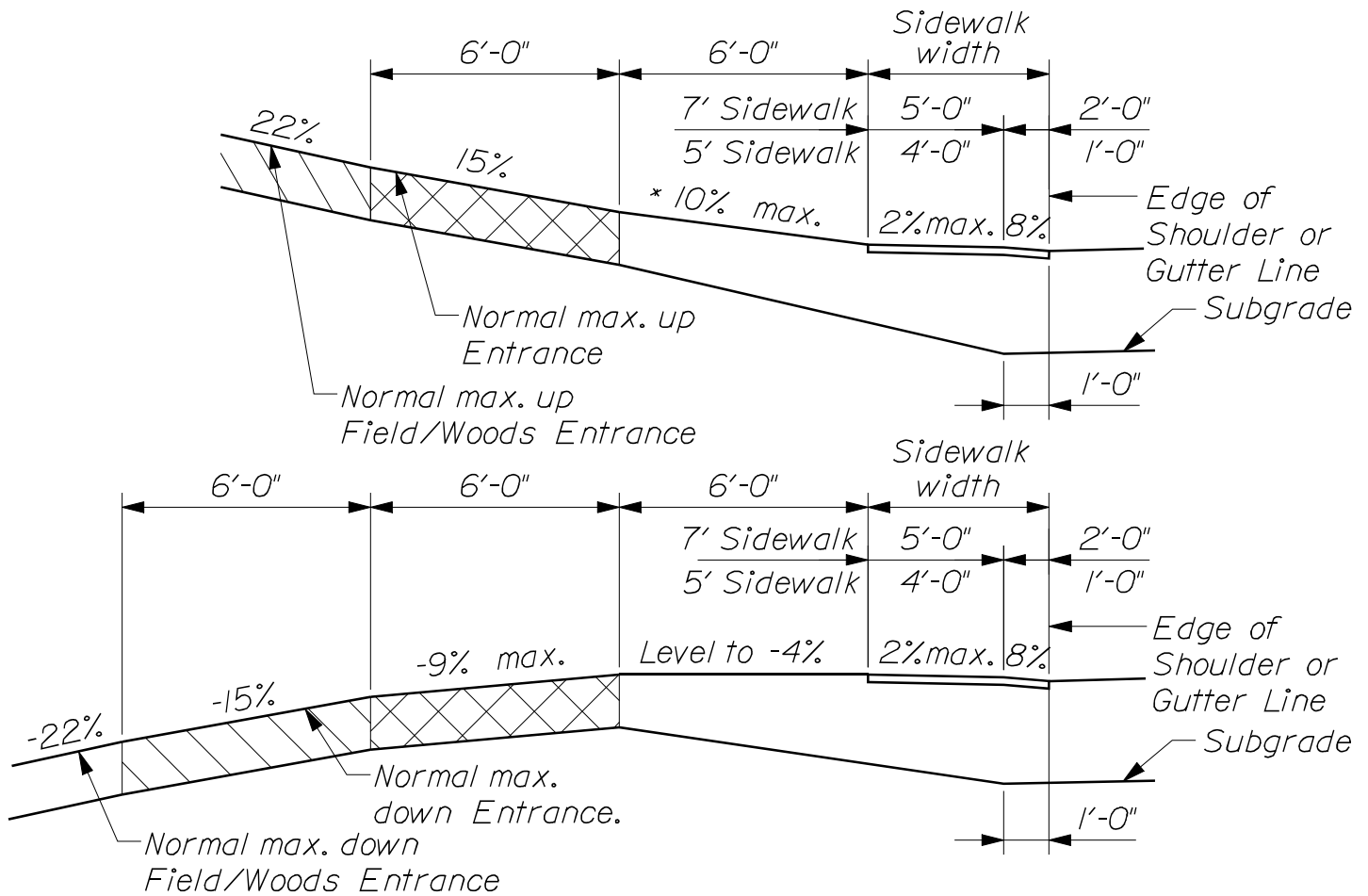


DIVISION 800

MISCELLANEOUS

DETAILS



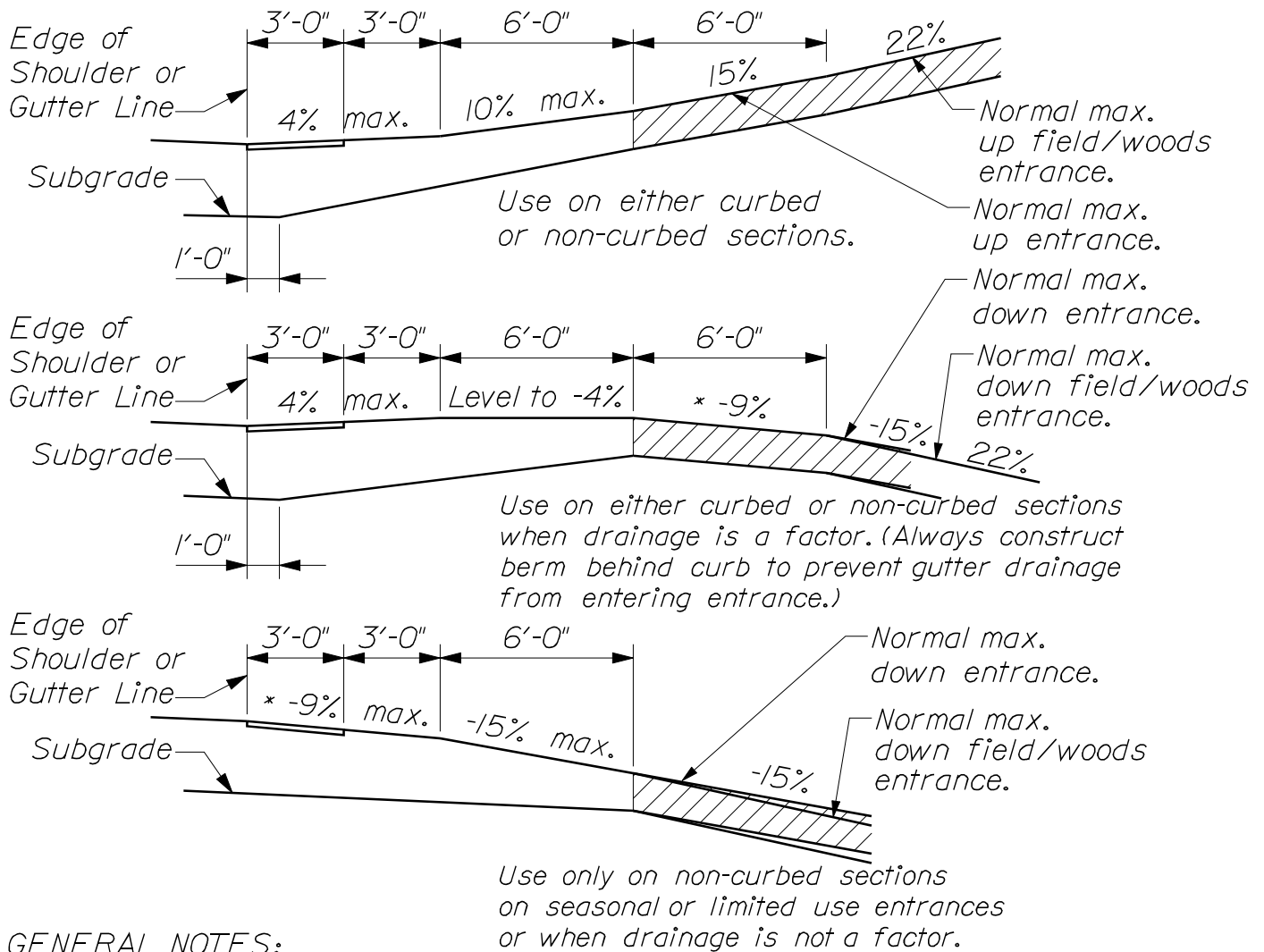
GENERAL NOTES:

1. The sidewalk width shall be paved in all cases.
2. All residential or commercial entrances 10% and over shall be paved.

NOTES ON MAXIMUM ENTRANCE PROFILES:

1. These profiles are a guide for the majority of cases, but should be field checked when the main line grade is steep (4% to 6% or greater) or the angle of approach to the entrance is unusual.
2. Generally the majority of entrances on a project will be built with flatter profiles than these maximum cases.
3. When grading entrances which are flatter than the maximum profiles the following rule of thumb should be used. Do not exceed a grade % change of more than 9% in a 6 foot increment of entrance length. This applies to both up and down profiles.
4. Entrances with grades exceeding 15% must have a design¹exception. Field entrances with grades exceeding 22% must have a¹design exception.
5. Any design change to an existing entrance that is steeper than (+ or -) 6% that adversely changes the grade (+ or -) by more than 3% will require a¹design exception.

¹Design exception to be approved by Program Manager (or designee).



GENERAL NOTES:

1. The first 3 feet shown as pavement shall be paved only when abutting a paved area.
2. All residential or commercial entrances 10% and over shall be paved.

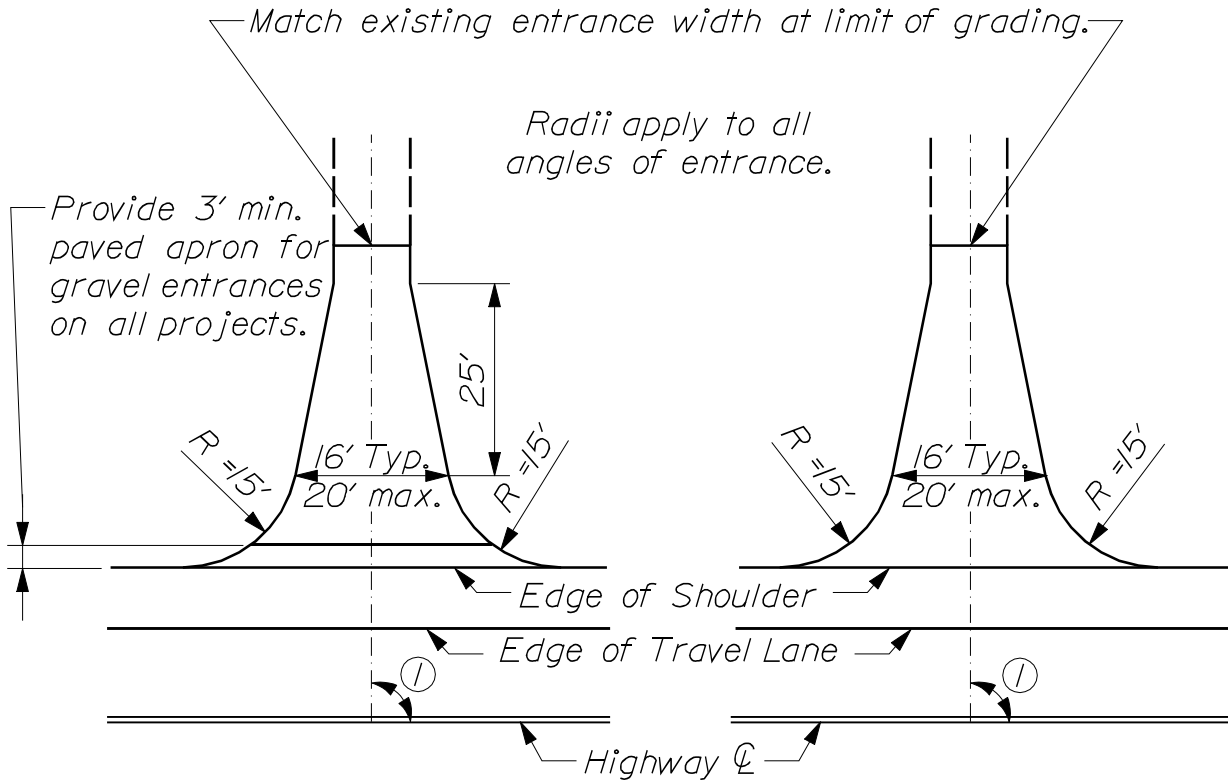
NOTES ON MAXIMUM ENTRANCE PROFILES:

1. These profiles are a guide for the majority of cases, but should be field checked when the main line grade is steep (4% to 6% or greater) or the angle of approach to the entrance is unusual.
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4. Entrances with grades exceeding 15% must have a ¹design exception. Field entrances with grades exceeding 22% must have a ¹design exception.
5. Any design change to an existing entrance that is steeper than (+ or -) 6% that adversely changes the grade (+ or -) by more than 3% will require a ¹design exception.

¹Design exception to be approved by Program Manager (or designee).

ENTRANCES ON NON-SIDEWALK SECTIONS

801(02)



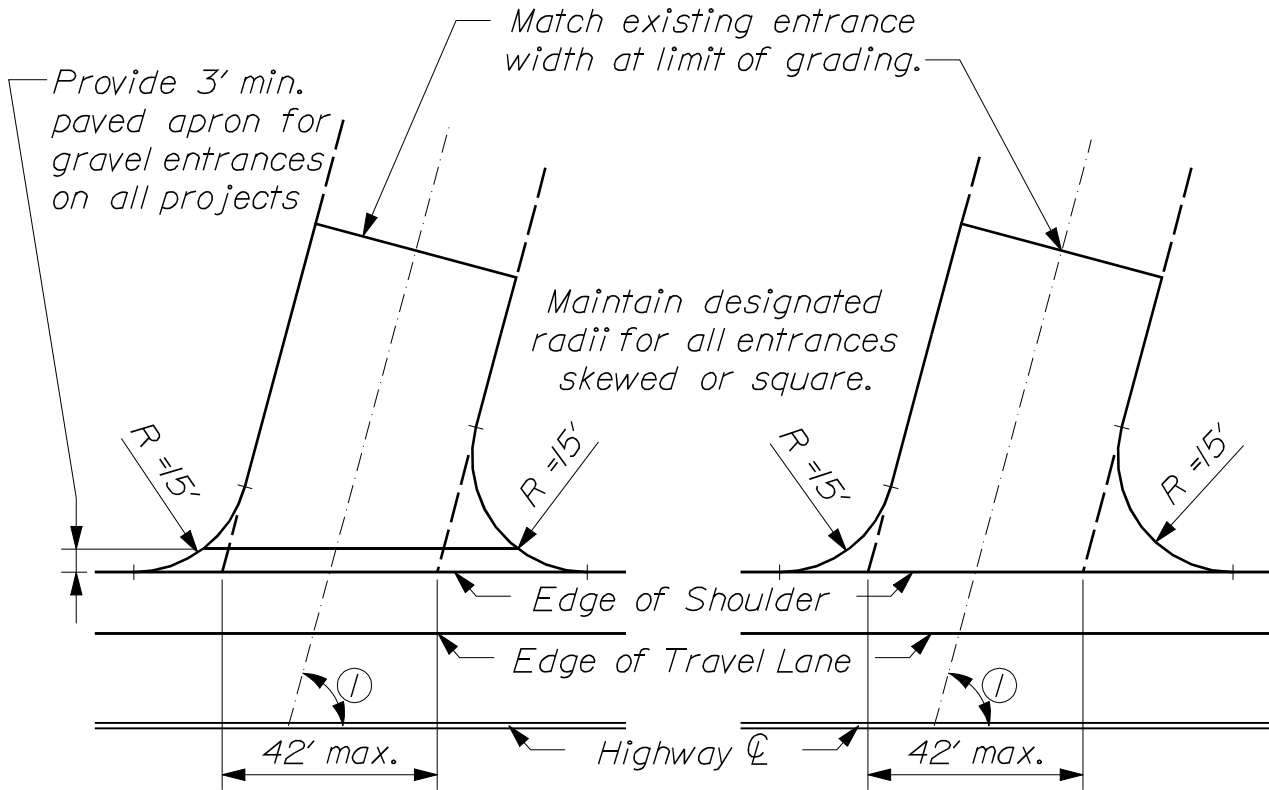
~ GRAVEL ENTRANCE ~ ~ PAVED ENTRANCE ~

① Entrance angle should not be less than 45°.

RESIDENTIAL ENTRANCE ONTO UNCURBED
HIGHWAY - PAVED SHOULDERS

801(03)

Entrances with a high number of truck movements may be designed on an individual basis.

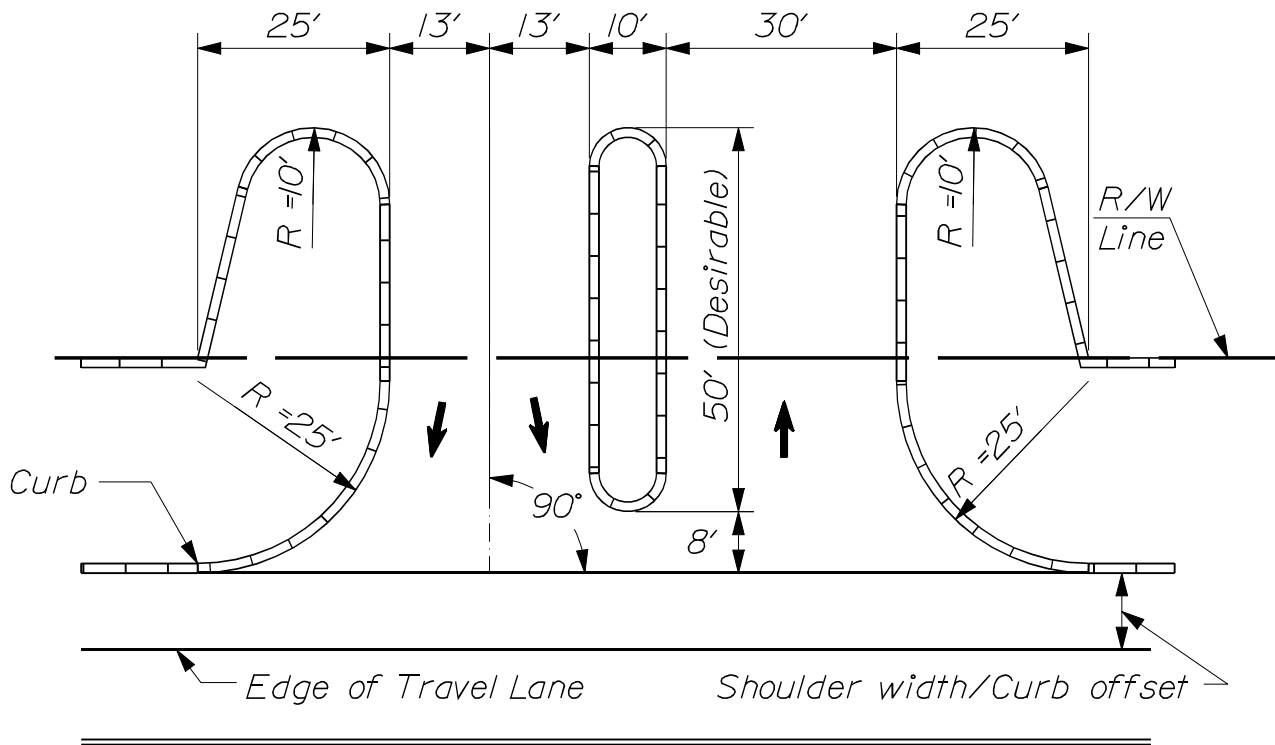


~ GRAVEL ENTRANCE ~ ~ PAVED ENTRANCE ~

① Entrance angle should not be less than 45°.

COMMERCIAL/INDUSTRIAL ENTRANCE ONTO
 ONTO UNCURBED HIGHWAY - PAVED SHOULDERS

801(04)



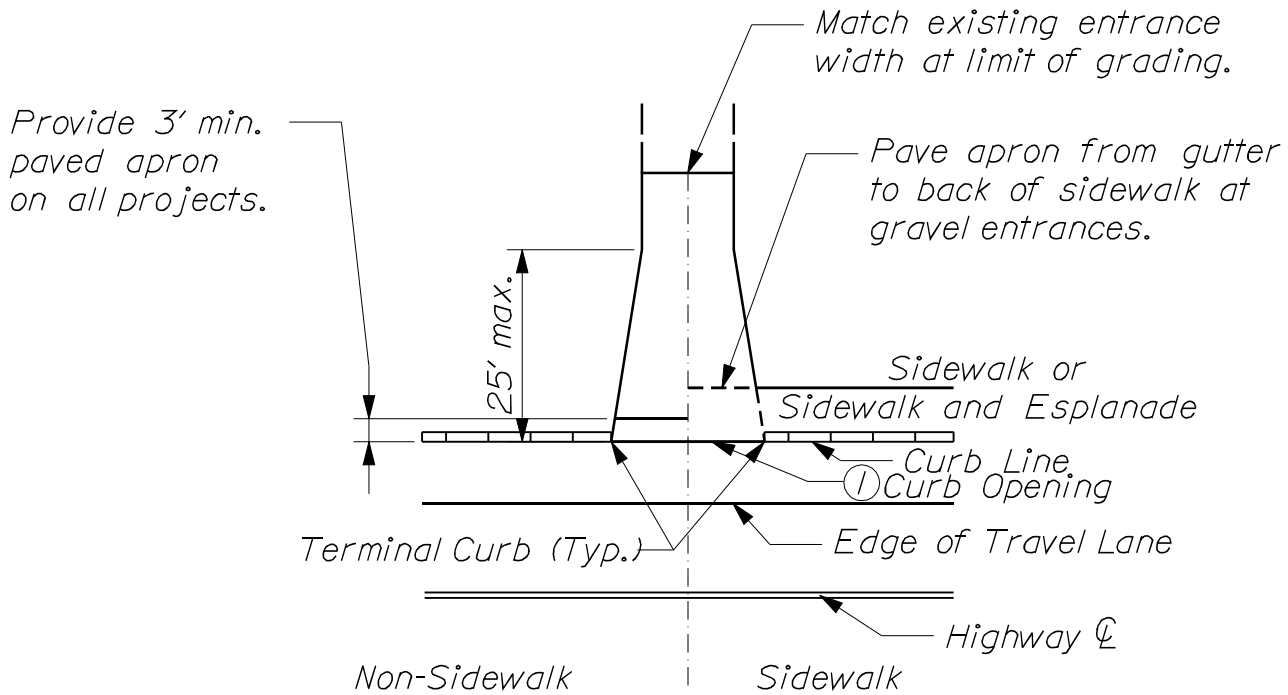
~ PAVED ENTRANCE ~

NOTES:

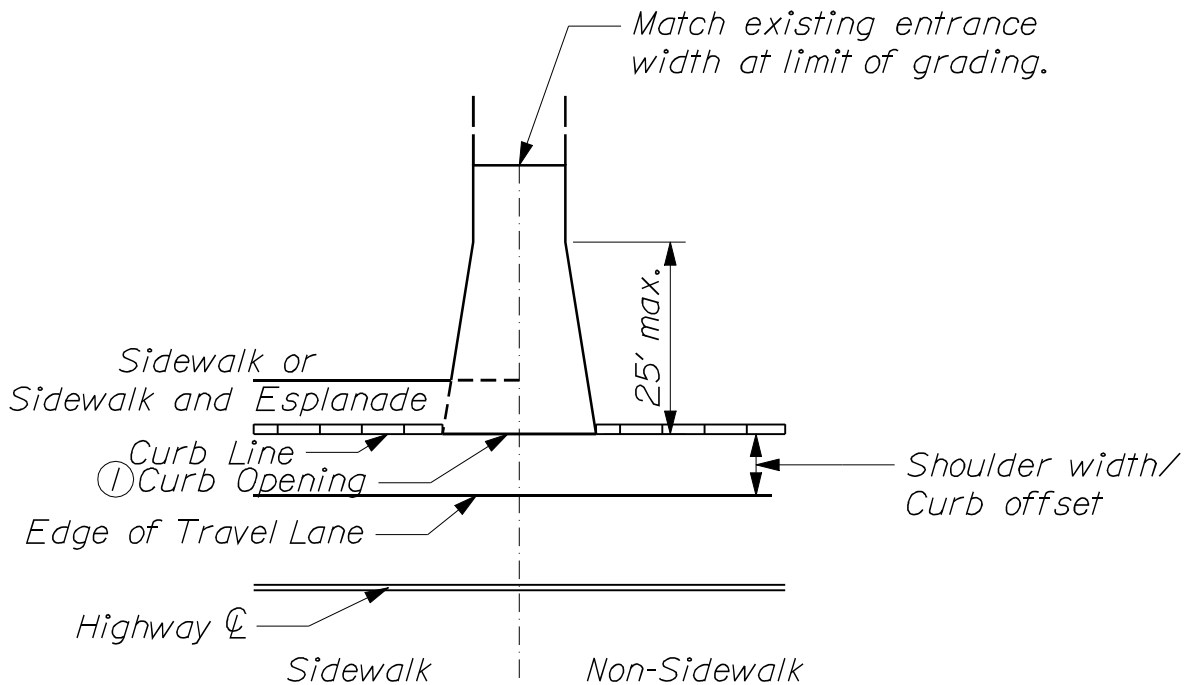
1. This type of entrance is suitable for other high traffic volume, public-type installations.
2. All island borders shall be curbed.

SHOPPING CENTER ENTRANCE ONTO
HIGHWAY - PAVED SHOULDERS

801(05)



~ GRAVEL ENTRANCE ~

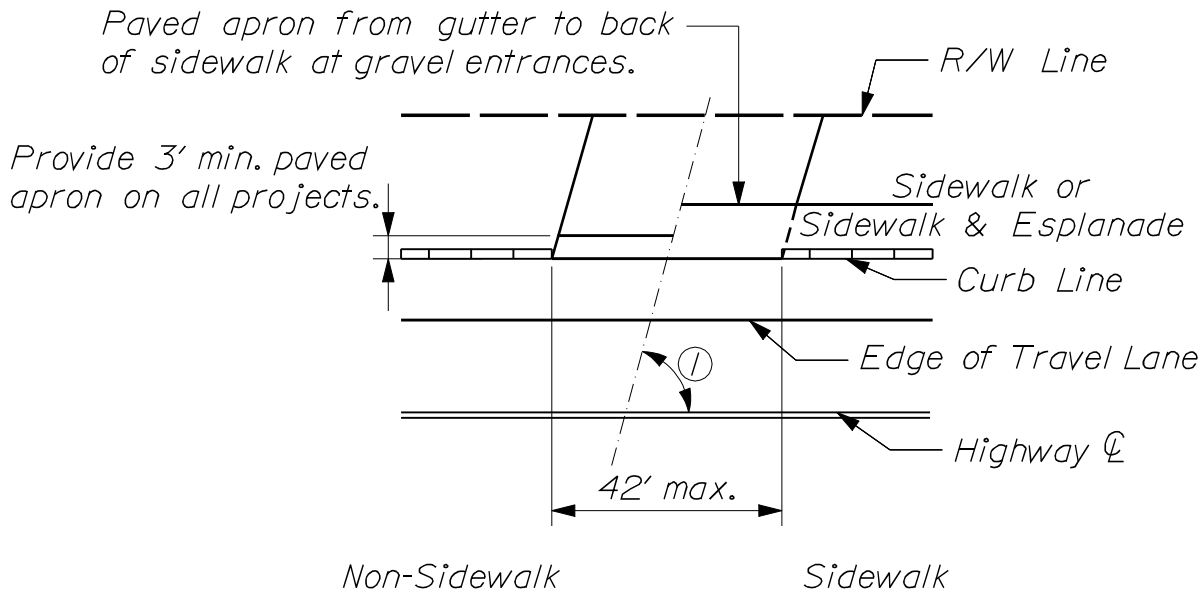


~ PAVED ENTRANCE ~

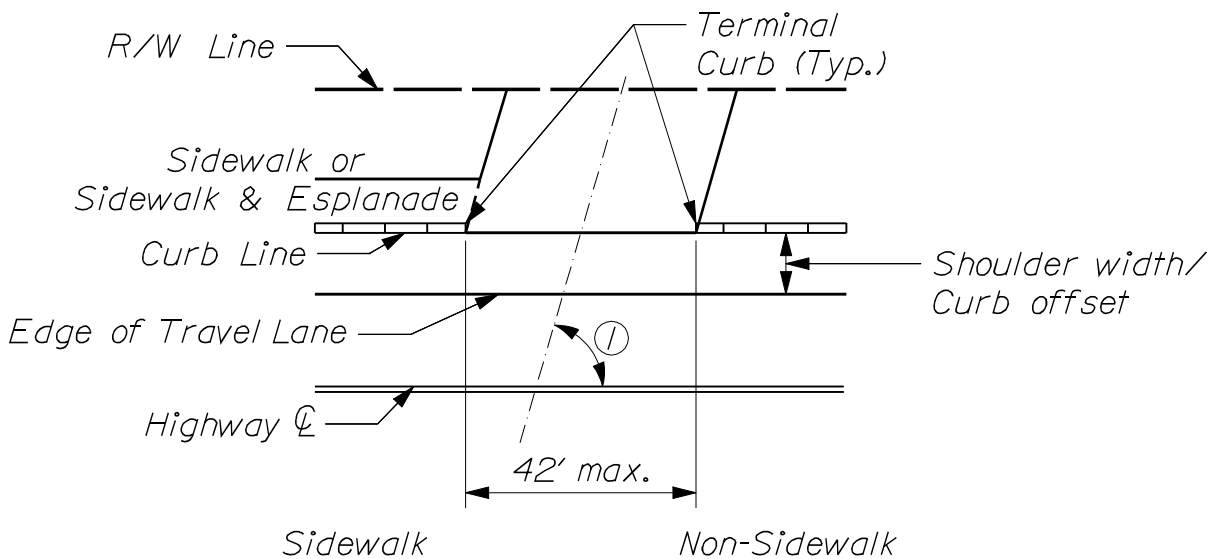
NOTES:

- ① Minimum curb opening is 20' where the shoulder width is $\geq 6'$ and 26' where the shoulder width is $< 6'$.

RESIDENTIAL ENTRANCE ONTO CURBED HIGHWAY
(WITH/WITHOUT SIDEWALKS)



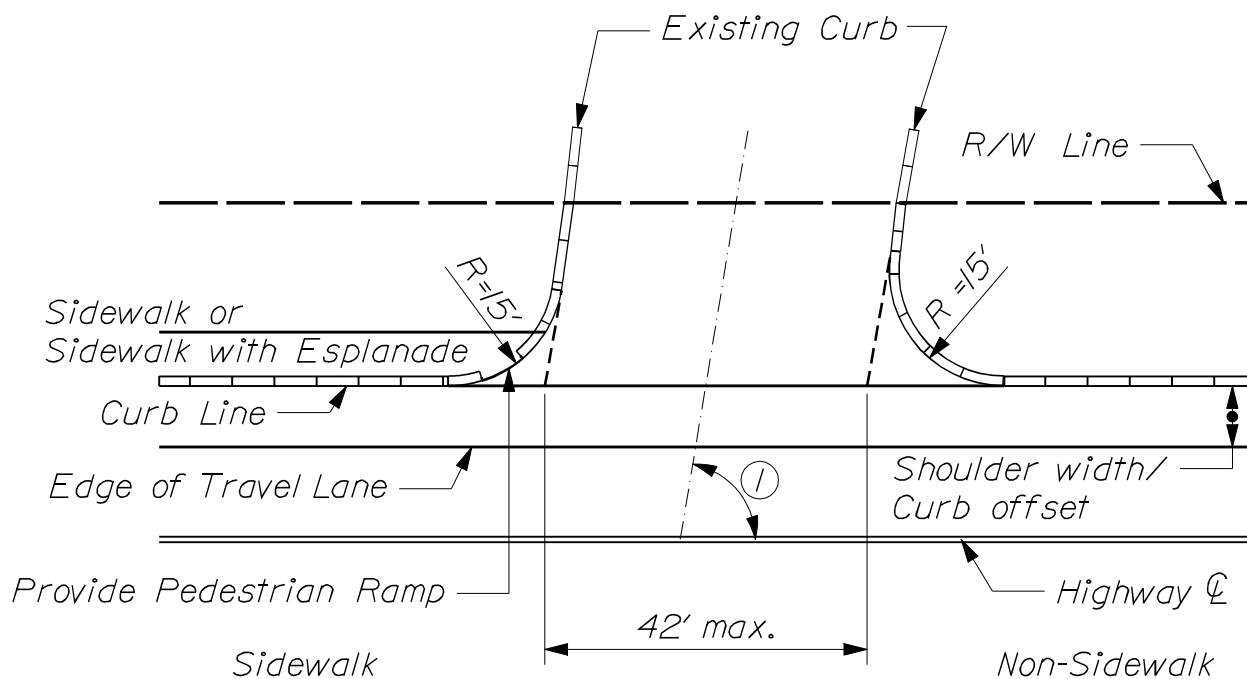
~ GRAVEL ENTRANCE ~



~ PAVED ENTRANCES ~

- ① Minimum entrance angle is 45° where the shoulder width $\geq 6'$ and 60° where the shoulder width $< 6'$.
- ② If there are high truck turning volumes, the designer should consider providing turning radii of 15' - 25' and/or a wider opening and/or limiting the angle of turn to accommodate trucks.

