

NETWORK RAIL (EAST WEST RAIL WESTERN SECTION PHASE 2)

NOTES:

1. THIS DRAWING IS NOT TO BE SCALED.
2. ALL DIMENSIONS ARE IN METRES (m) UNLESS SHOWN OTHERWISE.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE HIGHWAY DESIGN PACKAGE OF DRAWINGS AND DOCUMENTS.
4. WHEREVER REQUIRED, ROAD MARKINGS ARE TO BE LAID IN ACCORDANCE WITH 'THE TRAFFIC SIGN REGULATIONS AND GENERAL DIRECTIONS 2016' & 'TRAFFIC SIGNS MANUAL CHAPTER 5 (2003)'.
5. FOR POSITIONS OF UTILITY COMPANIES APPARATUS REFER TO DRAWING No.133735_2A-EWR-OXD-A3_J_2-DR-CH-010004.
6. REFER TO DRAWING No.133735_2A-EWR-OXD-XX-DR-CH-010251 FOR OFFLINE HIGHWAYS SIGNAGE STRATEGY.
7. FOR DETAILS OF SIGN FACES, POSTS AND FOUNDATIONS, SEE SIGNAGE STRATEGY SCHEDULE DRAWINGS 133735_RW-EWR-XX-DR-CH-000300 - 133735_RW-EWR-XX-DR-CH-000301.

DRAFT

Rev	Date	Description of Revisions	Desd	Chkd	Appr	Suitability
B01	03/04/20	FOR INFORMATION		N.T.	L.T.	G.J.
Status	SHARED - for IDC Review					S3



Project
East West Rail (Western Section) Phase 2

Drawing Title
JUNCTION IMPROVEMENT A3_J_2 GENERAL ARRANGEMENT

Designed	Nagoth Thomas Ravi Kumar	Signed	N. T. R. Kumar	Date	31/03/20	
Drawn	Ravikumar KN	Signed	R. KN	Date	08/03/19	
Checked	Lisa Taylor	Signed	L. Taylor	Date	01/04/20	
Approved	Gareth Johnston	Signed	G. Johnston	Date	03/04/20	
Scale(s)	1:250 (ELR - Project Chainage (Miles Yards))					
Design Package Risk Classification	OXD - Normal				Sheet	1 of 1
Alternative Reference					Revision	B01
Drawing Number	133735_2A-EWR-OXD-A3_J_2-DR-CH-010001					

KEY:

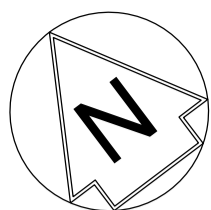
	HIGHWAY BOUNDARY
	EXISTING ROAD EDGE
	PROPOSED ROAD EDGE
	PROPOSED WHITE ROAD MARKING
	NEW PAVEMENT
	GRASS VERGE
	PROPOSED EARTHWORKS

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

THE WORKS ARE TO BE UNDERTAKEN BY A COMPETENT DELIVERY TEAM, AND THEREFORE ONLY EXCEPTIONAL RISKS RELATING TO THE WORKS ASSOCIATED WITH THIS DRAWING ARE IDENTIFIED BELOW. FOR FURTHER DETAILS AND PROPOSED SAFETY MEASURES REFER "EWR PHASE 2 HAZARD LOG WORKING COPY" EB DOC. REF: 133735-NWR-RSA-SSD-000001.

ID	HAZARD DESCRIPTION
EWR2-HAZ-02098	PRESENCE OF BURIED SERVICES / UTILITIES
EWR2-HAZ-02099	OVERHEAD BT TELECOM CABLES CROSSING THE JUNCTION WIDENING

INDICATES PROJECT RISKS (EWR2-DRIS-)
 INDICATES H&S RISKS (EWR2-HAZ-)



NETWORK RAIL (EAST WEST RAIL WESTERN SECTION PHASE 2)

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 2. ALL DIMENSIONS ARE IN METRES (m) UNLESS SHOWN OTHERWISE.
 3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE HIGHWAY DESIGN PACKAGE OF DRAWINGS AND DOCUMENTS.
 4. PRIOR TO THE COMMENCEMENT OF WORKS, A SUITABLY QUALIFIED ECOLOGIST SHALL INSPECT THE SITE FOR THE PRESENCE OF PROTECTED SPECIES AND HABITAT. THE ECOLOGIST SHALL THEN ADVISE EWR ALLIANCE ON THE REQUIRED PRECAUTIONARY METHODS AND AREAS OF EXCLUSION.
 5. WHERE SITE CLEARANCE WORKS HAVE THE POTENTIAL TO IMPACT TREES OR HEDGES WHICH ARE TO BE RETAINED, AN ARBORICULTURIST SHALL BE PRESENT TO ADVISE ON ROOT PROTECTION ZONE EXTENTS, ROOT PRUNING AND CROWN RAISING. WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH BS3998:2010.
 6. SITE CLEARANCE, WHERE THERE IS PROXIMITY TO HABITAT OF PROTECTED SPECIES, SHALL BE CARRIED OUT UNDER THE SUPERVISION OF A SUITABLY QUALIFIED ECOLOGIST.
 7. THE EXTENTS OF ALL SITE CLEARANCE WORKS SHALL BE RECORDED IN THE AS-BUILT SITE CLEARANCE DRAWINGS AND SHALL ALSO BE RECORDED, WITH PHOTOGRAPHS OF FEATURES PRIOR TO REMOVAL, IN THE SITE CLEARANCE REGISTER. THE SITE CLEARANCE REGISTER SHALL BE MAINTAINED BY EWR ALLIANCE AND WILL INFORM REINSTATEMENT DETERMINATION.
 8. IN LOCATIONS WHERE EXISTING TREES OVERHANG THE NEW TEMPORARY CARRIAGEWAY EXTENTS CROWN LIFTING, TO GIVE 5m CLEARANCE ABOVE GROUND LEVEL, SHALL BE UNDERTAKEN TO THE BACK OF THE PROPOSED VERGE. THIS SHALL BE UNDERTAKEN UNDER THE SUPERVISION OF AN ARBORICULTURIST.
 9. THE VEGETATION CLEARANCE SHOWN HERE ON THE DRAWING IS INDICATIVE ONLY. THE SITE TEAM NEEDS TO ASCERTAIN THE REQUIRED CLEARANCE BASED ON THE VISIBILITY SPLAY, INTERVISIBILITY ZONE AND OR WORKS REQUIRED FOR THIS SITE.
 10. FOR CLARITY ONLY THE TRUNKS OF EXISTING TREES ARE SHOWN, FOR CANOPY EXTENTS THE TREE SURVEY MODEL AND MASTER SCHEDULE ARE TO BE REFERRED TO.
 11. EXISTING BT CHAMBER TO BE RETAINED SHALL BE STRENGTHENED SUCH THAT IT CAN WITHSTAND HGV LOADING.

