

January 26, 2023

Director, Bureau of Water Compliance  
Attention: Edward Hampston  
New York State Department of Environmental Conservation  
625 Broadway, 4<sup>th</sup> Floor  
Albany, NY 12233-35062

Agreement DEC Index No: CO 1-20170626-244

South Shore Water Reclamation Facility  
**2022 Q4 Quarterly Report**

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Dear Mr. Hampston:

We are submitting herewith our Quarterly Report for the period of October 1, 2022, through December 31, 2022.

Very truly yours,



Vincent Falkowski, P.E.  
Deputy Commissioner for Environmental Programs

<b>c:</b>	<b>NCDPW</b>	<b>Hazen and Sawyer</b>	<b>ARCADIS</b>	<b>DEC</b>
	<i>Kenneth Arnold</i>	<i>Mark Hanson</i>	<i>Peter Glus</i>	<i>Katie French</i>
	<i>Jane Houdek</i>	<i>Paul Saurer</i>	<i>Greg Bazydola</i>	<i>Paul Harding</i>
	<i>Chris Vella</i>	<i>Eric Mills</i>	<i>Maryanne Dioquino</i>	<i>Brian Lee</i>
		<i>Tom Zakrzewski</i>	<i>Khanhtran Do</i>	<i>Josh Lin</i>
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				<i>Andrew Fera</i>
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# DEC Agreement Q4 2022 Report



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## Background

On October 29th, 2012 Hurricane Sandy (a.k.a. Superstorm Sandy) pushed into the NY-NJ Metro area and caused widespread and unprecedented damage to coastal communities, low-lying residential neighborhoods, and public infrastructure. The Bay Park Sewage Treatment Plant (the "Bay Park STP"), owned by the Nassau County Department of Public Works (DPW), which serves close to half a million Nassau County residents, was damaged by flooding, power loss, and high winds. The Bay Park STP was partially submerged and the major electrical systems, pumping facilities, and processes were inundated with saltwater from the nearby bay area. To correct the damage to the plant, improve the effluent quality and make the plant less vulnerable to future storms the County committed to construct improvements.

The construction of the improvements is catalogued in the Agreement with the New York State Department of Environmental Conservation CO 1-20170626-244 ("Agreement") in January 2018. In accordance with Section VII, Paragraphs A-C of the Modified Agreement the DPW hereby submits to the New York State Department of Environmental Conservation (DEC) the Quarterly Report for the period of October 1, 2022, through December 31, 2022.

Quarterly reports are posted to the County website and can be found via this link:  
<https://www.nassaucountyny.gov/1882/Wastewater-Management-Program>

**I.0**

## **Executive Summary**

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The Bay Park Sewage Treatment Facility Agreement (“Agreement”) Index No. CO 1-20170626-244, was entered into by the County of Nassau (“County”) and the New York State Department of Environmental Conservation (“DEC”) and became effective on January 11, 2018. The Agreement was modified by mutual consent in this reporting quarter, having been approved by the Nassau County Legislature and signed by the County. The modification was fully executed by the State on January 12, 2021. This report has been prepared with respect to the Modified Agreement.

Pursuant to Section VII, Paragraph A of the modified Agreement, “The County shall submit quarterly construction reports ("Quarterly Reports") to the DEC. The Quarterly Reports shall describe the actions which have been taken toward achieving compliance with this Modified Agreement during the previous three-month period”. The Modified Agreement requires that this report provide:

1. A list of the County's construction contracts necessary to fulfill the requirements of compliance milestones of this Agreement as such milestones are set forth in Appendices A, B, C, D, E and F. This list shall identify, by percentage, the amount of the contract that has been completed;
2. A detailed description of: (a) the work performed pursuant to this Agreement during the reporting period, including the status of all milestones; (b) all anticipated activities for the next three-month period; and (c) the status and cost report for all EBPs required by this Modified Agreement;
3. Information regarding unresolved delays encountered or anticipated that may affect the future schedule for implementation of the County's obligations under this Modified Agreement, and efforts made to mitigate and/or cure those delays or anticipated delays;
4. A description of community relations activities during the reporting period and the activities anticipated for the next three months;
5. Any changes in key personnel; and
6. Any other issues with the potential to materially affect the projects set forth in this Modified Agreement.

Additional information is included to provide a comprehensive representation of the County's efforts towards achieving compliance with the Agreement. This Quarterly Report updates the status and progress of DPW's compliance with the milestones set forth in the Agreement during the period from October 1, 2022, through December 31, 2022 (“Reporting Quarter”).

## II.0

## Modification Request and Force Majeure Status

The following table lists modification requests made by the County and DEC responses to date. The previous outstanding milestone modification requests have all been addressed by the first Agreement Modification.

A second Agreement Modification is currently in preparation that will revise the Conveyance Project milestones noted in Table 1 as well as revise the Wet Weather/Flow Reduction milestones that were added to the Agreement via Appendix F previously.

The second Modification will also add a new project to Appendix A, the Hempstead Bay-Hassocks Restoration Project.

The modifications were agreed to and sent to the County for execution on December 27<sup>th</sup>, 2022. The modification will be fully executed in Q1 2023.

**Table 1 – Modification Requests and Force Majeure Notifications**

<b>Milestone</b>	<b>Agreement Date</b>	<b>Mod request letter date</b>	<b>Revised date requested</b>	<b>DEC Response Date</b>	<b>Modified Mile-stone Date<sup>1</sup></b>
General Covid-19 FM	N/A	3/19/2020 <sup>2</sup>	N/A	6/24/2021	N/A
Bay Park Microtunnel Shafts Complete	5/1/2022	4/1/2022	1/3/2023	12/27/2022	-
Bay Park Microtunnel Design Complete	5/1/2022	4/1/2022	7/1/2022	12/27/2022	-
Cedar Creek Microtunnel Shafts Complete	6/1/2022	4/1/2022	3/9/2023	12/27/2022	-
WW/Flow Reduction	Various	N/A	Various	12/27/2022	-
Hassocks Restoration	TBD	N/A	TBD	12/27/2022	-

1. Bold denotes current date, italic superseded

2. Force Majeure

**III.0****Design Milestone Status**

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The following table lists the design milestones and statuses for Appendix A of the Agreement.

**Table 2 – Design Completion Milestones**

<b>Milestone</b>	<b>Agreement Date</b>	<b>Actual/Forecast</b>
Effluent Screening and Disinfection	4/8/2018	1/5/2018 *
East Avenue Ejector Station	2/8/2018	3/2/2018 *

*\*The table in Section X.0 of this report indicates certification of completed activities.*

**Project Notes:**

All agreement design milestones have been completed and certifications accepted.

## IV.0

## Construction Milestone Status

The following tables list the construction milestones and statuses for Appendices A and C of the Agreement. The milestone dates which are established in the Bay Park Agreement may be modified in the future if the County formally proposes an extension of the milestone, based upon its facility planning, and DEC formally accepts a projected delay.

**Table 3 – Construction NTP Milestones**

<b>Milestone</b>	<b>Agreement Date</b>	<b>Actual/Forecast</b>
Raw Sewage Pumping Facility	2/26/2021	5/3/2021 A
Effluent Screening and Disinfection	10/29/2020	11/4/2020 A
Secondary Flood Protection	12/18/2019	12/18/2019 A
East Avenue Ejector Station	10/29/2020	11/2/2020 A
Sidestream Deammonification	12/31/2019	12/31/2019 A

**Table 4 – Construction Completion Milestones**

<b>Milestone</b>	<b>Agreement Date</b>	<b>Actual/Forecast</b>	<b>% Complete</b>
1 Barnes Avenue – Baldwin	12/31/2019	10/4/2019 A	100%
2 Raw Sewage Pumping Facility	2/15/2024	7/11/2024	40%
3 Sludge Dewatering Facilities	12/15/2018	5/21/2018 A	100%
4 Effluent Screening and Disinfection	8/22/2023	7/25/2023	80%
5 Effluent Tide Pumping Facilities	1/15/2021	5/5/2020 A	100%
6 Electrical Distribution Phase E1-E3	10/23/2020	9/1/2020 A	100%
7 Secondary Flood Protection	6/17/2022	1/28/2022 A	100%
8 Stormwater Pump Stations	3/31/2019	3/28/2019 A	100%
9 Upgrade To 3 Generator Operation	5/19/2019	8/30/2019 A	100%
10 Cedar Dr, Roosevelt et al PS	5/8/2018	1/12/2018 A	100%
11 Wantagh, Newbridge et al PS	4/25/2018	2/12/2018 A	100%
12 Ocean Ave, Mill Rd et al PS	12/5/2018	8/17/2018 A	100%
13 Inwood, Doughty et al PS	7/4/2019	5/13/2019 A	100%
14 Lawrence & Sage Lake PS	8/30/2018	8/13/2018 A	100%
15 East Avenue Ejector Station	10/31/2022	10/17/2022 A	100%
16 Level 1 BNR	5/5/2020	4/30/2020 A	100%
17 Sidestream Deammonification	10/3/2022	9/20/2022 A	100%

\* The table in Section X.0 of this report indicates certification of completed activities.

## **Project Notes:**

### **1. Barnes Avenue – Baldwin**

This project has been completed and milestone certification accepted.

