



OFFICE OF RAIL AND ROAD

Mr Steve Leigh
Program Manager
Network Rail Telecoms
The Quadrant, Level 2 Caldecotte,
Eldergate
Milton Keynes
Buckinghamshire
MK9 1HA

Your Ref : OP158365
R00004

Case Ref : PRM-IOP-0333

EIN Number : As listed

Date: 13th May 2020

Contact: Stephen Williams

Dear Steve,

**THE RAILWAYS (INTEROPERABILITY) REGULATIONS 2011, AS AMENDED
TYPE AUTHORISATION OF GSMR V4.0 FITTED TO THE VEHICLES LISTED IN
THIS LETTER IN CONFORMITY WITH EUROPEAN REGISTER OF AUTHORISED
TYPE REFERENCE 11-095-0001-5-001.**

I refer to your application for type authorisation, received on 6th May 2020. Following a review of your application, I can confirm that ORR grants an authorisation under regulation 9 of the Railways (Interoperability) Regulations 2011, as amended.

This authorisation is for the placing in service of V4.0 GSM-R Cab Mobile sub system fitted with an interference resistant transceiver. In addition, there is an option to replace the current GSM-R antenna with a combined GSM-R/GPS antenna and to fit and additional LTE antenna.

- GSM-R Cab Mobile Type - GSM-R V4.0 Cab Mobile SVR400+ with NR4.0 software (Build 1127) which incorporate an ETSI TS 102 933 V 2.1.1 compliant transceiver.
- GSM-R/GPS antenna (Fitment of combined GSM-R/GPS antennae is optional)
 - Huber & Suhner – SWA-0825/360/5/30/DFRX30
 - Polomarconi – BGLD1/S
- LTE antenna (Fitment of LTE antennae is optional)
 - Huber & Suhner – SWA-0825/360/5/30/MIMO
 - Panorama Antennas – TRNM-7-60-NJ
 - Polomarconi – T01811814
 - Huber & Suhner – Sencity Rail MIMO Antenna 1399.17.0222



This conforms to European Register of Authorised Types (ERATV) type 11-095-0001-5-001

This authorisation applies to the following inclusive.

Operator	Class	Vehicle	Cab	V4.0 Installation Date	EIN
Arriva Rail London	378	378146	A	17/04/2020	UK/51/2020/0009
Arriva Rail London	378	378146	B	07/04/2020	UK/51/2020/0009
Arriva Rail London	378	378222	A	18/04/2020	UK/51/2020/0009
Arriva Rail London	378	378222	B	18/04/2020	UK/51/2020/0009
Arriva Rail London	378	378229	A	10/04/2020	UK/51/2020/0009
Arriva Rail London	378	378229	B	10/04/2020	UK/51/2020/0009
Arriva Rail London	378	378234	A	17/04/2020	UK/51/2020/0009
Arriva Rail London	378	378234	B	17/04/2020	UK/51/2020/0009
Arriva Rail London	378	378256	A	16/04/2020	UK/51/2020/0009
Arriva Rail London	378	378256	B	16/04/2020	UK/51/2020/0009
Crossrail	315	315818	A	20/04/2020	UK/51/2020/0030
Crossrail	315	315818	B	20/04/2020	UK/51/2020/0030
Crossrail	315	315824	A	01/05/2020	UK/51/2020/0030
Crossrail	315	315824	B	01/05/2020	UK/51/2020/0030
Crossrail	315	315826	A	09/04/2020	UK/51/2020/0030
Crossrail	315	315826	B	09/04/2020	UK/51/2020/0030
Crossrail	315	315830	A	08/04/2020	UK/51/2020/0030
Crossrail	315	315830	B	08/04/2020	UK/51/2020/0030
Crossrail	315	315834	A	30/04/2020	UK/51/2020/0030
Crossrail	315	315834	B	30/04/2020	UK/51/2020/0030
Crossrail	315	315837	A	15/04/2020	UK/51/2020/0030
Crossrail	315	315837	B	15/04/2020	UK/51/2020/0030
Crossrail	315	315838	B	21/04/2020	UK/51/2020/0030
Crossrail	315	315849	A	15/04/2020	UK/51/2020/0030
Crossrail	315	315849	B	15/04/2020	UK/51/2020/0030
Crossrail	315	315852	A	17/04/2020	UK/51/2020/0030
Crossrail	315	315852	B	17/04/2020	UK/51/2020/0030
Crossrail	315	315853	A	07/04/2020	UK/51/2020/0030
Crossrail	315	315853	B	16/04/2020	UK/51/2020/0030
Crossrail	315	315857	A	08/04/2020	UK/51/2020/0030
Crossrail	315	315857	B	08/04/2020	UK/51/2020/0030
Crossrail	345	345006	A	15/04/2020	UK/51/2020/0020
Crossrail	345	345006	B	15/04/2020	UK/51/2020/0020



