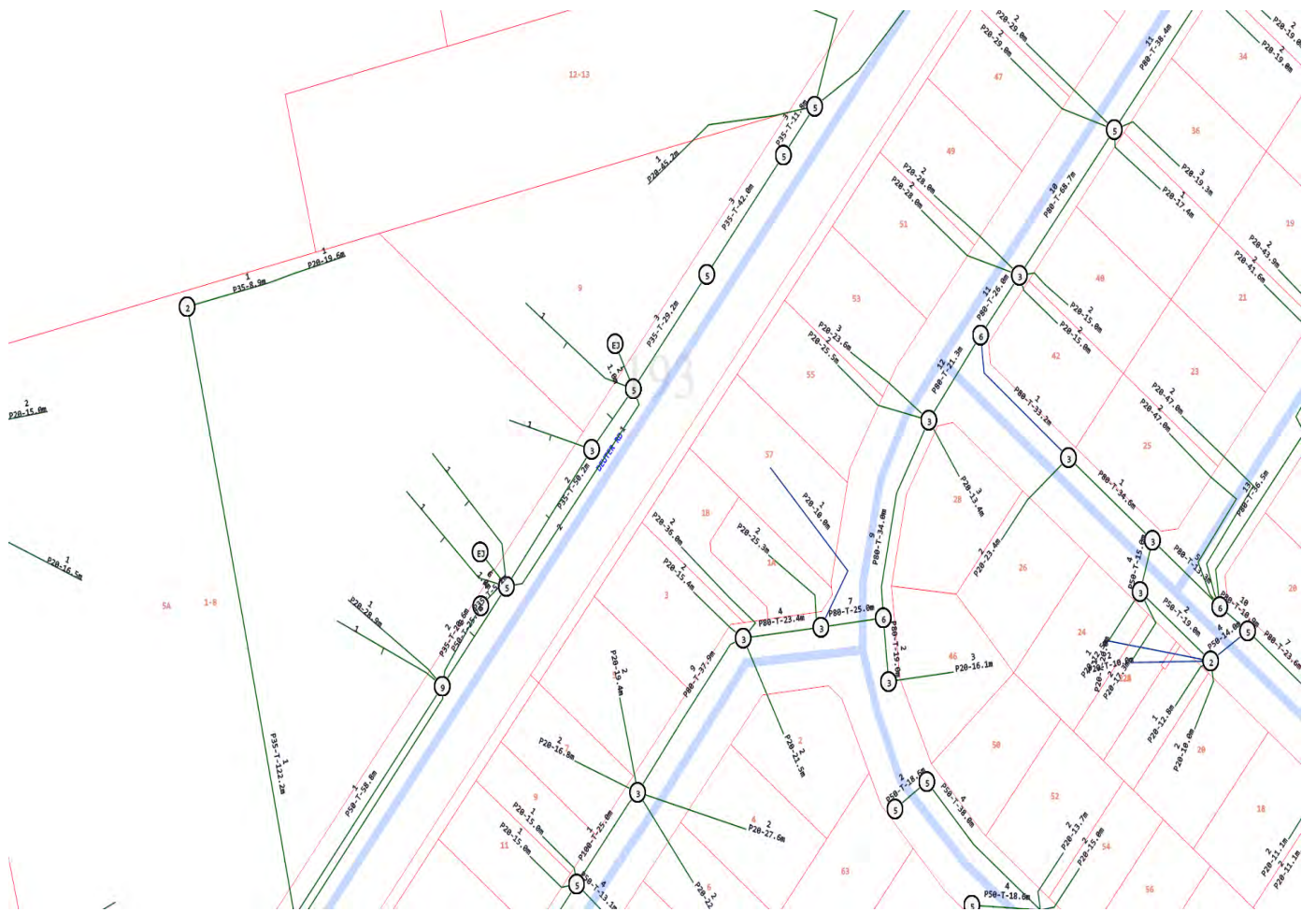


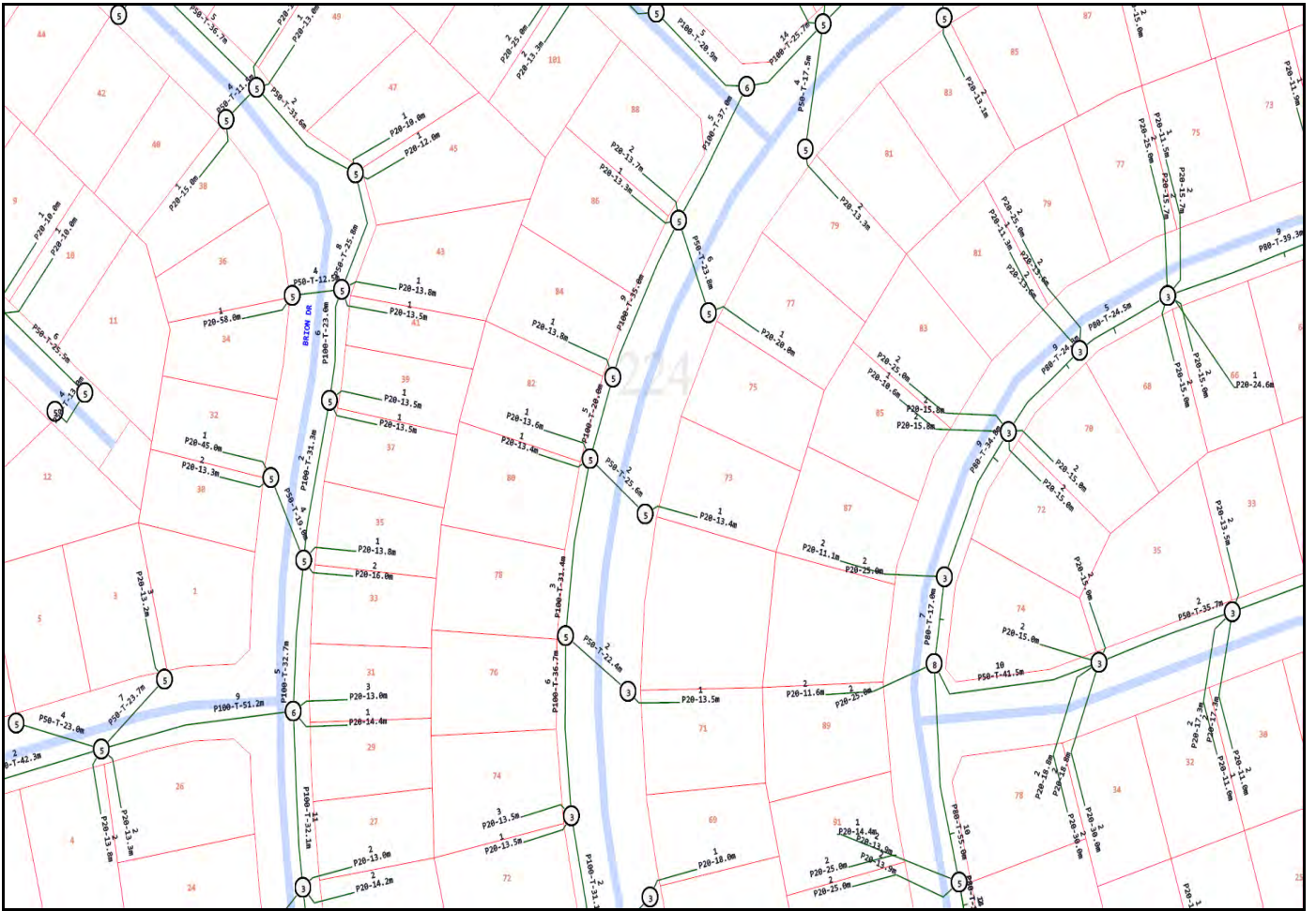


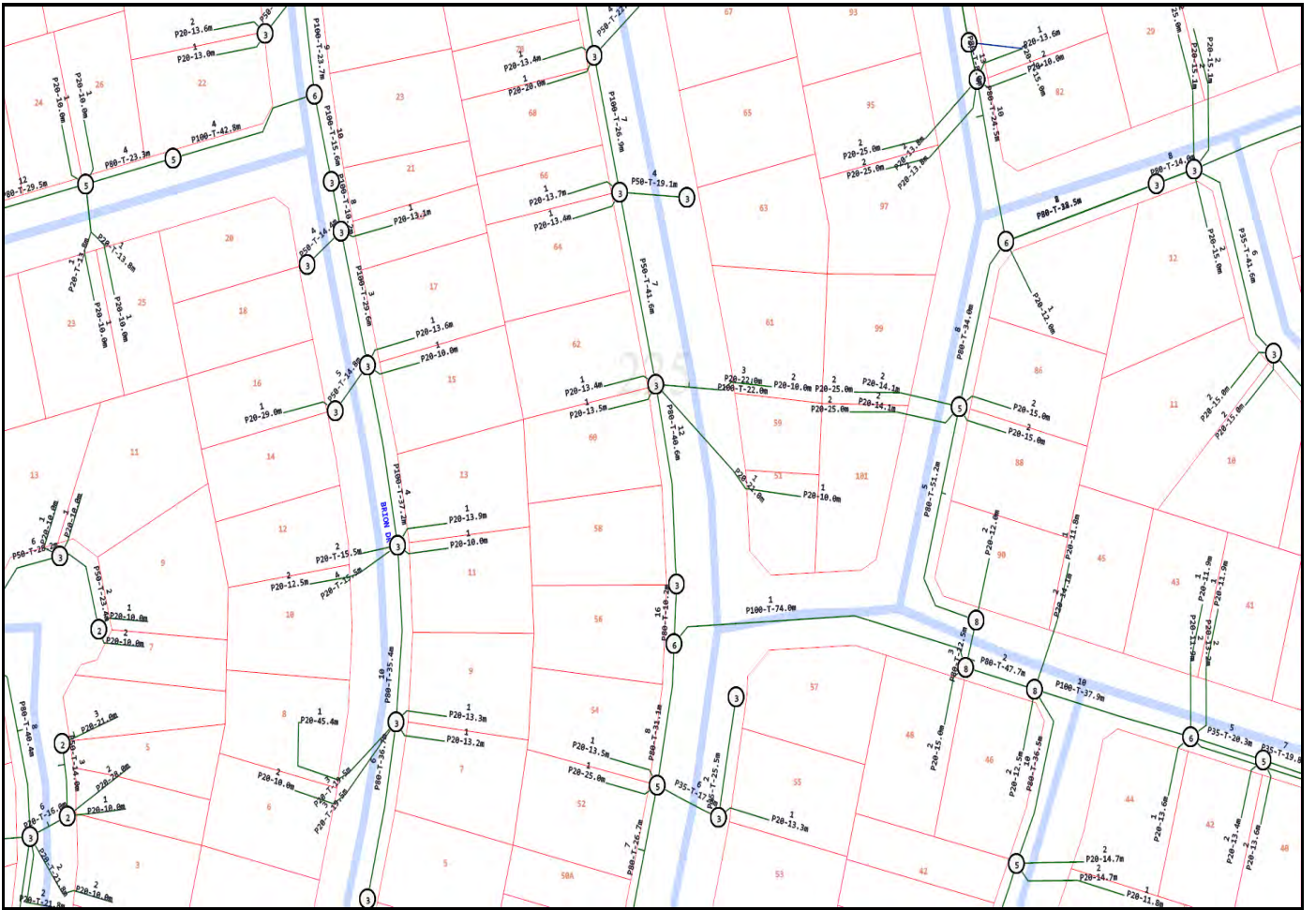




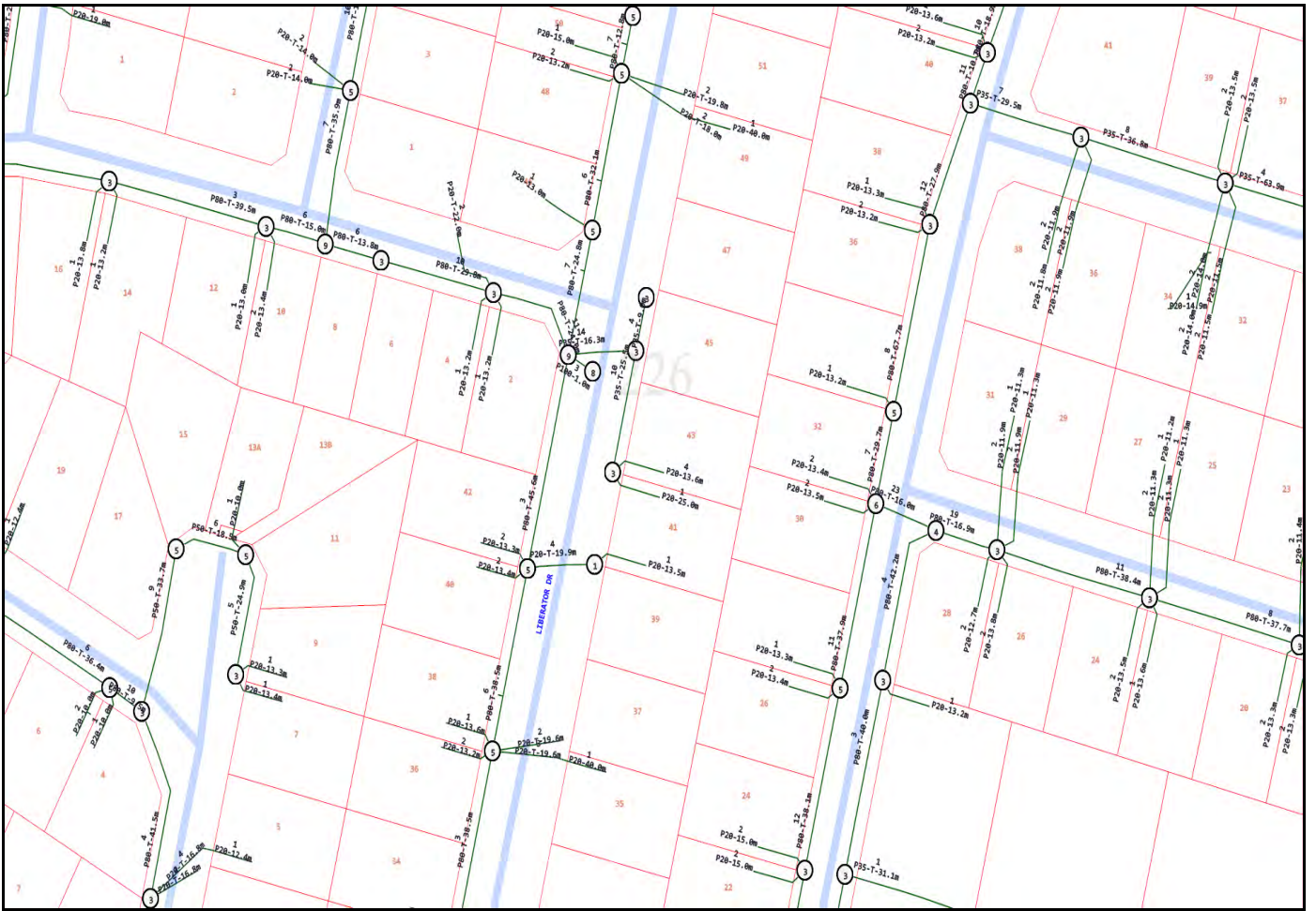


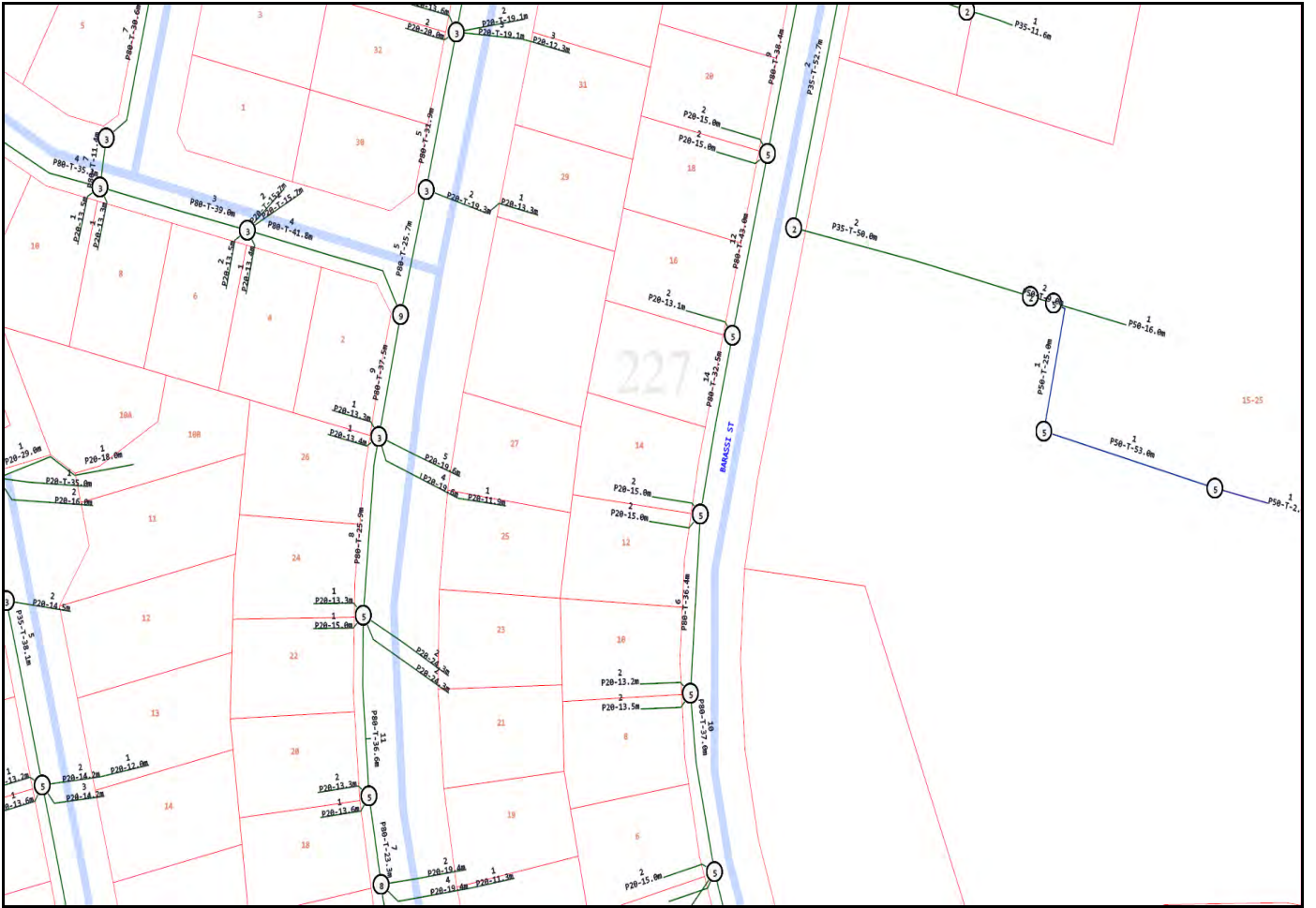


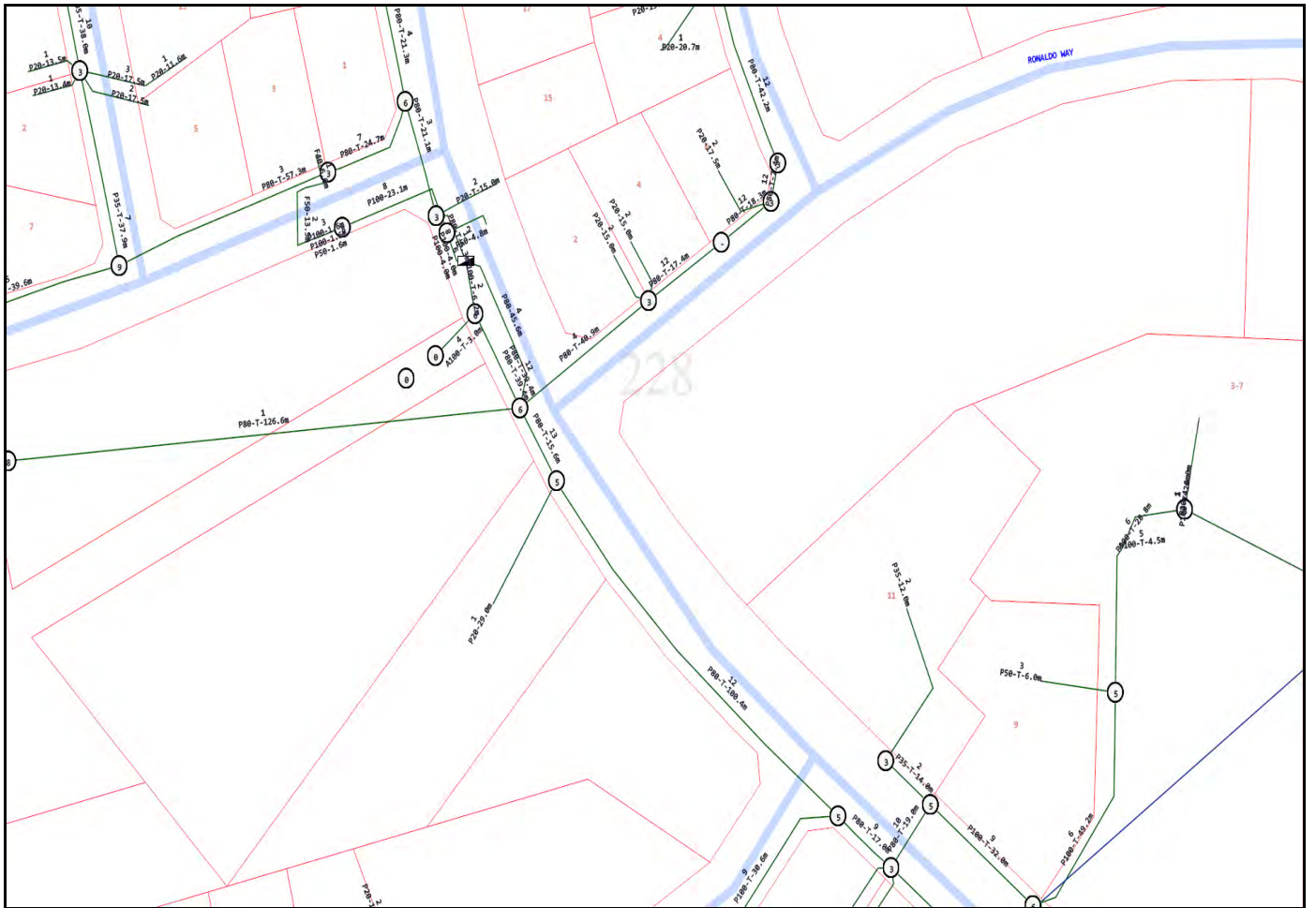




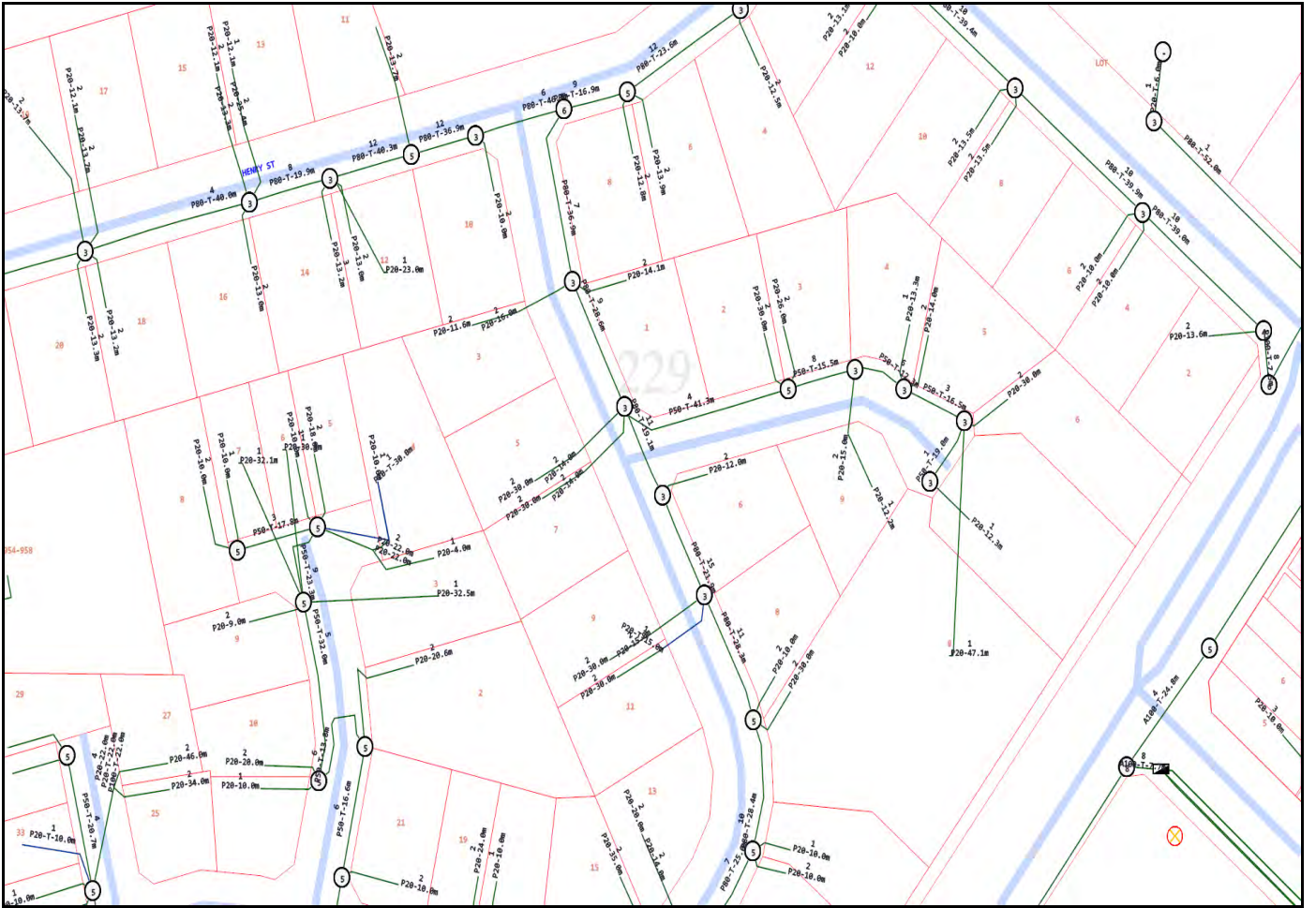


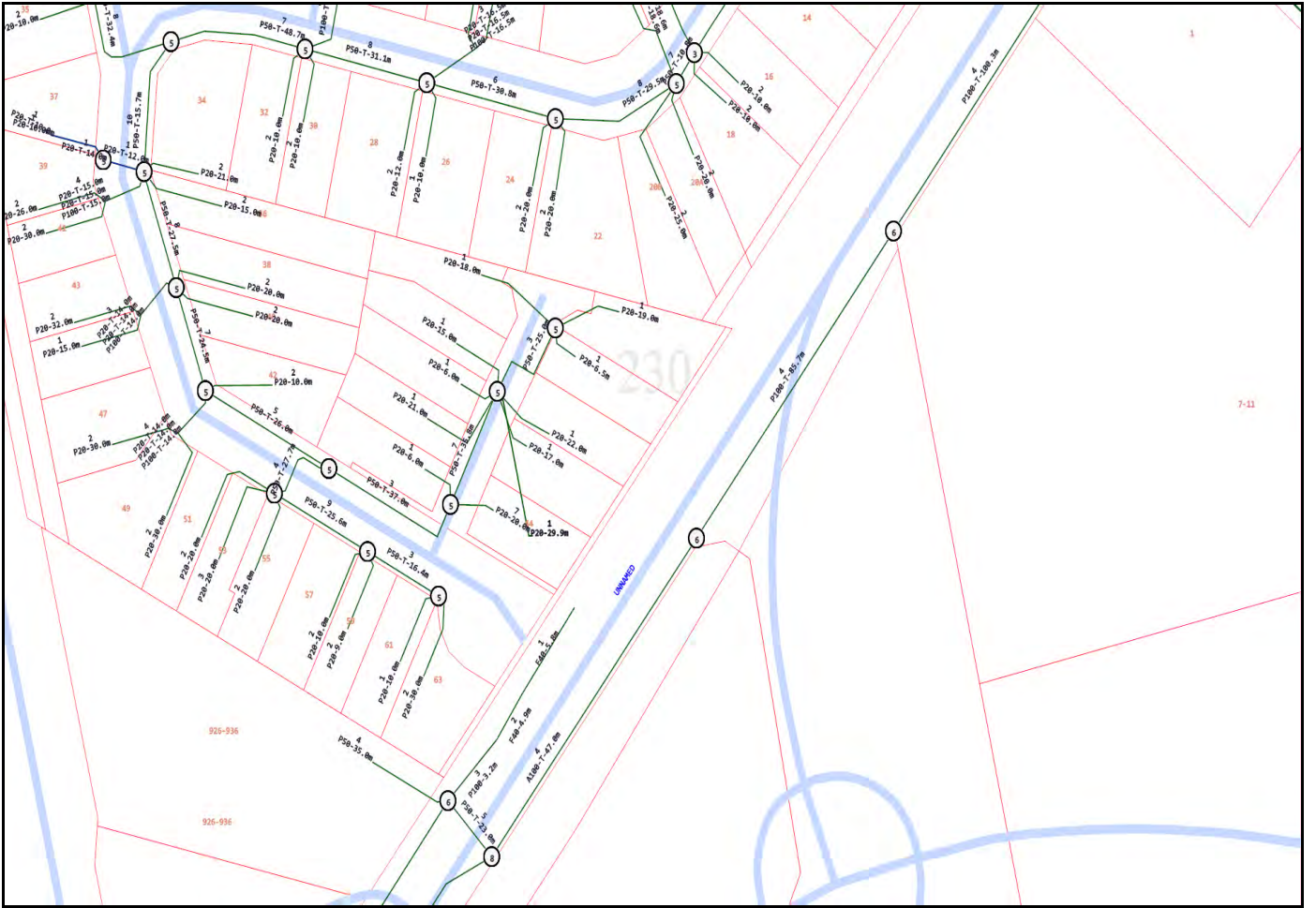


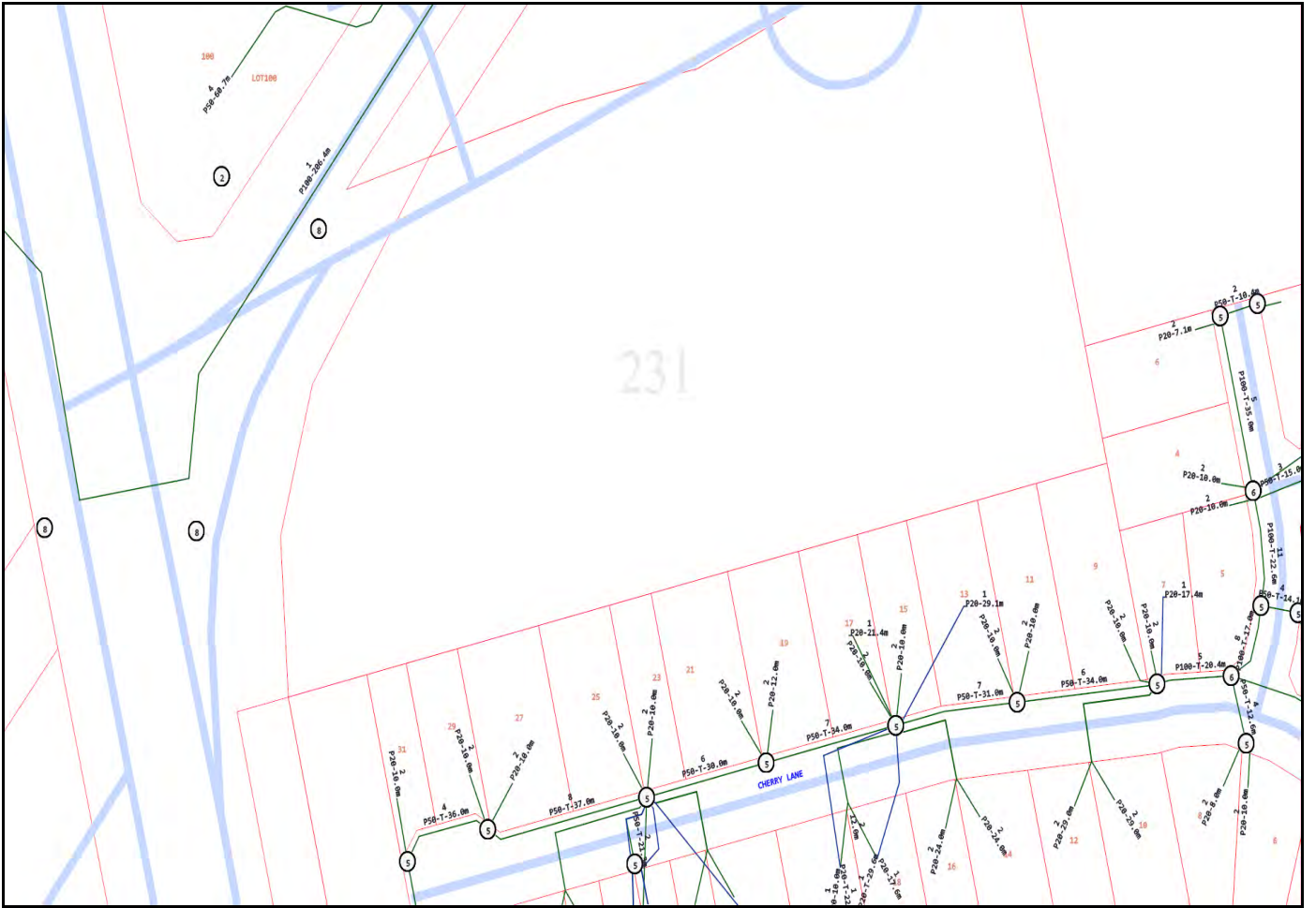


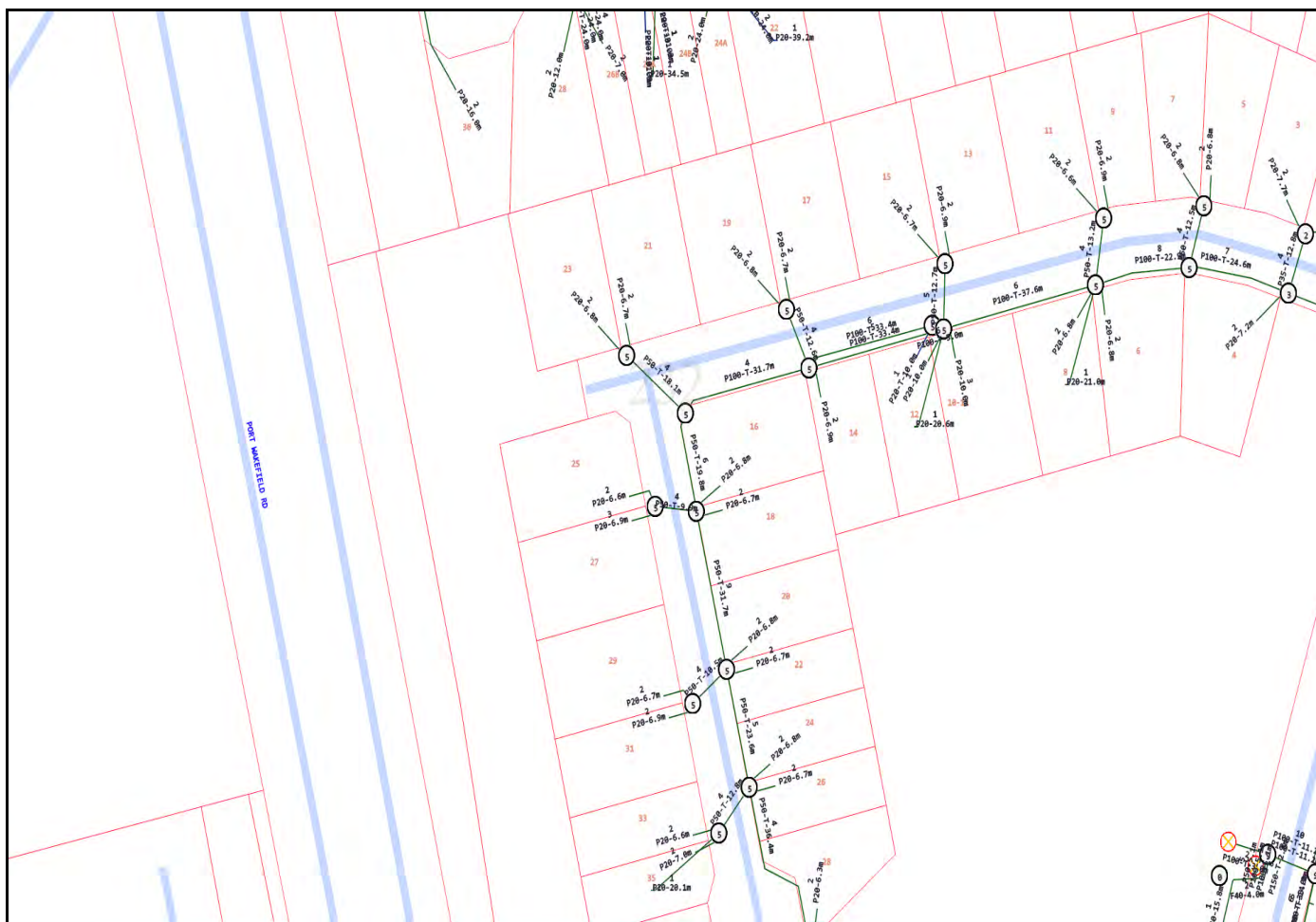















**To:** Karion Dickson-Abbott  
**Phone:** Not Supplied  
**Fax:** Not Supplied  
**Email:** KDickson-Abbott@greenhillaustralia.com.au

|                                   |   |   |
|-----------------------------------|---|---|
| <b>Dial before you dig Job #:</b> | 31721481  |  |
| <b>Sequence #</b>                 | 210057753   |   |
| <b>Issue Date:</b>                | 06/04/2022  |   |
| <b>Location:</b>                  | 79-81 Robinson Road , Waterloo Corner , SA , 5110 |   |






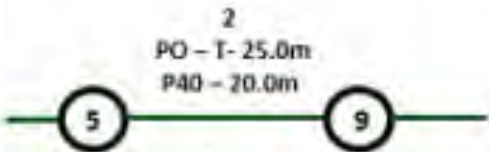
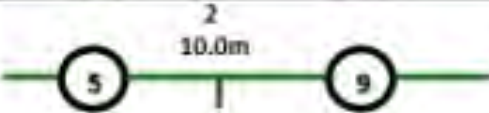





## Indicative Plans

|   |   |   |   |   |   |   |  |
|---|---|---|---|---|---|---|--|
| 29<br>28<br>27<br>26<br>25<br>24<br>23<br>22<br>21<br>20<br>19<br>18<br>17<br>16<br>15<br>14<br>13<br>12<br>11<br>10<br>9<br>8<br>7<br>6<br>5<br>4<br>3<br>2<br>1 | 38<br>37<br>36<br>35<br>34<br>33<br>32<br>31<br>30<br>29<br>28<br>27<br>26<br>25<br>24<br>23<br>22<br>21<br>20<br>19<br>18<br>17<br>16<br>15<br>14<br>13<br>12<br>11<br>10<br>9<br>8<br>7<br>6<br>5<br>4<br>3<br>2<br>1 | 87<br>86<br>85<br>84<br>83<br>82<br>81<br>80<br>79<br>78<br>77<br>76<br>75<br>74<br>73<br>72<br>71<br>70<br>69<br>68<br>67<br>66<br>65<br>64<br>63<br>62<br>61<br>60<br>59<br>58<br>57<br>56<br>55<br>54<br>53<br>52<br>51<br>50<br>49<br>48<br>47<br>46<br>45<br>44<br>43<br>42<br>41<br>40<br>39<br>38<br>37<br>36<br>35<br>34<br>33<br>32<br>31<br>30<br>29<br>28<br>27<br>26<br>25<br>24<br>23<br>22<br>21<br>20<br>19<br>18<br>17<br>16<br>15<br>14<br>13<br>12<br>11<br>10<br>9<br>8<br>7<br>6<br>5<br>4<br>3<br>2<br>1 | 16<br>15<br>14<br>13<br>12<br>11<br>10<br>9<br>8<br>7<br>6<br>5<br>4<br>3<br>2<br>1 | 45<br>44<br>43<br>42<br>41<br>40<br>39<br>38<br>37<br>36<br>35<br>34<br>33<br>32<br>31<br>30<br>29<br>28<br>27<br>26<br>25<br>24<br>23<br>22<br>21<br>20<br>19<br>18<br>17<br>16<br>15<br>14<br>13<br>12<br>11<br>10<br>9<br>8<br>7<br>6<br>5<br>4<br>3<br>2<br>1 | 74<br>73<br>72<br>71<br>70<br>69<br>68<br>67<br>66<br>65<br>64<br>63<br>62<br>61<br>60<br>59<br>58<br>57<br>56<br>55<br>54<br>53<br>52<br>51<br>50<br>49<br>48<br>47<br>46<br>45<br>44<br>43<br>42<br>41<br>40<br>39<br>38<br>37<br>36<br>35<br>34<br>33<br>32<br>31<br>30<br>29<br>28<br>27<br>26<br>25<br>24<br>23<br>22<br>21<br>20<br>19<br>18<br>17<br>16<br>15<br>14<br>13<br>12<br>11<br>10<br>9<br>8<br>7<br>6<br>5<br>4<br>3<br>2<br>1 | 203<br>202<br>201<br>200<br>199<br>198<br>197<br>196<br>195<br>194<br>193<br>192<br>191<br>190<br>189<br>188<br>187<br>186<br>185<br>184<br>183<br>182<br>181<br>180<br>179<br>178<br>177<br>176<br>175<br>174<br>173<br>172<br>171<br>170<br>169<br>168<br>167<br>166<br>165<br>164<br>163<br>162<br>161<br>160<br>159<br>158<br>157<br>156<br>155<br>154<br>153<br>152<br>151<br>150<br>149<br>148<br>147<br>146<br>145<br>144<br>143<br>142<br>141<br>140<br>139<br>138<br>137<br>136<br>135<br>134<br>133<br>132<br>131<br>130<br>129<br>128<br>127<br>126<br>125<br>124<br>123<br>122<br>121<br>120<br>119<br>118<br>117<br>116<br>115<br>114<br>113<br>112<br>111<br>110<br>109<br>108<br>107<br>106<br>105<br>104<br>103<br>102<br>101<br>100<br>99<br>98<br>97<br>96<br>95<br>94<br>93<br>92<br>91<br>90<br>89<br>88<br>87<br>86<br>85<br>84<br>83<br>82<br>81<br>80<br>79<br>78<br>77<br>76<br>75<br>74<br>73<br>72<br>71<br>70<br>69<br>68<br>67<br>66<br>65<br>64<br>63<br>62<br>61<br>60<br>59<br>58<br>57<br>56<br>55<br>54<br>53<br>52<br>51<br>50<br>49<br>48<br>47<br>46<br>45<br>44<br>43<br>42<br>41<br>40<br>39<br>38<br>37<br>36<br>35<br>34<br>33<br>32<br>31<br>30<br>29<br>28<br>27<br>26<br>25<br>24<br>23<br>22<br>21<br>20<br>19<br>18<br>17<br>16<br>15<br>14<br>13<br>12<br>11<br>10<br>9<br>8<br>7<br>6<br>5<br>4<br>3<br>2<br>1 | 232<br>231<br>230<br>229<br>228<br>227<br>226<br>225<br>224<br>223<br>222<br>221<br>220<br>219<br>218<br>217<br>216<br>215<br>214<br>213<br>212<br>211<br>210<br>209<br>208<br>207<br>206<br>205<br>204<br>203<br>202<br>201<br>200<br>199<br>198<br>197<br>196<br>195<br>194<br>193<br>192<br>191<br>190<br>189<br>188<br>187<br>186<br>185<br>184<br>183<br>182<br>181<br>180<br>179<br>178<br>177<br>176<br>175<br>174<br>173<br>172<br>171<br>170<br>169<br>168<br>167<br>166<br>165<br>164<br>163<br>162<br>161<br>160<br>159<br>158<br>157<br>156<br>155<br>154<br>153<br>152<br>151<br>150<br>149<br>148<br>147<br>146<br>145<br>144<br>143<br>142<br>141<br>140<br>139<br>138<br>137<br>136<br>135<br>134<br>133<br>132<br>131<br>130<br>129<br>128<br>127<br>126<br>125<br>124<br>123<br>122<br>121<br>120<br>119<br>118<br>117<br>116<br>115<br>114<br>113<br>112<br>111<br>110<br>109<br>108<br>107<br>106<br>105<br>104<br>103<br>102<br>101<br>100<br>99<br>98<br>97<br>96<br>95<br>94<br>93<br>92<br>91<br>90<br>89<br>88<br>87<br>86<br>85<br>84<br>83<br>82<br>81<br>80<br>79<br>78<br>77<br>76<br>75<br>74<br>73<br>72<br>71<br>70<br>69<br>68<br>67<br>66<br>65<br>64<br>63<br>62<br>61<br>60<br>59<br>58<br>57<br>56<br>55<br>54<br>53<br>52<br>51<br>50<br>49<br>48<br>47<br>46<br>45<br>44<br>43<br>42<br>41<br>40<br>39<br>38<br>37<br>36<br>35<br>34<br>33<br>32<br>31<br>30<br>29<br>28<br>27<br>26<br>25<br>24<br>23<br>22<br>21<br>20<br>19<br>18<br>17<br>16<br>15<br>14<br>13<br>12<br>11<br>10<br>9<br>8<br>7<br>6<br>5<br>4<br>3<br>2<br>1 |
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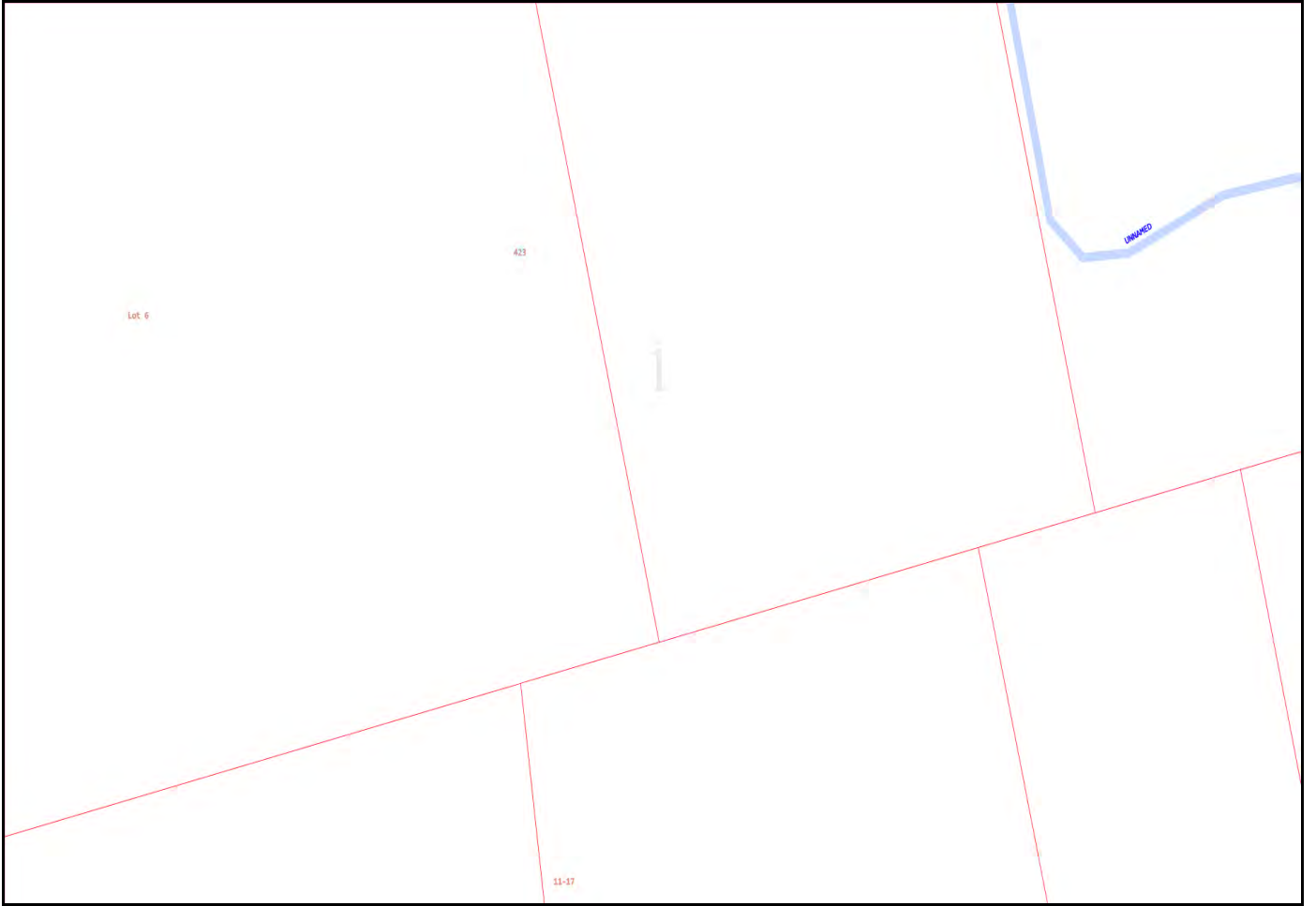


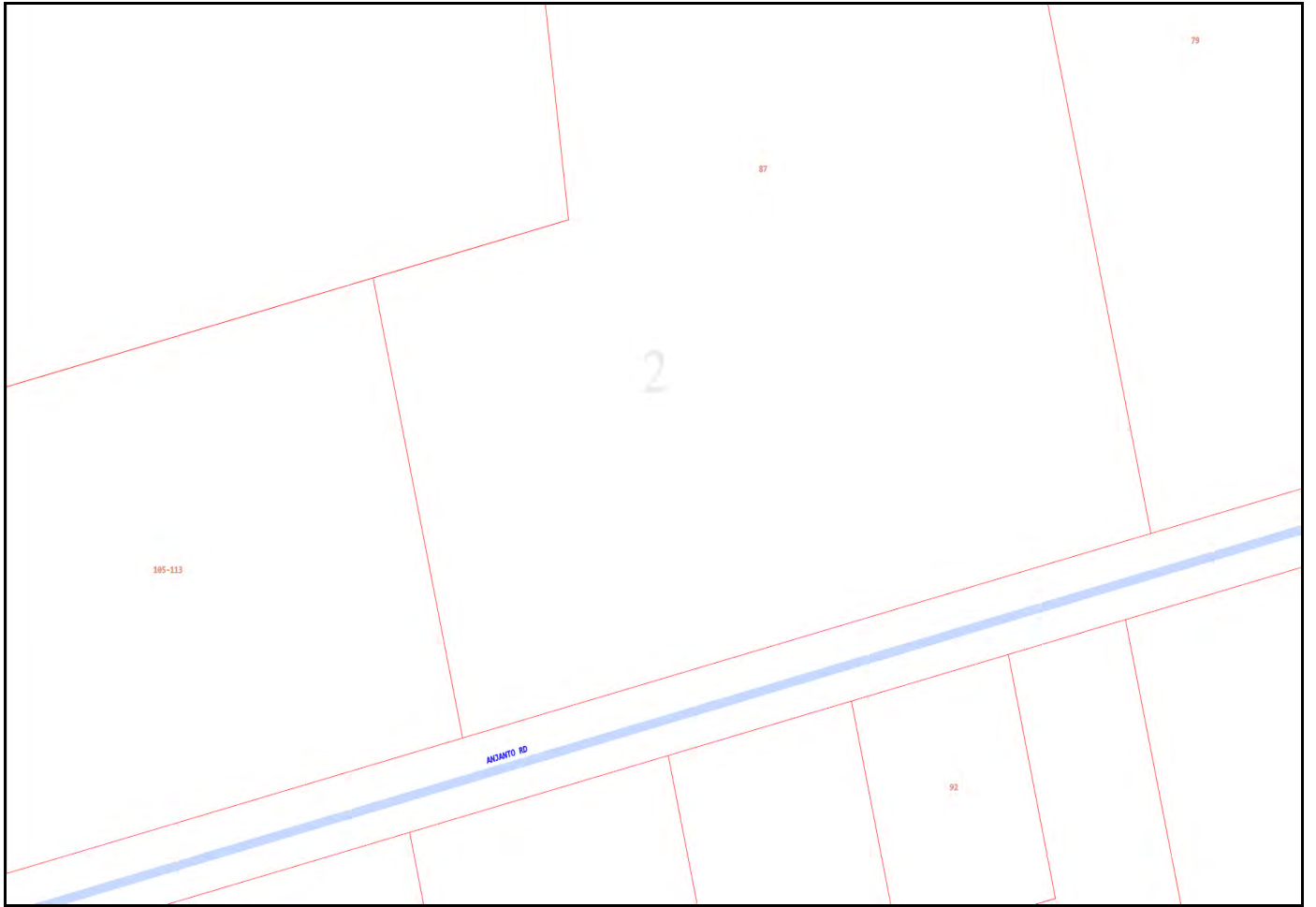
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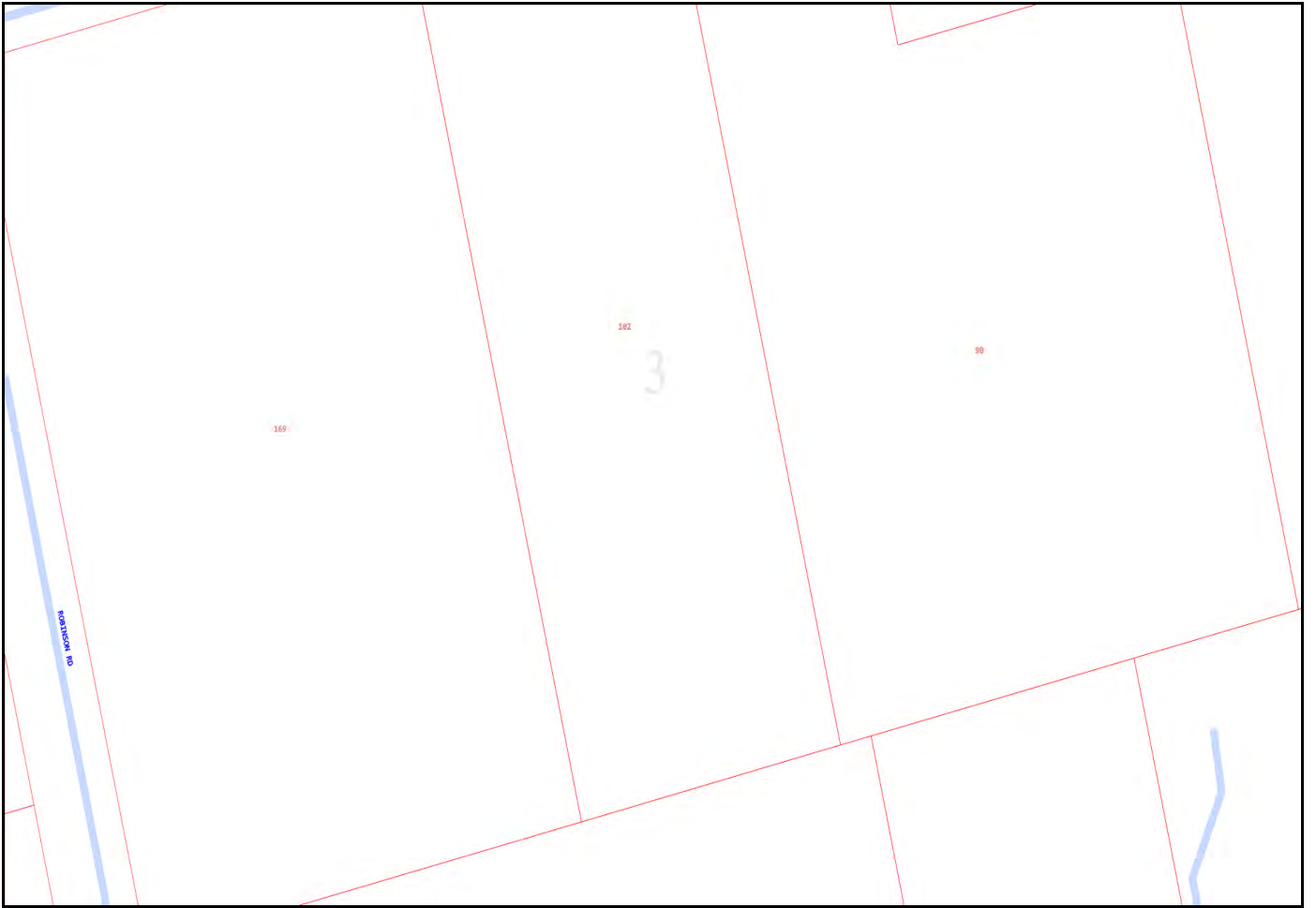


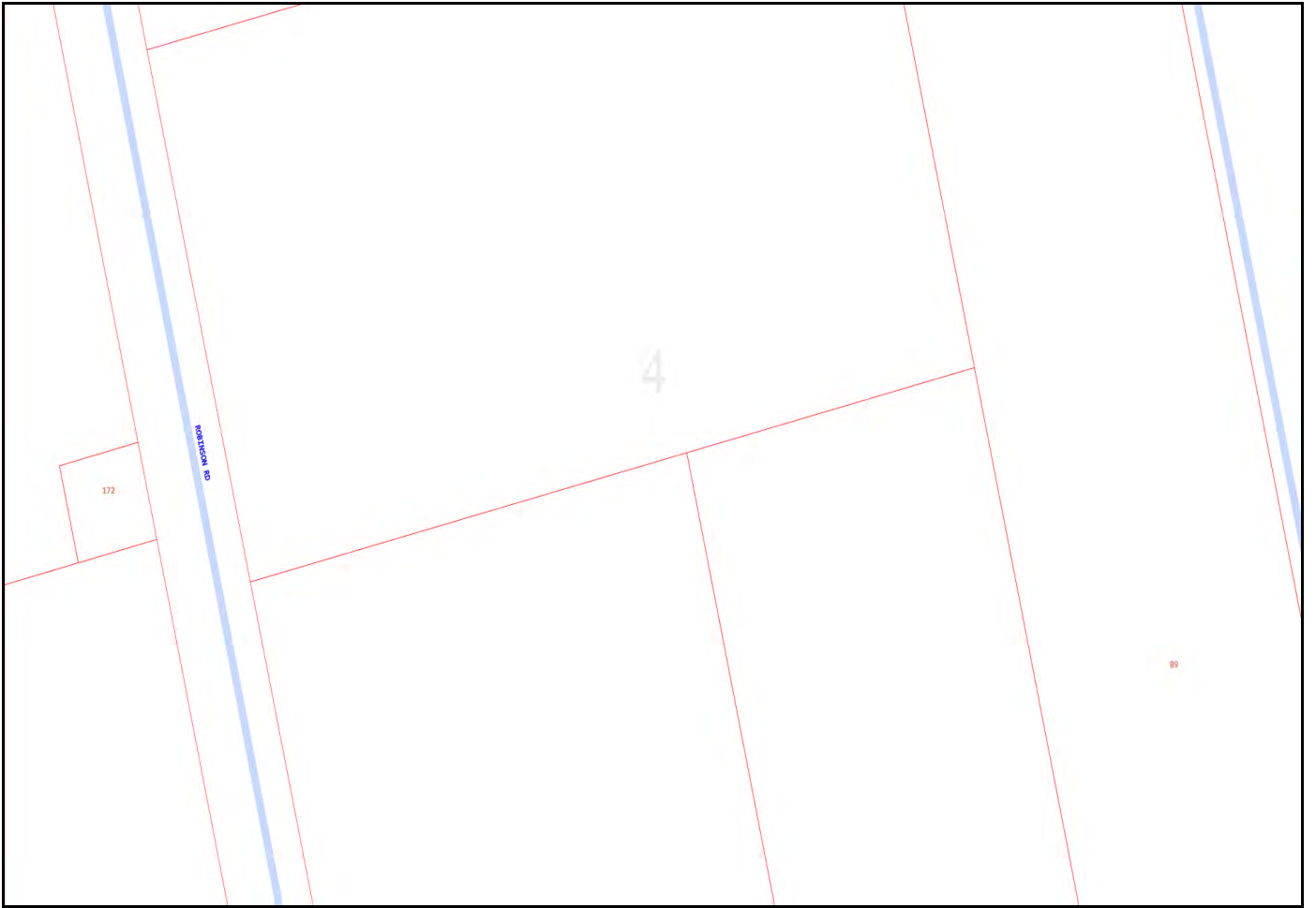
|   |  |
|---|--|
|    | Parcel and the location  |
|    | Pit with size "5"  |
|    | Power Pit with size "2E".<br>Valid PIT Size: e.g. 2E, 5E, 6E, 8E, 9E, E, null.   |
|    | Manhole  |
|   | Pillar   |
|  | Cable count of trench is 2.<br>One "Other size" PVC conduit (PO) owned by Telstra (-T-), between pits of sizes, "5" and "9" are 25.0m apart.<br>One 40mm PVC conduit (P40) owned by NBN, between pits of sizes, "5" and "9" are 20.0m apart. |
|  | 2 Direct buried cables between pits of sizes, "5" and "9" are 10.0m apart.   |
|  | Trench containing any <b>INSERVICE/CONSTRUCTED</b> (Copper/RF/Fibre) cables.   |
|  | Trench containing only <b>DESIGNED/PLANNED</b> (Copper/RF/Fibre/Power) cables.   |
|  | Trench containing any <b>INSERVICE/CONSTRUCTED</b> (Power) cables.   |
|  | Road and the street name "Broadway ST"   |
| Scale   | 0 20 40 60 Meters<br>1:2000<br>1 cm equals 20 m<br>   |

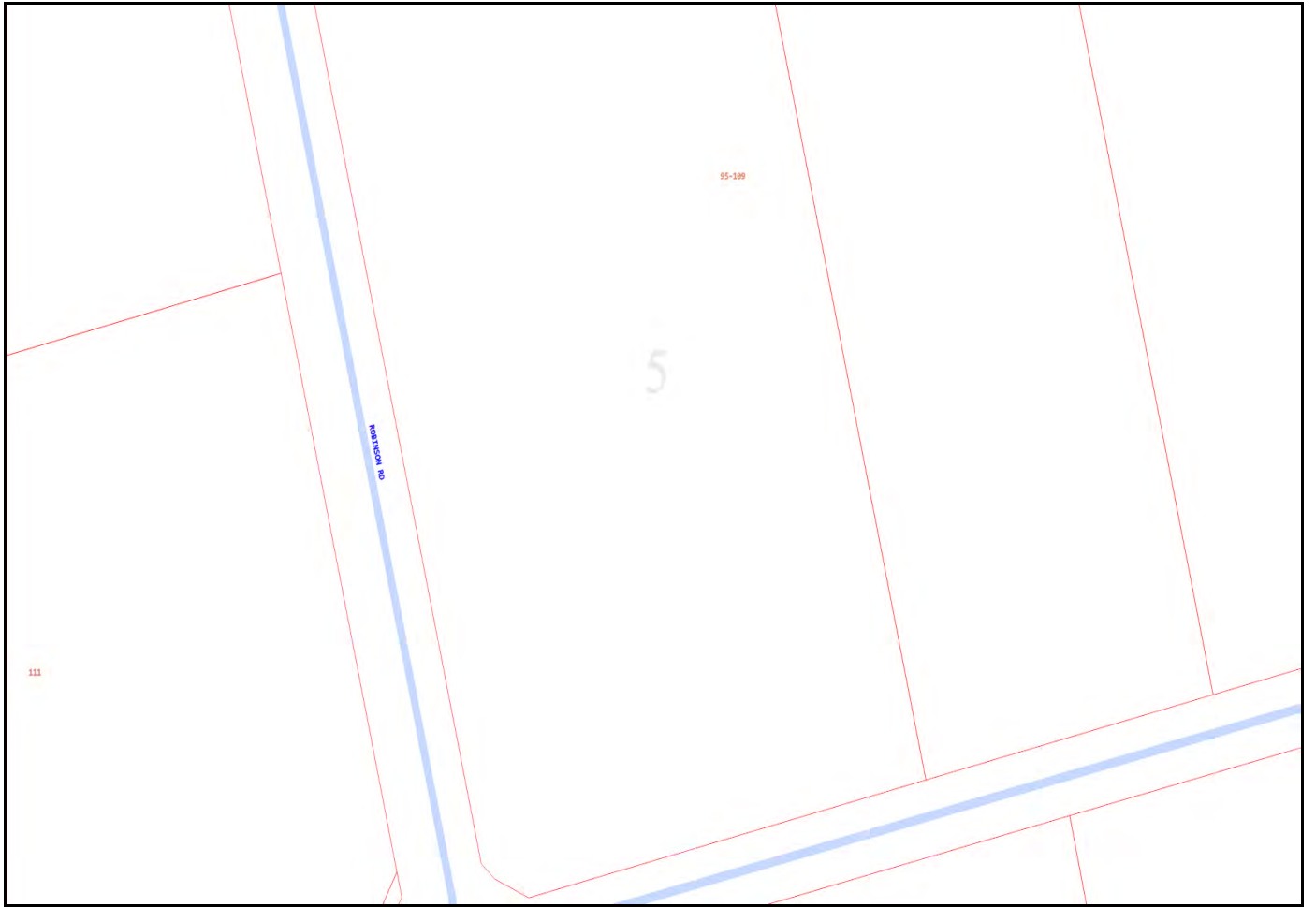


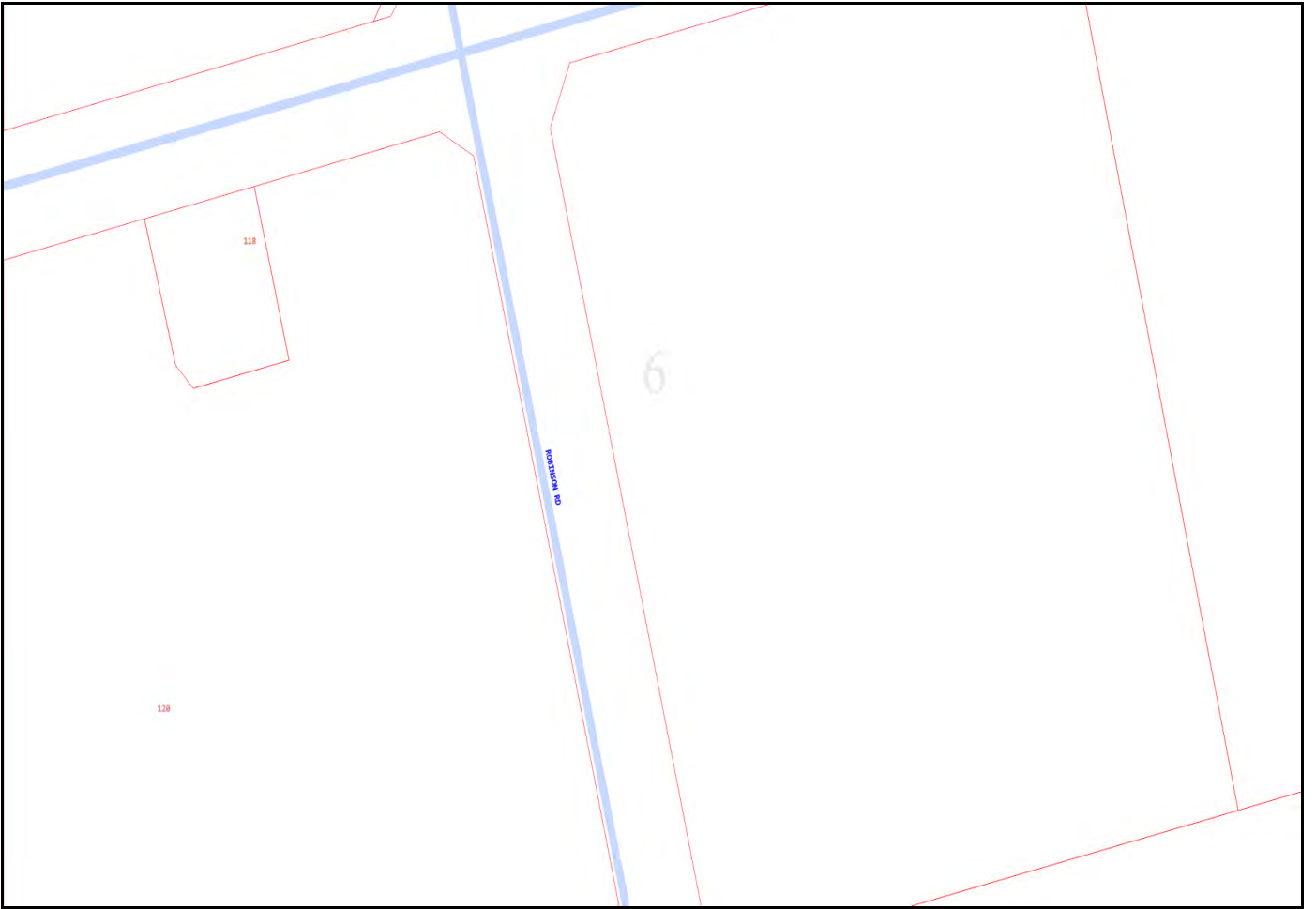




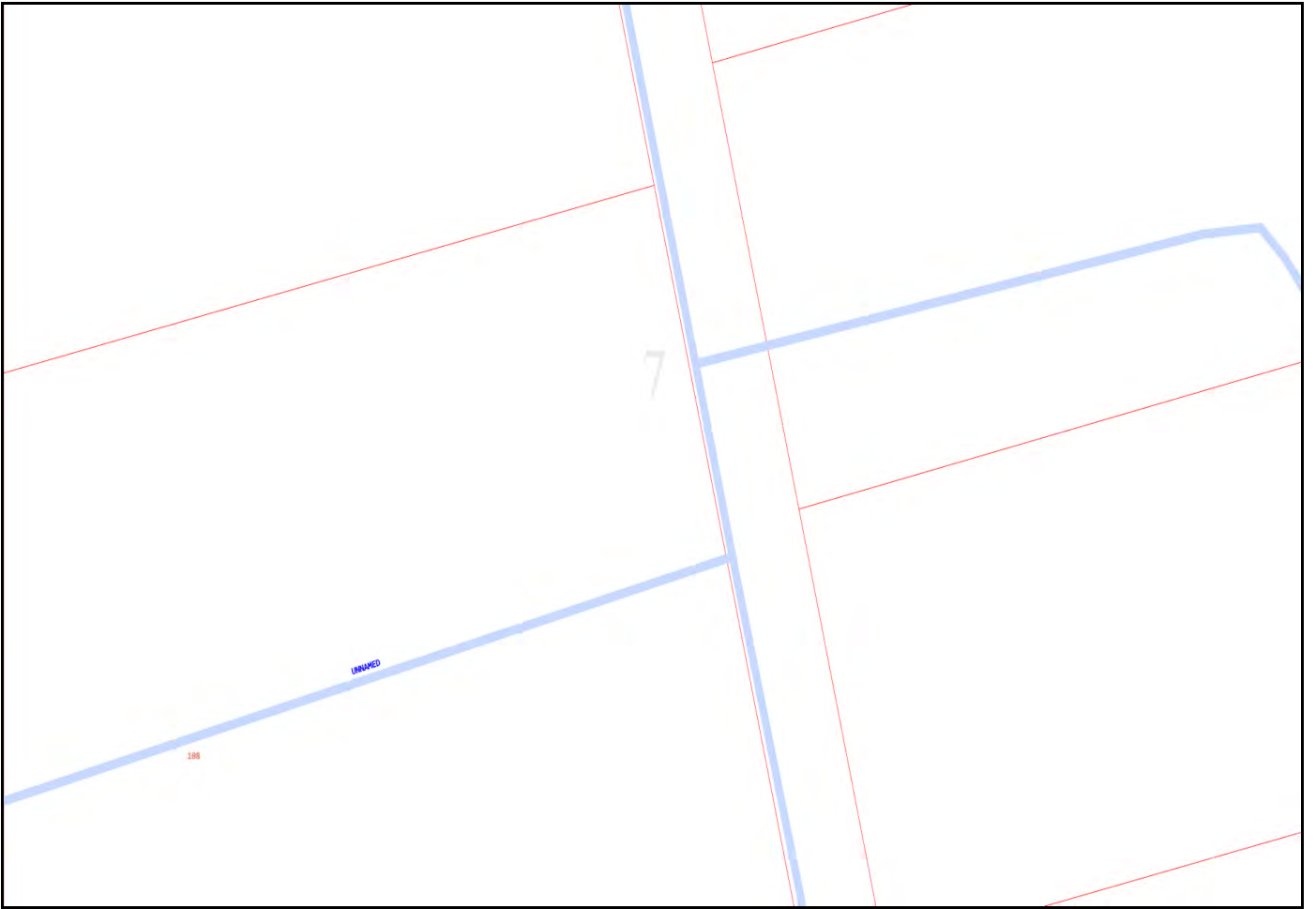


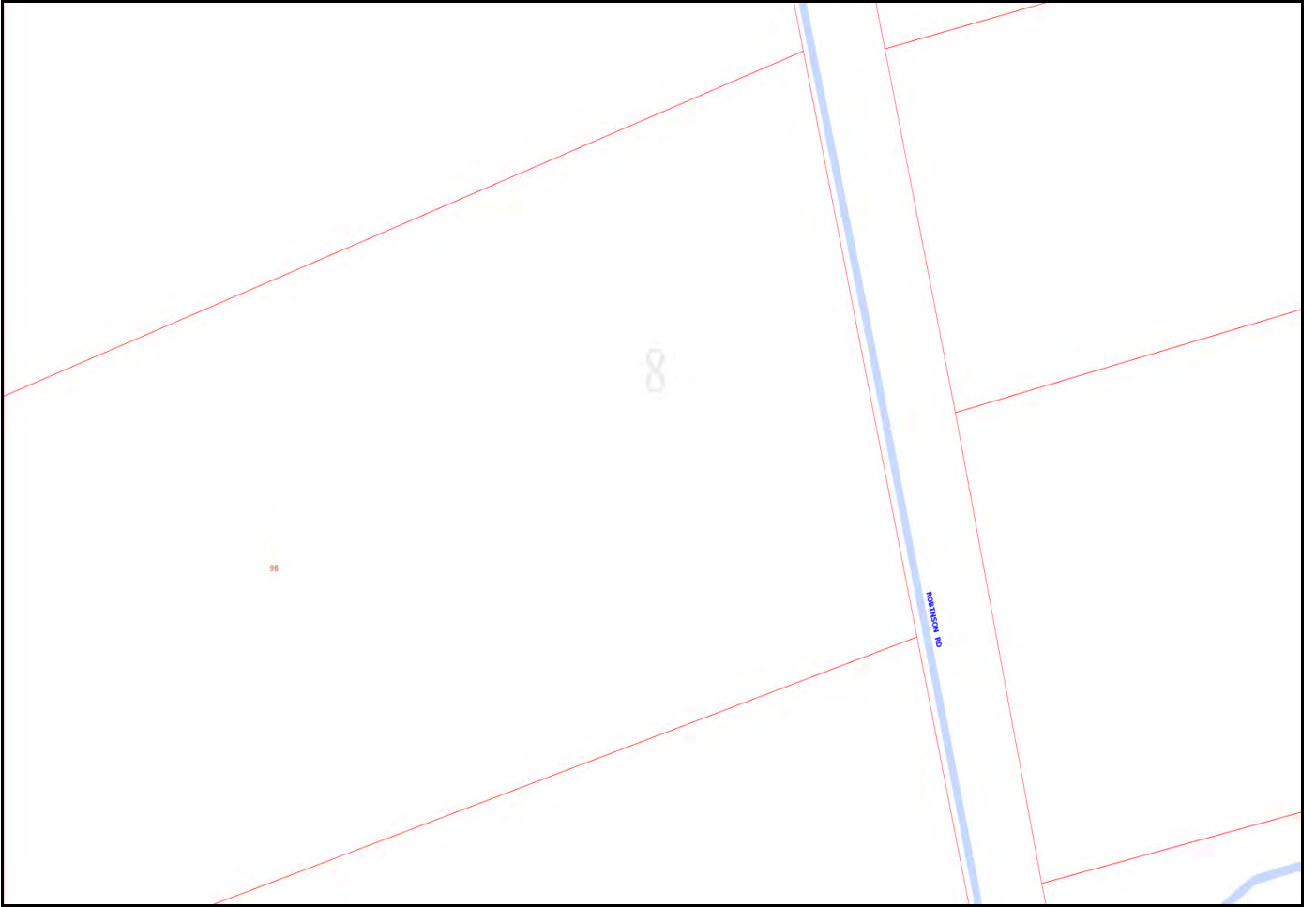


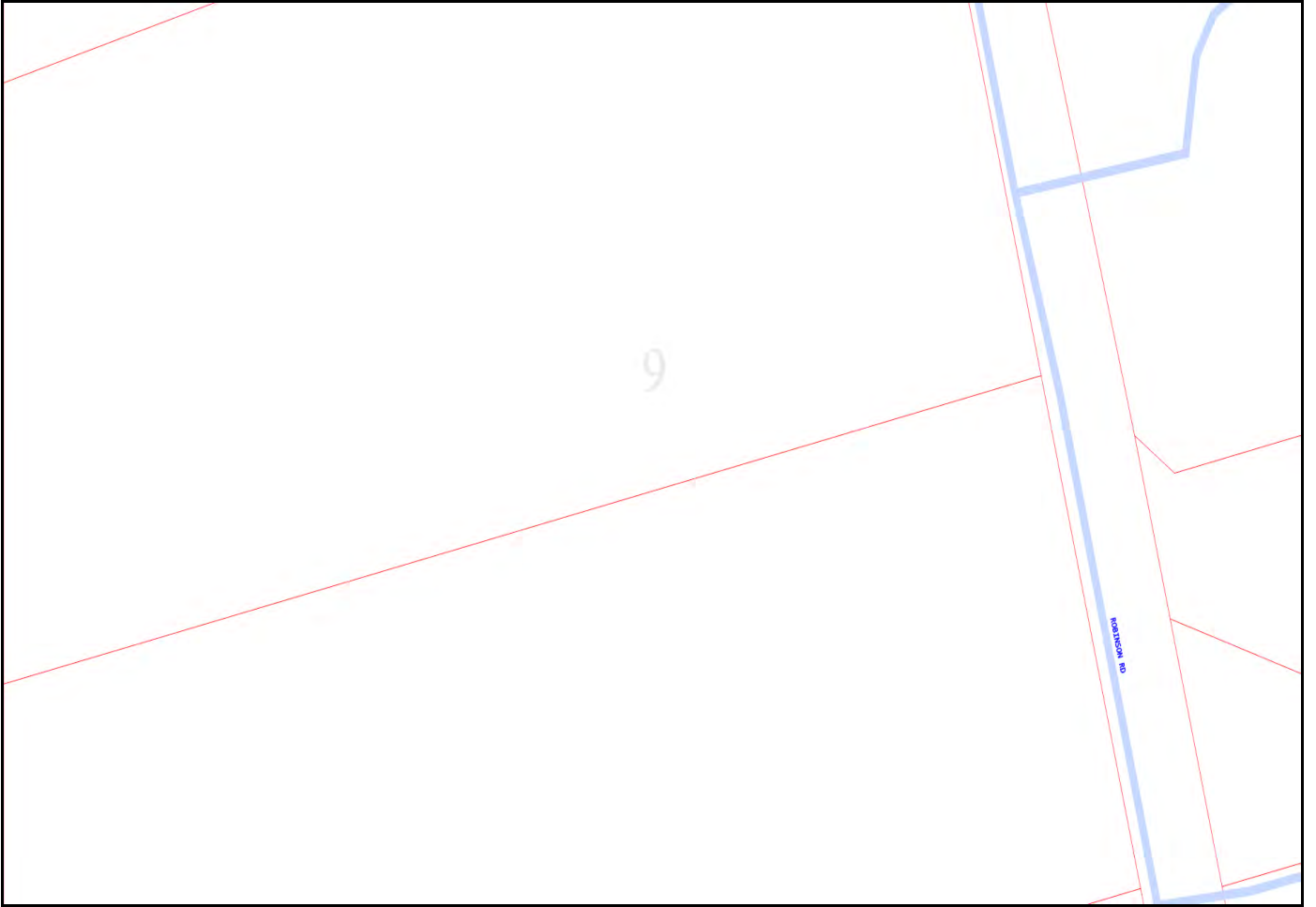


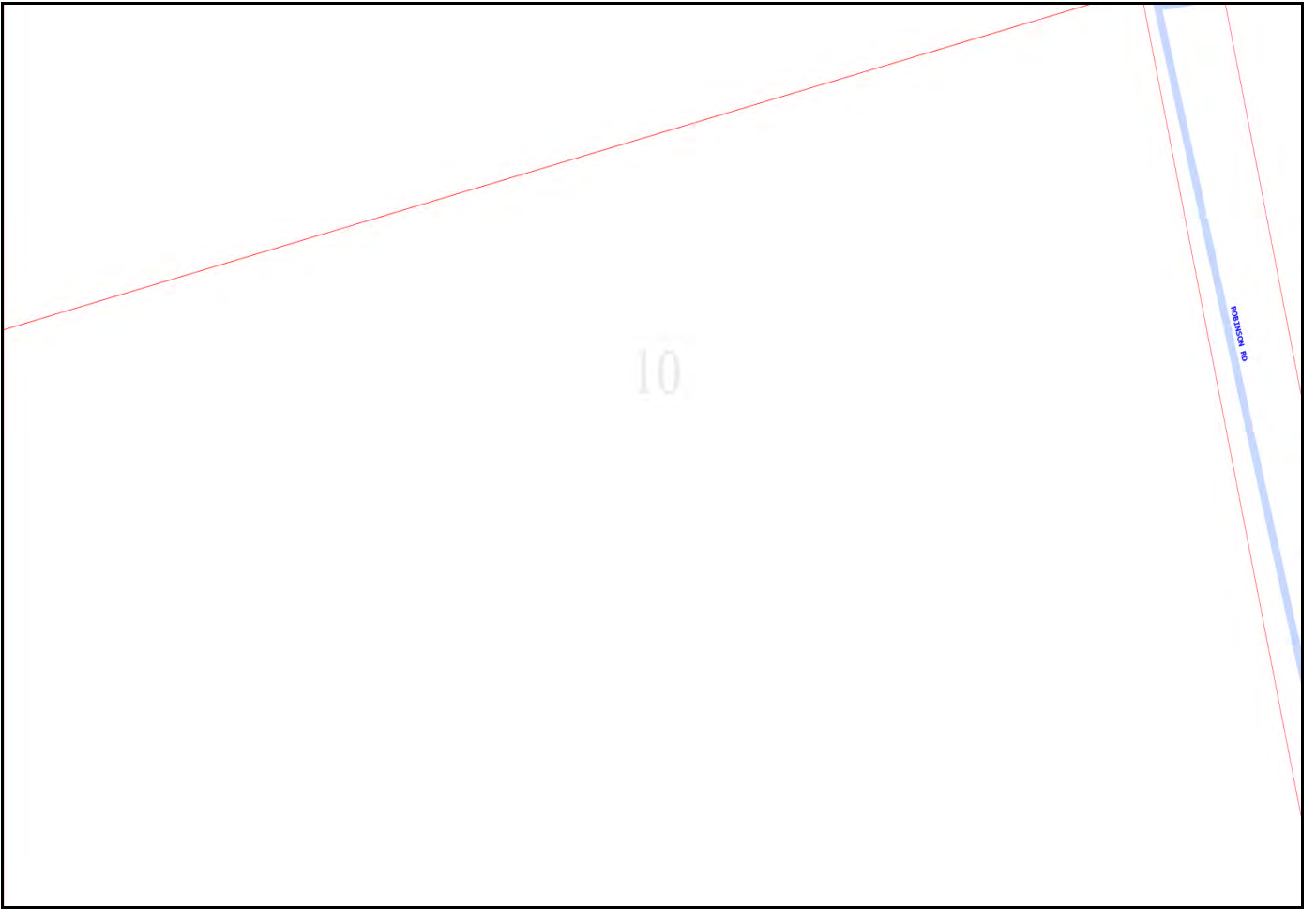




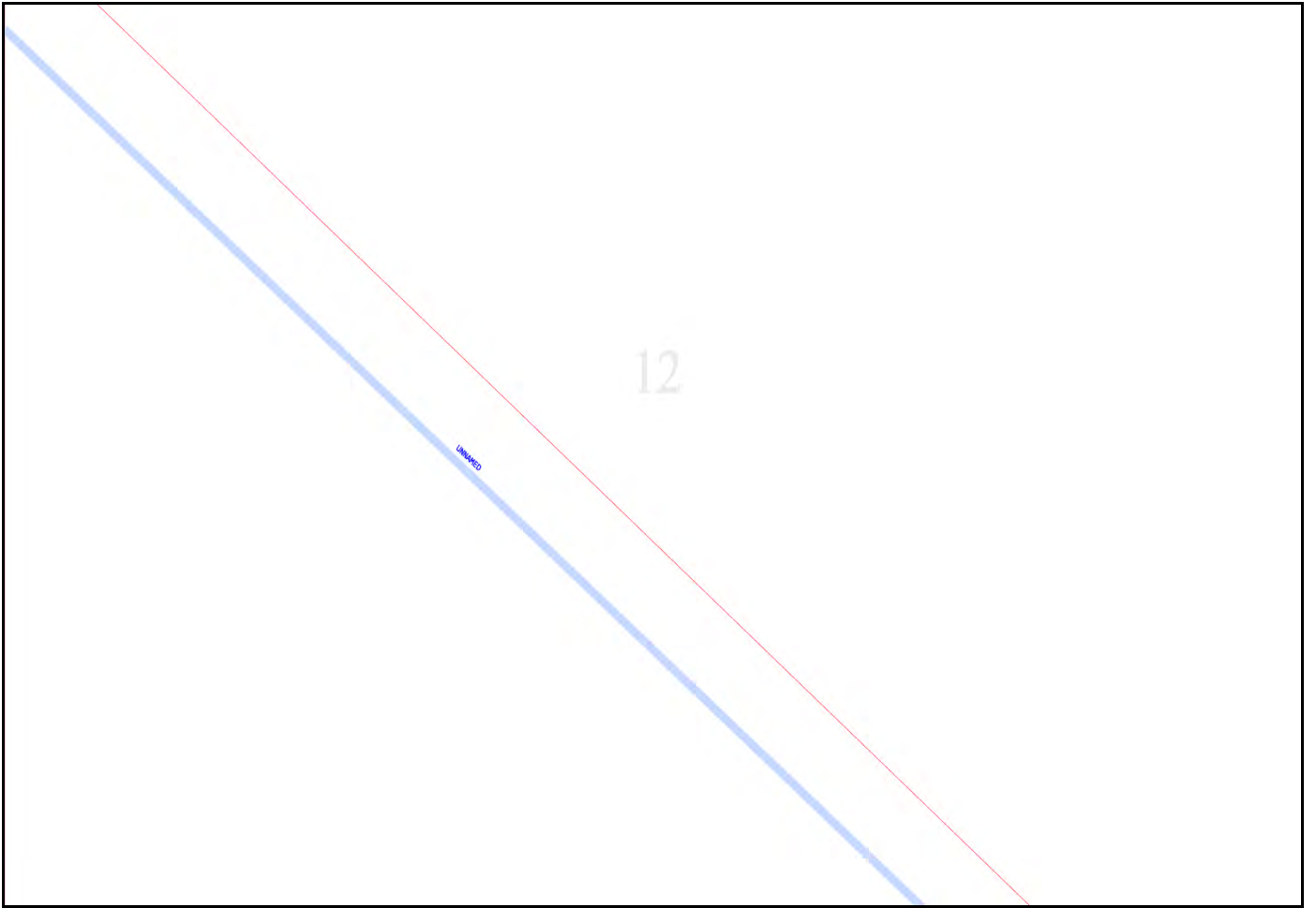








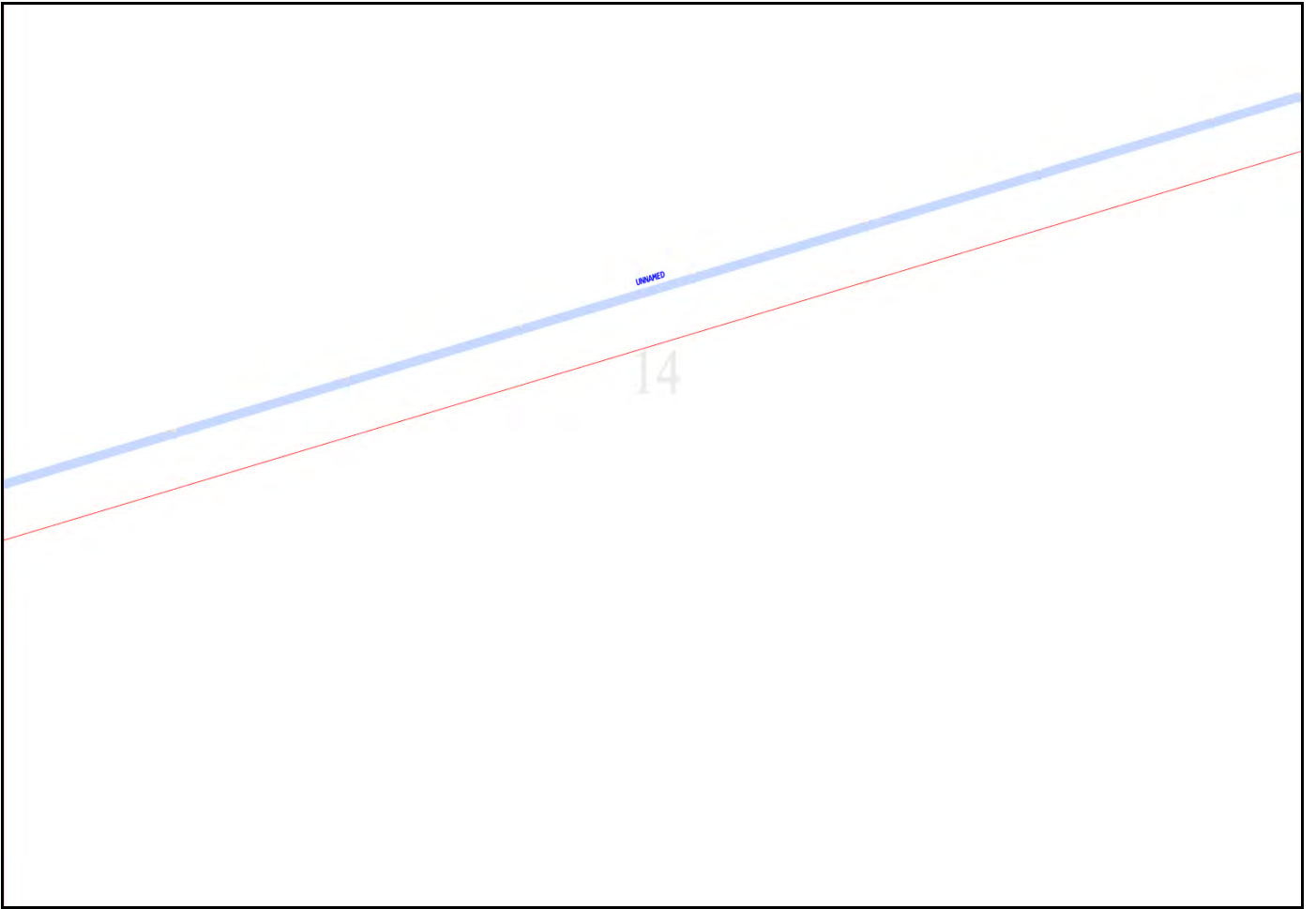






13

UNWED

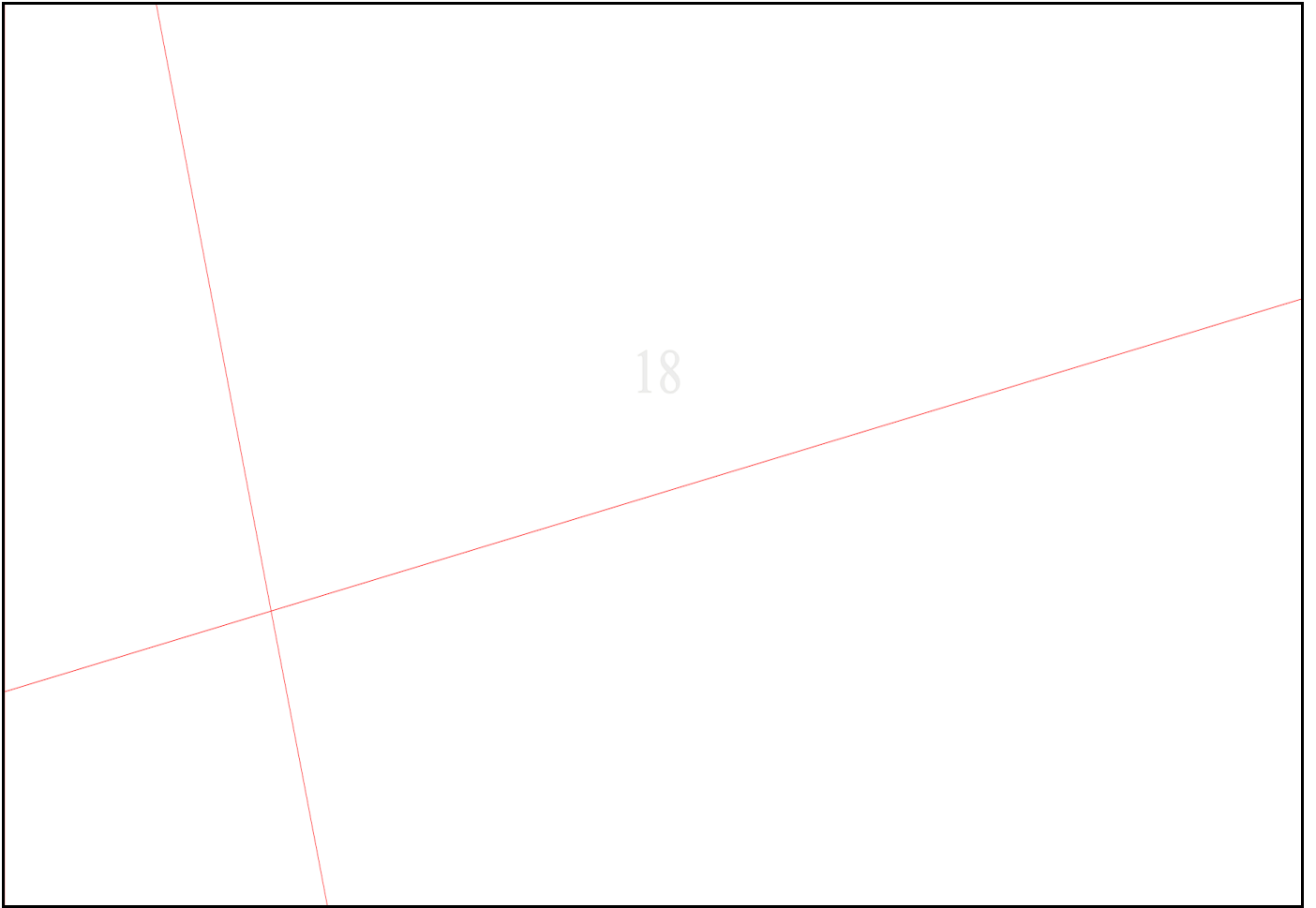








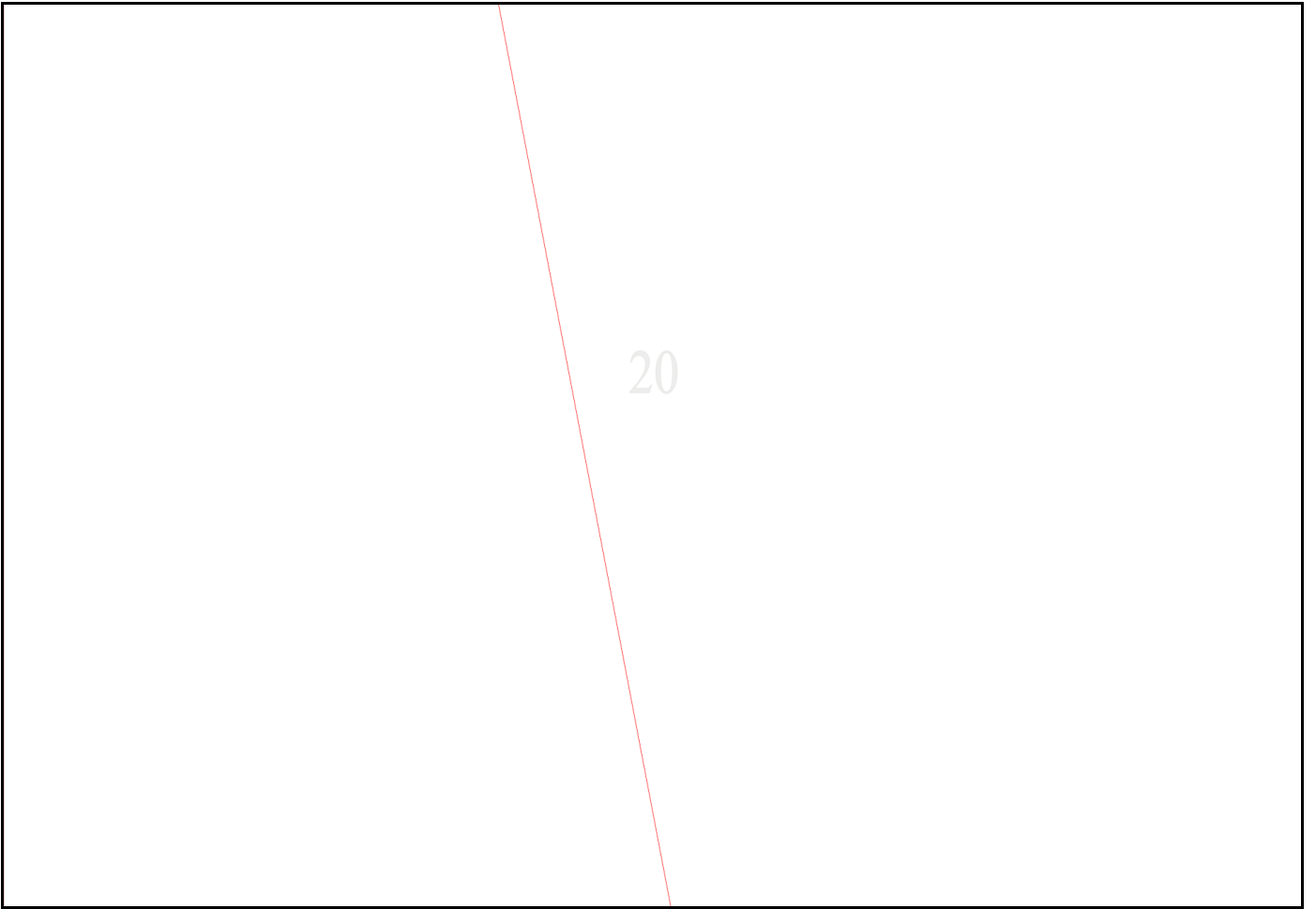
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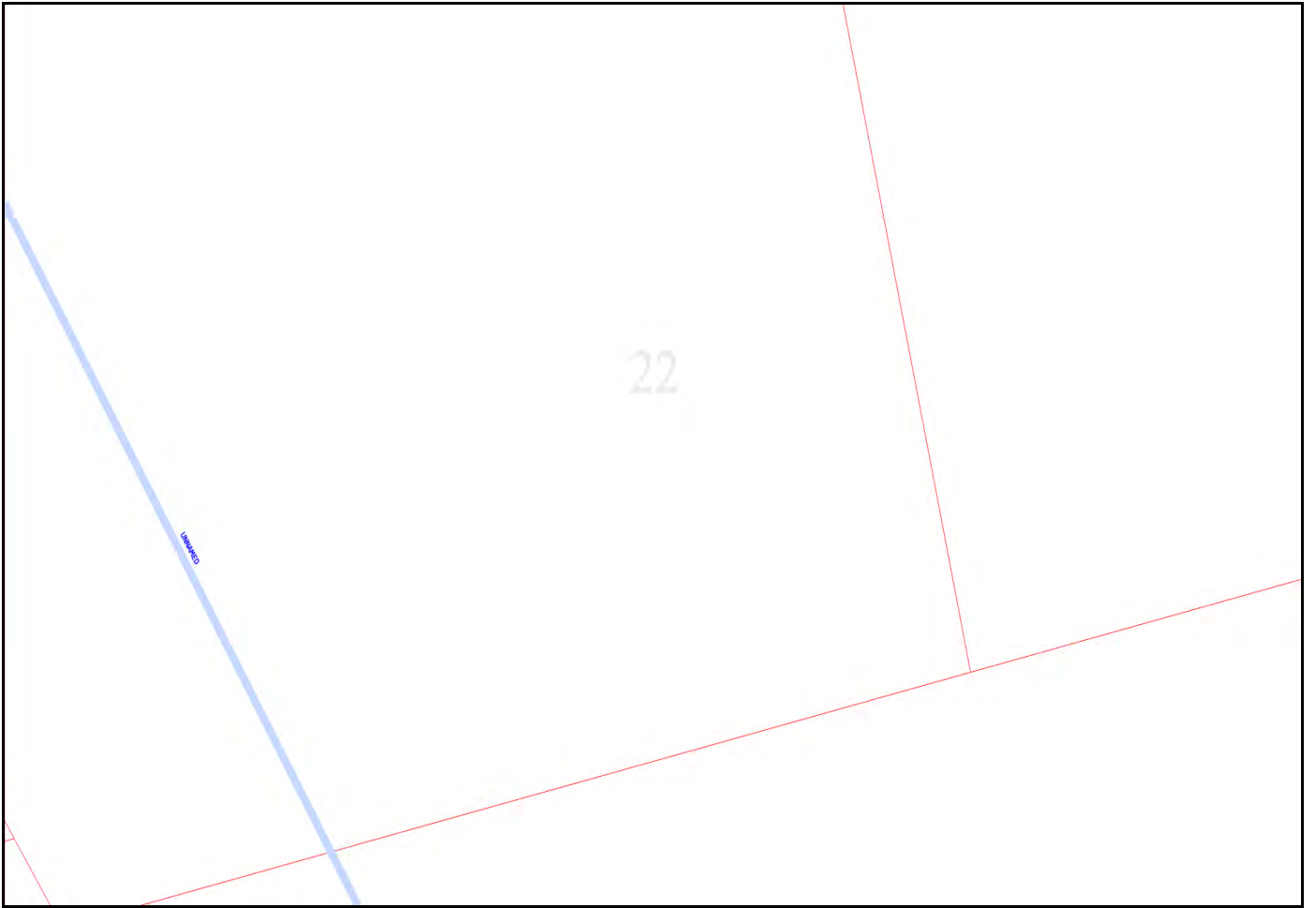


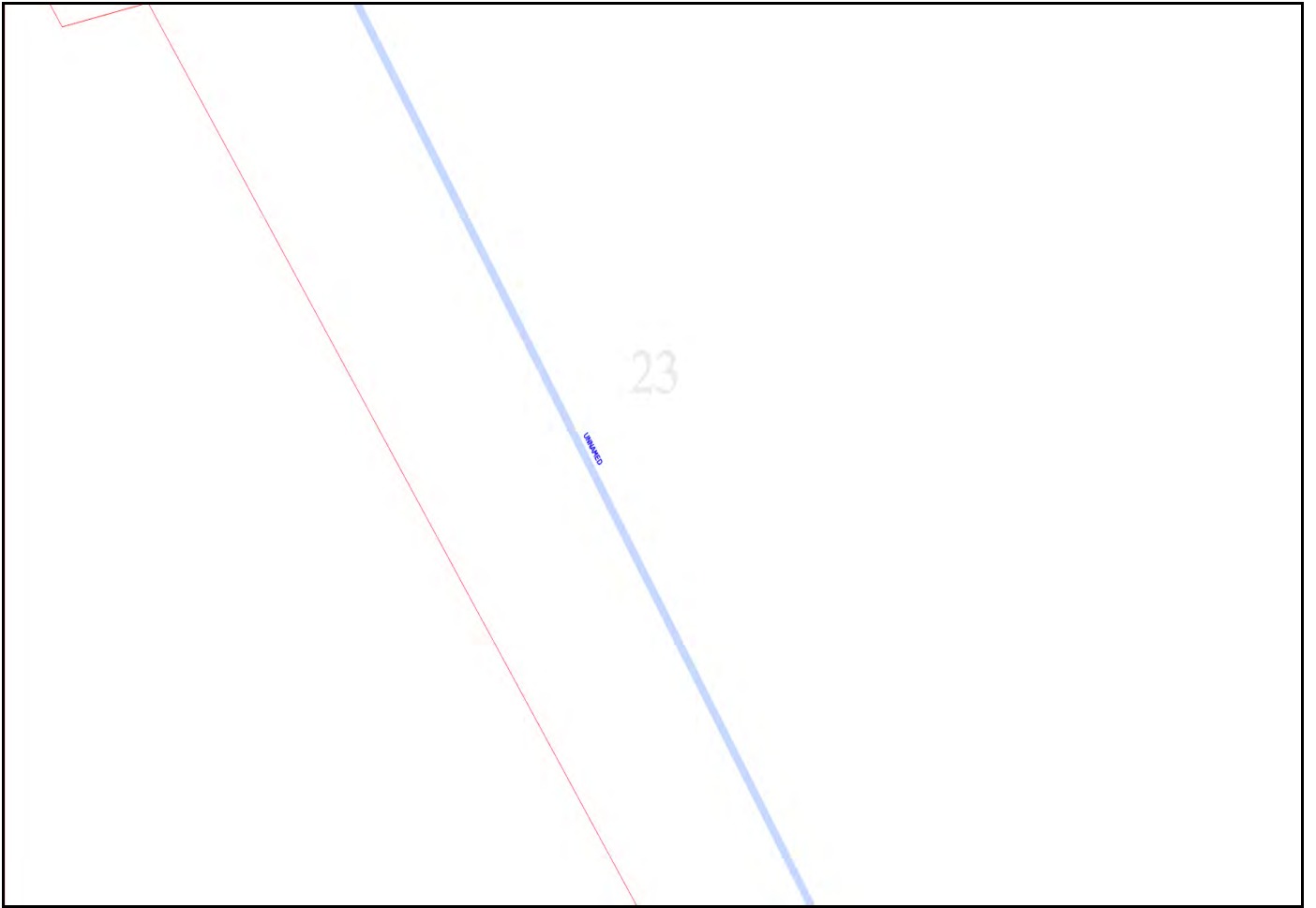
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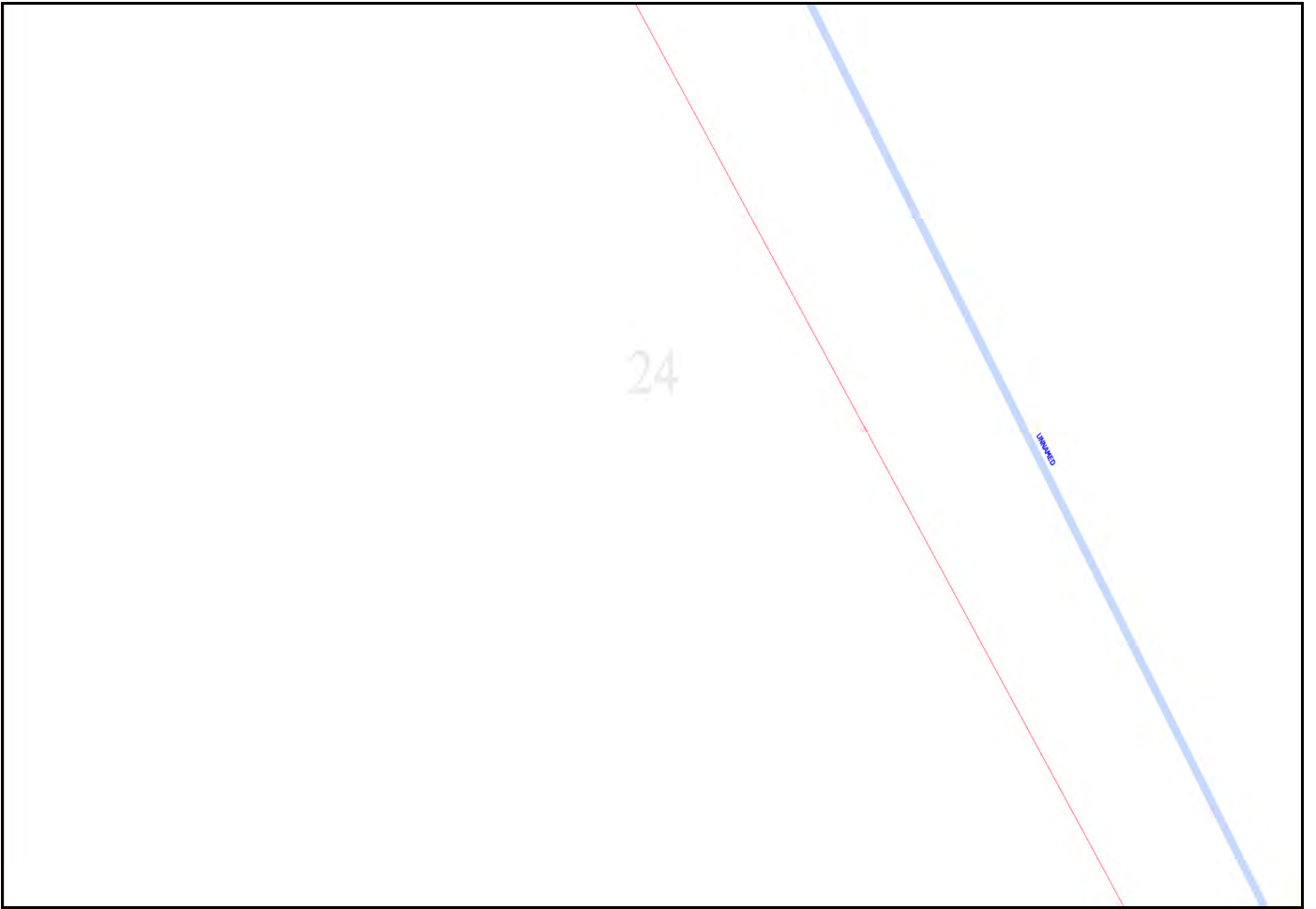




21









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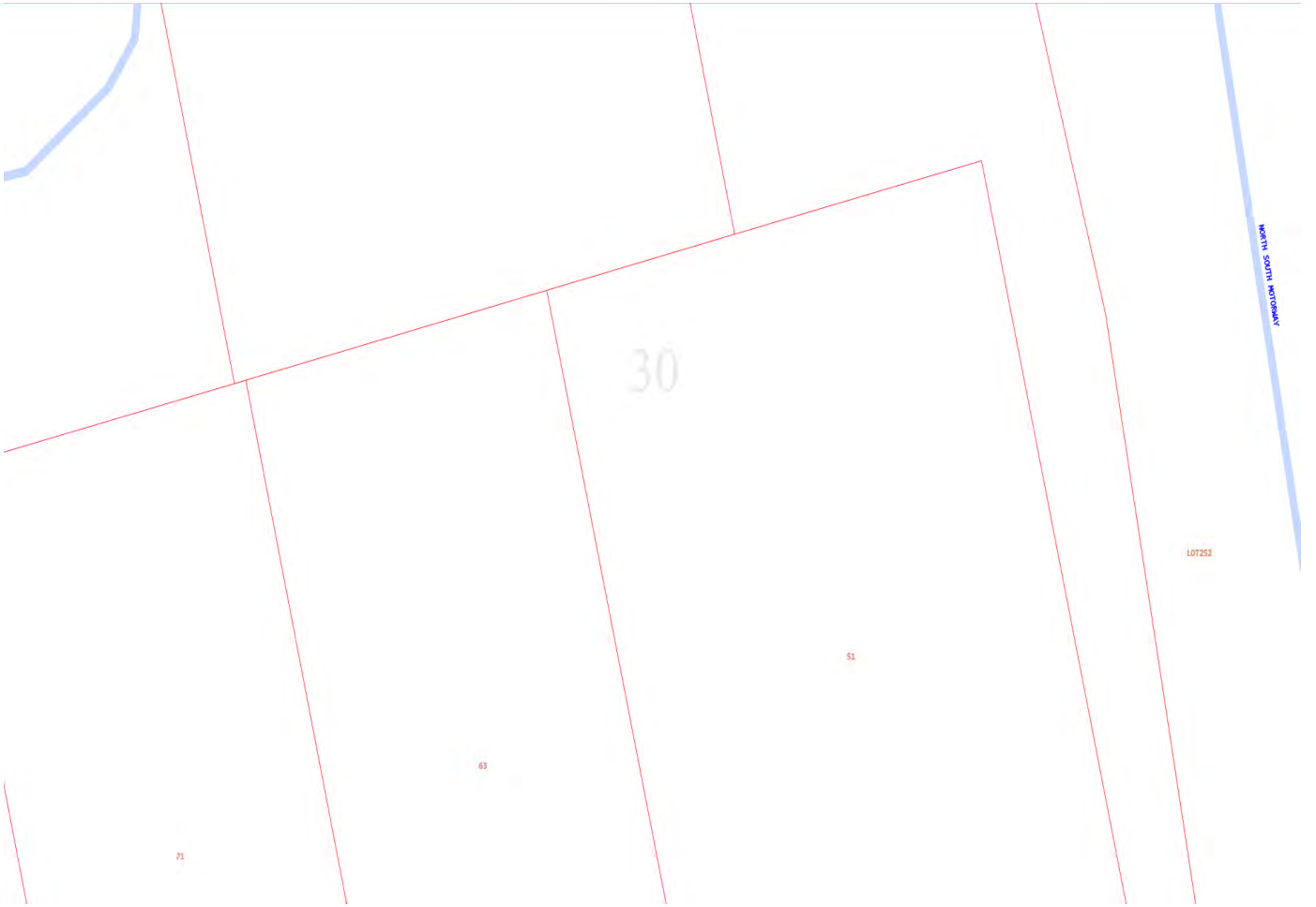
Unacademy















ANDAMITO RD

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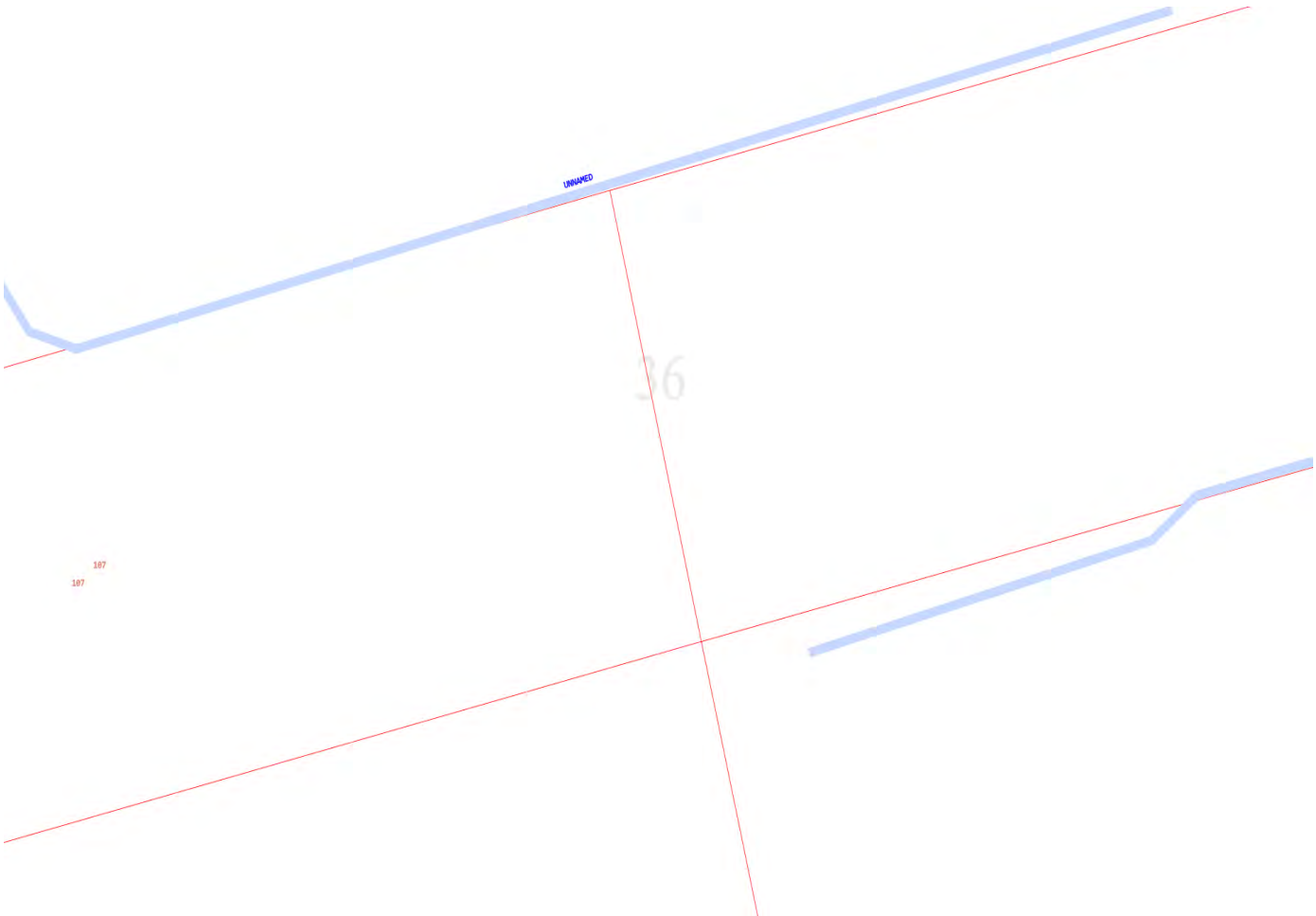
Универсальность

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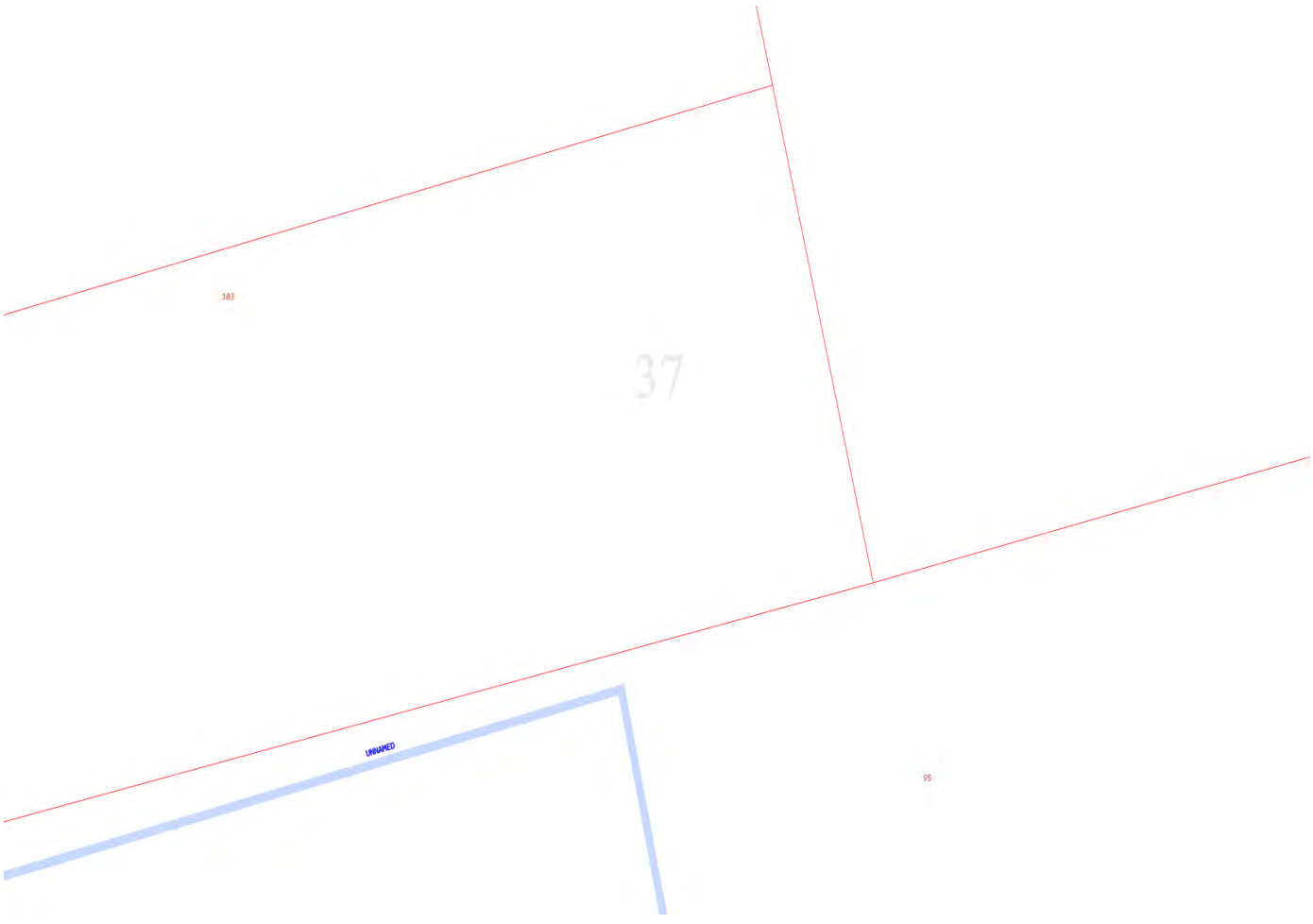


UNNAMED

187

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37

163

95

UNWAGED

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38

99

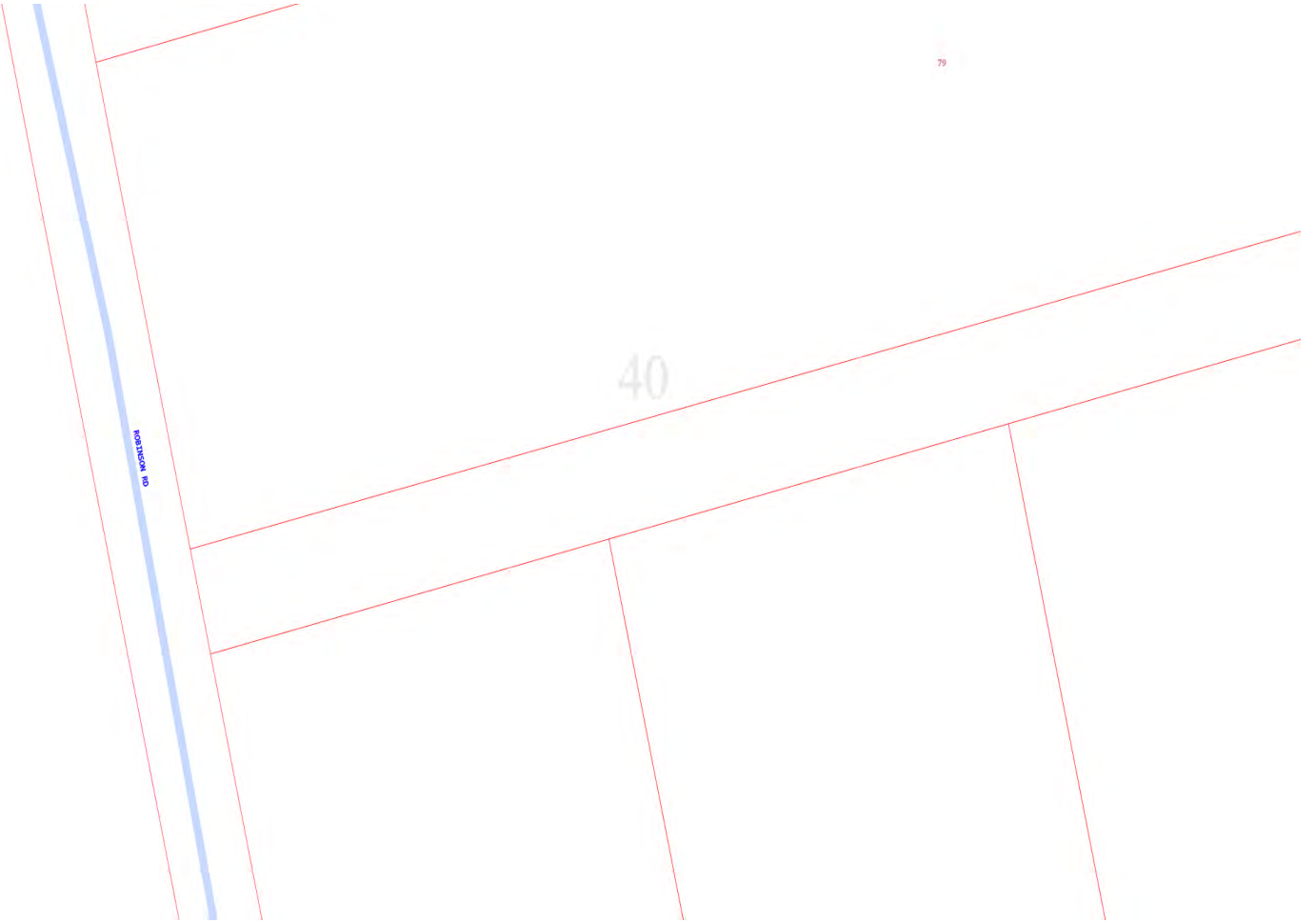
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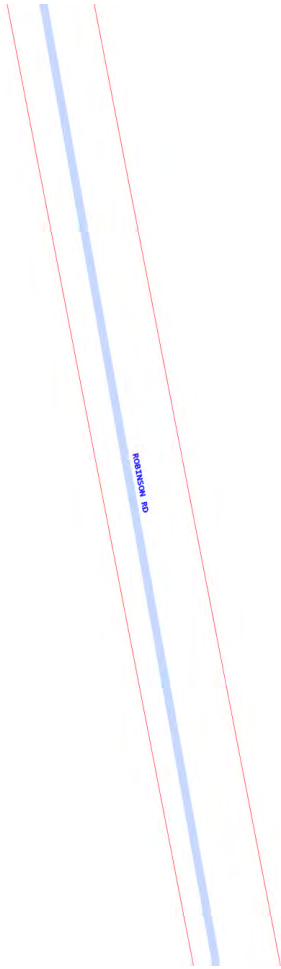
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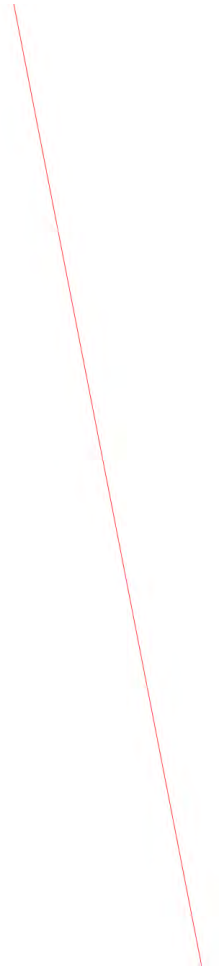
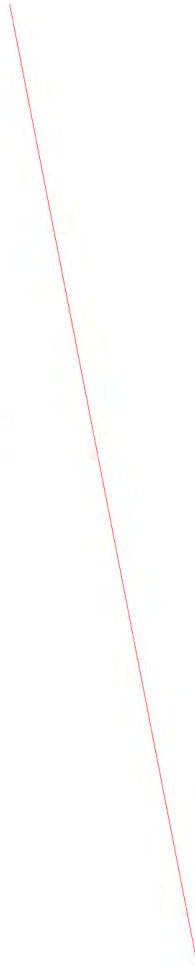
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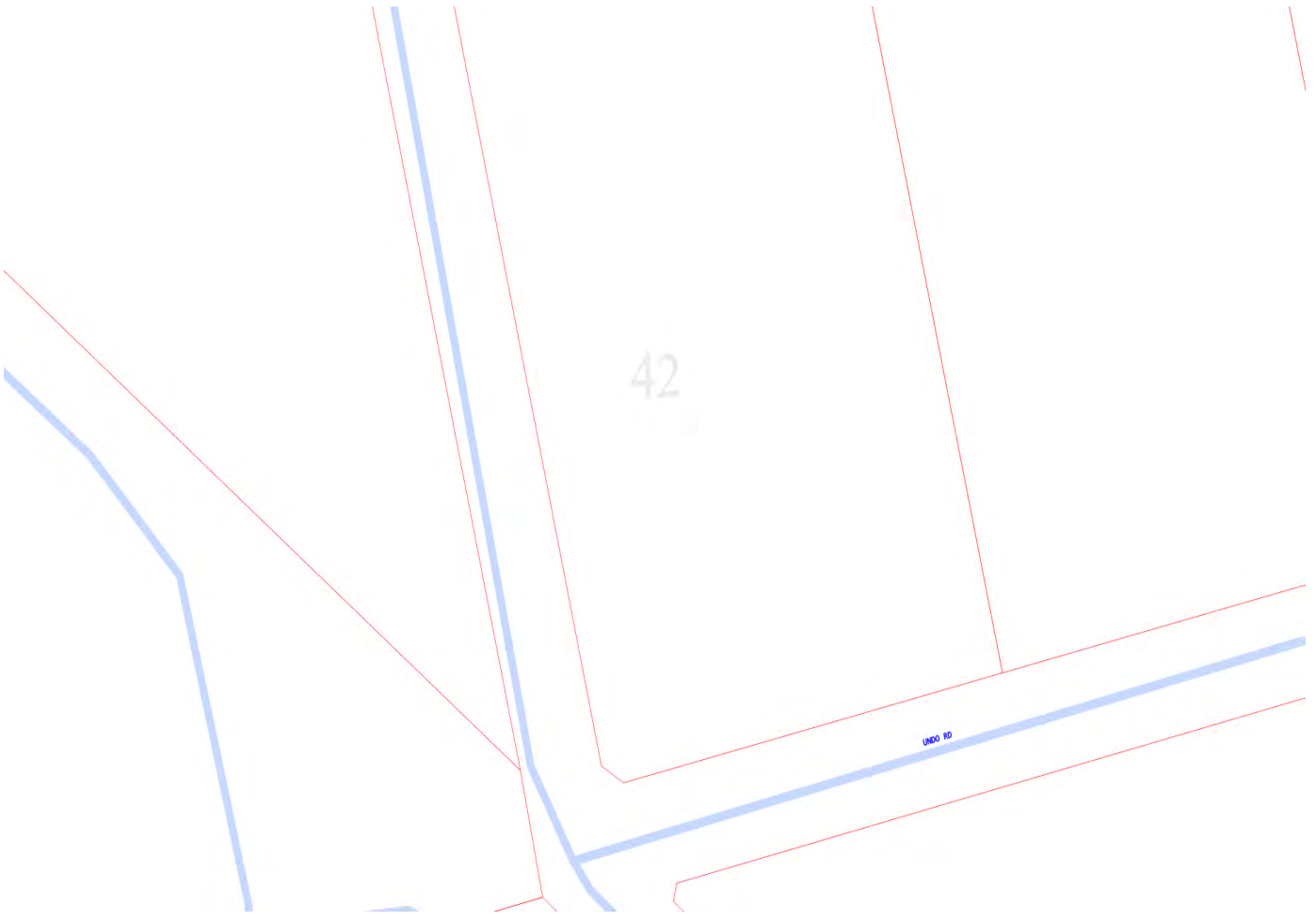


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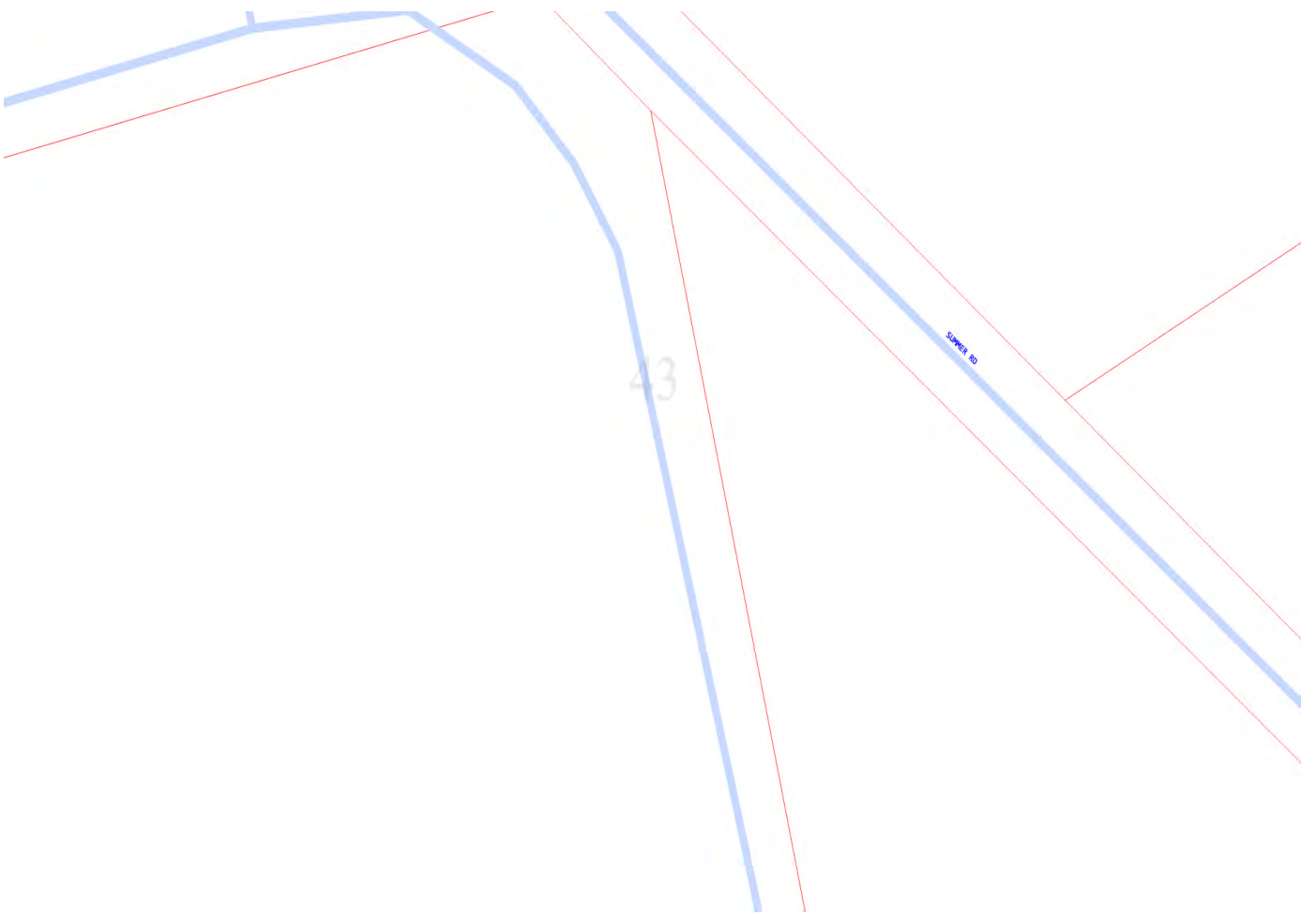


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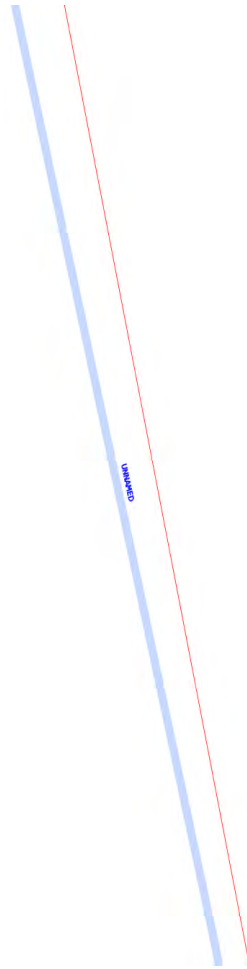
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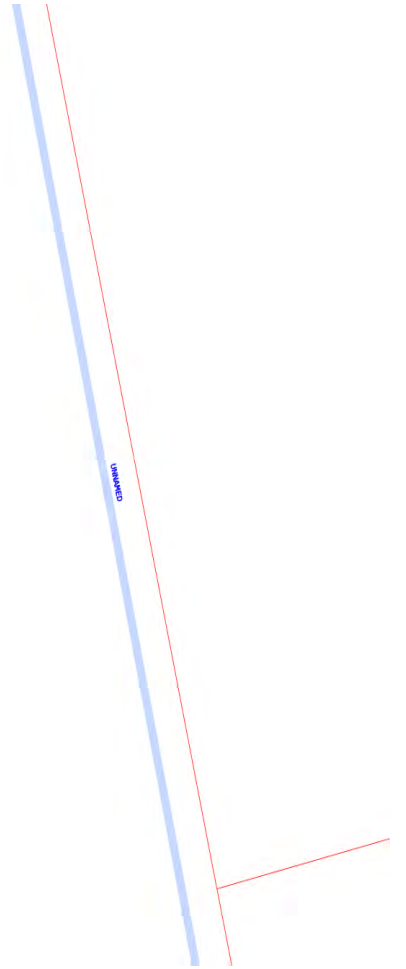




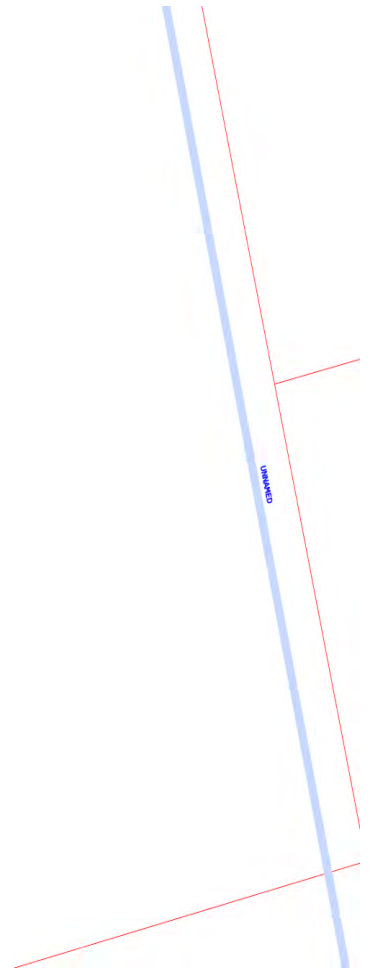
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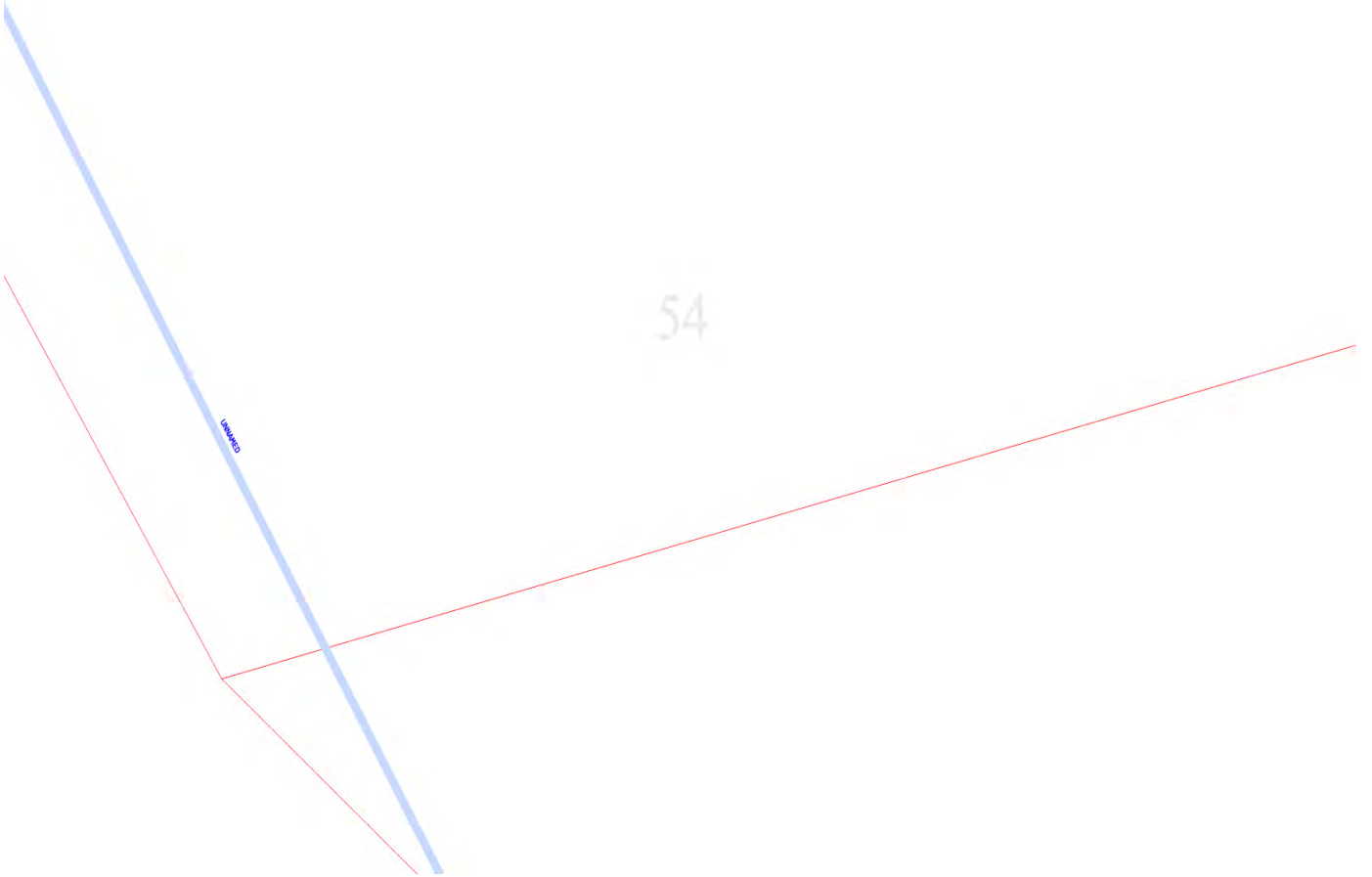




