

IA Supplemental Attachment G Project Scoring Methodology

5-Year Capital Improvement Planning

Purpose: The Department of Interior (DOI) annually published budget guidance and instruction using “Attachment G” issued by the DOI Budget Office to be used by the Bureau’s to develop Five-Year Deferred Maintenance and Capital Improvement Plans. As stated, the criteria are designed to allow the bureaus to further define the distribution of points based on bureau missions and provided through bureau-specific guidance. This supplement is intended to provide the specific guidance and scoring methodology for Indian Affairs construction projects under the oversight of the Office of Facilities, Property, and Safety Management (OFPSM); specifically, Education Construction, Public Safety & Justice Construction, and Other Construction.

The Indian Affairs-Facilities Management System (IA-FMS) is a Maximo based management information system used to enter, track, support, and report on data used to manage the facilities program. In addition to the central Maximo database, IA-FMS utilizes several additional applications (“Apps”) that help to manage people, funding, safety reports and abatement plans, calculate API, and other functions. In the summer of 2015 DFMC transitioned to IA-FMS from its predecessor. Some business processes are still being developed and new ones are being defined regularly as OFPSM continues to mature its asset management program.

IA Supplemental Project Scoring Methodology

IA utilizes the same four scoring elements and weights identified in the DOI attachment G:

- Asset Priority Index versus Facility Condition Index (API/FCI)
- Scope of Benefits (SB)
- Investment Strategy (IS), and
- Consequences of Failure to Act (CFA)

Where:

Total Project Score = $(0.4*API/FCI) + (0.2*SB) + (0.2*IS) + (0.2*CFA)$

In applying the four scoring elements and customizing them to fit IA construction projects, OFPSM utilized two primary areas:

1. The asset’s API and FCI as defined below.
2. Using the categories and ranks defined within IA-FMS to develop the conversion tables discussed in each factor.

Categories and Ranks:

When generating a WO, IA-FMS utilizes the follow categories:

- Safety (S)
- Health (H)
- Fire (F)
- Mechanical (M)
- Environmental (X)

- Energy (E)
- Housing (X)
- New Construction (C)

In addition to the different categories, IA-FMS requires the user to assign a rank (Rank 1, 2 or 3) to indicate the relative importance of the action. Rank 1 being the most important and rank 3 the much less importance.

Note: The DOI Attachment G guidelines also discuss the application of the Risk Assessment System (RAS) for safety and health issues and use of the Risk Assessment Codes (RAC). Valid RAC 1, 2, 3 issues are required to be addressed immediately. DFMC has a separate emergency reimbursement program that addresses immediate need requirements. The scoring methodology herein supports the development of a 5-year capital improvement plan, so it RAC 1, 2, and 3 issues are not included. Further, RAC 4 and 5 issues are incorporated using the S & H ranks assigned by the safety specialists conducting the safety and health inspections.

Application of the Project Scoring Methodology

The scoring methodology identified below is utilized for all WOs within IA-FMS as part of the incorporated automated input and business processes. This helps ensure that BIA and BIE facility managers have access to the information to help them in selecting and justifying their priority lists, especially for the Facilities Improvement and Repair (FI&R) Minor (\leq \$250K).

This information also provides significant evaluation and assessment input to assist in the selection of future school replacement and facility component replacement projects to be included in the IA 5-Year Capital Improvement Plan.

OFPSM/DFMC utilize the scoring methodology to develop the FI&R Major ($>$ \$250K) project list for the current and upcoming project execution requirements and to generate preliminary information to support the future years of the 5-Year Capital Improvement Plan.

Developing Initiative: Currently FI&R is broken into major and minor with some additional special programs. The current structure does not support long-term asset management forecasting for scheduled needs. OFPSM is restructuring its organization to include a Division and Branch that will support a more holistic approach to asset management that provides for both scheduled and unscheduled maintenance and other needs. By the end of FY2017, OFPSM intends to have a comprehensive business model that allows for the planning and budgeting for scheduled maintenance requirements (preventive maintenance, scheduled major repairs, and end of life replacements) for Major Capital Assets (roofs, HVAC, boilers, fire alarms systems, etc ...).

