

Chapter 03 - Superstructure

SECTION 07

**CONCRETE SLAB
(SUP-SLAB)**

Chapter 03 - Superstructure

Section 07 – Concrete Slabs

SUB-SECTION 01

GENERAL

(SUP-SLAB(GEN))

GENERAL NOTES

- Specifications: Latest Specifications and Special Provisions for materials and construction. Latest AASHTO Standard Specifications for Highway Bridges for design.
- Design Assumptions: The superimposed dead load is 1020 lb/ft for a 4 foot slab and 950 lb/ft for a 3 foot slab unless specified otherwise on the Plans.
- No composite action between the prestressed concrete slab panels and the concrete overlay has been considered.
- Prestressed Concrete: Load and resistance factor method $f'c = 7,000$ psi. The minimum compressive strength at transfer of prestress shall be $f'c = 5,950$ psi.
- Prestressing Steel: Prestressing steel shall consist of 1/2" diameter 7-wire low relaxation strands conforming to the requirements of M 203 Grade 270. Each 1/2" strand shall be pretensioned to 31,000 lb. (0.75 fpu). Have an ultimate strength of 41,300 lb and a yield strength of 37,200 lb (0.90 fpu).
- Prestressed Concrete: All concrete for prestressed concrete slabs shall be self consolidating concrete with a 28 day compressive strength of $f'c = 8,000$ psi.
- Construction: Strands shall be pretensioned to the values specified on the Plans.
- Camber readings and report shall conform to 440.03.16.
- Tolerances shall be as specified in 440.03.17.
- Surface finish of the shear keys shall be as specified in 440.03.14.01(a)
- The Contractor shall show the type and location of the lifting inserts. The Contractor shall ensure the lifting devices have the safe working capacity to lift the slab panels into position during erection, without overstressing the panels.
- The Contractor shall assemble the slab panels for the entire bridge width at the casting plant to ensure that there is no misalignment prior to shipping slab units to the site. Any misalignment of the transverse rod holes will be cause for rejection of the prestressed concrete slab panel. Drilling or coring of the slab panels (either initially) or to rectify a problem is prohibited.
- The Contractor will be allowed to place equipment on the slab unit prior to placing the concrete overlay provided that all slab units are in place, the tie rods tensioned to the final tensioning force, the shear key grout has met the curing requirements, and it does not violate Section TC-6.14.
- Measurement and Payment: Measurement and Payment shall be as specified in 440.04.

DETAIL NO. SUP-SLAB-101 RESCINDED
SEE SPECIAL PROVISIONS SECTION 440 AND
GEN-101 FOR SLAB GENERAL NOTES

APPROVAL
<i>Ben C. [Signature]</i> DIRECTOR OFFICE OF STRUCTURES
DATE: 08/15/2019
VERSION
1.0

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
PRESTRESSED CONCRETE SLAB PANEL GENERAL NOTES
DETAIL NO. SUP-SLAB-101
SHEET <u>1</u> OF <u>1</u>

SUPERSTRUCTURE SLABS

CONCRETE SLAB PANEL ERECTION
SEQUENCE OF OPERATIONS

The Contractor shall follow the following sequence of operations and Section 440.03.20 for the erection of slab panel units:

1. The Contractor shall coordinate and hold a pre-grout meeting prior to concrete slab panel erection with SHA Construction and Office of Structures personnel. The purpose of the meeting will be to discuss slab panel preparation and shear key grout placement procedures.
2. Immediately prior to erecting slab panels, clean the abrasive blasted shear key surfaces with compressed air, stiff bristle fiber brushes, or vacuuming.
3. Pull the slab panels together and field tighten in the transverse direction to the initial tensioning force as specified in Std. No. SUP-SLAB-401. Tension lateral tie rod(s) near mid span first and then progress towards the ends of the beam.
4. Isolate lateral tie rods from shear key grout by placing expandable spray foam sealant at all tie rod locations, following the manufacturer's guidelines and as detailed in the Std. No. SUP-SLAB-501.
5. Seal the joint below the shear keys using an approved method that does not interfere with the grout in the shear key pocket.
6. Once the expandable spray foam sealant has met the manufacturer's curing requirements, procedures for placement of the shear key grout may begin.
7. Clean the shear key surface with compressed air and keep it moist until the grout is placed.
8. Grout the shear keys by overfilling the joints. Drive the grout or compactly tamp it into the keyways; do not vibrate. After 30 minutes, strike off the excess grout flush with the top of the panels. Follow the manufacturer's recommendations for grouting in cold or hot weather.
9. Start curing of the shear key grout immediately after the grout has been finished, but do not leave any portion of the grout uncovered for more than 45 minutes after placement.
10. Keep the surfaces wet, even in areas where there is no ready water supply.
11. Cure the shear key grout for three (3) days with burlap as specified in 420.03.09(B) or (D), respectively.
12. Allow a minimum of 48 hours between grouting of the last shear keys and final tensioning of lateral tie rods.
13. Tension lateral tie rods to final tensioning force as specified in Std. No. SUP-SLAB-401.

DETAIL NO. SUP-SLAB-102 RESCINDED
SEE SPECIAL PROVISIONS SECTION 440
FOR SLAB ERECTION SEQUENCE OF
OPERATIONS

APPROVAL
<i>Gene C. [Signature]</i> DIRECTOR OFFICE OF STRUCTURES
DATE: 02-15-2017
VERSION
1.0

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	PRESTRESSED CONCRETE SLAB PANEL SLAB ERECTION SEQUENCE OF OPERATIONS
DETAIL NO. SUP-SLAB-102	SHEET <u>1</u> OF <u>1</u>

SUPERSTRUCTURE SLABS

CONCRETE OVERLAY
SEQUENCE OF OPERATIONS

In preparation for the placement of the Mix No.8 concrete overlay over the precast concrete slab units, the Contractor shall follow the following sequence of operations:

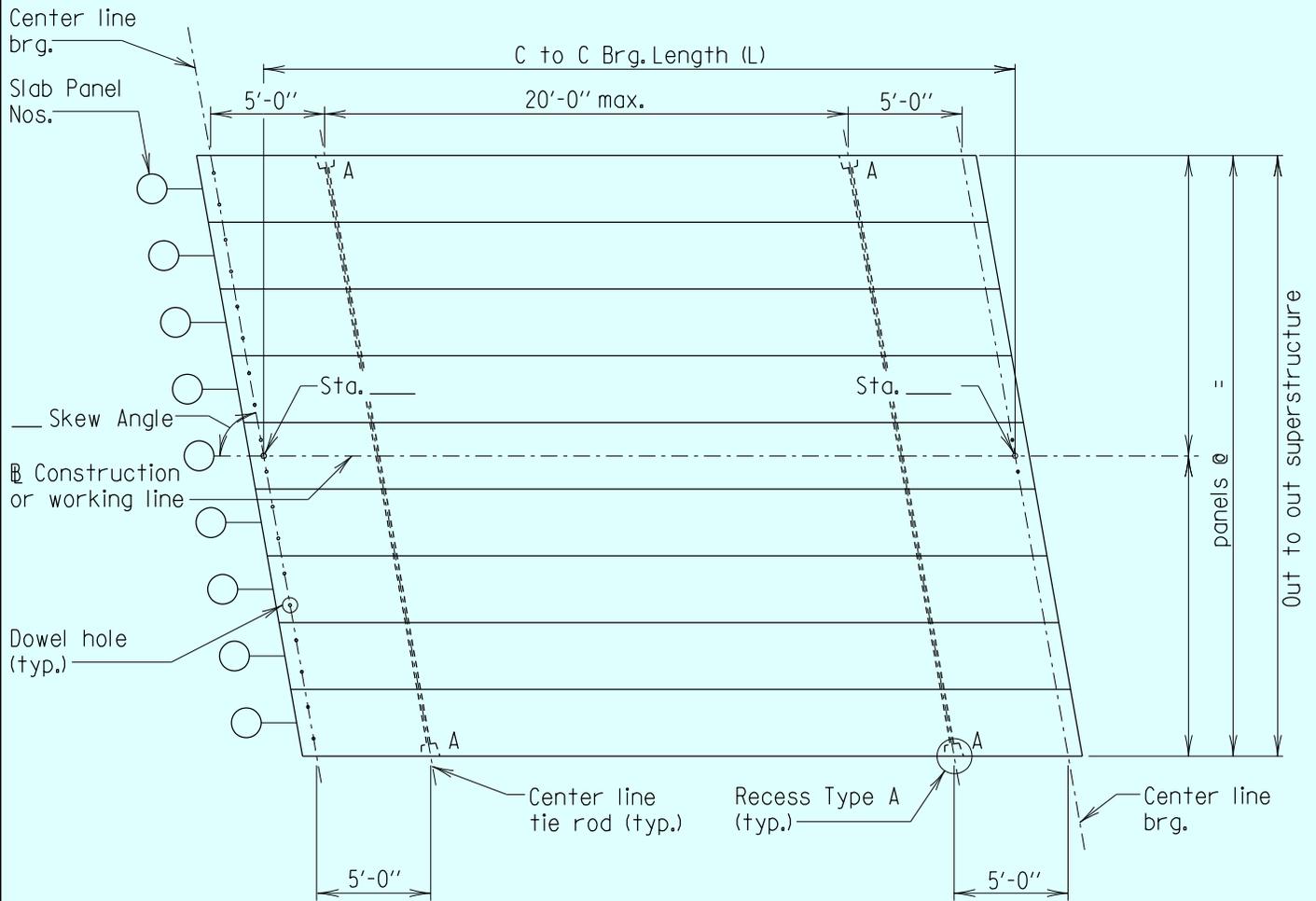
1. Concrete curbs and parapets may be placed once the lateral tie rods have been tensioned to the final tensioning force and the shear key grout has met the curing requirements.
2. Placement of the overlay may occur once the parapet and curbs have cured for 24 hours.
3. The overlay reinforcing mat may be assembled on or off the structure. However, the mats must be assembled in units that can be lifted on and off the structure prior to placing overlay. Reinforcing units shall be assembled with proper bar lap lengths to tie reinforcing units together. Temporary supports attached to the mats, such as diagonal rebars or similar support steel such as steel angles, may be required to prevent racking of the mat during lifting operations. No welding will be allowed.
4. To locate the reinforcing mat 2 1/2' clear of the top of deck overlay the Contractor shall place and tie the support chairs to the underside of the reinforcing mat.
5. The finishing screed shall be set-up and a dry run of the finishing operation made to verify that the reinforcing is properly located and the finished deck elevations shown on the plans can be achieved.
6. The reinforcing mat, including chairs, shall be lifted off of the bridge just prior to the placement of the overlay to permit the entire deck to be cleaned in accordance with Section 440.03.22.
7. Prior to beginning the placement of the overlay, the Contractor shall float the cement slurry across the bridge deck as described in the specifications and work it into the top of the slab units.
8. Keeping the slurry moist with a misting operation, the reinforcing mat shall be placed back on top of the precast slab units, segments tied together and resting on chairs, and the placement of the Mix No.8 concrete overlay shall commence immediately. It is imperative that the overlay shall be placed while the slurry is in a non-set condition.

DETAIL NO. SUP-SLAB-103 RESCINDED
SEE SPECIAL PROVISIONS SECTION 440
FOR CONCRETE OVERLAY SEQUENCE OF
OPERATIONS

APPROVAL
<i>Gene W. ...</i> DIRECTOR OFFICE OF STRUCTURES
DATE: 04/25/2017
VERSION
1.01

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	PRESTRESSED CONCRETE SLAB PANEL CONCRETE OVERLAY SEQUENCE OF OPERATIONS
DETAIL NO. SUP-SLAB-103	SHEET <u> 1 </u> OF <u> 1 </u>

SUPERSTRUCTURE SLABS



PLAN
Scale: None

Notes:

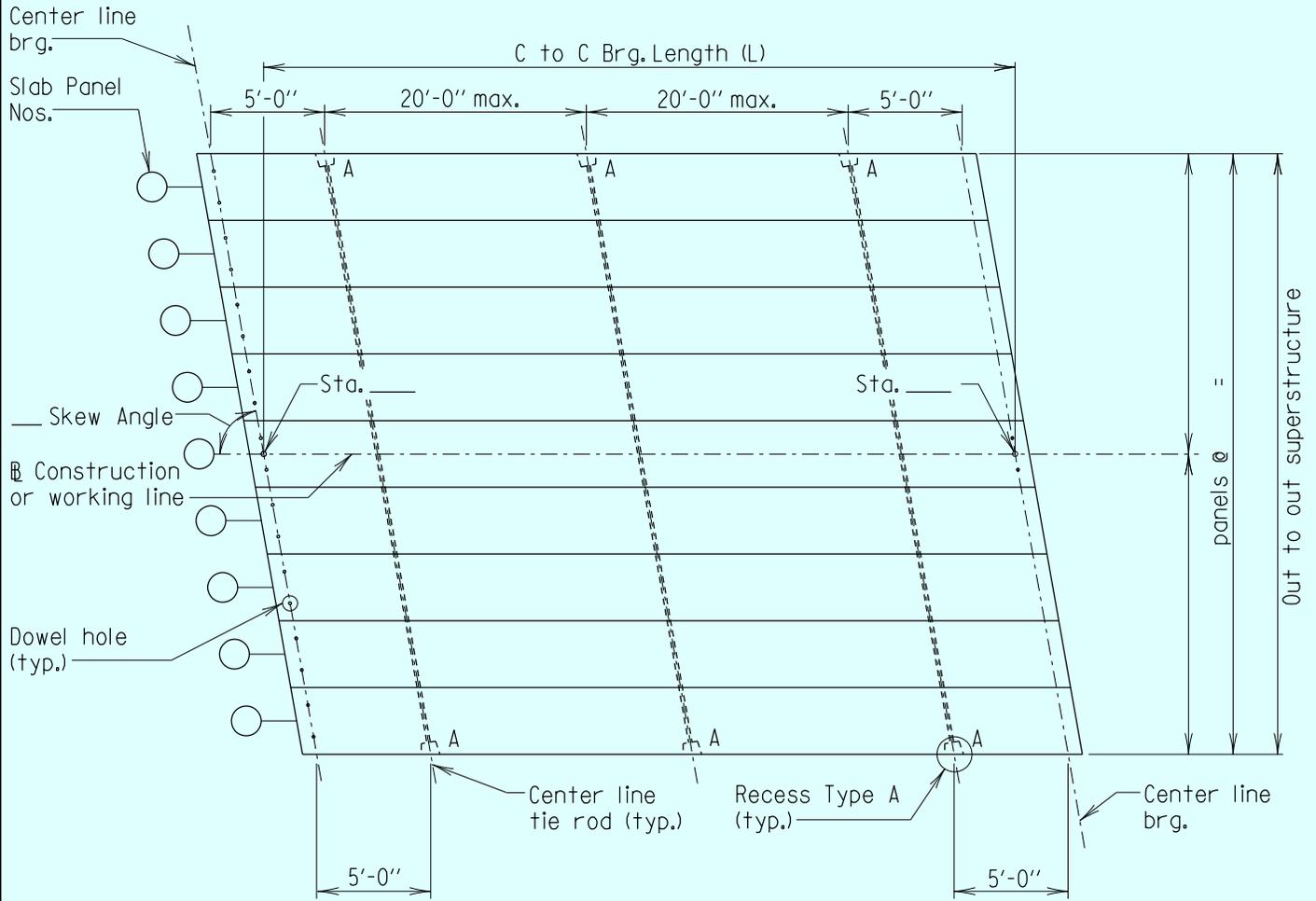
1. For Type A recess detail see Det. No. SUP-SLAB-40I.
2. Skew angle shall not be less than 60°.

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<i>Ben C. Dwyer</i> DIRECTOR OFFICE OF STRUCTURES
DATE: 02/15/2017
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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
PRECAST SLAB UNIT AND TIE ROD LAYOUT SLABS 30' AND LESS
DETAIL NO. SUP-SLAB-20I SHEET <u> </u> OF <u> </u>

SUPERSTRUCTURE SLABS



PLAN
Scale: None

Notes:

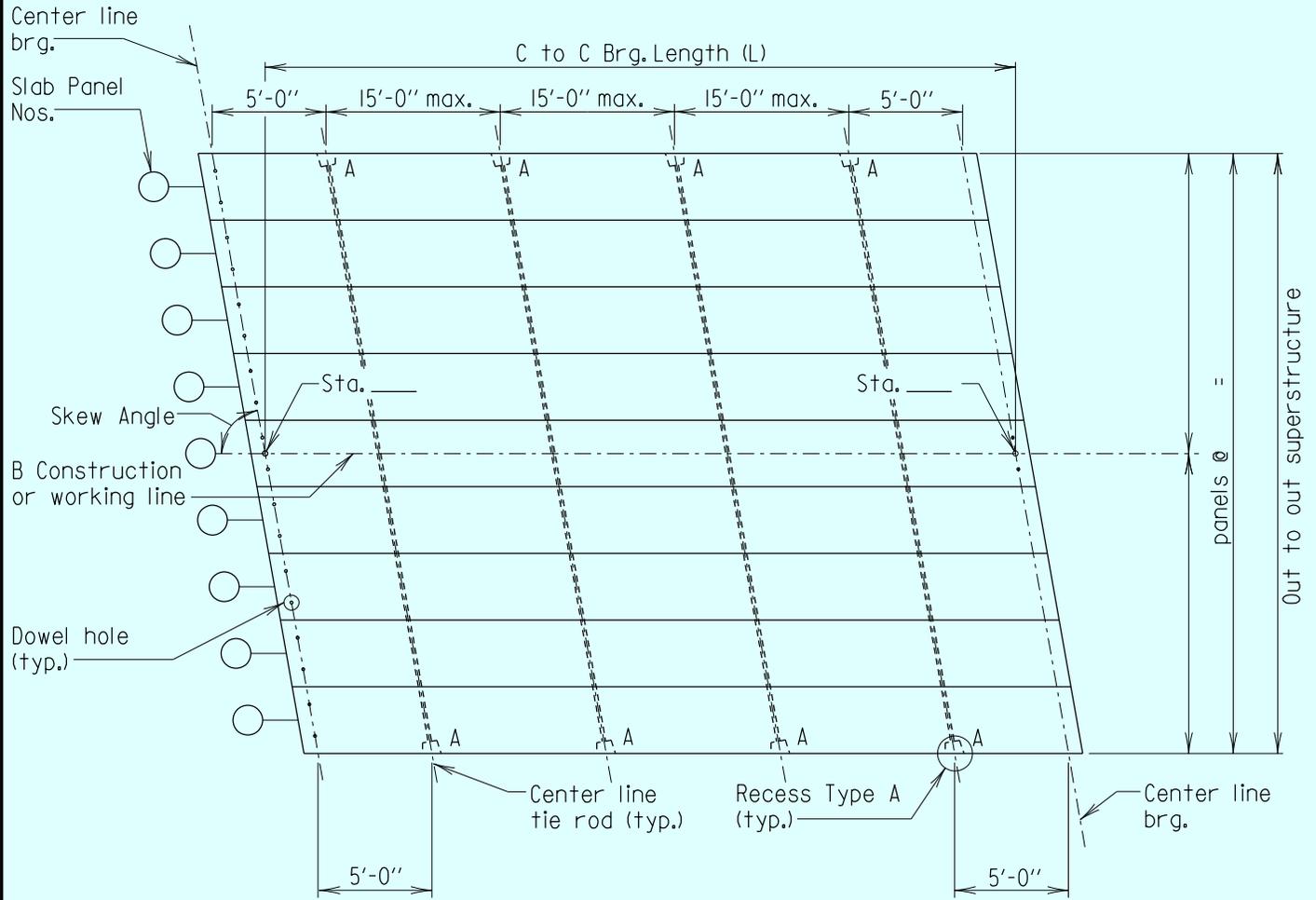
1. For Type A recess detail see Det. No. SUP-SLAB-401.
2. Skew angle shall not be less than 60°.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
PRECAST SLAB UNIT AND TIE ROD LAYOUT SLABS GREATER THAN 30' UP TO 50'	
DETAIL NO. SUP-SLAB-202	SHEET <u>1</u> OF <u>1</u>

SUPERSTRUCTURE SLABS



PLAN
Scale: None

Notes:

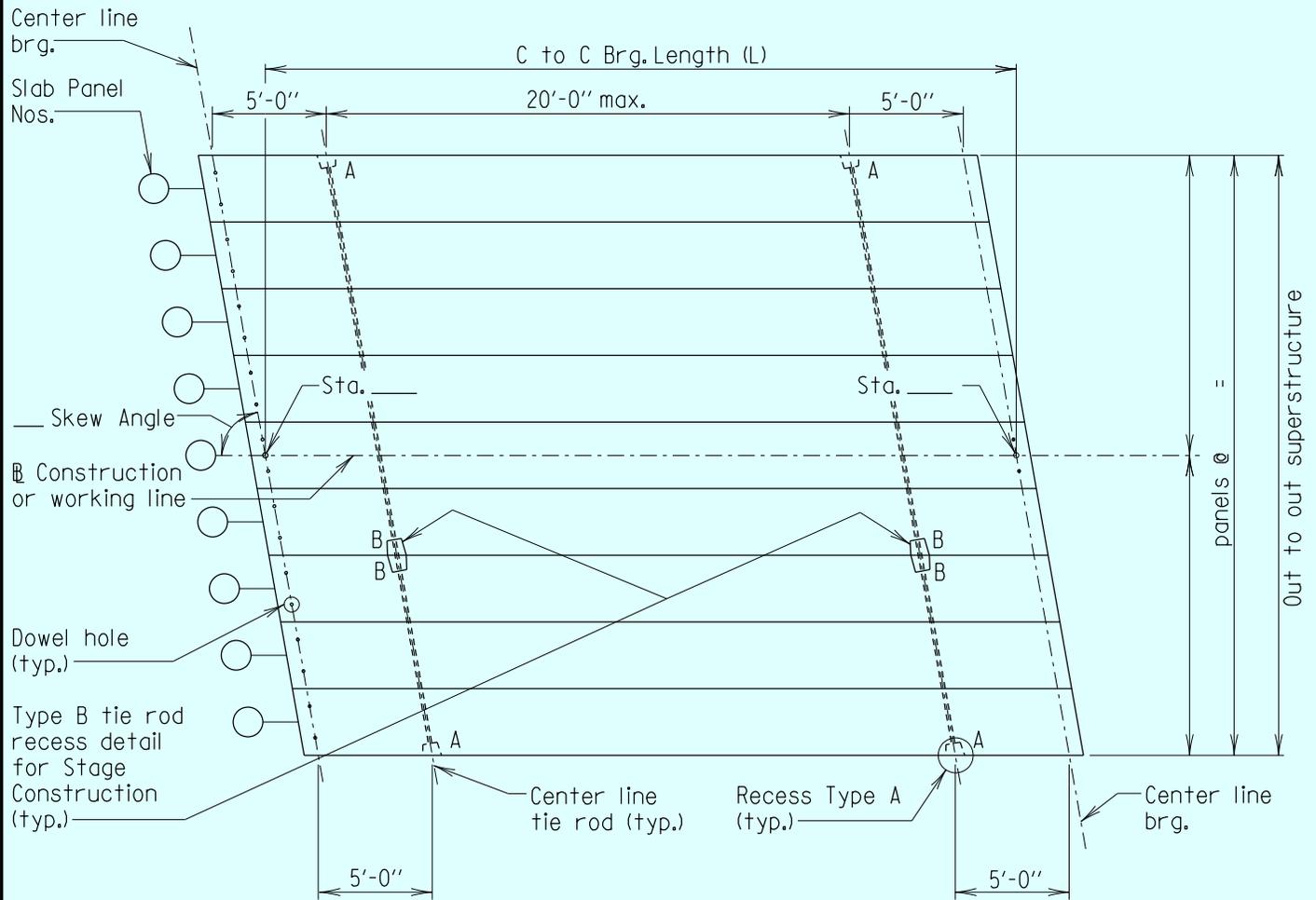
1. For Type A recess detail see Det. No. SUP-SLAB-401.
2. Skew angle shall not be less than 60°.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
PRECAST SLAB UNIT AND TIE ROD LAYOUT SLABS GREATER THAN 50'	
DETAIL NO. SUP-SLAB-203	SHEET <u>1</u> OF <u>1</u>

SUPERSTRUCTURE SLABS



PLAN
Scale: None

Notes:

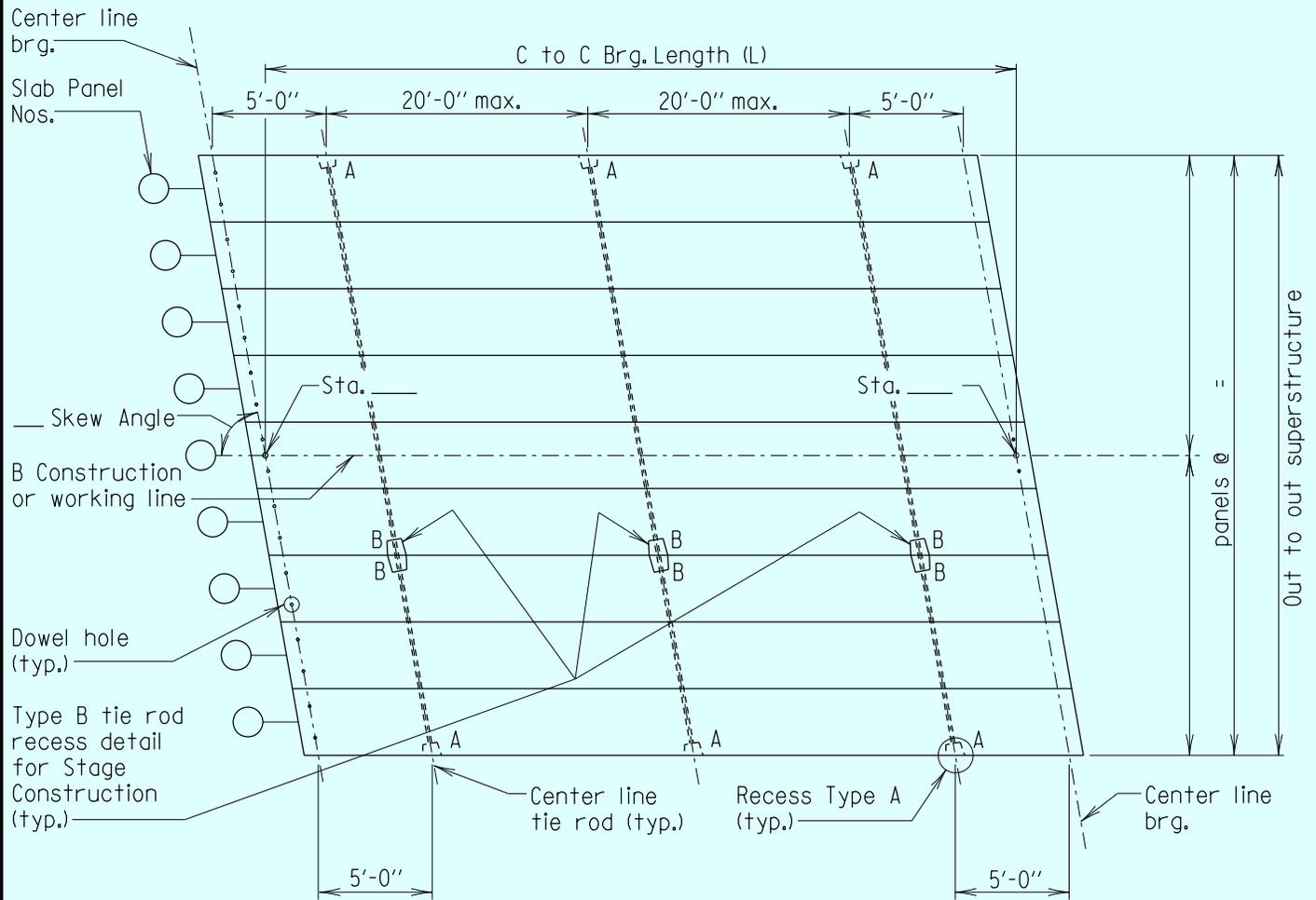
1. For Type A & B recess details see Det.No. SUP-SLAB-40I, for Type B Tie Rod Details for Stage Construction see Det.No. SUP-SLAB-40I.
2. Skew angle shall not be less than 60°.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
PRECAST SLAB UNIT AND TIE ROD LAYOUT SLABS 30' AND LESS WITH STAGE CONSTRUCTION	
DETAIL NO. SUP-SLAB-30I	SHEET <u>1</u> OF <u>1</u>

SUPERSTRUCTURE SLABS



PLAN
Scale: None

Notes:

1. For Type A & B recess details see Det. No. SUP-SLAB-40I, for Type B Tie Rod Details for Stage Construction see Det. No. SUP-SLAB-40I.
2. Skew angle shall not be less than 60°.

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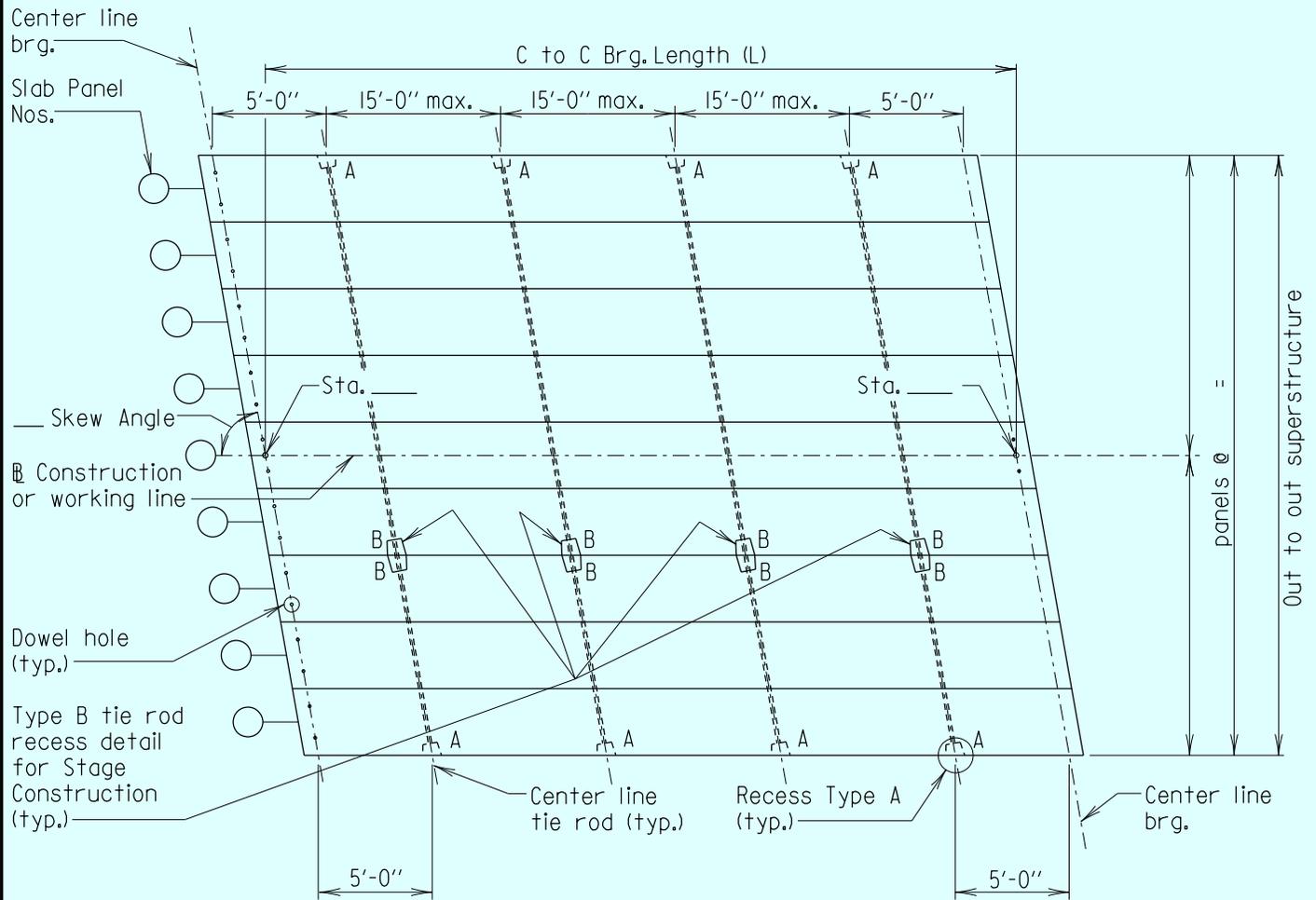
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

**PRECAST SLAB UNIT AND TIE ROD LAYOUT
SLABS GREATER THAN 30' UP TO 50'
WITH STAGE CONSTRUCTION**

DETAIL NO. SUP-SLAB-302

SHEET 1 OF 1

SUPERSTRUCTURE SLABS



PLAN
Scale: None

Notes:

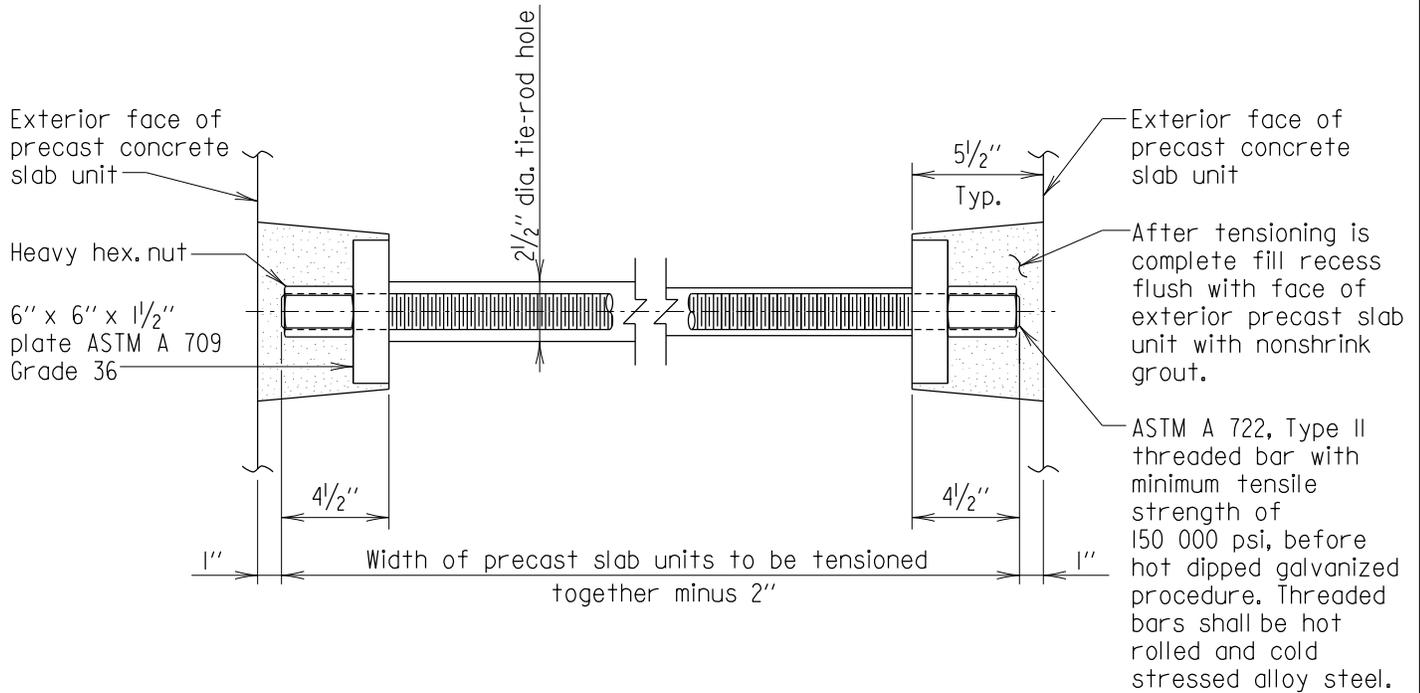
1. For Type A & B recess details see Det.No. SUP-SLAB-40I, for Type B Tie Rod Details for Stage Construction see Det.No. SUP-SLAB-40I.
2. Skew angle shall not be less than 60°.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
PRECAST SLAB UNIT AND TIE ROD LAYOUT SLABS GREATER THAN 50' FOR STAGE CONSTRUCTION	
DETAIL NO. SUP-SLAB-303	SHEET <u>1</u> OF <u>1</u>

SUPERSTRUCTURE SLABS



SECTION
LATERAL TIE-ROD DETAIL

Scale: 1 1/2" = 1'-0"

Rod Diameter (inches)	Initial Tension Force (lb)	Final Tension Force (lb)	Plate Hole Diameter (inches)	Minimum Root Area through threads (in ²)
1 1/4	20 000	120 000	1 5/8	0.91

Notes:

1. For tie-rod tensioning procedures, see Contract Plans and 440.03.20.
2. All nuts, plates and tie-rods shall be hot dipped galvanized.
3. All nonshrink grout shall conform to 902.11(C).
4. Heavy hex. nut shall be supplied by tie-rod manufacturer and develop full tensile strength of tie-rod.

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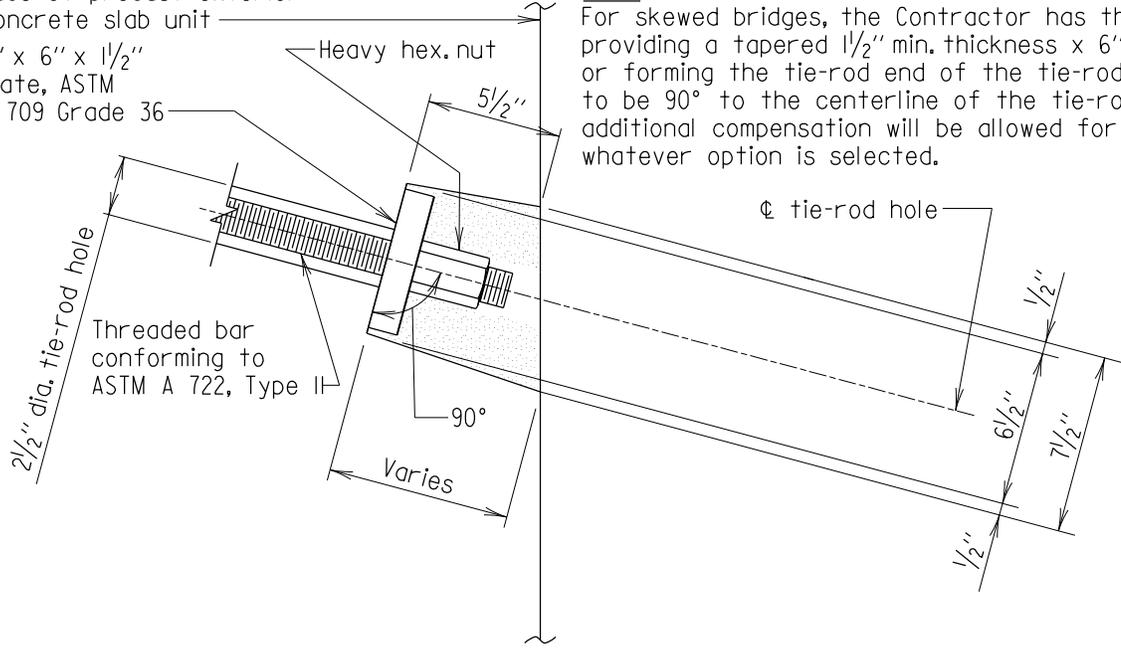
STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
PRECAST CONCRETE SLAB UNITS TIE-ROD DETAILS
DETAIL NO. SUP-SLAB-401
SHEET <u>1</u> OF <u>3</u>

SUPERSTRUCTURE SLABS

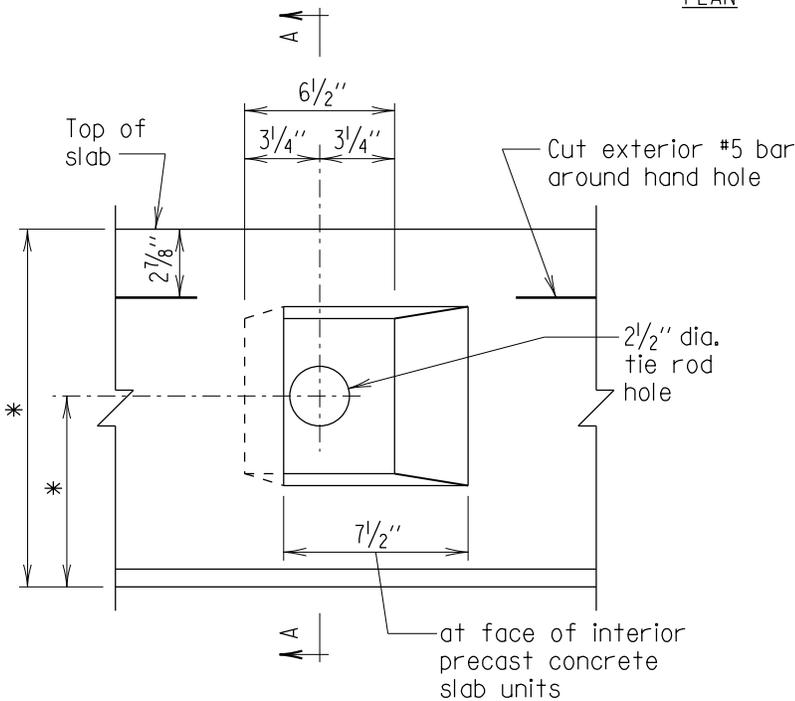
Face of precast exterior concrete slab unit
6" x 6" x 1/2"
plate, ASTM
A 709 Grade 36

Note:

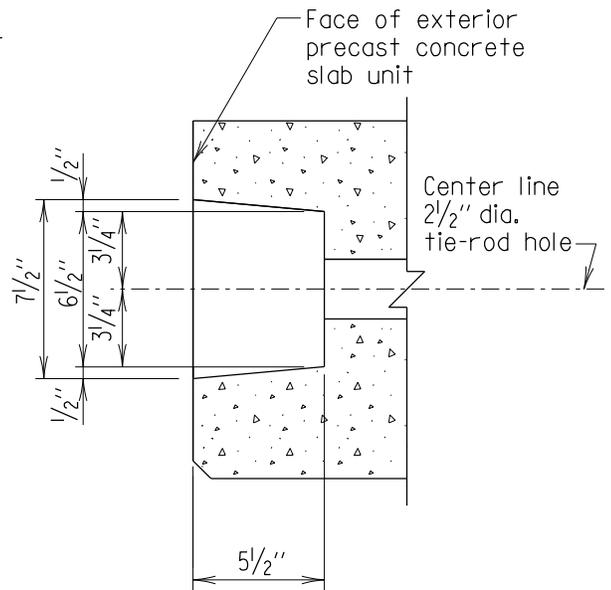
For skewed bridges, the Contractor has the option providing a tapered 1/2" min. thickness x 6" x 6" plate or forming the tie-rod end of the tie-rod recess to be 90° to the centerline of the tie-rod. No additional compensation will be allowed for whatever option is selected.



PLAN



ELEVATION



SECTION A-A

TIE-ROD RECESS DETAILS - TYPE A

Scale: 1/2" = 1'-0"

* See precast concrete slab units details for dimensions.

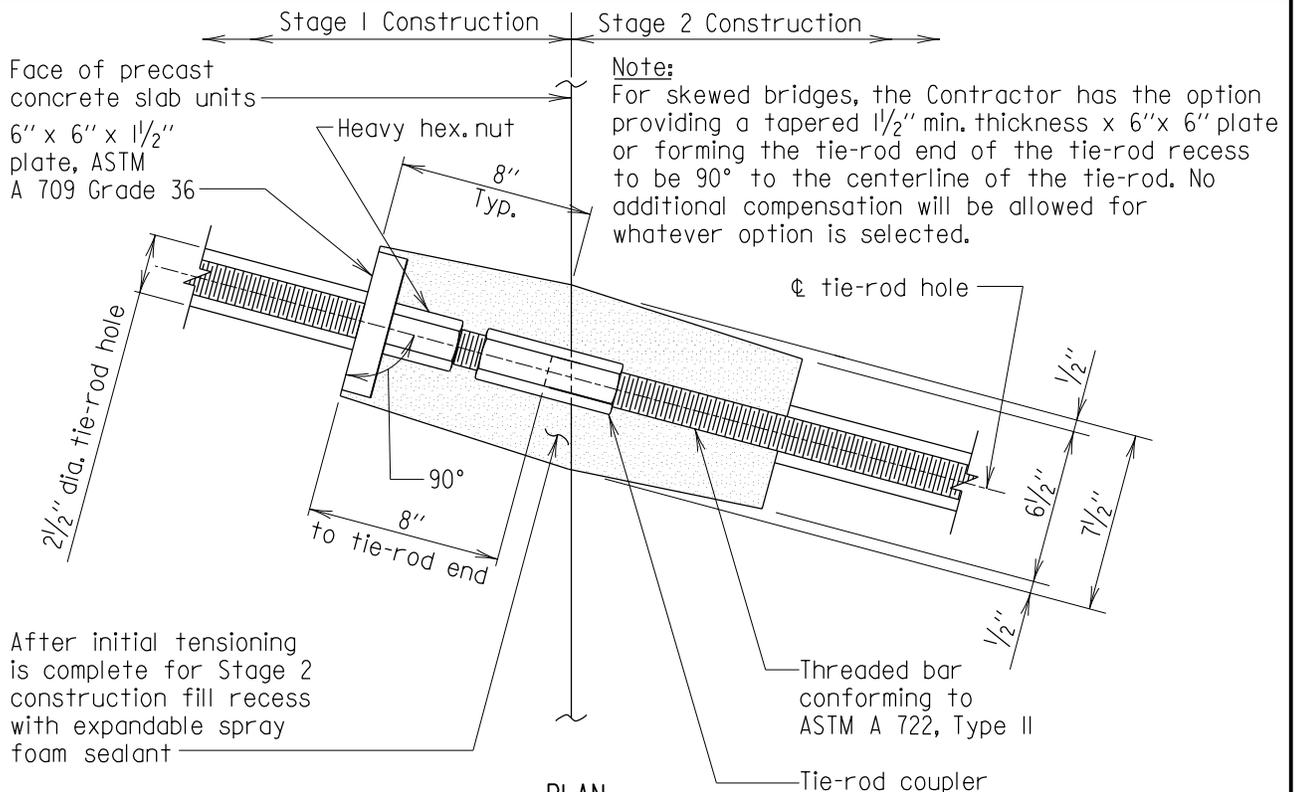
Notes:

1. For tie-rod tensioning procedures, see Contract Plans and 440.03.20.
2. All tie-rods, plates and nuts shall be hot dipped galvanized.
3. All nonshrink grout shall conform to 902.II(C).
4. Shear keys in slabs not shown for clarity.

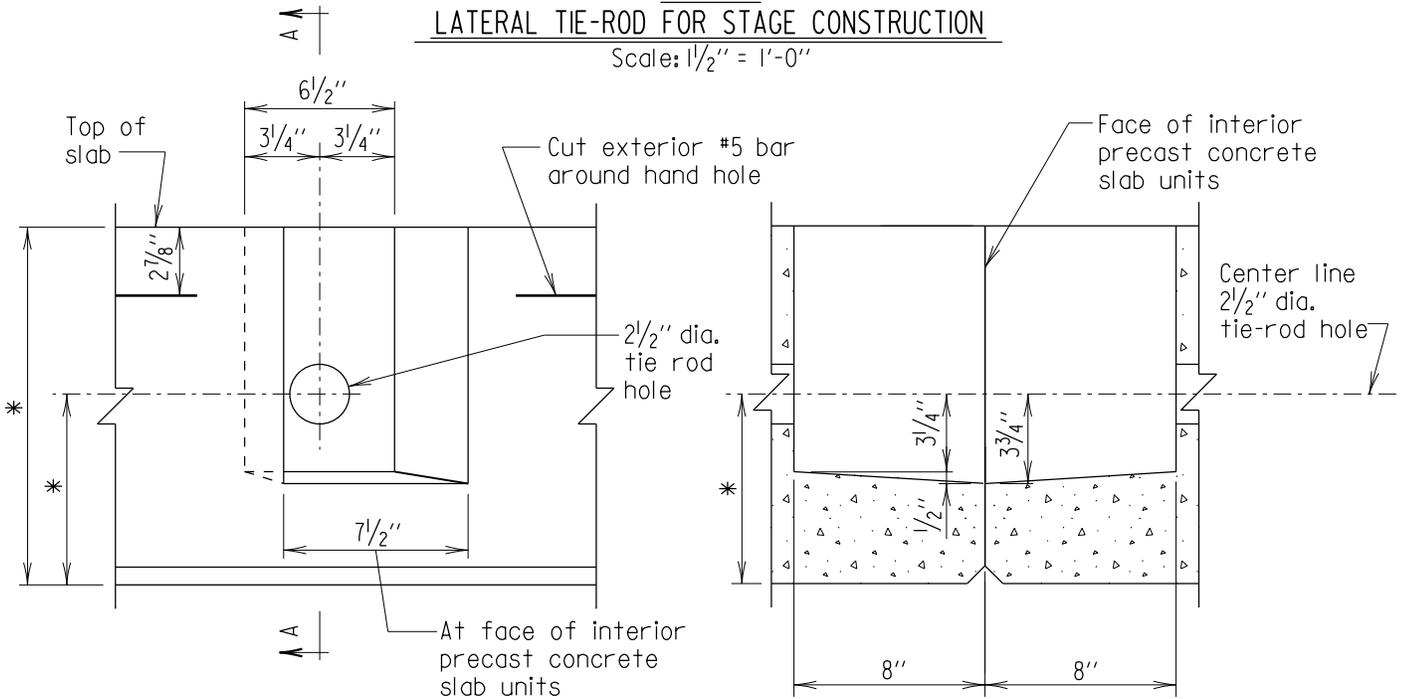
APPROVAL	STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES PRECAST CONCRETE SLAB UNITS TIE-ROD DETAILS TYPE A
 DIRECTOR OFFICE OF STRUCTURES DATE: 07/15/2019	
VERSION	
2.0	

DETAIL NO. SUP-SLAB-401

SHEET 2 OF 3



PLAN
LATERAL TIE-ROD FOR STAGE CONSTRUCTION
Scale: 1/2" = 1'-0"



ELEVATION

SECTION A-A

TIE-ROD RECESS DETAILS - TYPE B

Scale: 1/2" = 1'-0"

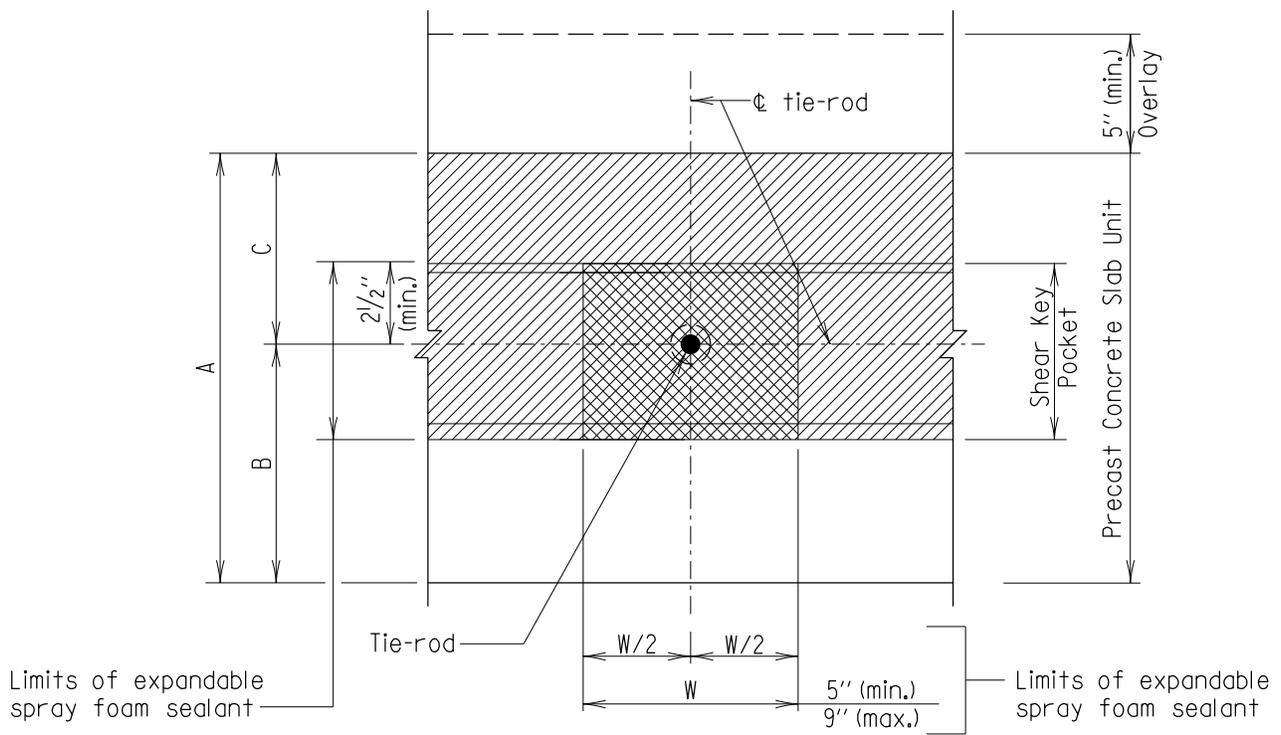
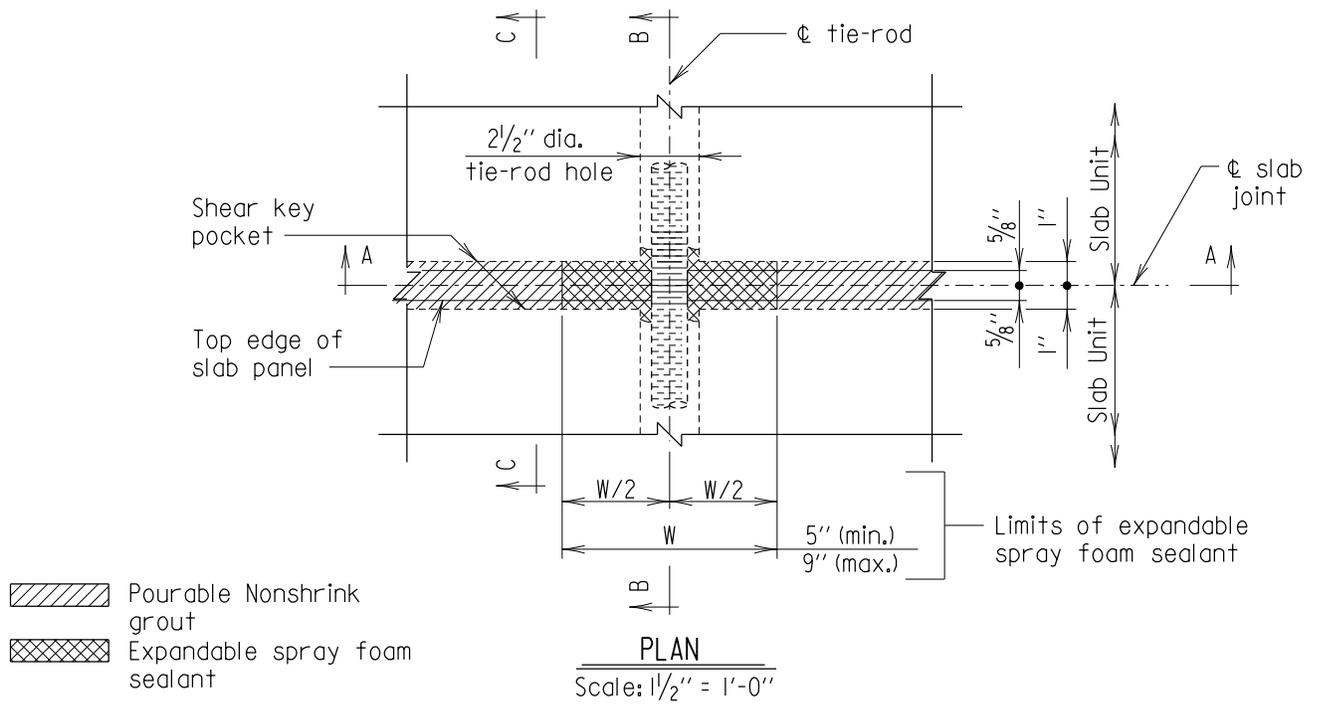
* See precast concrete slab units details for dimensions.

Notes:

1. For tie-rod tensioning procedures, see Contract Plans and 440.03.20.
2. All couplers tie-rods, plates and nuts shall be hot dipped galvanized.
3. All nonshrink grout shall conform to 902.II(C).
4. Shear keys in slabs not shown for clarity.
5. Coupler shall be supplied by tie rod manufacturer and develop full tensile strength of tie rod.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
PRECAST CONCRETE SLAB UNITS TIE-ROD DETAILS TYPE B	
DETAIL NO. SUP-SLAB-401	SHEET 3 OF 3

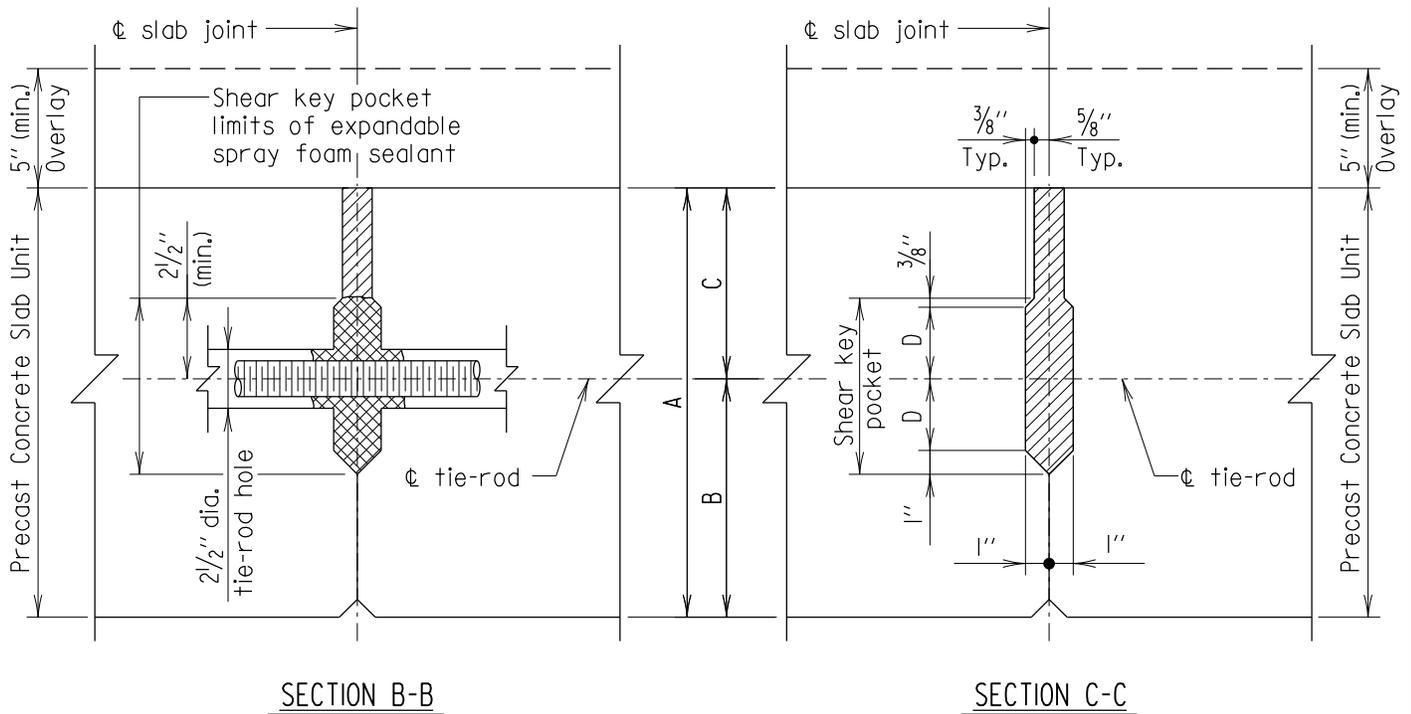


Notes:

1. For shear key placement procedures, see 440.03.20.
2. All nonshrink grout shall conform to 902.II(C).
3. Shear keys shall not be placed on the exposed face of the exterior slab units unless where specifically called for on the plans to accommodate future widenings.
4. See sheet 2 of 2 for Section B-B and Section C-C and A, B, C dimensions.

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DATE: 02/13/2019
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1.01

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
PRECAST CONCRETE SLAB UNITS SHEAR KEY DETAILS	
DETAIL NO. SUP-SLAB-501	SHEET <u>1</u> OF <u>2</u>



SHEAR KEY DETAILS

Scale: 1 1/2" = 1'-0"

- Pourable Nonshrink grout
- Expandable spray foam sealant

Precast Concrete Slab Panel	A	B	C	D
Simple Span 20'-0" or less	1'-6"	10"	8"	3"
Simple Span greater than 20'-0" to 25'-0"	1'-6"	10"	8"	3"
Simple Span greater than 25'-0" to 30'-0"	1'-6"	10"	8"	3"
Simple Span greater than 30'-0" to 35'-0"	1'-9"	1'-0"	9"	5"
Simple Span greater than 35'-0" to 40'-0"	2'-0"	1'-2"	10"	5"
Simple Span greater than 40'-0" to 45'-0"	2'-0"	1'-2"	10"	5"
Simple Span greater than 45'-0" to 50'-0"	2'-3"	1'-4"	11"	7"
Simple Span greater than 50'-0" to 55'-0"	2'-6"	1'-4"	1'-2"	7"

Notes:

1. For shear key placement procedures, see 440.03.20.
2. All nonshrink grout shall conform to 902.11(C).
3. Shear keys shall not be placed on the exposed face of the exterior slab units unless where specifically called for on the plans to accommodate future widenings.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
PRECAST CONCRETE SLAB UNITS SHEAR KEY DETAILS
DETAIL NO. SUP-SLAB-501
SHEET 2 OF 2

$\frac{3}{4}$ " dia. x 8" lg. @ 1'-0" c/c
 $\frac{3}{4}$ " dia. x 8" lg. @ 1'-0" c/c] Studs staggered @ 6"

$\frac{5}{16}$ " dia. vent holes @ 1'-0" c/c (as close to the vertical leg as possible). Contractor and Engineer shall verify during overlay placement that all vent holes are filled with concrete that has been forced from under the angles.

4" x 6" x $\frac{1}{2}$ " roadway angle with studs on each leg of roadway angle (angle to run from face of curb to face of curb)

Concrete overlay and end portion of slab shall be placed as one continuous pour as shown using Mix. No. 8 concrete.

$2\frac{1}{2}$ " dia. dowel holes in ends of precast concrete slab units. If an expansion end it is to be filled with an elastomeric or rubberized joint material. If a fixed end it is to be filled with nonshrink grout.

#4's @ 6" c/c each way located $2\frac{1}{2}$ " clear from top of concrete overlay. The cost of all reinforcing and concrete in the overlay shall be included in the lump sum price for the Superstructure Concrete item.

Approach roadway

Bottom of roadway subbase

#5 bars cast in each slab unit

#5 bars @ 1'-0" c/c

6 - #5's full width of bridge (if stage construction, splicing at construction joint is allowed)

$\frac{3}{4}$ " x $\frac{3}{4}$ " drip groove 2" from end of diaphragm, see detail this sheet

2 ply roofing paper bond breaker

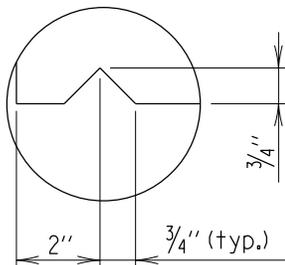
Porous backfill
 Refer to plans for limits

Elastomeric bearing pad **

Styrofoam blocking

2 - #8 dowel bars in each slab unit to be drilled and grouted in place in $1\frac{1}{2}$ " dia. hole using nonshrink grout after tie rods are tensioned.

W = Width of Abutment Stem
 see Plans.



DRIP GROOVE DETAIL

Scale: 3" = 1'-0"

ABUTMENT - SECTION

Scale: $\frac{1}{2}$ " = 1'-0"

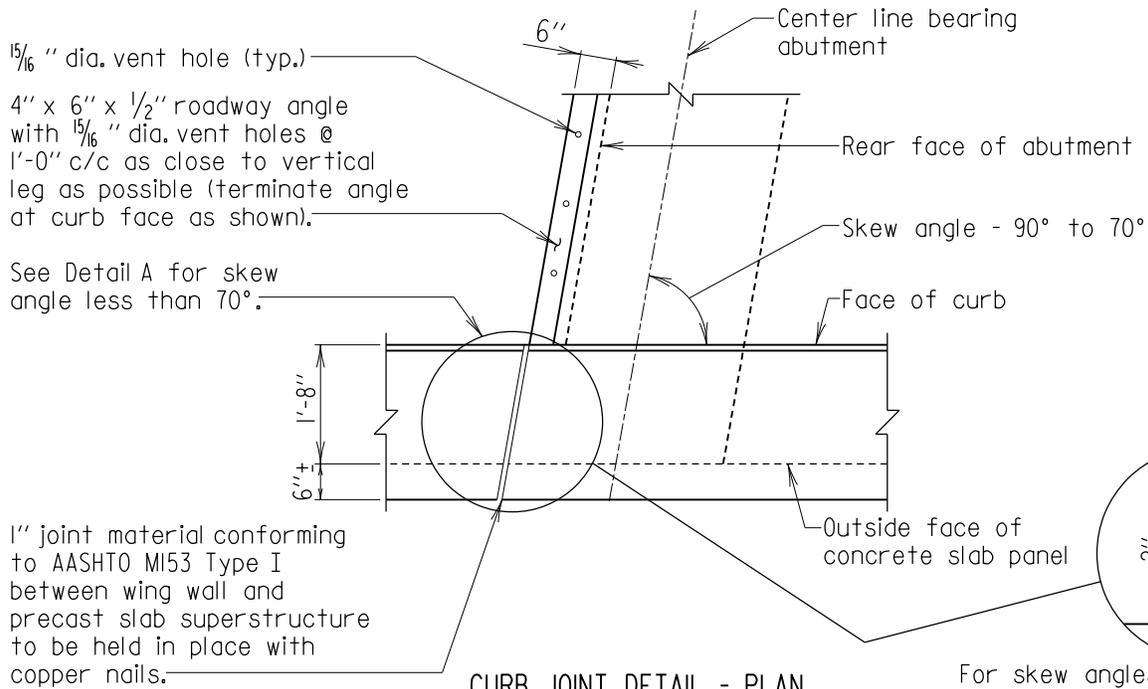
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<i>G. C. [Signature]</i> DIRECTOR OFFICE OF STRUCTURES
DATE: 12/18/2019
VERSION
2.0

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
PRECAST CONCRETE SLAB UNIT DETAIL AT ABUTMENT	
DETAIL NO. SUP-SLAB-601	SHEET <u>1</u> OF <u>1</u>

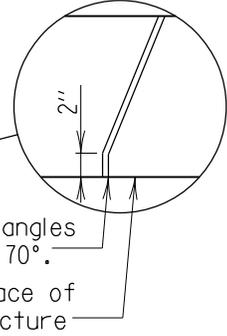
- Notes:
- All reinforcing steel to be epoxy coated.
 - All nonshrink grout shall conform to 902.II(C).

* Measured perpendicular to centerline of bearing.

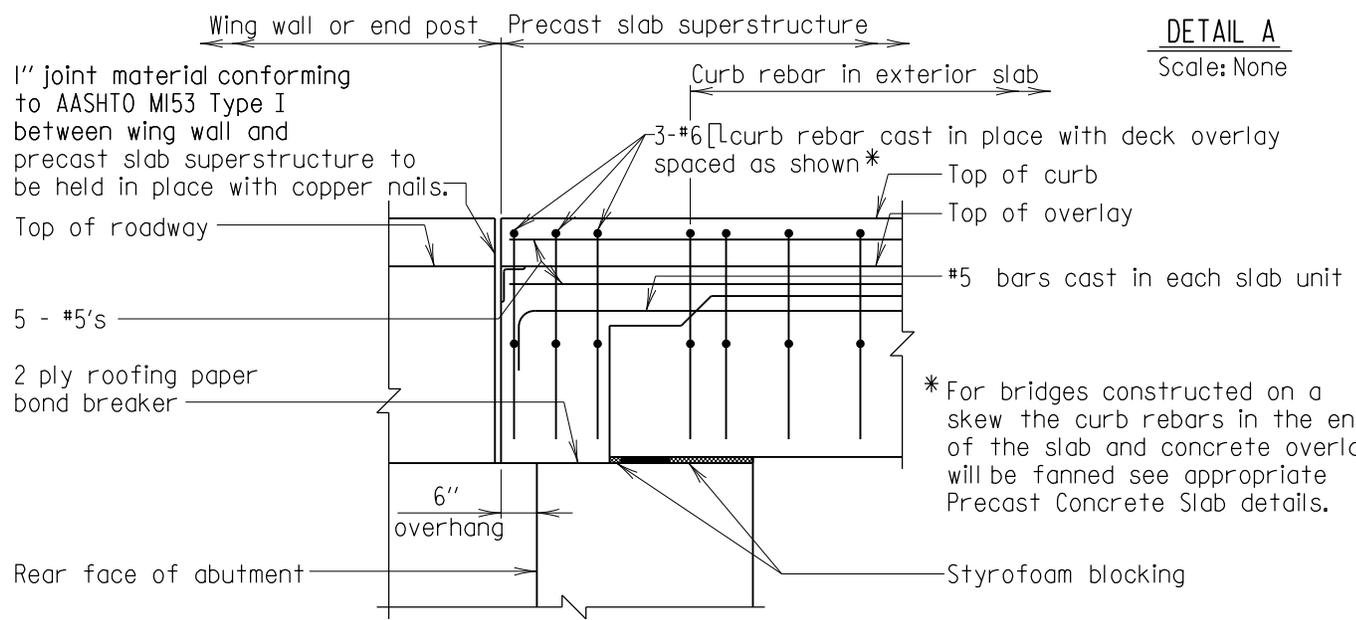
** All elastomeric bearing pads shall be placed with an epoxy adhesive in accordance with Section 432.03.04.