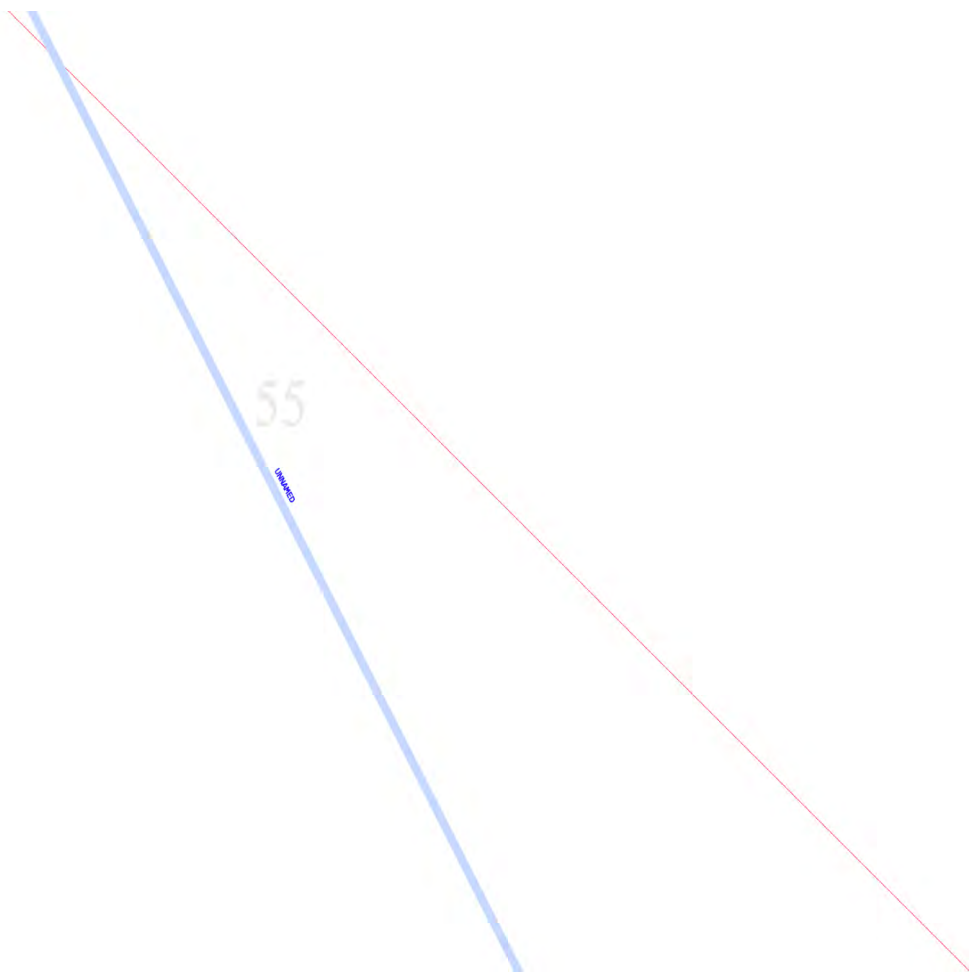


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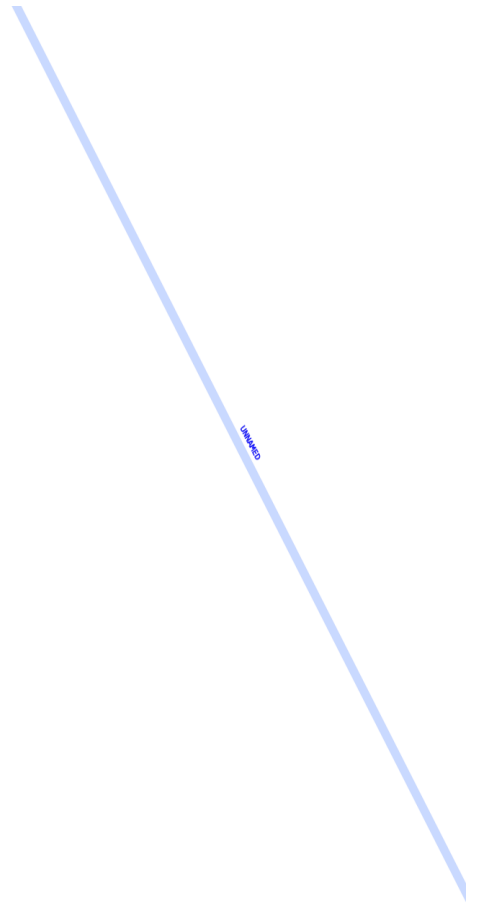
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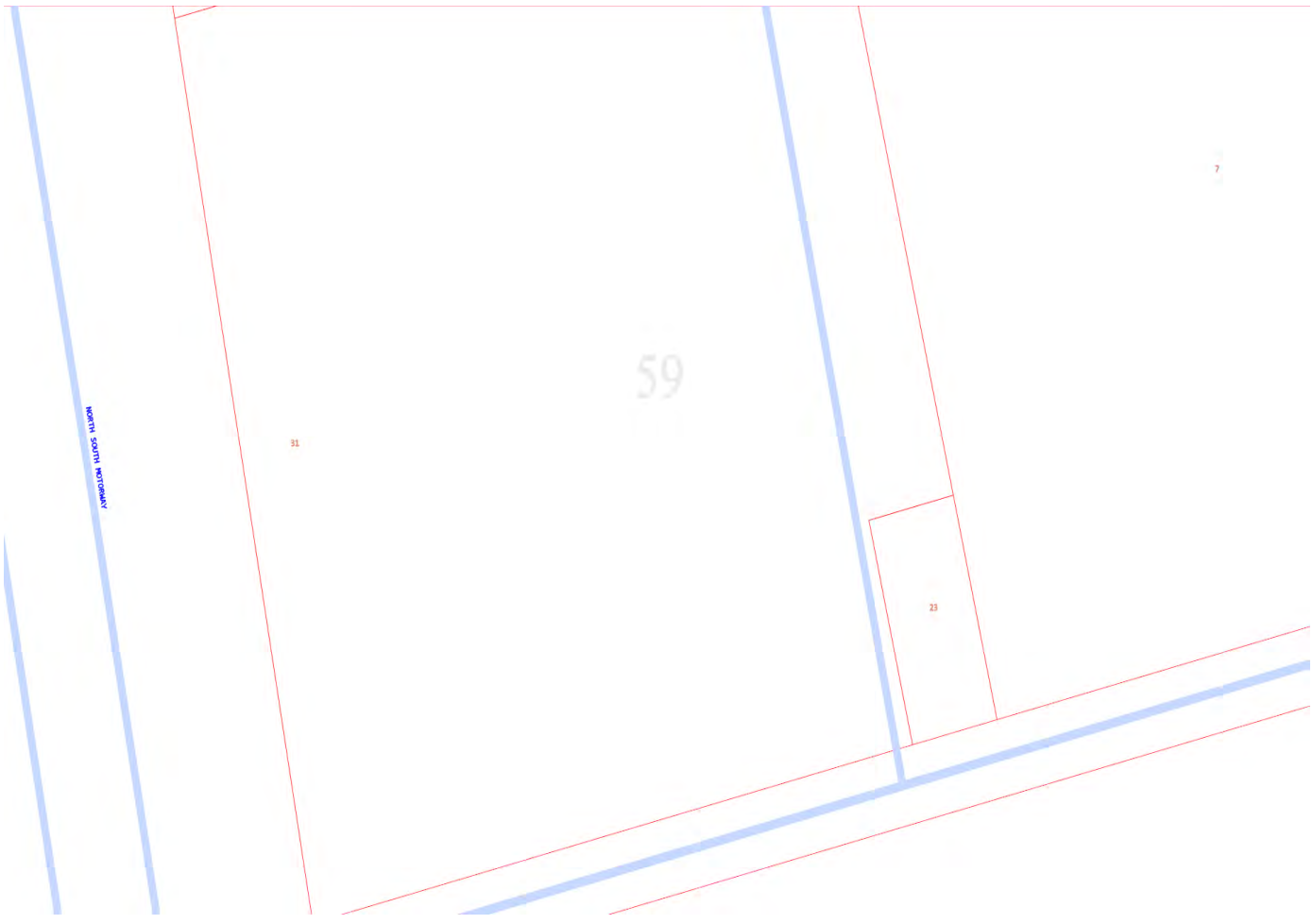


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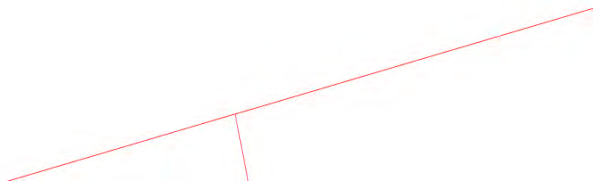
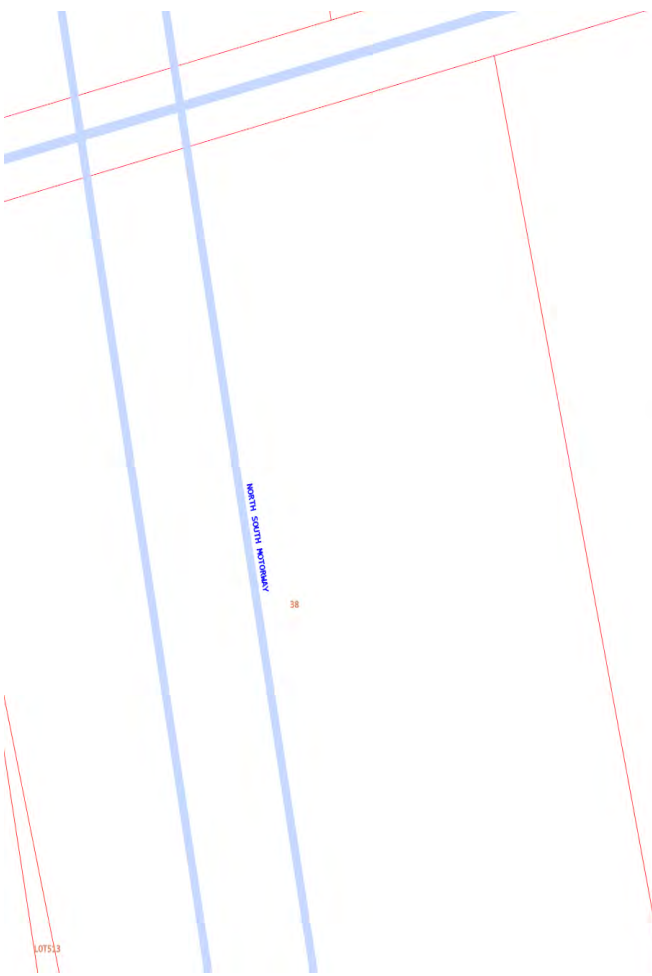




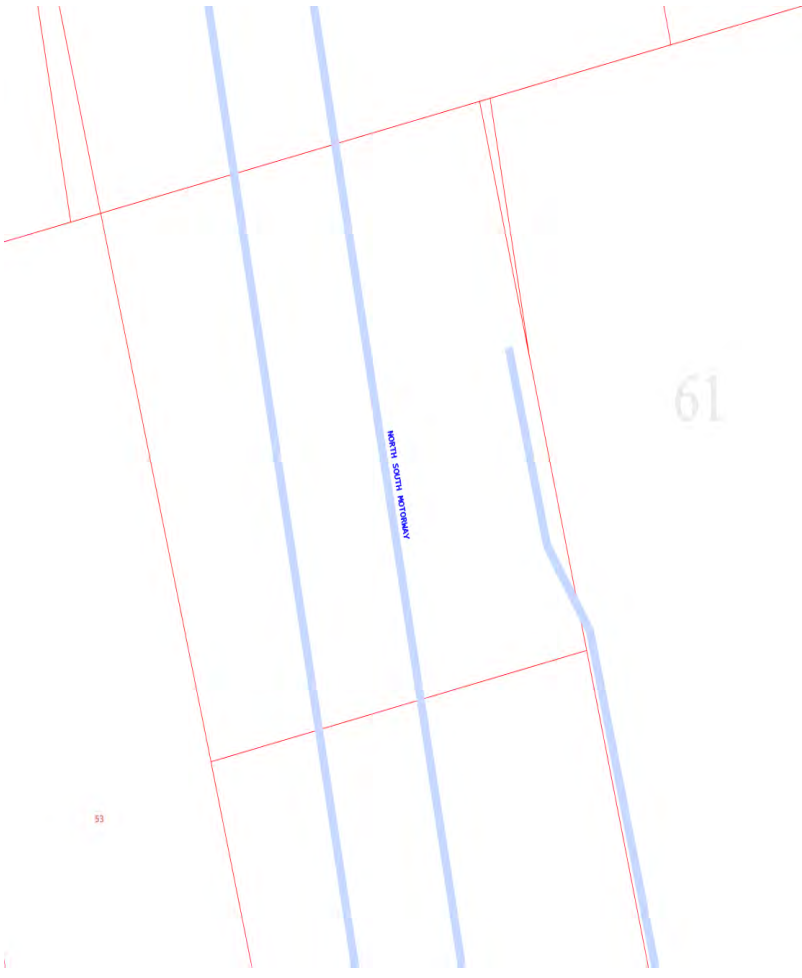




ANIMACION MUDOS NUBIA





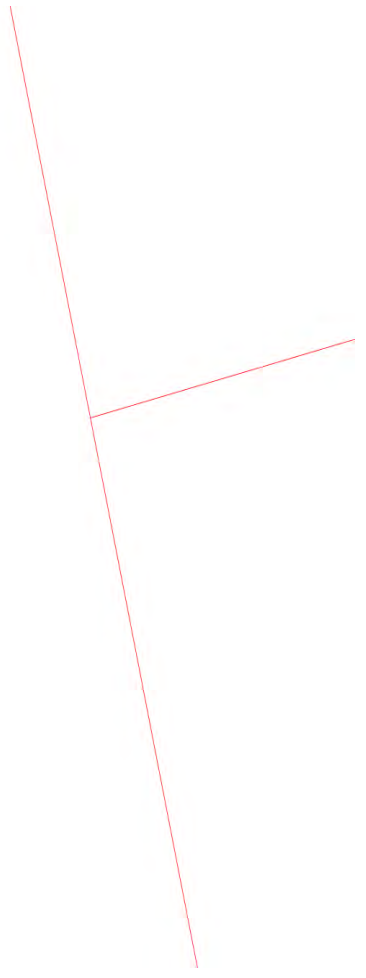


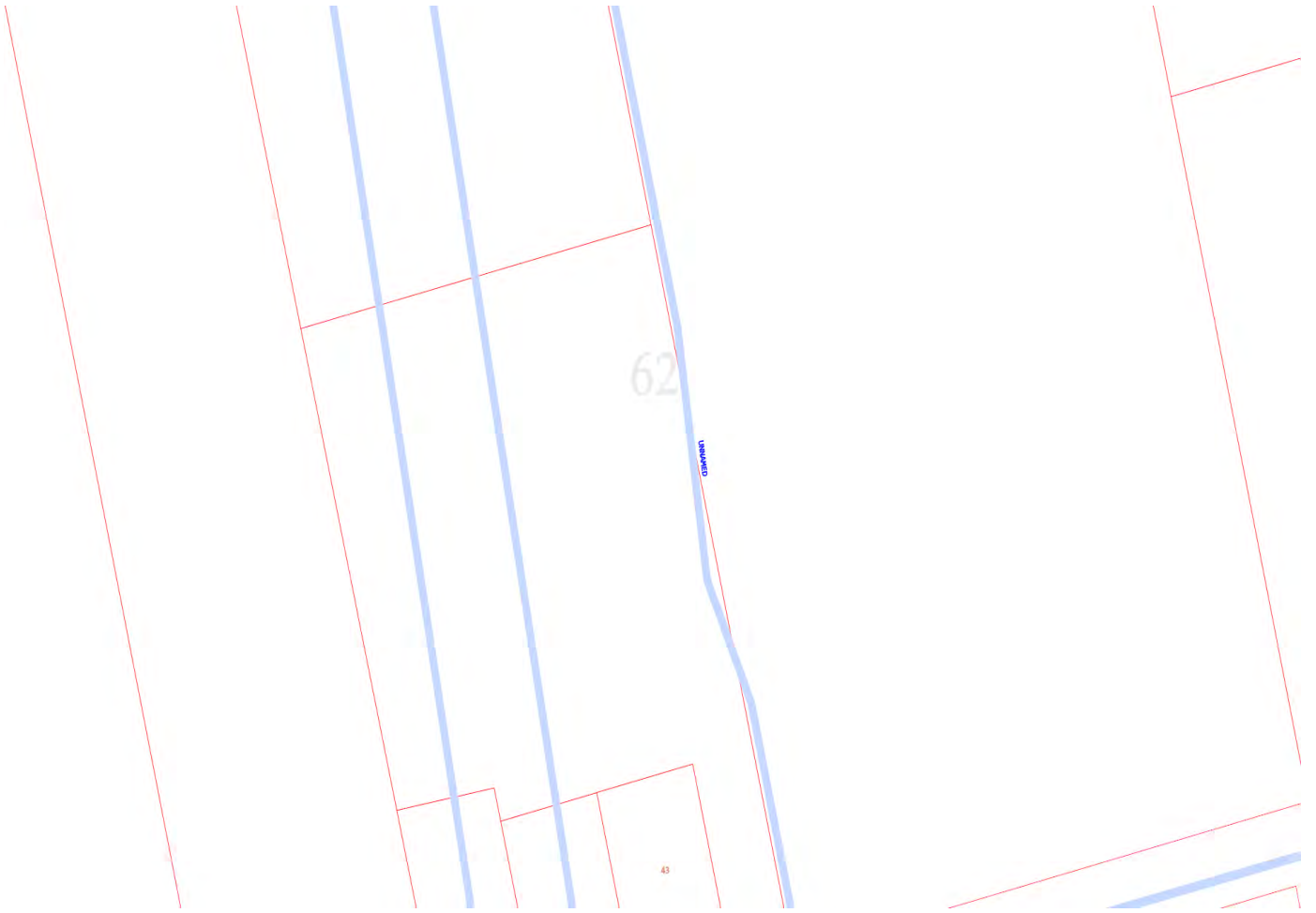
ARMAZONIA SUDOR SUDOR

61

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58

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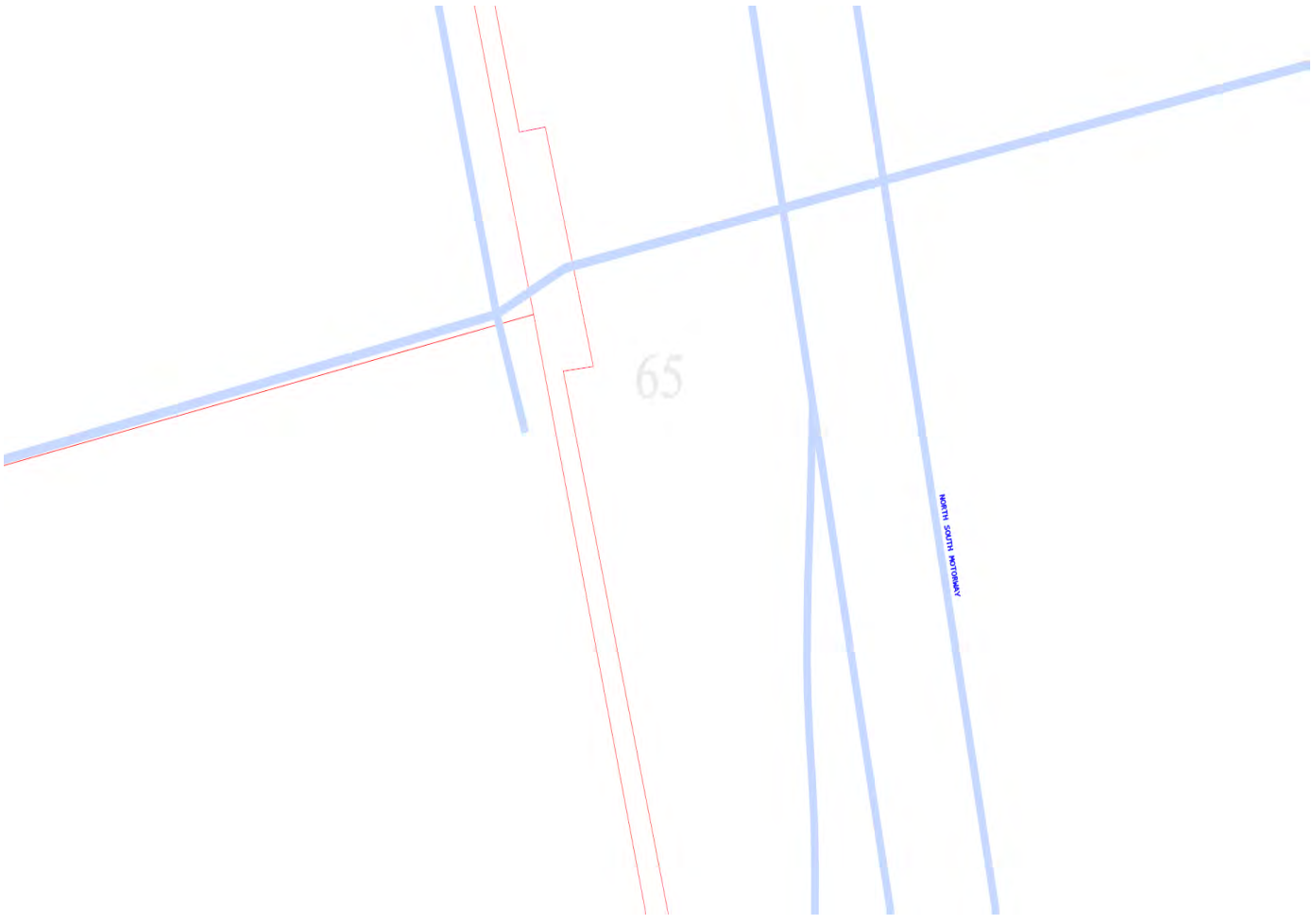
58-66

APPENDIX 11.205 11.206



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WORLDWIDE WIRELESS

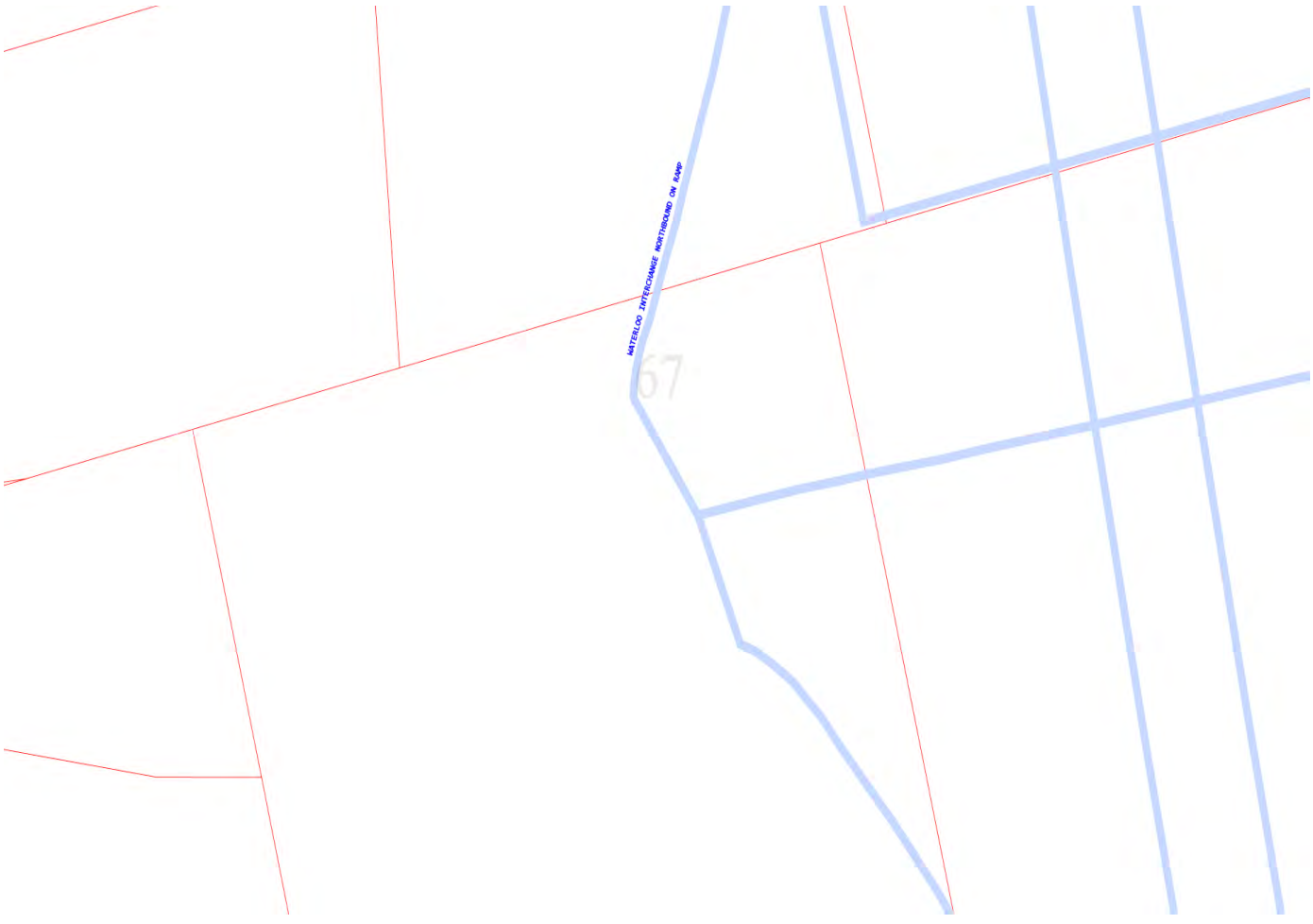


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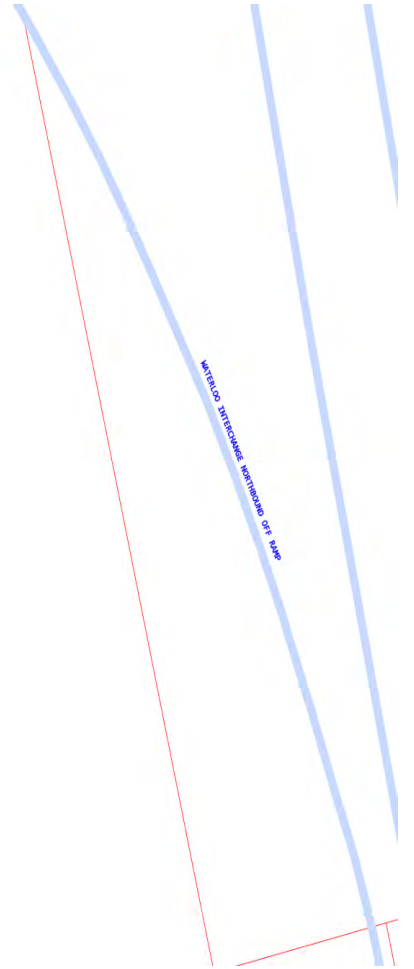
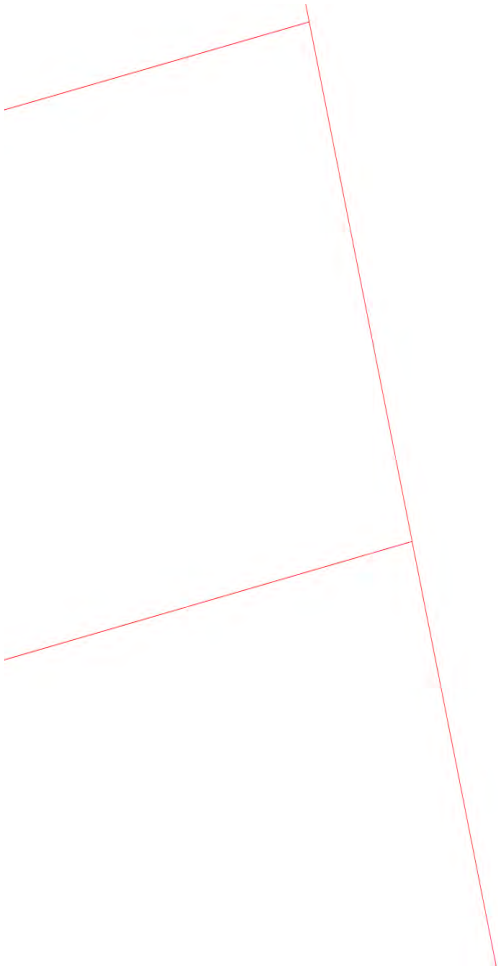
AMERICAN EXPRESS



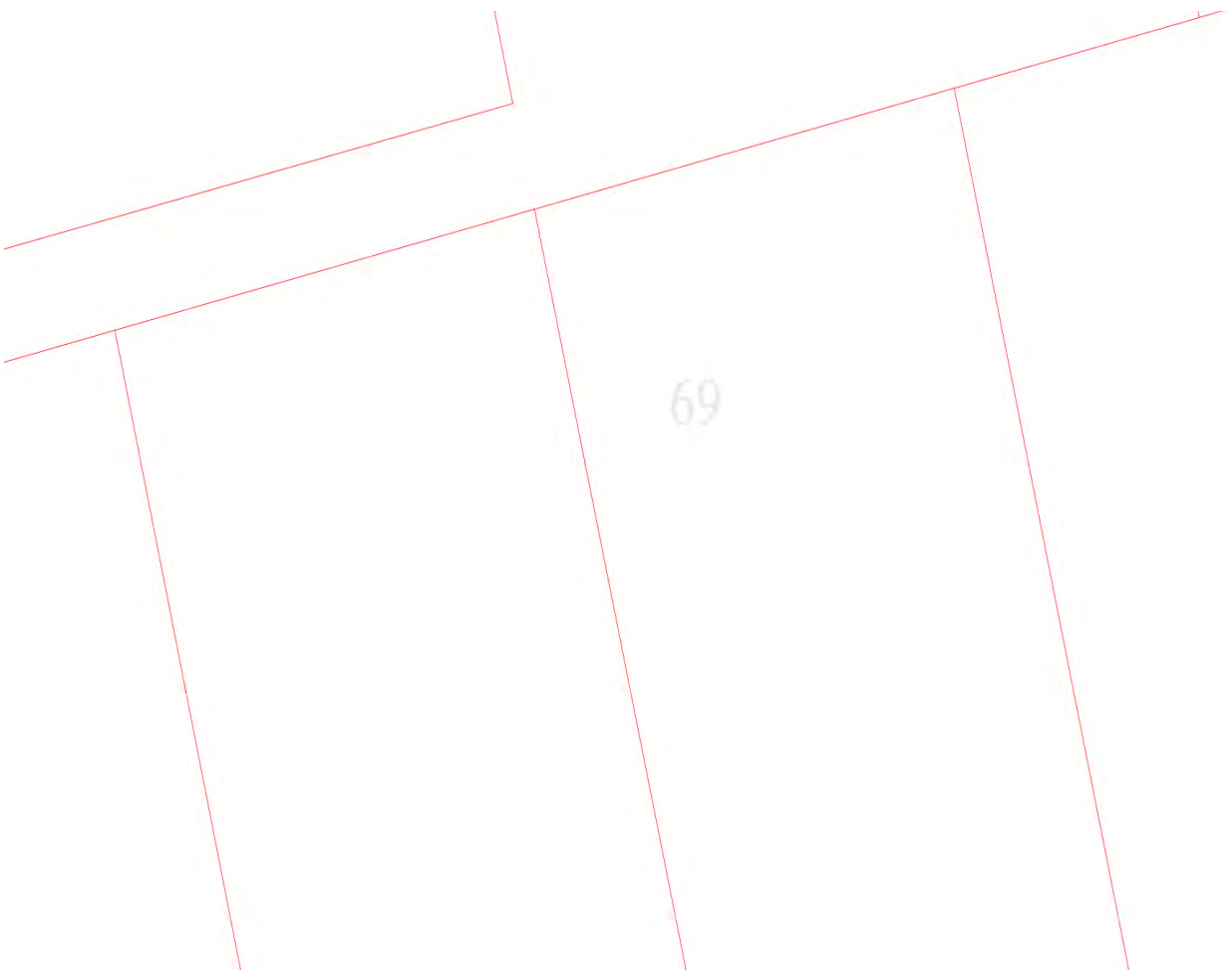




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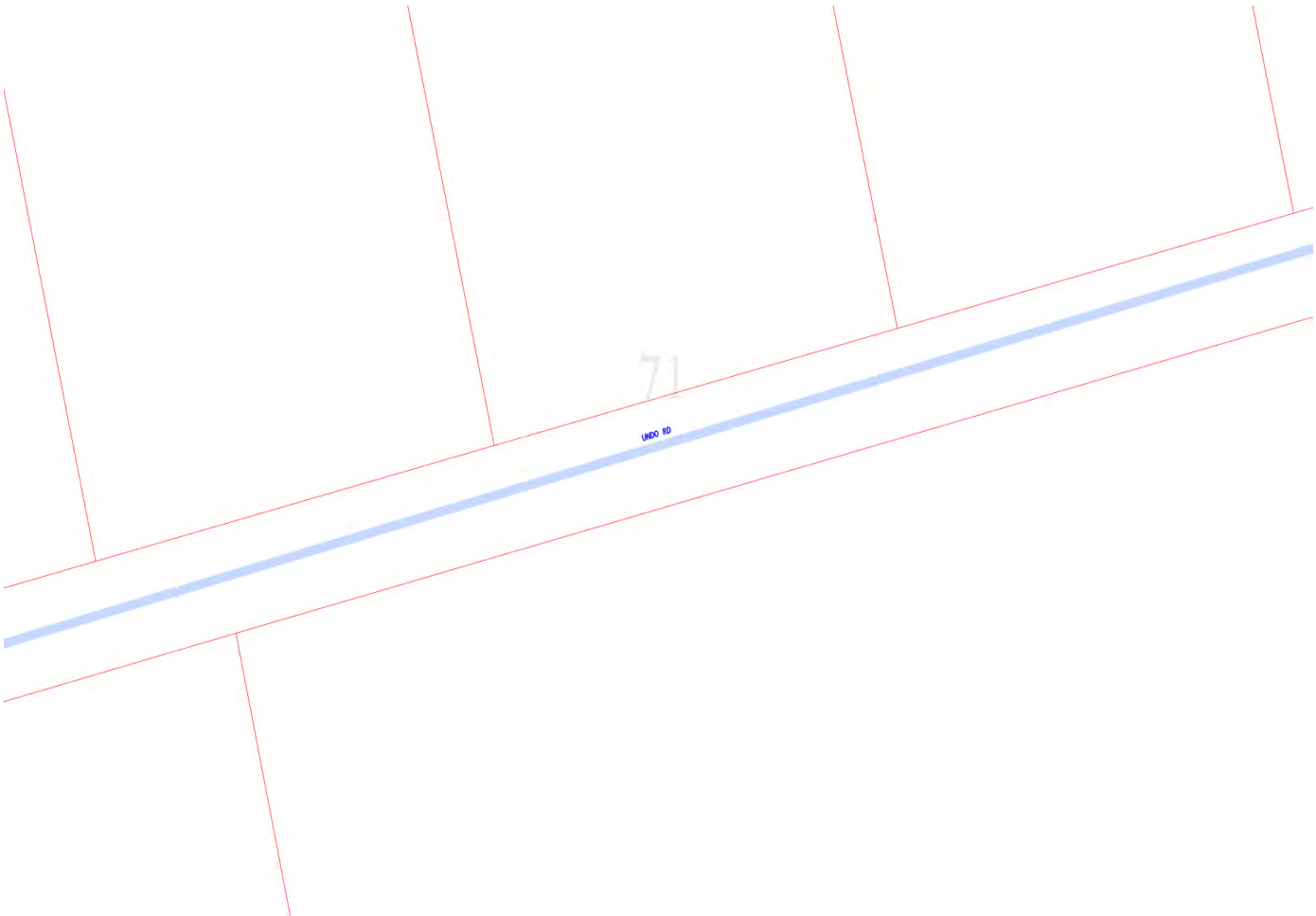


Vertical line segment perpendicular to base



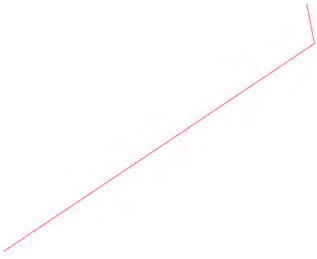
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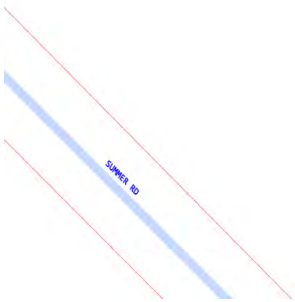


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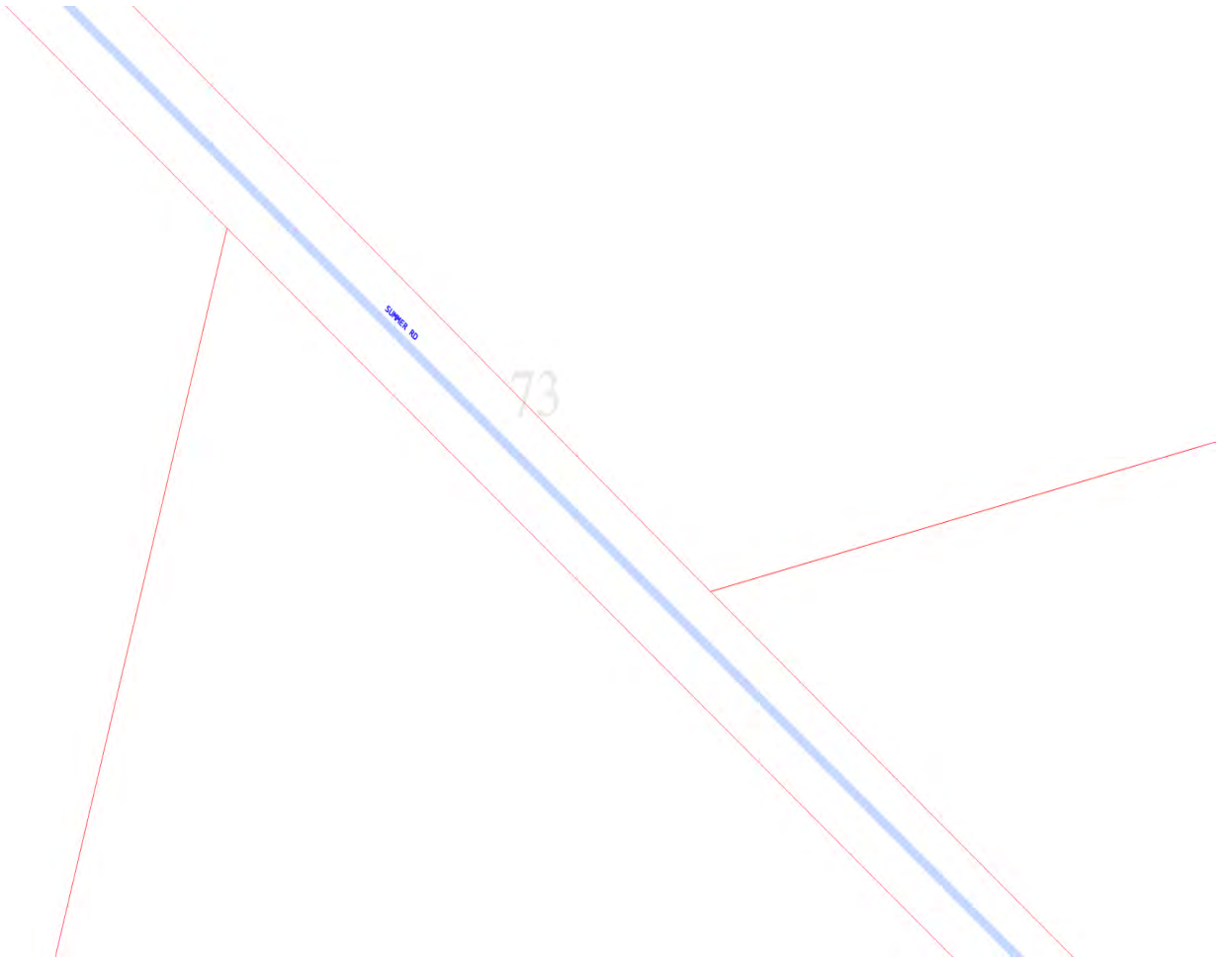
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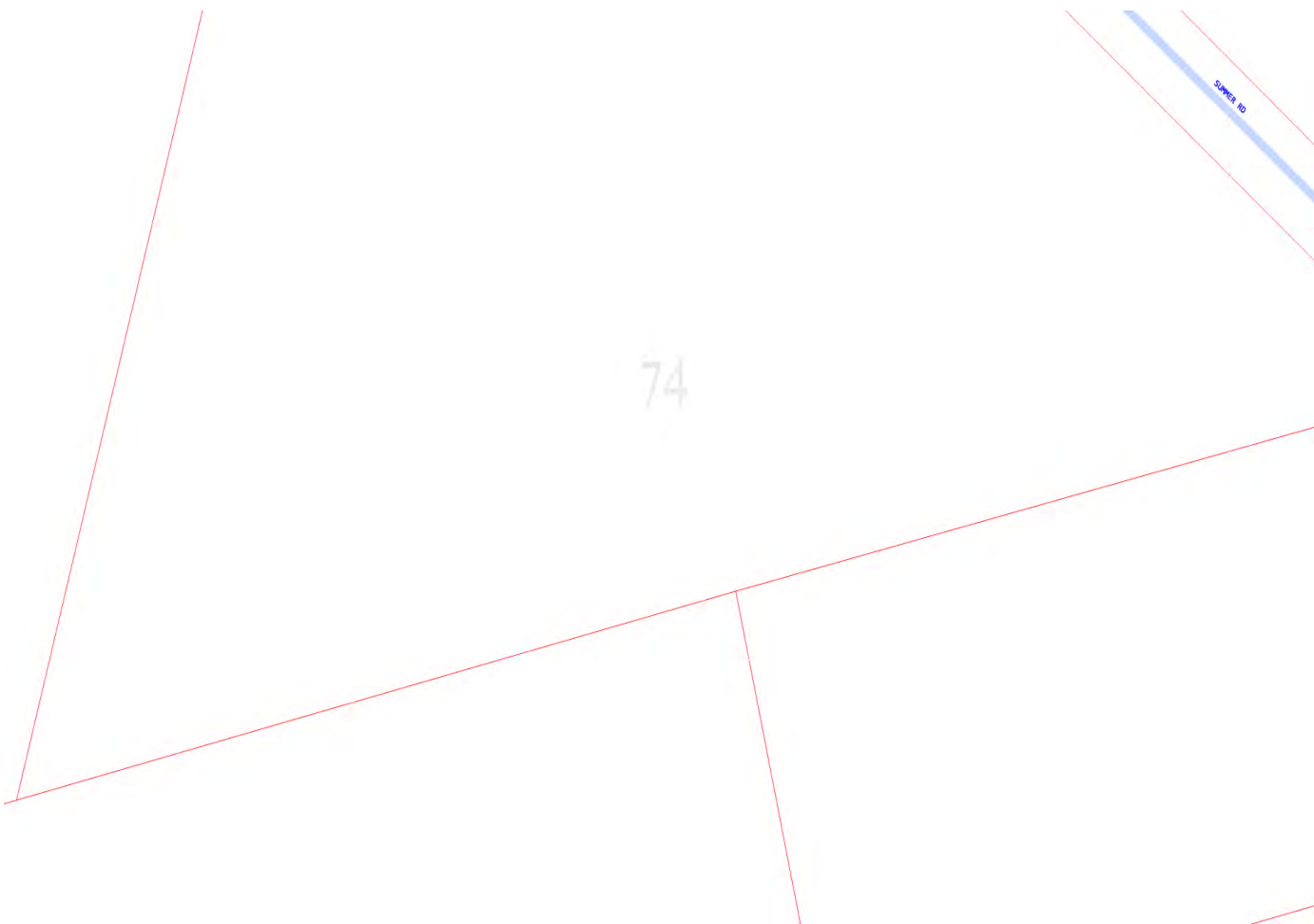
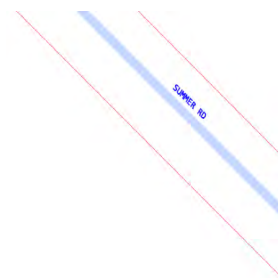
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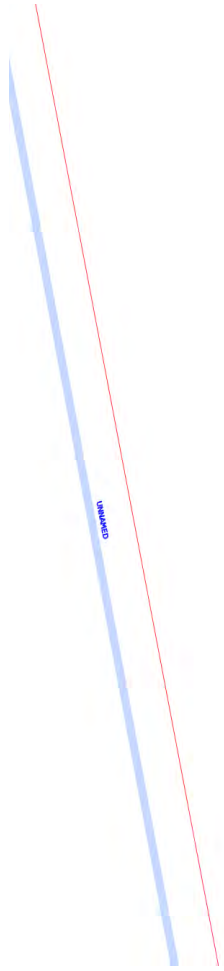




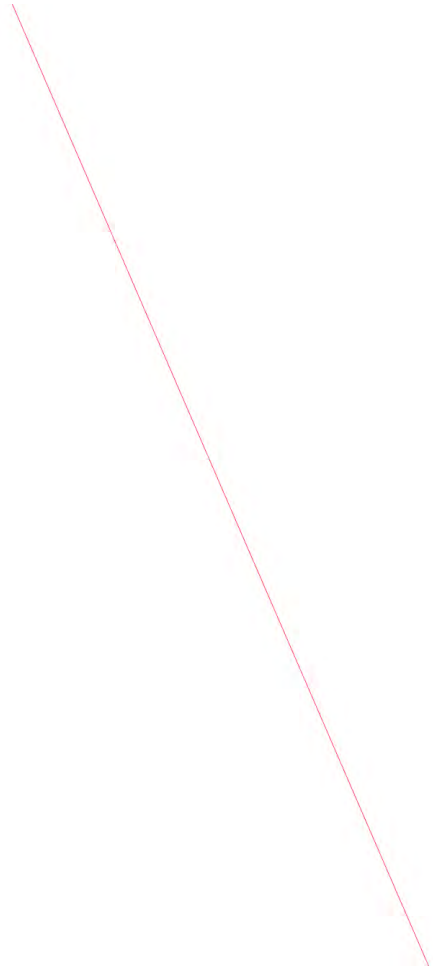
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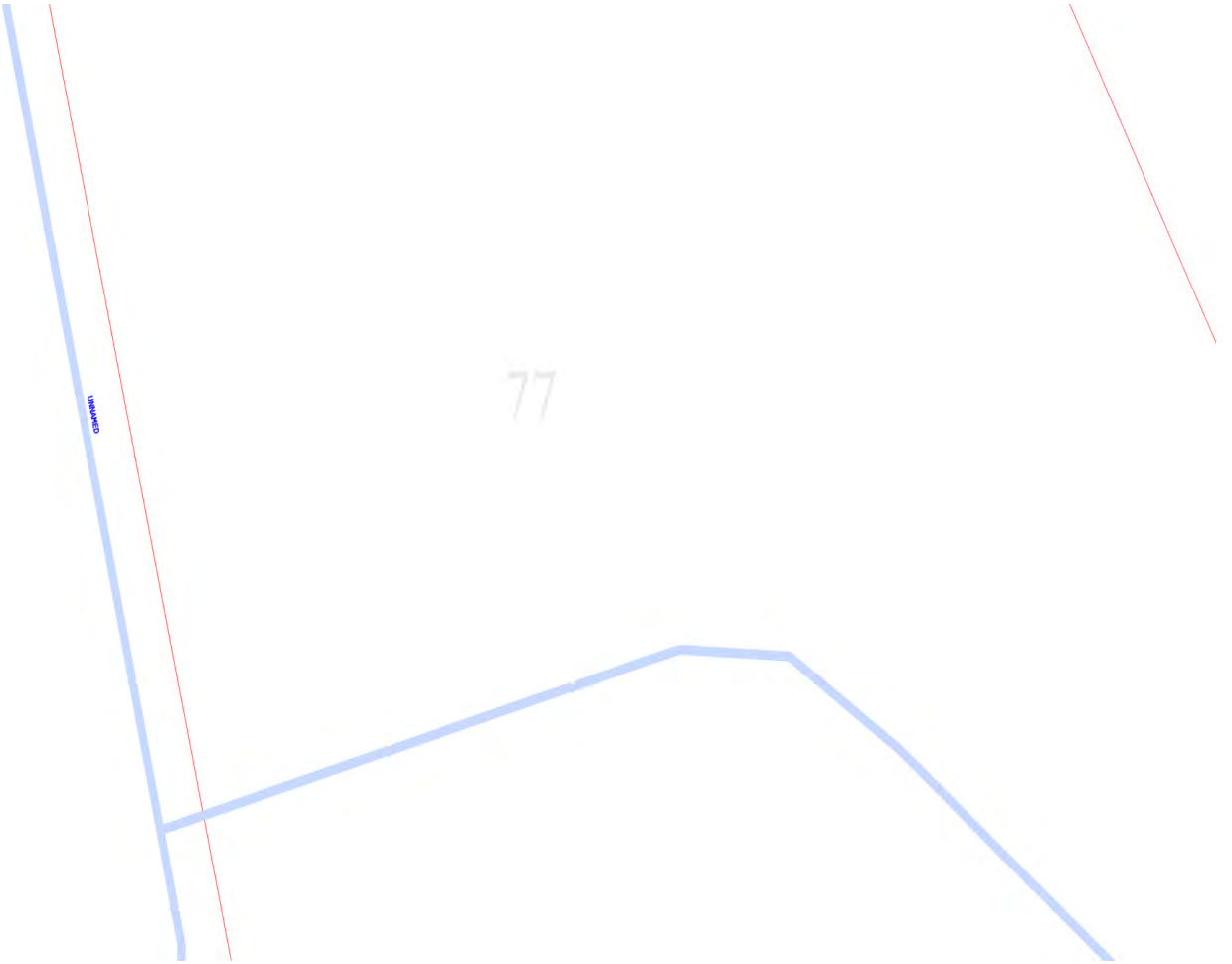


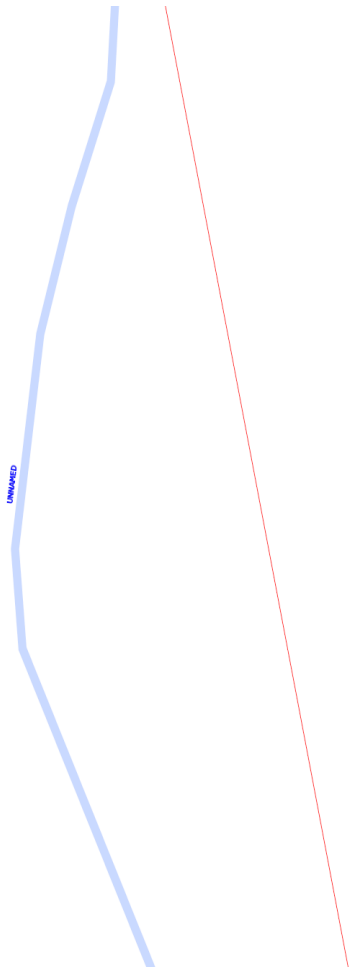




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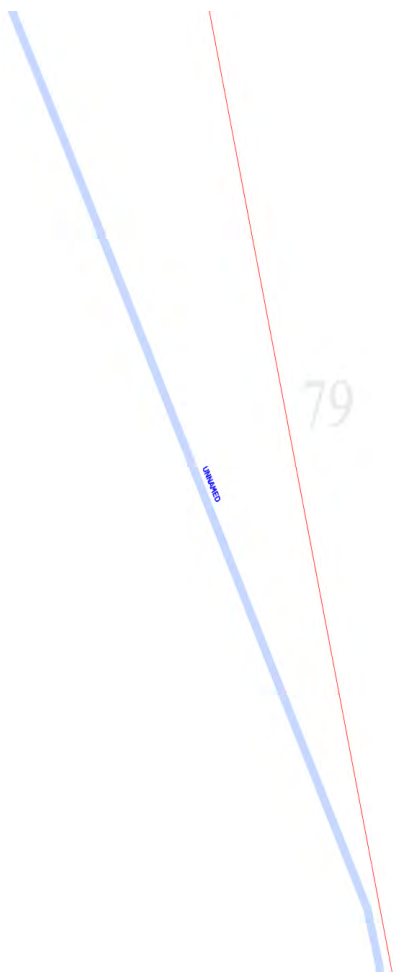


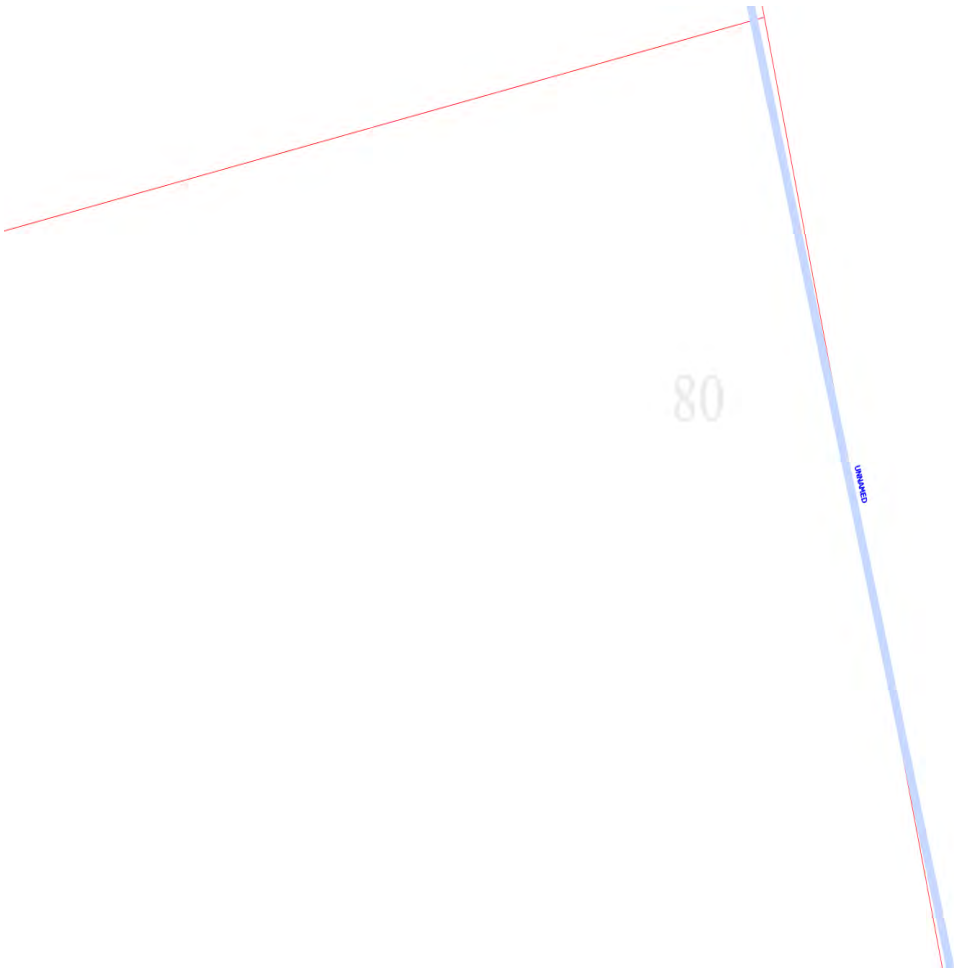


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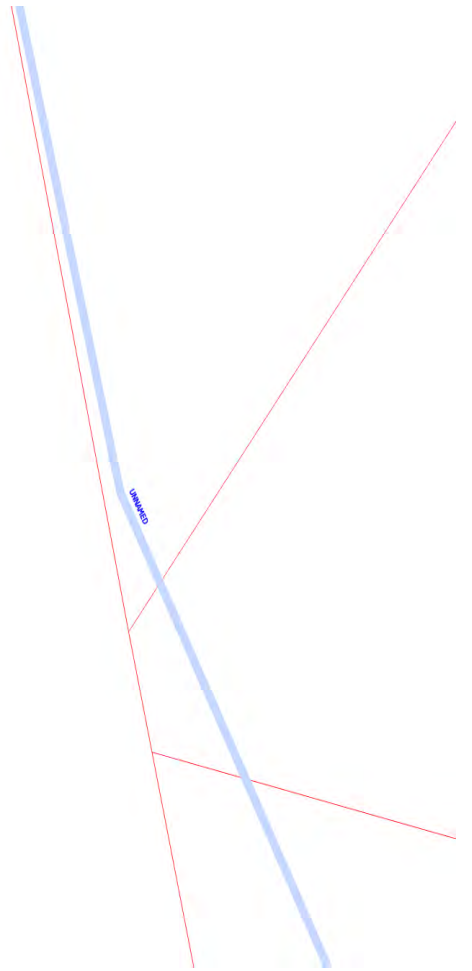


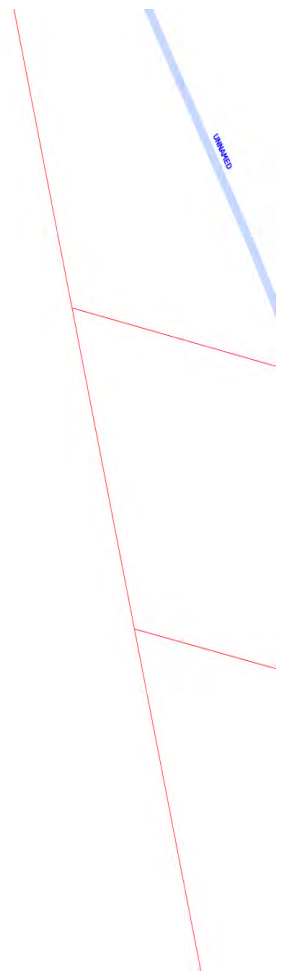






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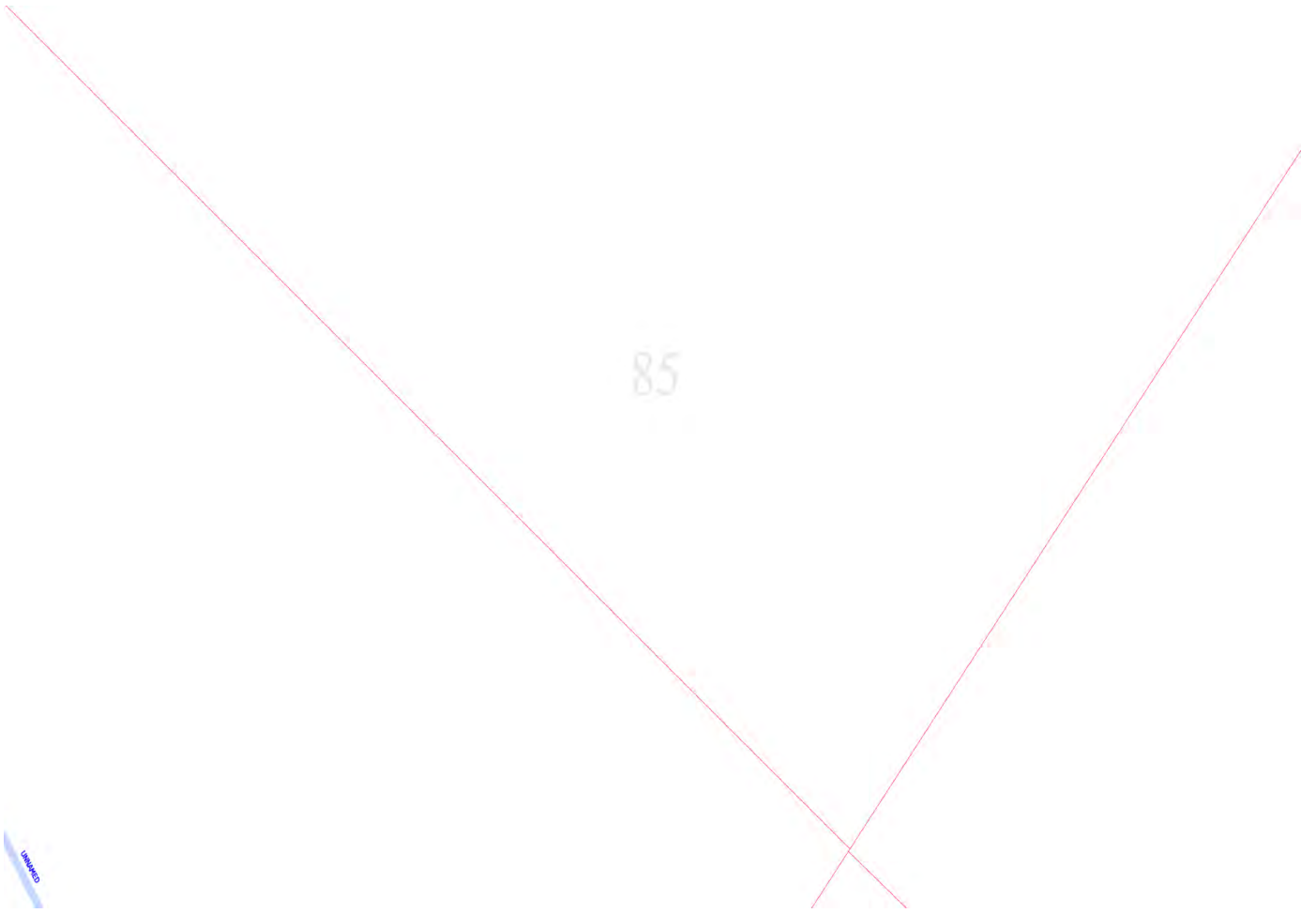


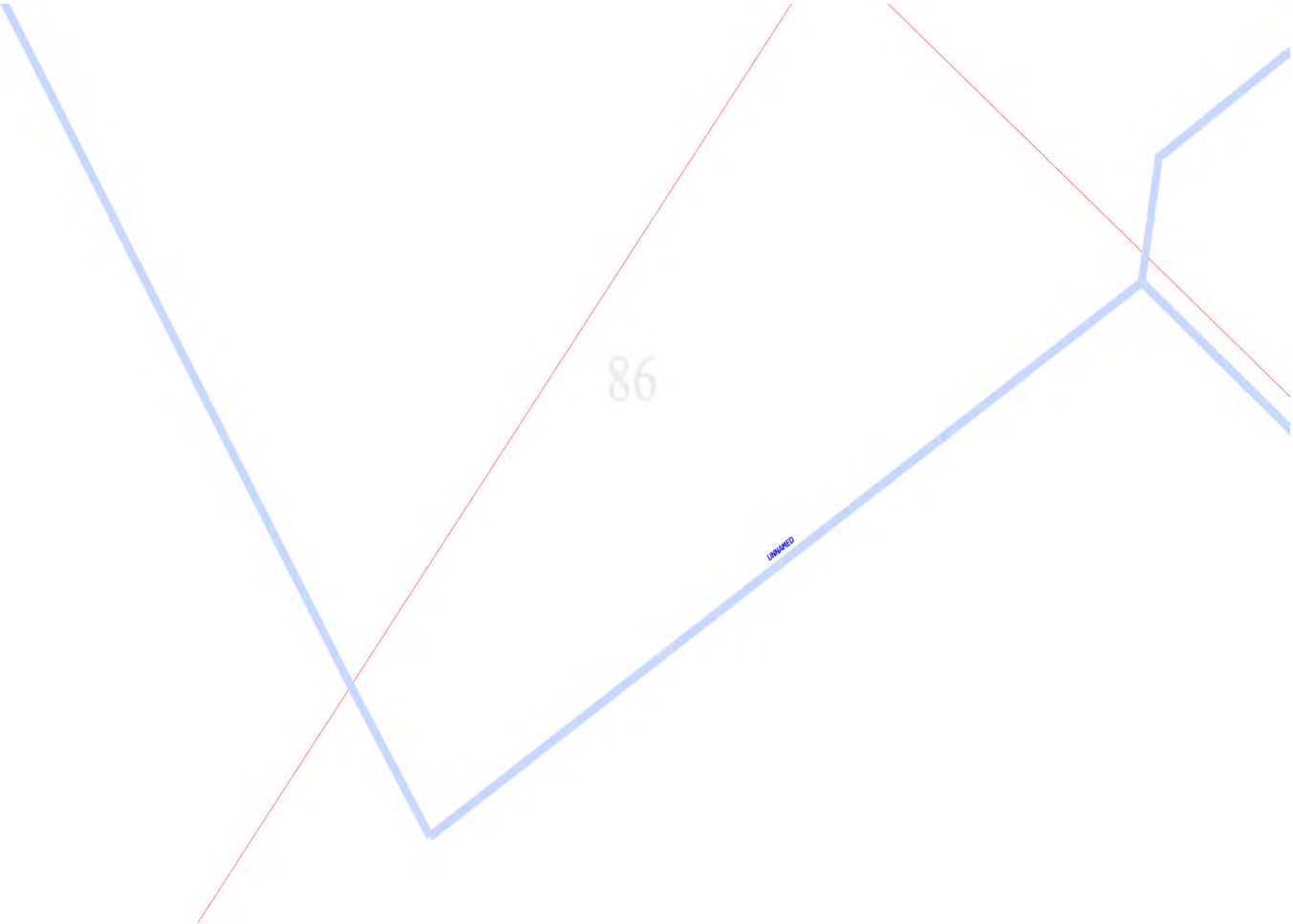














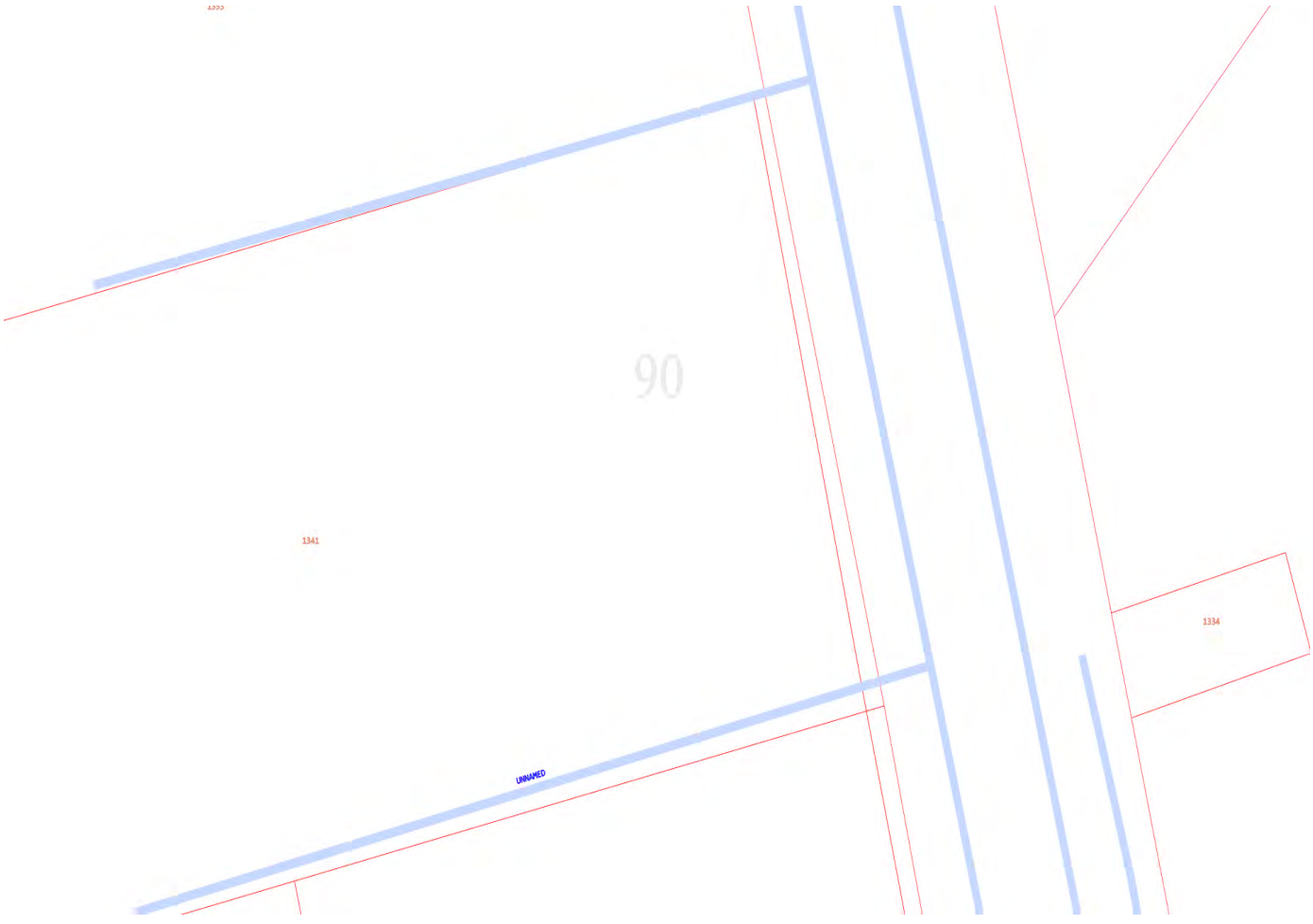


89

POINT MARIETTA RD

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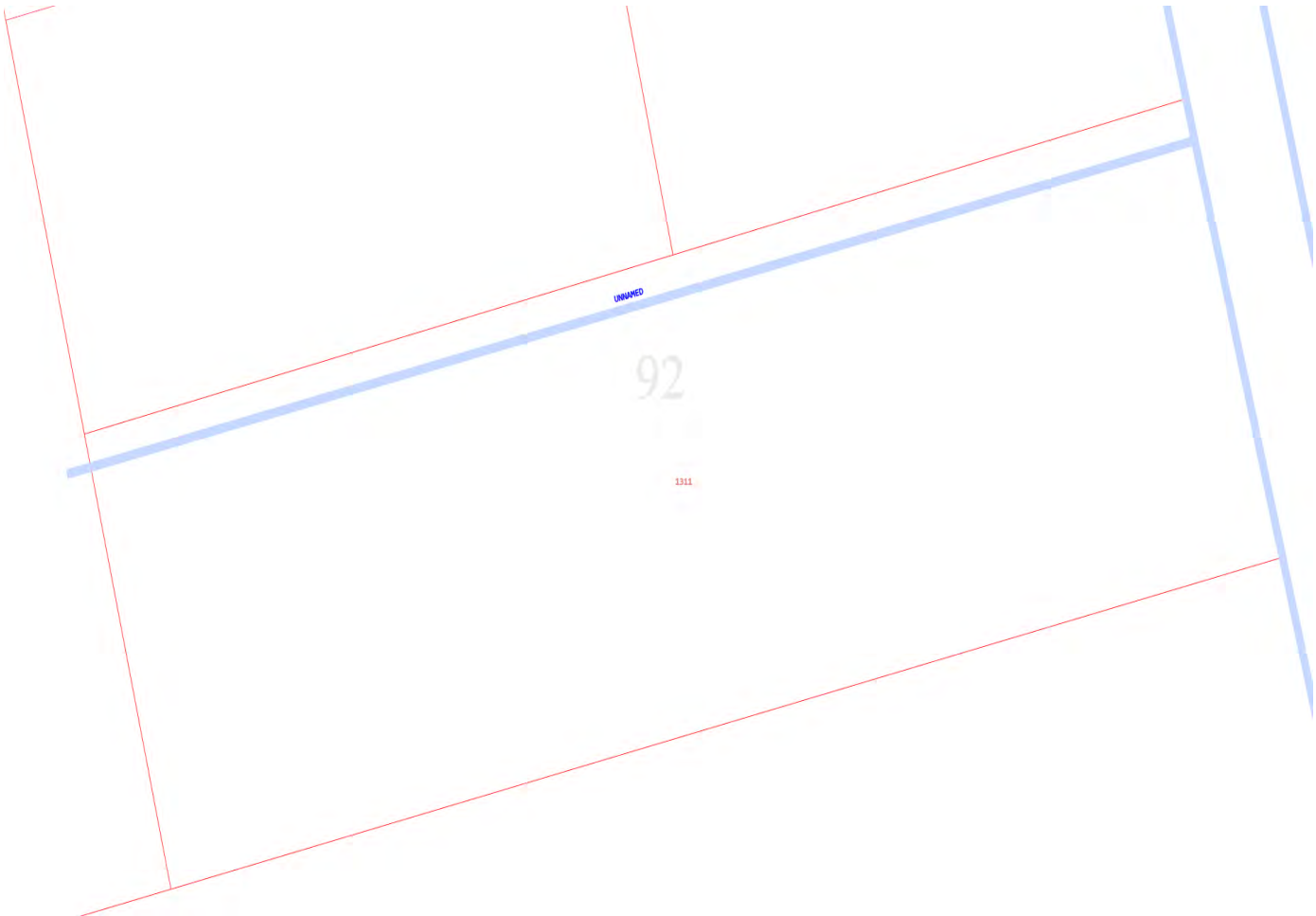
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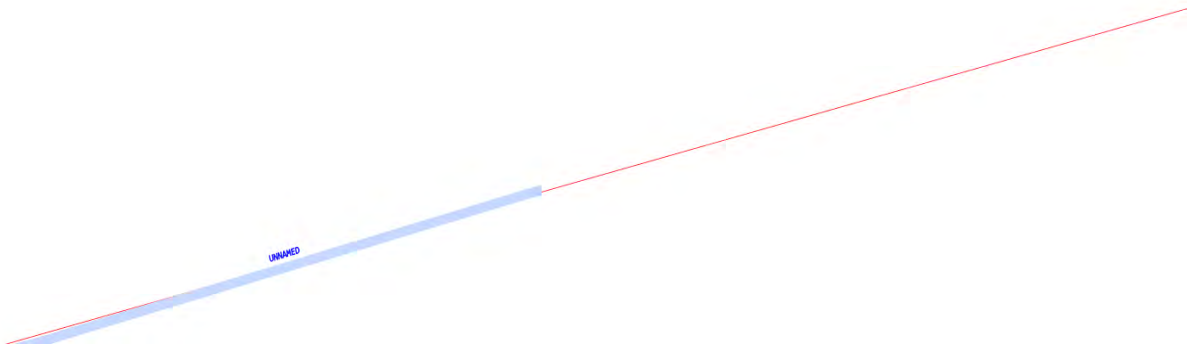
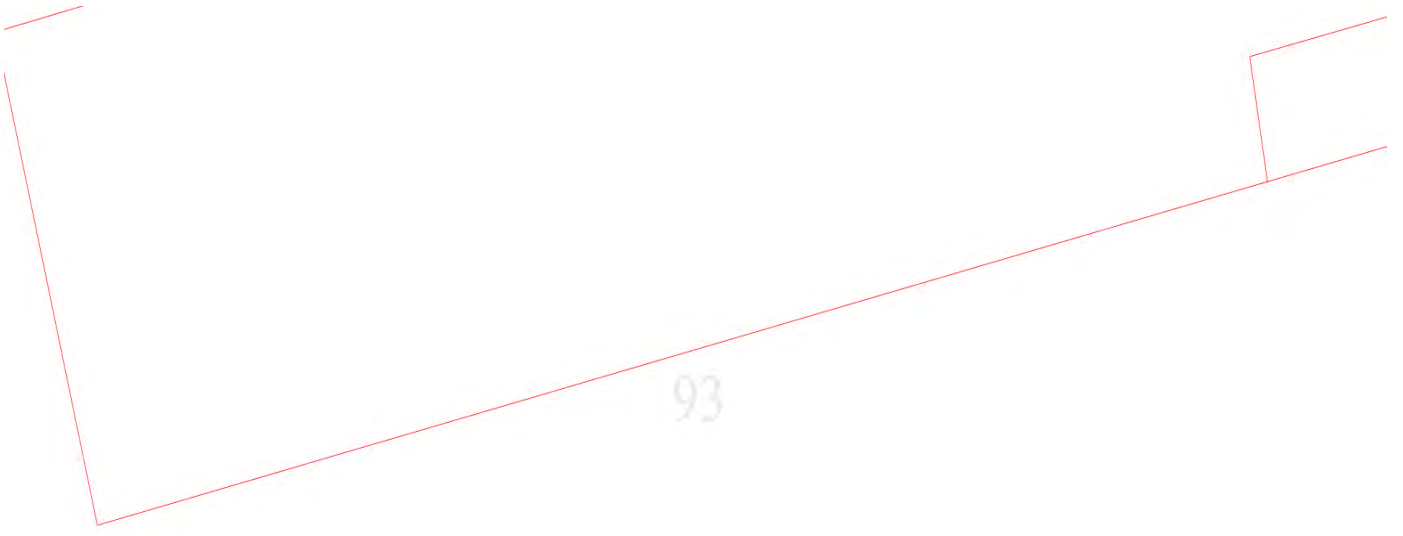
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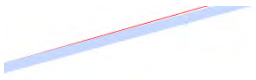
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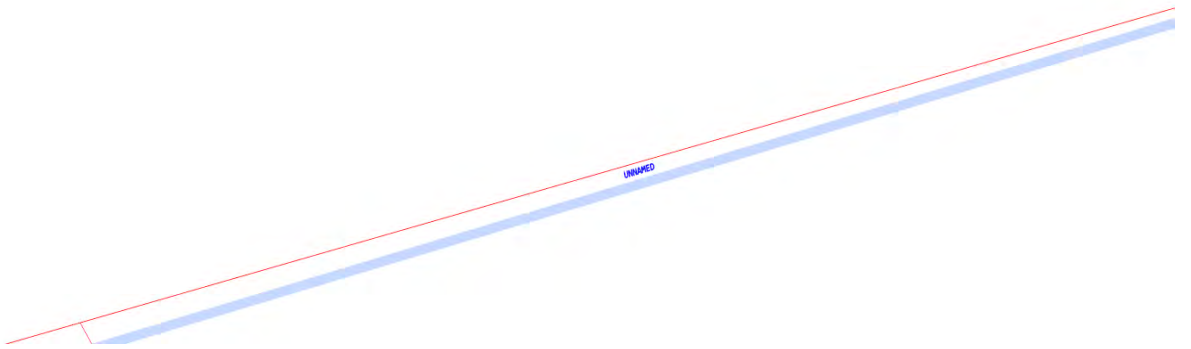


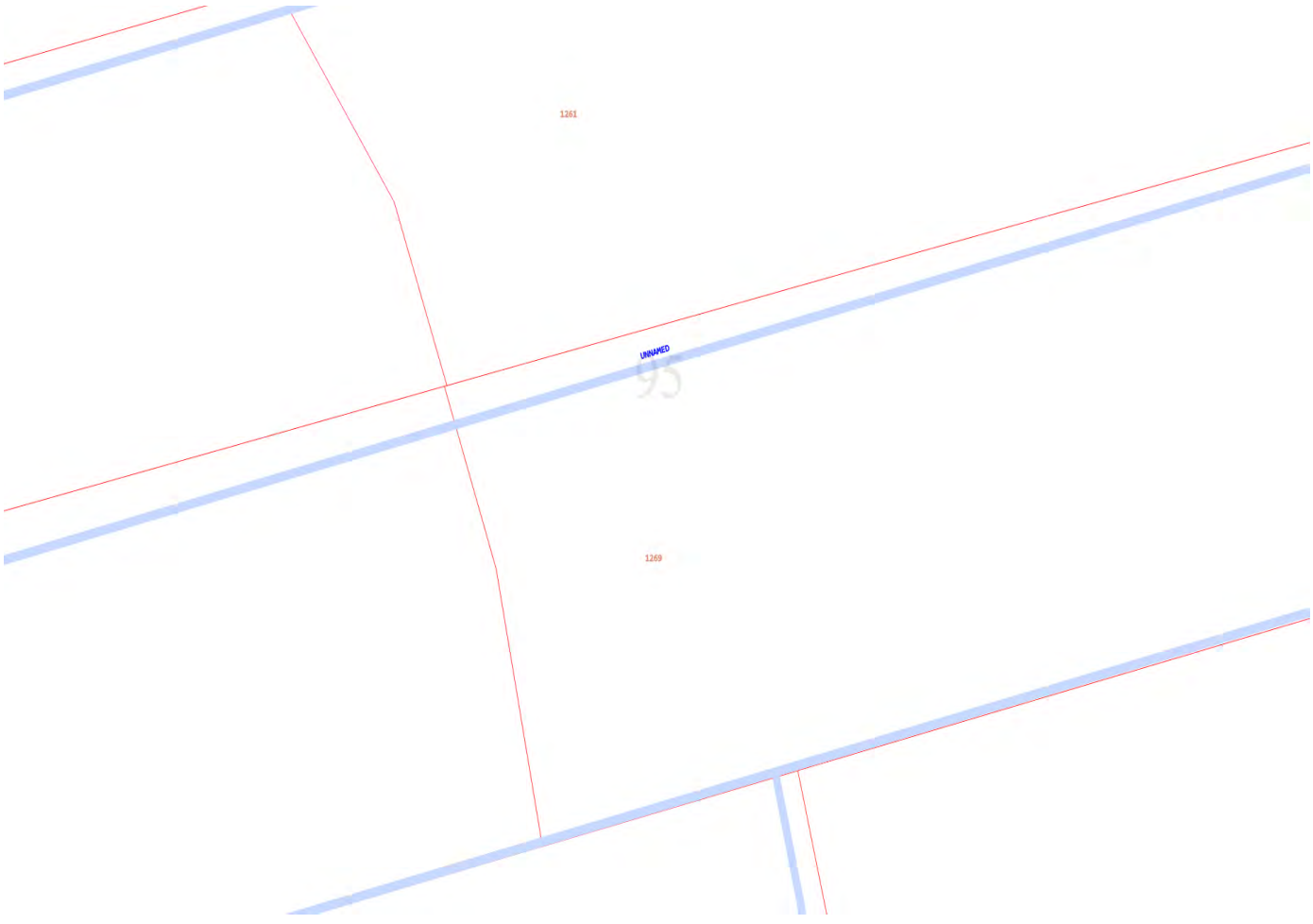


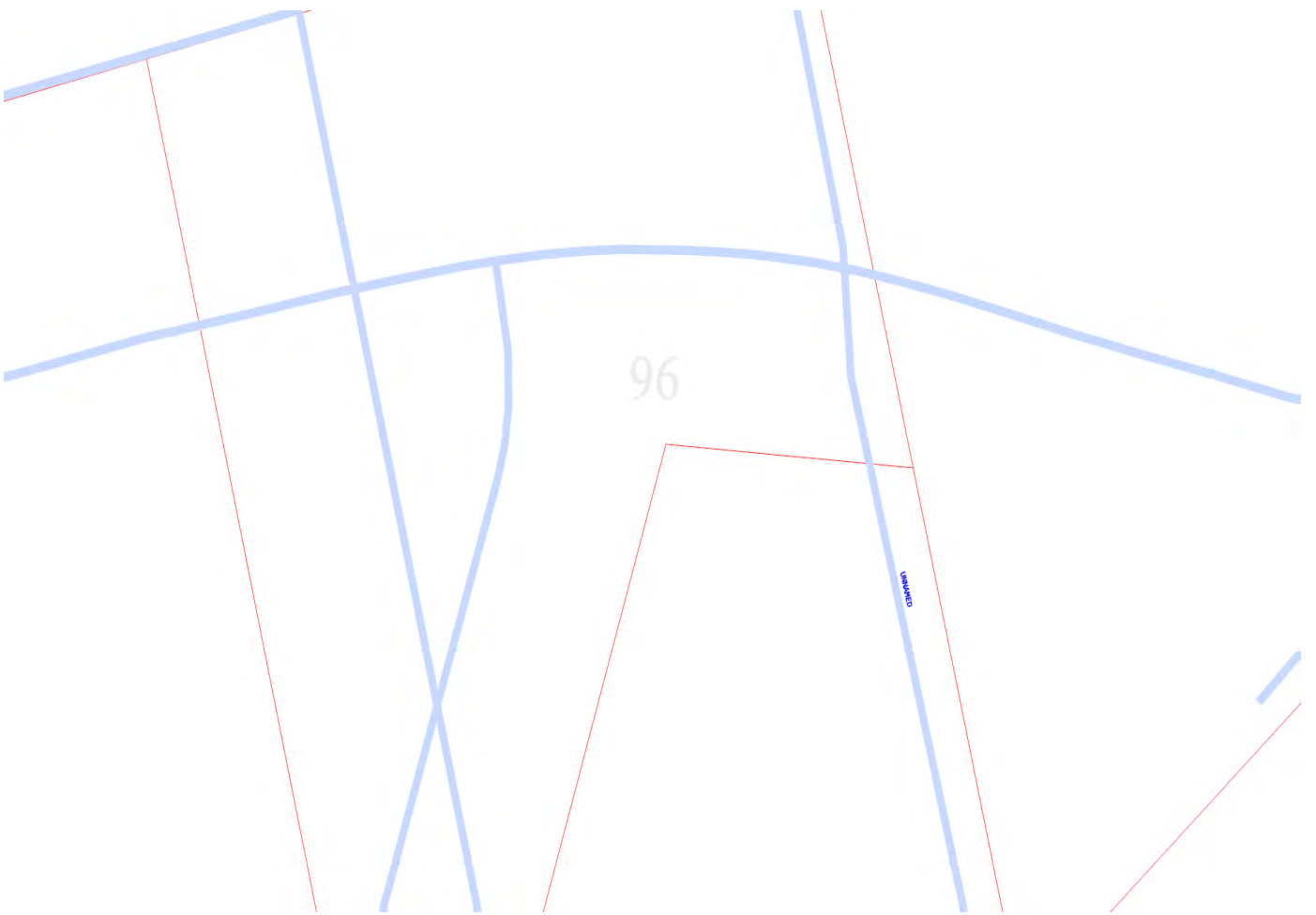


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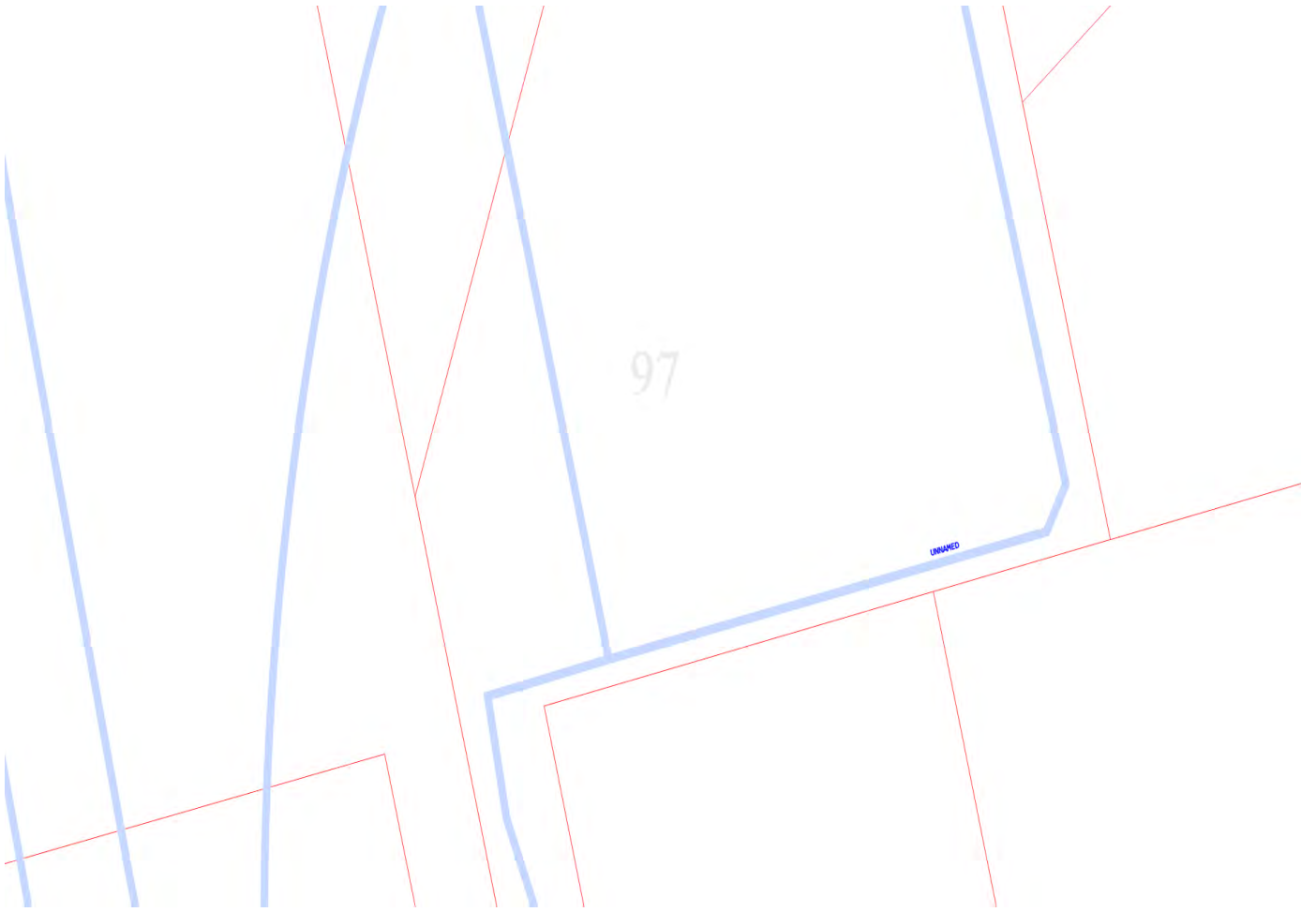
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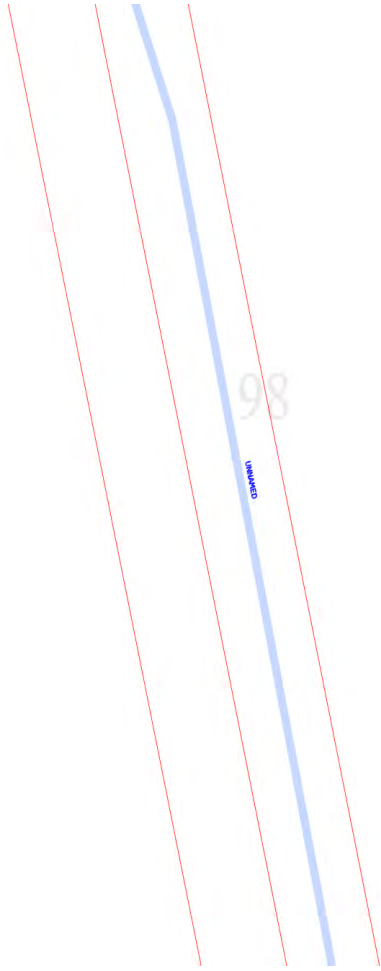
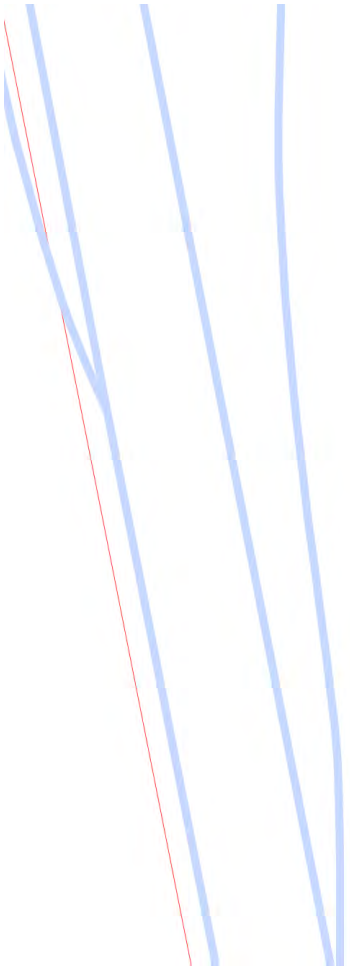


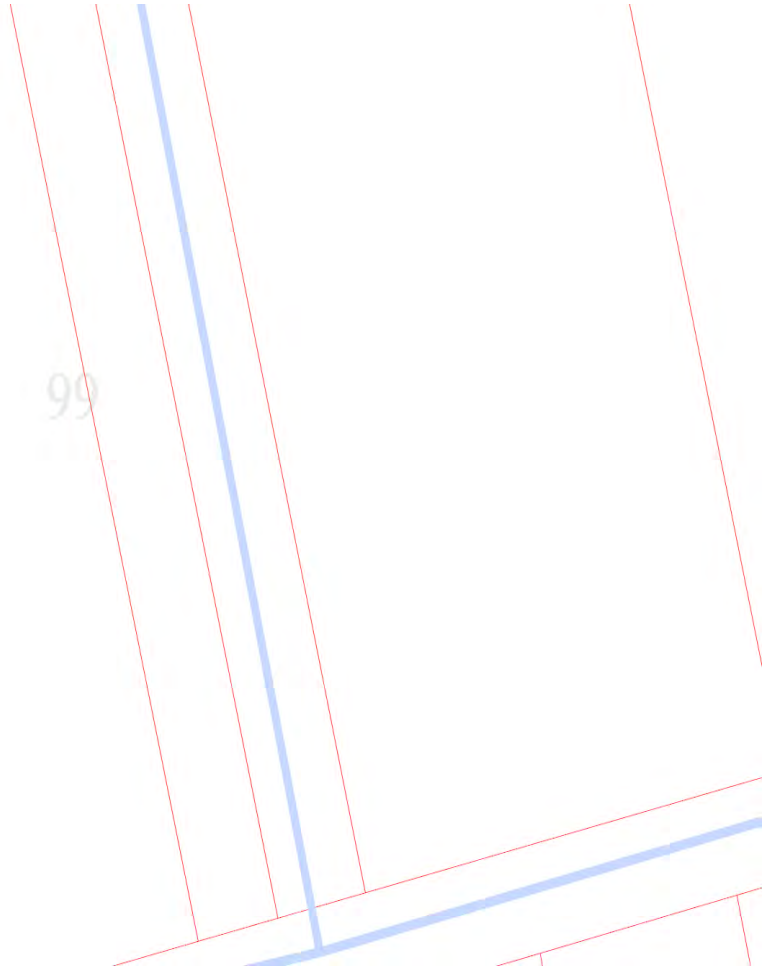
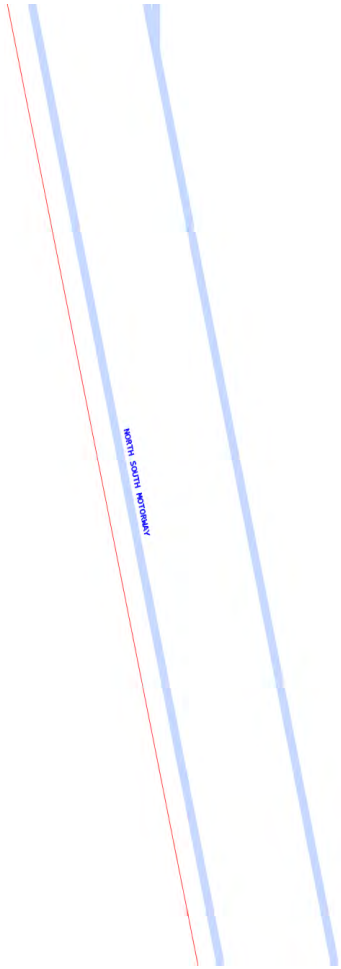


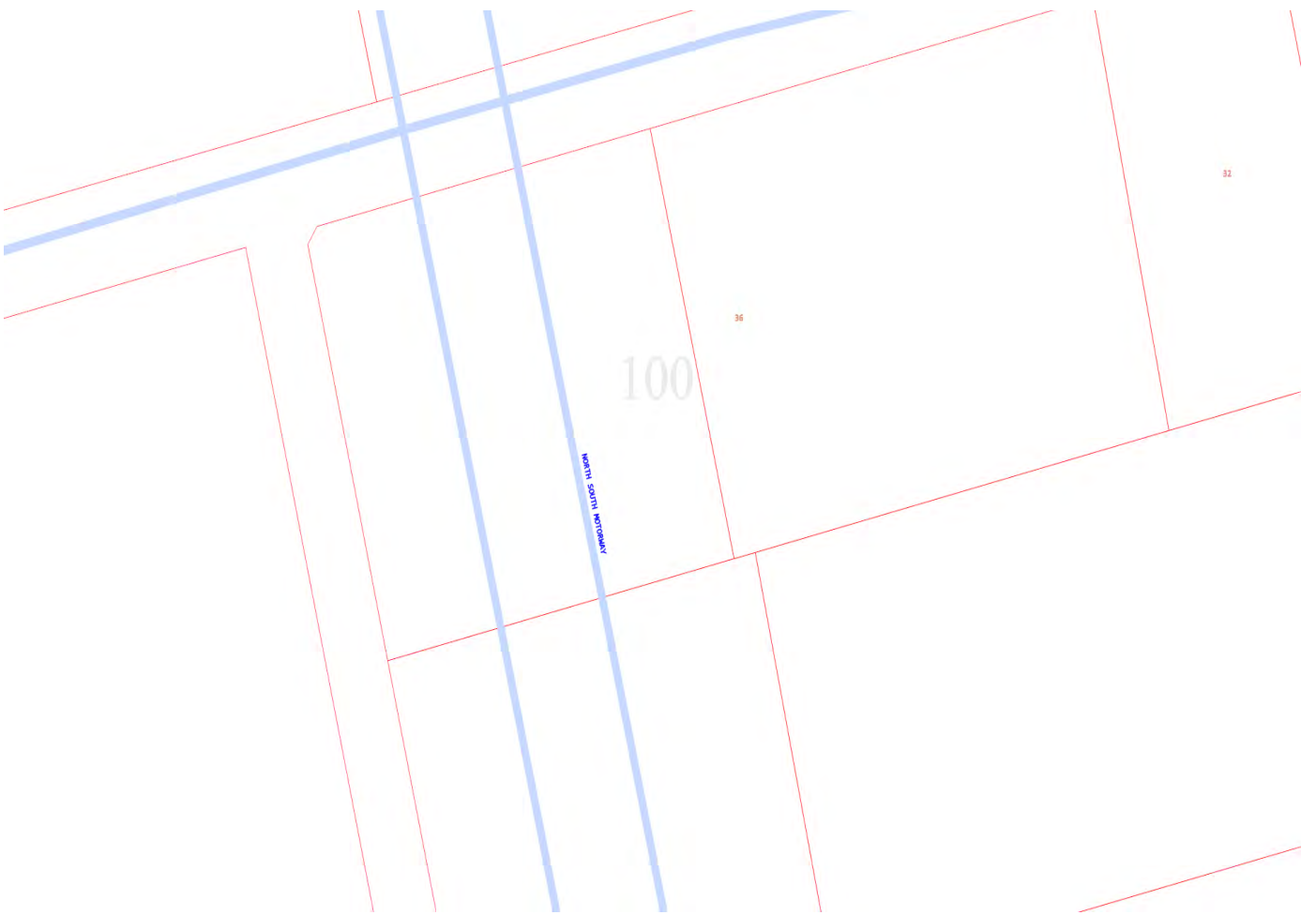












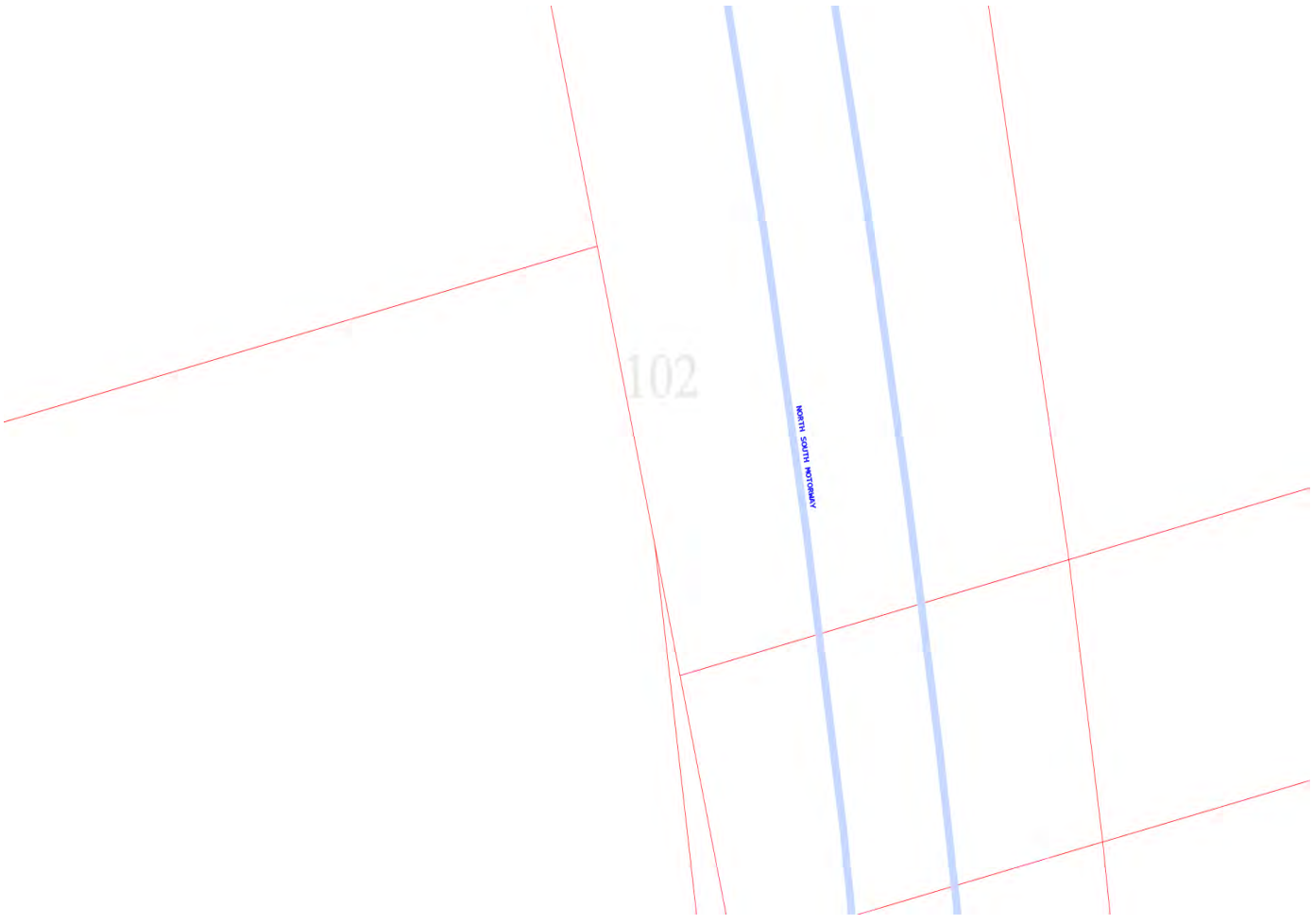


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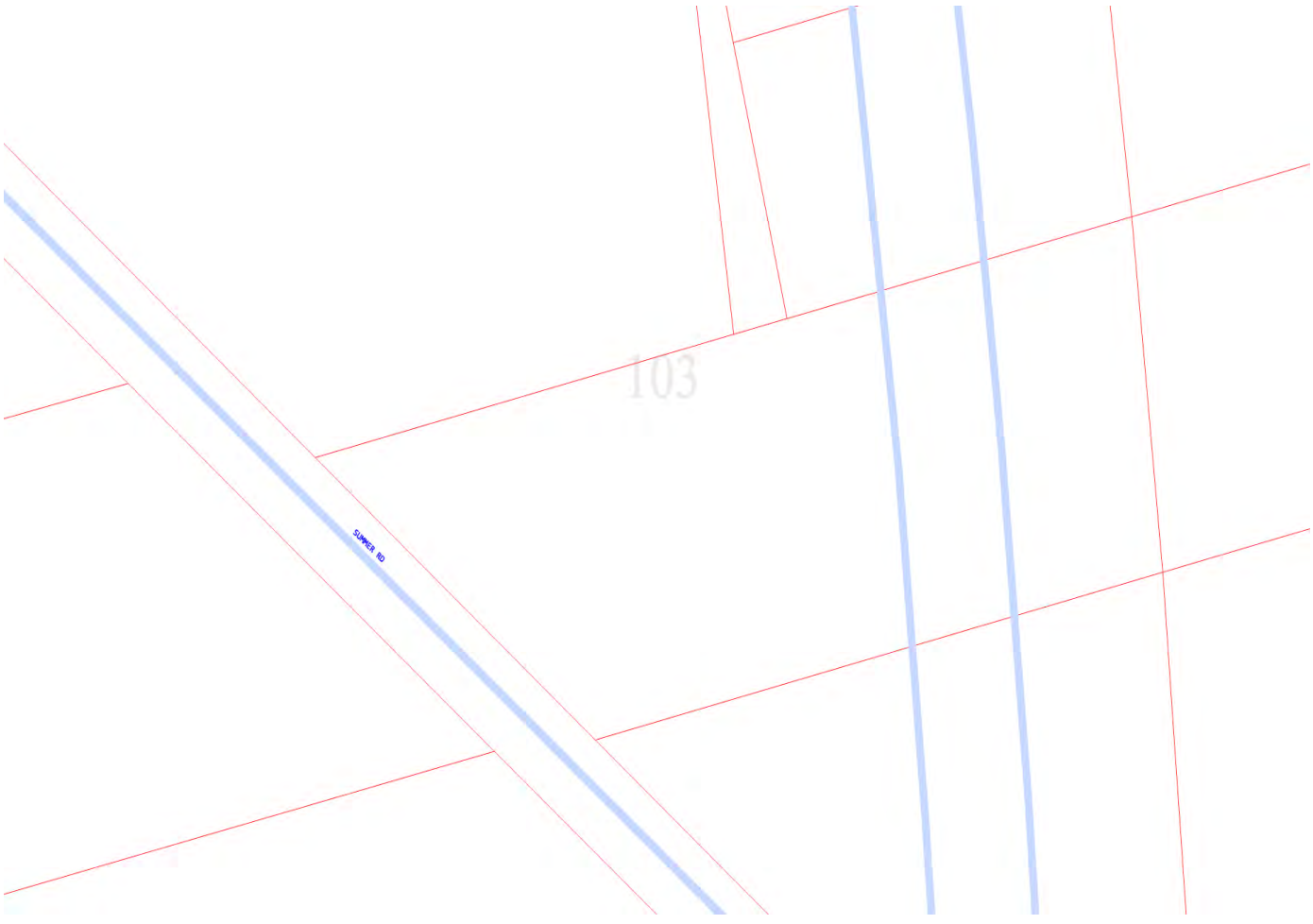
AMERICAN INSTITUTE OF ARCHITECTS

102

AYRHOUM HADIS' NUSON





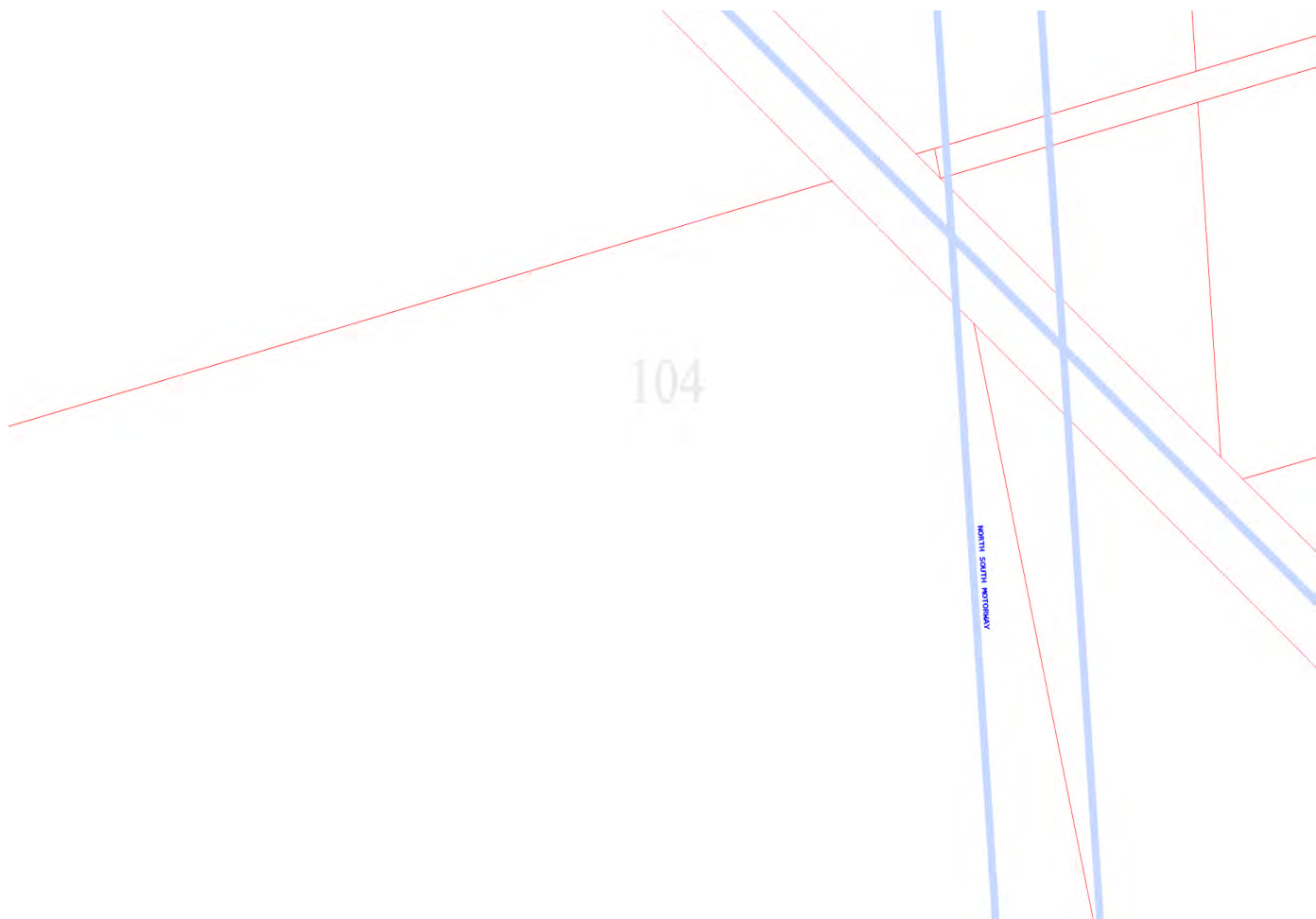


103

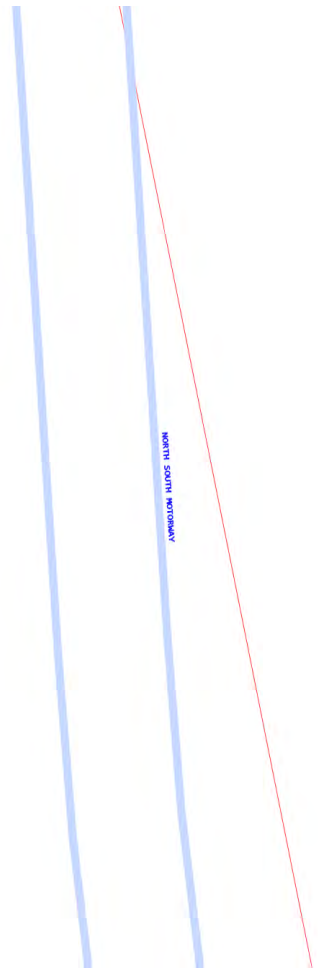
СУМКА 10

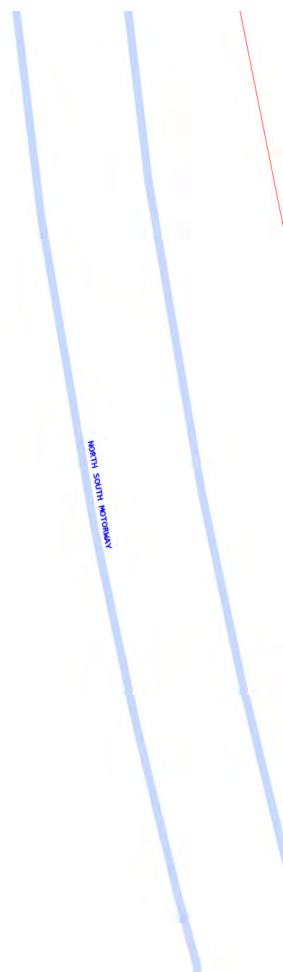
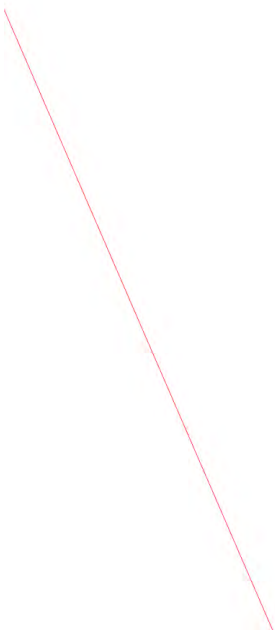
104

NORTH SOUTH HIGHWAY



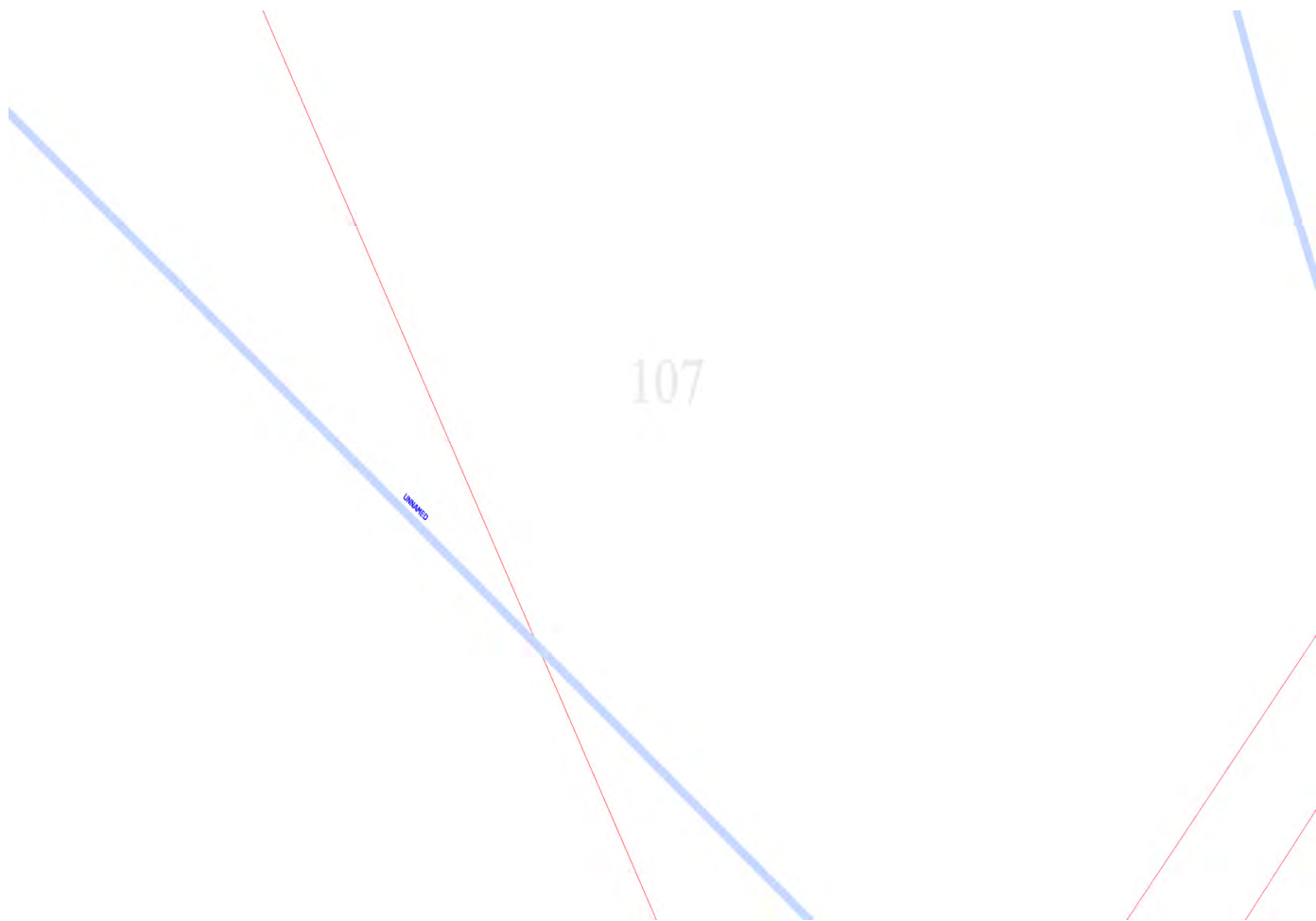
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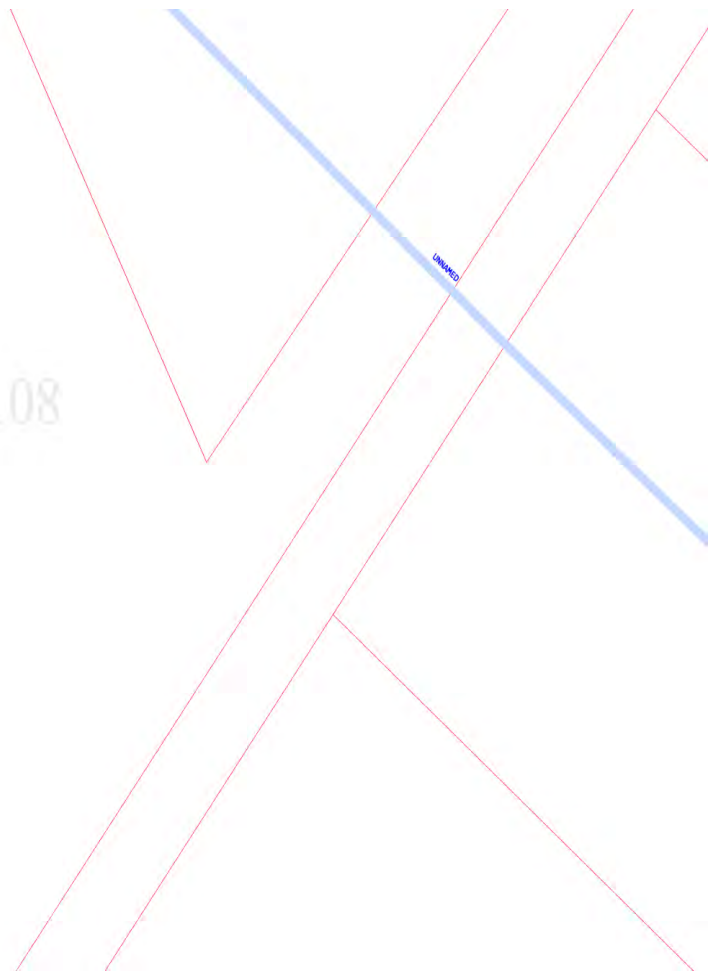


North South Mountain

107



108







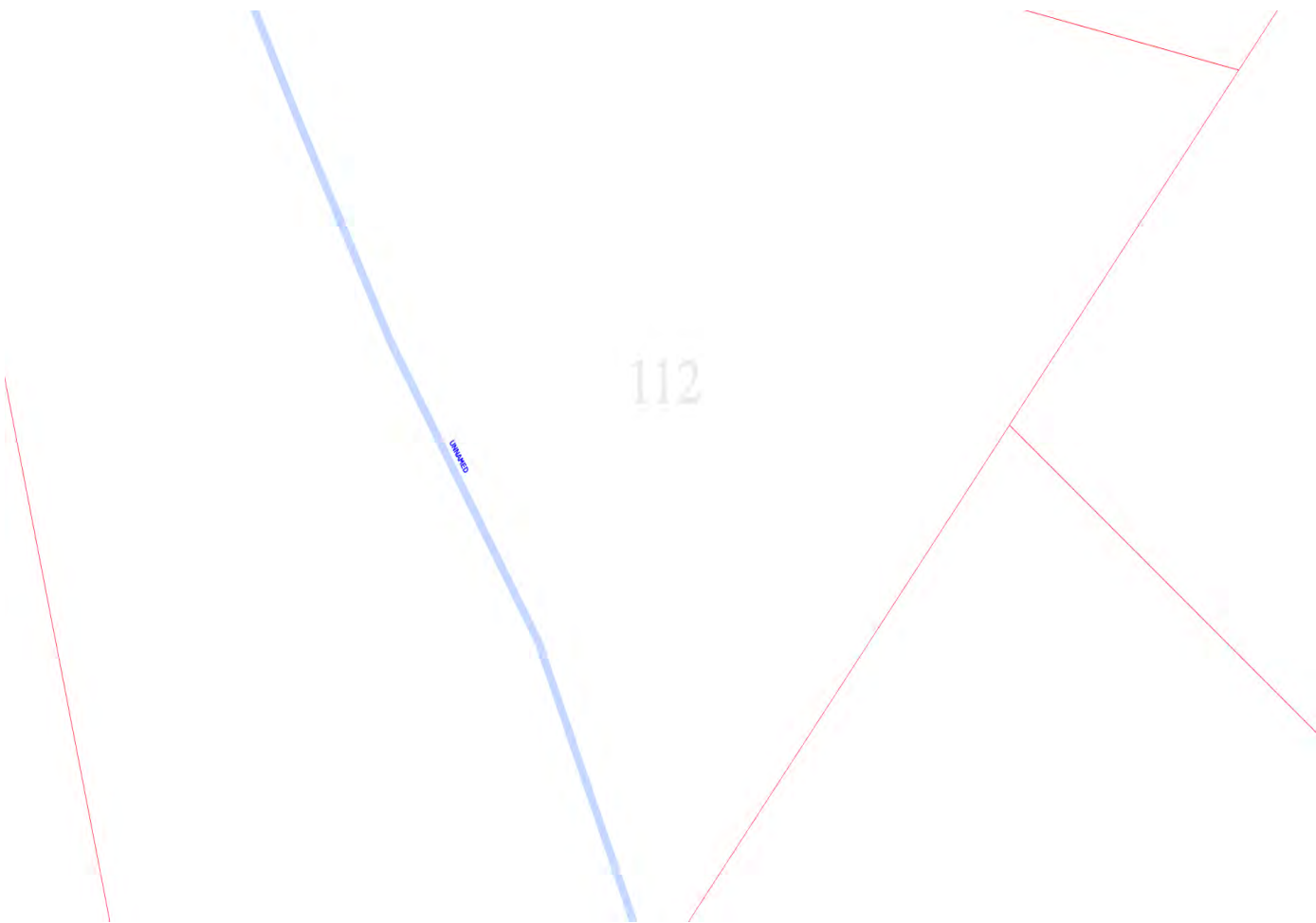


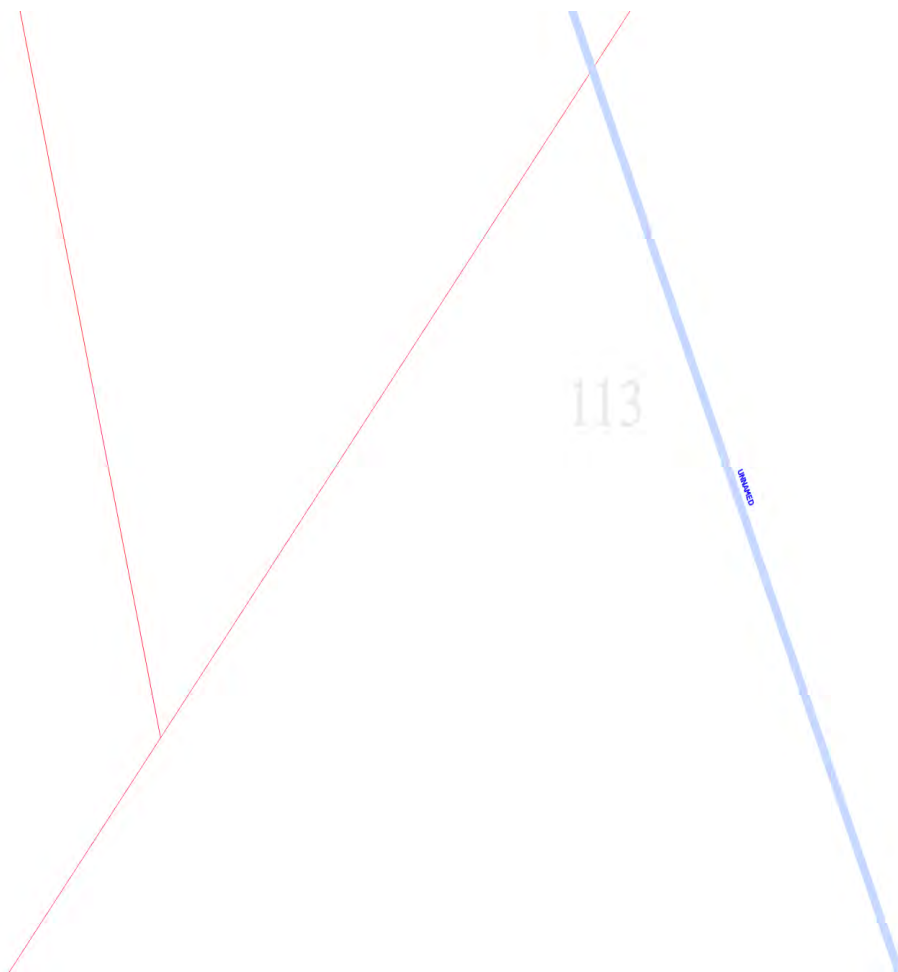
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111111

112

unwind





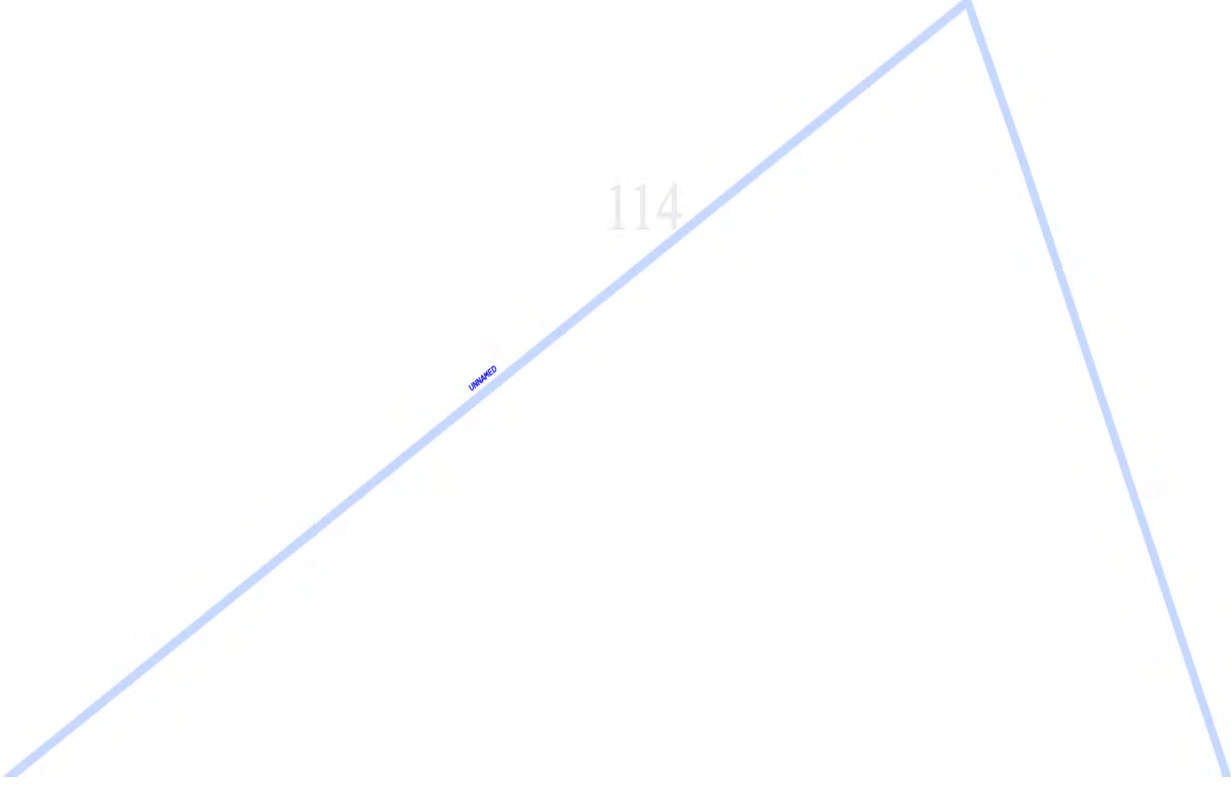
113

113



114

UNAPD





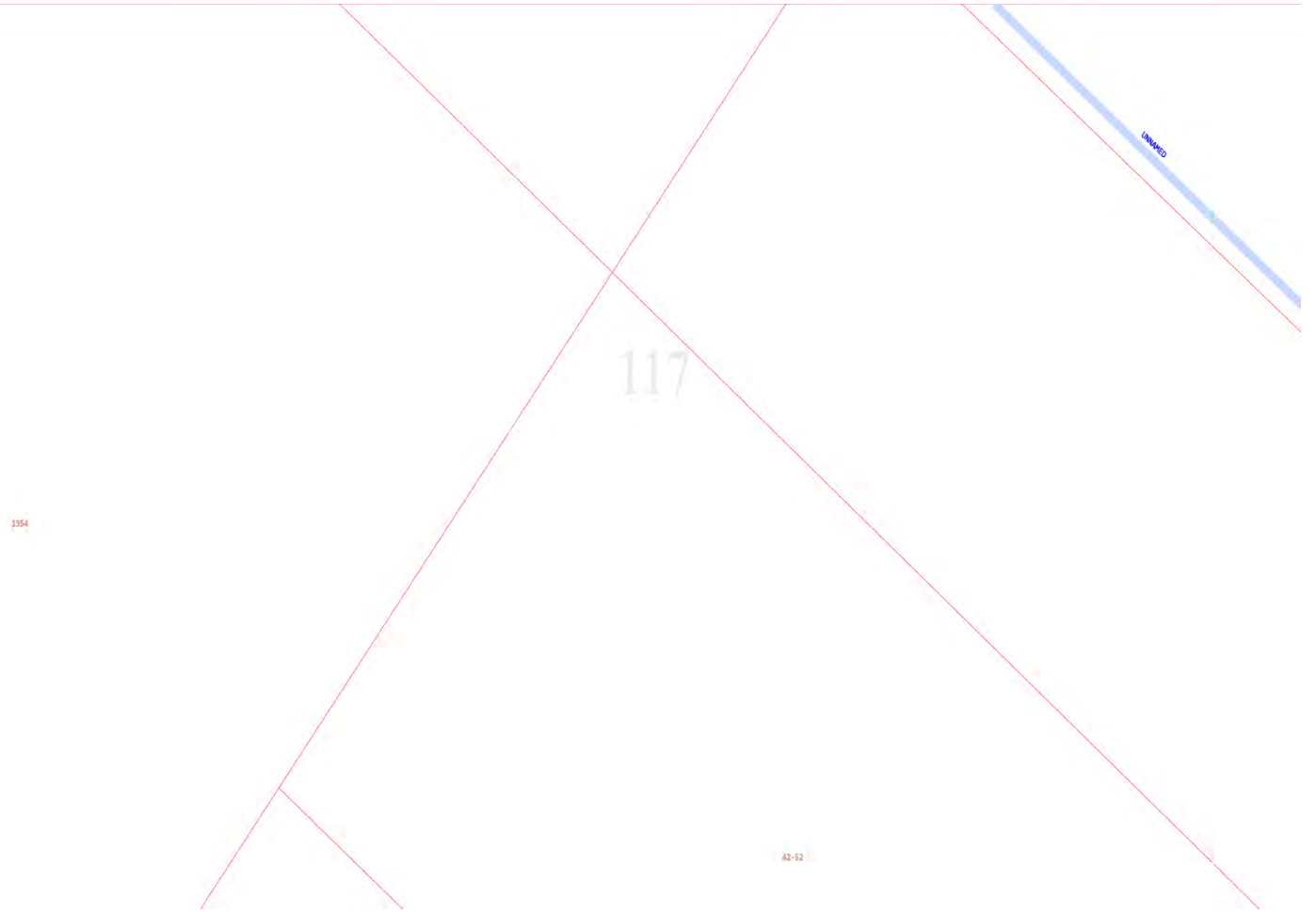
115

LINKED

116

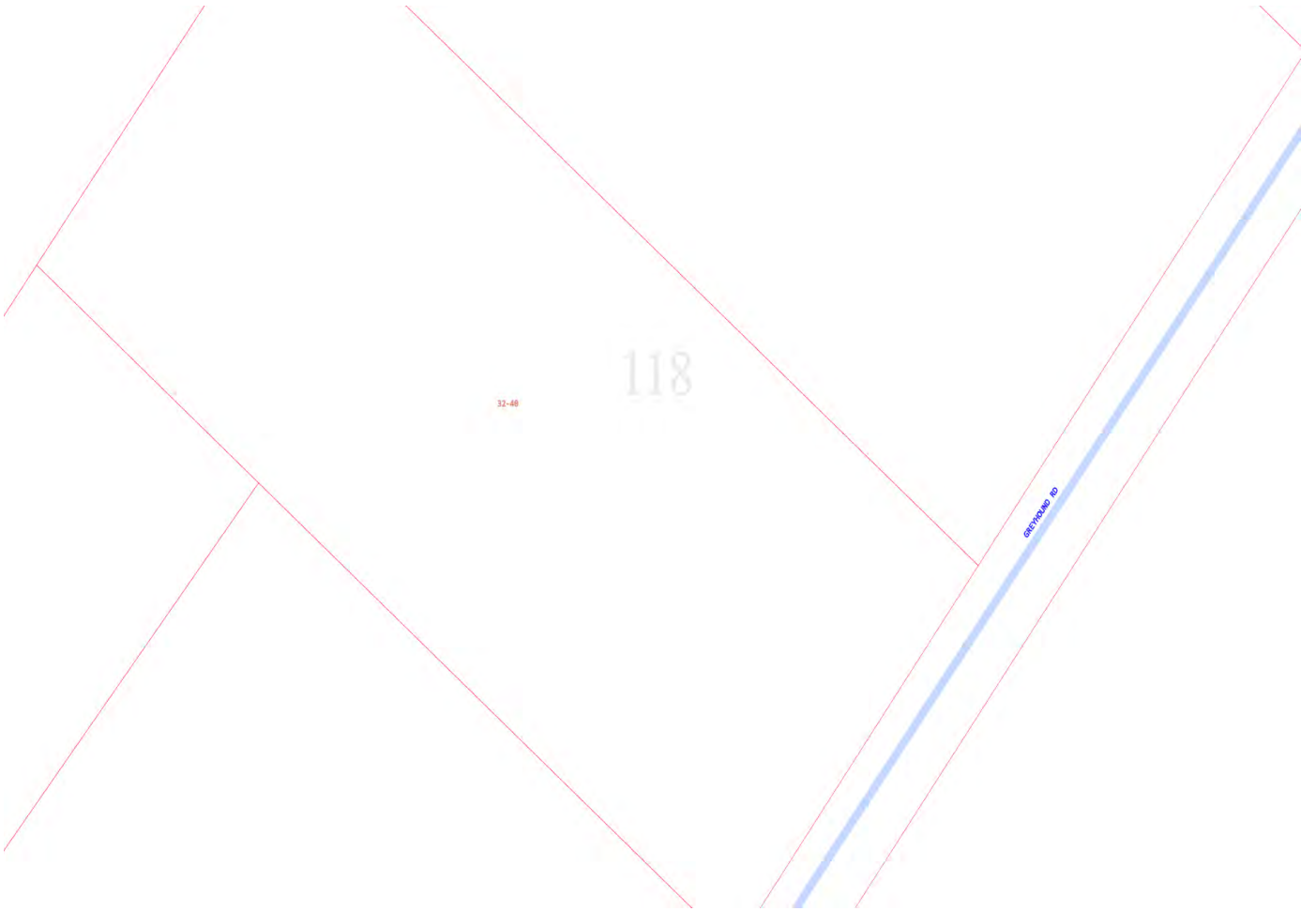
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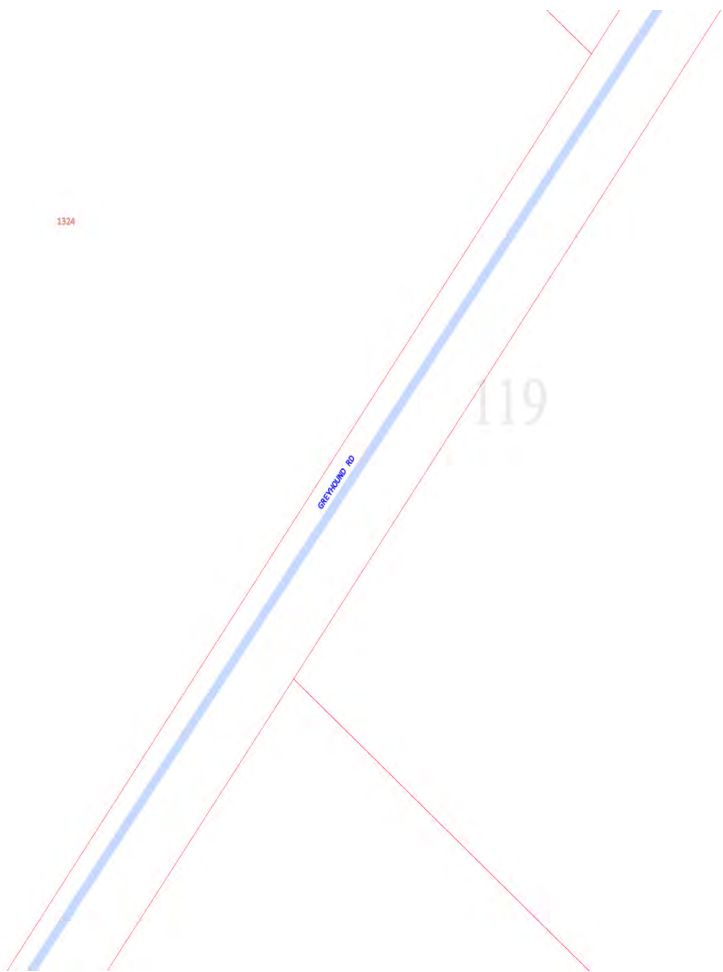




1354

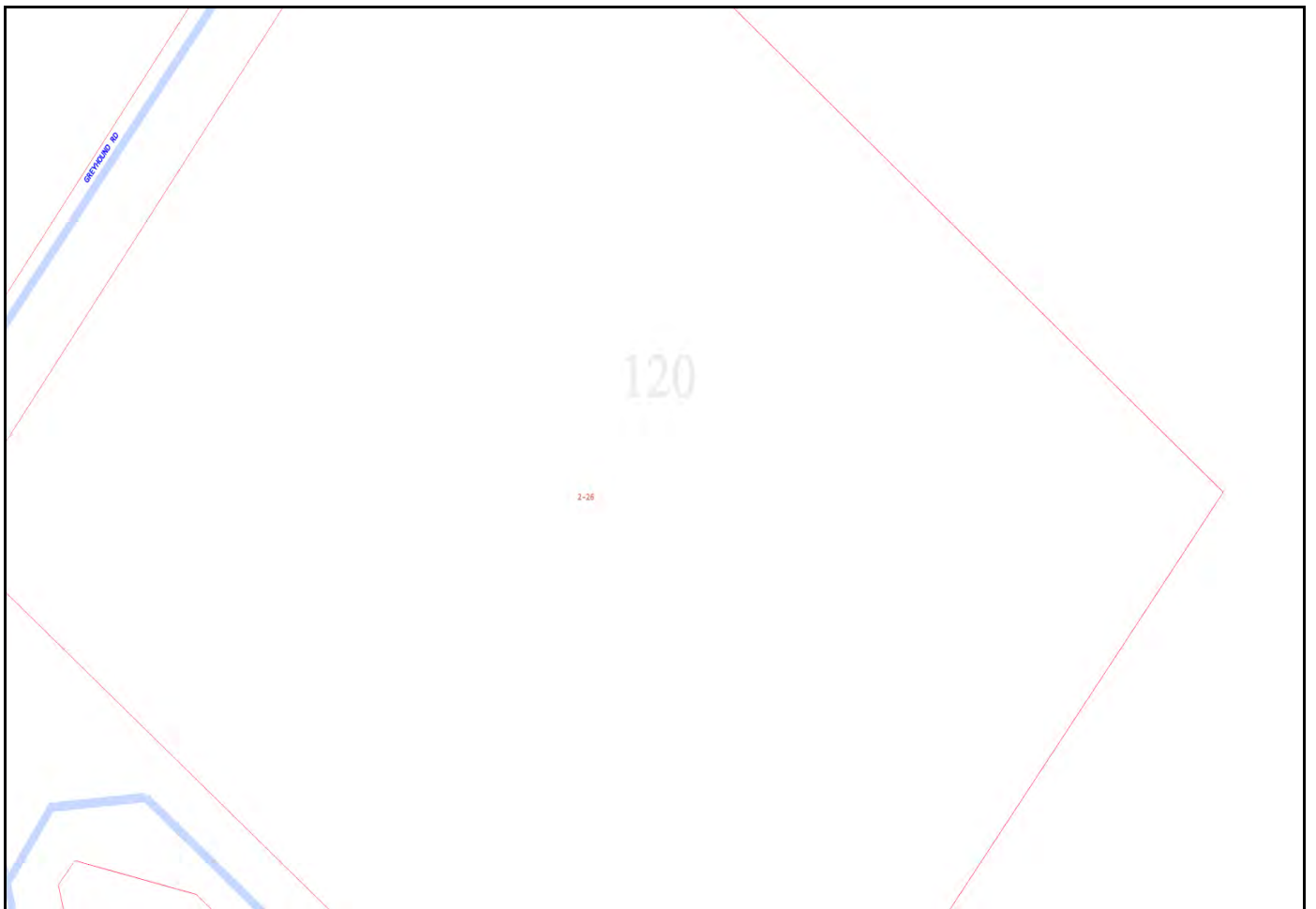
42-52



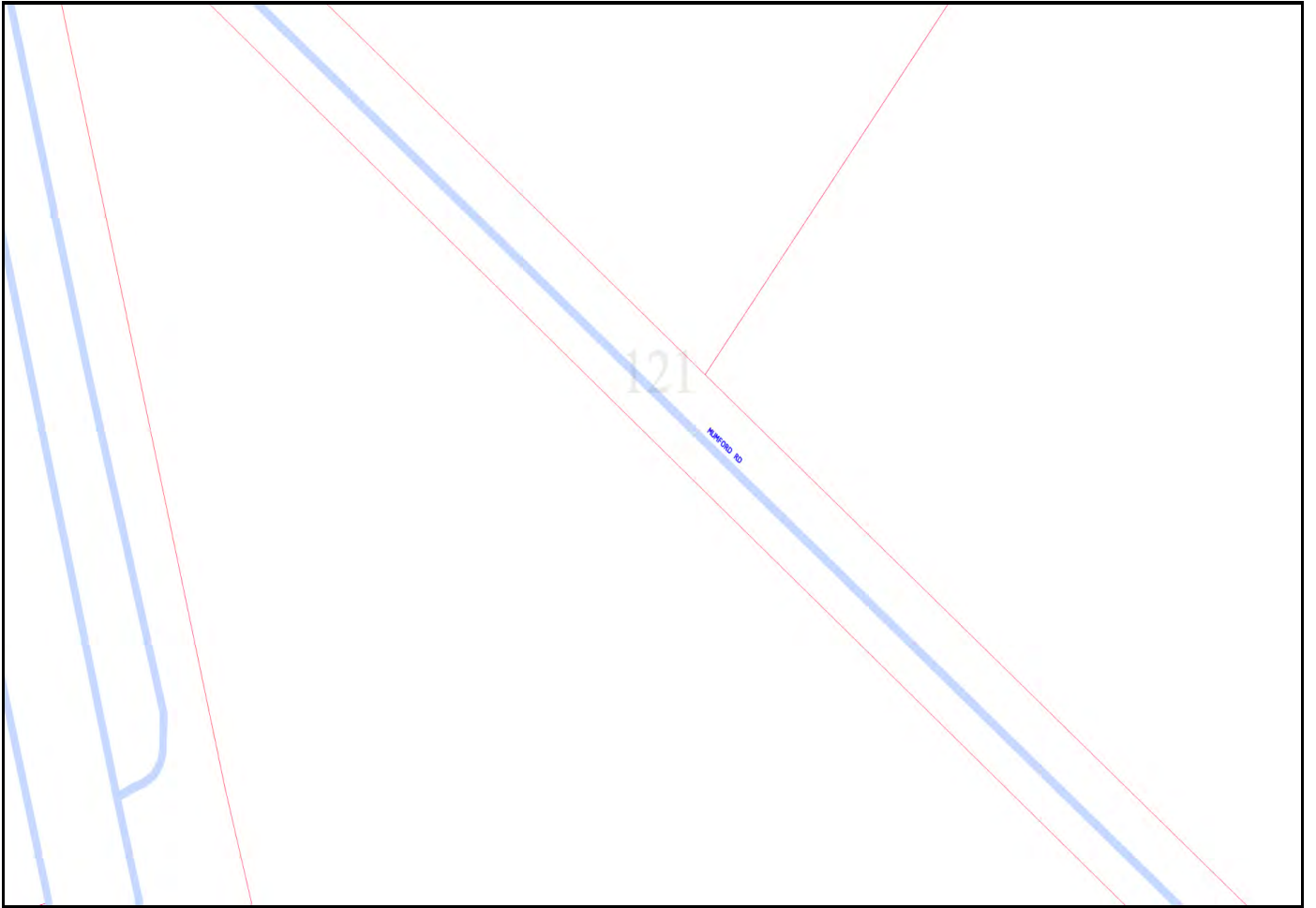


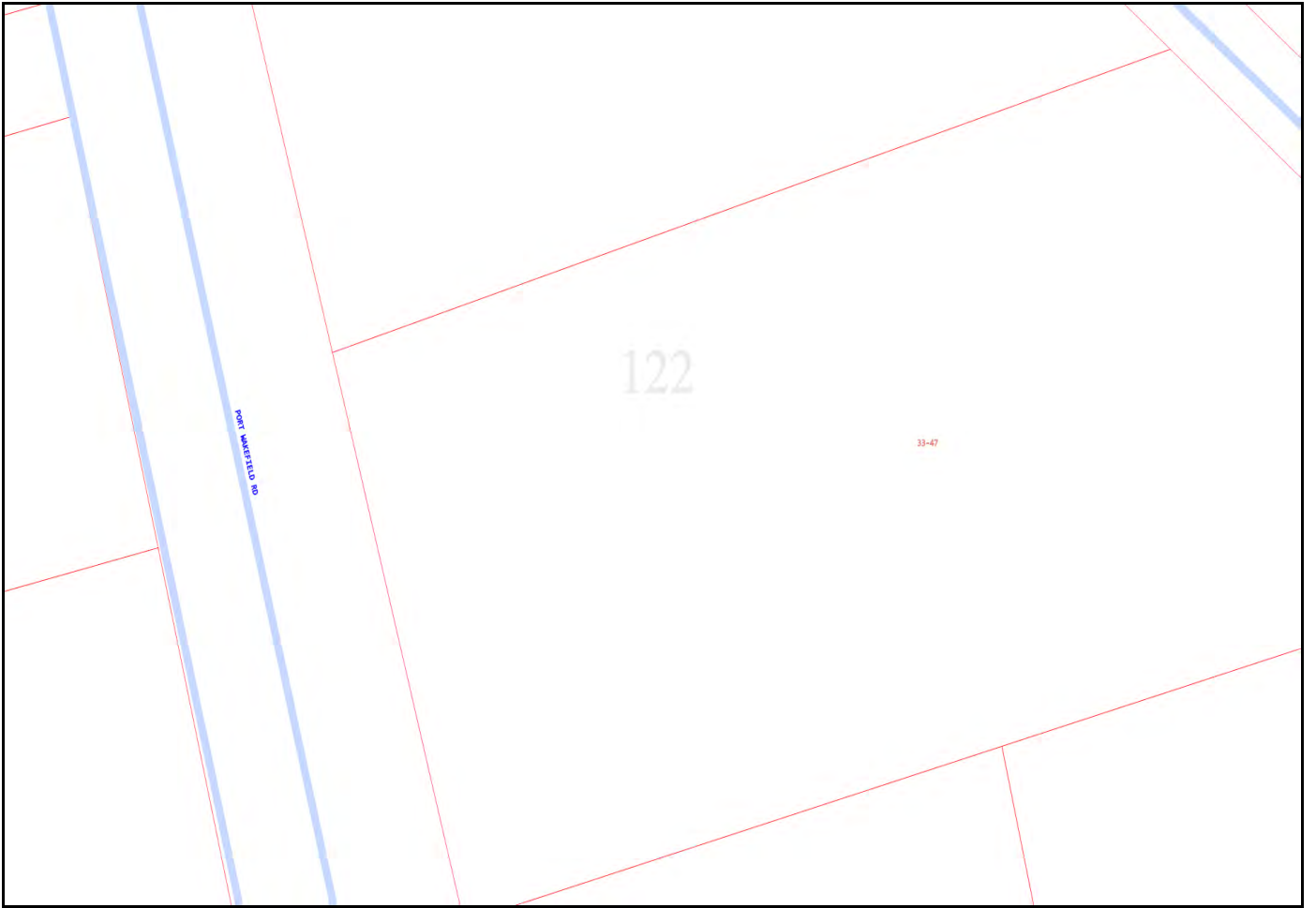
## Emergency Contacts

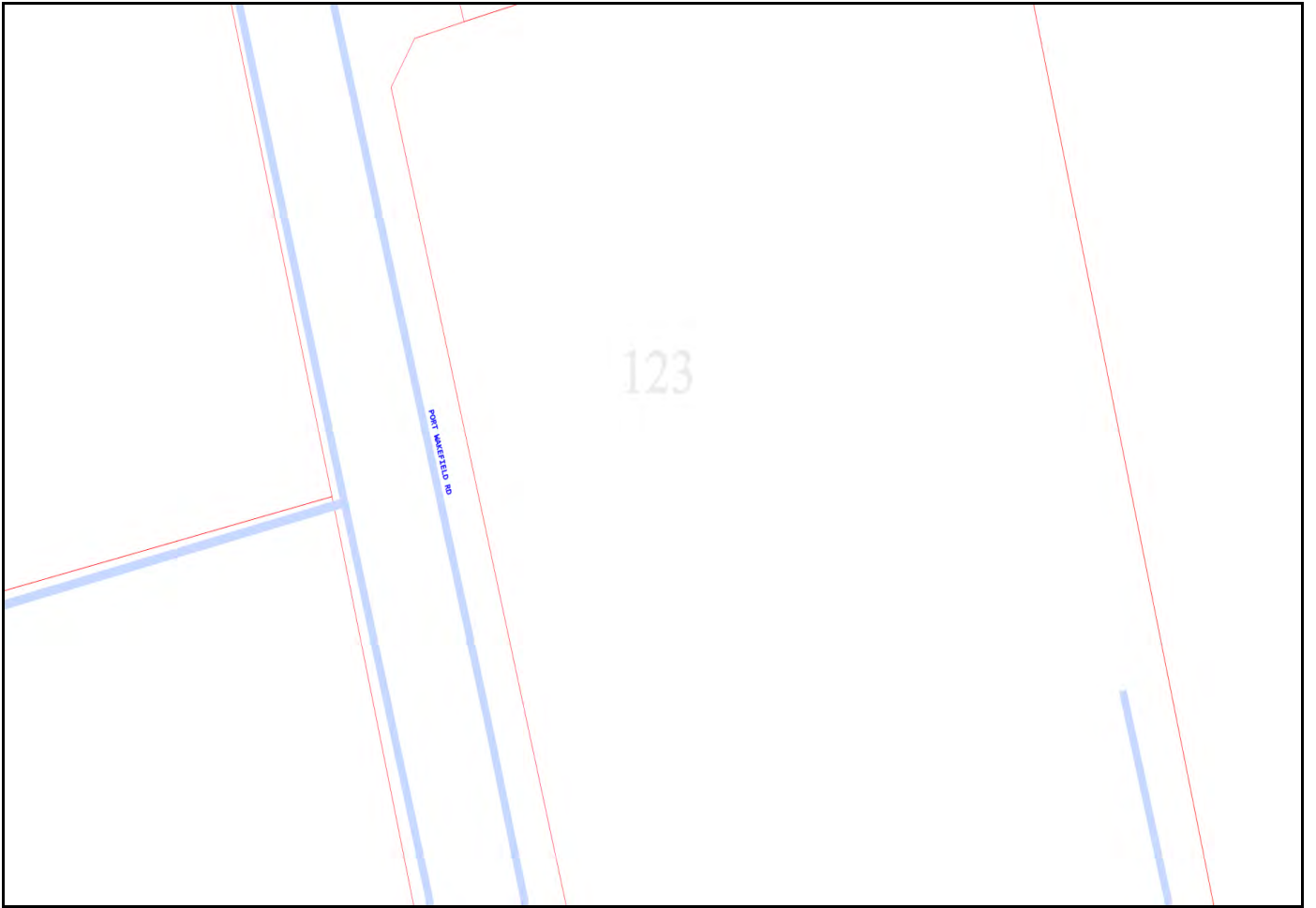
You must immediately report any damage to the **nbn**<sup>TM</sup> network that you are/become aware of. Notification may be by telephone - 1800 626 329.

