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### **Specifications**

- **1. General:** Tree grates and frames shall be of cast iron as manufactured by Neenah Foundry Company.
- Material: Gray Iron castings shall conform to A.S.T.M. A-48, Class 35 or better.
- **3. Finish:** All castings shall be manufactured true to pattern; component parts shall fit together in a satisfactory manner. They shall be of uniform quality; free from blowholes, porosity, hard spots, shrinkage distortion or other defects. They shall be well cleaned by blasting.
- **4. Paint:** Tree grates and frames shall be furnished without paint or primer as the standard. See page 19 for details on available paint finishes.
- **5. Submittals:** Manufacturer's shop drawings shall be submitted to the architect/engineer for approval prior to manufacture. The architect/engineer shall retain the right to reject castings not conforming to this specification and/or approved submittal drawings.

Note: Architect/Engineer must specify tree grate number and frame if required. Paint requirements and security bolting requirements must also be specified. When selecting the tree grate and planning its location, the safety of cyclists, pedestrians and persons with disabilities must be considered. Contact your local Neenah Foundry representative or our Inside Sales Service staff for complete details and submittal drawings of our entire tree grate line.

### **Why Cast Iron?**

Unlike steel, cast iron is inherently resistant to continued corrosion. When left unpainted, cast iron tree grates and frames will remain unchanged for decades. Cast iron tree grates from Neenah Foundry are strong and will stand up to urban abuse. (Note: not recommended for vehicular traffic.) Cast iron tree grates are heavy enough to deter unauthorized removal without the need for lock down devices.

### **Los Angeles Approved Grates**

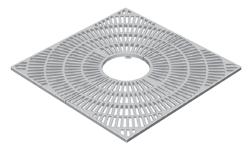
Neenah Foundry has the largest variety of proof load tested and approved tree grates for the city of Los Angeles. (Requires a 188 lbs/sf proof load on a  $10 \times 10 \times 1$  contact area with a max .5" deflection. The test is then continued without measuring further deflection to a 450 lbs/sf load.)

LA approved grates are noted in green.



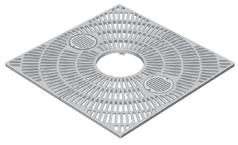
In support of the Green Initiative, Neenah Foundry is pleased to report that our products contain a minimum of 85% recycled content in the form of a minimum of 35% consumergenerated scrap metal and minimum of 50% industrial-generated scrap metal.

The ADIRONDACK collection is reminiscent of older traditional tree grate offerings and may be an excellent choice for a historical site. Contact us to help you with sizes or shapes – our Neenah sales staff is interested in your ideas.



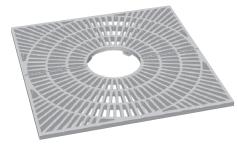
R-8742 • 48" x 48"

18" diameter expandable tree opening. 285 pounds per set. Available with light openings.



R-8742-A1 • 60" x 60"

18" diameter expandable tree opening. Bolted light opening grates (10.375") for use with sub-grade lighting. 396 pounds per set. (Available without light openings, order as **R-8742-A**. 418 pounds per set.)



R-8746-A • 60" x 60"

18" diameter expandable tree opening. 414 pounds per set.



**R-8827** • 31.75" Round

12" diameter tree opening. 110 pounds per set.



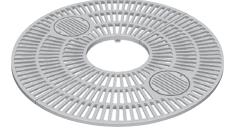
#### R-8827-A1 • 39.75" Round

12" diameter tree opening. Bolted light opening grates (10.375") for use with sub-grade lighting. 170 pounds per set. Available with 14" tree opening.



R-8833 • 50" Round

12" diameter tree opening. 266 pounds per set. Available with light opening. (Also available as 42" diameter 2-piece grate with 10" diameter expandable tree opening, order as **R-8829**. 170 pounds per set.)



#### R-8837-1 • 60" Round

18" diameter tree opening. Bolted light opening grates (10.375") for use with sub-grade lighting. 320 pounds per set. (Available without light openings, order as **R-8837-A**. 308 pounds per set.)



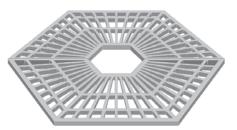
R-8860 • 93" Round

Four-piece, with 40" diameter opening. For use with sub-grade lighting. 9.5" openings. Support at section joint is required — furnished by installer. 640 pounds per set. Also available without light openings.



**R-8950** • 44.5" Hex

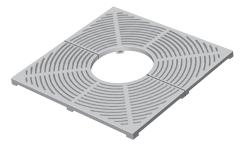
16.5" hexagon tree opening. 345 pounds per set.



**R-8955** • 60" Hex

15.75" hexagon tree opening. 540 pounds per set.

Looking for a clean, simplified radial pattern for your public areas? The AVENUE collection has the sizes you need and the narrow slot openings your plans may require. Need a different size? Contact Neenah to discuss additional options.



R-8704 • 30" x 30"

12" diameter expandable tree opening. .25" slot openings. 100 pounds per set.

R-8704 is also a Los Angeles approved grate.

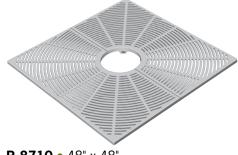


#### R-8704-A • 36" x 36"

16" diameter expandable tree opening. .25" slot openings. 115 pounds per set. Available with corner light openings. 9.5" x 1" grate or 7.875" x .75" lid.

R-8704-A LA

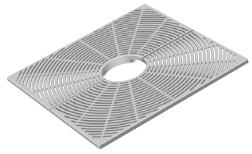
Order as R-8704-A LA for Los Angeles approved grate.



#### R-8710 • 48" x 48"

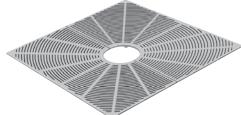
12" diameter expandable tree opening. .375" slot openings. Available with cast 16" or 24" diameter tree opening and with light openings. 260 pounds per set. (Also available as 48" round 2-piece grate with 16" diameter expandable tree opening, order as R-8882. 298 pounds per set.)

R-8710 is also a Los Angeles approved grate.



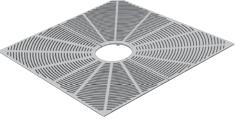
#### R-8712 • 60" x 60"

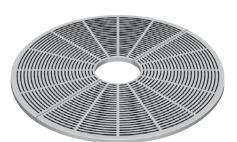
16" diameter expandable tree opening. .375" slot openings. 580 pounds per set. Available with light openings.



#### R-8715 • 72" x 72"

16" diameter expandable tree opening. .25" slot openings. 700 pounds per set. Available with light openings.





#### R-8872 • 55.25" Round

12" diameter expandable tree opening. .25" slot openings. 270 pounds per set.