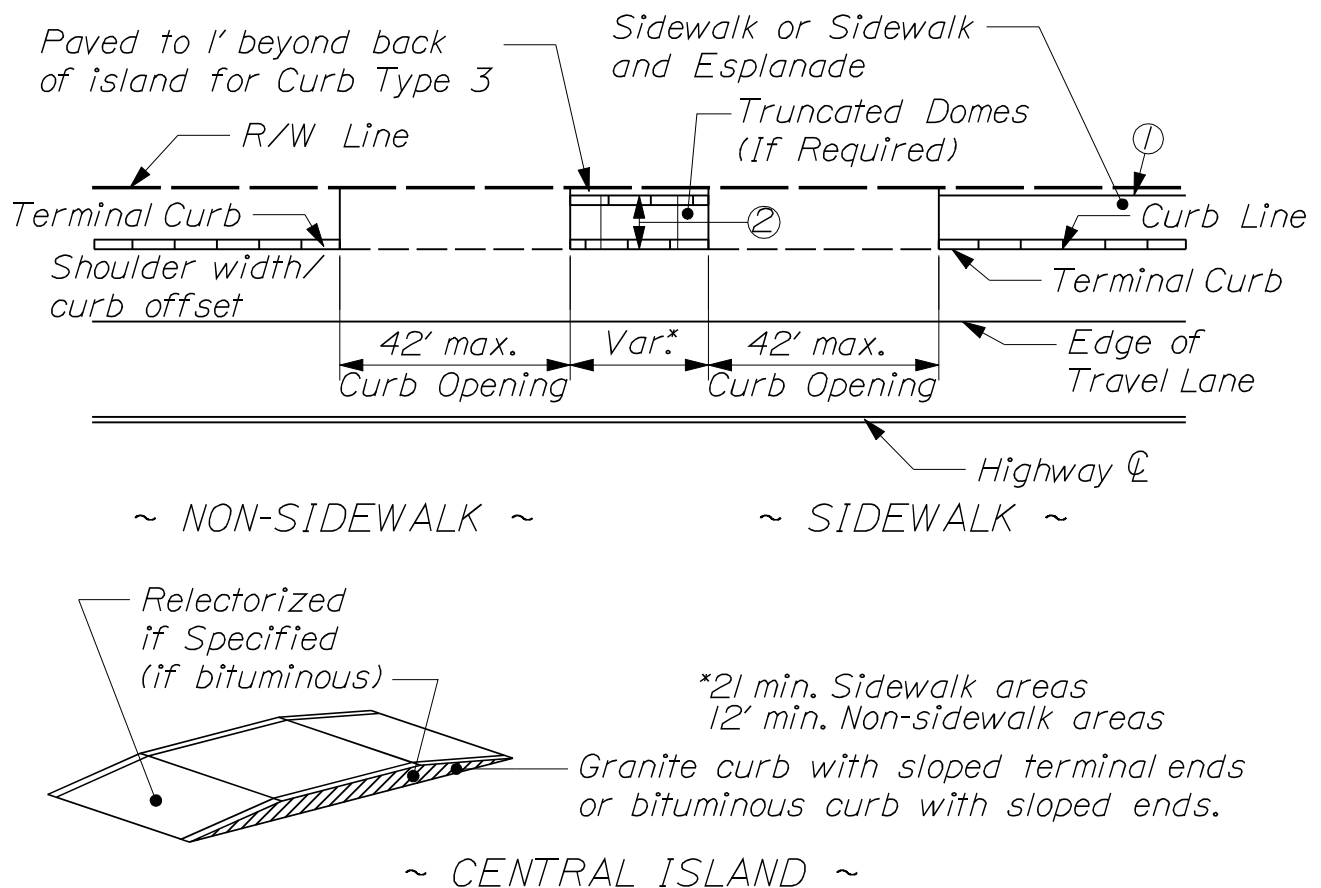
UNCURBED COMMERCIAL/INDUSTRIAL ENTRANCE ONTO CURBED HIGHWAY (WITH/WITHOUT SIDEWALK)



~ PAVED ENTRANCE ~

① Minimum entrance angle is 45° where the shoulder width $\geq 6'$ and 60° where the shoulder width $< 6'$.

CURBED COMMERCIAL/INDUSTRIAL ENTRANCE
 ONTO CURBED HIGHWAY WITH/WITHOUT SIDEWALK



- ① Where parking of Service Area abuts sidewalk, a curb, guardrail or fence should be provided.
- ② Island width will extend within 1' of Right-of-Way line, if practical. When island width exceeds 10', use design in figure 8-41 in Highway Design Guide.
- ③ If there are high truck turning volumes, the designer should consider providing turning radii of 15' - 25' and/or wider opening and/or limiting the angle of turn to accommodate trucks.
- ④ If project requires a traffic movement permit then truncated domes will be required.

COMMERCIAL/INDUSTRIAL DOUBLE ENTRANCES
 ONTO CURBED HIGHWAY
 (NARROW RIGHT-OF-WAY)
 801(09)

GENERAL NOTES

1. *Maximum and minimum standards do not have tolerances and are not to be exceeded or unmet unless existing physical or site constraints are deemed technically infeasible. Technical infeasibility must be justified.*
2. *The minimum for a level landing (turning space) is 4-foot x 4-foot sloping with a preferred design slope of 1.5% in both directions and a maximum 2% slope.*
3. *On steep grades, where existing conditions do not allow for the curb ramp slope to meet a running slope of 8.3% or less, the curb ramp length is not required to exceed 15 feet from the curb break or from the landing break if the landing is at the bottom of the ramp.*
4. *All curb ramp grade breaks shall be perpendicular to the running slope.*
5. *All curb ramp joints and grade breaks shall be flush. When retrofitting, any vertical discontinuities should not exceed a maximum of $\frac{1}{4}$ inch vertical rise or $\frac{1}{4}$ - $\frac{1}{2}$ inch beveled rise.*
6. *Counter slope grades should be adjusted according to the grade break at the bottom of the ramp. With a maximum curb ramp grade of 8.3% the maximum counter slope should not exceed 5%. When ramp slopes are less, the counter slope can be adjusted to a higher amount not to exceed 8.3%. (i.e. Ramp slope of 2% counter slope can be 6.3%.)*
7. *Beyond the bottom grade break, a clear space of 4-foot x 4-foot minimum shall be provided within the width of the pedestrian crosswalk, and outside the parallel vehicle travel lane. On ramps that have landing at street level, the clear space may exist within the ramp.*
8. *There shall be a minimum of 12-inch Aggregate Subbase Course - Gravel under the sidewalk surface on pedestrian ramps.*
9. *The running slope of a "Blended Transition" shall not exceed 5% slope and will have a minimum 4-foot level pedestrian access route at the top of the ramp. (See 80(26) for details.)*
10. *A temporary pedestrian access route shall be provided whenever the existing pedestrian access route in the public right of way is blocked by construction, alteration, maintenance, or other temporary conditions. Refer to MUTCD for guidance.*

PEDESTRIAN RAMP NOTES

80(11)

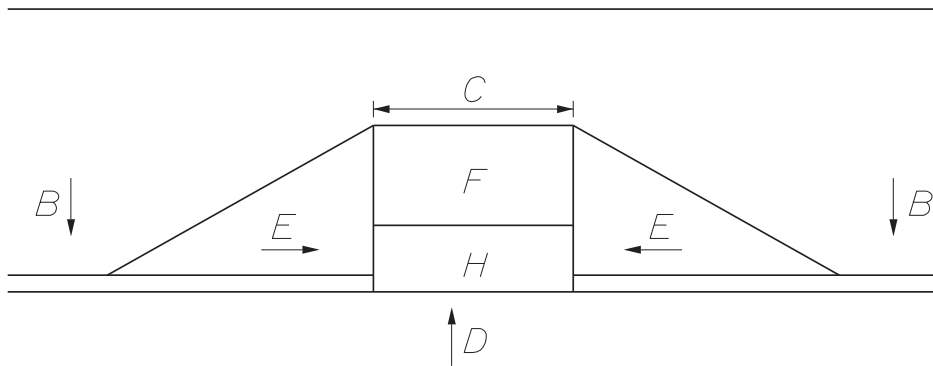
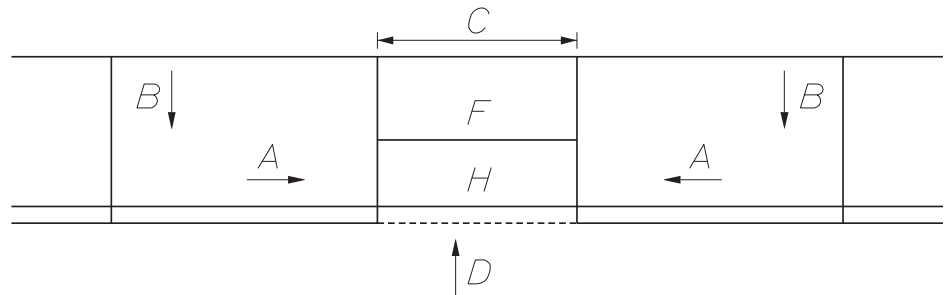
DETECTABLE WARNING FIELDS

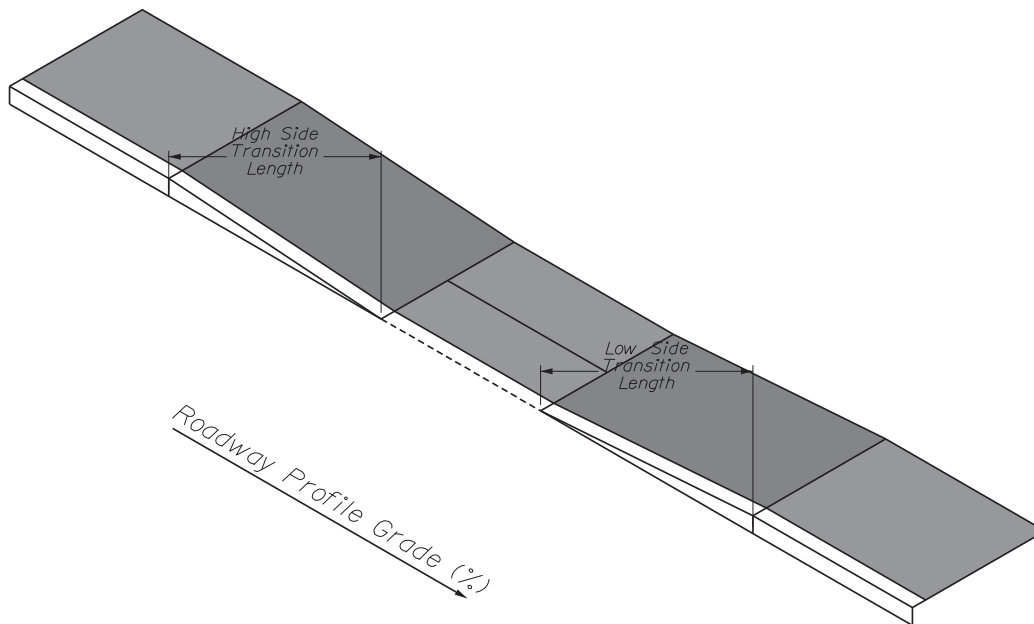
1. *Detectable warning fields shall be installed on ramps at intersections where there is a warranted stop or yield sign at signalized intersections and midblock crossings.*
2. *Detectable warning fields shall span the width of the pedestrian ramp. See Standard Detail 608(02).*
3. *The detectable warning shall be placed in a position to stop pedestrians from entering vehicular traffic. Where possible, detectable warning fields should align with pedestrian traffic.*
4. *All detectable warning fields placed at the same intersection shall be made up of the same uniform material type. Detectable warnings shall be contrasting in color to the adjacent walkway.*
5. *Detectable warning fields shall not be placed more than 5 feet back from the gutter line.*

DRAINAGE AND OBSTRUCTIONS

1. *Drainage structures, traffic signal equipment, or other obstructions shall not be installed in the curb ramp or turning space areas.*
2. *When retrofitting ramps, all options should be used to avoid drainage grates. If that is not possible, ADA compliant drainage grates should be considered.*
3. *Before retrofitting ramps, the contractor shall verify removal limits are sufficient to provide positive drainage, maintain existing drainage patterns, and avoid ponding in the final configuration.*

CURB RAMPS REQUIREMENTS		
RUNNING SLOPE	A	MAXIMUM 8.3% (1:12) <i>Applies up to a maximum length of 15 feet</i>
CROSS SLOPE	B	1.5% (1:67) (standard) 2.1% (1:48) (maximum) <i>Ramp cross slope at street crossings without stop or signal control may match roadway profile.</i>
CLEAR WIDTH	C	5'-8"+ preferred, Min. 4' -8" <i>Existing ramp width may remain 4 feet.</i>
COUNTER SLOPE	D	Counter slope grades should be adjusted according to the grade break at the bottom of the ramp. With a curb ramp grade of 8.3% the maximum counter slope should not exceed 5%. When ramp grades are lower, the counter slope can be adjusted to a higher amount not to exceed 8.3%.
FLARED SIDES	E	Where a pedestrian circulation path crosses the curb ramp, flared sides shall be installed with maximum 10% slope. (Not needed on Parallel Ramps.)
LEVEL LANDING	F	Minimum 4 feet by 4 feet <i>Maximum slope of 2.1% in any direction. May include Detectable Warnings.</i>
CLEAR SPACE	G	4 feet by 4 feet <i>Located at the bottom of perpendicular ramps with ramp slopes outside active travel lanes. (Not required on parallel ramps.)</i>
DETECTABLE WARNINGS	H	Required at traffic-controlled intersections and mid-block crossings. <i>Extend the full width of curb opening except for a 2" maximum border.</i>

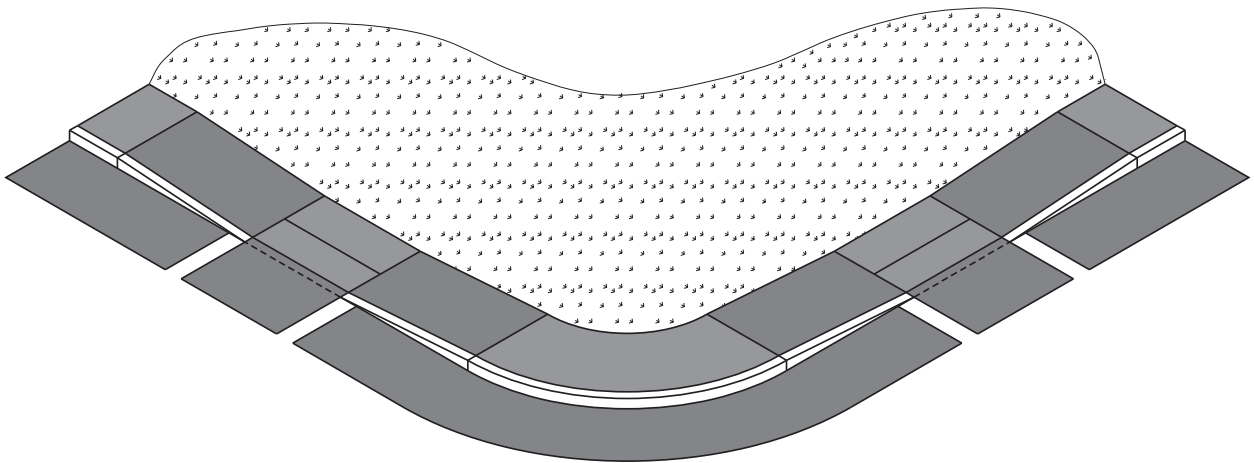




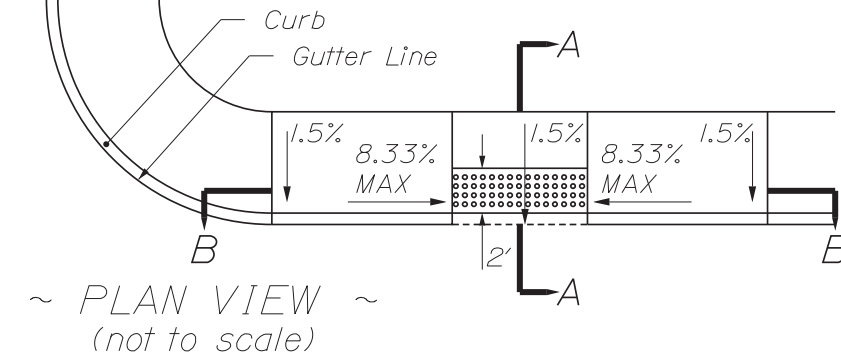
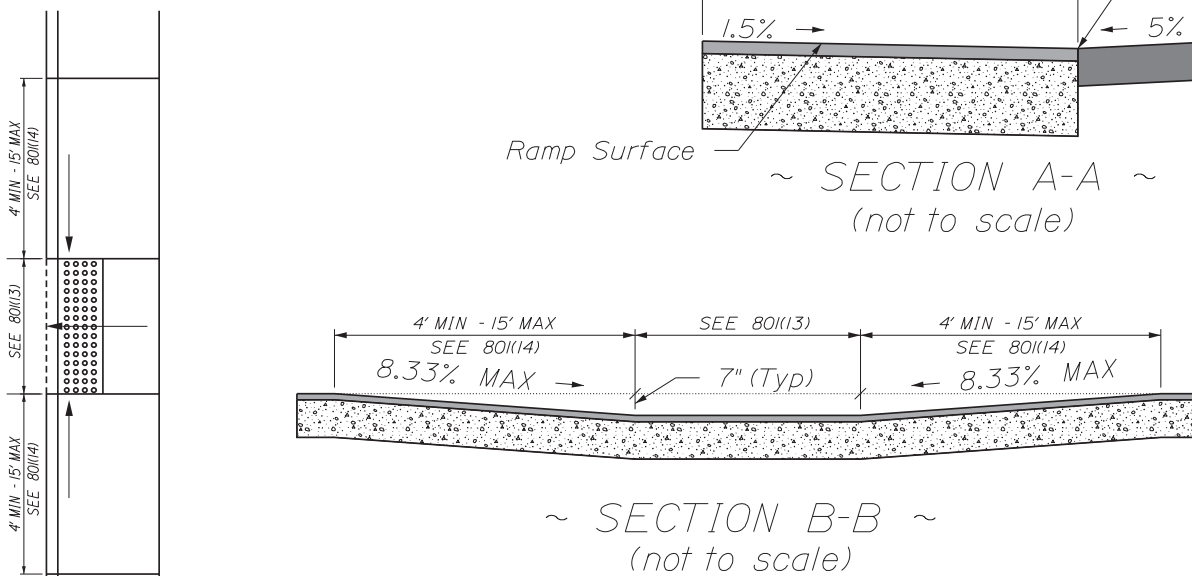
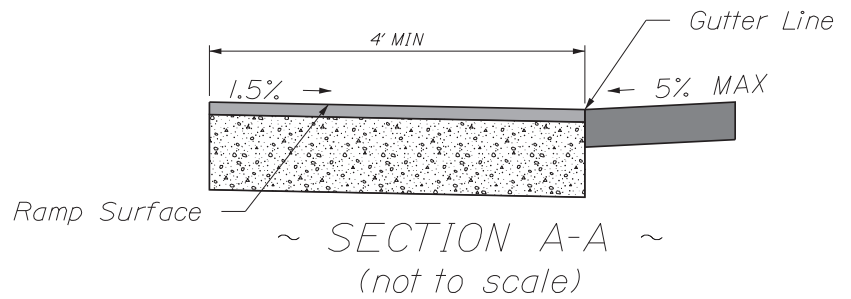
Curb Ramp Length Table						
Curb Reveal (Inches)		7	6	5	4	3
	Roadway Profile Grade	Minimum Transition Length Required (Feet)				
Low Side Transition Length	-7% and Lower	4.0	4.0	4.0	4.0	4.0
	-6%	8.0	4.0	4.0	4.0	4.0
	-5%	8.0	4.0	4.0	4.0	4.0
	-4%	8.0	8.0	4.0	4.0	4.0
	-3%	8.0	8.0	4.0	4.0	4.0
	-2%	8.0	8.0	8.0	4.0	4.0
	-1%	8.0	8.0	8.0	4.0	4.0
	-0.5% to 0.5%	8.0	8.0	8.0	8.0	4.0
High Side Transition Length	1%	10.0	8.0	8.0	8.0	4.0
	2%	10.0	10.0	8.0	8.0	8.0
	3%	12.0	10.0	10.0	8.0	8.0
	4%	15.0	12.0	12.0	10.0	8.0
	5%	15.0	15.0	15.0	12.0	10.0
	6%	15.0	15.0	15.0	15.0	12.0
	7% and Higher	15.0	15.0	15.0	15.0	15.0

Length is measured at curblines and is not required to exceed 15 feet regardless of ramp running slope.

Choose roadway profile grade by rounding up for positive grades and down for negative grades. Round to the nearest whole integer. If constraints prevent placement of the ramp length required by the table, place the maximum length possible and check the slope. If above the maximum allowable slope, consider design modifications before considering technical infeasibility.



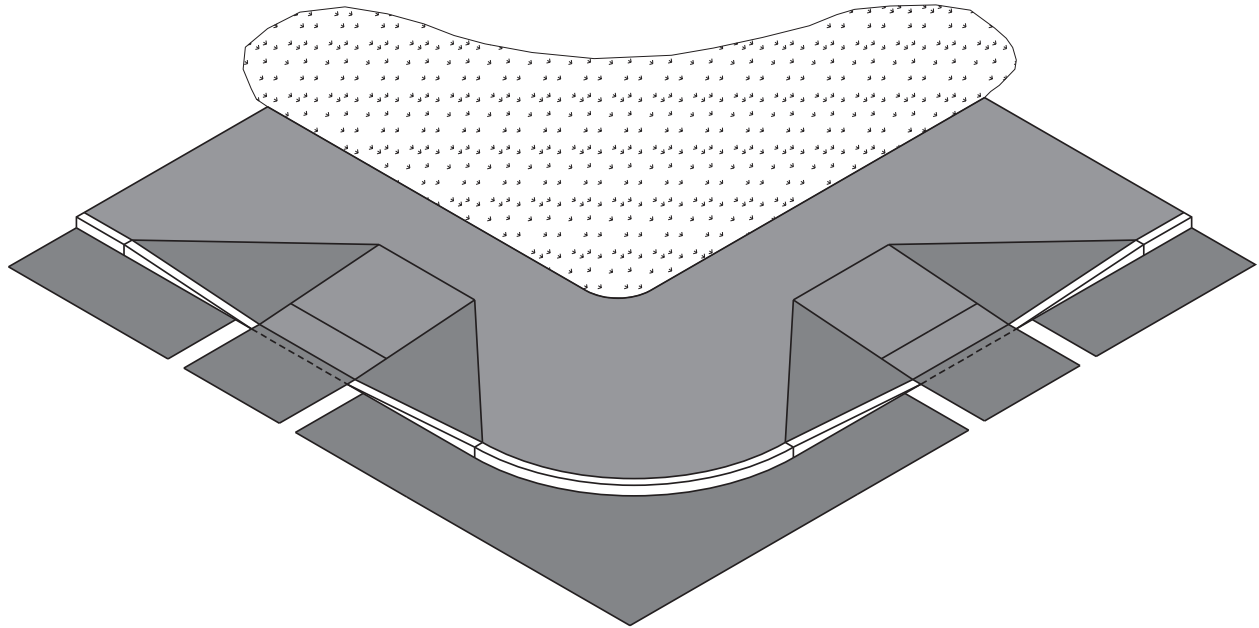
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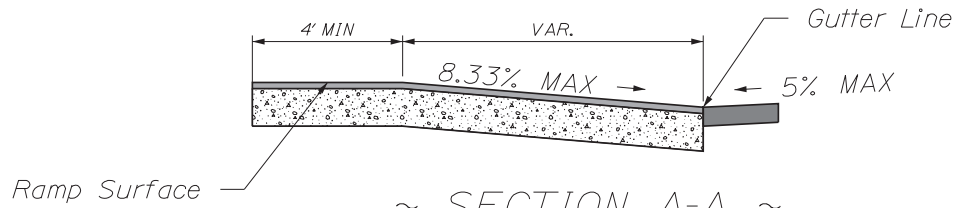
Notes:

- This desirable design is the preferred option. Use other options only when required by design constraints.
- To achieve 8.33% running slope, the pedestrian ramp may need to be extended. If the ramp length has been extended to a maximum of 15 feet and other design modifications have been considered, running slope may exceed 8.33%.

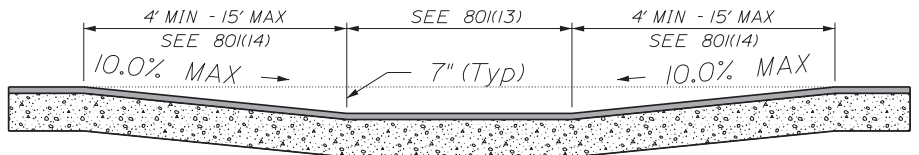
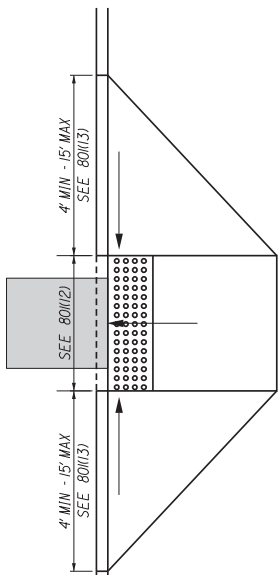
PARALLEL CURB RAMP - OPTION 1
801(15)



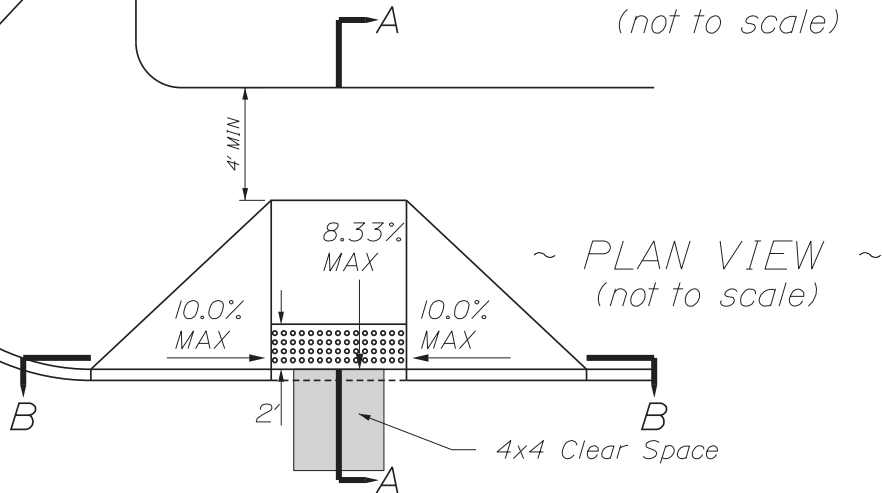
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~ SECTION A-A ~
(not to scale)



~ SECTION B-B ~
(not to scale)

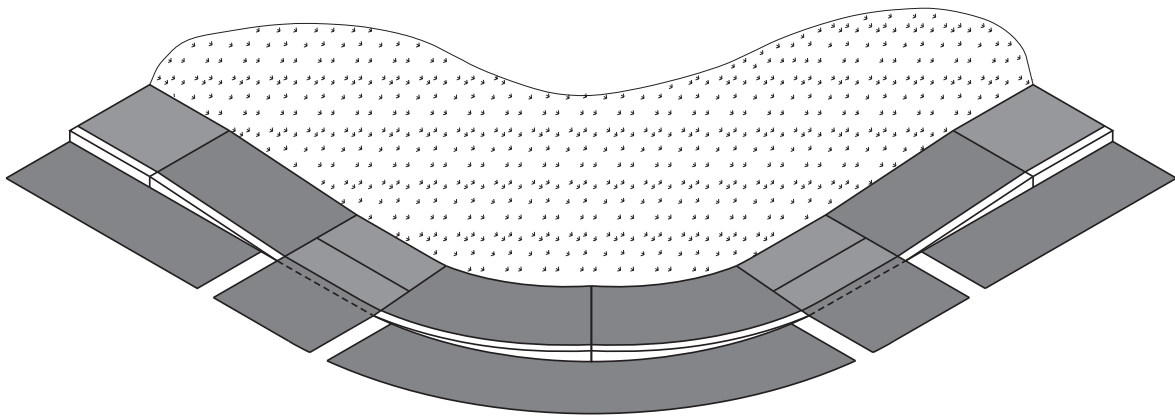


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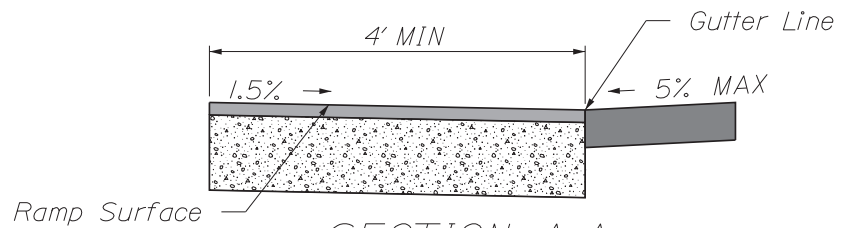
Note:

- This desirable design is the preferred option. Use other options only when required by design constraints.