### **2. Raw Sewage Pumping Facility**

#### Progress This Quarter:

- Continued installation of rigid electrical conduit rough-in for power, controls, fire alarm, and lighting.
- Continued demolition of abandoned conduit in existing MCC and Pump Room.
- Continued installation of pump room lighting conduit and temporary SCADA control panel conduit.
- Continued conduit connections, torquing, and interconnecting on the unit substation (USS) equipment.
- Started wiring of all equipment in the new electrical room.
- Installed new control room mimic panel and tied-in the rigid conduit connections.
- Continued work related to main power feeders (P-001).
- Continued installation of rigid conduit and wiring for split AC, CRAC, and ACC units.
- Finished evacuation of air and refrigerant charging for HVAC systems.
- Continued parging and infilling the boiler room wall at beam tie-in locations.
- Finished installation of safety D-ring tie off points in pump room.
- Started installation of platforms and scaffolding for pump room work.
- Continued submission of RFI's, MOPOs, submittals, and shop drawings subcontractors/vendors for approval.

#### Expected Progress Next Quarter:

- Finish relocation of fire standpipe to egress staircase (P-019).
- Finish relocation of fiber optic relocation (P-020).
- Finish wiring of ACC, CRAC, mini-split unit, and unit heaters.
- Finish installing insulation for HVAC plumbing.
- Start installation of new pump room conduit and panels pending submittal approval.
- Continue electrical conduit installation in new electrical room for power, controls, lighting.
- Finish wiring and installation of soffit lighting under west corridor.
- Continue wiring new distribution panel inside electrical room.
- Continue installing platforms and scaffolding for pump room valve work.
- Start installation of valve extensions in pump room.
- Rotate the butterfly and gate valve actuators in pump room.
- Continue electrical conduit work for the main power feeders (P-001).
- Paint new pipe bollards outside pump room (weather dependent)
- Continue submission of RFI's, Submittals, MOPOs, Shop Drawings and Subcontractor/Vendor approvals.
- Rotate the existing butterfly and gate valve actuators in pump room.



- Continue submission of RFI's, Submittals, Shop Drawings and Subcontractor/Vendor approvals.

*Note: Current schedule for Raw Sewage Pumps has remained behind schedule due to equipment delivery delays related to COVID and supply chain issues. It is anticipated that the current Consent Agreement completion milestone will not be met as a result. A letter to this effect was issued to DEC June 6, 2022.*

### **3. Sludge Dewatering Facilities**

This project has been completed and milestone certification accepted.

### **4. Effluent Screening and Disinfection**

#### **Progress This Quarter:**

- Completed the installation of Screens Nos. 1 and 4.
- Screens Nos. 1 through 4 are running in automatic operation.
- Completed Effluent Screen Training.
- Screens Nos. 1 through 4 have successfully completed yellow tag and blue tag testing.
- Received delivery of HVAC Control Panel HLCP-01.
- Started the installation of HVAC piping.
- Started the removal of the existing flowmeter electrical conduit and wiring.
- Continued preparation and submission of administrative and technical submittals.

#### **Expected Progress Next Quarter**

- Receive delivery of the second Butterfly Valves.
- Return the first Butterfly Valves to Elite for repainting.
- Perform Holiday testing on the painted valve.
- Start floor preparation for painting the floors.
- Continue the installation of HVAC piping.
- Install new electrical conduit and wiring to the flowmeter.
- Continue preparation and submission of administrative and technical submittals.

### **5. Effluent Tide Pumping Facilities**

This project has been completed and milestone certification accepted.

### **6. Electrical Distribution System Phases E1-E3**

All phases have been completed and milestone certification has been submitted and accepted.

### **7. Secondary Flood Protection**

All phases have been completed and milestone certification has been submitted and accepted.

### **8. Stormwater Pump Stations**

Construction is complete, milestone has been met, certification of completion has been submitted and accepted.

**9. Upgrade to 3 Simultaneous Generator Operation**

Construction is complete, milestone certification has been submitted and accepted.

**10. Cedar Dr., Roosevelt Ave, Whitewood, Biltmore and Alhambra Pump Stations**

Construction is complete, milestone has been met, certification of completion has been submitted and accepted.

**11. Wantagh, Newbridge, Merrick & Rav St Pump Stations**

Construction is complete, milestone has been met, certification of completion has been submitted.

**12. Ocean Ave, Mill Rd, Woodmere Blvd & Longacre Ave Pump Stations**

Construction is complete, milestone has been met, certification of completion has been submitted and accepted.

**13. Inwood, Doughty Blvd, Bayview Ave & Roslyn Rd Pump Stations**

Construction is complete, milestone has been met, certification of completion has been submitted.

**14. Lawrence and Sage Lake Pump Stations**

Construction is complete, milestone has been met, certification of completion has been submitted and accepted.

**15. East Avenue Ejector Station****Progress This Quarter:**

- Completed installation of valve tags.
- Relocated diaphragm in gas detection system to resolve oxygen sensor issue.
- Repaired latch on dry well entry door.
- Painters scraped and repainted peeling paint in dry well.
- Removed dumpster and temporary facilities.
- Substantial completion granted 10/17/2022 and milestone certification has been submitted to DEC.

**Expected Progress Next Quarter:**

- Complete as-built drawings.
- Turn over final O&M Manuals.
- Remove contractor trailer and Conex box from staging area at Inwood Pump Station.
- Address remaining peeling paint in both dry and wet wells.

**16. Level 1 BNR**

Construction is complete and certification of completion has been submitted and accepted.

## **17. Sidestream Deammonification**

### Progress This Quarter:

- Substantial Completion granted, certification of milestone submitted and accepted by DEC.
- Continued operation and ramp-up of the Sidestream system.
- 2-year contractual Maintenance and guarantee period started as of March 10, 2022.
- Continued submission of O&Ms, As-builts, Closeout submittals, and technical submittals.

### Expected Progress Next Quarter:

- Continue submission of O&Ms, As-builts, Closeout submittals, and technical submittals.
- Continue monitoring, ramp-up, and maintaining operation of the Sidestream Centrate treatment process.
- Complete 10-Day test on 2nd process train.
- Continue general punch list items.

V.0

## Inter Municipal Agreement

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Paragraph VII.G of an administrative Consent Order (#C01- 20151020-142) between DEC and the City of Long Beach (City) requires the City to enter into an Inter-municipal Agreement (IMA) with the County. The County was to enter into a fully executed IMA with the City within 180 days of the effective date of this Agreement. The IMA is to address the diversion of wastewater from the WWTP currently owned and operated by the City to the Bay Park WWTP.

The IMA was executed by both parties on July 26, 2019 as noted in the modified Agreement paragraph VII.F.

The County and the City of Long Beach have executed the first Contract Administration Memorandum (CAM) that details the roles and responsibilities of the two parties with respect to project funding and financing. A second CAM is currently being finalized summarizing the transactional details of payments. A third CAM was executed that constitutes an agreement by which the County will accept sludge residuals from the City due to the City's digester system becoming disabled.

## VI.0

## Nitrogen Schedule of Compliance

The milestones for the Nitrogen Upgrades as listed in the Modified Agreement are listed in the following table.

**Table 5 – Bay Park WPCP Nitrogen Milestones**

<b>Description of Work</b>	<b>Agreement Date</b>	<b><i>Projected/Actual*</i></b>
Submit an approvable BNR Operation and Maintenance plan	1/8/2020	1/8/2020
Begin operation of the 6-month start-up period	6/1/2020	6/1/2020
Begin the 12-month performance period	1/1/2021	1/1/2021
End 12-month performance period	12/31/2021	12/31/2021
Submit performance data	4/1/2022	4/1/2022
Submit an approvable updated BNR O&M and Sidestream O&M Plan	6/1/2022	6/1/2022
Begin operation of the 6-month start-up period for updated BNR and Sidestream O&M plan.	11/1/2022	<i>11/1/2022</i>
Begin the 12-month performance period for updated BNR and Sidestream O&M plan.	5/1/2023	<i>5/1/2023</i>
End 12-month performance period for updated BNR and Sidestream O&M plan.	4/31/2024	<i>4/31/2024</i>
Submit performance data and approvable Final BNR and Sidestream O&M Plan.	8/1/2024	<i>8/1/2024</i>

\* The table in Section X.0 of this report indicates certification of completed activities.

The 6-month startup and optimization period for the sidestream system was initiated November 1, 2022, meeting the milestone date.

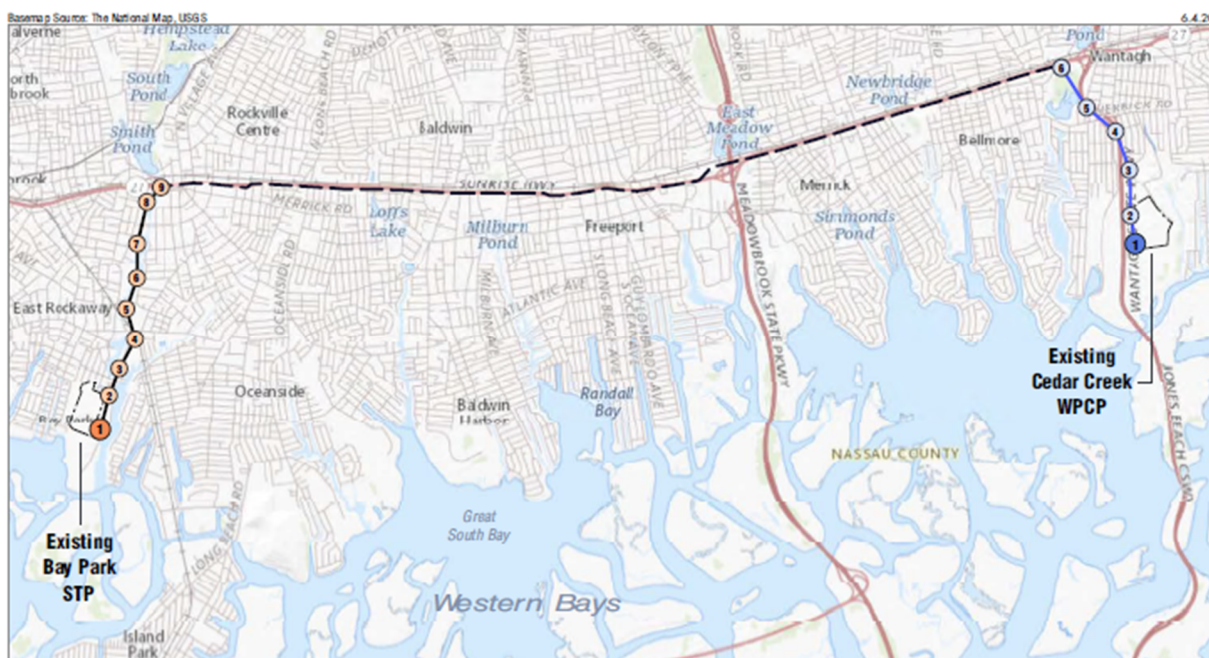
Performance data demonstrates continued compliance with the revised nitrogen limit that went into effect July 1, 2022.

