

On The Road...  
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Madbury has a good approach to new subdivisions and we asked them for a copy of their checklist.

Below is a reprint of the Madbury Planning Board residential subdivision checklist:

- Subdivider \_\_\_\_\_  
 Location \_\_\_\_\_  
 1. Pre Application Review \_\_\_\_\_  
 2. Site Inspection \_\_\_\_\_  
 3. Board Comments to Subdivider (letter) \_\_\_\_\_  
 4. Application  
 a) Agenda request for \_\_\_\_\_ meeting received \_\_\_\_\_  
 b) Applications received (3 copies) \_\_\_\_\_  
 c) Fees  
 1. Filing 1 @ \_\_\_\_\_ = \_\_\_\_\_  
 2. Abutters \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_  
 3. Lots \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_  
 TOTAL = \_\_\_\_\_  
 d) Abutters notices mailed \_\_\_\_\_  
 e) Considered at meeting on \_\_\_\_\_  
 5. Preliminary Layout  
 a) 3 Copies represented  
 b) Identification  
 1. Subdivision name \_\_\_\_\_  
 2. Subdivider \_\_\_\_\_  
 3. Designer \_\_\_\_\_  
 4. Engineer \_\_\_\_\_  
 5. Date \_\_\_\_\_  
 6. North Direction \_\_\_\_\_  
 7. Scale \_\_\_\_\_  
 8. Location \_\_\_\_\_  
 9. Abutters (of rec.) \_\_\_\_\_  
 10. Easements \_\_\_\_\_  
 11. Buildings \_\_\_\_\_  
 12. Water/Leach field \_\_\_\_\_  
 13. Topography/contours \_\_\_\_\_  
 14. Minimum size \_\_\_\_\_  
 15. Frontage \_\_\_\_\_  
 16. Setback \_\_\_\_\_  
 17. Soils \_\_\_\_\_  
 18. Fill/dredge/excavate \_\_\_\_\_  
 19. Test pits \_\_\_\_\_  
 20. Percolation tests \_\_\_\_\_  
 21. Driveway \_\_\_\_\_  
 22. Boundary Monuments \_\_\_\_\_  
 6. Review with Subdivider  
 a) Verbal \_\_\_\_\_  
 b) Board Recommendations (letter) \_\_\_\_\_  
 7. State Approvals  
 a) Leach field and septic system \_\_\_\_\_  
 b) Water supply \_\_\_\_\_  
 c) Driveway (entry onto state highway) \_\_\_\_\_

## Avoid A Bridge Catastrophy

A checklist is offered for assessing potential bridge liability  
by Charlie Goodspeed

Are you a government official responsible for posting bridge load limits? Are you reluctant to install signs advising motorists of load restrictions for fear that acknowledging the deficiency, but not correcting it, makes you liable in case of an accident? Nothing could be further from the truth. The best defense is posting the limits and maintaining a prioritized list of corrections to be made as funding becomes available.

What makes a bridge structurally deficient or functionally obsolete? Structural deficiency results when the bridge deck, the superstructure, or the substructure has weakened or deteriorated to the point that the bridge is inadequate to support all types of traffic. Functionally obsolete bridges are those that are structurally sound but are no longer adequate to serve today's traffic. These are the bridges that are too narrow, poorly aligned with the roadway, or have insufficient load-carrying capacity.

Is it unreasonable to expect someone who is not an engineer to assess the potential liability of a bridge? No! There are many signs that can be observed before a catastrophic disaster occurs.

**Structural Deficiency:** Can the bridge support all possible types of traffic? We can assume the bridge was properly designed for today's traffic unless it is more than 50 years old. To determine the existence and extent of deterioration of any of the three main components — deck, superstructure and substructure — check the following:

8. Public Hearings  
 a) Town Notices \_\_\_\_\_  
 b) Abutter/Subdivider Notices \_\_\_\_\_  
 c) Newspaper notices \_\_\_\_\_  
 d) Evaluation \_\_\_\_\_  
 9. Final Plat  
 a) Submitted to Board \_\_\_\_\_  
 b) Changes completed \_\_\_\_\_  
 c) Mylar presented and complete \_\_\_\_\_  
 d) 3 Copies of completed plan \_\_\_\_\_  
 10. Final Approval and Signature \_\_\_\_\_  
 11. Recording of Mylar \_\_\_\_\_ ■

**Deck:** A bridge deck supports the wearing surface and typically made of concrete, wood or steel grating.

### Material Signs of Deterioration

Material	Signs of Deterioration
Concrete	Cracks, loose or deteriorated concrete to a depth where the steel reinforcing is visible.
Wood	Splits, checks and rot to the extent that one can push a sharp pocket knife blade into the deteriorated wood to a depth 1/4 of the member depth.
Grating	Rusted sections or bent sections to the extent that the remaining material looks smaller than the original.

**Superstructure:** The bridge superstructure is the portion of the bridge that spans between the supports. The superstructure beams support the bridge deck.

### Material Signs of Deterioration

Material	Signs of Deterioration
Concrete	Concrete cracking or spalling to the extent that the reinforcing is visible. Rust stains that originate in the beam. Beam deflections that are visible to the eye.
Steel	Rusted members where the corrosion visible reduces the steel thickness. Rusted rivets, bolts and welds to the extent that corroded material is separating from the item.

**Substructure:** The portion of the bridge supporting the superstructure. Sections of the substructure are underground; however, the visible portion supporting the beams can be inspected from underneath the bridge.

### Material Signs of Deterioration

Material	Signs of Deterioration
Concrete	Most bridges have concrete substructures. Concrete cracking and spalling should be checked for corrosion and alignment. All abutment components should be checked for vertical alignment and settlement.

**Functionally Obsolete:** Bridges typically become obsolete when the approach roads have been upgraded by either widening or realignment.

If any of the above signs of deterioration are observed, a qualified bridge engineer should be notified and a complete bridge evaluation done. A state inspector can be arranged for by making a written request to Mr. Robert Greer, Bureau of Municipal Highways, John O. Morton Building, Concord, New Hampshire. ■