



---

690 Chesterfield Pkwy W • Chesterfield MO 63017-0760  
Phone: 636-537-4000 • Fax 636-537-4798 • www.chesterfield.mo.us

---

## **Planning Commission Staff Report**

**Project Type:** Site Development Section Plan

**Meeting Date:** September 14, 2009

**From:** Charlie Campo, AICP                      Mara Perry, AICP  
Project Planner                                      Senior Planner

**Location:** 18315 Paul Haglin Drive

**Applicant:** Vince Natoli

**Description:** **Wings Corporate Estates, Lot 20 (Natoli Engineering):** A Site Development Section Plan, Landscape Plan, Lighting Plan, and Architectural Elevations for a three (3) acre tract of land zoned "PI" Planned Industrial District located on the North side of Paul Haglin Drive.

---

### **PROPOSAL SUMMARY**

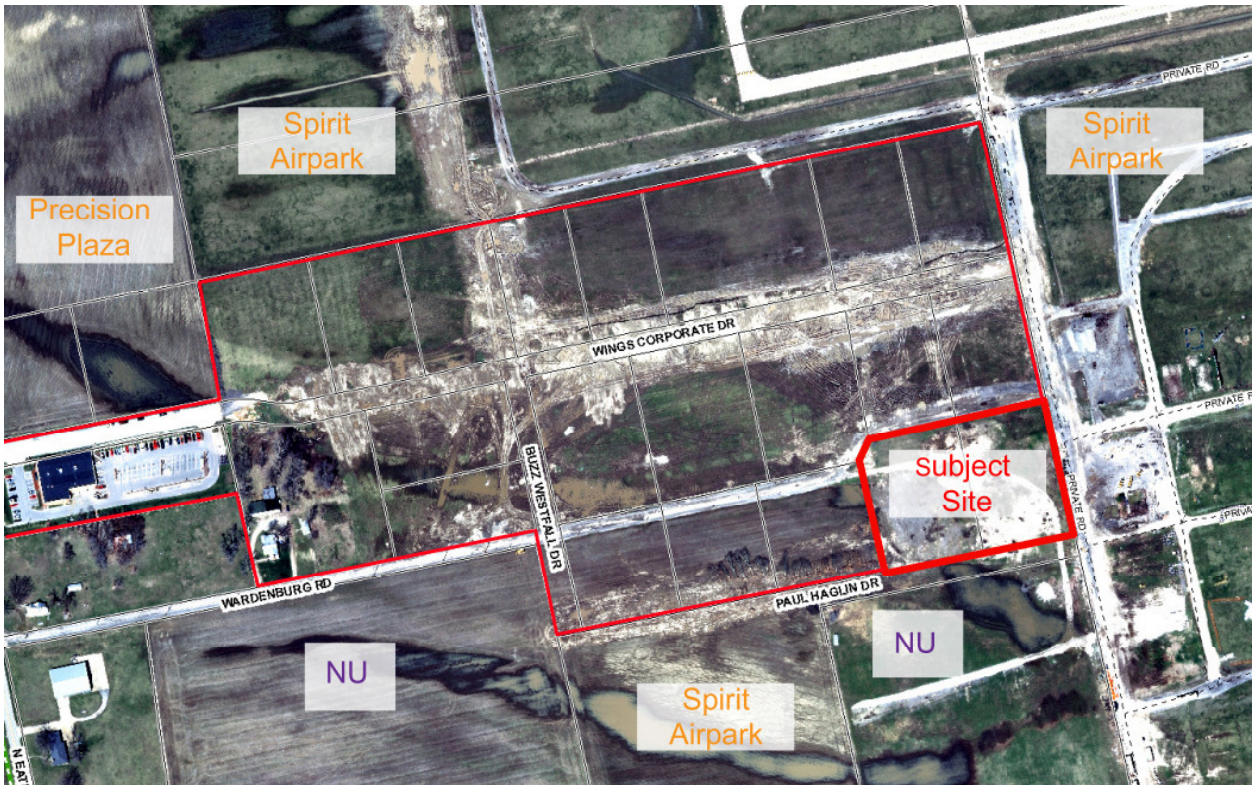
Clayton Engineering Inc. on behalf of Vince Natoli has submitted a Site Development Section Plan, Landscape Plan, Lighting Plan, and Architectural Elevations for your review. The project is located at 18315 Paul Haglin Drive on a 3 acre tract of land that is current zoned "PI" Planned Industrial District. The proposal includes a one (1) story approximately 35,000 square foot office warehouse building.

### **LAND USE AND ZONING HISTORY OF THE SITE**

On June 6<sup>th</sup>, 2006, The City of Chesterfield approved Ordinance 2237 which amended the City of Chesterfield Zoning Ordinance by changing the boundaries of an "NU" Non-Urban to a "PI" Planned Industrial District for 39.5 acres of land located north of Wardenburg Rd. on Eatherton Rd. A Site Development Concept Plan was approved for the development on September 11<sup>th</sup>, 2006. On February 4<sup>th</sup>, 2008, the City of Chesterfield approved a Record Plat for 21 lots at Wings Corporate Estates.

**Land Use and Zoning of Surrounding Properties:**

Direction	Land Use	Zoning
North	Airport/Vacant	“M-3” Planned Industrial
South	Airport/Vacant	“M-3” and “NU”
East	Airport/Vacant	“M-3” Planned Industrial
West	Vacant	Outside City Boundary



**STAFF ANALYSIS**

- Zoning**  
 The subject site is currently zoned “PI” Planned Industrial District under the terms and conditions of City of Chesterfield Ordinance Number 2237. The submittal was reviewed against and adheres to the requirements of the governing ordinance, and all applicable Zoning Ordinance requirements.
- Traffic/Access and Circulation**  
 The proposal calls for a one-story approximately 35,000 square foot office/warehouse structure. Access to the site will be provided from two (2) entrances on Paul Haglin Drive.
- Open Space**  
 The proposed Site Development Plan indicates 30% open space which equals the minimum required open space of 30% per City of Chesterfield Ordinance 2237.

