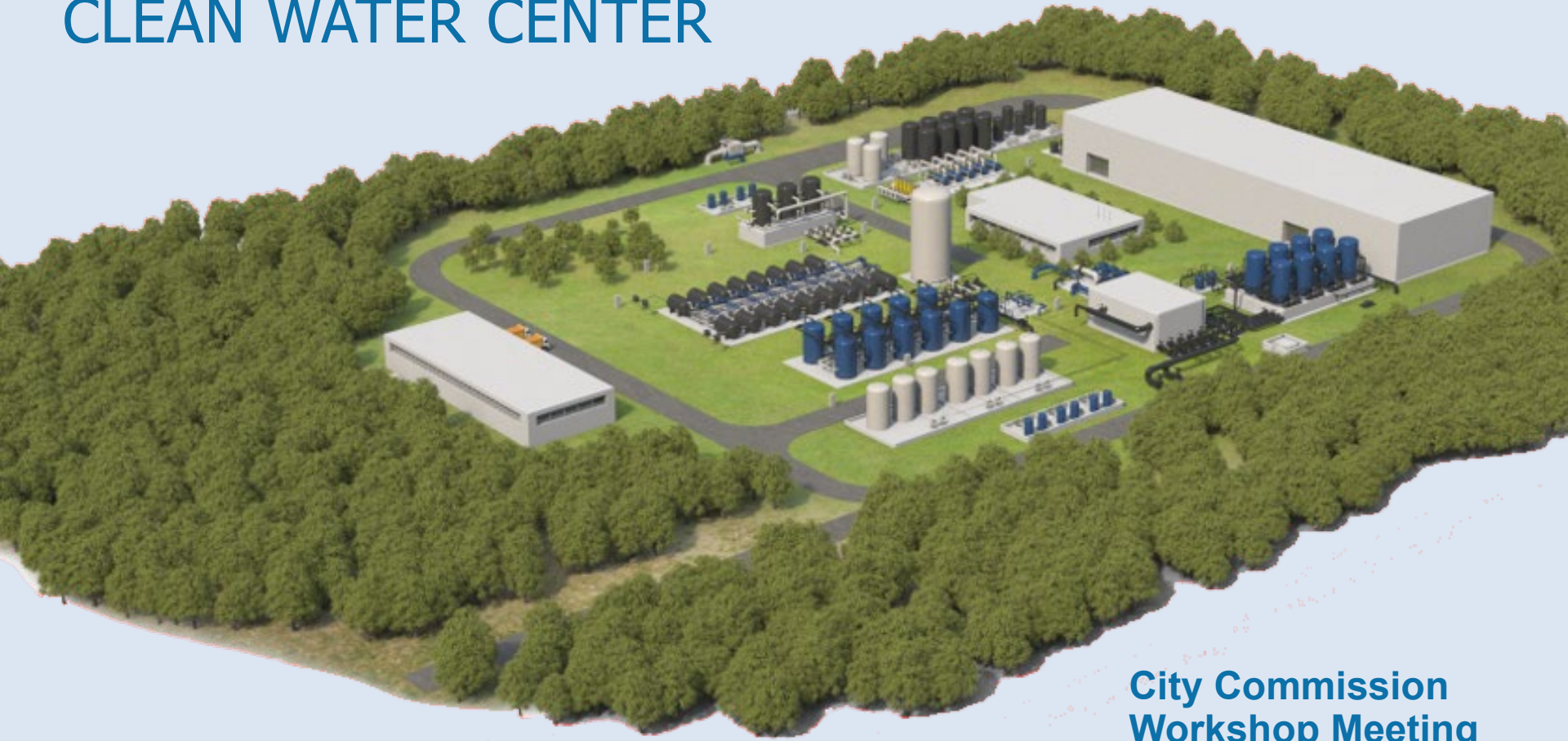


PROSPECT LAKE CLEAN WATER CENTER



**City Commission
Workshop Meeting**
January 10, 2023



CITY OF FORT LAUDERDALE

Why a Public-Private-Partnership (P3)?

P3 Model Offers Multiple Benefits including Risk Transfer, Cost Surety during Construction & Operations, Inflation Protection, while the City Maintains Ownership

What is a P3?

