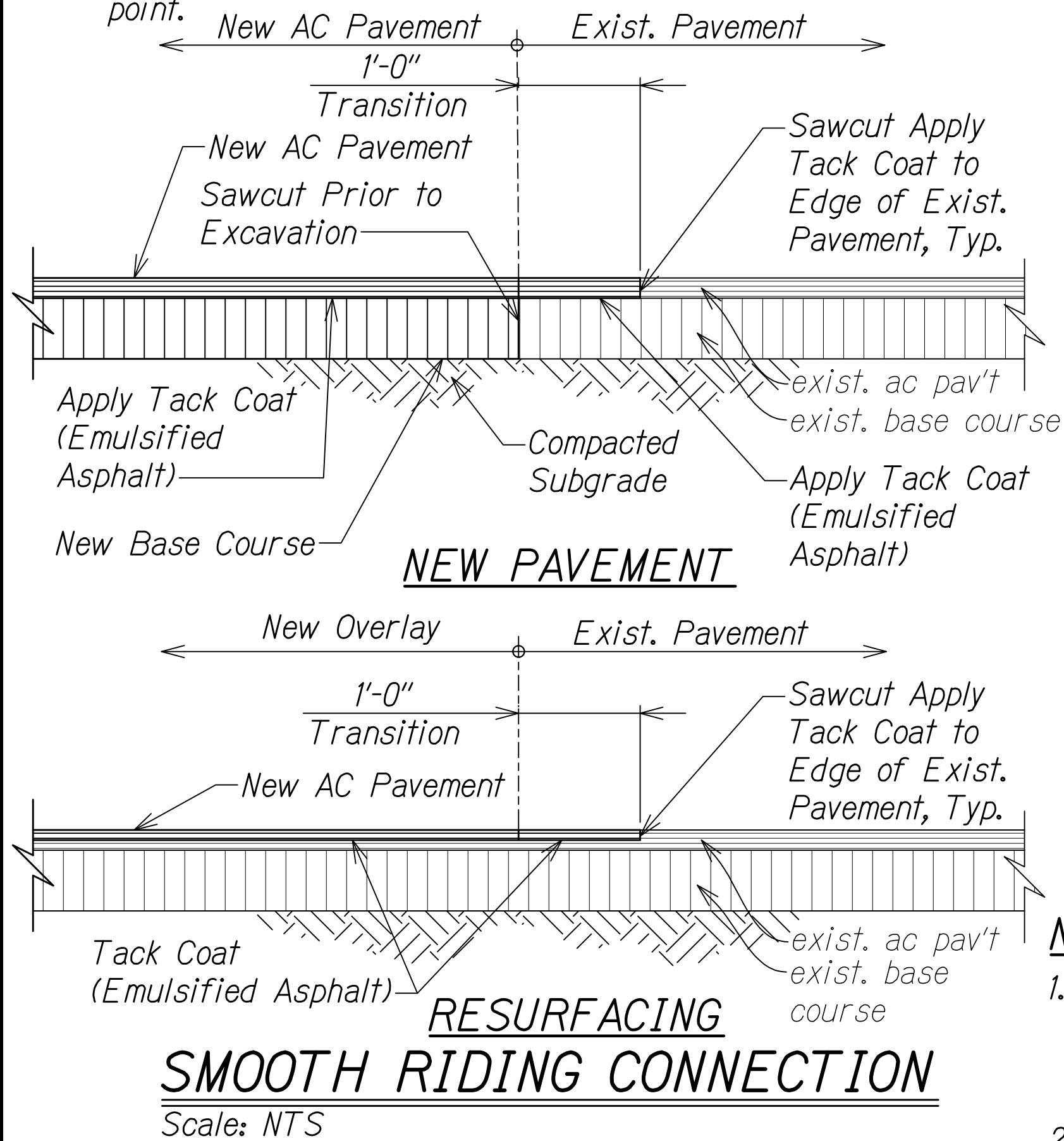


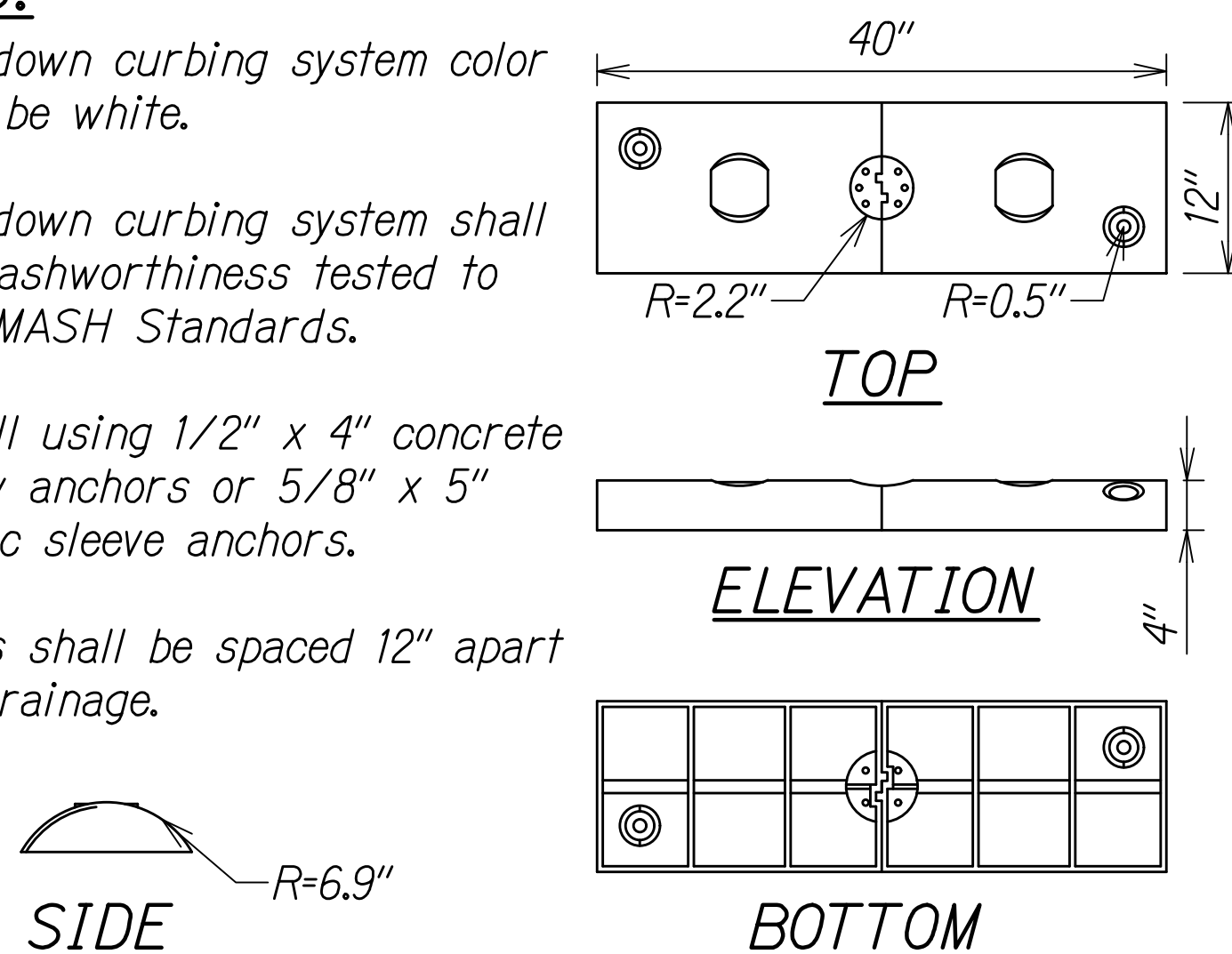
NOTES:

- Pavement structure shall be restored to equal or better than exist. in thickness and quality.
- For new AC pavement sections, see Typical Sections Shts. ADD.12 to ADD.16 and ADD.20.
- Smooth riding connection pavement surface shall be tested by the Engineer using a 10' straight edge placed perpendicular to the joint at various locations. Pavement surface variation between the testing edge and the bearing points shall not exceed 3/16" at any point.



NOTES:

- Bolt down curbing system color shall be white.
- Bolt down curbing system shall be crashworthiness tested to 2016 MASH Standards.
- Install using 1/2" x 4" concrete screw anchors or 5/8" x 5" plastic sleeve anchors.
- Curbs shall be spaced 12" apart for drainage.



BOLT DOWN CURB

Scale: NTS

TRENCH RESTORATION NOTE:

- AC paving shall be done in multiple lifts as recommended per specifications. Top 2" lift shall be PMA Mix and lower lifts shall be HMA Mix IV.

DRAINLINE TRENCH RESTORATION

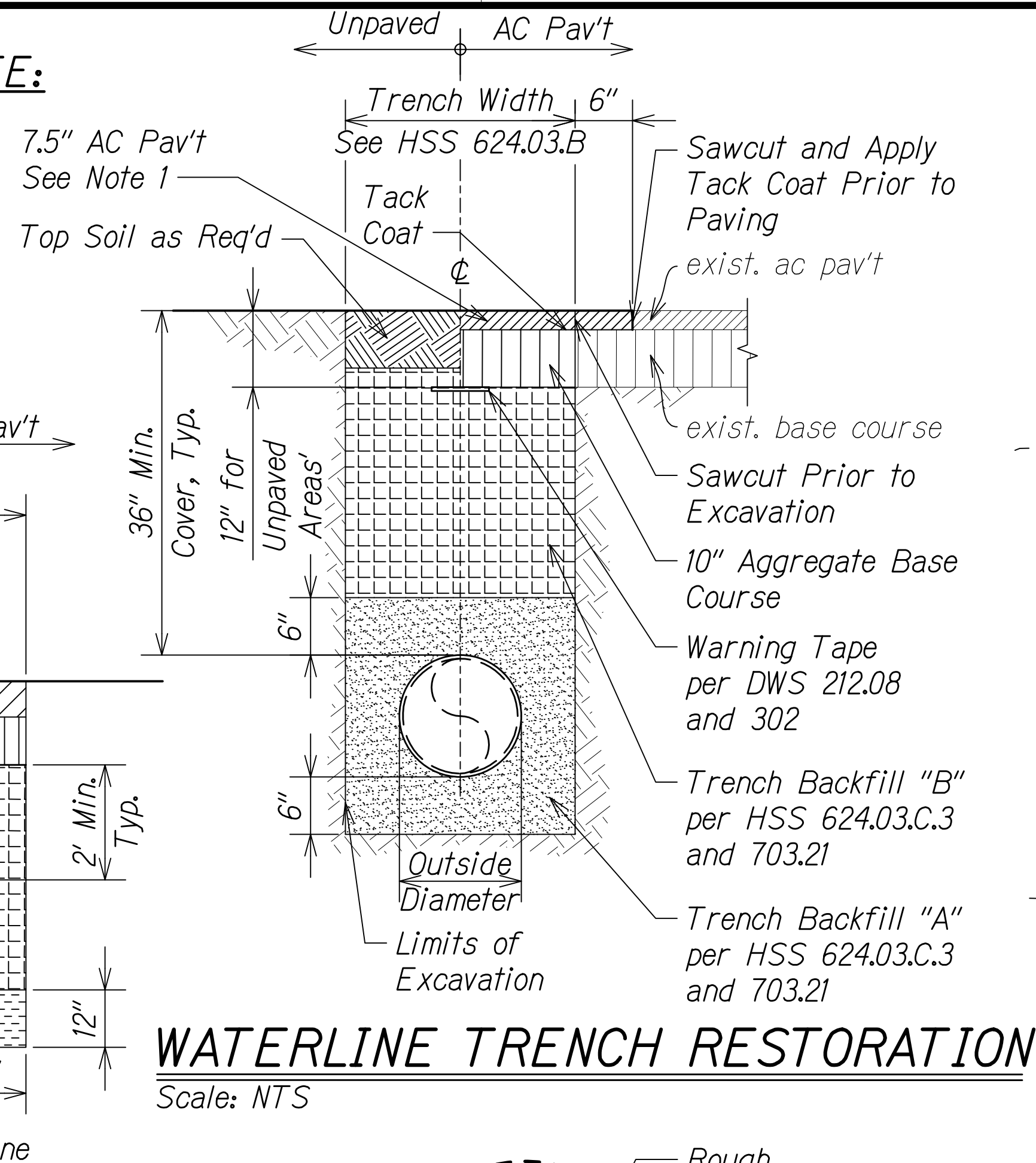
Scale: NTS

NOTES:

- Installation to be completed in accordance with Manufacturer's Specifications.
- Post shall be constructed of flexible polyethylene plastic that is resistant to: Ultraviolet Light, Ozone, and Hydrocarbons.
- Unit shall have a reactive spring assembly tested to 145 lb. tension with stainless steel cable.
- Delineators shall meet MUTCD Specifications and sight distance requirements at the roundabout.
- Sign shall have an "Anti-twist" feature that assures the sign will return to its original position after impact.
- Sign may have a "Quick Release" feature which allows the sign to be removed from the base without the use of tools.