Elements for Calculating DOI Score

Asset Priority Index versus Facility Condition Index (API/FCI):

DOI 2018 Attachment G:

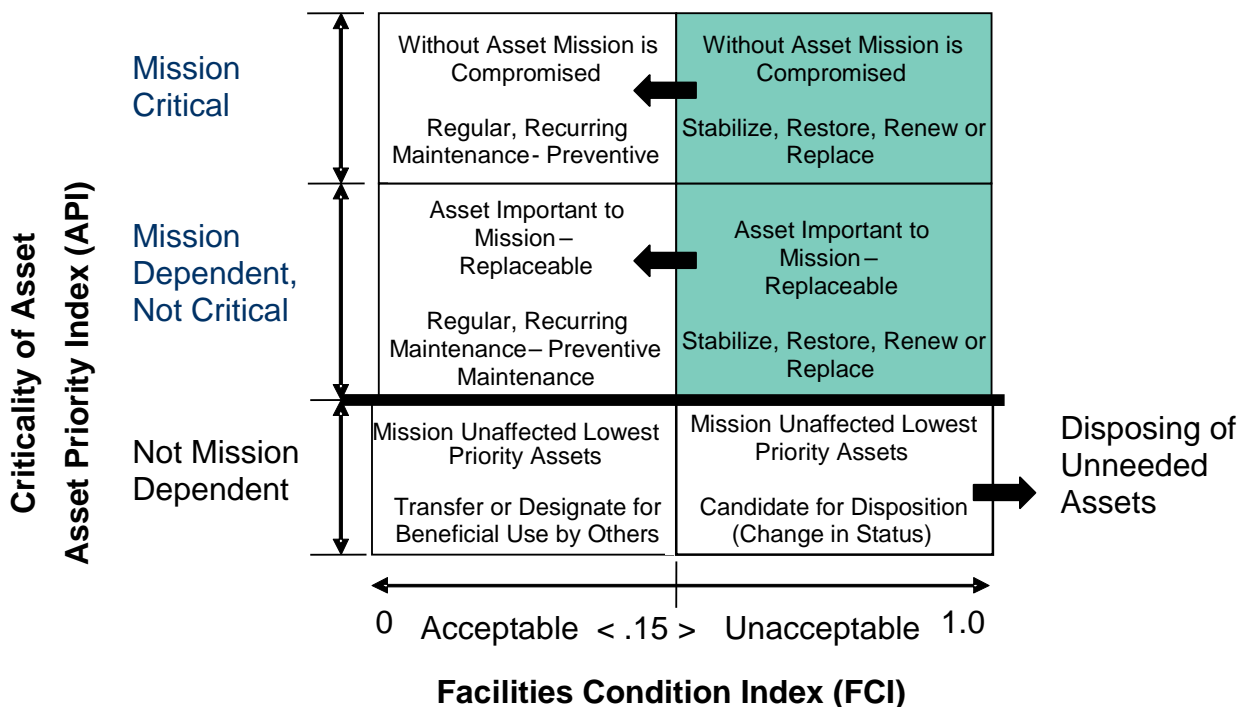
Asset Priority Index versus Facility Condition Index (API/FCI) emphasizes projects that involve mission critical assets in unacceptable condition with less emphasis on non-mission critical assets. The element measures the relative priority of the project is based on the combination of the assets' importance to the mission (API) and the amount of needed repair/DM relative to replacement value (FCI). The element's weight in overall DOI score is 40% and scored with the following criteria:

API and FCI	Raw Score	Weighted Value in Total Project
API > 80; FCI ≥ 0.15*	100	40
API > 80; FCI < 0.15*	75	30
API 50-80; FCI ≥ 0.15*	40	16
API 50-80; FCI < 0.15*	30	12
API < 50; FCI < 0.15*	5	2
API < 50; FCI ≥ 0.15*	0	0

**BIA to use 0.10 for school assets*

DFMC/OFPSM utilizes the scoring in Table 1 from the DOI attachment G to calculate the API/FCI weighted factor. The illustration below articulates the intent of investing in corrective actions that decrease the FCI for the most mission critical assets.

Asset Priority Index (API) represents an assessment of the relative importance of an asset in supporting the overall mission. IA-FMS incorporates an API module that helps to calculate the



API for assets.

Current Challenge: Most of the assets in the inventory were carried over from the older FMIS system and have not had their API reassessed in several years. This assessment needs to be done by the program, preferably at the local level and validated/approved at the higher program level. DFMC is working to establish a business process to ensure that the API is regularly reviewed.

Facility Condition Index (FCI) is calculated for an asset (building)¹ by dividing the total differed maintenance for the asset by the current replacement value (CRV) for the asset.

$$FCI = \text{Total DM} / \text{CRV}$$

Scope of Benefits (SB):

DOI 2018 Attachment G:

Scope of Benefits (SB) emphasizes projects clearly aligned with DOI, Bureau, office and program missions, initiatives, and strategic goals. This element measures the degree to which the project (not the asset) contributes to mission and strategic goals. Bureaus are to develop specific scoring guidance for regions and field offices. The element's weight in overall DOI score is 20% and scored with the following criteria:

Table 2. Attachment G Scope of Benefits General Scoring

Scope of Benefit	Raw Score	Weighted Value in Total Project
The project demonstrates a major and measurable contribution to established goals and objectives of the Department and the Bureau, aligning with specific strategic plan outputs and outcomes.	100	20
The project demonstrates a moderate contribution to established goals and objectives of the Department and the Bureau.	50	10
The project contribution to established goals and objectives of the Department and Bureau is minimal or not demonstrated.	0	0

OFPSM/DFMC is describing the Scope of Benefits for construction in terms of the Percent of Impact a specific project/DM WO will have on the status of an asset. There is an inherent goal to move mission critical and dependent (scored using the API/FCI calculation) assets to a lower FCI. The degree of movement from the current FCI status to a resulting status is the percent of impact.

