



Automating PFAS Treatment Design

A look into the future

Your Speakers



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An opportunity to experience the future of PFAS treatment design

What you can expect:

- Direct access to one of the world's leading PFAS treatment experts – please ask questions in the chat!
- Learn how advanced treatment design software like the Transcend Design Generator (TDG) can optimize capital planning efforts, reduce operational costs, and enhance the sustainability of water treatment operations.
- Witness a PFAS treatment design demonstration and understand how TDG is being applied to solve real-world PFAS treatment challenges for global water utilities.

My Journey

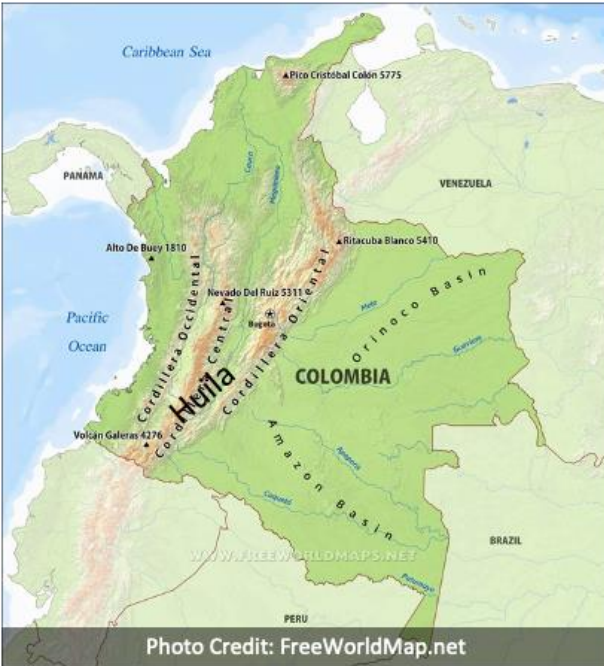


Photo Credit: FreeWorldMap.net



Photo Credit: Alliance for Water Stewardship



Photo Credit: SUEZ 2021, Cedar Creek Water Reclamation Facility, Nassau County, USA – Smart Water Magazine





Transcend – a team of expert water & wastewater engineers excited about generative design and AI



by the numbers

- Founded in 2019, raised \$35M to date including a strategic investment from Autodesk
- 115 dedicated engineers, developers, and water/wastewater industry experts
- Serve municipal & industrial water, wastewater, and power sectors
- 20,000 projects have been created using Transcend software in more than 70 countries

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Challenges with designing PFAS treatment systems today

Asset Owners & Utilities

- New PFAS regulations require fast & flexible decision making; but not enough time or budget to do so effectively
- Need to execute predictable, risk-managed projects under extreme uncertainty (changing regs, capital constraints, consumer concerns...)

OEM's, Integrators, & Distributors

- Desire to create error-free, high-quality PFAS proposals FAST to bid on more projects & increase win rates
- Desire to increase the amount of detail in proposals without creating bottlenecks for applications engineers

Engineering Consultants

- Too much work to do; not enough time, budget, and people to do it
- Enhance conceptual designs with improved technical documentation & 3D renderings, leading to more value for utility client in same time & budget



Welcome to the Transcend Design Generator for PFAS

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- Automatically create accurate preliminary engineering documentation for GAC & Ion Exchange (resin) systems
- Assess multiple options to determine the most optimal CAPEX/OPEX estimates, energy consumption, material quantities, GHG, and other outcomes... in the planning phase of projects.
- **Done in a matter of minutes!**

Let's run a sample project...