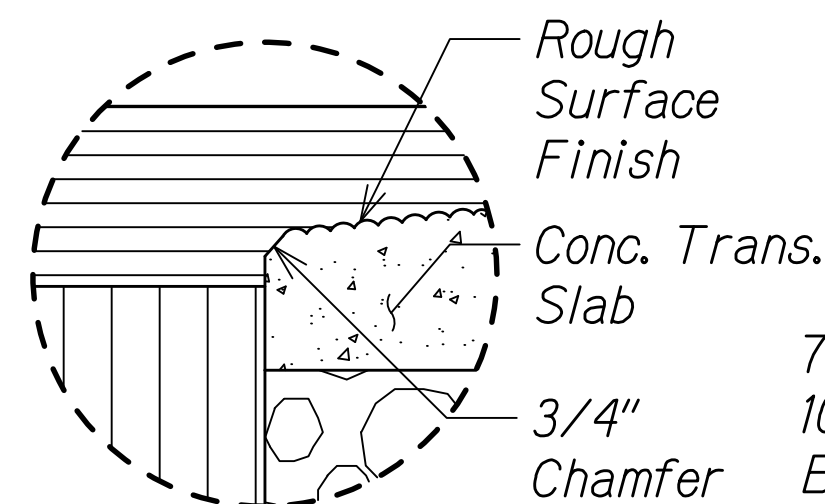
DOUBLE SIDED DELINEATOR POST

Scale: NTS

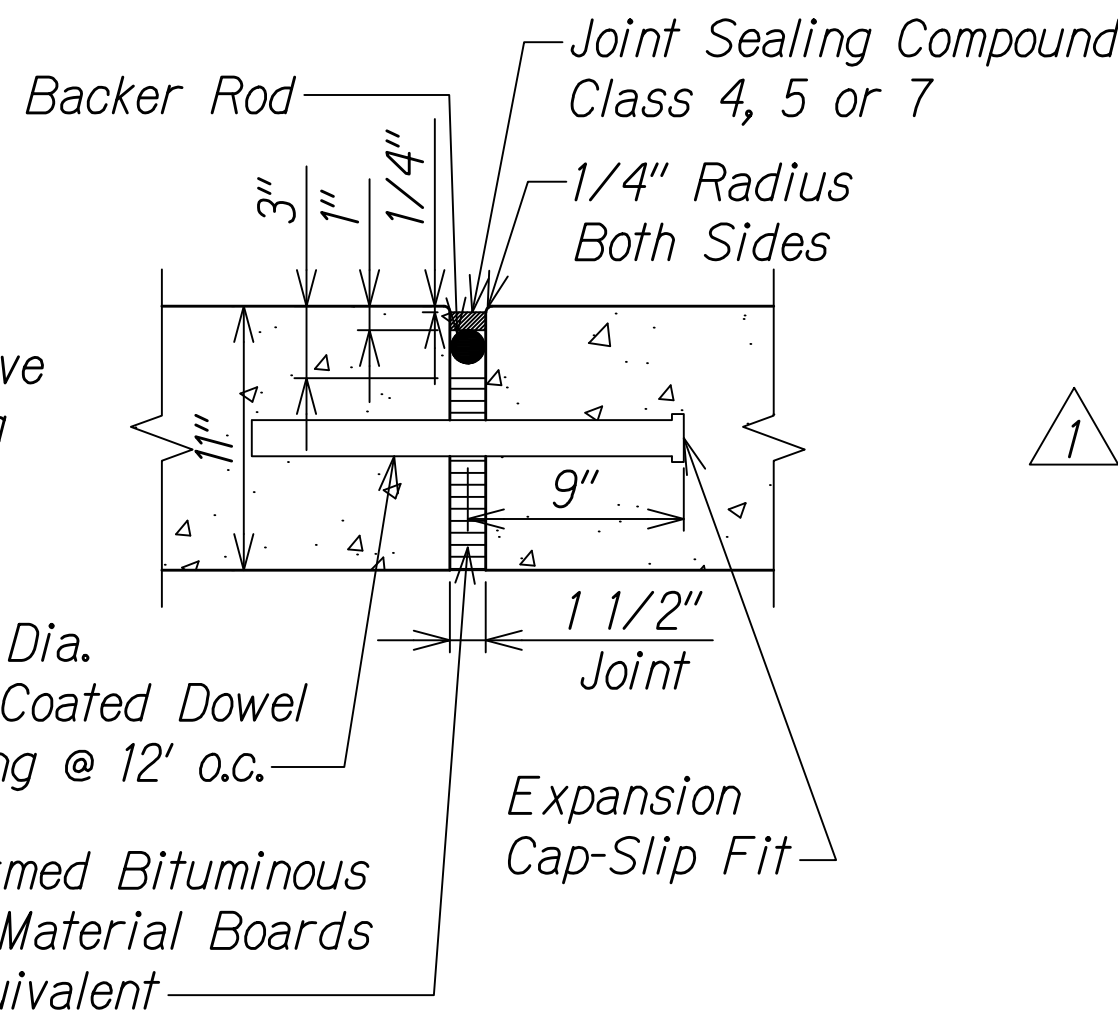


WATERLINE TRENCH RESTORATION

Scale: NTS



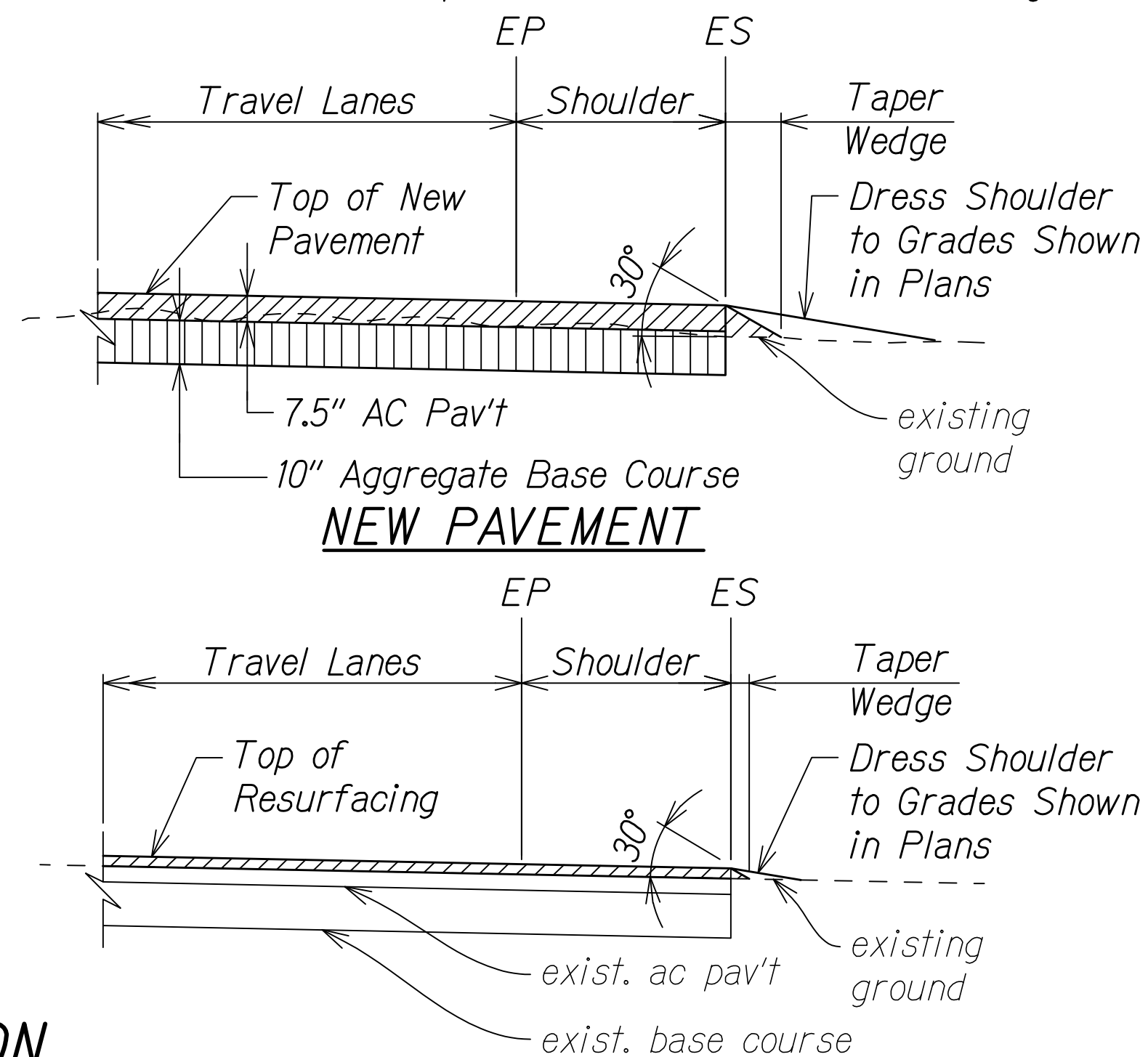
DETAIL "A"



