

APPLICATION FOR  
URBAN DESIGN COMMISSION  
REVIEW AND APPROVAL

AGENDA ITEM # \_\_\_\_\_  
Project # \_\_\_\_\_

DATE SUBMITTED: <u>APRIL 30, 2008</u>	<input checked="" type="checkbox"/> Informational Presentation
UDC MEETING DATE: _____	<input type="checkbox"/> Initial Approval and/or Recommendation
	<input type="checkbox"/> Final Approval and/or Recommendation

PROJECT ADDRESS: 5714 ODANA ROAD

ALDERMANIC DISTRICT: 19

OWNER/DEVELOPER (Partners and/or Principals) ARCHITECT/DESIGNER/OR AGENT:  
J.R. SMART JIM TRIATIK  
SMART MOTORS K.F. SULLIVAN

CONTACT PERSON: JIM TRIATIK - K.F. SULLIVAN  
Address: 1314 EMIL ST.  
MADISON WI 53713  
Phone: 257-2289  
Fax: 257-2906  
E-mail address: JIM@KFSULLIVAN.COM

- TYPE OF PROJECT:  
(See Section A for:)
- Planned Unit Development (PUD)
    - General Development Plan (GDP)
    - Specific Implementation Plan (SIP)
  - Planned Community Development (PCD)
    - General Development Plan (GDP)
    - Specific Implementation Plan (SIP)
  - Planned Residential Development (PRD)
  - New Construction or Exterior Remodeling in an Urban Design District \* (A public hearing is required as well as a fee)
  - School, Public Building or Space (Fee may be required)
  - New Construction or Addition to or Remodeling of a Retail, Hotel or Motel Building Exceeding 40,000 Sq. Ft.
  - Planned Commercial Site
- (See Section B for:)
- New Construction or Exterior Remodeling in C4 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 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.

# Smart Motors

Building Demolition / New Lot  
5714 Odana Road  
Madison, WI 53719



Date: April 30, 2008

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	EXISTING PHOTOS
	EXISTING SITE PLAN
	PROPOSED SITE PLAN
L-10	PROPOSED LANDSCAPING
E-0a	SITE LIGHTING

Smart Motors 208-000

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Stamps &  
Approvals:



**Kenneth F.  
Sullivan**  
CO.  
DESIGN BUILD /  
GENERAL CONTRACTORS

P.O. BOX 259463 1314 EMIL ST. 608-257-2289  
MADISON, WI 53725-9463 FAX 608-257-2906  
[www.kfsullivan.com](http://www.kfsullivan.com)



 TOYOTA
  SCION
  VOLVO  
 5901 Odana Road, Madison WI 53719 • Phone (608) 275-7808  
 Toll Free (877) 39-SMART • Fax (608) 275-7814 • [www.smartmotors.com](http://www.smartmotors.com)

Urban Design Commission

April 28, 2008

Dear Members,

The purpose of this letter is to request permission for the demolition of our building located at 5714 Odana Rd. The former U.W. Medical Building served as our temporary headquarters during the demolition and construction phases of our new facility across the street. This building, which was constructed in 1966, is the oldest on Odana Road (West of Whitney Way), has become quite dilapidated as seen in the attached photos. While there are numerous problems surrounding wiring, insulation, and heating, the greatest concern is the water system. Numerous failures over the years have created mold-ridden and water damaged areas, with the biggest problem being that the system is encased in the basic foundation of the structure. Coupled with the daunting challenge of bringing the facility up to current day code for our employees, our studies have shown us that it would be cost prohibitive to attempt a renovation or remodel to suit our future needs.

We therefore, ask your permission to demolish the building at 5714 Odana Road and construct an inventory display lot (per attached plans) as phase one of our project. Phase two (to be announced at a later date) is currently considering plans for constructing a new pre-owned sales facility utilizing this site.

This is a similar request to our first project in 2005-2006, where we demolished several buildings and relocated our inventory, employee and guest parking areas while undergoing a massive construction project. I believe our new facility, which the Urban Design Commission played a significant role in shaping, has met and hopefully even exceeded your expectations. You should be proud of the role you had in helping improve the landscape of Odana Road.

I hear comments daily assuring me that the residents of the City of Madison and Dane County as a whole appreciate the new Smart Motors. I mention this because I believe that over the past three years we have demonstrated by our actions that we honor our commitments. I am honored to own one of the oldest family owned and operated auto dealerships in the world, and appreciate your support in my continued effort.

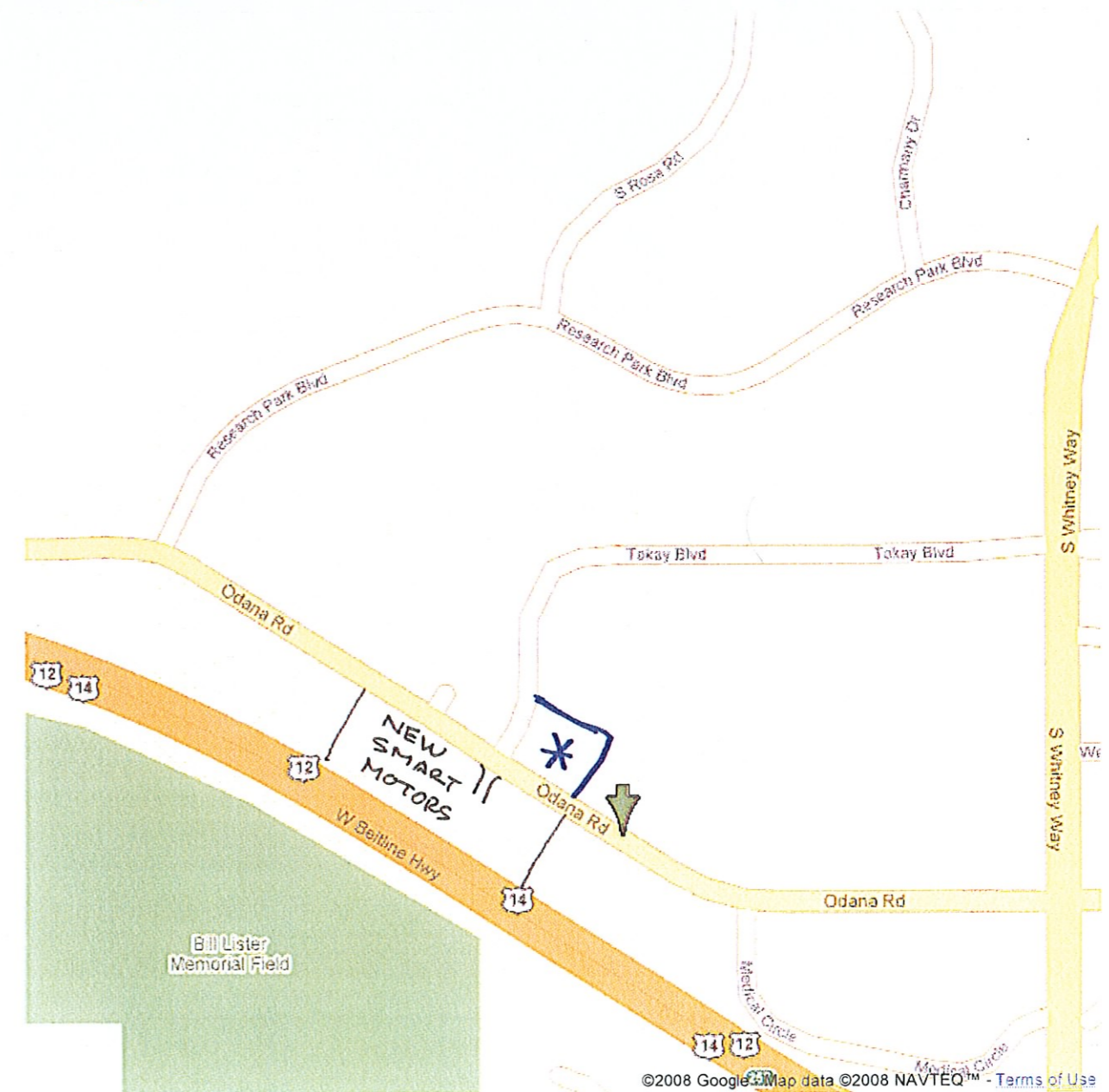
Sincerely,

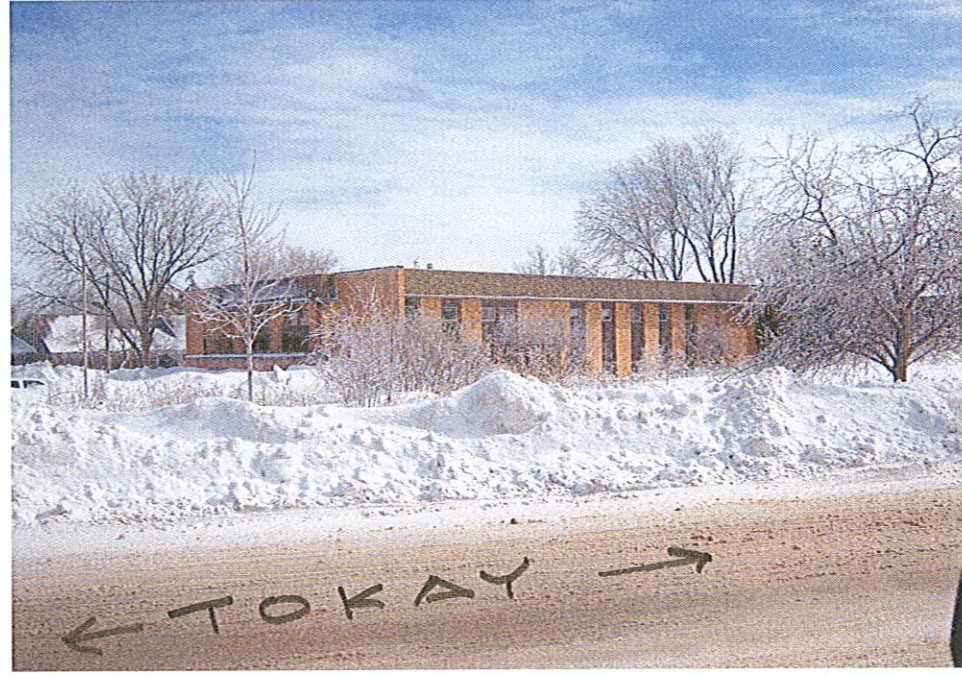


J.R. Smart  
 President  
 Smart Motors, Inc.

