



Agenda Report

2725 Judge Fran Jamieson
Way
Viera, FL 32940

Consent

F.2.

11/10/2020

Subject:

Waiver Request to Stormwater Management Criteria Section 62-3751, Exhibit A, Brevard County Code Re: South Central Waste Water Treatment Facility Expansion Waiver # 20WV00020

Fiscal Impact:

None

Dept/Office:

Planning and Development

Requested Action:

Brevard County Utilities is requesting that the Board of County Commissioners grant a waiver to the Stormwater Management Criteria to allow the use of an inverted siphon.

Summary Explanation and Background:

Brevard County Utilities (Applicant) has just completed an expansion to the South Central Waste Water Treatment Facility. The Brevard County Code and the Saint Johns River Water Management District (SJRWMD) require the Utility to provide stormwater treatment for the stormwater runoff from the new impervious area associated with the expansion. Due to site constraints associated with construction operations occurring in an existing facility with extensive underground utilities, a portion of the stormwater system had to be redesigned by the Engineer of Record in the field.

The applicant's Engineer of Record designed an inverted siphon stormwater system allowing the stormwater culverts to be constructed below utility lines in conflict. The design requires a board waiver of the Stormwater Code Section 62-3751, Exhibit A. This code section states that "Inverted siphons shall not be permitted". The capital costs for the relocation of existing utilities was estimated by the Engineer of Record to be \$20,000-\$30,000 when the Contractor was on-site. The costs would presumably increase given procurement and mobilization. Maintenance costs of the inverted siphon stormwater system are minimal as the Utility has vacutucks on-site which can remove stormwater and accumulated debris.

This is a unique situation given that Utilities has the ability to monitor the performance of the inverted siphon and the necessary equipment to maintain the infrastructure to ensure it performs as designed. Also, in this particular setting the expected occurrence of debris is minimal as the site is an industrial facility (as compared to a facility in a residential, commercial or retail community). If the waiver is not granted, Utilities will have to expend substantial resources to resolve the design to conform with conventional design with lower maintenance costs in the future.

Clerk to the Board Instructions:

Kimberly Powell, Clerk to the Board, 400 South Street • P.O. Box 999, Titusville, Florida 32781-0999

Telephone: (321) 637-2001
Fax: (321) 264-6972
Kimberly.Powell@brevardclerk.us



November 12, 2020

M E M O R A N D U M

TO: Tad Calkins, Planning and Development Director

RE: Item F.2., Waiver Request to Stormwater Management Criteria Section 62-3751, Exhibit A, Brevard County Code for South Central Waste Water Treatment Facility Expansion Waiver #20WV00020

The Board of County Commissioners, in regular session on November 10, 2020, granted a waiver to the Stormwater Management Criteria to allow the use of an inverted siphon.

Your continued cooperation is greatly appreciated.

Sincerely yours,

**BOARD OF COUNTY COMMISSIONERS
SCOTT ELLIS, CLERK**

Kimberly Powell
Kimberly Powell, Clerk to the Board

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BOARD OF COUNTY COMMISSIONERS

Planning and Development
Planning and Zoning
2725 Judge Fran Jamieson Way
Building A, Room 114
Viera, Florida 32940
(321) 633-2070 Phone

LAND DEVELOPMENT WAIVER APPLICATION

This form should be used for all waiver requests or appeals associated with the Code of Ordinances, Section 62, as it relates to Subdivisions, Minor Subdivisions, and Site Plans. Fees for Waivers are \$775.00.