- A P3 is:
 - ✓ Not privatization of the City's Water Utility
 - ✓ A project delivery model that utilizes the private sector and includes risk transfer of the design, construction, operations, maintenance, and ongoing performance obligations
 - ✓ A long-term service contract which conditions payment on satisfying operational and performance goals
- Through the P3, the City of Fort Lauderdale will:
 - ✓ Own the water treatment plant
 - ✓ Remain the sole authority to set customer water rates
 - ✓ Staff the plant with its own unionized workforce operating under current CBAs
 - ✓ Lock-in the cost of its water treatment facilities for 30+ years

Risk Transfer Overview

Risk Element	IDE-Ridgewood	City
Design Liability	X	
Schedule/Completion Risk	X	
Construction Cost Overruns	X	
Disputes Between Designer and Builder	X	
Securing Patents and Licenses	X	
Permitting Risks (Terms and Conditions)	X	
Project Performance	X	
O&M Cost Overruns	X	
Regulatory Compliance	X	
Capital Maintenance	X	
Technological Obsolescence	X	
Excess Electricity and Chemical Consumption	X	
Labor Relations		X
Uninsurable Force Majeure Events		X
Pre-Existing Site and Environmental Conditions		X
Uncontrollable Circumstances – “Relief Events”		X



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Alternatives to P3: Design Build Procurement

Pursuing Direct Design Build ("DB") Procurement Causes City to Retain Material Risks

Development / Construction Period

- Were the City to elect to develop an RFP for an open DB Contract Procurement, the City would retain the follow risks:
 - ✓ Inflation between today and signing of DB Contract
 - ✓ Cost and Schedule Completion Overrun Risk
 - ✓ Managing the Design and/or Builder
 - ✓ Permitting / Regulatory Compliance

