

Design Standards in the CAREC Region

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Designing Safer Roads: Accelerating the implementation of the CAREC Road Safety Strategy
30–31 August 2017 • Dushanbe, Tajikistan

**Проектирование более безопасных дорог: Ускорение реализации
Стратегии безопасности дорожного движения ЦАРЭС**
30–31 августа 2017 г. • Душанбе, Таджикистан

Working with you to save lives on CAREC roads

Some of your “standards” are no longer considered “safe” by international standards

Are they causing crashes? Maybe

**Are they causing more injuries and deaths?
Maybe**



Many engineers (and others) believe that - by complying with national standards - a new road project will be “safe”.

Some may even “hide” behind standards

STANDARDS

- ✓ **are a good place to start.**
- ✓ **highway designers need to know them - and use them**
- ✓ **if they are applied comprehensively, many safety problems will disappear**

BUT:

- ✓ **Topography, existing networks, and site constraints make each project unique**
- ✓ **One size cannot fit all**
- ✓ **Some standards are “out of date” when used**
- ✓ **Some combinations of standards lead to sub-optimal results**

- ✓ **Not all standards = safety**
- ✓ **Many standards have nothing to do with safety (bridge cross sections)**
- ✓ **Many safety concerns have no standards to guide you (intersection selection, barriers)**
- ✓ **Some current standards in the Region were removed from manuals in other countries many years ago (barrier terminals)**
- ✓ **So what can we do?**

Engineers did not go to University for four years simply to learn how to open a standards manual

We learnt to apply the best practice, and to question all things

We have a responsibility to keep “standards” up to date for the best interests of all in our community.

- ✓ **There are many situations on the road network for which there are no “standards”**
- ✓ **Who judges what is safe for the road users?**
- ✓ **There is a standard for a zebra crossing layout, but what about where to use these?**





Safety is more than a check against standards

It also needs a check to how the road user will interact with the road, and what safety concerns they will face