## VII.0

## Conveyance Project

### Executive Summary

The Bay Park Conveyance Project (Project) is being delivered by the Department of Environmental Conservation (DEC) Project Team in partnership with the Nassau County Department of Public Works (DPW) via the design-build project delivery method. The Project would divert treated Bay Park STP effluent from the existing outfall in Reynolds Channel to the Cedar Creek WPCP ocean outfall. The diversion of treated water from Bay Park STP to Cedar Creek WPCP would remove between 75 to 90 percent of the nitrogen currently discharged into the Western Bays.



The Project includes: (1) constructing a new dedicated pump station at the Bay Park STP, (2) rehabilitating an existing aqueduct under Sunrise Highway, (3) constructing a new 70 inch diameter force main between the Bay Park STP and the existing aqueduct, (4) constructing a new 70 inch diameter force main between the Cedar Creek WPCP and the existing aqueduct, and (5) constructing a standpipe receiving tank connection at the existing Cedar Creek WPCP pump station.

The new pump station at the Bay Park STP will have a 75 MGD capacity and will be fully mitigated from the 500-year storm surge.

The existing aqueduct is a steel pipe that is to be slip lined with a polymer pipe with the interstitial space filled with grout to maximize protection against leakage.

Construction of the new force mains will use microtunneling technology. Microtunneling is a method of constructing underground tunnels to install pipes, such as sewer mains, using a remotely operated microtunnel boring machine (MTBM). This method avoids the need to excavate long sections of open trenches at the ground surface to lay pipes. The project includes the 14 construction shafts, approximately 30 feet in diameter, at the beginning, end, and at several locations along the force main alignments, establishing staging areas of approximately half an acre around each construction shaft. The tunnel for each new force main would then be drilled between the shafts at depths below current ground surface of approximately 20 to 60 feet.

A steel standpipe is to be constructed at the Cedar Creek WPCP which will serve to protect the force main from transient pressures that could result from power outages. The Cedar Creek pump station is also to be upgraded with new pumps, motors and drives.

The Modified Agreement reflects the project name change from the Effluent Diversion Project to the Conveyance Project. The initial modified milestones for the Conveyance Project are listed in the following table:

**Table 6 – Initial Conveyance Project Milestones**

<b>Description of Work</b>	<b>Agreement Date</b>	<b>Projected / Actual</b>	<b>Milestone Submitted</b>	<b>Milestone Accepted</b>
DEC Conveyance Team Selects Best-Value Proposal	10/26/2020	10/22/2020	2/17/2021	2/17/2021
County/DEC Project Team to submit approvable major and minor milestones in a Baseline Schedule for Design-Build Project Completion, including Mechanical Completion, Substantial Completion, and Final Acceptance	3/26/2021	4/6/2021	4/6/2021	4/13/2021
Repair of the Cedar Creek Outfall Diffuser	10/31/2021	10/31/2021		
Notice to Proceed to Construction	2/26/2021	4/4/2021	3/9/2021	3/9/2021
Construction Start Early Works	6/25/2021	6/25/2021		
Commence Diversion of Wastewater from Bay Park to Cedar Creek	10/25/2024	10/25/2024		

Three milestones were achieved and accepted, one of which was a new set of milestones that supersede those in Table 6. The revised list of milestones is shown in Table 7 on the following page.

**Table 7 – Conveyance Project Milestones**

<b>Description of Work</b>	<b>No.</b>	<b>Agreement Date</b>	<b>Projected / Actual</b>	<b>Milestone Submitted</b>	<b>Milestone Accepted</b>
Notice to Proceed	1	3/4/2021	3/4/2021	3/9/2021	3/9/2021
BPM Construction Start	2.1	10/1/2021	5/1/2021	5/12/2021	5/12/2021
BPM Design Start	2.2	4/1/2021	4/15/2021	4/16/2021	4/19/2021
BPM Shafts Complete	2.3	<b>9/1/2023</b>	<i>9/1/2023</i>		
BPM Design Complete	2.4	<b>7/1/2022</b>	6/28/2022	6/28/2022	6/29/2022
BPM Construction End	2.5	12/30/2023	<i>12/30/2023</i>		
CCM Construction Start	3.1	12/1/2022	<i>12/1/2022</i>		
CCM Design Start	3.2	7/1/2021	6/29/2021	6/29/2021	7/2/2021
CCM Shafts Complete	3.3	<b>9/1/2023</b>	<i>9/1/2023</i>		
CCM Design Complete	3.4	9/1/2022	6/28/2022	6/28/2022	6/29/2022
CCM Construction End	3.5	12/30/2023	<i>12/30/2023</i>		
BPEPS Construction Start	4.1	5/1/2021	5/1/2021	5/12/2021	5/12/2021
BPEPS Design Start	4.2	4/1/2021	4/15/2021	4/16/2021	4/19/2021
BPEPS Design Completion	4.3	10/1/2022	10/1/2022	10/11/2022	10/12/2022
BPEPS Construction End	4.4	12/30/2023	<i>12/30/2023</i>		
SHA Rehabilitation Construction Start	5.1	10/1/2021	<i>10/1/2021</i>	9/28/2021	9/29/2021
SHA Rehabilitation Design Start	5.2	4/1/2021	4/15/2021	4/16/2021	4/19/2021
SHA Rehabilitation Design Complete	5.3	12/30/2022	<i>12/30/2022</i>		
SHA Rehabilitation Construction End	5.4	12/30/2023	<i>12/30/2023</i>		
CCEPS/RS Construction Start	6.1	8/1/2022	5/25/2022	5/25/2022	6/1/2022
CCEPS/RS Design Start	6.2	8/1/2021	6/29/2021	6/29/2021	7/2/2021
Cedar Creek Outfall Repair	6.3	12/1/2021	<i>12/1/2021</i>	11/19/2021	12/3/2021
CCEPS/RS Design Completion	6.4	10/1/2022	10/1/2022	10/11/2022	10/12/2022
CCEPS/RS Construction End	6.5	12/30/2023	<i>12/30/2023</i>		
Mechanical Completion	7	12/30/2024	<i>12/30/2024</i>		
Substantial Completion	8	7/30/2024	<i>7/30/2024</i>		
Final Acceptance	9	11/30/2024	<i>11/30/2024</i>		

BPM: Bay Park Microtunnel

CCM: Cedar Creek Microtunnel

BPEPS: Bay Park Effluent Pump Station

SHA: Sunrise Highway Aqueduct

CCEPS/RS: Cedar Creek Effluent Pump Station/Receiving Station

**Bold notes modified milestones per December 5, 2022 DEC Letter.**



Two design completion milestones were met in this reporting quarter as noted in the preceding table.

As noted in Section II of this report, three milestones dates have been revised as a part of the Agreement Modification and are noted in bold in the preceding table.

### **Progress This Quarter:**

During 2022 Quarter No. 4, there was continued progress to advance the overall project objectives, which included the finalization of contractual Design Submittals and review and approval of subsequent Design Changes (FDCs/NDCs). A total of seven (7) design packages for Bay Park Pump Station, Sunrise Highway Slip lining, and Cedar Creek Outfall infrastructure/facilities were received. Four (4) design packages were formally approved as RFCD documents: DP-21 - Slipline and Pits FF, G, GG, and H, DP-22 SRH 6 - Slipline and Work Pits B, C, D, E, & F, DP-09B Cedar Creek PS 1 – SG-7 Modifications and DP-28 Bay Park Effluent Conduit.

Construction activities are listed by location below.

The Project's administrative goals in the form of reporting, meetings, document control, schedule reviews, quality assurance, and oversight activities continued. Construction activities such as shaft excavation and build-out, secant pile and CSM panel installation, jet grouting operations, utility relocations, SWPPP implementation, and other civil preparatory work were recorded relevant to RFCDs. Summarized below are particulars on design, submittals, and construction progress by reach/location over the period.

#### **Bay Park Effluent Diversion Pump Station:**

- Received and performed detailed quality and compliance reviews for numerous packages at RFCD level of design, including submission of DP-28 Bay Park Effluent Conduit and technical design submittals: DPP-019 - Bay Park Limited Geotech Investigation and DPP-007 - BP Limited Hazmat Report - Supplemental Phase 1 Asbestos Abatement Clearance Letter.
- Reviewed and processed numerous works plans and construction submittals, including but not limited to, slide gate, and stop log, rebar shop drawings, Pump Field Test Procedures, electrical product data submittals, and SWPPPs.
- Wet Well – completed placing concrete and strip formwork. BPEDPS Diversion Structure - Backfill between SOE and West Walls completed. The excavation/forming/rebar/pouring and curing of minipile caps were completed. Lighting fixtures were delivered. Pump Station Foundation – Installation of foundation beams 2/3/4 above Diversion Structure & BP-1 and installation of (22) support columns above foundation beams were completed

#### **Bay Park Microtunnel:**

- All Design Packages in this area have been approved.
- Stripped/grouted tunnel lines BP2 to BP1 and BP2 to BP3. Tunnel BP2 to BP3 - Backfill Shaft 2 completed. Installation of microtunneling equipment from BP3 to BP4 was com-

pleted and tunnel run initiated. Shaft BP-2 - Inserted connecting pipe at shaft base and encased base. Shaft BP-5 – Excavated and poured base slab. Shotcrete and waterproofing were also completed. Shaft BP-7 - Excavated and poured base slab. Shaft BP-9 - Post grout verification completed.