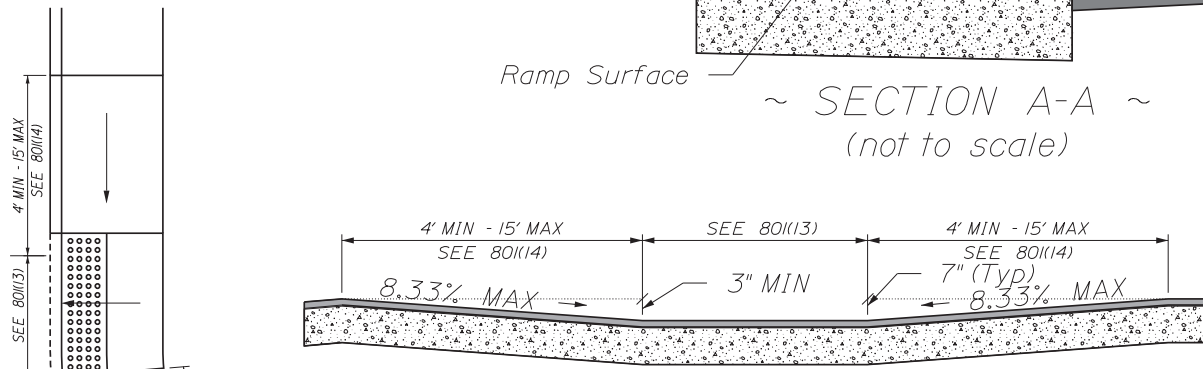
PERPENDICULAR CURB RAMP - OPTION 1
801(16)



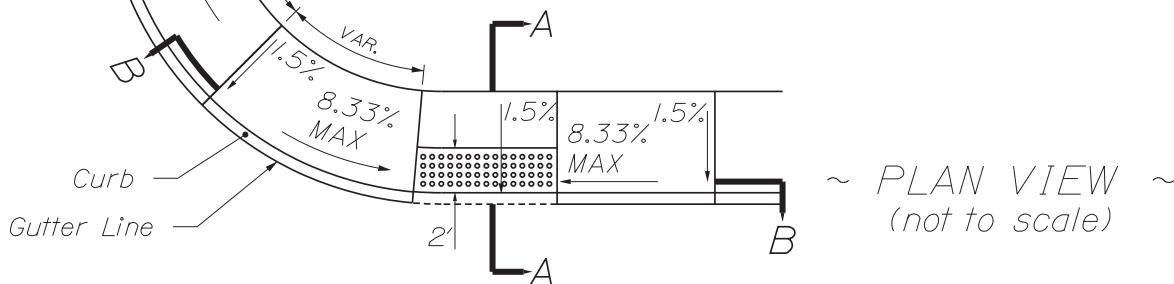
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~ SECTION A-A ~
(not to scale)



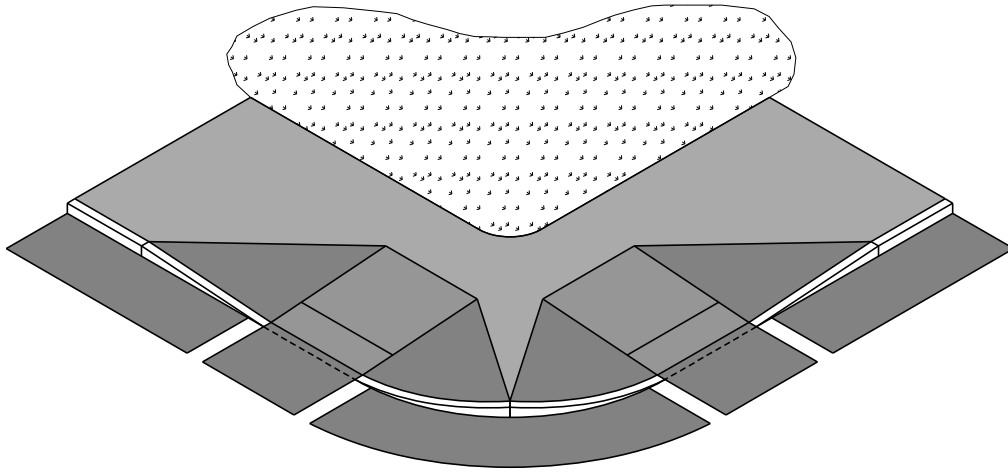
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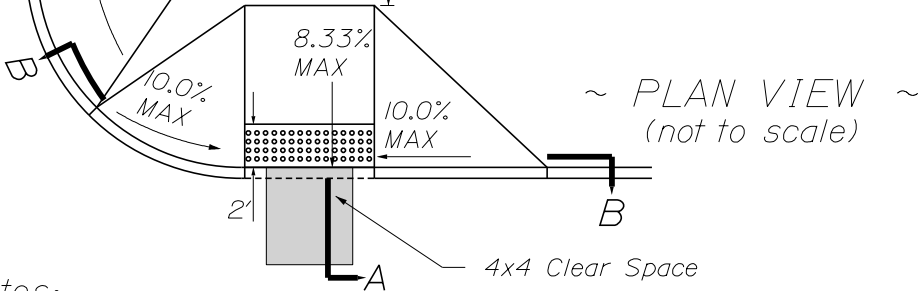
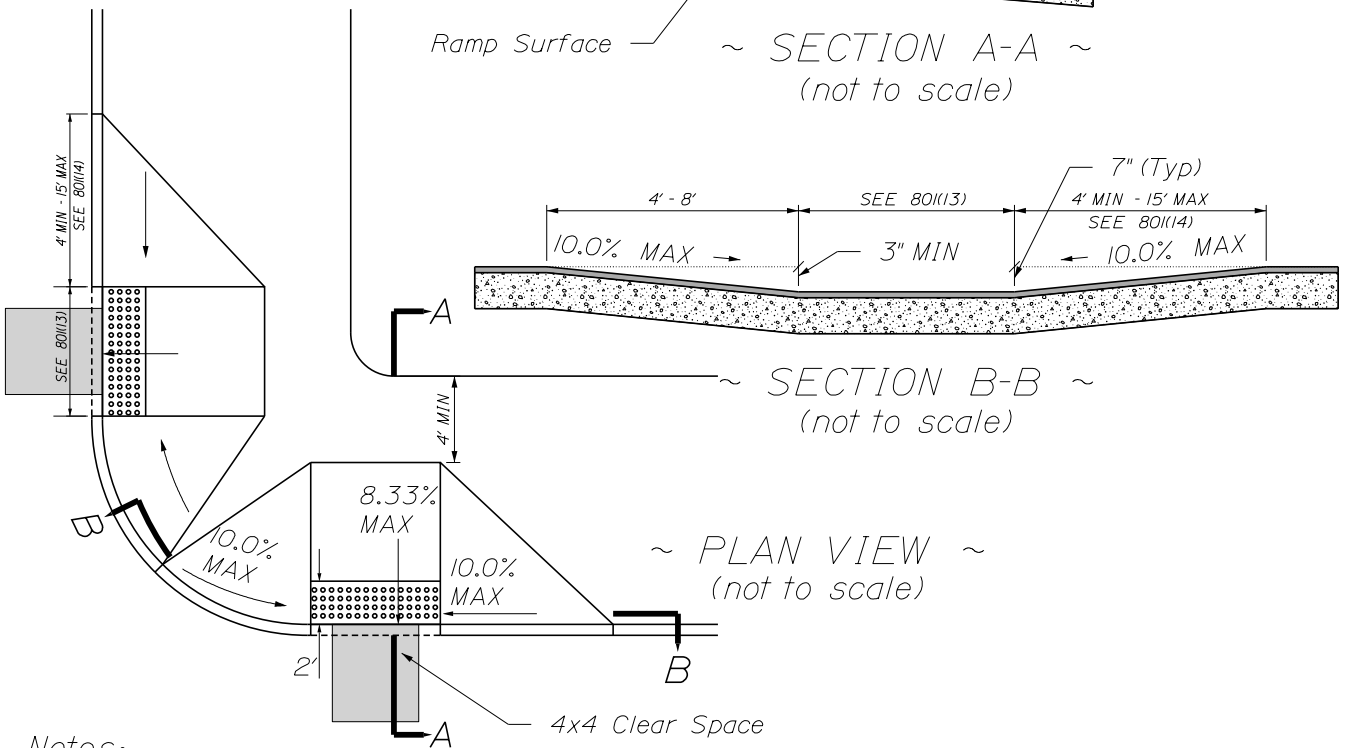
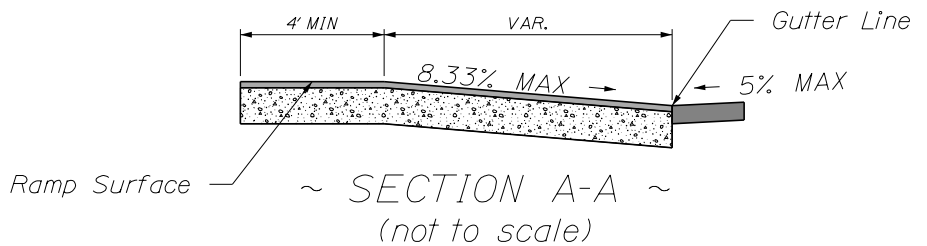
~ PLAN VIEW ~
(not to scale)

Notes:

- This less desirable design should not be used unless required by design constraints. It may not provide adequate curb reveal. Use Option 1 when possible.
- No vehicular access shall be permitted through the radius curb.
- A minimum curb reveal of 3" is required at the apex of the curb radius.
- Minimum terminal curb length shall be 4ft.
- To achieve 8.33% running slope, the pedestrian ramp may need to be extended. If the ramp length has been extended to a maximum of 15 feet and other design modifications have been considered, running slope may exceed 8.33%.



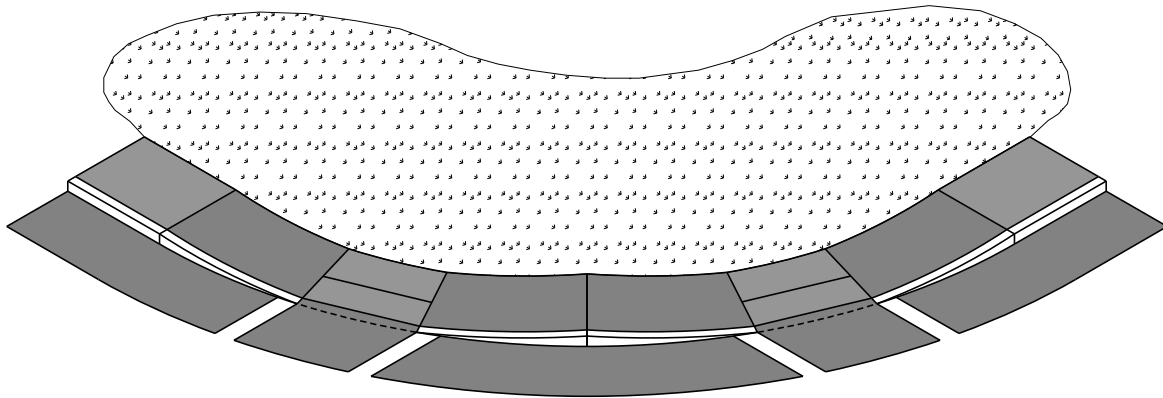
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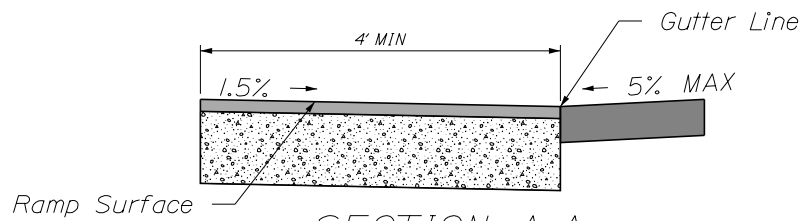
Notes:

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- No vehicular access shall be permitted through the radius curb.
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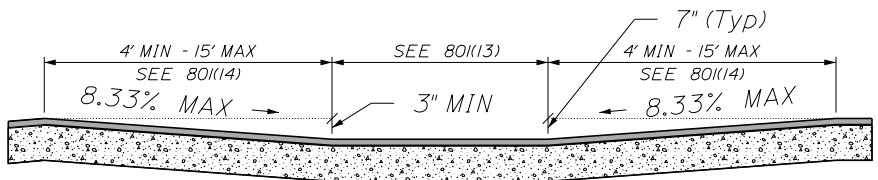
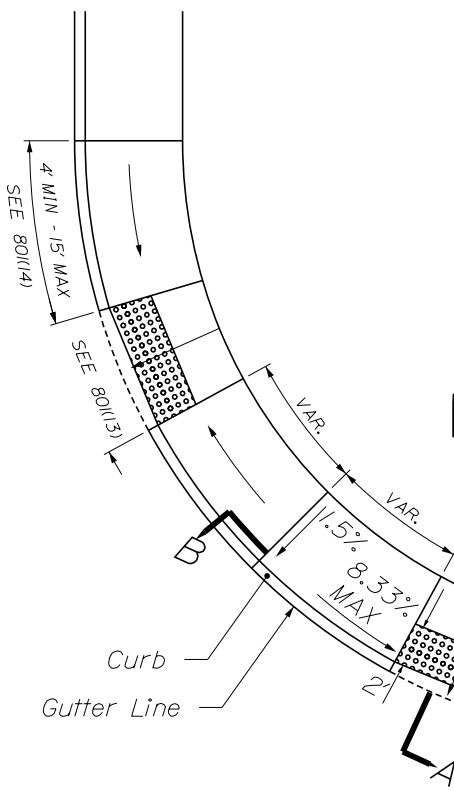
PERPENDICULAR CURB RAMP - OPTION 2A
80(18)



~ ISOMETRIC VIEW ~
(not to scale)



~ SECTION A-A ~
(not to scale)



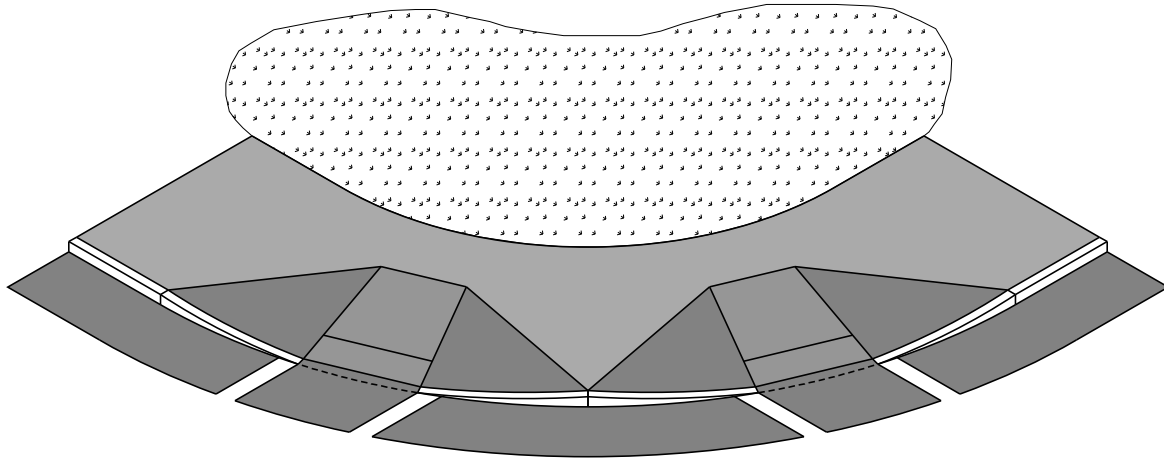
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~ PLAN VIEW ~
(not to scale)

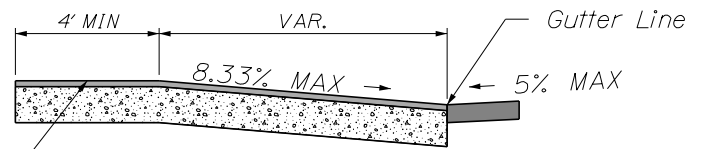
Notes:

- This less desirable design should not be used unless required by design constraints. It may not provide adequate curb reveal. Use Option 1 when possible.
- No vehicular access shall be permitted through the radius curb.
- A minimum curb reveal of 3" is required at the apex of the curb radius.
- Minimum terminal curb length shall be 4ft.
- To achieve 8.33% running slope, the pedestrian ramp may need to be extended. If the ramp length has been extended to a maximum of 15 feet and other design modifications have been considered, running slope may exceed 8.33%.

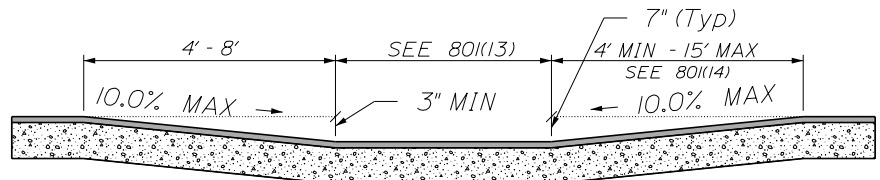
PARALLEL CURB RAMP - OPTION 2B
80(19)



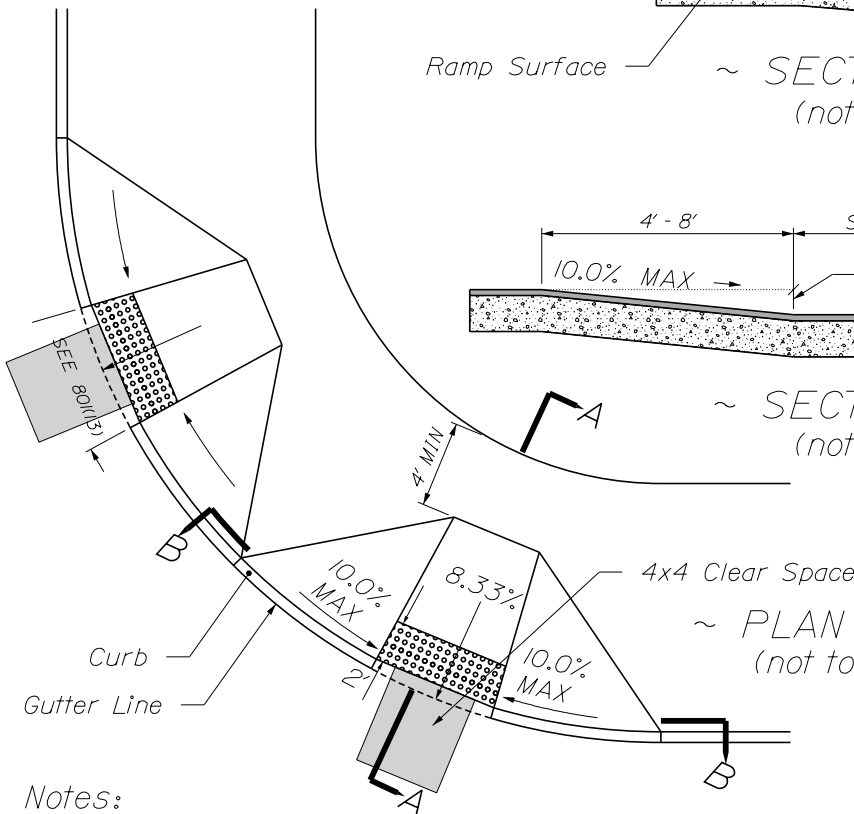
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~ SECTION A-A ~
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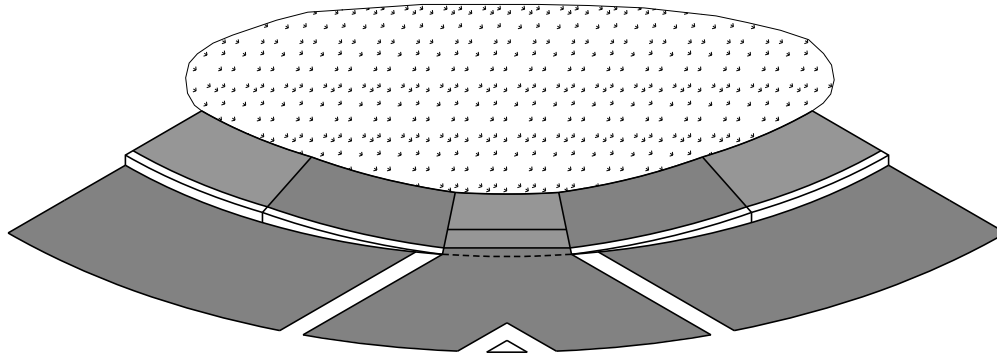
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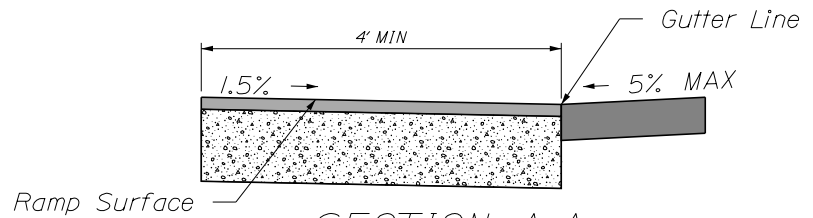
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Notes:

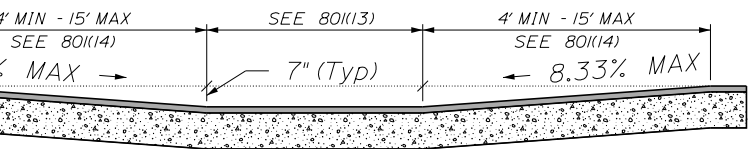
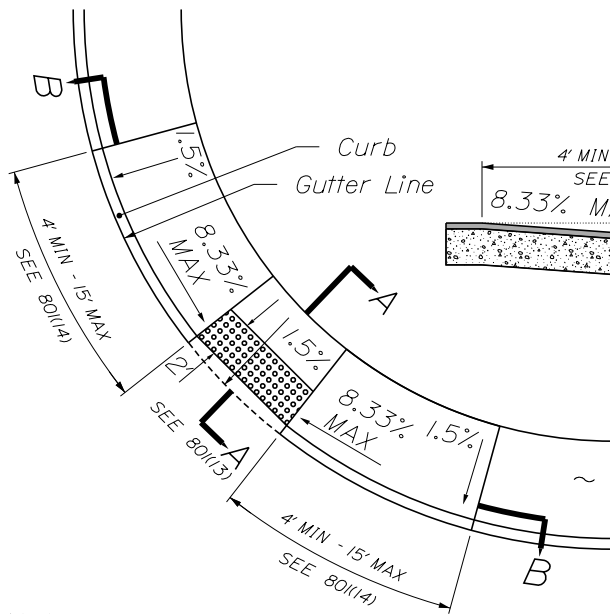
- This less desirable design should not be used unless required by design constraints. It may not provide adequate curb reveal. Use Option 1 when possible.
- No vehicular access shall be permitted through the radius curb.
- A minimum curb reveal of 3" is required at the apex of the curb radius.
- Minimum terminal curb length shall be 4ft.



~ ISOMETRIC VIEW ~
(not to scale)



~ SECTION A-A ~
(not to scale)



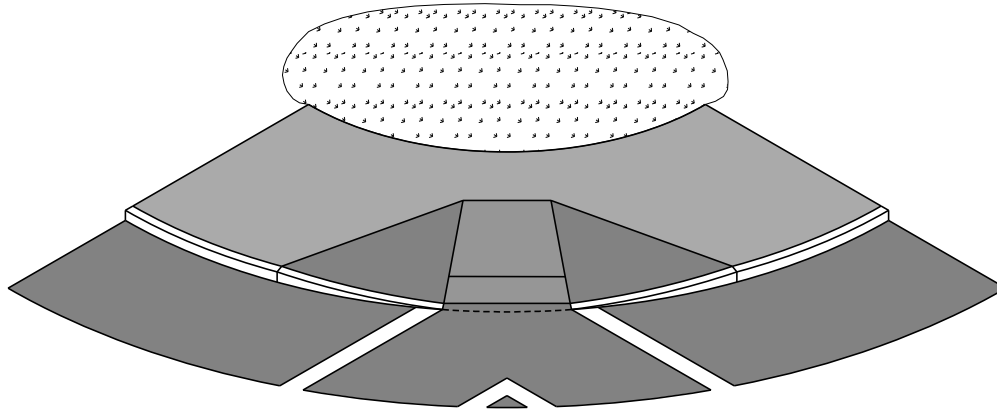
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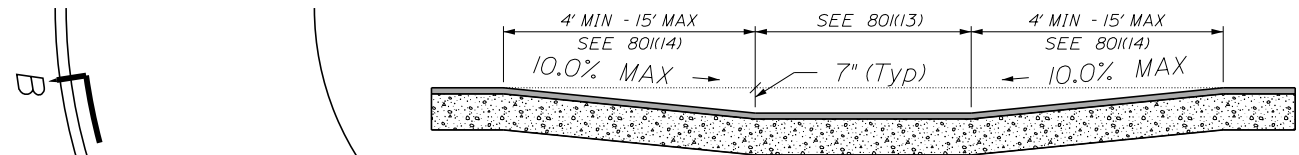
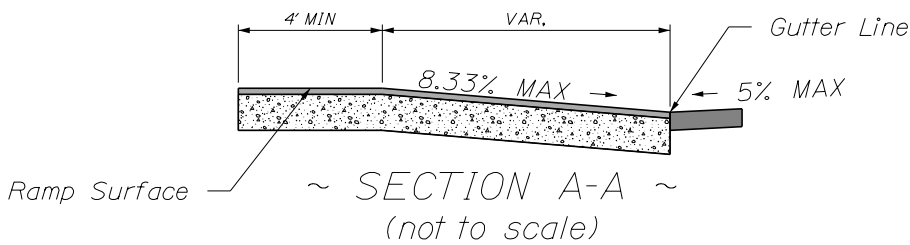
Notes:

- This less desirable design should not be used unless required by design constraints. It does not provide directional cues. Use Option 1 or Option 2 when possible.
- No vehicular access shall be permitted through the curb radius.
- To achieve 8.33% running slope, the pedestrian ramp may need to be extended. If the ramp length has been extended to a maximum of 15 feet and other design modifications have been considered, running slope may exceed 8.33%.

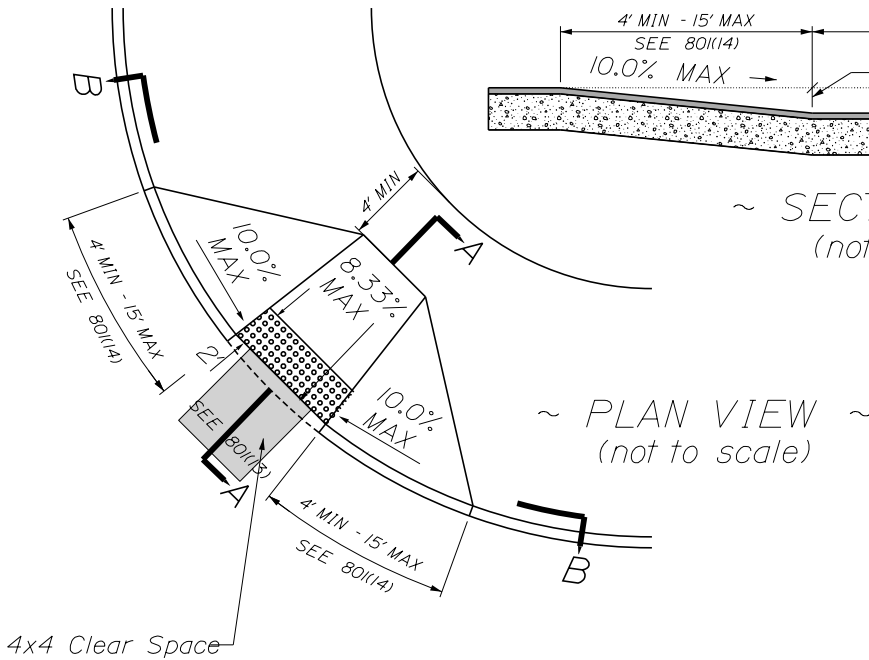
PARALLEL CURB RAMP - OPTION 3
80(21)



~ ISOMETRIC VIEW ~
(not to scale)



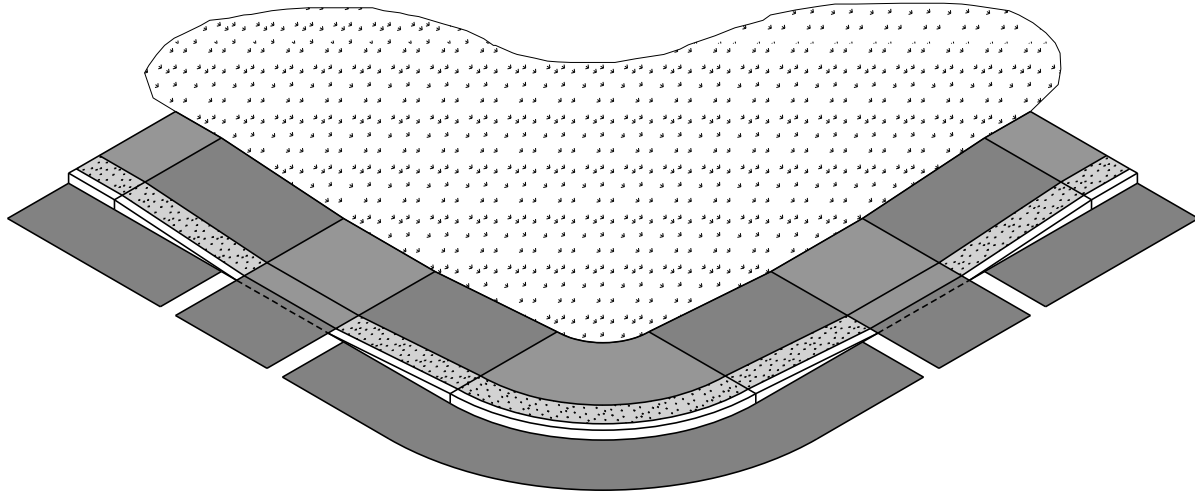
~ SECTION B-B ~
(not to scale)



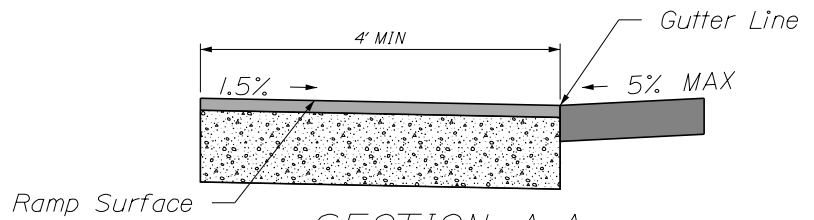
Notes:

- This less desirable design should not be used unless required by design constraints. It does not provide directional cues. Use Option 1 or Option 2 when possible.
- No vehicular access shall be permitted through the curb radius.