DETAIL "B"

NOTE:

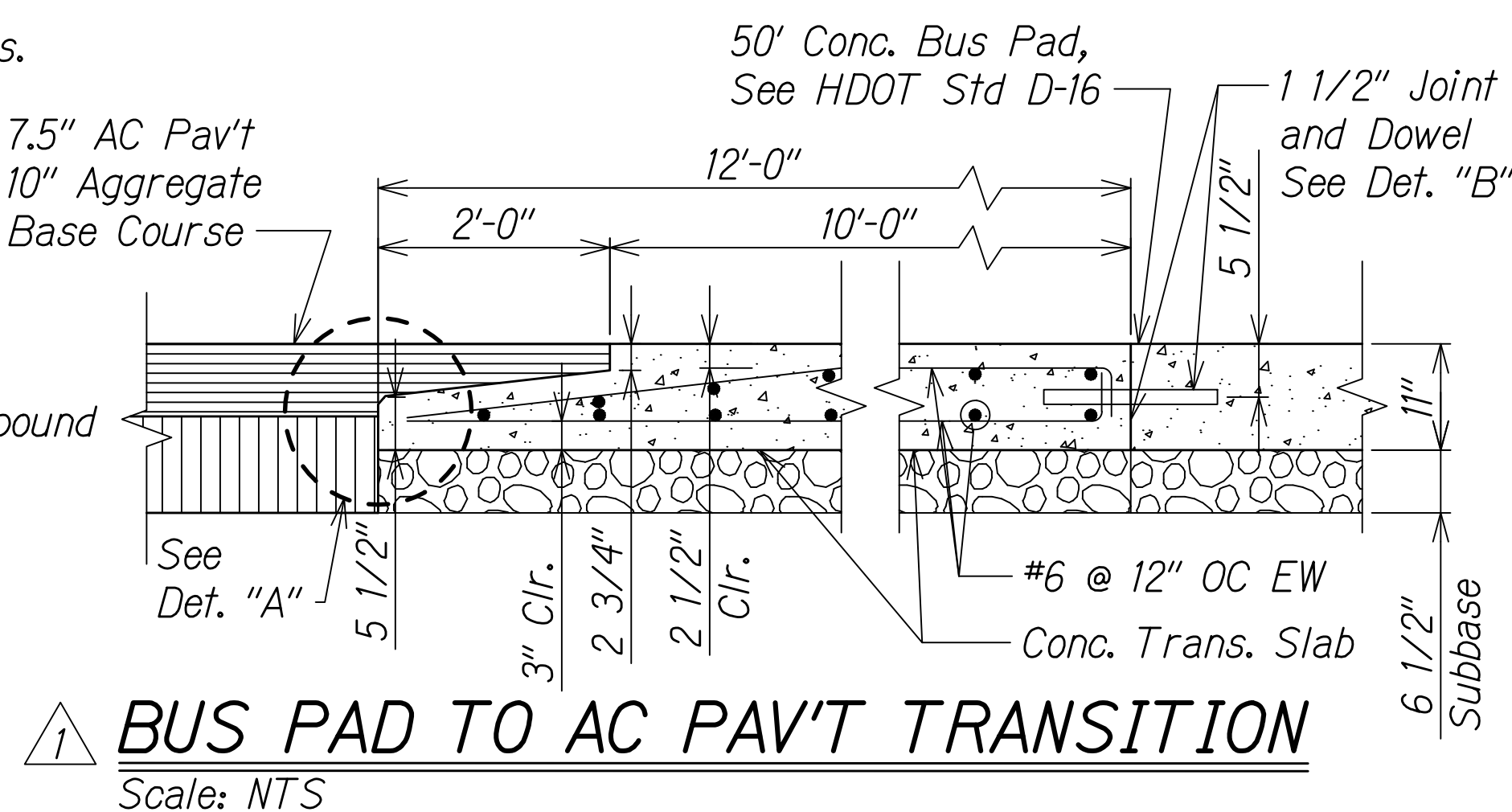
Contractor shall mount a device directly on the paver screed extension to provide a 30° beveled shoulder edge.



