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## ORINATION FORM

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### Proposed Revisions to a Standard Plans Index

(Please provide all information — Incomplete forms will be returned)

**Contact Information:**

Date: July 13, 2023

Originator: Richard Stepp

Phone: (850) 414-4313

Email: richard.stepp@dot.state.fl.us

**Standard Plans:**

Index Number: 521-001

Sheet Number (s): 2

Index Title:  
CONCRETE BARRIER

**Summary of the changes:**

Sheet 2: Revised note 5 to accommodate "shoulder rocking"

**Commentary / Background:**

Shoulder rocking requirements were added to the 2023 FDM, Chapter 211. To support this, Index 521-001 is being revised to allow for shoulder pavement lowering on both sides of median barriers. Additionally, the Standard Plans Instructions for 521-001 will be revised to provide guidance on the project-specific plans details needed.

**Other Affected Offices / Documents: (Provide name of person contacted)**

- | Yes                      | No                                  |                             |
|--------------------------|-------------------------------------|-----------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Other Standard Plans –      |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | FDOT Design Manual –        |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Basis of Estimates Manual – |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Standard Specifications –   |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Approved Product List –     |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Construction –              |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Maintenance –               |

**Origination Package Includes:** (Submit package to Rick Jenkins)

- | Yes                                 | N/A                      |   |
|-------------------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Redline Mark-ups                                    |
| <input type="checkbox"/>            | <input type="checkbox"/> | Revised or Proposed Standard Plan Instruction (SPI) |
| <input type="checkbox"/>            | <input type="checkbox"/> | Other Support Documents                             |

**Implementation:**

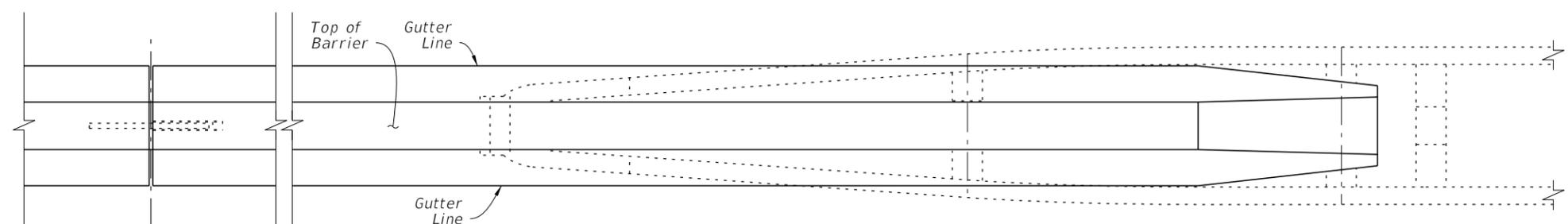
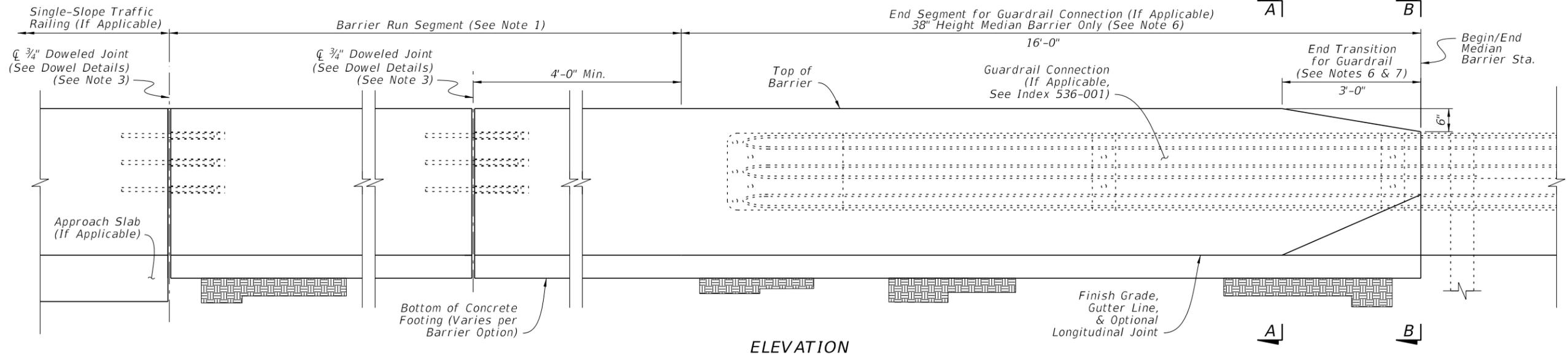
- |                                     |                                  |
|-------------------------------------|----------------------------------|
| <input type="checkbox"/>            | Design Bulletin (Interim)        |
| <input type="checkbox"/>            | DCE Memo                         |
| <input type="checkbox"/>            | Program Mgmt. Bulletin           |
| <input checked="" type="checkbox"/> | FY-Standard Plans (Next Release) |

