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Date: Nov 2023
Issue: E

Forest High School
Relocation & Construction
Allambie Road, Allambie Heights

Construction Pedestrian & Traffic Management Plan

Transport and Traffic Planning Associates

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1.0 Introduction

The Minister for Planning has approved a Development Application for the relocation and construction of Forest High School, formerly located at 135 Frenchs Forest Rd W, Frenchs Forest and currently moved to Allambie Road, Allambie Heights (Figure 1).

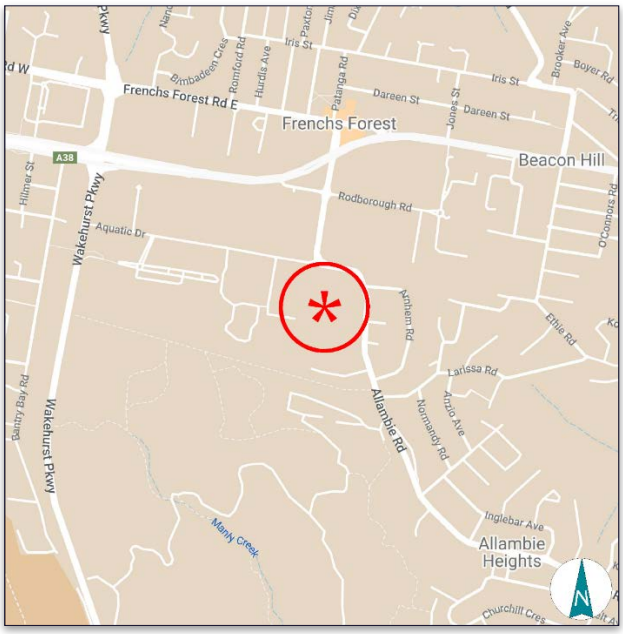


Figure 1 - Site Location

This report has been prepared by Transport and Traffic Planning Associates in satisfaction of Consent Conditions No. B16 and B32 of the Development Consent for the submission of a Construction Pedestrian & Traffic Management Plan as part of the Construction Certificate documentation.

The plan has been prepared by a traffic engineer who holds the Transport for New South Wales Prepare a Work Zone Traffic Management Plan accreditation, detailed as follows:

Lachlan Ellson
Card Number: TCT0041903
Date of Issue: 28/08/2019

2.0 Proposed Development

2.1 Site, Context & Existing Circumstances

The Site (Figure 2) is a consolidation of Lots 6 & 7 in DP1280981, Lots 750 & 751 in DP1271174 and part of Lot 3 in DP1280781 which occupies an irregularly shaped area of some 4.3ha. The site has a 280m long frontage on the southern side of Allambie Road and Aquatic Drive and 150 metres on the western side of Allambie Road.

Figure 2 - Site Boundary

The site is currently vacant, while part of it is occupied for parking uses. Adjoining to the south, is the Cerebral Palsy Alliance building and Arranounbai School.

The Northern Beaches Hospital Structure Plan has designated the current Site of The Forest High School in Frenchs Forest as the chosen location for the upcoming Frenchs Forest Town Centre, thus the Department of Education is in the process of relocating The Forest High School to subject site's location.

2.2 Approved Development Scheme

The State-led Frenchs Forest 2041 Place Strategy and Northern Beaches Council's Hospital Precinct Structure Plan require that The Forest High School be relocated from its current site at Frenchs Forest Road West, Frenchs Forest (Lot 99 DP 1241021) to a new site in order to facilitate the future development and transition of the area to become a Strategic Centre introducing 5,360 additional dwellings and 2,300 new jobs.

Accordingly, School Infrastructure New South Wales (SINSW) has identified and acquired a new site for the relocation of the school to Allambie Road, Allambie Heights. Relocation of The Forest High School involves the construction and operation of a new government high school which will increase capacity from 800 students to 1,500 students, comprising:

- Block A, a two (2) storey building comprising administration, staff spaces, staff amenities, and general learning spaces;
- Block B, a two (2) storey building comprising special support unit facilities, staff spaces, amenities, and general learning spaces;
- Block C, a two (2) storey building comprising library, general and specialist learning spaces;
- Block D, a two (2) storey building comprising science facilities, general learning spaces, staff facilities, and amenities;
- Block E, a two (2) storey building comprising food technology spaces, fabric and textile spaces, woodwork and metal work facilities, staff facilities, amenities and general learning spaces;
- Block F, a one (1) and two (2) storey building comprising a gymnasium with associated change rooms, showers, amenities and storage, first aid room, and metal work facilities;
- Block G, a two (2) storey building comprising a hall with movement studio, stage and lecture
- theatre, performance facilities, visual arts facilities, canteen, amenities, staff facilities, and general learning areas;
- Outdoor sporting facilities including a sporting field and six (6) games courts;
- Covered outdoor learning area (COLA) and covered outdoor working area (COWA);
- Basement parking area for 121 vehicles;
- Bicycle parking for 121 bicycles and scooter parking for 61 scooters; and

- Associated earthworks, tree removal, new tree planting and other landscaping, stormwater works, service upgrades and supporting infrastructure.

Site Development plans have been provided by architectus and are reproduced in Appendix A.

2.3 Construction Process

2.3.1 Demolition

The demolition works will be preceded by the installation of A-Class and B-class fencing along the site's perimeter to prevent unauthorised access, with the demolition works to take a maximum of 20 days. At its peak, the works will involve in the order of 50 persons (maximum) on the site at any one time. All materials will be unloaded and stored within the site outside of peak hours. The provision for loading/unloading will involve trucks entering the site in a forward direction and departing in a reverse direction. The maximum truck size accessing the loading area will be an 18.1m Truck & Dog with 20 arrivals per day.

