



May 16, 2025

Ray Roakes
City of Richmond
Urban Design Committee
900 E. Broad Street, Room 510
Richmond, Virginia 23219

Project Number: 190651

Subject: Project Narrative for Application for Urban Design Committee Review

Dear Mr. Roakes:

We are submitting an application for the Urban Design Committee to review a new project being designed for the City of Richmond's (City) Department of Public Utilities (DPU). The new project is called the "Wastewater Treatment Plant Biosolids and Grit Storage Pads Upgrades" project and will be constructed onsite at the City's wastewater treatment plant (WWTP) located at 1400 Brander Street, Richmond, Virginia 23224.

1.1 Project Purpose, Background, and Context

The City's WWTP, operated by DPU, continuously generates grit and dewatered biosolids as a result of the process of treating wastewater. Currently, the City manages grit and biosolids on two separate, uncovered concrete pads located on the southern end of the site. Grit and biosolids are stored on these pads until third-party contractors haul the material offsite for disposal.

Both existing storage pads are in poor condition, with the grit pad originally constructed in 1974 and the biosolids pad originally constructed in 1976. The existing drainage systems frequently clog from debris collected on the pads. During rain events, water accumulates on both storage pads, rewetting the collected biosolids and grit, and spilling into adjacent roadways and ditches. The push walls surrounding both of the existing pads are also undersized, providing DPU with less storage capacity than needed.

The purpose of this project is to improve the operation of the WWTP and help the City maintain permit compliance. DPU would like to relocate the existing biosolids pad to a more accessible location at the WWTP and reconstruct the grit pad at the existing location. To keep stormwater off the stored material, each structure will be covered with a pre-engineered metal building and roof. Drainage from each storage pad will be improved by relocating the drains from the center of the pad to the outside and employing trench drains in place of standard drop inlets. The new facilities will help DPU meet the industrial stormwater discharge permit that is in place for the WWTP and provide the required amount of storage to help the WWTP maintain permit compliance with the Virginia Department of Environmental Quality (DEQ).

1.2 Community Outreach

No community outreach was performed as part of this project. The proposed facilities are located within the fence of the City's access-controlled WWTP and will not impact the public. These facilities are proposed to improve the operation of the WWTP and help the City maintain permit compliance.

The project was discussed in detail with City DPU. The project plan was also reviewed with the City's Planning and Development Review department so the design team could better understand the requirements for a structure within the regulatory floodway.

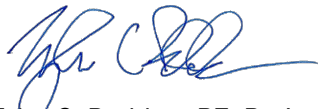
1.3 Project Budget, Funding Sources, and Construction Schedule

As of the 90% engineering design, completed in April 2025, the project has an estimated construction cost of \$11,803,000. DPU's capital improvement fund will be used as the funding source for this project. The proposed construction start date for this project is January 2026. It is anticipated that this project will be bid out via the City's procurement department and a general contractor will be responsible for the construction.

Thank you for your time in reviewing this application. Should you have any questions or require any additional information, I can be reached by email at Tyler.Padden@brwn-cald.com or via telephone at (804) 554-3745.

Very truly yours,

Brown and Caldwell



Tyler C. Padden, PE, Project Manager
Richmond, VA

cc: Fabio Villa-Gomez, City of Richmond Department of Public Utilities
Victor Rose-Smith, City of Richmond Department of Public Utilities
Vann Davis, City of Richmond Department of Public Utilities

Attachments (6)

1. Biosolids Storage Pad Site Plan (Drawing C-100)
2. Grit Storage Pad Site Plan (Drawing C-101)
3. Existing and Proposed Land Cover (Drawing C-250)