CURB JOINT DETAIL - PLAN
Scale: 3/8" = 1'-0"



For skew angles less than 70°. Outside face of superstructure



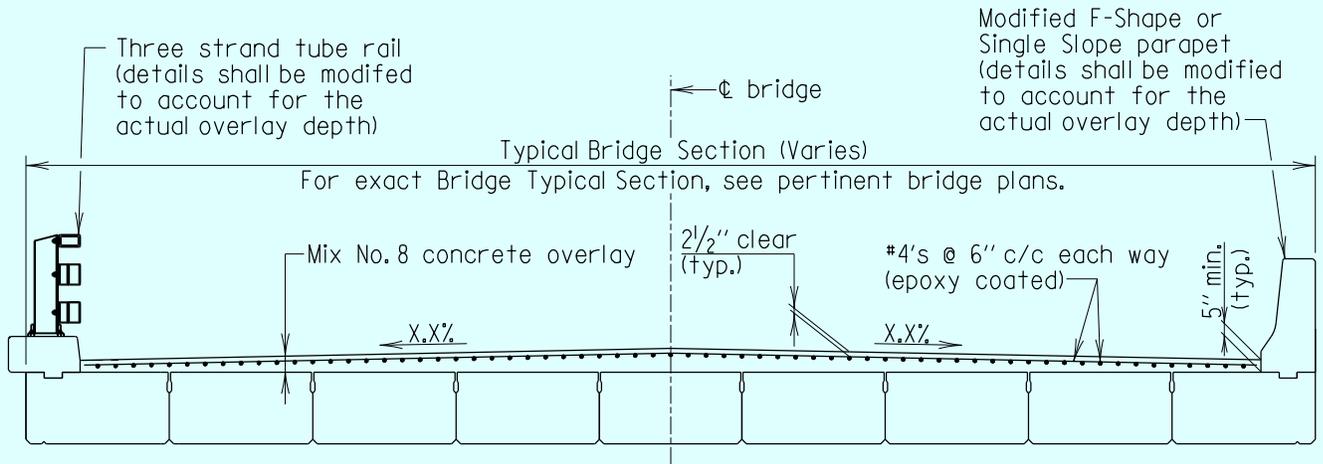
CURB JOINT DETAIL - ELEVATION
Scale: 3/8" = 1'-0"

- Notes:
1. All reinforcing steel to be epoxy coated.
 2. Railing not shown for clarity.
 3. Double stirrups, longitudinal reinforcing steel and prestressing strands not shown for clarity.
 4. For additional curb reinforcing details see Det.No. SUP-TB(TR)-301.

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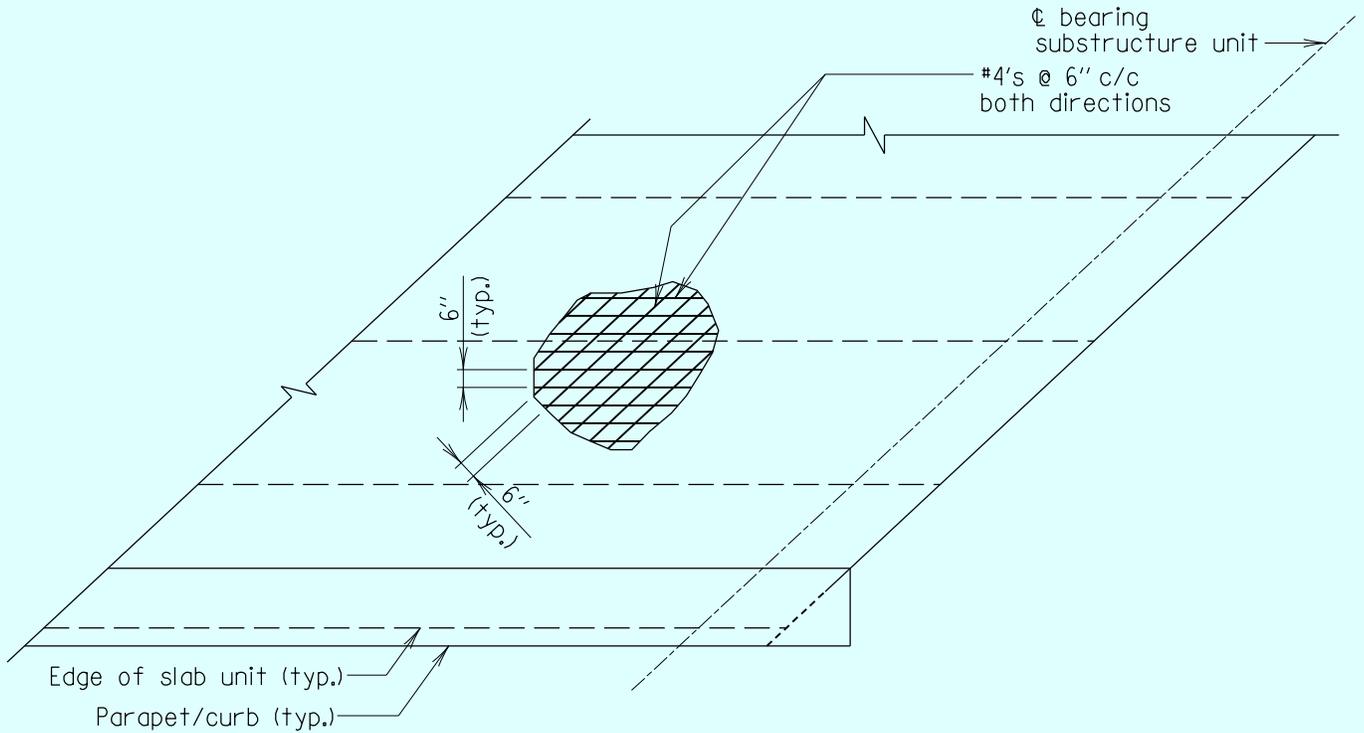
STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
PRECAST CONCRETE SLAB CURB JOINT DETAILS	
DETAIL NO. SUP-SLAB-602	SHEET <u> 1 </u> OF <u> 1 </u>

SUPERSTRUCTURE SLABS



TYPICAL SECTION

Scale: 3/16" = 1'-0"



PARTIAL DECK OVERLAY PLAN

Scale: 3/16" = 1'-0"

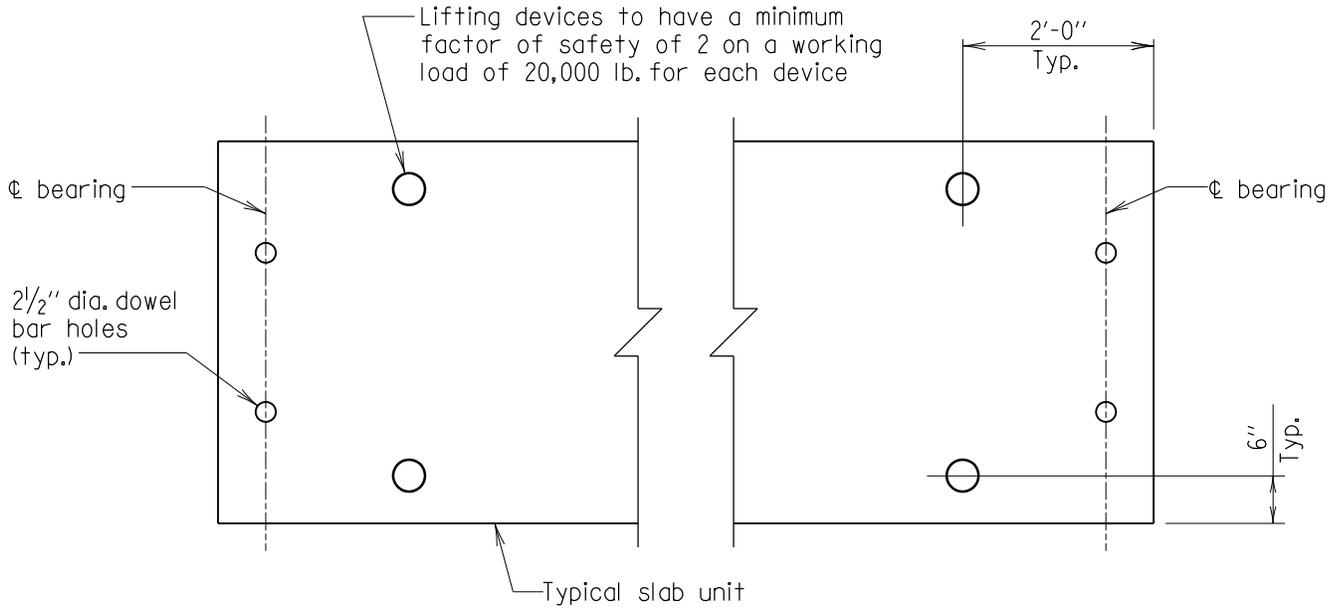
Note:
F-Shape barrier and three strand tube rail is for illustrative purposes only.

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VERSION
2.01

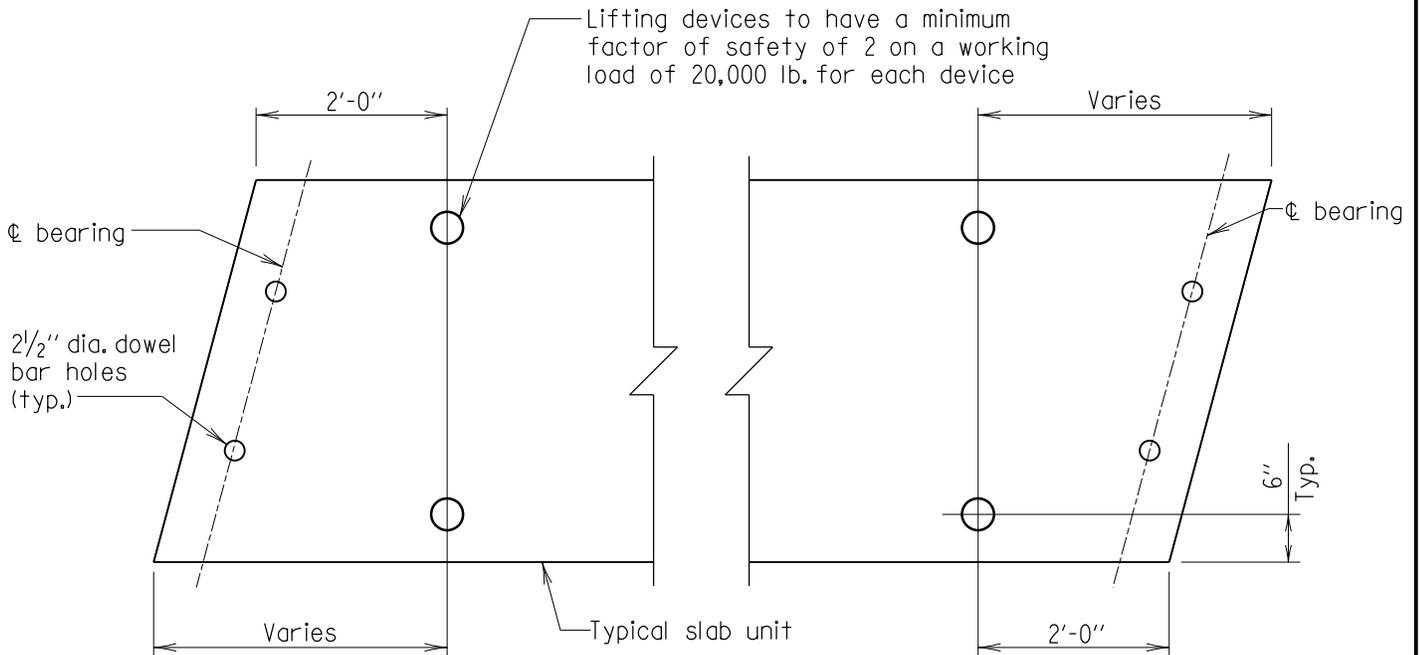
STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
PRECAST CONCRETE SLAB PANEL BRIDGE OVERLAY REINFORCEMENT DETAILS	
DETAIL NO. SUP-SLAB-701	SHEET <u>1</u> OF <u>1</u>

SUPERSTRUCTURE SLABS



LIFTING DEVICES LOCATION (90° PANELS) - PLAN VIEW

Scale: 1/2" = 1'-0"



LIFTING DEVICES LOCATION (SKEWED PANELS) - PLAN VIEW

Scale: 1/2" = 1'-0"

Notes:

1. If prestressing strands are used for the lifting device, they shall be cut flush with the slab surface and epoxy coated prior to placing the overlay.
2. Lifting device working load of 20,000 lb. is satisfactory for all slab panels up to and including those 4' wide & 55' span length.
3. The exact location of the lifting device may be altered to avoid all prestressing strands, stirrups, mild reinforcing steel, tie rods, and railing anchorage as long as the specified clear cover is maintained.
4. The Contractor shall show the type and location of the lifting inserts. The Contractor shall ensure that the lifting devices have the safe working capacity to lift the slab panels into position during erection, without overstressing the panels.

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DATE: 08/15/2019
VERSION
1.01

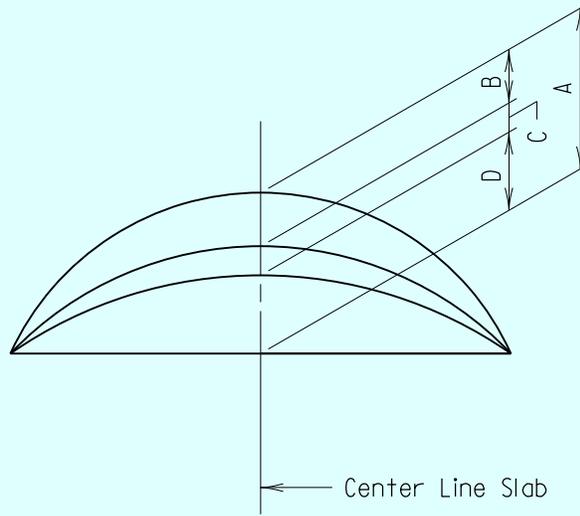
STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
PRECAST CONCRETE SLAB PANEL LIFTING DEVICES LOCATION AND WORKING LOAD
DETAIL NO. SUP-SLAB-801
SHEET <u>1</u> OF <u>1</u>

Chapter 03 - Superstructure

Section 07 – Concrete Slabs

SUB-SECTION 02

3 FT WIDE SLABS (SUP-SLAB(3FT))



CAMBER DIAGRAM

Scale: None

Camber Notes:

Camber due to prestress plus slab dead load to be checked in the field.

The thickness of the concrete overlay shall be varied to compensate for any inaccuracies in the camber of slabs.

Prestress camber and dead load deflection data shown is theoretical and may vary with concrete strength, variable prestressing conditions and prestress losses.

Camber in slabs will increase due to concrete creep during storage. Precautions shall be taken by loading or other means to prevent additional camber from developing during storage of prestressed slabs.

- A = Estimated camber due to prestress
- B = Deflection due to dead load of prestressed slabs
- C = Deflection due to dead load of cast-in-place concrete overlay, curbs and railing
- D = Net final camber

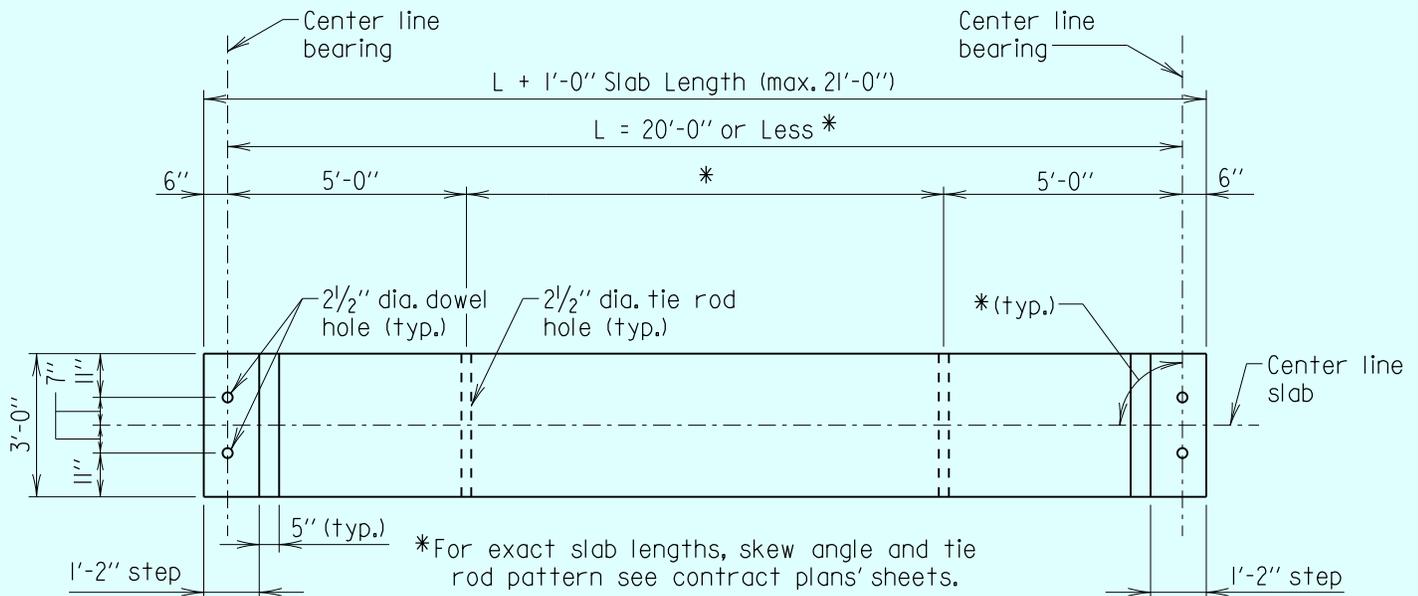
Precast Concrete Slab Panel	A	B	C	D
Simple Span 20'-0" or less	3/16"	1/16"	1/16"	1/16"
Simple Span greater than 20'-0" to 25'-0"	3/8"	1/8"	1/8"	1/8"
Simple Span greater than 25'-0" to 30'-0"	13/16"	1/4"	3/16"	3/8"
Simple Span greater than 30'-0" to 35'-0"	1 1/16"	3/8"	1/4"	7/16"
Simple Span greater than 35'-0" to 40'-0"	1 1/4"	1/2"	1/4"	1/2"
Simple Span greater than 40'-0" to 45'-0"	2"	3/4"	13/16"	7/16"
Simple Span greater than 45'-0" to 50'-0"	2 1/4"	15/16"	7/16"	7/8"
Simple Span greater than 50'-0" to 55'-0"	2 9/16"	1 1/16"	1/2"	1"

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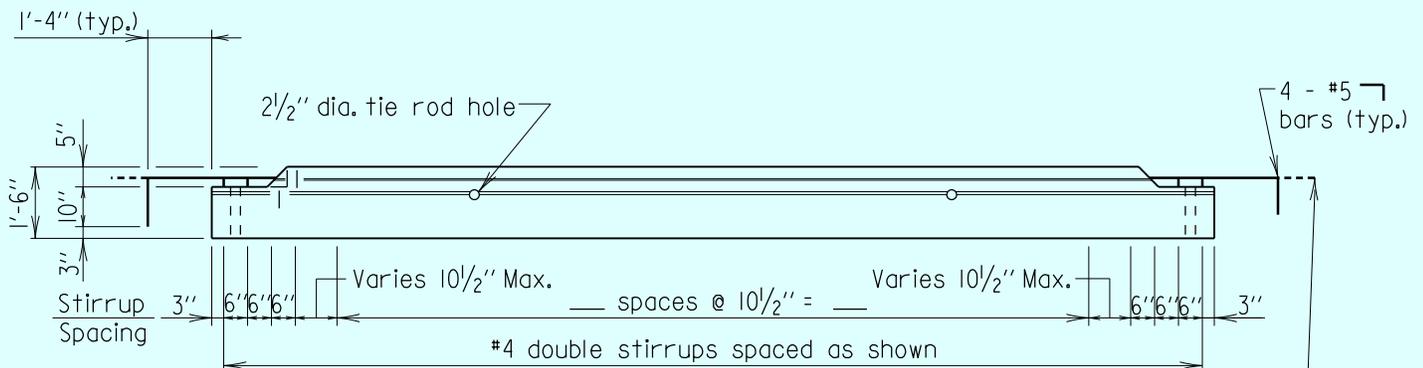
STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 OFFICE OF STRUCTURES
 SIMPLE SPAN EXTERIOR/INTERIOR
 3'-0" PRECAST CONCRETE SLAB PANEL
 DIAGRAM AND NOTES FOR CAMBER
 DETAIL NO. SUP-SLAB(3FT)-050
 SHEET 1 OF 1

SUPERSTRUCTURE SLABS



Note:
Reinforcing steel at ends of slab not shown for clarity.

3'-0" INTERIOR SLAB PLAN
Scale: 1/4" = 1'-0"



Note:
Stirrup spacing shown is for a 90° crossing. For bridges with other skew angles, see Det. No. SUP-SLAB(3FT)-103 for details of skewed ends.

Bars to be bent at casting plant after formwork has been removed.

3'-0" INTERIOR SLAB ELEVATION
Scale: 1/4" = 1'-0"

Notes:

1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
2. Adjust stirrup spacing as needed to avoid tie rod hole.
3. All reinforcing steel to be epoxy coated.

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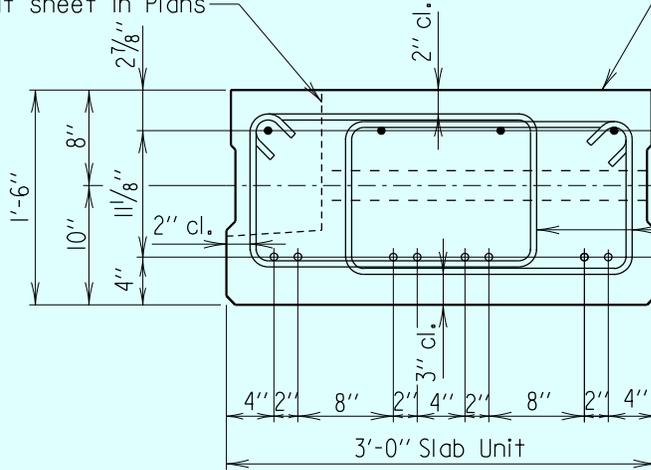
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

**SIMPLE SPAN 20'-0" OR LESS
INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(3FT)-101 SHEET 1 OF 2

SUPERSTRUCTURE SLABS

For stage construction
Type B tie rod recess
may be required.
For location see Slab
Layout sheet in Plans



Roughened surface in
accordance with Section
440.03.14 for concrete
overlay

See Shear Key Detail
Det. No. SUP-SLAB-501

4 - #5's placed as shown

Ø 2 1/2" dia. tie rod hole

#4 double stirrups
placed in pairs @
10 1/2" c/c, see Plans.

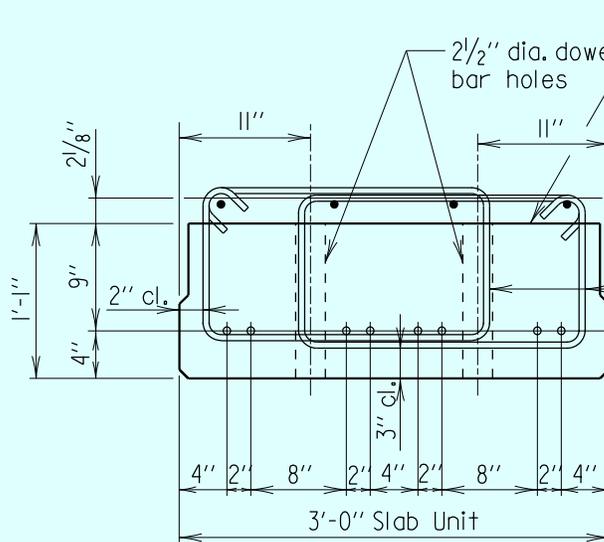
8 - 1/2" dia. prestressing
strands placed as shown

Note:

For location of tie rod
holes, see contract plans.

SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"



Roughened surface in
accordance with Section
440.03.14 for concrete
overlay

4 - #5's placed
as shown

#4 double stirrups placed
in pairs see Plans for
spacing at ends

8 - 1/2" dia. prestressing
strands placed as shown

Note:

Any misplaced dowel bar
holes or tie rod holes will
be cause for rejection of
the precast slab unit.

SECTION - SLAB AT ENDS

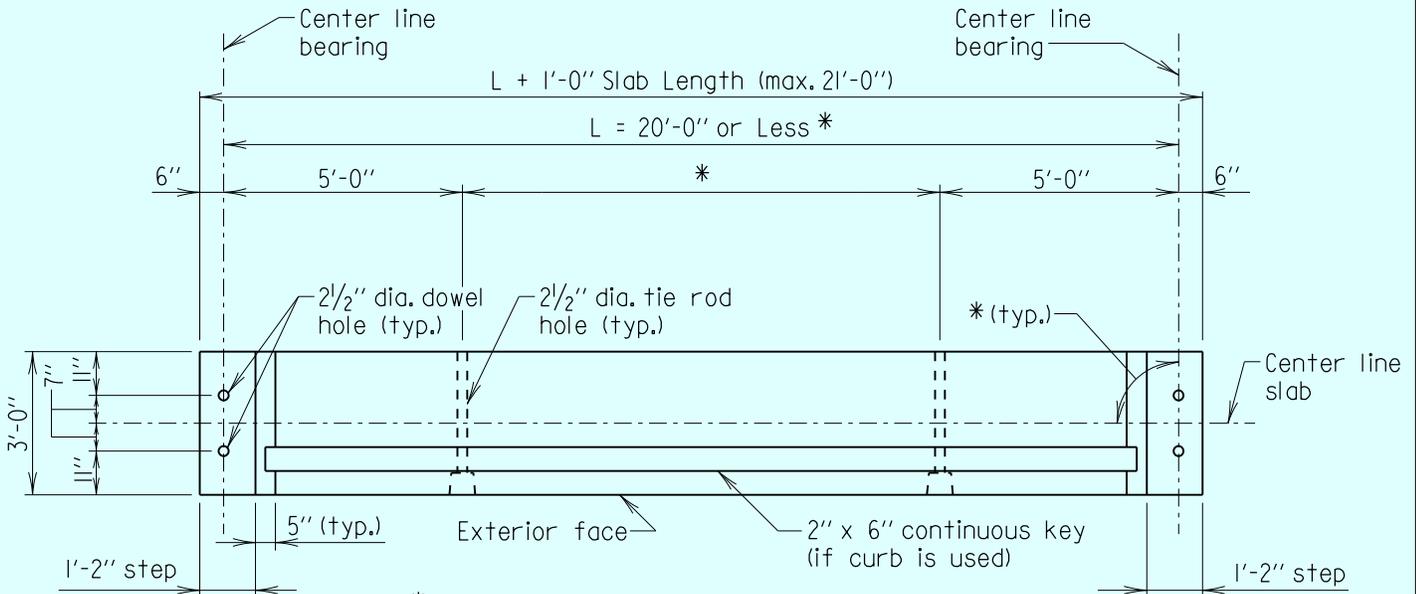
Scale: 3/4" = 1'-0"

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<i>Ben C. Dwyer</i> DIRECTOR OFFICE OF STRUCTURES
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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
SIMPLE SPAN 20'-0" OR LESS INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL SECTIONS
DETAIL NO. SUP-SLAB(3FT)-101
SHEET 2 OF 2

SUPERSTRUCTURE SLABS

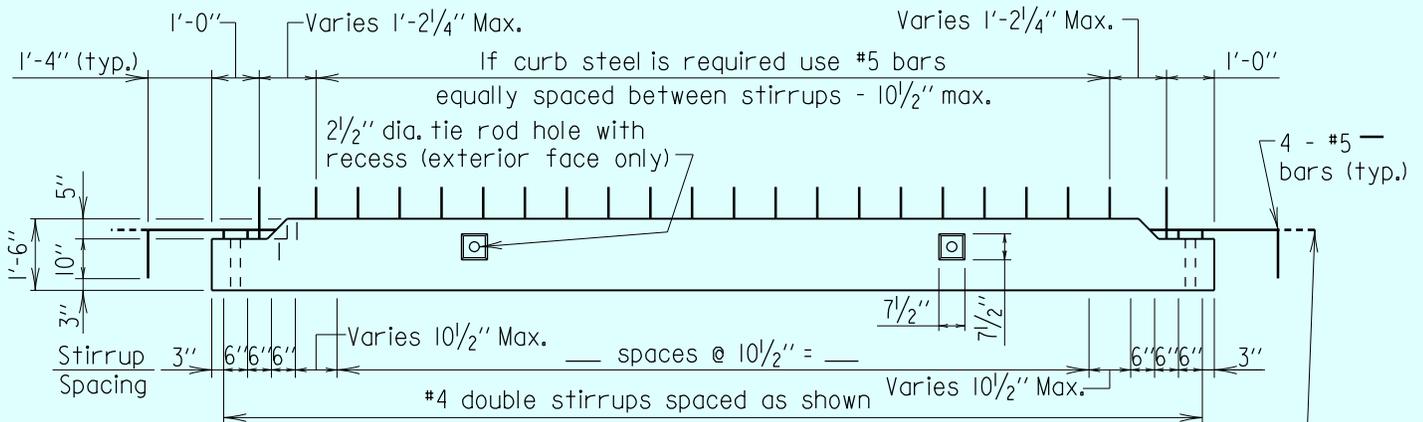


*For exact slab lengths, skew angle and tie rod pattern see contract plans' sheets.

Note:
Reinforcing steel at ends of slab and curb reinforcing not shown for clarity.

3'-0" EXTERIOR SLAB PLAN

Scale: 1/4" = 1'-0"



Note:
Stirrup spacing shown is for a 90° crossing. For bridges with other skew angles, see Det. No. SUP-SLAB(3FT)-103 for details of skewed ends.

Bars to be bent at casting plant after formwork has been removed.

3'-0" EXTERIOR SLAB ELEVATION

Scale: 1/4" = 1'-0"

- Notes:
- Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
 - Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
 - All reinforcing steel to be epoxy coated.

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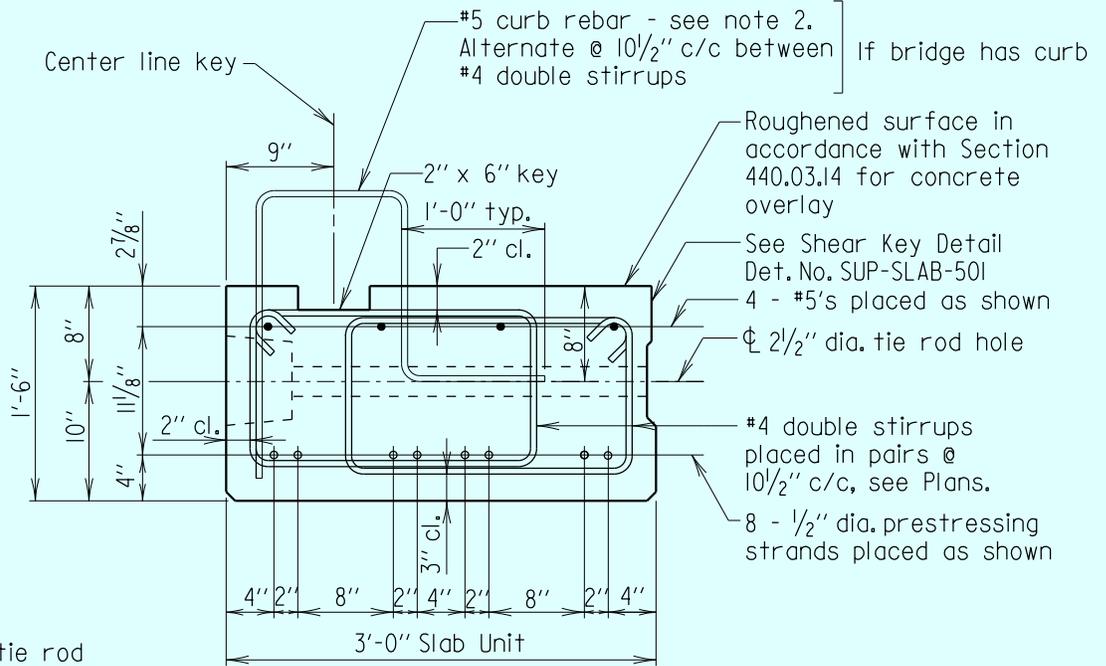
APPROVAL
<i>[Signature]</i> DIRECTOR OFFICE OF STRUCTURES
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STATE OF MARYLAND
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**SIMPLE SPAN 20'-0" OR LESS
EXTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

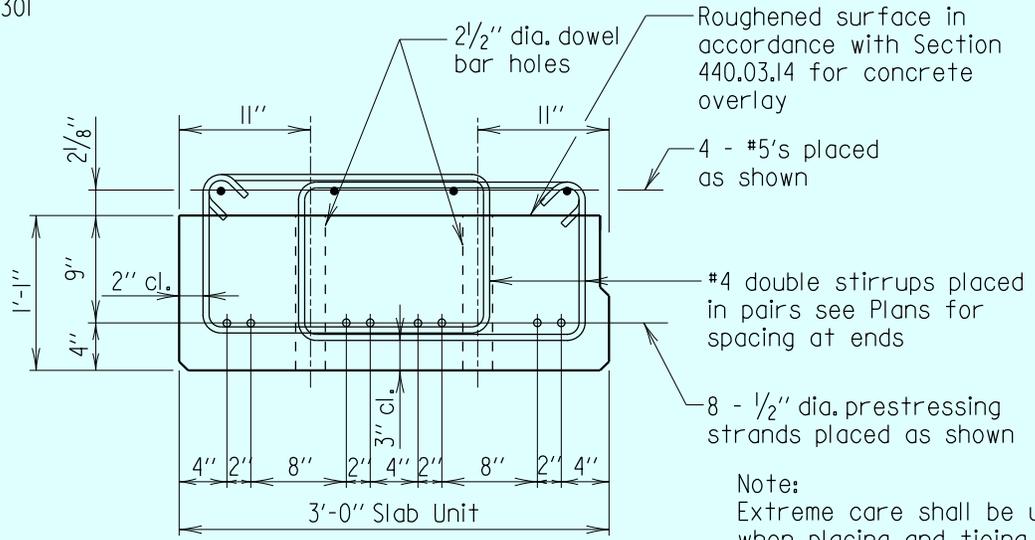
DETAIL NO. SUP-SLAB(3FT)-102 SHEET 1 OF 2

SUPERSTRUCTURE SLABS



- Notes:
1. For location of tie rod holes, see contract plans.
 2. For location of curb reinforcement and anchor bolts and plates to be cast in slab for railing, see Det. No. SUP-TB(TR)-301

SECTION - SLAB AT MIDSPAN
Scale: 3/4" = 1'-0"



SECTION - SLAB AT ENDS
Scale: 3/4" = 1'-0"

Note:
Extreme care shall be used when placing and tying the curb rebar, railing and anchor bolts assembly to provide for the required clearances. Any misplaced rebar, tie rod holes or anchor bolts will be cause for rejection of the precast slab unit.

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<i>Ben C. Dwyer</i> DIRECTOR OFFICE OF STRUCTURES
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1.0

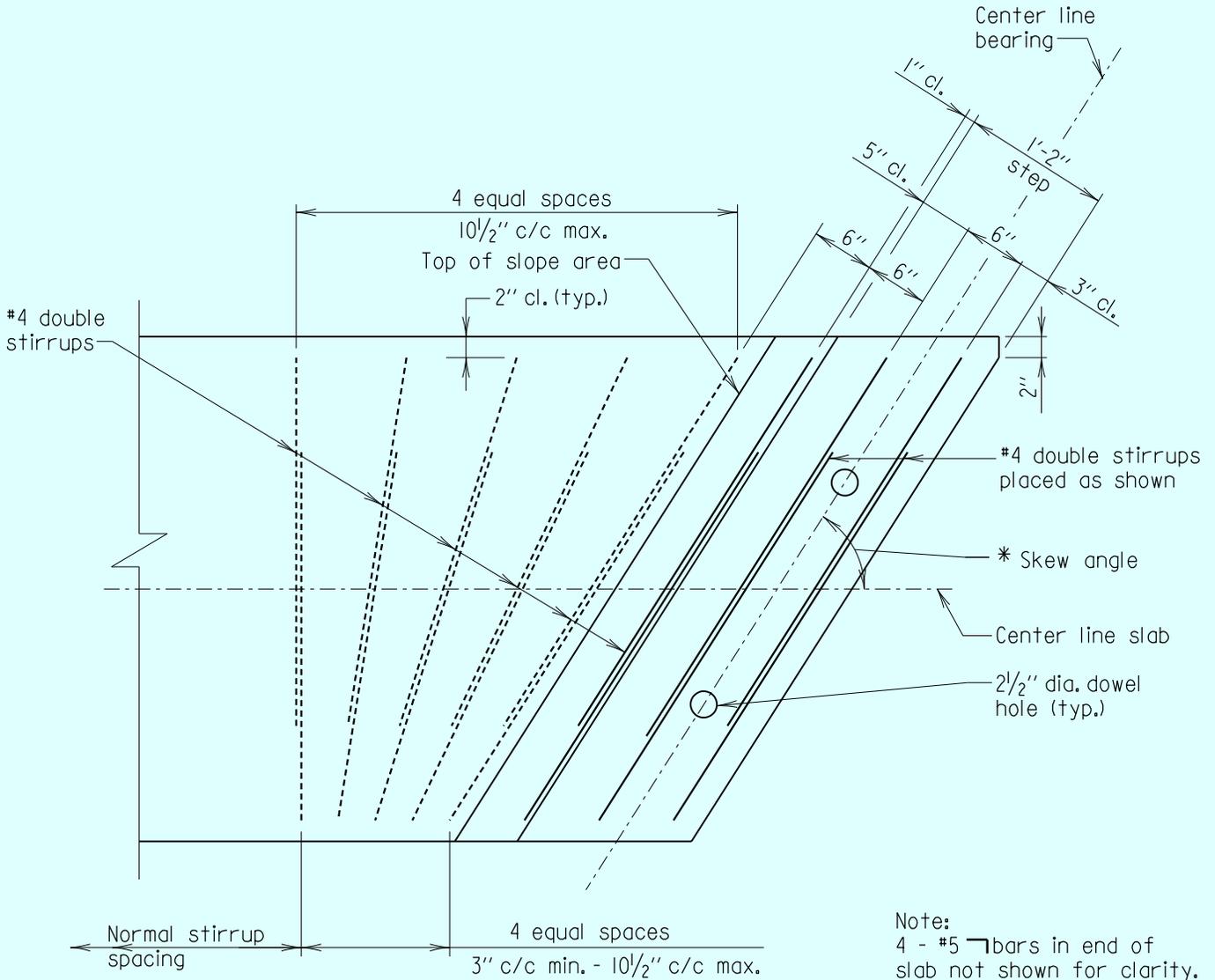
STATE OF MARYLAND
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STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

**SIMPLE SPAN 20'-0" OR LESS
EXTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
SECTIONS**

DETAIL NO. SUP-SLAB(3FT)-102

SHEET 2 OF 2

SUPERSTRUCTURE SLABS



Note:
4 - #5 bars in end of slab not shown for clarity.

*For exact skew angle, see contract plan sheets.

PLAN
Scale: 3/4" = 1'-0"

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

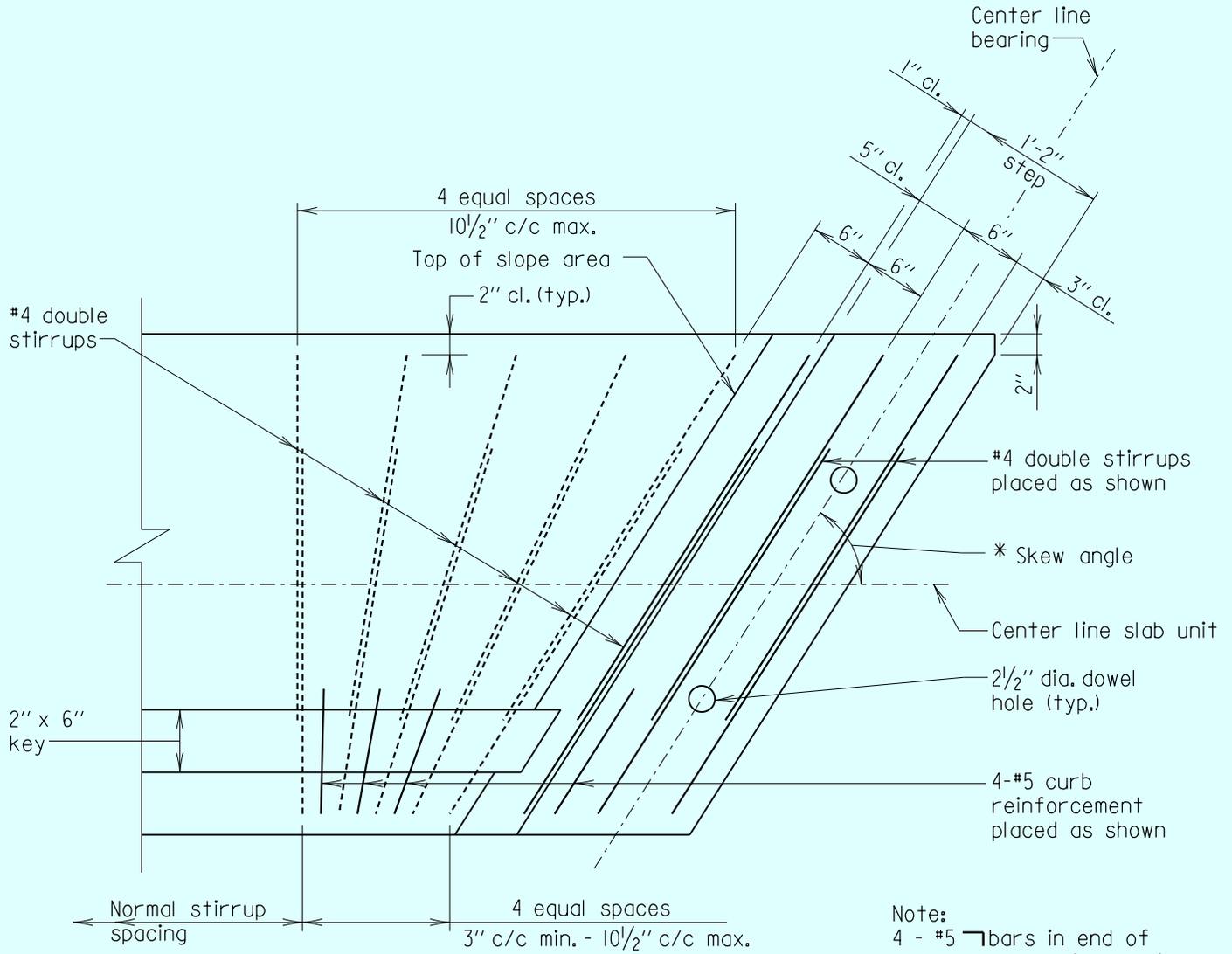
Note:
All reinforcing steel to be epoxy coated.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN 20'-0" OR LESS INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL SKEWED END DETAIL	
DETAIL NO. SUP-SLAB(3FT)-103	SHEET 1 OF 2

SUPERSTRUCTURE SLABS



*For exact skew angle, see contract plan sheets.

PLAN
Scale: 3/4" = 1'-0"

Note:
4 - #5 bars in end of slab not shown for clarity.

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

Note:
All reinforcing steel to be epoxy coated.

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VERSION
1.0

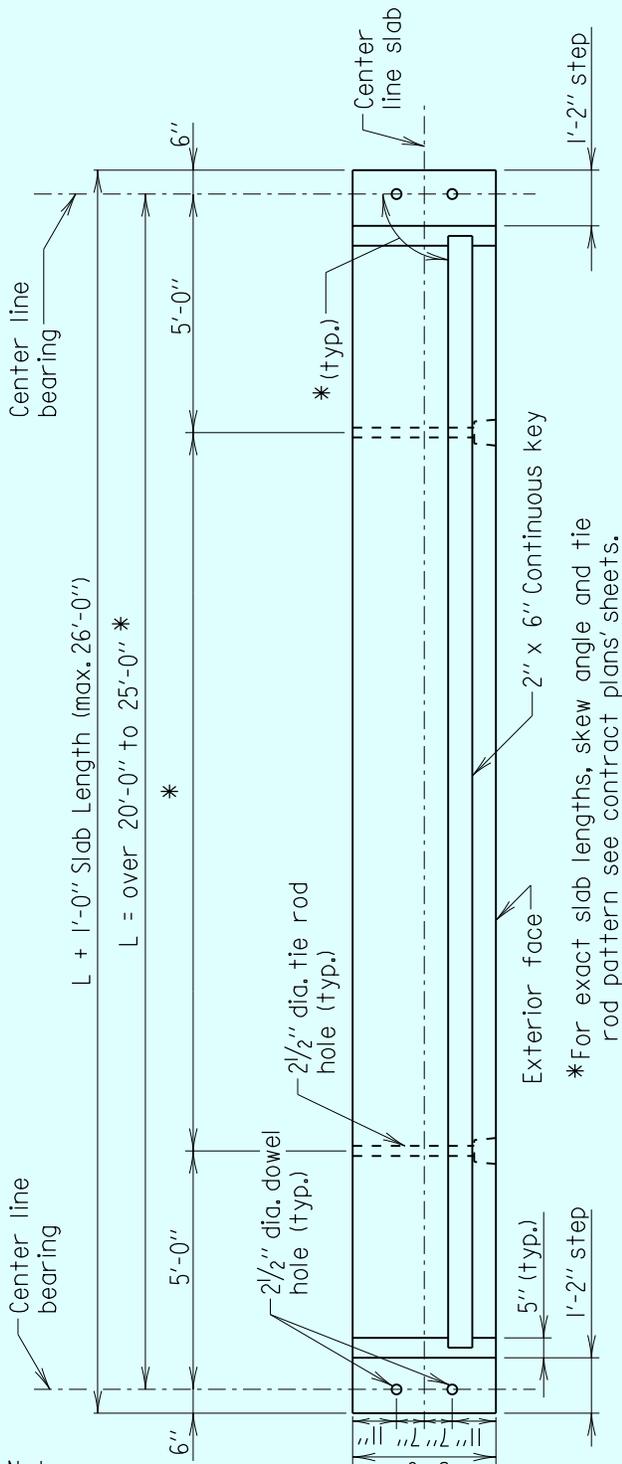
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

SIMPLE SPAN 20'-0" OR LESS
EXTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
SKEWED END DETAIL

DETAIL NO. SUP-SLAB(3FT)-103

SHEET 2 OF 2

SUPERSTRUCTURE SLABS

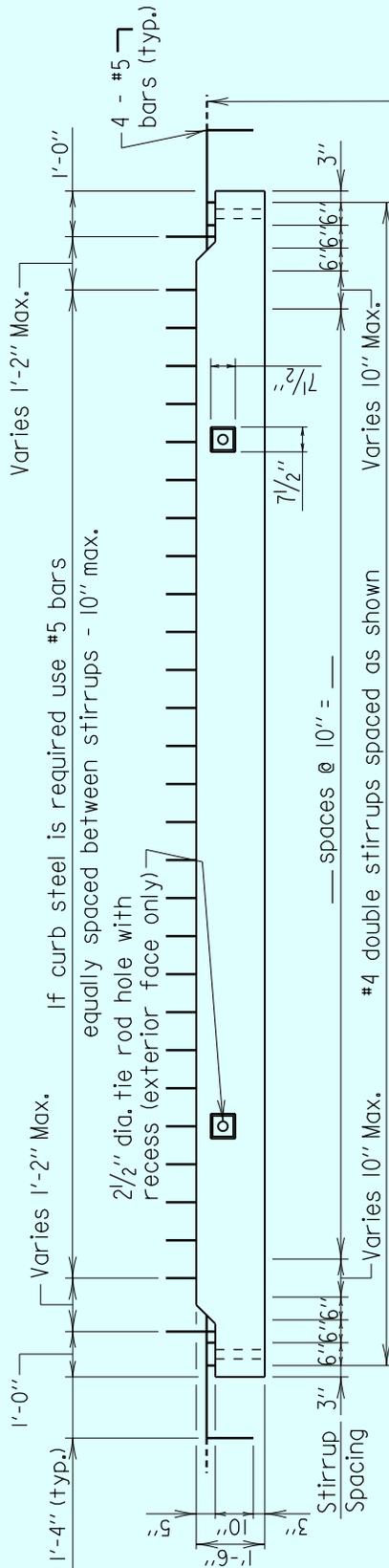


Note:
Stirrup spacing is for a 90° crossing. For bridges with other skew angles, see Det. No. SUP-SLAB(3FT)-203 for details of skewed ends.

3'-0" EXTERIOR SLAB PLAN

Scale: 1/4" = 1'-0"

Note:
Reinforcing steel at ends of slab and curb reinforcing not shown for clarity.



Bars to be bent at casting plant after formwork has been removed.

3'-0" EXTERIOR SLAB ELEVATION

Scale: 1/4" = 1'-0"

Notes:

1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
3. All reinforcing steel to be epoxy coated.

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VERSION
1.0

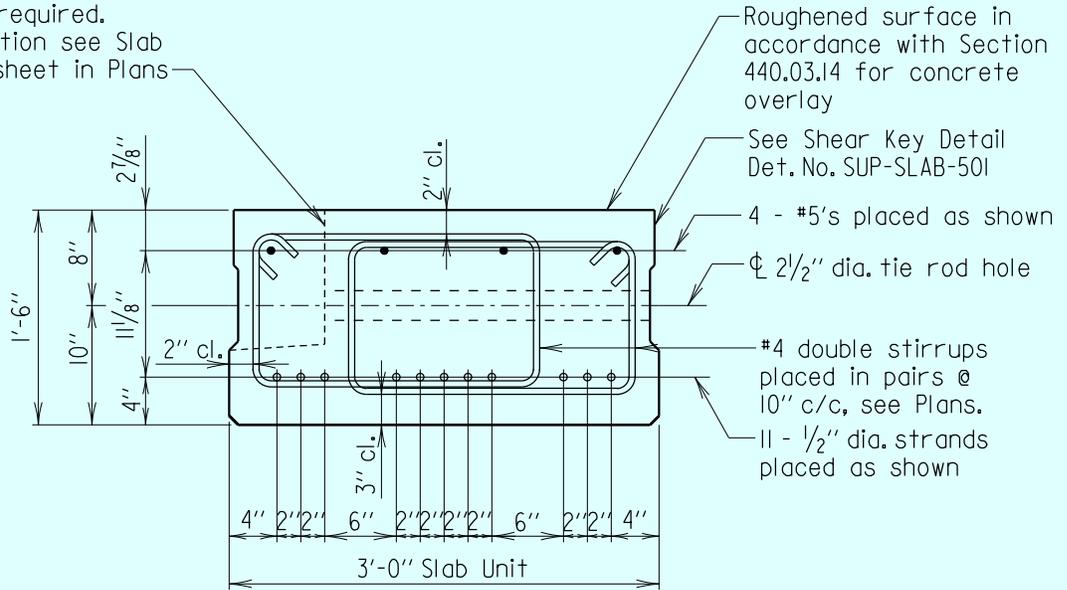
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
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**SIMPLE SPAN GREATER THAN 20'-0" TO 25'-0"
EXTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(3FT)-202 SHEET 1 OF 2

SUPERSTRUCTURE SLABS

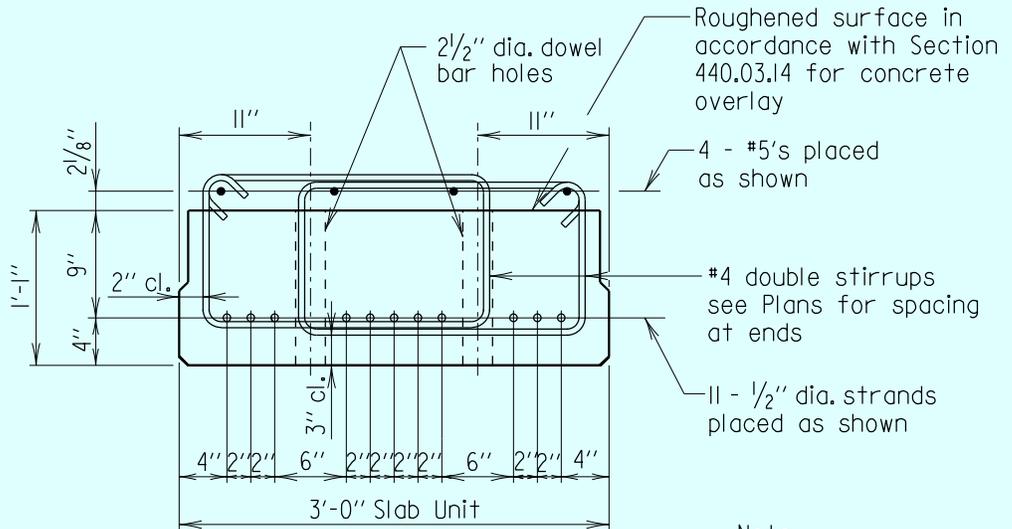
For stage construction
Type B tie rod recess
may be required.
For location see Slab
Layout sheet in Plans



SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"

Note:
For location of tie rod
holes, see contract plans.



SECTION - SLAB AT ENDS

Scale: 3/4" = 1'-0"

Note:
Any misplaced dowel bar
holes or tie rod holes will
be cause for rejection of
the precast slab unit.

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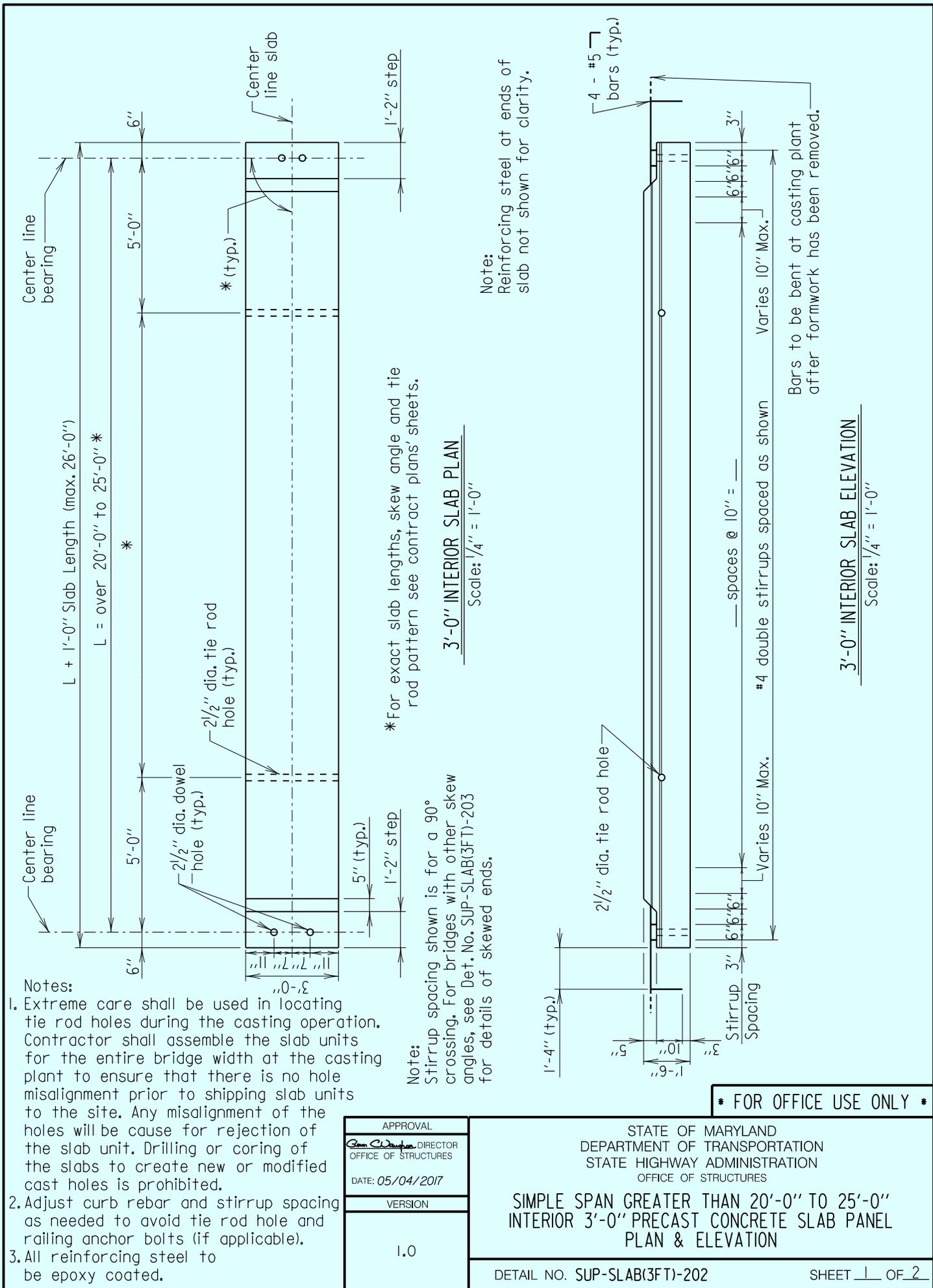
APPROVAL
<i>Ben C. D...</i> DIRECTOR OFFICE OF STRUCTURES
DATE: 05/04/2017
VERSION
1.0

STATE OF MARYLAND
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STATE HIGHWAY ADMINISTRATION
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**SIMPLE SPAN GREATER THAN 20'-0" TO 25'-0"
INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
SECTIONS**

DETAIL NO. SUP-SLAB(3FT)-201 SHEET 2 OF 2

SUPERSTRUCTURE SLABS



Notes:

1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
3. All reinforcing steel to be epoxy coated.

*For exact slab lengths, skew angle and tie rod pattern see contract plans' sheets.

Note: Stirrup spacing shown is for a 90° crossing. For bridges with other skew angles, see Det. No. SUP-SLAB(3FT)-203 for details of skewed ends.

Note: Reinforcing steel at ends of slab not shown for clarity.

Bars to be bent at casting plant after formwork has been removed.

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1.0	

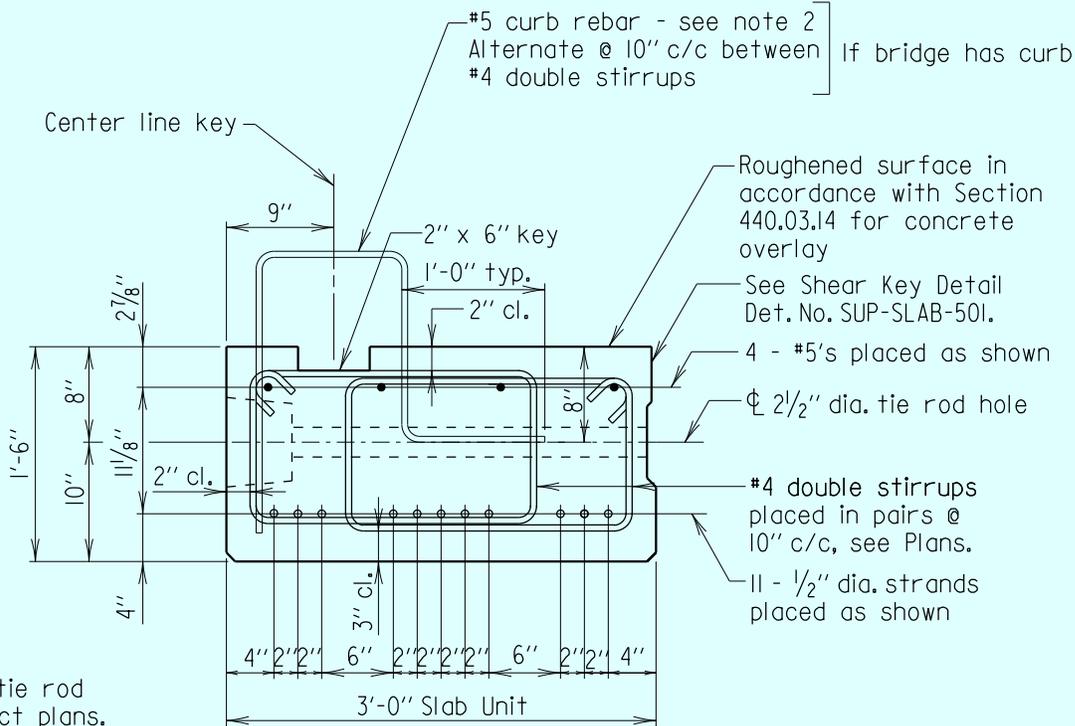
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

**SIMPLE SPAN GREATER THAN 20'-0" TO 25'-0"
INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(3FT)-202 SHEET 1 OF 2

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SUPERSTRUCTURE SLABS

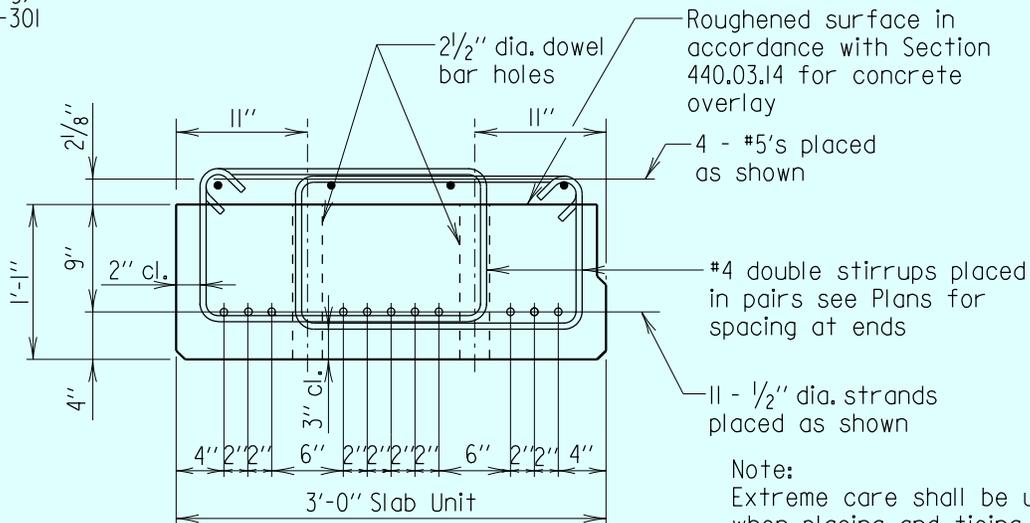


Notes:

1. For location of tie rod holes, see contract plans.
2. For location of curb reinforcement and anchor bolts and plates to be cast in slab for railing, see Det. No. SUP-TB(TR)-301

SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"



SECTION - SLAB AT ENDS

Scale: 3/4" = 1'-0"

Note:
Extreme care shall be used when placing and tying the curb rebar, railing and anchor bolts assembly to provide for the required clearances. Any misplaced rebar, dowel bar holes, tie rod holes or anchor bolts will be cause for rejection of the precast slab unit.

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<i>Ron C. [Signature]</i> DIRECTOR OFFICE OF STRUCTURES
DATE: 05/04/2017
VERSION
1.0

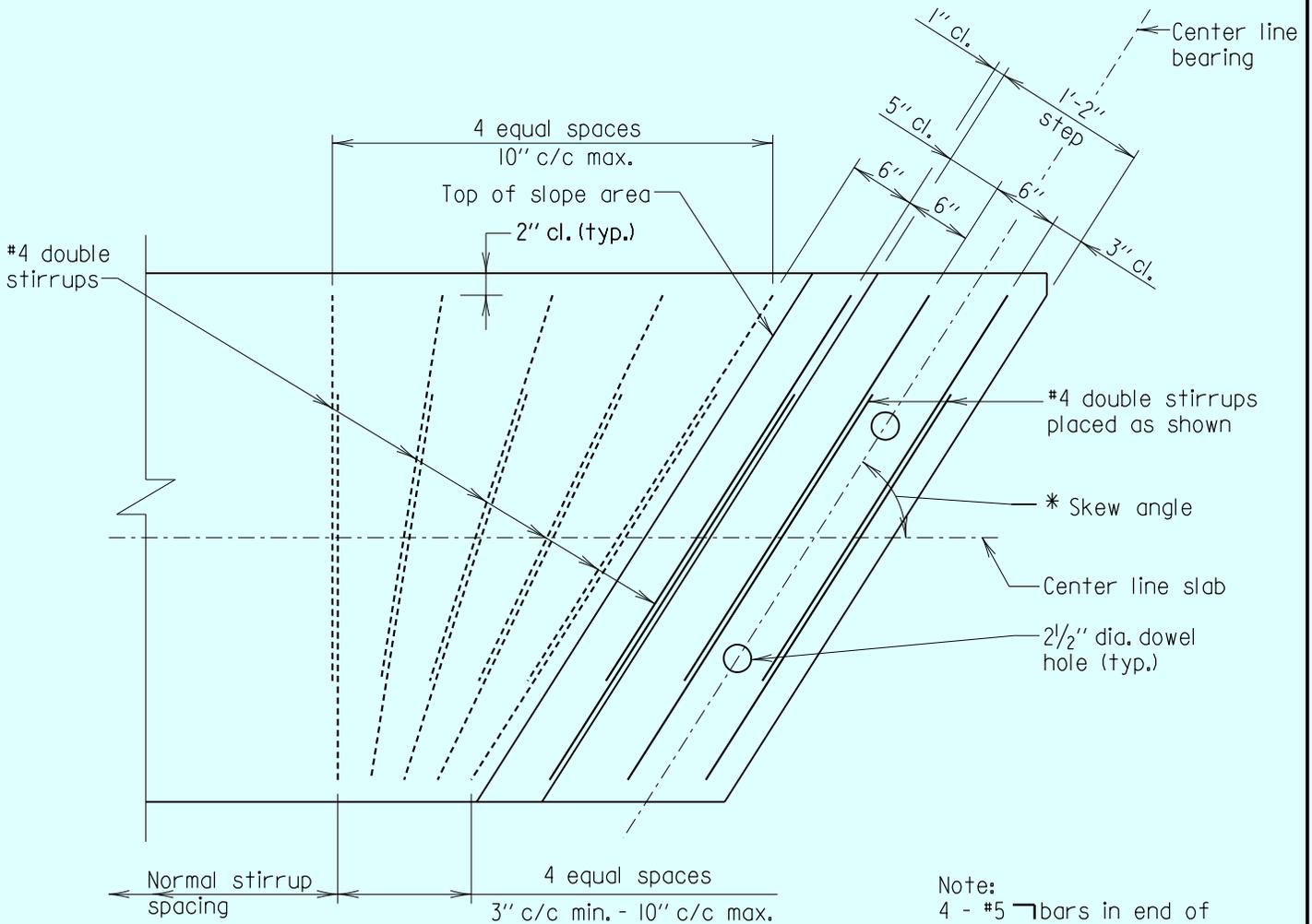
STATE OF MARYLAND
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STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

**SIMPLE SPAN GREATER THAN 20'-0" TO 25'-0"
EXTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
SECTIONS**

DETAIL NO. SUP-SLAB(3FT)-202

SHEET 2 OF 2

SUPERSTRUCTURE SLABS



Note:
4 - #5 bars in end of slab not shown for clarity.

*For exact skew angle, see contract plan sheets.

PLAN
Scale: 3/4" = 1'-0"

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

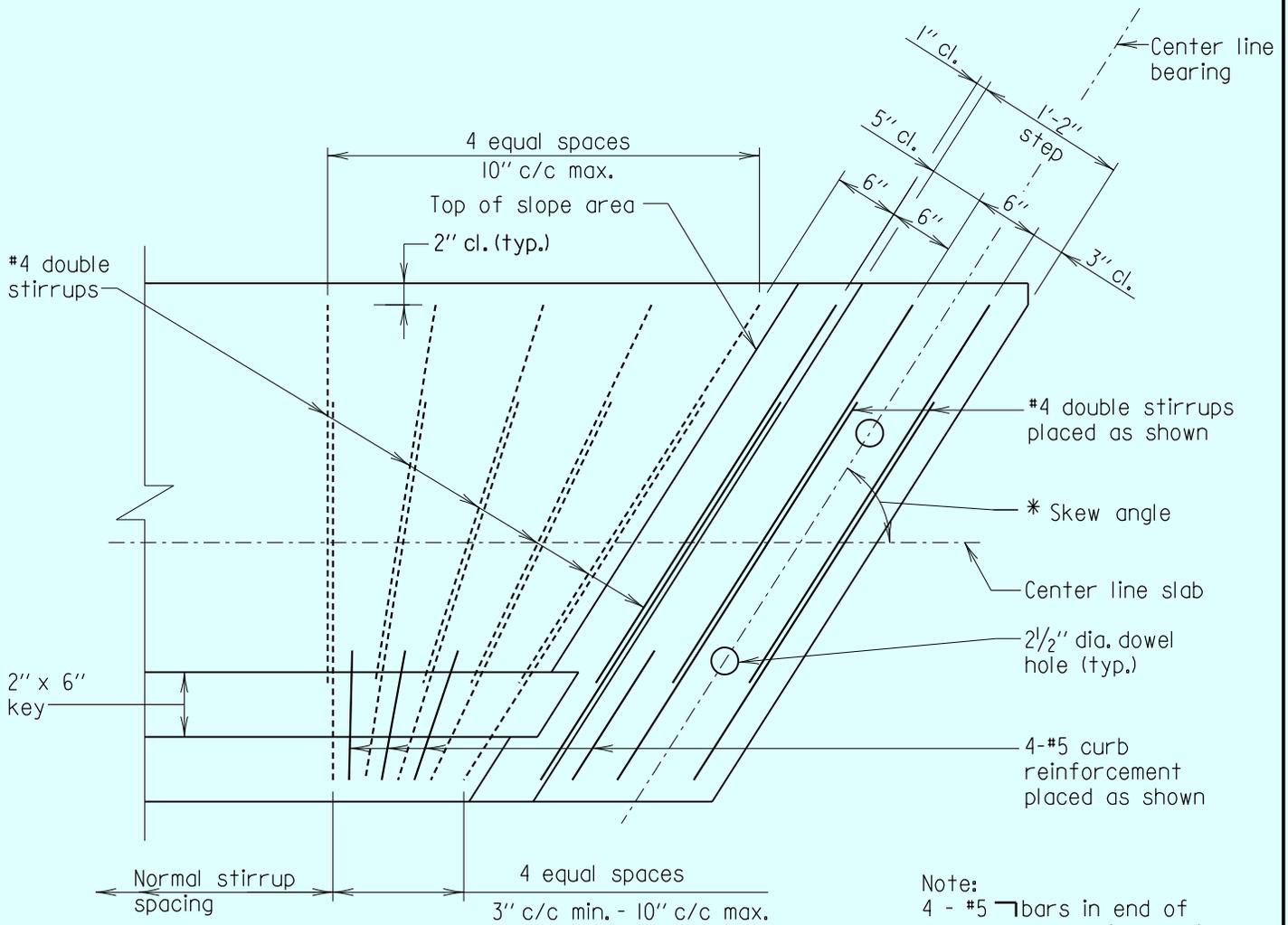
Note:
All reinforcing steel to be epoxy coated.

