FULL SIZE

- 3.1 Mailbox Turnout in Curb and Gutter Section
- 4.1 PC Concrete Islands and Medians Accessible to the Disabled
- 5.1 Standard Outlet for Curb and Gutter
- 6.1 Precast Reinforced Concrete Flat Slab Top Centered and Offset Manhole 36" Opening
- 10.1 Box Culvert End Sections
- 11.1 Concrete End Sections for Parallel Pipe Culverts 15" thru 84" Dia.
- 12.1 Concrete End Sections for Parallel Pipe Arch Culverts 15" thru 84" Dia.
- 13.1 Traversable Pipe Grate for Box Culvert End Section
- 14.1 Traversable Pipe Grate for Parallel Drainage Structure
- 20.1 Hot-Mix Asphalt Approaches and Mailbox Returns
- 25.1 Entrance Approaches Urban Area
- 26.1 ADA Curb Ramp Pavement Removal And Replacement
- 32.1 Sewer and Water Main Crossings
- 33.1 Concrete Collars for Pipe or Box Culvert Extensions
- 34.1 Work Zone Sign Details
- 35.1 Urban Lane Inside Closure, Multilane, 2W, with Mountable Median
- 36.1 Temporary Road Closure Expressway
- 37.1 Traffic Control for Three Lane Section
- 38.1 Traffic Control for Transition Areas
- 39.1 Traffic Control Typical Weave
- 40.1 Traffic Control for Road Closure
- 41.1 Typical Pavement Markings
- 53.1 Remove and Re-erect Steel Plate Beam Guardrail
- 54.1 Traffic Barrier Terminal, Type 2 (27" height)
- 55.1 Guardrail Reflectors, Type C (Special)
- 68.1 Slotted Drain Pipe (Variable Height)
- 71.1 Detail of Flood Gate
- 72.1 40' Single Lane Median Crossover (45 mph Work Zone Speed Limit)
- 73.1 50' Single Lane Median Crossover (45 mph Work Zone Speed Limit)
- 74.1 64' Single Lane Median Crossover (45 mph Work Zone Speed Limit)
- 75.1 40' Single Lane Median Crossover (55 mph Work Zone Speed Limit)
- 76.1 50' Single Lane Median Crossover (55 mph Work Zone Speed Limit)
- 77.1 64' Single Lane Median Crossover (55 mph Work Zone Speed Limit)
- 78.1 88' Single Lane Median Crossover (55 mph Work Zone Speed Limit)
- 79.1 40' Two Lane Median Crossover (45 mph Work Zone Speed Limit)
- 80.1 50' Two Lane Median Crossover (45 mph Work Zone Speed Limit)
- 81.1 64' Two Lane Median Crossover (45 mph Work Zone Speed Limit)
- 82.1 40' Two Lane Median Crossover (55 mph Work Zone Speed Limit)
- 83.1 50' Two Lane Median Crossover (55 mph Work Zone Speed Limit)
- 84.1 64' Two Lane Median Crossover (55 mph Work Zone Speed Limit)
- 85.1 88' Two Lane Median Crossover (55 mph Work Zone Speed Limit)
- 86.1 Beveled Pipe & Guard Detail for Median Crossover
- 90.1 Traffic Barrier Terminal, Type 6B (Special)
- 92.1 Details of Planting and Bracing Trees

Full Size District 2 Standards

3.1	Use when a mailbox turnout is needed in a curb & gutter section and there isn't a parking lane or a mail delivery lane.
4.1	Use this when there are cross walks that will go through an island or median. Specify which option the contractor is required to use when building the Concrete Median (Special).
5.1	Use this when you need an outlet for curb and gutter, other than type B-6.24
10.1	This is to be used whenever we have a precast box culvert.
11.1	This is to be used for pipe culverts, Class D under all sideroads.
12.1	This is to be used for EQRS pipe culverts, Class D under all sideroads.
13.1	Use this whenever a cross drainage box culvert end section needs traversable pipe grates. Also include Standard 542311.
14.1	Use this whenever you use District Standards 10.1, 11.1 & 12.1 and the culvert is within the main line clear zone.
20.1	Include for rural entrances and sideroads on 3R projects, reconstruction projects, or for new entrances. Do not include on 3P or Smart resurfacing projects.
25.1	Include for urban entrances with curb & gutter on 3R projects, reconstruction projects, or for new entrances. Do not include on 3P or Smart resurfacing projects.
26.1	Use this on all projects with ADA curb ramps requiring HMA replacement in front of curb & gutter.
32.1	Include in urban projects with proposed storm sewers or water mains.
33.1	Use this for pipe or box culvert extensions. Fill in the information in the table for the Bill of Materials.

34.1	 Work Zone Sign Details. Include this when you have any of the following: Include in projects where the clear width through a work zone with temporary concrete barrier wall will be 16.0 feet or less. Include when using Traffic Control and Protection Standard 701316 or 701321. Use this in conjunction with the special provision Traffic Control for Narrow Lanes which is under the Traffic Control Plan. Use this on one-lane stage construction jobs when the lane is less than 13'-6" measured from the toe of the barrier wall to the guardrail or bridge wall. Use this when using District Standard 37.1 and 38.1. Use this on low volume entrances that are between the traffic signals on Highway Standard 701316 or 701321. Include this for any milling of the mainline pavement.
35.1	Use this when it is necessary to close the inside lane on an urban project. Also include Highway Standard 701606 and the pay item for 701606.
36.1	Use this district standard for any short term closure of an expressway at a diamond interchange.
37.1	Use this district standard for work that will require a lane closure in a three lane section such as a truck climbing lane.
38.1	Use this district standard when there is a transition from a four lane section that transitions to a two lane section.
39.1	Include on 4 lane highways where the contractor may change a portion of the work to the opposite lane.
40.1	Include for a mainline road closure.
41.1	Include in projects with pavement marking or raised reflective pavement markers.
53.1	Use this to remove and re-erect an old type steel plate beam guardrail which has 6 " block outs and a $27\frac{1}{2}$ " rail height.
54.1	Use this when installing a Traffic Barrier Terminal, Type 2 on the old type of steel plate beam guardrail with a $27\frac{1}{2}$ " rail height.
55.1	This will be used on all projects with guardrail, permanet barrier wall, and bridge structures. Use pay item (X7820007 Guardrail Reflectors. Type C (Special)). (Do not use the pay items Guardrail Reflectors Type A & B or Barrier Wall Reflectors Type B & C).
68.1	This can be used to increase drainage in curb & gutter with very flat grades (less than 0.3%). Also include this when constructing median crossovers.

District 2 Standards Designer Notes

71.1	Use if a property owner has a fenced field with livestock and a stream or river. The flood gate will be placed near the right-of-way to prevent livestock from leaving the field through the waterway. During high water, the flood gate will open to let water and debris through.
72.1, 73.1, 74.1, 75.1, 76.1, 77.1, 78.1	Use on single lane median crossovers of the median width specified and for the work zone speed limit. Include District Standard 86.1. If there are overlays on the existing PCC pavement, installing tie bars into the existing PCC pavement will not work. Talk to the Construction Field Engineer or your Project Engineer for more information.
79.1, 80.1, 81.1, 82.1, 83.1, 84.1, 85.1	Use on two lane median crossovers of the median width specified and for the work zone speed limit. Include District Standard 86.1. If there are overlays on the existing PCC pavement, installing tie bars into the existing PCC pavement will not work. Talk to the Construction Field Engineer or your Project Engineer for more information.
90.1	Use this on 4-lane highways that go under dual structures and the piers required shielding. The outside of the piers are shielded with impact attenuators. The gap between the piers is shielded using Traffic Barrier Terminal Type 6B (Special). The Traffic Barrier Terminal Type 6B (Special) is required on both sides of the piers. Design Note: The <u>length</u> of the double thrie beam between the piers <u>must be added on the elevation on the District Standard</u> .
92.1	Include when planting new ball & burlapped trees.

½ SIZE

- 10.2 Inlets, Special
- 11.2 Inlets, Special (Type A Gutter)
- 12.2 Double Inlet, Special
- 13.2 Frame & Grate for Inlets, Special
- 13.2a Frame & Grate for Inlets, Special
- 13.2b Frame & Grate for Inlets, Special
- 13.2c Frame & Grate for Inlets, Special
- 13.2d Frame & Grate for Inlets, Special
- 14.2 Inlets, Special, No. 1
- 15.2 Inlets, Special, No. 2
- 20.2 Standard Inlet for Type A Gutter (Special)
- 21.2 Standard Inlet for Curb & Gutter
- 30.2 Field Tile Junction Vaults 2' and 3' Dia.
- 31.2 Treatment of Field Tile Systems Under Ditches
- 32.2 Sign Panel Type 1 (Special)
- 33.2 Special Drainage Outlet
- 34.2 Inlet Stand Pipe
- 35.2 Guardrail Erosion Control Treatments
- 36.2 Paved Ditch (Special)
- 37.2 Underdrain for Across Road (AR) Culverts
- 44.2 Reserved Parking Sign Detail
- 45.2 Superelevation Transition on Two-Lane Highway
- 46.2 Hot-Mix Asphalt Approaches and Mailbox Returns for Single Lift (SMART) Resurfacing Projects
- 47.2 Hot-Mix Asphalt Approaches and Mailbox Returns for Two Lifts (3P) Resurfacing Projects
- 48.2 Safety Edge (SMART Projects)
- 49.2 Safety Edge (3P Projects)
- 61.2 Slotted Drain Pipe for Type A Gutter (Special)
- 63.2 Pipe Handrail for Steps
- 64.2 Pipe Handrail, Special for Retaining Walls
- 66.2 Permanent Survey Markers, Type II
- 73.2 Automatic Flap Gate
- 81.2 Riprapped Culvert Energy Basin
- 89.2 Termination of Dead End Roads
- 90.2 Mechanical Joints for Concrete Pipe and Box Culverts
- 93.2 Typical Aggregate Base Sideroad
- 94.2 Traffic Control & Protection at Turn Bays (To Remain Open to Traffic)

District 2 Standards Designer Notes

½ Size District 2 Standards

10.2	This is used for drainage in a curb & gutter section. The diagonal grate is included in the cost. The diagonal grate is bicycle safe. If the inlet is in a driveway which has a depressed curb, the grate on the bottom left hand side will be used. The cost of this grate is also included in the cost of the inlet special. When using this do not include 13.2, 13.2a, 13.2b, 13.2c or 13.2d.
11.2	This is used for drainage in a Type A gutter. The grate is included in the cost of the inlet.
12.2	This is used when extra inlet capacity is needed. For example, in a sag condition.
13.2 13.2a 13.2b 13.2c 13.2d	These are different types of frame & grates for inlet specials. One of these can be used to replace broken frame & grates on inlets to be adjusted or reconstructed. Select the one that matches the existing. All of them are bicycle safe.
14.2	This has been used in medians where the gutter flag is less than 24".
15.2	This has been used in medians where the curb is only 2"± high. For example, near the nose of a ramped median.
20.2	Use this on the inlet end of Type A Gutter (Special)
21.2	Use this on the inlet end of Combination Concrete Curb & Gutter
30.2	If there is existing field tile on your job or think there could be field tile, include this standard. Also include a pay item for junction vaults.
31.2	If there is storm sewer or field tile under a ditch with 24" or less of cover, include this standard. Include the pay item for Miscellaneous Concrete.
32.2	Use this where the bridge is less than 24" wider than the roadway surface. This is very rare on a state route, but should be used on bridges on detour routes on County or Township roads.
33.2	This is a special drainage outlet to be used on existing pavements with drainage problems. The existing underdrains might not be working, or there is water pumping out of the joint between the pavement and shoulder.
34.2	This can be used to replace existing field tile stand pipes. The existing stand pipe is usually an orange perforated 6" pipe, 24" to 36" high, near the outlet end of a culvert. This could also be a new installation if requested by the property owner during Phase I or during negotiations.

35.2 This is an erosion control treatment at guardrail that Operations has used for years. The downside is the erosion control curb tends to further tilt the guardrail over time. This can be used to replace existing erosion control curb or at selected locations. A better treatment for slopes at guardrail is Perimeter Erosion Barrier, Special (Dist. Std. 8.4). 36.2 Paved ditch is rarely used in District 2. It tends to crack and water seeps under the concrete, causing it to be undermined. Once undermined it collapses, causing an erosion problem. Where it can be used is on very flat ditch grades, less than 0.2%. In this case, velocity is low, but the paved ditch could silt in. Operations could clean the paved ditch and the paved ditch establishes the grade line. 37.2 Include when installing or removing across road culverts in sags or on grades greater than 2%. The purpose of this is to prevent water pumping out of the joints of the pavement patch. Add the pay items for Pipe Underdrains, Type 2 and Concrete Headwalls for Pipe Drains. 44.2 This is to be used on all disabled parking stalls. 45.2 Include this on projects that correct existing superelevations, or on new pavements on superelevations. Not to be used on 3P or Smart projects because existing superelevations are not changed. 46.2 Include this on all Smart resurfacing projects. 47.2 Include this on all 3P resurfacing projects. 48.2 Include in Smart resurfacing projects with paved shoulders 3' or less. 49.2 Include in 3P resurfacing projects with paved shoulders 3' or less. 60.2 Deleted 4-15-15 61.2 This can be used to increase drainage in curb & gutter or Gutter, Type A (Special) where the longitudinal grade is less than 0.3%. Use 68.1 when constructing median crossovers. 63.2 Include this when constructing new steps. 64.2 Include this when handrails are needed on retaining walls. Not all retaining walls need handrails. Retaining walls that are supporting and adjacent to sidewalks or parking lots usually need a handrail. Landscaping walls to retain earth in front of a house usually don't need handrails.

District 2 Standards Designer Notes

4-13-16

Include this when using the pay item for Permanent Survey Marks. Do not 66.2 include Highway Standard 667101 because Standard 66.2 is 5' deep and requires a witness marker. 73.2 Use this on entrance pipes or berm pipes adjacent to a river or canal. This will prevent water from the river or canal backing up into the ditch. 81.2 This is one option to control erosion at the ends of culverts with very high velocities. There is a design process to determine the dimensions in the chart. Consult with the Hydraulics Engineer on its use. Include this at the end of dead end roads like a cul-de-sac or hammer head 89.2 turn around. 90.2 Use this at locations where pipe culverts or box culvert joints could separate. Most culverts do not require the ties, so this is rarely used. One application is where the culvert outlets into a river. There could be erosion at the end of the culvert so the end section or sections of the culvert could tip or fall off. In this case, only the last one or two sections were tied. 93.2 Include this when sideroads are constructed with 3"± of incidental on an aggregate base and the mainline has 8" HMA shoulders. This standard includes 4' HMA shoulders on the sideroad return, which will be placed monolithically when the return is resurfaced. 94.2 Include this on multi-lane roads when the traffic lane is closed adjacent to a left or right turn lane and the turn lane is to remain open to traffic.

1/4 SIZE

8.4	Perimeter Erosion Barrier, Special
11.4	Concrete Curb (Special)
12.4	Concrete Curb (Special) (Adjacent to Resurfacing)
13.4	Combination Concrete Curb & Gutter, Type, Special
15.4	Gutter Outlet Adjacent to Stabilized Shoulders
16.4	Concrete Gutter, Type A, with Flume
17.4	Catch Basins or Inlets to be Adjusted or Reconstructed
18.4	Curb & Gutter Outlet, Special
19.4	Riprap at End Sections
19.4a	Concrete Revetment Mat at End Sections
20.4	Grading Around Wingwalls
21.4	Aggregate Ditch for Flexible Ditch Lining
22.4	Hot Mix-Asphalt Shoulder
23.4	Detail of Hot-Mix Asphalt Shoulder at Guardrail
24.4	Pavement Breaking Detail
27.4	Concrete Headwalls for Pipe Underdrains for Structures
28.4	Cast-in-Place Reinforced Concrete End Sections
29.4	Silicone Joint Seal (Concrete Details)
30.4	· · · · · · · · · · · · · · · · · · ·
	Stone Wells, Special
31.4	Parking Blocks Payament Patching for Het Mix Apphalt Surfaced Payament
32.4	Pavement Patching for Hot-Mix Asphalt Surfaced Pavement
33.4	Pavement Patching Detail
34.4	Thrust Block Details
35.4	Sidewalk and Driveway Pavement Pay Areas
36.4	Concrete Gutter, Type A (Special)
37.4	Delineator and Post Orientation
38.4	Edge of Pavement Repair
43.4	Required Cold Milled Surface Texture
44.4	Slab Movement Detection Device
46.4	Aerial Speed Check Zones
50.4	Typical Benching Detail on Existing Embankment
51.4	Typical Construction of Embankments with Granular Material
70.4	Tree Wall
71.4	Detail of Concrete Steps
79.4	Inlets, Special, No. 3
79.4a	Inlets, Special, No. 4
79.4b	Inlets, Special, No. 5
79.4c	Inlets, Special, No. 6
79.4d	Inlets, Special, No. 7
79.4e	Inlets, Special, No. 8
79.4f	Nose Type for Inlet Top Slab
79.4g	Inlets, Special, No. 3, 4, 5, 6 Reinforcement Detail
79.4h	Inlets, Special, No. 7 & 8 Reinforcement Detail
80.4	Inlets to be Reconstructed with New Standard 542546 Frame & Grate
83.4	Grate, Special
87.4	Typical Median Crossover Closure (with Emergency Opening)
88.4	Drain for Aggregate Bases in Urban Areas
91.4	Rumble Resurfacing
96.4	Drain for Aggregate Base Course
97.4	Subgrade Replacement
98.4	Typical Median Crossover Closure

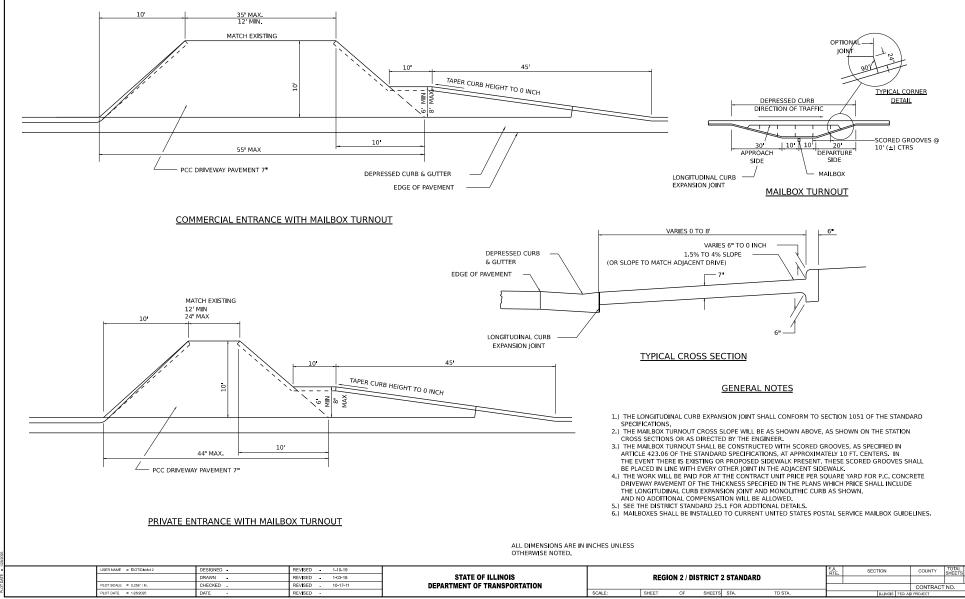
1/4 Size District 2 Standards

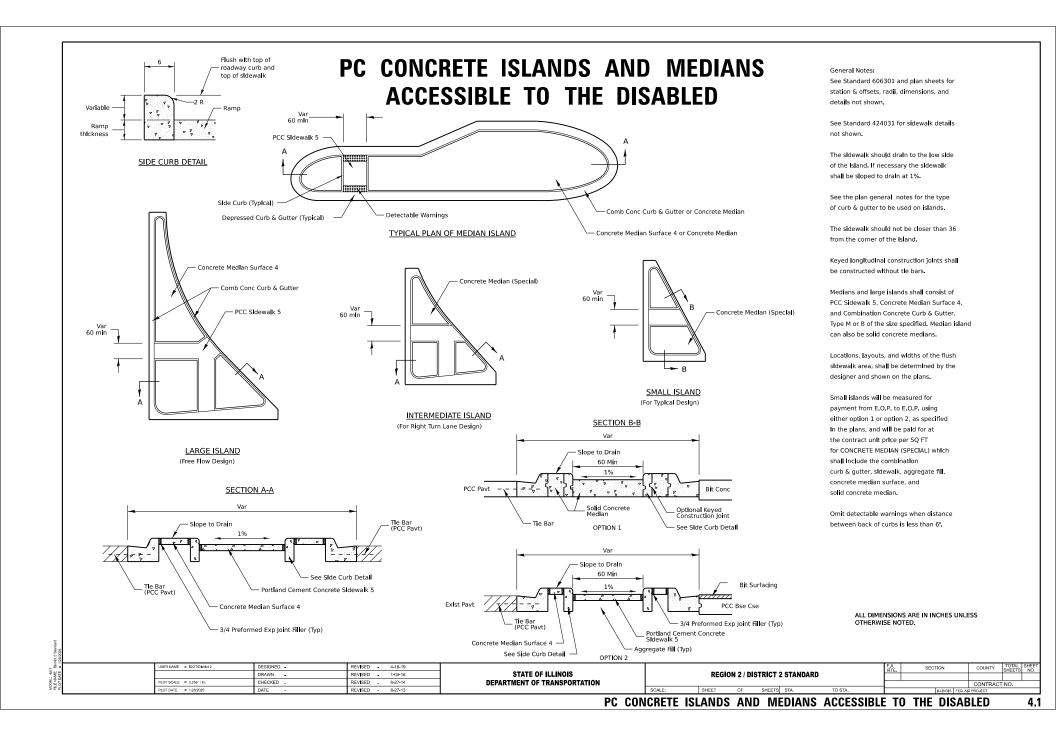
8.4	This can be used on Smart & 3P resurfacing projects to maintain a maximum 9% cross slope on the aggregate shoulder in front of existing guardrail. The guardrail could also be removed and re-erected or replaced if it is extremely tipped, out of alignment, damaged, not to current standards, or the height is more than 3" high or low from the initial standard used to install it. Smart projects are allowed up to 15% of the total contract cost for spot safety improvements. 3P projects can also have spot safety improvements, but both projects require BDE approval. Include pay items for Steel Plate Beam Guardrail, Type A (Special), and Aggregate Wedge Shoulder, Type B.
11.4, 12.4 & 13.4	These can be used when a new median or curb & gutter is placed on bare concrete pavement. This isn't used much because the first thing necessary is bare concrete, and there isn't much bare concrete in our District.
15.4	This is used to replace existing gutter outlets adjacent to a HMA shoulder. District 2 doesn't construct new gutter adjacent to stabilized shoulders; curb & gutter is used. Therefore, when curb & gutter is constructed adjacent to a stabilized shoulder, use Highway Standard 606101.
16.4	This is a specialized gutter outlet. Do not use this on curb & gutter. An example of when it would be used is to outlet the gutter over the top of a culvert headwall.
17.4	Use this standard for adjustment of catch basins or inlets.
18.4	This is a specialized curb & gutter outlet. This can be used when there is a ditch behind the curb & gutter and there aren't any inlets with frame & grate or Winnebago's in the curb & gutter.
19.4	Use this when RIPRAP is required at culvert end section. Check the hydraulic report for the apron length and the size of the riprap to be used. Be sure to show the dimensions on the plans.
19.4a	Use this when concrete revetment mat is required at an end section. There is a table on the standard which needs to be filled out. Check the hydraulic report for the apron length. Be sure to show the dimensions on the plans.
20.4	Use this on across road culverts that have wingwalls that are not parallel with the culvert. This is a guide for the Resident Engineer & Contractor on how to construct the dirt around wingwalls.
21.4	If riprap is needed in ditches to control erosion, use this standard. Specify the pay item for Class A3 or A4. Add the dimensions to the typical section. The height of the riprap on the side slopes should extend approximately 6" higher than the computed depth of water in the ditch.
22.4	Use this for new HMA shoulders. If guardrail will be installed before the surface course is placed, like on staged bridge projects, use District Standard 23.4
23.4	Use this on projects where guardrail will be installed before the surface course is placed. This allows the guardrail to be installed and the shoulder resurfaced to the post so the posts do not have to be removed and re-erected. For example, staged bridge projects require guardrail to be installed for Stage 2, but all of the surface course is placed after the bridge is completed. If new HMA shoulders are constructed and guardrail will be installed after the HMA shoulder is installed, use District Standard 22.4.

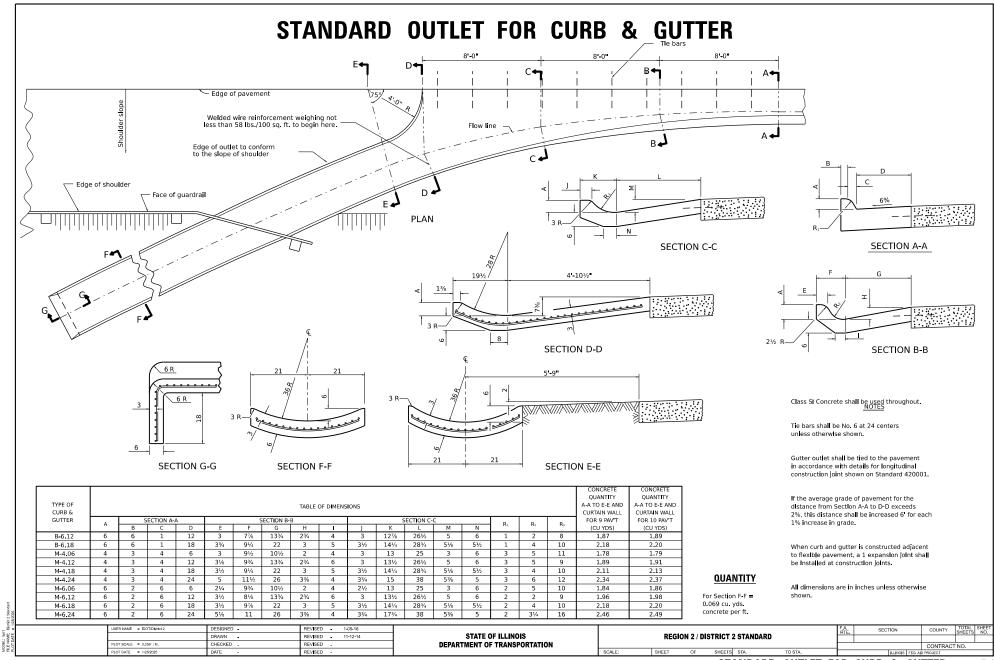
24.4	Use this on projects with large changes in vertical alignment from the existing pavement to a new full depth pavement. This will require a thick resurfacing taper, pavement breaking, and variable depth subbase granular material.
27.4	Use this if the pipe underdrain for structures behind the bridge abutment will outlet into the riprap on the bridge cone. If not, use Highway Standard 601101
28.4	Use this if storm sewer or field tile outlets through the backslope of the ditch. This can also be used for Cast-in-Place Reinforced Concrete End Section 8" of 10".
29.4	Include this standard if #16 Polymer Concrete is checked on the Recurring Special Provision check sheet.
30.4	This can be used in sandy soils to drain areas with poor drainage or no outlets Materials must take soil borings to determine if the stone well will function properly.
31.4	This can be used in parking lots or for diagonal parking if there isn't a curb or curb & gutter.
32.4	Use this standard for peek-a-boo patching. Peek-a-boo patching is used to remove and replace the existing HMA on top of concrete pavement, up to a maximum of 8" thick.
33.4	Use this standard for pavement patching when the existing HMA overlay thickness is 8" or thicker.
34.4	Include this when constructing new water mains, or moving or relocating fire hydrants. Do not include this for the thrust blocks on Highway Standard 610001.
35.4	Use this standard in urban areas when removing and replacing sidewalk and driveway pavements.
36.4	When constructing concrete gutter, District 2 has a flat bottom gutter which is easier to construct. Do not include Highway Standard 606101. For gutter inlets, include #20.2 Standard Inlet for Type A Gutter (Special), and for outlets include #15.4 Gutter Outlet Adjacent to Stabilized Shoulder.
37.4	Include when installing new delineators. The purpose of rotating the post 180° is to give more support for the delineators so it doesn't break off.
38.4	Include this standard on 3P projects when there are areas along the edge of pavement that are badly deteriorated. Also include the appropriate Recurring Special Provision.
43.4	Include this standard if #13 HMA Surface Correction is checked on the Recurring Special Provisions check sheet. This milling is for surface corrections that will not be resurfaced. To date this has not been used in District 2.
44.4	Include this standard if #12 Subsealing of Concrete Pavements is checked on the Recurring Special Provisions check sheet. This is used with the pay items Dry Grout Solids and Holes Drilled. To date this has not been used in District 2.

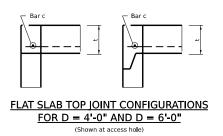
46.4	This is used when replacing existing aerial speed check zones on resurfacing projects. Field check the project to determine if any exist.
50.4	Include this when adding embankment on an existing slope that is 4' high or more.
51.4	Use on any project that will be widening the existing embankment, contact Geotech with any questions.
70.4	This can be used to save a tree on a slope that will be excavated. Usually there is a commitment in the project report to save a tree that requires a tree well.
71.4	Include this detail for installing or replacing steps adjacent to sidewalk.
79.4 79.4a 79.4b 79.4c 79.4d 79.4e 79.4f 79.4g 79.4h	These inlets, known as Winnebago's. No. 3 & 4, can be used with storm sewer up to 36" diameter, No. 5 & 6 can be used with storm sewer up to 24" diameter, No. 7 can be used with storm sewer up to 48" diameter, and No. 8 can be used with storm sewer up to 60" diameter. No. 4 & 6 have open backs for drainage behind the inlets. Do not use Winnebago's with curb & gutter with gutter flags less than 24", it makes the cross slope of the gutter flag too steep. This can be dangerous for bicyclists, or people stepping off of the curb. Instead, use an inlet with a frame & grate to fit the curb & gutter. When using 79.4, 79.4a, 79.4b, or 79.4c, also include 79.4f & 79.4g. When using 79.4d & 79.4e, also include 79.4f & 79.4h.
80.4	This can be used to lower an existing 3' x 3' median inlet.
83.4	Use this to replace broken grates or to replace a grate that isn't bicycle safe. Measure the existing grate to ensure this will fit.
87.4	Use this on permanent median crossovers where an emergency opening is needed. If an emergency opening isn't needed, use District Standard 98.4. Check with Operations to see if an opening is needed.
88.4	Use this in urban areas with new pavement, subbase, and storm sewer. The purpose of this is to drain the subbase.
91.4	This is usually used to replace existing rumble strips in the traffic lane before stop signs. It can also be used at new locations to reduce accidents.
96.4	Use this on new pavements with subbase where there will be ditches. Place one in all low points and others at approximately 250' intervals.
97.4	Include this for full depth patching. The quantity for subgrade replacement will be approximately 10-20% of the area of the full depth patches. Remember to include the BDE special provision for Aggregate Subgrade Improvement.
98.4	Use this on permanent median crossovers where an emergency opening is not needed. If an emergency opening is needed, use District Standard 87.4. Check with Operations to see if an opening is needed.

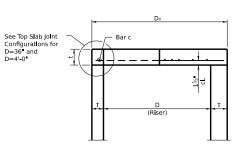
MAILBOX TURNOUT IN CURB AND GUTTER SECTION



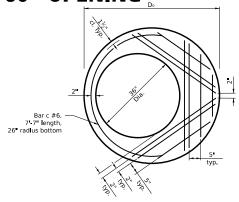






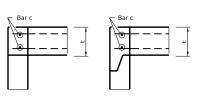


SECTION THRU FLAT SLAB TOP FOR D = 4'-0" AND D = 6'-0"



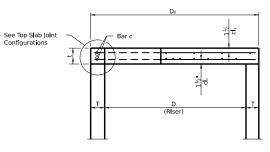
PLAN - FLAT SLAB TOP FOR D = 4'-0"

(Showing layout of reinforcement bars and c bars)

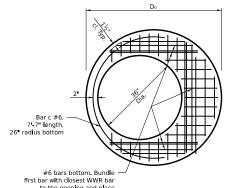


FLAT SLAB TOP JOINT CONFIGURATIONS FOR D = 8'-0" AND D = 10'-0"

(Shown at access hole)



SECTION THRU FLAT SLAB TOP FOR D = 8'-0" AND D = 10'-0"



to the opening and place second bar ±3° away.

PLAN - FLAT SLAB TOP FOR D = 4'-0"

(Showing layout of welded wire reinforcement and c bars)

GENERAL NOTES

The flat slab top may be used in lieu of the tapered tops shown on Standards 602001, 602016, or 602306 at the option of the Contractor or when field conditions prohibit the use of tapered tops.

Lifting holes shall be located in the sections as per the manufacturer's recommendations

All dimensions are in inches (millimeters) unless otherwise

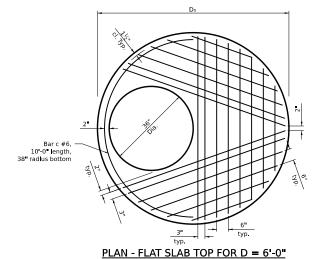
USER NAME = IDOT/District 2	DESIGNED .	REVISED - 3-23-23
	DRAWN -	REVISED
PLOT SCALE = 0.2576 1/ In.	CHECKED -	REVISED -
PLOT DATE = 1/28/2025	DATE -	REVISED

TABLE

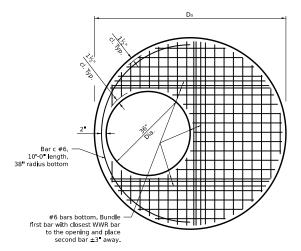
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

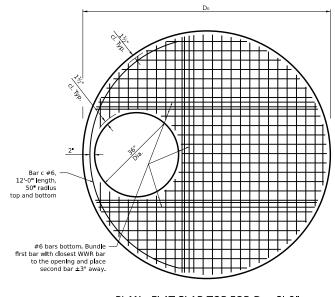
	REGI	ON 2 / DI	STRICT 2	STANDARD	
SCALE:	SHEET	OE	SHEETS	STA	TO

CONTRACT NO



(Showing layout of reinforcement bars and c bars)





PLAN - FLAT SLAB TOP FOR D = 8'-0"

(Showing layout of reinforcement bars and c bars)

PLAN - FLAT SLAB TOP FOR D = 6'-0"

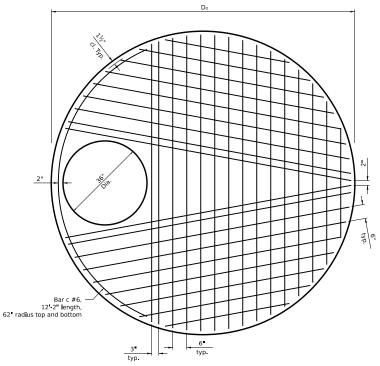
(Showing layout of welded wire reinforcement and c bars)

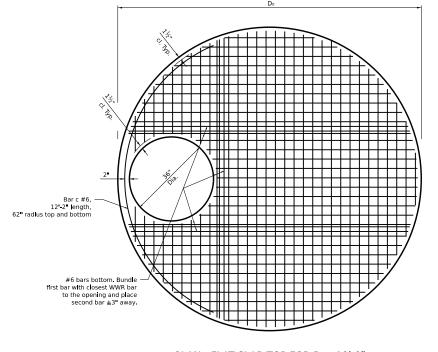
PLAN - FLAT SLAB TOP FOR D = 8'-0"

(Showing layout of welded wire reinforcement and c bars)

USER NAME = IDOT/District 2	DESIGNED -	REVISED - 3-23-23					F.A.	SECTION	COUNTY	TOTAL	SHEET			
	DRAWN -	REVISED -	STATE OF ILLINOIS		REGION 2 / DISTRICT 2 STANDARD					KIL.			UI LL TO	110.
PLOT SCALE = 0.258'/In.	CHECKED -	REVISED	DEPARTMENT OF TRANSPORTATION									CONTRAC	r NO.	-
PLOT DATE = 1/28/2025	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. AI	D PROJECT		

12'-0" length, 50" radius top and bottom





PLAN - FLAT SLAB TOP FOR D = 10'-0"

(Showing layout of reinforcement bars and c bars)

FLAT SLAB TOP REINFORCEMENT FOR D = 4'-0"

	Location	WWR (eacl	n direction)	Rebar				
	Location	A _s (mln.)	Spacing (max.)	A _s (mln.)	Spacing (max.)	Bar Slze		
	Bottom Mat	* 0.88 sq. in./ft.	6 "		rebar orientation and s table for bar size	#6		

FLAT SLAB TOP REINFORCEMENT FOR D = 6'-0"

Location	WWR (eacl	n direction)	Rebar							
Location	A _s (mln.)	Spacing (max.)	As (mln.)	Spacing (max.)	Bar Slze					
Bottom Mat	* 0.88 sq. in./ft.	6 "		rebar orientation and s table for bar size	#6					

PLAN - FLAT SLAB TOP FOR D = 10'-0"

(Showing layout of welded wire reinforcement and c bars)

FLAT SLAB TOP REINFORCEMENT FOR D = 8'-0"

ſ	Location	WWR (eacl	n direction)	Rebar (eac	h direction except as no	oted)
L	Location	A _s (min.)	Spacing (max.)	A _s (min.)	Spacing (max.)	Bar Size
	Top Mat	0.11 sq. ln./ft.	18"	0.11 sq. i n./ft.	18"	#3 or #4
ſ	Bottom Mat	* 0.88 sq. ln./ft.	6"		rebar orlentation and s table for bar size	#6

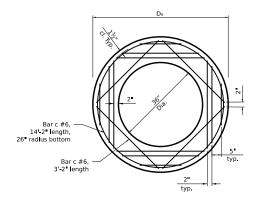
^{*} Only one layer of WWR permitted to avoid congestion.

FLAT SLAB TOP REINFORCEMENT FOR D = 10'-0"

Location	WWR (eacl	n direction)	Rebar (eac			
Location	A _s (min.)	Spacing (max.)	A _s (min.)	Spacing (max.)	Bar Size	
Top Mat	0.11 sq. in./ft.	18" 0.11 sq. in./ft.		18"	#3 or #4	
Bottom Mat	* 0.88 sq. ln./ft.	6"		rebar orlentation and s table for bar size	#6	

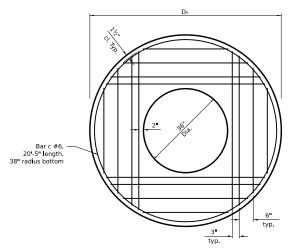
* Only one layer of WWR permitted to avoid congestion.

				,			,						
USER NAME = IDOT/District 2 DESIGNED	REVISED 3-23-								F.A. RTF	SECTION	COUNTY	TOTAL SH	ET
DRAWN	REVISED	STATE OF ILLINOIS		REGIO	N 2 / DISTI	RICT 2	2 STANDARI	D	IXII.			O'ILL'IO	~
PLOT SCALE = 0.258 ' / In. CHECKED	- REVISED -	DEPARTMENT OF TRANSPORTAT	ION								CONTRACT	T NO.	_
PLOT DATE = 1/28/2025 DATE	REVISED		SCALE:	SCALE: SHEET OF SHEETS STA. TO STA.		TO STA.		ILLINOIS FED. AI	D PROJECT				



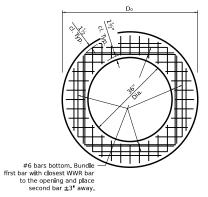
PLAN - FLAT SLAB TOP FOR D = 4'-0"

(Showing layout of reinforcement bars and c bars)



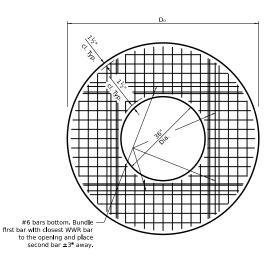
PLAN - FLAT SLAB TOP FOR D = 6'-0"

(Showing layout of reinforcement bars and c bars)



PLAN - FLAT SLAB TOP FOR D = 4'-0"

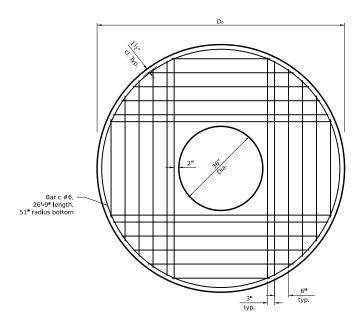
(Showing layout of welded wire reinforcement and c bars)



PLAN - FLAT SLAB TOP FOR D = 6'-0"

(Showing layout of welded wire reinforcement and c bars)

USER NAME = IDOT/District 2	DESIGNED -	REVISED 3-23-23								F.A. RTF	SECTION	COUNTY	TOTAL SH	ĒΤ
	DRAWN -	REVISED	STATE OF ILLINOIS		REGIO)N 2 / DIS	TRICT	2 STANDARD						7
PLOT SCALE = 0.258'/In.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION							Ь,		CONTRAC	T NO.	┨.
PLOT DATE - 1/28/2025	DATE -	REVISED -		SCALE: SHEET OF SHEETS STA.					TO STA.		ILLINOIS FED	AID PROJECT		_

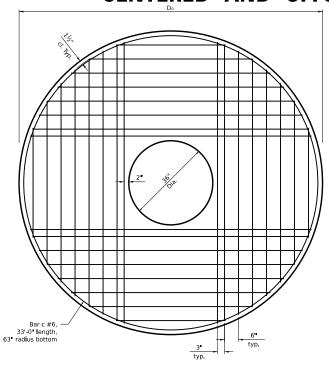


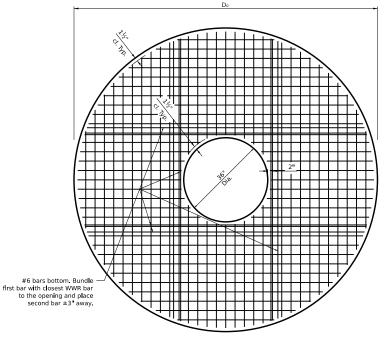
PLAN - FLAT SLAB TOP FOR D = 8'-0"
(Showing layout of reinforcement bars and c bars)

#6 bars bottom, Bundle
first bar with closest WWR bar
to the opening and place
second bar ±3" away.

PLAN - FLAT SLAB TOP FOR D = 8'-0"
(Showing layout of welded wire reinforcement and c bars)

USER NAME = IDOT/District 2	DESIGNED -	REVISED - 3-23-23								F.A. RTF	SECTION	COUNTY	TOTAL	SHEET
	DRAWN -	REVISED	STATE OF ILLINOIS		REGIO	ON 2 / DIS	STRICT 2	2 STANDARD						
PLOT SCALE = 0.258'/In.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION							Ь Т		CONTRAC	T NO.	-
PLOT DATE = 1/28/2025	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. A	D PROJECT		





PLAN - FLAT SLAB TOP FOR D = 10'-0"

(Showing layout of reinforcement bars and c bars)

FLAT SLAB TOP REINFORCEMENT FOR D = 4'-0

Location	WWR (eacl	n direction)		Rebar	
Location	A _s (mln.)	Spacing (max.)	A _s (mln.)	Spacing (max.)	Bar Slze
Bottom Mat	* 0.88 sq. in./ft.	6"		rebar orientation and s table for bar size	#6

FLAT SLAB TOP REINFORCEMENT FOR D = 6'-0"

Location	WWR (eacl	n direction)	Rebar							
Location	A _s (mln.)	Spacing (max.)	As (min.)	Spacing (max.)	Bar Slze					
Bottom Mat	* 0.88 sq. in./ft.	6"		rebar orientation and s table for bar size	#6"					

PLAN - FLAT SLAB TOP FOR D = 10'-0"

(Showing layout of welded wire reinforcement and c bars)

FLAT SLAB TOP REINFORCEMENT FOR D = 8'-0"

Location	WWR (eacl	n direction)	Rebar (eac	n direction except as no	oted)
Location	A _s (mln.)	Spacing (max.)	A _s (mln.)	Spacing (max.)	Bar Slze
Top Mat	0.11 sq. in./ft.	18"	0.11 sq. in./ft.	18"	#3 or #4
Bottom Mat	* 0.88 sq. in./ft.	6 "		rebar orlentation and s table for bar size	#6

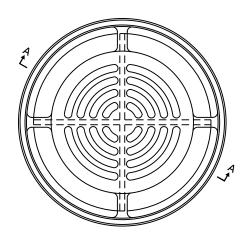
^{*} Only one layer of WWR permitted to avoid congestion.

FLAT SLAB TOP REINFORCEMENT FOR D = 10'-0"

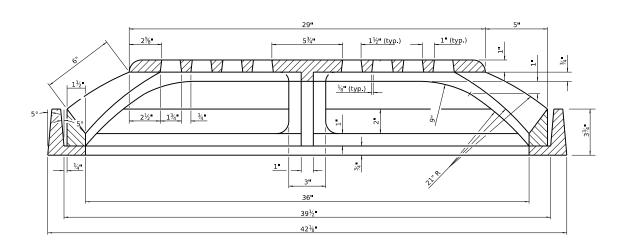
Location	WWR (eacl	n direction)	Rebar (eac	h direction except as no			
Location	A _s (min.)	Spacing (max.)	A _s (min.)	Spacing (max.)	Bar Size		
Top Mat	0.11 sq. in./ft.	18"	0.11 sq. in./ft.	18"	#3 or #4		
Bottom Mat	* 0.88 sq. in./ft.	6 "		rebar orientation and s table for bar size	#6		

* Only one layer of WWR permitted to avoid congestion.

				,	•										
USER NAME = IDOT/District 2	DESIGNED -	REVISED 3-23-23									F.A. RTF	SECTION	COUNTY	TOTAL S	HEET
	DRAWN -	REVISED	STATE OF ILLINOIS		REGIO	ON 2 /	DISTRI	ICT 2	2 STANDARD		1111			0	
PLOT SCALE = 0.258*/In.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION										CONTRAC	NO.	\neg
PLOT DATE - 1/28/2025	DATE -	REVISED -		SCALE:	SHEET	OF	SH	EETS	STA.	TO STA.		JULINOIS FED.	ID PROJECT		

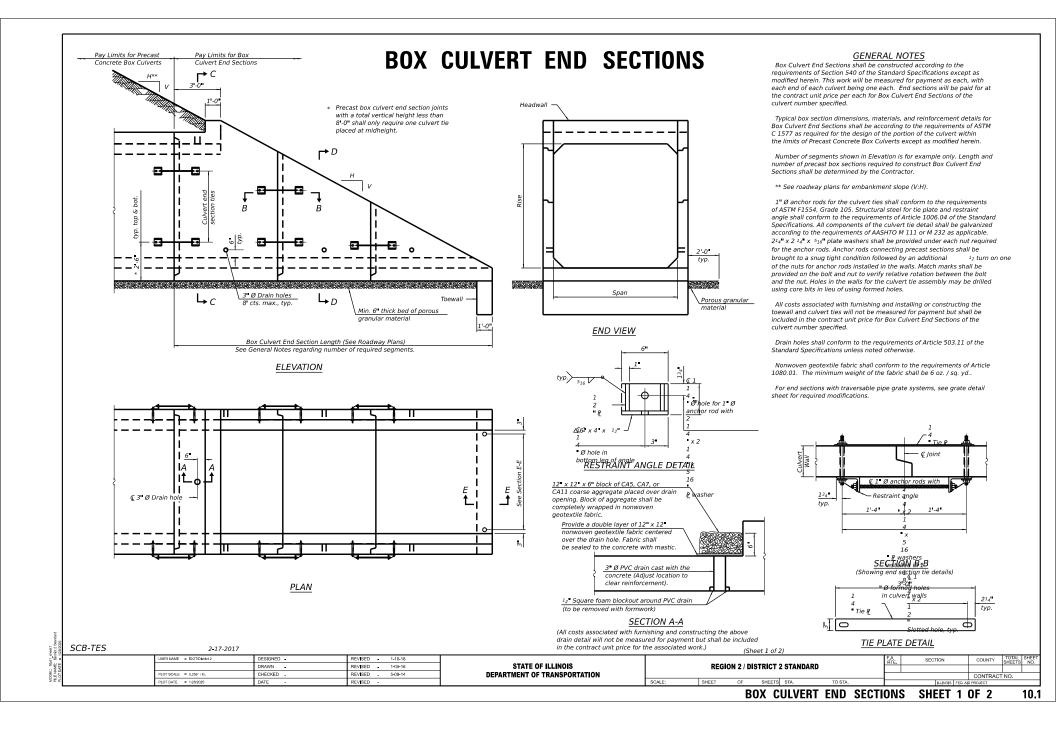


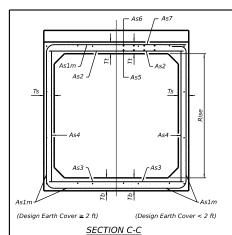
NEENAH: R-4349-D 5.4 sq. ft. Opening



SECTION A-A

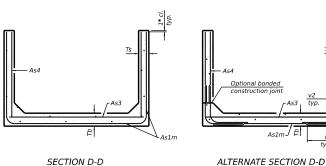
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	DRAWN -	REVISED 3-23-23	STATE OF ILLINOIS		REGIO	N 2 / DIS	TRICT:	2 STANDARD		IXIL.			OTTLE TO	110.
PLOT SCALE = 0.258*/In.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION									CONTRACT	NO.	-
PLOT DATE = 1/28/2025	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. AI	PROJECT		





BOX CULVERT END SECTIONS

As1m J ₽



	As1m REINFORCEMENT (in.[V ft)													
Ts (in.)	Rise (ft) 2 3 4 5 6 7 8 9 10 11 12													
4	0.19	0.17												
5	0.26	0.21	0.18											
6	0.22	0.26	0.23	0.22										
7	0.25	0.33	0.59	0.27	0.28									
8	0.40	0.35	0.43	0.39	0.36	0.34	0.40							
9	0.44	0.39	0.35	0.43	0.40	0.37	0.36	0.48						
10	0.48	0.42	0.38	0.47	0.44	0.41	0.38	0.42	0.56					
11	0.52	0.45	0.54	0.50	0.46	0.44	0.41	0.46	0.50	0.65				
12	0.55	0.49	0.58	0.54	0.50	0.48	0.45	0.46	0.46	0.61	0.75			
	•													

(As1m reinforcement based upon welded wire reinforcement conforming to AASHTO M 55 or M 221).

using Alternate Section D-D.

11 DIMENSION

#3 bar = 2'-0" #4 bar = 2'-8"

#6 bar = 3-11

#5 bar = 3'-4"

The size and spacing of the v2 bars shall provide a minimum reinforcement area along each face of the walls (in.]/ft.) equal to 1.10*(As1m). v2 bars may consist of #3 thru #6 size reinforcement bars and the longitudinal spacing shall not exceed the lesser of the wall thickness or 8 inches.

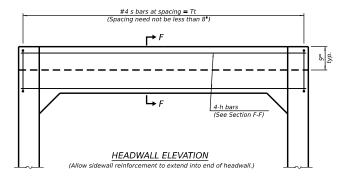
Alternate Section D-D is provided to allow the Contractor the

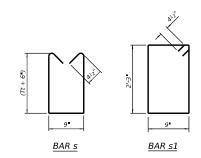
option of casting the bottom slab of the end section first followed

shall be submitted to the Engineer for review and approval when

by construction of the sidewalls using conventional forming methods. Shop drawings that detail slab thickness and reinforcement layout

Bonded construction joints shall be prepared according to Article 503.09 of the Standard Specifications.



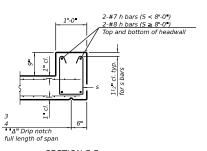


Notes:

TOEWALL CONSTRUCTION SEQUENCE

- 1. Perform excavation and construct toewall.
- 2. Backfill according to the applicable paragraphs of Article 502.10 $\,$ of the Standard Specifications and place bedding for precast box culvert end sections.
- 3. Set precast box culvert end section.
- 4. Drill and epoxy grout reinforcement in toewall in accordance with
- Section 584 of the Standard Specifications.

 5. Pressure grout voids using non-shrink grout conforming to Section 1024 of the Standard Specifications.
- The Contractor may furnish a precast or cast-in-place toewall. The Contractor shall be responsible for the strength and stability of the precast toewall during handling. Additional lifting points may be required depending upon the length of the toewall or the Contractor may need to modify the design of the toewall for the proposed handling the method.
- ** If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3° by increasing the thickness of the toewall.



SECTION F-F

SCB-TES		2-17-2017
	USER NAME	= IDOT/District 2

3" Ø corrugated PE pipe

per Article 1040.04 of the

Standard Specifications.

6-#5 h1 bars

placed as show

#4 s1 bars at 1'-0" cts., max

SECTION E-E

Fill with non-shrink grout

#4 v1 bars drilled and grouted into toewall in 9" min

deep holes at 1'-6" cts., max.

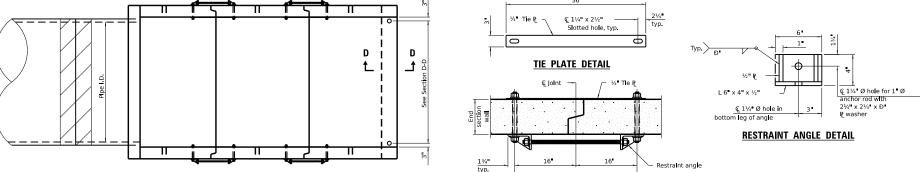
USER NAME = IDOT/District 2	DESIGNED .	REVISED - 1-10-18
	DRAWN -	REVISED - 1-05-16
PLOT SCALE = 0.258*/In.	CHECKED -	REVISED 5-09-14
PLOT DATE = 1/28/2025	DATE -	REVISED -

112" cl. typ.

> STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

			eet 2 of 2	2 STANDAF			F.A. RTE	SECT	ION		COUNTY	TOTAL SHEETS	SHEET NO.
					CONTRACT	I NO.	\Box						
SCALE:	SHEET	OF	SHEETS	STA.	TO STA.				ILLINOIS	FED. AII	PROJECT		
				BOX	CULVERT	ENI	0 9	SECTION	VS.	2 (OF 2		10.1

CONCRETE END SECTIONS FOR PARALLEL PIPE CULVERTS 15" THRU 84" DIA. Pay Limits for Pipe Culverts € Pipe culvert 4.0 **GENERAL NOTES** joint The concrete end sections detailed herein for flexible type pipe culverts are restricted to use with parallel type drainage structures only and traversable pipe grating placed perpendicular to the sidewalls. When traversable pipe grating placed parallel to the sidewalls is required, use © Culvert end section ties standard 542001 or 542011. at mid-height of end A segment of pipe culvert shall be cast into the section joint, typ. backwall of the concrete end section such that a minimum of 4 ft of pipe culvert extends from the back face of the end section as shown Band for corrugated in Elevation steel or aluminum Segments of pipe culvert shall be joined in accordance culvert. See General with Article 542 of the Standard Specifications except Notes regarding joints. bands for corrugated steel or aluminum culverts shall 24" typ. conform to the length requirements shown in elevation and have the same corrugations as the culvert pipe. These bands will be included in cost of the pipe. Pipe diameter < 36" 24" The number of segments shown in elevation is for 8" Span (S) example only. The length and number of precast Pipe diameter ≥ 36" 4-0 sections required to construct the end section Toewall Granular shall be determined by the Contractor. bedding Min. 6" thick 3" Ø Drain holes See roadway plans for slope (V:H) and pipe inside **END VIEW** 8 cts. max., tvp. bed of granular dlameter bedding (Showing pipes) 21/4" x 21/4" x D" plate washers shall be Culvert End Section length (L) provided under each nut required for the anchor (See Roadway Plans) rods. Holes in the walls for the culvert tie * This dimension shall be increased by 1" for assembly may be drilled using core bits in lieu of formed holes. CIP field construction. See General Notes. **ELEVATION** All slope ratios are expressed as units of vertical dispacement to units of horizontal displacement (V:H) All dimensions are in inches unless otherwise shown. 36" 21/4 ¼ Tie ₽ C 11/4" x 21/2" Slotted hole, typ.