#### **R-8810** • 36" x 60"

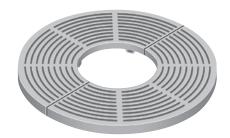
16" diameter expandable tree opening. .25" slot openings. 232 pounds per set.

**R-8810** is also a Los Angeles approved grate.



#### R-8876 • 72" Round

16" diameter expandable tree opening. Available with cast 18" diameter tree opening .25" slot openings. 622 pounds per set. (Available with light openings, order as **R-8876-1**. 606 pounds per set.)



R-8881 • 30" Round

12" diameter expandable tree opening. .25" slot openings. 84 pounds per set.



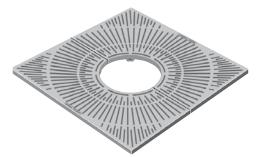
#### R-8939 • 72" Combo

16" diameter expandable tree opening. .25" slot openings. 661 pounds per set. Available with light openings.

### **Metropolitan** Collection

Our most popular concept, the METROPOLITAN collection provides narrow slot openings, an eye-appealing pattern and is available in a wide variety of sizes and shapes. Don't see exactly what you want? Give us a call!





#### R-8706-1A • 48" x 48"

18" diameter expandable tree opening. .25" slot openings (Available with light openings, order as **R-8706-A**). 330 pounds per set.

**R-8706-1A** is also a Los Angeles approved grate. Available with light openings.



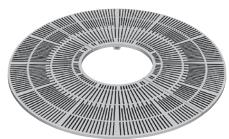
#### **R-8784** • 95.125" x 95.125"

26" tree opening. .25" slot openings. 4-piece grate.
1588 pounds per set. Support at section joint is required —
furnished by installer.



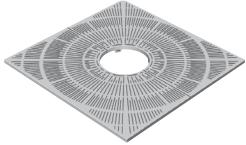
#### R-8834 • 36" Round

12" diameter expandable tree opening. .25" slot openings. 126 pounds per set.



#### R-8880-A • 72" Round

24" diameter expandable tree opening. .25" slot openings. 600 pounds per set. Available with light openings. 36" tree opening available with no light opening.



#### R-8707 • 60" x 60"

18" diameter expandable tree opening. Available with cast 24" tree opening. .25" slot openings. 525 pounds per set. Available with light openings.

#### R-8707-LA

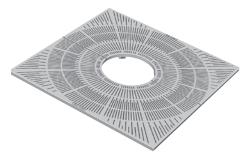
Order as **R-8707-LA** for Los Angeles approved grate. Only available with 18" diameter tree opening.





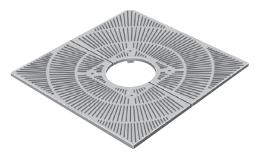
#### **R-8883** • 96" Round

28" diameter tree opening. .25" slot openings. 960 pounds per set. Supplied in 12 sections. Support at section joint is required — furnished by installer. Available with light openings.



**R-8709-A** • 72" x 72"

24" diameter expandable tree opening. .25" slot openings. 750 pounds per set. Available with light openings.

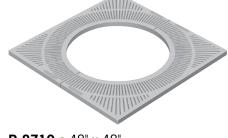


#### **R-8714-A** • 60" x 60"

18" diameter tree opening. .375" slot openings. Four 1" diameter holes for staking tree. 520 pounds per set. Available with light openings.

#### R-8714-ALA

Order as R-8714-ALA for Los Angeles approved grate.

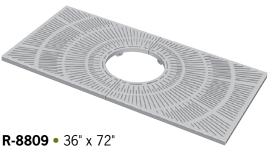


R-8719 • 48" x 48"

32" diameter expandable tree opening. 302 pounds per set.



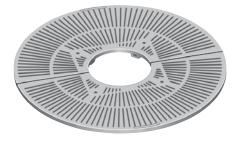
18" diameter expandable tree opening. .375" slot openings. 334 pounds per set. (Available as 48" x 72", order as **R-8815-1**. 480 pounds per set.) **R-8809** is also a Los Angeles approved grate.



### R-8830-A1 • 48" Round

18" diameter expandable tree opening. .25" slot openings. 252 pounds per set. (Available with light openings, order as **R-8830-1**. 268 pounds per set.)

R-8830-A1 or R-8830-1 are also Los Angeles approved grates.



#### R-8869-A • 60" Round

18" diameter tree opening. .375" slot openings. Four 1" diameter holes for staking tree. 356 pounds per set. R-8869-ALA

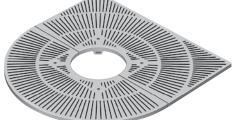
Order as R-8869-ALA for Los Angeles approved grate.



#### R-8870 • 60" Round

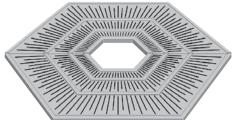
18" diameter expandable tree opening. .25" slot openings. 375 pounds per set. Available with light openings.

**R-8870** is also a Los Angeles approved grate.



R-8933-A • 60" Combo

18" diameter tree opening. .375" slot openings. Four 1" diameter holes for staking tree. 438 pounds per set. Available with light openings on the square side.



R-8965 • 60" Hex

16" hexagon tree opening. .25" slot openings. 360 pounds per set.

### **Parkway** Collection

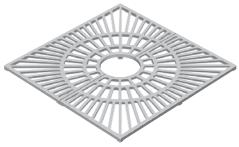
Our PARKWAY collection of grates is our largest and most varied.

The wide range of sizes and shapes allows for a great deal of options to incorporate into your design.



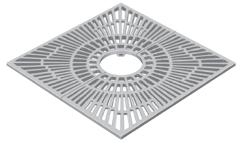
**R-8721-A** • 48" x 48"

15" diameter expandable tree opening. 340 pounds per set.



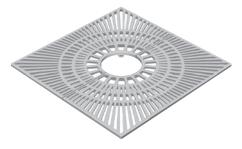
R-8726 • 48" x 48"

12" diameter expandable tree opening. 265 pounds per set. Available with light openings.



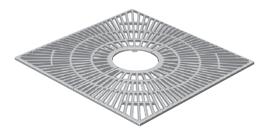
R-8728-A • 60" x 60"

15.75" diameter expandable tree opening. 635 pounds per set. Available with cast 32" tree opening.



R-8738-A1 • 60" x 60"

16" diameter expandable tree opening. Bolted light opening grates (8.25" x 17.125" x 5.375") for use with sub-grade lighting. 455 pounds per set. (Available without light openings, order as **R-8738-A2**. 470 pounds per set.)



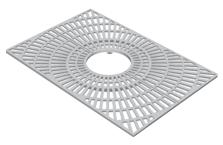
R-8740-1 • 72" x 72"

20" diameter expandable tree opening. 520 pounds per set.