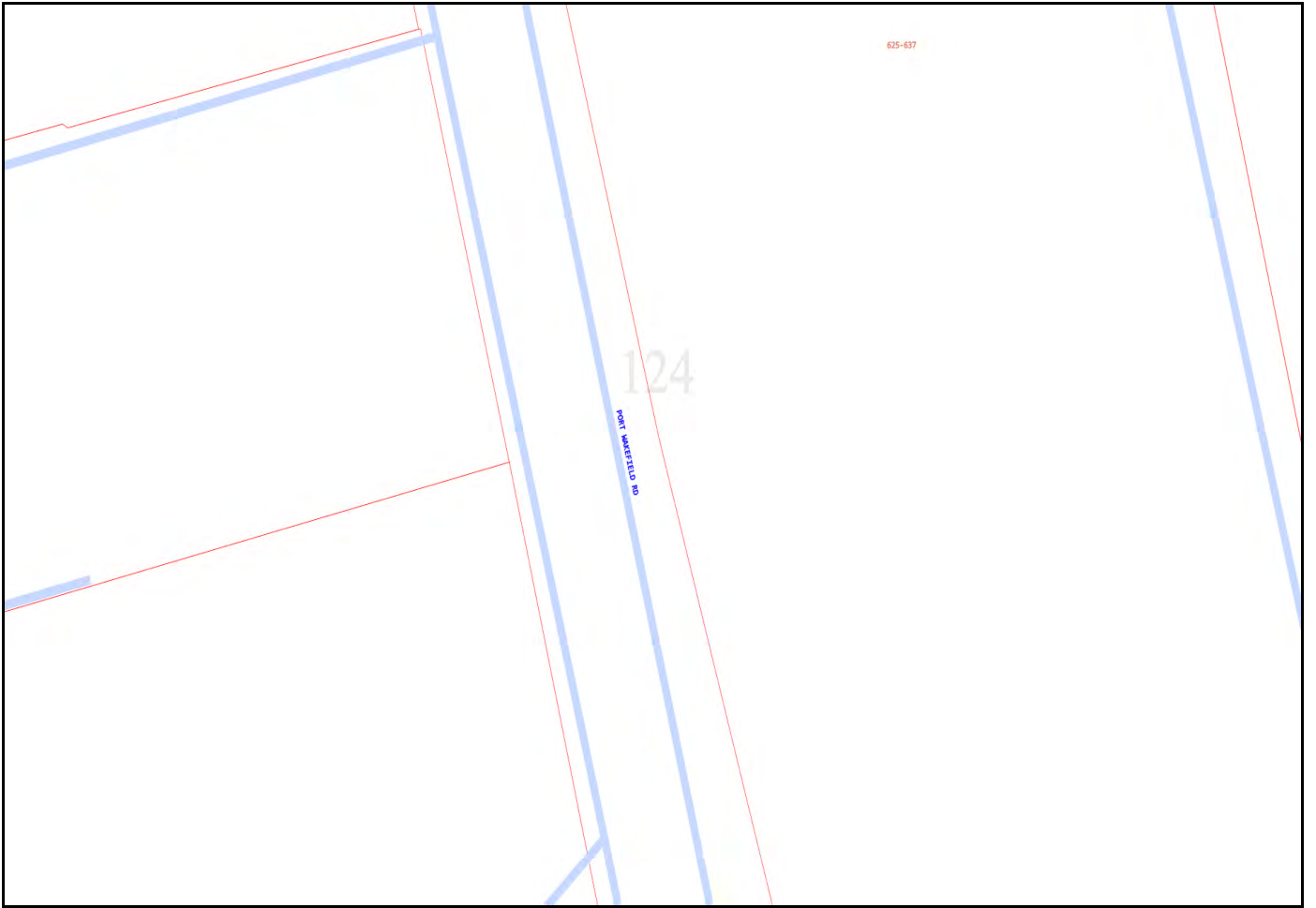


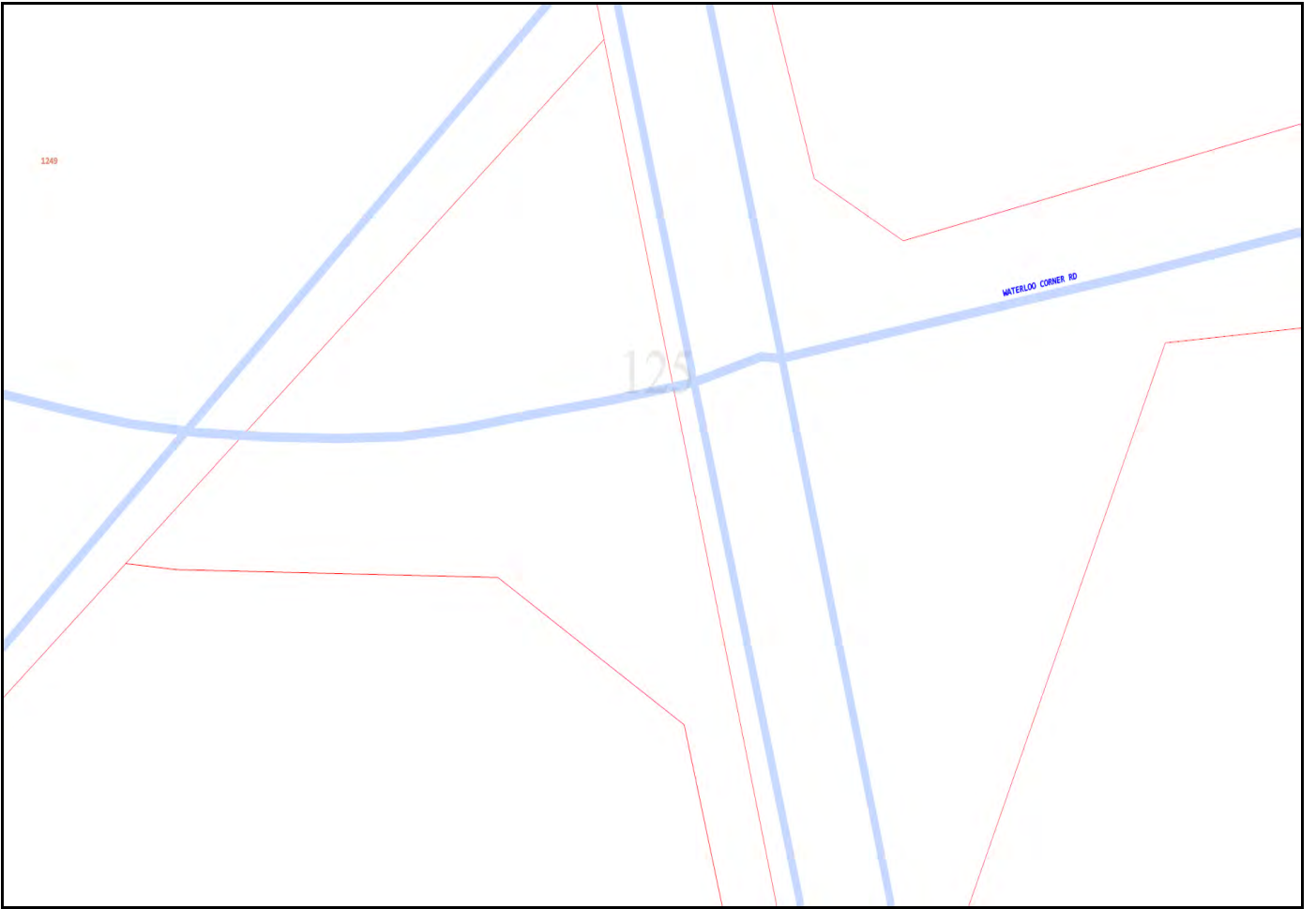


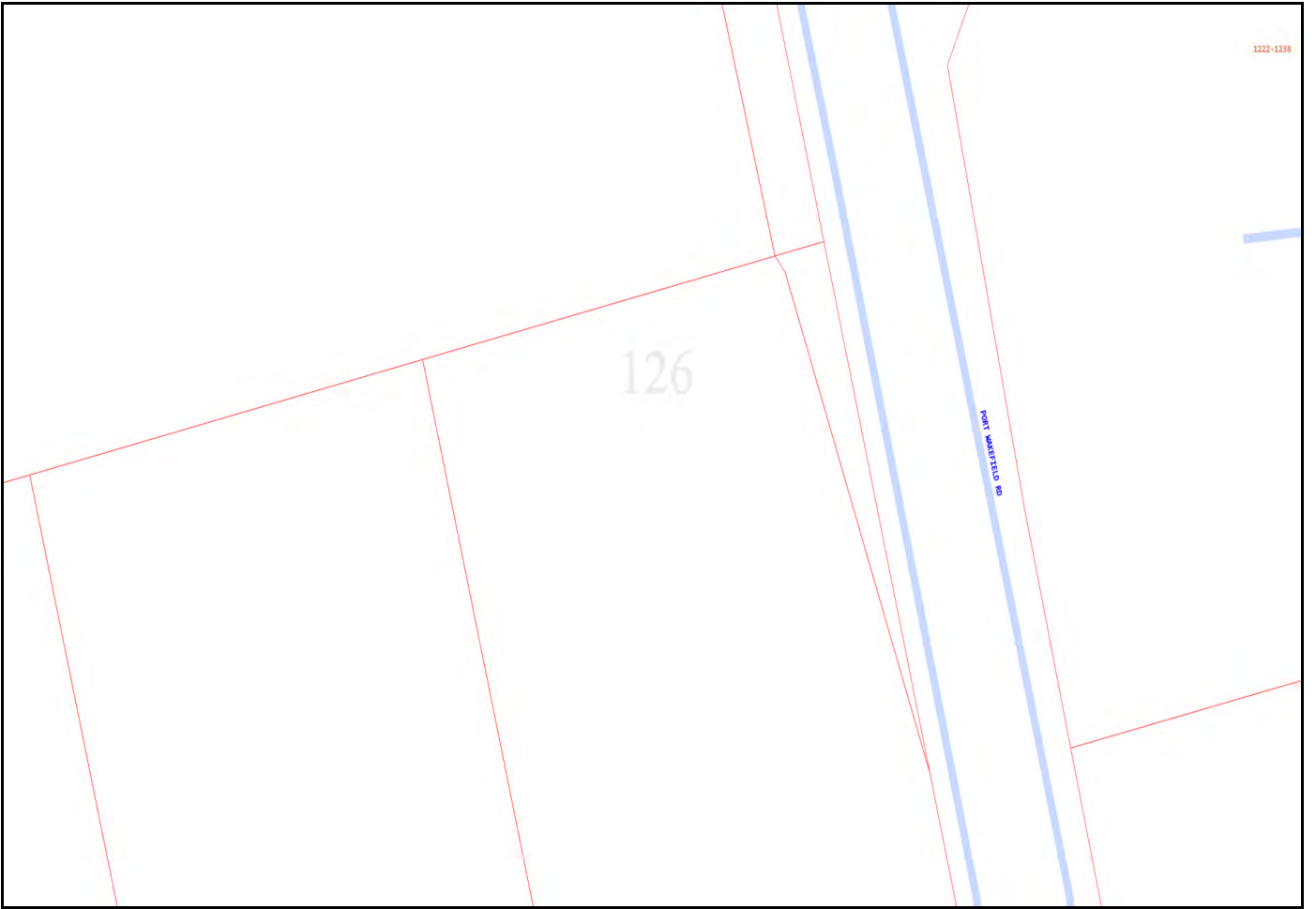




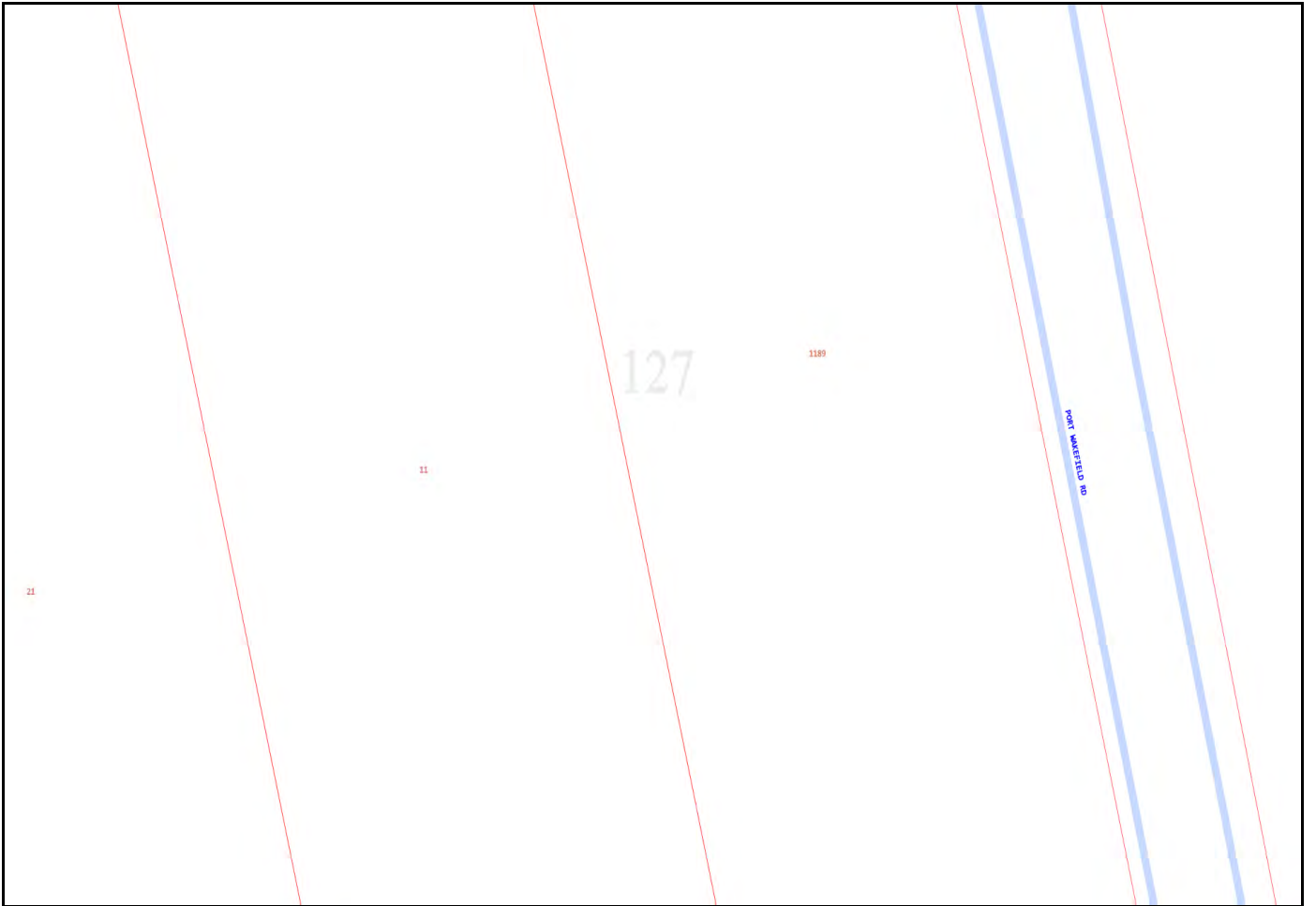


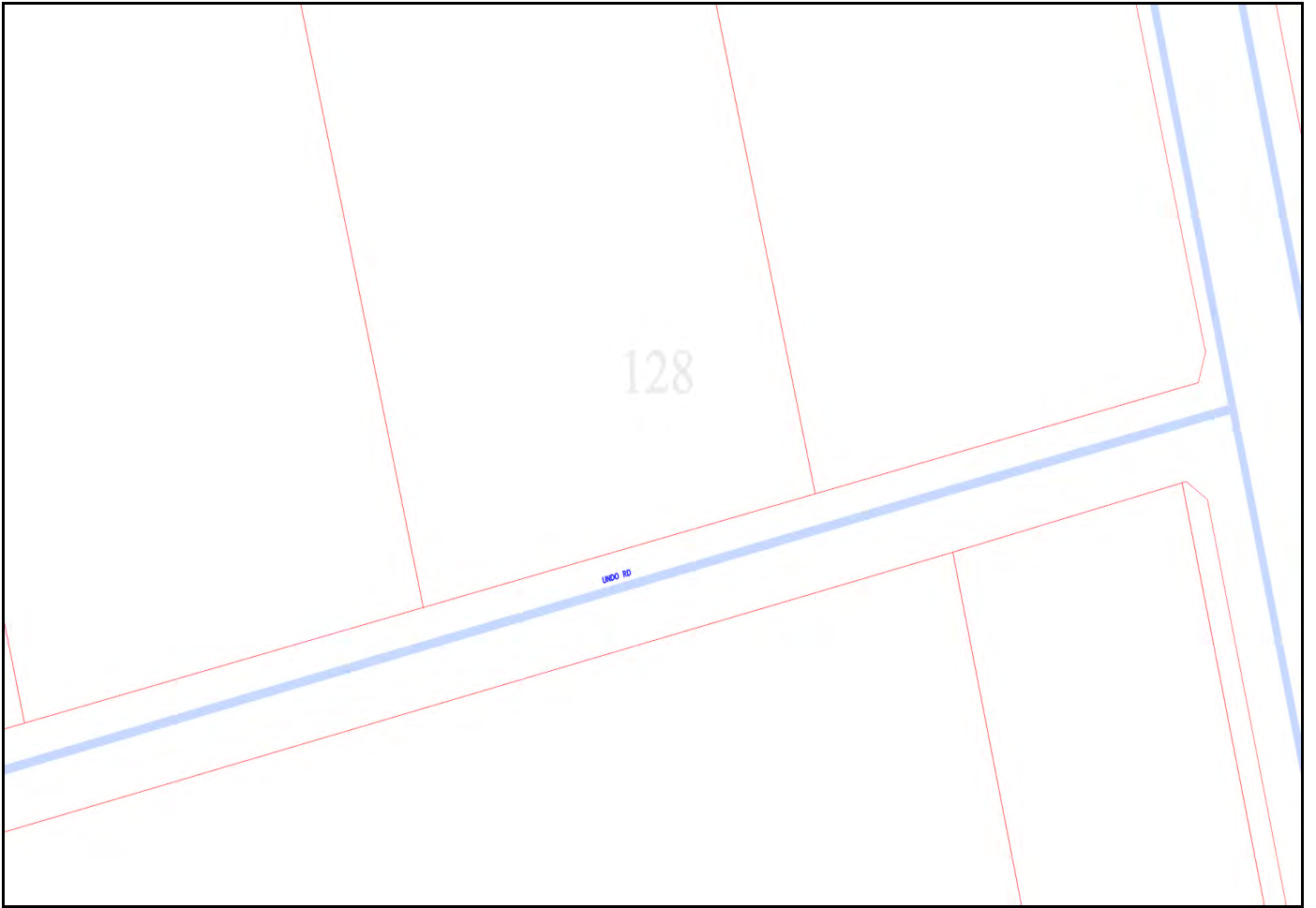


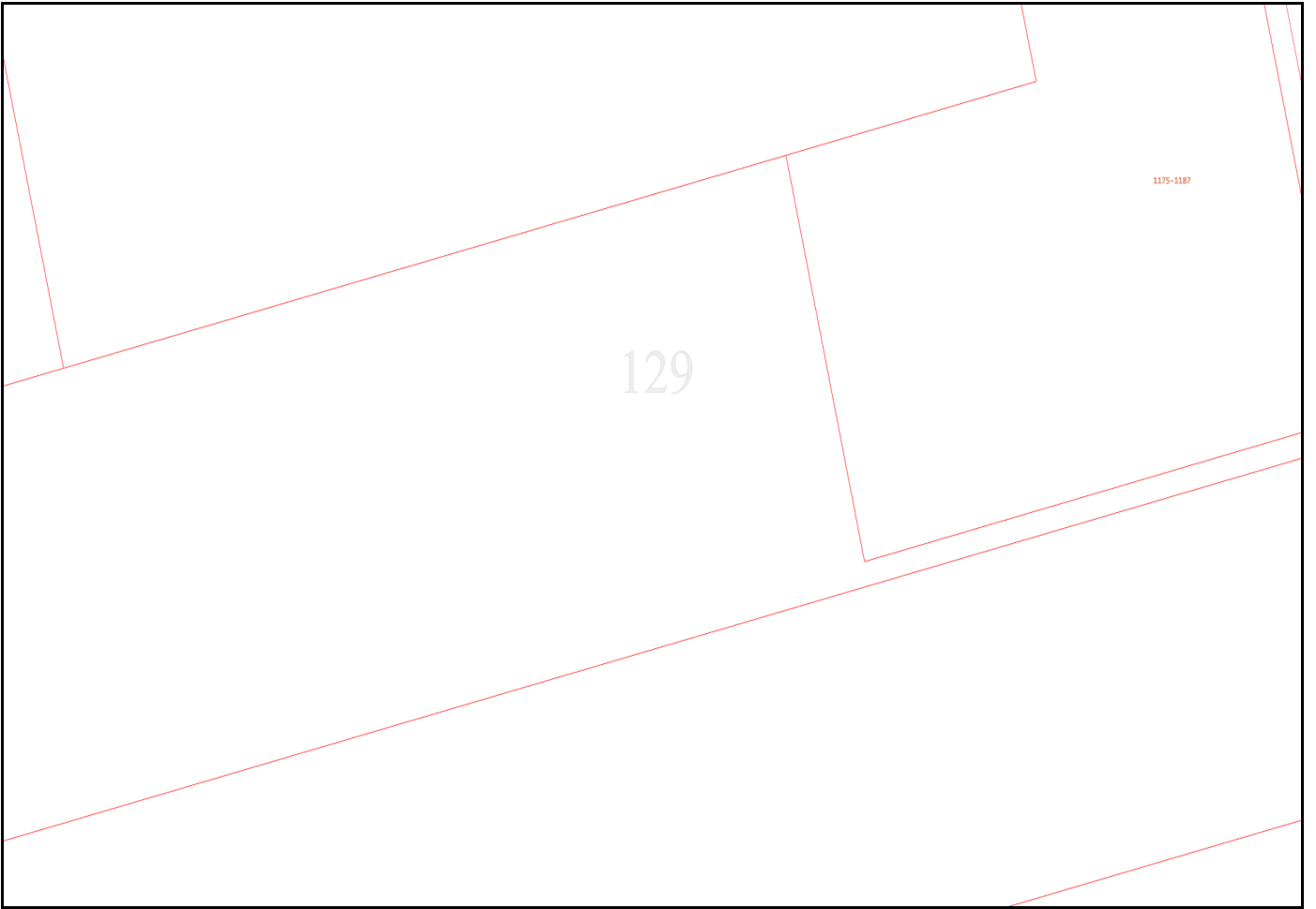


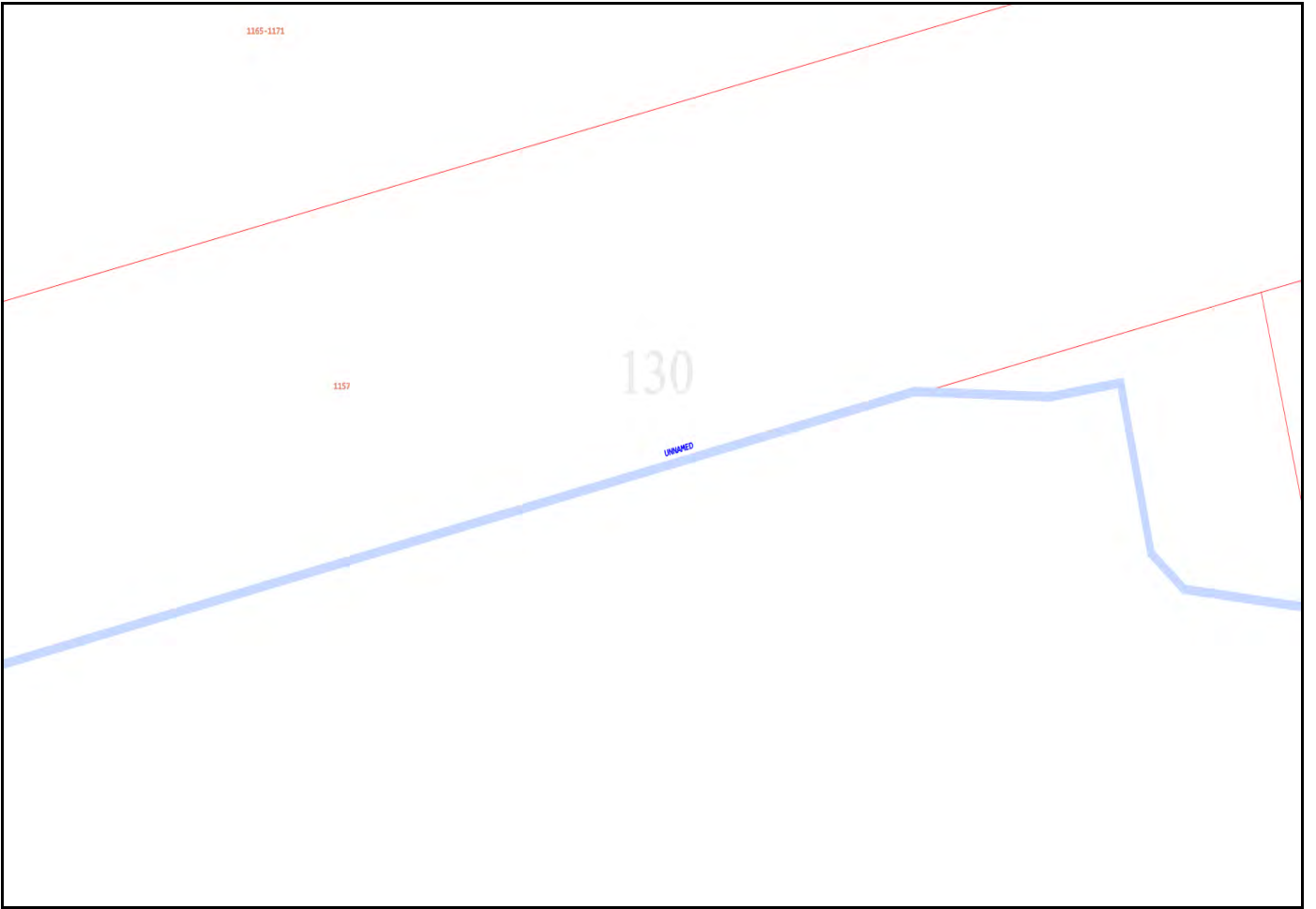








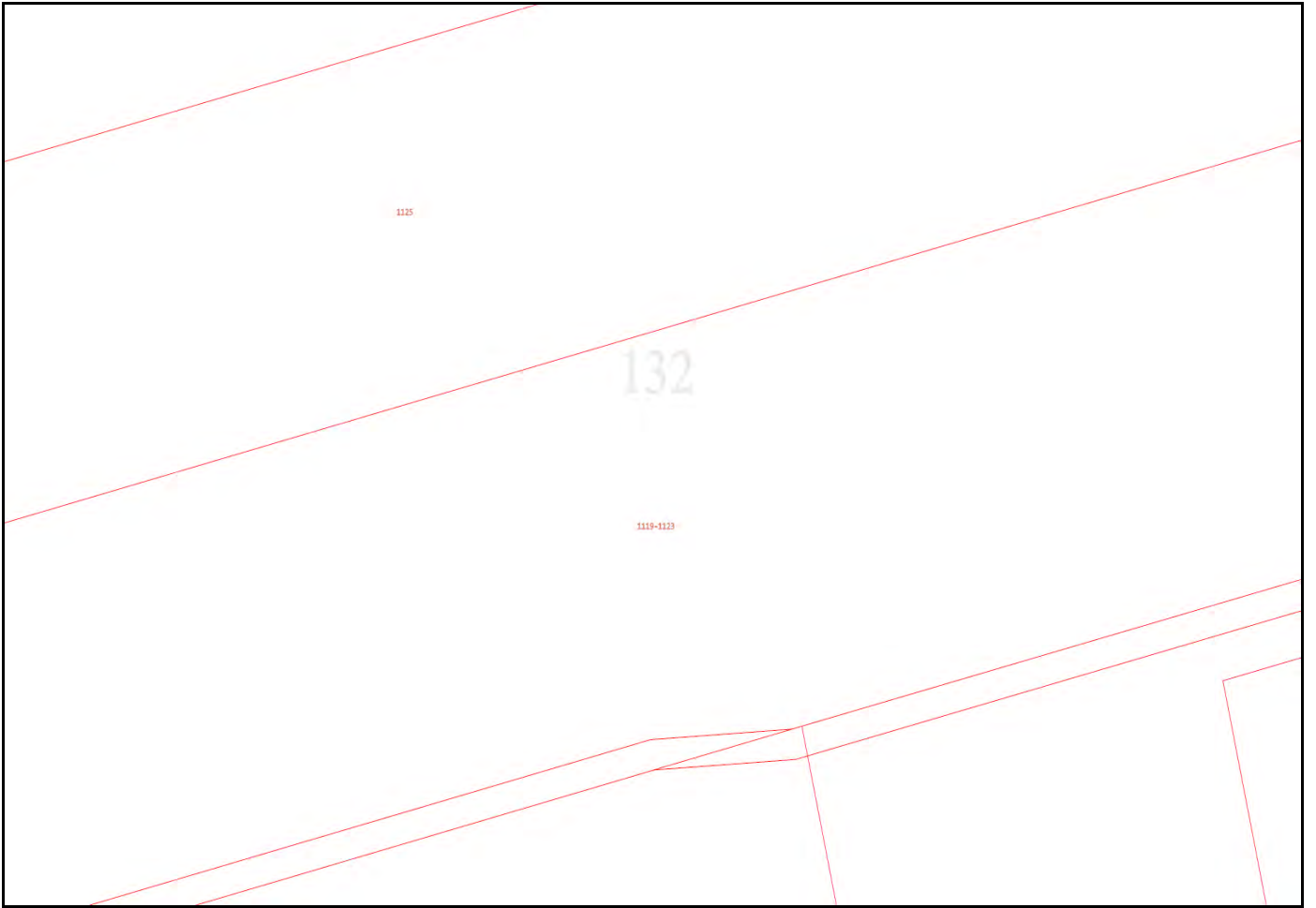


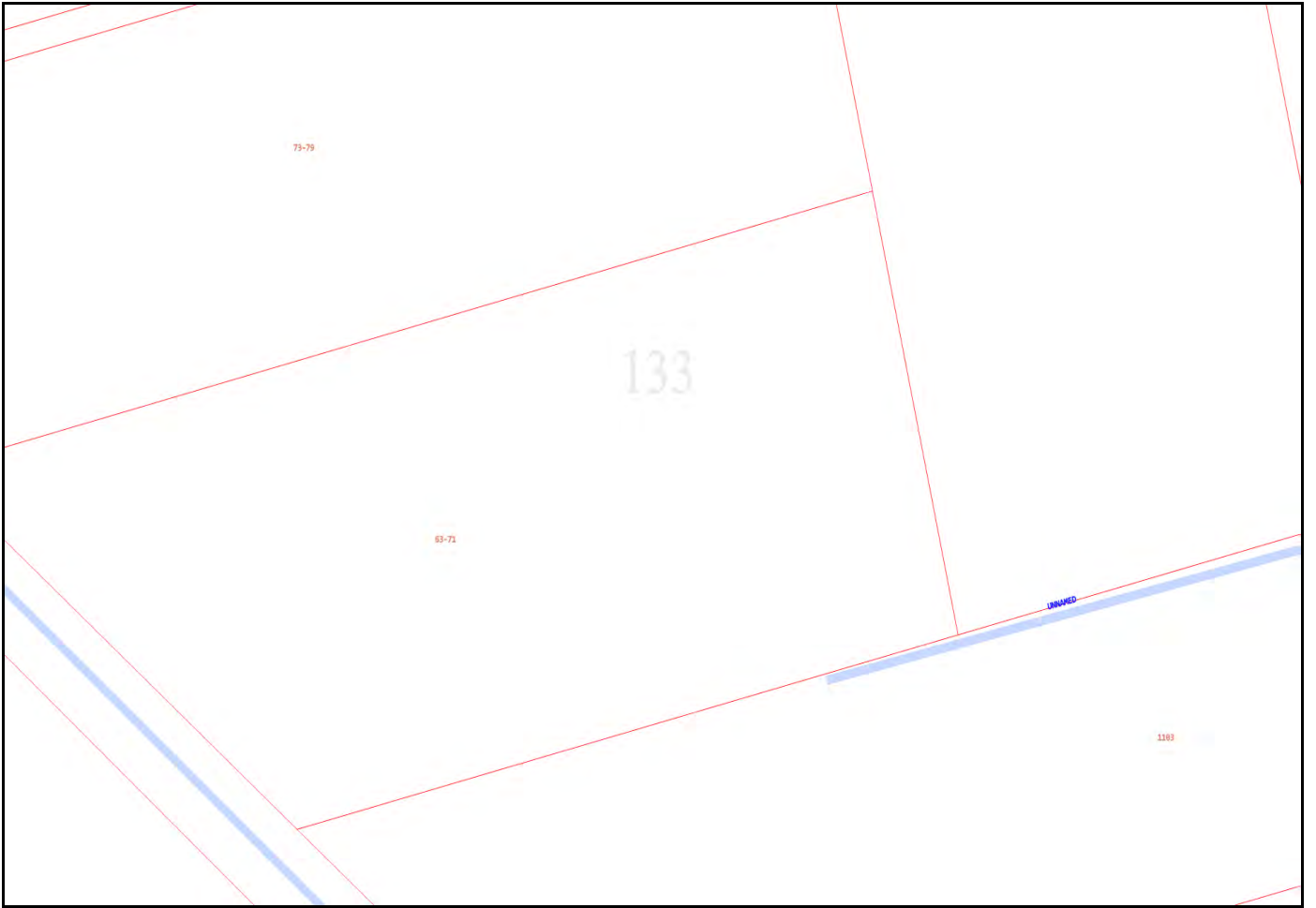


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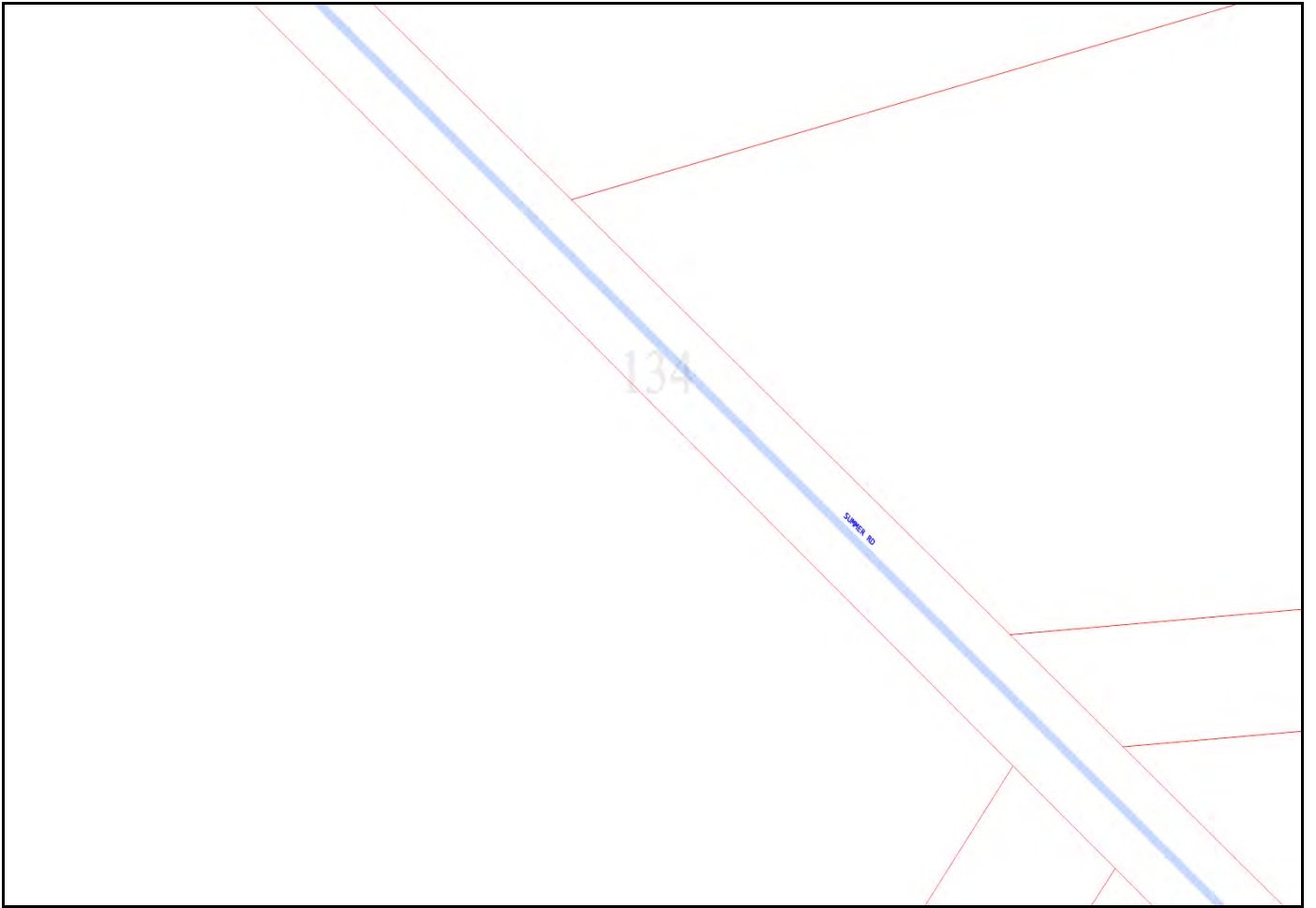
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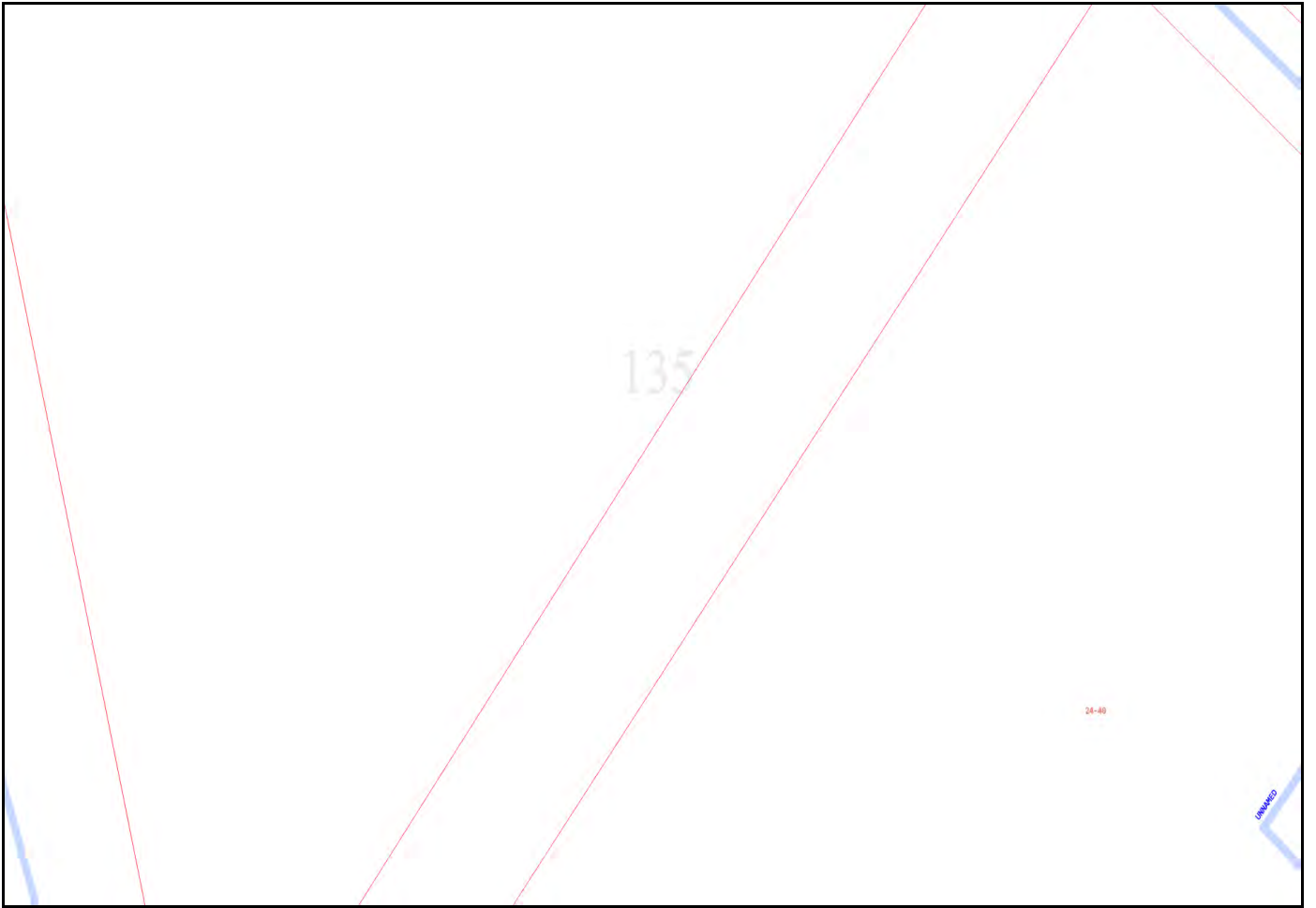
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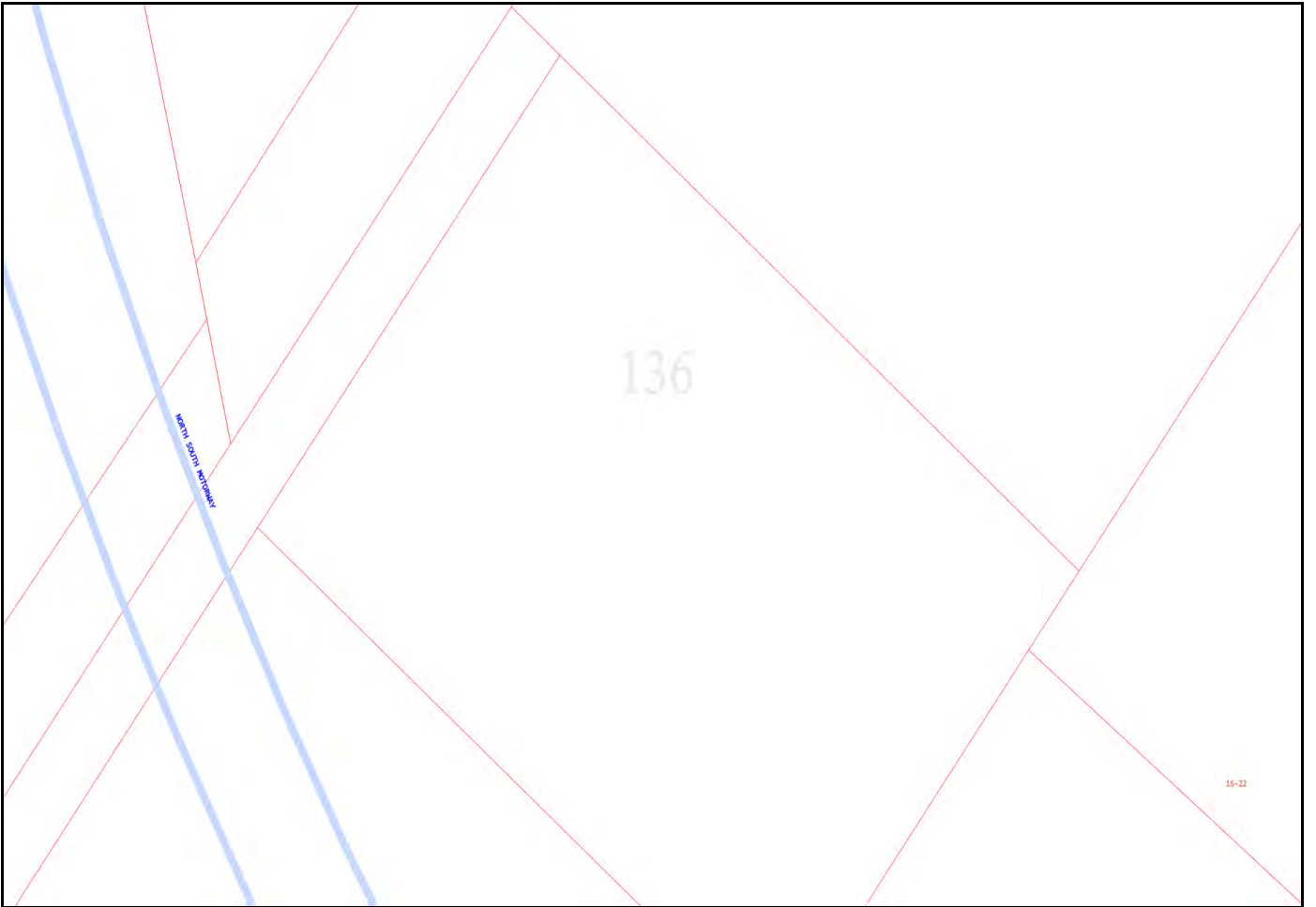


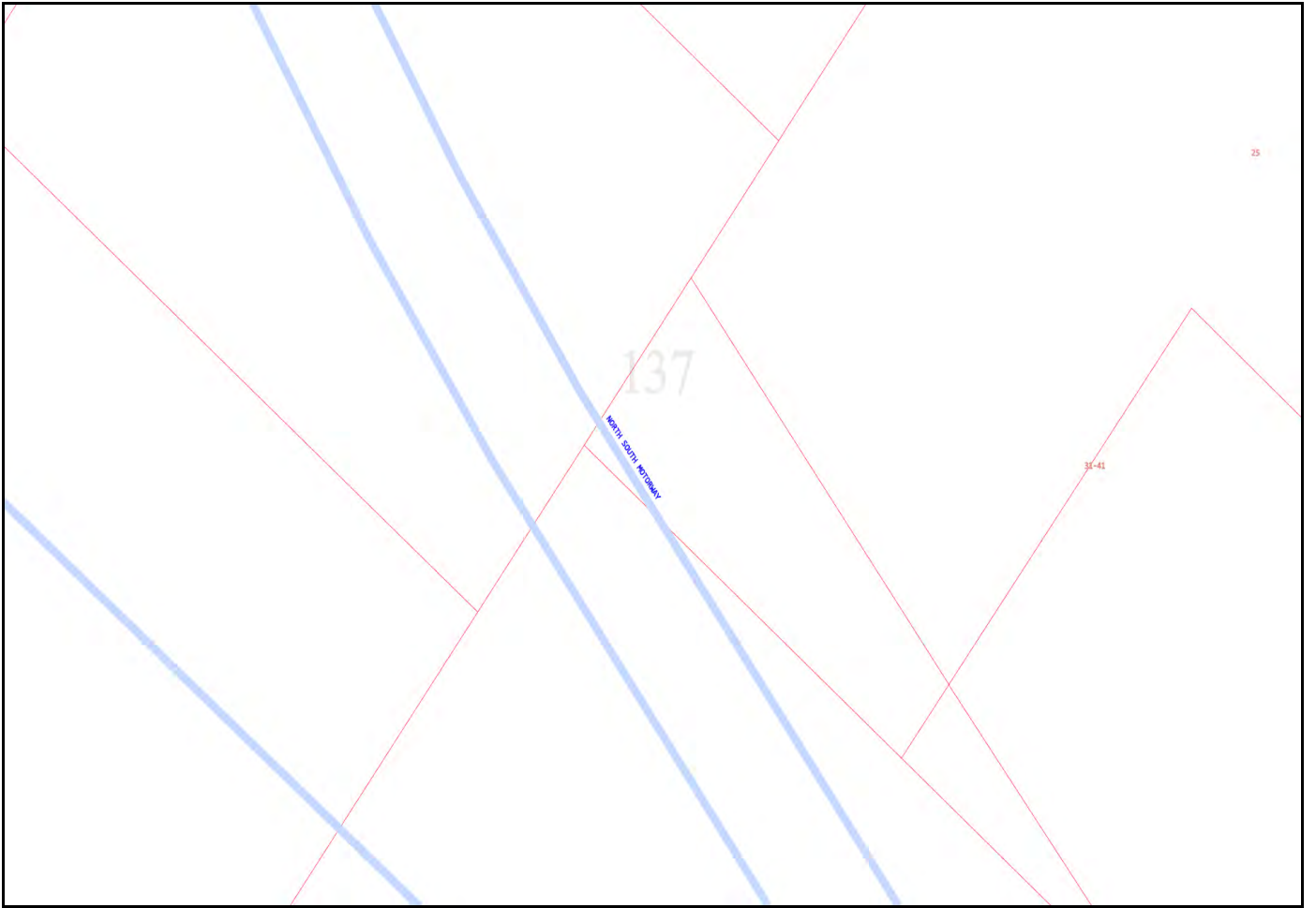


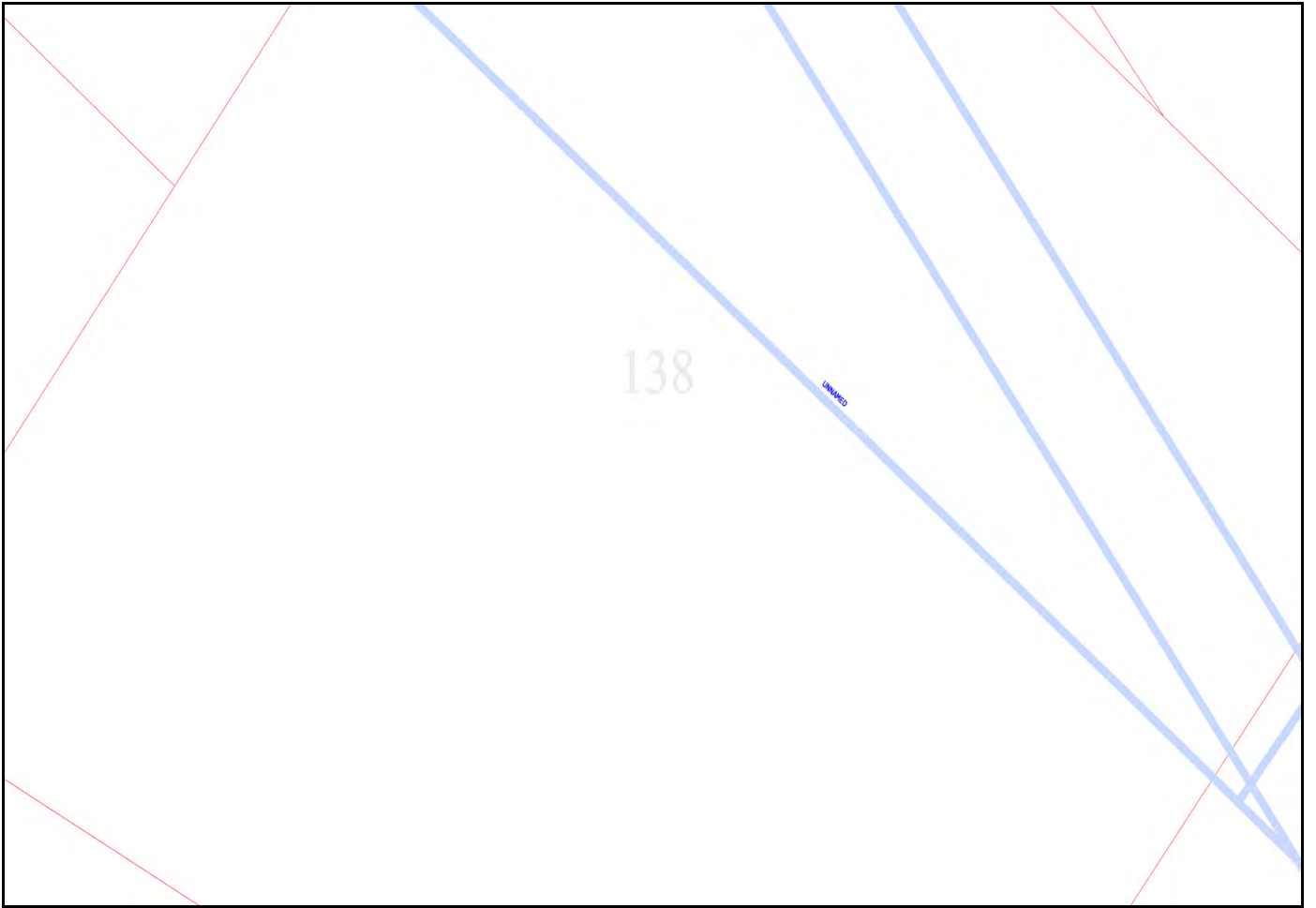


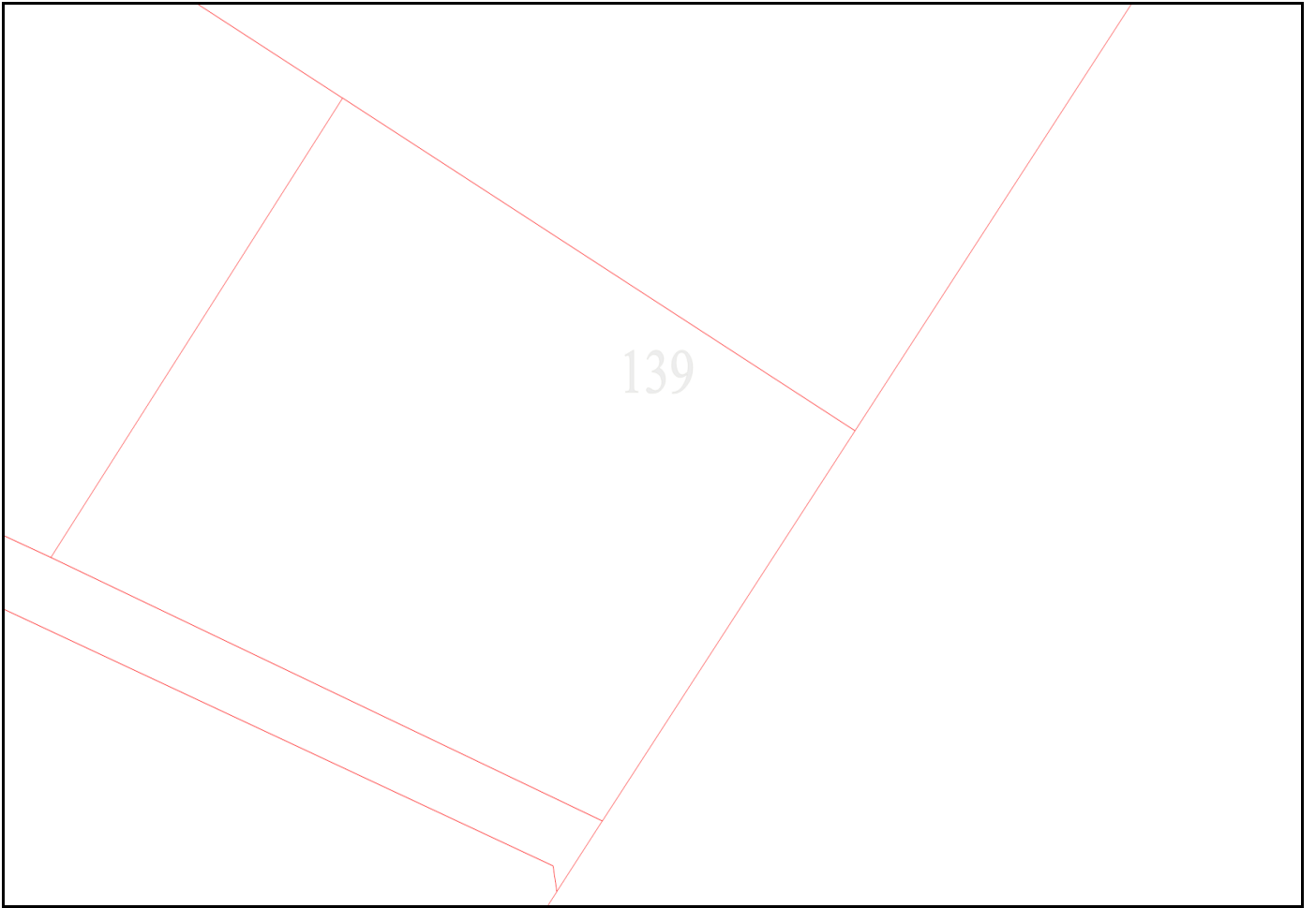


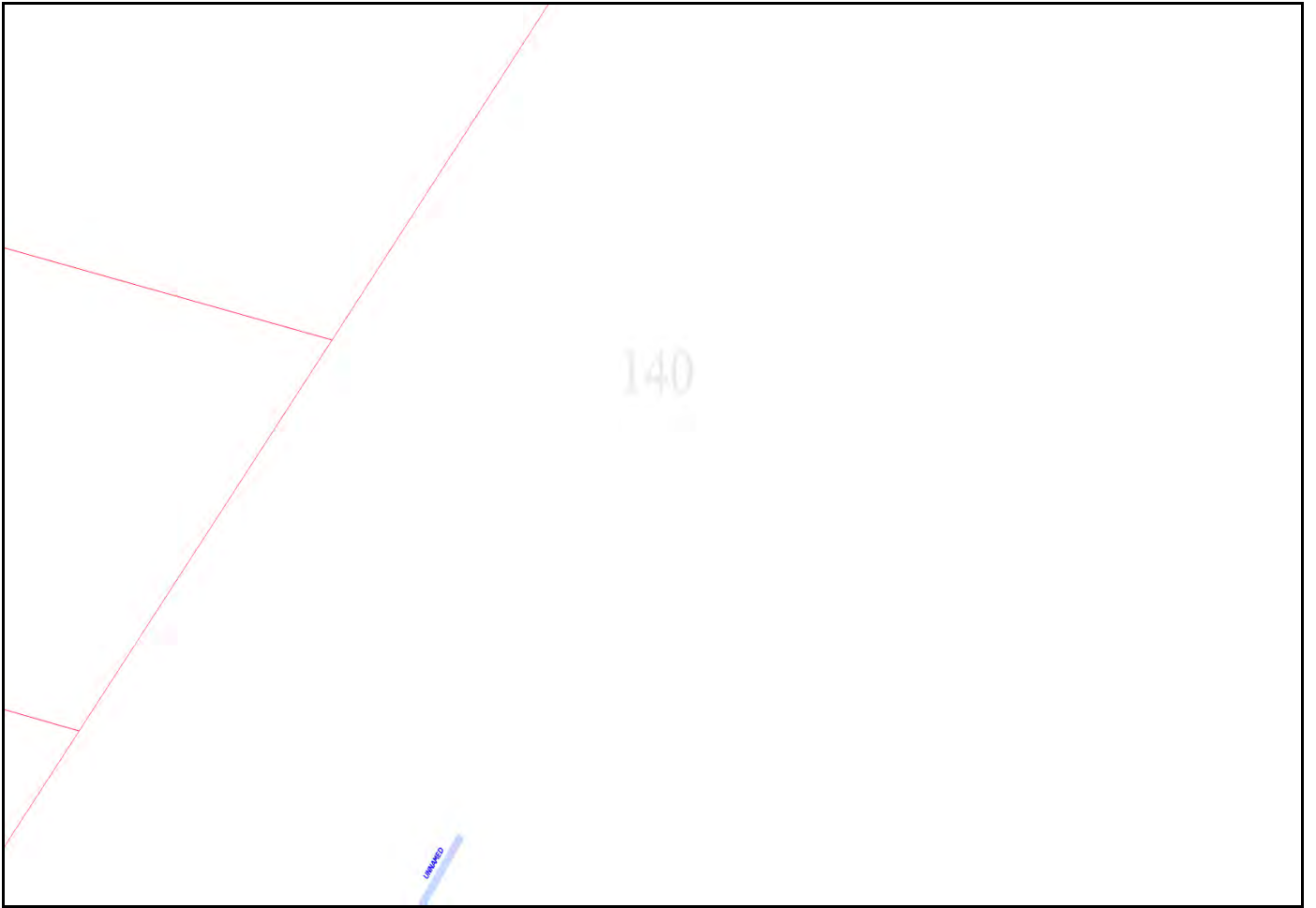




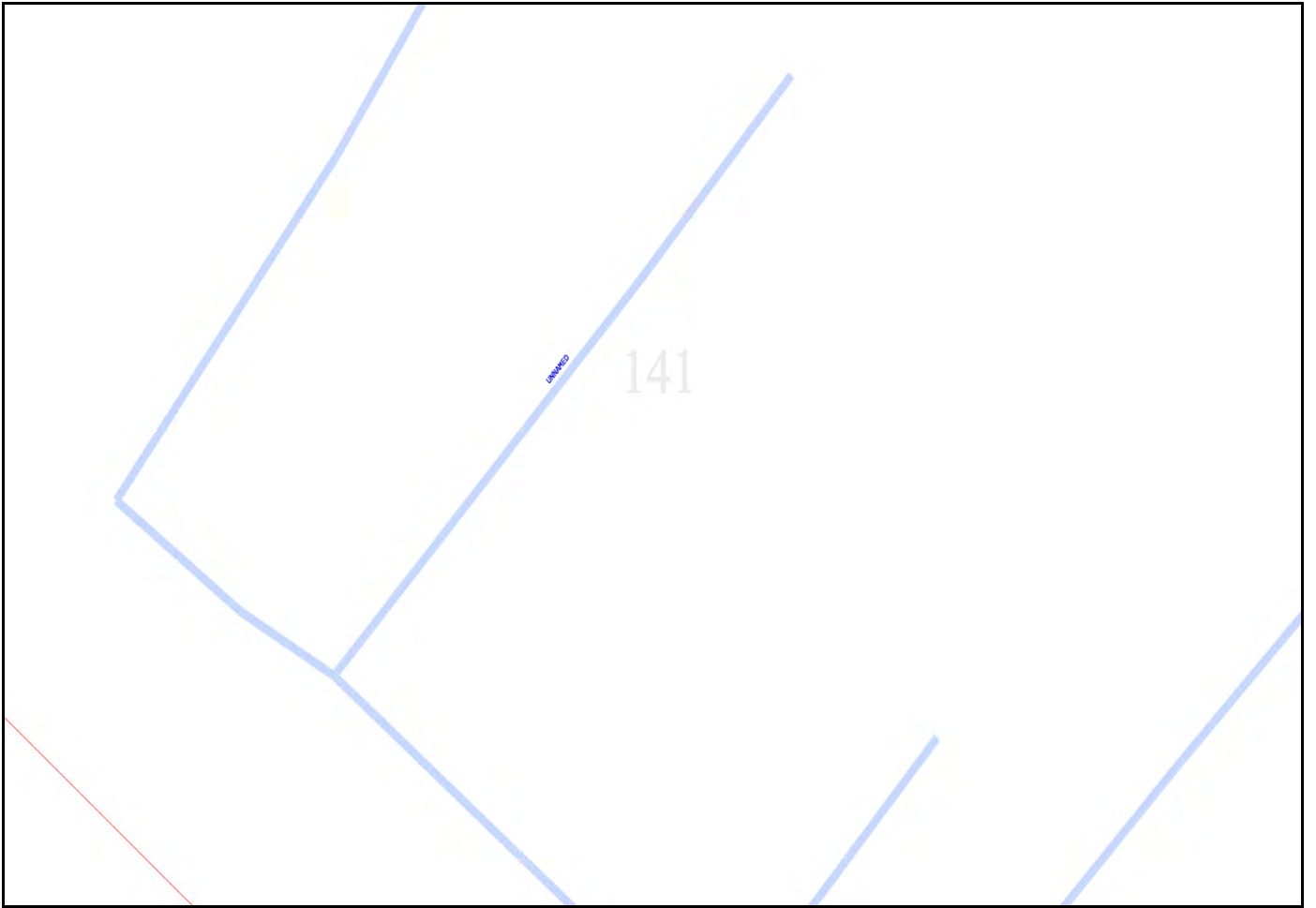


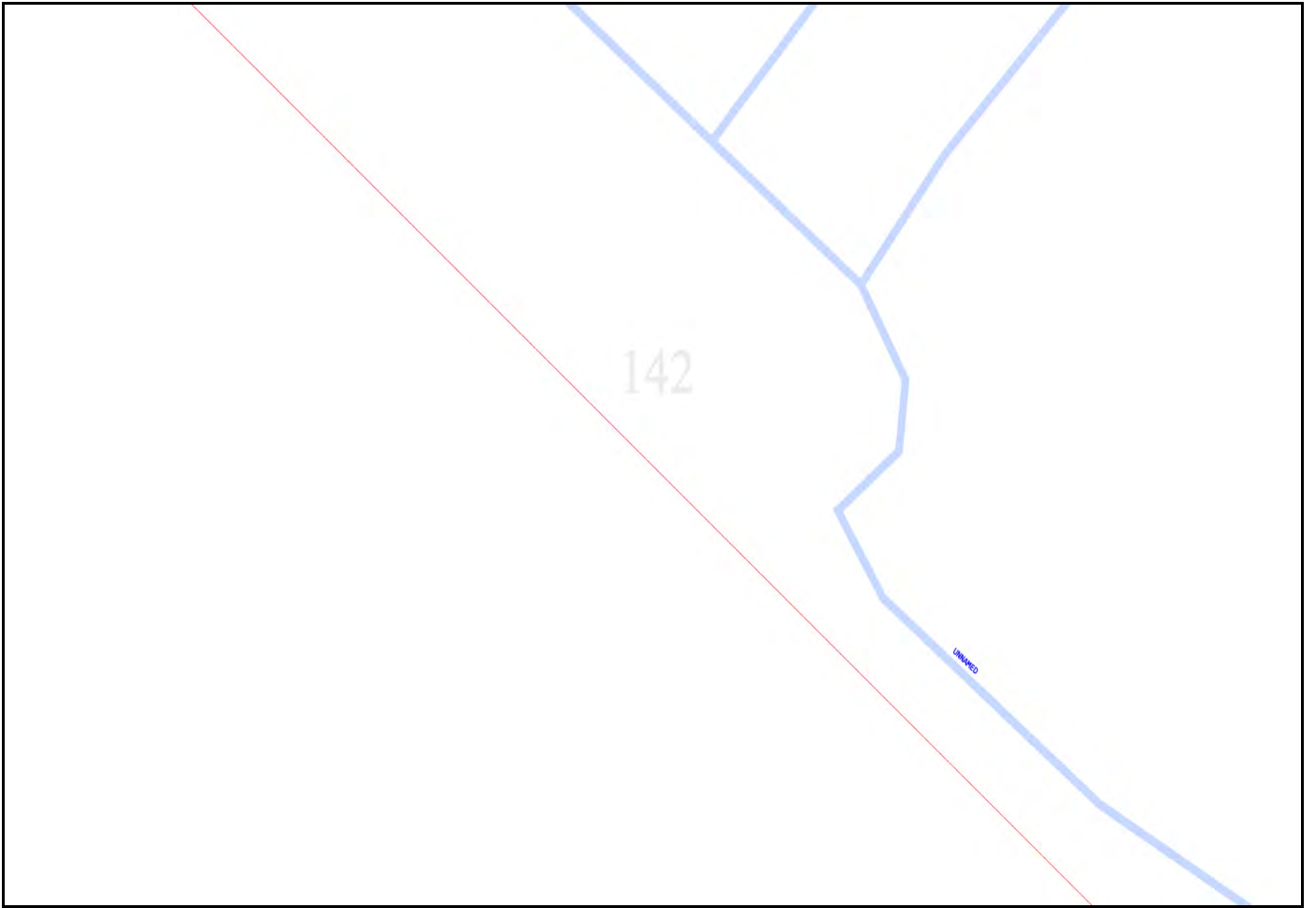




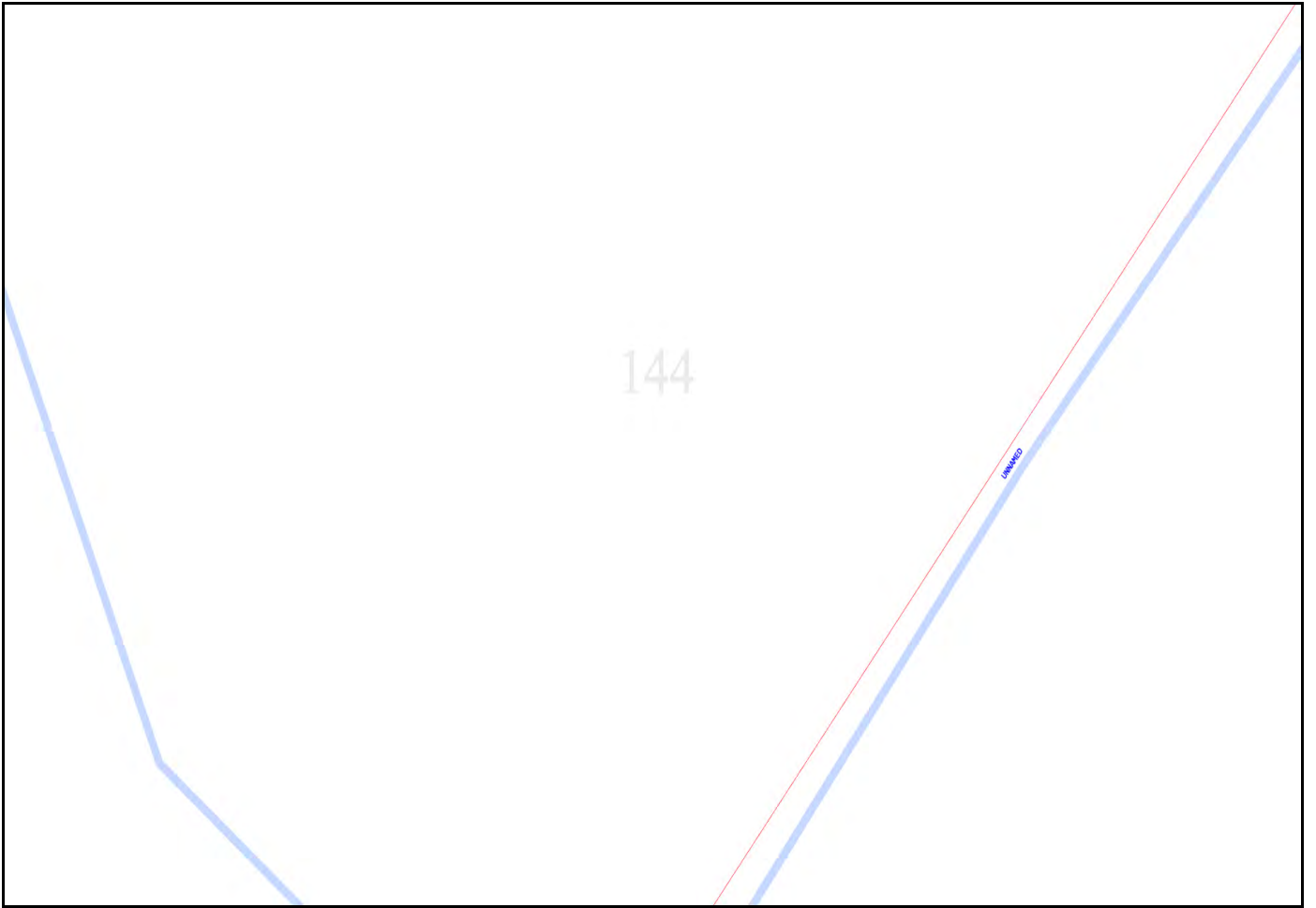


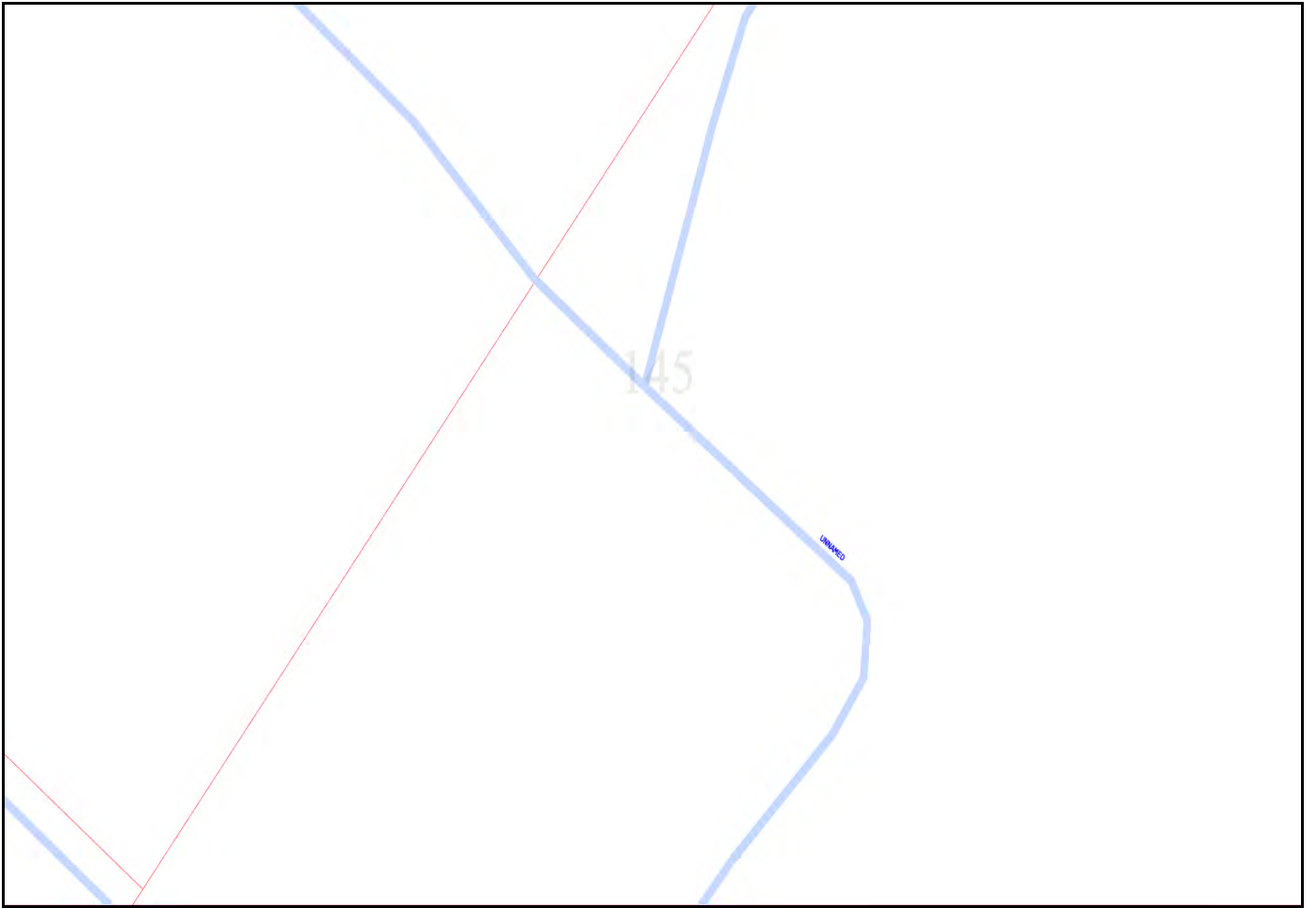


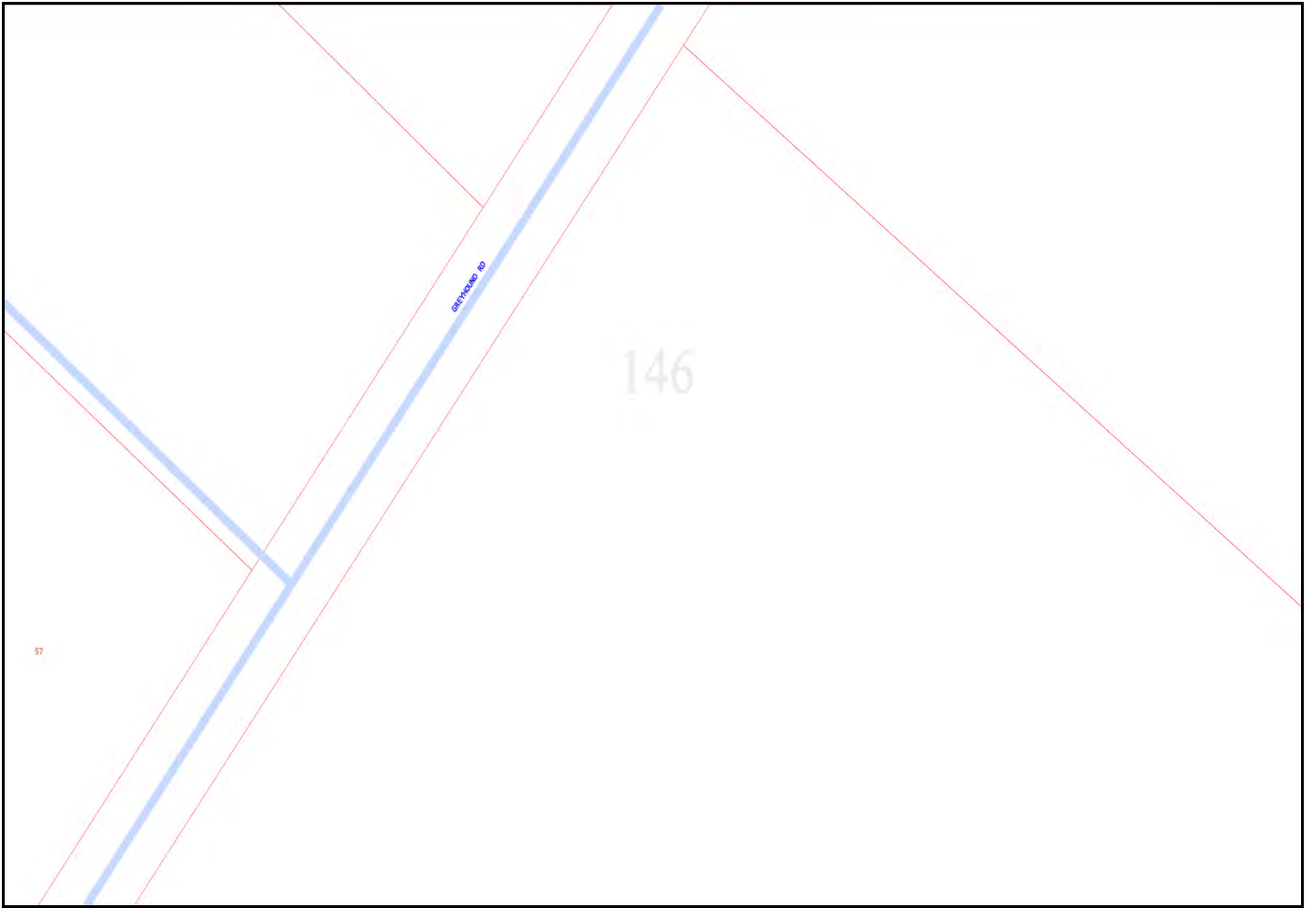


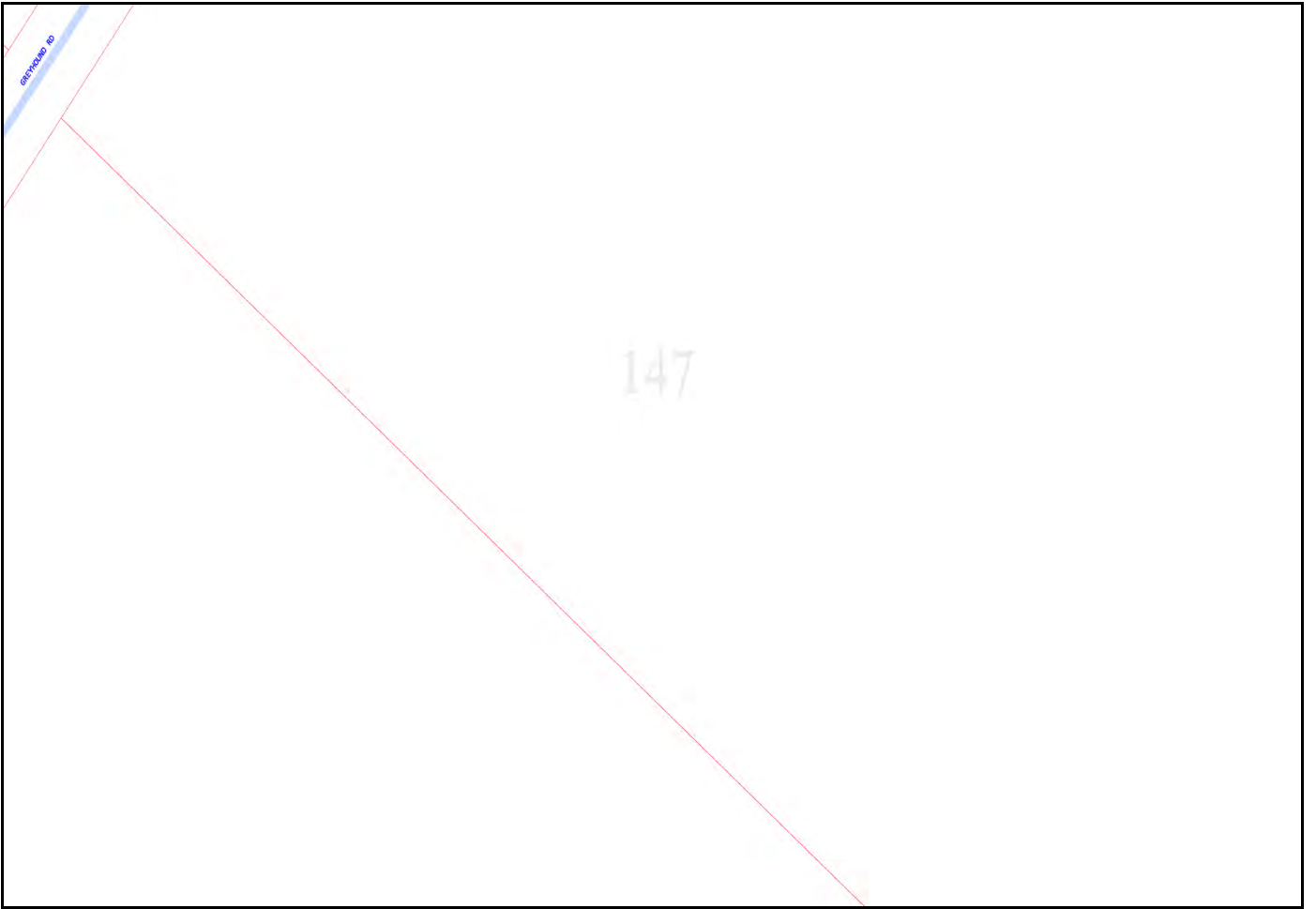


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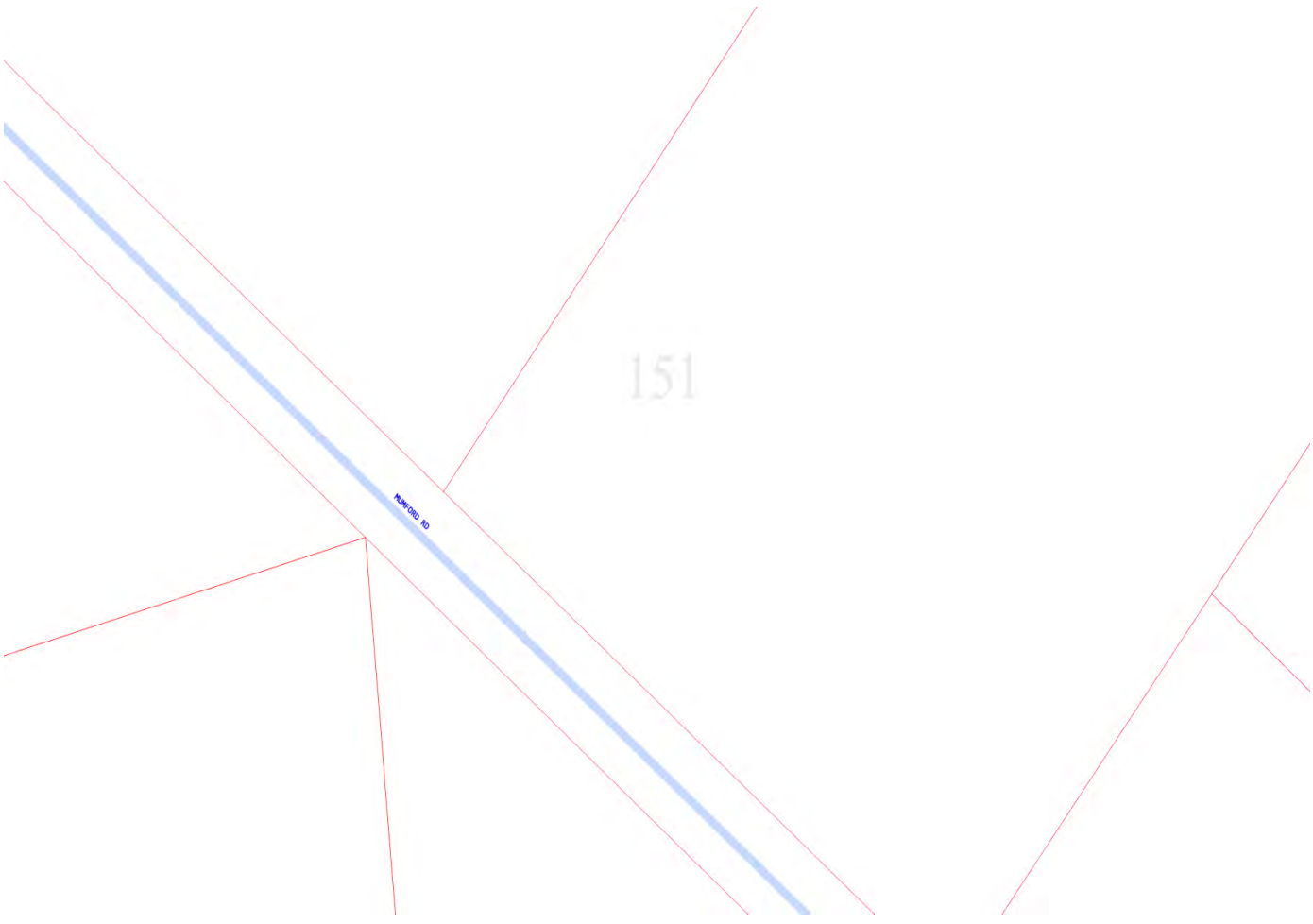
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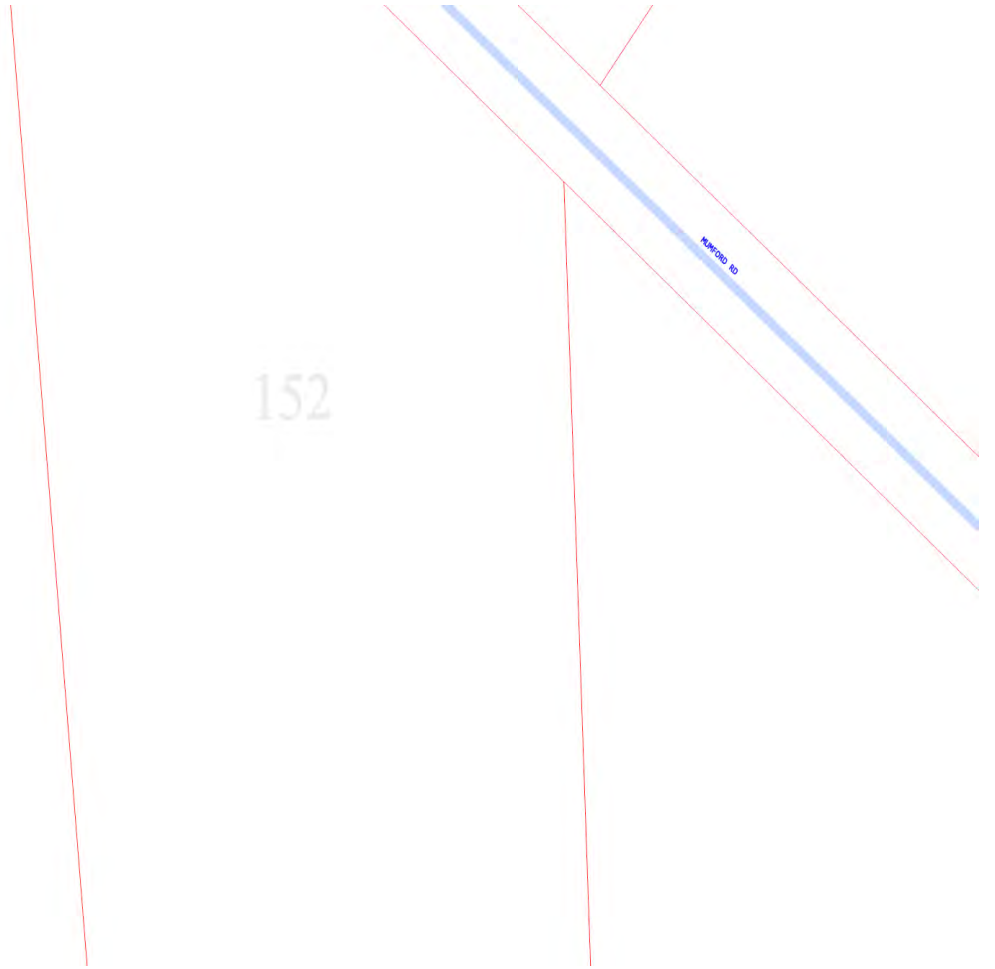
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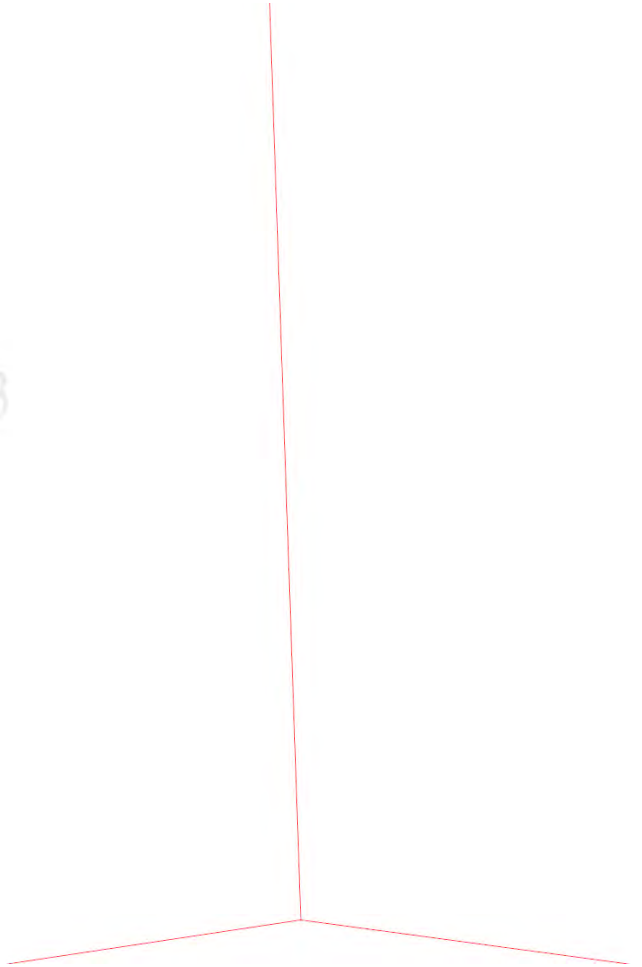


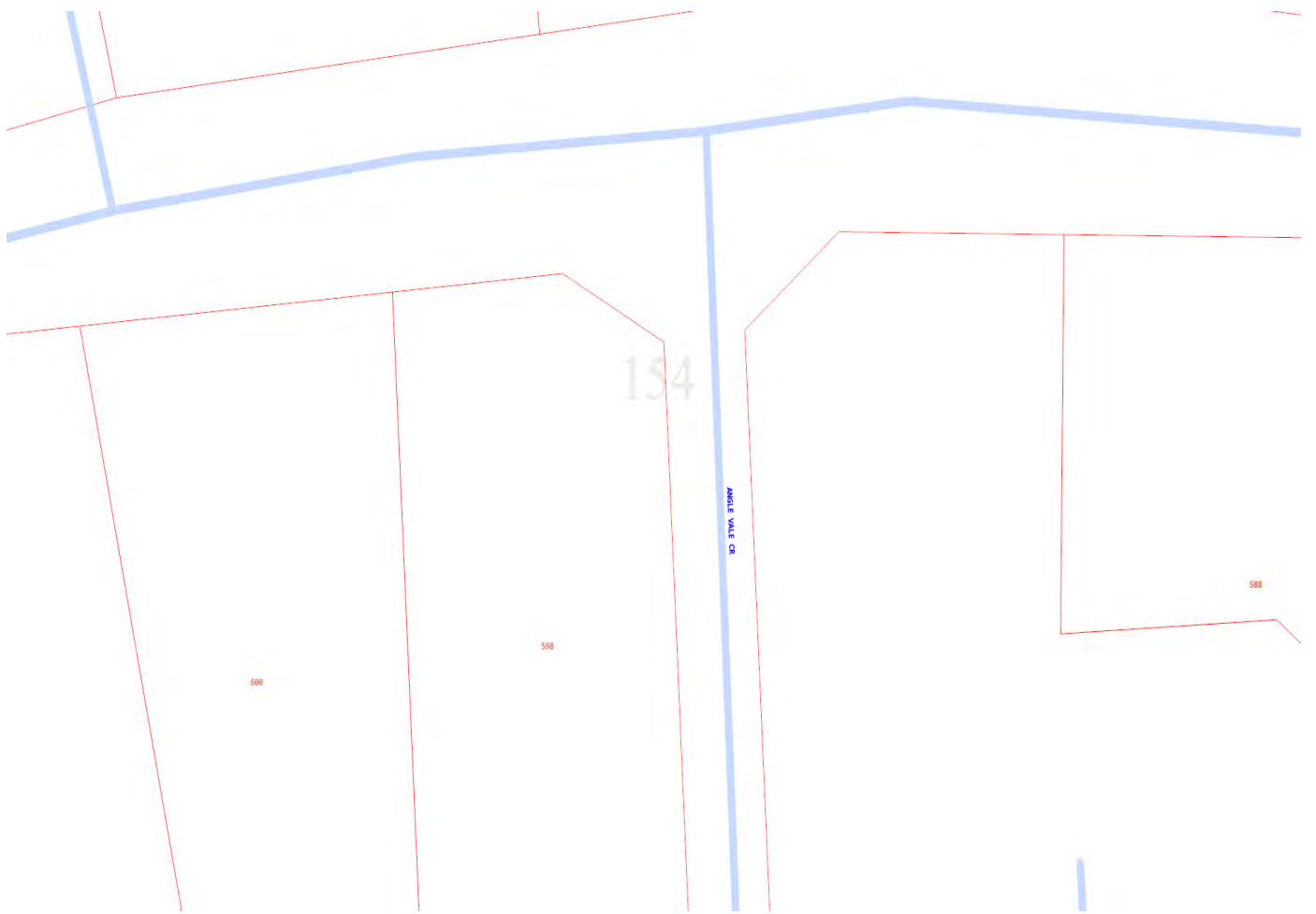
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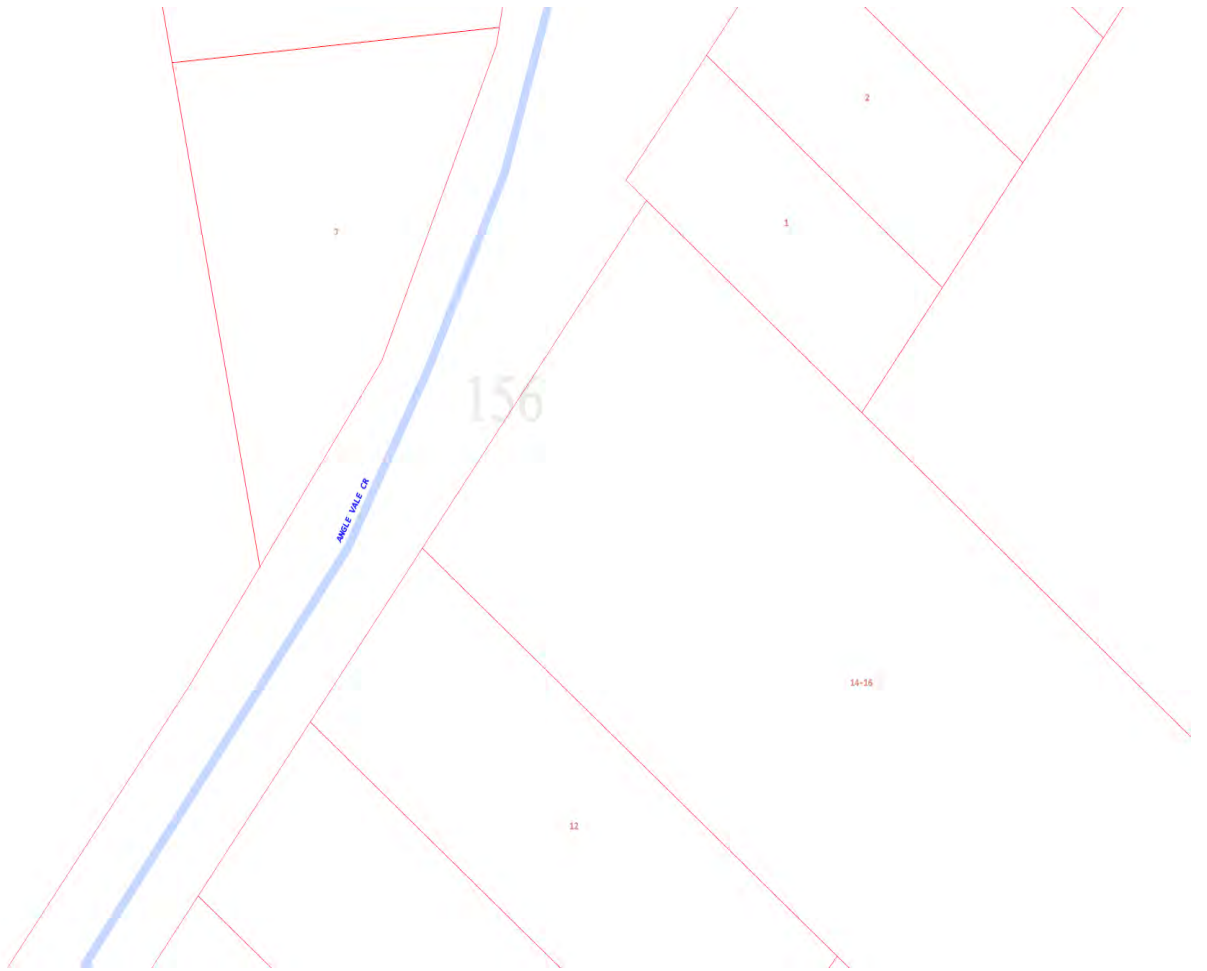








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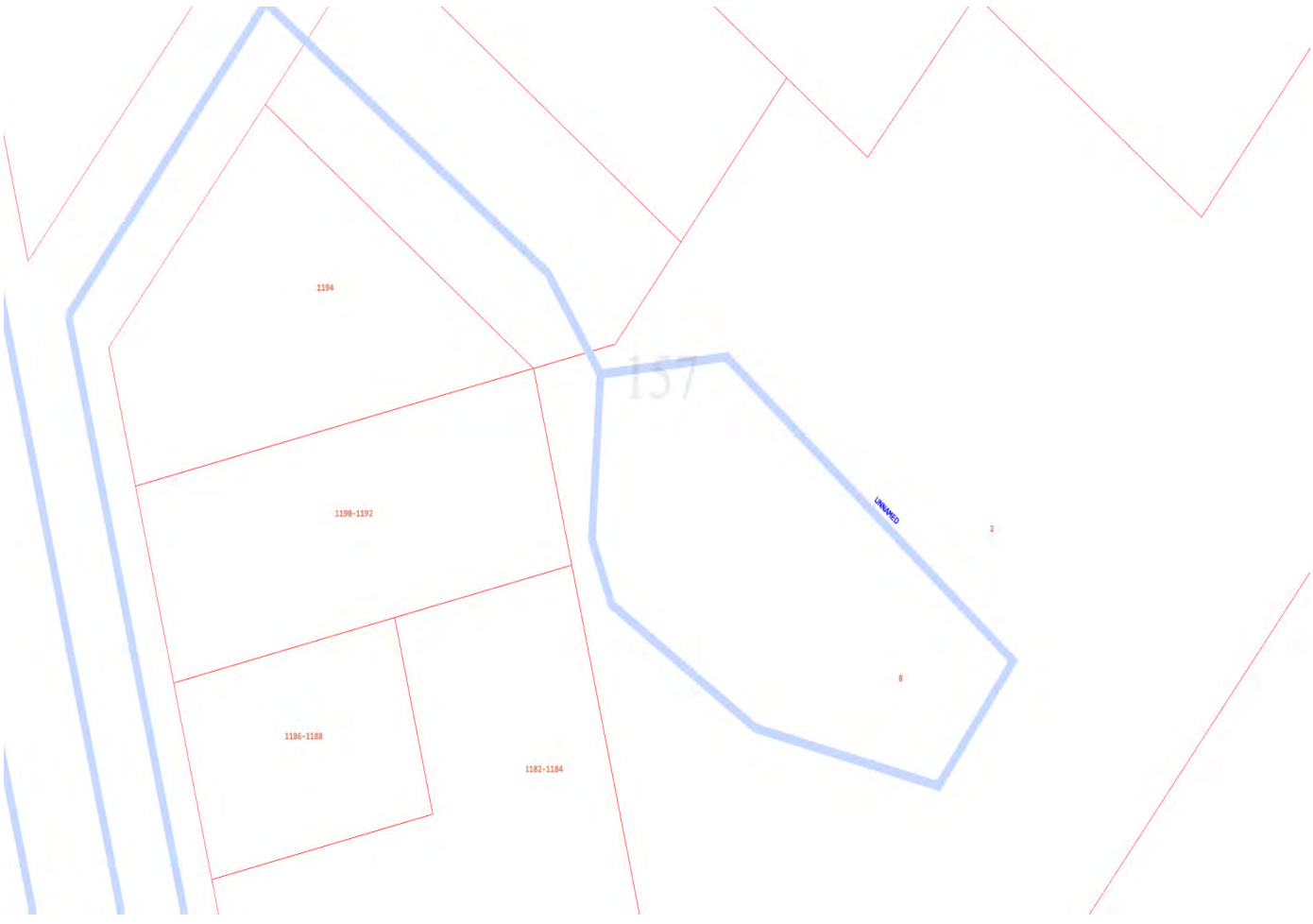
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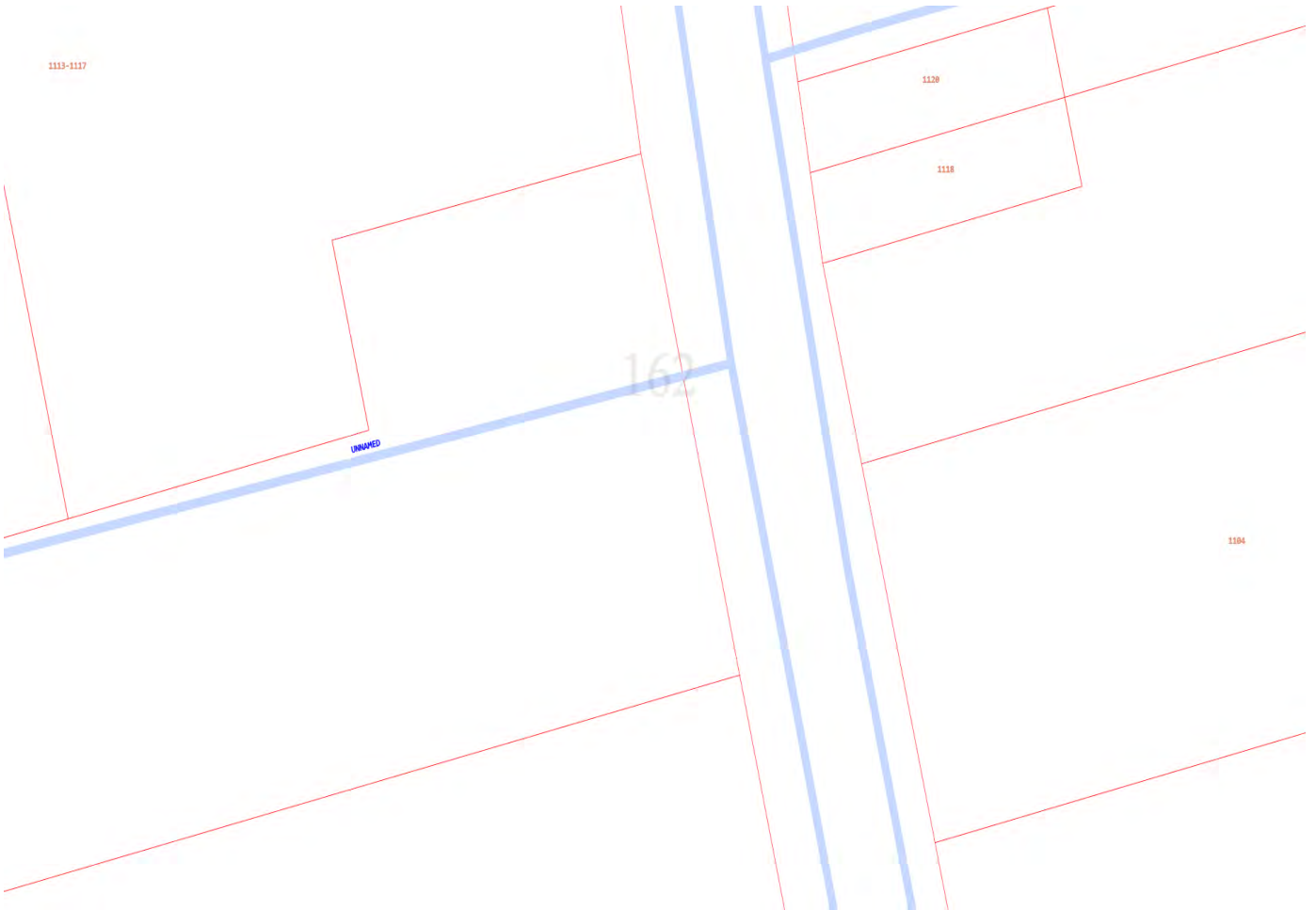
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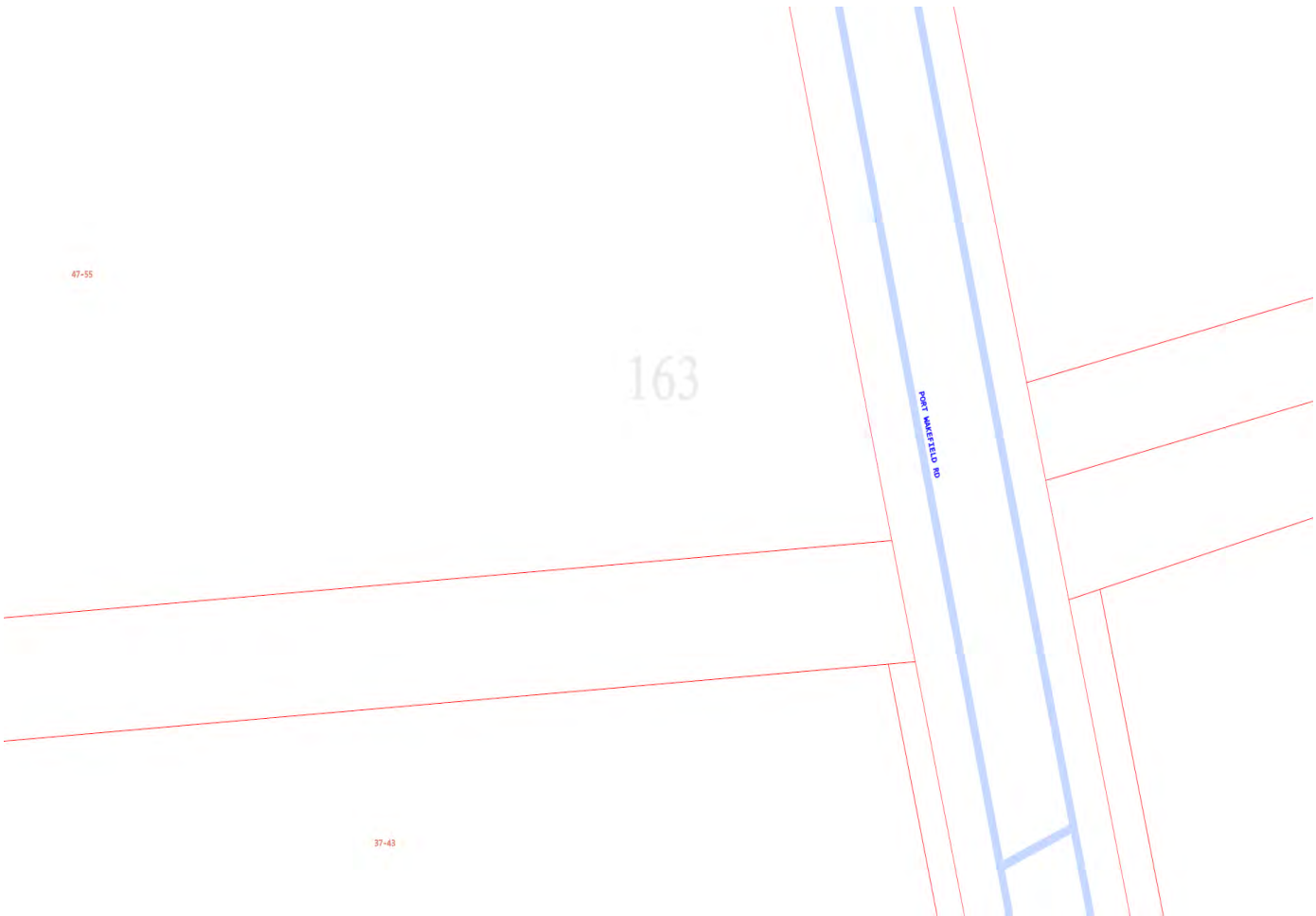
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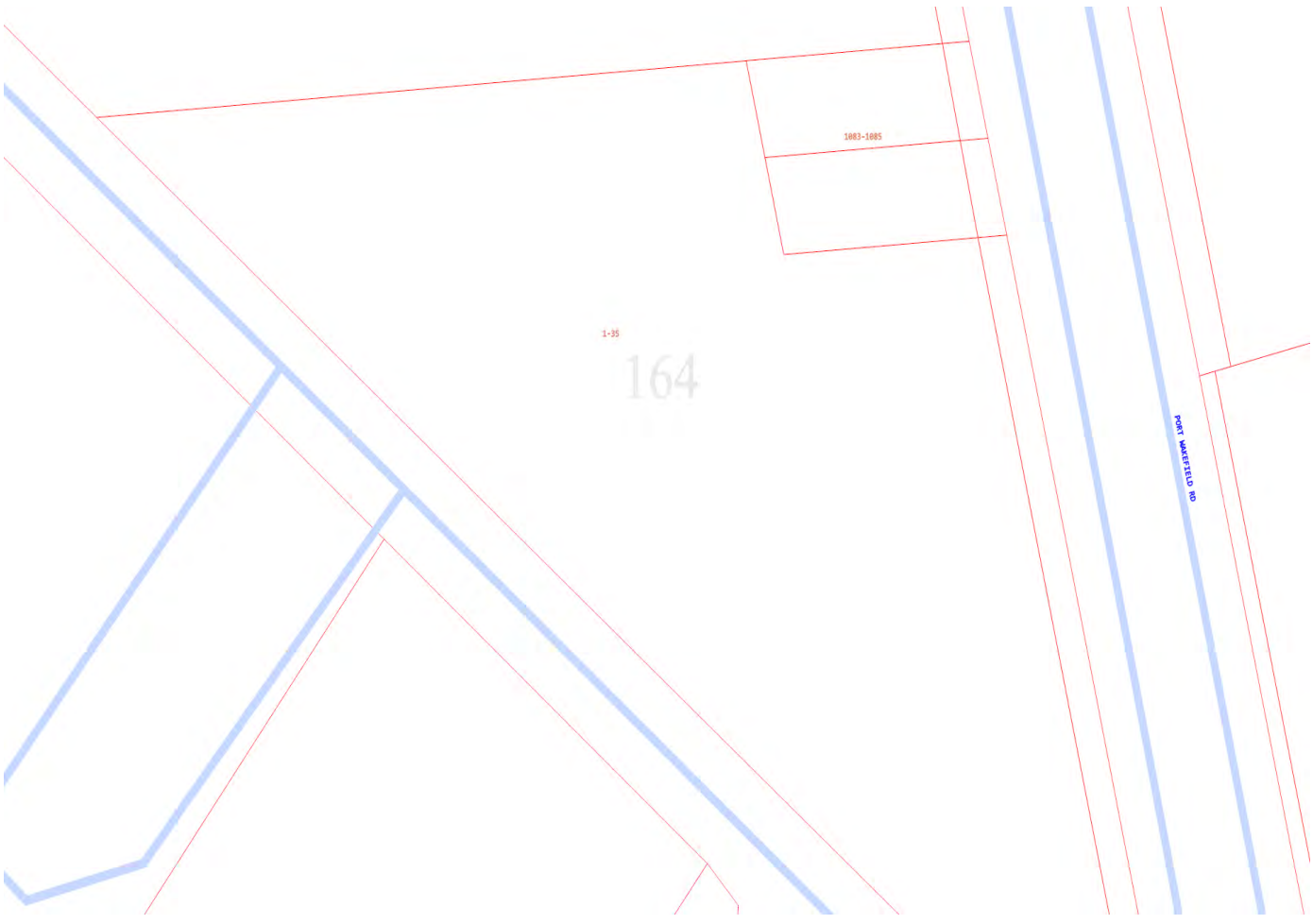


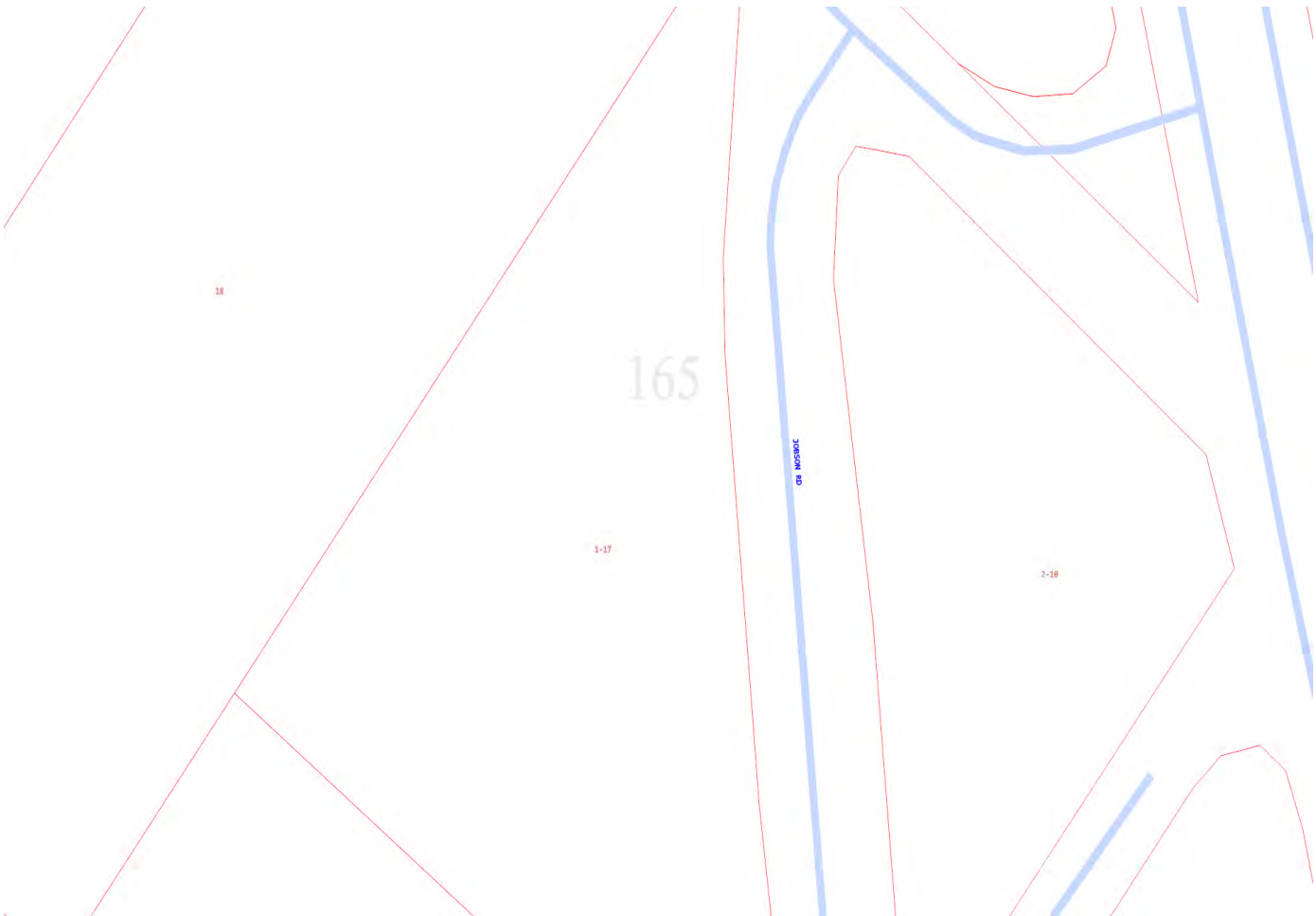
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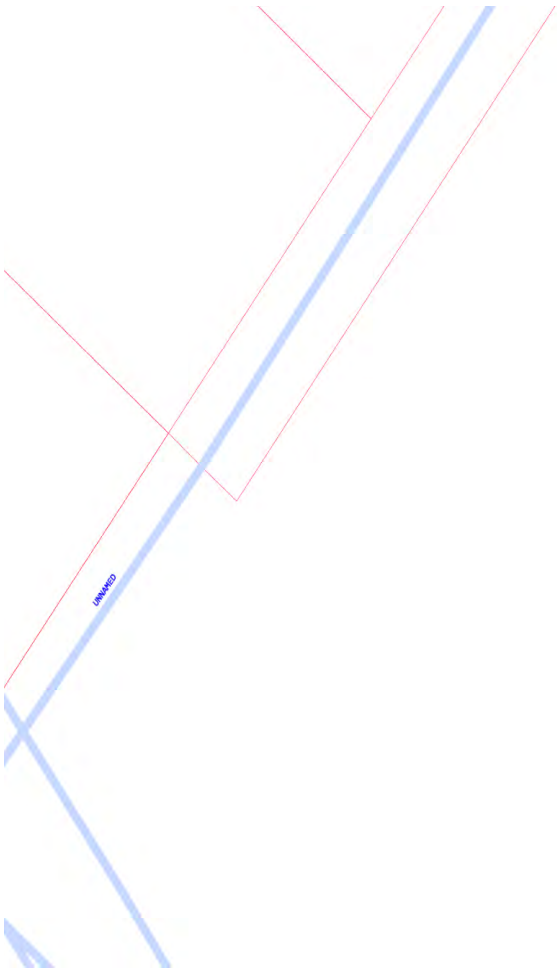
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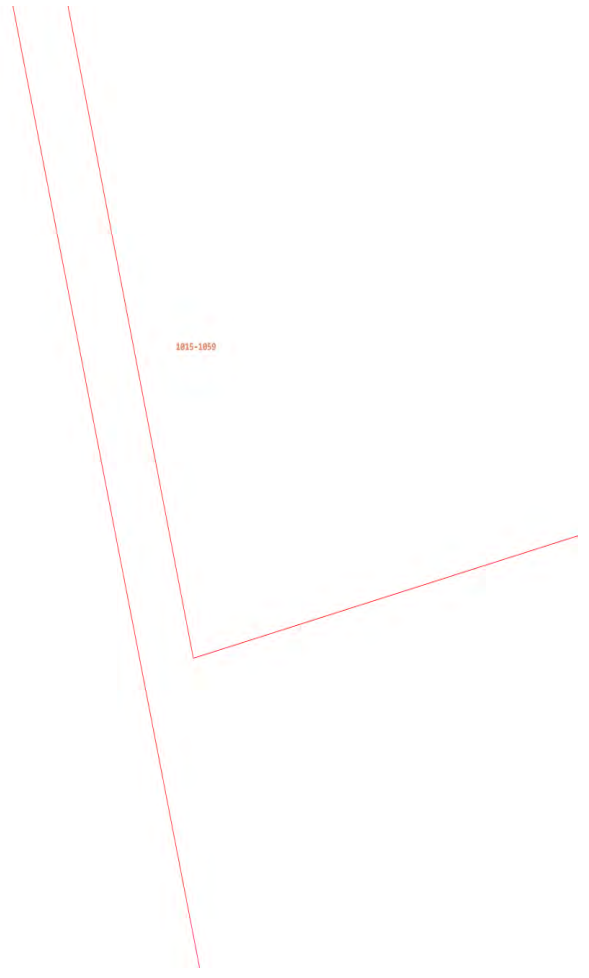
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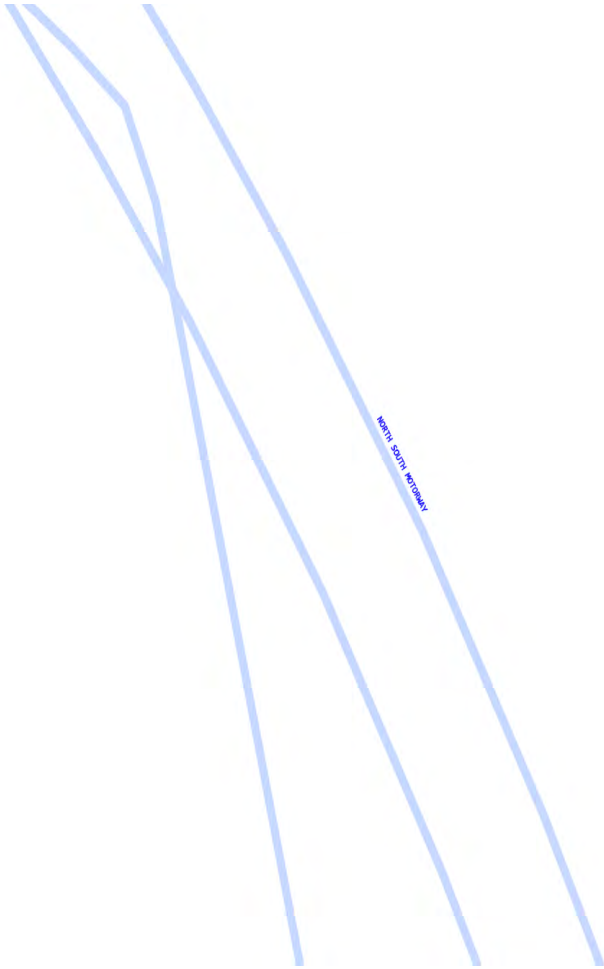




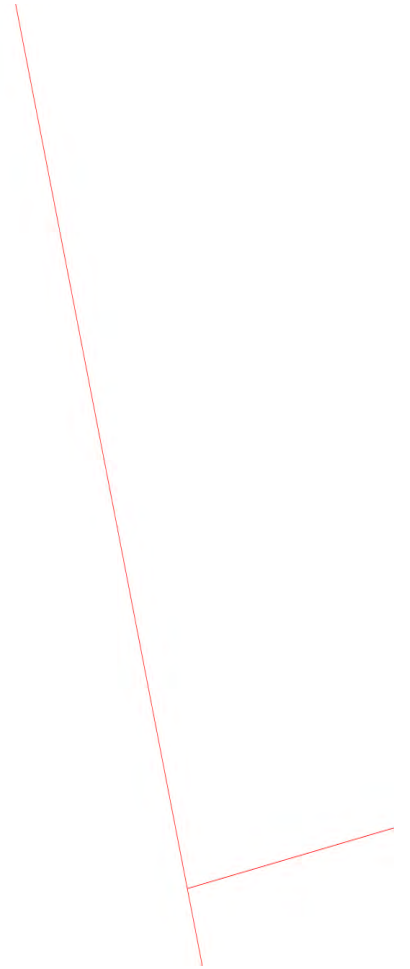
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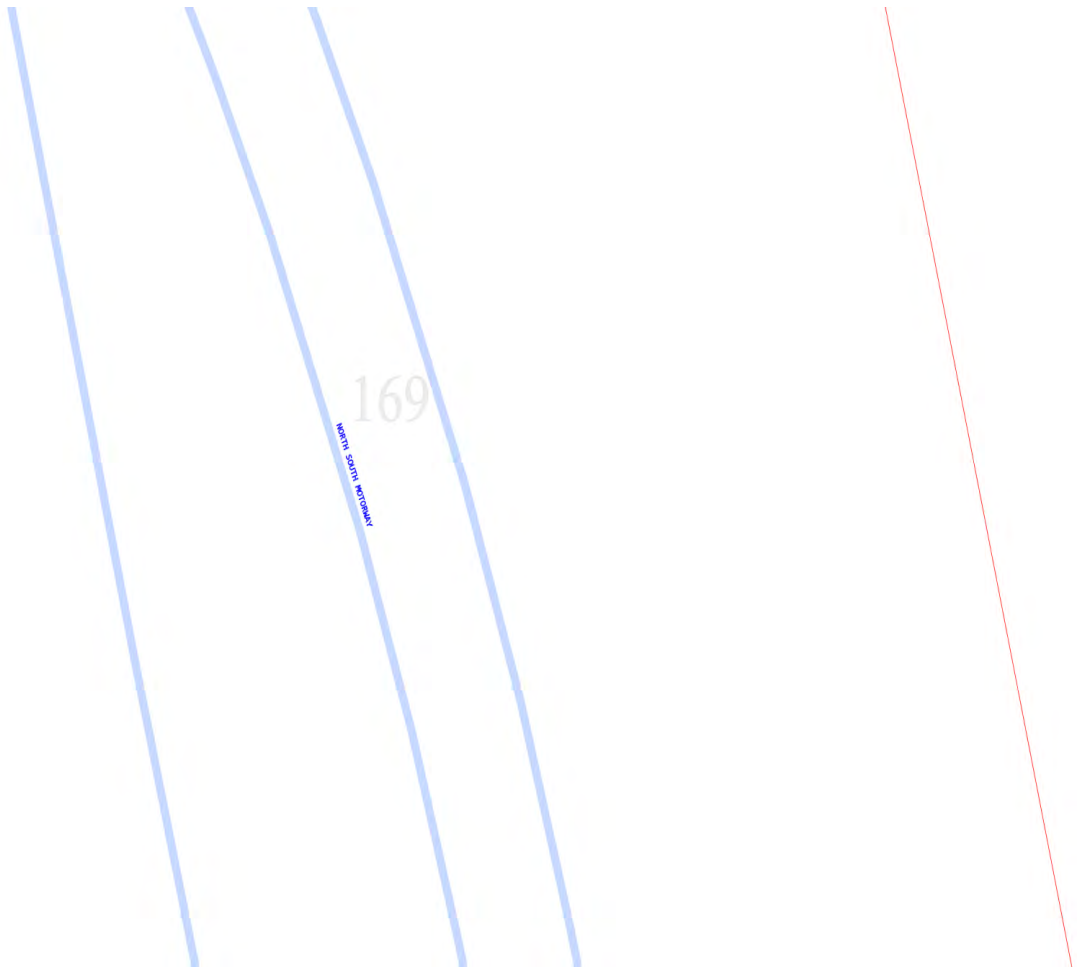
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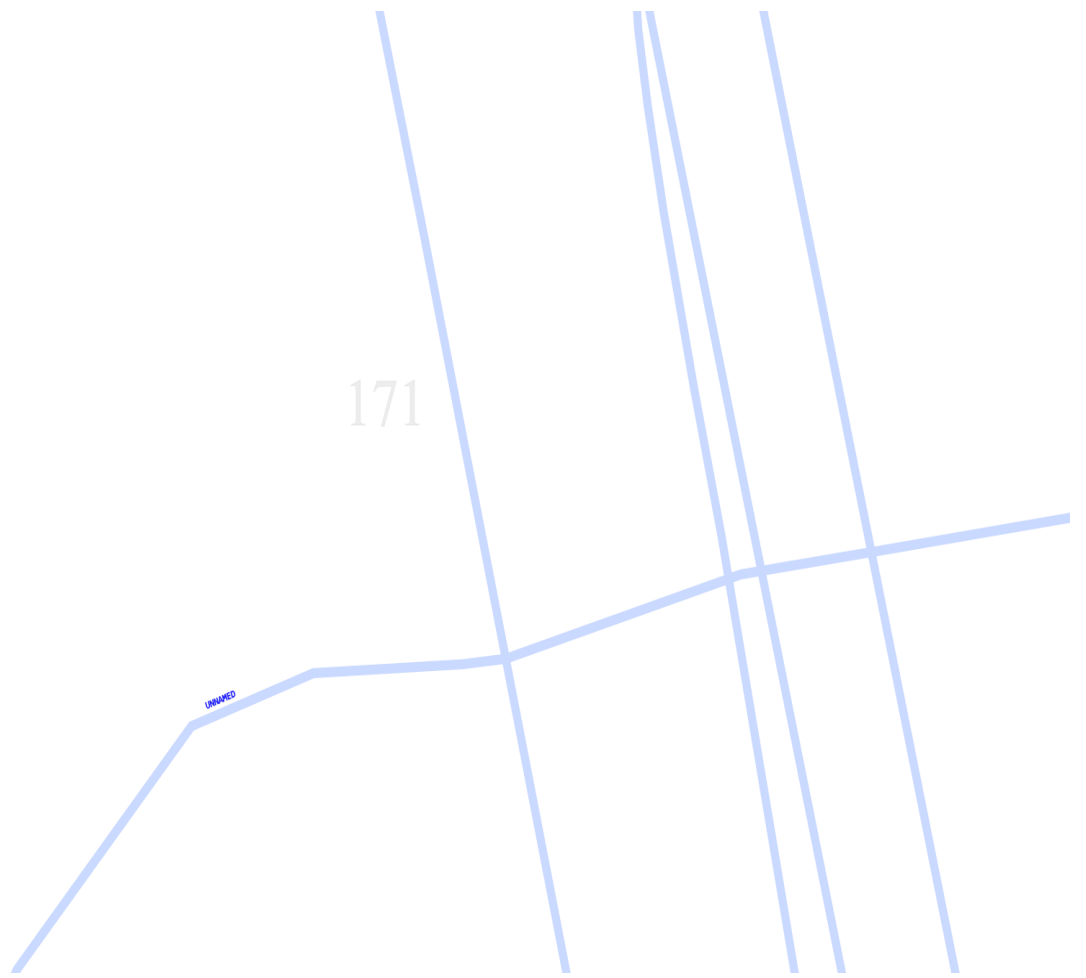


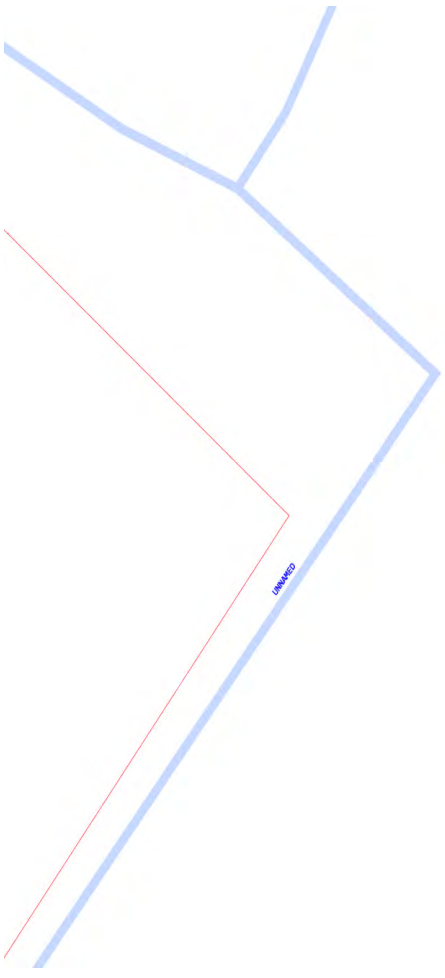
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North South Highway

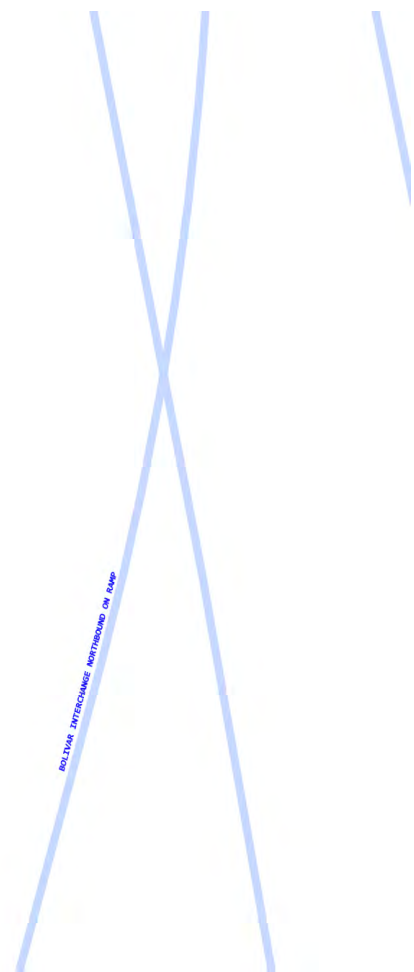




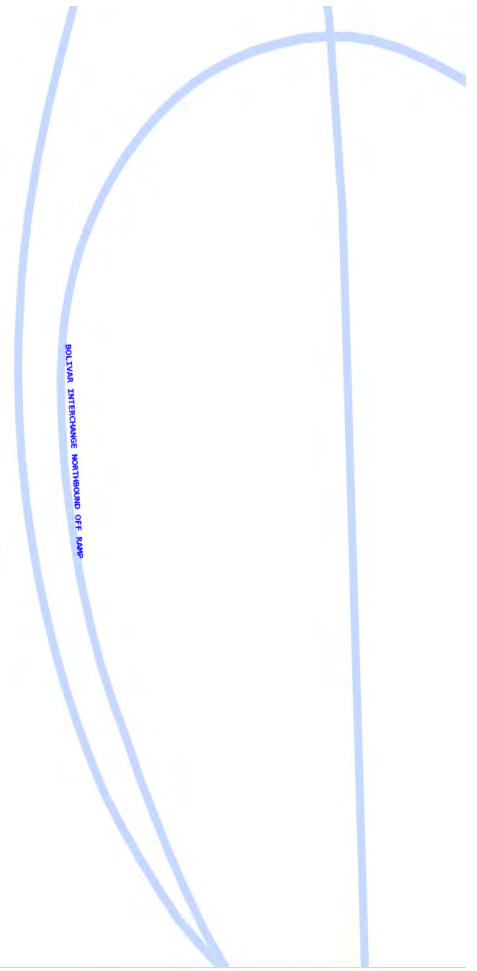
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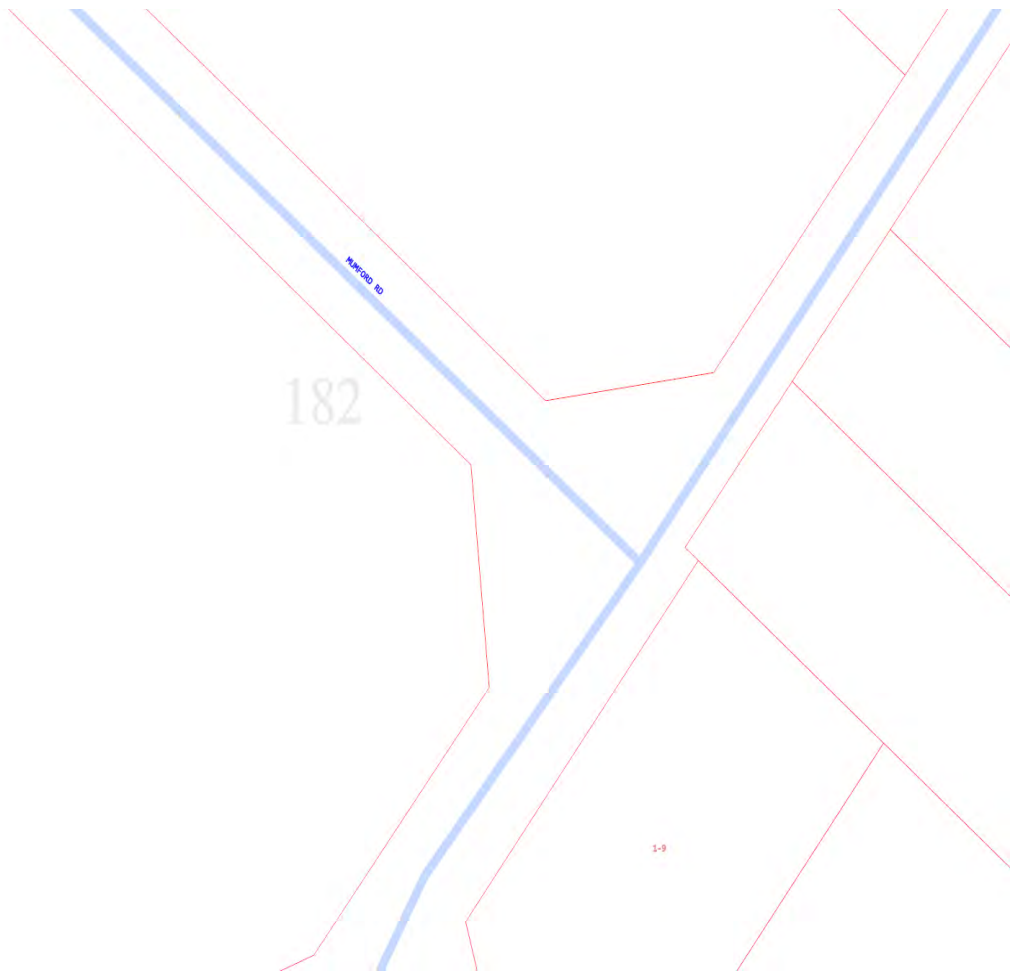




