

Population range (step)	# of tribes	Distribution factor	Step factor	Tribal PAF per population range	Total funding per step
Less than 25 .....	17	1	17	\$3,215.57	\$54,664.72
25-100 .....	66	3.5	231	11,254.50	742,797.12
101-1000 .....	309	5	1545	16,077.36	4,968,058.65
1001-10,000 .....	137	6.5	890.50	20,901.22	2,863,466.82
10,001 + .....	29	8	232	25,724.58	746,012.69
Totals .....		Total Step Factor = 2,915.50			9,375,000

APPENDIX C TO SUBPART C—RELATIVE NEED DISTRIBUTION FACTOR

The Relative Need Distribution Factor (RNDF) is a mathematical formula for distributing the IRR Program construction funds using the following three factors: Cost

to Construct (CTC), Vehicle Miles Traveled (VMT), and Population (POP).

1. WHAT IS THE FORMULA FOR THE RNDF?

The Relative Need Distribution Factor is as follows:

$$A = \alpha \times \{CTC \div Total C\} + \beta \times \{VMT \div Total VMT\} + \delta \times \{POP \div Total POP\}$$

Where:

- A = percent Relative Need for an individual tribe
- CTC = Total Cost to Construct calculated for an individual tribe
- Total C = Total Cost to Construct calculated for all tribes shown in the IRR Inventory
- VMT = Total vehicle miles traveled for all routes in the IRR Inventory for a given tribe

Total VMT = Total vehicle miles traveled for all routes for all tribes in the IRR Inventory

- POP = Population of an individual tribe
- Total POP = Total population for all tribes
- $\alpha, \beta, \delta$  = 0.50, 0.30, 0.20 respectively = Coefficients reflecting relative weight given to each formula factor

Example: Tribe X has the following data:

CTC = \$51,583,000 .....	Total CTC = \$10,654,171,742
VMT = 45,680 .....	Total VMT = 10,605,298
POP = 4,637 .....	Total POP = 1,010,236
A = 0.50 [CTC ÷ Total CTC] + 0.30[VMT ÷ Total VMT] + 0.20[ POP ÷ Total POP]	
A = 0.50 [51,583,000 ÷ 10,654,171,742] + 0.30 [45,680 ÷ 10,605,298] + 0.20 [4,637 ÷ 1,010,236]	
A = 0.00242 + 0.00129 + 0.00092	
A = 0.00463 or 0.463 percent	

If IRR Program construction funds available for the fiscal year are \$226,065,139 Then the allocation amount would be: \$226,065,139 × 0.00463 = \$1,046,682.

2. How Does BIA Estimate Construction Costs?

The methodology for calculating the Cost to Construct is explained in Appendix D of this subpart.

3. What Is the Cost to Construct for an Individual Tribe?

The Cost to Construct for an individual tribe is the sum of all eligible and approved project costs from the tribe's IRR Inventory.

4. What Is the Cost to Construct Component in the RNDF?

The Cost to Construct component is the total estimated cost of a tribe's transportation projects as a percentage of the total estimated cost nationally of all tribes' transportation facilities. Costs are derived from the IRR inventory of eligible IRR transportation facilities developed and approved by

BIA and tribal governments through Long-Range Transportation Planning.

5. May the Cost to Construct Component of the RNDF Be Modified?

Yes, BIA and FHWA, with input and recommendations provided by the IRR Program Coordinating Committee, may consider revisions to the data elements used in calculating the Cost to Construct component.

6. What Is the Source of the Construction Cost Used To Generate the CTC?

(a) The construction cost will be derived from the average of the following three project bid tabulation sources:

- (1) Tribal bid tabulations or local BIA bid tabulations;
- (2) State bid tabulations for the region of the State in which the tribe's project will be constructed;

(3) National IRR Program bid tabulations.  
 (b) If one or more of these bid tabulation sources is unavailable, use the average of the available sources.

(c) BIADOT will collect the national IRR Program bid tabulation data and enter it into the Cost to Construct database.

7. What Is the VMT Component and How Is It Calculated?

VMT is a measure of the current IRR transportation system use. BIA calculates VMT using the sum of the length of IRR route segments in miles multiplied by the Average Daily Traffic (ADT) of the route segment.

8. What IRR Route Sections Does BIA Use To Calculate VMT?

All IRR route sections in the IRR Inventory are used to calculate VMT, but percentage factors are applied in accordance with Appendix C to subpart C, question (10).

9. What Is the Population Component and How Is It Determined?

The population component is a factor used to define a portion of transportation need based on the number of American Indian or Alaska Native people served. The population data used will be the American Indian and Alaska Native Service Population developed by the Department of Housing and Urban Development, under the Native American Housing Assistance and Self-Determination Act (NAHASDA), (25 U.S.C. 4101 *et seq.*).

10. Do All IRR Transportation Facilities in the IRR Inventory Count at 100 Percent of Their CTC and VMT?

No. The CTC and VMT must be computed at the non-Federal share requirement for matching funds for any transportation facility that is added to the IRR inventory and is eligible for funding for construction or reconstruction with Federal funds, other than Federal Lands Highway Program funds.

However, if a facility falls into one or more of the following categories, then the CTC and VMT factors must be computed at 100 percent:

(1) The transportation facility was approved, included, and funded at 100 percent of CTC and VMT in the IRR Inventory for funding purposes prior to the issuance of these regulations.

(2) The facility is not eligible for funding for construction or reconstruction with Federal funds, other than Federal Lands Highway Program funds; or

(3) The facility is eligible for funding for construction or reconstruction with Federal funds, however, the public authority responsible for maintenance of the facility provides certification of maintenance responsibility and its inability to provide funding for the project.

## APPENDIX D TO SUBPART C—COST TO CONSTRUCT

### COST TO CONSTRUCT

(Appendix D includes Tables 1–8 which BIA Division of Transportation developed based on internal IRR data and the negotiated rulemaking process.) This method utilizes the concepts of the Bureau of Indian Affairs' “*Simplified Approach to Compute the Cost to Construct*”. The concept has been modified to include computing costs for High Capacity Roads (multi-lane roads), non-road projects (snowmobile trails, boardwalks, footpaths, etc.) and other eligible transportation facility projects.

The theory behind this concept is based on the procedure that information gathered during any inventory update can be used to compare the existing conditions to defined Adequate Standard Characteristics. This comparison can then be used to determine the total cost required to bring the transportation facility road up to a necessary Adequate Standard. The IRR Inventory database is used to determine the costs of a new transportation facility or in the case of an existing facility, the costs that will be necessary to improve the facility from its existing condition to an adequate standard. Therefore, the Cost to Construct for a particular facility is the cost required to improve the facility's existing condition to a condition that would meet the Adequate Standard Characteristics (see Table 1). For roadways, the recommended design of the geometrics and surface type vary based on the road's functional classification and average daily traffic and will use four categories of cost. The four categories are Grade and Drain Costs, Aggregate Costs, Pavement Costs, and Incidental Costs. For bridges, costs are derived from costs in the National Bridge Inventory as well as the National Bridge Construction unit cost data developed by FHWA. For other transportation IRR transportation facilities, an inventory of needs must be developed with associated costs for new and existing IRR transportation facilities based on long range transportation planning. The BIA Regions and tribes must ensure the IRR Inventory is sufficiently updated to provide all the necessary information indicating the need, the condition and the construction cost data to compute the cost to construct of any proposed or existing facility.

### BASIC PROCEDURES

The IRR Inventory, based on transportation planning must be developed for those tribes without data and updated for those tribes that have an existing IRR Inventory. Once the IRR Inventory database is current and all IRR transportation facilities needs