

Table 60-6 Soil Amendment Rates

Soil Amendment Material	Application Rate (Lb per Acre)	
Fertilizer	Nitrogen (N)	30 <sup>1</sup>
	Phosphate (P <sub>2</sub> O <sub>5</sub> )	90 <sup>1</sup>
	Potash (K <sub>2</sub> O)	90 <sup>1</sup>
Lime	1,000 <sup>2</sup>	

<sup>1</sup>Increase the rate by 25% for slopes steeper than 5:1.  
<sup>2</sup>Rate is in effective neutralizing material (ENM) units.

Table 60-9 Mulching Materials

Material	Rate	Requirements	Installation/Uses
Straw	1.5-2.5 tons/ac (3-4 tons, if roller punched)	Dry, unchopped, unweathered; free of weed seeds & rot.	Spread by machine 1.5-2.5 inches deep; must be tacked or tied down.
Compost Blanket	1" thick	Double the application rate for embankments	Follow manufacturer's application method.
Wood fiber, wood cellulose, paper	1-2 tons/ac	Double the application rate in critical areas	Use with power mulcher or hydroseeder; may be used to tack straw on steep slopes. Cannot be used in hot dry weather.

Table 60-7 Temporary Fall Seeding

Plant Species	Rate <sup>1</sup> (lb/acre)	Seeding Times
Side-Oats	65	8/16 - 9/30
Winter Rye	50	8/01 - 10/15
Winter Wheat	60	8/01 - 10/15
Orchard Grass	120	8/01 - 10/15
Perennial Ryegrass	80	8/01 - 10/15
Tall fescue, Smooth Brome	80	8/01 - 10/15
K-31 Fescue	120	9/01 - 11/15
Ladino Clover	2 <sup>2</sup>	8/15 - 9/15
Crimson Clover	6 <sup>2</sup>	8/15 - 9/15
Orchard Grass and Oats or Rye	15 <sup>2</sup> 40 <sup>2</sup>	8/15 - 9/15

<sup>1</sup>If using aerial seeding or other broadcast method to apply seed without rolling or culti-packing, increase seeding rates by 50 percent.

<sup>2</sup>Pure live seed (PLS)

Table 60-8 Temporary Spring Seeding

Plant Species	Rate <sup>1</sup> (lb/acre)	Seeding Dates
Winter Rye	50	3/15 - 5/31
Spring Oats	65	3/15 - 5/31
Annual Ryegrass	4 <sup>2</sup>	3/15 - 6/15
Sudangrass	16 <sup>2</sup>	4/15 - 6/15
K-31 Fescue	30 <sup>2</sup>	3/15 - 5/31
Red Clover & Oats	2 <sup>2</sup> 30 <sup>2</sup>	3/15 - 5/31

<sup>1</sup>If using aerial seeding or other broadcast method to apply seed without rolling or culti-packing, increase seeding rates by 50 percent.

<sup>2</sup>Pure live seed (PLS)

Saint Charles County, Missouri

Design Criteria

Table 60-19 Riprap Outlet Dimensions

Pipe Dia. (in)	Velocity ≤ 5 fps				Velocity ≤ 10 fps			
	Rock Size (in) d50	Blanket d100	T (in)	L (ft)	Rock Size (in) d50	Blanket d100	T (in)	L (ft)
12	5	9	15	12	5	9	15	16
15	5	9	15	14	5	9	15	18
18-24	5	9	15	16	9	14	24	20
27-30	5	9	15	18	9	14	24	22
36-42	9	14	24	22	12	18	27	26
48-54	9	14	24	26	12	18	27	30
60-66	12	18	27	34	15	24	30	38
72-84	15	24	30	42	15	24	30	46
96	18	27	30	50	18	27	30	54

For improved channel discharges, the velocity and flow depth will be used. For non-circular discharges, the engineer will calculate a circular pipe equivalent.

Where:  
 d<sub>50</sub> = median stone size (50% stones equal or smaller size)  
 d<sub>100</sub> = largest stone size (100% stones equal or smaller size)  
 T = blanket thickness  
 L = length of blanket

Table 60-5 Soil Stabilization Schedule

Soil Disturbance Activity or Condition	Required Stabilization Time
Soil disturbance has ceased in areas greater than 2,000 square feet.	14 days
After construction of dikes, swales, diversions, and other concentrated flow areas	5 days
When slopes are steeper than 3 horizontal to 1 vertical	7 days
When slopes are greater than 3% and longer than 150 feet.	14 days
Perimeter controls around soil stockpiles.	End of workday
Stabilization or covering of inactive stockpiles.	30 days
When land disturbance is completed, permanent soil stabilization must be installed.	30 days

PERMANENT SEEDING SPECIFICATIONS SHALL CONFORM TO NRCS CONSERVATION PRACTICE STANDARD & SPECIFICATIONS FOR SEEDING.

