

Landscape and Visual (L&V) Monitoring Report for Harbour Area Treatment Scheme Stage 2A (Operational Phase) (December 2022)

Report No.: OT_2022016

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Landscape and Visual (L&V) Monitoring Report for Harbour Area Treatment Scheme Stage 2A (Operational Phase) (December 2022)



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1. Introduction

1.1. Background

- 1.1.1. Bestwise Sun Fook Kong Joint Venture (the Contractors) appointed 3NV Technology Limited (3NV) to undertake the Landscape and Visual Monitoring for the Operational Phase of the "Enhancement of Deodourisation System at Stonecutters Island Sewage Treatment Works" (hereafter referred to as "the Project").
- 1.1.2. The Project is part of the Harbour Area Treatment Scheme (HATS) Stage 2A. According to Environmental Permit No. EP-322/2008/G issued on 9th May 2014 by the Environmental Protection Department (hereinafter called EPD) to the Drainage Services Department (hereinafter called the DSD) as the Permit Holder and the EM&A Manual for the HATS Stage 2A, all landscape and visual mitigation measures shall be monitored monthly on-site during the first year of the Operational Phase at 8 preliminary treatment works (PTW) and the Stonecutters Island Sewage Treatment Works (SCISTW).

1.2. Objectives

1.2.1. The objective is to monitor and audit the contractor's landscape works, in particular, to ensure the existing trees retained on-site are being well preserved, tree transplanting and felling operations are being undertaken in accordance with the requirements, procedures, and specifications as stipulated in the contract and the approvals granted by concerned authorities, and all the newly planted vegetations are being maintained properly during the establishment period.

2. Landscape and Visual (L&V)

2.1. Monitoring Requirement

Under the EM&A Manual, Landscape and Visual Monitoring audit should be undertaken during the first year of the Operational Phase to ensure and check that the implementation and maintenance of landscape and visual mitigation measures are carried out by a Registered Landscape Architect (RLA).

2.2. Monitoring Frequency

2.2.1. Site inspections should be undertaken once every month through the first year of the Operational Phase.



2.3. Monitoring Locations

2.3.1. Under this Project, there are 8 PTW and SCISTW that should be monitored. The details of the monitoring location are summarized in **Table 1.1**.

Table 1.1 L&V Monitoring Locations

No.	Description
1	North Point PTW
2	Wan Chai East PTW
3	Central PTW
4	Sandy Bay PTW
5	Cyberport PTW
6	Wah Fu PTW
7	Aberdeen PTW
8	Ap Lei Chau PTW
9	Stonecutters Island STW

2.4. Monitoring Methodology

2.4.1. A Registered Landscape Architect is employed to monitor and audit the contractor's landscape works, in particular, to ensure the existing trees retained on-site are being well preserved, tree transplanting and felling operations are being undertaken in accordance with the requirements, procedures, and specifications as stipulated in the contract and the approvals granted by concerned authorities, and all the newly planted vegetations are being maintained properly during the establishment period by complete a checklist.



3. L&V Monitoring Result

3.1. Inspection Result

3.1.1. No new observation was found. One observation from last inspection had been follow up at Ap Lei Chau PTW. The completed checklists are shown in **Appendix A**.

3.2. Result Discussion

3.2.1. Generally, all L&V mitigation measures listed in EM&A were applied at 8 PTWs and SCISTW. **Table 3.1** summarized the reminders and new observations of the 8 PTWs and SCISTW.

Table 3.1 Summary of Reminders and New Observations for the 8 PTWs and SCISTW

SCIST W		
Monitoring Location	Reminders	New Observations
	1. Carry out proper	
	maintenance to	
North Point	plantings	N/A
PTW	2. Increase the frequency	N/A
	of watering in the	
	period of dry weather	
	1. Carry out proper	
	maintenance to	
Wan Chai East	plantings	N1 / A
PTW	2. Increase the frequency	N/A
	of watering in the	
	period of dry weather	
	1. Keep maintenance and	
	pay attention to the	
Combined DTM	plant conditions.	N1 / A
Central PTW	2. Increase the frequency	N/A
	of watering in the	
	period of dry weather	
	1. Carry out tree	
Sandy Bay PTW	replacement for the	N/A
	compensation of the	



