



## Highland Mainline Journey Time Improvements Phase 2

# Specified Outputs...



- The objective for the second phase of the HML Improvements project was established in the Scottish Ministers' Scotland High Level Output Specification (HLOS) for CP5 which was published in June 2012 This required the following objectives to be delivered in CP5 by March 2019:

Baseline	Output Realised
March 2019	<ul style="list-style-type: none"><li>• Hourly service between Perth-Inverness extended to Glasgow or Edinburgh.</li><li>• Average end to end journey time improvement of around 10 mins.</li><li>• More efficient freight operations</li></ul>

# Project Scope...



# Current Progress...



- Complexity of the route has made ScotRail Alliance development critical to unlocking project benefits.
- Alliance timetable development undertaken based on HST's
- Key outputs;
  - Points to interventions at Aviemore and Pitlochry
  - Selection of options undertaken for these interventions and Outline Designs completed



## Aviemore

- Introduction of simultaneous arrival of trains – making crossings more efficient
- Extension of loop to the north – circa 350m
- Full re-signalling and re-control of signal box to Inverness SC

## Pitlochry

- Introduction of simultaneous arrival of trains – making crossings more efficient
- Extension of platforms to accommodate
- Full re-signalling and re-control of signal box to Stanley Jn SB

# Next Steps...



- Commencement of Advanced Works Dec/Jan.
- Commencement of Main Works Contracts early 2018.
- Disruptive engineering access synergised with NR Renewals workbank. 5 weekends in October/November 2018 and one final weekend commissioning in March 2019.
- Introduction of new timetable May 2019



# Existing Customer Use.....



Inverness	Annual	Daily
1 EDINBURGH	195,081	617
2 GLASGOW BR	146,306	463
3 ABERDEEN	125,766	398
4 ELGIN	75,652	239
5 NAIRN	72,552	230
6 MUIR OF ORD	50,530	160
7 FORRES	49,586	157
8 BEAULY	45,924	145
9 AVIEMORE	43,732	138
10 PERTH	41,653	132
Top 10 as % of total	65%	2,680

Carrbridge	Annual	Daily
1 INVERNESS	3,002	10
2 AVIEMORE	761	2
3 EDINBURGH	756	2
4 GLASGOW BR	472	1
5 PERTH	254	1
6 PITLOCHRY	107	0
7 KINGUSSIE	58	0
8 STIRLING	56	0
9 DUNDEE	48	0
10 NEWTONMORE	37	0
Top 10 as % of total	90%	18

Aviemore	Annual	Daily
1 INVERNESS	43,732	138
2 EDINBURGH	33,654	107
3 GLASGOW BR	18,618	59
4 PERTH	6,829	22
5 KINGUSSIE	6,810	22
6 STIRLING	2,470	8
7 PITLOCHRY	2,401	8
8 DUNDEE	2,032	6
9 BLAIR ATHOLL	1,395	4
10 NEWTONMORE	1,377	4
Top 10 as % of total	78%	378

Kingussie	Annual	Daily
1 INVERNESS	15,636	49
2 EDINBURGH	8,374	27
3 AVIEMORE	6,810	22
4 GLASGOW	4,009	13
5 PERTH	2,198	7
6 PITLOCHRY	746	2
7 DUNDEE	474	2
8 NEWTONMORE	469	1
9 STIRLING	362	1
10 ABERDEEN	349	1
Top 10 as % of total	86%	125

Newtonmore	Annual	Daily
1 INVERNESS	3,053	10
2 AVIEMORE	1,377	4
3 EDINBURGH	1,281	4
4 GLASGOW	901	3
5 KINGUSSIE	469	1
6 PERTH	428	1
7 PITLOCHRY	128	0
8 DUNDEE	102	0
9 ABERDEEN	84	0
10 STIRLING	71	0
Top 10 as % of total	84%	25

Dalwhinnie	Annual	Daily
1 INVERNESS	754	2
2 EDINBURGH	726	2
3 AVIEMORE	531	2
4 GLASGOW	236	1
5 PERTH	235	1
6 PITLOCHRY	148	0
7 KINGUSSIE	147	0
8 EDINBURGH GATEWAY	56	0
9 BLAIR ATHOLL	40	0
10 STIRLING	36	0
Top 10 as % of total	83%	9