Menu

Dashboard

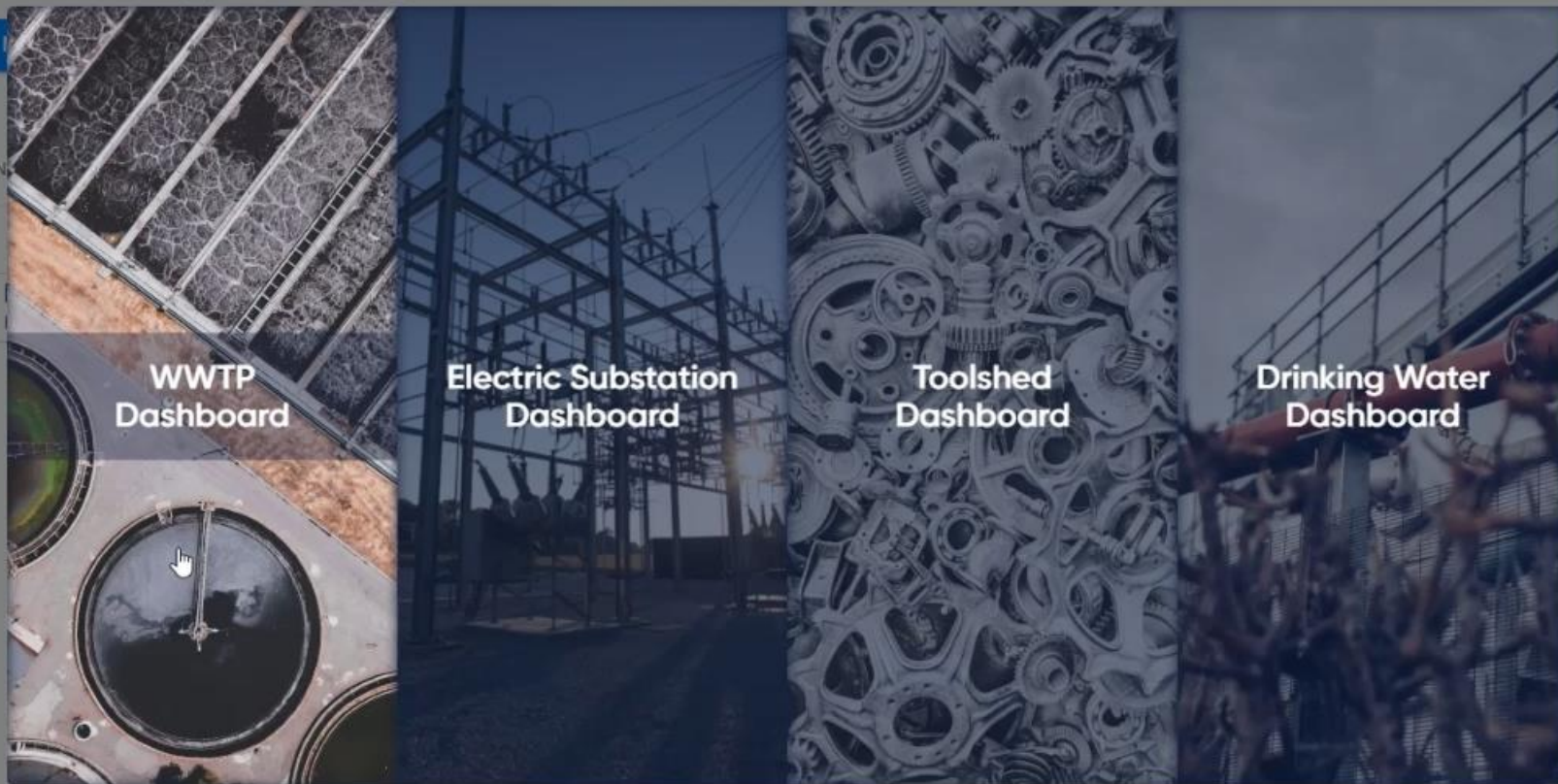
Change dashboard

Contact us!

Logout

Drinking Water Dashboard

List of folders and projects within the Drinking Water domain.



Search...

Date Actions

2024/03/08

⋮

2024/01/01

⋮

per page: 100 1-2 of 2 < >





Receive e-mail notification when design is completed

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info@transcendinfra.com

Design successfully finished - Automated PFAS design (None) Inbox x



Design Generator Support <noreply@transcendinfra.com>

to me ▾



Your design **Automated PFAS design (None)** is finished.

You can click on the link below to log on to your account and view the documents generated.

[Automated PFAS design](#)

If you need any technical support, please contact us at

info@transcendinfra.com.

Please include the following project identifier number (project ID) in your mail:

384569

For all other information please visit your account.

This e-mail was sent by an automated account. Please do not respond directly to this account.
For any questions, please contact us at info@transcendinfra.com

Menu

Dashboard

Change dashboard

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Search...