NEW PAVEMENT

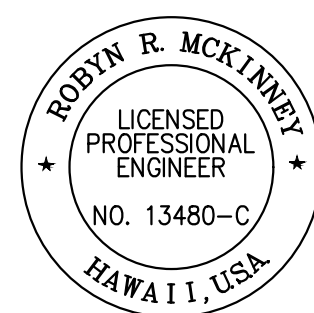
RESURFACING PAVEMENT SAFETY EDGE

Scale: NTS



BUS PAD TO AC PAV'T TRANSITION

Scale: NTS



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Robyn McKinney

04/30/20  
EXPIRATION DATE OF THE LICENSE

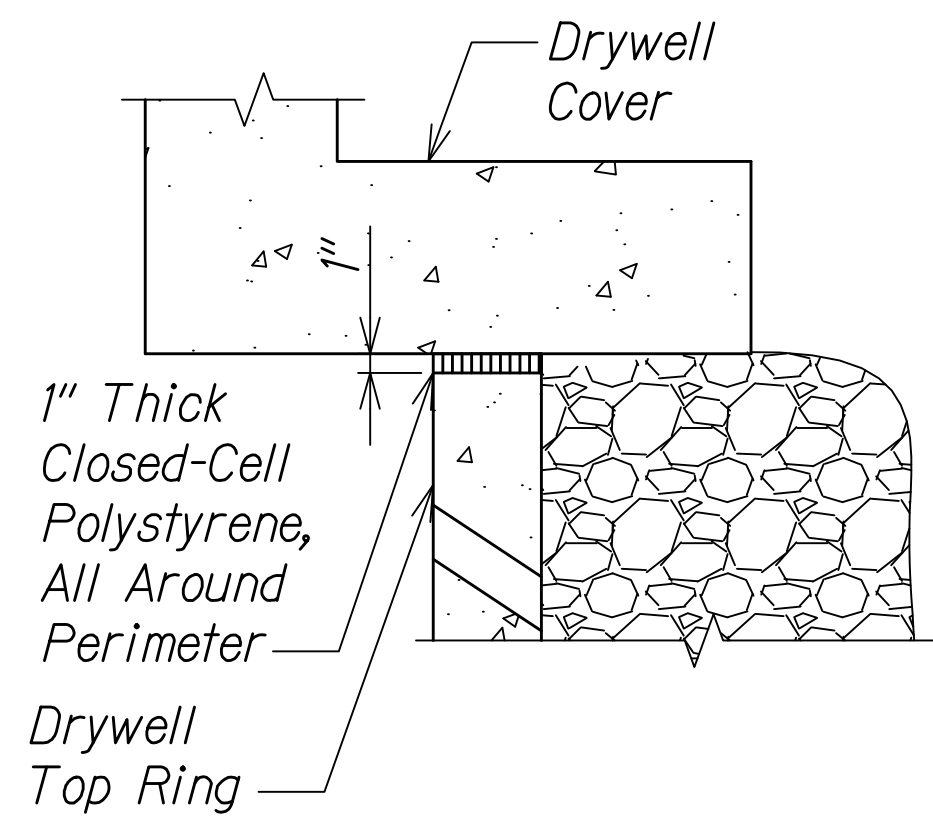
12/16/19	Added Detail; Revised Note #2 and Drainline Trench Det.
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
CIVIL DETAILS	
KEAAU-PAHOA ROAD INTERSECTION IMPROVEMENTS at Ainaloa Boulevard Federal-Aid Project No. STP-0130(27)	
Scale: Not to Scale	Date: July, 2019
SHEET No. 1 OF 2 SHEETS	

SHALLOW DRYWELL NOTES

- Concrete-28 day compressive concrete strength = 4000 psi minimum.
- Contractor shall preserve existing geological formation at proposed drywell locations to ensure proper drywell operation.
- Precast concrete drywell rungs and #2 crushed rock may be omitted in solid rock areas.
- Wells may be drilled, only water soluble drilling lubricants will be allowed, no clay or other drilling lubricants, which have the potential to reduce permeability will be permitted.
- After drilling of the drywell is completed, the sidewalls shall be washed along the entire depth and the bottom of the drywell cleaned out to allow positive permeability.
- Refer to HDOT Standard Plans H-12, H-15, and H-16 for other frame and grate details.
- All rebars to be placed 2" clear min. on all sides/surfaces.

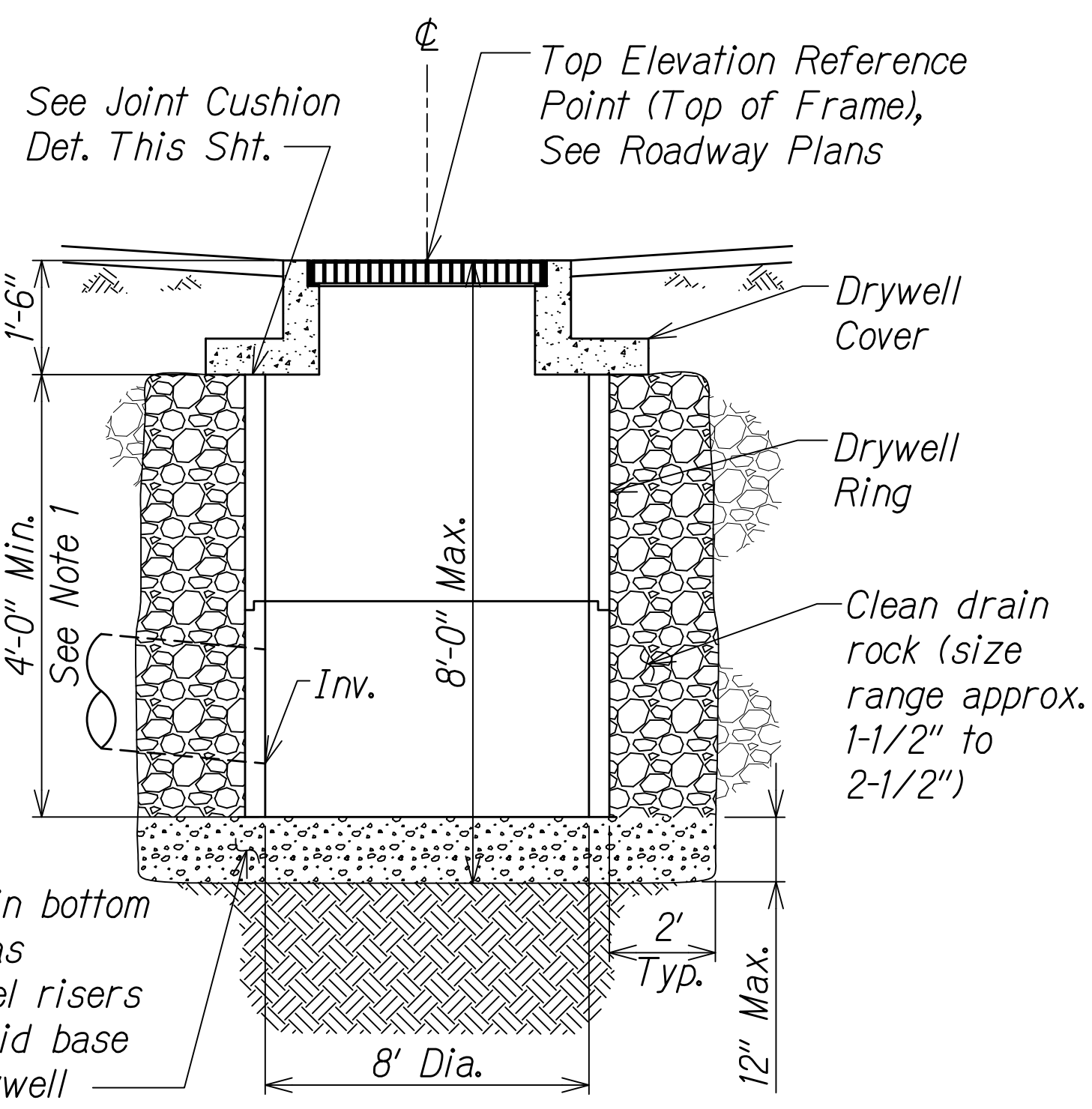
INLET GRATE SCHEDULE		
Inlet ID	*Lt Slope	*Rt Slope
SDW #1	5%	12:1
SDW #2	2%	5%
SDW #3	6:1	12:1
SDW #4	2%	5%
SDW #5	5%	2%
SDW #6	2%	5%
SDW #7	2%	12:1
SDW #8	2%	12:1
SDW #9	10:1	10:1
<del>GDI #1</del>	<del>5%</del>	<del>2%</del>
GDI #2	4:1	10:1
GDI #3	4:1	20:1
SDW #10	5%	2%