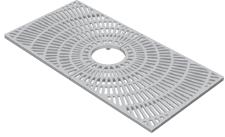
R-8750 • 48" x 48"

24" diameter tree opening. 236 pounds per set.



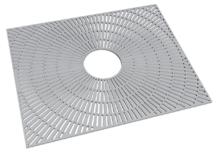
R-8802-A • 48" x 72"

18" diameter expandable tree opening. 306 pounds per set. Available with light openings.



R-8808 • 36" x 72"

12" diameter expandable tree opening. Available with cast 18" and 24" tree opening. 300 pounds per set. Available with light openings.



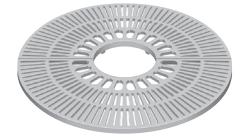
**R-8821** • 95.125" x 119.125"

26" diameter tree opening. 1,536 pounds per set.



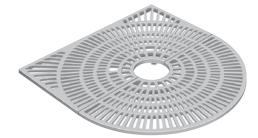
R-8855-1 • 72" Round

16" diameter expandable tree opening. Bolted light opening grates (9" x 17.143" x 4.5") for use with sub-grade lighting. 495 pounds per set. Supplied with light grates, none shown.



R-8855-2 • 54" Round

16" diameter expandable tree opening. 310 pounds per set.



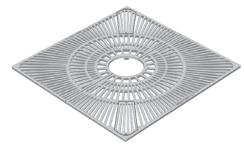
R-8929 • 62" Combo

12" diameter expandable tree opening. 501 pounds per set.



R-8734 • 60" x 60"

12" diameter expandable tree opening. 370 pounds per set.



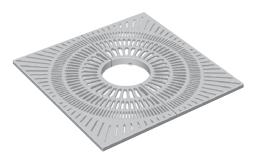
R-8738-1 • 72" x 72"

16" diameter expandable tree opening. Bolted light opening grates (10.125" x 21.75" x 5.875") for use with sub-grade lighting. 595 pounds per set. (Available without light openings, order as **R-8738-2**. 568 pounds per set.)



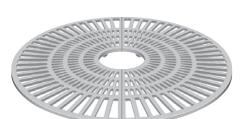
R-8766 • 64" x 64"

16" octagonal tree opening. 780 pounds per set. No tree guards available for octagonal openings. Available with light openings.



**R-8752-A** • 60" x 60"

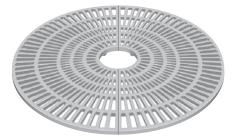
18" diameter expandable tree opening. 605 pounds per set. (Available as 48" square with 12" tree opening, order as **R-8752-2**. 24" diameter expandable tree opening. 470 pounds per set. 335 pounds per set.)



R-8849 • 56" Round

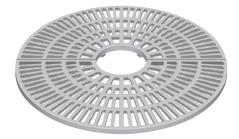
R-8752-B • 60" x 60"

12" diameter expandable tree opening. 376 pounds per set.



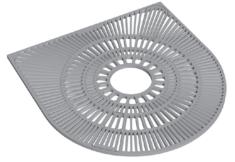
R-8851 • 66" Round

12" diameter expandable tree opening. 518 pounds per set.



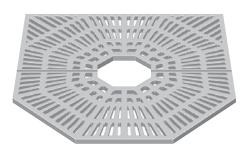
R-8847 • 50" Round

12" diameter expandable tree opening. 262 pounds per set.



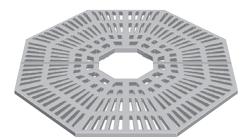
R-8931-1 • 72" Combo

16" diameter expandable tree opening. Bolted light opening grate for use with sub-grade lighting. 545 pounds per set. Supplied with two light grates, one on each half.



R-8937 • 64" Combo

16" octagonal tree opening. 716 pounds per set. No tree guards available for octagonal openings. Available with light openings.

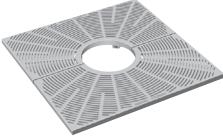


R-8952 • 64" Octagon

16" octagonal expandable tree opening. 640 pounds per set. No tree guards available for octagonal openings. Available with light openings.

### **Boulevard** Collection

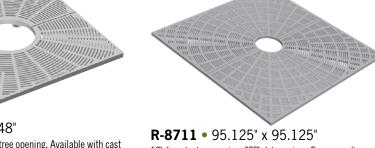
The radial pattern of the BOULEVARD collection combines a clean look with narrow slot openings to create a very versatile grate. Contact us for any special requirements and allow us to work with you in meeting your needs.



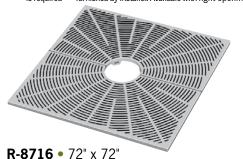
#### R-8708 • 48" x 48"

16" diameter expandable tree opening. Available with cast 20" and 24" tree opening upon request. .25" slot openings. 290 pounds per set. Available with light openings.

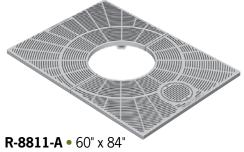
**R-8708** is also a Los Angeles approved grate.



16" diameter tree opening. .375" slot openings. Frame supplies special support for 4-piece grate. 1280 pounds per set. Support at section joint is required — furnished by installer. Available with light openings.



16" diameter expandable tree opening. .375" slot openings. 750 pounds per set. Available with cast 36" tree opening. Available with light openings.



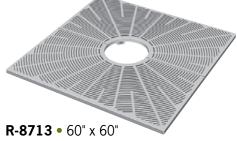
30" diameter expandable tree opening. .375" slot openings. 456 pounds per set.



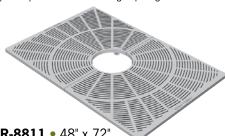
#### R-8832-A • 48" Round

16" diameter expandable tree opening. .25" slot openings. 250 pounds per set. (Available with light openings, order as R-8832. 248 pounds per set.)

R-8832-A and R-8832 are also Los Angeles approved grates.



16" diameter expandable tree opening. Available with cast 18", 24" and 36" tree opening upon request. .25" slot openings. 380 pounds per set. Available with light openings.

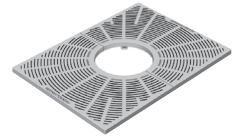


#### R-8811 • 48" x 72'

16" diameter expandable tree opening. Available with cast 12" tree opening. .375" slot openings. 394 pounds per set. Available with 22" tree opening.

#### R-8811-LA

Order as **R-8811-LA** for Los Angeles approved grate.



#### R-8814-A • 36" x 48"

16" diameter tree opening. .25" slot openings. 252 pounds per set. (Available with light openings, order as **R-8814**. 230 pounds per set.)



