PAVEMENT DETAILS

AVONDALE HEIGHTS PLAT NINE

95-7230S

MAY 12,2003

Sidewalk at Back of Curb

STRAIGHT CURB RAMP – 6" VERTICAL CURB
(TYPE 1)

Treetown at Back of Curb

STRAIGHT CURB RAMP – 6" VERTICAL CURB
(TYPE 2)

TYPE 1 AND TYPE 2 CURB RAMPS	
"X" GRADE ALONG CURB (%)	MIN. LENGTH OF RAMP SLOPE (L.F.)
NEGATIVE (–) VALUES	
0 TO +1	5
+1.01 TO +2	6
+2.01 TO +3	10
+3.01 TO +4	12
GREATER THAN +4	15

NOTE: Positive (+)"X"- Proceeding away from intersection and up a grade.

Negative (–)"X"- Proceeding away from intersection and down a grade.

Treetown at Back of Curb

STRAIGHT CURB RAMP – 3" ROLLED CURB
(TYPE 3)

TYPE 3 CURB RAMP	
"X" GRADE ALONG CURB (%)	MIN. LENGTH OF RAMP SLOPE (L.F.)
NEGATIVE (–) VALUES	3
0 to +2	4
+2.01 to +3	5
+3.01 to +4	6
+4.01 to +5	8
+5.01 to +6	11
GREATER THAN +6	15

NOTE: Positive (+)"X"- Proceeding away from intersection and up a grade.

Negative (–)"X"- Proceeding away from intersection and down a grade.

GENERAL NOTES

1. Do not scale drawing. Follow dimensions.
2. Sidewalks and sidewalk curb ramps shall be constructed in accordance with these details and the current approved Americans with Disabilities Act Accessibility Guidelines" (ADAAG).
3. Provide a landing at the top of each straight ramp (Type 1, 2, 3, 8, 9, 10) that is at least 4'-0" x 4'-0" (1.22 m x 1.22 m). Up to a maximum grade of 2% including all negative (–) values, no landing is required.
4. Minimum sidewalk width along 6" vertical curb shall be 5 feet. Minimum sidewalk width along 3" rolled curb shall be 4 feet.
5. Maximum sidewalk cross slope 0.02"/ft.
6. All sidewalk sections shall be 6" thick, except where indicated on 7" thick to shaded portions shown on details. All sidewalk sections and curb ramps, regardless of thickness, shall be paid for as "Concrete Sidewalk".
7. Where curb ramp meets pavement, bullnose will not be permitted.
8. Contained, a diagonal ramp when the minimum corner radius allowed for a straight ramp is exceeded.
9. If monolithic concrete curb is constructed, strike a dummy joint across bottom of ramp at curb line. If concrete curb is doweled-in, block out pavement to provide full depth curb across ramp from outer point of curb taper to outer point of curb taper.
10. For sidewalk locations on Cul-De-Sacs, refer to Pavement Construction Details".
11. For pavement longitudinal and transverse joints and dowel bar requirements and dimensions, refer to the "Integral Curb Pavement Typical Sections and Details" Std. Dwg. C60.03.
12. For roadway cross slopes, pavement types, and thickness, refer to "Standard Typical Section".
13. All curb ramps shall have a detectable warning complying with "Americans with Disabilities Act Accessibility Guidelines" (ADAAG).

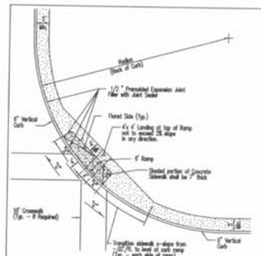
SAINT CHARLES COUNTY
HIGHWAY DEPARTMENT
ST. CHARLES, MISSOURI

PAVEMENT CONSTRUCTION DETAILS

CONCRETE SIDEWALK AND CURB RAMPS

DATE: June, 2002

DRAWING C608.10

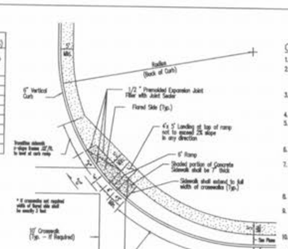


DIAGONAL CURB RAMP – 6" VERTICAL CURB
(TYPE 4)