Note: \*Side is based on direction of travel

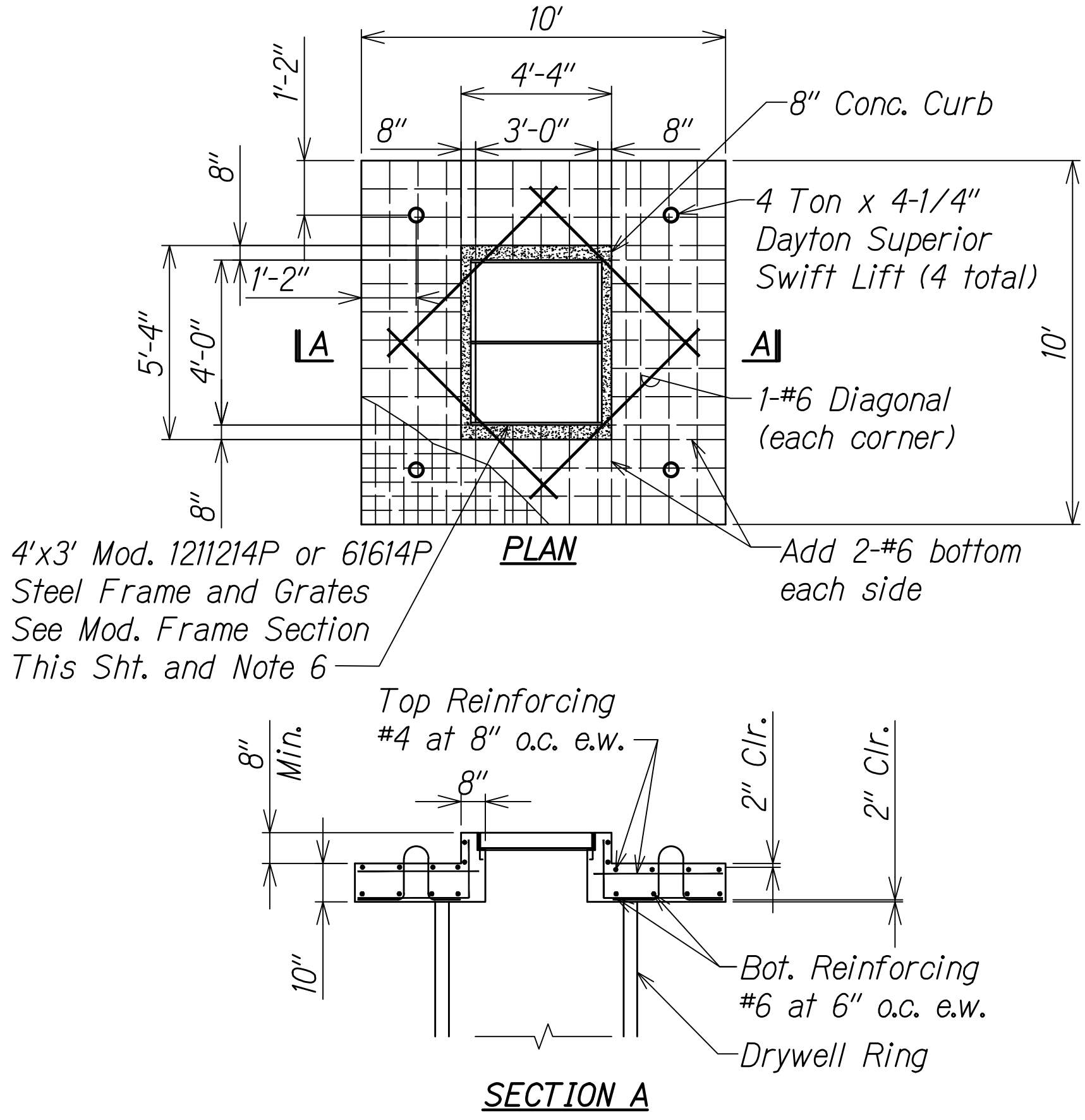


JOINT CUSHION DETAIL

Place 3B fine in bottom of excavation, as required to level risers and provide solid base for shallow drywell

