

**Legend**

Cabinet and Verts	Copper Joint	Trough Duct Cable Tray	Signal Box	FTN Core Node	Screen Joint Routeworks	Overbridge	Signal	Engineer's Line Reference	Crossing	Gas Line
Cabinet with Regenerator and Verts	Fibre Joint	Cable - Type Identified by FTN Code	Electrical Control Room	Core Node with GSM-R Colocated	Copper Joint Routeworks	Underbridge	Vehicle Access Point	Mile Post	Gantry	HV Cable
<b>KEY</b>	Screening Conductor Joint with/without Earth	Manhole	Mid Length Sheath Gap Fibre	FTN Access Node	Cabinet Routeworks	Tunnel	Pedestrian Access Point	Platform	Sewer	LV Cable
Proposed Fibre & Civils Elements are shown in RED				FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks		Earth Form	Buffer Stop	Telecoms	Water
Proposed Copper Elements are shown in BLUE								Telephone	Copper Blue Fibre	Mast
Proposed Screening Elements are shown in MAGENTA									Fibre Red	
All Recoveries are shown in GREEN									Screen Green	

Manhole details: Cross-To be used Filled-In use Clear-Empty

**Notes**


**ndcconsultants**  
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**Contractor(s)**

**Status** Design

**Scale(s)** ELR & Mileage VVVV, RDG1

**Rev**

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
A	13/08/12	Redrafted From NTPOSLD21102398001AB2.dwg	SH	JW	CT

Designed	Stephen Holder	Sign.		Date	13/08/2012
Checked	Joe Winter	Sign.		Date	13/08/2012
Approved	Chris Tappenden	Sign.		Date	13/08/2012

**Project** FTN/GSM-R Project  
Tournament House  
Paserington  
London  
W2 1HA

**Drawing Title** Chertsey Station (2110) to Virginia Water Station (2398)

**Alternative Reference** See Layout Tab A3 Sheets 3 and 4

**Sheet** 2 of 3

**Revision** A

**Network Rail**

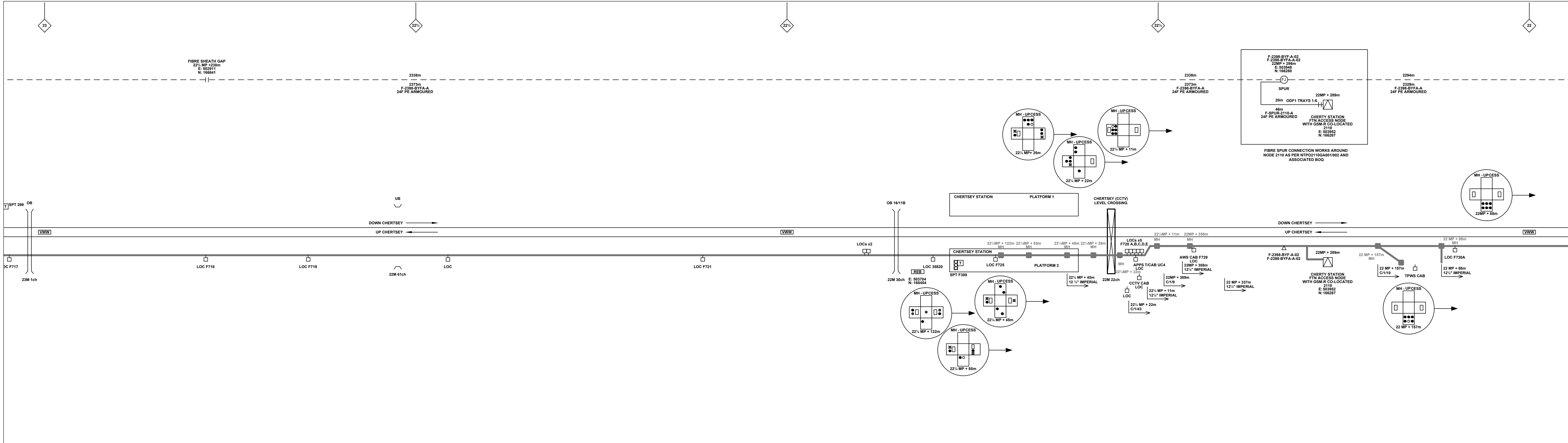
FTN/GSM-R Project  
Tournament House  
Paserington  
London  
W2 1HA

See Layout Tab A3 Sheets 3 and 4

2 of 3

Revision A

Sheet Size 841x297



**Legend**

Cabinet and Verts	Copper Joint	Trough Duct Cable Tray	Signal Box	FTN Core Node	Screen Joint Routeworks	Manhole details: Cross-To be used Filled-In use Clear-Empty	Overbridge	Signal	Engineer's Line Reference	Gas Line
Cabinet with Regenerator and Verts	Fibre Joint	Cable - Type Identified by FTN Code	Electrical Control Room	Core Node with GSM-R Colocated	Copper Joint Routeworks	Manhole	Underbridge	Vehicle Access Point	Mile Post	HV Cable
<b>KEY</b>	Screening Conductor Joint with/without Earth	2034m F-DIDC-RGAC-A	Manhole	FTN Access Node	Cabinet Routeworks	Mid Length Sheath Gap Fibre	Pedestrian Access Point	Platform	LV Cable	Sewer
Proposed Fibre & Civils Elements are shown in RED		All Existing Elements are shown in BLACK	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Tunnel	Sheath Gap Copper	Earth Form	Buffer Stop	Telecoms	Water
Proposed Copper Elements are shown in BLUE		Existing Fibre Cable						Telephone	Cable Pull	Mast
Proposed Screening Elements are shown in MAGENTA		Existing Copper Cable								
All Recoveries are shown in GREEN		Existing Screen Cable								