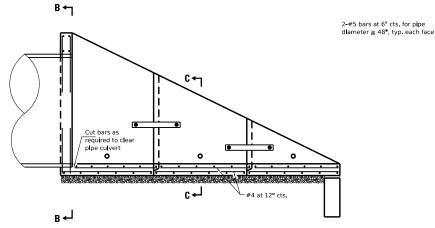


PLAN

© 1" Ø Anchor rods with 21/4" x 21/4" x Đ"

P washers installed in 11/6" dia. formed holes in end section walls

CONCRETE END SECTIONS FOR PARALLEL PIPE CULVERTS 15" THRU 84" DIA.



2.#5 bars each face 1-#5 bar for pipe diameter < 48°. typ. each face face (typ.) 2-#5 bars for plpe diameters ≥ 36", typ. each face

SECTION B-B

(Showing backwall reinforcement for pipes.)

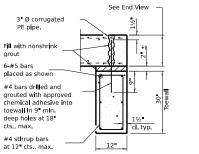
LONGITUDINAL SECTION

(Showing bottom slab and backwall reinforcement.)

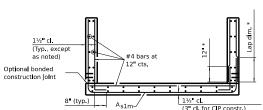
LAP DIMENSION

#4 bar = 17" #5 bar = 21" #6 bar = 25"

* The Contractor may use lap splices for the sidewall reinforcement at the locations shown.







SECTION C-C

PARALLEL PIPE CULVERT END SECTION DIMENSIONS

	Tables IB, IC, IIIA, AND IIIB										
Pipe I.D.				L							
				e of End Sect							
	R	S	1:4	1:6	1:10						
15"	25"	16"	9-0	13'-2"	21'-6"						
18"	28"	18 "	10'-0"	14'-8"	24'-0"						
21"	31"	22 "	11'-0"	16-2	26'-6"						
24"	35"	24"	12'-4"	18'-2"	29'-10'						
30"	3'-5"	30"	14'-4"	21 ' -2 "	34'-10"						
36"	3-11"	36 "	16'-4"	24'-2"	39'-10"						
42"	4'-5"	3'-6"	18 '-4"	27 '-2"	44'-10"						
48"	5'-0"	4'-0"	20 '-8"	30 "-8"	50'-8"						
54"	5 4	4'-6"	22 '-0"	32 '-8"	54'-0"						
60"	5'-10"	5'-0"	24 ' -0 "	35'-8 "	59'-0"						
66"	6'-4"	5'-6"	26 ' -0 "	38 ' -8 "	64'-0"						
72"	6'-10"	6'-0"	28 '-0"	41'-8"	69'-0"						
78"	7'-4"	6'-6"	30 ' -0 "	44 ' -8 "	74'-0"						
84"	7'-10"	7'-0"	32 '-0"	47 '-8"	79'-0"						

The above "Tables" are referenced from Article 542.03 of the Standard Specifications.

US	SER NAME = IDOT/District 2	DESIGNED -	REVISED 1-05-16								F.A.	SECTION	COUNTY	TOTAL	SHEET
		DRAWN -	REVISED 5-09-14	STATE OF ILLINOIS	REGION 2 / DISTRICT 2 STANDARD						IXIL.			OTTLE TO	140.
PLI	.OT SCALE = 0.258'/In.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION							\vdash		CONTRAC	T NO.	
PLO	OT DATE - 1/28/2025	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	JULINOIS FED. AID PROJECT				

CONCRETE END SECTIONS FOR PARALLEL PIPE CULVERTS 15" THRU 84" DIA. SHEET 2 OF 3

REINFORCEMENT SCHEDULE

	PIPES						
	Α	s1m					
Plpe I.D.	Bar Size	Bar Spacing					
15	#4	12"					
18"	#4	12"					
21	#4	12"					
24"	#4	12"					
30•	#4	12"					
36⁼	#4	12"					
42 "	#4	12"					
48 "	#4	8"					
54 "	#4	8"					
60 "	#5	8"					
66 "	#5	8"					
72 "	#5	8"					
78 "	#5	8"					
84	#6	8"					

PE pipe.

grout 6-#5 bars

cts., max.

CONCRETE END SECTIONS FOR PARALLEL PIPE CULVERTS 15" THRU 84" DIA.

QUANTITIES

	Tables IB, IC, IIIA, AND IIIB												
Pipe I.D.	•	Concrete y	d ³	Reinfo	rcement w Lap I bs.	ithout	Reinforcement with Lap lbs.						
	Slope	of End Se	ctlon	S l ope	of End Se	ctlon	S l ope	of End Se	ctlon				
	1:4	1:6	1:10	1:4	1:6	1:10	1:4	1:6	1:10				
15 "	1.4	1.9	2.8	250	330	510	270	350	540				
18"	1.6	2.2	3.4	290	400	600	310	420	640				
21"	2.0	2.7	4.2	330	450	690	360	480	740				
24"	2.3	3.2	5.0	370	510	790	400	550	850				
30■	3.1	4.3	6.7	490	680	1060	520	720	1130				
36 "	3.9	5.5	8.7	580	810	1270	620	870	1360				
42 "	4.9	6.9	10.9	720	1020	1610	770	1080	1710				
48 "	6.0	8.6	13.7	940	1320	2090	1010	1420	2240				
54 "	6.9	9.8	15.7	1090	1540	2440	1160	1650	2610				
60 "	8.1	11.6	18.6	1410	2000	3190	1530	2180	3480				
66 "	9.5	13.6	21.8	1650	2360	3780	1780	2560	4100				
72 "	10.9	15.7	25.2	1840	2630	4220	1990	2850	4580				
78 "	12.4	17.9	28.9	2110	3040	4900	2280	3280	5290				
84"	14.1	20.3	32.8	2710	3910	6320	2970	4290	6950				

The above quantities are estimates and provided for information only. Actual quantities may vary depending upon the final layout of reinforcement and number of segments determined by the Contractor.

For cast-in-place construction, increase concrete volumes by approximately 12%.

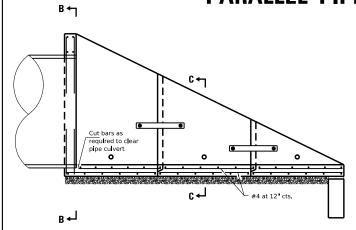
11.1

CONCRETE END SECTIONS FOR PARALLEL PIPE ARCH CULVERTS 15" THRU 84" DIA. Pay Limits for Pipe Culverts € Pipe Arch 4 0 Backwa**ll GENERAL NOTES** culvert joint The concrete end sections detailed herein for flexible type pipe culverts are restricted to use with parallel type drainage structures only and traversable pipe grating placed perpendicular to the sidewalls. When traversable pipe grating placed parallel to the sidewalls is required, use © Culvert end section ties standard 542001 or 542011. at mld-helght of end A segment of pipe culvert shall be cast into the section joint, typ. backwall of the concrete end section such that a minimum of 4 ft of pipe culvert extends from the back face of the end section as shown in Elevation Band for corrugated Segments of pipe culvert shall be joined in accordance steel or aluminum with Article 542 of the Standard Specifications except culvert. See General bands for corrugated steel or aluminum culverts shall Notes regarding joints. conform to the length requirements shown in elevation 24" typ. and have the same corrugations as the culvert pipe. These bands will be included in cost of the pipe. EQRS < 36" 24" The number of segments shown in elevation is for Span (S) example only. The length and number of precast sections required to construct the end section EQRS ≥ 36 4'-0" Toewall Granular bedding shall be determined by the Contractor. See roadway plans for slope (V:H) and pipe inside Min. 6" thick 3 Ø Drain holes dlameter bed of granular **END VIEW** 8' cts. max., tvp. 21/4" x 21/4" x D" plate washers shall be bedd**i**na (Showing pipe arches provided under each nut required for the anchor Culvert End Section length (L) rods. Holes in the walls for the culvert tie (See Roadway Plans) assembly may be drilled using core bits in lieu of * This dimension shall be increased by 11/2" for formed holes. CIP field construction. See General Notes. ELEVATION All slope ratios are expressed as units of vertical dispacement to units of horizontal displacement All dimensions are in inches unless otherwise shown. 36" 21/4" © 1¼ × 2½ typ. Slotted hole, typ. 0 θ D D ᅼ TIE PLATE DETAIL Q 1¼ Ø hole for 1 Ø L6 x 4 x ½ anchor rod with 21/4" x 21/4" x Đ" Ç 1¼" Ø hole in R washer RESTRAINT ANGLE DETAIL 16 16 Restraint angle € 1" Ø Anchor rods with 21/4" x 21/4" x D" P washers installed in 11/8" dia. formed holes in end section walls PLAN SECTION A-A (Showing end section tie details) REVISED STATE OF ILLINOIS REGION 2 / DISTRICT 2 STANDARD DRAWN REVISED LOT SCALE = 0.258'/In CHECKED REVISED DEPARTMENT OF TRANSPORTATION CONTRACT NO OF SHEETS STA. SHEET

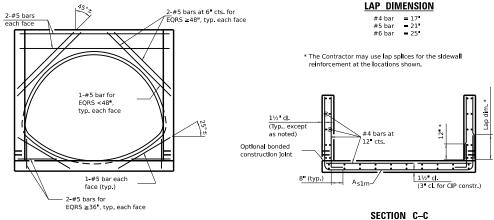
DATE

REVISED

CONCRETE END SECTIONS FOR PARALLEL PIPE ARCH CULVERTS 15" THRU 84" DIA.



LONGITUDINAL SECTION (Showing bottom slab and backwall reinforcement.)



SECTION B-B (Showing backwall reinforcement for arches.)

PARALLEL PIPE ARCH CULVERT END SECTION DIMENSIONS

See End View	
3" Ø corrugated	
Fill with nonshrink grout	
6-#5 bars placed as shown	
#4 bars drilled and grouted with approved chemical adhesive into toewall In 9" min. deep holes at 18" cts., max.	IDC.Mall
#4 stlrrup bars at 12" cts., max.	
SECTION D-D	

	Cul	vert	Table	e IIA, Corrug	atlon :	2	X ½"	Cul	vert	Table	e IIA, Corrug	gation :	3	× 1
Equivalent Round Size	_	D.				L			D				L	
Nouna Size	Span	Rise	R	s	Slope 1:4	e of End Sec 1:6	tion 1:10	Span	Rise	R	s	1:4	pe of End Se 1:6	tion 1:10
15"	17"	13"	23"	18"	8-4	12-2	19'-10"	-	-	-	-	-	-	-
18"	21"	15"	25"	22"	9'-0"	13-2	21'-6"	-	-		-	-	-	-
21"	24"	18"	28"	24"	10'-0"	14-8	24'-0"	-	-	-	-		-	-
24"	28 "	20"	30"	28"	10'-8"	15'-8"	25'-8"	-	-	-	-	-	·=·	-
30"	35"	24"	34"	36 '	12'-0"	17'-8"	29'-0"	-	-	-	-	-	-	-
36"	42 "	29"	39"	3'-6"	13'-8"	20'-2"	33'-2"	40"	31"	3'-6"	40 "	14'-8"	21-8	35'-8"
42"	49 "	33"	3'-7"	4'-2"	15'-0"	22'-2"	36'-6"	46"	36"	3'-11"	3'-10 "	16'-4"	24'-2"	39-10
48"	57 "	38"	4'-0"	4'-10"	16'-8"	24-8	40'-8"	53"	41*	4'-5"	4'-6"	18'-4"	27'-2"	44 '-10"
54"	64"	43"	4'-5"	5'-4"	18'-4"	27'-2"	44'-10"	60°	46 "	4'-10"	5'-0"	20'-0"	29'-8"	49'-0"
60"	71	47"	4'-9"	6'-0"	19'-8"	29'-2"	48'-2"	66"	51*	5'-3"	5'-6"	21'-8"	32'-2"	53'-2"
66"	77"	52"	5'-2"	6'-6"	21'-4"	31-8	52'-4"	73 "	55*	5'-8"	6'-2"	23'-4"	34'-8"	57'-4"
72"	83"	57"	5'-7"	7'-0"	23'-0"	34'-2"	56'-6"	81"	59 "	6'-0 "	6'-10 "	24'-8"	36'-8"	60 ' -8 "
78"	-	-	-	-	-	-	-	87"	63 "	6'-5"	7'-4"	26'-4"	39 '-2"	64'-10"
84"	-	-	-	-	-	-	-	95"	67 °	6'-9"	8'-0"	27'-8"	41-2	68'-2"

The above "Tables" are referenced from Article 542.03 of the Standard Specifications.

SER NAME = IDOT/District 2 DESIGNED -REVISED 5-09-14 DRAWN . REVISED . LOT SCALE = 0.258 '/In. CHECKED REVISED REVISED

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD OF SHEETS STA. SHEET

CONTRACT NO

REINFORCEMENT SCHEDULE PIPE ARCHES

Equivalent

Round Size

15"

18"

30"

36"

42"

48"

54"

60"

78"

84"

 A_{s1m}

Size Spacing

#4 12

#4 12" 12"

#4

#4

#4 12

#4 12"

#4

#4

#5 8

#5 8"

#5 8

Bar

12"

12 8

CONCRETE END SECTIONS FOR PARALLEL PIPE ARCH CULVERTS 15" THRU 84" DIA. SHEET 2 OF 3

CONCRETE END SECTIONS FOR PARALLEL PIPE ARCH CULVERTS 15" THRU 84" DIA.

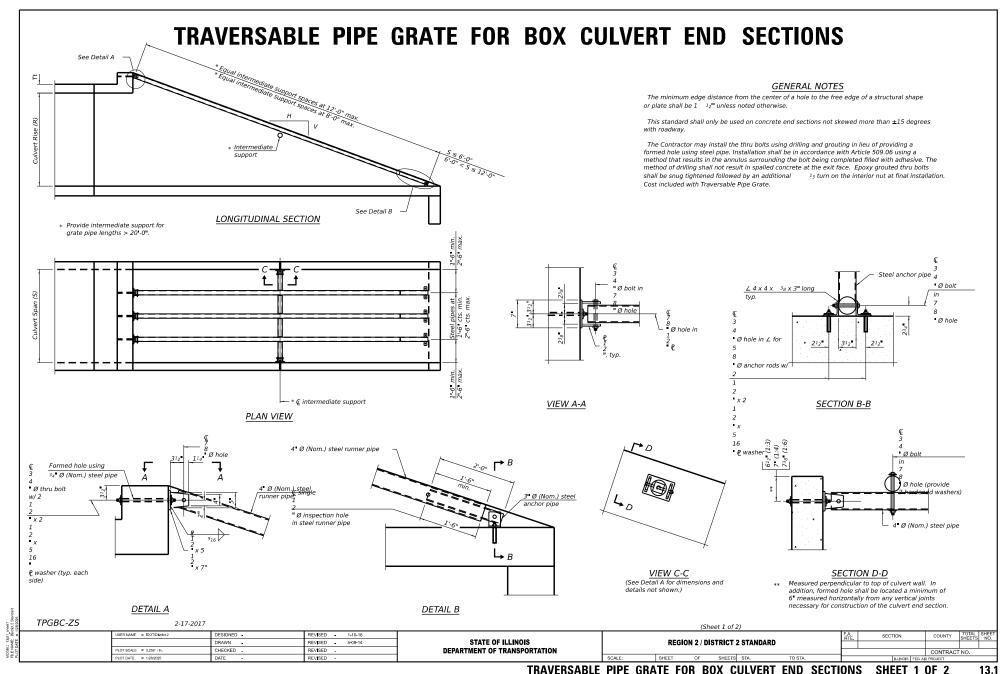
QUANTITIES

			Ta	b l e IIA, Co	rrugation:	2 x ½	5 ¹¹					7	āb i e IIA, C	orrugation	: 3" x 1"			
Equivalent Round Size	1	Concrete y	d ³	Reinfo	rcement w Lap i bs.	Ithout	Rein	forcement Lap i bs.	with	(Concrete y	d ³	Reinfo	rcement w Lap i bs.	thout	Reinforcement with Lap lbs.		
Kouna Size	S l ope	of End Se	ctlon	S l ope	Slope of End Section		Slope of End Section			Slope of End Section			Slope of End Section			Slope of End Section		
	1:4	1:6	1:10	1:4	1:6	1:10	1:4	1:6	1:10	1:4	1:6	1:10	1:4	1:6	1:10	1:4	1:6	1:10
15"	1.3	1.8	2.7	240	320	480	250	330	500	-	-	-	-	-	-	=	=	=
18"	1.5	2.1	3.2	270	360	540	290	370	570	-	-	-	-	-	-	-	-	-
21"	1.8	2.5	3.8	310	420	630	330	450	670	-	-	-	-	-	-	-	-	-
24"	2.1	2.8	4.4	360	480	730	380	510	780	-	-	-	-	-	-	-	-	-
30 °	2.7	3.7	5.7	420	570	860	440	610	920	-	-	-	-	-	-	-	-	-
36 °	3.4	4.6	7.2	520	700	1070	550	740	1140	3.6	5.0	7.8	560	770	1200	600	820	1270
42"	4.1	5.7	8.9	630	860	1340	660	910	1420	4.4	6.1	9.6	640	890	1380	680	940	1470
48"	5.0	7.0	11.0	740	1010	1560	780	1070	1650	5.5	7.7	12.2	800	1120	1750	840	1180	1860
54"	5.9	8.4	13.2	940	1320	2060	1000	1400	2190	6.4	9.1	14.4	980	1380	2170	1050	1470	2310
60 °	6.9	9.7	15.4	1050	1470	2300	1110	1560	2440	7.4	10.6	16.8	1120	1580	2500	1190	1680	2670
66 "	8.0	11.3	17.9	1190	1680	2630	1260	1780	2800	8.7	12.4	19.7	1320	1870	2960	1390	1980	3140
72"	9.1	12.9	20.6	1540	2190	3490	1660	2350	3770	9.9	14.1	22.4	1660	2360	3760	1790	2550	4060
78 "	1	-	-	-	-	-	-	-	1	11.1	15.9	25.5	1880	2700	4320	2010	2900	4640
84"	•	-	-	-	-	-	-	-	•	12.4	17.8	28.5	2050	2940	4690	2200	3150	5040

The above quantities are estimates and provided for information only. Actual quantities may vary depending upon the final layout of reinforcement and number of segments determined by the Contractor.

For cast-in-place construction, increase concrete volumes by approximately 12%.

	F.A. SECTION			N							
	REGION 2 / DISTRICT 2 STANDARD										
SCALE:	SHEET	OF	SHEETS	STA.	TO STA.			ILLINOIS	FED.		



TRAVERSABLE PIPE GRATE FOR BOX CULVERT END SECTIONS

PIPE-GRATE SCHEDULE FOR BOX CULVERT END SECTIONS

GENERAL NOTES This table is only to be used for cross drainage structures.

Precast Box											
	recast Bo rt Dimen			1:3			pe of End Section 1:4			1:6	
Cuive	rt Dimen	SIONS	Main Pipe	Int. Support	Total Length	Main Pipe	Int. Support	Total Length	Main Pipe	Int. Support	Total Length
S (ft)	R (ft)	Tt (in)	No. / Length	No. / Length	of Pipe	No. / Length	No. / Length	of Pipe	No. / Length	No. / Length	of Pipe
4	2	7.5	1 @ 8'-10"	N/A	8 10	1@11-7	N/A	11 -7	1 @ 17'-2"	N/A	17'-2"
4	2	5	1 @ 8'-2"	N/A	8'-2"	1 @ 10'-8"	N/A	10'-8'	1@15-11	N/A	15'-11"
4	3	7.5	1 @ 12'-0"	N/A	12 -0	1 @ 15'-8"	N/A	15'-8'	1 @ 23'-3"	1 @ 3'-7"	26'-10"
4	3	5	1 @ 11'-4"	N/A	11 -4	1@14-10	N/A	14'-10"	1 @ 22'-0"	1 @ 3'-7"	25'-7"
4	4	7.5	1 @ 15'-2"	N/A	15 -2	1 @ 19 10	1 @ 3'-7"	23'-5	1 @ 29'-4"	2 @ 3'-7"	36'-6"
4	4	5	1 @ 14 -6	N/A	14-6	1 @ 18 -11	N/A	18'-11"	1 @ 28'-1"	2 @ 3'-7"	35'-3"
5	2	8	1 @ 8'-11"	N/A	8-11	1 @ 11'-9"	N/A	11-9	1 @ 17'-5"	N/A	17'-5"
5	2	6	1 @ 8"-5"	N/A	8'-5"	1 @ 11'-1"	N/A	11-1	1 @ 16'-5"	N/A	16'-5"
5	3	8	1 @ 12'-1"	N/A	12-1	1@15-10	N/A	15'-10"	1 @ 23'-6"	1 @ 4'-7"	28'-1"
5	3	6	1 @ 11 -7"	N/A	11 -7	1 @ 15'-2"	N/A	15'-2'	1 @ 22'-6"	1 @ 4'-7"	27'-1"
5	4	8	1 @ 15 - 3"	N/A	15 -3	1 @ 20'-0"	1 @ 4'-7"	24 -7	1 @ 29'-7"	2 @ 4'-7"	38'-9"
5	4	6	1 @ 14'-9"	N/A	14 -9	1 @ 19'-3"	N/A	19 -3	1 @ 28'-7"	2 @ 4 -7"	37'-9"
5	5	8	1 @ 18 -5	N/A	18-5	1 @ 24'-1"	2 @ 4'-7"	33 - 3	1 @ 35'-8"	3 @ 4'-7"	49'-5"
5	5	6	1@17-11	N/A	17-11	1 @ 23'-5"	1 @ 4'-7"	28'-0'	1 @ 34'-8"	2 @ 4'-7"	43'-10"
6	2	8	2 @ 8'-11"	N/A	17'-10"	2 @ 11'-9"	N/A	23'-6'	2 @ 17'-5"	N/A	34'-10"
6	2	7	2 @ 8'-8"	N/A	17-4	2 @ 11'-5"	N/A	22'-10"	2 @ 16 -11	N/A	33'-10"
6	3	8	2 @ 12'-1"	N/A	24 -2	2 @ 15 -10	N/A	31 -8	2 @ 23'-6"	1 @ 5'-7"	52'-7"
6	3	7	2 @ 11 -10	N/A	23 -8	2 @ 15'-6"	N/A	31 -0	2 @ 23'-0"	1 @ 5'-7"	51 -7
6	4	8	2 @ 15 -3"	N/A	30-6	2 @ 20'-0"	1 @ 5 -7	45 -7	2 @ 29'-7"	2 @ 5'-7"	70'-4"
6	4	7	2 @ 15 -0"	N/A	30-0	2 @ 19'-8"	1 @ 5 -7	44-11	2 @ 29 1	2 @ 5 - 7	69 -4"
6	5	8	2@18-5	N/A	36-10	2 @ 24'-1"	2 @ 5'-7"	59-4	2 @ 35 8	3 @ 5'-7"	88'-1"
6	5	7	2@18-2	N/A	36 -4	2 @ 23 -9"	2 @ 5'-7"	58-8	2 @ 35 -2	2 @ 5'-7"	81 -6"
6	6	8	2 @ 21 -7"	1 @ 5-7"	48 -9	2 @ 28'-3"	2 @ 5 - 7"	67-8	2 @ 41 -9"	3 @ 5'-7"	100'-3"
6	6	7	2 @ 21 -4	1 @ 5 -7	48 -3	2 @ 20 -3	2 @ 5'-7"	67-0	2 @ 41 -3	3 @ 5'-7"	99'-3"
7	2	8	2 @ 8 11	N/A	17-10	2 @ 11 -9	N/A	23 -6	2@41-3	N/A	34'-10"
7	3	8	2 @ 12 -1	N/A	24-2	2 @ 15 10	N/A	31-8	2 @ 23 -6"	2 @ 6 -7	60'-2"
7	4	8	2 @ 15 - 3"	N/A	30-6	2 @ 20 -0	2 @ 6 - 7"	53 -2	2 @ 29'-7"	3 @ 6'-7"	78'-11"
7	5	8	2 @ 18-5"	N/A	36'-10"	2 @ 24 -1"	3 @ 6'-7"	67'-11"	2 @ 35'-8"	4 @ 6'-7"	97'-8"
7	6	8	2 @ 21 -7"	2 @ 6'-7"	56 -4	2 @ 28'-3"	3 @ 6 - 7"	76-3	2 @ 33 -8	5 @ 6'-7"	116'-5"
7	7	8	2 @ 21 -7	3 @ 6'-7"	69 -3	2 @ 32'-4"	4 @ 6 - 7	91 -0	2 @ 47 -10	6@6'-7"	135 -2
8	2	8	3 @ 8-11	N/A	26 -9		4 @ 6 -/ N/A	35 -3		N/A	52-3"
8		8	3 @ 12 -1	N/A N/A	36 -3	3 @ 11 -9 3 @ 15 10	N/A N/A	47-6	3 @ 17'-5" 3 @ 23'-6"	2 @ 7'-7"	85'-8"
	3				45-9						
8	4	8	3 @ 15 -3"	N/A	55 -3	3 @ 20'-0"	2 @ 7 -7"	75 -2	3 @ 29 -7	3 @ 7'-7"	111 6
8	5	8	3 @ 18-5	N/A	79'-11"	3 @ 24'-1"	3 @ 7'-7"	95 -0	3 @ 35'-8"	4 @ 7'-7"	137'-4"
8	6	8	3 @ 21 -7	2 @ 7'-7"	97-0	3 @ 28'-3"	3 @ 7'-7"	107'-6"	3 @ 41'-9"	5 @ 7'-7"	163'-2"
8	7	8	3 @ 24 -9	3 @ 7'-7"		3 @ 32'-4"	4 @ 7 -7	127'-4"	3 @ 47 -10	6 @ 7'-7"	189'-0"
8	8	8	3 @ 27 -11	3 @ 7'-7"	106 -6	3 @ 36'-6"	4 @ 7 -7"	139 10	3 @ 53 -11	6 @ 7'-7"	207'-3"
9	2	9	3 @ 9'-3"	N/A	27 -9 37 -0	3 @ 12'-1"	N/A	36'-3'	3 @ 17 -11	N/A	53'-9"
9	3	9	3 @ 12 -4	N/A		3 @ 16'-2"	N/A	48 -6	3 @ 24'-0"	3 @ 8'-7"	97'-9"
9	4	9	3 @ 15 -6"	N/A	46 -6	3 @ 20'-4"	2 @ 8 - 7"	78 -2	3 @ 30'-1"	3 @ 8'-7"	116 0
9	5	9	3 @ 18 -8	N/A	56 -0	3 @ 24'-5"	3 @ 8'-7"	99 -0	3 @ 36'-2"	4 @ 8'-7"	142'-10"
9	6	9	3 @ 21 -10	2 @ 8'-7"	82 -8	3 @ 28'-7"	3 @ 8 - 7	111'-6"	3 @ 42'-3"	5 @ 8'-7"	169'-8"
9	7	9	3 @ 25 -0"	3 @ 8'-7"	100 -9	3 @ 32 -8"	4 @ 8 -7	132 -4"	3 @ 48'-4"	6 @ 8'-7"	196'-6"
9	8	9	3 @ 28 -2	3 @ 8'-7"	110 -3	3 @ 36 10	4 @ 8 -7	144 10	3 @ 54'-5"	6 @ 8'-7"	214'-9"
9	9	9	3 @ 31 -4"	3 @ 8'-7"	119-9	3 @ 40 11	5 @ 8'-7"	165'-8"	3 @ 60'-6"	7 @ 8'-7"	241 -7"
10	2	10	3 @ 9 -6	N/A	28 -6	3 @ 12'-5"	N/A	37 -3	3 @ 18'-5"	N/A	55'-3"
10	3	10	3 @ 12 -8	N/A	38 -0	3 @ 16 -6"	N/A	49 -6	3 @ 24'-6"	3 @ 9'-7"	102'-3"
10	4	10	3 @ 15 -10	N/A	47 -6	3 @ 20'-8"	2@9-7	81 -2	3 @ 30'-7"	3 @ 9'-7"	120'-6"
10	5	10	3 @ 19 -0	N/A	57-0	3 @ 24 -9	3 @ 9 - 7	103'-0"	3 @ 36'-8"	4 @ 9 - 7	148'-4"
10	6	10	3 @ 22 -1	2 @ 9'-7"	85 -5	3 @ 28 -11	3 @ 9'-7"	115'-6"	3 @ 42'-9"	5 @ 9'-7"	176'-2"
10	7	10	3 @ 25'-3"	3 @ 9'-7"	104 -6	3 @ 33'-0"	4 @ 9 -7	137'-4"	3 @ 48 -10	6 @ 9'-7"	204'-0"
10	8	10	3 @ 28 -5	3 @ 9'-7"	114-0	3 @ 37'-2"	4 @ 9 -7	149 -10	3 @ 54 -11	6@9'-7"	222'-3"
10	9	10	3 @ 31 -7	4 @ 9'-7"	133'-1"	3 @ 41'-3"	5 @ 9'-7"	171'-8"	3 @ 61'-0"	7 @ 9'-7"	250'-1"
10	10	10	3 @ 34 -9	4 @ 9'-7"	142 -7	3 @ 45'-5"	5 @ 9'-7"	184'-2"	3@67-1	8 @ 9'-7"	277'-11"
11	2	11	4 @ 9 -9	N/A	39 -0	4 @ 12'-9"	N/A	51 -0	4 @ 18 -11	N/A	75'-8"
11	3	11	4 @ 12 -11	N/A	51 -8	4 @ 16 11	N/A	67 -8	4 @ 25 0"	3 @ 10 -7"	131 -9"
11	4	11	4 @ 16 -1	N/A	64 -4	4 @ 21'-0"	2 @ 10'-7"	105'-2"	4 @ 31 -1"	3 @ 10'-7"	156'-1"
11	6	11	4 @ 22 -5	2 @ 10'-7"	110'-10"	4 @ 29'-3"	3 @ 10 -7	148'-9"	4 @ 43'-3"	5 @ 10 -7"	225'-11"
11	8	11	4 @ 28 -9	3 @ 10'-7"	146 -9	4 @ 37'-6"	4 @ 10 -7	192'-4"	4 @ 55'-5"	6@10-7"	285'-2"
11	10	11	4 @ 35 -0"	4 @ 10'-7"	182 -4"	4 @ 45 -9"	5 @ 10 -7"	235 -11	4 @ 67'-7"	8 @ 10'-7"	355'-0"
11	11	11	4 @ 38 -2"	4 @ 10'-7"	195 -0"	4 @ 49 10	6 @ 10 -7	262 10	4 @ 73'-8"	9 @ 10 -7	389'-11"
12	2	12	4 @ 10 -0"	N/A	40 -0	4 @ 13'-1"	N/A	52 -4	4 @ 19'-5"	N/A	77'-8"
12	3	12	4 @ 13 -2"	N/A	52 -8	4 @ 17 -3"	N/A	69 -0	4 @ 25'-6"	3 @ 11 -7	136 -9"
12	4	12	4 @ 16 -4"	N/A	65 -4	4 @ 21'-4"	2 @ 11'-7"	108'-6"	4 @ 31'-7"	4 @ 11'-7"	172'-8"
12	6	12	4 @ 22"-8"	2 @ 11'-7"	113'-10"	4 @ 29'-7"	3 @ 11'-7"	153'-1"	4 @ 43'-9"	5 @ 11'-7"	232'-11"
12	8	12	4 @ 29'-0"	3 @ 11'-7"	150'-9"	4 @ 37 -10	4 @ 11'-7"	197'-8"	4 @ 55'-11'	7 @ 11'-7"	304'-9"
12	10	12	4 @ 35 -4"	4 @ 11 -7	187'-8"	4 @ 46'-1"	5 @ 11 -7"	242'-3"	4 @ 68 -1"	8 @ 11'-7"	365'-0"
12	12	12	4 @ 41 -8"	5 @ 11 -7	224 -7"	4 @ 54'-4"	6 @ 11 -7	286 10	4 @ 80'-3"	10 @ 11 -7	436'-10"

TPGBC-ZS 2-17-2017 (Sheet 2 of 2) ISER NAME = IDOT/District 2 DESIGNED -STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION REGION 2 / DISTRICT 2 STANDARD DRAWN . REVISED 5-09-14

LOT SCALE = 0.258 '/In.

CHECKED -

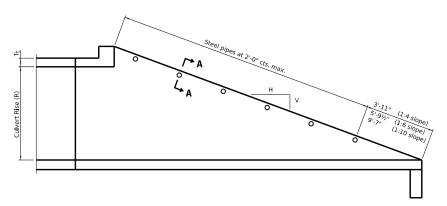
REVISED

OF SHEETS STA.

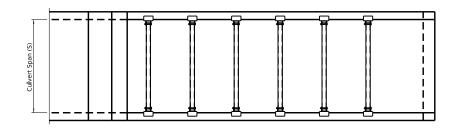
SHEET

CONTRACT NO.

13.1



LONGITUDINAL SECTION



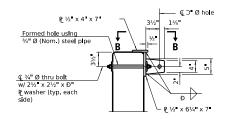
PLAN VIEW

GENERAL NOTES

The minimum edge distance from the center of a hole to the free edge of a structural shape or plate shall be $1\frac{1}{2}$ unless noted otherwise.

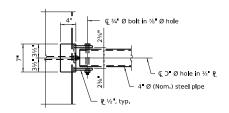
This standard shall only be used on concrete end sections for parallel drainage structures.

The Contractor may install the thru bolts using drilling and grouting in lieu of providing a formed hole using steel pipe. Installation shall be in accordance with Article 509.06 using a method that results in the annulus surrounding the bolt being completely filled with adhesive. The method of drilling shall not result in spalled concrete at the exit face. Epoxy grouted thru bolts shall be sing tightened followed by an additional 1/3 turn on the interior nut at final installation. Cost included with Traversable Pipe Grate.



SECTION A-A

(4° Ø pipe not shown for clarity.)



VIEW B-B

USER NAME = IDOT/District 2	DESIGNED .	REVISED 5-09-14						F.A. RTF	SECTION	COUNTY	TOTAL SHEET
	DRAWN -	REVISED	STATE OF ILLINOIS	REGION 2 / DISTRICT 2 STANDARD							0.122.0
PLOT SCALE = 0.258'/In.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION					-		CONTRACT	NO.
PLOT DATE - 1/28/2025	DATE -	REVISED		SCALE:	SHEET OF SHEETS	STA.	TO STA.		ILLINOIS FED. A	D PROJECT	

PIPE GRATE SCHEDULE FOR PARALLEL BOX CULVERTS

			(<2 FT COVER)									
			Si	LOPE OF END SEC								
BOX	SIZE	ļ .	1:4		1:6		1:10					
SPAN	RISE	Pipes	Total Length	Pipes	Total Length	Pipes	Total Length					
(FT.)	(FT.)	No. / Length	of Pipe	No. / Length	of Pipe	No. / Length	of Pipe					
3	2	5 @ 2 -7"	12-11	8 @ 2 - 7	20'-8"	12 @ 2'-7"	31'-0"					
3	3	7 @ 2'-7"	18'-1"	11 @ 2 -7	28-5"	17 @ 2'-7"	43'-11"					
4	2	5 @ 3'-7"	17-11	8 @ 3 - 7	28'-8"	13 @ 3'-7"	46'-7"					
4	3	8 @ 3'-7"	28'-8"	11 @ 3'-7"	39'-5"	18 @ 3'-7"	64'-6"					
4	4	10 @ 3 -7"	35'-10"	14 @ 3 -7	50'-2"	23 @ 3'-7"	82'-5"					
5	2	6 @ 4'-7"	27'-6"	8 @ 4 - 7	36'-8"	13 @ 4'-7"	59'-7"					
5	3	8 @ 4'-7"	36'-8"	11 @ 4'-7"	50'-5"	18 @ 4'-7"	82'-6"					
5	4	10 @ 4 -7	45'-10"	14 @ 4 7	64-2	23 @ 4'-7"	105'-5"					
5	5	12 @ 4'-7"	55'-0"	17 @ 4 -7	77'-11"	28 @ 4'-7"	128'-4"					
6	2	6 @ 5 -7"	33'-6"	8 @ 5 7	44'-8"	13 @ 5'-7"	72'-7"					
6	3	8 @ 5'-7"	44'-8"	11 @ 5'-7"	61'-5"	18 @ 5'-7"	100'-6"					
6	4	10 @ 5'-7"	55'-10"	14 @ 5 - 7	78'-2"	23 @ 5'-7"	128'-5"					
6	5	12 @ 5'-7"	67'-0"	17 @ 5'-7"	94'-11"	28 @ 5'-7"	156'-4"					
6	6	14 @ 5'-7"	78'-2"	20 @ 5'-7"	111'-8"	33 @ 5'-7"	184'-3"					
7	2	6 @ 6'-7"	39'-6"	8 @ 6'-7"	52'-8"	13 @ 6'-7"	85'-7"					
7	3	8 @ 6'-7"	52'-8"	11 @ 6'-7"	72'-5"	18 @ 6'-7"	118'-6"					
7	4	10 @ 6'-7"	65'-10"	14 @ 6 -7	92'-2"	23 @ 6'-7"	151'-5"					
7	5	12 @ 6'-7"	79'-0"	17 @ 6'-7"	111 -11	28 @ 6'-7"	184'-4"					
7	6	14 @ 6'-7"	92'-2"	20 @ 6 7	131-8	33 @ 6'-7"	217'-3"					
7	7	16 @ 6'-7"	105'-4"	23 @ 6'-7"	151'-5'	38 @ 6'-7"	250'-2"					
8	2	6 @ 7'-7"	45'-6"	8 @ 7'-7"	60'-8"	13 @ 7'-7"	98'-7"					
8	3	8 @ 7'-7"	60'-8"	11 @ 7'-7"	83'-5"	18 @ 7'-7"	136'-6"					
8	4	10 @ 7'-7"	75'-10"	14 @ 7'-7"	106'-2"	23 @ 7'-7"	174'-5"					
8	5	12 @ 7'-7"	91'-0"	17 @ 7'-7"	128 11	28 @ 7'-7"	212'-4"					
8	6	14 @ 7'-7"	106'-2"	20 @ 7'-7"	151'-8"	33 @ 7'-7"	250'-3"					
8	7	16 @ 7'-7"	121'-4"	23 @ 7'-7"	174'-5"	38 @ 7'-7"	288'-2"					
8	8	18 @ 7'-7"	136'-6"	26 @ 7'-7 "	197'-2"	43 @ 7'-7"	326'-1"					
9	2	6 @ 8'-7"	51'-6"	8 @ 8 - 7	68'-8"	13 @ 8'-7"	111'-7"					
9	3	8 @ 8'-7"	68'-8"	11 @ 8'-7"	94'-5"	18 @ 8'-7"	154'-6'					
9	4	10 @ 8'-7"	85'-10"	14 @ 8 - 7	120'-2"	23 @ 8'-7"	197-5"					
9	5	12 @ 8'-7"	103'-0"	17 @ 8'-7"	145 11	28 @ 8'-7"	240'-4"					
9	6	14 @ 8'-7"	120'-2"	20 @ 8'-7"	171'-8"	33 @ 8'-7"	283'-3"					
9	7	16 @ 8'-7"	137'-4"	23 @ 8'-7"	197'-5"	38 @ 8'-7"	326'-2"					
9	8	18 @ 8'-7"	154'-6"	26 @ 8'-7"	223'-2"	43 @ 8'-7"	369-1"					
9	9	20 @ 8'-7"	171'-8"	30 @ 8 7	257'-6"	48 @ 8'-7"	412'-0"					
10	2	6 @ 9'-7"	57'-6"	9 @ 9 - 7	86'-3"	14 @ 9'-7"	134'-2"					
10	3	8 @ 9'-7"	76'-8"	12 @ 9 -7	115'-0"	19 @ 9'-7"	182 1					
10	4	10 @ 9'-7"	95'-10"	15 @ 9'-7 "	143'-9"	24 @ 9'-7"	230'-0"					
10	5	12 @ 9'-7"	115'-0"	18 @ 9 -7	172'-6"	29 @ 9'-7"	277-11					
10	6	14 @ 9'-7"	134'-2"	21 @ 9'-7"	201'-3"	34 @ 9'-7"	325'-10"					
10	7	16 @ 9'-7"	153'-4"	24 @ 9 -7	230'-0"	39 @ 9'-7"	373'-9"					
10	8	18 @ 9'-7"	172'-6"	27 @ 9'-7 "	258'-9"	44 @ 9'-7"	421'-8"					
10	9	20 @ 9'-7"	191'-8"	30 @ 9'-7"	287'-5"	49 @ 9'-7"	469'-7"					
10	10	22 @ 9'-7"	210'-10"	33 @ 9 -7	316'-3"	54 @ 9'-7"	517'-6"					

PIPE GRATE SCHEDULE FOR PARALLEL BOX CULVERTS

				(<2 FT COVER))				
DOV	CIZE		SI	OPE OF END SEC	TION				
BOX	SIZE	1	:4		1:6	1:10			
SPAN (FT.)	RISE (FT.)	Pipes No. / Length	Total Length of Pipe	Pipes No. / Length	Total Length of Pipe	Pipes No. / Length	Total Length of Pipe		
11	2	6 @ 10 7"	63'-6"	9@10-7	95 3	14 @ 10 7	148-2		
11	3	8 @ 10'-7"	84'-8"	12 @ 10'-7"	127'-0"	19 @ 10 7	201-1		
11	4	10 @ 10 -7"	105-10	15 @ 10'-7"	158'-9"	24 @ 10 7	254 '-0"		
11	6	14 @ 10'-7"	148'-2"	21 @ 10'-7"	222'-3"	34 @ 10 -7	359'-10"		
11	8	18 @ 10 -7"	190'-6"	27 @ 10'-7"	285'-9"	44 @ 10 7	465"-8"		
11	10	23 @ 10'-7"	243'-5"	33 @ 10 -7"	33 @ 10'-7" 349'-3"		571'-6"		
11	11	25 @ 10'-7"	264'-7"	36 @ 10'-7"	381'-0"	59 @ 10 -7	624 ' -5 "		
12	2	6 @ 11 7"	69'-6"	9@11-7	104'-3"	15 @ 11 7	173-9		
12	3	8 @ 11'-7"	92'-8"	12 @ 11'-7"	139'-0"	20 @ 11 -7	231-8		
12	4	10 @ 11 -7"	115-10	15 @ 11'-7"	173'-9"	25 @ 11 7	289 7		
12	6	15 @ 11'-7"	173'-9"	21 @ 11'-7"	243'-3"	35 @ 11 -7	405-5		
12	8	19 @ 11 7"	220'-1"	27 @ 11'-7"	312'-9"	45 @ 11 7	521 3		
12	10	23 @ 11'-7"	266'-5"	33 @ 11'-7"	382'-3"	55 @ 11 -7	637-1		
12	12	27 @ 11 -7"	312'-9"	39 @ 11'-7"	451'-9"	65 @ 11 7	752'-11"		

PIPE GRATE SCHEDULE FOR PARALLEL BOX CULVERTS

			SI	OPE OF END SEC	TION		
BOX	SIZE	3	:4		1:6		1:10
SPAN (FT.)	RISE (FT.)	Pipes No. / Length	Total Length of Pipe	Pipes No. / Length	Total Length of Pipe	Pipes No. / Length	Total Length of Pipe
3	2	5 @ 2'-7"	12'-11"	7 @ 2'-7"	18-1	11 @ 2'-7"	28'-5"
3	3	7 @ 2'-7"	18-1"	10 @ 2 -7	25'-10"	16 @ 2'-7"	41-4
4	2	5 @ 3'-7"	17'-11"	7 @ 3'-7"	25'-1"	12 @ 3'-7"	43'-0"
4	3	7 @ 3'-7"	25'-1"	10 @ 3 -7	35'-10"	17 @ 3'-7"	60'-11 "
4	4	9 @ 3'-7"	32'-3"	13 @ 3 7	46 7	22 @ 3'-7"	78-10
5	2	5 @ 4'-7"	22'-11"	7 @ 4'-7"	32 -1	12 @ 4'-7"	55'-0"
5	3	7 @ 4'-7"	32'-1"	11 @ 4 -7	50-5	17 @ 4'-7"	77'-11"
5	4	9 @ 4'-7"	41'-3"	14 @ 4 -7	64 -2	22 @ 4'-7"	100'-10"
5	5	11 @ 4'-7"	50-5"	17 @ 4 -7	77'-11"	27 @ 4'-7"	123 9
6	2	5 @ 5 7	27'-11"	8 @ 5 - 7"	44 8	12 @ 5'-7"	67 '-0"
6	3	7 @ 5'-7"	39'-1"	11 @ 5 -7	61-5	17 @ 5'-7"	94-11
6	4	10 @ 5 7"	55'-10"	14 @ 5 -7	78 -2	23 @ 5'-7"	128-5
6	5	12 @ 5'-7"	67'-0"	17 @ 5 -7	94'-11"	28 @ 5'-7"	156-4
6	6	14 @ 5 - 7"	78'-2"	20 @ 5 -7	111'-8"	33 @ 5'-7"	184'-3"

USER NAME = IDOT/District 2	DESIGNED -	REVISED 5-09-14	Ī
	DRAWN .	REVISED -	
PLOT SCALE = 0.258*/In.	CHECKED -	REVISED -	
DU OT DUTE A REPORT	DATE	DELITORED	

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

						F.A. RTE.	SECT	TON	COUNTY	TOTAL SHEETS	SHE
	REGION 2 / DISTRICT 2 STANDARD										
									CONTRACT	r no.	
SCALE:	SHEET	OF	SHEETS	STA.	TO STA.			ILLINOIS FED. A	ID PROJECT		

PIPE GRATE SCHEDULE FOR PARALLEL PIPE CULVERTS 15" THRU 84" DIA.

		S	LOPE OF END SEC	TION		
Pipe I.D. 15° 18° 21° 24° 30° 36° 42° 48° 54° 60° 66° 72° 78° 84°	1	.:4		1:6	1	1:10
	Plpes No. / Length	Total Length of Pipe	Plpes No. / Length	Total Length of Pipe	Plpes No. / Length	Total Length of Pipe
15"	3 @ 0'-11 "	2'-9"	4 @ 0'-11"	3'-8 "	6 @ 0'-11 "	5'-6 "
18	3 @ 1'-1"	3'-3 "	5 @ 1'-1"	5 '- 5"	7 @ 1'-1"	7'-7"
21"	4 @ 1'-5"	5'-8 "	5 @ 1'-5"	7'-1"	9 @ 1'-5"	12-9
24"	5 @ 1'-7"	7'-11 "	6 @ 1'-7"	9'-6"	10 @ 1'-7"	15'-10 "
30 °	6 @ 2 '-1"	12'-6"	8 @ 2'-1 "	16'-8"	13 @ 2-1	27'-1"
36 °	7 @ 2'-7"	18'-1"	10 @ 2'-7"	25 '- 10 "	15 @ 2-7	38-9
42 "	8 @ 3'-1"	24 ' -8 "	11 @ 3'-1"	33'-11"	18 @ 3'-1"	55 '-6"
48 "	9 @ 3'-7"	32'-3"	13 @ 3'-7"	46 '- 7"	21 @ 3'-7"	75 '- 3"
54 "	10 @ 4'-1"	40'-10 "	14 @ 4'-1"	57 '-2"	23 @ 4'-1"	93'-11 "
60 "	11 @ 4'-7"	50 ' -5 "	15 @ 4'-7"	68'-9 "	25 @ 4 ' -7 "	114'-7"
66 "	12 @ 5 -1	61'-0"	17 @ 5'-1"	86 '- 5"	28 @ 5'-1"	142'-4"
72 "	13 @ 5 '- 7"	72'-7"	18 @ 5'-7"	100'-6"	30 @ 5 '- 7"	167'-6"
78 "	14 @ 6'-1"	85'-2 "	20 @ 6'-1"	121'-8"	33 @ 6 '-1"	200'-9"
84"	15 @ 6-7	98'-9"	21 @ 6'-7"	138-3	35 @ 6 7	230'-5"

USER NAME = IDOT/District 2	DESIGNED -	REVISED 5-09-14								F.A. RTF	SECTION	COUNTY	TOTAL	SHEET
	DRAWN -	REVISED	STATE OF ILLINOIS		REGIO	ON 2 / DI	STRICT	2 STANDARD						
PLOT SCALE = 0.258'/In.	CHECKED -	REVISED	DEPARTMENT OF TRANSPORTATION									CONTRACT	T NO.	\neg
PLOT DATE = 1/28/2025	DATE -	REVISED		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PRO.				

PIPE GRATE SCHEDULE FOR PARALLEL PIPE ARCH CULVERTS 15" THRU 84" DIA.

III L GIIA	IL JUILDUL	E FUN PANAI	LLL FIFL AF	TOTI COLVEN	19 15 1HRU	04 DIA.
		SI	OPE OF END SEC	TION		
	-	lable IIA, Corrugati		2 " x ½"		
Plpe I.D.	1	:4		1:6	1	:10
ripe i.b.	Plpes No. / Length	Total Length of Pipe	Plpes No. / Length	Total Length of Pipe	Plpes No. / Length	Total Length of Pipe
15"	2 @ 1'-1"	2'-2"	3 @ 1'-1"	3'-3"	5 @ 1'-1"	5'-5"
18"	3 @ 1'-5"	4'-3"	4 @ 1'-5"	5'-8"	6 @ 1-5"	8'-6"
21"	3 @ 1'-7"	4'-9"	5 @ 1'-7"	7-11	7 @ 1'-7"	11'-1"
24"	4 @ 1'-11"	7'-8"	5 @ 1'-11'	9'-7"	8 @ 1'-11"	15'-4"
30"	4 @ 2'-7"	10'-4"	6 @ 2'-7"	15'-6 "	10 @ 2'-7"	25 '- 10 '
36"	5 @ 3'-1"	15'-5"	7 @ 3'-1"	21'-7	12 @ 3'-1"	37'-0"
42"	6 @ 3'-9"	22"-6"	9 @ 3'-9"	33'-9 "	14 @ 3'-9"	52'-6"
48"	7 @ 4'-5"	30'-11'	10 @ 4'-5"	44'-2	16 @ 4'-5"	70'-8"
54"	8 @ 4'-11"	39'-4"	11 @ 4'-11"	54-1	18 @ 4 -11	88'-6"
60"	8 @ 5'-7"	44'-8"	12 @ 5'-7	67'-0 "	20 @ 5'-7"	111'-8'
66"	9 @ 6'-1"	54'-9"	13 @ 6'-1"	79'-1	22 @ 6'-1"	133-10
72"	10 @ 6'-7"	65'-10"	15 @ 6'-7"	98'-9"	24 @ 6'-7"	158'-0"
78"	-	-	-	-	-	-
84"	-	-	-	-	-	-

PIPE GRATE SCHEDULE FOR PARALLEL PIPE ARCH CULVERTS 15" THRU 84" DIA.

		SI	OPE OF END SEC	TION		
		Table IIA, Corru	ıgatlon :	3" × 1"		
Plpe I.D.	1	:4		1:6	1	:10
ripe i.b.	Plpes	Total Length	Plpes	Total Length	Plpes	Total Length
	No. / Length	of Pipe	No. / Length	of Pipe	No. / Length	of Pipe
15"	-	-	-	-	-	-
18"	-	-	-	-	-	-
21"	-	-	-	-	-	-
24"	-	-	-	-	-	-
30 °	-	-	-	-	-	-
36"	6 @ 2'-11 "	17'-6"	8 @ 2 -11	23 '-4"	13 @ 2'-11 "	37'-11"
42 "	7 @ 3'-5 "	23'-11"	10 @ 3'-5 "	34'-2"	15 @ 3'-5 "	51'-3"
48 "	8 @ 4'-1"	32 '-8"	11 @ 4'-1"	44'-11"	18 @ 4'-1"	73'-6"
54 "	9 @ 4 '-7"	41 '-3"	12 @ 4'-7 "	55 '-0"	20 @ 4 '- 7 "	91'-10"
60 "	9 @ 5'-1"	45 ' -9 "	14 @ 5'-1 "	71'-2"	22 @ 5'-1"	111'-10"
66 "	10 @ 5'-9"	57 '-6"	15 @ 5'-9 "	86 '-3"	24 @ 5 '- 9 "	138'-0"
72 "	11 @ 6'-5"	70 '-7"	16 @ 6'-5"	102-8	26 @ 6'-5"	166'-10"
78 "	12 @ 6'-11	83'-0"	17 @ 6'-11'	117-7	28 @ 6'-11 "	193'-8"
84"	12 @ 7'-7"	91'-0"	18 @ 7'-7"	136-6	30 @ 7 - 7	227'-6"

USER NAME = IDOT/District 2	DESIGNED -	REVISED 5-09-14								F.A. RTF	SECTION	COUNTY	TOTAL	SHEET
	DRAWN -	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		REGIO			2 STANDARD						
PLOT SCALE = 0.258'/In.	CHECKED -	REVISED										CONTRACT	T NO.	
PLOT DATE = 1/28/2025	DATE -	REVISED -	SCALE:				TO STA.		ILLINOIS FED. AI	D PROJECT				

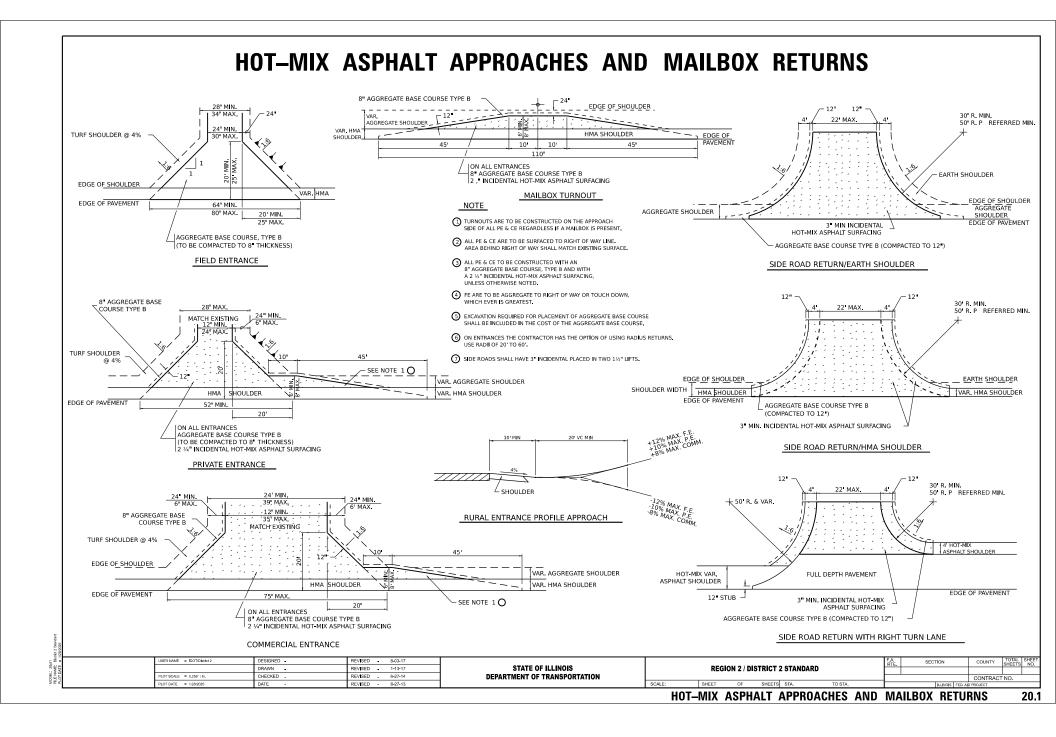
14.1

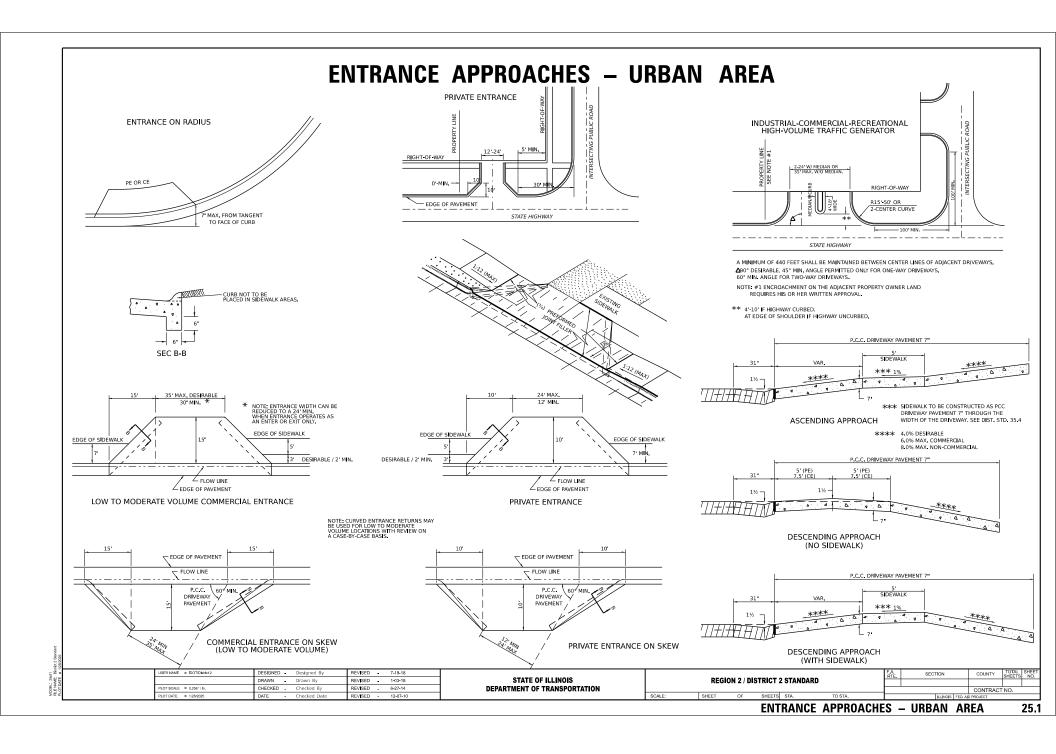
TRAVERSABLE PIPE GRATE FOR PARALLEL DRAINAGE STRUCTURE

PIPE GRATE SCHEDULE FOR PARALLEL ELLIPTICAL PIPE CULVERTS 15" THRU 72" DIA.

