

Reference: #N128950

26 June 2017

Frasers Property Australia  
Level 12, 101 Bathurst Street  
SYDNEY NSW 2000

**Attention: Ms Amy Romero (Development Manager)**

Dear Amy

**RE: BREWERY YARD, CENTRAL PARK - TRAFFIC AND PARKING STATEMENT**

## Background and proposal

A Section 75W modification to the Central Park Concept Plan MP06\_0171 is proposed, changing the land use of the Brewery Yard in Central Park from retail/ commercial use (approved 15 May 2012) to hotel with ground floor ancillary retail use, and amending the public domain plans and vehicle access/ drop off for future hotel use.

GTA Consultants (GTA) was commissioned to prepare a traffic and parking statement to support this Section 75W modification to the approved Central Park Concept Plan. The purpose of this traffic and parking statement is to:

- Assess the impact of traffic generation of the proposed use relative to the approved land use
- Assess the impact of the proposed amendments to public domain plans on surrounding intersections, pedestrians and cyclists
- Detail and assess the proposed hotel pick up/ set down arrangement with consideration of its functionality and safety
- Provide advice on the compliance of swept path analyses provided by Frasers Property Australia.

## Subject site (Brewery Yard)

The Brewery Yard is located within the City of Sydney Local Government Area (LGA). It has frontages to Central Park Avenue to the north and west, and Chippendale Green located to the south of the site. The site is currently approved for retail/ commercial uses.

The surrounding properties mainly consist of mixed use and residential uses along Broadway and Abercrombie Street, with University of Technology Sydney (UTS) located within walking distance to the north of the site.

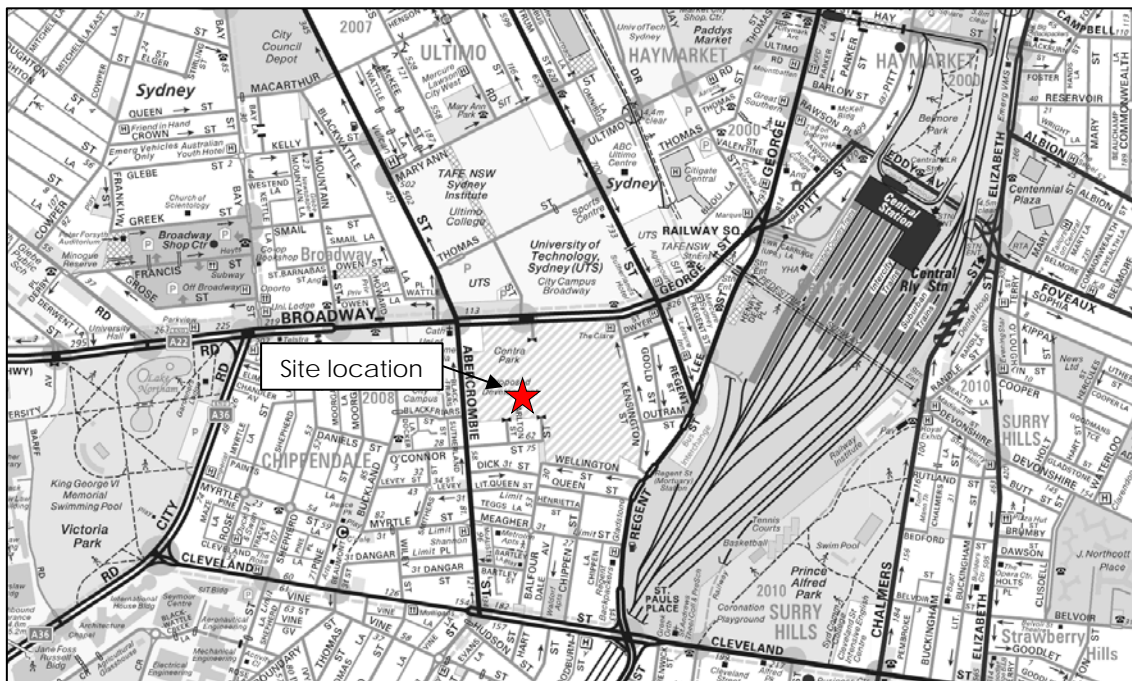
The site location and its surrounding environs are shown in Figure 1.

melbourne  
**sydney**  
brisbane  
canberra  
adelaide  
gold coast  
townsville  
perth

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[www.gta.com.au](http://www.gta.com.au)

Figure 1: Site location and its surrounding environs



Source: Sydway

## Existing conditions

### Road network

Broadway is classified as a Roads and Maritime Services (Roads and Maritime) State Road and is aligned in an east-west direction. It is a two-way road with four lanes in each direction (including a bus lane on the north and south side of the road), over an approximately 25-metre wide carriageway. Broadway has a posted speed limit of 50 km/h, with parking not permitted on either side of the road.

Abercrombie Street is classified as a Roads and Maritime State Road and is aligned in a north-south direction. It is a one-way road with four lanes running north over an approximately 13-metre wide carriageway. Abercrombie Street has a posted speed limit of 50 km/h and has two-hour, 2P parking permitted on the western side of the road.

