

Part D. Description of the Works or Services

D1. General Requirements

D1.1 Installation of Platform Indicator housings

- The new platform indicators are to be repositioned as close as possible to their existing locations, and the Contractor must submit a proposed design to RailCorp for review a minimum of 2 weeks before commencement of installation. RailCorp must sight structural approval of the proposed mounting arrangements before installation begins.
- The Contractor is to design and manufacture the connecting structures required for mounting the platform indicator housings to the structures at Gosford, Lidcombe, Strathfield, Penrith and Hornsby Stations. The adequacy of these connecting structures is to be certified by a qualified structural engineer, and final payment (Practical Completion) will depend on the production of an appropriate certificate.
- Brackets to be made of galvanized steel with the bolts being high tensile steel. Any site welding of brackets shall be treated afterwards.
- Relocation of any awning lights due to the position of platform indicators (e.g. Lidcombe).
- Platform indicator housings are supplied by RailCorp and will be delivered kerb side at each station by others.
- Platform indicators housing must be mounted horizontally.
- Some platform indicators will require to be shielded from either the setting or the morning sun. The screening affixed to the present indicators will define the units, which require will screening. The contractor is to allow for designing, supplying and attaching similar screening to the new housings, and must be certified as adequate by a qualified structural engineer. Prior to installation, RailCorp must be provided with drawings for review.
- The sun screens shall be of stainless steel of suitable thickness and type to be approved by the structural engineer and also powder coated as per specifications of housings.
- The bottom of the platform indicators housings must be a minimum of 2.4 meters above the platform surface. RailCorp representative to be notified before installation if the bottom of the platform indicator housing is below the minimum 2.4 meters, and RailCorp reserves the right to suspend the installation of the housing until this matter is resolved.
- The platform indicator housings must be mounted such that NO portion of the housing crosses the track side of the yellow line as marked on each platform surface.
- Double sided 2 x 24" LCD screens supplied by RailCorp to be installed by the Contractor into each platform indicator housing.
- 1 x PC supplied by RailCorp is to be installed by the Contractor into each platform indicator housing.
- Un-terminated power cable, provided by RailCorp, is to be terminated by the Contractor into each module of the platform indicator housing. Work to be performed by a qualified electrician.
- Fibre optic cable provided by RailCorp is to be connected by the Contractor into each PC.
- Power cables, provided by RailCorp, are to be connected by the Contractor into GPO inside each platform indicator housing to feed power to LCD's, PC, fans and electronic locks.

- VGA cables supplied by RailCorp are to be connected by the Contractor into each LCD and PC/electronic equipment.
- The estimated weight of 1 x Dual Screen housing is 78 Kg and the estimated weight of 1 x PC housing is 28.5 Kg indicator housing. Note these estimated weights are without the PC or Screens.
- Where appropriate, “anaconda” (flexible steel conduit) conduit shall be used to protect wiring between PC housing and the LCD
- Several visits to each station may be required to complete the works.
- Remove and dispose as directed the existing indicators.
- Where a PC box is required it must be mounted inboard (i.e. away from the tracks).
- The platform housings shall be wired so that usage of an RFID card on any sensor will open all the locks on a set. RailCorp will supply details in the form of a wiring diagram after the award of a contract for the secure wiring of the housings.
- Where RailCorp indicates that a PC box is not to be utilized, the contractor will install video receivers in the platform housings. RailCorp will supply details of wiring and layouts after the award of the contract.

