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Your Ref. : ---Our Ref.: CL/00011/22

27 April 2022

Environmental Protection Department Environmental Assessment Division Regional Assessment Group Lantau South, Lamma, Cheung Chau & Tsing Yi Section (5) 27/F Southorn Centre, 130 Hennessy Road, Wanchai, Hong Kong

By Email & Post

Attn: Ms. WONG Yu Mei, Bell (Env Protection Offr(Regional Assessment)53)

Dear Madam,

Landscape and Visual Monitoring Report (March 2022) for Harbour Area Treatment Scheme Stage 2A (Operational Phase)

We herewith submit the captioned Landscape and Visual Monitoring Report (March 2022) for Harbour Area Treatment Scheme Stage 2A (Operational Phase) for your perusal.

Should you have any queries, please do not hesitate to contact the undersigned.

Yours faithfully, 3NV Technology Limited

LO Ting Yi, Ivy / Environmental Consultant

Encl. cc

DSD/HATS Ove Arup & Partners Hong Kong Limited Bestwise – SFK Joint Venture Mr. Gabriel Lau Mr. Kevin Cheung Mr. H M Leung By Email By Email By Email



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

(Operational Phase) (March 2022)

Report No.: OT_2022004

Prepared and Reviewed by :

Lo Ting Yi, Ivy



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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**.

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	Stonecutter Island PTW				

Table 1.1 L&V Monitoring Locations

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 visible irregularities were found. The completed checklist is shown in **Appendix A**.

3.2. Result Discussion

3.2.1. Generally, all L&V mitigation measures listed in EM&A are followed at 8 PTWs and SCISTW. The Contractor is reminded to carry out proper maintenance to plantings.



Appendix A

L&V Checklist



Landscape and Visual Impact Assessment Checklist for Site Audit – North Point PTW

Inspection Date: 28 March, 2022 Time: 10:00 am Weather: <u>Sunny/ Fine</u>/ <u>Cloudy</u> / <u>Rainy</u> Wind: <u>Strong</u>/ <u>Breeze</u>/ <u>Light/-Calm</u>

Item	Description	Yes	No	N/A	Actions / Remarks
1	Aesthetic design of the façade of PTW and associated structures to harmonize with				
1.1	the surrounding settings Is the aesthetic design match the surrounding environment?	√			
1.2	Are the buildings maintained properly that do not cause any visual impact?	\checkmark			
2	Shrub and Climbing Plants to soften proposed structures / Roof Greening / Vertical Greening				
2.1	Is the roof greening maintained properly?			\checkmark	
2.2	ls the vertical greening maintained properly?			✓	
2.3	Are the Shrub and Climbing Plants free from 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?	\checkmark			
3.2	Is all new planting maintained properly to ensure further establishment?	\checkmark			
4	Reinstatement of disturbed area				
4.1	Are the compensated planting covered the disturbed area?			\checkmark	
5	Others				
5.1	Are existing trees retained on-site are being well preserved?	\checkmark			
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:

- No visible irregularities were found

The contractor was reminded to rectify the following:

- N/A

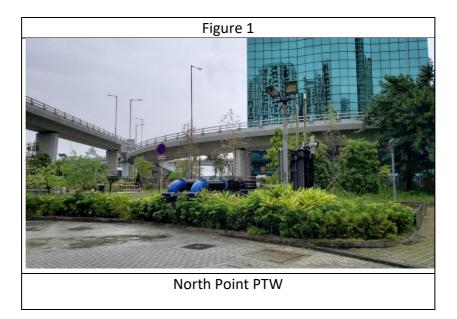
New Observation:

- N/A

Reminders:

- Contractor was reminded to carry out proper maintenance to plantings.