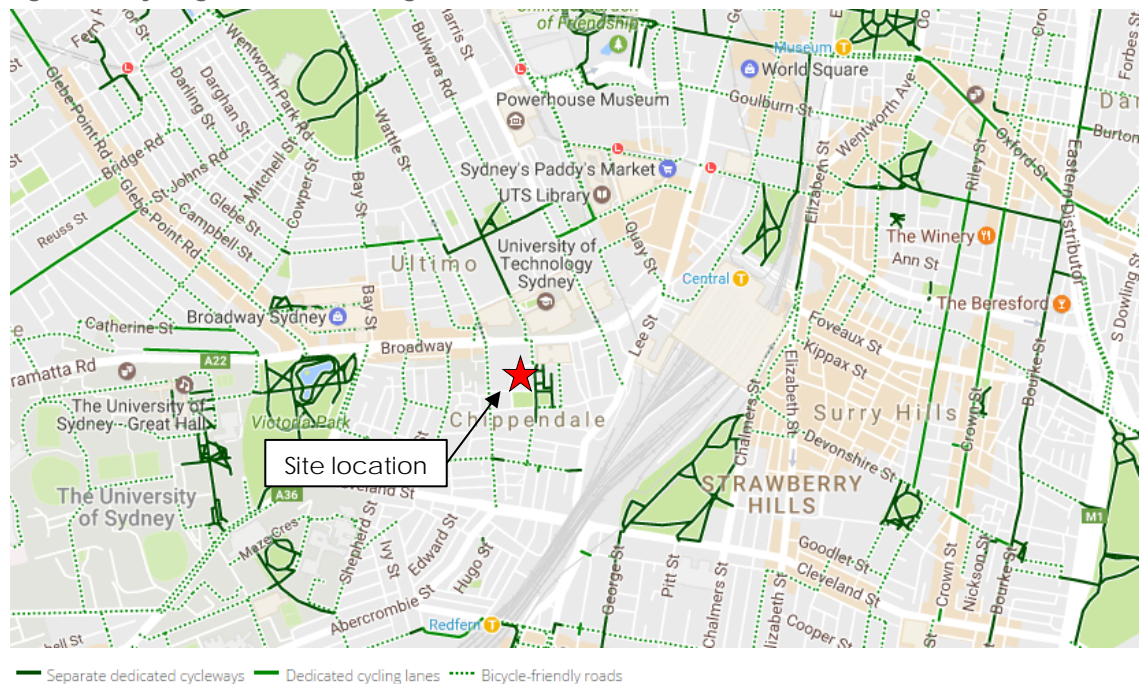
Chippendale Way and Central Park Avenue, east of Chippendale Way are classified as local roads. These roads currently experience minimal traffic and are primarily used by local residents and construction vehicles for the surrounding developments. Parking is currently not permitted on any of these roads. Following completion of the development of the Central Park precinct, these roads will provide access to the mixed use site, while Central Park Avenue will provide some street parking located to the west of the Brewery Yard site on the western side of the road. Central Park Avenue will serve as the main access to the Block 1 and 4N basement, Block 4S and 4N drop off, service vehicle and loading area.

## Pedestrian and cycling infrastructure

The surrounding area is well serviced with pedestrian facilities due the area being a highly populated pedestrian area. Well-established footpaths are located along Broadway, Abercrombie Street and the internal roads including Central Park Avenue, Chippendale Way and Irving Street.

The site is also well serviced by cycling routes, with bicycle friendly roads connecting with the site as shown in Figure 2.

Figure 2: Cycling routes surrounding the site

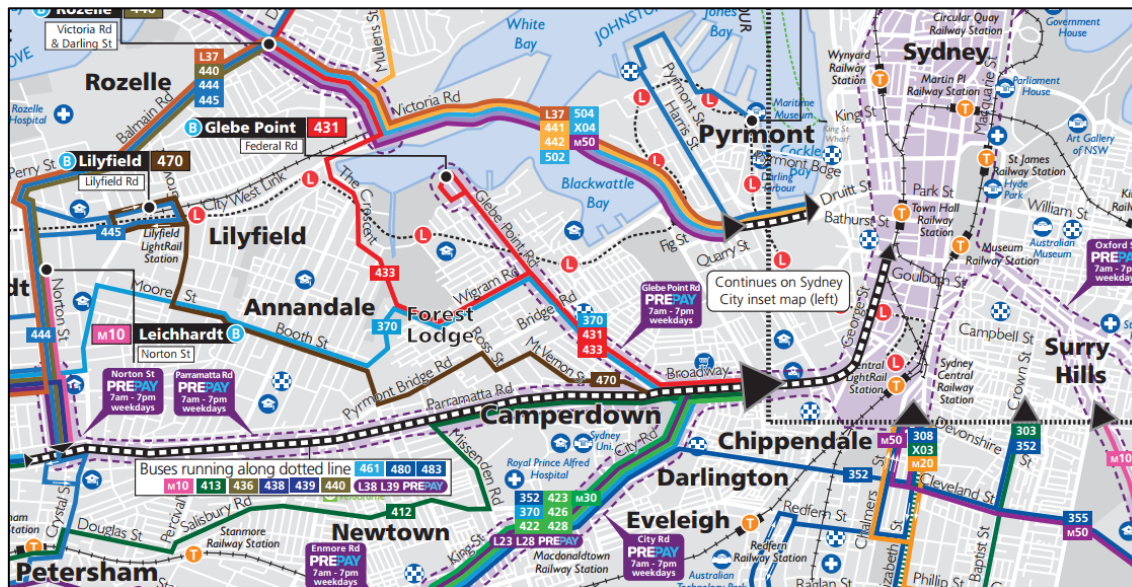


Source: <http://www.sydneycycleways.net/map/> accessed 8 June 2017

## Existing public transport

The site is very well serviced by both buses and trains, with Central Station within reasonable walking distance and frequent buses servicing UTS. Central Station is located approximately 700 metres northeast of the site, with the closest bus stop locations are along Broadway up to 200 metres away from the site. A summary of the buses servicing the site is shown in Figure 3.