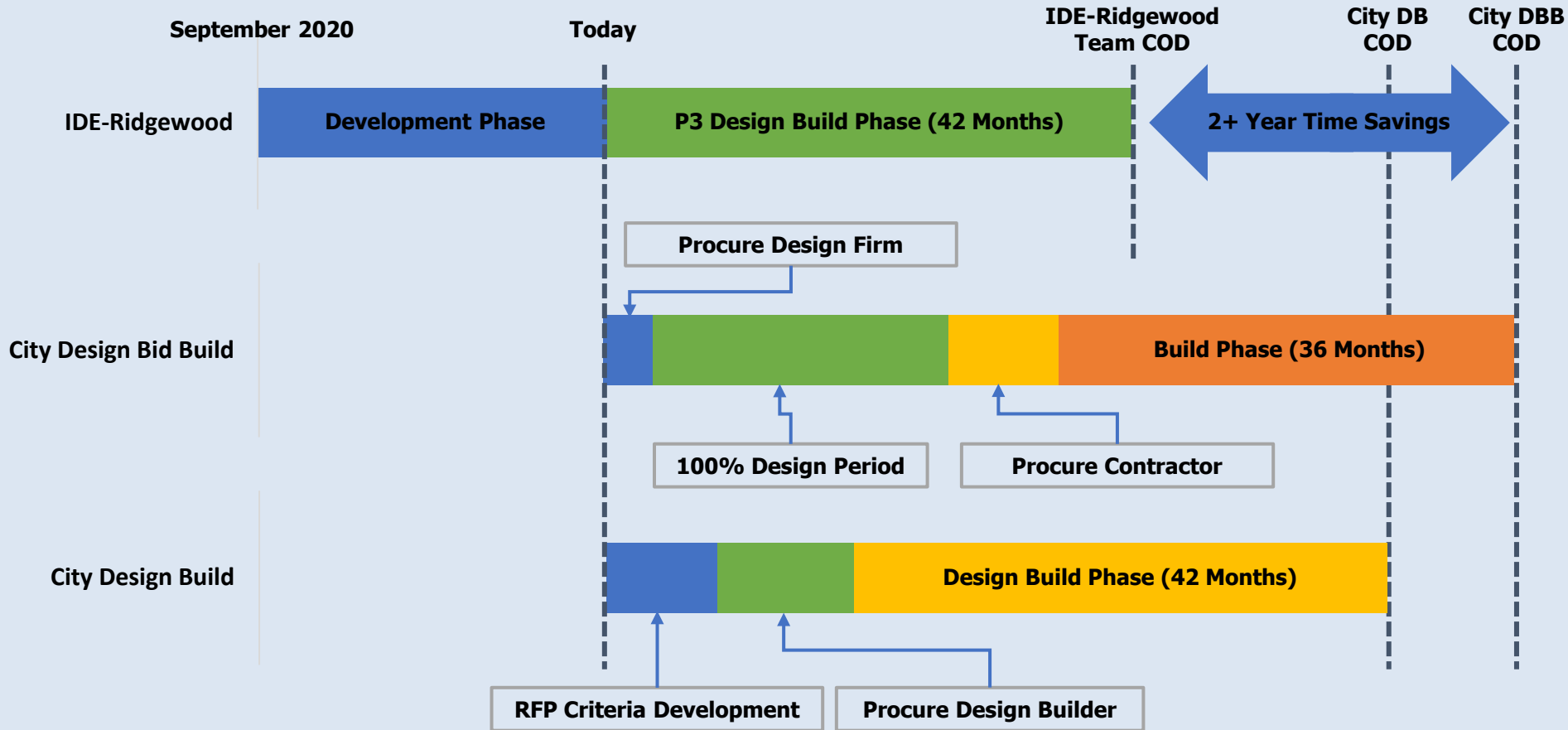
During Operations

- Without IDE running operations at a fixed-price for 30 Years, the City would retain responsibility for:
 - ✓ Meeting all desired and regulatory water quality standards
 - ✓ Capital maintenance and inflation risk throughout the operating period
 - ✓ Technological Obsolescence
 - ✓ Excess Electricity and Chemical Consumption



Project Timeline

The Prospect Lake Clean Water Center Team ("IDE-Ridgewood Project Team") Offers the Shortest Delivery Time Given Work Completed To-date, Achieving Operations 2+ Years Ahead of Other Procurement Methods



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Why IDE-Ridgewood Project Team?

IDE-Ridgewood Project Team and its Design Builder, Kiewit, bring Unparalleled World-Class Project Delivery and Ongoing Operations Experience to Fort Lauderdale

Team Composition

- Purpose-built team who have collectively delivered the largest and second largest water P3s in U.S. History
- Ridgewood Infrastructure led the Vista Ridge Water Transmission Pipeline supplying 20% of the City of San Antonio's freshwater

Vista Ridge Pipeline



- IDE and Kiewit teamed to build and operate the Claude "Bud" Lewis Carlsbad Desalination Water Treatment Plant



- Additional Experience in Utilities and Water Treatment:



IDE

- IDE will be a design subcontractor of Kiewit
- As the operator and designer, IDE is highly aligned to the success of the project
- IDE's water treatment experience includes operating more than 10 advanced membrane water treatment facilities and designing dozens of similar facilities

Kiewit

- Kiewit will serve as the primary design-builder ("DB")
- A top 5 U.S. Contractor
- Largest constructor of water treatment plants in America (ENR 2022)
- Completed more than \$3B of water projects in the U.S. Southeast



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Unparalleled Experience of the IDE-Ridgewood Project Team

IDE-Ridgewood Project Team together with Kiewit bring decades of experience constructing and operating water treatment, transmission, and utility infrastructure



Charles Meyer Membrane Plant
IDE Technologies
City of Santa Barbara, CA

Complete rebuild of City's water treatment plant using modular technology to fit within the footprint of the former plant.



Vista Ridge Water Transmission
Ridgewood Infrastructure
San Antonio, TX

142-mile water transmission pipeline supplying San Antonio with 20% of its water from the Carrizo-Wilcox Aquifer.



Claude "Bud" Lewis Desalination Plant
IDE Technologies & Kiewit
City of Santa Barbara, CA

Largest SWRO to potable water desalination plant in the Western Hemisphere. Provides 10% of the water demand for San Diego County.



Sorek Membrane Plant
IDE Technologies
Sorek, Israel

The world's largest and most advanced membrane plant. Set new benchmark for low cost of desalinated water in a BOT project.



CITIC Cape Preston Plant
IDE Technologies
Cape Preston, Australia

World's first large-scale water treatment plant pre-assembled off-site due to remote location. 'Plug & Play' design overcame difficult conditions.



