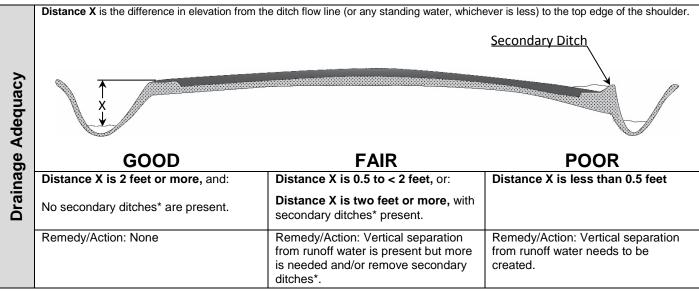
**IBR Field Guide** 



The Inventory-Based Rating System<sup>™</sup> for unpaved roads functions by defining a baseline condition for each of the three inventory features: Surface Width, Drainage Adequacy and Structural Adequacy. These features do not change rapidly and are apparent enough to be evaluated from a moving vehicle without the need for fine measurement. The resulting 1 through 10 IBR number can be found in the *Rating Lookup Chart* on the back or it will be generated automatically when using the Roadsoft<sup>®</sup> Laptop Data Collector.

	GOOD	FAIR	POOR
	22 feet or greater in surface width	16 to 21 feet in surface width	15 feet or less in surface width
Width	Vehicles have sufficient room to pass by each other when approaching in the opposite direction. Reduction of speed is unnecessary.	Vehicles should reduce speed to pass by each other when traveling in the opposite direction.	One vehicle should slow down and pull over and the other should reduce speed to pass by when traveling in the opposite direction.
	Remedy/Action: None	Remedy/Action: 1' to 6' of widening	Remedy/Action: 7' to 15' of widening

Quick Tip: When driving at 20 mph, does the driver feel they need to slow down when approaching another vehicle in the opposite lane? (see additional guides on back)



\*Secondary ditches should only be considered if they are over six inches tall.

			GOOD	FAIR	POOR
>	Existing gravel thickness is:		greater than 7 inches	4 to 7 inches	less than 4 inches
equacy	Alternatively, If thickness	1 inch ruts or 3 foot potholes	did not develop throughout the year	developed during the thaw or very wet periods	developed during much of the year
ural Ade	is not known then rate by Historical Measure:	Emergency maintenance to make road passable was	not required, leaving the road passable throughout the year (when plowed)	necessary to make the road passable during wet periods	required to make the road passable throughout the year
Structi	Remedy/Actio	n:	None	Placement of 1 to 4 inches of good quality gravel would be recommended as a fix assuming drainage is good**	Placement of 5 to 8 inches of good quality gravel would be recommended as a fix assuming drainage is good**

\*\*Look into what is causing structural problems because more gravel is not a good remedy for bad cross slope drainage.

# **IBR Field Guide**

## Rating Lookup Chart

Width	Drainage	Structure	Rating
Good	Good	Good	10***
Good	Good	Good	9
Good	Good	Fair	8
Good	Good	Poor	7
Good	Fair	Good	9
Good	Fair	Fair	8
Good	Fair	Poor	6
Good	Poor	Good	7
Good	Poor	Fair	6
Good	Poor	Poor	5
Fair	Good	Good	8
Fair	Good	Fair	7
Fair	Good	Poor	6
Fair	Fair	Good	7
Fair	Fair	Fair	6
Fair	Fair	Poor	5
Fair	Poor	Good	6
Fair	Poor	Fair	5
Fair	Poor	Poor	4
Poor	Good	Good	5
Poor	Good	Fair	4
Poor	Good	Poor	3
Poor	Fair	Good	4
Poor	Fair	Fair	3
Poor	Fair	Poor	2
Poor	Poor	Good	3
Poor	Poor	Fair	2
Poor	Poor	Poor	1
***Segm	ent is less tha	n one year old	ł

## Feature Assessment Summary

**Surface Width** is assessed by estimating the approximate width of the traveled portion of the road which includes travel lanes and any shoulder that is suitable for travel.

**Drainage Adequacy** is assessed by determining the presence or absence of a secondary ditch (6 inch high shoulder) that has the capacity to retain surface water, and by estimating the difference in elevation between the ditch flow line or level of standing water in the ditch and the top of the edge of the shoulder.

**Structural Adequacy** is assessed by estimating the existing gravel thickness. It is not the intent of this inventory feature to require involved testing or exploration of existing conditions. Ratings are to be made based on local institutional knowledge. If the thickness is not known this assessment can be conducted using the presence or lack of structural distresses (rutting over 1 inch or potholes greater than 3 feet in width) during the previous year that required emergency maintenance to keep the road passable.

## For more info see:

https://ctt.mtu.edu/inventory-basedrating-system

### Width Rating Guides:

- Include any shoulder in the width that is suitable for travel
- Calibrate yourself by measuring the actual width until you are comfortable estimating accurately from your vehicle
- Be aware of trees and slopes influencing your width perception

### Drainage Rating Guides:

- Rate the worst side for drainage
- Rate the condition that is typical of the entire segment
- Calibrate yourself by measuring the actual ditch depth until you are comfortable estimating accurately from your vehicle
- If driveway culverts are needed, then the drainage is most likely poor
- Be aware of tall grass hiding ditches
- Be aware of being influenced by conditions that would not warrant ditching i.e., ditches are usually not needed on the top of hills

#### **Structural Rating Guides:**

- When rating by *Historical Measure*, if you do not know the history of a segment ask someone who does, otherwise rate during thaw or very wet periods and during dry periods to access when the road is not passable, and when ruts and potholes are present.