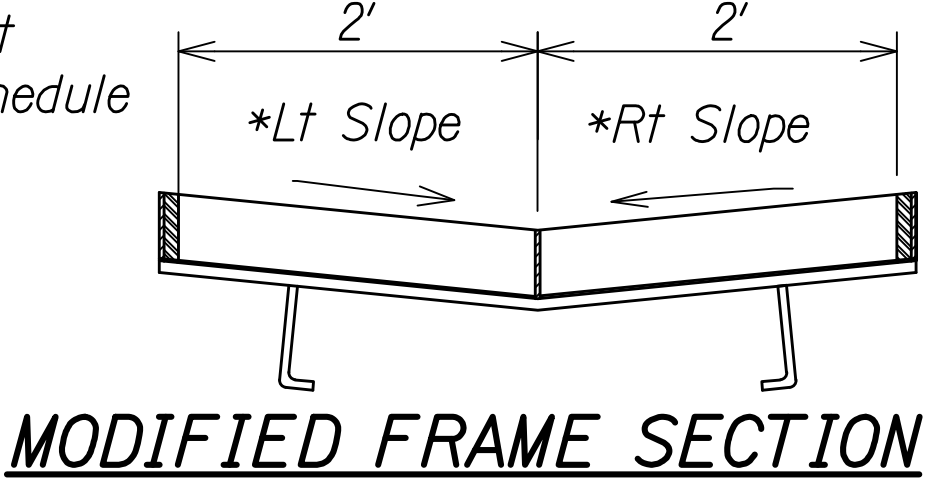


SHALLOW DRYWELL DETAIL  
Scale: NTS

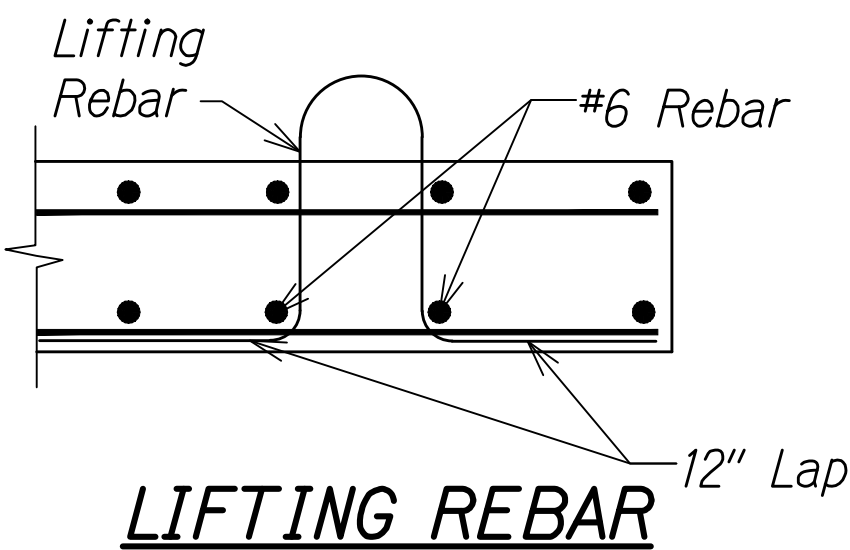


DRYWELL COVER DETAIL

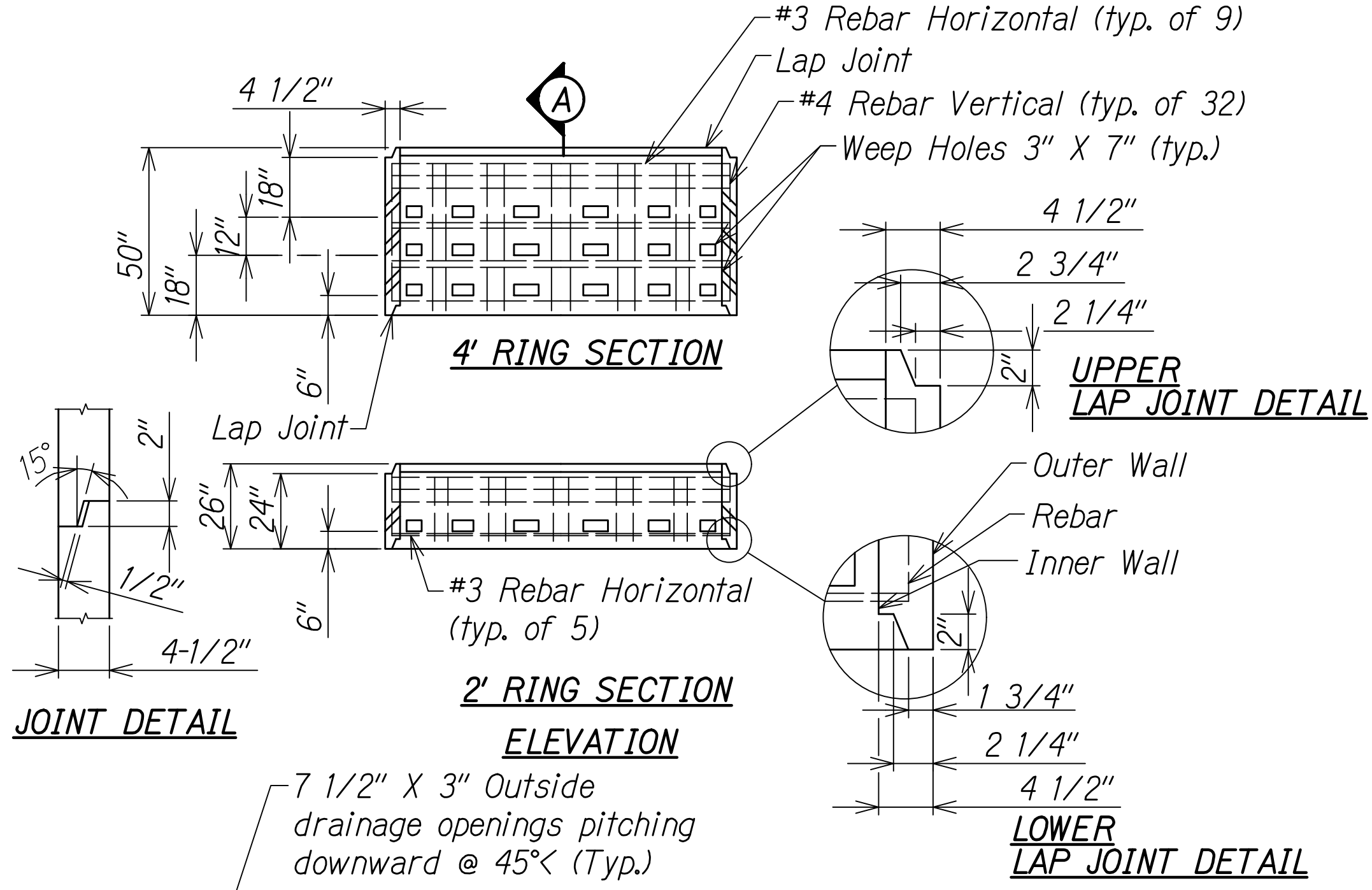
\*See Inlet Grate Schedule This Sht.



MODIFIED FRAME SECTION



LIFTING REBAR



DRYWELL RING DETAIL

LEGEND FOR AS-BUILT POSTINGS	
	Squiggly line for as-built deletion
	Double line for as-built deletion
Roadway	Text for as-built posting

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*Robyn R. McKinney* 04/30/20  
SIGNATURE EXPIRATION DATE OF THE LICENSE

ROBYN R. MCKINNEY  
LICENSED PROFESSIONAL ENGINEER  
NO. 13480-C  
HAWAII, USA

12/16/19	Added GDI#2, and #3 on Inlet Grate Schedule
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
CIVIL DETAILS	
KEAAU-PAHOA ROAD INTERSECTION IMPROVEMENTS at Ainaloa Boulevard Federal-Aid Project No. STP-0130(27)	
Scale: Not to Scale	Date: July, 2019
SHEET No. 2 OF 2 SHEETS	