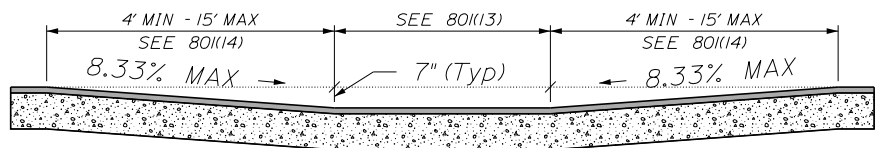
PERPENDICULAR CURB RAMP - OPTION 3
80K(22)



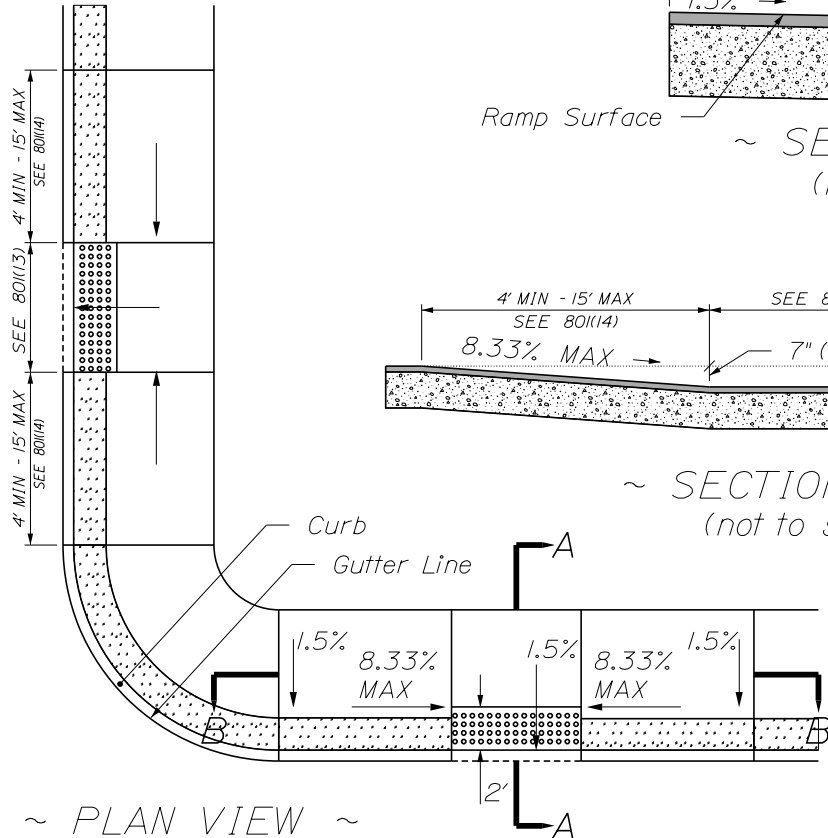
~ ISOMETRIC VIEW ~
(not to scale)



~ SECTION A-A ~
(not to scale)



~ SECTION B-B ~
(not to scale)



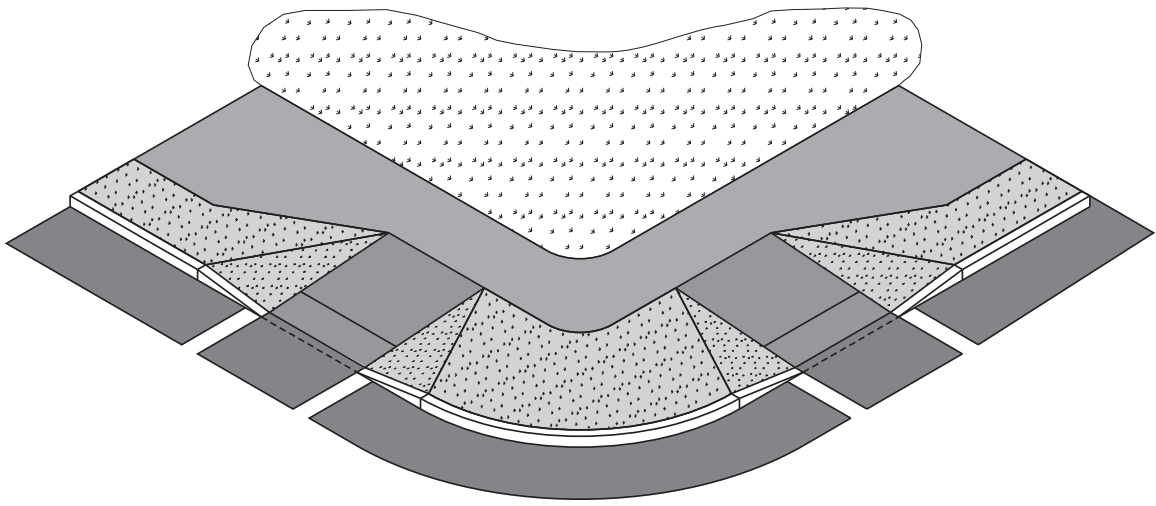
~ PLAN VIEW ~
(not to scale)

Note:

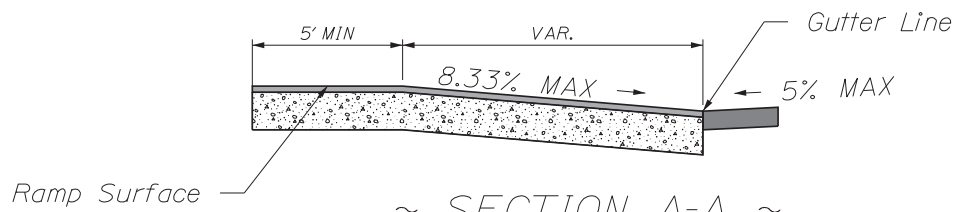
- To achieve 8.33% running slope, the pedestrian ramp may need to be extended. If the ramp length has been extended to a maximum of 15 feet and other design modifications have been considered, running slope may exceed 8.33%.

PARALLEL CURB RAMP - ESPLANADE

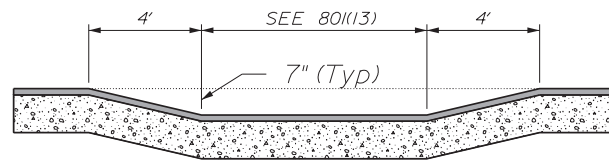
80I(23)



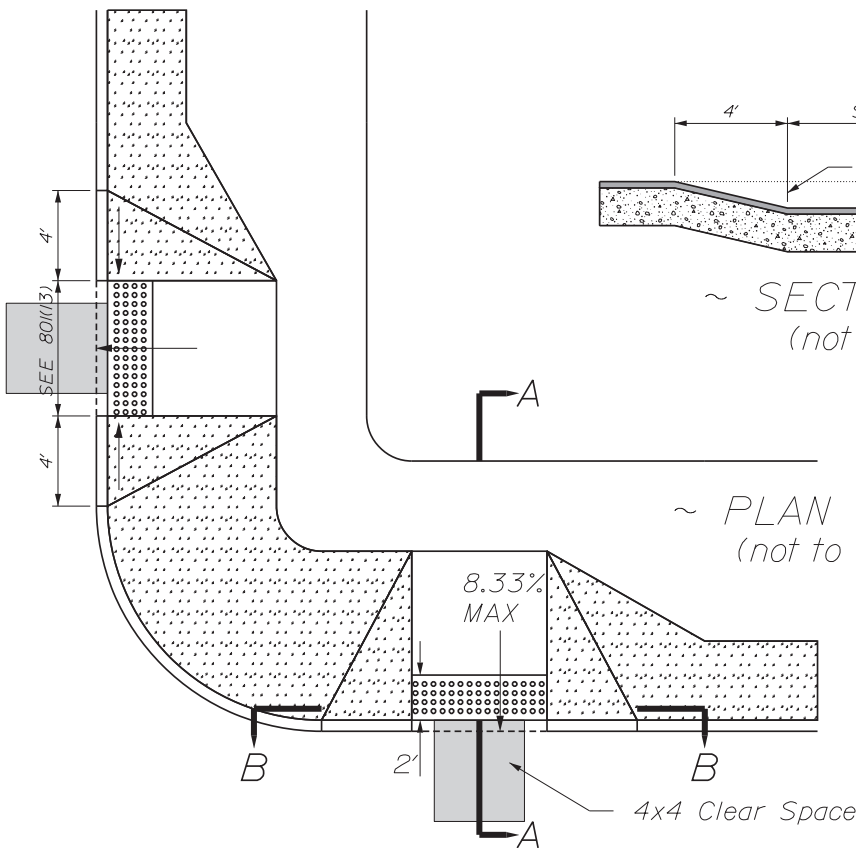
~ ISOMETRIC VIEW ~
(not to scale)



~ SECTION A-A ~
(not to scale)

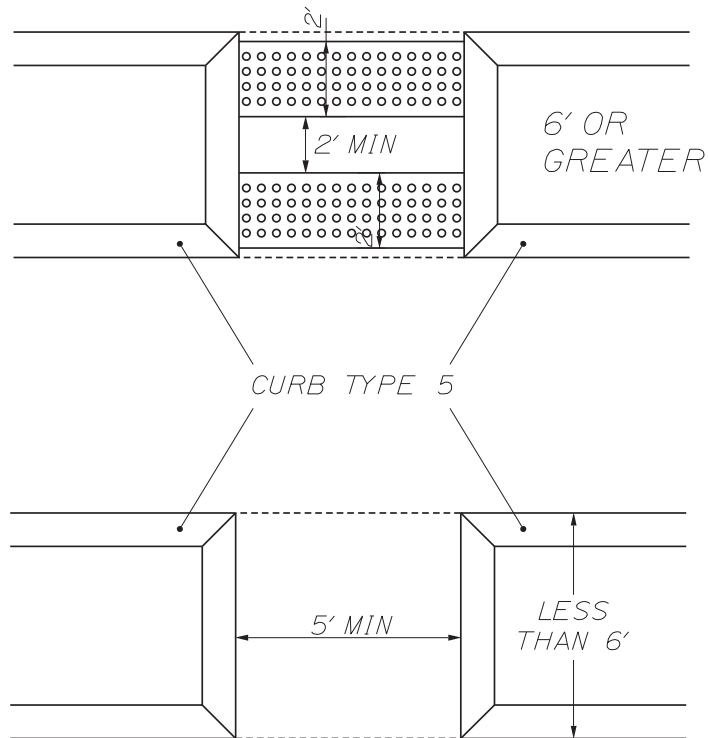
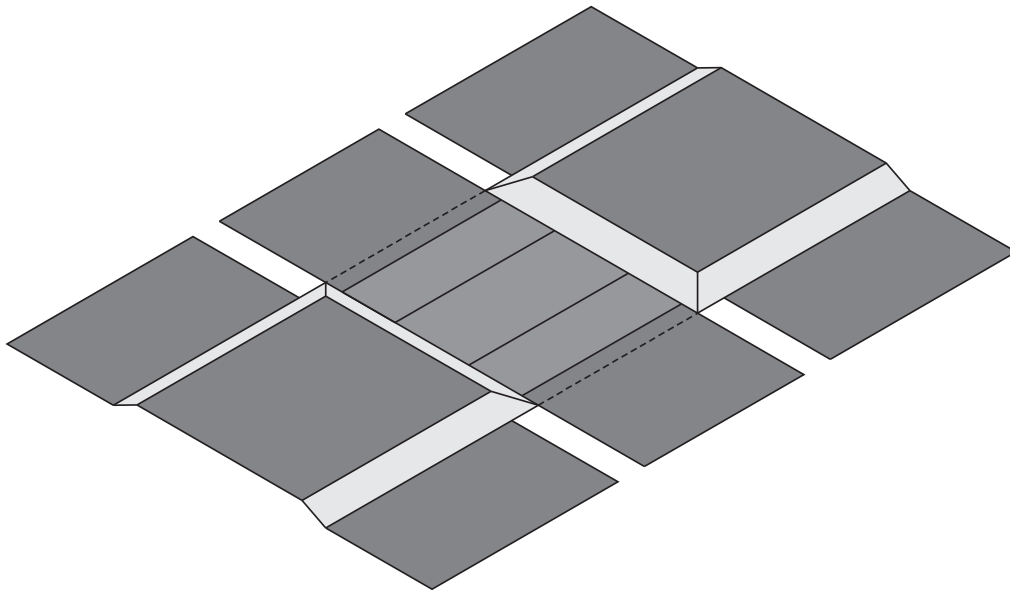


~ SECTION B-B ~
(not to scale)



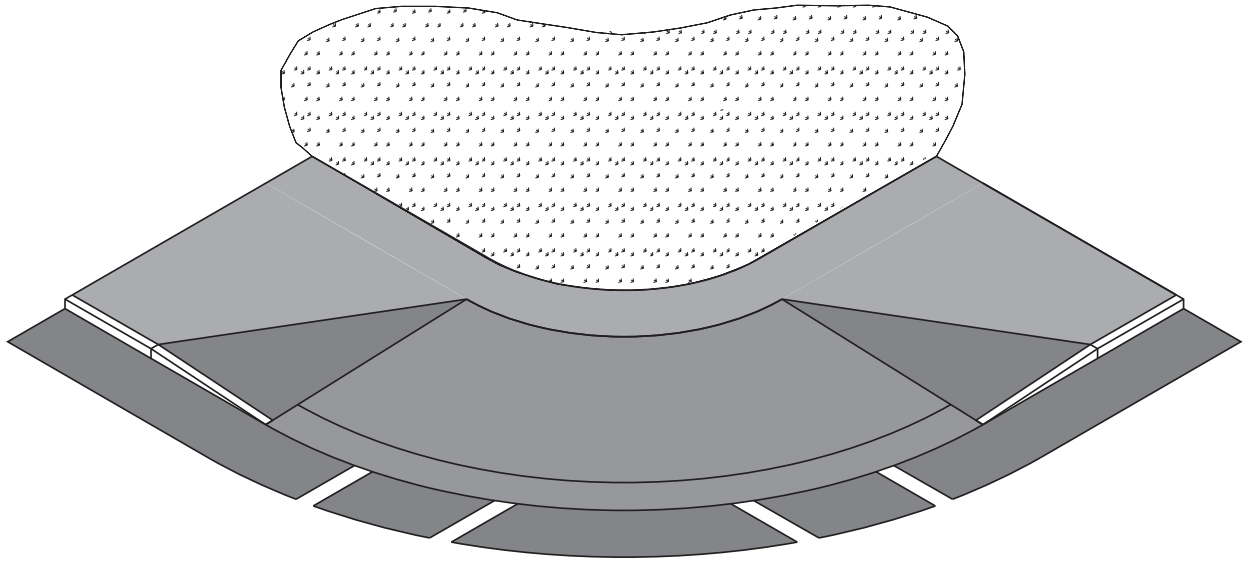
~ PLAN VIEW ~
(not to scale)

PERPENDICULAR CURB RAMP - ESPLANADE
80(24)

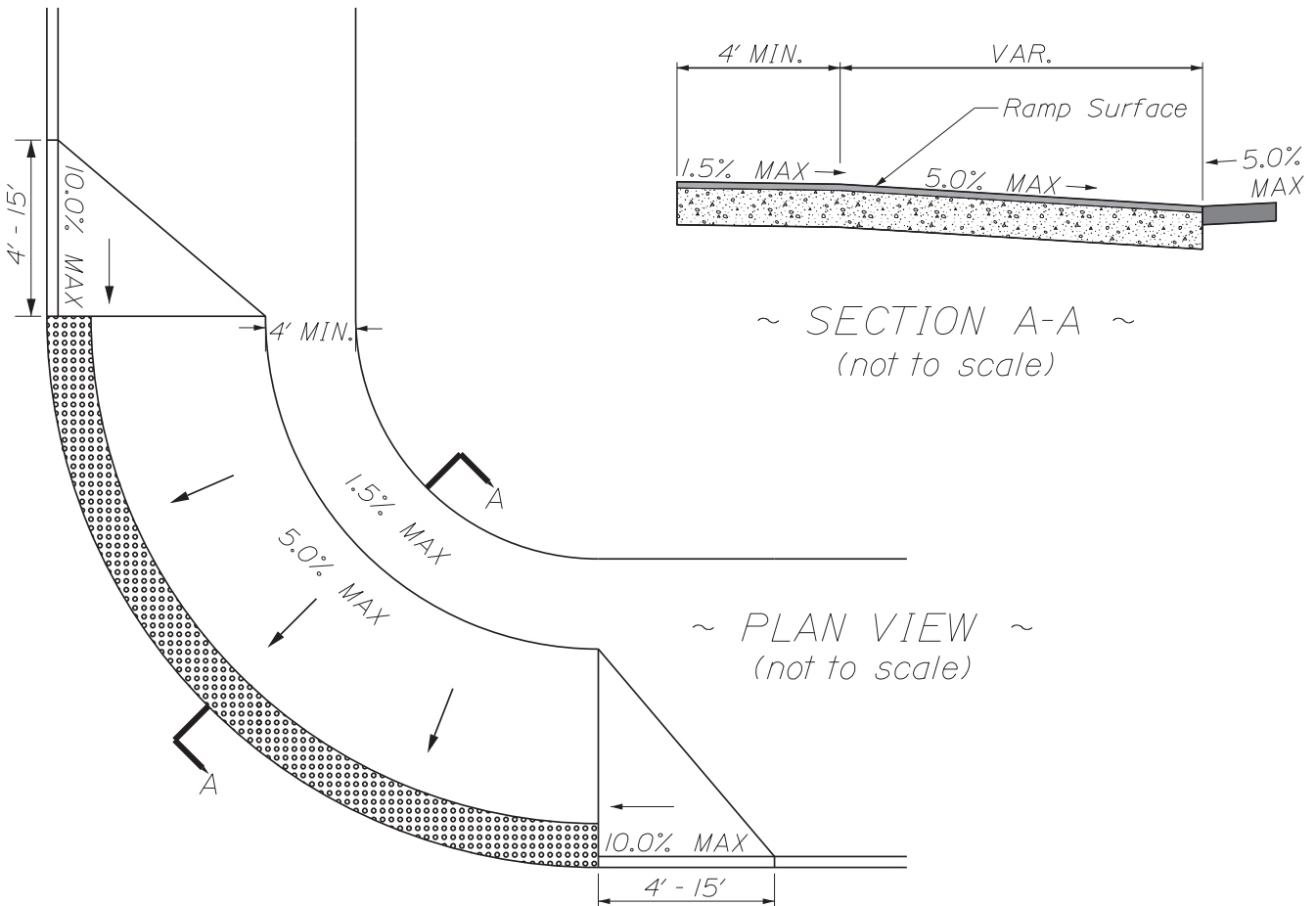


Note:
 - Omit Detectable Warnings if minimum of 2'-0" between Detectable Warnings cannot be met.

ISLAND CROSSINGS
 80(25)



~ ISOMETRIC VIEW ~
(not to scale)



~ SECTION A-A ~
(not to scale)

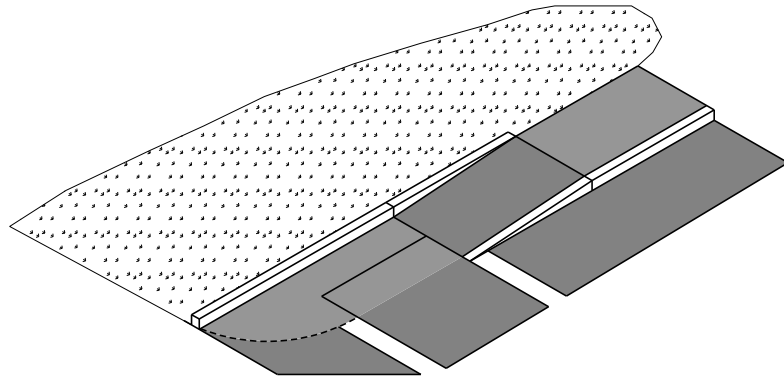
~ PLAN VIEW ~
(not to scale)

Note:

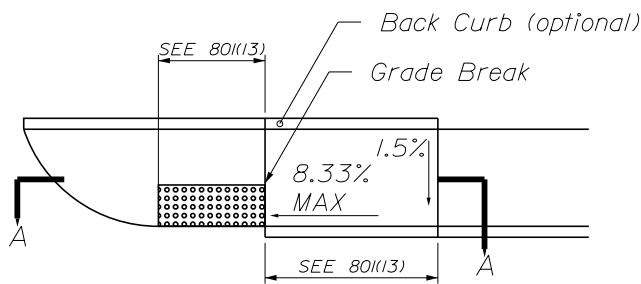
This option should only be used after all other options have been considered and deemed infeasible.

BLENDED TRANSITION

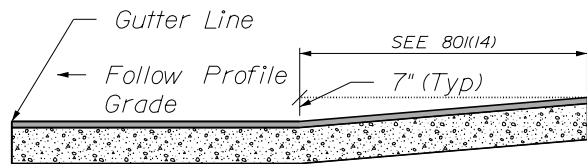
801(26)



~ PERSPECTIVE VIEW ~
(not to scale)



~ PLAN VIEW* ~
(not to scale)



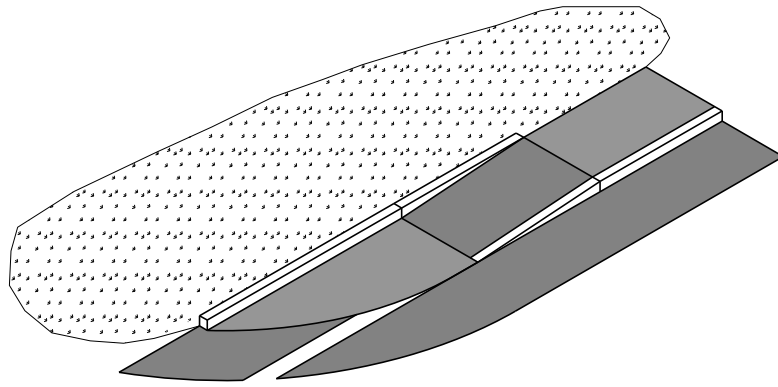
~ SECTION A-A ~
(not to scale)

Notes:

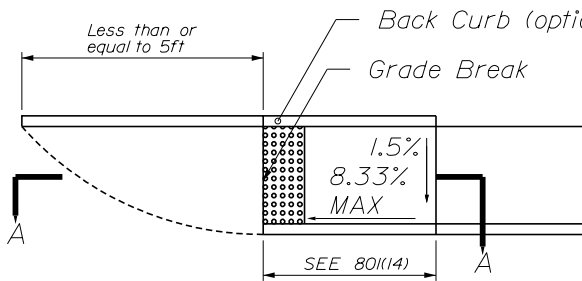
- This less desirable design should be used only when all other options have been considered and exhausted.
- For use only when no sidewalk is present at driveway/non-signalized intersection.
- To achieve 8.33% running slope, the pedestrian ramp may need to be extended. If the ramp length has been extended to a maximum of 15 feet and other design modifications have been considered, running slope may extend 8.33%.

CURB RAMP ADJACENT TO
DRIVEWAY OR ENTRANCE

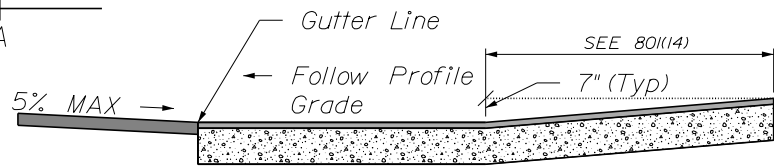
80(27)



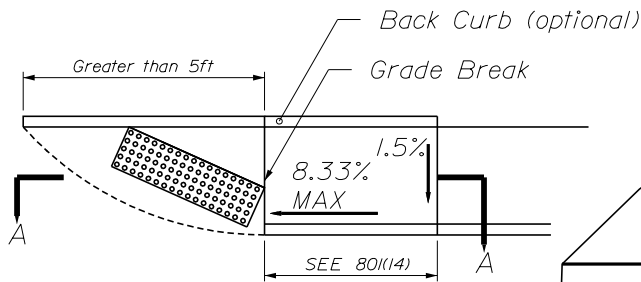
~ PERSPECTIVE VIEW ~
(not to scale)



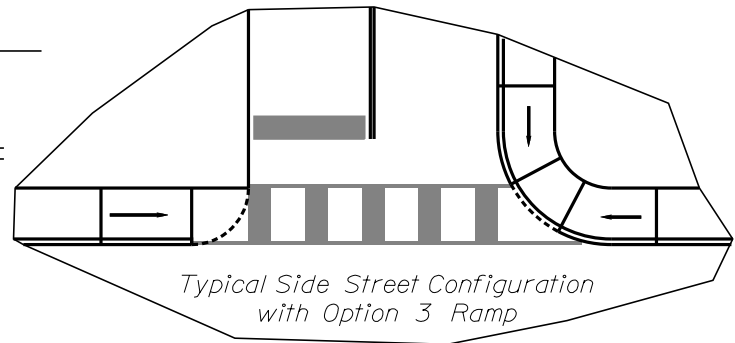
~ *PLAN VIEW* ~
(not to scale)



~ SECTION A-A ~
(not to scale)



~ **PLAN VIEW** ~
(not to scale)

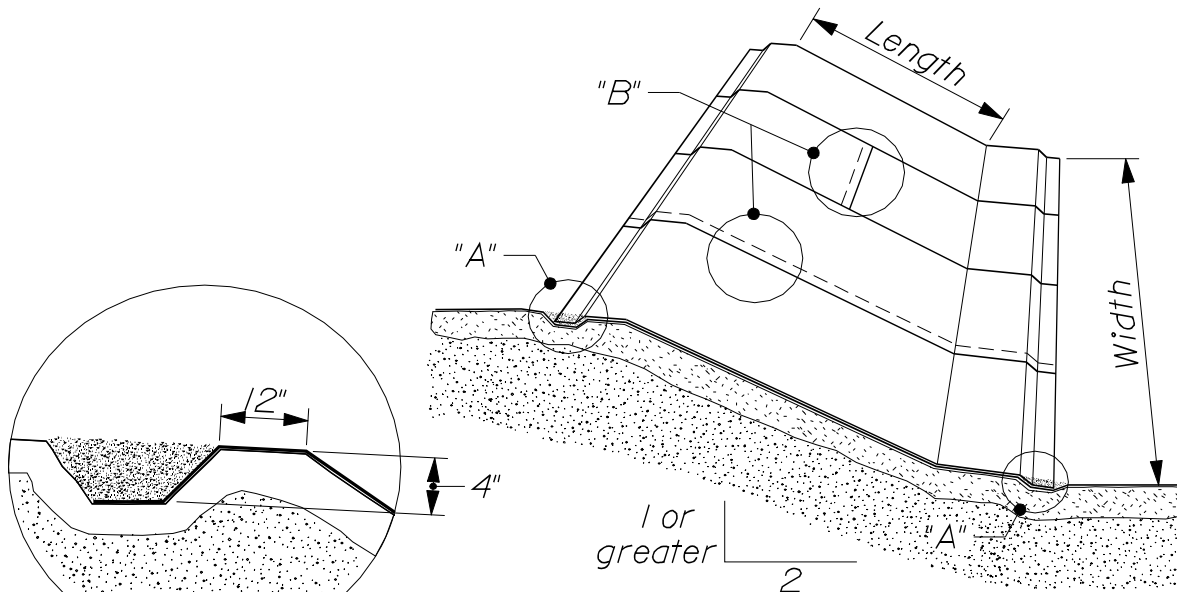


Typical Side Street Configuration
with Option 3 Ramp

Notes:

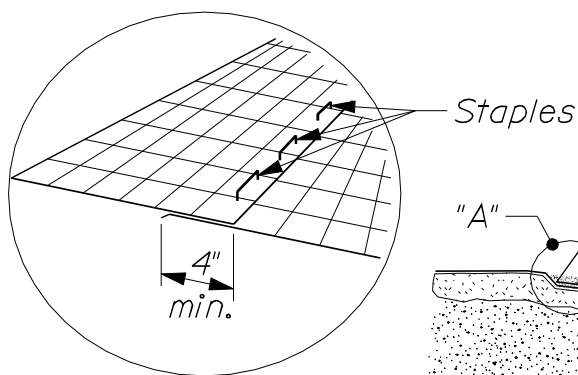
- No vehicular access shall be permitted through the curb radius.
- For use only when no sidewalk is present on the side road.
- * Use this detectable placement if the distance from the grade break to the gutterline is less than or equal to 5ft.
- ** Use this detectable placement if the distance from the grade break to the gutterline is greater than 5ft.
- To achieve 8.33% running slope, the pedestrian ramp may need to be extended. If the ramp length has been extended to a maximum of 15 feet and other design modifications have been considered, running slope may exceed 8.33%.

SIDE STREET CURB RAMP
801(28)



~ STEEP SLOPES ~

~ DETAIL "A" ~
Anchor Trench



~ DETAIL "B" ~
Lap Joint

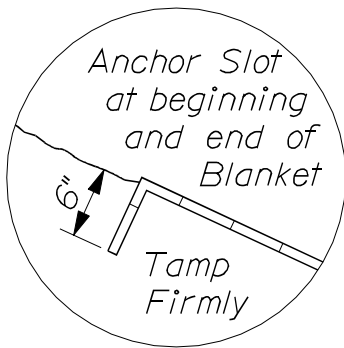
~ MODERATE SLOPES ~

NOTES:

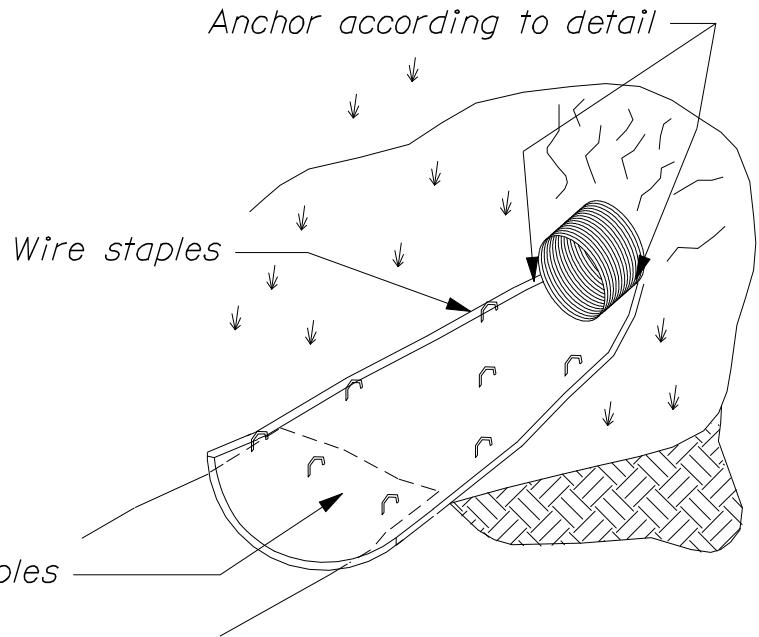
1. Width may vary depending on type of material chosen.
2. Follow Manufacturer's recommendations for anchoring blanket ends, overlaps, and staple spacing. Dimensions for these activities are to be used as a minimum.
3. Staples may be as provided or biodegradable staples according to the Qualified Products List*.
4. See section 717.061 of the MaineDOT Standard Specification or MaineDOT Qualified Products List*.
- *<http://www.maine.gov/mdot/transportation-research/qpl.php>
5. Reference the most recent version of the MaineDOT Best Management Practices for Erosion and Sedimentation Control Manual.