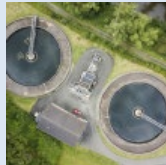
Kay Bailey Hutchison Desalination Plant
Kiewit
El Paso, TX

Largest inland membrane plant in the world, mitigating brackish water intrusion to Hueco Bolson freshwater aquifer.



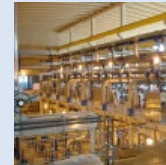
Hadera Membrane Plant
IDE Technologies
Hadera, Israel

IDE's proprietary Pressure Center Design, Boron Removal System and other technologies increase efficiency and reduce energy consumption.



Undine
Ridgewood Infrastructure
Houston, TX

Regulated water and wastewater utility company providing services to over 22,000 equivalent residential connections in Texas.



F. Wayne Hill Water Resources Center
Kiewit
Buford County, GA

Expansion project tripled the plant's capacity to 60 MGD per day. 50 MGD membrane filter installed is one of the largest of its kind in the U.S.

Note: References to Kiewit include work completed by various Kiewit entities including but not limited to Kiewit Infrastructure West Co.



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Alternate Proposals

The City Commission Unanimously Selected the IDE-Ridgewood Project Team Out of Four Proposals

Alternate Proposals				
	IDE-Ridgewood Project Team	Aqualia	FLW	NextSpring
Experience Constructing WTP of Similar Size in USA	Exceed	No	Exceed	No
Experience Operating WTP in US	Exceed	No	Exceed	Exceed
Management of City Employees	Meet	Meet	Meet	No
Achieves Water Quality Goals	Exceed	Meet	Exceed	Exceed
Complies With Consumptive Use Permit	Exceed	Exceed	Exceed	Exceed
Project Completion	Exceed	Meet	Meet	Exceed
Meets City's Resiliency Goals	Meet	Meet	Meet	Meet
Number of Exceeds	5	1	4	4

Since being selected, the IDE-Ridgewood Project Team has been working collaboratively with the City to enhance its proposal and further prioritize the City goals such as committing to retain the City's workforce.

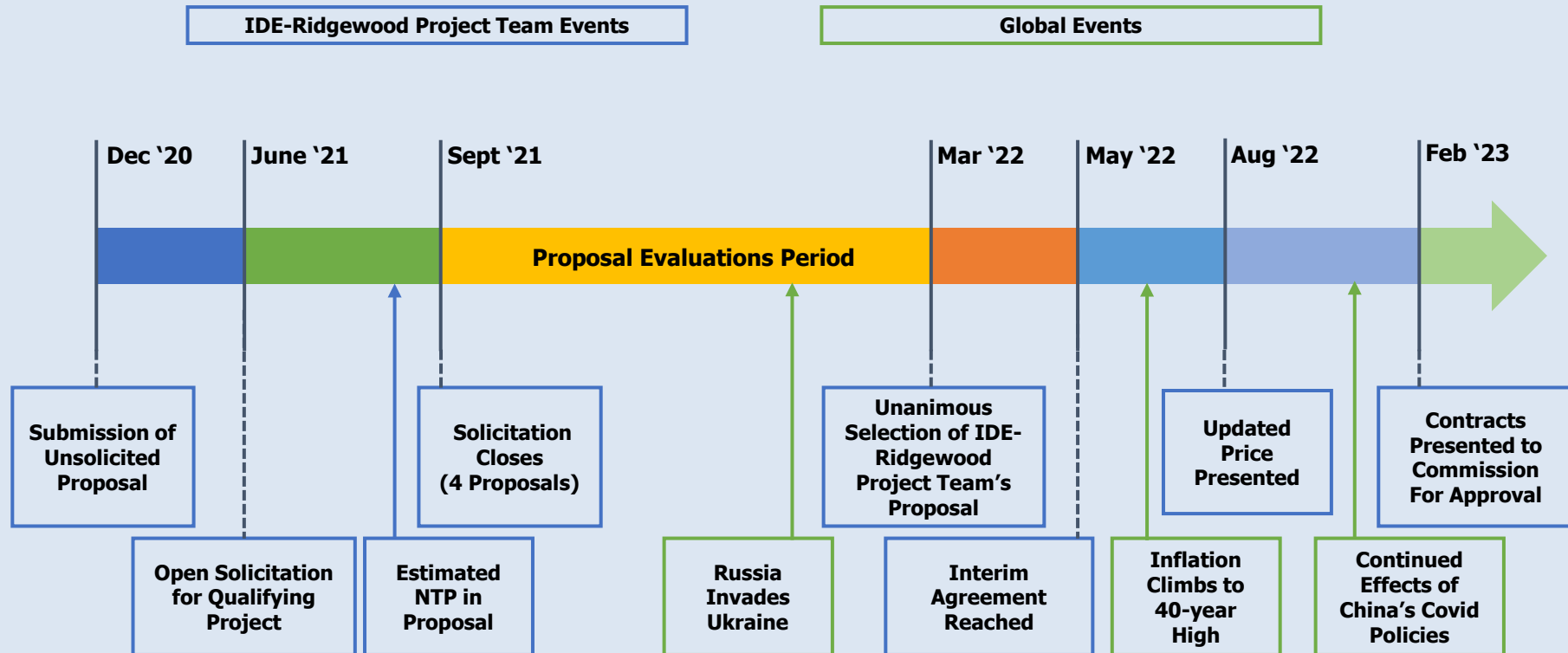
Source: Fiveash Water Treatment Plant Proposal Evaluation – Comparative Report Summary presented March 1, 2022, by Ernst and Young Infrastructure Advisors, LLC