Blair Atholl	Annual	Daily
1 EDINBURGH	4,677	15
2 PITLOCHRY	3,839	12
3 PERTH	3,101	10
4 INVERNESS	1,541	5
5 AVIEMORE	1,395	4
6 GLASGOW	1,457	5
7 DUNDEE	692	2
8 STIRLING	140	0
9 DUNKELD & BIRNAM	159	1
10 MARKINCH	101	0
Top 10 as % of total	88%	54

Pitlochry	Annual	Daily
1 EDINBURGH	33,883	107
2 PERTH	21,332	68
3 GLASGOW	19,176	61
4 INVERNESS	9,757	31
5 BLAIR ATHOLL	3,839	12
6 DUNDEE	3,493	11
7 AVIEMORE	2,401	8
8 DUNKELD & BIRNAM	1,881	6
9 STIRLING	1,853	6
10 KIRKCALDY	1,390	4
Top 10 as % of total	79%	313

Dunkeld	Annual	Daily
1 EDINBURGH	13,014	41
2 GLASGOW BR	6,101	19
3 PERTH	3,595	11
4 INVERNESS	2,789	9
5 DUNDEE	1,902	6
6 PITLOCHRY	1,881	6
7 STIRLING	1,272	4
8 AVIEMORE	733	2
9 DUNBLANE	221	1
10 KIRKCALDY	180	1
Top 10 as % of total	85%	100

Perth	Annual	Daily
1 GLASGOW BR	281,254	890
2 EDINBURGH	211,353	669
3 DUNDEE	220,428	698
4 STIRLING	64,515	204
5 INVERNESS	41,653	132
6 ABERDEEN	39,919	126
7 KIRKCALDY	22,821	72
8 PITLOCHRY	21,332	68
9 ARBROATH	16,423	52
10 MARKINCH	12,706	40
Top 10 as % of total	83%	2,951

- More journeys between Inverness – Edinburgh & Glasgow than all of the intermediate stations combined
- Inverness top flow for all stations between Carrbridge & Dalwhinnie
- Edinburgh top flow for Blair Atholl, Pitlochry & Dunkeld
- Importance of journey time reduction
- Importance of timetabling calls at intermediate stations at **USEFUL** rather than operationally convenient times

# DRAFT northbound timetable....



	Sleeper				VTEC													
Edinburgh	--	--	06:53	--	08:43	--	10:47	--	12:47	--	14:47	--	16:32	17:39	18:46	--	21:01	
Haymarket	--	--	06:58	--	08:48	--	10:52	--	12:52	--	14:52	--	16:37	17:44	18:51	--	21:06	
Kirkcaldy	--	--	07:24	--	09:24	--	11:22	--	13:23	--	15:24	--	--	18:16	19:22	--	21:34	
Glasgow Queen St	--	--	--	07:49	--	09:48	--	11:48	--	13:48	--	16:07	--	--	--	19:48	--	
Stirling	1	04s55	--	08:17	--	10:16	--	12:16	--	14:16	--	16:36	17:20	--	--	20:20	--	
Perth	--	05s39	08:00	08:46	10:01	10:46	11:59	3	12:44	13:59	14:44	16:00	17:06	17:58	18:57	19:59	20:49	22:10
	05:15	--	08:02	08:49	10:02	10:48	12:00		12:48	14:01	14:52	16:02	17:08	18:02	18:59	20:01	20:54	22:12
Dunkeld & Birnam	05:31	06s02	--	--	10:19	--	--	13:04	--	15:08	16:21	17:24	--	19:15	20:25	--	22:30	
Pitlochry	05:45	06s17	08:30	09:22	10:33	11:20	12:28	13:23	14:30	15:24	16:37	17:38	18:33	19:36	20:39	21:22	22:44	
Blair Atholl	05:55	06s29	--	--	10:43	--	--	13:33	--	--	16:47	17:48	--	19:46	--	--	22:54	
Dalwhinnie	06:20	07s00	--	09:57	--	--	--	14:01	--	--	17:12	--	--	20:11	--	--	23:19	
Newtonmore	06:31	07s13	--	--	11:16	--	--	14:11	--	--	17:22	--	--	20:21	--	--	23:29	
Kingussie	06:50	07:19	09:17	10:10	11:21	12:09	13:11	14:16	--	16:17	17:27	18:23	19:21	20:26	21:25	--	23:34	
Aviemore	07:14	07:37	09:29	10:30	11:32	12:31	13:29	14:28	15:22	16:36	17:39	18:35	19:35	20:38	21:44	22:26	23:46	
Carrbridge	07:28	07:51	09:37	--	11:41	--	--	14:36	--	--	17:47	--	--	20:46	--	--	23:55	
Inverness	07:56	08:30	10:05	11:03	12:10	13:04	14:02	15:05	16:02	17:09	18:20	19:09	20:12	21:15	22:17	22:59	00:23	
<b>Journey time</b>			<b>03:12</b>	<b>03:14</b>	<b>03:27</b>	<b>03:16</b>	<b>03:15</b>	<b>03:17</b>	<b>03:15</b>	<b>03:21</b>	<b>03:33</b>	<b>03:02</b>	<b>03:40</b>	<b>03:36</b>	<b>03:31</b>	<b>03:11</b>	<b>03:22</b>	