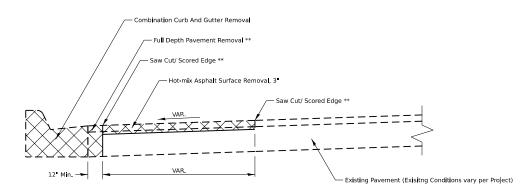
		Si	LOPE OF END SEC	TION		
Dina I D	1	:4		1:6	1	1:10
Plpe I.D.	Plpes No. / Length	Total Length of Pipe	Plpes No. / Length	Total Length of Pipe	Plpes No. / Length	Total Length of Pipe
15"	3 @ 2'-7"	7'-9 "	5 @ 2'-7"	12'-11"	7 @ 2'-7 "	18-1
18	3 @ 2'-7"	7 '- 9 "	5 @ 2 '- 7"	12'-11"	7 @ 2 '-7"	18-1
21"	5 @ 3'-3"	16'-3"	7 @ 3'-3"	22'-9"	12 @ 3'-3"	39'-0"
24"	5 @ 3'-3 "	16'-3"	7 @ 3'-3"	22'-9 "	12 @ 3'-3"	39'-0 "
27"	6 @ 3'-7 "	21'-6"	8 @ 3 ' -7 "	28 '- 8 "	13 @ 3-7"	46-7
30 °	6 @ 3 -11	23'-6"	9 @ 3'-11"	35 '-3"	14 @ 3'-11"	54'-10
36 "	7 @ 4'-7 "	32'-1 "	10 @ 4'-7"	45'-10 "	16 @ 4'-7 "	73 '-4"
42 "	8 @ 5'-5 "	43 '-4"	11 @ 5'-5 "	59 ' -7 "	18 @ 5'-5 "	97'-6"
48 "	9 @ 6'-1"	54 '- 9 "	13 @ 6'-1 "	79 '-1"	20 @ 6'-1"	121-8
54 "	10 @ 6'-9"	67 '-6"	14 @ 6'-9"	94 "-6"	23 @ 6'-9"	155'-3"
60 "	11 @ 7 - 7	83 '-5"	15 @ 7'-7"	113-9	25 @ 7'-7"	189'-7"
66 "	11 @ 8 - 3	90'-9"	17 @ 8'-3"	140-3	27 @ 8 '-3"	222'-9"
72"	12 @ 8 -11	107'-0"	18 @ 8'-11"	160-6	30 @ 8'-11"	267'-6 "

USER NAME = IDOT/District 2	DESIGNED -	REVISED - 5-09-14								F.A.	SECTION	COUNTY	TOTAL	SHEET
	DRAWN -	REVISED	STATE OF ILLINOIS		REGIO	ON 2 / DI	STRICT	2 STANDARD		IXII.			UNILLIU	140.
PLOT SCALE = 0.258'/In.	CHECKED -	REVISED	DEPARTMENT OF TRANSPORTATION									CONTRACT	T NO.	\neg
PLOT DATE = 1/28/2025	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. /	ID PROJECT		

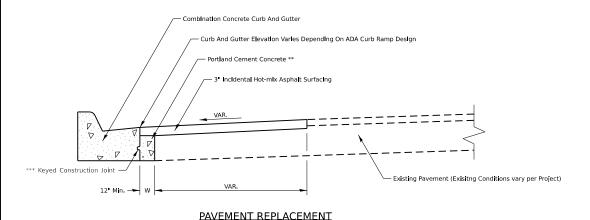




ADA CURB RAMP PAVEMENT REMOVAL AND REPLACEMENT



PAVEMENT REMOVAL



GENERAL NOTES:

SEE STANDARD 606001 FOR CONCRETE CURB AND COMBINATION CURB AND GUTTER DETAILS NOT SHOWN.

SEE STANDARD 420001 FOR KEYED CONSTRUCTION JOINT DETAILS

SAW CUTTING/ SCORING SHALL BE INCLUDED IN THE UNIT COST OF HOT-MIX ASPHALT SURFACE REMOVAL.

FULL DEPTH PAVEMENT REMOVAL SHALL BE INCLUDED IN THE UNIT COST OF COMBINATION

PORTLAND CEMENT CONCRETE NEEDED TO FILL IN THE FORMWORK AREA IN FRONT OF THE COMBINATION CURB AND GUTTER SHALL BE INCLUDED IN THE UNIT COST OF COMBINATION CONCRETE CURB AND GUTTER.

IF THERE IS A CHANGE IN RADIUS AND THE DISTANCE BETWEEN THE NEW COMBINATION CURB AND GUTTER AND THE EXISTING PAVEMENT IS 4FT OF GREATER, THE PCC IN FRONT OF THE CURB AND GUTTER SHALL BE TIED TO THE NEW COMBINATION CURB AND GUTTER AND THE EXISTING PAVEMENT WITH TIE BARS. TIE BARS SHALL BE INCLUDED IN THE UNIT COST OF COMBINATION CONCRETE CURB AND GUTTER.

CONSTRUCTION SEQUENCE

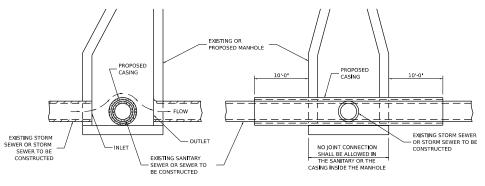
- 1. REMOVE EXISTING FULL DEPTH PAVEMENT AND CURB AND GUTTER
- 2. FORM AND POUR COMBINATION CONCRETE CURB AND GUTTER
- 3. REPLACE FULL DEPTH PAVEMENT WITH PORTLAND CEMENT CONCRETE (UP TO 3" FROM FINISHED SURFACE ELVATION TO ALLOW FOR HMA OVERLAY)
- 4. HOT-MIX ASPHALT REMOVAL AND REPLACEMENT.

NOTES:

- ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED
- ** COST INCLUDED IN OTHER PAY ITEMS PER GENERAL NOTES
- *** IF W > 24" TIE BARS SHALL BE USED INSTEAD OF A KEYED CONSTRUCTION JOINT

	USER NAME = IDOT/District 2	DESIGNED -	REVISED 1-10-22								F.A.	SECTION	COUNTY	TOTAL	SHEET
l l		DRAWN -	REVISED	STATE OF ILLINOIS		REGIO	N 2 / DIS	TRICT :	2 STANDARD		IXII.			OI ILL IO	110.
[PLOT SCALE = 0.2581/In.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION							Ь,		CONTRACT	T NO.	-
	PLOT DATE = 1/28/2025	DATE -	REVISED		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. /	ID PROJECT		





ELEVATION - ECCENTRIC

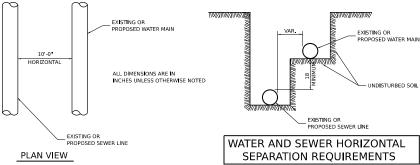
ELEVATION - CONCENTRIC

CASING SHALL BE CAST IRON WITH AN INSIDE DIAMETER 2" LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED

AT GRADE CROSSING OF SANITARY AND STORM SEWER ALL DIMENSIONS ARE IN INCHES LINI ESS OTHERWISE NOTED

THIS DETAIL IS FOR UNKNOWN UTILITIES UNLESS QUANTITIES ARE INCLUDED IN THE PLANS THE EXTRA WORK WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04.

WHEN PROPOSED SEWER (OR WATER) IS LOCATED 10'-0" OR MORE FROM EXISTING WATER (OR SEWER) NO SPECIAL CONSTRUCTION REQUIRED. WHEN PROPOSED SEWER (OR WATER) IS LOCATED LESS THAN 10'-0" FROM EXISTING WATER (OR SEWER) DETAILS BELOW SHALL APPLY.

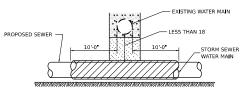


WATER AND SEWER HORIZONTAL SEPARATION REQUIREMENTS

UNDISTURBED SOIL

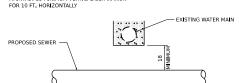
POINT LOADS SHALL NOT BE ALLOWED BETWEEN SEWER OR SEWER CASING AND WATER MAIN

PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH



PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH

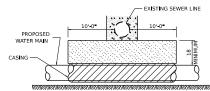
MAINTAIN 18 MINIMUM VERTICAL SEPARATION



ALL DIMENSIONS ARE IN UNLESS OTHERWISE NOTED

PROPOSED SEWER LINE BELOW EXISTING WATER MAIN PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT DAMAGE DUE TO SETTLEMENT

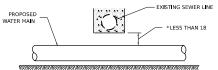
PLACE TRENCH BACKFILL FOR 10 FT. ON EITHER SIDE OF SEWER LINE



CASING SHALL BE CAST IRON WITH AN INSIDE DIAMETER 2" LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED

PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH

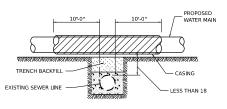
MAINTAIN 18 MINIMUM VERTICAL SEPARATION FOR 10 FT. HORIZONTALLY



MUST MAINTAIN 18 VERTICAL SEPARATION

ALL DIMENSIONS ARE IN UNLESS OTHERWISE NOTED

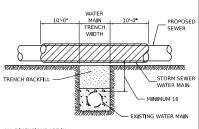
PROPOSED WATER MAIN BELOW EXISTING SEWER LINE POINT LOADS SHALL NOT BE ALLOWED BETWEEN WATER MAIN OR WATER MAIN CASING AND SEWER



CASING SHALL BE CAST IRON WITH AN INSIDE DIAMETER 2" LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED.

ALL DIMENSIONS ARE IN UNLESS OTHERWISE NOTED

PROPOSED WATER MAIN ABOVE EXISTING SEWER LINE PROVIDE ADEQUATE SUPPORT FOR SEWER TO PREVENT SETTLING AND BREAKING THE WATER MAIN.



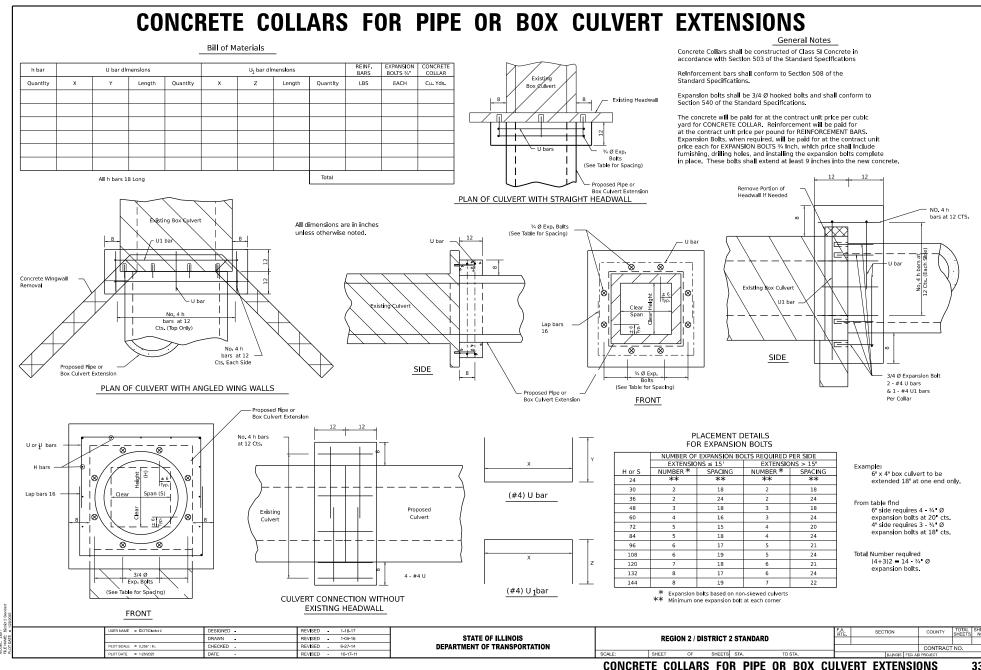
ALL DIMENSIONS ARE IN UNLESS OTHERWISE NOTED

EXISTING WATER MAIN BELOW PROPOSED SEWER LINE WITH MINIMUM 18 VERTICAL SEPARATION

SER NAME = IDOT/District 2 DESIGNED -REVISED -STATE OF ILLINOIS REGION 2 / DISTRICT 2 STANDARD DRAWN REVISED LOT SCALE = 0.258'/In CHECKED REVISED DEPARTMENT OF TRANSPORTATION SHEETS STA. DATE REVISED

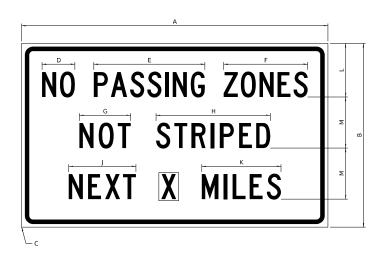
TO STA.

CONTRACT NO



WORK ZONE SIGN DETAILS

ILLINOIS STANDARD G20–I100



COLOR LEGEND AND BORDER BACKGROUND

BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

SIGN SIZE		DIMENSIONS											
SIGN SIZE	Α	A B C D E F G H J K L M										М	
60 x 36	60.00	36.00	2.25	6.4	21.80	16.40	10.00	22.40	13.20	15.50	10.50	10.00	

SIGN SIZE	SER	IES BY L	INE	MARGIN	BORDER
SIGN SIZE	1	2	3	MARGIN	BURDER
60 x 36	5C	5C	5C	0.625	0.875

Sign not to scale

GENERAL NOTES

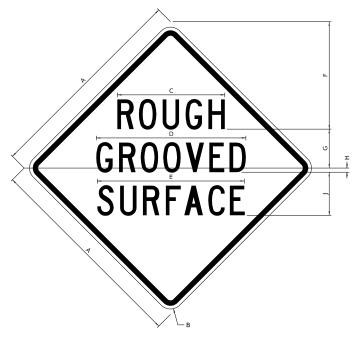
All work to furnish and install these signs shall be included in the cost of the specified traffic control standards and shall not be pald separately.

All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

Signs shall meet the applicable portions of Sections 701 and 720 of the Standard Specifications.

All dimensions are in inches unless otherwise noted.

ILLINOIS STANDARD W8–1107



LOR LEGEND AND BORDER BACKGROUND

BLACK

NON-REFLECTORIZED REFLECTORIZED

SIGN SIZE		DIMENSIONS											
SIGN SIZE	Α	В	С	D	Е	F	G	Η	J				
48 x 48	48.00	3.00	25.00	34.80	34.20	24.94	9.00	1.00	10.00				

SIGN SIZE	SER	IES BY L	INE	MARGIN	BORDER
SIGN SIZE	1	2	3	MARGIN	BORDER
48 x 48	7C	7C	7C	1.250	0.750

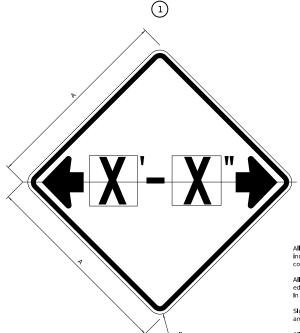
Sign not to scale

										sign not to scale				
\neg	USER NAME = IDOT/District 2	DESIGNED -	REVISED 3-02-16								F.A. RTF	SECTION	COUNTY	TOTAL SHEET SHEETS NO
ı		DRAWN -	REVISED .	STATE OF ILLINOIS		REGI	ON 2 / DIS	STRICT	2 STAI	NDARD	1.1.1			0
- [PLOT SCALE = 0.258'/In.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION									CONTRAC	CT NO.
	PLOT DATE = 1/28/2025	DATE -	REVISED		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		[LL]NO[FED. AID PROJECT	

MODEL: 34pt1_sheet1 FILE NAME: District 2 Stands PLOT DATE = 1/28/2025

WORK ZONE SIGN DETAILS

ILLINOIS STANDARD W12-I102



GENERAL NOTES

All work to furnish and install these signs shall be included in the cost of the specified traffic control standards and shall not be paid separately.

All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" In effect on the date of invitation for bids.

Signs shall meet the applicable portions of Sections 701 and 720 of the Standard Specifications.

All dimensions are in inches unless otherwise noted.

COLOR LEGEND AND BORDER BACKGROUND

BLACK FL ORANGE NON-REFLECTORIZED REFLECTORIZED

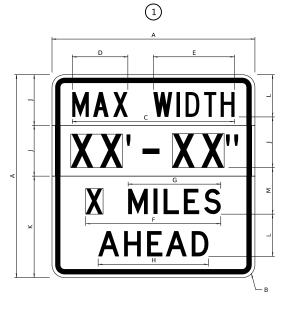
SIGN SIZE	DIMEN	ISIONS
SIGN SIZE	Α	В
48 x 48	48.00	3.00

lllinois Standard signs W12-I102 and W12-I103 shall be used as described in the special provisions.

SIGN SIZE	SERIES BY LINE	MARGIN	BORDER
SIGN SIZE	1	MARGIN	BORDER
48 x 48	12C	0.750	1.250

Sign not to scale

ILLINOIS STANDARD W12-I103



COLOR LEGEND AND BORDER
BACKGROUND
BACKGROUND (WIDTH)

BLACK WHITE FL ORANGE NON-REFLECTORIZED REFLECTORIZED REFLECTORIZED

SIGN SIZE					I	OIMEN	ISIONS	5				
SIGN SIZE	Α	В	С	D	Е	F	G	Н	J	K	L	М
48 x 48	48.00	3.00	38.40	13.20	19.20	32.00	22.00	26.20	12.00	24.00	10.00	11.00

SIGN SIZE		SERIES	BY LINE		MARGIN	PORDER	
SIGN SIZE	1	2	3	4	MARGIN	BORDER	
48 x 48	6C	8D	6D	6D	0.750	1.250	

Sign not to scale

XX'-XX" WIDTH AND X MILES ARE VARIABLE TOP AND BOTTOM OF BACKGROUND WHITE

USER NAME = IDOT/District 2	DESIGNED -	REVISED - 3-02-16
	DRAWN .	REVISED .
PLOT SCALE = 0.258*/In.	CHECKED -	REVISED -
PLOT DATE - 1/28/2025	DATE -	REVISED -

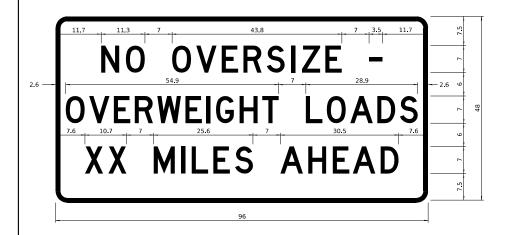
STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORT	TATION

	REGI	ON 2 / DI	STRICT 2	2 STANDARD
COME	CHEET	OF.	OUICETO	CTA

F.A. RTE	SEC	TION		COUNTY	TOTAL SHEETS	SHEE
				CONTRACT	NO.	
		ILLINOIS	FED. All	PROJECT		

WORK ZONE SIGN DETAILS

ROAD CLOSED TO OVERSIZED LOADS



COLOR LEGEND AND BORDER BACKGROUND

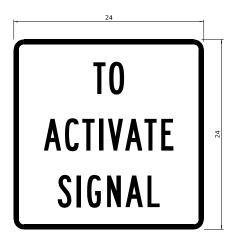
BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

Permit Loads - Loads Over 13 Feet; 3.0" Radius, 1.3" Border; [NO OVERSIZE -] D; [OVERWEIGHT LOADS] D 85% spacing; [XX MILES AHEAD] D; Table of letter and object lefts.

N 11.7	O 18.1	O 30.0	V 36.2	E 42.8	R 48.4	S 54.4	I 60.7	Z 63.5	E 69.5	80.8				
O 2.6	V 8.6	E 15.0	R 20.4	W 26.2	E 33.4	I 38.8	G 41.3	H 47.4	T 53.2	L 64.5	O 69.9	A 75.9	D 82.9	S 88.7
X 7.6	X 13.6	M 25.3	l 32.3	L 35.1	E 40.6	S 46.2	A 57.9	H 65.1	E 71.4	A 76.6	D 83.7			

Sign not to scale

STOP LINE SIGN FOR TEMPORARY SIGNALS



COLOR LE

LEGEND AND BORDER BACKGROUND BLACK WHITE NON-REFLECTORIZED REFLECTORIZED

SIGN SIZE	SERIES BY LINE						
SIGN SIZE	1	2	3				
24 x 24	4C	4C	4C				

Sign not to scale

GENERAL NOTES

All work to furnish and install these signs shall be included in the cost of the specified traffic control standards and shall not be pald separately.

All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

Signs shall meet the applicable portions of Sections 701 and 720 of the Standard Specifications.

All dimensions are in inches unless otherwise noted.

USER NAME = IDOT/District 2	DESIGNED .	REVISED 3-02-16								F.A. RTF	SECTION	COUNTY	TOTAL S	HEET
	DRAWN -	REVISED	STATE OF ILLINOIS		REGIO	N 2 / DIS	TRICT 2	STANDARD					10	
PLOT SCALE = 0.258*/In.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION									CONTRAC	T NO.	\neg
PLOT DATE = 1/28/2025	DATE -	REVISED		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. A	D PROJECT		

ENTRANCE SIGN FOR USE WITH TEMPORARY SIGNALS

WORK ZONE SIGN DETAILS

GENERAL NOTES

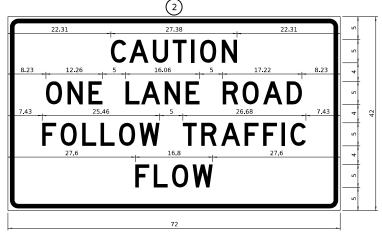
All work to furnish and install these signs shall be Included In the cost of the specified traffic

control standards and shall not be paid separately.

All Illinois Standard signs shall conform to the latest edition of the "Illinois Standard Highway Signs Book" in effect on the date of invitation for bids.

Signs shall meet the applicable portions of Sections 701 and 720 of the Standard Specifications.

All dimensions are in inches unless otherwise noted.



COLOR LEGEND AND BORDER BACKGROUND

BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

2.25 Radius, 0.88" Border, 0.50" IndenT; [CAUTION] D; [ONE LANE ROAD] D; [FOLLOW TRAFFIC] D; [FLOW] D This sign shall be installed at entrances located between the temporary signals as shown in the staging plans.

Table Of Widths And Spaces

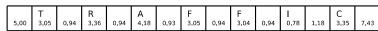
١		С		Α		U		Т		ı		0		N	
ı	22.31	3.36	0.62	4.18	0.94	3.36	0.94	3.04	0.94	0.78	1.17	3.52	1.17	3.36	22.31

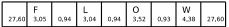
	0		N		Е
8.23	3.51	1.17	3.36	1.18	3.04

	L		Α		N		Е
5.00	3.05	0.31	4.18	0.94	3.36	1.17	3.05



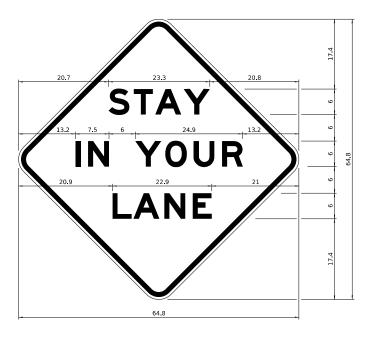






Sign not to scale

STAY IN YOUR LANE



COLOR LEGEND AND BORDER BACKGROUND

BLACK ORANGE NON-REFLECTORIZED REFLECTORIZED

48.0" across sides 3.8" Radius, 1.0" Border, 0.6" Indent; "STAY" E Mod; "IN YOUR" E Mod; "LANE" E Mod;

Table of Letter and Object Lefts

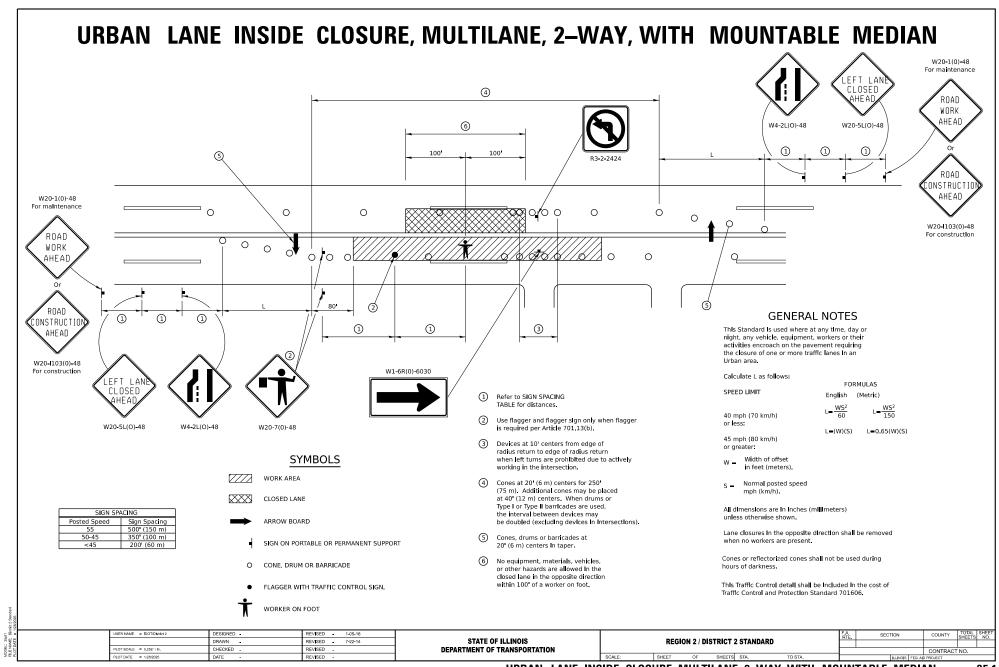
S 20.7	T 26.8	A 31.6	Y 38.0	

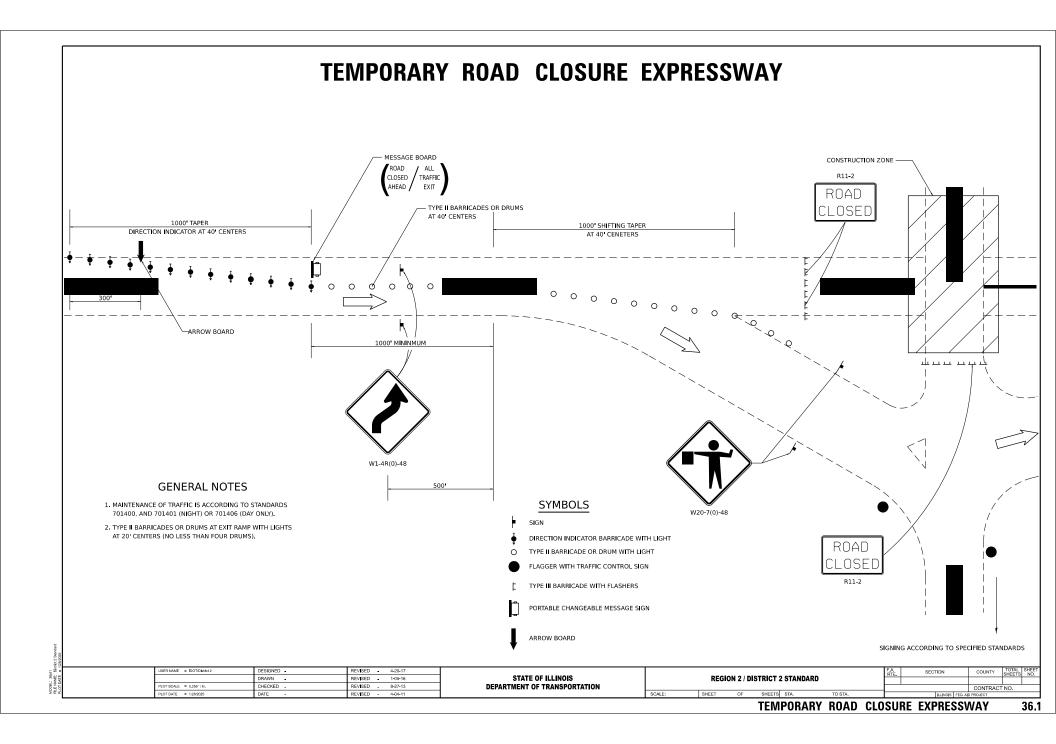
I N Y	O	U	R
13.2 15.9 26.7	33.9	40.5	46.8

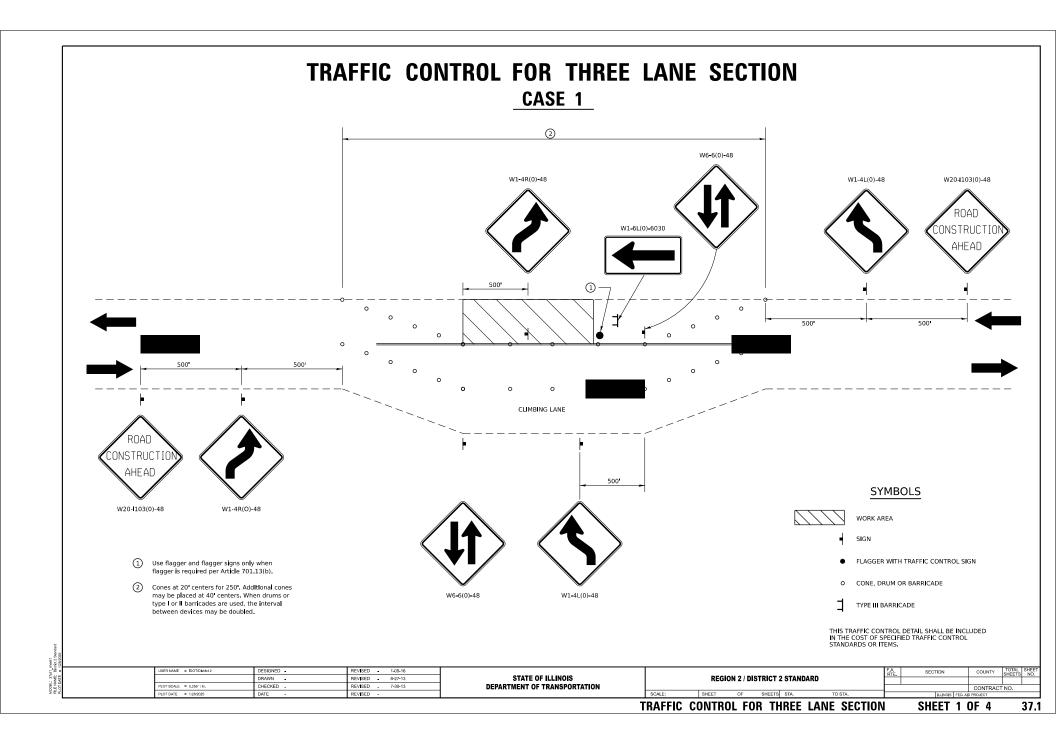
L A N E 20.9 25.8 33.1 39.4

Sign not to scale

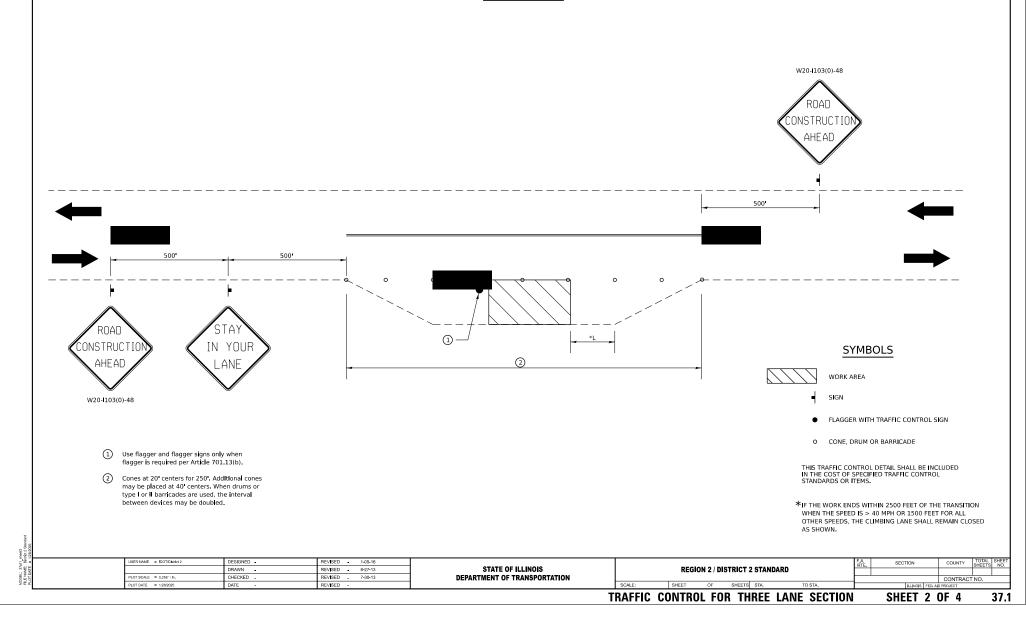
USER NAME = DOTORNAME = DOTORNAME = DOTORNAME = DOTORNAME = DORAWN REVISED - SPANN REVISED - STATE OF ILLINOIS REGION 2 / DISTRICT 2 STANDARD															
	USER NAME = IDOT/District 2	DESIGNED -	REVISED 3-02-16								F.A.	SECTION	COUNTY	TOTAL S	HEET
PIOTAGUE = 0.749/16 CHECKED REVISED DEDARTMENT OF TRANSPORTATION		DRAWN -	REVISED -								IXII.			TOTAL TO	140.
	PLOT SCALE = 0.258'/In.	CHECKED -	REVISED	DEPARTMENT OF TRANSPORTATION									CONTRAC	T NO.	_
PLOT DATE - 1/2/M0/2/S DATE - REVISED - SCALE: SHEET OF SHEETS STA. TO STA. LINDIS FED. AID PROJECT	PLOT DATE - 1/28/2025	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		JLLINOIS FED. A	D PROJECT		

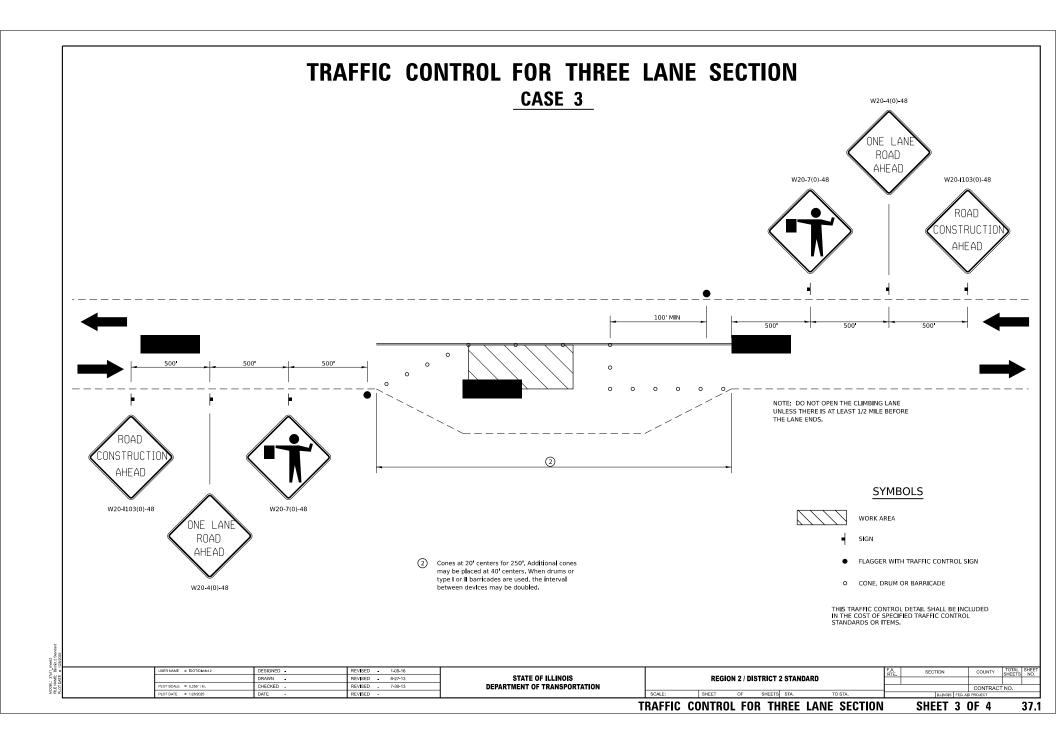




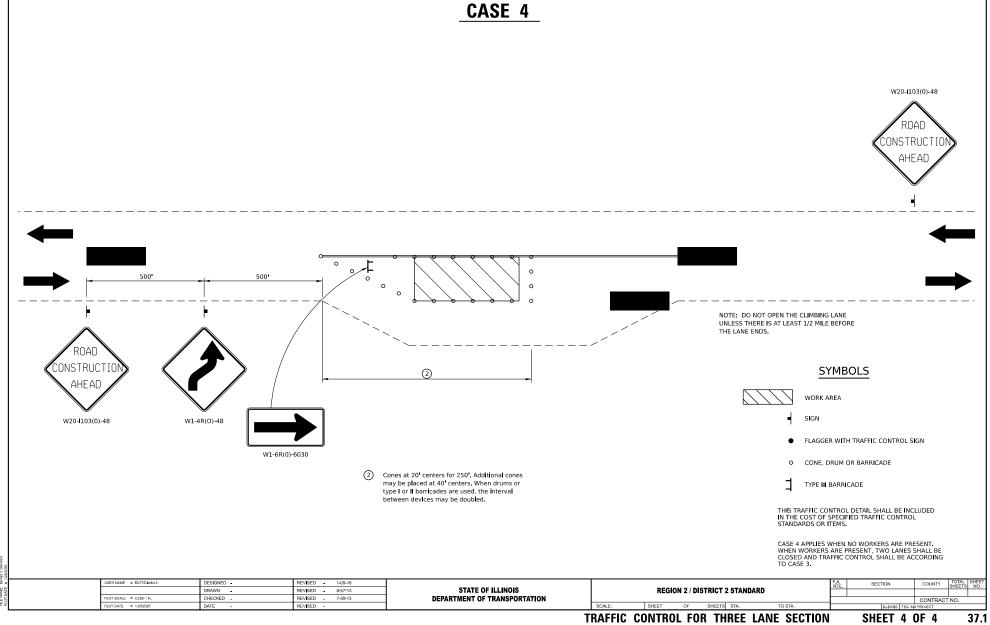


TRAFFIC CONTROL FOR THREE LANE SECTION CASE 2

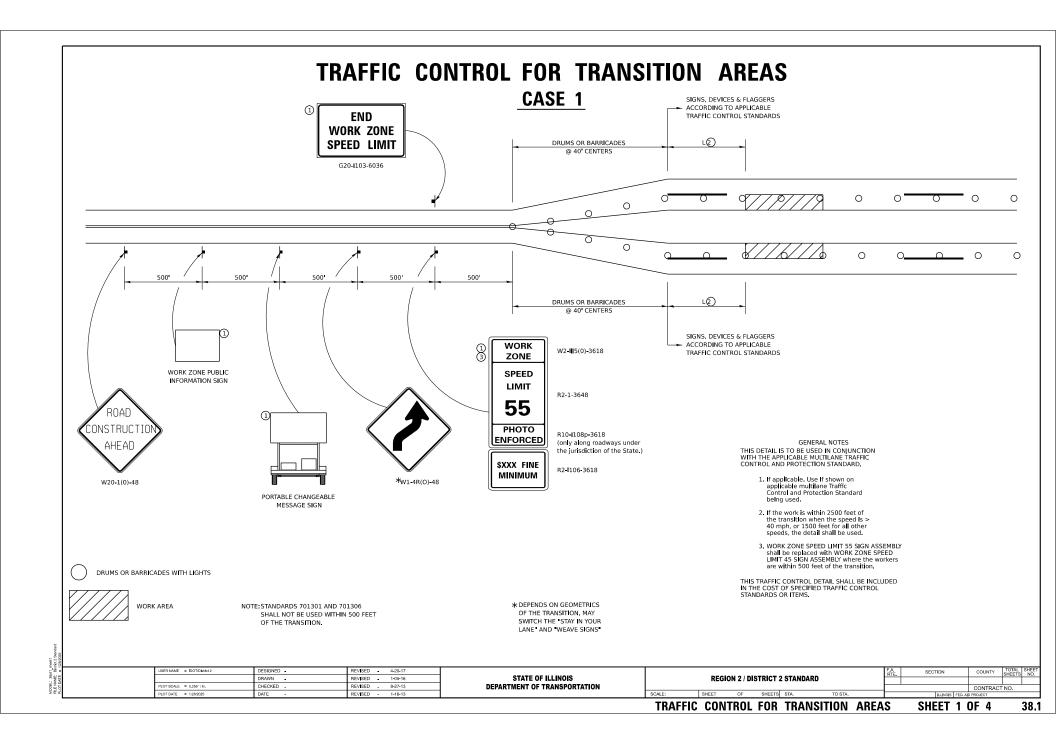


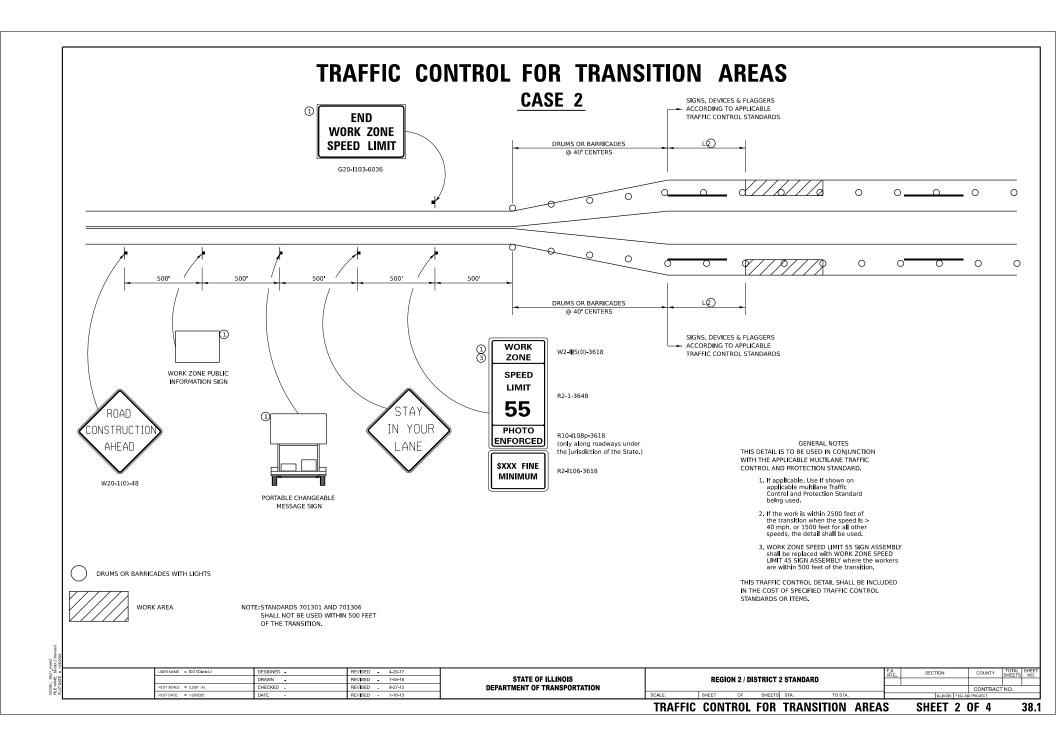


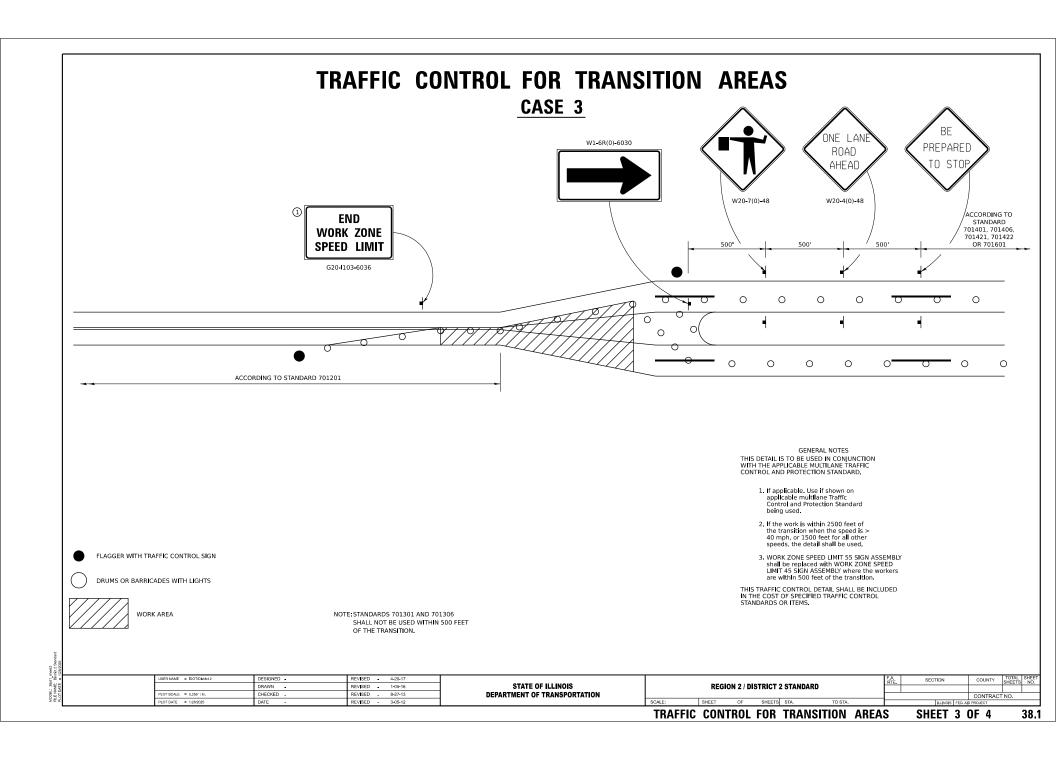
TRAFFIC CONTROL FOR THREE LANE SECTION CASE 4

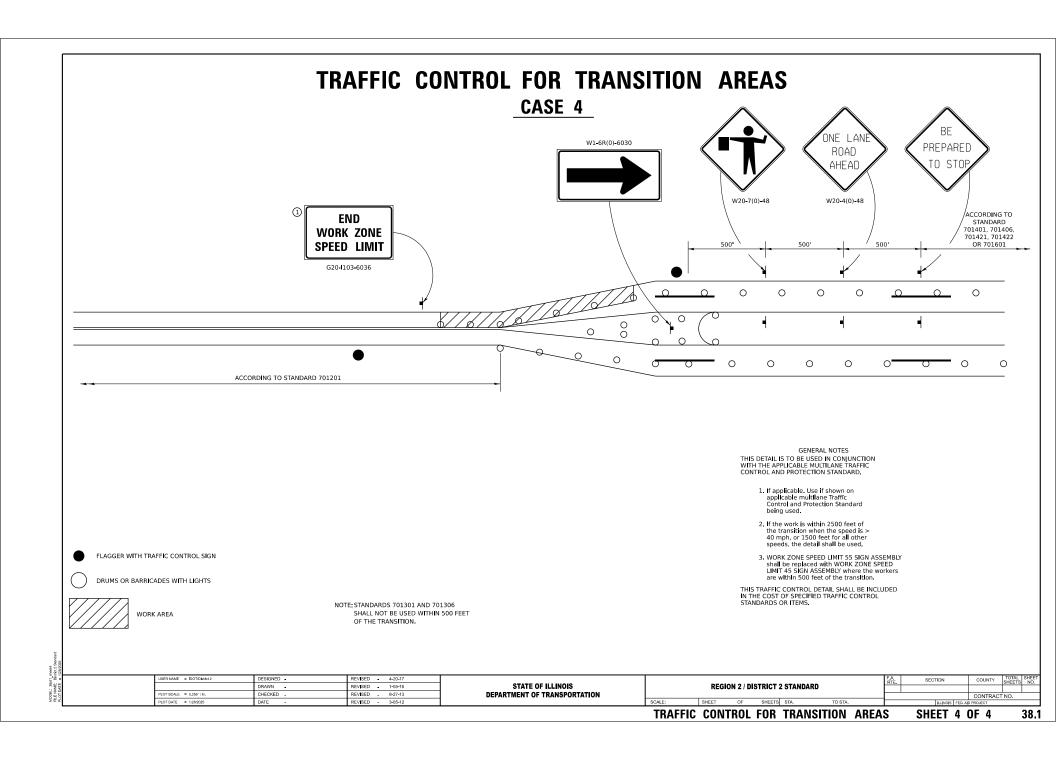


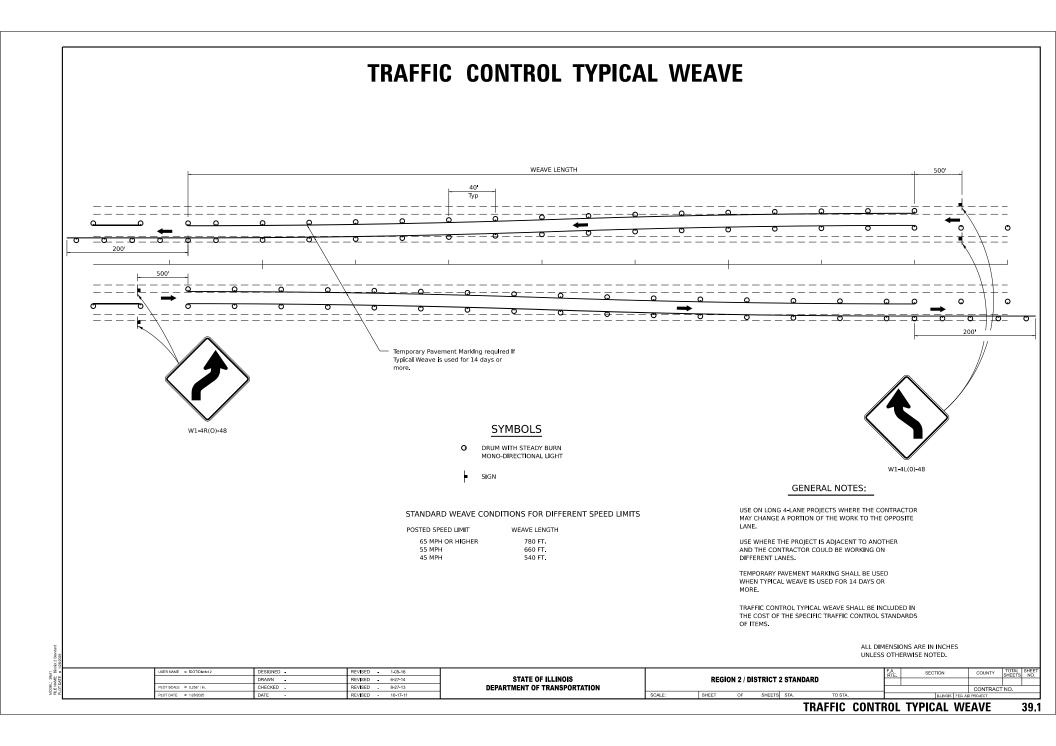
MODEL: 37pt1_sheet4 FILE NAME District 2 Stands

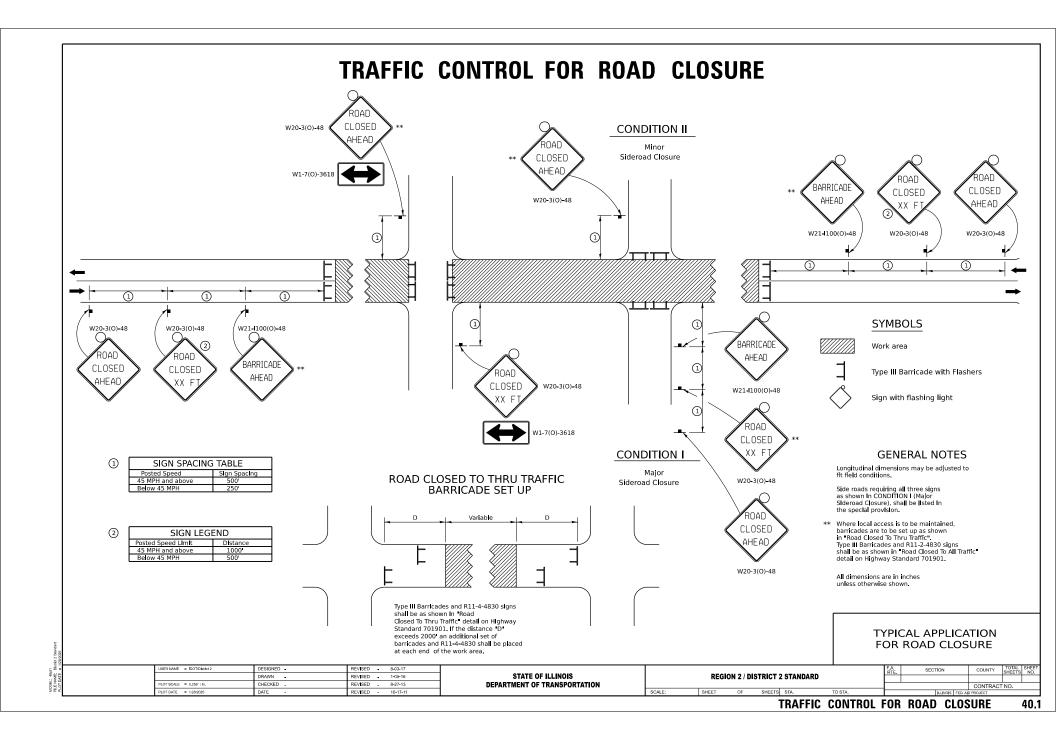










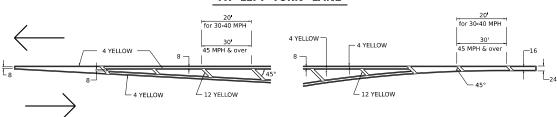


TYPICAL PAVEMENT MARKINGS

TYPICAL MARKING FOR PAINTED ISLANDS

MEDIAN PAVEMENT MARKING

TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN AT LEFT TURN LANE





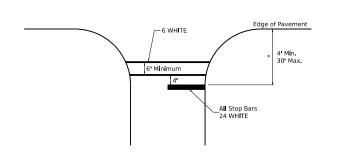
** ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

TYPICAL ISLAND **OFFSET SHOULDER WIDTH**

8 WHITE LANE LINE NOTE: * 45° TO LOCAL TAN. 24 WHITE 8 WHITE 24 WHITE STOP BAR 45° ANGLE 8 WHITE 8 WHITE

STANDARD CROSSWALK MARKING

See Schedules for Locations



Distance to the nearest edge of the intersecting roadway in the absence of a marked crosswalk.

