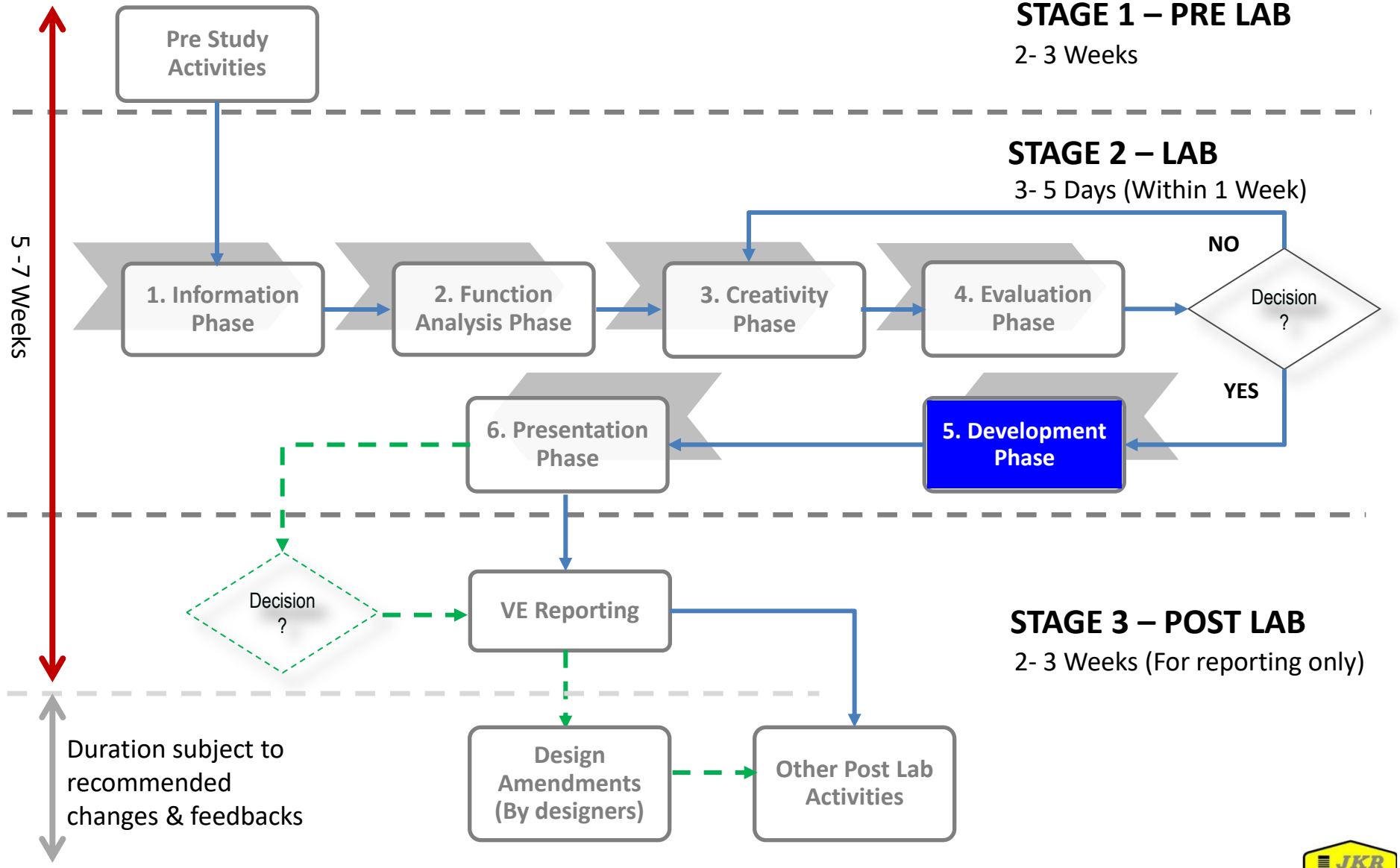
LAB STAGE

DEVELOPMENT PHASE

VE STUDY PROCESS



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DEVELOPMENT PHASE

DEVELOP (FURTHER EVALUATE) POTENTIAL IDEAS:

- Develop how the idea work?
- How much will it cost and its implication?
- Does the idea bring innovation?
- What is the LCC impact?
- Is there any risk or constraint?
- Explore all pros and cons!

