WELCOME

ENVIRONMENTAL
BRIDGE • PAVEMENT
CIVIL RIGHTS • NJ I-BANK

SUBJECT MATTER EXPERTS

LOCAL AID

SPRING 2020

LISTENING TOUR

MERCER • MORRIS • ESSEX • CUMBERLAND

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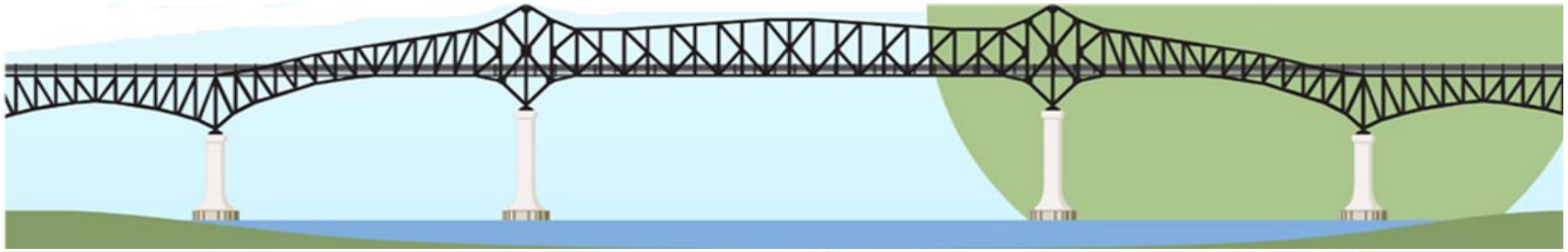
ORGANIZATION

Bridge Engineering and Infrastructure Management

- Structural Evaluation and Infrastructure Management
- Structural & Railroad Engineering Services
- Structural Design & Geotechnical Engineering



BRIDGE INFRASTRUCTURE SAFETY & MANAGEMENT

- Safety
  - Bridge Inspection
    - NBIS or Major Bridges – 2 years (typ.), interims at shorter frequency
    - Minor Bridges – 4 years (State funding permitting)
    - Underwater Inspections – 4 years (typ.), 2 years (Scour Critical)
    - Emergency and severe weather response
  - Load Capacity Analysis and Permits
- Management
  - Transportation Asset Management Plan – Bridge Assets
    - Data Collection and Storage – CombIS
    - Data Analysis and Federal Data Submission – BrM
    - Recommendations provided for maintenance (priority repair), preservation, rehabilitation, and replacement of structures
    - Performance Measure (PM2) and Target Setting

TRANSPORTATION ASSET MANAGEMENT PLAN (TAMP)

- Definition:
  - A systematic data driven approach to identify the optimal sequence of maintenance, preservation, repair, rehabilitation, and replacement actions that will lead to the desired State of Good Repair at minimum practical cost.
- Goals:
  - 94 percent of SHS major bridges (measured by deck area) in State of Good Repair (Good or Fair condition) by CY2029
  - 95 percent of NHS major bridges (measured by deck area) in State of Good Repair (Good or Fair condition) by CY2029

Take the lowest Bridge Condition Rating among Deck, Superstructure, Substructure, and Culvert