USER NAME = IDOT/District 2	DESIGNED -	REVISED 6-27-14
	DRAWN -	REVISED 3-05-12
PLOT SCALE = 0.258*/In.	CHECKED -	REVISED -
PLOT DATE - 1/28/2025	DATE -	REVISED

5 Dlagonals

Minimum

└ 12 WHITE

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

THROUGH TRAFFIC

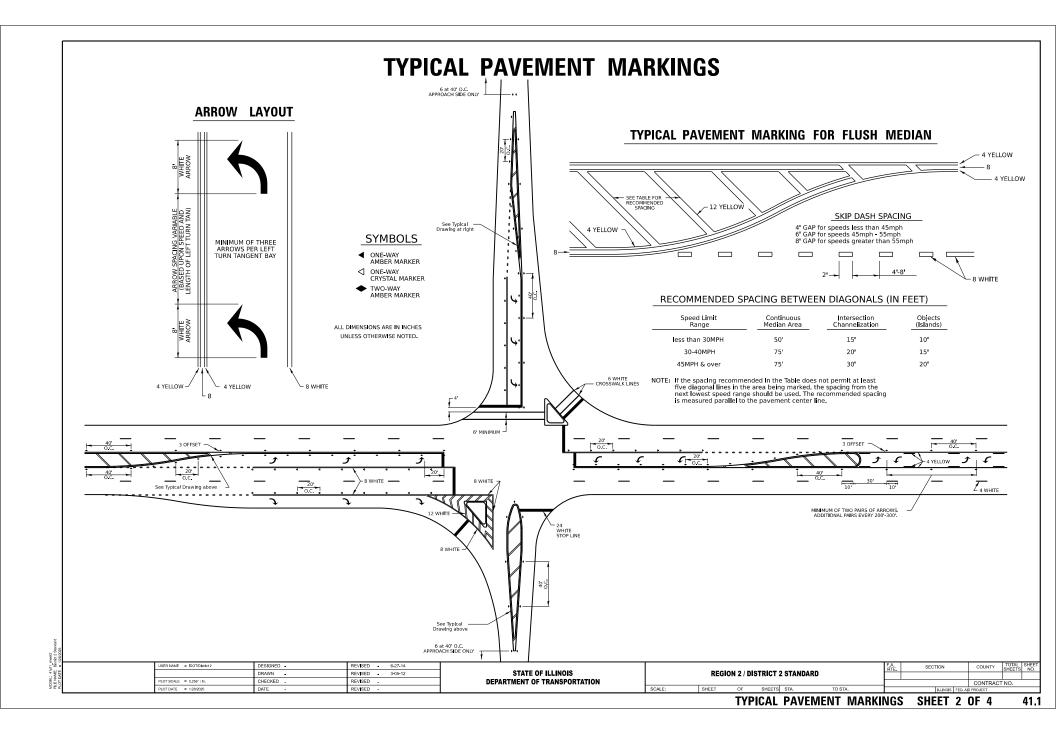
- 8 WHITE

- 12 WHITE

REGION 2 / DISTRICT 2 STANDARD OF SHEETS STA.

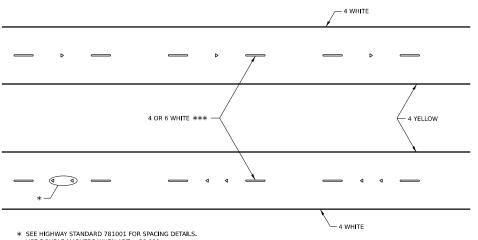
CONTRACT NO

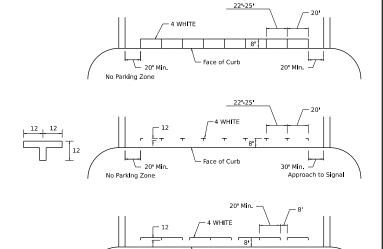
41.1



TYPICAL PAVEMENT MARKINGS

TYPICAL PARKING SPACING



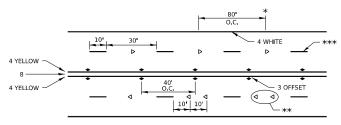


Face of Curb

20' Min. —

USE DOUBLE MARKERS WHEN ADT ≥ 20,000.

MULTI-LANE / DIVIDED



- * REDUCE TO 40' O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 MPH LOWER THAN POSTED SPEEDS.
- ** USE DOUBLE MARKERS WHEN ADT ≥ 20,000
- *** CENTERLINE SKIP DASH PAVEMENT MARKING SPEED LIMIT LESS THAN 40 MPH USE 4" LINE. SPEED LIMIT 40 MPH AND

MULTI-LANE / UNDIVIDED & ONE WAY

(FOR MULTI-LANE UNDIVIDED HIGHWAYS USE THIS DETAIL NOT HIGHWAY STANDARD 781001)

USER NAME = IDOT/District 2	DESIGNED -	REVISED 6-27-14
	DRAWN -	REVISED 8-27-13
PLOT SCALE = 0.258*/In.	CHECKED -	REVISED - 11-28-12
PLOT DATE = 1/28/2025	DATE -	REVISED

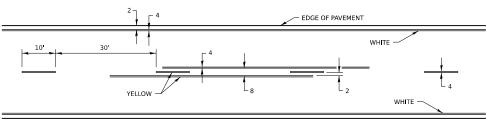
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

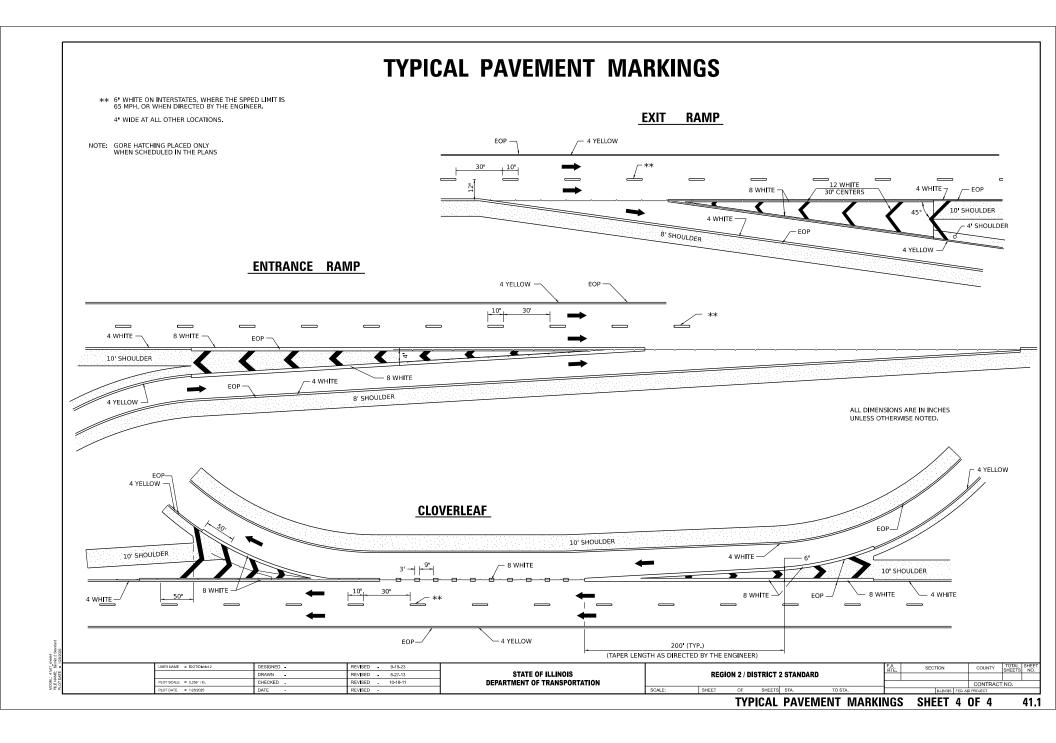
		TYP	ICAL	PAV	EMEN.	T	MARKII	VGS	S S	HE	ET	3	0F	4		41.1
SCALE: SHEET OF SHEETS				STA. TO STA.							ILLINOIS	FED. A	D PROJEC	CT .		
													CON	ITRACT	NO.	
	REGIO	N 2 / DIS	STRICT 2	STANL	JAKU											
				STANDARD				RTE.	SECTION				COUNTY		SHEETS	NO.

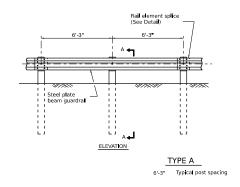
TYPICAL PAVEMENT MARKING FOR TWO LANE SECTION - NO PASSING ZONES

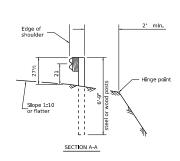
No Parking Zone

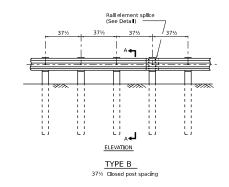
∟ _{20' MIn}.

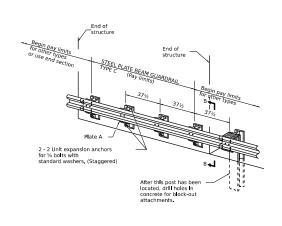


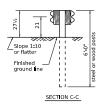


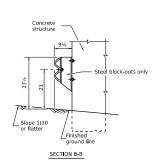


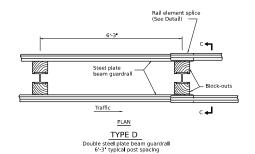












GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

All dimensions are in inches unless otherwise shown.

The existing steel posts may be drilled to match the bolt pattern shown herein for the wood block-out, or a new steel post shall be provided.

This detail is applicable to the guardrall system used prior to January 1, 2007. For details on the Midwest Guardrall System, see Standard 630001.

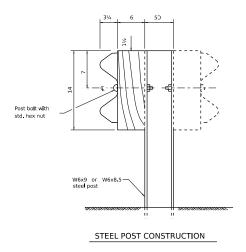
USER NAME = IDOT/District 2	DESIGNED -	REVISED 1-05-16
	DRAWN -	REVISED 10-18-11
PLOT SCALE = 0.258*/In.	CHECKED -	REVISED -
DLOT DATE - 1/28/2006	DATE	BEVIEED

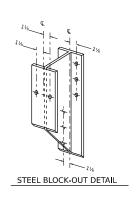
TYPE C

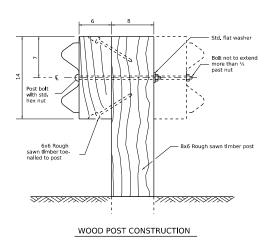
37½ Block-out spacing

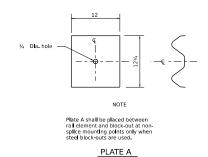
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

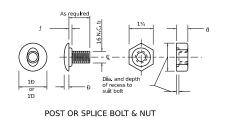
			REGIO	ON 2 / D	ISTRICT 2	2 STANDA	RD		F.A. RTE.		SECTION		COUNTY	TOTAL	SHEET NO.
	SCALE:		SHEET	OF	SHEETS	STA.	TO STA.				ILLINOIS	FED. A	CONTRACT D PROJECT	NO.	
MOV	/E AND	RI	EEREC	T S	reel i	PLATE	BEAM	GUAF	RDR	AIL	SHEE	T 1	of 4		53.1





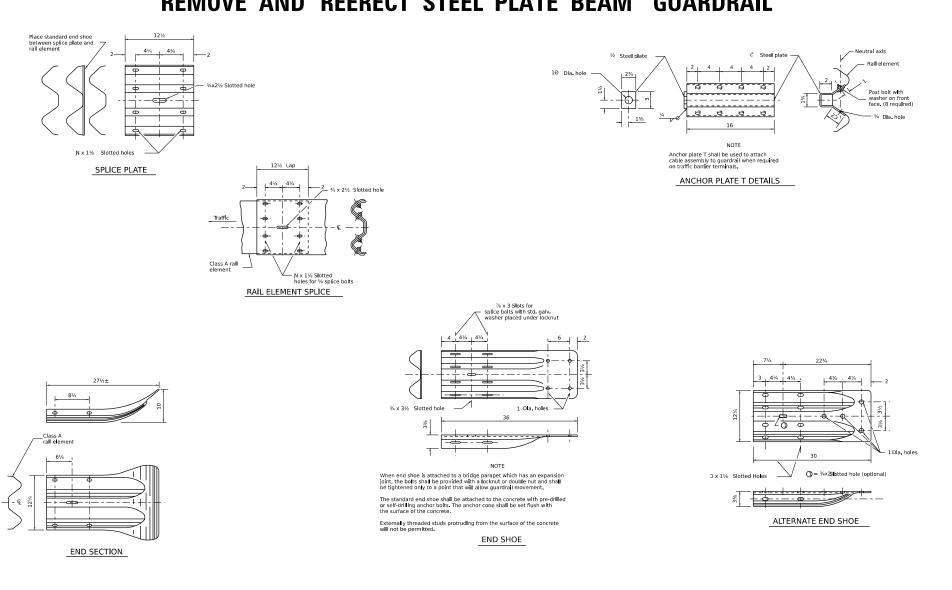






	USER NAME = IDOT/District 2	DESIGNED .	REVISED 1-05-16								F.A. RTF	SECTION		COUNTY	TOTAL	SHEET
		DRAWN -	REVISED 10-18-11	STATE OF ILLINOIS		REGIO	N 2 / DIS	TRICT 2	2 STANDARD						0	
- [PLOT SCALE = 0.258*/In.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION										CONTRACT	r NO.	\neg
	PLOT DATE = 1/28/2025	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILLI	NOIS FED. A	D PROJECT		

53.1



STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

SER NAME = IDOT/District 2

LOT SCALE = 0.258'/In.

DESIGNED -

DRAWN .

CHECKED

REVISED • 1-05-16

REVISED 10-18-11

REVISED

REVISED

CONTRACT NO.

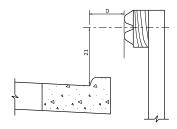
53.1

REGION 2 / DISTRICT 2 STANDARD

OF SHEETS STA.



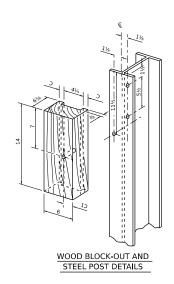
PLAN

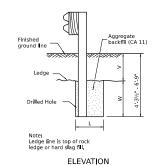


Note:
If It Is necessary for D to be more than and less than 10'49'be divid and gutter (Std. 606001) shall be used in front of and in advance of the guardrail.

GUARDRAIL PLACED BEHIND CURB

(D - O desirable to 102aximum)

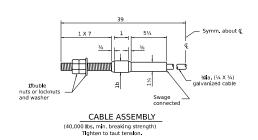




FOOTING FOR POST WHEN IMPERVIOUS

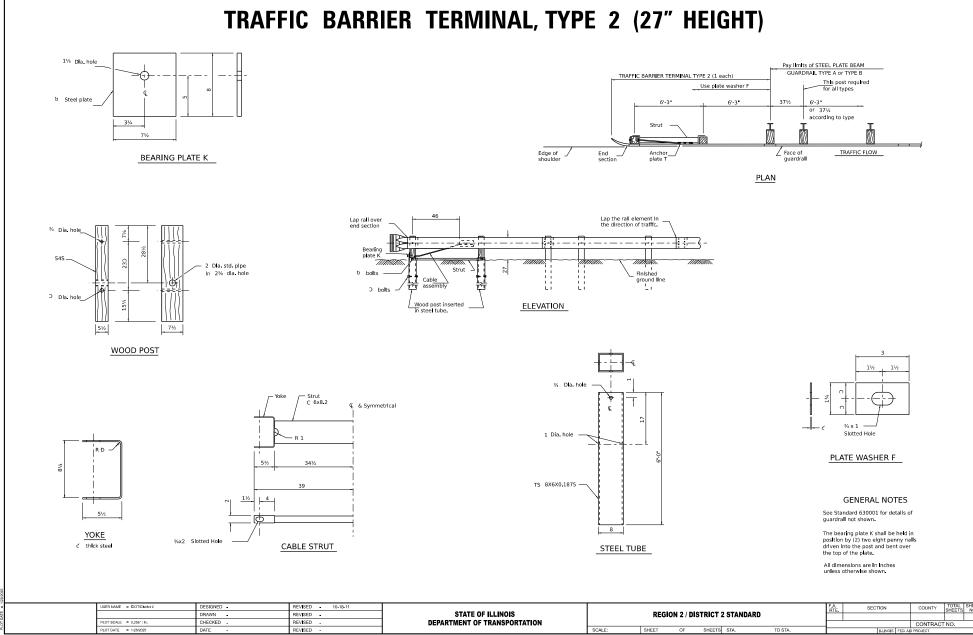
MATERIAL IS ENCOUNTERED

V	w	ı	-
•	**	Steel Post	Wood Post
0 - 18	24	21	23
>18 - 41.5	12	8	10
>41.5 - 53.5	12 - 0	8	10



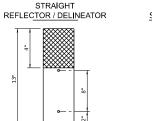
53.1

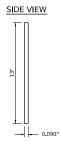
USER NAME = IDOT/District 2	DESIGNED -	REVISED 1-05-16								F.A. RTF	SECTION	COUNTY	TOTAL	SHEET
	DRAWN .	REVISED 10-18-11	STATE OF ILLINOIS		REGIO	N 2 / DIS	STRICT	2 STANDARD		1111			0	
PLOT SCALE = 0.258'/In.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION							_		CONTRACT	T NO.	\neg
PLOT DATE = 1/28/2025	DATE -	REVISED		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED.	ID PROJECT		



GUARDRAIL REFLECTORS, TYPE C (SPECIAL)

REFLECTORS FOR GUARDRAIL BLOCK OUT OR DELINEATOR POST



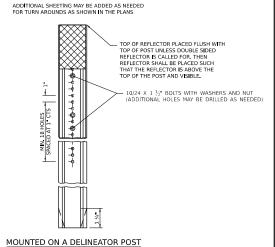


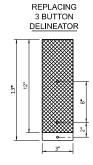
TWO 2 1/2" GALVANIZED SCREWS
OR TWO GALVANIZED SELF TAPPING
SCREWS

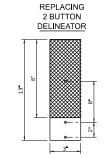
MOUNTED ON A GUARDRAIL BLOCK OUT

REFLECTORS SHALL BE MOUNTED DIRECTLY TO BLOCK OUTS.

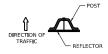
REFLECTORS MOUNTED ON WOODEN OR PLASTIC OR METAL BLOCK OUT SHALL BE MOUNTED USING TWO 2 1/5" GALVANIZED SCREWS WITH WASHERS OR TWO SELF TAPPING GALVANIZED SCREWS WITH WASHERS.







ADDITIONAL HOLES SHALL BE DRILLED IN THE REFLECTORS AS SHOWN ABOVE.



DELINEATORS SHALL BE INSTALLED ACCORDING TO STANDARD 635001 EXCEPT THAT THE POST SHALL BE ROTATED 180°. THE POST WILL HAVE THE WIDE SIDE FACING TRAFFIC AND THE REFLECTOR ATTACHECD AS SHOWN ABOVE.

NOTE:

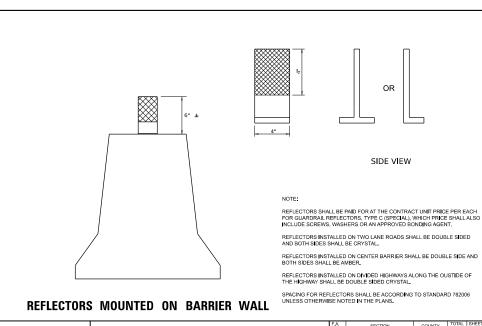
REFLECTORS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR GUARDRAIL REFLECTORS, TYPE C (SPECIAL), WHICH PRICE SHALL ALSO INCLUDE SCREWS, WASHERS OR AN APPROVED BONDING AGENT.

REFLECTORS INSTALLED ON TWO LANE ROADS SHALL BE DOUBLE SIDED AND BOTH SIDES SHALL BE CRYSTAL.

REFLECTORS INSTALLED ON CENTER BARRIER OR IN THE MEDIAN

REFLECTORS INSTALLED ON DIVIDED HIGHWAYS ON THE OUTSIDE

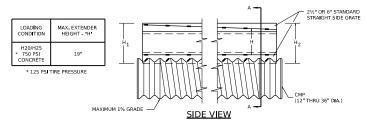
SPACING FOR REFLECTORS SHALL BE ACCORDING TO STANDARD 782006 UNLESS OTHERWISE NOTED IN THE PLANS.



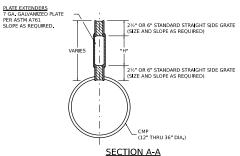
USER NAME = IDOT/District 2	DESIGNED -	REVISED 3-07-24
	DRAWN .	REVISED 4-27-23
PLOT SCALE = 0.258*/In.	CHECKED -	REVISED - 6-21-21
PLOT DATE - 1/28/2025	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

					I	F.A. RTE.	SEC*	TION		COUNTY	TOTAL SHEETS	SHEE NO.
	REGI	ON 2 / D	ISTRICT 2	2 STANDA	KRD [
					CONTRACT	NO.						
SCALE:	SHEET	OF	SHEETS	STA.	TO STA.			ILLINOIS	FED. AII	PROJECT		



DETAIL WITH VARIABLE HEIGHT GRATE



GENERAL

Class SI Concrete shall be used throughout.
This specification covers Slottled Drain used for the removal of water as shown on the plans.
The Slottled Drain shall be Compaged Pipe Culvert with Integral Slottled Drains.
The Slottled Drain shall be Compaged Pipe Culvert with Integral Slottled Drains.
The Slottled Drain shall be Compaged Pipe Culvert with Integral Slottled Drains.
The Slottled Drains with the Slottled Drain shall be s

The Corrugated Steel Pipe used in the Jointee Drain shall meet the requirements of AASH10 M36ASTM A76.00.

The CMP shall be ALUMIZED STEEL Type 2.

The diameter shall be as shown on the plans.

Steel grating shall meet the galvanizing requirements of AASHTO M111.

This work will be paid for at the contract unit price per foot for SLOTTED DRAIN of the pipe diameter specified WTH VARIABLE SLOT, or SLOTTED DRAIN, of the pipe diameter specified, WTH 6"SLOT, and shall unchief concrete and grating for definition specified in paids.

and shall include concrete and grating for depth specified on plans.

Use approved end cap to prevent concrete entry into the pipe during gutter construction on the upstream end of the pipe.

The Corrugated Steel Pipe shall have a minimum of two rerolled annular ends.
The Slotted Drain bands shall be modified HUGGER Bands to secure the pipe and prevent

When the Slotted Drain is banded together, the adjacent grates shall have a maximum 3 gap.

The grates shall be manufactured from ASTM A670, Grade 36 steel. The spacers and bearing bars (sides) shall be 31/6 "material ±0,008". The spacers shall be a 06" centers and welded on both sides to each bearing bar (sides) with four (4) 1-1/4" long 31/6" fillet welds on each side of the bearing bar. The plate extender shall be 7 agos steel meeting ASTM A761. The plate extender shall be 7 agos steel meeting ASTM A761. The engineer may call for tendle strength tests on the grate! If the grate is not in complance with the above spacer spelficiations. It tends the strength tests are called for, minimum results with the above spacer spelficiations. It tends the strength tests are called for, minimum results with the above spacer spelficiations. It tends the strength tests are called for, minimum results.

for an in-place spacer pulled perpendicular to the bearing bar shall be: T= 12,000 pounds for 2-1/2 grate T= 15,000 pounds for 6° grate

GALVANIZING

The grate and plate extenders shall be galvanized in accordance with ASTM A123 except with a 2 oz. galvanized coating.

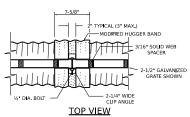
GRATE ATTACHED TO CSP

The grate shall be fillet welded with a minimum weld 1" long to the CSP on each side of the grate at every other corrugation.

TOLERANCES - FINISHED SLOTTED DRAIN - 20' LENGTHS

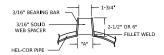
Vertical Bow= ± 3/8" Horizontal Bow= ± 5/8

SLOTTED DRAIN PIPE

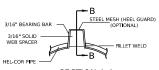




SIDE VIEW



SECTION A-A STANDARD DETAIL



SECTION A-A **DETAIL WITH MESH**

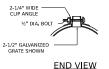
(TRAPEZOIDAL GALVANIZED GRATE SHOWN)

lſ		STANDARD SIZES												
	Έ	PIF	≀ OF	TEF	AME	DI	GAGE							
	36"	30"	24"	18"	15	12"	PIPE							
ΙF	Х	Х	Х	Х	Х	Х	16							
ŀΕ	X	X	Х	X	Х	X	14							
_	X	X	N.A.	N.A.	N.A.	N.A.	12							

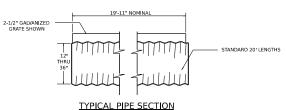
	RATE TYPE	A								
VERT	2-1/2	1-3/4"								
VERT	6	1-3/4"								
TRAP	2-1/2	2-1/4"								
TRAP	6"	3.								
TRAP 6" 3" VERT = VERTICAL TRAP = TRAPIZOIDAL										

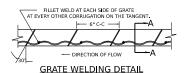
SLOTTED DRAIN NOTES

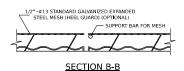
- 1. GRATING IS AVAILABLE IN DEPTHS OF 2-1/2" AND 6".
- 2. VERTICAL GRATING (STRAIGHT SIDES) WITH VERTICAL SPACERS
- 3. FOR 6" VERTICAL & TRAPIZOIDAL REQUIREMENTS, THE SLOTTED DRAIN BAND MAY BE FURNISHED WITH THE 41 TECHCO BAND ANGLE.
- 4. DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
- 5. DIMENSIONS FOR H AND H AS REQUIRED.
- 6. H AND H MEASURED FROM TOP OF GRATE TO BOTTOM OF GRATE.

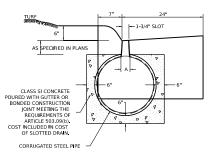


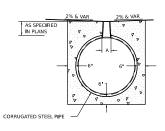












DETAIL FOR CURB & GUTTER

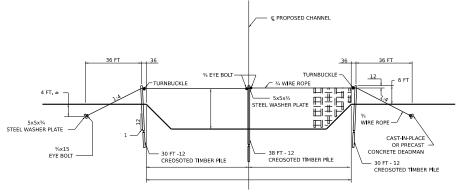
DETAIL FOR CROSSOVERS. DRIVEWAYS, OR PARKING LOTS

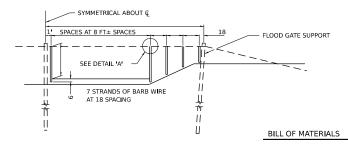
> COUNTY CONTRACT NO

ALL DIMENSIONS ARE IN INCHES UNLESS SECTION

										OTHER	WISE NOTE
USER NAME = IDOT/District 2	DESIGNED .	REVISED 1-05-16								F.A.	
	DRAWN -	REVISED 6-27-14	STATE OF ILLINOIS	REGION 2 / DISTRICT 2 STANDARD						IXIL.	
PLOT SCALE = 0.258'/In.	CHECKED -	REVISED 10-18-11	REVISED - 10-18-11 DEPARTMENT OF TRANSPORTATION								
PLOT DATE - 1/28/2025	DATE -	REVISED -]	SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		

DETAIL OF FLOOD GATE





GALVANIZED U-BOLT CABLE CLAMP

NOTE:
THIS WORK WILL BE PAID FOR AT THE
CONTRACT UNIT PRICE PER EACH FOR

3/4 WIRE ROPE

QUANTITY UNIT FT 2 x 4 TREATED LUMBER FT GALVANIZED BARBED WIRE SPECIAL STEEL CHANNEL FT

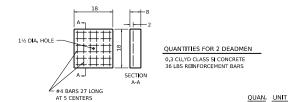
SC 25, 2½ x 2½ 3/8 x 3 GALVANIZED STEEL BOLTS AND WASHERS

3/8 x 2 GALVANIZED EACH STEEL U-BOLTS

FACH GALVANIZED CABLE CLAMPS GALVANIZED FENCE STAPLES

LBS

EACH



DETAIL OF PRECAST CONCRETE DEADMAN

BILL OF MATERIALS

ITEM 3/4 DIA, GALVANIZED WIRE ROPE

¾ DIA. x 15 GALVANIZED EYE BOLTS WITH NUTS AND WASHERS EACH

¾ DIA. GALVANIZED TURNBUCKLES

34 DIA. GALVANIZED CABLE CLAMPS EACH

EACH 5x5x¾ STEEL WASHER PLATES

PRECAST CONCRETE DEADMEN OR EACH CAST-IN-PLACE CONCRETE DEADMEN

12 CREOSOTED TIMBER PILE (INCLUDES FURNISHING AND DRIVING TIMBER PILE)

CHANNEL CAP CHANNEL SC 25, 21/2 x 21/2 SPRING LOCK WASHER TO BE COUNTERSUNK % GALVANIZED / - 2 x 4 TREATED LUMBER STEEL BOLTS - FENCE STAPLE 1b GALVANIZED BARBED WIRE HOLES TO MATCH

> DETIAL 'A' EXPLODED VIEW OF FLOOD GATE TO CABLE

NOTE:

QUANTITIES FOR 2 DEADMEN

0.7 CU. YD. CLASS SI CONCRETE

PRECAST CONCRETE DEADMEN AND CAST-IN-PLACE CONCRETE
DEADMEN SHALL BE CONSTRUCTED OF CLASS SI CONCRETE

USER NAME = IDOT/District 2	DESIGNED -	REVISED 8-09-12									F.A.	s	ECTION	COUNTY	TOTAL	SHEET
	DRAWN -	REVISED	STATE OF ILLINOIS		REGION 2 / DISTRICT 2 STANDARD											-1101
PLOT SCALE = 0.258'/ln.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION						H			CONTRAC	T NO.	-1		
PLOT DATE = 1/28/2025	DATE -	REVISED -		SCALE:	SHEET	OF	SHEE	ETS S	STA.	TO STA.			ILLINOIS FED. A	D PROJECT		

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.



TYPICAL SECTION

(POSTED SPEED LIMIT 55 MPH, WORK ZONE SPEED LIMIT 45 MPH)

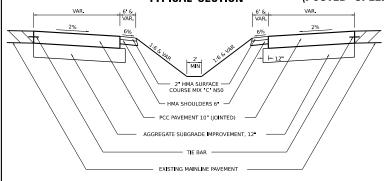
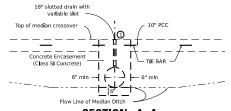
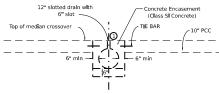


TABLE OF OFFSETS AND DROPS										
Distance feet from location station	0	60′ (B)	75	100'	125'	143.73' ©				
Offsets feet from Inside edge of pavement	20'	18'	15,32'	11.37	8.06'	6.00'				
Drop feet from Inside edge of pavement	0.0'	0,0'	0.0'	0.0	0.0	0.0'				



SECTION A-A

(USE TO MAINTAIN MEDIAN DRAINAGE THROUGH THE CROSSOVER)



 Duct tape or wood blocks shall be used to cover slotted drain during construction of crossover paving

SECTION A-A

(WHEN CROSSOVER IS AT MEDIAN HIGH POINT)

GENERAL NOTES

Construction of median crossover shall conform to the requirement of current Standard Specifications.

Slotted drain shall be constructed of 14 or 16 gauge corrugated metal roadway pipe modified to accommodate slotted drain as shown.

Pavement, subbase, & shoulder quantities are:

 (1340.88 Sq. Yds.)
 AGGREGATE SUBGRADE IMPROVEMENT, 12"

 (1250.80 Sq. Yds.)
 P.C.C. PAVEMENT 10" (JOINTED)

 (45.1 Tons)
 2" HMA SURFACE COURSE, MIX "C", N50

(402.52 Sq. Yds.) HMA SHOULDERS 6

Elbows and Caps shall be considered included to the SLOTTED DRAIN 12" WITH 6" SLOT.

See District Standard 61.2 or 68.1 for details for the slotted drain.

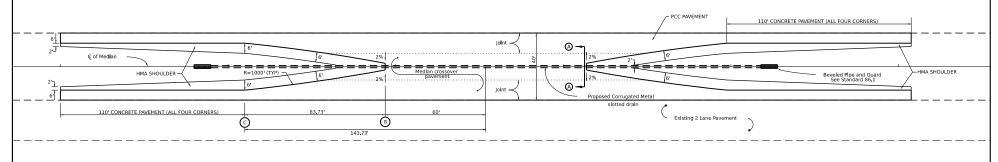
See District Standard 86.1 for details for the beveled pipe & guard.

The crossover is designed using a 45mph design speed.

The end of the pipe guard shall be set where a minimum 1:4 front slope can be constructed from each side of pipe guard to the HMA shoulder.

The PCC Pavement 10" (Jointed) shall be constructed according to Section 420 of the Standard Specifications and Highway Standards 420001, 420101, & 420106

The PCC Pavement 10" (Jointed) shall be tled to adjacent existing concrete pavement and the concrete encasement for the slotted drain. The tle bars shall be No.6 bars 24" (long @ 30" ct. and installed according to the applicable portions of Article 420,05(b) of the Standard Specifications. The cost of the bars to be Included in the cost of the PCC Pavement 10" (Jointed).



TYPICAL PLAN

Unless otherwise specified, when the median crossover is to be removed, the Contractor shall be required to saw full-depth along the shoulder line 6'trom edge of pavement. The 6 adjacent to the edge of pavement shall remain in place and be used as shoulders. The cost of Sawing shall be included in the Pavement Removal.

Longitudinaljoints shall be sawed at a max 12' width. All joints shall be sealed.

TRAFFIC CONTROL STANDARD 701416 IS TO BE USED WITH THIS DETAIL

	USER NAME = IDOT/District 2	DESIGNED .	REVISED 2-26-19							F.A. RTF	SECTION	COUNTY TO	OTAL SHEET	
DRAWN REVISED 1-05-16	DRAWN -	REVISED 1-05-16	STATE OF ILLINOIS		REGION 2	2 / DISTR	RICT 2 STAND	ARD	IXIE.			EL TO NO.		
	REVISED 8-27-13	DEPARTMENT OF TRANSPORTATION	1						-	Ю.				
	DATE -	REVISED - 12-07-10		SCALE:	SHEET O	OF S	HEETS STA.	TO STA.		ILLINOIS F	FED. AID PROJECT			
									/	/0 DI/ =		- · · · · · · · · · · · · · · · · · · ·		



TYPICAL SECTION

(POSTED SPEED LIMIT 55 MPH, WORK ZONE SPEED LIMIT 45 MPH)

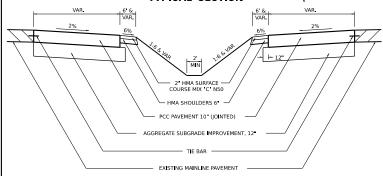
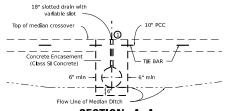
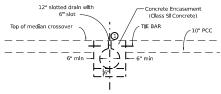


TABLE OF OFFSETS AND DROPS										
Distance feet from location station	0'	53′ (B)	75'	100'	125'	150,00'	161.73			
Offsets feet from Inside edge of pavement	25°	23'	18.57	14.14	10.37	7.25'	6.00"			
Drop feet from Inside edge of pavement	0.5'	0.46	0,37	0,28	0,021	0.15'	0,12'			



SECTION A-A

(USE TO MAINTAIN MEDIAN DRAINAGE THROUGH THE CROSSOVER)



Duct tape or wood blocks shall be used to cover slotted drain during construction of crossover paving

SECTION A-A

(WHEN CROSSOVER IS AT MEDIAN HIGH POIN

GENERAL NOTES

Construction of median crossover shall conform to the requirement of current Standard Specifications.

Slotted drain shall be constructed of 14 or 16 gauge corrugated metal roadway pipe modified to accommodate slotted drain as shown.

Pavement, subbase, & shoulder quantities are:

(1634.94 Sq. Yds.)
(1533.52 Sq. Yds.)
(52.9 Tons)
(472.79 Sq. Yds.)
(472.79 Sq. Yds.)
(478.79 Sq. Yds.)
(478.79 Sq. Yds.)
(478.79 Sq. Yds.)

Elbows and Caps shall be considered included to the

SLOTTED DRAIN 12" WITH 6" SLOT.

See District Standard 61.2 or 68.1 for details for the slotted drain.

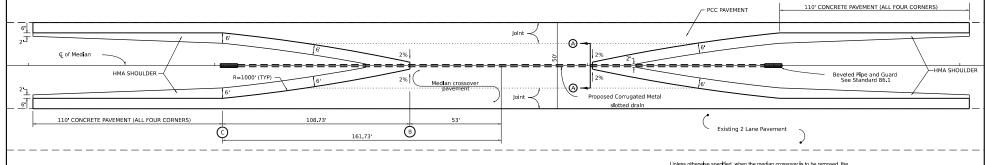
See District Standard 86.1 for details for the beveled pipe & guard.

The crossover is designed using a 45mph design speed.

The end of the pipe guard shall be set where a minimum 1:4 front slope can be constructed from each side of pipe guard to the HMA shoulder.

The PCC Pavement 10" (Jointed) shall be constructed according to Section 420 of the Standard Specifications and Highway Standards 420001, 420101, & 420106

The PCC Pavement 10" (Jointed) shall be tled to adjacent existing concrete pavement and the concrete encasement for the stoted drain. The tle bars shall be No.6 bars 24" (long @ 30" ct. and installed according to the applicable portions of Article 420,05(b) of the Standard Spedilications. The cost of the bars to be included in the cost of the PCC Pavement 10" (Jointed).



TYPICAL PLAN

Onesso unlewes byseculed, when the median consource is to be removed, the Contractor shall be required to saw full-depth along the shoulder line 6from edge of pavement. The 6° adjacent to the edge of pavement shall remain in place and be used as shoulders. The cost of Sawing shall be included in the Pavement Removal.

Longitudinaljoints shall be sawed at a max 12' width. All joints shall be sealed.

TRAFFIC CONTROL STANDARD 701416 IS TO BE USED WITH THIS DETAIL

												_				
USER NAME = 1001/Dates 2 PLOT SCALE = 0.258 1 In. PLOT DATE - 1/28/2025	USER NAME = IDOT/District 2	DESIGNED -	REVISED 2-26-19								F.A.	SECTION	COUNTY	TOTAL SHE	Ŧ	
		DRAWN REVISED 1-05-16		DRAWN - REVISED 1-05-16 STATE OF ILLINOIS		STATE OF ILLINOIS		REGION 2 / DISTRICT 2 STANDARD				IXII.			OTTLE TO IN	1
	CHECKED -	REVISED 8-27-13	DEPARTMENT OF TRANSPORTATION									CONTRAC	T NO.	٦.		
	PLOT DATE = 1/28/2025	DATE - 1/28/2025 DATE - REVISED - 12-07-10			SCALE:	SHEET 0	DF SI	HEETS S	STA.	TO STA.		ILLINOIS FED	AID PROJECT		_	
															_	



(POSTED SPEED LIMIT 55 MPH, WORK ZONE SPEED LIMIT 45 MPH)

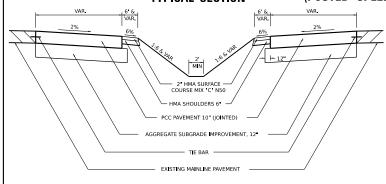
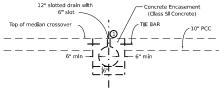


		TABLE (F OFFSE	TS AND	DROPS				
Distance feet from location station	0	46' B	50'	75'	100"	125'	150'	175	185.20'
Offsets feet from Inside edge of pavement	32 ©	30'	29.02'	23,32'	18,28"	13,90'	10.17	7.08'	6'
Drop feet from Inside edge of pavement	0.64"	0,6"	0.58'	0.47'	0.37'	0.28'	0,20'	0.14'	0.12

18" slotted drain with variable slot Top of median crossover Concrete Encasement (Class SI Concrete) 6" min Flow Line of Median Ditch

SECTION A-A

(USE TO MAINTAIN MEDIAN DRAINAGE THROUGH THE CROSSOVER)



 Duct tape or wood blocks shall be used to cover slotted drain during construction of crossover paving

SECTION A-A (WHEN CROSSOVER IS AT MEDIAN HIGH POINT)

GENERAL NOTES

Construction of median crossover shall conform to the requirement of current Standard Specifications.

Slotted drain shall be constructed of 14 or 16 gauge corrugated metal roadway pipe modified to accommodate slotted drain as shown.

Pavement, subbase, & shoulder quantities are:

(2071.96 Sq. Yds.)
(1956.64 Sq. Yds.)
(1956.64 Sq. Yds.)
(62.5 Tons)
(558.24 Sq. Yds.)
(558.24 Sq. Yds.)
(558.24 Sq. Yds.)

Elbows and Caps shall be considered included to the SLOTTED DRAIN 12" WITH 6" SLOT.

See District Standard 61.2 or 68.1 for details for the slotted drain.

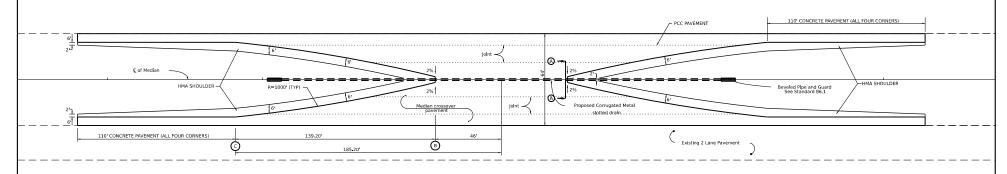
See District Standard 86.1 for details for the beveled pipe & quard,

The crossover is designed using a 45mph design speed.

The end of the pipe guard shall be set where a minimum 1:4 front slope can be constructed from each side of pipe guard to the HMA shoulder.

The PCC Pavement 10" (JOINTED) shall be constructed according to Section 420 of the Standard Specifications and Highway Standards 420001, 420101, & 420106

The PCC Pavement 10" (Jointed) shall be tled to adjacent existing concrete pavement and the concrete encasement for the slotted drain. The tle bars shall be No.6 bars 24" (long @ 30" ct. and installed according to the applicable portions of Article 420,05(b) of the Standard Specifications. The cost of the bars to be Included in the cost of the PCC Pavement 10" (JOINTED).



TYPICAL PLAN

Unless otherwise specified, when the median crossover is to be removed, the Contractor shall be required to saw full-depth along the shoulder line 6'from edge of pavement. The 6' adjacent to the edge of pavement shall remain in place and be used as shoulders. The cost of Sawing shall be included in the Pavement Removal.

Longitudinaljoints shall be sawed at a max 12' width. All joints shall be sealed.

USER NAME = IDOT/District 2	DESIGNED -	REVISED 2-26-19								F.A. RTF	SECTION	COUNTY	TOTAL SH	HEET
	DRAWN -	REVISED 1-05-16	STATE OF ILLINOIS		REGIO	N 2 / DIS	TRICT	2 STANDARI)	100			OTTLE TO T	
PLOT SCALE = 0.258'/In.	CHECKED -	REVISED - 8-27-13	DEPARTMENT OF TRANSPORTATION									CONTRACT	NO.	\neg
PLOT DATE = 1/28/2025	DATE -	REVISED 12-07-10		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. AID	PROJECT		



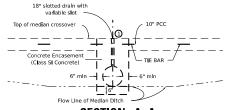
TYPICAL SECTION (POSTED SPEED LIMIT 65 MPH OR HIGHER, WORK ZONE SPEED LIMIT 55 MPH)

GENERAL NOTES

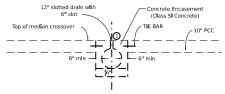


	TABLE C	F OFFSE	TS AND	DROPS			
Distance feet from location station	0	77' (B)	100'	125'	150"	175'	183.23
Offsets feet from Inside edge of pavement	20′	18'	14.79	11.69	8.98'	6.67'	6'
Drop feet from Inside edge of pavement	0.4'	0.36'	0,3"	0,23	0.18'	0,13'	0.12'

EXISTING MAINLINE PAVEMENT



SECTION A—A (USE TO MAINTAIN MEDIAN DRAINAGE THROUGH THE CROSSOVER)



 Duct tape or wood blocks shall be used to cover slotted drain during construction of crossover paving

SECTION A-A (WHEN CROSSOVER IS AT MEDIAN HIGH POINT)

Construction of median crossover shall conform to the requireme of current Standard Specifications.

Slotted drain shall be constructed of 14 or 16 gauge corrugated metal roadway pipe modified to accommodate slotted drain as shown.

Pavement, subbase, & shoulder quantities are:

(1709.35 Sq. Yds.)
(1596.03 Sq. Yds.)
(1596.03 Sq. Yds.)
(57.1 Tons)
(509.64 Sq. Yds.)
(509.64 Sq. Yds.)
(400.00 A SURFACE COURSE, MIX "C", N50 HMA SHOULDERS 6"

Elbows and Caps shall be considered included to the SLOTTED DRAIN 12" WITH 6" SLOT.

See District Standard 61.2 or 68.1 for details for the slotted drain.

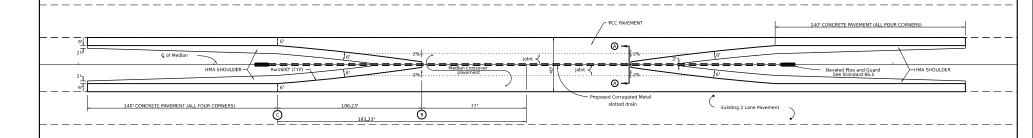
See District Standard 86.1 for details for the beveled pipe & quard.

The crossover is designed using a 55mph design speed.

The end of the pipe guard shall be set where a minimum 1:4 front slope can be constructed from each side of pipe guard to the HMA shoulder.

The PCC Pavement 10" (JOINTED) shall be constructed according to Section 420 of the Standard Specifications and Highway Standards 420001, 420101, & 420106

The PCC Pavement 10" (Jointed) shall be tled to adjacent existing concrete pavement and the concrete encasement for the slotted drain. The tle bars shall be No.6 bars 24" (long @ 30" ct. and installed according to the applicable portions of Article 420,05(b) of the Standard Specifications. The cost of the bars to be Included in the cost of the PCC Pavement 10" (JOINTED).



TYPICAL PLAN

Unless otherwise spedified, when the median crossover is to be removed, the Contractor shall be required to saw full-depth along the shoulder line 6'from edge of pavement. The 6' adjacent to the edge of pavement shall remain In place and be used as shoulders. The cost of Sawing shall be included in the Pavement Removal.

Longitudinaljoints shall be sawed at a max 12' width. All joints shall be sealed.

				·								
USER NAME = IDOT/District 2	DESIGNED .	REVISED 2-26-19						F.A. RTF	SECTION	COUNTY	TOTAL SE	EET
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PLOT DATE = 1/28/2025	DATE -	REVISED 8-27-13		SCALE: SHEET	OF	SHEETS STA.	TO STA.		ILLINOIS	FED. AID PROJECT		\exists

50' SINGLE LANE MEDIAN CROSSOVER

TYPICAL SECTION (POSTED SPEED LIMIT 65 MPH OR HIGHER, WORK ZONE SPEED LIMIT 55 MPH)

GENERAL NOTES

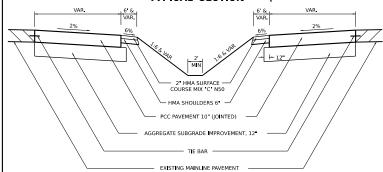
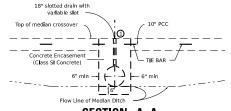
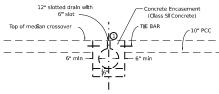


		TABLE (F OFFSE	TS AND	DROPS				
Distance feet from location station	0'	68' (B)	75'	100'	125'	150'	175'	200'	206,02
Offsets feet from Inside edge of pavement	25°	23'	21,84'	17.97'	14.50"	11.43	8.76'	6.49"	6'
Drop feet from Inside edge of pavement	0.5'	0.46	0,44	0.36'	0.29	0,23'	0.175	0.13'	0,12"



SECTION A—A (USE TO MAINTAIN MEDIAN DRAINAGE THROUGH THE CROSSOVER)



Duct tape or wood blocks shall be used to cover slotted drain during construction of crossover paving

SECTION A-A (WHEN CROSSOVER IS AT MEDIAN HIGH POINT)

Construction of median crossover shall conform to the requireme of current Standard Specifications.

Slotted drain shall be constructed of 14 or 16 gauge corrugated metal roadway pipe modified to accommodate slotted drain as shown.

Pavement, subbase, & shoulder quantities are:

 (2084.0 Sq. Yds.)
 AGGREGATE SUBGRADE IMPROVEMENT, 12"

 (1956.55 Sq. Yds.)
 P.C.C. PAVEMENT 10" (JOINTED)

 (67.1 Tons)
 2" HMA SURFACE COURSE, MIX "C", N50

(598.67 Sq. Yds.) HMA SHOULDERS 6

Elbows and Caps shall be considered included to the SLOTTED DRAIN 12" WITH 6" SLOT.

See District Standard 61.2 or 68.1 for details for the slotted drain.

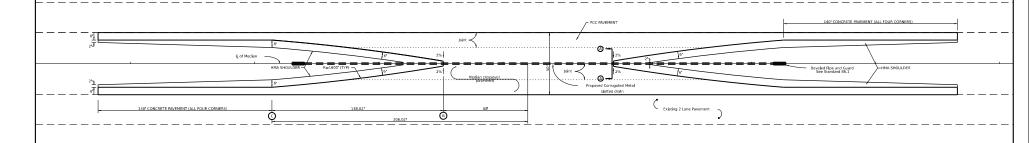
See District Standard 86.1 for details for the beveled pipe & guard.

The crossover is designed using a 55mph design speed.

The end of the pipe guard shall be set where a minimum 1:4 front slope can be constructed from each side of pipe guard to the HMA shoulder.

The PCC Pavement 10" (JOINTED) shall be constructed according to Section 420 of the Standard Specifications and Highway Standards 420001, 420101, & 420106

The PCC Pavement 10" (Jointed) shall be tled to adjacent existing concrete pavement and the concrete encasement for the slotted drain. The tle bars shall be No.6 bars 24" (long @ 30" ct. and installed according to the applicable portions of Article 420,05(b) of the Standard Specifications. The cost of the bars to be Included in the cost of the PCC Pavement 10" (JOINTED).



TYPICAL PLAN

Unless otherwise specified, when the median crossover is to be removed, the Contractor shall be required to saw full-depth along the shoulder fine 6 from edge of pavement. The 6 adjacent to the edge of pavement shall remain in place and be used as shoulders. The cost of Sawing shall be included in the Pavement Removal.

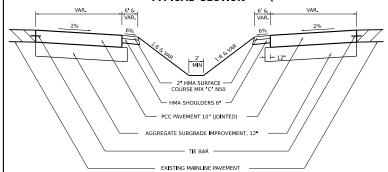
Longitudinaljoints shall be sawed at a max 12' width. All joints shall be sealed.

											_			
USER NAME = IDOT/District 2	DESIGNED -	REVISED 2-26-19								F.A.	SECTION	COUNTY	TOTAL SHE	ÆΠ
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PLOT SCALE = 0.258'/In.	CHECKED -	REVISED 6-27-14	DEPARTMENT OF TRANSPORTATION									CONTRAC	T NO.	\dashv
PLOT DATE = 1/28/2025	DATE -	REVISED 8-27-13		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FEC	AID PROJECT		
								:						

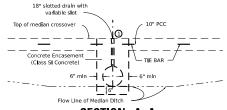
64' SINGLE LANE MEDIAN CROSSOVER

TYPICAL SECTION (POSTED SPEED LIMIT 65 MPH OR HIGHER, WORK ZONE SPEED LIMIT 55 MPH)

GENERAL NOTES

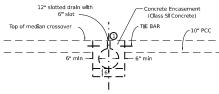


		TAB	LE OF O	FFSETS #	ND DRO	PS				
Distance feet from location station	0	60′ (B)	75'	100'	125'	150'	175'	200'	225'	236.83°
Offsets feet from Inside edge of pavement	32' ©	30'	27.18	22,80	18,84'	15.27	12.11	9.35	6.98	6'
Drop feet from Inside edge of pavement	0.64"	0.6'	0.54'	0.456'	0.377	0.31'	0.24'	0.187	0.139	0.12



SECTION A-A

(USE TO MAINTAIN MEDIAN DRAINAGE THROUGH THE CROSSOVER)



Duct tape or wood blocks shall be used to cover slotted drain during construction of crossover paving

SECTION A-A (WHEN CROSSOVER IS AT MEDIAN HIGH POINT)

Construction of median crossover shall conform to the requirement of current Standard Specifications.

Slotted drain shall be constructed of 14 or 16 gauge corrugated metal roadway pipe modified to accommodate slotted drain as shown.

Pavement, subbase, & shoulder quantities are:

 (2651.79 Sq. Yds.)
 AGGREGATE SUBGRADE IMPROVEMENT, 12"

 (2509.74 Sq. Yds.)
 P.C.C. PAVEMENT 10" (JOINTED)

 (79.2 Tons)
 2" HMA SURFACE COURSE, MIX "C", N50

(707.03 Sq. Yds.) HMA SHOULDERS 6

Elbows and Caps shall be considered included to the SLOTTED DRAIN 12" WITH 6" SLOT.

See District Standard 61.2 or 68.1 for details for the slotted drain.

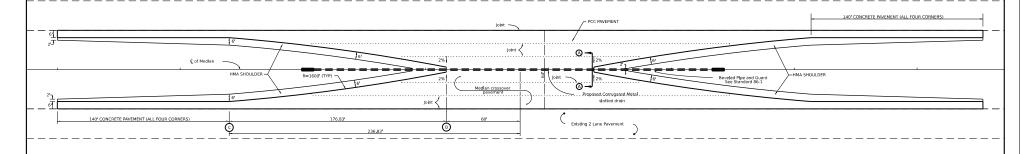
See District Standard 86.1 for details for the beveled pipe & guard.

The crossover is designed using a 55mph design speed.

The end of the pipe guard shall be set where a minimum 1:4 front slope can be constructed from each side of pipe guard to the HMA shoulder.

The PCC Pavement 10" (JOINTED) shall be constructed according to Section 420 of the Standard Specifications and Highway Standards 420001, 420101, & 420106

The PCC Pavement 10" (Jointed) shall be tled to adjacent existing concrete pavement and the concrete encasement for the slotted drain. The tle bars shall be No.6 bars 24" (long @ 30" ct. and installed according to the applicable portions of Article 420,05(b) of the Standard Specifications. The cost of the bars to be Included in the cost of the PCC Pavement 10" (JOINTED).



TYPICAL PLAN

Unless otherwise specified, when the median crossover is to be removed, the Contractor shall be required to saw full-depth along the shoulder line 6'trom edge of pavement. The 6' adjacent to the edge of pavement shall remain in place and be used as shoulders. The cost of Sawing shall be included in the Pavement Removal.

Longitudinaljoints shall be sawed at a max 12' width. All joints shall be sealed.

