Task Sheet

Site: **SD.02**	Activity: **TfGM Wayfinding sign site works**	trueform

Emergency Arrangements	**Permits and documents**	**Skills**	**Plant and equipment**
Nearest Hospital Manchester Royal Infirmary Oxford Road Manchester M13 9WL TEL (0161 276 1234)	Appendix A – Site photos Appendix B – Site survey / Lifting plan Appendix C – Metrolink hazard zone Appendix D – SLK-15 Genie lift specs Appendix E – Planning application Appendix F – Site utility drawings Section 50 License KAM Metrolink blue work permit	NRSWA Operative NRSWA Supervisor Lorry mounted crane operator license Slinger Banksmen	Small hand tools Petrol generator Lorry mounted crane Petrol saw Mixer C.A.T Scanner Battery powered flag lifter Hydraulic power pack and breaker Battery powered drill Flatbed trolley SLK-25 Genie lift

Installation Supervisor – Tam Sinclair (07511 034479)
Project Manager – Dave Gowans (07803 661151)

Scope of works
Installation of wayfinding sign plus associated foundation

Site setup

1. Identify the proposed wayfinding sign installation location and orientation. Sign details are set out as per the planning application (appendix E).
2. Park vehicles with consideration to other road users and pedestrians and cone off. Vehicle to be parked as per site survey (appendix B)
3. For the foundation access to site is to be gained via driving the installation vehicle up the tram only Corporation Street and onto the pedestrianized area adjacent to the work area outside the entrance to the Arndale Centre
4. For the sign installation access to site is via parking on the pedestrianized area at the junction between Corporation Street and Withy Grove outside the entrance to the Ford store. Arrangements to be made prior to attending site with Arndale.
5. On arrival at site operatives will undertake an onsite risk assessment to assess current conditions.
6. The boundary of the site will be set up using red and white barriers with site accessibility provided for Trueform personnel. Ensuring a safe working zone has been erected. In order to maintain site security no loose materials or plant should be left unattended at any stage of the works and all will be removed at the end of works.

Method of works

<u>Foundation Installation</u>

Task Sheet

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1. The area is to be checked by the competent person for underground services using a CAT scanner. Refer to the statutory services drawings (appendix F)
2. If area is free from services proceed and remove finished floor materials carefully and set aside for re-use where applicable.
3. Refer to drawing standard foundations drawing no. TEL-B716-10-001
4. Possibility of requirement for shallow foundation refer to ultra-shallow foundation drawing no. TRU/868/TBC - 019
5. Commence excavation to required foundation sizes (1200mm x 400mm x 400mm deep for standard foundation and 1000mm x 1000mm x 165mm deep for ultra-shallow foundation). 'Safe dig' practices are to be employed at all times. The initial part of the excavation is done by using hand tools (scissor shovels) to ensure that there are no services present that the CAT scanner has not detected e.g. clay pipes and cable TV
6. Remove all earth and spoil from site carefully by loading into tonne bags for return and safe disposal from the company yard.
7. For standard foundation install the foundation cage and paving tray into excavated hole and ensure line and level using special metalwork foundation levelling jig structure.
8. For shallow foundation install the shallow foundation plate into the excavated hole and ensure line and level using special metalwork foundation levelling jig structure
9. Mix sufficient rapid setting QC10 cement to fill the hole and pour the concrete around metalwork to the required level.
10. Check foundation metalwork levelling jig has not moved during the pouring process and leave concrete to cure sufficiently to enable the levelling jig to be removed (30 minutes+).
11. Carefully remove levelling jig and set aside.
12. Reinstate area up to the paving tray utilising previously removed materials with sizes and flows matched like-for-like. No temporary concrete infill or tarmac should be used (unless these materials match the site pavement).
13. Fit temporary cover plate
14. Remove the cones, signs and barriers in accordance with Safety at Street Works and Road Works Code of Practice. Sweep site and surrounding area clean of all spoil and leave in a clean and tidy condition.
15. Photograph completed works and fill out completion paperwork