Figure 3: Surrounding bus network



Source: [http://www.sydneybuses.info/routes/Region\\_guide\\_South-2015.pdf](http://www.sydneybuses.info/routes/Region_guide_South-2015.pdf) accessed 8 June 2017

## Proposed development

The proposal involves a Section 75W modification, changing the land previously approved for retail/ commercial use in May 2012 to hotel use. This would involve changes to the Privately Owned but Publicly Accessible Land (PAAMP areas) and the introduction of the proposed private road on the Brewery Yard site to allow for a proposed pick up/ set down area for hotel guests and service vehicles accessing the hotel. The proposed hotel is assumed to range from 50 to 100 guest rooms with the permitted gross floor area (GFA) over five storeys.

## Car parking requirement

The retail space would be very much ancillary to the proposed hotel use, and other surrounding land uses too. As such, the required parking spaces for the retail use are included as part of the hotel car parking requirement.

The Central Park Concept Plan specified parking rates from City of Sydney Council's Local Environmental Plan 2005 (LEP 2005). The car parking requirements for different development types are set out in LEP 2005.

A review of the car parking rates for the proposed hotel development based on the LEP 2005 parking requirement is summarised in Table 1.

Table 1: City of Sydney's LEP 2005 car parking requirement

Land use	Size	Parking rate	Maximum parking spaces
Hotel	50 to 100 bedrooms	0.20 spaces / room (up to 100 bedrooms)	10 to 20 spaces

As shown in Table 1, the maximum number of parking spaces permitted is 10 to 20 spaces for 50 to 100 bedrooms respectively.



The existing 10 car parking spaces allocated within Block 1 basement for the previously approved development and the proposed development meets the maximum car parking provision set out in the LEP 2005.

### Motorcycle and bicycle parking

City of Sydney's Development Control Plan 2012 (DCP 2012) states that parking spaces for motorcycles are to be included in the allocation of car parking. One motorcycle parking space for every 12 car parking spaces is to be provided as separate parking for motorcycles. As such, the provision of one space is considered adequate for motorcycle parking.

Bicycle parking is to be provided in accordance with the DCP 2012, as summarised in Table 2 for visitors.

**Table 2: City of Sydney's DCP 2012 bicycle parking requirements for visitors**

Use	Size	Rate	Bicycle parking requirement
Hotel	50 to 100 rooms	0.05 spaces/ room	3 to 5 spaces

The DCP 2012 states that a minimum of three to five bicycle spaces is to be provided for customers/visitors. Additional bicycle spaces should be provided for employees at a rate of 0.25 spaces per employee.

### Traffic generation

#### Approved land use traffic generation

As discussed, a Section 75W modification to the Central Park Concept Plan MP06\_0171 approved the provision of 2,976.7 square metres of commercial space and 1,281.2 square metres of retail space. There are currently 10 car parking spaces within Block 1 basement allocated for the approved development.

As there is no rate based on the number of parking spaces for specific land use in the Roads and Maritime Guide, a traffic generation of 0.5 movements per peak period has been assumed for the spaces allocated to the retail and commercial components. I.e. half the staff member arriving and departing for work in the AM and PM peak periods respectively.

The anticipated traffic generation for the approved development is detailed in Table 3.

**Table 3: Approved development traffic generation**

Land use	Size	Peak hour traffic generation rate	Peak hour movements
Retail	10 car spaces	0.5 movements per car space	5
Commercial			

Based on the above, five vehicle movements are anticipated from the retail and commercial components of the approved development in any given peak hour.

#### Proposed land use traffic generation

Traffic generation estimates for developments are sourced from the Road and Maritime *Guide to Traffic Generating Developments* (October 2002). However, the Roads and Maritime guide does not provide a traffic generation rate for hotels and instead recommends that analysis of proposed hotel developments be based on surveys of similar existing hotels.

GTA has previously undertaken surveys of similar CBD hotels which found an average trip generation rate of 0.17 movements and 0.15 movements per room in the AM and PM peak hours respectively, with taxis representing on average 65 per cent of vehicle trips.

The anticipated traffic generation for the proposed development is detailed in Table 4.

**Table 4: Proposed development traffic generation**

Land use	Peak hour	Size	Peak hour traffic generation rate	Peak hour movements
Hotel	AM	50 to 100 bedrooms	0.17 movements per room	9 to 17
	PM		0.15 movements per room	8 to 15

A maximum of 17 vehicles is anticipated from the hotel component of the proposed development in any given peak hour. The traffic could be expected to distribute at a ratio of 50:50 each direction along Central Park Avenue, with vehicles travelling to/ from the north and east expected to use the Broadway/ Chippendale Way intersection while vehicles travelling to/ from the south and west would be expected to use Abercrombie Street. Central Park Avenue currently experiences low traffic volumes, and the addition of up to 17 vehicles in a peak hour is not expected to significantly adversely affect the functionality of the road.

#### Summary

The proposed retail use does not have any public car parking provision. As only limited-hour (two-to four- hour) kerbside parking along Abercrombie Street, O'Connor Street, Kensington Street and Carlton Street, it is reasonable to anticipate that the proposed retail use would have a low traffic generation to the local road network. Due to the ancillary nature of the retail space, many of the retail trips will be internal to the hotel use and hence not 'new' trips.