DEVELOPMENT PHASE

FINALIZE "RECOMMENDED IDEAS" (WITH CONSENSUS) AND SUMMARIZE COST IMPLICATIONS:

- To opt for the most viable solutions (if a range of potential solutions available)
- Summarize cost implications of all opted solutions
- Review Project Cost Model

DEVELOPMENT PHASE

TIPS DURING DEVELOPMENT PHASE:

- Do not get solely influenced by cost implication
- Explore advantages and disadvantages exhaustively
- Consider impact of risks or constraints identified
- Highlight any innovation created
- Justify and remark basis of all solutions made on “recommended ideas” and “rejected ideas”

DEVELOPMENT PHASE

ACTION PLAN:

- Develop Action Plan – identify task, target date & responsibility
- Discuss to get agreement & commitment from all

DEVELOPMENT PHASE

ASSESS VE STUDY OBJECTIVES:

- Assess the achievement of the VE Study Objectives:
  - Cost Optimization as budgeted (“Hard” findings)
  - Functionality, efficiency and other improvements (“Soft” findings)
  - Project risks management initiation/review
- Highlight lessons learned from the VE Lab exercise and suggest the improvement strategy

DEVELOPMENT PHASE

PURPOSE : Analyze further the viability of ideas to be developed into workable solution as best or preferred options

TIME FRAME: 8-12 Hours

MATERIALS:

- Slides of Development Phase Briefing
- Completed Templates: Information Phase, Function Analysis Phase, Creative and Evaluation Phase
- Project Documents: Drawings, Bill of Quantities (BQ), Specification, Technical Report etc.
- Others: JKR Schedule of Rates, JKR Building Rates per square metre, Similar Project Documents etc

TOOLS & TECHNIQUES:

- Group Consensus
- Development Phase Template (softcopy & hardcopy)
- Summary of Recommended Ideas Template (softcopy & hardcopy)
- Sketches (existing design, design option etc)
- Calculation (design, cost etc)
- VE Lab Feedback Form

DEVELOPMENT PHASE

FACILITATION EXERCISE OF DEVELOPMENT PHASE

Code	Phase Activities	Tasks	Time Allowed	Tip Notes
B5	**DEVELOPMENT PHASE**			
a	Brief on Development Phase	You need to brief and set ground rules on Development Phase (purpose, activities, expected outputs)	15 minutes	
b	Develop and further evaluate shortlisted ideas into workable options and to determine best solutions	i. You need to brief on Development Phase Template ii. Then, you will ask group to develop details of shortlisted ideas against original proposal, in terms of: - advantages & disadvantages - cost implication - innovativeness - risks and constraints iii. You will ask group to evaluate shortlisted ideas for recommending best feasible options	6-8 hours	Wherever necessary, multiple ideas may need to be combined and developed together (by lab groups)

DEVELOPMENT PHASE

FACILITATION EXERCISE OF DEVELOPMENT PHASE

Code	Phase Activities	Tasks	Time Allowed	Tip Notes
B5	**DEVELOPMENT PHASE**			
c	Obtain consensus on the best solutions	i. Allow plenary session to present findings ii. You need to ask lab to select the most feasible option (wherever necessary) iii. Obtain lab consensus on the best solutions as recommended ideas	1-2 hours	
d	Summarize all recommended ideas and study findings	i. You have to summarize optimization of all recommended ideas and study findings ii. You have to review study model(s) - Space/Cost/Quality (or others): - Compare outcome against study model(s) - Identify implication of reviewed study model(s)	1-2 hours	Select 'YES' ideas only (Development Phase Template)

DEVELOPMENT PHASE

FACILITATION EXERCISE OF DEVELOPMENT PHASE

Code	Phase Activities	Tasks	Time Allowed	Tip Notes
B5	**DEVELOPMENT PHASE**			
e	Develop Action Plan for post lab activities	i. You will identify task, target date and responsible parties ii. You need to obtain inputs from responsible parties	30 minutes - 1 hour	This activity may be conducted concurrently with other activities
f	Review achievement of VE Study Objectives	i. You need to assess achievement against the predetermined VE Study Objectives ii. You will identify lessons learned and improvements (where applicable)	15 - 30 minutes	