#### R-8838-A • 60" Round

16" diameter expandable tree opening. .25" slot openings. Available with 18" tree opening. 298 pounds per set. (Available with light openings, order as R-8838. 374 pounds per set. Available with 24" diameter expandable tree opening, order as **R-8838-A1**. 292 pounds per set. Available with 24" cast tree opening and light openings, order as R-8838-1. 344 pounds per set.)

R-8838-A and R-8838 are also Los Angeles approved grates.



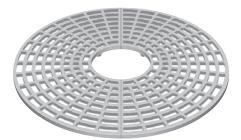
## Capitol Collection

One of the most popular designs of yesteryear, the CAPITOL collection brings us back to an intriguing, time-tested offering.



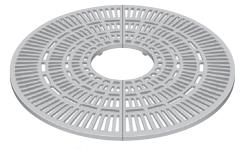
R-8839 • 75" Round

Four-piece, with 18" diameter expandable tree opening.
Support at section joint is required — furnished by installer.
620 pounds per set. Available with light openings.



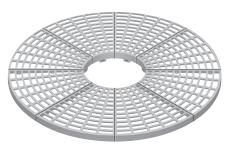
R-8857 • 72" Round

20" diameter expandable tree opening. 526 pounds per set.



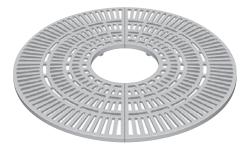
R-8843 • 56" Round

16" diameter expandable tree opening. 292 pounds per set. Available with light openings.



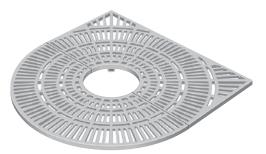
R-8861 • 96" Round

8-piece grate with 28" diameter tree opening. 1016 pounds per set. Support at section joint is required — furnished by installer.



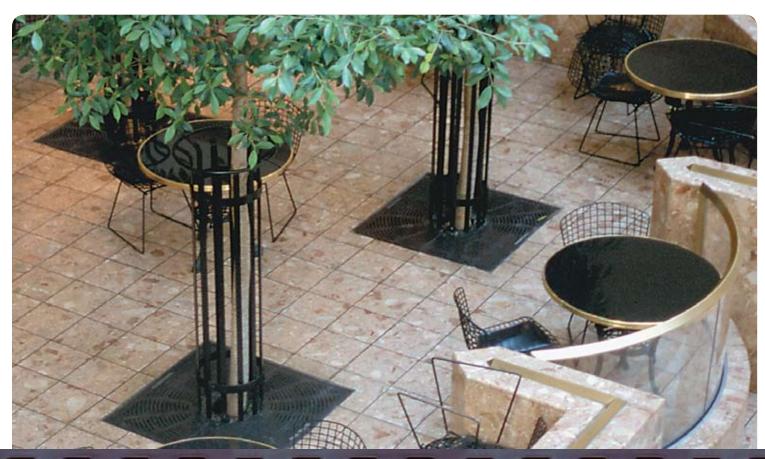
R-8843-A • 58.5" Round

18" diameter expandable tree opening. 284 pounds per set.



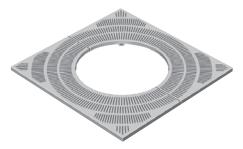
R-8927 • 56" Combo

16" diameter expandable tree opening. 324 pounds per set. Available with light openings.



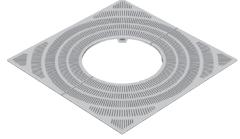
### **Majestic** Collection

The MAJESTIC collection was put together to address situations concerning large diameter tree trunks. Larger tree openings, expandability and narrow slot openings make these a great choice for palms and other mature trees.



R-8717 • 60" x 60"

36" diameter tree opening. .25" slot openings. 440 pounds per set. (Available with removable insert grate and 16" tree opening, order as **R-8717-A**. 580 pounds per set.) R-8717 is also a Los Angeles approved grate.



#### R-8718 • 72" x 72"

36" diameter tree opening. .25" slot openings. 750 pounds per set. Available with light openings.

**R-8718** is also a Los Angeles approved grate.



#### R-8718-A • 72" x 72"

Four-piece grate, 16" diameter tree opening, insert grate removes for 36" diameter tree opening. .25" slot openings. 850 pounds per set. Available with light openings.





#### R-8871-1 • 60" Round

32" diameter expandable tree opening. .25" slot openings. 336 pounds per set. Available with light openings. (Available with 16" diameter expandable tree opening, order as R-8871. 376 pounds per set.) R-8871-1 is also a Los Angeles approved grate.

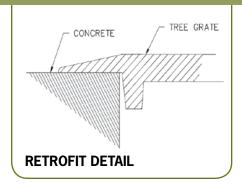


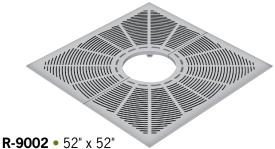
#### R-8871-B1 • 72" Round

32" diameter tree opening. .25" slot openings. 400 pounds per set.

### Retrofit Collection

Developed specifically for use in an existing paved area, the RETROFIT collection is a popular alternative to poured-in-place grates. Level concrete can simply be cut to the necessary opening size. The overlapping edge covers any minor irregularities in the cut.



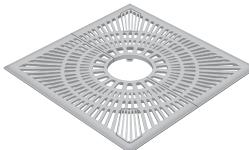


For 48" square opening. 16" diameter expandable tree opening. .25" slot openings. 266 pounds per set. Available with light openings. (Available for 60" opening, order as **R-9002-A**. 518 pounds per set. Available with light openings.) **R-9002-LA** Order as **R-9002-LA** for Los Angeles approved grate.



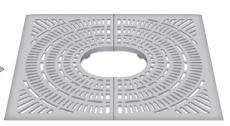
#### **R-9003** • 40" x 40"

For 36" square opening. 16" diameter expandable tree opening. .25" slot openings. 175 pounds per set.



#### R-9004-1 • 62" x 62"

For 57.5" square opening. 16" diameter expandable tree opening. Bolted light opening grates (7.75" x 15.375" x 5.75") for use with sub-grade lighting. 440 pounds per set.



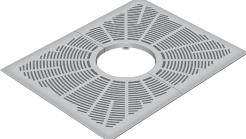
#### **R-9101** • 59" x 54"

For 55" x 50" rectangular opening. 16" diameter oval expandable tree opening. 412 pounds per set. (Available as 54" square grate with round tree opening, order as **R-9101-A**. 354 pounds per set. Also available as 54" round grate with round 16" diameter tree opening, order as **R-9001**. 290 pounds per set.)



#### R-9105 • 36" x 72"

For 32" x 68" rectangular opening. 16" diameter expandable tree opening. .25" slot openings. 326 pounds per set. **R-9105** is also a Los Angeles approved grate.



#### R-9106 • 40" x 52"

For 36" x 48" rectangular opening. 16" diameter expandable tree opening. .25" slot openings. 262 pounds per set.