DRAFT

Rev	Date	Description of Revisions	Desd	Chkd	Appr	Suitability
B01	03/04/20	FOR INFORMATION	N.T.	L.T.	G.J.	
Status						S3



Project
East West Rail (Western Section) Phase 2
Drawing Title
JUNCTION IMPROVEMENT A3_J_2 SITE CLEARANCE

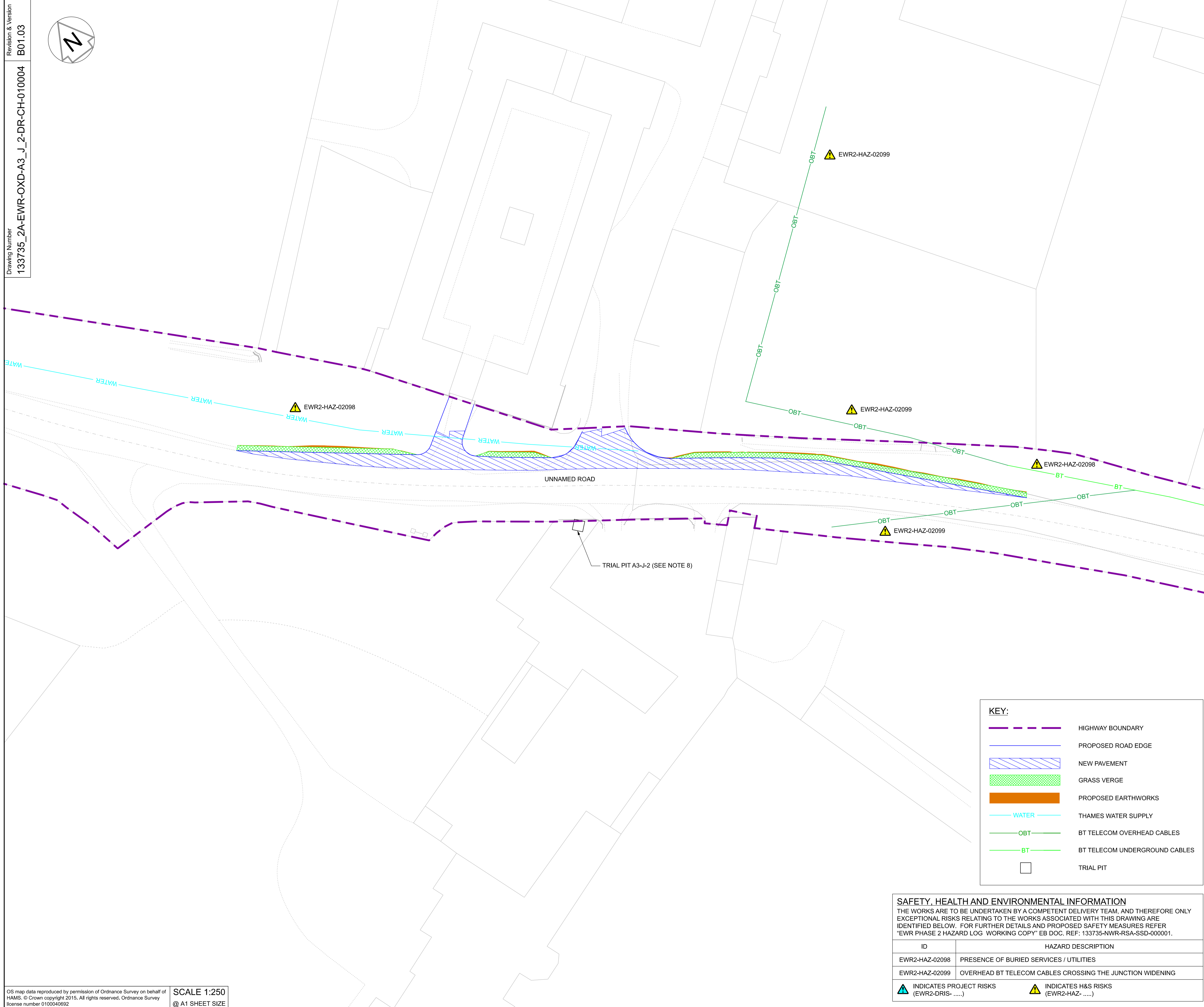
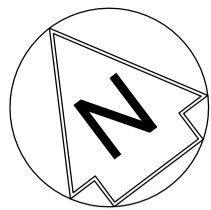
Designed	Nagoth Thomas Ravi Kumar	Signed	N. T. R. Kumar	Date	02/04/20
Drawn	Ravikumar KN	Signed	R. KN	Date	08/03/19
Checked	Lisa Taylor	Signed	L. Taylor	Date	02/04/20
Approved	Gareth Johnston	Signed	G. Johnston	Date	03/04/20