**Notes**


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**Contractor(s)**

**Status** Design

**Scale(s)** ELR & Mileage VVVV, RDG1

**Rev**

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
A	13/08/12	Redrafted From NTPOSLD21102398001AB2.dwg	SH	JW	CT

**Designed** Stephen Holder  
**Checked** Joe Winter  
**Approved** Chris Tappenden

**Sign.** [Signatures]  
**Date** 13/08/2012

**Project** FTN/GSM-R Project  
**Drawing Title** Chertsey Station (2110) to Virginia Water Station (2398)

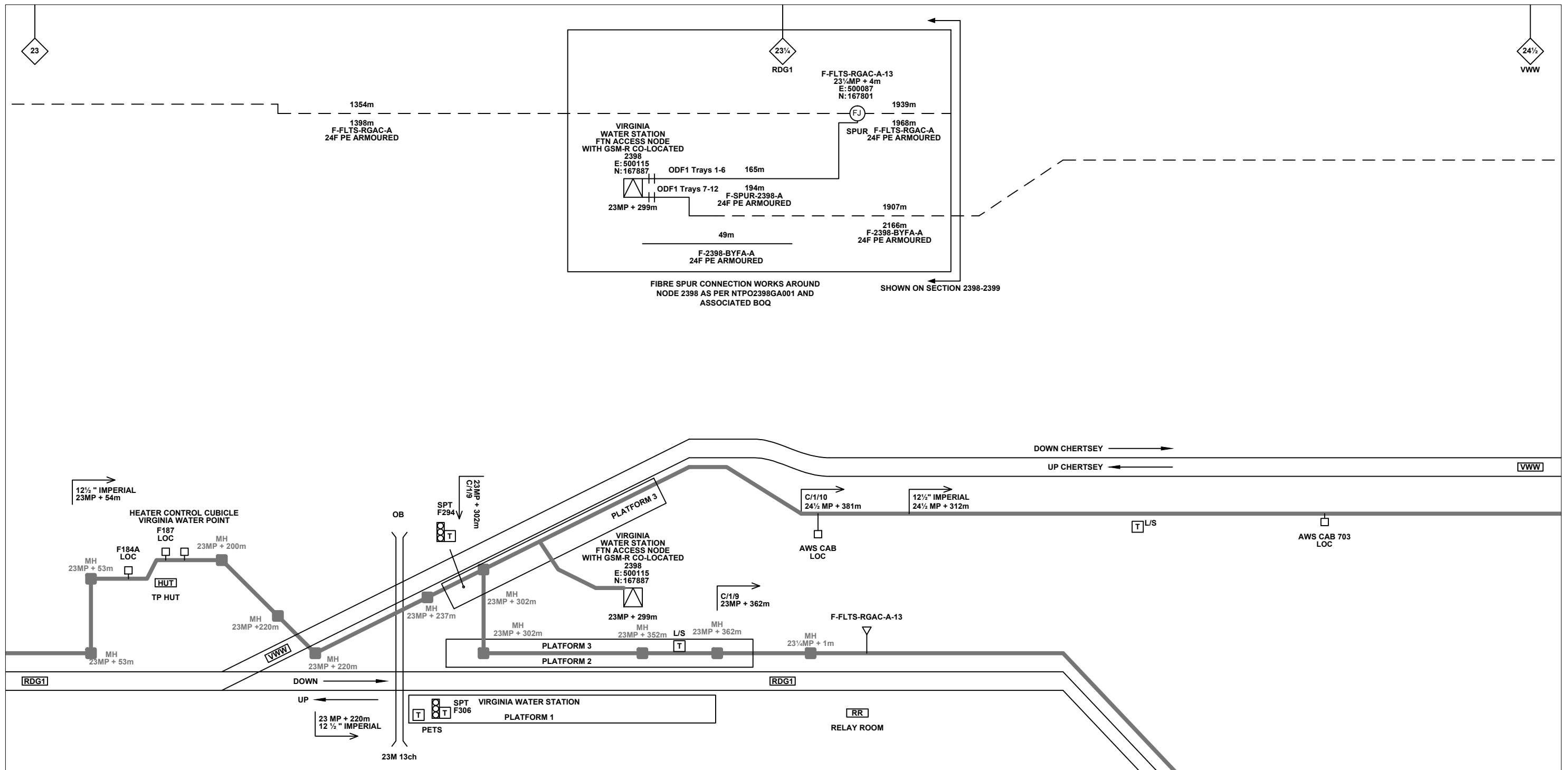
**Network Rail**

FTN/GSM-R Project  
Tournament House  
Paddington  
London  
W2 1HA

Alternative Reference: See Layout Tab A3 Sheets 5 and 6

Drawing Number: NTPO\SLD\2110\2398\001

Sheet 3 of 3  
Revision A



**Legend**

Cabinet and Verts	Copper Joint	Trough Duct Cable Tray	Signal Box	FTN Core Node	Screen Joint Routeworks	Overbridge	Signal	Engineer's Line Reference	Crossing	Gas Line
Cabinet with Regenerator and Verts	Fibre Joint	Cable - Type Identified by FTN Code	Electrical Control Room	Core Node with GSM-R Colocated	Copper Joint Routeworks	Underbridge	Vehicle Access Point	Mile Post	Gantry	HV Cable
<b>KEY</b>	Screening Conductor Joint with/without Earth	Manhole	Mid Length Sheath Gap Fibre	FTN Access Node	Cabinet Routeworks	Manhole details: Cross-To be used Filled-In use Clear-Empty	Pedestrian Access Point	Platform	Sewer	LV Cable
Proposed Fibre & Civils Elements are shown in RED	All Existing Elements are shown in BLACK	Sheath Gap Copper	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Tunnel	Earth Farm	Buffer Stop	Telephone	Water	Mast