D1.2 Installation of Concourse Indicator Housings

- Concourse indicator housings are to be installed by the Contractor at Wolli Creek, Gosford and Penrith Stations.
- The existing housings will be reused at Hurstville, Strathfield and Hornsby.
- The details the location and number of concourse indicator housings to be installed by the Contractor are shown on the attached drawings.
- Concourse indicator housings are supplied by RailCorp and will be delivered to the kerb adjacent to the stations by others as required.
- The concourse indicator housing is made up of modules, a left hand and a right hand module, centre modules if applicable and a plinth.
- The Installation Contractor under this contract must check the design of the plinth, to ensure that it can be so installed that the housings are mounted vertically off a horizontal base.
- 1 x 32” or 1x 40” LCD screen will be supplied by RailCorp to be installed by the Contractor into each of the appropriate concourse indicator housings.
- 2 x 46” screens will be supplied for the existing concourse indicator housings at Hornsby.
- 1 x PC supplied by RailCorp to be installed by the Contractor for each pair of concourse indicator housings.
- Un-terminated power cable, provided by RailCorp, to be terminated by the Contractor into each module of the concourse indicator housing. Work to be performed by a qualified electrician.
- Fibre optic cable provided by RailCorp to be connected by the Contractor into each PC.
- Power cables, provided by RailCorp, to be connected by the Contractor into GPO inside each concourse indicator housing to feed power to LCD’s, PC, fans and electronic locks.

- VGA cables supplied by RailCorp to be connected by the Contractor into each LCD and PC.
- The estimated weight of 1 x left or right hand module is 190 Kg and the estimated weight of 1 x plinth is 35 Kg. Note these estimated weights are without the PC or Screens.

D1.3 Installation of Train Information Screen [TIS] (Where Applicable)

- The Contractor to wall mount 17" LCD screen (supplied by RailCorp) on to walls using wall mounting VESA brackets (supplied by RailCorp).
- The Contractor to wall mount TIS bracket (supplied by RailCorp) and install AOPEN (or similar) PC and media converter (supplied by RailCorp).
- Document Ref. No. ISPI000232 shows location and number of TIS's at each station.
- The Contractor shall plug UTP cable, provided by RailCorp, into each AOPEN PC and media converter.
- The Contractor shall plug fibre optic cable, provided by RailCorp, into each AOPEN PC.
- The Contractor shall plug power cables, provided by RailCorp, into near-by GPO to feed power to LCD, PC and media converter.
- The Contractor shall plug VGA cable (supplied by RailCorp) between each LCD and PC.

D1.4 Rack Fit Out (Where Applicable)

- The Contractor shall install SPI equipment rack (supplied by RailCorp) into each station at Concourse indicator housings onto the Concourses at the stations identified in Document Ref. No. ISPI000232
- Un-terminated power cable, provided by RailCorp, to be terminated by the Contractor into each Rack by a qualified electrician.
- Document Ref. No ISPI000232 details the location of each Rack to be powered by the Contractor at each station.
- All equipment below supplied by RailCorp (from 5/145 Arthur St. Homebush West) to be picked up and installed on site by the Contractor into Rack:
 - 1 x rack mountable PC
 - 1 x rack mountable KVM LCD
 - 1 x rack mountable switch
 - 2 x rack mountable cable managers
 - 2 x rack mountable shelves.
 - 2 x rack mountable Fibre patch panels.
 - 1 x slim form factor PC to sit on rack mountable shelf above.

Larger stations i.e. Kogarah require additional equipment (as above), to be picked up and installed on site by the Contractor.

- The Contractor shall plug power cables, provided by RailCorp, into GPO inside each Rack to feed power to KVM LCD, PCs, Switch and fans.

- The Contractor shall plug VGA cables supplied by RailCorp into each KVM, LCD and rack mountable PC.
- Allowances must be made to clear location for rack installation.
- RailCorp reserves the right to direct the contractor to dispose of the old rack.

D1.5 Relocation of existing equipment (Where Applicable)

- The Contractor shall relocate existing station SPI equipment into the new SPI rack (supplied by RailCorp).
- Document Ref. No ISPI000232 details the location of existing station equipment to be relocated into the SPI rack
- The Contractor shall plug power cables, provided by RailCorp, into GPO inside each Rack to feed power to DVA, TLS and amplifiers (where applicable).
- The Contractor shall plug VGA cables, supplied by RailCorp, between each relocated DVA and TLS and their respective displays
- The Contractor shall plug UTP cable, provided by RailCorp, into each relocated DVA and TLS
- The Contractor shall plug speaker and RCA cable, provided by RailCorp, into each relocated amplifier.

