

**LOCATION MAP**

SCALE: 1"=200'

URBANCREST CORPORATION LIMITS  
CITY OF GROVE CITY CORPORATION LIMITS

**STORM STRUCTURE SCHEDULE**

HW-1  
N=889859.98  
E=1804172.91  
GROVE CITY STANDARD  
ENDWALL C-GC-23  
INV IN=834.00 (12") SW

HW-2  
N=889921.48  
E=1804146.98  
GROVE CITY STANDARD  
ENDWALL C-GC-24  
INV OUT=834.46 (12") NE

HW-3  
N=889879.98  
E=1804108.49  
GROVE CITY STANDARD  
ENDWALL C-GC-23  
INV IN=836.10 (12") W

CB-4  
N=889896.07  
E=1804035.56  
GROVE CITY STANDARD  
INLET C-GC-06  
GRATE=836.45  
INV IN=836.43 (12") W  
INV OUT=836.43 (12") E

CB-5  
N=889881.19  
E=1803970.42  
GROVE CITY STANDARD  
INLET C-GC-04 (2'X2')  
GRATE=836.68  
INV OUT=836.72 (12") E  
INV IN=836.72 (12") W

CB-6  
N=889897.19  
E=1803878.21  
GROVE CITY STANDARD  
INLET C-GC-04 (2'X2')  
GRATE=836.90  
INV OUT=837.13 (12") E

**SITE DATA TABLE**

TOTAL ACRES OF SITE:	1.77 AC
EXISTING IMPERVIOUS:	0.00 AC
PROPOSED IMPERVIOUS:	0.53 AC
EXISTING USE:	UNDEVELOPED
PROPOSED USE:	COMMERCIAL
DISTANCE TO NEAREST CROSS STREET: (TO THE INTERSECTION OF BARHOLM DRIVE AND FARM BANK WAY)	524 LF
TOTAL NUMBER OF PARKING SPACES:	18 SPACES (16 STANDARD, 2 HANDICAP)
BUILDING SQUARE FOOTAGE:	9,600 SF
BUILDING HEIGHT:	22'-8"

**ZONING**

EXISTING ZONING: PUD-I  
PROPOSED ZONING: PUD-I

**NOTES:**

- ALL RADII ARE 5' UNLESS OTHERWISE NOTED.
- ALL ENDWALLS SHALL BE PER CITY OF GROVE CITY STANDARD DRAWING C-GC-23.
- ALL HEADWALLS SHALL HAVE STONE FACING CONSISTING OF NORTH SHORE BUFF LIMESTONE PER CITY OF GROVE CITY REQUIREMENTS.
- ALL WATERMAIN CROSSINGS SHALL MAINTAIN A VERTICAL SEPARATION OF 18" MINIMUM. SANITARY SEWER SHALL BE LOCATED A MINIMUM OF 18" BELOW WATERMAIN AT ALL CROSSINGS.
- WATER METER AND BACKFLOW PREVENTER TO BE LOCATED INSIDE THE BUILDING IN MECHANICAL ROOM.
- SITE IS NOT WITHIN THE 100-YEAR FLOODPLAIN ACCORDING TO FEMA MAP NO. 39049C0314K FROM JUNE 17, 2008.

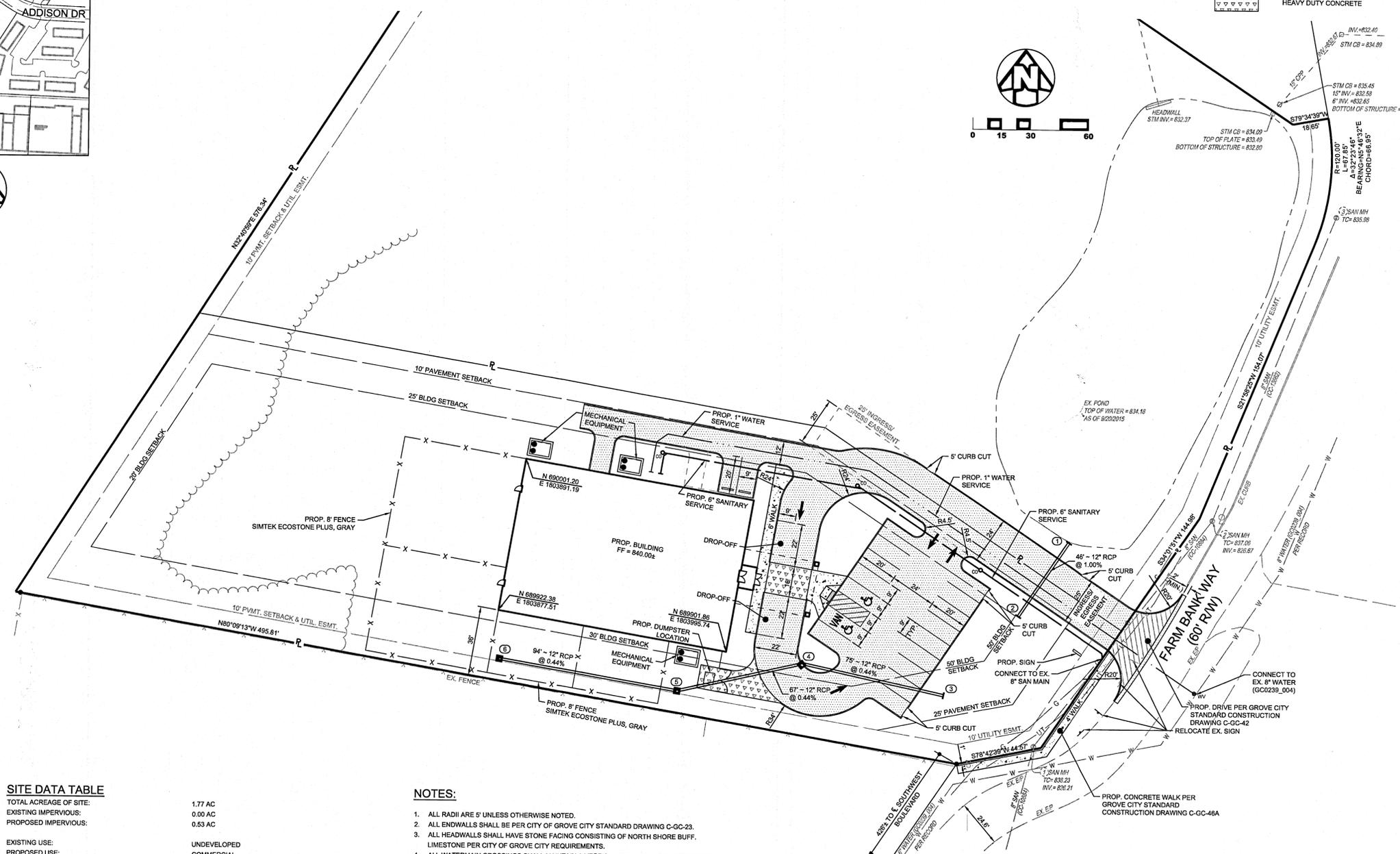
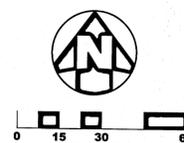
**EXISTING SYMBOLS**

- EX. GUY WIRE
- EX. UNDERGROUND ELECTRIC
- EX. OVERHEAD ELECTRIC
- EX. UTILITY POLE
- EX. UNDERGROUND TELEPHONE
- EX. OVERHEAD TELEPHONE
- EX. TELEPHONE MANHOLE
- EX. TELEPHONE PEDESTAL
- EX. GAS MAIN
- EX. GAS VALVE
- EX. UNDERGROUND CABLE TV
- EX. WATER MAIN

- EX. FIRE HYDRANT
- EX. WATER VALVE
- EX. MANHOLE
- EX. SANITARY SEWER
- EX. STORM SEWER
- EX. CATCH BASIN
- EX. INLET
- EX. YARD DRAIN
- EX. DOWN SPOUT
- EX. SIGN
- EX. GUARD POST (PIPE BOLLARD)
- EX. FENCE
- EX. TREE
- EX. TREELINE

**PROPOSED SYMBOLS**

- PROPOSED STORM PIPE
- PROPOSED SANITARY PIPE
- PROPOSED WATER PIPE
- PROPOSED CATCH BASIN
- PROPOSED YARD DRAIN
- PROPOSED HEADWALL
- PROPOSED CLEAN OUT
- PROPOSED CONCRETE
- PROPOSED ASPHALT PAVEMENT
- HEAVY DUTY CONCRETE



**THE KLEINGERS GROUP**  
CIVIL ENGINEERING SURVEYING LANDSCAPE ARCHITECTURE  
www.kleingers.com  
350 Worthington Rd, Ste B  
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STATE OF OHIO  
MICHAEL COUVREUR  
E-70851  
REGISTERED PROFESSIONAL ENGINEER  
OHIO Utilities Protection SERVICE  
Call Before You Dig

**Dublin Building Systems**  
Design Build Contractors and Engineers  
6233 Avery Road  
Box 370  
Dublin, Ohio 43017  
(614)889-1445

**FINAL DEVELOPMENT PLAN**  
PROPOSED FACILITY FOR:  
**PINNACLE PETS**  
FARM BANK WAY GROVE CITY, OHIO

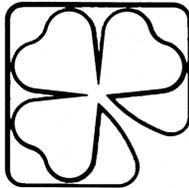
**REVISIONS**


DRAWN BY ZBG CHECKED BY MJC

DATE 09-29-2015  
**SITE PLAN**  
**C1.0**  
JOB NO.

**DEVELOPMENT PLAN**  
CITY PROJECT NO. \_\_\_\_\_  
DUBLIN BUILDING SYSTEMS  
6233 AVERY ROAD  
DUBLIN, OH 43016  
City Administrator \_\_\_\_\_  
Service Director \_\_\_\_\_  
Review for the City of Grove City \_\_\_\_\_  
Jackson Township Fire Department \_\_\_\_\_

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**Dublin Building Systems**  
Design Build Contractors and Engineers

6233 Avery Road  
Box 370  
Dublin, Ohio 43017  
(614)889-1445



**PROPOSED SYMBOLS**

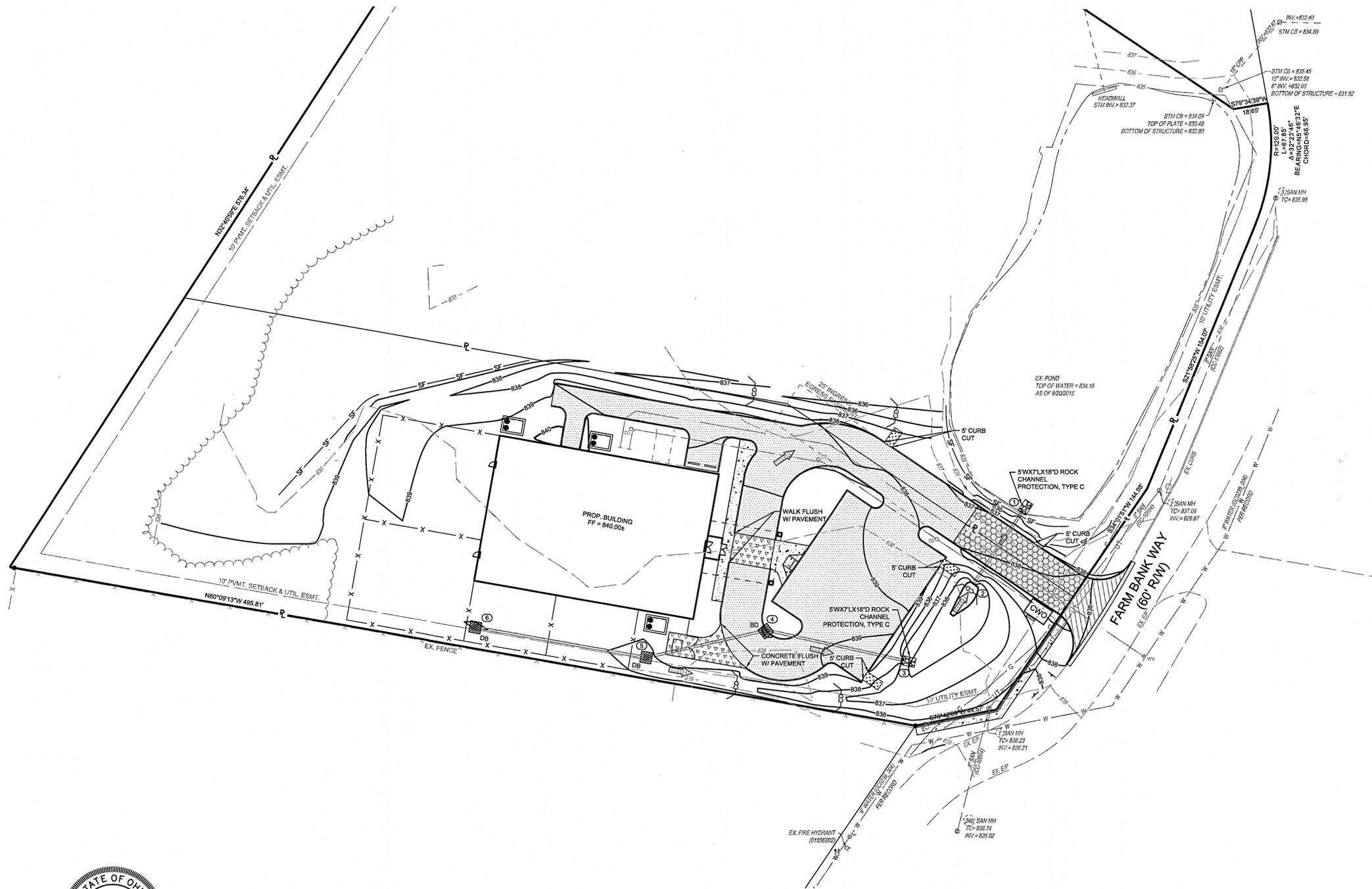
- PROPOSED STORM PIPE
- PROPOSED SANITARY PIPE
- PROPOSED WATER PIPE
- PROPOSED CATCH BASIN
- PROPOSED HEADWALL
- PROPOSED CONCRETE
- PROPOSED ASPHALT PAVEMENT

