

Planning and Progress Report



Acme AirNav Solutions, Inc

Group Number: C1.066

Repository: <https://github.com/mquirosq/DP2-C1.066>

Student #2:

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Executive Summary

This document presents the Planning and Progress Report for Delivery 04, detailing the approach taken to plan, execute and monitor the project. It provides an overview of the tasks performed, the methodology applied, and a comparison of estimated and actual project costs.

In the Planning section, the report details the tasks performed, the methodology used to organize and ensure quality, and the estimated budget. A planning dashboard in GitHub was used to track task progress. The budget estimation covers personnel costs based on roles and amortization expenses for necessary resources, with a final estimated budget of **516,67 euros**.

The Progress section makes use of the performance indicators defined in the Chartering Report [1] to track progress. The actual time spent per role was also recorded and compared against initial estimates. The personnel cost was lower than expected (**451,67 euros**), resulting in a profit of **40 euros** against the initial estimates. However, the variance remained small, demonstrating effective planning. No additional expenses were incurred, keeping the amortization cost at **25 euros**, leading to a final project cost of **476,67 euros**.

The report concludes with the intent to apply the insights and lessons learned during this delivery in my professional career.

Revision History

Revision	Date	Description
1.0	2025-04-27	Initial draft
1.1	2025-05-26	Final version

1. Introduction

This document describes the approach taken to plan, execute and monitor the project's development. The report provides an overview of the tasks performed, the methodologies applied, and records my progress. Additionally, it includes a budget and compares the estimated and actual costs of the project.

The Planning section details the tasks performed, and the methodology used to organize and track tasks on the planning board. It also includes a budget plan, detailing the estimated hours worked per role and their corresponding monetary cost.

The Progress section details how I advanced towards the project's objective. This includes insights on my performance using the indicators defined in the Chartering Report [1]. It also provides a comparison between the estimated budget of the project and the actual costs.

As mentioned, the document is structured in two major sections: Planning and Progress. In the planning section, a list of completed tasks is provided, the planning and development methodology (including screen captures of the planning dashboard at various stages) is described, and the budget is detailed. The Progress section covers performance records, conflicts faced, and a comparison of the actual costs with the initial budget.

2. Planning

2.1. Tasks listing

During the project, the following tasks have been performed. Some tasks do not have a final actual time, as their actual duration can only be measured after this document is complete.

- **Task 038:**

- Plan delivery 4

- * Description: Create the tasks corresponding to delivery 4.
 - * Assignees: María Quirós
 - * Role: Manager
 - * Planned time: 0:30:00
 - * Actual time: 0:14:12

- **Task 039:**

- Update development environment

- * Description: Update the framework to the new version for deliverable 4.

- * Assignees: María Quirós
 - * Role: Developer
 - * Planned time: 0:50:00
 - * Actual time: 0:46:17
- Update development environment \T1
 - * Description: Check that the project runs correctly on the updated environment. Run the sample data script.
 - * Assignees: María Quirós
 - * Role: Tester
 - * Planned time: 0:10:00
 - * Actual time: 0:05:12
- **Task 040:**
 - Add checked requirements document
 - * Description: Add the Student#2 Requirements document with the checked requirements to the D04/Student#2 folder in the reports folder.
 - * Assignees: María Quirós
 - * Role: Operator
 - * Planned time: 0:15:00
 - * Actual time: Not applicable
- **Task 041:**
 - Create indices for entities
 - * Description: Create appropriate indices for your entities if needed.
 - * Assignees: María Quirós
 - * Role: Tester
 - * Planned time: 1:00:00
 - * Actual time: 0:31:20
 - Create indices for entities \T1
 - * Description: Check that all necessary indices have been properly created and that the application runs.
 - * Assignees: María Quirós
 - * Role: Tester
 - * Planned time: 0:10:00
 - * Actual time: 0:07:00
- **Task 042:**
 - Produce a test suite for customers on bookings
 - * Description: Produce a test suite for booking list, show, creation, edition, publishing. Additionally, include showing the passengers and adding and removing them from the list.
 - * Assignees: María Quirós

