

July 20, 2018

BOARD OF COUNTY COMMISSIONERS
ORANGE COUNTY, FLORIDA
IFB NO. Y18-779-TA/ ADDENDUM NO. 4

NORTHWEST WATER RECLAMATION FACILITY RAPID INFILTRATION BASINS
(RIBS) SIDE SLOPE LINERS REPLACEMENT PROJECT

BID OPENING DATE: July 26, 2018

This Addendum is hereby incorporated into the bid documents of the project referenced above. The following items are clarifications, corrections, additions, deletions and/or revisions to and shall take precedence over the original documents. Additions are indicated by underlining, deletions are indicated by ~~strikethrough~~.

A. QUESTIONS AND ANSWERS

1. Q: It was mentioned during the pre-bid meeting that the intent of the design was to balance the excavation and embankment of each RIB without importing soil. Is that correct?

A: The intent is to re-shape the side slopes and top of berms using the existing soils that may have shifted or eroded. CAD files have been provided for determination of earthwork for each RIB.

2. Q: Our understanding is that the vegetation that is to be stripped from the surface of the RIBs is to be stockpiled onsite. Is that correct? If so, please provide the stockpile location.

A: The location will be at the County site and determined during construction. Vegetation will be mulched and spread in the determined location.

3. Q: Under Specification Section 01010, Summary of Work, Item 1.01 A, note 2 mentions "removal of unsuitable soils & installing fill dirt." Since this is a lump sum bid and there is no way to quantify the amount of any potential unsuitable material, how much such work be paid for?

A: Specification Section 01010, Item 1.01A, Note 2 will be revised to the following:
"Remove surface vegetation from RIB bottoms and dispose onsite."

Specification Section 01010, Item 1.01A, Note 3 will be revised to the following:
"Re-grading and shaping of RIB side slopes, top of berms, and RIB bottoms."

4. **Q:** The detail entitled “General RIB Cell Cross Section” on plan sheet D-100 shows the upslope anchor trench of the liner dug into the stabilized access road. Is that the intent of the design?
- A: It is shown three (3) feet into the top of berm, not necessarily into a stabilized access road.
5. **Q:** The “General RIB Cell Cross Section” detail on plan sheet D-10 also shows a “Limit of sod” width without any dimensions. It appears that the sod should carry down the outside slope of the pond berm and upslope from the tie-in to existing grade. There is no way, however to quantify the amount of sod required based on the information provided in this detail. Are we to regrade the entire outside pond berm? If so, how far past the toe of slope should we plan to re-sod after the regrading is complete?
- A: Sodding shall extend only to areas disturbed during construction. This will vary for each pond depending on construction activity, equipment, etc. The outside of the ponds are not intended to be regraded or sodded unless disturbed.
6. **Q:** The detail entitled “HDPE Liner to Concrete Tie Detail” on plan sheet D-100 shows a typical “Polylock” concrete embed stip. Note #1 on this detail states to “remove existing liner and install new anchor system in concrete drives and overflow channels.” Does this mean that the Polylock is to remain and that we are to cut the old liner away and weld the new liner to it?
- A: The polylock detail has been removed. Liners shall be anchored in concrete drives and overflow channels. A batten bar detail has been added to revised Sheet D-100. This detail will be used at all liner connections at all concrete crossings and will extend along the length of liner contacting concrete surfaces. Refer to revised sheet D-100 attached and labelled this addendum.
7. **Q:** For the Polylock detail, is it correct to assume that the Polylock exists at all drives and overflows? As there is no way to embed Polylock into existing structures, installing batten bar would be the only way to install a new anchor system in the drives and channels. If that is the intent, please provide batten bar details, specs, and quantities.
- A: A detail has been added as noted in response 6.

8. **Q: The detail entitled “Top of Berm/Stabilized Access Road Detail” on plan sheet D-101 illustrates a road profile. Does this detail depict existing conditions at the site?**
- A: The detail has been revised to show conditions based on the original design. Please see revised drawing on sheet D-101 attached and labelled this addendum. The stabilization requirement has been removed.
9. **Q: Will the “Stabilized Access Road” be constructed around all of the RIBs?**
- A: No new roads are to be constructed. Only disturbed areas on top of berms are to be restored in accordance with the revised detail on sheet D-101.
10. **Q: The detail shows a 10’ minimum width for the top of berm. Are all of the existing berm tops a minimum of 10’ wide?**
- A: Not all top of berms are 10 feet wide and vary up to 15. The Work does not include widening the existing berms but only the restoration of areas disturbed for liner installation.
11. **Q: Is topsoil available onsite for the 4” layer that is to be placed on top of the berm/stabilized access road?**
- A: Per the revised detail on sheet D-101, the 4” layer has been removed with sod being installed on the compacted soil. However, contractors must provide adequate soils with the sodding to assure the sod will take root.
12. **Q: The “HDPE Liner Detail” on plan sheet D-100 shows a 4” x 5’ Schedule 80 PVC edge of liner marker at the edge of the lower anchor trench. What should the spacing be between these markers?**
- A: The spacing should be approximately 100 feet.
13. **Q: Since the project consists of 15 RIBs that can easily be rebuilt in the timeframe allotted, will it be necessary to provide and maintain a CPM schedule for this contract? It appears that a more simplified bar chart Microsoft Project type of schedule would suffice.**
- A: For this project, the CPM schedule is not required. The bar chart will be acceptable in lieu of the CPM schedule.
14. **Q: The specifications make reference to a field office. Will a field office trailer be required for this project? If so, is there a place onsite that has available utility hookups for an office trailer?**
- A: Yes. A field office is required. The location is shown as Site 1 below. Water, power, and sewer connections are available. Contractors are responsible for payment of all water and electrical fees.



15. Q: The existing liners in the RIBs are black. The specs state that the new liners are to be white. Please verify that the intent is to replace the black liners with white liners.

A: Yes, new liners shall be white and textured.

16. Q Specification Section 02442, High-Density Polyethylene Geomembrane, section 1.05 states that GSE Environmental, LLC, is the only pre-approved manufacturer of the liner. The other major manufacturer of high density polyethylene geomembranes in the U.S. is AGRU America. Please approve AGRU America as an additional qualified manufacturer for the HDPE geomembrane.

A: AGRU America may be considered as an acceptable alternate as a qualified manufacturer provided that the submitted liner product meet and comply with the all terms, conditions, and project specifications. In accordance with the general terms and conditions, all equals are to be submitted for consideration after award.

17. Q: Specification Section 02442, High-Density Polyethylene Geomembrane, Table 2: Geomembrane Properties, Note 1 references "Leak Location Liner." As the project does not appear to include any requirements for leak location testing, a proprietary Leak Location Liner appears to be unnecessary. Will a standard black/white HDPE geomembrane suffice for this project?

