

## SUBMITTAL REVIEW COMMENTS

Date: 4/16/18  
Owner: Northwest Seaport Alliance  
Project: West Sitcum Stormwater Treatment  
Contractor: Titon

Submittal Title: Vortex Type Hydrodynamic Separators  
Submittal Number: PO#81368  
TE-001 Shop Drawings REV3

Reviewer: C. Simmons  
Review: TE-001 Shop Drawings REV3: Make Corrections Noted

### Comments:

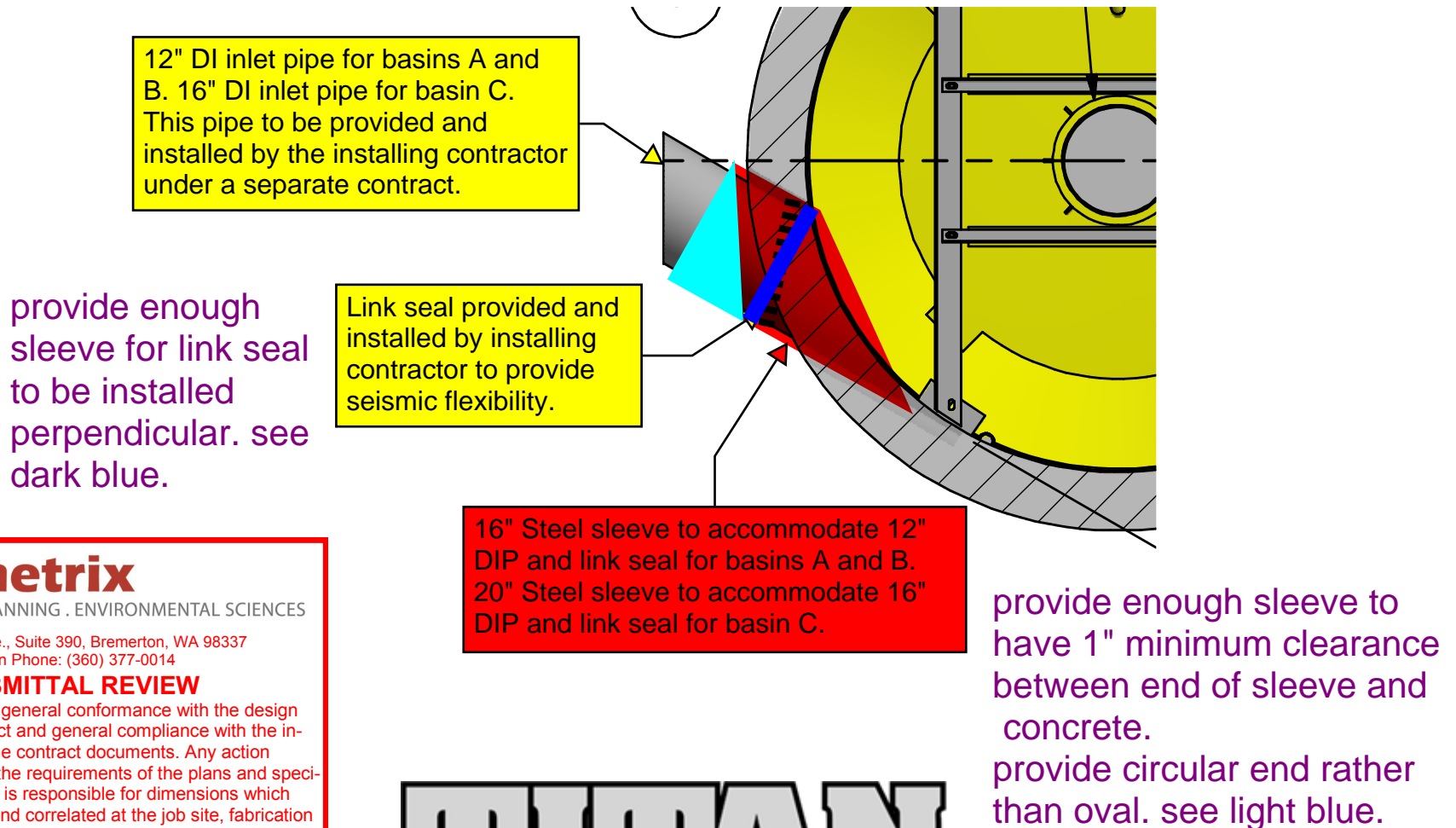
#### **TE-001 Shop Drawings REV3:**

1. Comment resolved
2. Comment resolved
3. The submitted cut sheet for the eccentric reducer is acceptable; however, please supply flange x flange eccentric reducer rather than MJ x MJ. All above ground piping in this project is flange x flange.
4. Comment resolved
5. Proposed methodology to resolve this issue is approved with minor modifications, as described below and as illustrated in the attached markups on your sixth attachment, "Tangential Inlet Sketch":
  - a. Provide enough steel sleeve for link seal to be installed perpendicular. This may have been your intention but it was not drawn that way so I wanted to point it out explicitly.
  - b. Provide a circular end to the sleeve that installing contractor can connect to, rather than a sleeve cut with an oval.
  - c. Provide minimum inch clearance between the concrete wall and the end of the sleeve, to help facilitate installation.
6. Great thank you. We will provide you with definitive locations for inlet and outlet centerline of penetration for all 3 basins by tomorrow end of day. Please confirm this timeline works for you.
7. Yes, the top of concrete matters because this elevation provides our design freeboard. Normal operating HGL and worse-case peak HGL (when downstream MWS units are in bypass/overflow mode) for each basin are as follows:
  - a. Basin A – 24.89 / 25.89
  - b. Basin B – 24.5 / 25.5
  - c. Basin C – 25.1 / 26.1

Currently, for Basin C, for example, our Top of Concrete (TOC) is set at 28.0, which provides the 2 feet of freeboard per our design.

Please be sure to provide the pre-cast units to provide the TOC per construction drawings.

Note: TITAN to install steel sleeve tangentially for installation of inlet pipe with link seal within it.



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Main Phone: (360) 377-0014

### SUBMITTAL REVIEW

Checking is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for dimensions which shall be confirmed and correlated at the job site, fabrication processes and techniques of construction, coordination of his work with that of all other trades, and the satisfactory performance of his work.

- |  |  |
|--|--|
| <input type="checkbox"/> No Exceptions Taken               | <input type="checkbox"/> Revise and Resubmit   |
