

WEST SIDE PARKING: 80 PROPOSED PARKING SPACES

EAST SIDE PARKING



US Army Corps of Engineers

MARK	DESCRIPTION	DATE	APPR
1	30% DDR SUBMITTAL	08/14/09	
2	50% DDR SUBMITTAL	12/21/09	

DESIGNED BY: ERB	DATE:	SOLICITATION NO.:
DWN BY: ERB	CONTRACT NO.:	
SUBMITTED BY:	FILE NUMBER:	
PLOT SCALE: 1" = 30'	FILE NAME:	
SIZE: ANSI D		

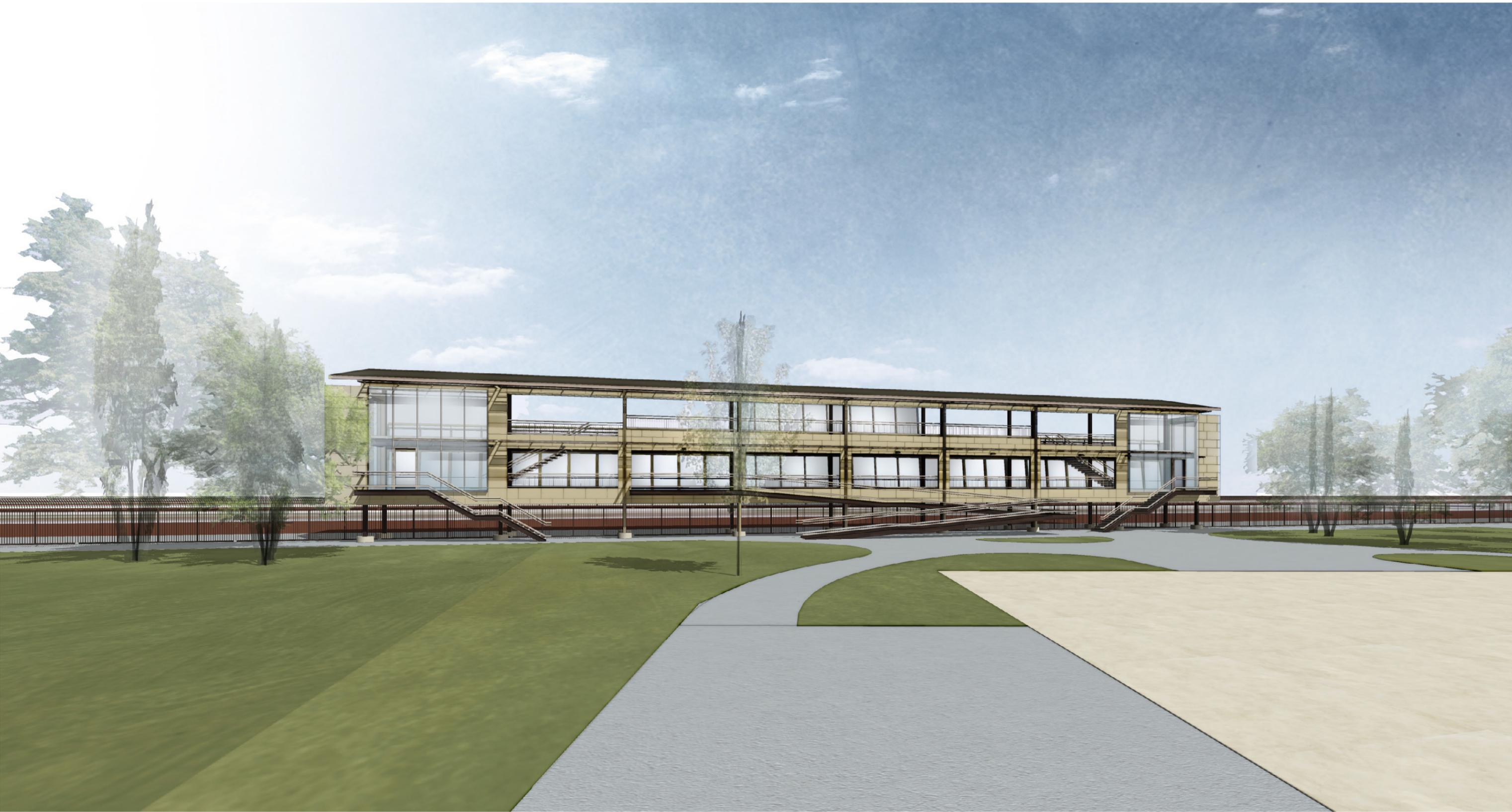
U.S. ARMY CORPS OF ENGINEERS  
 DETROIT DISTRICT  
 DETROIT, MI  
 Wilson Professional Services, LLC  
 111 W. Edgewood Blvd., Suite 7  
 Livonia, MI 48150  
 www.wilson.us