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USER NAME = IDOT/District 2	DESIGNED .	REVISED 2-26-19								F.A. RTF	SECTION	COUNTY	TOTAL SHEET
	DRAWN -	REVISED 1-05-16	STATE OF ILLINOIS		REGIO	ON 2 / DIS	STRICT	2 STANDARD)			_	
PLOT SCALE = 0.258'/In.	CHECKED -	REVISED 6-27-14	DEPARTMENT OF TRANSPORTATION									CONTRACT	NO.
PLOT DATE = 1/28/2025	DATE -	REVISED 8-27-13		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED.	AID PROJECT	



18" slotted drain with

(POSTED SPEED LIMIT 65 MPH OR HIGHER, WORK ZONE SPEED LIMIT 55 MPH) TYPICAL SECTION

- 2 HMA SURFACE -COURSE MIX C N50

HMA SHOULDERS 6

PCC PAVEMENT 10" (IOINTED)

AGGREGATE SUBGRADE IMPROVEMENT, 12

EXISTING MAINLINE PAVEMENT

125' 150

Distance fee

from location

Offsets feet

from Inside edge

of pavement

Drop feet

of pavement

from Inside edge

station

50'

B

42' 36.44" 31.30" 26.57* 22.25' 18.34 14.83 11.72 9.01 6.70'

0.84 0.73 0.63 0.53 0.43 0.37 0,30 0,23 0.18 0.13 0.12

(

0.88

TABLE OF OFFSETS AND DROPS

225' 250 275

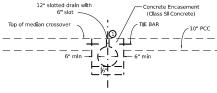
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GENERAL NOTES

variable slot Top of median crossover Concrete Encasement (Class SI Concrete)

SECTION A-A

(USE TO MAINTAIN MEDIAN DRAINAGE THROUGH THE CROSSOVER)



1 Duct tape or wood blocks shall be used to cover slotted drain during construction of crossover paving

SECTION A-A (WHEN CROSSOVER IS AT MEDIAN HIGH POINT)

of current Standard Specifications.

Slotted drain shall be constructed of 14 or 16 gauge corrugated metal roadway pipe modified to accommodate slotted drain as shown.

Pavement, subbase, & shoulder quantities are:

(3704.06 Sq. Yds.) AGGREGATE SUBGRADE IMPROVEMENT. 12" (3535.98 Sq. Yds.) P.C.C. PAVEMENT 10" (JOINTED) (96.79 Tons) 2" HMA SURFACE COURSE, MIX "C", N50 (864.23 Sq. Yds.) HMA SHOULDERS 6"

Elbows and Caps shall be considered included to the

SLOTTED DRAIN 12" WITH 6" SLOT.

See District Standard 61.2 or 68.1 for details for the slotted drain.

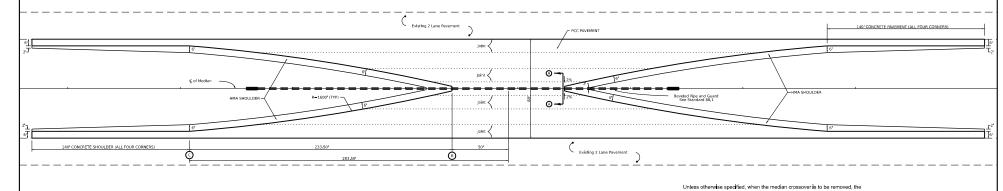
See District Standard 86.1 for details for the beveled pipe & quard.

The crossover is designed using a 55mph design speed.

The end of the pipe quard shall be set where a minimum 1:4 front slope can be constructed from each side of pipe guard to the HMA shoulder.

The PCC Pavement 10" (JOINTED) shall be constructed according to Section 420 of the Standard Specifications and Highway Standards 420001, 420101, & 420106

The PCC Pavement 10" (Jointed) shall be tied to adjacent existing concrete payement and the concrete encasement for the slotted drain. The tie bars shall be No.6 bars 24" long @ 30" cts, and installed according to the applicable portions of Article 420,05(b) of the Standard Specifications. The cost of the bars to be included in the cost of the PCC Pavement 10" (JOINTED).



TYPICAL PLAN

Contractor shall be required to saw full-depth along the shoulder line 6'from edge of pavement. The 6' adjacent to the edge of pavement shall remain in place and be used as shoulders. The cost of Sawing shall be included in the Pavement Removal.

Longitudinaljoints shall be sawed at a max 12' width. All joints shall be sealed.

					TI	RAFFIC CO	NTROL S	TANDARD 701416	IS TO BE USED WITH TH	IS DETAI	L		
USER NAME = IDOT/District 2	DESIGNED -	REVISED 2-26-19								F.A. RTE	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
	DRAWN -	REVISED 1-05-16	STATE OF ILLINOIS	REGION 2 / DISTRICT 2 STANDARD									
PLOT SCALE = 0.258'/In.	CHECKED -	REVISED 6-27-14	DEPARTMENT OF TRANSPORTATION									CONTRACT	NO.
PLOT DATE - 1/28/2025	DATE -	REVISED 8-27-13		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. /	AID PROJECT	



(POSTED SPEED LIMIT 55 MPH, WORK ZONE SPEED LIMIT 45 MPH)

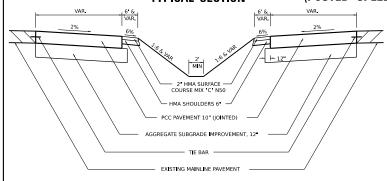
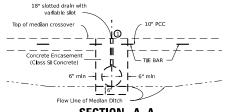
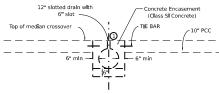


	TABLE OF O	FFSETS #	ND DRO	PS		
Distance feet from location station	0	76.95'	100'	125'	150"	168.69'
Offsets feet from Inside edge of pavement	20' ©	18'	14.22'	10.70'	7.79'	6.00'
Drop feet from Inside edge of pavement	0.4'	0,36'	0,28'	0.21'	0.16	0.12'



SECTION A-A

(USE TO MAINTAIN MEDIAN DRAINAGE THROUGH THE CROSSOVER)



Duct tape or wood blocks shall be used to cover slotted drain during construction of crossover paving

SECTION A-A

(WHEN CROSSOVER IS AT MEDIAN HIGH POINT)

GENERAL NOTES

Construction of median crossover shall conform to the requiremen of current Standard Specifications.

Slotted drain shall be constructed of 14 or 16 gauge corrugated metal roadway pipe modified to accommodate slotted drain as shown.

Pavement, subbase, & shoulder quantities are:

 (1685.28 Sq. Yds.)
 AGGREGATE SUBGRADE IMPROVEMENT, 12"

 (1572.43 Sq. Yds.)
 P.C.C. PAVEMENT 10" (JOINTED)

 (57.28 Tons)
 2" HMA SURFACE COURSE, MIX "C", N50

(511.45 Sq. Yds.) HMA SHOULDERS 6*

Elbows and Caps shall be considered included to the SLOTTED DRAIN 12" WITH 6" SLOT.

See District Standard 61.2 or 68.1 for details for the slotted drain.

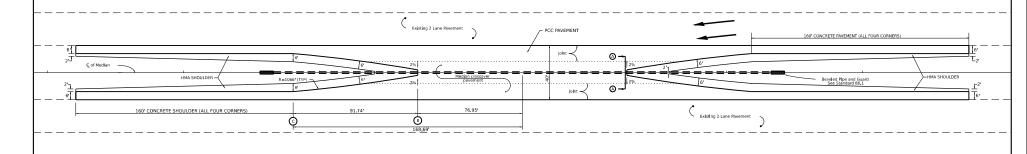
See District Standard 86.1 for details for the beveled pipe & guard.

The crossover is designed using a 45mph design speed.

The end of the pipe guard shall be set where a minimum 1:4 front slope can be constructed from each side of pipe guard to the HMA shoulder.

The PCC Pavement 10" (JOINTED) shall be constructed according to Section 420 of the Standard Specifications and Highway Standards 420001, 420101, & 420106

The PCC Pavement 10" (Jointed) shall be tled to adjacent existing concrete pavement and the concrete encasement for the slotted drain. The tle bars shall be No.6 bars 24" (long @ 30" ct. and installed according to the applicable portions of Article 420,05(b) of the Standard Specifications. The cost of the bars to be Included in the cost of the PCC Pavement 10" (JOINTED).



TYPICAL PLAN

Unless otherwise specified, when the median crossover is to be removed, the Contractor shall be required to saw full-depth along the shoulder line 6'trom edge of pavement. The 6' adjacent to the edge of pavement shall remain in place and be used as shoulders. The cost of Sawing shall be included in the Pavement Removal.

Longitudinaljoints shall be sawed at a max 12' width. All joints shall be sealed.

USER NAME = IDOT/District 2	DESIGNED .	REVISED 2-26-19								F.A. RTF	SECTION	COUNTY	TOTAL SH	HEET
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PLOT SCALE = 0.258'/In.	CHECKED -	REVISED 8-27-13	DEPARTMENT OF TRANSPORTATION									CONTRACT	r NO.	-
PLOT DATE - 1/28/2025	DATE -	REVISED 4-04-11		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. AI	D PROJECT		



(POSTED SPEED LIMIT 55 MPH, WORK ZONE SPEED LIMIT 45 MPH)

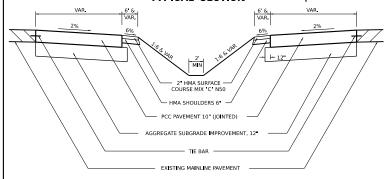


		TABLE (OF OFFSE	TS AND	DROPS			
Distance feet from location station	0	69.72' B	75'	100'	125'	150'	175'	188.01
Offsets feet from Inside edge of pavement	25° ©	23'	21.95	17,35'	13,37	9,99'	7.21'	6,00"
Drop feet from Inside edge of pavement	0.5'	0.46'	0,44"	0.35'	0.27'	0,20'	0.14'	0.12'

SER NAME = IDOT/District 2

LOT SCALE = 0.2581/In.

DRAWN

CHECKED

REVISED 1-05-16

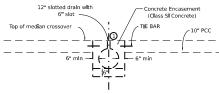
8-27-13

REVISED -

18" slotted drain with variable slot Top of median crossover Concrete Encasement (Class SI Concrete)

SECTION A-A

(USE TO MAINTAIN MEDIAN DRAINAGE THROUGH THE CROSSOVER)



1 Duct tape or wood blocks shall be used to cover slotted drain during construction of crossover paving

SECTION A-A

(WHEN CROSSOVER IS AT MEDIAN HIGH POINT)

GENERAL NOTES

Construction of median crossover shall conform to the requirement of current Standard Specifications.

Slotted drain shall be constructed of 14 or 16 gauge corrugated metal roadway pipe modified to accommodate slotted drain as shown.

Pavement, subbase, & shoulder quantities are:

(2029.23 Sq. Yds.) AGGREGATE SUBGRADE IMPROVEMENT. 12" (1904.29 Sq. Yds.) P.C.C. PAVEMENT 10" (JOINTED) (65,64 Tons) 2" HMA SURFACE COURSE, MIX "C", N50 (586.07 Sq. Yds.) HMA SHOULDERS 6"

Elbows and Caps shall be considered included to the SLOTTED DRAIN 12" WITH 6" SLOT.

See District Standard 61.2 or 68.1 for details for the slotted drain.

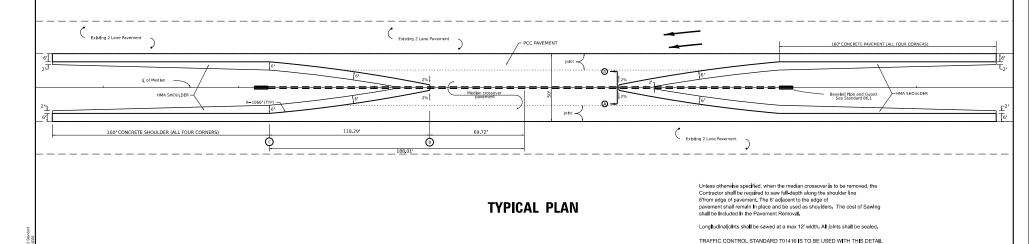
See District Standard 86.1 for details for the beveled pipe & quard.

The crossover is designed using a 45mph design speed.

The end of the pipe quard shall be set where a minimum 1:4 front slope can be constructed from each side of pipe guard to the HMA shoulder.

The PCC Pavement 10" (JOINTED) shall be constructed according to Section 420 of the Standard Specifications and Highway Standards 420001, 420101, & 420106

The PCC Pavement 10" (Jointed) shall be tied to adjacent existing concrete payement and the concrete encasement for the slotted drain. The tie bars shall be No.6 bars 24" long @ 30" cts, and installed according to the applicable portions of Article 420,05(b) of the Standard Specifications. The cost of the bars to be included in the cost of the PCC Pavement 10" (JOINTED).



STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

OF SHEETS STA.

SHEET

COUNTY

CONTRACT NO



(POSTED SPEED LIMIT 55 MPH, WORK ZONE SPEED LIMIT 45 MPH)

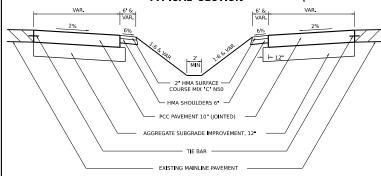
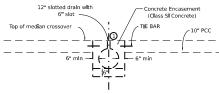


		TABLE (F OFFSE	TS AND	DROPS				
Distance feet from location station	0	62.41' B	75'	100'	125'	150'	175'	200'	212.87
Offsets feet from Inside edge of pavement	32 ©	30'	27.14'	21.92'	17.33"	13,35'	9,97'	7.20	6.00
Drop feet from Inside edge of pavement	0.64'	0,60'	0.54'	0.44	0.35	0,27'	0.20'	0.14"	0.12

18" slotted drain with variable slot Top of median crossover Concrete Encasement (Class SI Concrete)

SECTION A-A

(USE TO MAINTAIN MEDIAN DRAINAGE THROUGH THE CROSSOVER)



1 Duct tape or wood blocks shall be used to cover slotted drain during construction of crossover paving

SECTION A-A (WHEN CROSSOVER IS AT MEDIAN HIGH POINT)

GENERAL NOTES

Construction of median crossover shall conform to the requirement of current Standard Specifications.

Slotted drain shall be constructed of 14 or 16 gauge corrugated metal roadway pipe modified to accommodate slotted drain as shown.

Pavement, subbase, & shoulder quantities are:

(2534.76 Sq. Yds.) AGGREGATE SUBGRADE IMPROVEMENT. 12" (2394.89 Sq. Yds.) P.C.C. PAVEMENT 10" (JOINTED) (75.73 Tons) 2" HMA SURFACE COURSE, MIX "C", N50

(676.15 Sq. Yds.) HMA SHOULDERS 6"

Elbows and Caps shall be considered included to the SLOTTED DRAIN 12" WITH 6" SLOT.

See District Standard 61.2 or 68.1 for details for the slotted drain.

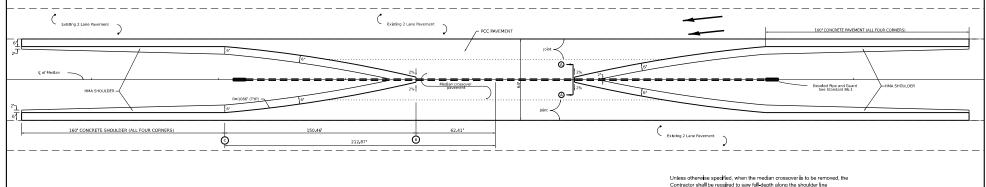
See District Standard 86.1 for details for the beveled pipe & guard.

The crossover is designed using a 45mph design speed.

The end of the pipe guard shall be set where a minimum 1:4 front slope can be constructed from each side of pipe guard to the HMA shoulder.

The PCC Pavement 10" (JOINTED) shall be constructed according to Section 420 of the Standard Specifications and Highway Standards 420001, 420101, & 420106

The PCC Pavement 10" (Jointed) shall be tied to adjacent existing concrete pavement and the concrete encasement for the slotted drain. The tie bars shall be No.6 bars 24" long @ 30" cts, and installed according to the applicable portions of Article 420,05(b) of the Standard Specifications. The cost of the bars to be included in the cost of the PCC Pavement 10" (JOINTED).



TYPICAL PLAN

6'from edge of pavement. The 6' adjacent to the edge of pavement shall remain in place and be used as shoulders. The cost of Sawing shall be included in the Pavement Removal.

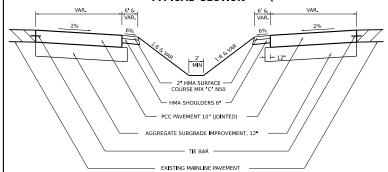
Longitudinaljoints shall be sawed at a max 12' width. All joints shall be sealed.

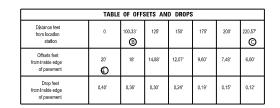
					'	KAFFIC CC	JNIKOL SI	ANDARD 701	1416 IS 10 BE 03E	J WITH THIS	DETAIL				
USER NAME = IDOT/District 2	DESIGNED .	REVISED 2-26-19								F	A. E	SECTION	COUNTY	TOTAL SHEE	ī
	DRAWN -	REVISED 1-05-16	STATE OF ILLINOIS		REGIO)N 2 / DIS	STRICT 2	STANDAR	RD.	– F				DILLETO NO.	1
PLOT SCALE = 0.258'/In.	CHECKED -	REVISED - 8-27-13	DEPARTMENT OF TRANSPORTATION										CONTRACT	NO.	1
PLOT DATE - 1/28/2025	DATE -	REVISED 4-04-11		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.			ILLINOIS FED. A	AID PROJECT		J
			CA! TIMO	LABIE BA	CDIAN	CDC	20001	JED //	15 MIDH	WODE	ZONE	CDEED	LIBAIT	04	4

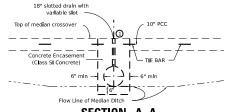


(POSTED SPEED LIMIT 65 MPH OR HIGHER, WORK ZONE SPEED LIMIT 55 MPH) TYPICAL SECTION

GENERAL NOTES

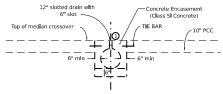






SECTION A-A

(USE TO MAINTAIN MEDIAN DRAINAGE THROUGH THE CROSSOVER)



1 Duct tape or wood blocks shall be used to cover slotted drain during construction of crossover paving

SECTION A-A (WHEN CROSSOVER IS AT MEDIAN HIGH POINT)

of current Standard Specifications.

Slotted drain shall be constructed of 14 or 16 gauge corrugated metal roadway pipe modified to accommodate slotted drain as shown.

Pavement, subbase, & shoulder quantities are:

(2142,56 Sq. Yds.) AGGREGATE SUBGRADE IMPROVEMENT. 12" (2003.87 Sq. Yds.) P.C.C. PAVEMENT 10" (JOINTED) (71.01 Tons) 2" HMA SURFACE COURSE, MIX "C", N50 (634.04 Sq. Yds.) HMA SHOULDERS 6"

Elbows and Caps shall be considered included to the

SLOTTED DRAIN 12" WITH 6" SLOT.

See District Standard 61.2 or 68.1 for details for the slotted drain.

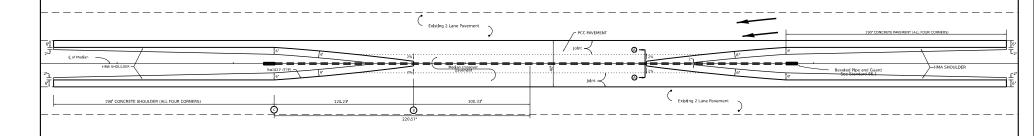
See District Standard 86.1 for details for the beveled pipe & quard.

The crossover is designed using a 55mph design speed.

The end of the pipe quard shall be set where a minimum 1:4 front slope can be constructed from each side of pipe guard to the HMA shoulder.

The PCC Pavement 10" (JOINTED) shall be constructed according to Section 420 of the Standard Specifications and Highway Standards 420001, 420101, & 420106

The PCC Pavement 10" (Jointed) shall be tied to adjacent existing concrete payement and the concrete encasement for the slotted drain. The tie bars shall be No.6 bars 24" long @ 30" cts, and installed according to the applicable portions of Article 420,05(b) of the Standard Specifications. The cost of the bars to be included in the cost of the PCC Pavement 10" (JOINTED).



TYPICAL PLAN

Unless otherwise specified, when the median crossover is to be removed, the Contractor shall be required to saw full-depth along the shoulder line 6'from edge of pavement. The 6' adjacent to the edge of pavement shall remain in place and be used as shoulders. The cost of Sawing shall be included in the Pavement Removal.

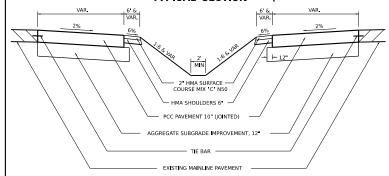
Longitudinaljoints shall be sawed at a max 12' width. All joints shall be sealed.

USER NAME = IDOT/District 2	DESIGNED -	REVISED 2-26-19						F.A.	SECTION	COUNTY TOT	AL SHEET
	DRAWN -	REVISED 1-05-16	STATE OF ILLINOIS		REGION 2 / DI	STRICT 2 STANDA	RD	IXIL.		- Onc	2.10 NO.
PLOT SCALE = 0.258'/In.	CHECKED -	REVISED 6-27-14	DEPARTMENT OF TRANSPORTATION							CONTRACT NO.	
PLOT DATE - 1/28/2025	DATE -	REVISED 8-27-13		SCALE: SI	HEET OF	SHEETS STA.	TO STA.		ILLINOIS FED.	AID PROJECT	

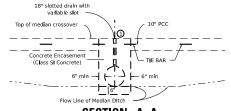
50' TWO LANE MEDIAN CROSSOVER

(POSTED SPEED LIMIT 65 MPH OR HIGHER, WORK ZONE SPEED LIMIT 55 MPH) TYPICAL SECTION

GENERAL NOTES

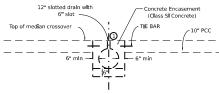


		TAB	LE OF O	FFSETS A	ND DRO	PS			
Distance feet from location station	0	90.88°	100'	125'	150"	175'	200'	225	246' ©
Offsets feet from Inside edge of pavement	25° ©	23'	21.63	18,10"	14.93"	12.11'	9.64'	7,52	6.00
Drop feet from Inside edge of pavement	0.50'	0.46'	0,43'	0.36'	0,30'	0,24'	0,19'	0.15'	0.12'



SECTION A-A

(USE TO MAINTAIN MEDIAN DRAINAGE THROUGH THE CROSSOVER)



1 Duct tape or wood blocks shall be used to cover slotted drain during construction of crossover paving

SECTION A-A (WHEN CROSSOVER IS AT MEDIAN HIGH POINT)

of current Standard Specifications.

Slotted drain shall be constructed of 14 or 16 gauge corrugated metal roadway pipe modified to accommodate slotted drain as shown.

Pavement, subbase, & shoulder quantities are:

(2593,23 Sq. Yds.) AGGREGATE SUBGRADE IMPROVEMENT. 12" (2438.79 Sq. Yds.) P.C.C. PAVEMENT 10" (JOINTED) (81.92 Tons) 2" HMA SURFACE COURSE, MIX "C", N50

(731.46 Sq. Yds.) HMA SHOULDERS 6"

Elbows and Caps shall be considered included to the SLOTTED DRAIN 12" WITH 6" SLOT.

See District Standard 61.2 or 68.1 for details for the slotted drain.

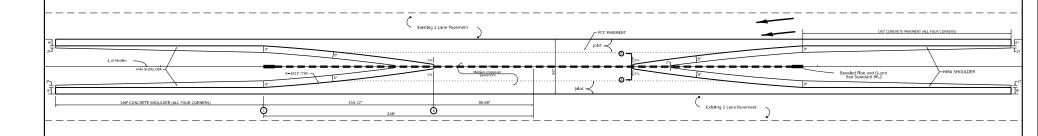
See District Standard 86.1 for details for the beveled pipe & quard.

The crossover is designed using a 55mph design speed.

The end of the pipe guard shall be set where a minimum 1:4 front slope can be constructed from each side of pipe guard to the HMA shoulder.

The PCC Pavement 10" (JOINTED) shall be constructed according to Section 420 of the Standard Specifications and Highway Standards 420001, 420101, & 420106

The PCC Pavement 10" (Jointed) shall be tied to adjacent existing concrete payement and the concrete encasement for the slotted drain. The tie bars shall be No.6 bars 24" long @ 30" cts, and installed according to the applicable portions of Article 420,05(b) of the Standard Specifications. The cost of the bars to be included in the cost of the PCC Pavement 10" (JOINTED).



TYPICAL PLAN

Unless otherwise specified, when the median crossover is to be removed, the Contractor shall be required to saw full-depth along the shoulder line 6'from edge of pavement. The 6' adjacent to the edge of pavement shall remain in place and be used as shoulders. The cost of Sawing shall be included in the Pavement Removal.

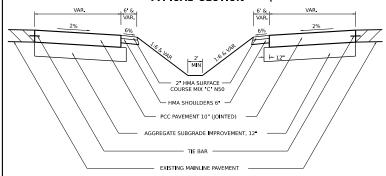
Longitudinaljoints shall be sawed at a max 12' width. All joints shall be sealed.

USER NAME = IDOT/District 2	DESIGNED .	REVISED 2-26-19								F.A. RTF	SECTION	COUNTY	TOTAL SHE	₹T
	DRAWN -	REVISED 1-05-16	STATE OF ILLINOIS		REGIO	N 2 / DIS	TRICT 2	2 STANDARD		1		_	10.122.10	٦.
PLOT SCALE = 0.258'/In.	CHECKED -	REVISED 6-27-14	DEPARTMENT OF TRANSPORTATION								-	CONTRACT	T NO.	٦.
PLOT DATE = 1/28/2025	DATE -	REVISED 8-27-13		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED.	AID PROJECT		
														_

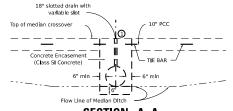
64'TWO LANE MEDIAN CROSSOVER

(POSTED SPEED LIMIT 65 MPH OR HIGHER, WORK ZONE SPEED LIMIT 55 MPH) TYPICAL SECTION

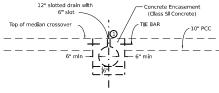
GENERAL NOTES



			TAB	LE OF O	FFSETS A	AND DRO	PS				
Distance feet from location station	0	81.32' ®	100'	125'	150"	175'	200'	225	250'	275'	278.80°
Offsets feet from Inside edge of pavement	32 ©	30'	26.79'	22,80'	19.16	15.88"	12.95	10,37	8.14'	6.26	6.00'
Drop feet from Inside edge of pavement	0.64'	0.60'	0.54'	0.46'	0.38'	0.32'	0.26'	0.21'	0.16"	0.13'	0.12"



SECTION A-A (USE TO MAINTAIN MEDIAN DRAINAGE THROUGH THE CROSSOVER)



1 Duct tape or wood blocks shall be used to cover slotted drain during construction of crossover paving

SECTION A-A (WHEN CROSSOVER IS AT MEDIAN HIGH POINT)

of current Standard Specifications.

Slotted drain shall be constructed of 14 or 16 gauge corrugated metal roadway pipe modified to accommodate slotted drain as shown.

Pavement, subbase, & shoulder quantities are:

(3256,59 Sq. Yds.) AGGREGATE SUBGRADE IMPROVEMENT. 12" (3082.80 Sq. Yds.) P.C.C. PAVEMENT 10" (JOINTED) (95.09 Tons) 2" HMA SURFACE COURSE, MIX "C", N50 HMA SHOULDERS 6"

(848.99 Sq. Yds.)

Elbows and Caps shall be considered included to the SLOTTED DRAIN 12" WITH 6" SLOT.

See District Standard 61.2 or 68.1 for details for the slotted drain.

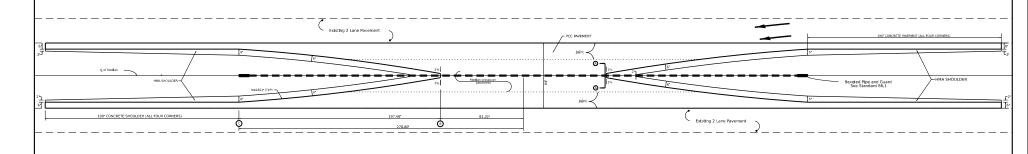
See District Standard 86.1 for details for the beveled pipe & quard.

The crossover is designed using a 55mph design speed.

The end of the pipe guard shall be set where a minimum 1:4 front slope can be constructed from each side of pipe guard to the HMA shoulder.

The PCC Pavement 10" (JOINTED) shall be constructed according to Section 420 of the Standard Specifications and Highway Standards 420001, 420101, & 420106

The PCC Pavement 10" (Jointed) shall be tied to adjacent existing concrete payement and the concrete encasement for the slotted drain. The tie bars shall be No.6 bars 24" long @ 30" cts, and installed according to the applicable portions of Article 420,05(b) of the Standard Specifications. The cost of the bars to be included in the cost of the PCC Pavement 10" (JOINTED).



TYPICAL PLAN

Unless otherwise specified, when the median crossover is to be removed, the Contractor shall be required to saw full-depth along the shoulder line 6'from edge of pavement. The 6' adjacent to the edge of pavement shall remain in place and be used as shoulders. The cost of Sawing shall be included in the Pavement Removal.

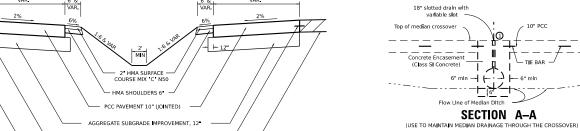
Longitudinaljoints shall be sawed at a max 12' width. All joints shall be sealed.

					TRAF	FFIC CON	TROL ST	ANDARD 701416	IS TO BE USED WITH TH	IIS DETAIL				
USER NAME = IDOT/District 2	DESIGNED .	REVISED 2-26-19								F.A. RTF	SECTION	COUNTY	TOTAL SH	HEET
	DRAWN -	REVISED 1-05-16	STATE OF ILLINOIS		REGION	2 / DIST	RICT 2	STANDARD				_	0.122.0	
PLOT SCALE = 0.258'/In.	CHECKED -	REVISED - 6-27-14	DEPARTMENT OF TRANSPORTATION									CONTRACT	r NO.	-
PLOT DATE = 1/28/2025	DATE -	REVISED 8-27-13		SCALE:	SHEET	OF S	SHEETS	STA.	TO STA.		ILLINOIS FED	AID PROJECT		



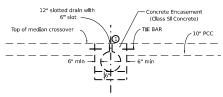
(POSTED SPEED LIMIT 65 MPH OR HIGHER, WORK ZONE SPEED LIMIT 55 MPH) TYPICAL SECTION

GENERAL NOTES



			TAE	LE OF O	FFSETS	AND DRO	PS							
Distance feet from location station	0	70,29' B	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'	329,24'
Offsets feet from inside edge of pavement	44° ©	42'	41.00'	35.93"	31.23	26.86	22.86	19.22'	15.94'	13.00'	10.42'	8.18'	6.29'	6.00'
Drop feet from Inside edge	0,88	0,84'	0.82	0,72	0,62	0.54	0,46'	0,38"	0,32	0.26*	0,21'	0,16'	0,13'	0.12

EXISTING MAINLINE PAVEMENT



① Duct tape or wood blocks shall be used to cover slotted drain during construction of crossover paving

SECTION A-A (WHEN CROSSOVER IS AT MEDIAN HIGH POINT)

of current Standard Specifications

Slotted drain shall be constructed of 14 or 16 gauge corrugated metal roadway pipe modified to accommodate slotted drain as shown.

Pavement, subbase, & shoulder quantities are:

(4481.22 Sq. Yds.) AGGREGATE SUBGRADE IMPROVEMENT. 12" (4279.37 Sq. Yds.) P.C.C. PAVEMENT 10" (JOINTED) (114.14 Tons) 2" HMA SURFACE COURSE, MIX "C", N50 (1019.14 Sq. Yds.) HMA SHOULDERS 6"

Elbows and Caps shall be considered included to the SLOTTED DRAIN 12" WITH 6" SLOT.

See District Standard 61.2 or 68.1 for details for the slotted drain.

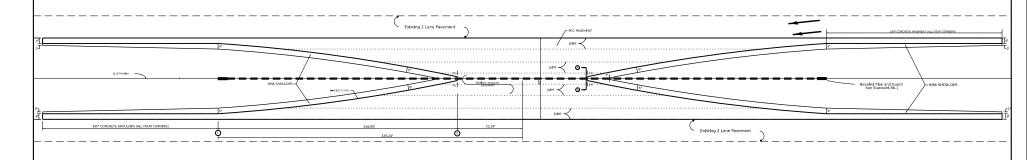
See District Standard 86.1 for details for the beveled pipe & guard.

The crossover is designed using a 55mph design speed.

The end of the pipe guard shall be set where a minimum 1:4 front slope can be constructed from each side of pipe guard to the HMA shoulder.

The PCC Pavement 10" (Jointed) shall be constructed according to Section 420 of the Standard Specifications and Highway Standards 420001, 420101, & 420106

The PCC Pavement 10" (Jointed) shall be tied to adjacent existing concrete payement and the concrete encasement for the slotted drain. The tie bars shall be No.6 bars 24" long @ 30" cts, and installed according to the applicable portions of Article 420,05(b) of the Standard Specifications. The cost of the bars to be included in the cost of the PCC Pavement 10" (Jointed).



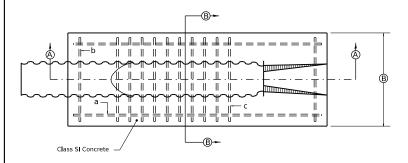
TYPICAL PLAN

Unless otherwise specified, when the median crossover is to be removed, the Contractor shall be required to saw full-depth along the shoulder line 6'from edge of pavement. The 6' adjacent to the edge of pavement shall remain in place and be used as shoulders. The cost of Sawing shall be included in the Pavement Removal.

Longitudinaljoints shall be sawed at a max 12' width. All joints shall be sealed.

USER NAME = IDOT/District 2	DESIGNED .	REVISED 2-26-19								F.A. RTF	SECTION	COUNTY	TOTAL SHEET
	DRAWN -	REVISED 1-05-16	STATE OF ILLINOIS		REGIO	N 2 / DIS	STRICT 2	2 STANDARD		IXII.			GILLIO NO.
PLOT SCALE = 0.258'/In.	CHECKED -	REVISED 6-27-14	DEPARTMENT OF TRANSPORTATION								-	CONTRACT	ſ NO.
PLOT DATE = 1/28/2025	DATE -	REVISED 8-27-13		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FE	D. AID PROJECT	
			00/ 504/0						5.5511 3.46		ADEEL		

BEVELED PIPE & GUARD DETAIL FOR MEDIAN CROSSOVER



12	PIPE REINF	ORCING SCHED	ULE							
Mark Reg'd	Bar S i ze	Length	No.							
a	5	110	2							
b	5	32	2							
с 8 34 10										

18	PIPE REINF	ORCING SCHED	ULE								
Mark Req'd	Bar S i ze	Length	No.								
a	5	162	2								
b	b 5 38 2										
С	8	40	18								

GENERAL NOTES:

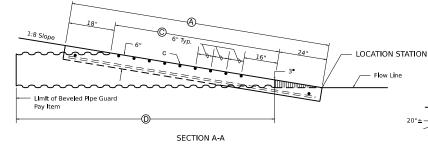
Details shown hereon are for the construction of beveled pipe and guard. Alternate designs, methods of construction or materials may be submitted to the Engineer for approval. All methods of construction and materials involved shall conform to current Standard Specifications.

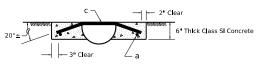
Reinforcing steel used in construction of "Beveled Pipe and Guard" shall be deformed bars meeting the requirements of Article 1006.10 of the Standard Specifications. All steel bars shall be hot-dip galvanized in accordance with ASTM A 123 specifications.

Concrete used in construction of the beveled pipe and guard shall be Class "SI" Concrete.

The corrugated metal pipe shall be cut to fit the 1:8 forestope. Slots shall be cut into the C.M.P. for placement of the 'b' and 'c' bars. After the forestope has been placed, the 'b' and 'c' bars shall be fitted into the slots cut in the C.M.P. so they will be in proper position when the concrete collar is poured.

This work shall be paid for at the contract unit price per Each for "Beveled Pipe and Guard", as shown hereon and as directed by the Engineer

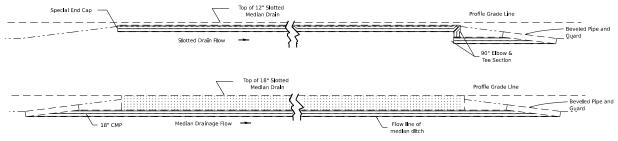




SECTION B-B

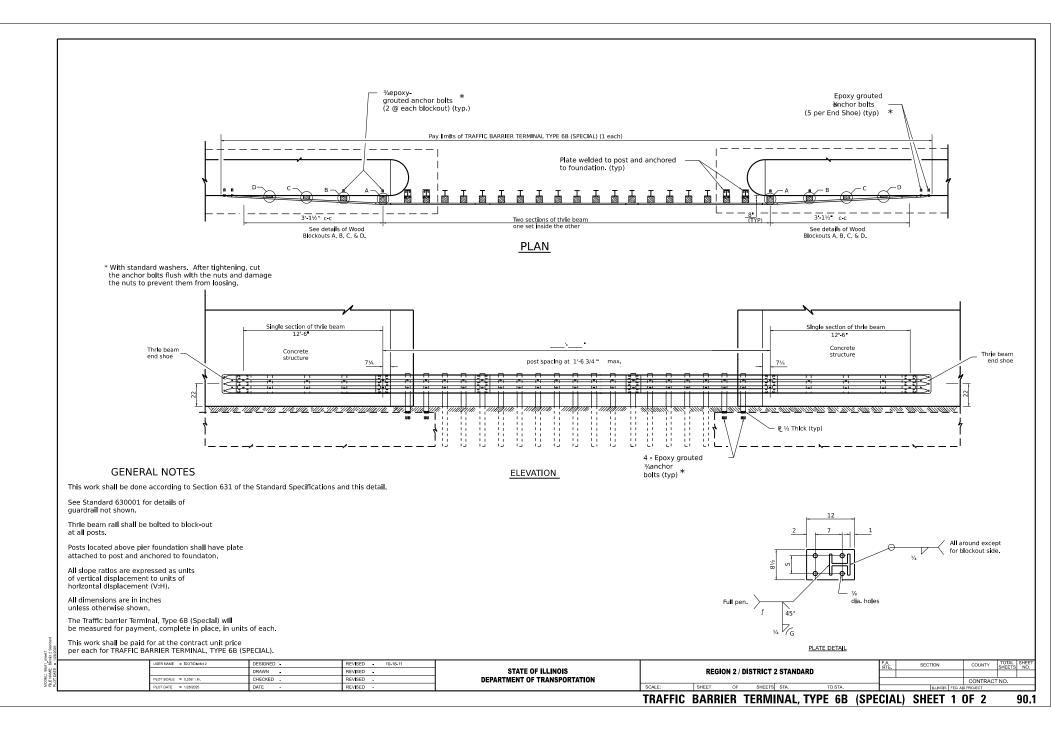
	TABL	E OF DIMENSION	3	
PIPE SIZE	А	В	С	D
12	9'-6'	36	6'	10'
18	13'-10"	42	10'-4"	14'-10"

TYPICAL SECTION THRU CENTERLINE OF MEDIAN CROSSOVER

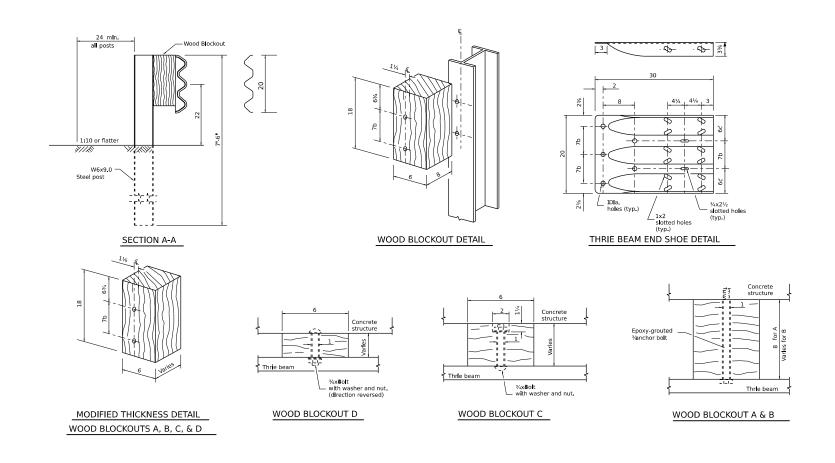


ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

USER NAME = IDOT/District 2	DESIGNED -	REVISED 5-27-09								F.A.	SECTION	COUNTY	TOTAL S	SHEET
	DRAWN -	REVISED -	STATE OF ILLINOIS		REGIO	ON 2 / DIS	TRICT 2	STANDARD		IXIL.			O'ILL'IO	110.
PLOT SCALE = 0.258'/In.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION							Ь,		CONTRAC	r NO.	\neg
PLOT DATE - 1/28/2025	DATE -	REVISED		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED.	ID PROJECT		

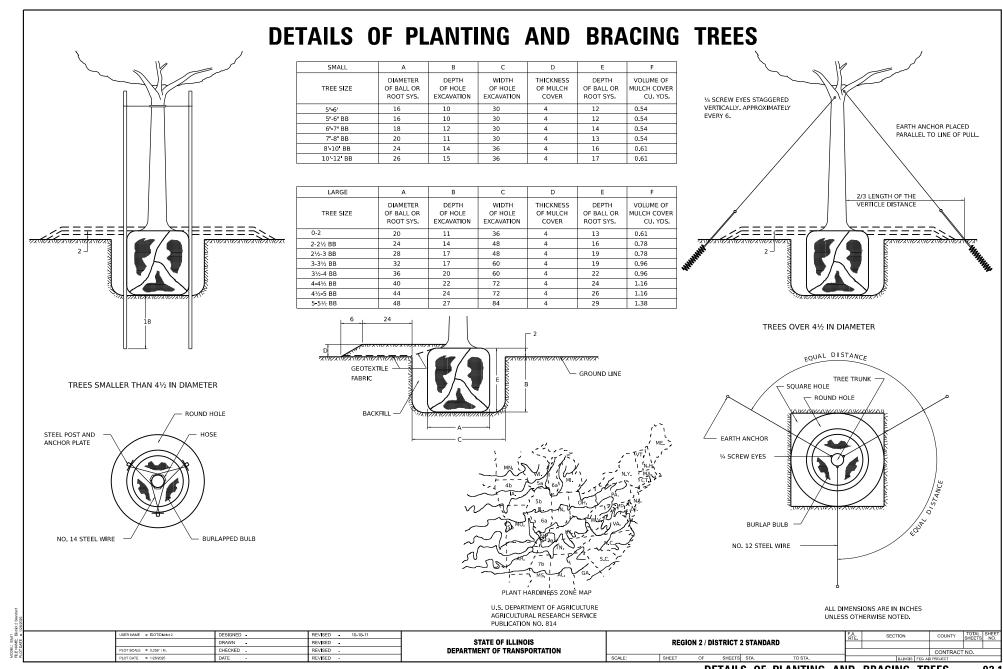


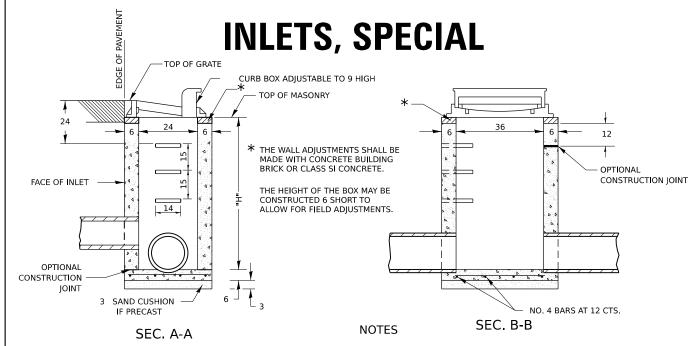
TRAFFIC BARRIER TERMINAL, TYPE 6B (SPECIAL)



USER NAME = IDOT/District 2	DESIGNED -	REVISED 10-18-11								F.A. RTF	SECTIO	٧	COUNTY	TOTAL SH SHEETS	EET
	DRAWN -	REVISED	STATE OF ILLINOIS	1	REGIO	N 2 / DIS	STRICT 2	2 STANDARD							-
PLOT SCALE = 0.258'/In.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION										CONTRACT	NO.	\neg
PLOT DATE = 1/28/2025	DATE -	REVISED		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILL	NOIS FED. AL	PROJECT		

90.1





A A A B

SHEET

SCALE:

SHEETS STA.

SEE STANDARD 602701 FOR DETAILS OF STEPS.

EXCEPT AS NOTED HEREON INLET SPECIAL SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS.

THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTED SECTIONS.

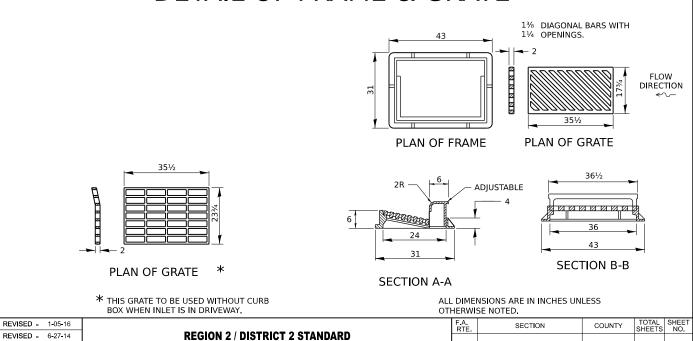
ALL VOIDS AROUND PIPE ENTRANCE, BOTH INSIDE AND OUTSIDE, SHALL BE SEALED WITH MORTAR.

WEIGHT OF CAST IRON FRAME & GRATE = 530 lbs. \pm . STEPS SHALL BE OMITTED WHEN DEPTH OF "H" IS LESS THAN 5 ft.

CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED THROUGHOUT. PRECAST CONCRETE SHALL BE IN ACCORDANCE WITH ARTICLES 504.01 THRU 504.05 OF THE STANDARD SPECIFICATIONS EXCEPT THAT CONCRETE STRENGTH SHALL BE 4.000 psi AFTER 28 DAYS.

THE CONTRACT UNIT PRICE EACH FOR INLETS, SPECIAL SHALL INCLUDE THE COST OF CONSTRUCTING THE INLET BOX, FURNISHING AND INSTALLING THE FRAME AND GRATE, THE CAST IRON STEPS (IF USED), THE PRECAST FLOOR SLABS, SAND CUSHION (WHEN USED) AND REINFORCEMENT BARS.

DETAIL OF FRAME & GRATE

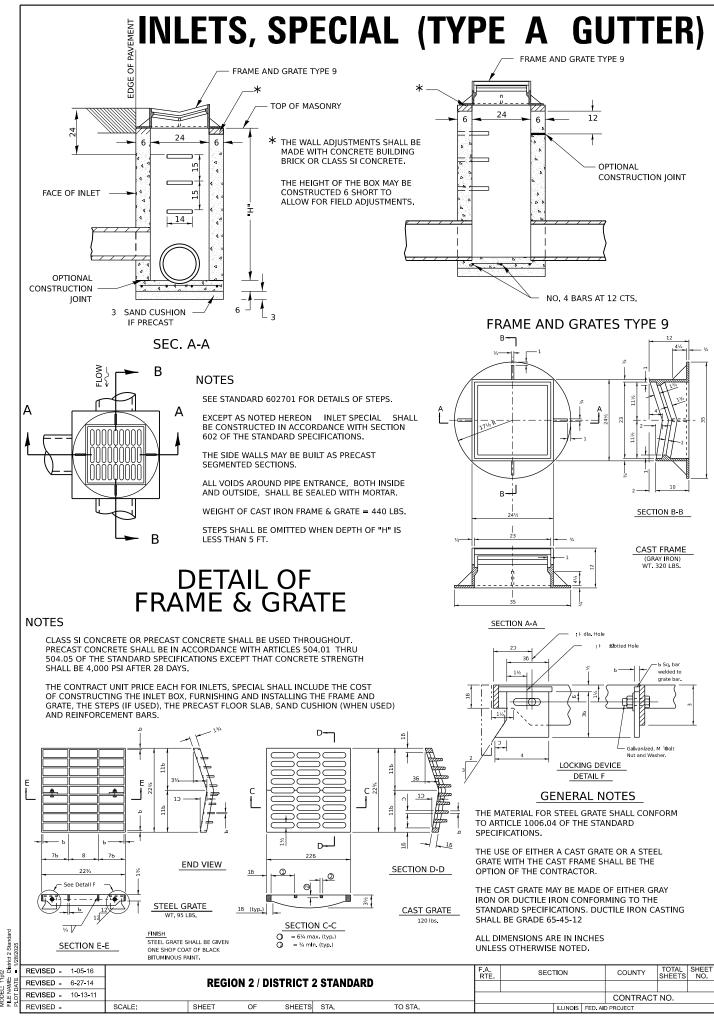


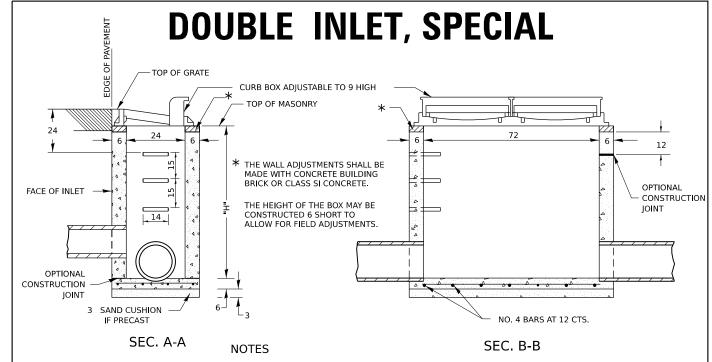
TO STA

REVISED -

REVISED -

CONTRACT NO.





SEE STANDARD 602701 FOR DETAILS OF STEPS.

EXCEPT AS NOTED HEREON DOUBLE INLET SPECIAL SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS.

THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTED SECTIONS.

ALL VOIDS AROUND PIPE ENTRANCE, BOTH INSIDE AND OUTSIDE, SHALL BE SEALED WITH MORTAR.

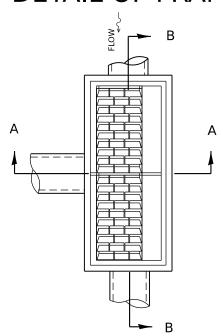
R-3295-2 DOUBLE UNIT OR EQUIVALENT.

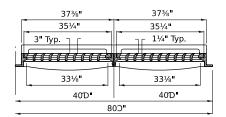
STEPS SHALL BE OMITTED WHEN DEPTH OF "H" IS LESS THAN 5 FOOT.

CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED THROUGHOUT. PRECAST CONCRETE SHALL BE IN ACCORDANCE WITH ARTICLES 504.01 THRU 504.05 OF THE STANDARD SPECIFICATIONS EXCEPT THAT CONCRETE STRENGTH SHALL BE 4,000 psi AFTER 28 DAYS.

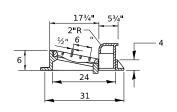
CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED THROUGHOUT. THE CONTRACT UNIT PRICE EACH FOR INLET SPECIAL SHALL INCLUDE THE COST OF CONSTRUCTING THE INLET BOX, FURNISHING AND INSTALLING THE FRAME AND GRATE, THE STEPS (IF USED), THE PRECAST FLOOR SLABS, SAND CUSHION (WHEN USED) AND REINFORCEMENT BARS.

DETAIL OF FRAME & GRATE





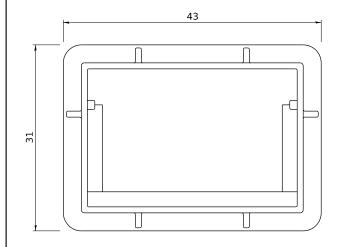
SECTION B-B



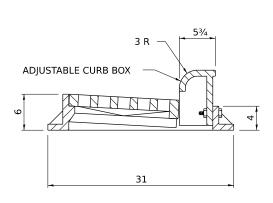
SECTION A-A

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

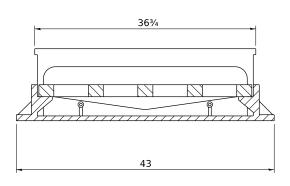
/28/							OTHERWISE NO	OTED.						
	REVISED - 1-05-16							F.A. RTE	SEC.	ΓΙΟΝ		COUNTY	TOTAL SHEETS	SHEET NO.
ATE	REVISED - 7-16-15		REGIO	N 2 / D	ISTRICT 2	2 STANDAI	RD	11121					UNLENG	
OT	REVISED - 10-13-11											CONTRACT	NO.	
4	REVISED -	SCALE:	SHEET	OF	SHEETS	STA.	TO STA.			ILLINOIS	FED. AII	D PROJECT		



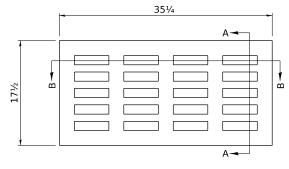
PLAN OF FRAME
WITHOUT GRATE AND CURB BOX



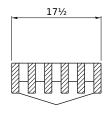
TRANSVERSE SECTION



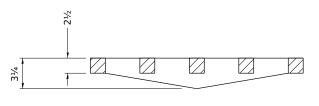
LONGITUDINAL SECTION



PLAN OF GRATE



SECTION A-A

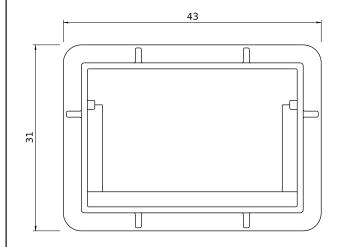


SECTION B-B

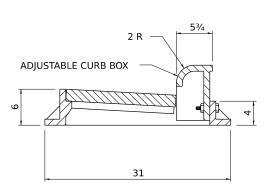
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

R 3246 OR EQUIVALENT
APPROXIMATE WEIGHT - 495 LBS.

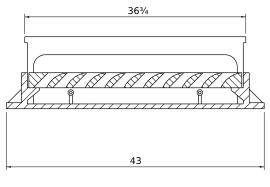
/28														
	REVISED - 6-27-14							F.A. RTE	SEC ⁻	ION		COUNTY	TOTAL SHEETS	SHEET NO.
ATE	REVISED - 10-13-11		REGIO	N 2 / DI	STRICT 2	2 STAND	DARD	IXIL.					OHLLIO	110.
JTO.	REVISED -											CONTRACT	NO.	
₫	REVISED -	SCALE:	SHEET	OF	SHEETS	STA.	TO STA.			ILLINOIS	FED. AID	PROJECT		



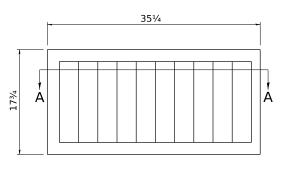
PLAN OF FRAME
WITHOUT GRATE AND CURB BOX



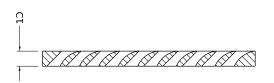
TRANSVERSE SECTION



LONGITUDINAL SECTION



PLAN OF GRATE

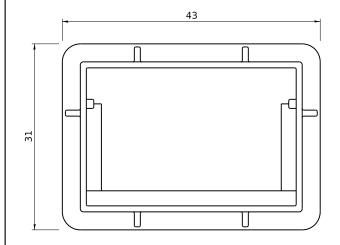


SECTION A-A

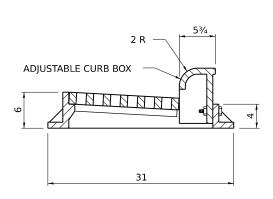
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

R 3067 OR EQUIVALENT
APPROXIMATE WEIGHT - 465 LBS.