EROSION CONTROL BLANKET SLOPE APPLICATION

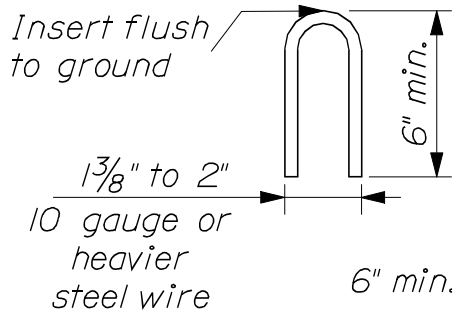
802(01)



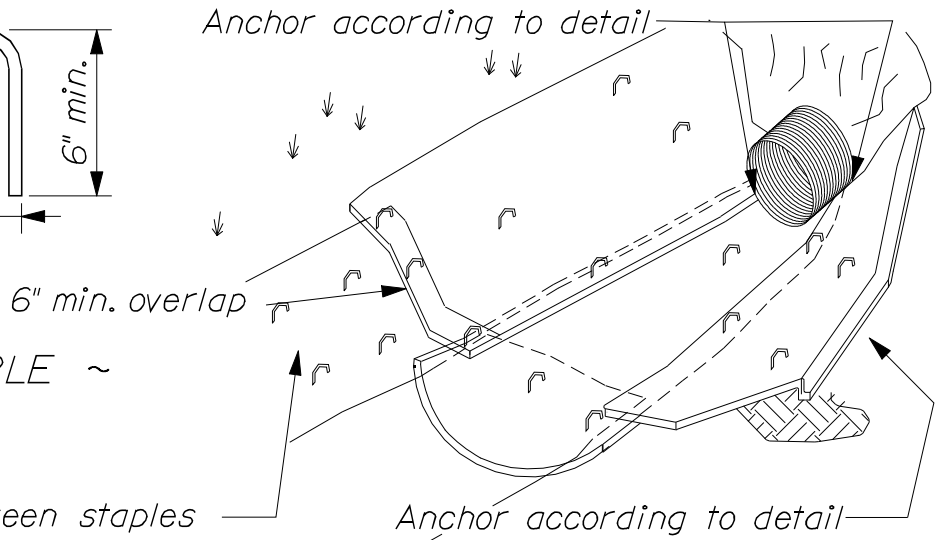
~ ANCHOR DETAIL ~



~ UNCOVERED CHANNEL SIDE SLOPES ~



~ WIRE STAPLE ~



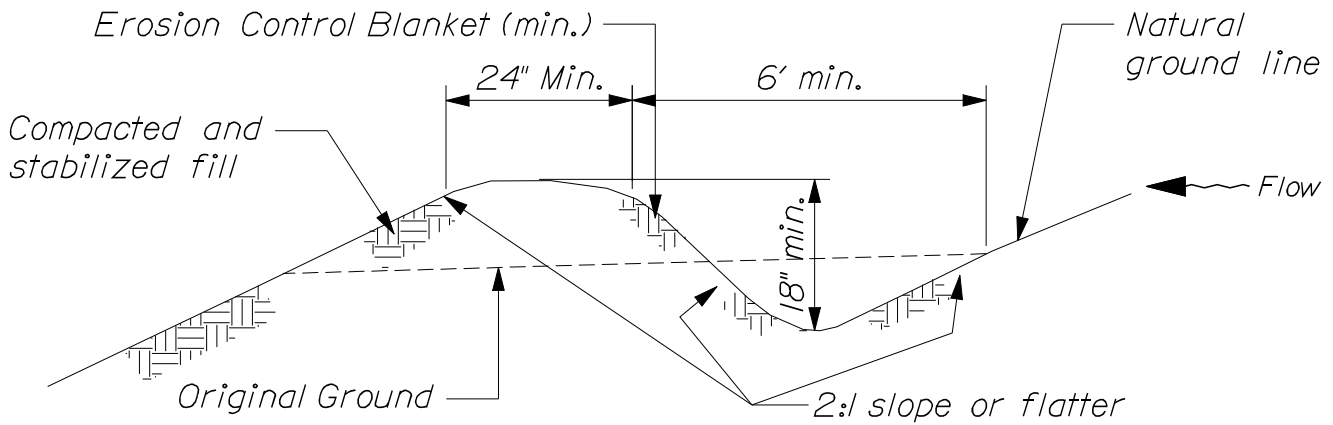
~ COVERED CHANNEL SIDE SLOPES ~

NOTES:

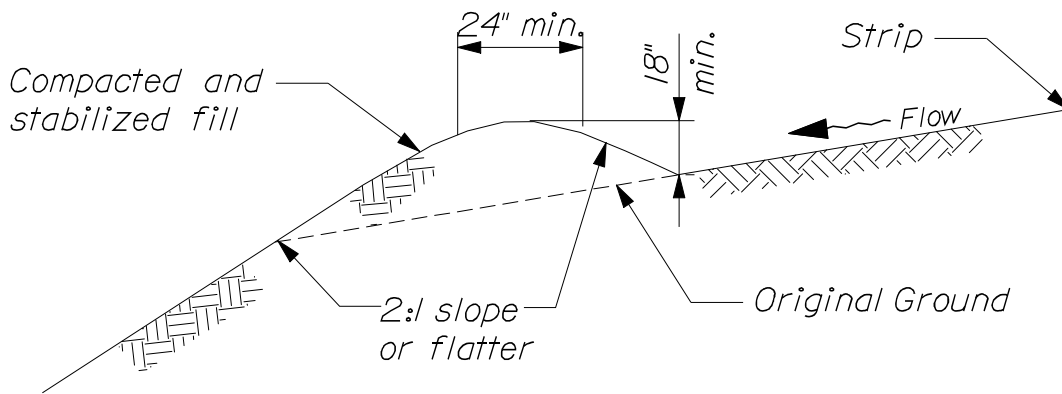
1. Width may vary depending on design flows, channel side slopes, and type of material chosen.
2. Follow Manufacturer's recommendations for anchoring blanket ends, overlaps, and staple spacing. Dimensions shown for these activities are to be used as a minimum.
3. Staples may be as provided or biodegradable staples according to the Qualified Products List*.
4. See Section 717.061 of the MaineDOT Standard Specifications or MaineDOT Qualified Products List*.
- *<http://www.maine.gov/mdot/transportation-research/qpl.php>
5. Reference the most recent version of the MaineDOT Best Management Practices for Erosion and Sedimentation Control Manual.

EROSION CONTROL BLANKET DITCH APPLICATIONS

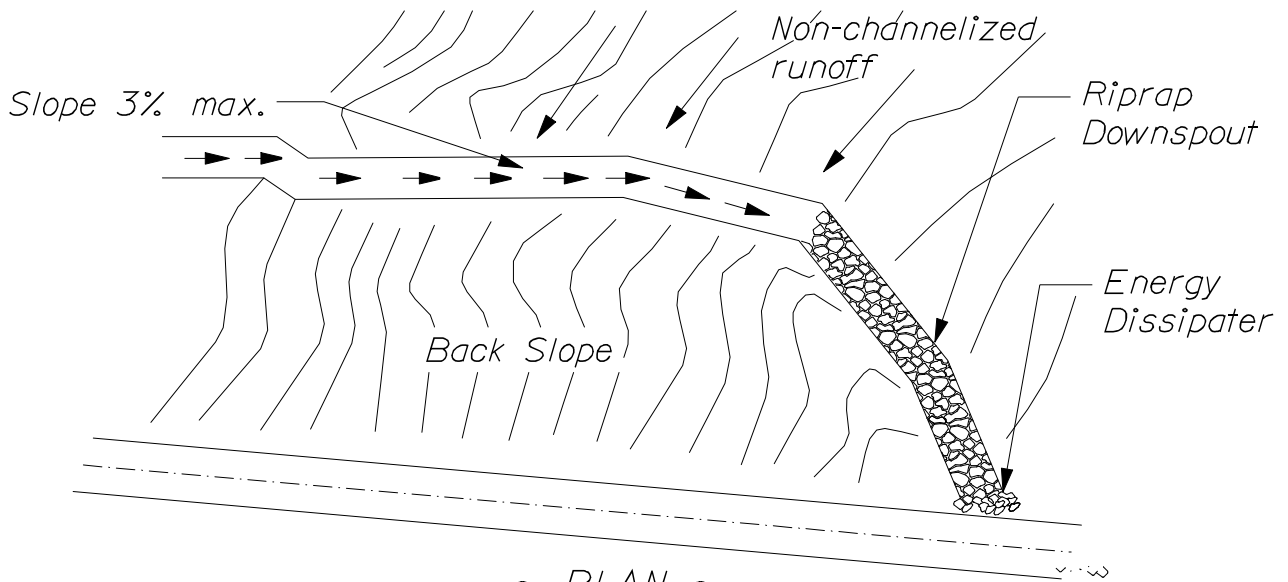
802(02)



~ EXCAVATED DIVERSION ~



~ FILL PLACED DIVERSION ~



~ PLAN ~

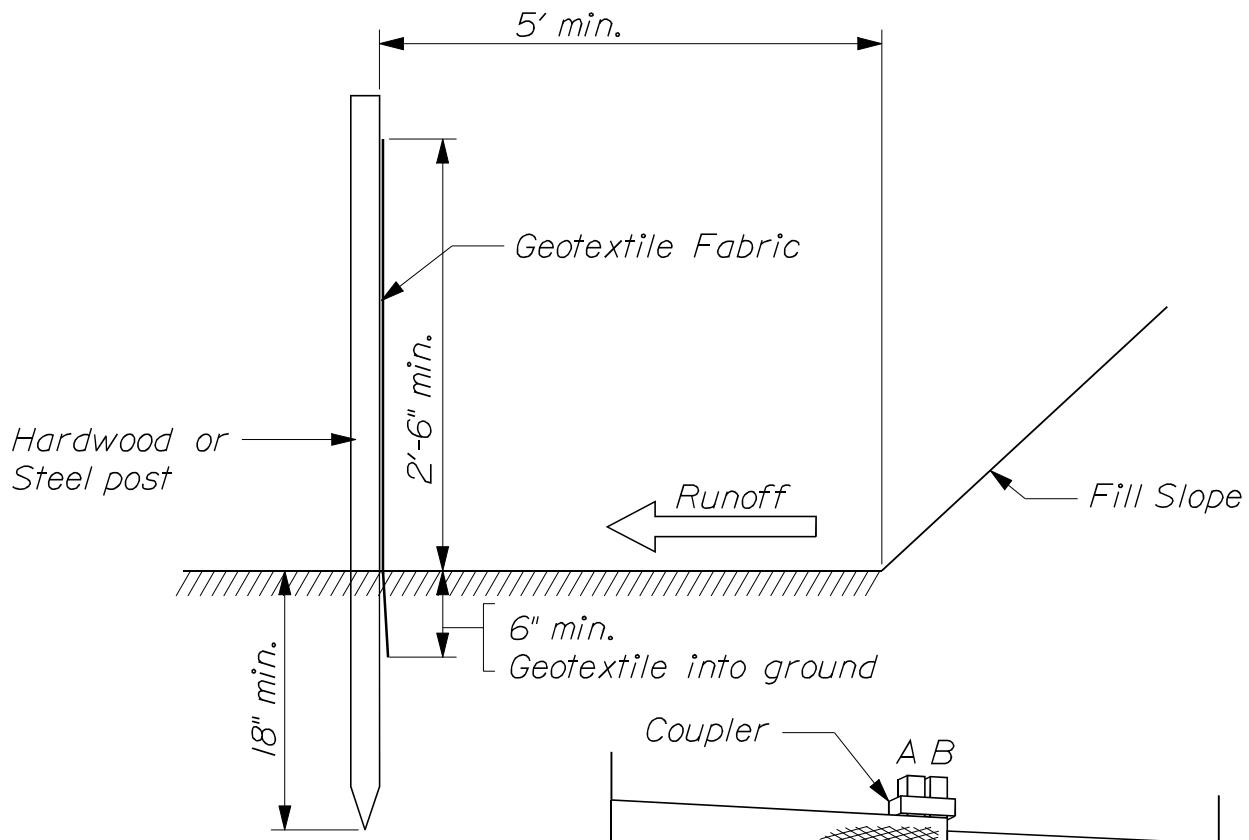
NOTES:

1. Dimensions shown are for a temporary hillside diversion; if used as a permanent practice, it must be designed by a professional engineer.

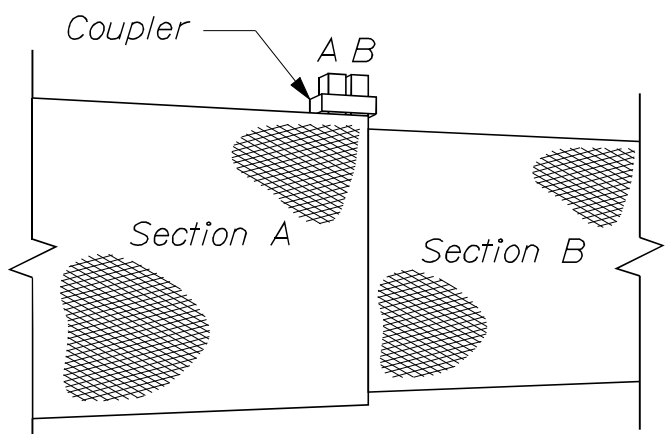
2. Reference the most recent version of the MaineDOT Best Management Practices for Erosion and Sedimentation Control Manual.

HILLSIDE DIVERSIONS

802(03)



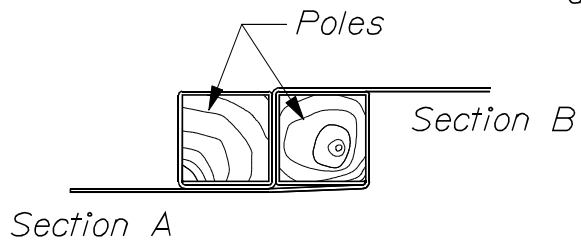
~ SIDE VIEW ~



~ JOINING SECTIONS ~

Posts may be wired together when joining sections

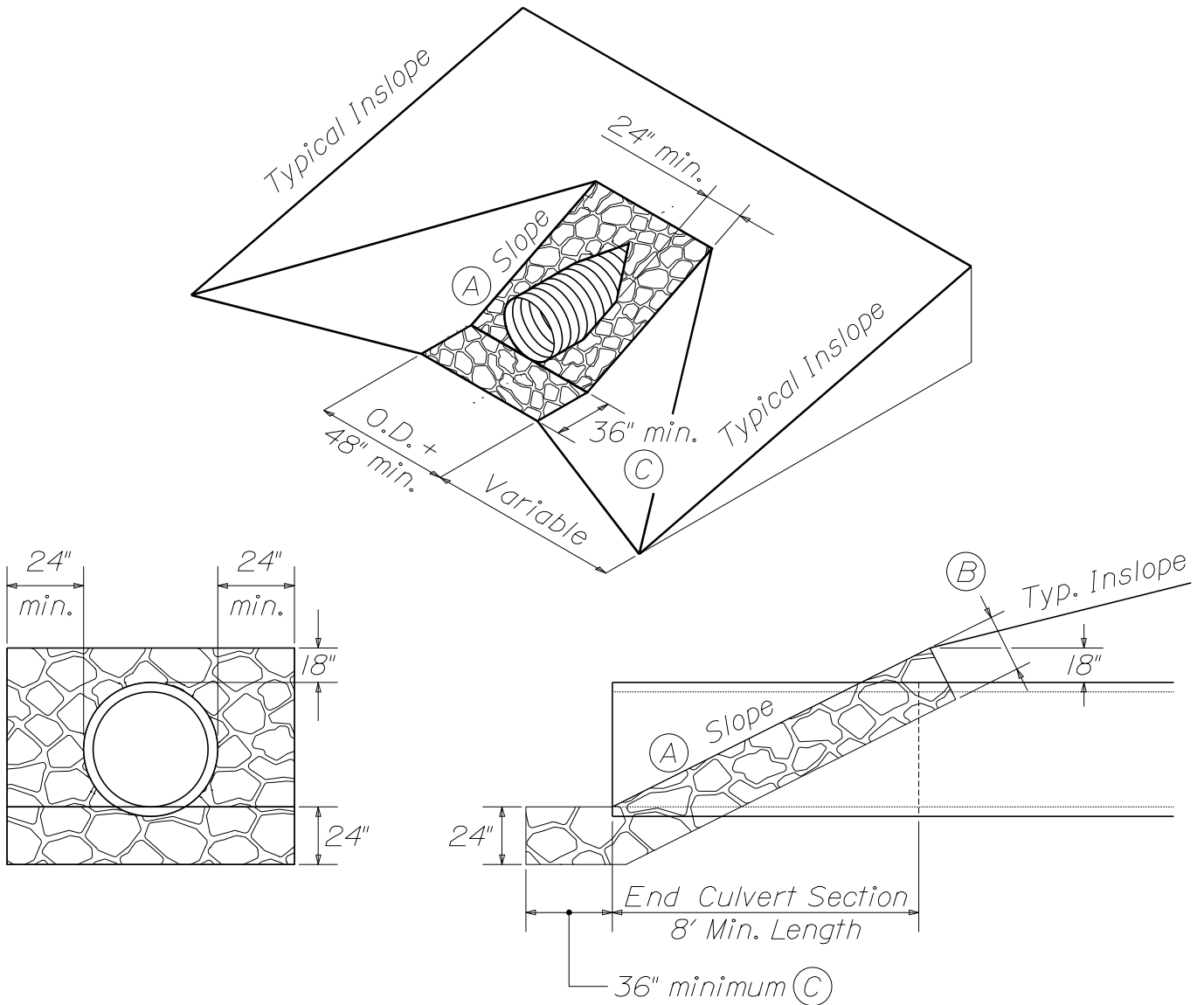
The coupler can be any acceptable device used to tie the poles together



~ TOP VIEW ~

REF:
Best Management Practices for Erosion and Sedimentation Control -
Level Spreader

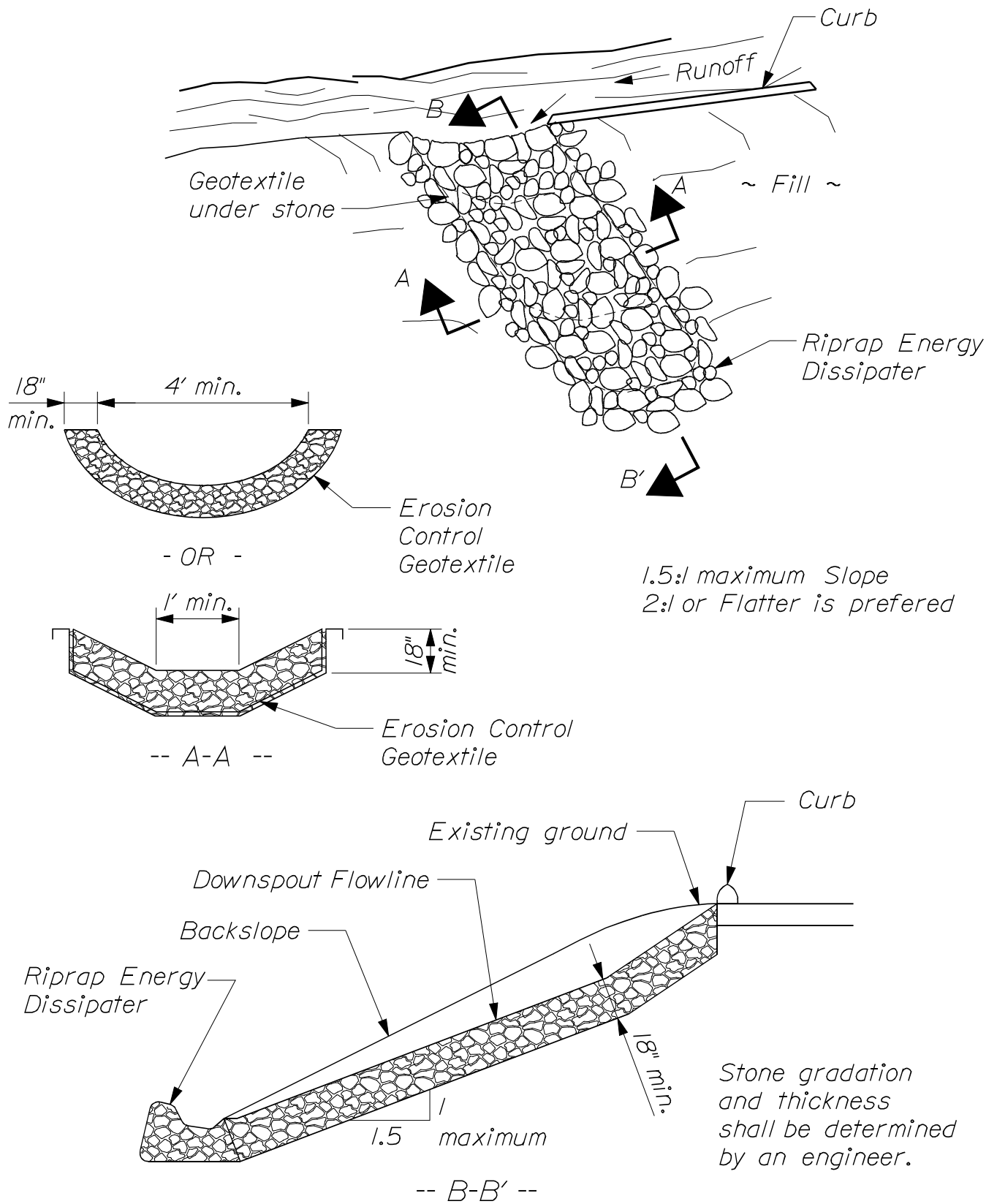
**SILT FENCE
SEDIMENT BARRIER**
802(04)



- (A) 2H:IV for culverts less than 60" diameter. 1.75H:IV for culverts 60" diameter or greater.
- (B) 24" for culverts less than 60" diameter. 36" for culverts 60" diameter or greater.
- (C) Dimensions will vary by location. Refer to Best Management Practices for Erosion and Sediment Control - Energy Dissipators for additional requirements.
- (D) Slopes within the dimensions of the culvert end treatment and any additional slopes steeper than 2H:IV shall be riprapped. Slopes steeper than 2H:IV shall be discussed with the Geotechnical Engineer.

ROADWAY CULVERT END SLOPE TREATMENT

802(05)



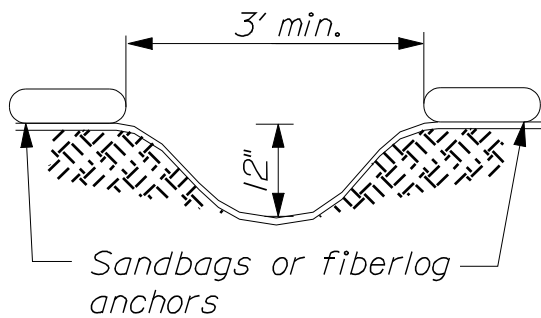
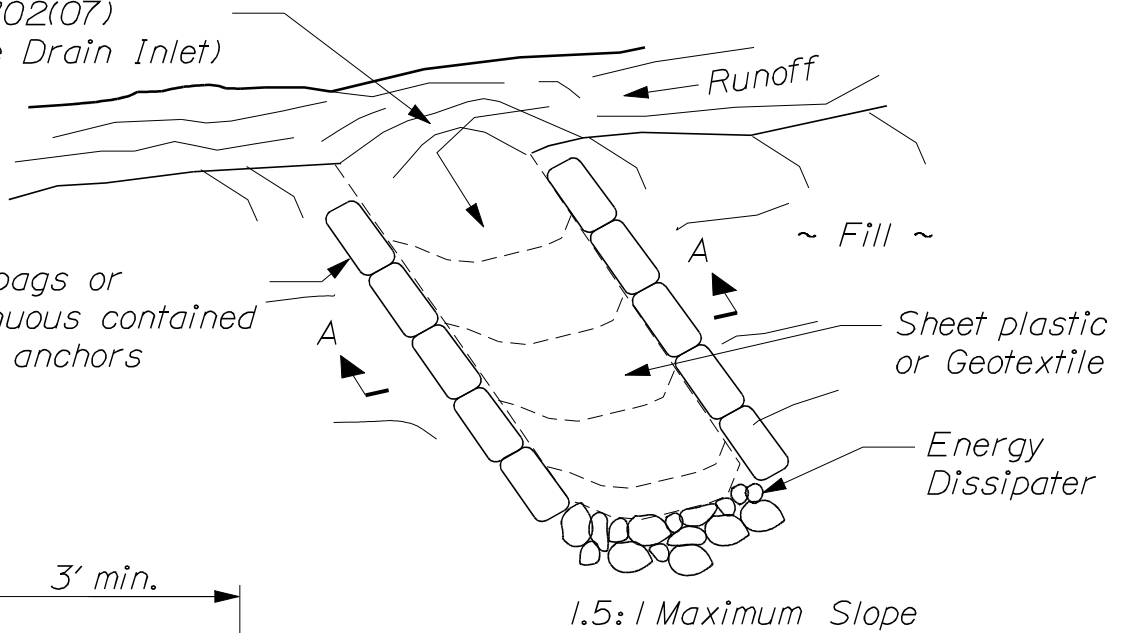
REF: Best Management Practices for Erosion and Sediment Control - Temporary Slope Drains

RIPRAP DOWNSPOUT

802(06)

See 802(07)
(Slope Drain Inlet)

Sandbags or
continuous contained
berm anchors



Sheet plastic
(4 mil minimum)

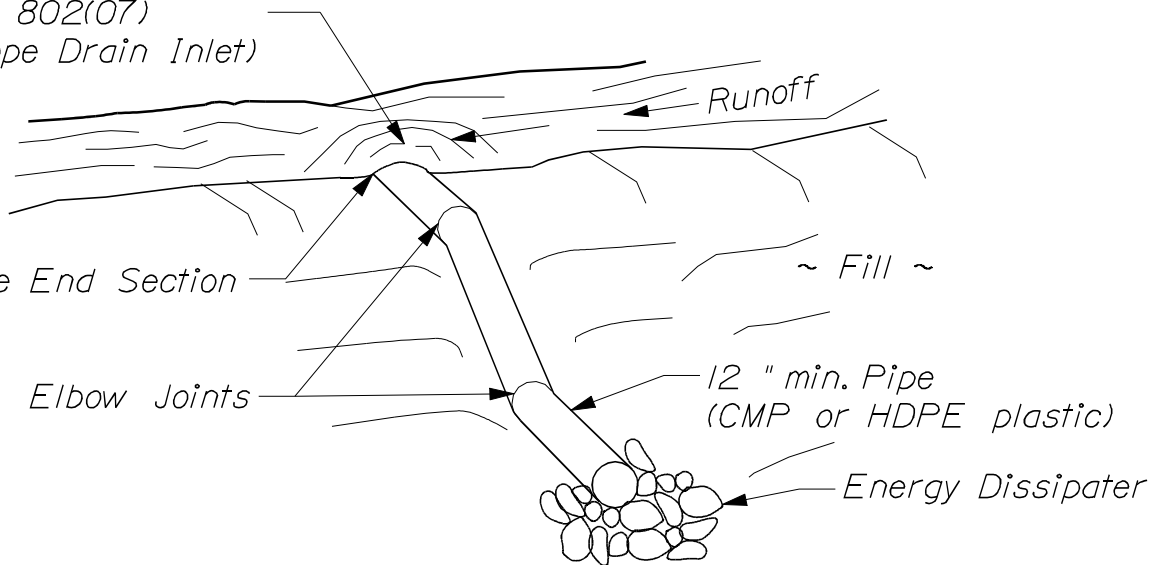
~ SHEET PLASTIC SLOPE DRAIN ~

~ SECTION A-A ~

See 802(07)
(Slope Drain Inlet)

Flared Pipe End Section

Elbow Joints

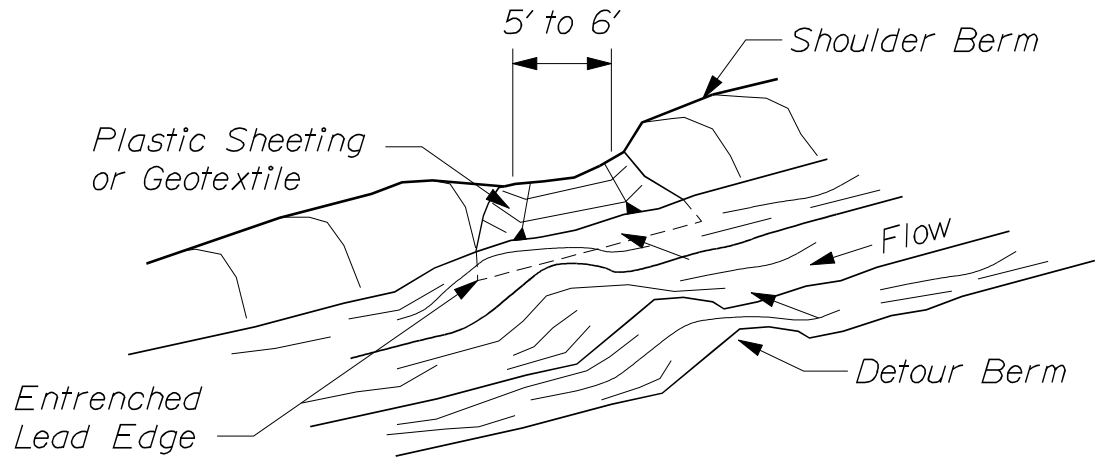
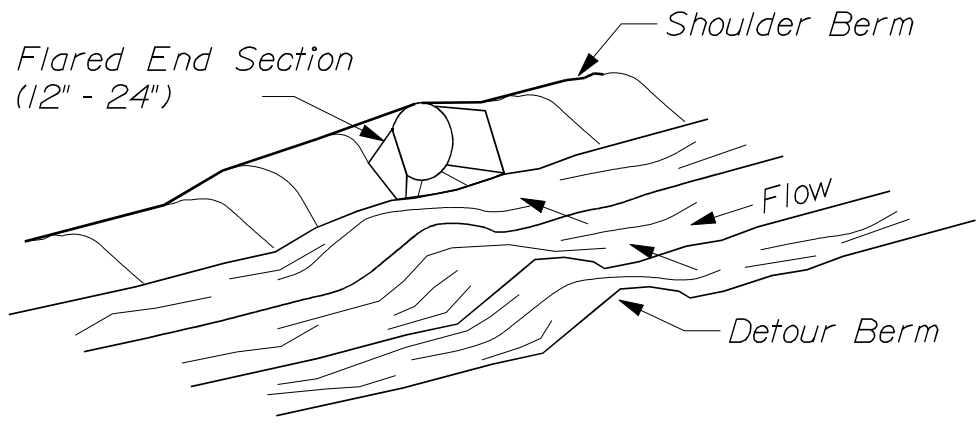


~ PIPE SLOPE DRAIN ~

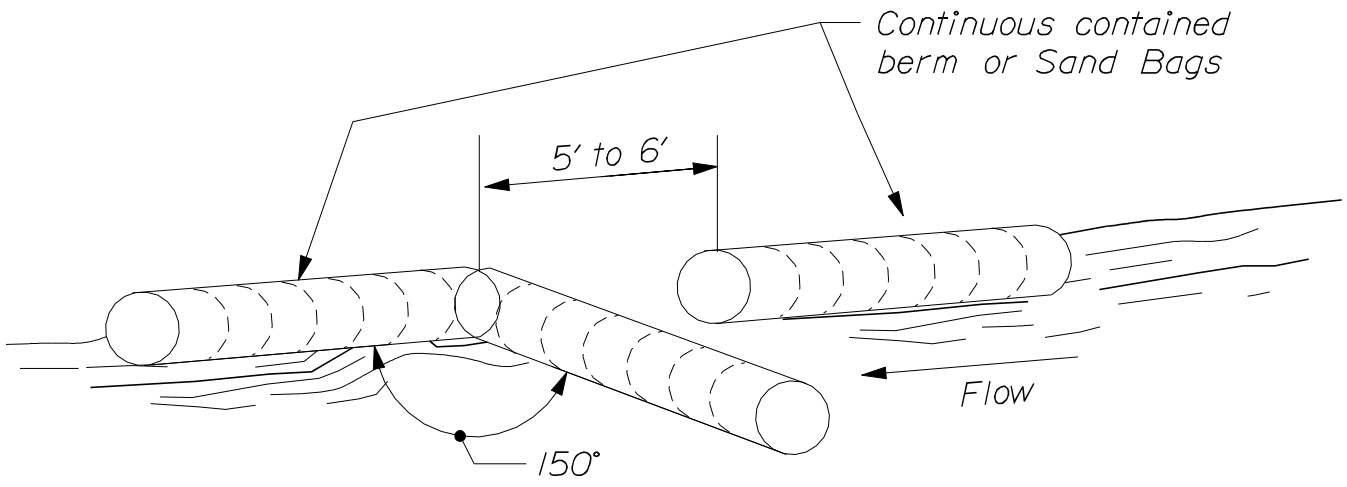
REF: Best Mngmt. Practices for Erosion and Sedimentation Control -
Temporary Slope Drains

TEMPORARY SLOPE DRAINS

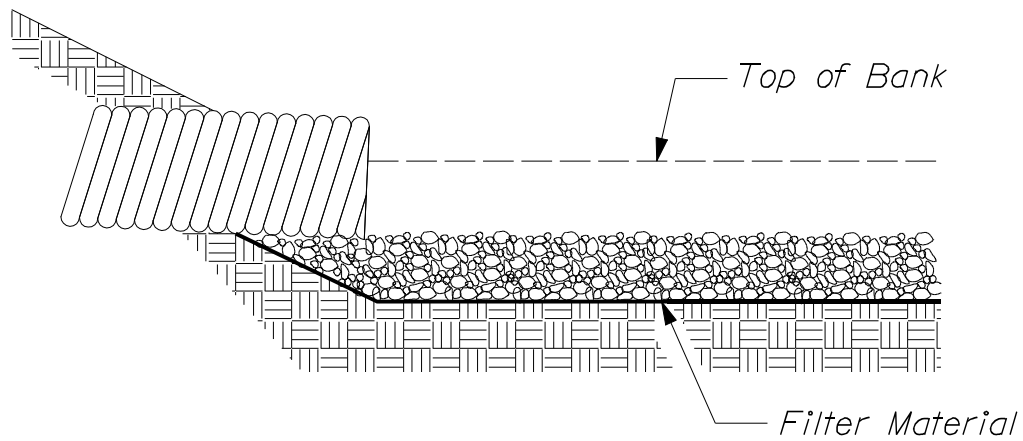
802(07)