D2. Particular Requirements

- If the Contractor has any reason to suspect the presence of hazardous materials along the installation routes, a hazardous materials survey must be conducted by Contractor for the relevant locations at each station. The cost of this survey and any consequential changes that may arise from it is outside the scope of this contract.
- A report detailing the results from the survey must be submitted to a RailCorp representative.
- If the presence of a hazardous material is suspected, and its disturbance is inevitable during installation works then a procedure of how works are to be conducted is to be submitted to a RailCorp Representative. Work may only commence once a RailCorp representative has approved this procedure. Once procedure has been approved by a RailCorp representative then due care must be taken and work must be performed under the relevant standards.
- **Contractors performing hazardous materials survey must be qualified to do so and have experience in surveying sites for Hazardous Materials. Their Name, qualifications and experience must be submitted to RailCorp with RFQ offer.**
- If any hazardous materials are encountered by Contractor during the installation works that were not previously identified then work must stop immediately and a RailCorp representative is to be notified.

D2.3 Safety

- **Safe work method statements (SWMS) must be completed by Contractor and must be submitted to RailCorp with RFQ offer for review.**

- RailCorp will review the Contractor's SWMS but this will not relieve the Contractors responsibility for its compliance with all relevant legislation.
- The installers while at the stations must comply with the OH&S Act (2000) and relevant RailCorp safety standards.
- RailCorp will conduct random safety audits to ensure that installers are complying with the relevant RailCorp safety standards.
- RailCorp will conduct random Drugs and Alcohol Tests to ensure compliance with RailCorp's regulations in this matter.

The Contractor must provide all Safe Working arrangements and Worksite Protection for work within the rail corridor including Possession and Protection Officers & lookouts. Worksite Protection personnel must be drawn from RailCorp's accredited panel, a copy of which is included below:-

Name	Company	Title	Phone	Fax	Mobile
Praveen Challa	Sweetha International	Director	9715 2833	9715 3844	0419 905 607
Rick Jorgenson	Multi Civil & Rail	Director	4272 8891	4272 8895	0424 381 449
Greg Dare	MKB	Contact	9670 1565	9670 1544	0418 644 611
Kevin Ho	Barclay	Contact	9764 1344	94640347	0412 520 831

D2.4 Installation Times

- Installations can only be performed between operational peak hours or after operational peak hours, and must have the permission of the RailCorp Representative.
- Notification of works must be provided to a RailCorp representative at least 48 hrs before work is planned to commence. Work may only commence after RailCorp representative approval.

D3. Delivery Details

D3.1 Completion Date

- See Section B1.5 Timing Details.

D3.2 Provide Installation Schedule

- The Contractor must provide a proposed delivery plan for the installation at all of the Stations in Microsoft Project 2003 or in the form of a bar chart for acceptance by RailCorp.

D3.3 Commissioning

- Site support during testing and commissioning: The provisional sum nominated in Schedule B1.4 for a total of 48 person hours per station (excluding the traveling time) shall be to support the commissioning process. This support will generally be required during 6PM to 6AM. The Contractor will be provided with a program for the commissioning work and given 48-hour confirmation of requirements for providing support.

D3.4 Disposal of Equipment

- Unless otherwise directed by RailCorp, all platform and concourse housings (including 33" Plasma screens) are to be disposed of except:
 1. All 50" Plasma screens are to be returned to 145 Arthur Street, Homebush West
 2. All PCs are to be returned to 145 Arthur Street, Homebush West
 3. All LCD Screens are to be returned to 145 Arthur Street, Homebush West

D3.5 Barcoding

- All equipment to be installed or removed must have its barcode recorded and this information provided to RailCorp within 7 days.

D3.6 Warranty and Defects Response

- All costs associated with the repair or replacement of the equipment including transport costs shall be the responsibility of the Contractor.
- Where the defective item is readily removable, A RailCorp representative will arrange for the removal of the defective equipment and dispatch to the Contractor for repair/replacement. The Contractor will return the repaired/replacement equipment within 10 working days.
- In other cases the Contractor will be required to attend at the site within 4 working days and repair and/or replace the defective item. In some cases access to the defective item may be limited to times outside of normal working hours. The permitted access times will be nominated by a RailCorp representative. Any warranty work on the RailCorp site shall be undertaken in accordance with the then current site safety rules.

