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**PRIMARY GOAL:**

**To reduce the risk of rockfall at site AA19 to an extent that the Strome ferry by-pass can be reopened to traffic.**

**SECONDARY GOAL:**

**To remove risk of rockfall and debris fall at other locations along the Strome ferry by-pass.**

**STROMFERRY REMEDIAL WORKS – PUBLIC PRESENTATION  
PROJECT TIMELINE**



**22 December 2011 – Rockfall closes A890 Stromeferry by-pass**

**23 December 2011 – Highland Council conduct emergency works**

**31 December 2011 – Further rockfall occurs**

**12 January 2012 – Highland Council seek tenderers**

**20 January 2012 – Tenders submitted**

**23 January 2012 – TRAC Engineering selected**

**26 January 2012 – Contract Award**

**STROMFERRY REMEDIAL WORKS – PUBLIC PRESENTATION  
PROJECT TIMELINE**



**30 January 2012 – TRAC Engineering start on site at Attadale**

**30 January 2012 – TRAC Engineering run model of rock fall and design rockfall barrier**

**31 January 2012 – Network Rail approve the rockfall barrier**

**1 February 2012 – Installation of rock fall barrier begins**

**3 February 2012 – Network Rail approve the method of scaling**

**5 February 2012 – Rock fall barrier completed**

**6 February 2012 – Slope vegetation clearance works begin**



**FALLING DEBRIS INJURING WORKERS**

**FALLING DEBRIS CLOSING OR DAMAGING RAILWAY**

**FALLING DEBRIS DAMAGING OR COMPLETELY CLOSING THE  
ROAD**

**DEBRIS – ROCK, SOIL, TREES, VEGETATION.**

**DEBRIS CAN FALL FROM FAILED SLOPE AND  
LONGER/HIGHER SLOPES BEHIND**





**The road at the site is narrowest of whole by-pass**

**The railway runs very close to the road**

**The railway is a very important link which must stay open**

**The railway is a critical travel route to those effected by the road closure.**

**Rock and debris fall is constant threat to work force**

**The nature of the slope was not fully known at the start of the project**



**A debris catch barrier has been installed  
protects railway  
protects work force**

**Failed slope has been inspected**

**Upper slopes have been inspected**

**Loose rock and soil is being removed from the slope in a  
controlled manner (between 100 and 200T per day)**



















# STROMFERRY REMEDIAL WORKS – PUBLIC PRESENTATION PROGRESS









12hr working from Monday 6.02.2012

Working in daylight help us see the dangers  
Spotters have been posted around the slope

24 hr WORKING from Monday 13.02.2012

We now know the rockface and understand more fully  
the unique dangers of this slope

As a result of the features uncovered the earliest date for  
partial opening of road is Monday 27 February 2012.  
stabilisation of the slope will continue after that date.



# STROMFERRY REMEDIAL WORKS – PUBLIC PRESENTATION PROGRESS AND PLAN



Create barrier to further rock fall  
High Capacity, High Tensile Tensioned Netting

Install pattern bolts to secure bolts

Install rock anchors to secure large unstable nib



Scaling of unstable rock is ongoing

Drill and install rock bolts

Install high capacity tensioned netting

Make the rock AA19 safe enough to allow for vehicles to pass

# STROMFERRY REMEDIAL WORKS – PUBLIC PRESENTATION PROGRESS AND PLAN



We will continue during nightshift with rock bolting, tree clearance, repair to rock fall netting

Open the road with convoy: 7am to 7pm

Close the road: 7pm to 7am

7am to 9am and 4pm to 7pm traffic will have priority.

9am to 4pm minor remedial works will continue under traffic control



# STROMFERRY REMEDIAL WORKS – PUBLIC PRESENTATION PROGRESS AND PLAN



The convoy system will operate over 800m with a speed limit of 10mph – delays should be expected.

Lochcarron to Kyle traffic to have first convoy (AM)

Ferry services shall continue

Additional train services shall continue

# STROMFERRY REMEDIAL WORKS – PUBLIC PRESENTATION PROGRESS AND PLAN



Due to 24 hour working

Flood lighting of the slope

Drilling operations will start mid week