A tool drop-off and storage facility will be provided on site. This would allow tradespeople to drop off and store their tools and machinery, enabling them to use public transport to travel to/ from the site on a daily basis. Workers will also be informed of the appropriate tool/equipment drop-off and storage arrangement within site sheds and amenities. Public Transport schedules will be provided to all workers during the site induction to promote alternative modes of transport.

2.3.2 Earthworks

This activity will involve the excavation of the site to provide for a level building platform. This process is anticipated to take 120 days to complete using a small excavator machine with the removal of the spoil by 18.1m Truck & Dog type vehicles with some 30 movements per day. Trucks will enter the Site from the currently existing eastern access, and exit, as shown on the Appendix C turning path diagram. The number of workers on site will be some 80 persons.

2.3.3 Construction and Fitout

The construction and fitout phase will take approximately 365 days and, at peak activity, involve a maximum of 200 people on the site at any one time.

Whilst the activity on the site will be more intense during this period, the movement of heavy vehicles will only average around 15 visitations per day, with 42 times per day during concrete pours. Trucks during these works will be restricted to a 12.5m Heavy Rigid Vehicle. Workers will be encouraged at all times to utilise the public transport system or carpool wherever possible.

The provision for loading/unloading for this process will involve trucks standing within the site and all materials being unloaded and stored within the site as well. During the latter stage, small deliveries will be able to occur in the car parking spaces. Pedestrians walking past the development will be protected by temporary fencing.

3.0 Existing Road Network and Traffic Conditions

3.1 Road Network

The road network servicing the Site (Figure 3) comprises:

- Warringah Road - a State Road and arterial route providing a major link between Roseville and Chatswood to the Manly-Warringah suburbs
- Wakehurst Parkway – a State Road and sub-arterial route running north-south linking the Spit bridge to Narrabeen via Frenchs Forest
- Frenchs Forest Road East/West – A sub-arterial route linking the suburb of Punchbowl to Georges River Road with the suburbs of Enfield and Burwood.
- Allambie Road – A Regional Road and collector route linking North Manly to Allambie Heights and Frenchs Forest

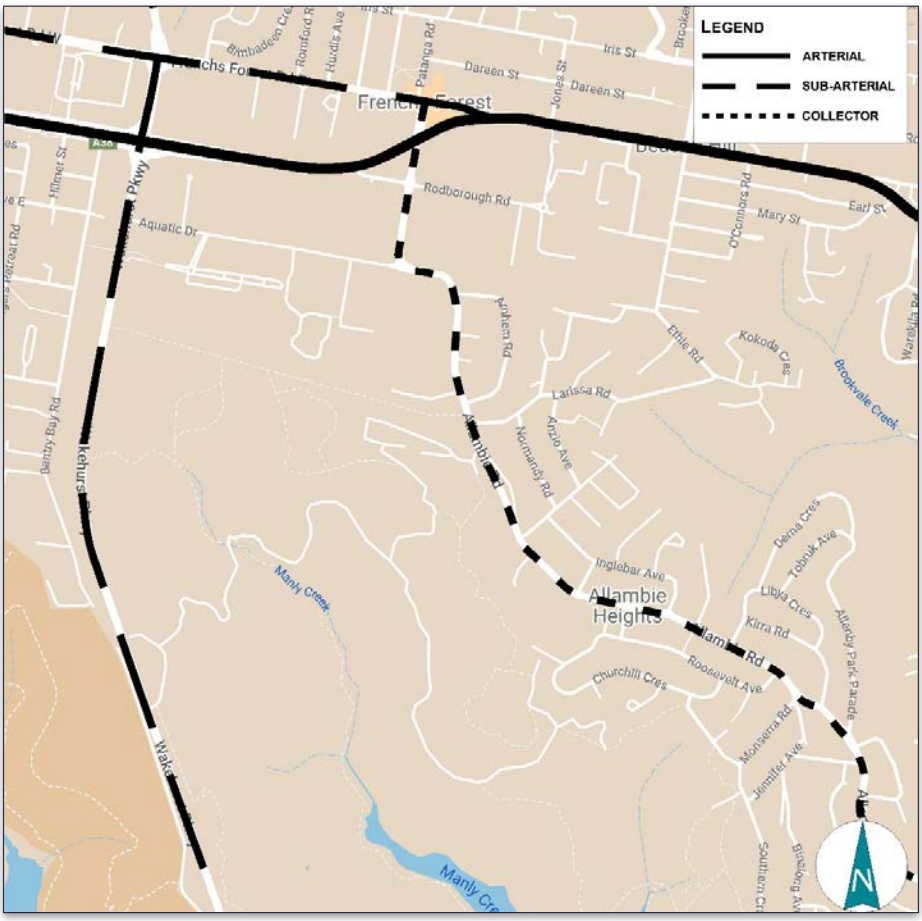


Figure 3 - Road Network

3.2 Traffic Controls

The existing traffic controls on the road network (Figure 4) comprise:

- The large intersection of Wakehurst Parkway and Warringah Road
- The three traffic signals at the Frenchs Forest Road East/Allambie Road intersection, Frenchs Forest Road East/Warringah Road intersection and the Warringah Road/Allambie Road intersection
- The roundabout in front of the entry to the site at Aquatic Drive and Allambie Road intersection
- The roundabout at Rodborough Road and Allambie Road intersection
- The traffic signals at Allambie Road/Mortain Avenue
- Give Way signal and no right turn at Aquatic Drive and Wakehurst Parkway intersection