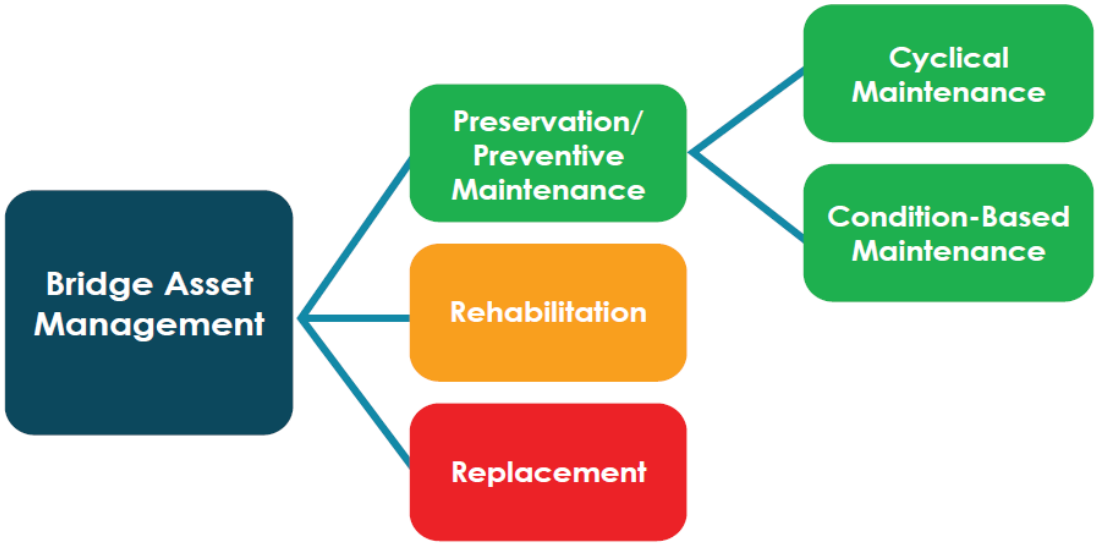
Good
- Bridge Condition: ≥ 7

Fair
- Bridge Condition: 5, 6

Poor or (SD)
- Bridge Condition: ≤ 4

STATE OF GOOD REPAIR PRIORITIZATION

- Projects:
  - TP-1 (New Starts)
  - Project Analysis for Structural Engineering Priority Ranking
- Fund allocation by program:
  - Rehabilitation or replacement of bridges in poor condition
  - Scour Critical
  - Functionally Obsolete
  - Preservation and Preventive Maintenance of bridges in fair to good condition



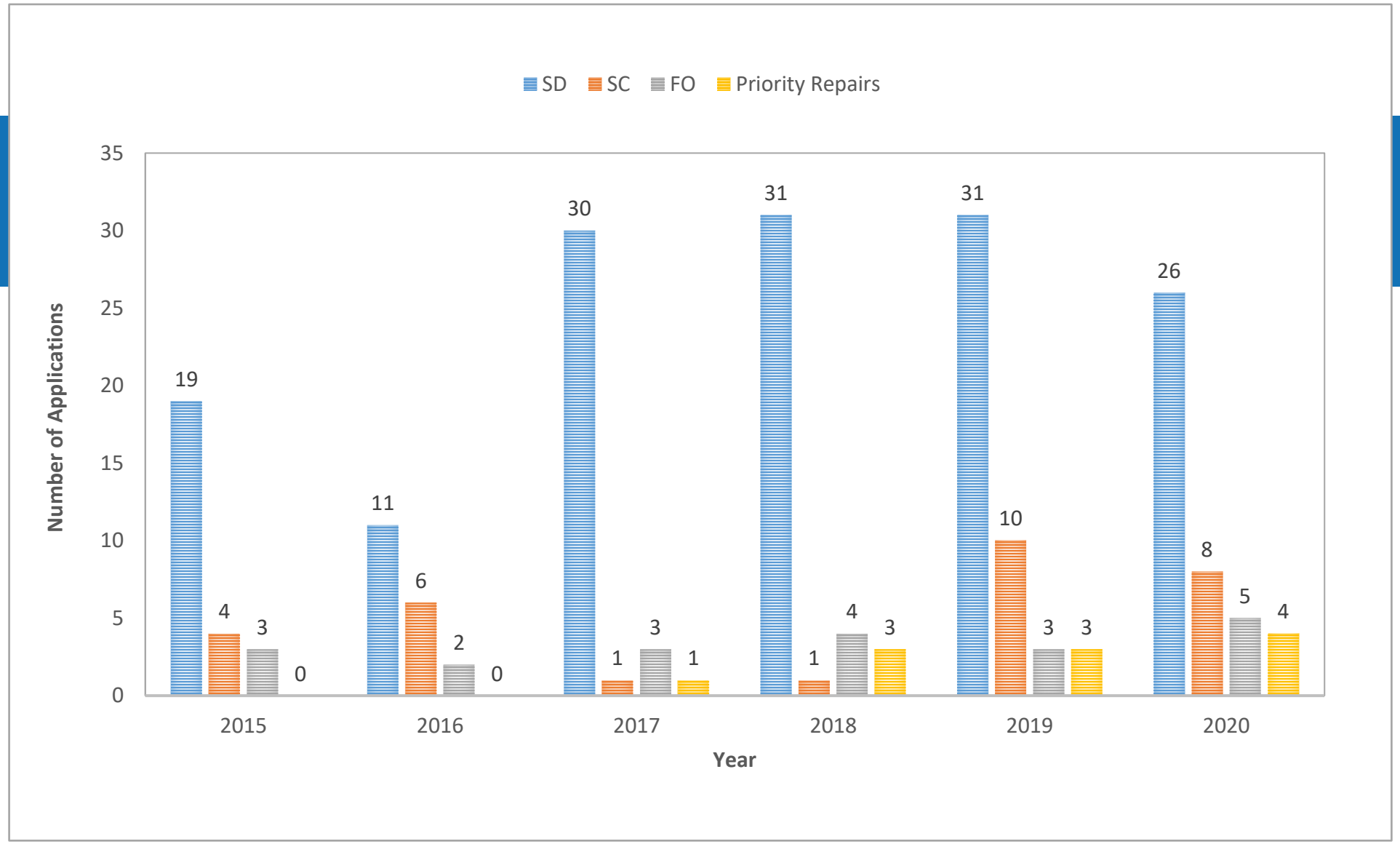
LOCAL BRIDGE FUTURE NEEDS (LBFN)