- * Role: Tester
- * Planned time: 2:00:00
- * Actual time: 3:09:16
- Produce a test suite for customers on bookings \T1
 - * Description: Make sure all test cases have been done following the methodology seen in class and the coverage is high.
 - * Assignees: María Quirós
 - * Role: Tester
 - * Planned time: 0:10:00
 - * Actual time: 0:20:35
- Create test suite for customers on bookings \R1
 - * Description: Add test cases to check that update and publish of draft bookings whose flight has departed is not allowed.
 - * Assignees: María Quirós
 - * Role: Tester
 - * Planned time: 1:00:00
 - * Actual time: 1:01:26
- Produce a test suite for customers on bookings \T2
 - * Description: Make sure all test cases have been done following the methodology seen in class and the coverage is high.
 - * Assignees: María Quirós
 - * Role: Tester
 - * Planned time: 0:10:00
 - * Actual time: 0:08:54
- Produce a test suite for customers on bookings \R2
 - * Description: Update the publish tests to match the changes introduced on the rendering.
 - * Assignees: María Quirós
 - * Role: Tester
 - * Planned time: 0:20:00
 - * Actual time: 0:24:04
- Produce a test suite for customers on bookings \T3
 - * Description: Make sure all test cases have been done following the methodology seen in class and the coverage is high.
 - * Assignees: María Quirós
 - * Role: Tester
 - * Planned time: 0:15:00
 - * Actual time: 0:12:35

• **Task 043:**

- Create test suite for customers on passengers

- * Description: Produce a test suite for listing, showing, creating and editing passengers.
- * Assignees: María Quirós
- * Role: Tester
- * Planned time: 2:00:00
- * Actual time: 2:51:14
- Create test suite for customers on passengers \T1
 - * Description: Make sure all test cases have been done following the methodology seen in class and the coverage is high.
 - * Assignees: María Quirós
 - * Role: Tester
 - * Planned time: 0:15:00
 - * Actual time: 0:12:00
- Create test suite for customers on passengers \R1
 - * Description: Add tests for special needs with hacking attacks.
 - * Assignees: María Quirós
 - * Role: Tester
 - * Planned time: 0:20:00
 - * Actual time: 0:15:51
- Create test suite for customers on passengers \T2
 - * Description: Make sure all test cases have been done following the methodology seen in class and the coverage is high.
 - * Assignees: María Quirós
 - * Role: Tester
 - * Planned time: 0:12:00
 - * Actual time: 0:10:14

● **Task 044:**

- Provide link to planning dashboard
 - * Description: Provide a link to the planning dashboard in the reports/D04/Student#2 folder.
 - * Assignees: María Quirós
 - * Role: Operator
 - * Planned time: 0:10:00
 - * Actual time: 0:04:28
- Provide link to planning dashboard \T1
 - * Description: Check that the link to the planning dashboard is on the folder D04/Student #2 and works correctly.
 - * Assignees: María Quirós
 - * Role: Tester
 - * Planned time: 0:05:00

* Actual time: 0:06:00

• **Task 045:**

– Produce a testing report

* Description: Produce a testing report. Follow the general report guidelines provided in the Annex document of the project statement in EV. The contents of the report are also defined in the Annex document mentioned above. Upload the document to the repository once it is finished.

* Assignees: María Quirós

* Role: Tester

* Planned time: 3:00:00

* Actual time: 2:20:24

– Produce a testing report \T1

* Description: Check that the document provided in has the correct content, no grammatical or typing issues and is located in the correct folder.

* Assignees: María Quirós

* Role: Tester

* Planned time: 0:15:00

* Actual time: 0:14:16

• **Task 046:**

– Perform five mutations in your code and report on the results

* Description: Perform five mutations in your code and report the results.

* Assignees: María Quirós

* Role: Tester

* Planned time: 0:30:00

* Actual time: 0:24:39

– Perform five mutations in your code and report on the results \T1

* Description: Check that the mutations are valid (not detected by SonarLint) and that they are detected by the tests. Additionally, check that the report is correct.

* Assignees: María Quirós

* Role: Tester

* Planned time: 0:10:00

* Actual time: 0:09:13

• **Task 047:**

– Produce lint report

* Description: Produce a lint report. Follow the general report guidelines provided in the Annex document of the project statement in EV. The contents of the report are also defined in the Annex document mentioned above. Upload the document to the repository once it is finished.