Crossrail	345	345010	A	23/04/2020	UK/51/2020/0020
Crossrail	345	345010	B	23/04/2020	UK/51/2020/0020
Crossrail	345	345013	A	17/04/2020	UK/51/2020/0020
Crossrail	345	345013	B	17/04/2020	UK/51/2020/0020
Crossrail	345	345014	A	17/04/2020	UK/51/2020/0020
Crossrail	345	345014	B	17/04/2020	UK/51/2020/0020
Crossrail	345	345015	A	15/04/2020	UK/51/2020/0020
Crossrail	345	345015	B	15/04/2020	UK/51/2020/0020
Crossrail	345	345016	A	30/04/2020	UK/51/2020/0020
Crossrail	345	345016	B	30/04/2020	UK/51/2020/0020
Crossrail	345	345017	A	29/04/2020	UK/51/2020/0020
Crossrail	345	345017	B	29/04/2020	UK/51/2020/0020
Crossrail	345	345021	A	03/04/2020	UK/51/2020/0020
Crossrail	345	345021	B	02/04/2020	UK/51/2020/0020
Crossrail	345	345022	A	17/04/2020	UK/51/2020/0020
Crossrail	345	345022	B	17/04/2020	UK/51/2020/0020
Crossrail	345	345024	A	22/04/2020	UK/51/2020/0020
Crossrail	345	345024	B	22/04/2020	UK/51/2020/0020
Crossrail	345	345025	A	01/04/2020	UK/51/2020/0020
Crossrail	345	345025	B	01/04/2020	UK/51/2020/0020
Crossrail	345	345027	A	01/04/2020	UK/51/2020/0020
Crossrail	345	345027	B	01/04/2020	UK/51/2020/0020
Crossrail	345	345028	A	15/04/2020	UK/51/2020/0020
Crossrail	345	345028	B	15/04/2020	UK/51/2020/0020
Crossrail	345	345032	A	23/04/2020	UK/51/2020/0020
Crossrail	345	345032	B	23/04/2020	UK/51/2020/0020
Crossrail	345	345035	A	29/04/2020	UK/51/2020/0020
Crossrail	345	345035	B	29/04/2020	UK/51/2020/0020
Crossrail	345	345036	A	22/04/2020	UK/51/2020/0020
Crossrail	345	345036	B	22/04/2020	UK/51/2020/0020
Crossrail	345	345041	A	16/04/2020	UK/51/2020/0020
Crossrail	345	345041	B	16/04/2020	UK/51/2020/0020
Crossrail	345	345047	A	01/04/2020	UK/51/2020/0020
Crossrail	345	345047	B	01/04/2020	UK/51/2020/0020
Crossrail	345	345050	A	21/04/2020	UK/51/2020/0020
Crossrail	345	345050	B	21/04/2020	UK/51/2020/0020
Crossrail	345	345051	A	21/04/2020	UK/51/2020/0020
Crossrail	345	345051	B	21/04/2020	UK/51/2020/0020
Crossrail	345	345059	A	08/04/2020	UK/51/2020/0020
Crossrail	345	345059	B	08/04/2020	UK/51/2020/0020