CODE 340 "COVER CROP"  
 CODE 342 "CRITICAL AREA PLANTING"  
 CODE 484 "MULCHING"  
 CODE 590 "NUTRIENT MANAGEMENT"  
 CODE 723 "VEGETATION ESTABLISHMENT, HERBACIOUS SEEDING"

CAD DWG. REF: 4580-2727.DWG - 1

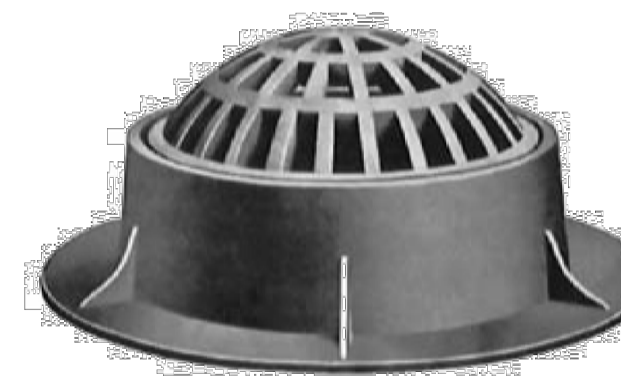
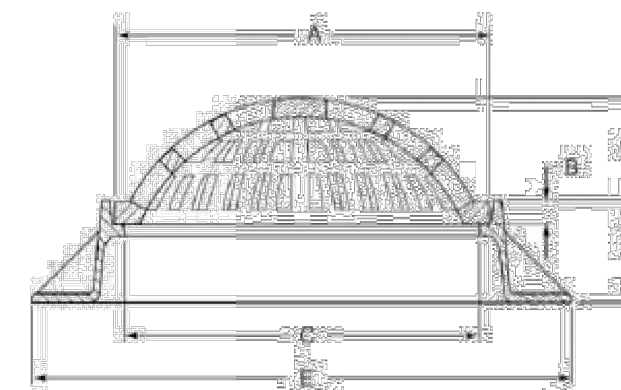
MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B  
 FINISH: NO PAINT UNLESS SPECIFIED ON PURCHASE ORDER  
 WEIGHT: 85 LBS.

DR. KRH SCALE: 1/8"=1'  
 DL. DATE: 11/21/2013  
 APP. NEENAH FOUNDRY  
 NEENAH, WISCONSIN 54956  
 PHONE: 920-839-9079  
 FAX: 920-839-9079  
 WWW.NEENAHFOUNDRY.COM

NF-4580-2727

Inlet Frames & Grates

R-2560-D5



Illustrating R-2560-E

CATALOG NUMBER	GRATE TYPE	EQ. PERIMETER	EQ. PERIMETER	EQ. PERIMETER	EQ. PERIMETER	EQ. PERIMETER	EQ. PERIMETER	EQ. PERIMETER
R-2560-A	Barbed	12	11	18	24	30	36	42
R-2560-B	Barbed	12	11	18	24	30	36	42
R-2560-C	Barbed	12	11	18	24	30	36	42
R-2560-D	Barbed	12	11	18	24	30	36	42
R-2560-E	Barbed	12	11	18	24	30	36	42
R-2560-F	Barbed	12	11	18	24	30	36	42
R-2560-G	Barbed	12	11	18	24	30	36	42
R-2560-H	Barbed	12	11	18	24	30	36	42
R-2560-I	Barbed	12	11	18	24	30	36	42
R-2560-J	Barbed	12	11	18	24	30	36	42
R-2560-K	Barbed	12	11	18	24	30	36	42
R-2560-L	Barbed	12	11	18	24	30	36	42
R-2560-M	Barbed	12	11	18	24	30	36	42
R-2560-N	Barbed	12	11	18	24	30	36	42
R-2560-O	Barbed	12	11	18	24	30	36	42
R-2560-P	Barbed	12	11	18	24	30	36	42
R-2560-Q	Barbed	12	11	18	24	30	36	42
R-2560-R	Barbed	12	11	18	24	30	36	42
R-2560-S	Barbed	12	11	18	24	30	36	42
R-2560-T	Barbed	12	11	18	24	30	36	42
R-2560-U	Barbed	12	11	18	24	30	36	42
R-2560-V	Barbed	12	11	18	24	30	36	42
R-2560-W	Barbed	12	11	18	24	30	36	42
R-2560-X	Barbed	12	11	18	24	30	36	42
R-2560-Y	Barbed	12	11	18	24	30	36	42
R-2560-Z	Barbed	12	11	18	24	30	36	42