	removal of marked tree	
	Carry out proper maintenance to	
	plantings	
Cubornort DTM	2. Increase the frequency	N1 / A
Cyberport PTW	of watering in the	N/A
	period of dry weather.	
	3. Replant trees for	
	compensating the	
	removal of dead tree	
	1. Carry out proper	
	maintenance to	
Wah Fu PTW	plantings	N/A
	2. Increase the frequency	,
	of watering in the	
	period of dry weather	
	1. Carry out proper	
	maintenance to	
Aberdeen PTW	plantings	N/A
, to en de en in inte	2. Increase the frequency	.,,,,
	of watering in the	
	period of dry weather	
	1. Carry out proper	N/A
	maintenance to	
	plantings	
Ap Lei Chau	2. Increase the frequency	
PTW	of watering in the	
FIVV	period of dry weather	
	3. Replant trees for	
	compensating the	
	removal of dead tree	
	1. Carry out proper	
Stonecutters	maintenance to	
Island STW	plantings	N/A
ISIAIIU STVV	2. Increase the frequency	
	of watering in the	

Landscape and Visual (L&V) Monitoring Report for Harbour Area Treatment Scheme Stage 2A (Operational Phase) (December 2022)



period of dry weather	
3. Review if replacement	
is required for the tree	
with poor health	

- End of Report -



Appendix A

L&V Checklist



<u>Landscape and Visual Impact Assessment Checklist for Site Audit – North Point PTW</u>

Inspection Date:19/12/2022 Weather: Sunny/Fine/Cloudy / Rainy
Time: 9:25 Wind: Strong/Breeze/Light/Calm

Item	Description	Yes	No	N/A	Actions / Remarks
1	Aesthetic design of the façade of PTW and				
	associated structures to harmonize with				
	the surrounding settings				
1.1	Is the aesthetic design match the	√			
	surrounding environment?	-			
1.2	Are the buildings maintained properly that	✓			
	do not cause any visual impact?				
2	Shrub and Climbing Plants to soften				
	proposed structures / Roof Greening /				
	Vertical Greening				
2.1	Is the roof greening maintained properly?	✓			
2.2	Is the vertical greening maintained properly?			✓	
2.3	Are the Shrub and Climbing Plants free from				
2.3	sign of deterioration of health?	✓			
3	Buffer Tree and Shrub Planting to screen				
	proposed associated structures				
3.1	Are the health of those buffer trees and	√			
	shrub plantings generally in order?				
3.2	Is all new planting maintained properly to ensure further establishment?	✓			
4	Reinstatement of disturbed area				
4.1	Are the compensated planting covered the	√			
	disturbed area?				
5	Others				
5.1	Are existing trees retained on-site are being	✓			
	well preserved?				
5.2	Are newly planted vegetations are being generally maintained during the establishment period (12 months)?				



Follow up action taken by Contractor for previous comments:

- N/A

The contractor was reminded to rectify the following:

- N/A

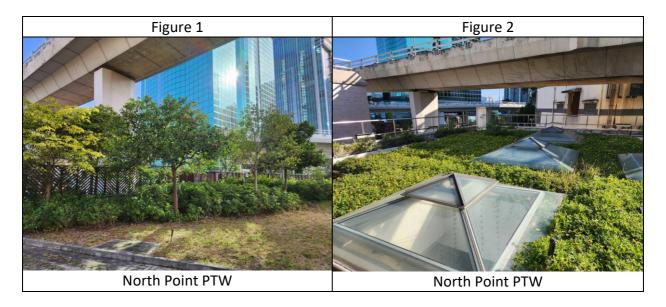
New Observation:

No new observations.

Reminders:

1. Contractor was reminded to carry out proper maintenance to plantings and recommended to further increase the frequency of watering in the period of dry weather.