- Objective:
  - Primary: Reduce SD, SC, & FO county owned bridges
  - Secondary: Prevent bridges from becoming deficient
- State funded grant program of $47.3M
  - $25.0M Before 2017
  - Increased to $47.3M after a reauthorization of the Transportation Trust Fund (TTF)
- $47.3M Distributed among 21 counties as follows
  - $1.0M for each county - $21.0M
  - Remaining funds – $26.3M
    - 50% ($13.15M) – Structurally Deficient (SD) Deck Area
    - 50% ($13.15M) – Total Deck Area

LBFN ELIGIBILITY CRITERIA

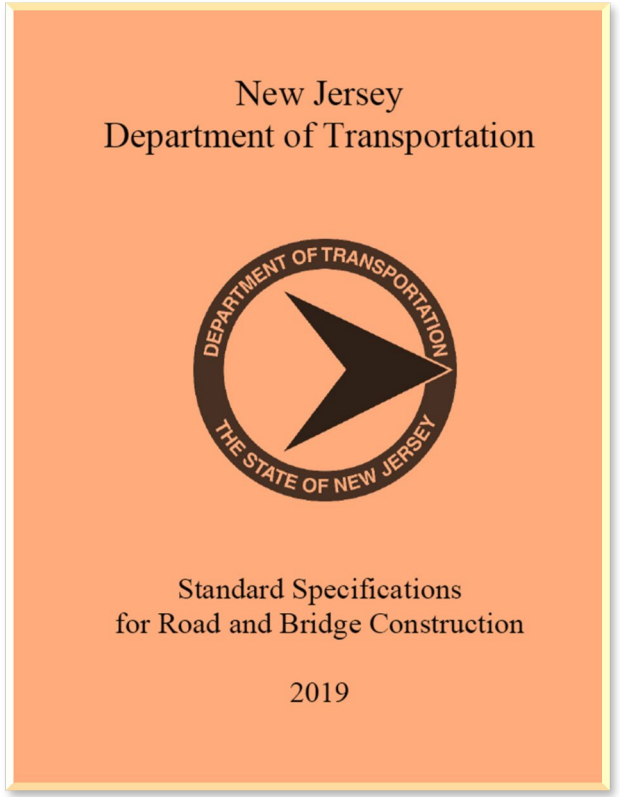
- Primary
  - Structurally Deficient(Poor) Bridges
  - Scour Critical Bridges
  - Functionally Obsolete Bridges
- Secondary (After TTF Reauthorization)
  - Minor Bridges
  - Structures that require Priority 1 and 2 repairs.
  - Bridge elements that have a condition rating of 5, that are expected to be downgraded to a 4 within the next rating cycle.

LBFN Approved Applications



BRDIGE DESIGN CRITERIA

- Advised to adhere to:
  - Current AASHTO and NJDOT Design Standards
  - NJDOT Standard Specifications
  - NJDOT Sample Plans
- Increase collaboration with County to further understand their design process
  - Use of TL-3 vs TL-4 parapets.
  - Truck loading criterion.



BRIDGE PLAN REVIEW PROCESS

- Implement a timeline policy for the review of submitted bridge plans to account for submission, comment resolution summary (CRS), etc.
- Proper identification of the optimal response to a bridge's needs
  - Well defined scope of work
  - Maximize dollar value
  - Analyze bridges from a constructability/feasibility standpoint

BRIDGE ENGINEERING & INFRASTRUCTURE MANAGEMENT

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THANK YOU!

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