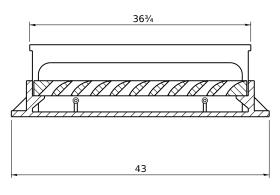
1/28														
•	REVISED - 6-27-14							F.A. RTE.	SEC.	TION		COUNTY	TOTAL	SHEET NO.
ATE	REVISED - 10-13-11		REGIO	ON 2 / DI	ISTRICT :	2 STAN	ARD	1112.					OHLLIO	110.
OTC	REVISED -								1			CONTRACT	NO.	
Д	REVISED -	SCALE:	SHEET	OF	SHEETS	STA.	TO STA.			ILLINOIS	FED. AID	PROJECT		



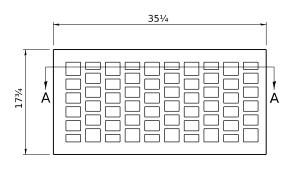
PLAN OF FRAME
WITHOUT GRATE AND CURB BOX



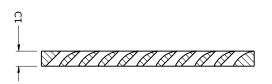
TRANSVERSE SECTION



LONGITUDINAL SECTION



PLAN OF GRATE

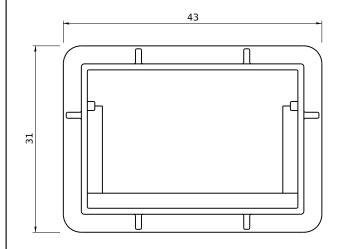


SECTION A-A

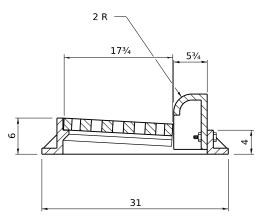
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

R 3067 OR EQUIVALENT APPROXIMATE WEIGHT - 490 LBS.

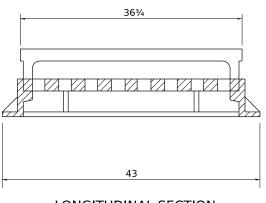
28								. – – .						
ī	REVISED - 6-27-14							F.A. RTE	SEC.	TION		COUNTY	TOTAL SHEETS	SHEET NO.
ATE	REVISED - 10-13-11		REGIO	N 2 / DI	STRICT 2	2 STAND	ARD	10.2					OHLLIO	
OTC	REVISED -											CONTRACT	NO.	
₫	REVISED -	SCALE:	SHEET	OF	SHEETS	STA.	TO STA.			ILLINOIS	FED. AID	PROJECT		



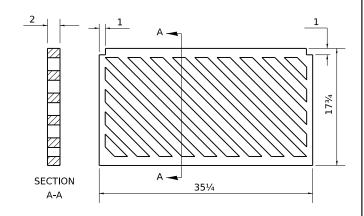
PLAN OF FRAME
WITHOUT GRATE AND CURB BOX



TRANSVERSE SECTION



LONGITUDINAL SECTION

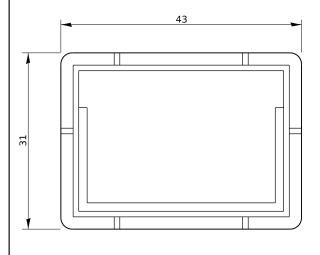


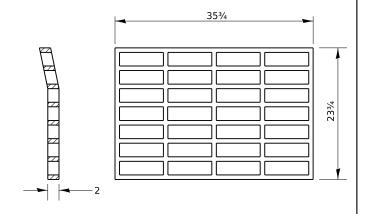
PLAN OF GRATE

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

R 3067 OR EQUIVALENT
APPROXIMATE WEIGHT - 510 LBS.

/28							,	– .	· · · · · · · · · · · · · · · · · · ·					
3 -	REVISED - 6-27-14							F.A. RTE	SEC	TION		COUNTY	TOTAL SHEETS	SHEET NO.
ATE	REVISED - 10-13-11		REGIO	DN 2 / DI	STRICT 2	2 STANDA	ARD .	1112					UNLENG	
OTC	REVISED -								1			CONTRACT	NO.	
₫.	REVISED -	SCALE:	SHEET	OF	SHEETS	STA.	TO STA.			ILLINOIS FI	ED. AID F	PROJECT		

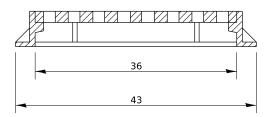




PLAN OF FRAME

PLAN OF GRATE *

* THIS GRATE TO BE USED WITHOUT CURB BOX WHEN INLET IS IN DRIVEWAY.

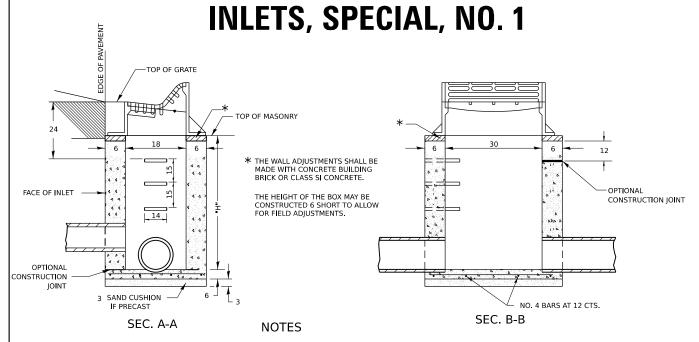


ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

R-3290-A OR EQUIVALENT APPROXIMATE WEIGHT OF CAST IRON FRAME & GRATE - 530 LBS.

REVISED - 4-14-15
REVISED - 10-14-11
REVISED - 10-14-11
REVISED - 10-14-11
REVISED - SCALE: SHEET OF SHEETS STA. TO STA.

REVISED - SCALE: SHEET OF SHEETS STA. TO STA.



SEE STANDARD 602701 FOR DETAILS OF STEPS.

EXCEPT AS NOTED HEREON INLET SPECIAL SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS.

THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTED SECTIONS.

ALL VOIDS AROUND PIPE ENTRANCE, BOTH INSIDE AND OUTSIDE, SHALL BE SEALED WITH MORTAR.

STEPS SHALL BE OMITTED WHEN DEPTH OF "H" IS LESS THAN 5 FOOT.

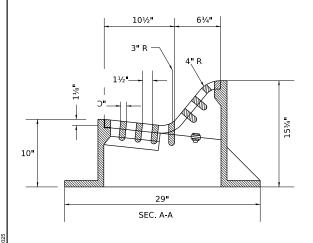
BOTH INLET SPECIAL NO. 1 SHALL DRAIN VERTICALLY TO THE ACROSS ROAD CULVERT LOCATED BENEATH.

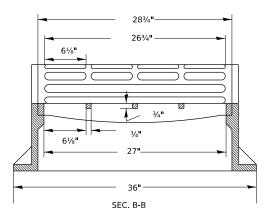
CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED THROUGHOUT. PRECAST CONCRETE SHALL BE IN ACCORDANCE WITH ARTICLES 504.01 THRU 504.05 OF THE STANDARD SPECIFICATIONS EXCEPT THAT CONCRETE STRENGTH SHALL BE 4,000 psi AFTER 28 DAYS.

THE CONTRACT UNIT PRICE EACH FOR INLETS, SPECIAL, NO.1 SHALL INCLUDE THE COST OF CONSTRUCTING THE INLET BOX, FURNISHING AND INSTALLING THE FRAME AND GRATE, THE STEPS (IF USED), THE PRECAST FLOOR SLABS, SAND CUSHION (WHEN USED) AND REINFORCEMENT BARS.

FRAME AND GRATE # R-3503-B OR EQUIVALENT

DETAIL OF FRAME & GRATE

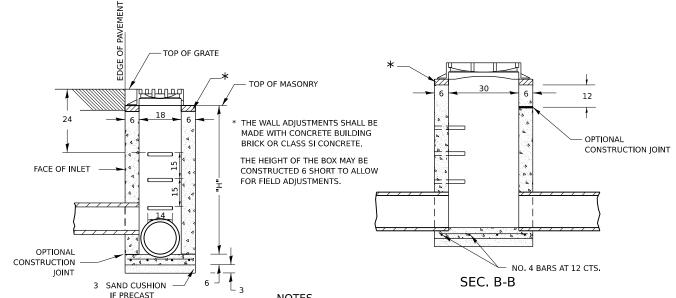




ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

	REVISED - 1-05-16					
Į.	REVISED - 6-27-14]	REGION	1 2 / DI	STRICT 2	STANDARD
5	REVISED - 10-14-11]				
4	REVISED -	SCALE:	SHEET	OF	SHEETS	STA.

INLETS, SPECIAL, NO. 2



SEC. A-A

NOTES

SEE STANDARD 602701 FOR DETAILS OF STEPS.

EXCEPT AS NOTED HEREON INLET SPECIAL SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS.

THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTED SECTIONS.

ALL VOIDS AROUND PIPE ENTRANCE, BOTH INSIDE AND OUTSIDE, SHALL BE SEALED WITH MORTAR.

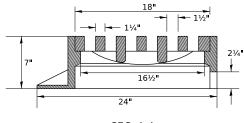
STEPS SHALL BE OMITTED WHEN DEPTH OF "H" IS LESS THAN 5 FOOT.
INLET SPECIAL NO. 2 F SHALL MATCH THE EXISTING STORM SEWER AS SHOWN ON THE PLANS.

CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED THROUGHOUT. PRECAST CONCRETE SHALL BE IN ACCORDANCE WITH ARTICLES 504.01 THRU 504.05 OF THE STANDARD SPECIFICATIONS EXCEPT THAT CONCRETE STRENGTH SHALL BE 4,000 psi AFTER 28 DAYS.

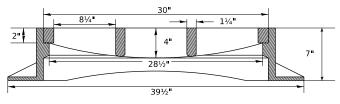
THE CONTRACT UNIT PRICE EACH FOR INLETS, SPECIAL, NO.2 SHALL INCLUDE THE COST OF CONSTRUCTING THE INLET BOX, FURNISHING AND INSTALLING THE FRAME AND GRATE, THE STEPS (IF USED), THE PRECAST FLOOR SLABS, AND CUSHION (WHEN USED) REINFORCEMENT BARS, AND REMOVAL OF ANY EXCESS STORM SEWER.

FRAME AND GRATE # R-3461 OR EQUIVALENT

DETAIL OF FRAME & GRATE



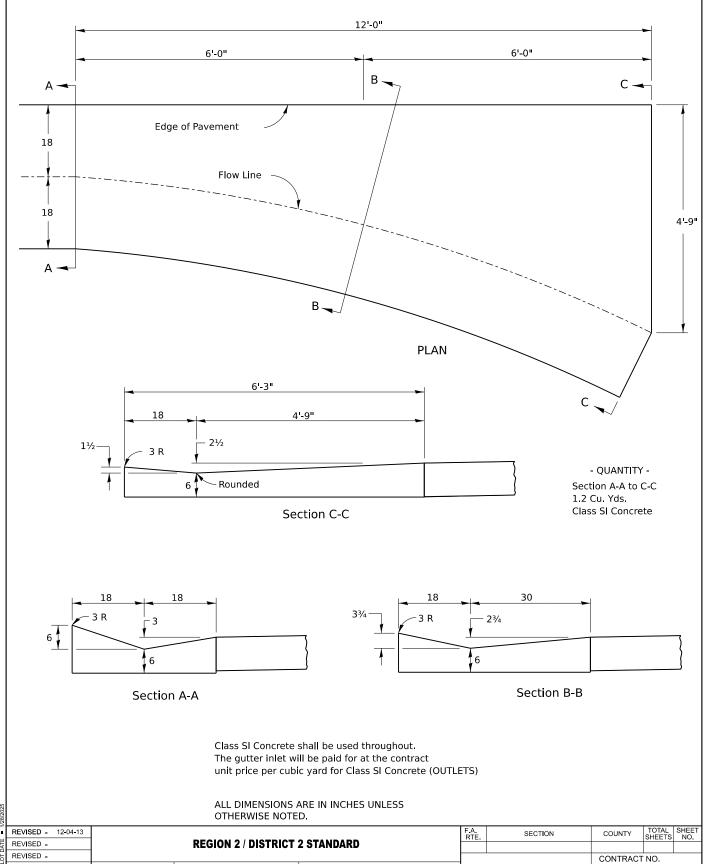
SEC. A-A



SEC. B-B

REVISED - 1-05-16 SECTION COUNTY REVISED - 6-27-14 **REGION 2 / DISTRICT 2 STANDARD** REVISED -CONTRACT NO. SHEET SHEETS STA. SCALE: REVISED -ILLINOIS FED. AID I

STANDARD INLET FOR TYPE A GUTTER (SPECIAL)



REVISED -

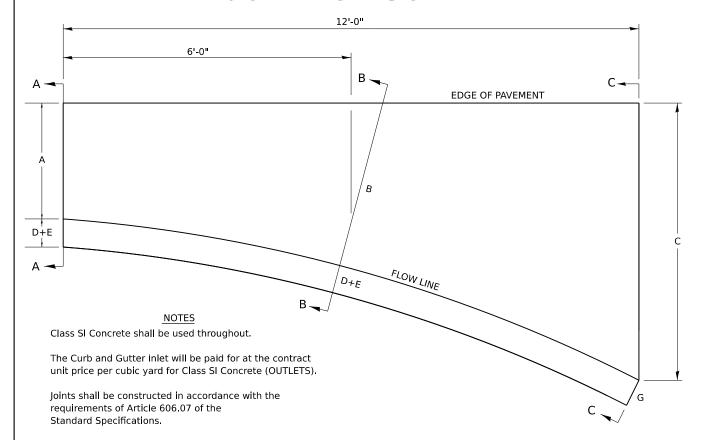
SCALE:

SHEET

SHEETS STA.

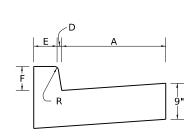
TO STA.

STANDARD INLET FOR **CURB & GUTTER**

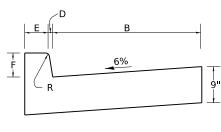


When curb and gutter is constructed adjacent to flexible pavement, a 1" expansion joint shall be installed at construction joints.

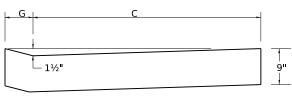
All dimensions are in inches unless otherwise noted.



SECTION A-A



									CONCRETE
TYPE OF		Т	ABLE OF	DIME	NSIO	NS			QUANTITY
CURB &									A-A TO C-C
GUTTER	Α	В	С	D	Е	F	G	R	(CU YDS)
B-6.06	6	15	4'	1	6	6	7	1	0.87
B-6.12	12	18.25	4'	1	6	6	7	1	0.95
B-6.18	18	27.25	4' 9"	7	1	1.18			
B-6.24	24	32.4	4' 9"	7	1	1.30			
M-4.06	6	17.8	3' 9"	4	3	4	7	3	0.75
M-4.12	12	18.25	4'	4	3	4	7	3	0.91
M-4.18	18	27.25	4' 9"	4	3	4	7	3	1.14
M-4.24	24	32.4	4' 9"	4	3	4	7	3	1.25
M-6.06	6	17.8	3' 9"	8	3	0.86			
M-6.12	12	18.25	2	0.96					
M-6.18	18	27.25	4' 9"	6	2	6	8	2	1.20
M-6.24	24	32.4	4' 9"	6	2	6	8	2	1.30



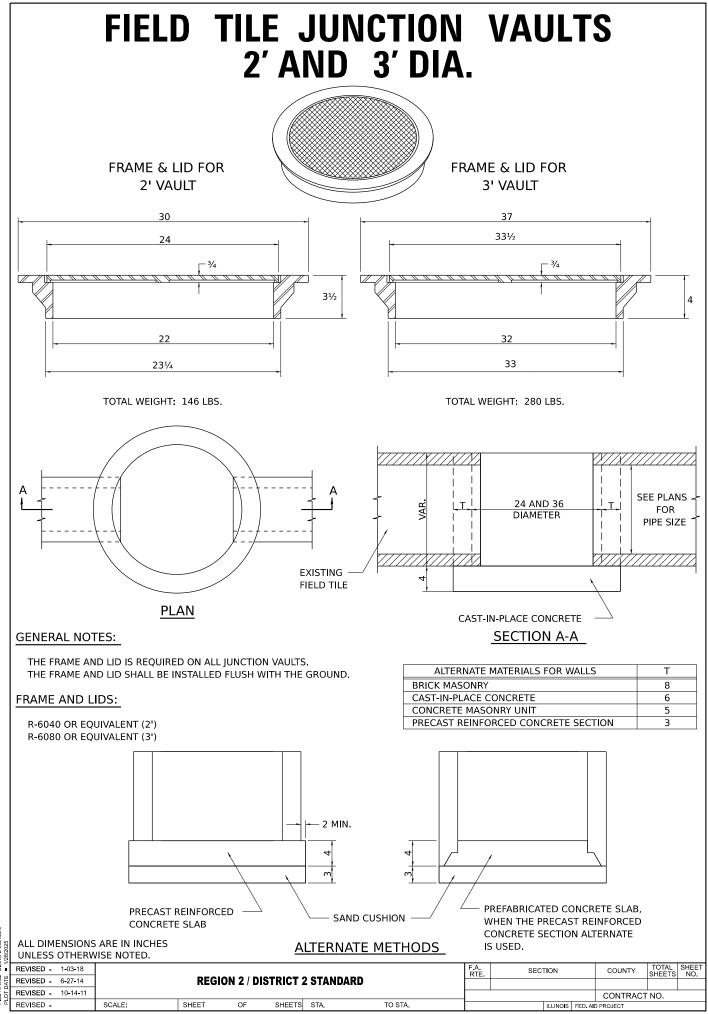
SECTION B-B SECTION C-C

SHEETS STA.

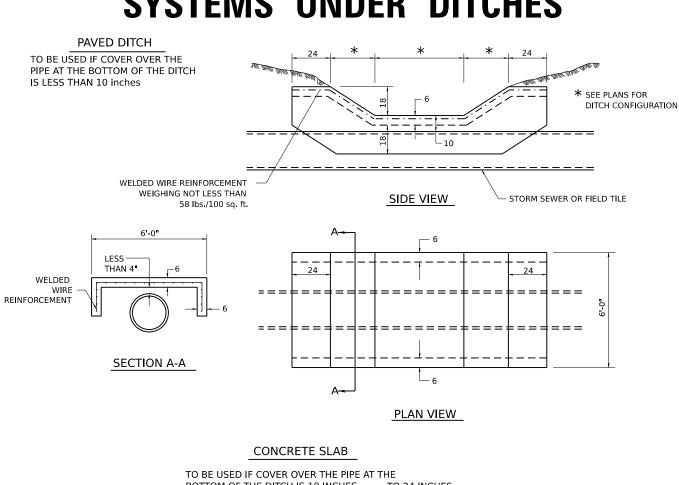
REVISED - 11-12-14 **REGION 2 / DISTRICT 2 STANDARD REVISED** - 8-27-13 REVISED -10-10-06 SCALE: SHEET REVISED -

F.A. RTE	SEC ⁻	TION		COUNTY	TOTAL SHEETS	SHEE NO.
				CONTRACT	NO.	
		ILLINOIS	FED. AIC	PROJECT		

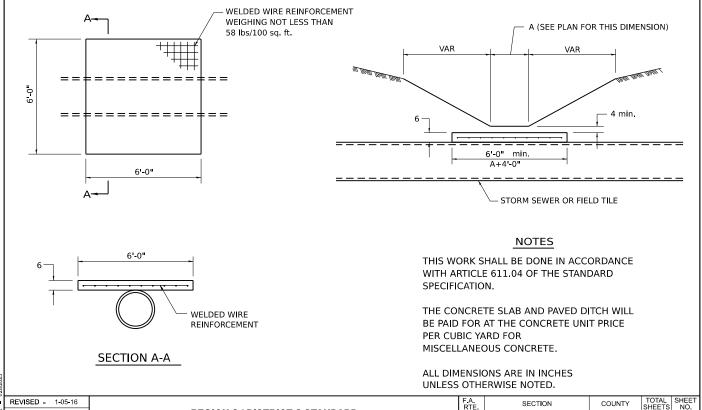
TO STA.



TREATMENT OF FIELD TILE SYSTEMS UNDER DITCHES



BOTTOM OF THE DITCH IS 10 INCHES TO 24 INCHES



REGION 2 / DISTRICT 2 STANDARD

SHEETS STA.

REVISED -

REVISED .

REVISED -

10-14-11

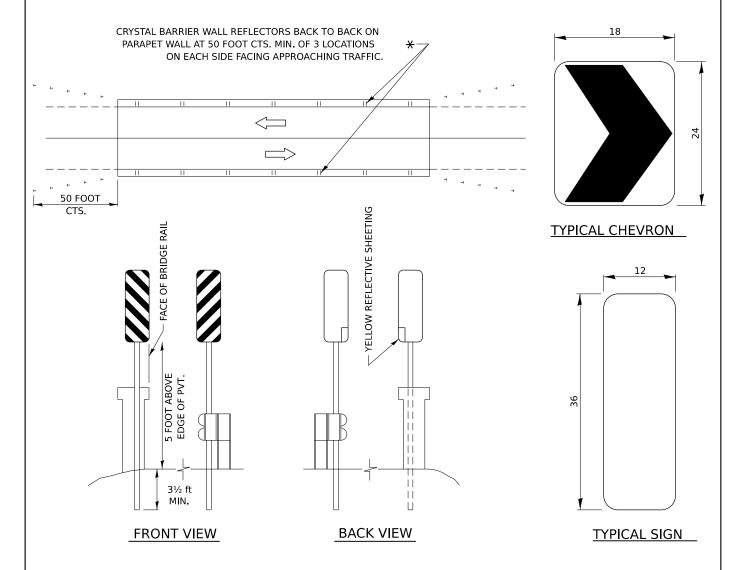
SCALE:

CONTRACT NO.

SIGN PANEL - TYPE 1 (SPECIAL)

SIGN LAY OUT FOR NARROW BRIDGES ON TWO-WAY ROADWAYS

(WHERE THE BRIDGE IS LESS THAN 24 WIDER THAN THE ROADWAY SURFACE.)



NOTES

STRIPES ON THE FACE OF THE SIGN SHALL SLOPE TOWARDS THE EDGE OF PAVEMENT ON BOTH SIDES OF THE ROADWAY.

WHEN THE GUARDRAIL IS PRESENT THE DISTANCE FROM THE EDGE OF THE SIGN SHALL BE POSITIONED WITH THE FACE OF THE GUARDRAIL, AS SHOWN.

ALL MOUNTING HARDWEAR SHALL BE ALUMINUM, STAINLESS STEEL, OR ZINC OR CADMIUM PLATED STEEL AND SHALL BE INCLUDED TO THE COST OF THE INSALLATION.

PLACEMENT OF CHEVRON ALIGNMENT SIGNS ALONG THE 25 TO 1
TAPER WILL CONFORM TO THE DEPARTMENT OF TRANSPORTATION'S
STANDARDS MANUAL UNDER THE SECTION FOR GUARDRAIL PLACEMENT.

ALL LEFT SIDE MARKERS SHALL BE OMITTED FOR FOUR-LANE, TWO-WAY BRIDGE APPLICATIONS.

* REFER TO THE BUREAU OF TRAFFIC'S SPECIFICATIONS.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

	NYLON WASHER
% DIA.	ĐOIA. BOLT

NOTE: MINIMUM OF TWO BOLTS PER POST REQUIRED.

DETAIL OF MOUNTING SIGN TO POST

128														
	REVISED - 6-27-14		F.A. SECTION			COUNTY	TOTAL SHEETS	SHEET NO.						
ATE	REVISED - 10-14-11	- 10-14-11 REGION 2 / DISTRICT 2 STANDARD											OHLLIO	110.
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SPECIAL DRAINAGE OUTLET CAP WITH PERFORATED END PLATE 15-0" PERFORATED PROVIDE "T" JOINT EACH LOCATION Α 24X48X4 15'-0" PERFORATED CONCRETE PAD 0.08 CU. YDS. CLASS "SI" CONCRETE POROUS GRANULAR BACKFILL PIPE UNDERDRAIN 6 4'-0" CAP WITH PERFORATED END PLATE EXISTING 24 FOOT PAVEMENT 12'-0" NOTE: PERFORATED END PLATES ARE INCLUDED IN THE COST OF PIPE UNDERDRAINS 6. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED. 4'-0" 10'-0" PARALLEL EXISTING PAVEMENT CUT PIPE TO FIT SLOPE 6 MIN. 3.125%-PIPE UNDERDRAIN EXISTING SUB-BASE POROUS GRANULAR PERFORATED GRANULAR MATERIAL PIPE UNDERDRAIN BACKFILL TYPE A NON-PERFORATED **SECTION A-A** 20' ± (NO SCALE) REVISED - 1-05-16 SECTION COUNTY **REGION 2 / DISTRICT 2 STANDARD** REVISED - 10-14-11 REVISED -CONTRACT NO. SCALE: SHEET SHEETS STA. REVISED -ILLINOIS FED. AID PROJEC

INLET STAND PIPE

Inlet Stand Pipe

Inlet Stand Pipe shall be included in the contract unit price per FOOT for STORM SEWERS (SPECIAL) 6". Which shall include the following items--one 36" above ground section with 1" holes, one variable depth below ground section with small holes, one 6" tee section, collars (if needed) and end caps (if needed) as directed by the engineer.

Storm Sewer shall be paid for at the contract unit price per foot for STORM SEWERS (SPECIAL) 6". According to Article 611.04.

Field Tile Junction Vault shall be constructed according to District Standard 30.2 and paid for at the $\,$ contract unit price each for FIELD TILE JUNCTION VAULTS for size specified in the plans.

6" TILE (ORANGE COLOR) W/ 1" HOLES 36" GROUND LINE TILE W/ SMALL HOLES (ORANGE COLOR) FIELD TILE JUNCTION VAULT STORM SEWERS (SPECIAL) 6" (SEE PLANS FOR LENGTH) 6" SPECIAL TEE

* VARIFY DEPTH IN FIELD

REVISED - 10-14-11 F.A. RTE SECTION COUNTY **REGION 2 / DISTRICT 2 STANDARD** REVISED -REVISED -CONTRACT NO. SCALE: SHEET SHEETS STA. TO STA. REVISED -ILLINOIS FED. AID PRO

GUARDRAIL EROSION CONTROL TREATMENTS

GENERAL NOTES: EROSION CONTROL CURB

- This work shall consist of grading as needed, installing hardware, 2" x 10" treated timber boards and incidental hot-mix asphalt surfacing in front of steel plate beam guardrail in accordance with plan details.
- 2. Timber shall be treated in accordance with Article 1007.12 Waterborne preservatives "asa" and "cca" shall have a minimum retention of 0.40 lbs./cu.ft.
- 3. This work will be paid for at the contract unit price per foot for EROSION CONTROL CURB (pay code Z0020800).

Steel Plate desirable Beam Guardrail Treated Timber Curb 24" lap into Bridge Approach Curb $rac{1}{2}$ " galvanized U-bolts with nuts and washers Maximum Spacing 12'-6" – 8' HMA Shoulder **Erosion Control** Incidental HMA Surfacing Geotextile Fabric

TYPICAL SECTION WITH EROSION CONTROL CURB

12" desirable Steel Plate Beam Guardrail · 81 HMA Shoulder **Erosion Control**

TYPICAL SECTION WITHOUT EROSION CONTROL CURB

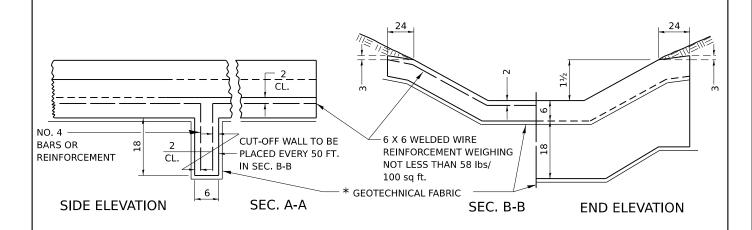
Aggregate Geotextile Fabric

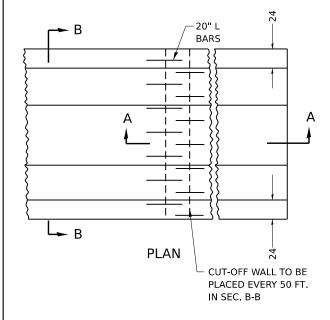
GENERAL NOTES: GUARDRAIL AGGREGATE EROSION CONTROL

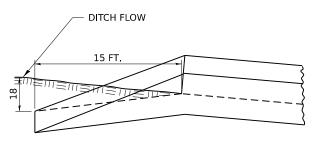
- This work shall consist of furnishing and installing, Geotextile Fabric and staples, and furnishing, placing and shaping crushed aggregate around and behind Steel Plate Beam Guardrail posts in accordance with Plan Details.
- 2. Before placing the aggregate and the Geotextile Fabric, weeds and grass shall be removed from the area to be
- After the area has been prepared, and in a dry condition, the Geotextile Fabric shall be placed with a 12" minimum overlay. A knife cut for guardrail post installation is
- The aggregate shall be deposited, compacted and shaped by either mechanical or hand methods, in a manner reasonably true to line and grade.
- 5. The Contractor shall have the option of placing the guardrail before or after the Geotextile Fabric and aggregate are in place. If the guardrail is placed after the Geotextile Fabric and aggregate, then any voids must be filled and the aggregate returned to line and grade.
- 6. Materials shall meet following requirements:
 - A. The crushed aggregate shall be CA1 gradation in accordance with Article 1004.01 of the Standard
 - B. The aggregate shall meet class D quality requirements as outlined in Article 1004.01 of the Standard Specifications with the following exceptions:
 - Revise the maximum allowable percentage of weighted average loss when the material is subjected to 5 cycles of the Sodium Sulfate Soundness Test from 25% as shown under class D of the quality chart in Article 1004.01(b) of the Standard Specifications to 40%
 - 2) Revise the maximum allowable percentage of wear as determined by the Los Angeles Abrasion Method from 45% as shown under as shown under class D of the quality chart in Article 1004.01(b) of the Standard Specifications to 65%.
 - The sum of the percentage of weighted average loss when the material is subjected to 5 cycles of the Sodium Sulfate Soundness Test: and the percentage of wear as determined by the Los Angeles Abrasion Method, shall not exceed 95%.
 - C. The Geotextile Fabric shall be nonwoven fabric in accordance with Article 1080.02 of the Standard Specifications.
- 7. This work will be paid for at the contract unit price per ton for GUARDRAIL AGGREGATE EROSION CONTROL (pay code Z0001002).

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PAVED DITCH (SPECIAL)







SIDE ELEVATION SHOWING METHOD OF BURYING UP STREAM AND DOWN STREAM END OF PAVED DITCH.

(SEE NOTE)

NOTES:

CLASS SI CONCRETE SHALL BE USED THROUGHOUT.

WELDED WIRE REINFORCEMENT SHALL BE 6 X 6 MESH, NO. 4 GAUGE, 58 lbs/100 sq ft, CONFORMING TO THE REQUIREMENTS OF A.S.T.M. A1064.

1/2" PREMOULDED JOINT FILLER SHALL BE PLACED AT THE JUNCTION OF PAVED DITCH WITH ANY OTHER STRUCTURE.

CUT-OFF WALLS SHALL BE COSTRUCTED MONOLITHICALLY WITH THE PAVED DITCH.

AT THE OPTION OF THE CONTRACTOR, NO. 4 L 20 REINFORCING BARS PLACED AT 12 CENTERS LONGITUDINALLY IN PAVED DITCH AND VERTICALLY IN CUT-OFF WALLS IN LIEU OF THE WELDED WIRE FABRIC.

THE SOIL PLACED OVER THE 24 FLATTENED SECTION OF THE DITCH SHALL BE TAMPED FIRMLY. THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE FOR PAVED DITCH.

PAVED DITCH SHALL BE CONSTRUCTED IN ACCORDANCE WITH ARTICLES 606.01 THROUGH 606.13.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

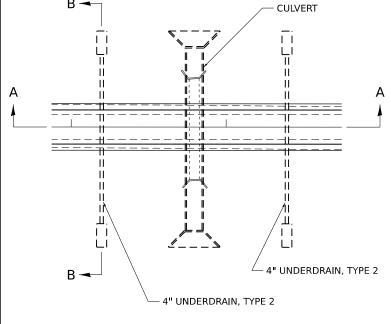
* THE GEOTECHNICAL FABRIC IS INCLUDED IN THE PAVED DITCH.

BASIS OF PAYMENT

PAVED DITCH (SPECIAL) WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT MEASURED IN PLACE INCLUDING THE COST OF FURNISHING AND PLACING THE JOINT FILLER, THE WELDED WIRE REINFORCEMENT OR THE NO. 4 REINFORCING BARS, AND THE NECESSARY EXCAVATION AND DISPOSAL OF SURPLUS MATERIALS.

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UNDERDRAIN FOR ACROSS ROAD (AR) **CULVERTS** NOTES:



SEC. A-A

IN SAG CONDITIONS INSTALL PIPE UNDERDRAINS, TYPE 2, 4" ON BOTH SIDES OF CULVERT.

ON HIGHWAY GRADES GREATER THAN 2% INSTALL PIPE UNDERDRAINS, TYPE 2, 4" ON THE HIGH SIDE OF THE CULVERT.

THIS WORK SHALL BE COMPLETED ACCORDING TO SECTION 601 OF THE STANDARD SPECIFICATIONS.

THE UNDERDRAIN SHALL EXTEND UNTIL INTERSECTING WITH THE SIDE SLOPES, THE PIPES SHALL DRAIN INTO CONCRETE HEADWALLS. (SEE ARTICLE 601.05 OF THE STANDARD SPECIFICATIONS AND HIGHWAY STANDARD 601101).

THE UNDERDRAIN SHALL BE A MINIMUM OF 12" BELOW THE EXISTING PAVEMENT.

PIPE UNDERDRAINS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR PIPE UNDERDRAINS, TYPE 2, 4".

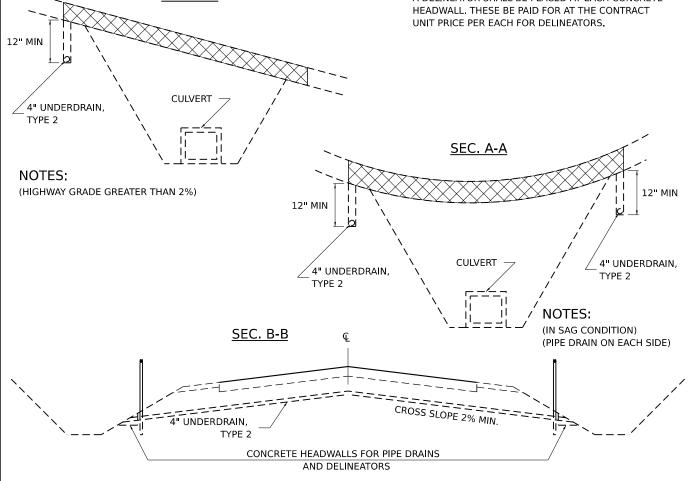
CONCRETE HEADWALLS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR CONCRETE HEADWALLS FOR PIPE DRAINS.

A DELINEATOR SHALL BE PLACED AT EACH CONCRETE HEADWALL, THESE BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR DELINEATORS.

SECTION

COUNTY

CONTRACT NO.



REGION 2 / DISTRICT 2 STANDARD

SHEETS STA.

REVISED - 8-03-17

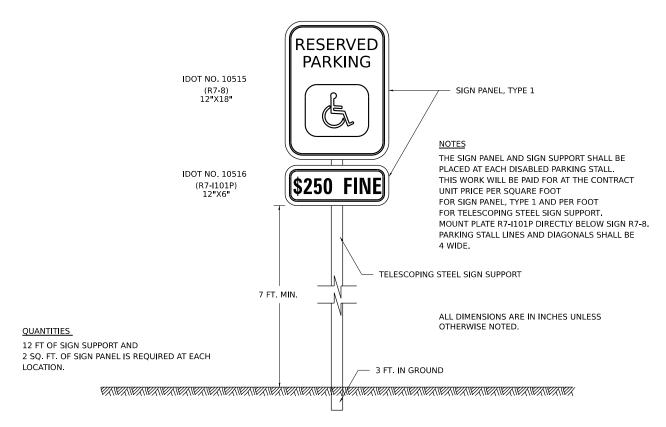
REVISED - 7-13-16

REVISED - 6-27-14

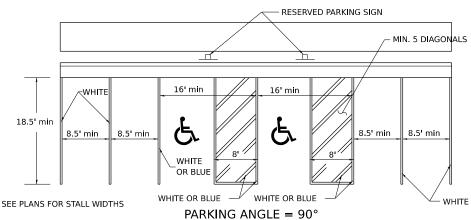
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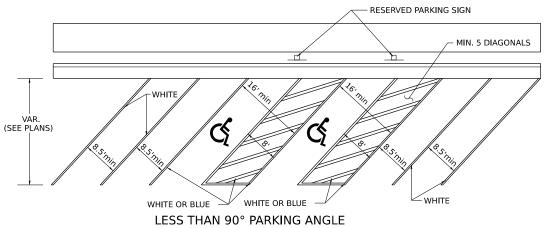
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RESERVED PARKING SIGN DETAIL



DISABLED PARKING STRIPING



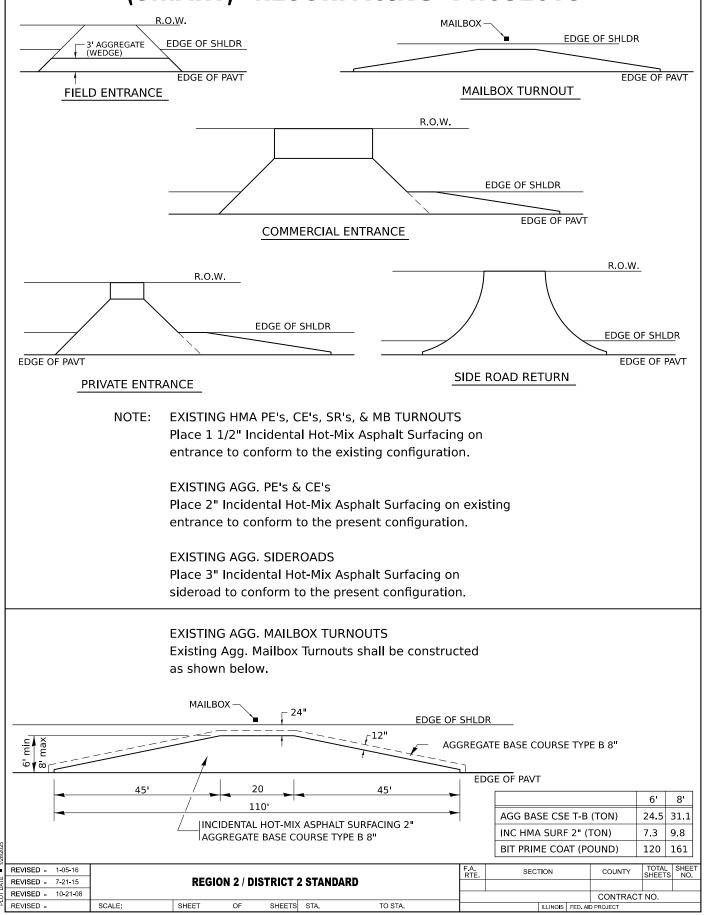


SUPERELEVATION TRANSITION ON TWO-LANE HIGHWAY SUPERELEVATION TRANSPOON LENGTH W = LANE WIDTH e = DESIGN SUPERELEVATION RATE AXIS OF **ROTATION** PC OR PT **EDGE BREAKPOINT** 1.5% NOTE: ROUND ALL EDGE BREAKPOINTS IN FIELD W TRANSITION CURVE TABLE

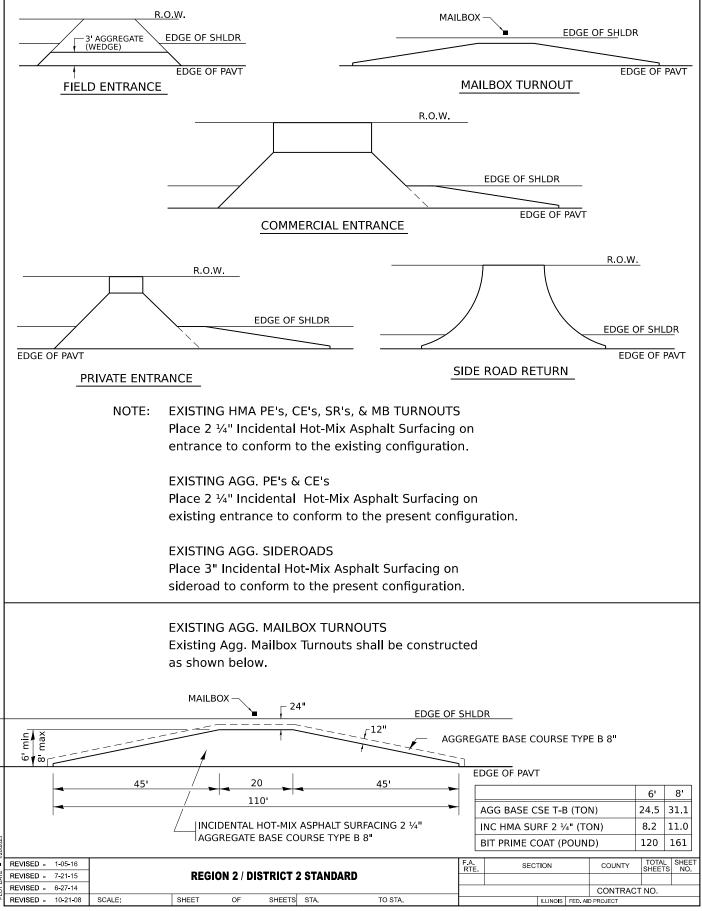
CUR PI S	SUPERELEVATION "e"	w	SUPERELEVATION TRANSITION LENGTH	TANGENT RUNOUT DISTANCE	SUPERELEVATION RUNOFF LENGTH

REVISED - 11-09-06 SECTION COUNTY **REGION 2 / DISTRICT 2 STANDARD** REVISED -REVISED -CONTRACT NO. SCALE: SHEETS STA. TO STA. REVISED -

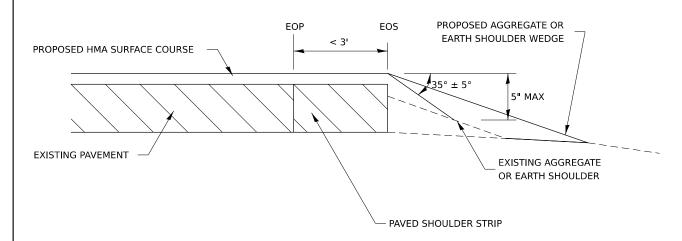
HOT-MIX ASPHALT APPROACHES & MAILBOX RETURNS FOR SINGLE LIFT (SMART) RESURFACING PROJECTS



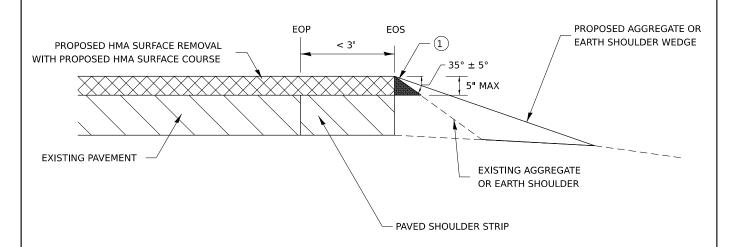
HOT-MIX ASPHALT APPROACHES & MAILBOX RETURNS FOR TWO LIFT (3P) RESURFACING PROJECTS



SAFETY EDGE (SMART PROJECT)



NO MILLING: ADJACENT SHOULDER FLUSH WITH OR LOWER THAN EXISTING PAVEMENT



MILLING: WITH ADJACENT SHOULDER FLUSH WITH OR HIGHER THAN MILLED SURFACE

NOTES: THE DEVICE WHICH FORMS THE SAFETY EDGE SHALL BE MOUNTED ON THE PAVER SCREED AGAINST THE END GATE AND SHALL BE REMOVABLE OR BE ABLE TO BE LIFTED WHEN NOT IN USE. THE DEVICE SHALL BE DESIGNED TO MAINTAIN CONTACT WITH SURFACE OF THE SHOULDER AND ALLOW AUTOMATIC TRANSITION TO CROSS ROADS, DRIVEWAYS AND OBSTRUCTIONS. THE DEVICE SHALL ALSO CONSTRAIN THE HMA MATERIAL AND INCREASE THE CONSOLIDATION OF THE EXTRUDED PROFILE. THE USE OF A CONVENTIONAL SINGLE PLATE STRIKE-OFF WILL

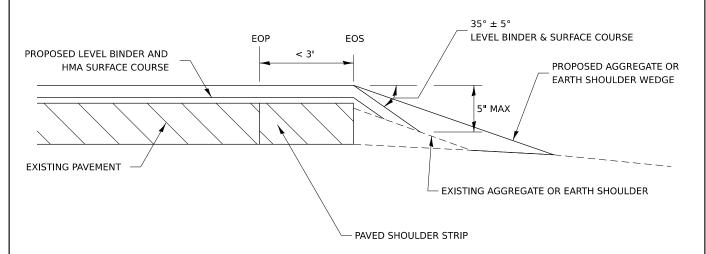
NOT BE ALLOWED.

(1) PRIOR TO THE PLACEMENT OF THE HMA SAFETY EDGE, IF THE ADJACENT AGGREGATE OR EARTH SHOULDER IS HIGHER THAN THE MILLED SURFACE, THE AREA REQUIRED FOR PLACEMENT OF THE SAFETY EDGE SHALL BE BROUGHT FLUSH WITH THE MILLED SURFACE IN A MANNER APPROVED BY THE ENGINEER. THIS WORK SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE OF THE TYPE SPECIFIED.

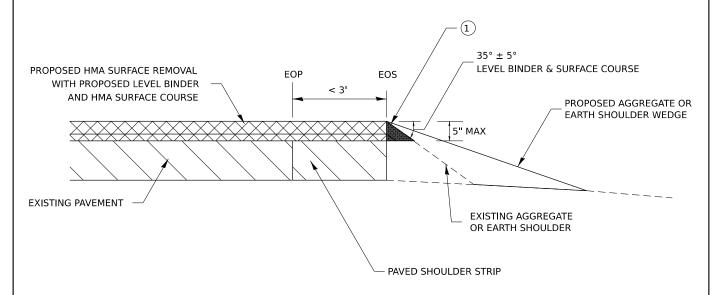
ROLLERS WILL NOT BE ALLOWED	ON	IHE	SLOPED	FACI
OF THE SAFETY EDGE.				

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SAFETY EDGE (3P PROJECTS)



NO MILLING: ADJACENT SHOULDER FLUSH WITH OR LOWER THAN EXISTING PAVEMENT



MILLING: WITH ADJACENT SHOULDER FLUSH WITH OR HIGHER THAN MILLED SURFACE

NOTES: THE DEVICE WHICH FORMS THE SAFETY EDGE SHALL BE MOUNTED ON THE PAVER SCREED AGAINST THE END GATE AND SHALL BE REMOVABLE OR BE ABLE TO BE LIFTED WHEN NOT IN USE. THE DEVICE SHALL BE DESIGNED TO MAINTAIN CONTACT WITH SURFACE OF THE SHOULDER AND ALLOW AUTOMATIC TRANSITION TO CROSS ROADS, DRIVEWAYS AND OBSTRUCTIONS. THE DEVICE SHALL ALSO CONSTRAIN THE HMA MATERIAL AND INCREASE THE CONSOLIDATION OF THE EXTRUDED PROFILE. THE USE OF A CONVENTIONAL SINGLE PLATE STRIKE-OFF WILL NOT BE ALLOWED.

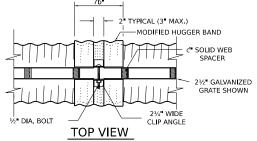
ROLLERS WILL NOT BE ALLOWED ON THE SLOPED FACE

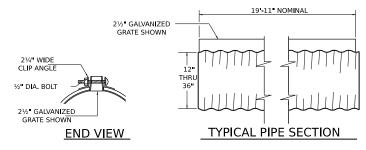
(1) PRIOR TO THE PLACEMENT OF THE HMA SAFETY EDGE, IF THE ADJACENT AGGREGATE OR EARTH SHOULDER IS HIGHER THAN THE MILLED SURFACE, THE AREA REQUIRED FOR PLACEMENT OF THE SAFETY EDGE SHALL BE BROUGHT FLUSH WITH THE MILLED SURFACE IN A MANNER APPROVED BY THE ENGINEER. THIS WORK SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE OF THE TYPE SPECIFIED.

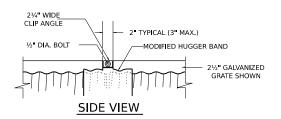
rict 2 S /28/20;	OF	THE SAFETY EDGE											
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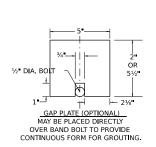
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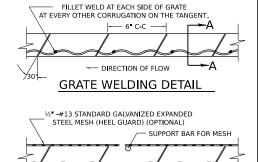
SLOTTED DRAIN PIPE FOR TYPE A GUTTER (SPECIAL)

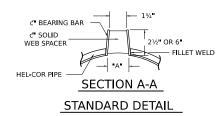












SECTION B-B

	STANDARD SIZES												
GAGE	GAGE DIAMETER OF PIPE												
PIPE	12"	15"	18"	24"	30 "	36"							
16	Х	Х	Х	Х	Х	Х							
14	Х	Х	Х	Х	Х	Х							
12	12 N.A. N.A. N.A. X X												

	GRATE TYPE	"A"
VERT	2-1/2"	1-3/4"
VERT	6 •	1-3/4"
TRAP	2-1/2"	2-1/4"
TRAP	6 "	3"
-	/ERT = VERTI RAP = TRAPI	

C* BEARING BAR STEEL MESH (HEEL GUARD) C* SOLID WEB SPACER HEL-COR PIPE SECTION A-A

DETAIL WITH MESH

- SLOTTED DRAIN NOTES ____

 1. GRATING IS AVAILABLE IN DEPTHS OF 2½" AND 6".
- 2. VERTICAL GRATING (STRAIGHT SIDES) WITH VERTICAL SPACERS IS ALSO AVAILABLE.
- 3. FOR 6" VERTICAL & TRAPIZOIDAL REQUIREMENTS, THE SLOTTED DRAIN BAND MAY BE FURNISHED WITH THE 4" TECHCO BAND ANGLE.
- 4. DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
- 5. REFERENCE CONTECH BAND MANUAL DWG. NO. 1008466

MANUFACTURING TOLERANCES

- 1. VERTICAL BOW ± 3/8"
- 2. HORIZONTAL BOW ± 5/8"
- 3. TWIST $\pm 1/2$ "

(TRAPEZOIDAL GALVANIZED GRATE SHOWN)

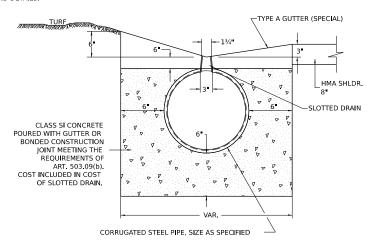
NOTES

CLASS SI CONCRETE SHALL BE USED THROUGHOUT.

THE SLOTTED DRAIN SHALL BE CORRUGATED PIPE CULVERT WITH INTEGRAL SLOTTED DRAINS. BEFORE PLACING THE CONCRETE ADJACENT TO THE PIPE, THE SLOT SHALL BE COVERED BY BITHER THIN, FLAT METAL SHEETING OR BY A BOARD NOTCHED TO FIT OVER THE GRATE BARS. THIS COVERING MUST HIT CLOSELY IN THE SLOT TO PREVENT ENTRY OF CONCRETE INTO THE PIPE. PAVING OVER THE SLOTTED DRAIN WILL THEN BE ONE CONTINUOUS OPERATION OVER THE PROTECTED DRAIN. THE PROTECTION FOR THE DRAIN SLOT SHALL THEN BE REMOVED. THE PIPE SHALL DRAIN INTO THE SIDE OF THE INLET. THE OPENING WHERE THE SLOT IS REMOVED SHALL BE COVERED TO PREVENT CONCRETE FROM ENTERING THE PIPE.

THE CORRUGATED STEEL PIPE USED IN THE SLOTTED DRAIN SHALL MEET THE REQUIREMENTS OF AASHTO M-36/ASTM A 760. THE CMP SHALL BE GALVANIZED OR ALUMINIZED STEEL TYPE. 2. STEEL GRAING SHALL MEET THE GALVANIZING REQUIREMENTS OF AASHTO M-111. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR SLOTTED DRAIN PIPE, AND SHALL INCLUDE ELBOWS.

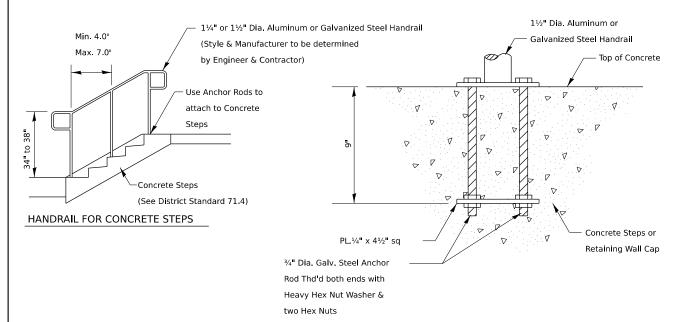
USE APPROVED END CAP TO PREVENT CONCRETE ENTRY INTO THE PIPE DURING GUTTER CONSTRUCTION ON THE UPSTREAM END OF PIPE.

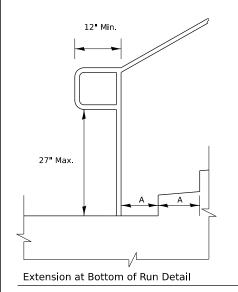


ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

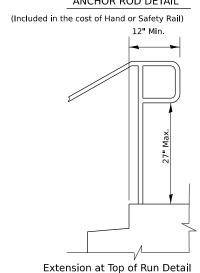
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PIPE HANDRAILS FOR STEPS





ANCHOR ROD DETAIL



Notes:

Stairways shall have continuous handrails both sides of all stairs.

The inside handrail on switchback or dogleg stairs shall always be continuous.

Gripping surfaces shall be uninterrupted by newel posts, other construction elements, or obstructions.

Ends of handrail shall be either rounded or returned smoothly to floor, wall, or post.

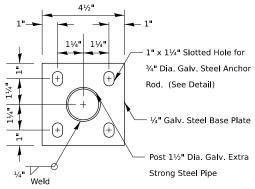
Hand & safety rails shall not rotate within their fittings.

The clear space between hanrails and any wall shall be $1\frac{1}{2}$

Handrail shall conform to Section 509 with the exception that all pipe and connections shall be welded galvanized or aluminum according to Article 1006.30, or 1006.34.

The diameter of the gripping surface of the handrail shall be 1-1/4" to 1-1/2"

This work shall be paid for at the contract unit price per FOOT for PIPE HANDRAIL.

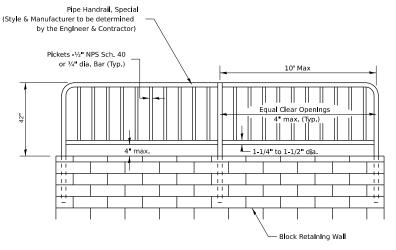


POST BASE PLATE DETAIL

(Included in the cost of Hand or Safety Rail)

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PIPE HANDRAIL, SPECIAL – FOR RETAINING WALLS

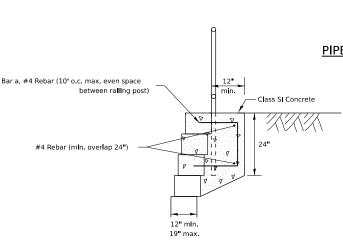


PIPE HANDRAIL, SPECIAL - FOR RETAINING WALL

(See details for Installation options)

3' mln 3' mIn PCC Sldewalk Preformed joint filler Class SI Concrete

PIPE HANDRAIL, SPECIAL - FOR RETAINING WALL



PIPE HANDRAIL, SPECIAL - FOR RETAINING WALL

(Option 3 - Block depth 12" to 19")

Notes:

Gripping surfaces shall be uninterrupted by construction elements, or obstructions.

Ends of handrail shall be rounded.

Handrail shall not rotate within their fittings.

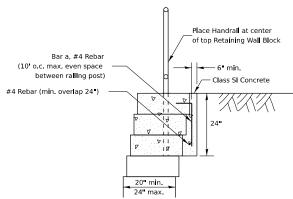
Handrall shall conform to Section 509 with the exception that all pipe and connections shall be welded galvanized or aluminum according to Article 1006.30.

The diameter of the gripping surface of the handrail shall be 1-1/4" to 1-1/2"

Handrall required when wall height difference is 4' or greater

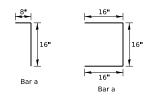
Drilling of blocks will be necessary for reinforcement placement.