Photo Record:



		Signature	Date
Inspected & Recorded by	Registered Landscape Architect	Xylam"	4 th April 2022



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

Inspection Date: 28 March, 2022 Time: 10:43am Weather: <u>Sunny/ Fine/-Cloudy / Rainy</u> Wind: <u>Strong/ Breeze/ Light/-Calm</u>

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	-	\checkmark			
	surrounding environment?				
1.2	Are the buildings maintained properly that	\checkmark			
	do not cause any visual impact?				
2	Shrub and Climbing Plants to soften				
	proposed structures / Roof Greening /				
2.4	Vertical Greening				
2.1	Is the roof greening maintained properly?	\checkmark			
2.2	ls the vertical greening maintained			\checkmark	
	properly?				
2.3	Are the Shrub and Climbing Plants free from	\checkmark			
	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	\checkmark			
	shrub plantings generally in order?				
3.2	Is all new planting maintained properly to	\checkmark			
	ensure further establishment?				
4	Reinstatement of disturbed area				
4.1	Are the compensated planting covered the			\checkmark	
	disturbed area?				
5	Others				
5.1	Are existing trees retained on-site are being well preserved?	\checkmark			
5.2	Are newly planted vegetations are being	\checkmark			
	generally maintained during the				
	establishment period (12 months)?				



Follow up action taken by Contractor for previous comments:

- No visible irregularities were found

The contractor was reminded to rectify the following:

- N/A

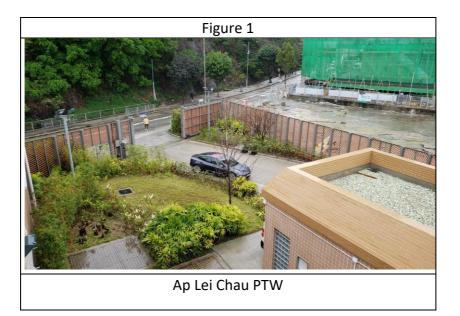
New Observation:

- N/A

Reminders:

- Contractor was reminded to carry out proper maintenance to plantings and recommended to increase the frequency of watering.

Photo Record:



		Signature	Date
Inspected & Recorded by	Registered Landscape Architect	Xylem*	4 th April 2022



Landscape and Visual Impact Assessment Checklist for Site Audit – Wa Fu PTW

Inspection Date: 28 March, 2022 Time: 11:05 am Weather: <u>Sunny/ Fine</u>/ <u>Cloudy</u> / <u>Rainy</u> Wind: <u>Strong</u>/ <u>Breeze</u>/ <u>Light/-Calm</u>

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	ls the aesthetic design match the surrounding environment?	\checkmark			
1.2	Are the buildings maintained properly that do not cause any visual impact?	\checkmark			
2	Shrub and Climbing Plants to soften proposed structures / Roof Greening / Vertical Greening				
2.1	Is the roof greening maintained properly?			✓	
2.2	ls 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?	\checkmark			
3.2	Is all new planting maintained properly to ensure further establishment?	\checkmark			
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?	\checkmark			
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:

- No visible irregularities were found

The contractor was reminded to rectify the following:

- N/A

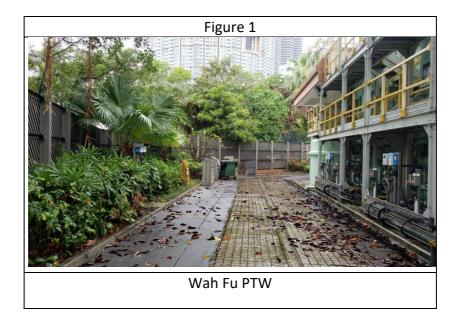
New Observation:

- N/A

Reminders:

- Contractor was reminded to carry out proper maintenance to plantings.

Photo Record:



		Signature	Date
Inspected & Recorded by	Registered Landscape Architect	Xylam"	4 th April 2022



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

Inspection Date: 28 March, 2022 Time: 10:55 am

Weather: <u>Sunny/ Fine/-Cloudy / Rainy</u> Wind: <u>Strong/ Breeze/ Light/-Calm</u>

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?			\checkmark	
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?	\checkmark			
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:

- No visible irregularities were found

The contractor was reminded to rectify the following:

- N/A

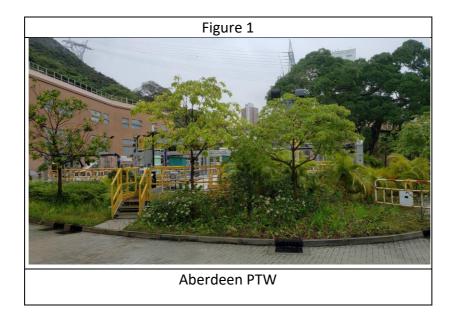
New Observation:

- N/A

Reminders:

- Contractor was reminded to carry out proper maintenance to plantings.