Proposed Copper Elements are shown in BLUE  
 Proposed Screening Elements are shown in MAGENTA  
 All Recoveries are shown in GREEN

Notes

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
A	13/08/12	Redrafted From NTPOSLD21102398001AB2.dwg	SH	JW	CT

Contractor(s)

Unit 4 Apex Park, Wainwright Road, Worcester, Worcestershire, WR4 9FN. Tel: 01905 756000

Status: **Design**

Scale(s): NTS

ELR & Mileage: VWW, RDG1

Designed	Sign.	Date
Drawn: Stephen Holder	Sign. <i>[Signature]</i>	Date: 13/08/2012
Checked: Joe Winter	Sign. <i>[Signature]</i>	Date: 13/08/2012
Approved: Chris Tappenden	Sign. <i>[Signature]</i>	Date: 13/08/2012

Project: FTN/GSM-R Project Stage 2 Design

Drawing Title: Chertsey Station (2110) to Virginia Water Station (2398)

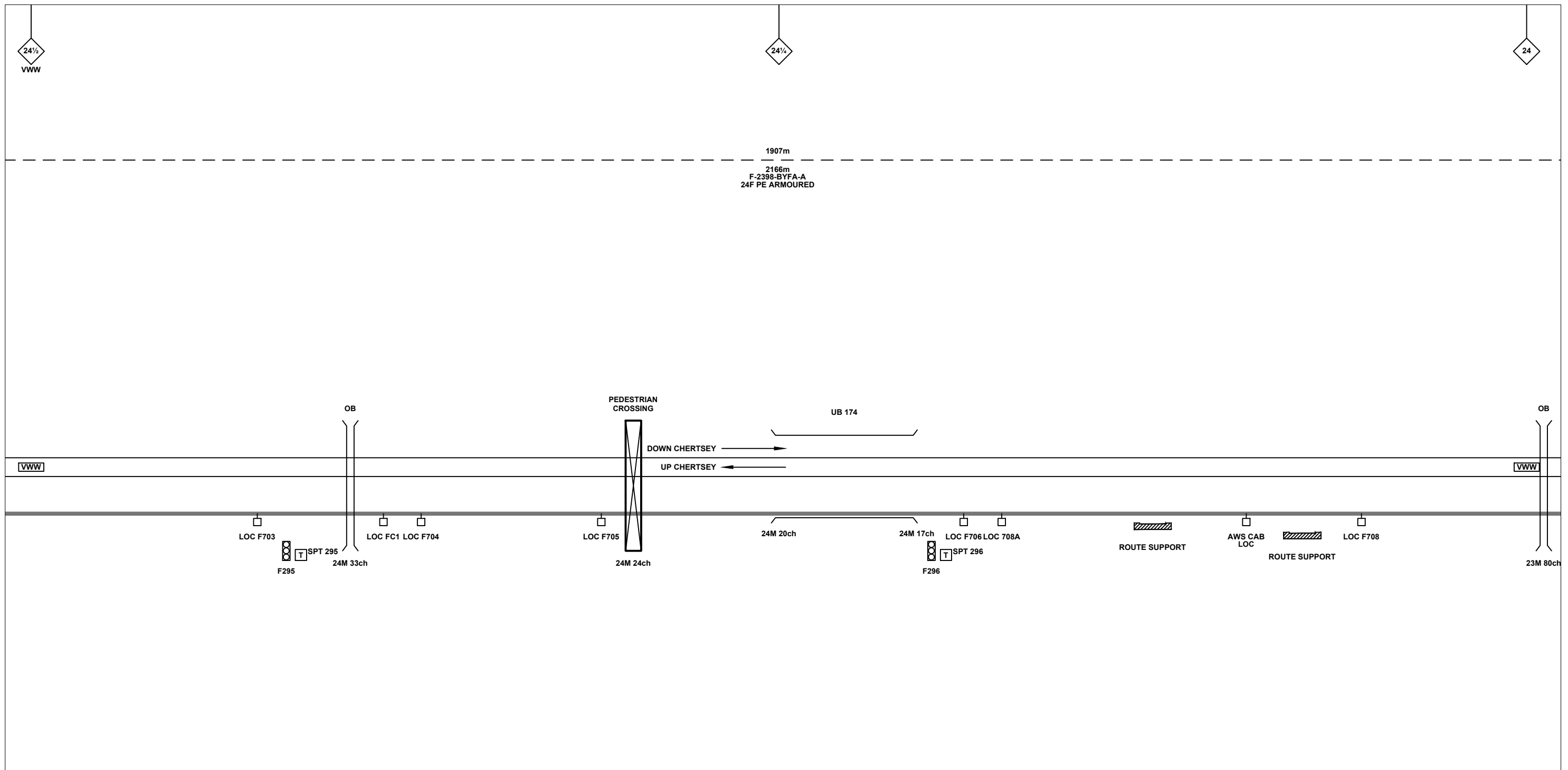
FTN/GSM-R Project  
Tournament House  
Paddington  
London  
W2 1HA