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Contact the Roadway Design Office for assistance in completing this form

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Email to: Rick Jenkins [rick.jenkins@dot.state.fl.us](mailto:rick.jenkins@dot.state.fl.us) and Darren Martin [darren.martin@dot.state.fl.us](mailto:darren.martin@dot.state.fl.us)



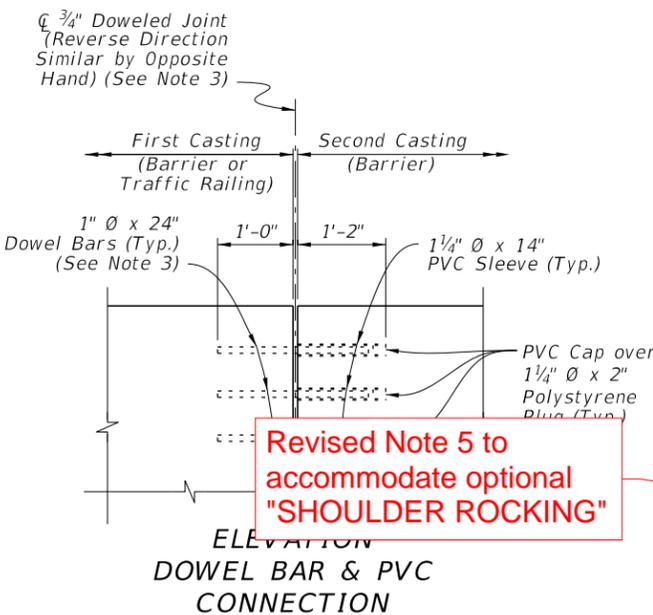
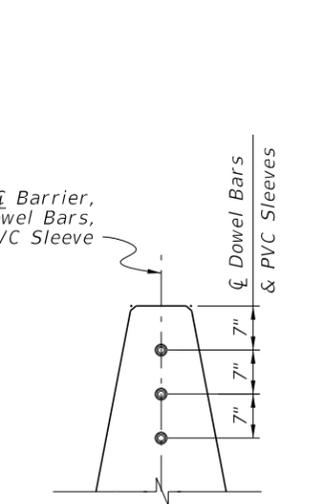
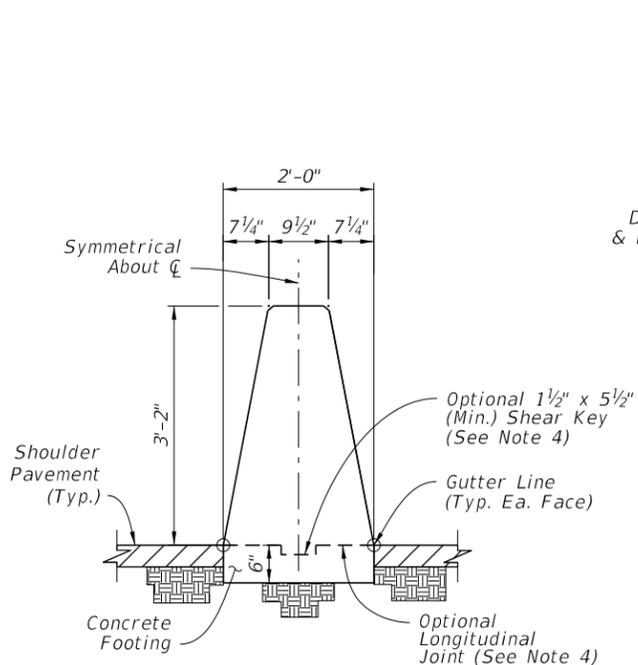
ELEVATION

PLAN

**MEDIAN BARRIER NOTES:**

- BARRIER RUN SEGMENT:** Within the Barrier Run Segment, either the 38" Height Median Barrier or the differing Median Barrier sections shown throughout the Index may be placed as required per the Plans.
- SECTION VIEWS:** For additional Views A-A and B-B, see Sheet 3.
- DOWELED JOINTS:** See the General Notes on Sheet 1 for usage of joint types. Place Doweled Joints at 100-foot maximum intervals. Place steel reinforcing with a longitudinal 3" cover adjacent to the joint face(s) in the barrier. Use ASTM A36 smooth round bars with hot-dip galvanization.  
  
For the dowel connection into the first casting, the dowel may be cast-in-place for new concrete or placed into a 1 1/8" O x 13" (± 1/2") drilled hole for cured concrete. For drilled holes larger than 1 1/8" O, secure the dowel with adhesive in accordance with Specification 416. No load testing is required.  
  