**GRADING LEGEND**

- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- PROP. MAJOR CONTOUR
- PROP. MINOR CONTOUR

**EROSION CONTROL LEGEND**

- DANDY BAG  
SEE DETAIL ON SHEET C1.3
- DANDY CURB PROTECTION  
SEE DETAIL ON SHEET C1.3
- SILT FENCE  
SEE DETAIL ON SHEET C1.3
- CONSTRUCTION ENTRANCE  
SEE DETAIL ON SHEET C1.3
- EROSION CONTROL MATTING  
SEE DETAIL ON SHEET C1.3
- CONCRETE WASHOUT  
SEE DETAIL ON SHEET C1.3
- CHECK DAM  
SEE DETAIL ON SHEET C1.3
- 100 YEAR FLOOD ROUTE



FINAL DEVELOPMENT PLAN

PROPOSED FACILITY FOR:

**PINNACLE PETS**

FARM BANK WAY GROVE CITY, OHIO

**REVISIONS**

NO.	DESCRIPTION

DRAWN BY ZBG CHECKED BY MJC

DATE 09-29-2015

**GRADING AND EROSION CONTROL PLAN**

**C1.1**

JOB NO.



**THE KLEINGERS GROUP**  
CIVIL ENGINEERING SURVEYING LANDSCAPE ARCHITECTURE  
www.kleingers.com  
350 Worthington Rd. Ste B  
Westerville, OH 43082  
614.882.4311

OHIO EPA  
NPDES STORMWATER CONSTRUCTION PERMIT  
GENERAL PERMIT #OHC000004

PERMITTEE: DUBLIN BUILDING SYSTEMS  
6233 AVERY ROAD  
DUBLIN, OHIO 43016  
(614) 889-1445

OWNER: DUBLIN BUILDING SYSTEMS  
6233 AVERY ROAD  
DUBLIN, OHIO 43016  
(614) 889-1445

NPDES PERMIT: \_\_\_\_\_ DATE OF ISSUE: \_\_\_\_\_

CENTER OF PROJECT: \_\_\_\_\_ LATITUDE: N 39°53'34.05"  
LONGITUDE: W 83°05'10.37"

PROJECT DESCRIPTION  
NEW DOG KENNEL IN GROVE CITY, OHIO WITH PAVED PARKING LOT AND UTILITIES.

PROJECT DATA

TOTAL SITE AREA: 1.77 ACRES  
TOTAL DISTURBED AREA: 1.24 ACRES

PROPOSED IMPERVIOUS AREA: 0.53 ACRES  
PERCENTAGE OF CREATED IMPERVIOUS AREA: 100%

RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION: C=0.40  
RUNOFF COEFFICIENT FOR POST-CONSTRUCTION: C=0.58

PRIOR LAND USE: UNDEVELOPED

RECEIVING WATER: UNNAMED TRIBUTARY TO SCIOTO RIVER

ESTIMATED CONSTRUCTION DATES: JANUARY 2016 - MAY 2016

SOIL TYPES, DESCRIPTIONS:  
C&A - CROSBY SILT LOAM, SOUTHERN OHIO TILL PLAIN, 0 TO 2 PERCENT SLOPES  
C&A - CROSBY-Urban LAND COMPLEX, 0 TO 2 PERCENT SLOPES

PROJECT SCHEDULE AND SEQUENCE

- INSTALL PERIMETER EROSION CONTROL ITEMS INCLUDING INLET PROTECTION, TEMPORARY EROSION CONTROL MATTING AND STABILIZED CONSTRUCTION ENTRANCE WITH PROPOSED CONCRETE CULVERT PIPE.
- STRIP TOPSOIL AND UNSUITABLE MATERIAL ACROSS SITE. STOCKPILE TOPSOIL ONSITE AND MAINTAIN WITH TEMPORARY SEEDING.
- BEGIN ROUGH GRADING AND BUILDING PAD CONSTRUCTION.
- CONSTRUCT SANITARY SEWER, LIMIT DISTURBANCE TO AREA REQUIRED FOR CONSTRUCTION.
- CONSTRUCT WATER SERVICE.
- CONSTRUCT STORM SEWER, INSTALL INLET PROTECTION AS SEWERS ARE CONSTRUCTED.
- FINALIZE GRADING SITE.
- FINISH REMAINING SITE WORK. STABILIZE SITE WITH ASPHALT PAVING AND CONCRETE SIDEWALK.
- ONCE SITE IS STABILIZED, REMOVE REMAINING EROSION AND SEDIMENT CONTROLS.

GENERAL NOTES

THE CONTRACTOR IS HEREBY ADVISED THAT STRICTER POLLUTION CONTROL STANDARDS AND ENFORCEMENT HAVE BEEN IMPOSED BY THE OHIO EPA SINCE MARCH 10, 2003 AND WITH A REVISION IN APRIL 2008. ALSO, MANY PRIVATE CITIZEN ENVIRONMENTAL GROUPS, WHO HAVE BEEN KNOWN TO FILE CIVIL LEGAL ACTIONS, ARE PRESENT IN THE AREA AND OBSERVE ALL CONSTRUCTION OPERATIONS.

THE CONTRACTOR SHALL INFORM ALL SUBCONTRACTORS OF THE REQUIREMENTS AND RESPONSIBILITIES OF THE SWPPP AND SHALL DOCUMENT ALL SUCH NOTIFICATIONS AND/OR DISCUSSIONS. ALL SUBCONTRACTORS SHALL SIGN THE NOI.

THE CONTRACTOR WILL BE REQUIRED TO PARTICIPATE IN SEDIMENT AND EROSION CONTROL INSPECTIONS ON A WEEKLY BASIS AND SIGN AN APPROVED INSPECTION SHEET THAT SHALL BE KEPT ON FILE AT THE JOB SITE.

UNLESS OTHERWISE NOTED, STANDARDS AND SPECIFICATIONS ESTABLISHED IN THE LATEST EDITION OF THE ODM "RAINWATER AND LAND DEVELOPMENT" HANDBOOK SHALL GOVERN THE EROSION AND SEDIMENT CONTROL INSTALLATIONS SPECIFIED ON THIS PLAN.

THIS PROJECT WILL INVOLVE SEVERAL CONSTRUCTION PHASES AND SEQUENCING THROUGHOUT ITS LIFETIME. IT IS VERY IMPORTANT THAT ALL TEMPORARY SEDIMENT AND EROSION CONTROL (SAEC) FIELD METHODS ALONG WITH THIS PLAN, ARE UPDATED TO REFLECT THE ACTUAL FIELD CONDITIONS, CURRENT WEATHER CONDITIONS AND SITE GRADE CHANGES. THE CONTRACTOR, OWNER, ENGINEER OR THE OHIO EPA CAN AND WILL MODIFY THIS PLAN AS NECESSARY.

THE CONTRACTOR WILL VOLUNTARILY SELF REPORT ANY POTENTIAL VIOLATIONS OF THE OEPA NPDES PERMIT TO THE OWNER, ENGINEER AND THE OEPA.

THE CONTRACTOR SHALL REMOVE EXISTING GROUND COVER ONLY AS NECESSARY FOR THE PROJECT PHASE CURRENTLY UNDER CONSTRUCTION.

CONSTRUCTION AND DEMOLITION DEBRIS SHALL BE PROPERLY DISPOSED OF ACCORDING TO OHIO EPA REQUIREMENTS.

THE CONTRACTOR WILL BE REQUIRED TO BUILD SEDIMENT BASINS OR SEDIMENT TRAPS OR USE EQUAL METHODS TO DETAIN AND CLEAN WATER TO ACCEPTABLE EPA STANDARDS BEFORE RELEASING THE WATER BACK INTO THE STREAM.

ALL DEWATERING ACTIVITIES SHALL BE CARRIED OUT IN ACCORDANCE WITH THE PRACTICES OUTLINED IN PART III.G.2.G.IV OF THE OEPA GENERAL PERMIT.

THERE SHALL BE NO TURBID DISCHARGES TO SURFACE WATERS, RESULTING FROM DEWATERING ACTIVITIES. SEDIMENT-LADEN WATER MUST PASS THROUGH A SETTLING POND, FILTER BAG, OR OTHER COMPARABLE PRACTICE, PRIOR TO DISCHARGE.

NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORM WATER RUNOFF.

ALL PROCESS WASTEWATER (EQUIPMENT WASHING, LEACHATE FROM ON-SITE WASTE DISPOSAL, ETC.) SHALL BE COLLECTED AND DISPOSED OF AT A PUBLICLY OWNED TREATMENT WORKS.

ALL CONSTRUCTION ACTIVITIES MUST COMPLY WITH ALL LOCAL EROSION/SEDIMENT CONTROL, WASTE DISPOSAL, SANITARY AND HEALTH REGULATIONS.

OTHER EROSION CONTROL ITEMS MAY BE NECESSARY DUE TO ENVIRONMENTAL CONDITIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND IMPLEMENTATION OF ADDITIONAL EROSION CONTROL ITEMS, AT THE ENGINEER'S DISCRETION.

NO SOIL, ROCK, DEBRIS OR OTHER MATERIAL SHALL BE DUMPED OR PLACED IN ANY AREAS NOT ADEQUATELY PROTECTED BY EROSION CONTROL INSTALLATIONS.

IT IS PREFERRED TO USE PERMANENT EROSION CONTROL ITEMS AS SHOWN IN THE PLANS TO CONTROL CONSTRUCTION POLLUTION WHEN POSSIBLE. OTHERWISE, THE TEMPORARY POLLUTION PREVENTION ITEMS ARE TO BE USED.

MOST TEMPORARY SAEC METHODS, INCLUDING BUT NOT LIMITED TO, SILT FENCE AND DITCH CHECKS MAY ALL HAVE TO BE PERIODICALLY REMOVED AND REPLACED, OR MOVED FROM THE EXISTING ROAD DITCH OR STRIPPED AREAS AS WORK PROGRESSES. ANY CHANGES SHALL BE NOTED IN THE PLAN BY RED LINE AND DATED ON A CORRECTIVE ACTION LOG.

ALL TEMPORARY SEDIMENT CONTROLS AND STORM WATER QUALITY METHODS WILL BE BUILT/INSTALLED AS THE PROJECT PROGRESSES TO ELIMINATE UNNECESSARY DISTURBANCE AND REDUNDANCY. ALL TEMPORARY CONTROLS SHALL BE IN PLACE AND FUNCTIONING PROPERLY WHEN THREATENING WEATHER IS IMMINENT.

"TEMPORARY STABILIZATION" MEANS THE ESTABLISHMENT OF TEMPORARY VEGETATION, MULCHING, GEOTEXTILES, SOD, PRESERVATION OF EXISTING VEGETATION AND OTHER TECHNIQUES CAPABLE OF QUICKLY ESTABLISHING COVER OVER DISTURBED AREAS TO PROVIDE EROSION CONTROL BETWEEN CONSTRUCTION OPERATIONS.

"PERMANENT STABILIZATION" MEANS THE ESTABLISHMENT OF PERMANENT VEGETATION, DECORATIVE LANDSCAPE MULCHING, MATTING, SOD, RIP RAP AND LANDSCAPING TECHNIQUES TO PROVIDE PERMANENT EROSION CONTROL ON AREAS WHERE CONSTRUCTION OPERATIONS ARE COMPLETE OR WHERE NO FURTHER DISTURBANCE IS EXPECTED FOR AT LEAST A YEAR.

OFF-SITE TRACKING OF SEDIMENTS SHALL BE MINIMIZED. A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. ALL PAVED STREETS ADJACENT TO THE SITE WILL BE SWEEP DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARP.