<u>Sign Installation</u>

1. Alternative Genie Lift installation method to be used due to unsuitable parking position adjacent to the proposed installation location
2. The truck is to be positioned within the pedestrianised area between Corporation Street and Withy Grove
3. Refer to document 15115-HS-MET-000003 for full lifting plan for wayfinding totems
4. The site supervisor is to install lifting straps to the top bar frame of the sign.
5. The lorry mounted crane hook will then be connected to the straps and the crane operator will proceed to operate the lorry mounted crane for the lift.
6. The sign frame will be lifted onto the flatbed trolley and disconnected from the crane hook
7. Utilising the flatbed trolley the sign frame will then be moved to the installed foundation location.
8. The genie lift will be moved into position at the installed foundation location (appendix D)
9. The sign frame will then be secured to the Genie lift with lifting strap and lifted onto the installed foundation

Task Sheet

Site: **SD.02**	Activity: **TfGM Wayfinding sign site works**	trueform

10. The operatives will be located adjacent to the position of where the totem is to be placed to guide the sign onto the previously installed base plate onto the studs ensuring the Metrolink hazard zone is not encroached upon. Refer to Metrolink hazard zone diagram (appendix C).
11. Ensure that the sign is located in the correct orientation in accordance with the signage directional information.
12. Once in position affix 4 off holding down nuts, washers and shake proof washers into position and securely tighten.
13. Place lower stainless steel foundation plates into position
14. Affix lower plate 'locking bars' into position so as to ensure lower plates are secure, and affix side extrusions into place.
15. Operatives to install glazing to sign frame.
16. Carry out final visual inspection of sign to ensure no damage has occurred during the installation/erection process.
17. Remove the cones, signs and barriers in accordance with Safety at Street Works and Road Works Code of Practice. Sweep site and surrounding area clean of all spoil and leave in a clean and tidy condition.
18. Photograph completed works and fill out completion paperwork

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Risk assessments - Significant and site specific risks

		Persons at risk				Evaluation			
Item	Significant Risk/Hazard	Site Personnel	Public	Sub contractor	Others	High Medium Low	Control Measure(s)	Action(s) By	Risk After Measure(s)
1	**Lifting operations** Entrapment / Crushing / Injury / Damage / Death	√	√	√	√	**High**	– It is the responsibility of the crane operator to operate within the lifting plan and check for services, that the activity and load is within the safe working zone at all times and overhanging obstacles. – The crane must be in a position at least 6 metres away from overhead power lines and obstacles. – Maintenance of the equipment must only be undertaken by a suitably qualified competent person. – It is the responsibility of the transport manager to ensure thorough examinations of lifting equipment is undertaken as per the regulations. – It is the responsibility of the operator to ensure P.P.E. is worn as per Site Safety Rules 03.03 – It is the responsibility of the supervisor to monitor the wearing of P.P.E. – It is the responsibility of the operator to check for ground condition prior to use and must not attempt to use on soft or uneven ground, slopes or slippery surfaces. – It is the responsibility of the operator to ensure stabilisers fully extended during activities. – The banks-man / operator must check all slings for wear and tear prior to use and destroy any slings found to be unsuitable for use. – The banks-man / operator must check that the slings are positioned so that the load is balanced at centre of gravity and there is no risk of the slings moving during the lift.	Trueform Supervisor, crane operator and transport manager	**Low**

