Dalymount Park Stadium

Outline Construction Traffic Management Plan

IDOM Consulting, Engineering, Architecture SAU

08 August 2023

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Status and Version:

S4-01

The Power of Commitment

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Contents

Figure index

Appendices

1. Introduction

1.1 Purpose of this report

Gutteridge Haskins and Davey Ltd (GHD) in partnership with Allan Gooch Associates Ltd has been appointed by IDOM Consulting, Engineering, Architecture SAU (IDOM) to provide an Outline Construction Traffic Management Plan (CTMP) for the redevelopment of Dalymount Park Stadium, Dublin.

Dalymount Park Stadium is home to Bohemian FC who compete in the Premier Division of the League of Ireland. As part of wider regeneration plans, Dublin City Council (DCC) aspire to redevelop the Dalymount Park Stadium site to provide a modern circa. 8,000-capacity UEFA Category 3 stadium that would be home to Bohemian football club and deliver flexible community facilities and improved public realm.

The information in this report will be developed and agreed with DCC, relevant stakeholders and the main contractor once appointed, prior to undertaking any construction works.

1.2 Existing Stadium Overview

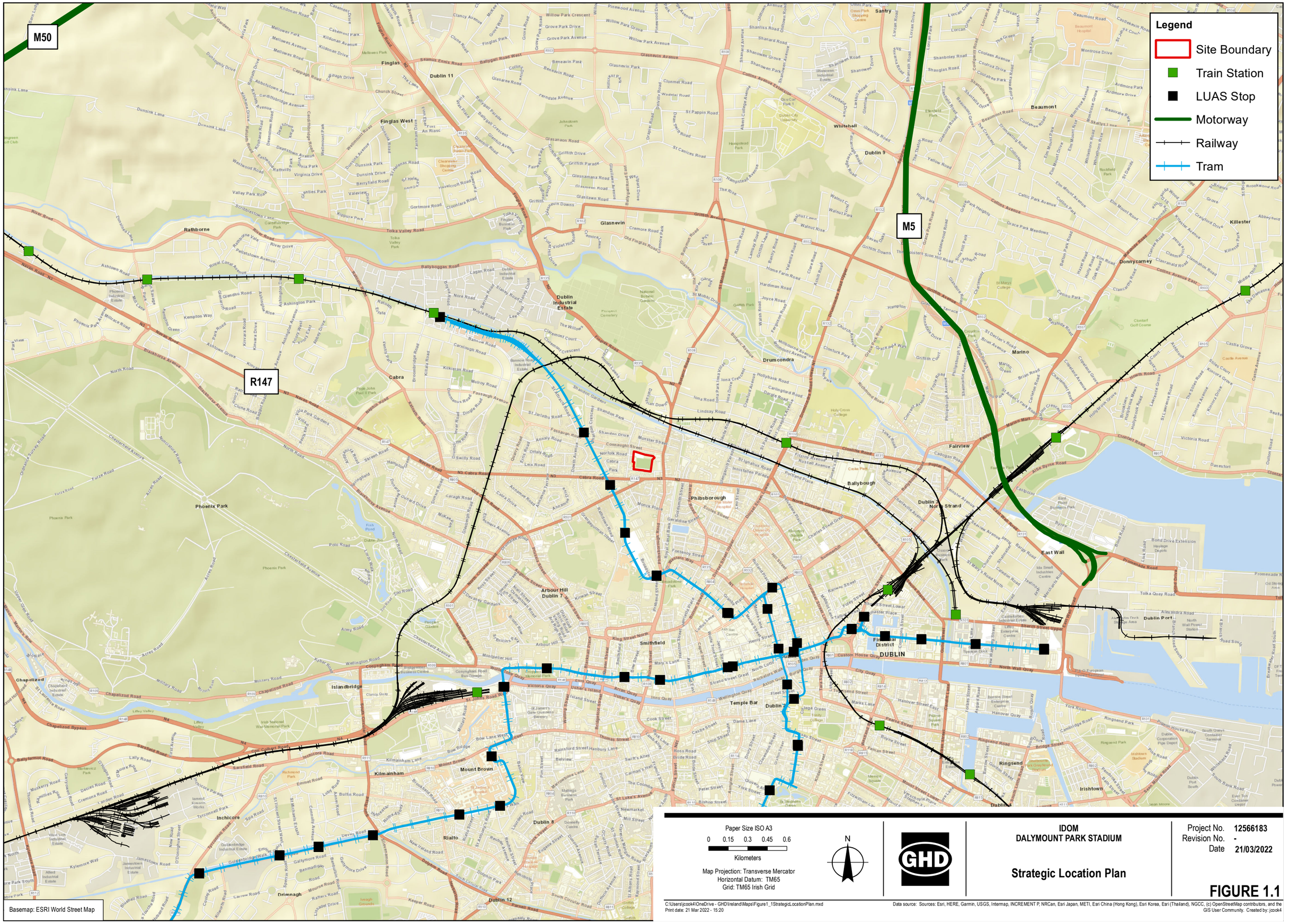
Dalymount Park Stadium opened in 1901 and is often referred to as the oldest football stadium in Ireland. At its peak in the 1940s and 1950s it regularly hosted crowds of 40,000 spectators but fell into decline by the 1980s. By the end of the 1990s the old wooden stand was replaced, and the terraced areas were either closed or had seating installed. The current capacity of the stadium is circa. 4,470 for football matches.

The stadium site is located in Phibsborough, Dublin 7, bounded to the east by Phibsborough Road, to the south by Cabra Road/North Circular Road, to the north by Connaught Street and to the east by St. Peter's Road. The surrounding area is predominantly residential in nature consisting of terraced housing. St. Peter's National School lies directly adjacent to the site in the west. Phibsborough Shopping Centre lies directly adjacent to the east.

The site can currently be accessed via two locations on St. Peter's Road, one on North Circular Road, and one on Connaught Street. The northernmost access on St. Peter's Road provides access for vehicles and pedestrians to the on-site parking area. The southernmost access on St. Peter's Road and the access on North Circular Road provide pedestrian access to the southern stand. These two accesses have sufficient width for one-way traffic flow and provide access to adjacent residential properties as well as to the stadium, which provides access wide enough for vehicles in the southeast and southwest corners of the site.

The access on Connaught Street leads to a small area adjacent to the stadium currently used as parking and to access the Phibsborough Shopping Centre car park. This access is not currently used to access the stadium.

