APPLICATION FOR URBAN DESIGN COMMISSION

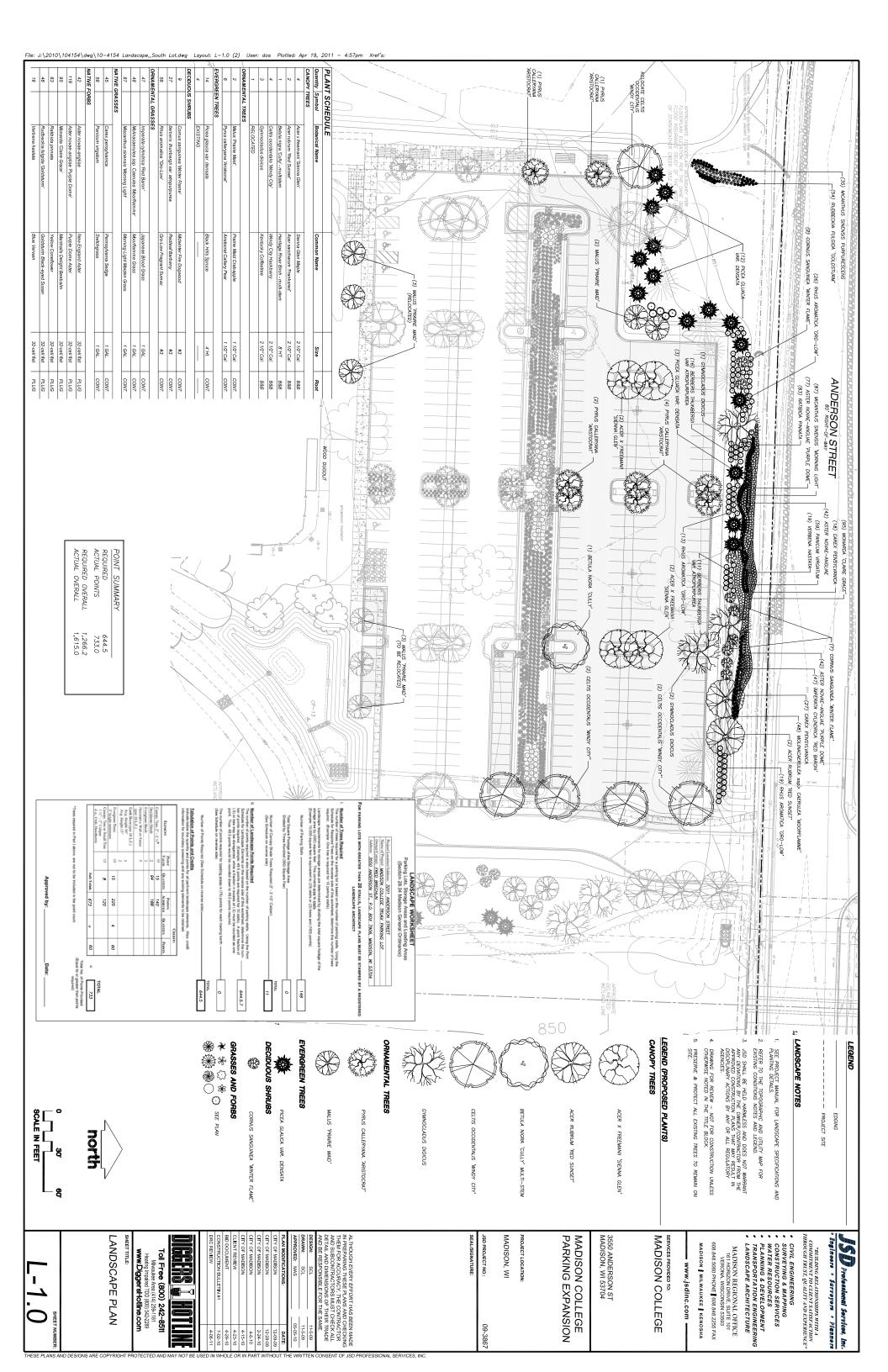
REVIEW AND APPROVAL