STABILIZATION PRACTICES

PERMANENT SEEDING AND MULCHING STABILIZATION SHALL BE PROVIDED PER OEPA GUIDELINES AS SET FORTH IN PART II.B OF OHIO EPA PERMIT NO.: OHC000004. (SEE TABLE 1)

TABLE 1: PERMANENT STABILIZATION

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY AREAS THAT WILL LIE DORMANT FOR ONE YEAR OR MORE	WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE
ANY AREAS WITHIN 50 FEET OF A SURFACE WATER OF THE STATE AND AT FINAL GRADE	WITHIN TWO DAYS OF REACHING FINAL GRADE
ANY OTHER AREAS AT FINAL GRADE	WITHIN SEVEN DAYS OF REACHING FINAL GRADE WITHIN THAT AREA

TEMPORARY SEEDING AND MULCHING STABILIZATION SHALL BE PROVIDED PER OEPA GUIDELINES AS SET FORTH IN PART II.B OF OHIO EPA NO.: OHC000004 (SEE TABLE 2)

TABLE 2: TEMPORARY STABILIZATION

AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY DISTURBED AREAS WITHIN 50 FEET OF A SURFACE WATER OF THE STATE AND NOT AT FINAL GRADE	WITHIN TWO DAYS OF THE MOST RECENT DISTURBANCE IF THE AREA WILL REMAIN IDLE FOR MORE THAN 14 DAYS
FOR ALL CONSTRUCTION ACTIVITIES, ANY DISTURBED AREAS THAT WILL BE DORMANT FOR MORE THAN 14 DAYS BUT LESS THAN ONE YEAR, AND NOT WITHIN 50 FEET OF A SURFACE WATER OF THE STATE	WITHIN SEVEN DAYS OF THE MOST RECENT DISTURBANCE WITHIN THE AREA  FOR RESIDENTIAL SUBDIVISIONS, DISTURBED AREAS MUST BE STABILIZED AT LEAST SEVEN DAYS PRIOR TO TRANSFER OF PERMIT COVERAGE FOR THE INDIVIDUAL LOTS(S).
DISTURBED AREAS THAT WILL BE IDLE OVER WINTER	PRIOR TO THE ONSET OF WINTER WEATHER

ALL TEMPORARY EROSION AND SEDIMENT CONTROL INSTALLATIONS SHALL BE REMOVED WHEN 70% VEGETATION HAS BEEN REACHED.

SEEDING & MULCHING

MULCH AND/OR OTHER APPROPRIATE VEGETATIVE PRACTICES SHALL BE APPLIED TO DISTURBED AREAS WITHIN 7 DAYS OF GRADING IF THE AREA IS TO REMAIN DORMANT (UNDISTURBED) FOR MORE THAN 14 DAYS OR ON AREAS AND PORTIONS OF THE SITE WHICH CAN BE BROUGHT TO FINAL GRADE.

MULCH SHALL CONSIST OF UNROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 3 TONS/AC. OR 138 LB./1000 SQ. FT. (TWO TO THREE BALES). THE STRAW MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1000-SQ.-FT. SECTIONS AND PLACE THREE 45-LB. BALES OF STRAW IN EACH SECTION.

MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR RUNOFF. THE FOLLOWING ARE ACCEPTABLE METHODS FOR ANCHORING MULCH:

- MECHANICAL-USE A DISK, CRIMPER, OR SIMILAR TYPE TOOL SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT BE LEFT GENERALLY LONGER THAN 6 IN.
- MULCH NETTINGS-USE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS, FOLLOWING ALL PLACEMENT AND ANCHORING SUGGESTIONS. USE IN AREAS OF WATER CONCENTRATION AND STEEP SLOPES TO HOLD MULCH IN PLACE.
- ASPHALT EMULSION-FOR STRAW MULCH, APPLY AT THE RATE OF 160 GAL./AC. (0.1 GAL./SQ.) INTO THE MULCH AS IT IS BEING APPLIED OR AS RECOMMENDED BY THE MANUFACTURER.
- SYNTHETIC BINDERS-FOR STRAW MULCH, SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC), DCA-70, PETROSET, TERRA TACK OR EQUAL MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER.

SEED TYPE	PER 1000 SQ FT	PER ACRE
PERENNIAL RYEGRASS	1 POUND	40 POUNDS
TALL FESCUE	1 POUND	40 POUNDS
ANNUAL RYEGRASS	1 POUND	40 POUNDS
SMALL GRAIN STRAW	90 POUNDS	2 TONS
FERTILIZER	6 POUNDS OF 10-10-10 OR 12-12-12	250 POUNDS OF 10-10-10 OR 12-12-12

NOTE: OTHER APPROVED SPECIES MAY BE SUBSTITUTED

WINTER SEEDING & MULCHING

WINTER SEED AND MULCH IS REQUIRED FOR EARTH DISTURBANCE ACTIVITY OPERATIONS OCCURRING BETWEEN OCTOBER 15 AND MARCH 15 AND CAN ONLY BE INSTALLED DURING THAT TIME. ALL STRAW MULCH INCLUDED IN THIS WORK MUST BE EITHER CRIMPED IN PLACE OR INSTALLED WITH A BIODEGRADABLE BONDED FIBER MATRIX. CRIMPED MULCH IS REQUIRED TO BE ANCHORED INTO THE SOIL SURFACE WITH A MECHANICAL CRIMPING IMPLEMENT OR OTHER SUITABLE IMPLEMENT APPROVED BY THE ENGINEER. THE MULCH INCLUDED IN THIS WORK MUST BE CAPABLE OF PROVIDING SUFFICIENT DURABLE PROTECTIVE COVER THAT PROVIDES OEPA NPDES PERMIT COMPLIANT EROSION CONTROL FOR A MINIMUM OF 6 MONTHS. THE USE OF OTHER SEED AND/OR MULCH MATERIALS IN THIS TIME PERIOD REQUIRES SPECIFIC APPROVAL BY THE ENGINEER. THE USE OF WINTER SEEDING AND MULCHING IS NOT AN ACCEPTABLE PRACTICE FOR PROTECTING THE SUBGRADE SURFACE.

STOCKPILE

SILT FENCING SHALL BE INSTALLED AROUND TEMPORARY SPOIL STOCKPILES. THESE STOCKPILES SHALL BE STRAW MULCHED AND/OR TEMPORARILY SEEDED WITHIN 7 WORKING DAYS IF LEFT DORMANT FOR 14 DAYS OR LONGER.

TIMING OF CONTROLS/MEASURES

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, CONSTRUCTION ENTRANCE(S) AND SILT FENCE WILL BE CONSTRUCTED PRIOR TO CLEARING OR GRADING OF ANY OTHER PORTIONS OF THE SITE. SEDIMENT CONTROL DEVICES SHALL BE IMPLEMENTED FOR ALL AREAS REMAINING DISTURBED LONGER THAN 14 DAYS AND/OR WITHIN 7 DAYS OF ANY GRUBBING ACTIVITIES. AREAS WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR MORE THAN 14 DAYS WILL BE STABILIZED WITH A TEMPORARY SEED AND MULCH WITHIN 2 DAYS OF THE LAST DISTURBANCE IF THE AREA IS WITHIN 50 FEET OF A STREAM, AND WITHIN 7 DAYS OF THE LAST DISTURBANCE IF THE AREA IS MORE THAN 50 FEET AWAY FROM A STREAM. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, THAT AREA WILL BE STABILIZED WITH PERMANENT SEED AND MULCH. AFTER THE ENTIRE SITE IS STABILIZED, THE ACCUMULATED SEDIMENT WILL BE REMOVED FROM THE BASIN.

STABILIZATION TYPE	J	F	M	A	M	J	J	A	S	O	N	D
PERMANENT SEEDING			●	●	●	●	●	●	●	●	●	●
DORMANT SEEDING	●	●	●	●	●	●	●	●	●	●	●	●
TEMPORARY SEEDING			●	●	●	●	●	●	●	●	●	●
SODDING			●	●	●	●	●	●	●	●	●	●
MULCHING	●	●	●	●	●	●	●	●	●	●	●	●

- \* - IRRIGATION NEEDED
- \*\* - IRRIGATION NEEDED FOR 2-3 WEEKS AFTER SOD IS APPLIED

INSPECTIONS

ALL BMPs ON THIS SITE SHALL BE INSPECTED BY THE CONTRACTOR OR DESIGNATED REPRESENTATIVE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND OFFICE WITHIN 24 HOURS AFTER A RAIN EVENT OF 0.5 INCHES PER 24 HOUR PERIOD. A RECORD OF THESE INSPECTIONS SHALL BE MAINTAINED IN THE CONSTRUCTION OFFICE WITH THE SWPPP FOR PUBLIC VIEWING. ANY VIOLATIONS WILL BE REPORTED THROUGH THE PROJECT PERSONNEL. A RAIN GAUGE WILL BE LOCATED WITHIN THE PROJECT LIMITS.

FOLLOWING EACH INSPECTION, A CHECKLIST MUST BE COMPLETED AND SIGNED BY THE QUALIFIED INSPECTION PERSONNEL REPRESENTATIVE. AT A MINIMUM, THE INSPECTION REPORT SHALL INCLUDE:

- THE INSPECTION DATE;
- NAMES, TITLES, AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION;
- WEATHER INFORMATION FOR THE PERIOD SINCE THE LAST INSPECTION (OR SINCE COMMENCEMENT OF CONSTRUCTION ACTIVITY IF THE FIRST INSPECTION) INCLUDING A BEST ESTIMATE OF THE BEGINNING OF EACH STORM EVENT, DURATION OF EACH STORM EVENT, APPROXIMATE AMOUNT OF RAINFALL FOR EACH STORM EVENT (IN INCHES), AND WHETHER ANY DISCHARGES OCCURRED;
- WEATHER INFORMATION AND A DESCRIPTION OF ANY DISCHARGES OCCURRING AT THE TIME OF THE INSPECTION;
- LOCATION(S) OF DISCHARGES OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE;
- LOCATION(S) OF BMPs THAT NEED TO BE MAINTAINED;
- LOCATION(S) OF BMPs THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION;
- LOCATION(S) WHERE ADDITIONAL BMPs ARE NEEDED THAT DID NOT EXIST AT THE TIME OF INSPECTION; AND
- CORRECTIVE ACTION REQUIRED INCLUDING ANY CHANGES TO THE SWPP3 NECESSARY AND IMPLEMENTATION DATES.

THE PERMITTEE SHALL MAINTAIN A RECORD OF ALL INSPECTIONS FOR A PERIOD OF 3 YEARS FOLLOWING THE SUBMITTAL OF THE NOTICE OF TERMINATION.

MAINTENANCE

THE CONTRACTOR SHALL MAINTAIN, REPAIR, OR REPLACE ALL EROSION CONTROL INSTALLATIONS AS NEEDED TO ENSURE THE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. ALL REPAIRS TO BMPs SHALL BE MADE WITHIN 3 DAYS (OR SOONER IF POSSIBLE) OF NOTIFICATION OF DEFICIENCIES. IF THE CORRECTIONS ARE NOT MADE WITHIN THE 3 DAY PERIOD, LIQUIDATED DAMAGES MAY BE ASSESSED AS PER THE ODOT CMS SECTION 108.27. ONGOING INSPECTION OF INSTALLATIONS WILL BE REQUIRED BY THE CONTRACTOR OR DESIGNATED REPRESENTATIVE.

ANY TRAPPED SEDIMENT OR DEBRIS REMOVED DURING CLEANING OF OR REMOVAL OF BMP INSTALLATIONS SHALL BE PLACED IN AREAS NOT SUBJECT TO EROSION AND PERMANENTLY STABILIZED.

SPILL PREVENTION

MATERIAL MANAGEMENT PRACTICES:

THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

GOOD HOUSEKEEPING:

THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRUCTION PROJECT.

- AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
- ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
- PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
- SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
- WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
- MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
- THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ONSITE.

HAZARDOUS PRODUCTS:

THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.

- PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.
- ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION.
- IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

SPILL CONTROL PRACTICES

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

- ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SUPPLIES.
- MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.
- THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
- SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE. SPILLS OF 25 OR MORE GALLONS OF PETROLEUM WASTE MUST BE REPORTED TO OHIO EPA (1-800-282-9378), THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE WITHIN 30 MINUTES OF THE SPILL.
- SOILS CONTAMINATED BY PETROLEUM OR OTHER CHEMICAL SPILLS MUST BE TREATED/DISPOSED AT AN OHIO EPA APPROVED SOLID WASTE MANAGEMENT FACILITY OR HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITY (TSDP).
- THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND WILL ALSO BE INCLUDED.
- THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS, WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE WILL DESIGNATE SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IN THE OFFICE TRAILER ONSITE.

PRODUCT SPECIFIC PRACTICES

THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ONSITE:

PETROLEUM PRODUCTS - ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

FUEL STORAGE TANKS SHALL BE LOCATED AWAY FROM SURFACE WATERS AND STORM SEWER SYSTEM INLETS. FUEL TANKS SHALL BE STORED IN A DIKED AREA CAPABLE OF HOLDING 150% OF THE TANK CAPACITY.

FERTILIZERS - FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED SHED. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS - ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

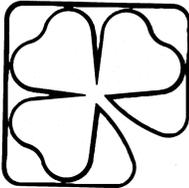
CONCRETE TRUCKS - CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE.