SOO LOCKS  
LANDSCAPE MASTER PLAN

MSB WAREHOUSE  
PROPOSED PARKING LOTS

SHEET IDENTIFICATION

SHEET 2 OF 2



PERSPECTIVE / EXTERIOR  
scale : nts [11x17] SKETCH



# KING LUMINAIRE

## POST TOP SERIES



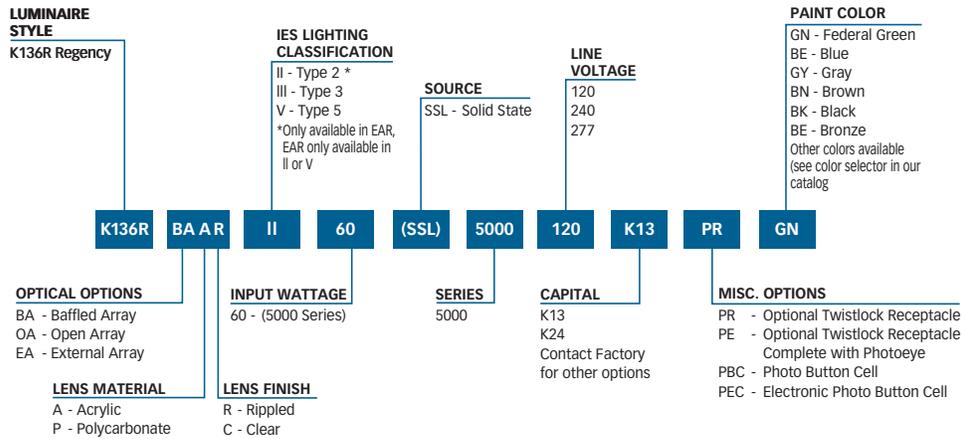
Innovation, Advanced Technology & Excellence in Engineering