- 15 services: 8 x Edinburgh, 6 x Glasgow, 1 x Perth (currently 5 x Edinburgh, 5 x Glasgow, 1 x Perth)
- Fastest 10 services have average journey time of 3hr14min compared to 3hr21min today.....7min improvement
- Reasonably even hourly service interval all day
- First arrival from central belt is c25min earlier than today. Last train is 90min later than today
- Intermediate stations have mid morning, lunchtime, mid afternoon, evening peak and last service from central belt
- Good all day spread of services for local communities "facing" Inverness
- Evening peak from Perth to Dunkeld

### Work in progress:

1. Clash with freight and southbound services means an 04:40 departure from Glasgow and 4hr+ journey time.
2. 3 x Edinburgh services in a row
3. Dunkeld & Birnam 3 hourly gaps



# DRAFT southbound timetable....



	VTEC														Sleeper	
Inverness	05:49	07:01	07:49	08:46	09:57	10:57	11:57	12:51	13:53	15:06	16:02	16:58	17:46	19:01	20:25	20:31
Carrbridge	06:17	--	--	09:14	--	--	--	13:19	--	--	--	17:26	18:20	--	21:00	--
Aviemore	06:28	07:36	08:26	09:28	10:31	11:32	12:32	13:30	14:32	15:41	16:37	17:38	18:34	19:36	21:12	21u25
Kingussie	06:39	--	08:41	09:41	--	11:43	12:43	13:41	14:43	15:52	16:48	17:50	18:46	19:48	21:25	21u41
Newtonmore	06:44	--	--	09:46	--	--	--	13:46	--	--	16:53	--	18:51	--	21:30	21u47
Dalwhinnie	06:56	--	--	09:58	--	--	--	13:58	--	--	17:05	--	19:02	--	21:42	22u02
Blair Atholl	07:19	08:18	--	10:21	--	12:17	--	14:21	--	--	17:28	--	19:24	--	22:05	22u31
Pitlochry	07:30	08:29	09:23	10:32	11:23	12:28	13:24	14:31	15:24	16:35	17:38	18:34	19:36	20:39	22:15	22u43
Dunkeld & Birnam	07:43	08:43	--	10:46	--	12:41	--	14:44	--	16:48	--	--	19:50	--	22:29	22u58
Perth	08:01	09:01	09:52	11:04	11:52	12:59	13:53	15:02	15:53	17:06	18:07	19:03	20:07	21:08	22:47	--
	08:03	09:04	09:57	11:05	11:54	13:02	13:54	15:04	16:00	17:08	18:08	19:04	20:10	21:11	22:49	23u30
Stirling	--	09:33	10:32	11:35	--	13:31	--	--	--	17:37	--	19:34	--	21:40	--	00u16
Glasgow Queen St	--	10:06	--	12:09	--	14:06	--	--	--	18:09	--	20:06	--	22:15	--	SLPR
Kirkcaldy	08:35	--	--	--	12:26	--	14:26	15:40	16:38	--	18:46	--	20:47	--	23:24	--
Haymarket	09:14	--	11:19	--	12:55	--	14:59	16:18	17:17	--	19:17	--	21:16	--	23:53	--
Edinburgh	09:18	--	11:24	--	12:59	--	15:03	16:23	17:22	--	19:22	--	21:20	--	23:58	01:16
Journey time	03:29	03:05	03:35	03:23	03:02	03:09	03:06	03:32	03:29	03:03	03:20	03:08	03:34	03:14	03:33	