Date Actions


2024/03/08 ⋮

2024/01/01 ⋮

per page: 100 1-2 of 2 < >












Notice both designs are now completed – in less than 5 minutes after running the project

 Drinking Water Dashboard
List of folders and projects within the Drinking Water domain.

New Project

New folder

 Search...

Name	Status	Owner	Date	Actions
<input type="checkbox"/> Automated PFAS design 384589	 Done	adam.tank.r@gmail.com	2024/05/13	
<input type="checkbox"/> Automated PFAS design 384569	 Done	adam.tank.r@gmail.com	2024/05/13	
<input type="checkbox"/> Water Tank 319149	 Done	adam.tank.r@gmail.com	2024/03/08	
<input type="checkbox"/> [DW_DESIGN01] Drinking Water sample DW_DESIGN01	 Done		2024/01/01	

Rows per page: 100 ▾ 1-4 of 4 < >

Full output package includes Technical Description, Equipment List, IO List, Load List, Process Scheme, Site Plans, and Schedules – ALL EDITABLE in Word, Excel, Revit, .DWG!

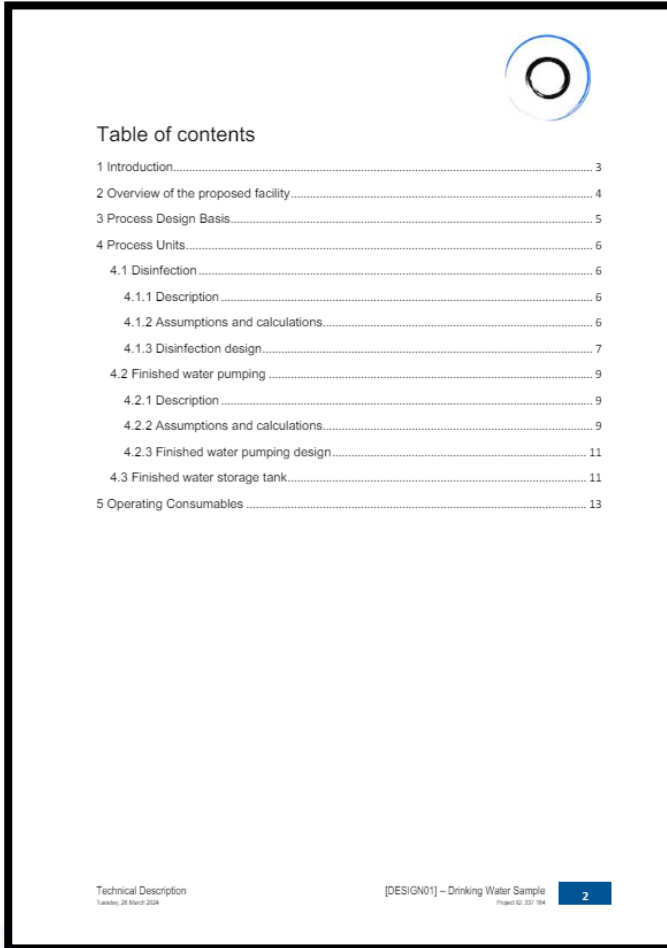


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Technical Description
Tuesday, 28 March 2024

[DESIGN01] – Drinking Water Sample
Project ID: 337 164

2

Structure Schedule
Mark

Chemical Contact Treatment
9
1

Downstream Pump Station
10
1

Water Storage
7
8
2

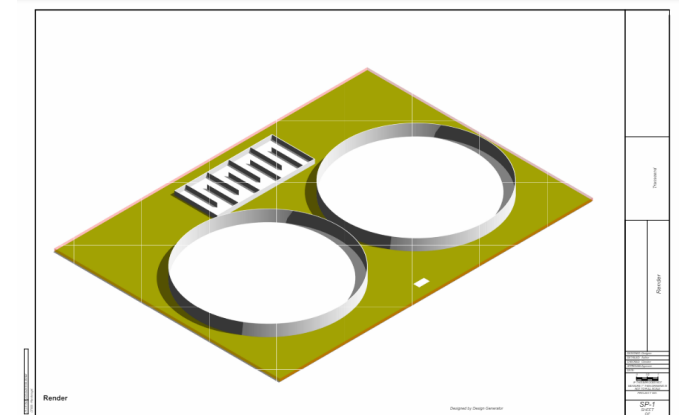
Grand total: 4

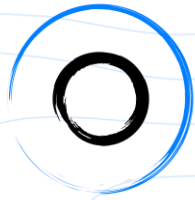
Bill of Quantities per Site			
Process Unit	Structure Category	Material Area	Material Volume