# LED technology

A NEW GENERATION OF LUMINAIRES



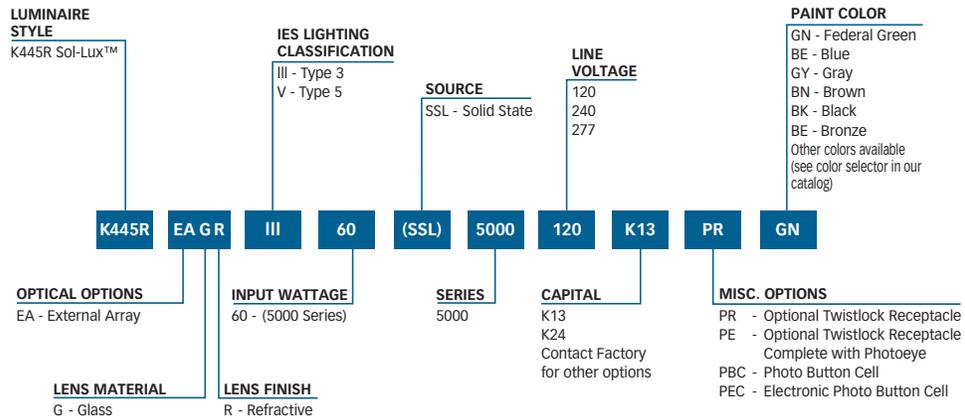
**K136**



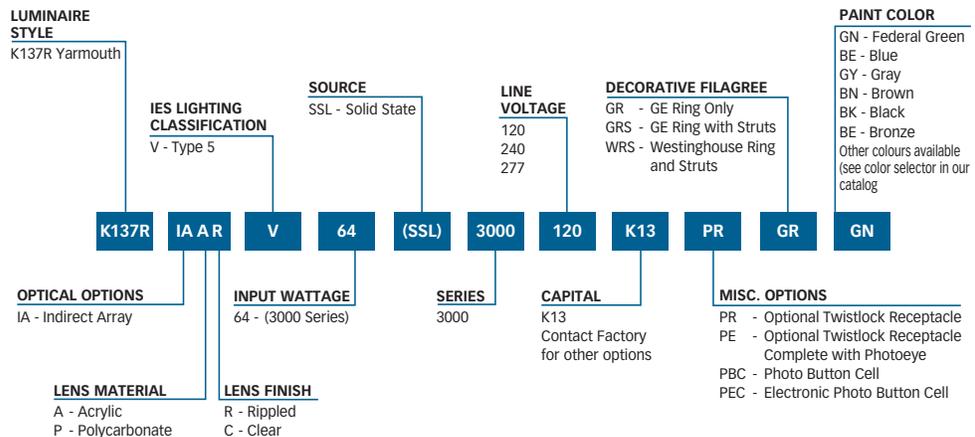
**Lighting - Parks**



**K445**



**K137**





LED  
TECHNOLOGY



Established in 1953, the StressCrete Group is the oldest, most reliable manufacturer of spun concrete poles in North America. We also manufacture high quality decorative outdoor lighting fixtures, fabricated metal poles, arms, and site furnishings under the King Luminaire name.

The group is a privately owned, vibrant growing entity that constantly strives to offer customers innovative new products. We have achieved success by putting customers first.

## LED: the GREENER alternative



King Luminaire • StressCrete • Est. 1953

**STRESSCRETE  
GROUP**

Quality People • Quality Products

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# GULLWING

A R E A L I G H T I N G



this fixture was chosen to match the existing fixtures on the McArthur and Poe Locks. The poles to be selected will be hinged and match as closely as can be made to the existing concrete poles on the two locks mentioned above. At this point in the design, we plan to have three fixtures mounted on each pole.



GARDCO  
LIGHTING



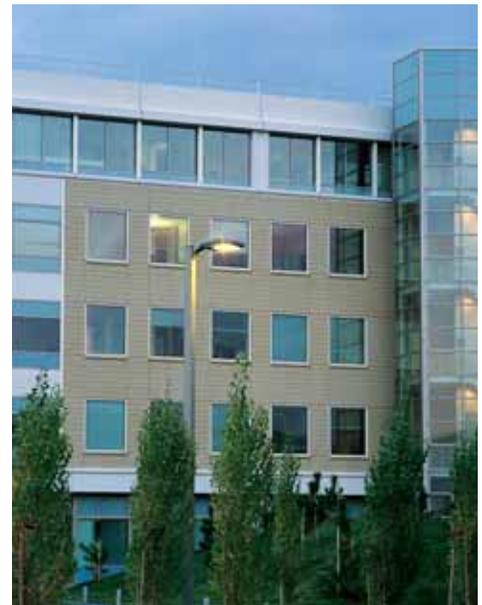
# APPLICATION



*Of particular interest is the extended forward throw of the 4XL optical system, which enables exceptionally wide illumination patterns. Even at a mounting height of 24', Gullwing eliminates the need for cobra heads and unsightly mast arm extensions.*



*Unifying the lighting plan with companion sconces elevates performance and aesthetics.*



*Sleek, sophisticated – a natural compliment to today's architecture.*

# SPECIFICATIONS

**HOUSING:** A one-piece die cast aluminum housing mounts directly to a pole or wall without the need for a support arm. The low profile rounded form generates wind loading requirements of 1.2 EPA-G18 and 0.8-G13.

**LENS ASSEMBLY:** A single-piece die cast aluminum lens frame hinges down from the housing and is secured by a stainless steel lanyard and hinge pin.

An optically clear, heat and impact resistant tempered flat glass lens is mechanically secured with eight retainers (six on G13) (G18 1000W MH utilizes a slightly convex lens). The electrical and optical chambers are thoroughly sealed with a one-piece memory retentive hollow core EPDM gasket to prevent intrusion by rain, dust and insects.

**OPTICAL SYSTEMS:** The segmented optical systems are manufactured from homogenous sheet aluminum which has been electrochemically brightened, anodized and sealed. The multifaceted arc image duplicating systems are designed to produce IES Types I (1), II (2XL), III (3XL), IV (4XL), and V (Q). With the 2XL, 3XL and 4XL luminaires, the reflector facets form a conical fan around the arc tube with each facet positioned to be precisely tangent to the top of the arc tube.

