

Workshop on end-users requirements

Level crossing safety in Sweden, from a rail and road infrastructure management perspective.

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TRAFIKVERKET
SWEDISH TRANSPORT ADMINISTRATION

Railway, Level crossings and Roads in Sweden

- 16500 km railway
- Level crossings
 - 5520 sum level crossings in operation
 - 2749 active LC (2172 Full/half barriers)
 - 2771 passive LC
- Roads, owned by:
 - Government 754 (98 500 km)
 - Municipalities 780 (42 200km)
 - Private 2428
 - 673 with subsidies from the state (74 300 km)
 - 1755 without subsidies (a lot....)



Fatal accidents in level crossings 2016

- 2016 – 13 fatalities
- 3 accidents with cars and 10 accidents among pedestrians
- The 13 fatalities, 6 were classified as accidents and 7 as suicides.

Accidents and incidents 2016

Protection in LC	Incident vehicle	Incident Person	Accident vehicle	Accident person
Barriers	8	14	4	11
Sound and light	3	0	0	0
Chicane barriers or without protection	0	5	0	0
St Andrew's cross or without protection	21	3	11	1
total	32	22	15	12

Guidelines for safety arrangements in LC

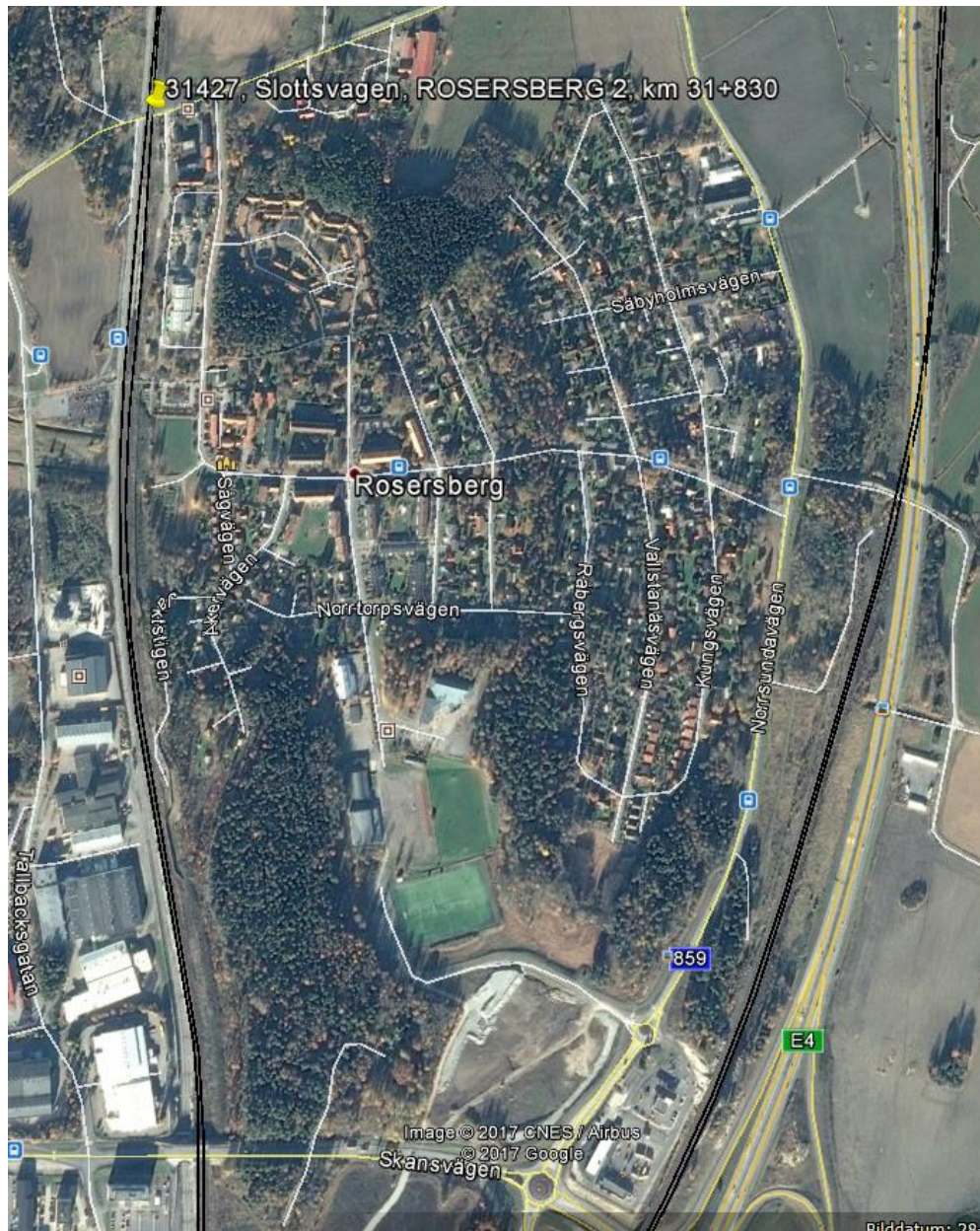
- Goal – make the LC robust
- Important variables:
 - Numbers of tracks in LC
 - Highest allowed speed of the train
 - Kind of road ("normal" road, local road, farmers road)
 - Not focus on the numbers of cars or pedestrians (is very uncertain variable)
 - Important to have information about the environment around the LC, if there is any special risks (e.g road for children school or sports arenas)

Plk-webb

- Data base for all level crossings that make it possible to overview the system
- Contains information of rail and road traffic
- Each LC has a ID-number
- Every reported incidents/accident in a specific LC has a notation
- Later this year even platform LC and service roads will be included (even if they are not regarded as a LC by the regulations)



Requires a good profile in the road surface,
(prevent vehicles from getting caught)



Från K till J 30m



2017-08-24



2017-08-24



24621, BACKLUNDA, km 21

rells vag, TORELLS VAG, km 217+554

Marieberg





Kör igenom bommen - Stanna inte i spåret

Thank you!

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