Chemical Contact Treatment - Disinfection	Structural Foundations	32059.78 ft ²	53432.96 CF
Chemical Contact Treatment - Disinfection	Walls	16799.54 ft ²	22039.59 CF
		48859.32 ft ²	75472.55 CF

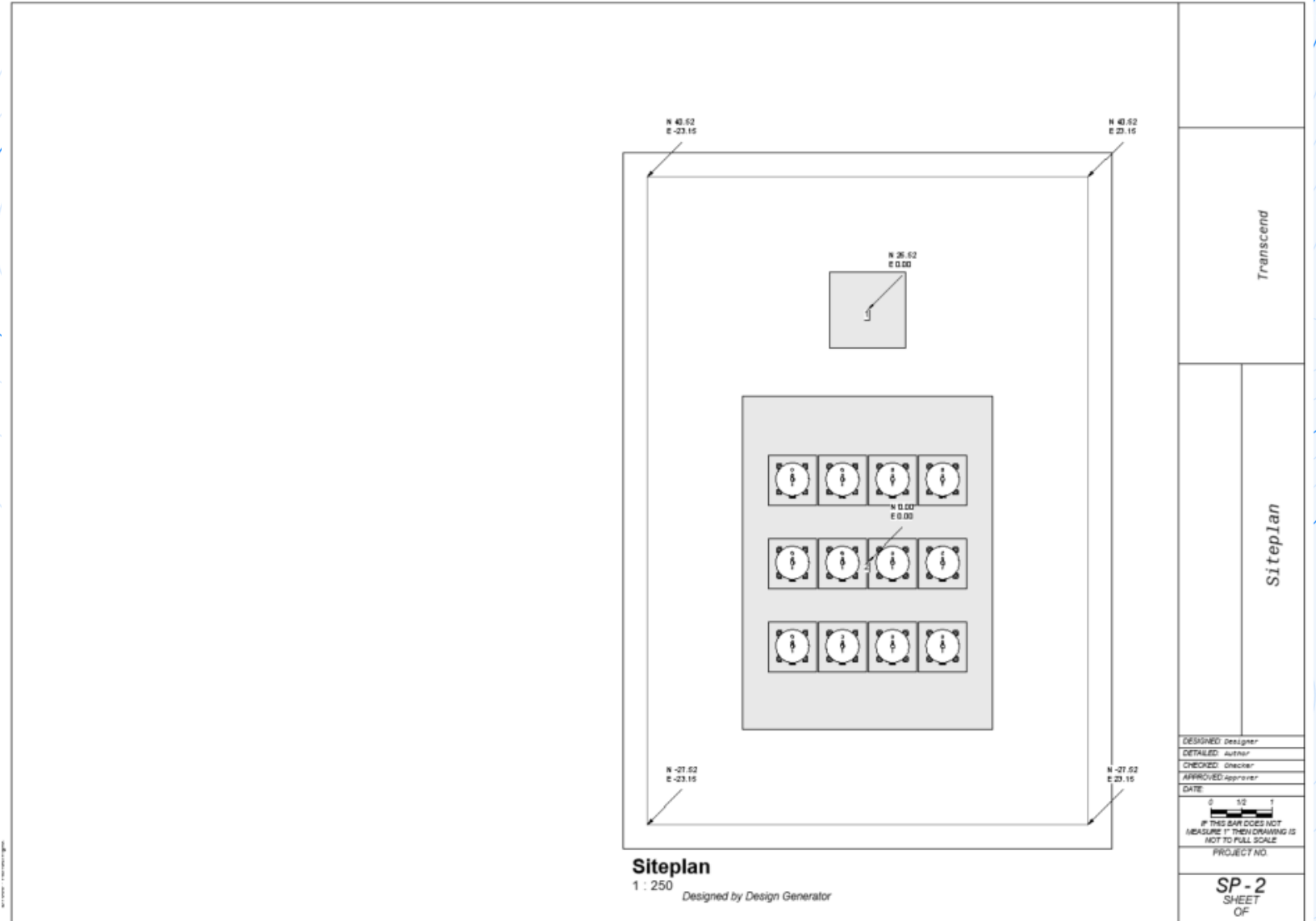
Downstream Pump Station - Disinfection	Structural Foundations	484.38 ft ²	444.01 CF
		484.38 ft ²	444.01 CF