#### Sunrise Highway Sliplining:

- Received and performed detailed quality and compliance reviews of RFCD packages, including: DP-21 – Sunrise Highway Slip line and Work Pits FF, G, and DP-22: Slip line and Work Pits B, C, D, E, and F.
- Reviewed and processed numerous work plans and construction submittals, including but not limited to, SWPPPs and Disposal Facility Applications.
- Reviewed and processed numerous work plans and construction submittals, including but not limited to, response level plan and rebar shop drawings.
- Construction Work This Period: Cleaned and prepared invert from Pit A towards Pit B. Jack Pipe Pit A Towards Pit B. Install vibrations, Geotechnical Instrumentation and grout Annulus towards Pit B completed. Excavate/Install S.O.E Pit B. Install vibrations, Geotechnical Instrumentation, Install and Strip Bulkhead East and West sides of the Pit B, grout Annulus towards Pit C. Mobilized and set-up MPT at Pits B, C, D, K, L, M. Jack pipe from Pit B Towards Pit C. Installed vibrations and Geotechnical Instrumentation, excavated and installed SOE at Pit C. Cleaned and prepared invert towards Pits A and C, installed jacking equipment facing Pit C, jacked pipe towards Pit C, rotated jacking equipment to face Pit A, conducted joint tests towards Pit C, jacked pipe towards Pit A, conducted joint tests towards Pit A, and removed jacking equipment at Pit B Cleaned and prepared invert from Pit C to Pit B, Removed host pipe and Excavate/Install S.O.E at Pit D. Conduct Joint Tests towards Pits D and B, Install Bulkhead East side, Strip Bulkhead East and West sides, grout Annulus towards Pit D and Install closure pipe and coupling completed. Install vibrations, Geotechnical Instrumentation, Install and Strip Bulkhead West side completed at Pit D. Installed jacking equipment to face Pit D, jacked pipe towards Pit D, rotated equipment to face Pit B, jacked pipe towards Pit B, removed jacking equipment, installed bulkhead West side of Pit C and leaned and prepared invert, carried in carrier. Install vibrations, Geotechnical Instrumentation, Excavate/Install S.O.E and Remove Host Pipe completed at Pit K. Install vibrations, Geotechnical Instrumentation at Pit L. Install vibrations, Geotechnical Instrumentation, Excavate/Install S.O.E, remove Host Pipe and clean and prepare invert towards Pit M completed. Excavate/Install S.O.E Pit M, clean and prepare invert towards Pit M and grout Annulus towards Pit “O” completed. Cleaned and prepared invert from Pit N towards Pit O, rotated jack towards Pit O, jacked pipe from Pit N towards Pit O, and installed bulkhead East of Pit N. Conducted pipe joint tests from Pit O towards Pit N. Cleaned and prepared invert from Pit O to Pit N and carried in carrier pipe towards Pit N.
- Construct Manhole/Temporary Restore Sunrise highway at Pits Q, R, T, U, V. Install closure pipe and coupling with access manhole and CAV completed and Pit S. Install closure pipe and coupling with access manhole & Marv at Pit U. Install Permanent Watertight Bulkhead East of Sunrise Highway and strip bulkheads West side completed at Pit W. Excavated/installed SOE and removed host pipe at Pit W.

**Cedar Creek Microtunnel:**

- All Design Packages in this area have been approved.
- Reviewed and processed numerous work plans and construction submittals, including but not limited to, rebar drawings, pump field test procedures, electrical product data submittals, helical pile compression load test schedule, and Disposal Facility Applications.
- Construction Work This Period: CC2 to CC1- Installed microtunneling equipment and drive was completed. Strip/Grout Tunnel line completed. CC2 to CC3 - Set-up/Turn microtunneling Equipment completed. CC2 to CC6 – Testing of pit shaft locations for unforeseen utilities was completed. CC5 –Installing and stripping liner wall. Connect aqueduct to microtunnel Pit "W" to CC-"6" – Mobilized SOE equipment, Cleared and grubbed pipe route. Install SOE/Excavate for open cut Pipe Installation.

**Cedar Creek Effluent Pump Station/Receiving Station:**

- Design Work This Period: Received and performed detailed quality and compliance reviews for the following RFCD package: DP-09: Cedar Creek PS 1 – Pump Station Upgrades and technical review memo submittal DPP for DP-11A CC Outfall Cleanout Chamber Preliminary Study.
- Construction Work This Period (Q4 2022): The forming, rebar, pouring, and curing of pile caps and foundation pad were completed.

**Expected Progress Next Quarter:****Bay Park Effluent Diversion Pump Station:**

- All Design Packages in this area have been approved.
- BPEDPS Diversion Structure - Continue to form/pour/cure walls and Diversion Structure channel roof slabs. Pump Station Foundation – Continue to install sluice gates and beams above columns to support building & slab.

**Bay Park Microtunnel:**

- All Design Packages in this area have been approved.
- Continue microtunneling drive from BP3 to BP4.

**Sunrise Highway Sliplining:**

- All Design Packages in this area have been approved.
- Continue slip lining and excavation of Work Pits.

**Cedar Creek Microtunnel:**

- All Design Packages in this area have been approved.
- Continue to set-up/turn microtunneling equipment from CC2 to CC3. Aqueduct to micro-tunnel from Pit W to CC-6 – Continue to install steel sheeting and excavation.

Cedar Creek Effluent Pump Station/Receiving Station:

- Anticipate receipt of one (1) RFCD package for DP-11A – CC Outfall Cleanout Chamber Preliminary Study.
- Continue to excavate and install steel plates from foundation pad to outfall.

## VIII.0

## Wet Weather Flow Reduction

The Modified Agreement has added the following compliance schedule for Wet Weather Flow Reduction, as listed in the following table.

**Table 8 – Wet Weather Flow Reduction Milestones**

Description of Work	Agreement Date
1. Capacity, Management, Operation and Maintenance (CMOM) Program a. Submit CMOM plan for Bay Park STP and Cedar Creek WPCP b. Begin implementing the approved CMOM plans	1/27/2023  Upon DEC Approval
2. CMOM Program – Submit Operating Plan for Bay Park Conveyance System	3/1/2023
3. Inflow and Infiltration (I/I) Study Work Plan a. Submit I/I study work plans for Bay Park STP and Cedar Creek WPCP b. Conduct I/I studies c. Submit Final Report on Findings	a) 3/31/2023 b) Upon DEC approval of the I/I Work Plan c) Within 12 months of work plan approval or per approved
4. Inflow and Infiltration (I/I) Reduction Plan The County shall use the results of the I/I Study to identify and prioritize cost-effective I/I reduction projects using a data-driven cost/benefit approach consistent with best industry practices.	Submit plan within six months of I/I Study Final Report Approval

The County has submitted the draft CMOM plans to DEC for review in this reporting quarter. Draft I&I studies have been submitted to the County by their consultant and they are currently under review. Revised milestone dates proposed by the County have been accepted by DEC and are shown in the preceding table.

## IX.0

# Environmental Benefit Projects

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The formal proposal for the Cedar Creek Kayak Launch was submitted to DEC on August 9, 2021 and was approved on September 24, 2021. The project plan resubmittal was approved by the DEC Region 1 permitting group on June 6, 2022 and the USACE application was submitted on July 11, 2022 where it remains under review.

## X.0

## Certification of Completed Activities

The following table lists the activities for which certification of compliance were submitted.

**Table 9 – Completed Activities**

Milestone	Date Completed	Certification Submitted	Certification Accepted
Effluent Screening and Disinfection – Design	1/5/2018	7/5/2018	9/13/2018
East Avenue Ejector Station - Design	3/2/2018	7/5/2018	9/13/2018
Cedar Dr, Roosevelt et al PS - CC	1/12/2018	7/5/2018	11/27/2018
Wantagh, Newbridge et al PS – CC	2/12/2018	7/5/2018	11/27/2018
Sage Lake and Lawrence PS – CC	8/13/2018	8/24/2018	11/27/2018
Ocean Ave, Mill Road et al PS – CC	8/17/2018	9/19/2018	11/27/2018
Sludge Dewatering Facilities – CC	10/12/2018	10/24/2018	1/4/2019
Inwood, Doughty et al PS – CC	2/19/2019	2/28/2019	5/1/2019
Stormwater Pump Stations – CC	3/28/2019	4/3/2019	4/19/2019
Upgrade to 3 Generator Operation – CC	8/30/2019	9/12/2019	11/7/2019
Barnes Ave-Baldwin – CC	11/22/2019	11/25/2019	2/25/2020
Electrical Distribution Upgrades – CC	9/1/2020	10/23/2020	10/30/2020
Secondary Flood Protection – NTP	12/18/19	12/31/19	12/31/19
Secondary Flood Protection – CC	1/28/2022	2/2/2022	4/22/2022
Sidestream Deammonification – NTP	12/31/19	12/31/19	12/31/19
East Avenue PS NTP	10/29/2020	10/29/20	11/2/2020
Effluent Screening and Disinfection NTP	10/29/2020	10/29/20	11/2/2020
Level 1 BNR – CC	4/30/2020	5/5/20	10/30/2020
Effluent Pumping Facility – CC	5/5/2020	6/10/20	10/30/2020
Sidestream Deammonification – CC	11/22/2021	10/10/2022	11/22/2022
Submit Approvable BNR O&M Plan	1/8/2020	1/8/2020	4/13/2020
Begin operation of the 6-month start-up period	6/1/2020	7/22/2020	11/8/2022
Begin performance period BNR	1/1/2021	1/13/2021	1/13/2021
Raw Sewage Pumping Facility NTP	5/3/2021	4/30/2021	5/5/2021
Complete performance period BNR	12/31/2021	1/20/2022	1/21/2022
Submit Approvable Revised BNR O&M Plan	6/1/2022	6/1/2022	6/29/2022

## XI.0

# Community Relations

From October through December 2022, the State, County, and Design Builder continued in their efforts to disseminate and field community concerns via various community engagement initiatives.