Task Sheet

Site: **SD.02**	Activity: **TfGM Wayfinding sign site works**	trueform

		Persons at risk				Evaluation			
Item	Significant Risk/Hazard	Site Personnel	Public	Sub contractor	Others	High Medium Low	Control Measure(s)	Action(s) By	Risk After Measure(s)
							– The crane operator is responsible for ensuring the hook catch is not faulty and used on all lifts. – The crane operator is responsible for ensuring that a banks-man signaller is used when the crane operators view is restricted. – The banks-man / operator must check the SWL of slings and lifting equipment. – A device is fitted that automatically prevents a load being exceeded.		
2	**Work at Height** Falls / Falling Objects / Overturning	√				**High**	– It is the responsibility of the Supervisor to ensure all personnel using the equipment have received training on the safe use of ladders / podiums – The operative is responsible for ensuring the equipment is used on suitable level ground – The supervisor is responsible for making decision on aborting works due to adverse weather conditions.	Trueform Supervisor and operative	**Low**
3	**Utility strike** Electrocution / Shock / Explosion / Burns / Death	√				**High**	– Site supervisor to review underground services on drawings prior to the commencement of works. – It is the responsibility of the supervisor to ensure all works are undertaken in accordance to HSE's guidance document HSG47 for avoiding danger from underground services. – It is the responsibility of the supervisor to use the Cable Avoidance Tool prior to excavations to scan the proposed installation area to identify the type and position of existing underground utilities – It is the responsibility of the supervisor to ensure hand digging tools are used to determine the exact position of services, in a manner that does not cause damage to those services.	Trueform Supervisor	**Low**

Task Sheet

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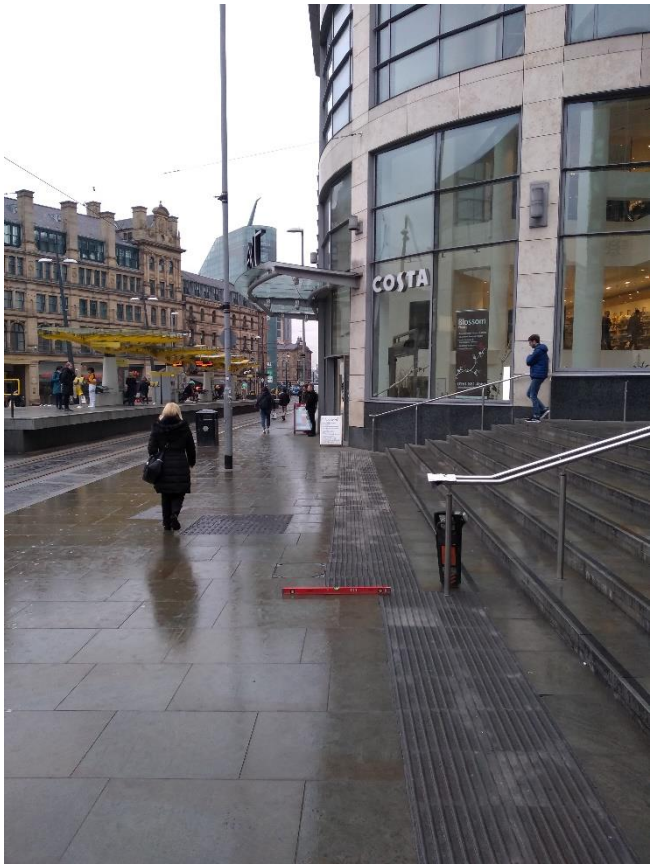
		Persons at risk				Evaluation			
Item	Significant Risk/Hazard	Site Personnel	Public	Sub contractor	Others	High Medium Low	Control Measure(s)	Action(s) By	Risk After Measure(s)
4	**Working near to OLE** Electrocution / Shock / Explosion / Burns / Death	√		√		**High**	– No plant, material, equipment to come within 3.0m of the overhead lines – Plant to be banked at all times		**Low**
6	**Working on or near to tramway** Electrocution / Strike from Tensioned Cable / Damage to Metrolink Infrastructure / Struck by Tram	√	√	√	√	**High**	– All works within 5m of track require KAM permit to work, Appendix C – No works plant, materials or equipment with 3.0m of overhead wire without Trueform possession and isolation – KAM pink permit and appointed PIC required for works within 2m of the operational tramway. – KAM blue permit required for works from 2m to 5m of the operational tramway – Adhere to the KAM permit requirements at all times – No works, plant, materials or equipment within 2m of track whilst the tram is running	Trueform Supervisor and operatives	**Low**
7	**Plant Movement & Reversing Vehicles** Entrapment / Crushing / Collisions / Overturning	√	√	√	√	**Medium**	– All plant operatives to be certified to standard recognized body, competent and experience on plant they are using. – All plant movements and reversing vehicles to be directed by a Banksman. – It is the responsibility of the supervisor to ensure that plant movements and pedestrian routes are segregated with barriers / fencing – Ground based operatives to attract Operator attention prior to entering working radius of plant.	Trueform Supervisor and operatives	**Low**