Figure 1.1 presents the site in its strategic context, while Figure 1.2 presents it in its local setting.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Site Boundary
Train Station
LUAS Stop
Motorway
Railway
Tram
M50
M5
R147
Basemap: ESRI World Street Map
Paper Size ISO A3
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Kilometers
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Map Projection: Transverse Mercator
Horizontal Datum: TM65
Grid: TM65 Irish Grid
IDOM
DALYMOUNT PARK STADIUM
Strategic Location Plan
Project No. 12566183
Revision No. -
Date 21/03/2022
FIGURE 1.1
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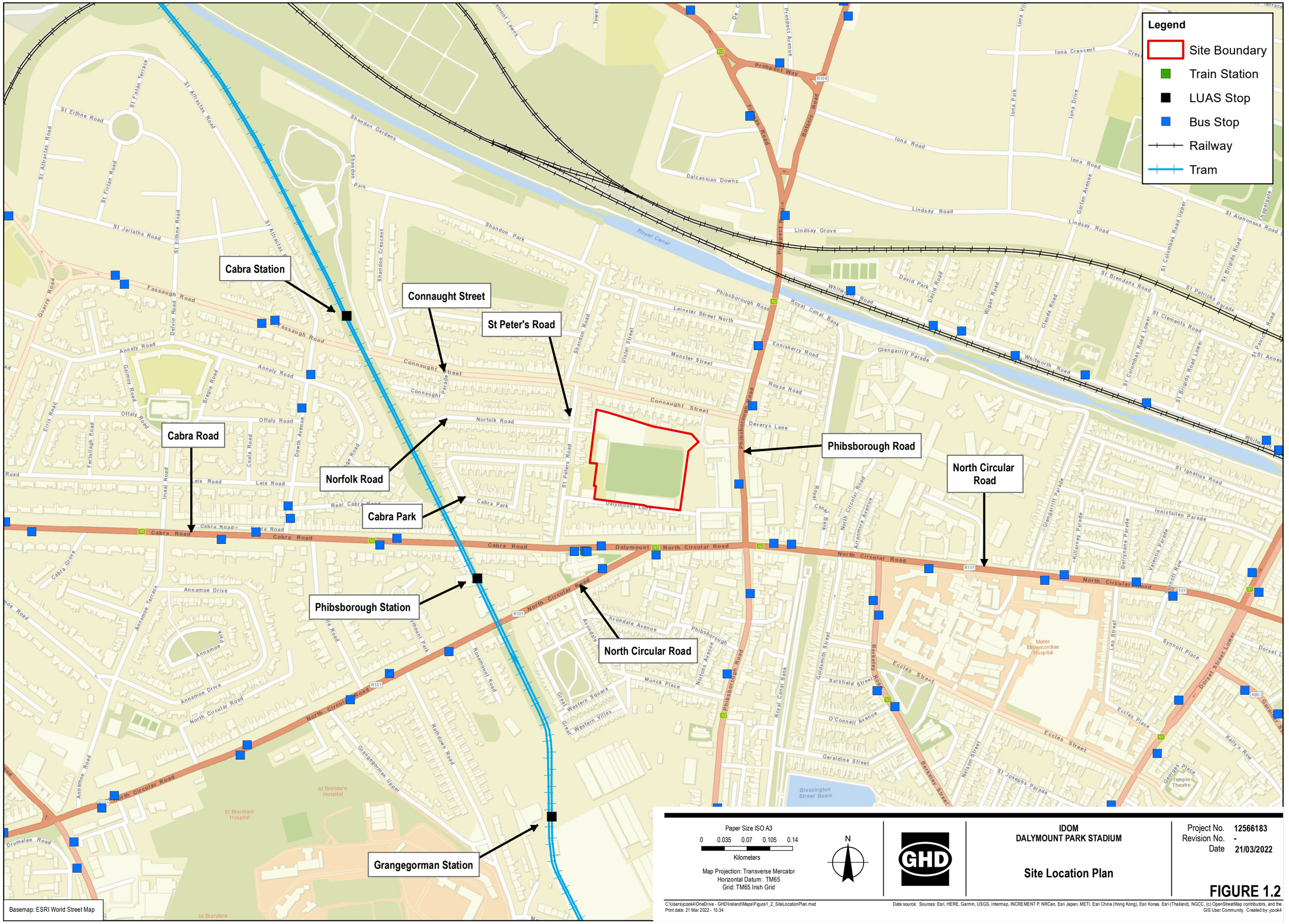
Data source: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community. Created by: jcook4


Legend
Site Boundary
Train Station
LUAS Stop
Bus Stop
Railway
Tram
Cabra Station
Connaught Street
St Peter's Road
Cabra Road
Norfolk Road
Cabra Park
Phibsborough Station
North Circular Road
Grangegorman Station
Phibsborough Road
North Circular Road
Basemap: ESRI World Street Map
Paper Size ISO A3
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Kilometers
Map Projection: Transverse Mercator
Horizontal Datum: TM65
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IDOM
DALYMOUNT PARK STADIUM
Site Location Plan
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Revision No. -
Date 21/03/2022
FIGURE 1.2
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1.3 Development Proposals

This application seeks permission for the demolition of the existing Dalymount Park stadium and construction of a new football stadium with an increased capacity to facilitate a total of circa 8,059 persons. The stadium will cater for seating of approximately 6,265 patrons and a terrace which will facilitate approximately 1,794 standing patrons. The development includes the reorientation of the pitch from the existing east-west orientation to a north-south layout.

The proposal also includes the construction of a two-storey community facility in the north-eastern corner of the Site which includes a multi-purpose room and associated facilities at ground level and a gym facility on the second level.

1.4 Scope and Limitations

This report has been prepared by GHD for IDOM on behalf of DCC and may only be used and relied on by IDOM for the purpose agreed between GHD and IDOM.

GHD otherwise disclaims responsibility to any person other than IDOM arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

GHD has prepared this report on the basis of information provided by IDOM, which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

2. Construction Programme

The stadium will be built in a single phase and would begin in Q3 2024 and end in Q2 2026. It is anticipated that after demolition the south stand will be constructed first to allow the remainder of the site area to be used for construction activities, including materials drop-off and storage and staff welfare facilities. The East and West stands would be constructed next with the North stand constructed last.

The full programme of works including a detailed description of the key construction phases and period of peak construction activity will be described in this section of the CTMP once a main contractor has been appointed. Full details of access and parking arrangements during each phase will also be added.

3. Traffic Management

3.1 Site Working Hours

The hours of construction would be agreed with the Council prior to commencement of construction. At this time, it is envisaged that construction vehicle movements to / from the site would be limited the following working hours:

a. Monday to Friday between 07:00 – 18:00

b. Saturday between 08:00 – 14:00

c. No construction activities will take place on Sundays or Bank Holidays.

There may be circumstances where deliveries may be required outside of these times, for example if large loads are required. Work may be permitted outside of these hours only in exceptional circumstances (or by prior agreement with the Council).

3.2 Construction Traffic Routeing

Advisory Construction Heavy Goods Vehicle Routes have been identified in order to manage the arrival and departure of vehicles from the wider surrounding highway network, minimising the impact to existing road users and upon highway safety and capacity. The advisory route has been developed in consultation with local stakeholders including St Peter's National School.