On December 7 from 6 – 7:30pm, the State, County, and Design-Builder held a seventh quarterly general public information session (since the Project’s Notice-to-Proceed) over Zoom to update communities on the Project’s construction progress, reinforce its mission, and to answer any questions from participants. Discussion topics that affect the public included tree removal, as well as noise and vibration monitoring.

Meetings with local elected officials and first responders took place on October 25 and November 29, where government officials and fire marshals were debriefed on the Project’s construction progress, safety measures and traffic control procedures. The invited entities also had the opportunity to ask questions directly to the Project team regarding any concerns.

Stakeholder meetings which included chambers of commerce, local civic associations, and homeowners’ associations also took place during Q4: on October 26 and November 30. During these meetings, local stakeholders were invited to listen in on the Project’s updates and raise any concerns directly to the Project team. WBC answered questions regarding the timeline of construction at Sunrise Highway Pits.

Additionally, on December 6, Veolia hosted a tour for 65 fifth-grade students from Oceanside.

The Project team continues to respond to and address public inquiries, release monthly project construction lookaheads and quarterly newsletters, engage in outreach to businesses and residents via canvassing, local events, social media, e-blasts, as well as maintaining a project website.

### 2022 Q3 Outreach Summary:

Item/ Description	Dates
Quarterly Public Information Session	• December 7
Monthly Meeting with First Responders and Elected Officials	• October 25 • November 29
Monthly Meeting with Stakeholders, i.e. Chambers of Commerce, Civics, and Homeowners’ Associations	• October 26 • November 30
Tour for Oceanside 5 <sup>th</sup> Grade Students	• December 6