- A: Leak location is not necessary for this Project, and this Note is not applicable. The liner shall meet all other technical specifications described in Section 02442.
- 18. Q: What will be the frequency of the liner vents on the slopes of the RIBs?**
- A: Vents shall be installed every 50 feet.
- 19. Q: Please provide a detail for the liner vents.**
- A: A detail for the liner vents has been provided on revised sheet D-101 attached and labelled this addendum.
- 20. Q: Is there a designated area onsite available for use as a materials storage/laydown area?**
- A: There is no specific designated area onsite for storage. County will work with Contractor to provide suitable storage areas. All storage areas will be outside of normal plant operations and restored to pre-existing conditions following work.
- 21. Q: Is it correct to assume that the existing liner material being removed is not considered contaminated in any way and can, therefore, be disposed of in a C & D landfill?**
- A: The liner material is not contaminated and shall be properly disposed of in a landfill accepting of such material.
- 22. Q: Is it correct to assume that the new liner anchor trench location (upslope and downslope) will be the same as that of the existing linert?**
- A: The side slopes and top of berms shall be regraded and the liner shall be installed in a uniform manner around the RIB side slopes matching a consistent grade as shown in the project details.
- 23. Q: Specification Section 01010 – Summary of Work, Part 1.01 calls for the replacement of components of the existing flow meters. Please specify which components are to be replaced. In an effort to assist the flow meter supplier in identifying and confirming the parts needed to retrofit the existing flow meters, would it be possible to provide specification of the existing flow meters?**
- A: The following specification shall be added:
This work is for the removal and disposal of 10 existing mechanical flow meters to be retrofit with new digital units. The new digital flow units shall be the FC501 FlowConnect system for Water Specialties Flow Meters.

Each unit shall be installed in accordance with the manufacturer and on-site kit installation shall be performed by an Avanti Company Certified Technician. This work requires that the meter assembly be temporarily removed from the main so that all the existing mechanical components including the mechanical register, drive shaft, miter gear frame assembly, separator, and propeller can be removed. Once these items have been removed the FlowConnect kit (FC501-D000F-G08B00A00) will be installed including a new FlowCom Register, separator, two pulse per revolution sensor, propeller, o-rings, batteries, and mounting screws. New gaskets shall be installed on the re-installed meter assembly. One year of data and hosting fees shall be included. The local contact for the Avanti Company is Tim Devlin at 1-800-284-5231.

24. Q: Are we to dispose of the flow meter components or does the Owner wish to retain them?

A: The Owner will retain them.

25. Q: There does not appear to be any specifications pertaining to the bid alternate, new flow meters. Please provide specifications for the new flow meters.

A: ~~Additive Bid Item 4~~ has been deleted as a requirement. The County will not require new meter assemblies. Refer to Part C of this addendum, IFB Y18-779-TA Revised Bid Schedule.

26. Q: Please specify the electrical requirements associated with the retrofitting of the existing flow meters, as well as the electrical requirements for the new flow meters should the alternate bid be accepted.

A: There is no additional electrical work associated with the new flow meters.

27. Q: How are the existing flow meters powered? Is there electrical power nearby or will we be required to install new electrical service?

A: The existing flow meters are battery powered. The new meters will be battery powered.

28. Q: Will Specification Section 01580, Project Identification and Signs, apply to this project? If so, please provide the quantity and desired location(s) of such signs.

A: Yes, specification Section 01580 applies. The Contractor shall provide one sign at entrance to the Northwest Water Reclamation Facility.

29. Q: If the proposed grades cannot be met with on-site soil, will the contractor be expected to import fill dirt?

A: No. See response to question one (1).

30. Q: Will the bottoms of the RIBs require grassing after final grading?

A: No. RIB bottoms shall not be sodded.

31. Q: Section 01590 1.09 FENCING – will a 6’ fence be required around the perimeter of the work?

A: Section 01509 1.09 Fencing will not be required. ~~Section 01509, 1.09 is hereby deleted.~~

32. Q: Can the stripped top soil be reused as top soil?

A: Yes, the stripped top soil can be reused as top soil provided the vegetation has been removed.

33. Q: Is the contractor required to perform any of the density testing?

A: Density testing shall be performed by the County. RIB bottoms shall be disked and regraded, side slopes shall be compacted to 95% by maximum density as determined by AASHTO T-180 and top of bank shall be 98% by maximum density as determined by AASHTO T-180.

B. CONSTRUCTION DRAWING REVISIONS

Delete : Delete sheet ~~D100 and D101~~ in its entirety.

Add: Add in its place revised sheet D100 and D101, attached and labelled this addendum.

C. IFB Y18-779-TA REVISED BID SCHEDULE

Delete: Delete the ~~IFB Y18-779-TA BID SCHEDULE~~ in its entirety.

Add: Add in its place REVISED IFB Y18-779-TA BID SCHEDULE, REVISED PAGE D-2, attached and labelled this addendum.

IMPORTANT: Failure to submit your bid with the “Revised Bid Schedule” per this Addendum shall be cause for your bid to be rejected as non-responsive.

D. CLARIFICATIONS

- A: Section 02442 3.05 Quality Assurance Testing: Contractor shall provide a certified technician to perform non-destructive testing methods. A minimum of 20% of welds will be tested by the Contractor and witnessed by the County RPR. The County reserves the right to require the contractor to perform destructive testing should an excessive amount of non-destructive testing fails ASTM standards or the manufacturer QA/QC requirements.

D. ACKNOWLEDGEMENT OF ADDENDA

- a. The Bidder shall acknowledge receipt of this addendum by completing the applicable section in the solicitation or by completion of the acknowledgement information on the addendum. Either form of acknowledgement must be completed and returned not later than the date and time for receipt of proposal.
- b. All other terms, conditions and specifications remain the same.
- c. Receipt acknowledged by:

Authorized Signature

Date Signed

Title

Name of Firm

**To the Board of County Commissioners
Orange County, Florida**

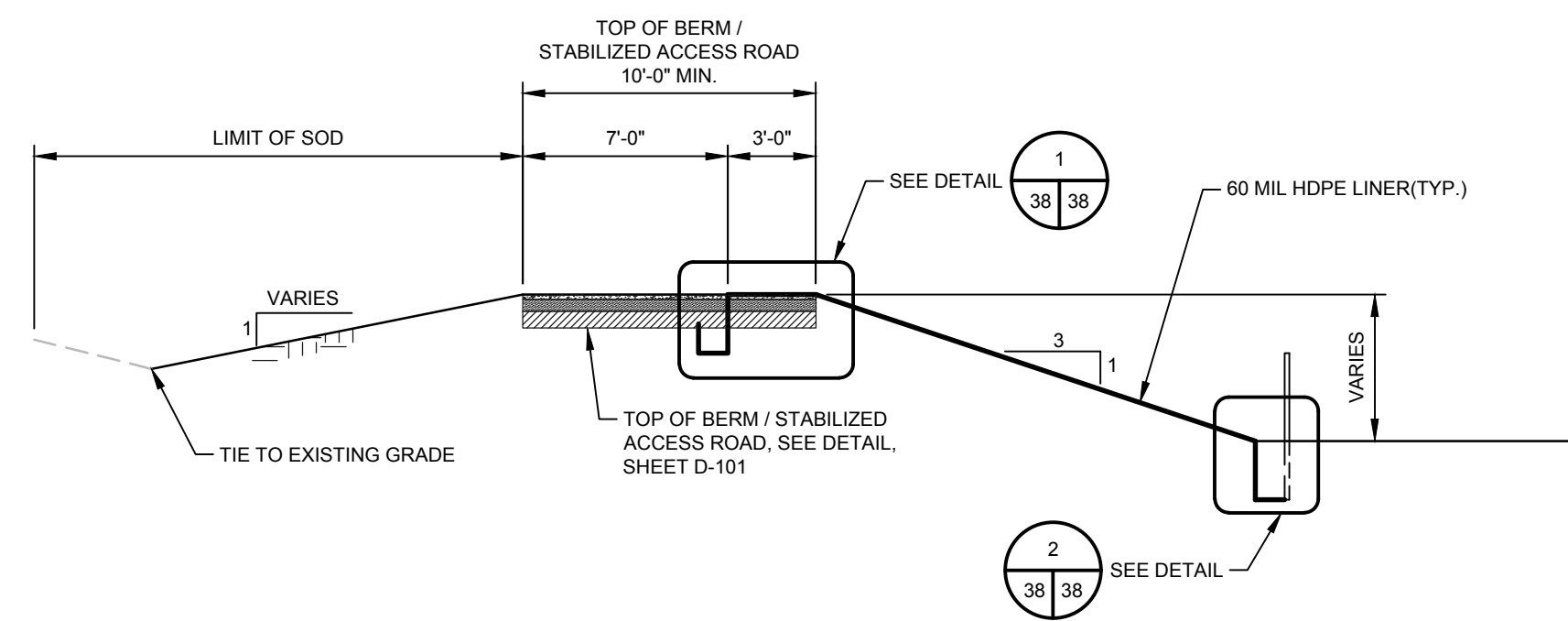
The Undersigned, hereinafter called "Bidder", having visited the site of the proposed project and familiarized himself with the local conditions, nature and extent of the work, and having examined carefully the Contract Form, General Conditions, Supplementary Conditions, Plans and Specifications and other Contract Documents, with the Bond requirements herein, proposes to furnish all labor, materials, equipment and other items, facilities and services for the proper execution and completion of: **NORTHWEST WATER RECLAMATION FACILITY RAPID INFILTRATION BASINS (RIBS) SIDE SLOPE LINERS REPLACEMENT** in full accordance with the drawings and specifications prepared in accordance with the Contract Documents and, if awarded the Contract, to complete the said work within the time limits specified for the following LUMP SUM BID.