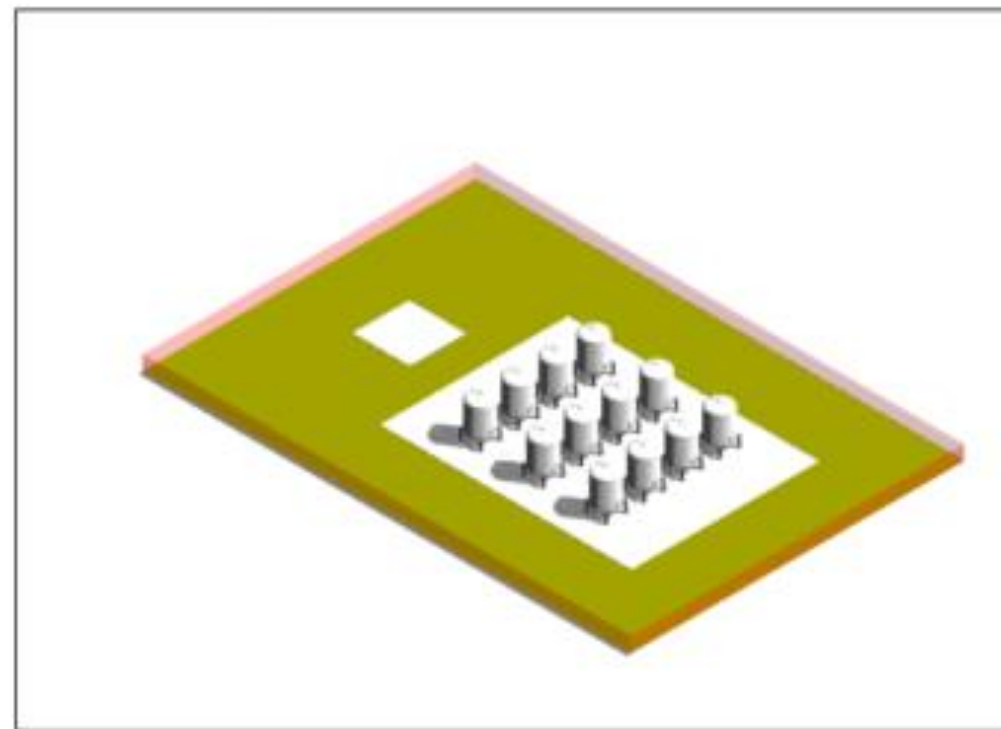
Water Storage - Disinfection	Structural Foundations	238817.00 ft ²	318421.75 CF
Water Storage - Disinfection	Walls	77516.46 ft ²	103000.59 CF
		316333.46 ft ²	421422.34 CF
Grand total		365677.15 ft ²	497338.90 CF