Sconce optics provide for forward throw, wide and medium distributions. For the G18 a mogul base lampholder is glazed porcelain with a nickel plated screw shell. Position-oriented sockets are supplied standard to accept super metal halide lamps. All G18 units feature lamp stabilizers except 150 HPS. Lampholder for the G13 and 107 Gullwing Sconce is medium base.

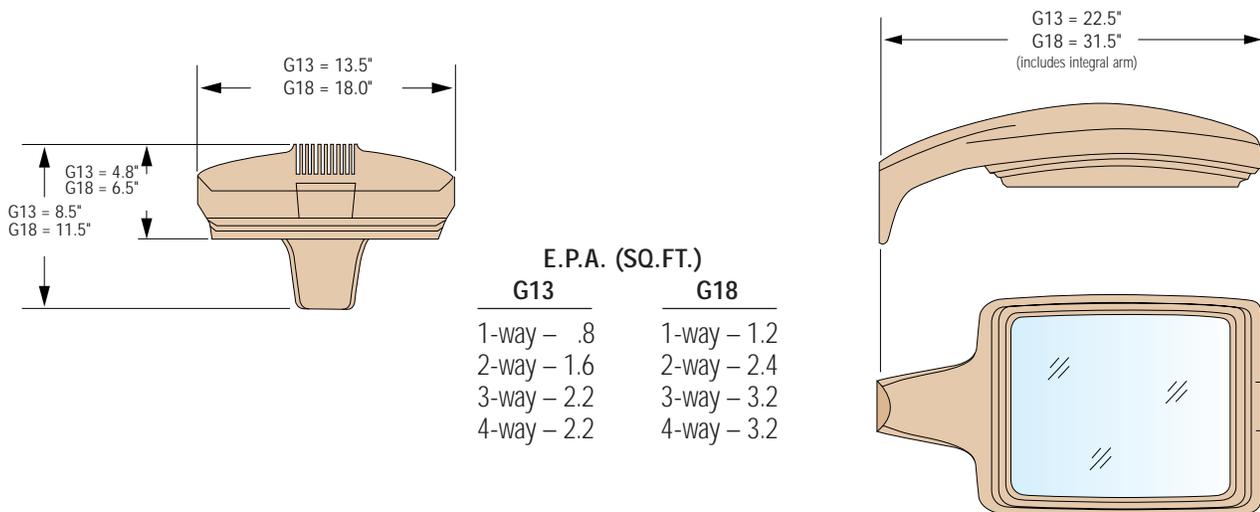
**ELECTRICAL:** All electrical components are UL recognized, factory tested, and mounted on a unitized plate with quick electrical disconnects. Each high power factor ballast is the separate component type capable of providing reliable lamp starting down to -20°F.

**FINISH:** Luminaires are finished with a fade and abrasion resistant, electrostatically applied, thermally cured textured TGIC powder coat. Units are thoroughly cleaned and provided with a patented chromate acid pretreatment. Optical and special colors may vary. Contact factory.

**LABELS:** All fixtures bear UL or CUL (where applicable) Wet Location labels.

As part of continuing quality improvement programs, Gardco Lighting reserves the right to change materials or modify the design of its product without notification.

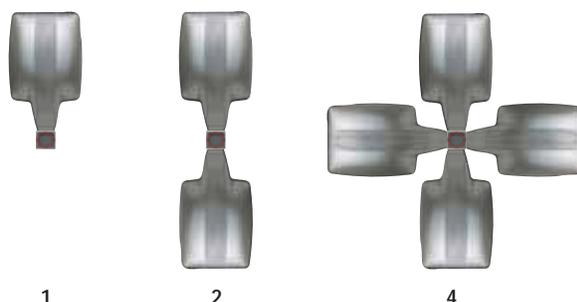
# DIMENSIONS



# CONFIGURATIONS

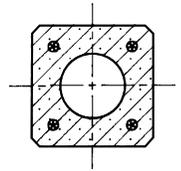
For wall-mounted applications, the design allows mounting to both a j-box and surface conduit. For surface conduit, the splice is made inside the wall canopy. Splice box volume is 50.5 (G18) and 26 (G13) cubic inches.

Gullwing is UL approved for through wiring.