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DATE: 05/04/2017
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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 20'-0" TO 25'-0" INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL SKEWED END DETAIL	
DETAIL NO. SUP-SLAB(3FT)-203	SHEET 1 OF 2

SUPERSTRUCTURE SLABS



Note:
4 - #5 \sqsubset bars in end of slab not shown for clarity.

*For exact skew angle, see contract plan sheets.

PLAN
Scale: $\frac{3}{4}" = 1'-0"$

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

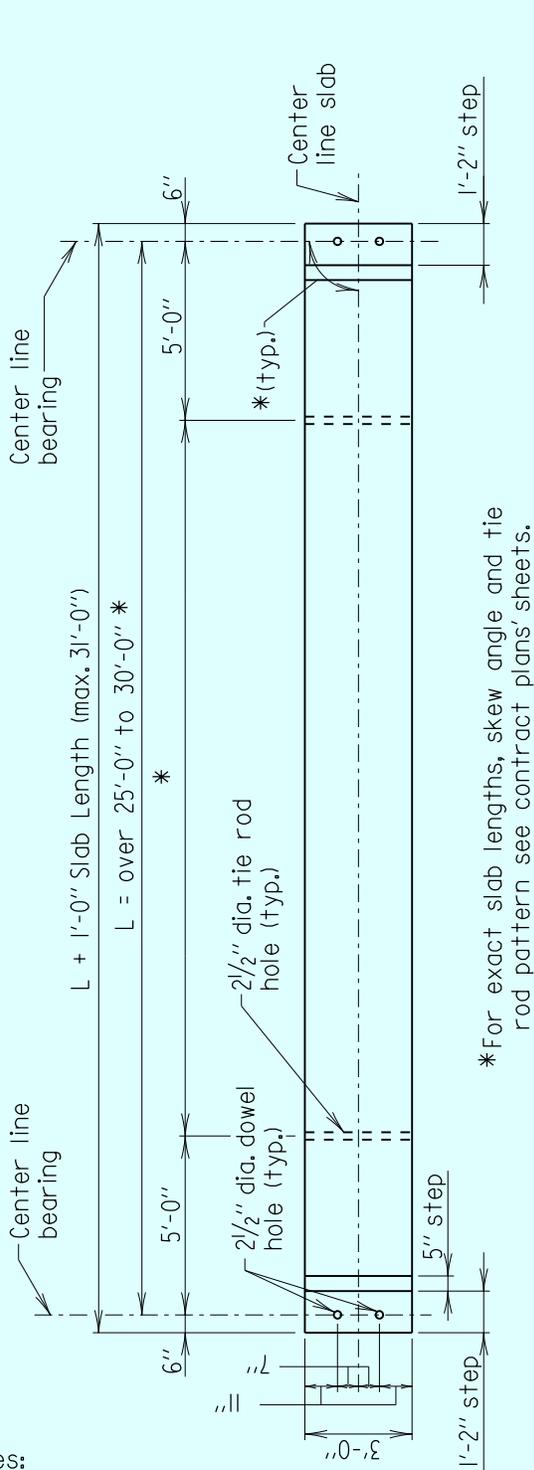
Note:
All reinforcing steel to be epoxy coated.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 20'-0" TO 25'-0" EXTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL SKEWED END DETAIL	
DETAIL NO. SUP-SLAB(3FT)-203	SHEET 2 OF 2

SUPERSTRUCTURE SLABS



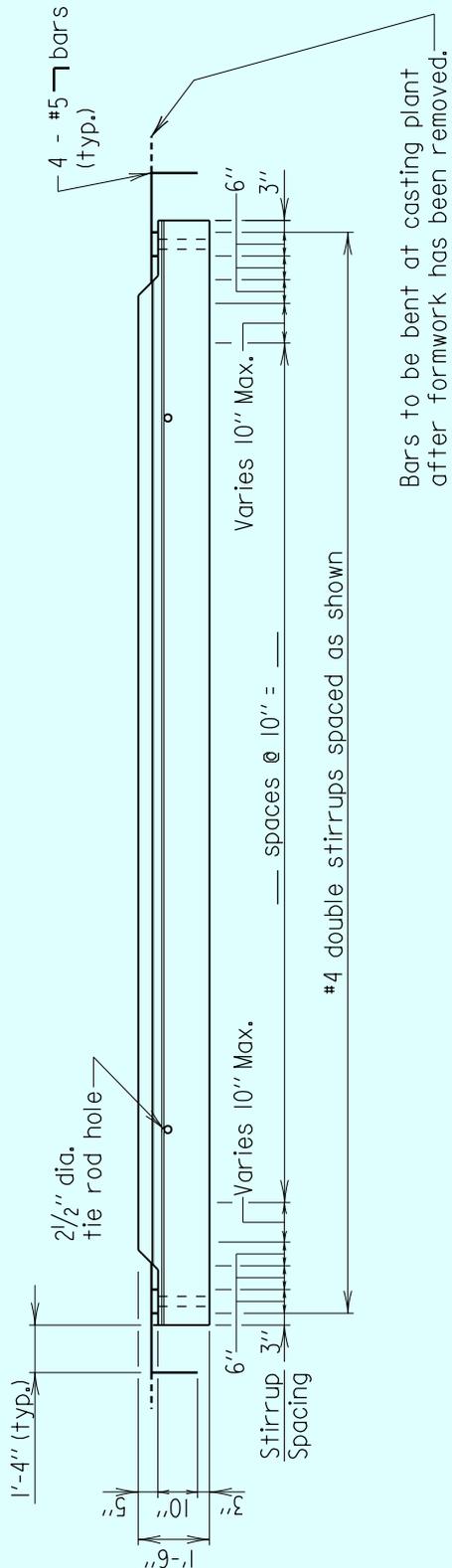
*For exact slab lengths, skew angle and tie rod pattern see contract plans' sheets.

3'-0" INTERIOR SLAB PLAN

Scale: 3/16" = 1'-0"

Note:
Reinforcing steel at ends of slab not shown for clarity.

Note:
Stirrup spacing shown is for a 90° crossing. For bridges with other skew angles, see Det. No. SUP-SLAB(3FT)-303 for details of skewed ends.



Bars to be bent at casting plant after formwork has been removed.

3'-0" INTERIOR SLAB ELEVATION

Scale: 1/4" = 1'-0"

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Notes:

1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
3. All reinforcing steel to be epoxy coated.

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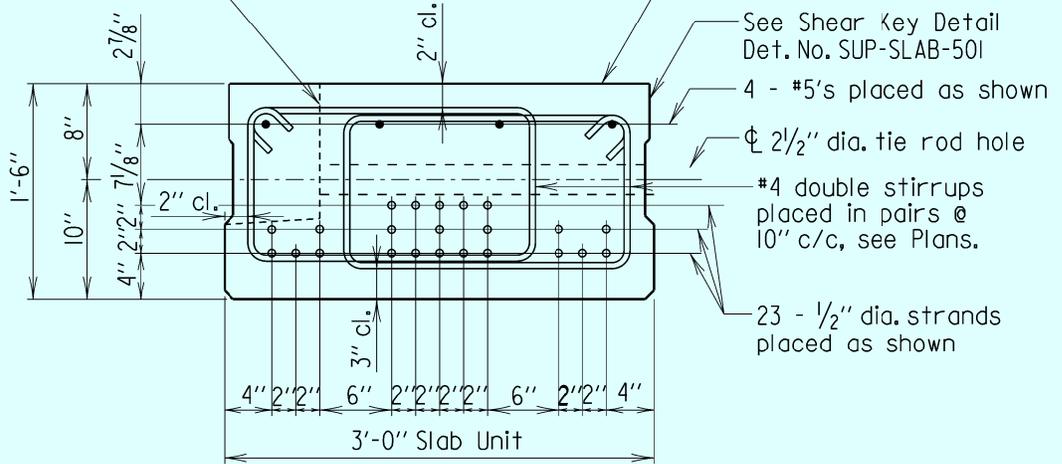
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

**SIMPLE SPAN GREATER THAN 25'-0" TO 30'-0"
INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(3FT)-301

SHEET 1 OF 2

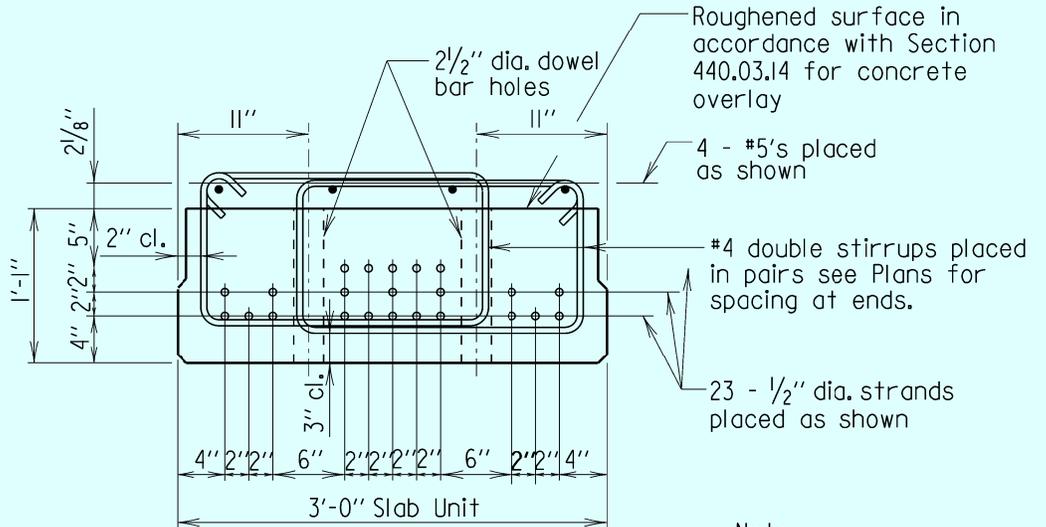
For stage construction
Type B tie rod recess
may be required.
For location see Slab
Layout sheet in Plans



SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"

Note:
For location of tie rod
holes, see contract plans.



SECTION - SLAB AT ENDS

Scale: 3/4" = 1'-0"

Note:
Any misplaced dowel bar
holes or tie rod holes will
be cause for rejection of
the precast slab unit.

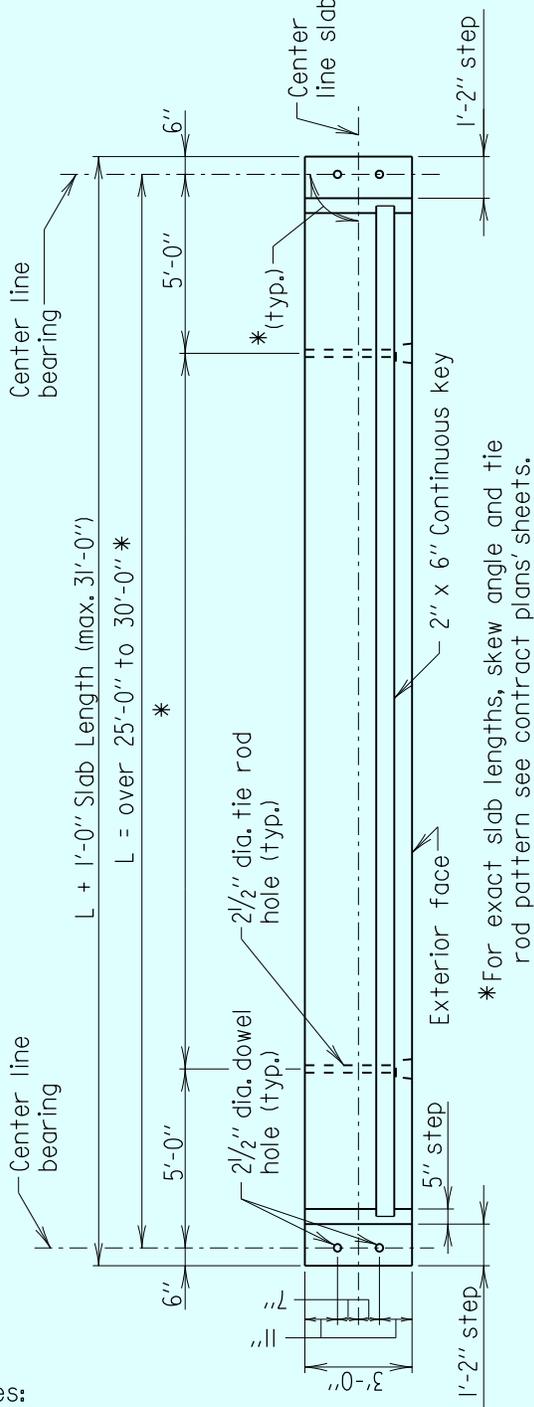
- Notes:
1. All reinforcing steel to be epoxy coated.
 2. Adjust stirrup spacing to avoid tie rod holes as needed.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 25'-0" TO 30'-0" INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL SECTIONS	
DETAIL NO. SUP-SLAB(3FT)-30I	SHEET <u>2</u> OF <u>2</u>

SUPERSTRUCTURE SLABS



Note:
Reinforcing steel at ends of slab and curb reinforcing not shown for clarity.

3'-0" EXTERIOR SLAB PLAN

Scale: 3/16" = 1'-0"

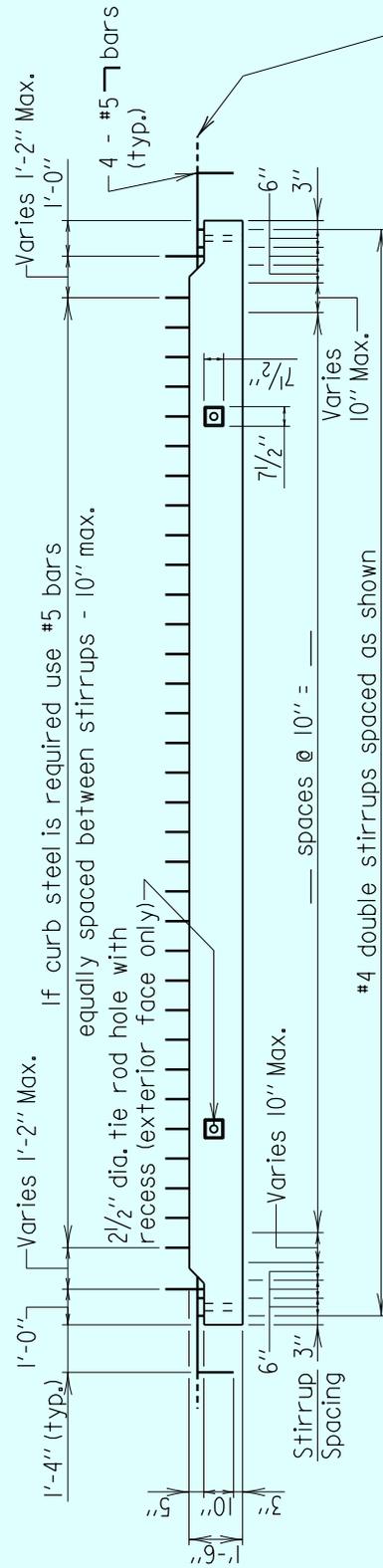
*For exact slab lengths, skew angle and tie rod pattern see contract plans' sheets.

Notes:

1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
3. All reinforcing steel to be epoxy coated.

Note:

Stirrup spacing shown is for a 90° crossing. For bridges with other skew angles, see Det. No. SUP-SLAB(3FT)-303 for details of skewed ends.



Bars to be bent at casting plant after formwork has been removed.

3'-0" EXTERIOR SLAB ELEVATION

Scale: 3/16" = 1'-0"

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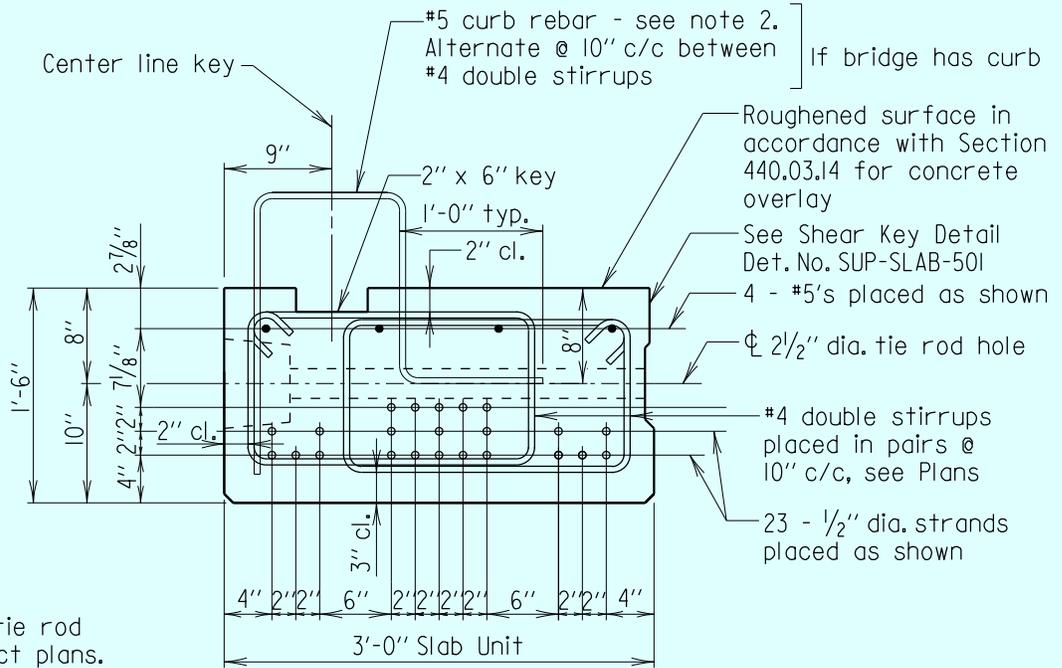
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

**SIMPLE SPAN GREATER THAN 25'-0" TO 30'-0"
EXTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(3FT)-302

SHEET 1 OF 2

SUPERSTRUCTURE SLABS

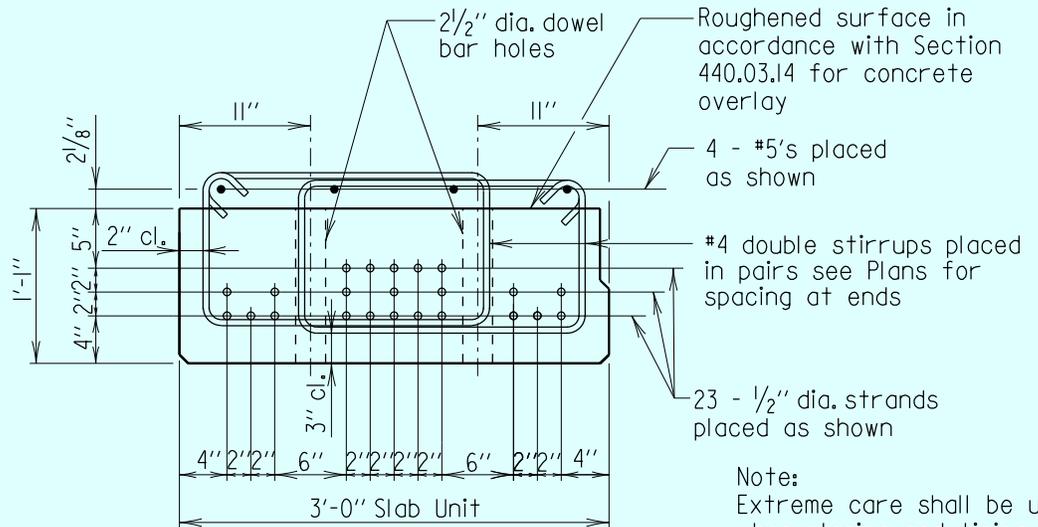


Notes:

1. For location of tie rod holes, see contract plans.
2. For location of curb reinforcement and anchor bolts and plates to be cast in slab for railing, see Det. No. SUP-TB(TR)-301

SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"



SECTION - SLAB AT ENDS

Scale: 3/4" = 1'-0"

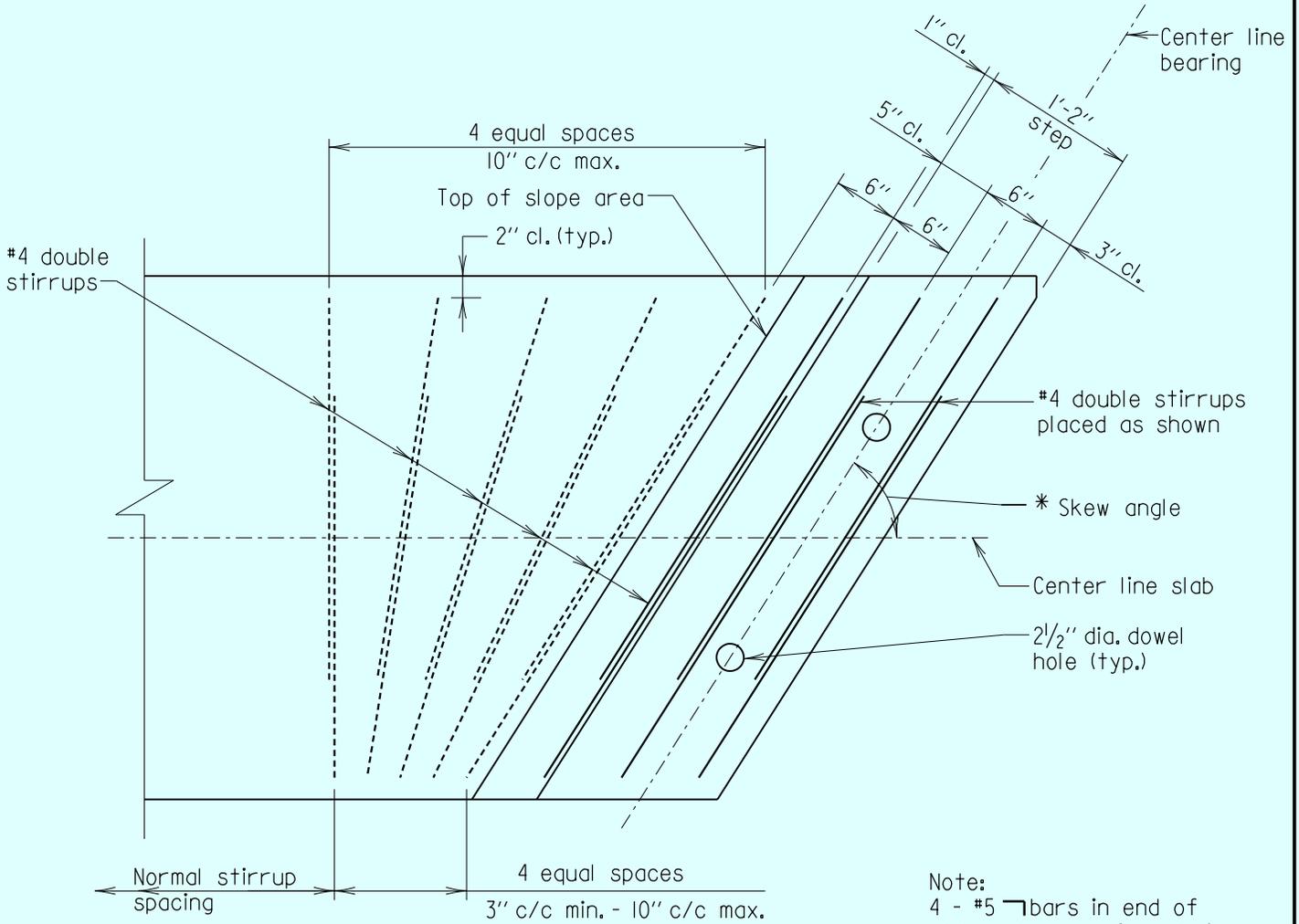
Note:
Extreme care shall be used when placing and tying the curb rebar, railing and anchor bolts assembly to provide for the required clearances. Any misplaced rebar, tie rod holes or anchor bolts will be cause for rejection of the precast slab unit.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 25'-0" TO 30'-0" EXTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL SECTIONS	
DETAIL NO. SUP-SLAB(3FT)-302	SHEET 2 OF 2

SUPERSTRUCTURE SLABS



*For exact skew angle, see contract plan sheets.

PLAN
Scale: 3/4" = 1'-0"

Note:
4 - #5 bars in end of slab not shown for clarity.

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

Note:
All reinforcing steel to be epoxy coated.

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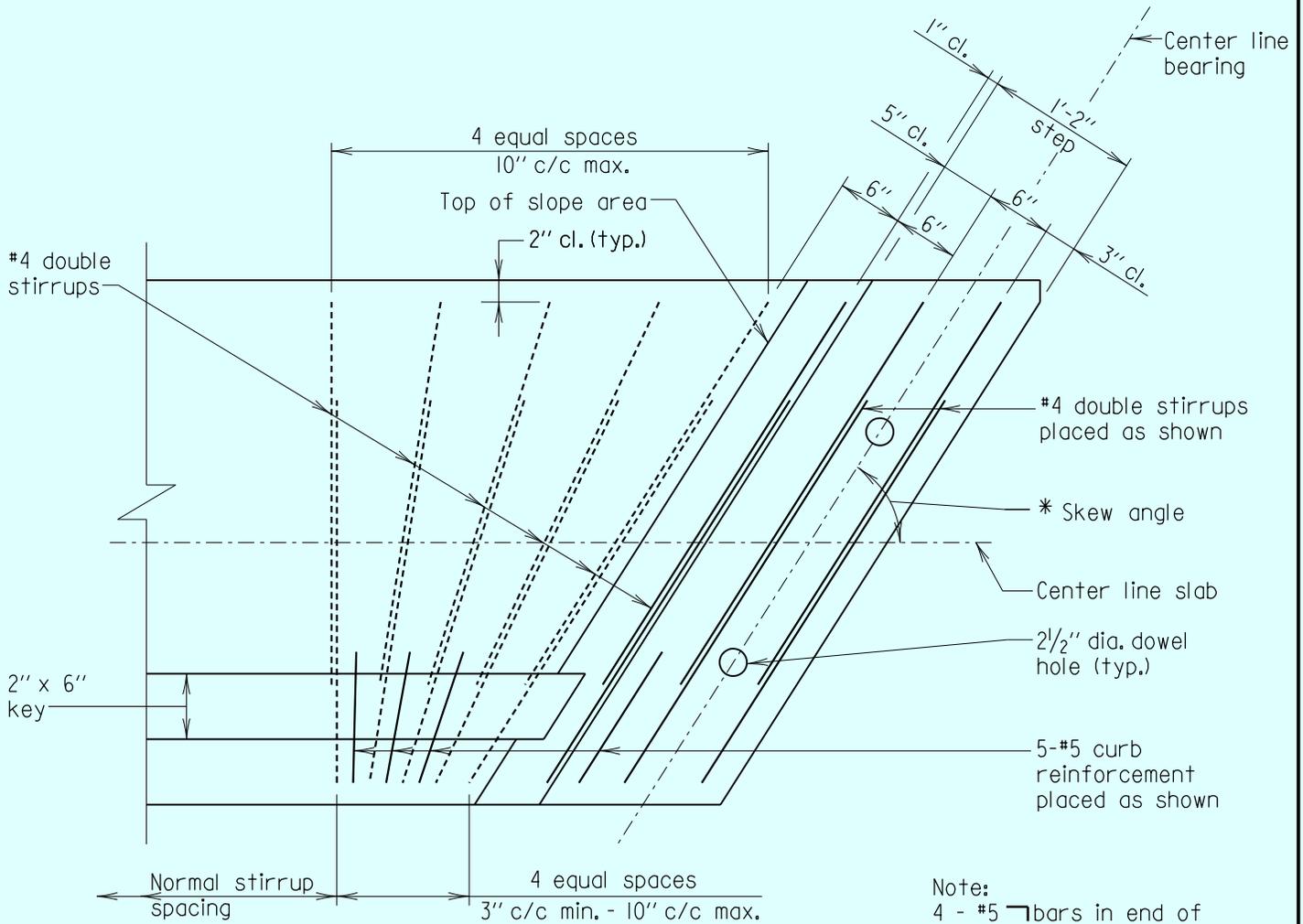
STATE OF MARYLAND
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**SIMPLE SPAN GREATER THAN 25'-0" TO 30'-0"
INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
SKEWED END DETAIL**

DETAIL NO. SUP-SLAB(3FT)-303

SHEET 1 OF 2

SUPERSTRUCTURE SLABS



Note:
4 - #5 \sqsubset bars in end of slab not shown for clarity.

*For exact skew angle, see contract plan sheets.

PLAN
Scale: $\frac{3}{4}'' = 1'-0''$

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

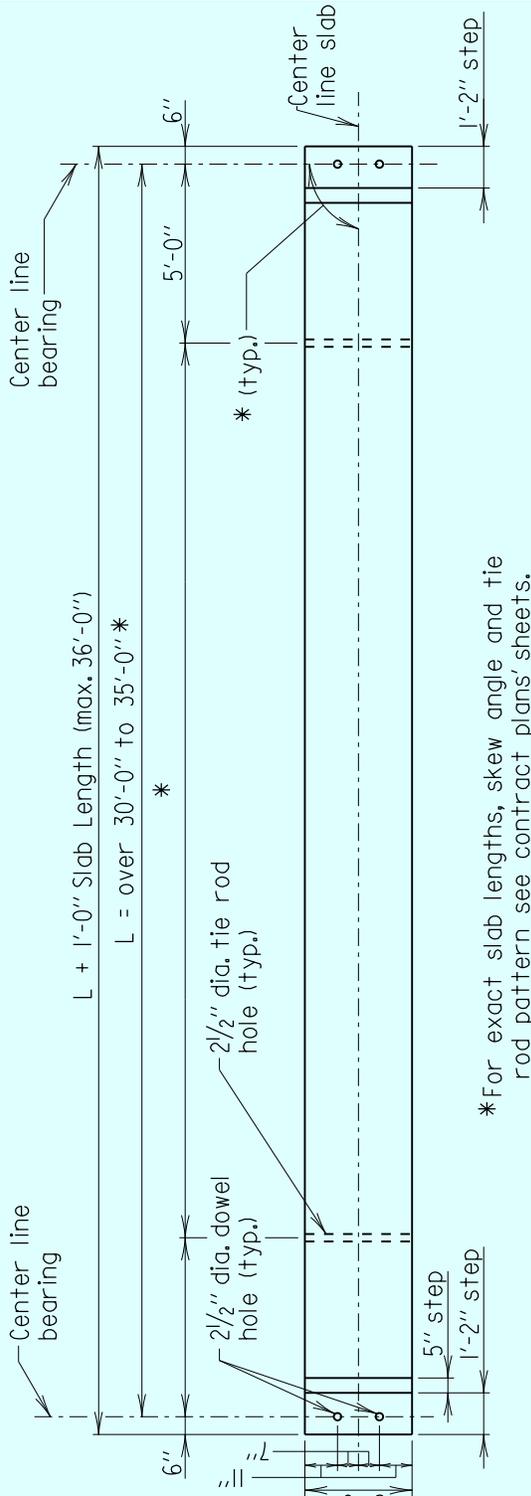
Note:
All reinforcing steel to be epoxy coated.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 25'-0" TO 30'-0" EXTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL SKEWED END DETAIL	
DETAIL NO. SUP-SLAB(3FT)-303	SHEET 2 OF 2

SUPERSTRUCTURE SLABS



* For exact slab lengths, skew angle and tie rod pattern see contract plans' sheets.

3'-0" INTERIOR SLAB PLAN

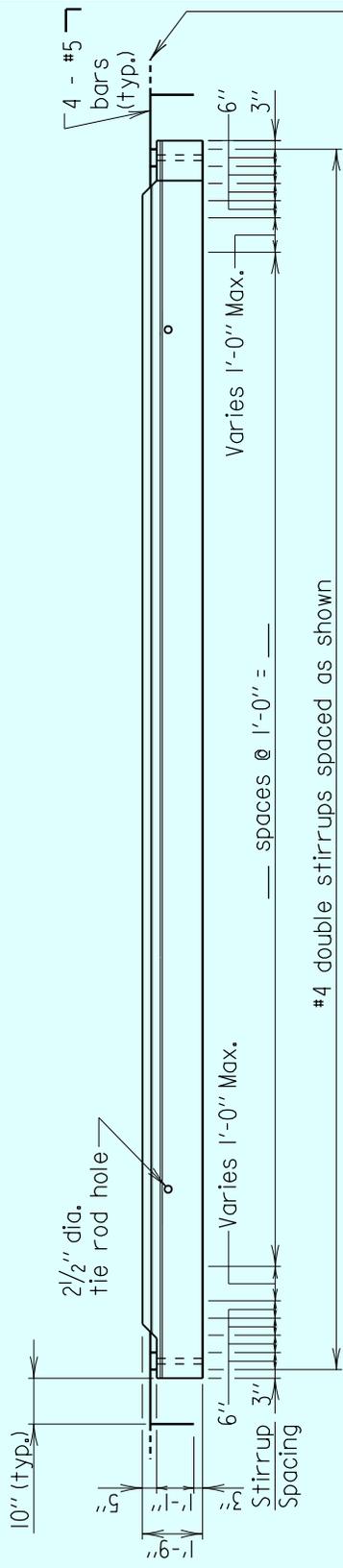
Scale: 3/16" = 1'-0"

Note:
Reinforcing steel at ends of slab not shown for clarity.

Notes:

1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
3. All reinforcing steel to be epoxy coated.

Note:
Stirrup spacing shown is for a 90° crossing. For bridges with other skew angles, see Det. No. SUP-SLAB(3FT)-403 for details of skewed ends.



Bars to be bent at casting plant after formwork has been removed.

3'-0" INTERIOR SLAB ELEVATION

Scale: 3/16" = 1'-0"

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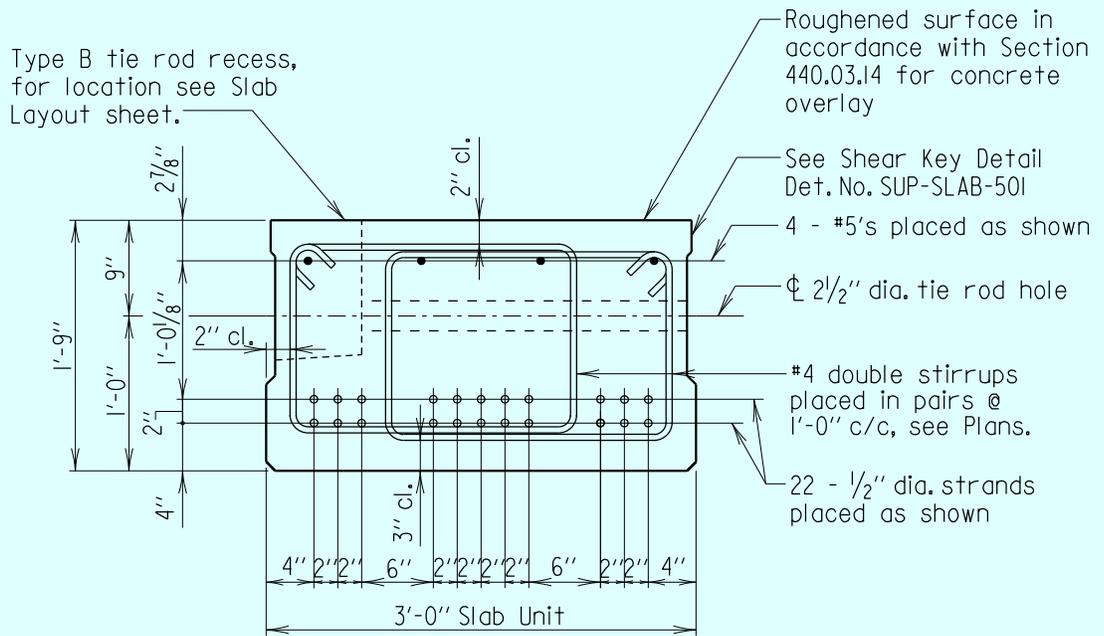
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STATE HIGHWAY ADMINISTRATION
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**SIMPLE SPAN GREATER THAN 30'-0" TO 35'-0"
INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(3FT)-401

SHEET 1 OF 2

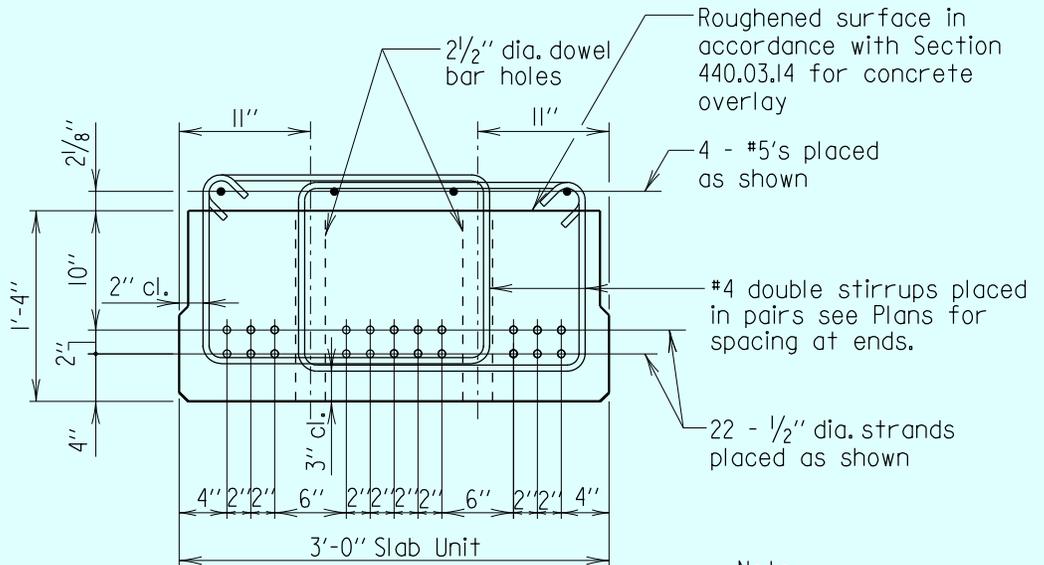
SUPERSTRUCTURE SLABS



Note:
For location of tie rod holes, see contract plans.

SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"



SECTION - SLAB AT ENDS

Scale: 3/4" = 1'-0"

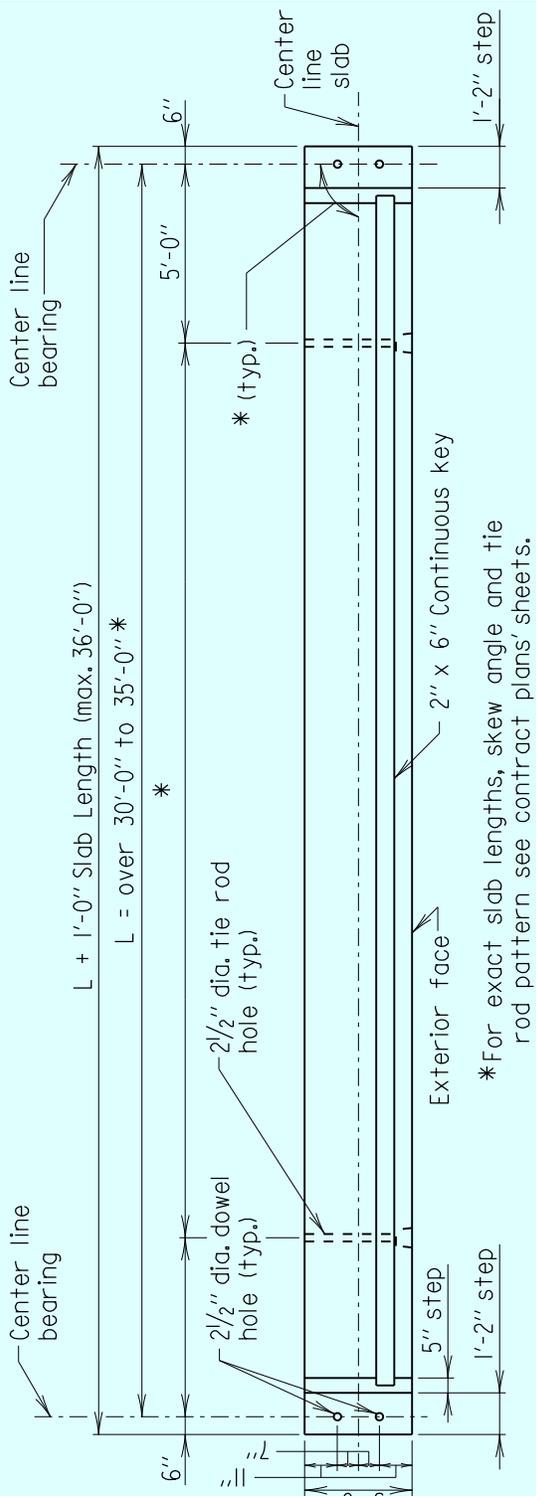
Note:
Any misplaced dowel bar holes or tie rod holes will be cause for rejection of the precast slab unit.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 30'-0" TO 35'-0" INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL	
DETAIL NO. SUP-SLAB(3FT)-401	SHEET 2 OF 2

SUPERSTRUCTURE SLABS

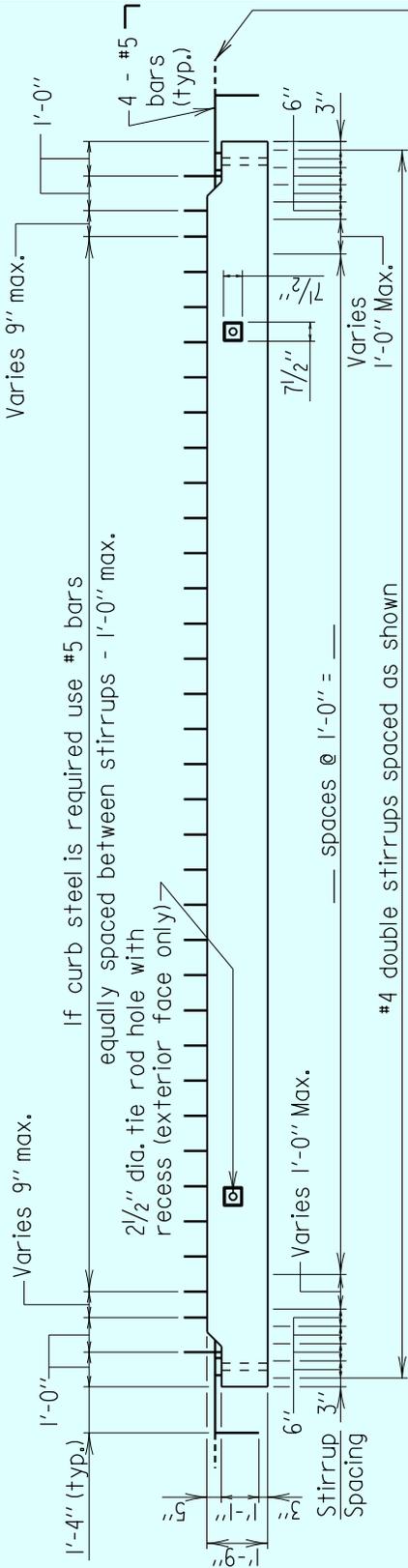


Note:
Reinforcing steel at ends of slab and curb reinforcing not shown for clarity.

3'-0" EXTERIOR SLAB PLAN

Scale: 3/16" = 1'-0"

Note:
Stirrup spacing shown is for a 90° crossing. For bridges with other skew angles, see Det. No. SUP-SLAB(3FT)-403 for details of skewed ends.



Bars to be bent at casting plant after formwork has been removed.

3'-0" EXTERIOR SLAB ELEVATION

Scale: 3/16" = 1'-0"

- Notes:
1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
 2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
 3. All reinforcing steel to be epoxy coated.

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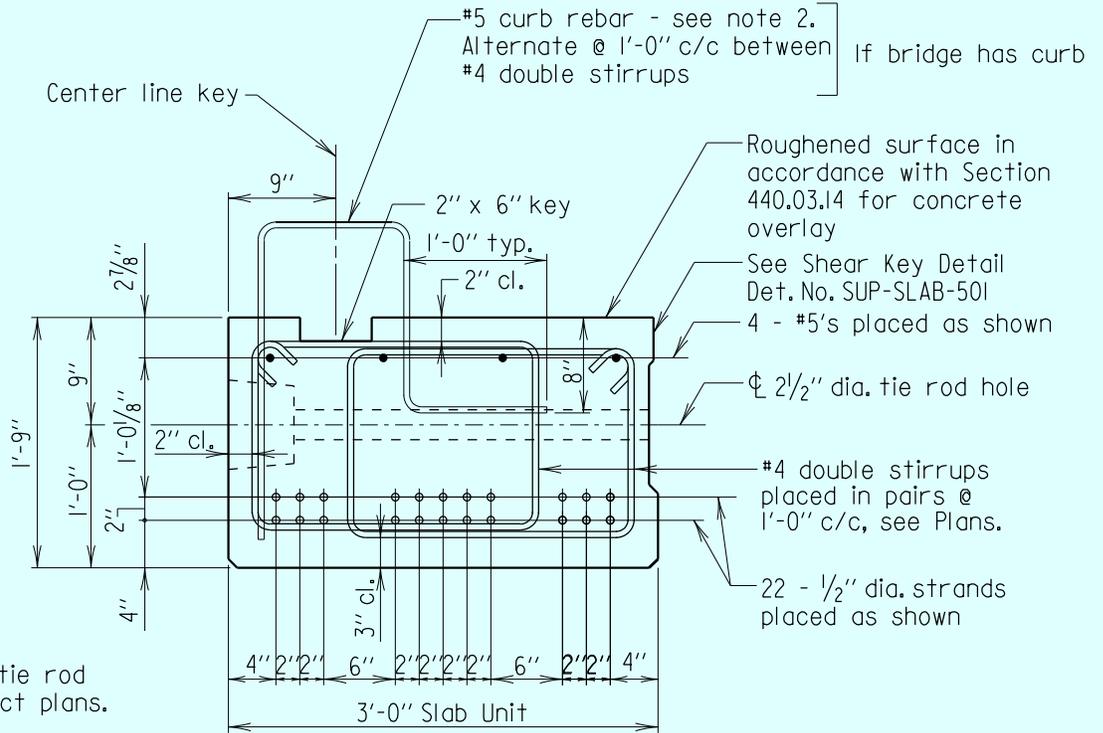
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**SIMPLE SPAN GREATER THAN 30'-0" TO 35'-0"
EXTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(3FT)-402 SHEET 1 OF 2

SUPERSTRUCTURE SLABS

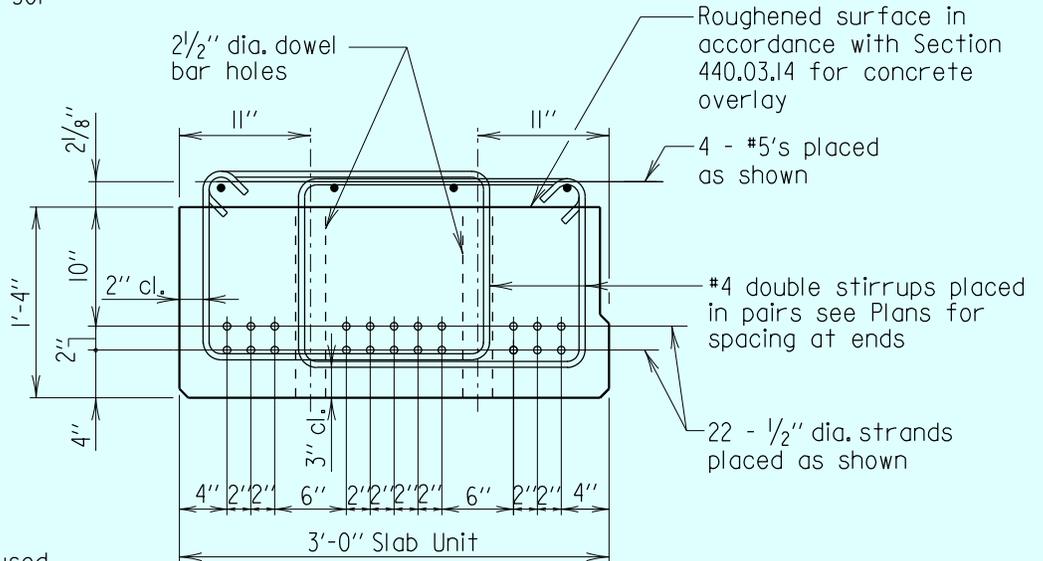


Notes:

1. For location of tie rod holes, see contract plans.
2. For location of curb reinforcement and anchor bolts and plates to be cast in slab for railing, see Det. No. SUP-TB(TR)-301

SECTION - SLAB AT MIDSPAN

Scale: $\frac{3}{4}'' = 1'-0''$



Note:

Extreme care shall be used when placing and tying the curb rebar, railing and anchor bolts assembly to provide for the required clearances. Any misplaced rebar, dowel bar holes, tie rod holes or anchor bolts will be cause for rejection of the precast slab unit.

SECTION - SLAB AT ENDS

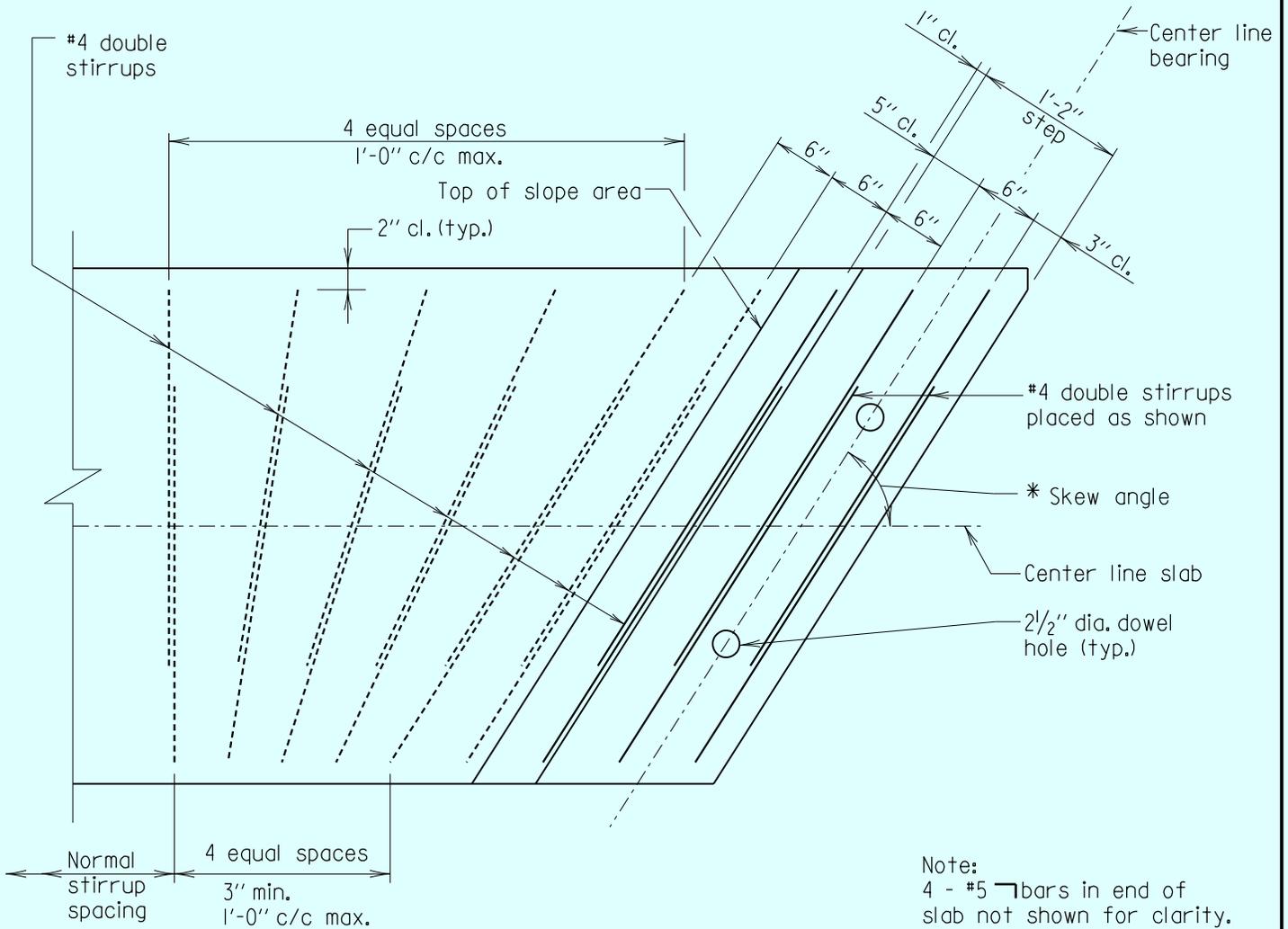
Scale: $\frac{3}{4}'' = 1'-0''$

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 30'-0" TO 35'-0" EXTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL SECTIONS	
DETAIL NO. SUP-SLAB(3FT)-402	SHEET <u>2</u> OF <u>2</u>

SUPERSTRUCTURE SLABS



*For exact skew angle, see contract plan sheets.

PLAN
Scale: 3/4" = 1'-0"

Note:
4 - #5 bars in end of slab not shown for clarity.

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

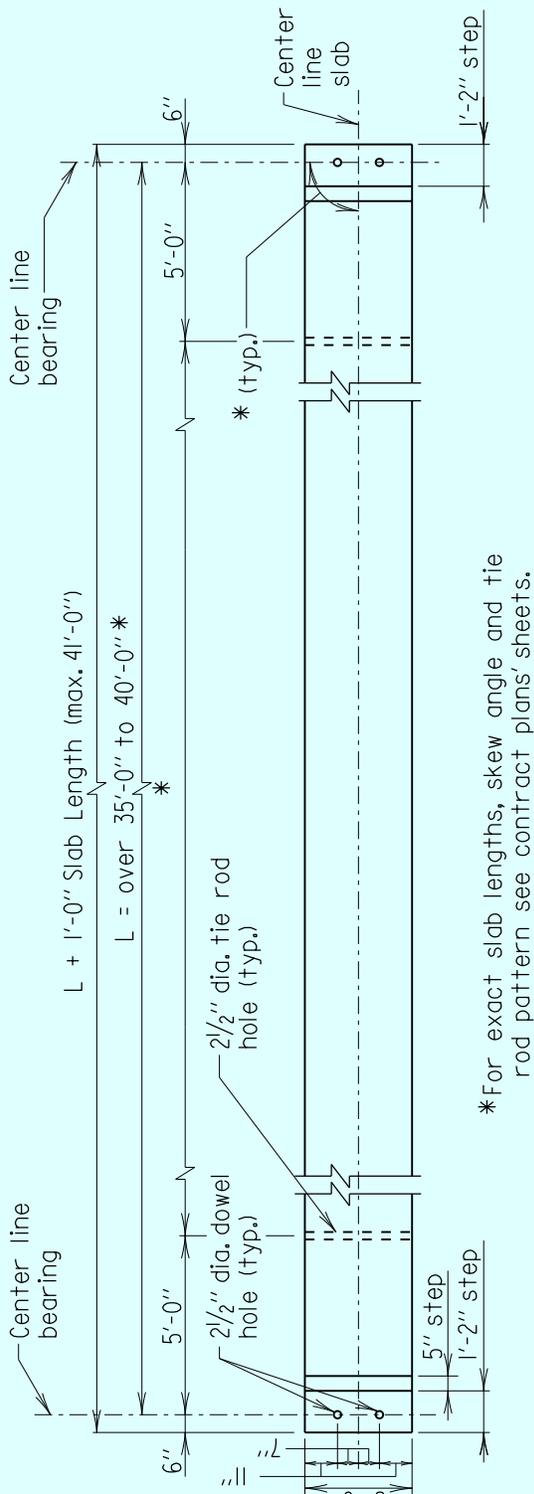
Note:
All reinforcing steel to be epoxy coated.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 30'-0" TO 35'-0" INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL SKEWED END DETAIL	
DETAIL NO. SUP-SLAB(3FT)-403	SHEET 1 OF 2

SUPERSTRUCTURE SLABS



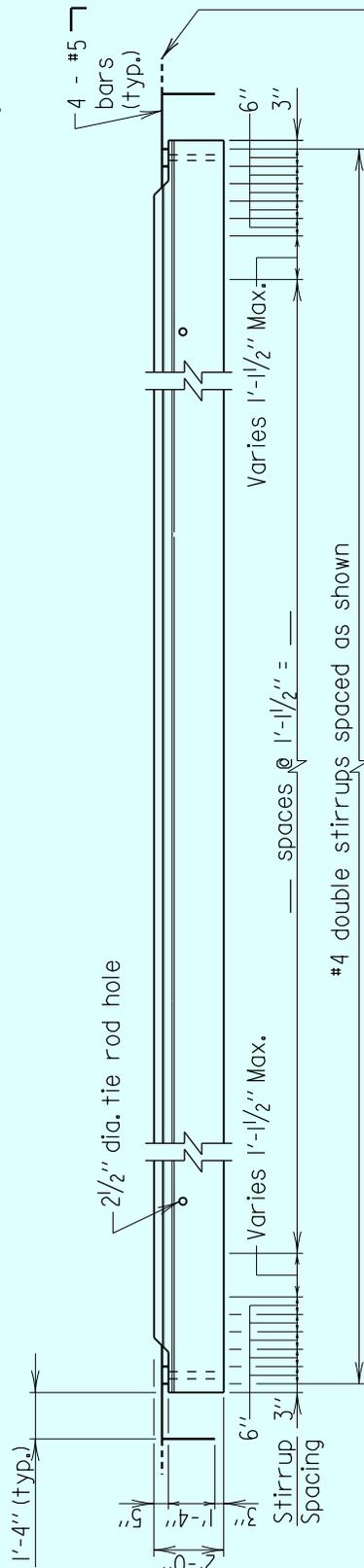
*For exact slab lengths, skew angle and tie rod pattern see contract plans' sheets.

3'-0" INTERIOR SLAB PLAN

Scale: 3/16" = 1'-0"

Note:
Reinforcing steel at ends of slab not shown for clarity.

Note:
Stirrup spacing shown is for a 90° crossing. For bridges with other skew angles, see Det. No. SUP-SLAB(3FT)-503 for details of skewed ends.



Bars to be bent at casting plant after formwork has been removed.

3'-0" INTERIOR SLAB ELEVATION

Scale: 3/16" = 1'-0"

Notes:

1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
3. All reinforcing steel to be epoxy coated.

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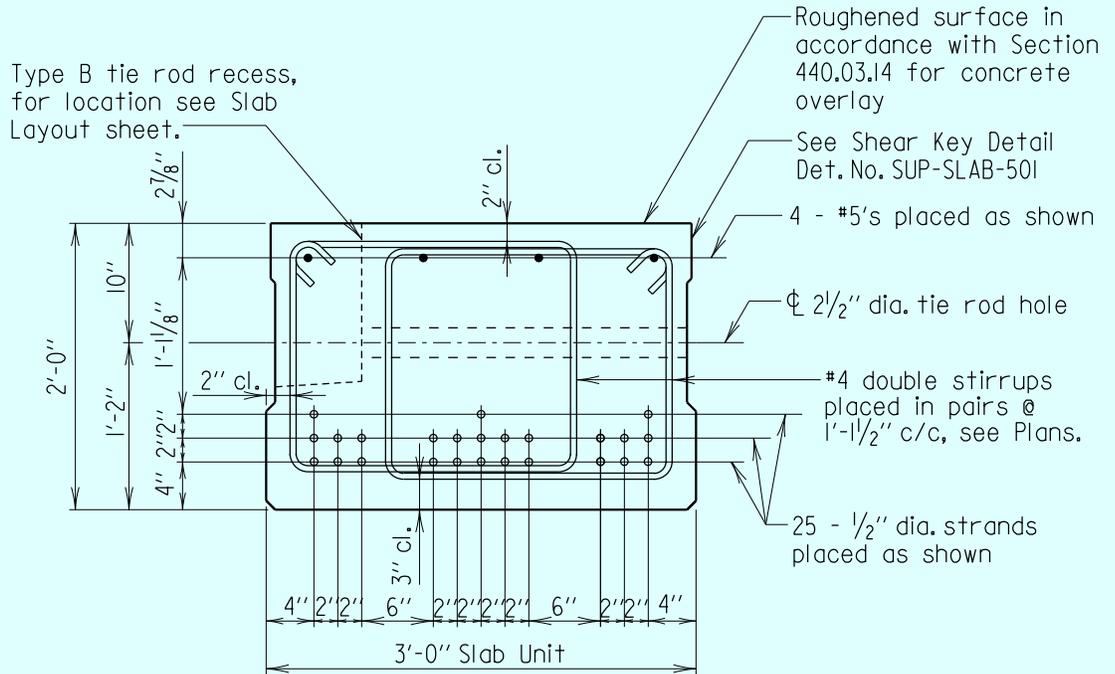
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**SIMPLE SPAN GREATER THAN 35'-0" TO 40'-0"
INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(3FT)-501 SHEET 1 OF 2

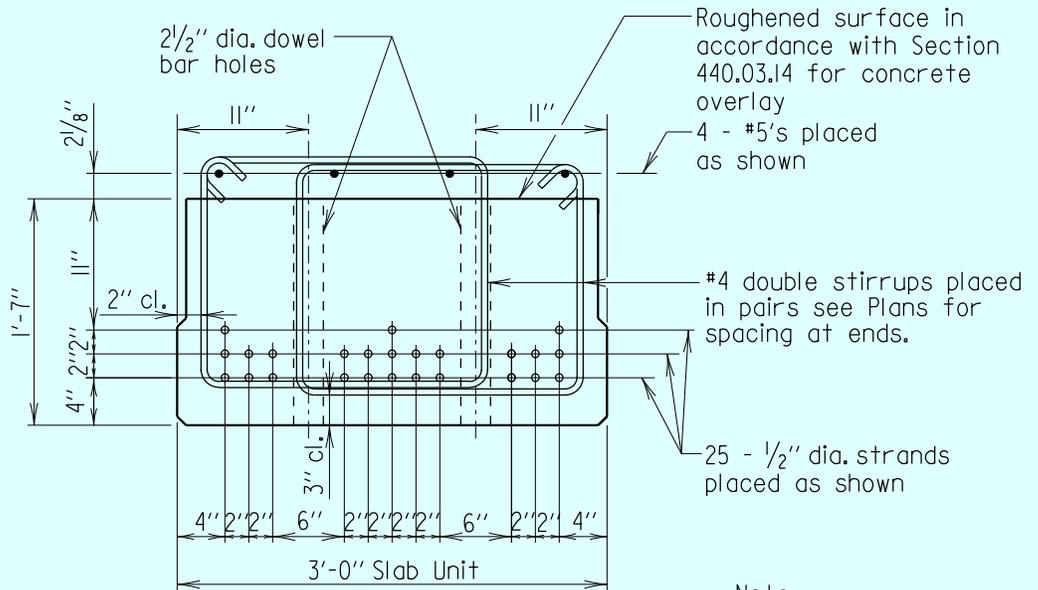
SUPERSTRUCTURE SLABS



Note:
For location of tie rod holes, see contract plans.

SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"



Note:
Any misplaced dowel bar holes or tie rod holes will be cause for rejection of the precast slab unit.

SECTION - SLAB AT ENDS

Scale: 3/4" = 1'-0"

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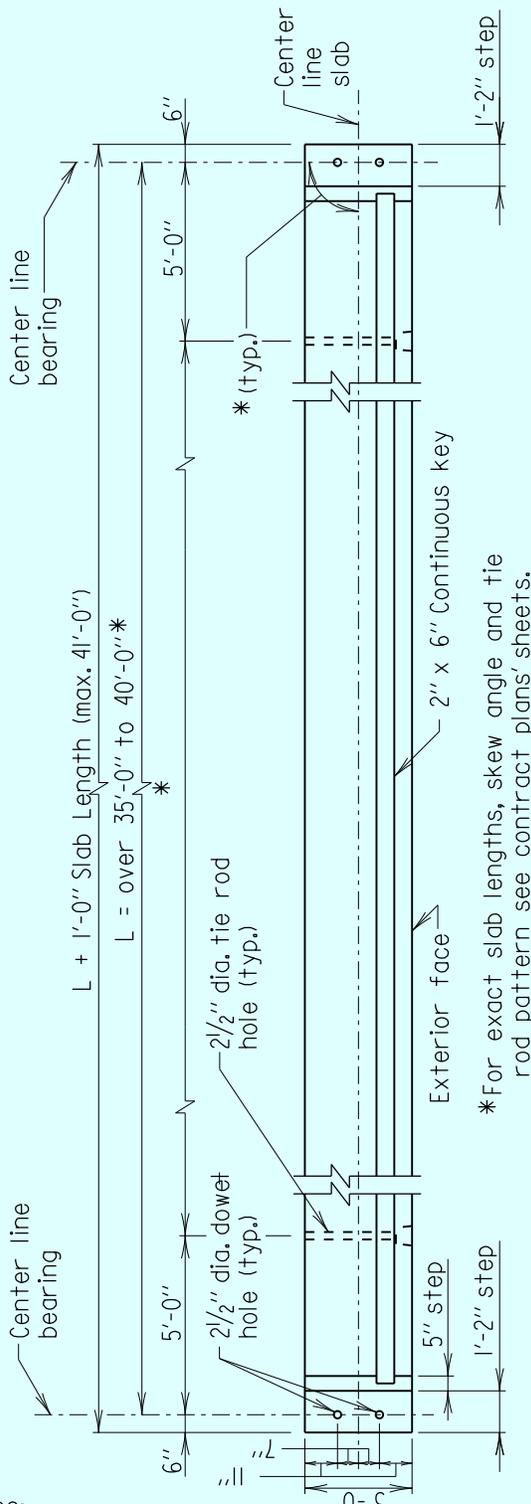
STATE OF MARYLAND
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STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

**SIMPLE SPAN GREATER THAN 35'-0" TO 40'-0"
INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
SECTIONS**

DETAIL NO. SUP-SLAB(3FT)-501

SHEET 2 OF 2

SUPERSTRUCTURE SLABS

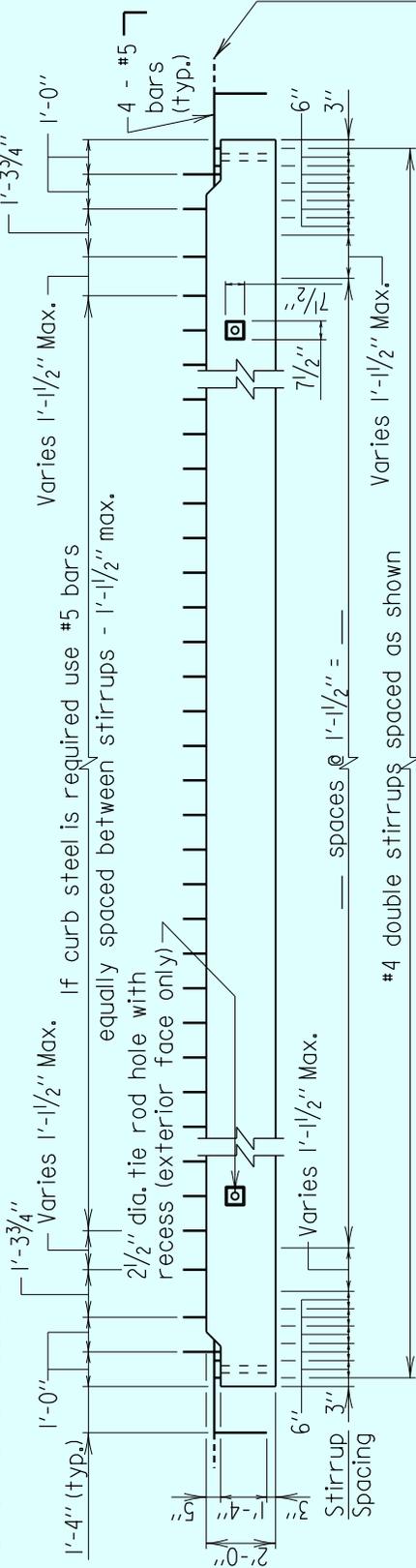


Note:
Reinforcing steel at ends of slab and curb reinforcing not shown for clarity.

3'-0" EXTERIOR SLAB PLAN

Scale: 3/16" = 1'-0"

Note:
Stirrup spacing shown is for a 90° crossing. For bridges with other skew angles, see Det. No. SUP-SLAB(3FT)-503 for details of skewed ends.



Bars to be bent at casting plant after formwork has been removed.

3'-0" EXTERIOR SLAB ELEVATION

Scale: 3/16" = 1'-0"

Notes:

1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
3. All reinforcing steel to be epoxy coated.

