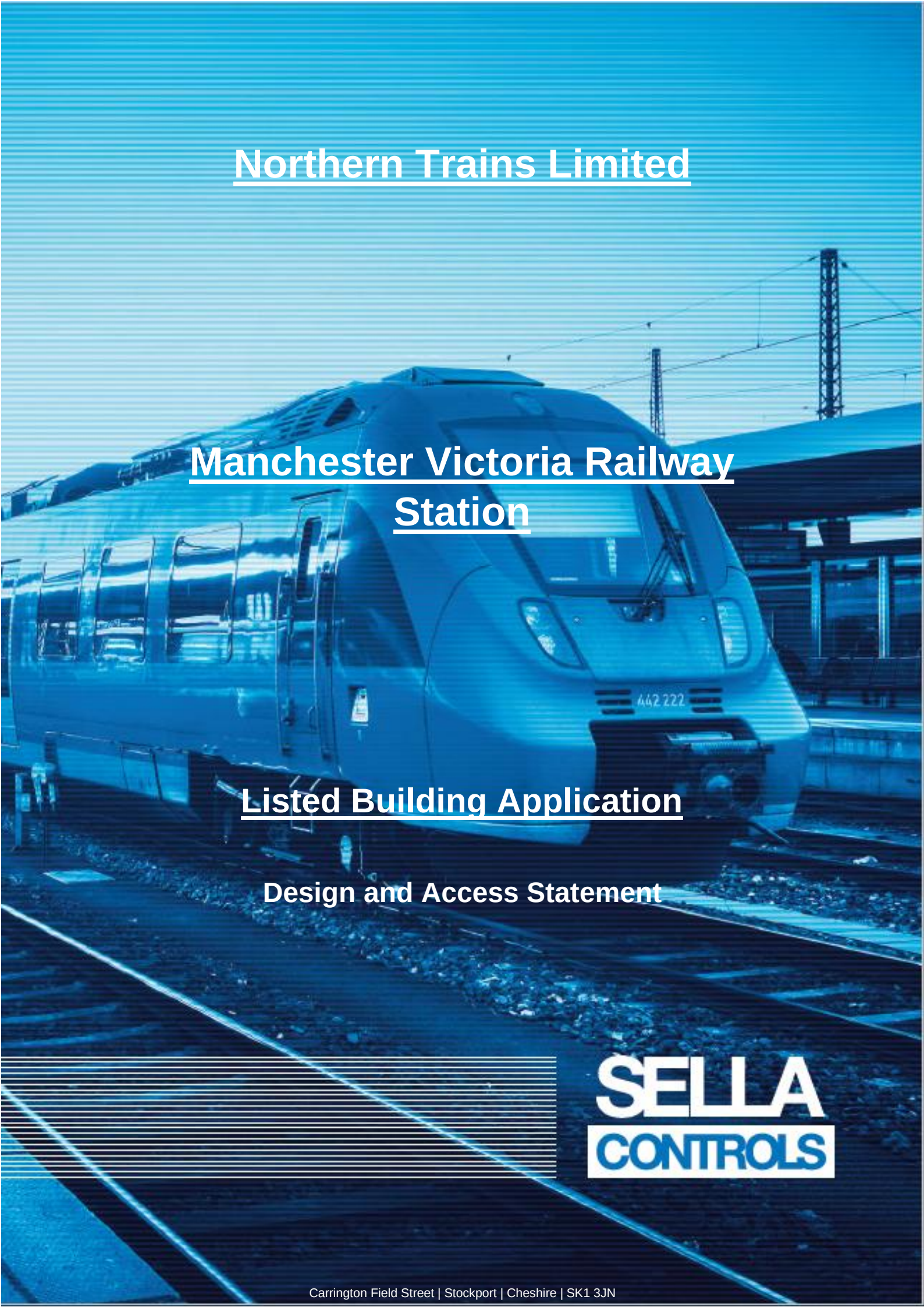
Northern Trains Limited

Manchester Victoria Railway Station

Listed Building Application

Design and Access Statement



SELLA CONTROLS

Carrington Field Street | Stockport | Cheshire | SK1 3JN

Overview

Number of Platforms	6
Manned	Yes
Ticket Office Opening Hours	Monday - Friday: 06:30am to 22:00pm

Design & Access Statement

As part of the Northern Trains CIS Replacement Programme, Manchester Victoria Road station is due to have upgrades to the Customer Information Screens (CIS) around the station. There will be 2no new Customer Information Displays that are to be installed on Platform 4a and Platform 5a and they will be located directly behind an existing display and will utilize the same existing bracketry.

The reason for this proposal is to enhance the customer experience whilst using the station and to increase reliability.