Project Narrative

Wastewater Treatment Plant Biosolids and Grit Storage Pads Upgrades

City of Richmond Urban Design Committee

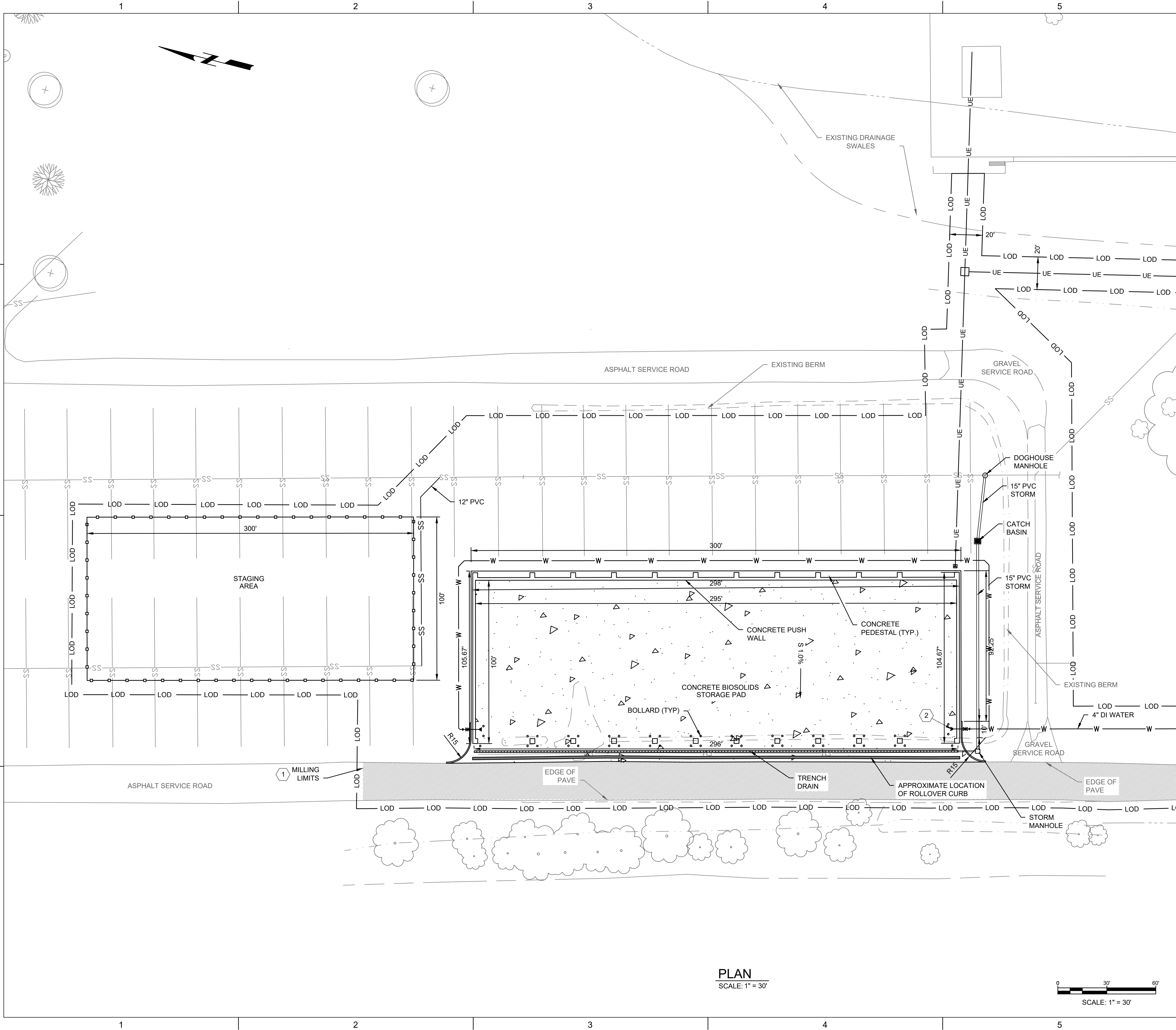
May 16, 2025

Page 3

4. Biosolids Storage Pad Renderings (Drawing S-911)
5. Grit Storage Pad Renderings (Drawing S-921)
6. Wastewater Treatment Plant Biosolids and Grit Storage Pads Upgrades 90% Design Drawings, dated April 2025 *

* Attachment is being provided electronically via the file sharing link provided to the UDC via the email submission of the application package.

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GENERAL NOTES:

1.

KEY NOTES:

- CONTRACTOR SHALL MILL AND REPAVE ASPHALT SURFACES FOLLOWING THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AT THE BIOSOLIDS PAD AND THE GRIT PAD.
- YARD HYDRANT (TYP. OF 2), SEE SHEET C-501 FOR DETAILS.