In comparison to the approved development, the proposed development will generate a very minor net increase of up to 12 vehicle movements during the peak hours. Further, against existing traffic volumes near the site including along Broadway and Abercrombie Street, the additional traffic generated by the proposed development could not be expected to compromise the safety or function of the surrounding road network.

The intersections of Broadway/ Chippendale Way and Broadway/ Abercrombie Street are both signalised and would be expected to absorb the small increase in traffic.

It is considered that the provision of such excellent public transport services and walking facilities will likely result in the principal mode of transport being via public transport (or walking from the local area), followed by cycling, and lastly via private motor vehicle.

On this basis, the overall traffic impacts of the proposed hotel and retail uses are likely to be negligible.

#### Pick up and set down location

The pick up and set down requirements for hotels are set out in the DCP 2012 and are summarised in Table 5.

Table 5: City of Sydney's DCP 2012 pick up and set down requirement

Land use	Size	Parking rate	Set down spaces required
Hotel	50 to 100 bedrooms	2 car spaces	2 car spaces
		1 bus/coach space per 100 bedrooms where the development comprises of 100 bedrooms or more	0 bus spaces
Total			2 car spaces

The DCP 2012 states that the use of on-street space for passenger pick up and set down may be possible in exceptional circumstances if off-street provision is impractical or detrimental to pedestrian amenity and urban design. Any proposed use of on-street space for passenger pick up and set down should be discussed at an early stage with Council and may require the agreement from the Sydney Traffic Committee.

For the proposal, the hotel pick up and set down area will be off-street and be accessed via Central Park Avenue. The kerbside adjacent to the proposed hotel is unlikely to be suitable for a pick up and set down location for the following reasons:

- The site is located close to a curve, which is likely to have poor sightlines for vehicles using an on-street pick up and set down area. This would compromise the safety of vehicles pulling out from the kerb.
- The precinct has heavy pedestrian volumes associated with university student activity and the Main Park. Having an on-street pick up and set down area would mix the high vehicle movements associated with pulling in/ out of the area with the high pedestrian movements, thus reducing the safety for pedestrians.
- The Main Park holds events such as markets, which involve high pedestrian volumes and high levels of pick up and set down activity. An on-street pick up and set down area would again reduce the safety of pedestrians, due to the high vehicle movements associated with pulling in/ out of the area.
- No stopping is permitted along Central Park Avenue.

Therefore, it is recommended that the proposed hotel allows for the implementation of a private road to facilitate pick up and set down requirements. By providing an off-street pick up and set down area, it minimises the impact on the external road network from a safety and queuing perspective and improves the safety and convenience for pedestrians.

### Refuse collection and service vehicles

The DCP 2012 sets out rates for loading facilities for different development types. A review of these rates results in a requirement as summarised in Table 6.

Table 6: City of Sydney's DCP 2012 loading requirements

Use	Size (GFA)	Loading rate	Loading requirement
Hotel	50 to 100 bedrooms	1 space per 50 bedrooms up to 100 bedrooms	1 to 2 spaces

Based on the above, the proposed development is required to provide between one and two loading spaces under the DCP 2012.

As with the pick up and set down provisions, it is recommended that the proposed hotel allows for the implementation of a service road to facilitate service vehicle requirements.

### Swept path compliance

Frasers Property Australia has provided GTA with indicative swept paths, as shown in Attachment 1, of the proposed private road for pick up/ set down and service vehicles. The swept paths of an 8.8-metre rigid vehicle approaching from the north and south, as well as a B85 vehicle passing a parked service vehicle in the service bay (Drawings 1, 1A, 1B, 2, 2A, 2B) have been assessed and are considered generally compliant with AS2890.2:2002.

It should be noted that the swept paths provided are only preliminary to assess the feasibility of the private roadway. It is recommended that a detailed swept path analysis be undertaken by the future owner of the Brewery Yard for the full design of the private road.

### Conclusion

Based on the analysis and discussions presented within this report, the following conclusions are made:

- i The proposed development is located south of Broadway and is well served by a combination of existing public transport services (CBD train and bus services) and an extensive pedestrian and cycling network.
- ii The development generates a City of Sydney LEP 2005 parking requirement of a maximum 10 to 20 car parking spaces depending on the number of hotel rooms.
- iii The supply of existing 10 spaces within Block 1 basement, with motorcycle parking included in this provision, is appropriate given the proximity of the site to various public transport services and active travel facilities.
- iv The proposed development generated a DCP 2012 bicycle parking requirement of three to five bicycle spaces for visitors.
- v Additional bicycle parking should be provided for employees at a rate of 0.25 spaces per employee.
- vi A pick up/ set down area is required with space for two cars. It is recommended that these spaces be facilitated by a private road to provide safe pick up and set down arrangements and not affect the traffic operation and pedestrian activity along Central Park Avenue.
- vii The loading requirement for the proposed development is one to two spaces depending on the number of hotel rooms. It is recommended that service vehicle access is provided by a service road for the proposed hotel.
- viii The proposed development would be anticipated to generate between 8 and 17 vehicle movements in any peak hour (two-way).
- ix The minor net increase in traffic in comparison to the approved land use of up to 12 vehicle movements, could not be expected to compromise the safety or function of the surrounding road network.
- x Due to the proximity and frequency of surrounding public transport services, no negative impacts on the public transport network are expected from the proposed development.



I trust the above provides a thorough assessment of the transport implications associated with the proposed modification to the approved Concept Plan. Naturally, should you have any questions or require any further information, please do not hesitate to contact me in our Sydney office on (02) 8448 1800.