DUST CONTROL

DUST CONTROL INVOLVES PREVENTING OR REDUCING DUST FROM EXPOSED SOILS OR OTHER SOURCES DURING LAND DISTURBING, DEMOLITION AND CONSTRUCTION ACTIVITIES TO REDUCE THE PRESENCE OF AIRBORNE SUBSTANCES WHICH MAY PRESENT HEALTH HAZARDS, TRAFFIC SAFETY PROBLEMS OR HARM ANIMAL OR PLANT LIFE.

THE FOLLOWING SPECIFICATIONS FOR DUST CONTROL SHALL BE FOLLOWED ONSITE:

- VEGETATIVE COVER AND MULCH - APPLY TEMPORARY OR PERMANENT SEEDING AND MULCH TO AREAS THAT WILL REMAIN IDLE FOR OVER 14 DAYS. SAVING EXISTING TREES AND LARGE SHRUBS WILL ALSO REDUCE SOIL AND AIR MOVEMENT ACROSS DISTURBED AREAS. SEE TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING PRACTICES, AND TREE AND NATURAL AREA PROTECTION PRACTICES.
- WATERING - SPRAY SITE WITH WATER UNTIL THE SURFACE IS WET BEFORE AND DURING GRADING AND REPEAT AS NEEDED, ESPECIALLY ON HAUL ROADS AND OTHER HEAVY TRAFFIC ROUTES. WATERING SHALL BE DONE AT A RATE THAT PREVENTS DUST BUT DOES NOT CAUSE SOIL EROSION. WETTING AGENTS SHALL BE UTILIZED ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
- SPRAY-ON ADHESIVES - APPLY ADHESIVE ACCORDING TO THE FOLLOWING TABLE OR MANUFACTURER'S INSTRUCTIONS.



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Design Build Contractors and Engineers  
6233 Avery Road  
Box 370  
Dublin, Ohio 43017  
(614) 889-1445

FINAL DEVELOPMENT PLAN

PROPOSED FACILITY FOR:

PINNACLE PETS  
FARM BANK WAY GROVE CITY, OHIO

REVISIONS

NO.	DATE	DESCRIPTION

DRAWN BY: ZBG CHECKED BY: MJC

DATE: 09-29-2015

EROSION CONTROL NOTES

C1.2

JOB NO.



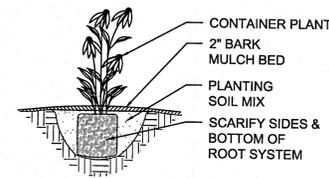


PLANTING SCHEDULE

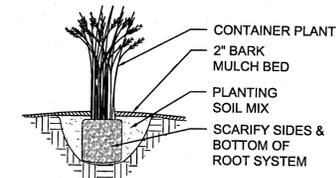
KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	REMARKS
DECIDUOUS TREES:					
ACE RUB	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	2" CAL.	B&B	
AME GRA	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY	6' HT. MIN.	B&B	CLUMP
CRA VIR	CRATAEGUS VIRIDIS 'WINTER KING'	WINTER KING HAWTHORN	2" CAL.	B&B	TREE FROM
GLE TRI	GLEDITSIA TRIACANTHOS INERMIS 'SKYLINE'	SKYLINE HONEYLOCUST	2" CAL.	B&B	
QUE BIC	QUERCUS BICOLOR	SWAMP WHITE OAK	2" CAL.	B&B	
QUE COC	QUERCUS COCCINEA	SCARLET OAK	2" CAL.	B&B	
QUE RUB	QUERCUS RUBRA	RED OAK	2" CAL.	B&B	
SHRUBS:					
BUX MIC	BUXUS MICROPHYLLA 'WINTER GEM'	WINTER GEM BOXWOOD	30" HT. MIN.	B&B	SPACE 4' O.C.
JUN CHI	JUNIPERUS CHINENSIS 'SEA GREEN'	SEA GREEN JUNIPER	30" HT. MIN.	B&B	SPACE 4' O.C.
SPI JAP	SPIREAE JAPONICA 'LITTLE PRINCESS'	LITTLE PRINCESS SPIREA	18" HT. MIN.	CONT.	SPACE 30" O.C.
GOUNDCOVERS AND PERENNIALS:					
LIR MUS	LIRIOPE MUSCARI 'BIG BLUE'	BIG BLUE LILYTURF	#2	CONT.	SPACE 12" O.C.
TURFGRASS SEED: SEE SPECIFICATIONS					

GENERAL PLANTING NOTES

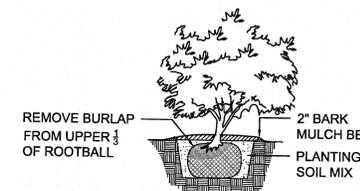
- EACH CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES.
- ALL SHRUB MASSES TO BE INCORPORATED BY A CONTINUOUS MULCH BED TO LIMITS SHOWN AND AS SPECIFIED. MULCH BEDS TO HAVE A NEAT, EDGED APPEARANCE.
- SUBSURFACE IMPROVEMENTS SHALL BE OBSERVED. THE CONTRACTOR SHALL CONTACT THE OHIO UTILITIES PROTECTION SERVICE (OUPS) 48 HOURS PRIOR TO ANY EXCAVATION OR DIGGING TO ENSURE THE LOCATION OF UNDERGROUND UTILITY LOCATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT SUCH UNDERGROUND UTILITIES.
- ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE FINE GRADED AND SEEDED.
- ALL TREES WITHIN A SPECIES SHALL HAVE MATCHING FORM.
- THE CONTRACTOR SHALL ENSURE THAT ALL NEWLY PLANTED TREES ARE PERFECTLY ALIGNED AND SET PLUMB WITH PROPER RELATIONSHIP TO THE SURROUNDING GRADE. CONFIRM FINISHED GRADE PRIOR TO PLANTING.
- ALL PLANT MATERIAL SHALL BE OF THE SIZE AND TYPE SPECIFIED. IF SUBSTITUTIONS ARE APPROVED BY THE OWNER'S REPRESENTATIVE, THE SIZE AND GRADING STANDARDS SHALL CONFORM TO THOSE OF THE AMERICAN ASSOCIATION OF NURSERYMEN.
- EXISTING TREE LINE TO REMAIN SHALL BE PROTECTED PER ZONING CODE SECTION 1136.10.



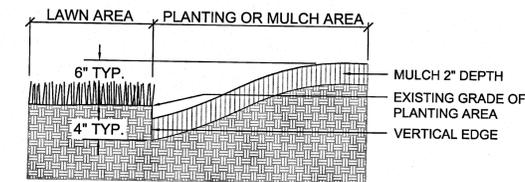
1 PERENNIAL / GROUNDCOVER PLANTING  
N.T.S.



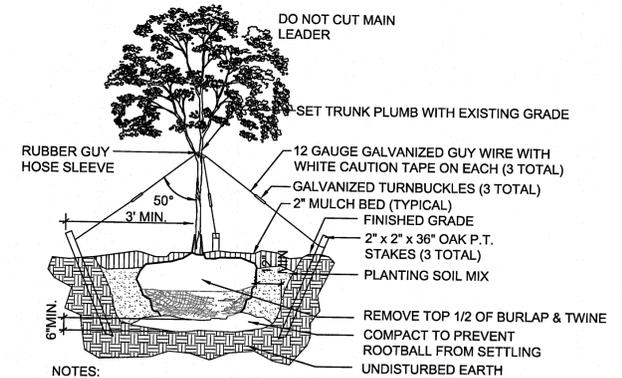
2 ORNAMENTAL GRASS PLANTING  
N.T.S.



3 SHRUB PLANTING  
N.T.S.

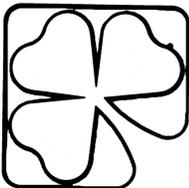


4 PLANTING BED TRENCH DETAIL  
NOT TO SCALE



5 DECIDUOUS TREE PLANTING  
N.T.S.

- NOTES:
- TOP OF ROOT BALL TO BE 2"-3" ABOVE ADJACENT FINISHED GRADE.
  - REMOVE ALL LABELS, TAGS, OR OTHER FOREIGN MATERIALS FROM LIMBS.
  - REMOVE GUY WIRES, TURNBUCKLES, HOSE AND STAKES 1 YEAR AFTER PLANTING.
  - THE AMOUNT OF PRUNING SHALL BE LIMITED TO THE MINIMUM NECESSARY TO REMOVE DEAD OR INJURED TWIGS AND BRANCHES AND TO COMPENSATE FOR THE LOSS OF ROOTS DURING TRANSPLANTING. RETAIN NORMAL SHAPE OF TREE. OWNERS REPRESENTATIVE WILL DETERMINE AMOUNT OF PRUNING NECESSARY. PLANT TREES AT SAME GRADE AS GROWN IN THE NURSERY.



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FINAL DEVELOPMENT PLAN

PROPOSED FACILITY FOR:

PINNACLE PETS

FARM BANK WAY GROVE CITY, OHIO

REVISIONS


DRAWN BY ZBG CHECKED BY MJC

DATE 09-29-2015

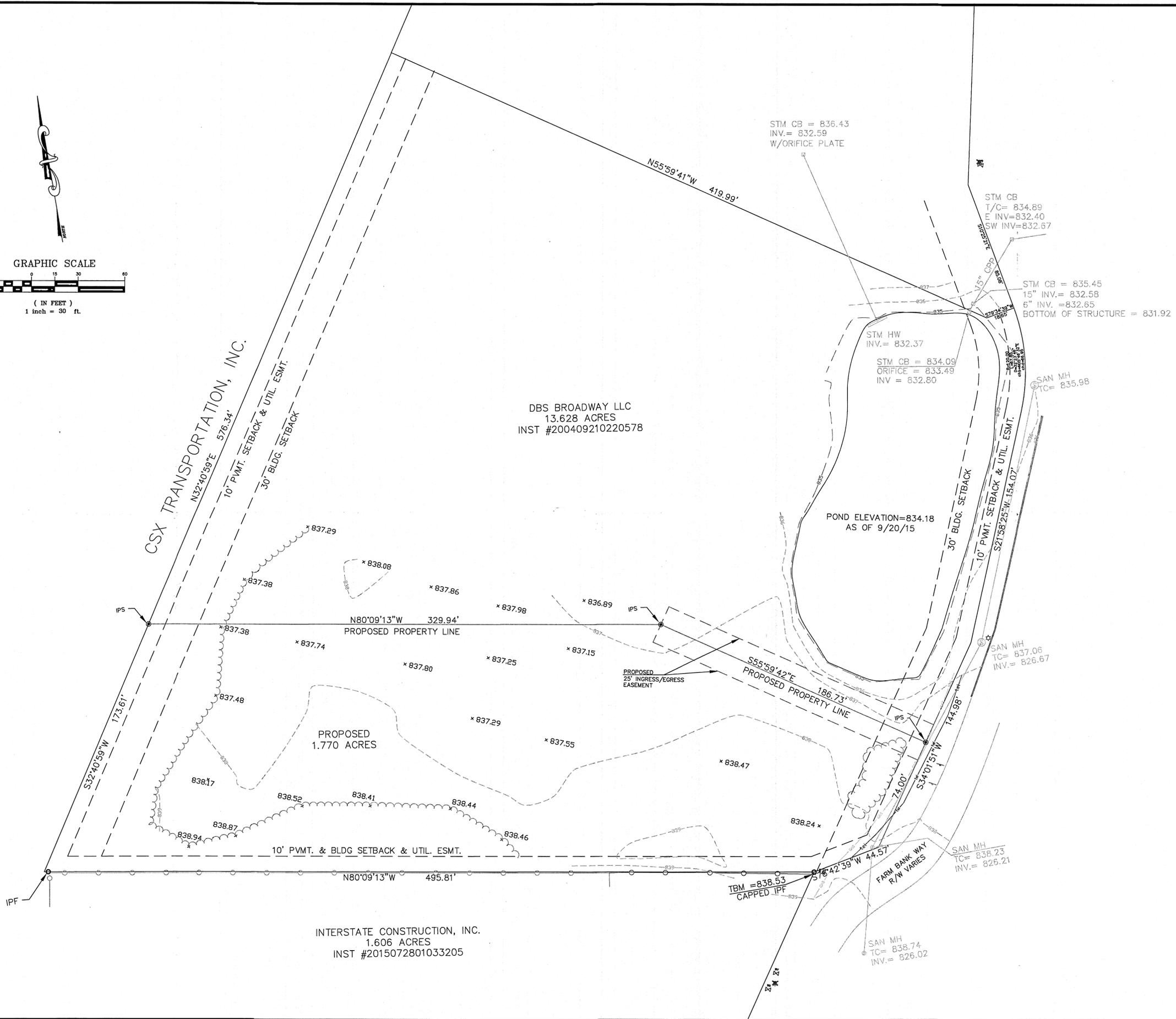
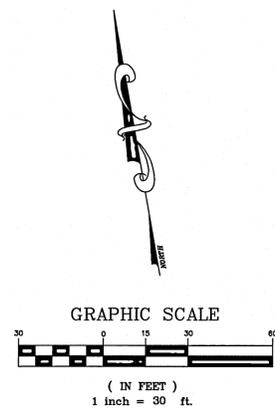
LANDSCAPE NOTES & DETAILS  
L1.1

JOB NO.