- * Assignees: María Quirós
 - * Role: Tester
 - * Planned time: 3:00:00
 - * Actual time: 2:53:47
- Produce lint report \T1
 - * Description: Check that the document includes the correct content, has no grammatical or typing issues and is located in the correct folder.
 - * Assignees: María Quirós
 - * Role: Tester
 - * Planned time: 0:15:00
 - * Actual time: 0:10:04
- **Task 048:**
 - Create a test suite for customer/recommendations
 - * Description: Produce as a complete test suite as possible for Requirement #29 ensuring that the API is properly mocked.
 - * Assignees: María Quirós
 - * Role: Tester
 - * Planned time: 1:30:00
 - * Actual time: 0:20:04
 - Create a test suite for customer/recommendations \T1
 - * Description: Make sure all test cases have been done following the methodology seen in class and the coverage is high.
 - * Assignees: María Quirós
 - * Role: Tester
 - * Planned time: 0:10:00
 - * Actual time: 0:07:01
- **Task 049:**
 - Produce Analysis report
 - * Description: Produce an analysis report. Follow the general report guidelines provided in the Annex document of the project statement in EV. The contents of the report are also defined in the Annex document mentioned above. Upload the document to the repository once it is finished.
 - * Assignees: María Quirós
 - * Role: Analyst
 - * Planned time: 1:30:00
 - * Actual time: 1:00:21
 - Produce Analysis report \T1
 - * Description: Check that the document includes the correct content, has no grammatical or typing issues and is located in the correct folder.
 - * Assignees: María Quirós

- * Role: Tester
- * Planned time: 0:15:00
- * Actual time: 0:10:57

- **Task 050:**

- Produce Planning and Progress report
 - * Description: Produce a planning and progress report. Follow the general report guidelines provided in the Annex document of the project statement in EV. The contents of the report are also defined in the Annex document mentioned above. Upload the document to the repository once it is finished.
 - * Assignees: María Quirós
 - * Role: Manager
 - * Planned time: 1:30:00
 - * Actual time: Not applicable

- **Task 051:**

- Update the development environment to version REV4
 - * Description: Update development environment making the necessary changes to match REV4.
 - * Assignees: María Quirós
 - * Role: Developer
 - * Planned time: 0:45:00
 - * Actual time: 1:00:17

2.2. Planning methodology

In this section, I will present the planning methodology, using some screen captures of the planning dashboard at the start, during and at the end of development.

The first step of the project was to plan the tasks for the D04 deliverable. Once this step was completed, as shown in Figure 1, all tasks in the planning dashboard were placed in the "To do" column, except for the planning task itself.

