



Posting and Utilities

## BRIDGE POSTING AND UTILITIES




Technical Standards Branch  
Class B Bridge Inspection  
Course




Posting and Utilities

## Posting and Utilities Information

- Entered into TIMS BIS application at first inspection
- On subsequent BIM reports
- Inspectors verify information is correct
- Note changes for updating




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## Responsibility for Posting

- All bridges on local roads are responsibility of Local Road Authority, County, MD, Town
  - passing by-laws
  - installing and maintaining



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## Vertical Clearance

Posting Information							
Required Vert. Clearance Posting (m)							
Posted Vertical Clearance (V/N)							
Posted	Lane	On bridge (m)	In Advance (V/N)	Lane	On Bridge (m)	In Advance (V/N)	
Remarks							

- On culvert Grade Separations and other various Major bridge forms
- Mounted at midpoint over travel lanes
- Advance warning in each direction
- Legal height 4.15m
- New structures are 5.35m



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## Vertical Clearance

- Inspection and Coding
  - look for signs in advance and on bridge
  - legible and visible
  - clearance values consistent
  - signs missing circle “N”
  - note direction and location if missing and notify responsible authority
  - look for new pavement or gravel
  - notify Bridge Manager if measurement required



## Vertical Clearance Posting is Important!



## Posted Loading

Required Load Posting (tonnes)		Single	Semi	Truck Train
Posted Loading (tonnes)		Single	Semi	Truck Train
Posted	Lane	At Junction (Y/N)	Advance (Y/N)	At Bridge (Y/N)
Posted	Lane	At Junction (Y/N)	Advance (Y/N)	At Bridge (Y/N)
Remarks:				

- Bridges less than legal load are posted
- Local Road Legal
  - CS 1 28 tonnes
  - CS 2 49 tonnes
  - CS 3 54 tonnes
- Provincial Highways
  - CS 1 28 tonnes
  - CS 2 49 tonnes
  - CS 3 63.5 tonnes



## Posted Loading

Allowable Load (t)	Single	CS1 37 GIRDER	Semi	CS2 53 GIRDER	Train	CS3 73 GIRDER	→ On Critical Spans → Critical Member
Design Loading	HS20 → Primary Span						
<b>Posting Information</b>							
Required Load Posting (t)		Single	Semi	Truck Train			
Posted Loading (t)		Single	Semi	Truck Train			
Posted	Lane	NB	At Junction (Y/N)	No	In Advance (Y/N)	No	At Bridge (Y/N) No
Posted	Lane	SB	At Junction (Y/N)	No	In Advance (Y/N)	No	At Bridge (Y/N) No
Remarks: Not required							

- Inspection and coding
  - note posting at the junctions of roads leading to bridge, in advance, and at the bridge structure
  - legible and visible
  - loading values on sign consistent with rated load or “Required Load Posting” on report
  - may be posted less than rating due to conditions
  - note missing or incorrect signs, report to responsible authority

## Posted Loadings



## Hazard Markers

Hazard Marker At Bridge (Y/N)	
Remarks	
Other Sign Types	

- All bridges when bridge clear road less than approach road
- All standard bridges on local roads
- Black stripes down toward road



## Hazard Markers

- Inspection and Coding
  - noting orientation and location (in line with bridge railing & 1200mm above deck top/wearing surface)
  - note condition
  - missing "N"
  - problems notify responsible authority

## Other Signs

- Narrow Bridge, Speed Limit, Curve, Bump,
  - note condition, legibility
  - record type and location

## Utilities

Utilities (Located at)	
Telephone	Gas
Power	Municipal
Others	Problem (Y/N)
Remarks	

- Utility owner responsible for maintenance and operation
- Note only those on or near bridge
- Check if utility
  - overloads bridge
  - interferes with maintenance or operations
  - hazard to public or bridge
  - unattractive appearance (corrosion)
- Installed with approval of AT Regional staff

## Utilities Proper Locations

- Newer concrete bridges
  - ducts in curbs for Telephone and Power
- Reinforced concrete precast
  - clamp on side of curb or clamped to rail
- Pre-stressed concrete precast
  - in outside void of stringer
- Should not interfere with bridge or culvert maintenance

## Utilities Improper Attachments

- Drilled into pre-stressed girders
- Explosive fasteners in steel or concrete
- Welding or drilling on steel members
- Oversize holes in timber
- Failure to treat cut timber

## Utilities

- Inspection and Coding
  - note location of power, phone, etc. (i.e. East ROW)
  - remark if hazardous, report to owner
  - look for improper installation
  - look for leaks in water, sewer or gas
  - check connections for safety
- Notify owner of bridge (AT or LRA) concerning problems or defects

## Culverts

- Vertical clearance only if underpass
- No load posting
- Utilities typically not in culverts
- May have ducts in headwalls
- Record location of power, phone, etc. (i.e. West ROW)

## Major Bridges

- Local Road Authorities are responsible for signing of major bridges on Local Roads
- Lack of signs
  - legal liability
  - damage bridges
  - damage / injury to public
- Report missing or incorrect Posted Loading signs to Bridge Manager