TOTAL LUMP SUM BID:

_____ DOLLARS
(In Words)

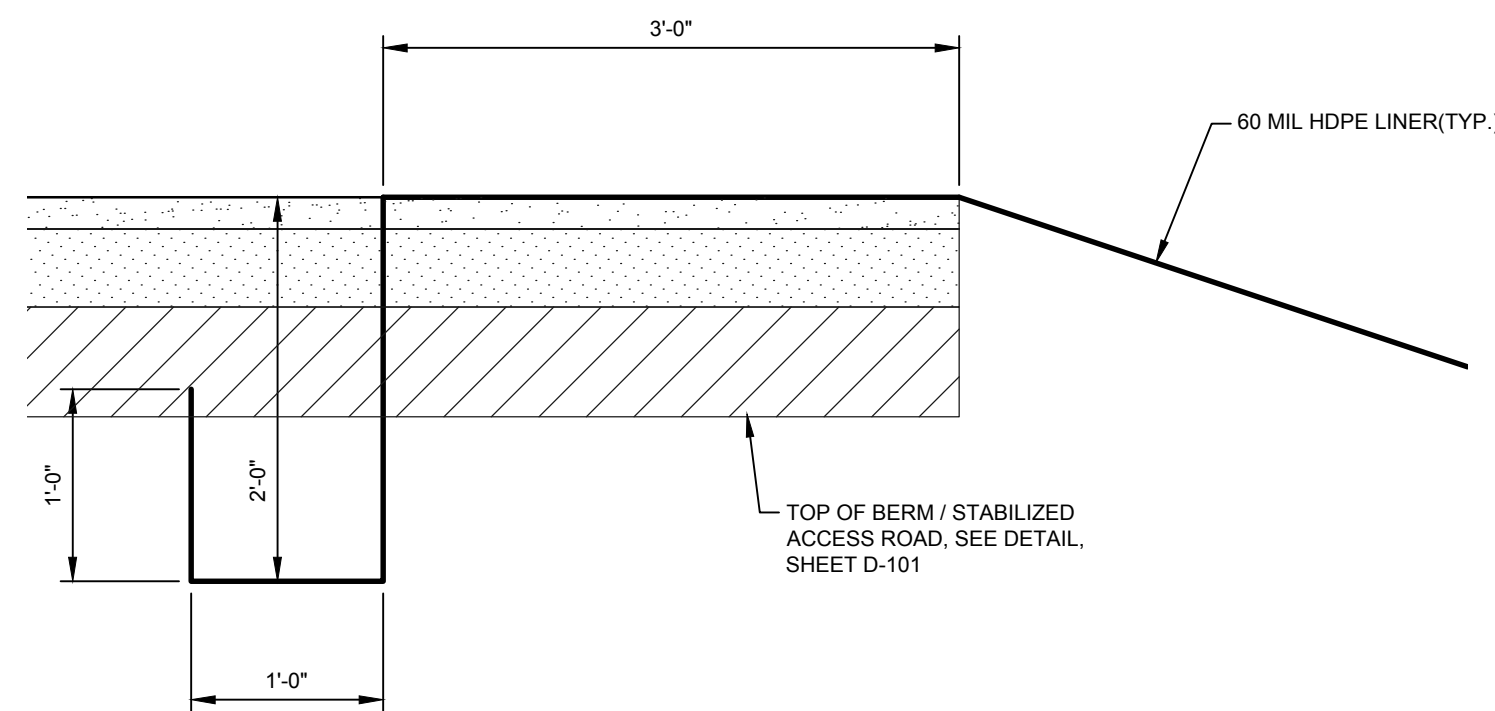
\$ _____

In the event the Contract is awarded to this Bidder, he/she will enter into a formal written agreement with the County in accordance with the accepted bid within ten (10) calendar days after said Contract is submitted to him/her and will furnish to the County a Contract Payment and Performance Bond with good and sufficient sureties, satisfactory to the County, in the amount of 100% of the accepted bid. The Bidder further agrees that in the event of the Bidder's default or breach of any of the agreements of this proposal, the said bid deposit shall be forfeited as liquidated damages.