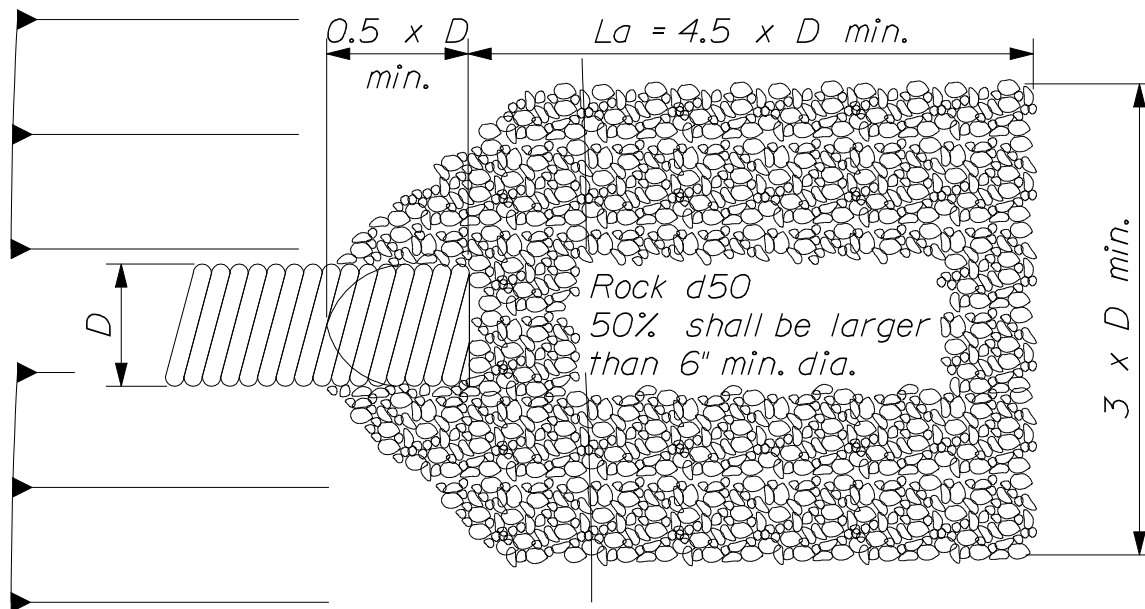
~ SLOPE DRAIN INLETS ~



REF: Best Mngmt. Practices for Erosion and Sedimentation Control - Temporary Slope Drains



~ SECTION ~

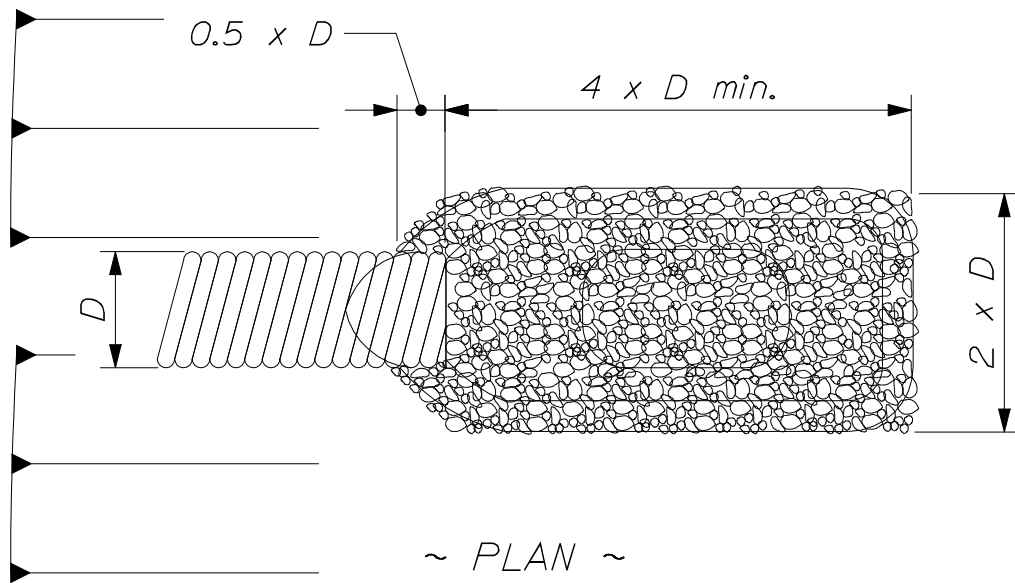
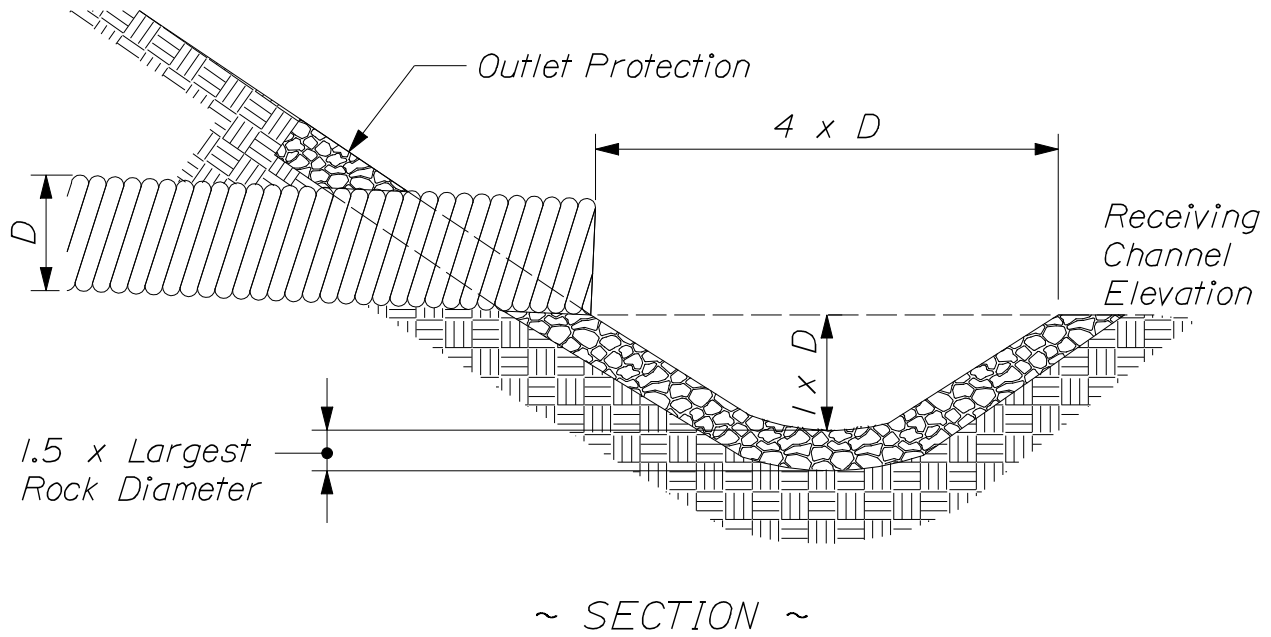


~ PLAN ~

NOTES:

1. 'La' = Length of Apron. Distance 'La' shall be of sufficient length to dissipate energy
2. Apron shall be set to a zero grade and aligned parallel to water flow.
3. Filter material shall be filter fabric or 6" thick minimum graded gravel layer.
4. Reference: Best Management Practices for Erosion and Sediment Control - Energy Dissipater Riprap Apron
5. This detail shall apply to pipe diameters of 36" or less.
6. Larger diameter pipes shall be designed by a professional engineer.
7. Reference: Riprap spec. 703.29

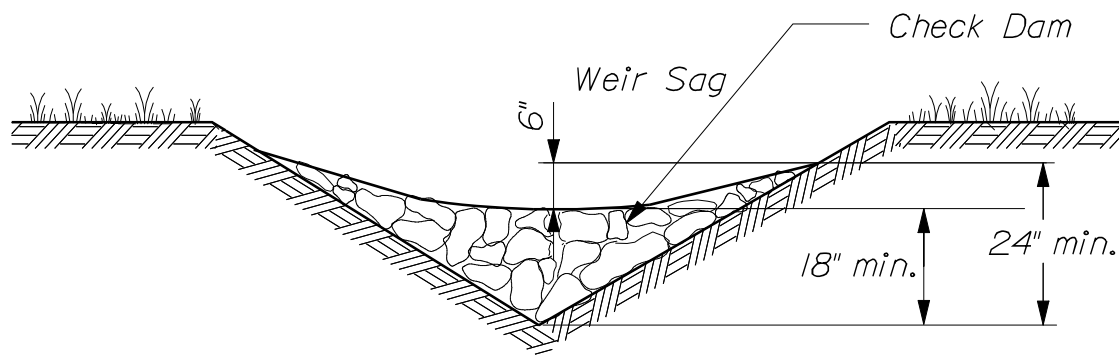
ENERGY DISSIPATER - RIPRAP APRON
802(09)



NOTES:

1. Riprap shall be underlain by gravel bedding or non-woven geotextile.
2. REF: Best Management Practices for Erosion and Sediment Control - Energy Dissipater.
3. This detail shall apply to pipe diameters of 36" or less. Plunge pools for large diameter pipes shall be designed by a professional engineer.

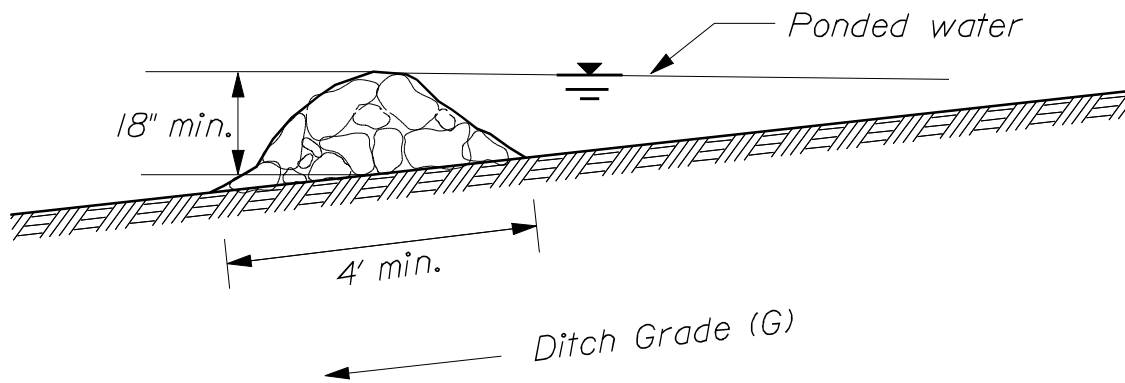
ENERGY DISSIPATER - PLUNGE POOL
802(10)



~ CROSS SECTION ~

NOTE:

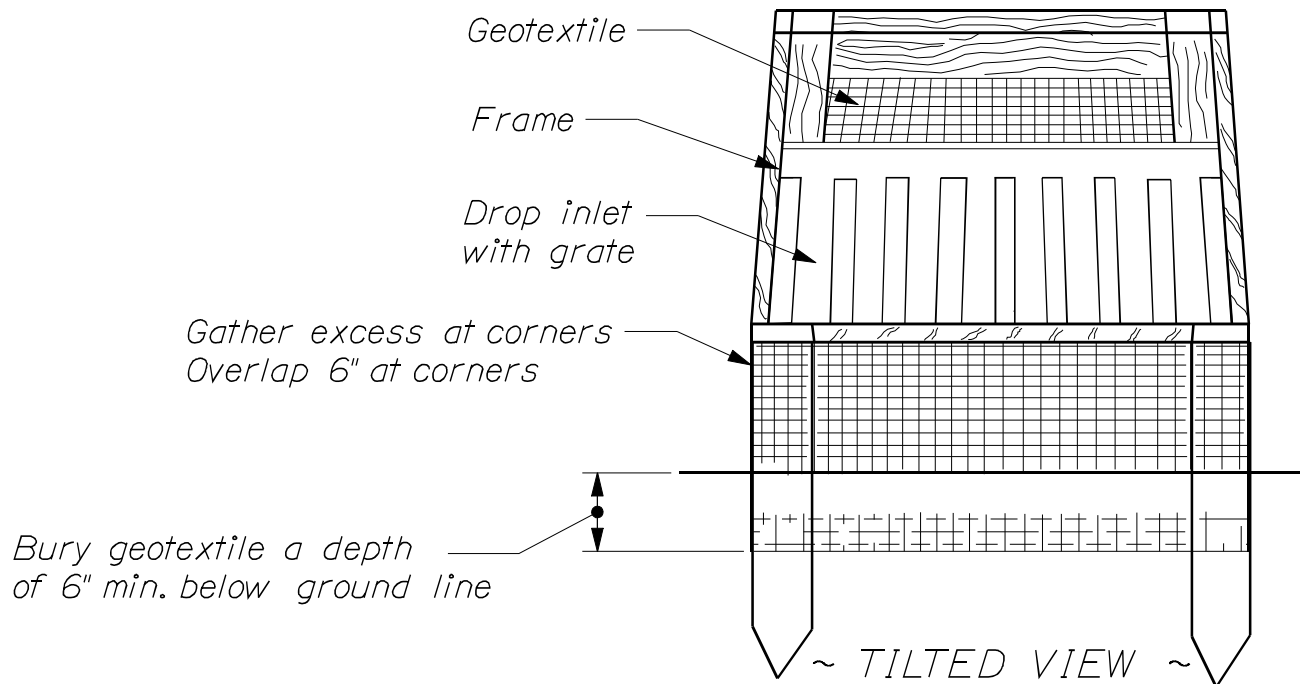
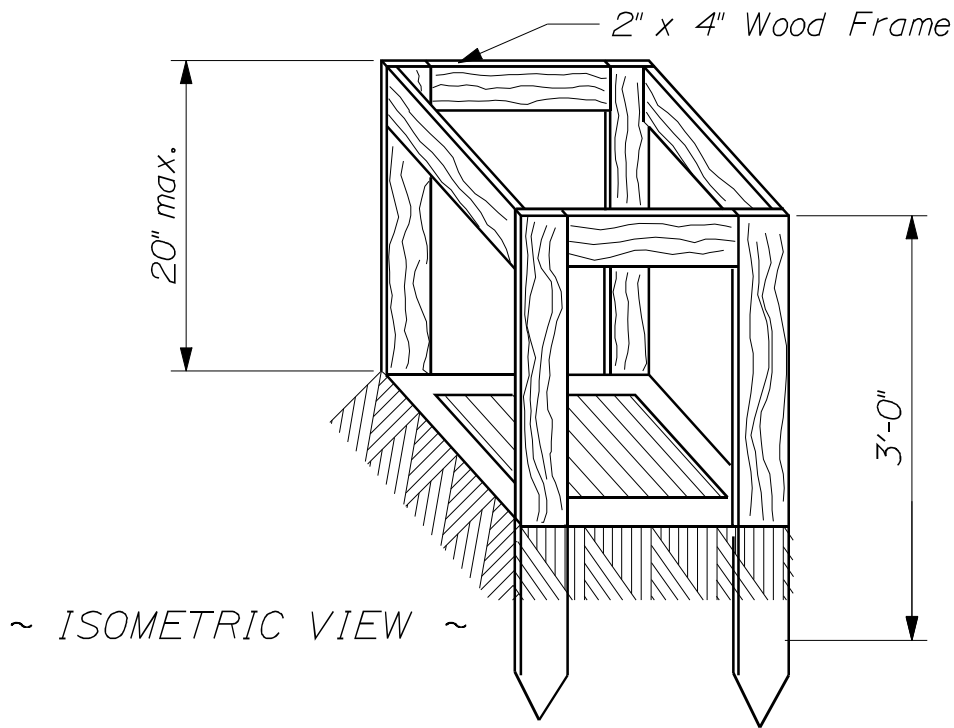
Unless specified, stone shall meet requirements of material specification 703.29 stone ditch protection.



~ PROFILE @ DITCH ~

REF: Best Management Practices for Erosion and Sedimentation Control - Check Dam

STONE CHECK DAM
802(11)

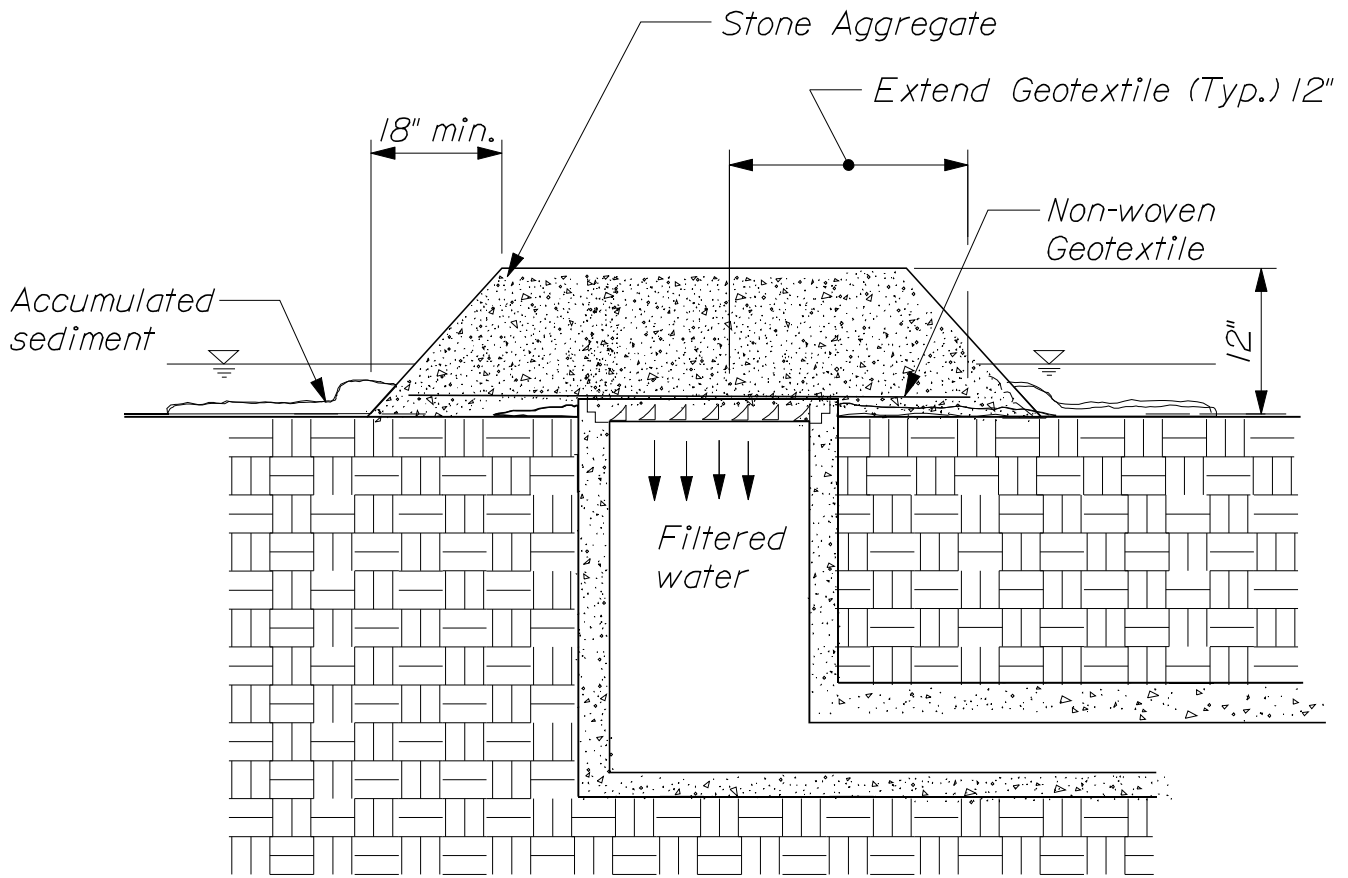


NOTE: Use Silt Fence inlet protection in sump locations only. Sheet flow less than 1 acre Drainage Area not in paved areas or with concentrated flows.

REF: Best Management Practices for Erosion and Sedimentation Control - Storm Drain Inlet Protection

SILT FENCE CB/ INLET GRATE UNIT PROTECTION

802(12)



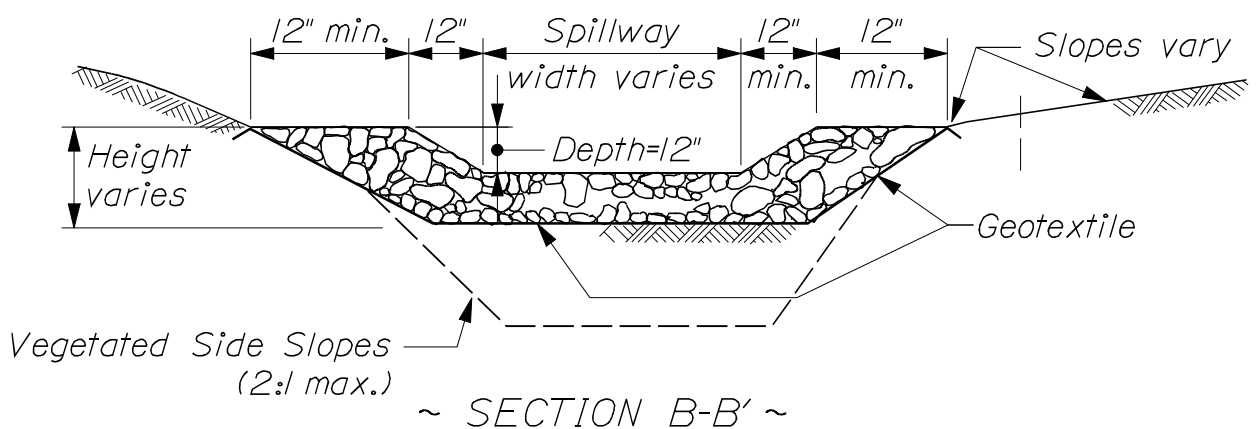
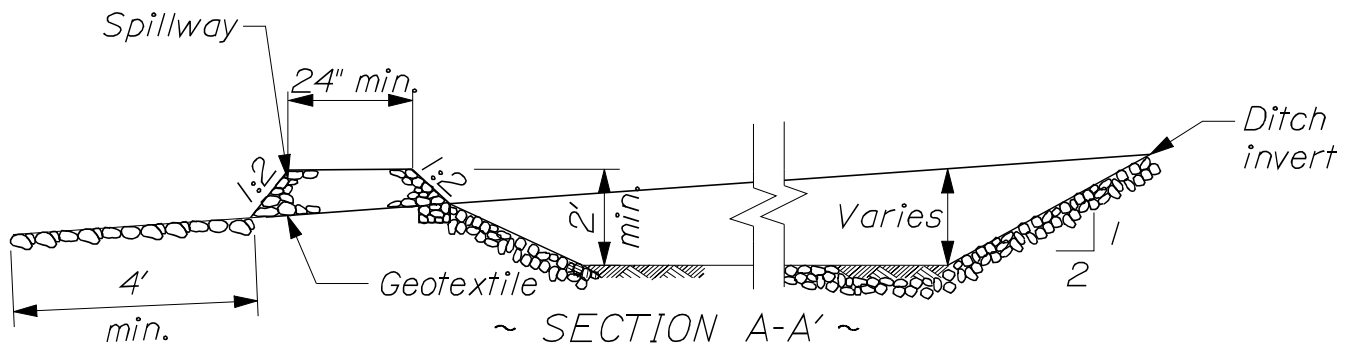
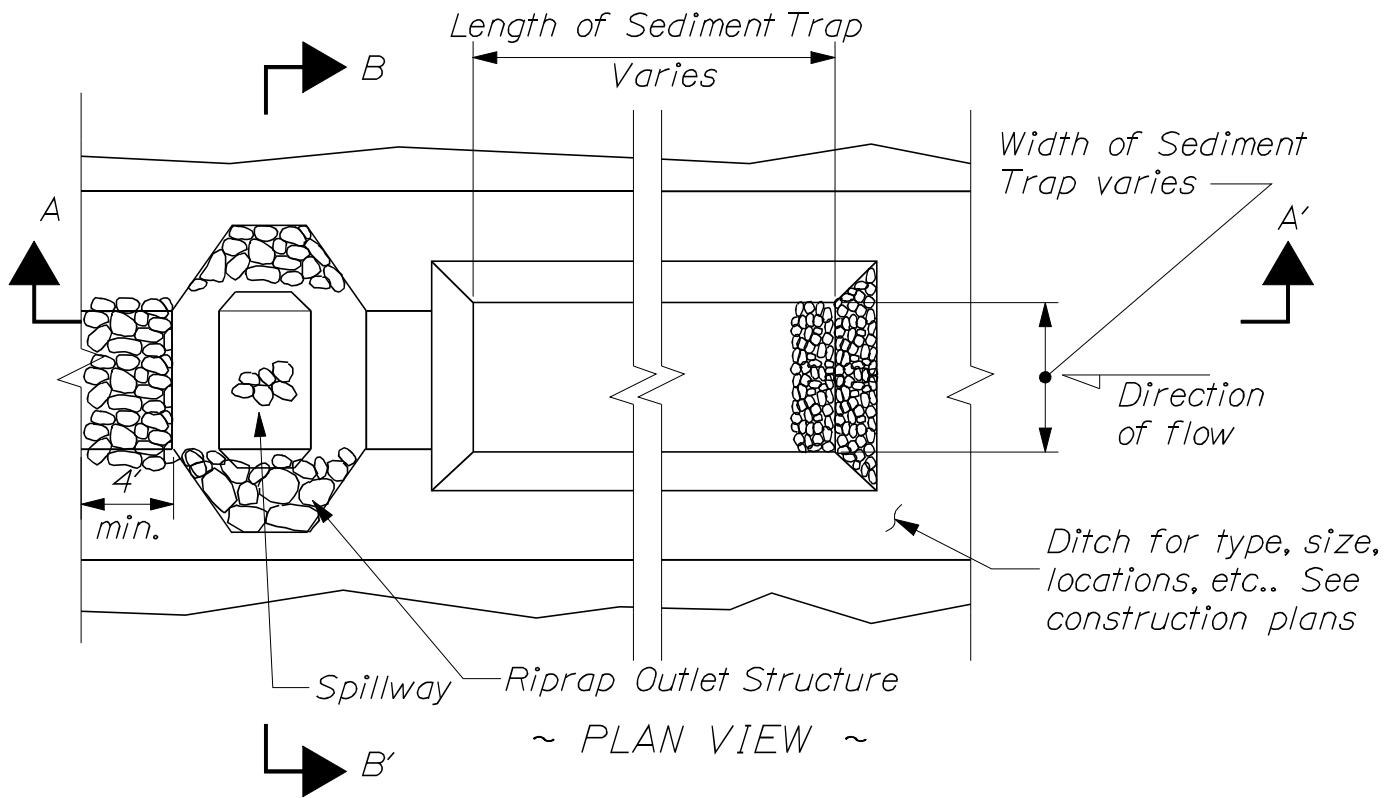
~ SECTION ~

NOTES:

1. Use Stone aggregate and non-woven geotextile inlet protection only in sump locations where heavy concentrated flows are expected.
2. Do not use where ponding around the structure might cause inconvenience or damage.
3. Stone aggregate shall be Stone For French Drain 703.24 or approved by the Resident.
4. Ref: Best management Practices for erosion and sedimentation control - Storm Drain Inlet Protection.