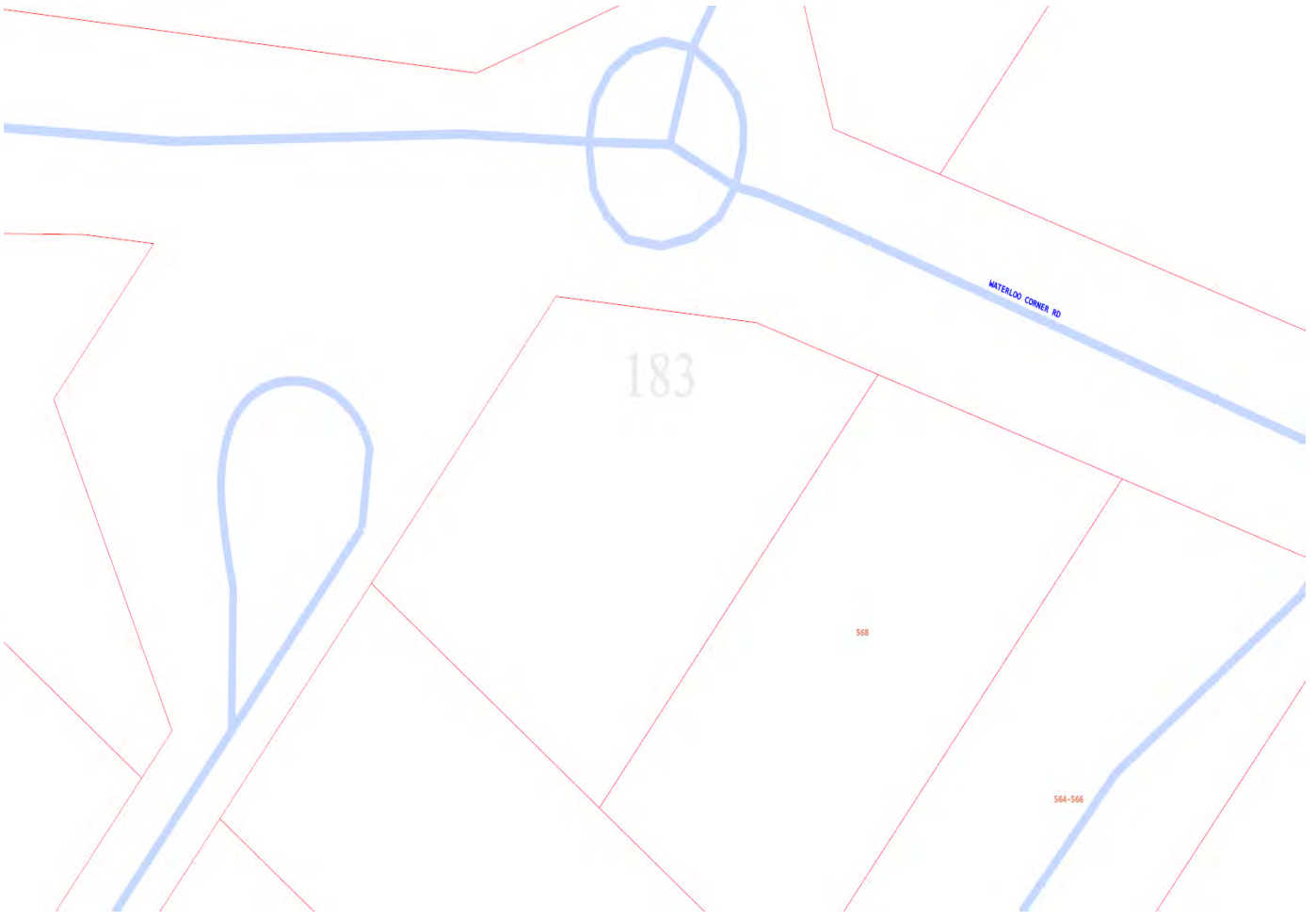


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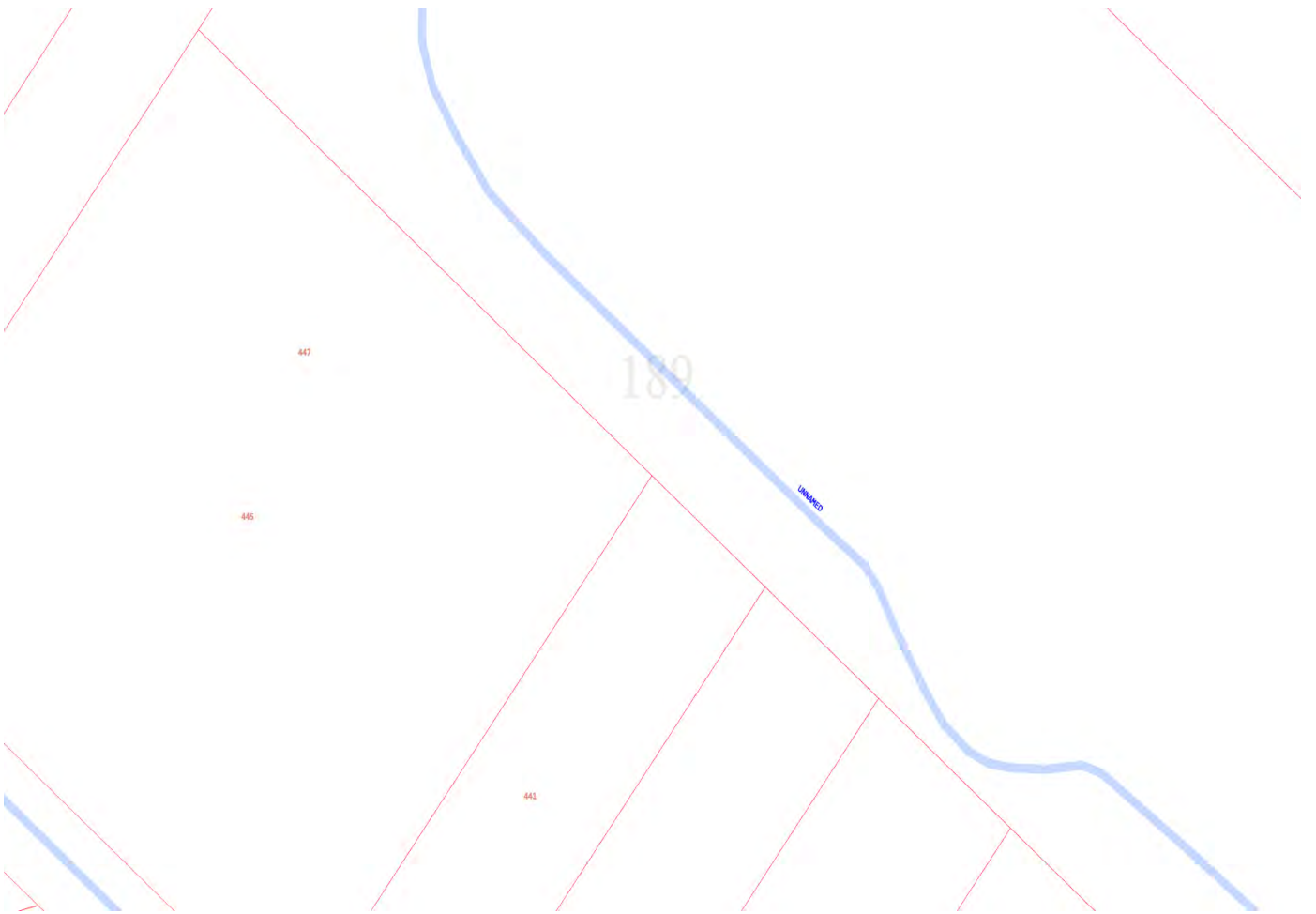
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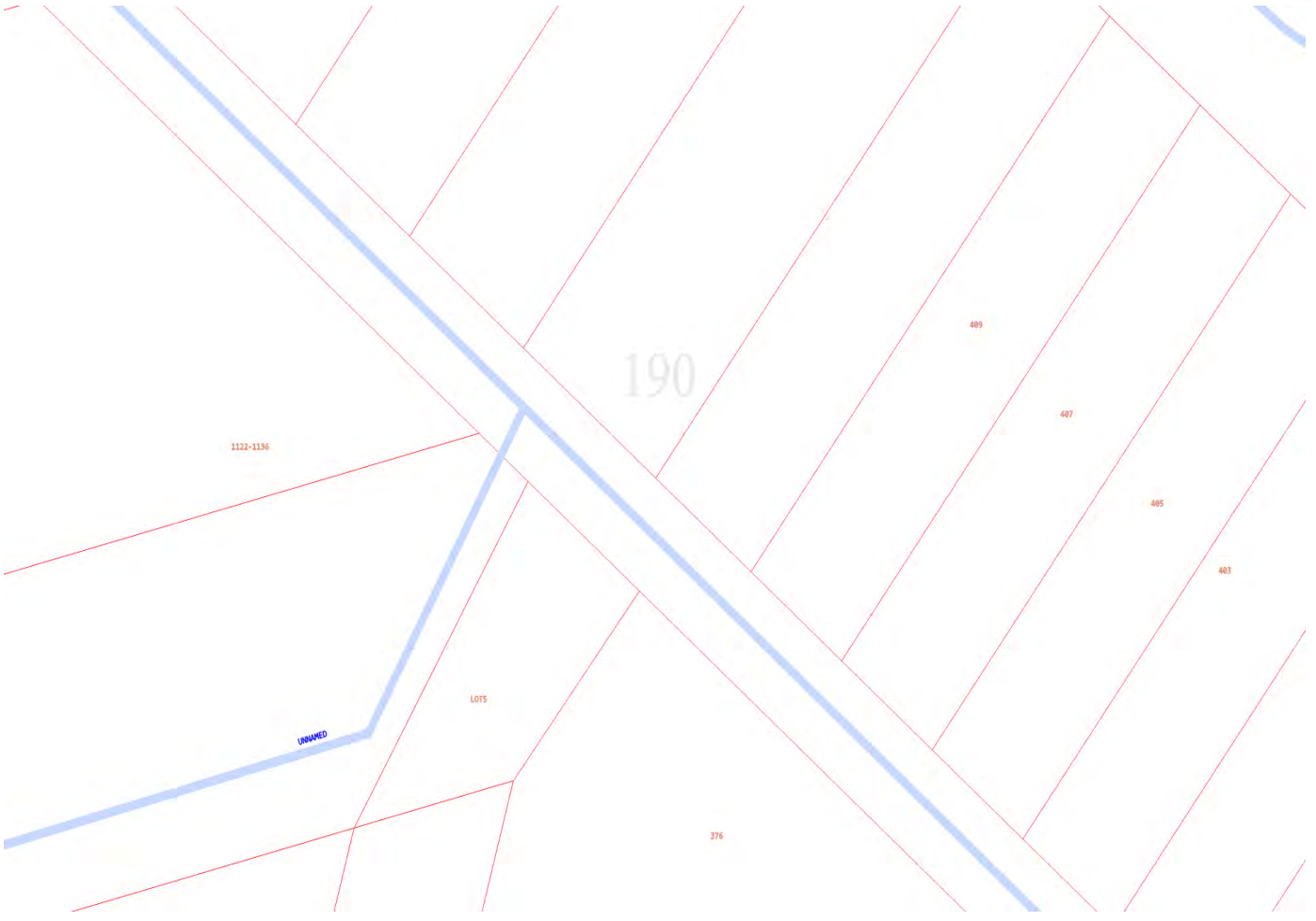
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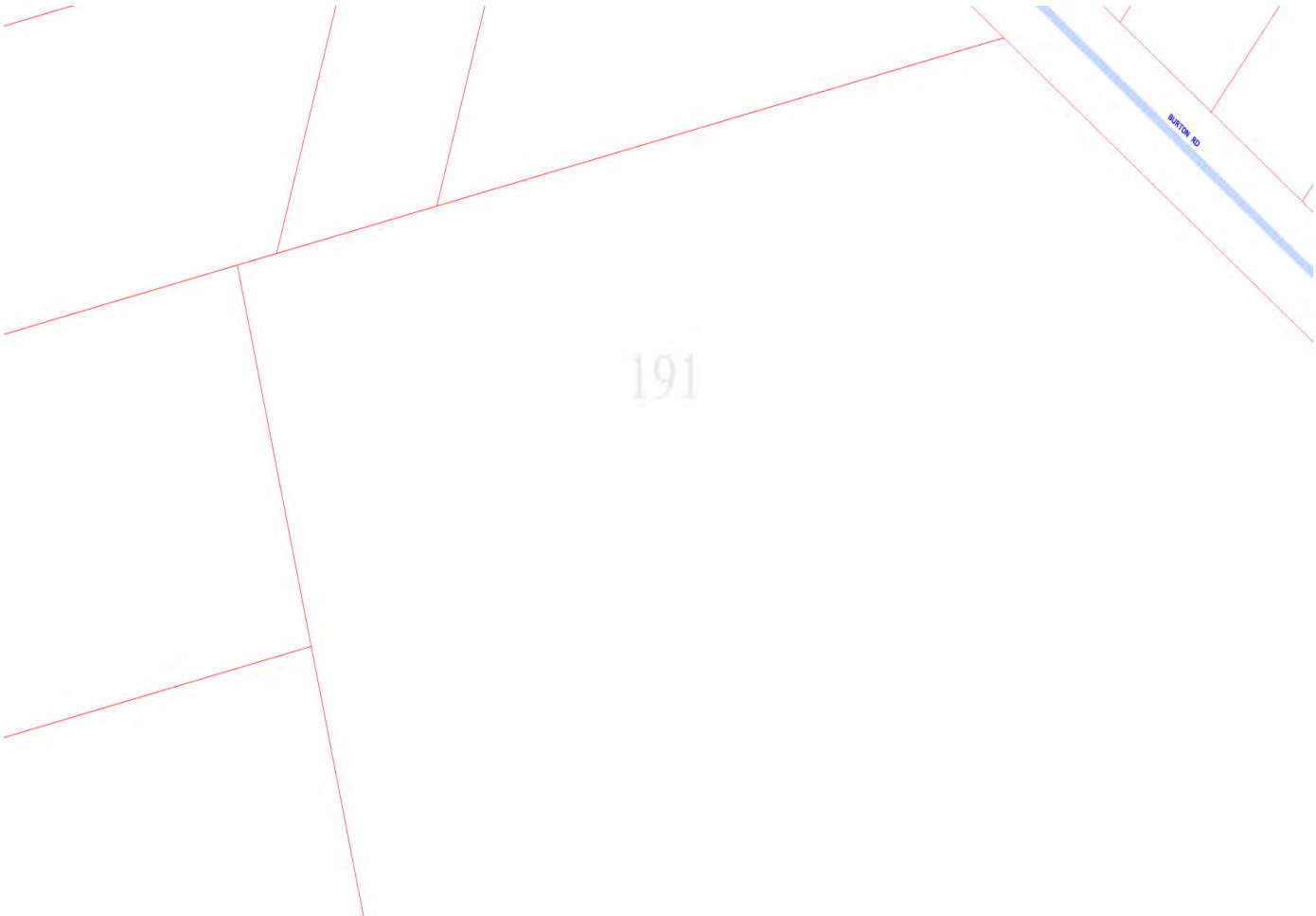
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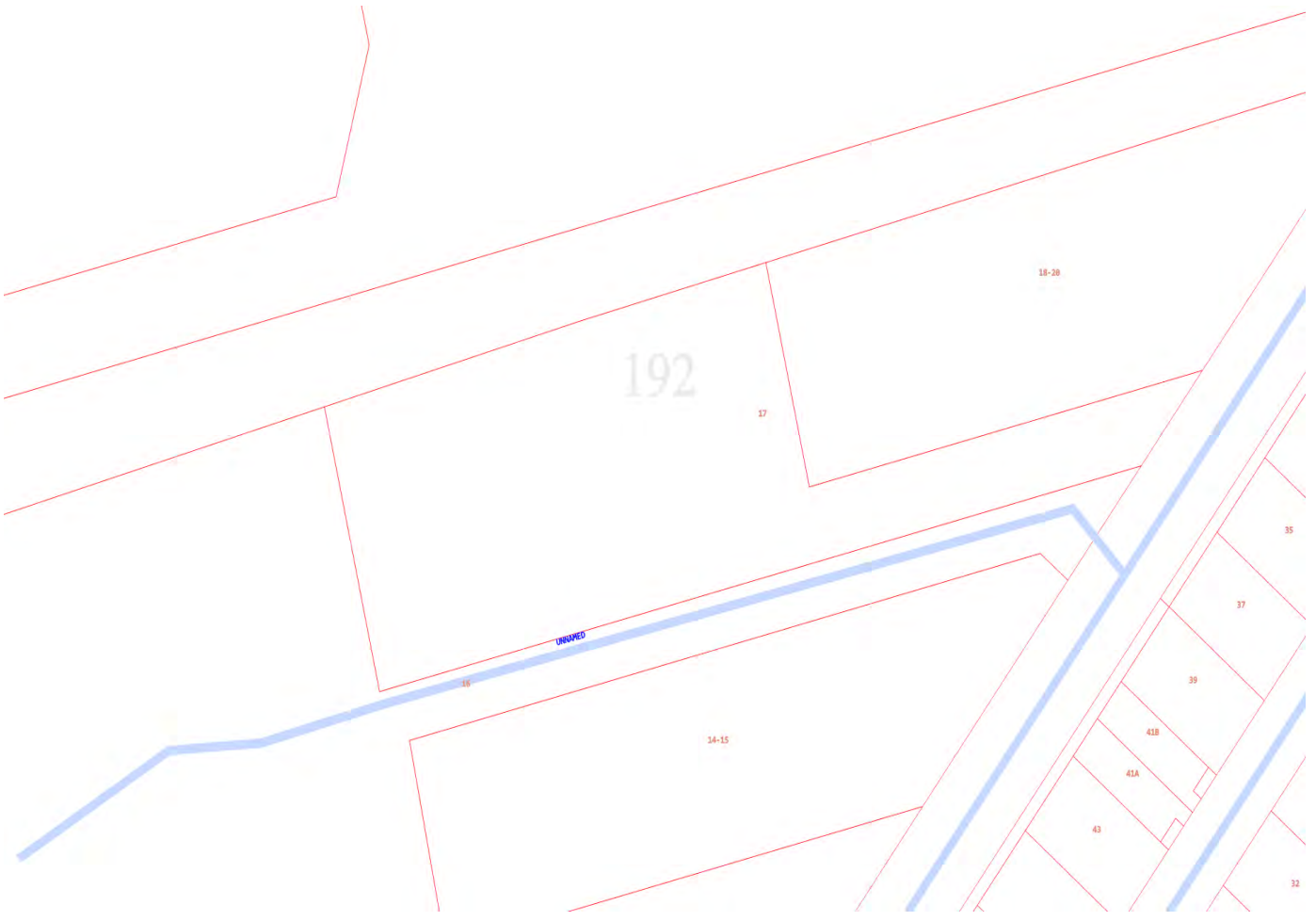


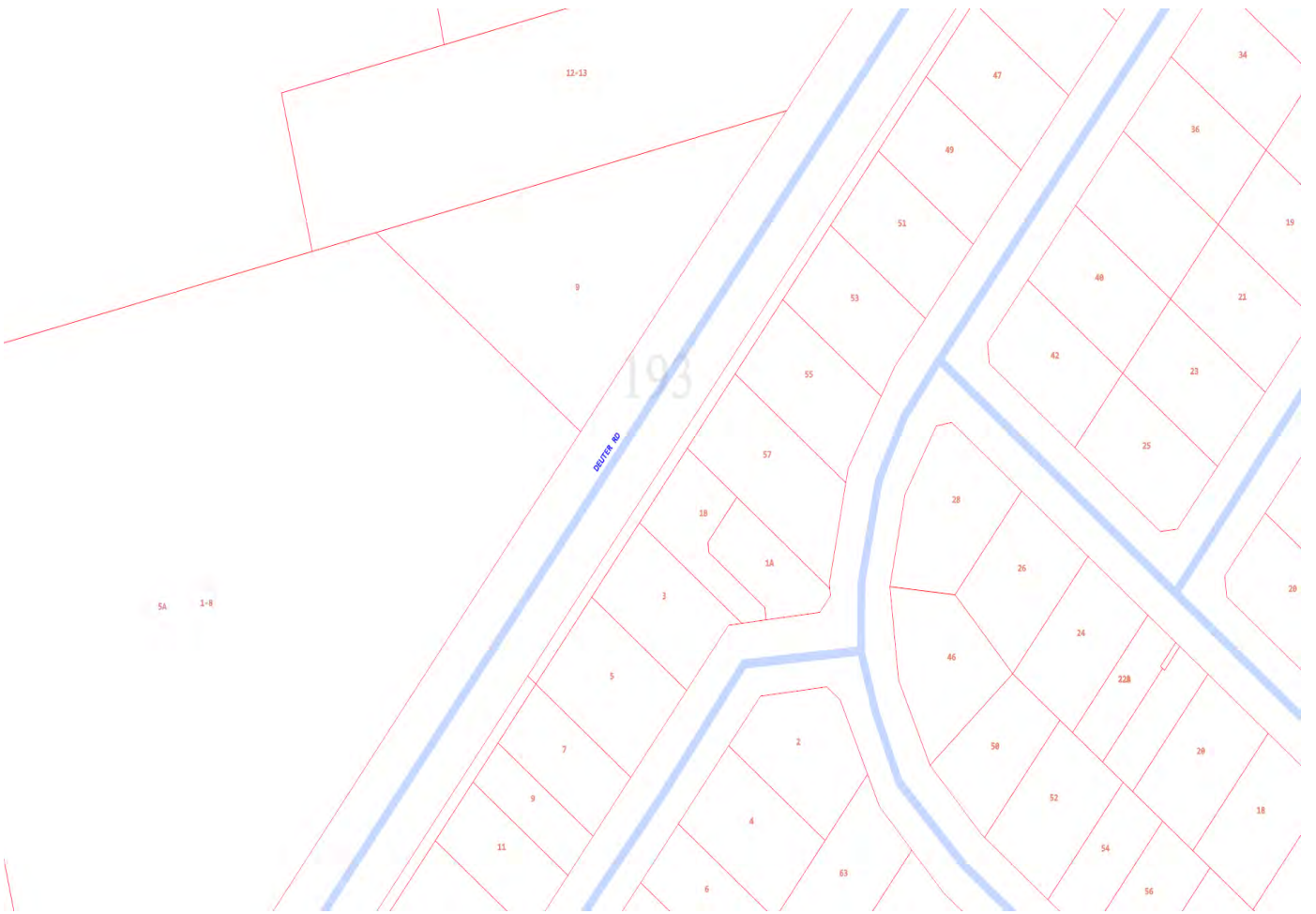


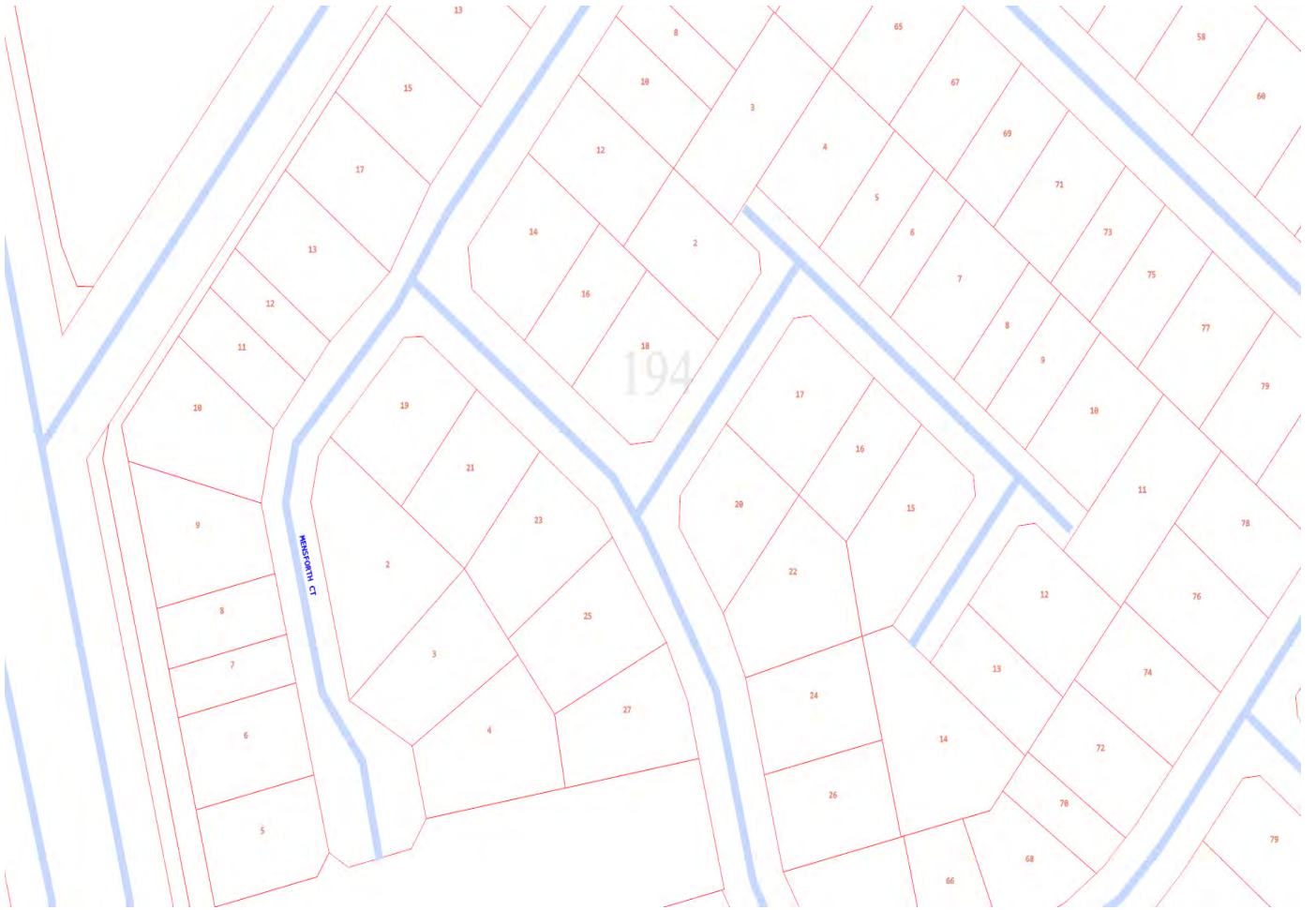




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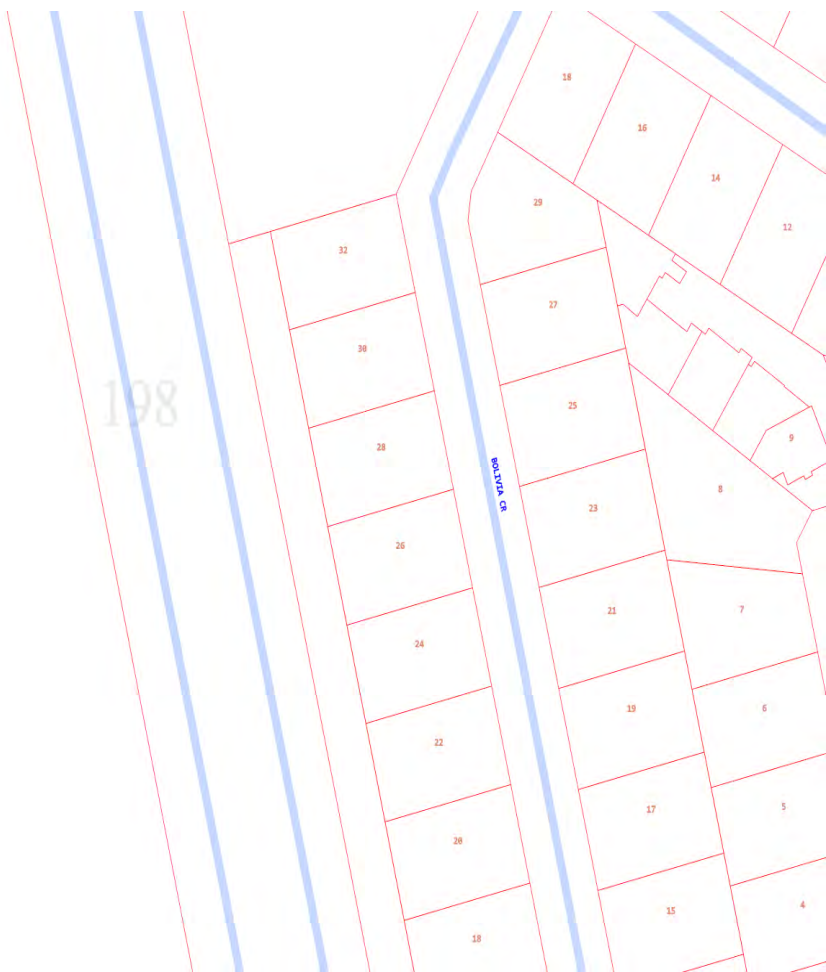


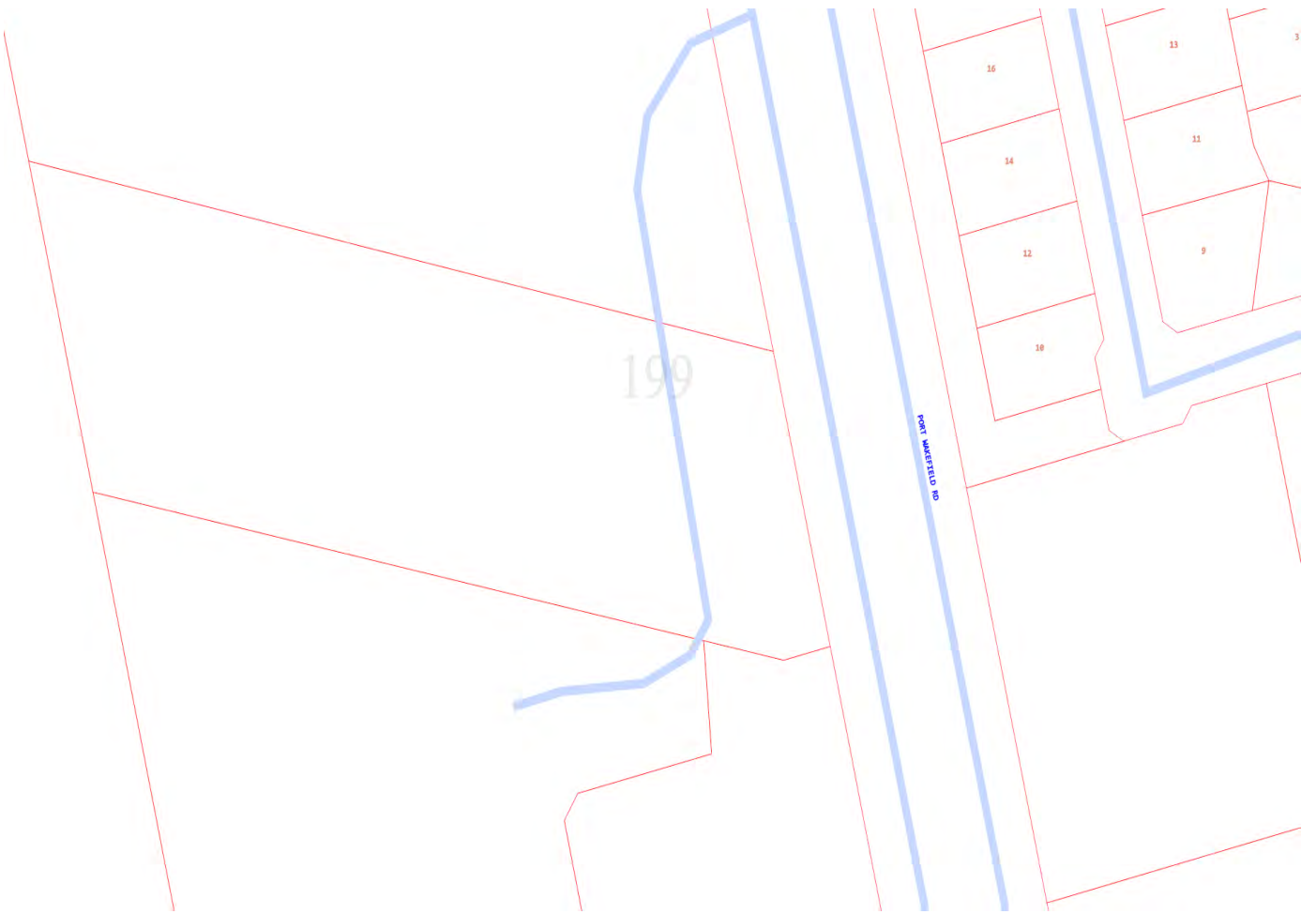


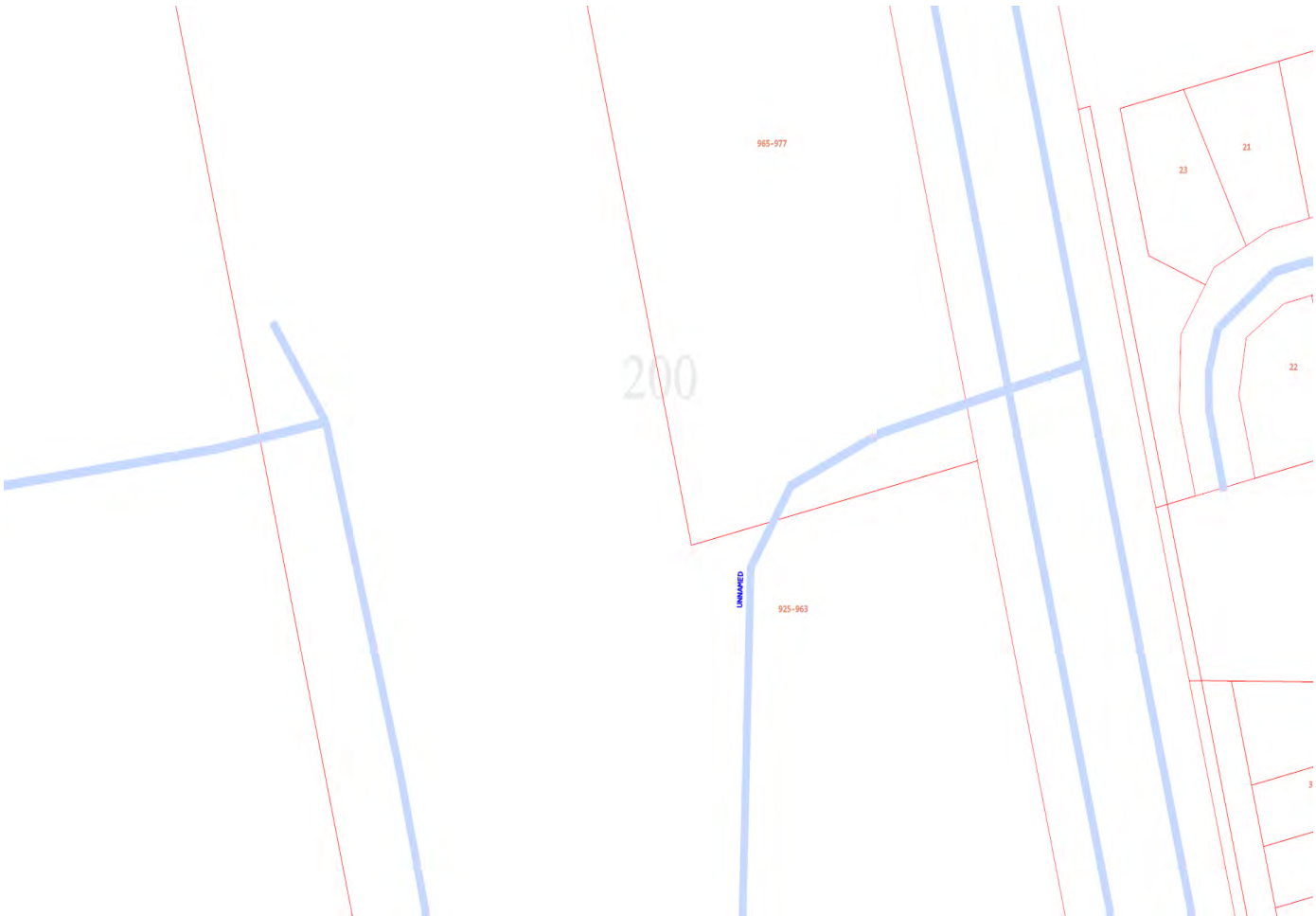










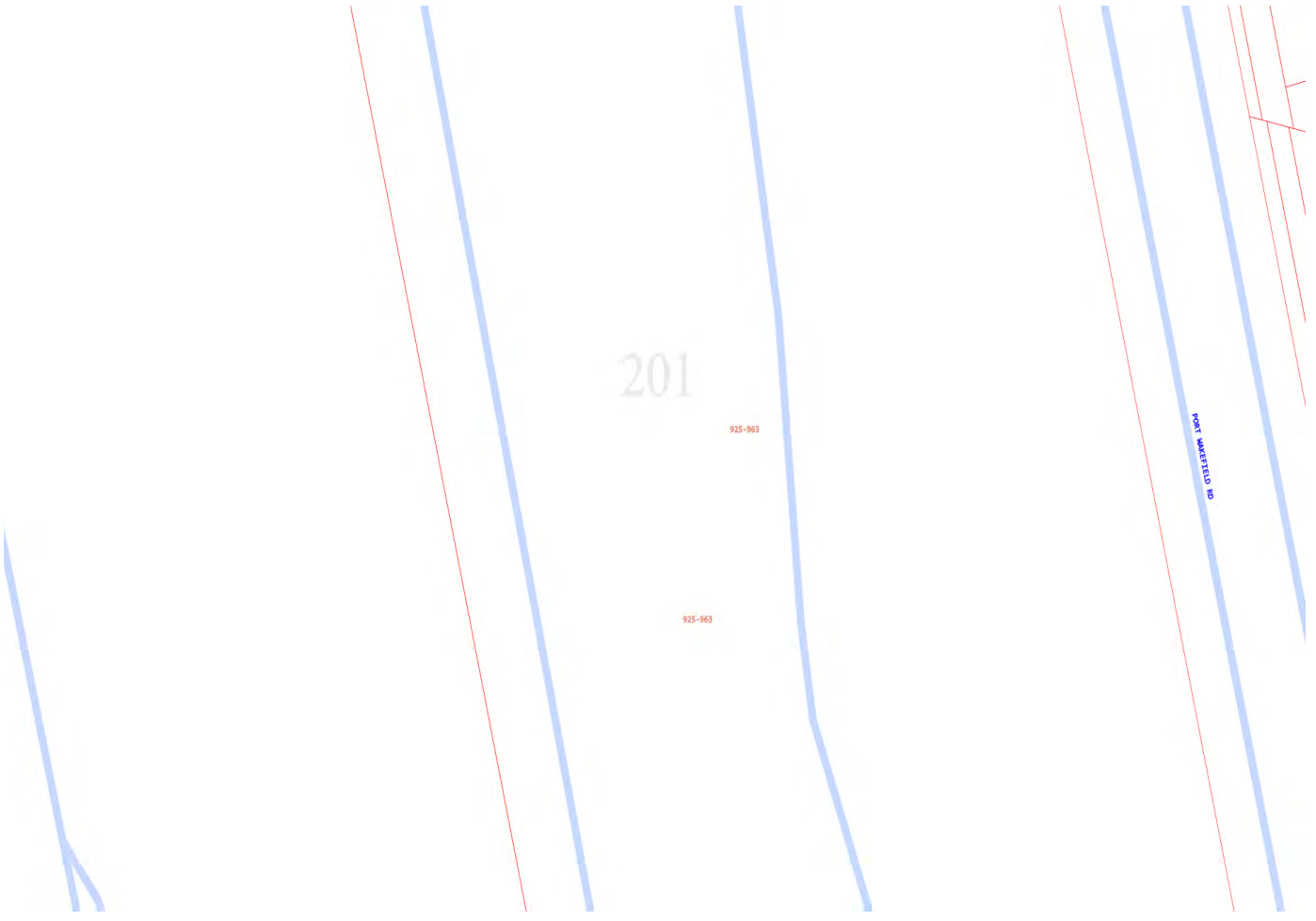


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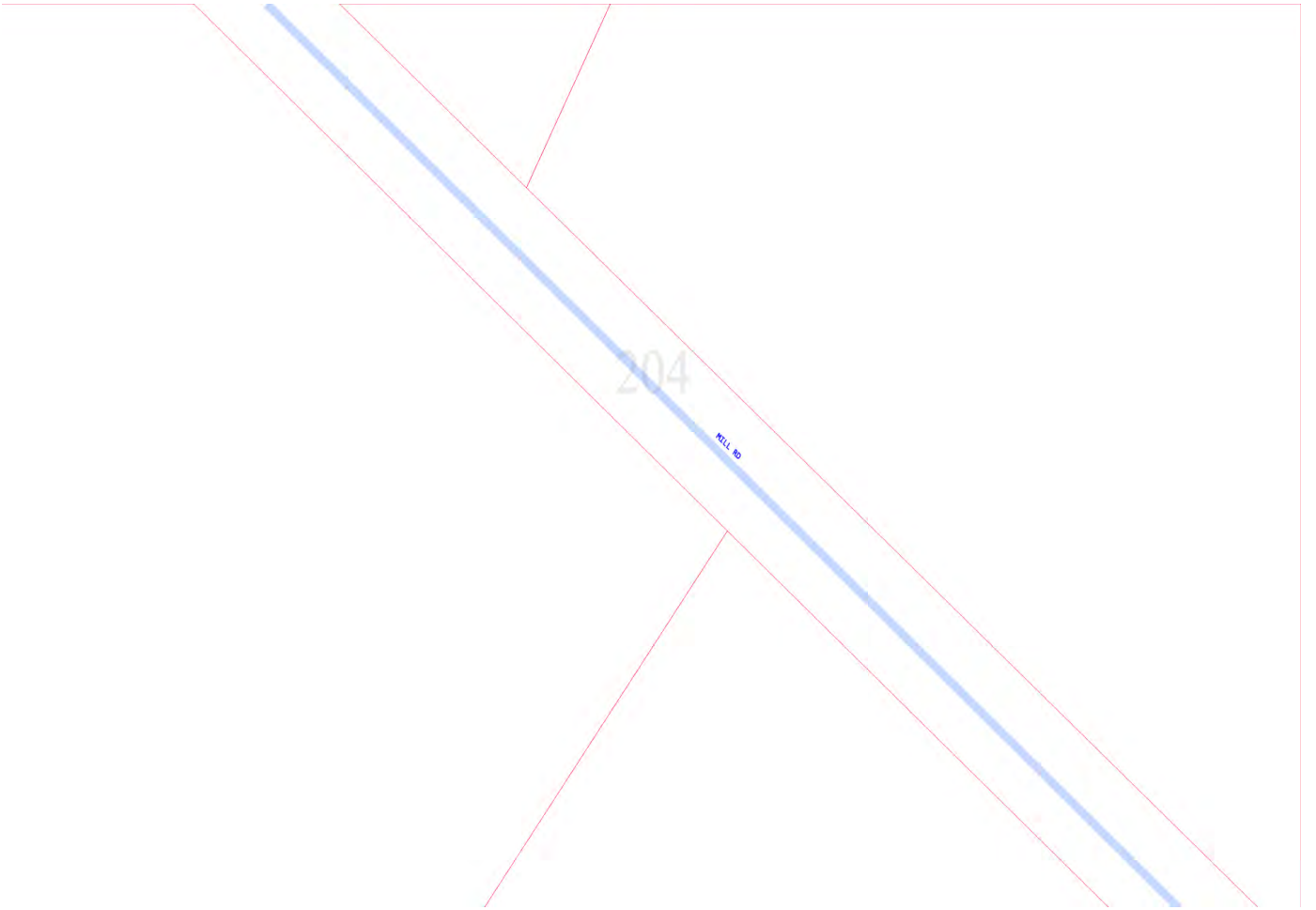


WALTON UNIVERSITY  
SCHOOL OF BUSINESS

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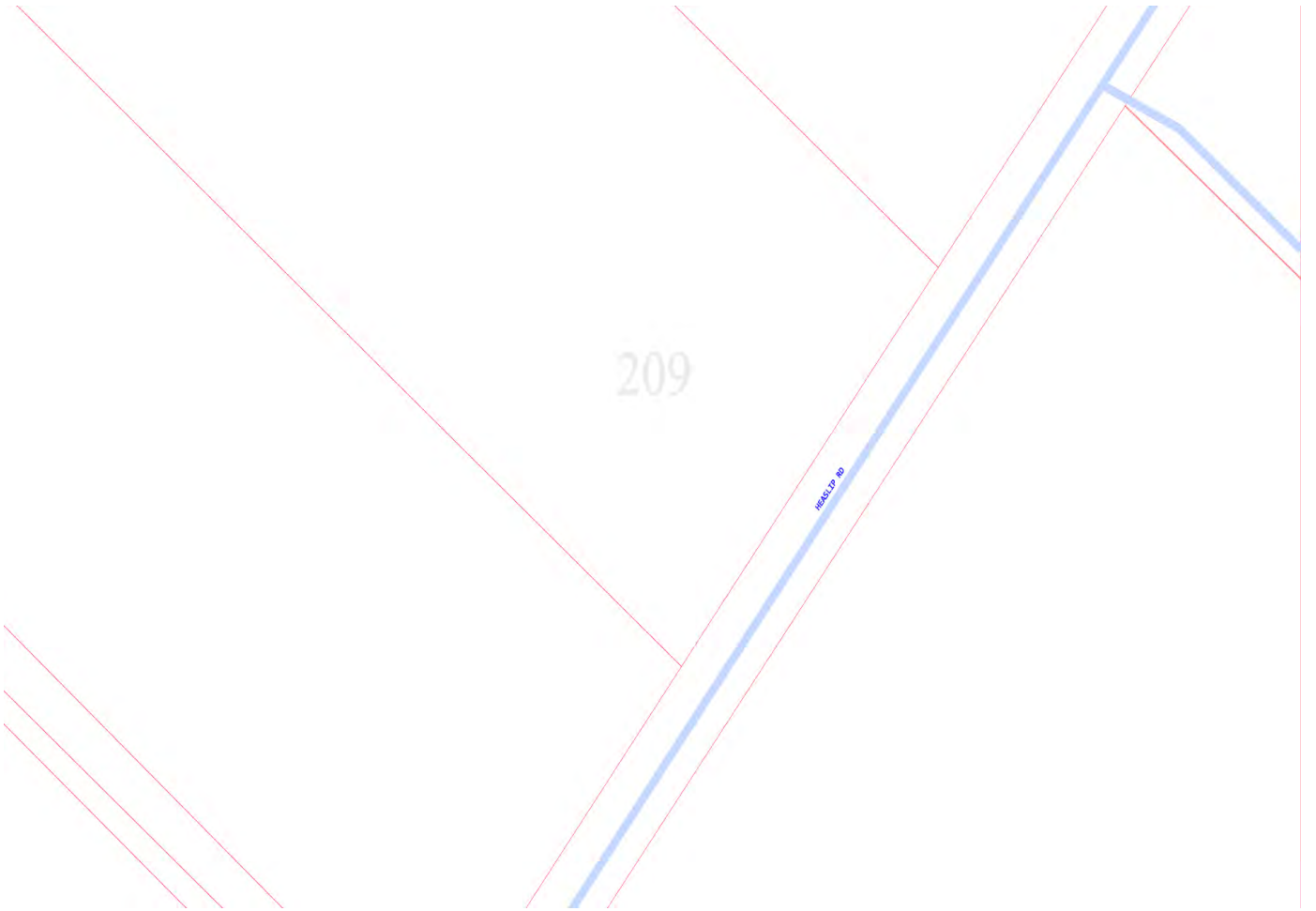
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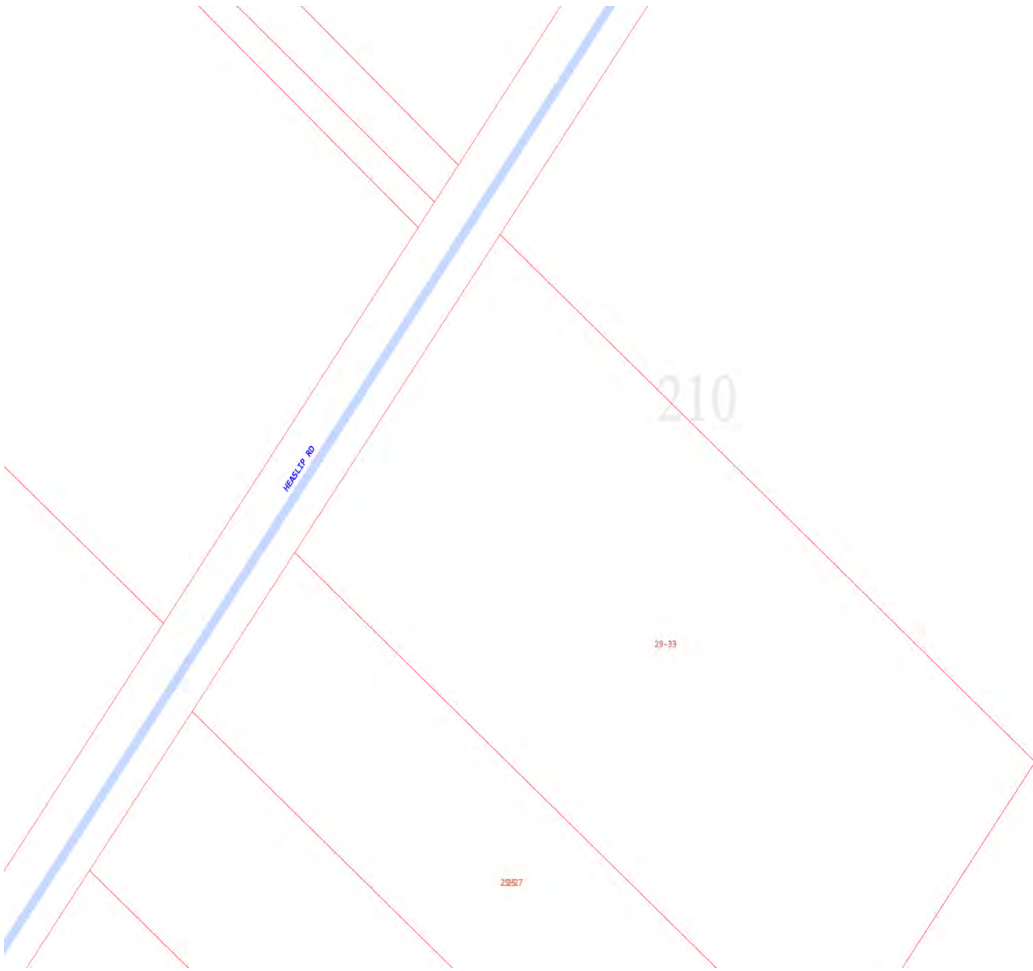




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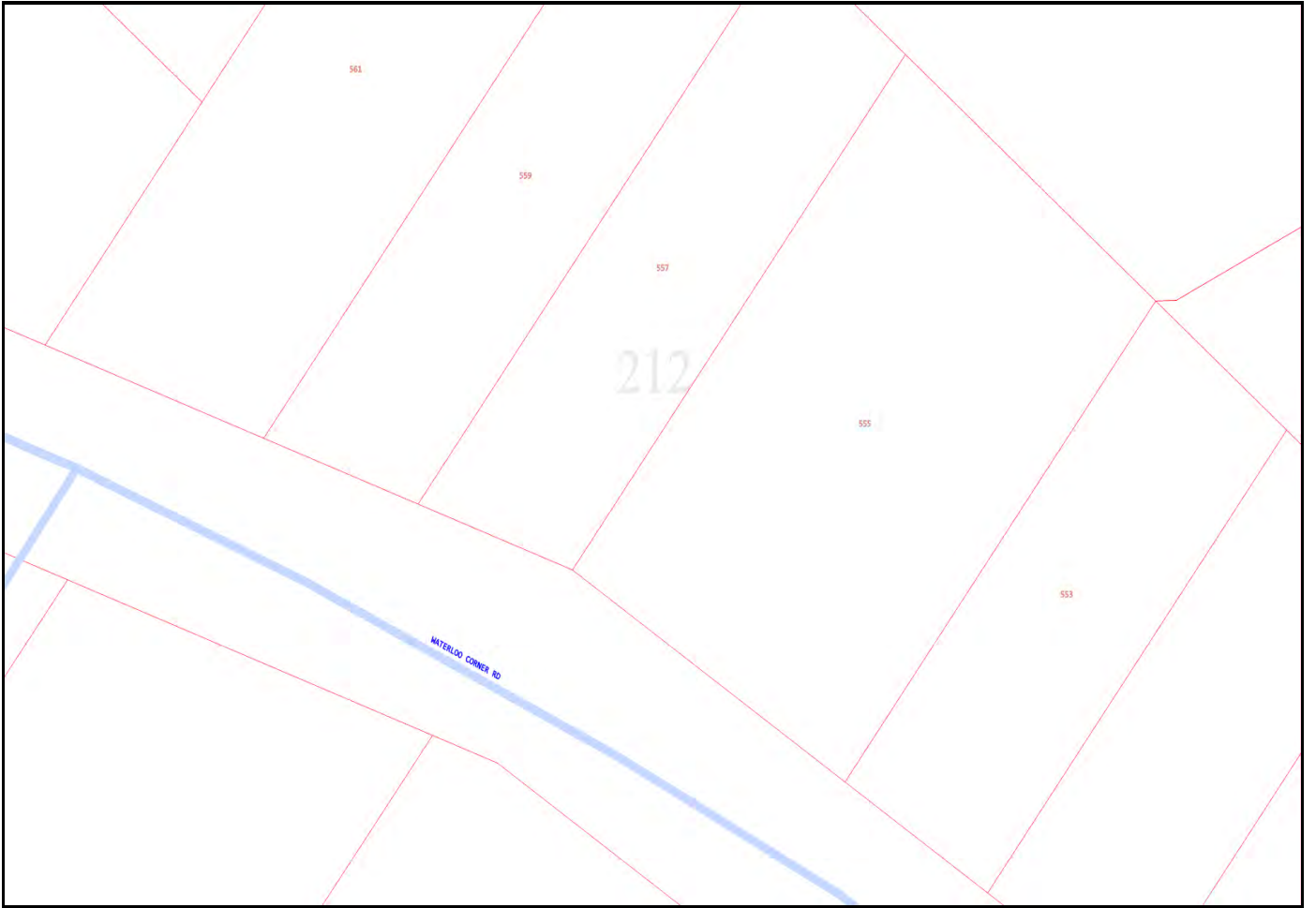
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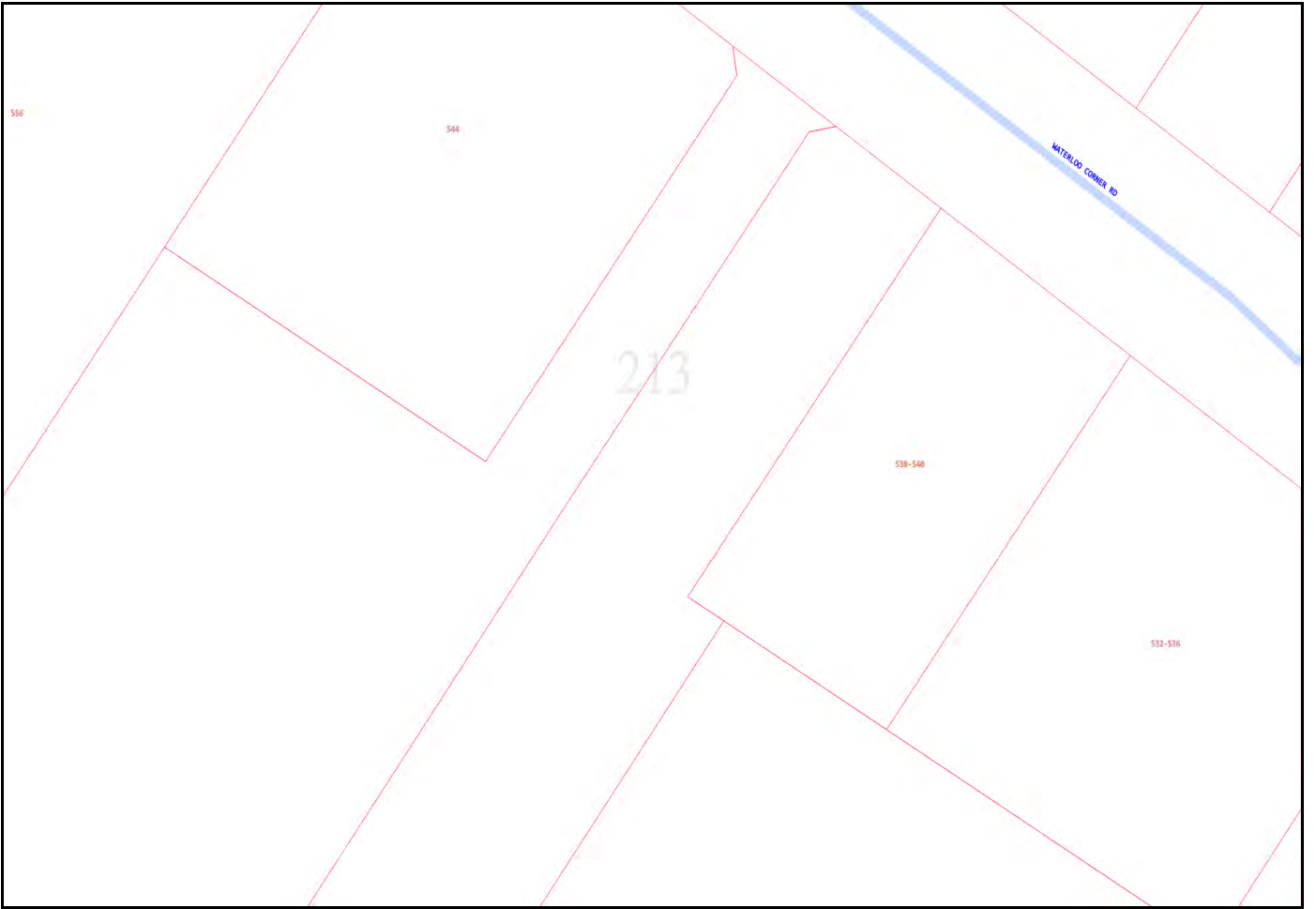








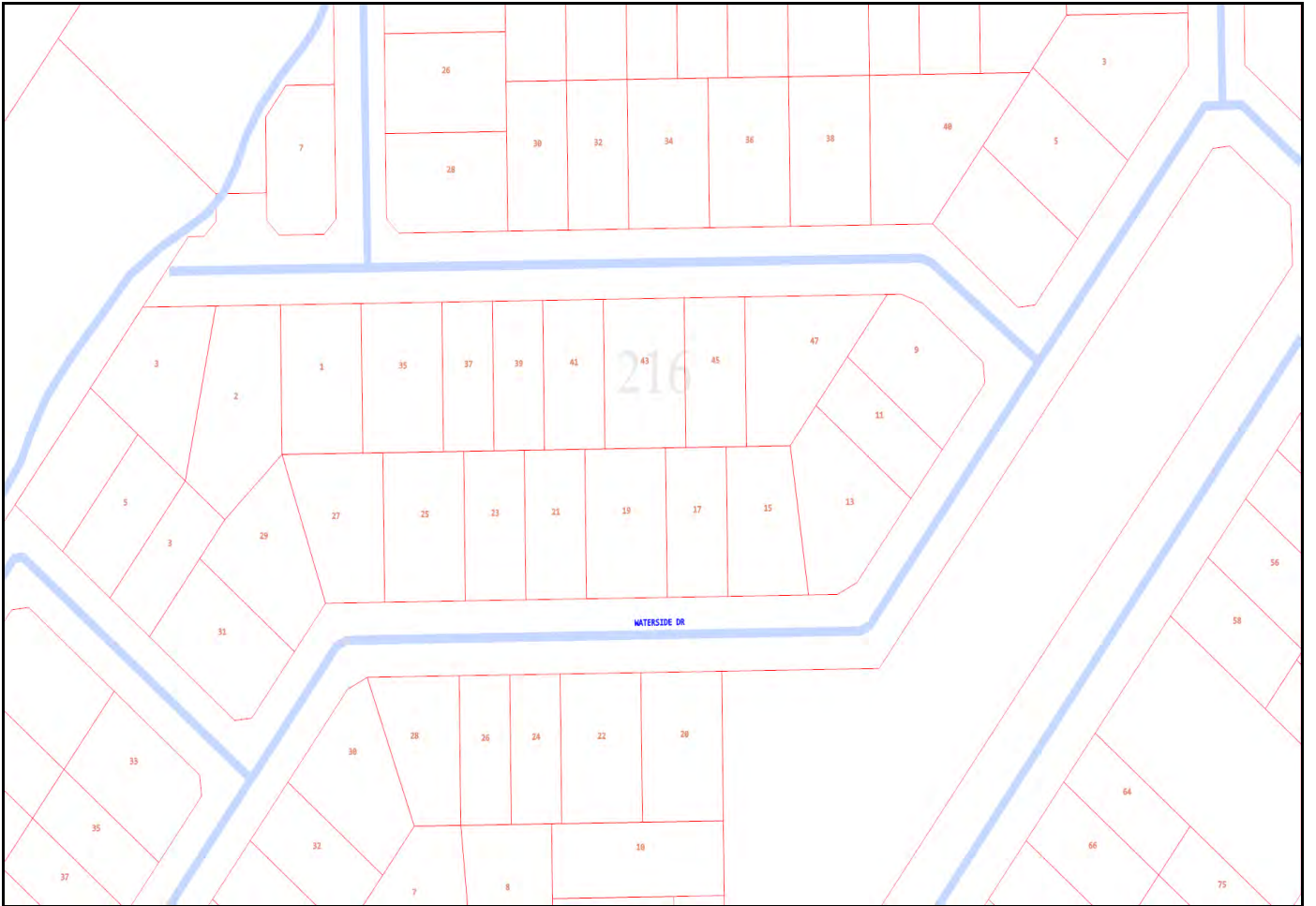






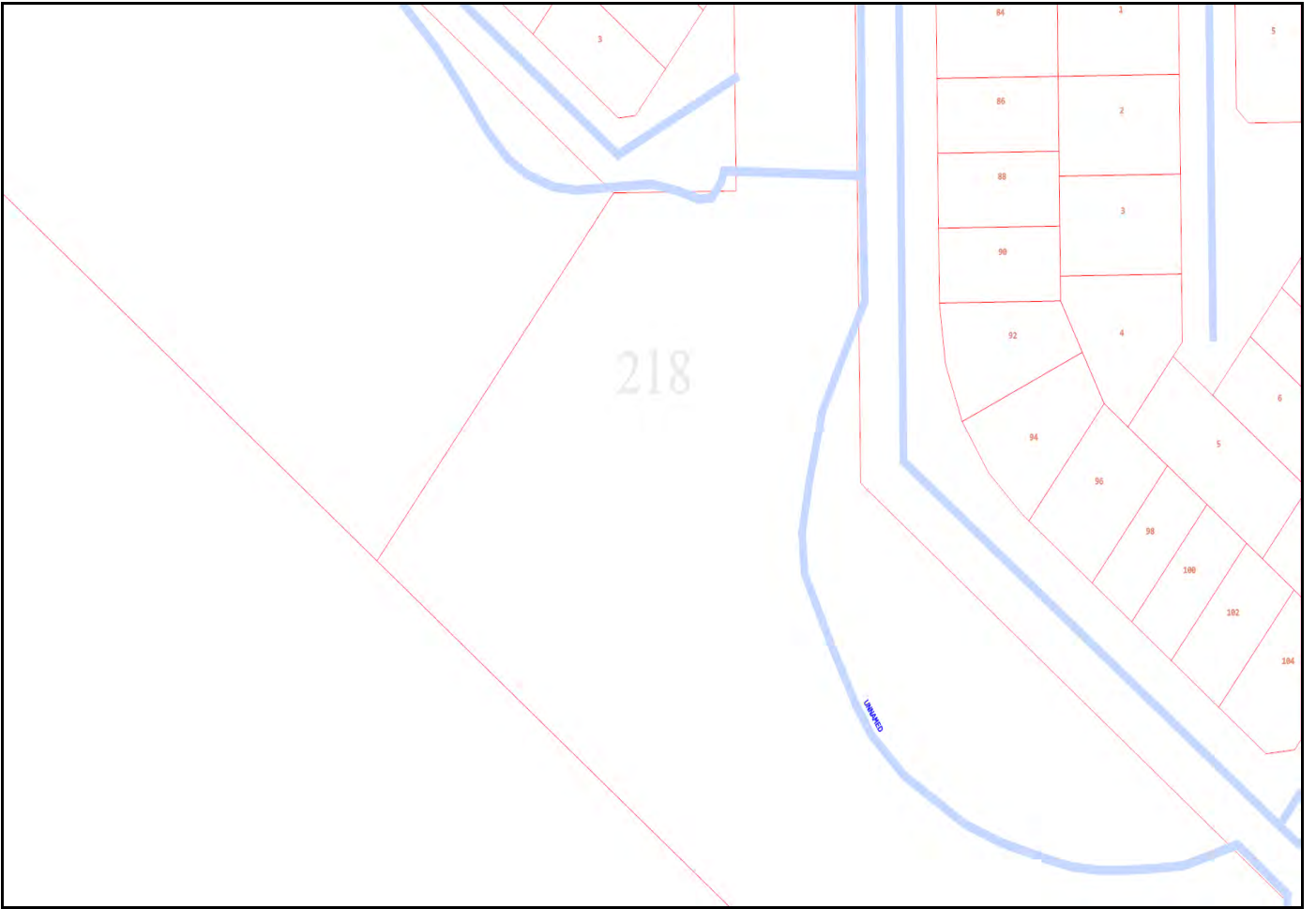
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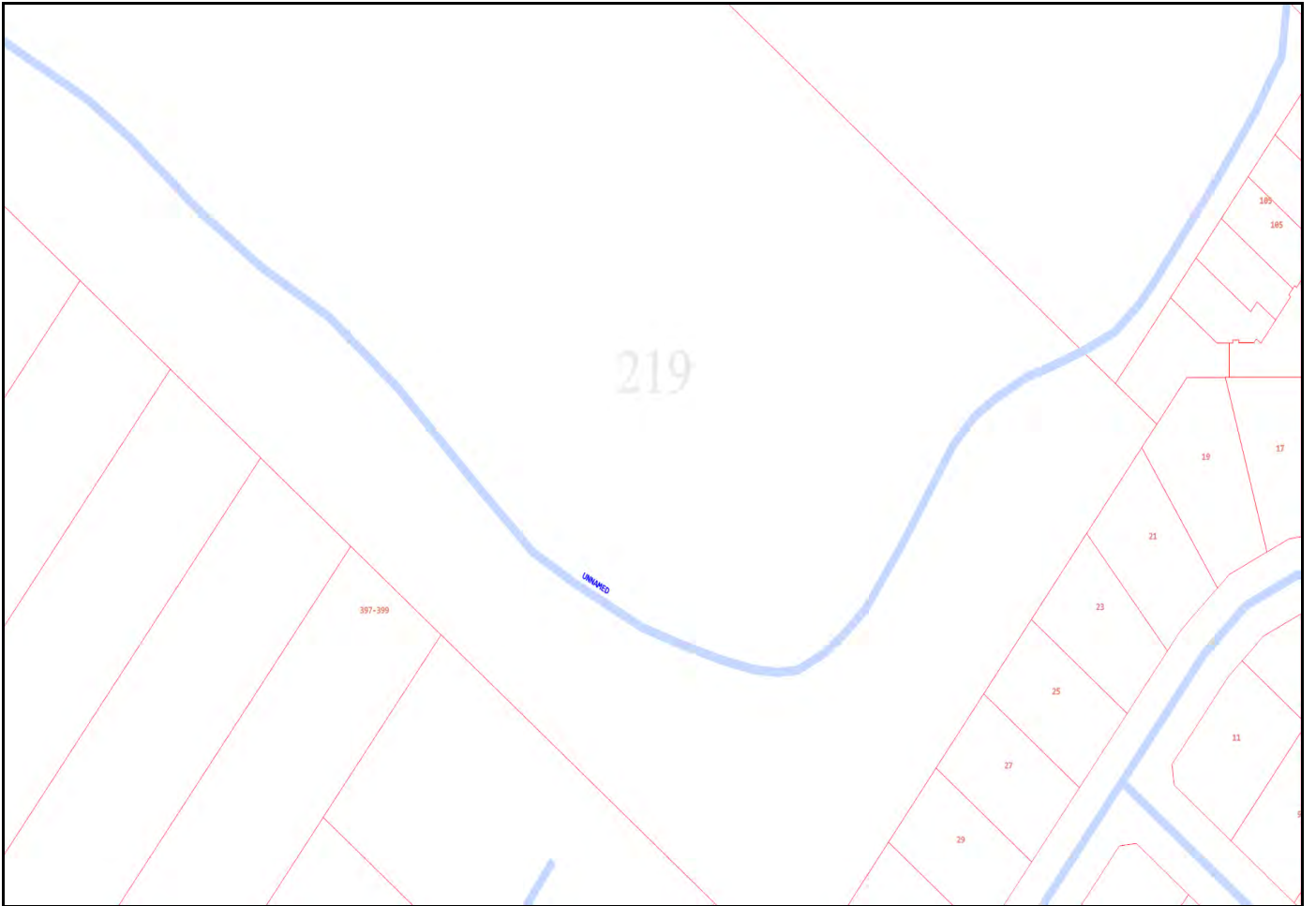




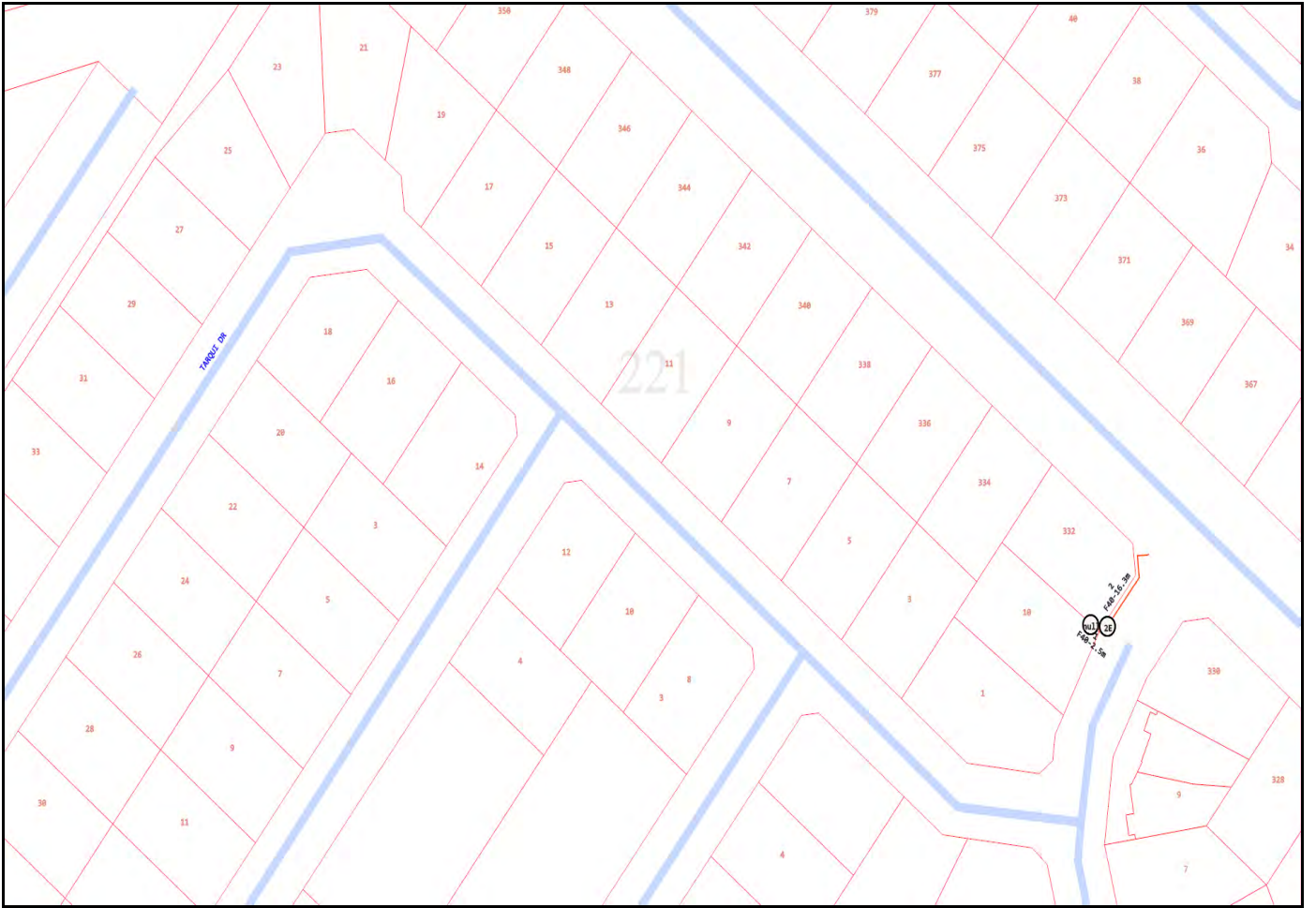


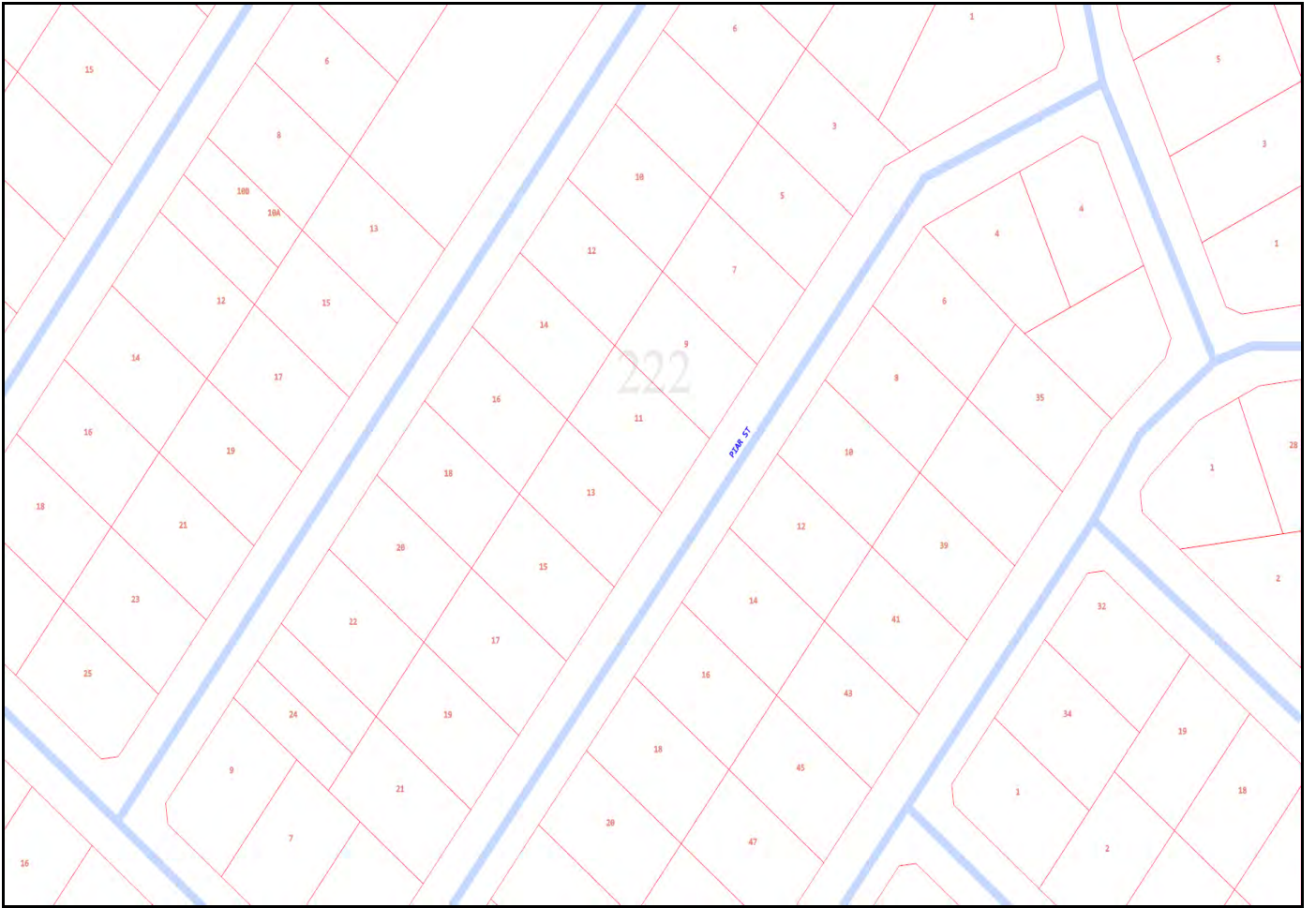




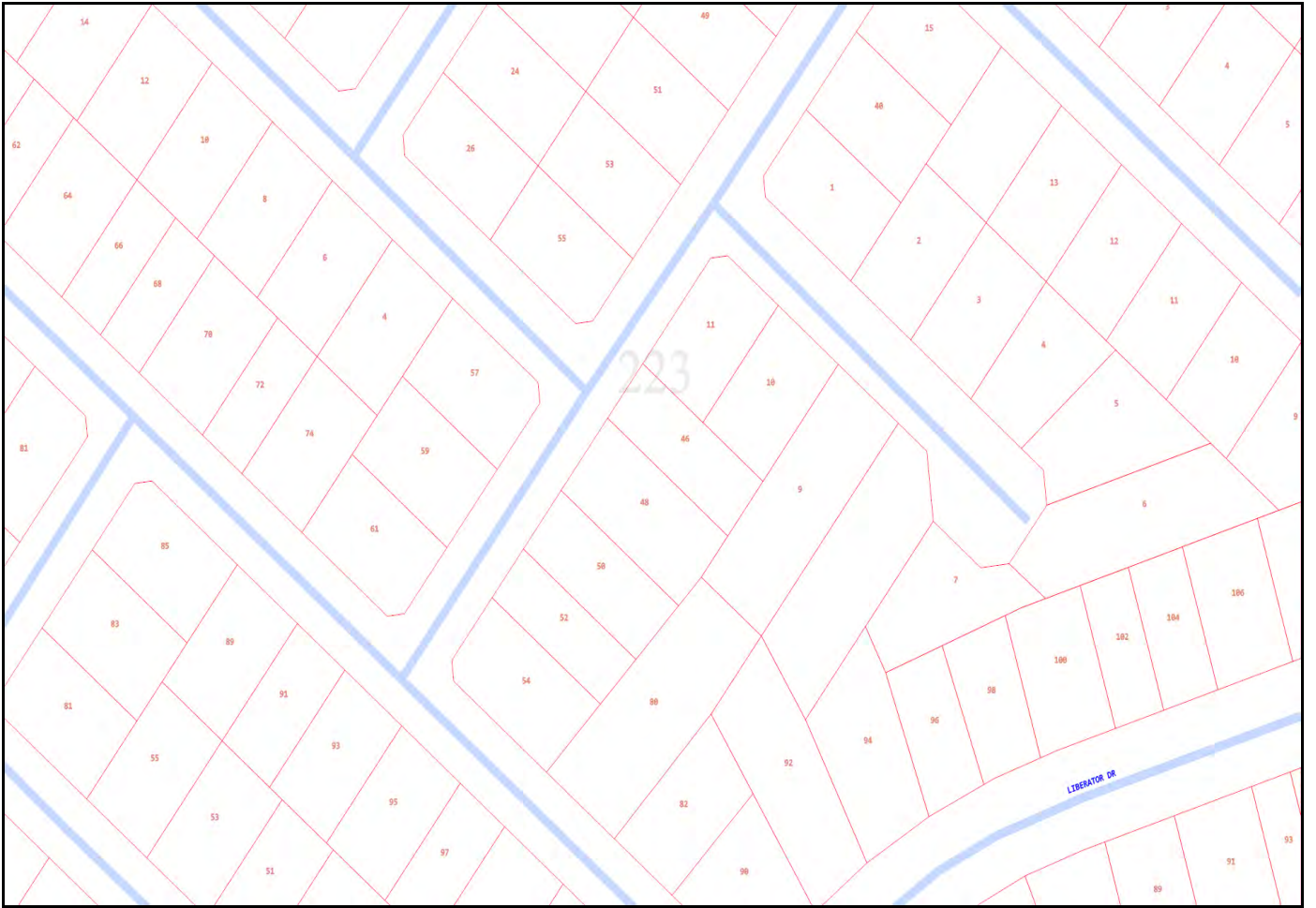


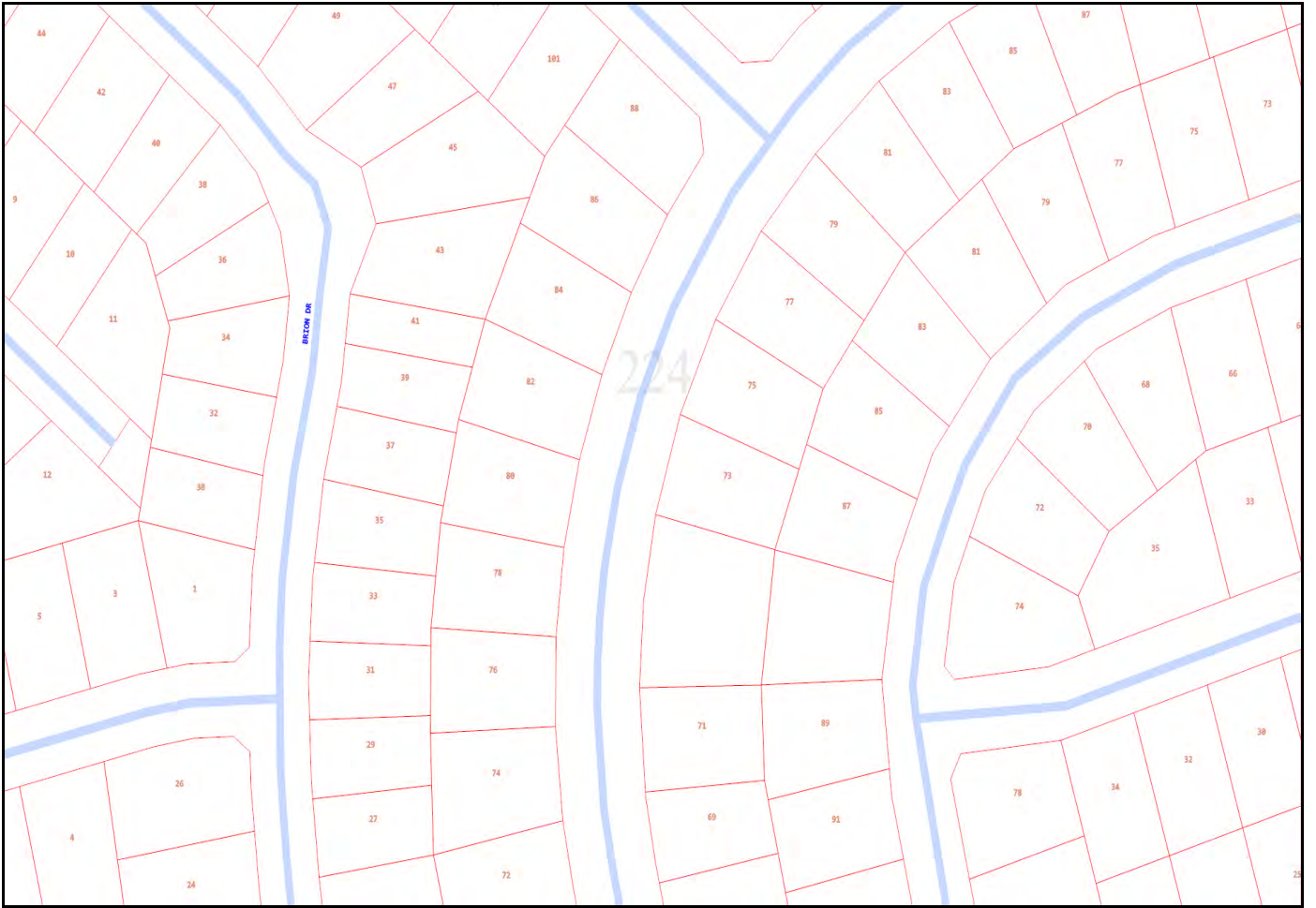




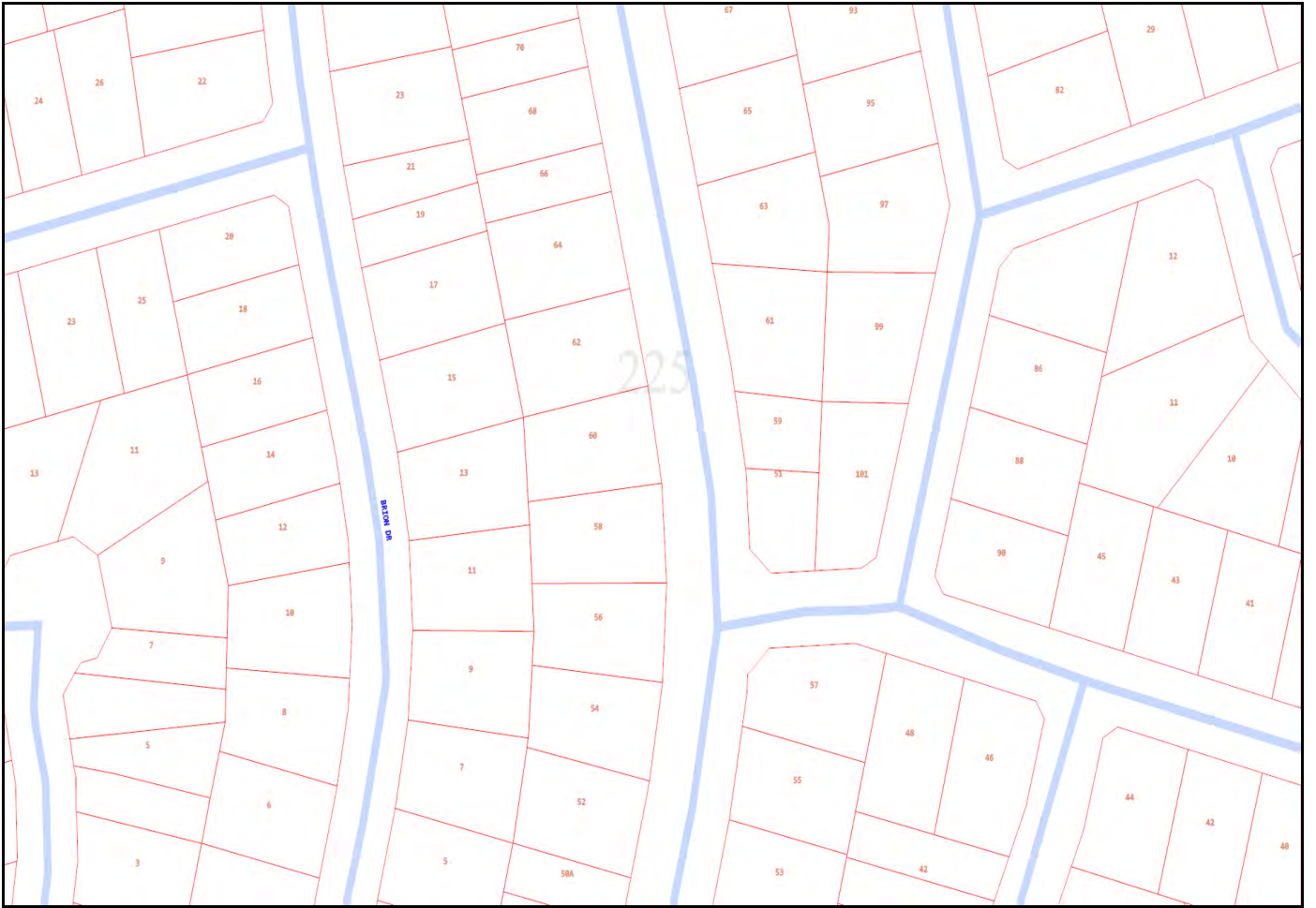






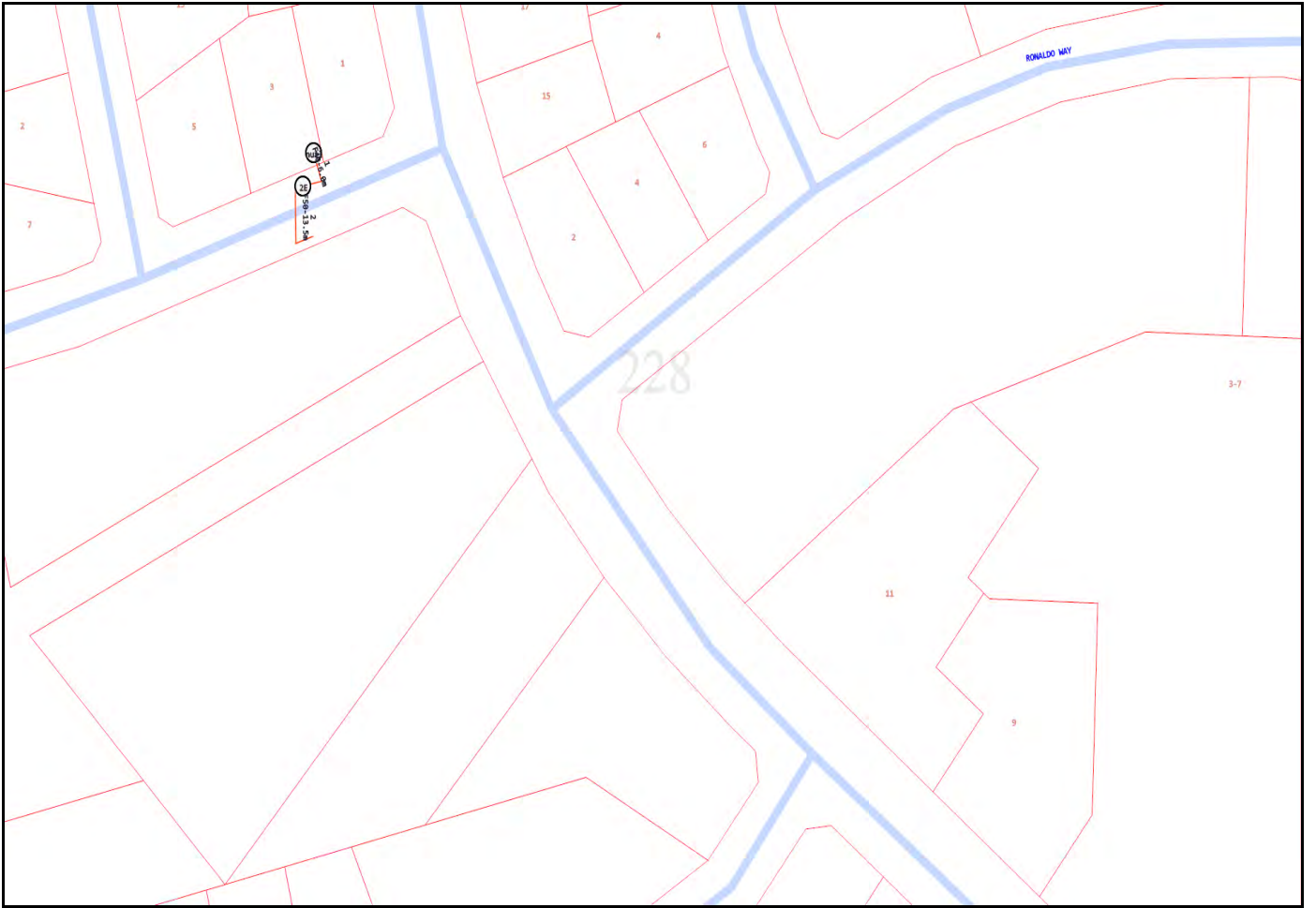






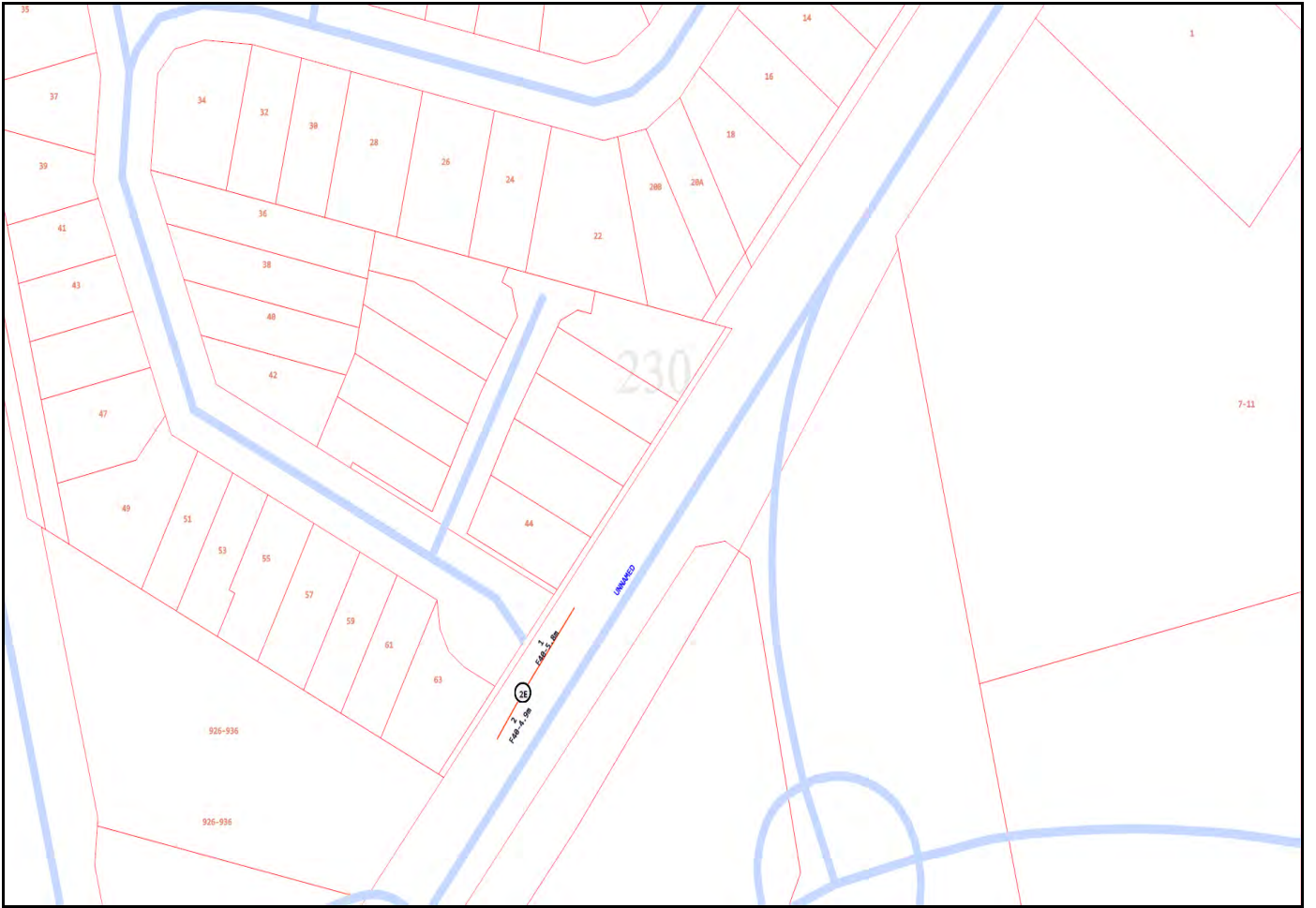


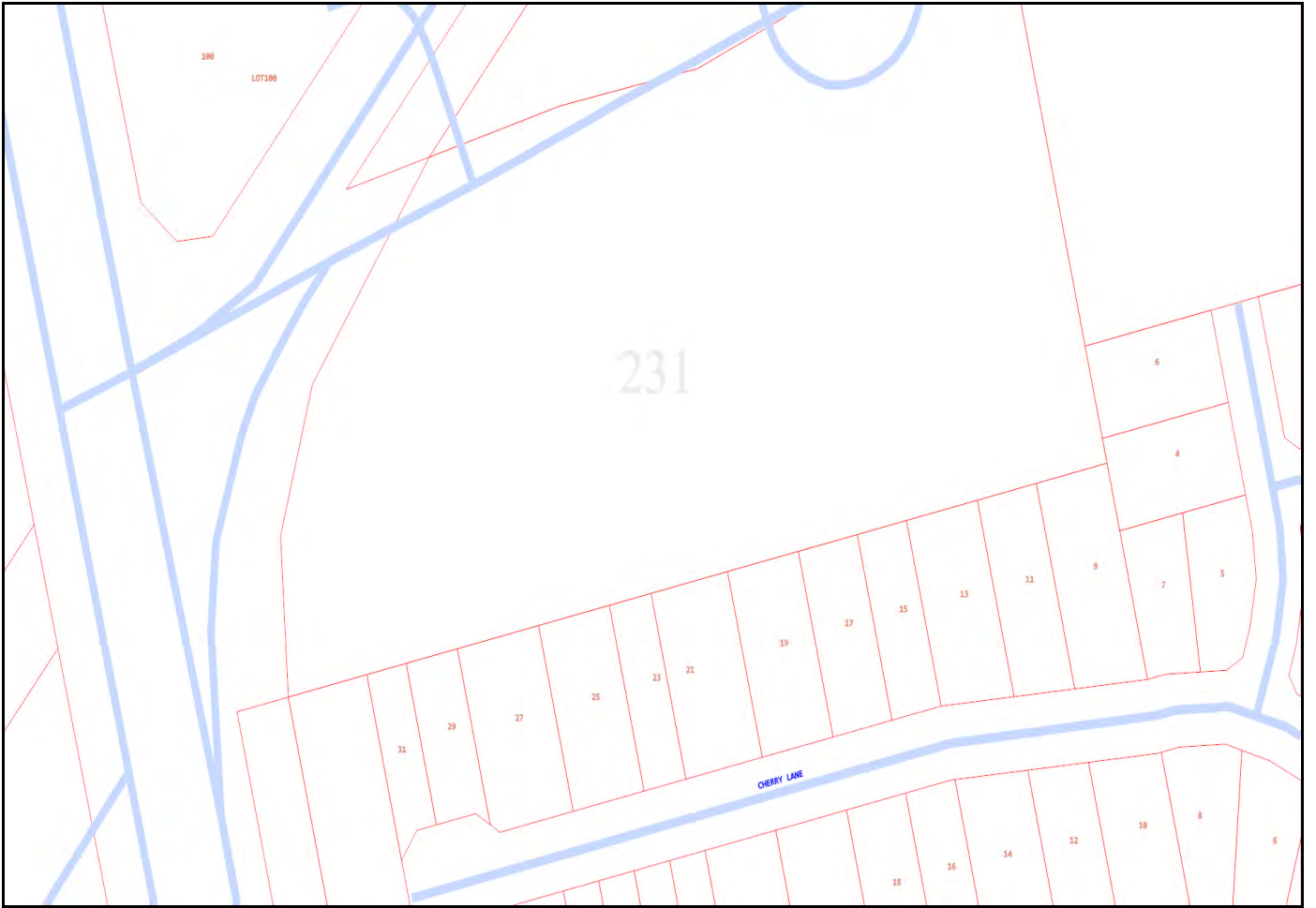
















Date: 06 Apr 2022  
To: Karion Dickson-Abbott  
Company: Greenhill  
Address: Level 1, 178 Fullarton Road  
Dulwich, SA 5065

## ENQUIRY DETAILS

Location: 79-81 Robinson Road, Waterloo Corner, SA 5110  
Sequence No.: 210057749  
DBYD Reference: 31721481

In relation to your enquiry concerning the above location, Optus advises as follows:

**Optus records indicate that there MAY be underground Optus FIBRE OPTIC TELECOMMUNICATIONS ASSETS in the vicinity of the above location as per the attached drawing(s).**

**This reply is valid for a period of 30 days from the date above.**

## IMPORTANT INFORMATION

It is essential to identify the location of any Optus assets in the vicinity prior to engaging in any works. It is therefore strongly advised that you contact Optus for further clarification as to whether any assets do exist in the vicinity of your planned works. Please refer to 'FURTHER ASSISTANCE' on the third page of this response letter for contact information.

Asset location drawings provided by Optus are reference diagrams and are provided as a guide only. The completeness of the information in these drawings cannot be guaranteed. Exact ground cover and alignments cannot be provided with any certainty as these may have altered over time. Depths of telecommunications assets vary considerably as do alignments.

## DUTY OF CARE

When working in the vicinity of telecommunications assets you have a legal "Duty of Care" and non-interference that must be observed.

It is your responsibility as the requesting party (as a landowner or any other party involved in the planned works) to design for minimal impact to any existing Optus asset. Optus can assist at the design stage through consultation.

It is also your, as the requesting party (or your representative's), responsibility to:

- a) Obtain location drawings (through the Dial Before You Dig process) of any existing Optus assets at a reasonable time before any planned works begin.
- b) Have an Optus Accredited Asset Locator identify the general location of the Optus asset and physically locate the asset where planned works may encroach on its alignment.
- c) Contact Optus for further advice where requested to do so by this letter.

## **DAMAGE TO ANY OPTUS ASSET MUST BE REPORTED TO 1800 500 253 IMMEDIATELY**

You, your head contractor and any relevant subcontractor are all responsible for any Optus asset damage as a result of planned activities in the vicinity of Optus assets.

This applies where works commence prior to obtaining Optus drawings, where there is failure to follow instructions or during any construction activities.

**Optus reserves the right to recover compensation for loss or damage to its assets including consequential loss. Also, you, your head contractor and any relevant subcontractor may also be liable for prosecution under the Criminal Code Act 1995 (Cth).**

## ASSET RELOCATIONS

You are not permitted by law to relocate, alter or interfere with any Optus asset under any circumstance. Any unauthorised interference with an Optus asset may lead to prosecution under the Criminal Code Act 1995 (Cth). Enquiries relating to the relocation of Optus assets must be referred to the relevant Optus Damages and Relocations Team (refer to "FURTHER ASSISTANCE").

## APPROACH DISTANCES

On receipt of Optus asset location drawings and prior to commencing any planned works near an Optus asset, engage an Optus Accredited Locator to undertake a general location of the Optus asset.

Physical location of the Optus asset by an Optus Accredited Locator will also be required where planned works are within the following approach distances of the general location of the Optus asset:

- a) In built up metropolitan areas where road and footpaths are well defined by kerbs or other features a minimum clear distance of 1 meter must be maintained from the general location of the Optus asset.
- b) In non-established or unformed metropolitan areas, a minimum clear distance of 3 meters must be maintained from the general location of the Optus asset.
- c) In country or rural areas where wider variations may exist between the general and actual location of an Optus asset may exist, then a minimum clear distance of 5 meters must be maintained from the general location of the Optus asset.

If planned works are parallel to the Optus asset, then the Optus asset must be physically located by an Optus Accredited Locator at a minimum of 5 meter intervals along the length of the parallel works prior to work commencing.

Under no circumstances is crossing of any Optus asset permitted without physical location of the asset being carried out by an Optus Accredited Locator. Depending on the asset involved an Optus representative may be required onsite.

The minimum clearances to the physical location of Optus assets for the following specific types of works must be maintained at all times.

**Note: Where the clearances in the following table cannot be maintained or where the type of work differs from those listed then advice must be sought from the relevant Optus Damages and Relocations Team (refer to "FURTHER ASSISTANCE").**

| Type of Works  | Clearance to Physical Location of Optus Asset  |
|--|--|
| Jackhammers / Pneumatic Breakers   | Not within 1 meter.  |
| Light duty Vibrating Plate or Wacker Packer type compactors (not heavy road construction vibrating rollers etc.) | 500mm compact clearance cover before a light duty compactor can be used over any Optus conduit.<br>No compaction permitted over Optus direct buried cable without prior approval from Optus.   |
| Boring Equipment (in-line, horizontal and vertical)  | Not within 5 meters parallel of the Optus asset location without an Accredited Optus Asset Locator physically exposing the Optus asset and with an Optus representative onsite.<br>Not to cross the Optus asset without an Accredited Optus Asset Locator physically exposing the Optus asset and with an Optus representative onsite. |
| Type of Works  | Clearance to Physical Location of Optus Asset  |
| Heavy vehicle Traffic (over 3 tonnes)  | Not to be driven across Optus conduits with less than 600mm of cover.<br>Not to be driven across Optus direct buried cable with less than 1.2 meters of cover.<br>Once off crossings permitted, multiple crossing (e.g. road construction or logging) will require Optus approval.   |

|  |   |
|--|---|
|  | Accredited Optus Asset Locator to physically expose the Optus asset to verify actual depth.                               |
| Mechanical Excavators, Farm Ploughing, Vertical Hole installation for water bore or fencing etc. | Not within 1 meter.<br><br>Accredited Optus Asset Locator to physically expose the Optus asset to verify actual location. |

**ASSET CLEARANCES AFTER COMPLETION OF WORKS**

All Optus pits and manholes must be a minimum of 1 meter from the back of any kerb, 3.5 meters of the road surface without a kerb or not within 15 meters of street intersection.

In urban areas Optus conduit must have the following minimum depth of cover:

- Footway 600mm;
- Roadway 1 meter at drain invert and at road centre crown.

In rural areas Optus conduit must have a minimum depth of cover of 1 meter and direct buried cable 1200mm.

In cases where it is considered that the above clearances cannot be maintained at the completion of works, advice must be sought from the relevant Optus Damages and Relocations Team (refer "Further Assistance").

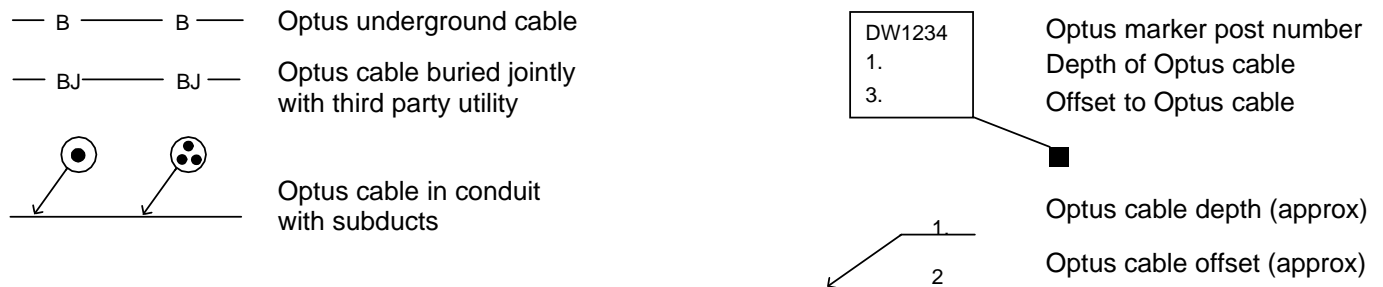
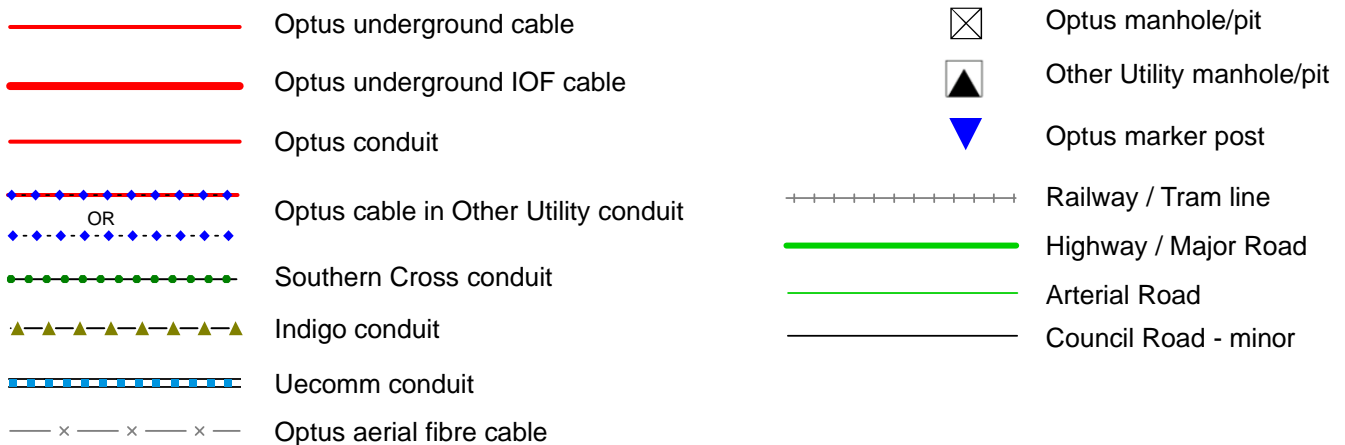
**FURTHER ASSISTANCE**

Further assistance on asset clearances, protection works or relocation requirements can be obtained by contacting the relevant Optus Damages and Relocations Team on the following email address:

[NFODamages&RelocationsDropbox@optus.com.au](mailto:NFODamages&RelocationsDropbox@optus.com.au)

Further assistance relating to asset location drawings etc. can be obtained by contacting the Optus Network Operations Asset Analysis Team on 1800 505 777.

**OPTUS ENGINEERING DRAWING SYMBOLS**





## Optus Accredited Asset Locators

| Name              | Company Name                            | Phone                        | Email  | State          | Region/Service Area   |
|-------------------|---|------------------------------|--|----------------|---|
| Alan Cordner      | Alcom Fibre Services Pty Ltd            | 0400 300 337                 | <a href="mailto:alcomfibre@bigpond.com">alcomfibre@bigpond.com</a>                               | NSW/ACT        | Sydney  |
| Brad McCorkindale | Bradmac Locating Services               | 0434 157 409                 | <a href="mailto:brad.mac@bigpond.com">brad.mac@bigpond.com</a>                                   | NSW/ACT        | All   |
| Troy Redden       | On Point Utility Locating               | 1300 6676 468                | <a href="mailto:troy@onpointlocating.com.au">troy@onpointlocating.com.au</a>                     | NSW            | Sydney Only   |
| Shane Buckley     | Cable & Pipe Locations                  | 0408 730 430                 | <a href="mailto:sabuckley@bigpond.com">sabuckley@bigpond.com</a>                                 | NSW/QLD        | Armidale, Casino, Coffs Harbour, Dorrigo, Glenn Innes, Grafton, Inverell, Kempsey, Lismore, Nambucca, Port Macquarie, Tamworth, Taree, Tenterfield, Yamba |
| Philip Pegler     | Down Under Detection Services (DUDS)    | 0418 267 964                 | <a href="mailto:apegler@duds.net.au">apegler@duds.net.au</a>                                     | NSW            | All   |
| Tina Stanhope     | SureSearch Underground Services         | 1300 884 520<br>0418 920 245 | <a href="mailto:tina.stanhope@suresearch.com.au">tina.stanhope@suresearch.com.au</a>             | NSW/ACT<br>QLD | NSW, Sydney, Northern NSW, Canberra, QLD, South East QLD.   |
| Leonard McGowan   | Pipesure Australia                      | 1300 411 811                 | <a href="mailto:len@pipesure.com.au">len@pipesure.com.au</a>                                     | NSW            | Sydney  |
| Bruce Whittaker   | Optical Fibre Technologies              | 0402 354 322                 | <a href="mailto:opticaltek1@aol.com">opticaltek1@aol.com</a>                                     | NSW            | Sydney/Wollongong   |
| Darryl Smith      | Darryl Smith Electrical                 | 02 6642 3731                 | <a href="mailto:office@dsmithelectrical.com.au">office@dsmithelectrical.com.au</a>               | NSW            | Grafton   |
| George Koenig     | Downunder Locations NSW Pty             | 0438 243 856                 | <a href="mailto:Downunderlocations@gmail.com">Downunderlocations@gmail.com</a>                   | NSW            | Tweed Heads, Gold Coast, Brisbane   |
| Michael Grant     | M&K Grant Bega Bobcats Pty Ltd          | 0427 260 423                 | <a href="mailto:zzbobcat@bigpond.net.au">zzbobcat@bigpond.net.au</a>                             | NSW            | Bega, Far South Coast   |
| Antony Critcher   | Geotrace Pty Ltd                        | 0417 147 945                 | <a href="mailto:antony@geotrace.com.au">antony@geotrace.com.au</a>                               | NSW            | All Areas, Sydney, Wollongong, Newcastle, ACT   |
| Anthony Lane      | Hydro Digga                             | 0447 774 000                 | <a href="mailto:locator@hydrodigga.com">locator@hydrodigga.com</a>                               | NSW            | All of NSW, ACT & South East Qld  |
| Joshua Payne      | Australian Utilities Management Pty Ltd | 0427 833 222                 | <a href="mailto:aine@ausutilities.net.au">aine@ausutilities.net.au</a>                           | NSW            | Sydney Metro  |
| Nathan Ellis      | Utility Locating Services               | 0404 087 555                 | <a href="mailto:nathan@utilitylocatingservices.com.au">nathan@utilitylocatingservices.com.au</a> | NSW            | Sydney  |
| Rodney Pullen     | Provac                                  | 0450 268 012                 | <a href="mailto:rod@provac.net.au">rod@provac.net.au</a>   | NSW /QLD       | South East QLD, Northern NSW  |

|                   |  |                              |  |           |  |
|-------------------|--|------------------------------|--|-----------|--|
| Rodney Pullen     | One Find Cables                        | 0451 268 012                 | <a href="mailto:rod@provac.net.au">rod@provac.net.au</a>                                   | NSW /QLD  | South East QLD, Northern NSW   |
| Drew Misko        | Australian Subsurface Pty Ltd          | 0427 879 600                 | <a href="mailto:admin@australiansubsurface.com">admin@australiansubsurface.com</a>         | NSW/ACT   | All of NSW/ACT   |
| Scott O'Malley    | Coastal Cable Locators Pty Ltd         | 0427 975 777                 | <a href="mailto:skomalley@bigpond.com">skomalley@bigpond.com</a>                           | NSW       | South Coast- Snowy Mountains-<br>Southern Highlands  |
| Liam Bolger       | Brandon Construction Services          | 0438 044 008                 | <a href="mailto:liam.bolger@hotmail.com">liam.bolger@hotmail.com</a>                       | NSW       | Sydney   |
| Brett Pickup      | All About Pipes                        | 02 8763 4200                 | <a href="mailto:Brett.Pickup@allaboutpipes.com.au">Brett.Pickup@allaboutpipes.com.au</a>   | NSW / VIC | All  |
| Karen Joyce       | Durkin Construction Pty Ltd            | 02 9712 0308                 | <a href="mailto:karen@durkinconstruction.com.au">karen@durkinconstruction.com.au</a>       | NSW       | Sydney   |
| Timothy Laidler   | Locate & Map                           | 0431 191 669                 | <a href="mailto:tim@locateandmap.com.au">tim@locateandmap.com.au</a>                       | NSW       | Sydney, Central Coast  |
| Ken Brown         | Riteway Traffic Control Pty Ltd        | 0419 212 969                 | <a href="mailto:kbrowne@ritewaytc.com.au">kbrowne@ritewaytc.com.au</a>                     | NSW       | Central Coast, Hunter  |
| Walter R Johansen | Steger & Associates                    | 02 6296 4089                 | <a href="mailto:enquiries@steger.com.au">enquiries@steger.com.au</a>                       | ACT/NSW   | Canberra   |
| Jean-Max Monty    | Civilscan                              | 0416 068 060                 | <a href="mailto:civilscan@bigpond.com">civilscan@bigpond.com</a>                           | NSW       | Sydney – Central Coast –<br>Newcastle – Wollongong –<br>Hunter Valley – Blue Mountains                 |
| Alan Hunter       | Hunter Ground Search                   | 02 4953 1244<br>0418 684 819 | <a href="mailto:huntergroundsearch@bigpond.com">huntergroundsearch@bigpond.com</a>         | NSW       | Newcastle, Central Coast,<br>Hunter Valley, Mid North Coast,<br>Liverpool Plains, Central West<br>NSW. |
| Gilbert J Cook    | Datateks Communications<br>Specialists | 0408 693 660                 | <a href="mailto:datateks@datateks.com.au">datateks@datateks.com.au</a>                     | NSW       | Southern NSW   |
| Damien Black      | Mid North Coast Hydro Digging          | 0418 409 465                 | <a href="mailto:dblack1@bigpond.com">dblack1@bigpond.com</a>                               | NSW       | Newcastle- foster-Taree-<br>Wauchope -Port Macquarie -<br>Kempsey -Coffs harbour                       |
| Neil Blenkinsop   | Utility Mapping Pty Ltd                | 0427 318 681                 | <a href="mailto:nblenkinsop@utilitymapping.com.au">nblenkinsop@utilitymapping.com.au</a>   | NSW       | Sydney   |
| Daniel Fox        | Epoca Environmental Pty Ltd            | 02 4739 2465<br>0433 100 642 | <a href="mailto:daniel@epocaenvironmental.com.au">daniel@epocaenvironmental.com.au</a>     | NSW       | All NSW, ACT   |
| Rod Shaw          | Cable Find                             | 0478 887 073                 | <a href="mailto:rod@cablefind.com.au">rod@cablefind.com.au</a>                             | NSW       | Northern Rivers  |
| Danny Carter      | Online Pipe & Cable Locating           | 1300 665 384                 | <a href="mailto:danny@onlinepipe.com.au">danny@onlinepipe.com.au</a>                       | NSW       | Sydney, Newcastel, Canberra,<br>Blue Mountains   |
| Sam Romano        | Locating Services                      | 0403 065 510                 | <a href="mailto:sam.romano@locatingservices.com.au">sam.romano@locatingservices.com.au</a> | NSW       | NSW All  |
| Scott Allison     | Crux Surveying Australia               | 02 9540 9940                 | <a href="mailto:sydneyoffice@cruxsurveying.com.au">sydneyoffice@cruxsurveying.com.au</a>   | NSW       | Sydney Metro & Surrounding<br>Areas  |
| Ian Brown         | Peter Ellsmore & Associates            | 0439 423 708                 | <a href="mailto:ian.brown@ellsmore.com.au">ian.brown@ellsmore.com.au</a>                   | NSW       | Wollongong, Illawarra, South<br>Coast, Southern Highlands,<br>Macarthur & Sydney                       |

|                       |                                     |                              |  |             |   |
|-----------------------|-------------------------------------|------------------------------|--|-------------|---|
| Donna Wullaert        | Commence Communications Pty Ltd     | 02 6226 3869<br>0428 595 620 | <a href="mailto:admin@commencecomms.com.au">admin@commencecomms.com.au</a>                         | NSW         | Canberra, Yass, Bungendore, Goulburn and Surrounding regional Areas |
| Stephen Fraser        | Advanced Ground Locations           | 02 4930 3195<br>0412 497 488 | <a href="mailto:steve_agl@hotmail.com">steve_agl@hotmail.com</a>                                   | NSW         | Newcastle, Hunter Valley, Central Coast, Taree & Surrounding Areas  |
| Andrew Findlay        | LiveLocates                         | 0429 899 777                 | <a href="mailto:info@livelocates.com.au">info@livelocates.com.au</a>                               | NSW         | South Coast/ACT, Snowy Mountains                                    |
| Graeme Teege          | Armidale Electrical                 | 02 6772 3702                 | <a href="mailto:office@armidale-electrical.com.au">office@armidale-electrical.com.au</a>           | NSW         | Armidale  |
| Myles Green           | Australian Locating Services        | 1300 761 545                 | <a href="mailto:myles@locating.com.au">myles@locating.com.au</a>                                   | NSW         | Sydney  |
| Brett Wallin          | Utility Scan                        | 0426 354 051                 | <a href="mailto:brett@utilityscan.net">brett@utilityscan.net</a>                                   | NSW         | Sydney CBD and Regional areas                                       |
| Daniel Hudson         | One Search Locators                 | 1300 530 420                 | <a href="mailto:daniel@onesearchlocators.com.au">daniel@onesearchlocators.com.au</a>               | NSW         | All NSW, ACT  |
| Tim Galaz             | Utec Solutions                      | 02 9389 0040                 | <a href="mailto:office@utecsolutions.com.au">office@utecsolutions.com.au</a>                       | NSW/QLD/VIC | All areas, NSW, QLD, VIC  |
| Gary Laneyrie         | Laneyrie Electrical                 | 0412 079 079<br>0413 048 048 | <a href="mailto:bindy@laneyrieelectrical.com.au">bindy@laneyrieelectrical.com.au</a>               | NSW         | Illawarra, South Coast, Hunter Region                               |
| Reece Gainsford       | East Coast Locating Services        | 0431 193 111                 | <a href="mailto:eastcoastlocating@hotmail.com">eastcoastlocating@hotmail.com</a>                   | NSW         | Sydney, Maitland, Newcastle, Hunter, Port Stephens, Central Coast   |
| Allan Clarke          | The Control Group Pty Ltd           | 0421 960 017                 | <a href="mailto:allan@thecontrolgroup.com.au">allan@thecontrolgroup.com.au</a>                     | NSW         | Northern NSW  |
| Simon Cook            | Douglas Partners                    | 0431 507 667                 | <a href="mailto:simon.cook@douglaspartners.com.au">simon.cook@douglaspartners.com.au</a>           | NSW         | NSW All   |
| Samual Boesen         | Rubicof Cable & Pipe Locators       | 0403 285 352<br>0418 103 369 | <a href="mailto:rubicof@optusnet.com.au">rubicof@optusnet.com.au</a>                               | NSW         | Cessnock  |
| Craig Vallely         | Aqua Freeze & Locate Pty Ltd        | 0458 774 440                 | <a href="mailto:service@aquafreeze.com.au">service@aquafreeze.com.au</a>                           | NSW         | Sydney  |
| Josiah Chapman-Hunter | Suk Truk Services Pty Ltd           | 0419 125 551<br>0478 004 606 | <a href="mailto:services@suktruk.com.au">services@suktruk.com.au</a>                               | NSW         | Hunter / Newcastle  |
| Laurence Mead         | Veris Australia                     | 0419 770 560                 | <a href="mailto:i.mead@veris.com.au">i.mead@veris.com.au</a>                                       | NSW         | Sydney  |
| Jason Vane            | Smartscan Locators PTY Ltd          | 0498 025 210                 | <a href="mailto:Admin@sslocators.com.au">Admin@sslocators.com.au</a>                               | NSW         | Sydney  |
| Alex Farcash          | Newcastle Locating Services Pty Ltd | 0410 698 599                 | <a href="mailto:Admin@newcastlelocatingservices.com.au">Admin@newcastlelocatingservices.com.au</a> |             | Newcastle, Hunter Valley, Central Coast, Taree & Surrounding Areas  |
| Amer El Chami         | Site Scan Pty Ltd                   | 0449 992 520                 | <a href="mailto:office@sitescan.net.au">office@sitescan.net.au</a>                                 | NSW         | Sydney  |
| Kaisar sefian         | Australian Utility Search Pty Ltd   | 0424 841 888                 | <a href="mailto:kaisar@aususearch.com.au">kaisar@aususearch.com.au</a>                             | NSW/ACT     | All NSW, ACT  |
| Ian Brown             | A1 Locate Services                  | 0400 484 828                 | <a href="mailto:ian.brown@a1locate.com.au">ian.brown@a1locate.com.au</a>                           | NSW/ACT     | All NSW, ACT  |

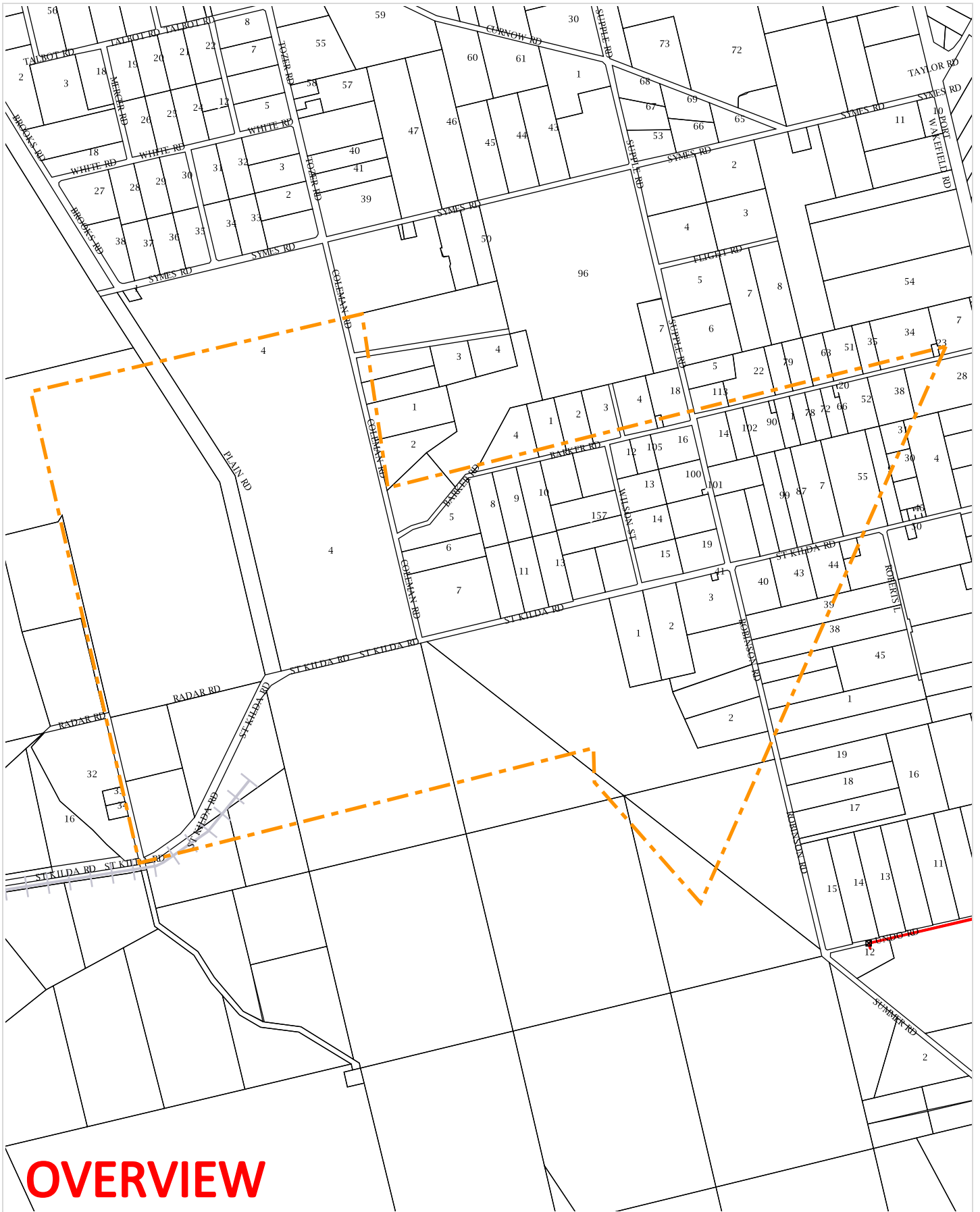


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|---------------------------|---|------------------------------|--|--------------------|--|
| Alexander Bogdanoff       | Expert Service Locating                     | 0420 346 477                 | <a href="mailto:info@expertservicelocating.com.au">info@expertservicelocating.com.au</a>         | NSW/QLD            | Brisbane, Gold Coast, Sunshine Coast Northern Rivers NSW |
| Justin Joseph S. Martinez | FJA Locating                                | 0401 749 007                 | <a href="mailto:j.martinez@fjalocating.com.au">j.martinez@fjalocating.com.au</a>                 | NSW, ACT, QLD, VIC | All regions  |
| Rhiannon Kemps            | Geoscope Utility Detection Services Pty Ltd | 0432 296 323                 | <a href="mailto:simon@geoscopelocating.com.au">simon@geoscopelocating.com.au</a>                 | NSW                | All regions  |
| Laurence Mead             | Astrea Pty Ltd                              | 0413 849 666                 | <a href="mailto:admin@astrea.com.au">admin@astrea.com.au</a>                                     | NSW                | Sydney Metro & Surrounding Areas                         |
| Bobby Friesz              | VAC Group Operations (T/A Earth Radar)      | 0447 837 267                 | <a href="mailto:Bobby.Friesz@vacgroup.com.au">Bobby.Friesz@vacgroup.com.au</a>                   | NSW                | Sydney   |
| Chris Hall                | D C Locators Pty Ltd                        | 0419 679 741                 | <a href="mailto:dcloc@powerup.com.au">dcloc@powerup.com.au</a>                                   | QLD                | Brisbane, Ipswich  |
| Jeff Trackson             | J.R & L.M Trackson Pty Ltd                  | 0417 600 978                 | <a href="mailto:jtrackson@tracavoid.com.au">jtrackson@tracavoid.com.au</a>                       | QLD                | All  |
| Benji Lee                 | LADS  | 0478 915 237                 | <a href="mailto:benji@ladsqld.com.au">benji@ladsqld.com.au</a>                                   | QLD                | South East QLD   |
| Andrew Watson             | Lambert Locations Pty Ltd                   | 07 5562 8400                 | <a href="mailto:admin@lambertlocations.com.au">admin@lambertlocations.com.au</a>                 | QLD                | South East QLD & Northern NSW                            |
| Ross Clarke               | FNQ Cable Locators Pty Ltd                  | 0428 775 655                 | <a href="mailto:onlineco@bigpond.net.au">onlineco@bigpond.net.au</a>                             | QLD                | Far North QLD, Cape York & Peninsula                     |
| Col Greville              | Bsure Locators                              | 0488 520 688                 | <a href="mailto:admin@bsurelocators.com.au">admin@bsurelocators.com.au</a>                       | QLD                | Wide Bay Burnett and Central Qld                         |
| Mikael White              | All Asset Locations                         | 0478 846 025                 | <a href="mailto:allassetlocations@gmail.com">allassetlocations@gmail.com</a>                     | QLD                | Sunshine Coast   |
| Simon Griffin             | Pensar Utilities                            | 0458 800 267                 | <a href="mailto:sgriffin@pensar.com.au">sgriffin@pensar.com.au</a>                               | QLD                | Brisbane, Gold Coast, Sunshine Coast                     |
| Andrew Cowan              | VAC Group Operations (T/A Earth Radar)      | 0447 008 806                 | <a href="mailto:andrew.cowan@vacgroup.com.au">andrew.cowan@vacgroup.com.au</a>                   | QLD                | South East and Central QLD                               |
| Jimmy Wilkins             | GeoRadar Australia                          | 0425 677 227                 | <a href="mailto:jimmy@georadar.net.au">jimmy@georadar.net.au</a>                                 | QLD                | Emerald, Bundaberg                                       |
| Beaumont Blake            | PipeHawk CCTV                               | 0435 558 533                 | <a href="mailto:accounts@pipehawkcctv.com.au">accounts@pipehawkcctv.com.au</a>                   | QLD                | South East QLD & Northern NSW                            |
| Craig Waite               | C Locate                                    | 0437 808 444                 | <a href="mailto:clocate@bigpond.com">clocate@bigpond.com</a>                                     | QLD                | South East QLD   |
| QLD Operations            | Utility Location Services                   | 0499 775 095<br>07 3807 3552 | <a href="mailto:qldops@utilitylocationservices.com.au">qldops@utilitylocationservices.com.au</a> | QLD                | SouthEast QLD, Northern NSW                              |
| Andrew Watson             | RPS AUS East                                | 0408 839 723                 | <a href="mailto:andrew.watson@rpsgroup.com.au">andrew.watson@rpsgroup.com.au</a>                 | QLD                | Brisbane   |
| Luke Steadman             | Utility Mapping Pty Ltd                     | 0472 867 197                 | <a href="mailto:lsteadman@utilitymapping.com.au">lsteadman@utilitymapping.com.au</a>             | QLD                | All  |
| Robert Reed               | All Asset Locations Pty Ltd                 | 0478 846 025                 | <a href="mailto:allassetlocations@gmail.com">allassetlocations@gmail.com</a>                     | QLD                | Sunshine Coast   |
| Jenny Dziduch             | 1300 Locate Pty Ltd                         | 1300 562 283                 | <a href="mailto:admin@1300locate.com.au">admin@1300locate.com.au</a>                             | QLD                | All Queensland, Northern NSW                             |

|                 |   |                              |  |            |                                      |
|-----------------|---|------------------------------|--|------------|--------------------------------------|
| Sam Hazel       | Utility ID Underground Service Locators | 0401 202 515                 | <a href="mailto:sam@utilityid.com.au">sam@utilityid.com.au</a>                                 | QLD        | Southern QLD                         |
| Brendon Smith   | Dynamic Hydro Excavations               | 1300 822 878                 | <a href="mailto:admin@dynamicexcavation.com.au">admin@dynamicexcavation.com.au</a>             | QLD        | QLD, NSW, VIC                        |
| Marty Carlson   | Surveywerx Pty Ltd                      | 0488 842 110                 | <a href="mailto:mike@surveywerx.com">mike@surveywerx.com</a>                                   | QLD        | South East QLD                       |
| Ran Gledhill    | Safe Dig Services                       | 0408 944 228                 | <a href="mailto:rgsafedig@gmail.com">rgsafedig@gmail.com</a>                                   | QLD        | Brisbane / North Queensland          |
| Ben Stephens    | Electroscan (DTS Group)                 | 0434 140 556                 | <a href="mailto:ben.s@electroscanqld.com.au">ben.s@electroscanqld.com.au</a>                   | QLD        | All                                  |
| Adam Lloyd      | Aussie HydroVac Services                | 07 3287 7818                 | <a href="mailto:adam.lloyd@aussiehydrovac.com.au">adam.lloyd@aussiehydrovac.com.au</a>         | QLD        | All                                  |
| Gary Poppi      | Ace Cable Locations                     | 0431 517 837                 | <a href="mailto:garypoppi@bigpond.com">garypoppi@bigpond.com</a>                               | QLD        | Wide Bay Burnett                     |
| Andrew McKenna  | Taylros Development Strategists         | 03 95012800                  | <a href="mailto:a.mckenna@taylords.com.au">a.mckenna@taylords.com.au</a>                       | VIC/SA/TAS | Victoria                             |
| Olivier Davies  | Central Locating PTY LTD                | 0439 995 894                 | <a href="mailto:Ollie@centrallocating.com.au">Ollie@centrallocating.com.au</a>                 | VIC/SA/TAS | Melbourne Surfcoast Ballarat         |
| Tina Brereton   | D-Tech Ground & Overhead Services       | 0421 697 090                 | <a href="mailto:tina@d-tech.net.au">tina@d-tech.net.au</a>                                     | VIC        | Victoria                             |
| Josh Taylor     | Advanced Locations Victoria             | 0427 846 716                 | <a href="mailto:josh@advancedlocationsvic.com.au">josh@advancedlocationsvic.com.au</a>         | VIC        | All                                  |
| Ben Minutoli    | Geelong Cable Locations                 | 1800 449 543                 | <a href="mailto:ben@geelongcablelocations.com.au">ben@geelongcablelocations.com.au</a>         | VIC        | Melbourne, Geelong, Country Victoria |
| Mick McGoldrick | Cavan Constructions                     | 0404 241 679                 | <a href="mailto:mick@locatecables.com">mick@locatecables.com</a>                               | VIC        | Western Victoria                     |
| David Kelleher  | Construction Sciences                   | 03 9553 7236                 | <a href="mailto:utilities@constructionsciences.net">utilities@constructionsciences.net</a>     | VIC        | Victoria                             |
| Stuart Miles    | ELS Environmental Location Systems      | 03 8795 7461                 | <a href="mailto:accounts@radiodetection.com.au">accounts@radiodetection.com.au</a>             | VIC        | Victoria                             |
| Darren Dean     | Asset Survey Solutions                  | 1300 035 796                 | <a href="mailto:darren.dean@assetsurvey.com.au">darren.dean@assetsurvey.com.au</a>             | VIC        | Victoria                             |
| Alex Jones      | Utility Mapping Pty Ltd                 | 0417 413 353                 | <a href="mailto:ajones@utilitymapping.com.au">ajones@utilitymapping.com.au</a>                 | VIC        | Victoria                             |
| Adam Linford    | Gippsland Pipe & Cable Locations        | 0409 386 817                 | <a href="mailto:gippspac@hotmail.com">gippspac@hotmail.com</a>                                 | VIC        | Gippsland                            |
| Thomas Pitt     | Access Utility Engineering (AUE)        | 03 9580 0440                 | <a href="mailto:info@accessue.com.au">info@accessue.com.au</a>                                 | VIC        | Victoria                             |
| Bernie Acabal   | Taylors Development Strategists         | 03 9501 2800<br>0419 758 794 | <a href="mailto:b.acabal@taylorsds.com.au">b.acabal@taylorsds.com.au</a>                       | VIC        | Victoria                             |
| Philong Nguyen  | Asset Detection Services Pty Ltd        | 0413 949 400                 | <a href="mailto:phi.nguyen@assetdetection.com.au">phi.nguyen@assetdetection.com.au</a>         | VIC        | VIC, NSW, TAS All areas              |
| Maurice Tobin   | Drain Solutions                         | 1300 546 348                 | <a href="mailto:info@drainsolutions.com.au">info@drainsolutions.com.au</a>                     | VIC        | Melbourne Metro                      |
| Nathan Kelleher | Seeker Utility Engineering              | 0439 691 840                 | <a href="mailto:nathan.kelleher@seekerutility.com.au">nathan.kelleher@seekerutility.com.au</a> | VIC        | Melbourne                            |
| Jeffrey Ramos   | VAC Group Operations (T/A Earth Radar)  | 0436 635 011                 | <a href="mailto:Jeffrey.ramos@earthradar.com.au">Jeffrey.ramos@earthradar.com.au</a>           | VIC        | All                                  |

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|-------------------------------|---|--------------|--|------------|---|
| Ben Zurak                     | Veris Australia                           | 03 7019 8400 | <a href="mailto:melbourne@veris.com.au">melbourne@veris.com.au</a>   | VIC        | All                                       |
| Courtney Marson               | CSA Specialised Service Pty Ltd           | 1300 859 829 | <a href="mailto:courtney@csasepcialised.com.au">courtney@csasepcialised.com.au</a>                         | VIC/SA/TAS | All                                       |
| Paul Murray                   | Able Pipe, Cable & Leak Location Services | 0418 318 186 | <a href="mailto:paul.murray6@bigpond.com">paul.murray6@bigpond.com</a>                                     | VIC        | All                                       |
| Infrastructure Civil Services | Trenchless Pipelaying Contractors (TPC)   | 08 8376 5911 | <a href="mailto:tpc@trenchlesspipelaying.com.au">tpc@trenchlesspipelaying.com.au</a>                       | SA         | All                                       |
| Sean Nemeth                   | Enerven Energy Infrastructure Pty Ltd     | 0488 167 772 | <a href="mailto:sean.nemeth@enerven.com.au">sean.nemeth@enerven.com.au</a>                                 | SA         | Adelaide                                  |
| SADB                          | SADB Civil Construction & Trenchless      | 08 8168 7200 | <a href="mailto:reception@sadb.com.au">reception@sadb.com.au</a>   | SA         | Adelaide                                  |
| Tony Simpson                  | Utility Mapping Pty Ltd                   | 0438 630 146 | <a href="mailto:tsimpson@utilitymapping.com.au">tsimpson@utilitymapping.com.au</a>                         | SA         | All                                       |
| Deninis Stray                 | Pinpoint Services Mapping                 | 0428 917 020 | <a href="mailto:dstray@pinpointsm.com.au">dstray@pinpointsm.com.au</a>                                     | SA         | All                                       |
| JohnnyMcGlynn                 | Pinpoint Services Mapping                 | 0447 185 231 | <a href="mailto:jmcglynn@alexander.com.au">jmcglynn@alexander.com.au</a>                                   | SA         | All                                       |
| Liam Gill                     | Michael Gear Surveys                      | 08 82788732  | <a href="mailto:ugsl@mgsurveys.com.au">ugsl@mgsurveys.com.au</a>   | SA         | SA  |
| Stefan Forsyth                | Adelaide Pipline Maintenance Services     | 08 84272525  | <a href="mailto:stefan@streamlinesa.com.au">stefan@streamlinesa.com.au</a>                                 | SA         | all NT, WA, QLD                           |
| Galen Shanahan                | VAC Group Operations (T/A Earth Radar)    | 0447 837 000 | <a href="mailto:Galen.Shanahan@vacgroup.com.au">Galen.Shanahan@vacgroup.com.au</a>                         | SA         | All                                       |
| Marilyn Dentice               | Cable Locates & Consulting                | 08 9524 6600 | <a href="mailto:admin@cablelocates.com.au">admin@cablelocates.com.au</a>                                   | WA         | Metro & Country                           |
| Lisa Scofield                 | Abaxa                                     | 08 9256 0100 | <a href="mailto:accounts@abaxa.com.au">accounts@abaxa.com.au</a>   | WA         | All                                       |
| Derek McShane                 | Subterranean Service Locations            | 0420 862 426 | <a href="mailto:Derek@sslwa.com.au">Derek@sslwa.com.au</a>   | WA         | Midwest/Gascoyne                          |
| Ben Upton                     | TerraVac Vacuum Excavation                | 0427 531 119 | <a href="mailto:locations@terravac.com.au">locations@terravac.com.au</a>                                   | WA         | All                                       |
| Dale Shearsmith               | Subtera Subsurface Locating               | 1300 046 636 | <a href="mailto:dale@subtera.com.au">dale@subtera.com.au</a>   | WA         | All                                       |
| Liam Davies                   | Bunbury Telecom Service Pty Ltd           | 08 9726 0088 | <a href="mailto:liam@btswa.com.au">liam@btswa.com.au</a>   | WA         | South West WA                             |
| Tammy Thorp                   | B.C.E Spatial                             | 08 9364 6408 | <a href="mailto:admin@bcespatial.com.au">admin@bcespatial.com.au</a>                                       | WA         | Perth Metro & Regional                    |
| Alex Jones                    | Utility Mapping Pty Ltd                   | 0417 413 353 | <a href="mailto:ajones@utilitymapping.com.au">ajones@utilitymapping.com.au</a>                             | WA         | All                                       |
| Chris Lee                     | Pulse Locating                            | 0437 289 861 | <a href="mailto:enquiries@pulselocating.com.au">enquiries@pulselocating.com.au</a>                         | WA         | Perth                                     |
| Morgan O'Connor               | Kier Contracting                          | 1300 543 728 | <a href="mailto:morgan@kier.com.au">morgan@kier.com.au</a>   | WA         | Perth Metro & Greater region, Regional WA |
| Nigel Nunn                    | CCS Group / Utility Locating Solutions    | 08 9385 5000 | <a href="mailto:enquiry@ccswa.com.au">enquiry@ccswa.com.au</a>   | WA         | Perth                                     |
| Paul Stevenson                | Geographe Underground Services            | 0427 523 811 | <a href="mailto:paul.stevenson@geographeunderground.com.au">paul.stevenson@geographeunderground.com.au</a> | WA         | All                                       |

|                  |  |              |  |     |                         |
|------------------|--|--------------|--|-----|-------------------------|
| Jeremy Brown     | Spotters Asset Locations Pty Ltd                       | 0459 130 677 | <a href="mailto:jeremy@spottersassetlocations.com.au">jeremy@spottersassetlocations.com.au</a>   | WA  | All                     |
| Reece Topham     | Prime Locate   | 0400 888 406 | <a href="mailto:reece@primelocate.com.au">reece@primelocate.com.au</a>   | WA  | All                     |
| Mark Docherty    | RM Surveys   | 08 9457 7900 | <a href="mailto:mark.docherty@rmsurveys.com.au">mark.docherty@rmsurveys.com.au</a>   | WA  | All                     |
| Jonathon Sylva   | Advance Scanning Services                              | 1300 738 118 | <a href="mailto:bookings@advancescanning.com.au">bookings@advancescanning.com.au</a>   | WA  | All                     |
| Tim Daws         | Award Contracting                                      | 0411 878 895 | <a href="mailto:info@awardcontracting.com.au">info@awardcontracting.com.au</a>   | WA  | City & Regional         |
| Dave Turner      | Anywair Pipe & Cable                                   | 0418 890 071 | <a href="mailto:dave@anywair.com.au">dave@anywair.com.au</a>   | NT  | All NT, WA, QLD         |
| Steve Gault      | Northern Comms   | 0407 904 319 | <a href="mailto:steve@northerncomms.net.au">steve@northerncomms.net.au</a>   | NT  | All                     |
| Wayne Parslow    | Danisam  | 0417 089 865 | <a href="mailto:danisam@westnet.com.au">danisam@westnet.com.au</a>   | NT  | Darwin NT and Surrounds |
| Elizabeth Young  | Archers Underground Services Locations (AUS Locations) | 03 6245 1298 | <a href="mailto:admin@auslocations.com.au">admin@auslocations.com.au</a><br><a href="mailto:auslocations@bigpond.com">auslocations@bigpond.com</a> | TAS | All                     |
| Patrick Monaghn  | Paneltec Group   | 0447 797 544 | <a href="mailto:patrick@paneltec.com.au">patrick@paneltec.com.au</a>   | TAS | All                     |
| Scott Richardson | AJ Water & Leak Detection                              | 0457 710 680 | <a href="mailto:admin@ajwater.com.au">admin@ajwater.com.au</a>   | TAS | All                     |



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Sequence Number: 210057749

Date Generated: 06 Apr 2022



For all Optus DBYD plan enquiries –  
 Email: [Fibre.Locations@optus.net.au](mailto:Fibre.Locations@optus.net.au)  
 For urgent onsite assistance contact 1800 505 777  
 Optus Limited ACN 052 833 208



Date: 06 Apr 2022  
To: Karion Dickson-Abbott  
Company: Greenhill  
Address: Level 1, 178 Fullarton Road  
Dulwich, SA 5065

## ENQUIRY DETAILS

Location: 79-81 Robinson Road, Waterloo Corner, SA 5110  
Sequence No.: 210057750  
DBYD Reference: 31721481

In relation to your enquiry concerning the above location, Optus advises as follows:

**Optus records indicate that there ARE underground Optus FIBRE OPTIC TELECOMMUNICATIONS ASSETS in the vicinity of the above location as per the attached drawing(s).**

**PLEASE NOTE that any interference with these assets may be considered an offence under the Criminal Code Act 1995 (Cth). Optus reserves the right to seek compensation for loss or damage to its assets including consequential loss.**

**This reply is valid for a period of 30 days from the date above.**

## IMPORTANT INFORMATION

Asset location drawings provided by Optus are reference diagrams and are provided as a guide only. The completeness of the information in these drawings cannot be guaranteed. Exact ground cover and alignments cannot be provided with any certainty as these may have altered over time. Depths of telecommunications assets vary considerably as do alignments. It is essential to identify the location of any Optus assets in the vicinity prior to engaging in any works.

**All Optus assets in the vicinity of any planned works will need to be electronically located to ascertain their general location. Depending on the scope of planned works in the vicinity, the assets may also need to be physically located.**

**YOU MUST ENGAGE THE SERVICES OF ONE OF THE OPTUS ASSET ACCREDITED LOCATORS TO CARRY OUT ASSET LOCATION (REFER LIST OF ACCREDITED LOCATORS AT THE END OF THIS OPTUS RESPONSE).**

**Unless otherwise agreed with Optus, where an on-site asset location is required, the requestor is responsible for all costs associated with the locating service including (where required) physically exposing the Optus asset.**

## DUTY OF CARE

When working in the vicinity of telecommunications assets you have a legal "Duty of Care" and non-interference that must be observed.

It is your responsibility as the requesting party (as a landowner or any other party involved in the planned works) to design for minimal impact to any existing Optus asset. Optus can assist at the design stage through consultation.

It is also your, as the requesting party (or your representative's), responsibility to:

- Obtain location drawings (through the Dial Before You Dig process) of any existing Optus assets at a reasonable time before any planned works begin;
- Have an Optus Accredited Asset Locator identify the general location of the Optus asset and physically locate the asset where planned works may encroach on its alignment; and
- Contact Optus for further advice where requested to do so by this letter.



## **DAMAGE TO ANY OPTUS ASSET MUST BE REPORTED TO 1800 500 253 IMMEDIATELY**

You, your head contractor and any relevant subcontractor are all responsible for any Optus asset damage as a result of planned activities in the vicinity of Optus assets.

This applies where works commence prior to obtaining Optus drawings, where there is failure to follow instructions or during any construction activities.

**Optus reserves the right to recover compensation for loss or damage to its assets including consequential loss. Also, you, your head contractor and any relevant subcontractor may also be liable for prosecution under the Criminal Code Act 1995 (Cth).**

### **ASSET RELOCATIONS**

You are not permitted by law to relocate, alter or interfere with any Optus asset under any circumstance. Any unauthorised interference with an Optus asset may lead to prosecution under the Criminal Code Act 1995 (Cth). Enquiries relating to the relocation of Optus assets must be referred to the relevant Optus Damages and Relocations Team (refer to "FURTHER ASSISTANCE").

### **APPROACH DISTANCES**

On receipt of Optus asset location drawings and prior to commencing any planned works near an Optus asset, engage an Optus Accredited Locator to undertake a general location of the Optus asset.