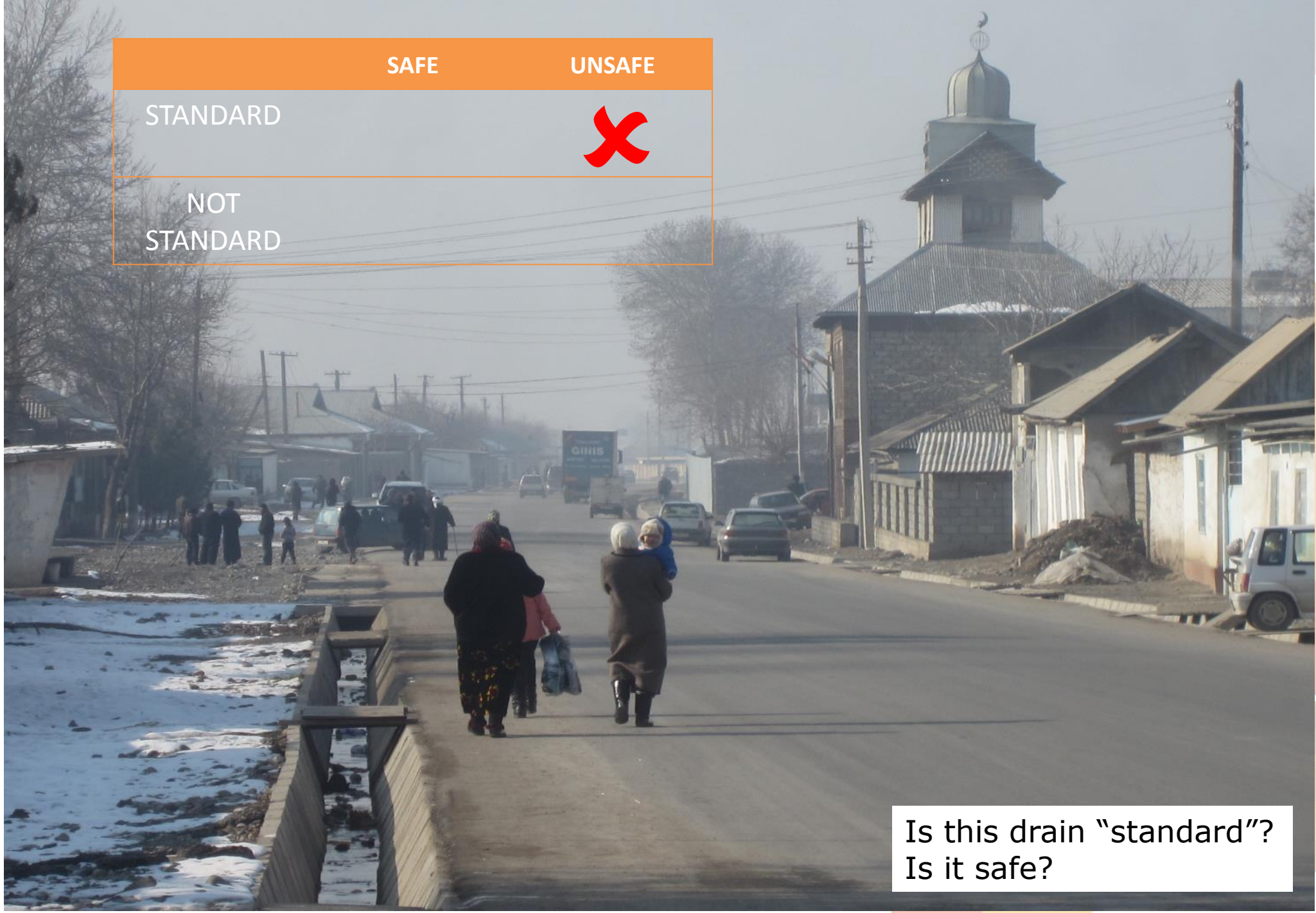
Road Safety Audit



Standard line marking in one country



Standard line marking in another country



SAFE	UNSAFE
STANDARD	
NOT STANDARD	

Is this drain "standard"?
Is it safe?