Yours sincerely

**GTA CONSULTANTS**



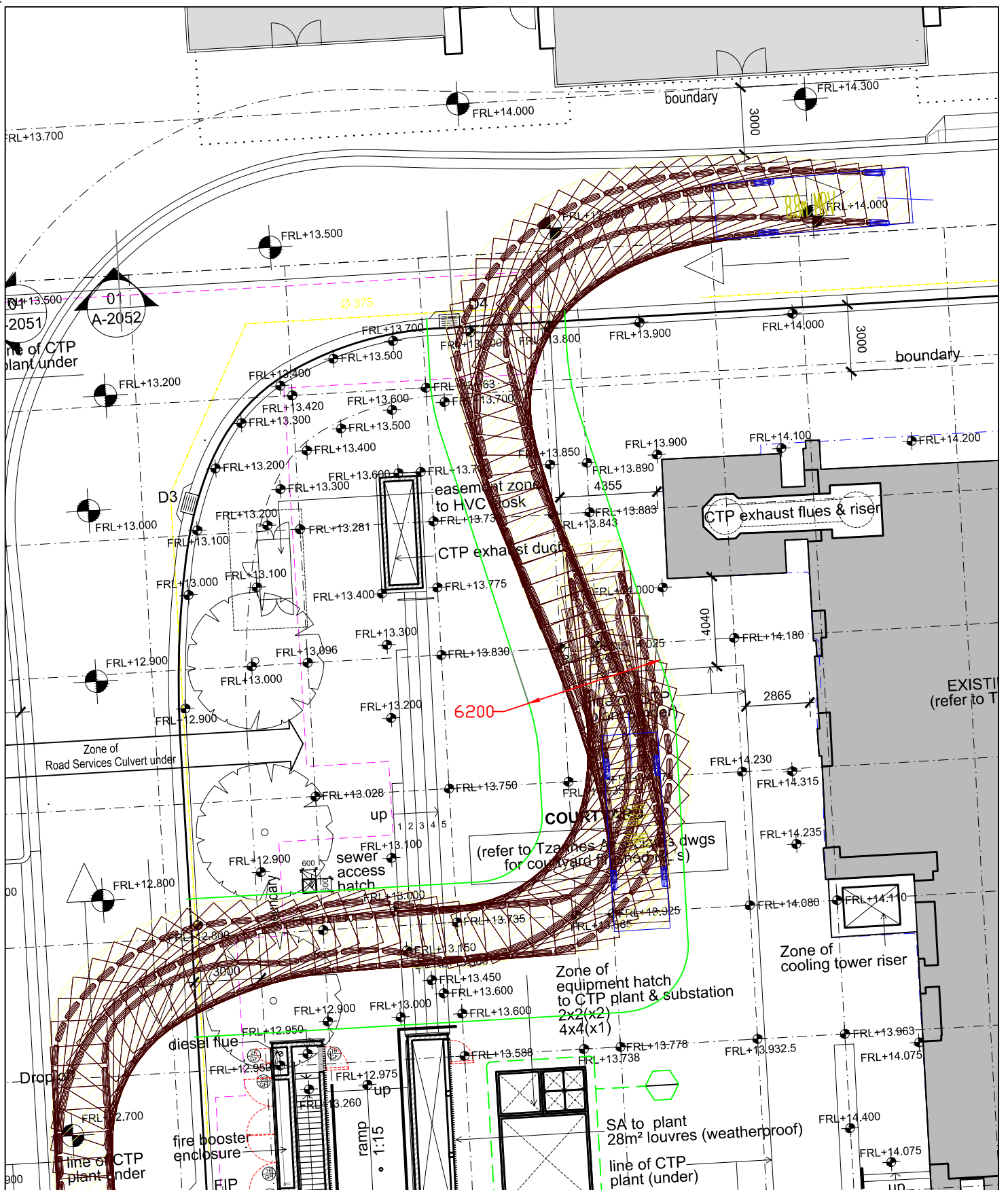
**Nicole Vukic**  
**Associate Director**

encl.