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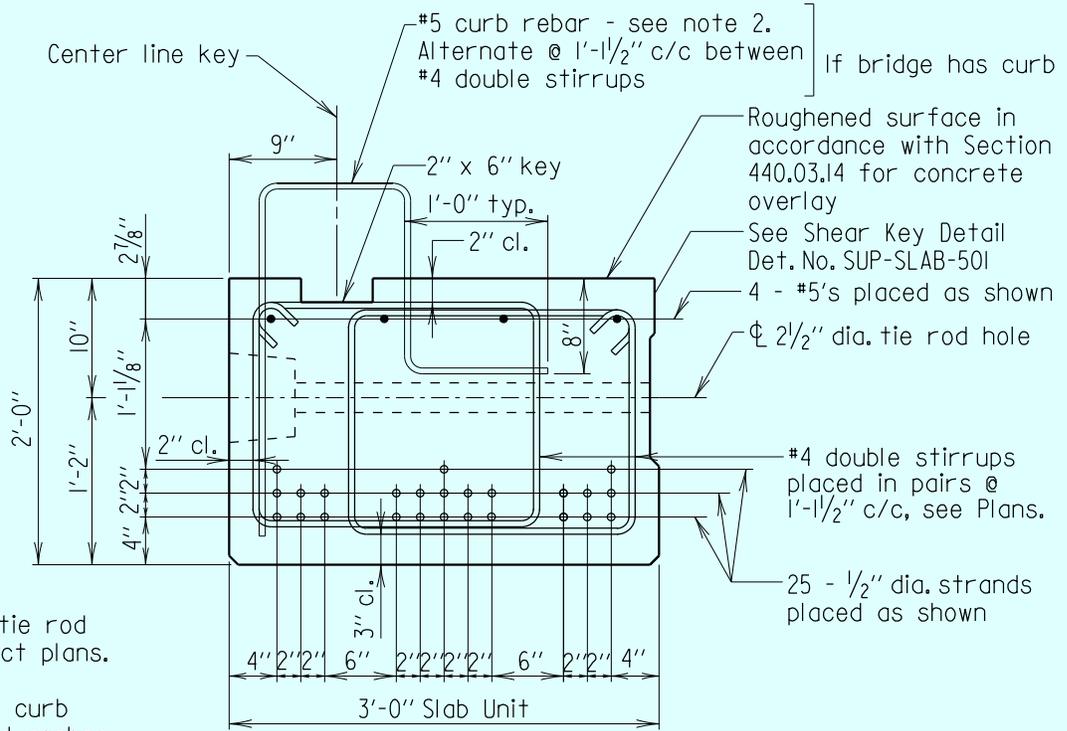
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**SIMPLE SPAN GREATER THAN 35'-0" TO 40'-0"
EXTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(3FT)-502 SHEET 1 OF 2

SUPERSTRUCTURE SLABS

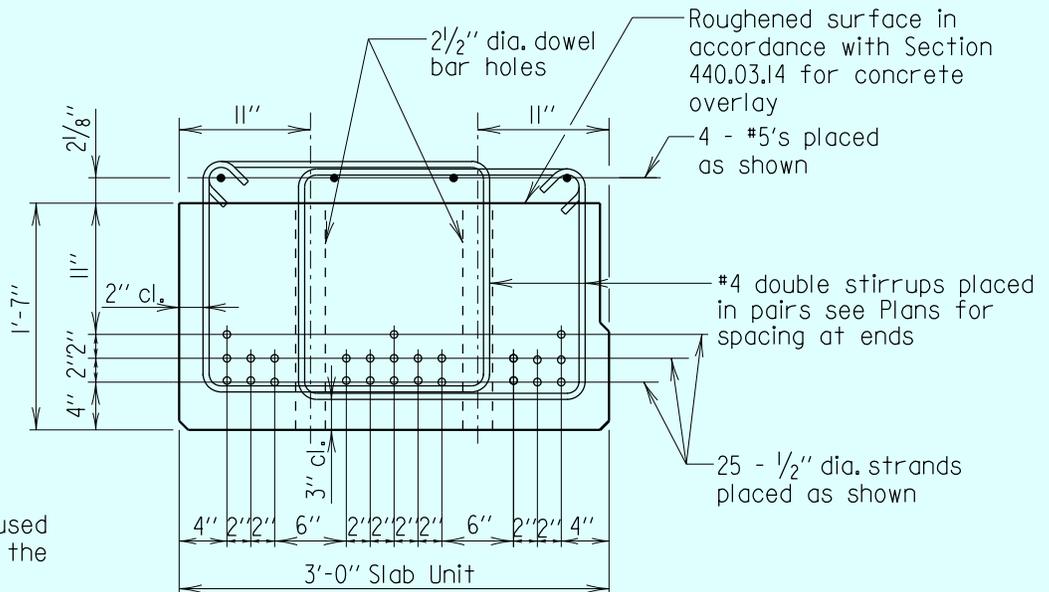


Notes:

1. For location of tie rod holes, see contract plans.
2. For location of curb reinforcement and anchor bolts and plates to be cast in slab for railing, see Det. No. SUP-TB(TR)-301

SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"



Note:

Extreme care shall be used when placing and tying the curb rebar, railing and anchor bolts assembly to provide for the required clearances. Any misplaced rebar, dowel bar holes, tie rod holes or anchor bolts will be cause for rejection of the precast slab unit.

SECTION - SLAB AT ENDS

Scale: 3/4" = 1'-0"

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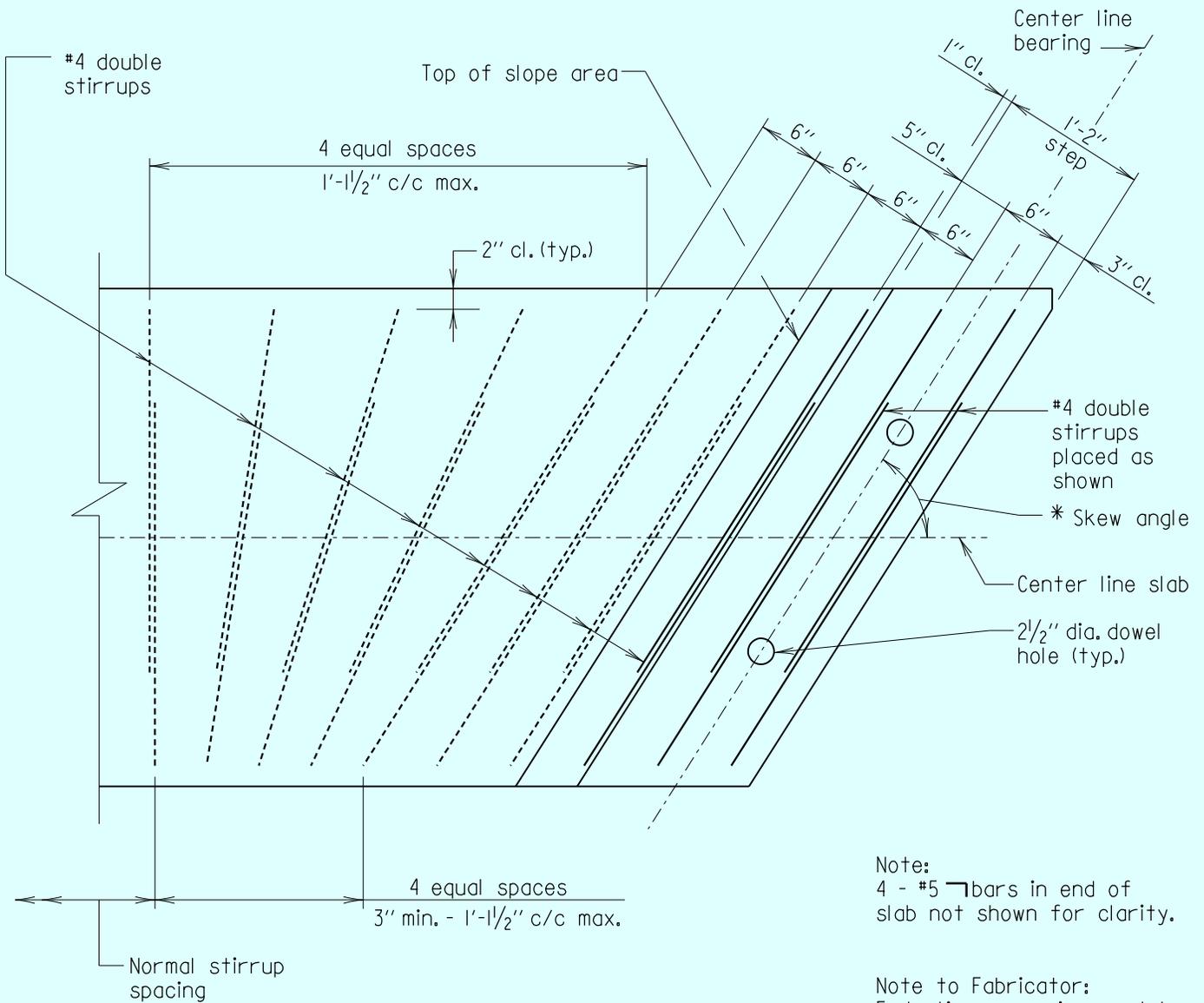
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**SIMPLE SPAN GREATER THAN 35'-0" TO 40'-0"
EXTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
SECTIONS**

DETAIL NO. SUP-SLAB(3FT)-502

SHEET 2 OF 2

SUPERSTRUCTURE SLABS



Note:
4 - #5 bars in end of slab not shown for clarity.

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

*For exact skew angle, see contract plan sheets.

PLAN
Scale: 3/4" = 1'-0"

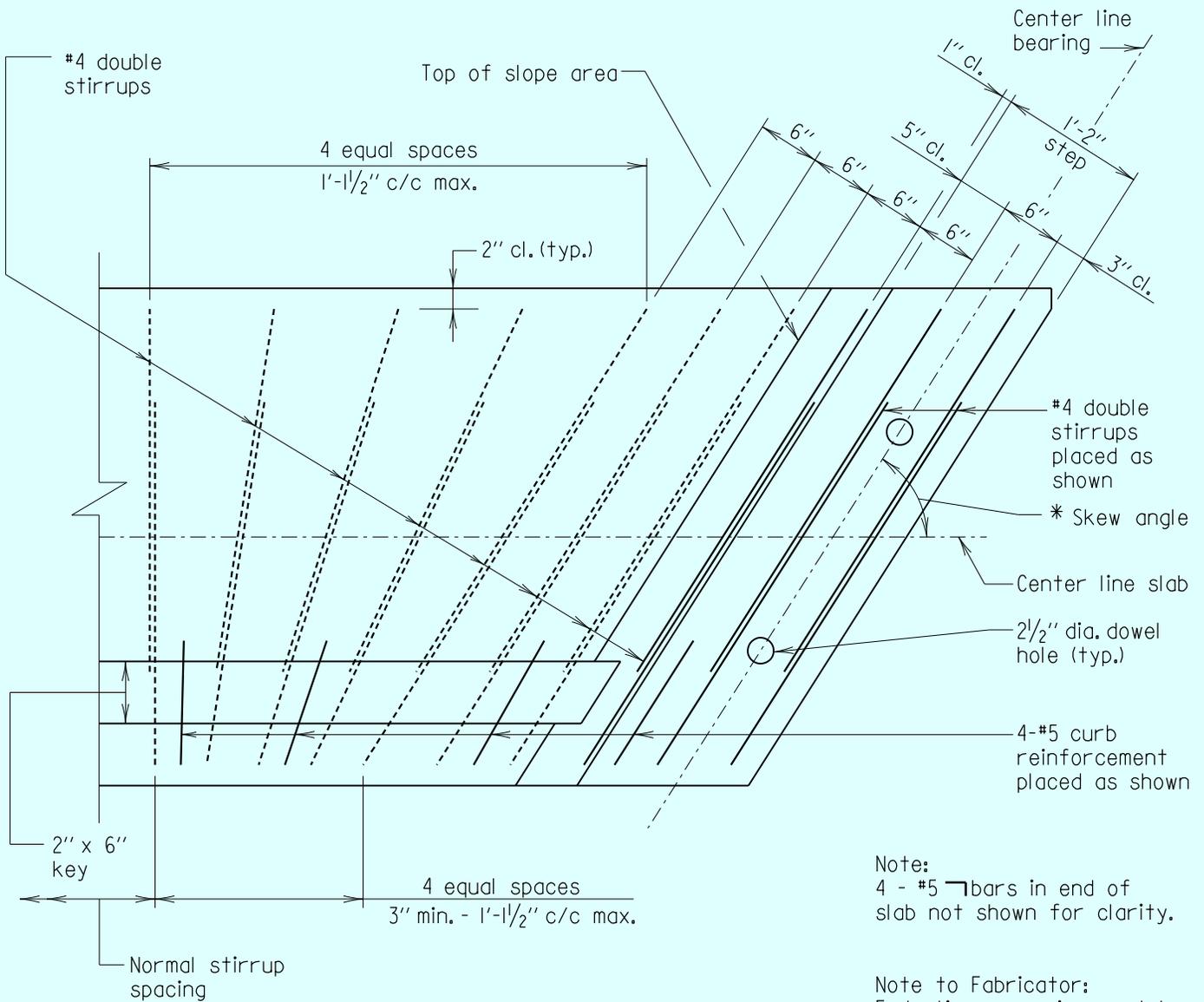
Note:
All reinforcing steel to be epoxy coated.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 35'-0" TO 40'-0" INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL SKEWED END DETAIL	
DETAIL NO. SUP-SLAB(3FT)-503	SHEET 1 OF 2

SUPERSTRUCTURE SLABS



*For exact skew angle, see contract plan sheets.

PLAN
Scale: $\frac{3}{4}'' = 1'-0''$

Note:
4 - #5 \sqsubset bars in end of slab not shown for clarity.

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

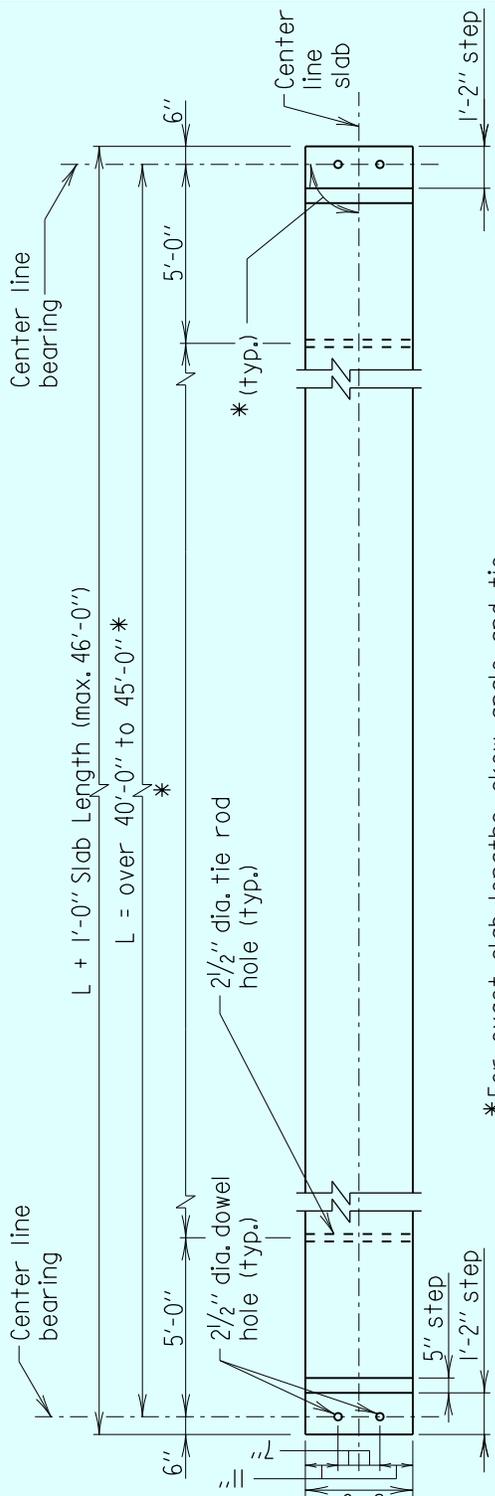
Note:
All reinforcing steel to be epoxy coated.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 35'-0" TO 40'-0" EXTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL SKEWED END DETAIL	
DETAIL NO. SUP-SLAB(3FT)-503	SHEET 2 OF 2

SUPERSTRUCTURE SLABS



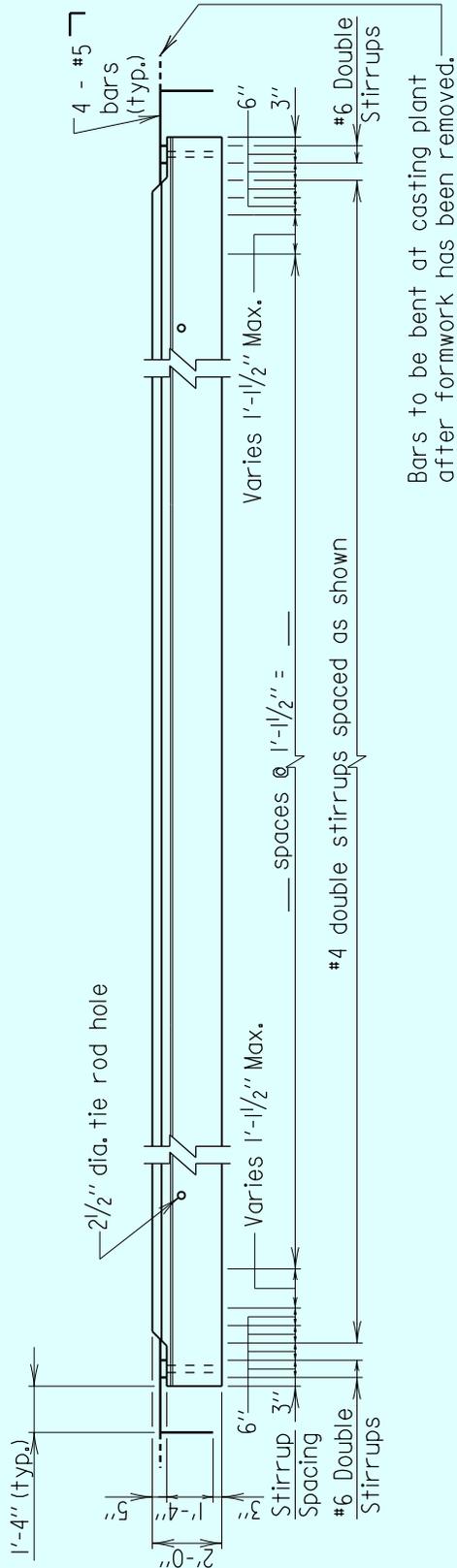
*For exact slab lengths, skew angle and tie rod pattern see contract plans' sheets.

3'-0" INTERIOR SLAB PLAN

Scale: 3/16" = 1'-0"

Note:
Reinforcing steel at ends of slab not shown for clarity.

Note:
Stirrup spacing shown is for a 90° crossing. For bridges with other skew angles, see Det. No. SUP-SLAB(3FT)-603 for details of skewed ends.



3'-0" INTERIOR SLAB ELEVATION

Scale: 3/16" = 1'-0"

- Notes:
1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
 2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
 3. All reinforcing steel to be epoxy coated.

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STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

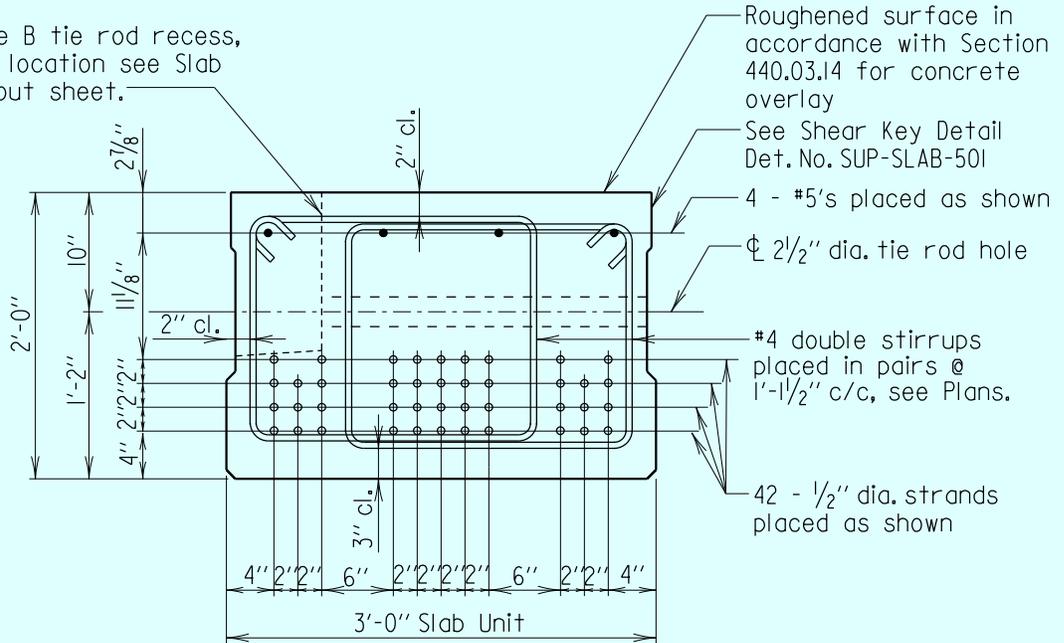
**SIMPLE SPAN GREATER THAN 40'-0" TO 45'-0"
INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(3FT)-601

SHEET 1 OF 2

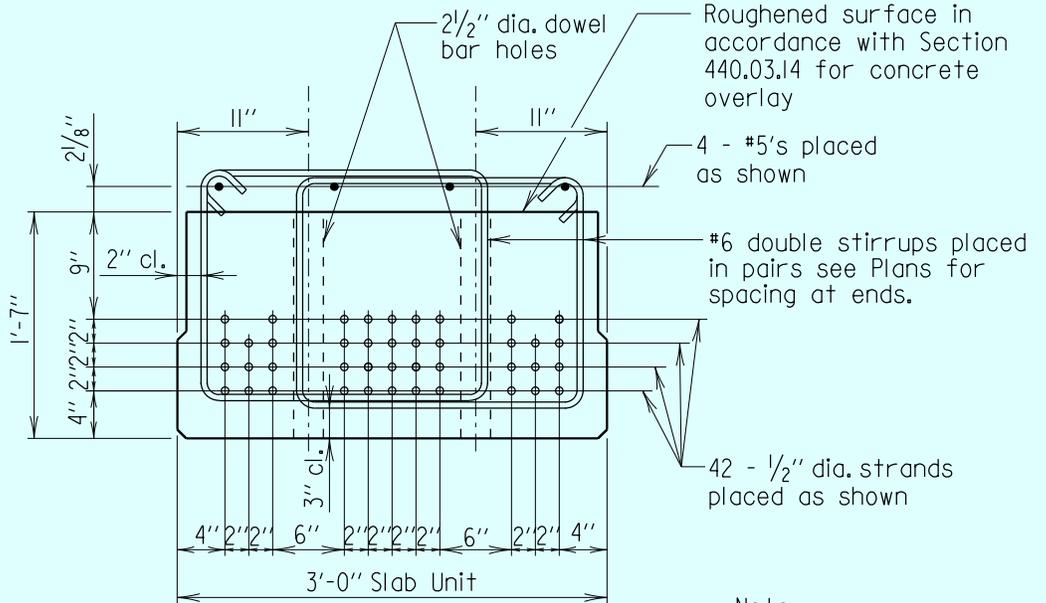
SUPERSTRUCTURE SLABS

Type B tie rod recess,
for location see Slab
Layout sheet.



Note:
For location of tie rod
holes, see contract plans.

SECTION - SLAB AT MIDSPAN
Scale: 3/4" = 1'-0"



Note:
Any misplaced dowel bar
holes or tie rod holes will
be cause for rejection of
the precast slab unit.

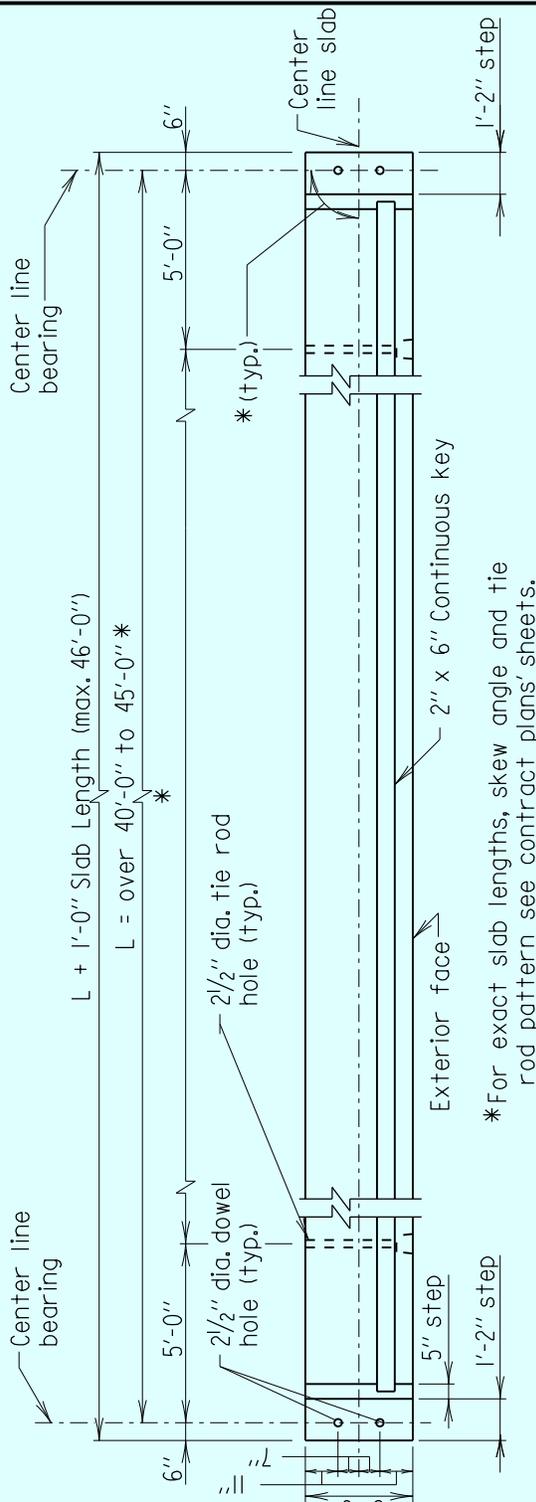
SECTION - SLAB AT ENDS
Scale: 3/4" = 1'-0"

* FOR OFFICE USE ONLY *

APPROVAL
<i>Ron C. [Signature]</i> DIRECTOR OFFICE OF STRUCTURES
DATE: 05/04/2017
VERSION
1.0

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 40'-0" TO 45'-0" INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL SECTIONS	
DETAIL NO. SUP-SLAB(3FT)-601	SHEET <u>2</u> OF <u>2</u>

SUPERSTRUCTURE SLABS



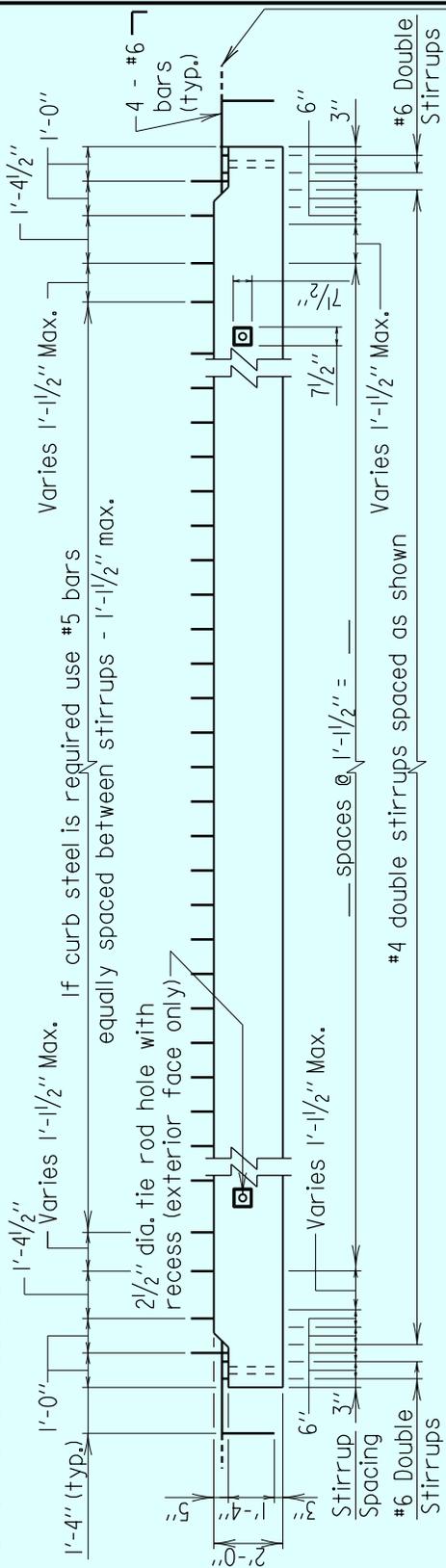
Note:
Reinforcing steel at ends of slab and curb reinforcing not shown for clarity.

3'-0" EXTERIOR SLAB PLAN

Scale: 3/16" = 1'-0"

*For exact slab lengths, skew angle and tie rod pattern see contract plans' sheets.

Note:
Stirrup spacing shown is for a 90° crossing. For bridges with other skew angles, see Det. No. SUP-SLAB(3FT)-603 for details of skewed ends.



Bars to be bent at casting plant after formwork has been removed.

3'-0" EXTERIOR SLAB ELEVATION

Scale: 3/16" = 1'-0"

Notes:

1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
3. All reinforcing steel to be epoxy coated.

*** FOR OFFICE USE ONLY ***

APPROVAL
<i>[Signature]</i> DIRECTOR OFFICE OF STRUCTURES
DATE: 05/04/2017
VERSION
1.0

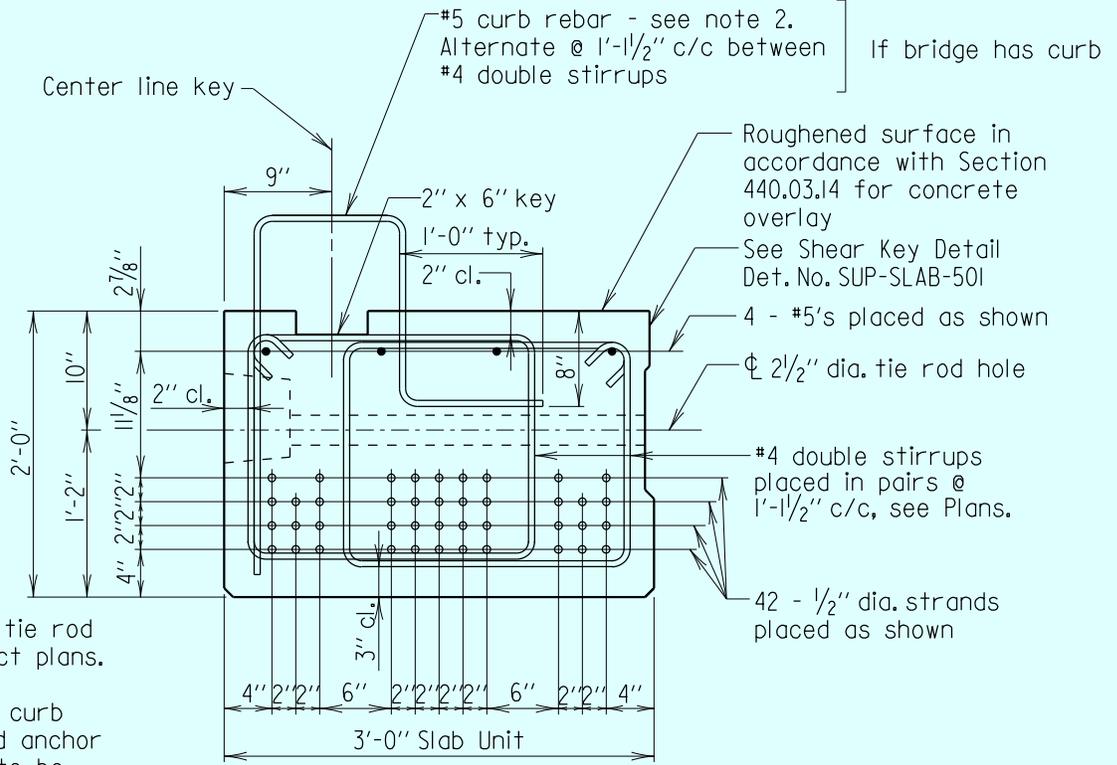
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

**SIMPLE SPAN GREATER THAN 40'-0" TO 45'-0"
EXTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(3FT)-602

SHEET 1 OF 2

SUPERSTRUCTURE SLABS

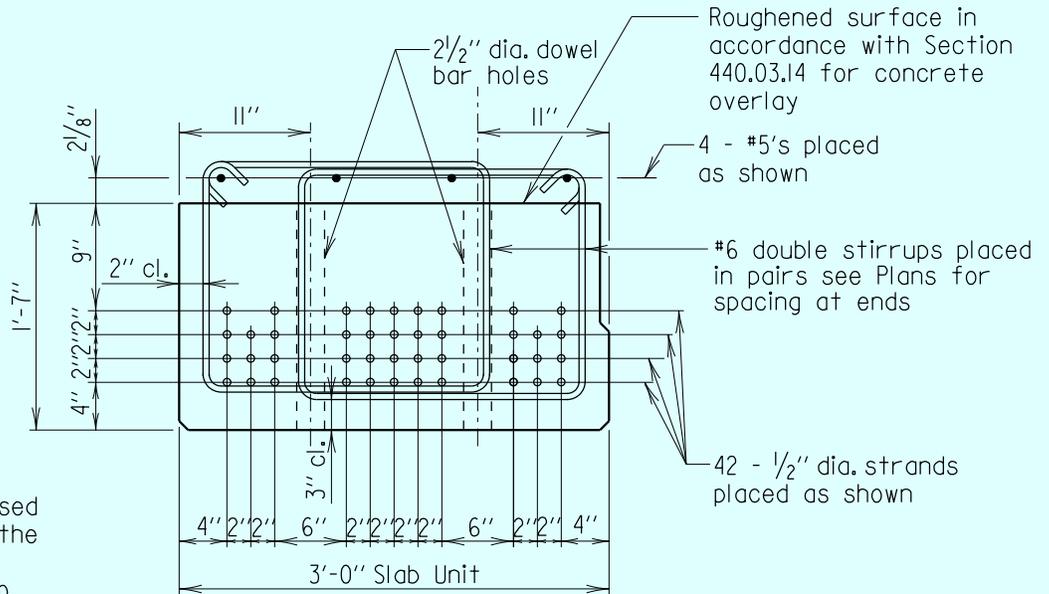


Notes:

1. For location of tie rod holes, see contract plans.
2. For location of curb reinforcement and anchor bolts and plates to be cast in slab for railing, see Det. No. SUP-TB(TR)-301

SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"



Note:

Extreme care shall be used when placing and tying the curb rebar, railing and anchor bolts assembly to provide for the required clearances. Any misplaced rebar, dowel bar holes, tie rod holes or anchor bolts will be cause for rejection of the precast slab unit.

SECTION - SLAB AT ENDS

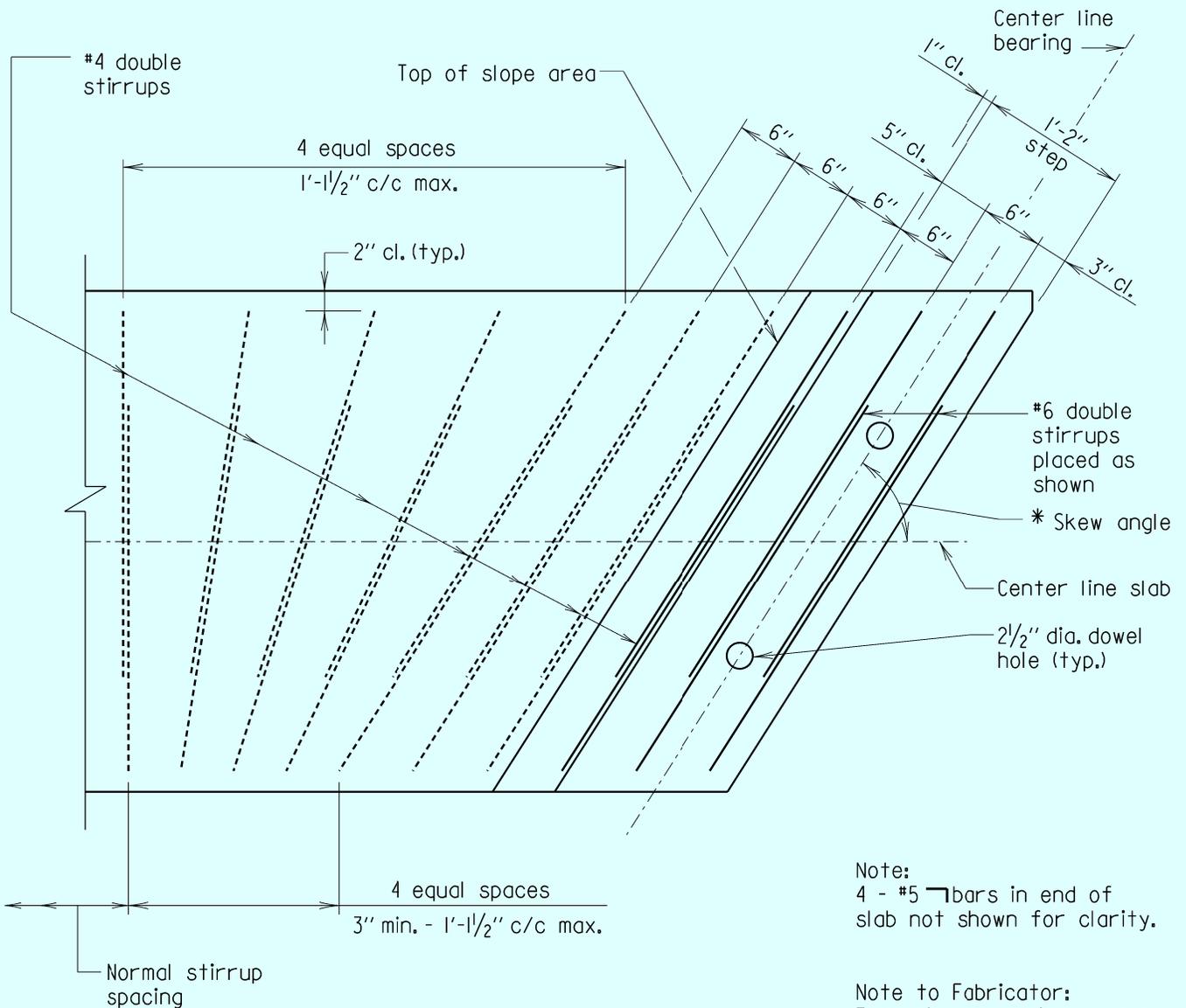
Scale: 3/4" = 1'-0"

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APPROVAL
<i>Ben C. D...</i> DIRECTOR OFFICE OF STRUCTURES
DATE: 05/04/2017
VERSION
1.0

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 40'-0" TO 45'-0" EXTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL SECTIONS	
DETAIL NO. SUP-SLAB(3FT)-602	SHEET <u>2</u> OF <u>2</u>

SUPERSTRUCTURE SLABS



*For exact skew angle, see contract plan sheets.

PLAN
Scale: 3/4" = 1'-0"

Note:
4 - #5 bars in end of slab not shown for clarity.

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

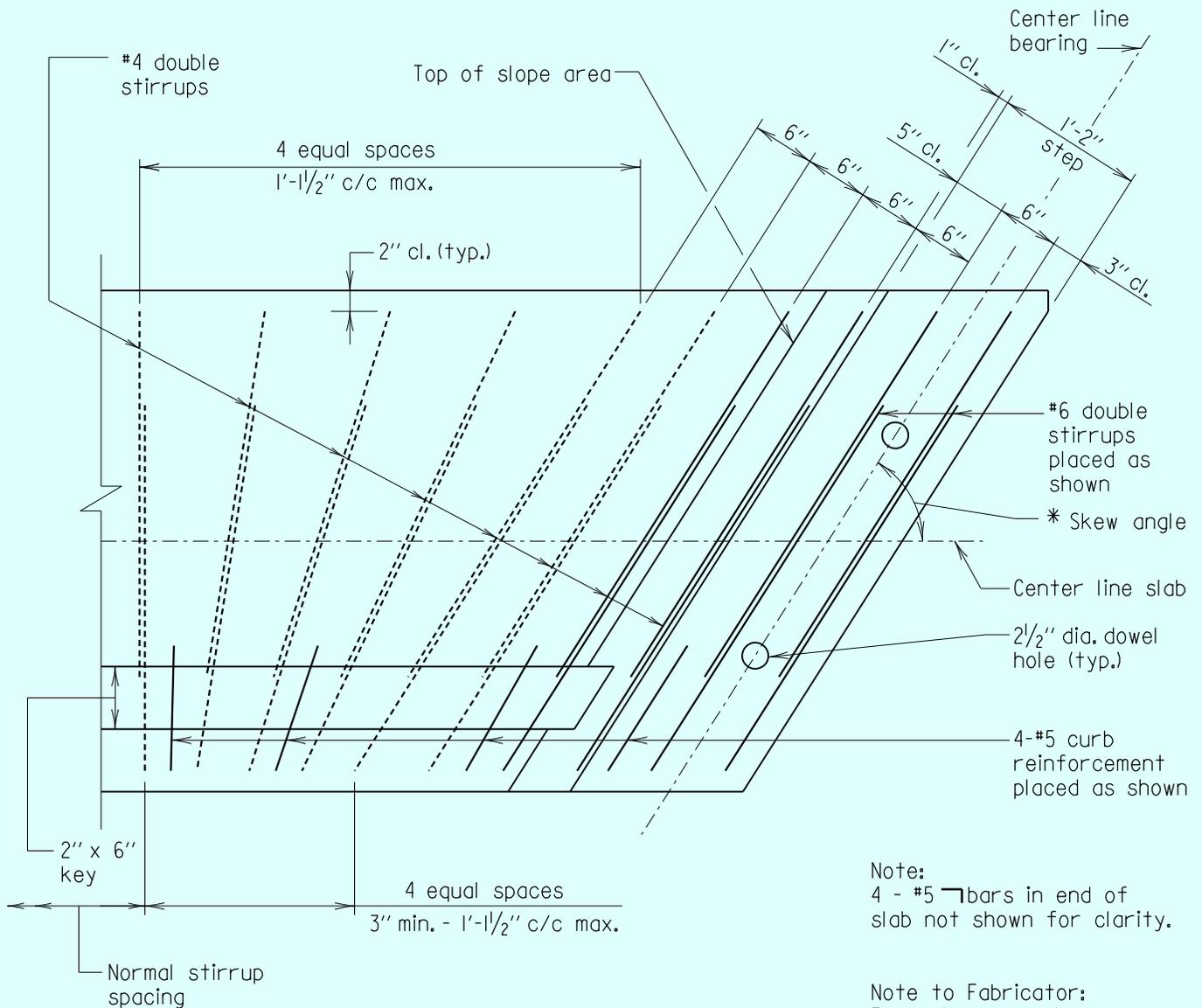
Note:
All reinforcing steel to be epoxy coated.

*** FOR OFFICE USE ONLY ***

APPROVAL
<i>[Signature]</i> DIRECTOR OFFICE OF STRUCTURES
DATE: 05/04/2017
VERSION
1.0

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 40'-0" TO 45'-0" INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL SKEWED END DETAIL	
DETAIL NO. SUP-SLAB(3FT)-603	SHEET <u>1</u> OF <u>2</u>

SUPERSTRUCTURE SLABS



*For exact skew angle, see contract plan sheets.

PLAN
Scale: $\frac{3}{4}'' = 1'-0''$

Note:
4 - #5 \sqsubset bars in end of slab not shown for clarity.

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

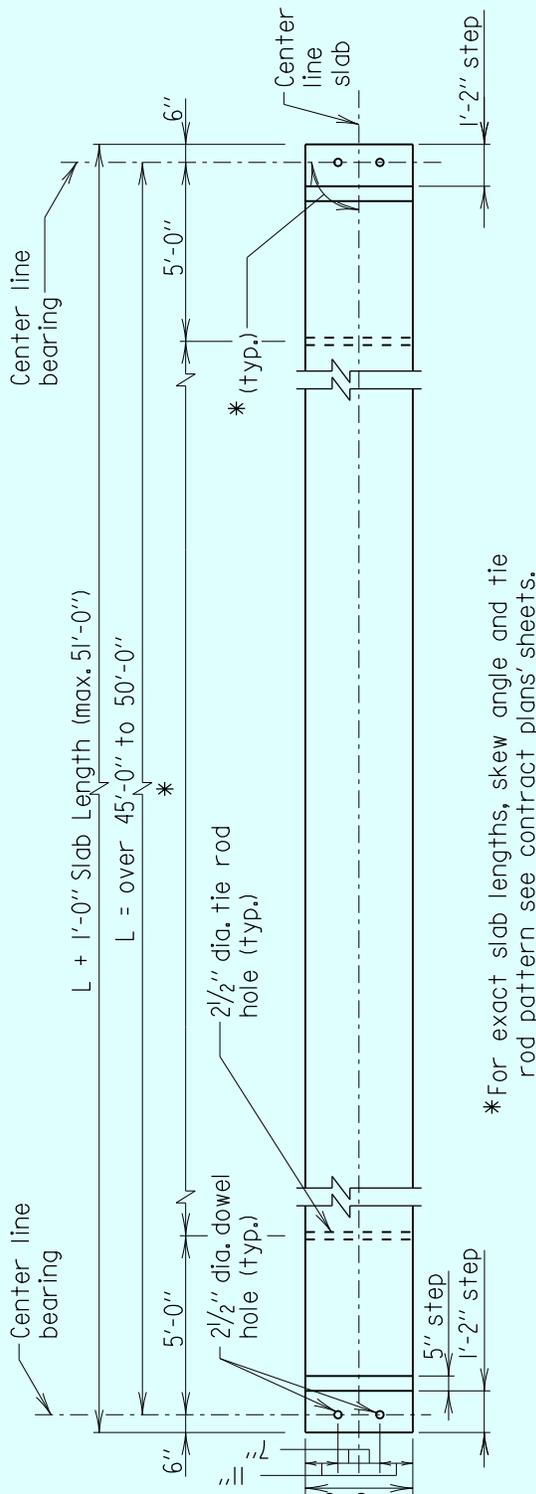
Note:
All reinforcing steel to be epoxy coated.

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APPROVAL
<i>[Signature]</i> DIRECTOR OFFICE OF STRUCTURES
DATE: 05/04/2017
VERSION
1.0

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 40'-0" TO 45'-0" EXTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL SKEWED END DETAIL	
DETAIL NO. SUP-SLAB(3FT)-603	SHEET 2 OF 2

SUPERSTRUCTURE SLABS



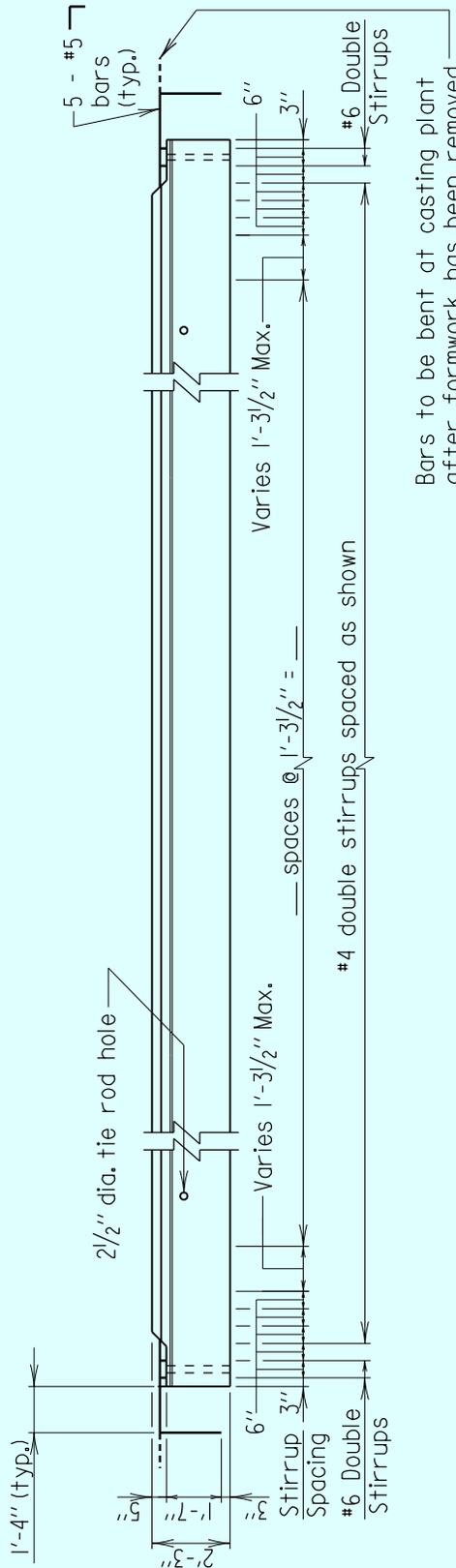
*For exact slab lengths, skew angle and tie rod pattern see contract plans' sheets.

3'-0" INTERIOR SLAB PLAN

Scale: 3/16" = 1'-0"

Note:
Reinforcing steel at ends of slab not shown for clarity.

Note:
Stirrup spacing shown is for a 90° crossing. For bridges with other skew angles, see Det. No. SUP-SLAB(3FT)-703 for details of skewed ends.



3'-0" INTERIOR SLAB ELEVATION

Scale: 3/16" = 1'-0"

- Notes:
1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
 2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
 3. All reinforcing steel to be epoxy coated.

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APPROVAL
<i>[Signature]</i> DIRECTOR OFFICE OF STRUCTURES
DATE: 05/04/2017
VERSION
1.0

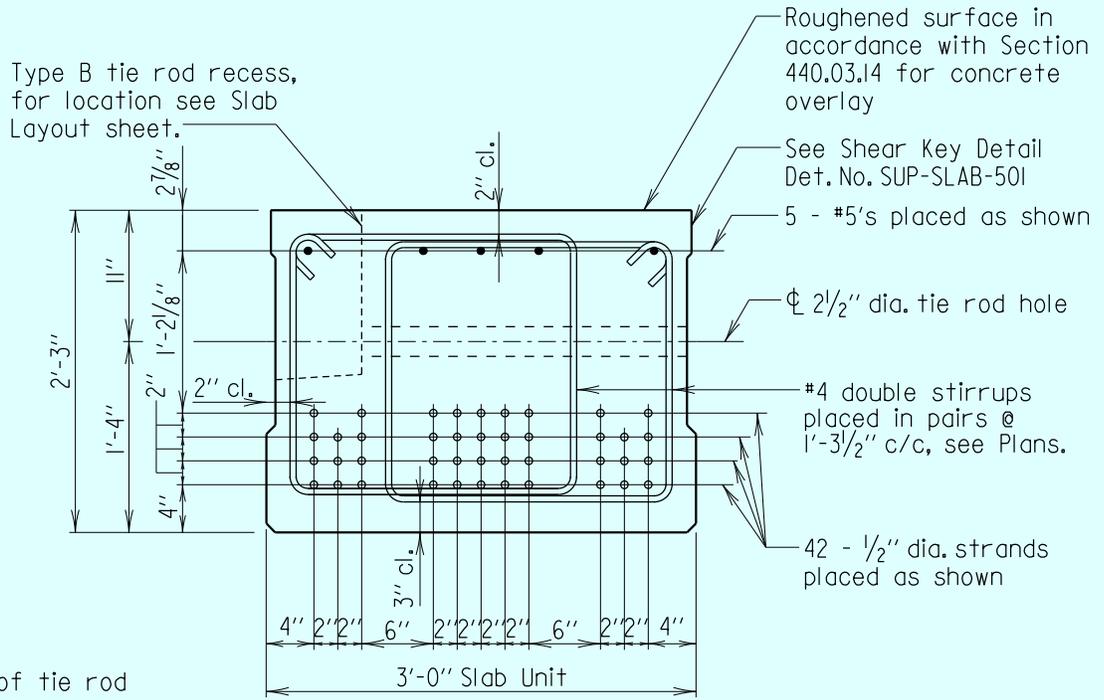
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

**SIMPLE SPAN GREATER THAN 45'-0" TO 50'-0"
INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(3FT)-701

SHEET 1 OF 2

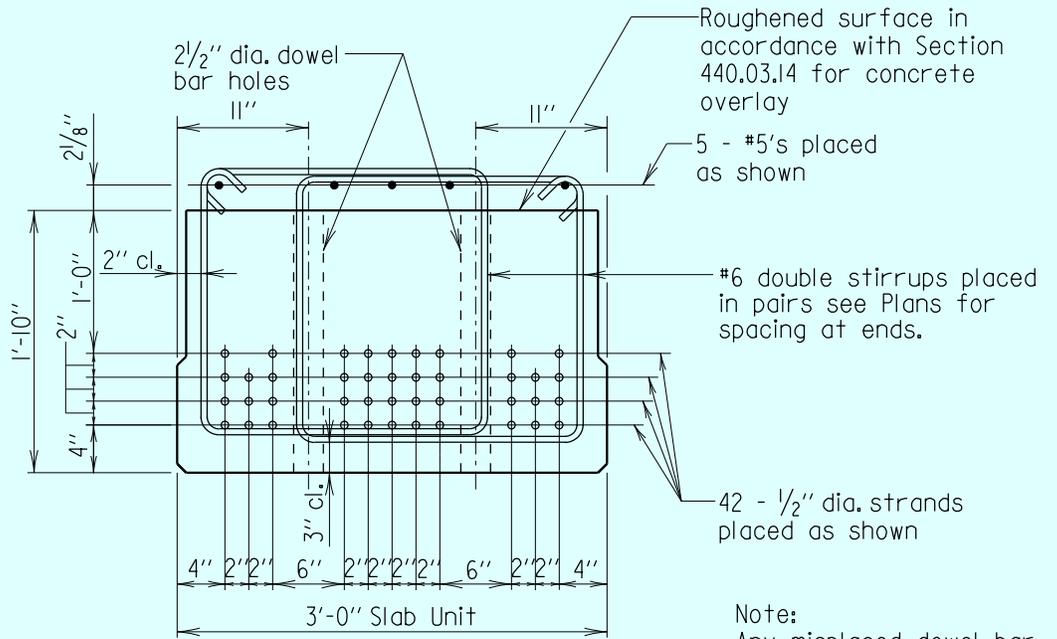
SUPERSTRUCTURE SLABS



Note:
For location of tie rod holes, see contract plans.

SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"



Note:
Any misplaced dowel bar holes or tie rod holes will be cause for rejection of the precast slab unit.

SECTION - SLAB AT ENDS

Scale: 3/4" = 1'-0"

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APPROVAL
<i>Ron C. [Signature]</i> DIRECTOR OFFICE OF STRUCTURES
DATE: 05/04/2017
VERSION
1.0

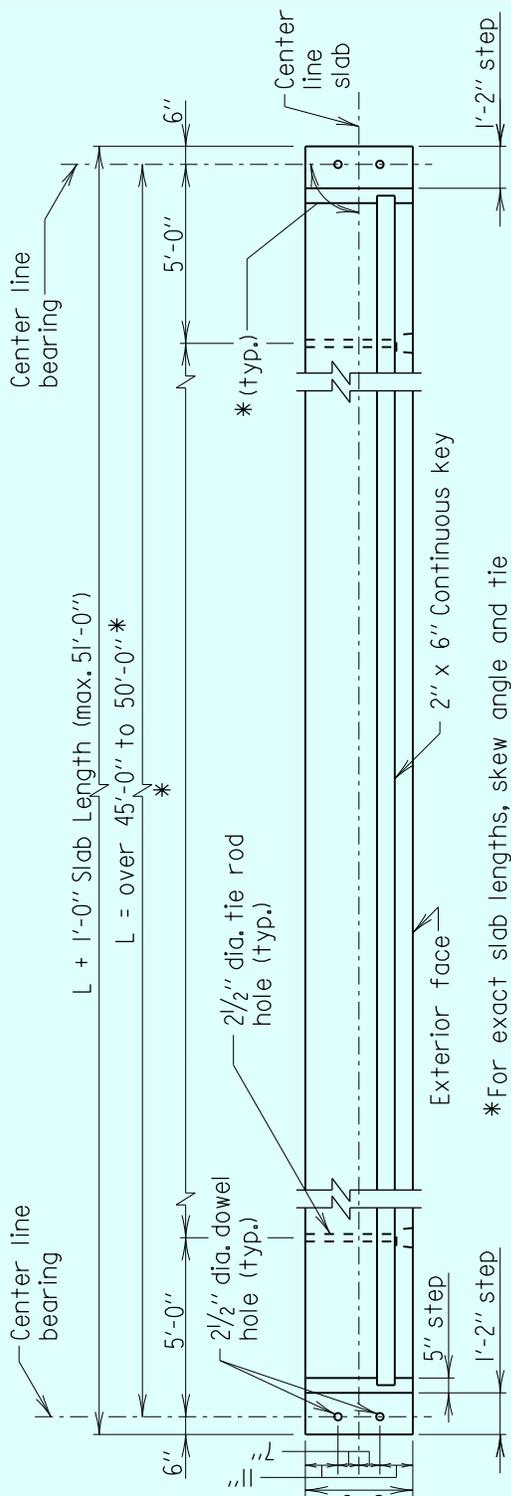
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

**SIMPLE SPAN GREATER THAN 45'-0" TO 50'-0"
INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
SECTIONS**

DETAIL NO. SUP-SLAB(3FT)-701

SHEET 2 OF 2

SUPERSTRUCTURE SLABS



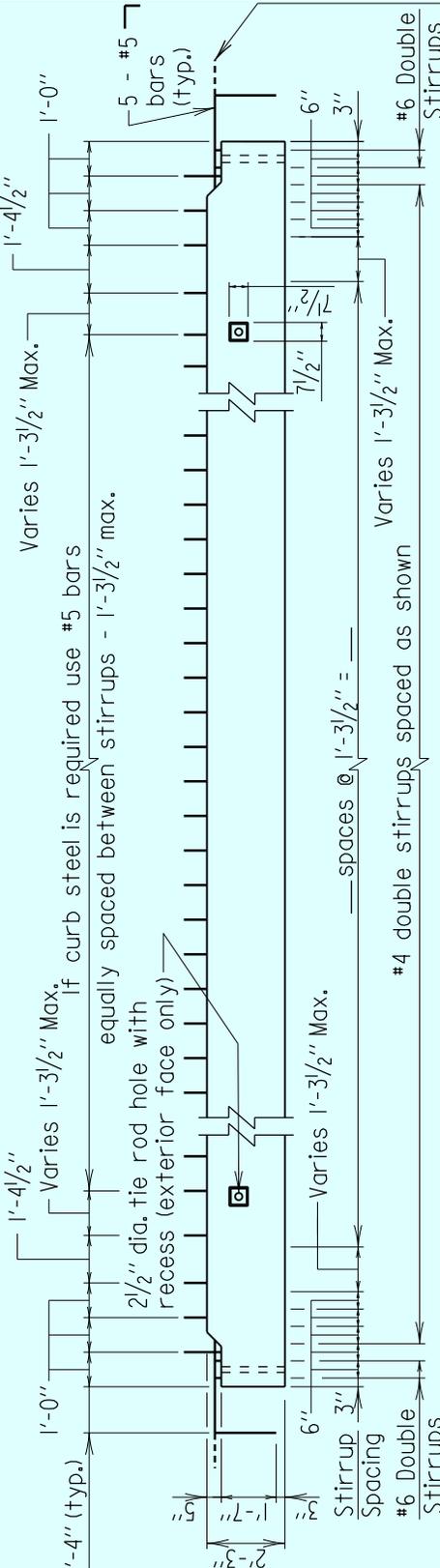
Note:
Reinforcing steel at ends of slab and curb reinforcing not shown for clarity.

3'-0" EXTERIOR SLAB PLAN

Scale: 3/16" = 1'-0"

*For exact slab lengths, skew angle and tie rod pattern see contract plans' sheets.

Note:
Stirrup spacing shown is for a 90° crossing. For bridges with other skew angles, see Det. No. SUP-SLAB(3FT)-703 for details of skewed ends.



Bars to be bent at casting plant after formwork has been removed.

3'-0" EXTERIOR SLAB ELEVATION

Scale: 3/16" = 1'-0"

- Notes:
1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
 2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
 3. All reinforcing steel to be epoxy coated.

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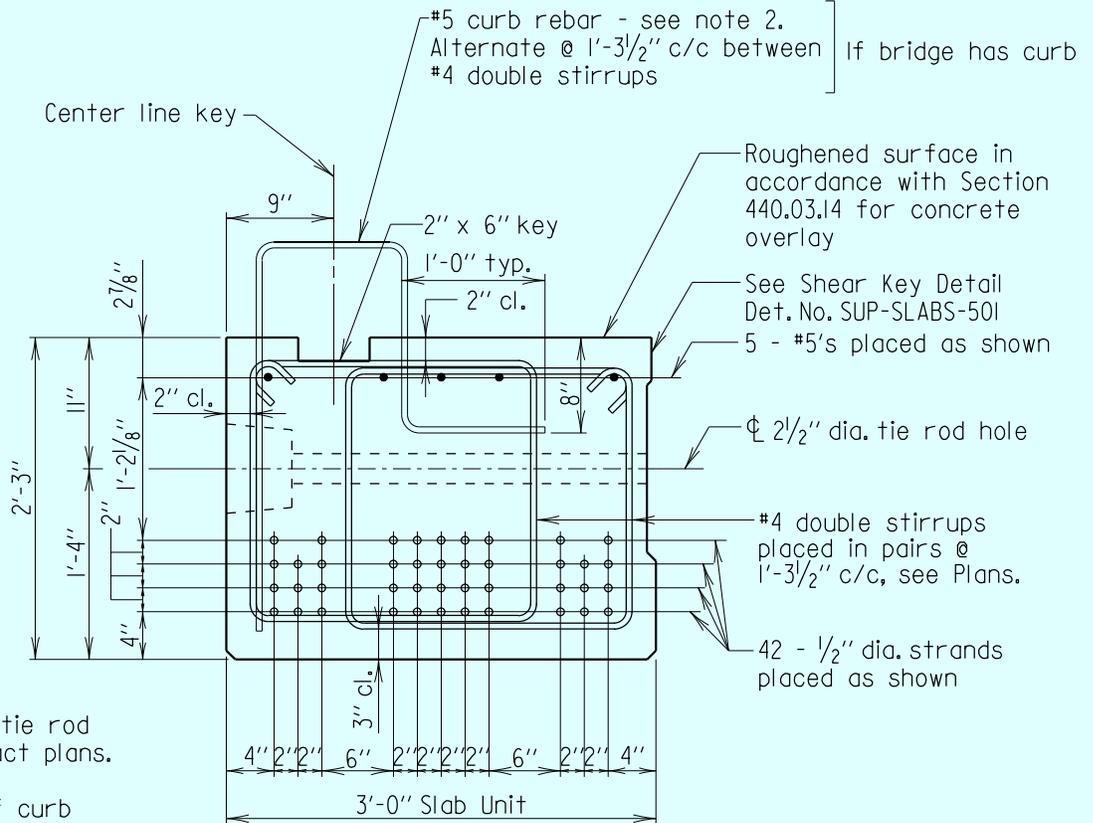
APPROVAL
<i>[Signature]</i> DIRECTOR OFFICE OF STRUCTURES
DATE: 05/04/2017
VERSION
1.0

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

**SIMPLE SPAN GREATER THAN 45'-0" TO 50'-0"
EXTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(3FT)-702 SHEET 1 OF 2

SUPERSTRUCTURE SLABS



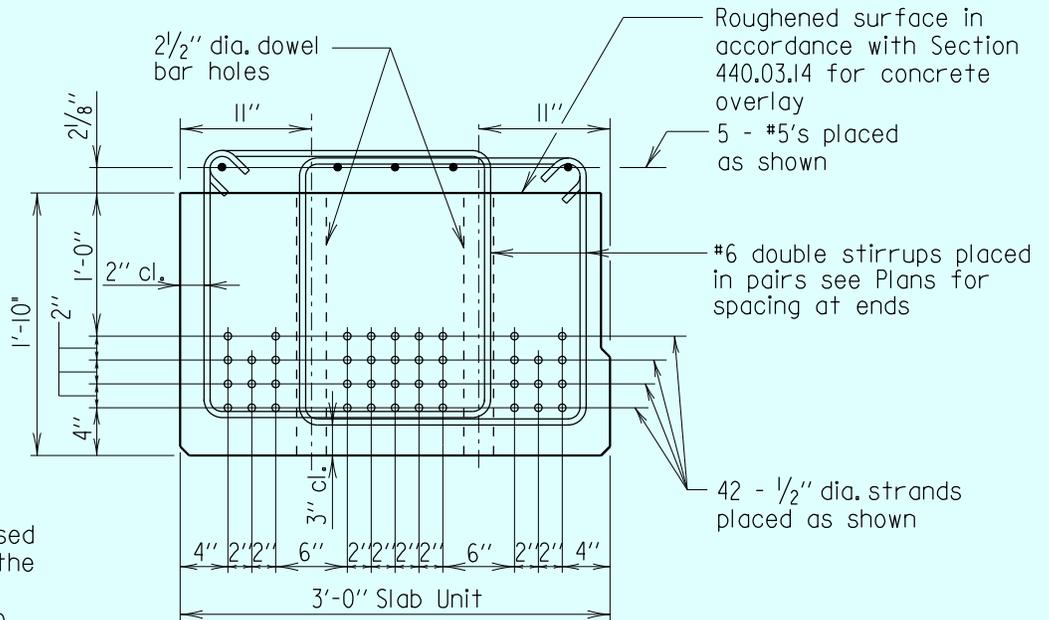
SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"

Notes:

1. For location of tie rod holes, see contract plans.

2. For location of curb reinforcement and anchor bolts and plates to be cast in slab for railing, see Det. No. SUP-TB(TR)-301



SECTION - SLAB AT ENDS

Scale: 3/4" = 1'-0"

Note:

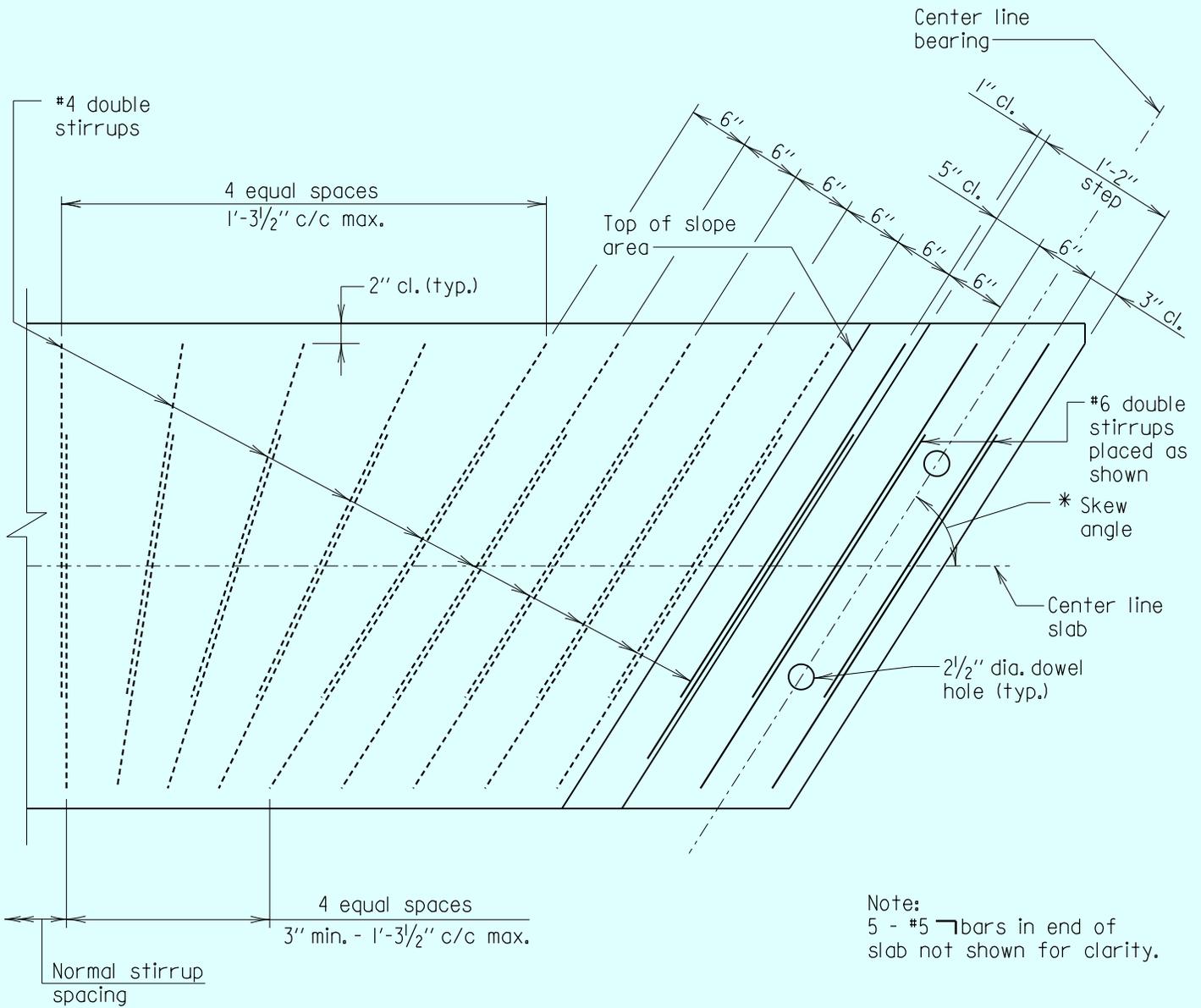
Extreme care shall be used when placing and tying the curb rebar, railing and anchor bolts assembly to provide for the required clearances. Any misplaced rebar, tie rod holes or anchor bolts will be cause for rejection of the precast slab unit.

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APPROVAL
<i>[Signature]</i> DIRECTOR OFFICE OF STRUCTURES
DATE: 05/04/2017
VERSION
1.0

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 45'-0" TO 50'-0" EXTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL SECTIONS	
DETAIL NO. SUP-SLAB(3FT)-702	SHEET 2 OF 2

SUPER CONCRETE WORK



#4 double stirrups

4 equal spaces
1'-3 1/2" c/c max.

2" cl. (typ.)

Top of slope area

Center line bearing

1" cl.

5" cl.

1'-2" step

3" cl.

#6 double stirrups placed as shown

* Skew angle

Center line slab

2 1/2" dia. dowel hole (typ.)

4 equal spaces
3" min. - 1'-3 1/2" c/c max.

Normal stirrup spacing

Note:
5 - #5 bars in end of slab not shown for clarity.

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

*For exact skew angle, see contract plan sheets.