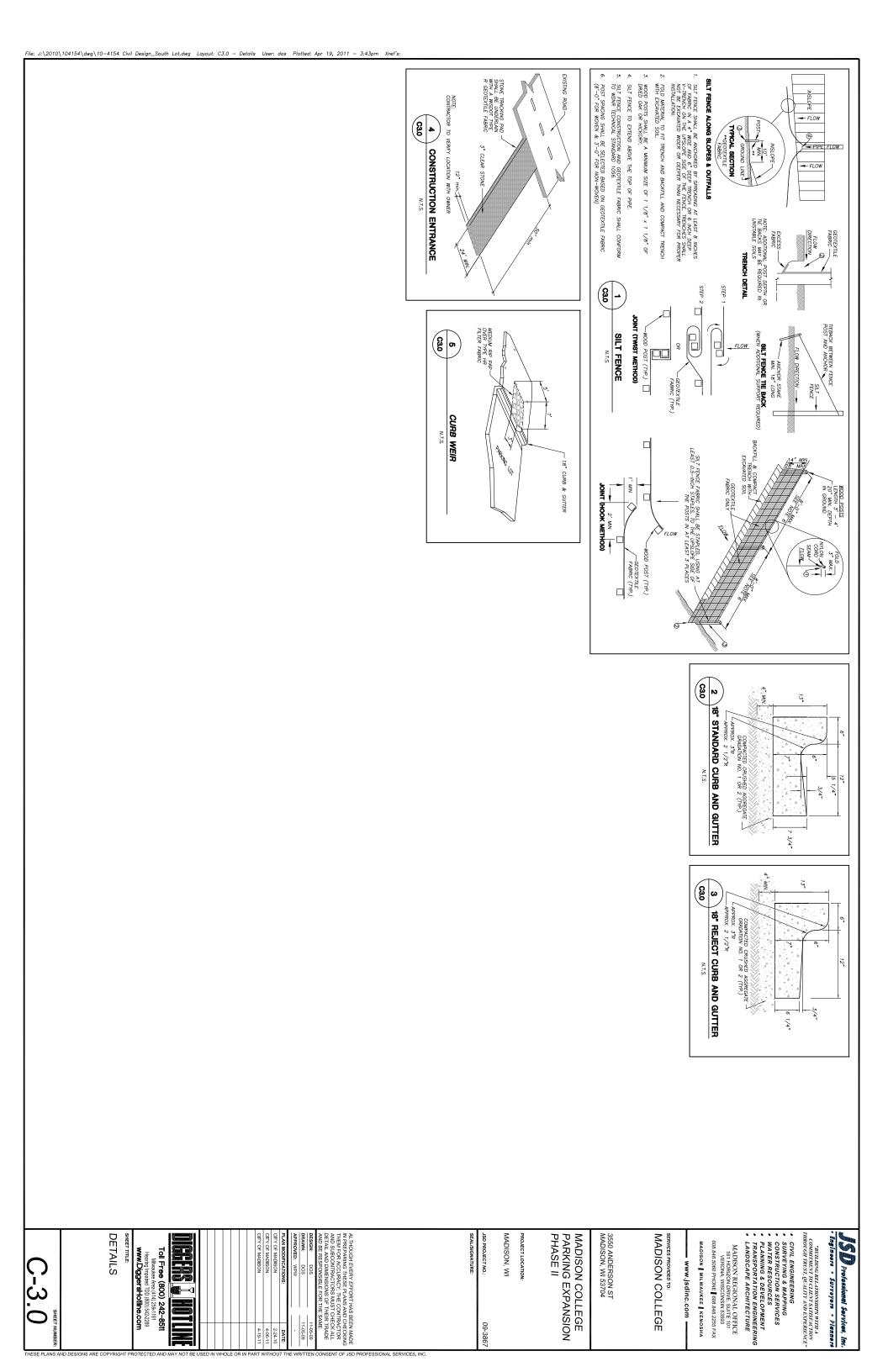
AGENDA ITEM #				
Project #				
Legistar #	16829			