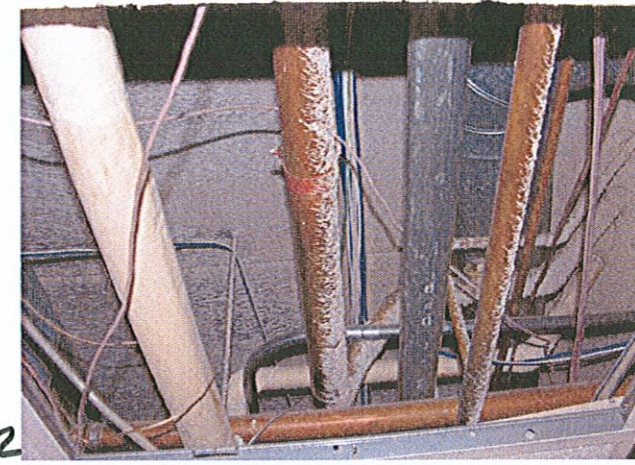
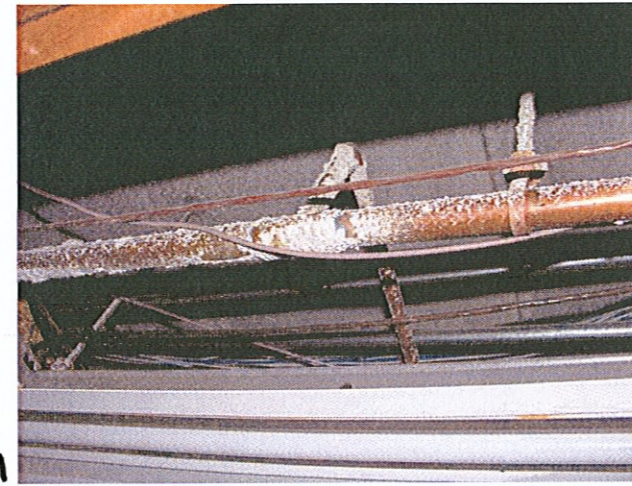
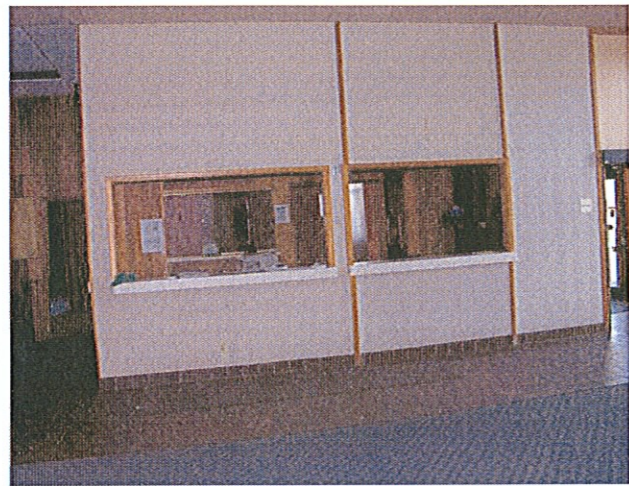


Address **5714 Odana Rd**  
**Madison, WI 53719**

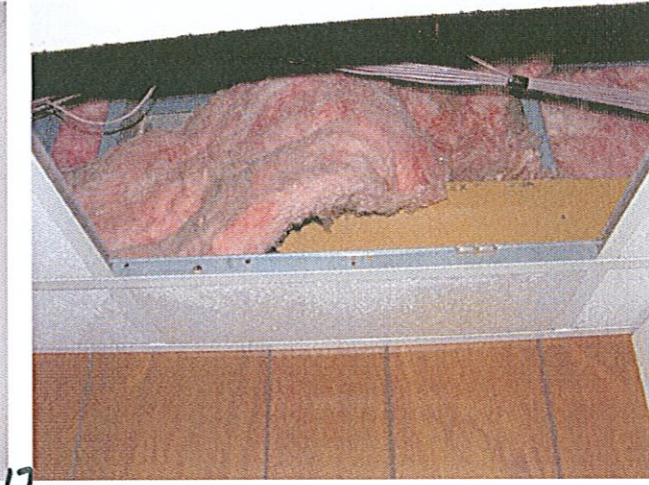
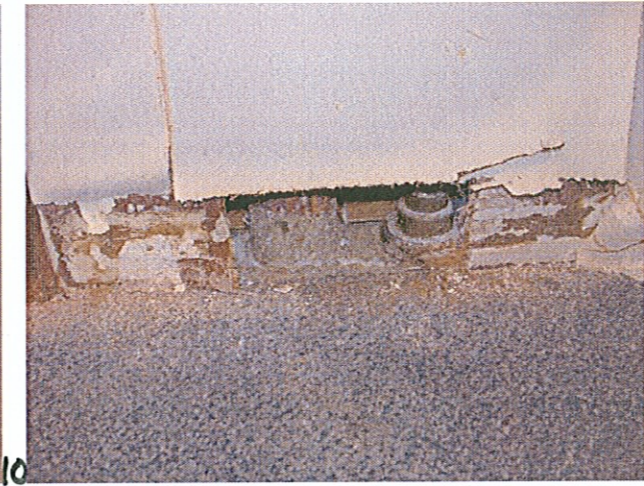




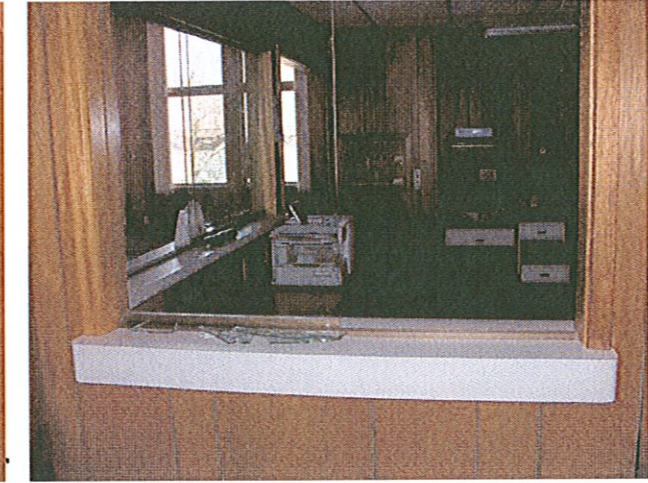
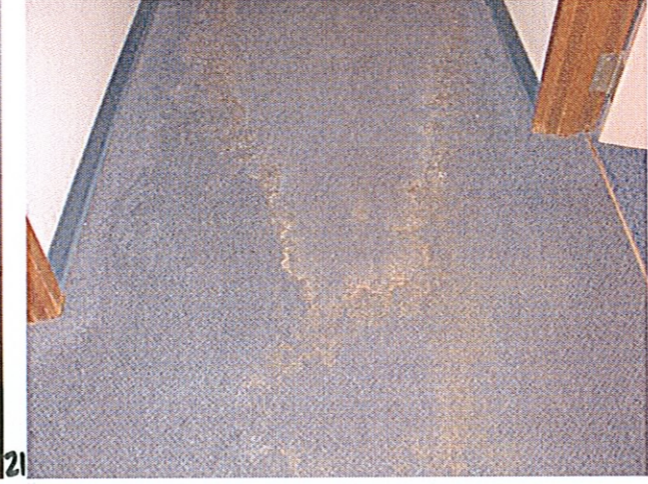
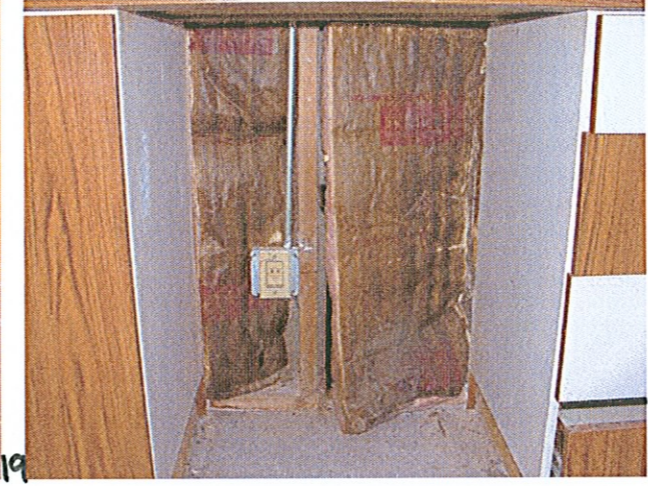
EXISTING  
EXTERIOR