Physical location of the Optus asset by an Optus Accredited Locator will also be required where planned works are within the following approach distances of the general location of the Optus asset:

- a) In built up metropolitan areas where road and footpaths are well defined by kerbs or other features a minimum clear distance of 1 meter must be maintained from the general location of the Optus asset.
- b) In non-established or unformed metropolitan areas, a minimum clear distance of 3 meters must be maintained from the general location of the Optus asset.
- c) In country or rural areas where wider variations may exist between the general and actual location of an Optus asset may exist, then a minimum clear distance of 5 meters must be maintained from the general location of the Optus asset.

If planned works are parallel to the Optus asset, then the Optus asset must be physically located by an Optus Accredited Locator at a minimum of 5 meter intervals along the length of the parallel works prior to work commencing.

Under no circumstances is crossing of any Optus asset permitted without physical location of the asset being carried out by an Optus Accredited Locator. Depending on the asset involved an Optus representative may be required onsite.

The minimum clearances to the physical location of Optus assets for the following specific types of works must be maintained at all times.

**Note: Where the clearances in the following table cannot be maintained or where the type of work differs from those listed then advice must be sought from the relevant Optus Damages and Relocations Team (refer to "FURTHER ASSISTANCE").**

| <b>Type of Works</b>   | <b>Clearance to Physical Location of Optus Asset</b>   |
|--|--|
| Jackhammers / Pneumatic Breakers   | Not within 1 meter.  |
| Light duty Vibrating Plate or Wacker Packer type compactors (not heavy road construction vibrating rollers etc.) | 500mm compact clearance cover before a light duty compactor can be used over any Optus conduit.<br><br>No compaction permitted over Optus direct buried cable without prior approval from Optus.   |
| Boring Equipment (in-line, horizontal and vertical)  | Not within 5 meters parallel of the Optus asset location without an Accredited Optus Asset Locator physically exposing the Optus asset and with an Optus representative onsite.<br><br>Not to cross the Optus asset without an Accredited Optus Asset Locator physically exposing the Optus asset and with an Optus representative onsite. |



| Type of Works  | Clearance to Physical Location of Optus Asset  |
|--|--|
| Heavy vehicle Traffic (over 3 tonnes)  | <p>Not to be driven across Optus conduits with less than 600mm of cover.</p> <p>Not to be driven across Optus direct buried cable with less than 1.2 meters of cover.</p> <p>Once off crossings permitted, multiple crossing (e.g. road construction or logging) will require Optus approval.</p> <p>Accredited Optus Asset Locator to physically expose the Optus asset to verify actual depth.</p> |
| Mechanical Excavators, Farm Ploughing, Vertical Hole installation for water bore or fencing etc. | <p>Not within 1 meter.</p> <p>Accredited Optus Asset Locator to physically expose the Optus asset to verify actual location.</p>   |

### ASSET CLEARANCES AFTER COMPLETION OF WORKS

All Optus pits and manholes must be a minimum of 1 meter from the back of any kerb, 3.5 meters of the road surface without a kerb or not within 15 meters of street intersection.

In urban areas Optus conduit must have the following minimum depth of cover:

- Footway 600mm;
- Roadway 1 meter at drain invert and at road centre crown.

In rural areas Optus conduit must have a minimum depth of cover of 1 meter and direct buried cable 1.2 meters.

In cases where it is considered that the above clearances cannot be maintained at the completion of works, advice must be sought from the relevant Optus Damages and Relocations Team (refer "Further Assistance").

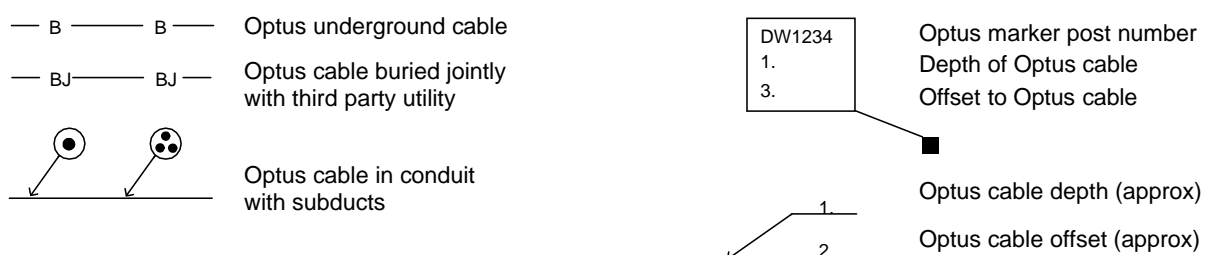
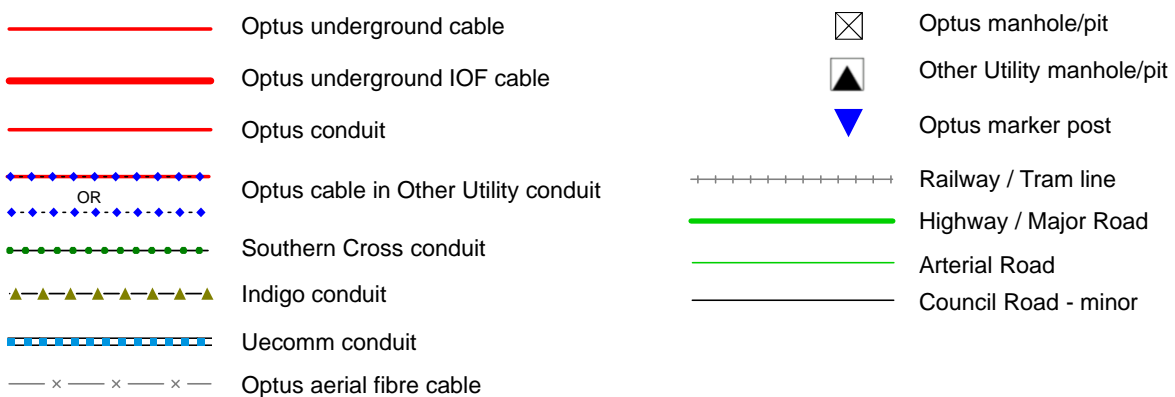
### FURTHER ASSISTANCE

Further assistance on asset clearances, protection works or relocation requirements can be obtained by contacting the relevant Optus Damages and Relocations Team on the following email address:

[NFODamages&RelocationsDropbox@optus.com.au](mailto:NFODamages&RelocationsDropbox@optus.com.au)

Further assistance relating to asset location drawings etc. can be obtained by contacting the Optus Network Operations Asset Analysis Team on 1800 505 777.

### OPTUS ENGINEERING DRAWING SYMBOLS





## Optus Accredited Asset Locators

| Name              | Company Name                            | Phone                        | Email  | State          | Region/Service Area   |
|-------------------|---|------------------------------|--|----------------|---|
| Alan Cordner      | Alcom Fibre Services Pty Ltd            | 0400 300 337                 | <a href="mailto:alcomfibre@bigpond.com">alcomfibre@bigpond.com</a>                               | NSW/ACT        | Sydney  |
| Brad McCorkindale | Bradmac Locating Services               | 0434 157 409                 | <a href="mailto:brad.mac@bigpond.com">brad.mac@bigpond.com</a>                                   | NSW/ACT        | All   |
| Troy Redden       | On Point Utility Locating               | 1300 6676 468                | <a href="mailto:troy@onpointlocating.com.au">troy@onpointlocating.com.au</a>                     | NSW            | Sydney Only   |
| Shane Buckley     | Cable & Pipe Locations                  | 0408 730 430                 | <a href="mailto:sabuckley@bigpond.com">sabuckley@bigpond.com</a>                                 | NSW/QLD        | Armidale, Casino, Coffs Harbour, Dorrigo, Glenn Innes, Grafton, Inverell, Kempsey, Lismore, Nambucca, Port Macquarie, Tamworth, Taree, Tenterfield, Yamba |
| Philip Pegler     | Down Under Detection Services (DUDS)    | 0418 267 964                 | <a href="mailto:apegler@duds.net.au">apegler@duds.net.au</a>                                     | NSW            | All   |
| Tina Stanhope     | SureSearch Underground Services         | 1300 884 520<br>0418 920 245 | <a href="mailto:tina.stanhope@suresearch.com.au">tina.stanhope@suresearch.com.au</a>             | NSW/ACT<br>QLD | NSW, Sydney, Northern NSW, Canberra, QLD, South East QLD.   |
| Leonard McGowan   | Pipesure Australia                      | 1300 411 811                 | <a href="mailto:len@pipesure.com.au">len@pipesure.com.au</a>                                     | NSW            | Sydney  |
| Bruce Whittaker   | Optical Fibre Technologies              | 0402 354 322                 | <a href="mailto:opticaltek1@aol.com">opticaltek1@aol.com</a>                                     | NSW            | Sydney/Wollongong   |
| Darryl Smith      | Darryl Smith Electrical                 | 02 6642 3731                 | <a href="mailto:office@dsmithelectrical.com.au">office@dsmithelectrical.com.au</a>               | NSW            | Grafton   |
| George Koenig     | Downunder Locations NSW Pty             | 0438 243 856                 | <a href="mailto:Downunderlocations@gmail.com">Downunderlocations@gmail.com</a>                   | NSW            | Tweed Heads, Gold Coast, Brisbane   |
| Michael Grant     | M&K Grant Bega Bobcats Pty Ltd          | 0427 260 423                 | <a href="mailto:zzbobcat@bigpond.net.au">zzbobcat@bigpond.net.au</a>                             | NSW            | Bega, Far South Coast   |
| Antony Critcher   | Geotrace Pty Ltd                        | 0417 147 945                 | <a href="mailto:antony@geotrace.com.au">antony@geotrace.com.au</a>                               | NSW            | All Areas, Sydney, Wollongong, Newcastle, ACT   |
| Anthony Lane      | Hydro Digga                             | 0447 774 000                 | <a href="mailto:locator@hydrodigga.com">locator@hydrodigga.com</a>                               | NSW            | All of NSW, ACT & South East Qld  |
| Joshua Payne      | Australian Utilities Management Pty Ltd | 0427 833 222                 | <a href="mailto:aine@ausutilities.net.au">aine@ausutilities.net.au</a>                           | NSW            | Sydney Metro  |
| Nathan Ellis      | Utility Locating Services               | 0404 087 555                 | <a href="mailto:nathan@utilitylocatingservices.com.au">nathan@utilitylocatingservices.com.au</a> | NSW            | Sydney  |

|                   |                                     |                              |  |           |   |
|-------------------|-------------------------------------|------------------------------|--|-----------|---|
| Rodney Pullen     | Provac                              | 0450 268 012                 | <a href="mailto:rod@provac.net.au">rod@provac.net.au</a>                                   | NSW /QLD  | South East QLD, Northern NSW  |
| Rodney Pullen     | One Find Cables                     | 0451 268 012                 | <a href="mailto:rod@provac.net.au">rod@provac.net.au</a>                                   | NSW /QLD  | South East QLD, Northern NSW  |
| Drew Misko        | Australian Subsurface Pty Ltd       | 0427 879 600                 | <a href="mailto:admin@australiansubsurface.com">admin@australiansubsurface.com</a>         | NSW/ACT   | All of NSW/ACT  |
| Scott O'Malley    | Coastal Cable Locators Pty Ltd      | 0427 975 777                 | <a href="mailto:skomalley@bigpond.com">skomalley@bigpond.com</a>                           | NSW       | South Coast- Snowy Mountains-Southern Highlands   |
| Liam Bolger       | Brandon Construction Services       | 0438 044 008                 | <a href="mailto:liam.bolger@hotmail.com">liam.bolger@hotmail.com</a>                       | NSW       | Sydney  |
| Brett Pickup      | All About Pipes                     | 02 8763 4200                 | <a href="mailto:Brett.Pickup@allaboutpipes.com.au">Brett.Pickup@allaboutpipes.com.au</a>   | NSW / VIC | All   |
| Karen Joyce       | Durkin Construction Pty Ltd         | 02 9712 0308                 | <a href="mailto:karen@durkinconstruction.com.au">karen@durkinconstruction.com.au</a>       | NSW       | Sydney  |
| Timothy Laidler   | Locate & Map                        | 0431 191 669                 | <a href="mailto:tim@locateandmap.com.au">tim@locateandmap.com.au</a>                       | NSW       | Sydney, Central Coast   |
| Ken Brown         | Riteway Traffic Control Pty Ltd     | 0419 212 969                 | <a href="mailto:kbrowne@ritewaytc.com.au">kbrowne@ritewaytc.com.au</a>                     | NSW       | Central Coast, Hunter   |
| Walter R Johansen | Steger & Associates                 | 02 6296 4089                 | <a href="mailto:enquiries@steger.com.au">enquiries@steger.com.au</a>                       | ACT/NSW   | Canberra  |
| Jean-Max Monty    | Civilscan                           | 0416 068 060                 | <a href="mailto:civilscan@bigpond.com">civilscan@bigpond.com</a>                           | NSW       | Sydney – Central Coast – Newcastle – Wollongong – Hunter Valley – Blue Mountains              |
| Alan Hunter       | Hunter Ground Search                | 02 4953 1244<br>0418 684 819 | <a href="mailto:huntergroundsearch@bigpond.com">huntergroundsearch@bigpond.com</a>         | NSW       | Newcastle, Central Coast, Hunter Valley, Mid North Coast, Liverpool Plains, Central West NSW. |
| Gilbert J Cook    | Datateks Communications Specialists | 0408 693 660                 | <a href="mailto:datateks@datateks.com.au">datateks@datateks.com.au</a>                     | NSW       | Southern NSW  |
| Damien Black      | Mid North Coast Hydro Digging       | 0418 409 465                 | <a href="mailto:dblack1@bigpond.com">dblack1@bigpond.com</a>                               | NSW       | Newcastle- foster-Taree- Wauchope -Port Macquarie - Kempsey -Coffs harbour                    |
| Neil Blenkinsop   | Utility Mapping Pty Ltd             | 0427 318 681                 | <a href="mailto:nblenkinsop@utilitymapping.com.au">nblenkinsop@utilitymapping.com.au</a>   | NSW       | Sydney  |
| Daniel Fox        | Epoca Environmental Pty Ltd         | 02 4739 2465<br>0433 100 642 | <a href="mailto:daniel@epocaenvironmental.com.au">daniel@epocaenvironmental.com.au</a>     | NSW       | All NSW, ACT  |
| Rod Shaw          | Cable Find                          | 0478 887 073                 | <a href="mailto:rod@cablefind.com.au">rod@cablefind.com.au</a>                             | NSW       | Northern Rivers   |
| Danny Carter      | Online Pipe & Cable Locating        | 1300 665 384                 | <a href="mailto:danny@onlinepipe.com.au">danny@onlinepipe.com.au</a>                       | NSW       | Sydney, Newcastel, Canberra, Blue Mountains   |
| Sam Romano        | Locating Services                   | 0403 065 510                 | <a href="mailto:sam.romano@locatingservices.com.au">sam.romano@locatingservices.com.au</a> | NSW       | NSW All   |
| Scott Allison     | Crux Surveying Australia            | 02 9540 9940                 | <a href="mailto:sydneyoffice@cruxsurveying.com.au">sydneyoffice@cruxsurveying.com.au</a>   | NSW       | Sydney Metro & Surrounding Areas  |

|                       |                                     |                              |  |             |  |
|-----------------------|-------------------------------------|------------------------------|--|-------------|--|
| Ian Brown             | Peter Ellsmore & Associates         | 0439 423 708                 | <a href="mailto:ian.brown@ellsmore.com.au">ian.brown@ellsmore.com.au</a>                           | NSW         | Wollongong, Illawarra, South Coast, Southern Highlands, Macarthur & Sydney |
| Donna Wullaert        | Commence Communications Pty Ltd     | 02 6226 3869<br>0428 595 620 | <a href="mailto:admin@commencecomms.com.au">admin@commencecomms.com.au</a>                         | NSW         | Canberra, Yass, Bungendore, Goulburn and Surrounding regional Areas        |
| Stephen Fraser        | Advanced Ground Locations           | 02 4930 3195<br>0412 497 488 | <a href="mailto:steve_agl@hotmail.com">steve_agl@hotmail.com</a>                                   | NSW         | Newcastle, Hunter Valley, Central Coast, Taree & Surrounding Areas         |
| Andrew Findlay        | LiveLocates                         | 0429 899 777                 | <a href="mailto:info@livelocates.com.au">info@livelocates.com.au</a>                               | NSW         | South Coast/ACT, Snowy Mountains   |
| Graeme Teege          | Armidale Electrical                 | 02 6772 3702                 | <a href="mailto:office@armidale-electrical.com.au">office@armidale-electrical.com.au</a>           | NSW         | Armidale   |
| Myles Green           | Australian Locating Services        | 1300 761 545                 | <a href="mailto:myles@locating.com.au">myles@locating.com.au</a>                                   | NSW         | Sydney   |
| Brett Wallin          | Utility Scan                        | 0426 354 051                 | <a href="mailto:brett@utilityscan.net">brett@utilityscan.net</a>                                   | NSW         | Sydney CBD and Regional areas  |
| Daniel Hudson         | One Search Locators                 | 1300 530 420                 | <a href="mailto:daniel@onesearchlocators.com.au">daniel@onesearchlocators.com.au</a>               | NSW         | All NSW, ACT   |
| Tim Galaz             | Utec Solutions                      | 02 9389 0040                 | <a href="mailto:office@utecsolutions.com.au">office@utecsolutions.com.au</a>                       | NSW/QLD/VIC | All areas, NSW, QLD, VIC   |
| Gary Laneyrie         | Laneyrie Electrical                 | 0412 079 079<br>0413 048 048 | <a href="mailto:bindy@laneyrielectrical.com.au">bindy@laneyrielectrical.com.au</a>                 | NSW         | Illawarra, South Coast, Hunter Region                                      |
| Reece Gainsford       | East Coast Locating Services        | 0431 193 111                 | <a href="mailto:eastcoastlocating@hotmail.com">eastcoastlocating@hotmail.com</a>                   | NSW         | Sydney, Maitland, Newcastle, Hunter, Port Stephens, Central Coast          |
| Allan Clarke          | The Control Group Pty Ltd           | 0421 960 017                 | <a href="mailto:allan@thecontrolgroup.com.au">allan@thecontrolgroup.com.au</a>                     | NSW         | Northern NSW   |
| Simon Cook            | Douglas Partners                    | 0431 507 667                 | <a href="mailto:simon.cook@douglaspartners.com.au">simon.cook@douglaspartners.com.au</a>           | NSW         | NSW All  |
| Samual Boesen         | Rubicof Cable & Pipe Locators       | 0403 285 352<br>0418 103 369 | <a href="mailto:rubicof@optusnet.com.au">rubicof@optusnet.com.au</a>                               | NSW         | Cessnock   |
| Craig Vallely         | Aqua Freeze & Locate Pty Ltd        | 0458 774 440                 | <a href="mailto:service@aquafreeze.com.au">service@aquafreeze.com.au</a>                           | NSW         | Sydney   |
| Josiah Chapman-Hunter | Suk Truk Services Pty Ltd           | 0419 125 551<br>0478 004 606 | <a href="mailto:services@suktruk.com.au">services@suktruk.com.au</a>                               | NSW         | Hunter / Newcastle   |
| Laurence Mead         | Veris Australia                     | 0419 770 560                 | <a href="mailto:i.mead@veris.com.au">i.mead@veris.com.au</a>                                       | NSW         | Sydney   |
| Jason Vane            | Smartsan Locators PTY Ltd           | 0498 025 210                 | <a href="mailto:Admin@sslocators.com.au">Admin@sslocators.com.au</a>                               | NSW         | Sydney   |
| Alex Farcash          | Newcastle Locating Services Pty Ltd | 0410 698 599                 | <a href="mailto:Admin@newcastlelocatingservices.com.au">Admin@newcastlelocatingservices.com.au</a> | NSW         | Newcastle, Hunter Valley, Central Coast, Taree & Surrounding Areas         |
| Amer El Chami         | Site Scan Pty Ltd                   | 0449 992 520                 | <a href="mailto:office@sitescan.net.au">office@sitescan.net.au</a>                                 | NSW         | Sydney   |
| Kaisar sefian         | Australian Utility Search Pty Ltd   | 0424 841 888                 | <a href="mailto:kaisar@aususearch.com.au">kaisar@aususearch.com.au</a>                             | NSW/ACT     | All NSW, ACT   |

|                           |   |                              |  |                    |  |
|---------------------------|---|------------------------------|--|--------------------|--|
| Ian Brown                 | A1 Locate Services                          | 0400 484 828                 | <a href="mailto:ian.brown@a1locate.com.au">ian.brown@a1locate.com.au</a>                         | NSW/ACT            | All NSW, ACT   |
| Alexander Bogdanoff       | Expert Service Locating                     | 0420 346 477                 | <a href="mailto:info@expertservicelocating.com.au">info@expertservicelocating.com.au</a>         | NSW/QLD            | Brisbane, Gold Coast, Sunshine Coast Northern Rivers NSW |
| Justin Joseph S. Martinez | FJA Locating                                | 0401 749 007                 | <a href="mailto:j.martinez@fjalocating.com.au">j.martinez@fjalocating.com.au</a>                 | NSW, ACT, QLD, VIC | All regions  |
| Rhiannon Kemps            | Geoscope Utility Detection Services Pty Ltd | 0432 296 323                 | <a href="mailto:simon@geoscopelocating.com.au">simon@geoscopelocating.com.au</a>                 | NSW                | All regions  |
| Laurence Mead             | Astrea Pty Ltd                              | 0413 849 666                 | <a href="mailto:admin@astrea.com.au">admin@astrea.com.au</a>                                     | NSW                | Sydney Metro & Surrounding Areas                         |
| Bobby Friesz              | VAC Group Operations (T/A Earth Radar)      | 0447 837 267                 | <a href="mailto:Bobby.Friesz@vacgroup.com.au">Bobby.Friesz@vacgroup.com.au</a>                   | NSW                | Sydney   |
| Chris Hall                | D C Locators Pty Ltd                        | 0419 679 741                 | <a href="mailto:dcloc@powerup.com.au">dcloc@powerup.com.au</a>                                   | QLD                | Brisbane, Ipswich  |
| Jeff Trackson             | J.R & L.M Trackson Pty Ltd                  | 0417 600 978                 | <a href="mailto:jtrackson@tracavoid.com.au">jtrackson@tracavoid.com.au</a>                       | QLD                | All  |
| Benji Lee                 | LADS  | 0478 915 237                 | <a href="mailto:benji@ladsqld.com.au">benji@ladsqld.com.au</a>                                   | QLD                | South East QLD   |
| Andrew Watson             | Lambert Locations Pty Ltd                   | 07 5562 8400                 | <a href="mailto:admin@lambertlocations.com.au">admin@lambertlocations.com.au</a>                 | QLD                | South East QLD & Northern NSW                            |
| Ross Clarke               | FNQ Cable Locators Pty Ltd                  | 0428 775 655                 | <a href="mailto:onlineco@bigpond.net.au">onlineco@bigpond.net.au</a>                             | QLD                | Far North QLD, Cape York & Peninsula                     |
| Col Greville              | Bsure Locators                              | 0488 520 688                 | <a href="mailto:admin@bsurelocators.com.au">admin@bsurelocators.com.au</a>                       | QLD                | Wide Bay Burnett and Central Qld                         |
| Mikael White              | All Asset Locations                         | 0478 846 025                 | <a href="mailto:allassetlocations@gmail.com">allassetlocations@gmail.com</a>                     | QLD                | Sunshine Coast   |
| Simon Griffin             | Pensar Utilities                            | 0458 800 267                 | <a href="mailto:sgriffin@pensar.com.au">sgriffin@pensar.com.au</a>                               | QLD                | Brisbane, Gold Coast, Sunshine Coast                     |
| Andrew Cowan              | VAC Group Operations (T/A Earth Radar)      | 0447 008 806                 | <a href="mailto:andrew.cowan@vacgroup.com.au">andrew.cowan@vacgroup.com.au</a>                   | QLD                | South East and Central QLD                               |
| Jimmy Wilkins             | GeoRadar Australia                          | 0425 677 227                 | <a href="mailto:jimmy@georadar.net.au">jimmy@georadar.net.au</a>                                 | QLD                | Emerald, Bundeaberg                                      |
| Beaumont Blake            | PipeHawk CCTV                               | 0435 558 533                 | <a href="mailto:accounts@pipehawkcctv.com.au">accounts@pipehawkcctv.com.au</a>                   | QLD                | South East QLD & Northern NSW                            |
| Craig Waite               | C Locate                                    | 0437 808 444                 | <a href="mailto:clocate@bigpond.com">clocate@bigpond.com</a>                                     | QLD                | South East QLD   |
| QLD Operations            | Utility Location Services                   | 0499 775 095<br>07 3807 3552 | <a href="mailto:qldops@utilitylocationservices.com.au">qldops@utilitylocationservices.com.au</a> | QLD                | SouthEast QLD, Northern NSW                              |
| Andrew Watson             | RPS AUS East                                | 0408 839 723                 | <a href="mailto:andrew.watson@rpsgroup.com.au">andrew.watson@rpsgroup.com.au</a>                 | QLD                | Brisbane   |
| Luke Steadman             | Utility Mapping Pty Ltd                     | 0472 867 197                 | <a href="mailto:lsteadman@utilitymapping.com.au">lsteadman@utilitymapping.com.au</a>             | QLD                | All  |
| Robert Reed               | All Asset Locations Pty Ltd                 | 0478 846 025                 | <a href="mailto:allassetlocations@gmail.com">allassetlocations@gmail.com</a>                     | QLD                | Sunshine Coast   |
| Jenny Dziduch             | 1300 Locate Pty Ltd                         | 1300 562 283                 | <a href="mailto:admin@1300locate.com.au">admin@1300locate.com.au</a>                             | QLD                | All Queensland, Northern NSW                             |

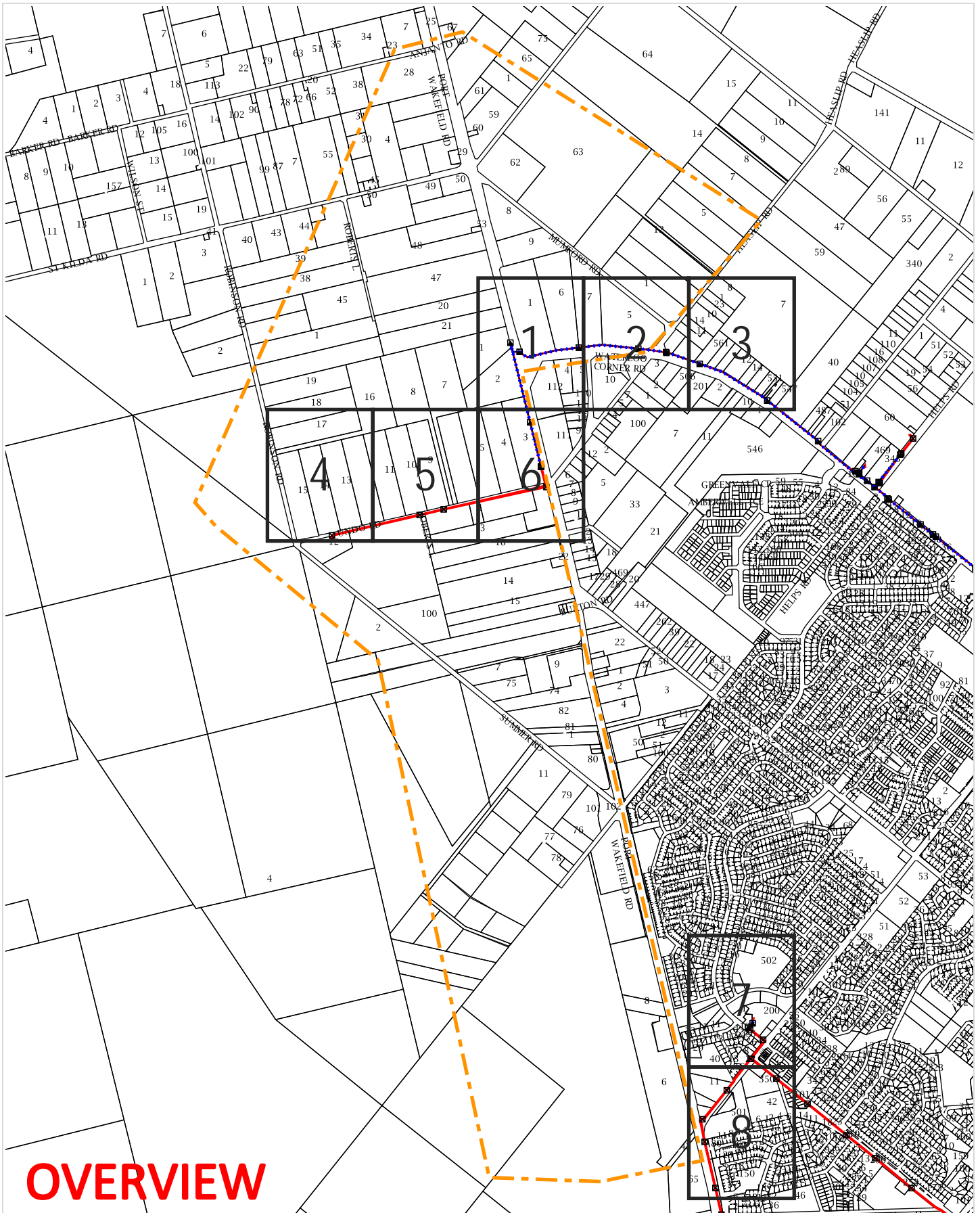
|                 |   |                              |  |            |                                      |
|-----------------|---|------------------------------|--|------------|--------------------------------------|
| Sam Hazel       | Utility ID Underground Service Locators | 0401 202 515                 | <a href="mailto:sam@utilityid.com.au">sam@utilityid.com.au</a>                                 | QLD        | Southern QLD                         |
| Brendon Smith   | Dynamic Hydro Excavations               | 1300 822 878                 | <a href="mailto:admin@dynamicexcavation.com.au">admin@dynamicexcavation.com.au</a>             | QLD        | QLD, NSW, VIC                        |
| Marty Carlson   | Surveywerx Pty Ltd                      | 0488 842 110                 | <a href="mailto:mike@surveywerx.com">mike@surveywerx.com</a>                                   | QLD        | South East QLD                       |
| Ran Gledhill    | Safe Dig Services                       | 0408 944 228                 | <a href="mailto:rgsafedig@gmail.com">rgsafedig@gmail.com</a>                                   | QLD        | Brisbane / North Queensland          |
| Ben Stephens    | Electroscan (DTS Group)                 | 0434 140 556                 | <a href="mailto:ben.s@electroscanqld.com.au">ben.s@electroscanqld.com.au</a>                   | QLD        | All                                  |
| Adam Lloyd      | Aussie HydroVac Services                | 07 3287 7818                 | <a href="mailto:adam.lloyd@aussiehydrovac.com.au">adam.lloyd@aussiehydrovac.com.au</a>         | QLD        | All                                  |
| Gary Poppi      | Ace Cable Locations                     | 0431 517 837                 | <a href="mailto:garypoppi@bigpond.com">garypoppi@bigpond.com</a>                               | QLD        | Wide Bay Burnett                     |
| Andrew McKenna  | Taylros Development Strategists         | 03 95012800                  | <a href="mailto:a.mckenna@taylorlds.com.au">a.mckenna@taylorlds.com.au</a>                     | VIC/SA/TAS | Victoria                             |
| Olivier Davies  | Central Locating PTY LTD                | 0439 995 894                 | <a href="mailto:Ollie@centrallocating.com.au">Ollie@centrallocating.com.au</a>                 | VIC/SA/TAS | Melbourne Surfcoast Ballarat         |
| Tina Brereton   | D-Tech Ground & Overhead Services       | 0421 697 090                 | <a href="mailto:tina@d-tech.net.au">tina@d-tech.net.au</a>                                     | VIC        | Victoria                             |
| Josh Taylor     | Advanced Locations Victoria             | 0427 846 716                 | <a href="mailto:josh@advancedlocationsvic.com.au">josh@advancedlocationsvic.com.au</a>         | VIC        | All                                  |
| Ben Minutoli    | Geelong Cable Locations                 | 1800 449 543                 | <a href="mailto:ben@geelongcablelocations.com.au">ben@geelongcablelocations.com.au</a>         | VIC        | Melbourne, Geelong, Country Victoria |
| Mick McGoldrick | Cavan Constructions                     | 0404 241 679                 | <a href="mailto:mick@locatecables.com">mick@locatecables.com</a>                               | VIC        | Western Victoria                     |
| David Kelleher  | Construction Sciences                   | 03 9553 7236                 | <a href="mailto:utilities@constructionsciences.net">utilities@constructionsciences.net</a>     | VIC        | Victoria                             |
| Stuart Miles    | ELS Environmental Location Systems      | 03 8795 7461                 | <a href="mailto:accounts@radiodetection.com.au">accounts@radiodetection.com.au</a>             | VIC        | Victoria                             |
| Darren Dean     | Asset Survey Solutions                  | 1300 035 796                 | <a href="mailto:darren.dean@assetsurvey.com.au">darren.dean@assetsurvey.com.au</a>             | VIC        | Victoria                             |
| Alex Jones      | Utility Mapping Pty Ltd                 | 0417 413 353                 | <a href="mailto:ajones@utilitymapping.com.au">ajones@utilitymapping.com.au</a>                 | VIC        | Victoria                             |
| Adam Linford    | Gippsland Pipe & Cable Locations        | 0409 386 817                 | <a href="mailto:gippspac@hotmail.com">gippspac@hotmail.com</a>                                 | VIC        | Gippsland                            |
| Thomas Pitt     | Access Utility Engineering (AUE)        | 03 9580 0440                 | <a href="mailto:info@accessue.com.au">info@accessue.com.au</a>                                 | VIC        | Victoria                             |
| Bernie Acabal   | Taylor's Development Strategists        | 03 9501 2800<br>0419 758 794 | <a href="mailto:b.acabal@taylorlds.com.au">b.acabal@taylorlds.com.au</a>                       | VIC        | Victoria                             |
| Philong Nguyen  | Asset Detection Services Pty Ltd        | 0413 949 400                 | <a href="mailto:phi.nguyen@assetdetection.com.au">phi.nguyen@assetdetection.com.au</a>         | VIC        | VIC, NSW, TAS All areas              |
| Maurice Tobin   | Drain Solutions                         | 1300 546 348                 | <a href="mailto:info@drainsolutions.com.au">info@drainsolutions.com.au</a>                     | VIC        | Melbourne Metro                      |
| Nathan Kelleher | Seeker Utility Engineering              | 0439 691 840                 | <a href="mailto:nathan.kelleher@seekerutility.com.au">nathan.kelleher@seekerutility.com.au</a> | VIC        | Melbourne                            |
| Jeffrey Ramos   | VAC Group Operations (T/A Earth Radar)  | 0436 635 011                 | <a href="mailto:Jeffrey.ramos@earthradar.com.au">Jeffrey.ramos@earthradar.com.au</a>           | VIC        | All                                  |



|                               |   |              |  |            |   |
|-------------------------------|---|--------------|--|------------|---|
| Ben Zurak                     | Veris Australia                           | 03 7019 8400 | <a href="mailto:melbourne@veris.com.au">melbourne@veris.com.au</a>   | VIC        | All                                       |
| Courtney Marson               | CSA Specialised Service Pty Ltd           | 1300 859 829 | <a href="mailto:courtney@csasepcialised.com.au">courtney@csasepcialised.com.au</a>                         | VIC/SA/TAS | All                                       |
| Paul Murray                   | Able Pipe, Cable & Leak Location Services | 0418 318 186 | <a href="mailto:paul.murray6@bigpond.com">paul.murray6@bigpond.com</a>                                     | VIC        | All                                       |
| Infrastructure Civil Services | Trenchless Pipelaying Contractors (TPC)   | 08 8376 5911 | <a href="mailto:tpc@trenchlesspipelaying.com.au">tpc@trenchlesspipelaying.com.au</a>                       | SA         | All                                       |
| Sean Nemeth                   | Enerven Energy Infrastructure Pty Ltd     | 0488 167 772 | <a href="mailto:sean.nemeth@enerven.com.au">sean.nemeth@enerven.com.au</a>                                 | SA         | Adelaide                                  |
| SADB                          | SADB Civil Construction & Trenchless      | 08 8168 7200 | <a href="mailto:reception@sadb.com.au">reception@sadb.com.au</a>   | SA         | Adelaide                                  |
| Tony Simpson                  | Utility Mapping Pty Ltd                   | 0438 630 146 | <a href="mailto:tsimpson@utilitymapping.com.au">tsimpson@utilitymapping.com.au</a>                         | SA         | All                                       |
| Deninis Stray                 | Pinpoint Services Mapping                 | 0428 917 020 | <a href="mailto:dstray@pinpointsm.com.au">dstray@pinpointsm.com.au</a>                                     | SA         | All                                       |
| JohnnyMcGlynn                 | Pinpoint Services Mapping                 | 0447 185 231 | <a href="mailto:jmcglynn@alexander.com.au">jmcglynn@alexander.com.au</a>                                   | SA         | All                                       |
| Liam Gill                     | Michael Grear Surveys                     | 08 82788732  | <a href="mailto:ugsl@mgsurveys.com.au">ugsl@mgsurveys.com.au</a>   | SA         | SA  |
| Stefan Forsyth                | Adelaide Pipeline Maintenance Services    | 08 84272525  | <a href="mailto:stefan@streamlinesa.com.au">stefan@streamlinesa.com.au</a>                                 | SA         | all NT, WA, QLD                           |
| Galen Shanahan                | VAC Group Operations (T/A Earth Radar)    | 0447 837 000 | <a href="mailto:Galen.Shanahan@vacgroup.com.au">Galen.Shanahan@vacgroup.com.au</a>                         | SA         | All                                       |
| Marilyn Dentice               | Cable Locates & Consulting                | 08 9524 6600 | <a href="mailto:admin@cablelocates.com.au">admin@cablelocates.com.au</a>                                   | WA         | Metro & Country                           |
| Lisa Scofield                 | Abaxa                                     | 08 9256 0100 | <a href="mailto:accounts@abaxa.com.au">accounts@abaxa.com.au</a>   | WA         | All                                       |
| Derek McShane                 | Subterranean Service Locations            | 0420 862 426 | <a href="mailto:Derek@sslwa.com.au">Derek@sslwa.com.au</a>   | WA         | Midwest/Gascoyne                          |
| Ben Upton                     | TerraVac Vacuum Excavation                | 0427 531 119 | <a href="mailto:locations@terravac.com.au">locations@terravac.com.au</a>                                   | WA         | All                                       |
| Dale Shearsmith               | Subtera Subsurface Locating               | 1300 046 636 | <a href="mailto:dale@subtera.com.au">dale@subtera.com.au</a>   | WA         | All                                       |
| Liam Davies                   | Bunbury Telecom Service Pty Ltd           | 08 9726 0088 | <a href="mailto:liam@btswa.com.au">liam@btswa.com.au</a>   | WA         | South West WA                             |
| Tammy Thorp                   | B.C.E Spatial                             | 08 9364 6408 | <a href="mailto:admin@bcespatial.com.au">admin@bcespatial.com.au</a>                                       | WA         | Perth Metro & Regional                    |
| Alex Jones                    | Utility Mapping Pty Ltd                   | 0417 413 353 | <a href="mailto:ajones@utilitymapping.com.au">ajones@utilitymapping.com.au</a>                             | WA         | All                                       |
| Chris Lee                     | Pulse Locating                            | 0437 289 861 | <a href="mailto:enquiries@pulselocating.com.au">enquiries@pulselocating.com.au</a>                         | WA         | Perth                                     |
| Morgan O'Connor               | Kier Contracting                          | 1300 543 728 | <a href="mailto:morgan@kier.com.au">morgan@kier.com.au</a>   | WA         | Perth Metro & Greater region, Regional WA |
| Nigel Nunn                    | CCS Group / Utility Locating Solutions    | 08 9385 5000 | <a href="mailto:enquiry@ccswa.com.au">enquiry@ccswa.com.au</a>   | WA         | Perth                                     |
| Paul Stevenson                | Geographe Underground Services            | 0427 523 811 | <a href="mailto:paul.stevenson@geographeunderground.com.au">paul.stevenson@geographeunderground.com.au</a> | WA         | All                                       |



|                  |  |              |  |     |                         |
|------------------|--|--------------|--|-----|-------------------------|
| Jeremy Brown     | Spotters Asset Locations Pty Ltd                       | 0459 130 677 | <a href="mailto:jeremy@spottersassetlocations.com.au">jeremy@spottersassetlocations.com.au</a>   | WA  | All                     |
| Reece Topham     | Prime Locate   | 0400 888 406 | <a href="mailto:reece@primelocate.com.au">reece@primelocate.com.au</a>   | WA  | All                     |
| Mark Docherty    | RM Surveys   | 08 9457 7900 | <a href="mailto:mark.docherty@rmsurveys.com.au">mark.docherty@rmsurveys.com.au</a>   | WA  | All                     |
| Jonathon Sylva   | Advance Scanning Services                              | 1300 738 118 | <a href="mailto:bookings@advancescanning.com.au">bookings@advancescanning.com.au</a>   | WA  | All                     |
| Tim Daws         | Award Contracting                                      | 0411 878 895 | <a href="mailto:info@awardcontracting.com.au">info@awardcontracting.com.au</a>   | WA  | City & Regional         |
| Dave Turner      | Anywair Pipe & Cable                                   | 0418 890 071 | <a href="mailto:dave@anywair.com.au">dave@anywair.com.au</a>   | NT  | All NT, WA, QLD         |
| Steve Gault      | Northern Comms   | 0407 904 319 | <a href="mailto:steve@northerncomms.net.au">steve@northerncomms.net.au</a>   | NT  | All                     |
| Wayne Parslow    | Danisam  | 0417 089 865 | <a href="mailto:danisam@westnet.com.au">danisam@westnet.com.au</a>   | NT  | Darwin NT and Surrounds |
| Elizabeth Young  | Archers Underground Services Locations (AUS Locations) | 03 6245 1298 | <a href="mailto:admin@auslocations.com.au">admin@auslocations.com.au</a><br><a href="mailto:auslocations@bigpond.com">auslocations@bigpond.com</a> | TAS | All                     |
| Patrick Monaghn  | Paneltec Group   | 0447 797 544 | <a href="mailto:patrick@paneltec.com.au">patrick@paneltec.com.au</a>   | TAS | All                     |
| Scott Richardson | AJ Water & Leak Detection                              | 0457 710 680 | <a href="mailto:admin@ajwater.com.au">admin@ajwater.com.au</a>   | TAS | All                     |



# OVERVIEW

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Sequence Number: 210057750

Date Generated: 06 Apr 2022



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 Email: [Fibre.Locations@optus.net.au](mailto:Fibre.Locations@optus.net.au)  
 For urgent onsite assistance contact 1800 505 777  
 Optus Limited ACN 052 833 208





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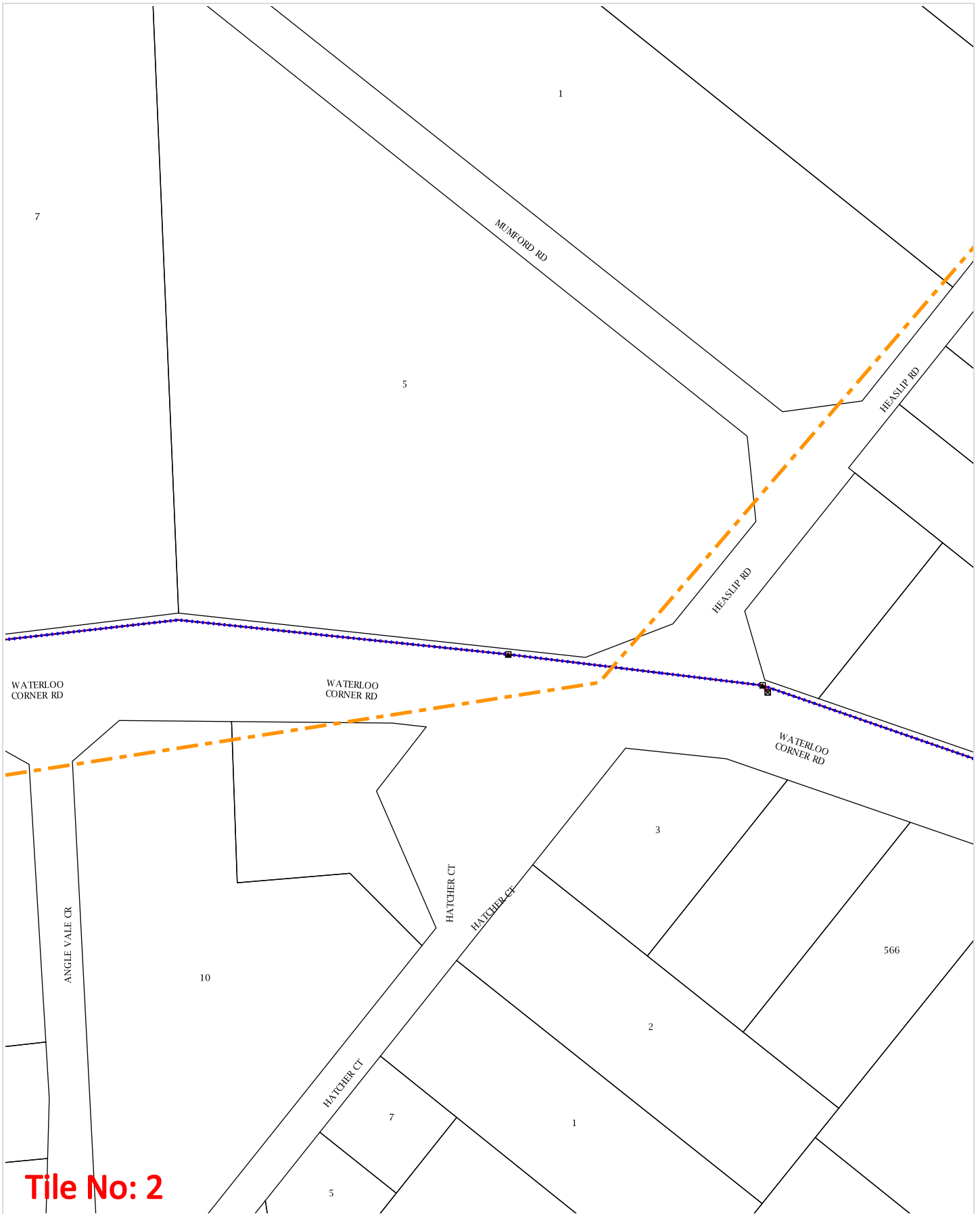
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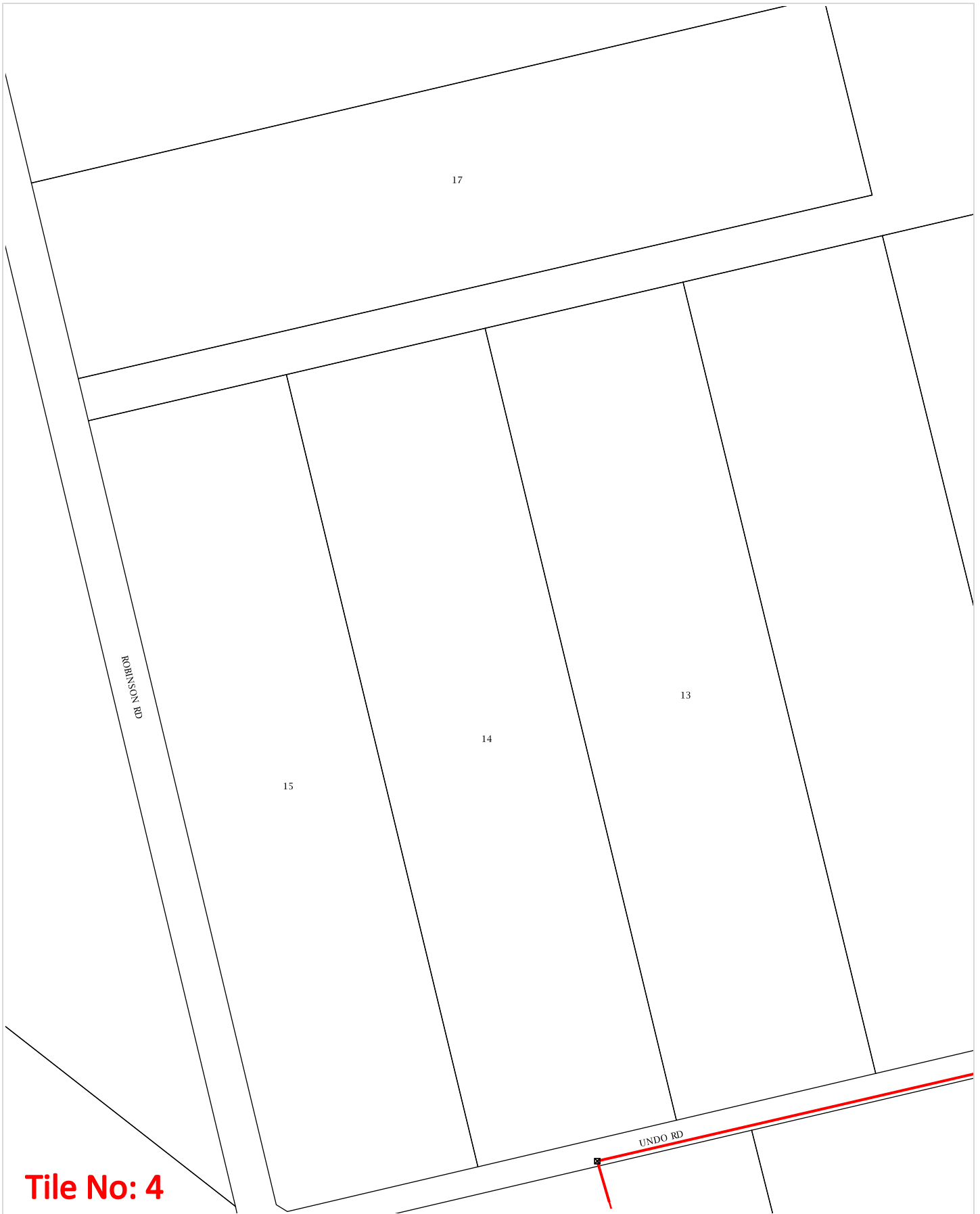
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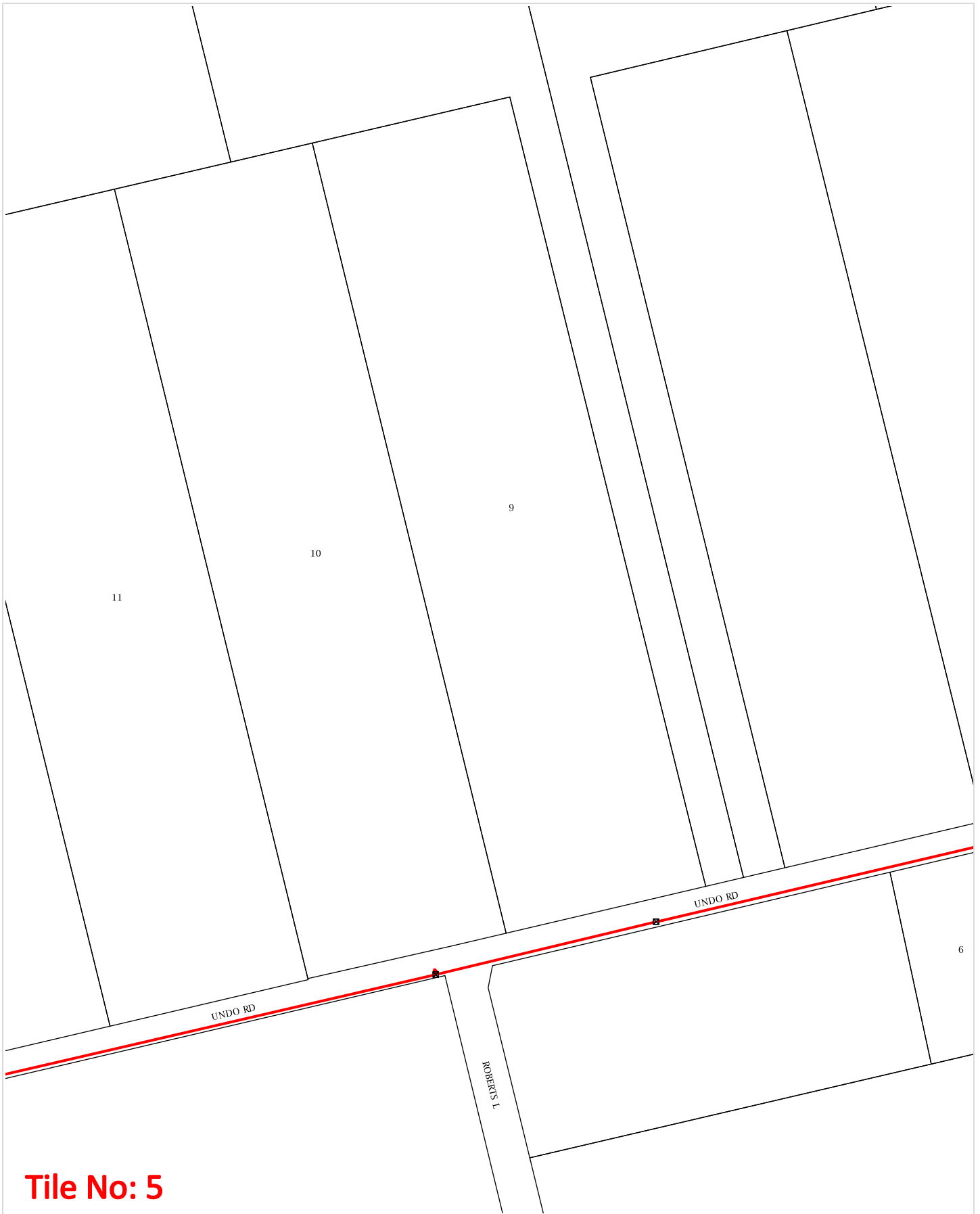
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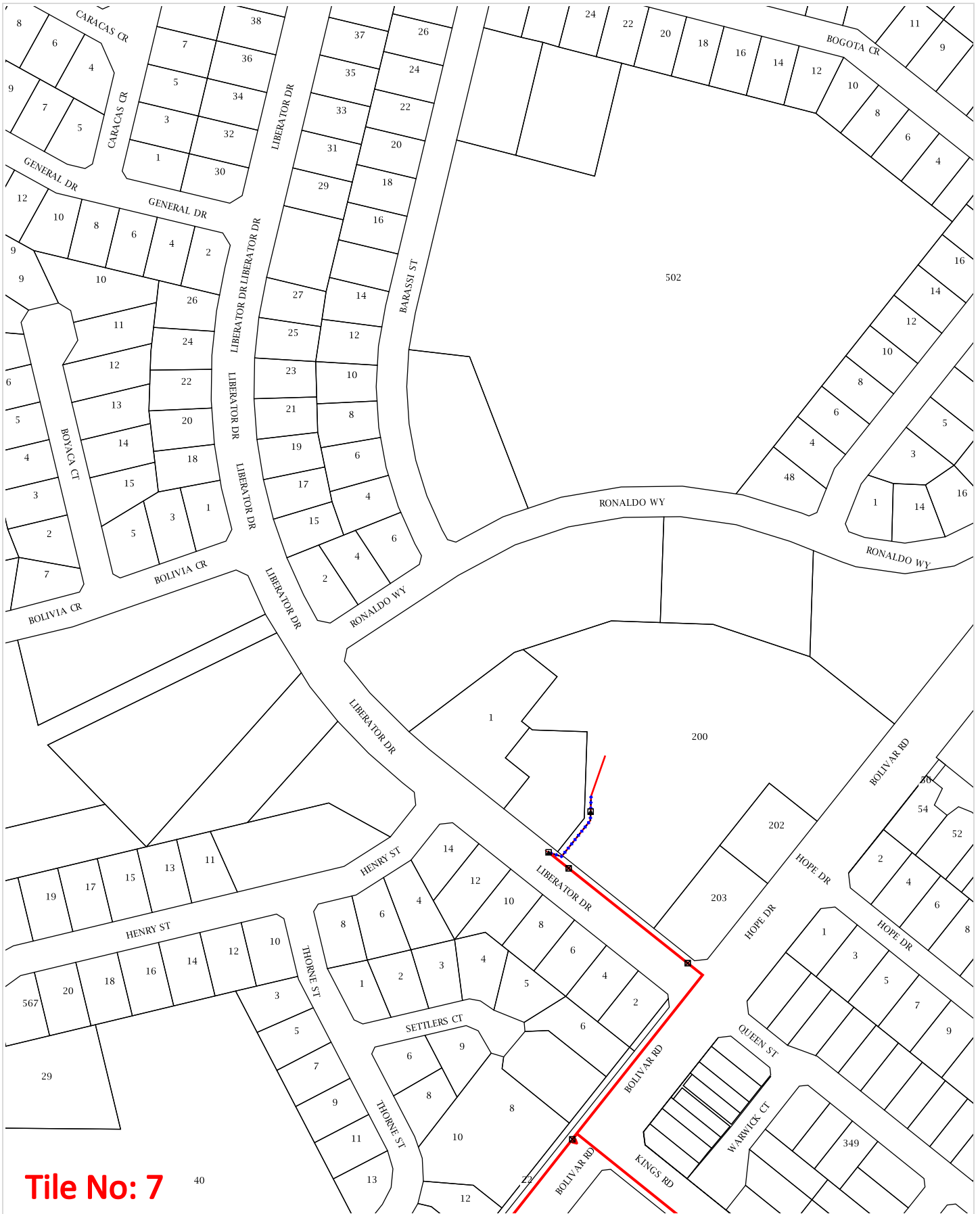
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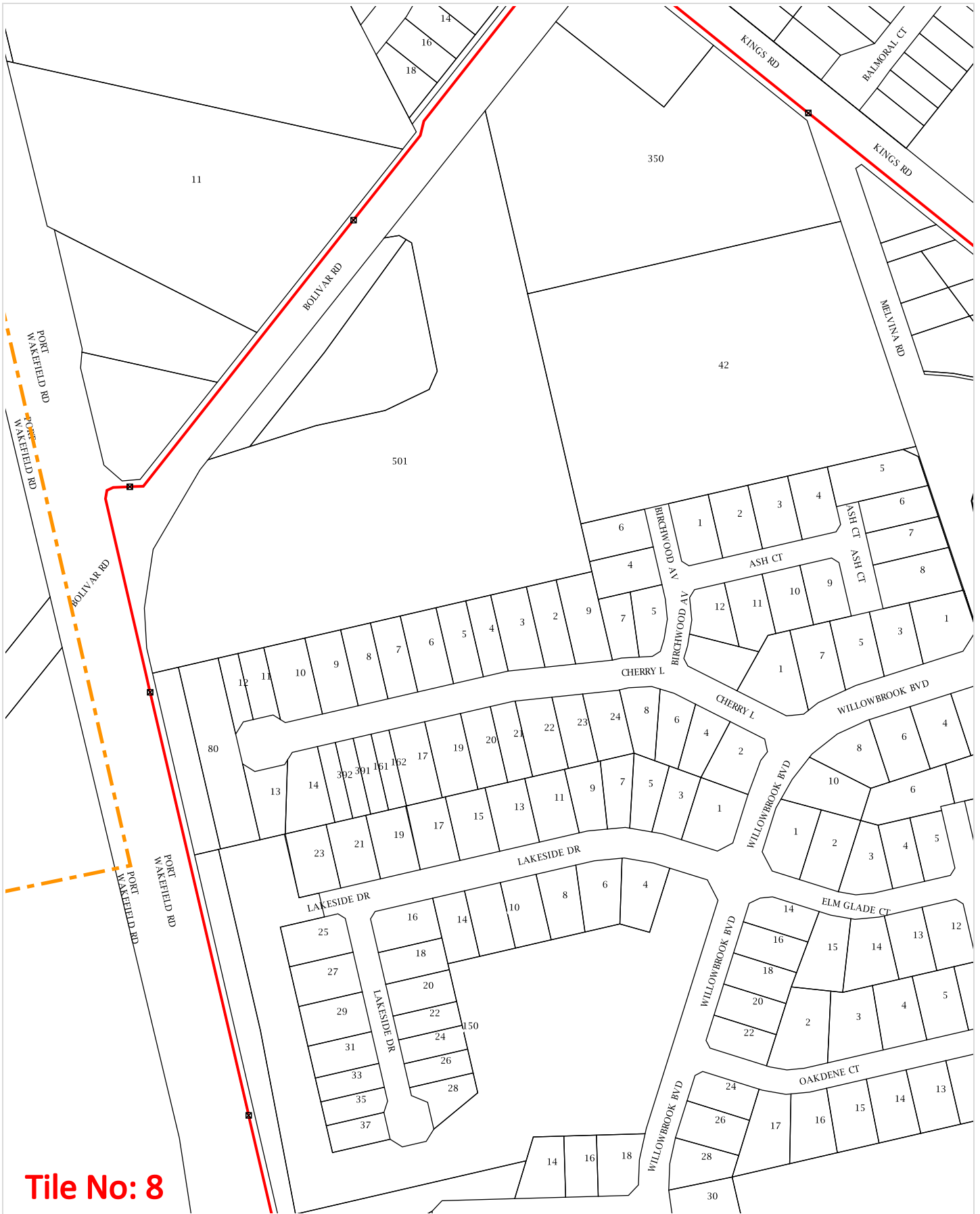
Sequence Number: 210057750

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 For urgent onsite assistance contact 1800 505 777  
 Optus Limited ACN 052 833 208



Notification number: 31721481

Sequence number: 210057751

Enquiry date: 06/04/2022

Enquiry location: 79-81 Robinson Road, Waterloo Corner

### Dial Before You Dig Response – Please provide a smaller nominated search area

Dear Karion Dickson-Abbott

Thank you for contacting Dial Before You Dig (DBYD) before starting any work or activities which may affect the water and sewerage infrastructure of SA Water.

**Unfortunately, the site area you have requested is too large to provide you with plans. Please reduce the nominated search area and resubmit your enquiry.**

#### Disclaimer

The information has been generated by an automated system based on the area highlighted. It is your responsibility to ensure that the dig site is properly defined when submitting your Dial Before You Dig enquiry. If the information does not match the dig site or you have received this message in error, please resubmit your enquiry.

This advice and/or information is given for your private use only. The accuracy of the advice and information is not guaranteed, and no responsibility is accepted by the crown, the South Australian Water Corporation or their officers, agents or servants for any loss or damage caused by reliance upon this advice and/or information, as a result of any error, omission, incorrect description or statement therein whether caused by negligence or otherwise.

The information contained in this message may be confidential and may also be subject of legal, professional or public interest immunity. If you are not the intended recipient any use, disclosure or copying of this document is unauthorised. If you have received this message in error, please contact Dial Before You Dig.

For further enquiries or assistance with interpretation of plans and search content, or to report any obvious errors with the data provided, please contact our DBYD support team via email [dialbefore.youdig@sawater.com.au](mailto:dialbefore.youdig@sawater.com.au)

Thank you for contacting SA Water's DBYD section.

Kind regards,

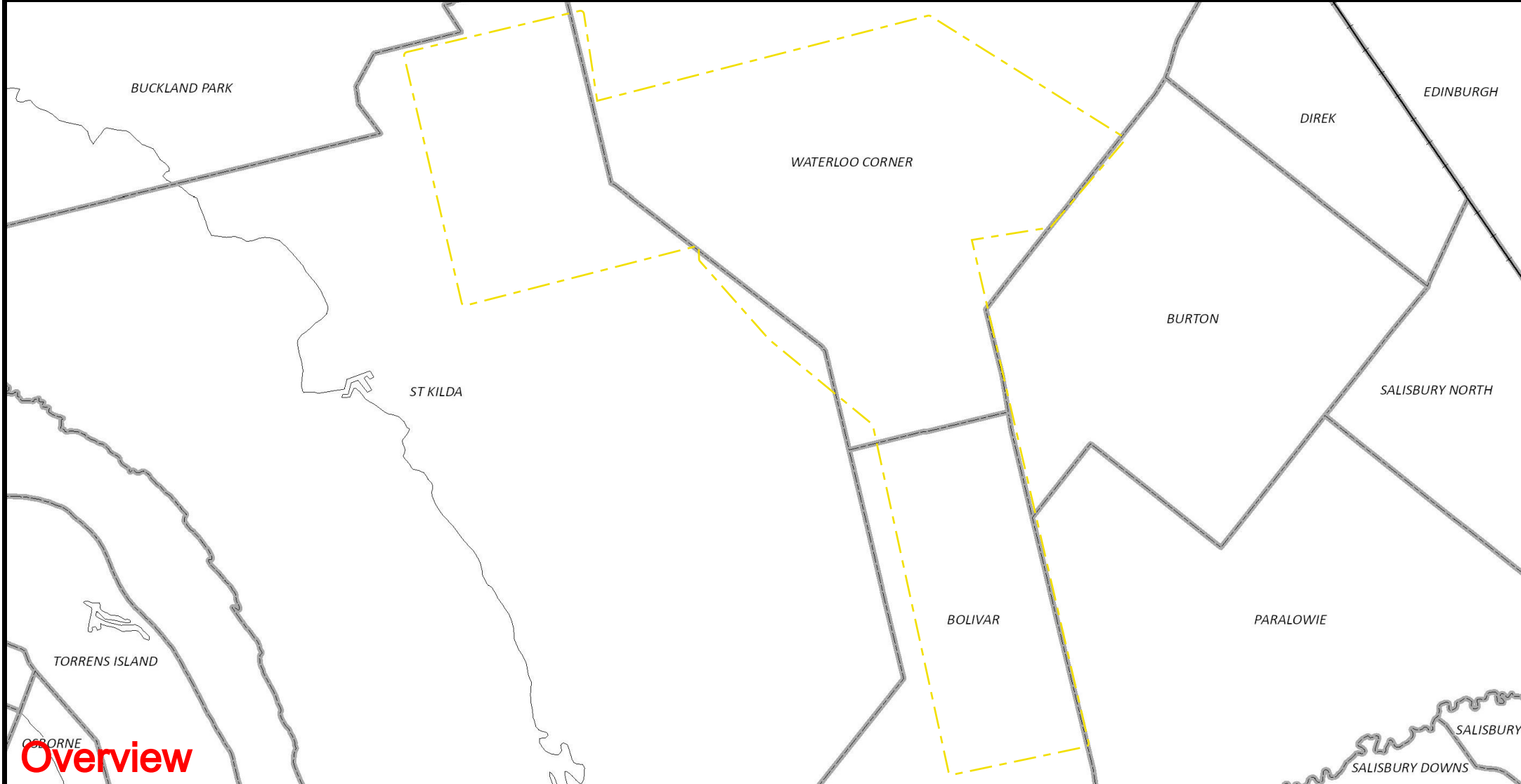
Dial Before You Dig Support Team  
**SA Water DBYD**

**Please note: Any damage to SA Water infrastructure must be reported immediately to our Faults Team (24 hours, 7 days) on 1300 SA WATER (1300 729 283)**



# OVERVIEW ONLY

DBYD Sequence No: 210057751



**Overview**

- |                               |                         |                              |                          |
|-------------------------------|-------------------------|------------------------------|--------------------------|
| Water Main                    | Wastewater Gravity      | CP Facility                  | SIS Main                 |
| Water Main (Decommissioned)   | Wastewater Pumping      | CP Anode/Cathode Cables      | Railway                  |
| Recycled Water Main           | Wastewater Vacuum       | CP Electricity Supply Cables | Land Parcels             |
| Decommissioned Asbestos Mains | Wastewater Low Pressure | CP Anode Bed Outlines        | CP = Cathodic Protection |

Scale @ A4: 1:37238

This advice and/or information is given for your private use only. The accuracy of the advice and information is not guaranteed, and no responsibility is accepted by the crown, the South Australian Water Corporation or their officers, agents or servants for any loss or damage caused by reliance upon this advice and/or information, as a result of any error, omission, incorrect description or statement therein whether caused by negligence or otherwise.

**To:**

Greenhill - Karion Dickson-Abbott

Level 1,178 Fullarton Road

Dulwich

SA

5065

| Enquiry Details  |  |  |  |
|------------------|--|--|--|
| Utility ID       | 50800                                  |  |  |
| Sequence Number  | 210057756                              |  |  |
| Enquiry Date     | 06/04/2022 11:33                       |  |  |
| Response         | <b>AFFECTED</b>                        |  |  |
| Address          | 79-81 Robinson Road<br>Waterloo Corner |  |  |
| Location in Road | Road, Footpath, Nature Strip           |  |  |
| Activity         | Planning and Design, Subdivision       |  |  |

| Enquirer Details |   |        |  |
|------------------|---|--------|--|
| Customer ID      | 3002096                                   |        |  |
| Contact          | Karion Dickson-Abbott                     |        |  |
| Company          | Greenhill                                 |        |  |
| Email            | KDickson-Abbott@greenhillaustralia.com.au |        |  |
| Phone            | +61884061300                              | Mobile |  |

## Underground cable locations ASSETS FOUND

### The process:

1. You made an enquiry with Dial Before You Dig (1100).
2. Dial Before You Dig referred your enquiry to SA Power Networks (South Australia's Distribution Network).
3. SA Power Networks has checked their records and have found underground assets in your request area.
4. Please review the attached Asset Map(s) in regard to your excavation, as there may be some restrictions that apply if your excavation is greater than 300mm below ground level and less than 3.0m from an SA Power Networks Asset. Further explanation of restricted and exclusion zones can be found at <http://www.sapowernetworks.com.au/public/download.jsp?id=1775> OR search [sapowernetworks.com.au](http://www.sapowernetworks.com.au) for NICC 404 and by referring to the figure on page 10, 11 or 12.
5. An on-site assessment and/or technical drawings may also be necessary to ascertain the exact cable/asset location. This service can be provided by SA Power Networks and may incur a cost.
6. Please contact your local SA Power Networks Location Officer to schedule work or make further enquiries regarding this request either by return email or the contact number supplied. Other general enquiries can be made on (08) 8292 0218.
7. If you have damaged SA Power Networks Assets immediately notify Faults & Emergencies on (08) 8404 4496.

**Please note: Underground services in the vicinity of any proposed earthworks must be located by hand digging (pot-holing) prior to the commencement of works. Persons conducting works will be held responsible for any resulting loss or damage to the services associated with infrastructure**

## Important information and conditions of use for users of underground services information supplied by SA Power Networks

### Indicative information only

The accompanying information is intended only to indicate the presence of SA Power Networks' underground services and/or to convey general indicative information in respect of the location marked on the plans. **The information does not necessarily provide current, comprehensive or accurate description or location of the underground services or associated infrastructure.**

The information may also describe or indicate the presence of underground services or infrastructure not owned by SA Power Networks, for example, electrical services connected to an SA Power Networks' service point. SA Power Networks takes no responsibility for services or infrastructure that is not owned or operated by SA Power Networks or the accuracy or completeness of their description or location in the accompanying information.

Additional technical information may be requested from SA Power Networks for planning or engineering design (non-digging) purposes. Such requests are to be directed to SA Power Networks Builders and Contractors Electrical Service Line (1300 650 014).



### **Identifying the location of underground services**

Working near or around live electrical cables can be hazardous. **An on-site assessment is strongly recommended prior to undertaking ANY works and is necessary to determine the location of the underground services.** This can be undertaken by SA Power Networks or an alternative professional locating service provider. Enquiries can be made about SA Power Networks' cable location service by telephoning (08) 8292 0218.

Restrictions may apply in regard to your excavation particularly if your excavation is greater than 300mm below ground level and less than 3.0m from an SA Power Networks asset. Further explanation regarding restricted exclusion zones can be found at <http://www.sapowernetworks.com.au/public/download.jsp?id=1775> OR search sapowernetworks.com.au for NICC 404 and by referring to the figures on pages 10, 11 or 12.

Underground services in the vicinity of any proposed earthworks must be located by hand digging (pot-holing) prior to the commencement of the works. Persons conducting works will be held responsible for any resulting loss or damage to the services or associated infrastructure.

### **Working near high voltage 66kV underground cables**

Persons intending to conduct earthworks in the vicinity of an SA Power Networks high voltage 66kV underground cable MUST first obtain a site-specific clearance by contacting the SA Power Networks Cable Management Technical Officer on 0403 582 174.

### **Basis of information supply**

The accompanying information is supplied at the request of, and is only provided for use by, the requestor. The information is valid for 30 days from the date of issue.

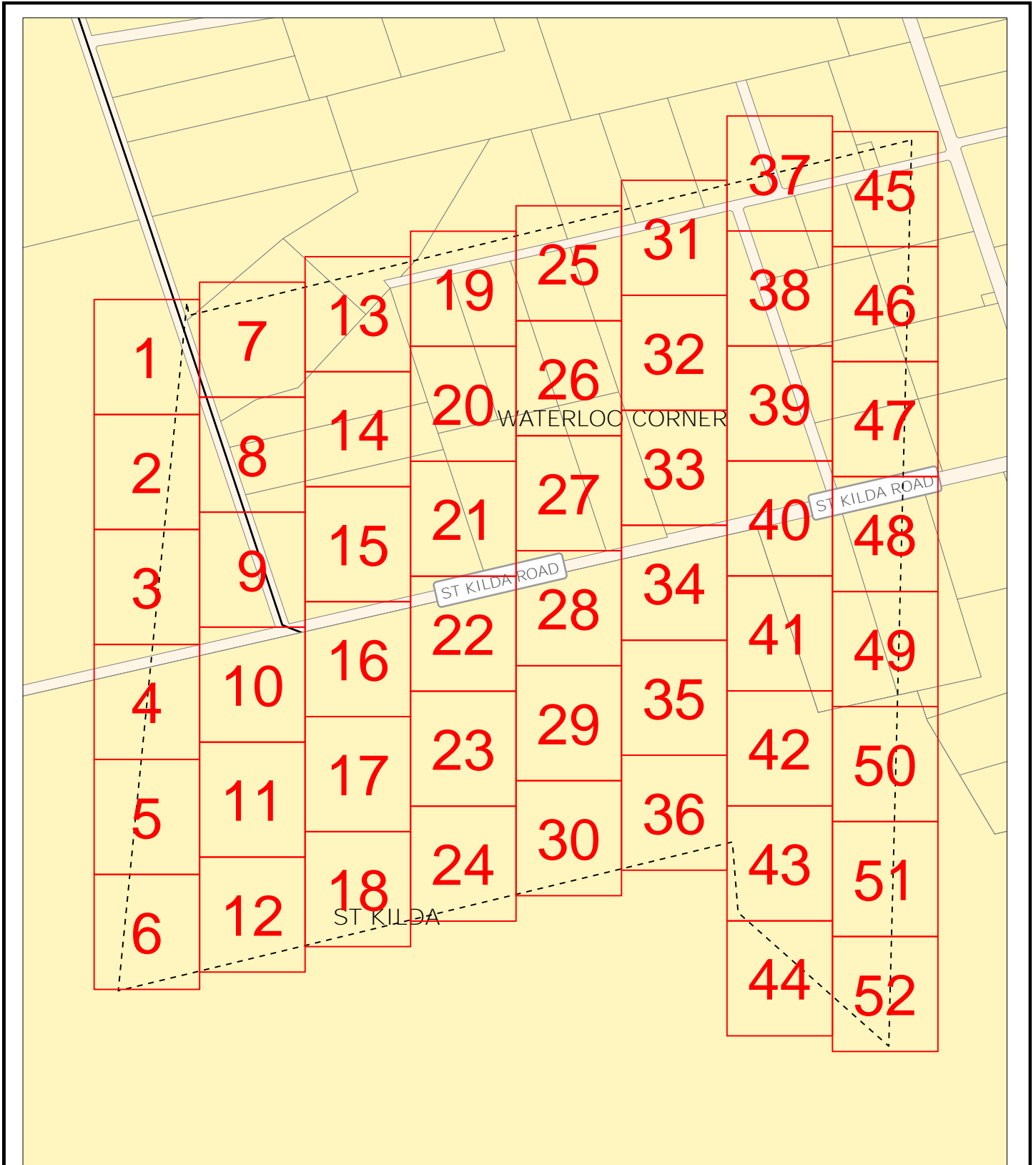
SA Power Networks, its employees, agents and contractors shall accept no responsibility for any inaccuracy or incompleteness in the information provided or liability in respect of any personal injury, death, loss or damage to any real or personal property or otherwise that arises out of or in connection with, directly or indirectly, the provision of or reliance upon the information.

It is the requestor's responsibility to ensure that the information provided accords with the area depicted on the requestor's Dial Before You Dig request. The information provided should not be used in respect of any area outside of the area depicted on the Dial Before You Dig request. SA Power Networks does not warrant that the information is suitable for the requestor's intended purposes.

**Any use of the accompanying information is subject to the requestor's agreement to the conditions contained in this document.** Upon acceptance of these conditions, SA Power Networks grants the requestor permission to use the information. The information must be returned to SA Power Networks if the conditions are not accepted.

***Important note: It is an offence under the Electricity Act 1996 (SA) to cause damage to or interfere with electrical infrastructure***

Date: 06/04/2022



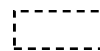
**Disclaimer:** The Plan/Sketch is supplied at your request and is subject to your agreement that SA Power Networks shall not be liable or responsible for the correctness or otherwise of any such information supplied pursuant to this request. Upon acceptance of this condition SA Power Networks grants you permission to use the Plan/Sketch as a guide to the location of SA Power Networks assets. The Plan/Sketch must be returned to SA Power Networks if you fail to accept the conditions of use.



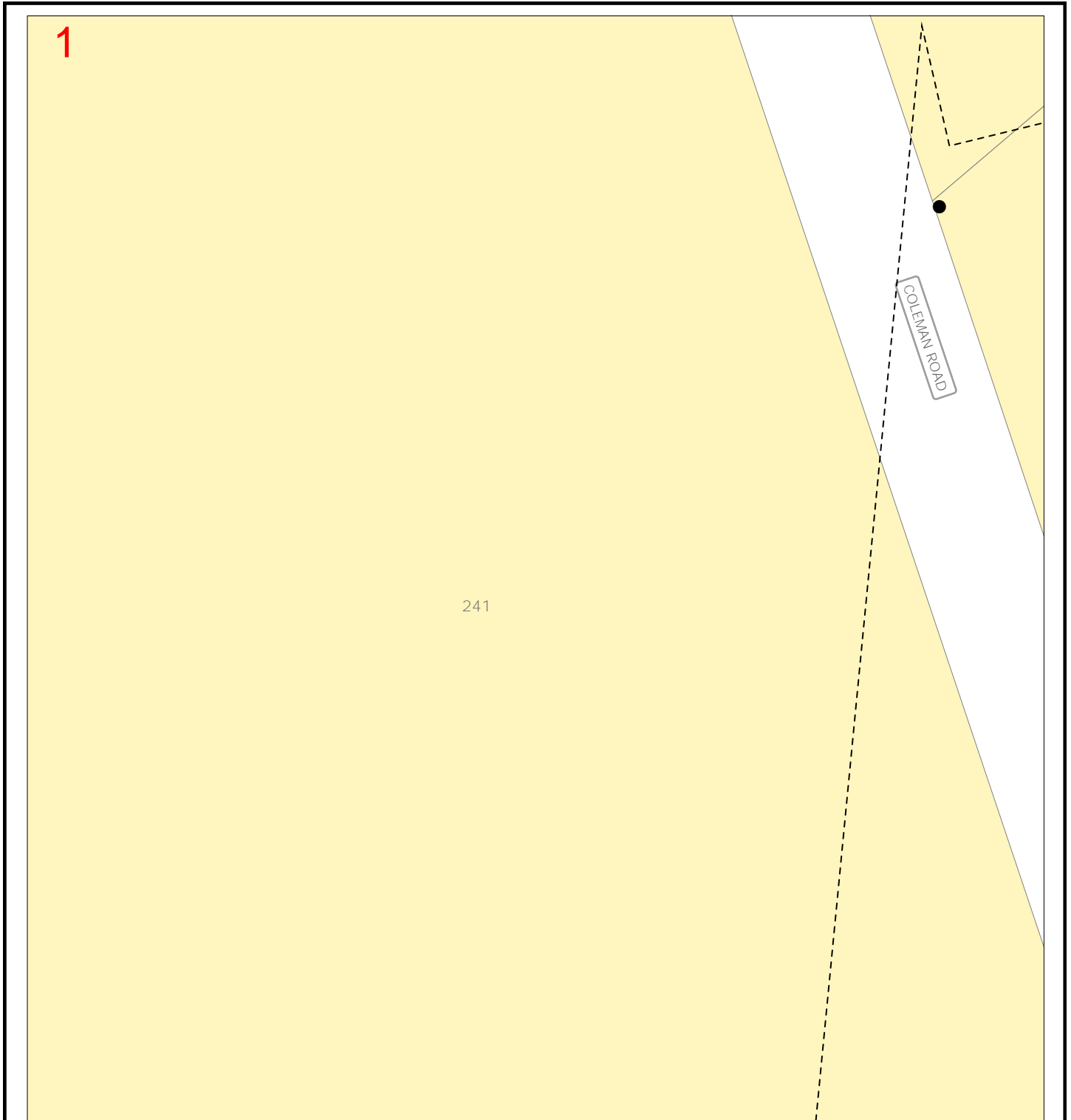
**LEGEND:**



Detail Map



DBYD Requested Area



Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

**Cables**

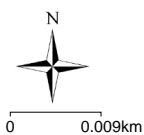
- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

DBYD Requested Area

- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

Fibre Optic Cable/Duct

- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



2

241

Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

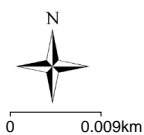
- ▼ 66kV/132kV
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- ▼ 7.6kV
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**Cables**

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- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



3

241

Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

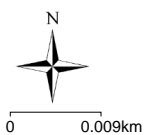
- ▼ 66kV/132kV
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- ▼ 11kV
- ▼ 7.6kV
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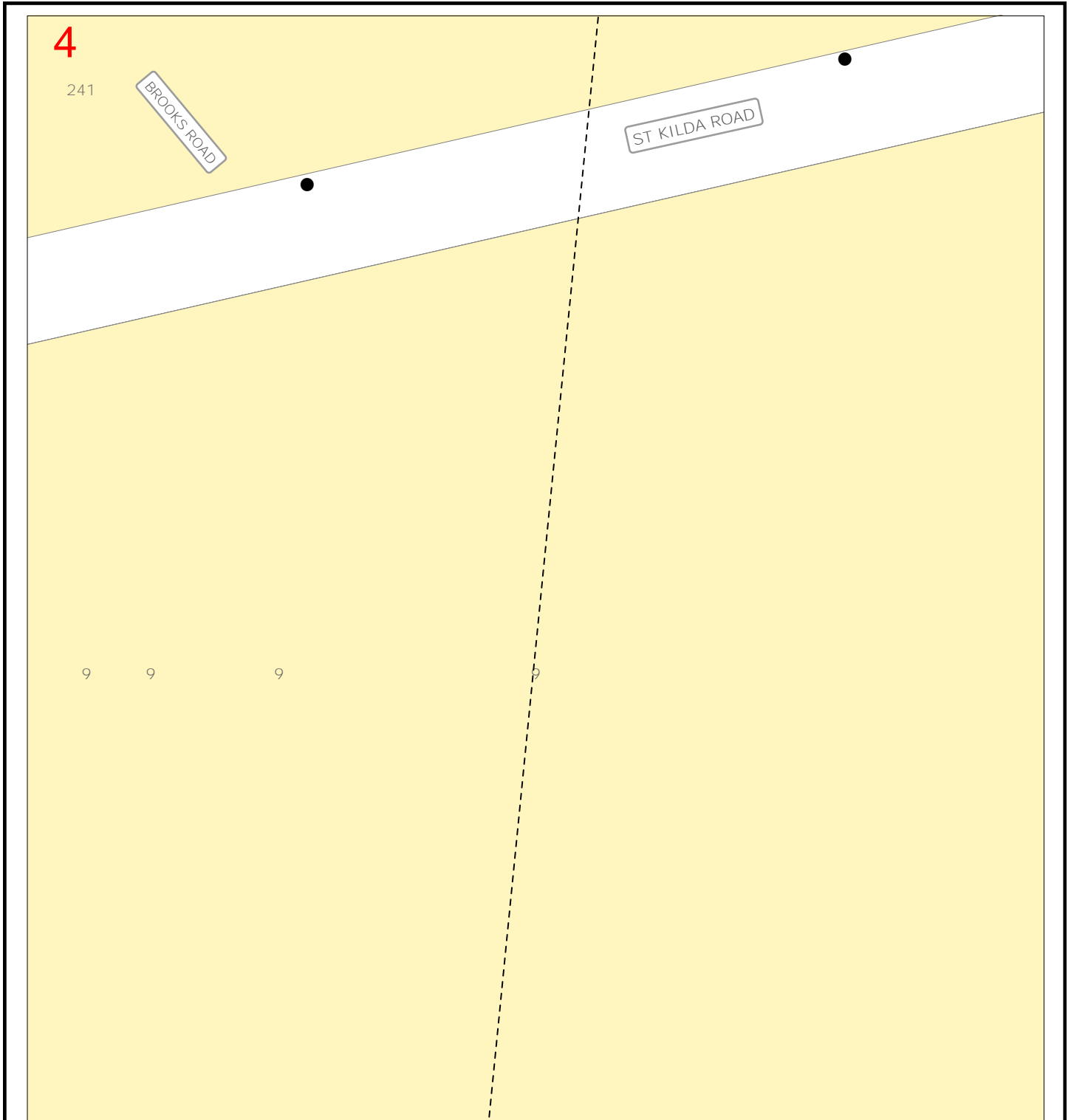
**Cables**

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- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column

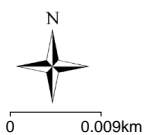


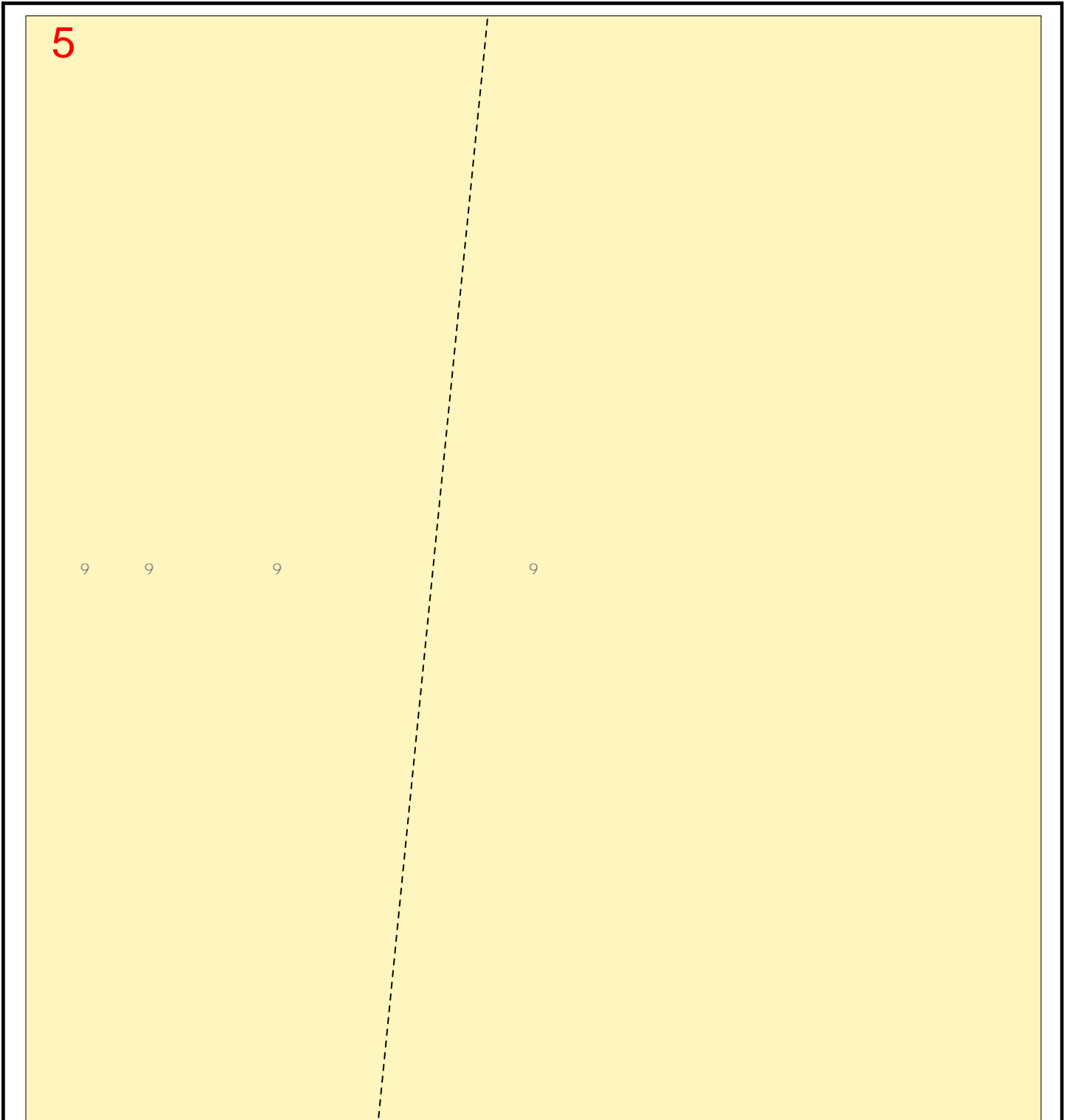


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |

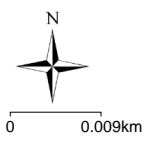




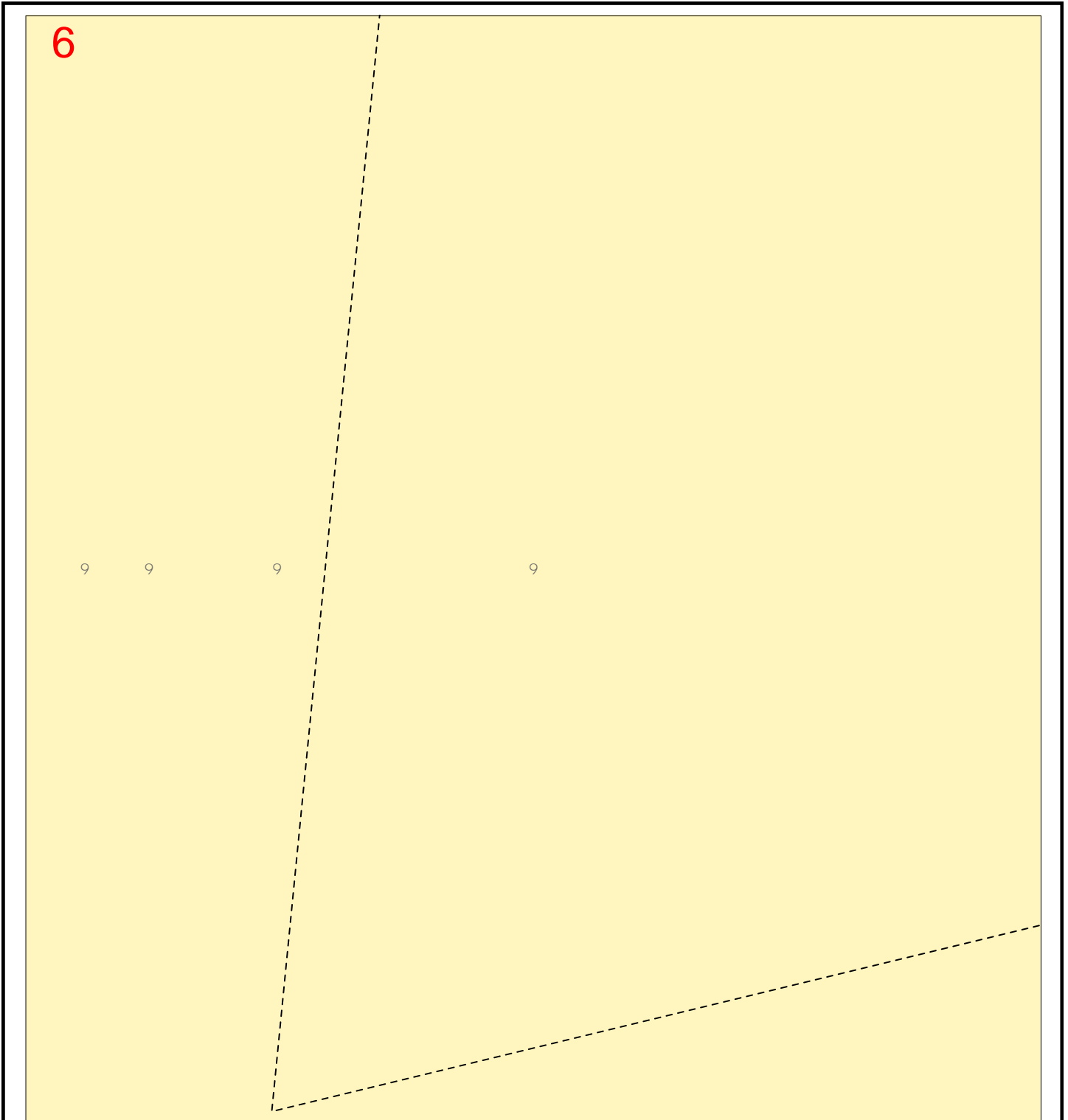
Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |







Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

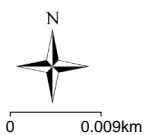
- 66kV/132kV
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- Low Voltage

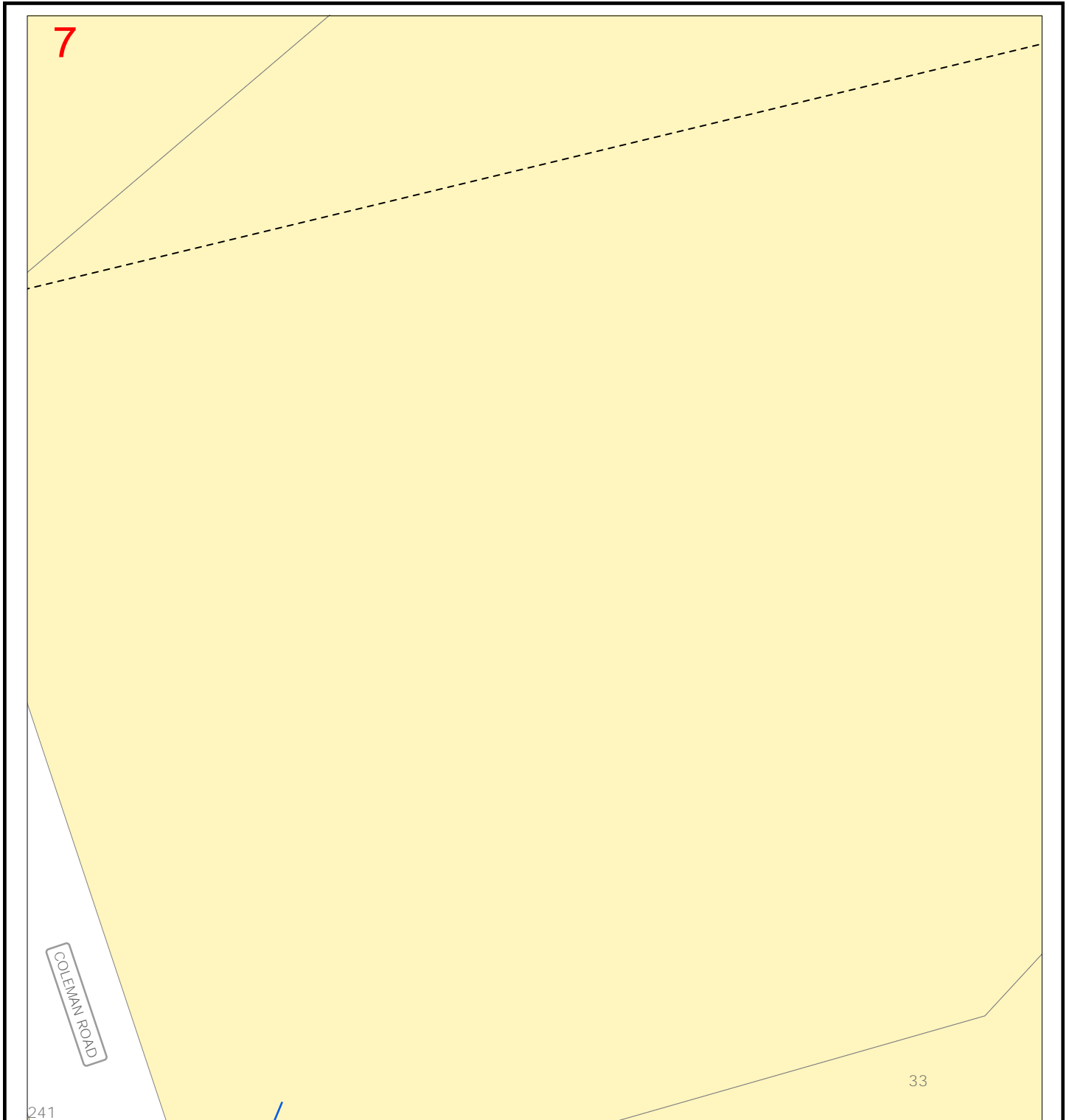
**Cables**

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- DBYD Requested Area
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- Earthing Grid

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- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column





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**LEGEND:**

**Cable Exits**

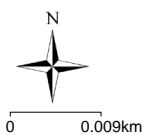
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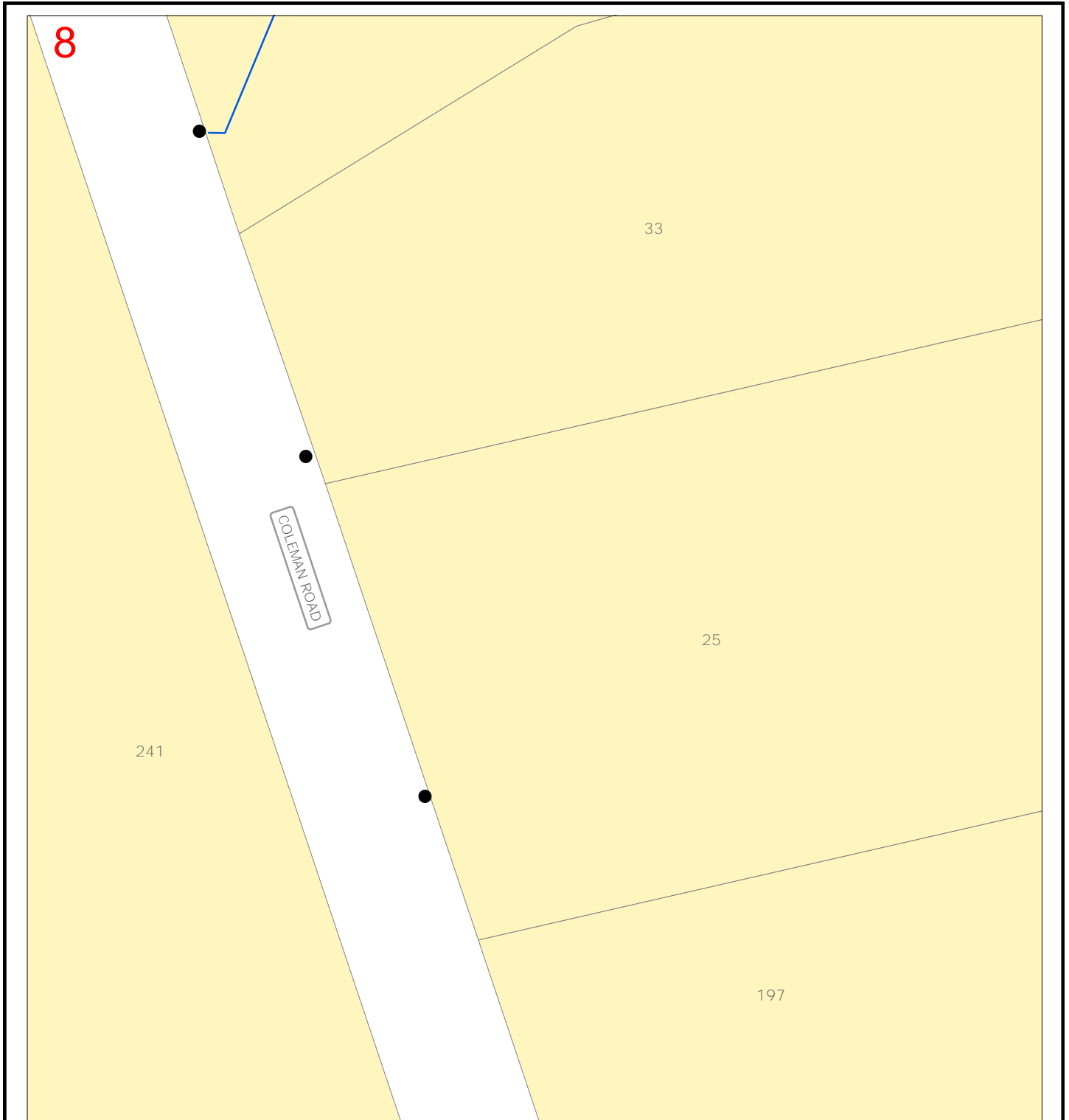
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- 11kV
- 7.6kV
- Not In Service
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- DBYD Requested Area
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- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column

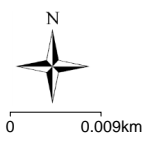


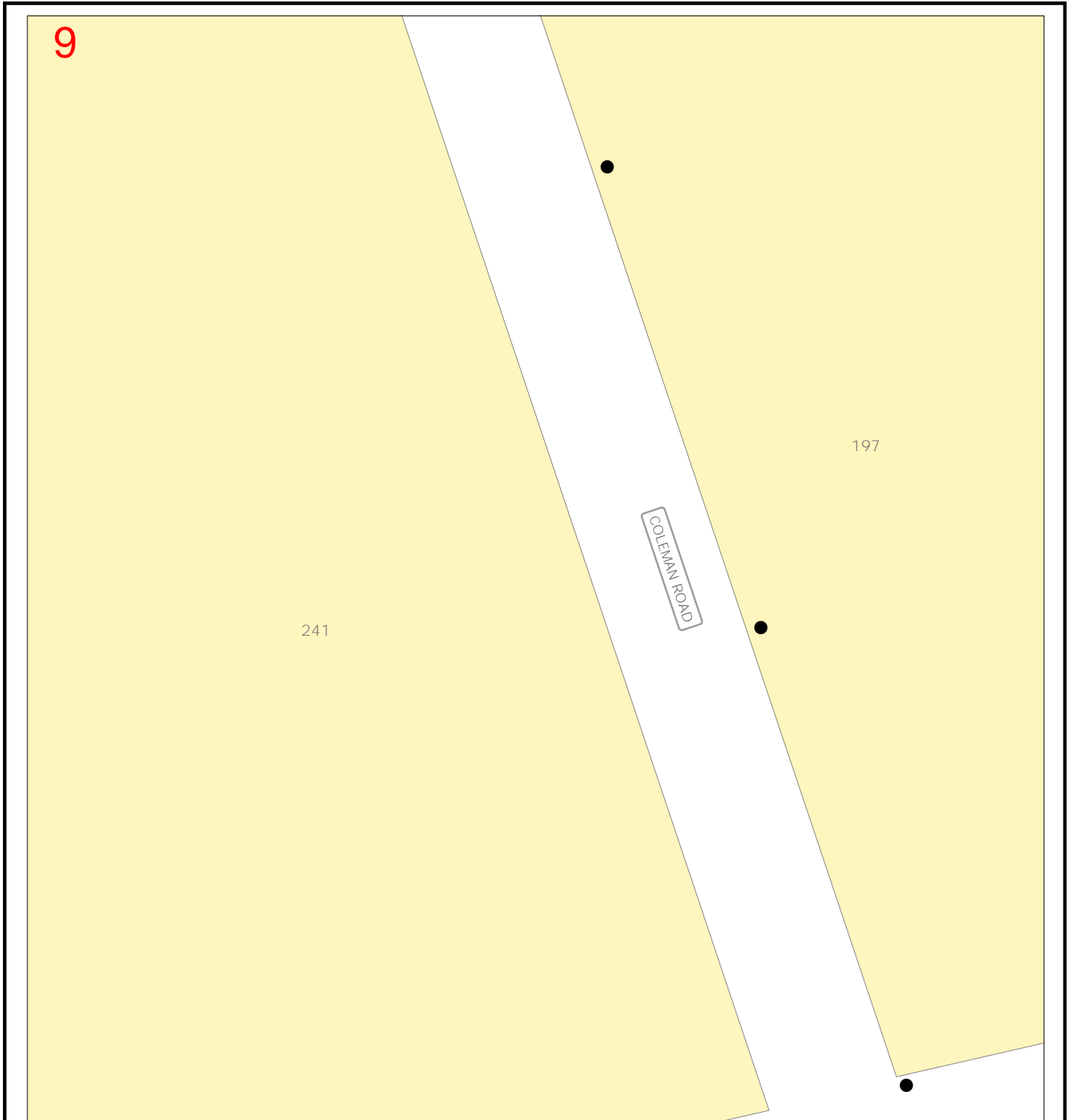


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |

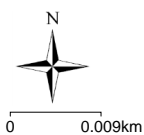


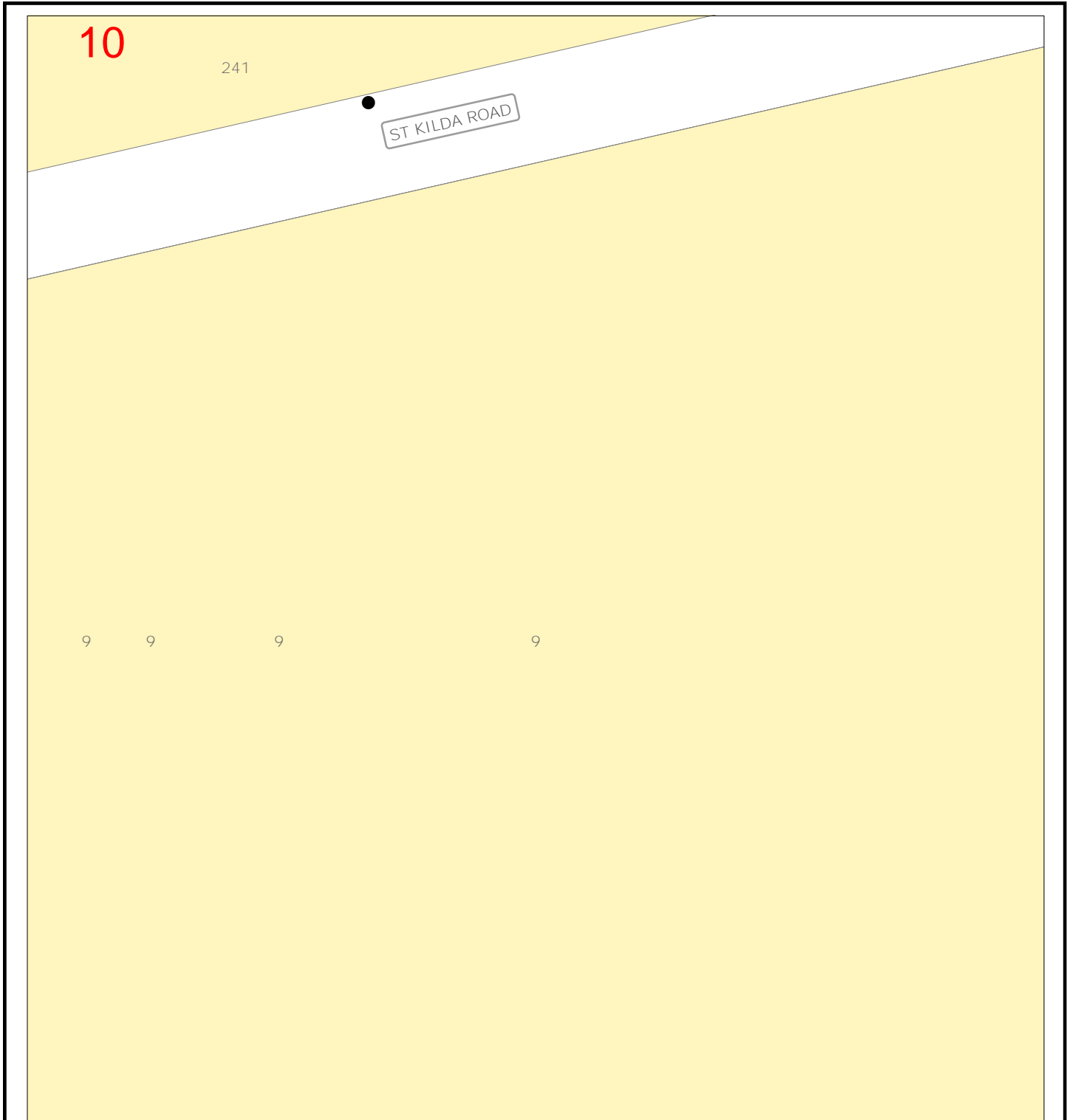


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

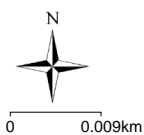
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
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- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column










11

9 9 9 9








Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.








**LEGEND:**








**Cable Exits**

-  66kV/132kV
-  33kV
-  19kV
-  11kV
-  7.6kV
-  Not In Service
-  Low Voltage

**Cables**

-  66kV/132kV
-  33kV
-  19kV
-  11kV
-  7.6kV
-  Not In Service
-  Low Voltage

-  DBYD Requested Area
-  HV Switching Cubicle
-  Transformer Cubicle
-  Cable Joint Bay
-  LV Switching Cubicle/Pit
-  Service Pit/Pillar
-  Earthing Grid

-  Fibre Optic Cable/Duct
-  Fibre Manhole/Pit
-  Pilot Cable
-  Pilot Manhole/Pit
-  Substation
-  Electricity Pole
-  Light Column



0 0.009km

12

9 9 9 9

Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

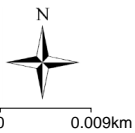
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**Cables**

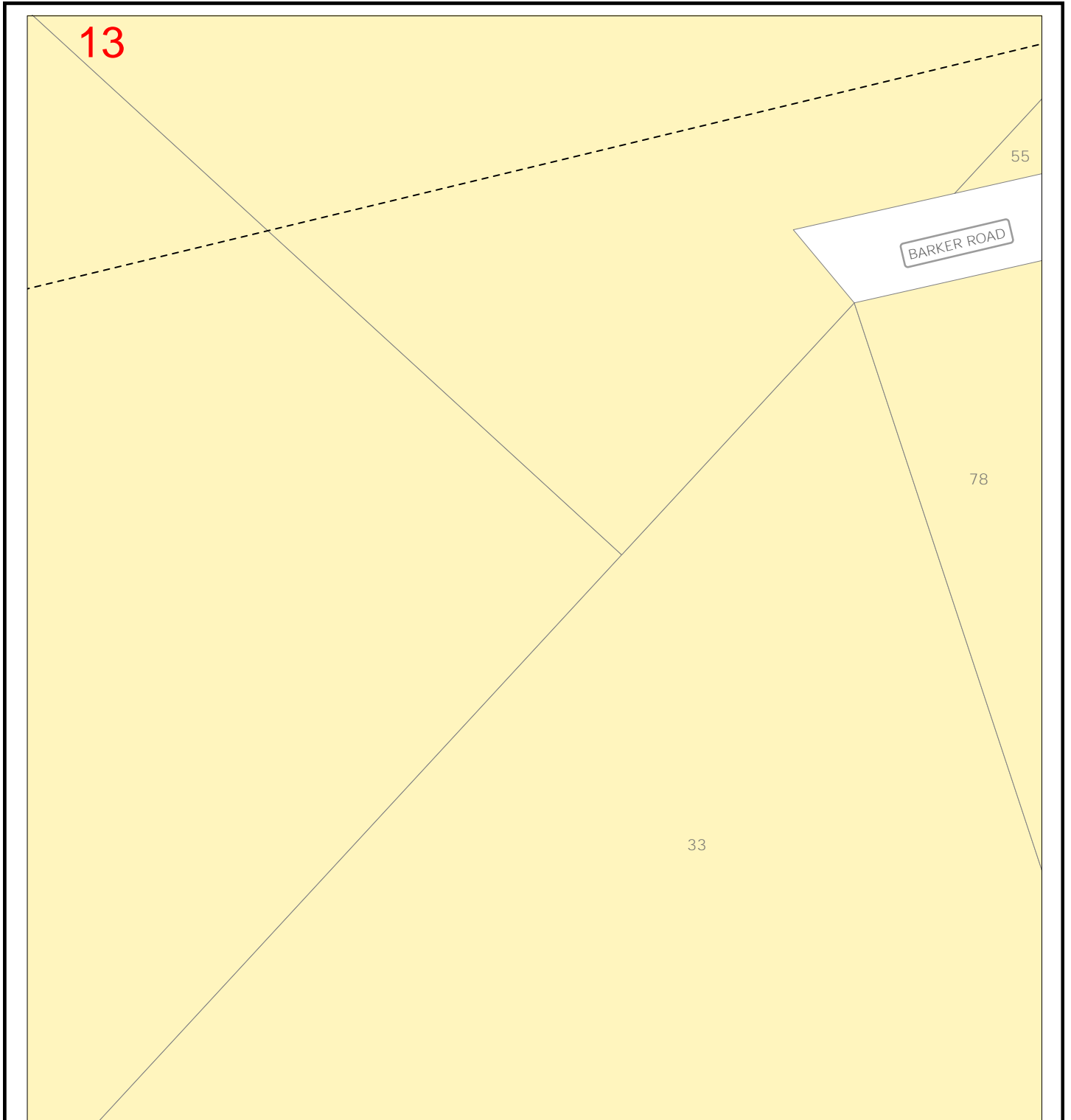
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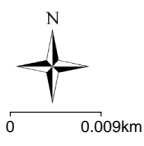


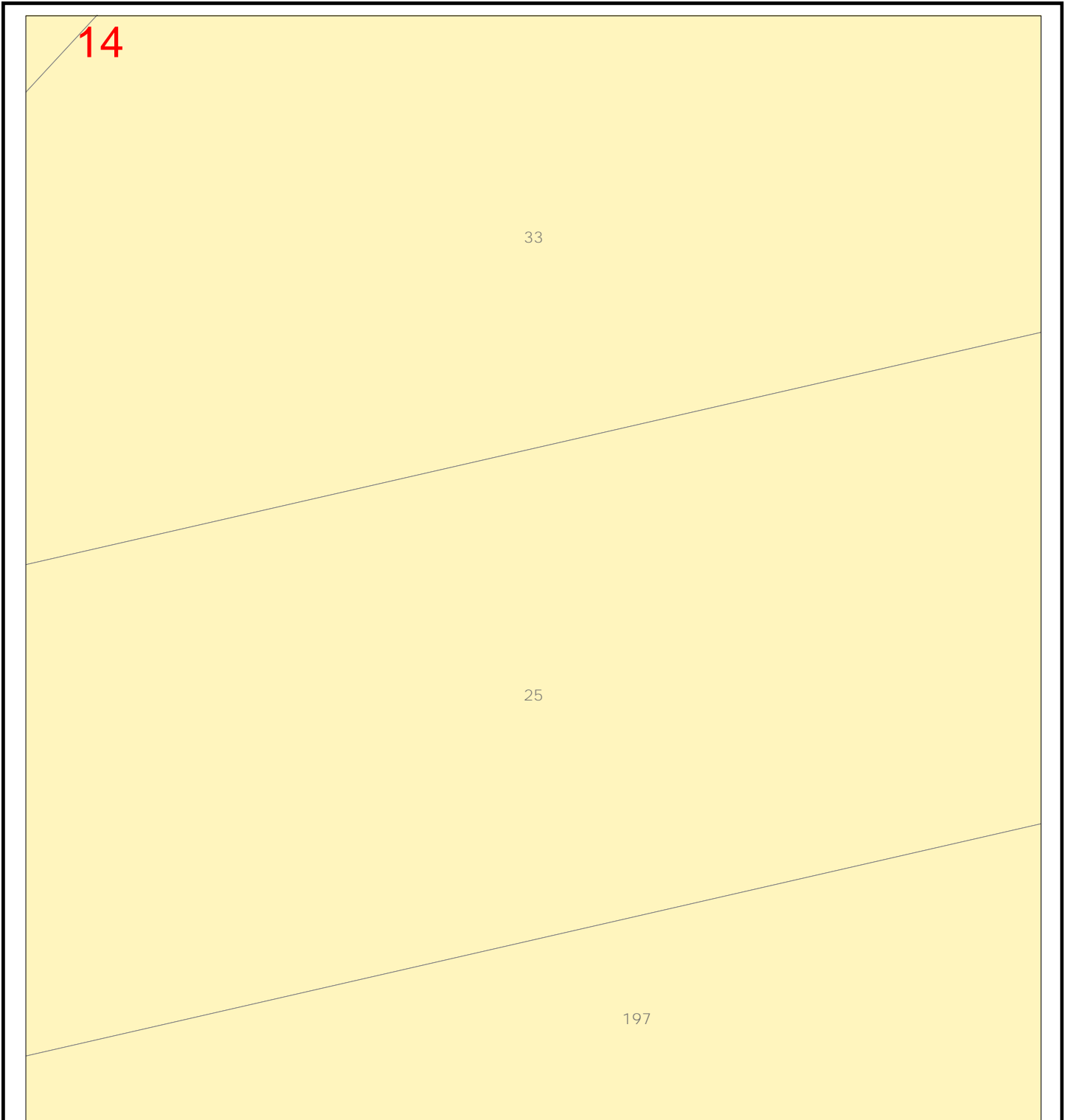


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**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

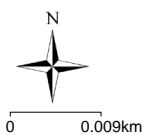
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- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



15

197

Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

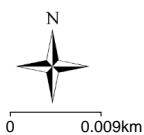
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

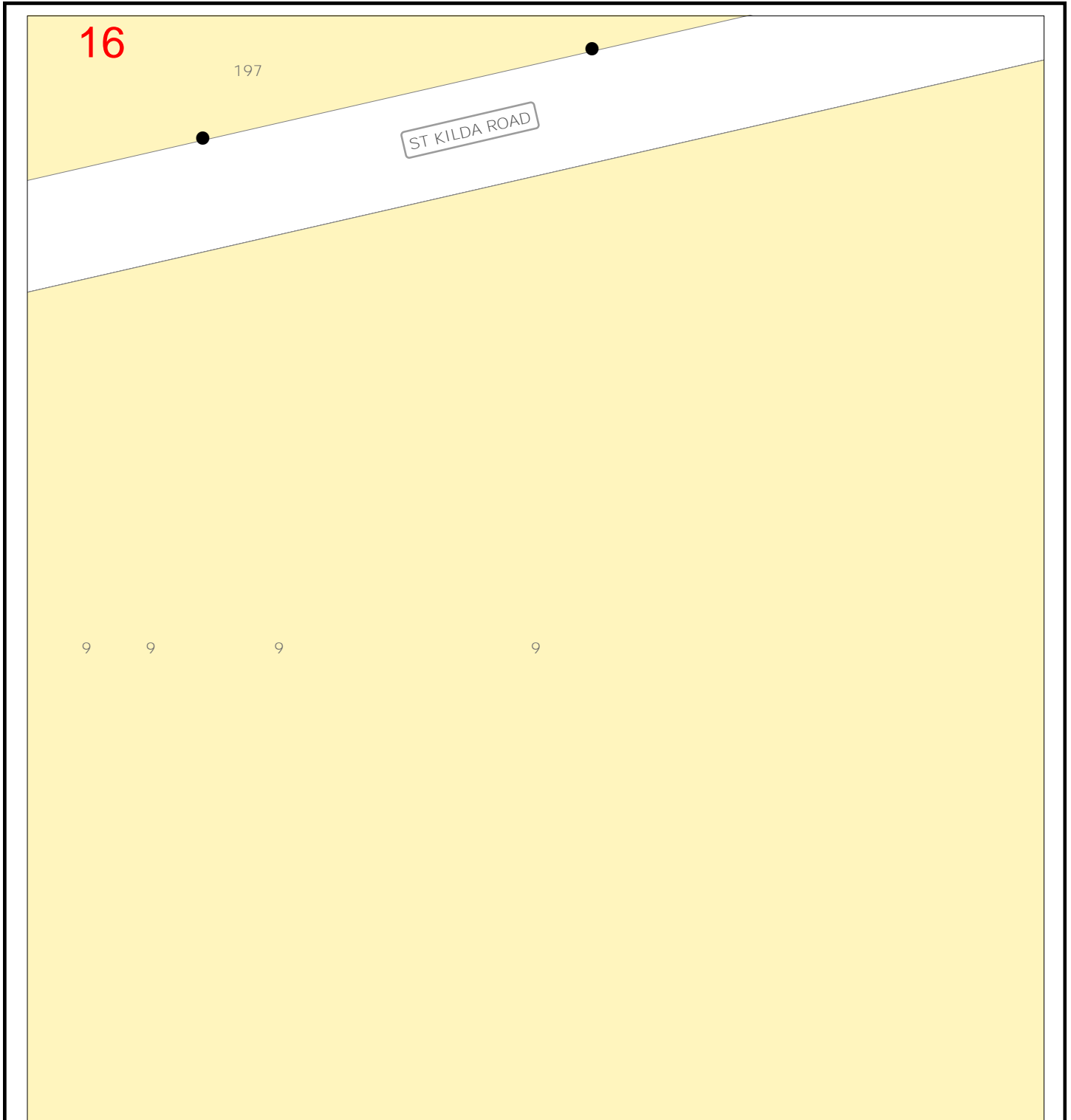
**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

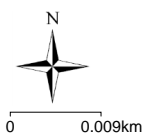
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column










17

9 9 9 9








Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.








**LEGEND:**








**Cable Exits**

-  66kV/132kV
-  33kV
-  19kV
-  11kV
-  7.6kV
-  Not In Service
-  Low Voltage

**Cables**

-  66kV/132kV
-  33kV
-  19kV
-  11kV
-  7.6kV
-  Not In Service
-  Low Voltage

-  DBYD Requested Area
-  HV Switching Cubicle
-  Transformer Cubicle
-  Cable Joint Bay
-  LV Switching Cubicle/Pit
-  Service Pit/Pillar
-  Earthing Grid

-  Fibre Optic Cable/Duct
-  Fibre Manhole/Pit
-  Pilot Cable
-  Pilot Manhole/Pit
-  Substation
-  Electricity Pole
-  Light Column



0 0.009km

18

9 9 9 9

Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

**Cables**

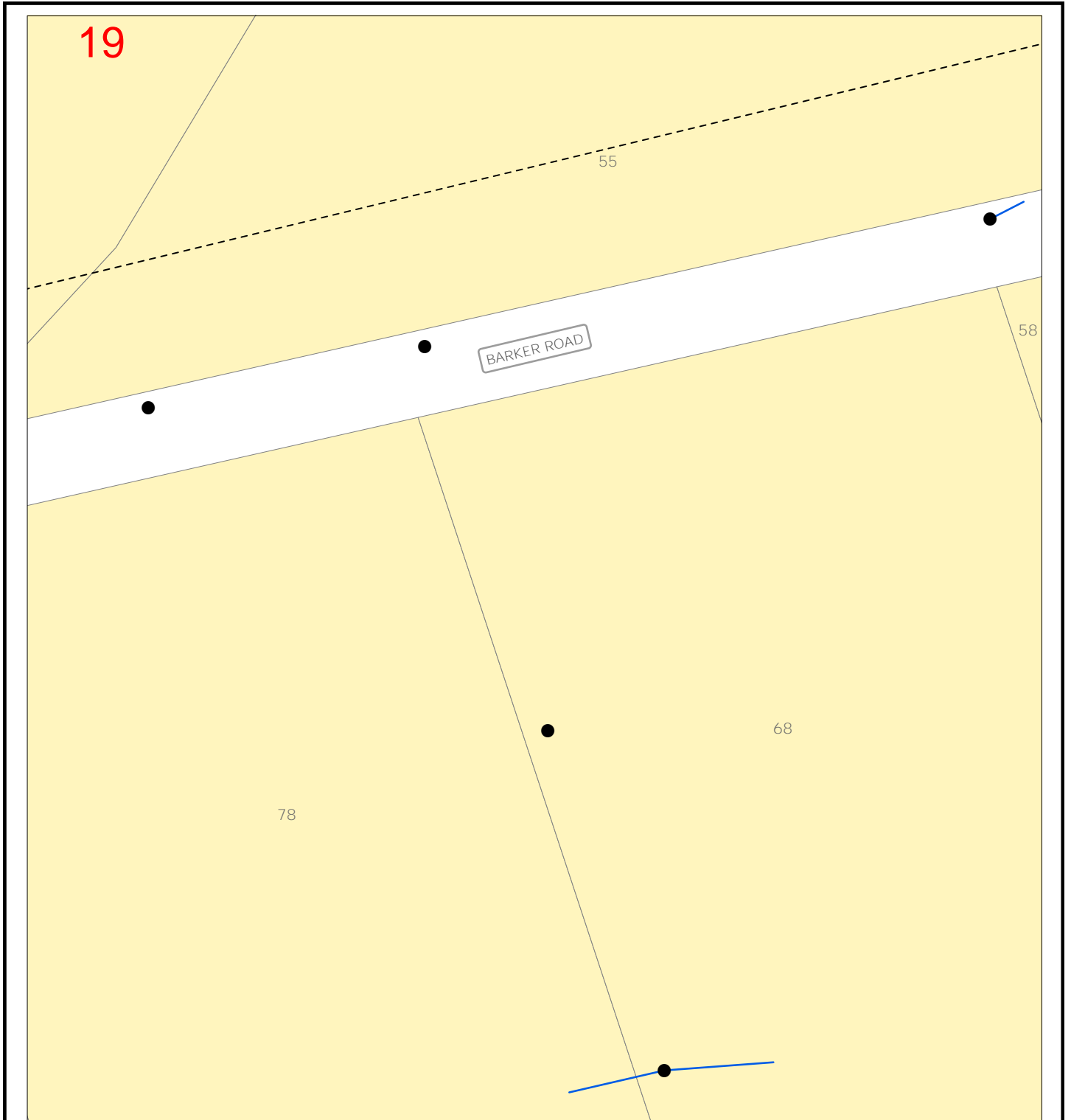
- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



0 0.009km

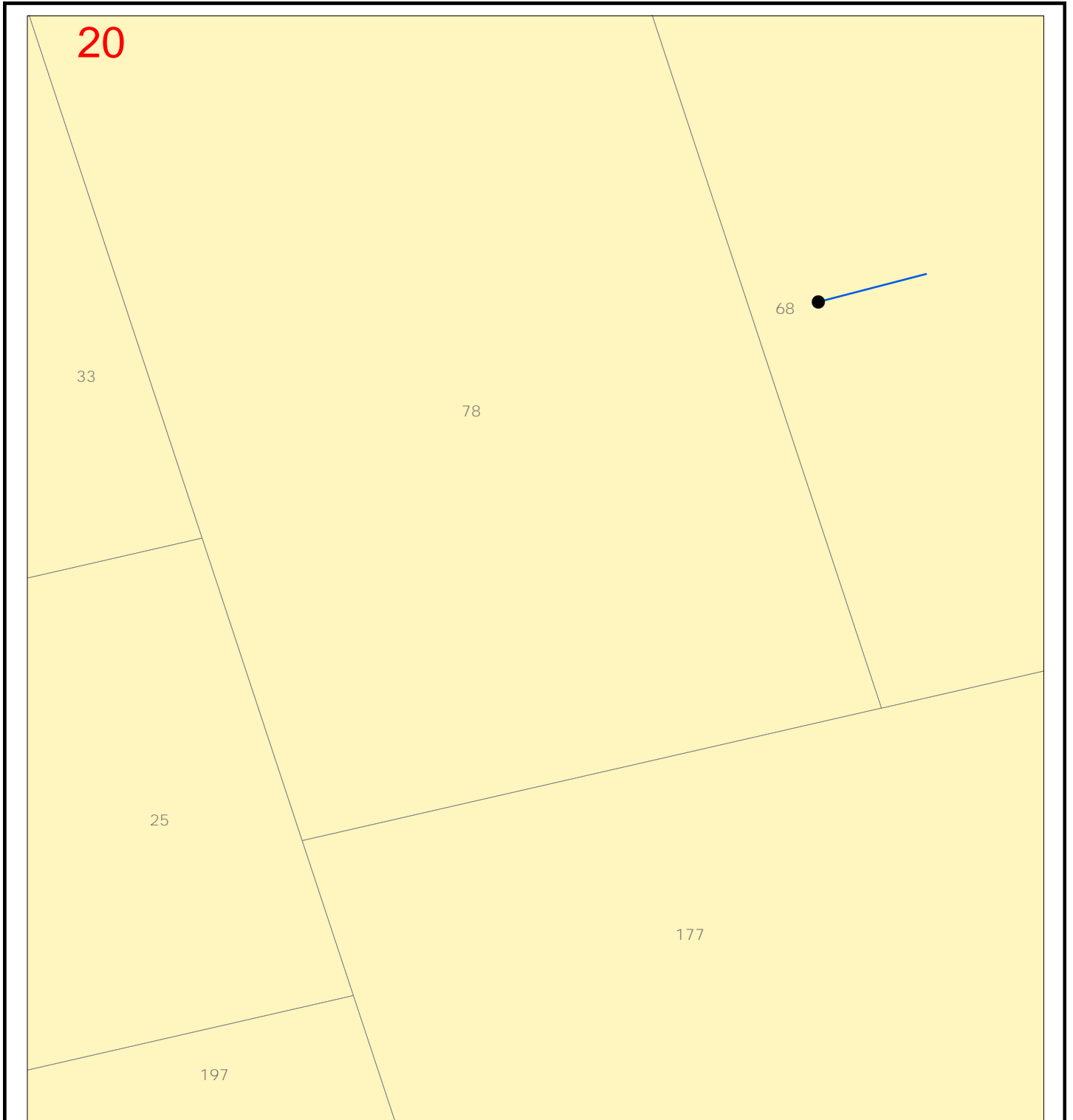


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

**Cables**

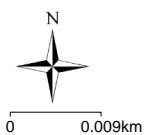
- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

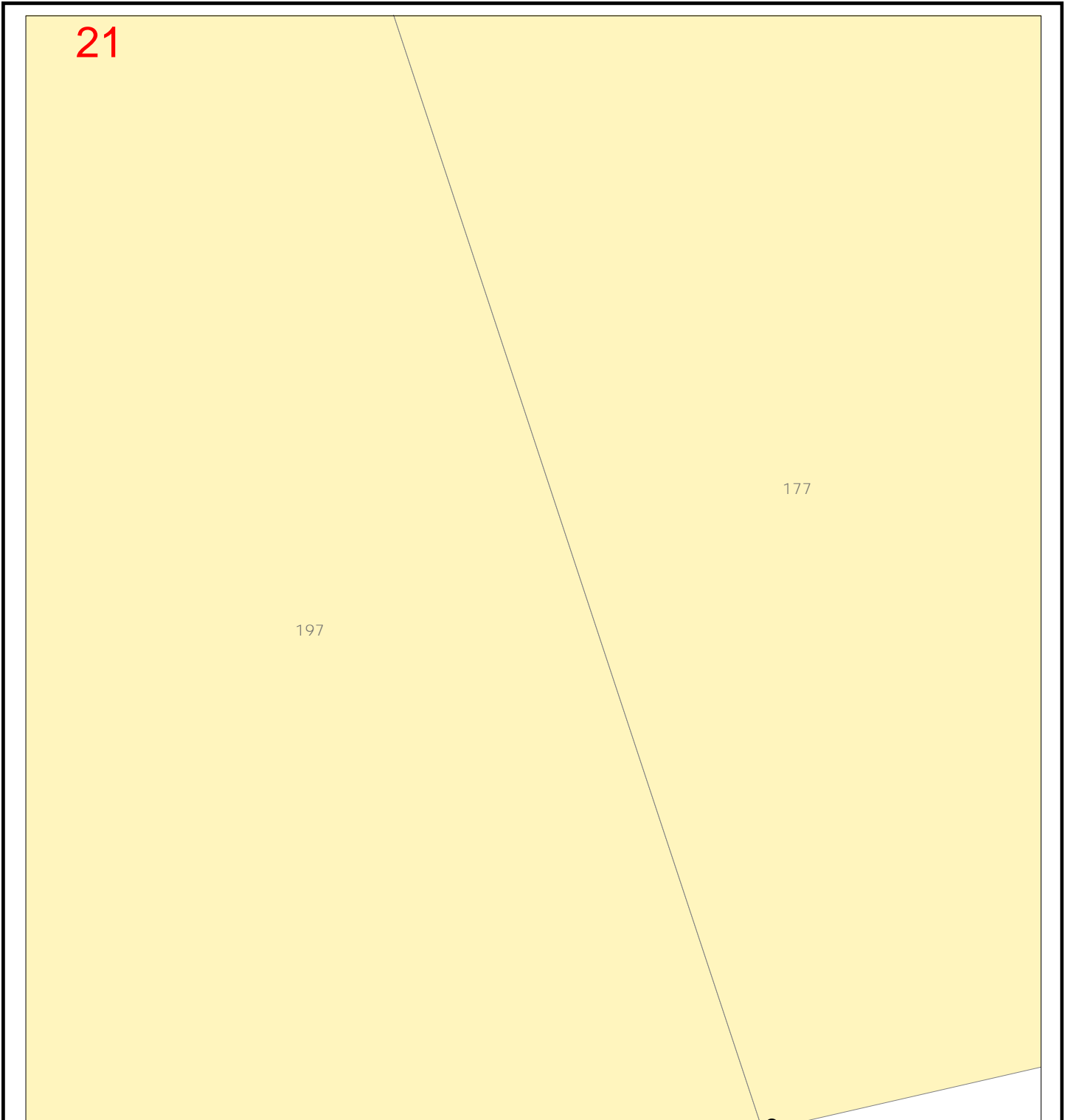
DBYD Requested Area

- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

Fibre Optic Cable/Duct

- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column

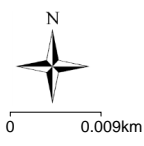


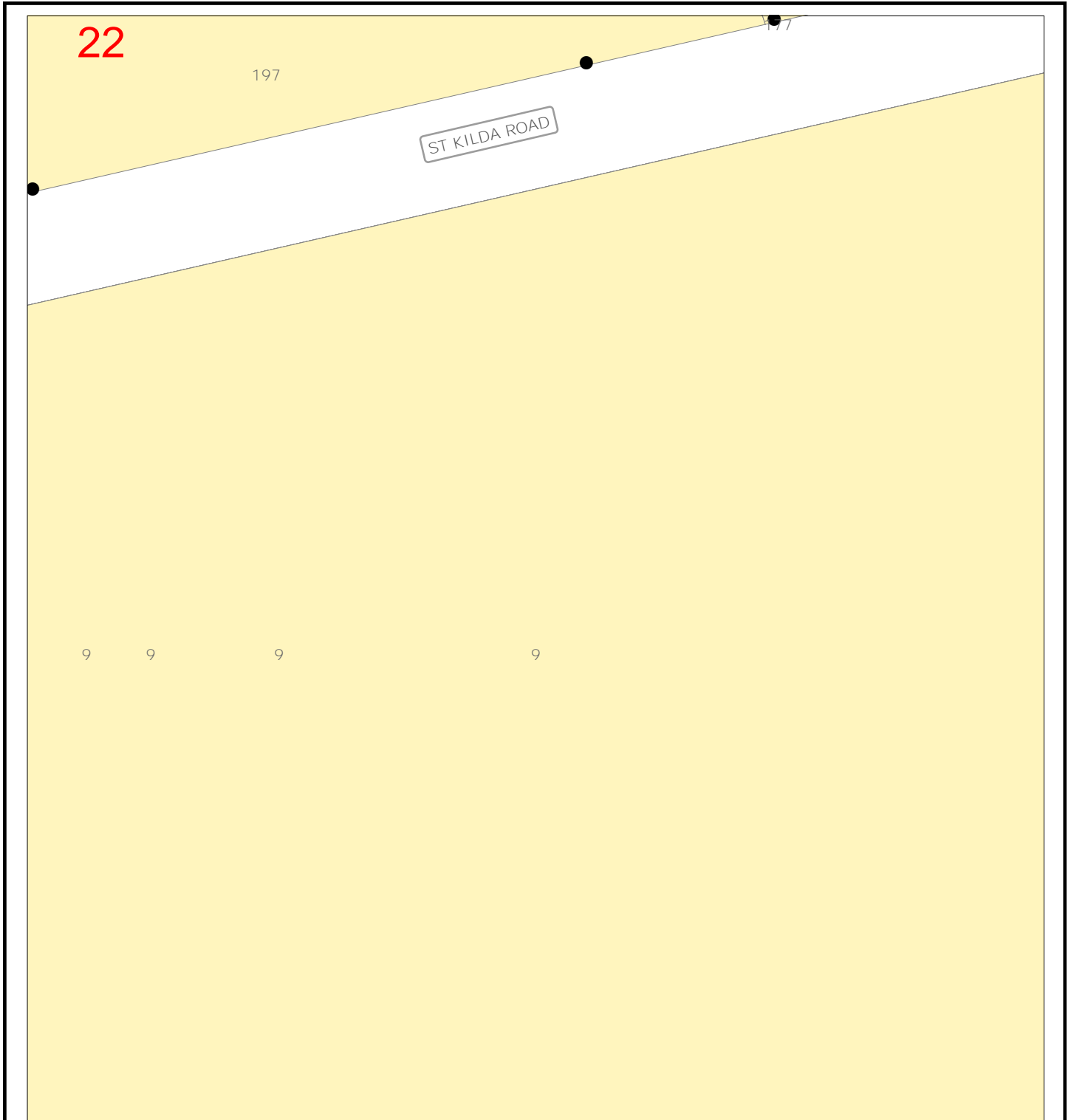


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

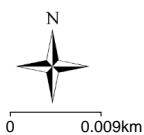
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column










23

9 9 9 9








Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.