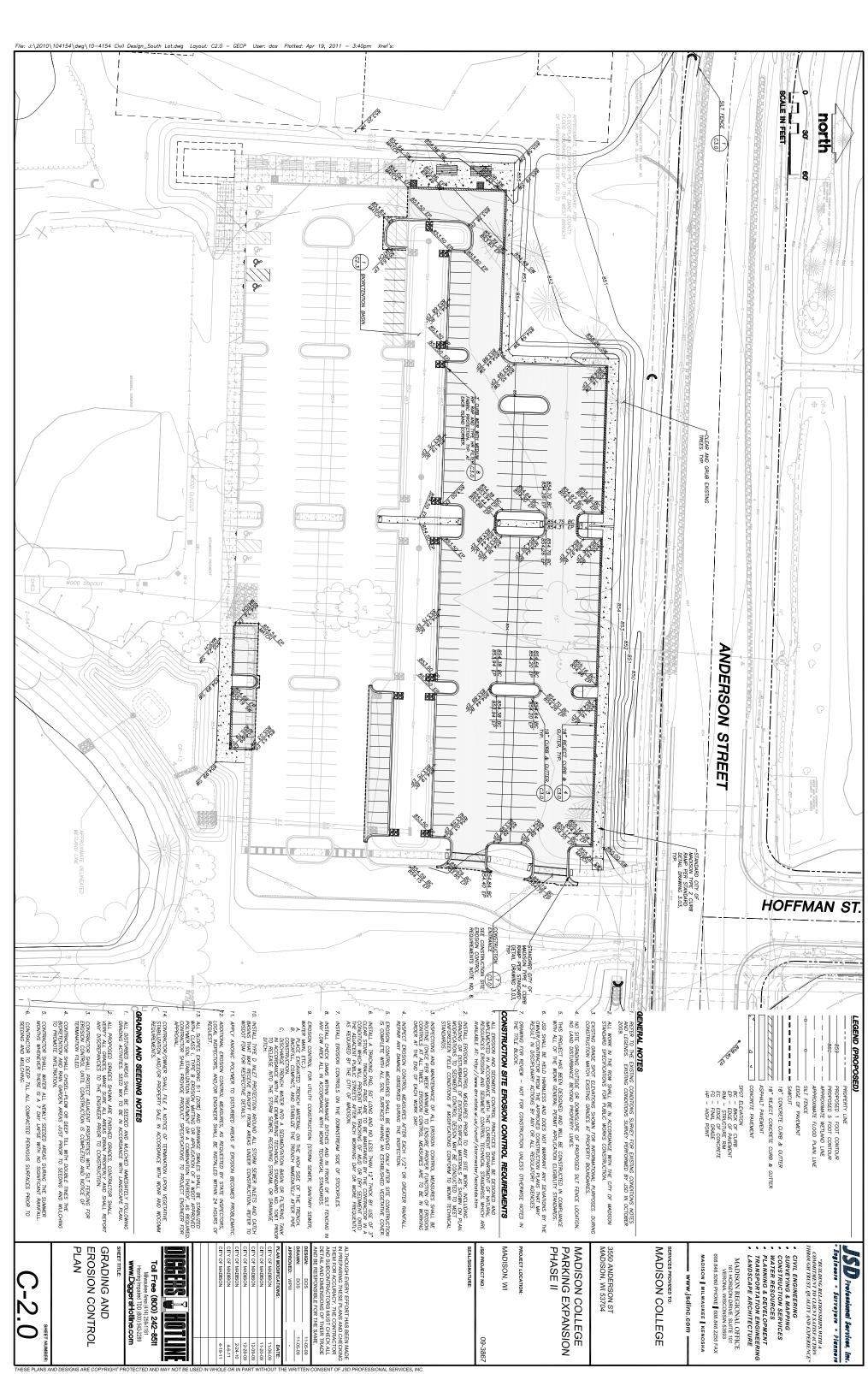
	DATE SUBMITTED: 04-19-2011 UDC MEETING DATE: April 27, 2011	Action Requested Informational Presentation Initial Approval and/or Recommendation X Final Approval and/or Recommendation		
<u> </u>	PROJECT ADDRESS: Southwest Quadrant of Anderson S	Street and Hoffman Street		
	ALDERMANIC DISTRICT:17			
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	OWNER/DEVELOPER (Partners and/or Principals) Michael Stark, Madison College	ARCHITECT/DESIGNER/OR AGENT: Wade Wyse, P.E JSD Professional Services		
	CONTACT PERSON: Wade Wyse, P.E.	PRINT		
(Address: 161 Horizon Drive, Suite 101	7		
_	Verona, WI 53593			
1	Phone: (608) 848-5060			
	Fax: (608) 848-2255			
	E-mail address: wade.wyse@jsdinc.com			
	well as a fee) X School, Public Building or Space (Fee may be r	n Urban Design District * (A public hearing is required as equired) g of a Retail, Hotel or Motel Building Exceeding 40,000		
	(See Section B for:) New Construction or Exterior Remodeling in Ca	4 District (Fee required)		
	(See Section C for:) R.P.S.M. Parking Variance (Fee required)			
	(See Section D for:) Comprehensive Design Review* (Fee required) Street Graphics Variance* (Fee required)			
	Other			
	*Public Hearing Required (Submission Deadline 3 Wee	eks in Advance of Meeting Date)		