Scale(s)	1:250	ELR - Project Chainage (Miles Yards)	OXD -
Design Package Risk Classification	Normal		Sheet
Alternative Reference			Revision
Drawing Number	133735_2A-EWR-OXD-A3_J_2-DR-CH-010003		B01

KEY:

	HIGHWAY BOUNDARY
	PROPOSED ROAD EDGE
	NEW PAVEMENT
	GRASS VERGE
	PROPOSED EARTHWORKS

RETAINED	REMOVE / RELOCATE	DESCRIPTION
	NONE	GATE
	NONE	FENCE
	NONE	POST BOX
	NONE	BOLLARD
	NONE	TREE TRUNK
	NONE	TRAFFIC SIGN
	NONE	MARKER POST
	NONE	TELEGRAPH POLE
	NONE	INSPECTION CHAMBER
NONE		EXISTING HARD STANDING



NETWORK RAIL (EAST WEST RAIL WESTERN SECTION PHASE 2)

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 3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE HIGHWAY DESIGN PACKAGE OF DRAWINGS AND DOCUMENTS.
 4. THE EXACT LOCATION AND EXTENT OF BURIED SERVICES SHALL BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF THE WORKS. AGREEMENT WITH PRIVATE LAND OWNERS SHALL BE OBTAINED PRIOR TO WORKS WHERE ACCESS TO PRIVATE LAND IS REQUIRED.
 5. THIS DRAWING SHOWS THE POSITION OF UTILITY COMPANIES APPARATUS KNOWN TO OPERATE IN THE AREA IMMEDIATELY ADJACENT TO AND WITHIN THE LAND TAKE BOUNDARY FOR EAST WEST RAIL.
 6. THE POSITIONS INDICATED FOR THE APPARATUS ARE BASED ON RECORDS PROVIDED BY NETWORK RAIL. THE ACCURACY OF THE DRAWING IS THEREFORE LIMITED BY THE ACCURACY OF THE RECORDS MAINTAINED BY THE UTILITY COMPANIES. THE METHODS AVAILABLE TO PROCESS / REPRODUCE THIS INFORMATION IN THE DRAWINGS AND THE AGE OF THE INFORMATION. THERE IS THE POSSIBILITY THAT APPARATUS HAS BEEN ADDED OR REMOVED SINCE THE RECORDS WERE PROVIDED.
 7. ALL SEARCHES MUST BE VERIFIED AND ESTABLISHED ON SITE BEFORE WORK COMMENCES. IT IS THE RESPONSIBILITY OF THE EWR ALLIANCE TO IDENTIFY AND LOCATE UTILITY PLANT PRIOR TO WORK GOING AHEAD.
 8. UTILITY PROTECTION SLAB MAY BE REQUIRED - REFER TO SCHEDULE 133735_RW-EWR-XX-XXXXXXX-SH-CH-000017.

DRAFT

B01	03/04/20	FOR INFORMATION	N.T.	L.T.	G.J.
Rev	Date	Description of Revisions	Desd	Chkd	Appr
Status	SHARED - for IDC Review				S3



Project
East West Rail (Western Section) Phase 2

Drawing Title
JUNCTION IMPROVEMENT A3_J_2 EXISTING UTILITIES

Designed	Nagoth Thomas Ravi Kumar	Signed	N. T. R. Kumar	Date	31/03/20	
Drawn	Ravikumar KN	Signed	R. KN	Date	08/03/19	
Checked	Lisa Taylor	Signed	L. Taylor	Date	01/04/20	
Approved	Gareth Johnston	Signed	G. Johnston	Date	03/04/20	
Scale(s)	1:250 (ELR - Project Chainage (Miles Yards))					
Design Package Risk Classification	OXD - Normal				Sheet	1 of 1
Alternative Reference					Revision	B01
Drawing Number	133735_2A-EWR-OXD-A3_J_2-DR-CH-010004					

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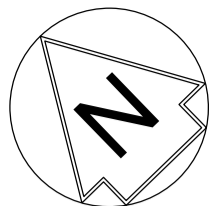
	HIGHWAY BOUNDARY
	PROPOSED ROAD EDGE
	NEW PAVEMENT
	GRASS VERGE
	PROPOSED EARTHWORKS
	THAMES WATER SUPPLY
	BT TELECOM OVERHEAD CABLES
	BT TELECOM UNDERGROUND CABLES
	TRIAL PIT

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

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ID	HAZARD DESCRIPTION
EWR2-HAZ-02098	PRESENCE OF BURIED SERVICES / UTILITIES
EWR2-HAZ-02099	OVERHEAD BT TELECOM CABLES CROSSING THE JUNCTION WIDENING

INDICATES PROJECT RISKS (EWR2-DRIS-)
 INDICATES H&S RISKS (EWR2-HAZ-)



NETWORK RAIL (EAST WEST
 RAIL WESTERN SECTION PHASE 2)

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4. ALL WORKS TO BE IN ACCORDANCE WITH THE MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAYS WORKS VOL 1 (SPECIFICATION FOR HIGHWAY WORKS) AND STANDARD CONSTRUCTION DETAILS.
5. THE DELIVERY TEAM IS TO VERIFY DIMENSION ON SITE AND ADVISE OF ANY INFORMATION DISCREPANCIES. TIE-IN POINTS SHOULD BE VERIFIED ON SITE WITH THE ENGINEER PRIOR TO CONSTRUCTION.