EXISTING  
INTERIOR



EXISTING  
INTERIOR



19

20

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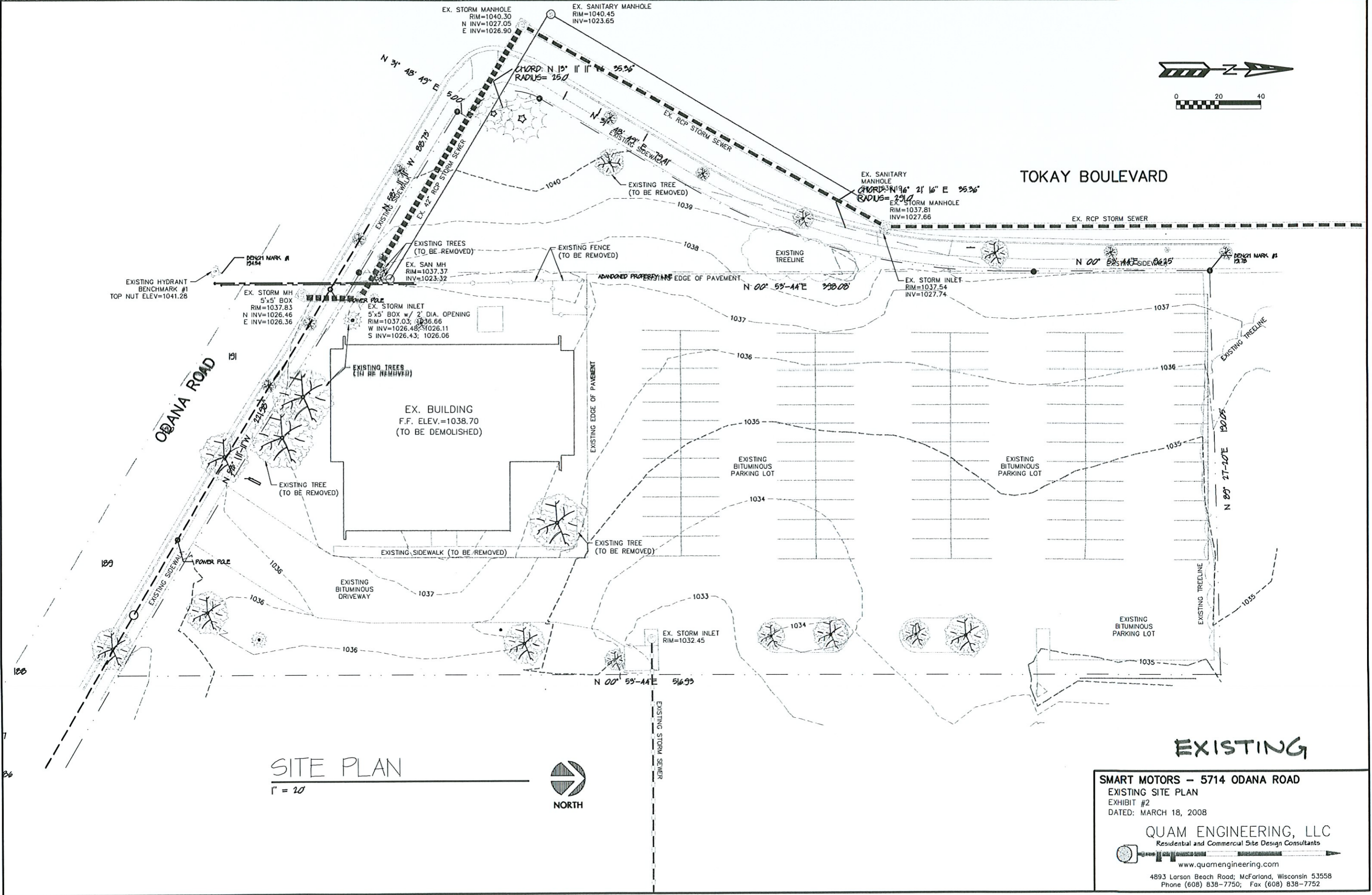
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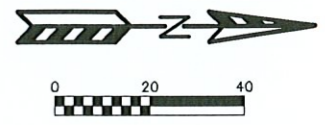
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EXISTING  
INTERIOR



# SITE PLAN

1" = 20'



# EXISTING

SMART MOTORS - 5714 ODANA ROAD  
 EXISTING SITE PLAN  
 EXHIBIT #2  
 DATED: MARCH 18, 2008

QUAM ENGINEERING, LLC  
 Residential and Commercial Site Design Consultants



www.quamengineering.com  
 4893 Larson Beach Road; McFarland, Wisconsin 53558  
 Phone (608) 838-7750; Fax (608) 838-7752

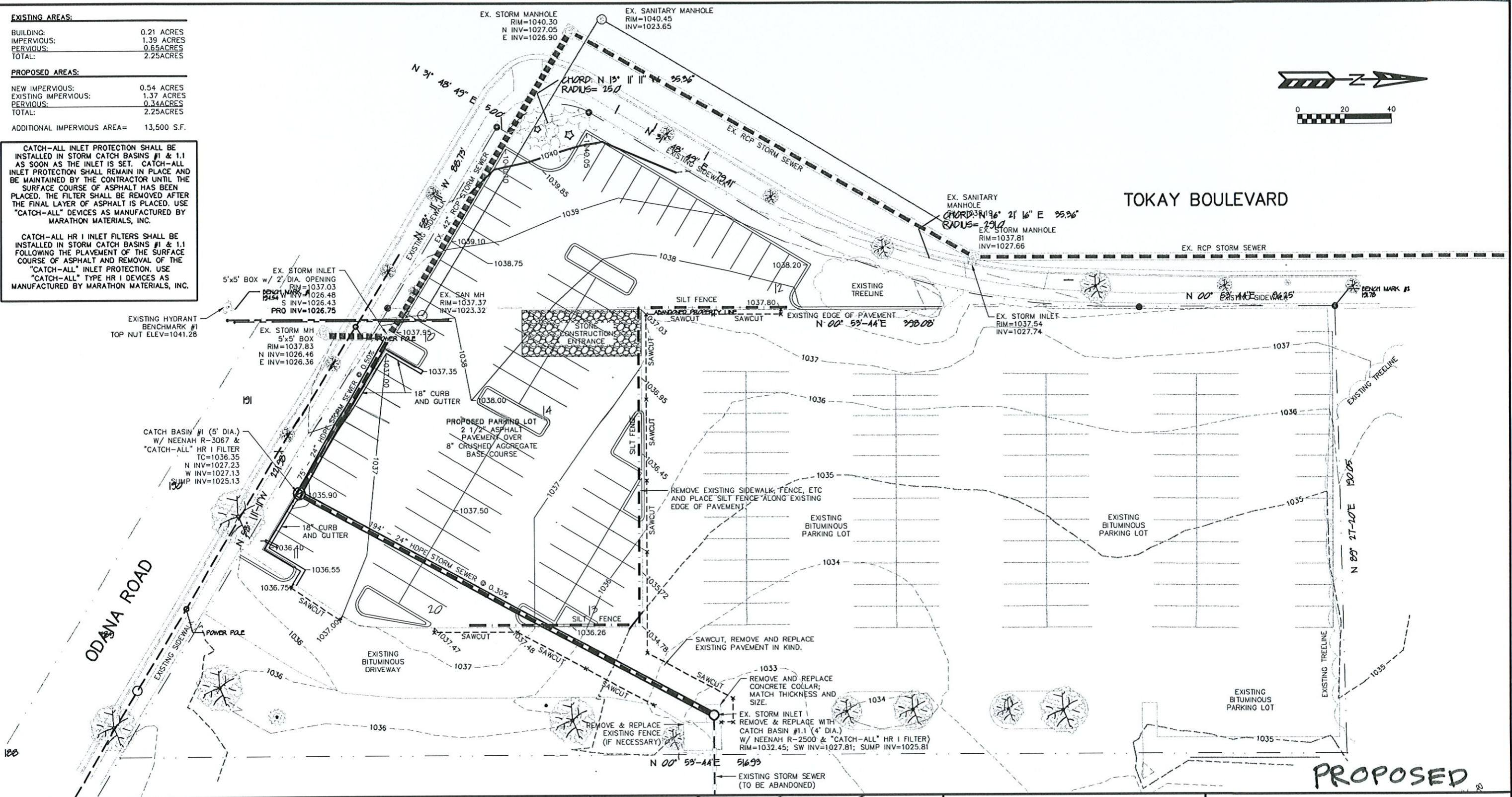
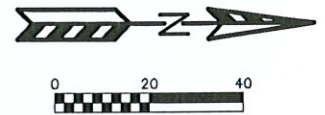


EXISTING AREAS:	
BUILDING:	0.21 ACRES
IMPERVIOUS:	1.39 ACRES
PERVIOUS:	0.65 ACRES
TOTAL:	2.25 ACRES
PROPOSED AREAS:	
NEW IMPERVIOUS:	0.54 ACRES
EXISTING IMPERVIOUS:	1.37 ACRES
PERVIOUS:	0.34 ACRES
TOTAL:	2.25 ACRES

ADDITIONAL IMPERVIOUS AREA= 13,500 S.F.

CATCH-ALL INLET PROTECTION SHALL BE INSTALLED IN STORM CATCH BASINS #1 & 1.1 AS SOON AS THE INLET IS SET. CATCH-ALL INLET PROTECTION SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL THE SURFACE COURSE OF ASPHALT HAS BEEN PLACED. THE FILTER SHALL BE REMOVED AFTER THE FINAL LAYER OF ASPHALT IS PLACED. USE "CATCH-ALL" DEVICES AS MANUFACTURED BY MARATHON MATERIALS, INC.