Percent of Impact:

¹ The FCI can also be calculated for a site (i.e. a School) and/or for an entire program (BIE Schools). For determining a project priority list, the FCI is most commonly utilized at the individual asset (building) level. FCI at the site (School) level is sometimes useful for determining eligibility to applying for a school replacement program such as the NCLB School Replacement program. Tracking the FCI at the program level provides some usefulness in identifying the OVERALL trend for a program.

DM= The estimated cost of the Differed Maintenance action
TDM for Asset = Total DM for associated asset (building)

$$\% \text{ Impact} = (\text{DM}/\text{TDM for Asset}) \times 100$$

NOTE: Assets that are listed as “Grounds” (sidewalks, water & sewer pipes, etc ...) do not have an associated FCI or CRV value. DM for grounds are not included in a site (school campus, Justice site, Agency site) FCI; hence, a status of poor, fair, or good has no meaning. The scoring calculation approach is the same though.

DMG= The estimated cost of the Differed Maintenance for the Grounds action
TDMG for Site = Total DM for associated site’s Grounds

$$\% \text{ Impact} = (\text{DMG}/\text{TDMG for Site}) \times 100$$

The conversion table used for SB is in Table 3.

% Impact	Poor	Fair	Good	Grounds
>50%	100	75	50	50
>30% <=50%	100	50	25	25
>10% <=30%	75	25	0	0
<=10%	50	0	0	0

Investment Strategy (IS):

DOI 2018 Attachment G:
Investment Strategy (IS) emphasizes projects that can clearly define a positive return on investment, leverage outside interests, or reduce operation and maintenance costs. This element is structured to deemphasize projects that increase DOI operation and maintenance costs. The element measures the project’s strategic business investment by decreasing operation and maintenance requirements (including demolition/ disposal), economizing current mission processes, or is supported by significant partner contributions which reduce the Federal cost. Bureaus are to develop specific scoring guidance for regions and field offices. The element’s weight in overall DOI score is 20% and scored with the following criteria:

Investment Strategy	Raw Score	Weighted Value in Total Project
The project demonstrates a major and measurable net savings for the Government, strongly supports financial sustainability efforts, or leverages significant non-DOI resources.	100	20
The project demonstrates a minor reduction in operation and maintenance costs or a moderate leveraging of non-DOI resources.	50	10
The project does not reduce operation and maintenance and does not have any matching contributions.	0	0
The project demonstrates a significant increase in operation and maintenance costs for the organization.	-25	-5

OFPSM/DFMC has developed the conversion matrix in table 5 to reflect the relative impact of each category and rank combination to both the O&M and life-cycle costs. The matrix is weighted more heavily toward the mechanical and energy Rank 1 projects. While not absolute, these projects will yield the highest impact to both O&M and life-cycle costs. The safety, health, and fire categories were weighted moderately higher to reflect the broader sense of the investments and to reflect the importance of these categories.

Category	Rank 1	Rank 2	Rank 3
Safety (S)	75	50	0
Health (H)	75	50	0
Fire (F)	75	50	0
Mechanical (M)	100	75	25
Environmental (X)	0	0	0
Energy (E)	100	75	25

Consequences of Failure to Act (CFA):

DOI 2018 Attachment G:

Consequences of Failure to Act (CFA) emphasizes projects with unacceptable risk if the project is not being completed. This includes risks to public or employee health and safety as well as natural or cultural resource damage. Bureaus are to develop specific scoring guidance for regions and field offices. The element's weight in overall DOI score is 20% and scored with the following criteria:

Consequence of Failure to Act (CFA)	Raw Score	Weighted Value in Total Project
Failure to complete this project would have major direct impacts on public or employee health and safety.	100	20
Failure to complete this project would have major direct impacts on natural or cultural resources.	50	10
Failure to complete this project would not have major direct impact on health and safety or natural/cultural resources.	0	0

OFPSM/DFMC has developed the conversion matrix in table 7 to reflect the relative impact of each category and rank combination to safety, health, and critical resources. The matrix is weighted more heavily toward the safety, health, and fire projects.

Category	Rank 1	Rank 2	Rank 3
Safety (S)	100	75	50
Health (H)	100	75	50
Fire (F)	100	50	0

Mechanical (M)	75	25	0
Environmental (X)	75	50	0
Energy (E)	50	25	0
New Construction (C)	25	0	0
Housing (X)			