Attachment 1 – Swept paths provided by Frasers Property Australia

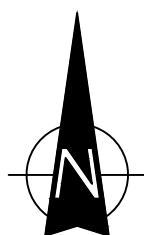
## Attachment 1

Swept Paths provided by Frasers Property Australia



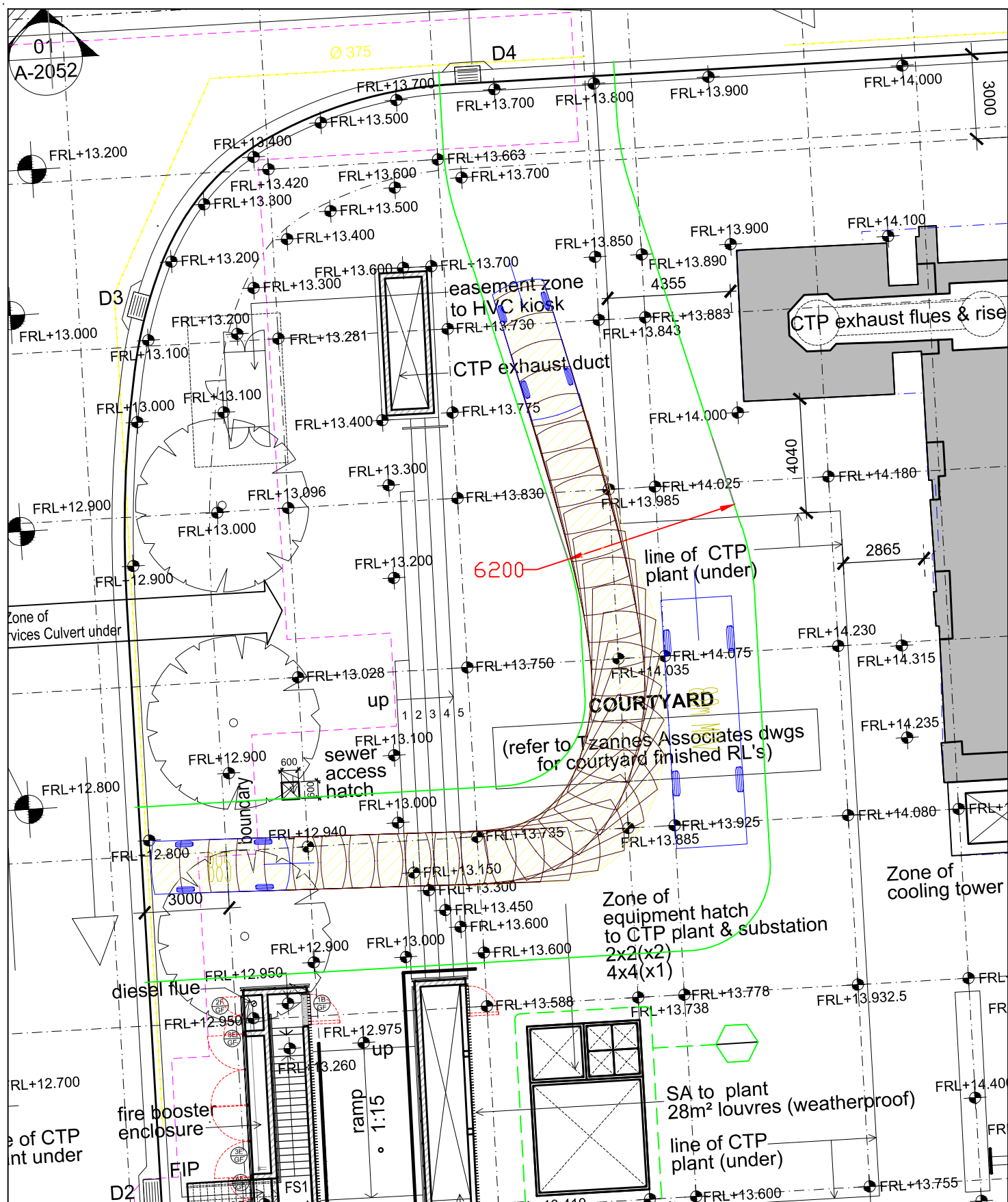
## LEGEND

This drawing has been prepared using vehicle modelling computer software AutoTrack V5.00a in conjunction with AutoCAD 2000. The vehicle used is based upon vehicle data provided by Austroads and incorporates a reasonable degree of tolerance. However, it is not possible to account for all vehicle types/characteristics and/or driver ability.