CIVIL ENGINEERING SURVEYING LANDSCAPE ARCHITECTURE  
www.kleingers.com  
300 Worthington Rd., Ste B  
Westerville, OH 43082  
614.882.4311





**General Notes**

Premises covered by this plan have been surveyed and are true and correct to the best of my knowledge.

In addition, monuments shown on this plat will be set in accordance with Section 1101.051



No.	Revision/Issue	Date

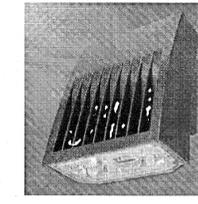
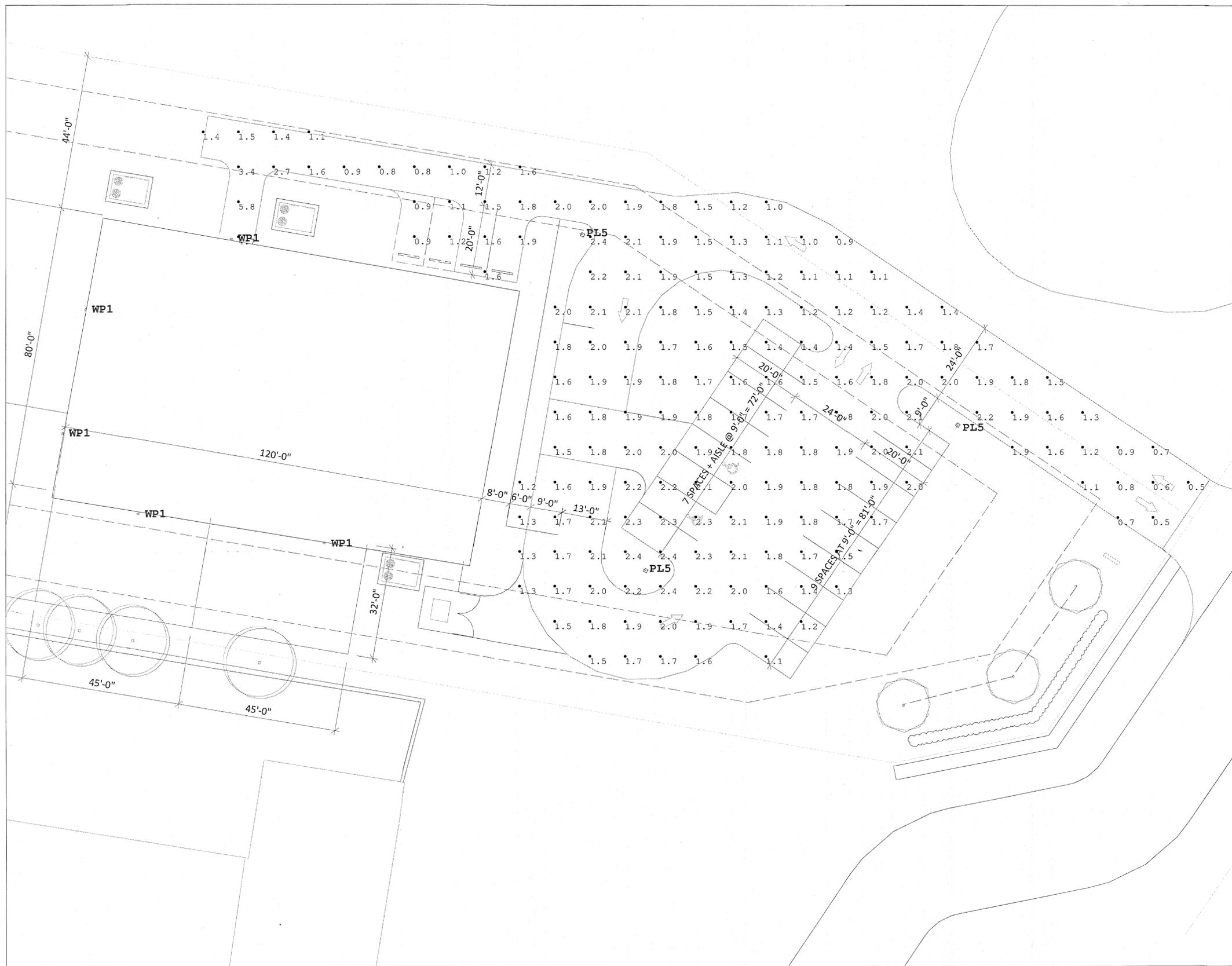
Firm Name and Address

195 Powhatan Ave.  
**TERRATEK** LLC  
 columbus ~ ohio ~ 43204

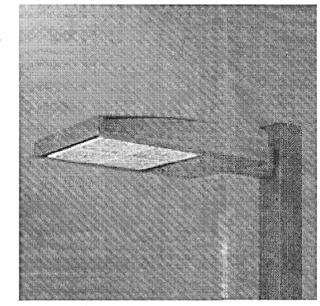
Project Name and Address

Pinnacle Pets  
 Farm Bank Way  
 Grove City, Ohio

Project	Pinnacle Pets	Sheet	EX
Date	09/25/2015	Scale	
Scale	1" = 30'		



LUMARK XTOR SERIES



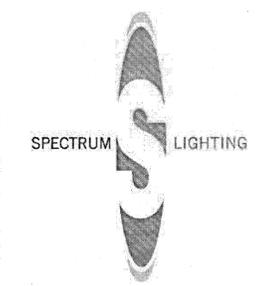
MCGRAW EDISON GALLEON SERIES

- NOTES:
1. ALL CALC POINTS AT GRADE.
  2. ALL POLE FIXTURES MOUNTED AT 25' ABOVE GRADE.
  3. ALL WALL FIXTURES MOUNTED AT 20' ABOVE GRADE.

**PET PINNACLE GROVE CITY**  
**SITE LIGHTING ANALYSIS REV 1**

Luminaire Schedule						
Symbol	Qty	Label	Arrangement	LLF	Description	Lum. Lumens
	3	PL5	SINGLE	0.900	GLEON-AE-04-LED-E1-5WQ (213 WATTS LED, TYPE 5W)	21803
	5	WP1	SINGLE	0.900	LUMARK XTOR9A (79 WATTS LED)	7084

Calculation Summary						
Label	CalcType	Units	Avg	Max	Min	Avg/Min
CalcPts	Illuminance	Fc	1.69	5.8	0.5	3.38



SPECTRUM LIGHTING  
 700 TAYLOR AVE.  
 COLUMBUS, OH 43219  
 www.spectrumohio.com

## DESCRIPTION

The Galleon™ LED luminaire delivers exceptional performance in a highly scalable, low-profile design. Patented, high-efficiency AccuLED Optics™ system provides uniform and energy conscious illumination to walkways, parking lots, roadways, building areas and security lighting applications. IP66 rated.

Catalog #	GLEON-AE-04-LED-E1-5WQ	Type	PL5
Project	PINNACLE PETS	Date	
Comments			
Prepared by			

## SPECIFICATION FEATURES

### Construction

Extruded aluminum driver enclosure thermally isolated from Light Squares for optimal thermal performance. Heavy-wall, die-cast aluminum end caps enclose housing and die-cast aluminum heat sinks. A unique, patent pending interlocking housing and heat sink provides scalability with superior structural rigidity. 3G vibration tested. Optional tool-less hardware available for ease of entry into electrical chamber. Housing is IP66 rated.

### Optics

Choice of 16 patented, high-efficiency AccuLED Optics. The optics are precisely designed to shape the distribution maximizing efficiency and application spacing. AccuLED Optics create consistent distributions with the scalability to meet customized application requirements. Offered standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 6000K CCT and 3000K CCT. For the ultimate level of spill light control, an optional house side shield accessory can be field or factory installed. The

house side shield is designed to seamlessly integrate with the SL2, SL3, SL4 or AFL optics.

### Electrical

LED drivers are mounted to removable tray assembly for ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. 480V is compatible for use with 480V Wye systems only. Standard with 0-10V dimming. Shipped standard with Eaton proprietary circuit module designed to withstand 10kV of transient line surge. The Galleon LED luminaire is suitable for operation in -40°C to 40°C ambient environments. For applications with ambient temperatures exceeding 40°C, specify the HA (High Ambient) option. Light Squares are IP66 rated. Greater than 90% lumen maintenance expected at 60,000 hours. Available in standard 1A drive current and optional 530mA and 700mA drive currents.

### Mounting

Extruded aluminum arm includes internal bolt guides allowing for easy positioning of fixture during

assembly. Designed for pole or wall mounting. When mounting two or more luminaires at 90° or 120° apart, the EA extended arm may be required. Refer to the arm mounting requirement table on page 3. Round pole top adapter included. For wall mounting, specify wall mount bracket option. 3G vibration rated.

### Finish

Housing finished in super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Heat sink is powder coated black. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult the McGraw-Edison Architectural Colors brochure for the complete selection.

### Warranty

Five-year warranty.



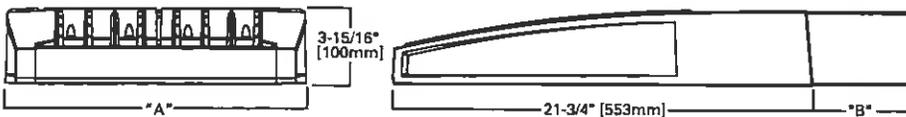
## GLEON GALLEON LED

1-10 Light Squares  
Solid State LED

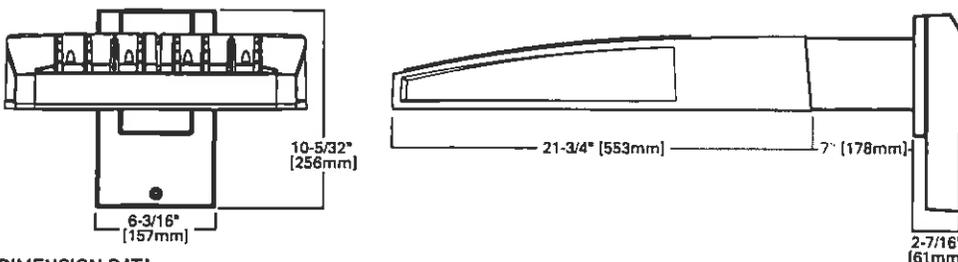
AREA/SITE LUMINAIRE

## DIMENSIONS

### POLE MOUNT



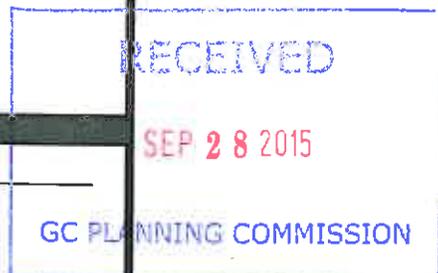
### WALL MOUNT



### DIMENSION DATA

Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Optional Arm Length <sup>1</sup>	Weight with Arm (lbs.)	EPA with Arm <sup>2</sup> (Sq. Ft.)
1-4	15-1/2" (394mm)	7" (178mm)	10" (254mm)	33 (15.0 kgs.)	0.96
5-6	21-5/8" (549mm)	7" (178mm)	10" (254mm)	44 (20.0 kgs.)	1.00
7-8	27-5/8" (702mm)	7" (178mm)	13" (330mm)	54 (24.5 kgs.)	1.07
9-10	33-3/4" (857mm)	7" (178mm)	16" (406mm)	63 (28.6 kgs.)	1.12

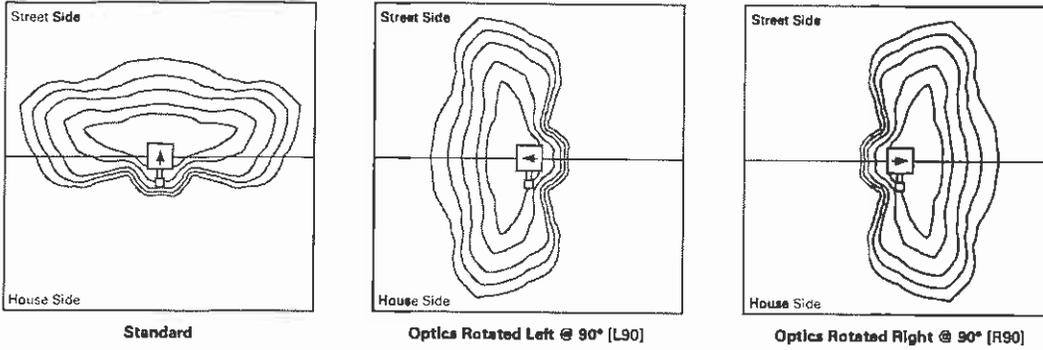
NOTES: 1 Extended arm option may be required when mounting two or more fixtures per pole at 90° or 120°. Refer to arm mounting requirement table. 2 EPA calculated with optional arm length.