This work shall consist of furnishing and erecting Handrails as listed above and according to this detail. This work shall be pald for at the contract UNIT price per FOOT for PIPE HANDRAIL, SPECIAL.



PIPE HANDRAIL, SPECIAL - FOR RETAINING WALL

(Option 2-Block depth greater than 20")

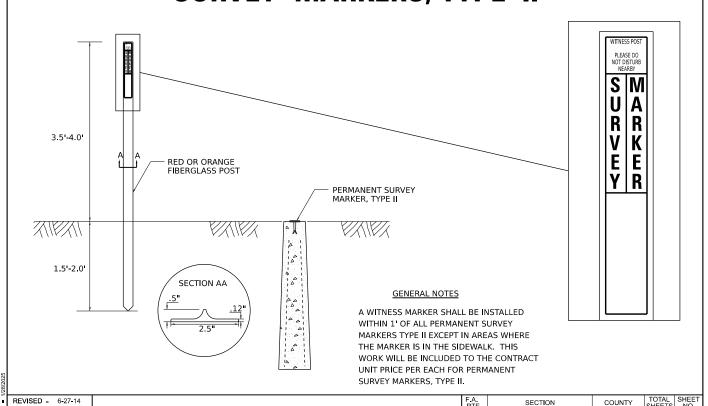


REVISED - 1-05-16							F.A. RTE	SEC.	TION		COUNTY	TOTAL SHEETS	SHEET NO.
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REVISED - 2-01-10											CONTRACT	NO.	
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PERMANENT SURVEY MARKERS, TYPE II See DETAIL A WARTMENT OF Ground surface Cement or approved epoxy Сар Δ No. 3 bars to be 30" for 36" mln. & 3-6" for 4-0" mln. 1/2" 31/4" Use pure cement and water or approved epoxy be 5 0 to seal marker tablet in rock ledge, concrete pavement or structure. Hole shall be 11/2" required dlameter ½" thick 9• 12" Min Tablet constructed in No. 3 Bars TYPE II TYPE II

WITNESS MARKER FOR PERMANENT SURVEY MARKERS, TYPE II

DETAIL A



TO STA.

REGION 2 / DISTRICT 2 STANDARD

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10-14-11

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BRASS OR ALUMINUM TABLET

CONTRACT NO.

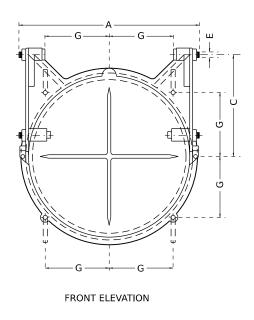
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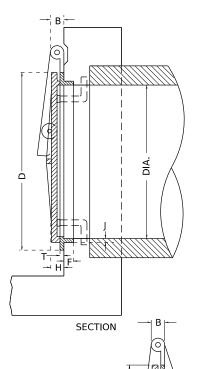
CAST-IN-PLACE MARKER

ALL DIMENSIONS ARE IN INCHES UNLESS

OTHERWISE NOTED.

AUTOMATIC FLAP GATE





IT IS INTENTED THAT THE AUTOMATIC FLAP GATES SHALL BE A COMMERCIAL PRODUCT PRODUCED BY A RELIABLE MANUFACTURER. THE GATE MAY BE MADE OF CAST IRON, CAST STEEL OR OTHER SUITABLE MATERIALS. THE DESIGN MAY DIFFER FROM THE DRAWING IF IT WILL WORK IN A SATISFACTORY, TROUBLE FREE MANNER AND WILL WITHSTAND THE WATER PRESSURE AT THE INSTALLATION LOCATION. THE GATE SHALL BE APPROVED BY THE ENGINEER.

THE SIZE OF AUTOMATIC FLAP GATES SHALL REFER TO THE DIAMETER OF THE OUTLET PIPE OR OPENING.

THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR FLAP GATE OF THE SIZE SPECIFIED AND SHALL INCLUDE ALL MATERIALS AND COMPLETE INSTALLATION.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.



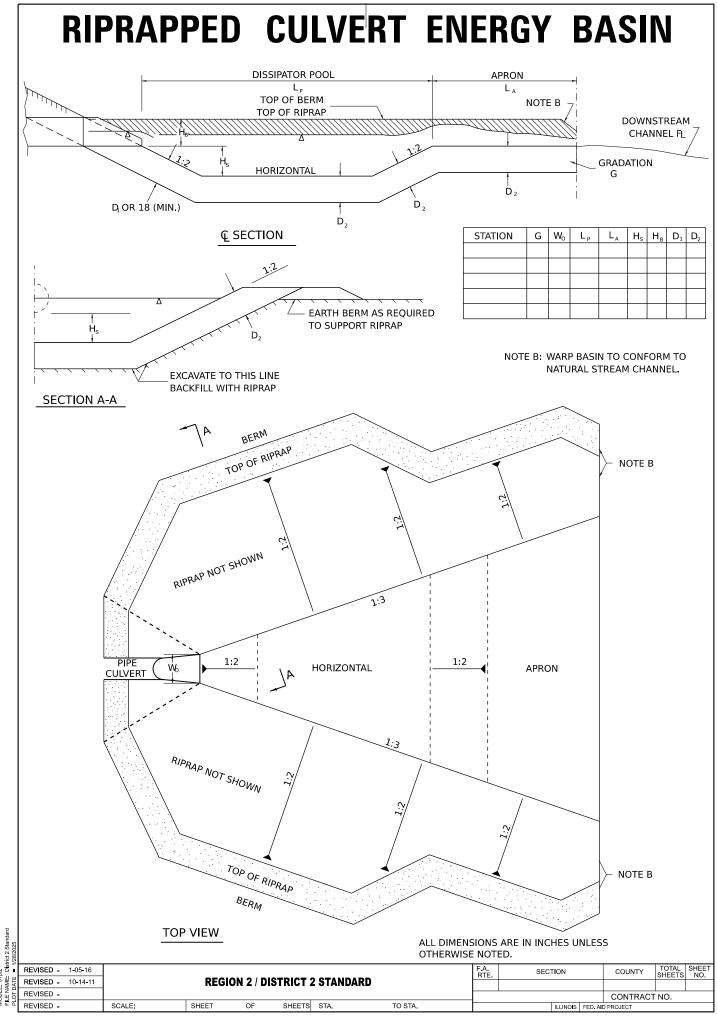
TABLE OF DIMENSIONS

DIAM	Α	В	С	D	E	F	G	Н	J	Т
8	10 ¾	1 3/8	5 đ	10	1/2	1 1/8	3 a	1 1/4	3/8	3/8
10	12 ¾	1 %	7 1/8	12 1/4	1/2	1 1/8	4 3/8	1 ½	1/2	D
12	14 ¾	1 %	8 ½	14 1/2	1/2	1 1/8	5 ½	1 1/2	1/2	1/2
14	17 1/4	1 %	9 1/8	16 ¾	1/2	1 1/4	5 ∃	1 1/2	1/2	Б
15	17 3/4	1 ¾	10 ⅓	17 ¾	1/2	1 1/4	6 1/4	1 ½	1/2	Б
16	19 ½	1 ⅓	11 1/4	18 ¾	1/2	1 1/4	6 ⅓	1 ½	1/2	Б
18	22 1/4	2	12 ⅓	21	3/4	1 a	7 Ɗ	1 3/4	а	Б
20	24 ¾	2	14 ½	23 ¾	3/4	1 ¾	8 1/4	1 3/4	5/8	5/8
21	25 1/4	2	14 1/8	24 1/4	3/4	1 ¾	5 8	1 3/4	5/8	5/8
24	28 1/4	2	17	27 ½	3/4	1 ½	9 3/4	1 3/4	5/8	5/8
30	35 1/4	2 ½	20 ½	34	1	1 a	12	2	1 C	5/8
36	41 ½	2 ½	25	40 %	1	2 Ć	14 Ɗ	2 1/4	1 1/8	đ
42	47 ½	2 ½	29 ¾	47	1	2 Đ	16 %	2 1/4	1 1/8	3/4
48	53 ½	2 ½	34	54	1	2 3/4	19 Ć	2 1/4	1 3/8	3/4
54	60 ¾	2 ½	38	62 1/4	1 1/4	2 3/4	22	3	1 ½	7/8
60	67	2 ½	42	68 ½	1 1/4	2 3/4	24 1/4	3	1 ½	3
66	73 %	2 ½	47	75	1 1/4	2 1/8	26 ½	3	1 ½	1
72	79	2 ½	51	82	1 1/4	3	29	3	1 ½	1
78	86	2 ½	55 ¾	88 3/4	1 1/4	3 ½	31 ¾	3	1 5/8	1 1/8
84	92 ½	3 ½	59 ½	95 ½	1 1/2	3 ½	33 ¾	3	1 3/4	1 1/4

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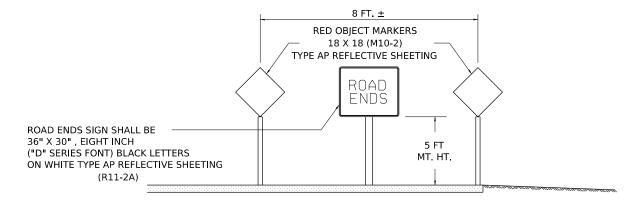


TERMINATION OF DEAD END ROADS

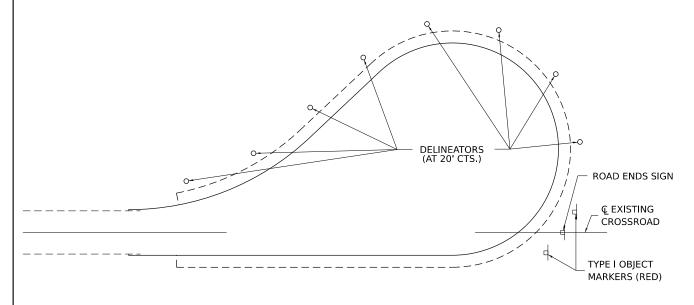
NOTES: A "NO OUTLET" (36"x36" YELLOW) SIGN SHALL BE ERECTED SLIGHTLY BEYOND THE LAST ROAD INTERSECTING THE ROAD WITH NO OUTLET. IF THIS INTERSECTION IS MORE THAN 1500 FT FROM TERMINATION POINT, OR IF SIGHT DISTANCE TO THE CLOSURE IS LESS THAN 500 FT, A ROAD ENDS 500 FTWB-16) SIGN SHALL BE ERECTED 500 FT IN ADVANCE OF THE TERMINATION OF THE ROAD. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "TERMINATION OF DEAD END ROADS" WHICH PRICE SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO INSTALL THE SIGNS AND DELINEATORS.

USE 4X6 WOOD POSTS INSTALLED IN ACCORDANCE WITH SECTION 730 OF STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS. USE APPLICABLE PARTS OF STANDARD 720001 FOR SIGN MOUNTING.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.



TERMINATION SIGNING

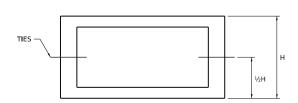


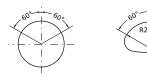
TRAFFIC CONTROL TYPICAL CUL-DE-SAC

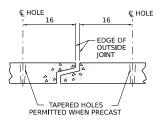
rrict 1/28													
ā.	REVISED - 11-12-14							F.A. RTE.	SEC ⁻	ΓΙΟΝ	COUNTY	TOTAL SHEETS	SHEET NO.
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MECHANICAL JOINTS FOR CONCRETE PIPE AND BOX CULVERTS

THE CULVERT TIES SHALL BE INCLUDED IN THE COST OF THE CONCRETE PIPE CULVERTS OR THE PRECAST CONCRETE BOX CULVERT. THE MECHANICAL TIES SHALL BE ON THE OUTSIDE OF THE CULVERT. THE NUTS AND WASHERS SHALL BE PLACED ON THE INSIDE OF OF THE CULVERT AND COVERED WITH MASTIC JOINT SEALER CONFORMING TO SECTION 1055 IN THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.



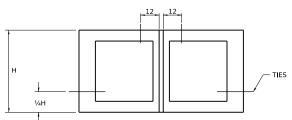


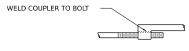


PLACEME	NT OF HC	LES
BOX CULVERT FEET	PIPE SIZE INCHES	THREAD DIAMETER
	12 15 18 21 24 27	% ROLLED THREADS (SEE NOTE 4)
3x2 3x3 4x2 4x3 4x4 5x3 5x4	30 33 36 42 48 54 60 66	¾ CUT OR ROLLED
5x5 6x * 7x * 8x * 9x * 10x *	72 78 84 90 96 102 108 120	1 CUT OR ROLLED
11 X * AND GREATER	138 AND GREATER	11/4

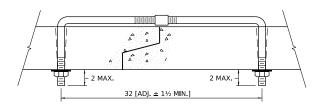
NOTES:

- 1. HOLES SHALL BE CAST-IN OR DRILLED 16 FROM OUTSIDE EDGE OF JOINT.
- 2. NUTS AND WASHERS ARE NOT REQUIRED ON INSIDE OF 27 DIAM, PIPE OR LESS.
- 3. TIES ARE NOT REQUIRED FOR BELL PIPE 24 AND SMALLER. ON OTHER SIZES TIE MAY BE INSERTED FROM INSIDE.
- 4. CUT THREADS MAY BE USED IF WASHER AND NUT ARE USED.
- 5. PIPE SIZE LISTED IS INSIDE DIAM. OF ROUND PIPE OR EQUIVALENT DIAM. OF PIPE ARCH OR ELLIPTICAL.
- 6. GALVANIZING OF TIES IS REQUIRED.
- 7. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

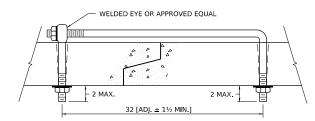




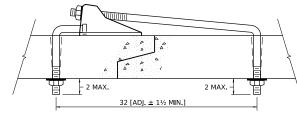
TOP VIEW



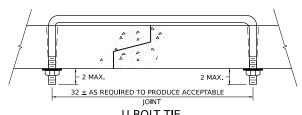
ADJUSTABLE TIE



EYE BOLT TIE



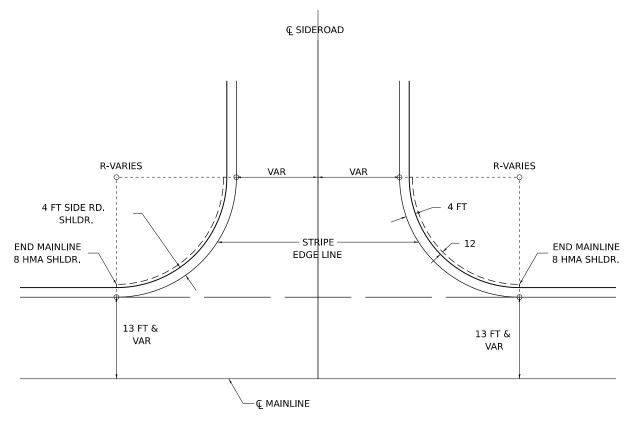
CANOPY TIE

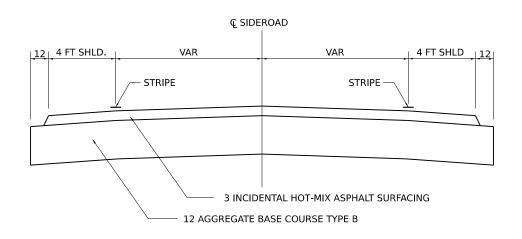


U BOLT TIE

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TYPICAL AGGREGATE BASE SIDEROAD

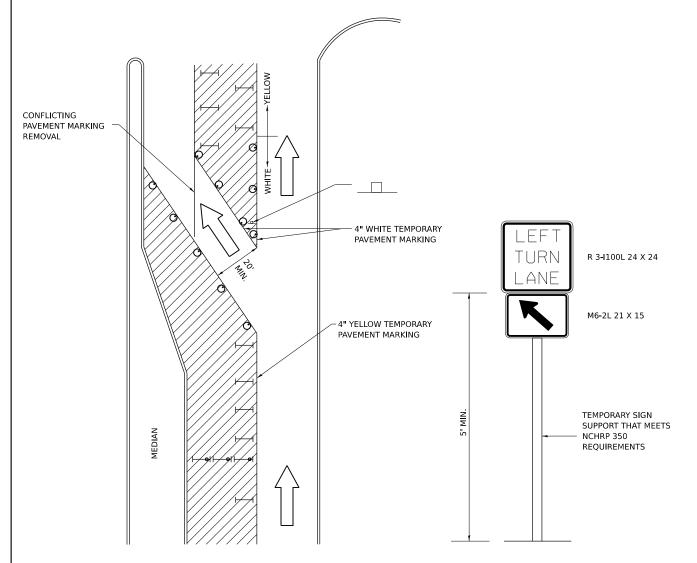




ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

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g a	REVISED - 10-14-11							F.A. RTE.	SEC ⁻	ΓΙΟΝ		COUNTY	TOTAL SHEETS	SHEET NO.
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TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)



LEGEND

GENERAL NOTES

WORK AREA

CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 IN HEIGHT.

STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR

LANE OPEN TO TRAFFIC

DAY OPERATIONS. ALL LIGHTS WILL BE MONODIRECTIONAL.

TEMPORARY PAVEMENT MARKING SHALL BE PLACED THROUGHOUT THE BARRICADED

TYPE I OR II BARRICADE OR DRUM WITH FLASHING BURNING LIGHT THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT

AREA OF EACH BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN

DRUM OR BARRICADE WITH STEADY BURN LIGHT

LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 X 24 AND M6-2R 21 X 15 SHALL BE USED.

SIGN (SEE DETAIL)

THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

TYPE I OR II CHECK BARRICADE WITH STEADY LIGHT BURN

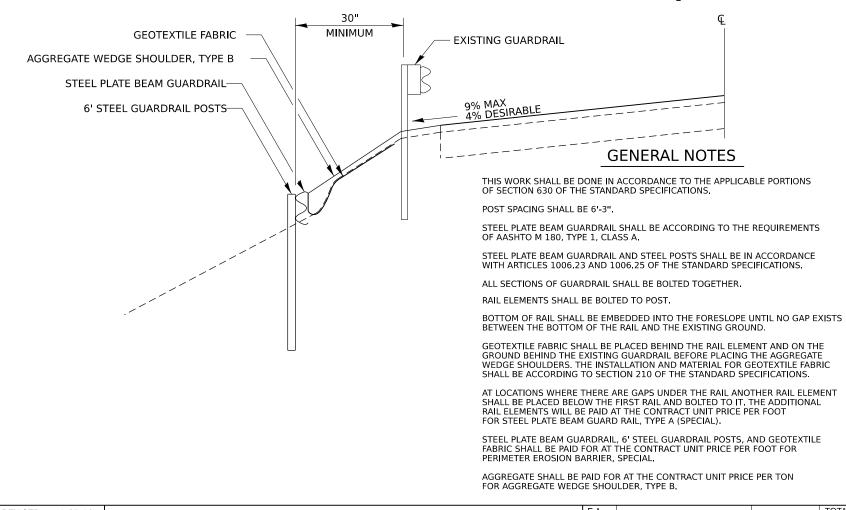
TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

94.2

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

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PERIMETER EROSION BARRIER, SPECIAL



FILE NAME: District 2
PLOT DATE = 1/28/2

7							
	REVISED - 1-05-16		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONCRETE CURB (SPECIAL)

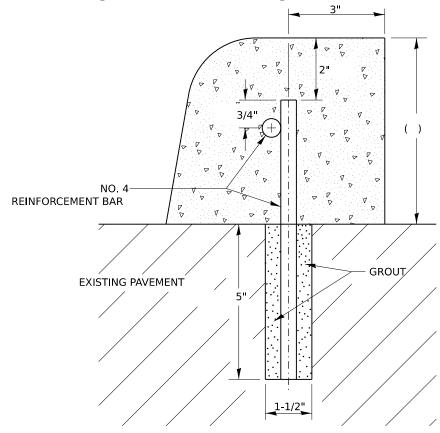
CONCRETE CURB (SPECIAL) SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 606 OF THE STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS, STANDARD 606001 AND THIS DRAWING.

CLASS SI CONCRETE SHALL BE USED THROUGHOUT.

HOLES 1-1/2"Ø AND 5" DEEP SHALL BE DRILLED IN THE EXISTING CONCRETE PAVEMENT AT 5'-0" CENTERS. NO. 4 REINFORCEMENT BARS () LONG SHALL BE GROUTED IN THE HOLES AND A NO. 4 REINFORCEMENT BAR SHALL BE INSTALLED LONGITUDINALLY IN THE CURB.

JOINTS OF A TYPE SIMILAR TO THAT IN THE UNDERLYING PAVEMENT (EXPANSION OR CONTRACTION) SHALL BE INSTALLED IN THE CONCRETE CURB IN ALIGNMENT WITH THE JOINTS IN THE PAVEMENT.

THE COST OF ALL MATERIALS AND LABOR REQUIRED TO INSTALL THE JOINTS AND REINFORCEMENT BARS IN THE CURB SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOOT FOR CONCRETE CURB (SPECIAL).



ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

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CONCRETE CURB (SPECIAL)

11.4

CONCRETE CURB (SPECIAL)

(ADJACENT TO RESURFACING)

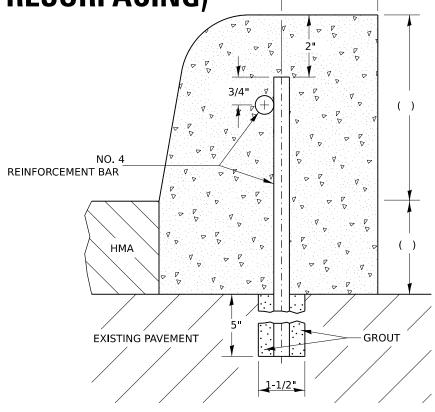
CONCRETE CURB (SPECIAL) SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 606 OF THE STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS, STANDARD 606001 AND THIS DRAWING.

CLASS SI CONCRETE SHALL BE USED THROUGHOUT.

HOLES 1-1/2"Ø AND 5" DEEP SHALL BE DRILLED IN THE EXISTING CONCRETE PAVEMENT AT 5'-0" CENTERS. NO. 4
REINFORCEMENT BARS () LONG SHALL BE GROUTED IN THE HOLES AND A NO. 4 REINFORCEMENT BAR SHALL BE INSTALLED LONGITUDINALLY IN THE CURB.

JOINTS OF A TYPE SIMILAR TO THAT IN THE UNDERLYING PAVEMENT (EXPANSION OR CONTRACTION) SHALL BE INSTALLED IN THE CONCRETE CURB IN ALIGNMENT WITH THE JOINTS IN THE PAVEMENT.

THE COST OF ALL MATERIALS AND LABOR REQUIRED TO INSTALL THE JOINTS AND REINFORCEMENT BARS IN THE CURB SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOOT FOR CONCRETE CURB (SPECIAL).



ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

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MODEL: 12pt4 FILE NAME: District 2 :

COMBINATION CONCRETE CURB & GUTTER, TYPE , SPECIAL

COMBINATION CONCRETE CURB AND GUTTER, TYPE SPECIAL SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 606 OF THE STANDARD SPECIFICATIONS, SUPPLIMENTAL SPECIFICATIONS, STANDARD 606001 AND THIS DRAWING.

HOLES 1-1/2" Ø AND 5" DEEP SHALL BE DRILLED IN THE EXISTING CONCRETE PAVEMENT AT 5'-0" CENTERS.

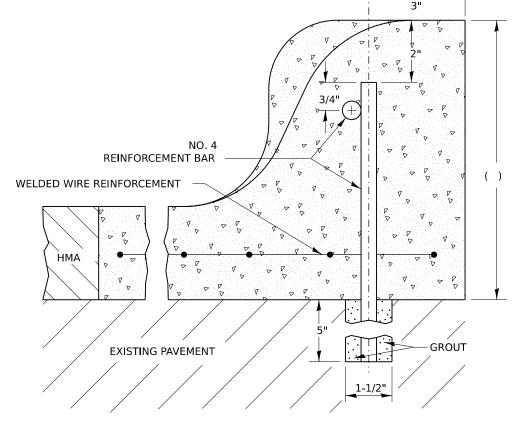
NO. 4 REINFORCEMENT BARS "LONG SHALL BE GROUTED IN THE HOLES AND A NO. 4 REINFORCEMENT BAR SHALL BE INSTALLED LONGITUDINALLY IN THE CURB.

JOINTS OF A TYPE SIMILAR TO THAT IN THE UNDERLYING PAVEMENT (EXPANSION OR CONTRACTION) SHALL BE INSTALLED IN THE CONCRETE CURB AND GUTTER IN ALIGNMENT WITH THE JOINTS IN THE PAVEMENT.

GUTTER FLAG 12" OR GREATER IN WIDTH SHALL BE REINFORCED WITH WELDED WIRE REINFORCEMENT, 6×6 MESH NO. 4 WIRE, NOT WEIGHING LESS THAN 58 lbs/100 sq. ft.

THE COST OF ALL MATERIALS AND LABOR REQUIRED TO INSTALL THE JOINTS, REINFORCEMENT BARS AND WELDED WIRE REINFORCEMENT IN THE CURB AND GUTTER SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER FOOT FOR COMBINATION CONCRETE CURB AND GUTTER, TYPE , SPECIAL.

CLASS SI CONCRETE SHALL BE USED THROUGHOUT.



ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

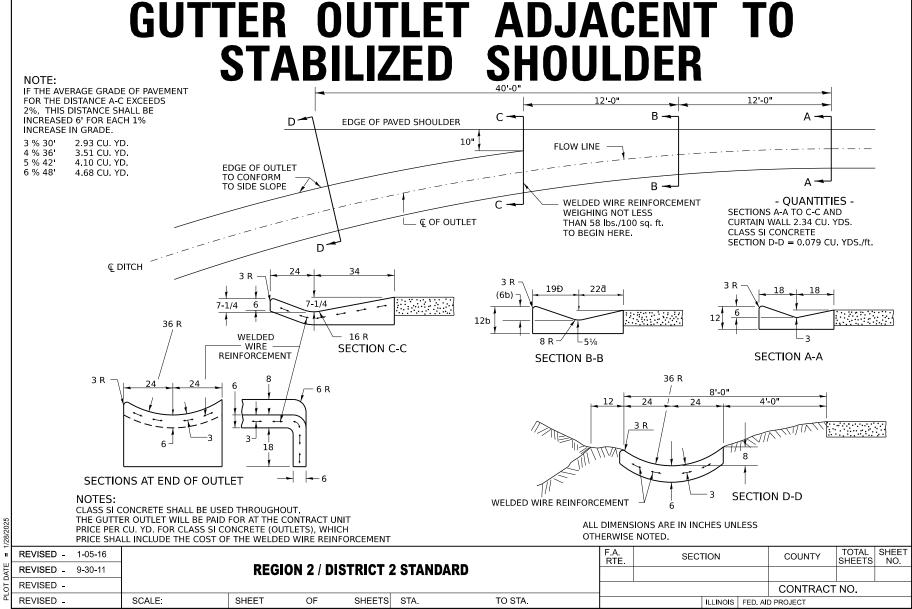
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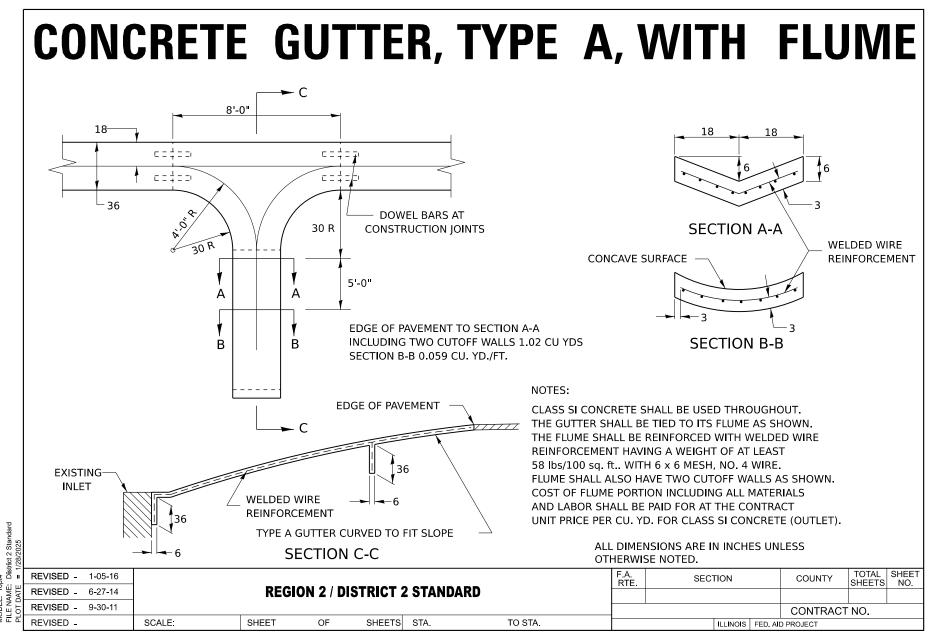
COMBINATION CONCRETE CURB & GUTTER, TYPE

, SPECIAL

13.4

MODEL: 13pt4
FILE NAME: District 2 Standard
PLOT DATE = 1/28/2025





CATCH BASIN OR INLETS TO BE **ADJUSTED OR RECONSTRUCTED**

(DETAILS FOR CURB & GUTTER REPLACEMENT)

CONCRETE CURB AND GUTTER SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 606 OF THE STANDARD SPECIFICATIONS. SUPPLEMENTAL SPECIFICATIONS. STANDARD 606001 AND THIS DRAWING.

CLASS SI CONCRETE SHALL BE USED THROUGHOUT. A HOLE 1-1/2 IN DIAMETER AND 9 DEEP SHALL BE DRILLED IN THE EXISTING CONCRETE CURB AS SHOWN. A 1-1/4 X 18 SMOOTH DOWEL BAR SHALL BE GROUTED IN THE HOLE LONGITUDINALLY.

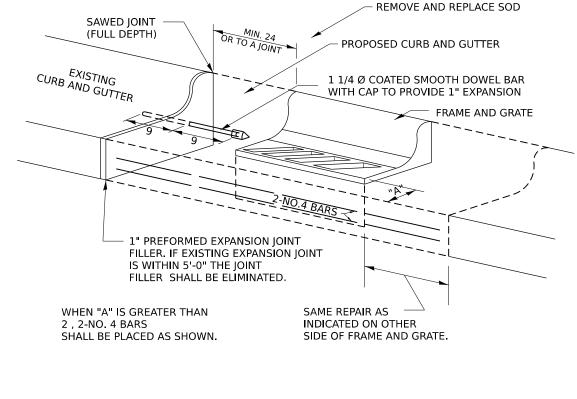
IOINTS OF A TYPE SIMILAR TO THAT IN THE UNDER-LYING PAVEMENT (EXPANSION OR CONTRACTION) SHALL BE INSTALLED IN THE CONCRETE CURB IN ALIGNMENT WITH THE JOINTS IN THE PAVEMENT.

THE PROPOSED CONFIGURATION OF THE CURB AND GUTTER SHALL MATCH THAT REMOVED.

THE LOCATION OF THE DOWEL BAR SHALL BE DETERMINED BY THE ENGINEER.

ALL EXISTING TIE BARS IN EDGE OF PAVEMENT SLAB THRU REPLACEMENT AREA SHALL BE CUT OFF.

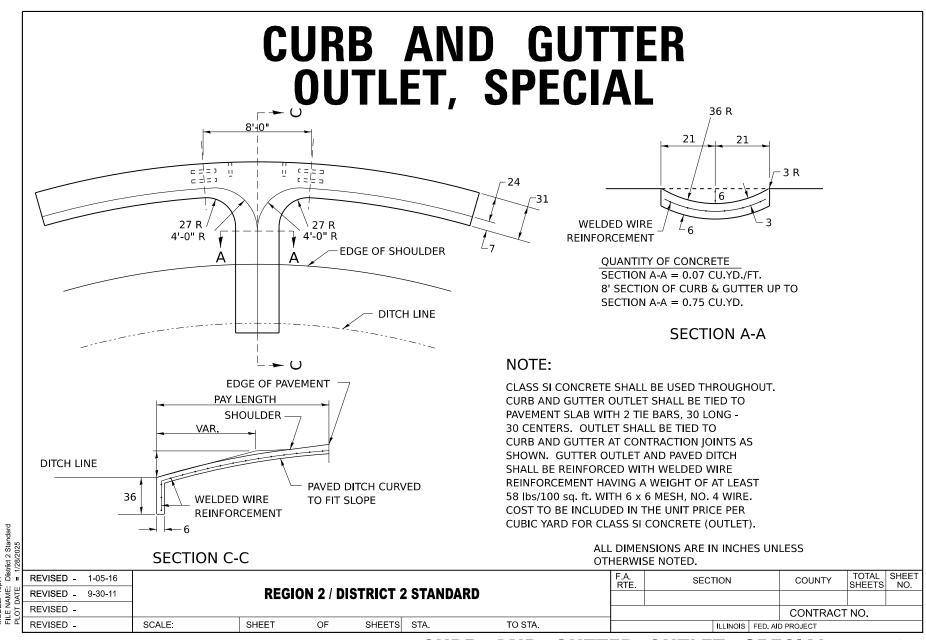
THE WORK SHALL BE DONE IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS AND INCLUDES THE REMOVAL AND REPLACEMENT OF SOD, CONCRETE PAVEMENT AND/OR CURB AND **GUTTER ADJACENT TO CATCH BASINS OR INLETS** TO BE ADJUSTED OR RECONSTRUCTED AND SHALL BE INCLUDED IN THE PAY ITEM OF CATCH BASINS OR INLETS TO BE ADJUSTED OR RECONSTRUCTED AS SPECIFIED.



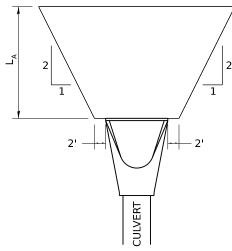
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

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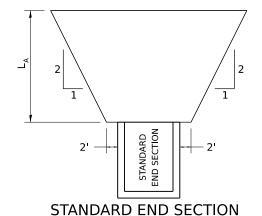
CATCH BASIN OR INLETS TO BE ADJUSTED OR RECONSTRUCTED



RIPRAP AT END SECTIONS



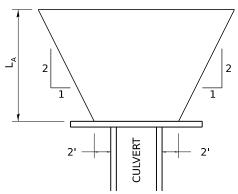
FLARED END SECTION



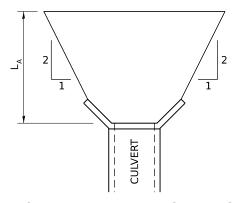
 $L_A = APRON LENGTH (ft)$

IF THE CULVERT OUTLETS INTO A DEFINED CHANNEL, RIPRAP BANK TO BANK FOR LENGTH (L),

STANDARD END SECTION: 542001 (PIPE), 542011 (ELLIPTICAL) DISTRICT STANDARD 10.1 (BOX).



CULVERT WITH HEADWALL



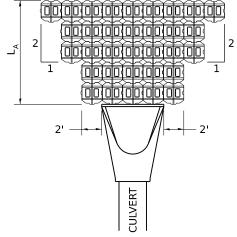
CULVERT WITH WING WALLS

REVISED - 7-13-16							F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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REVISED - 2-10-14									CONTRACT	NO.	
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RIPRAP AT END SECTIONS

19.4

CONCRETE REVETMENT MAT AT END SECTIONS

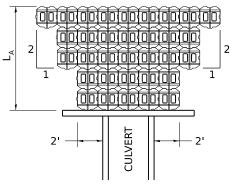


FLARED END SECTION

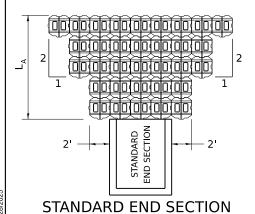
 $L_A = APRON LENGTH (ft)$

IF THE CULVERT OUTLETS INTO A DEFINED CHANNEL, INSTALL BLOCK BANK TO BANK FOR LENGTH (L), $_{\rm A}$

STANDARD END SECTION: 542001 (PIPE), 542011 (ELLIPTICAL) DISTRICT STANDARD 10.1 (BOX).

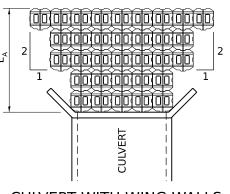


CULVERT WITH HEADWALL



SCALE:

Station	Offset	Velocity	Slope (ft/ft)	Depth of Flow	Shear Stress
		(ft/sec)	(ft/ft)	(ft)	(lb/ft²)



CULVERT WITH WING WALLS

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REGION 2 / DISTRICT 2 STANDARD

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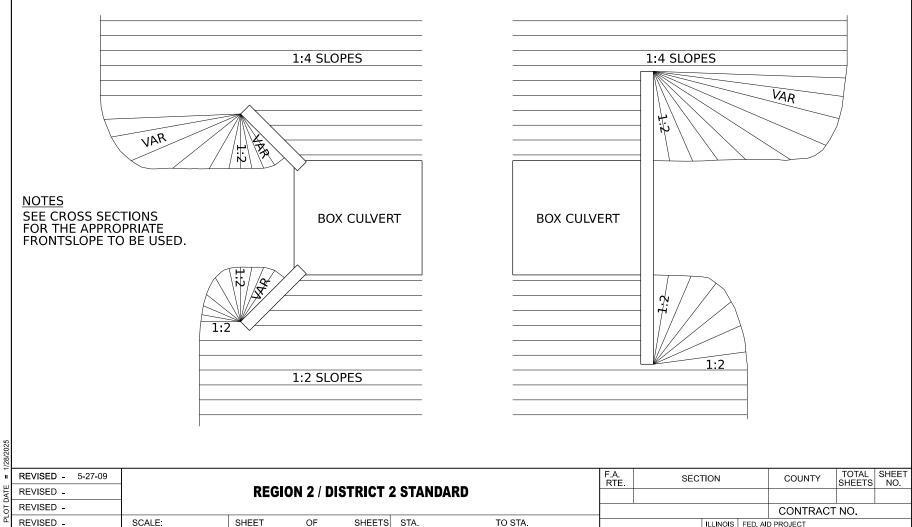
F.A. SECTION COUNTY TOTAL SHEETS NO.

CONTRACT NO.

CONCRETE REVETMENT MAT AT END SECTIONS

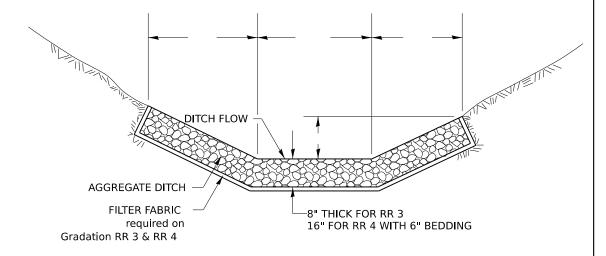
TO STA.

GRADING AROUND WINGWALLS



ILLINOIS FED. AID PROJECT

AGGREGATE DITCH FOR FLEXIBLE DITCH LINING



THIS WORK SHALL BE DONE IN ACCORDANCE WITH SECTION 281. AGGREGATE DITCH WILL BE MEASURED FOR PAYMENT IN PLACE AND THE AREA COMPUTED IN SQUARE YARDS OF ACTUAL SURFACE AREA.

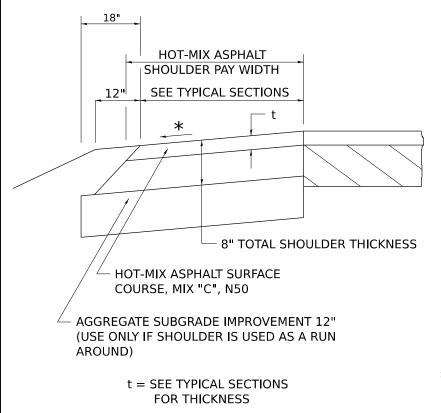
AGGREGATE DITCH WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR STONE RIPRAP CLASS A3 OR STONE RIPRAP CLASS A4 THE FILTER FABRIC SHALL BE ACCORDING TO SECTION 282. FILTER FABRIC WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR FILTER FABRIC.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

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AGGREGATE DITCH FOR FLEXIBLE DITCH LINING

HOT-MIX ASPHALT SHOULDER



GENERAL NOTES

THE HOT-MIX ASPHALT SHOULDER SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 482 EXCEPT THE TOP LIFT SHALL BE HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50. THE WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 AND SQUARE YARD FOR HOT-MIX ASPHALT SHOULDERS OF THE THICKNESS SPECIFIED.

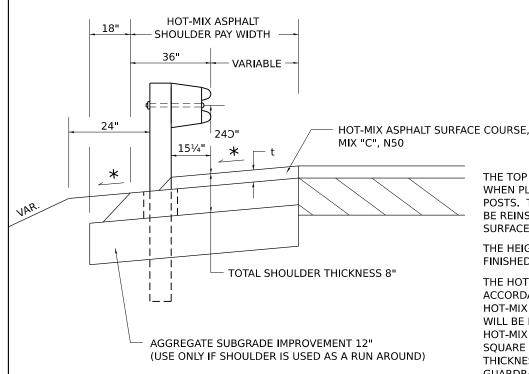
USE HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50. WHEN RESURFACING EXISTING HOT-MIX ASPHALT SHOULDERS. THE THICKNESS IS SHOWN ON THE TYPICAL SECTIONS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50.

REMOVAL OF MATERIAL FOR PLACEMENT OF THE HOT-MIX ASPHALT SHOULDER TO BE PAID FOR IN UNITS FOR EXCAVATING AND GRADING EXISTING SHOULDERS OR IN CUBIC YARDS FOR EARTH EXCAVATION OR EARTH EXCAVATION WIDENING.

* 4% WHEN MAINLINE IS ON TANGENT. FOR CROSS SLOPE ON SUPERELEVATION SECTION, SEE HIGHWAY STANDARD 482001 OR 482006.

trict 2 1/28/2													
pt4 Dist	REVISED - 1-05-16		F.A. SI RTE. SI						SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
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DETAIL OF HOT-MIX ASPHALT SHOULDER AT GUARDRAIL



t = SEE TYPICAL SECTIONS FOR THICKNESS

GENERAL NOTES

THE TOP LIFT SHALL NOT BE PLACED BEHIND THE GUARDRAIL POSTS. WHEN PLACING THE TOP LIFT THE RAIL MUST BE REMOVED FROM THE POSTS. THE POST SHALL NOT BE REMOVED. THE RAIL ELEMENT SHALL BE REINSTALLED WITHIN 72 HOURS OF THE COMPLETION OF THE SURFACE COURSE.

THE HEIGHT OF THE GUARDRAIL SHALL BE SET 24%" FROM THE FINISHED SURFACE.

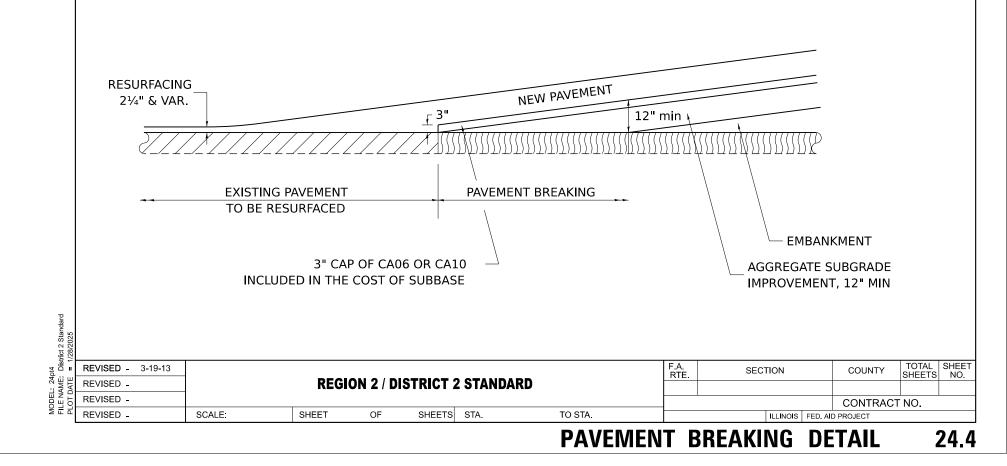
THE HOT-MIX ASPHALT SHOULDER SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 482 EXCEPT THE TOP LIFT SHALL BE HOT-MIX ASPHALT SURFACE COURSE, MIXTURE C, N50. THE WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE, MIXTURE "C", N50 AND SQUARE YARD FOR HOT-MIX ASPHALT SHOULDERS OF THE THICKNESS SPECIFIED. THE REMOVAL & REINSTALLATION OF THE GUARDRAIL WILL BE INCLUDED IN THE COST OF THE HOT-MIX ASPHALT SURFACE COURSE, MIXTURE C, N50.

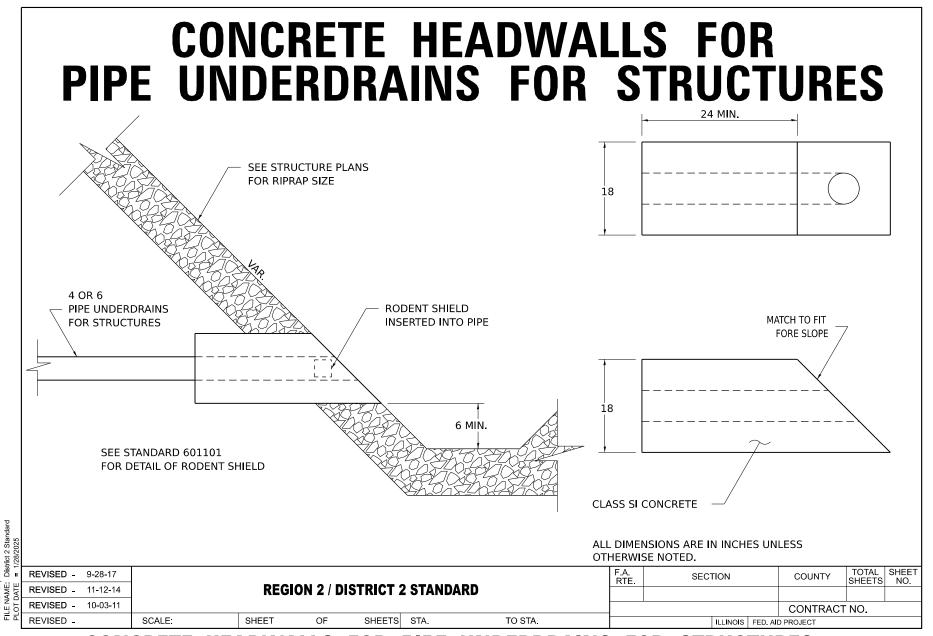
* 4% WHEN MAINLINE IS ON TANGENT. FOR CROSS SLOPE ON SUPERELEVATED SECTION, SEE HIGHWAY STANDARD 482001 OR 482006.

REVISED - 1-05-16	REVISED - 1-05-16 REVISED - 6-27-14 REGION 2 / DISTRICT 2 STANDARD									COUNTY	TOTAL SHEETS	SHEET NO.
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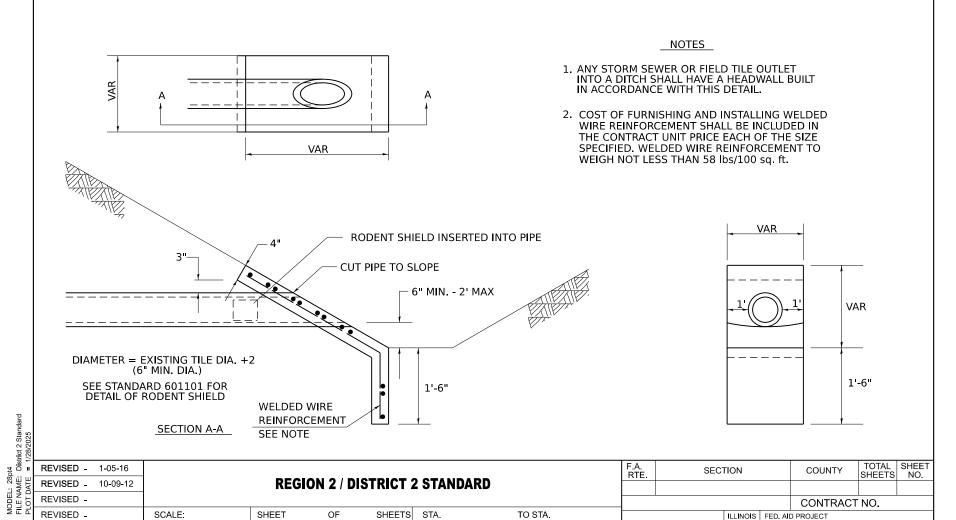
DETAIL OF HOT-MIX ASPHALT SHOULDER AT GUARDRAIL

PAVEMENT BREAKING DETAIL

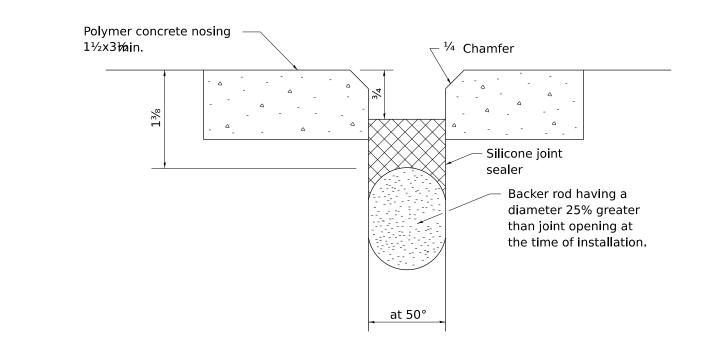




CAST-IN-PLACE REINFORCED CONCRETE END SECTIONS



SILICONE JOINT SEAL (CONCRETE DETAILS)

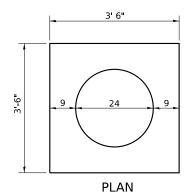


ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

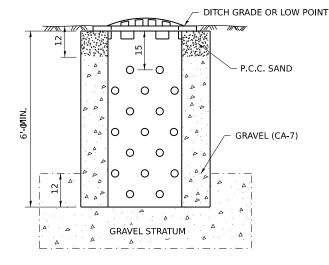
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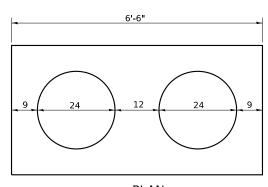
SILICONE JOINT SEAL (CONCRETE DETAILS)

STONE WELLS, SPECIAL



SINGLE STONE WELL





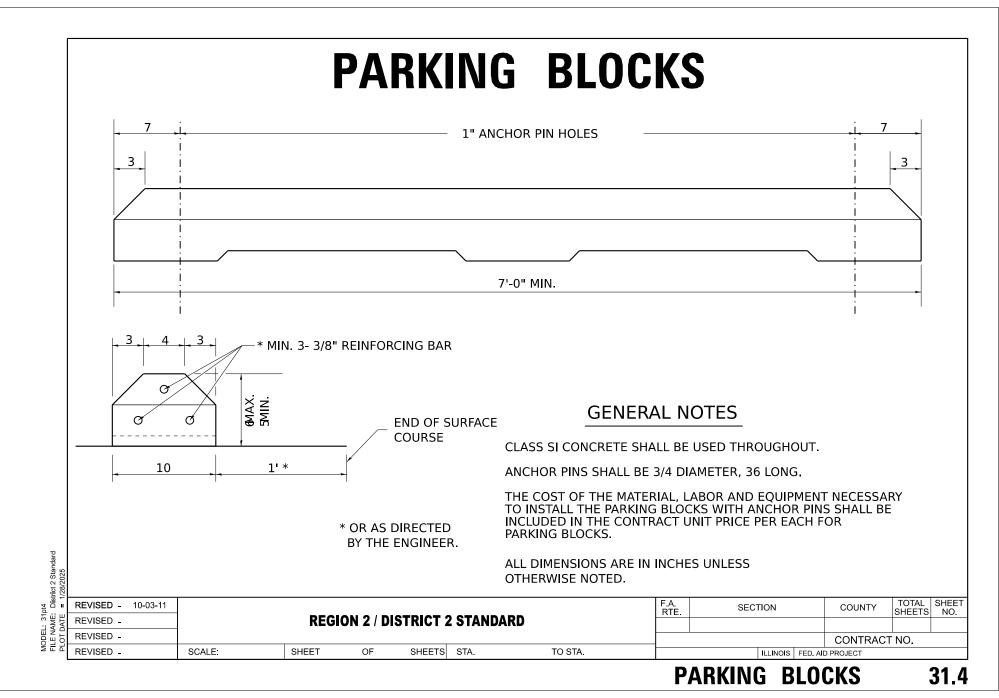
PLAN
DOUBLE STONE WELL

NOTE:

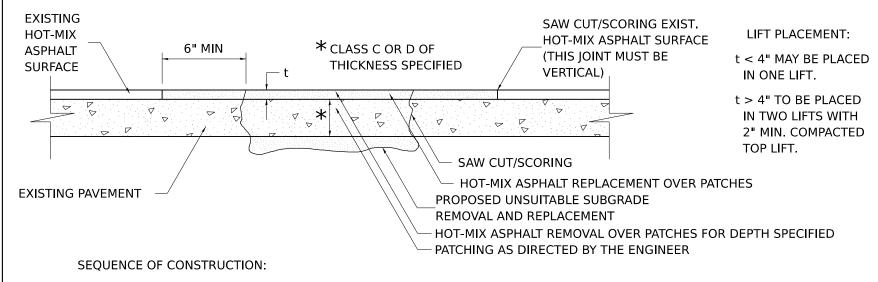
THE INSIDE LINER OF THE STONE WELL SHALL BE A 24 CORRUGATED METAL PIPE OF THE SAME QUALITY AS SPECIFIED FOR PIPE CULVERTS, TYPE I. THE PERFORATIONS SHALL BEGIN 15 FROM THE TOP OF THE STONE WELL AT THE RATE OF 4 HOLES PER SQUARE FOOT. THE SIZE OF THE HOLES SHALL NOT BE LESS THAN 5/16 OR MORE THAN 5/8 DIAMETER. DOUBLE STONE WELL TO BE PAID FOR AS TWO (2) STONE WELLS. STANDARD GRATE TYPE 8 (STD. 604036) WILL BE USED. THE CONTRACT UNIT PRICE FOR STONE WELLS, SPECIAL SHALL INCLUDE ALL MATERIALS AND LABOR FOR THE COMPLETE IN PLACE STONE WELL.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

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PAVEMENT PATCHING FOR HOT-MIX ASPHALT SURFACED PAVEMENT



- 1. REMOVE THE EXISTING HOT-MIX ASPHALT SURFACE.
- 2. RESIDENT ENGINEER WILL DETERMINE IF LOCATION IS TO BE PATCHED OR TO ONLY REPLACE HOT-MIX ASPHALT SURFACE.
- 3. REMOVE AND REPLACE FULL DEPTH PATCHES AT LOCATIONS DIRECTED BY THE ENGINEER.
- 4. REPLACE HOT-MIX ASPHALT SURFACE OVER FULL DEPTH PATCHES AND AT LOCATIONS OF HOT-MIX ASPHALT SURFACE REMOVAL.

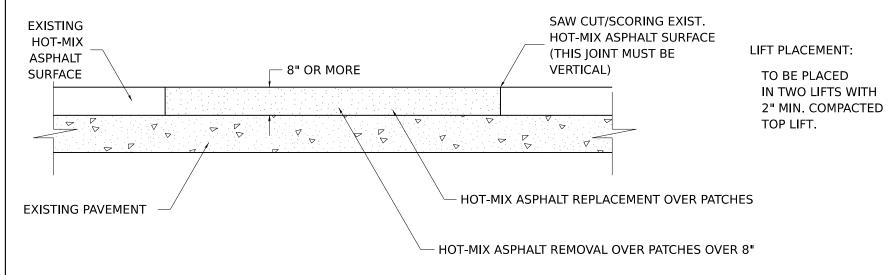
GENERAL NOTES:

1. FOR BASIS OF PAYMENT: SEE THE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

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PAVEMENT PATCHING DETAIL



SEQUENCE OF CONSTRUCTION:

- 1. REMOVE THE EXISTING HOT-MIX ASPHALT SURFACE.
- 2. REPLACE HOT-MIX ASPHALT SURFACE.