#### R-9107 • 52" x 100"

Four-piece grate, for 48" x 96" rectangular opening. 16" diameter expandable tree opening. .375" slot openings. This grate is a retrofit grate for use in existing paved areas. 642 pounds per set.



#### R-9108 • 52" x 76"

For 48" x 72" rectangular opening. 22" diameter expandable tree opening. .375" slot openings. .378 pounds per set.



### **Distinctive** Collection

These one-of-a-kind tree grate concepts may be the perfect solution to your unique project. Contact us with your own ideas, and let Neenah be a part of your grate artistry.



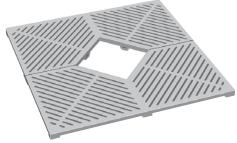
R-8700 • 30" x 30"

17.5" diameter expandable tree opening. 125 pounds per set.



**R-8702-A** • 36" x 36"

12" diameter expandable tree opening. 140 pounds per set.



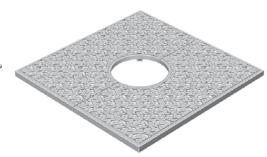
**R-8724-A** • 48" x 48"

15" square tree opening. .375" slot openings. 320 pounds per set. **R-8724-A** is also a Los Angeles approved grate.



**R-8737-B** • 72" x 72"

23" square tree opening. Bolted light opening grates (10.375") for use with sub-grade lighting. .25" slot openings. 645 pounds per set. (Available as 60" x 60" square, order as  $\bf R-8737-C$ . Also available with 30" square opening. 400 pounds per set.)



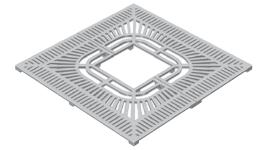
R-8759 • 48" x 48"

16" diameter tree opening. 320 pounds per set. **R-8759** is also a Los Angeles approved grate.



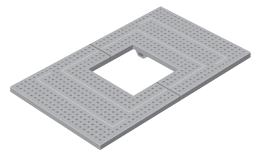
R-8762 • 60" x 60"

18" diameter tree opening. 950 pounds per set. Available with light openings.



R-8768 • 48" x 48"

16" square tree opening. 190 pounds per set.



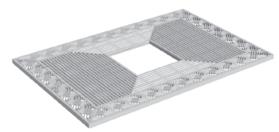
R-8820 • 36" x 60"

2-piece grate with 18" square opening. .5" square openings. 286 pounds per set.



R-8825 • 30" Round

12" diameter tree opening. 80 pounds per set.



**R-8850** • 48" x 72"

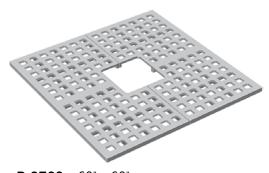
2-piece grate with 18" square tree opening. 380 pounds per set.

### **Greenwich** Collection

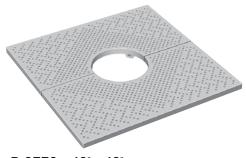
If something a little different and very eye-catching is what you are after, consider the GREENWICH collection. These grates have the narrow slot openings and the visual appeal that many architects now seek in their landscape designs. If you don't see the size you want, give us a call.



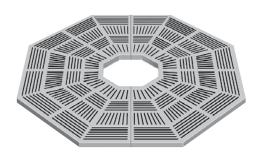
**R-8730** • 48" x 48" 17" diameter tree opening. 300 pounds per set.



R-8760 • 60" x 60" 16" square expandable tree opening. 560 pounds per set.



**R-8770** • 48" x 48" 16" diameter tree opening. .5" round openings. 295 pounds per set.



R-8953 • 64" Octagon

16" octagonal expandable tree opening. 516 pounds per set.

No tree guards available for octagonal openings.



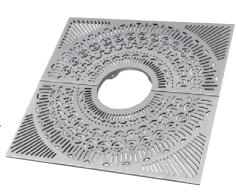
14" diameter tree opening. .375" typical slot openings.

Bolted light opening grates (10.375") for use with
sub-grade lighting. 450 pounds per set. (Available
without light openings, order as **R-8754-1**. 410 pounds per set.) **R-8754** is also a Los Angeles approved grate.



R-8757 • 48" x 48"

14" diameter tree opening. .375" typical slot openings. 306 pounds per set. Available with light openings. Order as **R-8757-LA** for Los Angeles approved grate.



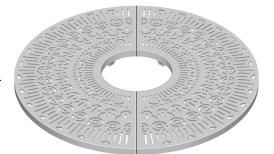
#### R-8819 • 48" x 72"

30" diameter tree opening. .375" typical slot openings. 390 pounds per set.



#### R-8874 • 48" Round

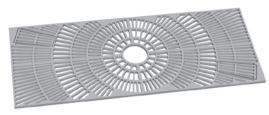
14" diameter tree opening. .375" typical slot openings. 220 pounds per set. Available with light openings. **R-8874** is also a Los Angeles approved grate.



### **Extended** Collection

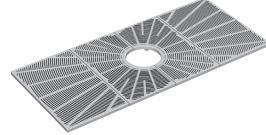
Where space and design consideration permit, the EXTENDED collection provides the opportunity to promote tree health through the use of larger tree pits. Many of our other collections can have extension grates created as well. Contact your Neenah representative with your needs.





#### R-8806-1A • 48" x 120"

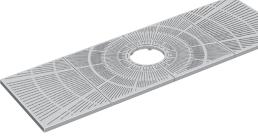
Four-piece grate, 12" diameter expandable tree opening. Bolted light opening grates (9" x 19" x 6") for use with sub-grade lighting. Support at section joint is required — furnished by installer. Parented with two light openings only. 720 pounds per set.



#### **R-8813** • 48" x 107.75"

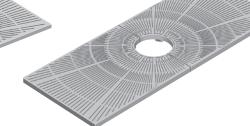
Four-piece grate, 16" diameter expandable tree opening. Total grate length can be increased with additional end sections. .25" slot openings. Available with 20" and 24" diameter tree opening. 636 pounds per set.

**R-8813** is also a Los Angeles approved grate. Special frames and/or supports required.



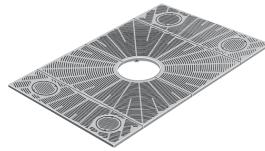
#### R-8815 • 48" x 144"

Four-piece grate, 18" diameter tree opening. .25" slot openings. 928 pounds per set. Available with 24" diameter tree opening. (Available as 48" x 120" 4-piece grate with 18" diameter tree opening, order as R-8815-B4. 898 pounds per set).



