HI ▶ TRANS

THE HIGHLANDS AND ISLANDS TRANSPORT PARTNERSHIP

Report to Partnership Meeting 13 November 2020

RESEARCH AND STRATEGY DELIVERY

Far North and Kyle Matters

Purpose of the report

To inform members of progress on Far North and Kyle rail lines infrastructure initially identified under the Points North agenda of 2016.

Fair Exchange

The creation of a signalling token exchange point (TEP) on the Radio Electronic Token Block (RETB) system at Stromeferry (which incidentally in August this year celebrated its 150th anniversary) is moving forward. A site visit was recently held to consider what is needed on the ground. The new TEP will:
- break up the long 40-minute section between Strathcarron and Kyle
- allow shunting to take place at Kyle more efficiently
- facilitate access to the track for maintenance
- help with traffic control during periods of rockfall stabilisation works.

HITRANS is contributing £230k to the project, of which 50% is from ERDF Smart Cities..

Lentran Loop

Development work has reached GRIP 3 level- option selection- on the project to create an additional loop between Dingwall and Muir of Ord. In play are the length and type of loop- dynamic or static- and the way in which it is controlled.

Current loops have hydropneumatic points. They are pushed over by the train and spring back, so have a 15mph speed restriction, with their position confirmed to the driver by an indicator light, and a TPWS overspeed sensor on the track.

Radio tokens cannot be exchanged on the move so trains can only pass 'statically'. To pass dynamically (on the move) would require expensive resignalling to conventional colour lights. However, token control of points permitting loop entry/exit at 40mph and a long loop may mitigate the time penalty for token issue and authorisation to proceed.

Token control of points

In order to overcome the slow loop entry speed and the concomitant 15mph crawl to station stop within a loop, the control of the new motorised points rather than hydropneumatic ones is under development. Here the points are actuated by the issue of the electronic token itself. Muir of Ord south is the likely location for a trial.

Press'n'Ride/Request to Stop

The provision of a button to inform the train driver via the signalling system of an intending passenger at request stops is under development. The rational for this is to allow trains to pass through at linespeed when no stop is required, rather than slowing down on the off-chance that someone may be waiting at the station. This saves brakes, fuel, emissions and gives a performance buffer. HITRANS has drawn up a priority list based on linespeed, gradient and footfall, with Scotscalder being the likely trial site.

Level Crossings

Kildonan and Rogart Open Crossings are due for conversion to automatic crossings in Control Period 6. All North of Inverness crossings with the exception of Nigg are locally monitored i.e. the train driver is given an indication that the crossing lights and associated barriers are working correctly. Train speed over the crossing is 55mph maximum. However, if the crossing status is monitored by the signaller through the RETB system train line speeds could increase offering a meaningful journey time reduction.

Automatic Train Describers

Customer Information Screens at RETB stations are updated by the Darwin system which is itself manually updated by the signaller. When a train is running late its arrival time at a station clears off the screen after its planned (but non-existent) departure. The passenger does not know if it is 1 or 100 minutes late. A proposed RETB modification should automate this process and predict arrival time based on the last confirmed location of the train.

Faster Token Exchange

The transaction time for a token exchange is timetabled at 1 minute, but crossing trains take longer with Train 1 giving up Token A, Train 2 giving up Token B, Train 2 receiving Token A, and Train 1 receiving Token B. An enhancement is under development that will dramatically reduce token exchange time.

RISK REGISTER

RTS Delivery
Impact –Journey time reduction, resilience

Policy

Impact –Efficiency of transport operations

Financial

Impact – We are contributing £230k for Fair Exchange. Total cost may be £1m with the balance to be funded by Network rail.

Equality

Impact – Improved access for all to network

Recommendation

1. Members are asked to note the report

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