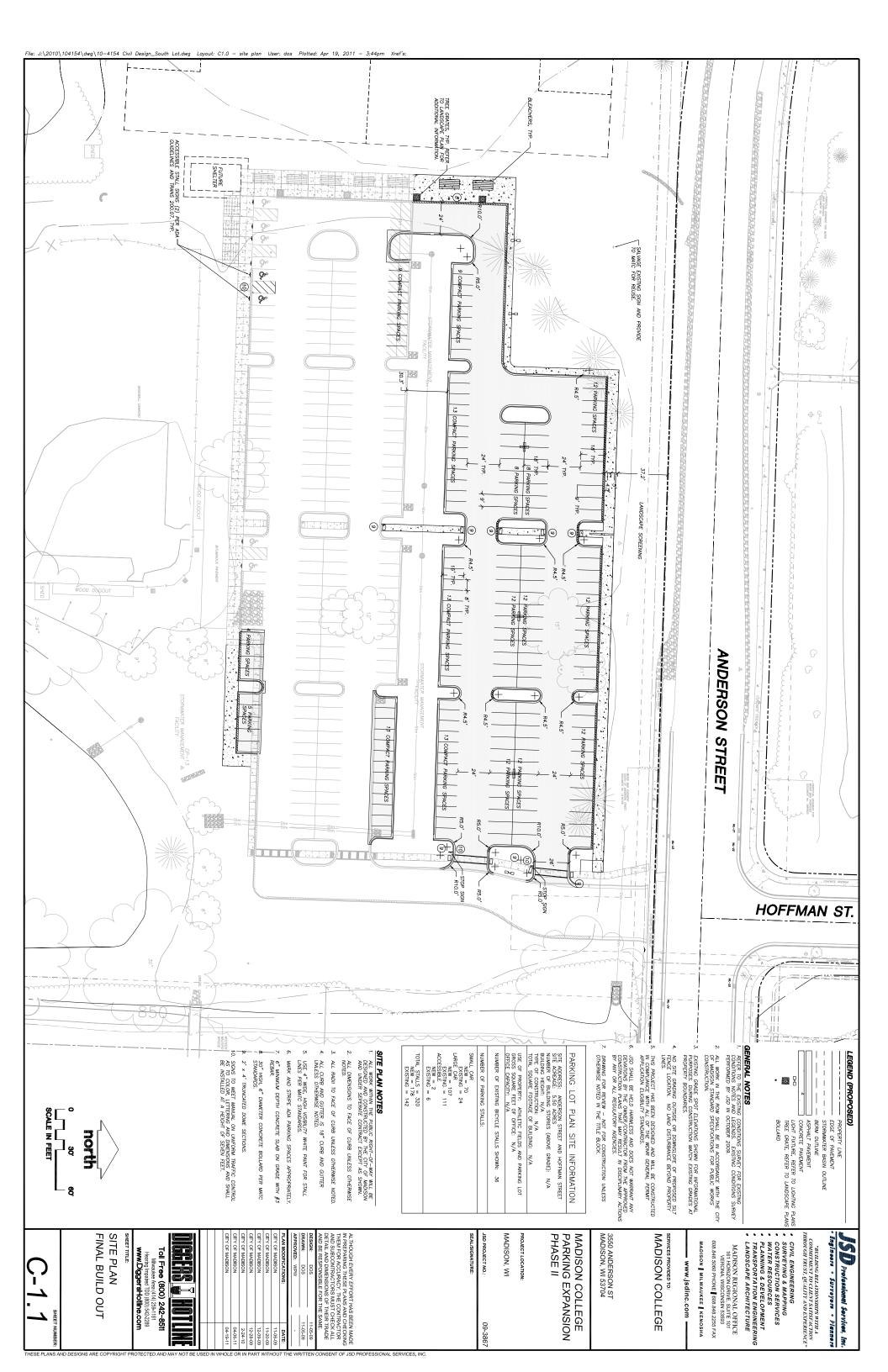
Public Hearing Required (Submission Deadline 3 Weeks in Advance of Meeting Date)

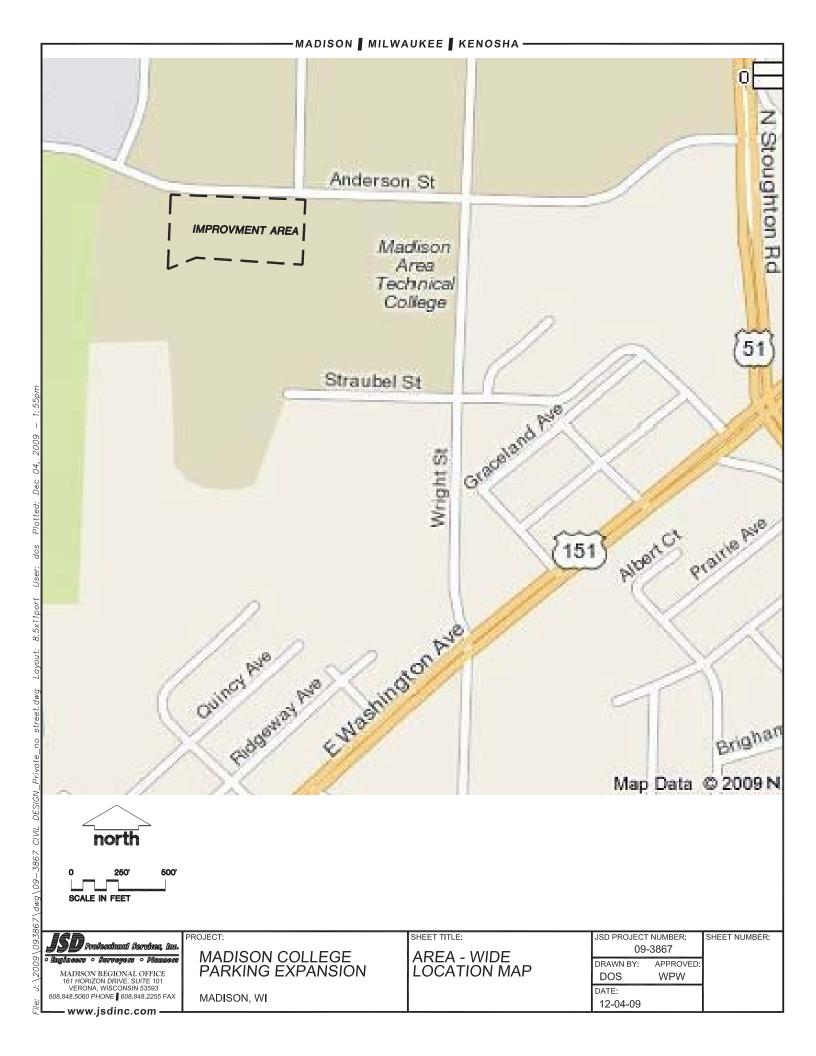
Where fees are required (as noted above) they apply with the first submittal for either initial or final approval of a project.