Alternative Reference: See Layout Tab 841 x 297 Sheet 1

Drawing Number: NTPO\SLD\2110\2398\001

Sheet: 1 of 6

Revision: A



**Legend**

Cabinet and Verts	Copper Joint	Trough Duct Cable Tray	Signal Box	FTN Core Node	Screen Joint Routeworks	Overbridge	Signal	Engineer's Line Reference	Crossing	Gas Line
Cabinet with Regenerator and Verts	Fibre Joint	Cable - Type Identified by FTN Code Status - as per Key Below	Electrical Control Room	Core Node with GSM-R Colocated	Copper Joint Routeworks	Manhole	Vehicle Access Point	Mile Post	Gantry	HV Cable
<b>KEY</b>	Screening Conductor Joint with/without Earth	1988m	Mid Length Sheath Gap Fibre	FTN Access Node	Cabinet Routeworks	Manhole details: Cross-To be used Filled-In use Clear-Empty	Pedestrian Access Point	Platform	Sewer	LV Cable
<b>Proposed Fibre &amp; Civils Elements are shown in RED</b>	2034m F-DIDC-RGAC-A	Existing Fibre Cable	Sheath Gap Fibre	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Tunnel	Earth Farm	Buffer Stop	Telephone	Water
<b>Proposed Copper Elements are shown in BLUE</b>	Existing Copper Cable	Existing Screen Cable	Sheath Gap Copper							Copper Blue Fibre Red Screen Green
<b>Proposed Screening Elements are shown in MAGENTA</b>										Mast
<b>All Recoveries are shown in GREEN</b>										

Notes

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
A	13/08/12	Redrafted From NTPOSLD21102398001AB2.dwg	SH	JW	CT

Contractor(s)

Unit 4 Apex Park, Wainwright Road, Worcester, Worcestershire, WR4 9FN. Tel: 01905 756000

Status: **Design**

Scale(s): NTS

ELR & Mileage: VWW, RDG1

Designed		Sign.		Date	
Drawn	Stephen Holder	Sign.		Date	13/08/2012
Checked	Joe Winter	Sign.		Date	13/08/2012
Approved	Chris Tappenden	Sign.		Date	13/08/2012
Project	FTN/GSM-R Project Stage 2 Design				
Drawing Title	Chertsey Station (2110) to Virginia Water Station (2398)				

FTN/GSM-R Project  
Tournament House  
Paddington  
London  
W2 1HA

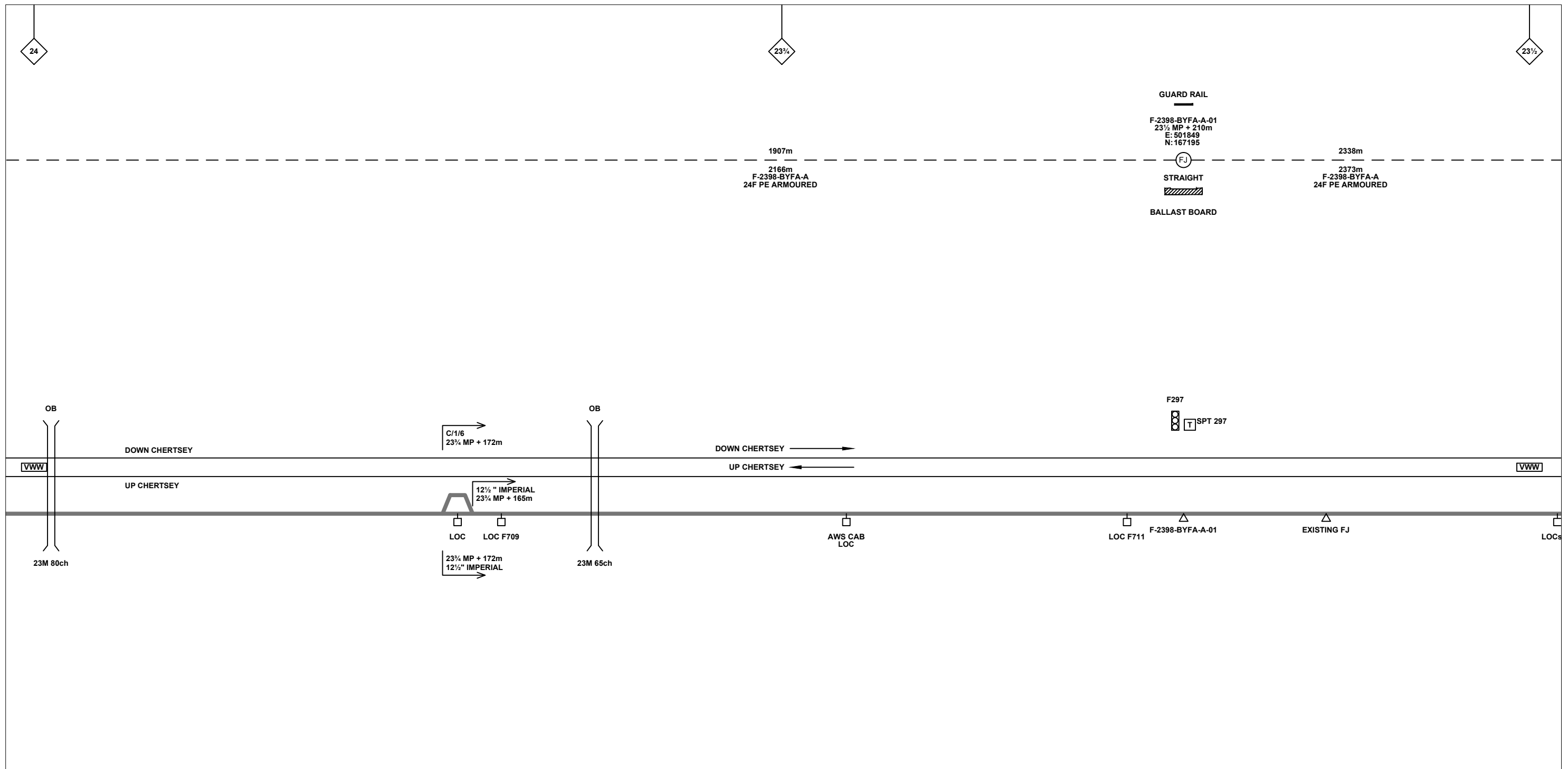
Alternative Reference: See Layout Tab 841 x 297 Sheet 1