CATCH-ALL HR I INLET FILTERS SHALL BE INSTALLED IN STORM CATCH BASINS #1 & 1.1 FOLLOWING THE PLACEMENT OF THE SURFACE COURSE OF ASPHALT AND REMOVAL OF THE "CATCH-ALL" INLET PROTECTION. USE "CATCH-ALL" TYPE HR I DEVICES AS MANUFACTURED BY MARATHON MATERIALS, INC.



**EROSION NOTES:**  
 THE STONE CONSTRUCTION ENTRANCE SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION. THE TRACKING PAD IS TO BE MAINTAINED BY THE CONTRACTOR IN A CONDITION, WHICH WILL PREVENT THE TRACK OF MUD OR DRY SEDIMENT ONTO THE ADJACENT PUBLIC STREETS. SEDIMENT REACHING THE PUBLIC ROAD SHALL BE REMOVED BY STREET CLEANING (NOT HYDRAULIC FLUSHING) BEFORE THE END OF EACH WORKDAY.

EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO GRADING OPERATIONS AND SHALL BE PROPERLY MAINTAINED FOR MAXIMUM EFFECTIVENESS UNTIL VEGETATION IS ESTABLISHED. ALL EROSION CONTROL MEASURES AND STRUCTURES SERVING THE SITE MUST BE INSPECTED AT LEAST WEEKLY OR WITHIN 24 HOURS OF A 0.5 INCH RAIN EVENT. ALL MAINTENANCE WILL FOLLOW AN INSPECTION WITHIN 24 HOURS.

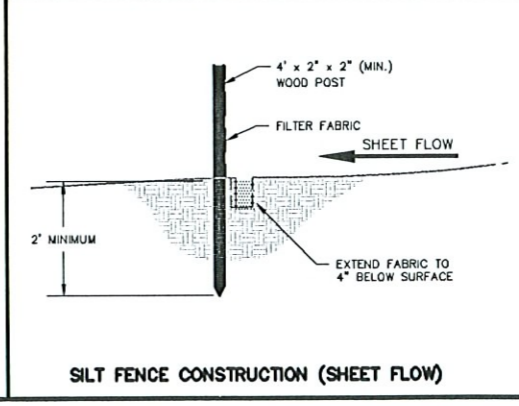
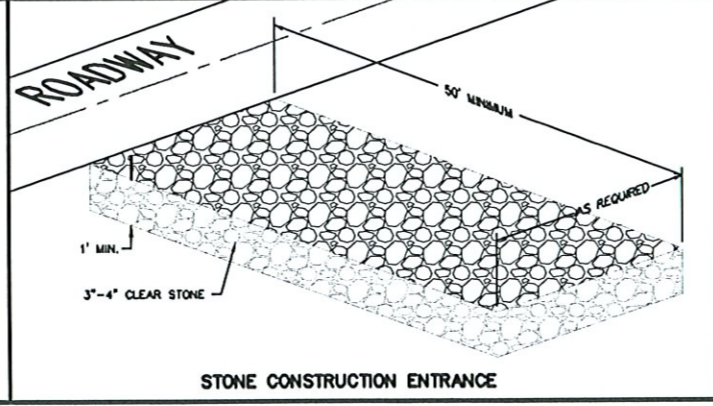
EROSION CONTROL IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ACCEPTANCE OF THIS PROJECT. EROSION CONTROL MEASURES AS SHOWN SHALL BE THE MINIMUM PRECAUTIONS THAT WILL BE ALLOWED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECOGNIZING AND CORRECTING ALL EROSION CONTROL PROBLEMS THAT ARE A RESULT OF CONSTRUCTION ACTIVITIES. ADDITIONAL EROSION CONTROL MEASURES, AS REQUESTED IN WRITING BY THE STATE OR LOCAL INSPECTORS, OR THE DEVELOPER'S ENGINEER, SHALL BE INSTALLED WITHIN 24 HOURS.

**TIME SCHEDULE:**  
 MAY 15 - 22, 2008 INSTALL INLET PROTECTION IN CB #1 & 1.1, THEN REMOVE EXISTING SIDEWALK, FENCE, ETC. AND PLACE SILT FENCE ALONG EXISTING EDGE OF PAVEMENT AS SHOWN.  
 MAY 23 - SEPT 14, 2008 DEMOLISH EXISTING BUILDING AND CONSTRUCT STORM SEWER AND PARKING LOT.  
 SEPTEMBER 15, 2008 RESTORE ALL PERVIOUS DISTURBED AREAS.

**RESTORATION NOTES:**  
 ALL DISTURBED AREAS, EXCEPT PAVEMENT AND SIDEWALK, SHALL RECEIVE A MINIMUM OF FOUR (4) INCHES OF TOPSOIL, FERTILIZER, SEED AND MULCH. RESTORATION WILL OCCUR AS SOON AFTER THE DISTURBANCE AS PRACTICAL. SEED MIXTURE 20 SHALL BE USED ON ALL AREAS. MIXTURES SHALL BE IN ACCORDANCE WITH SECTION 630 OF D.O.T. SPECIFICATIONS. AN EQUAL AMOUNT OF ANNUAL RYEGRASS SHALL BE ADDED TO THE MIX. SEED MIXTURES SHALL BE APPLIED AT THE RATE OF FOUR (4) POUNDS PER 1,000 SQUARE FEET. FERTILIZER SHALL BE APPLIED AT THE RATE OF FOUR (4) POUNDS PER 1,000 SQUARE FEET. FERTILIZER SHALL MEET THE MINIMUM REQUIREMENTS THAT FOLLOW: NITROGEN, NOT LESS THAN 16%; PHOSPHORIC ACID, NOT LESS THAN 6%; POTASH, NOT LESS THAN 6%.

**OWNER:**  
 SMART MOTORS  
 5901 ODANA ROAD  
 MADISON, WI 53719

**ENGINEER:**  
 QUAM ENGINEERING, LLC  
 ATTN: RYAN QUAM  
 4893 LARSON BEACH ROAD  
 MCFARLAND, WI 53558

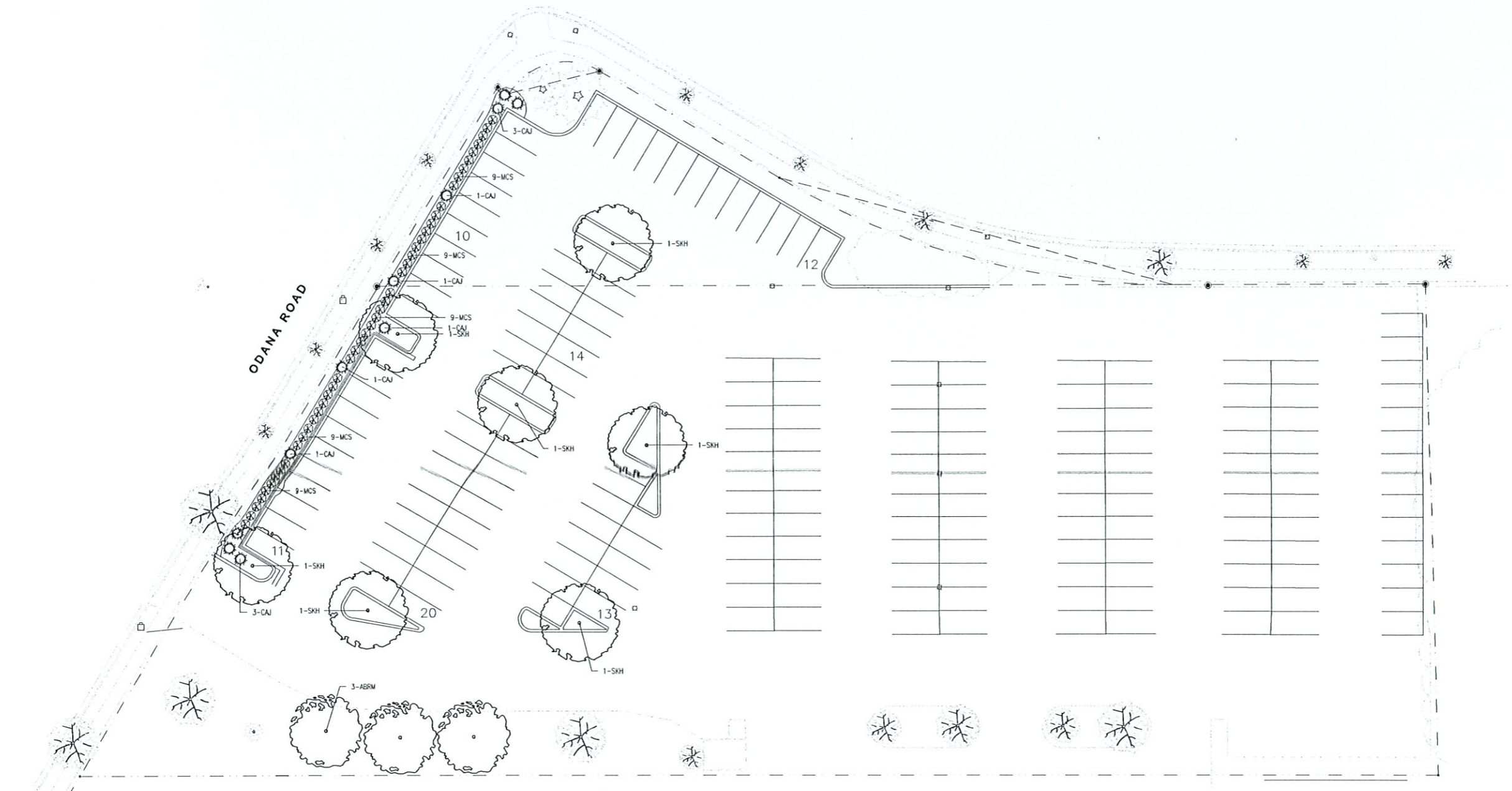


ALL GRADES ARE EDGE OF PAVEMENT ELEVATIONS UNLESS NOTED.