 **DRAFT**

Rev	Date	Description of Revisions	Desd	Chkd	Appr	Suitability
B01	03/04/20	FOR INFORMATION		N.T.	L.T.	G.J.

SHARED - for IDC Review S3



Project
**East West Rail
 (Western Section)
 Phase 2**






Drawing Title
**JUNCTION IMPROVEMENT A3_J_2
 EXISTING AND PROPOSED
 CONTOURS**

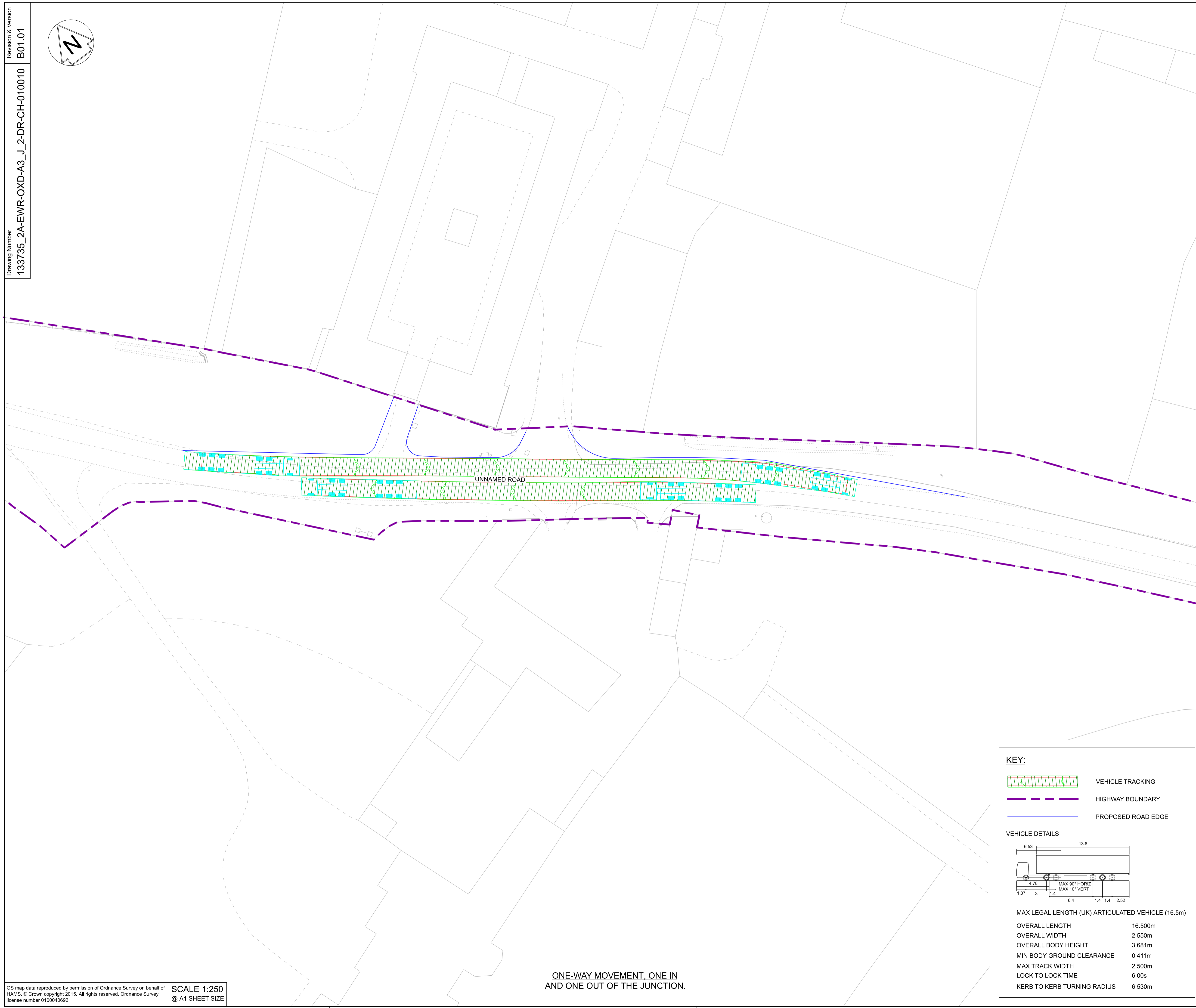
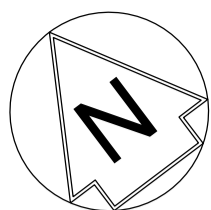
Designed	Nagoth Thomas Ravi Kumar	Signed	N. T. R. Kumar	Date	31/03/20
Drawn	Ravikumar KN	Signed	R. KN	Date	08/03/19
Checked	Lisa Taylor	Signed	L. Taylor	Date	01/04/20
Approved	Gareth Johnston	Signed	G. Johnston	Date	03/04/20

Scale(s)
 1:250
 ELR - Project Chainage (Miles/Yards)
 OXD -
 Design Package Risk Classification
Normal
 Sheet
 1 of 1
 Alternative Reference
 Revision
 B01

Drawing Number
 133735_2A-EWR-OXD-A3_J_2-DR-CH-010008

KEY:

	HIGHWAY BOUNDARY
	EXISTING CONTOUR MAJOR @ 0.05m INTERVALS
	EXISTING CONTOUR MINOR @ 0.01m INTERVALS
	PROPOSED CONTOUR MAJOR @ 0.05m INTERVALS
	PROPOSED CONTOUR MINOR @ 0.01m INTERVALS