D 3.7 Documentation

The documents showing the layouts of the platform and concourse indicators in the table below are appended to this RFQ:

Document No.	Ref.	Title
SPI 12000192	29/09/06	Wolli Creek Concourse
SPI CAP000392	28/09/06	Strathfield Concourse
SPI 15000052	27/09/06	Strathfield Platform
SPI 15000046	12/10/06	Lidcombe Platform
SPI 15000113	27/09/06	Penrith Platform
SPI 12000602	04/10/06	Hurstville Concourse
SPI 12000597	12/10/06	Hornsby Concourse
SPI 12000598	27/09/06	Hornsby Platform
SPI CAP000543	27/09/06	Gosford Concourse
SPI 12000586	28/09/06	Gosford Platform
C-500-001	Sheet 1	Dual Indicator Housing Dual Screen Housing, General Arrangement
“	Sheet 2	ditto
“	Sheet 3	ditto
C-600-001	Sheet 1	Dual Indicator Housing, PC Housing General Arrangement
“	Sheet 2	ditto
B- 500-002	Sheet 1	Dual indicator Housing – PC & Indicator Assembly
PD -001	02/04/06	Dual Display Cabinet General Arrangement
	TBA	New 32” platform indicator cabinets
	TBA	New 32” platform indicator cabinets
	TBA	New 32” platform indicator cabinets
	TBA	Diagrammatic indication of rack at Wolli Creek
	TBA	Gosford
	TBA	Lidcombe
	TBA	Strathfield
	TBA	Hurstville
	TBA	Penrith
	TBA	Hornsby

D 4.0 - Summary of Works at Particular Stations

D 4.1 – WOLLI CREEK

Items	Description
Concourse Indicators	<p>Install new 4 x 40” units on a new plinth in main entry area as shown on drawing.</p> <p>Install new 4 x 32” units including a new levelling plinth at head of the ramp as shown on drawing</p> <p>When the new units are installed and working, remove and dispose of both the existing suspended indicator units</p>
Platform Indicators	Nil
PC units	2 in each set of concourse indicators
Work Stations	One in ticket office
Racks	No change
New Switches etc in racks	Allow one man-day only assist RailCorp staff in installation

D 4.2 – GOSFORD

Items	Description
Concourse Indicators	Remove and dispose of the existing concourse indicators, and replace with 1 set of 4 x 40” concourse indicators including a new plinth.
Platform Indicators	<p>Remove and dispose of the existing platform indicators in a manner and time to minimise inconvenience on the platforms.</p> <p>Replace the existing platform indicator signs on platforms 1 & 2 with a double sided 2 x 24” platform indicator with an attached PC box.</p> <p>Replace the indicator sign on Platform 3 with a specially modified 2 x 24” indicator unit around the structure supporting the awning. The PC will be replaced by “video transmission”.</p>
PC units	One unit in each of the indicators on platforms 1 & 2, Two in the concourse indicator.
TIS's	Six + One workstation in signal box
Racks	Nil
New Switches etc in racks	Minor work, one switch to be installed

D 4.3 – LIDCOMBE

Items	Description
Concourse Indicators	Nil
Platform Indicators	<p>At times agreed with the Station Manager to minimise interference with passengers, progressively remove and dispose of the existing platform indicators, and relace them with new double sided 2 x 24” indictors in the locations shown on the drawings.</p> <p>The mounting brackets for these indicators, and the sun-screening devices, are to be designed and fabricated by the contractor, and the design is to be certified for adequacy by a qualified structural engineer as specified.</p> <p>Due to a lack of head-room on a heritage part of the station, one indicator on Platform 4 has to be especially modified and supported. The contractor is to design a suitable mounting bracket, again in consultation with a structural engineer, and the unit can be activated by video transmission and so will not need a separate PC component.</p>
PC units	A PC unit is required in each platform indicator except the special one mentioned above.
TIS's	2
Racks	A new rack will be supplied as detailed for fitting into a room nominated on platform 2/3.
New Switches etc in racks	The fittings on the rack will be supplied and detailed for installation.