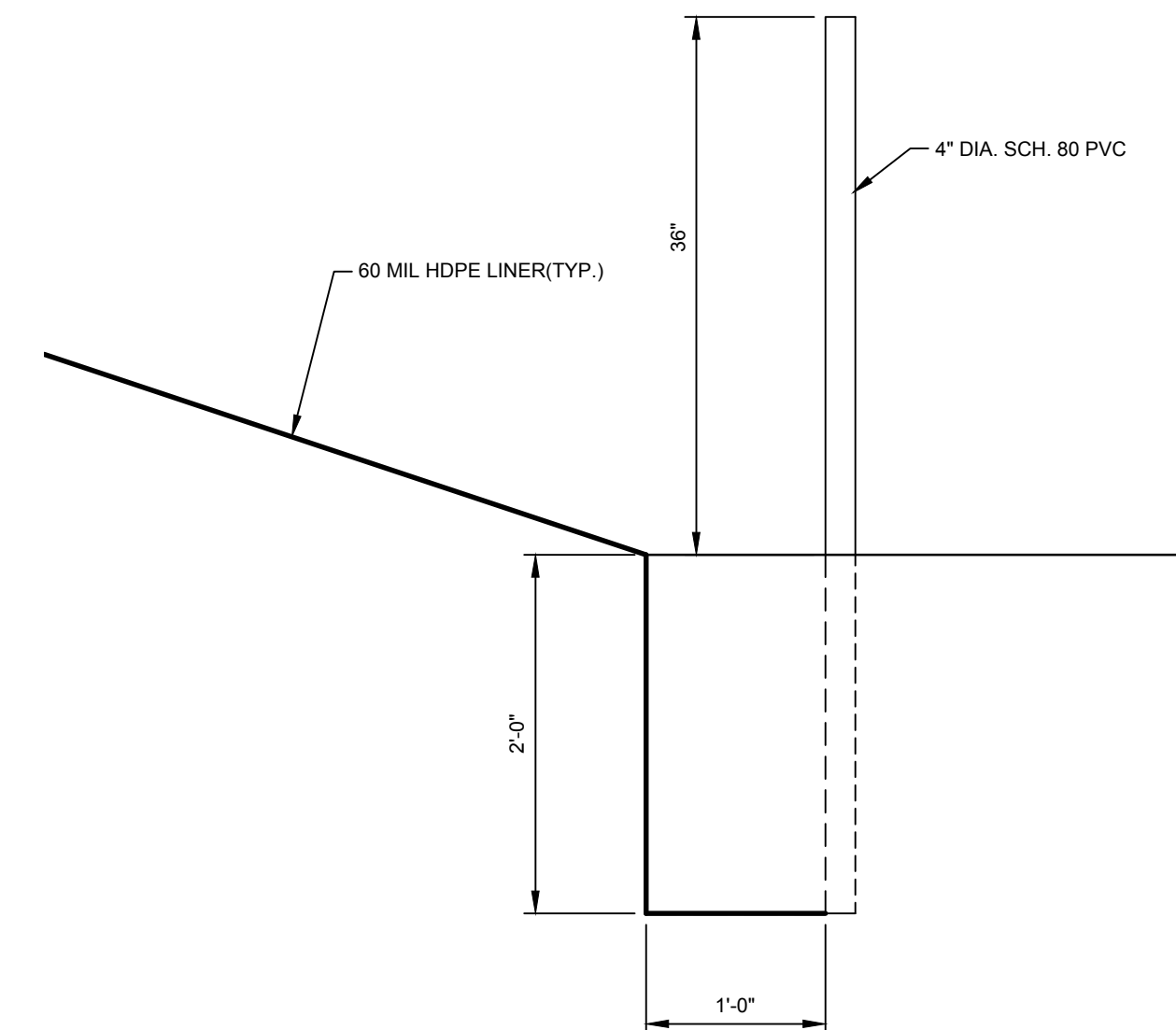
GENERAL RIB CELL CROSS SECTION

SCALE: 1" = 6'



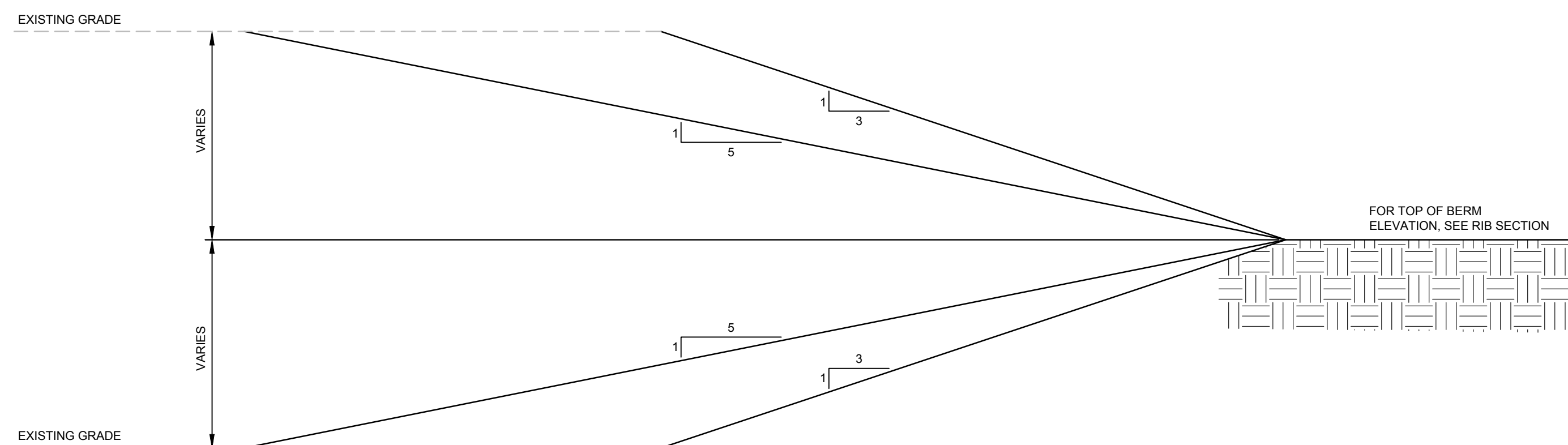
HDPE LINER TOE-IN DETAIL

SCALE: 1" = 1'



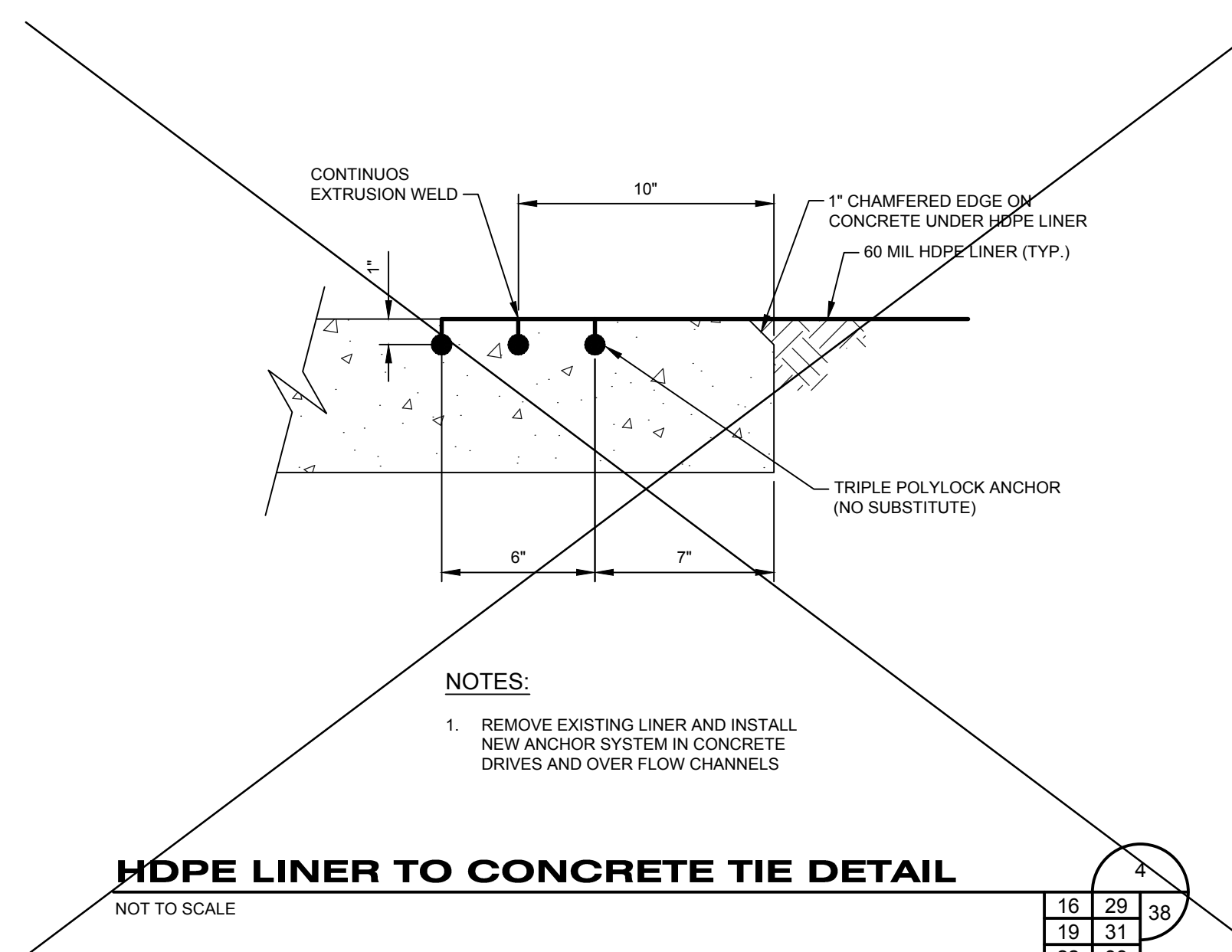
HDPE LINER DETAIL

ALL RIB LOCATIONS
SCALE: 1" = 1'