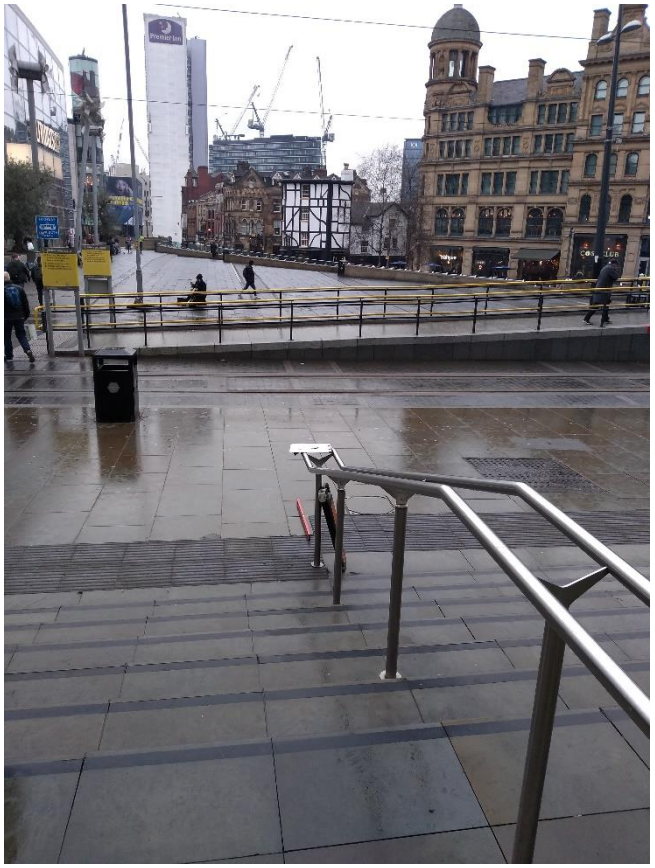
Task Sheet

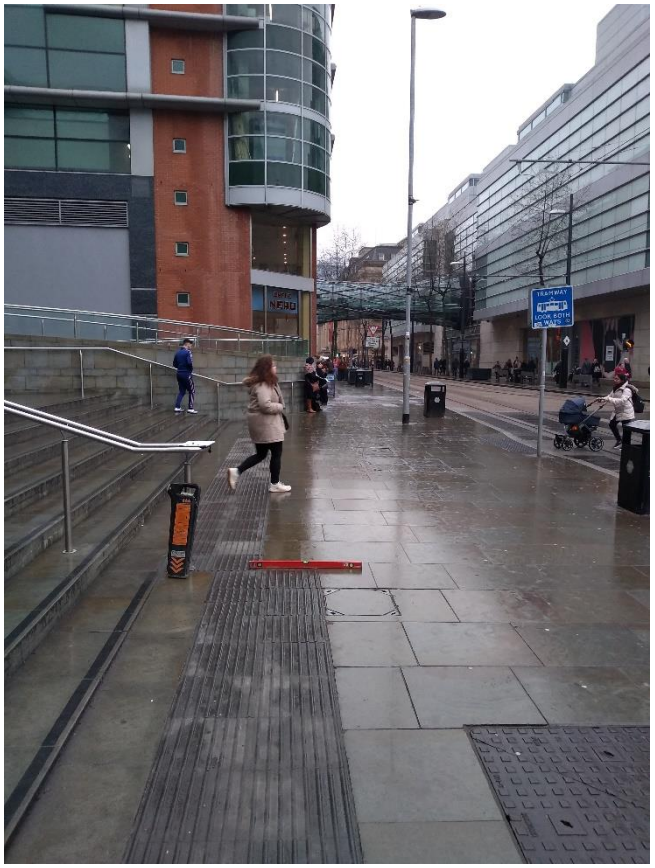
Site: **SD.02**	Activity: **TfGM Wayfinding sign site works**	trueform