TYPE 4 AND TYPE 5 CURB RAMPS (WHERE PEDESTRIANS CAN WALK ACROSS RAMPS)	
"X" GRADE ALONG CURB THROUGH ROUNDING (%)	"Y" LENGTH OF FLARED SIDE ALONG CURB (L.F.)
NEGATIVE(–)VALUES	5
0 TO +1	6
+1.01 TO +2	7
+2.01 TO +3	8
+3.01 TO +4	9
+4.01 TO +5	10
+5.01 TO +6	13
GREATER THAN +6	15

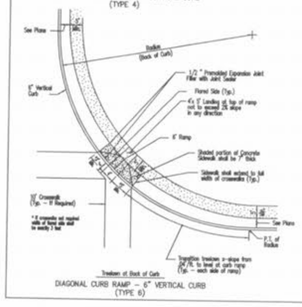
NOTE: Positive (+) "X"- Proceeding away from ramp and up a grade.

Negative (–) "X"- Proceeding away from ramp and down a grade.



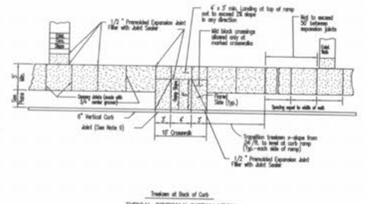
Combination of Sidewalk at Back of Curb and Treetown at Back of Curb

DIAGONAL CURB RAMP – 6" VERTICAL CURB
(TYPE 5)



Treetown at Back of Curb

DIAGONAL CURB RAMP – 6" VERTICAL CURB
(TYPE 6)



Treetown at Back of Curb

TYPICAL SIDEWALK INSTALLATION
(WITH MIDBLOCK CURB RAMP – TYPE 7)

GENERAL NOTES

1. Do not scale drawing. Follow dimensions.
2. Sidewalks and sidewalk curb ramps shall be constructed in accordance with these details and the current approved "Americans with Disabilities Act Accessibility Guidelines" (ADAAG).
3. Minimum sidewalk width along 6" vertical curb shall be 5 feet. Minimum sidewalk width along 3" rolled curb shall be 4 feet.
4. Maximum sidewalk cross slope 0.02"/ft.
5. All sidewalk sections shall be 6" thick, except where indicated on 7" thick to shaded portions shown on details. All sidewalk sections and curb ramps, regardless of thickness, shall be paid for as "Concrete Sidewalk".
6. Where curb ramp meets pavement, bullnose will not be permitted.
7. If monolithic concrete curb is constructed, strike a dummy joint across bottom of ramp at curb line. If concrete curb is doweled-in, block out pavement to provide full depth curb across ramp from outer point of curb taper to outer point of curb taper.
8. For sidewalk locations on Cul-De-Sacs, refer to "Pavement Construction Details".
9. For pavement longitudinal and transverse joints and dowel bar requirements and dimensions, refer to the "Integral Curb Pavement Typical Sections and Details" Std. Dwg. C60.03.
10. For roadway cross slopes, pavement types, and thickness, refer to "Standard Typical Section".
11. The intersection of two sidewalks or the intersection of a sidewalk and a driveway may serve as a wheelchair passing space on sidewalks less than 5 feet wide.
12. All curb ramps shall have a detectable warning complying with "Americans with Disabilities Act Accessibility Guidelines" (ADAAG).

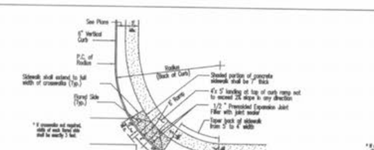
SAINT CHARLES COUNTY
HIGHWAY DEPARTMENT
ST. CHARLES, MISSOURI

PAVEMENT CONSTRUCTION DETAILS

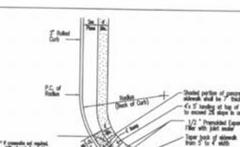
CONCRETE SIDEWALK AND CURB RAMPS

DATE: June, 2002

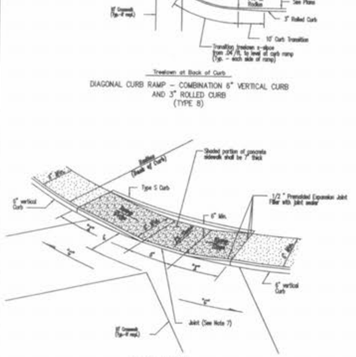
DRAWING C608.11



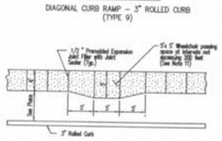
DIAGONAL CURB RAMP – COMBINATION 6" VERTICAL CURB AND 3" ROLLED CURB
(TYPE 8)