**NETWORK RAIL (EAST WEST
RAIL WESTERN SECTION PHASE 2)**

NOTES:

1. THIS DRAWING IS NOT TO BE SCALED.
2. ALL DIMENSIONS ARE IN METRES (m) UNLESS SHOWN OTHERWISE.
3. VEHICLE TRACKING IS UNDERTAKEN WITH COMPUTER MODELLING SOFTWARE AND IS BASED ON IDEAL SITUATIONS WHERE REAL WORLD OBSTRUCTIONS ON THE ROAD NETWORK SUCH AS PARKING OR LOADING ACTIVITY WOULD NOT HAVE BEEN FORESEEN.
4. THE MODELLING IS BASED IN 2D PLAN WHERE SWEEPED PATHS ARE INFLUENCED BY ANTICIPATED MOVEMENTS AND THEREFORE LEAD TO IDEAL APPROACH ANGLES, WHICH MIGHT NOT BE OBVIOUS IN REALITY.
5. APPROACH SPEEDS, APPROACH ANGLES, ROAD SURFACE, WEATHER CONDITIONS AND TYRE WEAR ARE ALL FACTORS THAT WILL INFLUENCE VEHICLE PATHS.
6. JUNCTION HAS BEEN DESIGNED FOR THE FOLLOWING VEHICLES AND MOVEMENTS:
A) ONE IN AND ONE OUT SINGLE DIRECTION MOVEMENT FOR A MAX LEGAL (16.5m) ARTICULATED HGV.



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B01	03/04/20	FOR INFORMATION		N.T.	L.T.	G.J.
Status						S3



Project
**East West Rail
(Western Section)
Phase 2**

Drawing Title
**JUNCTION IMPROVEMENT A3_J_2
VEHICLE SWEEPED PATH ANALYSIS**

Designed	Nagoth Thomas Ravi Kumar	Signed	N. T. R. Kumar	Date	06/09/19
Drawn	Ravikumar KN	Signed	R. KN	Date	08/03/19
Checked	Lisa Taylor	Signed	L. Taylor	Date	12/09/19
Approved	Gareth Johnston	Signed	G. Johnston	Date	03/04/20

Scale(s)	1:250	ELR - Project Chainage (Miles/Yards)	OXD -
Design Package Risk Classification	Normal		Sheet
Alternative Reference			Revision
Drawing Number	133735_2A-EWR-OXD-A3_J_2-DR-CH-010010		B01

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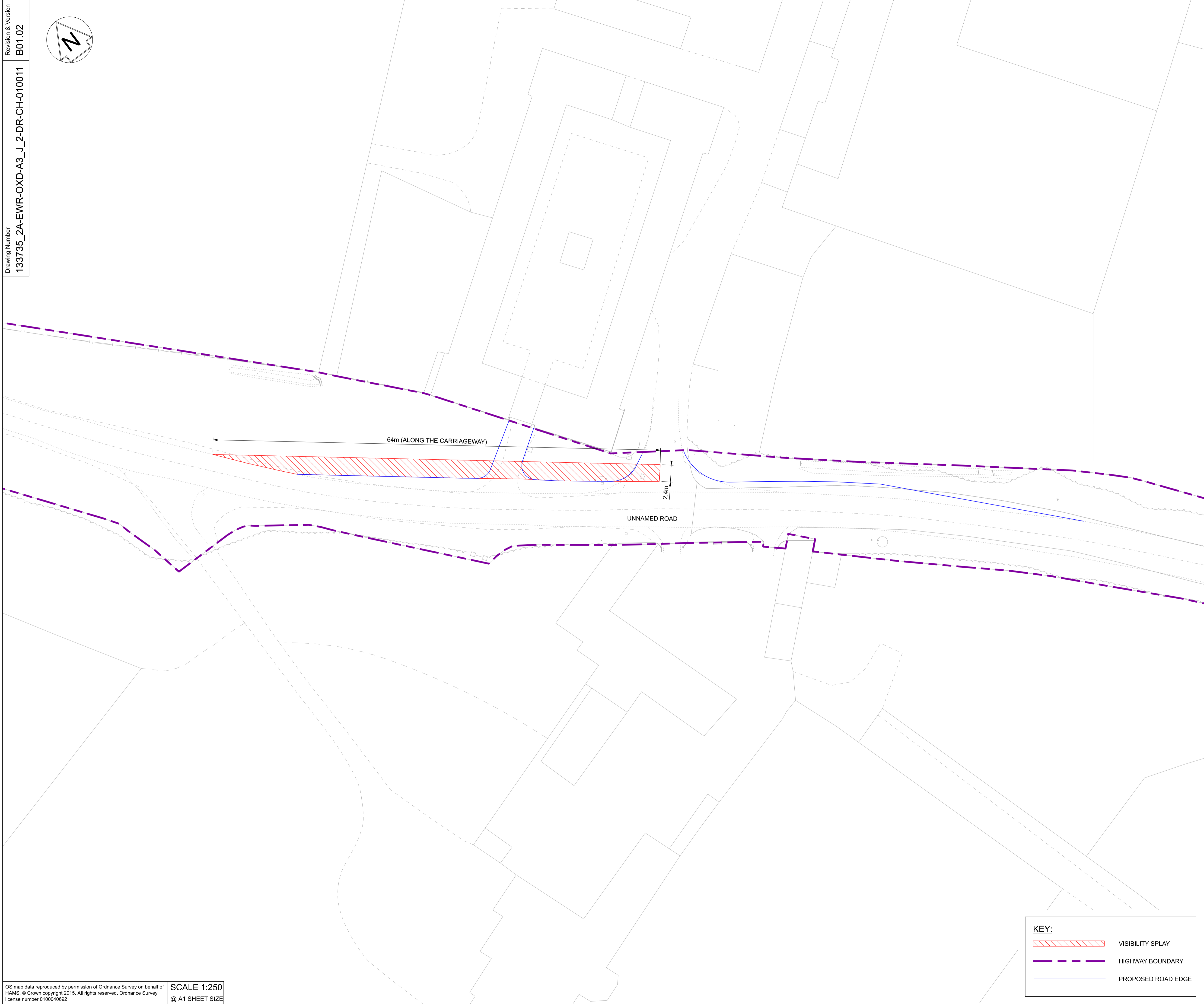
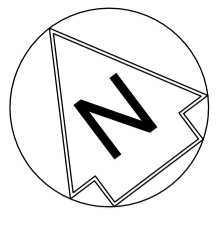
- VEHICLE TRACKING
- HIGHWAY BOUNDARY
- PROPOSED ROAD EDGE