GRADING TO EXISTING DETAIL

NOT TO SCALE

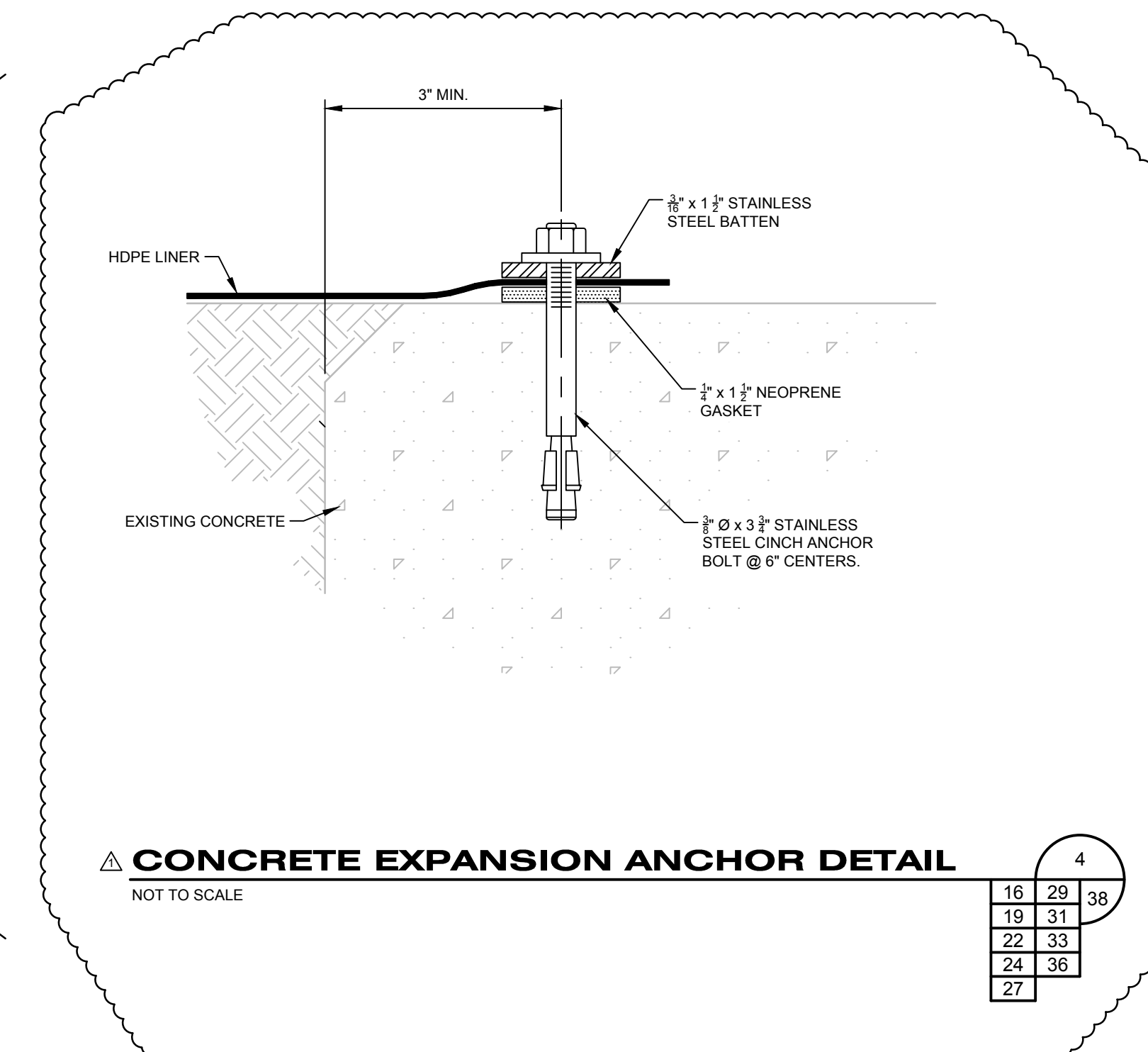


HDPE LINER TO CONCRETE TIE DETAIL

NOT TO SCALE

NOTES:

1. REMOVE EXISTING LINER AND INSTALL NEW ANCHOR SYSTEM IN CONCRETE DRIVES AND OVER FLOW CHANNELS

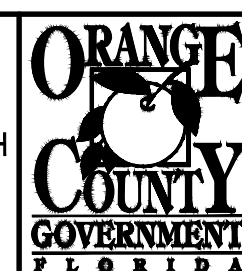


CONCRETE EXPANSION ANCHOR DETAIL

NOT TO SCALE

REV	DATE	DESCRIPTION
△	07/11/2018	BID REVISIONS

LINE IS 2 INCHES
AT FULL SIZE
(IF NOT SCALE ACCORDINGLY)