Photo Record:



		Signature	Date
Inspected & Recorded by	Registered Landscape Architect	Delym	19-Dec-2022



<u>Landscape and Visual Impact Assessment Checklist for Site Audit – Wan Chai East PTW</u>

Inspection Date:19/12/2022Weather: Sunny/Fine/Cloudy / RainyTime: 11:00Wind: Strong/Breeze/ Light/Calm

Item	Description	Yes	No	N/A	Actions / Remarks
1	Aesthetic design of the façade of PTW and associated structures to harmonize with the surrounding settings				
1.1	Is the aesthetic design match the surrounding environment?	✓			
1.2	Are the buildings ma9d properly that do not cause any visual impact?	✓			
2	Shrub and Climbing Plants to soften proposed structures / Roof Greening / Vertical Greening				
2.1	Is the roof greening maintained properly?	✓			
2.2	Is the vertical greening maintained properly?	✓			
2.3	Are the Shrub and Climbing Plants free from sign of deterioration of health?	✓			
3	Buffer Tree and Shrub Planting to screen proposed associated structures				
3.1	Are the health of those buffer trees and shrub plantings generally in order?	√			
3.2	Is all new planting maintained properly to ensure further establishment?	✓			
4	Reinstatement of disturbed area				
4.1	Are the compensated planting covered the disturbed area?	✓			
5	Others				
5.1	Are existing trees retained on-site are being well preserved?	✓			
5.2	Are newly planted vegetations are being generally maintained during the establishment period (12 months)?				



Follow up action taken by Contractor for previous comments:

- N/A

The contractor was reminded to rectify the following:

N/A

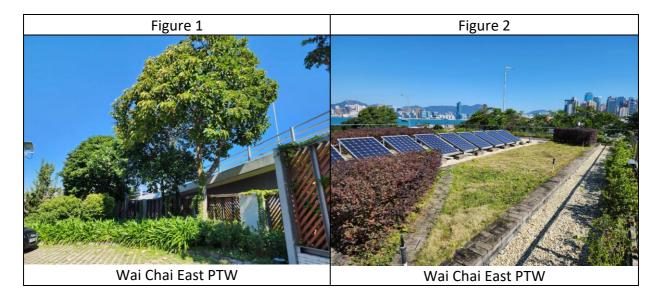
New Observation:

No new observations.

Reminders:

1. Contractor was reminded to carry out proper maintenance to plantings and recommended to further increase the frequency of watering in the period of dry weather.

Photo Record:



		Signature	Date
Inspected & Recorded by	Registered Landscape Architect	Deeyur	19-Dec-2022



Landscape and Visual Impact Assessment Checklist for Site Audit – Central PTW

Inspection Date:19/12/2022 Weather: Sunny/Fine/Cloudy / Rainy
Time: 10:45 Wind: Strong/Breeze/Light/Calm

Item	Description	Yes	No	N/A	Actions / Remarks
1	Aesthetic design of the façade of PTW and				
	associated structures to harmonize with				
	the surrounding settings				
1.1	Is the aesthetic design match the	√			
	surrounding environment?	-			
1.2	Are the buildings maintained properly that	√			
	do not cause any visual impact?				
2	Shrub and Climbing Plants to soften				
	proposed structures / Roof Greening /				
	Vertical Greening				
2.1	Is the roof greening maintained properly?	✓			
2.2	Is the vertical greening maintained properly?	✓			
2.3	Are the Shrub and Climbing Plants free from				
2.5	sign of deterioration of health?	\checkmark			
3	Buffer Tree and Shrub Planting to screen				
	proposed associated structures				
3.1	Are the health of those buffer trees and	√			
	shrub plantings generally in order?	•			
3.2	Is all new planting maintained properly to	√			
	ensure further establishment?	•			
4	Reinstatement of disturbed area				
4.1	Are the compensated planting covered the	\			
	disturbed area?	•			
5	Others				
5.1	Are existing trees retained on-site are being	√			
	well preserved?	•			
5.2	Are newly planted vegetations are being				
	generally maintained during the establishment period (12 months)?	✓			



Follow up action taken by Contractor for previous comments:

- N/A

The contractor was reminded to rectify the following:

- N/A

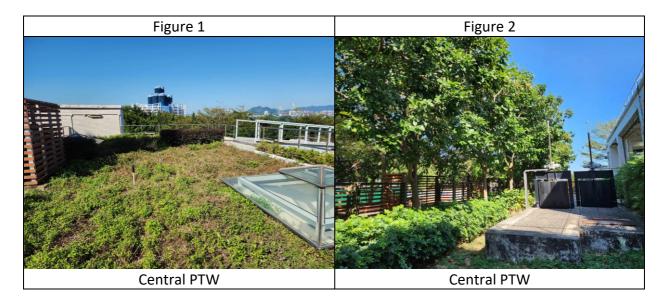
New Observation:

No new observations.