| <input checked="" type="checkbox"/> Make Corrections Noted | <input type="checkbox"/> Rejected—See Comments |
| <input type="checkbox"/> Submit Specified Item             |  |

Date: 4/16/18 By: C. Simmons

Project #: 553-8001-001 Submittal #: \_\_\_\_\_

# TITAN EARTHWORK

**From:** Chris Pierce <Chris.Pierce@titaneearth.com>  
**Sent:** Thursday, April 12, 2018 7:56 PM  
**To:** Cedar Simmons  
**Cc:** Wike, Hughes; Katrina Walker; David Dinkuhn  
**Subject:** RE: \*\*HOT\*\* Subm#TE-001 Shop Drawings  
**Attachments:** Western SITCUM, 18\_12\_0579, Unit C, 4-2-18.dwg; Western SITCUM, 18\_12\_0579, Unit A, 4-2-18.dwg; Western SITCUM, 18\_12\_0579, Unit B, 3-30-18.dwg; D.I. Eccentric Reducers.pdf; Eccentric fitting sketch.pdf; Tangential Inlet Sketch.pdf

**Importance:** High

Cedar,

Please see below email response along with the attached supporting documents. We switched servers and I thought this had gone out, but I found out today that many emails in both directions failed. Please confirm that you are in receipt of this email and that you have not sent me any email since your below April 9<sup>th</sup> 9:05am email.

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Cedar,

Here are my responses in the order that they are listed on your submittal response.

- 1) Confirmed, the GULD that you provided is the most up to date.
- 2) The auto cad drawings as requested are included as the first three attachments to this email.
- 3) The drawings for the fittings as requested are included at the fourth attachment to this email. The original plan to use PVC fittings was not possible due to what turned out to be excessive lay lengths. As such, TITAN is proposing use of reducers outside of the HDS unit as shown in the also attached sketch which is included as the fourth attachment to this email.
- 4) Confirmed. Structural calculations will reflect this.
- 5) Oldcastle will cast a 16" steel sleeve into the inlet of the 6' diameter basins and a 20" steel sleeve in the inlet of the 8' diameter basin. This will allow your installing contractor to utilize a quantity of 21 LS360 links on the 12" pipe penetrations and 27 LS360 links on the 16" pipe penetration. See sixth attachment to this email.
- 6) It is confirmed that the location of the inlet and outlet pipes are 100% adjustable, but must be offset. The inlet can be anywhere you want it to be, but must be tangential.
- 7) Does "Top of Concrete" elevation matter? Outlet inverts should not have changed. Inlet inverts did change because CDS & DD operate differently. DD may be slightly lower profile so addition of sump required to achieve outlet invert elevation. Elevation from invert out to rim will be slightly different because products vary slightly.