All Construction vehicles accessing or egressing the Site via St Peter's Road would travel via Connaught Street and avoid passing St Peter's National School. The origin/destination of constructon vehicle trips will be confirmed in the full CTMP. For the purposes of this Outline Plan we have indicated proposed routes between the Site and the M50 along the primary road network via the R108, R135 or R147 as shown in Figure 3.1.

Figure 3.1 Construction Vehicle Route Plan

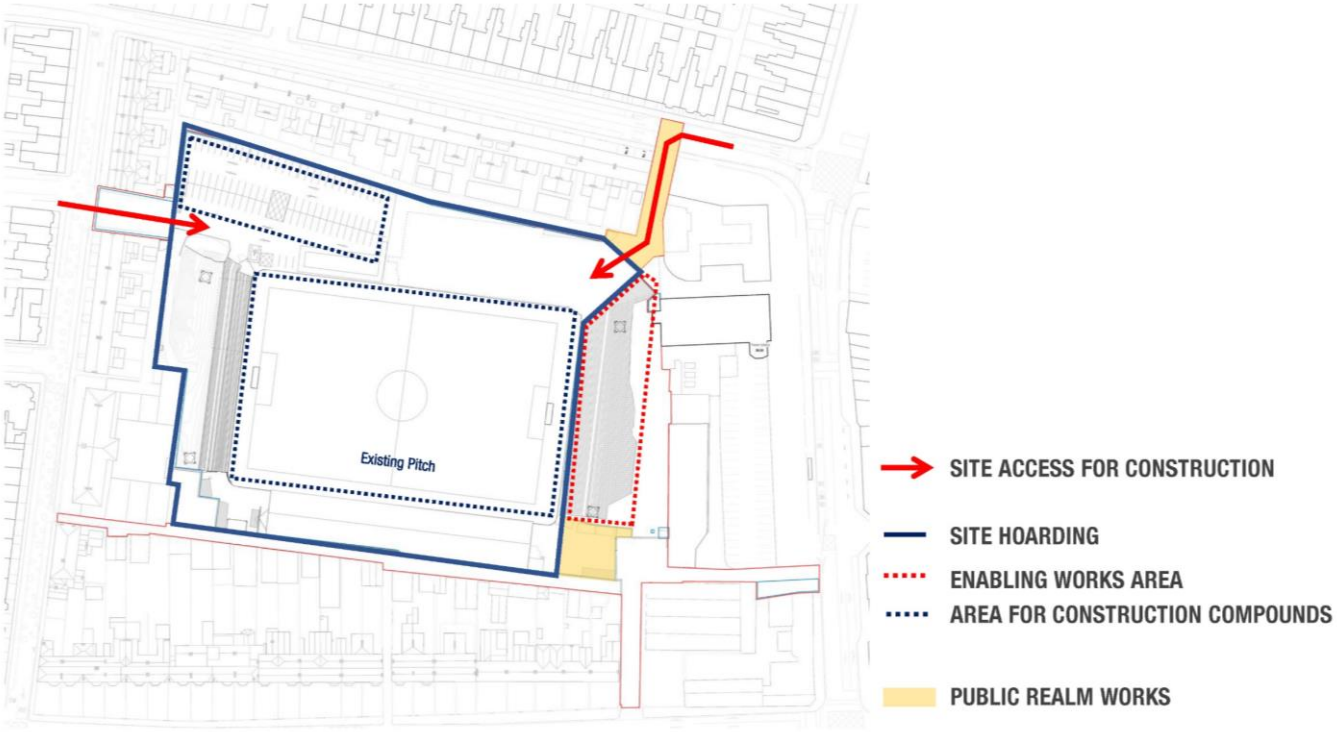
Construction related HGVs with 5 axles or more will adhere to the Dublin City Council HGV Management Strategy and the associated cordon within the City.

3.3 Site Access

The access to the Site for construction traffic will be directly from Connaught Street and from St Peter's Road via Connaught Street.

An overview of the access points, site hoarding, enabling works and areas for construction compounds are illustrated in Figure 3.2.

Figure 3.2 Construction Site Overview Plan



Source: IDOM

3.4 Managing Deliveries

The Site Manager will be responsible for controlling and monitoring vehicle movements to and from the Site as well as while vehicles are on Site.

Deliveries will be given set times to arrive and instructions will be sent to all suppliers and contractors. Trained staff will assist when vehicles are accessing the Site. Vehicles will enter and exit the Site in forward gear. Banksmen will be posted on the access points to manage potential conflict between vehicles and pedestrians and to ensure construction vehicles can enter the Site without queing on the highway.

Deliveries from HGVs will be re-timed where possible to occur outside peak network times, and during the start and finish of St Peter's National School. This will aid the operational efficiency of the construction site and also the neighbouring area.

3.5 Off-Site Locations

The Site will not require off-site locations for storage or for holding vehicles. As decribed in Section 2, the phasing of construction will allow for storage of plant and vehicles on site.

3.6 Construction Vehicles

The types and number of construction vehicles accessing the Site will be confirmed once a contractor is appointed with details included in the full CTMP. At this stage it is expected that the following vehicles may require access to the site:

a. 16.5m articulated
b. 12m rigid truck
c. Large tipper truck
d. Concrete mixer
e. Low loader.

The 16.5m articulated and low loader vehicles, which represent the vehicles with the most onerous access requirements, have been tested using AutoCAD to show they can enter and exit in a forward gear. The drawings are attached at Appendix A.

The analysis shows that parking suspensions would be required on one side of St Peter's Road between the site access and Connaught Street if an articulated vehicle or low loader are required. Additionally, the low loader would require a few parking spaces on Connaught Street opposite the junction with St Peter's Road to be suspended. No parking suspensions will be required for vehicles accessing the site via the Connaught Street access.

Banksmen will be required to assist with traffic management on St Peter's Road and Connaught Street when large construction vehicles are accessing or egressing the Site.

A crane is also likely to be required at the Site. The type of crane will be confirmed by the appointed contractor with access analysis provided in the full CTMP.

3.7 Staff Parking

It is important that staff use sustainable modes of transport such as public transport to commute to/ from the Site and staff will be encouraged to do so. Car parking for construction staff and for operational vehicle movements will be provided on-site. Measures to support sustainable travel for staff and encourage modal shift away from car-based travel will be included in the revision of this document once a main contractor has been appointed.

Cycle parking spaces will be provided on the Site for construction staff.

4. Strategy to Reduce Impacts

4.1 Adherence to Designated Routes

Details of routes to be used for journeys to and from site for road operations are provided in Section 3. The proposed routes to/from the primary road network are specified in Figure 3.1.