Crossrail	345	345062	A	29/04/2020	UK/51/2020/0020
Crossrail	345	345062	B	29/04/2020	UK/51/2020/0020
Crossrail	345	345065	A	30/04/2020	UK/51/2020/0020
Crossrail	345	345065	B	30/04/2020	UK/51/2020/0020
Freightliner	59	59002	A	29/04/2020	UK/51/2020/0021
Freightliner	59	59101	A	22/04/2020	UK/51/2020/0021
Freightliner	66	66503	A	02/04/2020	UK/51/2020/0001
Freightliner	66	66505	A	29/04/2020	UK/51/2020/0001
Freightliner	66	66507	A	01/05/2020	UK/51/2020/0001
Freightliner	66	66508	A	21/04/2020	UK/51/2020/0001
Freightliner	66	66511	A	30/04/2020	UK/51/2020/0001
Freightliner	66	66514	A	13/04/2020	UK/51/2020/0001
Freightliner	66	66518	A	22/04/2020	UK/51/2020/0001
Freightliner	66	66532	A	15/04/2020	UK/51/2020/0001
Freightliner	66	66533	A	22/04/2020	UK/51/2020/0001
Freightliner	66	66542	A	23/04/2020	UK/51/2020/0001
Freightliner	66	66547	A	27/04/2020	UK/51/2020/0001
Freightliner	66	66548	A	08/04/2020	UK/51/2020/0001
Freightliner	66	66552	A	30/04/2020	UK/51/2020/0001
Freightliner	66	66554	A	07/04/2020	UK/51/2020/0001
Freightliner	66	66555	A	25/04/2020	UK/51/2020/0001
Freightliner	66	66557	A	24/04/2020	UK/51/2020/0001
Freightliner	66	66559	A	06/04/2020	UK/51/2020/0001
Freightliner	66	66570	A	25/04/2020	UK/51/2020/0001
Freightliner	66	66571	A	20/04/2020	UK/51/2020/0001
Freightliner	66	66593	A	22/04/2020	UK/51/2020/0001
Freightliner	66	66596	A	01/05/2020	UK/51/2020/0001
Freightliner	66	66610	A	27/04/2020	UK/51/2020/0001
Freightliner	66	66615	A	20/04/2020	UK/51/2020/0001
Freightliner	66	66619	A	26/04/2020	UK/51/2020/0001
Freightliner	66	66621	A	22/04/2020	UK/51/2020/0001
Freightliner	66	66951	A	16/04/2020	UK/51/2020/0001
Freightliner	70	70002	A	04/04/2020	UK/51/2020/0002
Freightliner	70	70005	A	06/04/2020	UK/51/2020/0002
Freightliner	70	70010	A	29/04/2020	UK/51/2020/0002
Freightliner	70	70015	A	22/04/2020	UK/51/2020/0002
Freightliner	86	86613	A	21/04/2020	UK/51/2020/0003
Freightliner	86	86613	B	21/04/2020	UK/51/2020/0003
Freightliner	86	86622	A	30/04/2020	UK/51/2020/0003
Freightliner	86	86622	B	30/04/2020	UK/51/2020/0003

Freightliner	86	86628	A	01/05/2020	UK/51/2020/0003
Freightliner	86	86628	B	01/05/2020	UK/51/2020/0003
Freightliner	86	86632	A	02/05/2020	UK/51/2020/0003
Freightliner	86	86632	B	02/05/2020	UK/51/2020/0003
Freightliner	86	86637	A	25/04/2020	UK/51/2020/0003
Freightliner	86	86637	B	25/04/2020	UK/51/2020/0003
Freightliner	90	90016	A	26/04/2020	UK/51/2020/0004
Freightliner	90	90044	A	12/04/2020	UK/51/2020/0004
Freightliner	90	90046	A	12/04/2020	UK/51/2020/0004
GB Railfreight	66	66736	A	02/04/2020	UK/51/2020/0001
GB Railfreight	66	66790	A	18/04/2020	UK/51/2020/0001
GB Railfreight	66	66792	A	18/04/2020	UK/51/2020/0001
Govia Thameslink Railway	171	171202	A	15/04/2020	UK/51/2020/0005
Govia Thameslink Railway	171	171202	B	15/04/2020	UK/51/2020/0005
Govia Thameslink Railway	171	171722	A	14/04/2020	UK/51/2020/0005
Govia Thameslink Railway	171	171722	B	14/04/2020	UK/51/2020/0005
Govia Thameslink Railway	171	171725	A	28/04/2020	UK/51/2020/0005
Govia Thameslink Railway	171	171725	B	28/04/2020	UK/51/2020/0005
Govia Thameslink Railway	171	171728	A	24/04/2020	UK/51/2020/0005
Govia Thameslink Railway	171	171728	B	24/04/2020	UK/51/2020/0005
Govia Thameslink Railway	171	171729	A	16/04/2020	UK/51/2020/0005
Govia Thameslink Railway	171	171729	B	16/04/2020	UK/51/2020/0005
Govia Thameslink Railway	171	171805	A	30/04/2020	UK/51/2020/0005
Govia Thameslink Railway	171	171805	B	30/04/2020	UK/51/2020/0005
Govia Thameslink Railway	313	313202	A	01/04/2020	UK/51/2020/0006
Govia Thameslink Railway	313	313202	B	01/04/2020	UK/51/2020/0006
Govia Thameslink Railway	313	313205	A	30/04/2020	UK/51/2020/0006
Govia Thameslink Railway	313	313205	B	30/04/2020	UK/51/2020/0006
Govia Thameslink Railway	313	313208	A	23/04/2020	UK/51/2020/0006
Govia Thameslink Railway	313	313208	B	23/04/2020	UK/51/2020/0006
Govia Thameslink Railway	313	313209	A	27/04/2020	UK/51/2020/0006
Govia Thameslink Railway	313	313209	B	27/04/2020	UK/51/2020/0006
Govia Thameslink Railway	313	313211	A	22/04/2020	UK/51/2020/0006
Govia Thameslink Railway	313	313211	B	22/04/2020	UK/51/2020/0006
Govia Thameslink Railway	365	365502	A	21/04/2020	UK/51/2020/0007
Govia Thameslink Railway	365	365502	B	21/04/2020	UK/51/2020/0007
Govia Thameslink Railway	365	365512	A	30/03/2020	UK/51/2020/0007
Govia Thameslink Railway	365	365512	B	30/03/2020	UK/51/2020/0007
Govia Thameslink Railway	365	365536	A	21/04/2020	UK/51/2020/0007
Govia Thameslink Railway	365	365536	B	21/04/2020	UK/51/2020/0007