Dimensions in inches	A	B	C	E	F	G	Frame/Lid
R-2560-A	22	3/4	1-1/2	20	16	18	R-1791-A
R-2560-B	22	3/4	1-1/2	20	16	18	R-1791-B
R-2560-C	22	3/4	1-1/2	20	16	18	R-1791-C
R-2560-D	22	3/4	1-1/2	20	16	18	R-1791-D
R-2560-E	22	3/4	1-1/2	20	16	18	R-1791-E
R-2560-F	22	3/4	1-1/2	20	16	18	R-1791-F
R-2560-G	22	3/4	1-1/2	20	16	18	R-1791-G
R-2560-H	22	3/4	1-1/2	20	16	18	R-1791-H
R-2560-I	22	3/4	1-1/2	20	16	18	R-1791-I
R-2560-J	22	3/4	1-1/2	20	16	18	R-1791-J
R-2560-K	22	3/4	1-1/2	20	16	18	R-1791-K
R-2560-L	22	3/4	1-1/2	20	16	18	R-1791-L
R-2560-M	22	3/4	1-1/2	20	16	18	R-1791-M
R-2560-N	22	3/4	1-1/2	20	16	18	R-1791-N
R-2560-O	22	3/4	1-1/2	20	16	18	R-1791-O
R-2560-P	22	3/4	1-1/2	20	16	18	R-1791-P
R-2560-Q	22	3/4	1-1/2	20	16	18	R-1791-Q
R-2560-R	22	3/4	1-1/2	20	16	18	R-1791-R
R-2560-S	22	3/4	1-1/2	20	16	18	R-1791-S
R-2560-T	22	3/4	1-1/2	20	16	18	R-1791-T
R-2560-U	22	3/4	1-1/2	20	16	18	R-1791-U
R-2560-V	22	3/4	1-1/2	20	16	18	R-1791-V
R-2560-W	22	3/4	1-1/2	20	16	18	R-1791-W
R-2560-X	22	3/4	1-1/2	20	16	18	R-1791-X
R-2560-Y	22	3/4	1-1/2	20	16	18	R-1791-Y
R-2560-Z	22	3/4	1-1/2	20	16	18	R-1791-Z

Catalog Number	A	B	C	E	F
R-2560-D5	22-3/4	1-1/2			

All dimensions are listed in inches unless otherwise noted.

ORIFICE CALCULATIONS:  
 $Q = 0.6 * A * \sqrt{RT(2gh)}$   
 $A = 1.00 \text{ SQ. FT.}$   
 $g = 32.2 \text{ FEET/SEC/SEC}$   
 $h = 1.0 \text{ FEET}$   
 $Q = 4.8 \text{ CFS}$

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DESIGN CRITERIA

- MAXIMUM DRAINAGE AREA - 1 ACRE.
- PEAK RUNOFF SHALL NOT EXCEED 2 CFS BASED ON A 6-MONTH STORM EVENT.
- OTHER SEDIMENT PROTECTION PRODUCTS MAY BE USED, SUCH AS FILTER FENCE™.

St. Charles County  
 Erosion & Sediment Controls  
 Standard Drawings

AREA INLET PROTECTION FABRIC DROP

DATE: MARCH 2008 DRAWING: ESC-14

DESIGN NOTES

- DIVERT ALL RUNOFF TO A SEDIMENTATION CONTROL DEVICE.
- PROVIDE WATER SUPPLY FOR WASHDOWN.

St. Charles County  
 Erosion & Sediment Controls  
 Standard Drawings

CONSTRUCTION TRAFFIC WASH-OFF PAD

DATE: APRIL 2008 DRAWING: ESC-4

IF WATER IS NOT AVAILABLE, A WATER TRUCK WILL BE PROVIDED.

PROJECT TITLE  
**IMPROVEMENT PLANS  
 THE VILLAGES AT  
 MONTRACHET (REVISED)**

DETAILS  
 PFS No. 14055MCH000R  
 TASK 017 FIELD BOOK 1476

PICKETT, RAY & SILVER INC.  
 CIVIL ENGINEERING, LAND SURVEYING,  
 AND NATURAL RESOURCES SERVICES

St. Peters  
 22 Richmond Center Court  
 St. Peters, MO 63376  
 Phone (636) 397-1211 Fax (636) 397-1104  
 www.prs.com 1-800-708-3918

ENGINEERS AUTHORIZATION  
 THE RESPONSIBILITY FOR PROFESSIONAL ENGINEERING LIABILITY ON THIS PROJECT IS SEVERELY LIMITED TO THE SET OF PLANS AUTHENTICATED BY THE SEAL, SIGNATURE, AND DATE HEREON ATTACHED. RESPONSIBILITY IS DISCLAIMED FOR ALL OTHER ENGINEERING PLANS INVOLVED IN THIS PROJECT AND SPECIFICALLY EXCLUDES REVISIONS AFTER THIS DATE UNLESS REAUTHENTICATED.

PICKETT, RAY & SILVER, INC. MO LICENSE #000036

KARL ANTHONY SCHOENIKE  
 STATE OF MISSOURI  
 PROFESSIONAL ENGINEER  
 NUMBER PE-2003015039  
 09/28/16 ELECTRONIC SEAL  
 KARL A. SCHOENIKE, P.E.  
 PROFESSIONAL ENGINEER LICENSE 2003015039

Developer / Owner Information  
 MONTRACHET DEVELOPMENT LLC  
 218 Chesterfield Towne Centre  
 Chesterfield, Missouri 63005  
 Phone: 636-550-6900

P+Z No. 15-15.01  
 City No. 15-742-SP  
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 DETAILS

CITY OF O'FALLON REVISED PHASE A 09/28/2016