A copy of the route plan will be given to all suppliers when orders are placed to ensure drivers are fully briefed on the required route to take. The supplier will be made aware that these routes are required to be followed at all times unless agreed or alternate diversions are in place.

4.2 St Peter's National School

As mentioned previously following discussions with the school, all construction vehicles using the St Peter's Road access would travel via Connaught Street and avoid passing St Peter's National School.

The main contractor will investigate opportunities to restrict HGV vehicle movements during term time to ensure vehicles avoid the local school start times and to avoid network peak periods.

4.3 Public Safety

Operational areas will be properly separated from publicly accessible areas using hoardings, barriers, fences or other appropriate equipment.

Dedicated access gates for pedestrians and vehicles will be provided, which will be manned by the Contractor's transport co-ordinator or a representative to ensure pedestrian safety during arrival or departure of vehicles.

All HGV drivers will have attended HGV Cycle Awareness sessions to ensure they are aware of and understand (and look out for) cyclists on the roads.

All access to and egress from the Site will be made in a forward direction.

4.4 Highway Impact

Where possible, deliveries will be made outside of network peak hours.

Traffic marshals would be prominent at all times during construction operations to control construction vehicle movements from and onto the site. The number of required traffic marshals would be determined by the main contractor and agreed with the Council.

The phasing of construction will allow the storage of materials, plant and vehicles on Site. Space will be available on site so that delivery vehicles will not need to wait on the highway to enter the Site.

The contractor will seek to minimise construction staff vehicles by providing measures such as offering incentives for travel by sustainable modes, encouraging care sharing and providing on site cycle parking and shower/locker facilities.

Access to adjacent properties and Phibsborough Shopping Centre car park shall be maintained throughout the construction phase.

4.5 Footway and Traffic Diversions

At this stage, we envisage that all footways would remain in use during the construction stage and that no traffic diversions will be required.

4.6 Parking Suspensions

We envisage that temporary parking suspensions would be required on St Peter's Road during the construction stage to enable construction vehicles to access the Site via the St Peter's Road access. Temporary parking suspensions would be required at the site access junction and the St Peter's Road and Connaught Street junction.

The main contractor will endeavour to limit the length and duration of the parking suspensions.

4.7 Measures for Highway Reinstatement

The Contractor will assess the condition of the highway on a daily basis. Road sweeping measures will be employed by the Contractor, when required, to ensure that highways are kept clean. Wheel wash facilities will be provided.

Any damage caused to highway infrastructure by site construction traffic would be made good.

4.8 Implementing, Monitoring and Updating

The Construction Traffic Management Plan (CTMP) will be managed and updated before and during the construction phase. The main contractor will be responsible for complying with the CTMP and will be responsible for ensuring that all sub-contractors conform to restrictions, mitigations and obligations within the plan.

Appendix A

Construction Vehicle Tracking

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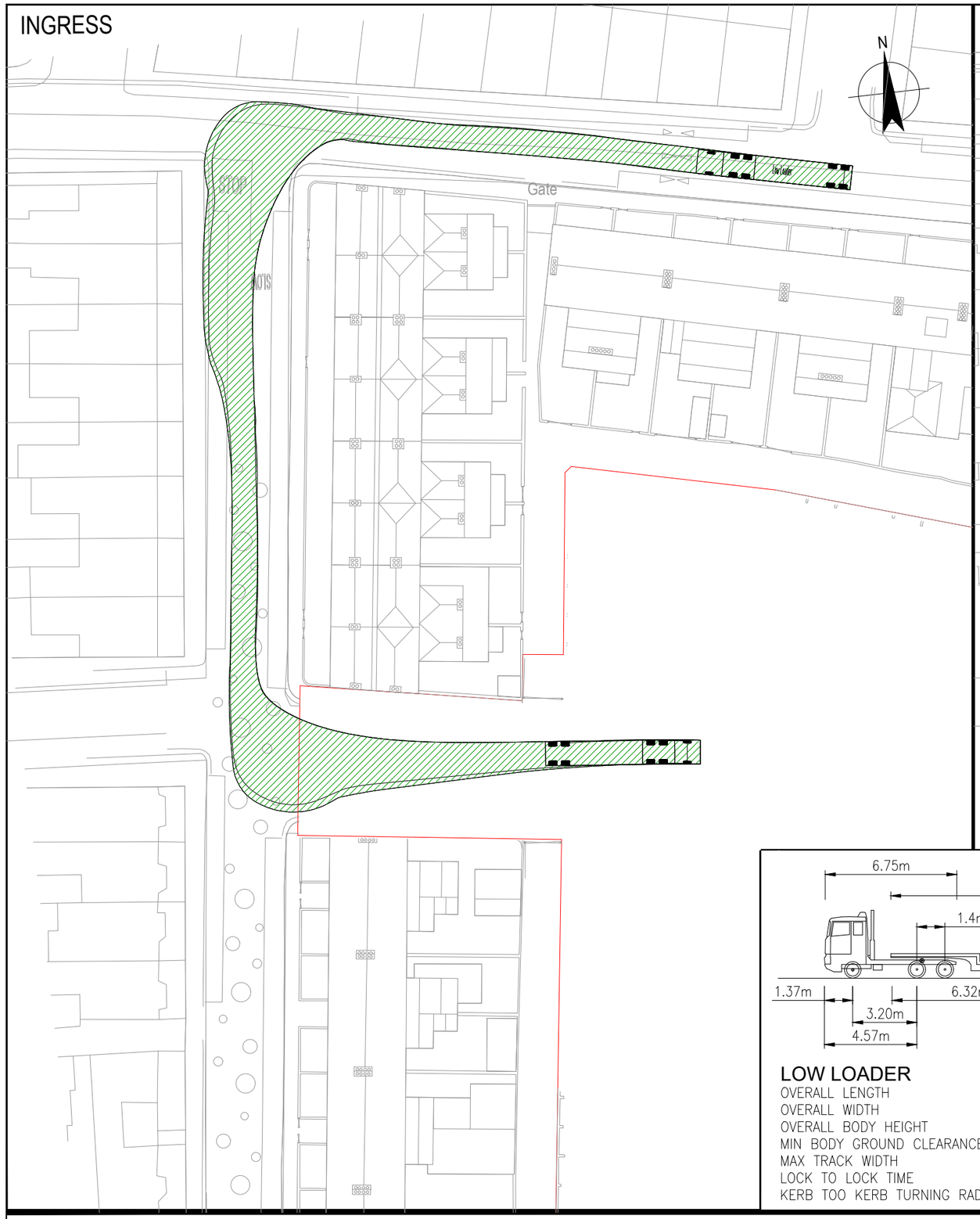