- 14 services: 8 x Edinburgh, 6 x Glasgow (currently 6 x Edinburgh, 4 x Glasgow)
- Fastest 10 services have average journey time of 3hr14min compared to 3hr32min today.....**18min** improvement
- Reasonably even hourly service interval all day
- First arrival into central belt is similar to today at 09:20 but later departure. Last train is slightly later departure than today.
- Intermediate stations first, early morning, lunchtime, late afternoon, evening peak and last service to central belt
- Good all day spread of services for local communities "facing" Inverness

### Work in progress:

1. 3 x Edinburgh services in a row
2. Dunkeld & Birnam early evening gap
3. A pre 9am arrival would be better

# Summary....



- All timetables are a compromise!
- We think this delivers a balanced improved across the entire route:
  - Better distribution of calls throughout the day giving all stations:
    - Early morning arrival into Edinburgh, Glasgow & Inverness
    - Midday arrival into Edinburgh, Glasgow and Inverness
    - Late afternoon departure from Edinburgh, Glasgow & Inverness
    - Late evening departure from Edinburgh, Glasgow & Inverness
  - Commuting and leisure opportunities to Perth for the south end of the route
  - Commuting and leisure opportunities to Inverness for the north end of the route
  - More services and reduced journey times for the Inverness to Central Belt market
  - More seats (from 4,100 today to 6,600) and greater comfort with our “new” High Speed Trains
- Will continue to work on the known issues
- Detailed discussions with freight operators...this will drive further change

# Consultation Process....



- Consultation meetings during Dec, Jan & Feb
  - Community councils
  - Elected members
  - RTP and Local Authorities
  - Chamber of commerce, Visit Scotland etc
- Formal timetable “bid” is August 2018
- Use the project email address for comments or requests for meetings

[highlandmainline@networkrail.co.uk](mailto:highlandmainline@networkrail.co.uk)





# Progress Update

19<sup>th</sup> January 2018

# Specified Outputs...



## Transport Scotland's High Level Output Specification (HLOS) for Control Period 5 specified for delivery by 2019:

- Half hourly service between Aberdeen and Inverurie including infrastructure capacity for a new station at Kintore\*
- Maintain, as a minimum, the ability to deliver existing freight access rights on the route.
- Create infrastructure capacity for a new station at Dalcross.\*
- Improved commuter services between Inverness and Elgin

\*Funding for new stations to be arranged by station promoters.

# Scope...



# Progress so far...



# Benefits...



- **October 2017**
  - New Station at Forres complete and fully accessible
  - Extended platforms at Elgin now accommodate longer trains the longer High Speed Trains when they are introduced to passenger service
  - Fully upgraded signalling between Inverness and Keith
- **By 2019:**
  - Introduction of hourly service between Inverness-Elgin providing 1,300 additional seats each day
  - Extended platforms at Inch to accommodate longer High Speed Trains
  - Majority of Aberdeen to Inverness services formed of High Speed Trains providing 1,400 additional seats each day
  - Introduction of half hourly all day service between Aberdeen-Inverurie, providing 3,000 additional seats each day
  - Additional Elgin – Aberdeen early morning and late evening services
  - New through services between Inverurie – Montrose reducing the need to interchange at Aberdeen



# Thank You and Questions?