Photo Record:



		Signature	Date
Inspected & Recorded by	Registered Landscape Architect	Xylam"	4 th April 2022



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

Inspection Date: 28 March, 2022 Time: 11:15 am Weather: <u>Sunny/ Fine/-Cloudy/ Rainy</u> Wind: <u>Strong/ Breeze/-Light/-Calm</u>

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		\checkmark			
1.2	Are the buildings maintained properly that do not cause any visual impact?	\checkmark			
2	Shrub and Climbing Plants to soften proposed structures / Roof Greening / Vertical Greening				
2.1	Is the roof greening maintained properly?	\checkmark			
2.2	ls the vertical greening maintained properly?			✓	
2.3	Are the Shrub and Climbing Plants free from 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?	\checkmark			
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:

- No visible irregularities were found

The contractor was reminded to rectify the following:

- N/A

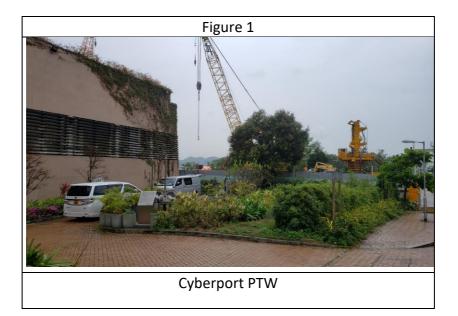
New Observation:

- N/A

Reminders:

- Contractor was reminded to carry out proper maintenance to plantings and removal of weeds.

Photo Record:



		Signature	Date
Inspected & Recorded by	Registered Landscape Architect	Xylam"	4 th April 2022



Landscape and Visual Impact Assessment Checklist for Site Audit – Sandy Bay PTW

Inspection Date: 28 March, 2022 Time: 11:20 pm Weather: <u>Sunny/ Fine</u>/ <u>Cloudy</u>/ <u>Rainy</u> Wind: <u>Strong</u>/ <u>Breeze</u>/ <u>Light</u>/-<u>Calm</u>

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	0	\checkmark			
	surrounding environment?				
1.2	Are the buildings maintained properly that	\checkmark			
-	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	ls 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	\checkmark			
	shrub plantings generally in order?				
3.2	Is all new planting maintained properly to	\checkmark			
	ensure further establishment?				
4	Reinstatement of disturbed area				
4.1	Are the compensated planting covered the disturbed area?			\checkmark	
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:

- No visible irregularities were found

The contractor was reminded to rectify the following:

- N/A

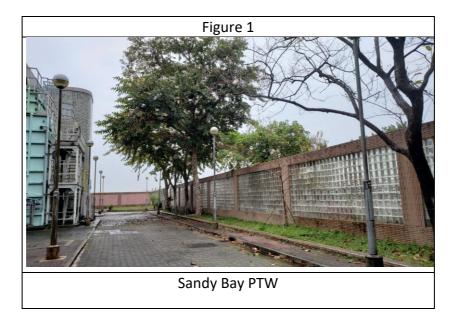
New Observation:

- N/A

Reminders:

- Contractor was reminded to carry out proper maintenance to plantings and recommended to increase the frequency of watering.