		Persons at risk				Evaluation			
Item	Significant Risk/Hazard	Site Personnel	Public	Sub contractor	Others	High Medium Low	Control Measure(s)	Action(s) By	Risk After Measure(s)
8	**Slips, Trips & Falls** Injury / Sprains	√				**Medium**	– Uneven ground to be levelled prior to works commencing – Good Housekeeping – Designated and well maintained pedestrian routes – Use designated crossing points	Trueform Supervisor and operatives	**Low**
9	**Manual Handling** Injury / Sprains / Repetitive Strain Injuries	√				**Medium**	– Where possible utilise mechanical lifting equipment – Manual Handling Tool Box Talk – Plan Transfer Routes	Trueform Supervisor and operatives	**Low**
10	**Sign frame stability during fitting** Personal Injury Crush / Entrapment / Damage	√				**Medium**	– Lifting strap to only be removed following successful fitting of fixing nuts	Trueform Supervisor	**Low**

Appendix A – Site photos







Appendix B – Site Survey

SITE SURVEY WAYFINDING

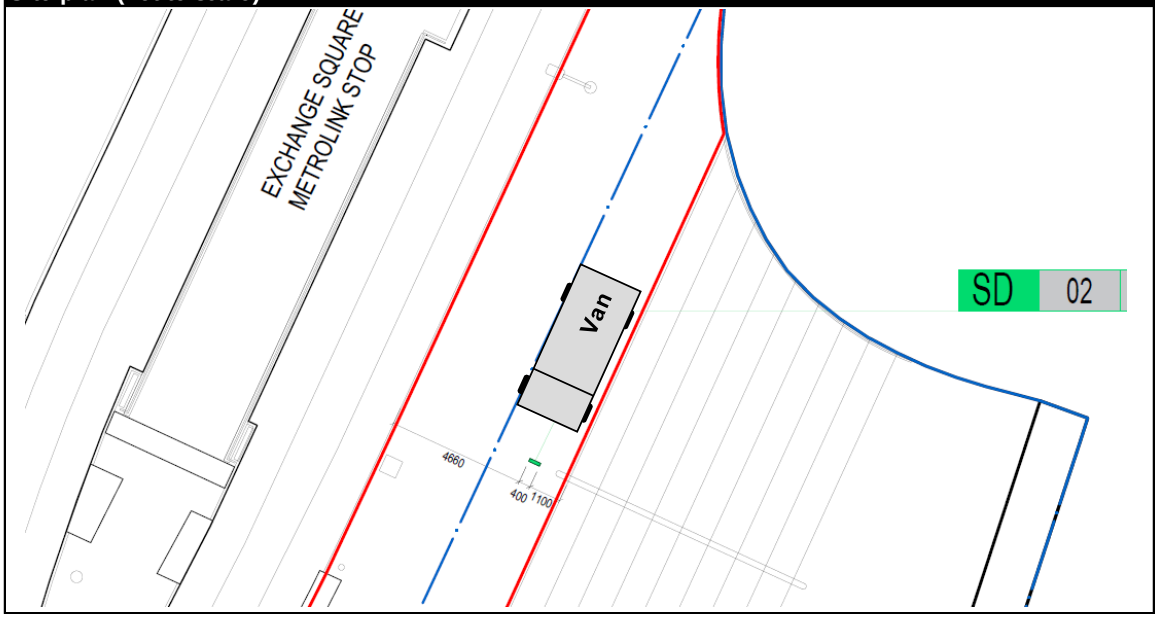
trueform

SD02	Sign reference	Minilith	Sign type
TT6593	TT Number	TfGM	Client
N/A	Lifting distance	Yorkstone flags	Reinstatement material
Metrolink Cables	Overhead obstructions?		Obstruction height
No	Decluttering required?	11/01/2019	Survey date
Standard chapter 8 (Footw ay parking)	Traffic management type	N/A	Traffic count
Standard barriers and access ramp for stairs	Pedestrian management	JT/CK	Surveyed By
Yes	Installation photos taken?	Yes	Obstruction photos taken?
Yes	TM Photos	Yes	Pedestrian management photos taken?