VEHICLE DETAILS

MAX LEGAL LENGTH (UK) ARTICULATED VEHICLE (16.5m)

OVERALL LENGTH	16.500m
OVERALL WIDTH	2.550m
OVERALL BODY HEIGHT	3.681m
MIN BODY GROUND CLEARANCE	0.411m
MAX TRACK WIDTH	2.500m
LOCK TO LOCK TIME	6.00s
KERB TO KERB TURNING RADIUS	6.530m

**ONE-WAY MOVEMENT, ONE IN
AND ONE OUT OF THE JUNCTION.**



NETWORK RAIL (EAST WEST RAIL WESTERN SECTION PHASE 2)

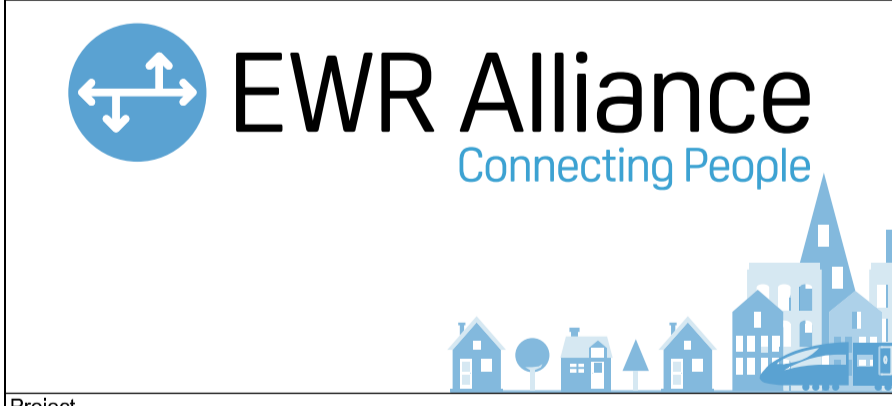
NOTES:

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B01	03/04/20	FOR INFORMATION		N.T.	L.T.	G.J.

Status: SHARED - for IDC Review S3



Project
East West Rail (Western Section) Phase 2

Drawing Title
JUNCTION IMPROVEMENT A3_J_2 VISIBILITY SPLAY

Designed	Nagoth Thomas Ravi Kumar	Signed	N. T. R. Kumar	Date	11/03/20
Drawn	Ravikumar KN	Signed	R. KN	Date	20/05/19
Checked	Lisa Taylor	Signed	L. Taylor	Date	11/03/20
Approved	Gareth Johnston	Signed	G. Johnston	Date	03/04/20

Scale(s)
 1:250
 ELR - Project Chainage (Miles Yards)
 OXD -

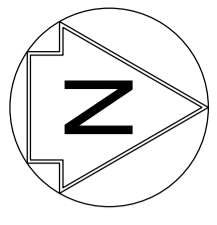
Design Package Risk Classification
Normal