PLAN

Scale: 3/4" = 1'-0"

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

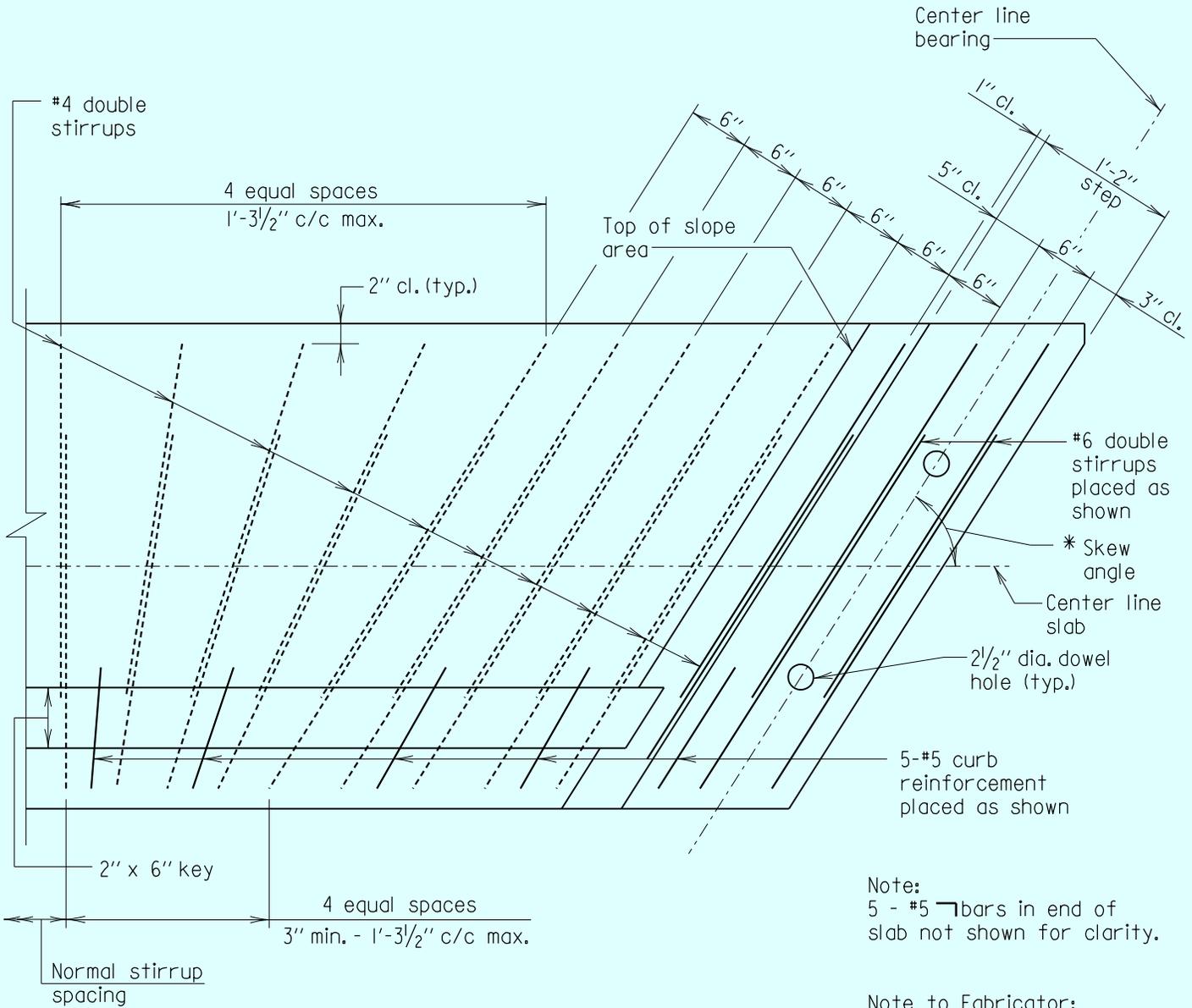
Note:
All reinforcing steel to be epoxy coated.

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APPROVAL
<i>[Signature]</i> DIRECTOR OFFICE OF STRUCTURES
DATE: 05/04/2017
VERSION
1.0

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 45'-0" TO 50'-0" INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL SKEWED END DETAIL	
DETAIL NO. SUP-SLAB(3FT)-703	SHEET 1 OF 2

SUPERSTRUCTURE SLABS



*For exact skew angle, see contract plan sheets.

PLAN
Scale: $\frac{3}{4}'' = 1'-0''$

Note:
5 - #5 \sqsubset bars in end of slab not shown for clarity.

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

Note:
All reinforcing steel to be epoxy coated.

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<i>[Signature]</i> DIRECTOR OFFICE OF STRUCTURES
DATE: 05/04/2017
VERSION
1.0

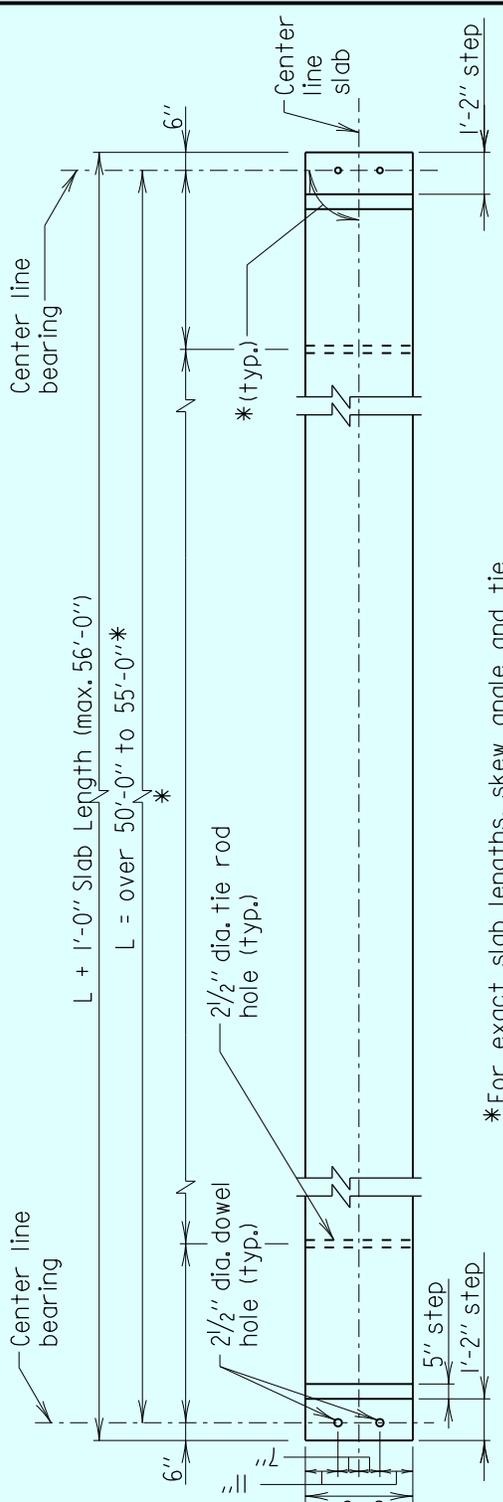
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

**SIMPLE SPAN GREATER THAN 45'-0" TO 50'-0"
EXTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
SKEWED END DETAIL**

DETAIL NO. SUP-SLAB(3FT)-703

SHEET 2 OF 2

SUPERSTRUCTURE SLABS



*For exact slab lengths, skew angle and tie rod pattern see contract plans' sheets.

3'-0" INTERIOR SLAB PLAN

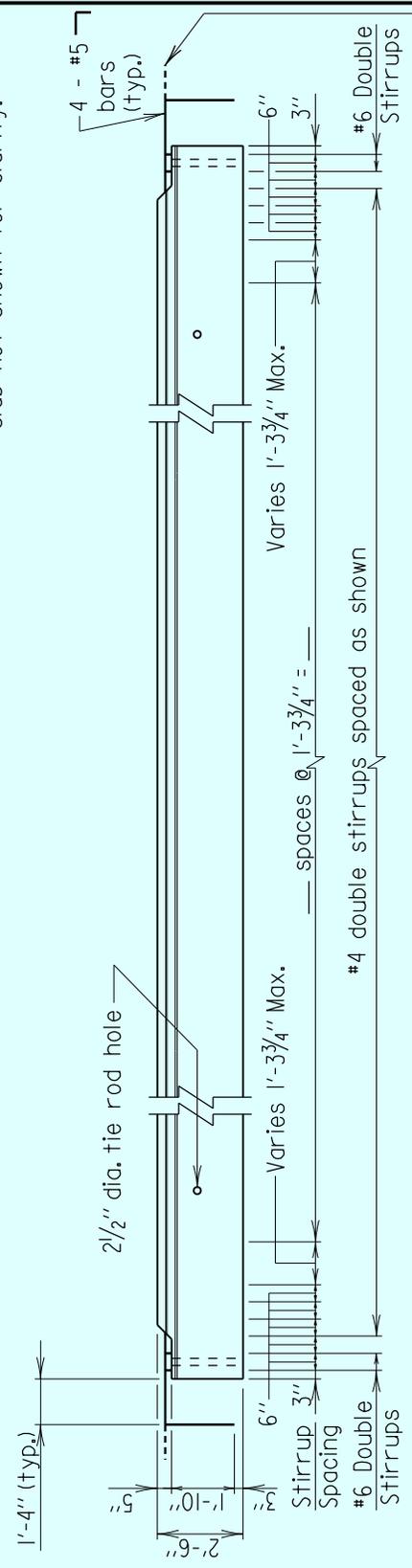
Scale: 3/16" = 1'-0"

Note:
Reinforcing steel at ends of slab not shown for clarity.

Notes:

1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
3. All reinforcing steel to be epoxy coated.

Note:
Stirrup spacing shown is for a 90° crossing. For bridges with other skew angles, see Det. No. SUP-SLAB(3FT)-803 for details of skewed ends.



Bars to be bent at casting plant after formwork has been removed.

3'-0" INTERIOR SLAB ELEVATION

Scale: 3/16" = 1'-0"

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APPROVAL
<i>[Signature]</i> DIRECTOR OFFICE OF STRUCTURES
DATE: 05/04/2017
VERSION
1.0

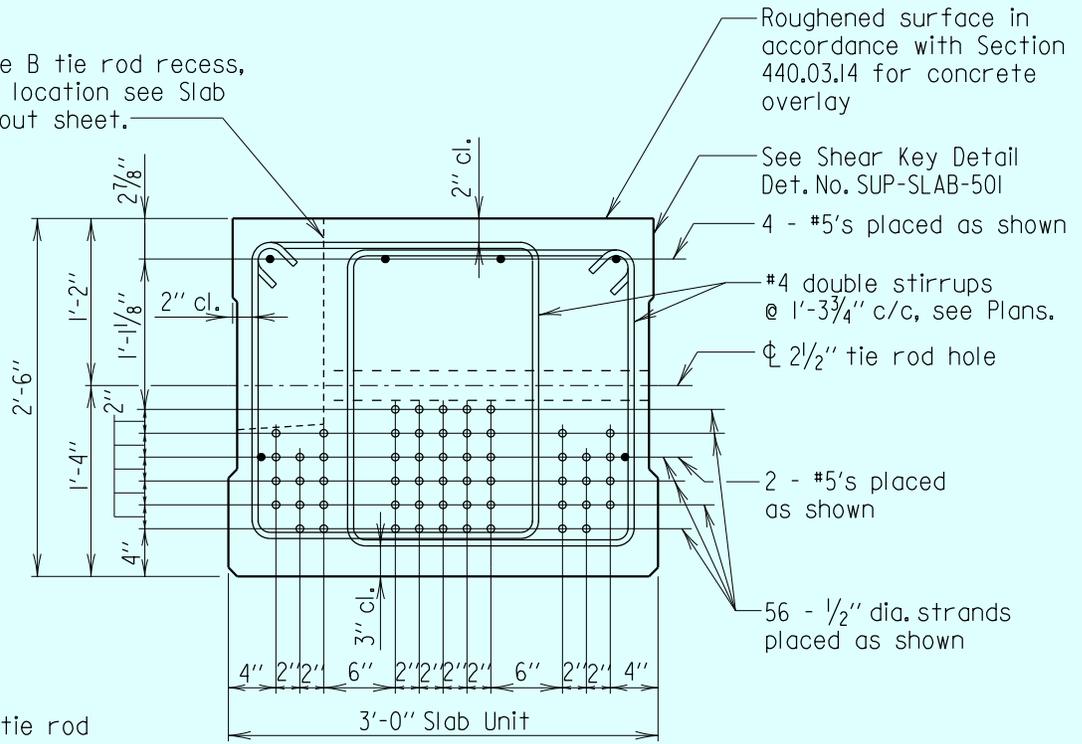
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

**SIMPLE SPAN GREATER THAN 50'-0" TO 55'-0"
INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(3FT)-801 SHEET 1 OF 2

SUPERSTRUCTURE SLABS

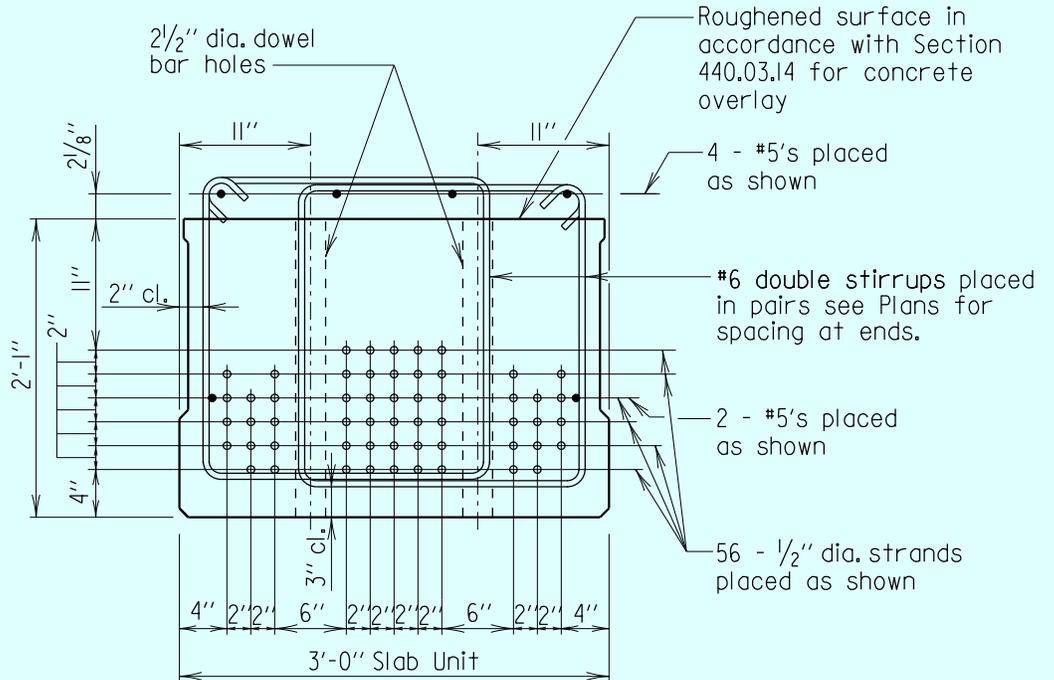
Type B tie rod recess, for location see Slab Layout sheet.



Note:
For location of tie rod holes, see contract plans.

SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"



Note:
Any misplaced dowel bar holes or tie rod holes will be cause for rejection of the precast slab unit.

SECTION - SLAB AT ENDS

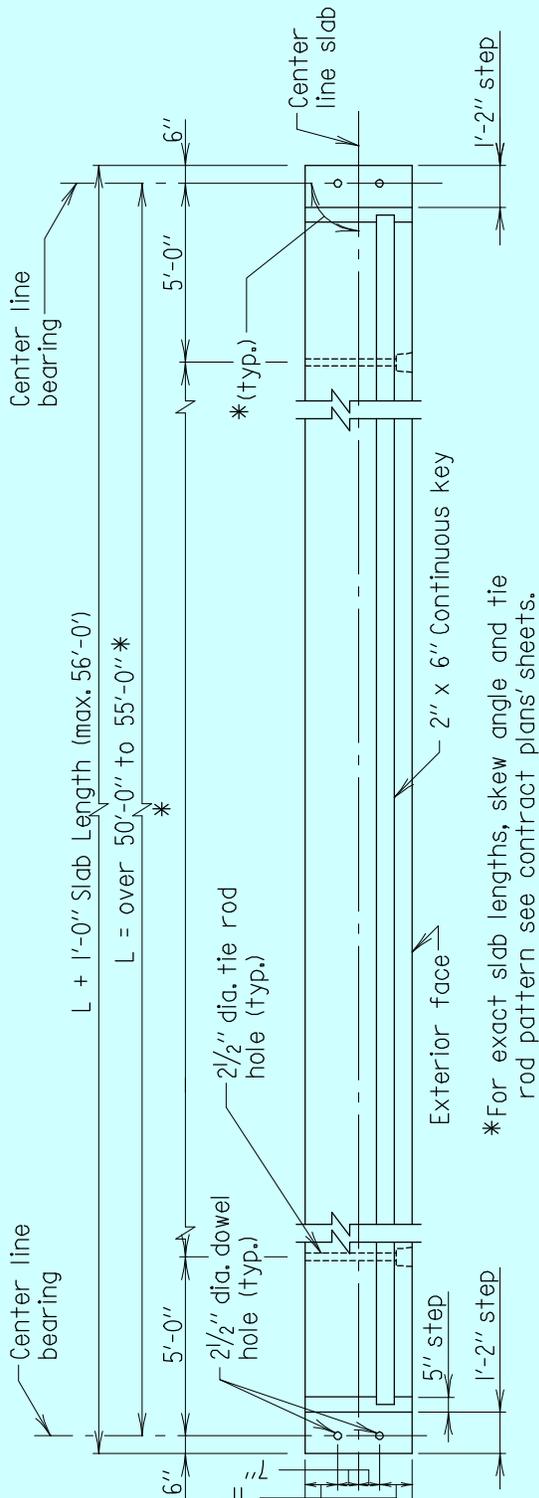
Scale: 3/4" = 1'-0"

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APPROVAL
<i>Ron C. [Signature]</i> DIRECTOR OFFICE OF STRUCTURES
DATE: 05/04/2017
VERSION
1.0

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 50'-0" TO 55'-0" INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL SECTIONS	
DETAIL NO. SUP-SLAB(3FT)-801	SHEET <u>2</u> OF <u>2</u>

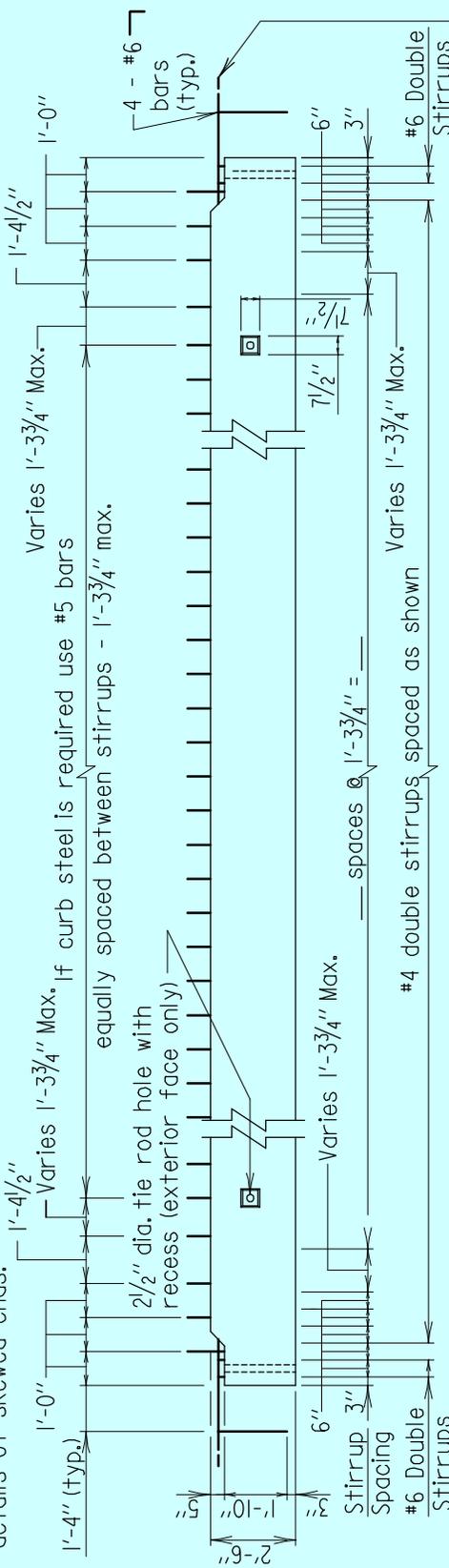
SUPERSTRUCTURE SLABS



Note:
Reinforcing steel at ends of slab and curb reinforcing not shown for clarity.

3'-0" EXTERIOR SLAB PLAN
Scale: 3/16" = 1'-0"

Note:
Stirrup spacing shown is for a 90° crossing. For bridges with other skew angles, see Std. No. SUP-SLAB(3FT)-803 for details of skewed ends.



Bars to be bent at casting plant after formwork has been removed.

3'-0" EXTERIOR SLAB ELEVATION
Scale: 3/16" = 1'-0"

- Notes:
1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
 2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
 3. All reinforcing steel to be epoxy coated.

APPROVAL	
<i>[Signature]</i> DIRECTOR	OFFICE OF STRUCTURES
DATE: 05/04/2017	
VERSION	
1.0	

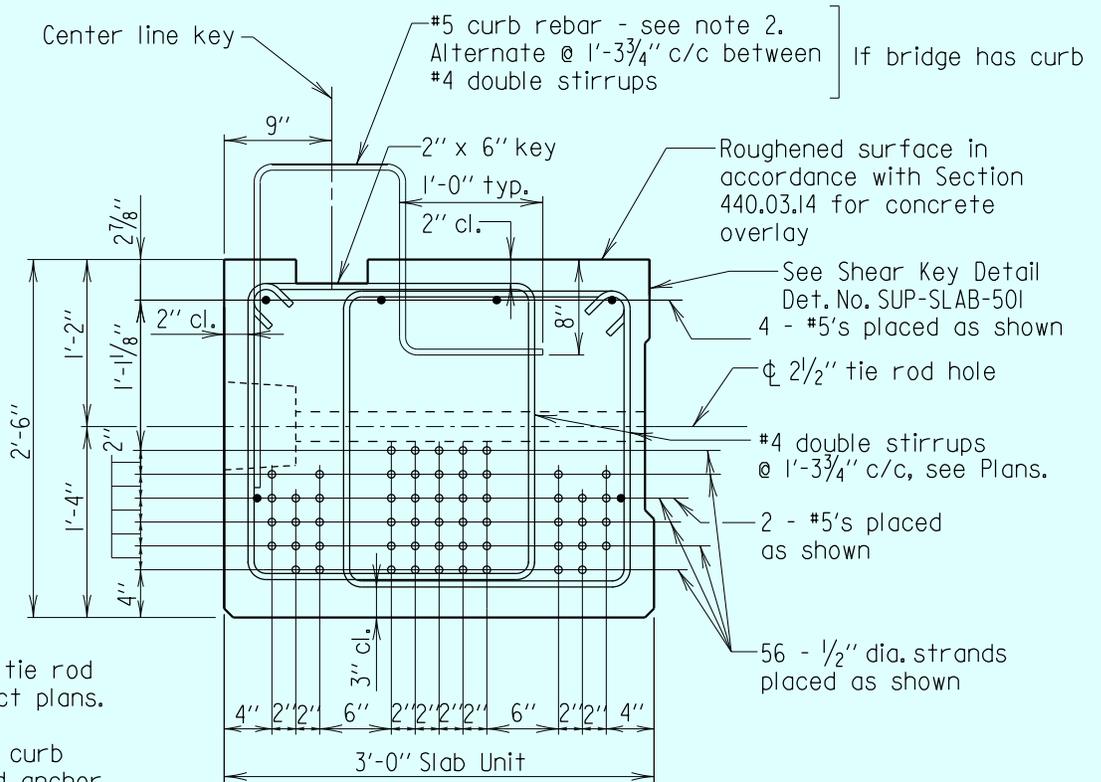
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STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

SIMPLE SPAN GREATER THAN 50'-0" TO 55'-0"
EXTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION

DETAIL NO. SUP-SLAB(3FT)-802 SHEET 1 OF 2

SUPERSTRUCTURE SLABS

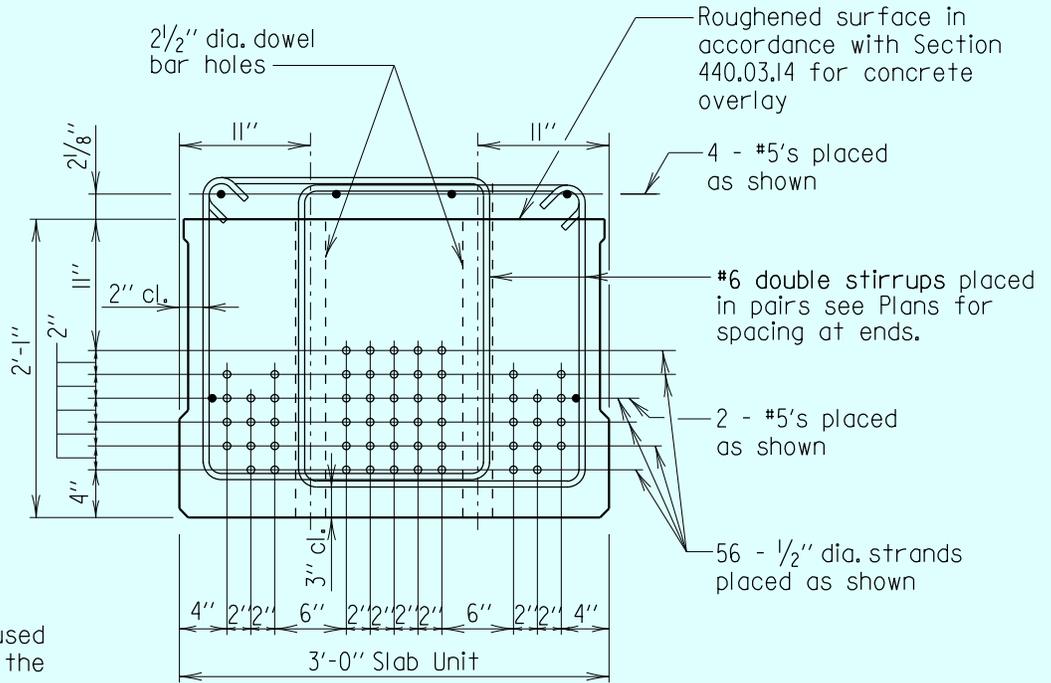


SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"

Notes:

1. For location of tie rod holes, see contract plans.
2. For location of curb reinforcement and anchor bolts and plates to be cast in slab for railing, see Det. No. SUP-TB(TR)-301



SECTION - SLAB AT ENDS

Scale: 3/4" = 1'-0"

Note:

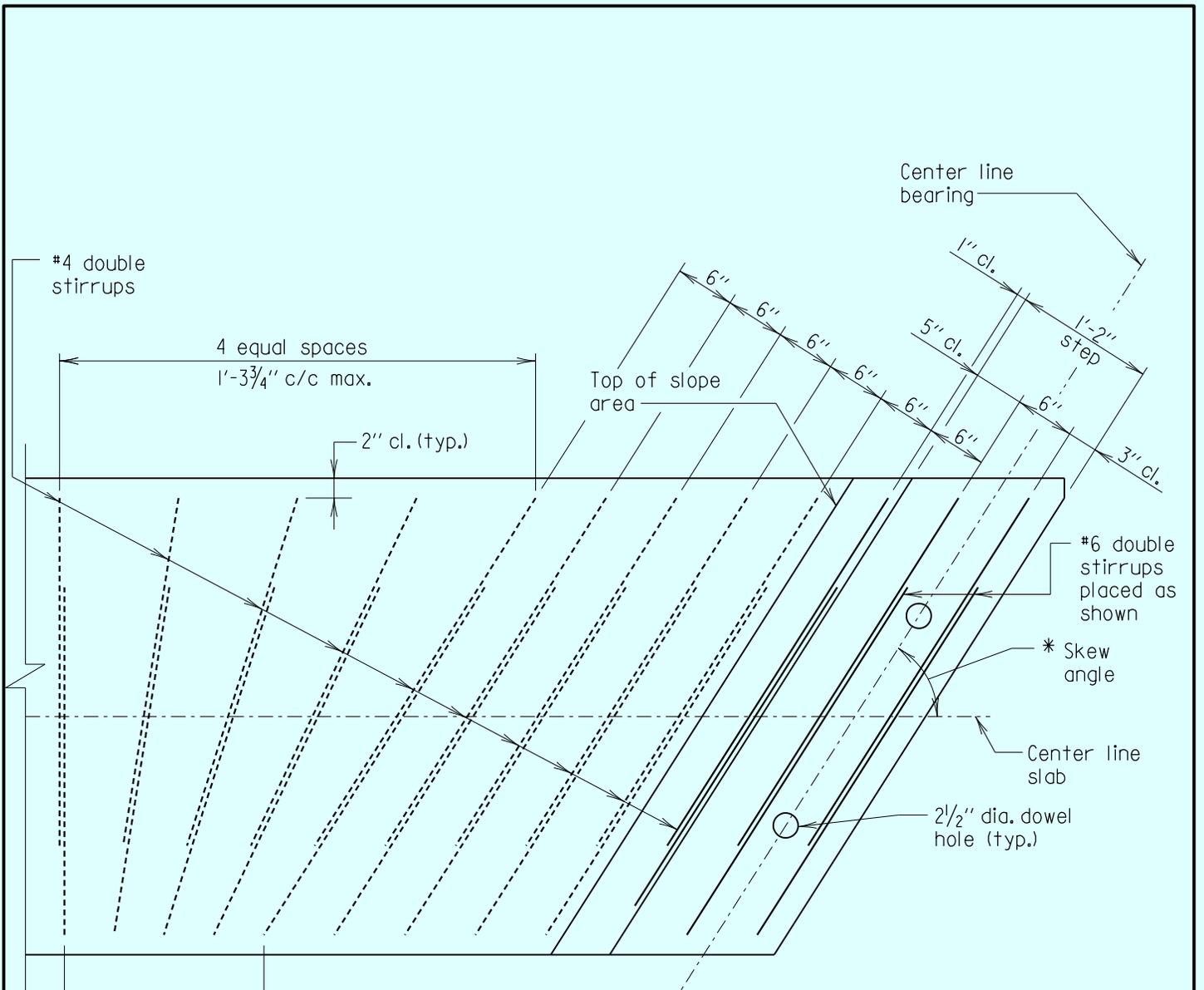
Extreme care shall be used when placing and tying the curb rebar, railing and anchor bolts assembly to provide for the required clearances. Any misplaced rebar, dowel bar holes, tie rod holes or anchor bolts will be cause for rejection of the precast slab unit.

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APPROVAL
DIRECTOR OFFICE OF STRUCTURES
DATE: 08/11/2017
VERSION
1.01

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
SIMPLE SPAN GREATER THAN 50'-0" TO 55'-0" EXTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL SECTIONS
DETAIL NO. SUP-SLAB(3FT)-802
SHEET <u>2</u> OF <u>2</u>

SUPERSTRUCTURE SLABS



#4 double stirrups

4 equal spaces
1'-3 3/4" c/c max.

2" cl. (typ.)

Top of slope area

Center line bearing

1" cl.

5" cl.

1'-2" step

3" cl.

#6 double stirrups placed as shown

* Skew angle

Center line slab

2 1/2" dia. dowel hole (typ.)

4 equal spaces
3" min. - 1'-3 3/4" c/c max.

Normal stirrup spacing

* For exact skew angle, see contract plan sheets.

Note:
4 - #5 bars in end of slab not shown for clarity.

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

PLAN
Scale: 3/4" = 1'-0"

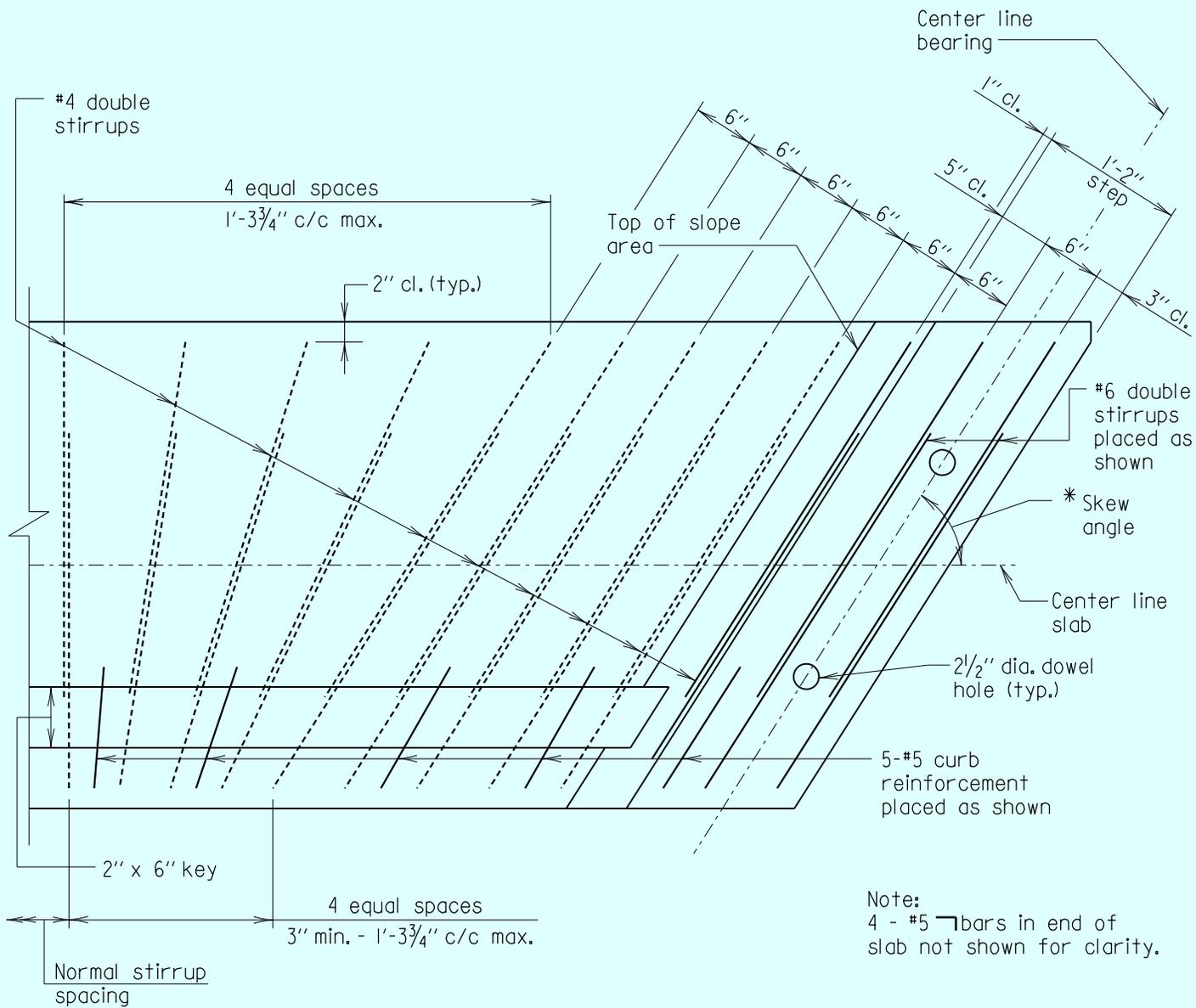
Note:
All reinforcing steel to be epoxy coated.

* FOR OFFICE USE ONLY *

APPROVAL
<i>[Signature]</i> DIRECTOR OFFICE OF STRUCTURES
DATE: 05/04/2017
VERSION
1.0

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 50'-0" TO 55'-0" INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL SKEWED END DETAIL	
DETAIL NO. SUP-SLAB(3FT)-803	SHEET 1 OF 2

SUPERSTRUCTURE SLABS



Note:
4 - #5 \sqsubset bars in end of slab not shown for clarity.

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

*For exact skew angle, see contract plan sheets.

PLAN
Scale: $\frac{3}{4}'' = 1'-0''$

Note:
All reinforcing steel to be epoxy coated.

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DATE: 05/04/2017
VERSION
1.0

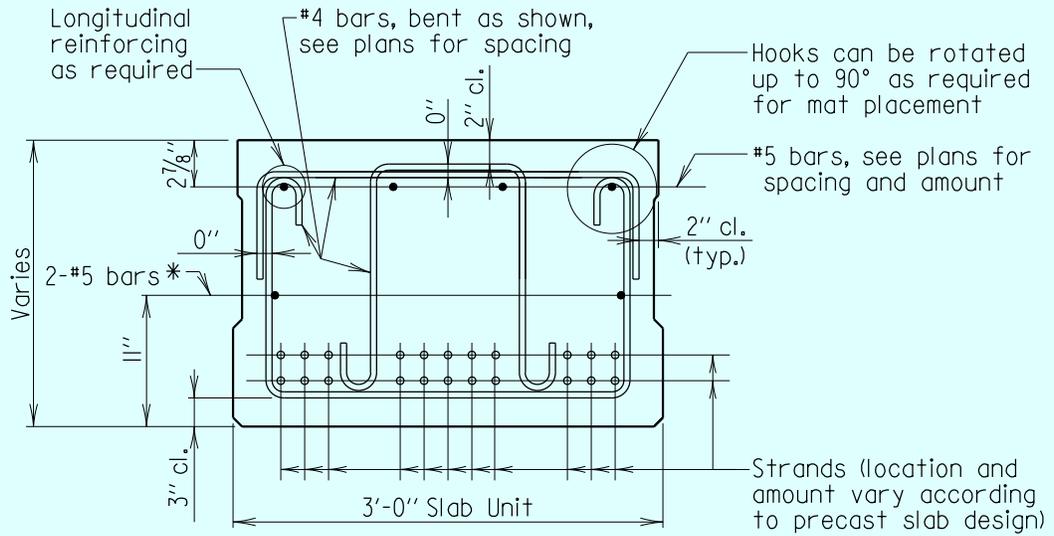
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

**SIMPLE SPAN GREATER THAN 50'-0" TO 55'-0"
EXTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL
SKEWED END DETAIL**

DETAIL NO. SUP-SLAB(3FT)-803

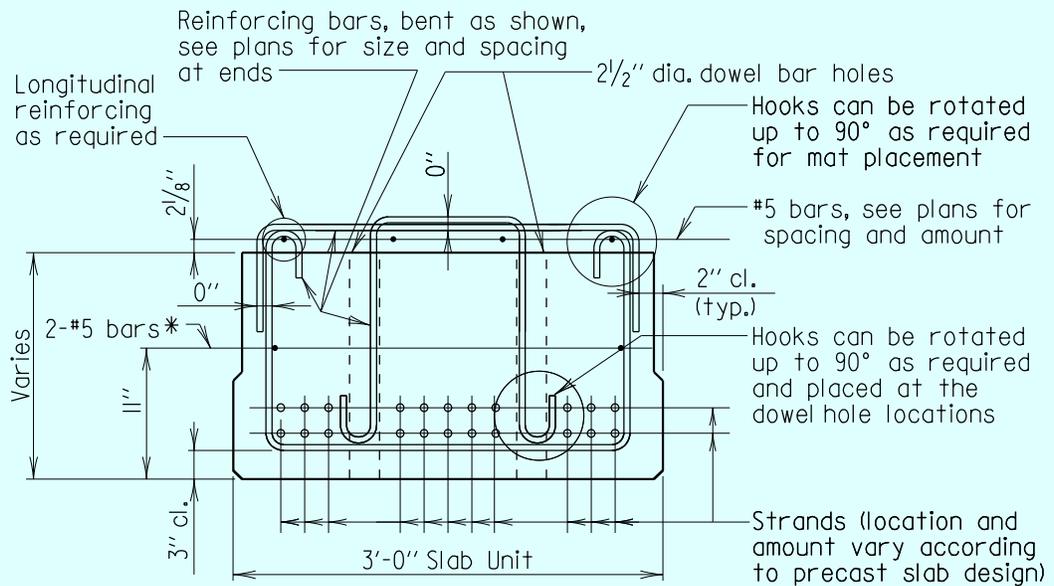
SHEET 2 OF 2

SUPERSTRUCTURE SLABS



ALTERNATE REINFORCING SECTION - SLAB AT MIDSPAN

Scale: $\frac{3}{4}'' = 1'-0''$



ALTERNATE REINFORCING SECTION - SLAB AT ENDS

Scale: $\frac{3}{4}'' = 1'-0''$

* These bars are only required for span lengths greater than 50'-0".

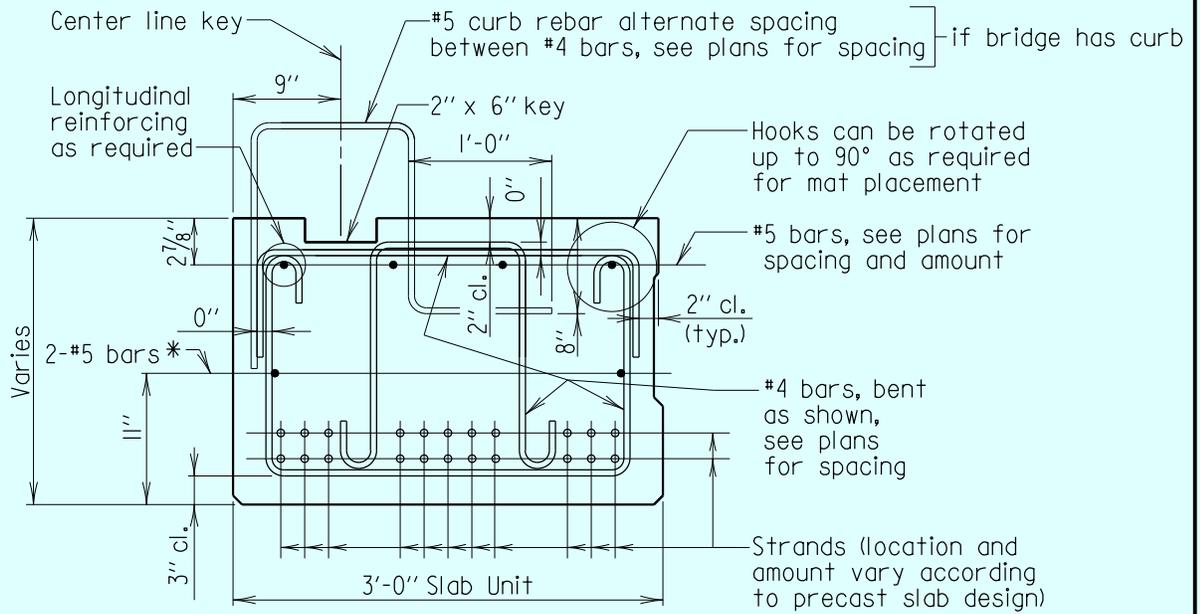
Note:
All reinforcing steel to be epoxy coated.

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<i>Ben C. D...</i> DIRECTOR OFFICE OF STRUCTURES
DATE: 05/04/2017
VERSION
1.0

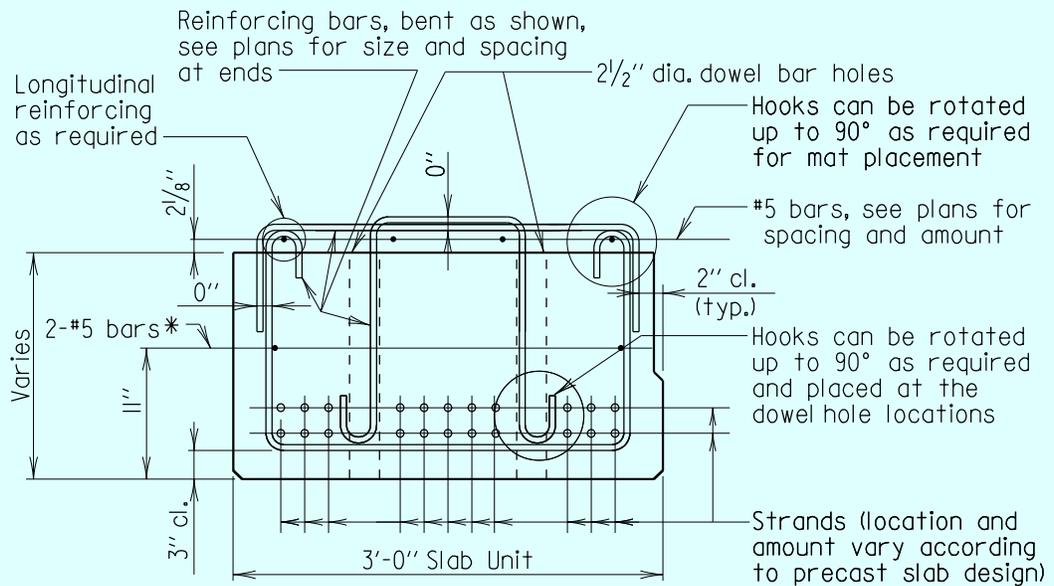
STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
INTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL ALTERNATE REINFORCING DETAILS	
DETAIL NO. SUP-SLAB(3FT)-901	SHEET <u>1</u> OF <u>2</u>

SUPERSTRUCTURE SLABS



ALTERNATE REINFORCING SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"



ALTERNATE REINFORCING SECTION - SLAB AT ENDS

Scale: 3/4" = 1'-0"

* These bars are only required for span lengths greater than 50'-0".

Note:
All reinforcing steel to be epoxy coated.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
EXTERIOR 3'-0" PRECAST CONCRETE SLAB PANEL ALTERNATE REINFORCING DETAILS	
DETAIL NO. SUP-SLAB(3FT)-901	SHEET 2 OF 2

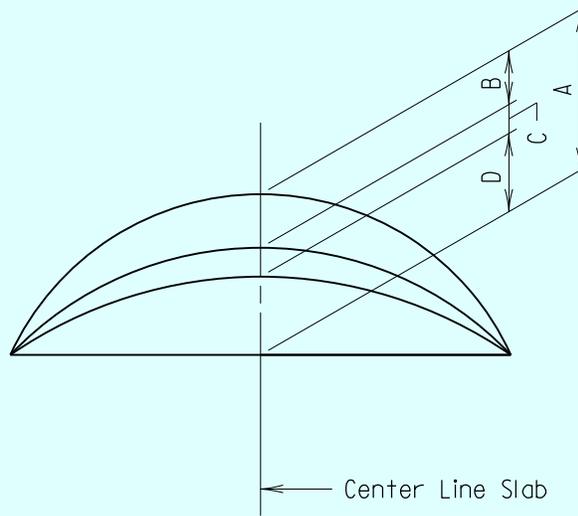
SUPERSTRUCTURE SLABS

Chapter 03 - Superstructure

Section 07 – Concrete Slabs

SUB-SECTION 03

**4 FT WIDE SLABS
(SUP-SLAB(4FT))**



CAMBER DIAGRAM

Scale: None

Camber Notes:

Camber due to prestress plus slab dead load to be checked in the field.

The thickness of the concrete overlay shall be varied to compensate for any inaccuracies in the camber of slabs.

Prestress camber and dead load deflection data shown is theoretical and may vary with concrete strength, variable prestressing conditions and prestress losses.

Camber in slabs will increase due to concrete creep during storage. Precautions shall be taken by loading or other means to prevent additional camber from developing during storage of prestressed slabs.

- A = Estimated camber due to prestress
- B = Deflection due to dead load of prestressed slabs
- C = Deflection due to dead load of cast-in-place concrete overlay, curbs and railing
- D = Net final camber

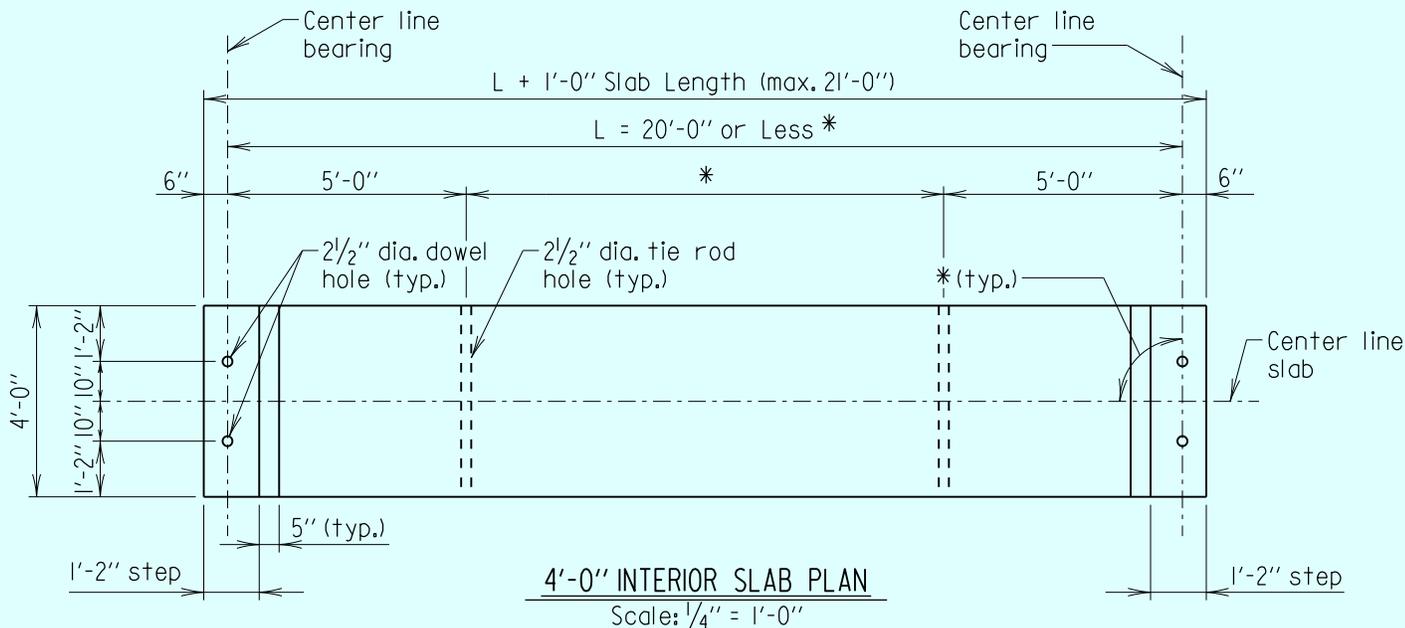
Precast Concrete Slab Panel	A	B	C	D
Simple Span 20'-0" or less	3/16"	1/16"	1/16"	1/16"
Simple Span greater than 20'-0" to 25'-0"	5/16"	1/8"	1/16"	1/8"
Simple Span greater than 25'-0" to 30'-0"	3/4"	1/4"	3/16"	5/16"
Simple Span greater than 30'-0" to 35'-0"	15/16"	3/8"	3/16"	3/8"
Simple Span greater than 35'-0" to 40'-0"	1 1/8"	1/2"	3/16"	7/16"
Simple Span greater than 40'-0" to 45'-0"	1 11/16"	3/4"	3/8"	9/16"
Simple Span greater than 45'-0" to 50'-0"	2"	15/16"	3/8"	1 1/16"
Simple Span greater than 50'-0" to 55'-0"	2 3/16"	1 1/16"	3/8"	3/4"

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN EXTERIOR/INTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL DIAGRAM AND NOTES FOR CAMBER	
DETAIL NO. SUP-SLAB(4FT)-050	SHEET <u>1</u> OF <u>1</u>

SUPERSTRUCTURE SLABS

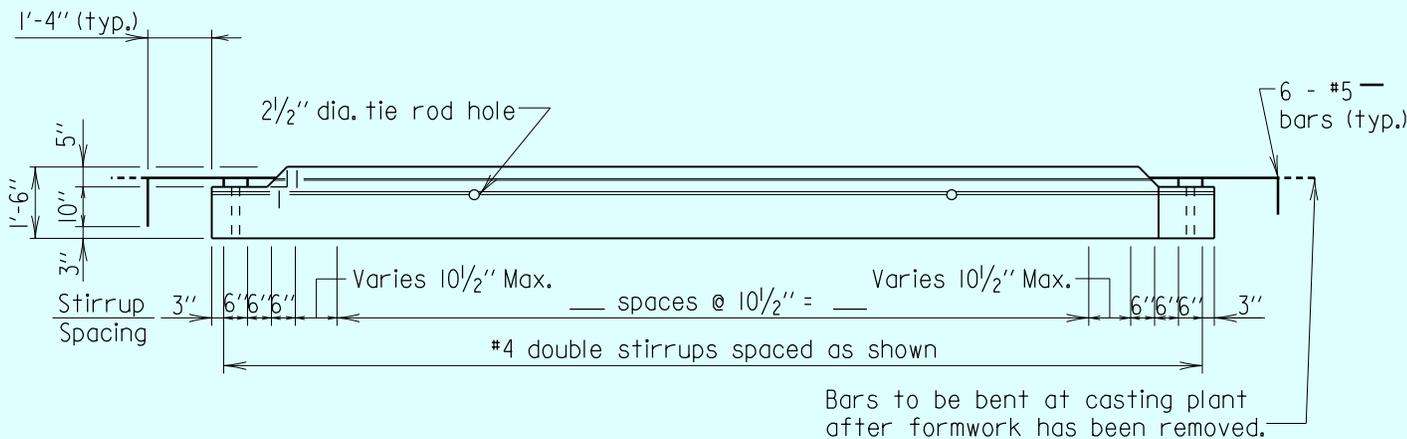


Note:

Reinforcing steel at ends of slab not shown for clarity.

*** Note to designers:**

Include the exact slab length, skew angle and tie rod pattern in the Contract Plans.



Bars to be bent at casting plant after formwork has been removed.

Notes:

1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
2. Adjust stirrup spacing as needed to avoid tie rod hole.
3. All reinforcing steel to be epoxy coated.

Note to Designers:

Stirrup spacing shown is for a 90° crossing. For bridges with other skew angles, see Detail No. SUP-SLAB(4FT)-103 for details of skewed ends. Adjust this detail to show proper skew in the Contract Plans.

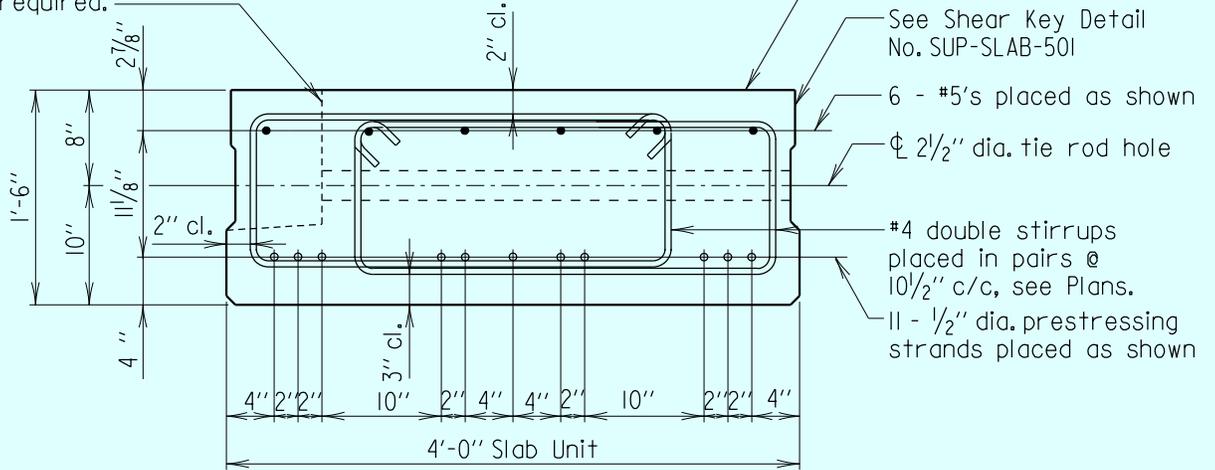
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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
SIMPLE SPAN 20'-0" OR LESS INTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL PLAN & ELEVATION
DETAIL NO. SUP-SLAB(4FT)-101
SHEET <u>1</u> OF <u>2</u>

SUPERSTRUCTURE SLABS

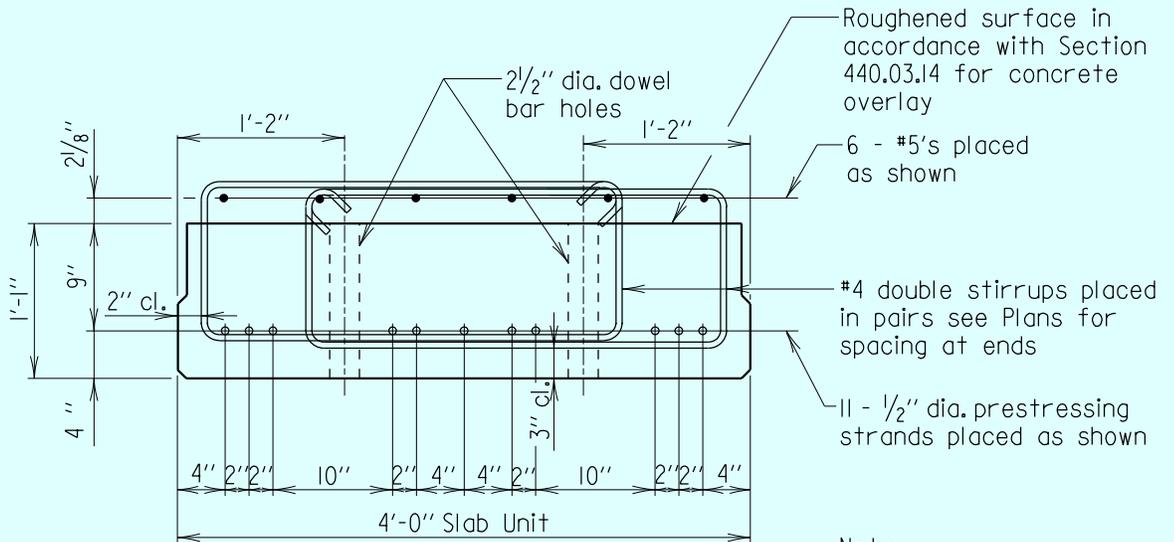
For stage construction
Type B tie rod recess
For location see Slab
Layout sheet in Plans.
Do not show unless
required.



Note:
For location of tie rod
holes, see Plans.

SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"



Note:
Any misplaced dowel bar
holes or tie rod holes will
be cause for rejection of
the precast slab unit.

SECTION - SLAB AT ENDS

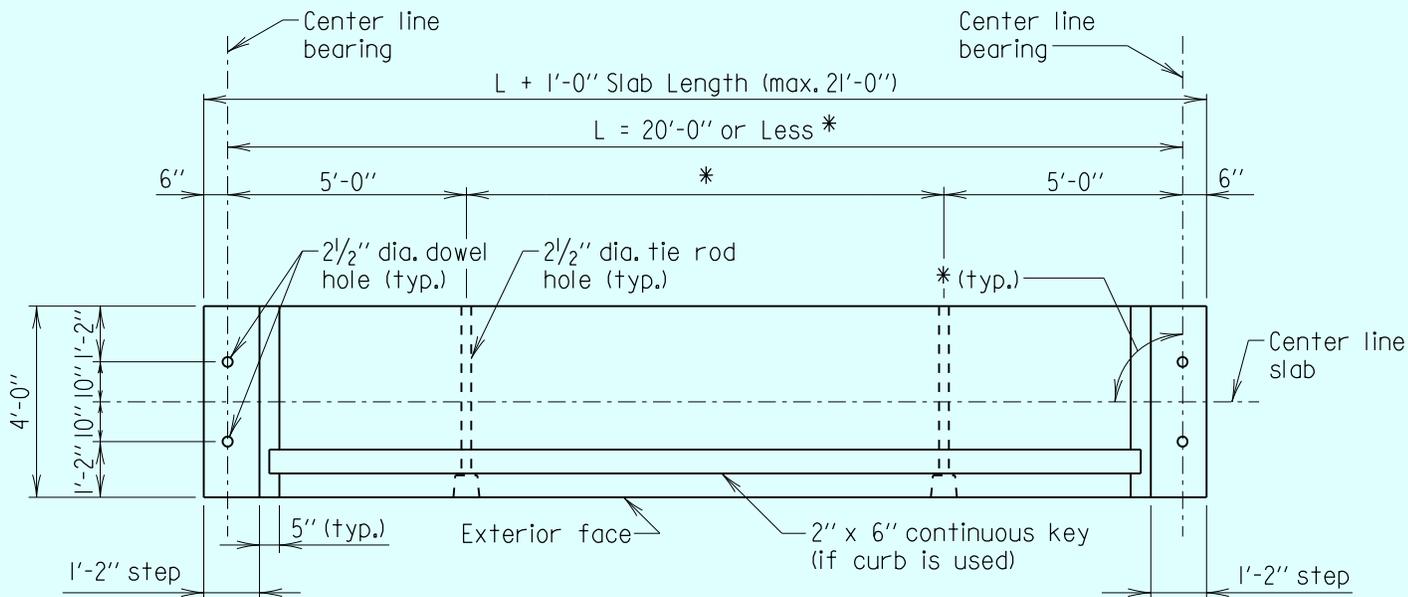
Scale: 3/4" = 1'-0"

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
SIMPLE SPAN 20'-0" OR LESS INTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL SECTIONS
DETAIL NO. SUP-SLAB(4FT)-101
SHEET 2 OF 2

SUPERSTRUCTURE SLABS



4'-0" EXTERIOR SLAB PLAN

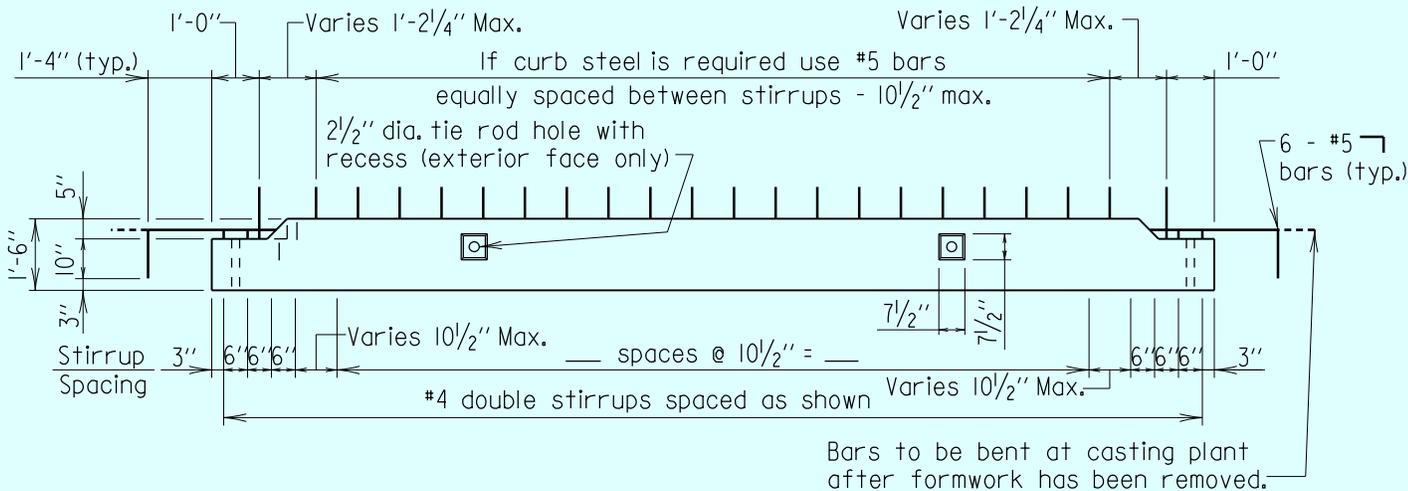
Scale: 1/4" = 1'-0"

Note:

Reinforcing steel at ends of slab and curb reinforcing not shown for clarity.

*** Note to designers:**

Include the exact slab length, skew angle and tie rod pattern in the Contract Plans.



4'-0" EXTERIOR SLAB ELEVATION

Scale: 1/4" = 1'-0"

Note to Designers:

Stirrup spacing shown is for a 90° crossing. For bridges with other skew angles, see Detail No. SUP-SLAB(4FT)-103 for details of skewed ends. Adjust this detail to show proper skew in the Contract Plans.

Notes:

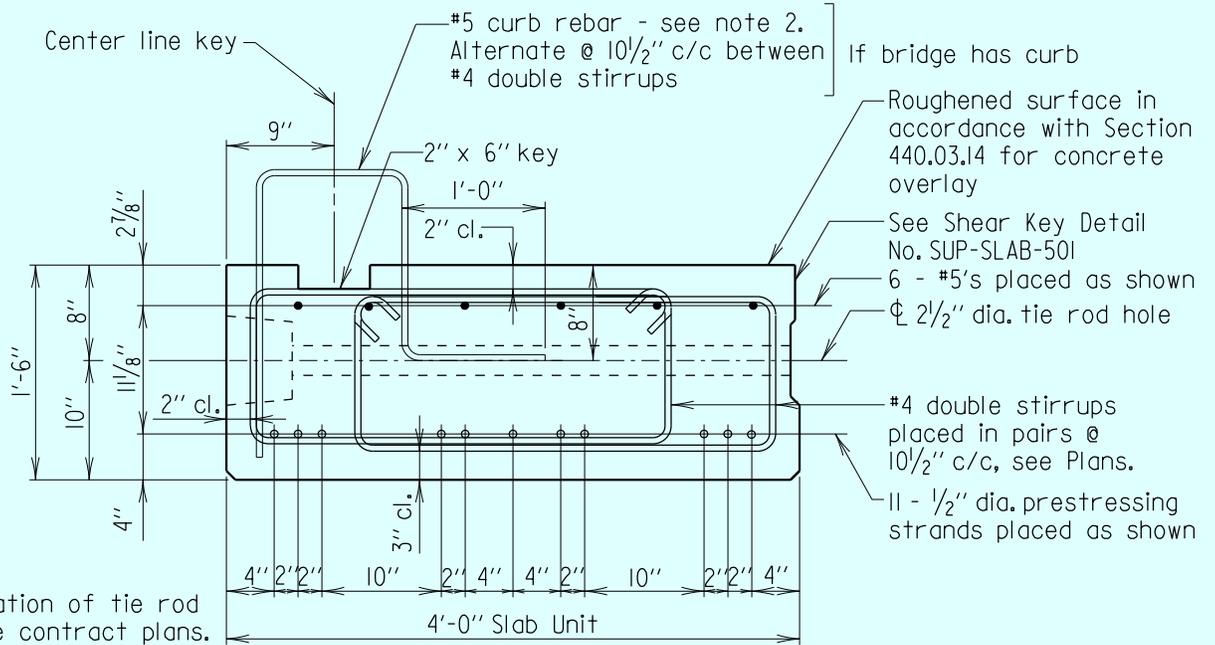
1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
3. All reinforcing steel to be epoxy coated.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN 20'-0" OR LESS EXTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL PLAN & ELEVATION	
DETAIL NO. SUP-SLAB(4FT)-102	SHEET <u>1</u> OF <u>2</u>

SUPERSTRUCTURE SLABS

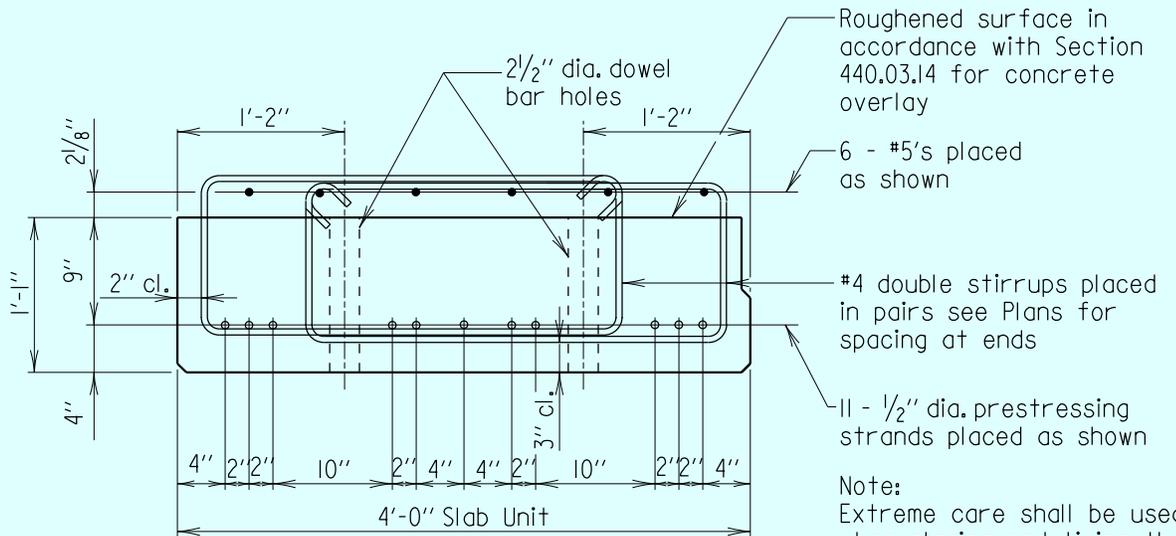


Notes:

1. For location of tie rod holes, see contract plans.
2. For location of curb reinforcement and anchor bolts and plates to be cast in slab for railing, see Detail No. SUP-TB(TR)-301

SECTION - SLAB AT MIDSPAN

Scale: $\frac{3}{4}'' = 1'-0''$



SECTION - SLAB AT ENDS

Scale: $\frac{3}{4}'' = 1'-0''$

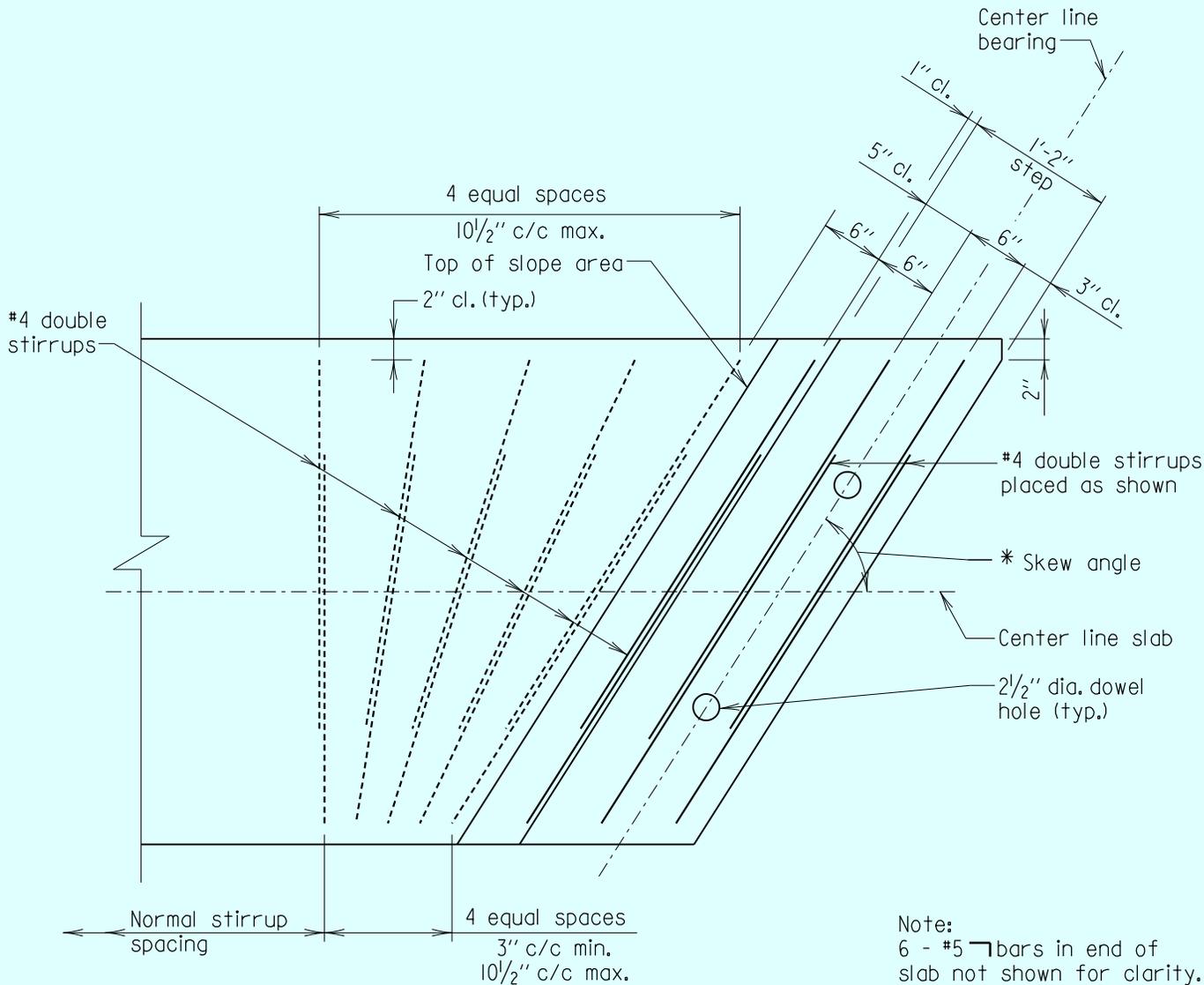
Note:
Extreme care shall be used when placing and tying the curb rebar, railing and anchor bolts assembly to provide for the required clearances. Any misplaced rebar, tie rod holes or anchor bolts will be cause for rejection of the precast slab unit.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN 20'-0" OR LESS EXTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL SECTIONS	
DETAIL NO. SUP-SLAB(4FT)-102	SHEET <u>2</u> OF <u>2</u>

SUPERSTRUCTURE SLABS



Note:
6 - #5 bars in end of slab not shown for clarity.