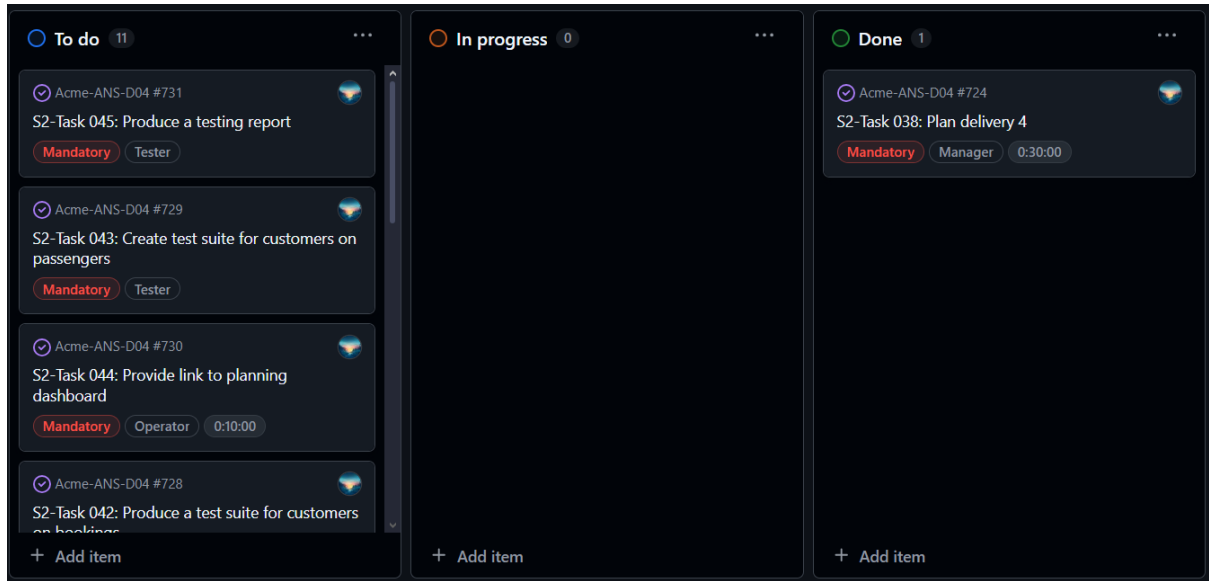


Figure 1: Screen capture of the planning dashboard at the start of the delivery

Once all the tasks were created, I started development. When I started working on a task, it was moved to the "In Progress" column. Upon completion, the task is moved to the "Done" column. Then, a quality assurance task is created to test the completed task.

Quality assurance tasks are named after the task they are verifying, followed by "\Tx", where x represents the test iteration number (e.g., "\T1" for the test, "\T2" for a second test if needed, and so on). If any issues are identified during testing, a review task is created to address them. Review tasks follow the same naming convention as quality assurance tasks but use "\Rx" instead (e.g., "\R1", "\R2"). Once a review task is completed, a new quality assurance task is created.

An example of the dashboard during the development process can be seen in Figure 2. Note the appearance of testing and review tasks in the "Done" column.

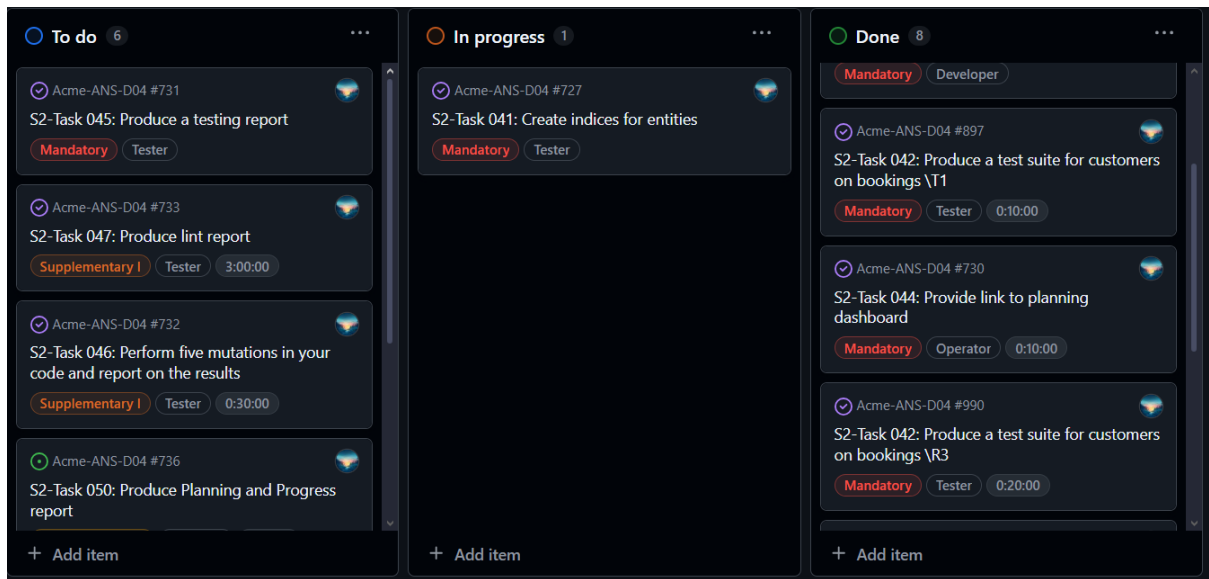


Figure 2: Screen capture of the planning dashboard during the delivery

Once the development is completed, all tasks are moved to the "Done" column, as shown in Figure 3. Note that the task regarding marking the Planning and Progress report is still in the "In Progress" section as it cannot be marked as completed until this document is finished.