ORANGE COUNTY UTILITIES DEPARTMENT ENGINEERING DIVISION

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LINER CONNECTION DETAILS

JAMES R. MORRIS, JR.
PROFESSIONAL ENGINEER
FLORIDA LICENSE # 62384

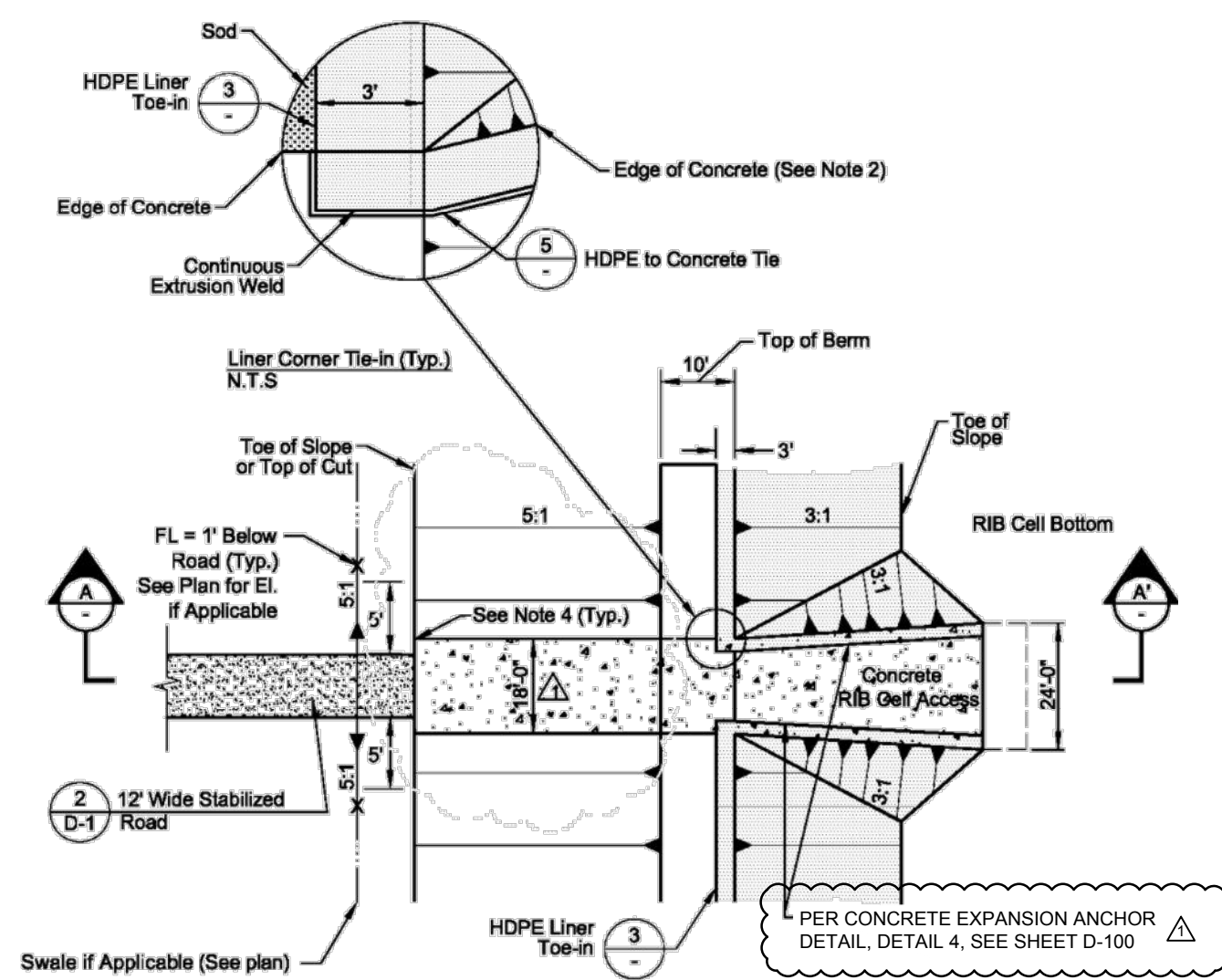
OCU FILE NO.:	84948
DESIGNED BY:	CKJ / ZLT
DRAWN BY:	CKJ
CHECKED BY:	DEM
CADD FILE:	Liner Details.dwg

SCALE: AS SHOWN

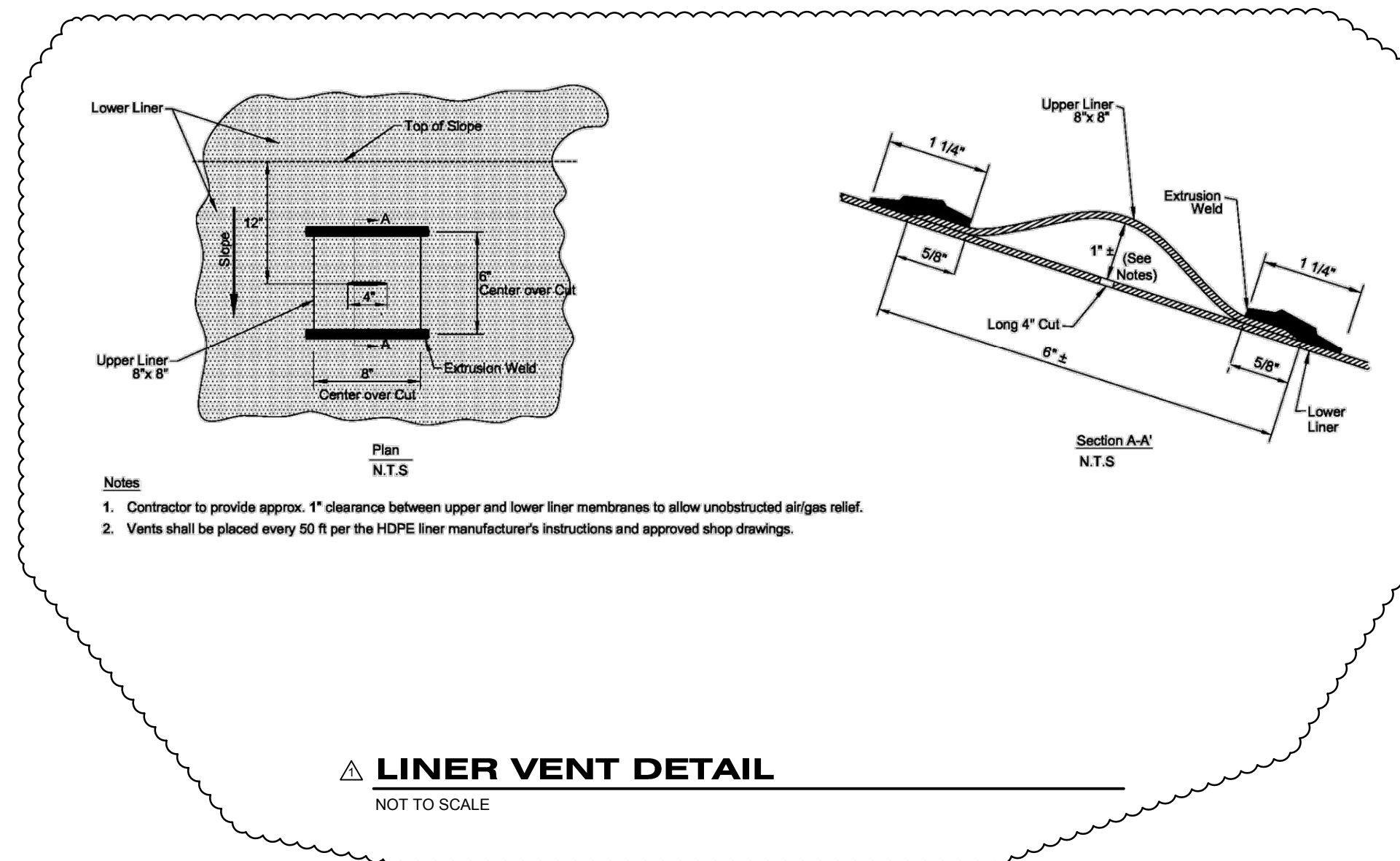
DRAWING NO.:

D-100

SHEET: 38 OF 39



PLAN



△ LINER VENT DETAIL
NOT TO SCALE

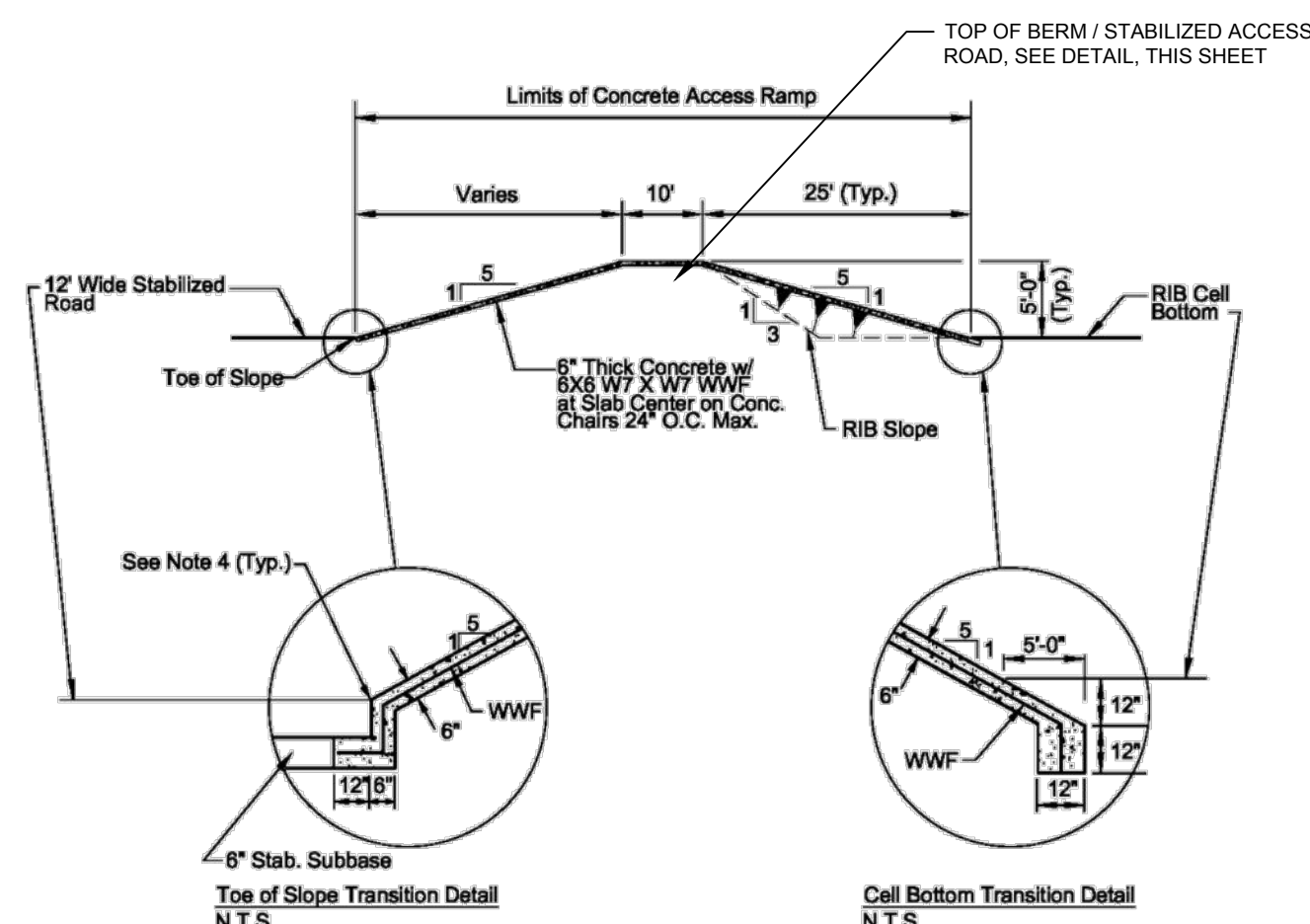


NOTES:

1. REMOVE EXISTING MECHANICAL FLOW METER HEAD
2. FURNISH AND INSTALL NEW FLOW CONNECT SYSTEM AND REQUIRED COMPONENTS
3. PAINT NEW COMPONENTS TO MATCH EXISTING METER ASSEMBLY