ALL WORK IN THE PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED BY A CITY LICENSED CONTRACTOR.

**SMART MOTORS - 5714 ODANA ROAD**  
 GRADING AND EROSION CONTROL PLAN  
 EXHIBIT #3  
 DATED: MARCH 18, 2008

**QUAM ENGINEERING, LLC**  
 Residential and Commercial Site Design Consultants  
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Plant Material List

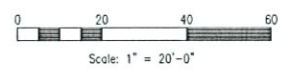
Broadleaf Deciduous					
Quantity	Code	Common Name	Scientific Name	Planting Size	Mature size
3	ABRM	Autumn Blaze Red Maple	Acer x freemanii 'Jeffers'	2"-2-1/2" B&B	40-60 feet
8	SKH	Skyline Honeylocust	Gleditsia triacanthos 'Skyline'	2"-2-1/2" B&B	40-60 feet
Conifer Evergreen					
Quantity	Code	Common Name	Scientific Name	Planting Size	Mature size
11	CAJ	Compact Mini Arcadia Juniper	Juniperus sabinia 'Arcadia Compact'	#5 CONT.	1' Ht x 6" W
Shrub					
Quantity	Code	Common Name	Scientific Name	Planting Size	Mature size
45	MCS	Magic Carpet Spirea	Spiraea japonica 'Magic Carpet'	12"-15"	18 inches

- Notes:
- All planting beds around building shall be edged with Dimex Black Vinyl Edging.
  - Areas labeled bark mulch to receive double shredded hardwood bark mulch spread to a depth of 3" with 'Preen' or equivalent applied.
  - All trees and shrubs in lawn areas are to be mulched with a 3' dia shredded bark mulch ring.
  - Lawn areas to be fine graded and seeded with sunny premium seed blend, straw mulched and starter fertilizer applied.

LANDSCAPE POINTS - MADISON		
	New size and	New Esting
NO. PARKING STALLS	80	191*
NO. CANOPY TREES REQ. (not counted in pt. est.)	6	13*
NO. LANDSCAPE PTS. REQ.	370	802*
POINTS SUPPLIED		
CANOPY TREES 2"-2 1/2"	35	22/15*
EVERGREEN TREES 3' Min.	15	3
SMALL CANOPY OR ORNAMENTAL TREES 1 1/2"-2"	15	0
EVERGREEN SHRUB	3	11
DECIDUOUS SHRUB	2	45
DECORATIVE WALL OR FENCE (per 10 LF)	5	0
TOTAL PTS. SUPPLIED	93	89*

## LANDSCAPE PLAN

1" = 20'



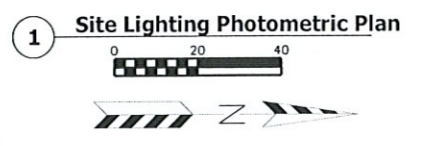
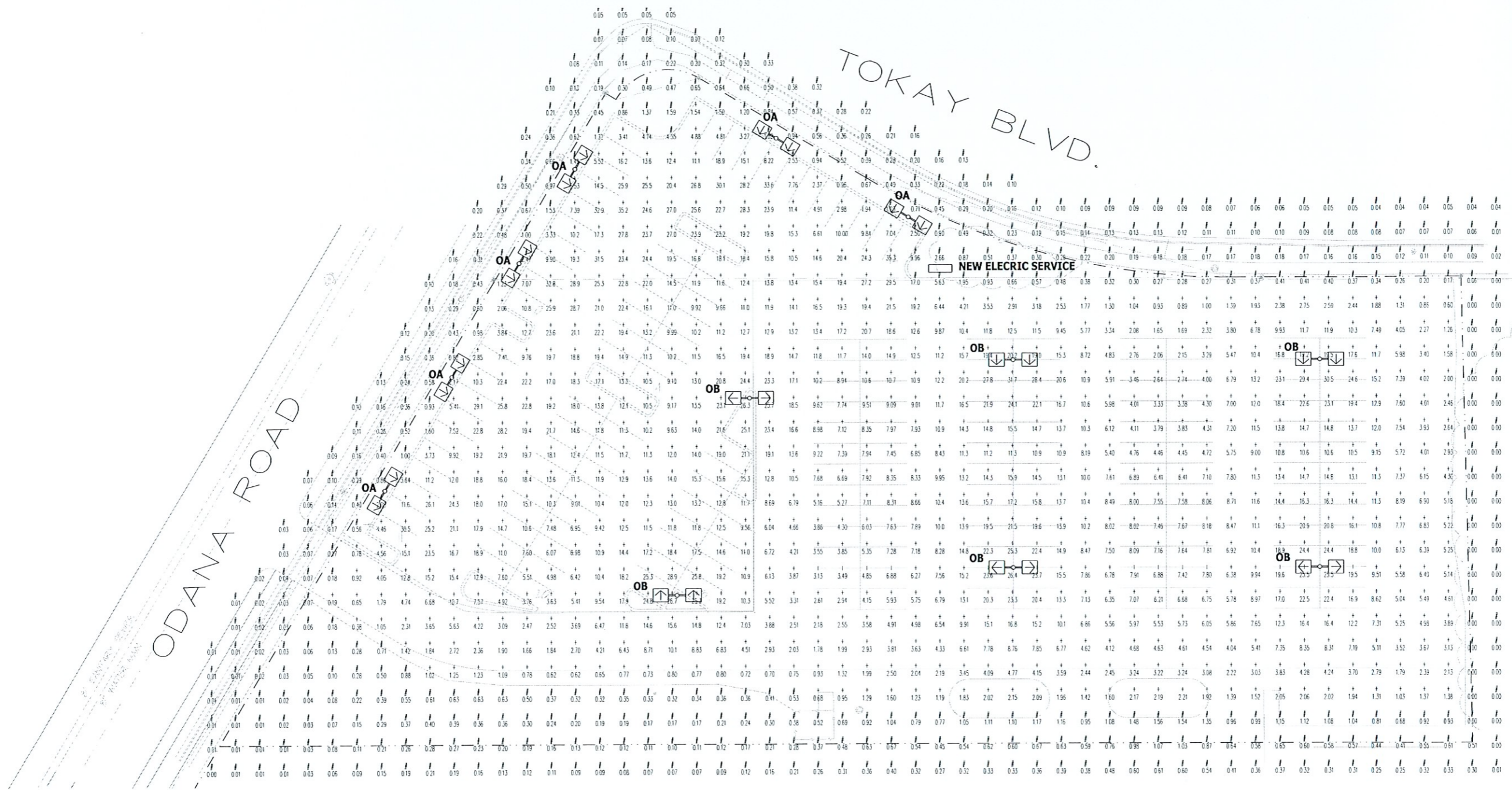
SCALE: 1" = 20'-0"  
 DESIGN BY: JH  
 DATE: 4/3/08  
 REVISION:

**SMART MOTORS - ODANA LOT**  
 5714 Odana Road  
 Madison, WI 53719

Landscape Services  
 6433 NEBITT ROAD  
 MADISON, WI 53719  
 PH. 608.845.3230  
 FX. 608.845.6339

Sheet:  
**L-1.0**

Approved for Construction by owner  
 Synt \_\_\_\_\_ Date \_\_\_\_\_  
 Accepted by Barnes Inc.  
 Synt \_\_\_\_\_ Date \_\_\_\_\_



**DESIGN CRITERIA**

THIS ENTIRE LOT QUALIFIES AS AN OUTDOOR MERCHANDISING AREA ACCORDING TO MADISON CITY ORDINANCE 10.085

\*10.085(4)(d) FOR AN OUTDOOR MERCHANDISING AREA, THE MAXIMUM INITIAL ILLUMINATION LEVEL IN 75% OF THE LOT SHALL NOT EXCEED 20 FOOTCANDELS. A CONTIGUOUS AREA NOT TO EXCEED 25% OF THE LOT MAY BE ILLUMINATED TO A LEVEL WHICH SHALL NOT EXCEED 40 FOOTCANDELS.

ALL LIGHTING FIXTURES INSTALLED SHALL UTILIZE CLEAR FLAT LENSES WITH FULL CUT-OFF OR SHIELDED OUTPUT

AT LEAST 50% OF THE LIGHTING FIXTURES SHALL BE EXTINGUISHED 1/2 HR PAST THE CLOSING OF THE FACILITY.