# Tapered Square, Class A - Light Duty Poles

## Tapered Square, Class A - Light Duty Poles



### Physical Details:

- Square, with 1" chamfered corners, tapered shaft.
- 4.75" flat to flat pole tip.
- 0.125" per linear ft. taper increase.
- 600 lb. transverse bending strength (2 ft. from tip).
- Mold finish is standard but optional etched or polished finish and Decor colors are available.
- For various luminaire mounting details, please reference arms and accessories.

### Direct Embedment

Pole Catalog Number	Pole Height Above Grade	Assumed Embedment Depth*	Overall Pole Length	Pole Butt Flat to Flat (Inches)	Ultimate Ground-Line Moment (ft. lbs.**)	Nominal Weight (lbs.)
E-150-APT-G	11' 0"	4' 0"	15' 0"	6.63	5400	480
E-175-APT-G	13' 6"	4' 0"	17' 6"	6.94	6500	590
E-200-APT-G	16' 0"	4' 0"	20' 0"	7.25	8400	700
E-225-APT-G	18' 6"	4' 0"	22' 6"	7.56	9900	825
E-250-APT-G	20' 0"	5' 0"	25' 0"	7.88	10800	980
E-275-APT-G	22' 6"	5' 0"	27' 6"	8.19	12300	1120
E-300-APT-G	25' 0"	5' 0"	30' 0"	8.50	13800	1275
E-325-APT-G	27' 0"	5' 6"	32' 6"	8.82	15000	1460
E-350-APT-G	29' 6"	5' 6"	35' 0"	9.13	16500	1620
E-375-APT-G	32' 0"	5' 6"	37' 6"	9.44	18000	1815
E-400-APT-G	34' 0"	6' 0"	40' 0"	9.75	19200	2005

concrete pole selection

### Base Plate

Pole Catalog Number	Pole Height Above Grade	Pole Butt Flat to Flat (Inches)	Base Plate Size (Inches)	Bolt Circle*** (Inches)	Ultimate Ground-Line Moment (ft. lbs.**)	Nominal Weight (lbs.)
P-150-APT-G	15' 0"	6.63	11.5 x 11.5	11.5	7800	515
P-175-APT-G	17' 6"	6.94	11.5 x 11.5	11.5	9300	630
P-200-APT-G	20' 0"	7.25	11.5 x 11.5	11.5	10800	745
P-225-APT-G	22' 6"	7.56	14.5 x 14.5	17	12300	905
P-250-APT-G	25' 0"	7.88	14.5 x 14.5	17	13800	1060
P-275-APT-G	27' 6"	8.19	14.5 x 14.5	17	15300	1200
P-300-APT-G	30' 0"	8.50	14.5 x 14.5	17	16800	1350
P-325-APT-G	32' 6"	8.82	14.5 x 14.5	17	18300	1540
P-350-APT-G	35' 0"	9.13	14.5 x 14.5	17	19800	1715

\* Recommended burial depth for normal soils. Where large imbalanced loads are applied or soil strengths are questionable, deeper burial may be necessary.

\*\* Ultimate Ground Line Moment = Height above grade minus 2 ft x transverse bending strength.

\*\*\*Anchor bolt information - 11.5" BC uses 3/4" x 27" anchor bolt. 17" BC uses 1" x 36" anchor bolt.

### Class - EPA Loading

	Pole Height Above Grade	Post Top & Bal. Loads	Imbalanced Loads		
			4' arm	6' arm	8' arm
90 mph	20	14 1/2	12 3/4	11 1/2	10
	25	12 1/4	10 2/3	10	8 3/4
	30	9 3/4	8 3/4	8	7
	35	7 1/2	6 1/2	5 3/4	5
100 mph	20	10 1/2	9 1/4	8 1/4	7
	25	8 1/2	7 1/4	6 1/2	5 1/2
	30	6 1/4	5 1/4	4 3/4	3 3/4
	35	6 3/4	3	2 1/2	2
110 mph	20	7 3/4	6 3/4	5 3/4	4 3/4
	25	3 3/4	4 3/4	4 1/4	3 1/4
	30	3 1/2	2 3/4	2 1/4	1 1/2
	35	1 1/4	1/2	1/4	---
120 mph	20	4 1/2	4 3/4	4	3
	25	3 1/2	2 3/4	2 1/4	1 1/2
	30	1 1/2	3/4	1/2	---
	35	---	---	---	---
130 mph	20	4	3 1/4	2 1/2	1 3/4
	25	2	1 1/4	3/4	1/4
	30	---	---	---	---
	35	---	---	---	---
140 mph	20	2 1/2	2	1 1/2	3/4
	25	3/4	---	---	---
	30	---	---	---	---
	35	---	---	---	---
150 mph	20	1 1/2	1	1/2	---
	25	---	---	---	---
	30	---	---	---	---
	35	---	---	---	---

