

Simple Asset Management Systems includes:

- Developing an Inventory
- Assess network Condition
- Assign repairs, develop repair costs
- Diagnose Current Status of Network
- Develop plan based on a simple formula

Condition Survey:

- Identify distress type
- Identify extent and severity of distress

Preferred Order of Repairs to extend Asset life:

- Preventive Maintenance
- Routine Maintenance
- Corrective Maintenance
- Defer Work
- Rehabilitation
- Reconstruction

Roads & Streets Priority Equation: $Priority = k_1S * [k_2I + k_3T + k_4C + k_5D + k_6R]$

S = Repair Category Values:	Importance Values (1 – 5)	Traffic Values: (1 – 5)
1. Reconstruction	1 = Low	1 = Low
2. Rehabilitation	5 = High	5 = High
3. Defer Maintenance		
4. Corrective Maintenance		
5. Routine Maintenance		
6. Preventive Maintenance		

C = Condition: PCI/10 (PCI Calculated through a distress deduction process)
D & R: Drainage and Roughness Values: (Measure of Severity)
1. Low 4. Medium 7. High
k# = Weighting Factor (1 – 10)

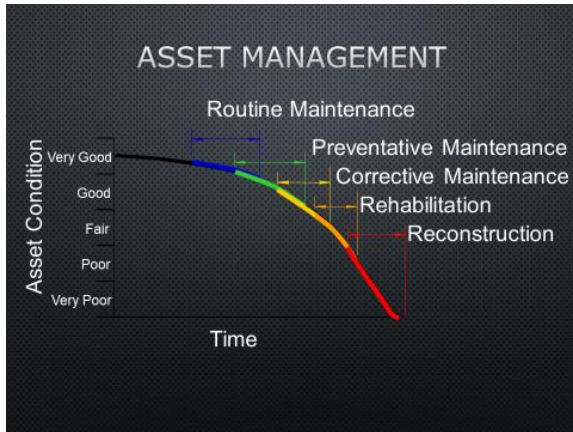
Culvert Priority Equation: $Priority = k_1S * [k_2I + k_3T + k_4C + k_5F + k_6E]$

S = Repair Category Values:	Importance Values (1 – 5)	Traffic Values: (1 – 5)
1. Reconstruction	1 = Low	1 = Low
2. Rehabilitation	5 = High	5 = High
3. Defer Maintenance		
4. Corrective Maintenance		
5. Routine Maintenance		
6. Preventive Maintenance		

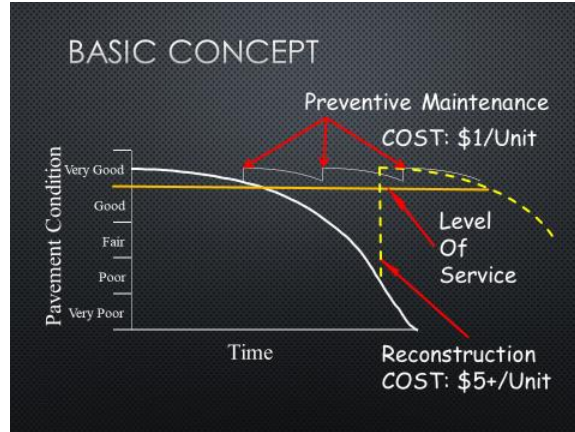
C = Culvert Condition: CCI/10 (CCI Calculated through a distress deduction process)
F = Flow: (How well structure performs with regard to flooding) [1 = Good; 4 = Fair; 7 = Poor]
E = Environmental: Measure of Aquatic Organism Passage (AOP) [0 = N/A; 1 = Good; 4 = Fair; 7 = Poor]
k# = Weighting Factor (1 – 10)



Maintenance Type for Condition:



Basic Concept of Asset Management:



Benefits:

- Efficient Use of Limited Resources
- Results are Substantiated
- Identifies Network Condition
- Improve Communication with Board and Community
- Provide More Accurate Information in an Objective Manner
- Improves Cooperation between all parties as a result of better information

Resources:

Local Highway Inventory:

- Local Roads: <https://www.dot.ny.gov/highway-data-services/lhi-local-roads>
- County Roads: <https://www.dot.ny.gov/highway-data-services/lhi-county-roads>

Manuals:

- Distress Identification Manual for Long-Term Pavement Maintenance Program; FHWA HRT 13-092 <https://www.fhwa.dot.gov/publications/research/infrastructure/pavements/ltpm/13092/13092.pdf>
- Pavement Management for Low-Volume Roads; TRB Record 1106 <http://onlinepubs.trb.org/Onlinepubs/trr/1987/1106v2/1106v2-005.pdf>
- Pavement Maintenance; CLRP 06-5: <https://cornell.app.box.com/v/clrp-ws-pm>
- Asphalt Paving Principles; CLRP 04-3: <https://cornell.app.box.com/v/clrp-ws-app>

Cornell Asset Management Software:

- Cornell Asset Management Program for Roads and Streets (CAMP-RS) Manual; CLRP 14-01: <https://cornell.app.box.com/v/clrp-pb-camp-rs>
- Cornell Asset Management Program for Roads and Streets (CAMP-RS) General Information and Software Availability: <https://www.clrp.cornell.edu/trainingevents/interns.html>

Forms:

- Culvert Inventory/Inspection Form (Roadway and Roadside Drainage: Appendix 8)
 - <https://cornell.app.box.com/v/clrp-ws-rrd>
- Sign Inspection/Inventory Form: <https://cornell.app.box.com/v/clrp-tt-retro-14-forms>
- Fleet/Equipment Inventory/Inspection Forms: (Running Your Highway Department)
 - <https://cornell.app.box.com/v/clrp-ws-ryhd>
 - Fleet Inventory: Appendix 7
 - Machinery, Equipment & Tools Inventory: Appendix 8
 - Vehicle Inspection (Daily & Annual): Appendix 9