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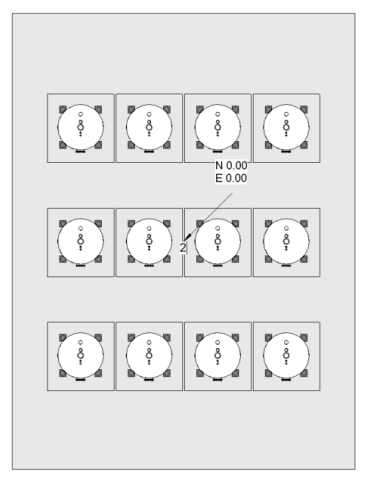
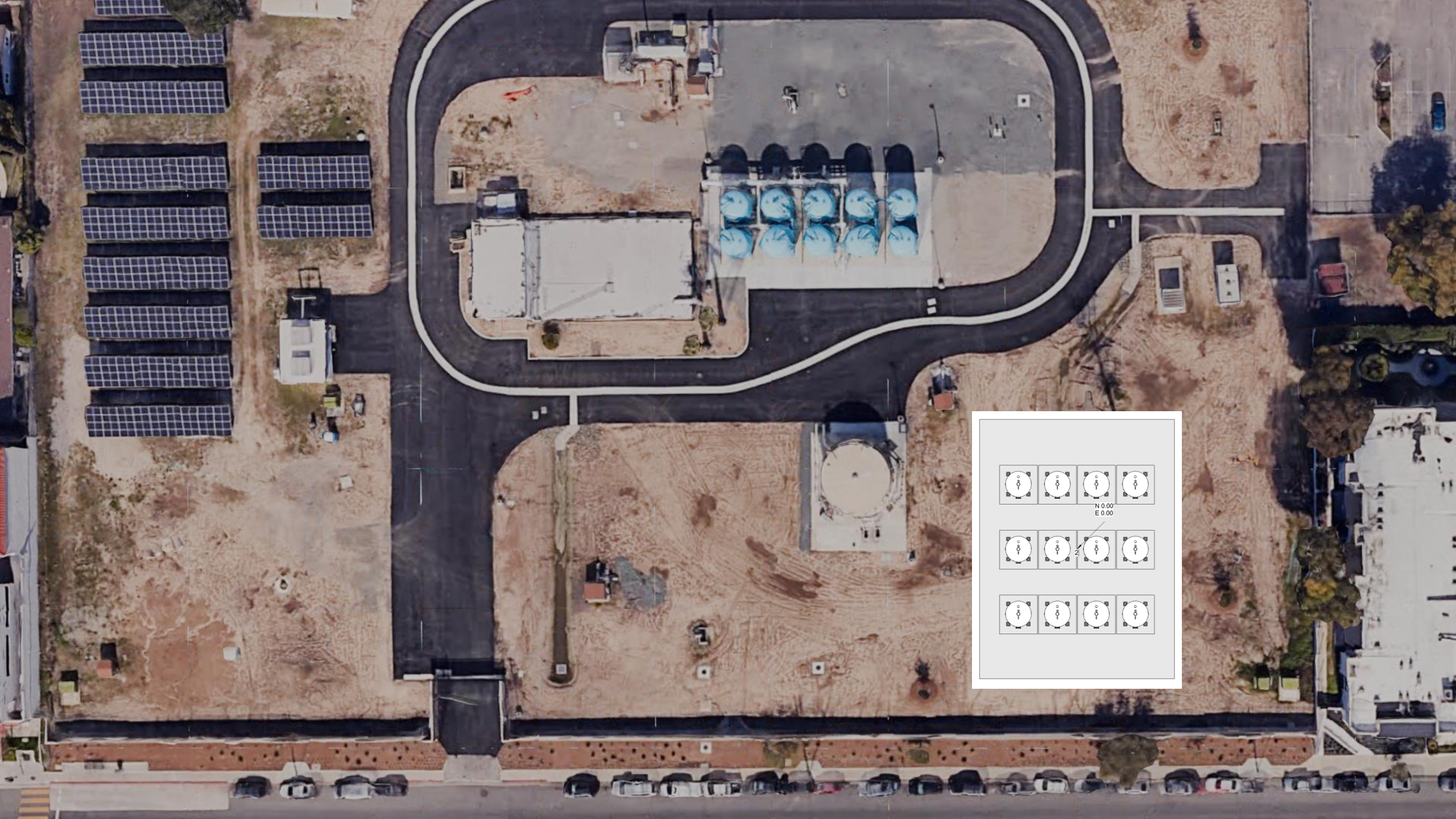




Render

Designed by Design Generator















GAC



IX



GAC vs IX



	Units	GAC	IX
Design flowrate	MGD	5	5
Number of trains		6	3
Number of vessels		12	6
Pressure vessel diameter / height	ft	12 / 10	12 / 10
Bed depth	ft	6.5	4.9
Empty Bed Contact Time (EBCT)	minutes	19.2	7.1
Empty Bed Contact Time (EBCT) per vessel	minutes	9.6	3.6
Hydraulic surface loading rate	gpm/ft ²	5.1	10.2
Estimated footprint	ft ²	9800	5000

Heading to WEFTEC? Please reach out to me! atank@transcendinfra.com

Run a PFAS design for free today:

dg.transcendh2o.com



Thank you!

Questions?

atank@transcendinfra.com