### Decor Colors & Finishes

Color / Finish	Eclipse (Black)	Ash White	Pearl Gray	Dusty Rose	Aztec Jade (Green)	Desert Sand (Buff)	Saluki Bronze (Brown)
Etched Finish	E11	E35	E40	E41	E51	E70	E90
Polished Finish	S11	S35	S40	S41	S51	S70	S90

Mold finish, catalog #M00, is standard on all poles. Decor colors and finishes must be specified. A clear acrylic coating is standard on all Decor poles.

◀ When selecting a pole strength class, care must be taken to ensure it will carry the desired EPA loading of arm and luminaire for the wind conditions at your location. If you are unsure of your location's wind condition, please reference Isotach Map in General and Technical section.

## Streetlighting Arms and Accessories

Spun concrete poles can be adapted to fit most arms or accessories. Our standards are detailed in the "Arms and Accessories" section of this catalog. If a specific item is not shown, please call your local representative or our sales office.

When requesting StressCrete to supply arms, please ensure compatibility with luminaire.

## Finishes

Mold finish is standard on all poles. If a Decor or custom finish is desired it must be specified in the pole catalog number. Please see lower right front page for information, or turn to Decor section.

## Standard Openings and Handholes

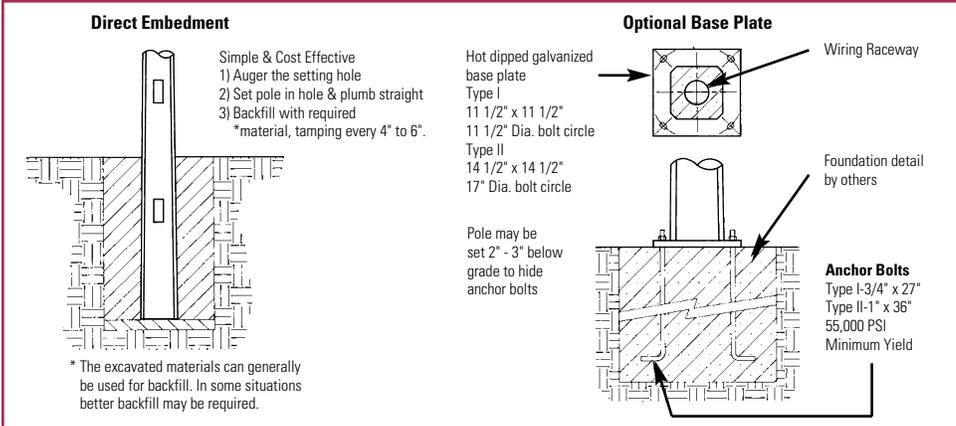
(For more detailed information, please reference General and Technical section.)

- 2 1/2" x 8" is the standard handhole box located 18" above grade. Both it and the tight fitting coverplate are available in non-metallic, non-conductive injection molded material or a rugged high density cast zinc.
- Standard coverplate fasteners are 1/4" stainless steel with either Allen (hex) head for the United States or black Robertson #3 (square) head in Canada. Tamperproof and non-standard fasteners are available but must be specified.
- Standard above grade wiring apertures vary with arm selection but are generally 1 1/4" diameter holes or 1 1/2" x 3" openings. Below grade apertures are 2 1/2" x 5" double openings 18" below grade in line with handhole.
- Non-standard sizes can be made available on request; please contact our sales office.
- Galvanized steel or zinc inserts are available in 1/8" increments from 1/4" through 3/4".
- Through holes are nominal 1/2", 3/4", or 1".