DEVELOPMENT PHASE TEMPLATE

JKR	**VALUE ENGINEERING** **Development Phase**	Reference : JKR.VE.Lab.05 Page No : 1 Issue No : 1 Revision No : 1 Date : AUGUST 2013

PROJECT	:	**GROUP** :	**RECOMMENDATION:**
EVALUATED IDEA NO:	:	**PAGE** : **DATE** :	**YES/ NO** **NO:**

ORIGINAL DESIGN / SKETCH	**COST BREAKDOWN**

EVALUATED IDEA / SKETCH	**COST BREAKDOWN**

ADVANTAGES / INNOVATION	**DISADVANTAGES / RISK**	**COST IMPLICATION**	
		ORIGINAL DESIGN COST (RM)	
		EVALUATED IDEA COST (RM)	
		NETT SAVING OR EXTRA COST (RM)	

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SUMMARY OF IDEAS TEMPLATE

JKR	VALUE ENGINEERING Summary Of Recommended Ideas	Reference : JKR.VE.Lab.06 Page No : 1 Issue No : 1 Revision No : 1 Date : AUGUST 2013

PROJECT :	GROUP :
LEVEL : PROJECT / SPACE / ELEMENT / COMPONENT	PAGE :
SCOPE :	DATE :

NO	RECOMMENDED IDEAS	SAVING	EXTRA
NETT SAVING / EXTRA			

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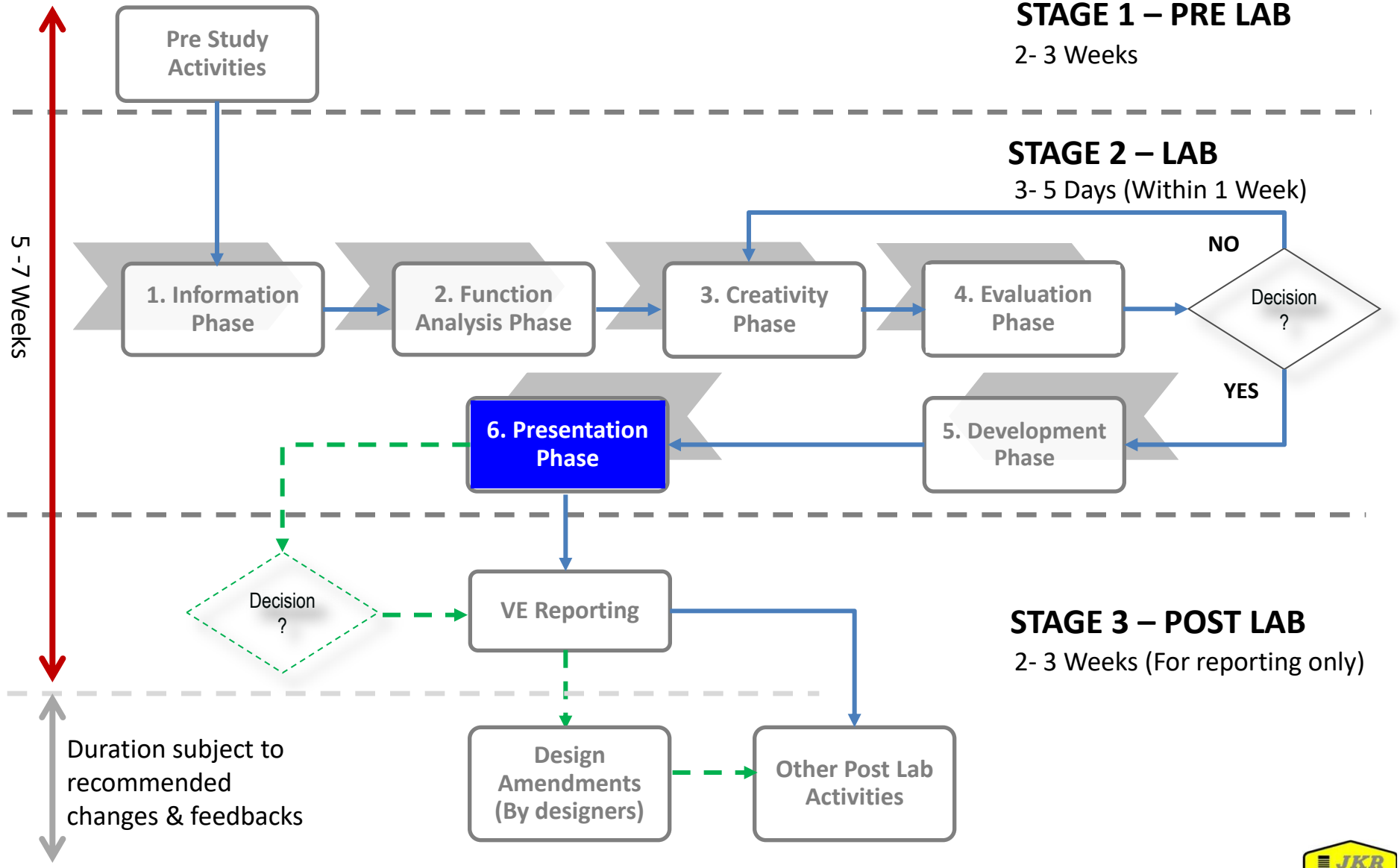
LAB STAGE