3454 West Clay Street
Richmond, VA 23230

THIS DRAWING IS NOT VALID
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PURPOSES UNLESS IT BEARS
THE SEAL OF A DULY
REGISTERED PROFESSIONAL

90% DESIGN



WASTEWATER TREATMENT PLANT BIOSOLIDS AND GRIT STORAGE PADS UPGRADES

REVISIONS

REV	DATE	DESCRIPTION

LINE IS 2 INCHES
AT FULL SIZE

DESIGNED: A. HALL

DRAWN: J. SHERIDAN

CHECKED: A. HALL

CHECKED: T. PADDEN

APPROVED: T. PADDEN

FILENAME

190651-C-100.dwg

BC PROJECT NUMBER

190651 & 196366

CLIENT PROJECT NUMBER

105614 & 109212

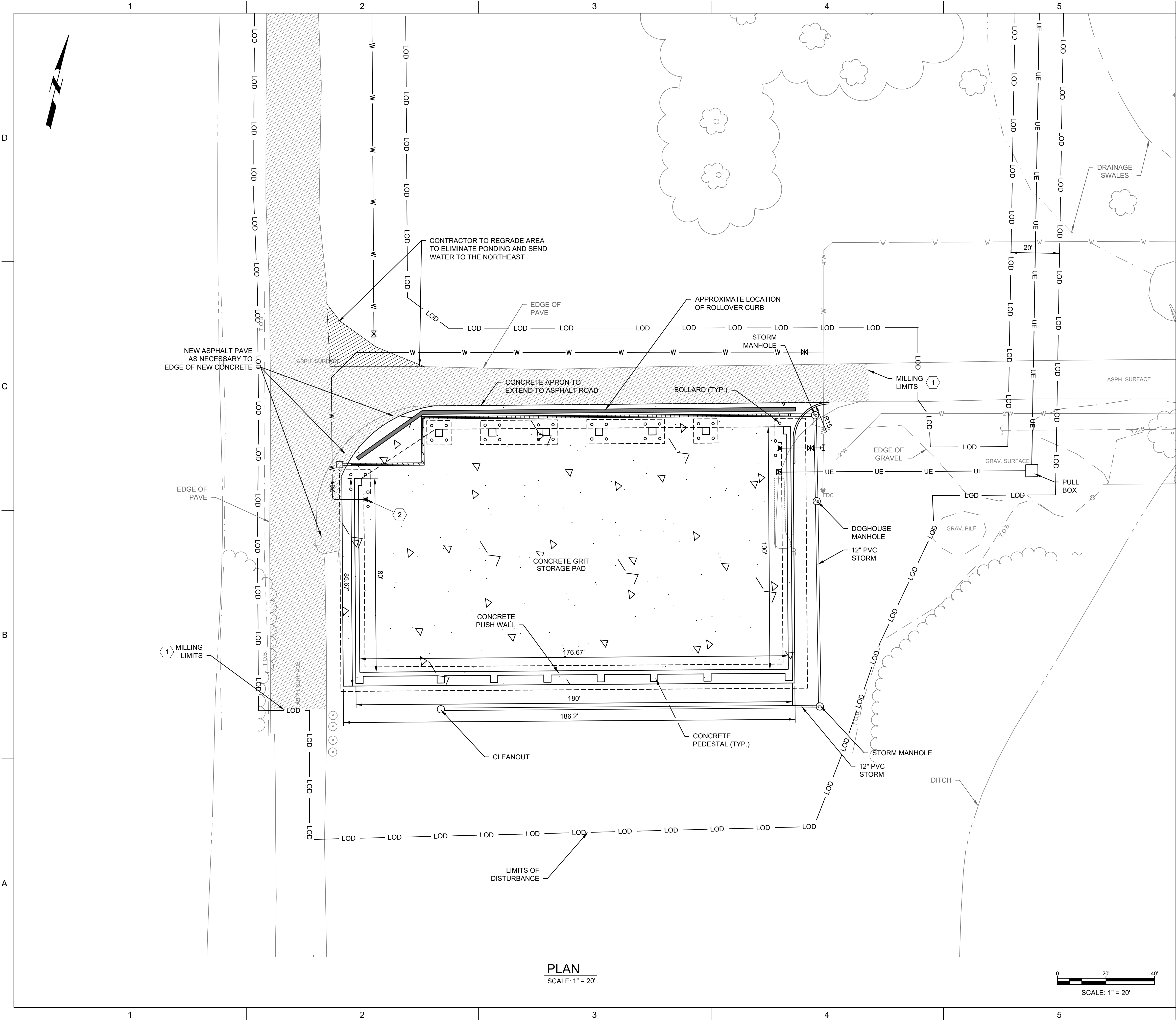
CIVIL

SITE PLAN BIOSOLIDS STORAGE PAD

DRAWING NUMBER

C-100

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WASTEWATER
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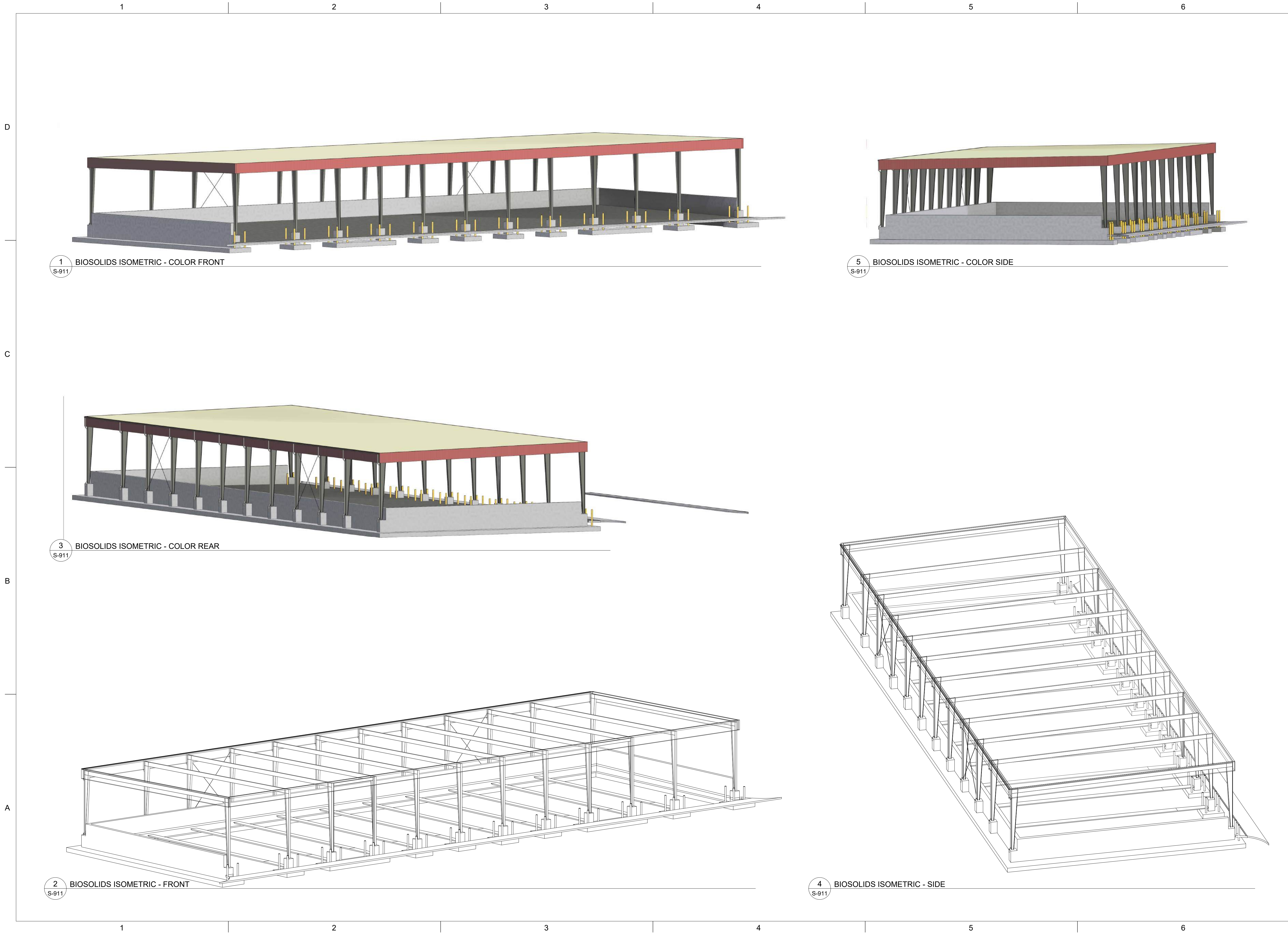
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CIVIL
SITE PLAN
GRIT STORAGE PAD

DRAWING NUMBER

C-101

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3454 WEST CLAY STREET
RICHMOND, VA 23230