Govia Thameslink Railway	365	365540	A	23/04/2020	UK/51/2020/0007
Govia Thameslink Railway	365	365540	B	23/04/2020	UK/51/2020/0007
Govia Thameslink Railway	377	377102	A	21/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377102	B	21/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377103	A	07/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377103	B	07/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377104	A	10/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377104	B	10/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377107	A	15/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377107	B	15/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377111	A	01/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377111	B	01/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377112	A	01/05/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377112	B	01/05/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377113	A	23/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377113	B	23/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377115	A	21/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377115	B	21/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377120	A	23/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377120	B	23/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377126	A	29/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377126	B	29/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377127	A	30/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377127	B	30/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377128	A	01/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377128	B	01/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377129	A	03/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377129	B	03/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377131	B	03/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377132	A	15/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377132	B	15/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377137	A	23/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377137	B	23/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377138	A	03/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377138	B	03/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377141	A	01/05/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377141	B	01/05/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377149	A	09/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377149	B	09/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377151	A	01/04/2020	UK/51/2020/0008



Govia Thameslink Railway	377	377151	B	01/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377152	A	22/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377152	B	22/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377156	A	01/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377156	B	01/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377201	A	23/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377201	B	23/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377202	A	29/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377202	B	29/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377203	A	03/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377203	B	03/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377208	A	22/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377208	B	22/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377212	A	08/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377212	B	06/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377215	A	08/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377215	B	08/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377302	A	02/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377302	B	02/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377303	A	07/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377303	B	07/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377306	A	24/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377306	B	24/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377317	A	09/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377317	B	09/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377325	A	30/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377325	B	30/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377404	A	13/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377404	B	13/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377405	A	24/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377405	B	24/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377415	A	21/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377415	B	21/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377419	A	01/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377419	B	01/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377421	A	03/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377421	B	03/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377423	A	30/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377423	B	30/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377424	A	30/03/2020	UK/51/2020/0008



Govia Thameslink Railway	377	377424	B	30/03/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377425	A	08/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377425	B	08/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377431	A	09/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377431	B	09/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377432	A	09/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377432	B	09/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377438	A	15/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377438	B	15/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377444	A	17/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377444	B	17/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377445	A	29/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377445	B	29/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377446	A	01/05/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377446	B	01/05/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377448	A	20/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377448	B	20/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377453	A	29/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377453	B	29/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377454	A	10/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377454	B	10/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377455	A	03/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377455	B	03/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377456	A	02/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377456	B	02/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377460	A	15/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377460	B	15/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377464	A	02/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377464	B	02/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377466	A	23/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377466	B	23/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377469	A	03/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377469	B	03/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377471	A	20/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377471	B	20/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377472	A	09/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377472	B	09/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377602	A	13/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377602	B	13/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377605	A	23/04/2020	UK/51/2020/0008