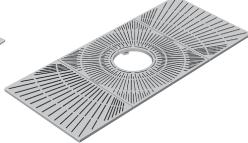
#### R-8815-B • 48" x 120"

Two-piece grate, 18" diameter tree opening. .25" slot openings. 762 pounds per set. (Available as 48" x 96" 2-piece grate with 18" and 26" diameter tree opening, order as R-8815-A. 646 pounds per set.)



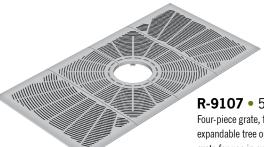
#### **R-8816** • 60" x 95.75"

Four-piece grate, 18" diameter expandable tree opening. .25" slot openings. 706 pounds per set. Available in 16", 24" and 36" tree openings. Also available with no light openings.



#### **R-8817** • 48" x 108"

Four-piece grate, 18" diameter expandable tree opening. .25" slot openings. 685 pounds per set. Available with light openings.



R-9107 • 52" x 100"

Four-piece grate, for 48" x 96" rectangular opening. 16" diameter expandable tree opening. .375" slot openings. This grate is a retrofit grate for use in existing paved areas. 642 pounds per set.

## **Express Your Identity**



Does your company have a corporate insignia or municipal logo that you would like to incorporate into your architectural designs or construction project? Neenah Foundry has the ability to take your concepts and recreate them through Sidewalk Medallions, Tree Grate Logos and Custom Manhole Covers. This is a great opportunity to tie together a common municipal or corporate theme. Contact your Neenah representative with your ideas.













### Fabricated Tree Guards

SPECIAL NOTE: Most tree grate units are furnished standard with four inconspicuous guard lugs on the underside to facilitate attachment of tree guards.

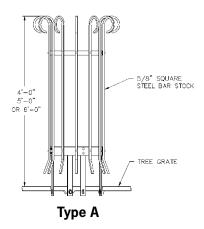
Neenah Tree Guards are manufactured from hot rolled, pickled and oiled mild steel in the five standard illustrated styles. Guards are designed to be attached in four places to bolting lugs which are integrally cast to the underside of the tree grate.

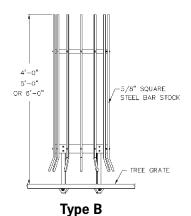
Neenah Tree Guards are manufactured using .5" flat and .625" square steel stock. Our use of these heavier materials sets Neenah's Tree Guards apart from the others, making for a stronger and more durable product.

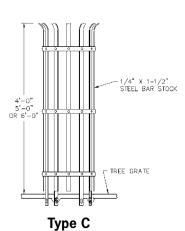
Neenah furnishes guards completely assembled in two half sections. Guards are supplied with the vertical bars bolted to the rings. No tree guards are available for octagonal openings.

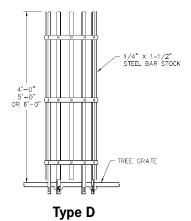
Tree guards are furnished with black powder coat paint. (Minimum thickness 2-mils.)

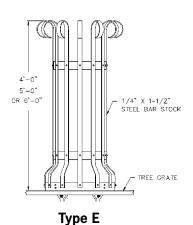












### SPECIFY WHEN ORDERING:

- 1. Style
- 2. Dimension "L" (guard height as measured from top of grate - standard heights are 4', 5' or 6')
- 3. Tree opening diameter
- 4. Paint specifications if different from standard
- 5. Shop drawings for approval

### Planting & Lighting

#### **ADVICE ON PLANTING TREES**

Unusual stresses are imposed upon trees that grow in the urban environment: pollution, soil compaction, mechanical damage and restricted water and nutrients. As a result of these unfavorable conditions, many trees experience stunted growth or a shortened life span. Urban foresters and soil scientists are developing more exact approaches to the problems and requirements of urban trees. Through proper maintenance, species selection and special planting techniques, a tree's health can be greatly improved.

When planting trees in urban settings, one must provide enriched soil, proper drainage and a means of providing water and air to the roots for proper tree development.

Arborists encourage use of the largest tree pit possible—in response, Neenah offers our EXTENDED collection to meet this growing need.

See page 18 for what is currently available, or contact your Neenah sales representative with your ideas.

Neenah Tree Grates can provide the means of getting the proper moisture and air to the roots for a healthy, long-lived specimen.

No typical tree pit works for all situations. Urban designers must develop tree pits for each unique site. Soil scientists, arborists and urban foresters can provide valuable assistance when dealing with the following sub-surface conditions: aeration, drainage, irrigation and feeding, enriched soil, methods of flushing salts and/or avoiding their accumulation and methods of minimizing future soil compaction.

#### **LIGHTING**

Trees are beautiful in daylight — yet in the darkness of the night they become shapeless and non-descript. Extend their natural beauty through the hours of darkness with tree grate illumination. Most Neenah Tree Grates can be made with removable light-opening sections so that sub-grade lighting units can be easily installed. All light-opening sections are secured with countersunk screws to prevent unauthorized removal.



#### **PAINTING TREE GRATES and TREE GUARDS**

Because of the unique properties of cast iron, tree grates from Neenah do not require painting for corrosion protection. The natural patina of an unpainted tree grate will be a pleasant complement to the trees and surrounding paved area — particularly in outdoor installations — and it has the added benefit of requiring no future maintenance.

For customers who choose to install painted grates, Neenah Foundry can offer the following:

#### **BLACK PRIMER**

This is a primer coating, ready to accept your finished coat. Neenah Foundry recommends the application of a finish coat for the best coverage.

#### **BLACK POWDER COAT FINISH**

This low gloss finish coat is applied with a minimum 2-mil thickness — our best offering.

#### **CUSTOMER SPECIFIED**

Please advise your paint specification.

FABRICATED STEEL TREE GUARDS ARE FURNISHED STANDARD WITH BLACK POWDER COAT PAINT. (MINIMUM THICKNESS 2-MILS).

#### **PEDESTRIAN SAFETY**

Neenah offers a wide variety of tree grates with narrow openings of .375" or less for areas where your special pedestrian requirements may need to be taken into consideration.

As part of your landscaping plan, we recommend that pathways be provided which do not direct foot traffic over the tree grate installation. Near these pathways, or in any area that is potentially subject to foot traffic, we recommend the use of a narrow opening tree grate style.

IT IS THE RESPONSIBILITY OF THE PROJECT DESIGNER TO DETERMINE IF SPECIAL PEDESTRIAN REQUIREMENTS ARE NECESSARY AND SUBSEQUENTLY TO SELECT GRATE STYLES AND LOCATIONS THAT MEET THOSE REQUIREMENTS. NEENAH RECOMMENDS DESIGNERS CAREFULLY EVALUATE PREVAILING LOCAL, REGIONAL, STATE AND FEDERAL SPECIFICATIONS, INCLUDING, BUT NOT LIMITED TO ADA (AMERICANS WITH DISABILITIES ACT) WHEN MAKING THEIR SELECTIONS.