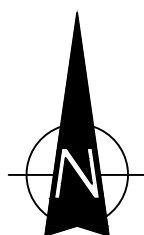
**SWEPT PATH ANALYSIS  
OF AN 8.8m RIGID  
VEHICLE APPROACHING FROM  
SOUTH**

**SP 1**



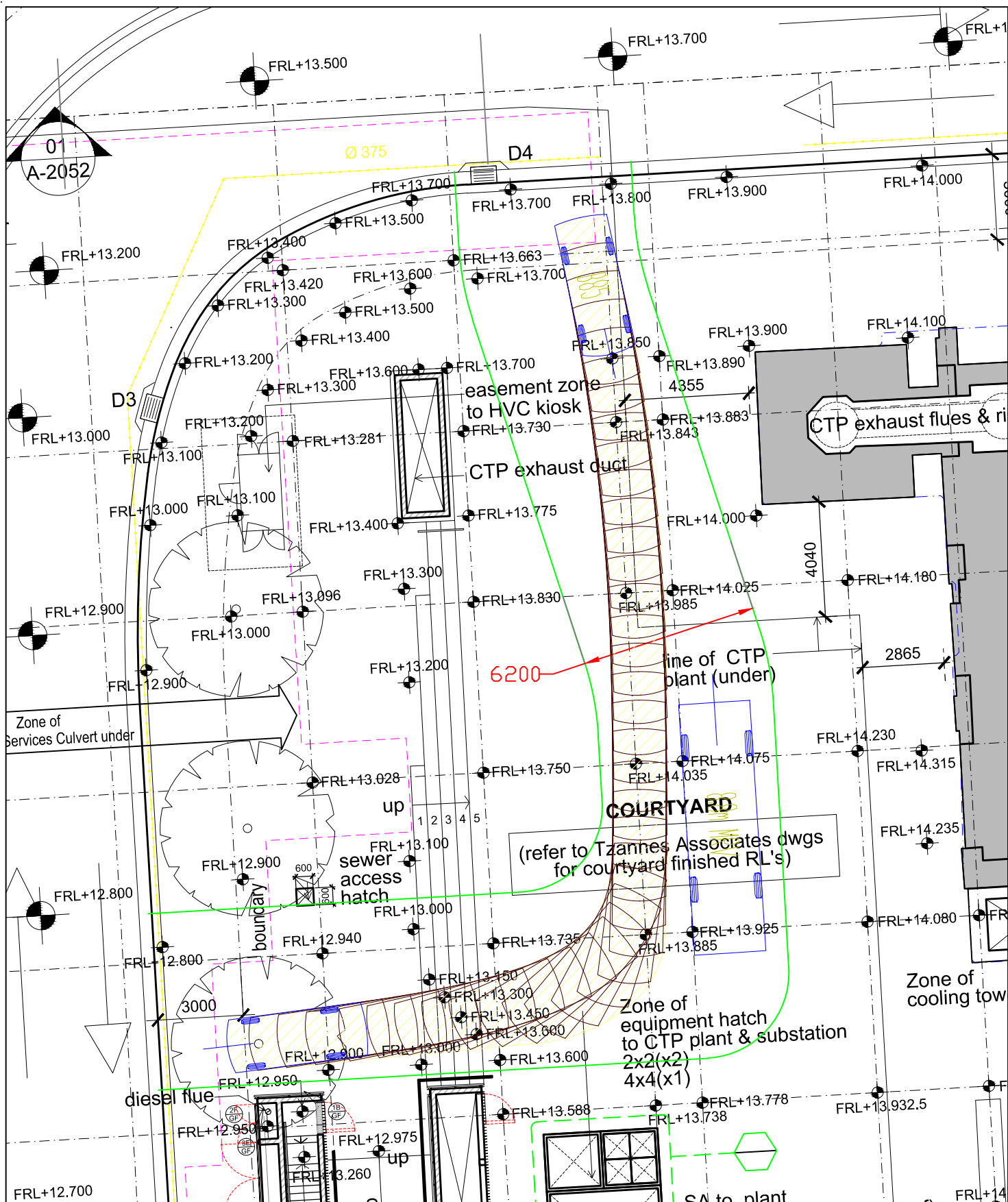
## LEGEND

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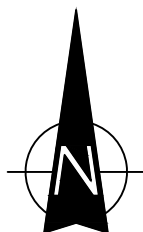
# SWEPT PATH ANALYSIS OF A B85 VEHICLE PASSING A PARKED 8.8m RIGID VEHICLE

# SP 1A



## LEGEND

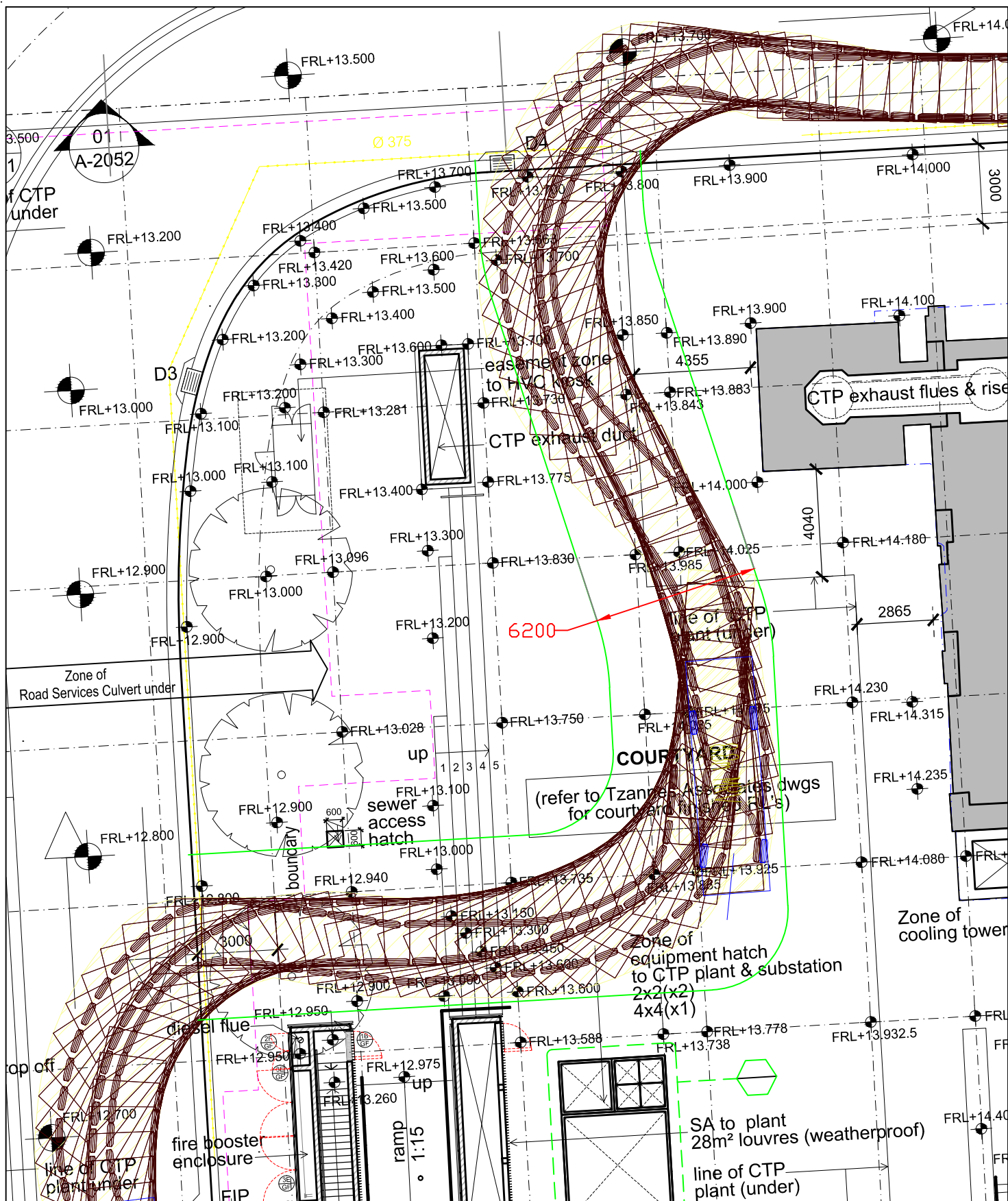
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**SWEPT PATH ANALYSIS  
OF A B85 VEHICLE PASSING A  
PARKED 8.8m RIGID  
VEHICLE**