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IDE-Ridgewood Project Team Development Timeline

Challenging Global Economic Environment Place Strains on Project Costs



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Macro and Project-Specific Changes

Key raw material, equipment, and transportation costs have surged by 60%+ in recent quarters alone

- **Russia / Ukraine War:** The ongoing war between Russia and Ukraine has significantly impacted the costs of energy, manufacturing, and shipping. Further, the war's uncertainty has led to higher interest rates. Russia is also one of the global leaders in raw materials, and sanctions have eliminated this resource
- **Supply Chain:** Given the pandemic, war, stimulus programs, and shifts in consumer spending, domestic and international supply chains have experienced unprecedented delays.
- **Recent COVID Outbreak in China:** One of the largest suppliers of equipment and raw materials has recently shut down their supply chains due to a significant increase in COVID over the past quarter
- **Inflationary Impacts:** Peak YoY CPI rise of 9.1% June 2022, representing the largest gain in 41 years
- **Site Selection:** ProjectCo was not allowed onto the site until May 2022 for preliminary site investigations. As a result, there have been various technical changes to accommodate the selected site and its conditions

Reference: Equipment Lead Times

DESCRIPTION	LEAD TIME IN WEEKS (2019)	LEAD TIME IN WEEKS (2022)	CHANGE
Large Transformers	54	90+	+36
Med. Voltage Cable	24	40+	+16
Piping Mill Run	26	40+	+14
PVC Conduit	2	10+	+8
Fiberglass Conduit	4	12+	+8



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Project Overview

Project of Building a New Water Treatment Plant Requires Significant Enhancement of Existing City Infrastructure

IDE-Ridgewood Project Team	City Enabling Works	PLCWC Project
<p>Guaranteed Max. Cost: \$485M (fixed price tied directly to the availability payment of \$1.61 per 1,000 gallons)</p> <p>Timeline: 42 Months</p> <p>Key Features:</p> <ul style="list-style-type: none">- 35 MGD of Nano-Filtration treatment capacity- 15 MGD of Ion Exchange treatment capacity- Administration and Laboratory Facilities- Primary disposal well- Site and cyber security	<p>Expected Cost: \$181M</p> <p>Timeline: 42 Months</p> <p>Key Features:</p> <ul style="list-style-type: none">- Well water pre-treatment and booster pumps- Transmission pipeline from new water treatment facility to Fiveash distribution system- Secondary disposal well- Power (electrical) connection to Florida Power & Light- Wastewater utility connection	<p>City Benefits:</p> <ul style="list-style-type: none">- Improved reliability built to withstand Class 5 hurricane- Plant will produce clear water in accordance with quantity and quality requirements established by the City- Operations overseen by globally recognized leader in water treatment and membrane technology, IDE- PLCWC is a new, state-of-the-art water treatment facility that is owned by the City, staffed by the City, and will provide the City's residents safe, clear drinking water through rates set by the City



Availability Payment

IDE-Ridgewood Project Team Constructs the New Plant and Provides Ongoing Services Throughout the Term of the Agreement