Govia Thameslink Railway	377	377605	B	23/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377607	A	24/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377607	B	24/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377609	A	01/05/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377609	B	01/05/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377613	A	18/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377613	B	18/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377618	A	24/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377618	B	24/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377619	A	21/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377619	B	21/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377622	A	21/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377622	B	21/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377623	A	29/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377623	B	29/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377624	A	08/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377624	B	08/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377702	A	30/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377702	B	30/04/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377704	A	01/05/2020	UK/51/2020/0008
Govia Thameslink Railway	377	377704	B	01/05/2020	UK/51/2020/0008
Govia Thameslink Railway	387	387104	A	30/03/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387104	B	30/03/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387105	A	06/04/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387105	B	06/04/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387111	B	05/04/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387122	A	14/04/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387122	B	14/04/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387125	A	08/04/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387125	B	08/04/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387202	A	10/04/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387202	B	10/04/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387206	A	31/03/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387206	B	31/03/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387210	A	02/04/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387210	B	02/04/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387213	A	06/04/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387213	B	06/04/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387214	A	13/04/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387214	B	13/04/2020	UK/51/2020/0009

Govia Thameslink Railway	387	387215	A	31/03/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387215	B	31/03/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387216	A	08/04/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387216	B	08/04/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387220	A	10/04/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387220	B	10/04/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387223	A	31/03/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387223	B	31/03/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387225	A	16/04/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387225	B	16/04/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387226	A	02/04/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387226	B	02/04/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387227	A	06/04/2020	UK/51/2020/0009
Govia Thameslink Railway	387	387227	B	06/04/2020	UK/51/2020/0009
Govia Thameslink Railway	455	455804	A	13/04/2020	UK/51/2020/0010
Govia Thameslink Railway	455	455804	B	13/04/2020	UK/51/2020/0010
Govia Thameslink Railway	455	455806	A	22/04/2020	UK/51/2020/0010
Govia Thameslink Railway	455	455806	B	22/04/2020	UK/51/2020/0010
Govia Thameslink Railway	455	455809	A	02/04/2020	UK/51/2020/0010
Govia Thameslink Railway	455	455809	B	02/04/2020	UK/51/2020/0010
Govia Thameslink Railway	455	455810	A	22/04/2020	UK/51/2020/0010
Govia Thameslink Railway	455	455810	B	22/04/2020	UK/51/2020/0010
Govia Thameslink Railway	455	455811	A	29/04/2020	UK/51/2020/0010
Govia Thameslink Railway	455	455811	B	29/04/2020	UK/51/2020/0010
Govia Thameslink Railway	455	455823	A	30/04/2020	UK/51/2020/0010
Govia Thameslink Railway	455	455823	B	30/04/2020	UK/51/2020/0010
Govia Thameslink Railway	455	455824	A	25/04/2020	UK/51/2020/0010
Govia Thameslink Railway	455	455824	B	25/04/2020	UK/51/2020/0010
Govia Thameslink Railway	455	455831	A	09/04/2020	UK/51/2020/0010
Govia Thameslink Railway	455	455831	B	09/04/2020	UK/51/2020/0010
Govia Thameslink Railway	455	455841	A	25/04/2020	UK/51/2020/0010
Govia Thameslink Railway	455	455841	B	25/04/2020	UK/51/2020/0010
Govia Thameslink Railway	455	455846	A	09/04/2020	UK/51/2020/0010
Govia Thameslink Railway	455	455846	B	09/04/2020	UK/51/2020/0010
Southeastern	377	377163	A	27/04/2020	UK/51/2020/0008
Southeastern	377	377163	B	27/04/2020	UK/51/2020/0008
Southeastern	377	377164	A	28/04/2020	UK/51/2020/0008
Southeastern	377	377164	B	28/04/2020	UK/51/2020/0008
Southeastern	377	377514	A	21/04/2020	UK/51/2020/0008
Southeastern	377	377514	B	21/04/2020	UK/51/2020/0008