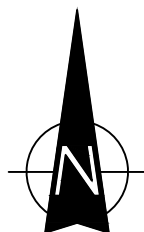
**SP 1B**





## LEGEND

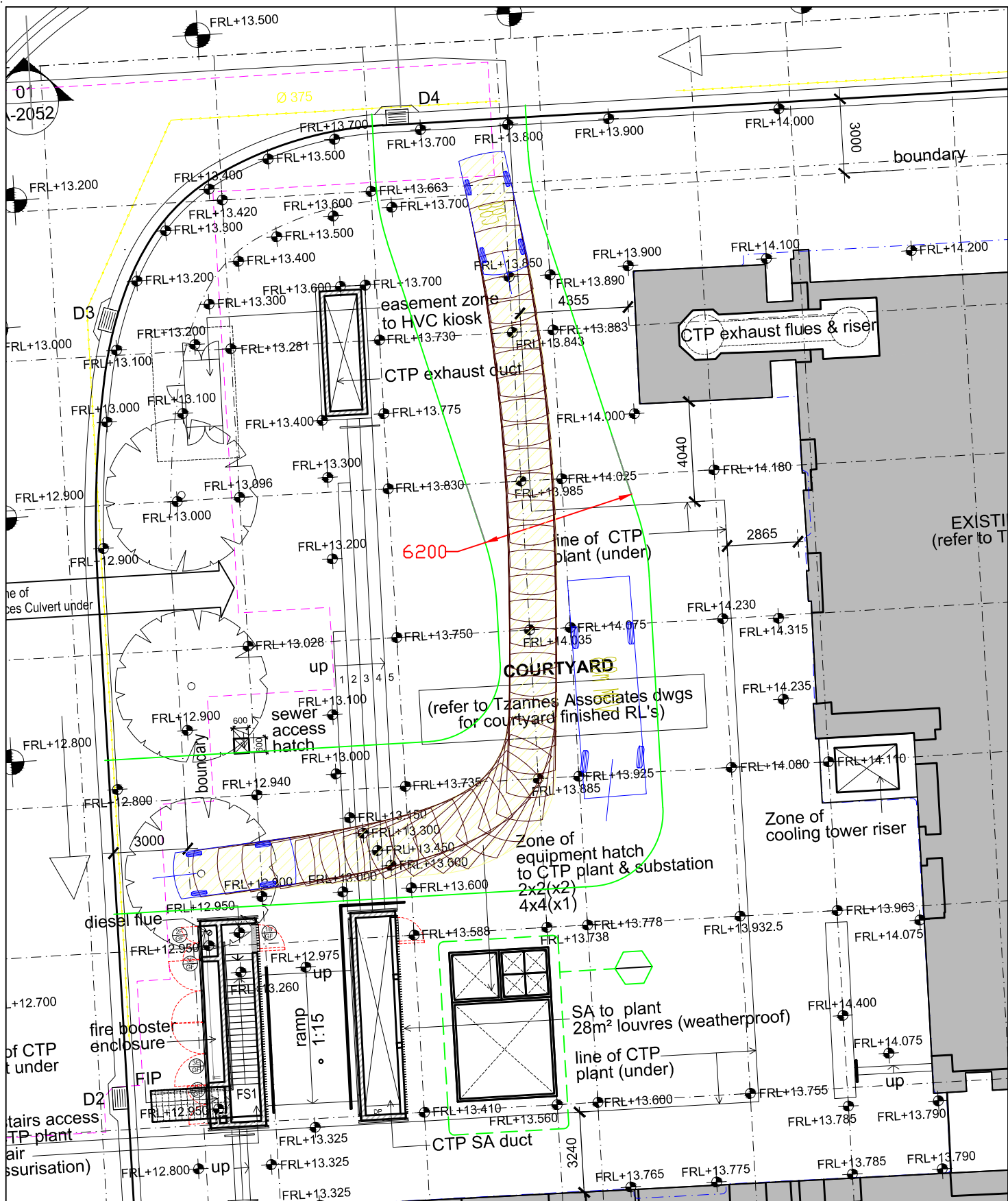
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**SWEPT PATH ANALYSIS  
OF AN 8.8m RIGID  
VEHICLE APPROACHING FROM  
NORTH**

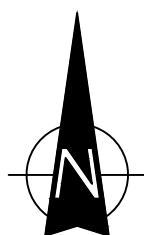
**SP 2**





## LEGEND

This drawing has been prepared using vehicle modelling computer software AutoTrack V5.00a in conjunction with AutoCAD 2000. The vehicle used is based upon vehicle data provided by Austroads and incorporates a reasonable degree of tolerance. However, it is not possible to account for all vehicle types/characteristics and/or driver ability.



**SWEPT PATH ANALYSIS  
OF AN 8.8m RIGID  
VEHICLE**

**SP 2B**