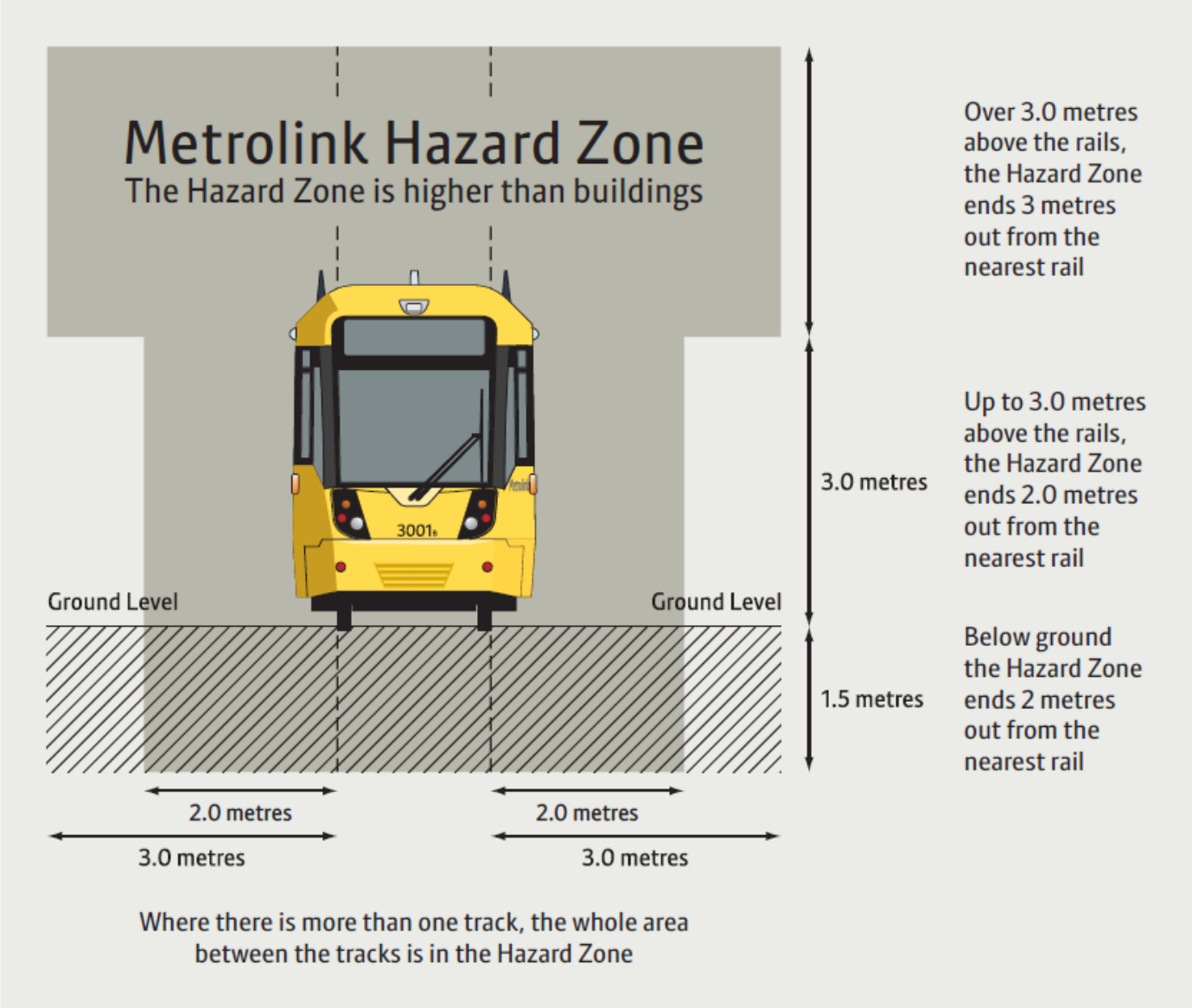
Installation notes

Access to site for the foundation installation is gained through Metrolink tram only road Corportation Street.
Access to site for the sign installation is via parking on the Northside of the Arndale Centre at the junction with Corporation Street and Withy Grove.. Standard chapter 8 traffic management vehicle parked on footway so no effect on traffic flow. Heavy duty utility access points close to installation point.
Standard pedestrian safety barriers around work area.
Very busy area with high number of pedestrians due to vicinity to Arndale centre and Exchange Square metrolink stop.
Liaison with Metrolink neccessary for work permit required, access and working near overhead cables
Liason with Arndale centre operators due to vicinity (will.smith@manchesterarndale.com)
New site reinstatement material is 900 x 600 Yorkstone flags and 400 x 400 hazard warning tactile paving charcoal

Site plan (not to scale)



Appendix C – Metrolink hazard zone



Appendix D – SLK-25 Genie Lift specifications



Technical Data	SLK-5	SLK-10	SLK-15	SLK-20	SLK-25
Lifting height - Standard forks up:	2,00 m	3,50 m	5,00 m	6,50 m	7,90 m
Height - stowed:	2,04 m	2,04 m	2,04 m	2,04 m	2,04 m
Length - stowed:	0,90 m	0,90 m	0,90 m	0,96 m	1,02 m