Drawing Number: NTPO\SLD\2110\2398\001

Sheet: 2 of 6

Revision: A





**Legend**

Cabinet and Verts	Copper Joint	Trough Duct Cable Tray	Signal Box	FTN Core Node	Screen Joint Routeworks	Overbridge	Signal	Engineer's Line Reference	Crossing	Gas Line
Cabinet with Regenerator and Verts	Fibre Joint	Cable - Type Identified by FTN Code	Electrical Control Room	Core Node with GSM-R Colocated	Copper Joint Routeworks	Manhole	Vehicle Access Point	Mile Post	HV Cable	LV Cable
<b>KEY</b>	Screening Conductor Joint with/without Earth	Status - as per Key Below	Mid Length Sheath Gap Fibre	FTN Access Node	Cabinet Routeworks	Manhole details: Cross-To be used, Filled-In use, Clear-Empty	Pedestrian Access Point	Platform	Sewer	Telecoms
Proposed Fibre & Civils Elements are shown in RED		All Existing Elements are shown in BLACK	Sheath Gap Copper	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Tunnel	Earth Farm	Buffer Stop	Water	Mast
Proposed Copper Elements are shown in BLUE		Existing Fibre Cable								
Proposed Screening Elements are shown in MAGENTA		Existing Copper Cable								
All Recoveries are shown in GREEN		Existing Screen Cable								

Notes

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
A	13/08/12	Redrafted From NTPOSLD21102398001AB2.dwg	SH	JW	CT

Contractor(s)

Unit 4 Apex Park, Wainwright Road, Worcester, Worcestershire, WR4 9FN. Tel: 01905 756000

Status: **Design**

Scale(s): NTS

ELR & Mileage: VWW, RDG1

Designed		Sign.		Date	
Drawn	Stephen Holder	Sign.		Date	13/08/2012
Checked	Joe Winter	Sign.		Date	13/08/2012
Approved	Chris Tappenden	Sign.		Date	13/08/2012
Project	FTN/GSM-R Project Stage 2 Design				
Drawing Title	Chertsey Station (2110) to Virginia Water Station (2398)				

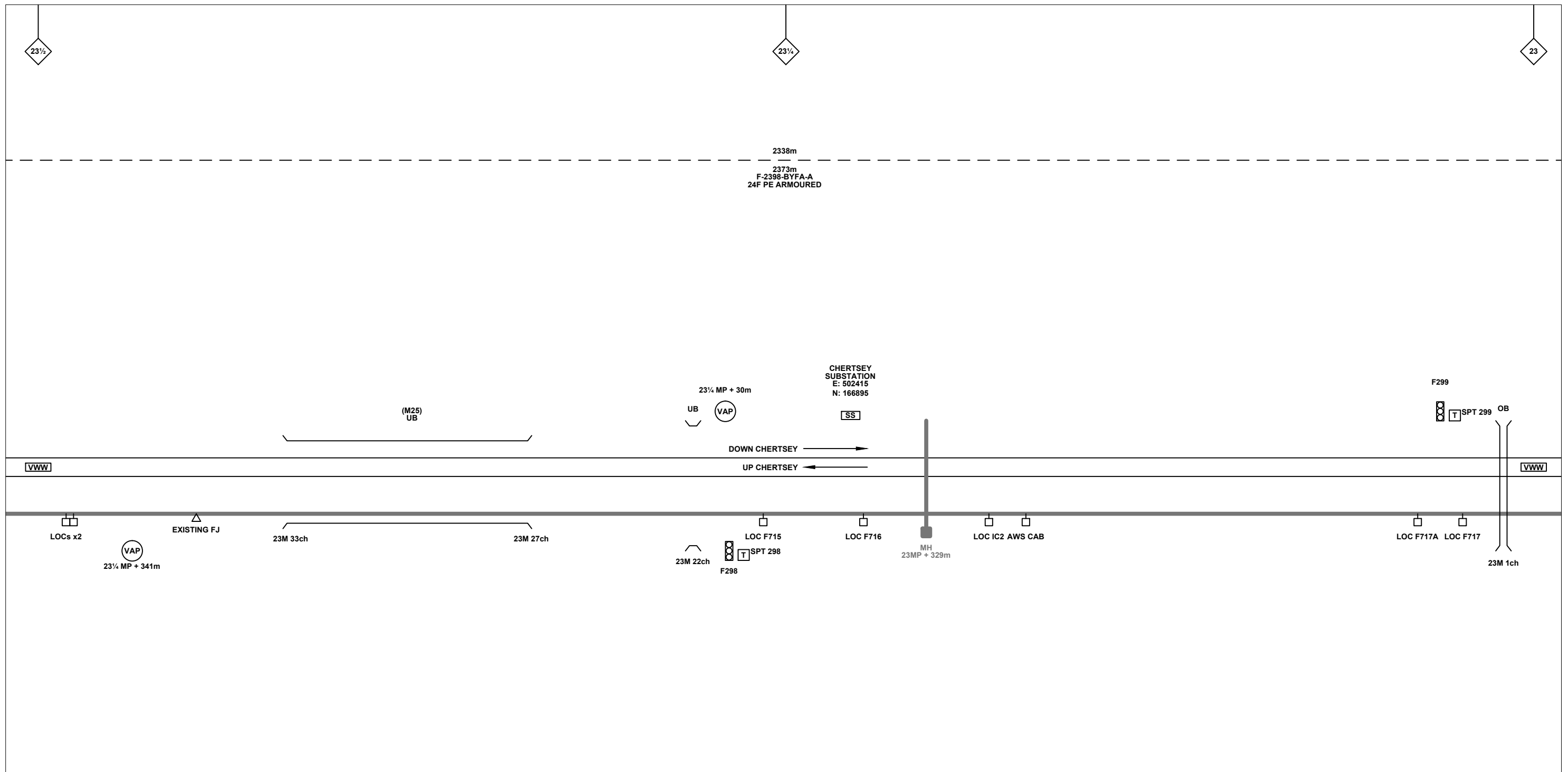
FTN/GSM-R Project  
Tournament House  
Paddington  
London  
W2 1HA