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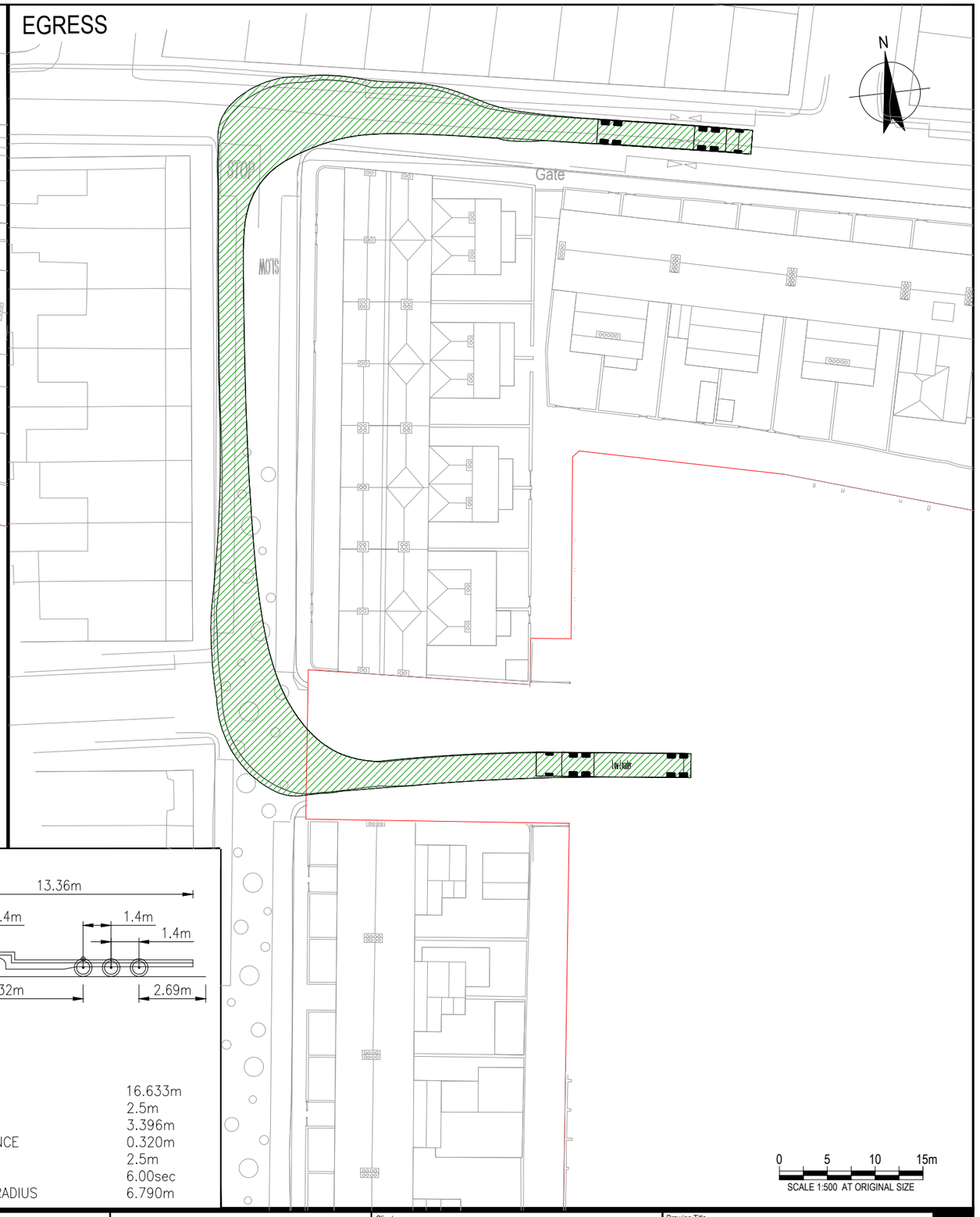

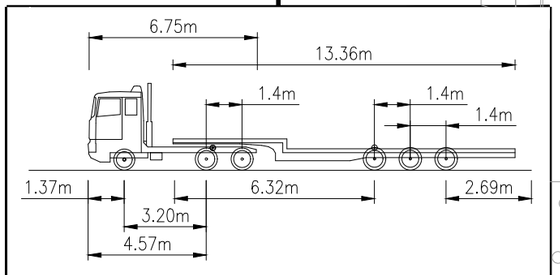

LOW LOADER

OVERALL LENGTH	16.633m
OVERALL WIDTH	2.5m
OVERALL BODY HEIGHT	3.396m
MIN BODY GROUND CLEARANCE	0.320m
MAX TRACK WIDTH	2.5m
LOCK TO LOCK TIME	6.00sec
KERB TOO KERB TURNING RADIUS	6.790m

0 5 10 15m
SCALE 1:500 AT ORIGINAL SIZE

KEY:

PROPOSED SITE APPLICATION BOUNDARY

NOTES:

1. DO NOT SCALE FROM THIS DRAWING.
2. VEHICLE TRACKING FOR DISCUSSION ONLY.
3. IMPACT ON EXISTING UTILITIES TO BE ASSESSED AT A LATER DESIGN STAGE.