DIAGONAL CURB RAMP – 3" ROLLED CURB
(TYPE 9)



PARALLEL CURB RAMP – 6" VERTICAL CURB
(TYPE 10)
(WHERE PASSAGE BEHIND RAMP CANNOT BE CONSTRUCTED DUE TO SITE INFEASIBILITY)



WHEELCHAIR PASSING SPACE – 4' SIDEWALK WITH 3" ROLLED CURB

TYPE 10 CURB RAMP	
"X" GRADE ALONG CURB THROUGH ROUNDING (%)	"Y" LENGTH OF FLARED SIDE ALONG CURB (L.F.)
NEGATIVE (–) VALUES	5
0 TO +1	6
+1.01 TO +2	7
+2.01 TO +3	10
+3.01 TO +4	12
GREATER THAN +4	15

NOTE: Positive (+) "X"- Proceeding away from ramp and up a grade.

Negative (–) "X"- Proceeding away from ramp and down a grade.

SAINT CHARLES COUNTY
HIGHWAY DEPARTMENT
ST. CHARLES, MISSOURI

PAVEMENT CONSTRUCTION DETAILS

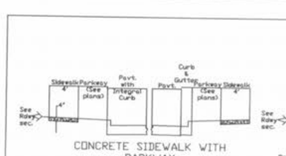
CONCRETE SIDEWALK AND CURB RAMPS

DATE: June, 2002

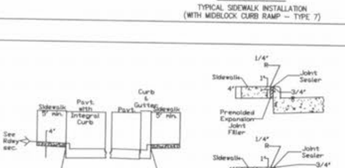
DRAWING C608.12

GENERAL NOTES

1. Do not scale drawing. Follow dimensions.
2. Sidewalk cross slope 0.02"/Ft.
3. Sidewalk thickness increases to 6" on each side of Private Driveways and 7" on each side of Commercial Driveways. For one section of sidewalk equal in length to the width of the sidewalk. See "Entrance Construction Details".
4. Sidewalk thru private and commercial driveways will be paid for as 6" and 7" approaches, see "Integral Curb Detail 'B' At Driveways"
5. For sidewalk locations on Cul-De-Sacs see "Pavement Construction Details".
6. For longitudinal and transverse joints, dowel, and tie bar requirements and dimensions refer to the "Integral Curb Pavement Typical Sections and Details"
7. All necessary pavement by St. Charles County.
8. For roadway cross slopes, pavement types, and thickness, refer to "Standard Typical Section".
9. See "Integral Curb Detail 'B' at Driveways" for prenoled expansion joint requirements.