Services

IDE-Ridgewood Project Team Constructs:

- ✓ 35 MGD of nano-filtration treatment capacity
- ✓ 15 MGD of ion exchange treatment capacity
- ✓ Administration and laboratory Facilities
- ✓ Primary disposal well

IDE-Ridgewood Project Team Provides:

- ✓ 30-years of cost certainty including construction and O&M costs
- ✓ Guaranteed maximum electricity consumption
- ✓ Guaranteed maximum chemical consumption
- ✓ Ongoing operations led by an aligned, incentivized project team (penalties for poor performance)
- ✓ Capital maintenance
- ✓ City Employee training from a world-class operator
- ✓ Site and cyber security
- ✓ Plant oversight



Enabling Works

Necessary City Obligation to Provide Enabling Services and Infrastructure to Integrate the Proposed New WTP into the City's Water System

Estimated price increased from \$150M to \$181M, fully funded by City

Cost (Sept 6, 2022 presentation)	\$150M
Worst-case Pretreatment Contingency	\$23M
Other WTP Modifications to Site Adapt	\$8M
\$181M*	

City to Construct:

- Fiveash high service pump upgrades
- 54" distribution pipe from Prospect to Fiveash
- Wellfield modifications / Potable water distribution main
- FPL primary power feed and electrical building
- Wastewater lift station and forcemain
- Communications network connections

Project Company to Construct:

- 2nd Injection Well (FDEP regulatory requirement)
- Plant Modifications to Comply with Water Standards Based on Existing Conditions
- Wellfield Pretreatment Facility and Feed Water Booster Work (\$30M with \$23M contingency cap)
- Optimal Corrosion Control Treatment (OCCT) Work (FDEP regulatory requirement)



* The increase of \$31M in enabling works is a direct result of adapting the plant to feedstock water conditions and City product water quality standards and to provide a cap for pretreatment work.



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How Will a New Plant Benefit The City?

Color reduction

while continuing to meet all regulatory standards

- **Prospect WTP:** Expected color below visual detection 90% of time
- **Fiveash WTP:** Finished water average color = 16



Improved reliability and storm resistance



State-of-the-art treatment technology will be better able to comply with future regulations



Risk transfer to IDE-Ridgewood protects the City from inflation and ensures on-time delivery

Risk Elements	Transferred to IDE-Ridgewood?
Design	✓
Construction	✓
On-time Delivery	✓
Operations	✓
O&M Cost Overruns	✓
Capital Maintenance	✓
Maintain AWWA Standards	✓



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Key Contract Points: Comprehensive Agreement

Agreement Designed to Hold IDE-Ridgewood Project Team Accountable for Sustained Performance

Key Terms

- Make the daily requested quantity of water available to the city in accordance with the daily plan and conforming to legal and contract water quality standards
- Monitor, repair, replacement and maintain the plant while optimizing its long-term viability
- Work with the City to maintain records for the City's asset management system, CityWorks
- Provide direction to the City for how to staff the plant and train City Employees who will operate the plant
- Ensure the facility is maintained in accordance with strict requirements throughout the term of the Agreement and in accordance with hand-back provisions

Penalties

- Violating legal standards resulting in the City issuing a "boil water" notice: 100% loss of daily income
- Exceeding primary drinking water standard maximum containment level: \$50K per day reduction from O&M payment
- Failure to conform to primary contract standards: \$8K per day deduction from the O&M Payment
- Failure to conform to certain secondary contract standards: \$4-5K per day deduction from the O&M Payment
- Continued violations gives the City the right to compel the Project Company to replace IDE as the operator
- Sustained violation puts Project Company in default and can result in termination of the Comprehensive Agreement



Key Contract Points: Labor Services Agreement

Agreement Governing the Relationship Between the Operator and the City with Respect to City Employees

Key Terms

- City Employees will continue to staff the plant under a clear staffing requirement plan
- City Employees remain City Employees
- City controls all employment terms
- Agreement does not interfere or contradict CBA
- City shall have an onsite labor liaison for addressing any requirement related to City Employees







Obligations

- Provide training for City Employees
- Provide operation and maintenance guidelines and policies
- Provide technical expertise and support for efficient operations
- Provide managerial/supervisory roles