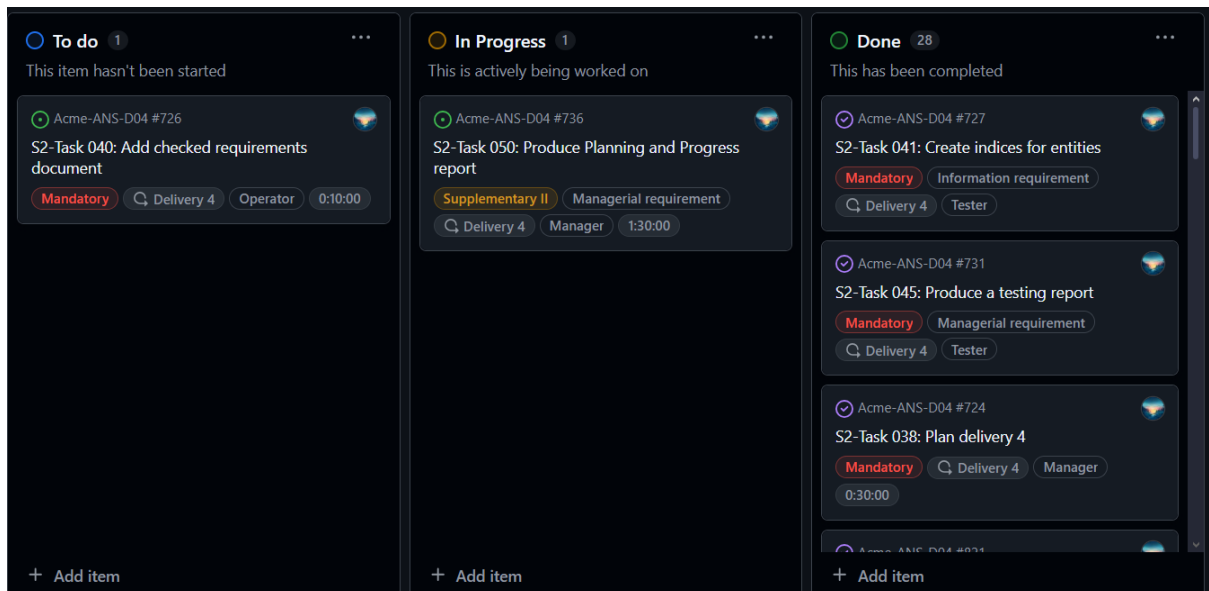


Figure 3: Screen capture of the planning dashboard at the end of the delivery

2.3. Budget

The budget for Delivery 04 includes the estimated hours per role, personnel costs, and amortization costs. Depending on the nature of the task, I have adopted a specific role, which is taken into account when computing the budget. The personnel costs are computed based on the following hourly rates:

- Managers and analysts: **30,00 euros per hour**
- Developers, testers, and other roles: **20,00 euros per hour**

After summing the estimated times for each task, taking into account the role adopted, we obtain the results in Figure 4. The total expected work is **22,83 hours**, and the total personnel cost is **491,67 euros**.

Role	Hourly Rate	Estimated Time (hrs)	Estimated costs
Manager	30,00 €	2,00	60,00 €
Developer	20,00 €	1,58	31,67 €
Tester	20,00 €	17,33	346,67 €
Operator	20,00 €	0,42	8,33 €
Analyst	30,00 €	1,50	45,00 €
Student	20,00 €	0,00	0,00 €
Totals:		22,83	491,67 €

Figure 4: Table with estimated costs in hours and euros by role and the totals

The project requires the use of a laptop, valued at 1.200 euros, which is amortized over three years (36 months with 4 weeks per month). The weekly amortization cost is:

$$\text{Amortization cost per week} = \frac{1,200}{36 * 4} = 8.33 \text{ euros}$$

Since Delivery 02 has a duration of three weeks, the amortization costs are:

$$\text{Amortization cost for 3 weeks} = 8.33 \times 3 = 25.00 \text{ euros}$$

Thus, the estimated cost of the delivery ascends to **516,67 euros**.

3. Progress

3.1. Progress records

The following records provide an overview of my performance in the individual tasks according to the performance indicators defined in the Chartering Report [1] and the corresponding actions taken.

Feedback session 1 (22/04/2025) Regarding the "Grade" performance indicator, I expected to obtain ten marked requirements, including mandatory requirements for Delivery 01, 02 and 03. During the session, the lecturer marked all ten requirements as completed after checking for all kinds of hacking attacks.

$$\text{Grade} = 10 - 10 = 0$$

Thus, the final value of the Grade indicator was 0. A zero value indicates that I am adequately making progress towards the goal without exceeding expectations, so I decided to keep working on D04.

