

# RSAC

Washington, DC,  
September 10, 2009

## Highway-Rail Grade Crossing Guidelines for High-Speed Passenger Rail

Discussion Draft for Public Outreach  
July 28, 2009

# Highway-Rail Grade Crossing Guidelines for HSR

---

- HSR Safety Strategy Element
- Built on existing FHWA/MUTCD guidance and...
- Track Safety Standards
  - Barrier systems above 110 mph
  - No at-grade crossings above 125 mph  
Note: AAR and ICC would lower this speed to 110 mph

# Highway-Rail Grade Crossing Guidelines for HSR

---

- Focus is Emerging HSR
- Gap in policy between conventional speeds (~79 mph) and 110 mph target for many projects

# Highway-Rail Grade Crossing Guidelines for HSR

---

Best practice shows the way:

- Consolidation and grade separation
- Safety improvements at private crossings
- Sealed corridors
- Warning system interconnection
- Train control integration
- [Barrier systems]
- Pedestrian and trespass emphasis
- Systems approach

# Highway-Rail Grade Crossing Guidelines for HSR

---

## 1. Consolidation and grade separation

Strong agreement

One freight railroad suggested NTE 2 crossings  
per mile on Emerging HSR corridor

Closures/separations more cost effective over  
the long term than technology

# Highway-Rail Grade Crossing Guidelines for HSR

---

## 2. Safety improvements at private crossings

Need for tools to elicit crossing holder participation on reasonable terms

Proposed >5 residences = public access crossing

Industrial crossings require individual assessment

Concern that locked gate requirement could pose workload issue for dispatchers, result in unneeded slow orders; inappropriate role for host RR; unworkable

# Highway-Rail Grade Crossing Guidelines for HSR

---

## 2. Safety improvements at private crossings

Should demonstrate application for closure to  
state regulatory commission where available

Gate locks should be integrated into signal and  
train control system with time release

# Highway-Rail Grade Crossing Guidelines for HSR

---

## 3. Sealed corridors

Strong support for this strategy from passenger and freight interests

Recognition of multiple main tracks as an issue regardless of speed

Desire expressed for highway side to share in the investments required

Concern with existing operations (NY)



# Highway-Rail Grade Crossing Guidelines for HSR

---

## 4. Warning systems and other traffic control

Advance signal preemption should be required

Comment notes proposed FHWA warrant for traffic control at intersections near highway-rail grade crossings

Health monitoring supported

# Highway-Rail Grade Crossing Guidelines for HSR

---

## 5. Train control integration

Support expressed for presence detection,  
health monitoring, closed loop to train

Health monitoring should poll/report periodically

Recognition that this strategy is not applicable to  
freight trains on the route

(continued)

# Highway-Rail Grade Crossing Guidelines for HSR

---

## 5. Train control integration

Opportunity for pre-starts and acceleration on approach

>90 mph threshold for train control

# Highway-Rail Grade Crossing Guidelines for HSR

---

## 6. [Barrier systems]

No quarrel with FRA conclusion that prior demonstrations were not successful

One request to allow a “performance standard” in lieu of full-width barrier

# Highway-Rail Grade Crossing Guidelines for HSR

---

## 7. Pedestrian and trespass emphasis

Comments asked for specific standards or guidelines, including use of fencing to channelize

Pedestrian gates and channelization at all locations

Flangeway gap max. 3" for new installation

# Highway-Rail Grade Crossing Guidelines for HSR

---

## 8. Systems approach

Slow trains as a last resort

# Highway-Rail Grade Crossing Guidelines for HSR

---

## General comments—

- Others should participate in defraying costs
- More funding required
- Should be dedicated revenue source targeted at the safety needs
- Liability is an issue
- Quiet zone regulation should be reviewed for applicability and adjustment in HSR context

# Highway-Rail Grade Crossing Guidelines for HSR

---