**LIGHTING FIXTURE SCHEDULE**

TYPE	MANUFACTURER	CATALOG NO	DESCRIPTION	QUANTITY	LAMPS
OA	KIM	2B/STX4/1000MH	TWIN FORWARD THROW W/ EXTERNAL GLARE SHIELD	6	M-1000 BT-37
LSI	CHH-FT-1000MHR-F-HSS		20" ROUND STEEL POLE ON 2" CONCRETE BASE ARROW INDICATES DIRECTION OF ROTATED OPTIC		
OB	KIM	2B/STX4/1000MH/HS	TWIN FORWARD THROW WITH FLAT GLASS LENS	6	M-1000 BT-37
LSI	CHH-FT-1000MHR-F-IL		30" ROUND STEEL POLE ON 2" CONCRETE BASE ARROW INDICATES DIRECTION OF ROTATED OPTIC		

NOTES

- ARROWS INDICATE ROTATION OF OPTICS WITHIN THE FIXTURE HOUSING
- ALL POLE MOUNTED FIXTURES SHALL HAVE FULL CUT-OFF OPTICS WITH FLAT GLASS LENSES

**POINT BY POINT CALCULATION SUMMARY**

AREA NAME	AREA DESCRIPTION	AVERAGE	MAXIMUM	MINIMUM
SALES LOT +	PARKING LOT FOR VEHICLE SALES HORIZONTAL CALCULATION ON PAVEMENT VALUES LISTED ARE MAINTAINED FOOTCANDELS	10.8	35.3	0.6

POINTS INDICATED WITH # AND GRAY ARE SHOWN FOR REFERENCE ONLY AND ARE NOT INCLUDED IN THE CALCULATION ABOVE

**REVISIONS:**


**Smart Motors**  
5714 Odana Road  
Madison, WI 53719

2861 Index Road  
Madison, WI 53713  
608/271-2046  
Fax 271-0160

**Electric Construction Inc.**  
Electrical Design, Contracting & Consulting

JOB NUMBER  
DRAWN BY: RAR  
SCALE: 1" = 20'-0"  
DATE: 4/25/08

SHEET  
**E-0a**

# CHALLENGER®

(Various reflectors are protected by U.S. Patent No. 6,464,378.)

TYPE OA  
CHH-FT-1000-MHR-MT-F-HSS

**HOUSING** - Rectangular shaped, multi-radiused, one-piece, die-cast aluminum with cast mounting arm. All hardware is stainless steel or electro-zinc plated steel.

**DOOR FRAME** - One-piece, die-cast aluminum door frame secures to the housing with two internal hinges. Two stainless steel captive door fasteners allow easy access. Door frame may be removed without tools. A one-piece extruded silicone gasket seals the door frame against the housing. The standard housing/door seal design prevents external contaminants from entering the Challenger, resulting in an IP65 rating for all versions.

**LENS/GASKET** - Contoured clear impact resistant glass lens for vertical lamp optics. A tempered flat clear glass lens or contoured clear impact resistant glass lens is offered for horizontal lamp optics. A one-piece extruded silicone gasket seals the lens to the die-cast aluminum door frame.

**SOCKETS** - Porcelain mogul-base sockets. All sockets are factory prewired with a disconnect plug for the ballast. All sockets are pulse-rated.

**LIGHT SOURCES** - Pulse-Start Metal Halide, Super Metal Halide, Metal Halide, Metal Halide Reduced Envelope, or High Pressure Sodium. Clear lamp is supplied as standard.

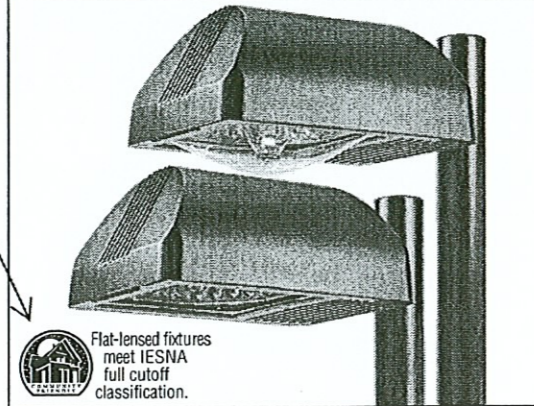
**BALLASTS** - High-power factor ballast with removable/hinged ballast tray. Pulse-Start Metal Halide fixtures feature a Super CWA type ballast. Metal Halide, Super Metal Halide, and High Pressure Sodium fixtures feature a CWA type ballast. All ballasts are designed for -20° F operation. Optional Quick Connect package includes supply wiring plus modular plugs for easy ballast wiring.

**REFLECTORS/DISTRIBUTION PATTERNS** - Vertical Burn systems include: Type II (2), Type III (3), Type V (5), Perimeter Forward Throw (FP), Automotive Forward Throw (FA), and ART (Advanced Reflector Technology) optical systems: Automotive Forward Throw (AFT) and Automotive Interior (AI). Horizontal Burn systems include: Type III (3), Type V (5) and Forward Throw (FT). All reflectors are field-rotatable, enabling generous flexibility in distribution patterns, without fixture movement. Photometric data is tested in accordance with IESNA guidelines.

**BRACKETS** - Cast mounting arm is flat for square pole applications. Fixture may also be mounted to round poles using the round pole adaptor accessory (RPPC), which must be ordered separately. An extruded 6" arm extension is required for D90°, Q90°, T90° and TN 120° fixture configurations. A locking nut secures two through bolts and a reinforcing plate to the pole, stabilizing it for easy fixture mounting.

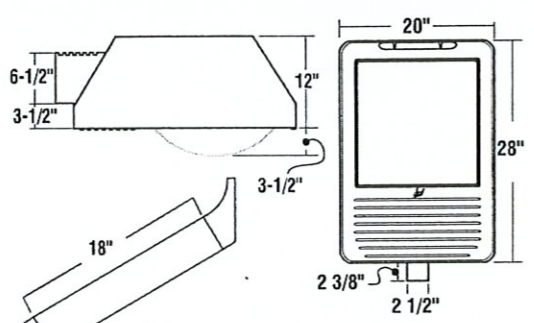
**FINISHES** - Each fixture is finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling, and is guaranteed for five full years. Standard colors include bronze, black, platinum plus, buff, white, green, metallic silver, and graphite.

**PHOTOMETRICS** - Please visit our web site at [www.lsi-industries.com](http://www.lsi-industries.com) for detailed photometric data.



Flat-lensed fixtures meet IESNA full cutoff classification.

**DIMENSIONS**



Upsweep Bracket - BKU-BO-S-19  
Weight 15lbs. E.P.A. = 0.4

**LUMINAIRE EPA CHART**

Challenger	Cast Arm		With Extension Arm	
	F	CT	F	CT
Single	1.8	2.0	2.2	2.3
D180°	3.7	4.1	4.3	4.6
D90°	Extension Arm Required		3.9	4.3
T90°			6.1	6.5
TN120°			6.3	6.9
Q90°			7.7	8.6

Note: F - Flat Glass CT - Contoured

Note: House Side Shield adds to fixture EPA. Consult factory.

**SHIPPING WEIGHTS - Challenger**

Catalog Number	Est. Weight (lbs.)	Length (in.)	Width (in.)	Height (in.)
CHV	86	34.5	23.75	18.25
CHH	86	34.5	23.75	18.25



Project Name \_\_\_\_\_ Fixture Type \_\_\_\_\_  
Catalog # \_\_\_\_\_

© 2006 LSI INDUSTRIES INC.

# CHALLENGER®

**LUMINAIRE ORDERING INFORMATION**

Luminaire Prefix	Distribution	Lamp Wattage	Light Source	Lens	Line Voltage <sup>1</sup>	Luminaire Finish
Vertical Burn CHV	2-Type II 3-Type III 5-Type V FP- Forward Throw Perimeter FA-Automotive Forward Throw	250 320 400 750 1000	PSMV - Pulse-Start Metal Halide 250, 320, 400, 750, 1000 <sup>1</sup> Watt SMV - Super Metal Halide 400 Watt MH - Metal Halide 250, 400 Watt MHR - Metal Halide Reduced Envelope 1000 Watt HPS - High Pressure Sodium 250, 400, 750 <sup>2</sup> Watt	CT - Contoured Clear Impact-resistant Glass	480 MT - Multi Tap <sup>5</sup> TT - Tri-Tap <sup>6</sup>	BRZ - Bronze BLK - Black PLP - Platinum Plus BUF - Buff WHT - White GRN - Green GPT - Graphite MSV - Metallic Silver
	Advanced Reflector Technology Optical Systems: AFT-Automotive Forward Throw AI-Automotive Interior	750 1000	HPS - High Pressure Sodium 250, 400, 750 <sup>2</sup> Watt			
Horizontal Burn CHH	3-Type III FT- Forward Throw 5-Type V	250 320 400 750 1000	PSMH - Pulse-Start Metal Halide 320, 750, 1000 SMH - Super Metal Halide 250, 400 Watt MH - Metal Halide 250, 400 Watt MHR - Metal Halide Reduced Envelope 1000 Watt HPS - High Pressure Sodium 250, 400, 750 <sup>2</sup> Watt	F - Flat Clear Tempered Glass  CT - Contoured Clear Impact-resistant Glass <sup>3</sup>		

CHV 5 1000 MHR CT MT MSV PCR Options

EXAMPLE OF A TYPICAL ORDER

- Options
- PCR - Photoelectric Control Receptacle<sup>7</sup>
  - QC - Quick Connect Package
  - GR - Ground Relamping<sup>8</sup>
  - LL - Less Lamp

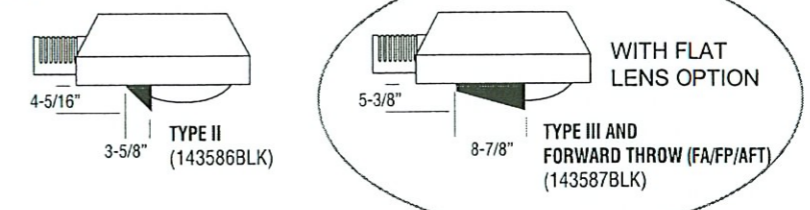
**FOOTNOTES:**

- Tri-Tap not available in 1000 Watt PSMV. Voltage must be specified - 120V, 277V, or 347V.
- When ordering 750 Watt High Pressure Sodium, voltage must be specified.
- Use to match vertical appearance.
- For international voltages, consult factory.
- MT - Multi Tap is shipped standard unless otherwise specified. Multi Tap consists of 120V, 208V, 240V, and 277V. Multi Tap is pre-wired for highest voltage. Alternate voltages will require field re-wiring.
- Tri-Tap is shipped standard for Canadian applications. Tri-Tap consists of 120V, 277V, and 347V. Tri-Tap is pre-wired for highest voltage. Alternate voltages will require field re-wiring.
- Factory installed PCR requires field wiring to proper voltage. On QC version, PCR is factory pre-wired to highest voltage. Alternate voltages will require field re-wiring.
- Ground relamping option is available for CHV only. Maximum tool length 15 ft. See below for Ground Lamp Changer.