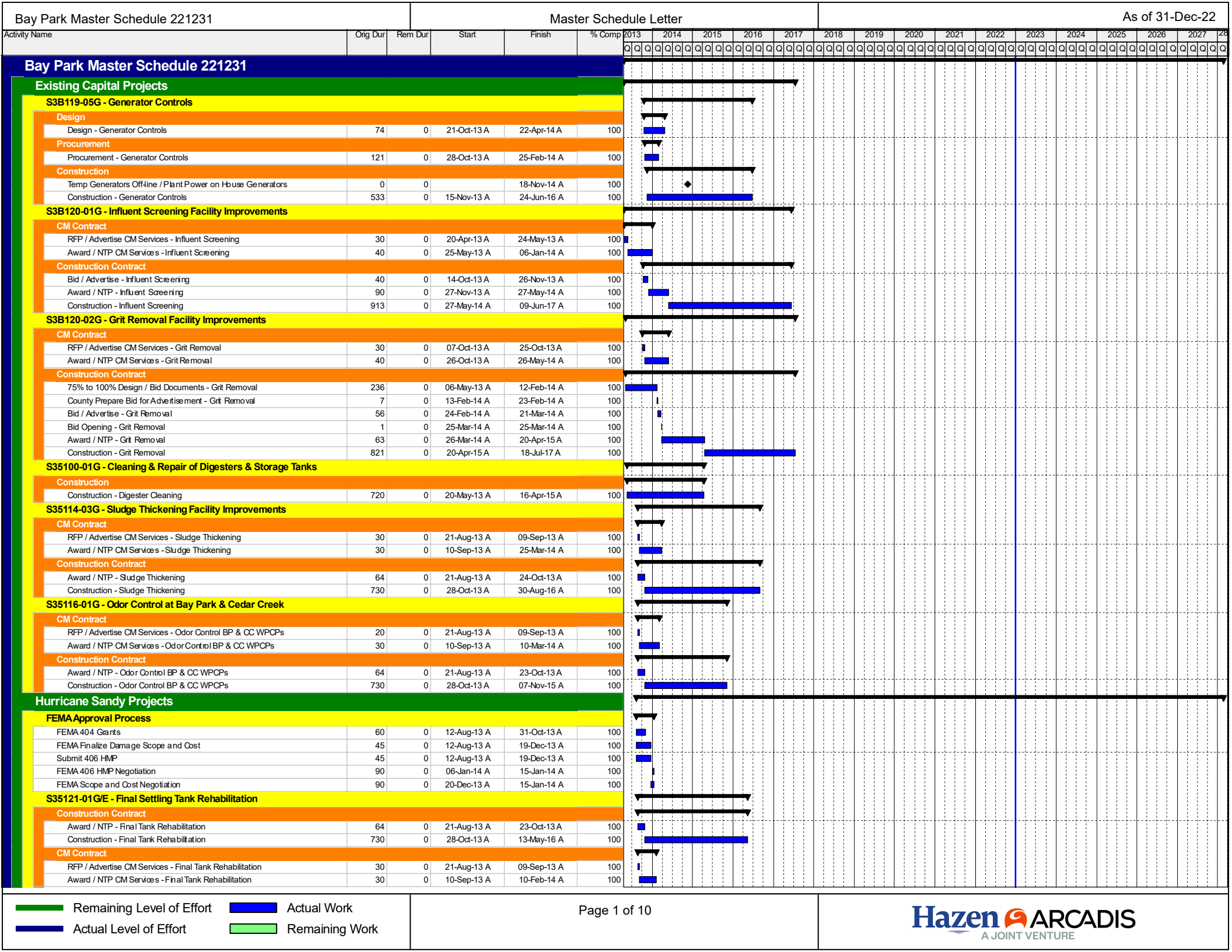


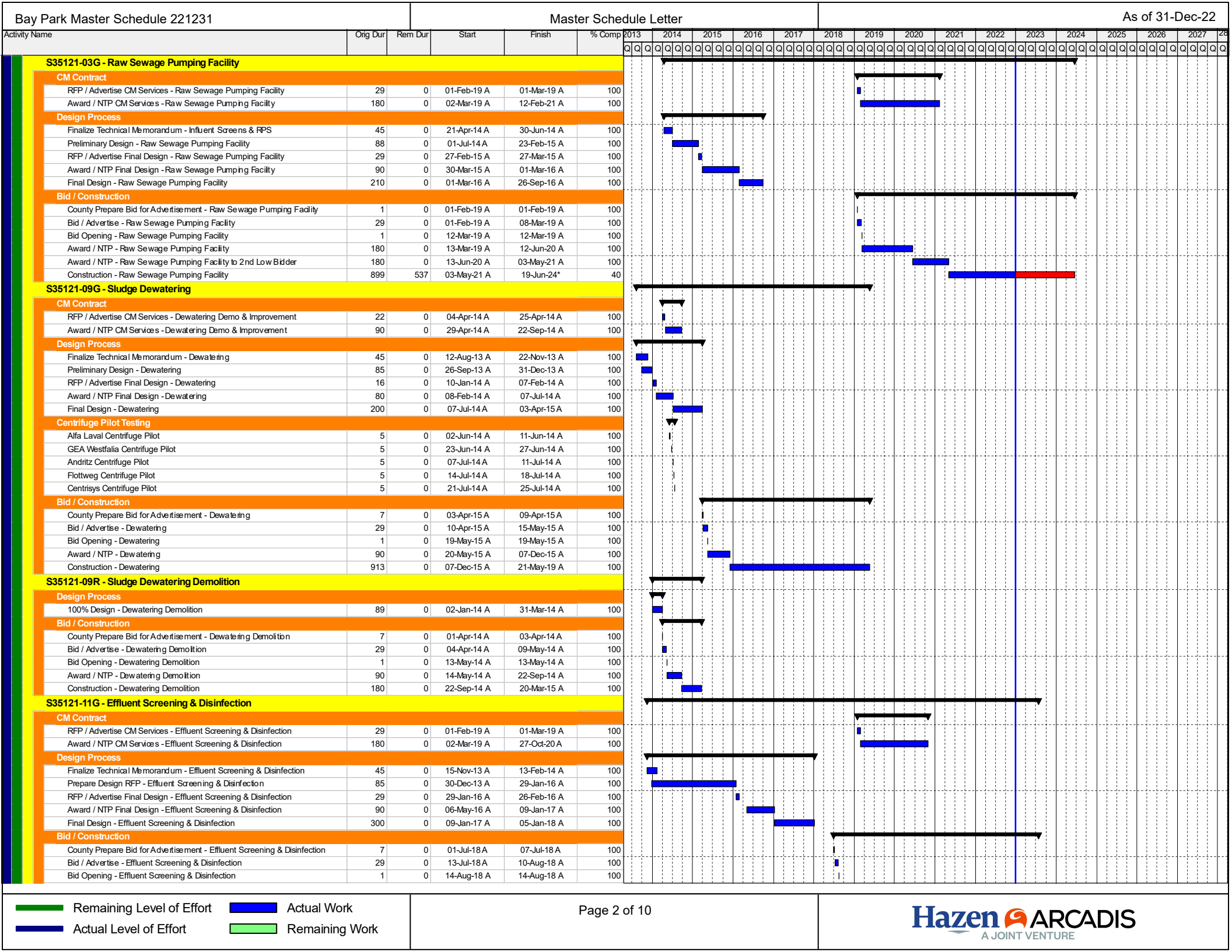
**XII.0**



## **Attachments**

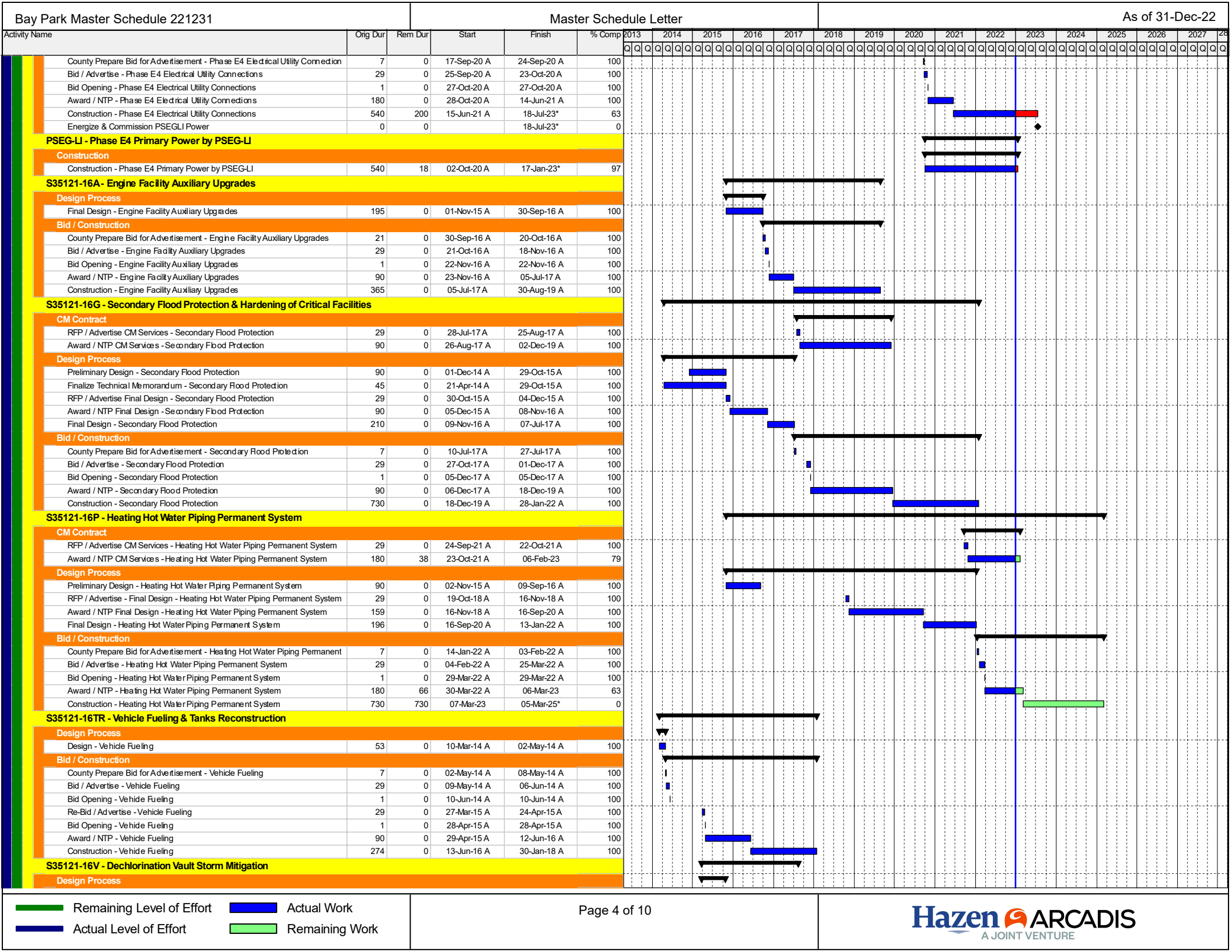
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1. Program Master Schedule