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

PLAN
Scale: 3/4" = 1'-0"

Note:
All reinforcing steel to be epoxy coated.

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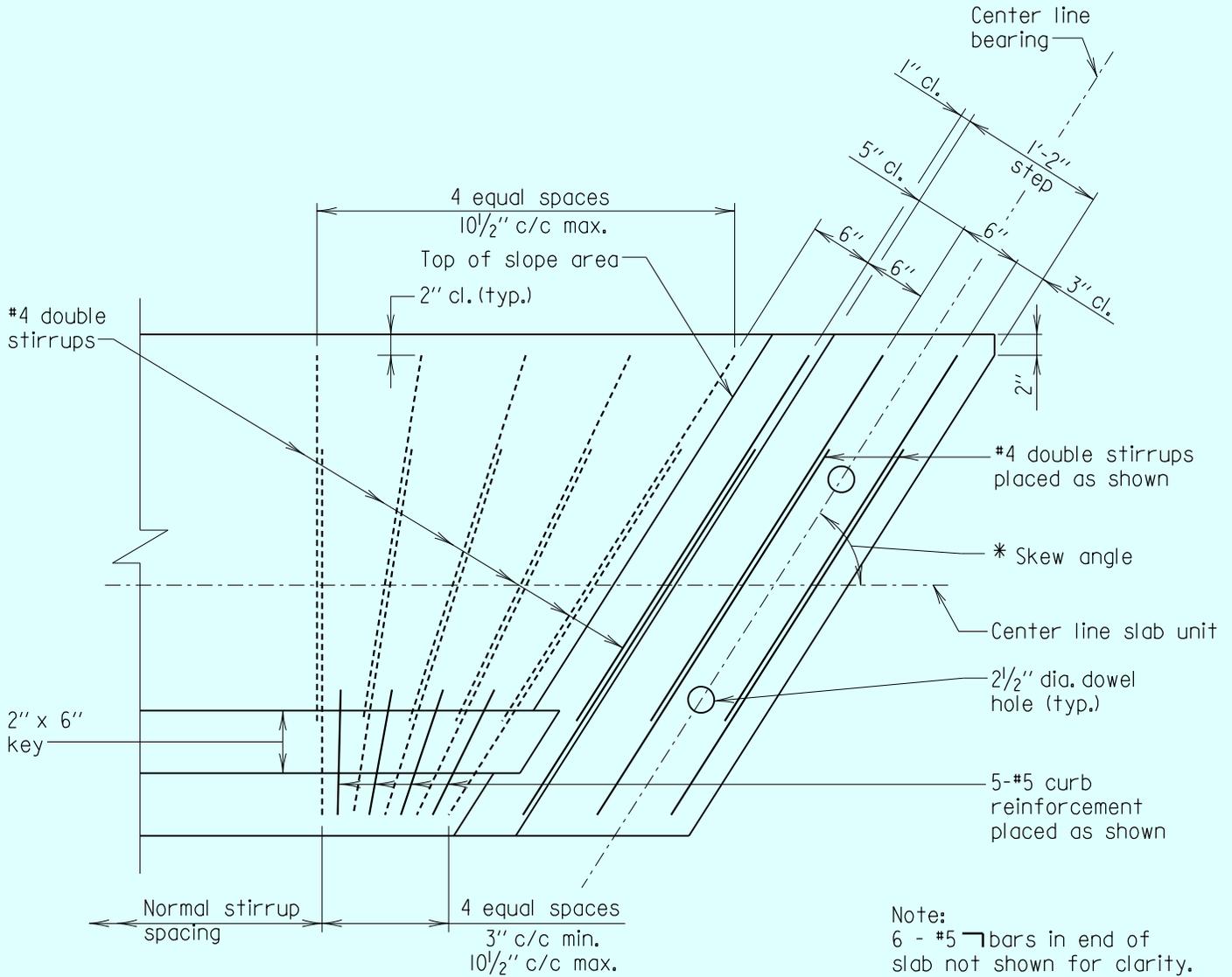
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

SIMPLE SPAN 20'-0" OR LESS
INTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
SKEWED END DETAIL

DETAIL NO. SUP-SLAB(4FT)-103

SHEET 1 OF 2

SUPERSTRUCTURE SLABS



Note:
6 - #5 \sqsubset bars in end of slab not shown for clarity.

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

PLAN
Scale: $\frac{3}{4}'' = 1'-0''$

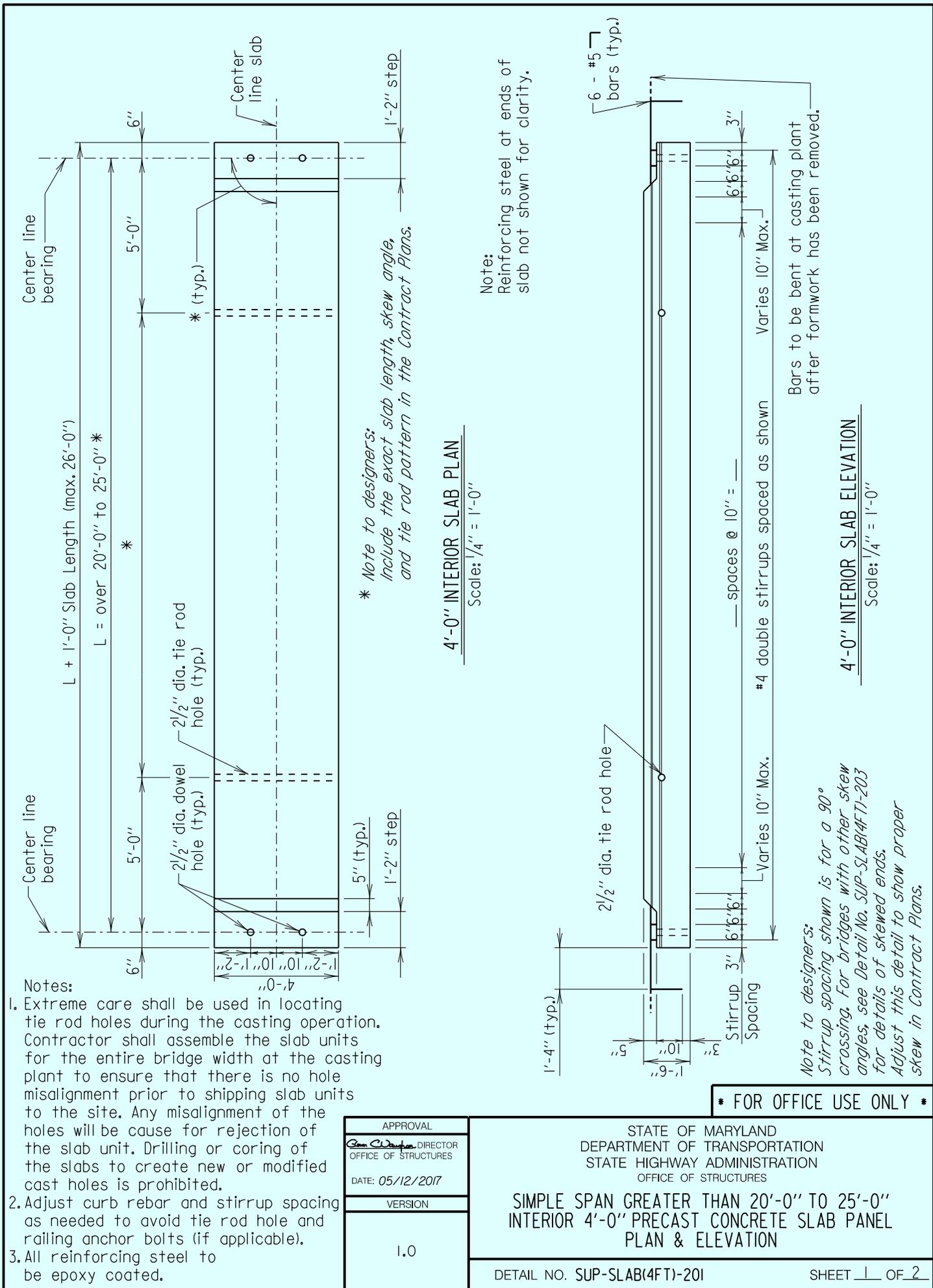
Note:
All reinforcing steel to be epoxy coated.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN 20'-0" OR LESS EXTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL SKEWED END DETAIL	
DETAIL NO. SUP-SLAB(4FT)-103	SHEET <u>2</u> OF <u>2</u>

SUPERSTRUCTURE SLABS



Notes:

1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
3. All reinforcing steel to be epoxy coated.

* Note to designers:
Include the exact slab length, skew angle,
and tie rod pattern in the Contract Plans.

4'-0" INTERIOR SLAB PLAN

Scale: 1/4" = 1'-0"

Note:
Reinforcing steel at ends of
slab not shown for clarity.

Note to designers:
Stirrup spacing shown is for a 90°
crossing. For bridges with other skew
angles, see Detail No. SUP-SLAB(4FT)-203
for details of skewed ends.
Adjust this detail to show proper
skew in Contract Plans.

4'-0" INTERIOR SLAB ELEVATION

Scale: 1/4" = 1'-0"

Bars to be bent at casting plant
after formwork has been removed.

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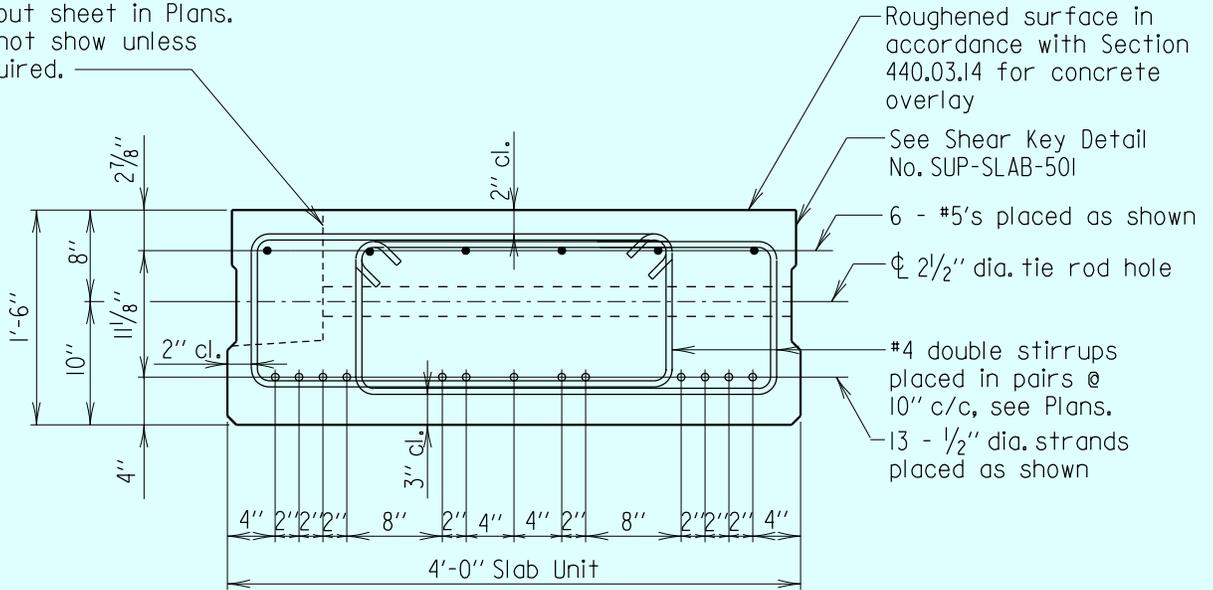
STATE OF MARYLAND
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STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

**SIMPLE SPAN GREATER THAN 20'-0" TO 25'-0"
INTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(4FT)-201 SHEET 1 OF 2

SUPERSTRUCTURE SLABS

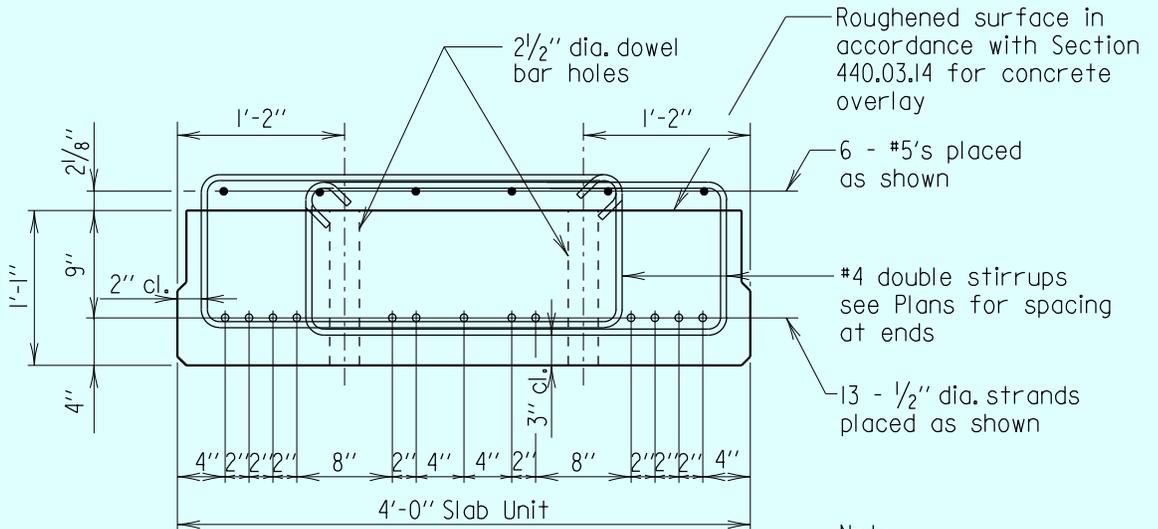
For stage construction
Type B tie rod recess
For location see Slab
Layout sheet in Plans.
Do not show unless
required.



Note:
For location of tie rod
holes, see contract plans.

SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"



SECTION - SLAB AT ENDS

Scale: 3/4" = 1'-0"

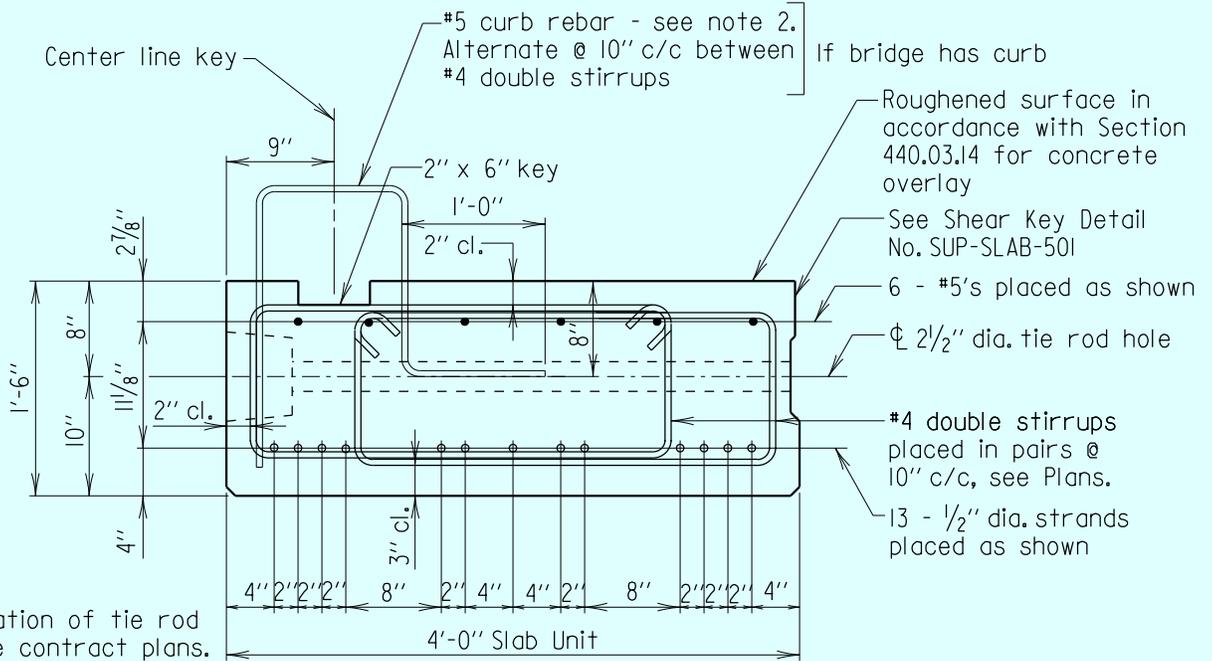
Note:
Any misplaced dowel bar
holes or tie rod holes will
be cause for rejection of
the precast slab unit.

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1.0

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 20'-0" TO 25'-0" INTERIRO 4'-0" PRECAST CONCRETE SLAB PANEL SECTIONS	
DETAIL NO. SUP-SLAB(4FT)-201	SHEET 2 OF 2

SUPERSTRUCTURE SLABS

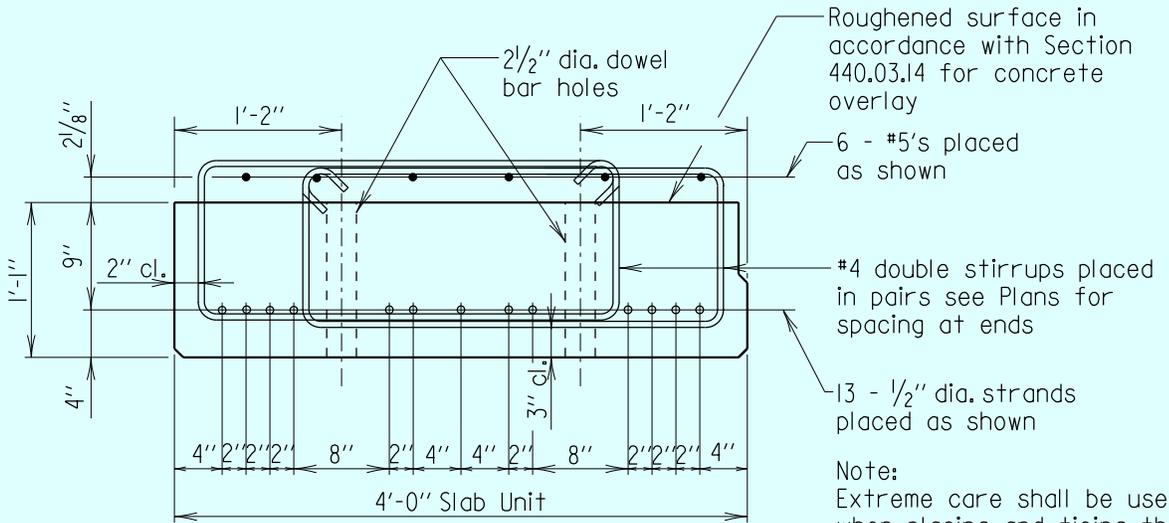


Notes:

1. For location of tie rod holes, see contract plans.
2. For location of curb reinforcement and anchor bolts and plates to be cast in slab for railing, see Detail No. SUP-TB(TR)-301

SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"



SECTION - SLAB AT ENDS

Scale: 3/4" = 1'-0"

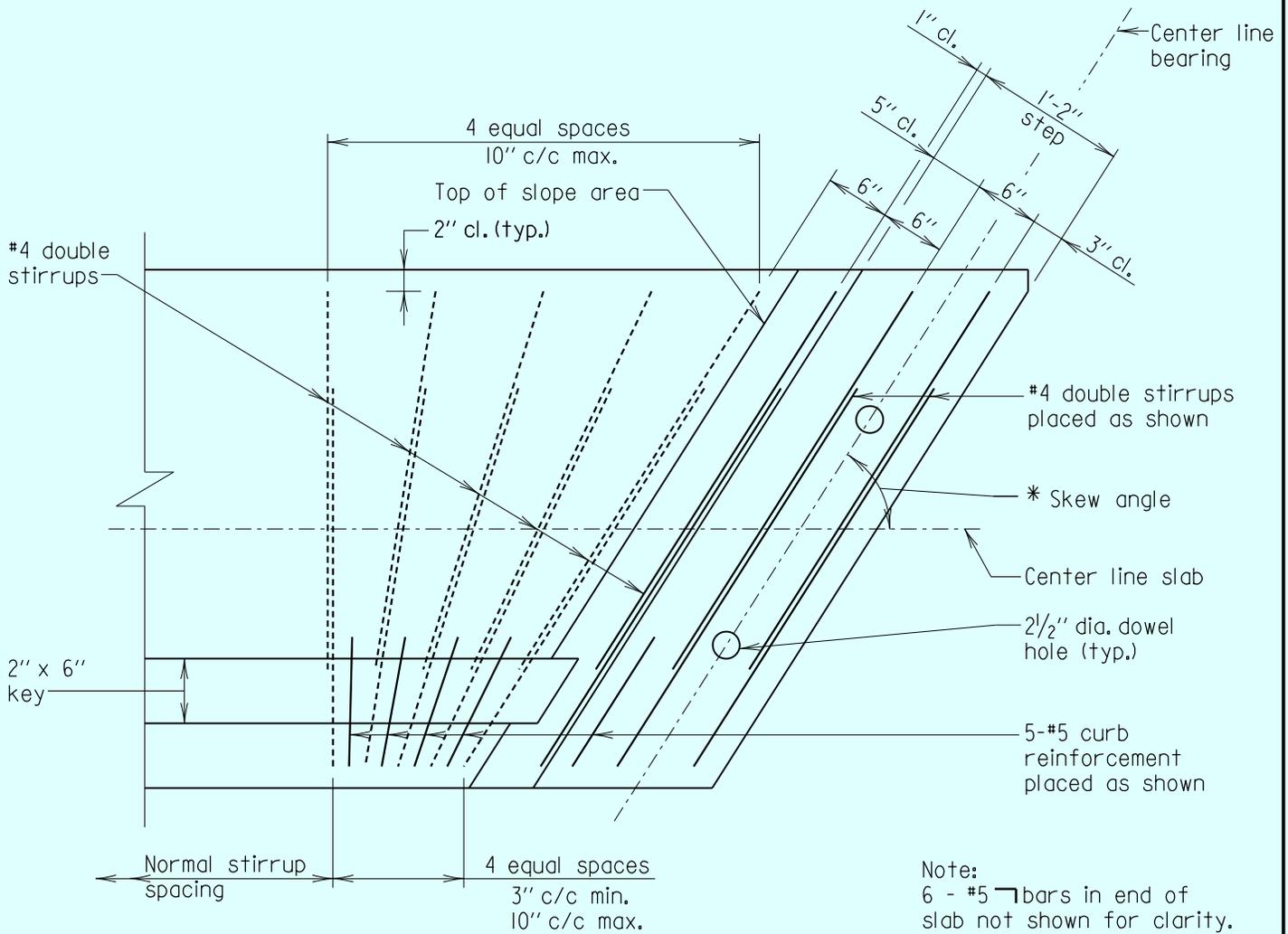
Note:
Extreme care shall be used when placing and tying the curb rebar, railing and anchor bolts assembly to provide for the required clearances. Any misplaced rebar, tie rod holes or anchor bolts will be cause for rejection of the precast slab unit.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
SIMPLE SPAN GREATER THAN 20'-0" TO 25'-0" EXTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL SECTIONS
DETAIL NO. SUP-SLAB(4FT)-202
SHEET <u>2</u> OF <u>2</u>

SUPERSTRUCTURE SLABS



Note to designers: Draw to scale on the contract plan sheets.

PLAN
Scale: 3/4" = 1'-0"

Note:
6 - #5 bars in end of slab not shown for clarity.

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

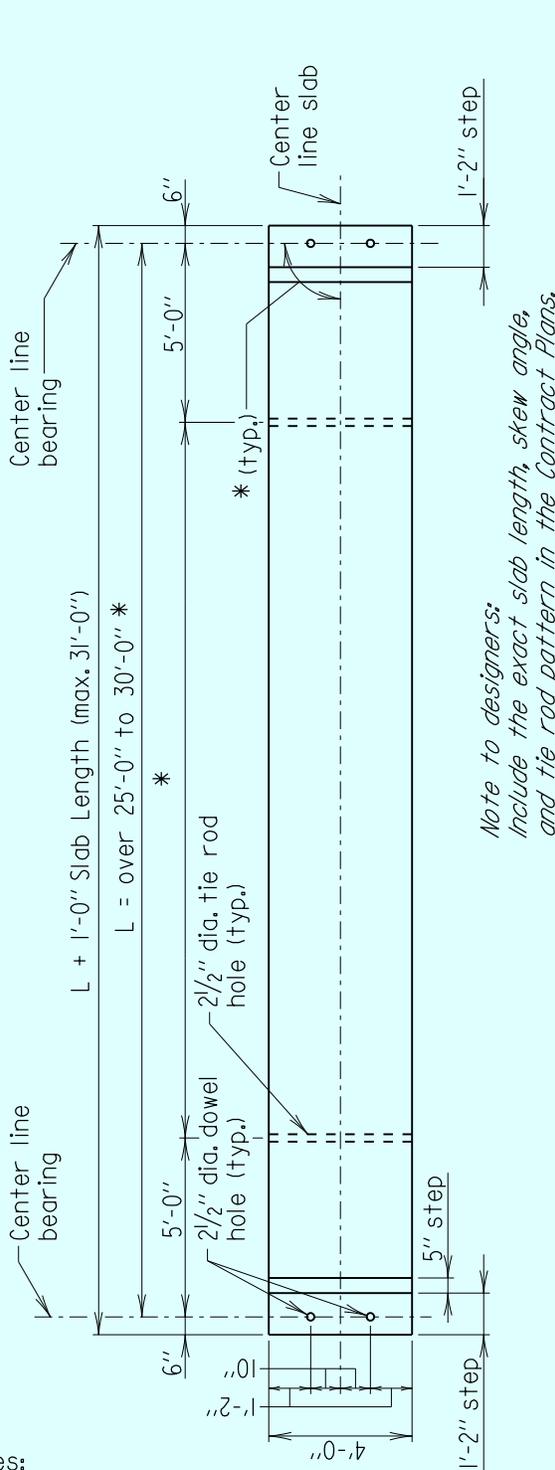
Note:
All reinforcing steel to be epoxy coated.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
SIMPLE SPAN GREATER THAN 20'-0" TO 25'-0" EXTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL SKEWED END DETAIL
DETAIL NO. SUP-SLAB(4FT)-203
SHEET 2 OF 2

SUPERSTRUCTURE SLABS

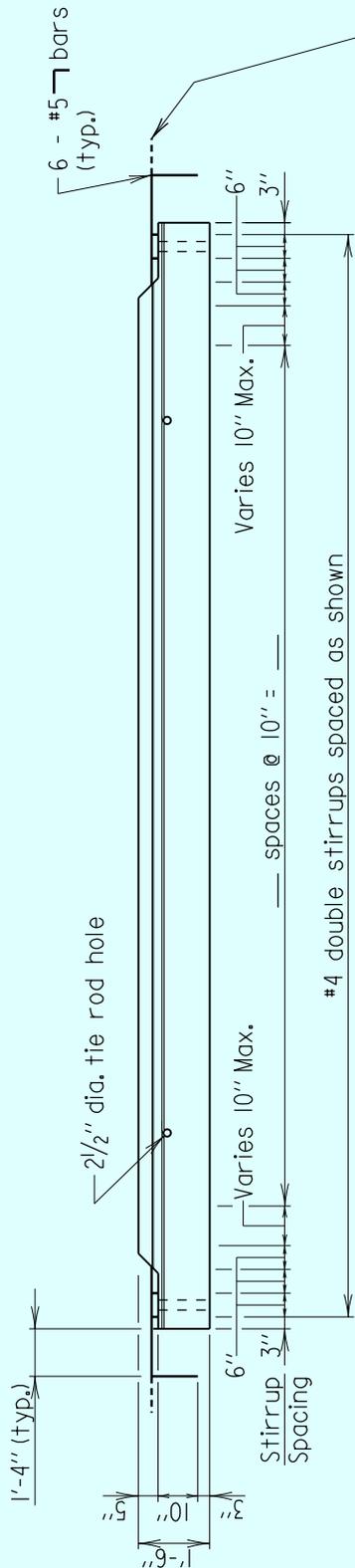


Note to designers:
Include the exact slab length, skew angle,
and tie rod pattern in the Contract Plans.

4'-0" INTERIOR SLAB PLAN

Scale: 3/16" = 1'-0"

Note:
Reinforcing steel at ends of
slab not shown for clarity.



Bars to be bent at casting plant
after formwork has been removed.

4'-0" INTERIOR SLAB ELEVATION

Scale: 1/4" = 1'-0"

Note to designers:
Stirrup spacing shown is for a 90°
crossing. For bridges with other skew
angles, see Detail No. SUP-SLAB(4FT)-303
for details of skewed ends.
Adjust this detail to show proper
skew in Contract Plans.

Notes:

1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
3. All reinforcing steel to be epoxy coated.

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VERSION
1.0

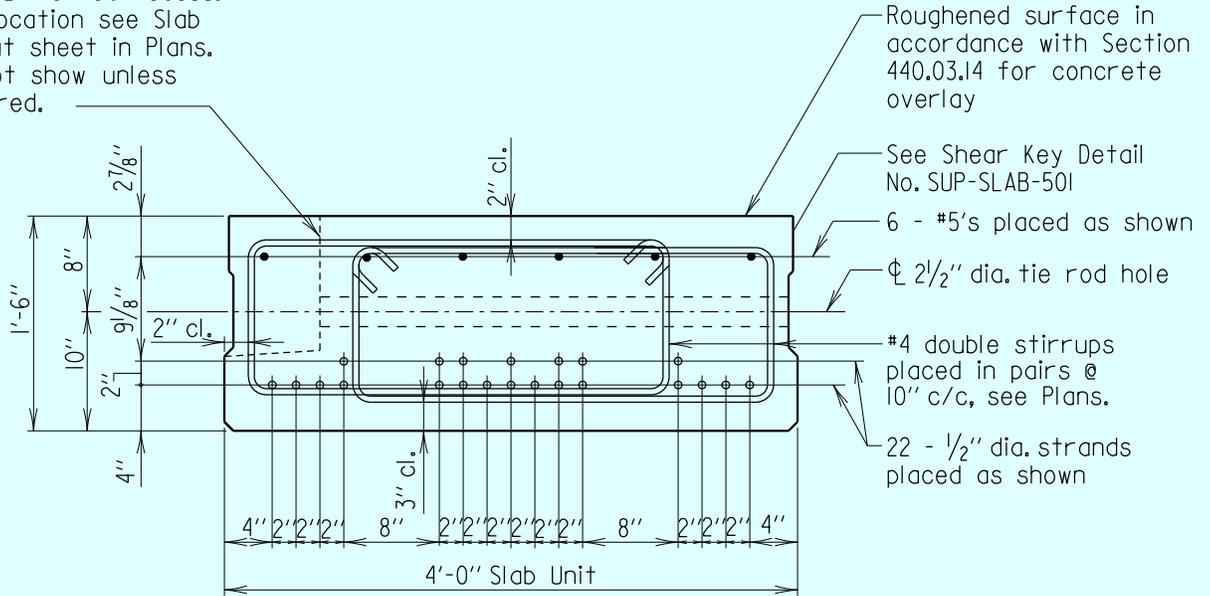
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

**SIMPLE SPAN GREATER THAN 25'-0" TO 30'-0"
INTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(4FT)-301 SHEET 1 OF 2

SUPERSTRUCTURE SLABS

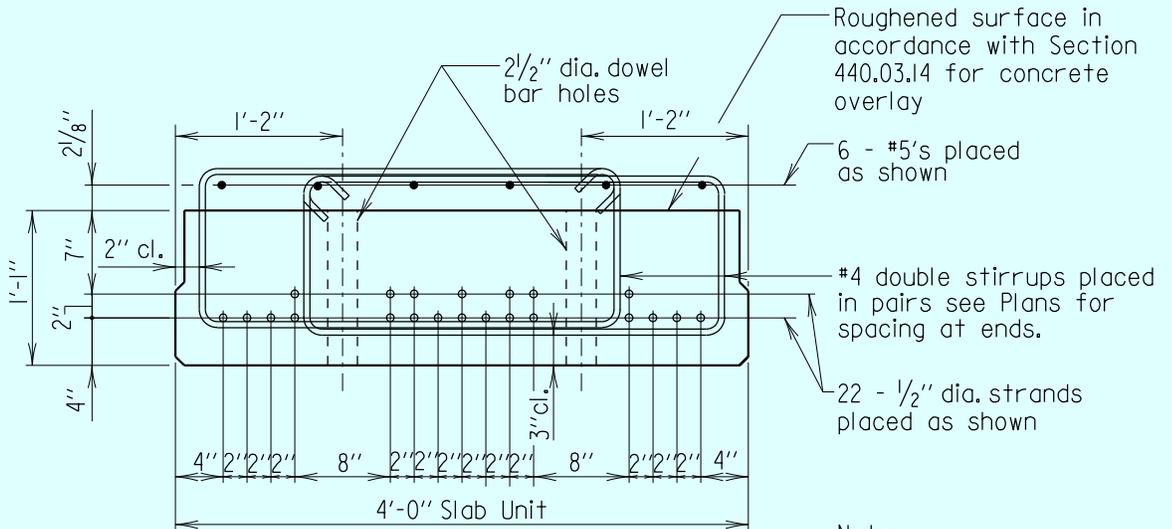
For stage construction
Type B tie rod recess.
For location see Slab
Layout sheet in Plans.
Do not show unless
required.



Note:
For location of tie rod
holes, see contract plans.

SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"



SECTION - SLAB AT ENDS

Scale: 3/4" = 1'-0"

Note:
Any misplaced dowel bar
holes or tie rod holes will
be cause for rejection of
the precast slab unit.

Notes:

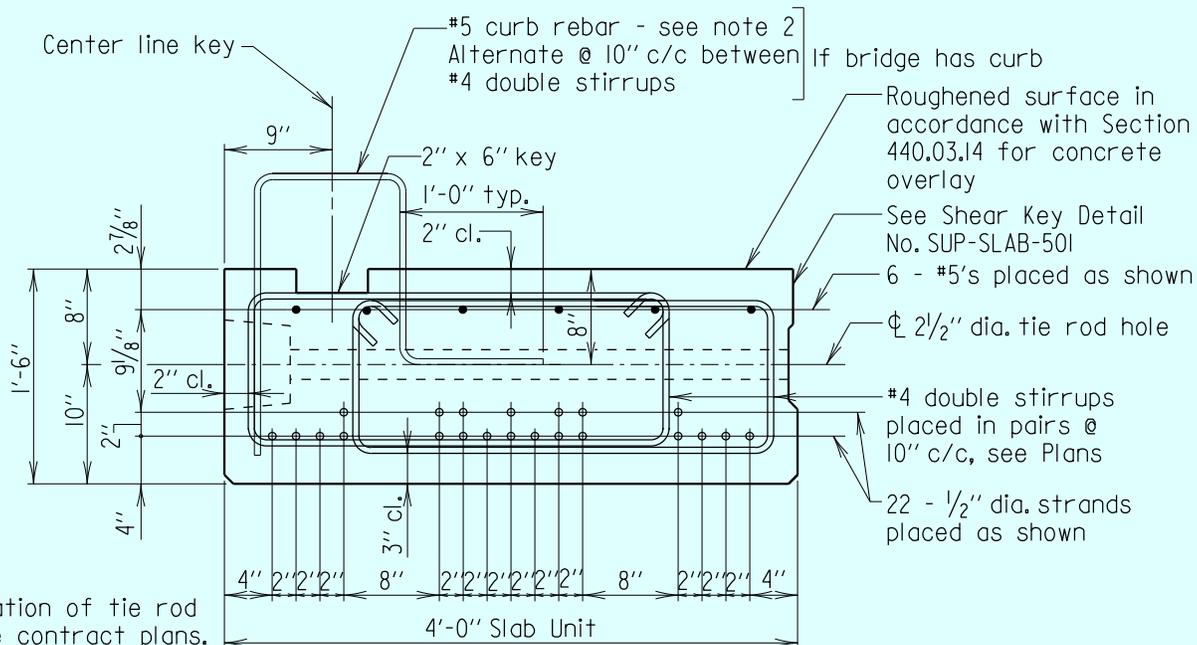
1. All reinforcing steel to be epoxy coated.
2. Adjust stirrup spacing to avoid tie rod holes as needed.

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1.0

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
SIMPLE SPAN GREATER THAN 25'-0" TO 30'-0" INTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL SECTIONS
DETAIL NO. SUP-SLAB(4FT)-30I
SHEET <u>2</u> OF <u>2</u>

SUPERSTRUCTURE SLABS

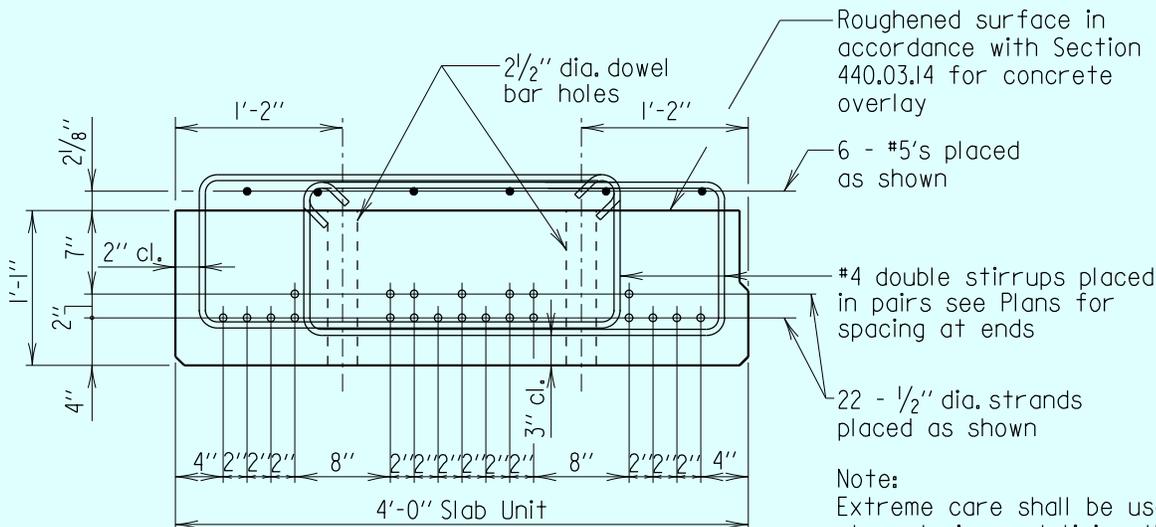


Notes:

1. For location of tie rod holes, see contract plans.
2. For location of curb reinforcement and anchor bolts and plates to be cast in slab for railing, see Detail No. SUP-TB(TR)-30I

SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"



SECTION - SLAB AT ENDS

Scale: 3/4" = 1'-0"

Note:
Extreme care shall be used when placing and tying the curb rebar, railing and anchor bolts assembly to provide for the required clearances. Any misplaced rebar, tie rod holes or anchor bolts will be cause for rejection of the precast slab unit.

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DATE: 05/12/2017
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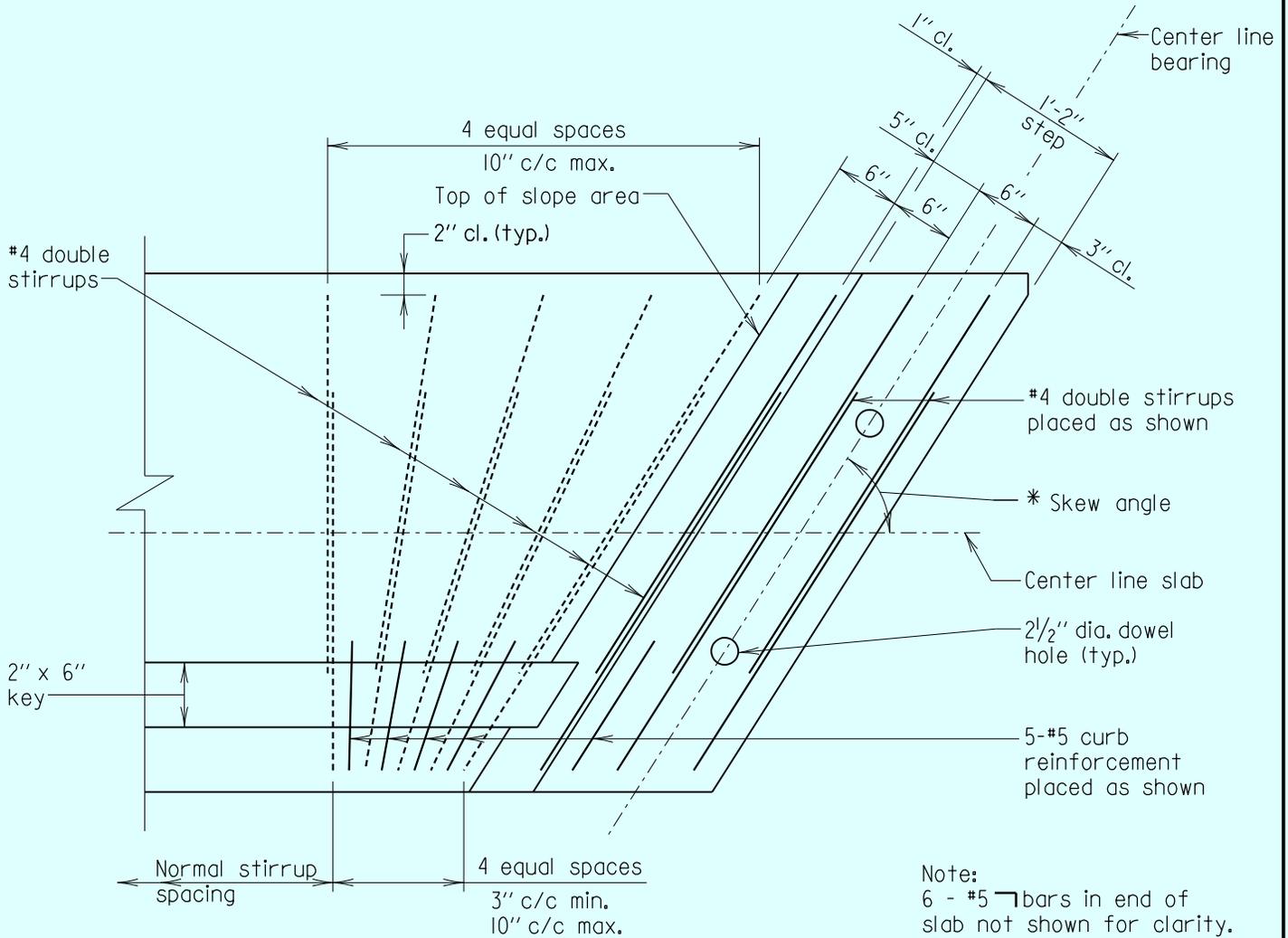
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DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
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**SIMPLE SPAN GREATER THAN 25'-0" TO 30'-0"
EXTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
SECTIONS**

DETAIL NO. SUP-SLAB(4FT)-302

SHEET 2 OF 2

SUPERSTRUCTURE SLABS



Note to designer: Draw to scale on the contract plan sheets.

PLAN
Scale: 3/4" = 1'-0"

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

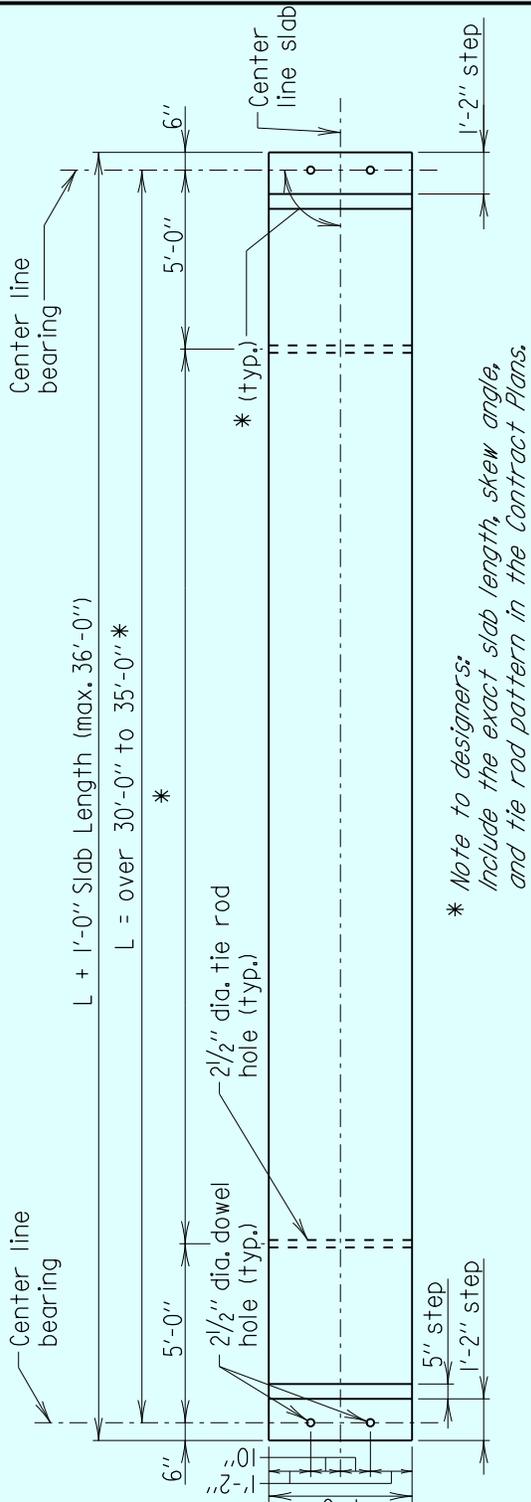
Note:
All reinforcing steel to be epoxy coated.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 25'-0" TO 30'-0" EXTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL SKEWED END DETAIL	
DETAIL NO. SUP-SLAB(4FT)-303	SHEET 2 OF 2

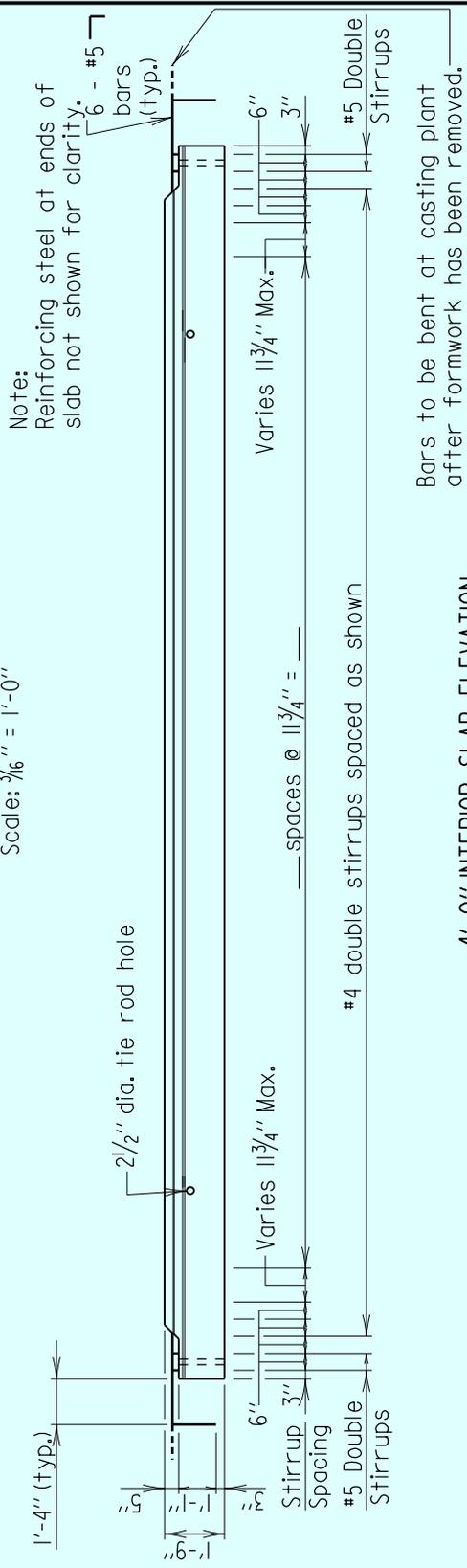
SUPERSTRUCTURE SLABS



* Note to designers:
Include the exact slab length, skew angle,
and tie rod pattern in the Contract Plans.

4'-0" INTERIOR SLAB PLAN

Scale: 3/16" = 1'-0"



Note:
Reinforcing steel at ends of
slab not shown for clarity.

4'-0" INTERIOR SLAB ELEVATION

Scale: 3/16" = 1'-0"

Note to designers:
Stirrup spacing shown is for a 90°
crossing. For bridges with other skew
angles, see Detail No. SUP-SLAB(4FT)-403
for details of skewed ends.
Adjust this detail to show proper
skew in Contract Plans.

Notes:

1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
3. All reinforcing steel to be epoxy coated.

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STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

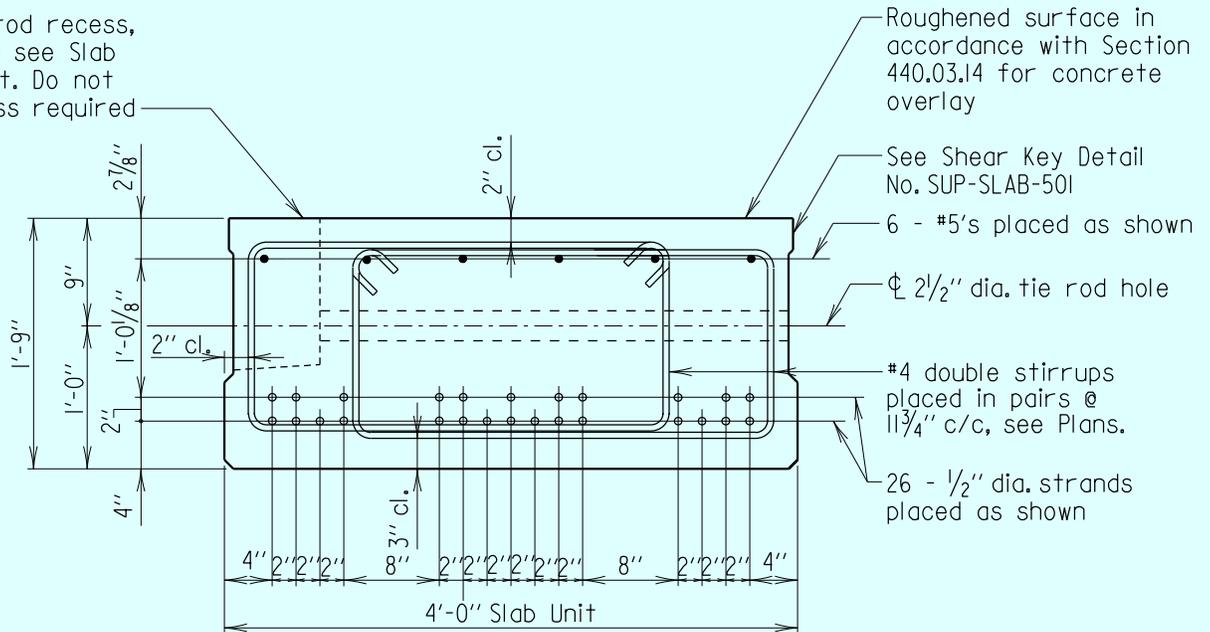
**SIMPLE SPAN GREATER THAN 30'-0" TO 35'-0"
INTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(4FT)-401

SHEET 1 OF 2

SUPERSTRUCTURE SLABS

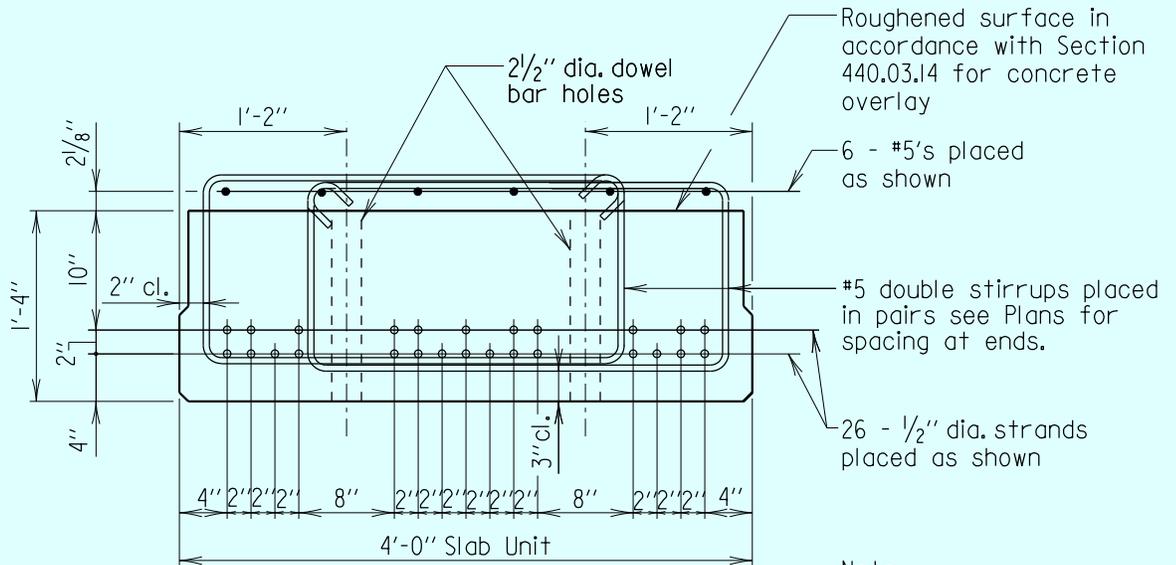
Type B tie rod recess, for location see Slab Layout sheet. Do not include unless required



Note:
For location of tie rod holes, see contract plans.

SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"



Note:
Any misplaced dowel bar holes or tie rod holes will be cause for rejection of the precast slab unit.

SECTION - SLAB AT ENDS

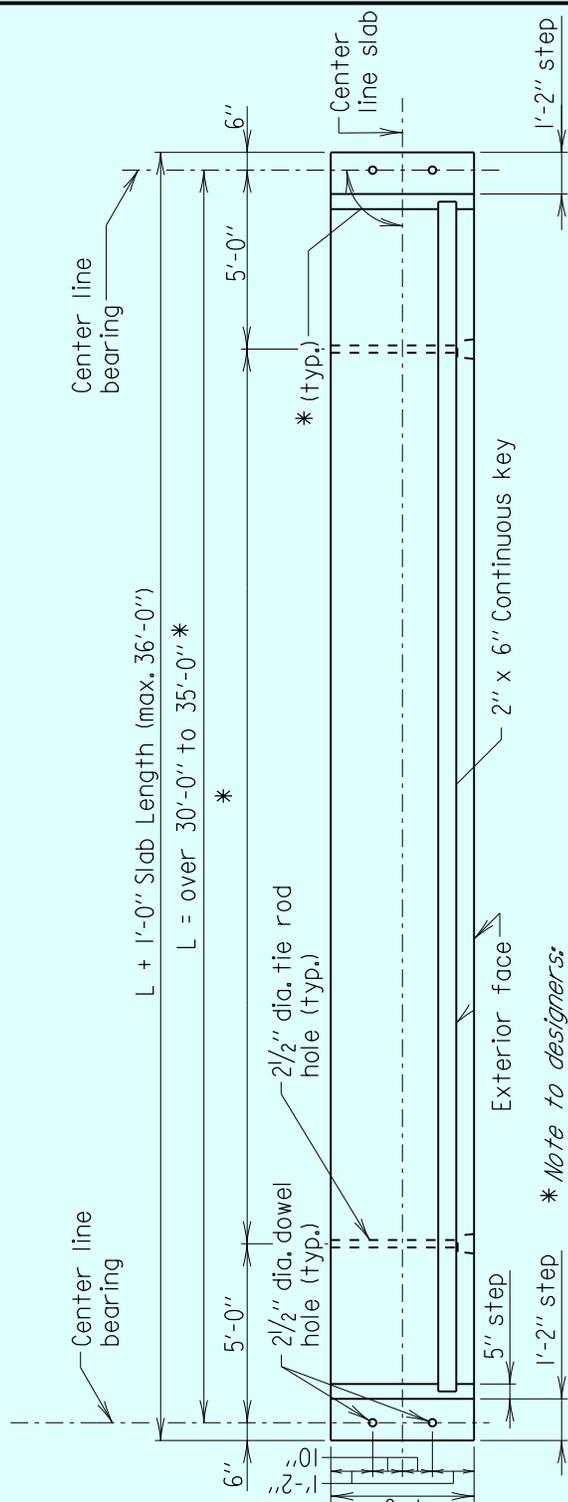
Scale: 3/4" = 1'-0"

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 30'-0" TO 35'-0" INTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL SECTIONS	
DETAIL NO. SUP-SLAB(4FT)-401	SHEET 2 OF 2

SUPERSTRUCTURE SLABS

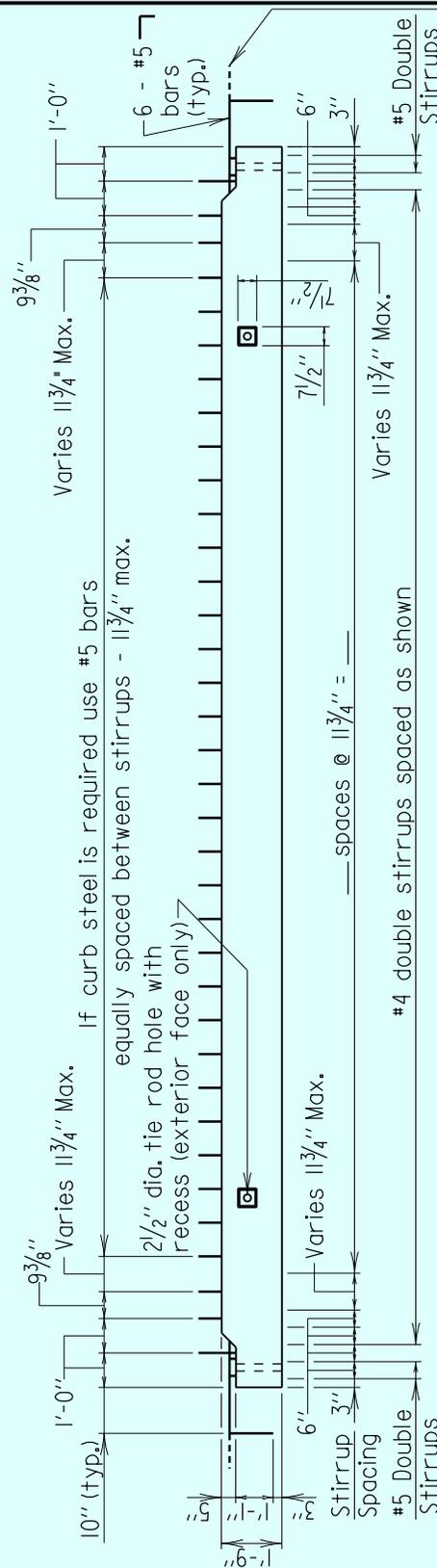


Note:
Reinforcing steel at ends of slab and curb reinforcing not shown for clarity.

4'-0" EXTERIOR SLAB PLAN

Scale: 3/16" = 1'-0"

* Note to designers:
Include the exact slab length, skew angle, and tie rod pattern in the Contract Plans.



4'-0" EXTERIOR SLAB ELEVATION

Scale: 3/16" = 1'-0"

Note to designers:
Stirrup spacing shown is for a 90° crossing. For bridges with other skew angles, see Detail No. SUP-SLAB(4FT)-403 for details of skewed ends. Adjust this detail to show proper skew in Contract Plans.

- Notes:
1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
 2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
 3. All reinforcing steel to be epoxy coated.

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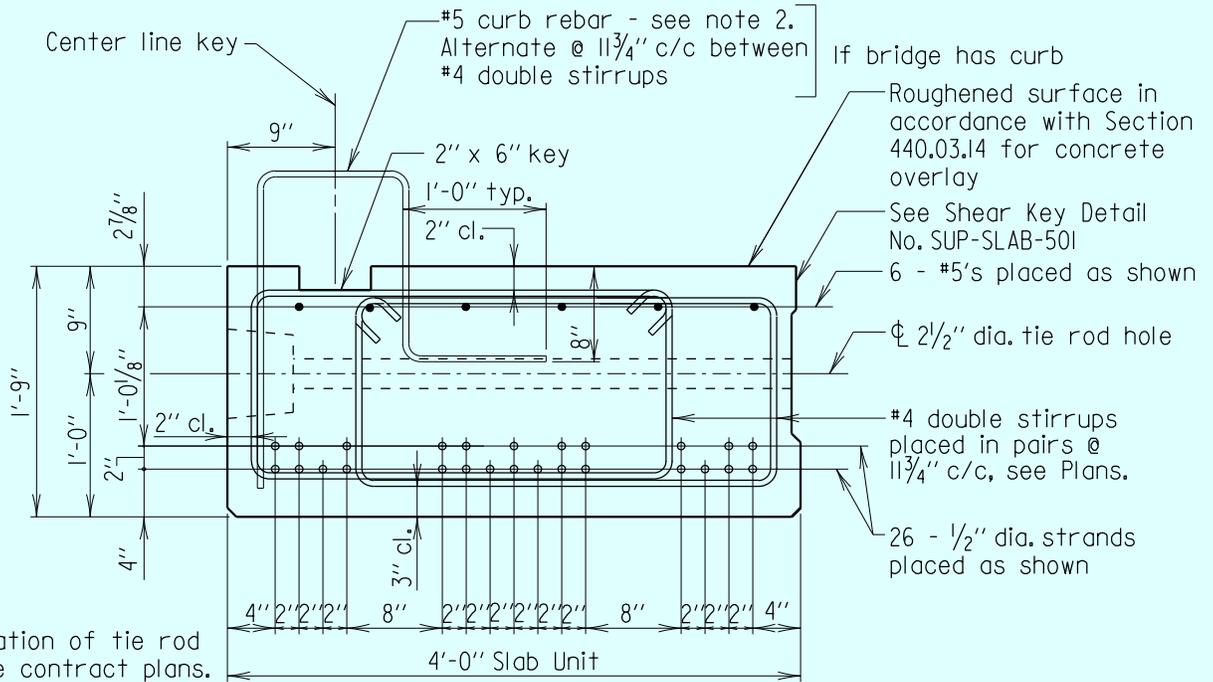
STATE OF MARYLAND
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STATE HIGHWAY ADMINISTRATION
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**SIMPLE SPAN GREATER THAN 30'-0" TO 35'-0"
EXTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(4FT)-402

SHEET 1 OF 2

SUPERSTRUCTURE SLABS

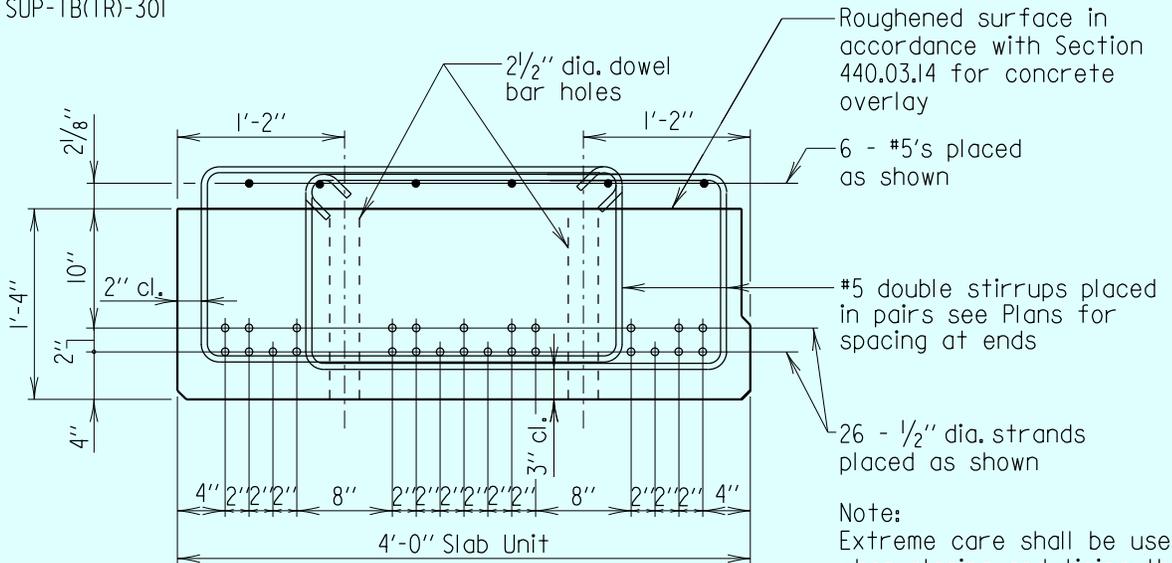


Notes:

1. For location of tie rod holes, see contract plans.
2. For location of curb reinforcement and anchor bolts and plates to be cast in slab for railing, see Detail No. SUP-TB(TR)-301

SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"



SECTION - SLAB AT ENDS

Scale: 3/4" = 1'-0"

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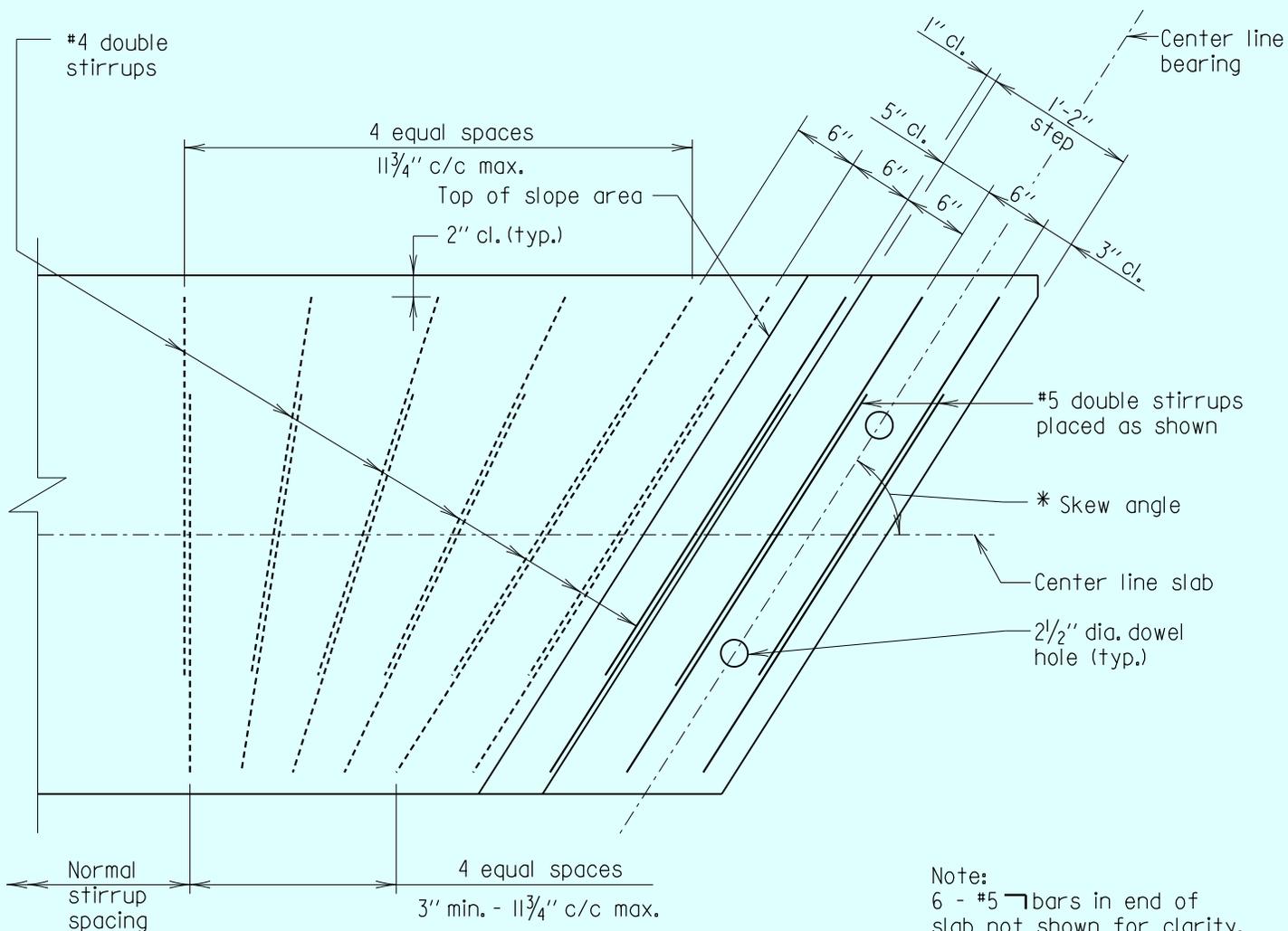
STATE OF MARYLAND
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STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

**SIMPLE SPAN GREATER THAN 30'-0" TO 35'-0"
EXTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
SECTIONS**

DETAIL NO. SUP-SLAB(4FT)-402

SHEET 2 OF 2

SUPERSTRUCTURE SLABS



Note:
6 - #5 bars in end of slab not shown for clarity.