Photo Record:



		Signature	Date
Inspected & Recorded by	Registered Landscape Architect	Xylem"	4 th April 2022



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

Inspection Date: 28 March, 2022 Time: 11:40 pm Weather: <u>Sunny/ Fine/-Cloudy/ Rainy</u> Wind: <u>Strong/ Breeze/ Light/-Calm</u>

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	ls the aesthetic design match the surrounding environment?	\checkmark			
1.2	Are the buildings maintained properly that do not cause any visual impact?	\checkmark			
2	Shrub and Climbing Plants to soften proposed structures / Roof Greening / Vertical Greening				
2.1	Is the roof greening maintained properly?	✓			
2.2	ls the vertical greening maintained properly?			✓	
2.3	Are the Shrub and Climbing Plants free from 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?	\checkmark			
3.2	Is all new planting maintained properly to ensure further establishment?	\checkmark			
4	Reinstatement of disturbed area				
4.1	Are the compensated planting covered the disturbed area?			\checkmark	
5	Others				
5.1	Are existing trees retained on-site are being well preserved?	\checkmark			
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:

- No visible irregularities were found

The contractor was reminded to rectify the following:

- N/A

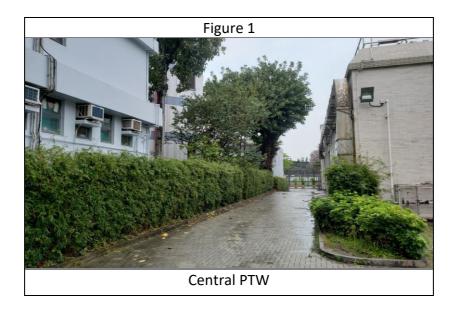
New Observation:

- N/A

Reminders:

- Contractor was reminded to carry out proper maintenance to plantings.

Photo Record:



		Signature	Date
Inspected & Recorded by	Registered Landscape Architect	Xylem*	4 th April 2022



Landscape and Visual Impact Assessment Checklist for Site Audit – Wan Chai PTW

Inspection Date: 28 March, 2022 Time: 12:05 pm Weather: <u>Sunny/ Fine/ Cloudy / Rainy</u> Wind: <u>Strong/ Breeze/ Light/-Calm</u>

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	5	\checkmark			
1.2	surrounding environment?				
1.2	Are the buildings maintained properly that do not cause any visual impact?	\checkmark			
2	Shrub and Climbing Plants to soften				
	proposed structures / Roof Greening /				
	Vertical Greening				
2.1	Is the roof greening maintained properly?	√			
2.2	ls the vertical greening maintained properly?			\checkmark	
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?	\checkmark			
4	Reinstatement of disturbed area				
4.1	Are the compensated planting covered the disturbed area?			\checkmark	
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:

- No visible irregularities were found

The contractor was reminded to rectify the following:

- N/A

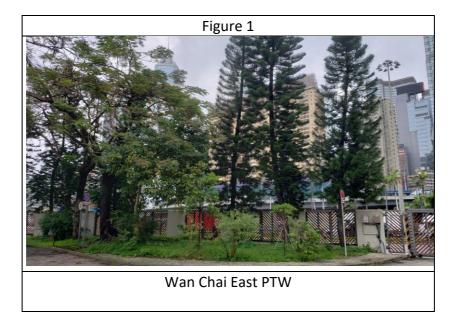
New Observation:

- N/A

Reminders:

- Contractor was reminded to carry out proper maintenance to plantings and recommended to provide adequate protection to trees adjacent to works area.

Photo Record:



		Signature	Date
Inspected & Recorded by	Registered Landscape Architect	Xylam"	4 th April 2022



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

Inspection Date: 28 March, 2022 Time: 12:40 pm Weather: <u>Sunny/ Fine/ Cloudy-/ Rainy</u> Wind: <u>Strong/ Breeze/ Light/ Calm</u>

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	0	\checkmark			
	surrounding environment?				
1.2	Are the buildings maintained properly that	\checkmark			
-	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	ls the vertical greening maintained properly?			✓	
2.3	Are the Shrub and Climbing Plants free from 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?	\checkmark			
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?			\checkmark	
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:

- No visible irregularities were found

The contractor was reminded to rectify the following:

- N/A

New Observation:

- N/A

Reminders:

- Contractor was reminded to carry out proper maintenance to plantings and recommended to check any broken branches at trees along roadside.

Photo Record:



		Signature	Date
Inspected & Recorded by	Registered Landscape Architect	Xylam"	4 th April 2022