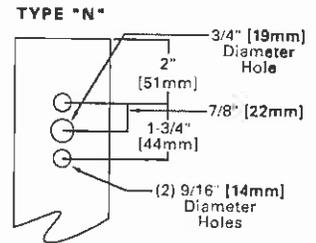
**CERTIFICATION DATA**  
DLC/CUL Wet Location Listed  
ISO 9001  
LM79 / LM80 Compliant  
3G Vibration Rated  
IP66 Rated  
DesignLights Consortium® Qualified\*

**ENERGY DATA**  
Electronic LED Driver  
>0.9 Power Factor  
<20% Total Harmonic Distortion  
120V-277V 50/60Hz  
347V & 480V 60Hz  
-40°C Min. Temperature  
40°C Max. Temperature  
50°C Max. Temperature (HA Option)

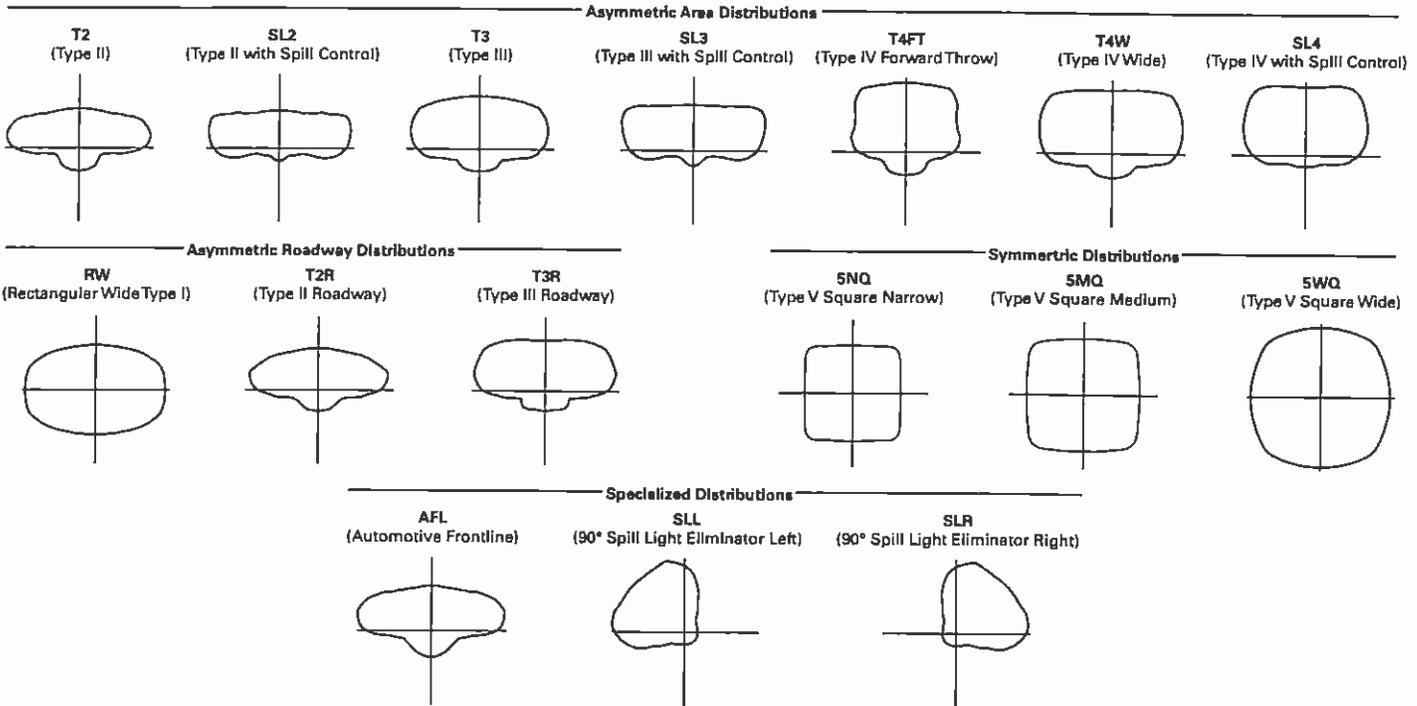
**OPTIC ORIENTATION**



**DRILLING PATTERN**

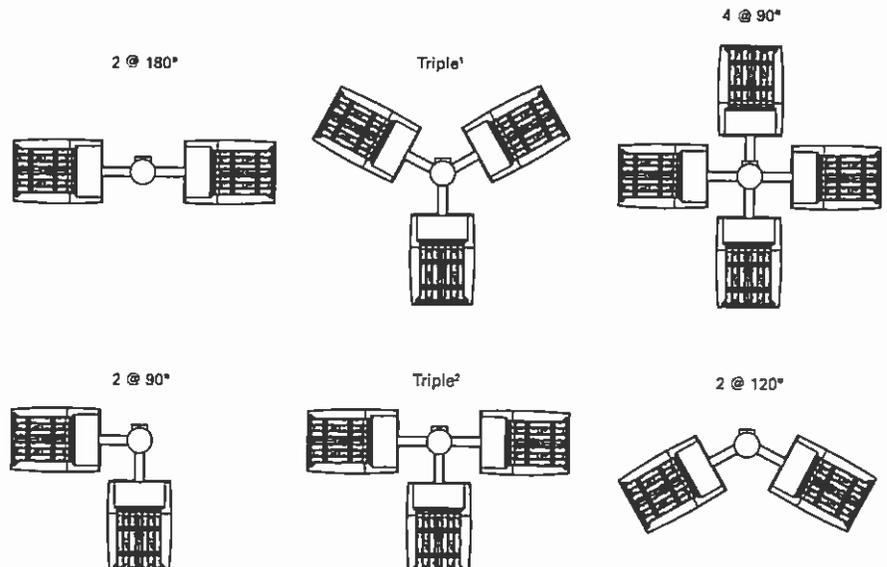


**OPTICAL DISTRIBUTIONS**



**ARM MOUNTING REQUIREMENTS**

Configuration	90° Apart	120° Apart
GLEON-AE-01	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-02	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-03	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-04	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-05	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AE-06	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AE-07	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AE-08	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AE-09	16" Extended Arm (Required)	16" Extended Arm (Required)
GLEON-AE-10	16" Extended Arm (Required)	16" Extended Arm (Required)



NOTES: 1 Round poles are 3 @ 120° Square poles are 3 @ 90° 2 Round poles are 3 @ 90°

## NOMINAL POWER AND LUMENS (1A)

Number of Light Squares	1	2	3	4	5	6	7	8	9	10	
Drive Current	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A	
Nominal Power (Watts)	56	107	157	213	264	315	370	421	475	528	
Input Current @ 120V (A)	0.47	0.90	1.31	1.79	2.21	2.64	3.09	3.51	3.96	4.41	
Input Current @ 208V (A)	0.28	0.51	0.74	1.02	1.25	1.48	1.76	1.99	2.22	2.50	
Input Current @ 240V (A)	0.25	0.45	0.65	0.90	1.10	1.30	1.55	1.75	1.95	2.20	
Input Current @ 277V (A)	0.23	0.41	0.59	0.82	1.00	1.18	1.41	1.59	1.77	2.00	
Optics											
T2	Lumens	5,272	10,303	15,373	20,313	25,168	30,118	35,618	40,357	45,018	49,842
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5
T2R	Lumens	5,597	10,938	16,321	21,565	26,719	31,974	37,813	42,844	47,792	52,914
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B4-U0-G4	B4-U0-G5
T3	Lumens	5,374	10,501	15,669	20,704	25,652	30,697	36,303	41,134	45,884	50,802
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
T3R	Lumens	5,493	10,735	16,017	21,164	26,222	31,379	37,110	42,048	46,904	51,930
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
T4FT	Lumens	5,405	10,562	15,760	20,824	25,801	30,875	36,514	41,372	46,150	51,096
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
T4W	Lumens	5,335	10,426	15,556	20,555	25,468	30,476	36,042	40,838	45,554	50,438
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
SL2	Lumens	5,263	10,285	15,347	20,278	25,124	30,068	35,556	40,288	44,940	49,756
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
SL3	Lumens	5,373	10,500	15,667	20,701	25,649	30,693	36,298	41,128	45,878	50,794
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
SL4	Lumens	5,105	9,976	14,886	19,869	24,370	29,163	34,488	39,078	43,591	48,262
	BUG Rating	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
5NQ	Lumens	5,542	10,830	16,160	21,352	26,455	31,658	37,439	42,421	47,320	52,392
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4
5MQ	Lumens	5,644	11,029	16,457	21,745	26,942	32,241	38,128	43,202	48,191	53,356
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5
5WQ	Lumens	5,659	11,059	16,501	21,803	27,014	32,327	38,230	43,317	48,320	53,498
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5
SLL/SLR	Lumens	4,722	9,227	13,787	18,191	22,539	26,971	31,897	36,141	40,315	44,635
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
RW	Lumens	5,492	10,732	16,014	21,159	26,216	31,372	37,101	42,038	46,893	51,918
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
AFL	Lumens	5,512	10,771	16,072	21,236	26,311	31,486	37,236	42,191	47,063	52,107
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4

\* Nominal data for 4000K CCT.

## LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

## LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
40°C	> 93%	> 250,000
50°C*	> 90%	> 170,000

\* 50°C lumen maintenance data applies to 530mA and 700mA drive currents.

**NOMINAL POWER AND LUMENS (700MA)**

Number of Light Squares	1	2	3	4	5	6	7	8	9	10	
Drive Current	700mA	700mA	700mA	700mA	700mA	700mA	700mA	700mA	700mA	700mA	
Nominal Power (Watts)	38	72	105	138	178	210	243	276	314	348	
Input Current @ 120V (A)	0.32	0.59	0.86	1.14	1.45	1.72	2	2.28	2.58	2.86	
Input Current @ 208V (A)	0.21	0.36	0.51	0.67	0.87	1.02	1.18	1.34	1.53	1.69	
Input Current @ 240V (A)	0.19	0.32	0.45	0.59	0.77	0.90	1.04	1.18	1.35	1.49	
Input Current @ 277V (A)	0.20	0.29	0.40	0.51	0.69	0.80	0.91	1.02	1.20	1.31	
<b>Optics</b>											
T2	Lumens	3,854	7,531	11,237	14,847	18,395	22,013	26,033	29,497	32,904	36,430
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
T2R	Lumens	4,091	7,995	11,929	15,762	19,529	23,370	27,838	31,316	34,932	38,676
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4
T3	Lumens	3,928	7,676	11,453	15,133	18,750	22,437	26,534	30,065	33,537	37,132
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
T3R	Lumens	4,015	7,846	11,707	15,469	19,166	22,936	27,124	30,733	34,283	37,957
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
T4FT	Lumens	3,951	7,720	11,519	15,221	18,858	22,567	26,688	30,240	33,732	37,347
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
T4W	Lumens	3,900	7,820	11,370	15,024	18,615	22,276	26,343	29,849	33,296	36,864
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
SL2	Lumens	3,847	7,518	11,217	14,821	18,364	21,975	25,988	29,447	32,847	36,368
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
SL3	Lumens	3,927	7,675	11,451	15,131	18,747	22,434	26,531	30,061	33,533	37,126
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
SL4	Lumens	3,731	7,292	10,880	14,376	17,812	21,315	25,208	28,562	31,861	35,275
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G4	B2-U0-G5	B2-U0-G5	B3-U0-G5
5NQ	Lumens	4,051	7,916	11,811	15,606	19,336	23,139	27,365	31,008	34,587	38,294
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3
5MQ	Lumens	4,125	8,062	12,029	15,894	19,692	23,565	27,869	31,577	35,224	38,999
	BUG Rating	B2-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
5WQ	Lumens	4,136	8,083	12,061	15,936	19,745	23,628	27,943	31,661	35,318	39,103
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
SLL/SLR	Lumens	3,451	6,744	10,063	13,296	16,474	19,714	23,314	26,418	29,467	32,625
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
RW	Lumens	4,014	7,844	11,704	15,465	19,162	22,930	27,118	30,726	34,274	37,948
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3
AFL	Lumens	4,029	7,873	11,747	15,522	19,231	23,014	27,216	30,838	34,399	38,086
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3

\* Nominal data for 4000K CCT.

**LUMEN MULTIPLIER**

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

**LUMEN MAINTENANCE**

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
40°C	> 93%	> 250,000
50°C*	> 90%	> 170,000

\* 50°C lumen maintenance data applies to 530mA and 700mA drive currents.