SAFE

UNSAFE

STANDARD



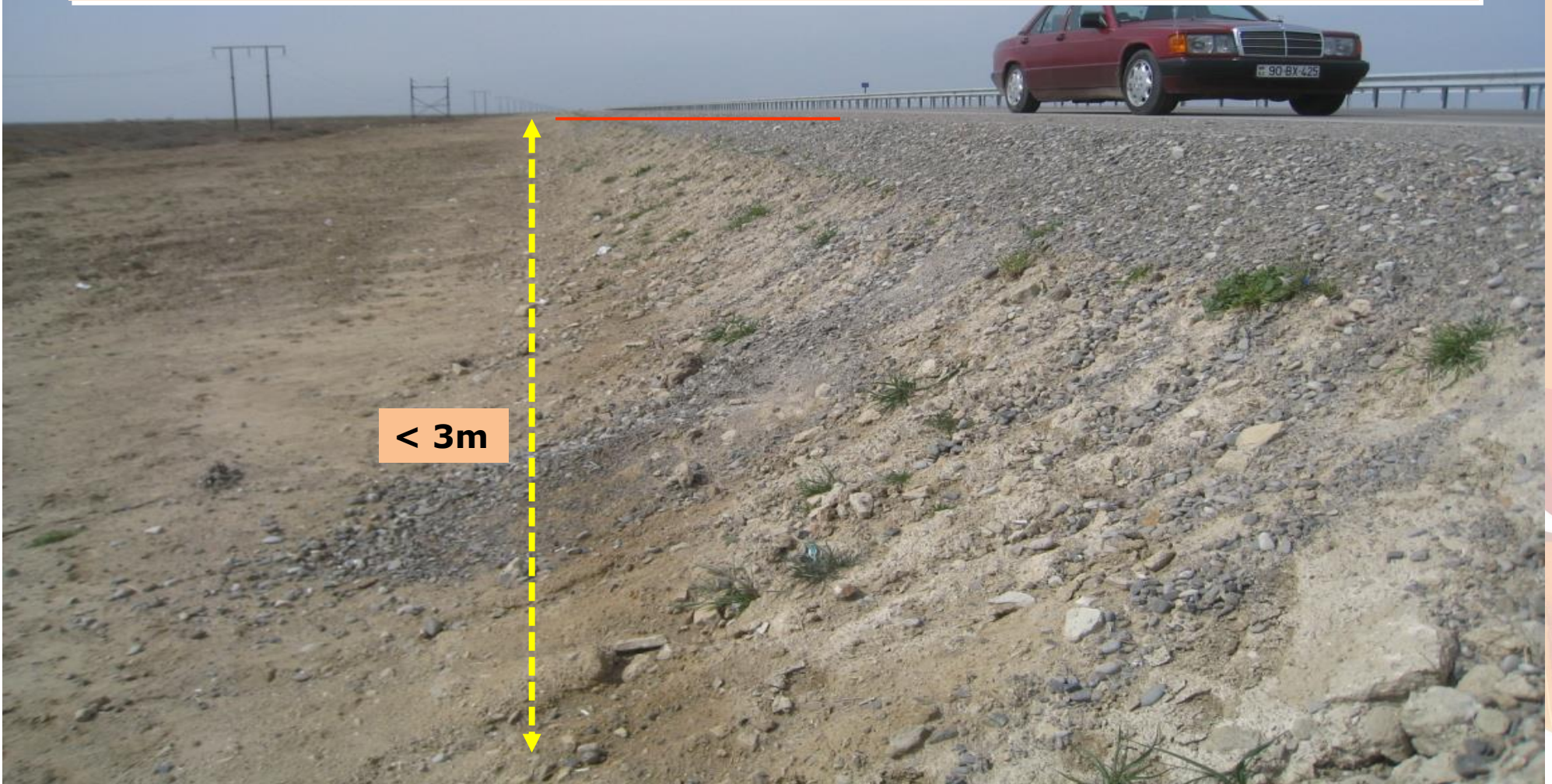
NOT
STANDARD

Is this culvert "standard"?
Is it safe?



Driveable end wall Type 2

In many CAREC Countries a 3m embankment does not require barrier - but is it safe? This “standard” limits costs – it is not related to safety.



< 3m



	SAFE	UNSAFE
STANDARD		X
NOT STANDARD		

Is this terminal "standard"?
Is it safe?





Is this bridge cross section, and barrier, "standard"? Is it "safe"?



SAFE

UNSAFE

STANDARD




NOT
STANDARD

An example – this bridge and barrier is “standard” in Australia



	SAFE	UNSAFE
STANDARD		
NOT STANDARD	✓	



SAFE	UNSAFE
STANDARD	
NOT STANDARD	





Azerbaijan



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Georgia



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HOW TO AVOID THE “STANDARDS” TRAP

Road authorities

- ◆ **Put customer safety first!**
- ◆ **Adopt a Road Safety Audit policy**
- ◆ **Assist a national Standards Committee (government, academics, industry) to manage and update standards.**
- ◆ **Check audit responses periodically and follow up changes.**

HOW TO AVOID THE “STANDARDS” TRAP

Highway designers

- **Become fully aware of RSA, and use it to produce safer designs.**
- **Think. Seek opinions. Do not reject solely because of “standards”.**

