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Introduction / Background

Currently, there is no standard process in the Department to guide the staff on how to check and inspect ceiling installation works by the Main Contractor. The project staff conducts the ceiling inspection based on their own individual experience which leads to different levels of acceptance and quality of the works.

Objectives

The goal of this QI project is to develop a ceiling inspection guide that aims to achieve the following:

- Prevent injury and death due to improper ceiling works.
- Improve the competency of project officer when conducting and leading the ceiling inspection.
- Ensure ceiling works delivered by the Main Contractor is of consistently good quality and compliant to project specifications.

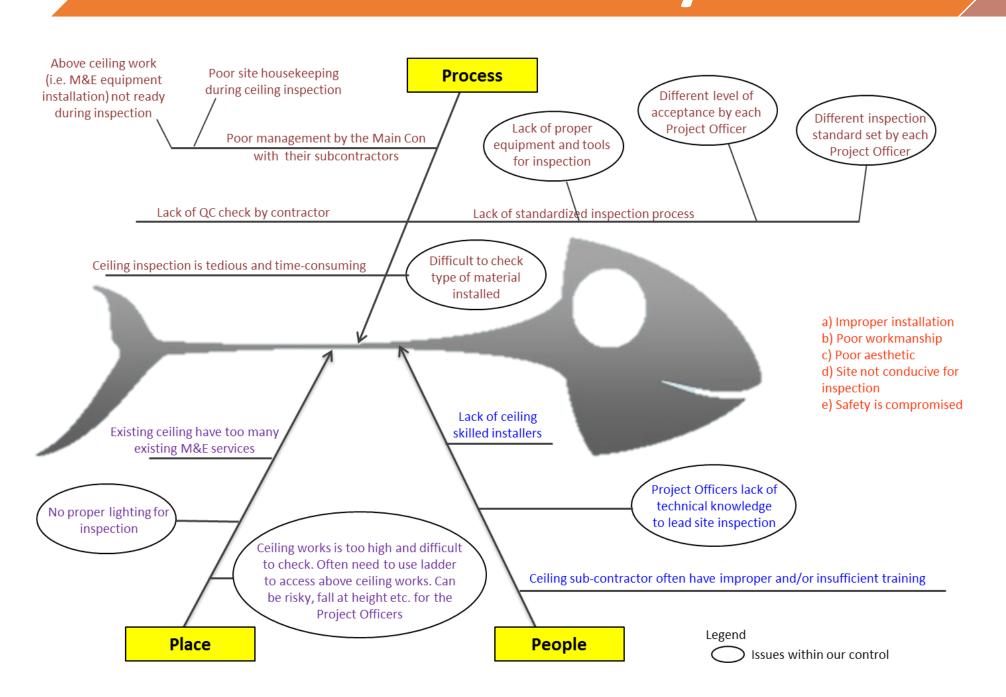
Methodology

The team used the Plan Do Check Act (PDCA) Cycle.

