

**COMMENTS COMPLIANCE MATRIX FOR THE BACHELOR OF SCIENCE IN CIVIL
AND ENVIRONMENTAL ENGINEERING FOR THE FINAL YEAR PROJECT ORAL
DEFENSE PRESENTATION HELD ON THURSDAY 21ST MARCH, 2024**

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COMMENT		RESPONSE	LOCATION ON THE REPORT	PAGE NUMBER
1	Observe the trends of the objectives so that other people can clearly see the results.	The results as discussed in chapter 4 have been clearly arranged in the logical flow of the specific objectives in Chapter 1	Chapter 1 Chapter 4	3 24
2	Clearly explain your results variation	This was addressed to the graph of workability as the mean slump value (77mm) at 15% replacement was much below the trend line. A trial mix at 15% replacement was carried out to confirm the value, which was then determined to be 87mm, an average value. The results then showed that workability continuously increased with increase in BRP percentage replacement up to 30%.	Chapter 4	36
3	The error bars are extremely are wrong	The error bars on workability initially was only according to the standard deviation on Figure 8, as the deviation is 5.51mm	Chapter 4	38

causing the error bar on 0% to be outside while that of 30% completely inside for the lowest and highest values of slumps respectively. Figure 9 then shows the recommended error bars known as standard error bars, indicating all bars within the range. The difference is between the type of error bars i.e. Standard deviation error bars and standard error bars

4 **Perform a hydrometer analysis on BRP Material and cement**

A sieve analysis test was conducted for BRP with maximum particle size of 5mm and grading curve (figure 6) indicated that 32.85% passed through the 0.075mm, the target particle size. Only particles which passed through the 0.075mm was used in the concrete mix, and suitable hydrometer analysis. However, since the powder (BRP) exhibited relatively uniform particle characteristics throughout its composition, the additional insights gained from a hydrometer test will not substantially alter the conclusion drawn from the sieve analysis results (Mir, 2021). Lastly,

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		<p>conduction both sieve analysis and hydrometer tests is extensive in terms of time and resource since the timeline is constrained hence only carrying out the sieve analysis test.</p>		
5	<p>Slump test results are not adding up</p>	<p>The slump value of 77mm at 15% was extremely outside the trend. A trial mix at 15% replacement was carried out to confirm the value, which was then determined to be 87mm, an average value. The results then showed that workability continuously increased with increase in BRP percentage replacement up to 30% rather than the previous deviation of 77m from the trend line preventing the continuity and causing the results not to add up.</p>	Chapter 4	38