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

* Note to designer: Draw to scale on the contract plan sheets.

PLAN
Scale: 3/4" = 1'-0"

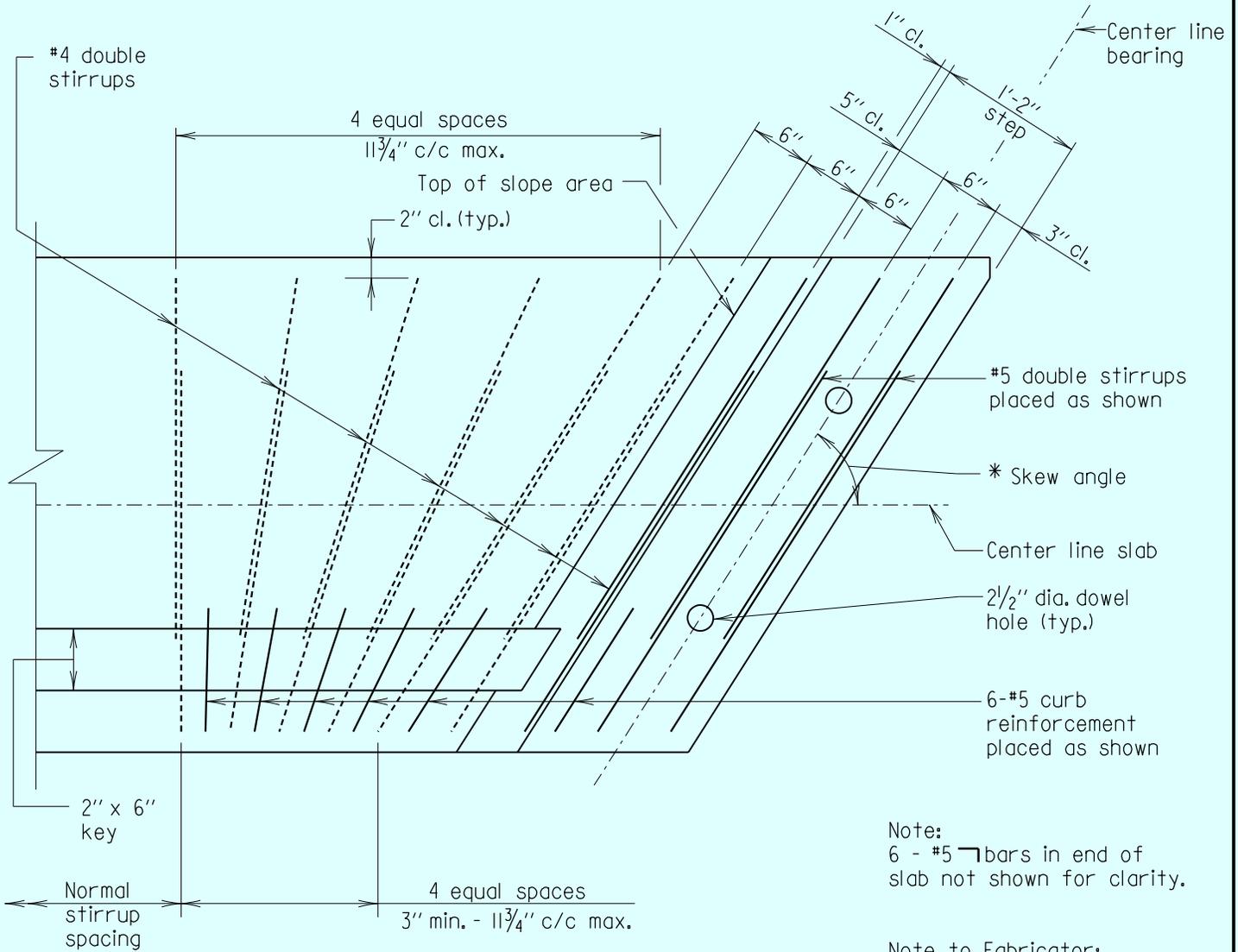
Note:
All reinforcing steel to be epoxy coated.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 30'-0" TO 35'-0" INTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL SKEWED END DETAIL	
DETAIL NO. SUP-SLAB(4FT)-403	SHEET 1 OF 2

SUPERSTRUCTURE SLABS



* Note to designer: Draw to scale on the contract plan sheets.

PLAN
Scale: 3/4" = 1'-0"

Note:
6 - #5 bars in end of slab not shown for clarity.

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

Note:
All reinforcing steel to be epoxy coated.

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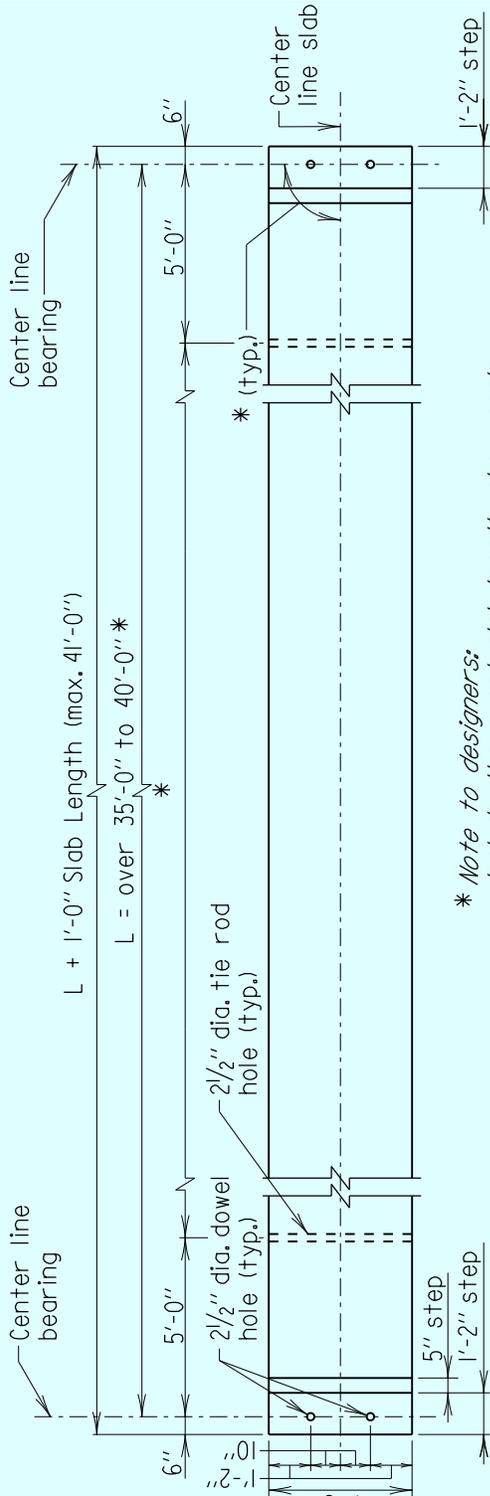
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

**SIMPLE SPAN GREATER THAN 30'-0" TO 35'-0"
EXTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
SKEWED END DETAIL**

DETAIL NO. SUP-SLAB(4FT)-403

SHEET 2 OF 2

SUPERSTRUCTURE SLABS

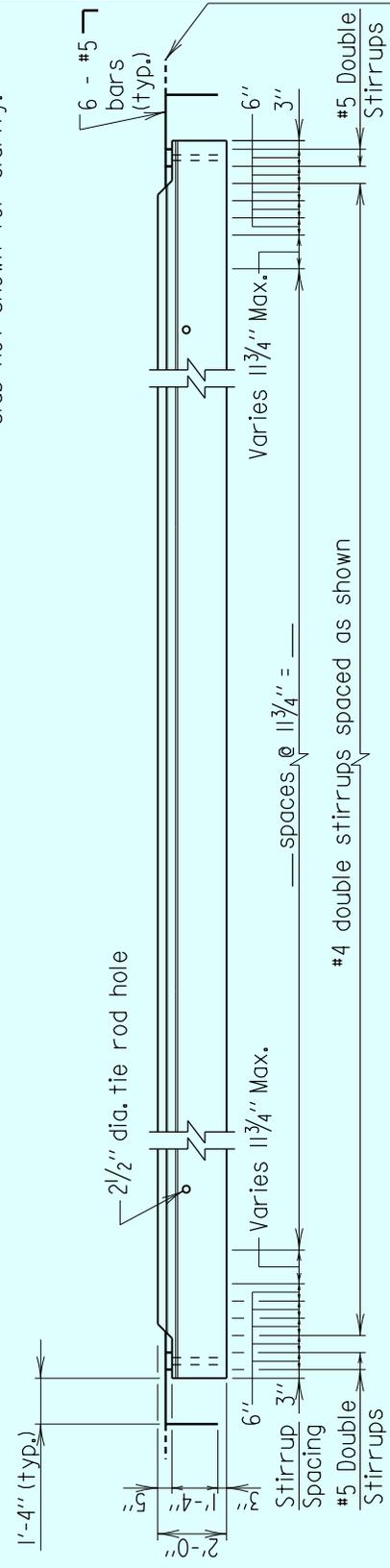


* Note to designers:
Include the exact slab length, skew angle,
and tie rod pattern in the Contract Plans.

4'-0" INTERIOR SLAB PLAN

Scale: 3/16" = 1'-0"

Note:
Reinforcing steel at ends of
slab not shown for clarity.



Bars to be bent at casting plant
after formwork has been removed.

4'-0" INTERIOR SLAB ELEVATION

Scale: 3/16" = 1'-0"

Note to designers:
Stirrup spacing shown is for a 90° crossing.
For bridges with other skew angles, see Detail
No. SUP-SLAB(4FT)-503 for details of skewed
ends. Adjust this detail to show proper skew
in Contract Plans.

- Notes:
1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
 2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
 3. All reinforcing steel to be epoxy coated.

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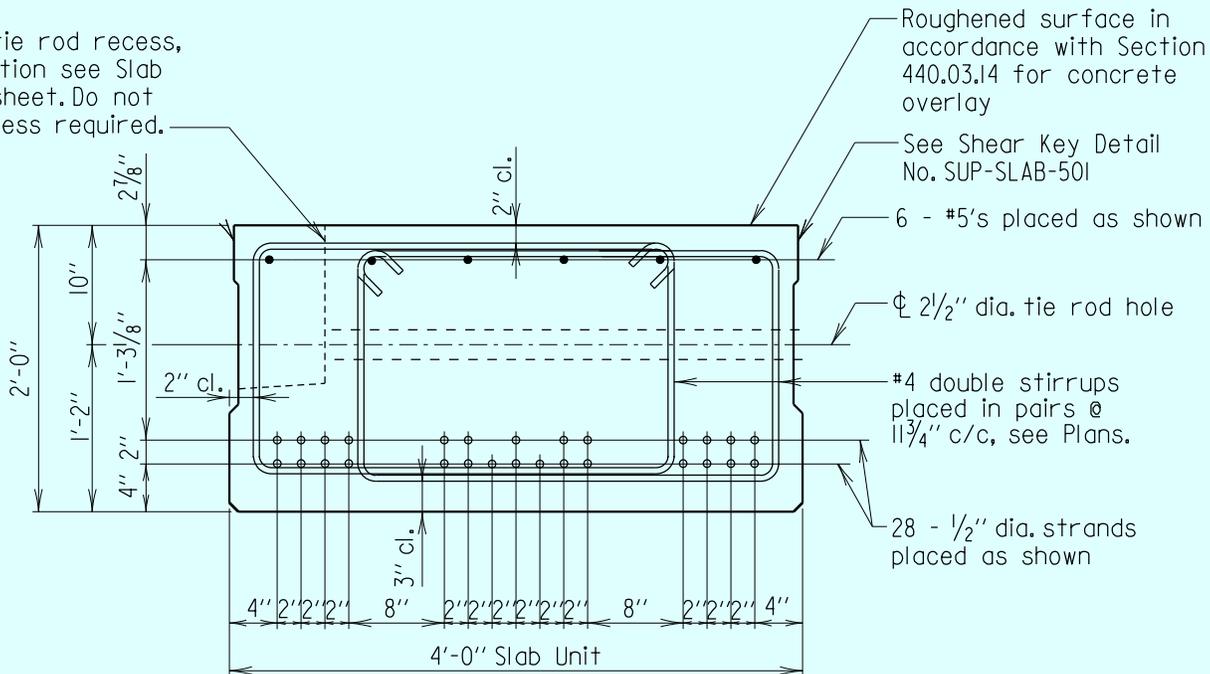
**SIMPLE SPAN GREATER THAN 35'-0" TO 40'-0"
INTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(4FT)-501

SHEET 1 OF 2

SUPERSTRUCTURE SLABS

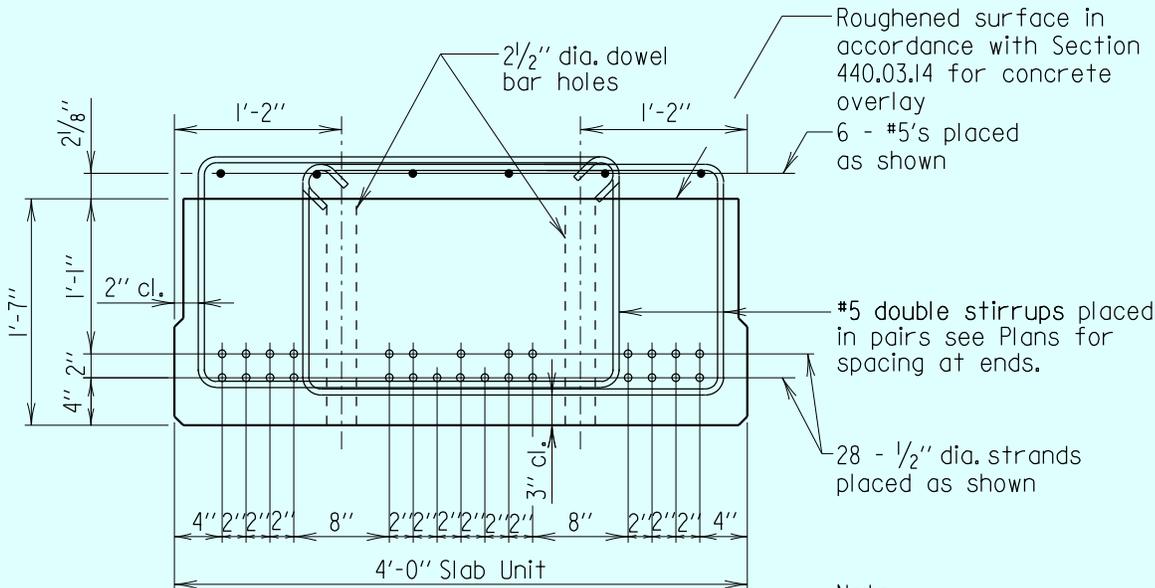
Type B tie rod recess, for location see Slab Layout sheet. Do not show unless required.



Note:
For location of tie rod holes, see contract plans.

SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"



Note:
Any misplaced dowel bar holes or tie rod holes will be cause for rejection of the precast slab unit.

SECTION - SLAB AT ENDS

Scale: 3/4" = 1'-0"

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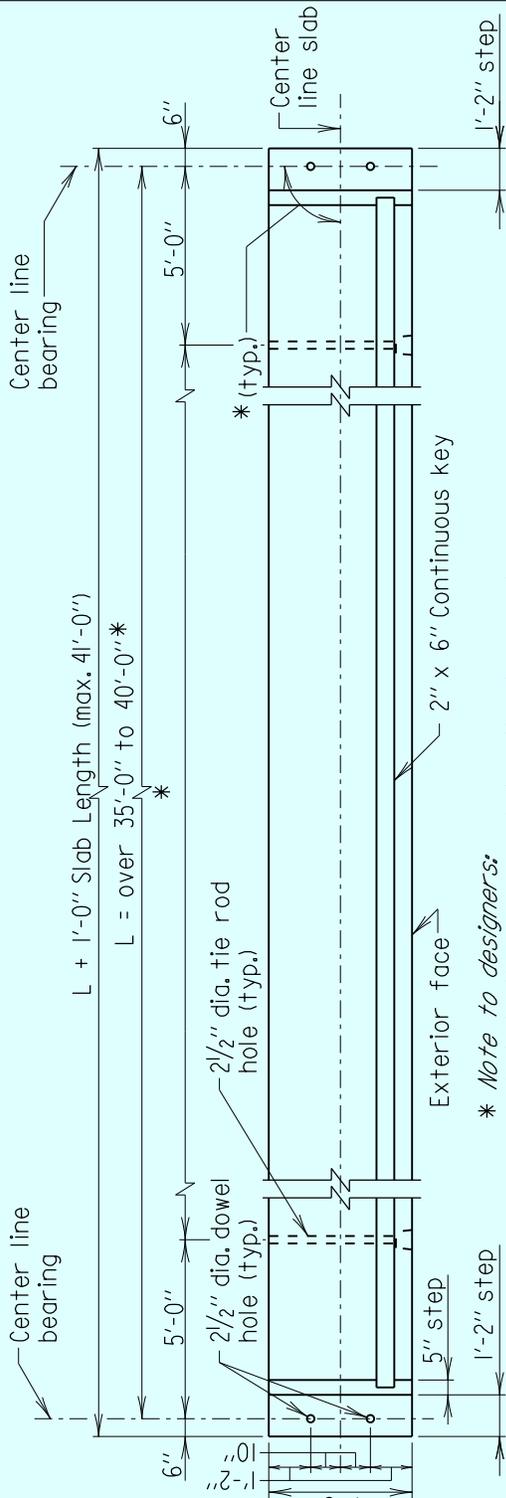
STATE OF MARYLAND
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STATE HIGHWAY ADMINISTRATION
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**SIMPLE SPAN GREATER THAN 35'-0" TO 40'-0"
INTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
SECTIONS**

DETAIL NO. SUP-SLAB(4FT)-501

SHEET 2 OF 2

SUPERSTRUCTURE SLABS

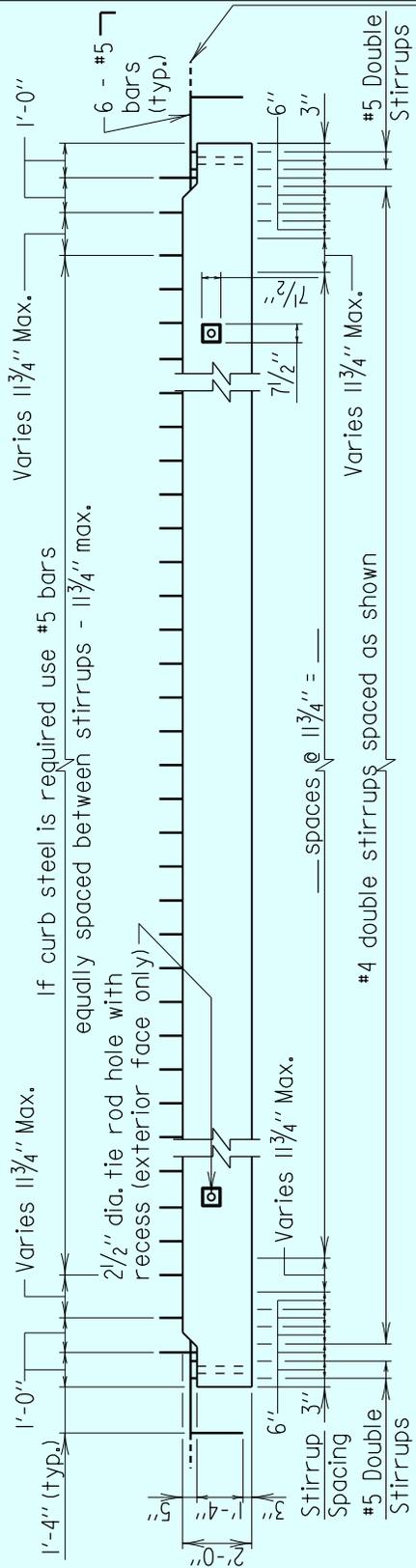


Note:
Reinforcing steel at ends of slab and curb reinforcing not shown for clarity.

4'-0" EXTERIOR SLAB PLAN

Scale: 3/16" = 1'-0"

* Note to designers:
Include the exact slab length, skew angle, and tie rod pattern in the Contract Plans.



Bars to be bent at casting plant after formwork has been removed.

4'-0" EXTERIOR SLAB ELEVATION

Scale: 3/16" = 1'-0"

Note to designers:
Stirrup spacing shown is for a 90° crossing. For bridges with other skew angles, see Detail No. SUP-SLAB(4FT)-503 for details of skewed ends. Adjust this detail to show proper skew in Contract Plans.

- Notes:
1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
 2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
 3. All reinforcing steel to be epoxy coated.

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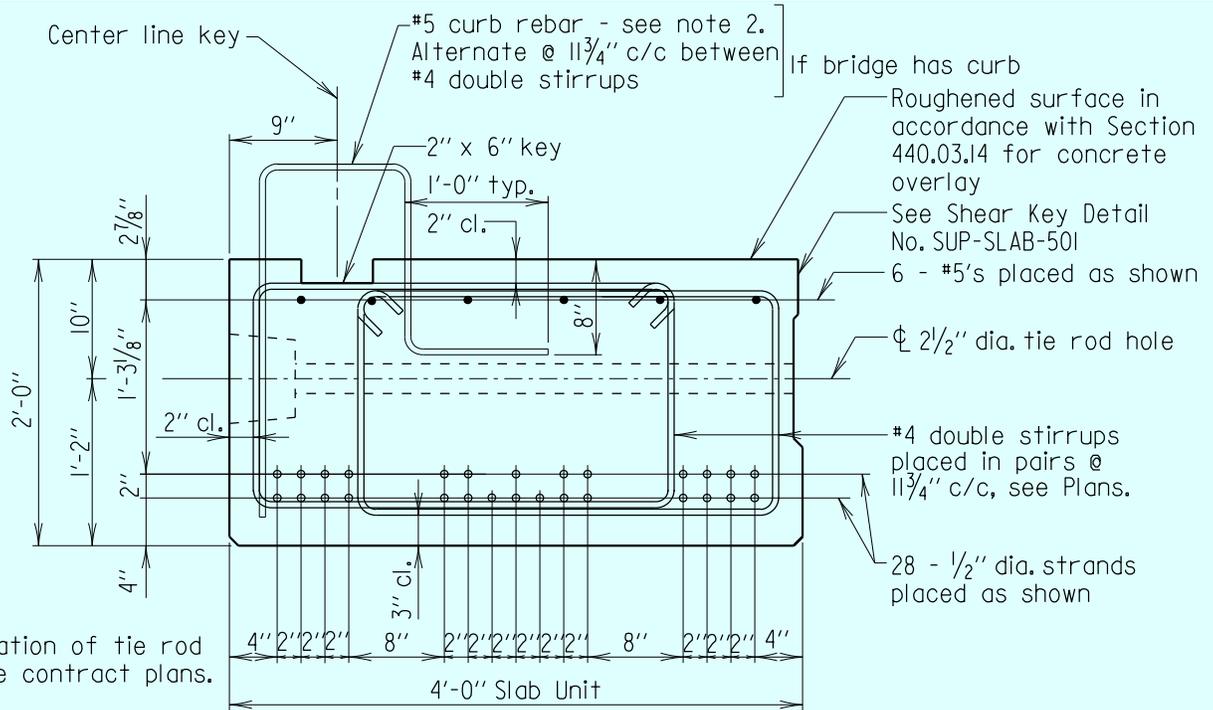
STATE OF MARYLAND
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**SIMPLE SPAN GREATER THAN 35'-0" TO 40'-0"
EXTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(4FT)-502

SHEET 1 OF 2

SUPERSTRUCTURE SLABS

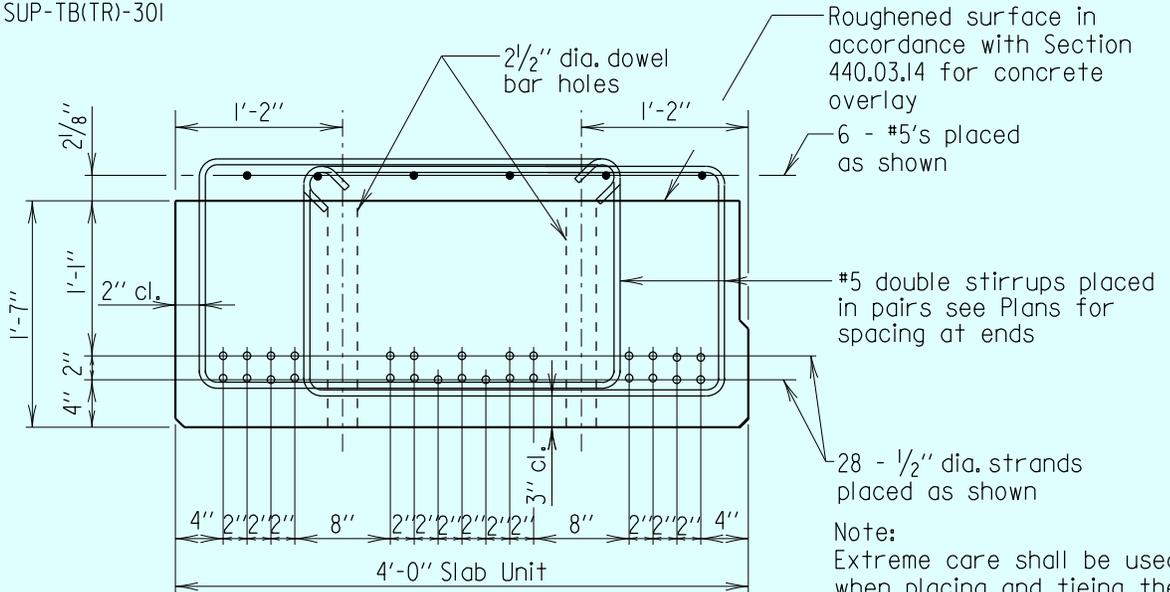


Notes:

1. For location of tie rod holes, see contract plans.
2. For location of curb reinforcement and anchor bolts and plates to be cast in slab for railing, see Detail No. SUP-TB(TR)-301

SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"



SECTION - SLAB AT ENDS

Scale: 3/4" = 1'-0"

Note:
Extreme care shall be used when placing and tying the curb rebar, railing and anchor bolts assembly to provide for the required clearances. Any misplaced rebar, dowel bar holes, tie rod holes or anchor bolts will be cause for rejection of the precast slab unit.

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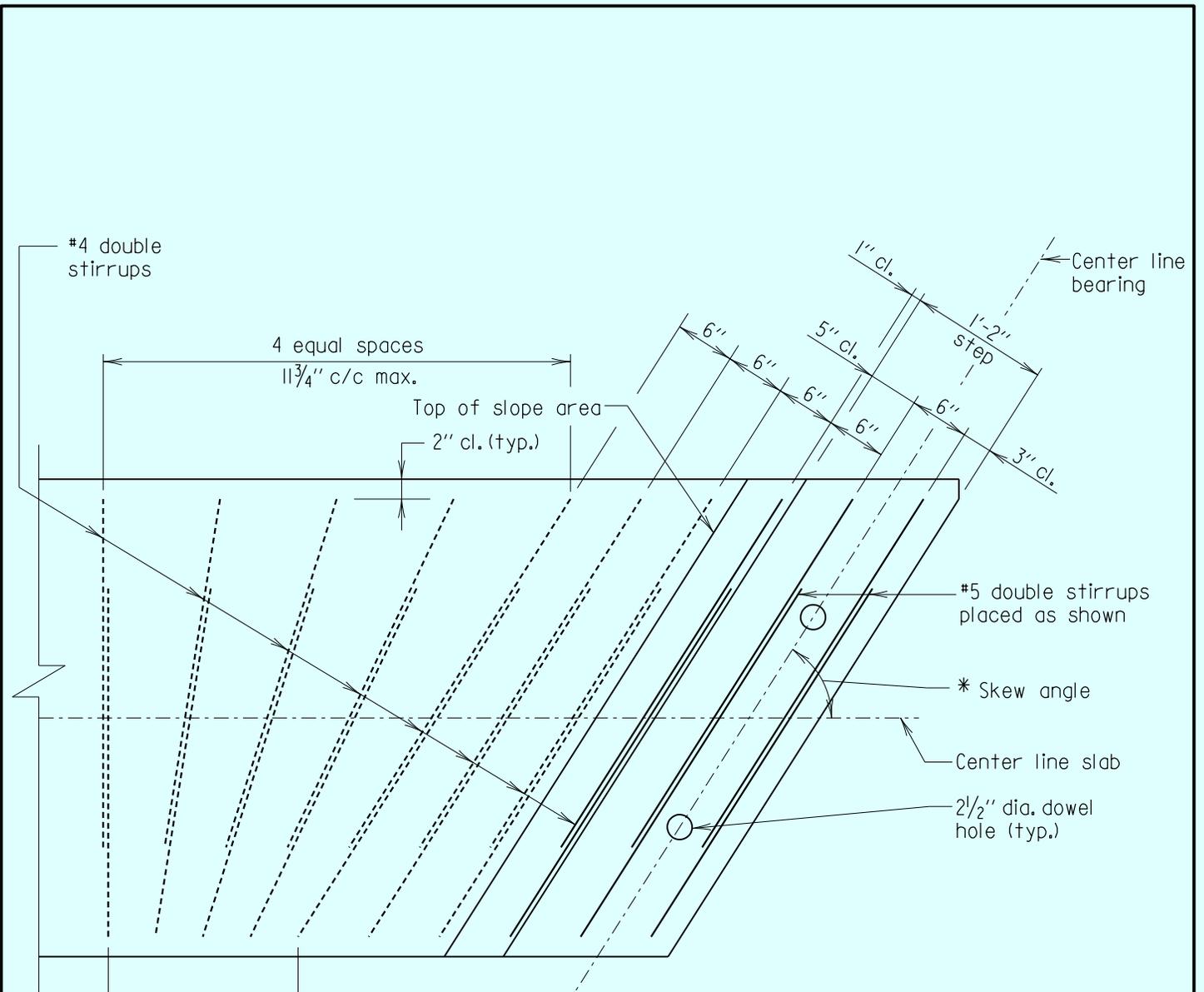
STATE OF MARYLAND
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OFFICE OF STRUCTURES

**SIMPLE SPAN GREATER THAN 35'-0" TO 40'-0"
EXTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
SECTIONS**

DETAIL NO. SUP-SLAB(4FT)-502

SHEET 2 OF 2

SUPERSTRUCTURE SLABS



* Note to designer: Draw to scale on the contract plan sheets.

Note:
6 - #5 bars in end of slab not shown for clarity.

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

PLAN
Scale: 3/4" = 1'-0"

Note:
All reinforcing steel to be epoxy coated.

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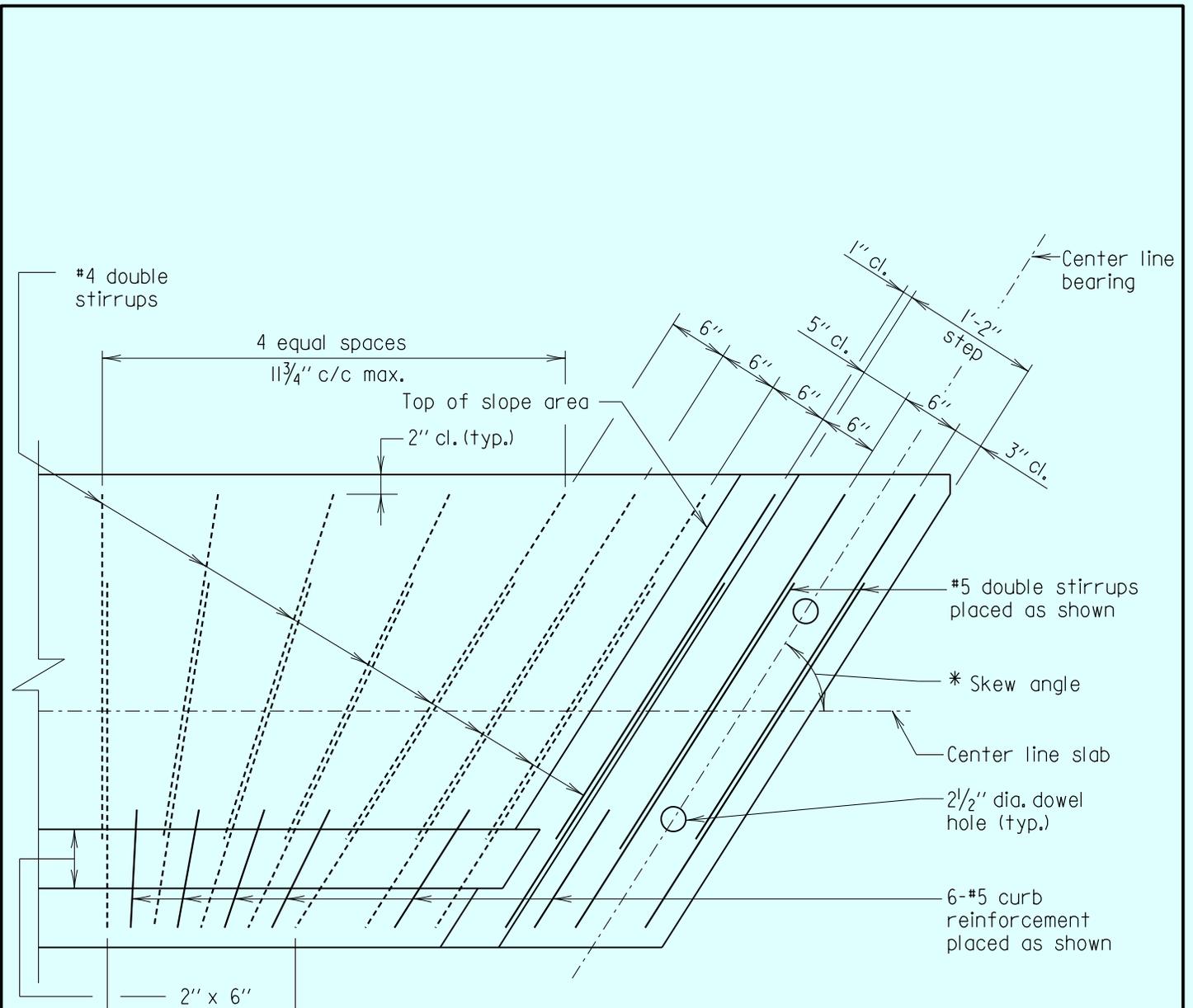
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**SIMPLE SPAN GREATER THAN 35'-0" TO 40'-0"
INTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
SKEWED END DETAIL**

DETAIL NO. SUP-SLAB(4FT)-503

SHEET 1 OF 2

SUPERSTRUCTURE SLABS



#4 double stirrups

4 equal spaces
11 3/4" c/c max.

Top of slope area
2" cl. (typ.)

2" x 6" key

4 equal spaces
3" min. - 11 3/4" c/c max.

Normal stirrup spacing

* Note to designer: Draw to scale on the contract plan sheets.

1" cl.

Center line bearing

1'-2" step

5" cl.

6"

6"

6"

6"

6"

3" cl.

#5 double stirrups placed as shown

* Skew angle

Center line slab

2 1/2" dia. dowel hole (typ.)

6-#5 curb reinforcement placed as shown

Note:
6 - #5 bars in end of slab not shown for clarity.

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

PLAN
Scale: 3/4" = 1'-0"

Note:
All reinforcing steel to be epoxy coated.

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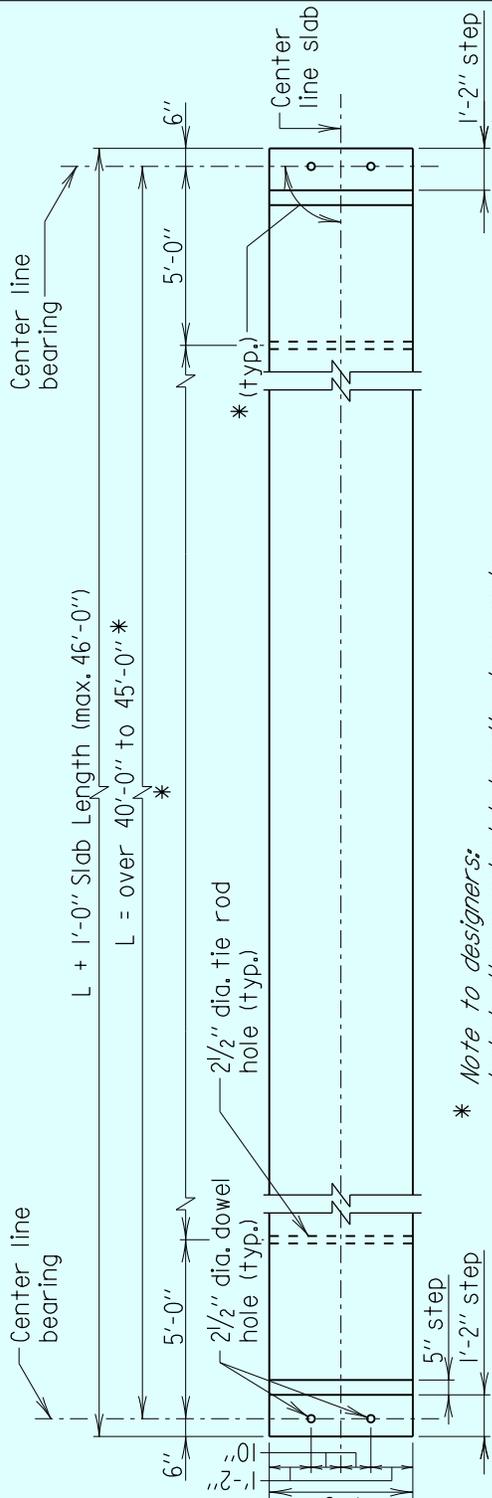
STATE OF MARYLAND
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SIMPLE SPAN GREATER THAN 35'-0" TO 40'-0"
EXTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
SKEWED END DETAIL

DETAIL NO. SUP-SLAB(4FT)-503

SHEET 2 OF 2

SUPERSTRUCTURE SLABS

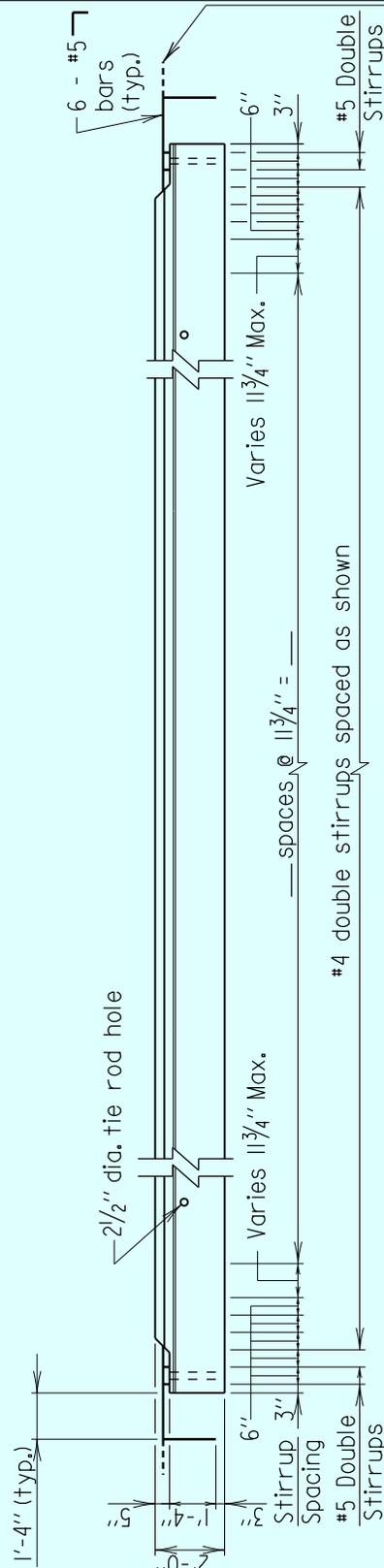


** Note to designers:
Include the exact slab length, skew angle,
and tie rod pattern in the Contract Plans.*

4'-0" INTERIOR SLAB PLAN

Scale: 3/16" = 1'-0"

Note:
Reinforcing steel at ends of
slab not shown for clarity.



*Note to designers:
Stirrup spacing shown is for a 90° crossing.
For bridges with other skew angles, see Detail
No. SUP-SLAB(4FT)-603 for details of skewed
ends. Adjust this detail to show proper skew
in Contract Plans.*

4'-0" INTERIOR SLAB ELEVATION

Scale: 3/16" = 1'-0"

Bars to be bent at casting plant
after formwork has been removed.

Notes:

1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
3. All reinforcing steel to be epoxy coated.

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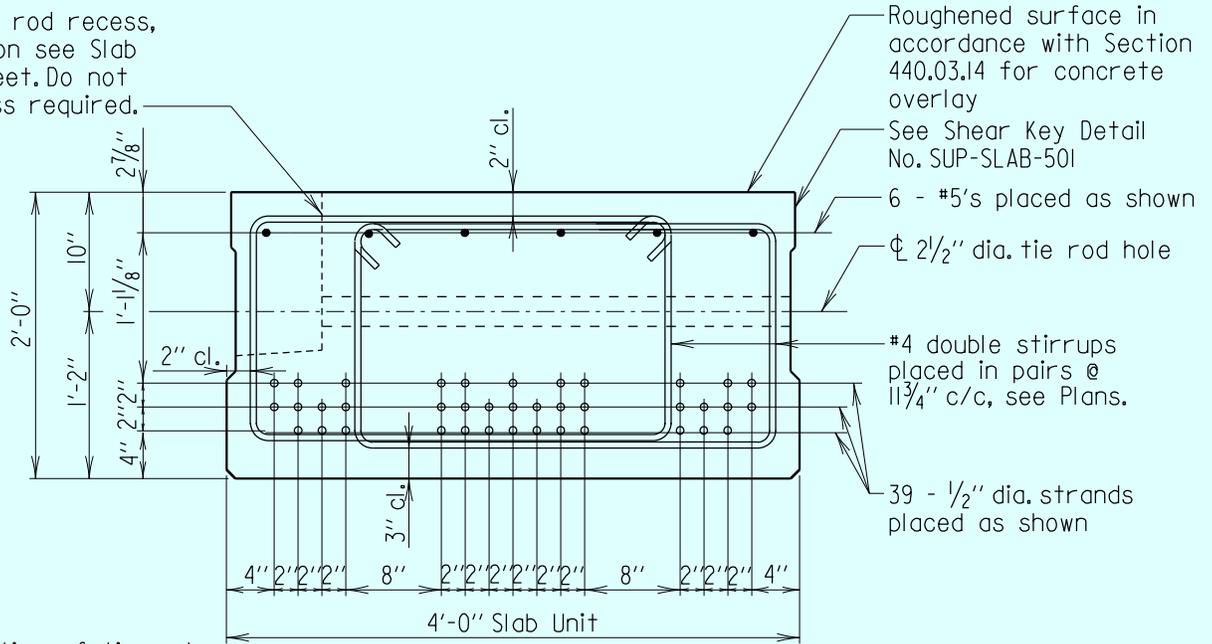
STATE OF MARYLAND
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**SIMPLE SPAN GREATER THAN 40'-0" TO 45'-0"
INTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(4FT)-601 SHEET 1 OF 2

SUPERSTRUCTURE SLABS

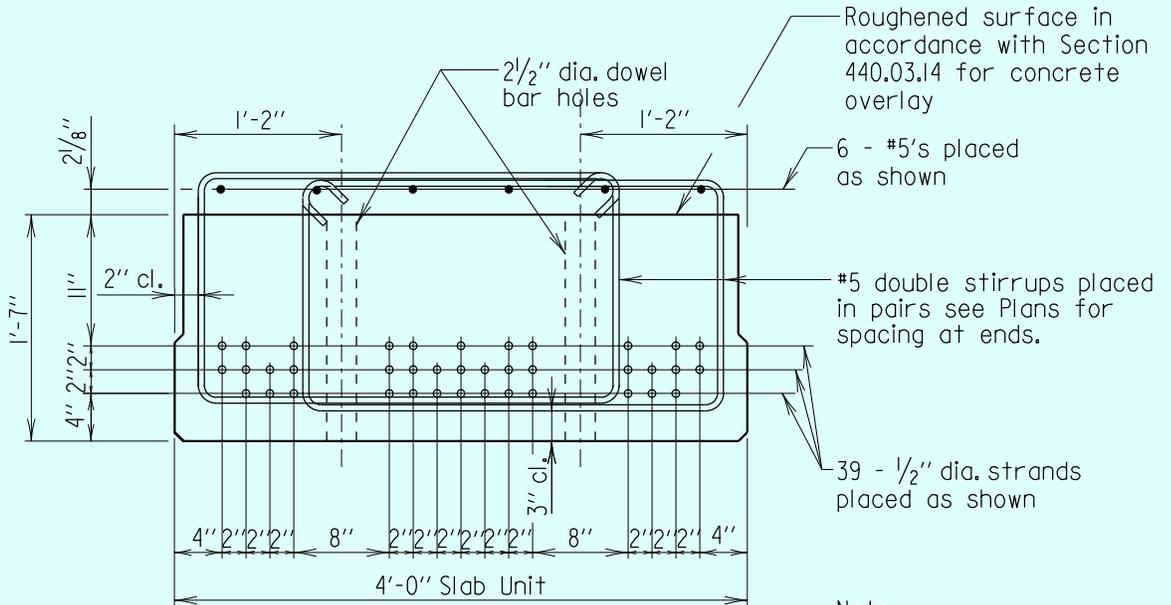
Type B tie rod recess, for location see Slab Layout sheet. Do not show unless required.



Note:
For location of tie rod holes, see contract plans.

SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"



SECTION - SLAB AT ENDS

Scale: 3/4" = 1'-0"

Note:
Any misplaced dowel bar holes or tie rod holes will be cause for rejection of the precast slab unit.

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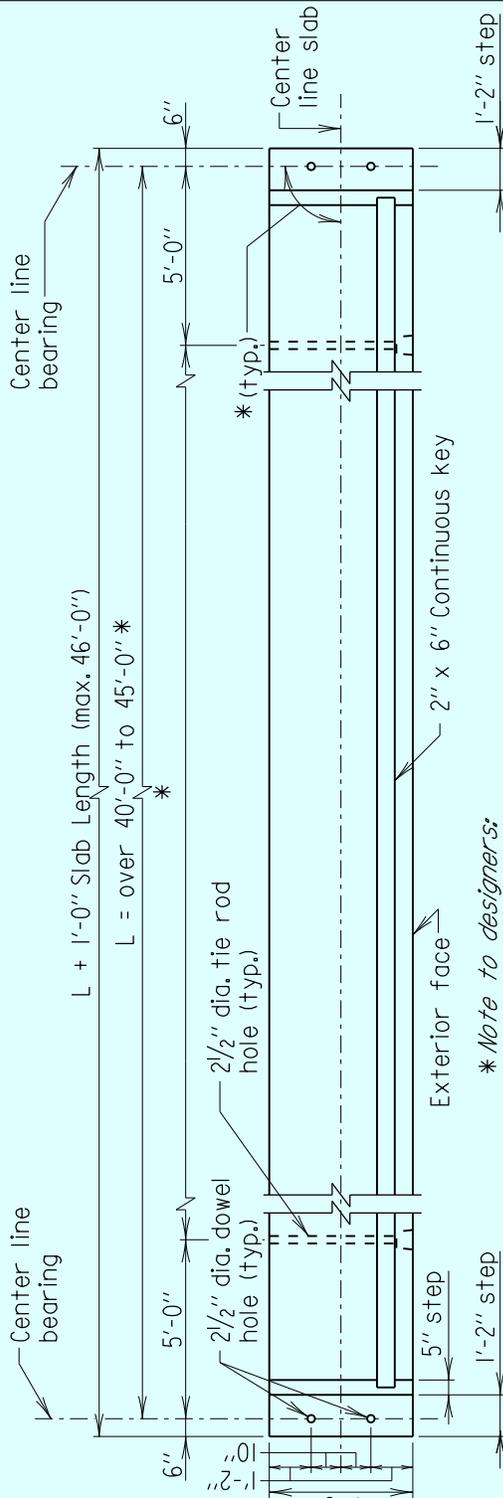
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
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**SIMPLE SPAN GREATER THAN 40'-0" TO 45'-0"
INTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
SECTIONS**

DETAIL NO. SUP-SLAB(4FT)-601

SHEET 2 OF 2

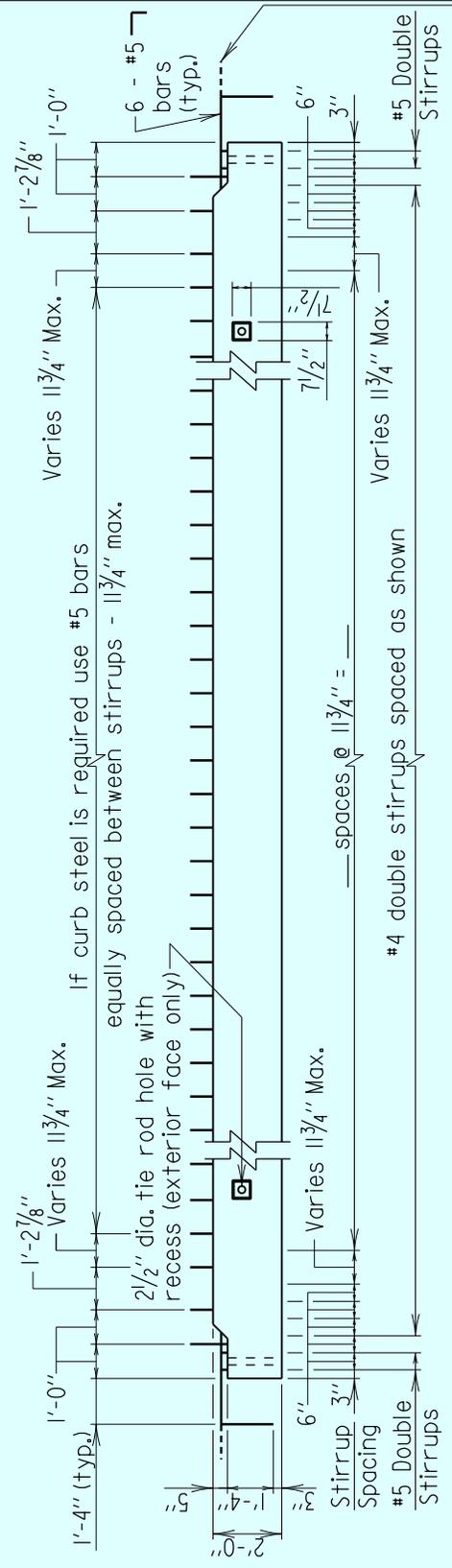
SUPERSTRUCTURE SLABS



Note to designers:
Include the exact slab length, skew angle,
and tie rod pattern in the Contract Plans.

4'-0" EXTERIOR SLAB PLAN

Scale: 3/16" = 1'-0"



4'-0" EXTERIOR SLAB ELEVATION

Scale: 3/16" = 1'-0"

- Notes:
1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
 2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
 3. All reinforcing steel to be epoxy coated.

Note to designers:
Stirrup spacing shown is for a 90° crossing.
For bridges with other skew angles, see Detail
No. SUP-SLAB(4FT)-603 for details of skewed
ends. Adjust this detail to show proper skew
in Contract Plans.

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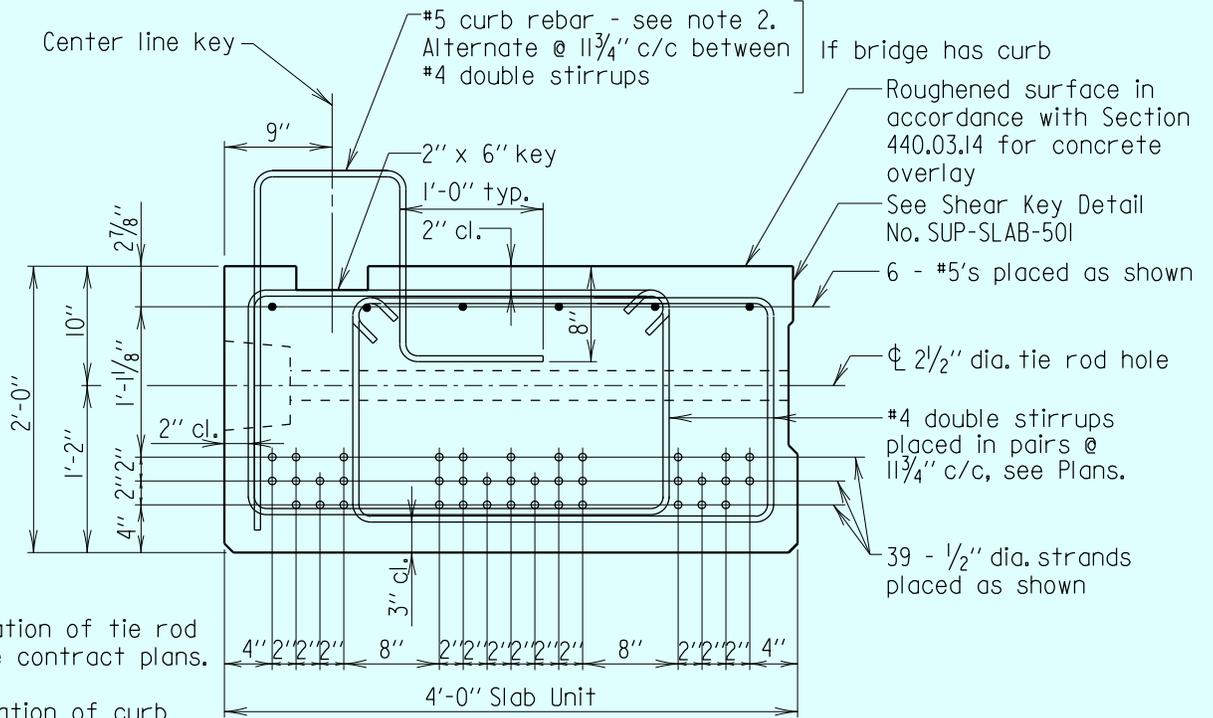
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

**SIMPLE SPAN GREATER THAN 40'-0" TO 45'-0"
EXTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(4FT)-602

SHEET 1 OF 2

SUPERSTRUCTURE SLABS

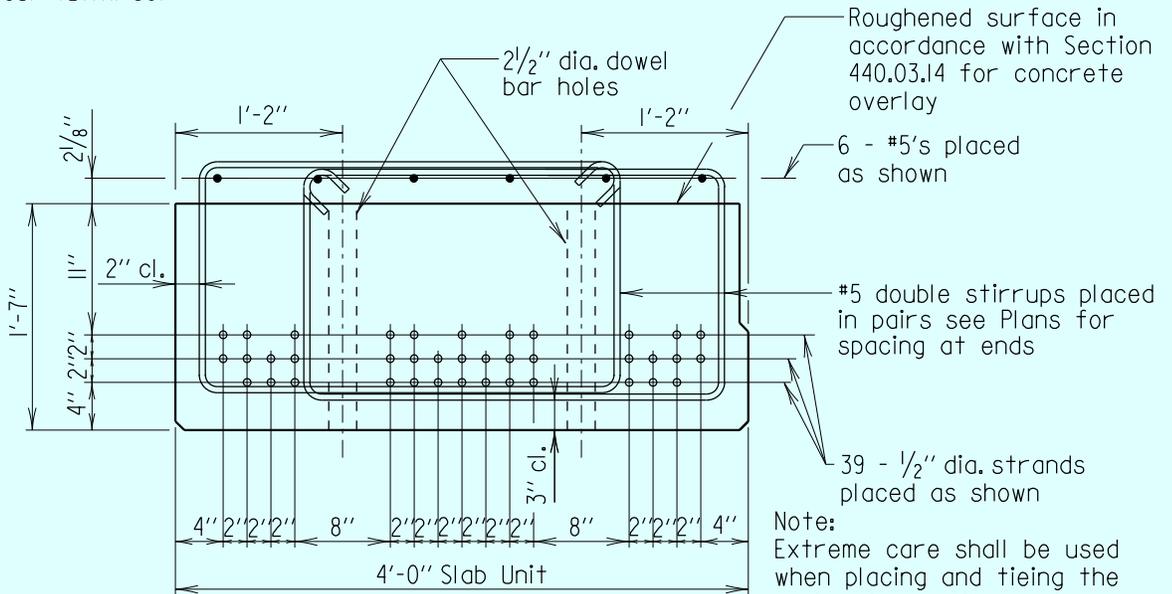


Notes:

1. For location of tie rod holes, see contract plans.
2. For location of curb reinforcement and anchor bolts and plates to be cast in slab for railing, see Detail No. SUP-TB(TR)-30I

SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"



SECTION - SLAB AT ENDS

Scale: 3/4" = 1'-0"

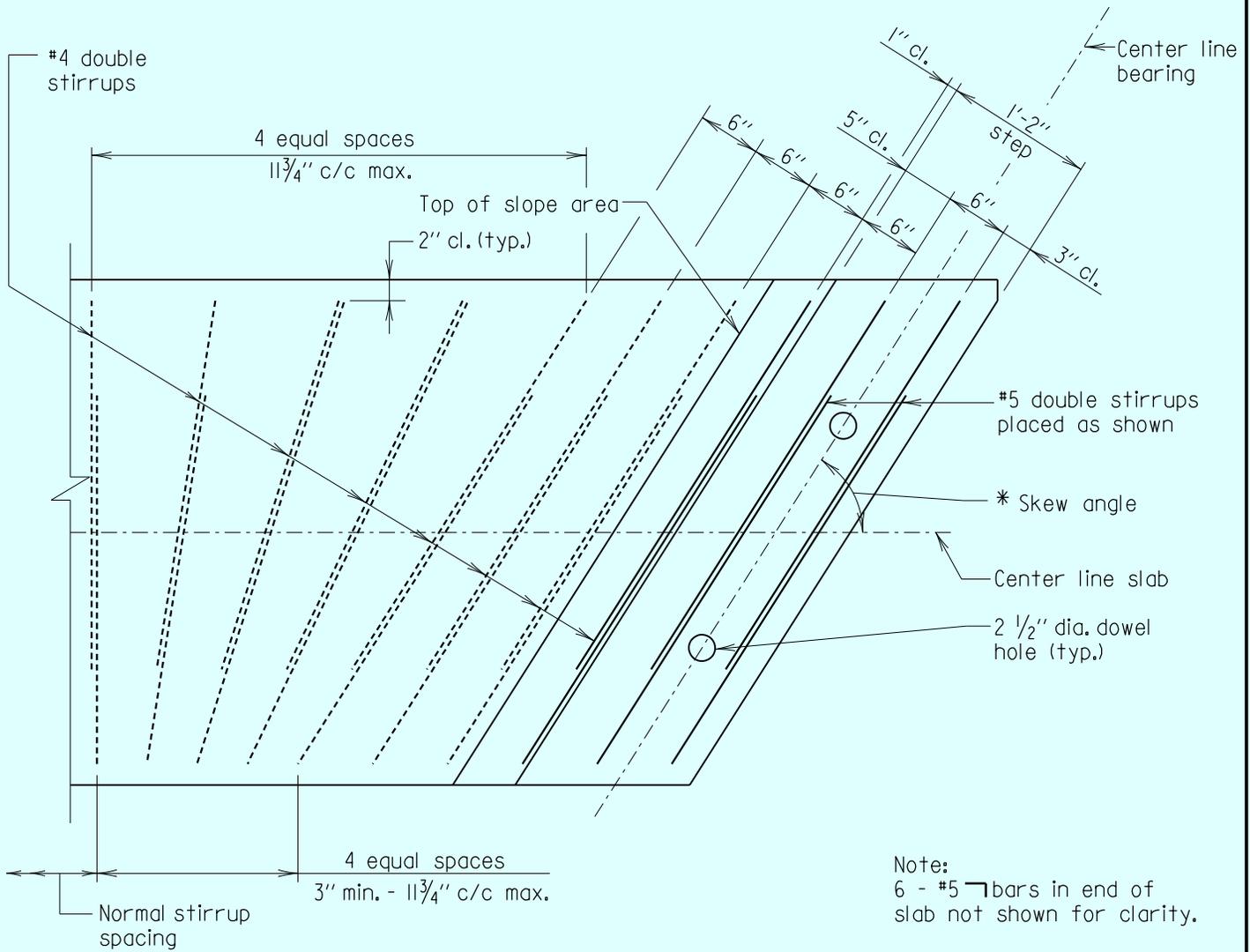
Note:
Extreme care shall be used when placing and tying the curb rebar, railing and anchor bolts assembly to provide for the required clearances. Any misplaced rebar, dowel bar holes, tie rod holes or anchor bolts will be cause for rejection of the precast slab unit.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 40'-0" TO 45'-0" EXTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL SECTIONS	
DETAIL NO. SUP-SLAB(4FT)-602	SHEET <u>2</u> OF <u>2</u>

SUPERSTRUCTURE SLABS



* Note to designer: Draw to scale on the contract plan sheets.

PLAN
Scale: 3/4" = 1'-0"

Note:
6 - #5 bars in end of slab not shown for clarity.

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

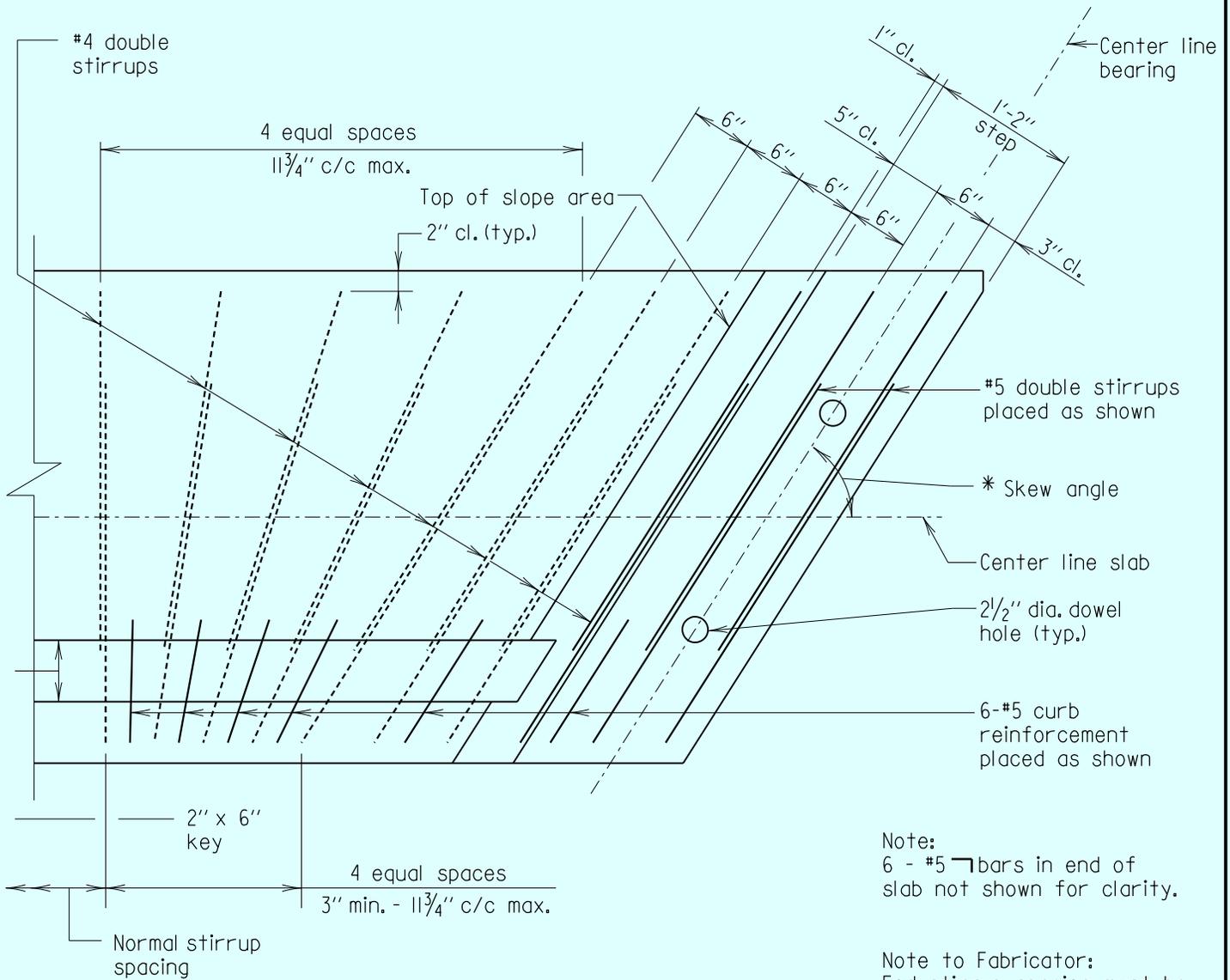
Note:
All reinforcing steel to be epoxy coated.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
SIMPLE SPAN GREATER THAN 40'-0" TO 45'-0" INTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL SKEWED END DETAIL
DETAIL NO. SUP-SLAB(4FT)-603
SHEET 1 OF 2

SUPERSTRUCTURE SLABS



Note to designer: Draw to scale on the contract plan sheets.

PLAN
Scale: $\frac{3}{4}'' = 1'-0''$

Note:
6 - #5 \sqsubset bars in end of slab not shown for clarity.

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

Note:
All reinforcing steel to be epoxy coated.

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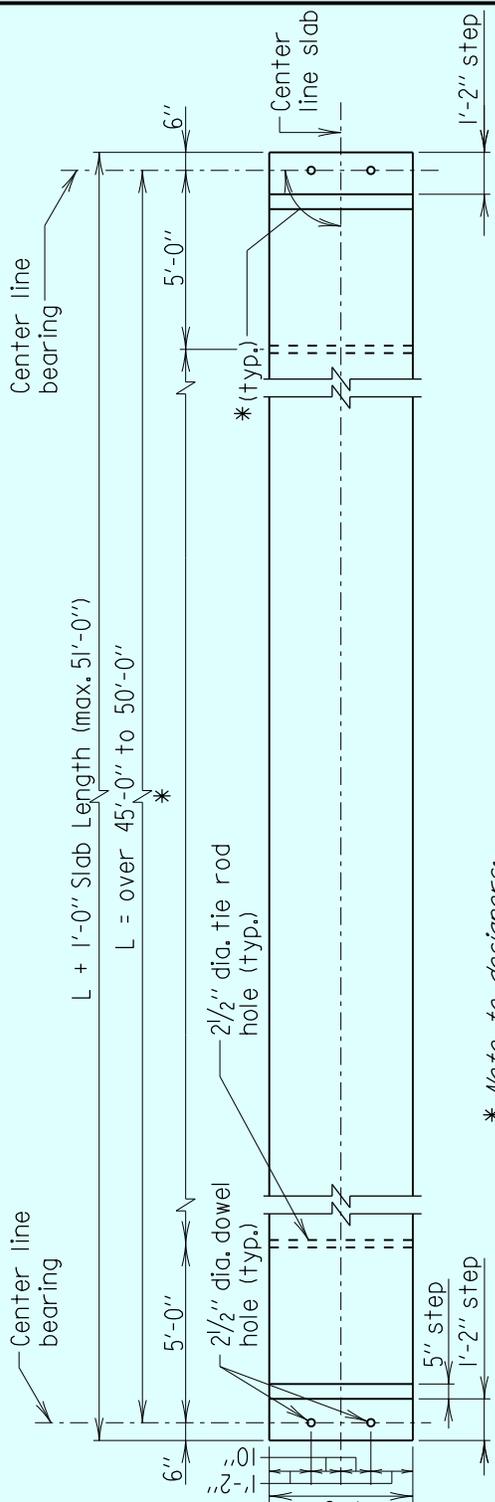
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
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OFFICE OF STRUCTURES

**SIMPLE SPAN GREATER THAN 40'-0" TO 45'-0"
EXTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
SKEWED END DETAIL**

DETAIL NO. SUP-SLAB(4FT)-603

SHEET 2 OF 2

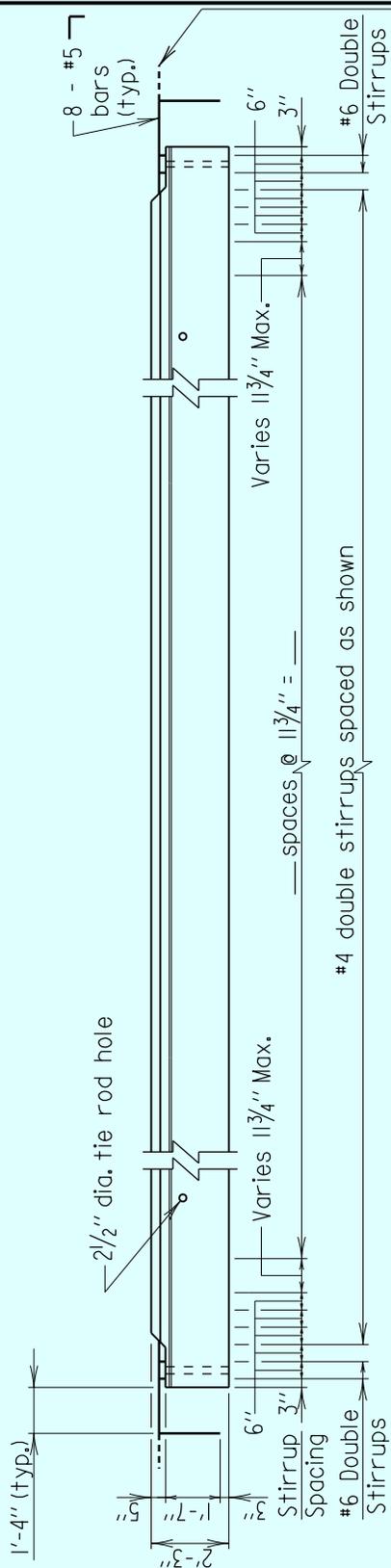
SUPERSTRUCTURE SLABS



** Note to designers:
Include the exact slab length, skew angle,
and tie rod pattern in the Contract Plans.*

4'-0" INTERIOR SLAB PLAN
Scale: 3/16" = 1'-0"

Note:
Reinforcing steel at ends of
slab not shown for clarity.