**LEGEND:**








**Cable Exits**

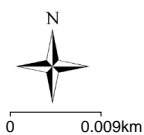
-  66kV/132kV
-  33kV
-  19kV
-  11kV
-  7.6kV
-  Not In Service
-  Low Voltage

**Cables**

-  66kV/132kV
-  33kV
-  19kV
-  11kV
-  7.6kV
-  Not In Service
-  Low Voltage

-  DBYD Requested Area
-  HV Switching Cubicle
-  Transformer Cubicle
-  Cable Joint Bay
-  LV Switching Cubicle/Pit
-  Service Pit/Pillar
-  Earthing Grid

-  Fibre Optic Cable/Duct
-  Fibre Manhole/Pit
-  Pilot Cable
-  Pilot Manhole/Pit
-  Substation
-  Electricity Pole
-  Light Column



24

9 9 9 9

Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

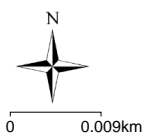
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

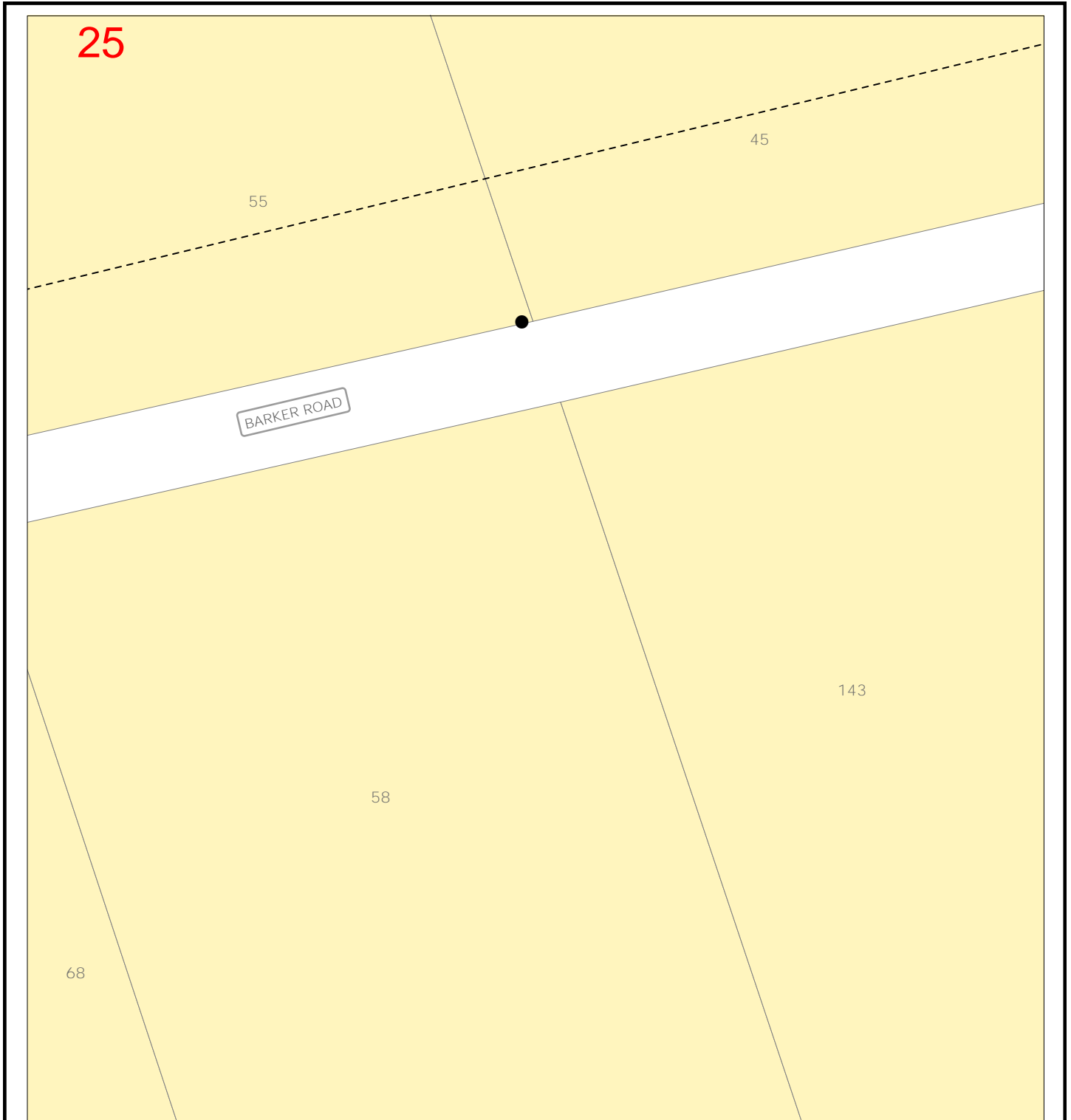
**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column

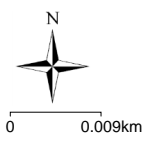


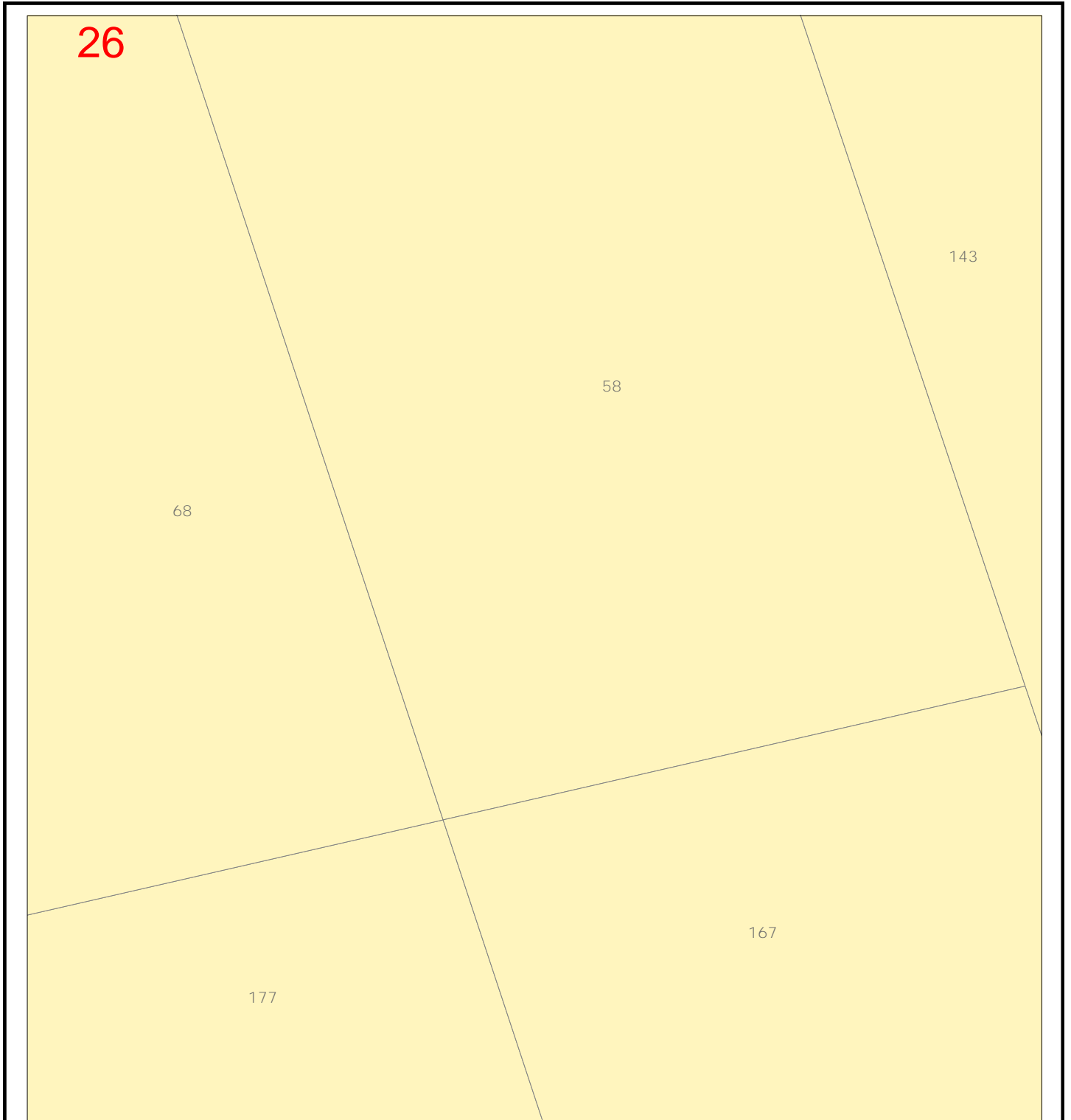


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

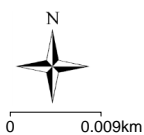
- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

**Cables**

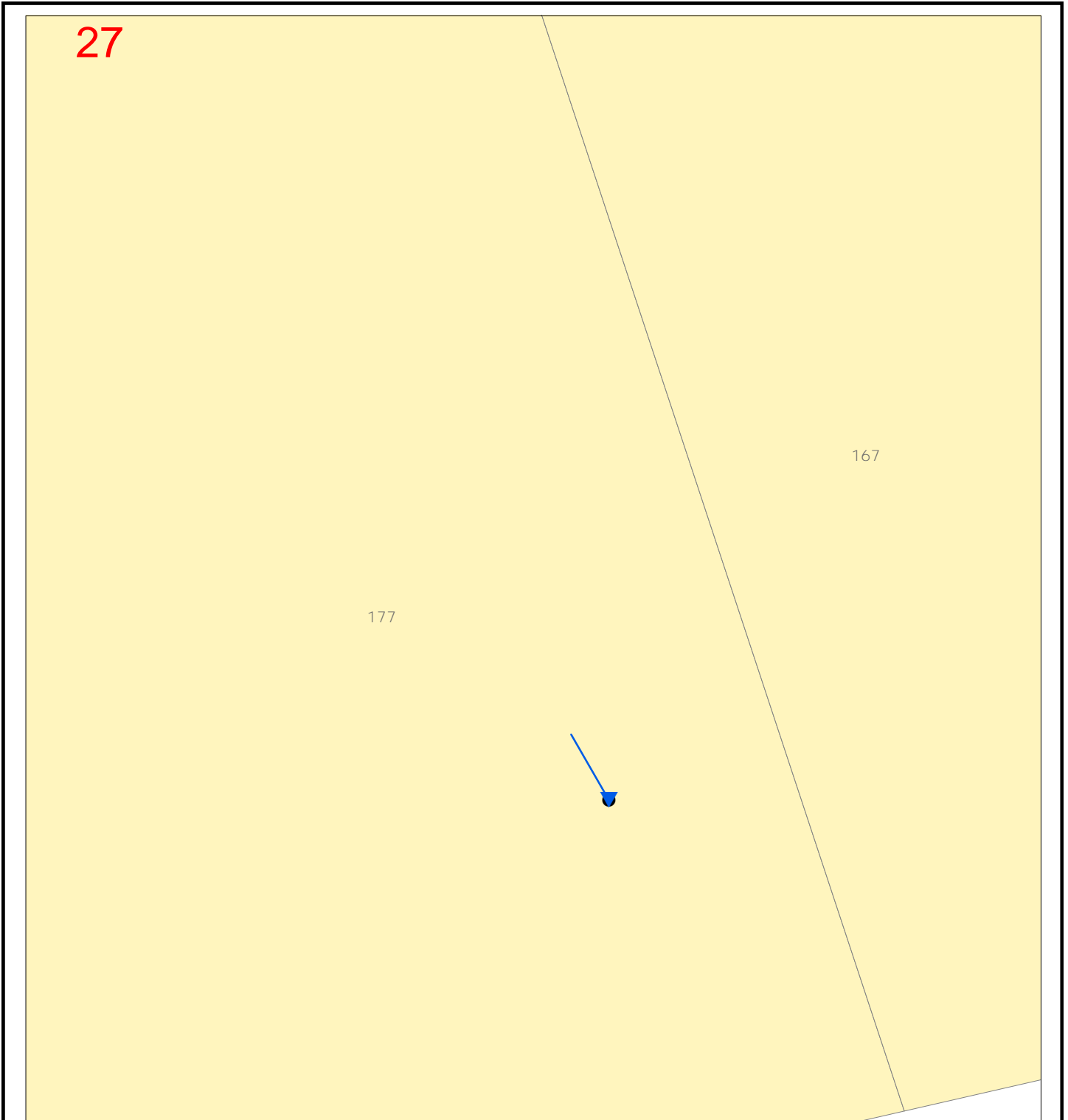
- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



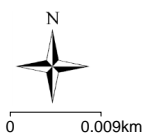


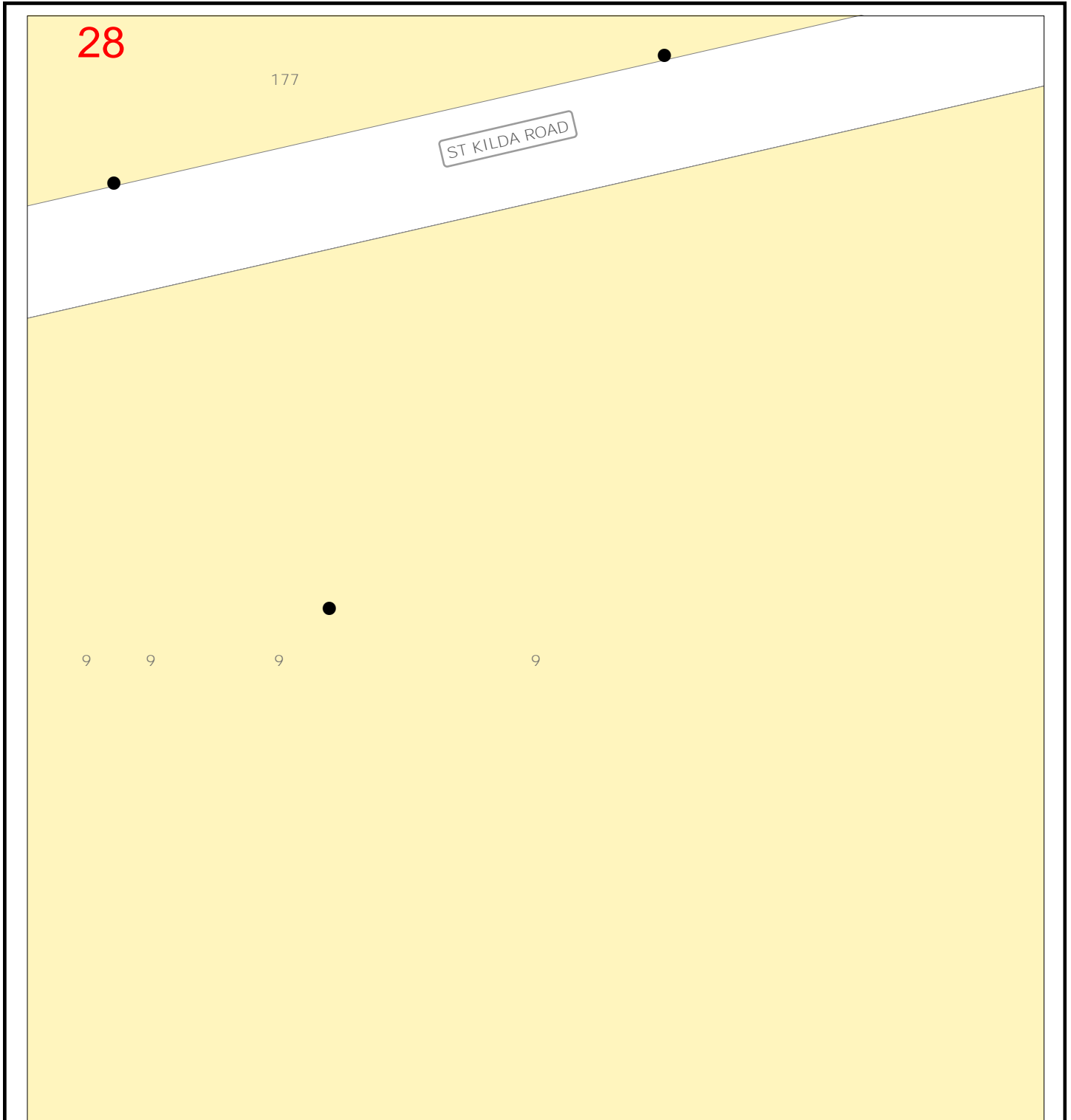


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

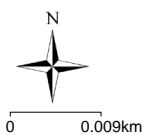
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

**Cables**

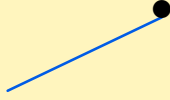
- ↗ 66kV/132kV
- ↗ 33kV
- ↗ 19kV
- ↗ 11kV
- ↗ 7.6kV
- ↗ Not In Service
- ↗ Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- ⊗ Earthing Grid

- ~ Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- ~ Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



29



9 9 9 9

Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

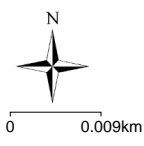
- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



30

9 9 9 9

Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

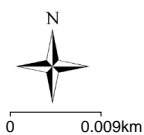
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

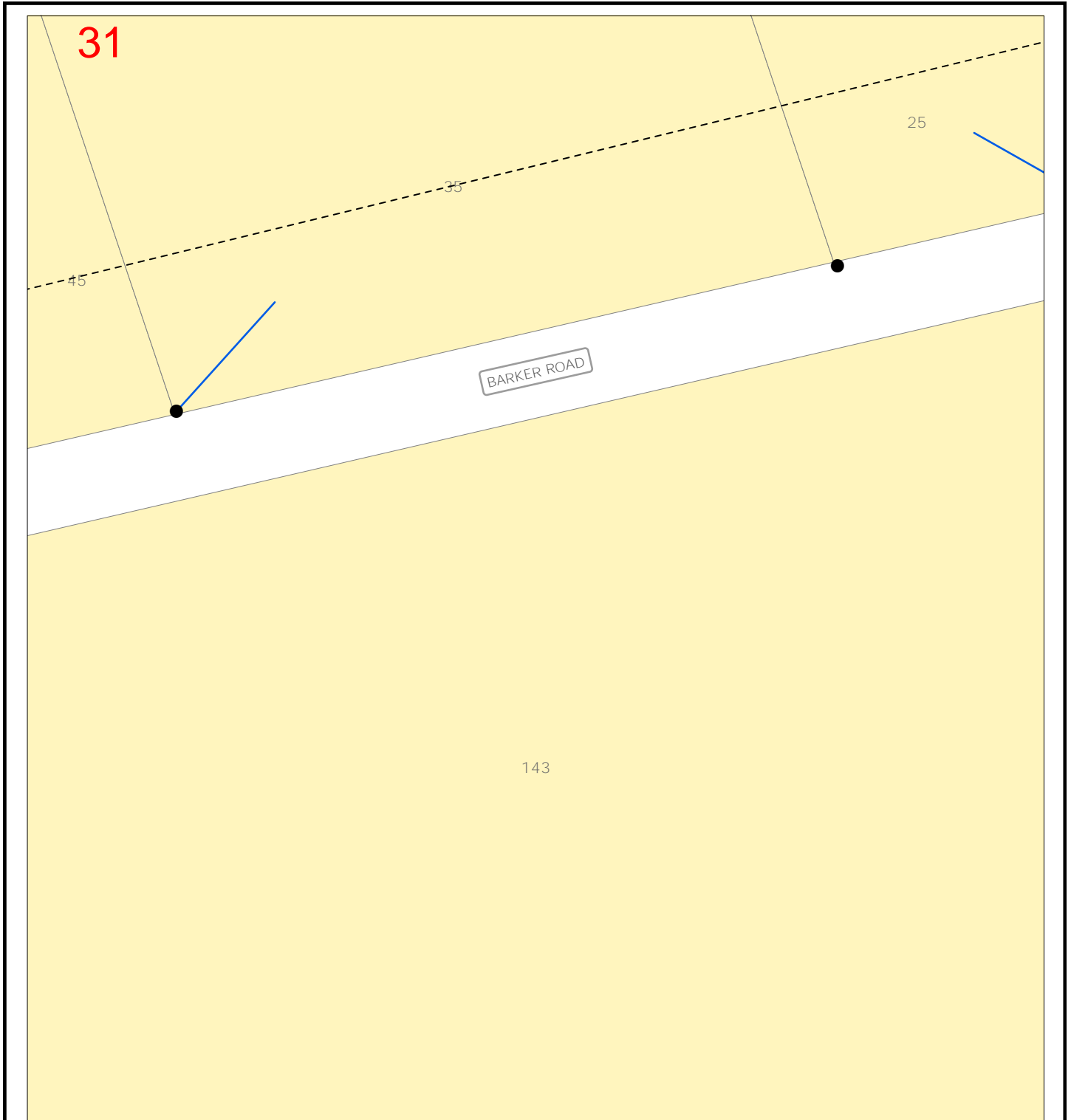
**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

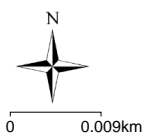
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



32

143

167

Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

**Cables**

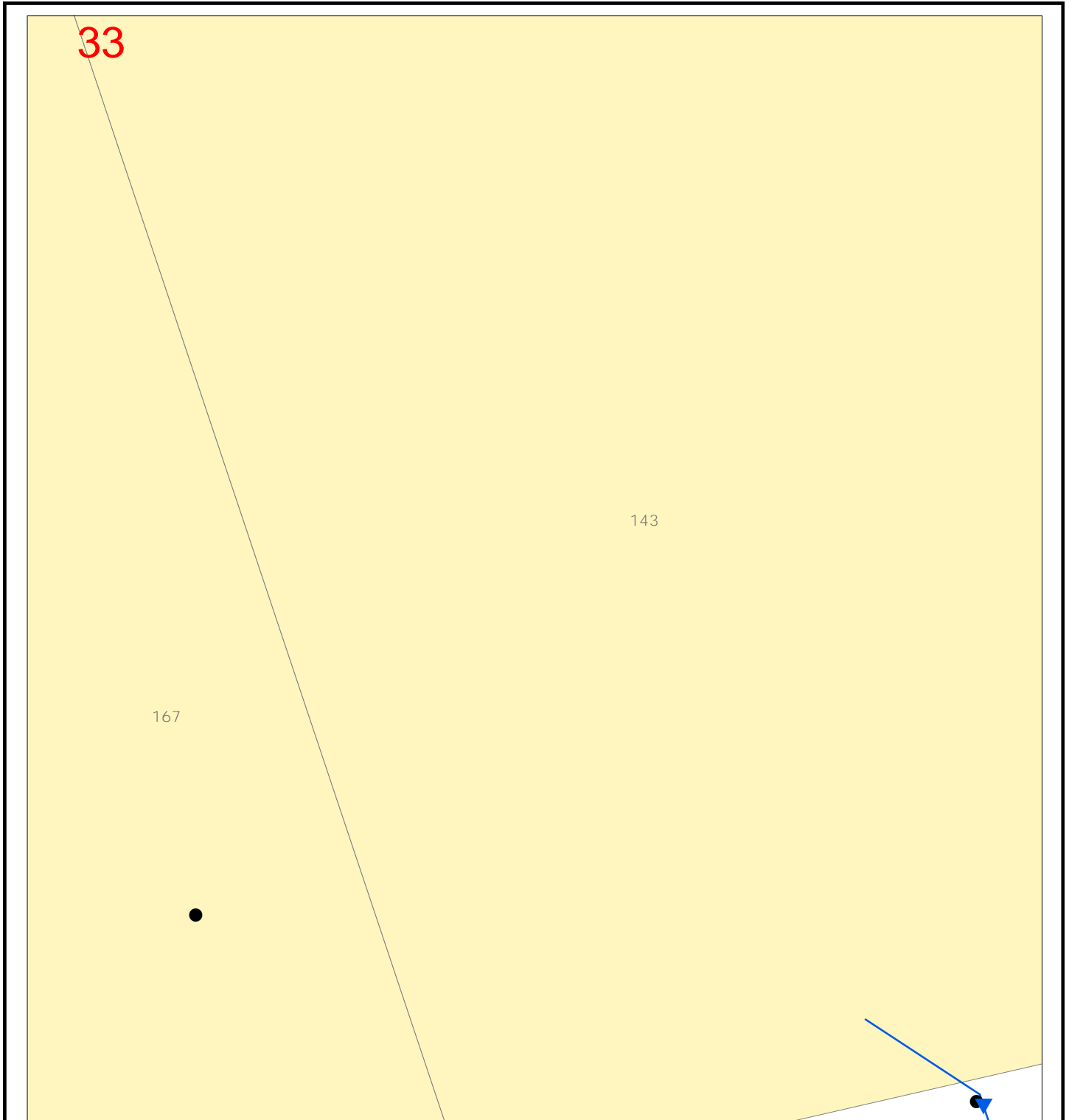
- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



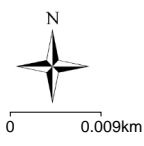
0 0.009km



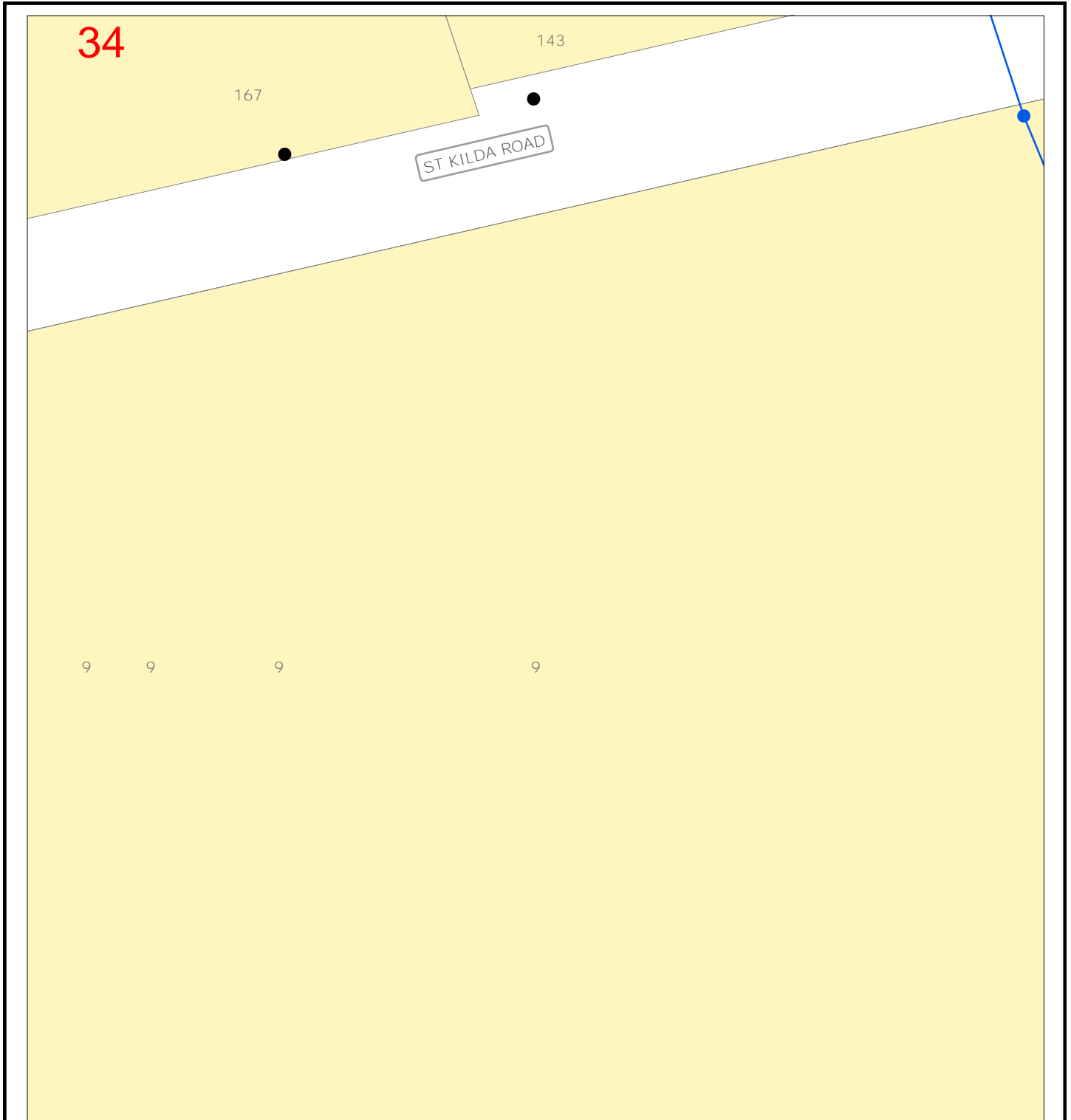
Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |







Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

**Cables**

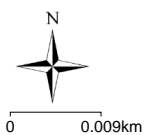
- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

DBYD Requested Area

- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

Fibre Optic Cable/Duct

- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



35

9 9 9 9

Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

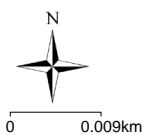
- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



36

9 9 9 9

Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

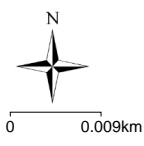
- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

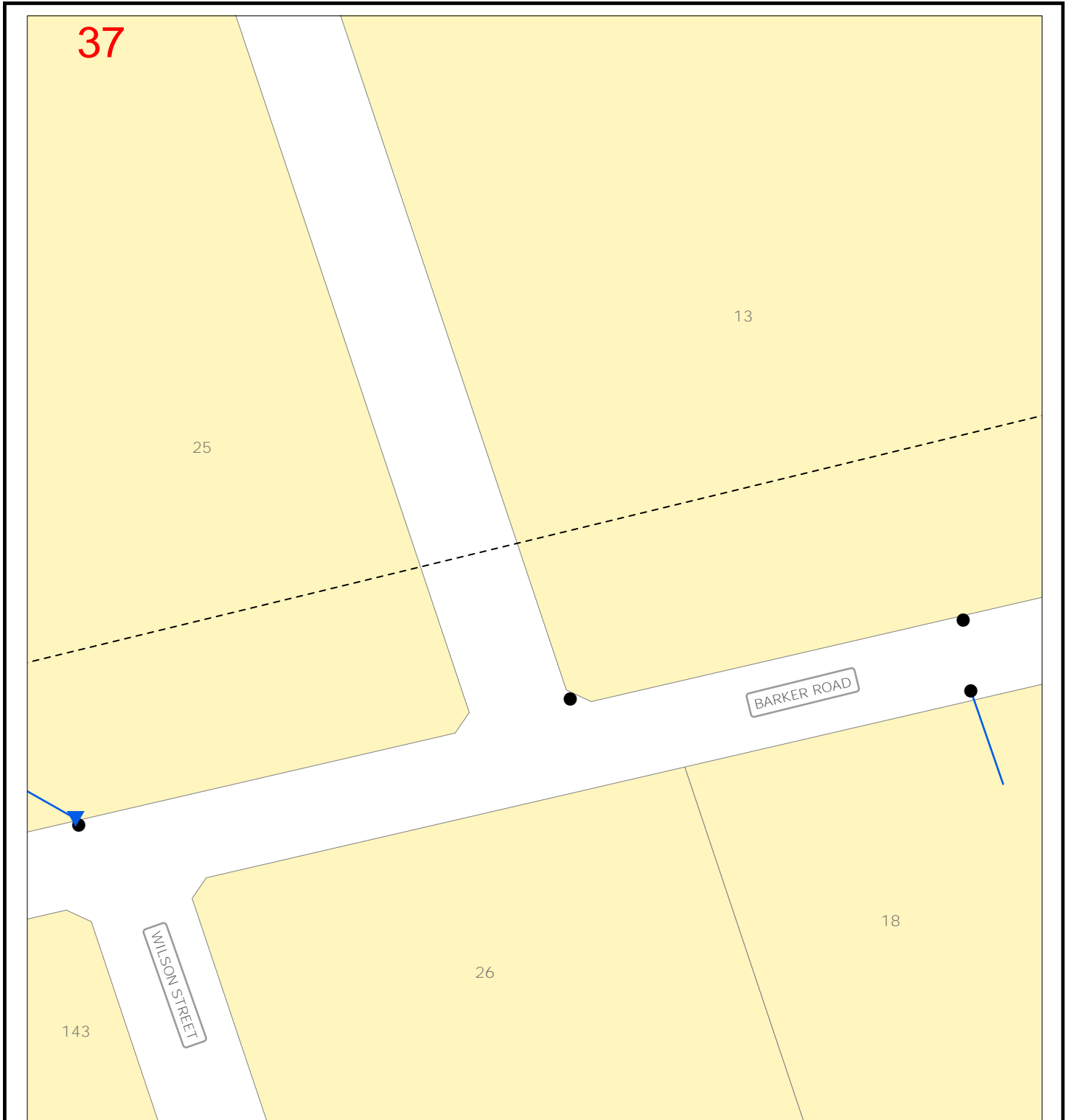
**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column

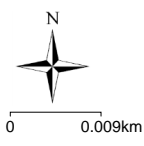


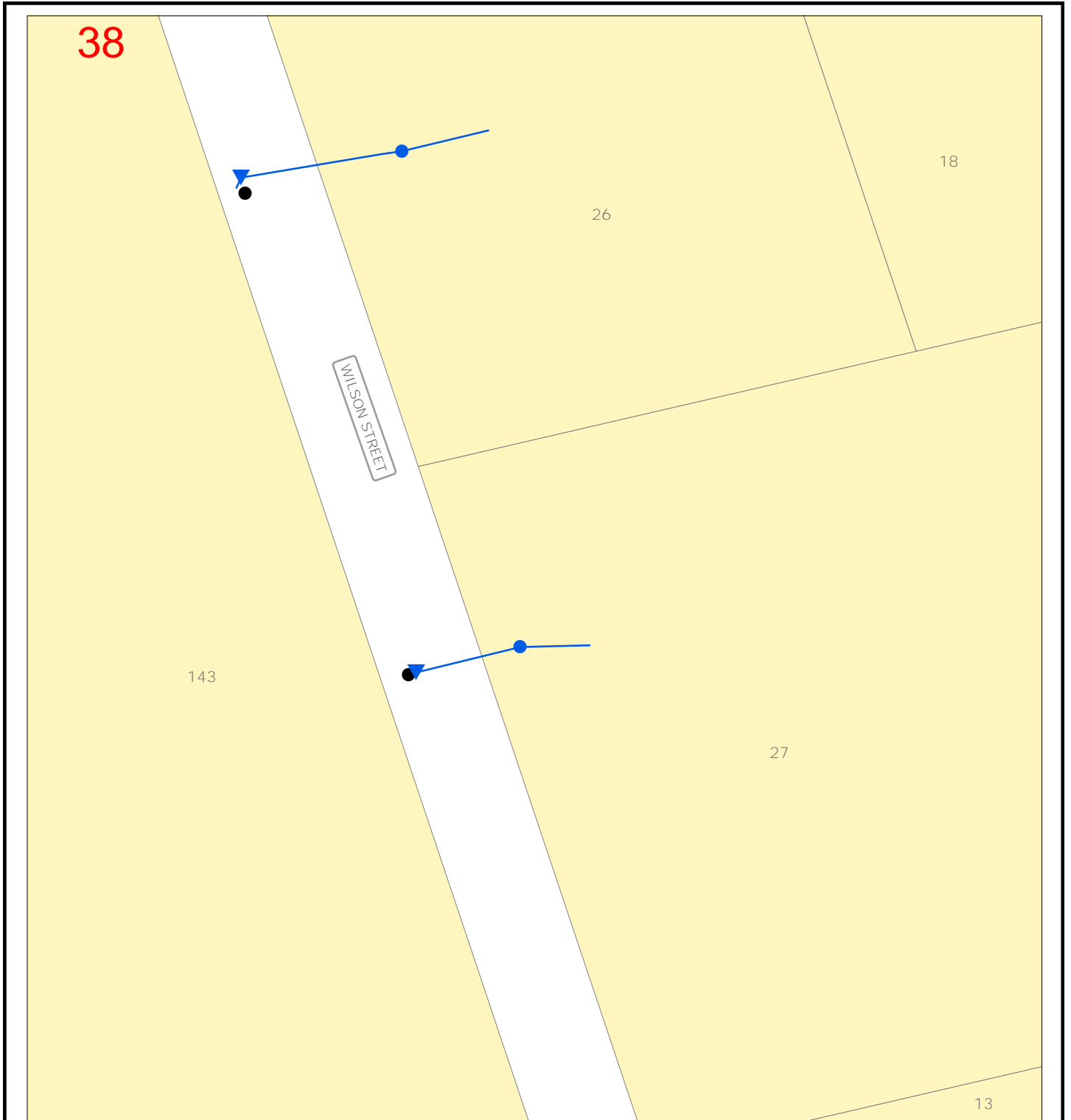


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |

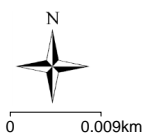


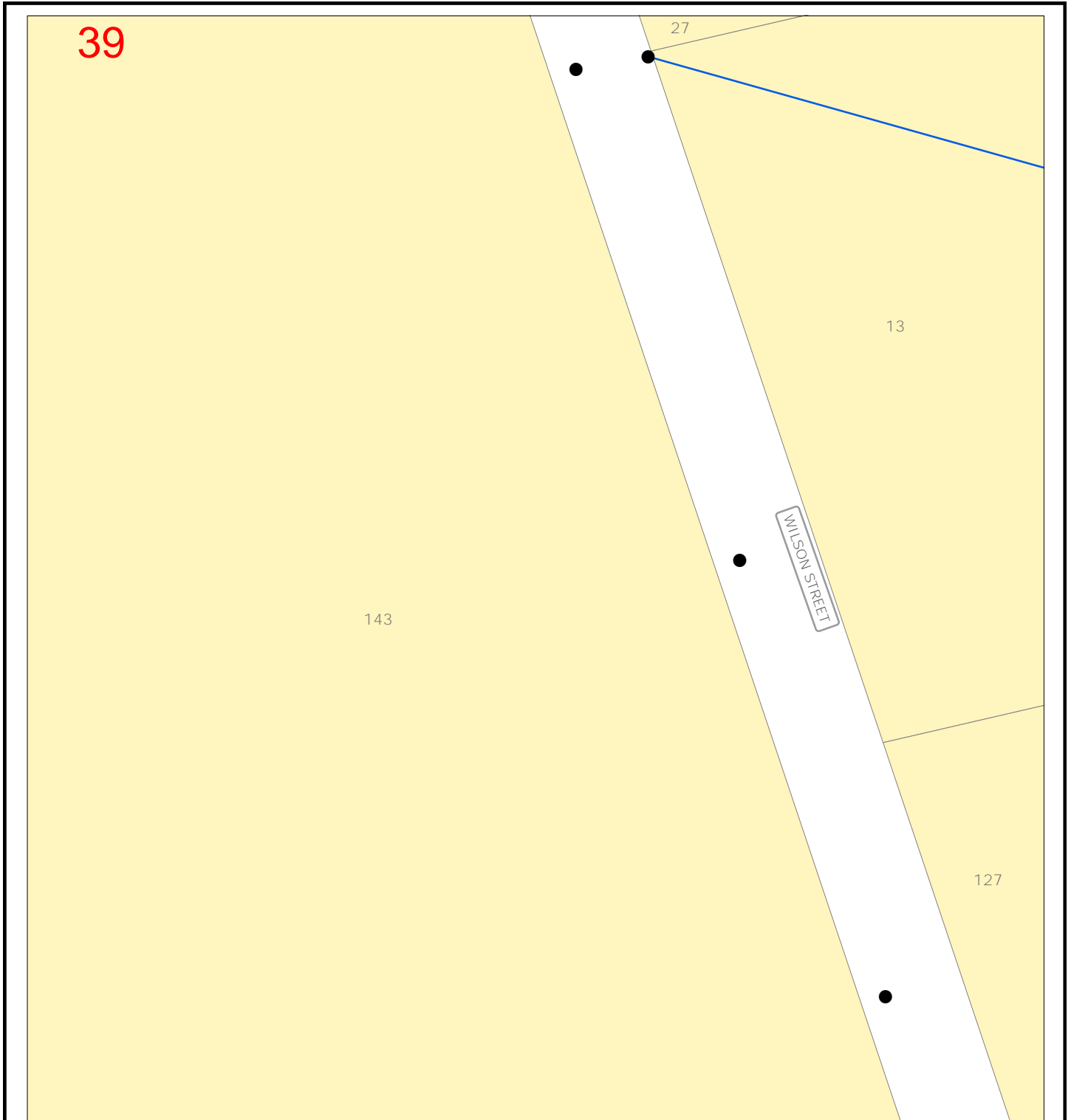


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                | Other |                          |
|-------------|----------------|--------|----------------|-------|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |       | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |       | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |       | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |       | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |       | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |       | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |       | Earthing Grid            |
|             |                |        |                |       | Fibre Optic Cable/Duct   |
|             |                |        |                |       | Fibre Manhole/Pit        |
|             |                |        |                |       | Pilot Cable              |
|             |                |        |                |       | Pilot Manhole/Pit        |
|             |                |        |                |       | Substation               |
|             |                |        |                |       | Electricity Pole         |
|             |                |        |                |       | Light Column             |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

**Cables**

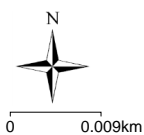
- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

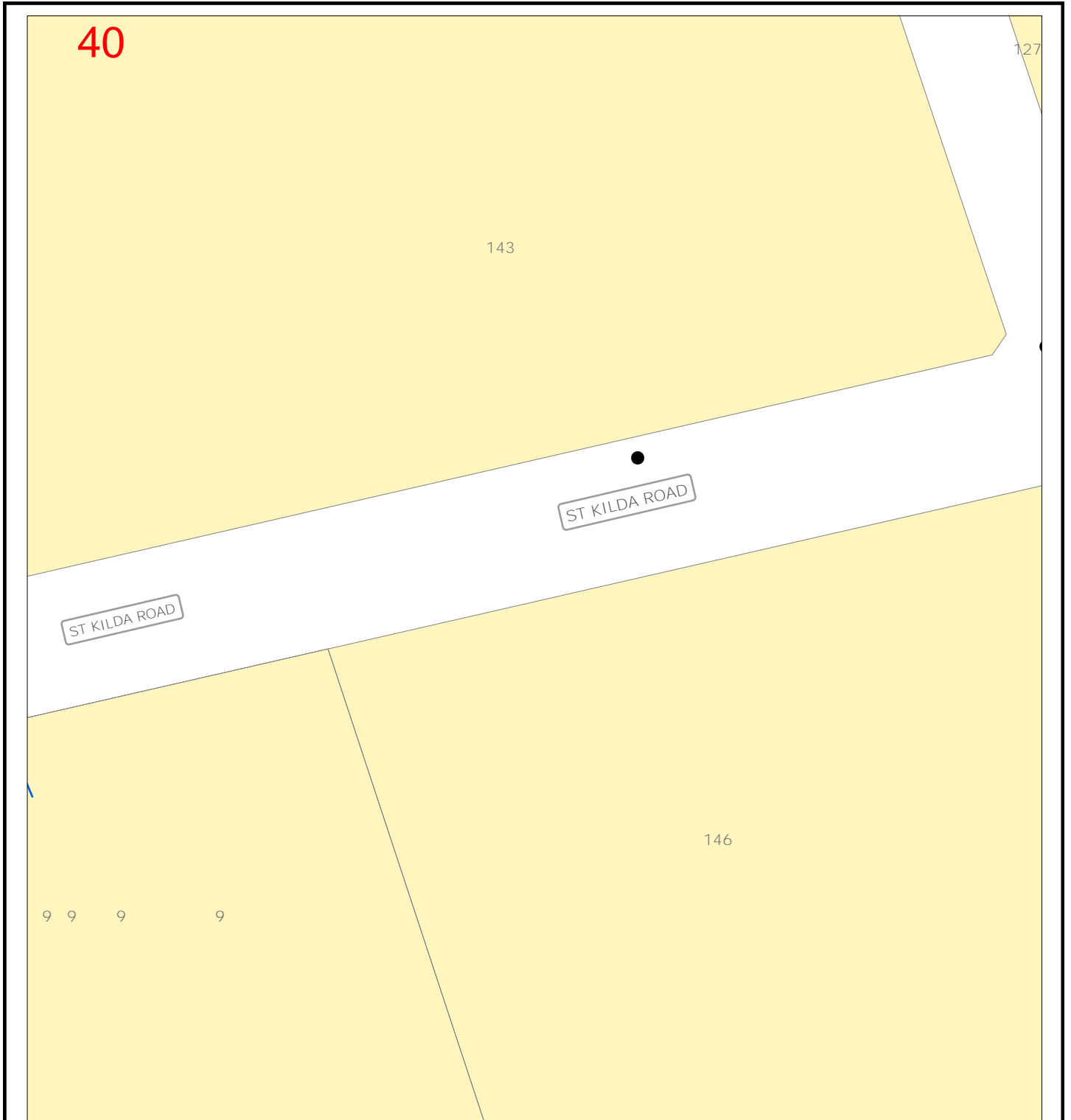
DBYD Requested Area

- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

Fibre Optic Cable/Duct

- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column

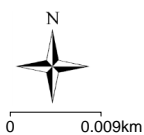




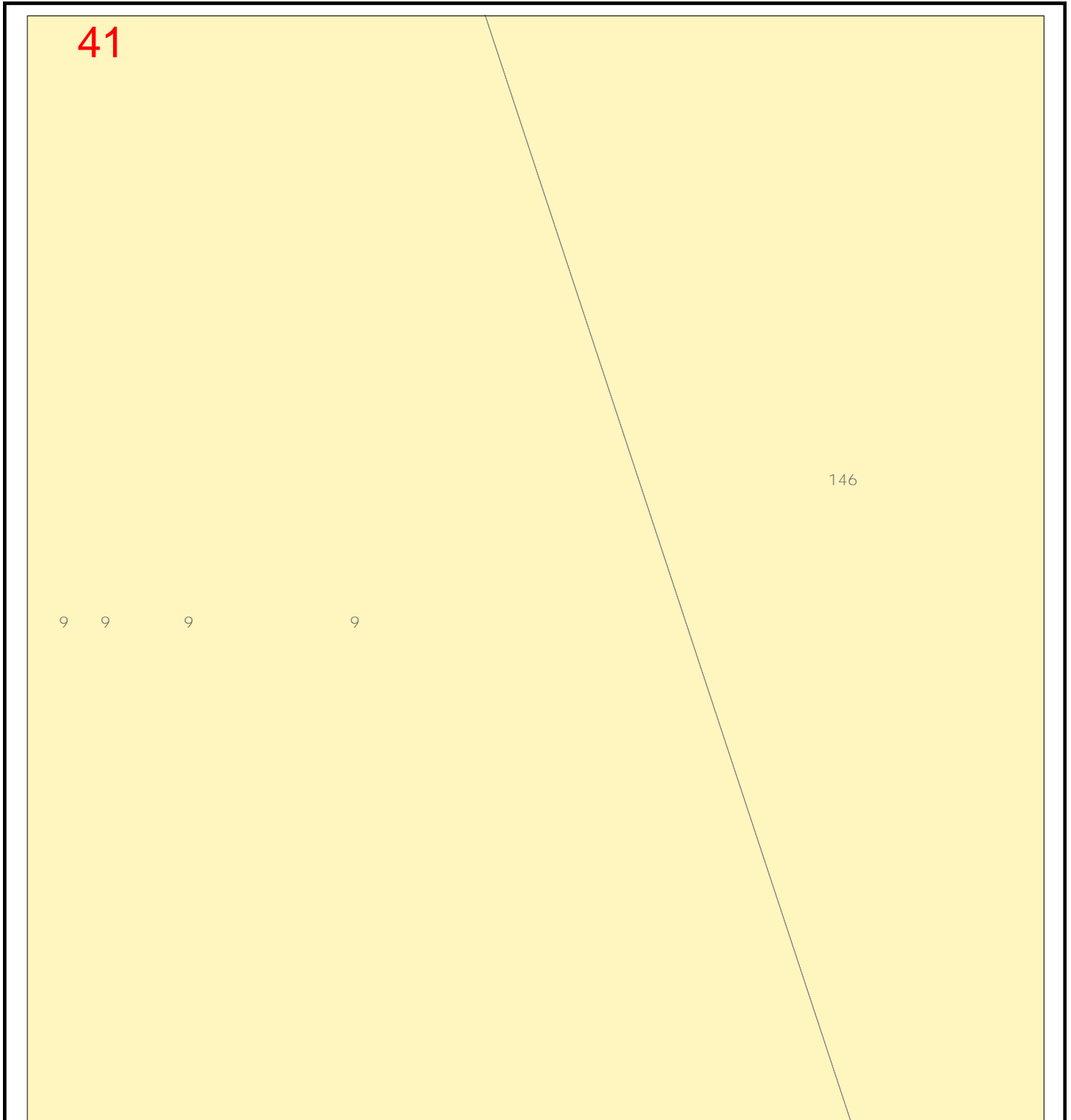
Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |







Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

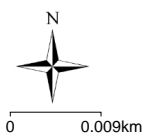
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

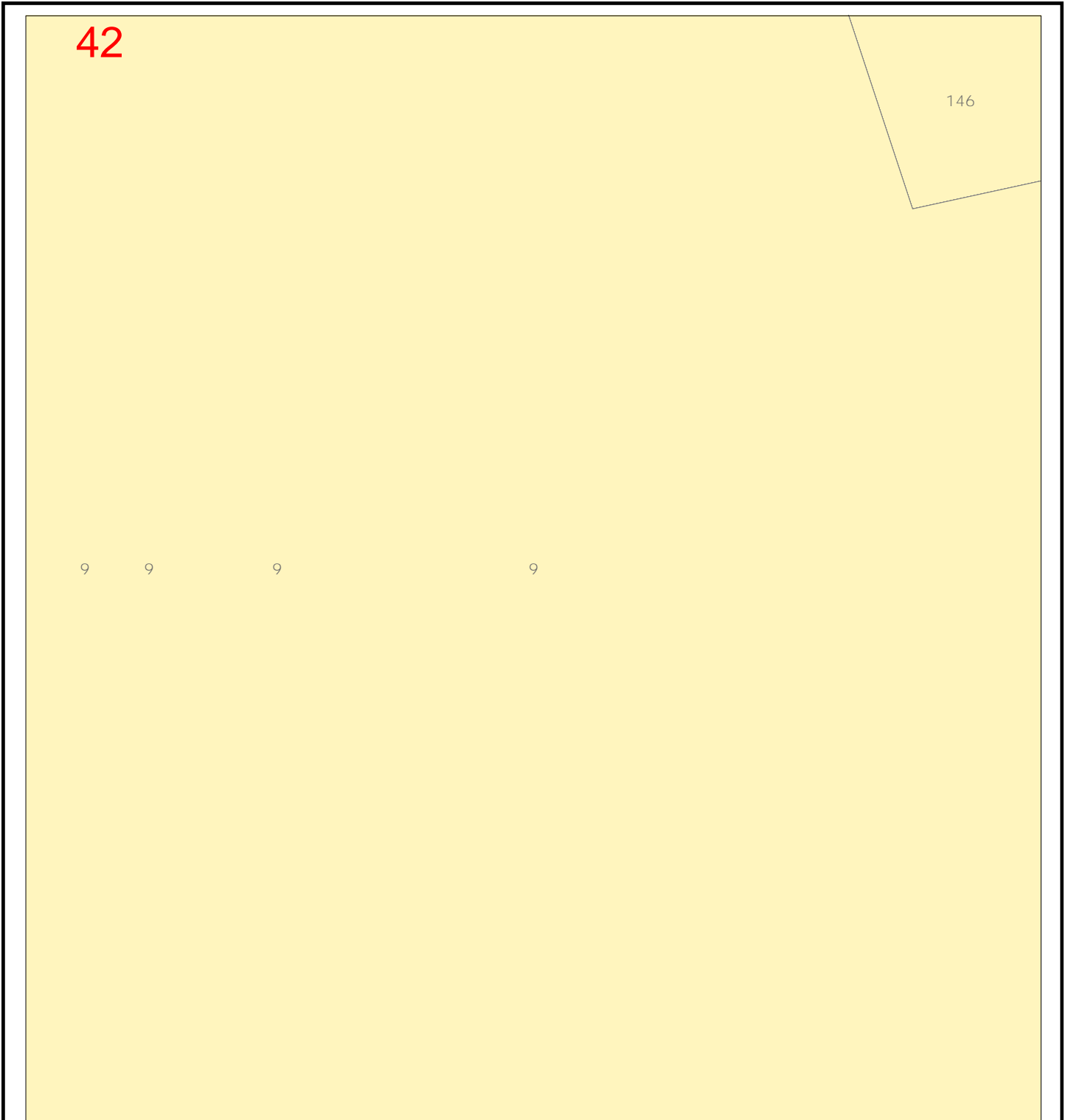
**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



















Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

-  66kV/132kV
-  33kV
-  19kV
-  11kV
-  7.6kV
-  Not In Service
-  Low Voltage

**Cables**

-  66kV/132kV
-  33kV
-  19kV
-  11kV
-  7.6kV
-  Not In Service
-  Low Voltage



DBYD Requested Area



HV Switching Cubicle



Transformer Cubicle



Cable Joint Bay



LV Switching Cubicle/Pit



Service Pit/Pillar



Earthing Grid



Fibre Optic Cable/Duct



Fibre Manhole/Pit



Pilot Cable



Pilot Manhole/Pit



Substation



Electricity Pole

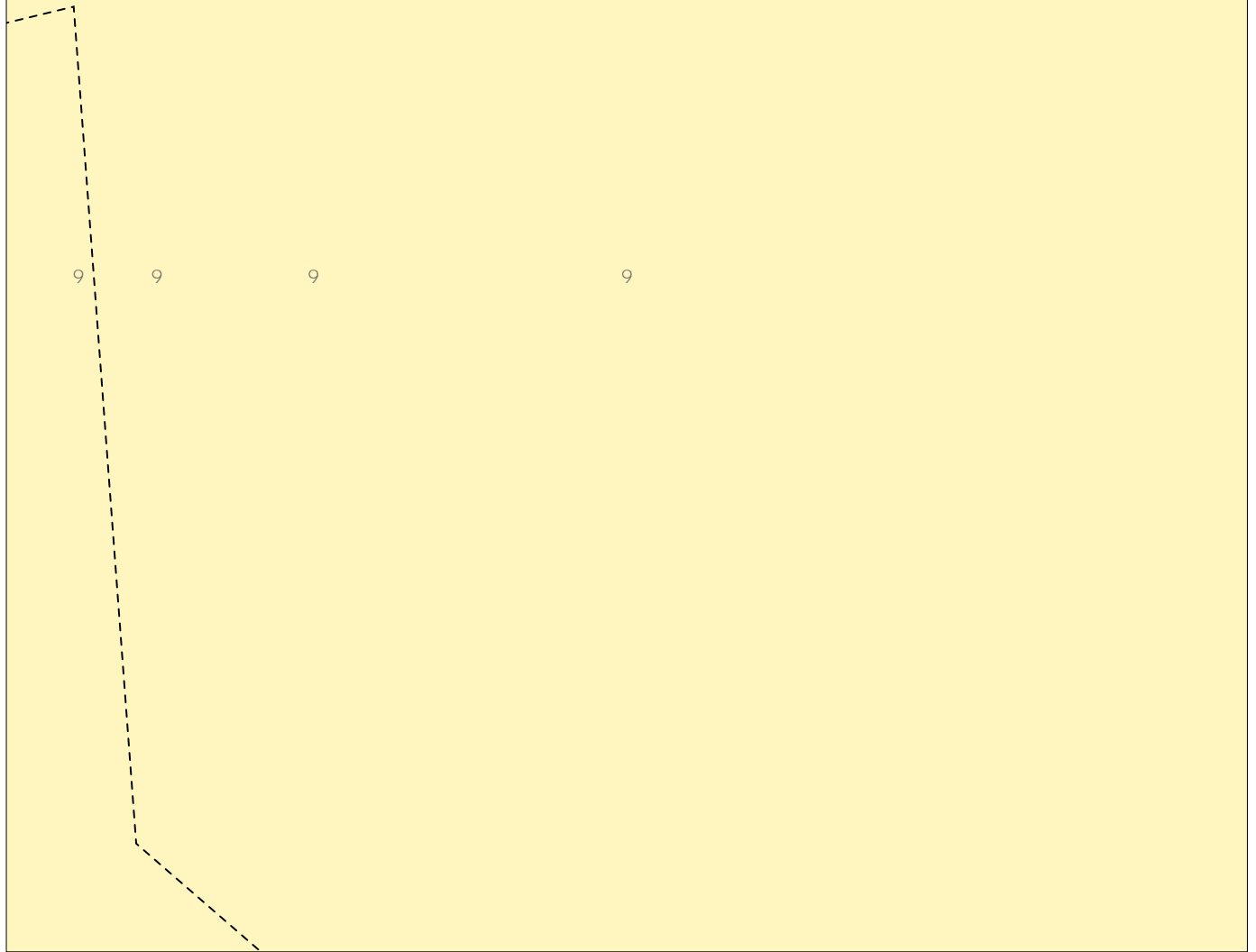


Light Column



0 0.009km

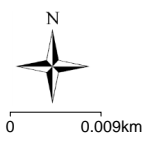
43

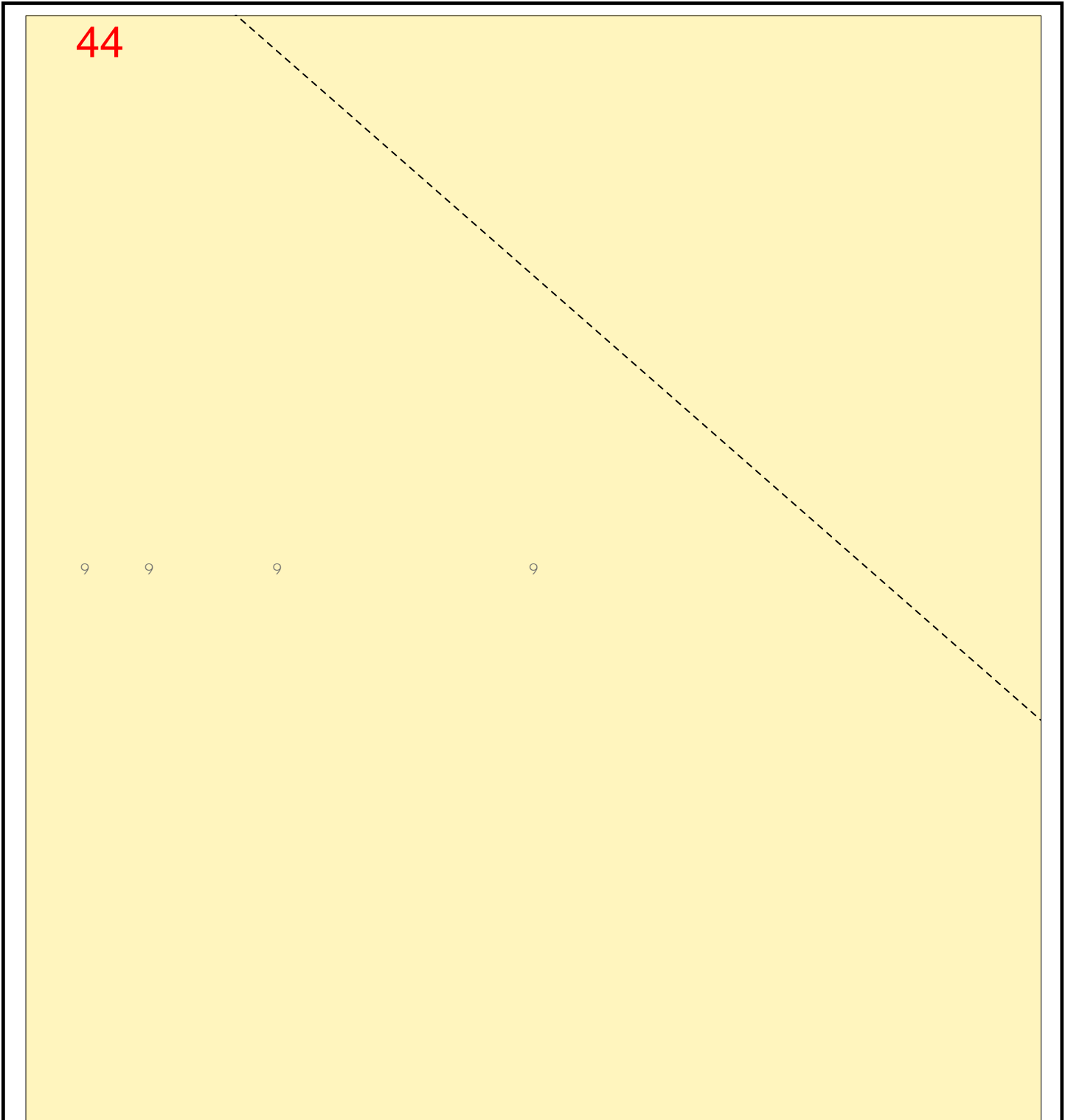


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

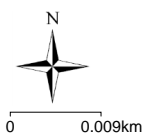
- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

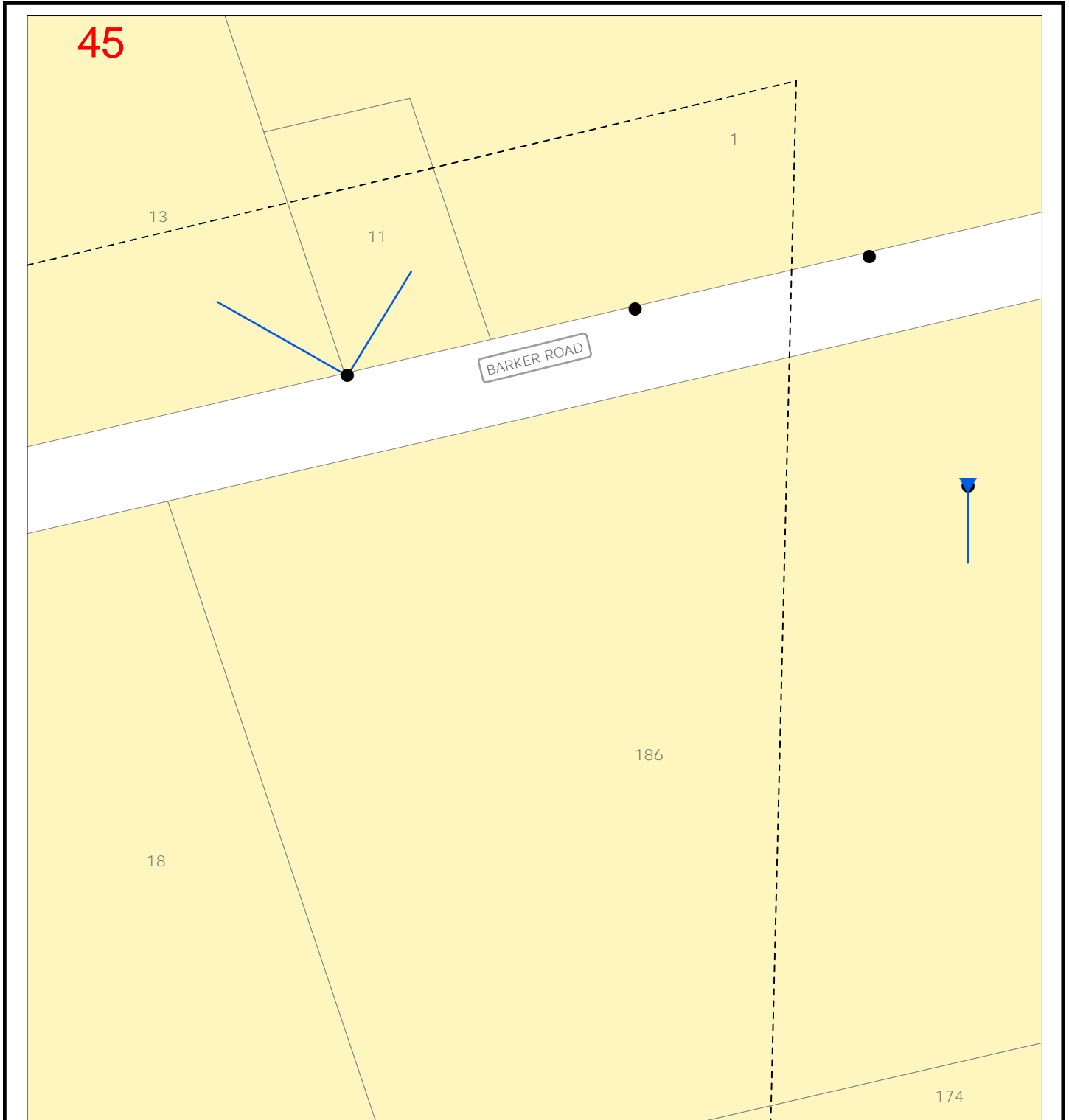
**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column

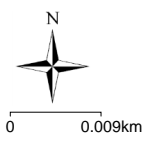


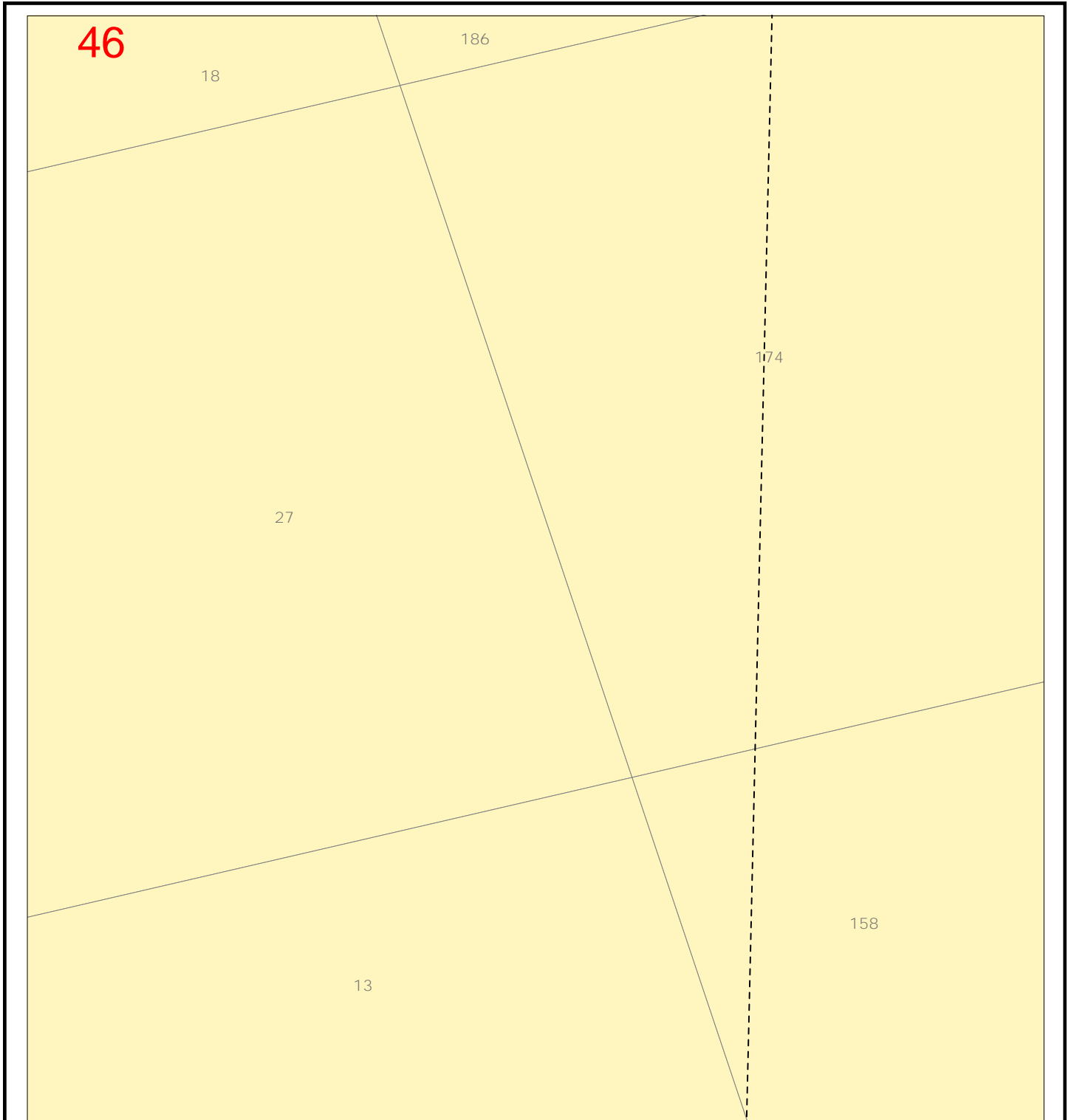


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |

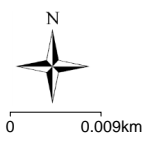


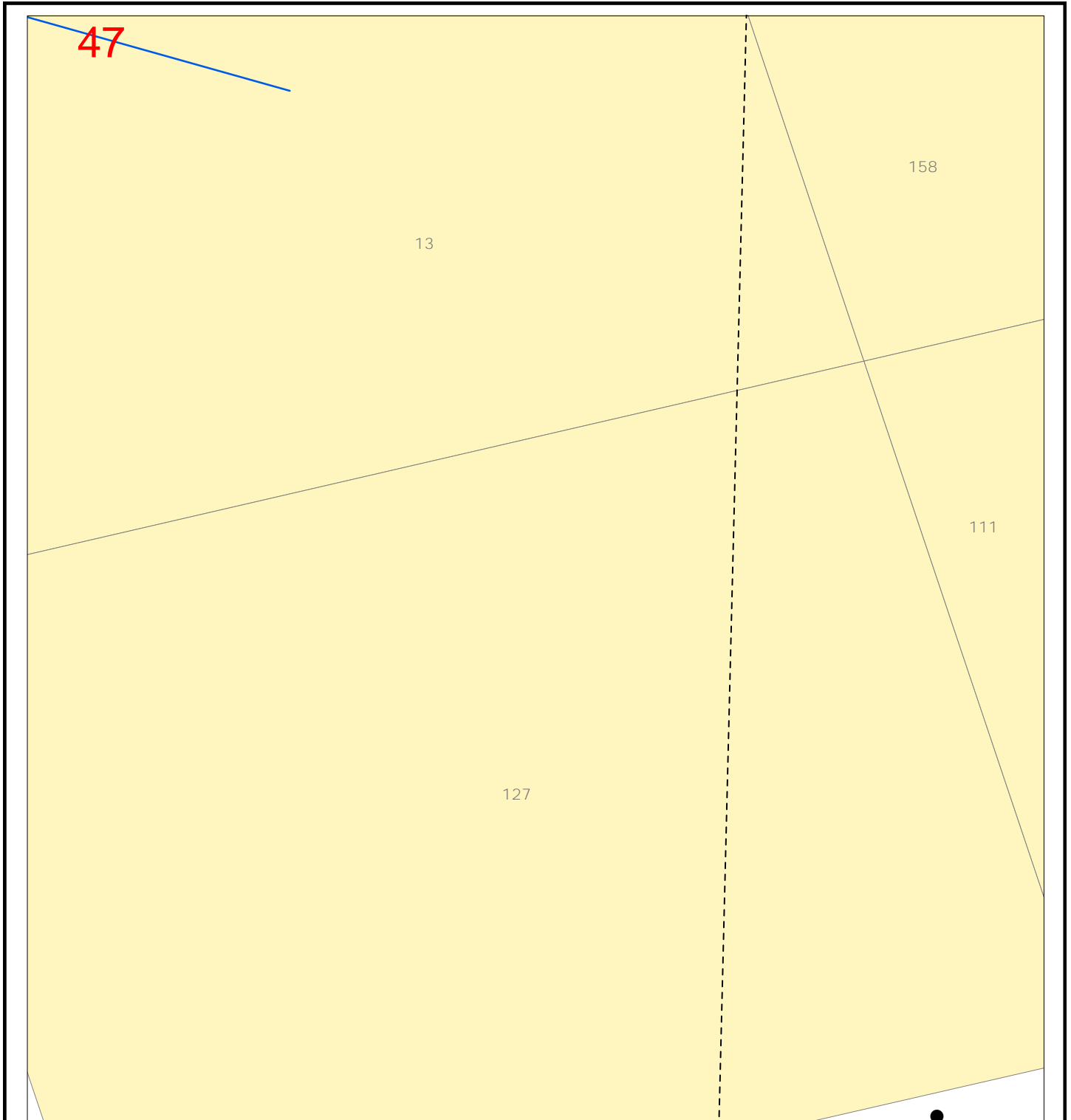


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

**Cables**

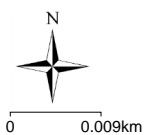
- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

DBYD Requested Area

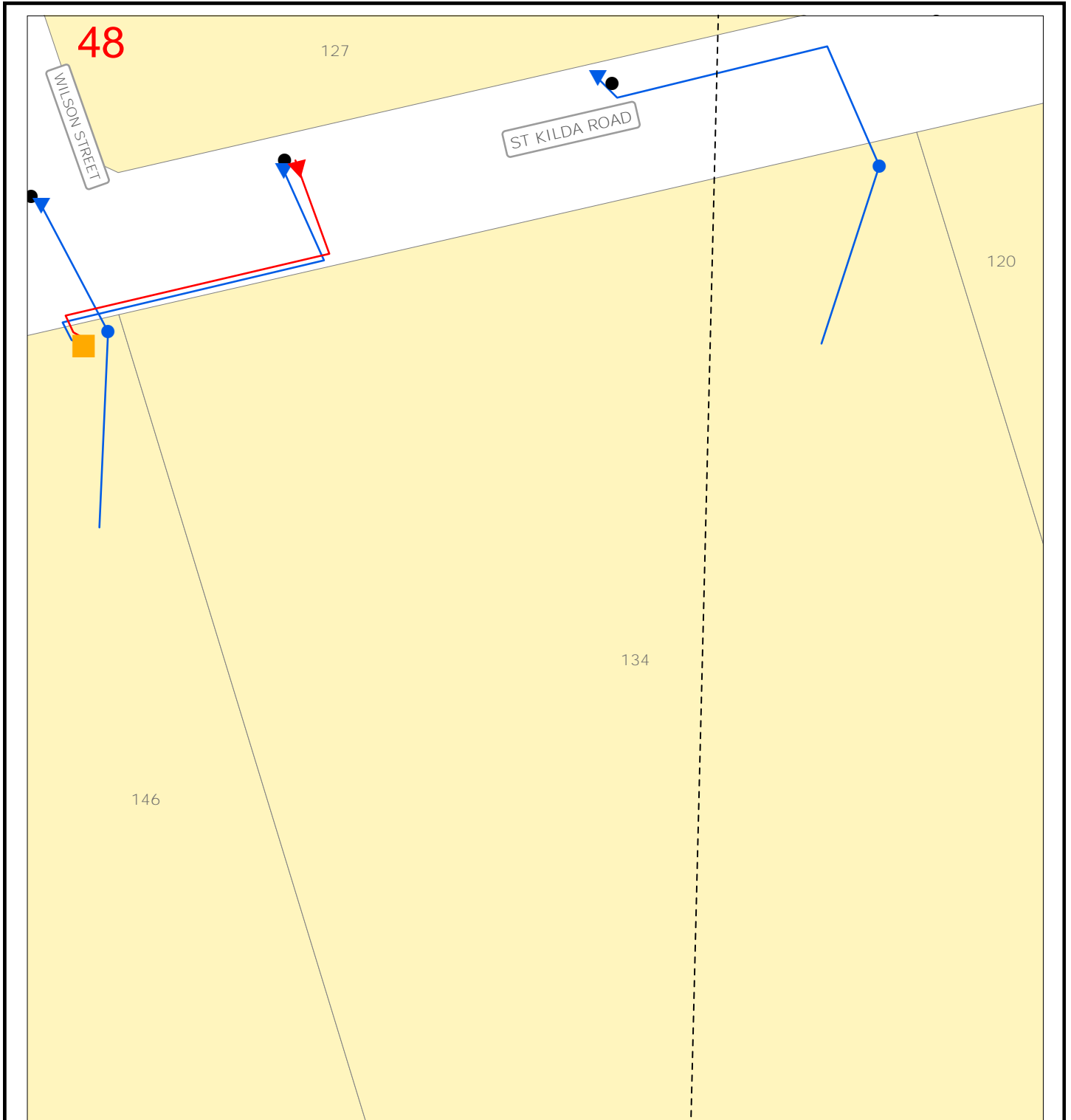
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

Fibre Optic Cable/Duct

- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



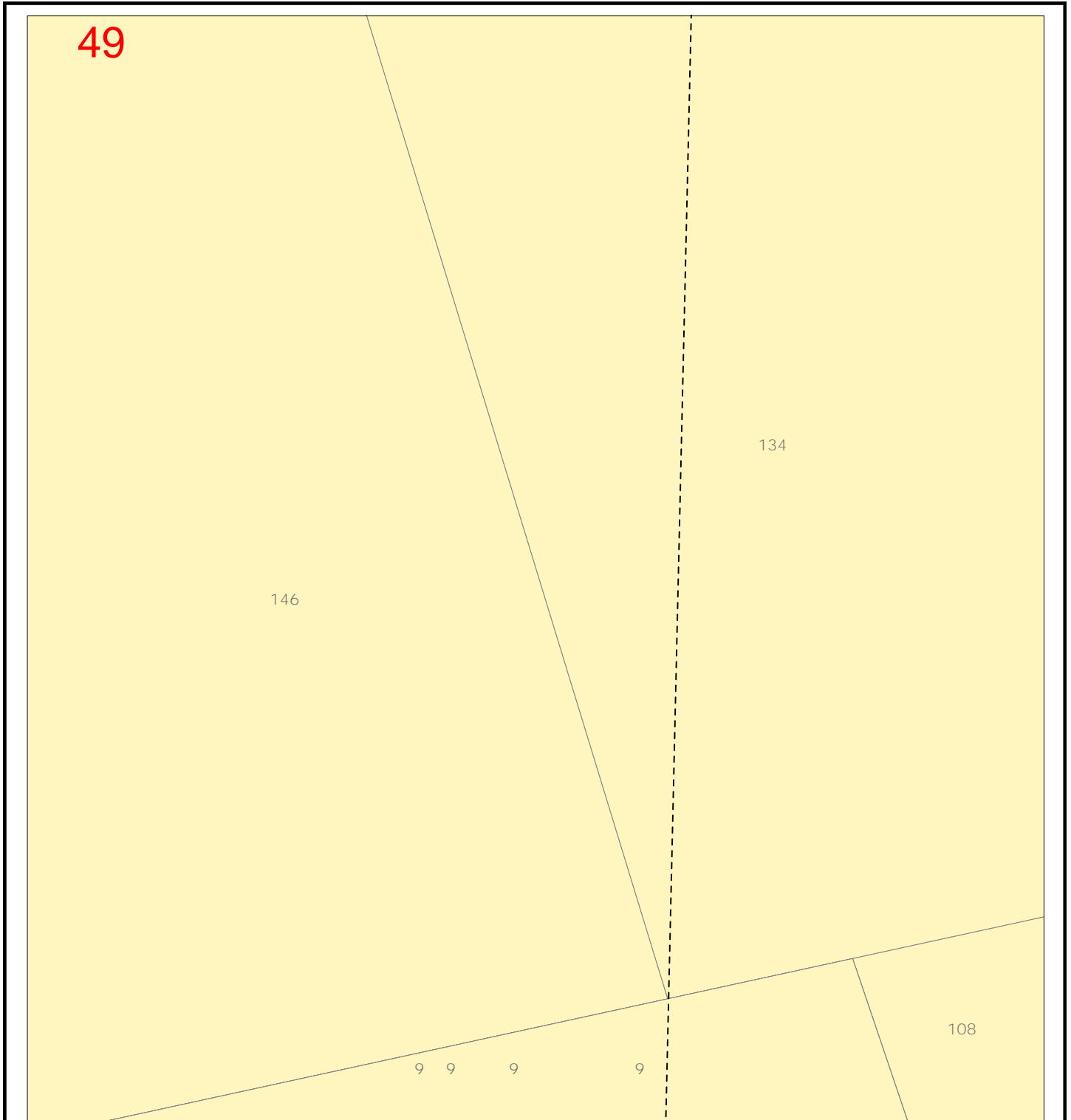




Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

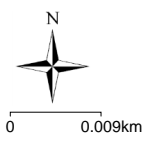
| Cable Exits |                | Cables |                | Other Symbols |                          |
|-------------|----------------|--------|----------------|---------------|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |               | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |               | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |               | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |               | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |               | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |               | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |               | Earthing Grid            |
|             |                |        |                |               | Fibre Optic Cable/Duct   |
|             |                |        |                |               | Fibre Manhole/Pit        |
|             |                |        |                |               | Pilot Cable              |
|             |                |        |                |               | Pilot Manhole/Pit        |
|             |                |        |                |               | Substation               |
|             |                |        |                |               | Electricity Pole         |
|             |                |        |                |               | Light Column             |

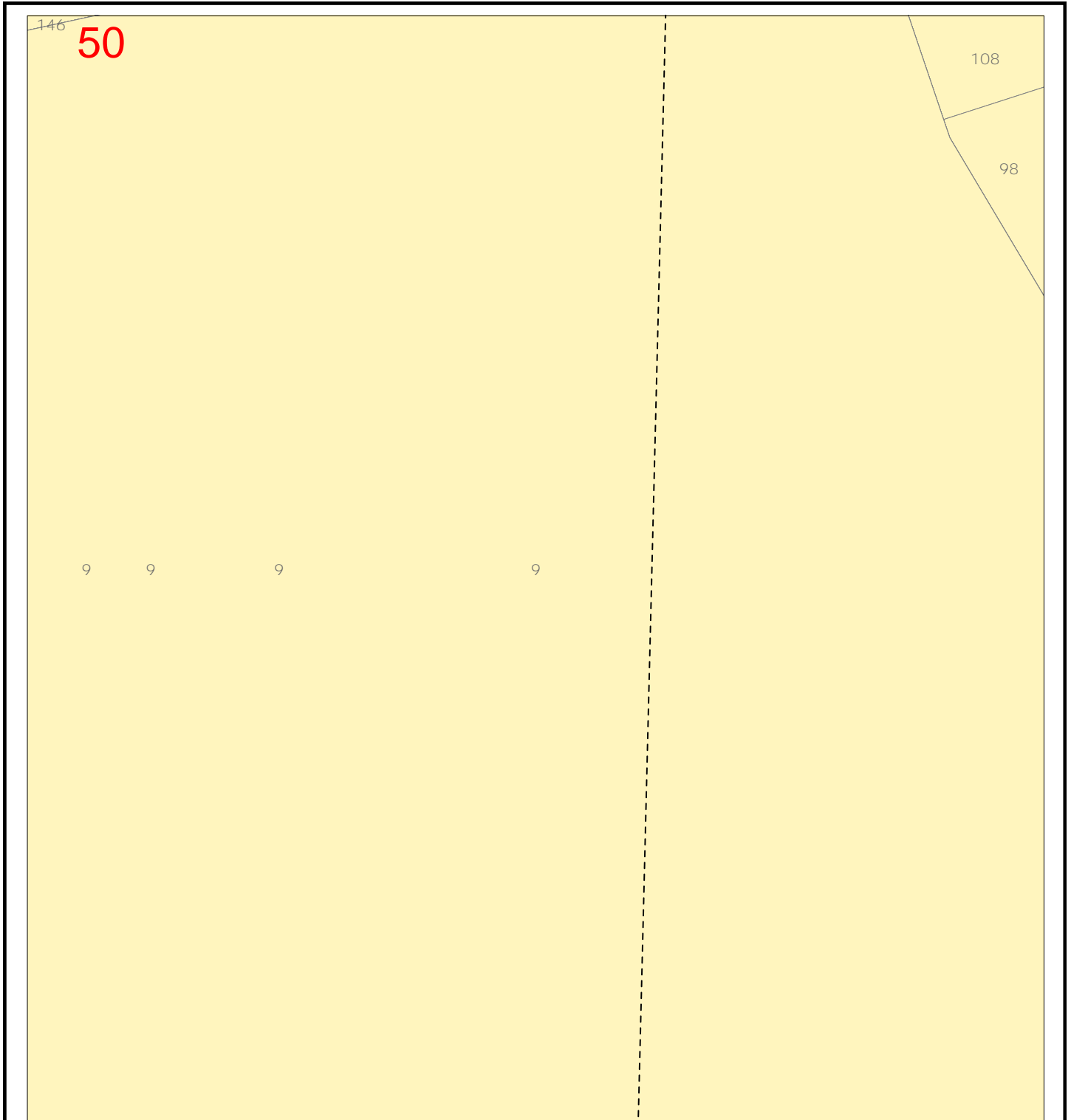


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

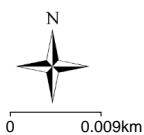
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

**Cables**

- ↗ 66kV/132kV
- ↗ 33kV
- ↗ 19kV
- ↗ 11kV
- ↗ 7.6kV
- ↗ Not In Service
- ↗ Low Voltage

- ⌈ DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- ⊗ Earthing Grid

- ↗ Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- ↗ Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column










51

9 9 9 9








Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.








**LEGEND:**








**Cable Exits**

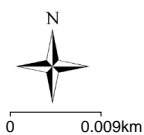
-  66kV/132kV
-  33kV
-  19kV
-  11kV
-  7.6kV
-  Not In Service
-  Low Voltage

**Cables**

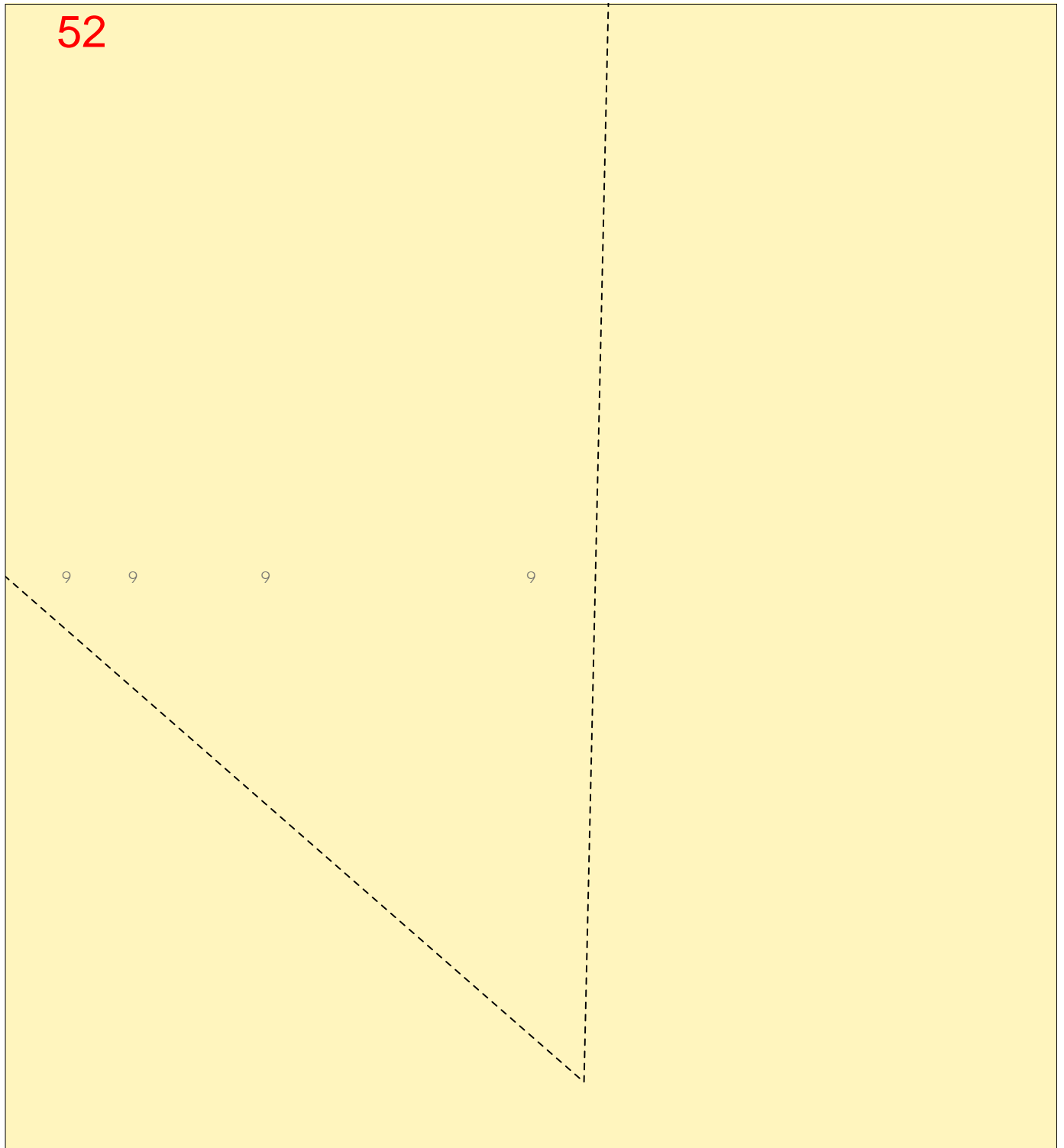
-  66kV/132kV
-  33kV
-  19kV
-  11kV
-  7.6kV
-  Not In Service
-  Low Voltage

-  DBYD Requested Area
-  HV Switching Cubicle
-  Transformer Cubicle
-  Cable Joint Bay
-  LV Switching Cubicle/Pit
-  Service Pit/Pillar
-  Earthing Grid

-  Fibre Optic Cable/Duct
-  Fibre Manhole/Pit
-  Pilot Cable
-  Pilot Manhole/Pit
-  Substation
-  Electricity Pole
-  Light Column



52



Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

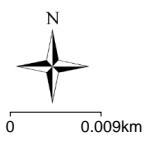
- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



**To:**

Greenhill - Karion Dickson-Abbott

Level 1,178 Fullarton Road

Dulwich

SA

5065

| Enquiry Details  |  |  |  |
|------------------|--|--|--|
| Utility ID       | 50800                                  |  |  |
| Sequence Number  | 210057757                              |  |  |
| Enquiry Date     | 06/04/2022 11:33                       |  |  |
| Response         | <b>AFFECTED</b>                        |  |  |
| Address          | 79-81 Robinson Road<br>Waterloo Corner |  |  |
| Location in Road | Road, Footpath, Nature Strip           |  |  |
| Activity         | Planning and Design, Subdivision       |  |  |

| Enquirer Details |   |        |  |
|------------------|---|--------|--|
| Customer ID      | 3002096                                   |        |  |
| Contact          | Karion Dickson-Abbott                     |        |  |
| Company          | Greenhill                                 |        |  |
| Email            | KDickson-Abbott@greenhillaustralia.com.au |        |  |
| Phone            | +61884061300                              | Mobile |  |

## Underground cable locations ASSETS FOUND

### The process:

1. You made an enquiry with Dial Before You Dig (1100).
2. Dial Before You Dig referred your enquiry to SA Power Networks (South Australia's Distribution Network).
3. SA Power Networks has checked their records and have found underground assets in your request area.
4. Please review the attached Asset Map(s) in regard to your excavation, as there may be some restrictions that apply if your excavation is greater than 300mm below ground level and less than 3.0m from an SA Power Networks Asset. Further explanation of restricted and exclusion zones can be found at <http://www.sapowernetworks.com.au/public/download.jsp?id=1775> OR search [sapowernetworks.com.au](http://www.sapowernetworks.com.au) for NICC 404 and by referring to the figure on page 10, 11 or 12.
5. An on-site assessment and/or technical drawings may also be necessary to ascertain the exact cable/asset location. This service can be provided by SA Power Networks and may incur a cost.
6. Please contact your local SA Power Networks Location Officer to schedule work or make further enquiries regarding this request either by return email or the contact number supplied. Other general enquiries can be made on (08) 8292 0218.
7. If you have damaged SA Power Networks Assets immediately notify Faults & Emergencies on (08) 8404 4496.

**Please note: Underground services in the vicinity of any proposed earthworks must be located by hand digging (pot-holing) prior to the commencement of works. Persons conducting works will be held responsible for any resulting loss or damage to the services associated with infrastructure**

## Important information and conditions of use for users of underground services information supplied by SA Power Networks

### Indicative information only

The accompanying information is intended only to indicate the presence of SA Power Networks' underground services and/or to convey general indicative information in respect of the location marked on the plans. **The information does not necessarily provide current, comprehensive or accurate description or location of the underground services or associated infrastructure.**

The information may also describe or indicate the presence of underground services or infrastructure not owned by SA Power Networks, for example, electrical services connected to an SA Power Networks' service point. SA Power Networks takes no responsibility for services or infrastructure that is not owned or operated by SA Power Networks or the accuracy or completeness of their description or location in the accompanying information.

Additional technical information may be requested from SA Power Networks for planning or engineering design (non-digging) purposes. Such requests are to be directed to SA Power Networks Builders and Contractors Electrical Service Line (1300 650 014).



### **Identifying the location of underground services**

Working near or around live electrical cables can be hazardous. **An on-site assessment is strongly recommended prior to undertaking ANY works and is necessary to determine the location of the underground services.** This can be undertaken by SA Power Networks or an alternative professional locating service provider. Enquiries can be made about SA Power Networks' cable location service by telephoning (08) 8292 0218.

Restrictions may apply in regard to your excavation particularly if your excavation is greater than 300mm below ground level and less than 3.0m from an SA Power Networks asset. Further explanation regarding restricted exclusion zones can be found at <http://www.sapowernetworks.com.au/public/download.jsp?id=1775> OR search sapowernetworks.com.au for NICC 404 and by referring to the figures on pages 10, 11 or 12.

Underground services in the vicinity of any proposed earthworks must be located by hand digging (pot-holing) prior to the commencement of the works. Persons conducting works will be held responsible for any resulting loss or damage to the services or associated infrastructure.

### **Working near high voltage 66kV underground cables**

Persons intending to conduct earthworks in the vicinity of an SA Power Networks high voltage 66kV underground cable MUST first obtain a site-specific clearance by contacting the SA Power Networks Cable Management Technical Officer on 0403 582 174.

### **Basis of information supply**

The accompanying information is supplied at the request of, and is only provided for use by, the requestor. The information is valid for 30 days from the date of issue.

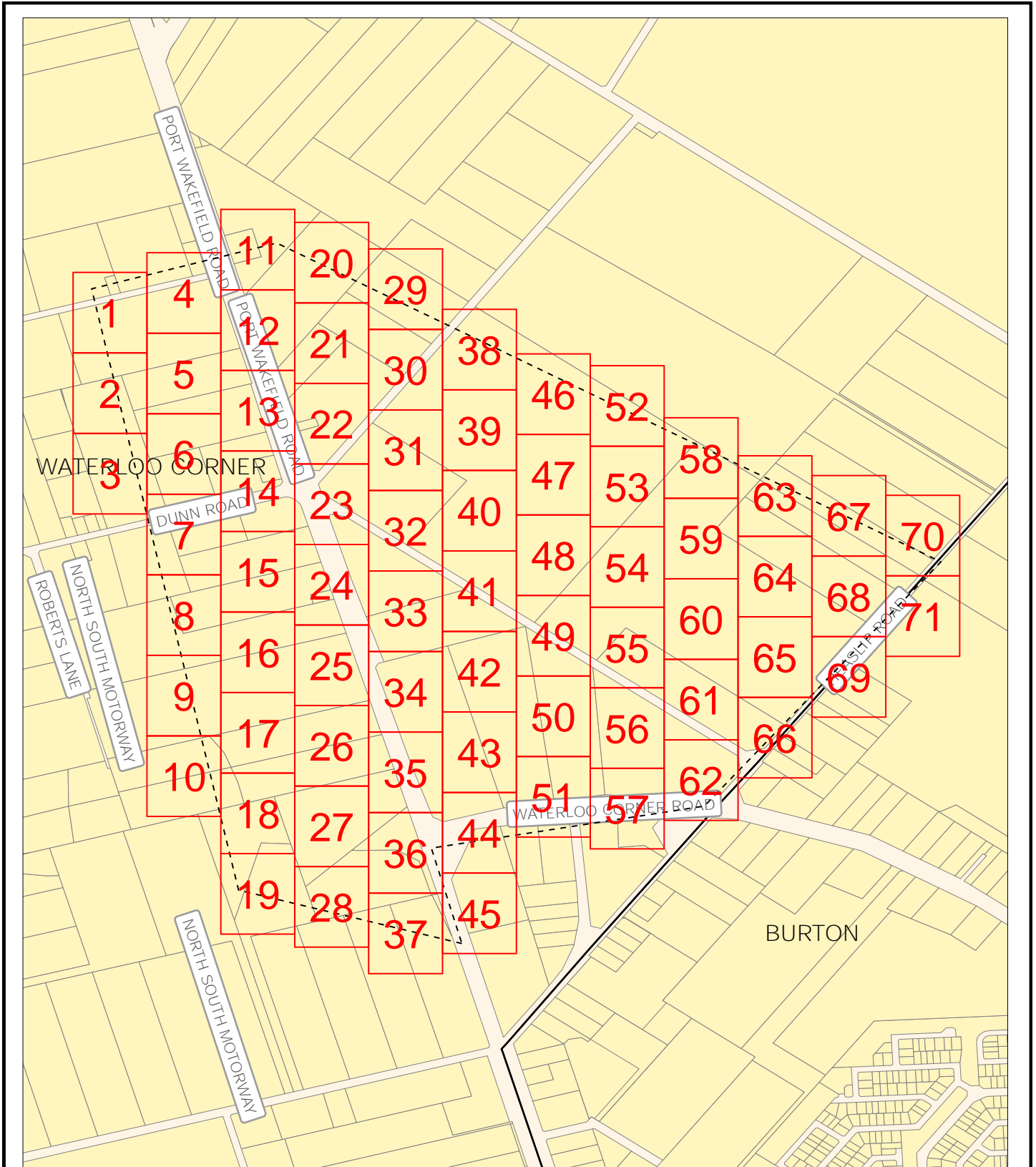
SA Power Networks, its employees, agents and contractors shall accept no responsibility for any inaccuracy or incompleteness in the information provided or liability in respect of any personal injury, death, loss or damage to any real or personal property or otherwise that arises out of or in connection with, directly or indirectly, the provision of or reliance upon the information.

It is the requestor's responsibility to ensure that the information provided accords with the area depicted on the requestor's Dial Before You Dig request. The information provided should not be used in respect of any area outside of the area depicted on the Dial Before You Dig request. SA Power Networks does not warrant that the information is suitable for the requestor's intended purposes.

**Any use of the accompanying information is subject to the requestor's agreement to the conditions contained in this document.** Upon acceptance of these conditions, SA Power Networks grants the requestor permission to use the information. The information must be returned to SA Power Networks if the conditions are not accepted.

***Important note: It is an offence under the Electricity Act 1996 (SA) to cause damage to or interfere with electrical infrastructure***

Date: 06/04/2022



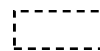
**Disclaimer:** The Plan/Sketch is supplied at your request and is subject to your agreement that SA Power Networks shall not be liable or responsible for the correctness or otherwise of any such information supplied pursuant to this request. Upon acceptance of this condition SA Power Networks grants you permission to use the Plan/Sketch as a guide to the location of SA Power Networks assets. The Plan/Sketch must be returned to SA Power Networks if you fail to accept the conditions of use.



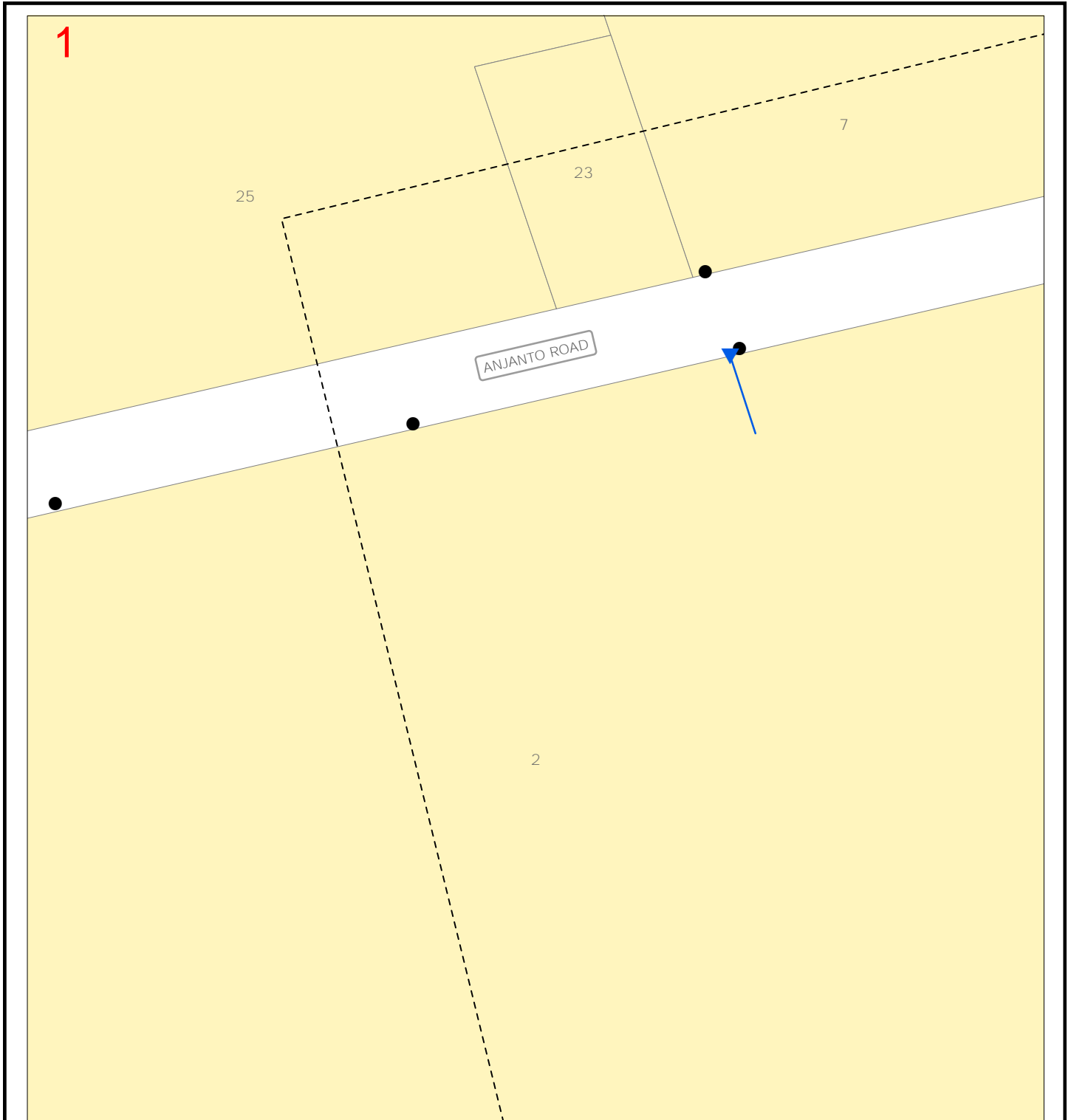
**LEGEND:**



Detail Map



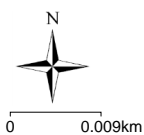
DBYD Requested Area

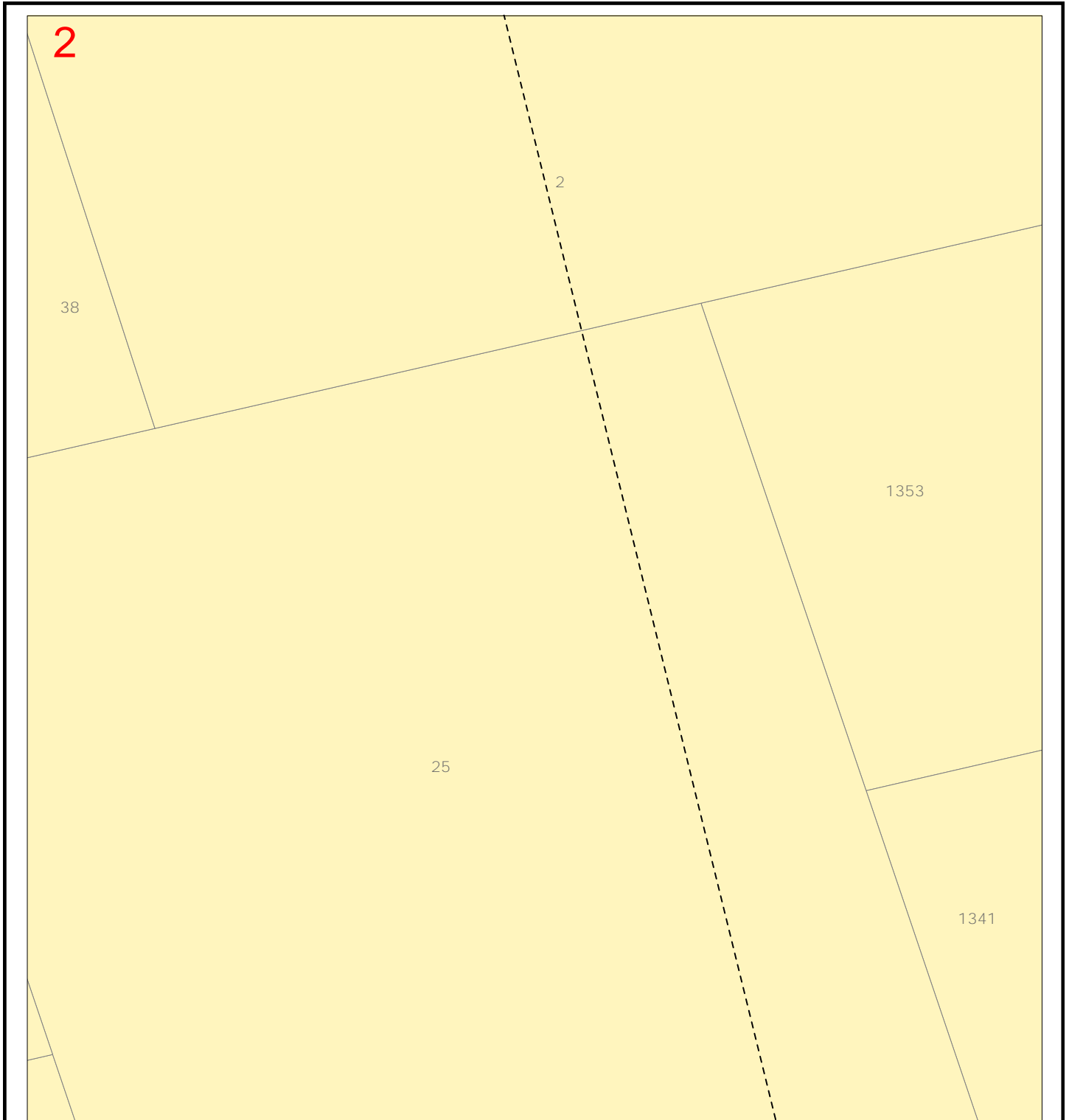


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

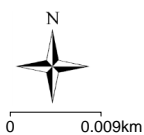
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

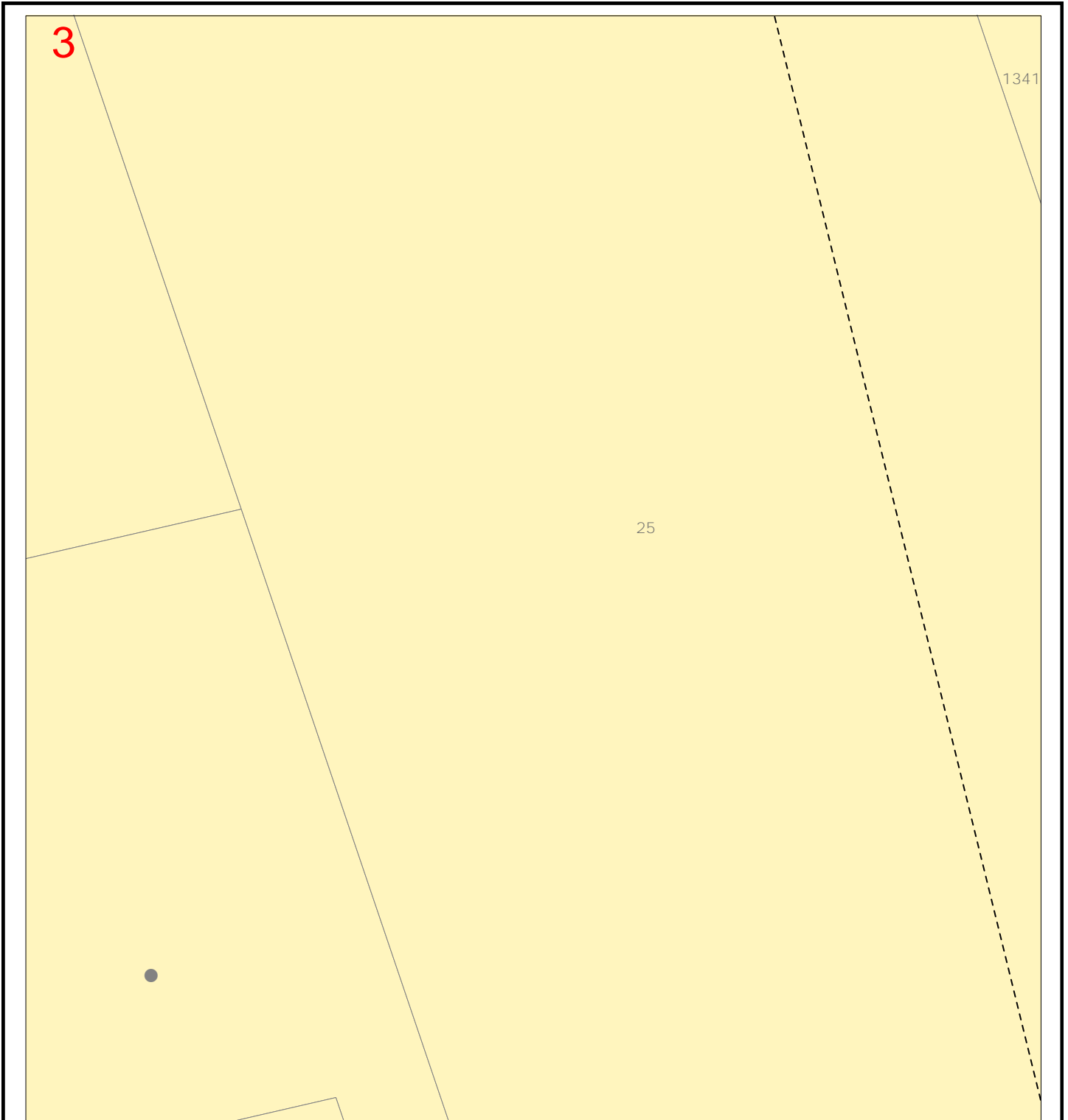
**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

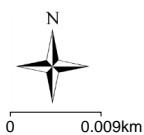
**Cables**

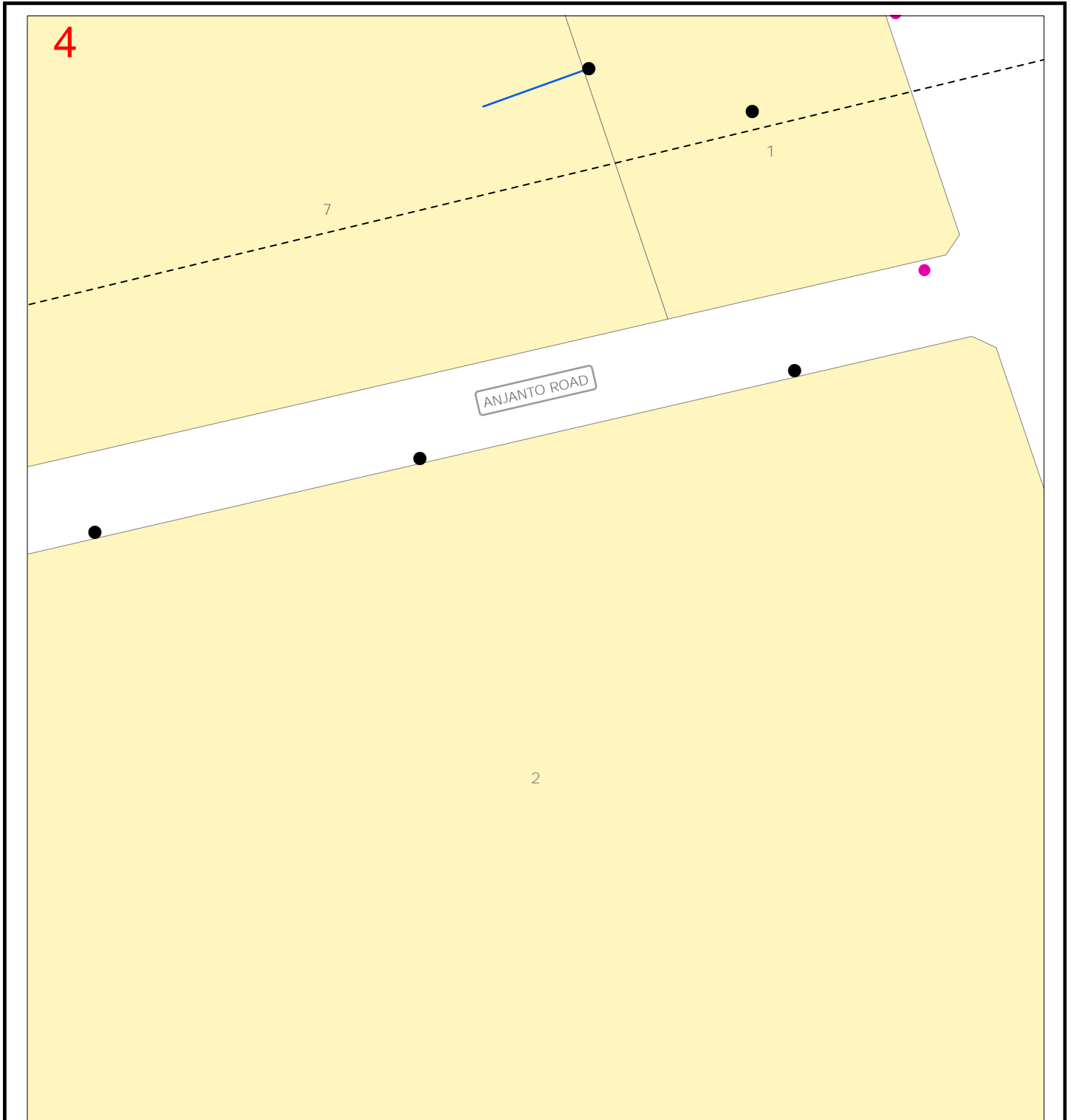
- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

**DBYD Requested Area**

- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column

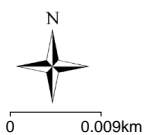


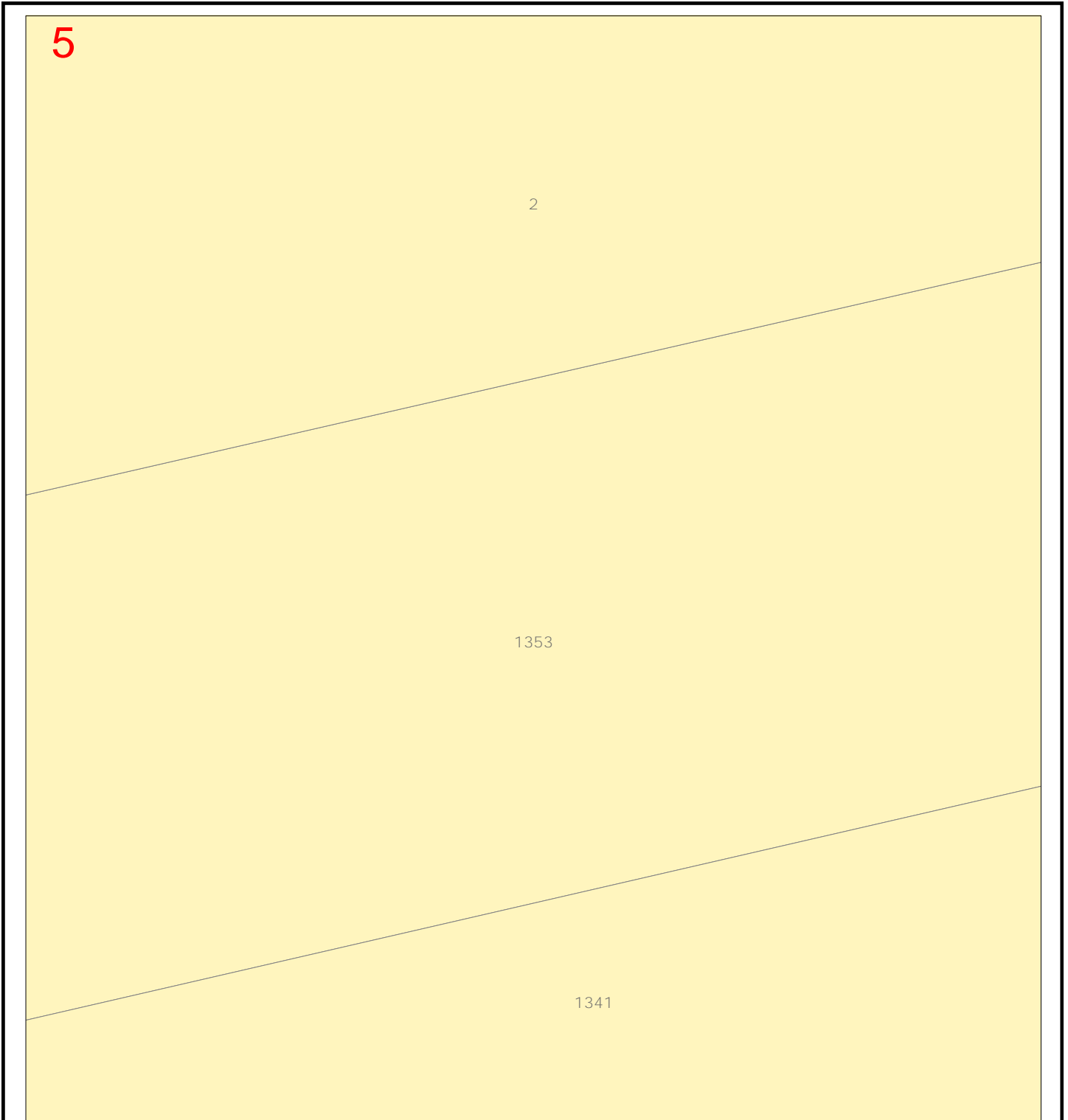


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                | Other Symbols |                          |
|-------------|----------------|--------|----------------|---------------|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |               | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |               | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |               | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |               | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |               | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |               | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |               | Earthing Grid            |
|             |                |        |                |               | Fibre Optic Cable/Duct   |
|             |                |        |                |               | Fibre Manhole/Pit        |
|             |                |        |                |               | Pilot Cable              |
|             |                |        |                |               | Pilot Manhole/Pit        |
|             |                |        |                |               | Substation               |
|             |                |        |                |               | Electricity Pole         |
|             |                |        |                |               | Light Column             |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

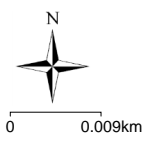
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

**Cables**

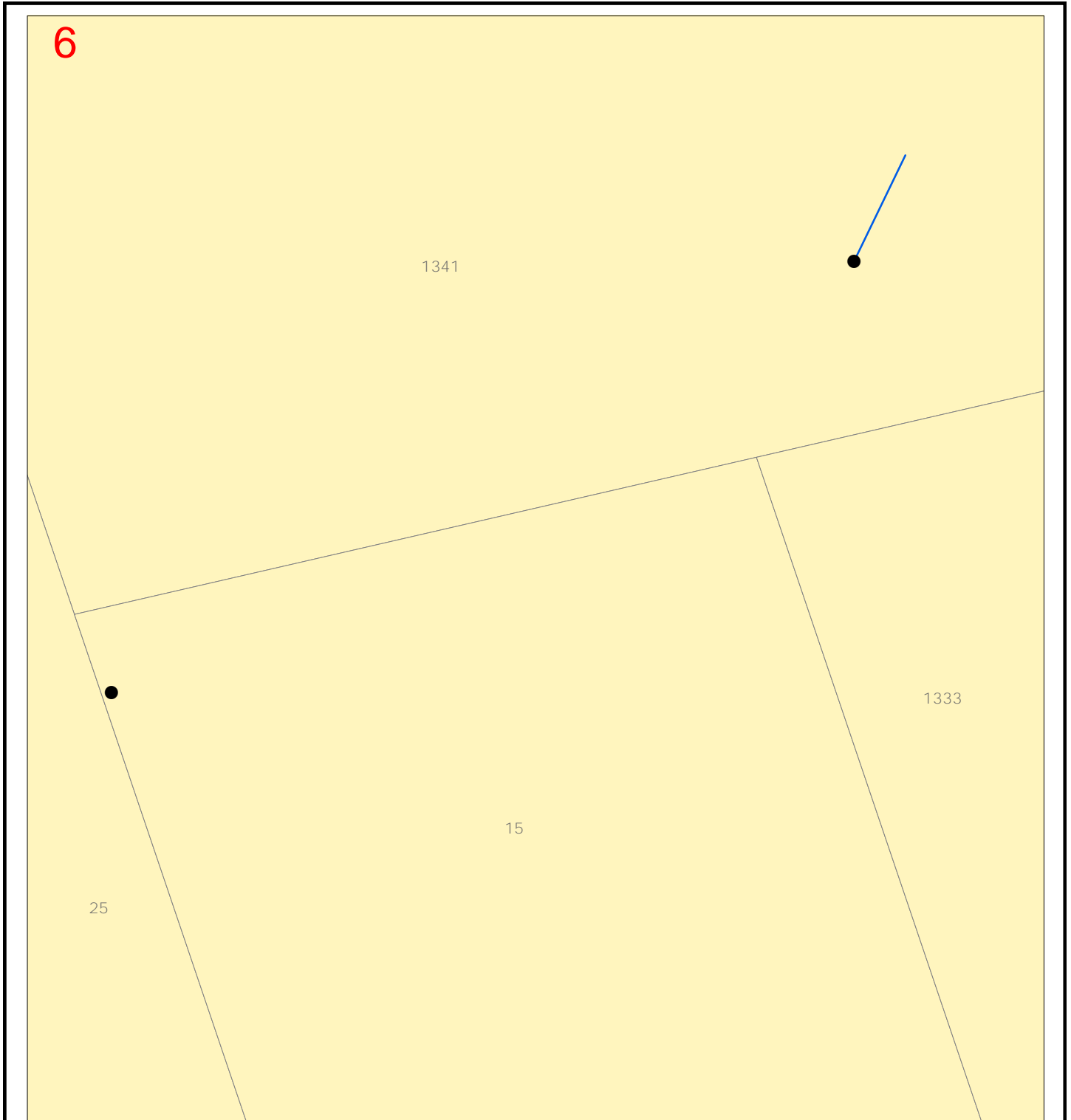
- ↯ 66kV/132kV
- ↯ 33kV
- ↯ 19kV
- ↯ 11kV
- ↯ 7.6kV
- ↯ Not In Service
- ↯ Low Voltage

- ▭ DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- ⊗ Earthing Grid

- ↯ Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- ↯ Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column







Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

**Cables**

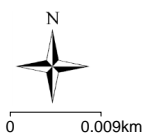
- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

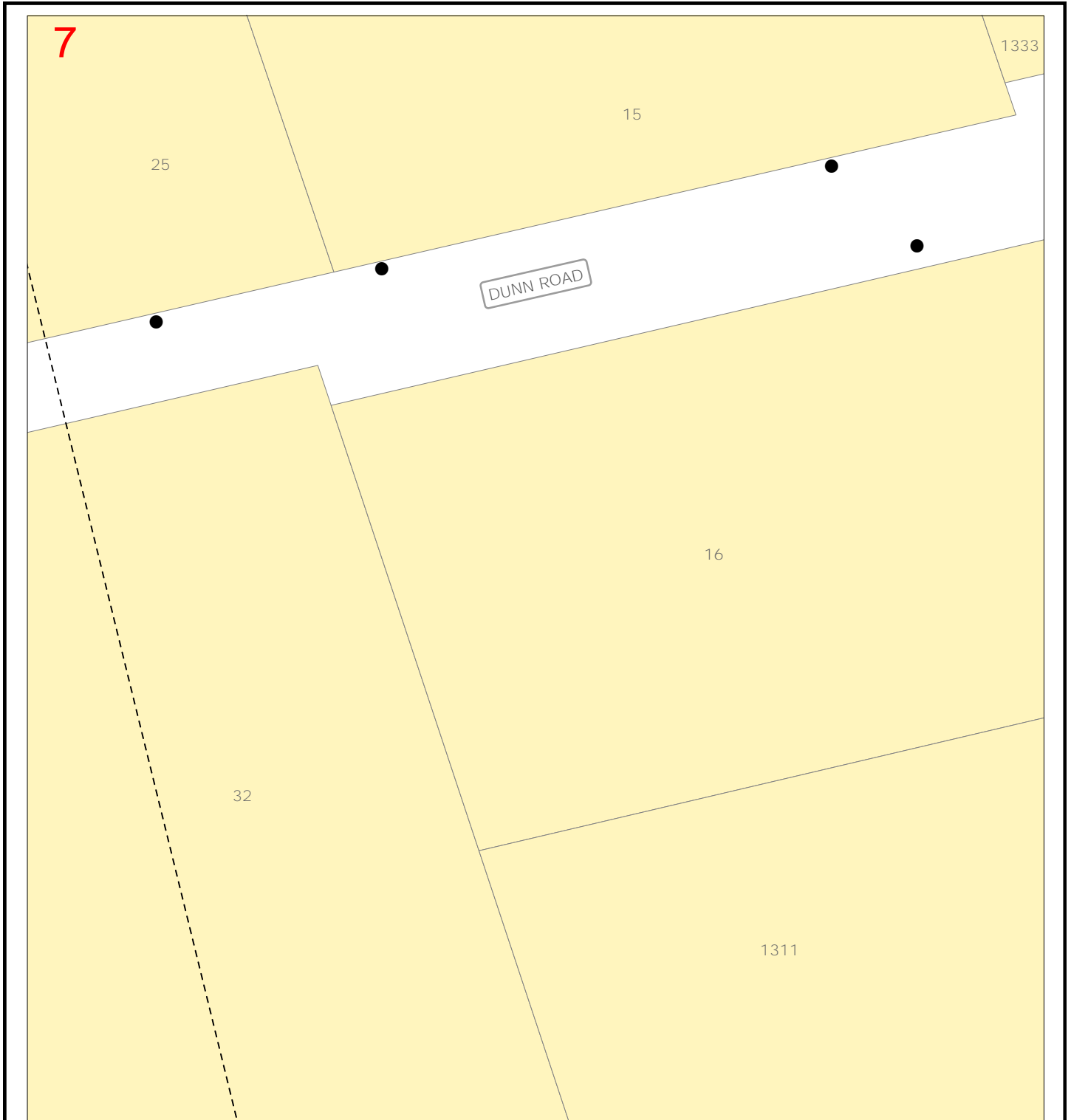
**DBYD Requested Area**

- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

**Fibre Optic Cable/Duct**

- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column

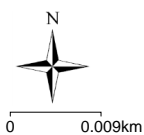


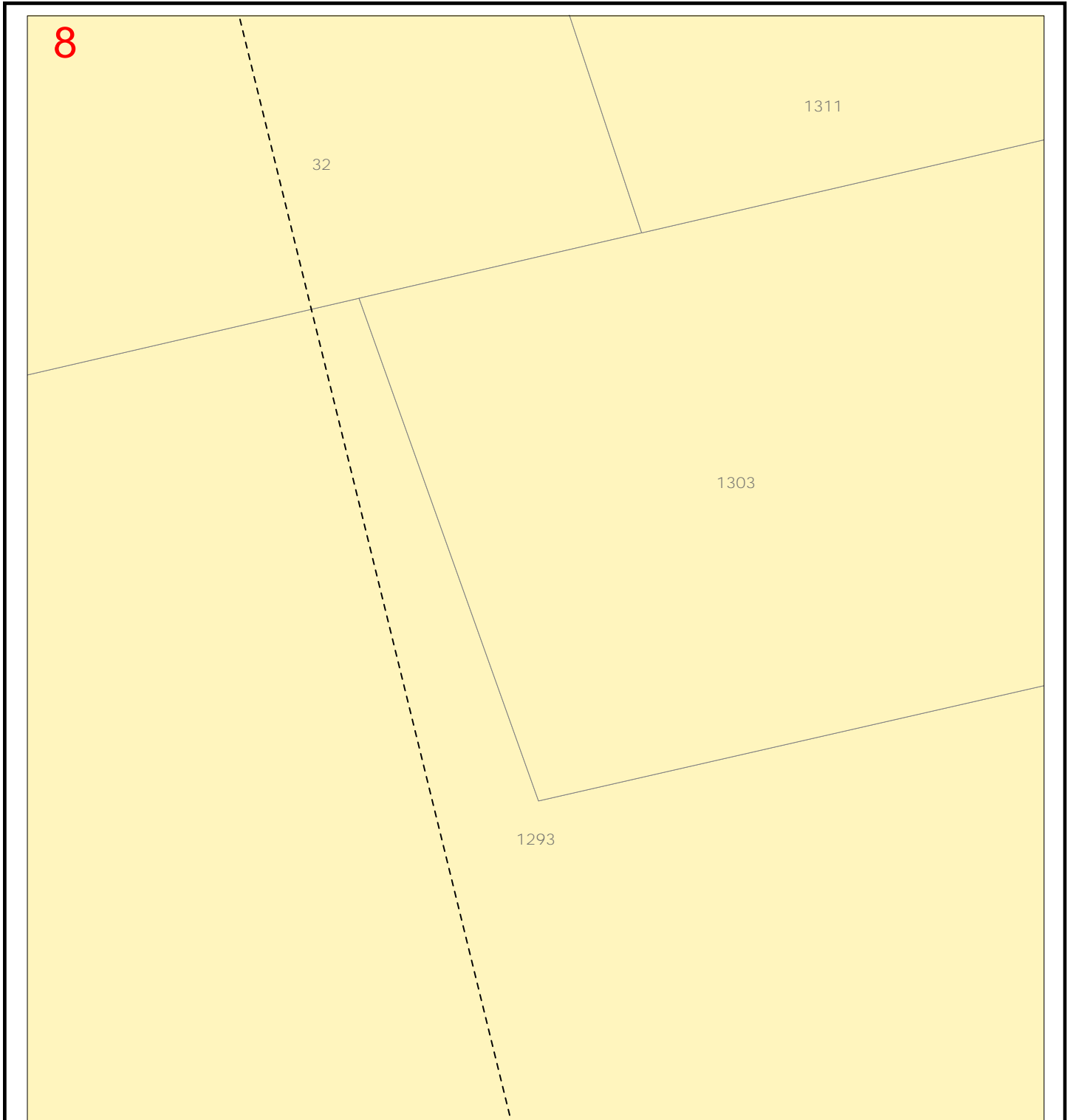


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

**Cables**

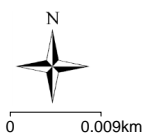
- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

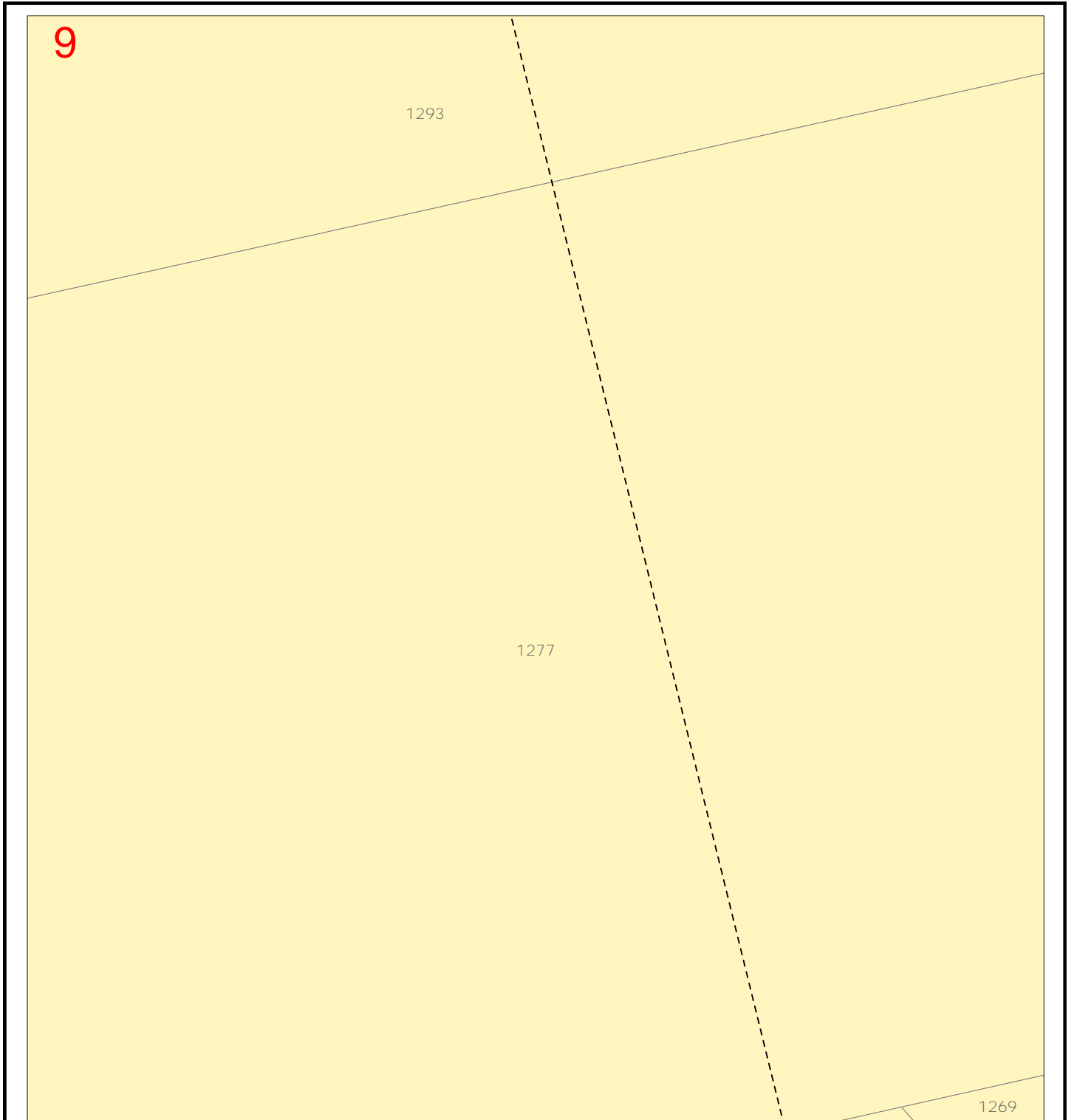
DBYD Requested Area

- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

Fibre Optic Cable/Duct

- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

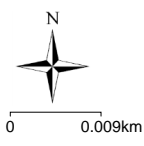
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

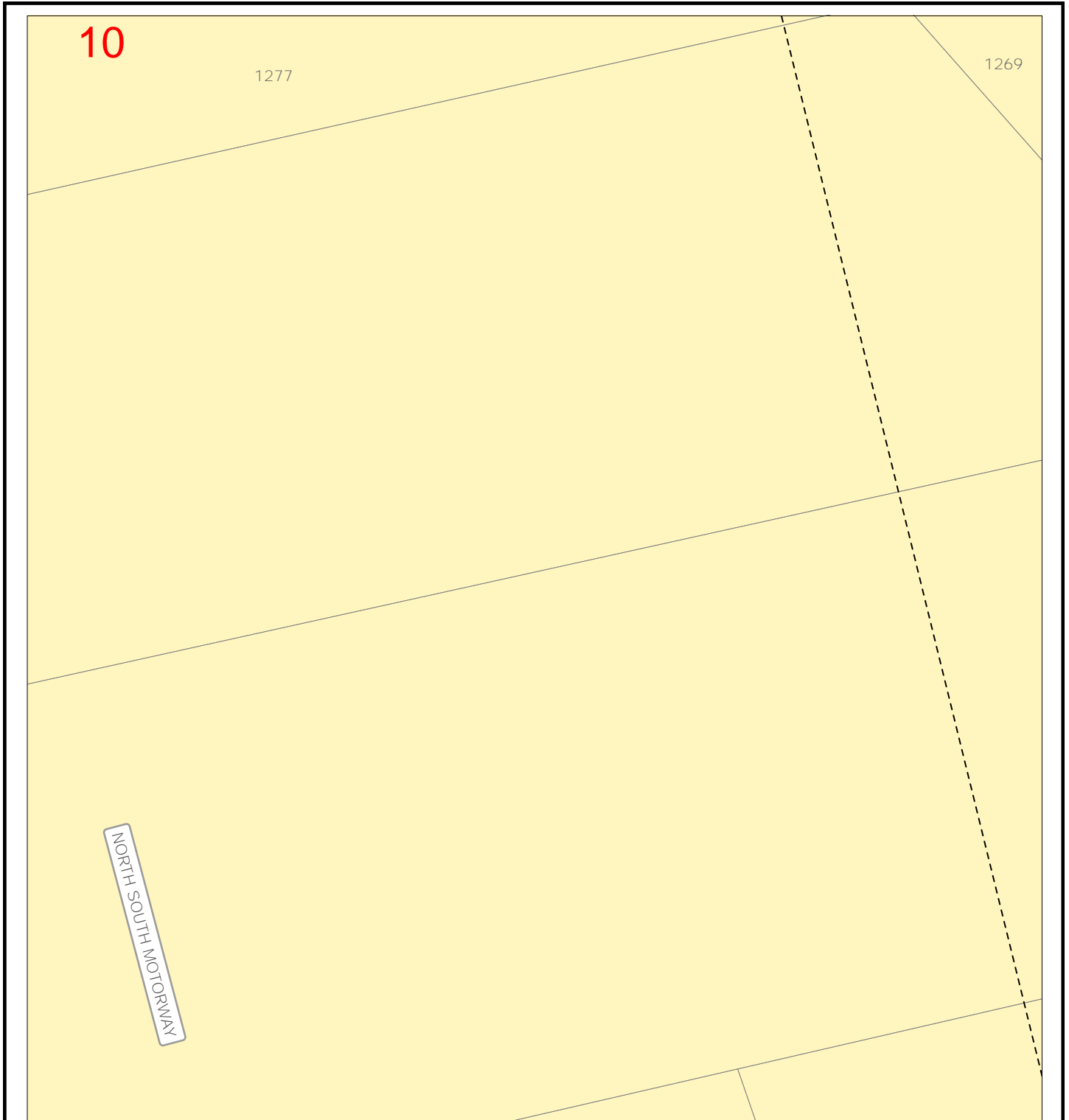
**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
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- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column

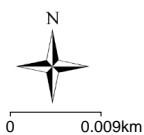


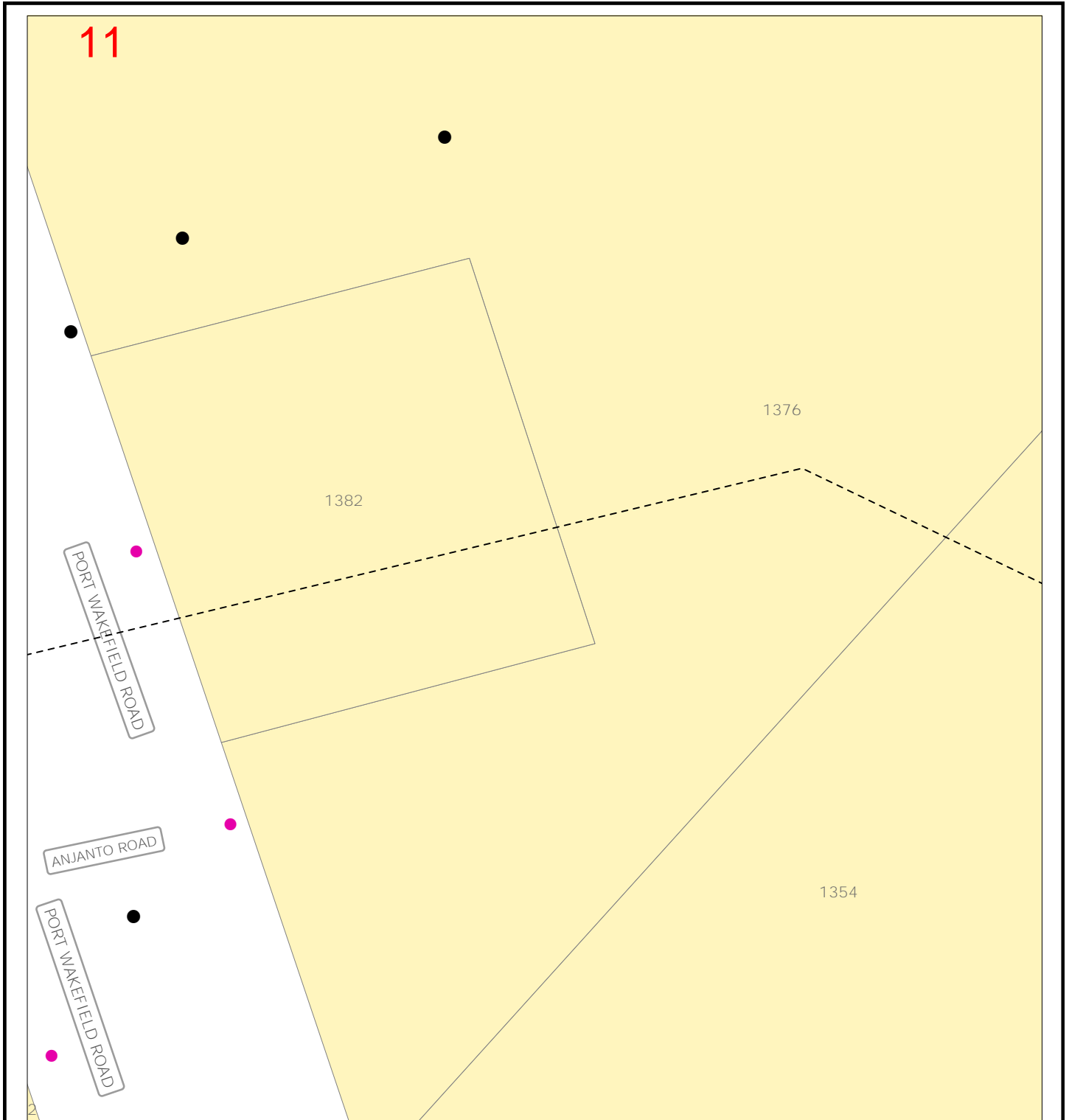


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |

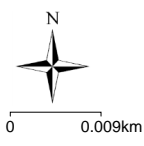


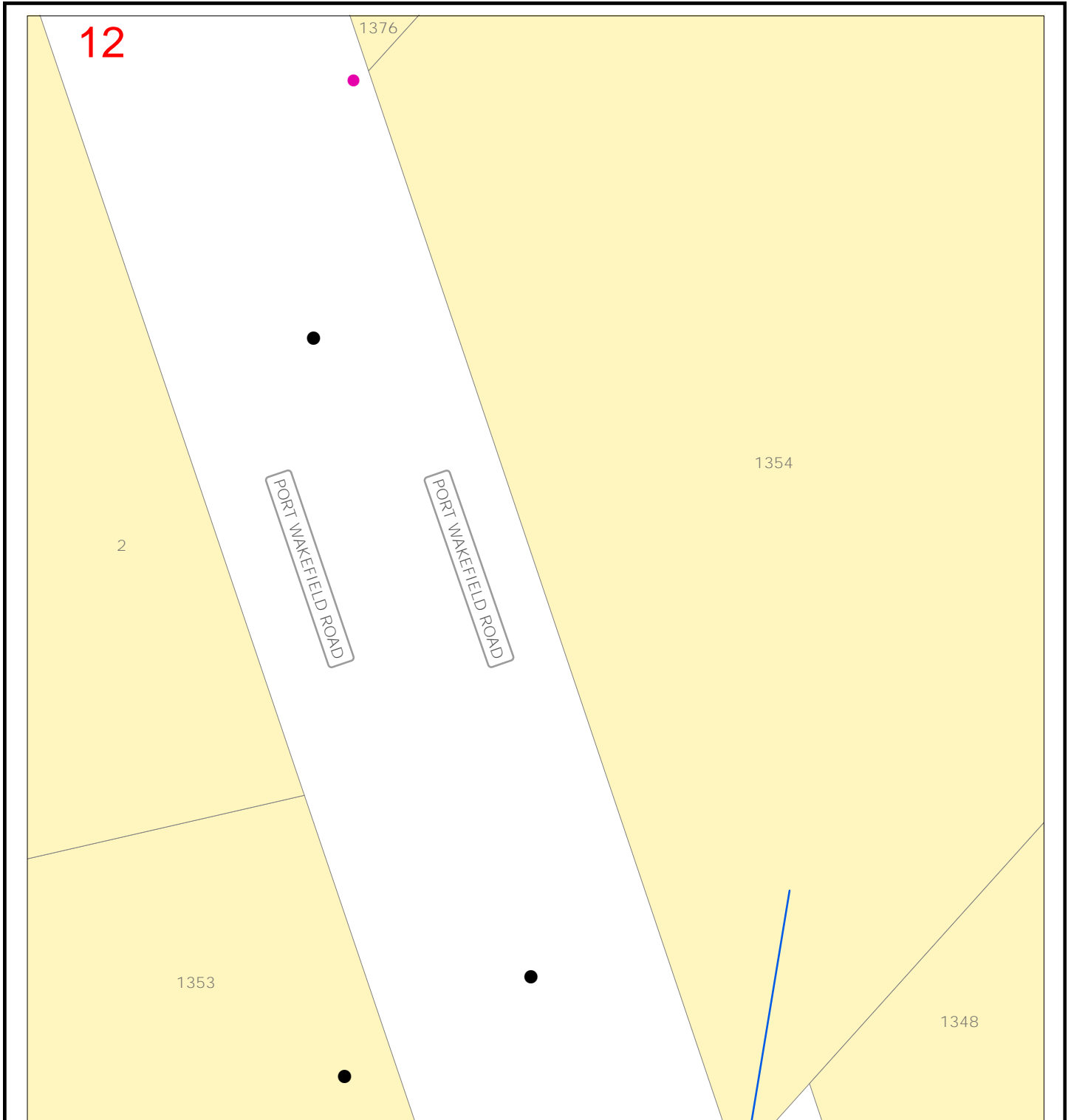


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                | Other Symbols |                          |
|-------------|----------------|--------|----------------|---------------|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |               | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |               | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |               | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |               | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |               | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |               | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |               | Earthing Grid            |
|             |                |        |                |               | Fibre Optic Cable/Duct   |
|             |                |        |                |               | Fibre Manhole/Pit        |
|             |                |        |                |               | Pilot Cable              |
|             |                |        |                |               | Pilot Manhole/Pit        |
|             |                |        |                |               | Substation               |
|             |                |        |                |               | Electricity Pole         |
|             |                |        |                |               | Light Column             |

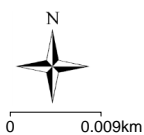




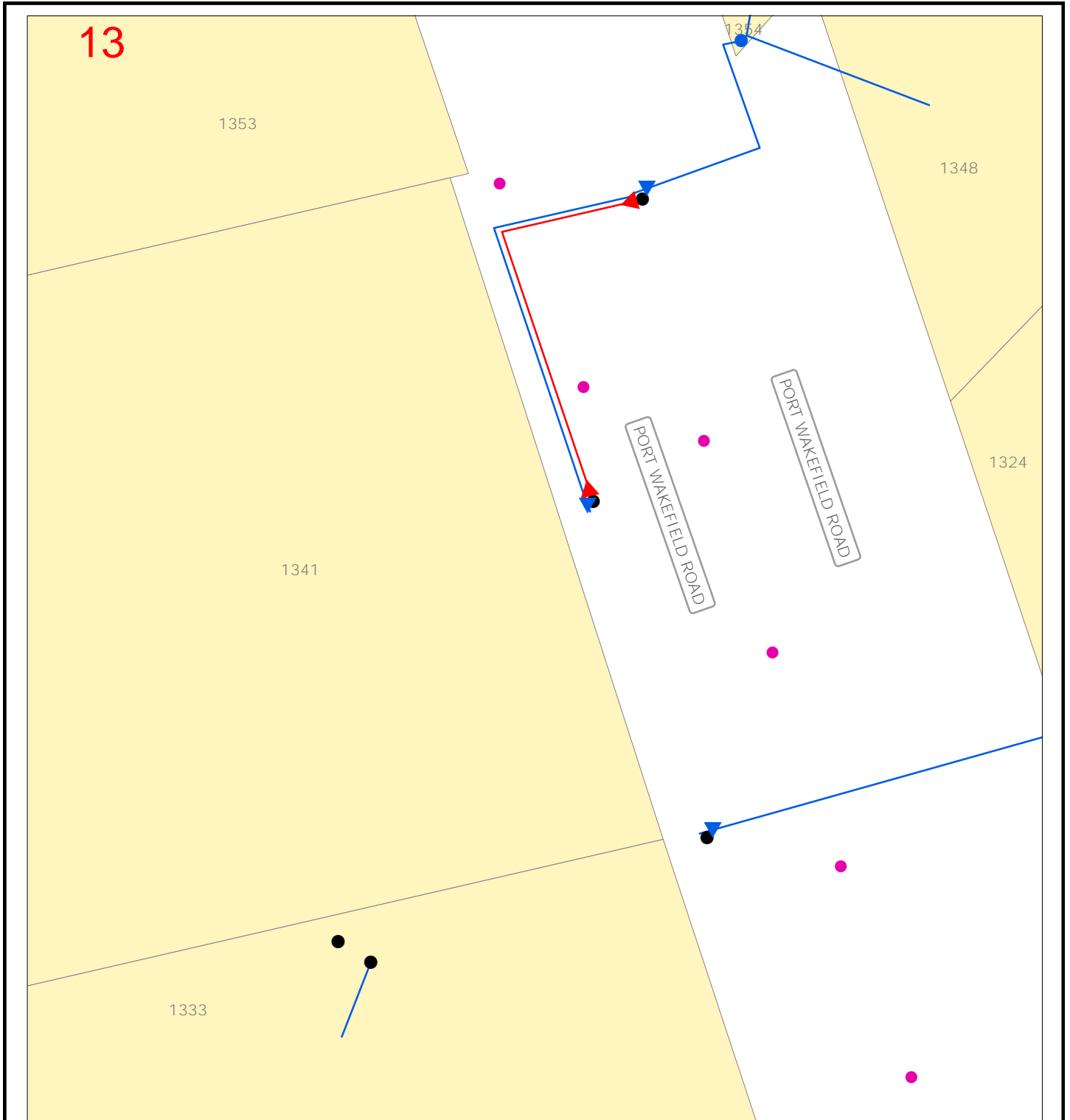
Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                | Other Symbols |                          |
|-------------|----------------|--------|----------------|---------------|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |               | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |               | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |               | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |               | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |               | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |               | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |               | Earthing Grid            |
|             |                |        |                |               | Fibre Optic Cable/Duct   |
|             |                |        |                |               | Fibre Manhole/Pit        |
|             |                |        |                |               | Pilot Cable              |
|             |                |        |                |               | Pilot Manhole/Pit        |
|             |                |        |                |               | Substation               |
|             |                |        |                |               | Electricity Pole         |
|             |                |        |                |               | Light Column             |