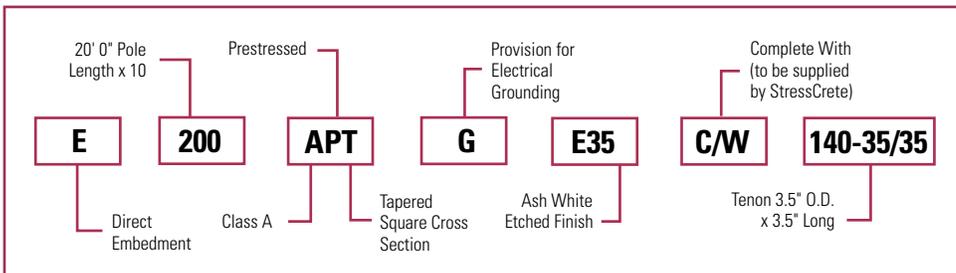
## Electrical Grounding

The last letter of pole catalog number "G" specifies that the pole will be supplied complete with a #6 stranded copper ground wire. When properly connected, this will electrically ground the pole. If the pole is not to be electrically grounded, simply delete the letter "G" from the catalog number.

## Footings

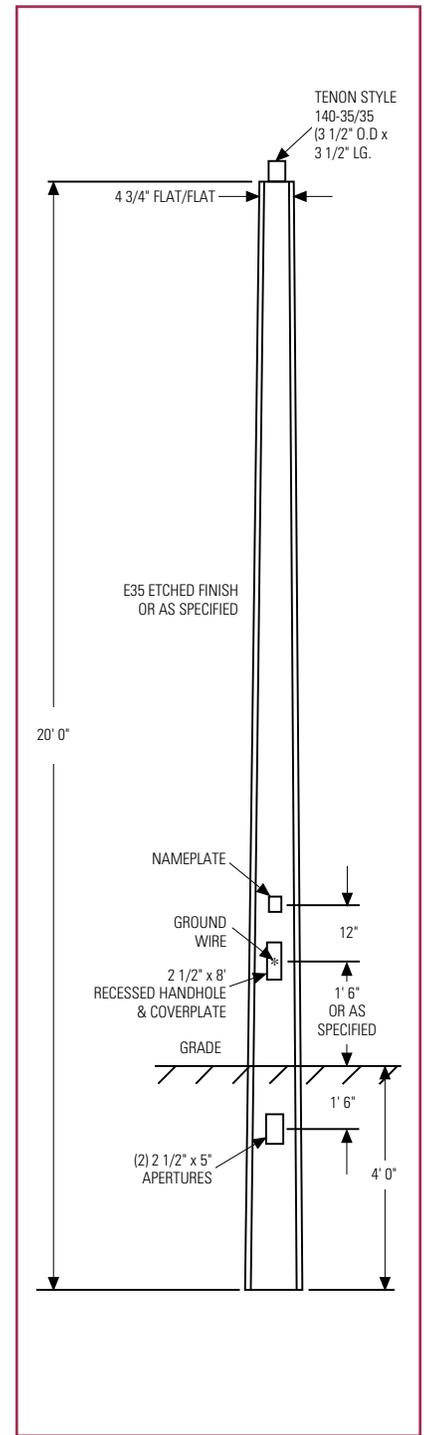


## Typical Catalog Numbers



### Typical for all types:

1. Select footing type - direct embedment or base plate.
2. Select pole length - if direct embedded allow for embedment length.
3. Select shape and strength of pole.
4. If required, select provision for electrical grounding of pole.
5. If desired, select Decor color and finish.
6. Select luminaire mounting style - see arms and accessories.



StressCrete



# THE DECOR COLORS



*King Luminaire • StressCrete • Est. 1953*

**STRESSCRETE  
GROUP**

# NATURE'S OWN MATERIALS IN A WIDE RANGE OF COLORS

## Concrete in colors that are more than just skin deep.

The Decor Series of colors adds warmth and vitality to an already attractive product, enhancing the ability of discerning designers to both beautify and harmonize any lighting project. Available in a wide selection of colors from earth tones to delicate pastels, Decor concrete colors are unique in the pole world in that the color permeates throughout the entire pole rather than being merely a surface treatment. Both available surface finishes, etched or polished, combine the attributes of a solid colored matrix and the undeniable beauty of natural stone, with stunning results.



Round poles are available in etched finishes only.



Hexagonal poles are available in both finishes.



Octagonal poles are available in both finishes.



Square poles are available in both finishes.



Fluted poles are available in etched finishes only.



Nontapered square poles are available in both finishes.