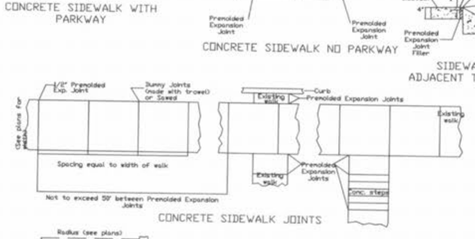


CONCRETE SIDEWALK WITH PARKWAY

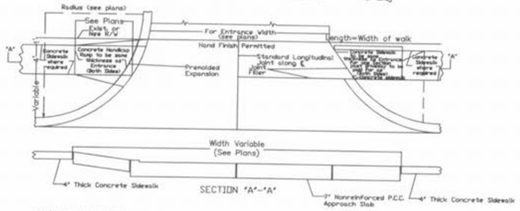


CONCRETE SIDEWALK NO PARKWAY

SIDEWALK ADJACENT TO CURB



CONCRETE SIDEWALK JOINTS



CONCRETE SIDEWALK AND HANDICAP RAMP AT COMMERCIAL ENTRANCE

CONCRETE SIDEWALK THRU COMMERCIAL ENTRANCE

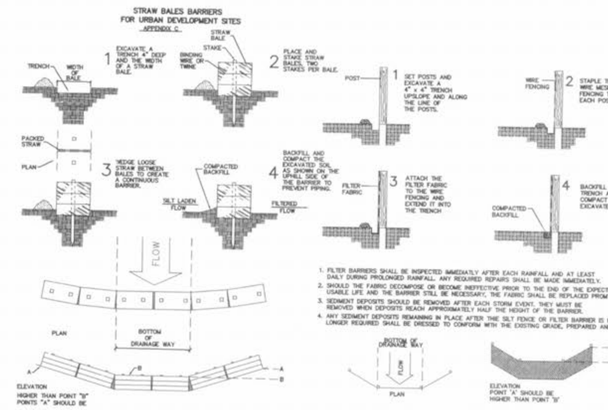
SAINT CHARLES COUNTY
HIGHWAY DEPARTMENT
ST. CHARLES, MISSOURI

CONCRETE SIDEWALK

DATE: October, 2002

DRAWING C608.14

STRAW BALES BARRIERS FOR URBAN DEVELOPMENT SITES

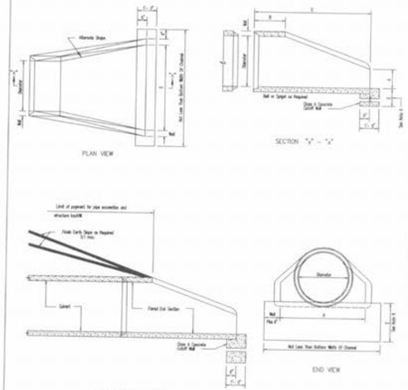


1. FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
2. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
3. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY HALF THE HEIGHT OF THE BARRIER.
4. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEEDED.

PLACEMENT AND CONSTRUCTION OF A STRAW BALE BARRIER

SILTATION FENCE DETAIL

NOT TO SCALE



PLAN VIEW

SECTION "X" – "X"

DIMENSIONS					
Dia	Rad	X	Diag	Y	Z
12"	6"	1'-0"	1'-5"	1'-0"	1'-0"
15"	7.5"	1'-3"	1'-9"	1'-3"	1'-3"
18"	9"	1'-6"	2'-1"	1'-6"	1'-6"
21"	10.5"	1'-9"	2'-5"	1'-9"	1'-9"
24"	12"	2'-0"	2'-9"	2'-0"	2'-0"
27"	13.5"	2'-3"	3'-1"	2'-3"	2'-3"
30"	15"	2'-6"	3'-5"	2'-6"	2'-6"
33"	16.5"	2'-9"	3'-9"	2'-9"	2'-9"
36"	18"	3'-0"	4'-1"	3'-0"	3'-0"
42"	21"	3'-6"	4'-9"	3'-6"	3'-6"
48"	24"	4'-0"	5'-5"	4'-0"	4'-0"
54"	27"	4'-6"	6'-1"	4'-6"	4'-6"
60"	30"	5'-0"	6'-9"	5'-0"	5'-0"
66"	33"	5'-6"	7'-5"	5'-6"	5'-6"
72"	36"	6'-0"	8'-1"	6'-0"	6'-0"

GENERAL NOTES

1. Do not scale drawing. Follow dimensions.
2. Slope paving shall be placed on undisturbed soil (fill slope shall not be placed on fill material for safety).
3. Length of wing will be controlled in precast concrete headwalls.
4. Cutoff Wall may be cast-in-place or precast.
5. Cutoff Wall to be constructed a minimum of 4" of intake and end 3" of outlet end of C.M.P.
6. For construction joints refer to the Pavement Construction Details for "Sidewalk Joints".
7. For details shown on adjacent lines but skewed Department of Transportation, Standard Drawings.

INSTALLATION DETAILS

END VIEW

REINFORCEMENT

CIRCULAR PIPE SIZE	CIRCULAR REINFORCEMENT		ELLIPTICAL REINFORCEMENT	
	GROUP I		GROUP I	
DIA. (IN.)	CIRC. REINF. (SQ. IN./FT.)	CUTOFF WALL	CIRC. REINF. (SQ. IN./FT.)	CUTOFF WALL
12"	0.07	----	----	0.04
15"	0.07	----	----	0.04
18"	0.07	----	0.07	0.06
21"	0.07	----	0.07	0.06
24"	0.12	----	0.07	0.07
27"	0.13	----	0.12	0.08
30"	0.12	0.05	0.13	0.09
36"	0.12	0.06	0.12	0.09
42"	0.12	0.07	0.12	0.09
48"	0.13	0.08	0.13	0.09
54"	0.14	0.09	0.14	0.10
60"	0.15	0.10	0.15	0.10
66"	0.16	0.11	0.16	0.11
72"	0.17	0.12	0.17	0.12