Reminders:

1. Contractor was reminded to keep maintenance and recommended to further increase the frequency of watering in the period of dry weather.

Photo Record:



		Signature	Date
Inspected & Recorded by	Registered Landscape Architect	Dayun	19-Dec-2022



<u>Landscape and Visual Impact Assessment Checklist for Site Audit – Sandy Bay PTW</u>

Inspection Date:19/12/2022Weather: Sunny/Fine/Cloudy / RainyTime: 10:35Wind: Strong/Breeze/ Light/Calm

Item	Description	Yes	No	N/A	Actions / Remarks
1	Aesthetic design of the façade of PTW and				
	associated structures to harmonize with				
	the surrounding settings				
1.1	Is the aesthetic design match the	√			
	surrounding environment?	-			
1.2	Are the buildings maintained properly that	✓			
	do not cause any visual impact?				
2	Shrub and Climbing Plants to soften				
	proposed structures / Roof Greening /				
	Vertical Greening				
2.1	Is the roof greening maintained properly?			✓	
2.2	Is the vertical greening maintained properly?			✓	
2.3	Are the Shrub and Climbing Plants free from				
2.5	sign of deterioration of health?			✓	
3	Buffer Tree and Shrub Planting to screen				
3	proposed associated structures				
3.1	Are the health of those buffer trees and				
	shrub plantings generally in order?	✓			
3.2	Is all new planting maintained properly to		√		Refer to Rectification
	ensure further establishment?		•		Item No. 1
4	Reinstatement of disturbed area				
4.1	Are the compensated planting covered the	√			
	disturbed area?	V			
5	Others				
5.1	Are existing trees retained on-site are being	√			
	well preserved?	•			
5.2	Are newly planted vegetations are being				
	generally maintained during the establishment period (12 months)?	✓			



Follow up action taken by Contractor for previous comments:

- N/A

The contractor was reminded to rectify the following:

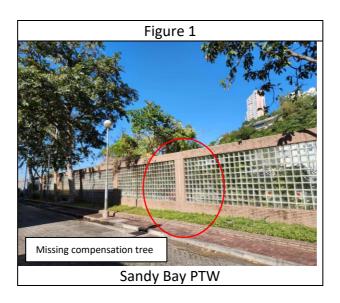
1. Follow up rectification item no.1 on 29/07/2022, the marked tree was removed but the compensation tree is missing. The Contractor is reminded to carry out tree replacement.

New Observation:

No new observations.

Reminders:

Photo Record:



		Signature	Date
Inspected & Recorded by	Registered Landscape Architect	Dayun	19-Dec-2022



<u>Landscape and Visual Impact Assessment Checklist for Site Audit – Cyberport PTW</u>

Inspection Date:19/12/2022 Weather: Sunny/Fine/Cloudy / Rainy
Time: 10:30 Wind: Strong/Breeze/Light/Calm

Item	Description	Yes	No	N/A	Actions / Remarks
1	Aesthetic design of the façade of PTW and				
	associated structures to harmonize with				
	the surrounding settings				
1.1	Is the aesthetic design match the	√			
	surrounding environment?	-			
1.2	Are the buildings maintained properly that	√			
	do not cause any visual impact?				
2	Shrub and Climbing Plants to soften				
	proposed structures / Roof Greening /				
	Vertical Greening				
2.1	Is the roof greening maintained properly?	✓			
2.2	Is the vertical greening maintained properly?	✓			
2.3	Are the Shrub and Climbing Plants free from				
2.3	sign of deterioration of health?	✓			
3	Buffer Tree and Shrub Planting to screen				
3	proposed associated structures				
3.1	Are the health of those buffer trees and				
	shrub plantings generally in order?	✓			
3.2	Is all new planting maintained properly to		√		Refer to rectification
	ensure further establishment?		•		Item No.1
4	Reinstatement of disturbed area				
4.1	Are the compensated planting covered the	√			
	disturbed area?	•			
5	Others				
5.1	Are existing trees retained on-site are being	√			
	well preserved?	•			
5.2	Are newly planted vegetations are being				
	generally maintained during the establishment period (12 months)?	✓			



Follow up action taken by Contractor for previous comments:

1.