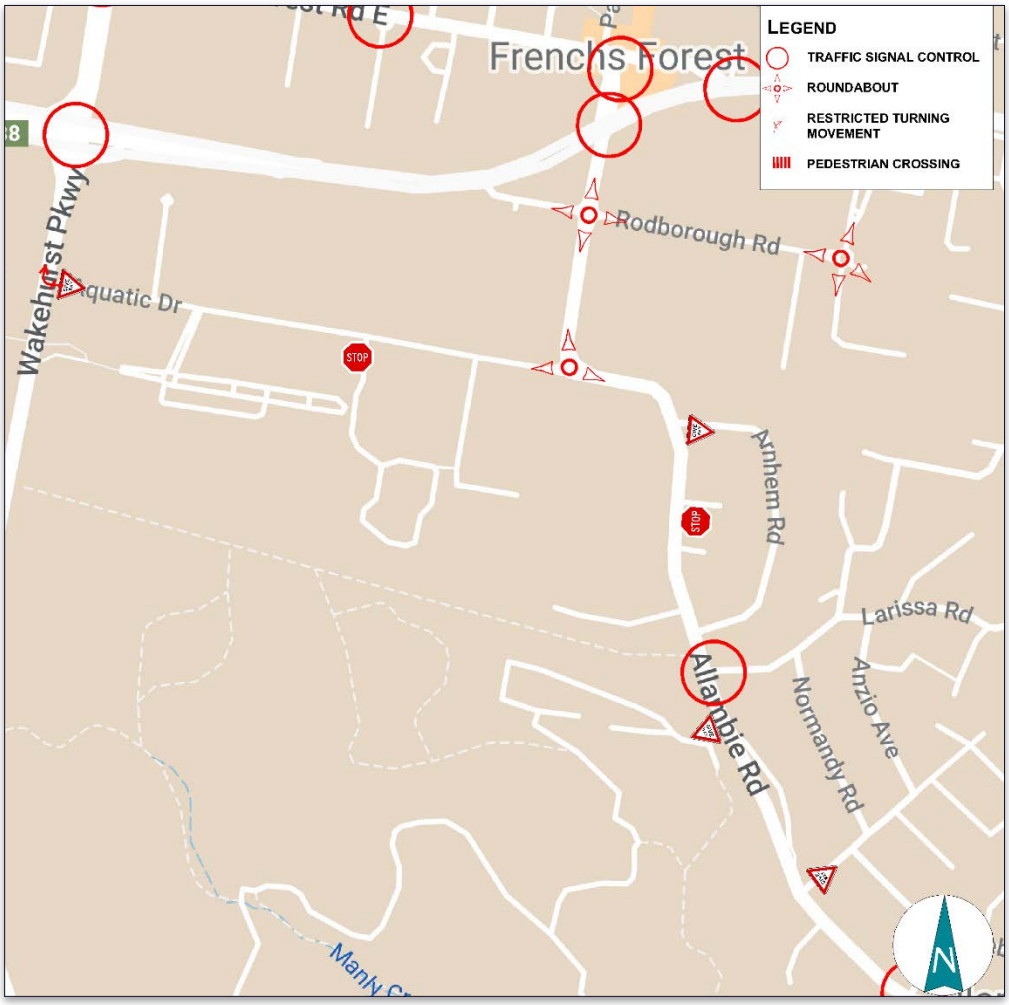


Figure 4 - Traffic Conditions

3.3 Traffic Conditions

TfNSW provides an indication of traffic conditions on the road system serving the Site for Warringah Road, 100 metres East of Daines Parade. Annual Average Daily Traffic data for the intersection was taken in 2023.

100m East of Daines Parade, Beacon	**AADT**
Eastbound	27,938
Westbound	28,655

3.4 Transport Services

Train Services

There are no train services in close proximity to the site. The nearest rail station is Roseville train station, located 9.4km from the site, an 18-minute drive.

Bus Services

Access to the Bus network is provided by bus stops near the Site on Allambie Road and Warringah Road. Some routes that run from these are:

- Route 142 – Manly to Skyline Shops
- Route 174X – Narraweena to City Wynyard (Express Service)
- Route 280 – Chatswood to Warringah Mall

Details of the available public transport services are provided in Appendix B.

3.5 Walking Facilities

Established pedestrian footpaths are available in the vicinity of the site. Overall, the site is surrounded by a well-established and heavily patronised area that caters to pedestrians, using a variety of desired lines linking commercial, retail, school, club, and restaurant uses with public transport services and the surrounding local residential areas. Bus routes mentioned are all within walking distance of the site.

4.0 Construction Traffic Management Plan

4.1 Construction Vehicle Route

Truck movements associated with the construction processes will access the Site via Allambie Road and Aquatic Drive, and access from the site's western and eastern boundaries, as illustrated in Figure 5. All trucks involved with the works will access the site using the classified State and Regional Road system.

It is unlikely that work will result in concurrent truck arrivals/departures. Nevertheless, it is noted that any truck queuing or marshalling of construction vehicles will not be permitted on the road network, and call-up procedures will be in place to manage arrivals, if necessary, by the nominated contractor.

The largest vehicle that will use the access point will be an 18.1m Truck & Dog Vehicle during the entirety of the works. An adequate maneuvering area will be provided on-site to ensure construction vehicles can enter and exit in a forward direction under the supervision of a certified traffic controller. The entrance to Doe Street is also to be widened in the construction stages, allowing for better truck movements.

Accredited traffic controllers will be at the site access to manage pedestrian movements and assist with vehicle ingress and egress. Only one vehicle will enter or exit the site at the access at a time.