Existing cable routes will be utilised to reduce visual impact of the installation. The photos below show the proposed locations of where the new screens will be installed, along with reference images to roughly display how they will look.

The information screen proposed has been chosen for the reason that it will give greater information to passengers but will not have a major impact on the station and surrounding areas. These works will not negatively impact the listed building and will only enhance passenger experience at the station.

No new access restrictions will be created as part of these works as the screens are located next to existing structures which will not hinder access for any customers.

Information Screen Details

MCV/CIS/030 (Platform 4a Information Screen) – TX43P

New display mounted to existing bracketry.

MCV/CIS/039 (Platform 5a Information Screen) – TX43P

New display mounted to existing bracketry.

Site Photos

Current view of the proposed locations of the new CIS Displays at the station:



Mock up image of how the new CIS Displays MCV/CIS/030 & MCV/CIS/039 will look following installation:



TX43P: 43" Outdoor TFT display (Tetrus)

TX43P



TX RANGE OF TFT DISPLAYS

Open Protocol displays designed for the most challenging of environments

The TX Series displays are ideal for passenger information, notices, operational and disruption information in bright outdoor locations. The displays are capable of delivering any information such as general information, images, videos and advertising.

The TX Series includes native HiTNi extended temperature and optically bonded TFT panels. Coupled to Infotec's high-performance Tetrus controller, the TX series produces a professional crisp and high-contrast image to ensure the legibility in a wide variety of ambient lighting conditions. The result is a modern, industrial caliber range of reliable and resilient displays that can be deployed in many different and challenging environments.

- Anti-reflective technology
- 1080 x 1920 HD resolution
- Ethernet and legacy RS485 Communications
- Open protocol – Tetrus platform
- Optically bonded laminate glass
- HiTNi extended temperature liquid crystal
- IP65 rated enclosure
- Wide angle of view
- Advanced thermal management
- Display asset guardian

infotec

TX43P: 43" Outdoor TFT display (Tetrus)

TX43P

Key Features

Outdoor direct sun
Specifically developed for outdoor locations in direct sunlight.

IP65 rated
Industrial grade IP65 ingress protection rated enclosure.

Rugged housing
Resilient, vandal resistant enclosure, tested and certified to meet the rigours of the transport environment.

Easy maintenance
Common parts (LED and TFT) and ease of access for reduced downtime and on-site site maintenance.

Communication
Including Ethernet, WiFi, GSM (4G/3G/2G) ,RS485, ADSL, with automatic detection.

24/7
Designed for 24/7, 365 day operation in challenging environments.

Image persistence
Infotec anti-image persistence technology, to increase the life expectancy of the screen.

Tough screen
Toughened anti-reflective glass or polycarbonate front window.

Automatic panel failure detection
White spot TFT panel failure detection technology included.

Self healing
Multiple levels of hardware and software watchdogs, with built-in smart technology to enable auto-diagnostics and self-healing.

Sleep mode
Allow the display to sleep during the night, saving power and extending life.

Low power
Low power, solid-state, digital system with smart power management.

Auto-brightness
Automatic brightness control to suit changes in ambient lighting.

Fully certified
Certified to European standards, low voltage directive EN60950-1 2006, EN60950-22 (safety) and EN50121-4 (EMC).

Section 12
Sub-surface underground application (LUL 1-085).

PRM-TSI
Infotec display are designed and certified to meet latest PRM-TSI guidelines.



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TX43P: 43" Outdoor TFT display (Tetrus)