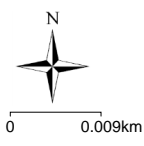


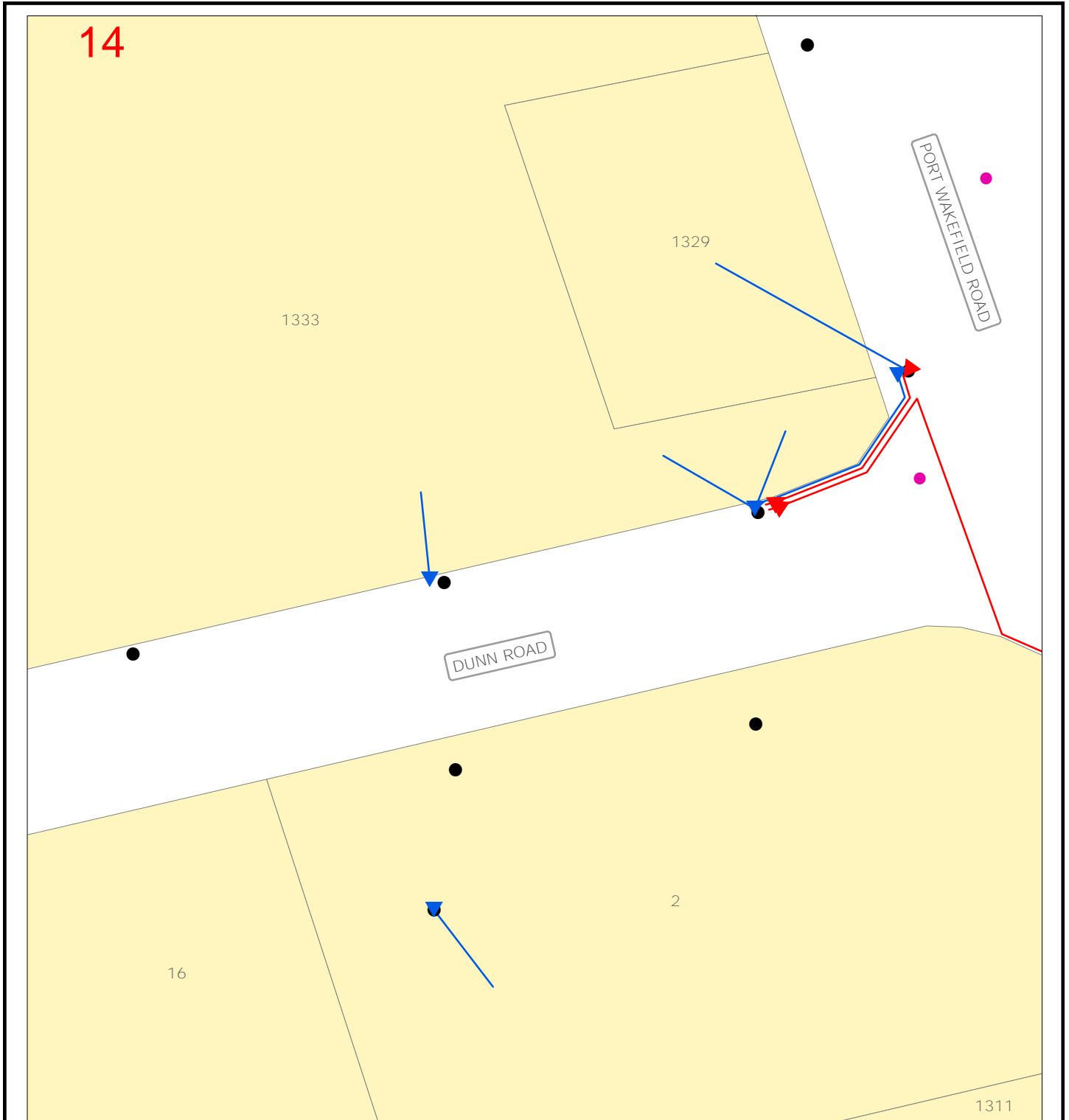


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits    | Cables         | DBYD Requested Area      | Fibre Optic Cable/Duct |
|----------------|----------------|--------------------------|------------------------|
| 66kV/132kV     | 66kV/132kV     | DBYD Requested Area      | Fibre Optic Cable/Duct |
| 33kV           | 33kV           | HV Switching Cubicle     | Fibre Manhole/Pit      |
| 19kV           | 19kV           | Transformer Cubicle      | Pilot Cable            |
| 11kV           | 11kV           | Cable Joint Bay          | Pilot Manhole/Pit      |
| 7.6kV          | 7.6kV          | LV Switching Cubicle/Pit | Substation             |
| Not In Service | Not In Service | Service Pit/Pillar       | Electricity Pole       |
| Low Voltage    | Low Voltage    | Earthing Grid            | Light Column           |

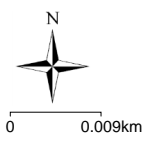


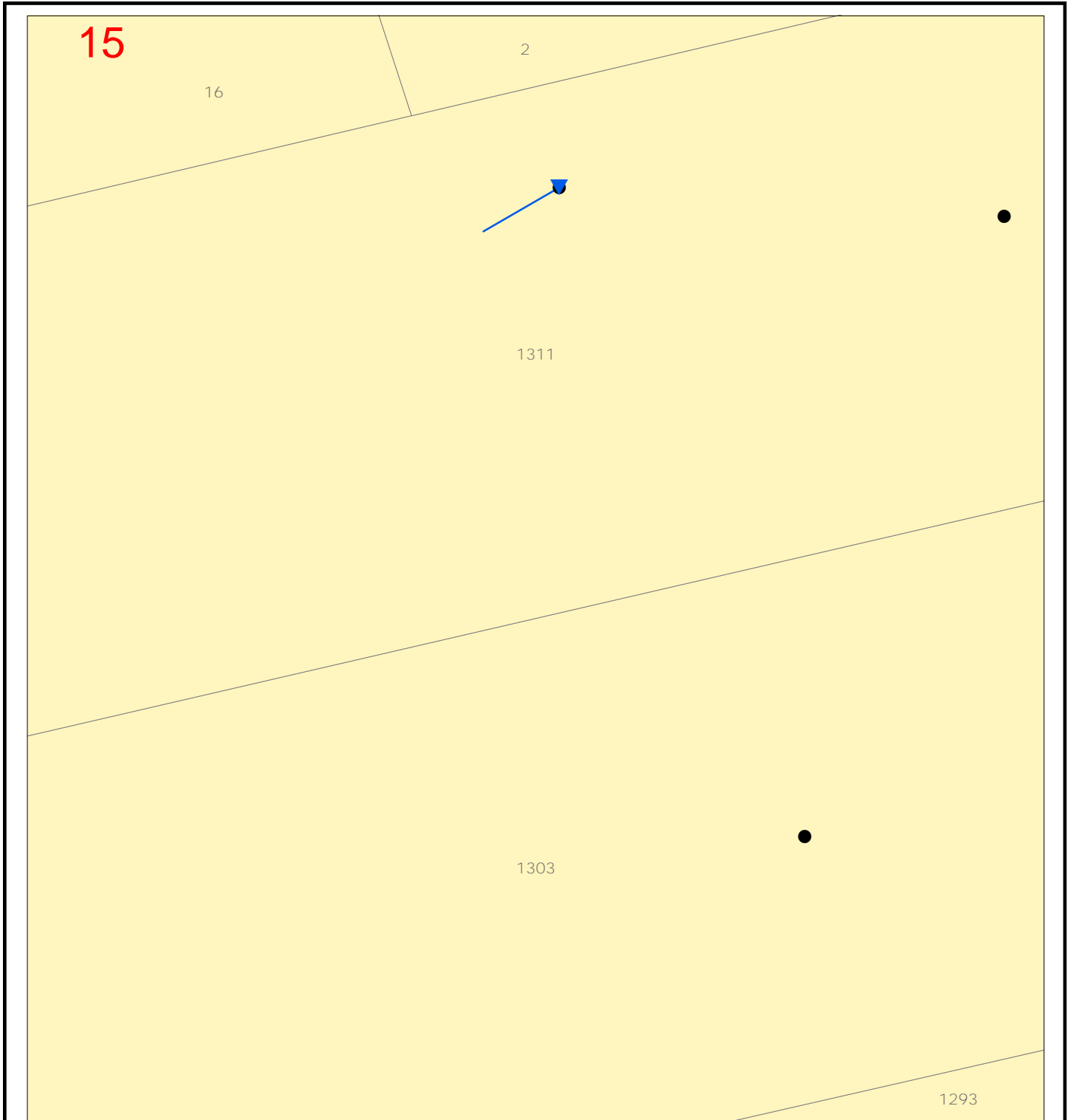


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                | DBYD Requested Area |  | Fibre Optic Cable/Duct |                   |
|-------------|----------------|--------|----------------|---------------------|--|------------------------|-------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |                     |  |                        | Fibre Manhole/Pit |
|             | 33kV           |        | 33kV           |                     |  |                        | Pilot Cable       |
|             | 19kV           |        | 19kV           |                     |  |                        | Pilot Manhole/Pit |
|             | 11kV           |        | 11kV           |                     |  |                        | Substation        |
|             | 7.6kV          |        | 7.6kV          |                     |  |                        | Electricity Pole  |
|             | Not In Service |        | Not In Service |                     |  |                        | Light Column      |
|             | Low Voltage    |        | Low Voltage    |                     |  |                        |                   |

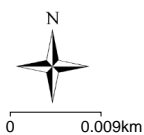


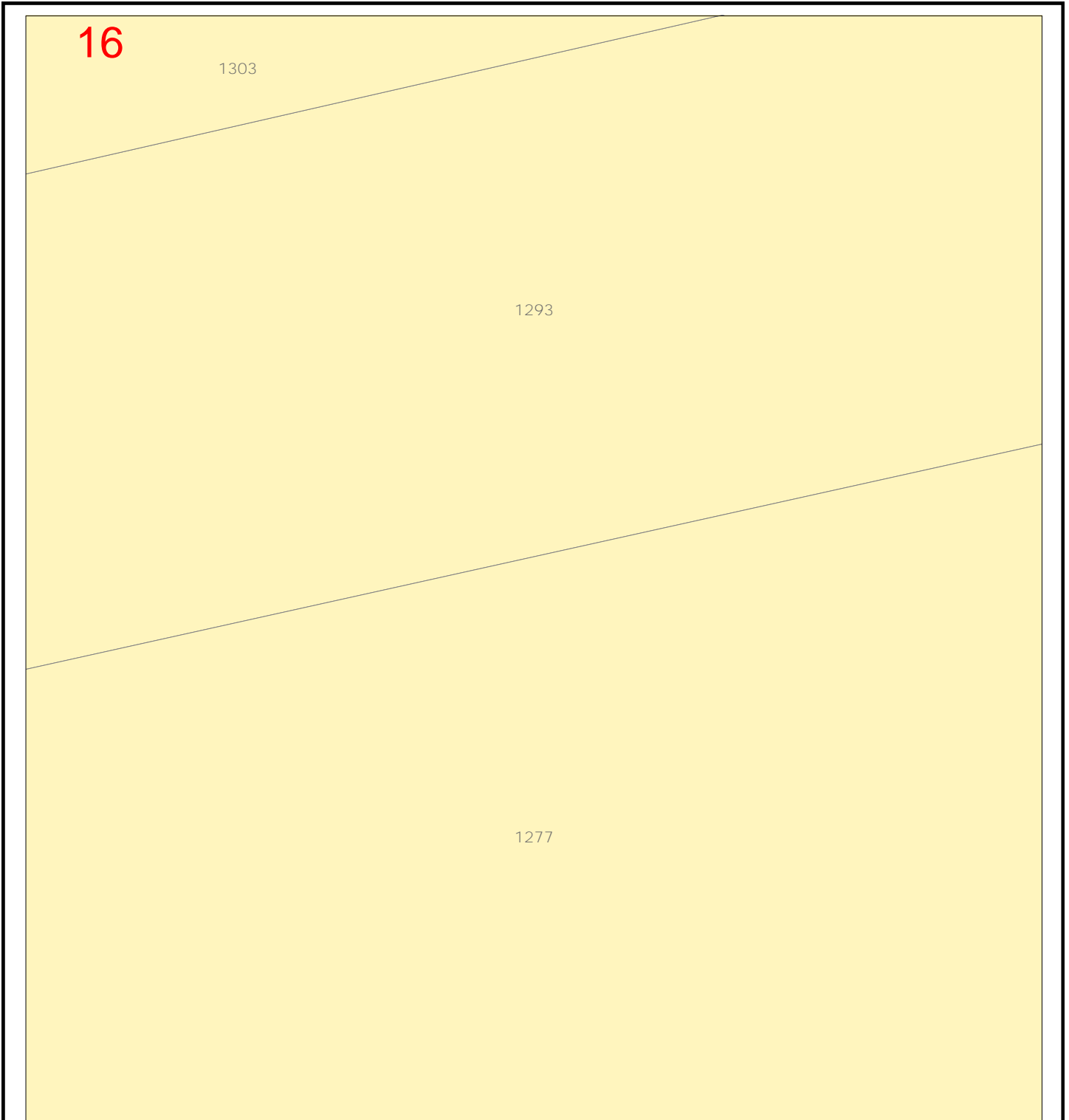


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

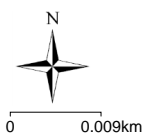
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



17

1277

1269

1261

Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

**Cables**

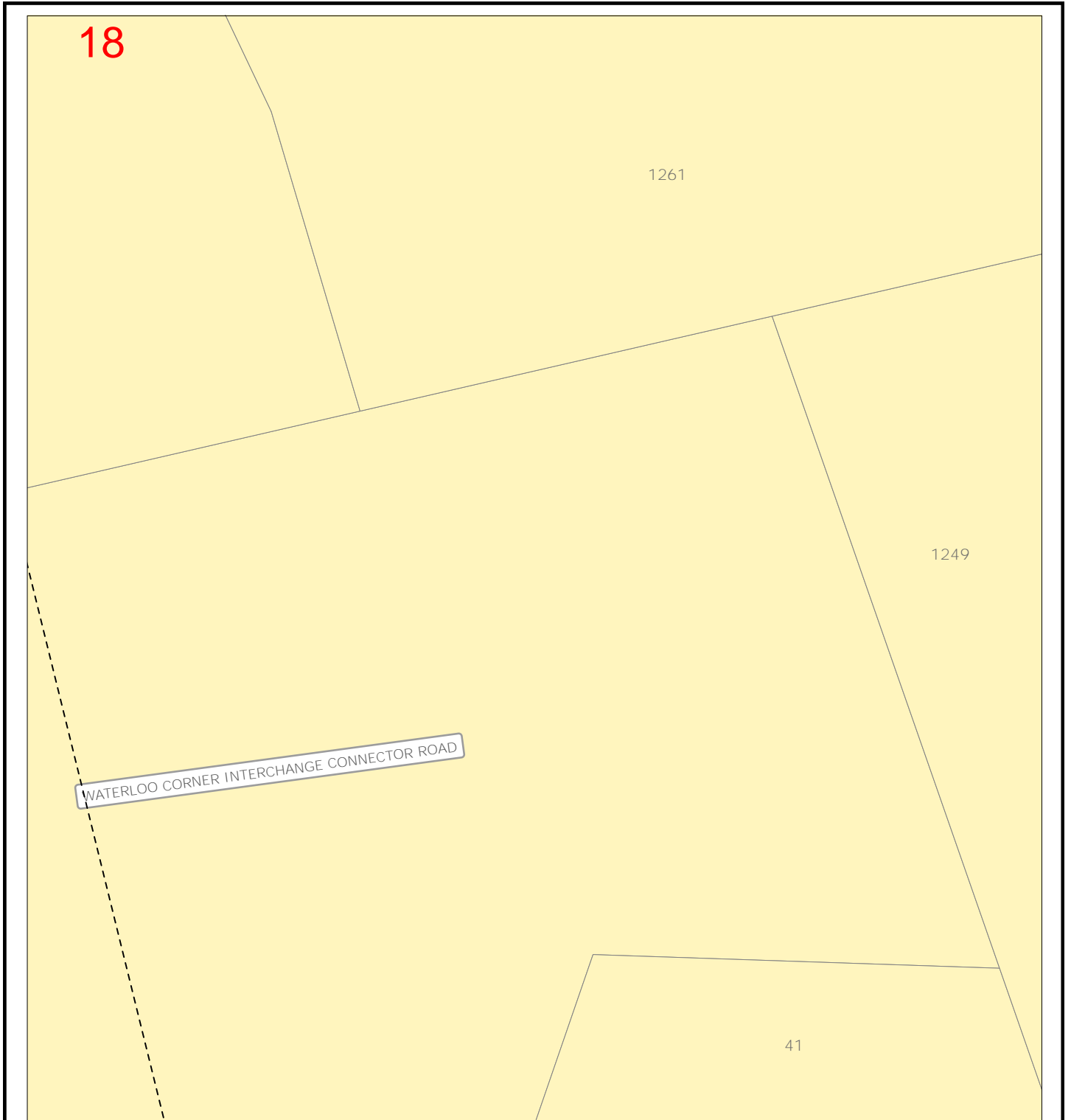
- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



0 0.009km



Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

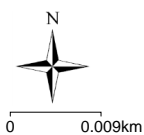
**LEGEND:**

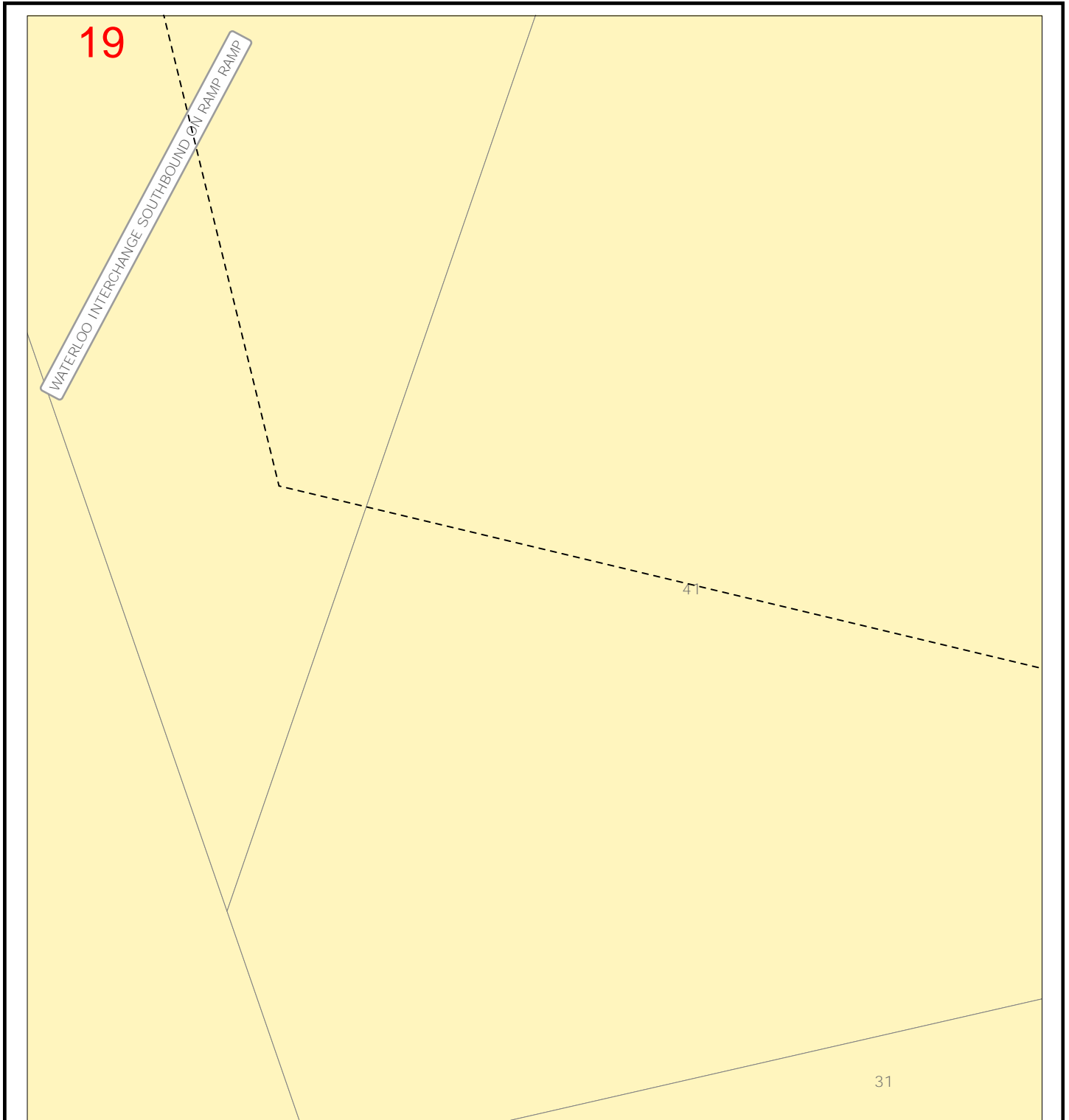
- Cable Exits**
- ▼ 66kV/132kV
  - ▼ 33kV
  - ▼ 19kV
  - ▼ 11kV
  - ▼ 7.6kV
  - ▼ Not In Service
  - ▼ Low Voltage

- Cables**
- 66kV/132kV
  - 33kV
  - 19kV
  - 11kV
  - 7.6kV
  - Not In Service
  - Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column

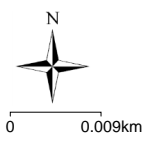




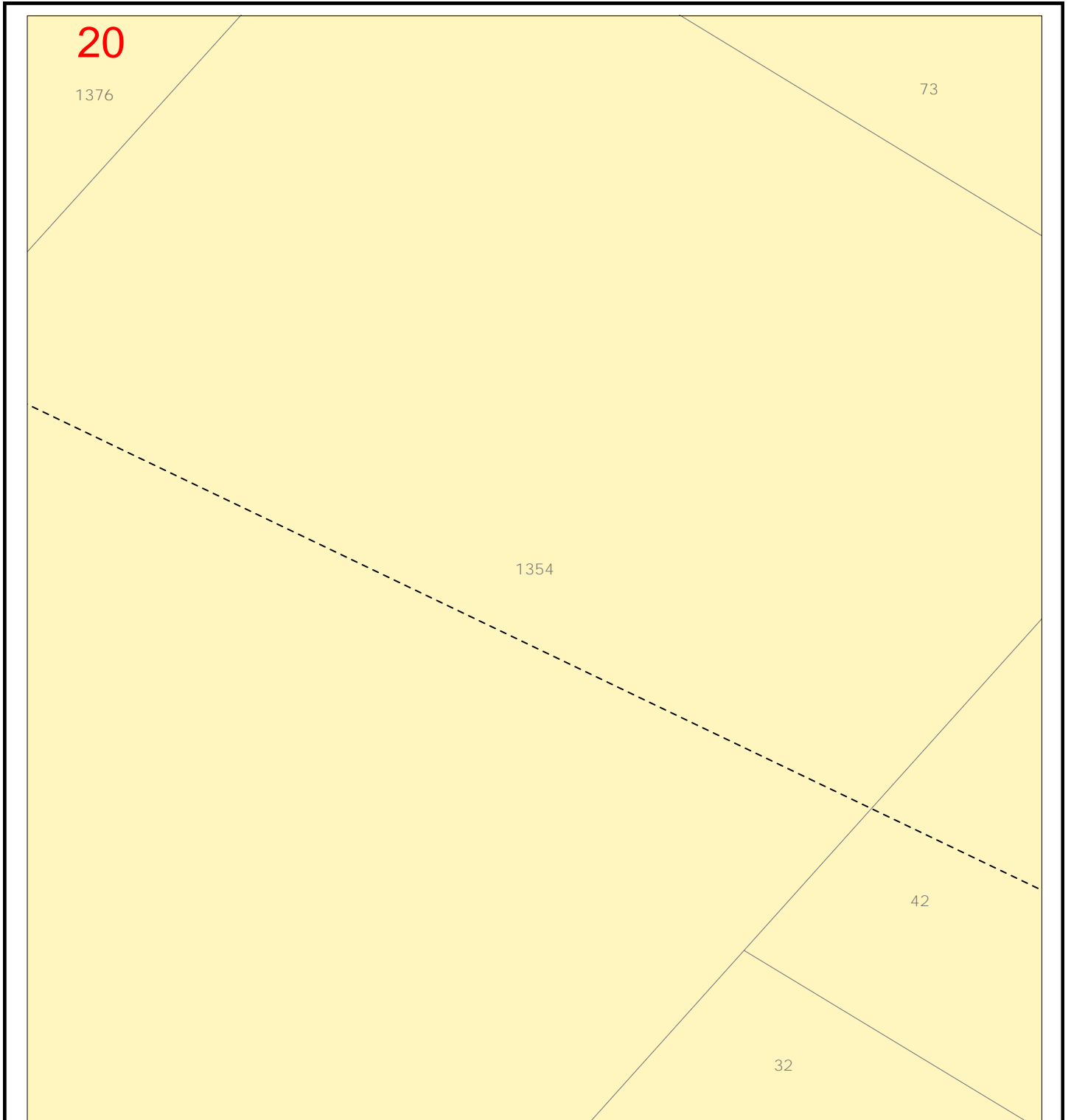
Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |







Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

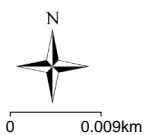
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

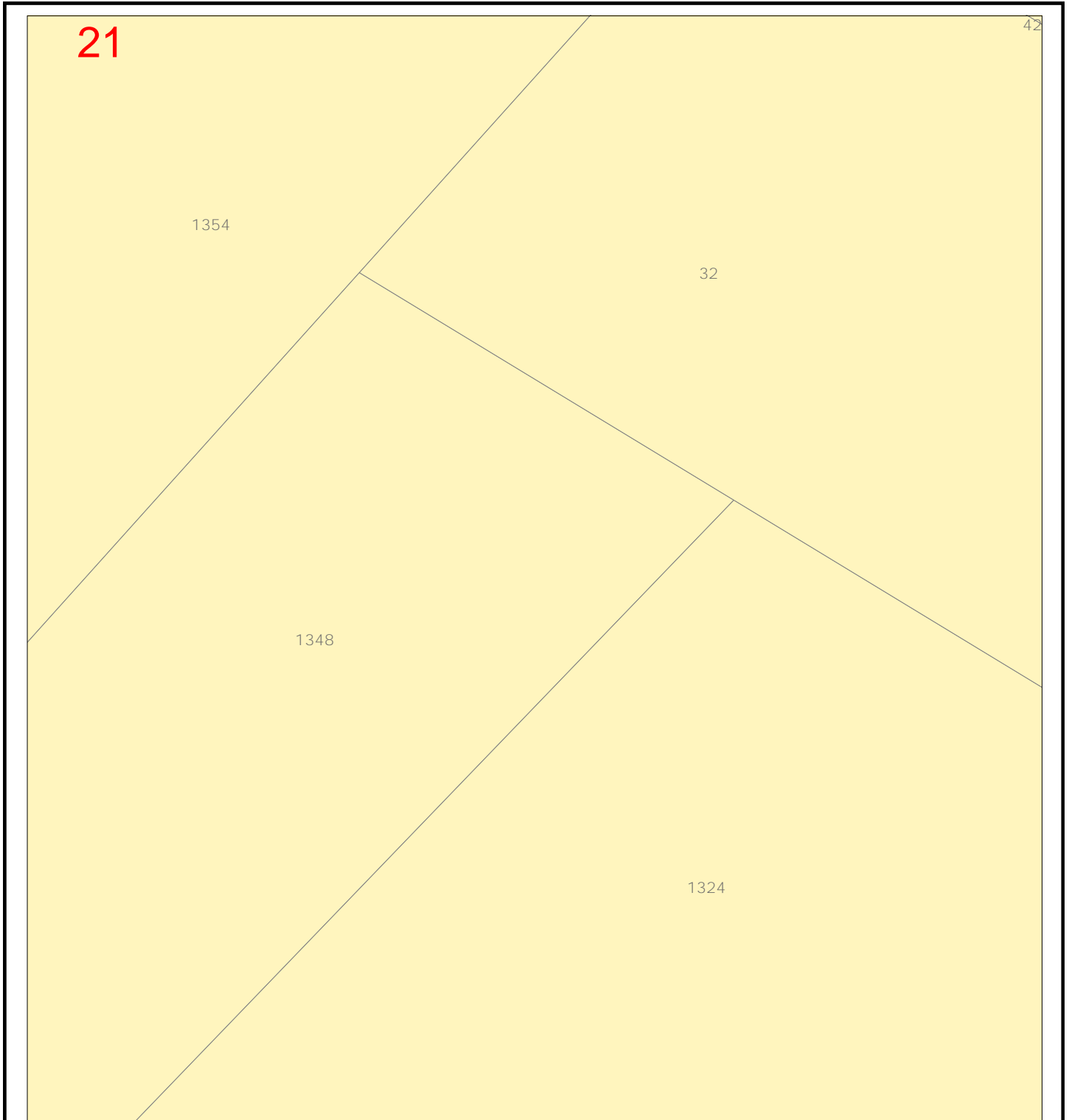
**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- ⊗ Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

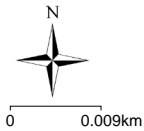
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

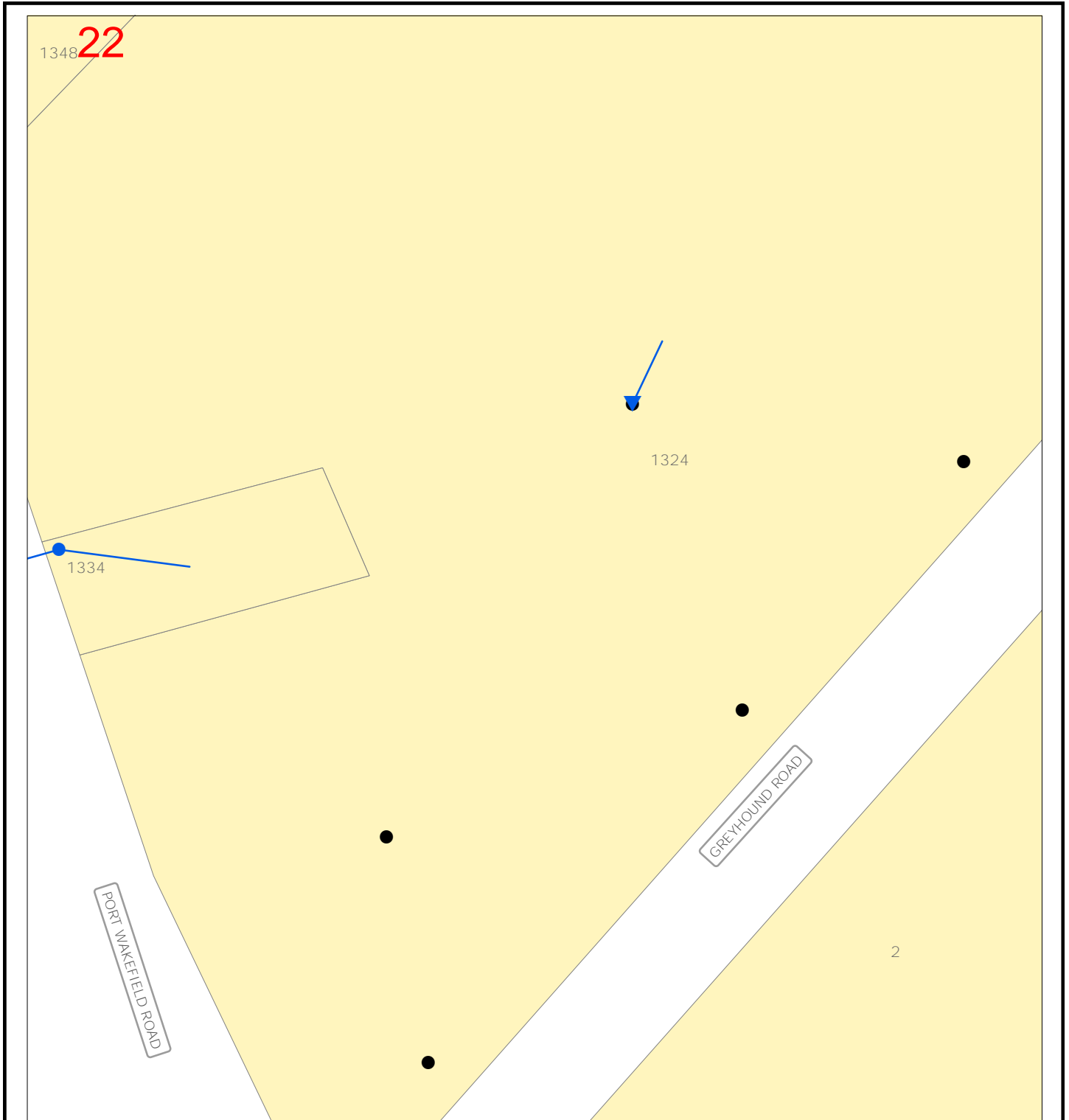
**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column

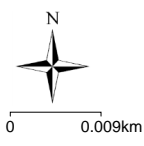


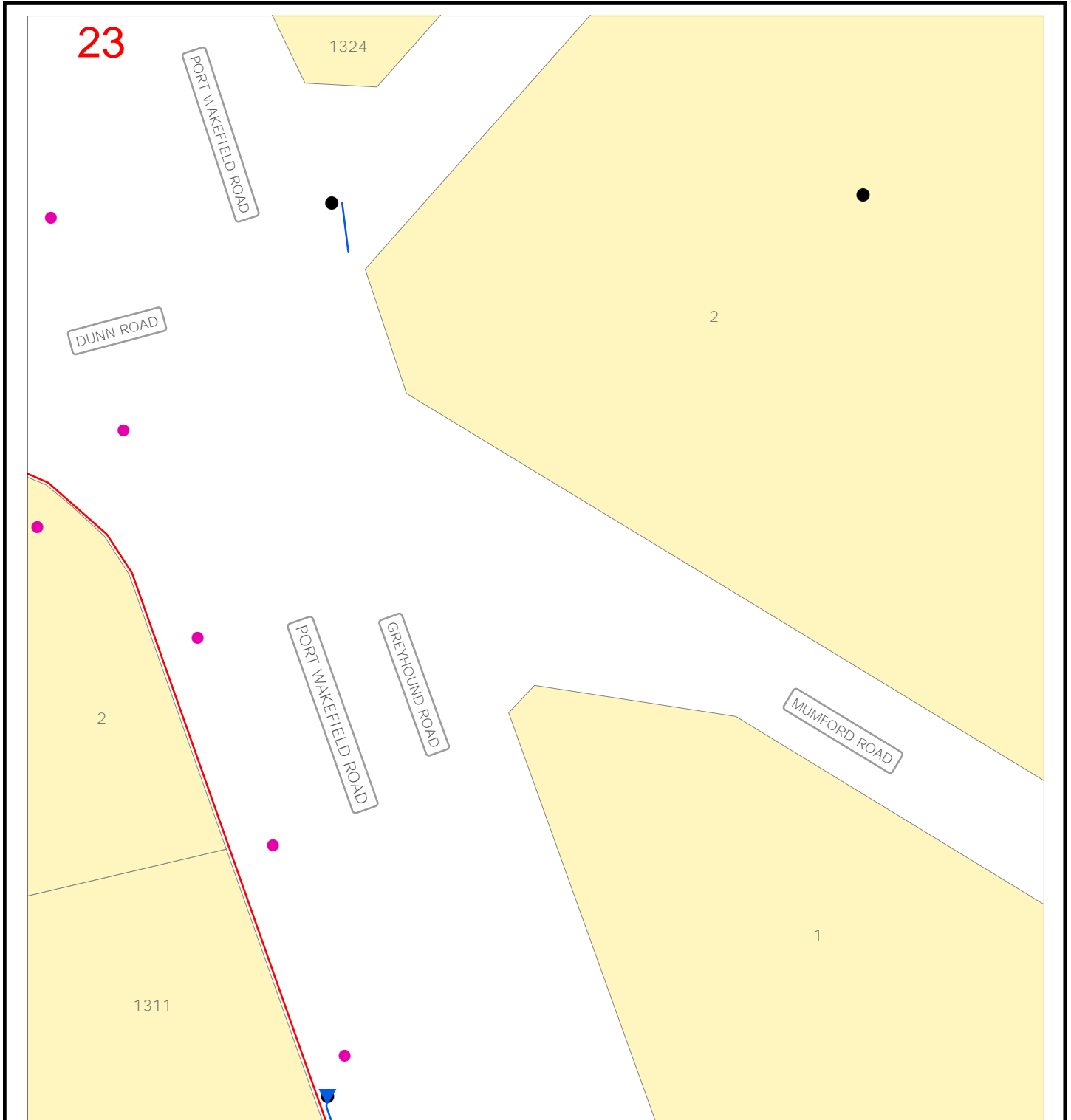


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                | Other Infrastructure |                          |
|-------------|----------------|--------|----------------|----------------------|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |                      | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |                      | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |                      | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |                      | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |                      | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |                      | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |                      | Earthing Grid            |
|             |                |        |                |                      | Fibre Optic Cable/Duct   |
|             |                |        |                |                      | Fibre Manhole/Pit        |
|             |                |        |                |                      | Pilot Cable              |
|             |                |        |                |                      | Pilot Manhole/Pit        |
|             |                |        |                |                      | Substation               |
|             |                |        |                |                      | Electricity Pole         |
|             |                |        |                |                      | Light Column             |

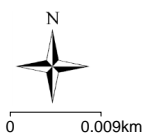


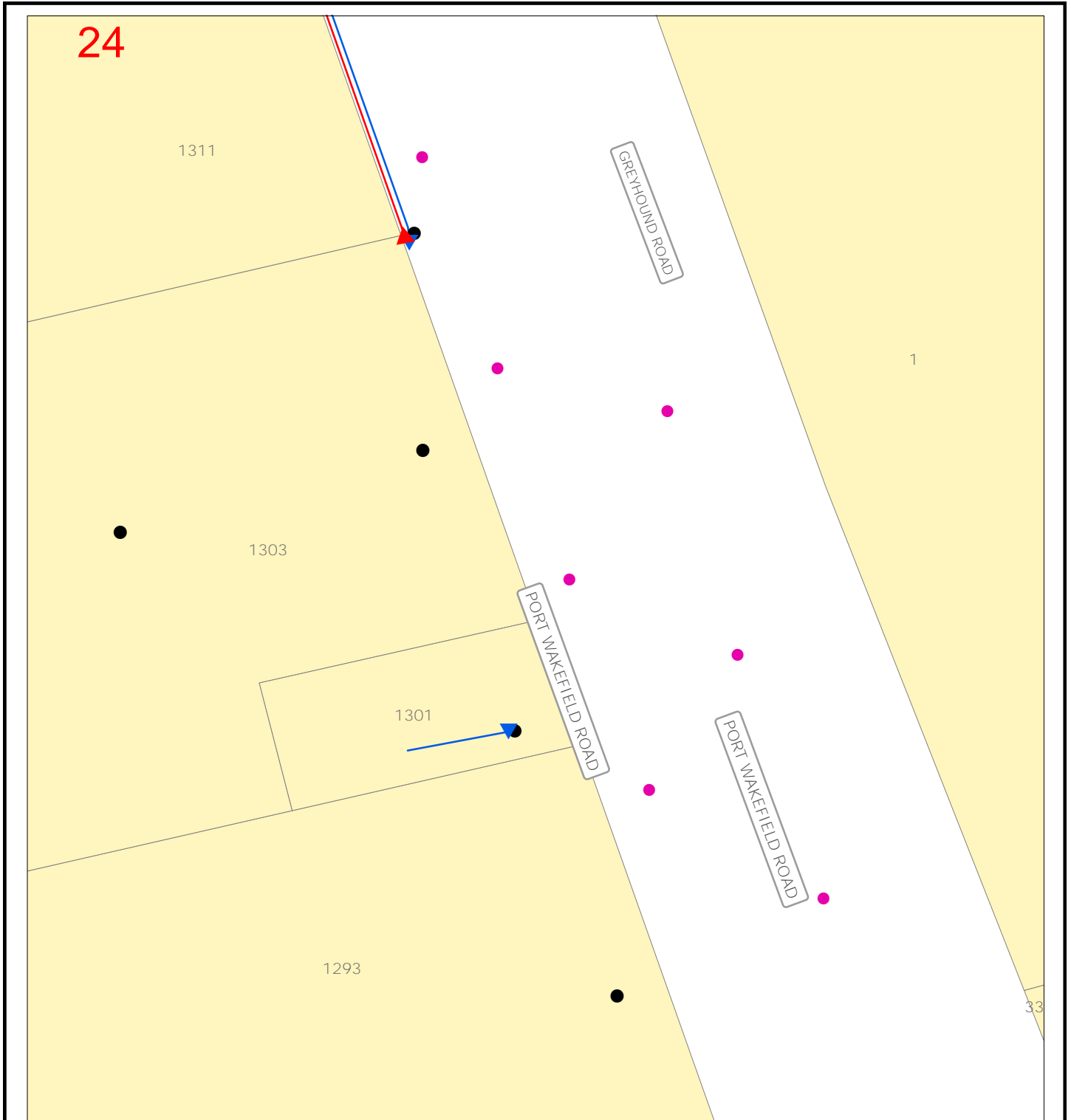


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                | Other |                          |
|-------------|----------------|--------|----------------|-------|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |       | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |       | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |       | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |       | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |       | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |       | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |       | Earthing Grid            |
|             |                |        |                |       | Fibre Optic Cable/Duct   |
|             |                |        |                |       | Fibre Manhole/Pit        |
|             |                |        |                |       | Pilot Cable              |
|             |                |        |                |       | Pilot Manhole/Pit        |
|             |                |        |                |       | Substation               |
|             |                |        |                |       | Electricity Pole         |
|             |                |        |                |       | Light Column             |

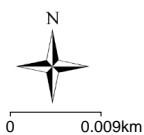


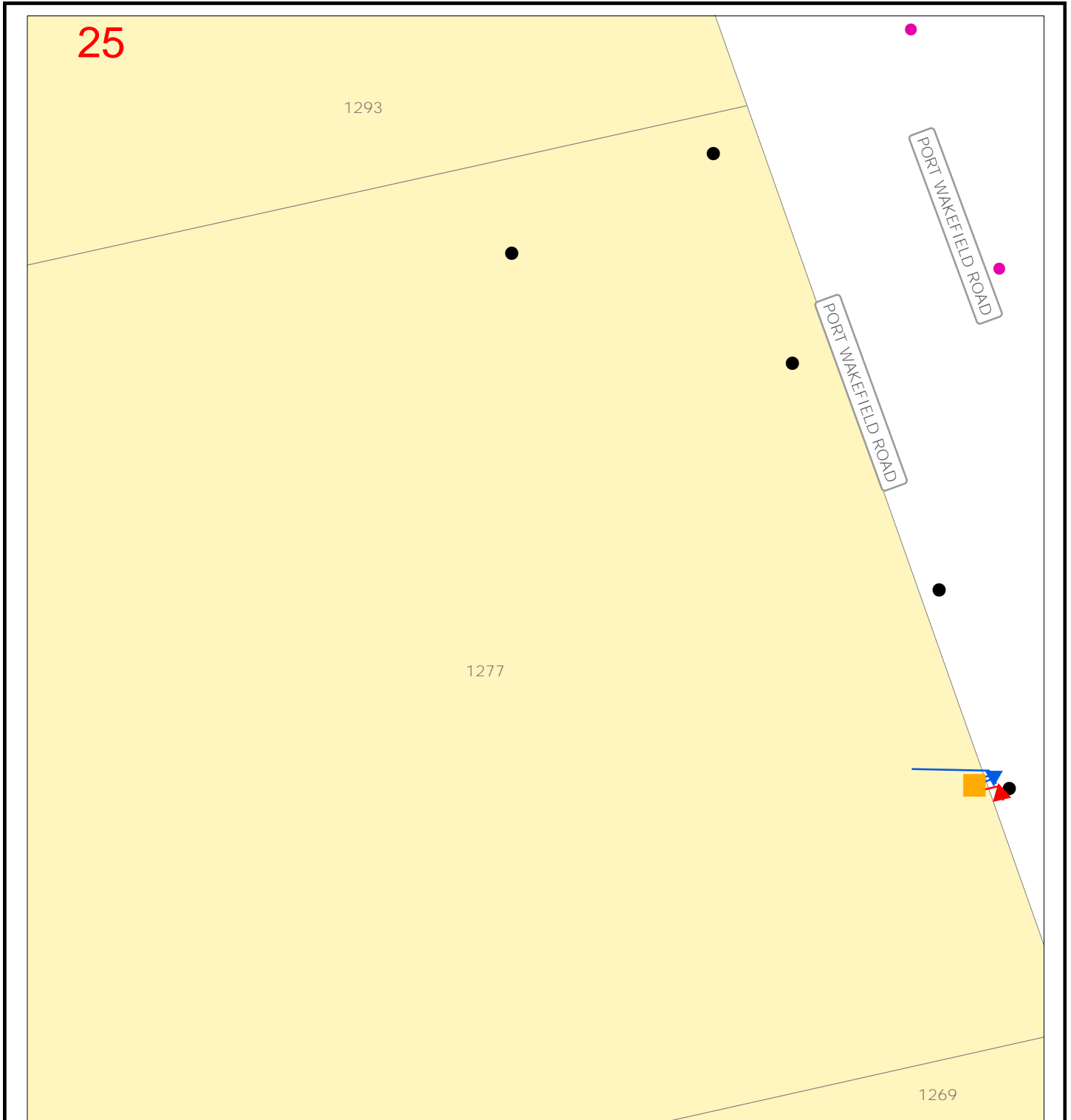


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                | DBYD Requested Area |  | Fibre Optic Cable/Duct |                   |
|-------------|----------------|--------|----------------|---------------------|--|------------------------|-------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |                     |  |                        | Fibre Manhole/Pit |
|             | 33kV           |        | 33kV           |                     |  |                        | Pilot Cable       |
|             | 19kV           |        | 19kV           |                     |  |                        | Pilot Manhole/Pit |
|             | 11kV           |        | 11kV           |                     |  |                        | Substation        |
|             | 7.6kV          |        | 7.6kV          |                     |  |                        | Electricity Pole  |
|             | Not In Service |        | Not In Service |                     |  |                        | Light Column      |
|             | Low Voltage    |        | Low Voltage    |                     |  |                        |                   |

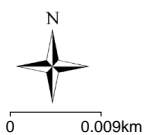


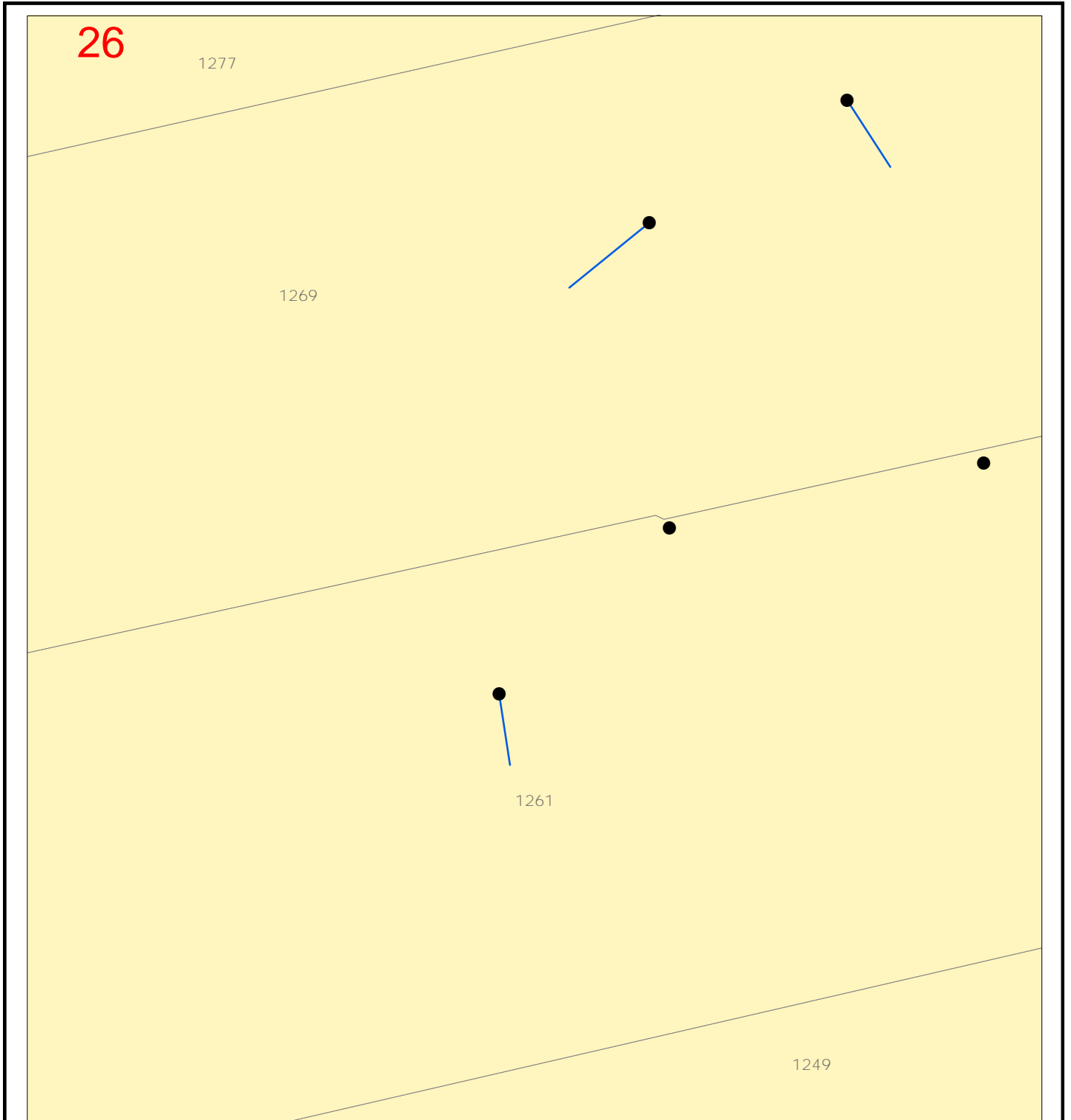


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                | Other Symbols |                          |
|-------------|----------------|--------|----------------|---------------|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |               | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |               | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |               | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |               | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |               | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |               | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |               | Earthing Grid            |
|             |                |        |                |               | Fibre Optic Cable/Duct   |
|             |                |        |                |               | Fibre Manhole/Pit        |
|             |                |        |                |               | Pilot Cable              |
|             |                |        |                |               | Pilot Manhole/Pit        |
|             |                |        |                |               | Substation               |
|             |                |        |                |               | Electricity Pole         |
|             |                |        |                |               | Light Column             |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

**Cables**

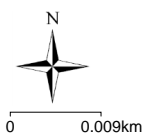
- ↯ 66kV/132kV
- ↯ 33kV
- ↯ 19kV
- ↯ 11kV
- ↯ 7.6kV
- ↯ Not In Service
- ↯ Low Voltage

▭ DBYD Requested Area

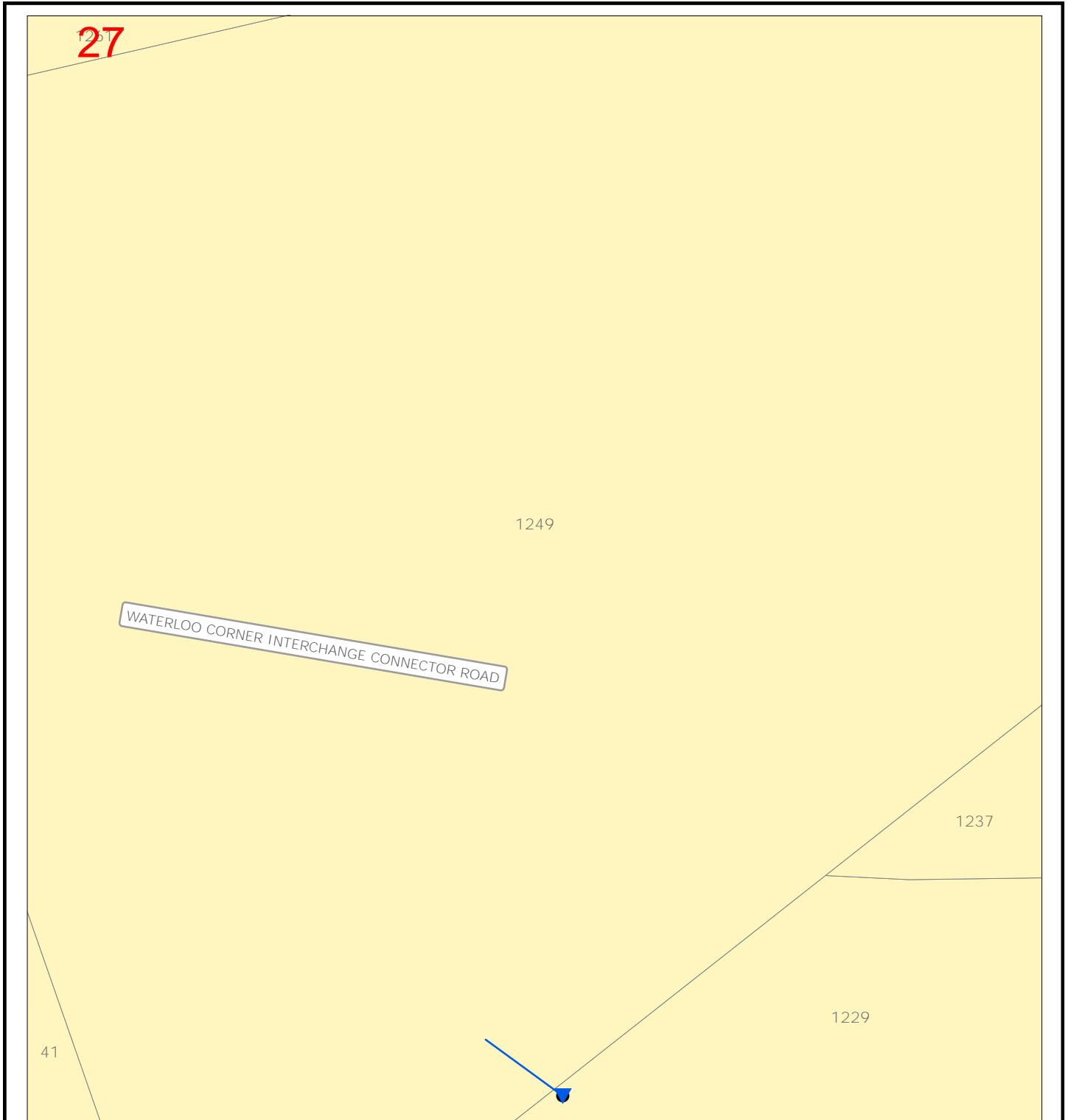
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- ⊗ Earthing Grid

↯ Fibre Optic Cable/Duct

- Fibre Manhole/Pit
- ↯ Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



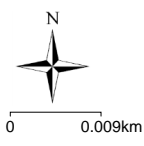


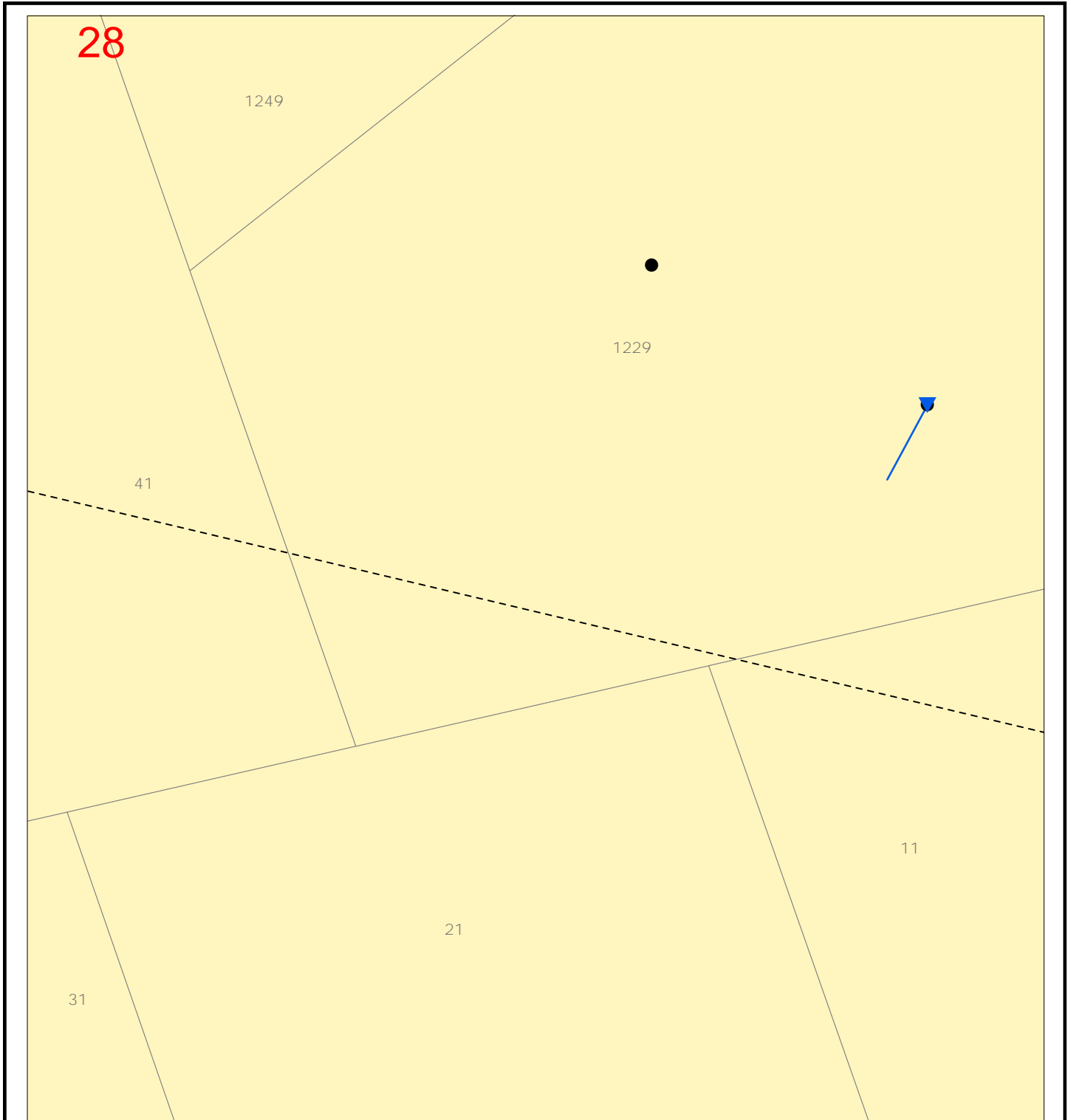


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

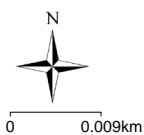
**LEGEND:**

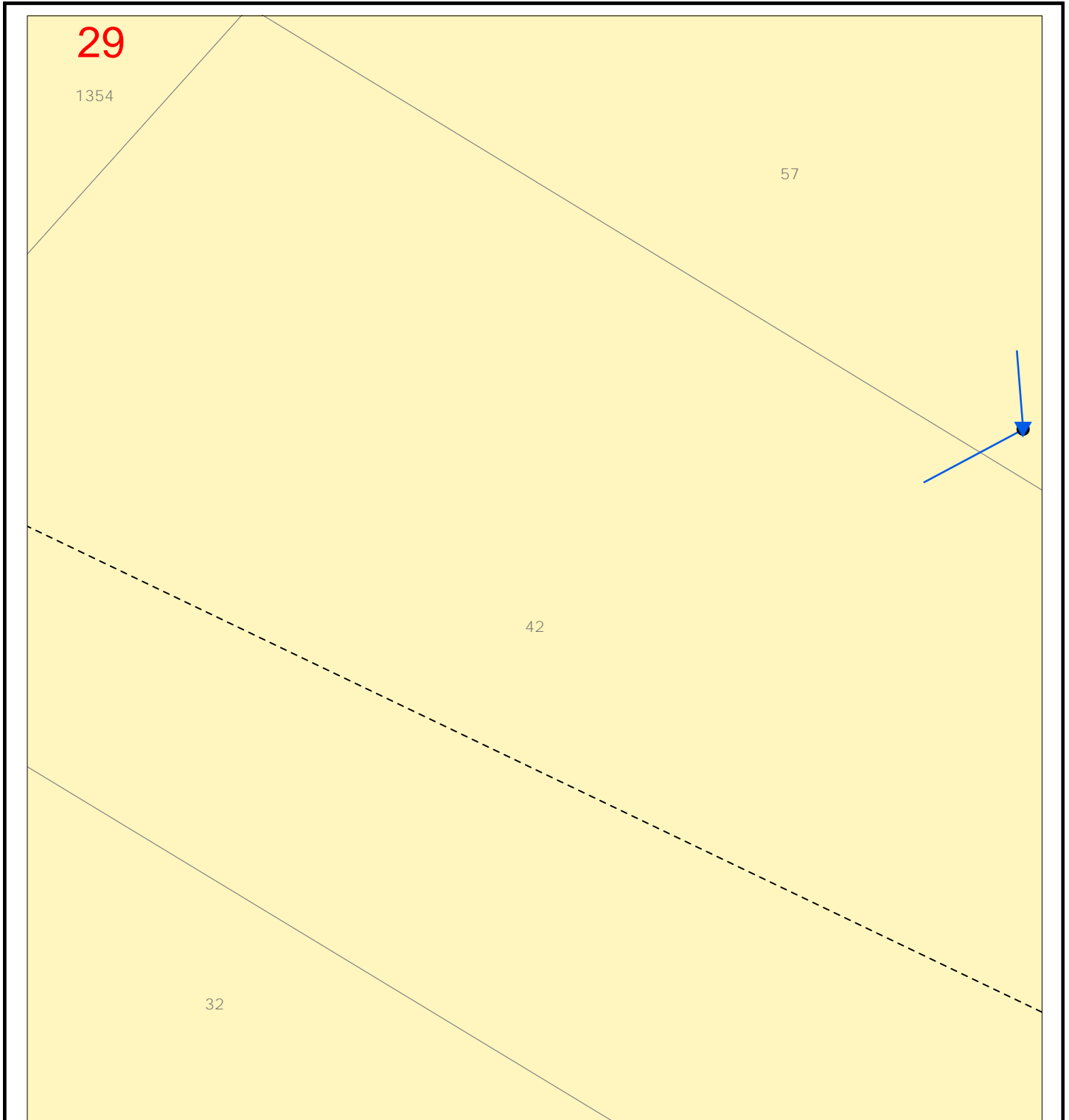
- Cable Exits**
- ▼ 66kV/132kV
  - ▼ 33kV
  - ▼ 19kV
  - ▼ 11kV
  - ▼ 7.6kV
  - ▼ Not In Service
  - ▼ Low Voltage

- Cables**
- 66kV/132kV
  - 33kV
  - 19kV
  - 11kV
  - 7.6kV
  - Not In Service
  - Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column

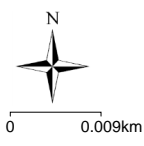


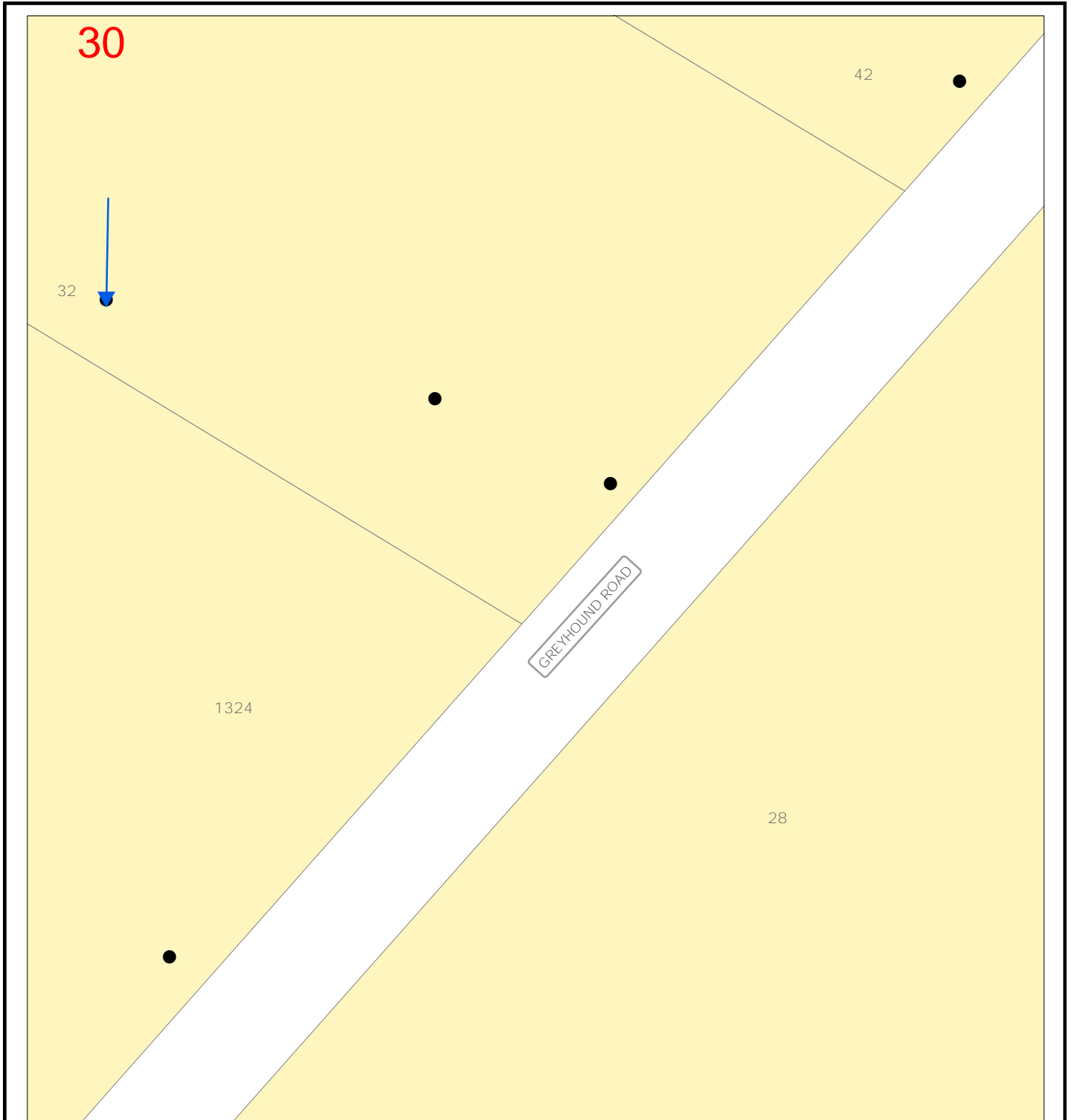


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |

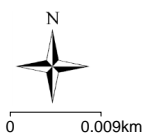




Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

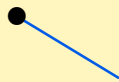
| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |



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28

2



Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

DBYD Requested Area

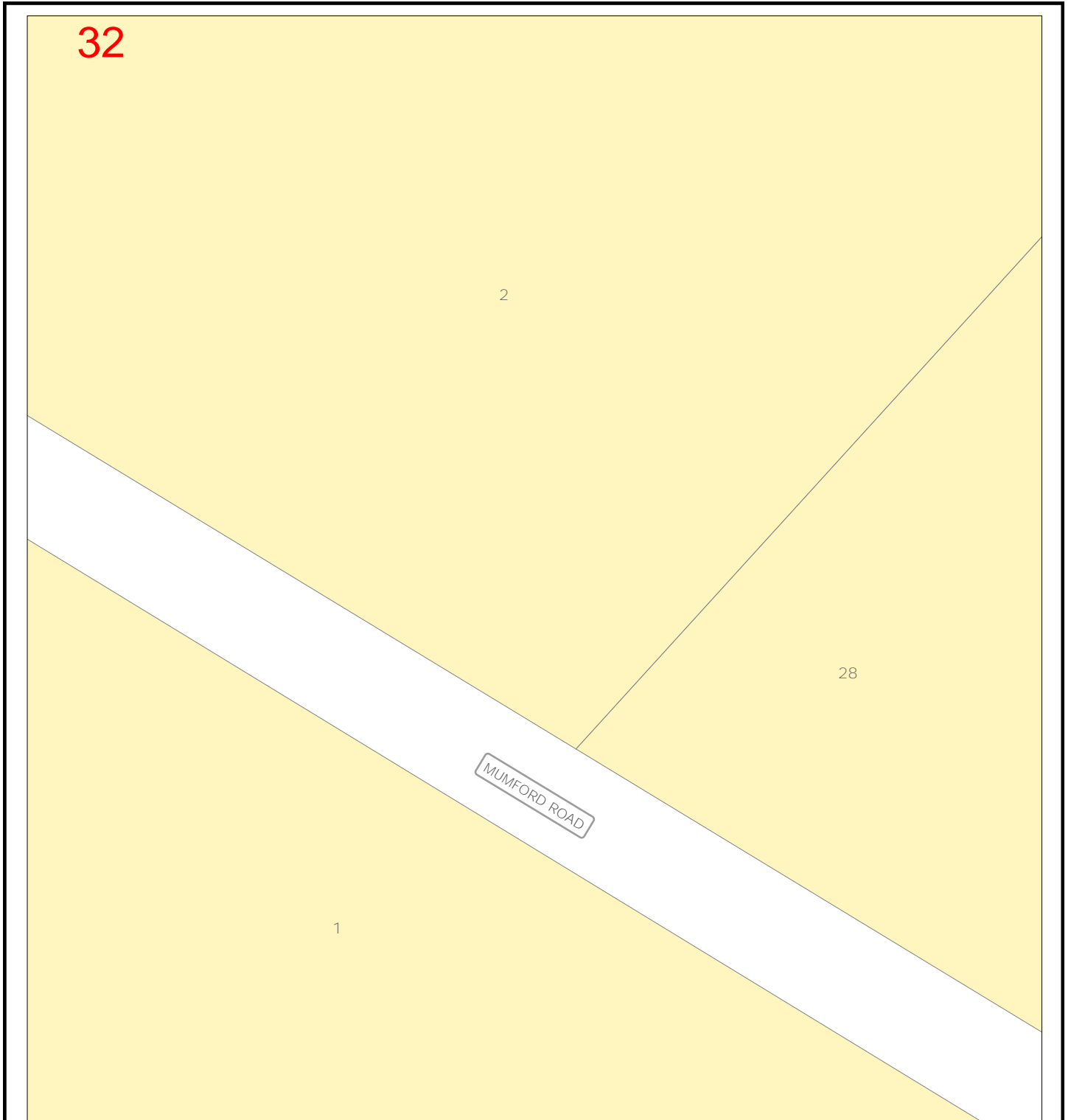
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

Fibre Optic Cable/Duct

- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



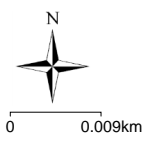
0 0.009km

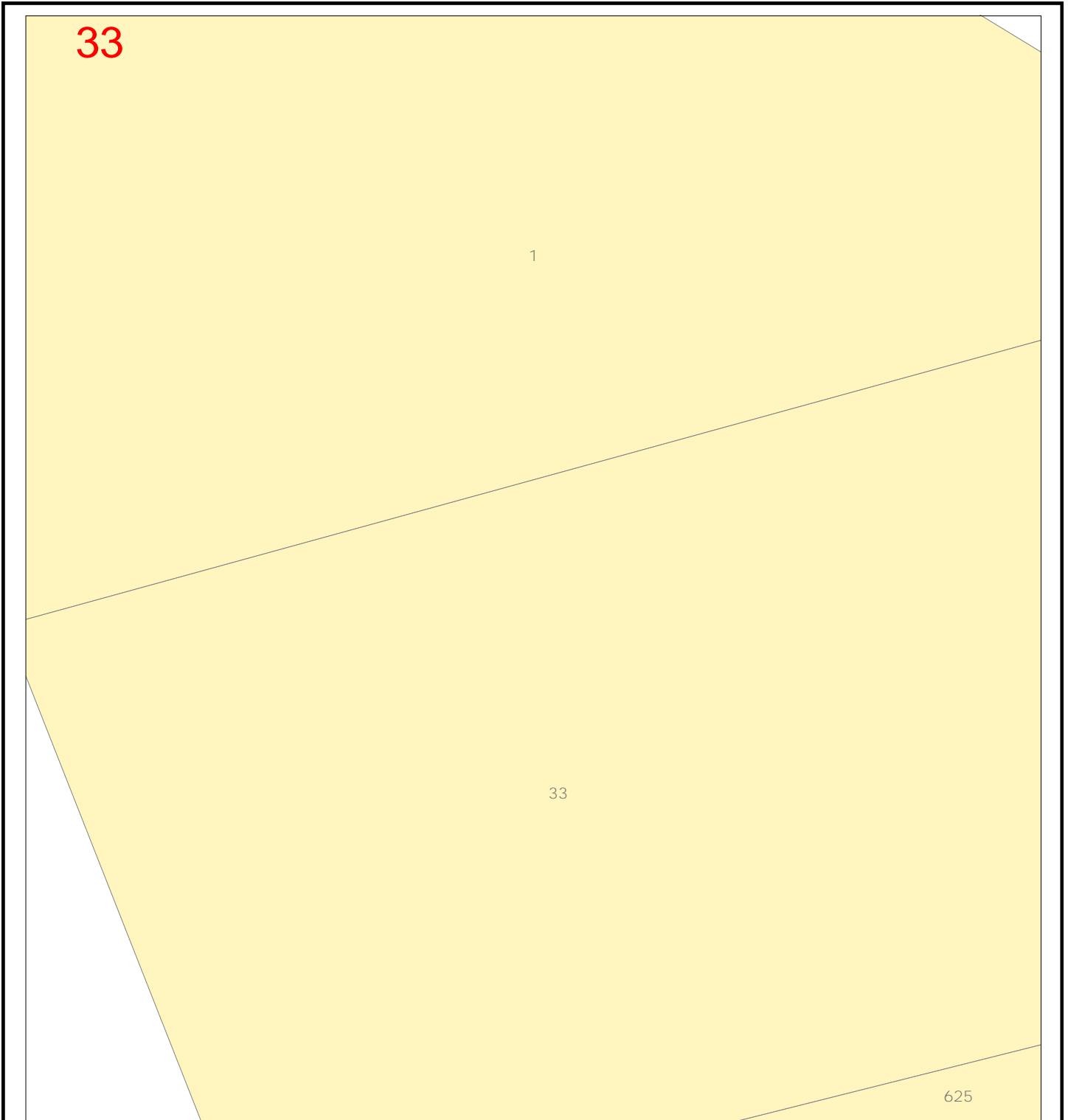


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

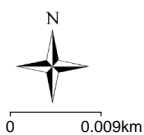
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

**Cables**

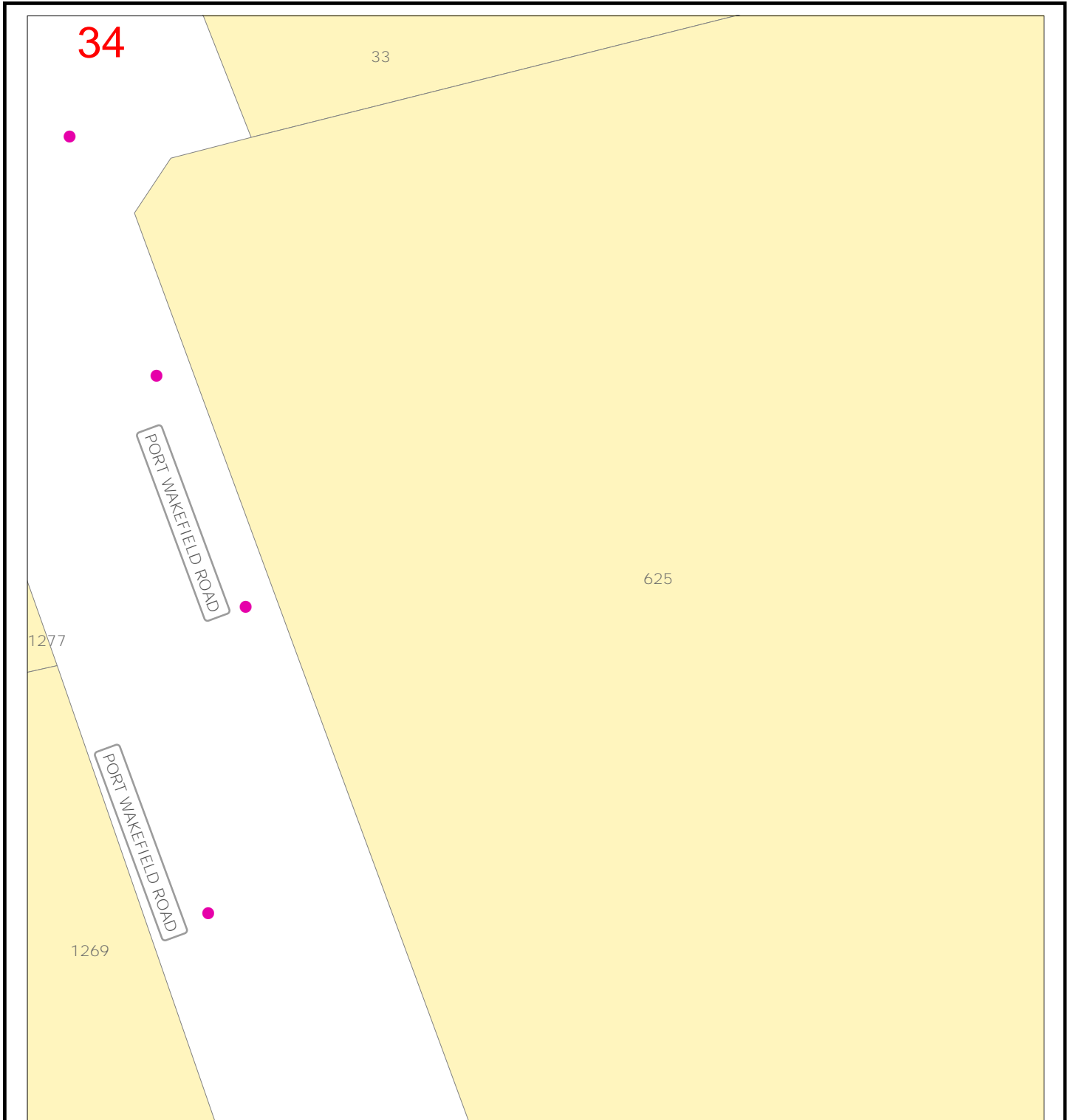
- ↗ 66kV/132kV
- ↗ 33kV
- ↗ 19kV
- ↗ 11kV
- ↗ 7.6kV
- ↗ Not In Service
- ↗ Low Voltage

- ▭ DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- ⊗ Earthing Grid

- ↗ Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- ↗ Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



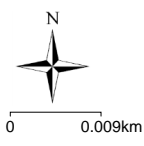


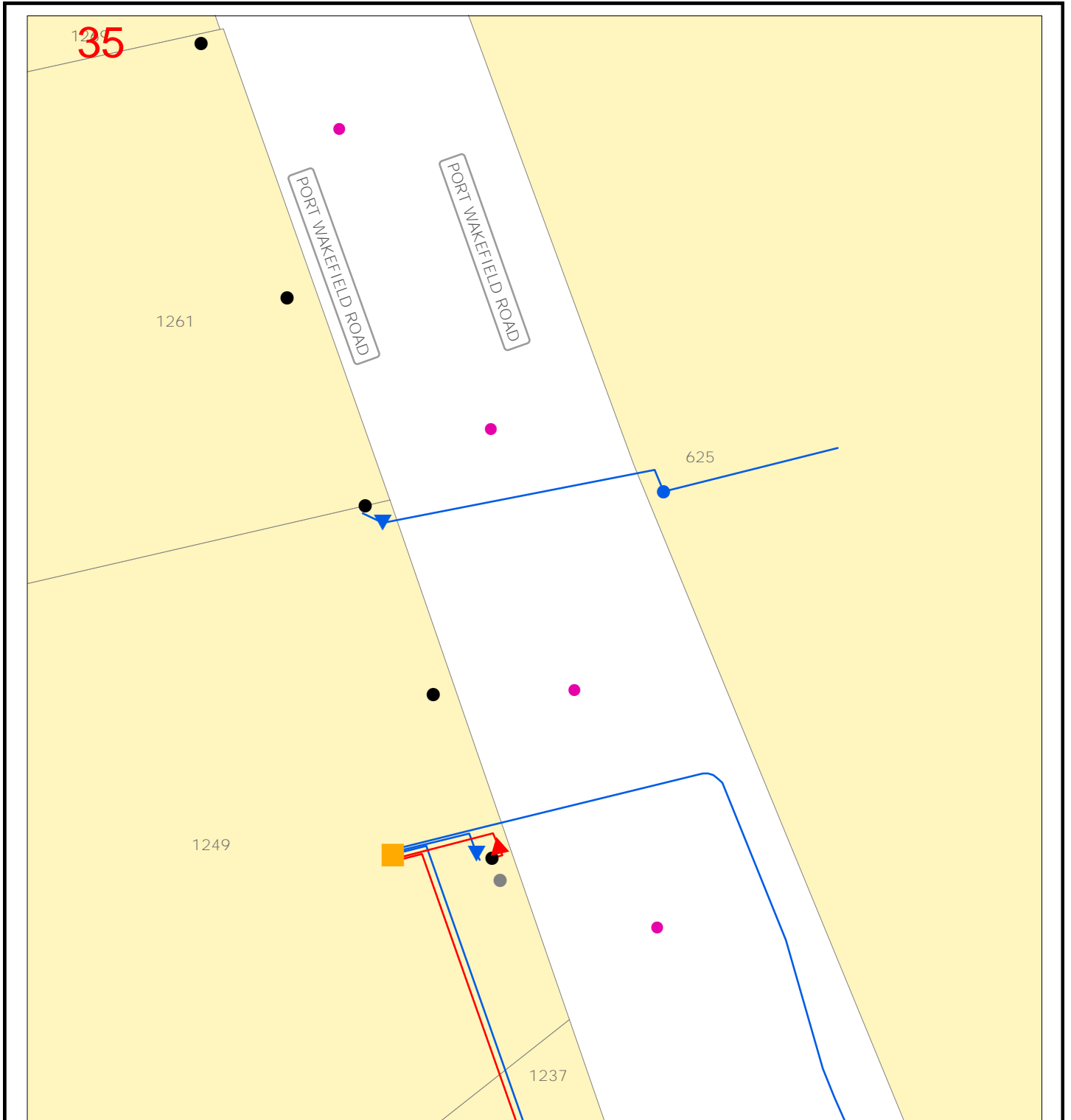


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |

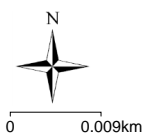


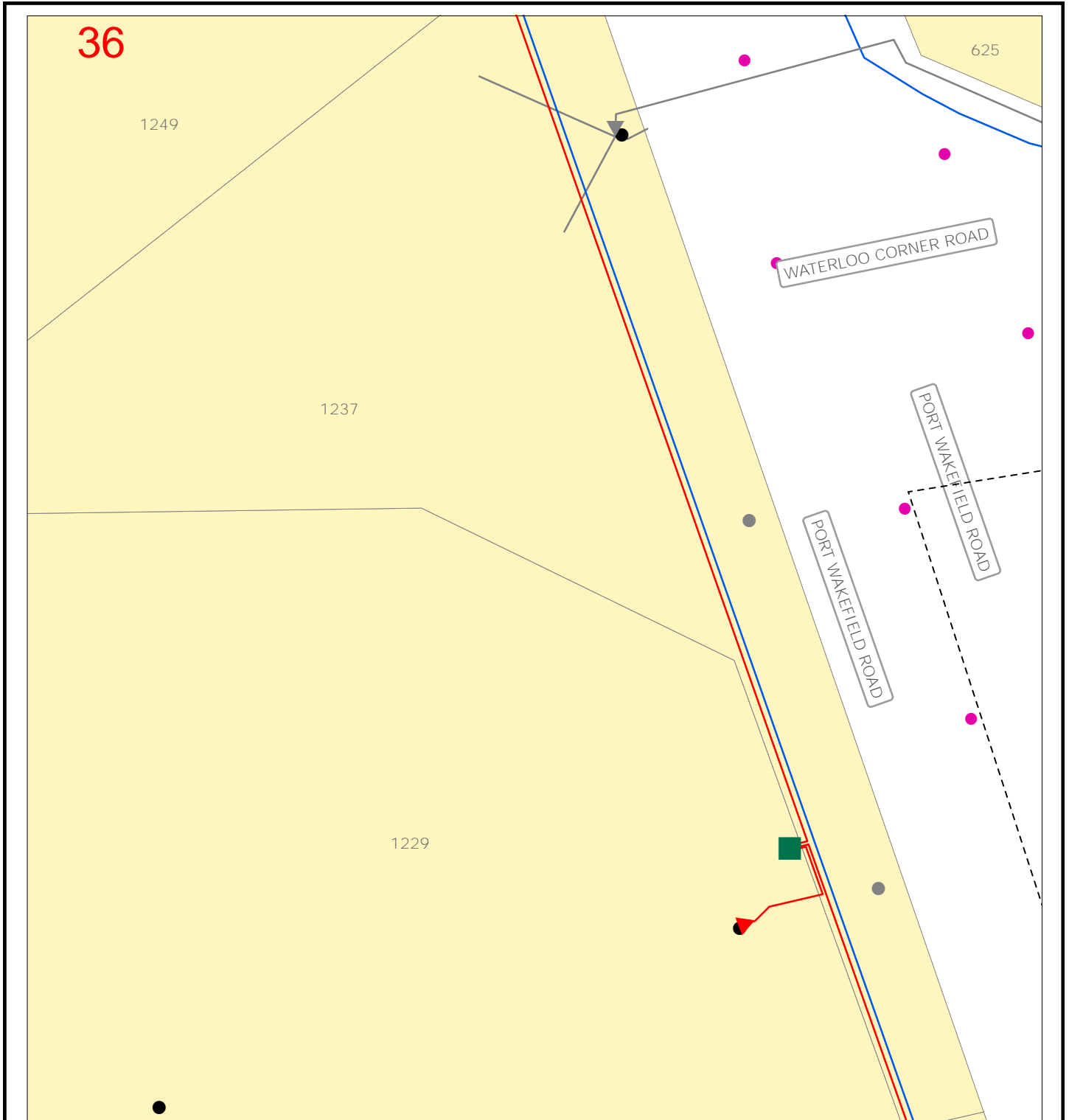


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                | Other Infrastructure |                          |
|-------------|----------------|--------|----------------|----------------------|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |                      | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |                      | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |                      | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |                      | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |                      | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |                      | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |                      | Earthing Grid            |
|             |                |        |                |                      | Fibre Optic Cable/Duct   |
|             |                |        |                |                      | Fibre Manhole/Pit        |
|             |                |        |                |                      | Pilot Cable              |
|             |                |        |                |                      | Pilot Manhole/Pit        |
|             |                |        |                |                      | Substation               |
|             |                |        |                |                      | Electricity Pole         |
|             |                |        |                |                      | Light Column             |

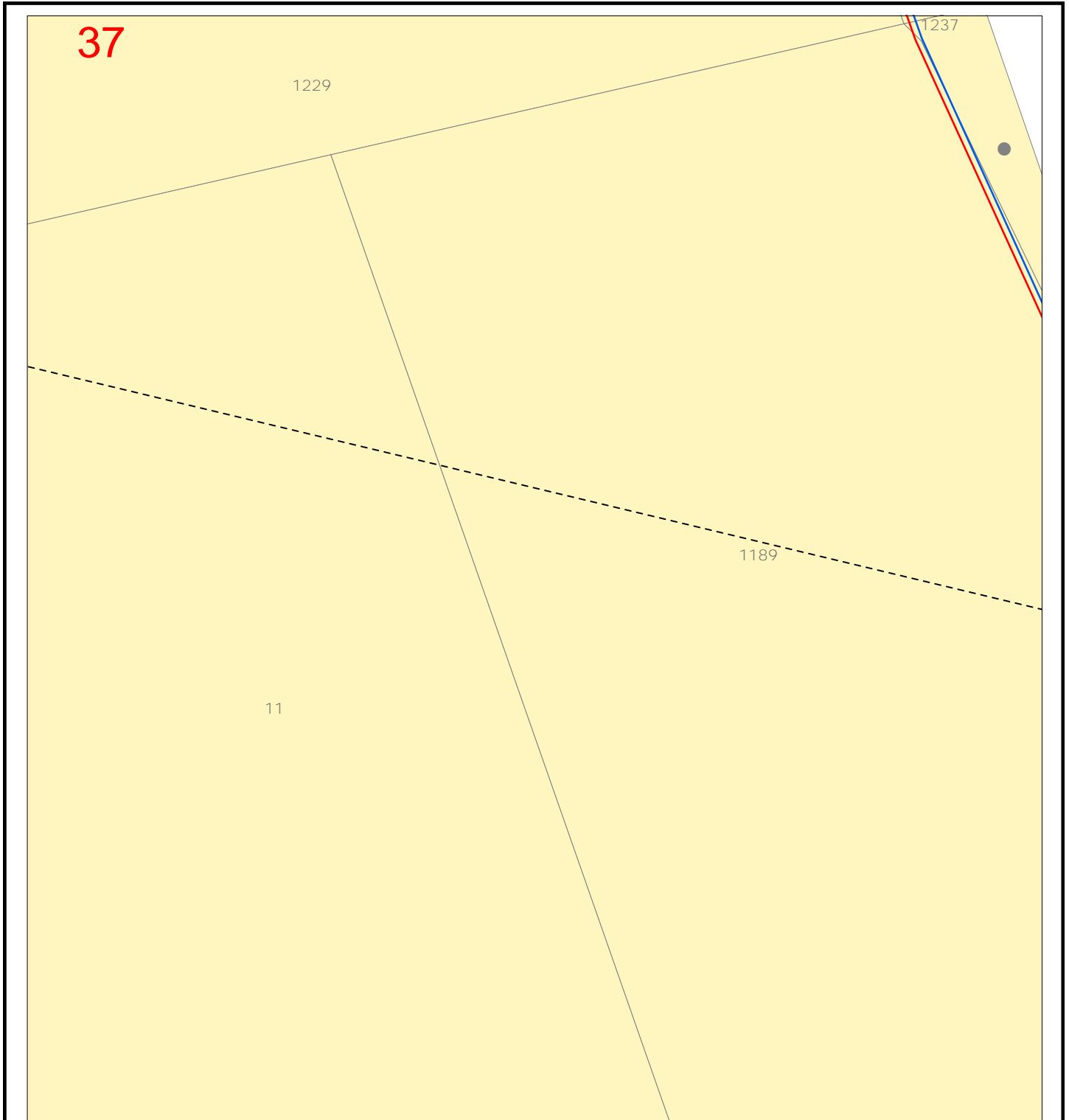




Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

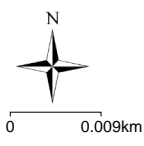
| Cable Exits |                | Cables |                | Other Symbols |                          |
|-------------|----------------|--------|----------------|---------------|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |               | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |               | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |               | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |               | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |               | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |               | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |               | Earthing Grid            |
|             |                |        |                |               | Fibre Optic Cable/Duct   |
|             |                |        |                |               | Fibre Manhole/Pit        |
|             |                |        |                |               | Pilot Cable              |
|             |                |        |                |               | Pilot Manhole/Pit        |
|             |                |        |                |               | Substation               |
|             |                |        |                |               | Electricity Pole         |
|             |                |        |                |               | Light Column             |

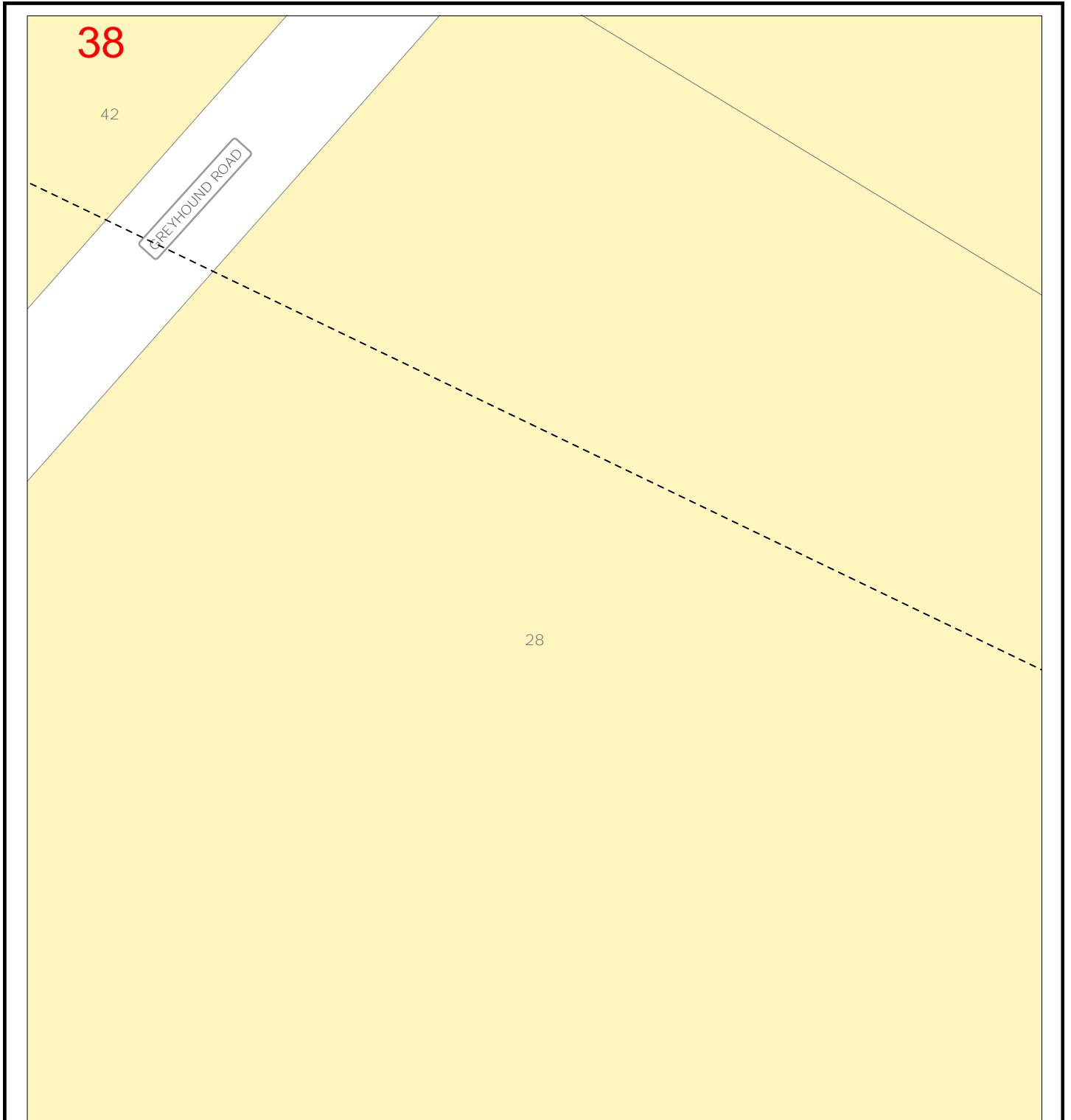


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

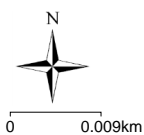
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



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28

2

Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

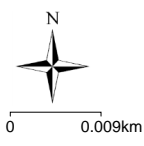
- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

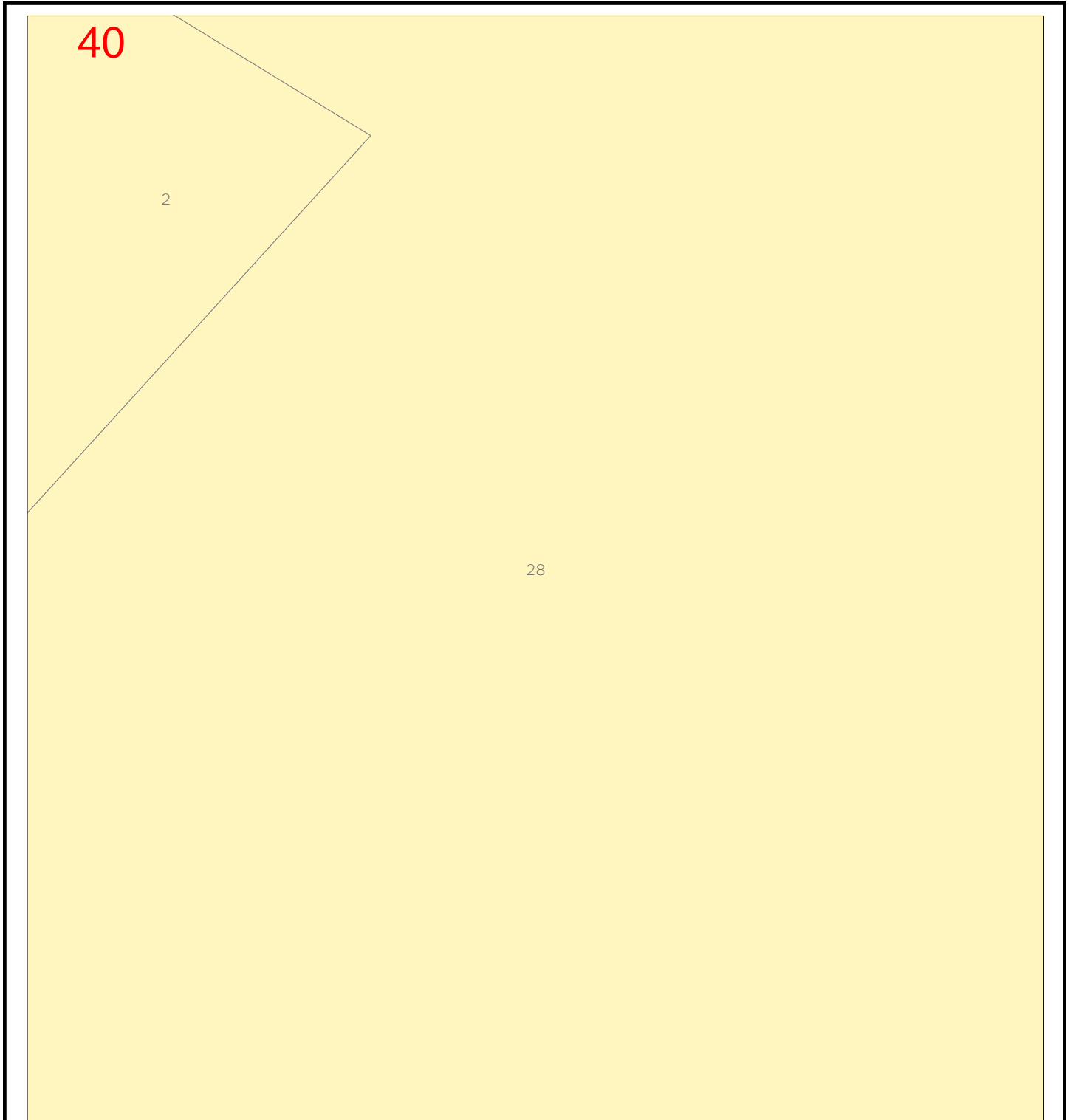
**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



















Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

-  66kV/132kV
-  33kV
-  19kV
-  11kV
-  7.6kV
-  Not In Service
-  Low Voltage

**Cables**

-  66kV/132kV
-  33kV
-  19kV
-  11kV
-  7.6kV
-  Not In Service
-  Low Voltage



DBYD Requested Area



HV Switching Cubicle



Transformer Cubicle



Cable Joint Bay



LV Switching Cubicle/Pit



Service Pit/Pillar



Earthing Grid



Fibre Optic Cable/Duct



Fibre Manhole/Pit



Pilot Cable



Pilot Manhole/Pit



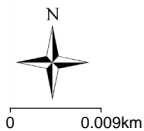
Substation



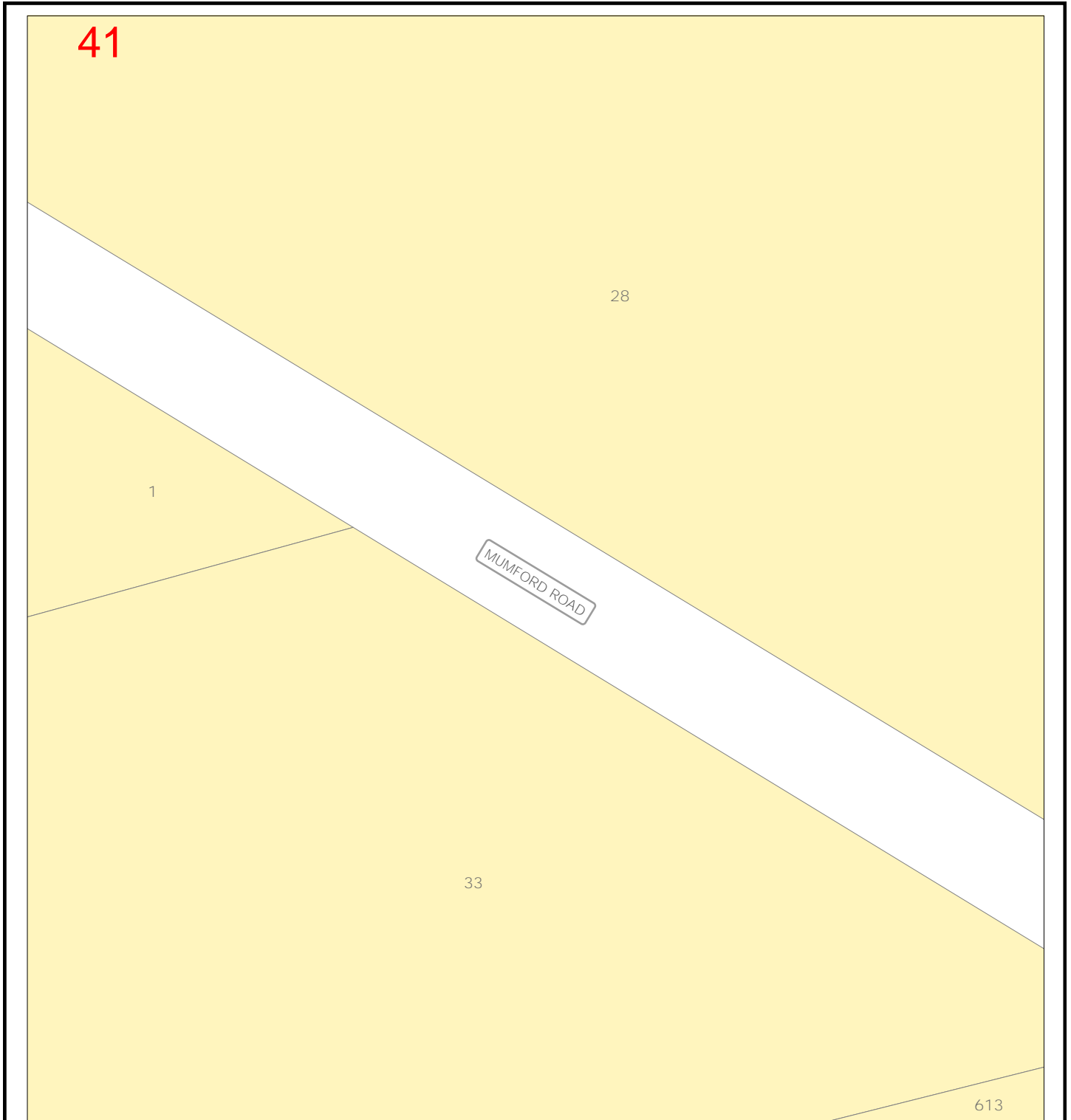
Electricity Pole



Light Column



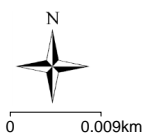


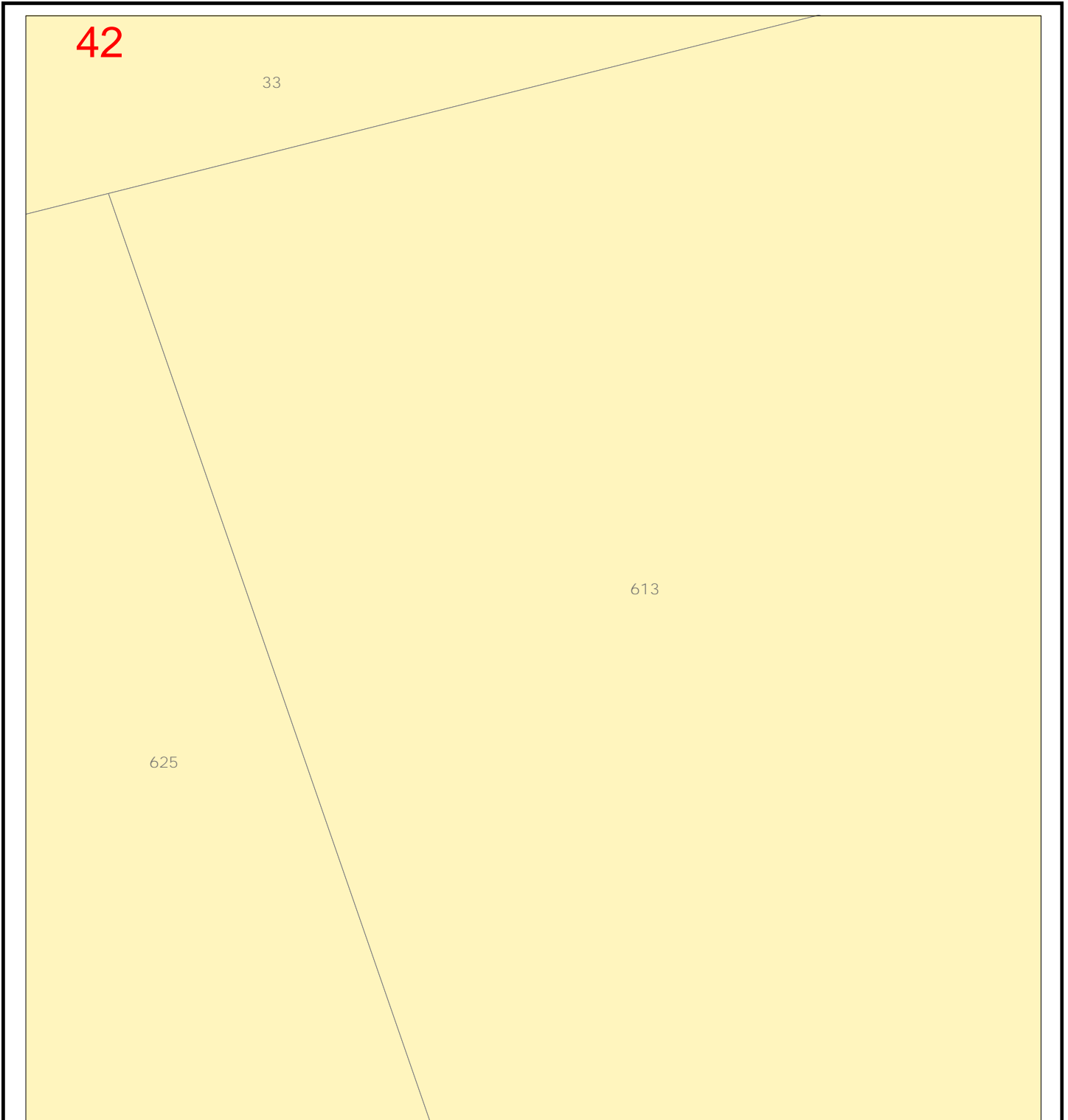


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

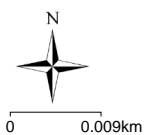
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

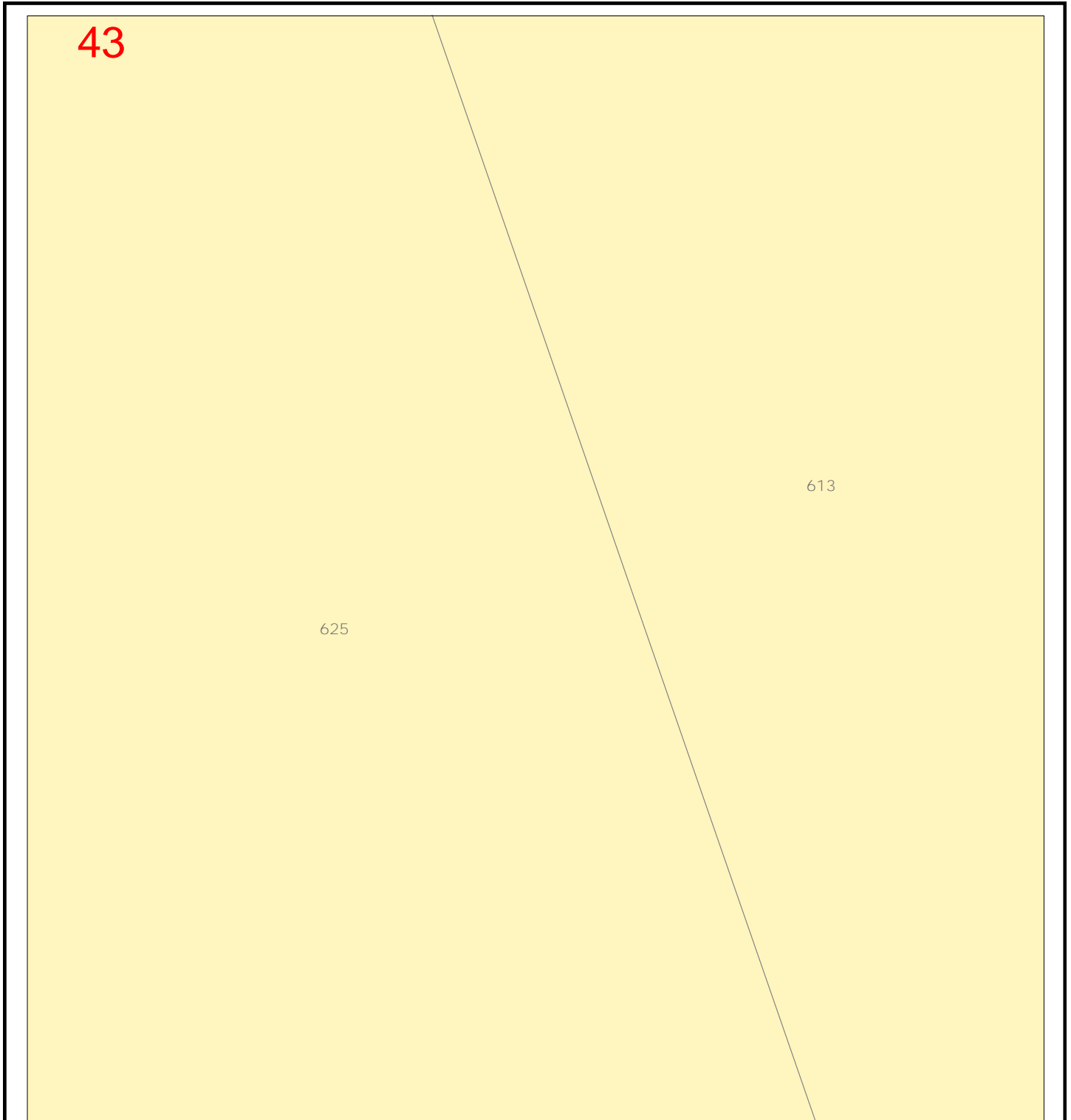
**Cables**

- ↯ 66kV/132kV
- ↯ 33kV
- ↯ 19kV
- ↯ 11kV
- ↯ 7.6kV
- ↯ Not In Service
- ↯ Low Voltage

- ▭ DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- ⊗ Earthing Grid

- ↯ Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- ↯ Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

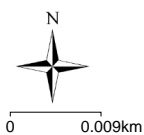
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

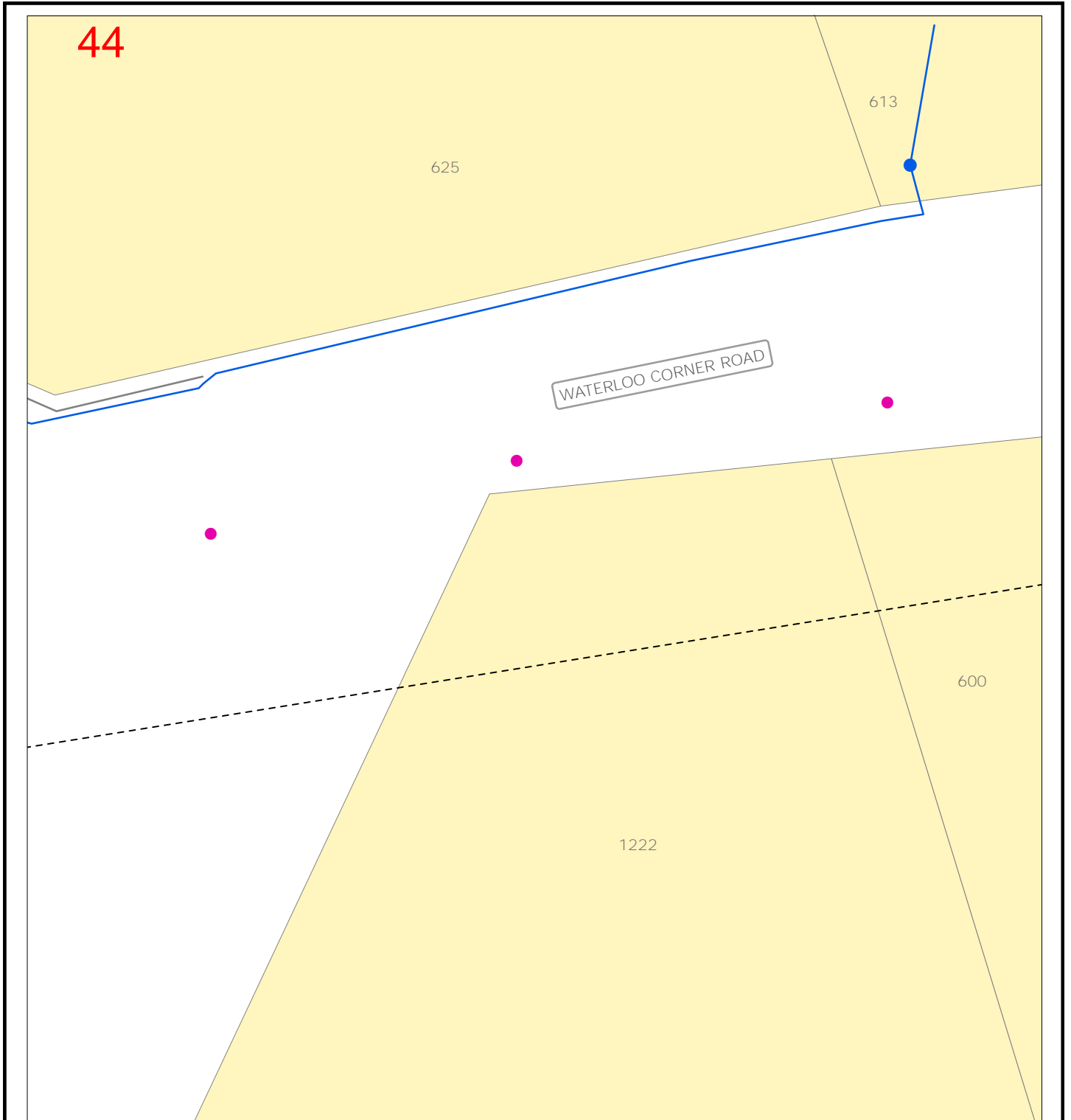
**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column

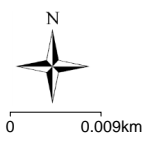


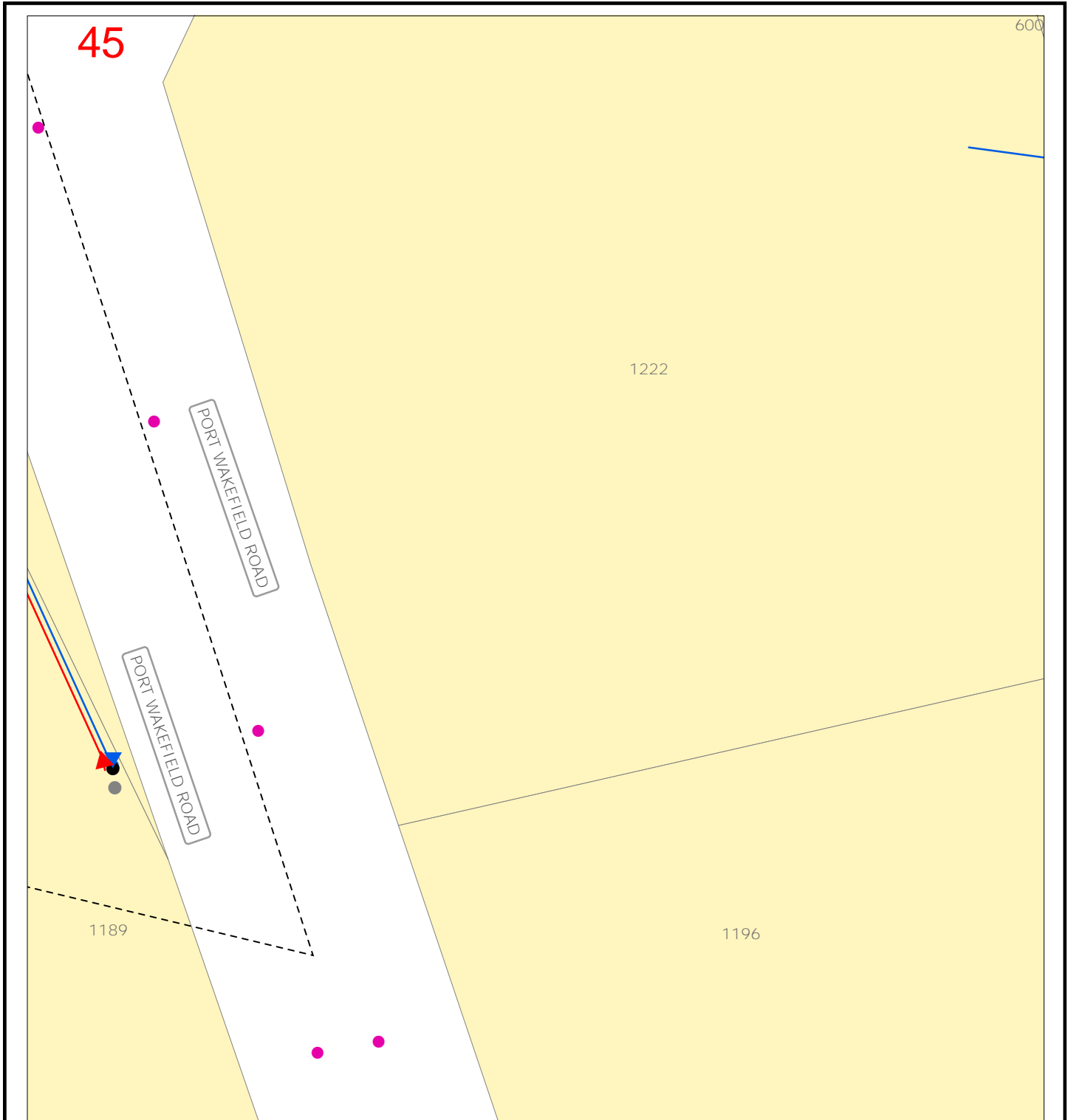


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                | Other Symbols |                          |
|-------------|----------------|--------|----------------|---------------|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |               | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |               | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |               | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |               | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |               | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |               | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |               | Earthing Grid            |
|             |                |        |                |               | Fibre Optic Cable/Duct   |
|             |                |        |                |               | Fibre Manhole/Pit        |
|             |                |        |                |               | Pilot Cable              |
|             |                |        |                |               | Pilot Manhole/Pit        |
|             |                |        |                |               | Substation               |
|             |                |        |                |               | Electricity Pole         |
|             |                |        |                |               | Light Column             |

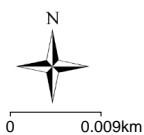


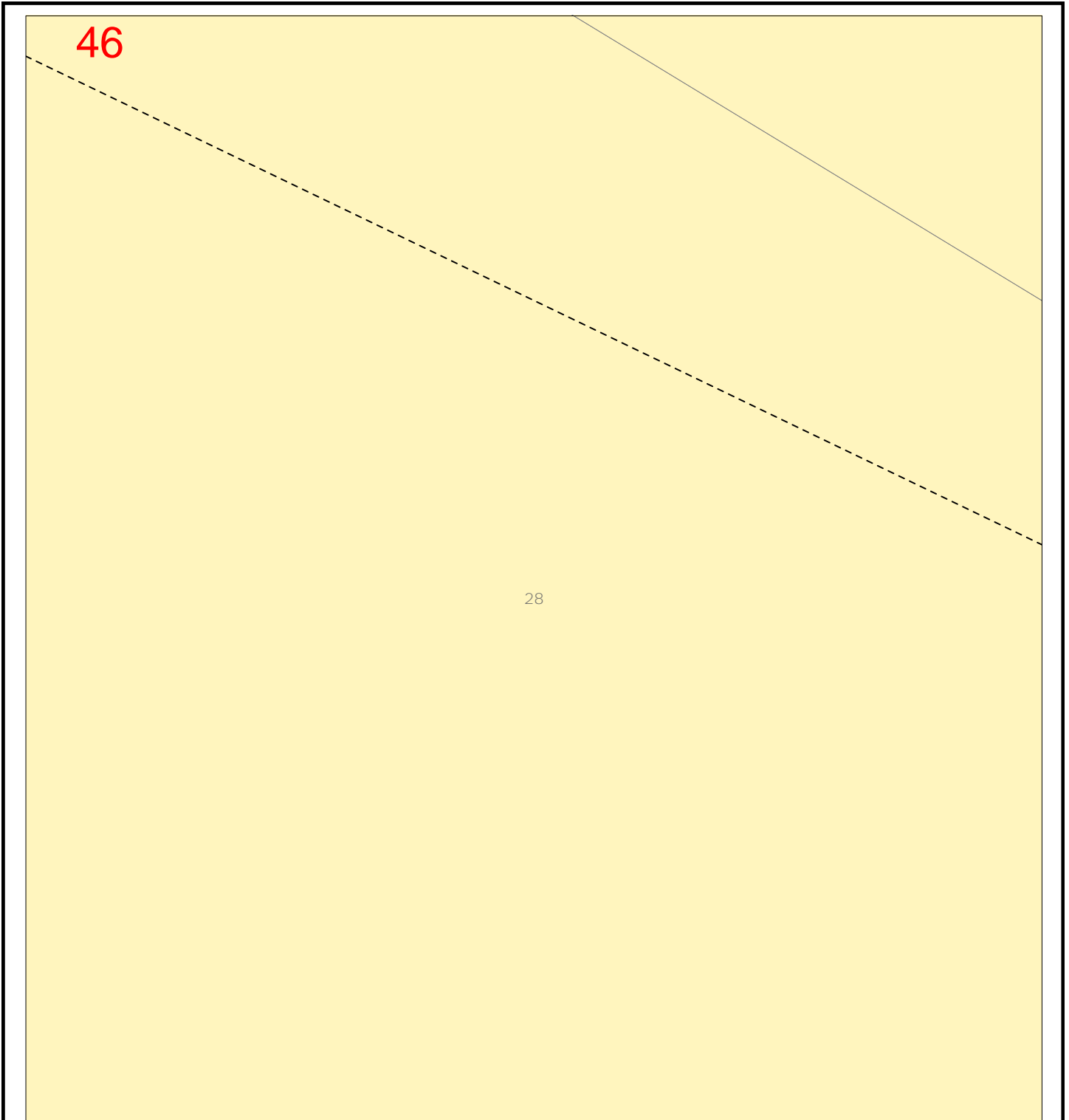


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

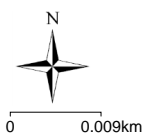
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



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Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

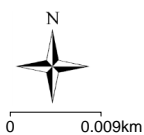
- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column





48








28

60








Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.








**LEGEND:**








**Cable Exits**

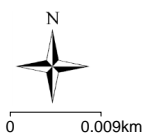
-  66kV/132kV
-  33kV
-  19kV
-  11kV
-  7.6kV
-  Not In Service
-  Low Voltage

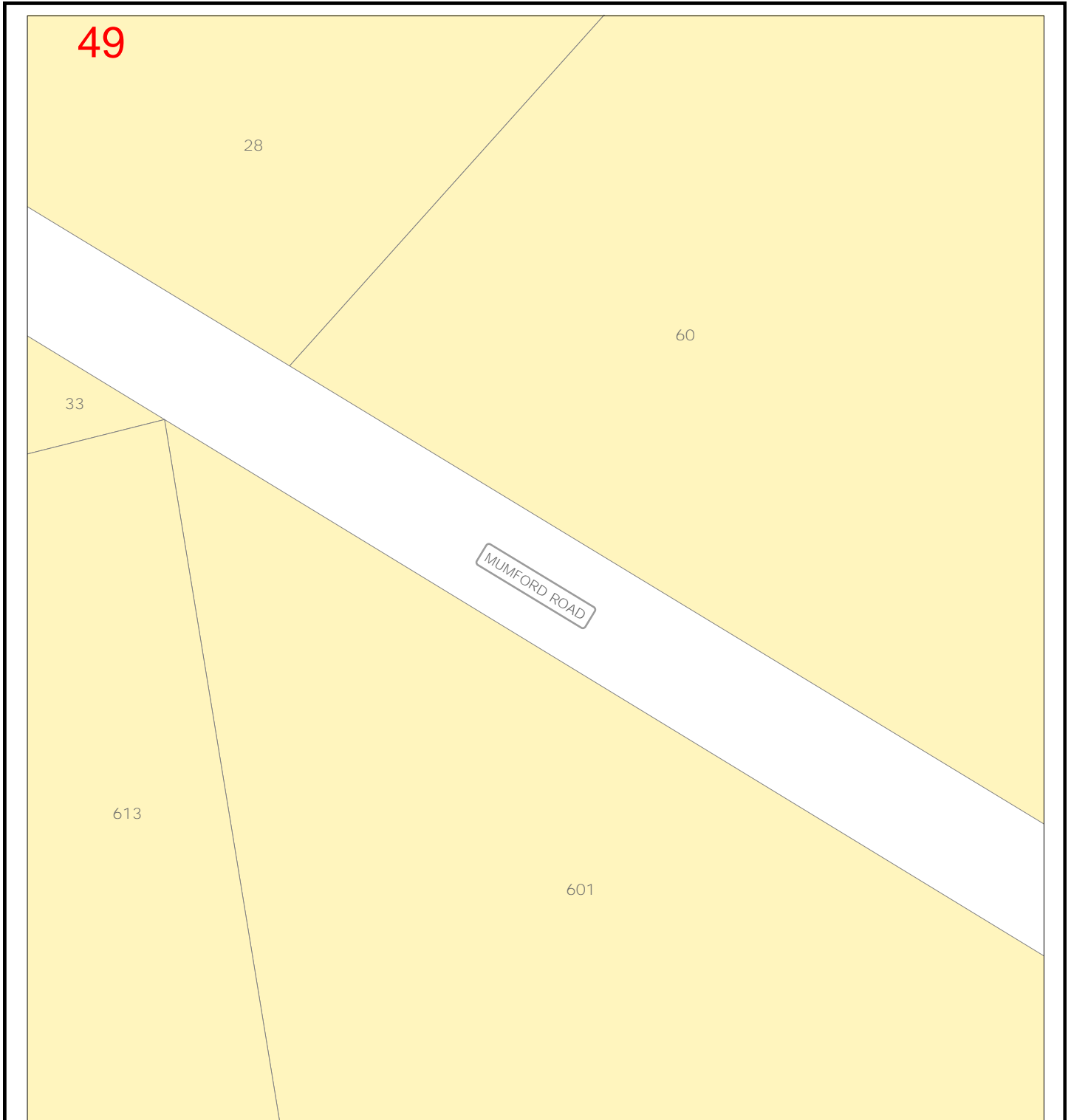
**Cables**

-  66kV/132kV
-  33kV
-  19kV
-  11kV
-  7.6kV
-  Not In Service
-  Low Voltage

-  DBYD Requested Area
-  HV Switching Cubicle
-  Transformer Cubicle
-  Cable Joint Bay
-  LV Switching Cubicle/Pit
-  Service Pit/Pillar
-  Earthing Grid

-  Fibre Optic Cable/Duct
-  Fibre Manhole/Pit
-  Pilot Cable
-  Pilot Manhole/Pit
-  Substation
-  Electricity Pole
-  Light Column





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

**Cables**

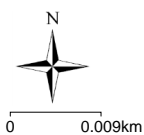
- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

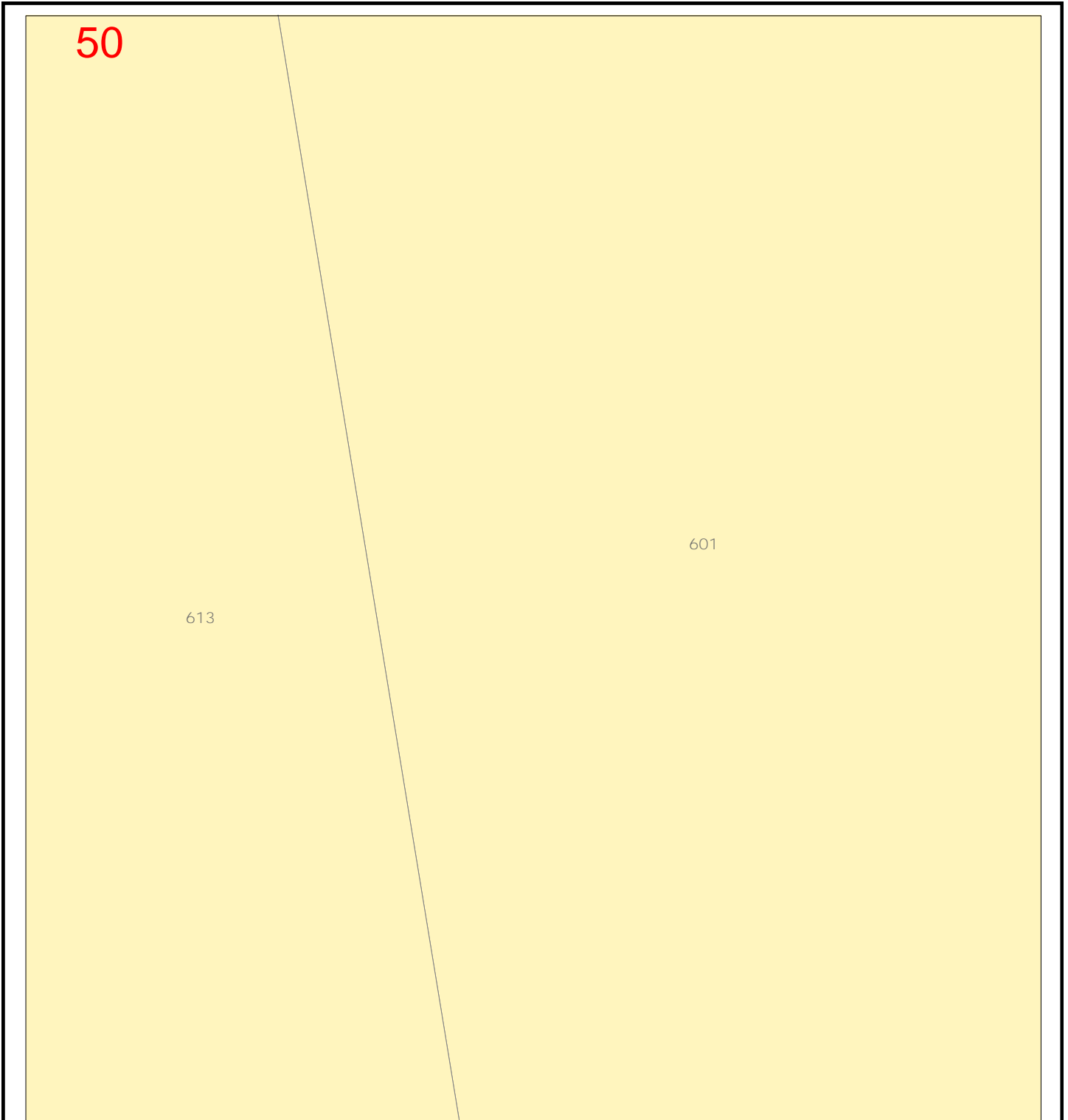
DBYD Requested Area

- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

Fibre Optic Cable/Duct

- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

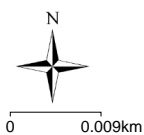
- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

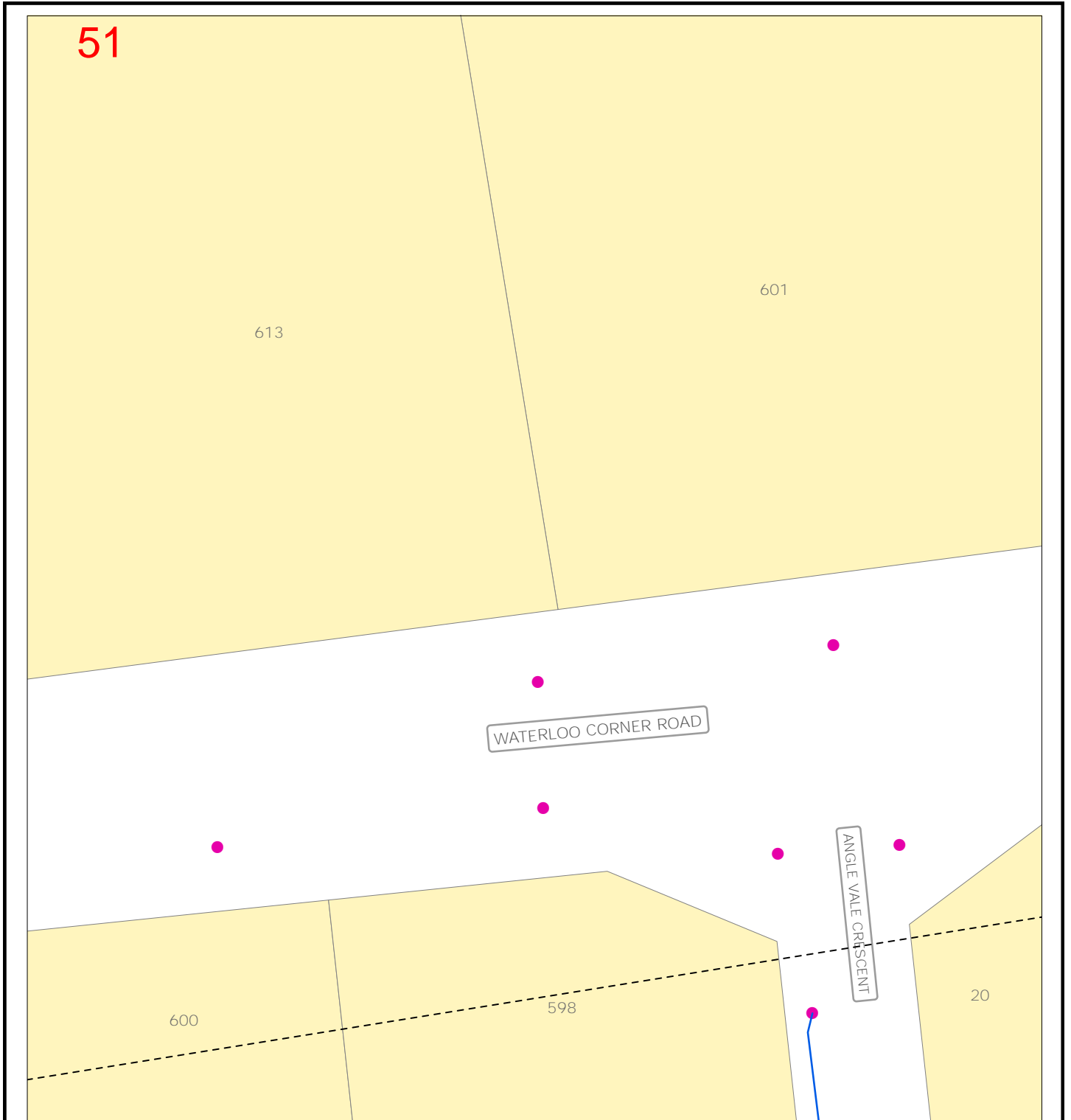
**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column

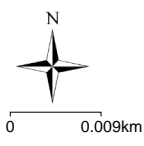




Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |



52

28

Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

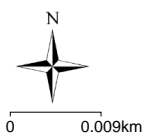
- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



53

28

60

Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

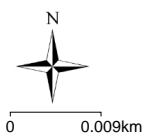
- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

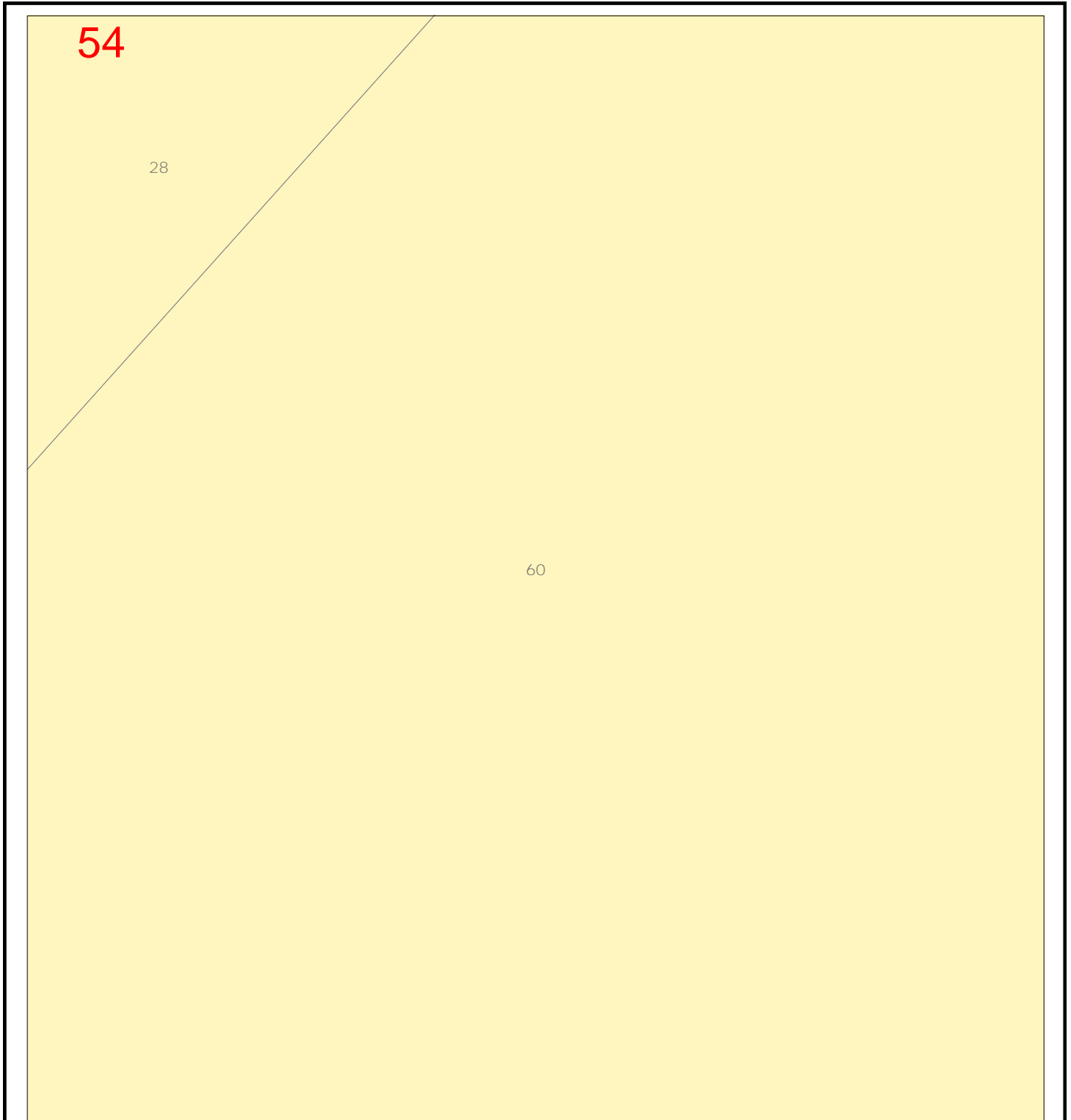
**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage



DBYD Requested Area



HV Switching Cubicle



Transformer Cubicle



Cable Joint Bay



LV Switching Cubicle/Pit



Service Pit/Pillar



Earthing Grid



Fibre Optic Cable/Duct



Fibre Manhole/Pit



Pilot Cable



Pilot Manhole/Pit



Substation



Electricity Pole

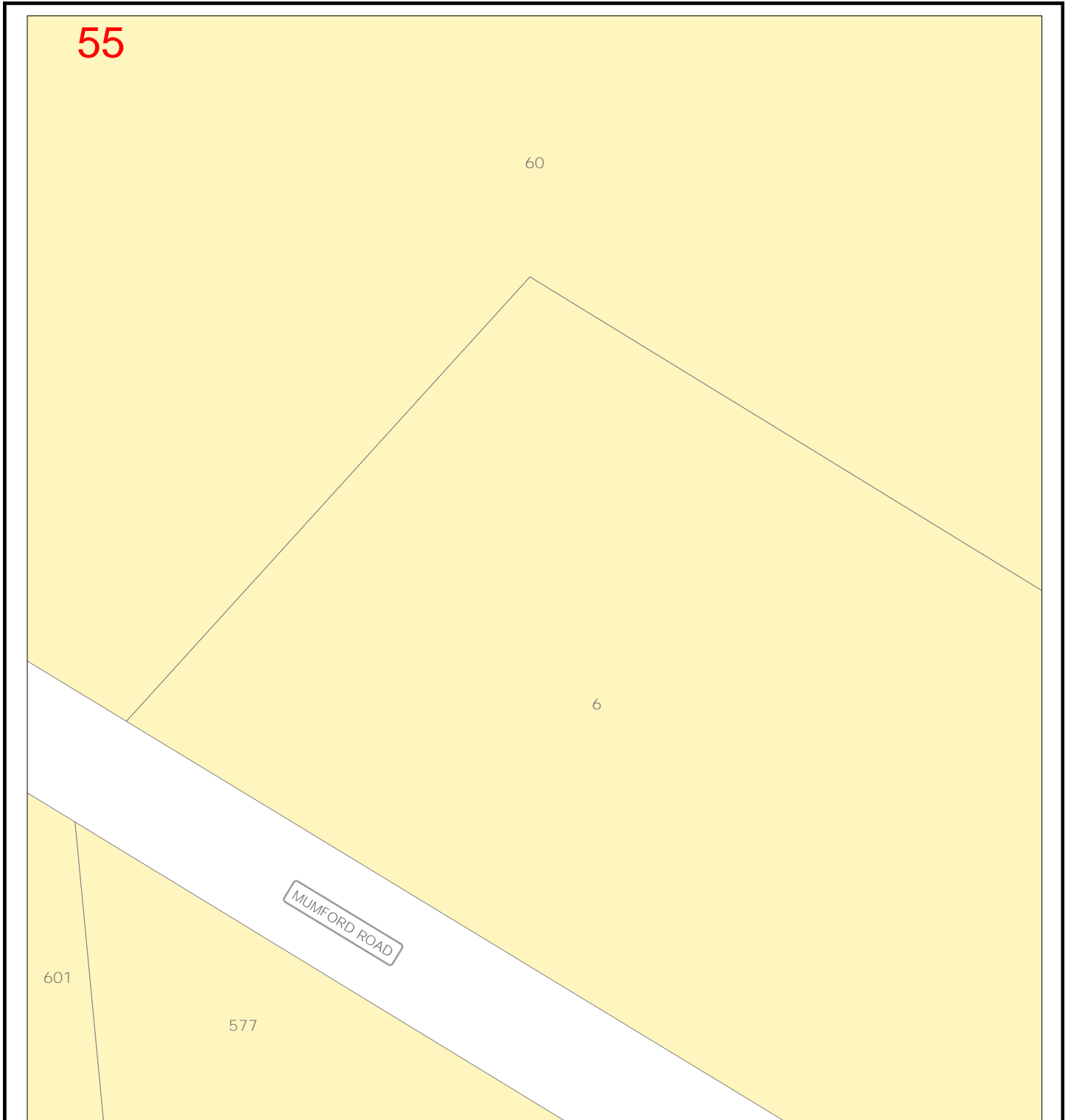


Light Column



0 0.009km

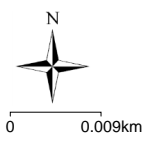


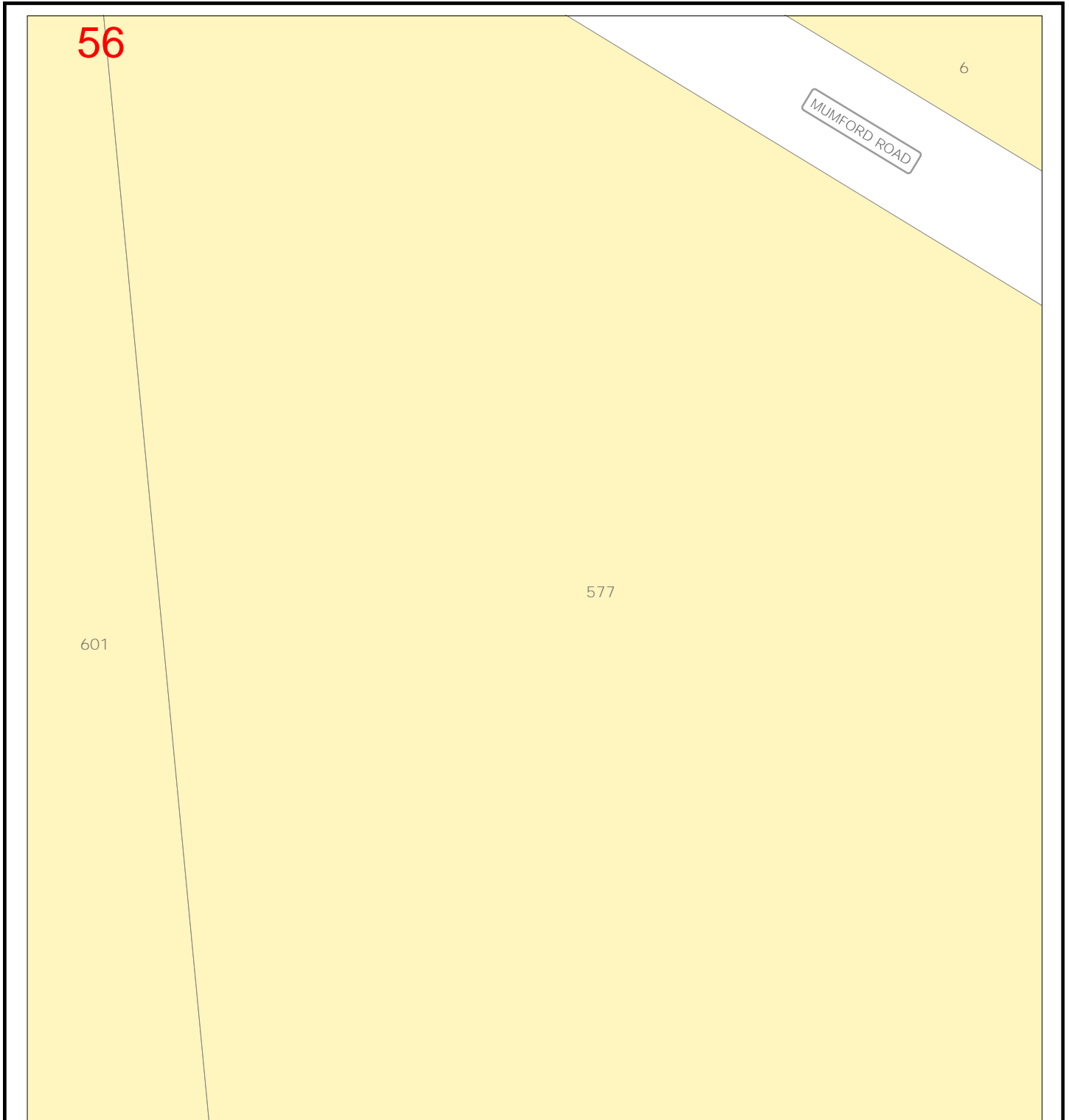


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

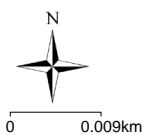
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