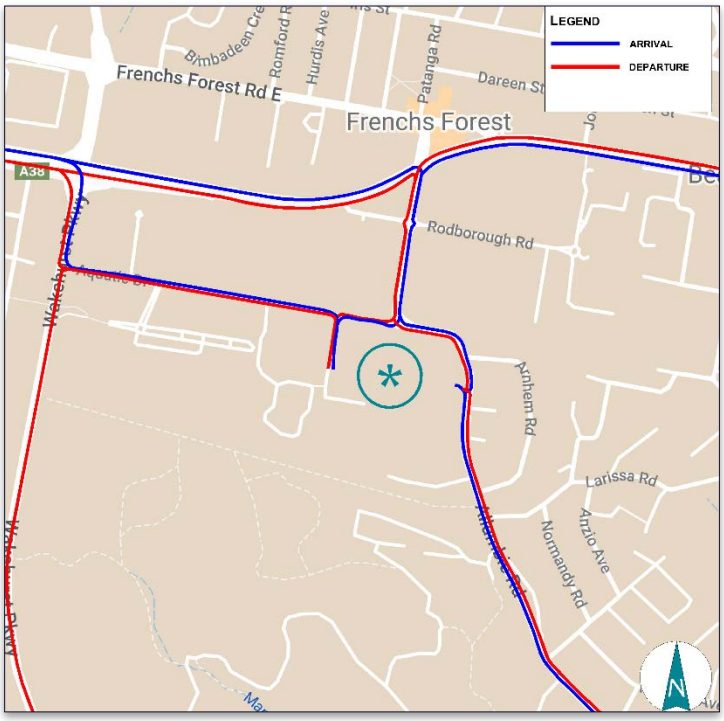


Figure 5 - Truck Routes

4.2 Truck Manoeuvres & Movements

It is anticipated that the construction works will generally involve the following heavy vehicle types:

Vehicle Type	**Length**
Truck & Dog	18.1m
Heavy Rigid Vehicles (HRV)	12.5m
Medium rigid vehicles (MRV)	8.8m
Small rigid vehicles (SRV)	6.4m
Mobile cranes	9.8m - 13.5m
Concrete trucks	8.8m
Concrete pump	8.8m
Excavator, Bobcat, Forklift, Manitou	< 8.8m
Utility vehicle/Van	5.2m (B99)

The largest truck generally requiring access to the site during the works per stage is as follows:

Demolition	18.1m Truck & Dog
Excavation	18.1m Truck & Dog
Construction	12.5m Heavy Rigid Vehicle
Fitout	12.5m Heavy Rigid Vehicle

The turning path assessment details are provided in Appendix C, indicating satisfactory truck manoeuvring in and out of the site depending on the appropriate phase of works.

Suppose a required truck length exceeds the specified maximum during the phase of work. In that case, a separate application will be submitted to Council identifying the dates of access and the proposed length of the required truck.

The envisaged truck movements per day throughout the works is as follows:

Demolition	20 per day
Earthworks	30 per day
Construction & Fitout	15 per day

Trucks servicing the site are restricted to the approved construction hours only when accessing the streets in the vicinity of the site.

4.3 Construction Hours

The approved hours of construction activity will be as per the Consent Conditions. The principal contractor shall ensure that all sub-contractors are aware of the permitted hours of operation and shall ensure that all vehicle activity occurs strictly within the hours stipulated by the Conditions of Consent. Should any work be required to take place within public roads (in the vicinity of the site) outside these hours, this would be subject to prior approval from the Council.

Noise from construction activities shall comply with the Protection of the Environmental Operations (Noise Control Regulation 2017.

4.4 Proposed Works Zone

It is not anticipated that a Works Zone is necessary for the works. There is adequate space within the site for materials storage and truck manoeuvring, a certified traffic controller will be located on Aquatic Drive to assist with truck movements. If a Works Zone is required at some stage in the future, a separate application must be lodged with the Council to establish the arrangement.

4.5 Site Induction

All workers and visitors employed on the site by the appointed contractor (including sub-contractors) will be required to undergo a formal 'site induction' process, and all the inductions will be performed specifically to each trade according to Workcover OH & S requirements.

The induction will include details of approved access routes to and from the construction site for site staff and delivery vehicles, parking arrangements, as well as standard environmental, WHS, driver protocols and emergency procedures. The agreed work hours must be included as part of this induction.

4.6 Traffic Guidance Scheme

The TGS presents traffic management principles, with detailed information for work site operations contained in the Roads and Maritime Services Traffic Control at Work Sites Technical Manual Version 6.1 dated 28 February 2022. The control of traffic at work sites must be undertaken with reference to WorkCover requirements and RCC Workplace Health and Safety Manuals.

The TGS is prepared by a Certified Traffic Controller (under TfNSW regulations) in accordance with Australian Standards 1742.3. The TGS includes:

- The proposed works site
- Traffic control signage

The TGSs for the construction processes are provided in Appendix D.

4.7 Pedestrian Management

Pedestrians walking along the site frontage will be protected by temporary construction fencing. TfNSW accredited traffic controller shall always supervise all vehicle movements into and out of the site and materials movements to and from the site ensuring pedestrians have right of way at all times.

4.8 Impact on Emergency Vehicle Access

The proposed works would not affect access to the site and neighbouring sites by emergency vehicles. Emergency protocols on the site would indicate a requirement for a traffic controller to assist with emergency access on the site. All truck movements to the site and the incident point would be suspended and cleared. Consequently, any potential impacts on emergency access would be effectively managed throughout the works.

The liaison would be maintained with the ambulance, fire services, police, and other emergency services agencies throughout the construction period, and a 24-hour contact would be made available for 'out-of-hours' emergencies and access.

As such, there would be no impacts on the provision of existing emergency vehicle access to the site or other neighbouring properties as a result of the proposed construction activities.

4.9 Road Serviceability

The contractor will ensure that the roads in the vicinity of the site remain in clean and serviceable states during the construction. Any damage to kerbs, signage, trees, footpaths etc., will be repaired or replaced to the satisfaction of the Council.

4.10 Parking

The peak workforce is estimated to be approximately 163 full-time workers. It is expected that because of the public transport access of the site, approximately 10 per cent of workers would arrive on site by public transport. Of the remaining 90 per cent of workers, a vehicle occupancy of 2.0 is assumed, which is typical of construction sites. The maximum number of cars therefore is expected to be approximately 75 vehicles. Workers will be encouraged to park onsite or on-street within industrial areas.