For the dowel connection into the second casting, use a 1 1/4" NPS Schedule 80 PVC pipe with a sealed cap, cast-in-place as shown.
- OPTIONAL LONGITUDINAL JOINT:** When a longitudinal joint is placed above the footing, use the Optional 1 1/2" x 5 1/2" Shear Key shown. As a substitute for the Shear Key, the concrete footing's top surface may be raked to provide additional shear friction. Rake the fresh concrete surface so that about half of the surface area consists of approximately 1/4" depth longitudinal grooves, distributed evenly and approved by the Engineer.
- MINOR GRADE SEPARATIONS:** Where called for in the Plans, the nominal shoulder pavement surface elevation may be placed up to 2" below the location shown herein on one side of the barrier. For barriers with shallow embedments shown on Sheets 6 thru 9, extend the barrier's concrete lower across its entire section such that the barrier's concrete bottom remains embedded at least 1" below the lowered pavement surface.
- GUARDRAIL CONNECTIONS:** Connect Guardrail using the Transition Connections to Rigid Barrier per Index 536-001 in conjunction with the 16'-0" End Segment for Guardrail shown herein.
- CRASH CUSHION CONNECTIONS:** Connect Crash Cushions per Index 544-001 in conjunction with the 3'-0" End Transition for Guardrail as shown herein.
- FREE ENDS:** When the barrier end does not terminate with a Traffic Railing Connection, Guardrail Connection, Crash Cushion Connection, or Sloped End Treatment as called for in the Plans, terminate in accordance with the Free End Reinforcing detail on Sheet 3.