As an additional safety precaution for pedestrians, as well as protection for your young trees, you may want to specify a tree guard to direct foot traffic away from the tree opening. See page 18 for our selection of fabricated tree guards.

#### **SECURITY BOLTING**

The best security a tree grate has is inherent in its own size and weight. For additional security needs, grates can be bolted to their frames at the factory and shipped assembled to the job site. Standard security bolting is done with flathead screws, countersunk flush with the grate surface. Greater security is available through the use of various tamper-proof bolts. Security bolting and tamper-proof bolting can be requested for most of our tree grate line.

### **Installation** Procedures

Neenah's tree grate frames are designed to make the installation job easy and accurate. Our frames can be incorporated into your forms in just minutes. The seat of the frame should be cleaned prior to setting the grate. Grate halves are to be bolted together on the underside using the bolt slots provided.

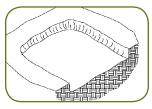
ALL OR ANY PART OF THE PRECEDING SPECIFICATIONS AND PROCEDURES MAY BE INCORPORATED IN YOUR PROJECT DOCUMENTS.

#### FOR POURED CONCRETE INSTALLATIONS

(Neenah tree grates and R-8500 Type U frames)

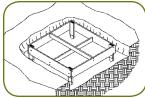
#### Step 1

Excavate tree pit.



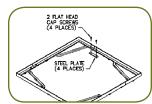
#### Step 2

Place wood frame within excavation.
Set at proper grade. Make form outside dimension 45.75" x 45.75" for 48" x 48" grate, 57.75" x 57.75" for 60" x 60" grate or 69.75" x 69.75" for 72" x 72" grate.



#### Step 3

Assemble the R-8500 Type U tree grate frame using the hardware provided. Make sure to tighten the countersunk flathead screws so they are flush or below the bearing surface of the frame.



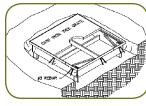
#### Step 4

Place frame on wood form. Place both tree grate halves within the frame.



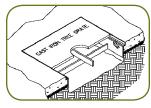
#### Step 5

IMPORTANT: Wire grates, frames and form together. Check and adjust frame alignment and elevation if needed. Install #3 rebar through lugs on frame and support as required. Ensure there is a .1875" spacing between vertical faces of the frame and grate.



#### Step 6

Pour and finish concrete. Do not remove tree grate or trim alignment wires until concrete has set up.



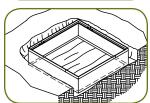
#### FOR PAVING BLOCK INSTALLATIONS

(Neenah tree grates and R-8500 Type P frames)



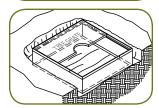
#### Step 1

Excavate tree pit.



#### Step 2

Place assembly within excavation. Set at proper grade.



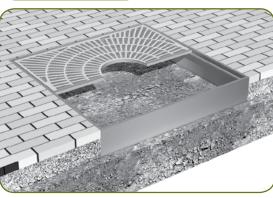
#### Step 3

Place both tree grate halves within the frame.



#### Step 4

Place setting bed and pavers, plant tree.



Example of R-8500 Type P frame.

#### NOTE: FAILURE TO FOLLOW THESE FORMING PROCEDURES COULD RESULT IN AN UNSATISFACTORY INSTALLATION.

If you have any questions regarding installation or if you must deviate from the above instructions, contact the Neenah Product Engineering Department.

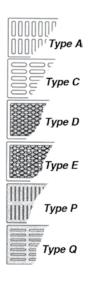
Additional detailed installation information is available from your Neenah sales representative or from our web site at www.neenahfoundry.com.

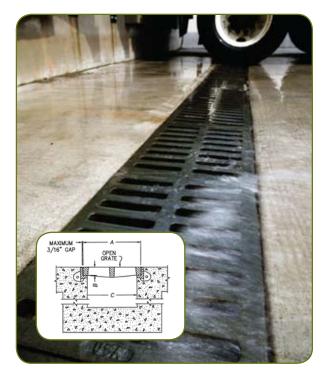
**EXPANDABLE** – Neenah Foundry cast iron tree grates provide the advantage of being easily expandable without losing their structural integrity. As trees grow through the years, the tree opening can be enlarged in increments to accommodate the larger trunk. The best method to expand the opening is through the use of an abrasive cutting wheel, notching the radial spokes at the junction of the expansion rings, then breaking away the portion to be discarded.

### **Trench** Systems

Neenah offers a wide selection of heavy duty trench castings with grated and solid covers. Our standard R-4990 series and bolted R-4999 series trench covers and angle frames work with trench openings ranging from 6" through 48".

STANDARD	BOLTED				AVAILABLE
CATALOG #	CATALOG #	Α	В	С	GRATE/COVER
R-4990-AX	R-4999-AX	8	1.5	6	A, C, D, E, P
R-4990-BX	R-4999-BX	10	1.5	8	A, C, D, E, P
R-4990-CX	R-4999-CX	12	1.5	10	A, C, D, E, P, Q
R-4990-DX	R-4999-DX	14	1.5	12	A, C, D, E, P, Q
R-4990-EX	R-4999-EX	17	1.5	15	A, C, D, E, P
R-4990-FX	R-4999-FX	20	1.5	18	A, C, D, E, P
R-4990-GX	R-4999-GX	23	1.5	21	A, C, D
R-4990-HX	R-4999-HX	26	1.5	24	A, C, D, Q
R-4990-JX	R-4999-JX	30	2	27	A, C, D
R-4990-KX	R-4999-KX	33	2	30	A, C, D, E
R-4990-LX	R-4999-LX	36	2	33	A, C, D
R-4990-MX	R-4999-MX	39	2	36	A, C, D
R-4990-NX	R-4999-NX	45	2	42	A, C, D
R-4990-0X	R-4999-OX	51	2	48	A, D







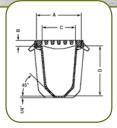


#### and permanence of cast iron, easy and economical installation and proven hydraulic performance. Units can be furnished bolted or unbolted, and the type Q grates can easily be incorporated into plans for ADA compliance\*.

Contact us for complete information on this trench series.