**STONE AGGREGATE & GEOTEXTILE CB/
INLET GRATE UNIT PROTECTION**

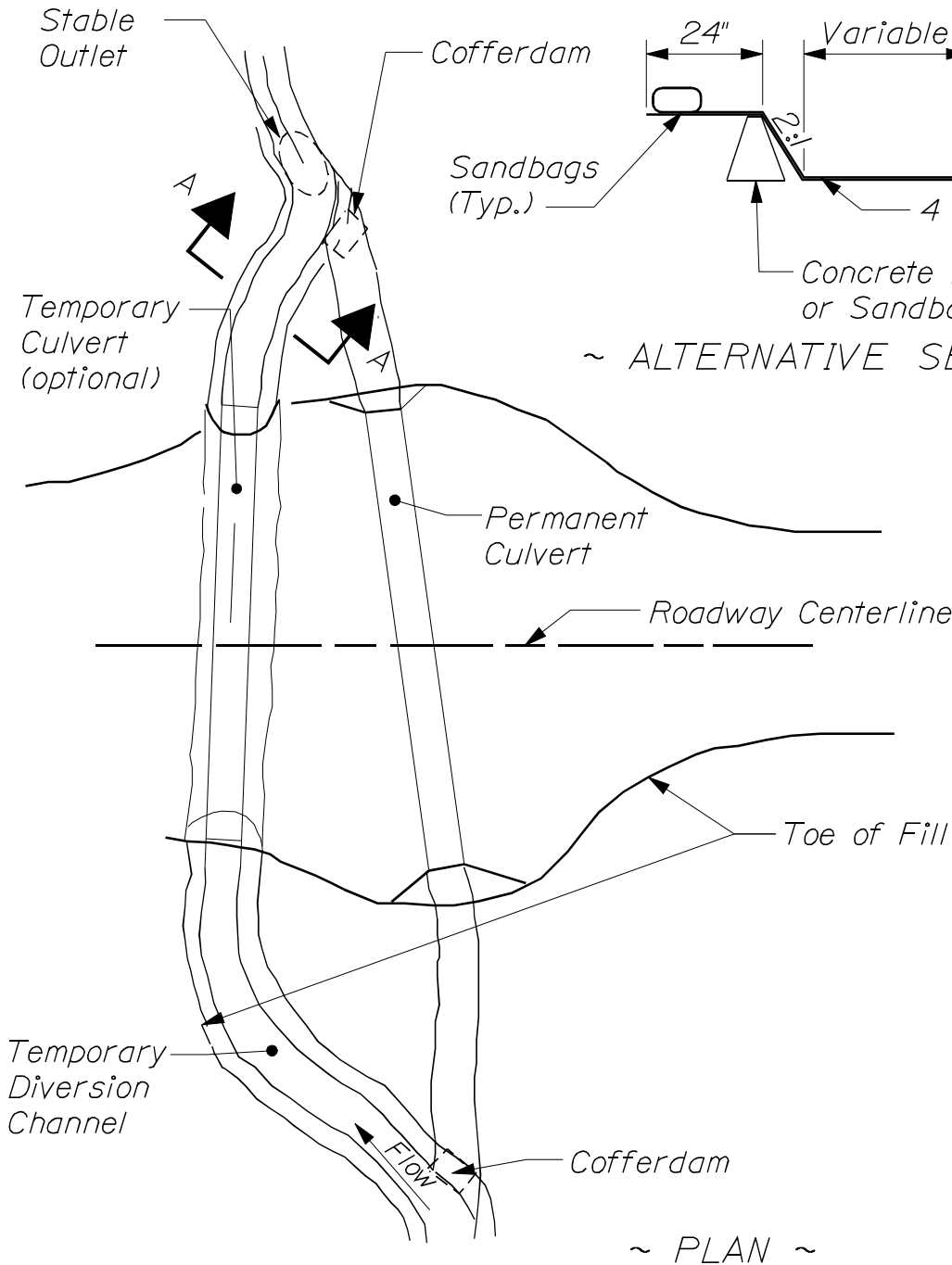
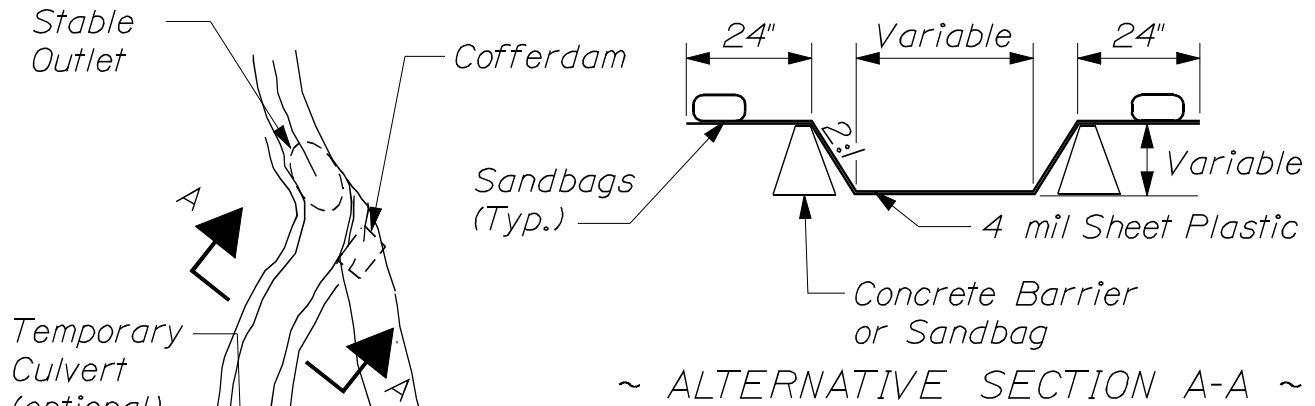
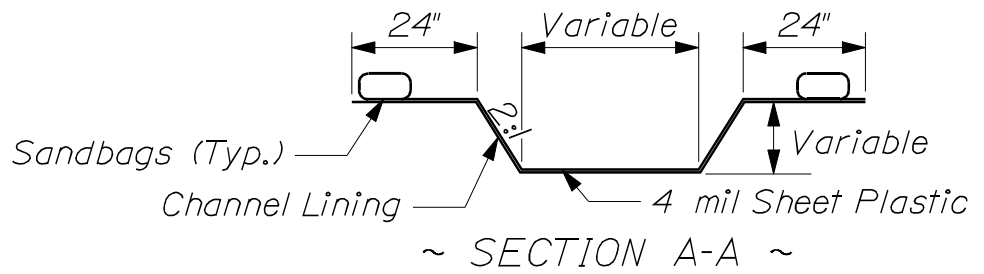
802(13)



REF:
Best Management Practices for Erosion and Sedimentation Control -
Sediment Traps

SEDIMENT TRAP

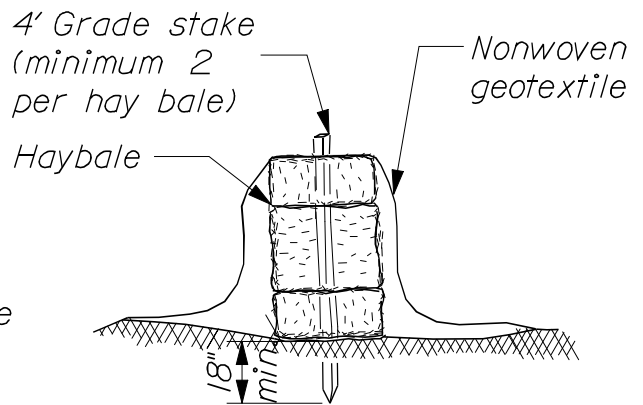
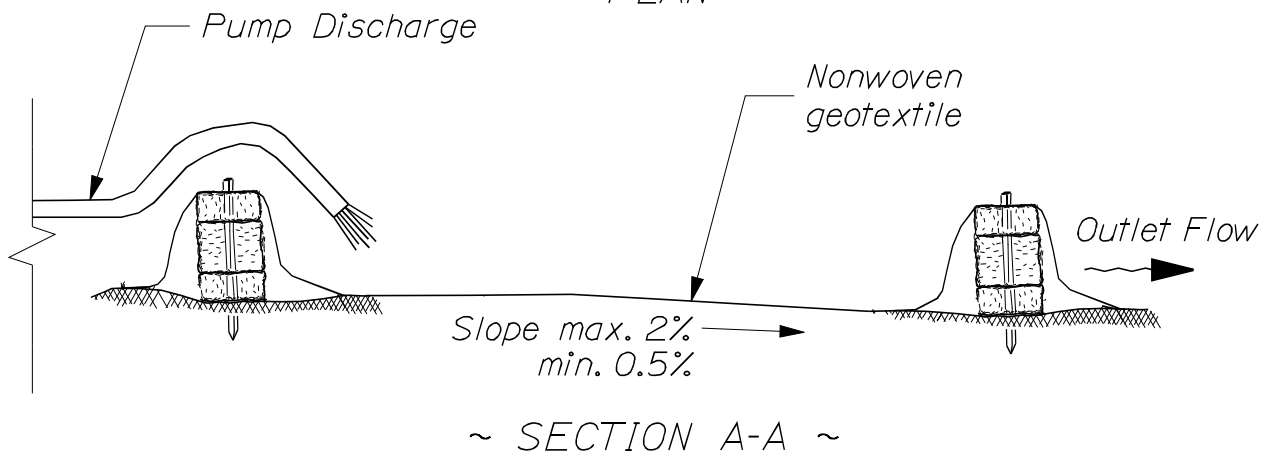
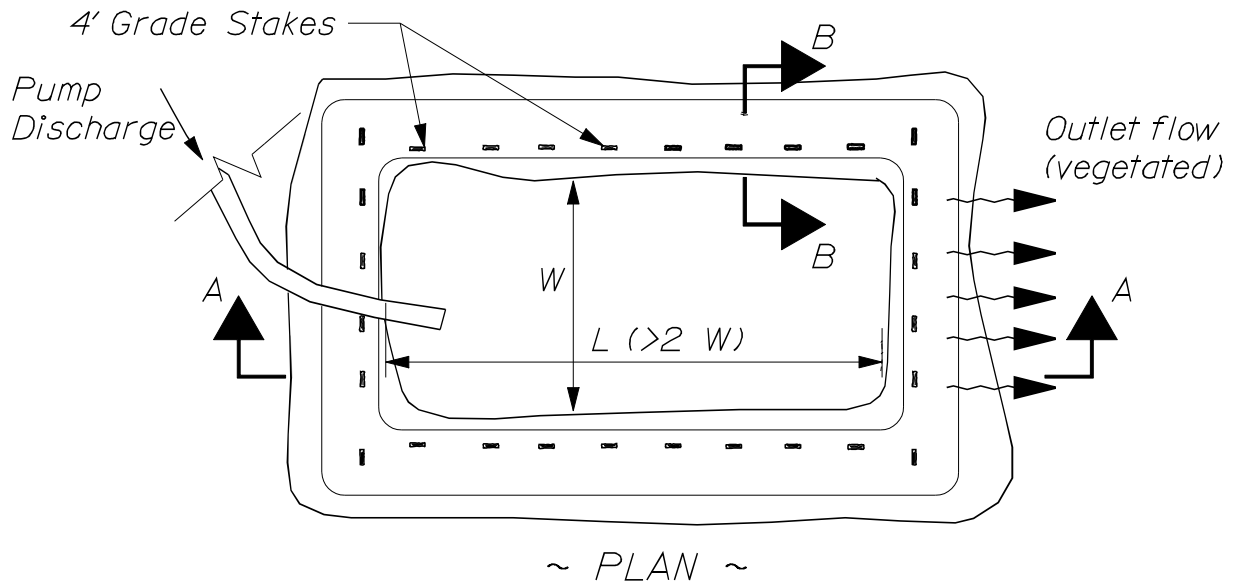
802(14)



REF: Best Management Practices for Erosion and Sedimentation Control -
Temporary Stream Diversion

TEMPORARY STREAM DIVERSION

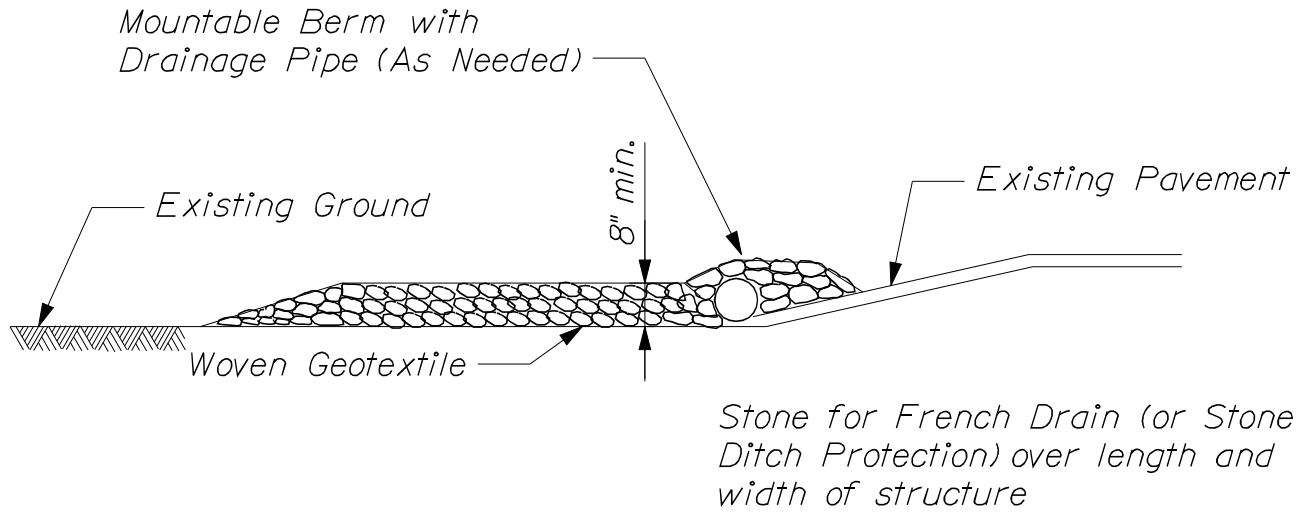
802(15)



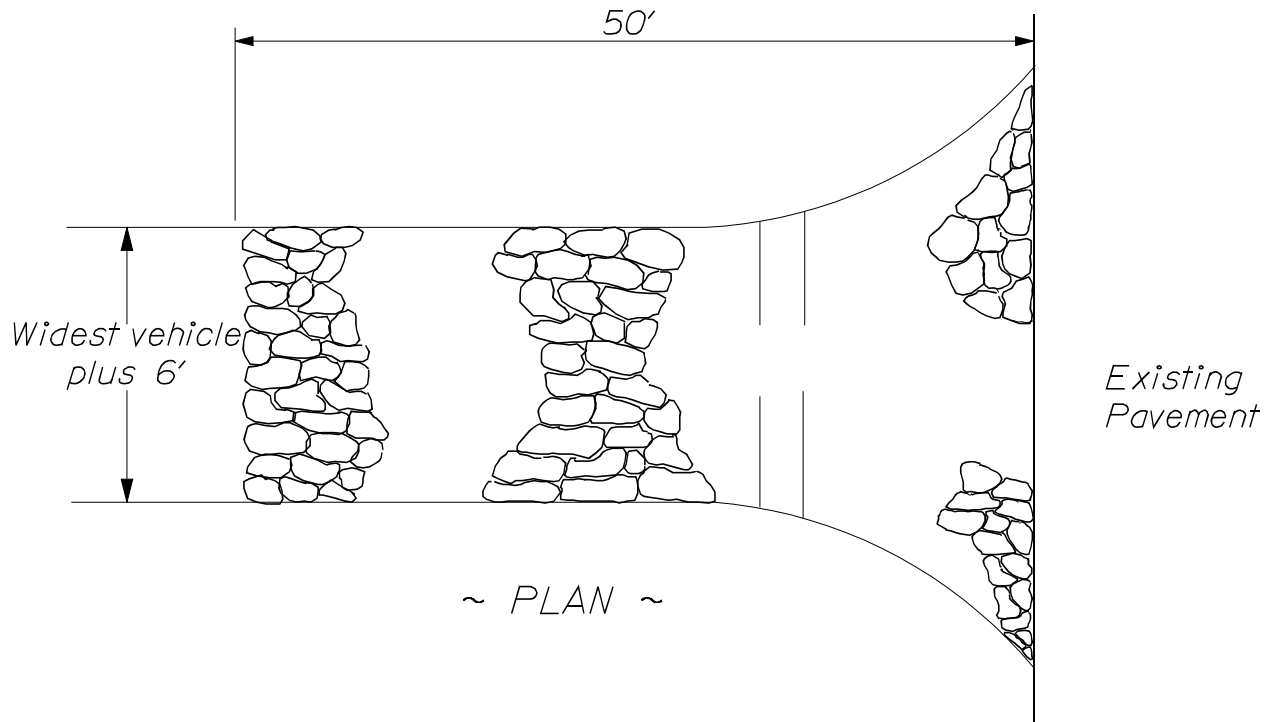
NOTES:

1. Most non-woven geotextile is available in 12.5' & 15' widths.
2. Overlap all temporary sediment basin geo-textile joints by 1' minimum.
3. Design basin according to Best Management Practices for Erosion and Sedimentation Control - Temporary Sediment Basin.

TEMPORARY SEDIMENT BASIN
802(16)



~ PROFILE ~

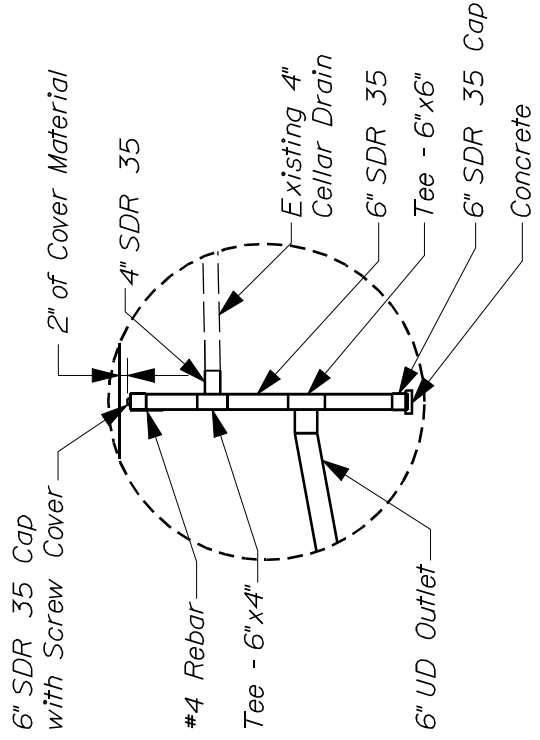
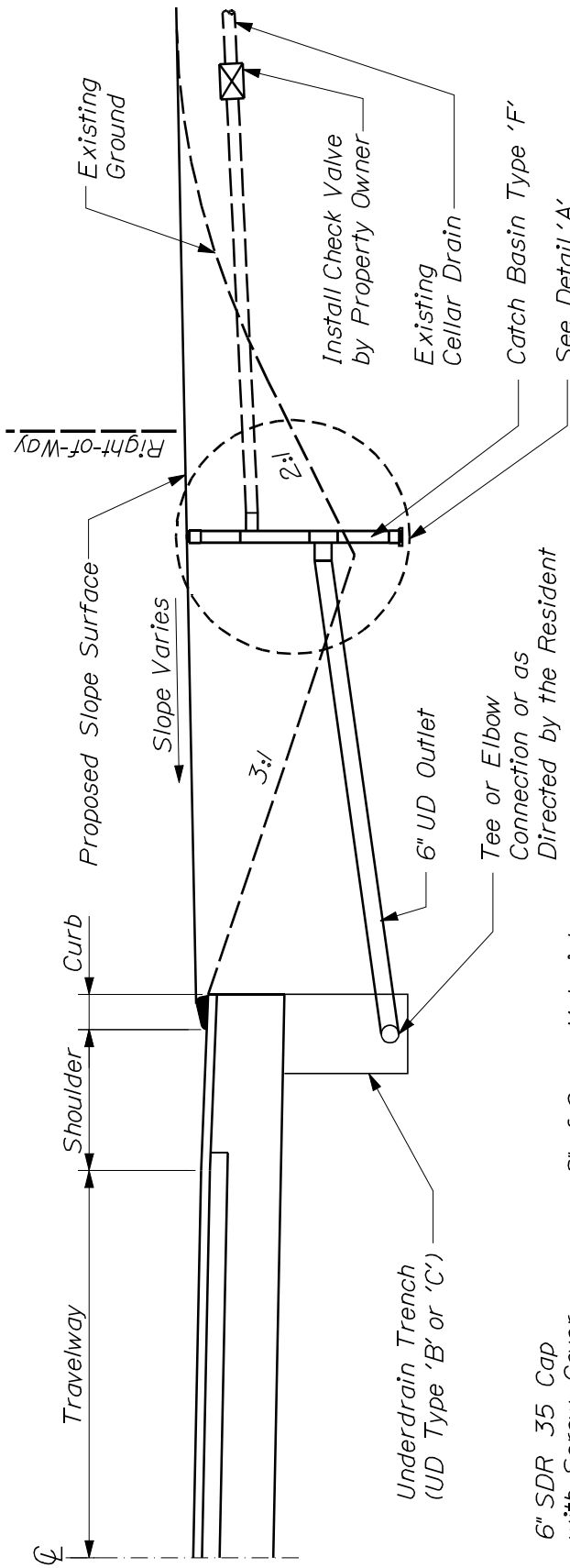


~ PLAN ~

REF: Best Management Practices for Erosion and Sedimentation Control - Stabilized Construction Entrance/Exit

CONSTRUCTION ENTRANCE/EXIT

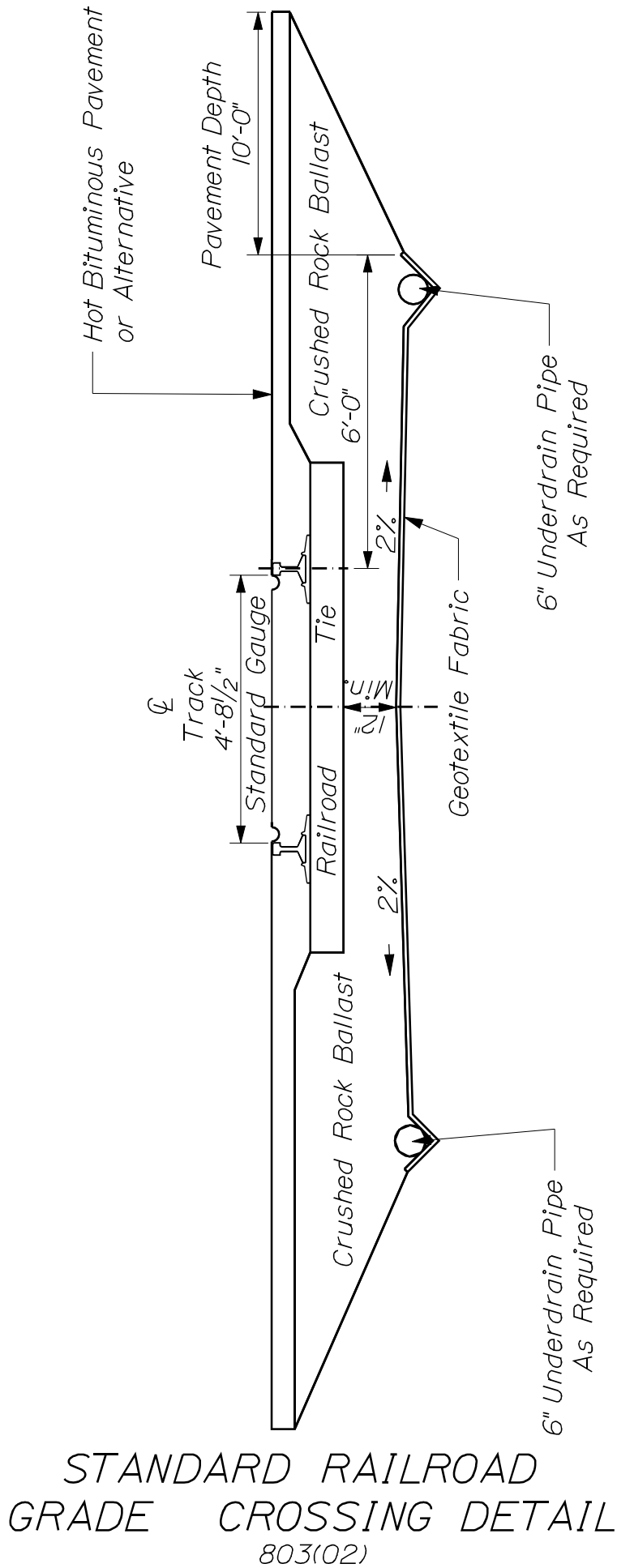
802(17)



~ DETAIL "A" ~
INSPECTION STANDPIPE ~

~ NOTES ~

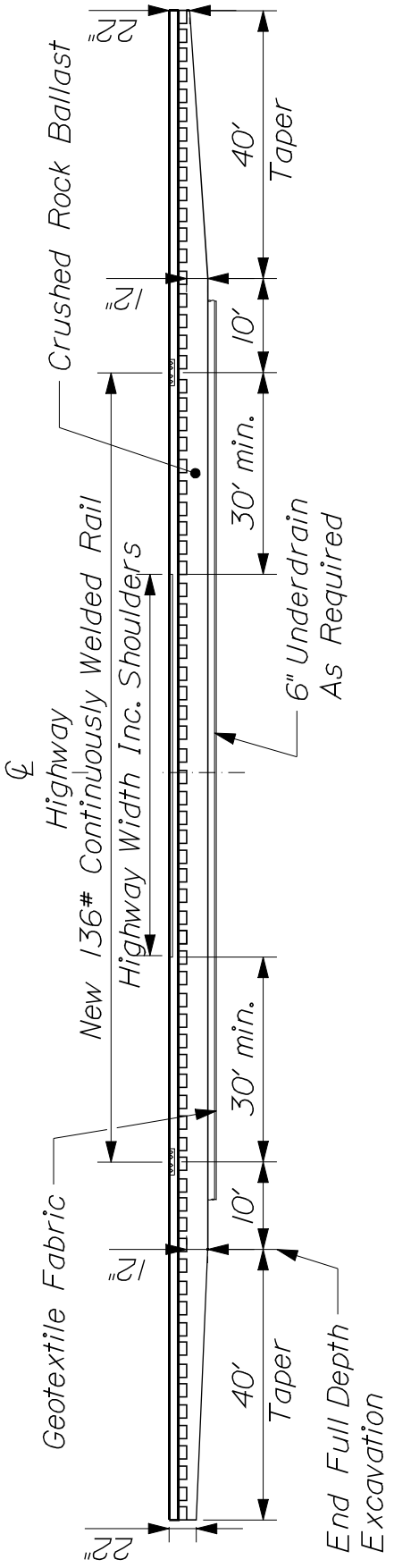
1. Payment for connection from the inspection standpipe to the proposed underdrain system shall be a 6 inch underdrain outlet, item no. 605.10, or as directed by the resident.
2. Inspection standpipe shall have a solid cover and be installed within the state's right of way.
3. A check valve to prevent back flow to property may be installed. Check valve should be installed at the upstream side of the inspection standpipe and outside of the state's right of way. Installation of check valve shall be the responsibility of the property owner.
4. Payment for connection of the existing cellar drain to the inspection standpipe shall be incidental to the item no. 801.141 or 801.16.
5. The station locations may be changed to fit field conditions, as directed by the resident.
6. A 3 foot length of #4 rebar shall be placed adjacent to standpipe and flush with cap. Installation of the rebar and the concrete footing shall be incidental to item no. 801.141 or 801.16.



~ RAILROAD SECTION ~

Not to Scale

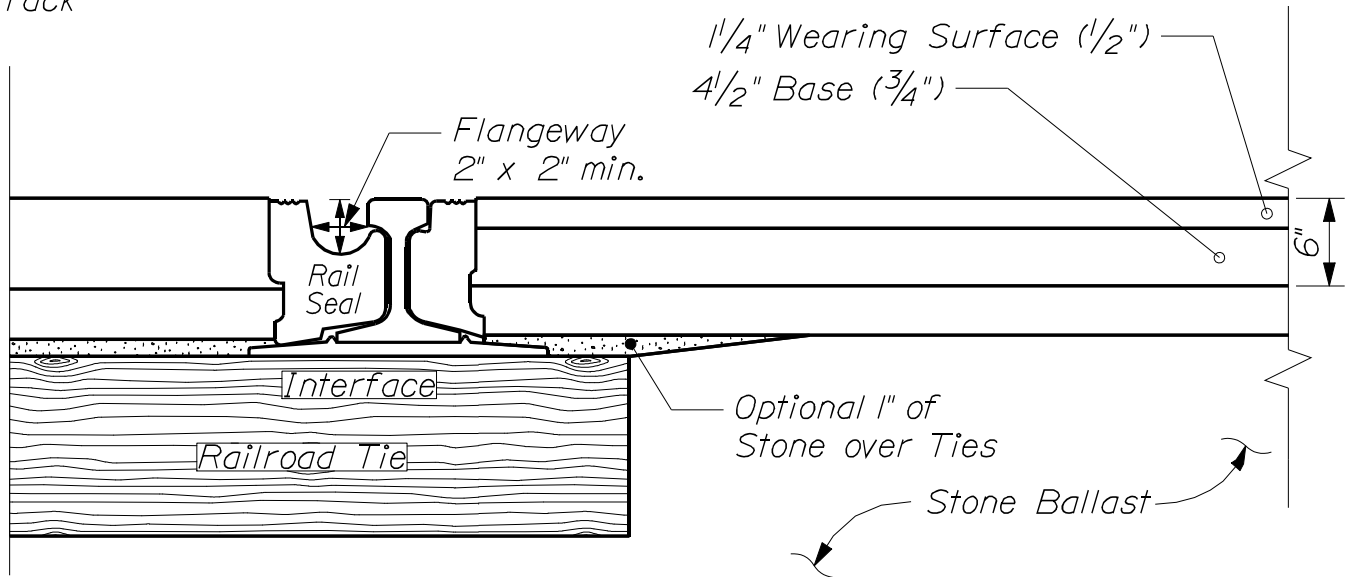
STANDARD RAILROAD
 GRADE CROSSING DETAIL
 803(02)



HIGHWAY SECTION
 RAILROAD GRADE CROSSING
 803(03)

PAVING DETAIL

⊕
Track



ADDITIONAL PAVING NOTES

The Department will pay for the work specified in Subsection 401.11 for the HMA used, except that cleaning objectionable material from the pavement and furnishing and applying Item 409.15 bituminous material to joints and contract surfaces is incidental.

A tack coat of emulsified asphalt, RS-1 or HFMS-1, Item 409.15 shall be applied to any existing pavement at a rate of approximately 0.025 gal/sq.yd, and on milled pavement approximately 0.05 gal/sq.yd, prior to placing a new course. All joints between existing and new pavement will be tacked.

Crossings shall be paved within 20 days following the completion of the crossing reconstruction.

Paved shoulders within the gage of the rail to point 24" outside of the field side of each rail shall be a standard 6" depth of pavement. Paved shoulders outside of this area shall be paved with 2" surface mix only.

- The bituminous binder material for the mixture shall be viscosity grade AC-10 or 20 asphalt cement.
- The density requirements are waived.

PAVING DETAIL PAVING NOTES

803(04)

RAILROAD CROSSING GENERAL NOTES

1. *The highway section over railroad crossings shall be designed with a minimum of 2-11 ft travelways and 6' shoulders. 4' shoulders may be designed if field conditions warrant.*
2. *Signals shall be located as per standard detail and shall comply with the latest edition of the Manual of Uniform Traffic Control Devices.*
3. *The standard crossing surface shall consist of a rubber railseal interface as manufactured by Polycorp or Performance Polymers, Inc, or approved equivalent. Alternative crossing surfaces may be installed with approval of MaineDOT.*
4. *New 136 # prime welded rail shall be provided for crossing reconstruction. The minimum length of welded rail shall be 117' or extend 30' beyond each edge of pavement whichever is longer. The full depth excavation area shall extend 10' beyond the welded rail and excavated to a minimum depth of 12" below bottom of tie elevation.*
5. *7" x 9" ties (8'6" or 9' long) shall be installed under the welded rail and shall be fully box anchored. Anchors may be omitted beneath the crossing surface in order to accommodate the installation of rubber railseal.*
6. *Geotextiles provided for rail crossings shall be the following minimum weights: 8 oz./s. y. for non-woven fabrics and 6 oz. /s.y. for woven fabrics. The minimum width through the crossing area shall be 17'. Geotextile fabrics shall be placed throughout the entire full depth construction area.*
7. *Construction signs and traffic control devices shall be erected and maintained during the construction of the project.*
8. *Field work performed between December 15 and March 15 shall be approved in advance by the MaineDOT Resident.*
9. *Erosion Control shall be installed and maintained as per approved Erosion Control Plan until all permanent measures are in place.*

RAILROAD CROSSING GENERAL NOTES

803(04)A

~ SPECIAL PROVISION ~

Section 403 - Bituminous Pavement

Descrip. of Course	Grad. Design	Item No.	Bit. Cont. % of Mix	Total Thick.	No. of Layers	Complementary Notes
<i>Railroad Planning (6" Pavement Depth)</i>						
Wearing	1/2"	403.208	N/A	1 1/2"	1	4,9,17
Binder	3/4"	403.207	N/A	4 1/2"	2	4,9,17

~ NOTES ~

- The design traffic level for the mix placed shall be 0.3 to <3million ESALS
- Section 106.6 Acceptance, (2) Method C-For hot mix asphalt designated as Method C in Special Provision Section 403 - Hot Mix Asphalt, one sample will be taken from the paver hopper or the truck body per 250 ton per pay item. The mix will be tested for gradation and PGAB content. Disputes will not be allowed. If the mix is within tolerances listed in Table 9, Method C the Department will pay the contract unit price.

~ TABLE 9 ~

Property	USL and LSL - Method C
Percent passing 3/16" [No. 4] and larger sieves	Target +/- 7
Percent passing 3/32" [No. 8] to 1.18mm [No.16] sieves	Target +/- 5
Percent passing 1/32" [no. 30] sieve	Target +/- 4
Percent passing 1/64" [No. 50] to 0.003" [No.200] sieve	Target +/- 3
PGAB Content	Target +/- 0.5

If the test results for each 250 ton increment are outside these limits the following deductions (Table 9b) shall apply to the HMA quantity represented by the test. A second consecutive failing test shall result in cessation of production.