Office Use Only		
Request Date	Fees	Board Date
Original Project Number	Waiver Number	
Coordinator Initials	Reference Files	
County Manager/Designee Approval		

APPLICATION TYPE: ☐ Subdivision Waiver ☒ Site Plan Waiver ☐ Other

If other, please indicate _____

Tax Parcel Identification:

26	36	18	00	2	
Township	Range	Section	Subdivision	Block/Parcel	Lot

Tax Account Numbers (list all) 2604320

South Central Regional WWTF Expansion	Utility Services Department
Project Name	Property Owner

Site Address:

10001 N Wickham Rd	Melbourne	FL	32940
Street	City	State	Zip Code

CORRESPONDENCE TO BE PROVIDED TO APPLICANT AT THE ADDRESS BELOW:

Edward Fontanin, P.E.	Utility Services		
Applicant Name	Company		
2725 Fran Jamieson Way, A-213	Melbourne	FL	32940
Street	City	State	Zip Code
321-633-2089	321-633-2095	Edward.Fontanin@brevardfl.gov	
Phone Number	Cell Phone Number	Fax Number	Email Address

ENGINEER/CONTRACTOR (if different from applicant)

Mead & Hunt, Inc.	Kevin Lee, P.E.		
Company	Engineer or Project Manager		
4401 Eastport Parkway	Port Orange	FL	32127
Street	City	State	Zip Code
386-490-1249	386-566-5183	Kevin.Lee@meadhunt.com	
Phone Number	Cell Phone Number	Fax Number	Email Address

DESCRIPTION OF WAIVER REQUEST AND CODE SECTION:

Section 62-3751, Exhibit A, 4.6(j) Inverted siphons. Inverted siphons shall not be permitted.

Owner/Applicant Signature	Print Name
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If you wish to appeal any decision made by the county staff on the waiver, you may request the Board of County Commissioners to make a determination. The Board's decision approving or disapproving the waiver or interpretation is final.

LAND DEVELOPMENT APPLICATION DOCUMENT SUBMITTAL REQUIREMENTS

Waivers for Site Plans or Subdivisions require an application, waiver criteria (listed below), an 8 ½-inch x 11 inch vicinity map, and a fee of \$775.00.

WAIVER CRITERIA FOR SUBDIVISIONS AND SITE PLANS

For a waiver to be considered and approved by staff, your request must comply with all of the following criteria. Please explain, in detail, how your request meets the following conditions.

1. The particular physical conditions, shape, or topography of the specific property involved causes an undue hardship to the applicant if the strict letter of the code is carried out.

The installation of 1- 24-inch ERCP between S-100 and S-101, in a sump condition was required due to conflicts with existing utilities that could not be moved without dramatically increasing the cost. It was decided to install the pipes as represented on the as-builts with agreement by County staff. It is requested this remain and the County development engineering staff waive the requirement for no sump conditions.

2. The granting of the waiver will not be injurious to the other adjacent property.

The two structures are located on the South Central Regional WWTF property. There will be no impacts to adjacent property.

3. The conditions, upon which a request for waivers are based, are particular to the property for which the waiver is sought and are not generally applicable to other property and do not result from actions of the applicant.

4. The waiver is consistent with the intent and purpose of the county zoning regulations, the county land use plan, and the requirements of this article.