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Project No.
12566183

Client
IDOM

Project
DALYMOUNT PARK STADIUM
DUBLIN

Drawing Title
ST PETER'S ROAD ACCESS
SWEPT PATH ANALYSIS
LOW LOADER

Drawing No.
102025-GHD-01-DR-V-0003-XX-XX

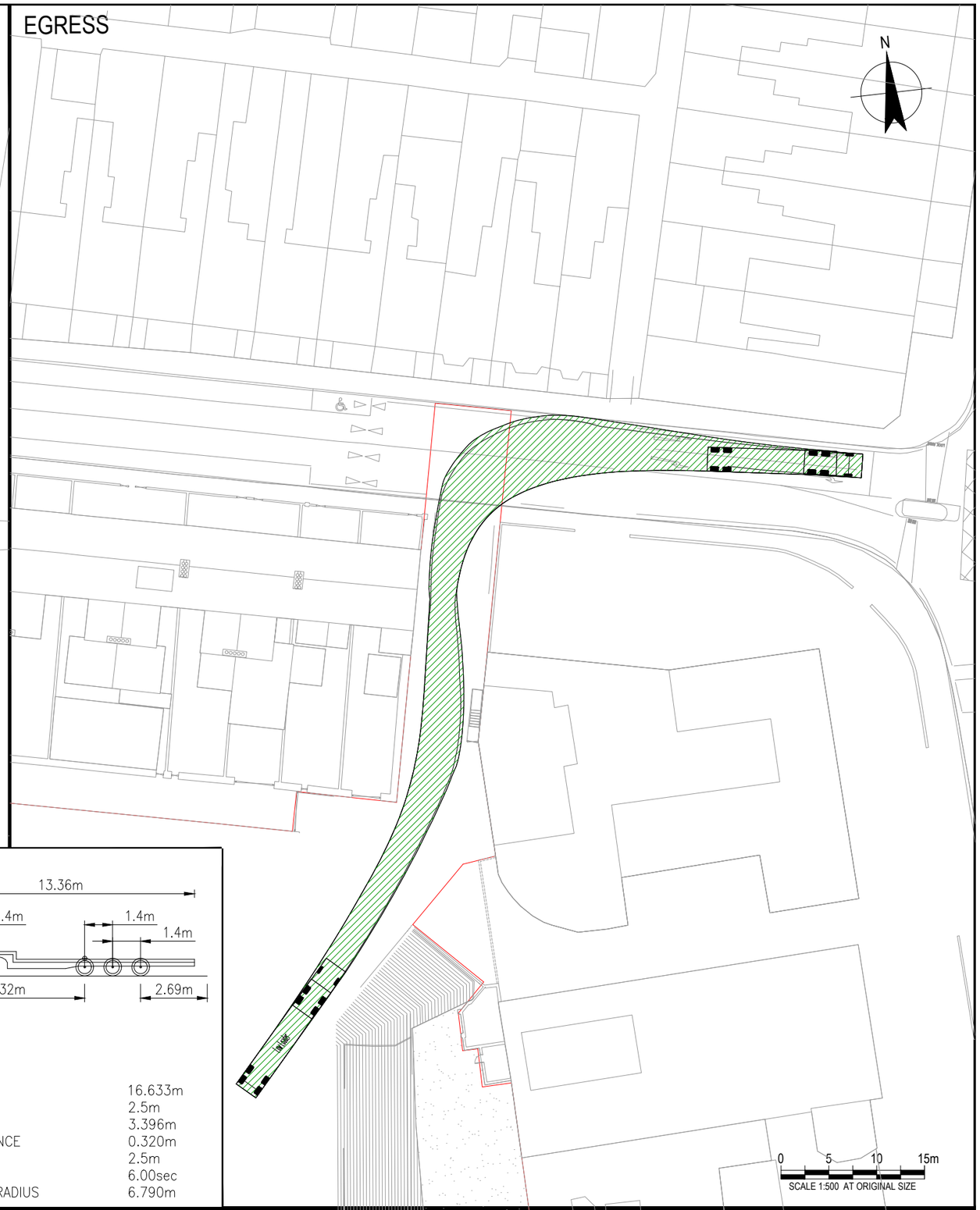
Size
A3

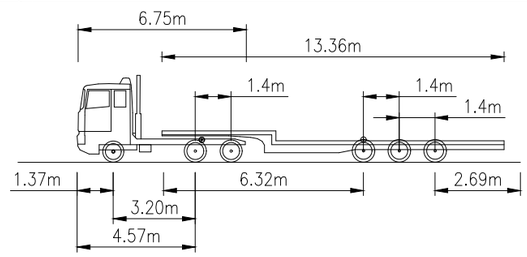
Status
S3

Rev
P01.2

INGRESS

EGRESS





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Client: IDOM

Project: DALYMOUNT PARK STADIUM
DUBLIN

Drawing Title: CONNAUGHT STREET ACCESS
SWEPT PATH ANALYSIS
LOW LOADER

Drawing No. 102025-GHD-01-DR-V-0005-XX-XX

Size A3

Status S3

Rev P01.2

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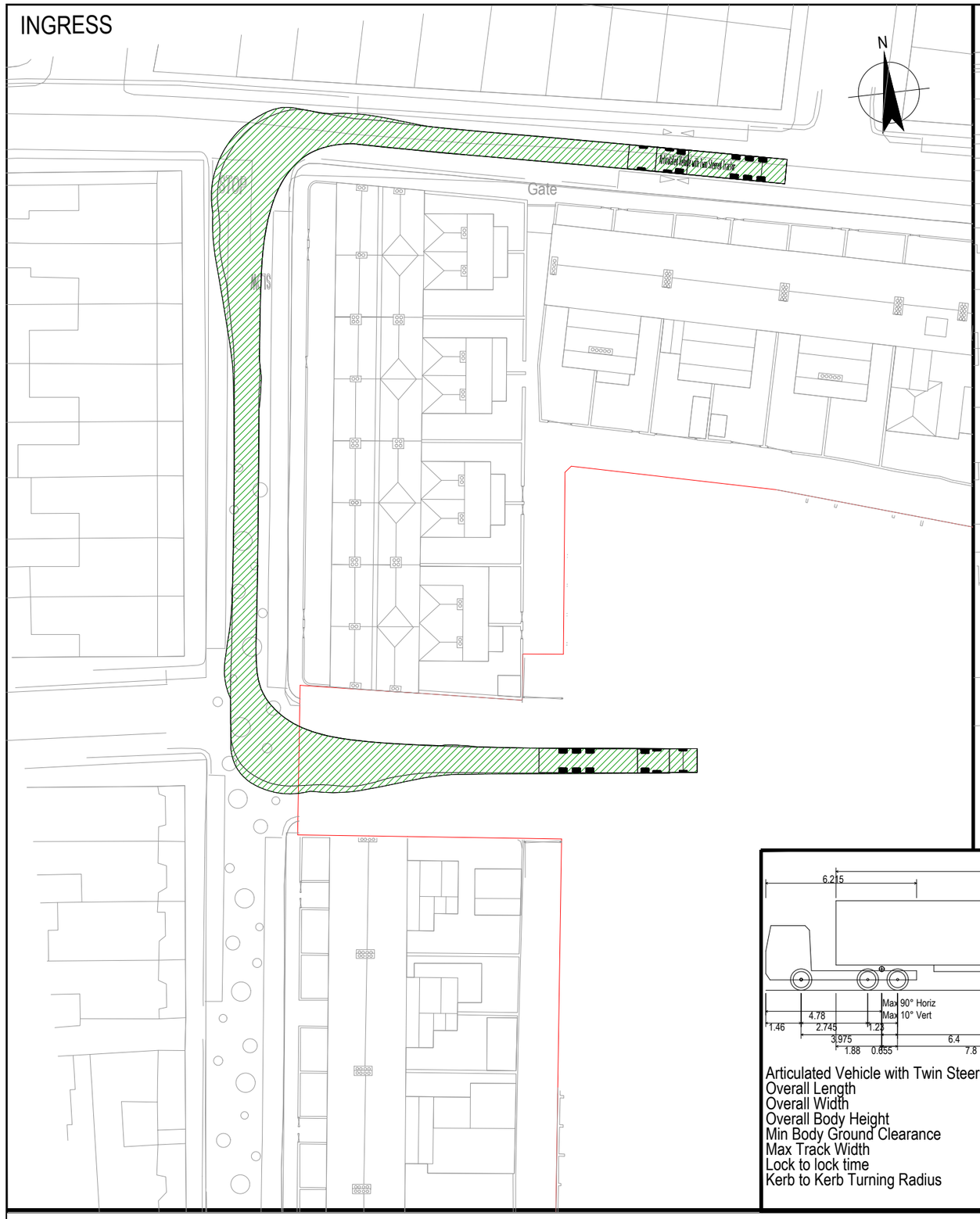