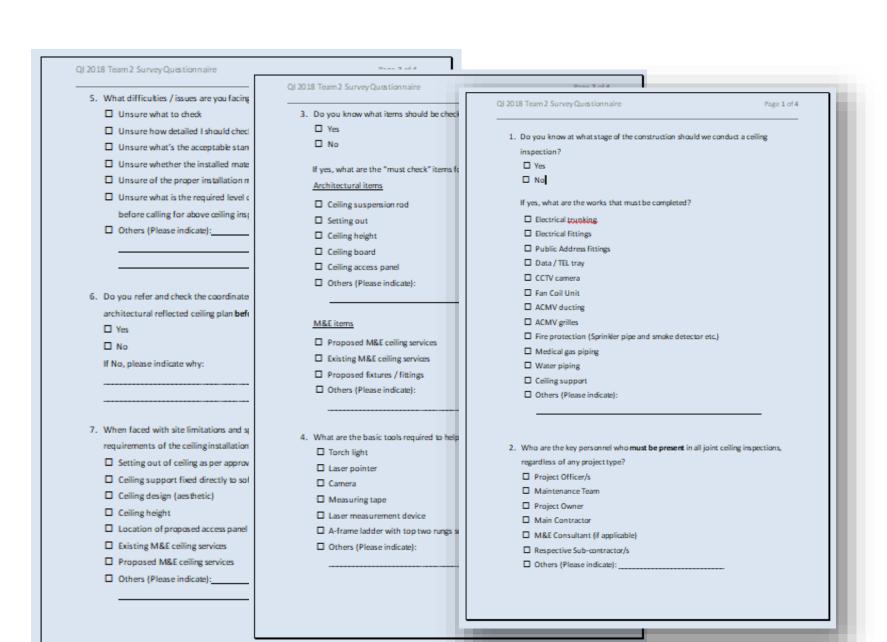
Cause Analysis

Survey

Survey Return & Analysis

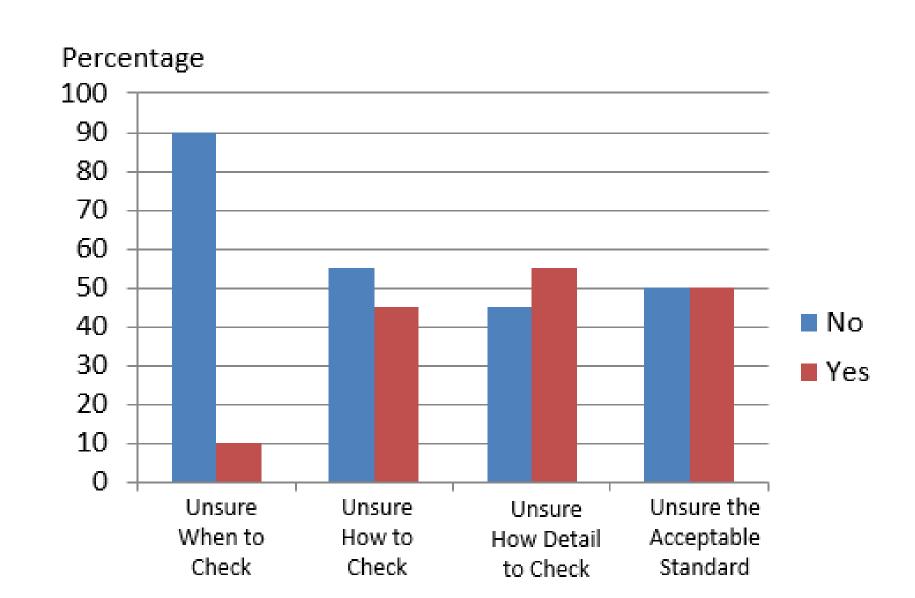


The fish bone diagram method was used by the team to illustrate the problems and also to identify the common problems observed during ceiling inspection. Through the diagram, the team was able to group the issues and identify the challenges that can be improved through the QI project.



The team developed a questionnaire and conducted the survey on the Department, to find out the current practices of conducting ceiling inspection and the common problems faced by the staff. The survey also helped to gauge the staff's competency in carrying out the ceiling inspection and help the team to understand what area is lacking when conducting ceiling inspection

Survey returns were then collated and analyzed.



From analysing the survey return, the team was able to derive the framework of the checking tool to help project officer in carrying out the ceiling inspection.

100% of the survey return agreed that a ceiling inspection guidebook would be helpful in their work. Majority voted for the guidebook to include guide on when to check, what to check (i.e. items / components), how to check (i.e. methodology) and acceptable standards.

Development

2. Preparation

Tools, checklist, approved reflected

ceiling plans, approved coordinated

M&E services plan, etc.