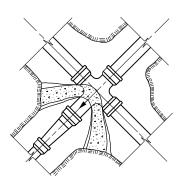
GENERAL NOTES:

1. FOR BASIS OF PAYMENT: SEE THE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

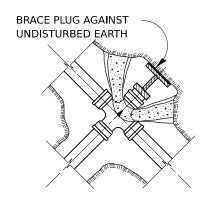
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

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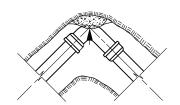
THRUST BLOCK DETAILS



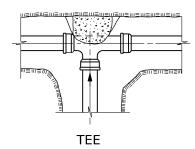
REDUCING CROSS

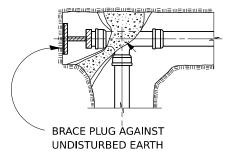


PLUGGED CROSS

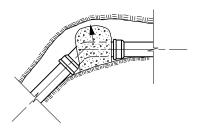


90° ELBOW





PLUGGED TEE



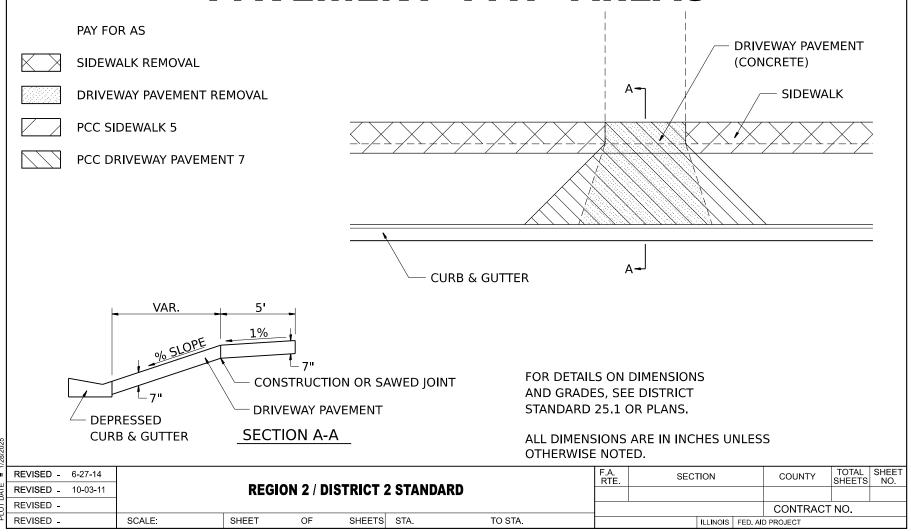
VERTICAL BEND

NOTES: ALL BLOCKS TO BEAR AGAINST UNDISTURBED EARTH. ARROWS INDICATE DIRECTION OF THRUST. ALL BLOCKS TO BE CLASS SI CONCRETE. ALL FITTINGS SHOWN IN PLAN EXCEPT VERTICAL BEND.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

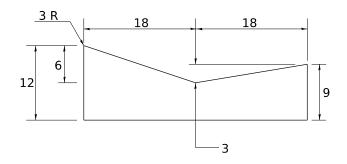
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SIDEWALK AND DRIVEWAY PAVEMENT PAY AREAS



SIDEWALK AND DRIVEWAY PAVEMENT PAY AREAS

CONCRETE GUTTER, TYPE A (SPECIAL)



NOTES:

THIS WORK SHALL BE DONE IN ACCORDANCE WITH THIS DETAIL AND STANDARD 606101 THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR CONCRETE GUTTER, TYPE A (SPECIAL).

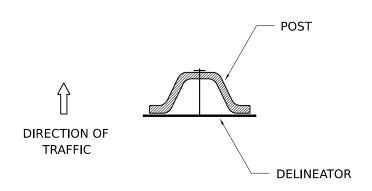
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

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PLOT DATE = 1/28/2025

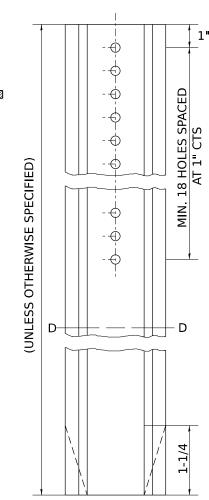
DELINEATOR AND POST ORIENTATION

SECTION D-D



DELINEATORS SHALL BE INSTALLED ACCORDING TO STANDARD 635001 EXCEPT THAT THE POST SHALL BE ROTATED 180°. THE POST WILL HAVE THE WIDE SIDE FACING TRAFFIC AND THE DELINEATOR ATTACHECD AS SHOWN ABOVE.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

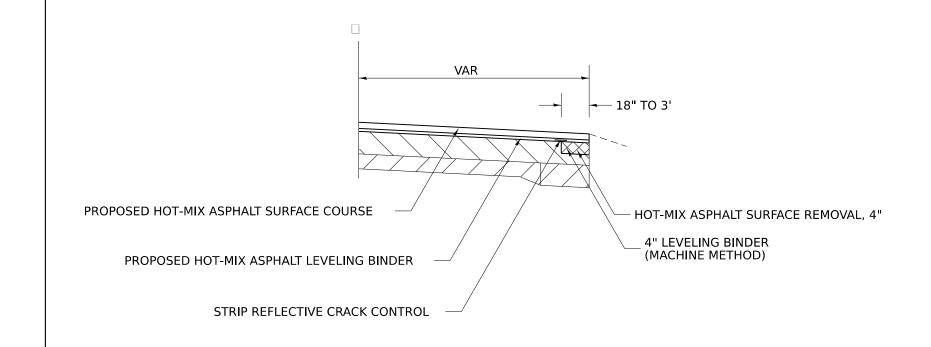


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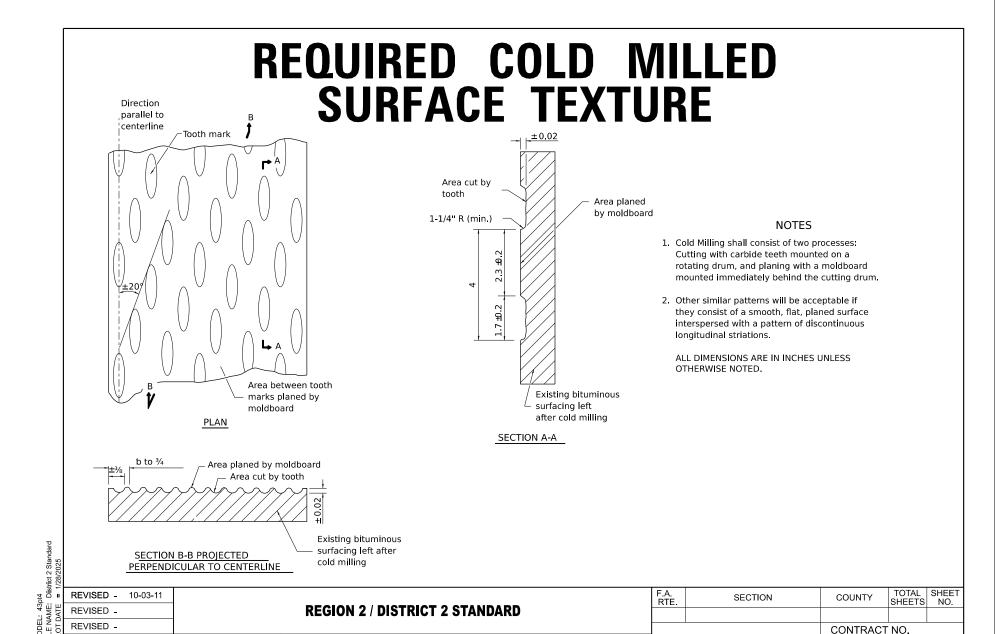
EDGE OF PAVEMENT REPAIR



rrict 2 /28/2													
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EDGE OF PAVEMENT REPAIR

38.4



SHEETS STA.

SCALE:

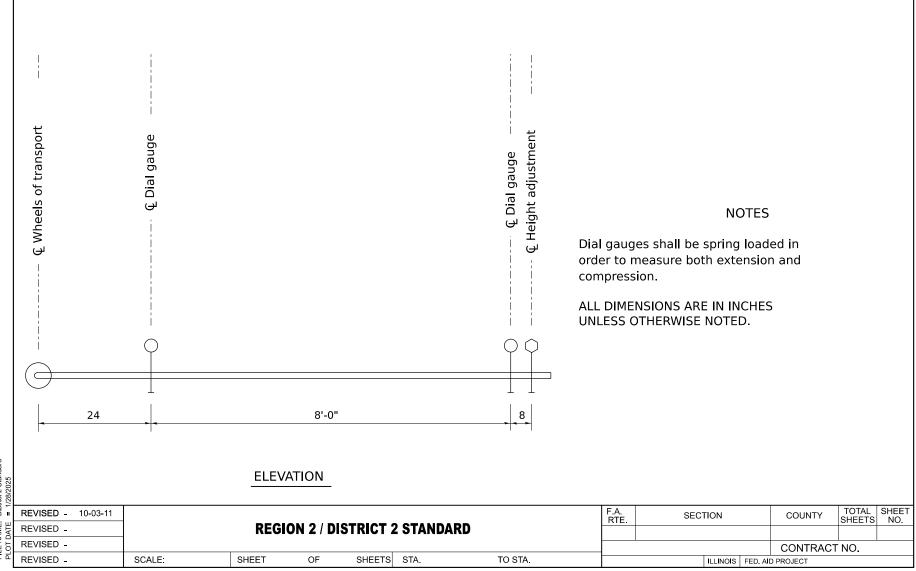
REVISED .

SHEET

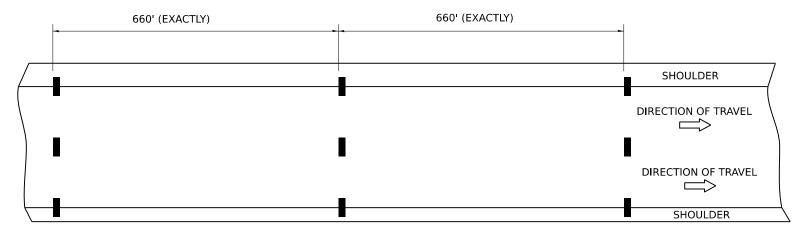
TO STA.

ILLINOIS FED. AID PROJECT

SLAB MOVEMENT DETECTION DEVICE

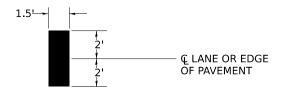


AERIAL SPEED CHECK ZONES



USE THERMOPLASTIC PAVEMENT MARKINGS MEETING THE REQUIREMENTS OF SECTION 782 OF THE STANDARD SPECIFICATIONS.

PAVEMENT MARKING DETAIL



POLICE AERIAL SPEED CHECK ZONES

ESTABLISHED ZONES AND NEW ZONES REQUESTED BY THE ILLINOIS STATE POLICE SHALL BE MARKED CONSISTENT WITH THE REQUIREMENTS OF SECTION 3B.21 OF THE MUTCD. WHEN NEW ZONES ARE PLACED IT WILL BE NECESSARY TO HAVE A REPRESENTATIVE OF THE STATE POLICE PRESENT SO THAT THE ACCURACY OF THE MEASURMENT CAN BE ATTESTED TO IN COURT.

ILLINOIS STATE POLICE

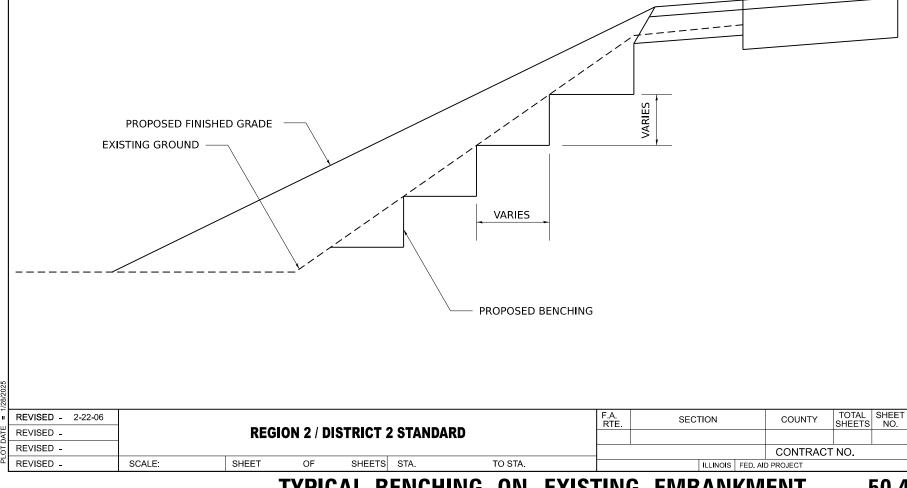
DISTRICT 1 STERLING 815/632-4010 DISTRICT 7 EAST MOLINE 309/752-4915 DISTRICT 16 PECATONICA 815/239-1152 CARROLL, LEE, OGLE, WHITESIDE HENRY, ROCK ISLAND BOONE, JO DAVIESS, STEPHENSON, WINNEBAGO

BASIS OF PAYMENT:

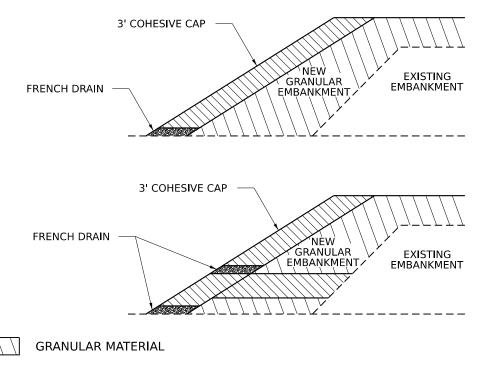
THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR AERIAL SPEED CHECK MARKING.

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	REVISED - 1-05-16		F.A. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TYPICAL CONSTRUCTION OF EMBANKMENTS WITH GRANULAR MATERIAL



COHESIVE MATERIAL

NOTES:

WHEN THE CONTRACTOR ELECTS TO USE A GRANULAR TYPE OF MATERIAL TO CONSTRUCT THE NEW EMBANKEMENT, A 3' THICK COHESIVE MATERIAL WILL BE REQUIRED ON THE SLOPE CONSTRUCTED CONCURRENTLY WITH THE GRANULAR EMBANKMENT LIFTS.

IF THE CONTRACTOR SWITCHES BETWEEN GRANULAR TYPES OF MATERIAL LIFTS AND COHESIVE MATERIAL LIFTS IN THE NEWER EMBANKMENT, FRENCH DRAINS SHALL BE CONSTRUCTED EVERY 250' ACCORDING TO ARTICLE 601.06. THE COST OF MATERIALS AND LABOR WILL BE INCLUDED IN THE CONTRACT UNIT PRICE OF EARTH EXCAVATION.

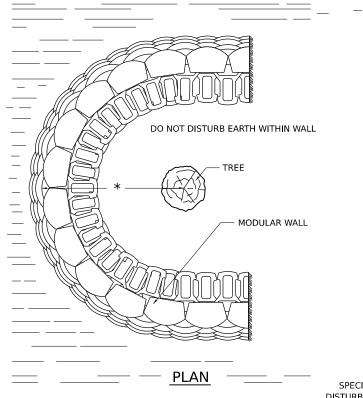


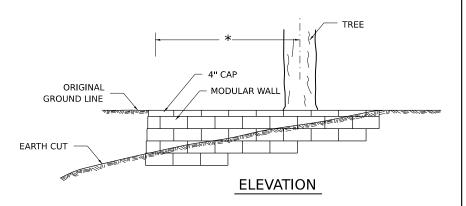
FRENCH DRAIN DETAIL

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TYPICAL CONSTRUCTION OF EMBANKMENTS WITH GRANULAR MATERIAL

TREE WALL





HEIGHT OF WALL DEPENDENT ON SLOPE OF THE CUT.

* THE RADIUS OF THE TREE WALL SHALL BE DETERMINED BY MULTIPLING 6 BY THE DIAMETER OF THE TREE, WITH A MAXIMUM OF A 12 FOOT RADIUS.

USE 8" HIGH BLOCKS EXCEPT WHEN HEIGHT OF WALL IS LESS THAN 24", THEN 4" HIGH BLOCKS SHALL BE USED.

NOTES

SPECIAL CARE SHALL BE TAKEN BY THE CONTRACTOR NOT TO DISTURB THE EARTH OR THE ROOTS WITHIN THE PROPOSED TREE WALL.

THESE TREE WALLS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR "SEGMENTAL CONCRETE BLOCK WALL" INCLUDED IN THIS SHALL BE THE FACE OF THE WALL THAT ARE BURIED.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

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PLOT DATE = 1/28/2025

TREE WALL

DETAIL OF CONCRETE STEPS

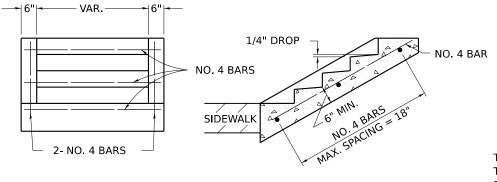


TABLE OF TREADS & RISERS
SLOPE TREAD RISER

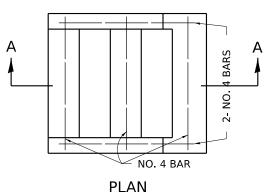
1:2 12" 6" 1:3 15" 5"

1:4 17" 4 1/4"

WHERE SLOPES FALL BETWEEN THOSE SHOWN IN THE TABLE ABOVE, THE STAIR RAIL SHOULD FIT THE SLOPE AND THE TREAD IN INCHES x THE RISER IN INCHES SHOULD BE BETWEEN 72 AND 78.

END ELEVATION

SECTION A-A



EXAMPLE:

FOR A 1:4 SLOPE USE y = RISER HEIGHT $4y = 7^25$ ". SOLVING $y \stackrel{?}{=} 75\frac{5}{4}$, y = 4.3" (USE 4 1/4" FOR CONVENIENCE.)

TREAD WOULD THEN BE 4 1/4" x 4 = 17"

COST OF REINFORCEMENT BARS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LBS FOR REINFORCEMENT BARS.

CLASS SI CONCRETE SHALL BE USED THROUGHTOUT, WHICH SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR CONCRETE STEPS

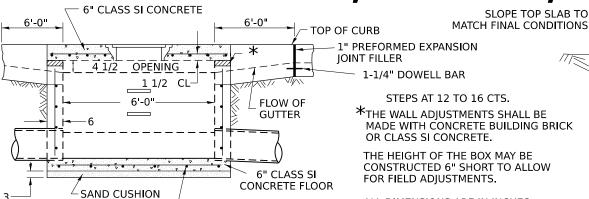
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

= 1	REVISED - 8-27-13							F.A. RTE	SECT	ΓΙΟΝ		COUNTY	TOTAL SHEETS	SHEET NO.
Ä	REVISED _ 10-03-11		REGIO	ON 2 / DIS	STRICT 2	2 STANDARD								
5	REVISED -											CONTRACT	NO.	
리	REVISED -	SCALE:	SHEET	OF	SHEETS	STA.	TO STA.			ILLINOIS	FED. AID	PROJECT		



ALL DIMENSIONS ARE IN INCHES

UNLESS OTHERWISE NOTED.



NO. 4 BARS AT 12" CTS

SHEET

FRONT VIEW

SEE STANDARD 602701 FOR DETAILS OF STEPS.

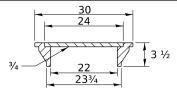
1" PREFORMED EXPANSION JOINTS AS SHOWN SHALL BE PROVIDED ON EACH SIDE OF INLET.

CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED TROUGHOUT.

THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTAL SECTIONS.

REINFORCEMENT FOR INLETS, SPECIAL, NO. 3 SHALL BE ACCORDING TO DISTRICT STANDARD 79.4g

LIGHT WEIGHT MANHOLE CASTING



TOTAL WEIGHT 160 LBS.

SCALE:

NOTES

STEPS SHALL BE OMITTED WHEN DEPTH OF INLET IS LESS THAN 5 FOOT

THE INLET SHALL BE CAST IN PLACE OR PRECAST.

REGION 2 / DISTRICT 2 STANDARD

SHEETS STA.

EXCEPT AS NOTED HEREON INLETS, SPECIAL, NO. 3 SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS.

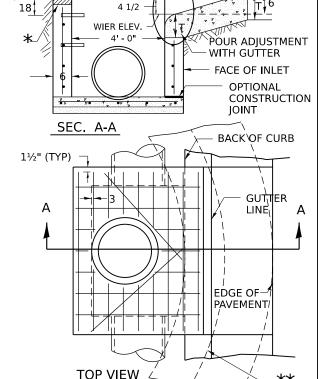
THE CONTRACT UNIT PRICE EACH FOR INLET SPECIAL NO. 3 SHALL INCLUDE THE COST OF FURNISHING AND INSTALLING THE FRAME, LID, REINFORCEMENT BARS, FLOOR AND TOP SLABS, CAST IRON STEPS (IF USED).

THE CURB AND GUTTER WILL BE PAID FOR SEPARATELY AND WILL BE MEASURED THROUGH THE INLET.

THE CURB AND GUTTER ADJACENT TO AND 6 FOOT ON EITHER SIDE OF THE INLET SHALL BE CONSTRUCTED AS SHOWN WITH NO ADDITIONAL COMPENSATION FOR THE TRANSITION.

ALL PIPE UNDERDRAIN CONNECTIONS WHEN SPECIFIED SHALL BE DONE IN ACCORDANCE WITH ART, 601 OF THE STANDARD SPECIFICATIONS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER (FOOT) FOR PIPE UNDERDRAINS, TYPE 2 OR PIPE UNDERDRAINS (SPECIAL) OF THE DIAMETER SPECIFIED WHICH PRICE SHALL INCLUDE THE CAT OR CA16 AND THE CONNECTION TO THE INLET.

TO STA.



6" CLASS SI CONCRETE SLAB

SEE STANDARD 79.4f

CURB & GUTTER

**WHEN INLET IS CONSTRUCTED IN RETURN, THE TOP OF SLAB SHALL CONFORM TO THE RADIUS OF THE RETURN.

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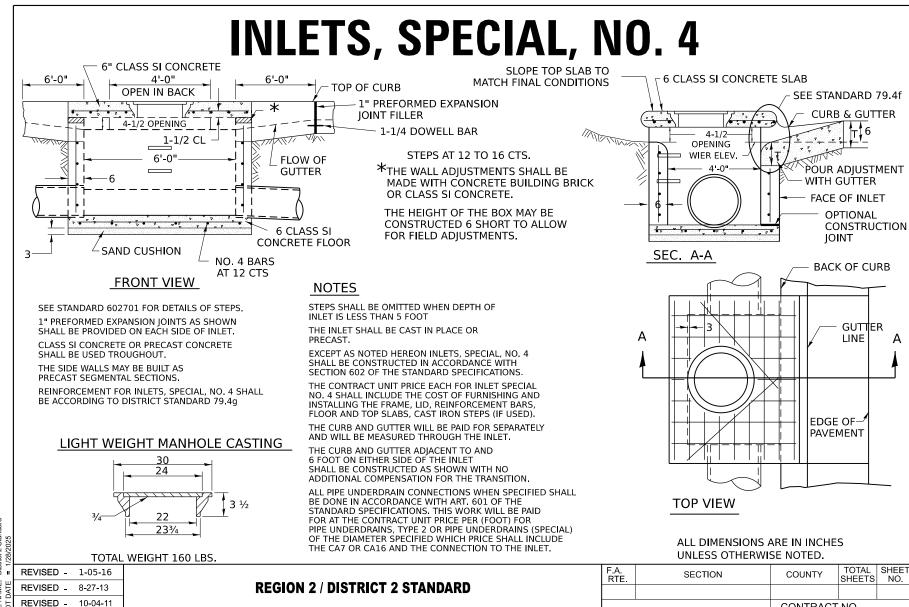
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TO STA.

SHEETS STA.

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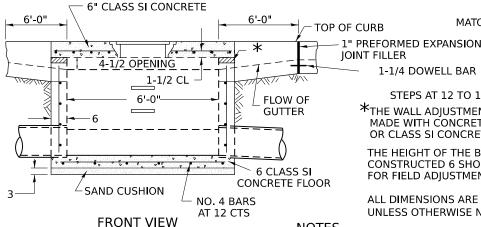
SHEET

SCALE:

CONTRACT NO.

ILLINOIS FED. AID PROJECT





STEPS AT 12 TO 16 CTS.

1-1/4 DOWELL BAR

*THE WALL ADJUSTMENTS SHALL BE MADE WITH CONCRETE BUILDING BRICK OR CLASS SI CONCRETE.

MATCH FINAL CONDITIONS

THE HEIGHT OF THE BOX MAY BE **CONSTRUCTED 6 SHORT TO ALLOW** FOR FIELD ADJUSTMENTS.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

SEE STANDARD 602701 FOR DETAILS OF STEPS.

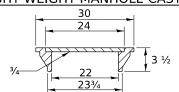
1" PREFORMED EXPANSION JOINTS AS SHOWN SHALL BE PROVIDED ON EACH SIDE OF INLET.

CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED TROUGHOUT.

THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTAL SECTIONS.

REINFORCEMENT FOR INLETS, SPECIAL, NO. 5 SHALL BE ACCORDING TO DISTRICT STANDARD 79.4g

LIGHT WEIGHT MANHOLE CASTING



TOTAL WEIGHT 160 LBS.

NOTES

STEPS SHALL BE OMITTED WHEN DEPTH OF INLET IS LESS THAN 5 FOOT

THE INLET SHALL BE CAST IN PLACE OR PRECAST.

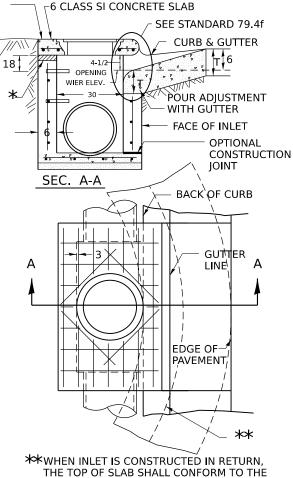
EXCEPT AS NOTED HEREON INLETS, SPECIAL, NO. 5 SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS

THE CONTRACT UNIT PRICE EACH FOR INLET SPECIAL NO. 5 SHALL INCLUDE THE COST OF FURNISHING AND INSTALLING THE FRAME, LID, REINFORCEMENT BARS, FLOOR AND TOP SLABS, CAST IRON STEPS (IF USED).

THE CURB AND GUTTER WILL BE PAID FOR SEPARATELY AND WILL BE MEASURED THROUGH THE INLET.

THE CURB AND GUTTER ADIACENT TO AND 6 FOOT ON EITHER SIDE OF THE INLET SHALL BE CONSTRUCTED AS SHOWN WITH NO ADDITIONAL COMPENSATION FOR THE TRANSITION.

ALL PIPE UNDERDRAIN CONNECTIONS WHEN SPECIFIED SHALL BE DONE IN ACCORDANCE WITH ART, 601 OF THE STANDARD SPECIFICATIONS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER (FOOT) FOR PIPE UNDERDRAINS, TYPE 2 OR PIPE UNDERDRAINS (SPECIAL) OF THE DIAMETER SPECIFIED WHICH PRICE SHALL INCLUDE THE CA7 OR CA16 AND THE CONNECTION TO THE INLET.



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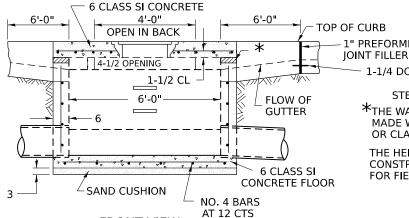
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REGION 2 / DISTRICT 2 STANDARD

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OF CURB MATCH FINAL CONDITIONS

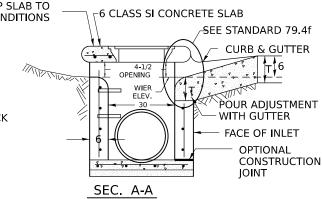
1" PREFORMED EXPANSION
JOINT FILLER

1-1/4 DOWELL BAR

STEPS AT 12 TO 16 CTS.

*THE WALL ADJUSTMENTS SHALL BE MADE WITH CONCRETE BUILDING BRICK OR CLASS SI CONCRETE.

THE HEIGHT OF THE BOX MAY BE CONSTRUCTED 6 SHORT TO ALLOW FOR FIELD ADJUSTMENTS.



FRONT VIEW

SEE STANDARD 602701 FOR DETAILS OF STEPS.

1" PREFORMED EXPANSION JOINTS AS SHOWN SHALL BE PROVIDED ON EACH SIDE OF INLET.

CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED TROUGHOUT.

THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTAL SECTIONS.

REINFORCEMENT FOR INLETS, SPECIAL, NO. 6 SHALL BE ACCORDING TO DISTRICT STANDARD 79.4g

NOTES

STEPS SHALL BE OMITTED WHEN DEPTH OF INLET IS LESS THAN 5 FOOT

THE INLET SHALL BE CAST IN PLACE OR PRECAST.

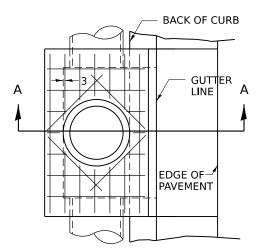
EXCEPT AS NOTED HEREON INLETS, SPECIAL, NO. 6 SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS.

THE CONTRACT UNIT PRICE EACH FOR INLET SPECIAL NO. 6 SHALL INCLUDE THE COST OF FURNISHING AND INSTALLING THE FRAME, LID, REINFORCEMENT BARS, FLOOR AND TOP SLABS, CAST IRON STEPS (IF USED).

THE CURB AND GUTTER WILL BE PAID FOR SEPARATELY AND WILL BE MEASURED THROUGH THE INLET.

THE CURB AND GUTTER ADJACENT TO AND 6 FOOT ON EITHER SIDE OF THE INLET SHALL BE CONSTRUCTED AS SHOWN WITH NO ADDITIONAL COMPENSATION FOR THE TRANSITION.

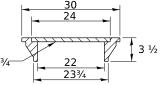
ALL PIPE UNDERDRAIN CONNECTIONS WHEN SPECIFIED SHALL BE DONE IN ACCORDANCE WITH ART. 601 OF THE STANDARD SPECIFICATIONS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER (FOOT) FOR PIPE UNDERDRAINS, TYPE 2 OR PIPE UNDERDRAINS (SPECIAL) OF THE DIAMETER SPECIFIED WHICH PRICE SHALL INCLUDE THE CAT OR CA16 AND THE CONNECTION TO THE INLET.



TOP VIEW

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

LIGHT	WEIGHT	MANHOLE	CASTING
		20	



TOTAL	WEIGHT	160	LBS
1-05-16			
8-27-13			

SCALE:

REGION 2 / DISTRICT 2 STANDARD EET OF SHEETS STA. TO STA.

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10-05-11



1-1/2 CL 6'-0' FLOW OF **GUTTER** 6 CLASS SI CONCRETE FLOOR SAND CUSHION NO. 4 BARS AT 12 CTS

STEPS AT 12 TO 16 CTS.

*THE WALL ADJUSTMENTS SHALL BE MADE WITH CONCRETE BUILDING BRICK OR CLASS SI CONCRETE.

THE HEIGHT OF THE BOX MAY BE **CONSTRUCTED 6 SHORT TO ALLOW** FOR FIELD ADJUSTMENTS.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

FRONT VIEW

SEE STANDARD 602701 FOR DETAILS OF STEPS.

1" PREFORMED EXPANSION IOINTS AS SHOWN SHALL BE PROVIDED ON EACH SIDE OF INLET.

CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED TROUGHOUT.

THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTAL SECTIONS.

REINFORCEMENT FOR INLETS, SPECIAL, NO. 7 SHALL BE ACCORDING TO DISTRICT STANDARD 79.4h

LIGHT WEIGHT MANHOLE CASTING

24

NOTES

STEPS SHALL BE OMITTED WHEN DEPTH OF **INLET IS LESS THAN 5 FOOT**

THE INLET SHALL BE CAST IN PLACE OR PRECAST.

EXCEPT AS NOTED HEREON INLETS, SPECIAL, NO. 7 SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS.

THE CONTRACT UNIT PRICE EACH FOR INLET SPECIAL NO. 7 SHALL INCLUDE THE COST OF FURNISHING AND INSTALLING THE FRAME, LID, REINFORCEMENT BARS, FLOOR AND TOP SLABS, CAST IRON STEPS (IF USED).

THE CURB AND GUTTER WILL BE PAID FOR SEPARATELY AND WILL BE MEASURED THROUGH THE INLET.

THE CURB AND GUTTER ADJACENT TO AND 6 FOOT ON EITHER SIDE OF THE INLET SHALL BE CONSTRUCTED AS SHOWN WITH NO ADDITIONAL COMPENSATION FOR THE TRANSITION.

ALL PIPE UNDERDRAIN CONNECTIONS WHEN SPECIFIED SHALL BE DONE IN ACCORDANCE WITH ART, 601 OF THE STANDARD SPECIFICATIONS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER (FOOT) FOR PE 2 OR PIPE UNDERDRAINS (SPECIAL) CIFIED WHICH PRICE SHALL INCLUDE THE CONNECTION TO THE INLET.

SEC. A-A BACK\OF CURB EDGE OF-PAVEMENT **TOP VIEW**

OPENING WIER ELEV.

5'-0"

★★WHEN INLET IS CONSTRUCTED IN RETURN. THE TOP OF SLAB SHALL CONFORM TO THE RADIUS OF THE RETURN.

233/4	PIPE UNDERDRAINS, TYP
	OF THE DIAMETER SPEC
TOTAL WEIGHT 160 LBS.	THE CA7 OR CA16 AND

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REVISED - 10-05-11	
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REGION 2 / DISTRICT 2 STANDARD

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F.A. RTE	SECT	ΓΙΟΝ		COUNTY TOTAL SHE						
			CONTRACT	NO.						
		ILLINOIS	PROJECT							

SEE STANDARD 79.4f

CURB & GUTTER

`POUR ADIUSTMENT

WITH GUTTER

JOINT

FACE OF INLET

OPTIONAL

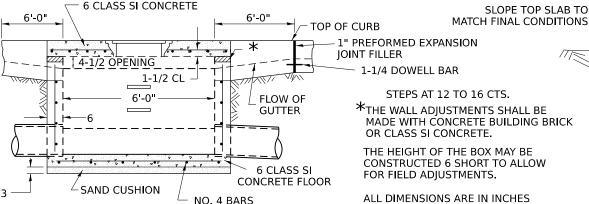
CONSTRUCTION

GUTHER.

LINE



UNLESS OTHERWISE NOTED.



AT 12 CTS

NOTES

SEE STANDARD 602701 FOR DETAILS OF STEPS.

FRONT VIEW

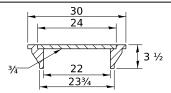
1" PREFORMED EXPANSION JOINTS AS SHOWN SHALL BE PROVIDED ON EACH SIDE OF INLET.

CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED TROUGHOUT.

THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTAL SECTIONS.

REINFORCEMENT FOR INLETS, SPECIAL, NO. 8 SHALL BE ACCORDING TO DISTRICT STANDARD 79.4h

LIGHT WEIGHT MANHOLE CASTING



TOTAL WEIGHT 160 LBS

STEPS SHALL BE OMITTED WHEN DEPTH OF INLET IS LESS THAN 5 FOOT

THE INLET SHALL BE CAST IN PLACE OR PRECAST.

EXCEPT AS NOTED HEREON INLETS, SPECIAL, NO. 8 SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS.

THE CONTRACT UNIT PRICE EACH FOR INLET SPECIAL NO. 8 SHALL INCLUDE THE COST OF FURNISHING AND INSTALLING THE FRAME, LID, REINFORCEMENT BARS, FLOOR AND TOP SLABS, CAST IRON STEPS (IF USED).

THE CURB AND GUTTER WILL BE PAID FOR SEPARATELY AND WILL BE MEASURED THROUGH THE INLET.

THE CURB AND GUTTER ADJACENT TO AND 6 FOOT ON EITHER SIDE OF THE INLET SHALL BE CONSTRUCTED AS SHOWN WITH NO ADDITIONAL COMPENSATION FOR THE TRANSITION.

ALL PIPE UNDERDRAIN CONNECTIONS WHEN SPECIFIED SHALL BE DONE IN ACCORDANCE WITH ART. 601 OF THE STANDARD SPECIFICATIONS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER (FOOT) FOR PIPE UNDERDRAINS, TYPE 2 OR PIPE UNDERDRAINS (SPECIAL) OF THE DIAMETER SPECIFIED WHICH PRICE SHALL INCLUDE THE CA7 OR CA16 AND THE CONNECTION TO THE INLET.

18 4-1/2 **OPENING** WIER ELEV. 6'-0'' `POUR ADIUSTMENT WITH GUTTER FACE OF INLET **OPTIONAL** CONSTRUCTION IOINT SEC. A-A BACK\OF CURB GUTHER. 3 LINE EDGE OF-PAVEMENT **TOP VIEW**

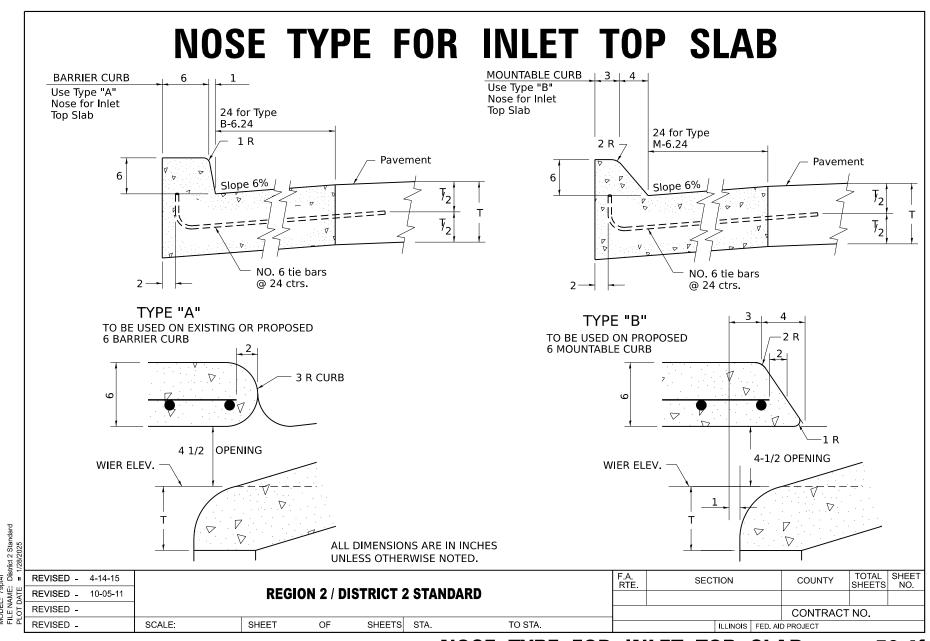
-6 CLASS SI CONCRETE SLAB

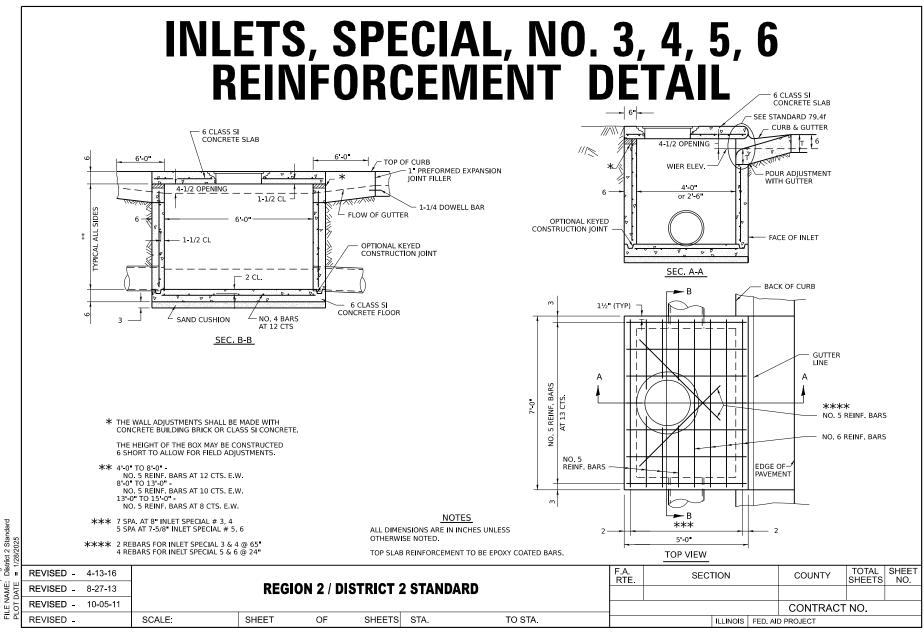
SEE STANDARD 79.4f

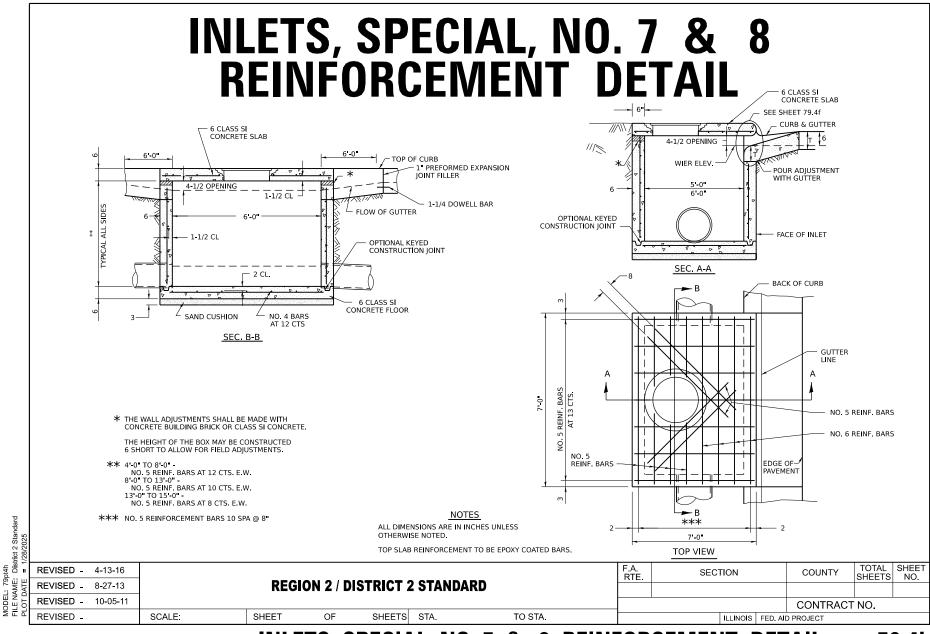
CURB & GUTTER

★★WHEN INLET IS CONSTRUCTED IN RETURN, THE TOP OF SLAB SHALL CONFORM TO THE RADIUS OF THE RETURN.

IOIAL	WEIGHT 100 LDS.										
REVISED - 1-05-16							F.A. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
REVISED - 8-27-13		REGIO	N 2 / DIS	STRICT 2				011211			
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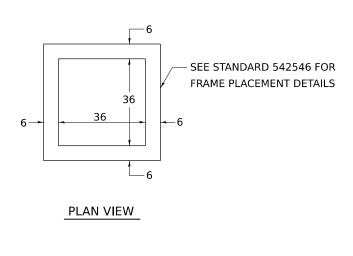


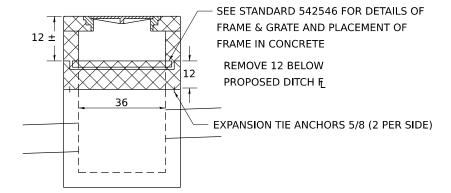




INLETS, SPECIAL, NO. 7 & 8 REINFORCEMENT DETAIL

INLETS TO BE RECONSTRUCTED WITH NEW STANDARD 542546 FRAME AND GRATE





NOTES:

THIS WORK SHALL BE DONE IN ACCORDANCE WITH STANDARD 542546 AND THIS DETAIL.

CLASS SI CONCRETE SHALL BE USED THROUGHOUT. THE PROPOSED TOP CAN BE CAST IN PLACE OR PRECAST.

THE EXISTING FRAME & GRATE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

THE CONCRETE SHALL BE REMOVED BY DRILLING, CHIPPING, SAWING, OR OTHER METHOD APPROVED OF BY THE ENGINEER.

THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR INLETS TO BE RECONSTRUCTED WITH NEW STANDARD 542546 FRAME AND GRATE WHICH SHALL INCLUDE REMOVING THE FRAME & GRATE & CONCRETE, EXPANSION TIE ANCHORS, CLASS SI CONCRETE, AND FURNISHING & INSTALLING FRAME & GRATE (EITHER STEEL OR DUCTILE IRON).

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

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ILE N	REVISED -											CONTRACT	NO.	
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GRATE, SPECIAL A -**FLOW DIRECTION** 173/4 173/4 **SECTION A-A** 35 1/4 ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED. PLAN VIEW OF CAST IRON GRATE 1-3/8 DIAGONAL BARS WITH 1-1/4 OPENINGS **NOTES** THE CONTRACTOR SHALL FIELD CHECK THIS WORK SHALL BE PAID FOR AT THE THE EXISTING GRATES ARE TO BE SALVAGED THE SIZE OF THE EXISTING GRATE CONTRACT UNIT PRICE PER EACH FOR AND TO BECOME THE PROPERTY OF THE BEFORE ORDERING THE NEW GRATE SPECIAL GRATE NO. 1. TO INSURE THE CORRECT SIZE. TOTAL SHEET SHEETS NO. REVISED - 10-05-11 SECTION COUNTY **REGION 2 / DISTRICT 2 STANDARD** REVISED -REVISED -CONTRACT NO.

SHEETS STA.

TO STA.

MODEL: 83pt4
FILE NAME: District 2 Stand

REVISED -

SCALE:

GRATE SPECIAL

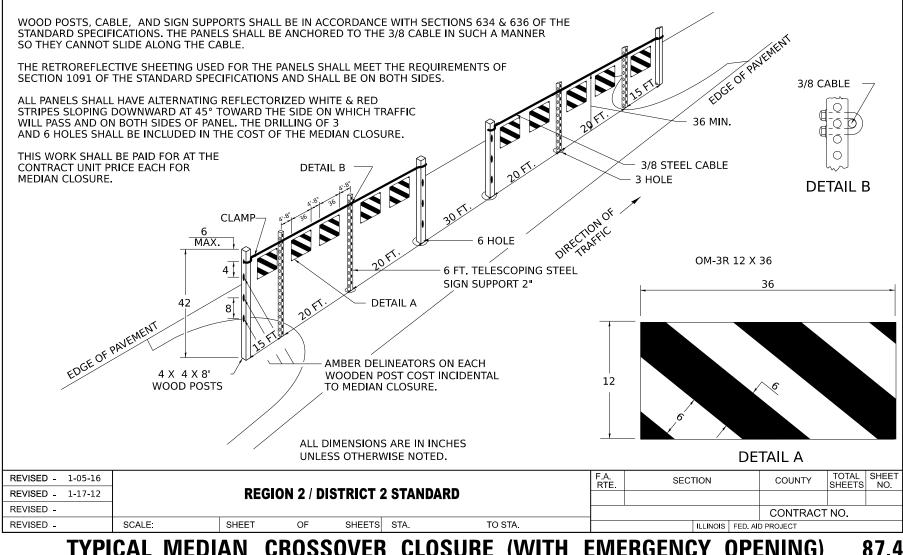
ILLINOIS FED. AID PROJECT

83.4

TYPICAL MEDIAN CROSSOVER CLOSURE

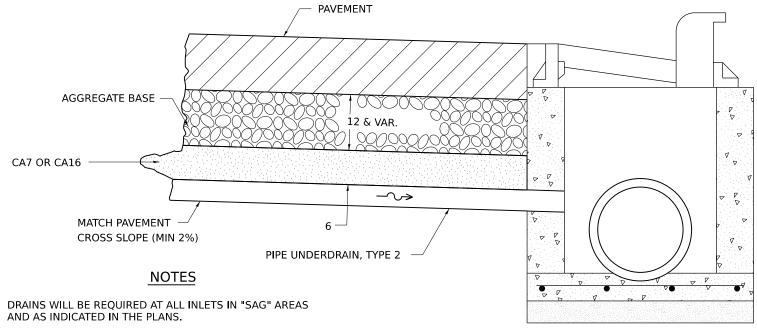
GENERAL NOTES

(WITH EMERGENCY OPENING)



TYPICAL MEDIAN CROSSOVER CLOSURE (WITH EMERGENCY OPENING)

DRAIN FOR AGGREGATE BASES IN URBAN AREAS



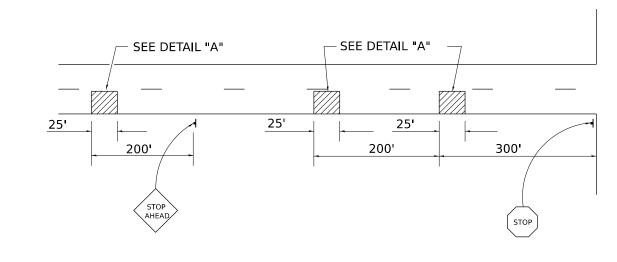
THIS WORK SHALL BE COMPLETED ACCORDING TO SECTION 601 OF THE STANDARD SPECIFICATIONS.

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR PIPE UNDERDRAINS, TYPE 2 OF THE DIAMETER SPECIFIED WHICH PRICE SHALL INCLUDE THE CA7 OR CA16 AND THE CONNECTION TO THE INLET.

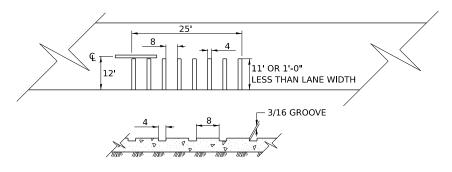
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

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RUMBLE RESURFACING



GROOVED



DETAIL "A"

NOTES

THE GROOVES SHALL BE CONSTRUCTED WITH A MILLING MACHINE CAPABLE OF COLD MILLING THE EXISTING SURFACE IN THE PATTERN SHOWN.

RUMBLE RESURFACING SHALL BE MEASURED FOR PAYMENT IN PLACE AND THE AREA COMPUTED IN SQUARE YARDS. THE LENGTH SHALL BE THE DISTANCE FROM OUTSIDE EDGE TO OUTSIDE EDGE OF THE GROOVE WHICH WILL BE APPROXIMATELY 25'. THE WIDTH SHALL BE 1' LESS THAN LANE WIDTH.

RUMBLE STRIPS SHALL BE CONSTRUCTED AS SHOWN AND PAID FOR PER SQUARE YARD AS RUMBLE RESURFACING.

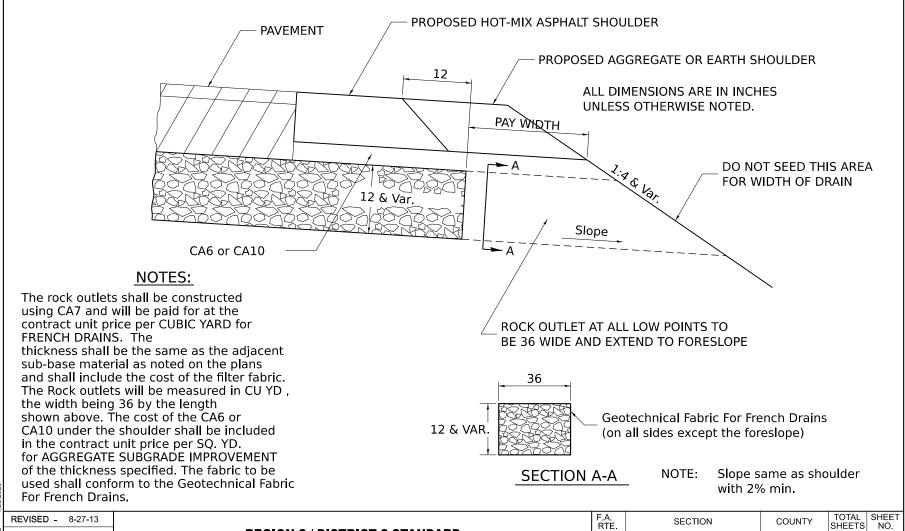
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

/2		OTHERWISE NOTES.												
=	REVISED - 10-05-11				ISTRICT 2	F.A. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.				
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RUMBLE RESURFACING

91.4

DRAIN FOR AGGREGATE BASE COURSE



REGION 2 / DISTRICT 2 STANDARD

SHEETS STA.

MODEL: 96pt4 FILE NAME: District 2 Stand

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REVISED -

REVISED -

10-09-12

SCALE:

SHEET

DRAIN FOR AGGREGATE BASE COURSE

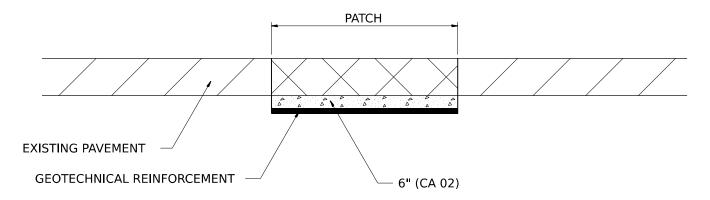
TO STA.

96.4

CONTRACT NO.

ILLINOIS FED. AID PROJECT

SUBGRADE REPLACEMENT



NOTES:

THE CA 02 SHALL BE COMPACTED IN A MANNER APPROVED BY THE ENGINEER. IF THE MOISTURE CONTENT OF THE MATERIAL IS SUCH THAT COMPACTION SATISFACTORY TO THE ENGINEER CANNOT BE OBTAINED, SUFFICIENT WATER SHALL BE ADDED SO THAT SATISFACTORY COMPACTION CAN BE OBTAINED.

THE CA 02 SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CU YD FOR AGGREGATE SUBGRADE IMPROVEMENT WHICH SHALL ALSO INCLUDE ALL EARTH EXCAVATION.

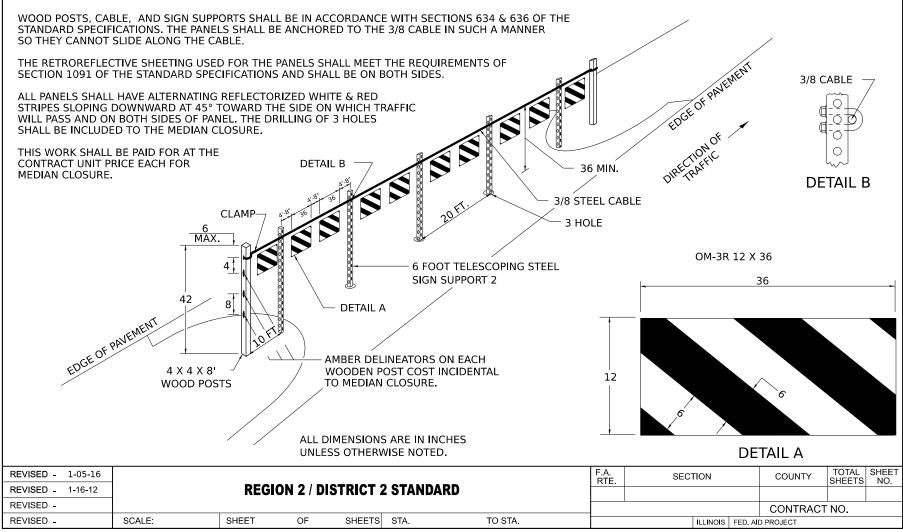
THE GEOTECHNICAL REINFORCEMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQ YD FOR GEOTECHNICAL REINFORCEMENT.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

=	REVISED - 3-13-13		F.A. RTE.	SECT	ION		COUNTY	TOTAL SHEETS	SHEET NO.							
ATE	REVISED -		REGION 2 / DISTRICT 2 STANDARD										0			
	REVISED -										CONTRACT NO.					
리	REVISED -	SCALE:	SHEET	OF	SHEETS	STA.	TO STA.		ILLINOIS FED. AID PROJECT							

TYPICAL MEDIAN CROSSOVER CLOSURE

GENERAL NOTES



TYPICAL MEDIAN CROSSOVER CLOSURE