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WASTEWATER
TREATMENT PLANT
BIOSOLIDS AND GRIT
STORAGE PADS
UPGRADES

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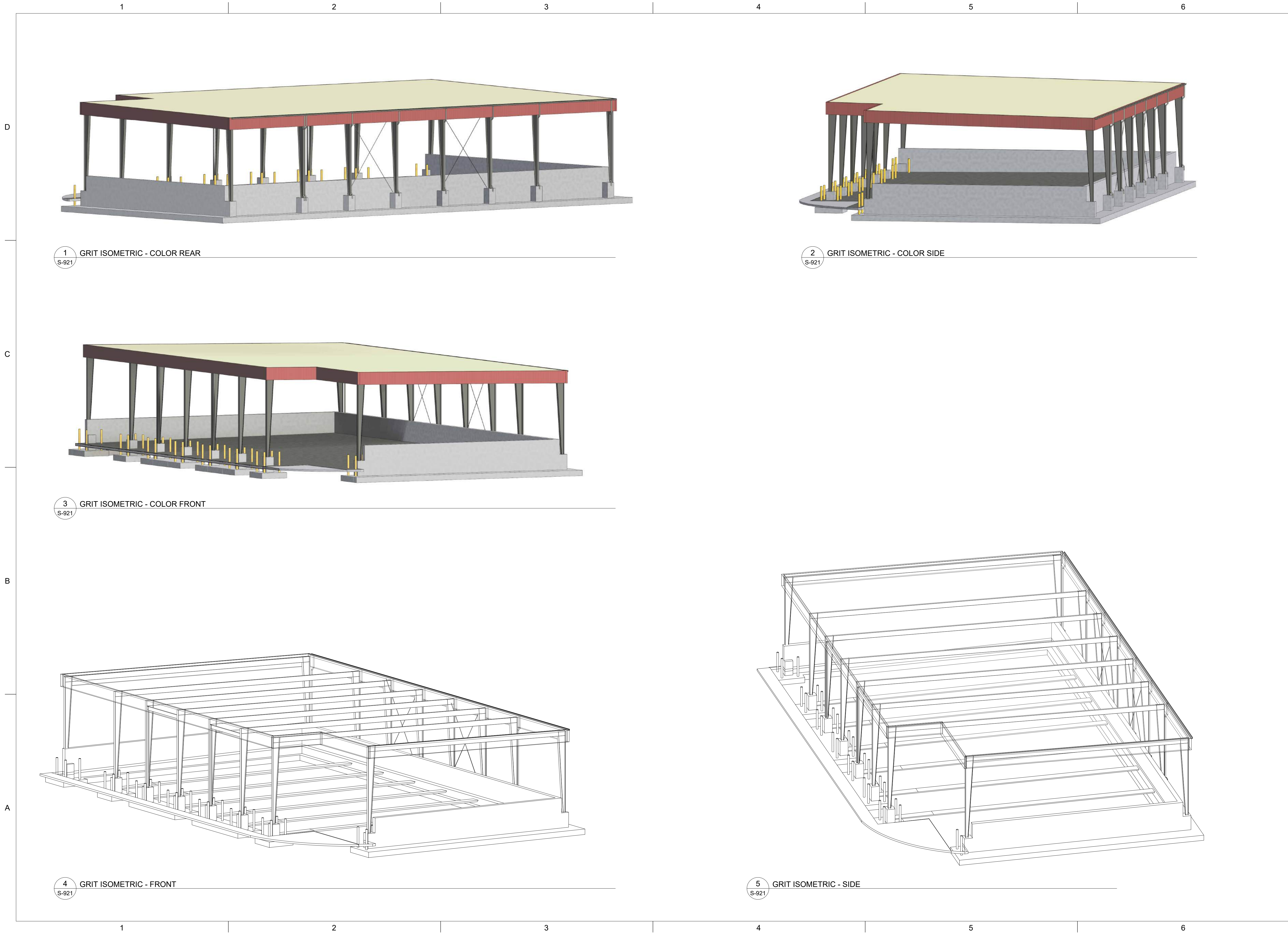
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BIOSOLIDS & GRIT UPGRADES
BC PROJECT NUMBER
190651 & 196366
CLIENT PROJECT NUMBER
105614 & 109212

STRUCTURAL
BIOSOLIDS PAD
RENDERINGS

DRAWING NUMBER

S-911

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3454 WEST CLAY STREET
RICHMOND, VA 23230

TAM
CONSULTANTS
4350 NEW TOWN AVE. #201
WILLIAMSBURG, VA 23188

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90% DESIGN



WASTEWATER
TREATMENT PLANT
BIOSOLIDS AND GRIT
STORAGE PADS
UPGRADES

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FILENAME
MS246210 & MS246220 BC CWTP WWTP
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STRUCTURAL
GRIT PAD
RENDERINGS

DRAWING NUMBER

S-921