3. Process

What to check, how to check

and acceptable standard

Testing

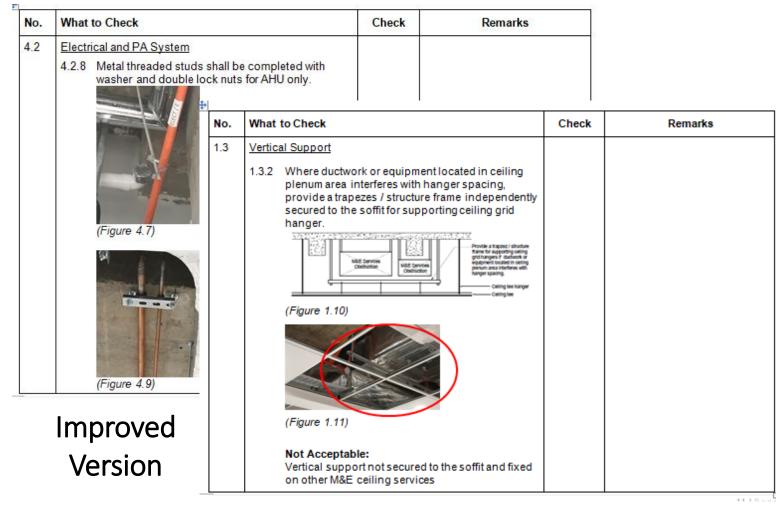
Result

The team tried out the proposed checklist in K, P & Eye Clinic renovation in KKH.



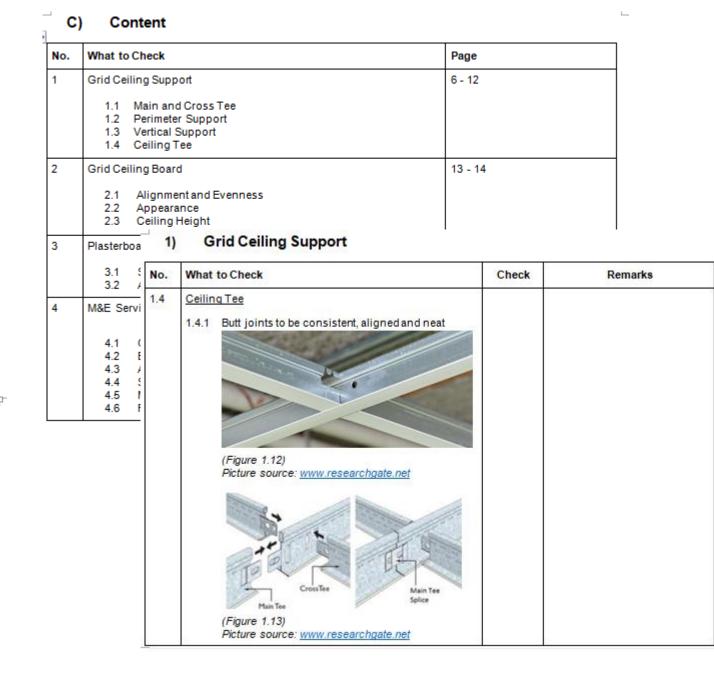
Through the trial exercise, the team identified possible areas of improvement to make the checklist more user friendly. Area of deficiency and level of acceptable standard were not well defined and described.

The improved checklist was tested again in OT 10 project in SNEC.



We found that the checklist was useful for the project officer during ceiling inspection. Annotations, illustrations and remarks column were added for a comprehensive check. The checklist eased the process of the ceiling inspection in a way that it helps to guide the project officer what to look out for and how to inspect the ceiling in a systematic way with consistent acceptable standard.

The improved version of the checklist enables the project officer to conduct the ceiling inspection in a systematic way with consistence acceptable standard.



Conclusion

1. Pre-requisite for

Ceiling Inspection

When to check,

attendees required, etc.

4. Documentation

Ceiling checklist

was developed

to develop the checklist.

CEILING CHECK

MASTER

With the positive response, the team then proceed

The team concluded that the Ceiling Inspection Guide is useful and effective. It enables the project officer and the Main Contractor's team on site to be well prepared when calling for above ceiling inspection. The right tools and the area of check indicated in the Guide also help the project officer to conduct a systematic check. Time spent for the above ceiling inspection can then be productive followed by proper documentation. The documentation also enable the project officer to have proper follow up with the Main Contractor to close up outstanding issues.

Recommendations

The team recommends following up this QI Project with a post implementation survey in the next one year to gauge the effectiveness of the ceiling inspection guidebook. The team will explore using tablet to digitise the checklist.