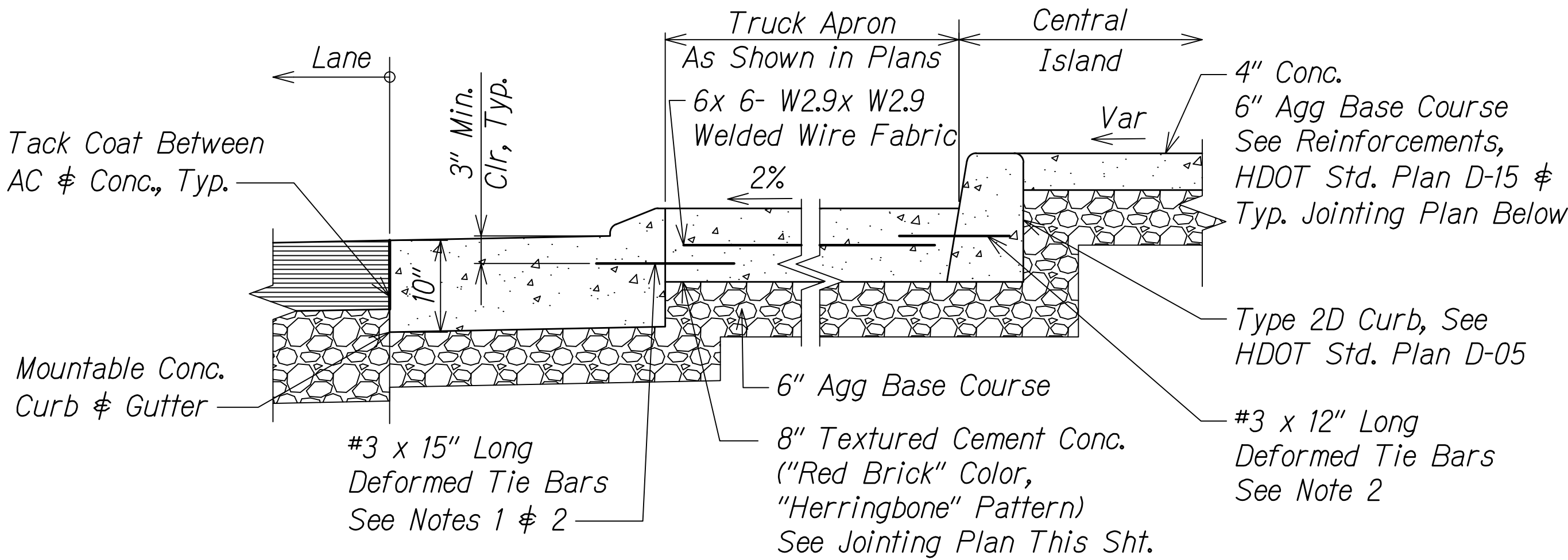
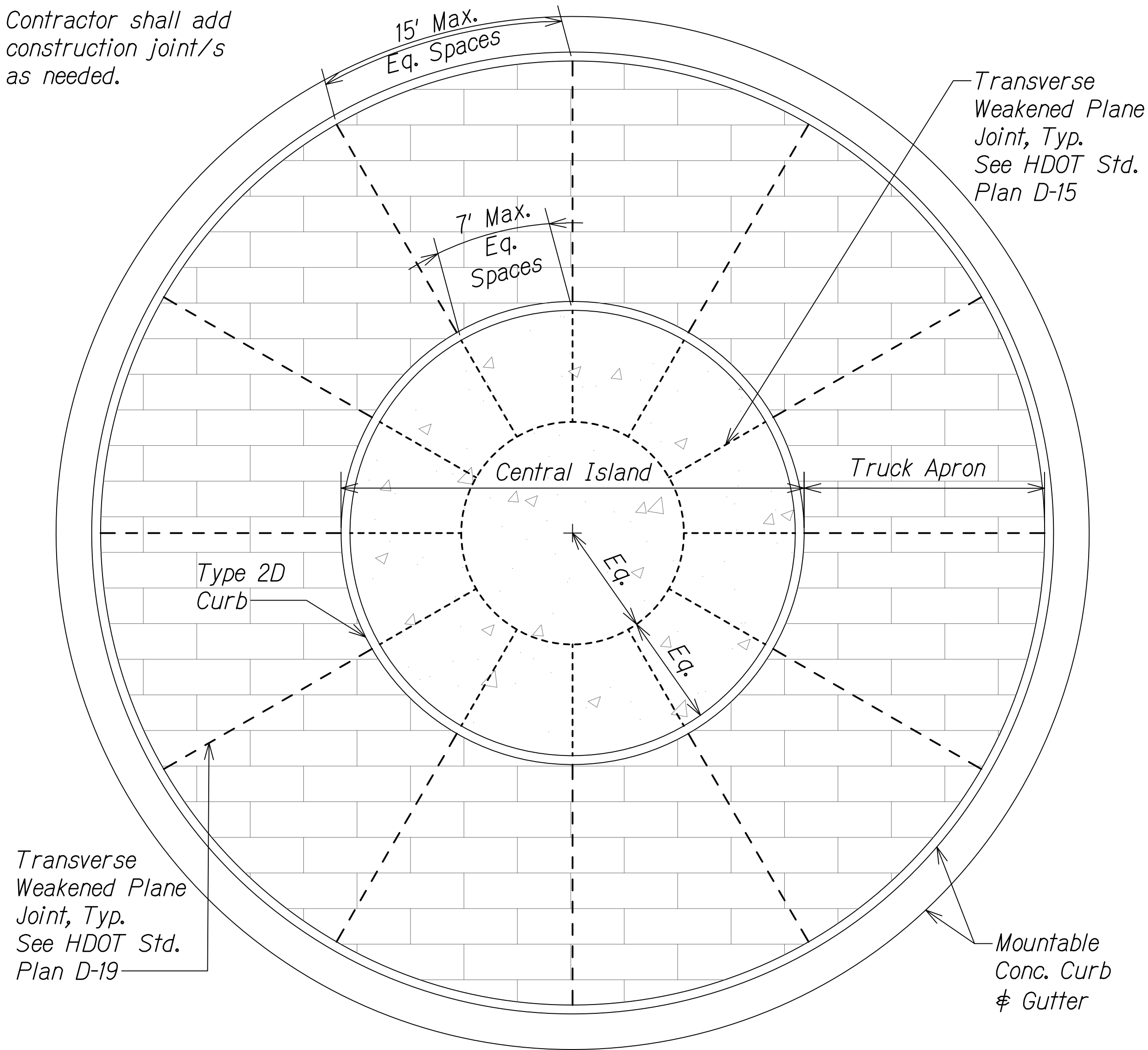
FED. ROAD DIST. NO.	STATE	FED-AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0130(27)	2020	C.O. 18S-1	50

NOTE:

Contractor shall add construction joint/s as needed.

NOTES:

- Gutters constructed monolithically with the pavement shall be delineated with a score line. Gutters constructed separately shall have a longitudinal keyed construction joint with the bars. Tie bars shall be provided where gutters are constructed monolithically.
- Tie bars at curbs shall be 24" o.c. if constructed separately from concrete pavement. If constructed monolithically, tie bars shall be 30" o.c.



TRAVERSABLE TRUCK APRON

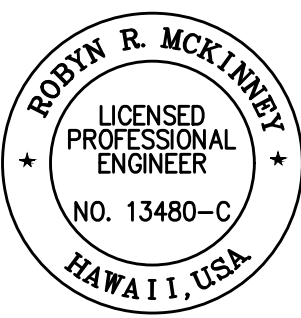
Scale: NTS

TRUCK APRON AND CENTRAL ISLAND TYPICAL JOINTING PLAN

Scale: NTS

LEGEND FOR AS-BUILT POSTINGS

- Squiggly line for as-built deletion
- Double line for as-built deletion
- Roadway Text for as-built posting



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Signature: Robyn R. McKinney, Date: 04/30/20, EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**TRUCK APRON JOINTING AND REINFORCEMENT DETAIL**  
KEAAU-PAHOA ROAD  
INTERSECTION IMPROVEMENTS  
at Ainaloa Boulevard  
Federal-Aid Project No. STP-0130(27)  
Scale: Not to Scale Date: July, 2019