Alternative Reference: See Layout Tab 841 x 297 Sheet 2

Drawing Number: NTPO\SLD\2110\2398\001

Sheet: 3 of 6

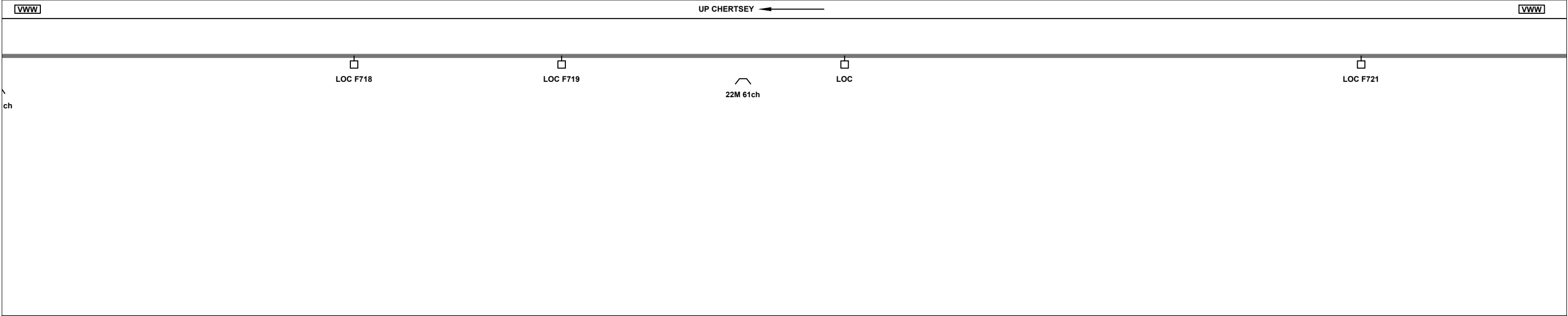
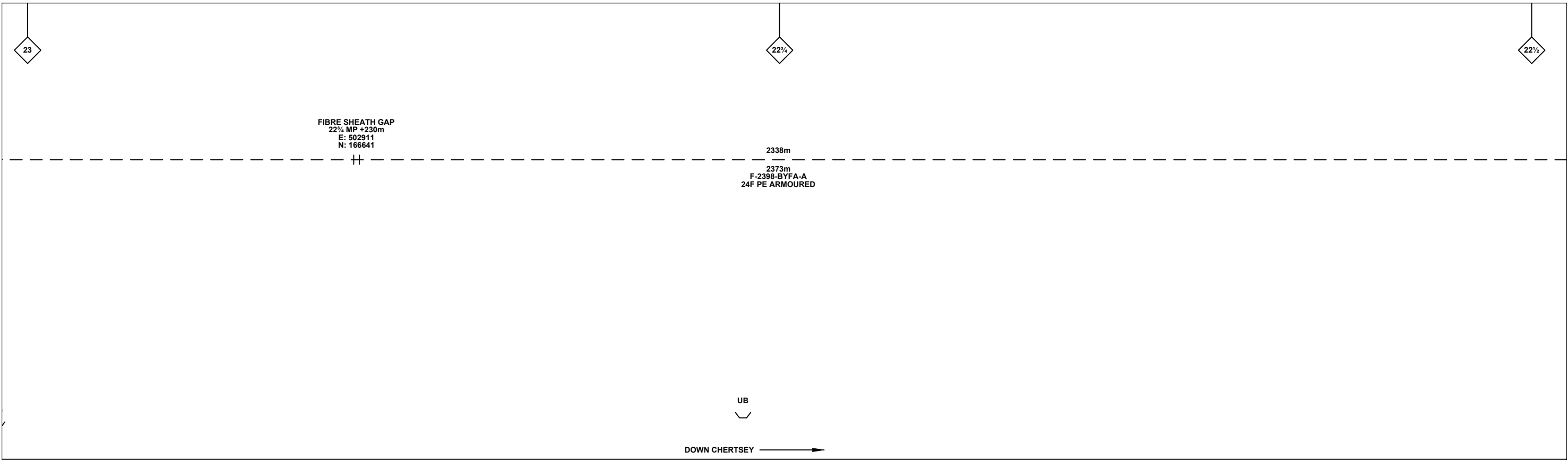
Revision: A