**Revised Note 5 to accommodate optional "SHOULDER ROCKING"**



SECTION DOWEL PLACEMENT

ELEVATION DOWEL BAR & PVC CONNECTION

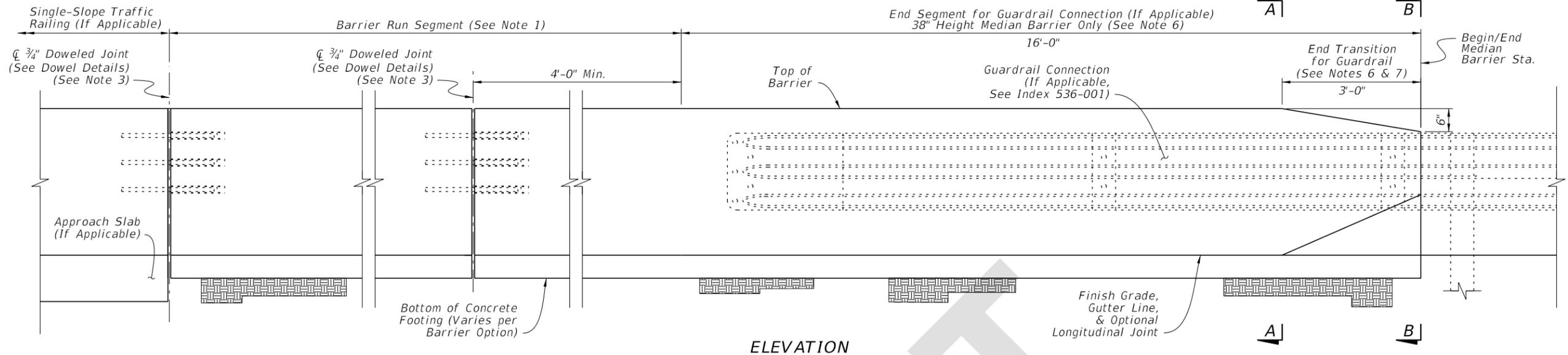
DOWEL DETAILS

**SECTION A-A**  
**38" HEIGHT MEDIAN BARRIER**  
(See Sheet 3 for Steel Reinforcing Details)

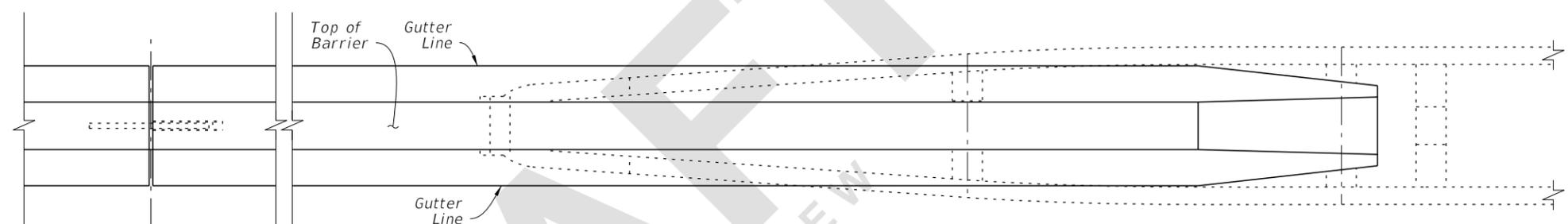
**MEDIAN BARRIER**

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LAST REVISION 11/01/22	REVISION 23	DESCRIPTION:	FY 2023-24-25 STANDARD PLANS	CONCRETE BARRIER	INDEX 521-001	SHEET 2 of 26
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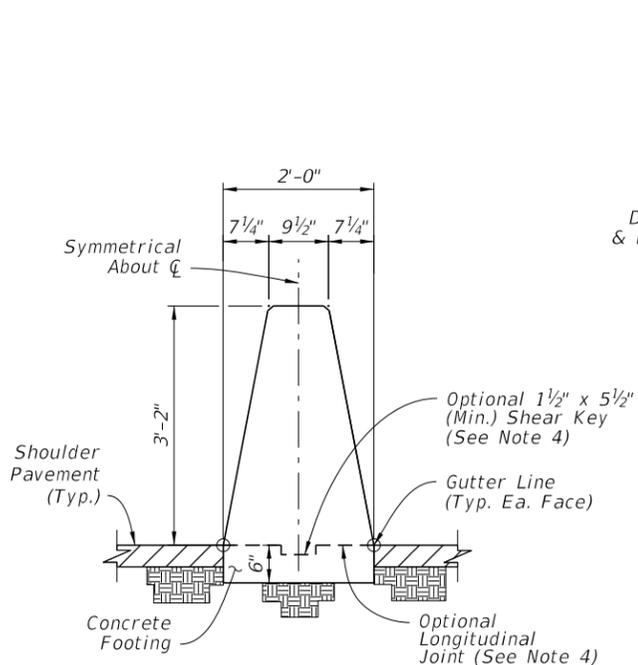
ELEVATION



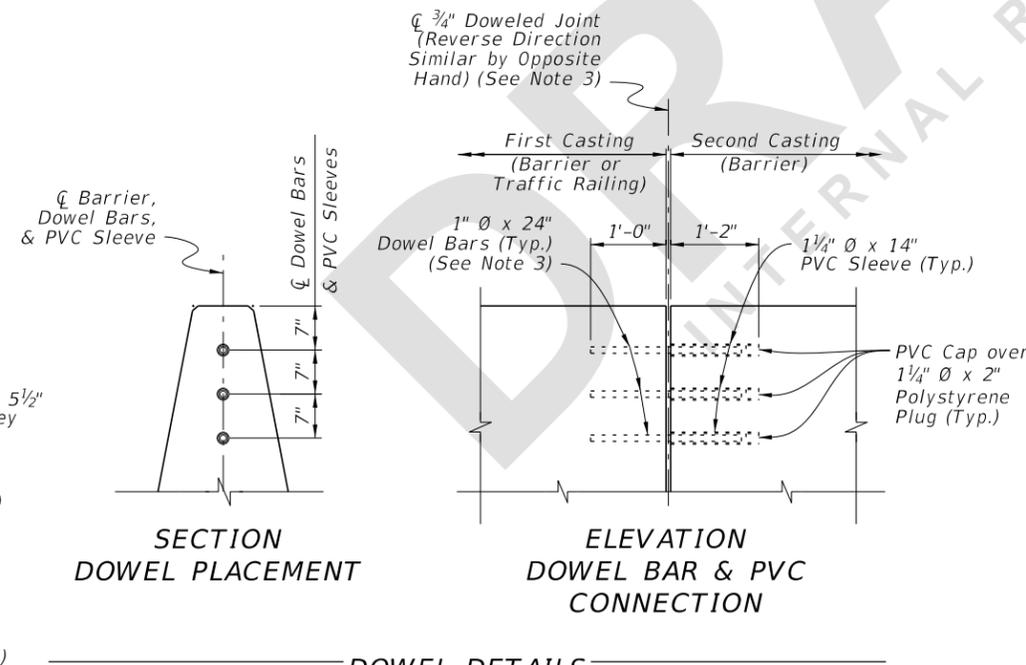
PLAN

**MEDIAN BARRIER NOTES:**

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- SHOULDER ROCKING OR MINOR GRADE SEPARATIONS:** Where called for in the Plans, the nominal shoulder pavement surface elevation may be placed up to 3" below the location shown herein. For barriers with shallow embedments shown on Sheets 6 thru 9, extend the barrier's concrete lower across its entire section such that the barrier's concrete bottom remains embedded at least 1" below the lowered pavement surface.
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**SECTION A-A**  
**38" HEIGHT MEDIAN BARRIER**  
(See Sheet 3 for Steel Reinforcing Details)



**SECTION DOWEL PLACEMENT**

**ELEVATION DOWEL BAR & PVC CONNECTION**

**DOWEL DETAILS**

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LAST REVISION 11/01/23	REVISION	DESCRIPTION:		FY 2024-25 STANDARD PLANS	CONCRETE BARRIER	INDEX	SHEET
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**MEDIAN BARRIER**