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About us

Infrastructure Development and Design Consultancy Engineers Pvt. Ltd. (IDDC) has been established in 1986 with the aim to provide design and development input to infrastructure projects and continued to retain the original expertise and talent over decades.

IDDC is one of the oldest and respected Engineering Consulting firms in India and is an ISO 9001: 2015 certified organisation. IDDC retains its position in the industry due to continued Research and Innovation.

Our Vision

1. Be technically committed to provide solutions that would act as impetus to the socio-economic growth and development of the country and to provide inputs for the betterment of the society and community whom we intend to serve.
2. Provide the best technical expertise to enable cost effective, innovation designs and detail for all structures through networking with experts from various spheres.

Asset management

Asset management generally refers to a system that monitors and maintains things of value. This applies to tangible assets such as buildings, bridges, offices, factories, etc., asset management in the engineering environment is a practice of managing public infrastructure assets to achieve the high returns by monitoring and maintaining the infrastructure with the objective of providing the best possible services to end users.

BACKGROUND – ASSET MANAGEMENT INDIAN BRIDGE MANAGEMENT SYSTEM

IDDC Engineers Pvt. Ltd with their 5 decades of combined experience in distress management supported by in house research of over a decade have developed the Concept of “Bridge Asset Management Program” (BAMP) based on the guidelines of IRC SP35.



It has taken 5 years to get the concept accepted in the country and was successfully implemented as “INDIAN BRIDGE MANAGEMENT SYSTEM” (IBMS) for the first time in the country for more than 1,72,000 bridges and culverts on all the National Highways of India, during 2015-21 for the Ministry of Roads Transport and Highways (MoRTH) and it was the first fully digitized system in the world as of 2015 and other systems of the world also have started digitized data collection. Digitized data analysis systems were in existence across the globe over the last 25 years.

Structure Asset Management & Maintenance System- [SAMS]

Buildings and utilities have a limited lifespan and their value to your organization will fluctuate during that time. Asset management is developed to help your organization obtain maximum value from its assets, striking the right balance between performance improvement, risk reduction and cost optimization. Managing the assets properly is essential for efficient and sustainable operation of an organization. Hence, the term “Structure asset Management & Maintenance” (SAMS) comes into the picture. It is a combined managerial and technological approach followed in order to maximize the value created for the organization by the assets. The main focus is to streamline the process of inventory, condition survey and inspection to dovetail the same with further work that the Structure needs. The inventory is aimed to generate sufficient data that would enable SAMS to take further course of action in a stepped manner. Each incremental input on the Structure would ensure that the data gets updated with the knowledge that such repeated inspection and testing brings into the system. This ensures that management decisions are based on updated knowledge about the Structure. This is achieved through the following four modules



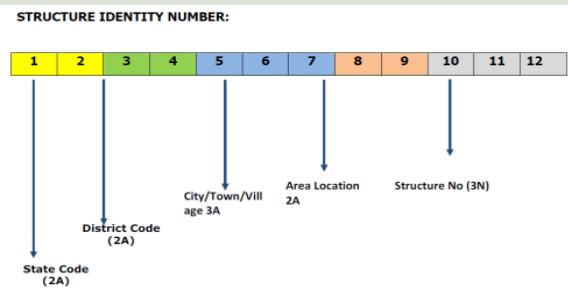
SAMS MODULE

- I. INVENTORY
- II. INSPECTION
- III. TESTING
- IV. REPAIR / MAINTENANCE

Classification of Structure for inventorization:

1. Structure Identity Number

State code	2A
District code	2A
City/Town/Village	3A
Area Location	2A
Structure No	3N



2. Structure Location Number

Structure location number is made of specific codes namely

Longitude	9 N
Latitude	9 N

3. Admin Details

Popular name of the Area	30 A/ N
Custodian	10 A
Designation of Engineer	6A
Contact Details	10 N
Email Id	30 A/ N

4. Structure Geometry Details

Length of structure	05 N
Width of structure	05N
Total No. of Floors	03 N
Max. Floor area	30 N

5. Structural Classification Numbers

Structural form	02 N
Material of construction	01 N
Type of structure	02 A
Loading	03 A/ N
Age of structure	01 N

6. Structural Rating Number (1 N)

Rating for foundation
Rating for columns
Rating for beams
Rating for slab

Process of Inspection & Testing

Based on condition rating all the structures are classified in the following manner

Category A (Structural rating of ≤ 10)

Need immediate intervention of repairs / Strengthening – Within 1 to 6 months (or) declared as unstable for operations.
Detailed inspection and testing taken up for defining the repair / strengthening replacement systems.

Category B (Structural rating of 11-13)

Severe Structural distress, need repairs/strengthening Within 6 months to 18 months.
Detailed inspection and testing taken up for defining the repair / strengthening replacement systems.

Category C (Structural rating of 14-17)

Structural distress is moderate for which repair methods and costs are defined for necessary interventions.

Category D (Structural rating of 18-20)

No structural distress and satisfactory structure. Routine and preventive maintenance is defined

Deliverables

1st stage: On completion of inventory Condition survey and ratings

Structural & Non Structural: Categories the structures into A, B, C & D for necessary interventions of inspections repairs etc.

2nd stage: On completion of inspection:

Structural: Identify the cause of distress and define testing protocol

Non structural: Generate report to define the repair/ rehabilitation /replacement options with quantification and costs along with time lines for the same along with future routine & detailed inspection and maintenance requirements

3rd stage: only for Structural components

Submission of report for types of repairs / rehabilitation / replacement works to be taken up with specifications, bill of quantities and costing along with time lines for completing the works and also future routine & detailed inspection and maintenance requirements.

Conclusion: Help the user to have a planned maintenance for safe and cost effective performance of the structure for the full designed life.