**ACCESSORY ORDERING INFORMATION** (Accessories are field installed)

Description	Order Number	Description	Order Number
PC120 - Photocell	122514	CHH/CHV 2 HSS - External House Side Shield	143586BLK+
PC208 - Photocell	122515	CHH/CHV 3 HSS - External House Side Shield	143587BLK+
PC240 - Photocell	122516	CHV-FA/AFT-HSS - External House Side Shield	143587BLK+
PC277 - Photocell	122517	CHH/CHV FP/FT HSS - External House Side Shield	143587BLK+
PC347 - Photocell	159516	RPPC - Round Pole Plate	141940CLR
PC480 - Photocell	1225180	BKS-BO-WM-* - CLR Wall Mount Plate	123111CLR
FK120 - Single Fusing	FK120	BKA-BO-EC-6-CLR Extension Arm	
FK277 - Single Fusing	FK277	Required for multiple mounting @ all 90° & 120° configurations	142862CLR
DFK208, 240 - Double Fusing	DFK208, 240	BKU-BO-S-19-CLR Upsweep Bracket for round and square poles	144191CLR
DFK480 - Double Fusing	DFK480	Ground Lamp Changer	132678A 146018A
FK347 - Single Fusing	FK347		(250, 320 Watt) (400 Std, 1000 Watt Reduced & 750 Watt HPS)

**HOUSE SIDE SHIELDS**



Project Name \_\_\_\_\_ Fixture Type \_\_\_\_\_  
Catalog # \_\_\_\_\_

© 2006 LSI INDUSTRIES INC.

# CHALLENGER® (Various reflectors are protected by U.S. Patent No. 6,464,378.)

TYPE OB  
CHH-FT-1000-MHR-MT-F

**HOUSING** - Rectangular shaped, multi-radiused, one-piece, die-cast aluminum with cast mounting arm. All hardware is stainless steel or electro-zinc plated steel.

**DOOR FRAME** - One-piece, die-cast aluminum door frame secures to the housing with two internal hinges. Two stainless steel captive door fasteners allow easy access. Door frame may be removed without tools. A one-piece extruded silicone gasket seals the door frame against the housing. The standard housing/door seal design prevents external contaminants from entering the Challenger, resulting in an IP65 rating for all versions.

**LENS/GASKET** - Contoured clear impact resistant glass lens for vertical lamp optics. A tempered flat clear glass lens or contoured clear impact resistant glass lens is offered for horizontal lamp optics. A one-piece extruded silicone gasket seals the lens to the die-cast aluminum door frame.

**SOCKETS** - Porcelain mogul-base sockets. All sockets are factory prewired with a disconnect plug for the ballast. All sockets are pulse-rated.

**LIGHT SOURCES** - Pulse-Start Metal Halide, Super Metal Halide, Metal Halide, Metal Halide Reduced Envelope, or High Pressure Sodium. Clear lamp is supplied as standard.

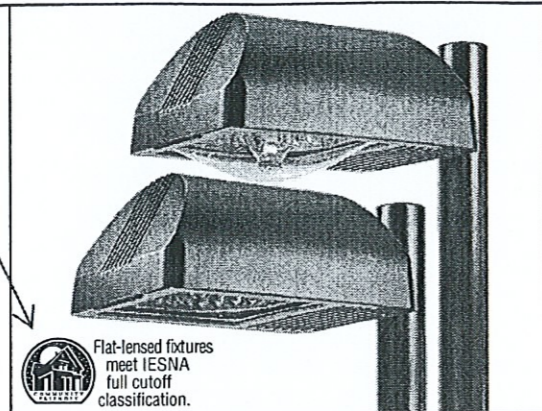
**BALLASTS** - High-power factor ballast with removable/hinged ballast tray. Pulse-Start Metal Halide fixtures feature a Super CWA type ballast. Metal Halide, Super Metal Halide, and High Pressure Sodium fixtures feature a CWA type ballast. All ballasts are designed for -20° F operation. Optional Quick Connect package includes supply wiring plus modular plugs for easy ballast wiring.

**REFLECTORS/DISTRIBUTION PATTERNS** - Vertical Burn systems include: Type II (2), Type III (3), Type V (5), Perimeter Forward Throw (FP), Automotive Forward Throw (FA), and ART (Advanced Reflector Technology) optical systems: Automotive Forward Throw (AFT) and Automotive Interior (AI). Horizontal Burn systems include: Type III (3), Type V (5) and Forward Throw (FT). All reflectors are field-rotatable, enabling generous flexibility in distribution patterns, without fixture movement. Photometric data is tested in accordance with IESNA guidelines.

**BRACKETS** - Cast mounting arm is flat for square pole applications. Fixture may also be mounted to round poles using the round pole adaptor accessory (RPPC), which must be ordered separately. An extruded 6" arm extension is required for D90°, Q90°, T90° and TN 120° fixture configurations. A locking nut secures two through bolts and a reinforcing plate to the pole, stabilizing it for easy fixture mounting.

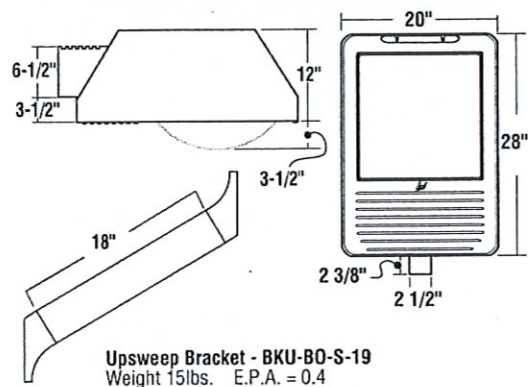
**FINISHES** - Each fixture is finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling, and is guaranteed for five full years. Standard colors include bronze, black, platinum plus, buff, white, green, metallic silver, and graphite.

**PHOTOMETRICS** - Please visit our web site at [www.lsi-industries.com](http://www.lsi-industries.com) for detailed photometric data.



Flat-lensed fixtures meet IESNA full cutoff classification.

### DIMENSIONS



### LUMINAIRE EPA CHART

Challenger	Cast Arm		With Extension Arm	
	F	CT	F	CT
Single	1.8	2.0	2.2	2.3
D180°	3.7	4.1	4.3	4.6
D90°	Extension Arm Required		3.9	4.3
T90°			6.1	6.5
TN120°			6.3	6.9
Q90°			7.7	8.6

Note: F - Flat Glass CT - Contoured

Note: House Side Shield adds to fixture EPA. Consult factory.

### SHIPPING WEIGHTS - Challenger

Catalog Number	Est. Weight (lbs.)	Length (in.)	Width (in.)	Height (in.)
CHV	86	34.5	23.75	18.25
CHH	86	34.5	23.75	18.25



Project Name \_\_\_\_\_ Fixture Type \_\_\_\_\_  
Catalog # \_\_\_\_\_

# CHALLENGER®

### LUMINAIRE ORDERING INFORMATION

Luminaire Prefix	Distribution	Lamp Wattage	Light Source	Lens	Line Voltage <sup>4</sup>	Luminaire Finish
Vertical Burn CHV	2-Type II 3-Type III 5-Type V FP- Forward Throw Perimeter FA-Automotive Forward Throw	250 320 400 750 1000	PSMV - Pulse-Start Metal Halide 250, 320, 400, 750, 1000 <sup>1</sup> Watt SMV - Super Metal Halide 400 Watt MH - Metal Halide 250, 400 Watt MHR - Metal Halide Reduced Envelope 1000 Watt HPS - High Pressure Sodium 250, 400, 750 <sup>2</sup> Watt	CT - Contoured Clear Impact-resistant Glass	480 MT - Multi Tap <sup>5</sup> TT - Tri-Tap <sup>6</sup>	BRZ - Bronze BLK - Black PLP - Platinum Plus BUF - Buff WHT - White GRN - Green GPT - Graphite MSV - Metallic Silver
	Advanced Reflector Technology Optical Systems: AFT-Automotive Forward Throw AI-Automotive Interior	750 1000				
Horizontal Burn CHH	3-Type III FT- Forward Throw 5-Type V	250 320 400 750 1000	PSMH - Pulse-Start Metal Halide 320, 750, 1000 SMH - Super Metal Halide 250, 400 Watt MH - Metal Halide 250, 400 Watt MHR - Metal Halide Reduced Envelope 1000 Watt HPS - High Pressure Sodium 250, 400, 750 <sup>2</sup> Watt	F - Flat Clear Tempered Glass  CT - Contoured Clear Impact-resistant Glass <sup>3</sup>		

EXAMPLE OF A TYPICAL ORDER

CHV 5 1000 MHR CT MT MSV PCR Options  
PCR - Photoelectric Control Receptacle<sup>7</sup>  
QC - Quick Connect Package  
GR - Ground Relamping<sup>8</sup>  
LL - Less Lamp

### FOOTNOTES:

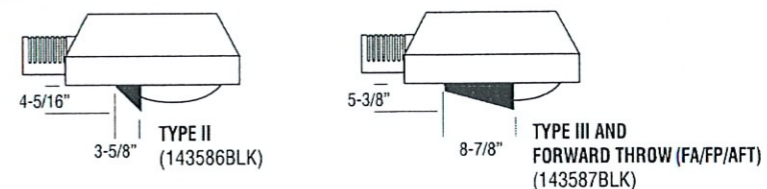
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PC277 - Photocell	122517	CHH/CHV FP/FT HSS - External House Side Shield	143587BLK+
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PC480 - Photocell	1225180	BKS-BO-WM-* - CLR Wall Mount Plate	123111CLR
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DFK208, 240 - Double Fusing	DFK208, 240	BKU-BO-S-19-CLR Upsweep Bracket for round and square poles	144191CLR
DFK480 - Double Fusing	DFK480	Ground Lamp Changer	132678A (250, 320 Watt) (400 Std, 1000 Watt Reduced & 750 Watt HPS)
FK347 - Single Fusing	FK347		146018A

+Black only.