D 4.4 – STRATHFIELD

Items	Description
Concourse Indicators	The existing concourse indicators are to remain, but they will be fitted with new 32” screens. The timing of this replacement will be at the discretion of the station management. The housings themselves are to be repainted using electrostatic techniques and new vinyl route descriptions are to be installed. All works to be outside normal business hours.
Platform Indicators	<p>At times agreed with the Station Manager to minimise interference with passengers, progressively remove and dispose of the existing platform indicators, and relace them at their present locations, with new double sided 32” indicators similar to those recently mounted at Town Hall Station.</p> <p>These indicator units are indicated in one of the nominated drawings.</p> <p>Again the detailed design of the mounting brackets is the responsibility of the contractor and a certificate of adequacy is required from his structural engineer.</p>
PC units	Each Platform indicator requires one PC unit, which is incorporated into the housing. 11 are required in the concourse units.
TIS's	3
Racks	A new rack will be supplied as detailed for fitting into a room nominated on platform 2/3.
New Switches etc in racks	The fittings on the rack will be supplied and detailed for installation.

D 4.5 – HURSTVILLE

Items	Description
Concourse Indicators	At a time agreed with the Station Manager, each of the twin concourse indicators are to be relaced with a set of 2 X 40” concourse indicator screens and housings. The existing screens and housings are to be removed and disposed of as directed.
Platform Indicators	Nil
PC units	One per twin housing unit
TIS’s	4
Racks	nil
New Switches etc in racks	The fittings on the rack will be supplied and detailed for installation.

D 4.6 – PENRITH

Items	Description
Concourse Indicators	The units in the booking hall and the overbridge are to be removed, disposed of as directed and replaced by sets of 2 x 40” concourse indicator units in the same locations. The timing is to be at the discretion of the station management.
Platform Indicators	The existing platform indicators are to be removed and replaced generally with double sided 2 x 24” units, but in one location as indicated on the drawing, with a single sided 2 x 24” unit.
PC units	Each of the double sided 2 x 24” unit is to have a PC box integrally mounted, but the single sided unit will utilize video transmission. One PC unit will be installed in each of the concourse units.
TIS’s	3
Racks	A new rack is to be installed as detailed
New Switches etc in racks	The fittings on the rack will be supplied and detailed for installation.

D 4.7 – HORNSBY

Items	Description
Concourse Indicators	The two passenger information screens in the unpaid area of the concourse will be replaced in their existing housings by 2 x 46" LCD screens.
Platform Indicators	At times agreed with the Station Manager to minimise interference with passengers, progressively remove and dispose of the existing platform indicators, and relace them at their present locations, with new double sided 2 x 24" indicators complete with an attached PC box. These indicator units are indicated in the nominated drawings Again the detailed design of the mounting brackets is the responsibility of the contractor and a certificate of adequacy is required from his structural engineer.
PC units	On PC unit is required in each platform indicator
TIS's	Six + One workstation in signal box
Racks	A new rack is to be installed as detailed, in a location to be advised.
New Switches etc in racks	The fittings on the rack will be supplied and detailed for installation.

B1.6 Installation Program

The Contractor shall provide a detailed procurement and installation program to the satisfaction of RailCorp within 3 weeks of the award of the contract.

The Contractor will review this program at the end of each month and formally advise the progress of the works to RailCorp.

The Contractor shall be paid for any earlier installation work that it may be possible to do in advance of the delivery of the equipment, provided it is not unsightly or subject to possible vandalism. This installed material shall then become the property of RailCorp, but will be held in trust for the final completion of the installation on that particular station. The Contractor will be held responsible for any loss damage to the goods whilst awaiting final handover.

Note: the following field **must** be filled in by the Contractor.

ACCEPTANCE OF THE ABOVE FINAL INSTALLATION DATES	
	SIGNED BY CONTRACTOR