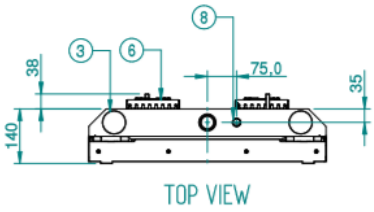
TX43P

SPECIFICATIONS		
TFT	TFT Type	43" industrial grade, wide view. HiTNi extended temperature panel
	Viewing Angle	178 degrees
	Backlight	Long-life white LED
	Resolution	1920 x 1080 pixels
	Orientation	Portrait
	Aspect Ratio	16:9
	Brightness	1500 cd/m^2
	Active Area (x) x (y)	940 mm x 529 mm
	Optical Bonding	Screens are optically bonded to ensure excellent contrast and legibility
Enclosure	Construction/Finish/Colour	Welded Aluminum/Powder Coated/RAL9005 (Black)
	Dimensions	611mm (w) x 1046mm (h) x 140mm (d)
	Weight	Standard 41KG – Section 12 48KG
	Screen	4mm toughened anti-reflective optically bonded glass
	Access	Hinged front door on gas struts gives access to internal electronics and power supplies for on- site maintenance
	Cable Entry	M20 x 1.5 threaded glands - Top & Rear
Mounting	Arrangement	4off M10 mounting studs at 310mm centers to rear
Environmental	Ingress Protection	IP65 BSEN60529 1992 (incl. amendments) parts 1 & 2
	Operating temperature range	-10°C to 50°C
	Humidity	20% to 90% (non-condensing)
	Application	Suitable for bright outdoor locations - direct sunlight
Electrical	Power	95Vac-264Vac 50Hz (nominally 230Vac). Input inrush current 20A peak
	Power Consumption @ 230Vac	110W (typical)
	Power Termination	5m flying mains cable
Controller	Type	Infotec Tetrus – Quad core imx6 ARM processer 16Gb – eMCC SSD 2Gb DDR3
	O/S	Embedded Linux
Communication	Interface	10/100BaseT Ethernet, RS485 Options: GSM, WiFi, Fibre (available on request)
	Termination	1x 5m Cat5E RJ45 flying cable
Features & Diagnostics	Brightness/Power Control	Software control & ambient light sensor
	Temperature Monitor	Internal temperature monitoring and control
	Operational Rating	24 hours-a-day, 365 days-a-year continuous operation
	Power Supply	TFT panel and backlight voltages monitored
	Assist guardian	Infotec amGuard (contact for more information)
	Panel Failure	Panel facing sensor for panel failure detection
Approvals	EMC	EN61000 parts 6-4:2007, 6-2 , 3-2:2014, 3-3:2013 & 6-2:2005/EN50121-4:2006
	Low Voltage Directive	Meets relevant parts of EN62368-1:2014 & EN60950-22
	PRM TSI compliance	Yes (character height dependent)
	Warranty	2 Years
	NR Approvals	0111/121103

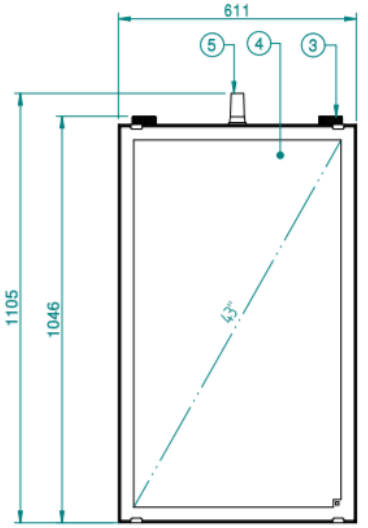
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TX43P: 43" Outdoor TFT display (Tetrus)

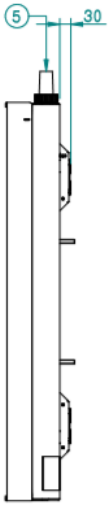
TX43P



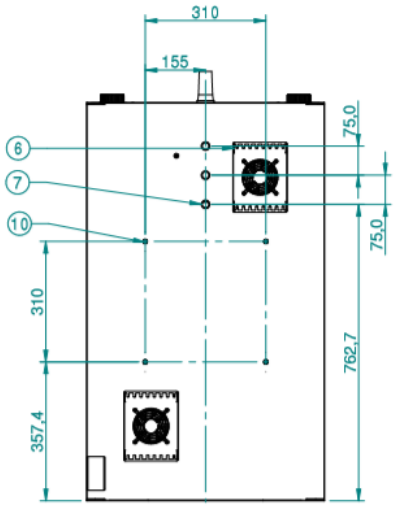
TOP VIEW



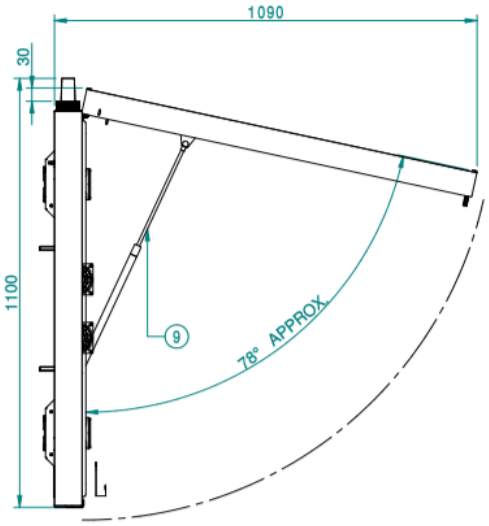
FRONT VIEW



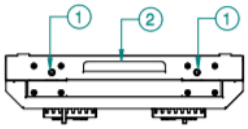
SIDE VIEW



REAR VIEW



SIDE VIEW - OPEN



BOTTOM VIEW

PART NUMBERING SCHEME	
TX	TFT outdoor range
43	Diagonal size active area
P	Portrait aspect ratio
OPTIONS	
-G	SIM enabled wireless interface
-S	Sub-surface compliant (Low toxicity: LUL Section 12)
-F	Fibre interface enabled

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