Southeastern	377	377517	A	27/04/2020	UK/51/2020/0008
Southeastern	377	377517	B	27/04/2020	UK/51/2020/0008
Southeastern	377	377518	A	29/04/2020	UK/51/2020/0008
Southeastern	377	377518	B	29/04/2020	UK/51/2020/0008
Southeastern	377	377519	A	17/04/2020	UK/51/2020/0008
Southeastern	377	377519	B	17/04/2020	UK/51/2020/0008
Southeastern	377	377522	A	29/04/2020	UK/51/2020/0008
Southeastern	377	377522	B	29/04/2020	UK/51/2020/0008
Southeastern	377	377523	A	21/04/2020	UK/51/2020/0008
Southeastern	377	377523	B	21/04/2020	UK/51/2020/0008
Southeastern	395	395013	A	05/04/2020	UK/51/2020/0024
Transport for Wales	230	230007	A	11/04/2020	UK/51/2020/0014
Transport for Wales	230	230007	B	22/04/2020	UK/51/2020/0014
West Midlands Trains	172	172002	A	13/04/2020	UK/51/2020/0029
West Midlands Trains	172	172002	B	13/04/2020	UK/51/2020/0029
West Midlands Trains	172	172003	A	18/04/2020	UK/51/2020/0029
West Midlands Trains	172	172003	B	18/04/2020	UK/51/2020/0029
West Midlands Trains	172	172004	A	26/04/2020	UK/51/2020/0029
West Midlands Trains	172	172004	B	26/04/2020	UK/51/2020/0029
West Midlands Trains	172	172005	A	18/04/2020	UK/51/2020/0029
West Midlands Trains	172	172005	B	18/04/2020	UK/51/2020/0029
West Midlands Trains	172	172008	A	12/04/2020	UK/51/2020/0029
West Midlands Trains	172	172008	B	12/04/2020	UK/51/2020/0029
West Midlands Trains	172	172211	A	20/04/2020	UK/51/2020/0029
West Midlands Trains	172	172211	B	20/04/2020	UK/51/2020/0029
West Midlands Trains	172	172218	A	26/04/2020	UK/51/2020/0029
West Midlands Trains	172	172218	B	26/04/2020	UK/51/2020/0029
West Midlands Trains	172	172219	A	25/04/2020	UK/51/2020/0029
West Midlands Trains	172	172219	B	27/04/2020	UK/51/2020/0029
West Midlands Trains	172	172336	A	21/04/2020	UK/51/2020/0029
West Midlands Trains	172	172336	B	21/04/2020	UK/51/2020/0029
West Midlands Trains	323	323201	A	03/04/2020	UK/51/2020/0025
West Midlands Trains	323	323201	B	03/04/2020	UK/51/2020/0025
West Midlands Trains	323	323203	A	01/05/2020	UK/51/2020/0025
West Midlands Trains	323	323203	B	01/05/2020	UK/51/2020/0025
West Midlands Trains	323	323204	A	11/04/2020	UK/51/2020/0025
West Midlands Trains	323	323204	B	11/04/2020	UK/51/2020/0025
West Midlands Trains	323	323207	A	10/04/2020	UK/51/2020/0025
West Midlands Trains	323	323207	B	10/04/2020	UK/51/2020/0025
West Midlands Trains	323	323222	A	17/04/2020	UK/51/2020/0025