PRESENTATION PHASE

VE STUDY PROCESS



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PRESENTATION PHASE

REPORTING OF VE LAB FINDINGS:

- Consolidate all VE lab information, supporting documents, lab templates etc.
- Prepare initial VE Report – to include (not limited to):
  - Summary of project information
  - Summary of recommended ideas for implementation
  - Summarize achievement of the VE Lab Objectives
  - Agreed Action Plan
- Prepare presentation slides (of the initial VE Report)

PRESENTATION PHASE

PRESENT & GAIN ACCEPTANCE OF VE FINDINGS, RECOMMENDATIONS:

- Present to “sell” VE study recommendations
- Highlight the “Hard & Soft” findings of the VE study
- Take feedbacks or any reviews from the stakeholders
- Update reviews to finalize the VE Report
- Get stakeholders to approve (sign-off) the VE Report (Not necessary during VE Lab Stage)

PRESENTATION PHASE

PURPOSE : Present and gain acceptance from stakeholder or decision maker to proceed with the implementation of VE recommendations

TIME FRAME: 1-2 Hours

MATERIALS:

- Slides of Presentation Phase Briefing
- Slides of VE Lab Findings:
  - Summary of total numbers of Generated / Evaluated / Recommended Ideas
  - List of Recommended Ideas
  - Reviewed VE Study Model(s)
  - Action Plan
  - Achievement of VE Study Objectives
  - Lessons Learned
  - Client Value System (CVS)

TOOLS & TECHNIQUES:

- Presentation
- Feedback
- Lab Consensus

PRESENTATION PHASE

FACILITATION EXERCISE OF PRESENTATION PHASE

Code	Phase Activities	Tasks	Time Allowed	Tip Notes
B6	**PRESENTATION PHASE**			
a	Brief on Presentation Phase	You need to brief on Presentation Phase and Post Lab Stage (purpose, activities, expected outputs)	5 minutes	
b	Presentation of VE Study recommendations and findings	i. Allow plenary session to conduct Presentation Phase. ii. Then, you will present VE Study recommendations and findings focusing on (not limited to): - VE Study Objectives - Project Information eg. Project Objectives, Project Team and Location - VE Study Model(s) - Compliance of VA Recommendation (VE against VA) - Client Value System (CVS) - Project Functions (FAST Diagram) - VE Study Scope - Summary of total numbers of Generated / Evaluated / Recommended Ideas - List of Recommended Ideas - Reviewed VE Study Model(s) - Summary of VE Study findings - Action Plan - Achievement of VE Study Objectives - Lessons Learned	1-2 hours	VE Study findings will be collated throughout VE Lab Phases

PRESENTATION PHASE

FACILITATION EXERCISE OF PRESENTATION PHASE

Code	Phase Activities	Tasks	Time Allowed	Tip Notes
B6	**PRESENTATION PHASE**			
c	Obtain acceptance from lab team members / stakeholders (wherever applicable)	Finally, you shall obtain consensus from lab team members / stakeholders on the VE Study recommendations and findings	30 minutes	