Alternative Reference
 Sheet 1 of 3
 Revision B01

Drawing Number
 133735_2A-EWR-OXD-A3_J_2-DR-CH-010011

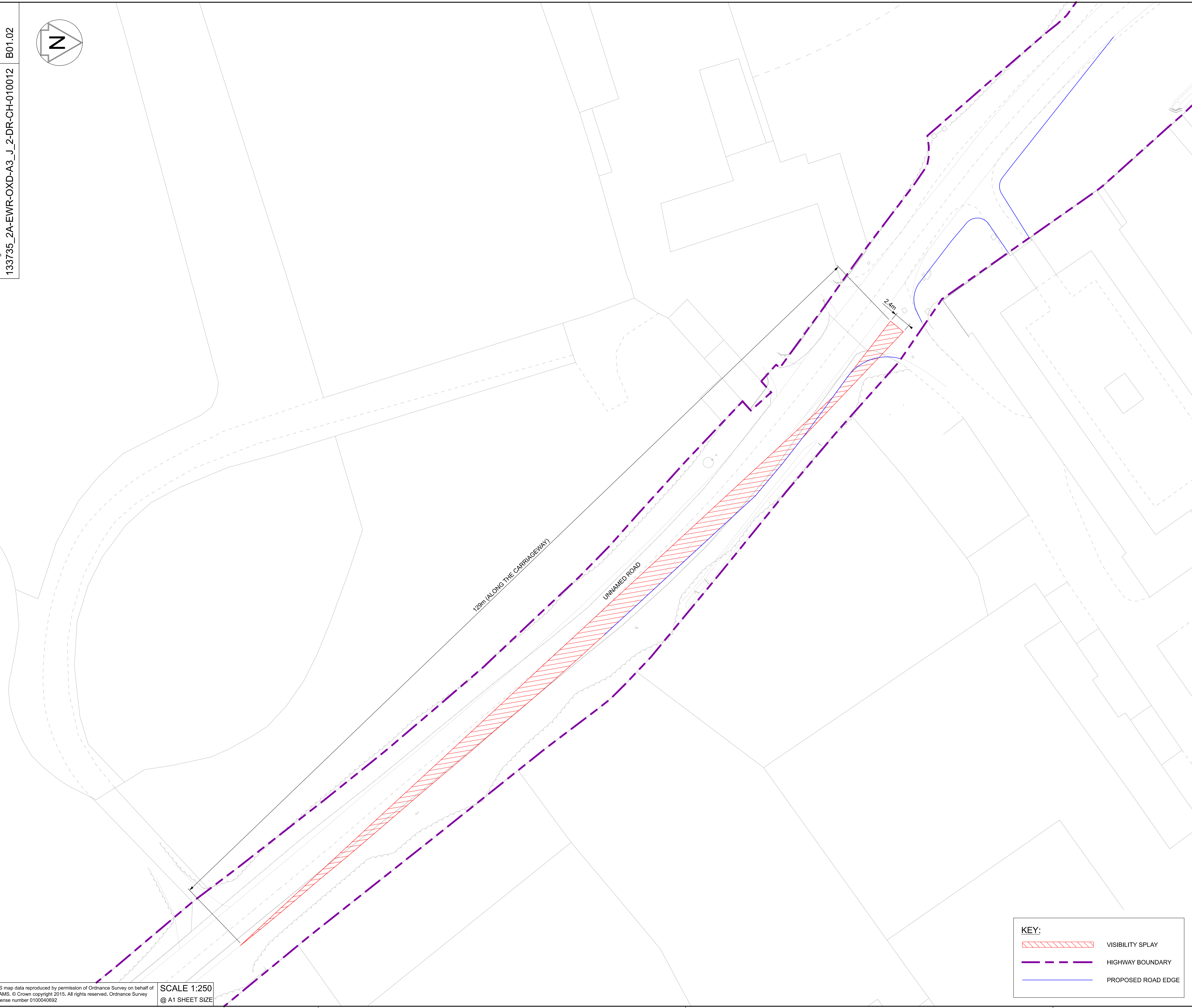
KEY:

	VISIBILITY SPLAY
	HIGHWAY BOUNDARY
	PROPOSED ROAD EDGE



NETWORK RAIL (EAST WEST
 RAIL WESTERN SECTION PHASE 2)

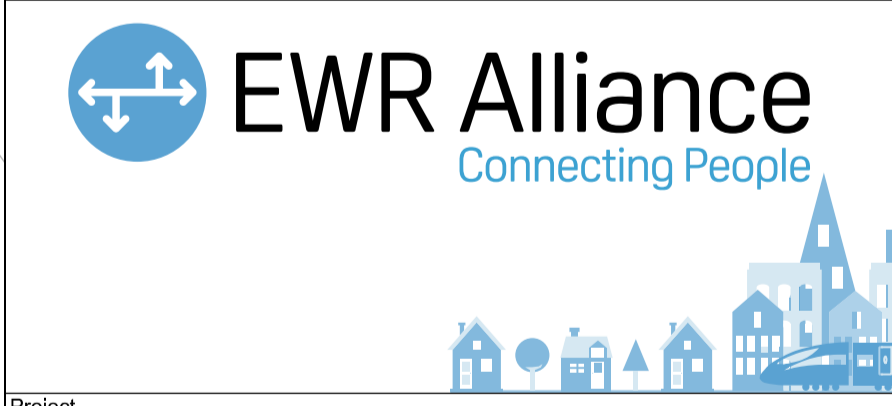
- NOTES:**
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 **DRAFT**

Rev	Date	Description of Revisions	Desd	Chkd	Appr	
B01	03/04/20	FOR INFORMATION		N.T.	L.T.	G.J.