- Working position:	1,50 m	1,50 m	1,80 m	2,22 m	2,22 m
Width - stowed:	0,80 m	0,80 m	0,80 m	0,80 m	0,80 m
- Working position:	2,20 m	2,20 m	2,20 m	2,20 m	2,20 m
Ground clearance - working position:	0,08 m	0,08 m	0,08 m	0,08 m	0,08 m
Loading height min.:	0,27 m	0,27 m	0,27 m	0,27 m	0,27 m
Pay load:	450 kg	450 kg	360 kg	360 kg	300 kg
Weight basic chassis:	98 kg	118 kg	144 kg	184 kg	204 kg
Weight complete (+ 8x counterbalance weights á 16 kg):	226 kg	246 kg	272 kg	312 kg	332 kg

Appendix E – Planning application

Included with this task sheet as separate file to maintain quality

Appendix F – Site utility drawings

Electrical (Electricity North West), Gas (Cadent), Telecommunications (Vodafone and Virgin Media) and underground metrolink apparatus has been identified within close proximity to the proposed installation location. Drawings included with this task sheet as separate files to maintain quality.

Task Sheet

Site: **SD.02**	Activity: **TfGM Wayfinding sign site works**	trueform

Project	**TfGM Wayfinding Signs – Phase 1**
Location	**Manchester City Centre**
Activity	**TfGM Wayfinding sign site works**
Revision	**A**

Task Sheet Briefing Register

No.	Name (Print)	Signature	Date	

TfGM Wayfinding RAMS Briefing Register

No.	Name (Print)	Signature	Date	