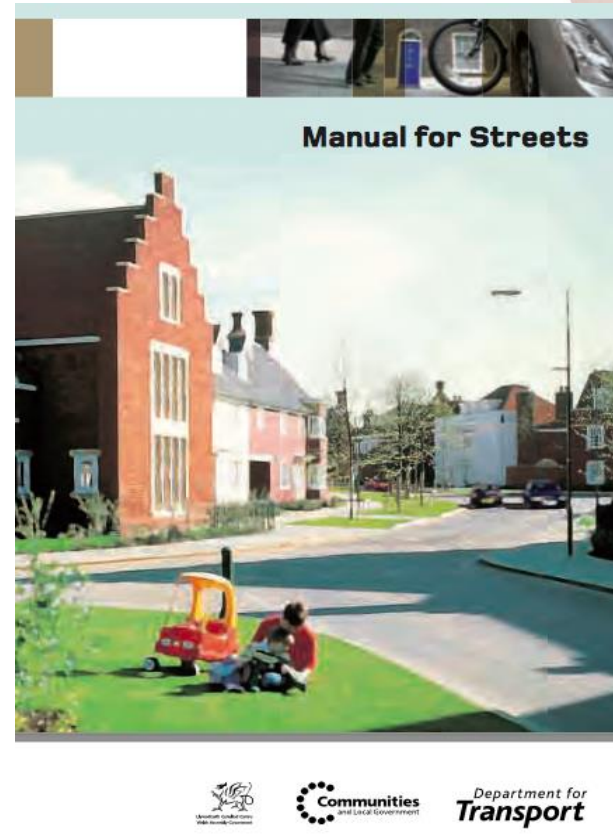
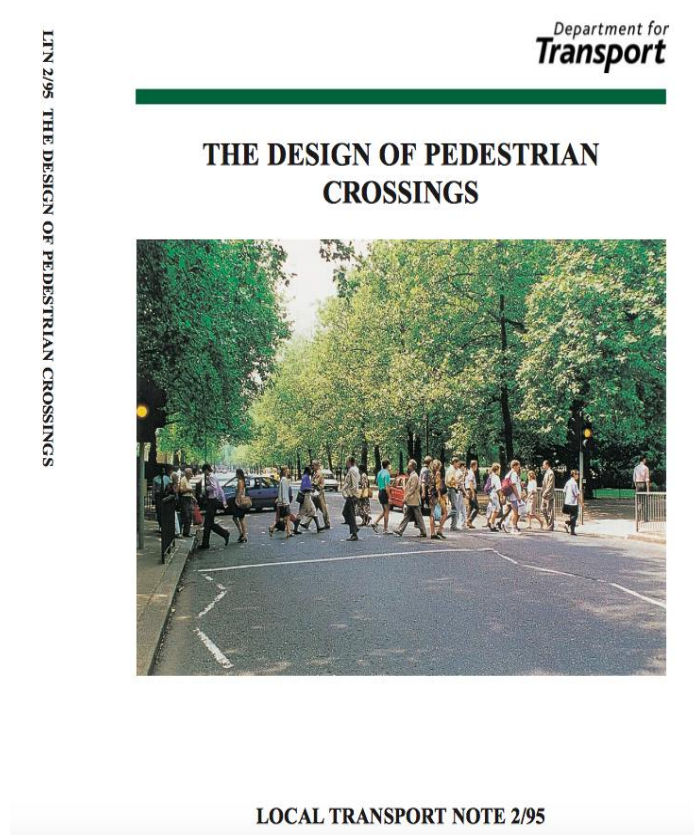
Remember....

- **Standards are a good place to start, but should not be the only consideration**
- **Standards are often the result of compromises between history, cost, and the views of differing groups and (sometimes competing) objectives**
- **Safety is implicit in road design standards - but not always explicit**
- **Update your standards = international good practice**

In Western Europe...

- ✓ Standards are constantly being revised
- ✓ Based on research
- ✓ Best practice from other Countries
- ✓ Standards Committee
- ✓ Consultation Process
- ✓ Some Standards start life as Guidance Notes

Guidelines can be helpful to supplement standards – where a standard does not yet exist maybe?



So what can we do in the CAREC Region?

- ✓ We have the advantage that many Countries share common standards
- ✓ Working Groups
- ✓ Harmonisation/Benchmarking of Standards
- ✓ However, we must remember where our experience lies



I look forward to your questions and lets discuss design standards in the CAREC Region

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