I know there may be some remaining questions on items 6 and 7. I will happily line up a conference call ASAP as soon as you review what I have provided here as it may filter out a few of your questions/concerns. I look forward to hearing from you.

**Chris Pierce**

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**From:** Cedar Simmons <[CSimmons@parametrix.com](mailto:CSimmons@parametrix.com)>  
**Sent:** Monday, April 9, 2018 9:05 AM  
**To:** Chris Pierce <[Chris.Pierce@titanearth.com](mailto:Chris.Pierce@titanearth.com)>  
**Cc:** Wike, Hughes <[hwike@portoftacoma.com](mailto:hwike@portoftacoma.com)>; Katrina Walker <[Katrina.Walker@titanearth.com](mailto:Katrina.Walker@titanearth.com)>;  
David Dinkuhn <[DDinkuhn@parametrix.com](mailto:DDinkuhn@parametrix.com)>  
**Subject:** RE: \*\*HOT\*\* Subm#TE-001 Shop Drawings

Chris –  
Please find attached submittal review. Let me know if you have questions.  
Thank you,  
~Cedar

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**Cedar Simmons, PE**  
Senior Engineer  
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*Bremerton, WA 98337*



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**From:** Chris Pierce <[chris.pierce@titanearth.com](mailto:chris.pierce@titanearth.com)>  
**Sent:** Thursday, April 05, 2018 9:33 AM  
**To:** Cedar Simmons <[CSimmons@parametrix.com](mailto:CSimmons@parametrix.com)>  
**Cc:** Wike, Hughes <[hwike@portoftacoma.com](mailto:hwike@portoftacoma.com)>; Katrina Walker <[katrina.walker@titanearth.com](mailto:katrina.walker@titanearth.com)>  
**Subject:** RE: \*\*HOT\*\* Subm#TE-001 Shop Drawings  
**Importance:** High

Cedar / Hughes,

Please find our revised submittal attached to this email which reflects a few changes discussed over the phone with Cedar. Note that the outlet elevation of the DD unit is slightly higher than the inlet as part of the design. I see that Contech does not do this, so you will have a slight change here that will not affect installation or functionality.

As stated previously, time is of the essence. We are looking forward to your reply and our manufacturer is standing by to order parts and get this scheduled for production. Note that the structural calculations will take another week or so, but Oldcastle told me that they will have no problem meeting the requirements laid out in 33 44 33 1.03 2.

Take a look and let me know if you have any questions.

Thank you,



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**From:** Cedar Simmons <[CSimmons@parametrix.com](mailto:CSimmons@parametrix.com)>  
**Sent:** Wednesday, April 4, 2018 5:51 PM  
**To:** Chris Pierce <[chris.pierce@titanearth.com](mailto:chris.pierce@titanearth.com)>  
**Cc:** Wike, Hughes <[hwike@portoftacoma.com](mailto:hwike@portoftacoma.com)>; Katrina Walker <[katrina.walker@titanearth.com](mailto:katrina.walker@titanearth.com)>  
**Subject:** RE: \*\*HOT\*\* Subm#TE-001 Shop Drawings

Hi Chris –

Following up with you on the phone conversation we had yesterday regarding the Downstream Defender units for the Port of Tacoma's West Sitcum project.

Have you come to any resolution yet on the submitted diameters of each unit and their corresponding listed Peak Hydraulic Capacity being more than double what was specified in the Invitation to Bid specifications?

Related item: The Vortex-Type HDS specification paragraph 2.01.B.6 indicates the units shall be Washington State DOE GULD approved. I did not see GULD certification within your submittal or any verification statement that the sizes and hydraulic capacities submitted are GULD approved. Please provide this information as well in a resubmittal.