Eaton  
 1121 Highway 74 South  
 Peachtree City, GA 30269  
 P 770-486-4800  
 www.eaton.com/lighting

Specifications and dimensions subject to change without notice

NOMINAL POWER AND LUMENS (530MA)

Number of Light Squares	1	2	3	4	5	6	7	8	9	10	
Drive Current	530mA	530mA	530mA	530mA	530mA	530mA	530mA	530mA	530mA	530mA	
Nominal Power (Watts)	30	54	80	105	130	159	184	209	234	259	
Input Current @ 120V (A)	0.25	0.45	0.66	0.86	1.07	1.32	1.52	1.72	1.93	2.14	
Input Current @ 208V (A)	0.17	0.28	0.39	0.51	0.63	0.78	0.9	1.02	1.14	1.26	
Input Current @ 240V (A)	0.17	0.25	0.35	0.45	0.55	0.70	0.80	0.90	1.00	1.10	
Input Current @ 277V (A)	0.19	0.24	0.32	0.40	0.49	0.64	0.72	0.80	0.89	0.98	
Optics											
T2	Lumens	3,079	6,017	8,978	11,862	14,697	17,588	20,800	23,567	26,289	29,106
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4
T2R	Lumens	3,269	6,388	9,531	12,593	15,603	18,672	22,082	25,020	27,909	30,900
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4
T3	Lumens	3,138	6,133	9,150	12,091	14,980	17,926	21,200	24,021	26,795	29,667
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4
T3R	Lumens	3,208	6,269	9,354	12,359	15,313	18,325	21,871	24,555	27,390	30,326
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
T4FT	Lumens	3,156	6,188	9,203	12,161	15,067	18,030	21,323	24,160	26,950	29,839
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
T4W	Lumens	3,116	6,088	9,084	12,004	14,872	17,797	21,047	23,848	26,802	29,453
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
SL2	Lumens	3,074	6,006	8,962	11,842	14,672	17,558	20,764	23,527	26,244	29,056
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4
SL3	Lumens	3,138	6,132	9,149	12,089	14,978	17,924	21,197	24,018	26,791	29,662
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
SL4	Lumens	2,981	5,826	8,693	11,486	14,231	17,030	20,140	22,820	25,456	28,184
	BUG Rating	B0-U0-G1	B1-U0-G2	B1-U0-G3	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G4	B2-U0-G5
5NQ	Lumens	3,236	6,324	9,437	12,469	15,449	18,487	21,863	24,773	27,634	30,595
	BUG Rating	B1-U0-G0	B2-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2
5MQ	Lumens	3,296	6,441	9,610	12,698	15,733	18,828	22,266	25,229	28,142	31,158
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G3
5WQ	Lumens	3,305	6,458	9,636	12,732	15,775	18,878	22,325	25,298	28,217	31,241
	BUG Rating	B2-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
SL/SLR	Lumens	2,757	5,388	8,040	10,623	13,182	15,751	18,627	21,105	23,543	26,068
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4
RW	Lumens	3,207	6,267	9,351	12,356	15,309	18,320	21,668	24,549	27,384	30,319
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3
AFL	Lumens	3,219	6,290	9,385	12,401	15,365	18,387	21,745	24,638	27,484	30,429
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3

\* Nominal data for 4000K CCT.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
40°C	> 93%	> 250,000
50°C*	> 90%	> 170,000

\* 50°C lumen maintenance data applies to 530mA and 700mA drive currents.

ORDERING INFORMATION

Sample Number: GLEON-AE-04-LED-E1-T3-GM-700

Product Family <sup>1</sup>	Light Engine	Number of Light Squares <sup>2</sup>	Lamp Type	Voltage	Distribution	Color	Mounting
GLEON=Galleon	AE=1A Drive Current	01=1 02=2 03=3 04=4 05=5 06=6 07=7 08=8 09=9 10=10	LED=Solid State Light Emitting Diodes	E1=120-277V 347=347V <sup>3</sup> 480=480V <sup>3,4</sup>	T2=Type II T2R=Type II Roadway T3=Type III T3R=Type III Roadway T4FT=Type IV Forward Throw T4W=Type IV Wide 5NQ=Type V Narrow 5MQ=Type V Square Medium 5WQ=Type V Square Wide SL2=Type II w/Spill Control SL3=Type III w/Spill Control SL4=Type IV w/Spill Control SL=90° Spill Light Eliminator Left SLR=90° Spill Light Eliminator Right RW=Rectangular Wide Type I AFL=Automotive Frontline	AP=Grey BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White	[Blank]=Arm for Round or Square Pole EA=Extended Arm <sup>5</sup> MA=Mast Arm Adapter <sup>6</sup> WM=Wall Mount
Options (Add as Suffix)					Accessories (Order Separately)		
2L=Two Circuits <sup>7,8</sup> 7030=70 CRI 3000K <sup>9</sup> 8030=80 CRI 3000K <sup>10</sup> 7050=70 CRI 5000K <sup>10</sup> 7060=70 CRI 6000K <sup>9</sup> 530=Drive Current Factory Set to 530mA <sup>11</sup> 700=Drive Current Factory Set to 700mA <sup>11</sup> F=Single Fuse (120, 277 or 347V. Must Specify Voltage) FF=Double Fuse (208, 240 or 480V. Must Specify Voltage) P=Button Type Photocontrol (120, 208, 240 or 277V) PER7=NEMA 7-PIN Twistlock Photocontrol Receptacle R=NEMA Twistlock Photocontrol Receptacle HA=50°C High Ambient <sup>5,12</sup> MS/DIM-L08=Motion Sensor for Dimming Operation, Maximum 8' Mounting Height <sup>13,14,15,16,17</sup> MS/DIM-L20=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height <sup>13,14,15,16,17</sup> MS/DIM-L40=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height <sup>13,14,15,16,18</sup> MS/DIM-L40W=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height (Wide Range) <sup>13,14,15,16,20</sup> MS/X-L08=Bi-Level Motion Sensor, Maximum 8' Mounting Height <sup>13,14,15,16,17,21</sup> MS/X-L20=Bi-Level Motion Sensor, 9' - 20' Mounting Height <sup>13,14,15,16,18,21</sup> MS/X-L40=Bi-Level Motion Sensor, 21' - 40' Mounting Height <sup>13,14,15,16,18,21</sup> MS/X-L40W=Bi-Level Motion Sensor, 21' - 40' Mounting Height (Wide Range) <sup>13,14,15,16,20,21</sup> MS-L08=Motion Sensor for ON/OFF Operation, Maximum 8' Mounting Height <sup>13,14,15,16,17</sup> MS-L20=Motion Sensor for ON/OFF Operation, 9' - 20' Mounting Height <sup>13,14,15,16,18</sup> MS-L40=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height <sup>13,14,15,16,18</sup> MS-L40W=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height (Wide Range) <sup>13,14,15,16,20</sup> DIMRF-LW=LumaWatt Wireless Sensor, Wide Lens for 8' - 16' Mounting Height <sup>22</sup> DIMRF-LN=LumaWatt Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height <sup>22</sup> L90=Optics Rotated 90° Left R90=Optics Rotated 90° Right MT=Factory Installed Mesh Top TH=Tool-less Door Hardware LCF=Light Square Trim Plate Painted to Match Housing <sup>23</sup> HSS=Factory Installed House Side Shield <sup>24</sup> CE=CE Marking <sup>25</sup>					OA/RA1016=NEMA Photocontrol Multi-Tap - 105-285V OA/RA1027=NEMA Photocontrol - 480V OA/RA1201=NEMA Photocontrol - 347V OA/RA1013=Photocontrol Shorting Cap OA/RA1014=120V Photocontrol MA1252=10kV Surge Module Replacement MA1036-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon MA1037-XX=2@180° Tenon Adapter for 2-3/8" O.D. Tenon MA1197-XX=3@120° Tenon Adapter for 2-3/8" O.D. Tenon MA1188-XX=4@90° Tenon Adapter for 2-3/8" O.D. Tenon MA1189-XX=2@90° Tenon Adapter for 2-3/8" O.D. Tenon MA1190-XX=3@90° Tenon Adapter for 2-3/8" O.D. Tenon MA1191-XX=2@120° Tenon Adapter for 2-3/8" O.D. Tenon MA1038-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon MA1039-XX=2@180° Tenon Adapter for 3-1/2" O.D. Tenon MA1192-XX=3@120° Tenon Adapter for 3-1/2" O.D. Tenon MA1193-XX=4@90° Tenon Adapter for 3-1/2" O.D. Tenon MA1194-XX=2@90° Tenon Adapter for 3-1/2" O.D. Tenon MA1195-XX=3@90° Tenon Adapter for 3-1/2" O.D. Tenon FSIR-100=Wireless Configuration Tool for Occupancy Sensor <sup>26</sup> GLEON-MT1=Field Installed Mesh Top for 1-4 Light Squares GLEON-MT2=Field Installed Mesh Top for 5-6 Light Squares GLEON-MT3=Field Installed Mesh Top for 7-8 Light Squares GLEON-MT4=Field Installed Mesh Top for 9-10 Light Squares LS/HSS=Field Installed House Side Shield <sup>24,27</sup>		

NOTES:

- DesignLights Consortium<sup>1</sup> Qualified. Refer to [www.designlights.org](http://www.designlights.org) Qualified Products List under Family Models for details.
- Standard 4000K CCT and minimum 70 CRI.
- Requires the use of a step down transformer when combined with MS/DIM, MS/X or DIMRF.
- Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
- May be required when two or more luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table.
- Factory installed.
- 2L is not available with MS, MS/X or MS/DIM at 347V or 480V. 2L in AE-02 through AE-04 requires a larger housing, normally used for AE-05 or AE-06. Extended arm option may be required when mounting two or more fixtures per pole at 90° or 120°. Refer to arm mounting requirement table.
- Not available with LumaWatt wireless sensors.
- Extended lead times apply. Use dedicated IES files for 3000K and 6000K when performing layouts. These files are published on the Galleon luminaire product page on the website.
- Extended lead times apply. For 8030, factor 7030 IES files x .92 (8% lumen loss). For 7050, use 7060 IES files.
- 1 Amp standard. Use dedicated IES files for 530mA and 700mA when performing layouts. These files are published on the Galleon luminaire product page on the website.
- 50°C lumen maintenance data applies to 530mA and 700mA drive currents.
- Consult factory for more information.
- Utilizes internal step down transformer when 347V or 480V is selected.
- The FSIR-100 configuration tool is required to adjust parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Eaton for more information.
- Not available with HA option.
- Approximately 22' detection diameter at 8' mounting height.
- Approximately 40' detection diameter at 20' mounting height.
- Approximately 60' detection diameter at 40' mounting height.
- Approximately 100' detection diameter at 40' mounting height.
- Replace X with number of Light Squares operating in low output mode.
- LumaWatt wireless sensors are factory installed only requiring network components RF-EM-1, RF-GW-1 and RF-ROUT-1 in appropriate quantities. See [www.eaton.com/lighting](http://www.eaton.com/lighting) for LumaWatt application information.
- Not available with house side shield (HSS).
- Only for use with SL2, SL3, SL4 and AFL distributions. The Light Square trim plate is painted black when the HSS option is selected.
- CE is not available with the DIMRF, MS, MS/X, MS/DIM, F, FF, P, R or PER7 options.
- This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Eaton for more information.
- One required for each Light Square.

## DESCRIPTION

The patented Lumark Crosstour™ MAXX LED Wall Pack Series of luminaries provides low-profile architectural style with super bright, energy-efficient LEDs. The rugged die-cast aluminum construction, back box with secure lock hinges, stainless steel hardware along with a sealed and gasketed optical compartment make Crosstour impervious to contaminants. The Crosstour MAXX wall luminaire is ideal for wall/surface, inverted mount for facade/canopy illumination, perimeter and site lighting. Typical applications include pedestrian walkways, building entrances, multi-use facilities, industrial facilities, perimeter parking areas, storage facilities, institutions, schools and loading docks.

## SPECIFICATION FEATURES

### Construction

Low-profile LED design with rugged one-piece, die-cast aluminum back box and hinged removable door. Matching housing styles incorporate both a full cutoff and refractive lens design. Full cutoff and refractive lens models are available in 41W and 79W. Patent pending secure lock hinge feature allows for safe and easy tool-less electrical connections with the supplied push-in connectors. Back box includes four 1/2" NPT threaded conduit entry points. The back box is secured by four lag bolts (supplied by others). External fin design extracts heat from the fixture surface. One-piece silicone gasket seals door and back box. Not recommended for car wash applications.

### Optical

Silicone sealed optical LED chamber incorporates a custom engineered reflector providing high-efficiency illumination. Full cutoff models integrate an impact-resistant molded refractive prism optical lens assembly meeting requirements for Dark Sky compliance. Refractive lens models incorporate a molded lens assembly designed for maximum

forward throw. Solid state LED Crosstour luminaries are thermally optimized with two lumen packages in cool 5000K or neutral warm 3500K LED color temperature (CCT).

### Electrical

LED driver is mounted to the die-cast aluminum housing for optimal heat sinking. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from the LED source. 41W and 79W models operate in -40°C to 40°C [-40°F to 104°F]. High ambient 50°C [122°F] models available. Crosstour MAXX luminaires maintain greater than 90% of initial light output after 72,000 hours of operation. Four half-inch NPT threaded conduit entry points allow for thru-branch wiring. Back box is an authorized electrical wiring compartment. Integral LED electronic driver incorporates surge protection. 120-277V 50/60Hz, 480V 60Hz, or 347V 60Hz electrical operation. 480V is compatible for use with 480V Wye systems only.

### Emergency Egress

Optional integral cold weather

battery emergency egress includes emergency operation test switch, an AC-ON indicator light and a premium extended rated sealed maintenance-free nickel-metal hydride battery pack. The separate emergency lighting LEDs are wired to provide redundant emergency lighting. Listed to UL Standard 924, Emergency Lighting.