TYPICAL RIB METER ASSEMBLY

NOT TO SCALE



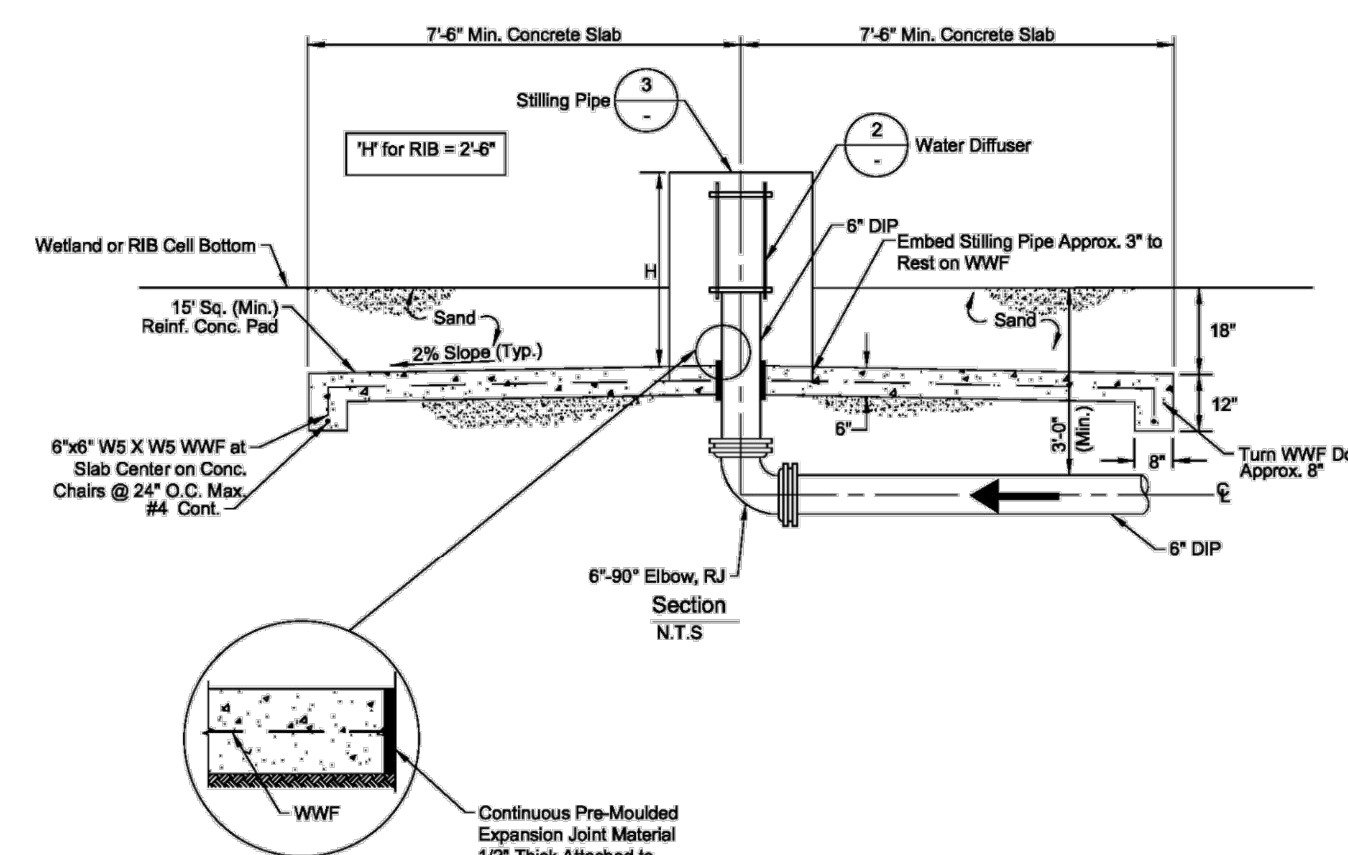
SECTION

Notes

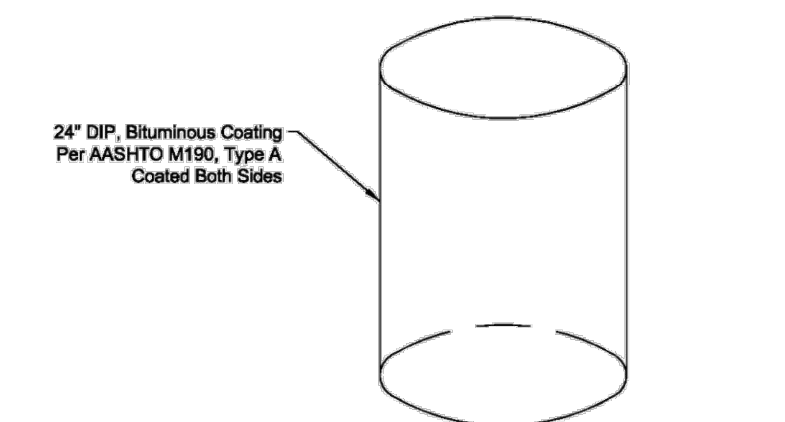
1. Provide 1" deep saw cut crack control joints @ 15' maximum, with a joint at each side of top of berm and fill joints with sealant type per specifications.
2. Provide 1" chamfered edges on concrete at all locations of liner attachment to concrete.
3. All Subgrade Below Concrete Slabs and Ramps to be Compacted to 98% Density (AASHTO T-160 Modified).
4. As a general practice, provide a 1" quarter radius round for all concrete edges.

CONCRETE MAINTENANCE ACCESS DRIVE DETAIL (RIB 9)

NOT TO SCALE

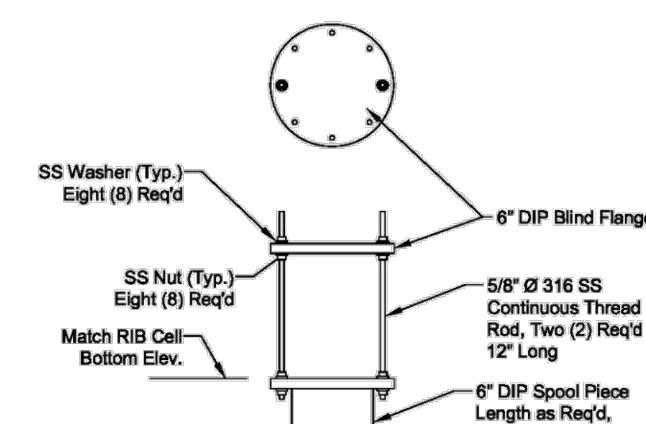


EXPANSION JOINT DETAIL



STILLING PIPE

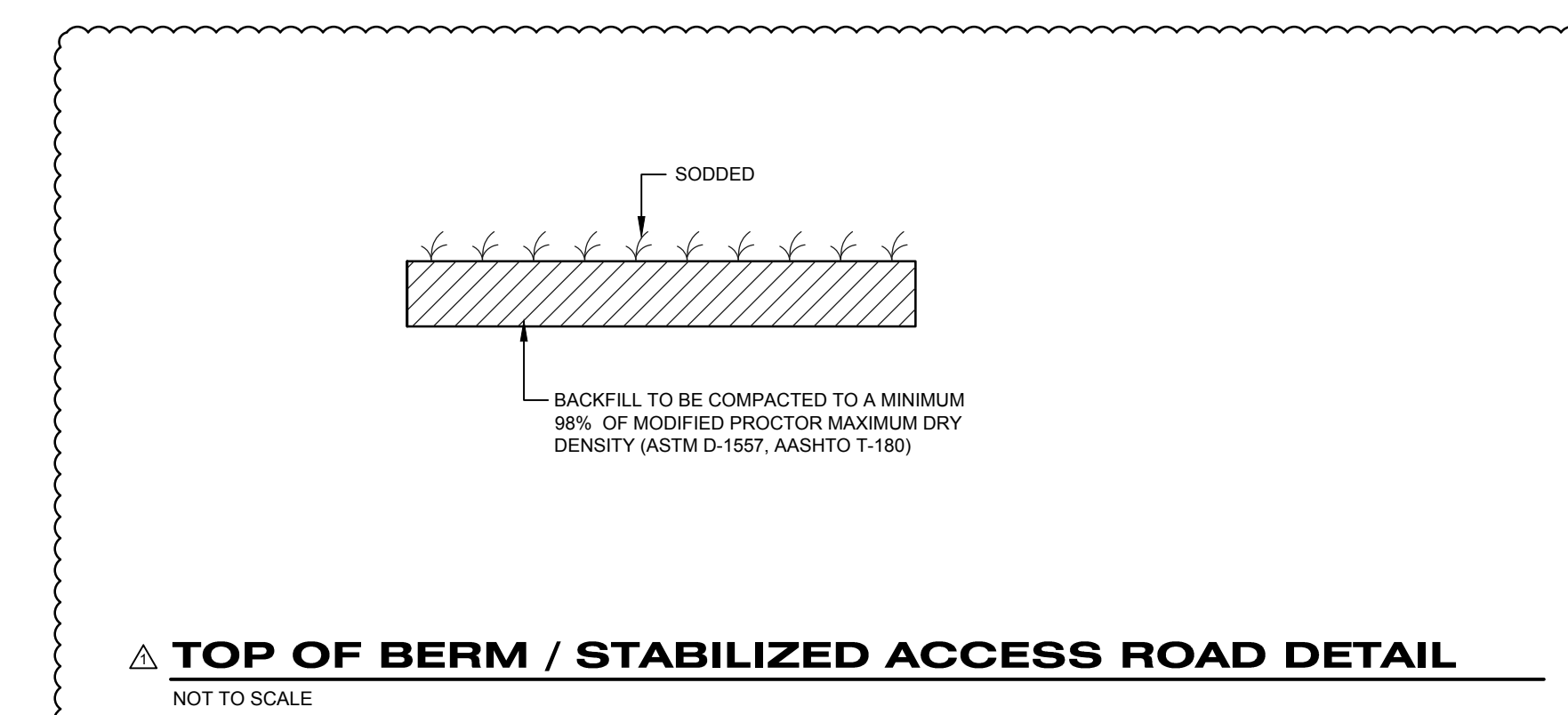
- Note**
1. Stilling pipe must be placed vertical and level, and maintained so during concrete pour.



WATER DIFFUSER

TYPICAL SPLASH PAD / DIFFUSER DETAILS (RIB 10)

NOT TO SCALE

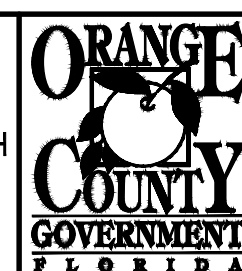


△ TOP OF BERM / STABILIZED ACCESS ROAD DETAIL

NOT TO SCALE

REV	DATE	DESCRIPTION
△	07/11/2018	BID REVISIONS

LINE IS 2 INCHES
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Landscape Lic. No. LC0000298

CONSTRUCTION DETAILS

JAMES R. MORRIS, JR.
PROFESSIONAL ENGINEER
FLORIDA LICENSE # 62384

OCU FILE NO.:	84948
DESIGNED BY:	CKJ / ZLT
DRAWN BY:	CKJ
CHECKED BY:	DEM
CADD FILE:	Const Details.dwg

SCALE:	AS SHOWN
DRAWING NO.:	D-101
SHEET:	39 OF 39