Illustrative Water Plant Rate Impact

Revised P3 with IDE-Ridgewood Project Team Remains Consistent with City's Goals

Description	Key Terms	Details	Average Monthly Water Bill 2032 ⁽¹⁾	10-Year % Increase ⁽²⁾	Ongoing Inflation Protection	Construction & Operations Risk Transfer	Timeline for Delivery of Plant	Time in Months
P3 Proposed December 2020	<ul style="list-style-type: none"> \$3.30 Initial Rate 1% Change Per Year 	<ul style="list-style-type: none"> \$385 million capex 	\$66	116%				36 Months
P3 Revised with Enabling Works	<ul style="list-style-type: none"> \$1.61 Initial Rate 5% Change Per Years 1-5 2.5% Change Per Year Thereafter 	<ul style="list-style-type: none"> \$485 million capex \$150 million enabling works City Financing 75% of capex and 100% enabling works City direct pay chemicals 	\$73	139%				42 Months
City Project Alone (i.e., no P3)	<ul style="list-style-type: none"> City Owned and Operated 	<ul style="list-style-type: none"> \$485 million capex \$150 million enabling works City Financing 100% of capex and enabling works City direct pay chemicals 	\$71	133%				66+ Months
P3 Revised with Enabling Works	<ul style="list-style-type: none"> \$1.61 Initial Rate 5% Change Per Years 1-5 2.5% Change Per Year Thereafter 	<ul style="list-style-type: none"> \$485 million capex \$181 million enabling works City Financing 75% of capex and 100% enabling works City direct pay chemicals 	\$75	143%				42 Months

(1) Assumes 5,000 gallon average – compared to \$31 in 2022

(2) Includes regularly scheduled 3.6% annual increases which equal 37% over 10 years



CITY OF FORT LAUDERDALE

Illustrative Water Plant Rate Impact (Continued)

Revised P3 with IDE-Ridgewood Project Team Remains Consistent with City's Goals

Rate Model Includes:

- No change to 10 year projected budgeted line items
- Add:
 - Annual Payment to P3 Provider (+5% years 1-5; +2.5% thereafter)
 - Cost of City Debt Service (assumes level debt service)
 - 75% of \$485 Million
 - 100% of Enabling Works of \$150 Million (will be adjusted to \$181 Million)
 - Assumes 30-year level debt service with TIC of 4.10%
 - Additional Chemical Costs
- Rate structure to be in place at time of debt issuance (approx. 6 months after Comprehensive Agreement)

Years from COD	-3	-2	-1	1	2	3	4	5	6	7
Effective Price Per Thousand Gallons				\$1.61	\$1.69	\$1.78	\$1.86	\$1.96	\$2.055	\$2.11
Guarantee				50,000	50,000	50,000	50,000	50,000	50,000	50,000
Days				365	365	365	365	365	365	365
				29,382,500	30,851,625	32,394,206	34,013,917	35,714,612	37,500,343	38,437,852
Add Additional Chemicals				6,150,000	6,334,500	6,524,535	6,720,271	6,921,879	7,129,536	7,343,422
City Debt Service *	19,221,788	24,684,400	24,688,600	31,157,075	31,159,275	31,155,475	31,156,975	31,157,975	31,160,375	31,155,975
(75%) Level Debt Service	19,221,788	24,684,400	24,688,600	66,689,575	68,345,400	70,074,216	71,891,163	73,794,467	75,790,254	76,937,248

* including \$150M Enabling Works



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Document Status & Next Steps

City Staff and IDE-Ridgewood Project Team Working Expeditiously to Finalize Agreement

Closed Items

- Body of the Comprehensive Agreement
- 20 of 23 Annexes to the Comprehensive Agreement
- Body of Labor Services Agreement

Open Items

- Finalize Annex K (Insurance)
- Finalize Annex P (Form of Subordinate Bond)
- Finalize few remaining terms in Annex N (Labor Services Agreement) based on review by Teamsters

Steps to Reach a Vote on February 7, 2023

- Finalize Comprehensive Agreement and Labor Services Agreement by week of January 9th
- Submit Documents to Commission and Publish to the Public by no later than January 18th
- Schedule and facilitate virtual town hall meeting(s) in January



**Thank You
Questions**



CITY OF FORT LAUDERDALE