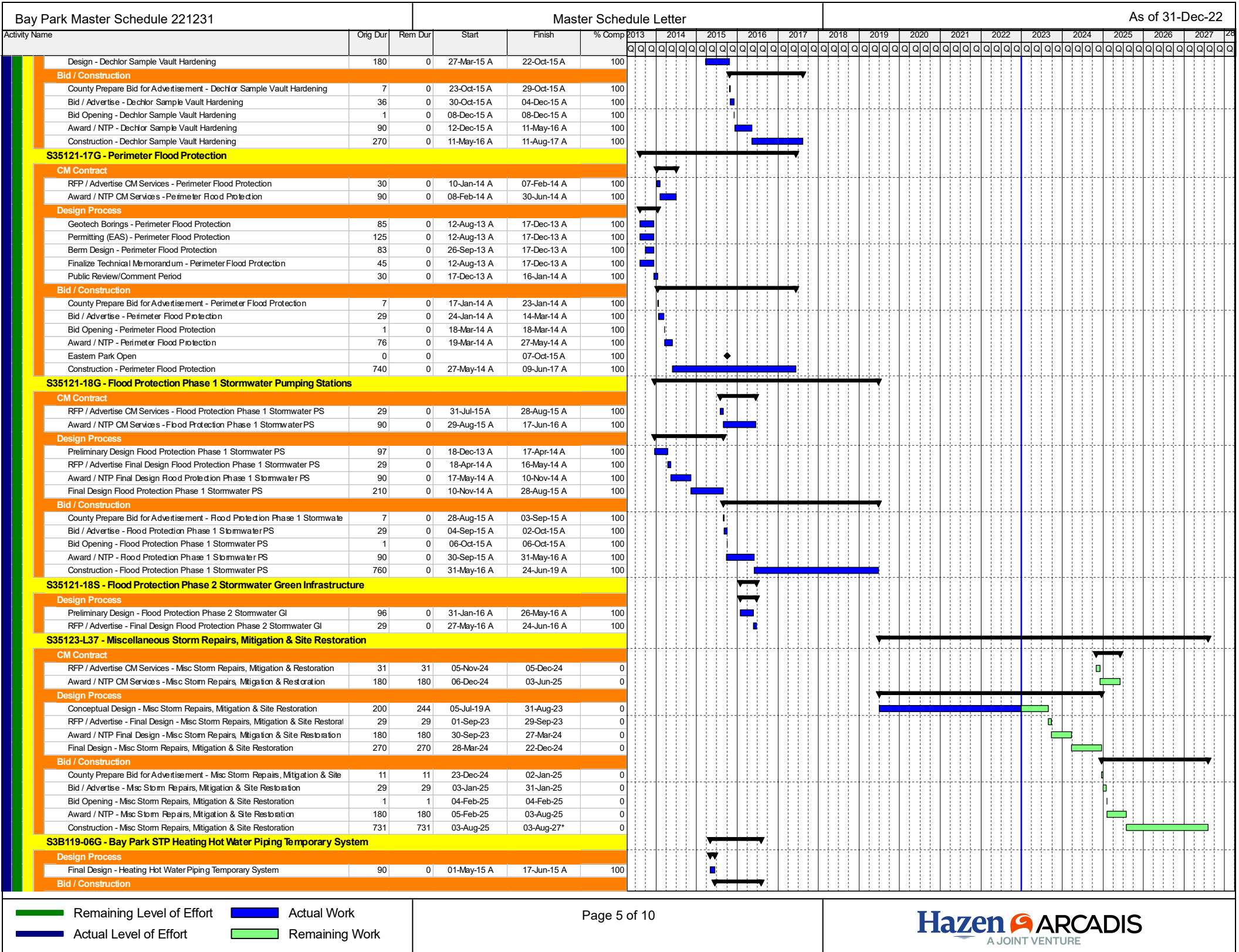


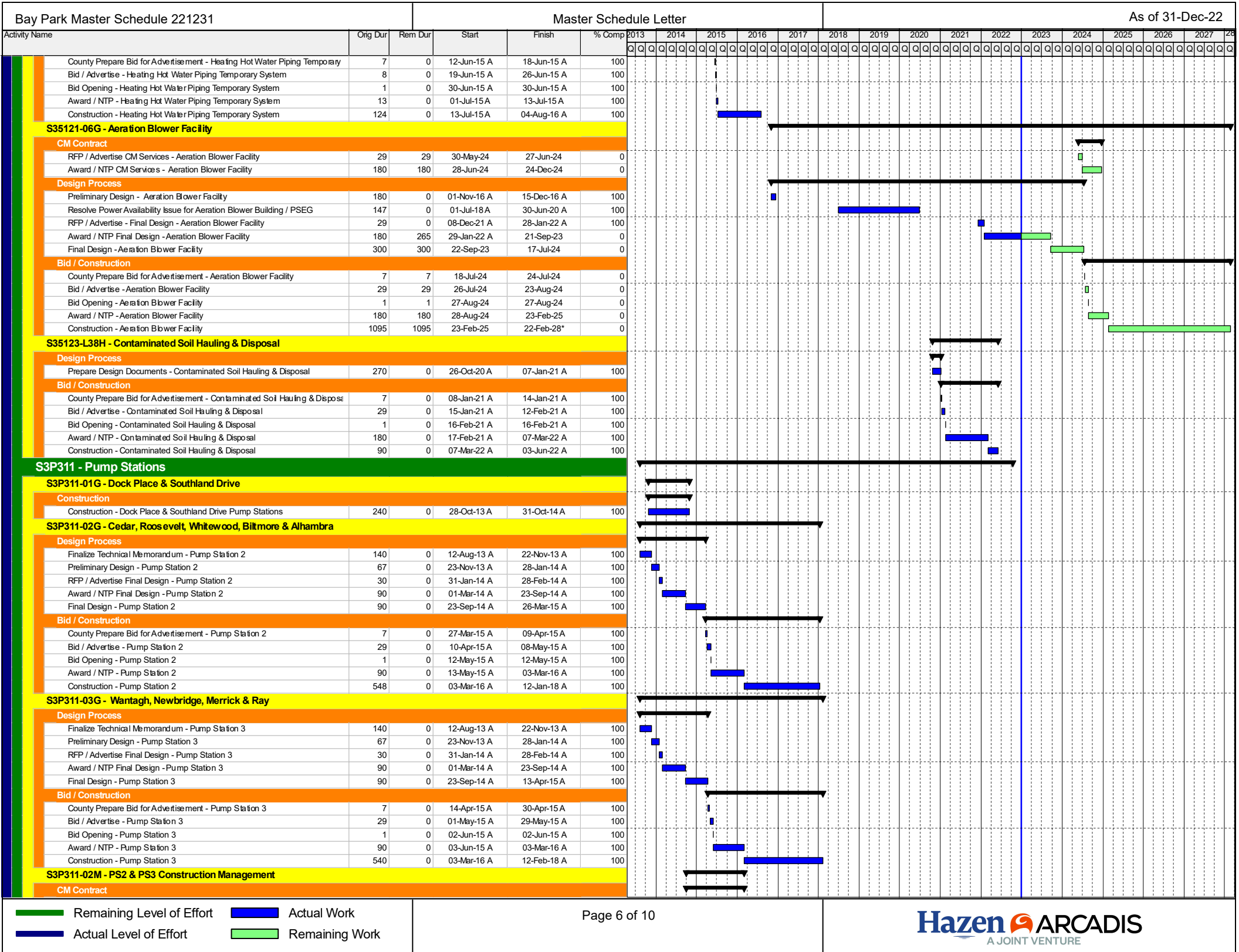


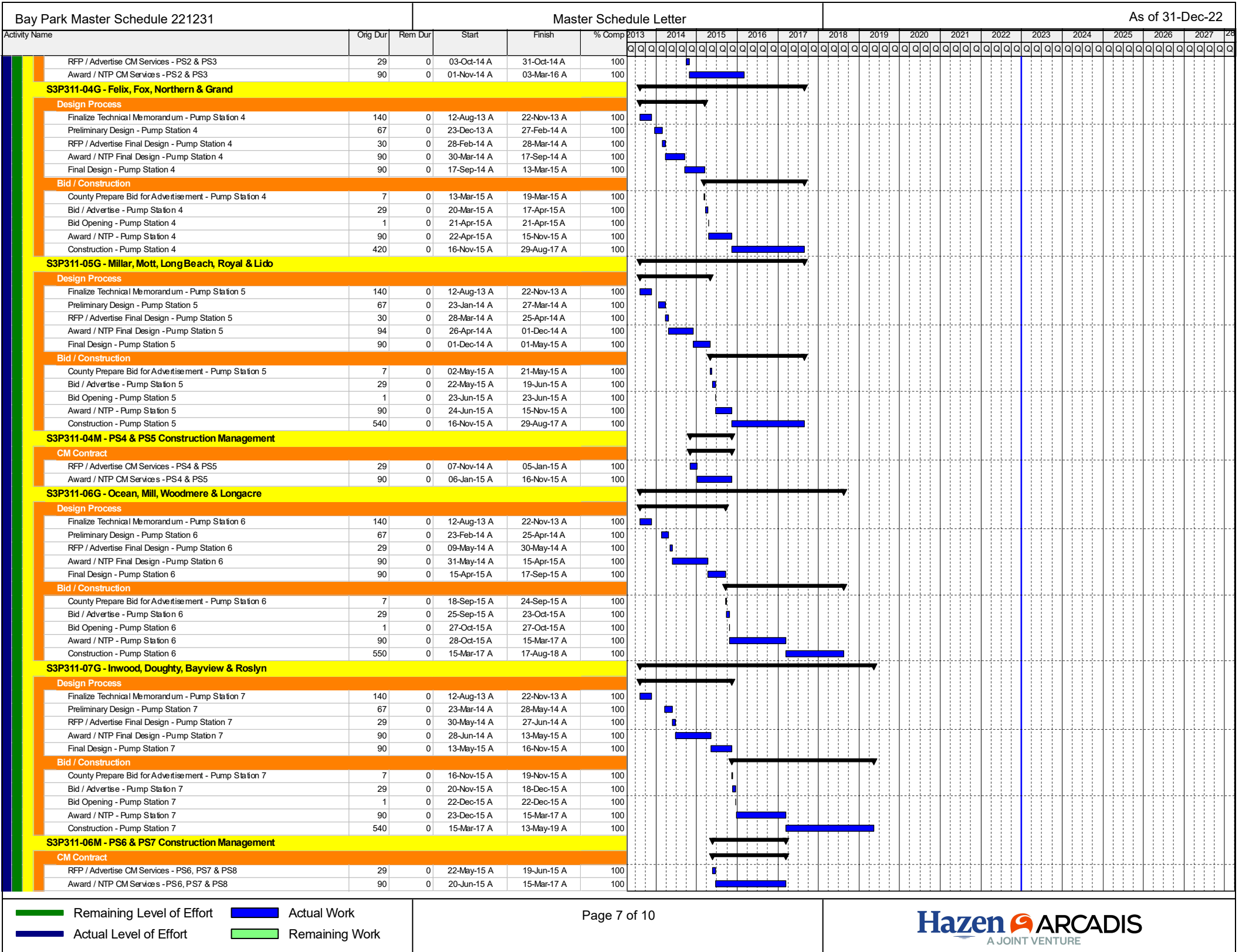
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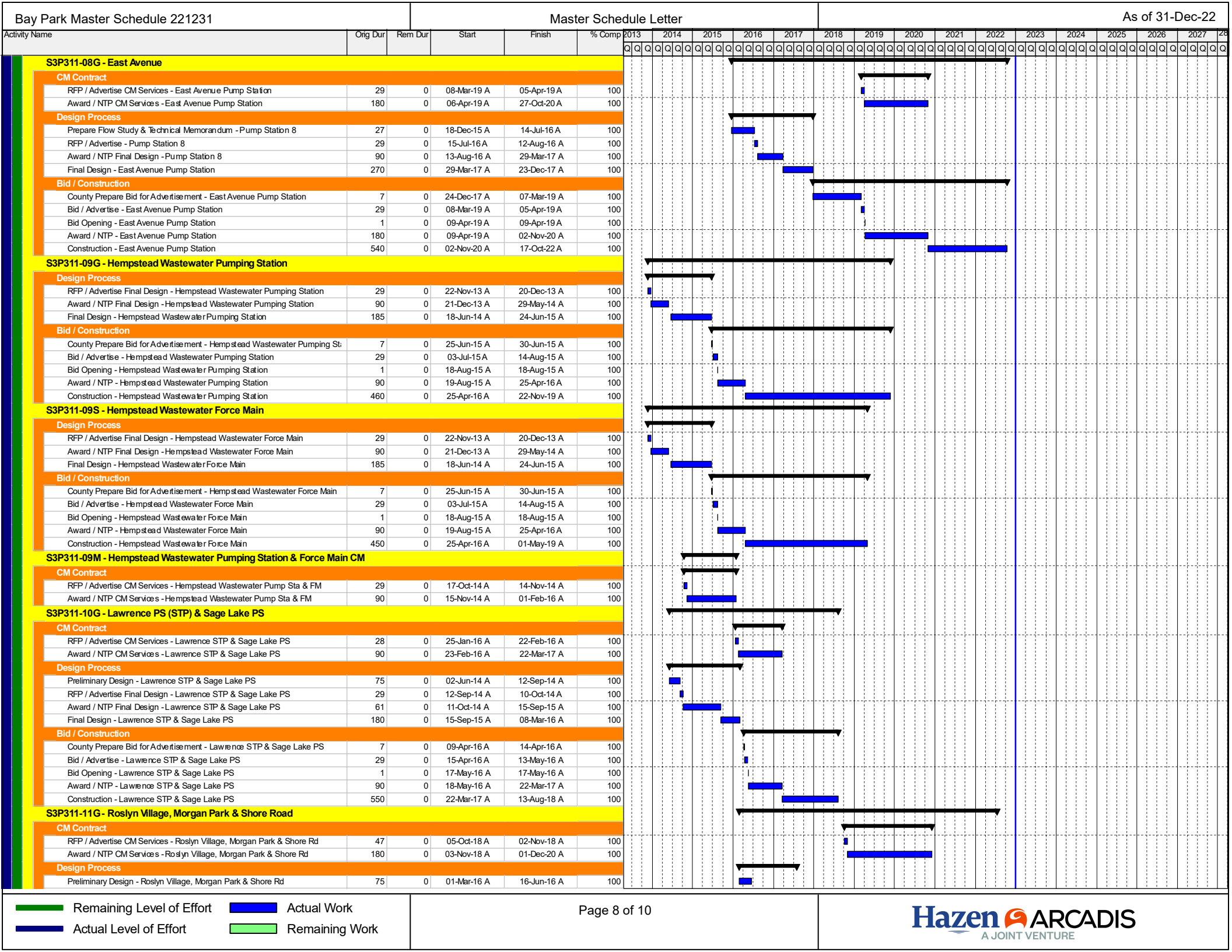