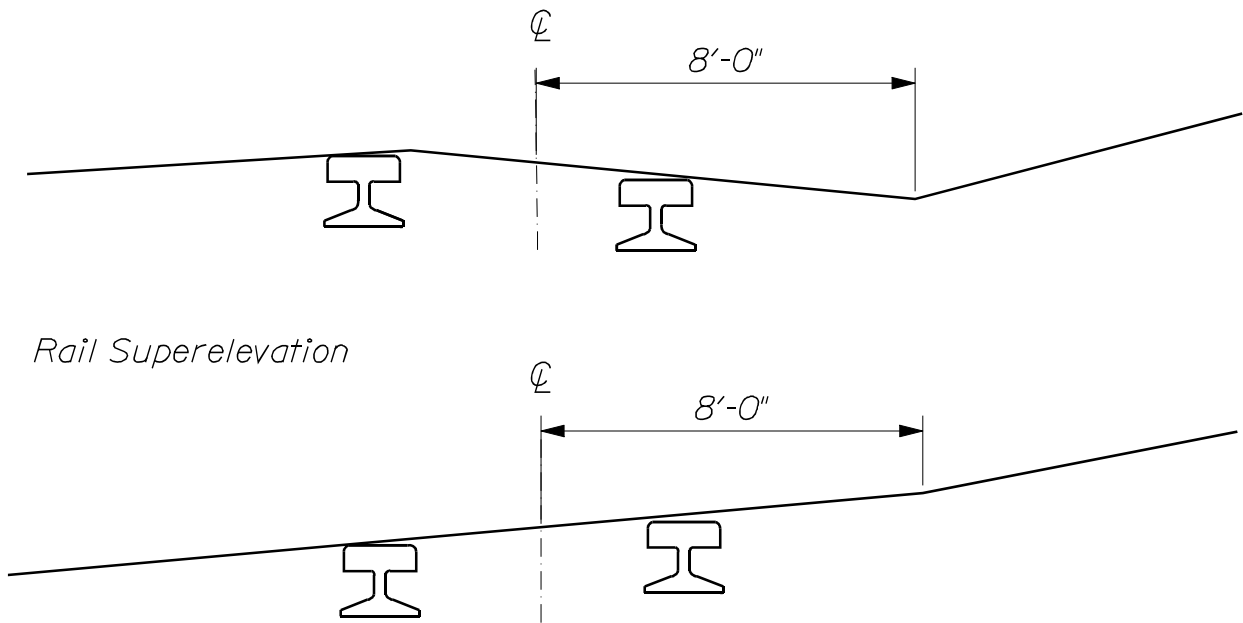
~ TABLE 9B ~

PGAB Content	- 5%
No. 8 - 3/32" sieve	- 2%
No. 50 - 1/64" sieve	- 1%
No. 200 - 0.003" sieve	- 2%

- Compaction of the new Hot Mix Asphalt Pavement will be obtained using a minimal roller train consisting of a 3-5 ton vibratory roller. An approved release agent is required to ensure the mixture does not adhere to hand tools, rollers, pavers, and truck bodies. The use of petroleum based fuel oils will not be permitted.

RAILROAD CROSSING PAVING NOTES

803(04)B



Rail Superelevation

*Same % Grade as Rail
Superelevation*

~ RAIL ROAD CROSSING GRADING ~

NOTE:

The slope of the 8' shown, in no case, shall be above the plane of the rails either side of C/L per P.U.C. General Order # 2.

RAIL ROAD CROSSING GRADING
803(05)

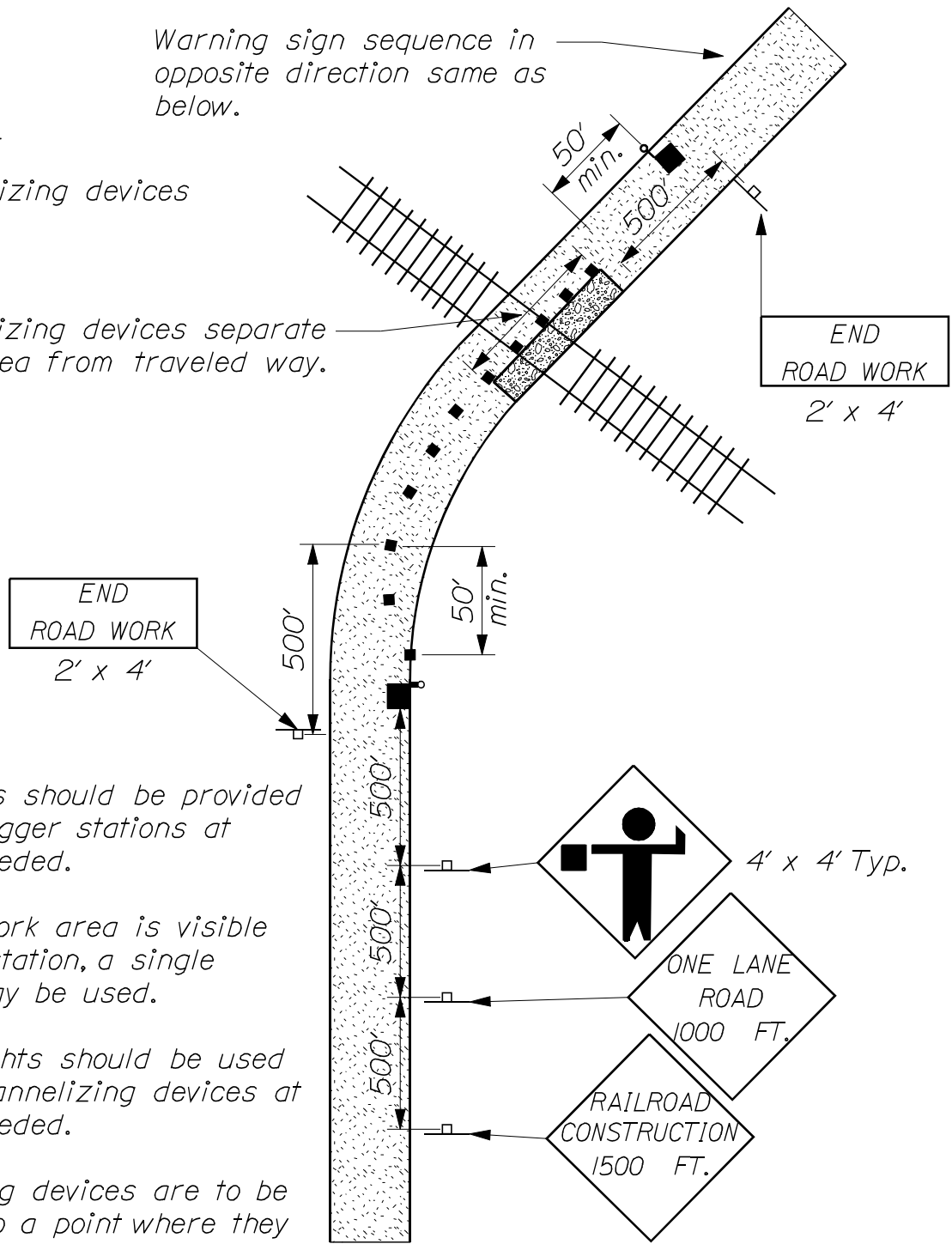
Key:

■ Flagger

■ Channelizing devices

Warning sign sequence in opposite direction same as below.

Channelizing devices separate work area from traveled way.



NOTE:

1. Flood lights should be provided to mark flagger stations at night as needed.
2. If entire work area is visible from one station, a single flagger may be used.
3. Warning lights should be used to mark channelizing devices at night as needed.
4. Channelizing devices are to be extended to a point where they are visible to approaching traffic.

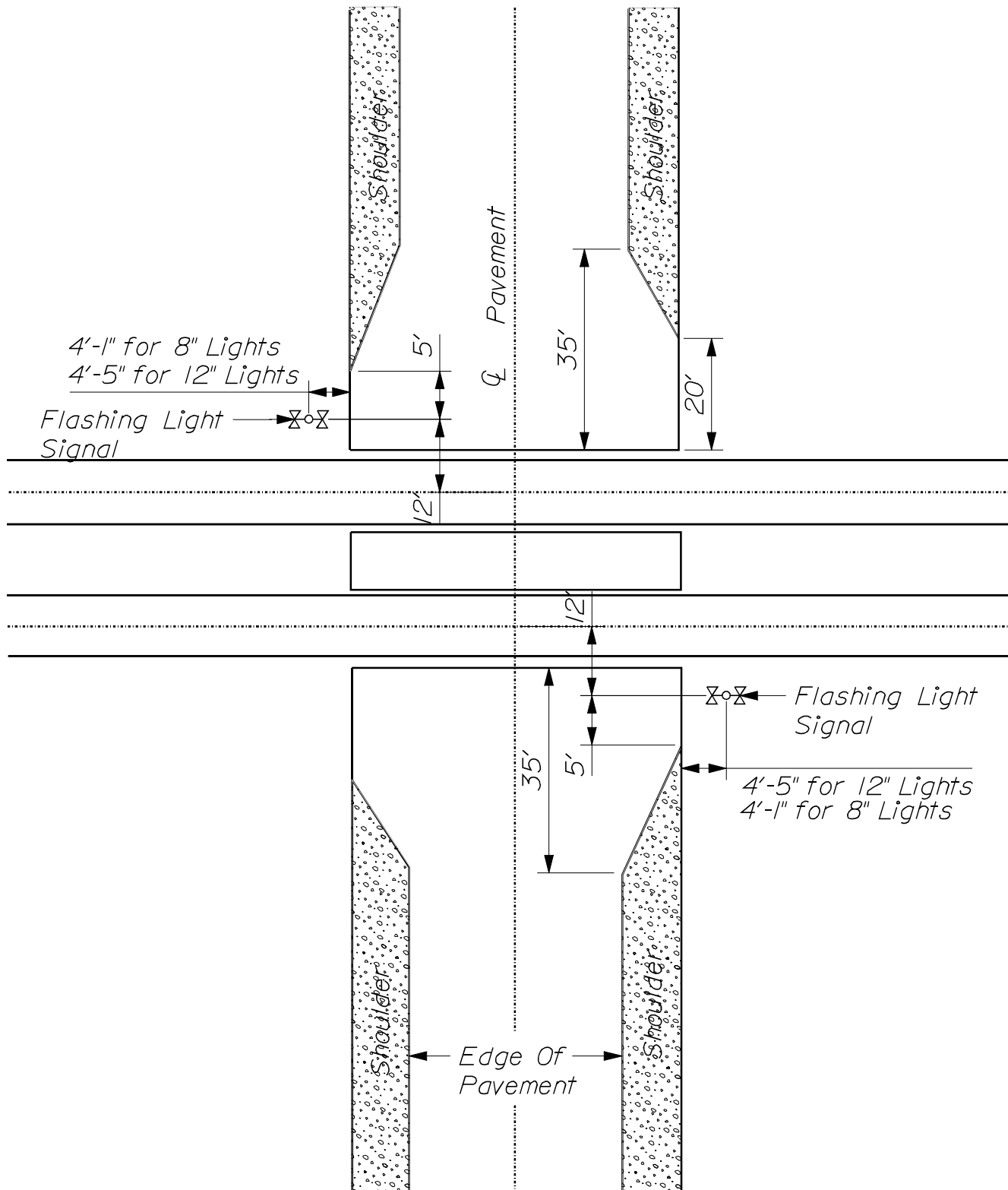
TYPICAL APPLICATIONS OF TRAFFIC CONTROL DEVICES ON 2-LANE HIGHWAY. ONE LANE IS CLOSED AND FLAGGING IS PROVIDED.

<i>Use Highest Posted Speed</i>	<i>Minimum Distance (Feet)</i>
<i>20 mph</i>	<i>225'</i>
<i>25 mph</i>	<i>325'</i>
<i>30 mph</i>	<i>450'</i>
<i>35 mph</i>	<i>550'</i>
<i>40 mph</i>	<i>650'</i>
<i>45 mph</i>	<i>750'</i>
<i>50 mph</i>	<i>850'</i>
<i>55 mph</i>	<i>950'</i>
<i>60 mph</i>	<i>1100'</i>

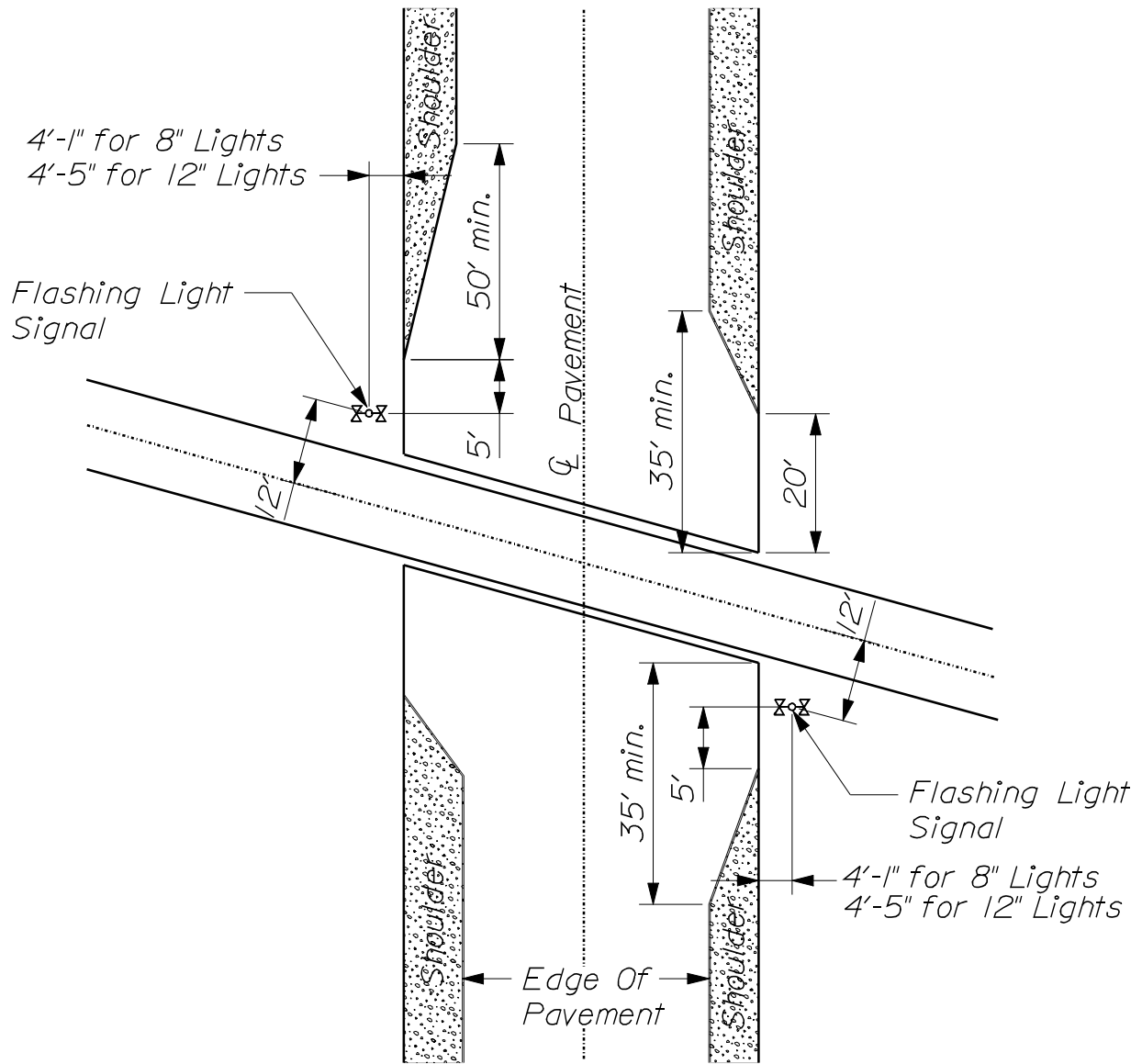
~ SUGGESTED MIN. PAVEMENT MARKING PLACEMENT DISTANCE ~

NOTES:

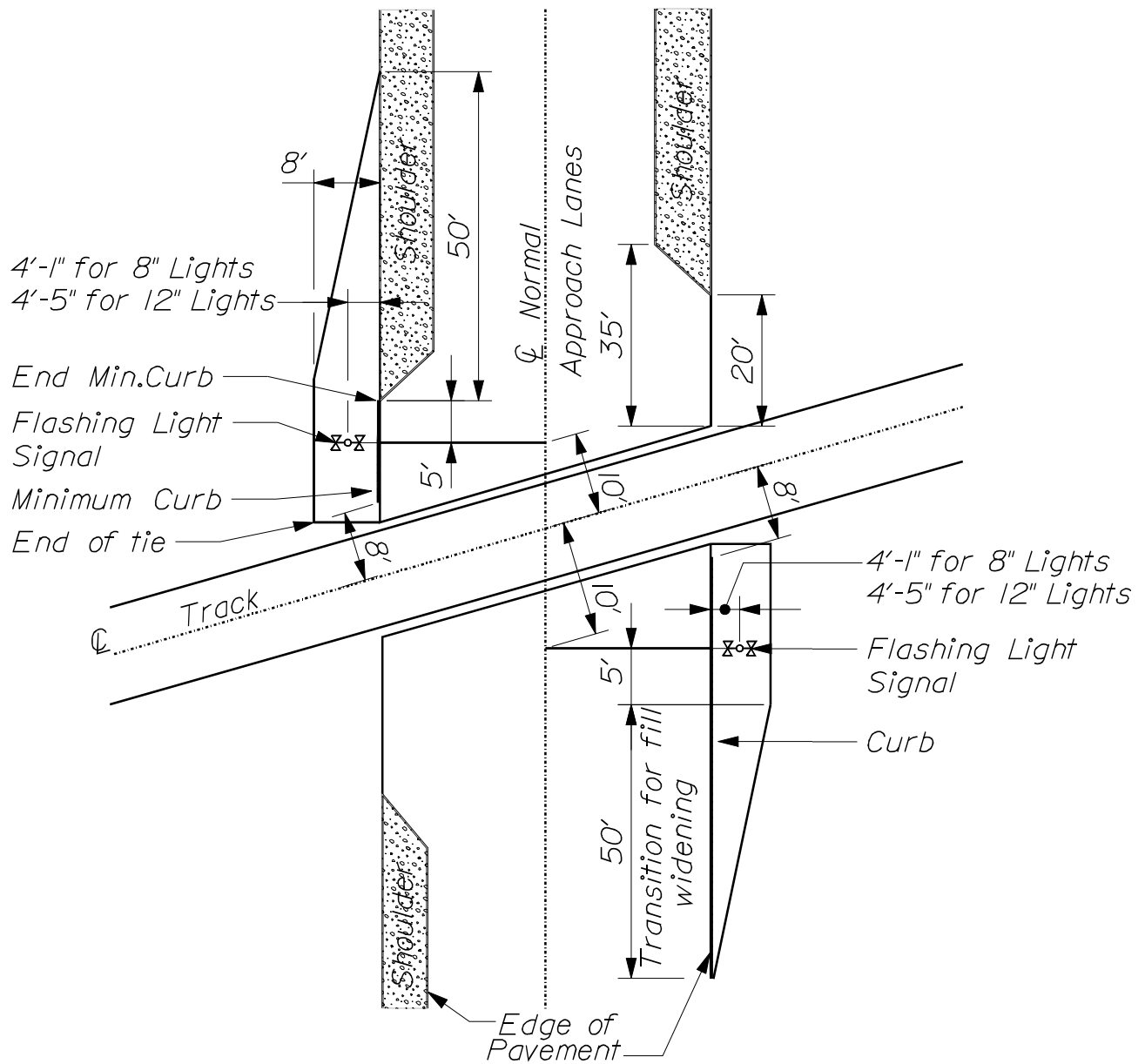
- 1. When used, a portion of the pavement marking symbol shall be directly opposite the Advance Warning Sign (W 10-1). If needed, supplemental pavement marking symbol(s) may be placed between the Advance Warning Sign and the crossing, but should be at least 50' from the Stop Line.*
- 2. A three lane roadway should be marked with a centerline for two-lane approach operation on the approach to a crossing. On multi-lane roads the transverse bands should extend across all approach lanes, and individual RXR symbols should be used in each approach lane.*
- 3. Refer to Standard Alphabet for Highway and Markings for RXR symbols details.*



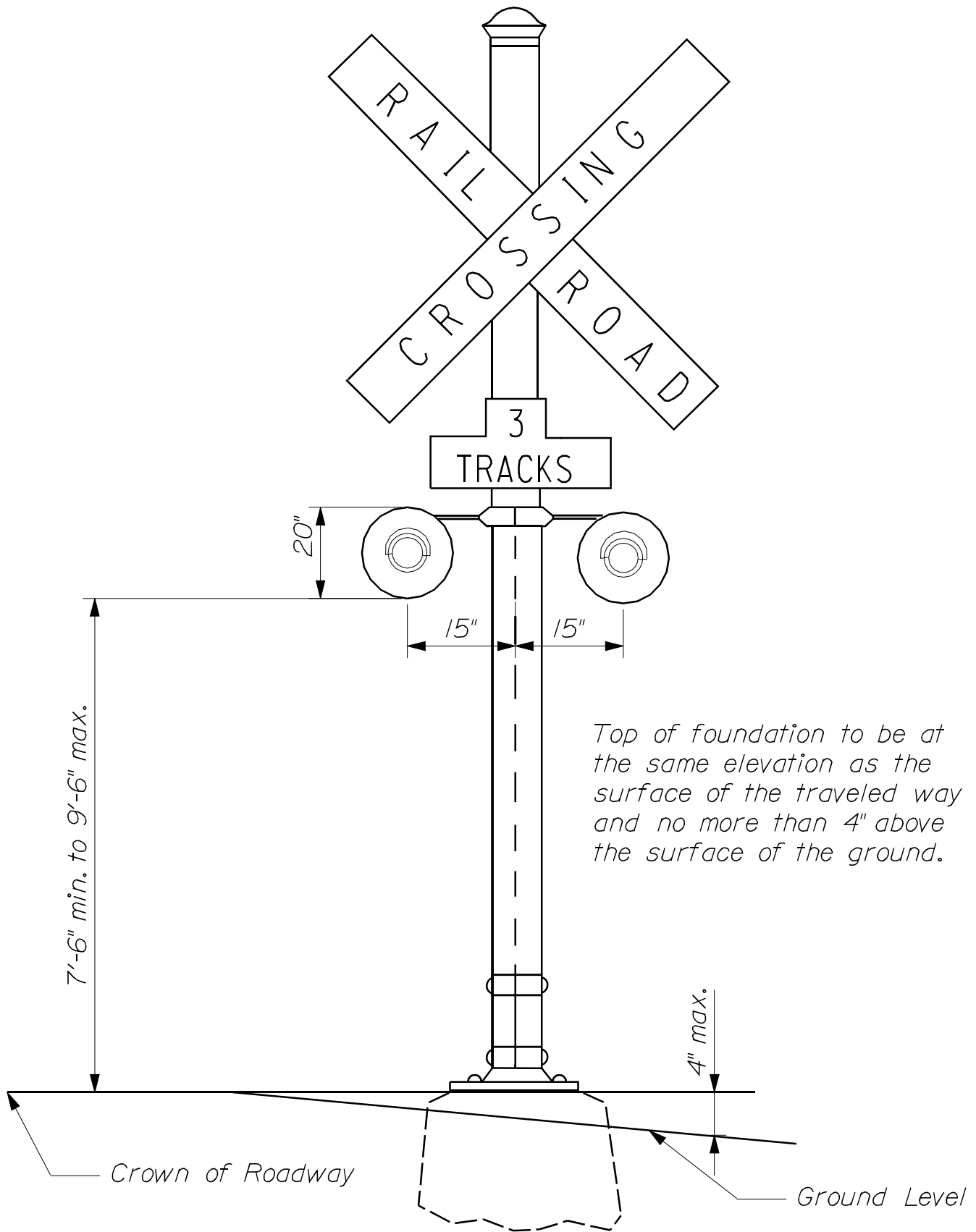
TYPICAL SIGNAL LOCATION AND
 PAVING PLAN FOR SQUARE CROSSING
 803(08)



TYPICAL SIGNAL AND GUARD RAIL LOCATIONS
FOR ACUTE ANGLE CROSSING
803(09)

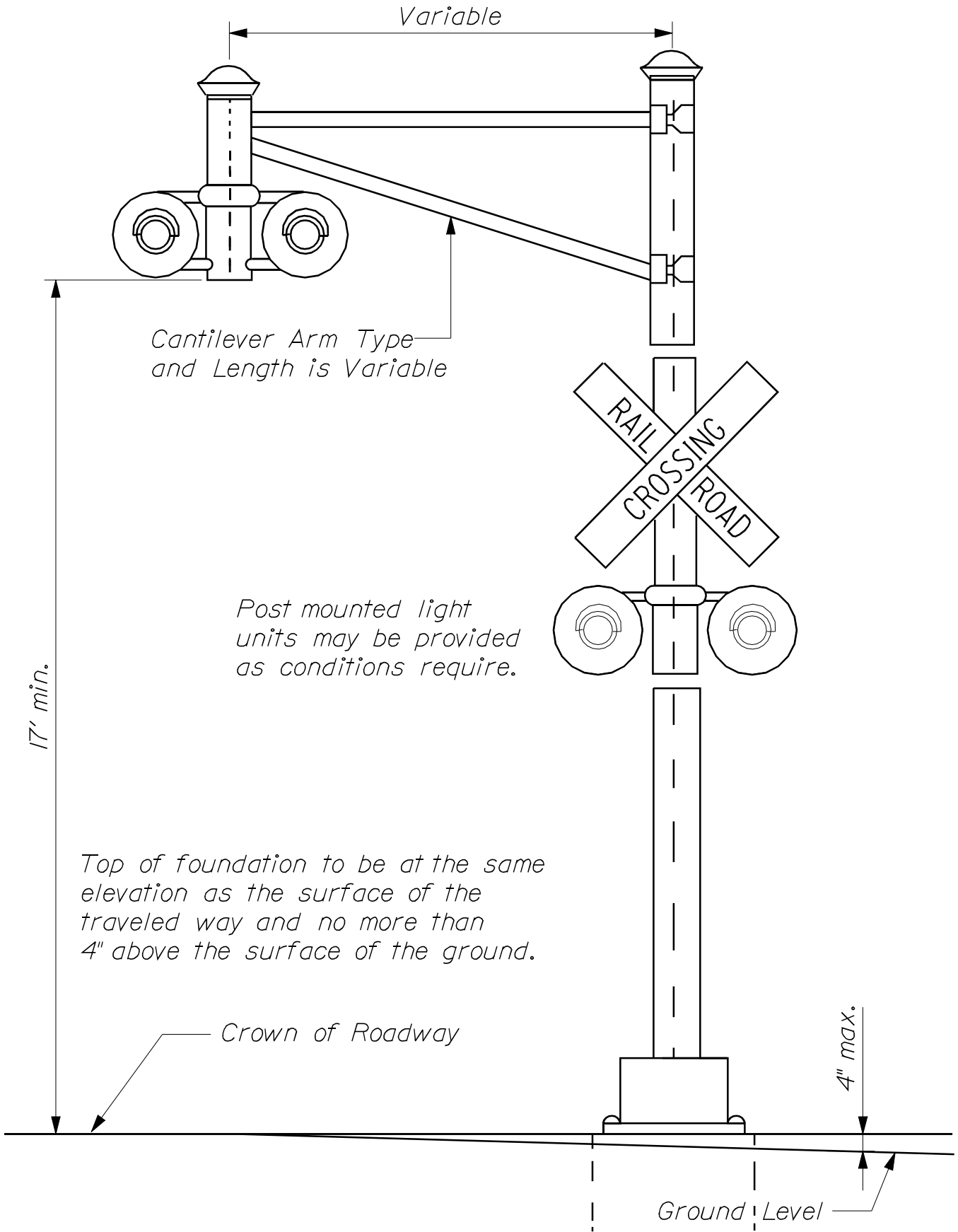


TYPICAL SIGNAL AND CURB LOCATIONS FOR
 OBTUSE ANGLE CROSSING
 803(10)



TYPICAL FLASHING LIGHT SIGNAL - POST MOUNTED.
TYPICAL SHOULDER WITHOUT CURB

803(11)



**TYPICAL FLASHING LIGHT SIGNAL -
CANTILEVER SUPPORTED**

803(12)

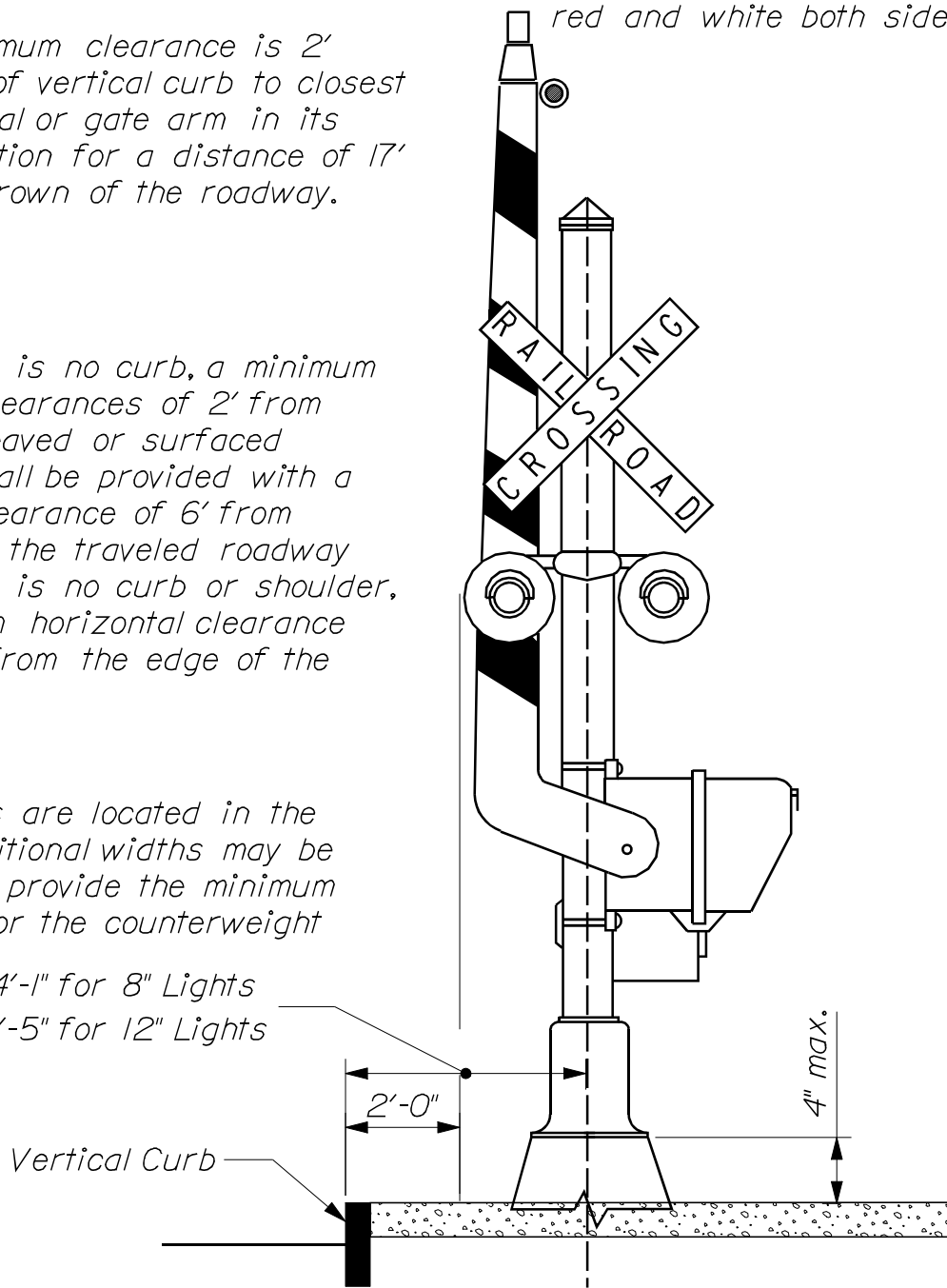
16" Alternate reflectorized red and white both sides

Typical minimum clearance is 2' from face of vertical curb to closest part of signal or gate arm in its upright position for a distance of 17' above the crown of the roadway.

Where there is no curb, a minimum horizontal clearances of 2' from edge of a paved or surfaced shoulder shall be provided with a minimum clearance of 6' from the edge of the traveled roadway where there is no curb or shoulder, the minimum horizontal clearance shall be 6' from the edge of the roadway.

Where gates are located in the median, additional widths may be required to provide the minimum clearance for the counterweight supports.

4'-1" for 8" Lights
4'-5" for 12" Lights



TYPICAL CLEARANCES FOR FLASHING LIGHT SIGNALS AND AUTOMATIC GATES TYPICAL CURB LOCATION

803(13)