The site can accommodate approximately 50 vehicles parked, with the remaining 25 vehicles parking on-street. The on-street network around the industrial area has sufficient spare capacity for the 25 vehicles based on site observations:

- Aquatic Drive: 510m of generally vacant length up to the Forestridge Business Park, which often has on-street parking. This provides 80 vehicle parking spaces assuming 6.3m per vehicle
- Rodborough Road west: 60m of generally vacant length, which would provide about 10 parking spaces assuming 6.3m per vehicle
- Rodborough Road east: 250m of generally vacant length, which would provide about 39 parking spaces.

Rodborough Road is a reasonable walk to the site, but could be workable for trades to drop tools on site and then park longer term at this location. Road network impacts by worker traffic to the site will be mitigated by the construction workers generally starting earlier and finishing earlier than the commuter peak periods and would likely not coincide with the school or road network peak periods. Construction workers will be encouraged

to carpool, further reducing the impact on the road network and local parking demands. Final construction vehicle numbers are still being confirmed. A preliminary estimate of 20 heavy vehicle truck movements is anticipated on a typical day.

4.11 Materials Handling

All materials are to be stored within the site boundary at all times. Loading/unloading of materials will occur from the Loading Area by crane or with the assistance of trolleys/forklifts. No materials shall be placed dumbed or left on any council road or footpath area at any time.

4.12 Public Notification and Consultation

Under the approval of the Council, the contractor would prepare notification letters that would be emailed to adjoining property owners to advise of the timeframes for completion of each phase of the development/construction process. The notification will be provided a minimum of 7 days prior to the implementation of any temporary traffic control measure.

Consultation with the relevant authorities, including TfNSW and Council, will be required prior to and throughout the works. Evidence of the beginning of this consultation has been provided in Appendix E.

5.0 Drive Code of Conduct

5.1 Objectives of the Drivers Code of Conduct

- To minimise the impact of earthworks on the local and regional road network
- To minimise conflict with other road users
- To minimise road traffic noise; and
- To ensure truck drivers use specified heavy vehicles routes between the site and the sub-regional road network

5.2 Code of Conduct

All vehicle operators accessing the site must:

- Take reasonable care for his or her own personal health and safety
- Not adversely, by way of actions or otherwise, impact on the health and safety of other persons
- Notify their employer if they are not fit for duty prior to commencing their shift
- Obey all applicable road rules and laws at all times
- In the event an emergency vehicle behind your vehicle, pull over the allow the emergency vehicle to pass immediately
- Obey the applicable driving hours in accordance with legislation and take all reasonable steps to manage their fatigue and not drive with high levels of drowsiness
- Obey all on-site signposted speed limits and comply with directions of traffic control supervisors in relation to movements in and around temporary or fixed work areas
- Ensure all loads are safely contained/restrained, as necessary
- Drive over devices – located at the site's access – to vibrate off and wash off any loose material attached to heavy vehicles
- Operate their vehicles in a safe and professional manner, with consideration for all other road users
- Hold a current Australian State or Territory issued driver's licence
- Notify their employer or operator immediately should the status or conditions of their driver's licence change in any way
- Comply with other applicable workplace policies, including a zero tolerance of driving while under the influence of alcohol and/or illicit drugs

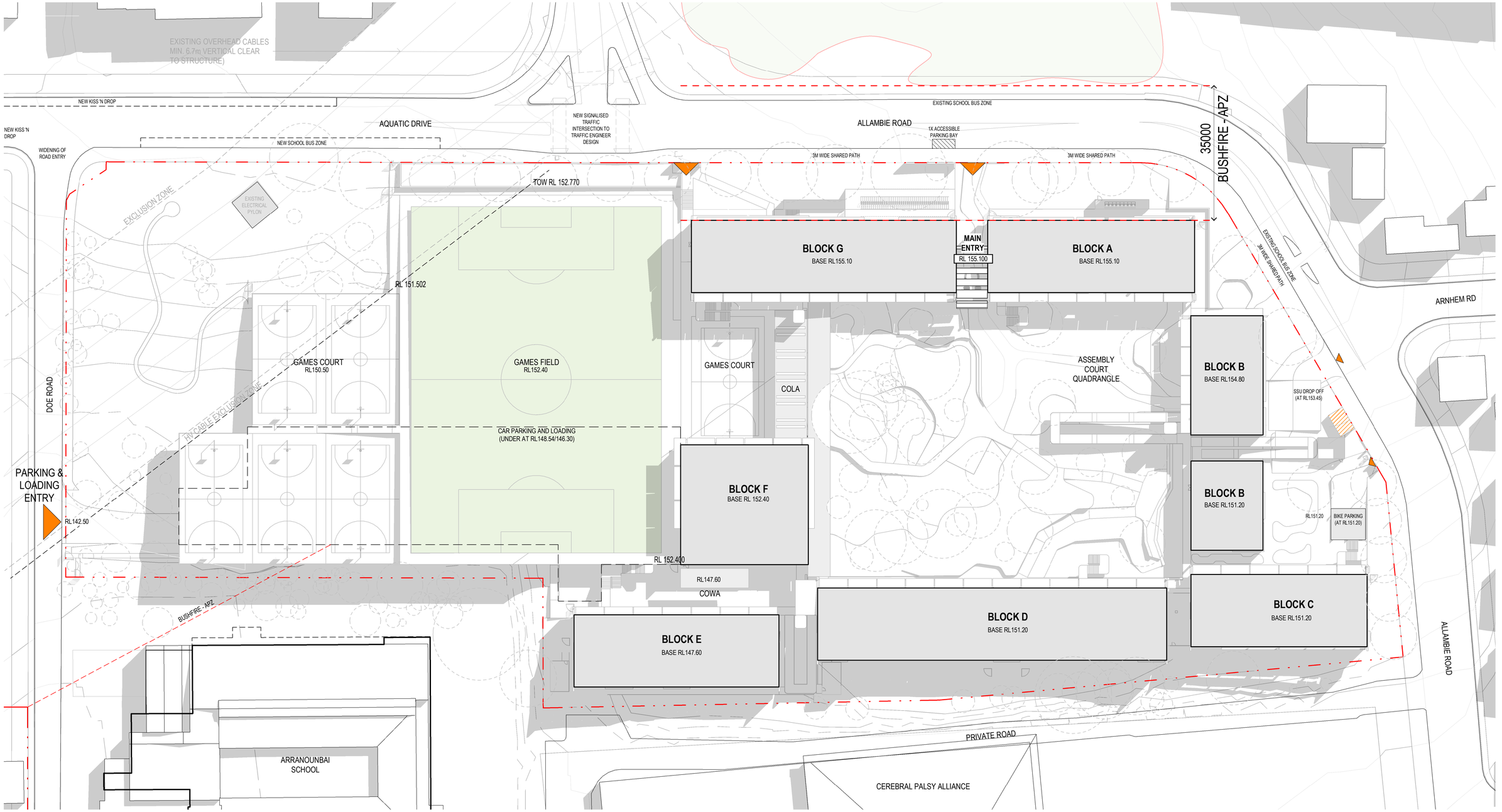
- Not use mobile phones when driving a vehicle or operating equipment. If the use of a mobile device is required, the driver shall pull over in a safe and legal location prior to the use of any mobile device
- Advise management of any situations of which you know, or think, may present a threat to workplace health and safety
- Drive according to prevailing conditions (such as during inclement weather) and reduce speed, if necessary, and
- Have necessary identification documentation at hand and ready to present to security staff on entry and departure from the site, as necessary, to avoid unnecessary delays to other vehicles.

