

# Post and Rail Fence Retrofit Programme

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- Background to fence retrofit programme
- Knowledge gained from collisions review.
- Alteration to standards
- Alteration to road collision information collection.
- New fence type and landowner feedback
- Plan going forward retrofitting the network.



Post and rail fence entering vehicle



View towards front windscreen

# Knowledge gained

- Little research internationally
- On The Spot research programme UK
- FCI
- LA General Supervisors
- Ongoing detailed monitoring of collisions on the network.
- Alternative fence types

Fencing considered a hazard



Fencing considered a hazard



# Summary of Situation

- Irish Standard based on a UK road side fence.
- No previous indication - P&R fencing a hazard.
- Extent of problem evident- action to find alternative.
- Other countries road authorities recently realising the issue.
- TII does not generally retrofit.
- Action where practical/ economically feasible.



# Progress Since

- Alteration to Standards, alternative fence type, TPR now considered a hazard.
- Alteration to information collected at RTC.
- Retrofit of Motorway network commenced 2018
- February 2018 TII requested the LA's to log inventory of post and rail fencing on single carriageways onto the GeoAPP.

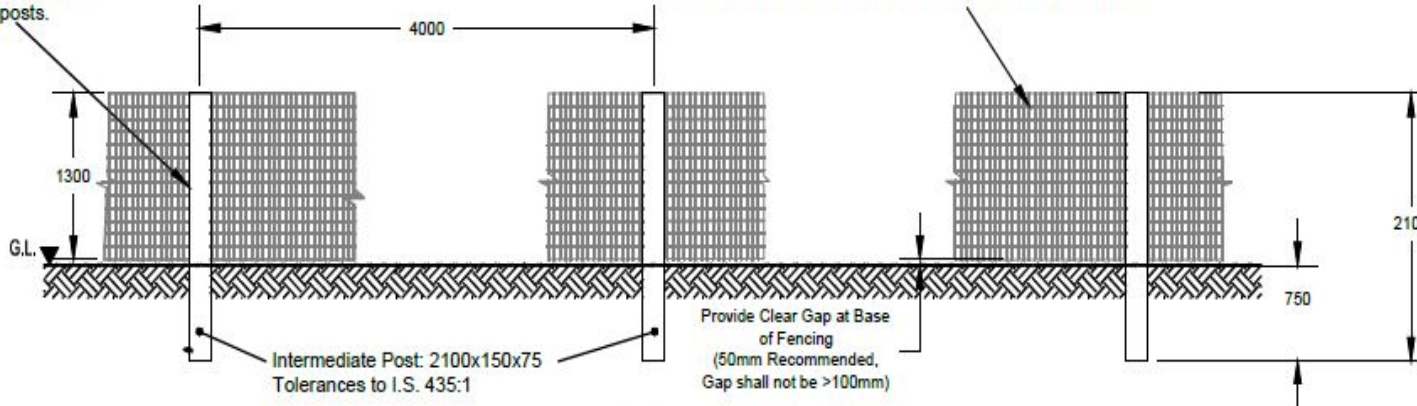
# Tension Mesh Fence



# SCD -00320

Mesh shall be fixed to intermediate posts using 40mm x 4mm Ø galvanised staples on every second horizontal line wire. Staples to be hammered in diagonally so as to limit potential splitting of posts.

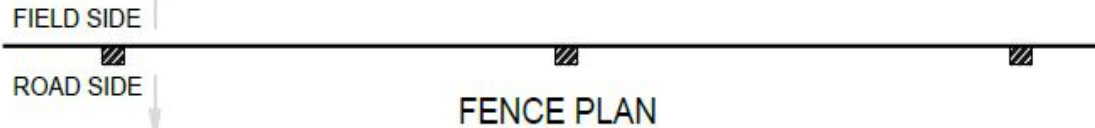
2.5mm Ø, 14-130-5 mesh wire manufactured to IS EN 10223-5  
 Wire to be Zinc Aluminium Alloy (95% Zinc, 5% Aluminium)  
 Coating Weight 135g/m<sup>2</sup>  
 Tensile Strength of Horizontal Wire: Min 1,235MPa  
 Max. spacing between horizontal wires to be 150mm.  
 Vertical wires at 50mm Spacing with joints as per Detail 1.



Knot View 'D'

NOT

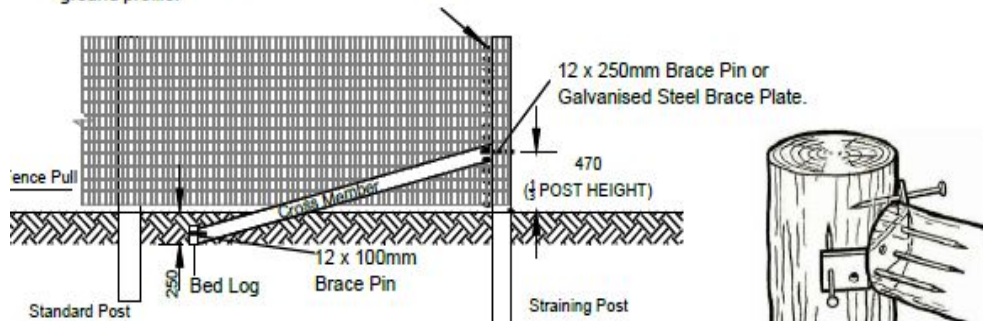
FENCE ELEVATION



FENCE PLAN

- 1.
- 2.
- 3.
- 4.

All straining posts to be 2500mm (min) x 170mm (+/- 3mm) 'machined' posts with a regular cylindrical diameter. Irregular, "Cundy Peeled" or "Rough round" type posts will not be acceptable. See Note 10 for fence termination guidance. All straining posts to be installed perpendicular to ground profile.



End Assembly Details		
Item	Quantity	Description
End Posts / Straining Posts	1	2500mm x 170mm (+/- 3mm) Ø Timber Post
Cross Member	1	2700mm x 100mm (+/- 3mm) Ø Timber post
Brace Pin	1	12mm x 250mm Galvanised Pin
	1	12mm x 100mm Galvanised

- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

# Landowner feedback

After 5 years

- “would much prefer this type of fence than the timber post and rail fencing”.
- “are very happy with the tensioned mesh fencing”;
- “the wire is excellent, well tensioned and very well put up”
- “absolutely no problem with the fencing”

# Plan going forward

- Commence retrofitting of single carriageway network in 2019.
- Workshops to be held in Q1 2019 for LA's and their consultants.
- TII Fencing Contractor Framework 2019 for LA's to use.

THANK YOU