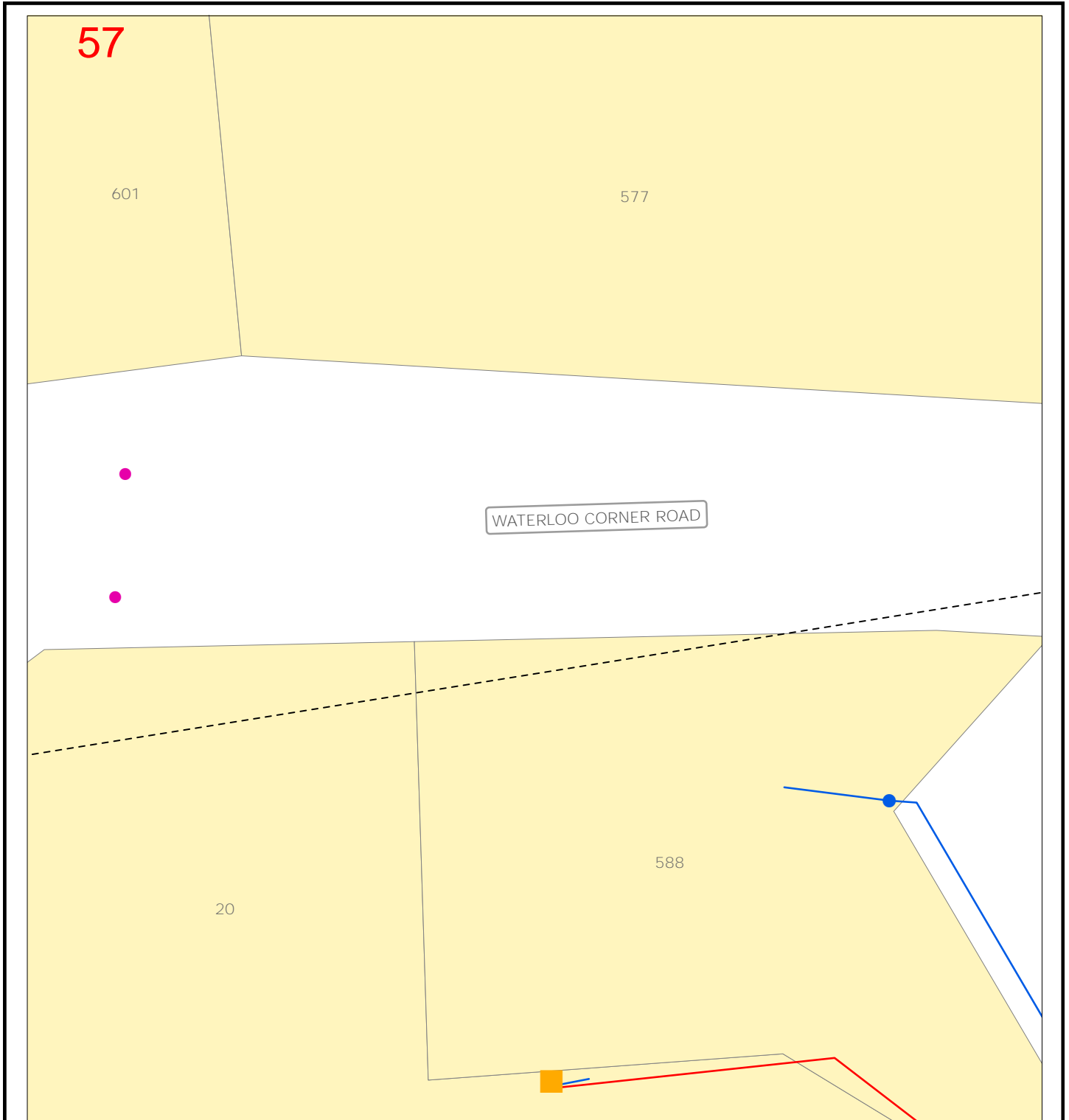
**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column

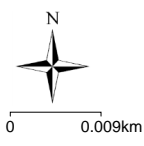


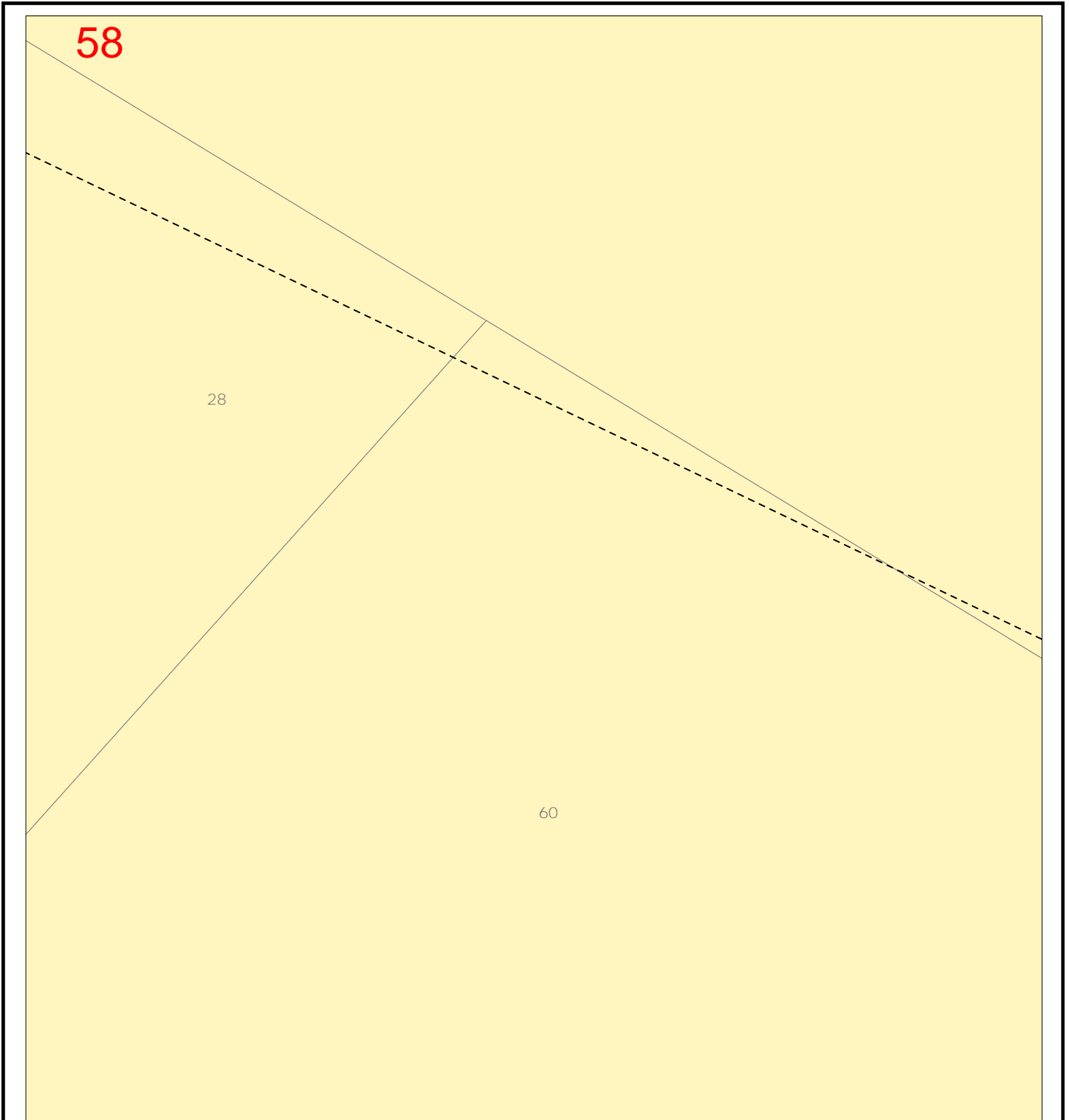


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

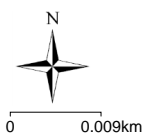
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

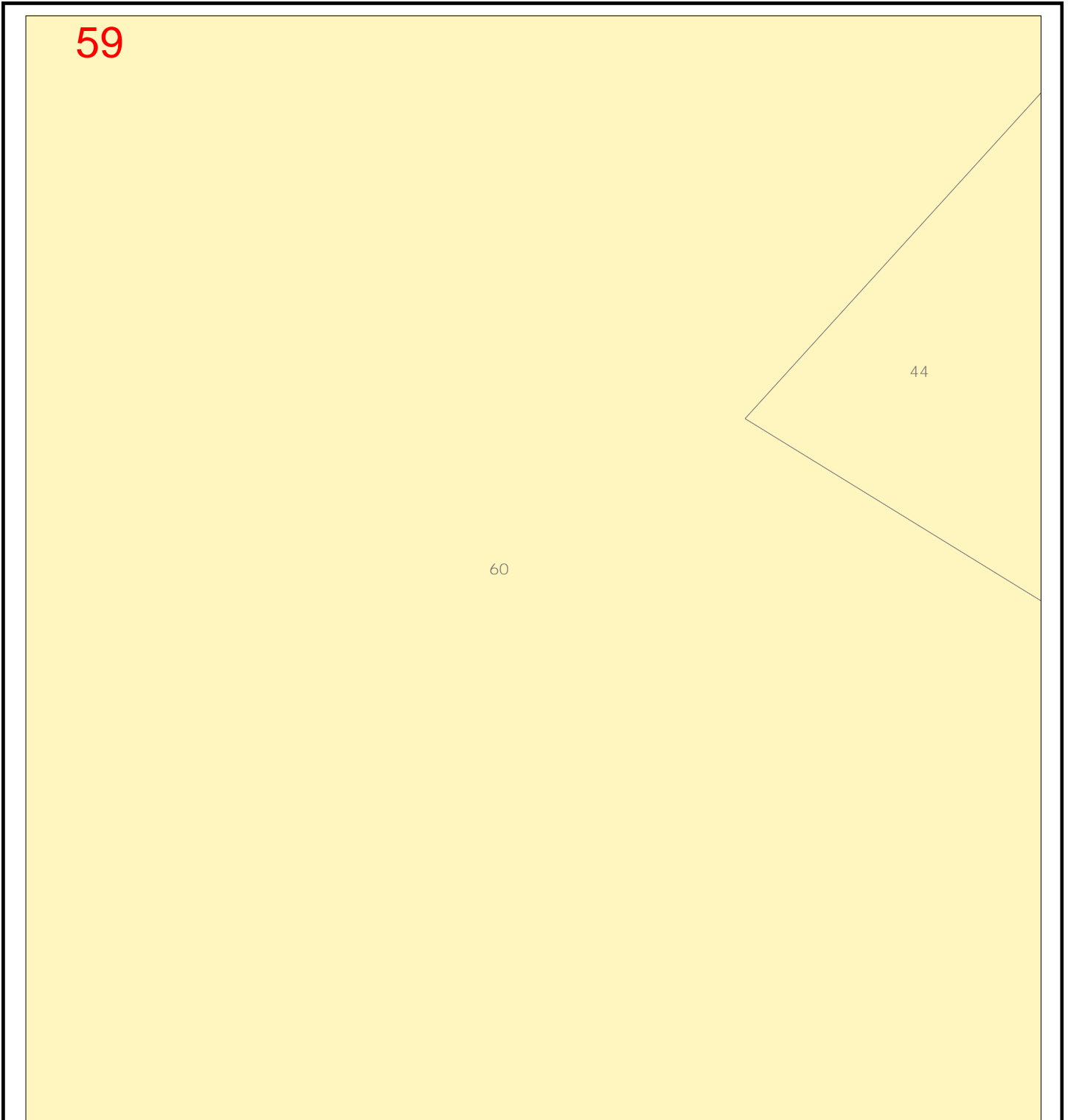
**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

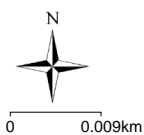
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



60

60

6

Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

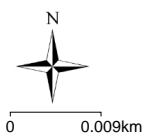
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

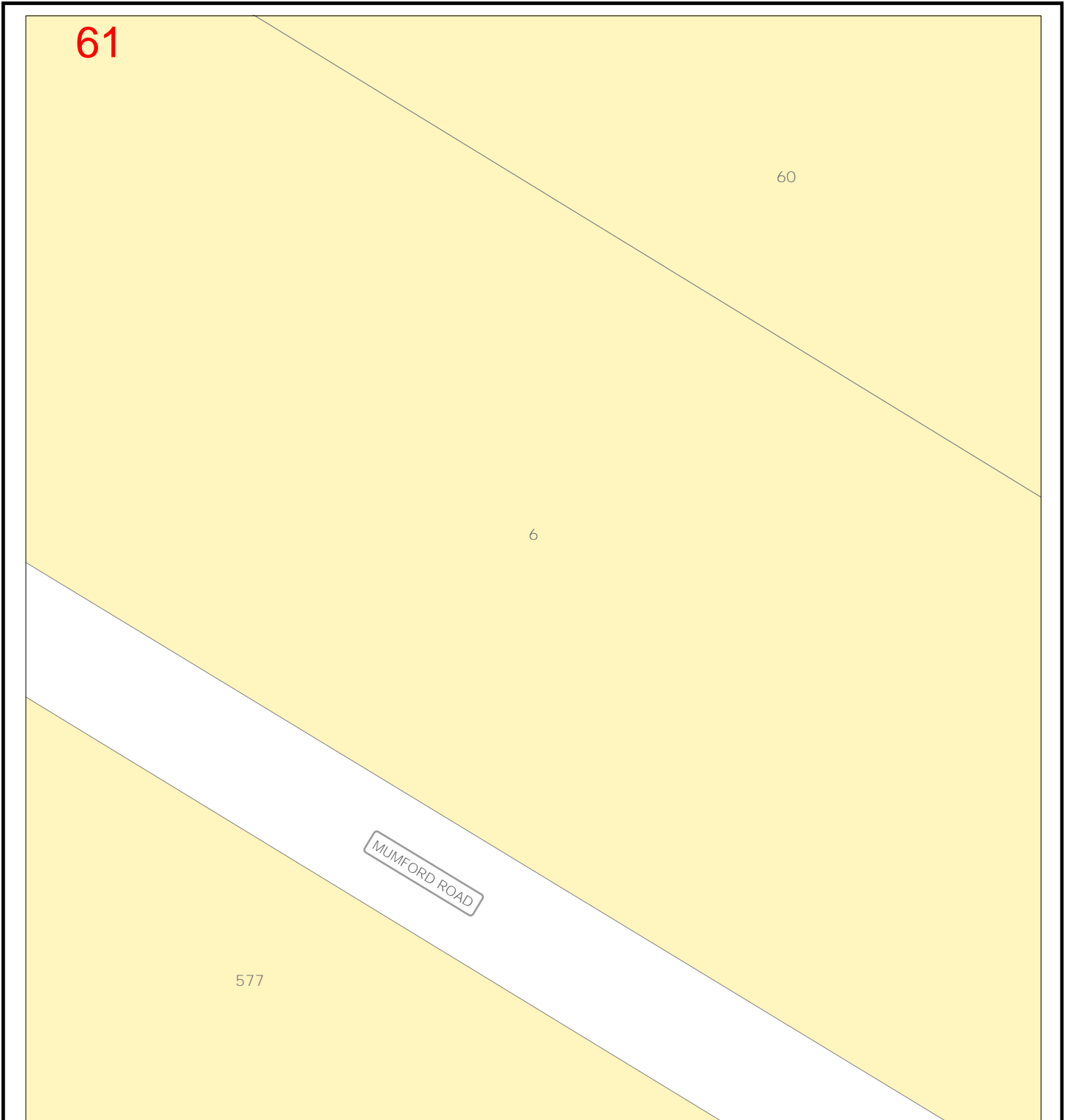
**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column

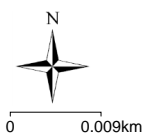




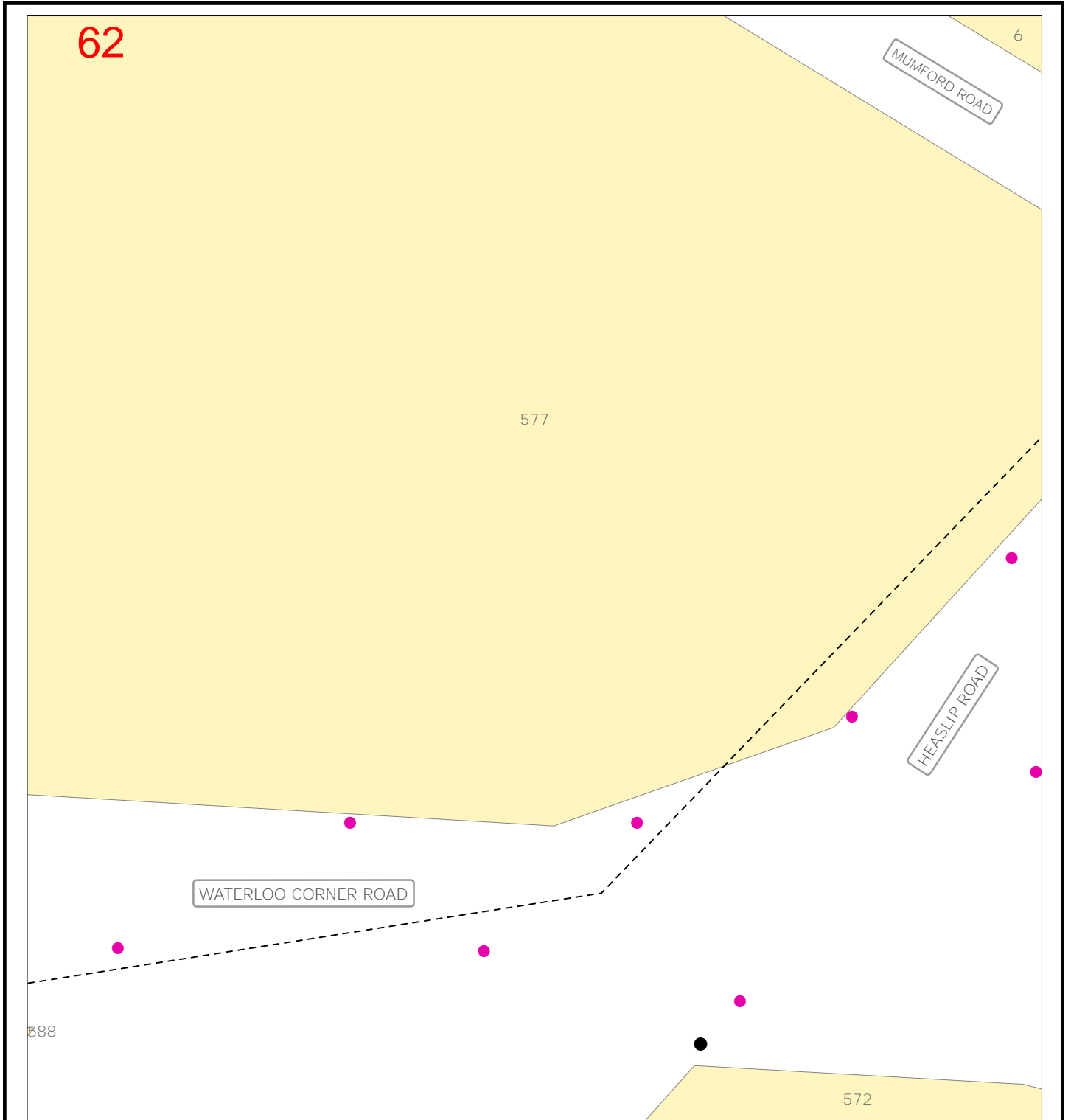
Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |



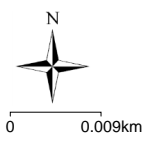


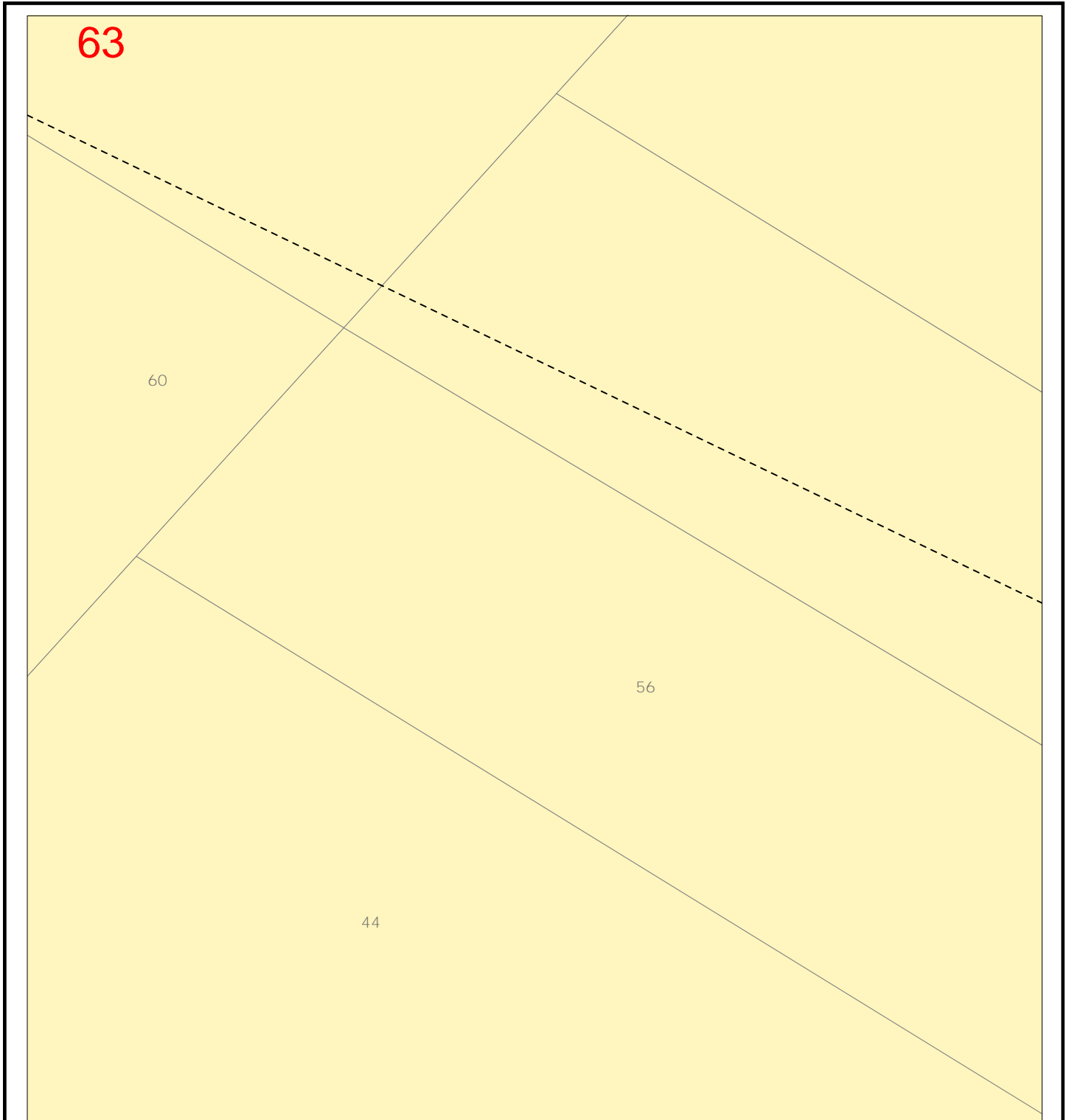


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                | Other Infrastructure |                          |
|-------------|----------------|--------|----------------|----------------------|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |                      | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |                      | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |                      | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |                      | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |                      | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |                      | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |                      | Earthing Grid            |
|             |                |        |                |                      | Fibre Optic Cable/Duct   |
|             |                |        |                |                      | Fibre Manhole/Pit        |
|             |                |        |                |                      | Pilot Cable              |
|             |                |        |                |                      | Pilot Manhole/Pit        |
|             |                |        |                |                      | Substation               |
|             |                |        |                |                      | Electricity Pole         |
|             |                |        |                |                      | Light Column             |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

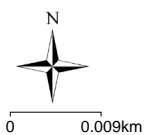
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

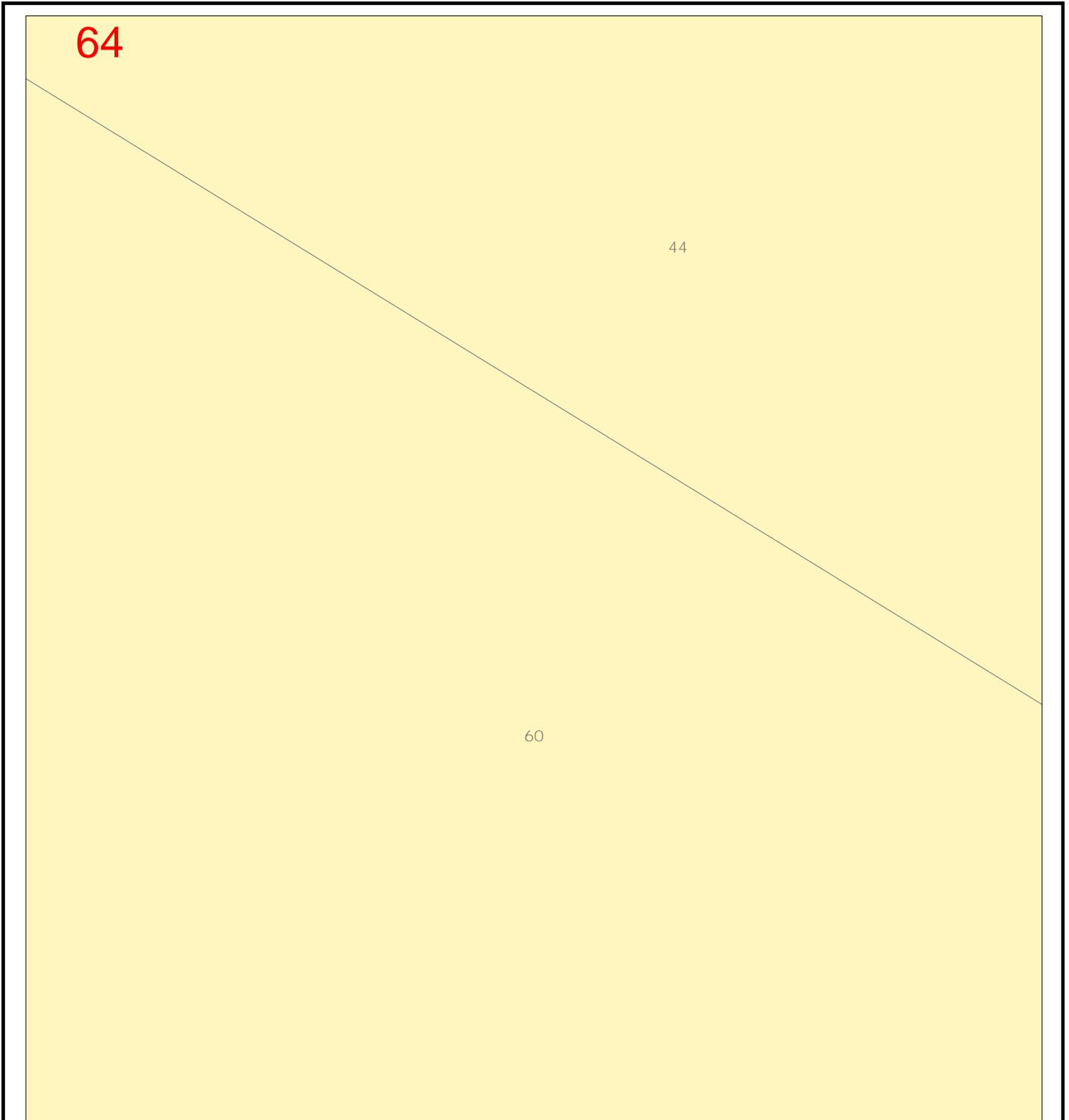
**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

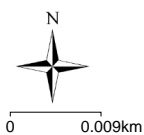
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

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- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column



65








60

6








Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.








**LEGEND:**








**Cable Exits**

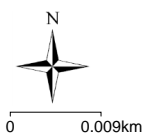
-  66kV/132kV
-  33kV
-  19kV
-  11kV
-  7.6kV
-  Not In Service
-  Low Voltage

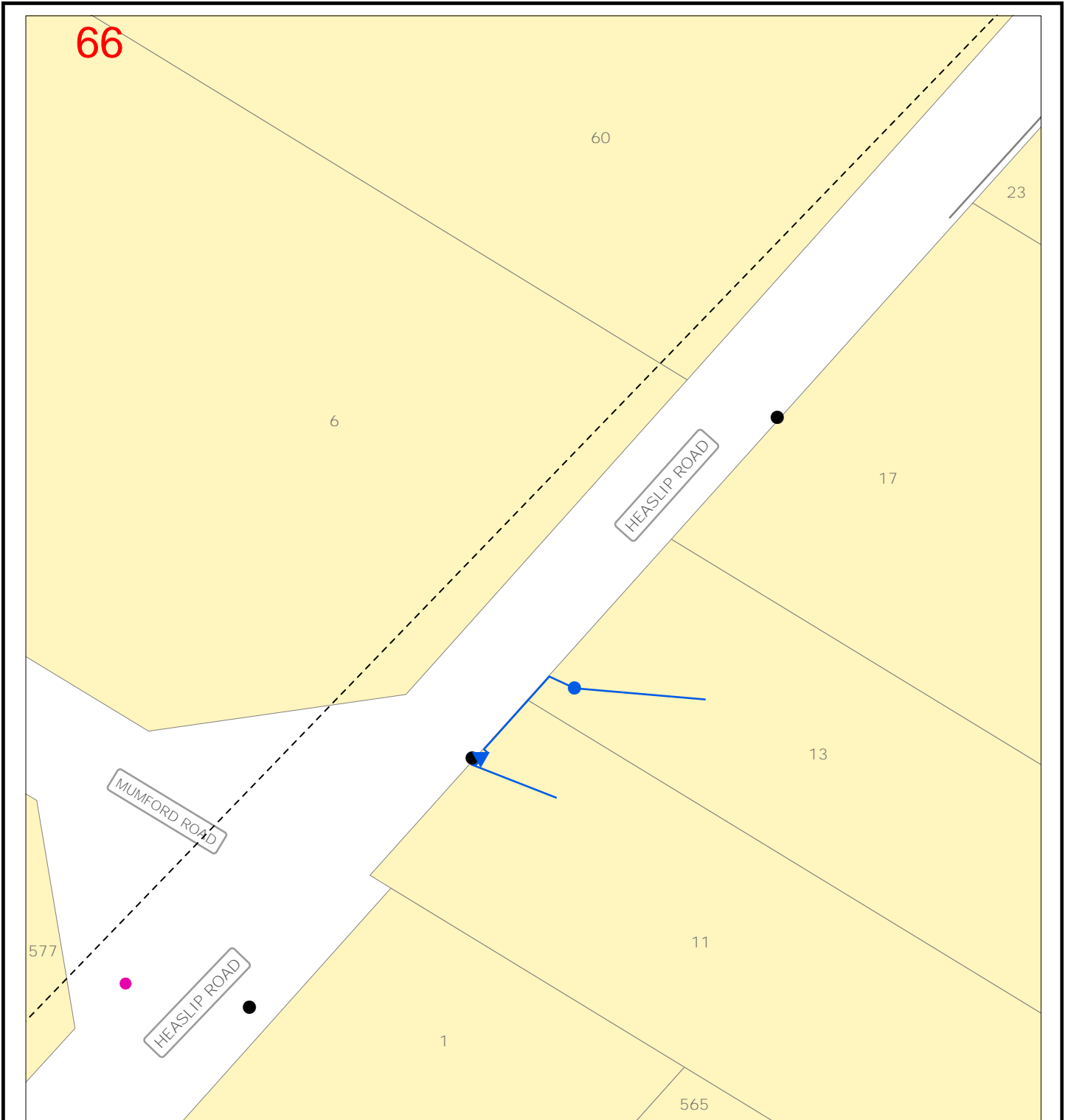
**Cables**

-  66kV/132kV
-  33kV
-  19kV
-  11kV
-  7.6kV
-  Not In Service
-  Low Voltage

-  DBYD Requested Area
-  HV Switching Cubicle
-  Transformer Cubicle
-  Cable Joint Bay
-  LV Switching Cubicle/Pit
-  Service Pit/Pillar
-  Earthing Grid

-  Fibre Optic Cable/Duct
-  Fibre Manhole/Pit
-  Pilot Cable
-  Pilot Manhole/Pit
-  Substation
-  Electricity Pole
-  Light Column

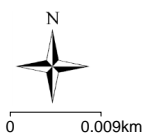


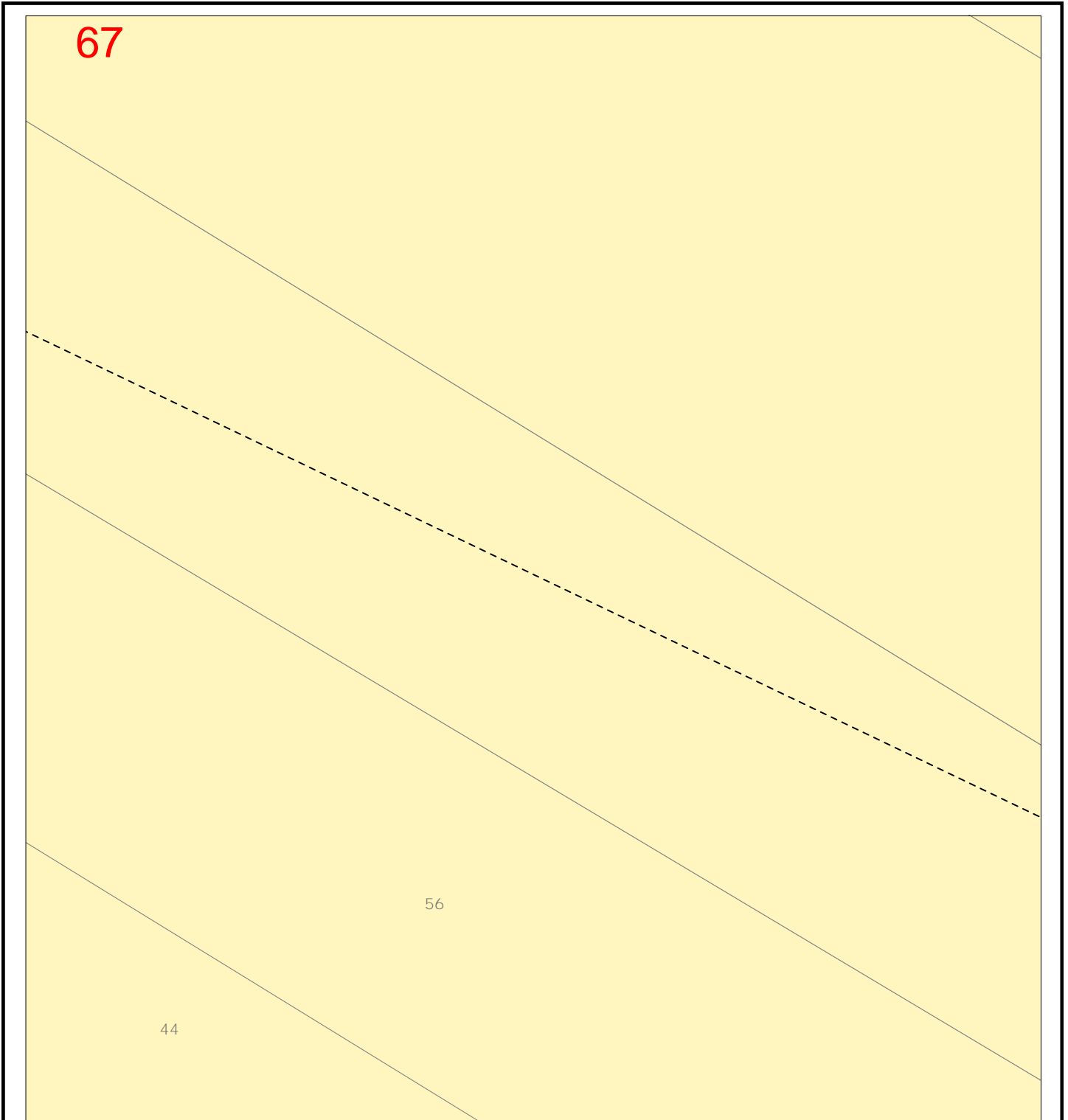


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                | DBYD Requested Area |  | Fibre Optic Cable/Duct |                   |
|-------------|----------------|--------|----------------|---------------------|--|------------------------|-------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |                     |  |                        | Fibre Manhole/Pit |
|             | 33kV           |        | 33kV           |                     |  |                        | Pilot Cable       |
|             | 19kV           |        | 19kV           |                     |  |                        | Pilot Manhole/Pit |
|             | 11kV           |        | 11kV           |                     |  |                        | Substation        |
|             | 7.6kV          |        | 7.6kV          |                     |  |                        | Electricity Pole  |
|             | Not In Service |        | Not In Service |                     |  |                        | Light Column      |
|             | Low Voltage    |        | Low Voltage    |                     |  |                        |                   |
|             |                |        |                |                     |  |                        |                   |
|             |                |        |                |                     |  |                        |                   |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

**Cable Exits**

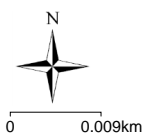
- ▼ 66kV/132kV
- ▼ 33kV
- ▼ 19kV
- ▼ 11kV
- ▼ 7.6kV
- ▼ Not In Service
- ▼ Low Voltage

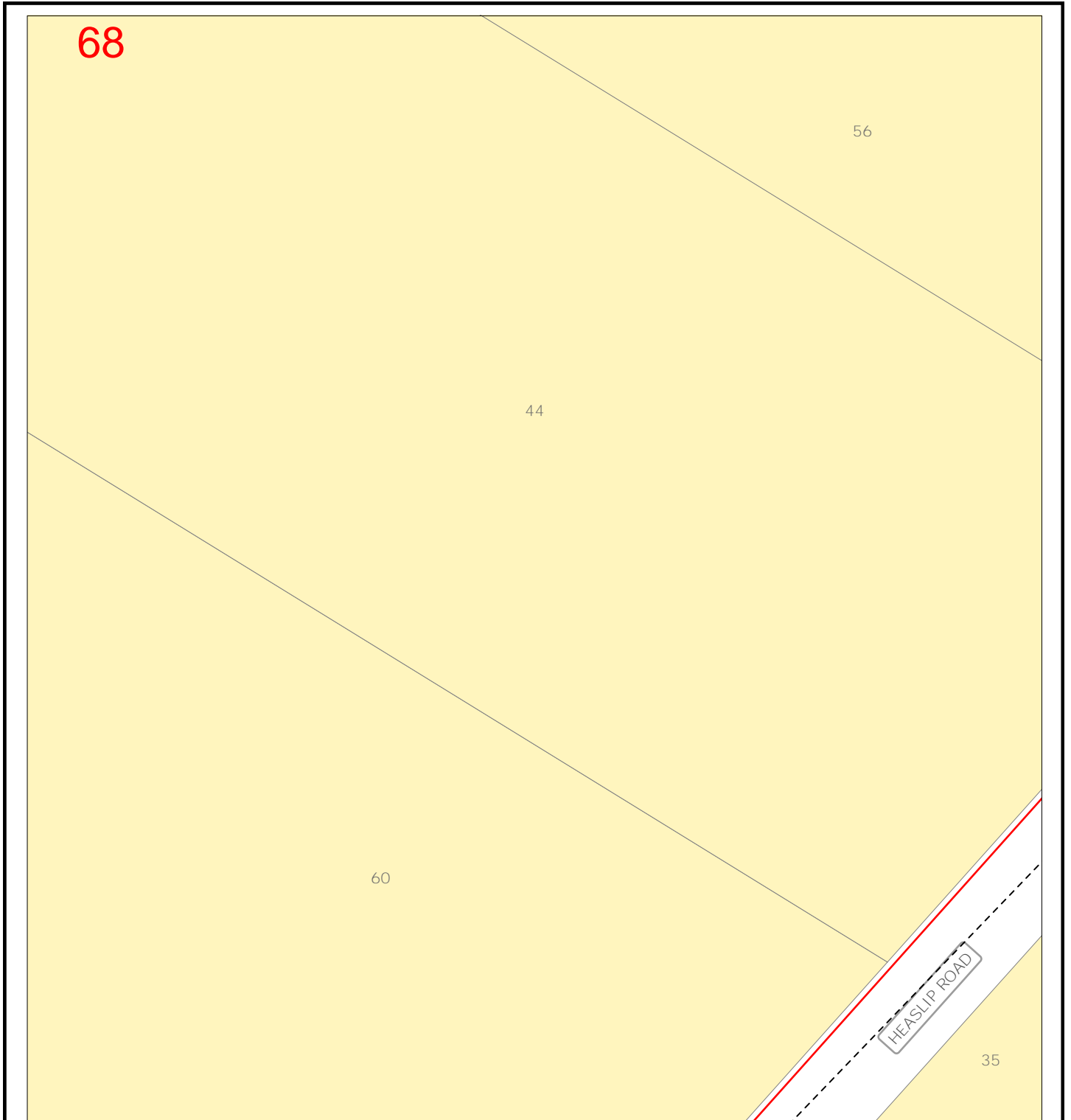
**Cables**

- 66kV/132kV
- 33kV
- 19kV
- 11kV
- 7.6kV
- Not In Service
- Low Voltage

- DBYD Requested Area
- HV Switching Cubicle
- Transformer Cubicle
- Cable Joint Bay
- LV Switching Cubicle/Pit
- Service Pit/Pillar
- Earthing Grid

- Fibre Optic Cable/Duct
- Fibre Manhole/Pit
- Pilot Cable
- Pilot Manhole/Pit
- Substation
- Electricity Pole
- Light Column

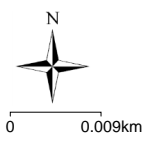




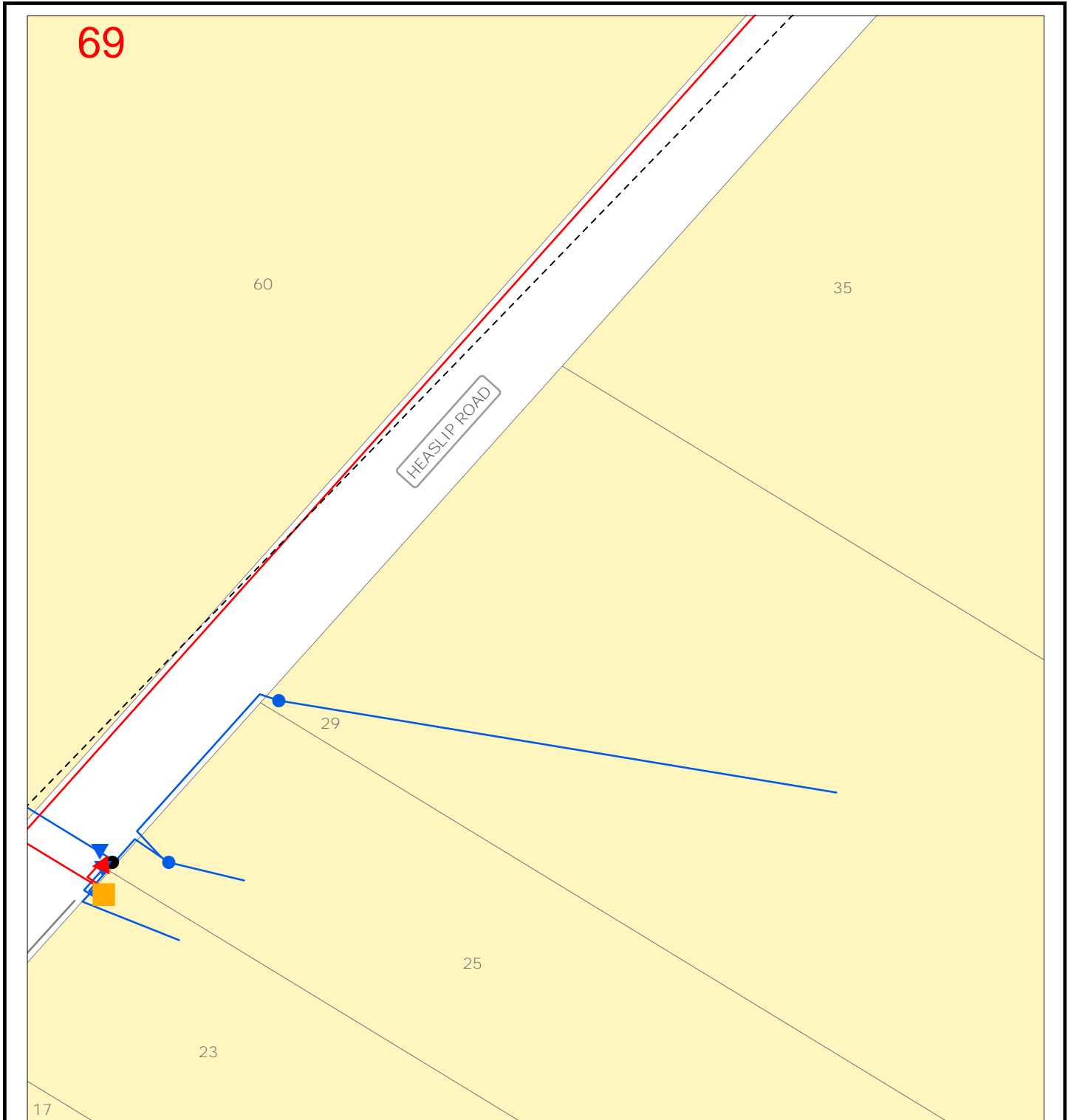
Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |



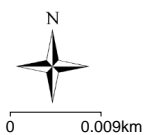


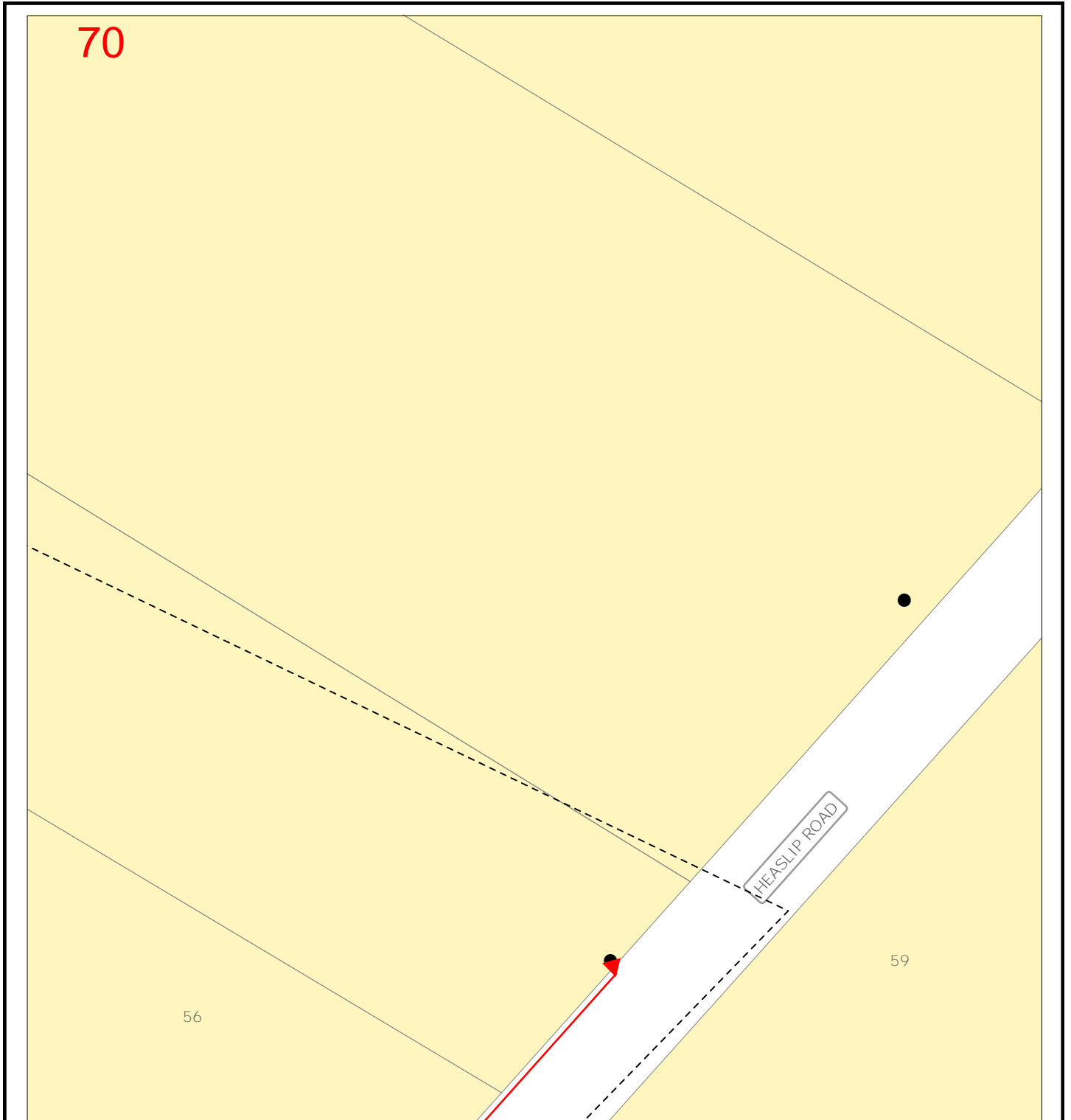


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |

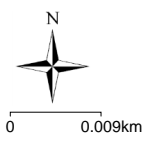


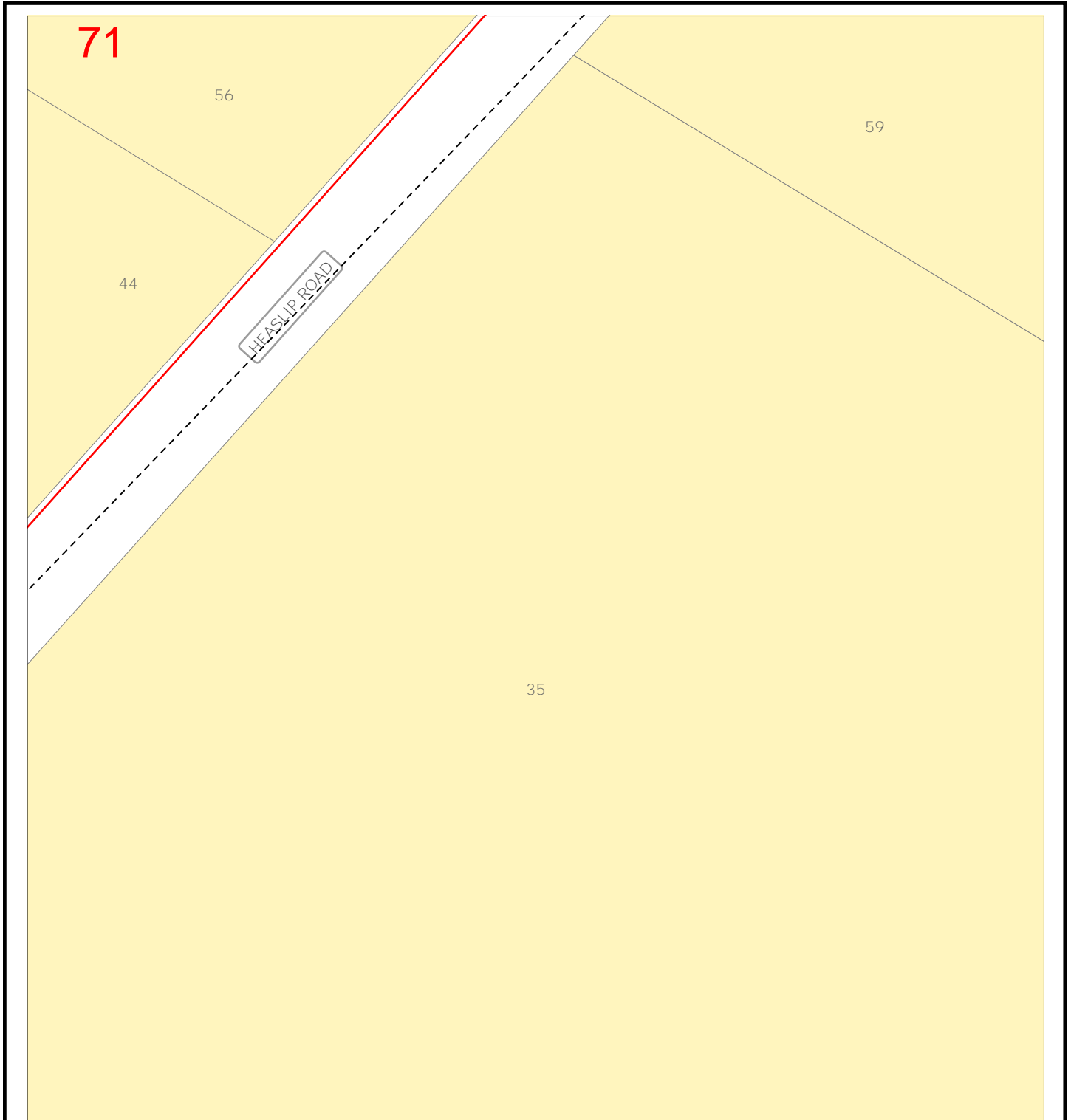


Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                | Other Symbols |                          |
|-------------|----------------|--------|----------------|---------------|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |               | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |               | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |               | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |               | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |               | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |               | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |               | Earthing Grid            |
|             |                |        |                |               | Fibre Optic Cable/Duct   |
|             |                |        |                |               | Fibre Manhole/Pit        |
|             |                |        |                |               | Pilot Cable              |
|             |                |        |                |               | Pilot Manhole/Pit        |
|             |                |        |                |               | Substation               |
|             |                |        |                |               | Electricity Pole         |
|             |                |        |                |               | Light Column             |





Note: The presence of lighting columns and cable exits may indicate unidentified additional cables.

**LEGEND:**

| Cable Exits |                | Cables |                |  |                          |
|-------------|----------------|--------|----------------|--|--------------------------|
|             | 66kV/132kV     |        | 66kV/132kV     |  | DBYD Requested Area      |
|             | 33kV           |        | 33kV           |  | HV Switching Cubicle     |
|             | 19kV           |        | 19kV           |  | Transformer Cubicle      |
|             | 11kV           |        | 11kV           |  | Cable Joint Bay          |
|             | 7.6kV          |        | 7.6kV          |  | LV Switching Cubicle/Pit |
|             | Not In Service |        | Not In Service |  | Service Pit/Pillar       |
|             | Low Voltage    |        | Low Voltage    |  | Earthing Grid            |
|             |                |        |                |  | Fibre Optic Cable/Duct   |
|             |                |        |                |  | Fibre Manhole/Pit        |
|             |                |        |                |  | Pilot Cable              |
|             |                |        |                |  | Pilot Manhole/Pit        |
|             |                |        |                |  | Substation               |
|             |                |        |                |  | Electricity Pole         |
|             |                |        |                |  | Light Column             |

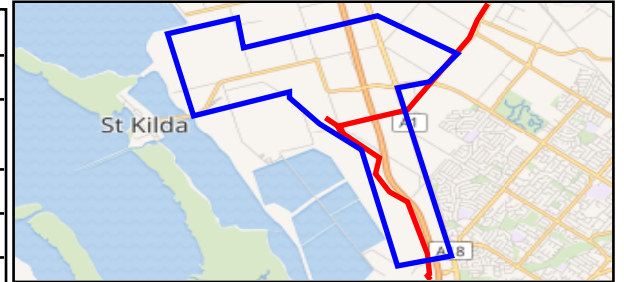


Thursday, 7 April 2022

To Karion Dickson-Abbott,

On 6/04/2022 you submitted a DBYD request for the following works:

|                          |  |
|--------------------------|--|
| <b>Sequence Number</b>   | 210057741                                    |
| <b>Job Number</b>        | 31721481                                     |
| <b>ActivityType</b>      | Planning and Design<br>Subdivision           |
| <b>Work Location</b>     | 79-81 Robinson Road, Waterloo Corner SA 5110 |
| <b>Commencement Date</b> | 7/04/2022                                    |
| <b>Completion Date</b>   | 21/04/2022                                   |



Based on the below information provided to SEA Gas your works have been assessed as not impacting the high pressure gas pipeline. If the location or activity of works changes please contact SEA Gas before commencing works.

Comments:  
Future subdivision

**SEA Gas Representative**

Phone Number: 1800 808 008

Email: DBYD@seagas.com.au

Date: 7/04/2022



Thursday, 7 April 2022

## Work Authorisation Conditions

The Proponent (person or agency applying to undertake the works which includes Landowners, Contractors, Land Operators, Government Agency etc.) and SEA Gas agree as follows:

### Mandatory Conditions

1. This authorisation covers work on SEA Gas managed assets ONLY. SEA Gas will not be liable for any damage sustained on other infrastructure owned and operated by other agencies within the vicinity of the assets.
2. The Proponent agrees to follow all directions from SEA Gas representatives in respect to the works and the Work Authorisation conditions.

NOTE: if as a result of the proponent failing to comply with SEA Gas directions and conditions of this approval and those actions result in damage to the SEA Gas asset, then SEA Gas will hold the Proponent liable for the full amount of damages and any consequential losses.

3. The Proponent must perform the work with extreme care to permit the continuous and safe operation for SEA Gas managed assets.
4. The Proponent must perform the work in a manner causing minimum inconvenience to owners/occupants of the land and damage to the property.
5. The Proponent, its employees and contractors, must hold relevant competencies required by all applicable Federal, State and Local laws, orders, codes, rules and regulations relevant to the approved works.
6. The Proponent must at all times keep the Right of Way and areas adjacent to the Right of Way free from waste materials or rubbish caused by its activities.
7. In the event of any of the conditions not being met SEA Gas reserves the right to terminate approval for the continuation of the works. Any cost incurred from the termination of such works will be the responsibility of the Proponent.

NOTE: Termination of this authorisation will require a SEA Gas incident report to be submitted.



For your immediate information, **THERE IS A SEA Gas HIGH-PRESSURE GAS TRANSMISSION PIPELINE** in the area of your proposed works.

Please **DO NOT** proceed until the next steps below are completed.

This is **not** an approval to carry out work near the SEA Gas pipeline.



**NEXT STEPS:**

Please contact SEA Gas on **1800 808 008** (Mon-Fri 8.00am – 5.00pm Adelaide Time) to discuss the exact nature and extent of your works.

**DO NOT ATTEMPT TO PHYSICALLY LOCATE THE PIPELINE.** Although the route of the pipeline is marked out by warning signs, it shall not be inferred that the pipe is buried under and in a straight line between signs. No depths on the pipeline should be assumed. Only a **SEA GAS representative** can locate the pipeline and is required to be scheduled for locations.

Damage to a high-pressure natural gas transmission pipeline could result in:-

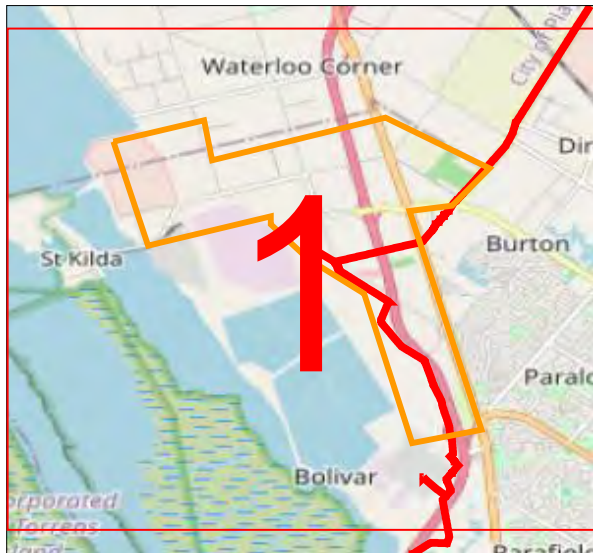
- possible explosion and fire;
- possible injury or loss of life;
- substantial repair and gas restoration liability damage costs;
- gas escaping at pressures of up to 15,000 kPa; and
- loss of gas to thousands of customers.

Issued Date: 06/04/2022 created

From: SEA Gas

Phone: 1800 808 008

Email: [DBYD@seagas.com.au](mailto:DBYD@seagas.com.au)



Company: Greenhill

Phone: +61884061300

Email: [KDickson-Abbott@greenhillaustralia.com.au](mailto:KDickson-Abbott@greenhillaustralia.com.au)

RE: DBYD Seq No: 210057741

Validity: This response is valid for **30 days** from the Issued Date

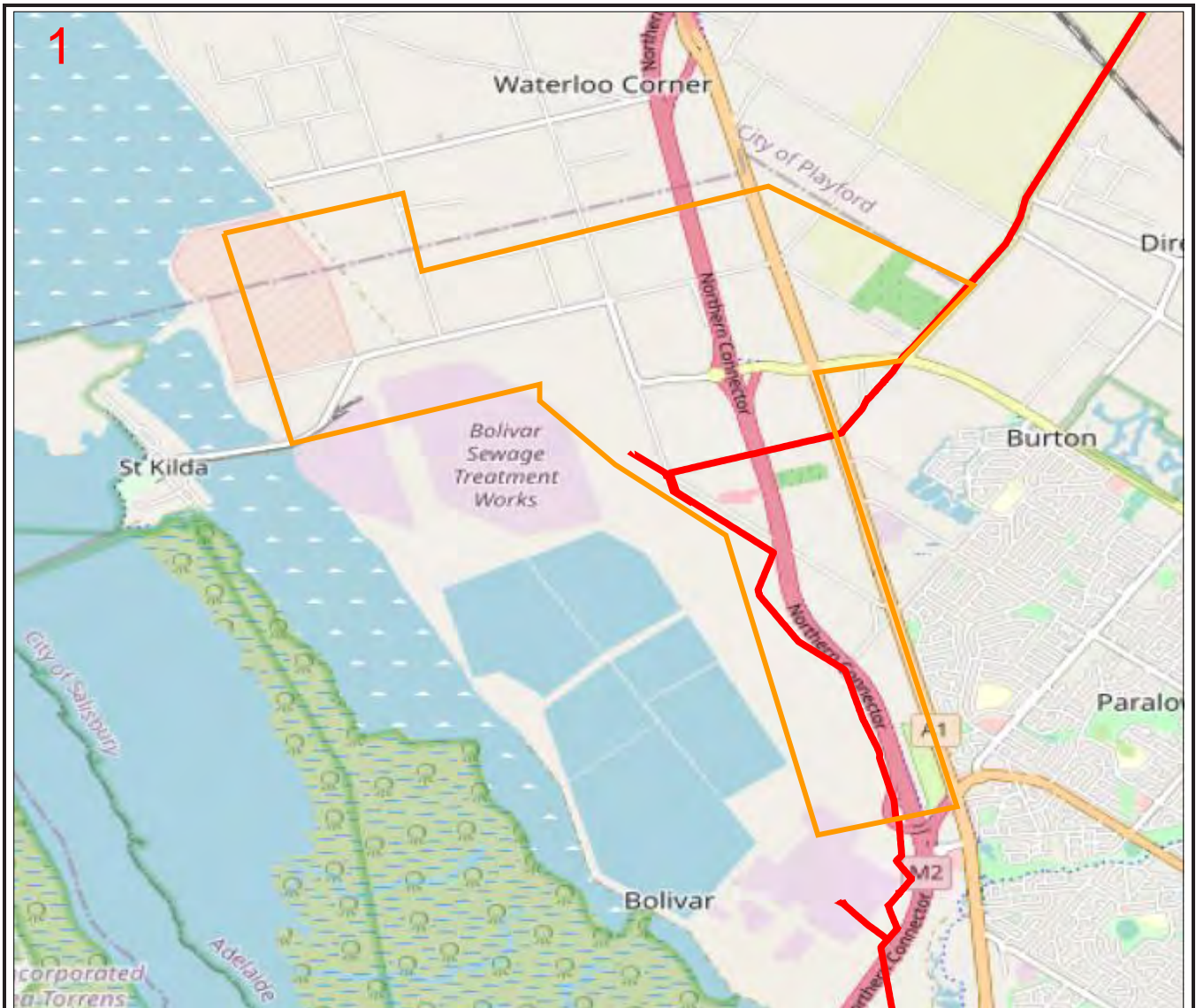
Utility ID: 30817

Worksite Address: 79-81 Robinson Road  
Waterloo Corner

Scale: 1 : 90000  
Map: map : map

SEA Gas Transmission does not guarantee the accuracy or completeness of the map and does not make any warranty about the data. SEA Gas is not under any liability to the user for any loss or damage (including consequential loss or damage) which the user may suffer resulting from the use of this map..

SEA Gas • GPO Box 2666, Adelaide SA 5001 • Email: [DBYD@seagas.com.au](mailto:DBYD@seagas.com.au) •



|   |   |   |
|---|---|---|
| <p><b>Legend</b></p> <p><span style="color: orange;">N</span> DBYD Requests</p> <p><span style="color: red;">N</span> SEA Gas Pipelines</p> <p>Scale: 1: 40000</p> <p>0 0.5km</p> | <p><b>SEA Gas</b></p> <p><b>Dial Before You Dig Enquiry</b></p> <p>DATE: 06/04/2022</p> <p>SEQUENCE NO: 210057741</p> | <p><b>DATA SOURCE:</b></p> <p>Pipeline Data Copyright SEA Gas.,<br/>Property Parcels Copyright respective<br/>State Governments, mapping data<br/>Copyright <a href="https://www.openstreetmap.org/">OpenStreetMap</a><br/>contributors, DBYD Dig Location provided<br/>by DBYD.</p> <p>This map is confidential and the information and details<br/>contained in it are and remain the property of SEA Gas.</p> <p>© Copyright in this map is owned by SEA Gas</p> |
|---|---|---|

SEA Gas does not guarantee the accuracy or completeness of the map and does not make any warranty about the data. SEA Gas is not under any liability to the user for any loss or damage (including consequential loss or damage) which the user may suffer resulting from the use of this map.

SEA Gas • GPO Box 2666, Adelaide SA 5001 • Email: [DBYD@seagas.com.au](mailto:DBYD@seagas.com.au)

## Appendix E - Authority Responses



## Cindy Oliver

---

**From:** Snoswell, Debbie <Debbie.Snoswell@sawater.com.au>  
**Sent:** Monday, 25 April 2022 3:39 PM  
**To:** Min Soo Lee  
**Cc:** Cindy Oliver; chantal@homesdyer.com.au; Grapentin, Corey  
**Subject:** FW: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request to SA Water for Infrastructure Advice - SA Water Ref: H0129685  
**Attachments:** 24022022 \_ Area Calcs - Updated Legend Colour.pdf; Catchment 1 Existing Water Infrastructure.pdf; Catchment 1 Existing Wastewater Infrastructure.pdf; Catchment 1 Existing Recycled Water Infrastructure.pdf; Catchments 2,4 Southern Sections Existing Water Infrastructure.pdf; Catchments 2,4 Southern Sections Existing Wastewater Infrastructure.pdf; Catchment 2,4 Southern Sections existing Recycled Infrastructure.pdf; Catchments 2,3,4 Northern Section Existing Water Infrastructure.pdf; Catchments 2,3,4 Northern Section Existing Wastewater Infrastructure.pdf; Catchments 2,3,4 Northern Section Existing Recycled Water Infrastructure.pdf

**Importance:** High

Hi Min Soo,

Thanks for your email. For us to undertake this very complex assessment it will take a number of months to complete and it is not going to meet the timeframe requested below. Unfortunately due to the extreme workload of assessments being investigated at the moment for active development sites this will not be prioritised. I have requested our Network Planning Team to investigate this request at a very high level and identify areas of constraint and where network upgrades are likely to be required.

As an interim response I have created some maps of the catchment areas as identified in your attached 'Area Calcs' plan. Below I have noted some general information of the infrastructure in these catchments and any other info available that might also assist.

### CATCHMENT 1



### **Water**

- 200AC main to the West of the Northern expressway. Connection under the Expressway would be required to provide a supply from this main.
- 150AC main in Port Wakefield Road with a 600m section that has been upsized to a 200AC.

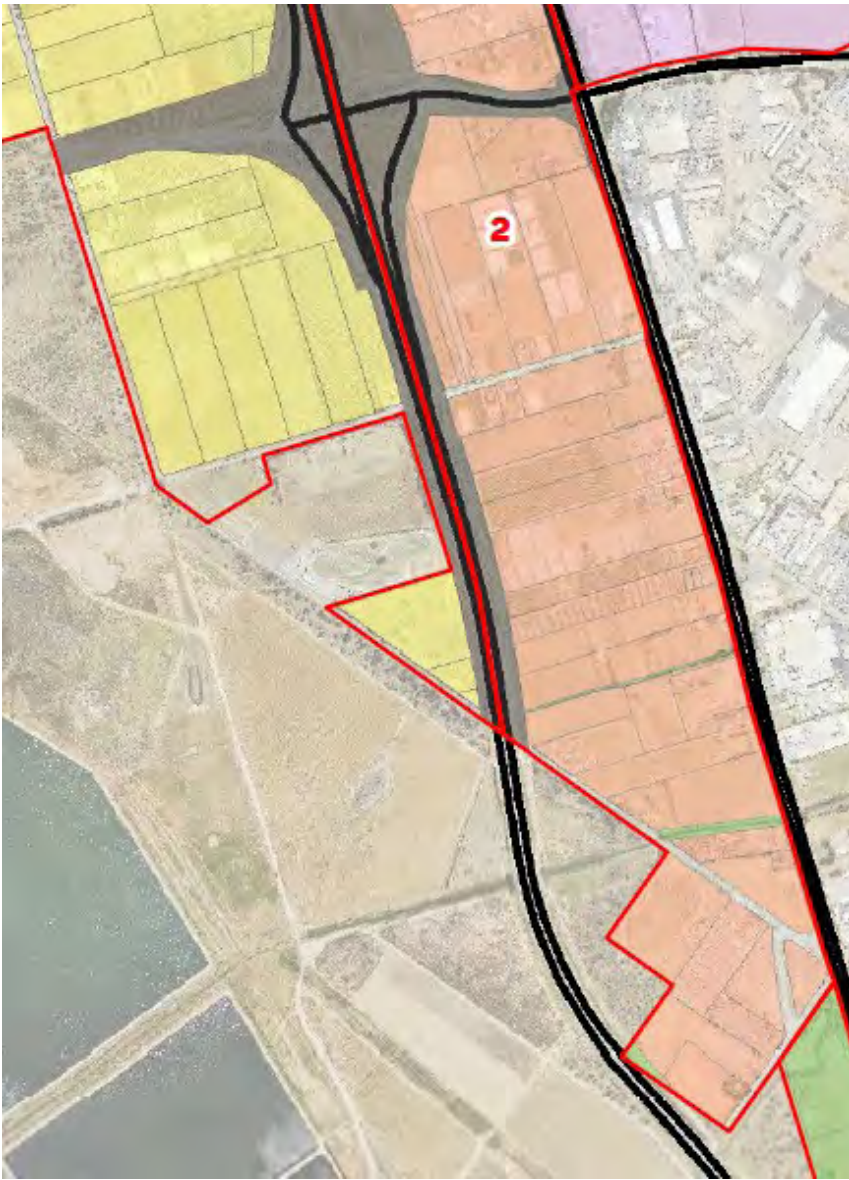
### **Recycled Water**

- There is a recycled water network to the West of the expressway abutting the Bolivar Wastewater Treatment Plant.

### **Wastewater**

- 1000PVCU trunk sewer from Bolivar Road to the WWTP.
- 675PVCU trunk sewer from Victoria Drive Parafield Gardens running north across Port Wakefield Road via easement to the WWTP.

### **CATCHMENTS 2 AND 4 – SOUTHERN**



### **Water**

- 150AC water mains on both the Western and Eastern sides of Port Wakefield Road
- 450MSCL main and a 100DICL in Driver/Undo Road
- 200AC main heading North along Port Wakefield Road

### **Wastewater**

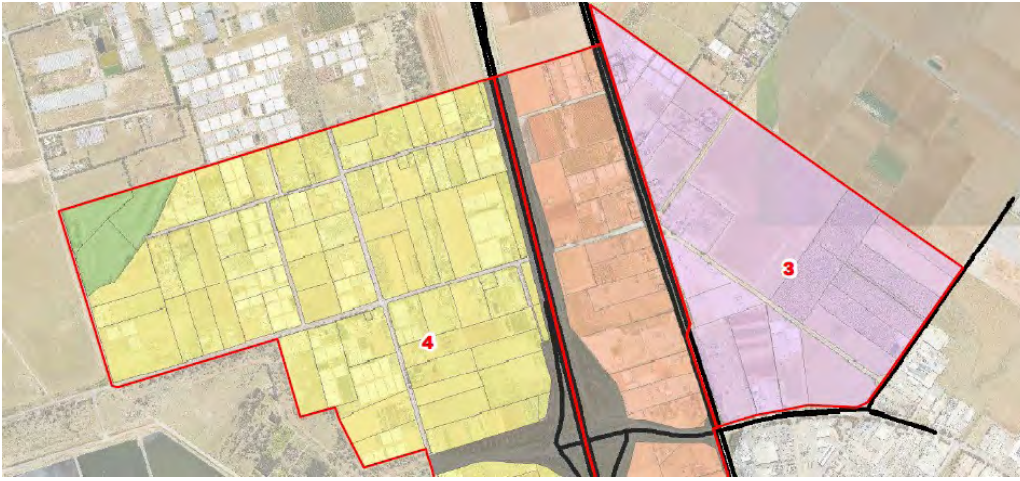
- There is limited infrastructure in this area with some smaller 150mm and 225mm mains on the Eastern Side of Port Wakefield Rd in the Burton area, however this network has capacity constraints.
- It is likely that a catchment pump station will be required to service this area.

### **Recycled Water**

- There are recycled water mains with the Bolivar Treatment plant area and there may be an option for mains extensions off these mains to this area.

### **CATCHMENTS 2,3 AND 4 NORTHERN AREA**





## Water

- 300DICL in Mumford Road through the middle of catchment 3
- 200AC Main on the Western side of Port Wakefield Road
- 150AC along Dunn Rd continuing west along St Kilda Road
- 100PE main along Dunn Road terminating just past Wilson St.
- 100AC main in Anjanto Road continuing West along Barker Road.
- 150PE main in Coleman Road

\*\* An assessment was completed on the St Kilda area for the defence site on the corner of St Kilda Road and Coleman Rd which identified constraints within this network should further development occur. It was advised that a 2.3km of DN250 mains to be relayed in Dunn Rd.\*\*

## Wastewater

- There is no wastewater network currently available in this area.
- SA Water is currently completing the Virginia Trunk Sewer network which includes a relift WWPS being constructed within the SA Water Bolivar WWTP site near the South Eastern corner of St Kilda Road and Coleman Road. There is currently no capacity allowance in this WWPS for development in the surrounding area, however there may be an opportunity for upgrades of this station to occur to accommodate additional discharge. This will need to be assessed.

## Recycled Water

- There are a number of mains in this area that are part of the Virginia Pipeline Scheme (VPS). The VPS network is currently at full allocation, however with the Northern Adelaide Irrigation Scheme (NAIS) network in close proximity there may be an opportunity to provide recycled water to this area. This will need to be assessed.

Please note the above information is just advising what is currently on site and what information we already know of the network. An assessment is now underway to investigate and to provide more information however as previously advised this will take considerable time as it is complicated. In addition we are currently completing master planning works as part of preparing for our Regulatory Determination 2024 and this area forms part of the master planning work.

I hope this helps in the interim and Corey will be your point of contact for this work moving forward.

Kind Regards

## Debbie Snoswell

Account Manager, Development Services

[Debbie.Snoswell@sawater.com.au](mailto:Debbie.Snoswell@sawater.com.au) • 7424 1133 • 0416 245 296  
250 Victoria Square/Tarntanyangga ADELAIDE SA 5000



sawater.com.au



SA Water respects and acknowledges the deep spiritual connection, knowledge and relationship Aboriginal and Torres Strait Islander people have to land and water.

---

**From:** Min Soo Lee <MLee@greenhillaustralia.com.au>  
**Sent:** Thursday, 14 April 2022 8:40 AM  
**To:** Snoswell, Debbie <Debbie.Snoswell@sawater.com.au>  
**Cc:** Grapentin, Corey <Corey.Grapentin@sawater.com.au>; Majorld <majorld@sawater.com.au>  
**Subject:** FW: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request to SA Water for Infrastructure Advice  
**Importance:** High



**External sender**

Think before you click, open with caution

Hi Debbie / Corey,

Following up on the progress of below, how are you going with it?

Please acknowledge receipt of the email and confirm this is being looked after?

Look forward to hearing from you soon.

Any questions, please let me know.

Regards,

**Min Soo Lee**

Graduate Engineer

**GREENHILL**

Level 1, 178 Fullarton Road, Dulwich SA 5065

T 08 8406 1300 | [www.greenhillaustralia.com.au](http://www.greenhillaustralia.com.au)

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---

**From:** Cindy Oliver

**Sent:** Thursday, 24 March 2022 2:42 PM

**To:** Majorld <[majorld@sawater.com.au](mailto:majorld@sawater.com.au)>

**Cc:** 'Chantal Milton' <[chantal@holmesdyer.com.au](mailto:chantal@holmesdyer.com.au)>

**Subject:** 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request to SA Water for Infrastructure Advice

**Importance:** High

**COMMERCIAL IN CONFIDENCE**

**ATTENTION: Debbie and Corey**

Dear Debbie and Corey,

We have been engaged by the City of Salisbury to undertake an investigation of the preliminary servicing requirements as part of the City's Strategic Growth Framework. The aim of the Strategic Growth Framework is to understand the opportunities for economic growth and development for the land west of Port Wakefield Road within the City of Salisbury to inform the development of a structure plan for the City to 2035.

We provided for your reference the following:

- Proposed Structure Plans ([15.03.22 Consolidated -Strategic Growth Framework Plans.pdf](#))
- Strategic Growth Framework Waterloo Corner and Bolivar Corridor Stakeholder Engagement Plan ([0749 Strategic Growth Framework Waterloo Bolivar Engagement Plan - ENDORSED 09.03.pdf](#)).
- Anticipated yield and use analysis including
  - Development Activity Composition and Workforce ([01032022 \\_ Development Activity Composition and Workforce.pdf](#)),
  - Annual Average Development Activity ([01032022 \\_ Annual Average Development Activity.pdf](#))
  - Areas plan ([Refer 24022022 \\_ Area Calcs - Updated Legend Colour.pdf](#)).

The subject area has been divided into 4 precincts ([Refer 24022022 \\_ Area Calcs - Updated Legend Colour.pdf](#)). Areas of existing development, roads, stormwater and open space and selected zonings have been excluded from this area to establish a new developable area.

A range of factors have been applied to establish the residual development area (after allowing for subdivision, roads, stormwater, infrastructure and open space), anticipated levels of floorspace construction on those lots, the mix of likely land uses and the consequent workforce likely to be generated by those uses. This is summarised in the table [01032022 \\_ Development Activity Composition and Workforce.pdf](#).

A likely timing of development within each precinct and an overall rate of land, floorspace and workforce development on an annual basis has been applied. Refer to table [01032022 \\_ Annual Average Development Activity.pdf](#).

For service infrastructure purposes, this assumes the consumption of 14.5 gross hectares of land per annum over 35 years, which equates to 8.7 net hectares of actual allotments, delivering 26,000 m<sup>2</sup> of floorspace and 190 workers per annum.

These numbers are underpinned by a range of research investigations and assumptions that will be detailed in a future document. However, given the urgency of service investigations, we have provided you with the anticipated outcomes for now.

Based on the above we request preliminary advice for sewer and water servicing for the following:

- Servicing requirements for the growth area based on the above and attached;
- Existing capacity issues or constraints;
- The critical point at which additional development may be sustained before augmentation of existing infrastructure is required,
- Any augmentation charges that may apply; and
- Any foreseeable headworks.

In order to meet the timeframe for presentation of a final report to the City of Salisbury and elected members by the end of June 2022 we request a response be provided by **2 May 2022** or earlier if possible.

Additionally, we request a meeting with SA Water together with the representatives of Holmes Dyer, City of Salisbury and ourselves to provide an overview of the project. Can you please confirm availability so that we can convene a meeting as soon as possible.

We look forward to hearing from you soon.

Should you require any clarification of the above please do not hesitate to contact me.

Regards,

**Cindy Oliver**

Principal Engineer

BE(Civil) (Hons), MIEAust, CPEng, NPER

**GREENHILL**

Engineers | Landscape Architects

T 08 8406 1300

M 0419 808 810

E [cindy@greenhillaustralia.com.au](mailto:cindy@greenhillaustralia.com.au)

Level 1, 178 Fullarton Road

Dulwich SA 5065

[www.greenhillaustralia.com.au](http://www.greenhillaustralia.com.au)

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Adelaide SA 5001  
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Facsimile: + 61 8 7003 3329

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AquaMap Comment

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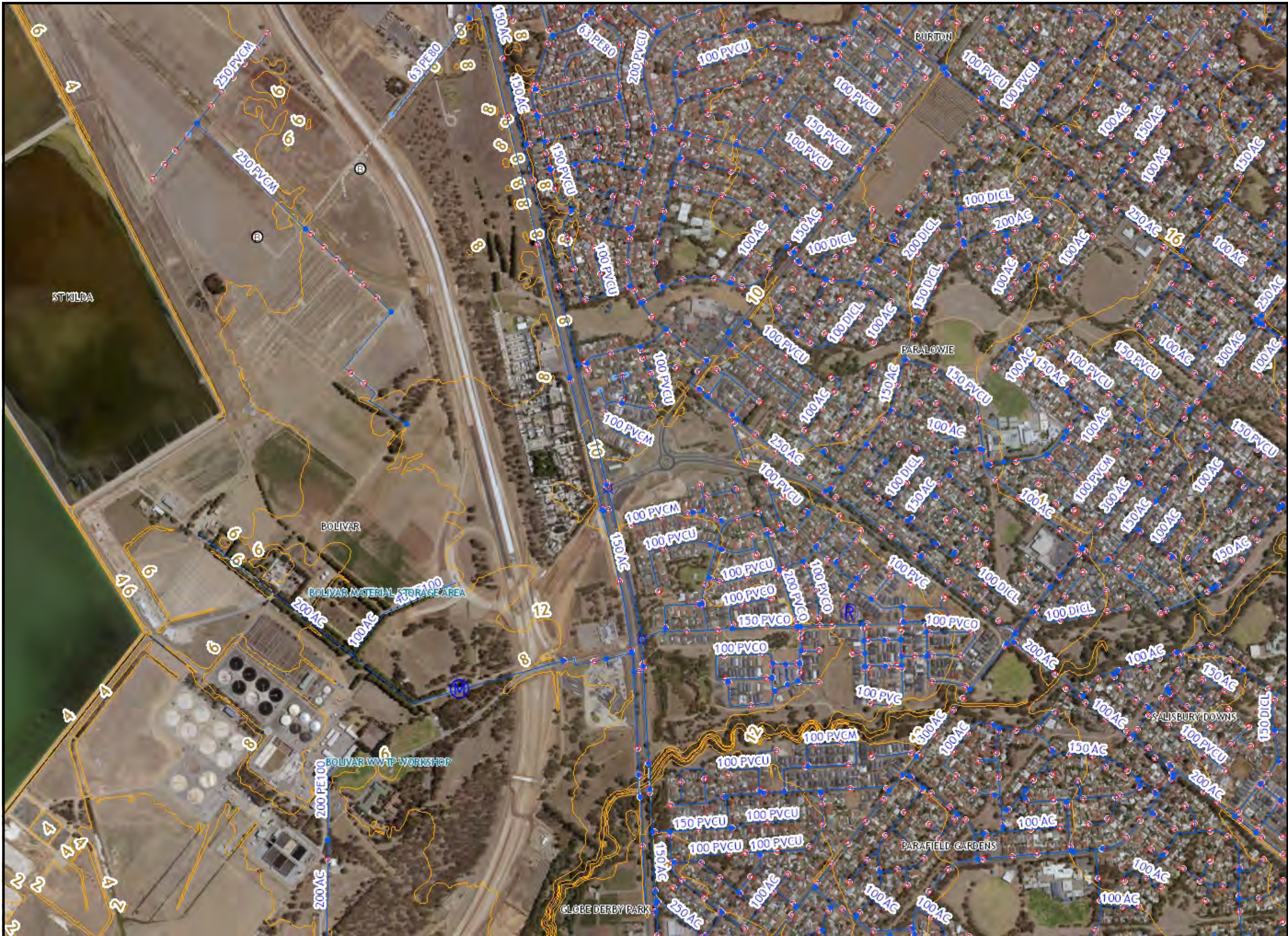
- SA Water Depots
- Suburbs
- Reservoirs
- National Parks
- Wastewater Gravity Labels
- Wastewater Pumping Labels
- Wastewater Low Pressure Lab
- Wastewater Vacuum Labels
- Wastewater Mains Planning Lc
- Wastewater Gravity Mains
- Wastewater Vacuum Mains
- Wastewater Pumping Mains
- Standard
- Sludge
- Effluent Outfall
- Special Use
- Wastewater Low Pressure
- Wastewater Ancillary Pipes
- Wastewater Mains Planning
- Wastewater Maintenance Hole
- Wastewater Maintenance Shaft
- Wastewater Inspection Opening
- Wastewater Valves
- Wastewater Attachments

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  - Non-Potable System (Raw Water)
  - Potability Not Allocated
  - Air Gap
  - ... Private Ownership
- Water Mains Planning
- Water Network Links
- Water Pumps
- Water Valves
  - Other
  - Isolation Normally Open
  - Isolation Normally Closed
- Water Hydrants
- Water Pillar Hydrants
- Water Attachments
- Water Access Openings
- Water References
- Water Structures

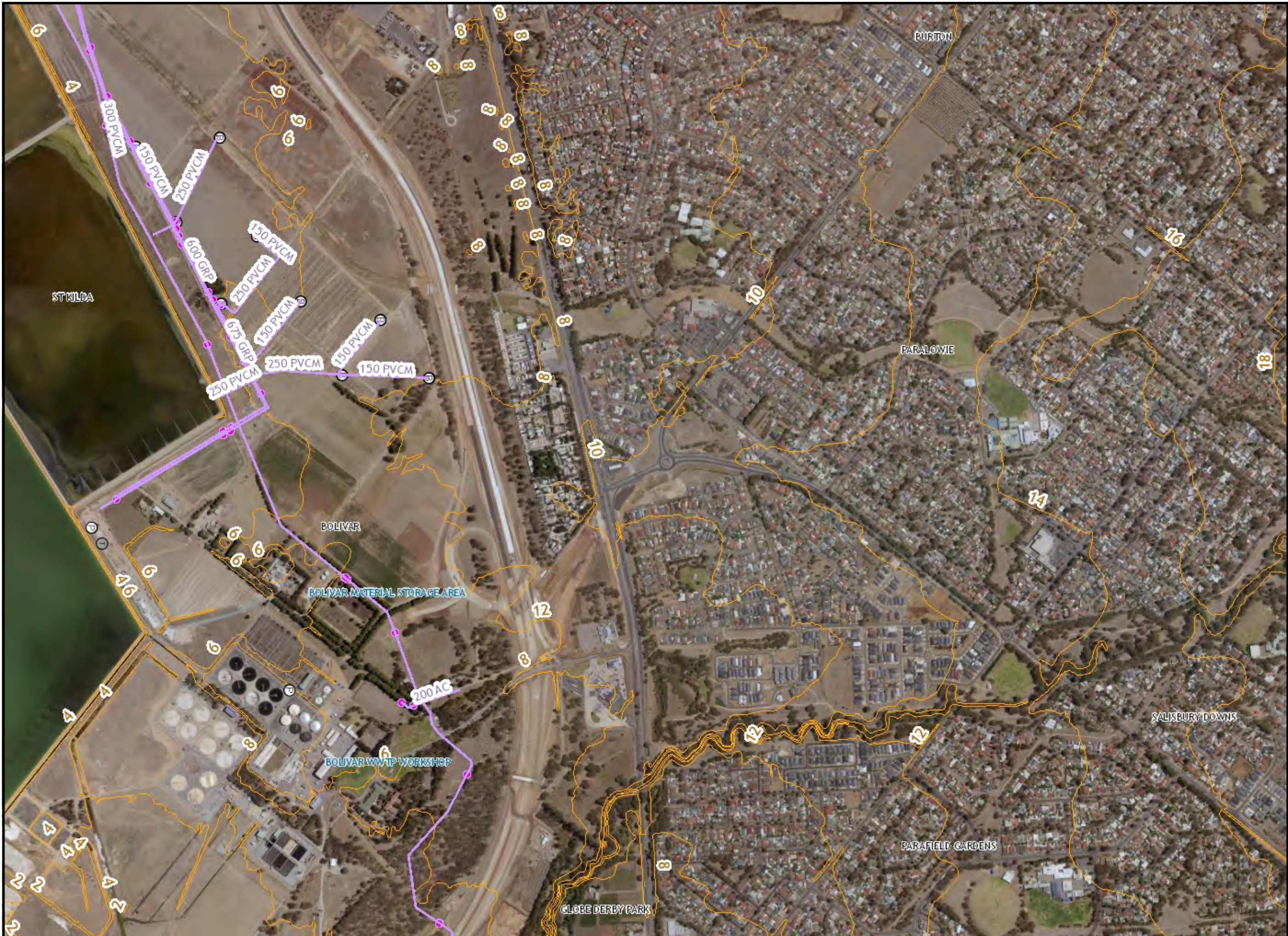
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- Recycled Water Valves
- Recycled Water Junctions
- Recycled Water Structures
  - Bore
  - Control Installation
  - Chamber
  - Disinfection
  - Dissipator
  - PumpStation
  - Storage
  - TreatmentPlant
- Recycled Water References
- Recycled Water Mains (Decor)
- Recycled Water Structures (De
- Contours 2m

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- National Parks
- Recycled Water Main Labels
- Recycled Water Mains
  - In Service Mains
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  - Recycled Water Mains Plannin
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- Recycled Water Junctions
- Recycled Water Structures
  - Bore
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  - Dissipator
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- Recycled Water Mains (Decor)
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SA Water Depots

Suburbs

Reservoirs

National Parks

Water Mains

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- Air Gap
- Private Ownership

--- Water Mains Planning

--- Water Network Links

Water Pumps

Water Valves

- Other
- Isolation Normally Open
- Isolation Normally Closed

● Water Hydrants

● Water Pillar Hydrants

Water Attachments

Water Access Openings

Water References

Water Structures

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- Recycled Water Valves
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  - ⊙ Bore
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  - ⊙ Dissipator
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## Cindy Oliver

---

**From:** Tim Adams <Tim.adams@sapowernetworks.com.au>  
**Sent:** Thursday, 12 May 2022 10:22 AM  
**To:** Min Soo Lee  
**Cc:** Cindy Oliver; Frank Greco  
**Subject:** RE: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request to SAPN for Infrastructure Advice

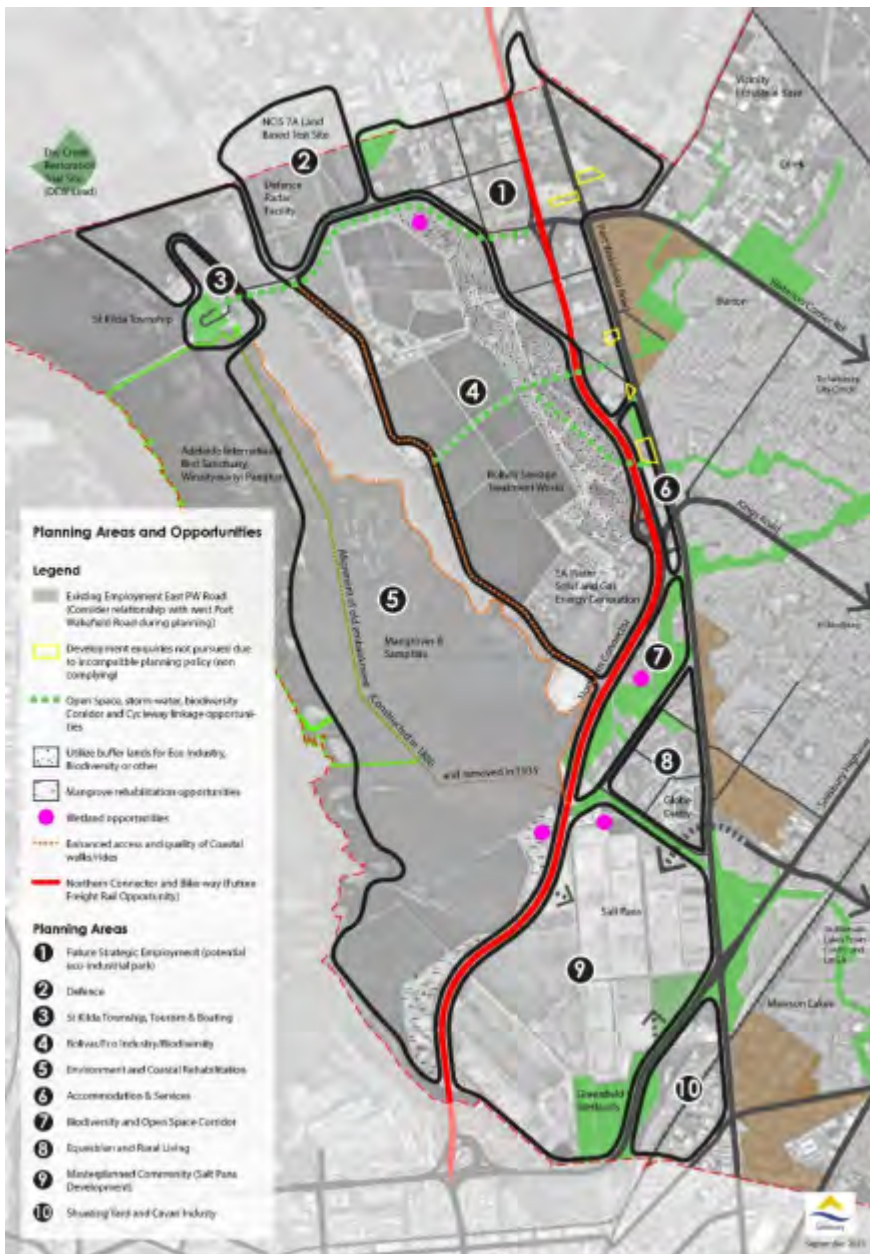
Hi Min

The engineering team have provided the following information in relation to your enquiry. It is very difficult to provide meaningful advice when the enquiry is as such high level but we have tried to give some insight for you.

The Waterloo Corner and Bolivar Corridor is currently being supplied by Direk, Paralowie, Parafield Gardens and Cavan Substations as seen in the image below (right hand side). The corridor is currently being serviced by the existing 11kV high voltage network, however the corridor is also located at the extent of the substation areas which results in network constraints due to end of line voltage drop.

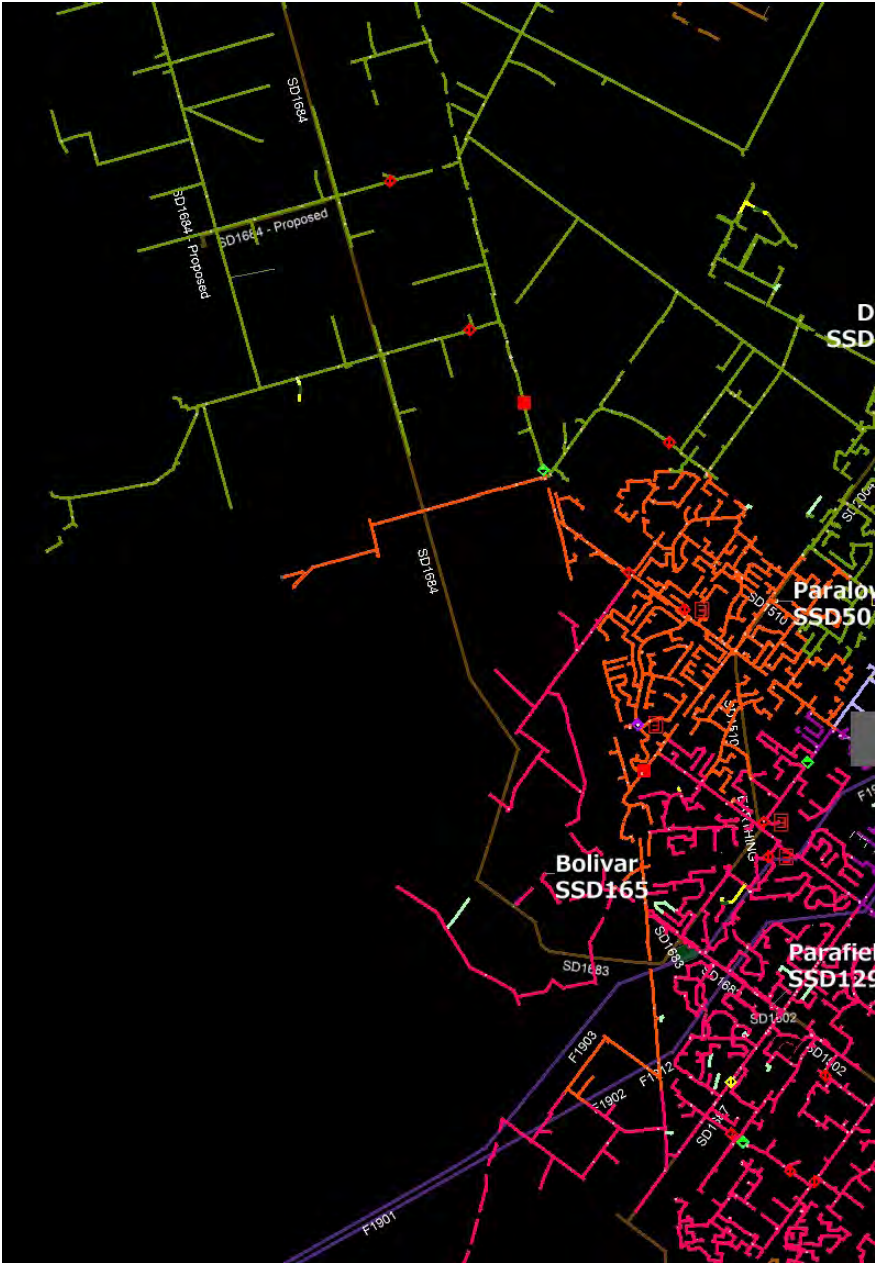
At the very least, the existing feeder network will need to be extended and strengthened to supply any significant additional load. The image on the left identifies planning areas that were previously supplied by the local authorities as we have seen this enquiry before. We have given more detail against these areas in an effort to make our response specific and meaningful. To provide greater detail will require you to be more specific on load impacts.

- **Planning Areas 1 – 3:** will require a new 11kV feeder (s) from a nearby substation as existing infrastructure in the area is already constrained (thermal and voltage) and existing load is approaching capacity limits. Feeder backbone upgrades are also likely to be required if demand for future employment area increases. Substation Capacity is forecasted to be exceeded due to the increase number and size of generation and load connections which will impact project timing and should be considered.
- **Planning Areas 4 – 5:** has little to no existing infrastructure and thus any significant increase in demand for this horticultural area will require feeder extension assets to be constructed which will have significant cost impacts for the project.
- **Planning Areas 6 – 8:** existing feeders has spare capacity for increase demand however voltages will need to be managed for end of line connection especially on the weaker section of the feeders. Suggest the capacity would permit preliminary establishment of the precinct before new feeder extensions would be required.
- **Planning Areas 9 – 10:** will require new 11kV feeder(s) or possibly a new zone substation to service this large residential development.



## Planning Areas

- 1** Future Strategic Employment (potential eco-industrial park)
- 2** Defence
- 3** St Kilda Township, Tourism & Boating
- 4** Bolivar/Eco Industry/Biodiversity
- 5** Environment and Coastal Rehabilitation
- 6** Accommodation & Services
- 7** Biodiversity and Open Space Corridor
- 8** Equestrian and Rural Living
- 9** Metroplanned Community (Salt Pans Development)
- 10** Shedding Yard and Coval Industry



Regards

Tim Adams  
**Large Embedded Generation Manager**

Direct: 08 8404 4628  
Mobile: 0400 582 146  
[tim.adams@sapowernetworks.com.au](mailto:tim.adams@sapowernetworks.com.au)

1 Anzac Highway Keswick SA 5035  
[sapowernetworks.com.au](http://sapowernetworks.com.au)



---

**From:** Min Soo Lee <MLee@greenhillaustralia.com.au>  
**Sent:** Thursday, 12 May 2022 8:18 AM  
**To:** Tim Adams <Tim.adams@sapowernetworks.com.au>  
**Cc:** Cindy Oliver <Cindy@greenhillaustralia.com.au>; Frank Greco <Frank.Greco@sapowernetworks.com.au>  
**Subject:** RE: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request to SAPN for Infrastructure Advice

External email! - Think before you click.

Hi Frank / Tim,

Hope you have been well.

I'm currently in the process of summing up all the infrastructure advice, can you please advise on the status of below?

I look forward to hearing from you soon.

Any questions, give me a call.

Regards,

**Min Soo Lee**  
Graduate Engineer

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**From:** Tim Adams <[Tim.adams@sapowernetworks.com.au](mailto:Tim.adams@sapowernetworks.com.au)>  
**Sent:** Thursday, 14 April 2022 12:33 PM  
**To:** Michael Lee <[MLee@greenhillaustralia.com.au](mailto:MLee@greenhillaustralia.com.au)>  
**Cc:** Cindy Oliver <[Cindy@greenhillaustralia.com.au](mailto:Cindy@greenhillaustralia.com.au)>; Frank Greco <[Frank.Greco@sapowernetworks.com.au](mailto:Frank.Greco@sapowernetworks.com.au)>  
**Subject:** RE: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request to SAPN for Infrastructure Advice

Hi Min

FYI, have set a meeting on the 26<sup>th</sup> April 2022 with the planning Engineer who is managing the area at present, to keep our engineers on track mainly.

Frank Greco is managing the area at present in my old role and either Frank or I will come back to you.

We are working towards getting you a response by the end of the month as identified earlier.

Cheers

Tim Adams  
**Large Embedded Generation Manager**

---

Direct: 08 8404 4628

Mobile: 0400 582 146

[tim.adams@sapowernetworks.com.au](mailto:tim.adams@sapowernetworks.com.au)

---

1 Anzac Highway Keswick SA 5035

[sapowernetworks.com.au](http://sapowernetworks.com.au)



---

**From:** Min Soo Lee

**Sent:** Thursday, 14 April 2022 8:56 AM

**To:** Tim Adams

**Subject:** FW: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request to SAPN for Infrastructure Advice

**Importance:** High

External email! - Think before you click.

Hi Tim,

Apologies, I have overlooked the email you have sent through regarding the response on this project, thank you for sending that through.

Please ignore my previous email.

Regards,

**Min Soo Lee**

Graduate Engineer

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**From:** Min Soo Lee

**Sent:** Thursday, 14 April 2022 8:41 AM

**To:** 'tim.adams@sapowernetworks.com.au' <[tim.adams@sapowernetworks.com.au](mailto:tim.adams@sapowernetworks.com.au)>

**Cc:** Cindy Oliver <[Cindy@greenhillaustralia.com.au](mailto:Cindy@greenhillaustralia.com.au)>

**Subject:** FW: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request to SAPN for Infrastructure Advice

**Importance:** High



Hi Tim,

Following up on the progress of below, how are you going with it?

Please acknowledge receipt of the email and confirm this is being looked after?

Look forward to hearing from you soon.

Any questions, please let me know.

Regards,

**Min Soo Lee**  
Graduate Engineer

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**From:** Cindy Oliver

**Sent:** Wednesday, 30 March 2022 2:36 PM

**To:** [Tim.adams@sapowernetworks.com.au](mailto:Tim.adams@sapowernetworks.com.au)

**Cc:** Min Soo Lee <[MLee@greenhillaustralia.com.au](mailto:MLee@greenhillaustralia.com.au)>; 'Chantal Milton' <[chantal@holmesdyer.com.au](mailto:chantal@holmesdyer.com.au)>

**Subject:** 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request to SAPN for Infrastructure Advice

**Importance:** High

## COMMERCIAL IN CONFIDENCE

Dear Tim

We have been engaged by the City of Salisbury to undertake an investigation of the preliminary servicing requirements as part of the City's Strategic Growth Framework. The aim of the Strategic Growth Framework is to understand the opportunities for economic growth and development for the land west of Port Wakefield Road within the City of Salisbury to inform the development of a structure plan for the City to 2035.

We provide for your reference the following:

- Proposed Structure Plans (*15.03.22 Consolidated -Strategic Growth Framework Plans.pdf*)
- Strategic Growth Framework Waterloo Corner and Bolivar Corridor Stakeholder Engagement Plan (*0749 Strategic Growth Framework Waterloo Bolivar Engagement Plan - ENDORSED 09.03.pdf*).
- Anticipated yield and use analysis including
  - Development Activity Composition and Workforce (*01032022 \_ Development Activity Composition and Workforce.pdf*),
  - Annual Average Development Activity (*01032022 \_ Annual Average Development Activity.pdf*)
  - Areas plan (*Refer 24022022 \_ Area Calcs - Updated Legend Colour.pdf*).

The subject area has been divided into 4 precincts ([Refer 24022022 \\_ Area Calcs - Updated Legend Colour.pdf](#)). Areas of existing development, roads, stormwater and open space and selected zonings have been excluded from this area to establish a new developable area.

A range of factors have been applied to establish the residual development area (after allowing for subdivision, roads, stormwater, infrastructure and open space), anticipated levels of floorspace construction on those lots, the mix of likely land uses and the consequent workforce likely to be generated by those uses. This is summarised in the table [01032022 \\_ Development Activity Composition and Workforce.pdf](#).

A likely timing of development within each precinct and an overall rate of land, floorspace and workforce development on an annual basis has been applied. Refer to table [01032022 \\_ Annual Average Development Activity.pdf](#).

For service infrastructure purposes, this assumes the consumption of 14.5 gross hectares of land per annum over 35 years, which equates to 8.7 net hectares of actual allotments, delivering 26,000 m<sup>2</sup> of floorspace and 190 workers per annum.

These numbers are underpinned by a range of research investigations and assumptions that will be detailed in a future document. However, given the urgency of service investigations, we have provided you with the anticipated outcomes for now.

Based on the above we request preliminary advice for electrical servicing for the following:

- Servicing requirements for the growth area based on the above and attached;
- Existing capacity issues or constraints;
- The critical point at which additional development may be sustained before augmentation of existing infrastructure is required,
- Any augmentation charges that may apply; and
- Any foreseeable headworks.

In order to meet the timeframe for presentation of a final report to the City of Salisbury and elected members by the end of June 2022 we request a response be provided by **2 May 2022** or earlier if possible.

Additionally, we request a meeting with SAPN together with the representatives of Holmes Dyer, City of Salisbury and ourselves to provide an overview of the project. Can you please confirm availability so that we can convene a meeting as soon as possible.

We look forward to hearing from you soon.

Should you require any clarification of the above please do not hesitate to contact me.

Regards,

**Cindy Oliver**

Principal Engineer  
BE(Civil) (Hons), MIEAust, CPEng, NPER

**GREENHILL**  
Engineers | Landscape Architects

T 08 8406 1300  
M 0419 808 810  
E [cindy@greenhillaustralia.com.au](mailto:cindy@greenhillaustralia.com.au)

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## Cindy Oliver

---

**From:** Emmanuel Chalacas <emmanuelchalacas@nbnco.com.au>  
**Sent:** Monday, 11 April 2022 2:52 PM  
**To:** Kamie Ang; Michael Lee  
**Subject:** RE: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request for Infrastructure Advice

NBN Classification - Commercial

Hi Min Soo,

Having a look at the zone in question, I can advise that **nbn** has access to plenty of network duct capacity via the Telstra network from Port Wakefield road, st Kilda road and robinson road

Any development that would occur west of Port Wakefield road would simply need **nbn** pit and pipe installed to join up to this existing network

As part of any new road installations in this area, we would expect **nbn** pit and pipe to be installed as part of overall services to ensure continuity of service pathway

Please let me know if you have any specific questions/concerns over a specific area and I will be able to assist in more detail

Kind regards,

**Emmanuel Chalacas**  
**New Developments and Relocation Works Projects**

M 0457 313 729 | E [emmanuelchalacas@nbnco.com.au](mailto:emmanuelchalacas@nbnco.com.au)  
81 Greenhill Road, Wayville SA



**nbn** acknowledges and pays respects to the traditional custodians of all the lands upon which we work.

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**From:** Kamie Ang  
**Sent:** Monday, 11 April 2022 10:23 AM

**To:** Michael Lee ; Emmanuel Chalacas

**Subject:** FW: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request for Infrastructure Advice

**Importance:** High

NBN Classification - Commercial

Hey Min Soo,

I might ask you to liaise directly with Emmanuel (copied) regarding your DBYD enquiry as he's more across the network assets that I am.

[@Emmanuel Chalacas](#) can you please assist Min Soo with the below?

K

---

**From:** Min Soo Lee <[MLee@greenhillaustralia.com.au](mailto:MLee@greenhillaustralia.com.au)>

**Sent:** Thursday, 7 April 2022 7:31 AM

**To:** Kamie Ang <[kamieang@nbnco.com.au](mailto:kamieang@nbnco.com.au)>

**Subject:** [External] FW: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request for Infrastructure Advice

Hi again Kamie,

Hope response to previous email is going okay.

To avoid confusion, please ignore the section asking for "preliminary advice for sewer and water servicing" but instead, please subject it to the service which NBN provide.

i.e., it should read as below:

Based on the above we request preliminary advice for the following from NBN

- Servicing requirements for the growth area based on the above and attached;
- Existing capacity issues or constraints;
- The critical point at which additional development may be sustained before augmentation of existing infrastructure is required,
- Any augmentation charges that may apply; and
- Any foreseeable headworks.

Also, not sure if you can assist with this but I have requested DBYD documents for NBN, and received pdfs with hundreds of pages of plans.

Given the big site, it will be of a great inconvenience to locate services through hundreds of pages, can NBN assist in some way to make this easier? Say send DWGs for the site? If you can help with this in addition to above request, that will be great!

Please confirm whether this request has been received and let me know if you have any questions.

Regards,

**Min Soo Lee**

Graduate Engineer

**GREENHILL**

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---

**From:** Min Soo Lee  
**Sent:** Wednesday, 6 April 2022 10:51 AM  
**To:** 'Kamie Ang' <[kamieang@nbnco.com.au](mailto:kamieang@nbnco.com.au)>  
**Cc:** Cindy Oliver <[Cindy@greenhillaustralia.com.au](mailto:Cindy@greenhillaustralia.com.au)>  
**Subject:** 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request for Infrastructure Advice

**COMMERCIAL IN CONFIDENCE**

Hi Kamie,

We have been engaged by the City of Salisbury to undertake an investigation of the preliminary servicing requirements as part of the City's Strategic Growth Framework. The aim of the Strategic Growth Framework is to understand the opportunities for economic growth and development for the land west of Port Wakefield Road within the City of Salisbury to inform the development of a structure plan for the City to 2035.

We provide for your reference the following:

- Proposed Structure Plans (*15.03.22 Consolidated -Strategic Growth Framework Plans.pdf*)
- Strategic Growth Framework Waterloo Corner and Bolivar Corridor Stakeholder Engagement Plan (*0749 Strategic Growth Framework Waterloo Bolivar Engagement Plan - ENDORSED 09.03.pdf*).
- Anticipated yield and use analysis including
  - Development Activity Composition and Workforce (*01032022 \_ Development Activity Composition and Workforce.pdf*),
  - Annual Average Development Activity (*01032022 \_ Annual Average Development Activity.pdf*)
  - Areas plan (*Refer 24022022 \_ Area Calcs - Updated Legend Colour.pdf*).

The subject area has been divided into 4 precincts (*Refer 24022022 \_ Area Calcs - Updated Legend Colour.pdf*). Areas of existing development, roads, stormwater and open space and selected zonings have been excluded from this area to establish a new developable area.

A range of factors have been applied to establish the residual development area (after allowing for subdivision, roads, stormwater, infrastructure and open space), anticipated levels of floorspace construction on those lots, the mix of likely land uses and the consequent workforce likely to be generated by those uses. This is summarised in the table *01032022 \_ Development Activity Composition and Workforce.pdf*.

A likely timing of development within each precinct and an overall rate of land, floorspace and workforce development on an annual basis has been applied. Refer to table *01032022 \_ Annual Average Development Activity.pdf*.

For service infrastructure purposes, this assumes the consumption of 14.5 gross hectares of land per annum over 35 years, which equates to 8.7 net hectares of actual allotments, delivering 26,000 m<sup>2</sup> of floorspace and 190 workers per annum.

These numbers are underpinned by a range of research investigations and assumptions that will be detailed in a future document. However, given the urgency of service investigations, we have provided you with the anticipated outcomes for now.

Based on the above we request preliminary advice for sewer and water servicing for the following:

- Servicing requirements for the growth area based on the above and attached;
- Existing capacity issues or constraints;
- The critical point at which additional development may be sustained before augmentation of existing infrastructure is required,
- Any augmentation charges that may apply; and
- Any foreseeable headworks.

In order to meet the timeframe for presentation of a final report to the City of Salisbury and elected members by the end of June 2022 we request a response be provided by **2 May 2022** or earlier if possible.

We look forward to hearing from you soon.

Please also confirm the receipt of this email so we can keep track of the progress.

Should you require any clarification of the above please do not hesitate to contact me.

Regards,

**Min Soo Lee**  
Graduate Engineer

**GREENHILL**  
Engineers | Landscape Architects

T 08 8406 1300  
E [mlee@greenhillaustralia.com.au](mailto:mlee@greenhillaustralia.com.au)

Level 1, 178 Fullarton Road  
Dulwich SA 5065  
[www.greenhillaustralia.com.au](http://www.greenhillaustralia.com.au)

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## Cindy Oliver

---

**From:** Carter, Murray <Murray.L.Carter@team.telstra.com>  
**Sent:** Thursday, 7 April 2022 8:04 AM  
**To:** Min Soo Lee  
**Subject:** RE: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request to SA Water for Infrastructure Advice SALA

Hello Min Soo Lee, unfortunately we are unable to advise regarding “sewer and water servicing”, but regarding Telstra Infraco please refer to the Telstra Infraco Network Integrity Section for Retain/ Protect/ Relocate of these items.

More info is available at the link ... <https://www.telstra.com.au/consumer-advice/digging-construction>

Also Telstra Ductco would wish to be considered for receipt of Developer/Council provided secondary communications conduits/pits in areas where none exist and they are required to be Provided by the Developer/Council.

Thanks

Murray Carter  
Capacity Planner – Pit Pipe and Duct.  
Telstra InfraCo  
E [Murray.L.Carter@team.telstra.com](mailto:Murray.L.Carter@team.telstra.com)  
W [www.telstra.com](http://www.telstra.com)

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If I've sent it to you by accident, please delete it immediately

---

**From:** Min Soo Lee <MLee@greenhillaustralia.com.au>  
**Sent:** Wednesday, 6 April 2022 11:16 AM  
**To:** ! InfraCo Pit, Pipe and Duct Planning <F1901142@team.telstra.com>  
**Cc:** Carter, Murray <Murray.L.Carter@team.telstra.com>  
**Subject:** FW: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request to SA Water for Infrastructure Advice

You don't often get email from [mlee@greenhillaustralia.com.au](mailto:mlee@greenhillaustralia.com.au). [Learn why this is important](#)

[External Email] This email was sent from outside the organisation – be cautious, particularly with links and attachments.

Hi,

Can you please confirm the receipt of previous email and let me know whether this is currently being looked after?

Hope to hear from you soon 😊

Regards,

**Min Soo Lee**  
Graduate Engineer

**GREENHILL**

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---

**From:** Min Soo Lee  
**Sent:** Thursday, 31 March 2022 1:33 PM  
**To:** 'F1901142@team.telstra.com' <[F1901142@team.telstra.com](mailto:F1901142@team.telstra.com)>  
**Cc:** 'Carter, Murray' <[Murray.L.Carter@team.telstra.com](mailto:Murray.L.Carter@team.telstra.com)>  
**Subject:** FW: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request to SA Water for Infrastructure Advice

**COMMERCIAL IN CONFIDENCE**

To Whom it may concern,

We have been engaged by the City of Salisbury to undertake an investigation of the preliminary servicing requirements as part of the City's Strategic Growth Framework. The aim of the Strategic Growth Framework is to understand the opportunities for economic growth and development for the land west of Port Wakefield Road within the City of Salisbury to inform the development of a structure plan for the City to 2035.

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- Strategic Growth Framework Waterloo Corner and Bolivar Corridor Stakeholder Engagement Plan ([0749 Strategic Growth Framework Waterloo Bolivar Engagement Plan - ENDORSED 09.03.pdf](#)).
- Anticipated yield and use analysis including
  - Development Activity Composition and Workforce ([01032022 \\_ Development Activity Composition and Workforce.pdf](#)),
  - Annual Average Development Activity ([01032022 \\_ Annual Average Development Activity.pdf](#))
  - Areas plan ([Refer 24022022 \\_ Area Calcs - Updated Legend Colour.pdf](#)).

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A range of factors have been applied to establish the residual development area (after allowing for subdivision, roads, stormwater, infrastructure and open space), anticipated levels of floorspace construction on those lots, the mix of likely land uses and the consequent workforce likely to be generated by those uses. This is summarised in the table [01032022 \\_ Development Activity Composition and Workforce.pdf](#).

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For service infrastructure purposes, this assumes the consumption of 14.5 gross hectares of land per annum over 35 years, which equates to 8.7 net hectares of actual allotments, delivering 26,000 m<sup>2</sup> of floorspace and 190 workers per annum.

These numbers are underpinned by a range of research investigations and assumptions that will be detailed in a future document. However, given the urgency of service investigations, we have provided you with the anticipated outcomes for now.

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- Any foreseeable headworks.

In order to meet the timeframe for presentation of a final report to the City of Salisbury and elected members by the end of June 2022 we request a response be provided by **2 May 2022** or earlier if possible.

We look forward to hearing from you soon.



Should you require any clarification of the above please do not hesitate to contact me.

Regards,

**Min Soo Lee**

Graduate Engineer

**GREENHILL**

Level 1, 178 Fullarton Road, Dulwich SA 5065

T 08 8406 1300 | [www.greenhillaustralia.com.au](http://www.greenhillaustralia.com.au)

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---

**From:** Carter, Murray <[Murray.L.Carter@team.telstra.com](mailto:Murray.L.Carter@team.telstra.com)>

**Sent:** Thursday, 31 March 2022 12:37 PM

**To:** Min Soo Lee <[MLee@greenhillaustralia.com.au](mailto:MLee@greenhillaustralia.com.au)>

**Subject:** FW: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request to SA Water for Infrastructure Advice

Hello, If you have any documentation regarding your planning activities, please send them through our mailbox

**To:** ! InfraCo Pit, Pipe and Duct Planning <[F1901142@team.telstra.com](mailto:F1901142@team.telstra.com)>;

Thanks

Murray Carter

Capacity Planner – Pit Pipe and Duct.

Telstra InfraCo

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---

**From:** Min Soo Lee <[MLee@greenhillaustralia.com.au](mailto:MLee@greenhillaustralia.com.au)>

**Sent:** Wednesday, 30 March 2022 2:40 PM

**To:** Perriton, Kevin <[Kevin.Perriton@team.telstra.com](mailto:Kevin.Perriton@team.telstra.com)>

**Subject:** RE: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request to SA Water for Infrastructure Advice

[External Email] This email was sent from outside the organisation – be cautious, particularly with links and attachments.

Hi Kevin,

Thank you for your response.

Yes it will be for future works. In terms of timing, it is currently uncertain but should anything arise that requires your attention, we will let you know.

Regards,

**Min Soo Lee**

Graduate Engineer

**GREENHILL**

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---

**From:** Perriton, Kevin <[Kevin.Perriton@team.telstra.com](mailto:Kevin.Perriton@team.telstra.com)>  
**Sent:** Wednesday, 30 March 2022 3:05 PM  
**To:** Min Soo Lee <[MLee@greenhillaustralia.com.au](mailto:MLee@greenhillaustralia.com.au)>  
**Subject:** FW: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request to SA Water for Infrastructure Advice

Min,

I have forward you email on to one of the Telstra fundamental planner that may better suited to assist you.

Could I just confirm we are taking about future service requirement within the City of Salisbury area and not the existing Telstra communication network.

**Kevin Perriton**

Field Operative: SA /Vic

Design & Construct / InfraCo Operations / Network Integrity

P - M [0417 861 748](tel:0417861748) E [Kevin.Perriton@team.telstra.com](mailto:Kevin.Perriton@team.telstra.com) W [www.telstra.com](http://www.telstra.com)



**Network Restriction 2022 13/04 to 28/04**

**(Up and coming leave: 1st of August to the 19th August 2022)**

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---

**From:** Min Soo Lee <[MLee@greenhillaustralia.com.au](mailto:MLee@greenhillaustralia.com.au)>  
**Sent:** Wednesday, 30 March 2022 1:51 PM  
**To:** Perriton, Kevin <[Kevin.Perriton@team.telstra.com](mailto:Kevin.Perriton@team.telstra.com)>  
**Subject:** 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request to SA Water for Infrastructure Advice

[External Email] This email was sent from outside the organisation – be cautious, particularly with links and attachments.

**COMMERCIAL IN CONFIDENCE**

Hi Kevin,

We have been engaged by the City of Salisbury to undertake an investigation of the preliminary servicing requirements as part of the City's Strategic Growth Framework.

Are you the best person to speak to from Telstra regarding above? If it should be enquired to someone else, please direct me to them.

Hope to hear from you soon.

Regards,

**Min Soo Lee**

Graduate Engineer

**GREENHILL**

Engineers | Landscape Architects

T 08 8406 1300

E [mlee@greenhillaustralia.com.au](mailto:mlee@greenhillaustralia.com.au)

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## Cindy Oliver

---

**From:** Peter Faunt <Peter.Faunt@epic.com.au>  
**Sent:** Monday, 2 May 2022 9:21 AM  
**To:** Min Soo Lee  
**Cc:** Brian OCallaghan  
**Subject:** RE: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request for Infrastructure Advice  
**Attachments:** Wasleys Loop and MAP Pipe Alignments 2nd May 2022.zip

Min Soo Lee

Attached are the Epic pipe alignments in your study area. For accurate locations and depth of cover of our Gas pipelines, you will be required to submit a DBYD request, for sight verification. This data is for your use only, and is not to be shared.

Regards

Peter Faunt  
Asset Awareness Officer



**Epic Energy South Australia Pty Ltd**  
26 High Street Dry Creek SA 5094

T +61 8 8343 8182 F +61 8 8349 6493 M +61 419 802 134  
E Peter.Faunt@epic.com.au

[epicenergy.com.au](http://epicenergy.com.au)

---

**From:** Min Soo Lee <MLee@greenhillaustralia.com.au>  
**Sent:** Friday, 29 April 2022 1:00 PM  
**To:** Peter Faunt <Peter.Faunt@epic.com.au>  
**Cc:** Brian OCallaghan <brian.ocallaghan@epic.com.au>; Adrian Tero <Adrian.Tero@epic.com.au>; Cindy Oliver <Cindy@greenhillaustralia.com.au>  
**Subject:** RE: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request for Infrastructure Advice

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Hi Peter,

See attached.

Please confirm receipt and let me know if you have any other questions.

Hope to hear from you soon 😊

Regards,

**Min Soo Lee**  
Graduate Engineer

# GREENHILL

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---

**From:** Peter Faunt <[Peter.Faunt@epic.com.au](mailto:Peter.Faunt@epic.com.au)>  
**Sent:** Friday, 29 April 2022 10:41 AM  
**To:** Min Soo Lee <[MLee@greenhillaustralia.com.au](mailto:MLee@greenhillaustralia.com.au)>  
**Cc:** Brian OCallaghan <[brian.ocallaghan@epic.com.au](mailto:brian.ocallaghan@epic.com.au)>; Adrian Tero <[Adrian.Tero@epic.com.au](mailto:Adrian.Tero@epic.com.au)>; Cindy Oliver <[Cindy@greenhillaustralia.com.au](mailto:Cindy@greenhillaustralia.com.au)>  
**Subject:** RE: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request for Infrastructure Advice

Min Soo Lee

There needs to be more files supplied, not just a shp file ( should have files with .prj, .sdn, .sbx, .shp and .shx )

Regards

Peter Faunt  
Asset Awareness Officer



**Epic Energy South Australia Pty Ltd**  
26 High Street Dry Creek SA 5094

T +61 8 8343 8182 F+61 8 8349 6493 M +61 419 802 134  
E [Peter.Faunt@epic.com.au](mailto:Peter.Faunt@epic.com.au)

[epicenergy.com.au](http://epicenergy.com.au)

---

**From:** Min Soo Lee <[MLee@greenhillaustralia.com.au](mailto:MLee@greenhillaustralia.com.au)>  
**Sent:** Wednesday, 27 April 2022 9:32 AM  
**To:** Peter Faunt <[Peter.Faunt@epic.com.au](mailto:Peter.Faunt@epic.com.au)>  
**Cc:** Brian OCallaghan <[brian.ocallaghan@epic.com.au](mailto:brian.ocallaghan@epic.com.au)>; Adrian Tero <[Adrian.Tero@epic.com.au](mailto:Adrian.Tero@epic.com.au)>; Cindy Oliver <[Cindy@greenhillaustralia.com.au](mailto:Cindy@greenhillaustralia.com.au)>  
**Subject:** FW: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request for Infrastructure Advice

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Hi Peter,

Hope you had a good long weekend.

How are you going with this?

If you can keep me updated, that will be greatly appreciated.

Hope to hear from you soon 😊

Regards,

**Min Soo Lee**  
Graduate Engineer

## GREENHILL

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---

**From:** Min Soo Lee  
**Sent:** Wednesday, 20 April 2022 2:04 PM  
**To:** 'Brian OCallaghan' <[brian.ocallaghan@epic.com.au](mailto:brian.ocallaghan@epic.com.au)>  
**Cc:** Peter Faunt <[Peter.Faunt@epic.com.au](mailto:Peter.Faunt@epic.com.au)>; Adrian Tero <[Adrian.Tero@epic.com.au](mailto:Adrian.Tero@epic.com.au)>; Cindy Oliver <[Cindy@greenhillaustralia.com.au](mailto:Cindy@greenhillaustralia.com.au)>  
**Subject:** RE: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request for Infrastructure Advice

Hi all,

Apologies for delayed response, please see attached shp file for your perusal.

Please review and let me know if you have any questions.

Hope to hear from you soon 😊

Regards,

**Min Soo Lee**  
Graduate Engineer

## GREENHILL

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---

**From:** Brian OCallaghan <[brian.ocallaghan@epic.com.au](mailto:brian.ocallaghan@epic.com.au)>  
**Sent:** Monday, 11 April 2022 3:04 PM  
**To:** Min Soo Lee <[MLee@greenhillaustralia.com.au](mailto:MLee@greenhillaustralia.com.au)>  
**Cc:** Peter Faunt <[Peter.Faunt@epic.com.au](mailto:Peter.Faunt@epic.com.au)>; Adrian Tero <[Adrian.Tero@epic.com.au](mailto:Adrian.Tero@epic.com.au)>  
**Subject:** FW: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request for Infrastructure Advice

Hi Min,

See message below from Peter Faunt. If you can provide the information in either format we can assist.

Cheers

Brian

---

**From:** Peter Faunt <[Peter.Faunt@epic.com.au](mailto:Peter.Faunt@epic.com.au)>

**Sent:** Monday, 11 April 2022 1:10 PM

**To:** Brian OCallaghan <[brian.ocallaghan@epic.com.au](mailto:brian.ocallaghan@epic.com.au)>; Adrian Tero <[Adrian.Tero@epic.com.au](mailto:Adrian.Tero@epic.com.au)>

**Subject:** RE: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request for Infrastructure Advice

Brian

For me to overlay the MAP onto their layout, I need their data in Geo format, either shp or TAB. Once I have this geo data, I will be able to overlay our pipeline.

Regards

Peter Faunt  
Asset Awareness Officer



**Epic Energy South Australia Pty Ltd**  
26 High Street Dry Creek SA 5094

T +61 8 8343 8182 F +61 8 8349 6493 M +61 419 802 134  
E [Peter.Faunt@epic.com.au](mailto:Peter.Faunt@epic.com.au)

[epicenergy.com.au](http://epicenergy.com.au)

---

**From:** Brian OCallaghan <[brian.ocallaghan@epic.com.au](mailto:brian.ocallaghan@epic.com.au)>

**Sent:** Monday, 11 April 2022 12:59 PM

**To:** Peter Faunt <[Peter.Faunt@epic.com.au](mailto:Peter.Faunt@epic.com.au)>; Adrian Tero <[Adrian.Tero@epic.com.au](mailto:Adrian.Tero@epic.com.au)>

**Subject:** FW: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request for Infrastructure Advice

Hi Pete,

Adrian has asked if we can overlay our MAP at Port Wakefield Road (Greyhound Rd, Port Wakefield Road) in response to the request from Min Soo working on behalf of Salisbury Council. Proposed stormwater treatment affecting our pipeline.

Cheers

Brian

---

**From:** Min Soo Lee <[MLee@greenhillaustralia.com.au](mailto:MLee@greenhillaustralia.com.au)>

**Sent:** Thursday, 7 April 2022 8:19 AM

**To:** Brian OCallaghan <[brian.ocallaghan@epic.com.au](mailto:brian.ocallaghan@epic.com.au)>

**Subject:** FW: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request for Infrastructure Advice

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Hi again Brian,

Hope this response is going okay.

To avoid confusion, please ignore the section asking for "preliminary advice for sewer and water servicing" but instead, please subject it to the service which Epic Energy provide.

i.e., it should read as below:



Based on the above we request preliminary advice for the following from Epic Energy:

- Servicing requirements for the growth area based on the above and attached;
- Existing capacity issues or constraints;
- The critical point at which additional development may be sustained before augmentation of existing infrastructure is required,
- Any augmentation charges that may apply; and
- Any foreseeable headworks.

Please confirm whether this request has been received and let me know if you have any questions.

Regards,

**Min Soo Lee**

Graduate Engineer

# GREENHILL

Level 1, 178 Fullarton Road, Dulwich SA 5065

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---

**From:** Min Soo Lee

**Sent:** Wednesday, 6 April 2022 11:24 AM

**To:** 'Brian OCallaghan' <[brian.ocallaghan@epic.com.au](mailto:brian.ocallaghan@epic.com.au)>

**Cc:** Cindy Oliver <[Cindy@greenhillaustralia.com.au](mailto:Cindy@greenhillaustralia.com.au)>

**Subject:** 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request for Infrastructure Advice

**COMMERCIAL IN CONFIDENCE**

Hi Brian,

Thanks for the call earlier.

Please forward to relevant person to address below.

We have been engaged by the City of Salisbury to undertake an investigation of the preliminary servicing requirements as part of the City's Strategic Growth Framework. The aim of the Strategic Growth Framework is to understand the opportunities for economic growth and development for the land west of Port Wakefield Road within the City of Salisbury to inform the development of a structure plan for the City to 2035.

We provide for your reference the following:

- Proposed Structure Plans ([15.03.22 Consolidated -Strategic Growth Framework Plans.pdf](#))
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  - Development Activity Composition and Workforce ([01032022 \\_ Development Activity Composition and Workforce.pdf](#)),
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The subject area has been divided into 4 precincts ([Refer 24022022 \\_ Area Calcs - Updated Legend Colour.pdf](#)). Areas of existing development, roads, stormwater and open space and selected zonings have been excluded from this area to establish a new developable area.

A range of factors have been applied to establish the residual development area (after allowing for subdivision, roads, stormwater, infrastructure and open space), anticipated levels of floorspace construction on those lots, the mix of likely land uses and the consequent

workforce likely to be generated by those uses. This is summarised in the table [01032022 \\_ Development Activity Composition and Workforce.pdf](#).

A likely timing of development within each precinct and an overall rate of land, floorspace and workforce development on an annual basis has been applied. Refer to table [01032022 \\_ Annual Average Development Activity.pdf](#).

For service infrastructure purposes, this assumes the consumption of 14.5 gross hectares of land per annum over 35 years, which equates to 8.7 net hectares of actual allotments, delivering 26,000 m<sup>2</sup> of floorspace and 190 workers per annum.

These numbers are underpinned by a range of research investigations and assumptions that will be detailed in a future document. However, given the urgency of service investigations, we have provided you with the anticipated outcomes for now.

Based on the above we request preliminary advice for sewer and water servicing for the following:

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- Existing capacity issues or constraints;
- The critical point at which additional development may be sustained before augmentation of existing infrastructure is required,
- Any augmentation charges that may apply; and
- Any foreseeable headworks.

In order to meet the timeframe for presentation of a final report to the City of Salisbury and elected members by the end of June 2022 we request a response be provided by **2 May 2022** or earlier if possible.

We look forward to hearing from you soon.

Please also confirm the receipt of this email so we can keep track of the progress.

Should you require any clarification of the above please do not hesitate to contact me.

Regards,

**Min Soo Lee**  
Graduate Engineer

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---

**From:** Brian OCallaghan <[brian.ocallaghan@epic.com.au](mailto:brian.ocallaghan@epic.com.au)>

**Sent:** Wednesday, 6 April 2022 11:20 AM

**To:** Min Soo Lee <[MLee@greenhillaustralia.com.au](mailto:MLee@greenhillaustralia.com.au)>

**Subject:** Information request

Hi Min-Su,

Please send your request to me. I will forward it on.

Cheers

Brian

Brian OCallaghan  
**Pipeline and Community Awareness Officer**



**Epic Energy South Australia Pty Ltd**  
26 High Street Dry Creek SA 5094

**T** +61 8 8343 8166 **F**+61 8 8349 6493 **M** +61 407 610 198  
**E** [brian.ocallaghan@epic.com.au](mailto:brian.ocallaghan@epic.com.au)

[epicenergy.com.au](http://epicenergy.com.au)

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## Cindy Oliver

---

**From:** Michael Jarosz <Michael.Jarosz@seagas.com.au>  
**Sent:** Friday, 17 June 2022 6:04 PM  
**To:** Cindy Oliver  
**Subject:** RE: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request for Infrastructure Advice  
**Attachments:** SEA Gas response.docx

Hi Cindy,

The attachment should provide good context and answer most of your questions.

I have also provided responses to your questions below in red.

Please note that for any new development a detailed Safety Management Study in accordance with AS2885 would need to be carried out at the design stage to ensure the risk to the pipeline (and therefore the population around the pipeline) will remain acceptable and what further controls or design changes to the development may need to occur. Road crossings, changes to drainage patterns, and placement of fill over the pipeline or reduction of cover are all key issues that would need to be considered in addition to land use change and service crossings as you note below.

Happy to discuss on Monday.

Cheers,  
Michael

**Michael Jarosz**  
Senior Pipeline Engineer

### SEA Gas

Level 4, 70 Hindmarsh Square Adelaide SA 5000

T 08 8236 6836 | M 0477 112 463 | ✉ [Michael.Jarosz@seagas.com.au](mailto:Michael.Jarosz@seagas.com.au)

[www.seagas.com.au](http://www.seagas.com.au)



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---

**From:** Cindy Oliver [Cindy@greenhillaustralia.com.au](mailto:Cindy@greenhillaustralia.com.au)  
**Sent:** Friday, 17 June 2022 4:36 PM  
**To:** Michael Jarosz [Michael.Jarosz@seagas.com.au](mailto:Michael.Jarosz@seagas.com.au)

**Subject:** 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request for Infrastructure Advice  
**Importance:** High

Hi Michael

You may recall we spoke to you 19 April 2022 regarding the proposed strategic growth areas proposed at the Waterloo Corner & Bolivar Corridor.

At the meeting we discussed the minimum buffer clearances, easement widths etc. I am writing to confirm the information provided during that meeting, which I appear to have misplaced. It would be greatly appreciated if you could confirm the following:

- Minimum buffer distance for development to the main depending on the type of development. **Refer Attached.**
- Minimum clearance for services to cross the main. **Minimum of 500mm separation to foreign services is required however there may be circumstances where greater separation is required (e.g. large 2m by 1m concrete stormwater culvert) so case by case assessment always applies. It is preferable for crossings to be as close as possible to perpendicular and number of service crossing points should be minimised. Physical protection in the form of concrete or HDPE protection slabs above the pipeline will be required at service location drawings.**
- New services preferred to cross over or under the existing main. **Foreign crossings to go over SEA Gas is preferred.**
- Minimum easement width to the existing main. **Refer Attached.**

I am attempting to finalise a report this weekend, and would appreciate if you could respond to this email or call me to discuss as soon as possible.

Regards,

**Cindy Oliver**

Principal Engineer

BE(Civil) (Hons), MIEAust, CPEng, NPER

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Engineers | Landscape Architects

T 08 8406 1300

M 0419 808 810

E [cindy@greenhillaustralia.com.au](mailto:cindy@greenhillaustralia.com.au)

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## 1. SIGNIFICANCE OF THE PORT CAMPBELL TO ADELAIDE PIPELINE

The Port Campbell to Adelaide Pipeline (PCA) currently delivers approximately 50% of the State's gas demand on average. South Australia relies heavily upon natural gas for power generation, for industrial and commercial application and for domestic use. As such, the PCA meets the definition of 'essential infrastructure' in the Act and is also considered by the State to be 'critical infrastructure'<sup>1</sup>.

## 2. SEA GAS LAND INTEREST

SEA Gas has interests in the pipeline land typically in the form of an easement, or in some instances fee simple ownership, leases or has provision for access through a license agreement. The pipeline easement is typically 15-25m wide.

Within that easement area there is limited third party activity allowed in order to ensure the physical protection of the pipeline. Where no easement exists (e.g. road crossings), consistent with AS2885.3 (see Section 3 below) encroachment should be controlled within 6m of the pipeline centreline.

## 3. PIPELINE REGULATIONS

The design, construction and maintenance of high-pressure gas transmission pipelines in Australia (of which the PCA is typical) is required by legislation to be governed by Australian Standard (AS) 2885. A licence is required to construct and to operate a high-pressure gas transmission pipeline (in South Australia, the PCA is licensed under the *Petroleum and Geothermal Energy Act 2000* (P&GE Act)).

## 4. POTENTIAL RISK

Under AS2885, the licensee must ensure the safety of the pipeline and of the public and this responsibility extends well beyond the easement width. The licensee is required to consider the land use within the *Measurement Length* of the pipeline. The *Measurement Length*, as defined in AS 2885, is a width that is measured laterally from the axis of the pipeline and is defined as the radial distance within which a person would be unlikely to survive for more than 30 seconds without severe injury in the highly unlikely event of a full bore rupture from a High Pressure Gas Pipeline. In the case of the 450 mm diameter, 15,300 kPa pressure PCA, the *Measurement Length* is 585 metres (or an overall width of 1170 metres).

Development within the *Measurement Length* of High Pressure Gas Pipelines may increase the risk to public safety or introduce a threat to both pipeline integrity and the security of the state's gas supply. The consequences of a pipeline failure may have implications for life, property, the environment and the State's economy.

In higher population density locations, there is increased likelihood of pipeline damage from external interference, simply because of the activity associated with servicing the needs of that population. Should damage result in a loss of containment, the increased population density increases the

---

<sup>1</sup> Those physical facilities, supply chains, information technologies and communication networks, which, if destroyed, degraded or rendered unavailable for an extended period, would significantly impact on the social or economic well-being of the State, or affect the State's contribution to national security or defense.



consequence of that loss of containment, such as harm to people and their assets. This combination of likelihood and severity increases the risk.

Industrial land uses need to be considered for increased population density as well as event escalation resulting from a pipeline failure.

A natural gas pipeline is always designed to contain the pressure of the gas inside the pipeline. For a new pipeline, it is relatively easy to apply a conservative design in higher population density locations that also reduces the likelihood that damage to the pipe will result in loss of containment.

For an existing pipeline, it is necessary to ensure that pipeline safety is consistent with the safety obligations for a change in location classification when development occurs.

## 5. PIPELINE OVERLAYS

In 2021, two overlays relating to High Pressure gas Pipeline were introduced under the South Australia's Planning and Design Code, being:

- The Gas and Liquid Petroleum Pipeline Overlay; and
- The Gas and Liquid Petroleum Pipeline (Facilities) Overlay

The desired planning outcome from these overlays aligns with the objectives of both the Planning Policy and the PGE Act, which is to manage the risk to public safety, the environment and security of energy supply from the encroachment of development on strategic gas and liquid petroleum pipelines.

For the PCA, within built up areas, the pipeline overlay varies between 115m and 160m which corresponds to the 4.7kW/m<sup>2</sup> radiation contour for the largest credible hole for the PCA based on current risk assessment work and largest credible threat to the pipeline. It should be noted that this distance is currently smaller than the measurement length, however changes in the threat profile to the pipeline may change the size of these overlays in the future.

The overlays contain deemed to satisfy (DTS) criteria that need to be satisfied for new developments within this area, otherwise the development will trigger a referral to the Department for Energy and Mining (DEM) for further assessment. The DTS criteria limits land uses around the pipeline, including industrial uses such as fuel depots.



## Cindy Oliver

---

**From:** David.Holden@agig.com.au  
**Sent:** Thursday, 14 April 2022 9:52 AM  
**To:** Min Soo Lee  
**Cc:** khalee.field@apa.com.au; greg.taylor@agig.com.au  
**Subject:** FW: [EXTERNAL] FW: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request for Infrastructure Advice  
**Attachments:** 15.03.22 Consolidated -Strategic Growth Framework Plans.pdf; 0749 Strategic Growth Framework Waterloo Bolivar Engagment Plan - ENDORSED 09.03.pdf; 01032022 \_ Development Activity Composition and Workforce.pdf; 01032022 \_ Annual Average Development Activity.pdf; 24022022 \_ Area Calcs - Updated Legend Colour.pdf

Hi Min Soo Lee

Thank you for your enquiry.

To answer this question, details on what is required would need to be provided. This information would include; what gas loads are required at what specific locations, what the loads would be required for and timing of when would individual loads be required.

However on a broader perspective I can advise there is gas infrastructure that could be extended to the area in question. Depending on what is required and when would determine the cost although I would expect and indicative cost to service this area would be in the order of \$10m

AGN could prepare a formal offer however this would require significant input from others to provide required information in relation to specific loads, locations and timing.

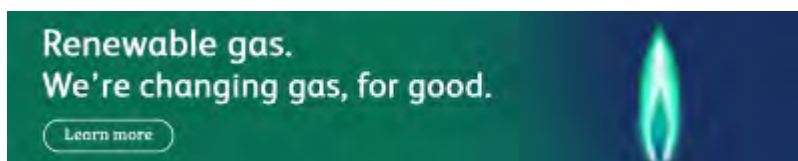
Regards

David Holden

**David Holden**  
**Business Development Manager (South Australia)**

**M** +61 408 456 684 **T** +61 8 8418 1165

**E** [David.Holden@agig.com.au](mailto:David.Holden@agig.com.au)



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---

**From:** Min Soo Lee <MLee@greenhillaustralia.com.au>  
**Sent:** Thursday, 14 April 2022 8:38 AM  
**To:** David Holden <David.Holden@agig.com.au>  
**Subject:** [EXTERNAL] FW: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request for Infrastructure Advice

**WARNING:** This is an email from an external source. Think before you click.

Hi,

Following up on the progress of below, how are you going with it?

Please acknowledge receipt of the email and confirm this is being looked after?

Look forward to hearing from you soon.

Any questions, please let me know.

Regards,

**Min Soo Lee**  
Graduate Engineer

**GREENHILL**

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**From:** Min Soo Lee  
**Sent:** Thursday, 7 April 2022 8:21 AM  
**To:** 'David.Holden@agig.com.au' <[David.Holden@agig.com.au](mailto:David.Holden@agig.com.au)>  
**Subject:** FW: 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request for Infrastructure Advice

Hi again David,

Hope response to previous email is going okay.

To avoid confusion, please ignore the section asking for "preliminary advice for sewer and water servicing" but instead, please subject it to the service which AGIG provide.

i.e., it should read as below:

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Regards,

**Min Soo Lee**

Graduate Engineer

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---

**From:** Min Soo Lee

**Sent:** Wednesday, 6 April 2022 10:54 AM

**To:** 'David.Holden@agig.com.au' <[David.Holden@agig.com.au](mailto:David.Holden@agig.com.au)>

**Cc:** Cindy Oliver <[Cindy@greenhillaustralia.com.au](mailto:Cindy@greenhillaustralia.com.au)>

**Subject:** 21.2894 - Waterloo Corner & Bolivar Corridor, Growth Framework - Request for Infrastructure Advice

**COMMERCIAL IN CONFIDENCE**

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We look forward to hearing from you soon.

Please also confirm the receipt of this email so we can keep track of the progress.

Should you require any clarification of the above please do not hesitate to contact me.

Regards,

**Min Soo Lee**  
Graduate Engineer

**GREENHILL**  
Engineers | Landscape Architects

T 08 8406 1300  
E [mlee@greenhillaustralia.com.au](mailto:mlee@greenhillaustralia.com.au)

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