5.3 Crash or Incident Procedure

- Stop your vehicle as close to it as possible to the scene, making sure you are not hindering traffic. Ensure your own safety first, then help any injured people and seek assistance immediately if required.
- Ensure the follow information is noted:
    - Details of the other vehicles and registration numbers
    - Names and addresses of the other vehicle drivers
    - Names and addresses of witnesses, and
    - Insurers details
- Give the following information to the involved parties:
    - Name
    - Address, and
    - Company details
- If the damaged vehicle is not occupied, provide a note with your contact details for the owner to contact the company.
- Ensure that the police are contacted should the following circumstances occur:
    - If there is a disagreement over the cause of the crash
    - If there are injuries; and/or
    - If you damage property other than your own
- As soon as reasonably practical, report all incident details to your manager.

Appendix A
Development Plans

TRANSPORT AND TRAFFIC PLANNING ASSOCIATES
Established 1994



Nominated Architect
Ray Brown, NSWARB 6359

Do not scale drawings. Verify all dimensions on site

issue	amendment	date
F	FOR INFORMATION	10/06/2022
G	FOR INFORMATION	17/06/2022
H	50% SCHEMATIC DESIGN ISSUE	01/07/2022
I	FOR INFORMATION	08/07/2022
J	60% SCHEMATIC DESIGN ISSUE	08/07/2022
K	70% SCHEMATIC DESIGN	15/07/2022
L	100% SCHEMATIC DESIGN	22/07/2022
M	FOR INFORMATION	26/07/2022
N	100% SCHEMATIC DESIGN - CONSULTANT COORDINATION ISSUE	29/07/2022
O	100% SCHEMATIC DESIGN - CONEXT PLANS	01/08/2022
P	100% SCHEMATIC DESIGN - REISSUE	05/08/2022
Q	SCHEMATIC DESIGN - ISSUE FOR TENDER	09/09/2022
R	SCHEMATIC DESIGN - ISSUE FOR TENDER - REVISION	13/09/2022

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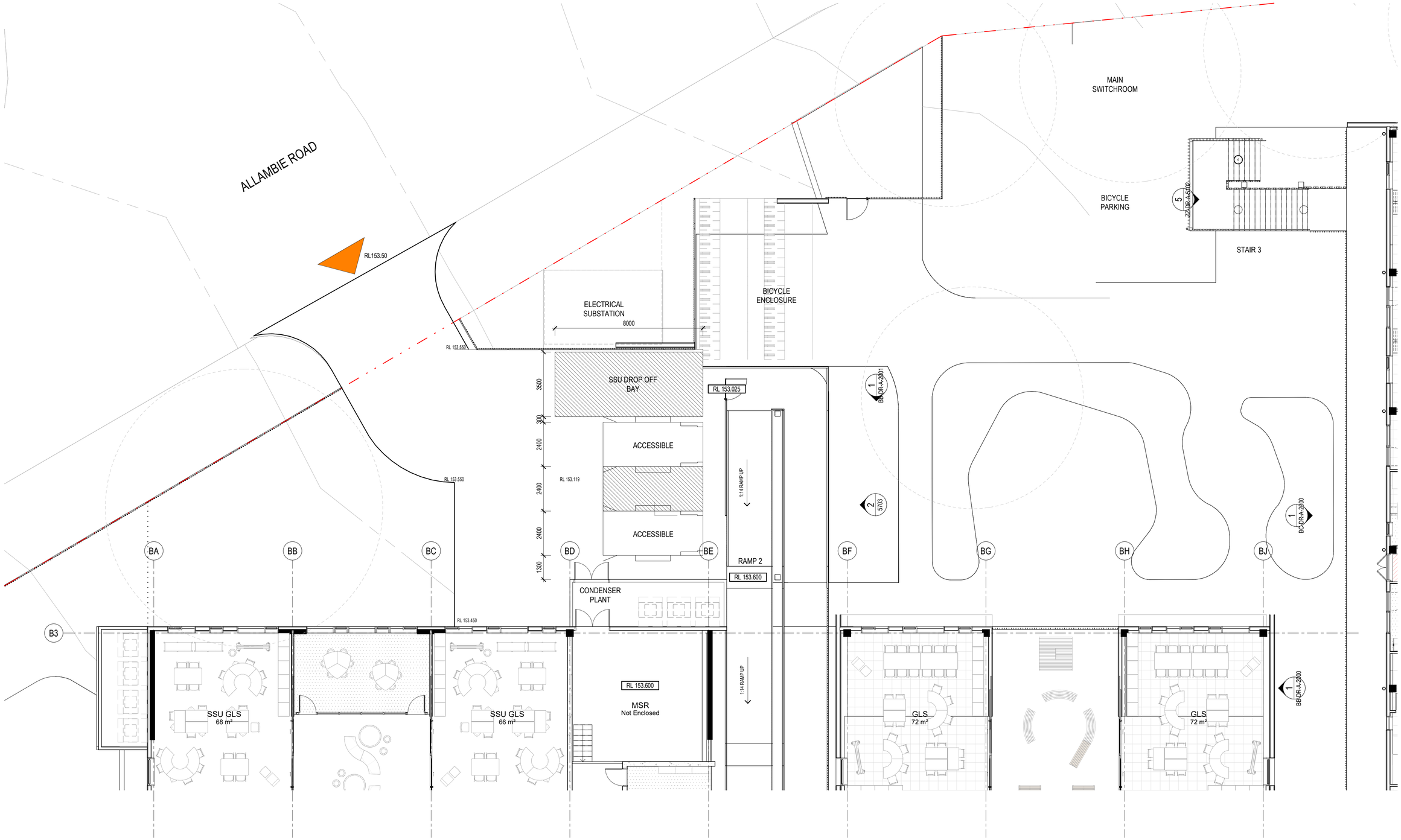
checked	SW	scale	1 : 500@A1
drawn	KG JL IT RW SW	project no	200420.01