The contractor was reminded to rectify the following:

1. Noticed the dead tree of observation item on 26/09/2022 inside the planting area have been removed (Figures 1). The contractor is recommended to replant the trees as early as possible.

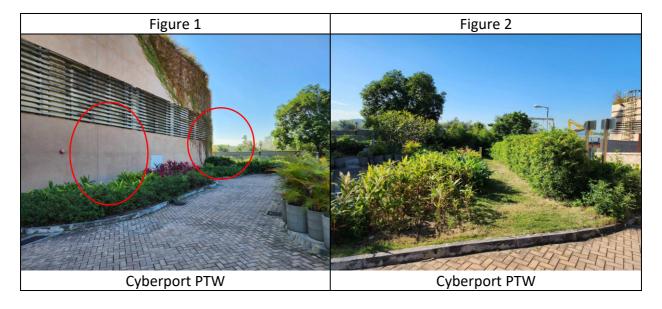
New Observation:

No new observations.

Reminders:

1. Contractor was reminded to carry out proper maintenance to plantings and was recommended to further increase the frequency of watering in the period of dry weather.

Photo Record:



		Signature	Date
Inspected & Recorded by	Registered Landscape Architect	Dayma	19-Dec-2022



<u>Landscape and Visual Impact Assessment Checklist for Site Audit – Wah Fu PTW</u>

Inspection Date:19/12/2022Weather: Sunny/Fine/Cloudy / RainyTime: 10:20Wind: Strong/Breeze/ Light/Calm

Item	Description	Yes	No	N/A	Actions / Remarks
1	Aesthetic design of the façade of PTW and associated structures to harmonize with the surrounding settings				
1.1	Is the aesthetic design match the surrounding environment?	✓			
1.2	Are the buildings maintained properly that do not cause any visual impact?	✓			
2	Shrub and Climbing Plants to soften proposed structures / Roof Greening / Vertical Greening				
2.1	Is the roof greening maintained properly?			✓	
2.2	Is the vertical greening maintained properly?			√	
2.3	Are the Shrub and Climbing Plants free from sign of deterioration of health?			✓	
3	Buffer Tree and Shrub Planting to screen proposed associated structures				
3.1	Are the health of those buffer trees and shrub plantings generally in order?	✓			
3.2	Is all new planting maintained properly to ensure further establishment?	✓			
4	Reinstatement of disturbed area				
4.1	Are the compensated planting covered the disturbed area?	✓			
5	Others				
5.1	Are existing trees retained on-site are being well preserved?	✓			
5.2	Are newly planted vegetations are being generally maintained during the establishment period (12 months)?				



Follow up action taken by Contractor for previous comments:

- N/A

The contractor was reminded to rectify the following:

- N/A

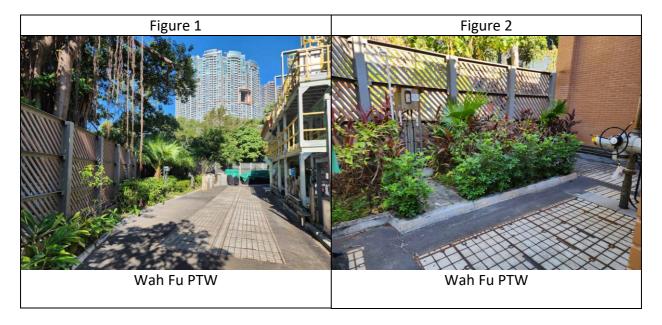
New Observation:

No new observations.

Reminders:

1. Contractor was reminded to carry out proper maintenance to plantings and recommended to further increase the frequency of watering in the period of dry weather.