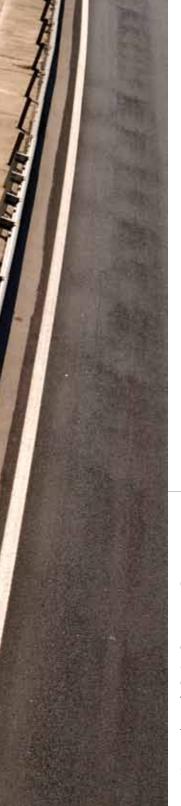






ROADSTAR[™] SERIES













M-DC6

ROADSTAR™ SERIES

Pure Performance. Built To Last. / The most efficient engine on the eternal road of life. The RoadStar™ luminaire was designed to address a fundamental need in the lighting industry for affordable, high-performance, energy efficient, and long lasting large-area LED lighting that is at once as good for the environment as it is for a project's bottom line.

The RoadStar™ is dark-sky compliant, will last well over 70,000 hours, casts the perfect amount of uniform light with exactly the desired intensity, and offers pole spacing that is at least as wide as current HID lighting.





PURE PERFORMANCE

All LED luminaires are not created equal, even if they all use the same technological principles. / The RoadStar™ was created with a noble goal in mind: to help those responsible

The RoadStar™ was created with a noble goal in mind: to help those responsible for lighting our world succeed in their energy conservation goals through affordable optimal photometric performance. The RoadStar™ is manufactured responsibly, and it contributes in a no-nonsense way by containing no hazardous substances, by reducing energy consumption, by lowering greenhouse gas emissions, and preserving the night sky.





The performance, lifespan, and efficiency of the RoadStar™ changes the way the entire game is played. /

Philips Lumec LED lighting is known around the world for its lower energy consumption and higher lumen output over the life of their luminaries. The RoadStar™, with its over 70,000 hour lifespan, pushes that concept to the absolute maximum. It gives all project directors, from those at various Departments of Transportation to those in municipalities, from major corporations to responsible private projects, the opportunity to meet their energy conservation goals without sacrificing performance, beauty, or safety. The RoadStar™ is more than a luminaire; it's a source of professional and ethical pride.





BUILT TO LAST

This versatile lighting solution was designed to last. / Its durable construction, low maintenance needs, and toolfree access to

Its durable construction, low maintenance needs, and toolfree access to components, makes it an elegantly powerful solution that meets or exceeds even the highest of expectations. Strength, precision, attention to detail; nothing was sacrificed. The RoadStar™ is refined simplicity at its finest. ◆





The LifeLED™ inside the RoadStar™ was designed to last well over 70,000 hours before needing to

be replaced. / Compared with traditional HID sources, the RoadStar™'s optical system's lifespan is easily 3 to 7 times longer. Not having to constantly deploy the maintenance fleet to replace electrical components can save any city man-hours, fuel, and other various expenses that add up over time, and turns the RoadStar™ into a source of pride in any project. The durable IP66 sealed construction, excellent thermal management, and resistance to elements (-40°C/-40°F to 50°C/122°F), makes the RoadStar™ an extremely tough, lumen generating powerhouse that simply can't be outperformed.