project
THE FOREST HIGH SCHOOL

drawing
CONTEXT PLAN - SITE PLAN

drawing no. **SD-1001**
issue **R**



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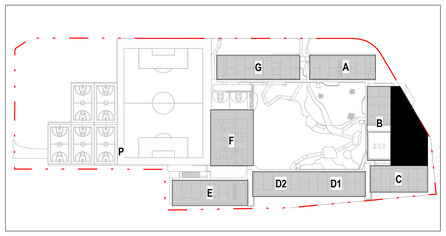
issue	amendment	date
	FOR INFORMATION ONLY	05/09/2023
	FOR INFORMATION ONLY	08/09/2023



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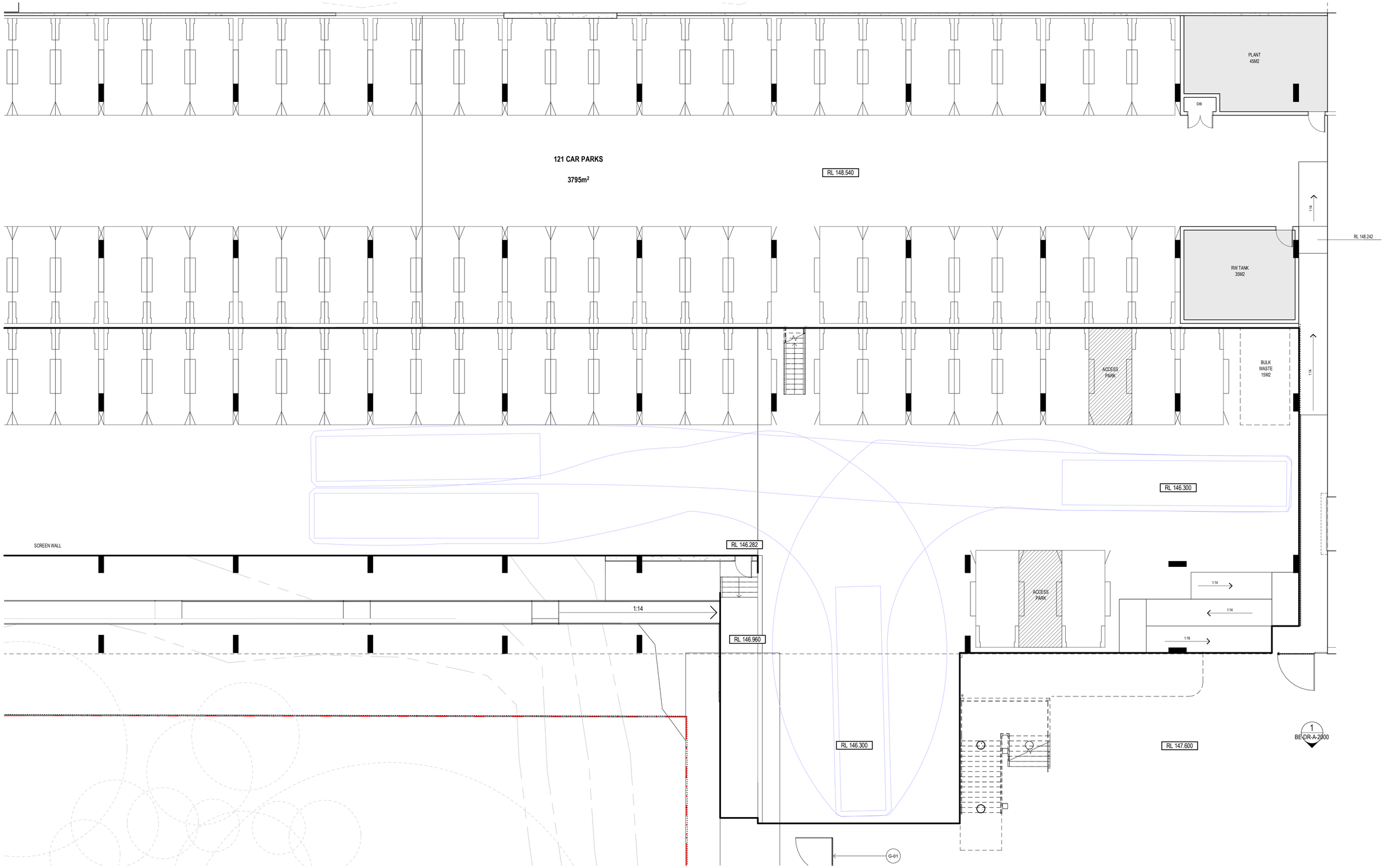
drawn	IT ARB SL	project no	220627

project
THE FOREST HIGH SCHOOL

drawing
Parking - GA - SSU Drop-off - Upper Ground

drawing no. | issue
TFHS-ARC-PA-DR-A-1002



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issue	amendment	date
	FOR INFORMATION ONLY	08/09/2023