**Legend**

Cabinet and Verts	Copper Joint	Trough Duct Cable Tray	Signal Box	FTN Core Node	Screen Joint Routeworks	Overbridge	Signal	Engineer's Line Reference	Crossing	Gas Line
Cabinet with Regenerator and Verts	Fibre Joint	Cable - Type Identified by FTN Code	Electrical Control Room	Core Node with GSM-R Colocated	Copper Joint Routeworks	Underbridge	Vehicle Access Point	Mile Post	Gantry	HV Cable
<b>KEY</b>	Screening Conductor Joint with/without Earth	Manhole	Mid Length Sheath Gap Fibre	FTN Access Node	Cabinet Routeworks	Manhole details: Cross-To be used, Filled-In use, Clear-Empty	Pedestrian Access Point	Platform	Sewer	LV Cable
<b>Proposed Fibre &amp; Civils Elements are shown in RED</b>	Existing Fibre Cable	Manhole	Sheath Gap Fibre	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Tunnel	Earth Farm	Buffer Stop	Telecoms	Water
<b>Proposed Copper Elements are shown in BLUE</b>	Existing Copper Cable	Manhole	Sheath Gap Copper						Mast	
<b>Proposed Screening Elements are shown in MAGENTA</b>	Existing Screen Cable									
<b>All Recoveries are shown in GREEN</b>										

Contractor(s)		Designed		Sign.		Date		
 Unit 4 Apex Park, Wainwright Road, Worcester, Worcestershire, WR4 9FN. Tel: 01905 756000		Drawn	Stephen Holder	Sign.		Date	13/08/2012	
		Checked	Joe Winter	Sign.		Date	13/08/2012	
		Approved	Chris Tappenden	Sign.		Date	13/08/2012	
		Project		FTN/GSM-R Project Stage 2 Design				FTN/GSM-R Project Tournament House Paddington London W2 1HA
Status		Design		Drawing Title		Alternative Reference		Sheet
				Chertsey Station (2110) to Virginia Water Station (2398)		See Layout Tab 841 x 297 Sheet 2		4 of 6
Scale(s)		ELR & Mileage		Drawing Number		Revision		
NTS		VWW, RDG1		NTPO\SLD\2110\2398\001		A		
Rev	Date	Description of Revisions		Drawn	Chkd	Appr		
A	13/08/12	Redrafted From NTPOSLD21102398001AB2.dwg		SH	JW	CT		



**Legend**

Cabinet and Verts	Copper Joint	Trough Duct Cable Tray	Signal Box	FTN Core Node	Screen Joint Routeworks	Overbridge	Signal	Engineer's Line Reference	Crossing	GAS — GAS — Gas Line
Cabinet with Regenerator and Verts	Fibre Joint	Cable - Type Identified by FTN Code	Electrical Control Room	Core Node with GSM-R Colocated	Copper Joint Routeworks	Manhole	VAP Vehicle Access Point	Mile Post	HV — HV — HV Cable	LV — LV — LV Cable
<b>KEY</b>	Screening Conductor Joint with/without Earth	Status - as per Key Below	Mid Length Sheath Gap Fibre	FTN Access Node	Cabinet Routeworks	Manhole details: Cross-To be used	PAP Pedestrian Access Point	Platform	SEW — SEW — Sewer	TEL — TEL — Telecoms
<b>Proposed Fibre &amp; Civils Elements are shown in RED</b>	Existing Fibre Cable	Existing Copper Cable	Sheath Gap Copper	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Clear-Empty	Earth Farm	Telephone	v — v — Water	Mast
<b>Proposed Copper Elements are shown in BLUE</b>	Existing Screen Cable					Filled-In use	Buffer Stop			
<b>Proposed Screening Elements are shown in MAGENTA</b>						Clear-Empty				
<b>All Recoveries are shown in GREEN</b>						Tunnel				

Notes

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
A	13/08/12	Redrafted From NTPOSLD21102398001AB2.dwg	SH	JW	CT

Contractor(s)

Unit 4 Apex Park, Wainwright Road, Worcester, Worcestershire, WR4 9FN. Tel: 01905 756000

Status: **Design**

Scale(s): NTS

ELR & Mileage: VWV, RDG1

Designed		Sign.		Date	
Drawn	Stephen Holder	Sign.		Date	13/08/2012
Checked	Joe Winter	Sign.		Date	13/08/2012
Approved	Chris Tappenden	Sign.		Date	13/08/2012
Project	FTN/GSM-R Project Stage 2 Design				
Drawing Title	Chertsey Station (2110) to Virginia Water Station (2398)				