SAINT CHARLES COUNTY
HIGHWAY DEPARTMENT
ST. CHARLES, MISSOURI

SEWER CONSTRUCTION DETAILS

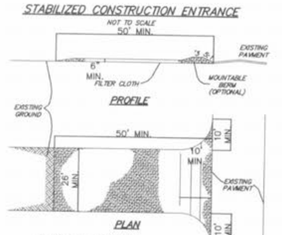
FLARED END SECTION
(PRECAST CONCRETE)

DATE: June, 2002

DRAWING C608.40

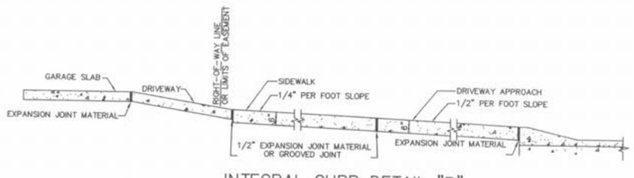
STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS:

1. Stone Size – Use 2" stone, or reclaimed or recycled concrete equivalent.
2. Length – As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
3. Thickness – Not less than six (6) inches.
4. Width – Twenty six (26) foot minimum, but not less than the full width at points where ingress or egress occurs.
5. Filter Cloth – Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
6. Surface Water – All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. Maintenance – The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
8. Washing – Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Periodic inspection and needed maintenance shall be provided after each rain.

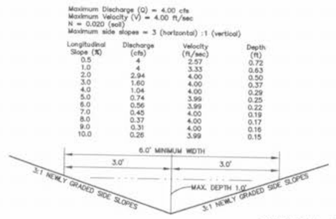


INTEGRAL CURB DETAIL "B" AT DRIVEWAYS

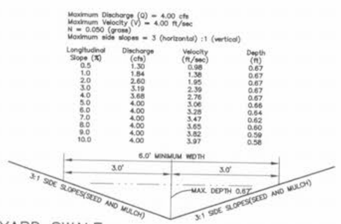
N.T.S.

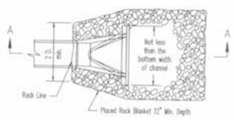
NOTES

1) A 1" JOINT IS REQUIRED AT THE CURB AND GARAGE FOR ALL DRIVEWAYS LOCATED ON THE OUTER EDGE OF CURVED PAVEMENT, UNLESS GROOVED JOINTS ARE USED AT SIDEWALK. THEN A 2" JOINT IS REQUIRED AT CURB.
2) A 1/2" JOINT IS REQUIRED AT THE CURB AND GARAGE FOR ALL DRIVEWAYS LOCATED ON TANGENT SECTIONS OF PAVEMENT OR THE INNER EDGE OF CURVED PAVEMENT.
3) EXPANSION JOINT MATERIAL MUST EXTEND THROUGH THE FULL DEPTH OF THE PAVEMENT.
4) SIDEWALK THICKNESS SHALL BE A MINIMUM OF 7" THROUGH COMMERCIAL DRIVEWAYS.

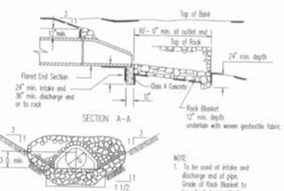


TYPICAL YARD SWALE
NOT TO SCALE





PLAN VIEW



SECTION A-A

END VIEW

NOTE:
1. To be used at intake and discharge end of pipe. Grade of Rock Blanket to be adjusted accordingly.
2. Woven Geotextile Fabric required under Rock Blanket.

SAINT CHARLES COUNTY
HIGHWAY DEPARTMENT
ST. CHARLES, MISSOURI

SEWER CONSTRUCTION DETAILS

FLARED END SECTION
(INLET/OUTLET PROTECTION)

DATE: September, 2002

DRAWING C608.42

TYPICAL EMERGENCY RELIEF SWALE

N.T.S.

TYPE A	TYPE B	WHERE
Qmax.=4.00 cfs	Qmax.=8.00 cfs	Q=WATER IN CUBIC FEET PER SECOND
n=0.04	n=0.04	n=MANNING'S NUMBER
S=1.0%–8.0%	S=1.0%–16.0%	S=SLOPE IN FEET PER FOOT
Dmax.=0.75' @ 1.0%	Dmax.=0.47' @ 1.0%	D=DEPTH OF WATER IN SWALE
Vmax.=4.90 fps @ 8.0%	Vmax.=4.90 fps @ 16.0%	V=VELOCITY IN FEET PER SECOND
Bottom Width = 4.0'	Bottom Width = 8.0'	