Photo Record:



		Signature	Date
Inspected & Recorded by	Registered Landscape Architect	Dayun	19-Dec-2022



Landscape and Visual Impact Assessment Checklist for Site Audit – Aberdeen PTW

Inspection Date:19/12/2022Weather: Sunny/Fine/Cloudy / RainyTime: 10:05Wind: Strong/Breeze/ Light/Calm

Item	Description	Yes	No	N/A	Actions / Remarks
1	Aesthetic design of the façade of PTW and				
	associated structures to harmonize with				
	the surrounding settings				
1.1	Is the aesthetic design match the	√			
	surrounding environment?	-			
1.2	Are the buildings maintained properly that	√			
	do not cause any visual impact?				
2	Shrub and Climbing Plants to soften				
	proposed structures / Roof Greening /				
	Vertical Greening				
2.1	Is the roof greening maintained properly?	✓			
2.2	Is the vertical greening maintained properly?	✓			
2.3	Are the Shrub and Climbing Plants free from				
2.5	sign of deterioration of health?	\checkmark			
3	Buffer Tree and Shrub Planting to screen				
	proposed associated structures				
3.1	Are the health of those buffer trees and	√			
	shrub plantings generally in order?	V			
3.2	Is all new planting maintained properly to	√			
	ensure further establishment?	•			
4	Reinstatement of disturbed area				
4.1	Are the compensated planting covered the	1			
	disturbed area?	•			
5	Others				
5.1	Are existing trees retained on-site are being	√			
	well preserved?	•			
5.2	Are newly planted vegetations are being				
	generally maintained during the establishment period (12 months)?	✓			



Follow up action taken by Contractor for previous comments:

- N/A

The contractor was reminded to rectify the following:

- N/A

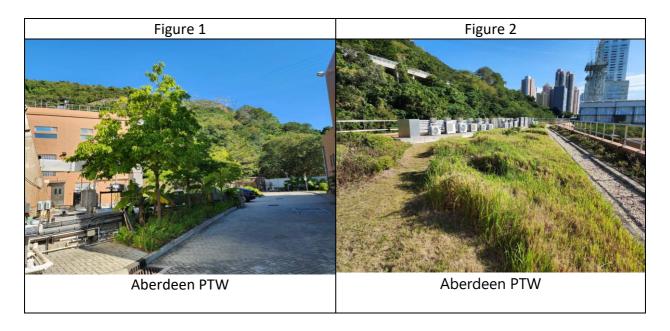
New Observation:

No Particular Observations.

Reminders:

1. Contractor was reminded to carry out proper maintenance to plantings and recommended to further increase the frequency of watering in the period of dry weather.

Photo Record:



		Signature	Date
Inspected & Recorded by	Registered Landscape Architect	Deeyuu	19-Dec-2022



Landscape and Visual Impact Assessment Checklist for Site Audit -Ap Lei Chau PTW

Inspection Date:19/12/2022Weather: Sunny/Fine/Cloudy / RainyTime: 10:00Wind: Strong/Breeze/ Light/Calm

Item	Description	Yes	No	N/A	Actions / Remarks
1	Aesthetic design of the façade of PTW and				
	associated structures to harmonize with				
	the surrounding settings				
1.1	Is the aesthetic design match the	√			
	surrounding environment?				
1.2	Are the buildings maintained properly that	✓			
	do not cause any visual impact?				
2	Shrub and Climbing Plants to soften				
	proposed structures / Roof Greening /				
	Vertical Greening				
2.1	Is the roof greening maintained properly?	✓			
2.2	Is the vertical greening maintained properly?			✓	
2.3	Are the Shrub and Climbing Plants free from				
2.3	sign of deterioration of health?	✓			
3	Buffer Tree and Shrub Planting to screen				
3	proposed associated structures				
3.1	Are the health of those buffer trees and				Refer to Rectification
	shrub plantings generally in order?		✓		Item No.1
3.2	Is all new planting maintained properly to	√			
	ensure further establishment?	•			
4	Reinstatement of disturbed area				
4.1	Are the compensated planting covered the	√			
	disturbed area?	V			
5	Others				
5.1	Are existing trees retained on-site are being	√			
	well preserved?	V			
5.2	Are newly planted vegetations are being				
	generally maintained during the establishment period (12 months)?	✓			



Follow up action taken by Contractor for previous comments:

1. Noticed the observation item no. on 26/10/2022, die back on twigs has been trimmed.

The contractor was reminded to rectify the following:

1. Follow up on observation item on 29/08/2022 the dead tree at the entrance area has been removed (shown in Figure 1). The contractor is recommended to replant the tree as early as possible.