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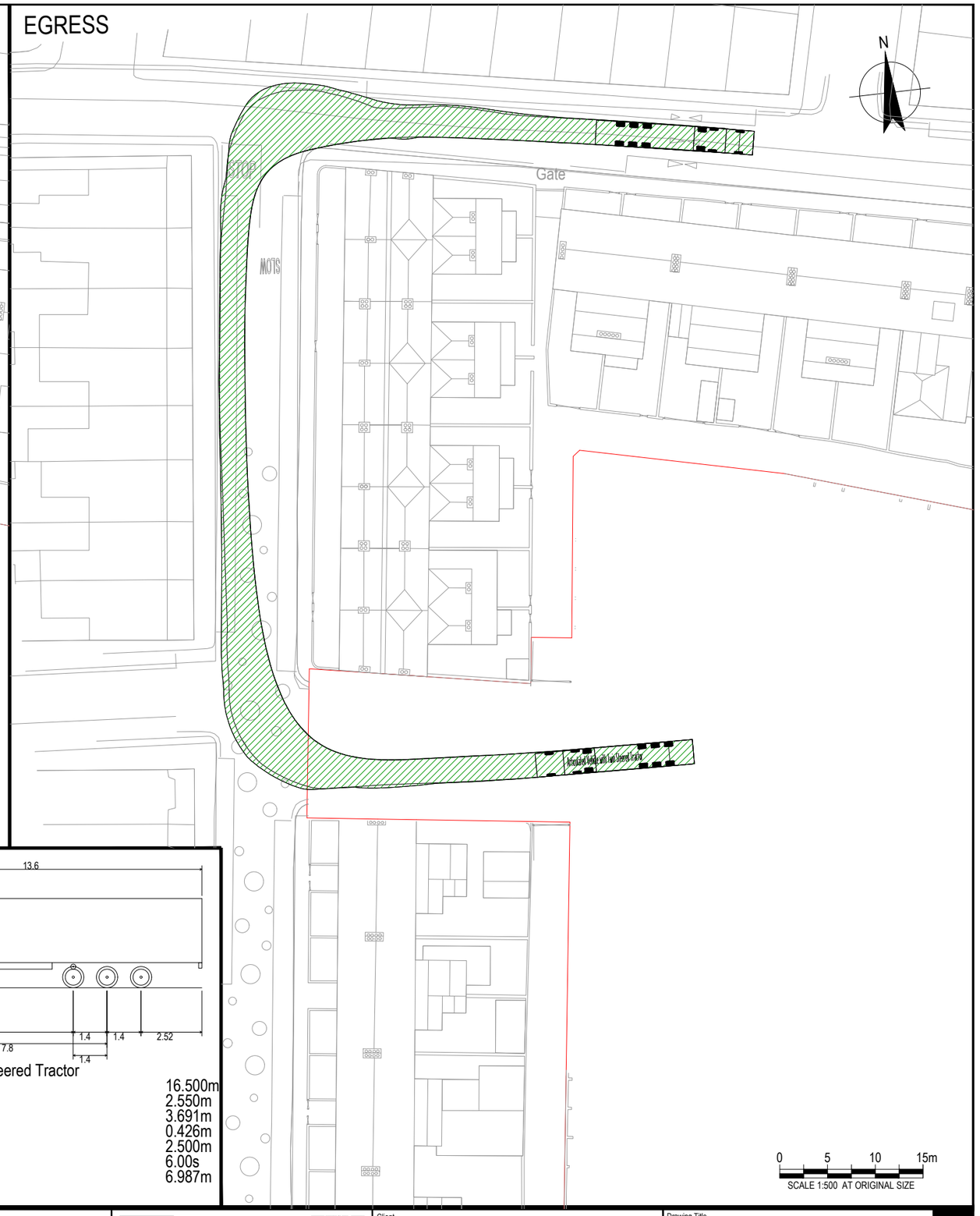

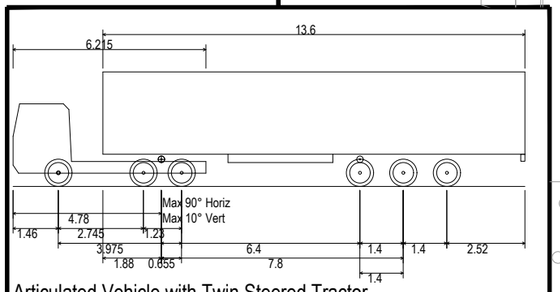

Articulated Vehicle with Twin Steered Tractor	
Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.691m
Min Body Ground Clearance	0.426m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.987m