LUMINAIRE > GPLM BRACKET > DC6-1A POLE > ATR85

LUMINAIRE > GPLS
BRACKET > PC4-1A
POLE > ATR74

STEAR

BENEFITS

- > Energy efficient LED light source with customizable light control
- > Perfect uniformity and intensity of light
- > Over 70,000 hours of optimal operational lifespan
- > Pole spacing up to 8 times its mounting height
- > Durable, low maintenance construction
- > Excellent thermal management and weather resistance
- > Roadway priced state-of-the-art technology

SUPERIOR PERFORMANCE

Customize this luminaire with stunning precision to cast light only where you want light to be cast. It uses up to 50% less energy than traditional CobraHeads but 100% pure dark-sky compliant performance. The RoadStar™'s light engine generates light that is uniform in intensity, and Philips Lumec's patented light stretching technology inside the LifeLED™ engine provides the widest possible pole spacing for a luminaire of its kind.



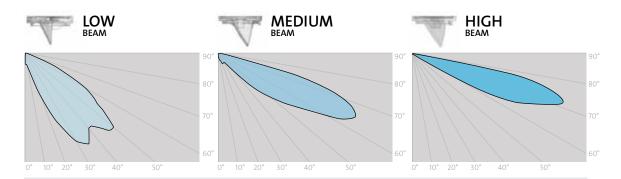
>>

Less luminaires are needed to achieve the same uniformity and intensity of light.

The RoadStar™ incredible light control provides pole spacing up to 8 times its mounting height. This reduces the quantity of poles (thus luminaires) needed to illuminate any given project and allows any site to keep its existing infrastructure and simply upgrade its CobraHeads to the RoadStar™. To counter glare, the RoadStar™ provides unparalleled uniformity and intensity. This assures security on the road by not interfering with the vision of drivers, cyclists, and pedestrians.

LIGHT CONTROL

To obtain a better light control, the technology employs a mix of low beam, medium beam, and high beam lens control, generating more lumens in the target lighting zone, increasing pole spacing up to 8 times greater than the mounting height, and reducing glare.

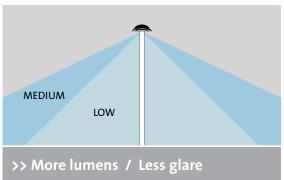




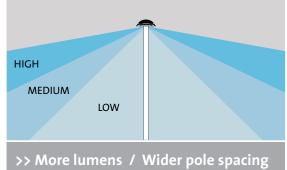
High beam, medium beam, and low beam light management gives the RoadStar™ better light control and better lumen targetting.

EXAMPLES:

LE2 FULL CUT-OFF OPTICAL SYSTEM



LEH2HYPER-EXTENSIVE OPTICAL SYSTEM

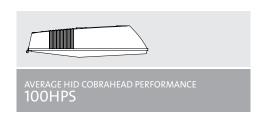


TARGET LUMEN

The results of a controlled test comparing a typical 100HPS CobraHead with a 60W RoadStar™ clearly demonstrate the light control that is possible to achieve with this luminaire: same lumens in the target area using less power.











Same light levels for a fraction of the energy usage.

LifeLED™ LIFESPAN

With a light source that lasts well over 70,000 hours (over 16 years) and with extremely low maintenance needs, the RoadStar™ will deliver whatever is required of it, while asking very little in return.

LM80 tests performed on the RoadStar™ clearly demonstrate that it not only meets criteria, it greatly surpasses them, giving it a lifespan that well exceeds the 70,000 hour mark thanks to better thermal management and lower current needs.

The lifespan of an LED luminaire is measured using lumen depreciation. When the LEDs in an LED light engine reach 30% lumen depreciation, they should be replaced. However, since the lumen depreciation in the LifeLED™ engine happens slower thanks to better thermal management (65°C), better junction temperature management (82°C), and lower current usage (570mA), when the RoadStar™ reaches 70,000 hours of use, its lumen depreciation will still be well under 30%.

	Ambient at LED	Junction at LED	Current	Lifespan
LED MANUFACTURER LM80 REPORT	85°C	112°C	700mA	70000
ROADSTAR™ VALUES	65°C	82°C	570mA	+ 70000



Rigorous testing has proven that the advanced system configuration of the RoadStar™ assures over 70,000 hours of life.

VERSATILITY

With the RoadStar™, it is finally possible to replace existing CobraHeads without changing the parameters of an existing infrastructure. It comes in two sizes that adapt to any project or setting, from city roads and parking spaces to majestic parks, walkways, and waterfront paths. The RoadStar™ requires no special tooling, making it the perfect choice for Departments of Transportation, Utilities, and municipalities that want to take advantage of the simplest yet most efficient way to change their existing power hungry HID CobraHead lighting for the advantages of energy efficient LED lighting. With the RoadStar™, the possibilities are endless, the results are unique, and making the change is extremely simple.