Status: SHARED - for IDC Review S3






Project
**East West Rail
 (Western Section)
 Phase 2**

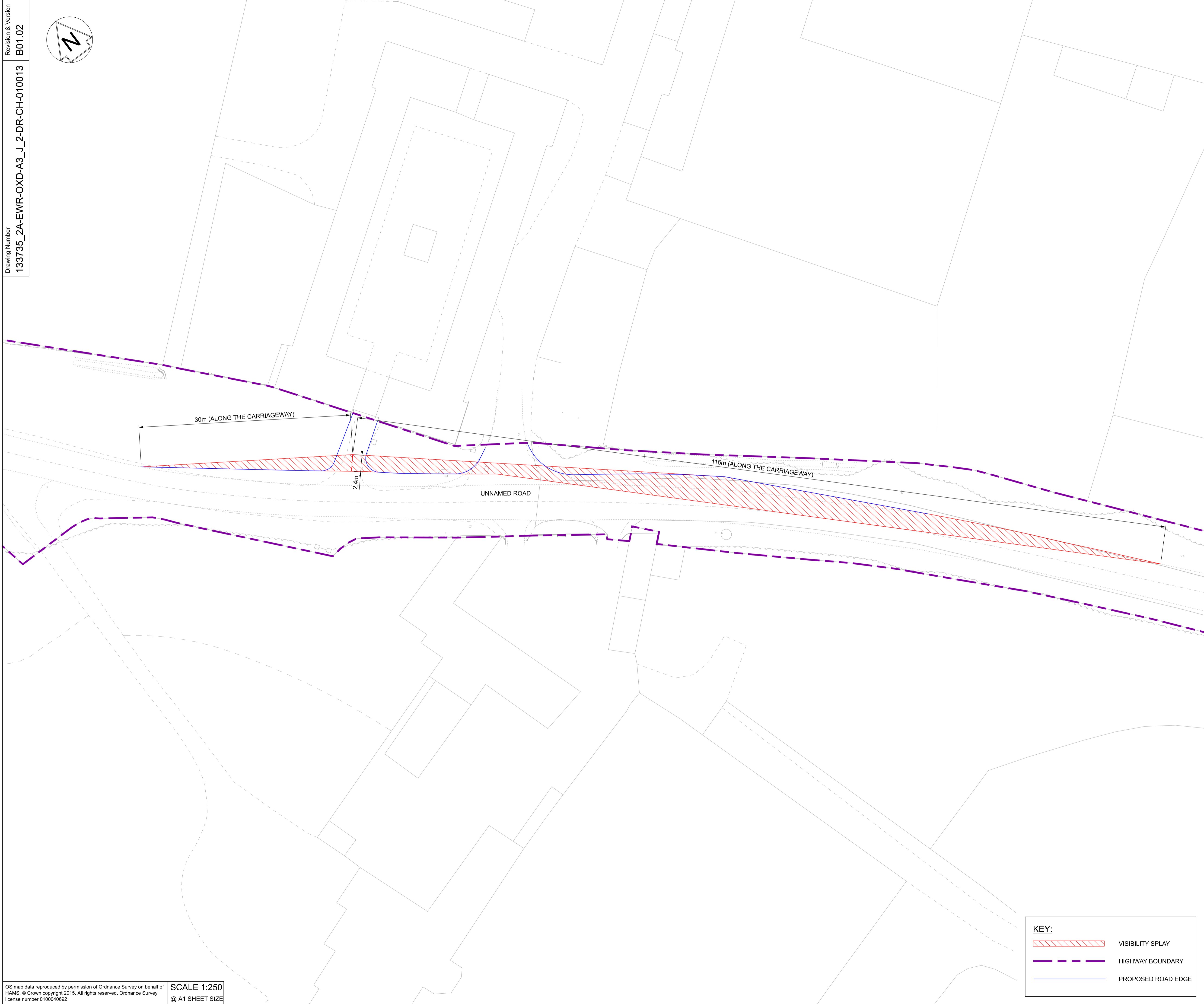
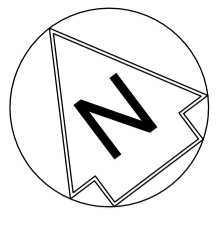
Drawing Title
**JUNCTION IMPROVEMENT A3_J_2
 VISIBILITY SPLAY**

Designed	Nagoth Thomas Ravi Kumar	Signed	N. T. R. Kumar	Date	11/03/20
Drawn	Ravikumar KN	Signed	R. KN	Date	20/05/19
Checked	Lisa Taylor	Signed	L. Taylor	Date	11/03/20
Approved	Gareth Johnston	Signed	G. Johnston	Date	03/04/20

Scale(s)	1:250	ELR - Project Chainage (Miles Yards)	OXD -
Design Package Risk Classification	Normal	Sheet	2 of 3
Alternative Reference		Revision	B01

KEY:

	VISIBILITY SPLAY
	HIGHWAY BOUNDARY
	PROPOSED ROAD EDGE



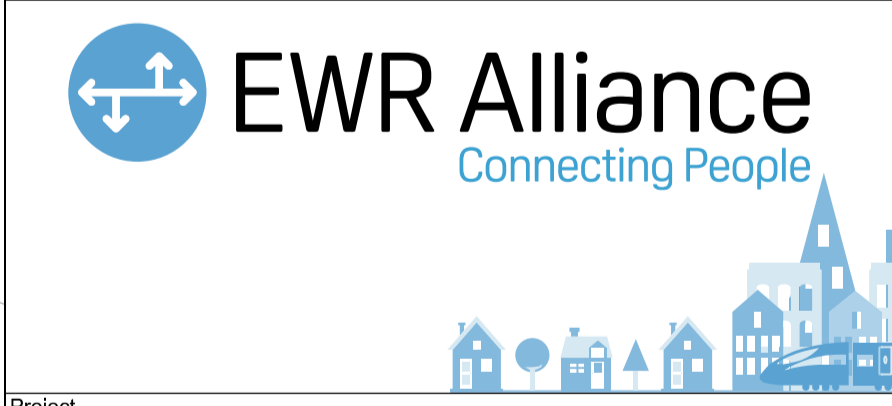
NETWORK RAIL (EAST WEST RAIL WESTERN SECTION PHASE 2)

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Rev	Date	Description of Revisions	Desd	Chkd	Appr	Suitability
B01	03/04/20	FOR INFORMATION				



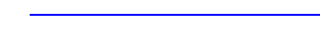


Project
East West Rail (Western Section) Phase 2

Drawing Title
JUNCTION IMPROVEMENT A3_J_2 VISIBILITY SPLAY

Designed	Nagoth Thomas Ravi Kumar	Signed	N. T. R. Kumar	Date	11/03/20
Drawn	Ravikumar KN	Signed	R. KN	Date	05/09/19
Checked	Lisa Taylor	Signed	L. Taylor	Date	11/03/20
Approved	Gareth Johnston	Signed	G. Johnston	Date	03/04/20
Scale(s)	1:250				
Design Package Risk Classification	Normal				Sheet
Alternative Reference					Revision
Drawing Number	133735_2A-EWR-OXD-A3_J_2-DR-CH-010013				B01

KEY:

	VISIBILITY SPLAY
	HIGHWAY BOUNDARY
	PROPOSED ROAD EDGE