0 5 10 15m
SCALE 1:500 AT ORIGINAL SIZE

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Project No. 12566183

Client: IDOM

Project: DALYMOUNT PARK STADIUM
DUBLIN

Drawing Title: ST PETER'S ROAD ACCESS
SWEPT PATH ANALYSIS
16.5M ARTICULATED VEHICLE

Drawing No. 102025-GHD-01-DR-V-0004-XX-XX

Size A3

Status S3

Rev P01.2

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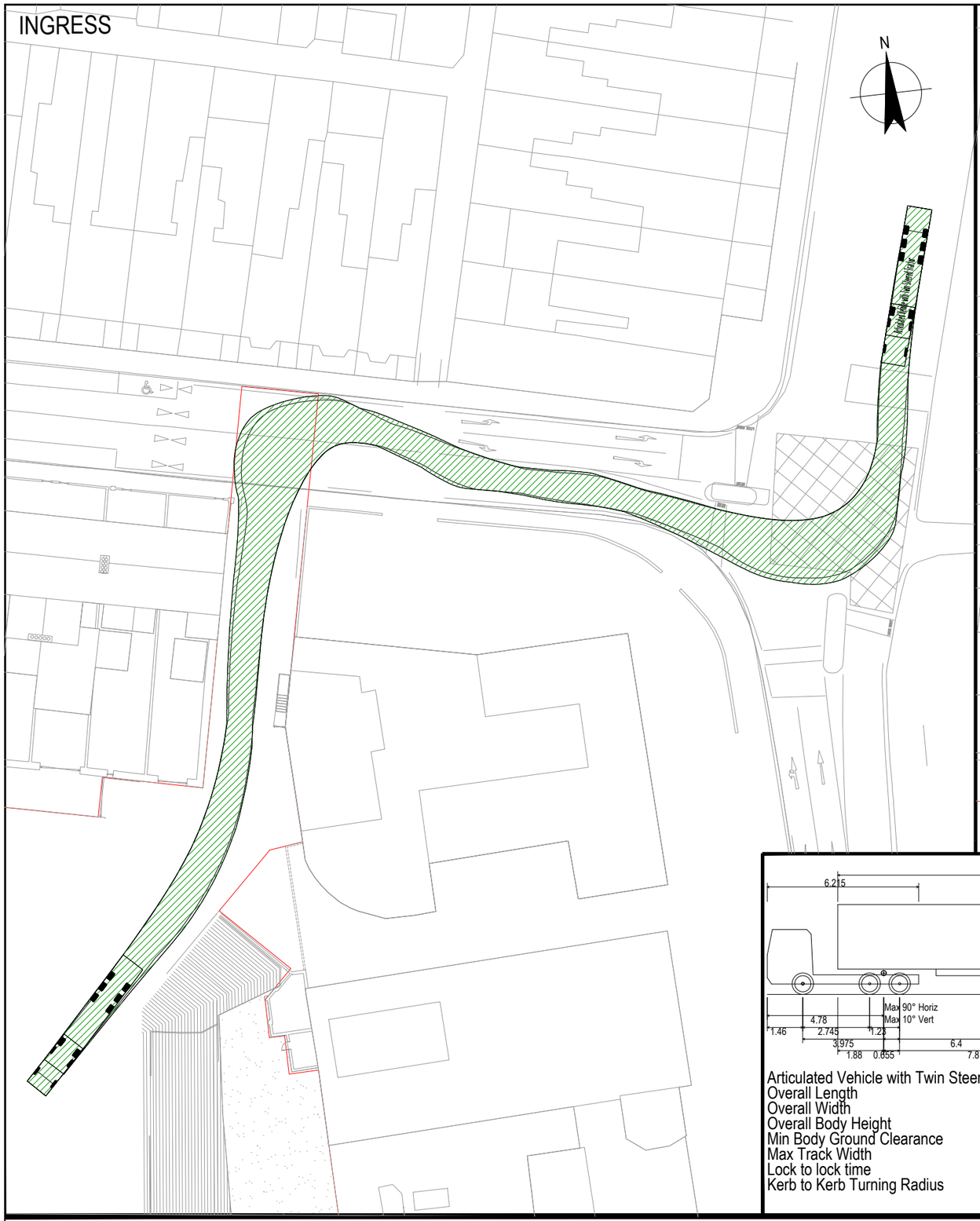

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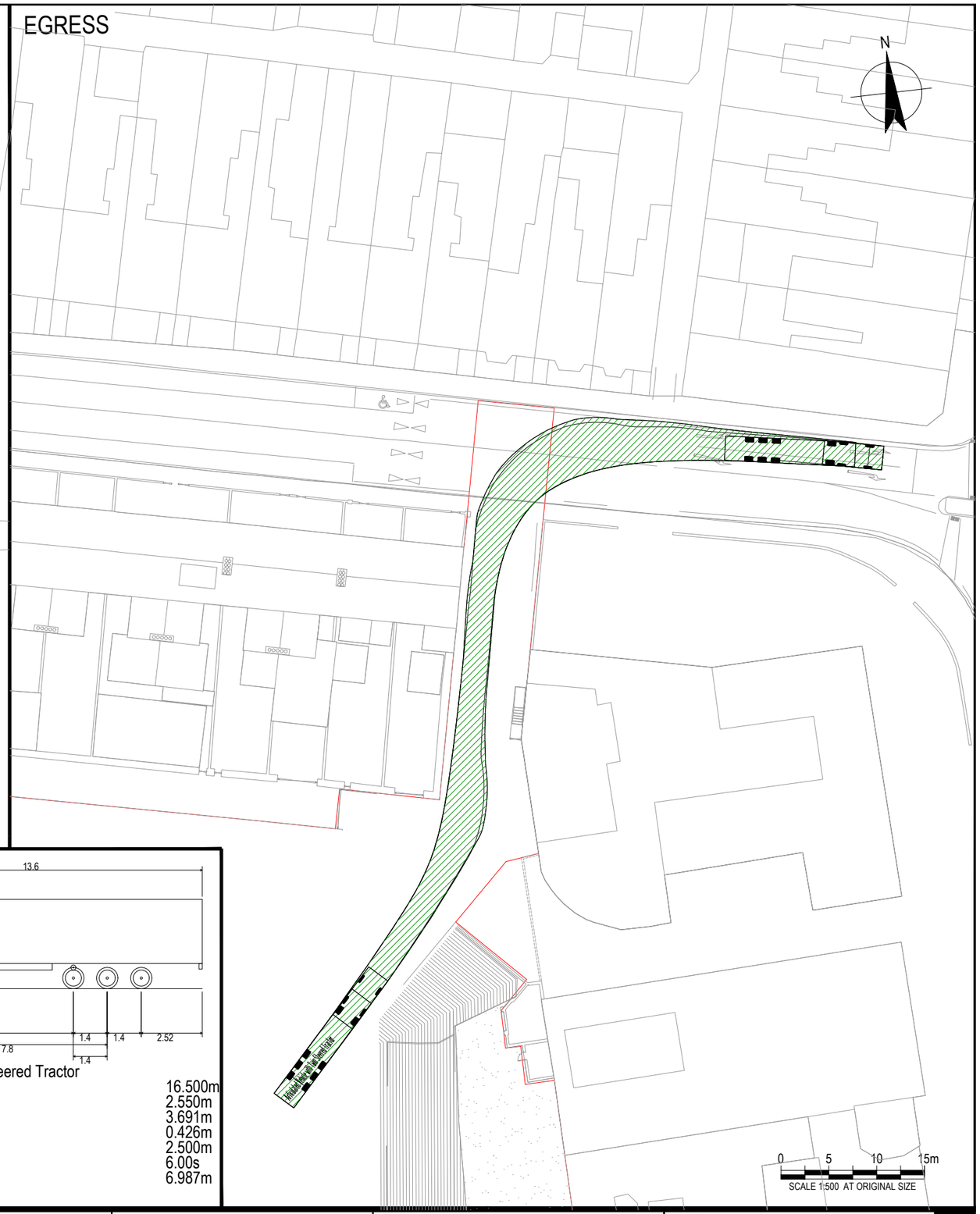

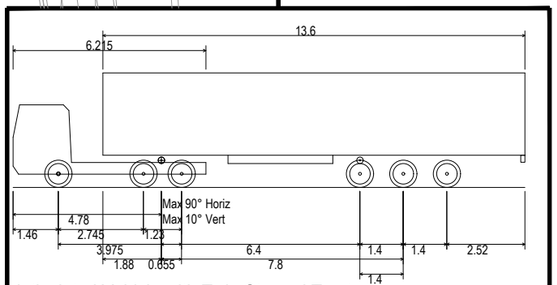

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SWEPT PATH ANALYSIS
16.5M ARTICULATED VEHICLE

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Size
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Status
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