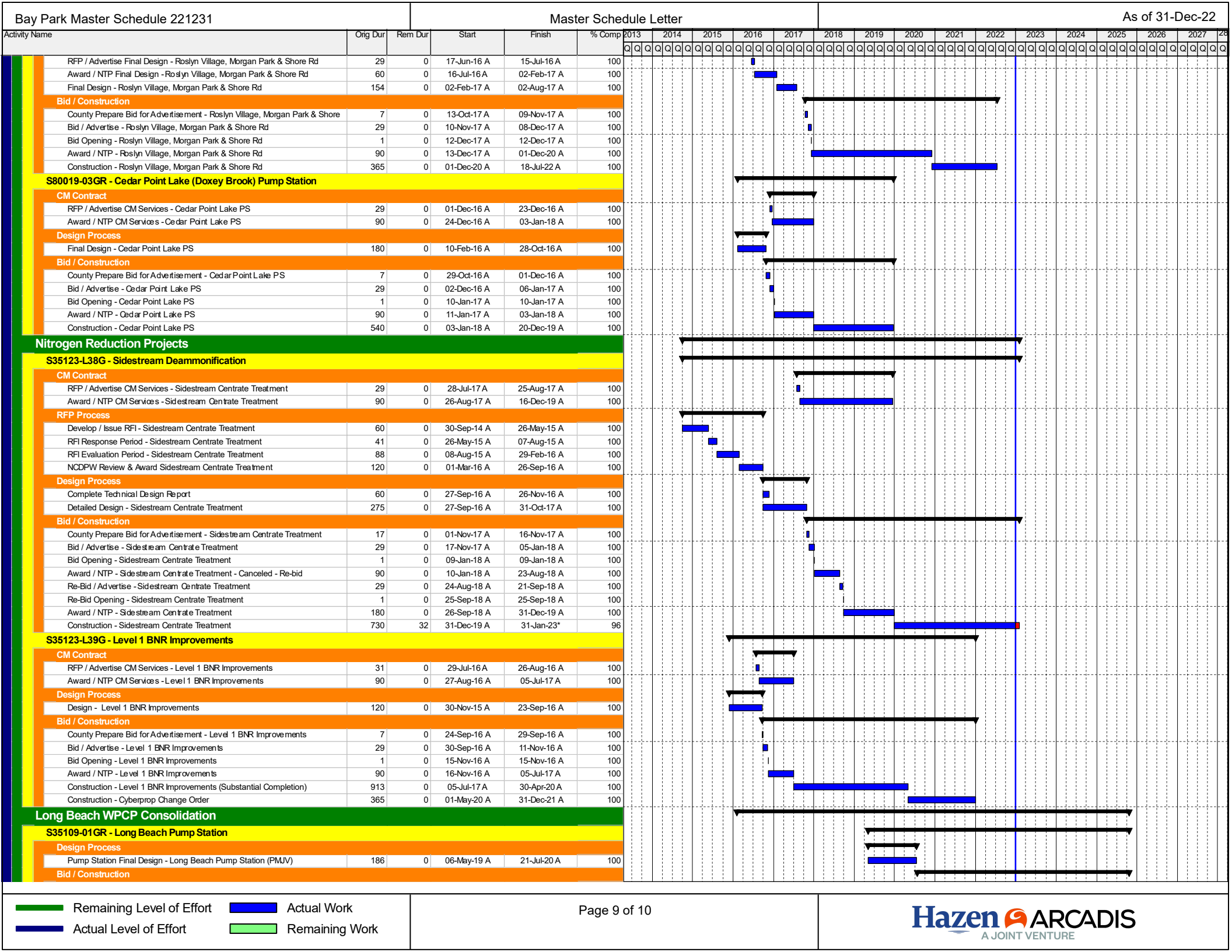


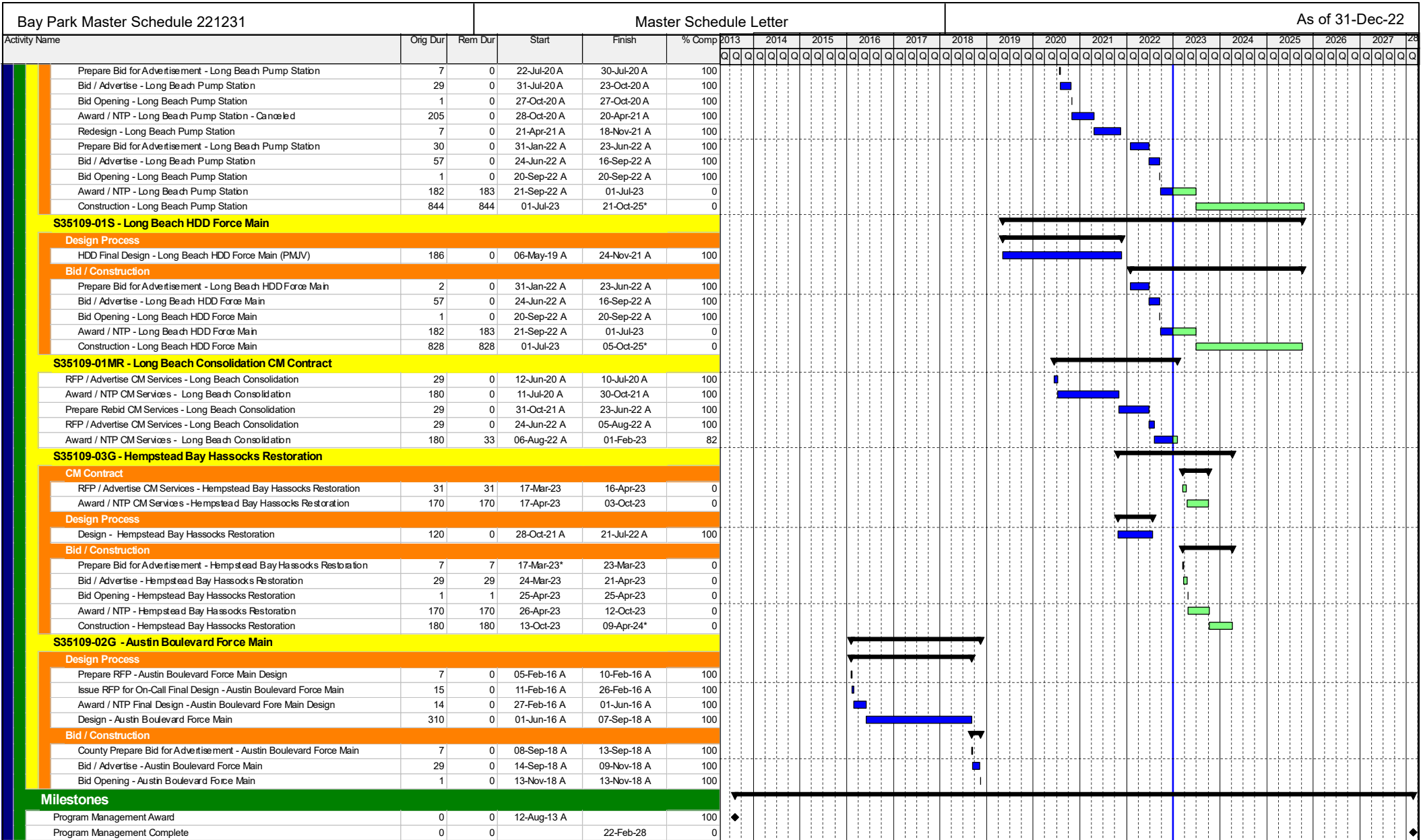










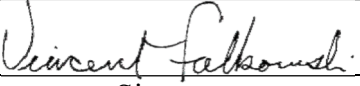


## XIII.0

## Project Glossary

Agreement Project Name	County Project Name	County Project Number
Barnes Avenue – Baldwin	Village of Hempstead Wastewater Pump Station	S3P311-09G
	Village of Hempstead Force Main	S3P311-09S
Raw sewage pumping facility	Raw Sewage Pumping Facility Improvements	S35121-03G
Sludge dewatering facilities	Sludge Dewatering Facilities Improvements	S35121-09G
Effluent Screening and disinfection	Effluent Screening and Disinfection Facility Improvements	S35121-11G
Effluent tide pumping facilities	Effluent Pumping Facility Improvements	S35121-12G
Electrical Distribution Phase E1-E3	Phase E3 Main Substation and Electrical Distribution	S35121-14F
Secondary Flood Protection	Secondary Flood Protection and Hardening of Critical Facilities	S35121-16G
Stormwater Pump Stations	Flood Protection Phase I – Stormwater Pumping Stations	S35121-18G
Upgrade to 3 Generator Operation	Engine Generator Facility Auxiliary Improvements	S35121-16A
Hot water piping system	Permanent HW/CW Piping System	S35121-16P
Cedar Dr, Roosevelt et al PS	Cedar Drive, Roosevelt, Whitewood, Biltmore and Alhambra Pump Station Repairs	S3P311-02G
Wantagh, Newbridge et al PS	Wantagh, Newbridge Road, Merrick Road and Ray Street Pump Station Repairs	S3P311-03G
Ocean Ave, Mill Rd et al PS	Ocean Avenue, Mill Road, Woodmere Boulevard and Longacre Pump Station Repairs	S3P311-06G
Inwood, Doughty et al PS	Inwood, Bayview Avenue and Doughty Boulevard Pump Station Repairs	S3P311-07G
Lawrence & Sage Lake PS	Sage Lake and Lawrence Pump Stations Mitigation and Repair	S3P311-10G
East Avenue Ejector Station	East Avenue Pump Station Repairs	S3P311-08G
Level 1 BNR	Level 1 BNR Improvements	S35123-L39G
Sidestream Deammonification	Sidestream Centrate Treatment	S35123-L38G

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Vincent Falkowski, PE, PMP, CCM		Deputy Commissioner
Permittee (Per CRF 122.22)		Title
		1/26/2023
Signature		Date Signed