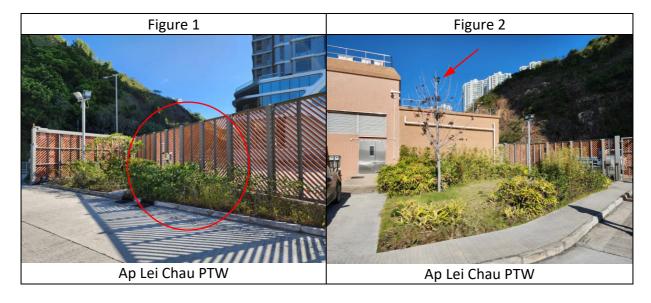
New Observation:

No new observations.

Reminders:

1. Contractor was reminded to carry out proper maintenance to plantings and recommended to further increase the frequency of watering in the period of dry weather.

Photo Record:



		Signature	Date
Inspected & Recorded by	Registered Landscape Architect	Doeyur	19-Dec-2022



<u>Landscape and Visual Impact Assessment Checklist for Site Audit – Stonecutters Island PTW</u>

Inspection Date:19/12/2022 Weather: Sunny/Fine/Cloudy / Rainy
Time: 11:45 Wind: Strong/Breeze/Light/Calm

Item	Description	Yes	No	N/A	Actions / Remarks
1	Aesthetic design of the façade of PTW and				
	associated structures to harmonize with				
	the surrounding settings				
1.1	Is the aesthetic design match the	✓			
	surrounding environment?				
1.2	Are the buildings maintained properly that	✓			
	do not cause any visual impact?				
2	Shrub and Climbing Plants to soften				
	proposed structures / Roof Greening / Vertical Greening				
2.1	Is the roof greening maintained properly?	✓			
2.2	Is the vertical greening maintained properly?	✓			
2.3	Are the Shrub and Climbing Plants free from	√			
	sign of deterioration of health?	•			
3	Buffer Tree and Shrub Planting to screen				
	proposed associated structures				
3.1	Are the health of those buffer trees and shrub plantings generally in order?	✓			
3.2	Is all new planting maintained properly to ensure further establishment?	✓			
4	Reinstatement of disturbed area				
4.1	Are the compensated planting covered the disturbed area?	✓			
5	Others				
5.1	Are existing trees retained on-site are being well preserved?	✓			
5.2	Are newly planted vegetations are being generally maintained during the establishment period (12 months)?		✓		Refer to Rectification Item No.1



Follow up action taken by Contractor for previous comments:

- N/A

The contractor was reminded to rectify the following:

1. Follow up observation item no. 1 on 29/08/2022, Poor health is observed for replacement tree (shown in Figure 1). It is recommended that maintenance party to review if replacement is required.

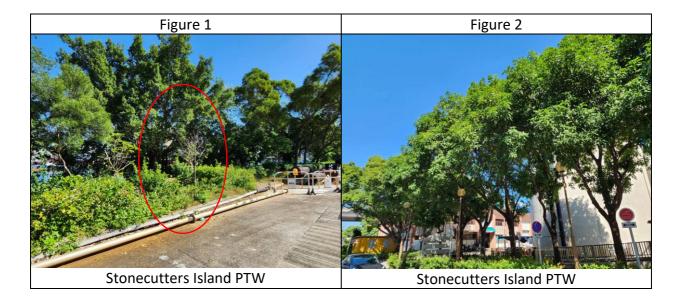
New Observation:

No new observations

Reminders:

1. Contractor was reminded to carry out proper maintenance to plantings and recommended to further increase the frequency of watering in the period of dry weather.

Photo Record:



		Signature	Date
Inspected & Recorded by	Registered Landscape Architect	Dayma	19-Dec-022