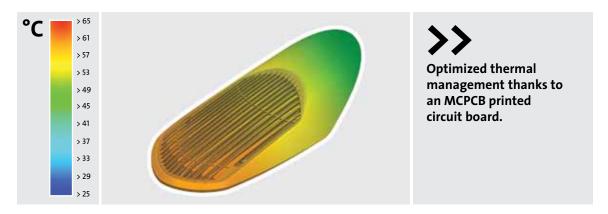
Easily replaces CobraHeads. No special tooling required. Keep your existing infrastructure.

HID

LED

RELIABILITY

The technology of the RoadStar™ can take anything the environment can throw at it, from extreme temperatures that range from -40°C/-40°F to 50°C/122°F, to intense weather conditions. The RoadStar™'s **IP66** sealed optics protect its light source, and its robust, **3G** (ANSI C136.31Table 2—Vibration test levels—Bridge/ overpass applications) vibration resistant construction protects the rest of this reliable lighting solution. Heat is managed through a built-in external heat-sink as well an **aluminium MCPCB printed circuit board**, far superior to the typical FR4 fibreglass boards, and considerably more recyclable.



WISE/SAFE INVESTMENT

The RoadStar™ is covered by a 5-year warranty from defects in material and workmanship in its intended use. The RoadStar™ is one of the most affordable state-of-the-art solution available on the market for cities, states, provinces, private projects, institutions and all other energy conscious entities.



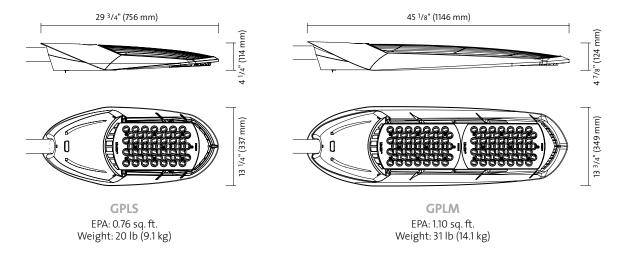


TECHNICAL & ORDERING INFORMATION

3 ways to access information:

- See next page for RoadStar™ technical information.
- Consult **Lumec3D** via our Website at **www.lumec.com**. Lumec3D gives you the opportunity to build your luminaire in real-time as well as build, as you select your choices, your product code which will appear at the bottom of the screen.
- See the Products section of our Website at **www.lumec.com**. Each Product page provides technical information and IES files, a selection of photos, and the promotional brochure.

LUMINAIRES



LAMPS



LAMP	LUMINAIRES	RATED LIFE	CRI	R WATTAGE	LER		
LAWIF	AVAILABILITY	HRS. ¹	CKI	TEMPERATURE ²	LAMP	SYSTEM ³	LLK
40W30LED4K	GPLS	70,000	70	4000K	40W	45W	67
40W49LED4K	GPLS	70,000	70	4000K	42W	47W	74
60W30LED4K	GPLS	70,000	70	4000K	60W	68W	57
65W49LED4K	GPLS	70,000	70	4000K	65W	73W	65
90W49LED4K	GPLS	70,000	70	4000K	90W	102W	58
105W79LED4K	GPLM	70,000	70	4000K	105W	119W	62
130W98LED4K	GPLM	70,000	70	4000K	130W	147W	65
150W79LED4K	GPLM	70,000	70	4000K	150W	170W	56
180W98LED4K	GPLM	70,000	70	4000K	180W	204W	58

¹ Rated life represents the time it takes for the LED system to reach 70% of initial lumen output.

> Lamp lumen depriciation factor: 85%



² On average.

³ System wattage includes the lamp and the LED driver.

CROSS REFERENCE ROADSTARTM VS. COBRAHEAD LUMINAIRE

TYPICAL COBRAHEAD HID	ROADSTAR™ WATTAGE¹	ENERGY SAVING
70HPS	60W30LED4K	24%
701113	40W49LED4K	47%
100HPS	65W49LED4K	43%
1001113	90W49LED4K	21%
150HPS	105W79LED4K	36%
1501115	130W98LED4K	21%
250HPS	180W98LED4K	35%
70MH	40W30LED4K	49%
	60W30LED4K	24%
100MH	40W49LED4K	62%
IOUMIN	65W49LED4K	41%
150MH	105W79LED4K	35%
ISUNIA	160W79LED4K	8%
250MH	150W79LED4K	42%
250/////	180W98LED4K	30%

A photometric calculation is required in order to establish exactly which RoadStar™ wattage will replace the initial HID wattage.

OPTICAL SYSTEMS

OPTICAL SYSTEMS		DISTRIBUTION .
FULL CUT-OFF	HYPER-EXTENSIVE	DISTRIBUTION
LE2	LEH2	TYPE II / Asymmetrical distribution
LE3	LEH3	TYPE III / Asymmetrical distribution
LE4	LEH4	TYPE IV / Asymmetrical distribution
LE5	LEH5	TYPE V / Symmetrical distribution

VOLTAGES / 120 / 208 / 240 / 277

¹ This chart covers roadway lighting only.