FTN/GSM-R Project  
Tournament House  
Paddington  
London  
W2 1HA

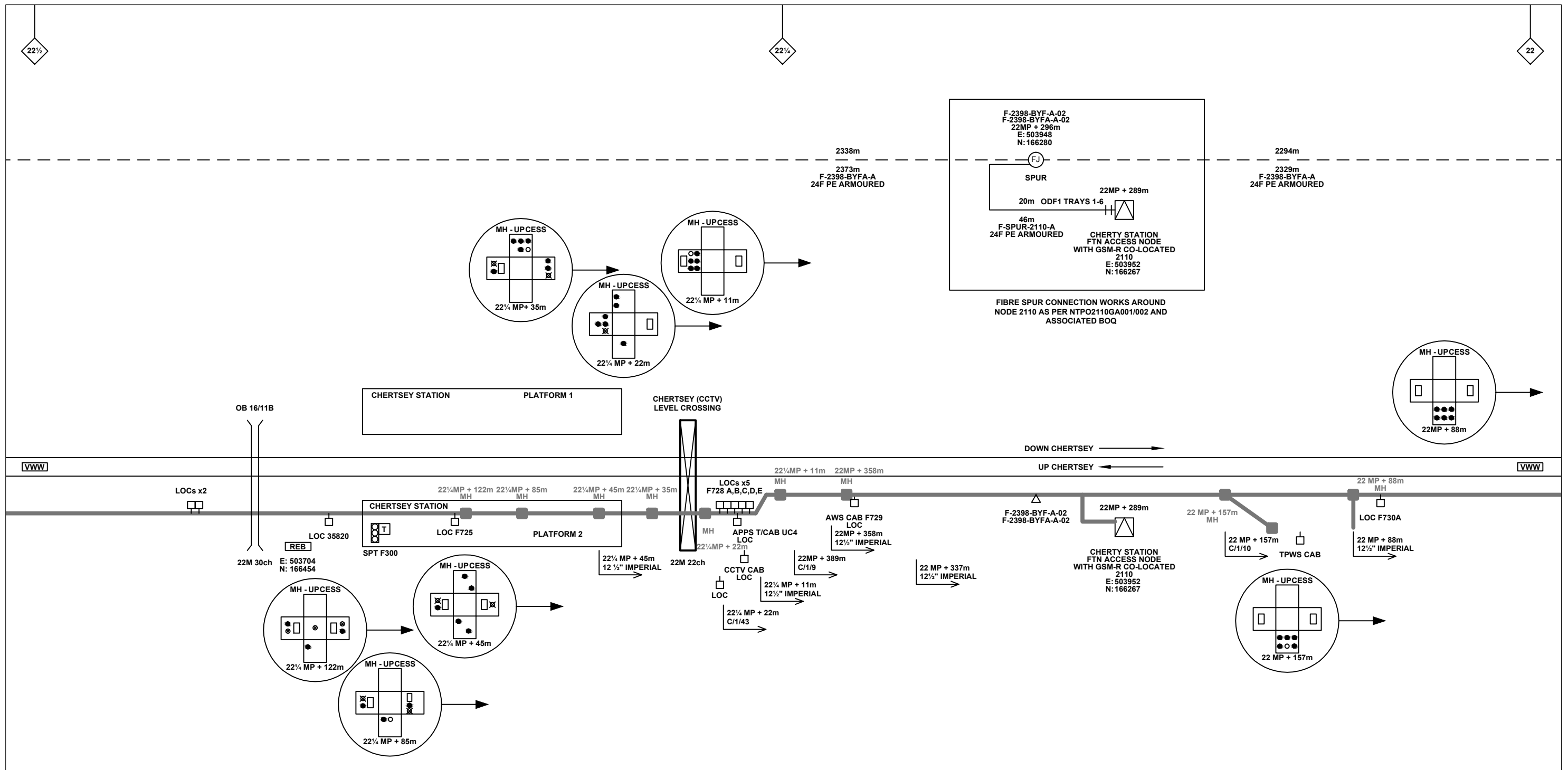
Alternative Reference: See Layout Tab 841 x 297 Sheet 3

Drawing Number: NTPO\SLD\2110\2398\001

Sheet: 5 of 6

Revision: A





**Legend**

Cabinet and Verts	Copper Joint	Trough Duct Cable Tray	Signal Box	FTN Core Node	Screen Joint Routeworks	Overbridge	Signal	Engineer's Line Reference	Gas Line
Cabinet with Regenerator and Verts	Fibre Joint	Cable - Type Identified by FTN Code	Electrical Control Room	Core Node with GSM-R Colocated	Copper Joint Routeworks	Underbridge	Vehicle Access Point	Mile Post	HV Cable
<b>KEY</b>	Screening Conductor Joint with/without Earth	Manhole	Mid Length Sheath Gap Fibre	FTN Access Node	Cabinet Routeworks	Manhole details: Cross-To be used, Filled-In use, Clear-Empty	Pedestrian Access Point	Platform	LV Cable
<b>Proposed Fibre &amp; Civils Elements are shown in RED</b>	Existing Fibre Cable	Sheath Gap Copper	FTN Access Node with GSM-R Colocated	Fibre Joint Routeworks	Tunnel	Earth Farm	Buffer Stop	Telephone	Sewer
<b>Proposed Copper Elements are shown in BLUE</b>	Existing Screen Cable								Telecoms
<b>Proposed Screening Elements are shown in MAGENTA</b>									Water
<b>All Recoveries are shown in GREEN</b>									Cable Pull
									Mast

Notes

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
A	13/08/12	Redrafted From NTPOSLD21102398001AB2.dwg	SH	JW	CT

Contractor(s)

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Status: **Design**

Scale(s): NTS

ELR & Mileage: VWW, RDG1

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Project: <b>FTN/GSM-R Project Stage 2 Design</b>		
Drawing Title: <b>Chertsey Station (2110) to Virginia Water Station (2398)</b>		

FTN/GSM-R Project  
Tournament House  
Paddington  
London  
W2 1HA

Alternative Reference: See Layout Tab 841 x 297 Sheet 3

Drawing Number: NTPO\SLD\2110\2398\001

Sheet: 6 of 6

Revision: A