## How to Order

From the catalogue select the desired concrete pole, then simply add color choice - ie. **KBC14-E53**

(14' Belmont Coachman Pole, Etched Detroit Green Color)



# POLISHED DECORATIVE SPUN CONCRETE



Midnight Lace - S10



Eclipse Black - S11



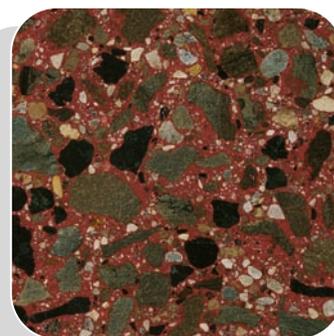
Salt & Pepper - S30



Oriental Jade - S52

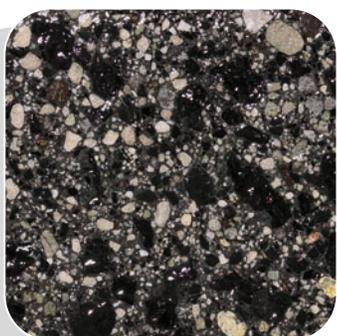


Detroit Green - S53



Autumn Red - S60

# ETCHED DECORATIVE SPUN CONCRETE



Midnight Lace - E10



Eclipse Black - E11



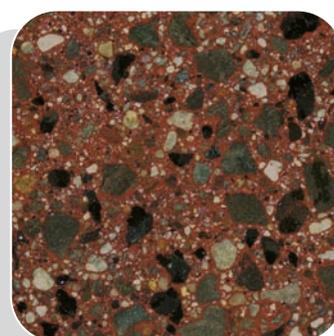
Salt & Pepper - E30



Oriental Jade - E52



Detroit Green - E53



Autumn Red - E60



Ash White - S35\*



Pearl Gray - S40



Dusty Rose - S41



Desert Sand - S70



Vintage Brown - S80



Rosewood - S81

concrete pole color



Ash White - E35\*



Pearl Gray - E40



Dusty Rose - E41



Desert Sand - E70



Vintage Brown - E80

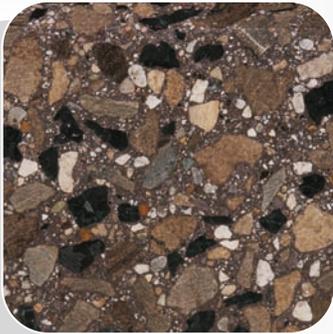


Rosewood - E81

# FORM AND FUNCTION.



Aztec Jade - S51



Saluki Bronze - S90



Aztec Jade - E51



Saluki Bronze - E90

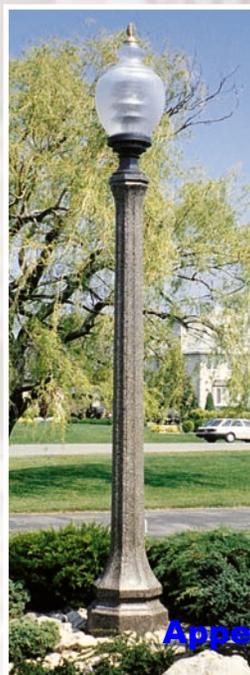
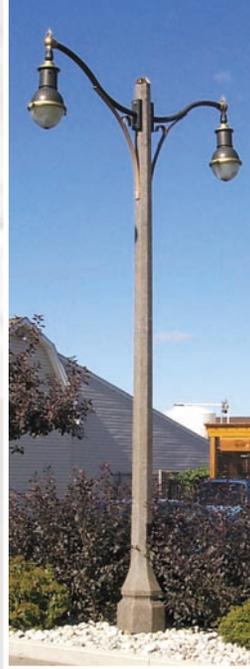
With historical roots firmly planted in the first decade of the 20th century, spun concrete poles have evolved over the past hundred years to become the pole of choice for an ever increasing number of specifiers and owners. Combining the essential benefits of low installed cost, minimal maintenance requirements and universal aesthetic appeal, spun concrete is more widely appreciated and used for its characteristic advantages now than ever before.

The appearance and practical qualities of spun concrete poles, while unquestioned, tell only half the story. Beneath the surface of every StressCrete pole lies the strength and versatility that can only be achieved by the employment of high strength concrete, high quality steel, and sophisticated quality control. Add to this the knowhow engendered by five decades of experience and expertise and it becomes obvious that StressCrete stands head and shoulders above their competition.

Colors shown are just a sampling of available choices. Please contact us for more information and custom colors.

Actual colors may vary from color photographs.

\*Available in noncoated finish only





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