Please let me know if you have any questions,  
Thank you,  
~Cedar

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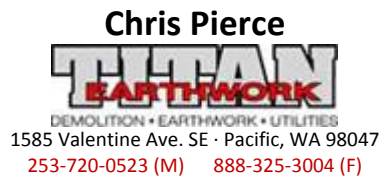


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**From:** Chris Pierce <[chris.pierce@titanearth.com](mailto:chris.pierce@titanearth.com)>  
**Sent:** Tuesday, April 03, 2018 12:20 PM  
**To:** Cedar Simmons <[CSimmons@parametrix.com](mailto:CSimmons@parametrix.com)>  
**Cc:** Wike, Hughes <[hwike@portoftacoma.com](mailto:hwike@portoftacoma.com)>; Katrina Walker <[katrina.walker@titanearth.com](mailto:katrina.walker@titanearth.com)>  
**Subject:** RE: \*\*HOT\*\* Subm#TE-001 Shop Drawings

Those are the only two we have submitted to date. I as soon as I have the structural design calculations per 1.03 A 2 you will see subm#TE-003 from me. I am expecting that to happen within a week as we are waiting on the engineer for that data.

I reviewed the bid docs and don't see that any further submittals are required. If you feel otherwise, please let me know.



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**From:** Cedar Simmons <[CSimmons@parametrix.com](mailto:CSimmons@parametrix.com)>  
**Sent:** Tuesday, April 3, 2018 12:17 PM  
**To:** Chris Pierce <[chris.pierce@titanearth.com](mailto:chris.pierce@titanearth.com)>  
**Cc:** Wike, Hughes <[hwike@portoftacoma.com](mailto:hwike@portoftacoma.com)>  
**Subject:** RE: \*\*HOT\*\* Subm#TE-001 Shop Drawings

Chris –

We are the consultant for the Port of Tacoma reviewing your HDS submittal. I am currently reviewing TE-002 Maintenance Schedule and TE-001 Shop Drawings REV1.

1. Have you sent any others that I do not have?
2. How many more are you submitting, what are they, and what is the ETA.

~Cedar

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**From:** Wike, Hughes <[hwike@portoftacoma.com](mailto:hwike@portoftacoma.com)>  
**Sent:** Tuesday, April 03, 2018 9:56 AM  
**To:** Cedar Simmons <[CSimmons@parametrix.com](mailto:CSimmons@parametrix.com)>  
**Subject:** FW: \*\*HOT\*\* Subm#TE-001 Shop Drawings

FYI.

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**From:** Chris Pierce [<mailto:chris.pierce@titanearth.com>]  
**Sent:** Monday, April 2, 2018 4:53 PM  
**To:** Wike, Hughes <[hwike@portoftacoma.com](mailto:hwike@portoftacoma.com)>  
**Cc:** Katrina Walker <[katrina.walker@titanearth.com](mailto:katrina.walker@titanearth.com)>  
**Subject:** RE: \*\*HOT\*\* Subm#TE-001 Shop Drawings

Mr. Wike,

I saw an edit that needed to be made to the cover page as highlighted in the attached. Please disregard the previous version of this submittal and replace it with the attached.

Note that structural calculations per 1.03 A 2 are soon to follow.

Thank you,

**Chris Pierce**  
  
DEMOLITION • EARTHWORK • UTILITIES  
1585 Valentine Ave. SE · Pacific, WA 98047  
253-720-0523 (M) 888-325-3004 (F)

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**From:** Chris Pierce  
**Sent:** Monday, April 2, 2018 4:47 PM  
**To:** 'hwike@portoftacoma.com' <[hwike@portoftacoma.com](mailto:hwike@portoftacoma.com)>  
**Cc:** Katrina Walker <[katrina.walker@titanearth.com](mailto:katrina.walker@titanearth.com)>  
**Subject:** \*\*HOT\*\* Subm#TE-001 Shop Drawings  
**Importance:** High

Mr. Wike,

I haven't seen an email from you yet that covered the topic of submitting this via eBuilder. Due to the time sensitive nature of the attached document, I wanted to get this into your hands sooner than later. I would be happy to submit via eBuilder as well once that is ready.

Please note that in order to meet the product delivery deadline, I need a review and response to the attached submittal as soon as possible. If you think it will take more than a couple days, please let me know ASAP.

Since we have had some trouble in the past getting emails past your server, I would like to request that you please confirm receipt of this email and the attachment.

Thank you,

**Chris Pierce**



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