### HOUSE SIDE SHIELDS



Project Name \_\_\_\_\_ Fixture Type \_\_\_\_\_  
Catalog # \_\_\_\_\_

# LitePro

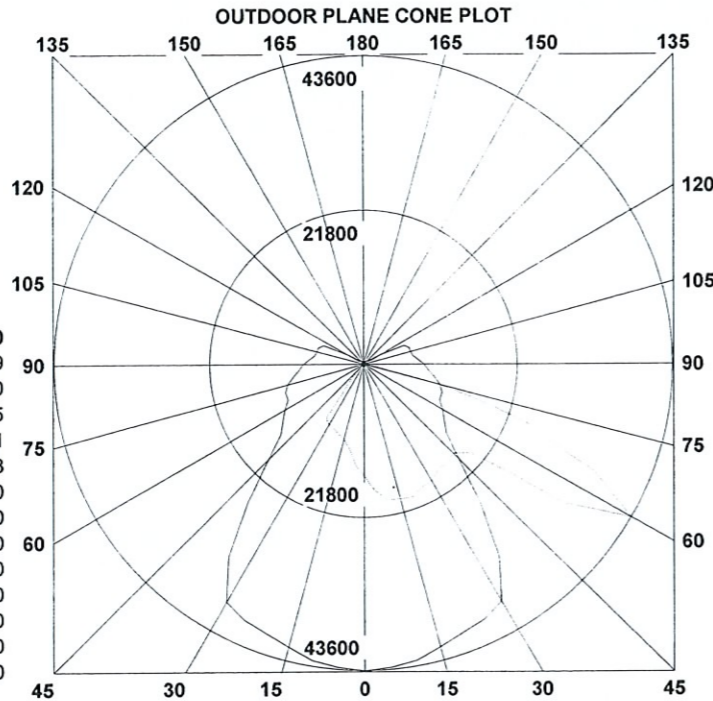
## Photometric Data Summary

TEST #CHH-FT-1  
DATE: 8/13/97  
TOTAL LUMINAIRE EFFICIENCY = 59.4%

LUMINAIRE: CHH-1000- MHR-MT-F-IL  
[MANUFAC] LSI INDUSTRIES [TEST  
[LUMINAIRE] CHALLENGER SERIES  
BALLAST:  
BALLAST FACTOR: 1.00  
LAMP:  
LUMENS PER LAMP: 107800  
WATTS: 1080  
CUTOFF TYPE: Full Cutoff  
RANGE CLASS: Very Short Range  
LUMINOUS OPENING IN FEET  
LENGTH: 0.00  
WIDTH: 0.00  
HEIGHT: 0.00

ZONE	LUMENS	% LAMP	% FIXTURE
0-30	13481	12.5	21.0
0-40	23301	21.6	36.4
0-60	45428	42.1	70.9
0-90	64083	59.4	100.0
0-180	64083	59.4	100.0

ANGLE	0.0	45.0	90.0	135.0	180.0
0.0	15849	15849	15849	15849	15849
15.0	19819	19529	16627	12249	11050
30.0	19104	20233	18743	11392	9895
45.0	17890	21023	15211	8978	991
60.0	43633	19022	8557	712	283
75.0	10923	15476	2131	82	30
90.0	0	0	0	0	0
105.0	0	0	0	0	0
120.0	0	0	0	0	0
135.0	0	0	0	0	0
150.0	0	0	0	0	0
165.0	0	0	0	0	0
180.0	0	0	0	0	0



Vert. Plane Through 0.0-180.0 Horiz. -----  
Horiz. Cone Through 60.0 Vert. -----  
Max Candelas = 43633 @ 0.0H,60.0V

THIS REPORT IS BASED ON IES TEST DATA FOR A SPECIFIC LAMP/BALLAST COMBINATION. EXTRAPOLATION OF THESE DATA FOR OTHER LAMP/BALLAST COMBINATIONS MAY PRODUCE ERRONEOUS RESULTS. THE BALLAST FACTOR MUST BE APPLIED TO THE LUMEN OUTPUT RATING ASSIGNED TO THE LAMP(S) OR TO THE CANDELA VALUES SHOWN.

# LitePro

## Photometric Data Summary

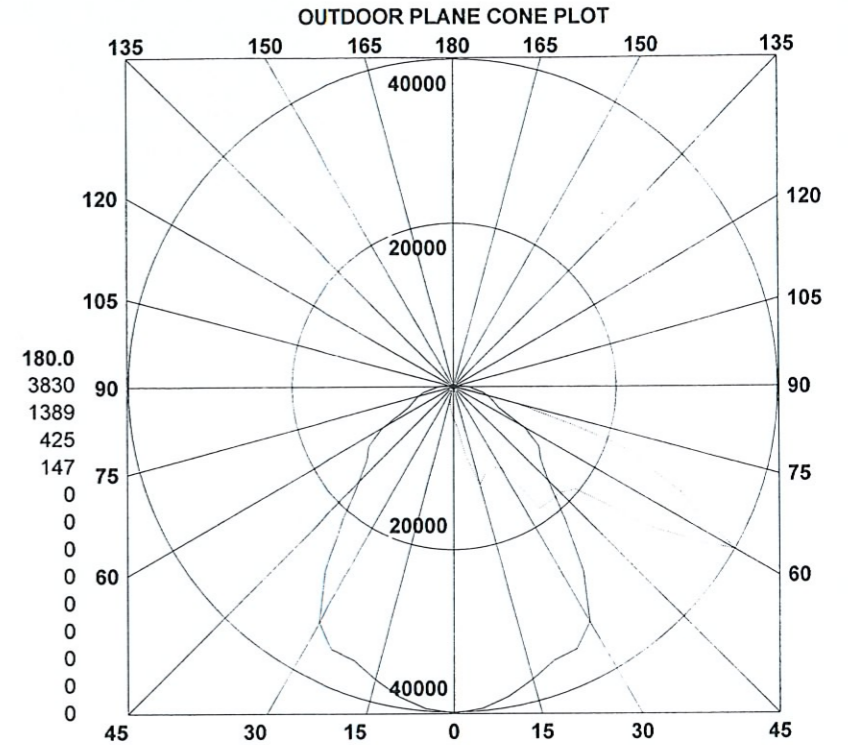
TEST #CHH-FT-1  
DATE: 4/3/01  
TOTAL LUMINAIRE EFFICIENCY = 33.6%

LUMINAIRE: CHH FT 1000 MHR MT F 3HSS  
CHALLENGER

BALLAST:  
BALLAST FACTOR: 1.00  
LAMP: SYLVANIA M1000/HOR/BT37  
LUMENS PER LAMP: 107800  
WATTS: 1080  
CUTOFF TYPE: Full Cutoff  
RANGE CLASS: Very Short Range  
LUMINOUS OPENING IN FEET  
LENGTH: 1.29  
WIDTH: 1.29  
HEIGHT: 0.00

ZONE	LUMENS	% LAMP	% FIXTURE
0-30	4616	4.3	12.7
0-40	8695	8.1	24.0
0-60	22601	21.0	62.4
0-90	36235	33.6	100.0
0-180	36235	33.6	100.0

ANGLE	0.0	45.0	90.0	135.0	180.0
0.0	3830	3830	3830	3830	3830
15.0	12490	10137	3925	1989	1389
30.0	11477	11452	3643	776	425
45.0	18420	17481	3031	270	147
60.0	40075	16415	1899	94	0
75.0	8021	8299	547	20	0
90.0	0	0	0	0	0
105.0	0	0	0	0	0
120.0	0	0	0	0	0
135.0	0	0	0	0	0
150.0	0	0	0	0	0
165.0	0	0	0	0	0
180.0	0	0	0	0	0



Vert. Plane Through 0.0-180.0 Horiz. -----  
Horiz. Cone Through 60.0 Vert. -----  
Max Candelas = 40075 @ 0.0H,60.0V

THIS REPORT IS BASED ON IES TEST DATA FOR A SPECIFIC LAMP/BALLAST COMBINATION. EXTRAPOLATION OF THESE DATA FOR OTHER LAMP/BALLAST COMBINATIONS MAY PRODUCE ERRONEOUS RESULTS. THE BALLAST FACTOR MUST BE APPLIED TO THE LUMEN OUTPUT RATING ASSIGNED TO THE LAMP(S) OR TO THE CANDELA VALUES SHOWN.