### Area and Site Pole Mounting

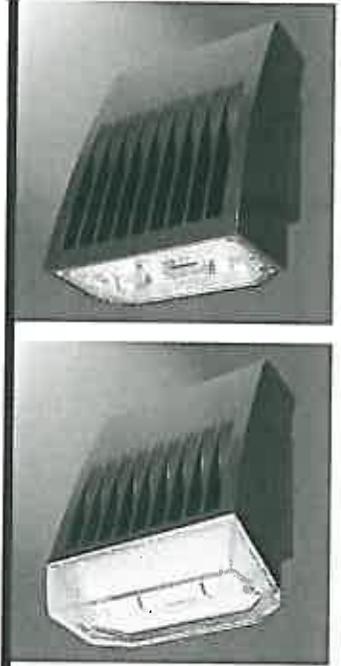
Optional extruded aluminum 6-1/2" arm features internal bolt guides for supplied twin support rods, allowing for easy positioning of the fixture during installation to pole. Supplied with round plate adapter plate. Optional tenon adapter fits 2-3/8" or 3-1/2" O.D. Tenon.

### Finish

Crosstour MAXX is protected with a super TGIC carbon bronze or summit white polyester powder coat paint. Super TGIC powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the installed fixture.

### Warranty

Five-year warranty.



**XTOR  
CROSSTOUR  
MAXX LED**

RECEIVED  
SEP 28 2015

APPLICATIONS:  
WALL / SURFACE  
INVERTED  
SITE LIGHTING



**CERTIFICATION DATA**  
UL/cUL Wet Location Listed  
LM79 / LM80 Compliant  
ROHS Compliant  
NOM Compliant Models  
3G Vibration Tested  
UL924 Listed (CBP Models)  
IP68 Rated  
DesignLights Consortium® Qualified\*

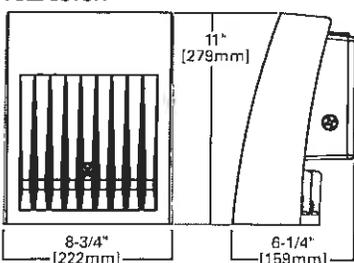
**TECHNICAL DATA**  
40°C Ambient Temperature  
External Supply Wiring 90°C Minimum

**EPA**  
Effective Projected Area (Sq. Ft.):  
XTOR5A/XTOR9A=0.54  
With Pole Mount Arm=0.98

**SHIPPING DATA:**  
Approximate Net Weight:  
12-15 lbs. [5.4-6.8 kgs.]

## DIMENSIONS

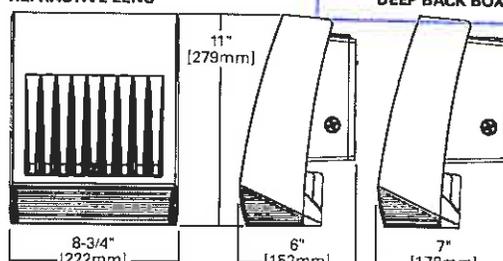
### FULL CUTOFF



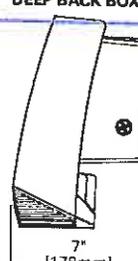
### DEEP BACK BOX



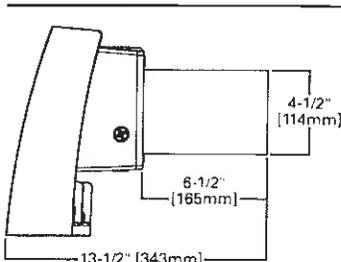
### REFRACTIVE LENS



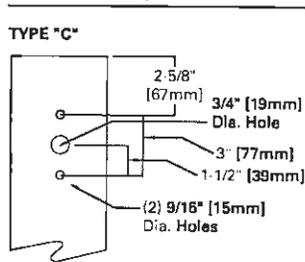
### DEEP BACK BOX



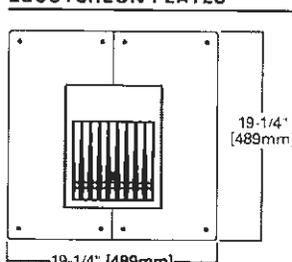
### OPTIONAL POLE MOUNT ARM



### ARM DRILLING



### ESCUTCHEON PLATES



POWER AND LUMENS BY FIXTURE MODEL

LED Information	XTOR5A	XTOR5ARL	XTOR5A-N	XTOR5ARL-N
Delivered Lumens	4,409	4,831	4,136	3,744
B.U.G. Rating	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G2
CCT (Kelvin)	5000K	5000K	3500K	3500K
CRI (Color Rendering Index)	65	65	70	70
Power Consumption (Watts)	41W	41W	43W	42W

LED Information	XTOR9A	XTOR9ARL	XTOR9A-N	XTOR9ARL-N
Delivered Lumens	7,079	7,367	6,468	6,036
B.U.G. Rating	B1-U0-G1	B1-U0-G2	B1-U0-G1	B1-U0-G2
CCT (Kelvin)	5000K	5000K	3500K	3500K
CRI (Color Rendering Index)	65	65	70	70
Power Consumption (Watts)	79W	82W	79W	81W

EGRESS Information	XTOR5A and XTOR9A Full Cutoff CBP Egress LED	XTOR5A and XTOR9A Refractive Lens CBP Egress LED
Delivered Lumens	509	468
B.U.G. Rating	N.A.	N.A.
CCT (Kelvin)	4000K	4000K
CRI (Color Rendering Index)	65	65
Power Consumption (Watts)	1.8W	1.8W

CURRENT DRAW

Voltage	Model Series			
	XTOR5A	XTOR9A	XTOR5A-CBP (Fixture/Battery)	XTOR9A-CBP (Fixture/Battery)
120V	0.35	0.67	0.80/0.25	0.92/0.25
208V	0.20	0.39	--	--
240V	0.18	0.34	--	--
277V	0.15	0.29	0.36/0.21	0.50/0.21
347V	0.14	0.26	--	--
480V	0.10	0.19	--	--

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (72,000 Hours)	Theoretical L70 (Hours)
<b>XTOR5A Model</b>		
25°C	> 92%	> 290,000
40°C	> 91%	> 290,000
50°C	> 89%	> 250,000
<b>XTOR9A Model</b>		
25°C	> 91%	> 260,000
40°C	> 90%	> 230,000
50°C	> 82%	> 130,000

ORDERING INFORMATION

Sample Number: XTOR5A-N-WT-PC1

Series <sup>1</sup>	LED Kelvin Color	Housing Color	Options (Add as Suffix)
Full Cutoff XTOR5A=41W XTOR9A=79W  Refractive Lens XTOR5ARL=41W XTOR9ARL=79W	[Blank]=Bright White (Standard) 5000K N=Neutral Warm White, 3500K	[Blank]=Carbon Bronze (Standard) WT=Summit White	347V=347V <sup>2,3,4,5</sup> 480V=480V <sup>2,3,4,5,6</sup> PC1=Photocontrol 120V <sup>7</sup> PC2=Photocontrol 208-277V <sup>7,8</sup> DIM=0-10V Dimming Driver <sup>2</sup> PMA=Pole Mount Arm (C Drilling) with Round Adapter <sup>3</sup> HA=50°C High Ambient <sup>3</sup> MS-L20=Motion Sensor for ON/OFF Operation <sup>2,3,9,12</sup> MS/DIM-L20=Motion Sensor for Dimming Operation <sup>2,3,9,10,11,12</sup> CBP=Cold Weather Battery Pack <sup>2,3,9,13</sup>
<b>Accessories (Order Separately)</b>			
WG-XTORMX=Crosstour MAXX Wire Guard PB120V=Field Installed 120V Photocontrol PB277V BUTTON PC=Field Installed 208-277V Photocontrol <sup>8</sup> VA1040-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon <sup>14</sup> VA1041-XX=2@180° Tenon Adapter for 3-1/2" O.D. Tenon <sup>14</sup> VA1042-XX=3@120° Tenon Adapter for 3-1/2" O.D. Tenon <sup>14</sup> VA1043-XX=4@90° Tenon Adapter for 3-1/2" O.D. Tenon <sup>14</sup> VA1044-XX=2@90° Tenon Adapter for 3-1/2" O.D. Tenon <sup>14</sup> VA1045-XX=3@90° Tenon Adapter for 3-1/2" O.D. Tenon <sup>14</sup>	VA1046-XX=2@120° Tenon Adapter for 3-1/2" O.D. Tenon <sup>14</sup> VA1033-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon <sup>14</sup> VA1034-XX=2@180° Tenon Adapter for 2-3/8" O.D. Tenon <sup>14</sup> VA1035-XX=3@120° Tenon Adapter for 2-3/8" O.D. Tenon <sup>14</sup> VA1036-XX=4@90° Tenon Adapter for 2-3/8" O.D. Tenon <sup>14</sup> VA1037-XX=2@90° Tenon Adapter for 2-3/8" O.D. Tenon <sup>14</sup> VA1038-XX=3@90° Tenon Adapter for 2-3/8" O.D. Tenon <sup>14</sup> VA1039-XX=2@120° Tenon Adapter for 2-3/8" O.D. Tenon <sup>14</sup> EWP/XTORMX=Escutcheon Wall Plate, Carbon Bronze EWP/XTORMX-WT=Escutcheon Wall Plate, Summit White		

NOTES: 1 DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details. 2 Not available with HA option. 3 Deep back box is standard for 347V, 480V, CBP, PMA, MS-L20 and MS/DIM-L20. 4 Not available with CBP option. 5 Thru-branch wiring not available with HA option or with 347V. 6 Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, Impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems). 7 Not available with MS-L20 and MS/DIM-L20 options. 8 Use PC2 with 347V or 480V option for photocontrol. Factory wired to 208-277V lead. 9 For use in downlight orientation only. Optimal coverage at mounting heights of 9'-20' 10 120V or 277V only. 11 Factory set to 50% power reduction after 15-minutes of inactivity. Dimming driver included. 12 Includes integral photo sensor. 13 Operating temperatures -20°C to 25°C. 14 Replace XX with CB for carbon bronze or WT for summit white.

STOCK ORDERING INFORMATION

41W Series	79W Series
<b>Full Cutoff</b>	
XTOR5A=41W, 5000K, Carbon Bronze	XTOR9A=79W, 5000K, Carbon Bronze
XTOR5A-PC1=41W, 5000K, 120V PC, Carbon Bronze	XTOR9A-PC1=79W, 5000K, 120V PC, Carbon Bronze
XTOR5A-WT=41W, 5000K, Summit White	XTOR9A-WT=79W, 5000K, Summit White
XTOR5A-N=41W, 3500K, Carbon Bronze	XTOR9A-PC2=79W, 5000K, 208-277V PC, Carbon Bronze
	XTOR9A-480V=79W, 5000K, 480V, Carbon Bronze
	XTOR9A-PMA=79W, 5000K, Pole Mount Arm, Carbon Bronze
<b>Refractive Lens</b>	
XTOR5ARL=41W, 5000K, Refractive Lens, Carbon Bronze	XTOR9ARL=79W, 5000K, Refractive Lens, Carbon Bronze
XTOR5ARL-PC1=41W, 5000K, Refractive Lens, 120V PC, Carbon Bronze	XTOR9ARL-PC1=79W, 5000K, Refractive Lens, 120V PC, Carbon Bronze
XTOR5ARL-WT=41W, 5000K, Refractive Lens, Summit White	XTOR9ARL-WT=79W, 5000K, Refractive Lens, Summit White
XTOR5ARL-N=41W, 3500K, Refractive Lens, Carbon Bronze	XTOR9ARL-PC2=79W, 5000K, Refractive Lens, 208-277V PC, Carbon Bronze
	XTOR9ARL-480V=79W, 5000K, Refractive Lens, 480V, Carbon Bronze
	XTOR9ARL-PMA=79W, 5000K, Refractive Lens, Pole Mount Arm, Carbon Bronze

5-DAY QUICK SHIP ORDERING INFORMATION

41W Series	79W Series
<b>Full Cutoff</b>	
XTOR5A-CBP=41W, 5000K, Carbon Bronze, Cold Weather Battery Pack	XTOR9A-CBP=79W, 5000K, Carbon Bronze, Cold Weather Battery Pack
XTOR5A-480V=41W, 5000K, Carbon Bronze, 480V	XTOR9A-N=79W, 3500K, Carbon Bronze
XTOR5A-PC2=41W, 5000K, Carbon Bronze, 208-277V PC	
<b>Refractive Lens</b>	
XTOR5ARL-PC2=41W, Refractive Lens, 5000K, Carbon Bronze, 208-277V PC	XTOR9ARL-CBP=79W, Refractive Lens, 5000K, Carbon Bronze, Cold Weather Battery Pack
XTOR5ARL-CBP=41W, Refractive Lens, 5000K, Carbon Bronze, Cold Weather Battery Pack	XTOR9ARL-N=79W, Refractive Lens, 3500K, Carbon Bronze
XTOR5ARL-480V=41W, Refractive Lens, 5000K, Carbon Bronze, 480V	