Project Survey and Distress Identification

Readings: Training Course - Module 2A & 2F

If you are responsible for the rehabilitation of project:
    What information / data would you need?
        - must or should ?
        - Table in page 219 (Must: pavement design, distress, traffic control options)
    What are the problems?
        - causes & extent ? (extended problems)
    What are possible solutions?
        - design (cost estimate) / construction ?

Distress Identification
  1. Type: cause, visual pattern
  2. Severity: low, medium, high
  3. Amount: %Area, ft/mile, m/km, no./mile
  Figure 1 - Example of fatigue cracking definition

    Available Distress Identification Manuals:
        - Toward standardization
        - ASTM D5340 (e.g., Figure X1.2 - X1.10)
        - "Distress Identification Manual for the Long-Term Pavement Performance Studies"

  Figure 10 - general AC pavement distresses
  Figure 11 - general JCP pavement distresses
  Figure 12 - general CRCP pavement distresses

Distress Survey Procedures:
1. Identify any uniform section within project area
   (Uniform section: Identical design, traffic, others)
2. Divide section into sample units (SU)
   $(20 \pm 8$ slabs or 2,500-5,000 ft^2)
3. Select which SU to survey (5 ~ 10%)
4. Conduct survey - distress data
   - Manual Distress Survey
   - Automated Distress Survey

Automated Distress Survey
1. PASCO USA: ROADREACON-70, RDP-75
2. Automatic Road Analyzer (ARAN)
3. Swedish Laser Road Surface Tester
4. Others

Roughness Survey
BPR Roughometer, May's Ride Meter, PCA Roadmeter, K.J. Law Profilometer, Drofilograph, Surface Dynamics Profilometer

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