LUMINAIRE OPTIONS

> PH8 Photoelectric Cell, Twistlock Type c/w receptacle

> RC Receptacle for a twist-lock photoelectric cell or a shorting cap

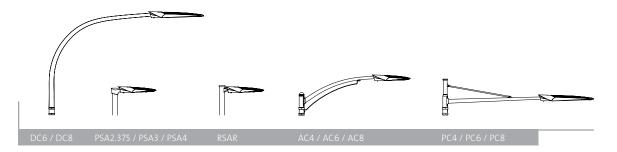
> WPG Without protective grid

> BL Bubble level

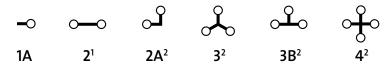
> DMG 0-10 volt dimming-ready power supply

BRACKETS

Consult the Philips Lumec Pole Guide for details and the complete line of brackets.



CONFIGURATION

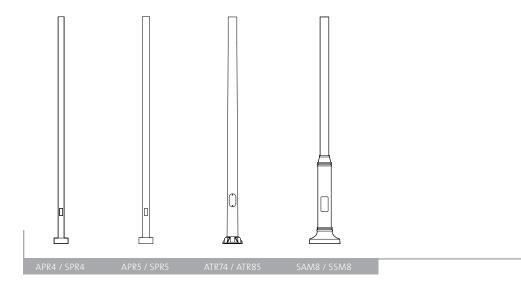


¹ Not available with PSA2.375 / PSA3 / PSA4 brackets.

² Only available with RSAR bracket.

POLES

Consult the Philips Lumec Pole Guide for details and the complete line of poles.



FINISH

The RoadStar™ comes standard in **Natural Alumimun (NP)**. Also available unpainted (NF).

Consult Lumec's Color Chart for complete specifications.



INNOVATION & EXPERTISE

The very definition of our purpose. / We are experts at what we do and we are passionate about doing it. Engineers, designers, technicians, specialists, over 250 dedicated people all focused on one thing: creating the best outdoor lighting products the world has ever seen. We don't simply manufacture luminaires, we design them and their optics from scratch, we have our own foundry, we do our own R&D, we lead the way in LED outdoor lighting technology, we are actively involved in the industry, always staying on top, always leading the way. Philips Lumec is not only a manufacturer of luminaires, we are innovators and creators in our field, delivering high-quality products, perfectly adapted to the needs of our clients.

LIGHTING THE WAY TO A NEW WORLD

Since 1972, Philips Lumec has been committed to anticipating and satisfying the lighting needs of highly

specialized industries. / Our focus is on developing solutions that respond to those needs. This visionary approach has made Philips Lumec one of the most respected partners in outdoor lighting in North America. We do our own R&D and we manufacture our products in-house, this assures that each Philips Lumec luminaire is built to the highest standards using only the best technology and methods. We dynamically practice the arts of sustainable design and the science of smart engineering in order to provide our clients with the best lighting products in world. Philips Lumec actively forges partnerships within the industry in order to engineer lighting solutions that are flexible, environmentally responsible, adaptable, and truly inspired.

Philips Lumec's history is rich and its influence on the outdoor lighting market is considerable. The employees at Philips Lumec are proud to be associated with the world leader in lighting. Philips provides Lumec with a leading position in the Canadian decorative and functional outdoor lighting market, offering both contemporary and traditional luminaires, as well as a major role in the United States. Our products can be found everywhere around the globe, as shown by our varied projects in Asia, Mexico and the Caribbean.





www.lumec.com

LUMEC HEAD OFFICE

MEXICO OFFICE

For the details of our different agents and representatives, please consult the **Contact us** section of our Website.

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All rights reserved. Certain products illustrated in this catalog may be protected by applicable patents and patents pending. Philips Lumec will aggressively defend all of its intellectual property. We reserve the right to change details of design, materials and finishes.

(Hg / Some luminaires use fluorescent or high intensity discharge (HID) lamps that contain small amounts of mercury. Such lamps are labeled "Contains Mercury" and/or with the symbol "Hg." Lamps that contain mercury must be disposed of in accordance with local requirements.

The management at Philips Lumec has taken an official position towards sustainable development and has signed a publicly available document to ensure that all its activities tend towards that goal. Guided by our corporate philosophies, Philips Lumec engages itself to elaborate innovative and bold initiatives that will take advantage of our teamwork so that together we all adopt a responsible behaviour towards society and the environment.

The choice to use 100% recycled paper for this brochure is an example of the actions that Philips Lumec has undertaken in the scope of its dedication towards sustainable development. Using this paper reduced our ecological footprint of:





87 kg solids



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