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drawn	Author	project no	220627

project
THE FOREST HIGH SCHOOL

drawing
Parking - GA - Sheet 2

drawing no. | issue
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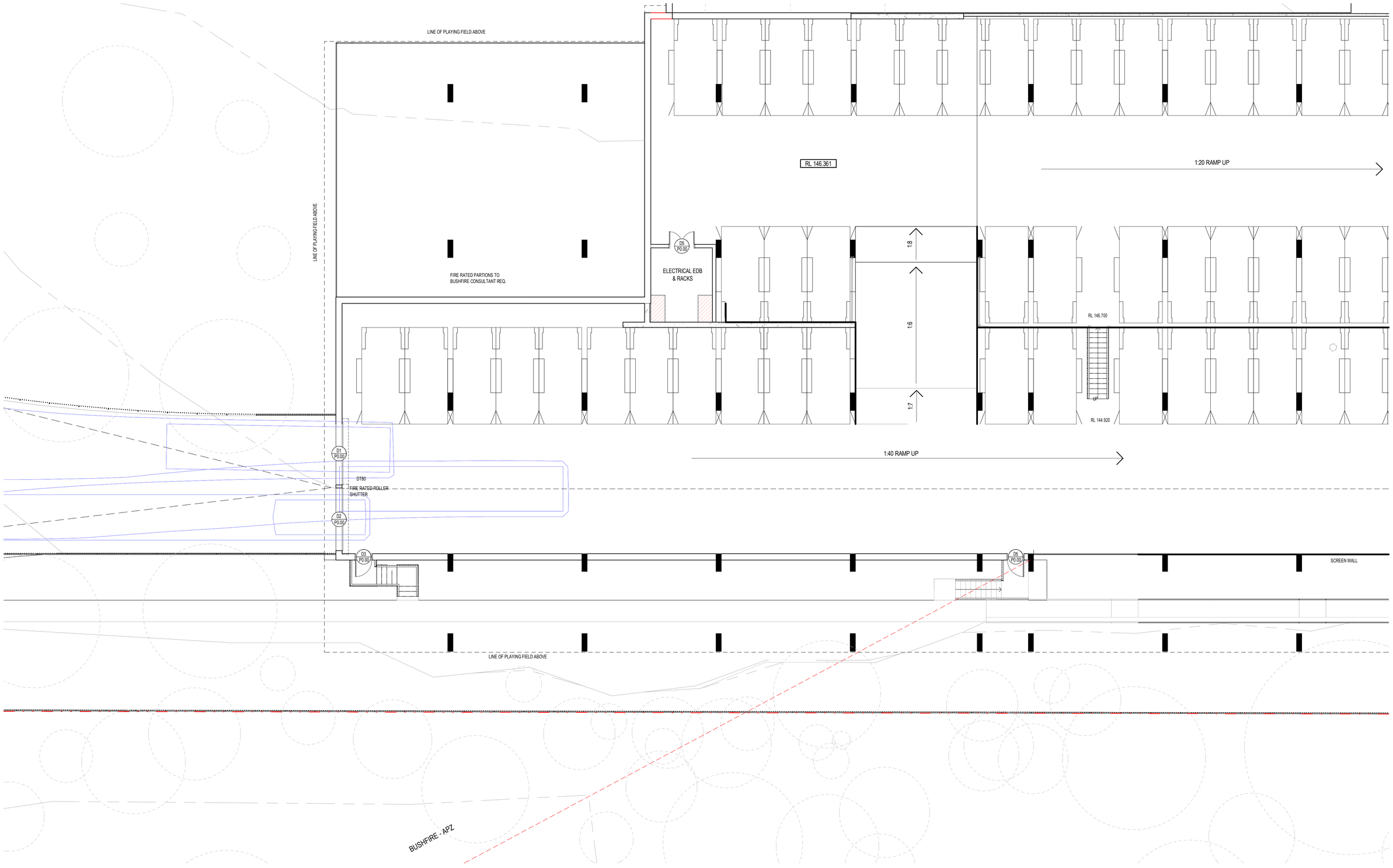

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issue	amendment	date
	FOR INFORMATION ONLY	05/09/2023
	FOR INFORMATION ONLY	08/09/2023

FLOOR FINISH TYPES

- CP01- CARPET FINISH
- CP02 - GUC CARPET - SOUND IMPACT ABSORPTION
- CF02 - CC STEEL TROWELLED FINISHED CONCRETE
- PV01 - GENERAL PAVING
- RS01 - VINYL SHEET FLOORING (REFER TO BASE PALETTE)
- RS02 - VINYL SHEET FLOORING (REFER TO IDENTITY PALETTE)
- RS03 - LINOLEUM SHEET FLOORING
- TL01 - CERAMIC TILES
- TF01 - SPRUNG TIMBER FLOOR

WALL LINING TYPES

- WALL LINING 01
- WALL LINING 01a
- WALL LINING 01b
- WALL LINING 01c
- WALL LINING 02
- WALL LINING 02a
- WALL LINING 03
- WALL LINING 03a
- WALL LINING 04
- WALL LINING 04a
- WALL LINING 05
- WALL LINING 06
- WALL LINING 07
- WALL LINING 08

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drawn	IT JL RW KG	project no	220627

project
THE FOREST HIGH SCHOOL

drawing
Parking - GA - Sheet 1

drawing no. | issue
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