West Midlands Trains	323	323222	B	17/04/2020	UK/51/2020/0025
West Midlands Trains	323	323240	A	10/04/2020	UK/51/2020/0025
West Midlands Trains	323	323240	B	10/04/2020	UK/51/2020/0025
West Midlands Trains	323	323242	A	24/04/2020	UK/51/2020/0025
West Midlands Trains	323	323242	B	24/04/2020	UK/51/2020/0025
West Midlands Trains	323	323243	A	10/04/2020	UK/51/2020/0025
West Midlands Trains	323	323243	B	10/04/2020	UK/51/2020/0025
West Midlands Trains	350	350102	A	15/04/2020	UK/51/2020/0026
West Midlands Trains	350	350102	B	15/04/2020	UK/51/2020/0026
West Midlands Trains	350	350104	A	14/04/2020	UK/51/2020/0026
West Midlands Trains	350	350104	B	15/04/2020	UK/51/2020/0026
West Midlands Trains	350	350114	A	22/04/2020	UK/51/2020/0026
West Midlands Trains	350	350114	B	22/04/2020	UK/51/2020/0026
West Midlands Trains	350	350243	A	17/04/2020	UK/51/2020/0026
West Midlands Trains	350	350243	B	17/04/2020	UK/51/2020/0026
West Midlands Trains	350	350245	A	04/04/2020	UK/51/2020/0026
West Midlands Trains	350	350245	B	04/04/2020	UK/51/2020/0026
West Midlands Trains	350	350248	A	05/04/2020	UK/51/2020/0026
West Midlands Trains	350	350248	B	05/04/2020	UK/51/2020/0026
West Midlands Trains	350	350249	A	04/04/2020	UK/51/2020/0026
West Midlands Trains	350	350249	B	04/04/2020	UK/51/2020/0026
West Midlands Trains	350	350259	A	18/04/2020	UK/51/2020/0026
West Midlands Trains	350	350259	B	18/04/2020	UK/51/2020/0026
West Midlands Trains	350	350261	A	04/04/2020	UK/51/2020/0026
West Midlands Trains	350	350261	B	04/04/2020	UK/51/2020/0026
West Midlands Trains	350	350371	A	03/04/2020	UK/51/2020/0026
West Midlands Trains	350	350371	B	03/04/2020	UK/51/2020/0026
West Midlands Trains	350	350375	A	17/04/2020	UK/51/2020/0026
West Midlands Trains	350	350375	B	18/04/2020	UK/51/2020/0026
West Midlands Trains	350	350376	A	05/04/2020	UK/51/2020/0026
West Midlands Trains	350	350376	B	05/04/2020	UK/51/2020/0026
West Midlands Trains	350	350403	A	18/04/2020	UK/51/2020/0026
West Midlands Trains	350	350403	B	18/04/2020	UK/51/2020/0026
West Midlands Trains	350	350409	A	17/04/2020	UK/51/2020/0026
West Midlands Trains	350	350409	B	17/04/2020	UK/51/2020/0026
West Midlands Trains	350	350410	A	18/04/2020	UK/51/2020/0026
West Midlands Trains	350	350410	B	18/04/2020	UK/51/2020/0026

The restrictions or limitations of use on the structural subsystem are those referenced in the Determination of Type.

The rolling stock subsystem authorised by this letter must be operated and maintained in accordance with Regulation 20.

You should be aware that any future modifications to the authorised subsystem may constitute a 'renewal' or an 'upgrade' as defined in Regulation 2. If a project entity, in relation to the project, considers that the modification meets either of these definitions they may apply, in accordance with the provisions of Regulation 13, to the Department for Transport (DfT) for a decision on whether a new authorisation will be required. Should DfT decide that an authorisation is not required they must consult with ORR whether authorisation is required on safety grounds.

As the project entity you are responsible for retaining the declaration of conformity to an authorised type of railway vehicle, documentation recording any alterations, and maintenance manuals in relation to the subsystem, keeping them up to date and making them available to the ORR in accordance with Regulation 19.

If you are not the owner of the authorised subsystem you shall within 60 days, in accordance with Regulation 19(3), transfer the declaration of conformity to an authorised type of railway vehicle, documentation recording any alterations, and maintenance manuals in relation to the subsystem to the owner of the subsystem and the owner shall then be regarded as the project entity. If the owner, in accordance with Regulation 19(4), disposes of his interest in the authorised subsystem, he shall within 60 days of the disposal transfer the declaration of conformity to an authorised type of railway vehicle, documentation recording any alterations, and maintenance manuals in relation to the subsystem to the person acquiring that interest and that person shall be regarded as the project entity.

Please note that under Regulation 36, the person who applied for the authorisation shall send particulars to the Registration Entity to enable the registration entity to enter the information on the National Vehicle Register. This will include such further information as the registration entity may reasonably require set out in the relevant standard.

If you are the operator, may I remind you of the need to have adequate arrangements within your Safety Management System to control the risks associated with this rolling stock subsystem.

This decision letter will be published on ORR's website.

Yours sincerely



Steve Fletcher - ORR Deputy Director, Railway Planning and Performance.

Cc

Ian Jones	Head of Interoperability, Safety and Standards DfT
Ian Prosser	Director, Railway Safety
National Vehicle Register	nvr@networkrail.co.uk
David Galloway	Head of Vehicle Compatibility, Network Rail.
Pete Gracey	Head of Interoperability and Rail Vehicle Engineering, ORR.
Ian Maxwell	Head of Train Control Systems, ORR.