#### **SELF-FORMING TRENCHES**

					FRAME	OUTLET LO	CATION, SIZES	AVAILABLE	AVAILABLE
CATALOG #	Α	В	С	D	LENGTH	SIDE	воттом	END	GRATE/COVER
R-4996-A	8	1	6	9	30	4, 6	4	4	Q*
R-4996-B	10	1	8	10.375	30	4, 6, 8	4, 6	4, 6	Q*
R-4996-C	12	1.5	10	10	36	4, 6, 8	4, 6, 8	4, 6, 8	A, C, D, L, Q*



# Tree Grate Reference Guide by Size & Shape

ne L	∆nσel	ιΔ ορ	nrove	d Gra	tec in	Green

Size	Cat#	Collection	Page	Size	Cat#	Collection	Page	Size	Cat#	Collection	Page
RECTANGUL	.AR			60"	R-8752-A	Parkway	9	96"	R-8861	Capitol	11
36" x 48"	R-8814	Boulevard	10	60"	R-8752-B	Parkway	9	96"	R-8883	Metropolitan	6
36" x 48"	R-8814-A	Boulevard	10	60"	R-8754	Greenwich	15	31.75"	R-8827	Adirondack	4
36" x 60"	R-8810	Avenue	5	60"	R-8754-1	Greenwich	15	39.75"	R-8827-A1	Adirondack	4
36" x 60"	R-8820	Distinctive	14	60"	R-8760	Distinctive	15	55.75"	R-8872	Avenue	5
36" x 72"	R-8808	Parkway	8	60"	R-8762	Distinctive	14	58.5"	R-8843-A	Capitol	11
36" x 72"	R-8809	Metropolitan	7	64"	R-8766	Parkway	9				
48" x 72"	R-8850	Distinctive	14	72"	R-8709-A	Metropolitan	7	RETROFIT			
			8	72"	R-8715	•	5	40"	R-9003	Retrofit	13
48" x 72"	R-8802-A	Parkway				Avenue					
48" x 72"	R-8811	Boulevard	10	72"	R-8716	Boulevard	10	52"	R-9002	Retrofit	13
48" x 72"	R-8811-LA	Boulevard	10	72"	R-8718	Majestic	12	52"	R-9002-LA	Retrofit	13
48" x 72"	R-8815-1	Extended	16	72"	R-8718-A	Majestic	12	54"	R-9101-A	Retrofit	13
48" x 72"	R-8819	Greenwich	15	72"	R-8737-B	Distinctive	14	62"	R-9004-1	Retrofit	13
60" x 84"	R-8811-A	Boulevard	10	72"	R-8738-1	Parkway	9	64"	R-9001	Retrofit	13
95.125" x 119.125"	R-8821	Parkway	8	72"	R-8738-2	Parkway	9	64"	R-9002-A	Retrofit	13
				72"	R-8740-1	Parkway	8	36" x 72"	R-9105	Retrofit	13
SQUARE				95.125"	R-8784	Metropolitan	6	40" x 52"	R-9106	Retrofit	13
30"	R-8700	Distinctive	14	95.125"	R-8711	Boulevard	10	52" x 76"	R-9108	Retrofit	13
30"	R-8704	Avenue	5				•	52" x 100"	R-9107	Retrofit	13
36"	R-8702-A	Distinctive	14	ROUND				59" x 54"	R-9101	Retrofit	13
36"	R-8704-A	Avenue	5	30"	R-8825	Distinctive	14	00 X 04	N 3101	nouone	10
				30"			5	EXTENDED			
36"	R-8704-A LA	Avenue	5		R-8881	Avenue				F	10
48"	R-8706-1A	Metropolitan	6	36"	R-8834	Metropolitan	6	48" x 96"	R-8815-A	Extended	16
48"	R-8706-A	Metropolitan	6	42"	R-8829	Adirondack	4	48" x 120"	R-8815-B	Extended	16
48"	R-8708	Boulevard	10	48"	R-8830-1	Metropolitan	7	48" x 120"	R-8815-B4	Extended	16
48"	R-8710	Avenue	5	48"	R-8830-A1	Metropolitan	7	48" x 108"	R-8813	Extended	16
48"	R-8719	Metropolitan	7	48"	R-8832	Boulevard	10	48" x 120"	R-8806-1A	Extended	16
48"	R-8721-A	Parkway	8	48"	R-8832-A	Boulevard	10	48" x 144"	R-8815	Extended	16
48"	R-8724-A	Distinctive	14	48"	R-8874	Greenwich	15	60" x 95.75"	R-8816	Extended	16
48"	R-8726	Parkway	8	50"	R-8833	Adirondack	4	48" x 108"	R-8817	Extended	16
48"	R-8730	Distinctive	15	50"	R-8847	Parkway	9	52" x 100"	R-9107	Extended	16
48"	R-8742	Adirondack	4	54"	R-8855-2	Parkway	8				
48"	R-8750	Parkway	8	56"	R-8843	Capitol	11	MULTI-SIDE	-D		
48"	R-8752-2	-	9	56"	R-8849		9		R-8950	Adirondook	4
		Parkway				Parkway		44.5"		Adirondack	4
48"	R-8757	Greenwich	15	60"	R-8837-1	Adirondack	4	60"	R-8955	Adirondack	4
48"	R-8757-LA	Greenwich	15	60"	R-8837-A	Adirondack	4	60"	R-8965	Metropolitan	7
48"	R-8759	Distinctive	14	60"	R-8838	Boulevard	10	64"	R-8952	Parkway	9
48"	R-8768	Distinctive	14	60"	R-8838-1	Boulevard	10	64"	R-8953	Distinctive	15
48"	R-8770	Distinctive	15	60"	R-8838-A	Boulevard	10	64"	R-8937	Parkway	9
60"	R-8707-LA	Metropolitan	6	60"	R-8838-A1	Boulevard	10				
60"	R-8712	Avenue	5	60"	R-8869-A	Metropolitan	7	COMBINAT	ION		
60"	R-8713	Boulevard	10	60"	R-8869-ALA	Metropolitan	7	56"	R-8927	Capitol	11
60"	R-8714-A	Metropolitan	7	60"	R-8870	Metropolitan	7	60"	R-8933-A	Metropolitan	7
60"	R-8714-ALA	Metropolitan	7	60"	R-8871	Majestic	12	62"	R-8929	Parkway	8
60"	R-8717	Majestic	12	60"	R-8871-1	Majestic	12	64"	R-8937	Parkway	9
		•				•		72"		•	
60"	R-8717-A	Majestic	12	66"	R-8851	Parkway	9		R-8931-1	Parkway	9
60"	R-8728-A	Parkway	8	72"	R-8855-1	Parkway	8	72"	R-8939	Avenue	5
60"	R-8734	Parkway	9	72"	R-8857	Capitol	11	<b></b>			
60"	R-8737-C	Distinctive	14	72"	R-8876	Avenue	5	OTHER			
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60"	R-8738-A2	Parkway	9	72"	R-8880-A	Metropolitan	6	Medallions			17
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60"	R-8746-A	Adirondack	4	93"	R-8860	Adirondack	4				
00	N 0/ 40-14	numonuath	7	J J J	1. 0000	nununuduk	7	1			

### Tree Grate Reference Guide by Code

#### Los Angeles Approved Grates in Green

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