Bars to be bent at casting plant
after formwork has been removed.

4'-0" INTERIOR SLAB ELEVATION
Scale: 3/16" = 1'-0"

*Note to designers:
Stirrup spacing shown is for a 90° crossing.
For bridges with other skew angles, see Detail
No. SUP-SLAB(4FT)-503 for details of skewed
ends. Adjust this detail to show proper skew
in Contract Plans.*

- Notes:
1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
 2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
 3. All reinforcing steel to be epoxy coated.

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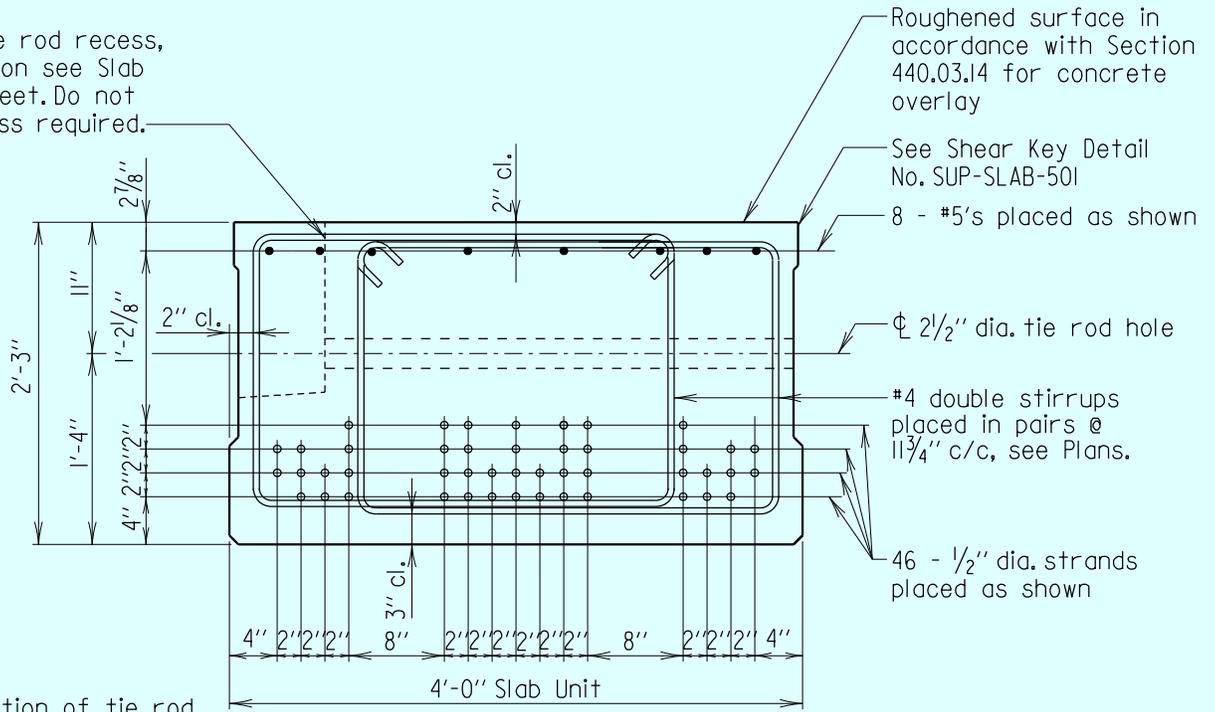
**SIMPLE SPAN GREATER THAN 45'-0" TO 50'-0"
INTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(4FT)-701

SHEET 1 OF 2

SUPERSTRUCTURE SLABS

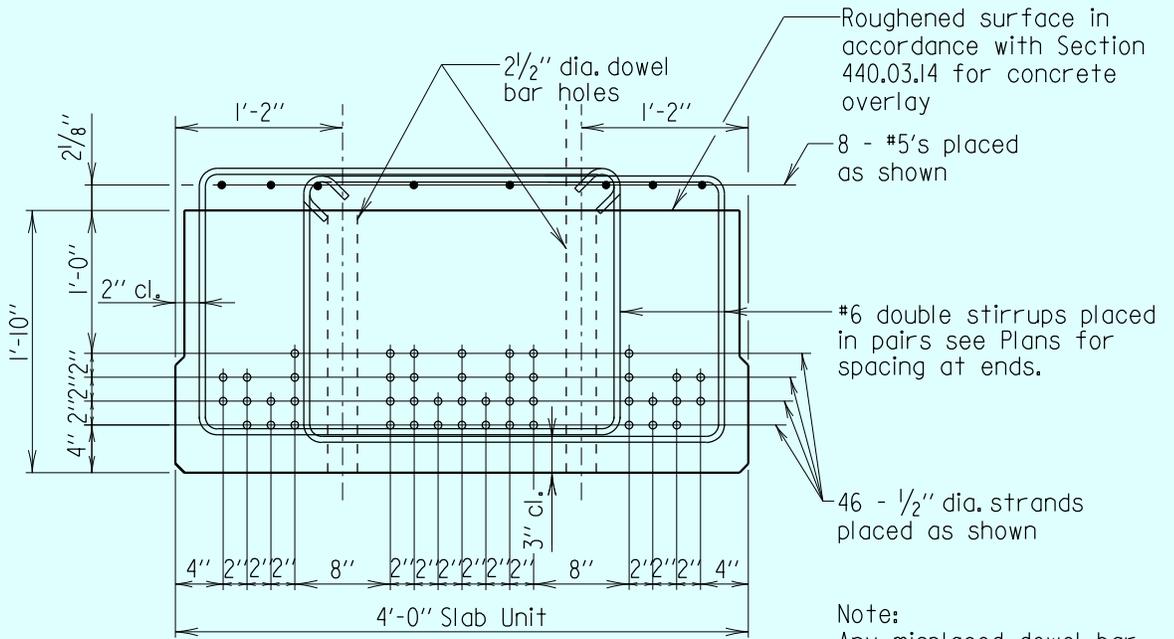
Type B tie rod recess, for location see Slab Layout sheet. Do not show unless required.



Note:
For location of tie rod holes, see contract plans.

SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"



Note:
Any misplaced dowel bar holes or tie rod holes will be cause for rejection of the precast slab unit.

SECTION - SLAB AT ENDS

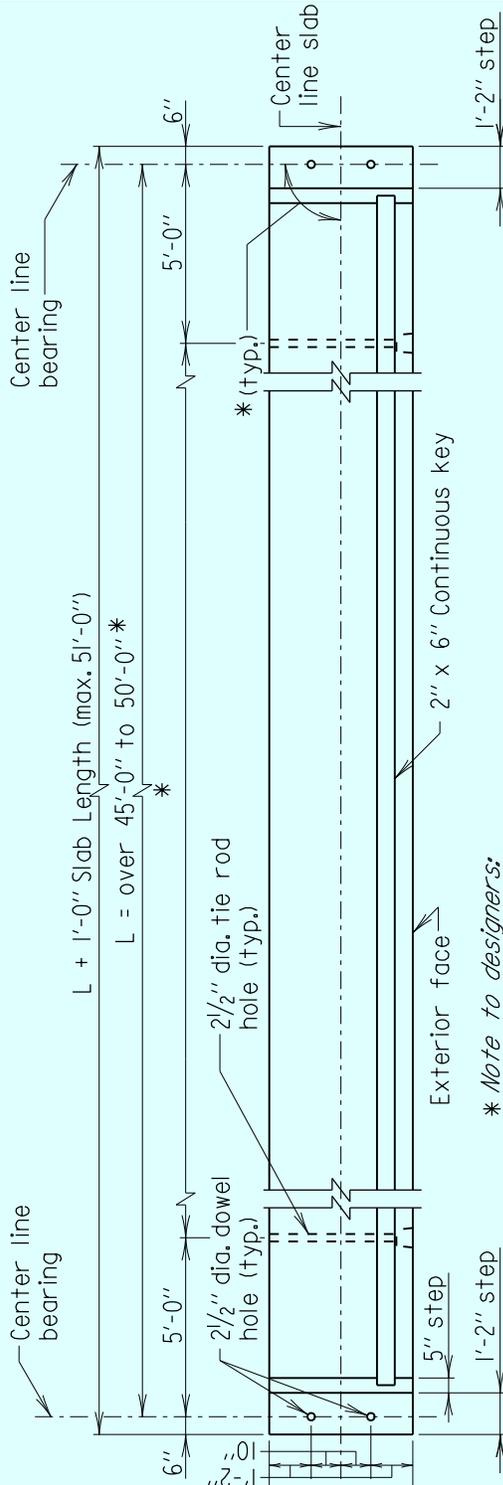
Scale: 3/4" = 1'-0"

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
SIMPLE SPAN GREATER THAN 45'-0" TO 50'-0" INTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL SECTIONS
DETAIL NO. SUP-SLAB(4FT)-701
SHEET <u>2</u> OF <u>2</u>

SUPERSTRUCTURE SLABS

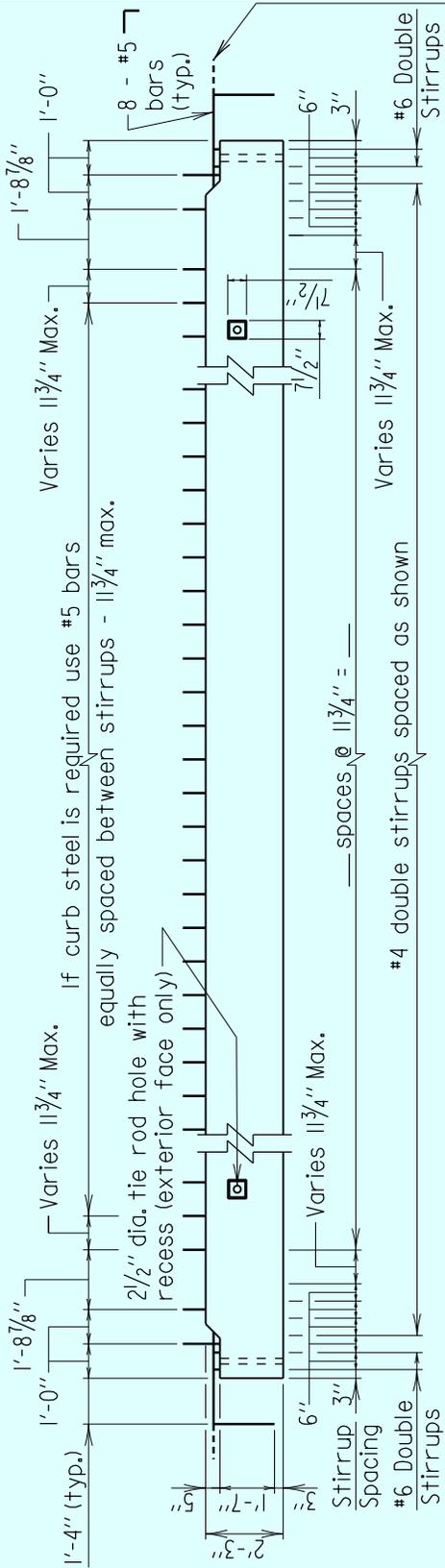


Note:
Reinforcing steel at ends of slab and curb reinforcing not shown for clarity.

4'-0" EXTERIOR SLAB PLAN

Scale: 3/16" = 1'-0"

* Note to designers:
Include the exact slab length, skew angle, and tie rod pattern in the Contract Plans.



Bars to be bent at casting plant after formwork has been removed.

4'-0" EXTERIOR SLAB ELEVATION

Scale: 3/16" = 1'-0"

Note to designers:
Stirrup spacing shown is for a 90° crossing. For bridges with other skew angles, see Detail No. SUP-SLAB(4FT)-703 for details of skewed ends. Adjust this detail to show proper skew in Contract Plans.

- Notes:
1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
 2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
 3. All reinforcing steel to be epoxy coated.

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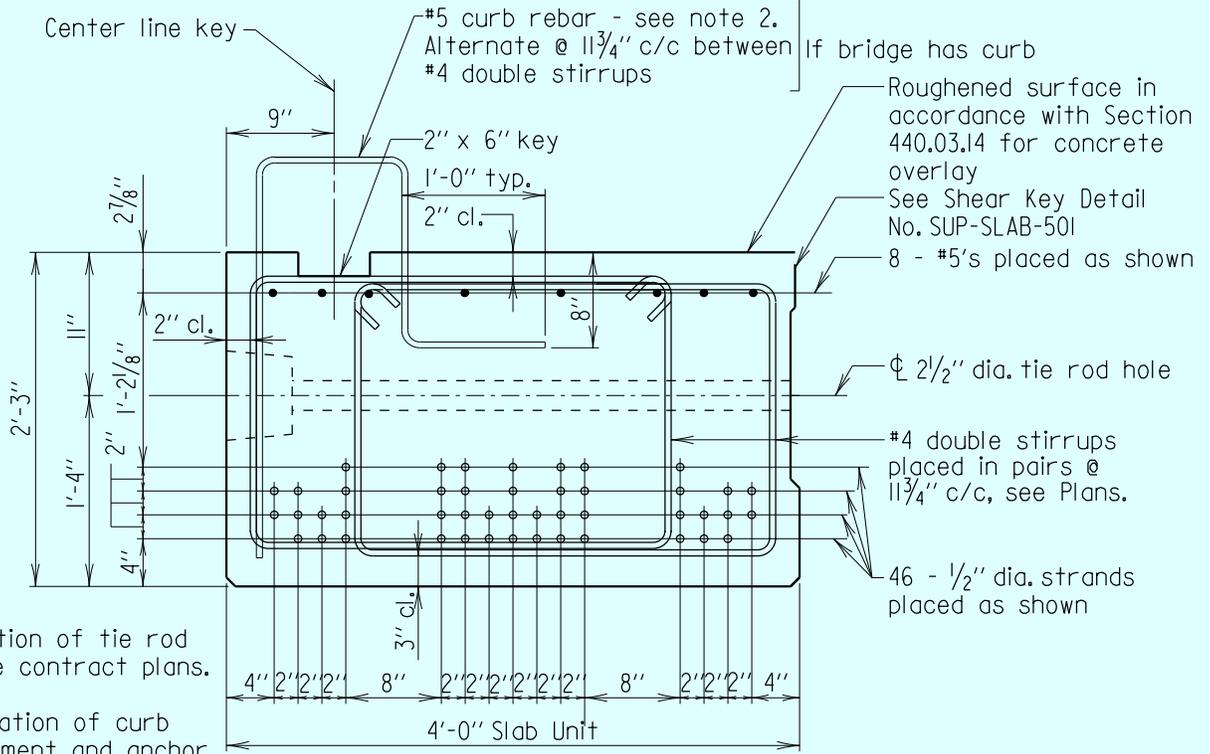
STATE OF MARYLAND
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OFFICE OF STRUCTURES

**SIMPLE SPAN GREATER THAN 45'-0" TO 50'-0"
EXTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(4FT)-702

SHEET 1 OF 2

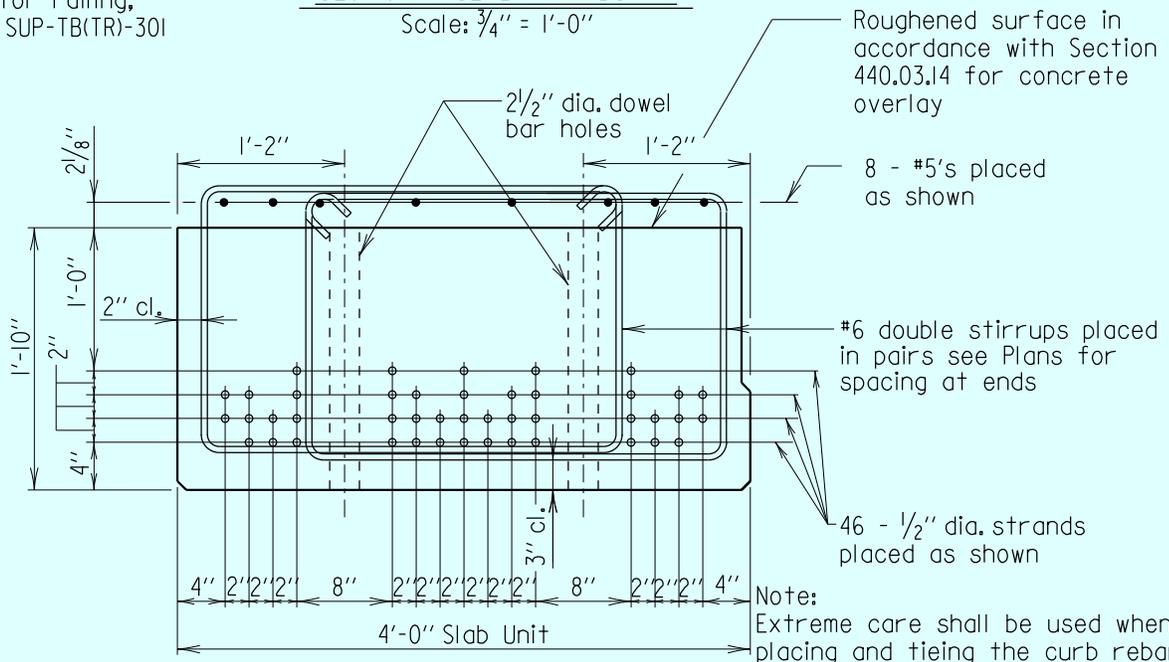
SUPERSTRUCTURE SLABS



Notes:

1. For location of tie rod holes, see contract plans.
2. For location of curb reinforcement and anchor bolts and plates to be cast in slab for railing, see Detail No. SUP-TB(TR)-301

SECTION - SLAB AT MIDSPAN
Scale: 3/4" = 1'-0"



SECTION - SLAB AT ENDS
Scale: 3/4" = 1'-0"

Note:
Extreme care shall be used when placing and tying the curb rebar, railing and anchor bolts assembly to provide for the required clearances. Any misplaced rebar, dowel bar holes, tie rod holes or anchor bolts will be cause for rejection of the precast slab unit.

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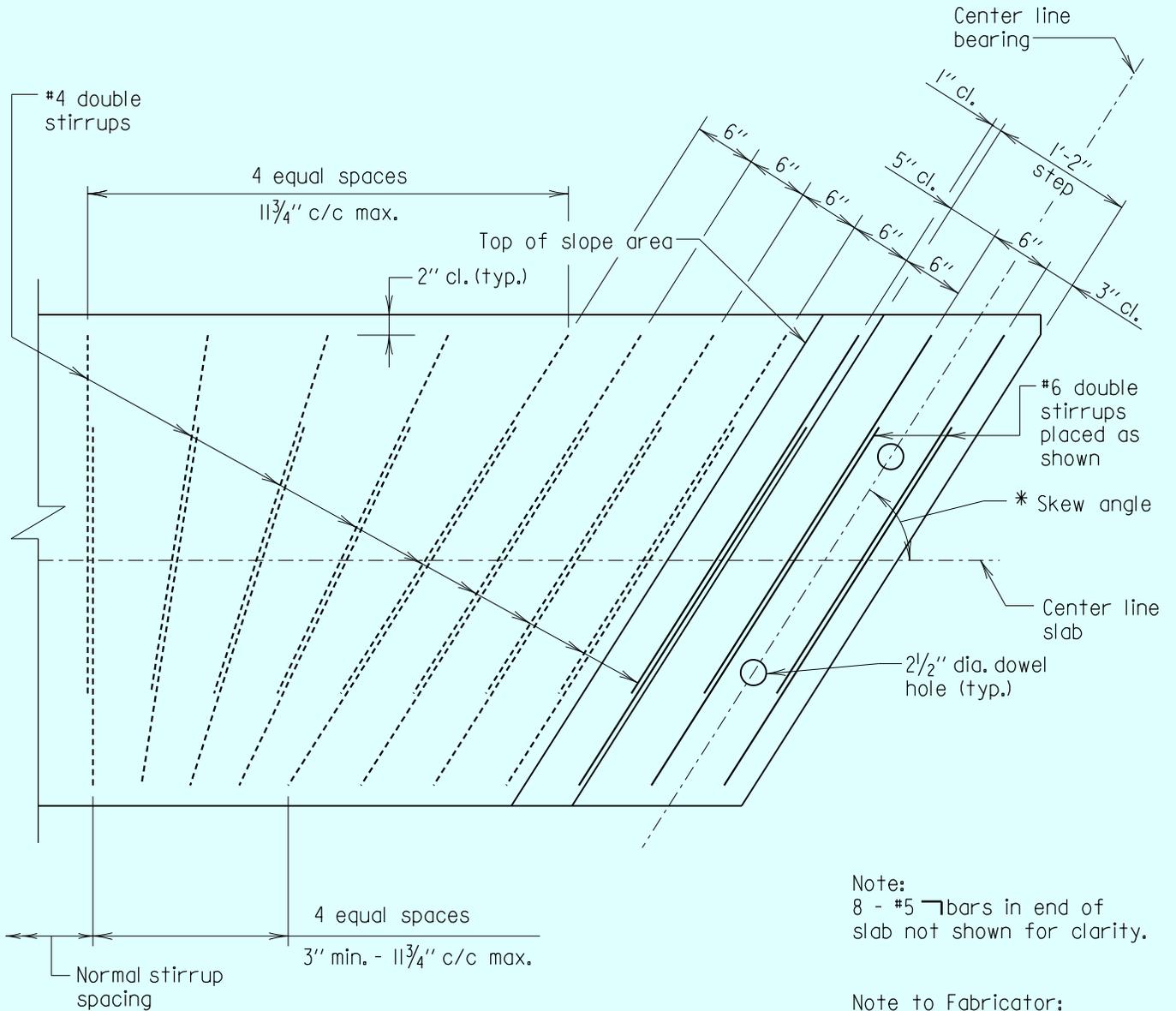
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**SIMPLE SPAN GREATER THAN 45'-0" TO 50'-0"
EXTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
SECTIONS**

DETAIL NO. SUP-SLAB(4FT)-702

SHEET 2 OF 2

SUPERSTRUCTURE SLABS



* Note to designer: Draw to scale on the contract plan sheets.

PLAN
Scale: 3/4" = 1'-0"

Note:
8 - #5 bars in end of slab not shown for clarity.

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

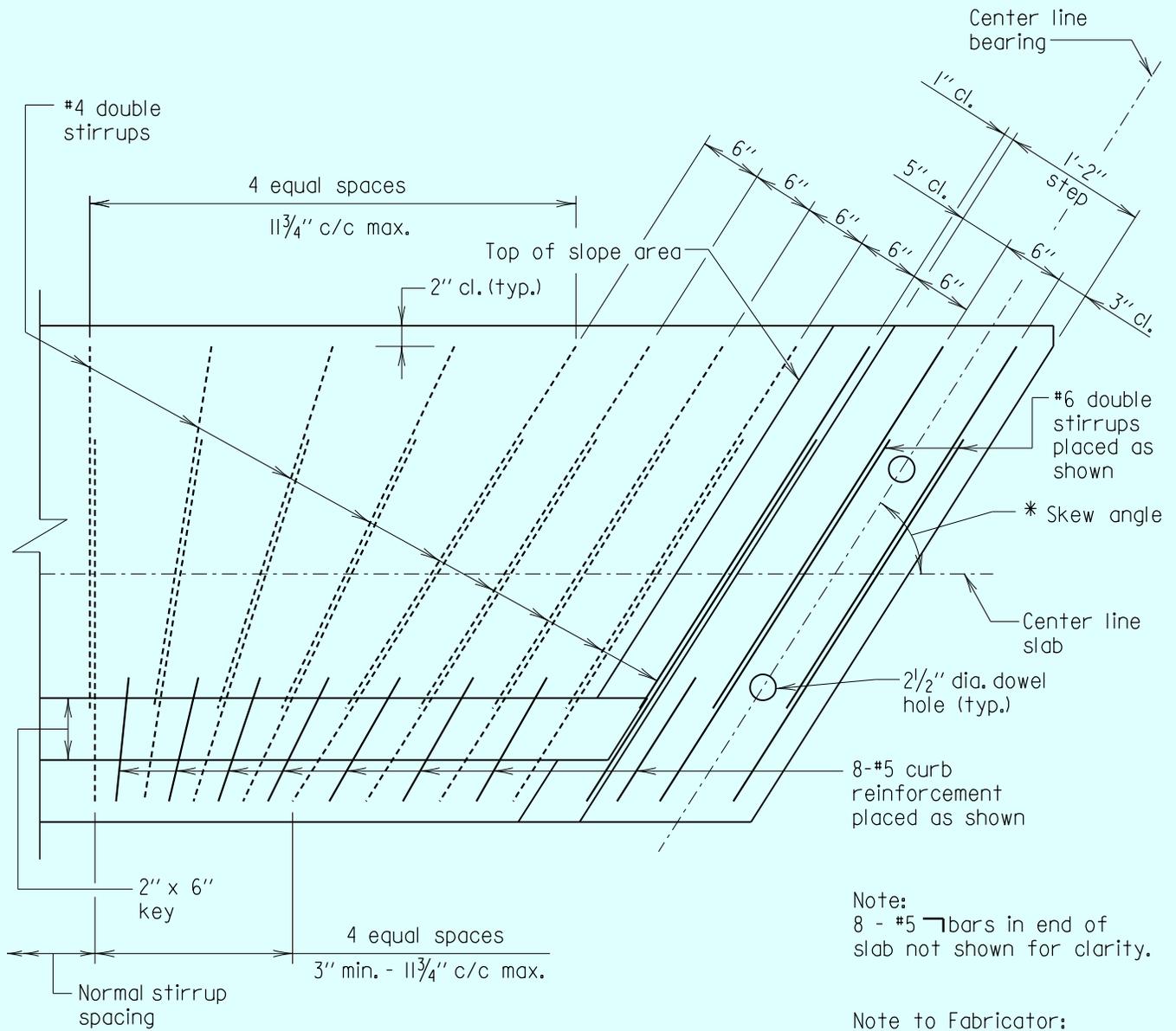
Note:
All reinforcing steel to be epoxy coated.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 45'-0" TO 50'-0" INTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL SKEWED END DETAIL	
DETAIL NO. SUP-SLAB(4FT)-703	SHEET 1 OF 2

SUPERSTRUCTURE SLABS



* Note to designer: Draw to angle on the contract plan sheets.

PLAN
Scale: 3/4" = 1'-0"

Note:
8 - #5 bars in end of slab not shown for clarity.

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

Note:
All reinforcing steel to be epoxy coated.

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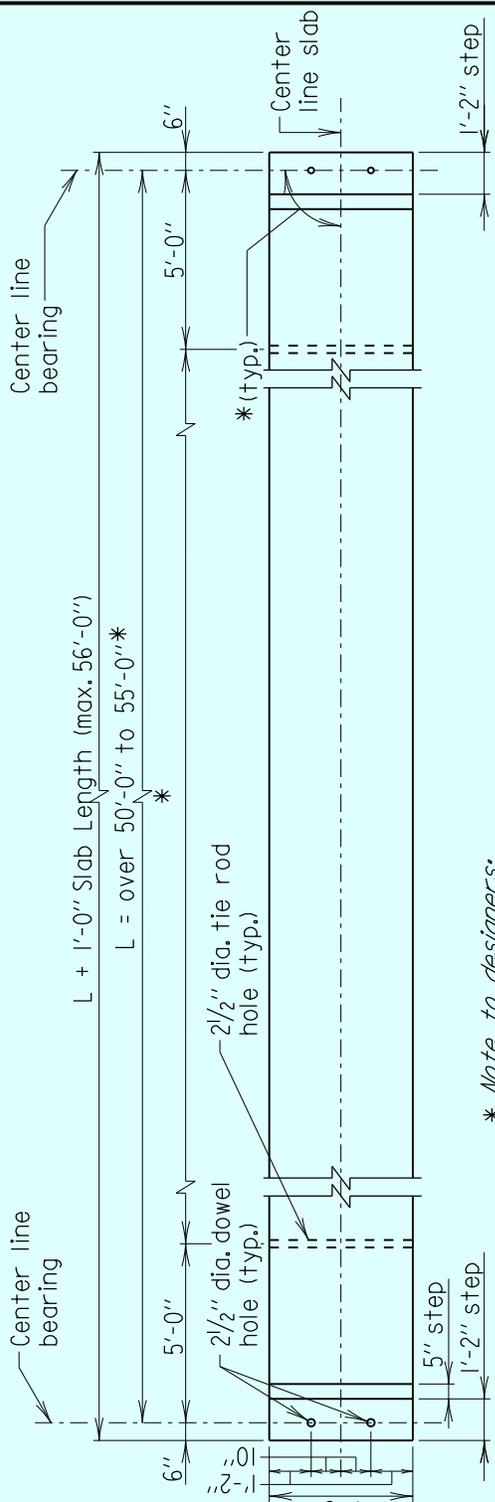
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

**SIMPLE SPAN GREATER THAN 45'-0" TO 50'-0"
EXTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
SKEWED END DETAIL**

DETAIL NO. SUP-SLAB(4FT)-703

SHEET 2 OF 2

SUPERSTRUCTURE SLABS

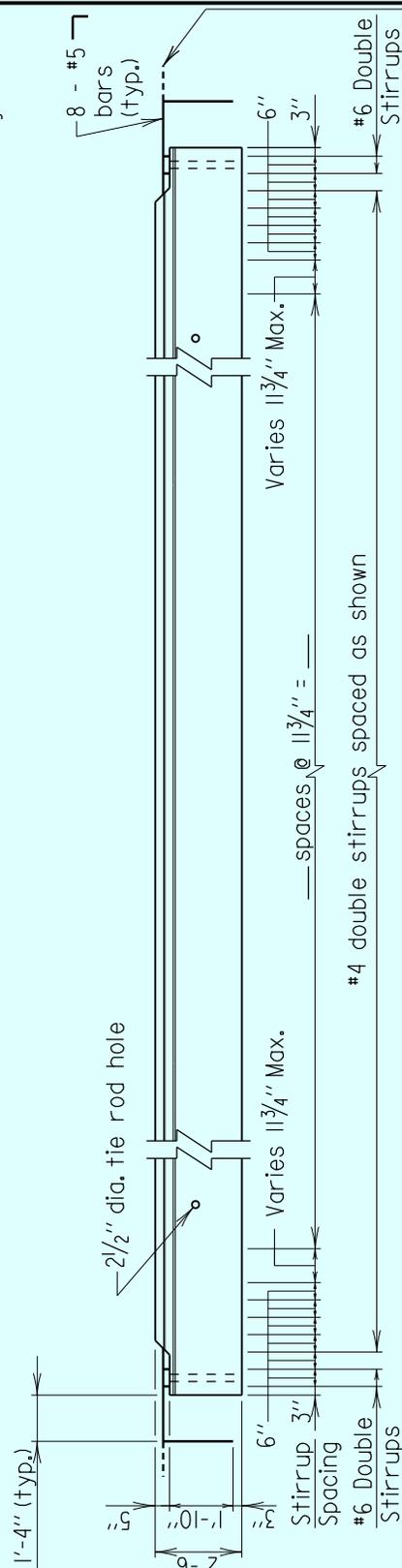


** Note to designers:
Include the exact slab length, skew angle,
and tie rod pattern in the Contract Plans.*

4'-0" INTERIOR SLAB PLAN

Scale: 3/16" = 1'-0"

Note:
Reinforcing steel at ends of
slab not shown for clarity.



Bars to be bent at casting plant
after formwork has been removed.

4'-0" INTERIOR SLAB ELEVATION

Scale: 3/16" = 1'-0"

*Note to designers:
Stirrup spacing shown is for a 90° crossing.
For bridges with other skew angles, see Detail
No. SUP-SLAB(4FT)-803 for details of skewed
ends. Adjust this detail to show proper skew
in Contract Plans.*

Notes:

1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
3. All reinforcing steel to be epoxy coated.

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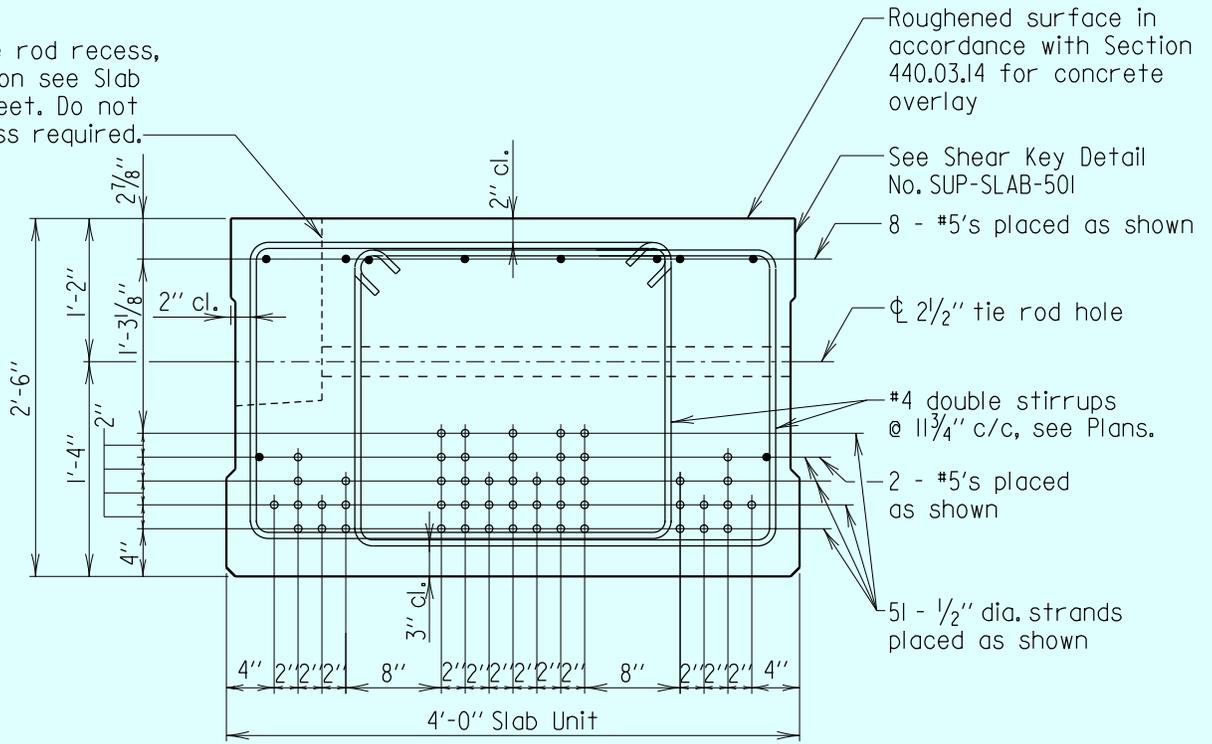
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OFFICE OF STRUCTURES

**SIMPLE SPAN GREATER THAN 50'-0" TO 55'-0"
INTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(4FT)-801 SHEET 1 OF 2

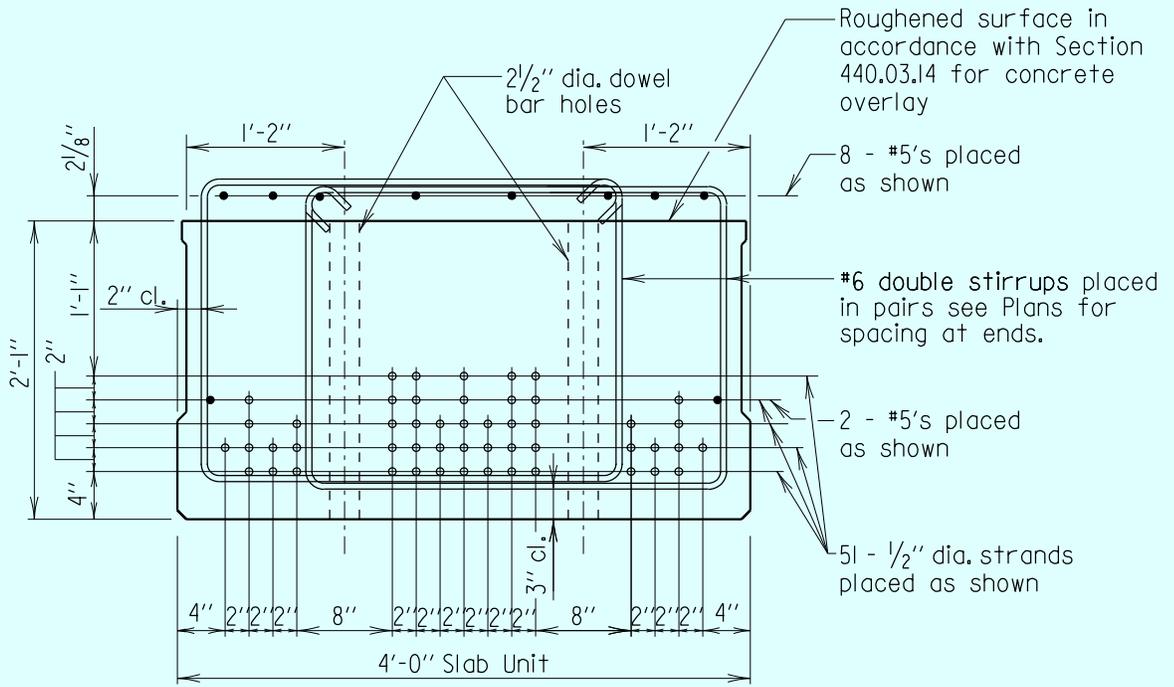
SUPERSTRUCTURE SLABS

Type B tie rod recess, for location see Slab Layout sheet. Do not show unless required.



Note:
For location of tie rod holes, see contract plans.

SECTION - SLAB AT MIDSPAN
Scale: 3/4" = 1'-0"



Note:
Any misplaced dowel bar holes or tie rod holes will be cause for rejection of the precast slab unit.

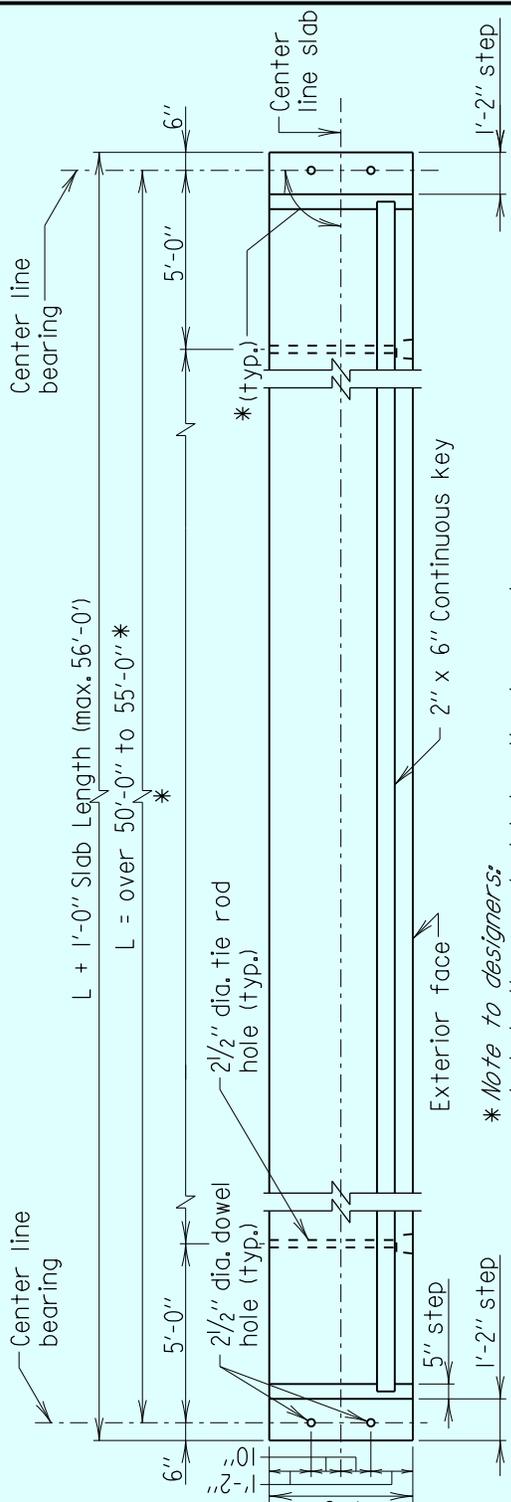
SECTION - SLAB AT ENDS
Scale: 3/4" = 1'-0"

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
SIMPLE SPAN GREATER THAN 50'-0" TO 55'-0" INTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL SECTIONS
DETAIL NO. SUP-SLAB(4FT)-801
SHEET 2 OF 2

SUPERSTRUCTURE SLABS

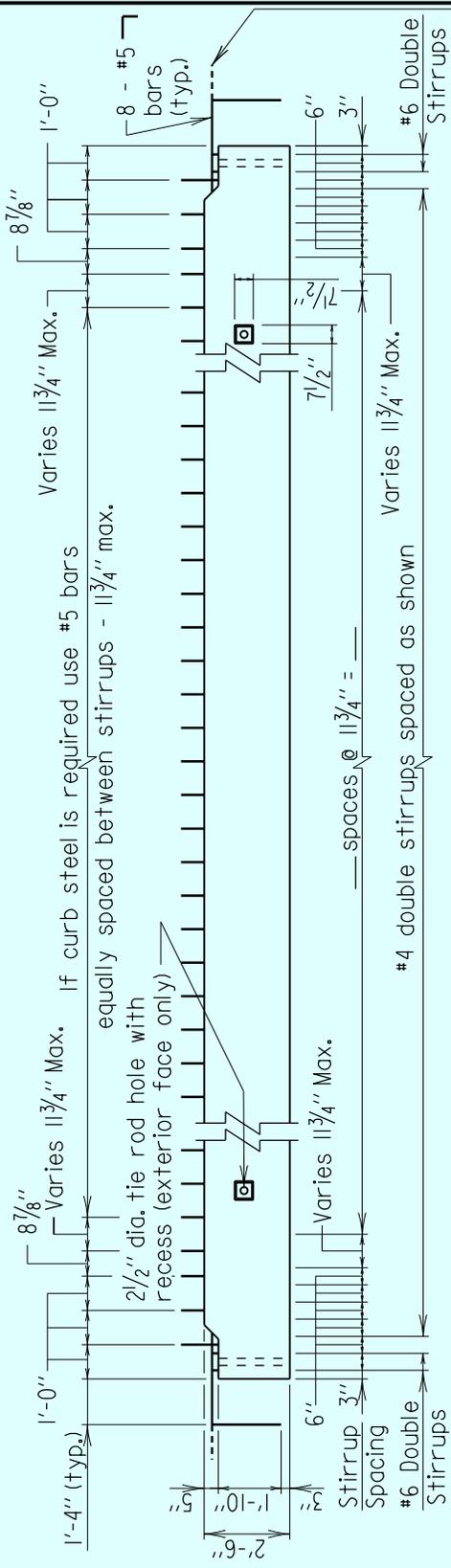


Notes:
Reinforcing steel at ends of slab and curb reinforcing not shown for clarity.

* Note to designers:
Include the exact slab length, skew angle, and tie rod pattern in the Contract Plans.

4'-0" EXTERIOR SLAB PLAN

Scale: 3/16" = 1'-0"



Notes:
Bars to be bent at casting plant after formwork has been removed.

4'-0" EXTERIOR SLAB ELEVATION

Scale: 3/16" = 1'-0"

Note to designers:
Stirrup spacing shown is for a 90° crossing. For bridges with other skew angles, see Detail No. SUP-SLAB(4FT)-803 for details of skewed ends. Adjust this detail to show proper skew in Contract Plans.

- Notes:
1. Extreme care shall be used in locating tie rod holes during the casting operation. Contractor shall assemble the slab units for the entire bridge width at the casting plant to ensure that there is no hole misalignment prior to shipping slab units to the site. Any misalignment of the holes will be cause for rejection of the slab unit. Drilling or coring of the slabs to create new or modified cast holes is prohibited.
 2. Adjust curb rebar and stirrup spacing as needed to avoid tie rod hole and railing anchor bolts (if applicable).
 3. All reinforcing steel to be epoxy coated.

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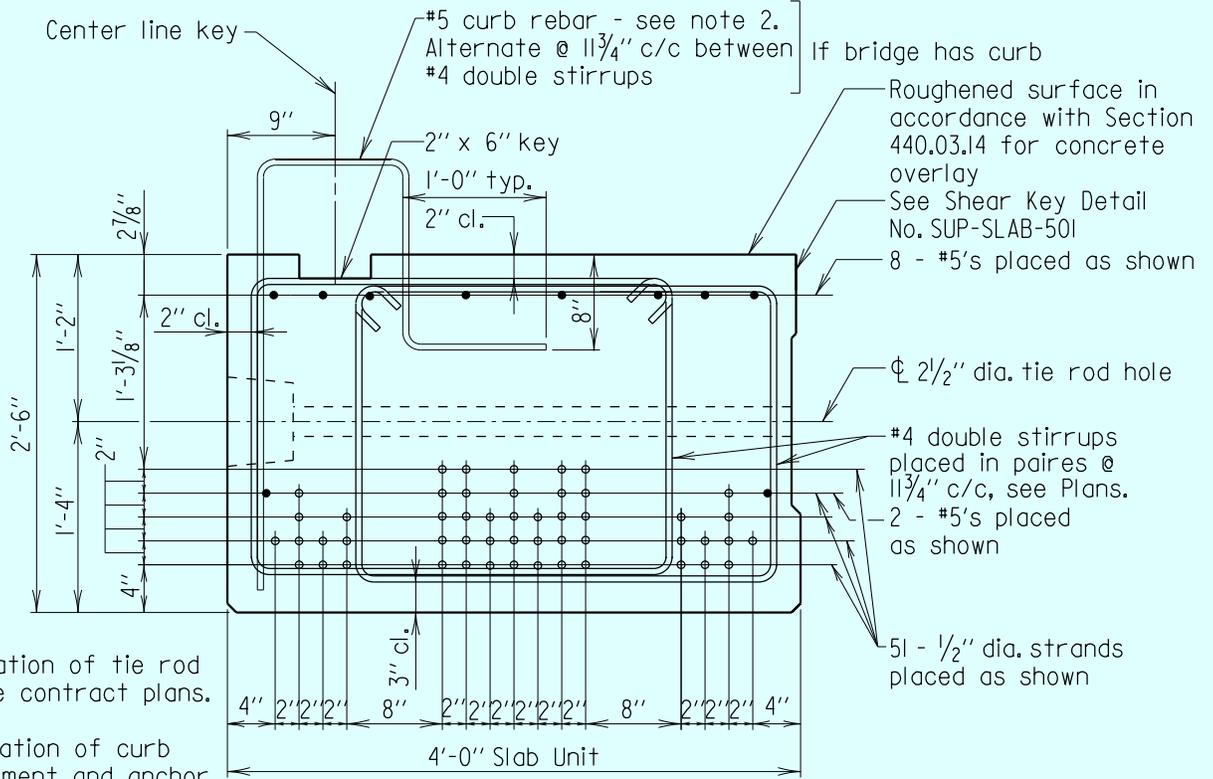
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OFFICE OF STRUCTURES

**SIMPLE SPAN GREATER THAN 50'-0" TO 55'-0"
EXTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
PLAN & ELEVATION**

DETAIL NO. SUP-SLAB(4FT)-802 SHEET 1 OF 2

SUPERSTRUCTURE SLABS

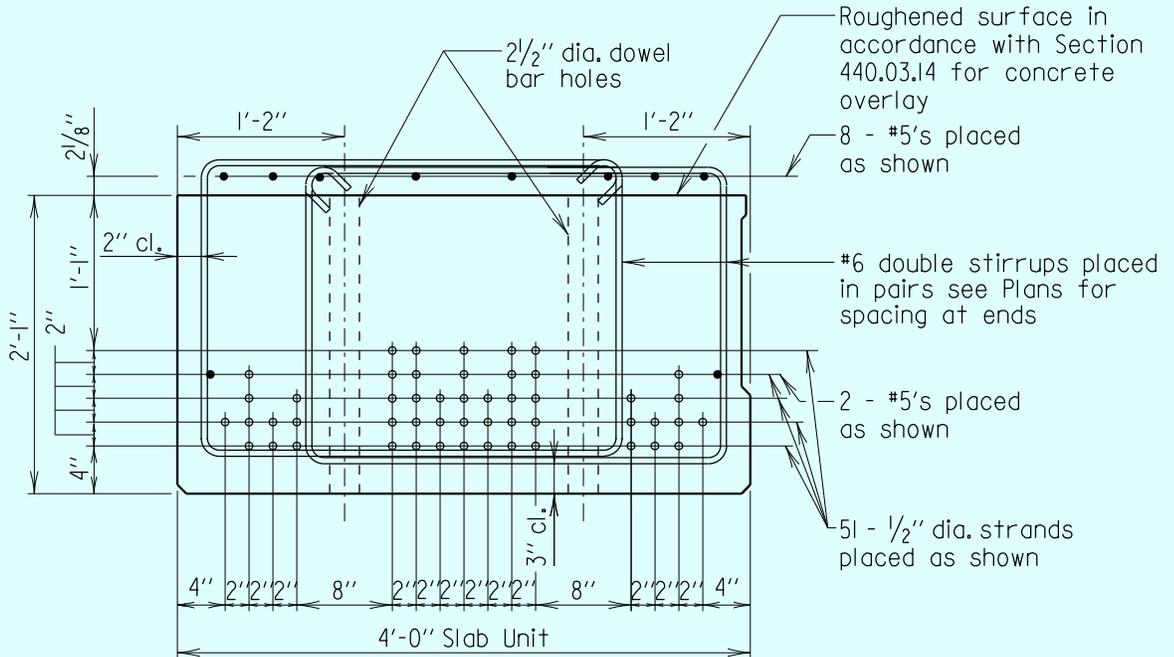


Notes:

1. For location of tie rod holes, see contract plans.
2. For location of curb reinforcement and anchor bolts and plates to be cast in slab for railing, see Detail No. SUP-TB(TR)-301

SECTION - SLAB AT MIDSPAN

Scale: 3/4" = 1'-0"



SECTION - SLAB AT ENDS

Scale: 3/4" = 1'-0"

Note:

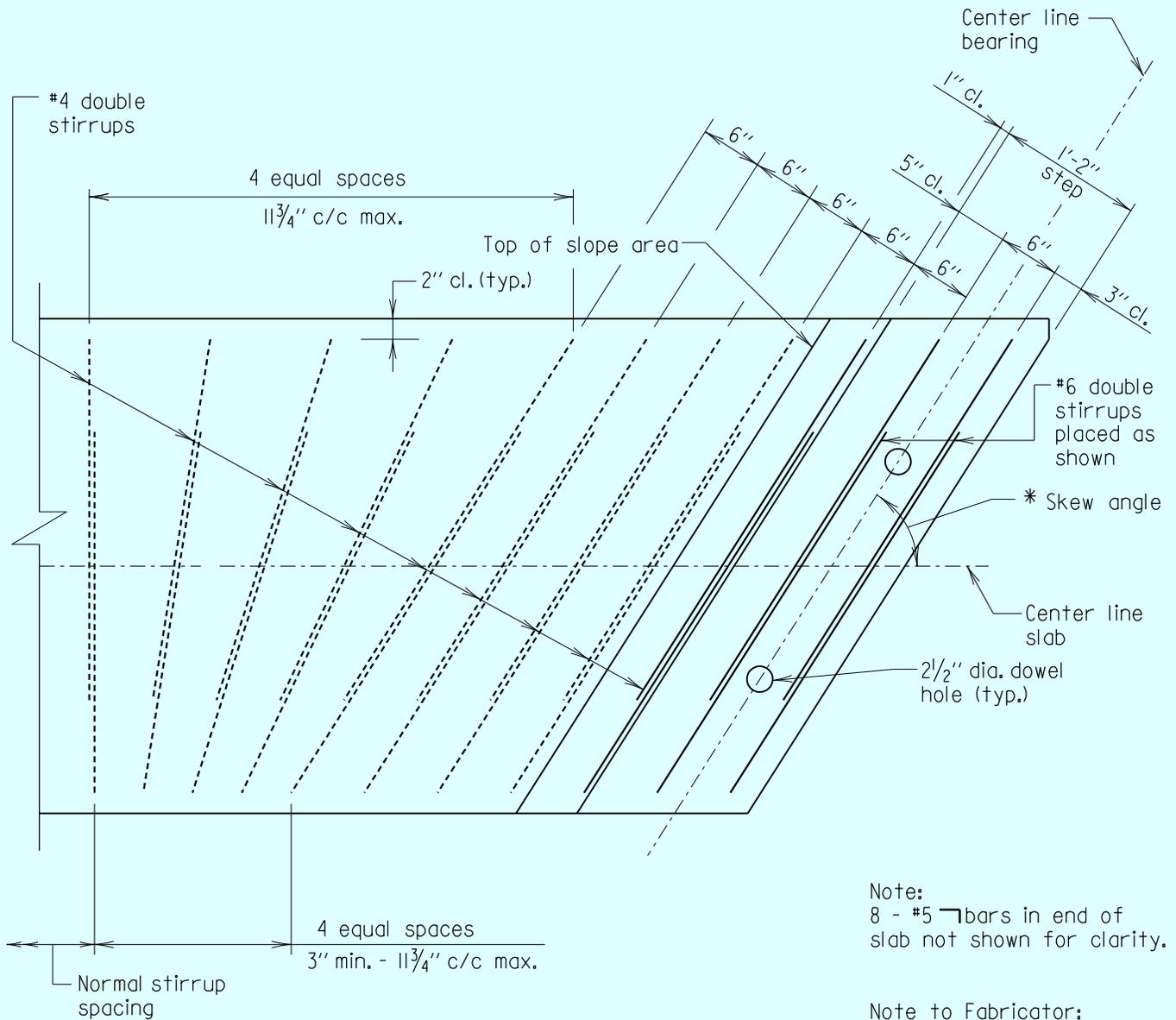
Extreme care shall be used when placing and tying the curb rebar, railing and anchor bolts assembly to provide for the required clearances. Any misplaced rebar, dowel bar holes, tie rod holes or anchor bolts will be cause for rejection of the precast slab unit.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 50'-0" TO 55'-0" EXTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL SECTIONS	
DETAIL NO. SUP-SLAB(4FT)-802	SHEET 2 OF 2

SUPERSTRUCTURE SLABS



* Note to designer: Draw to scale on the contract plan sheets.

PLAN
Scale: 3/4" = 1'-0"

Note:
8 - #5 bars in end of slab not shown for clarity.

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

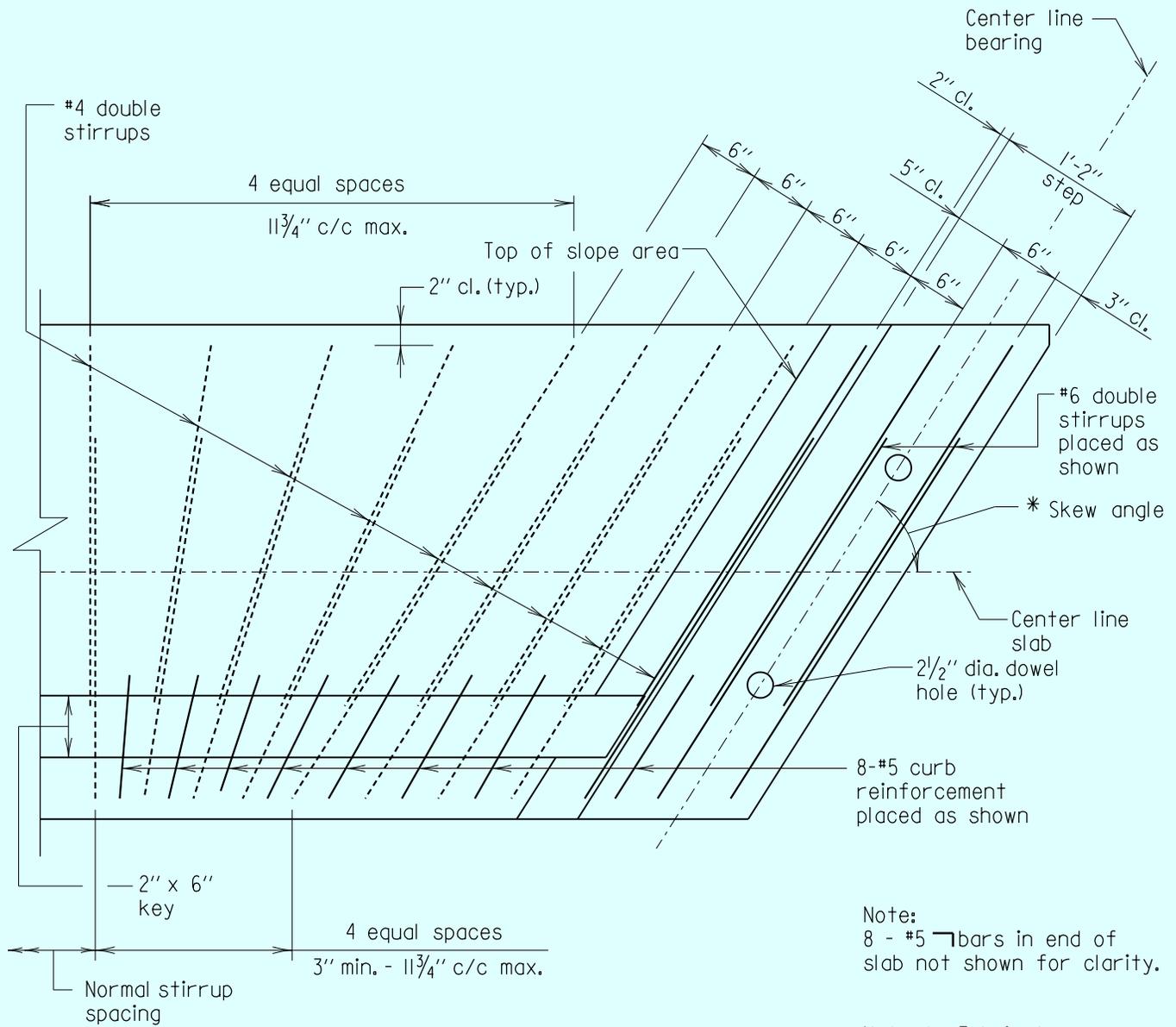
Note:
All reinforcing steel to be epoxy coated.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
SIMPLE SPAN GREATER THAN 50'-0" TO 55'-0" INTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL SKEWED END DETAIL	
DETAIL NO. SUP-SLAB(4FT)-803	SHEET <u>1</u> OF <u>2</u>

SUPERSTRUCTURE SLABS



* Note to designer: Draw to scale on the contract plan sheets.

PLAN
Scale: 3/4" = 1'-0"

Note:
8 - #5 bars in end of slab not shown for clarity.

Note to Fabricator:
End stirrup spacing must be laid out to determine spacing.

Note to Designer:
Layout shown works up to a skew angle of 55°. For angles less than 55° designer must layout skewed end detail on plans.

Note:
All reinforcing steel to be epoxy coated.

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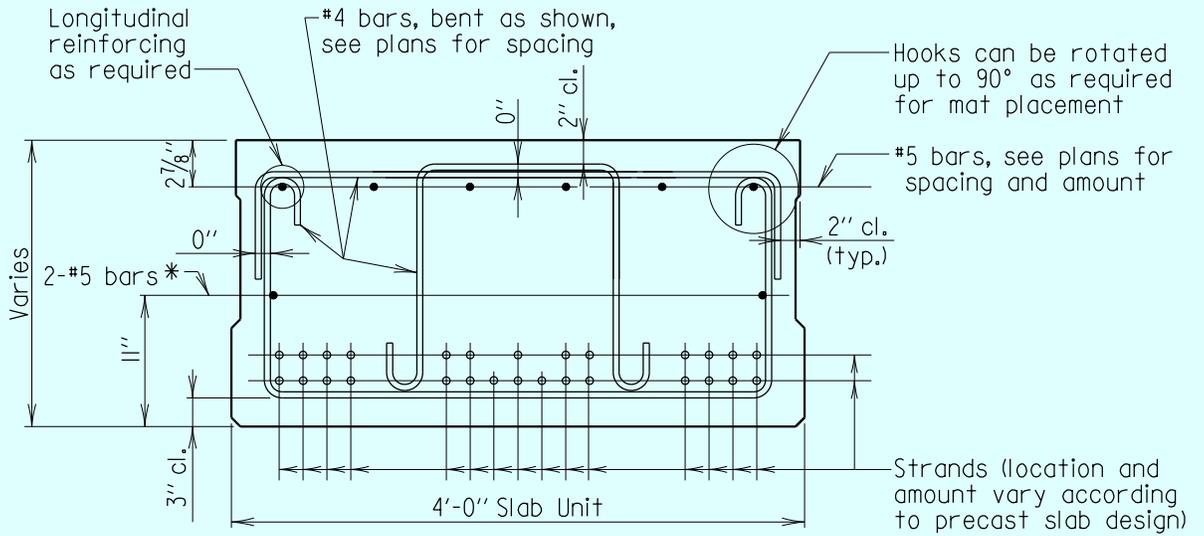
STATE OF MARYLAND
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STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

**SIMPLE SPAN GREATER THAN 50'-0" TO 55'-0"
EXTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL
SKEWED END DETAIL**

DETAIL NO. SUP-SLAB(4FT)-803

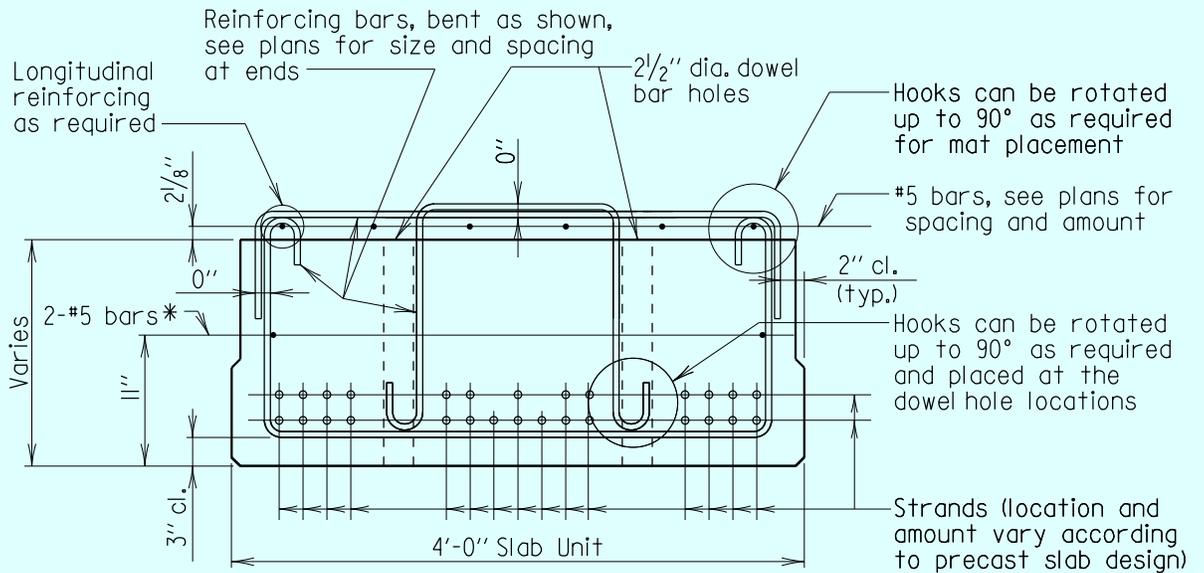
SHEET 2 OF 2

SUPERSTRUCTURE SLABS



ALTERNATE REINFORCING SECTION - SLAB AT MIDSPAN

Scale: $\frac{3}{4}'' = 1'-0''$



ALTERNATE REINFORCING SECTION - SLAB AT ENDS

Scale: $\frac{3}{4}'' = 1'-0''$

* These bars are only required for span lengths greater than 50'-0".

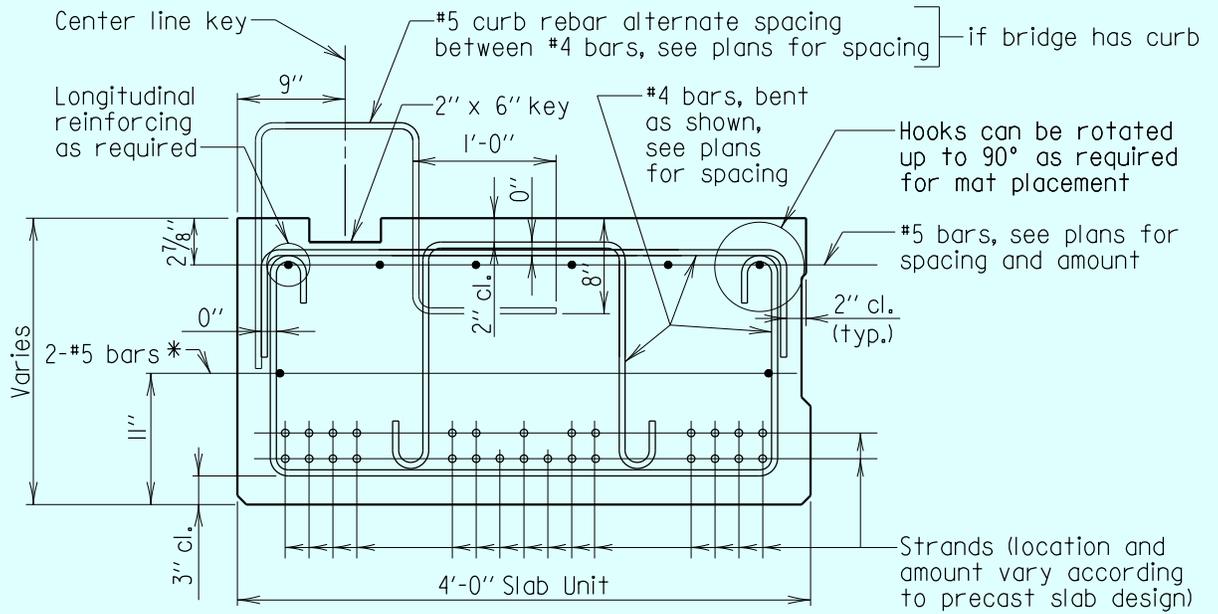
Note:
All reinforcing steel to be epoxy coated.

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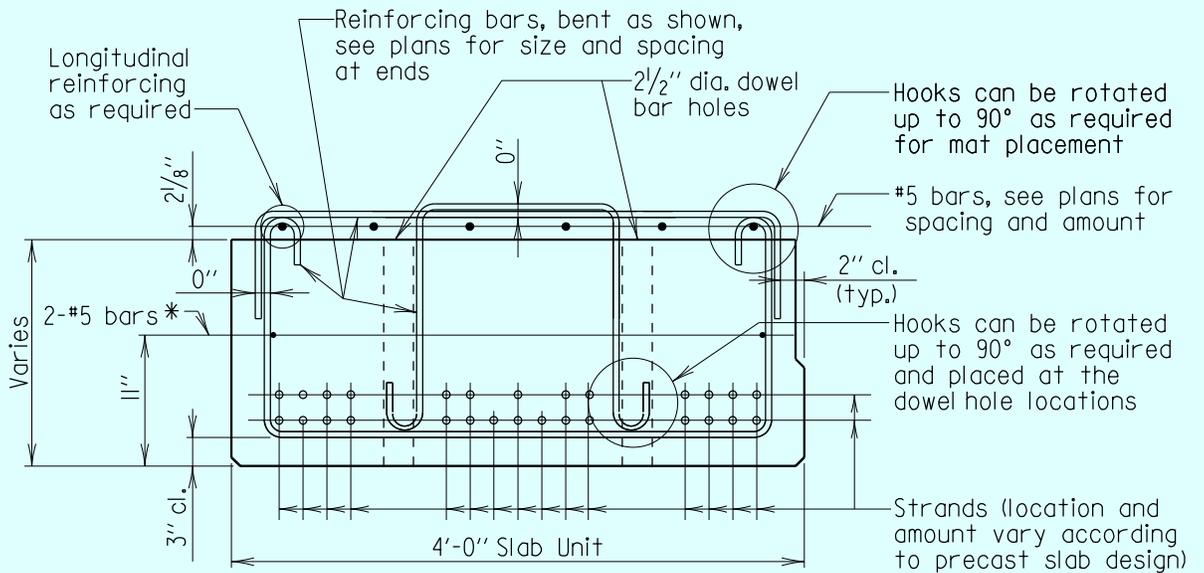
STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES	
INTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL ALTERNATE REINFORCING DETAILS	
DETAIL NO. SUP-SLAB(4FT)-901	SHEET <u>1</u> OF <u>2</u>

SUPERSTRUCTURE SLABS



ALTERNATE REINFORCING SECTION - SLAB AT MIDSPAN

Scale: $\frac{3}{4}'' = 1'-0''$



ALTERNATE REINFORCING SECTION - SLAB AT ENDS

Scale: $\frac{3}{4}'' = 1'-0''$

* These bars are only required for span lengths greater than 50'-0".

Note:
All reinforcing steel to be epoxy coated.

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STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
EXTERIOR 4'-0" PRECAST CONCRETE SLAB PANEL ALTERNATE REINFORCING DETAILS
DETAIL NO. SUP-SLAB(4FT)-901
SHEET 2 OF 2

SUPERSTRUCTURE SLABS