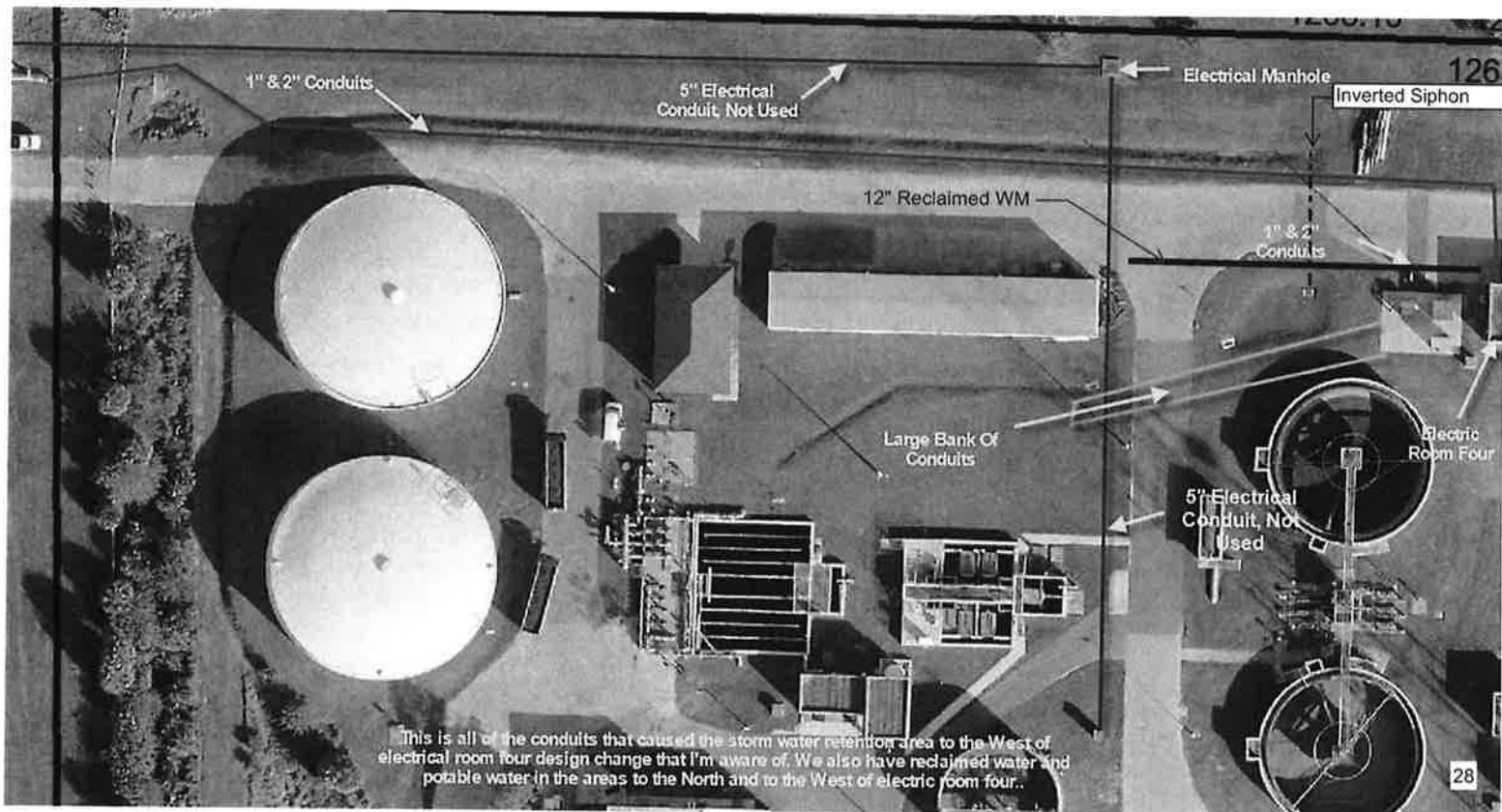
5. Delays attributed to state or federal permits.

N/A

6. Natural disasters.

N/A

7. County development engineer and affected agencies concur that an undue hardship was placed on the applicant. (To be filled out by county staff)





October 26, 2020

Owen Callard
Construction Manager
Brevard County Utility Services
2725 Judge Fran Jamieson Way
Viera, FL 32940

Email: Owen.Callard@brevardfl.gov
Hard Copy Mailed Only on Request

Subject: S Central Regional WRF - Stormwater Inverted Siphon

Dear Owen:

This letter is regarding the inverted siphon stormwater system that was installed during the S Central Regional WRF Expansion project. The stormwater revision was approved during construction to avoid a conflict with electrical conduit and a 12" reclaimed water main on the site. Prior to making the change we evaluated the cost to relocate the existing utilities, to install the stormwater pipe and structures per plan. The capital costs for the relocation of existing utilities was estimated to be \$20,000-\$30,000. This cost estimate was when the Contractor was mobilized and working on site, the costs at this point would be higher due to procurement, mobilization, etc.

Brevard County Utilities has vacutucks on site which can remove stormwater and any accumulated debris from this pipe. Based on the significant capital costs to relocate the conflicts and the ability for on site staff to maintain the stormwater system we decided to allow the stormwater system to have an inverted siphon in this location.

Sincerely,
MEAD & HUNT, Inc.

Kevin Lee, P.E.
Project Manager

cc: Edward Fontanin, P.E. – Brevard County Utility Services
Brad Blais, P.E. – Mead & Hunt