Feedback session 2 (13/05/2025) In this session, all previous requirements were checked again. Regarding the "Grade" performance indicator, I expected to obtain twelve marked requirements. During the session, the lecturer marked all but one requirements as valid, as a test case was missing. Additionally, the lecturer checked the customer dashboard, for which a small problem was also identified.

$$\text{Grade} = 12 - 11 = -1$$

Thus, the final value of the Grade indicator was -1. As the value was negative, an effort had to be made in order to solve the issues pointed out..

Feedback session 3 (20/05/2025) In this session, all previous requirements were checked plus the test suite for delivery 04. Regarding the "Grade" performance indicator, I expected to obtain thirteen marked requirements. During the session, the lecturer marked all but one requirements as valid, as a test case was missing. Additionally, the lecturer checked the customer dashboard, which was also approved.

$$\text{Grade} = 13 - 13 = 0$$

Thus, the final value of the Grade indicator was 0. As the value was 0, the work done was good but regardless, an effort had to be made in order to complete the test suite for passengers.

Feedback session 4 (23/05/2025) I presented all mandatory requirements to the lecturer for validation. So, regarding the "Grade" performance indicator, I expected to obtain thirteen, including all mandatory requirements. During the session, the lecturer marked all requirements as valid.

$$\text{Grade} = 13 - 13 = 0$$

Thus, the final value of the Grade indicator was 0. I decided to keep working as I have to make sure all requirements are complete for the final delivery.

3.2. Conflicts

No conflicts have arisen.

3.3. Cost comparison

After completing Delivery 04, we compare the initial estimated costs with the actual costs incurred. This includes the number of hours spent per role, personnel costs, amortization, and the total cost difference.

By summing the total time spent on each task, considering the role adopted, we obtain the results in Figure 5. To ensure a fair comparison, we assume that for tasks not yet completed, the estimated time matches the final recorded time. The total time dedicated to the project amounts to **21,22 hours**, with a total personnel cost of **451,67 euros**.

Role	Hourly Rate	Estimated Time (hrs)	Estimated costs	#	Total Hours	Total cost (€)
Manager	30,00 €	2,00	60,00 €	1,73	52,00 €	
Developer	20,00 €	1,58	31,67 €	1,77	35,33 €	
Tester	20,00 €	17,33	346,67 €	16,40	328,00 €	
Operator	20,00 €	0,42	8,33 €	0,32	6,33 €	
Analyst	30,00 €	1,50	45,00 €	1,00	30,00 €	
Student	20,00 €	0,00	0,00 €	0,00	0,00 €	
Totals:		22,83	491,67 €	21,22	451,67 €	
			Reality - Estimation	-1,62	-40,00 €	

Figure 5: Budget comparison with actual costs

When comparing the estimated and actual costs for Delivery 04, a slight deviation from the original budget can be appreciated. Initially, the personnel cost was estimated at 491,67 euros, whereas the actual cost incurred was 451,67 euros, resulting in a 40-euro decrease. This difference was caused by variations in some roles, particularly in the Analyst and the Tester role, where the final time spent in their tasks is below initial estimates.

The slight decrease in personnel costs is a positive outcome. Additionally, the overall budget deviation remains minimal, indicating an efficient and accurate estimation process. No additional expenses were incurred during the process, so the amortization costs remained 25 euros.

Thus, the real cost of the delivery is **476,67 euros**.

4. Conclusions

Throughout this document, I have demonstrated the approach taken to achieve the objectives set for Delivery 04. Through task allocation, quality assurance processes, monitoring after feedback sessions, and iterative improvement based on said feedback, I made steady progress towards the goal.

In the planning section, I have provided evidence that my planning was conducted using a structured approach. I have demonstrated that I have followed the course's methodology regarding quality assurance and reviews, as well as presented the budget per role and the totals.

In the progress section, I have demonstrated how progress was measured and the actions taken to improve performance. Additionally, I have compared the estimated budget with the final costs with a positive result, as the deviations were minimal.

Throughout this delivery, I have gained valuable lessons about planning, execution and the importance of quality assurance. Moving forward, I aim to incorporate the lessons learned from this first delivery to enhance productivity and ensure successful completion of my goal.

References

- [1] Team C1.066, *Chartering Report*, 2025. Included in project delivery.