- **Landscaping and Tree Preservation**

There are currently no trees existing on this site, therefore a tree preservation plan and tree stand delineation plan were not required. A Landscape Plan has been submitted and meets all the requirements of the City of Chesterfield Landscape and Tree Preservation Requirements. All trees shown on the landscape plan are included on the City's recommended tree list. The City's Arborist reviewed the landscape plan and had no additional comments.

- **Lighting**

The lighting plan depicts the building lighting and parking lot lighting for this site. The height of all building mounted lighting will be fourteen (14) feet. The height of all pole mounted lighting will be sixteen (16) feet. The lighting plan adheres to the City of Chesterfield Lighting Ordinance requirements.

- **Parking**

The proposed uses on the site are office and warehouse. The parking requirement for office in this district is 3 1/3 spaces per 1000 square feet of gross floor area. The parking requirement for warehouse is two (2) spaces for every three (3) employees on the maximum shift and one space for every vehicle used in operation of the site. The current proposal is for 3,500 square feet of office with 31,912 square feet of warehouse with 20 employees, therefore, a minimum of 25 parking spaces are required. The plan shows 33 proposed parking spaces.

### **ARCHITECTURAL REVIEW**

This project was reviewed by the Architectural Review Board on July 12, 2007. The Architectural Review Board made a motion to forward the project for approval with the recommendation that staff review the openspace and landscape requirements for the site, and consider the addition of a landscape hedgerow along the south side of the parking area.

Staff has reviewed a revised landscape plan submitted by the petitioner, which addresses the comments made by the Architectural Review Board.

### **DEPARTMENTAL INPUT**

Due to issues with outside agencies the project was put on hold at the request of the petitioner. The project was resubmitted to the City on July 6, 2009. Staff has reviewed the Site Development Section Plan, Landscape Plan, Lighting Plan and Architectural Elevations and has found them to be in conformance with the Comprehensive Plan, Zoning Ordinance and City of Chesterfield Ordinance 2237.

### **MOTION**

The following options are provided to the Planning Commission for consideration relative to this application:

1. "I move to approve (or deny) the Site Development Section Plan, Landscape Plan, Lighting Plan, and Architectural Elevations for Wings Corporate Estates Lot 20 (Natoli Engineering)."
2. "I move to approve the Site Development Section Plan, Landscape Plan, Lighting Plan, and Architectural Elevations for Wings Corporate Estates Lot 20 (Natoli Engineering) with the following conditions..." (Conditions may be added, eliminated, altered or modified).

Cc: City Administrator  
City Attorney  
Director of Planning and Public Works  
Planning and Development Services Director

Attachments: Site Development Section Plan  
Landscape Plan  
Lighting Plan  
Architectural Elevations

SITE AREA = 130,673 S.F. (3.00 AC.)  
 BUILDING AREA=35,412 S.F. (27.1%)  
 PAVEMENT AREA=56,065 S.F. (42.9%)  
 OPEN SPACE=39,196 S.F. (30.0%)

LOT 20 OF "WINGS CORPORATE ESTATES", ACCORDING TO THE PLAT RECORDED IN (NOT RECORDED YET) OF THE ST. LOUIS COUNTY RECORDER OF DEEDS

PROPERTY ZONED: PI - PLANNED INDUSTRIAL  
 LANDSCAPE AREA = N/A  
 SITE ADDRESS: 18311 WARDENBURG ROAD  
 LOCATOR NUMBER: 18W530025  
 PROPOSED USE: OFFICE WAREHOUSE

TOTAL PARKING REQUIRED: = PER CITY OF CHESTERFIELD CODE  
 % OFFICE SPACE=  $\frac{35412}{130673} = 9.9\%$   
 % WAREHOUSE SPACE=  $\frac{3312}{36} = 90.1\%$   
 OFFICE= 3 1/2 SPACES PER 1,000 S.F. GROSS FLOOR AREA =  $\frac{35412}{1000} * 3 1/2 = 12$  SPACES  
 WAREHOUSE= 2 SPACES PER 3 EMPLOYEES ON MAX. SHIFT, PLUS 1 SPACE PER VEHICLE  
 =  $20 * 3 + 0 = 14$  SPACES  
 TOTAL PARKING PROVIDED = 33 SPACES (INCLUDING 2 HANDICAP SPACES)  
 TOTAL PARKING REQUIRED = 26 SPACES

10'x40' LOADING SPACES REQUIRED=2  
 10'x40' LOADING SPACES PROVIDED=5

FEMA MAP NUMBER = 25189C0120 H  
 (REVISED TO REFLECT LOMR DATED APR. 17, 2000)

MAX. BUILDING HEIGHT = 40 FEET  
 BUILDING HEIGHT = 24 FEET

MAX. FLOOR AREA RATIO (FAR)= 55%  
 FAR=27.1%

MIN. OPEN SPACE = 50% (PRIOR TO SANITARY SEWER SYSTEM)  
 = 30% (WITH SANITARY SEWER SYSTEM)

TREE PRESERVATION PLAN: THERE ARE NO EXISTING TREES ON THE SITE, SO NO SEPARATE TREE PRESERVATION PLAN WILL BE PROVIDED.

THE LOCATION AND HEIGHT OF ANY LIGHT STANDARDS ON SITE SHALL BE AS APPROVED BY THE PLANNING COMMISSION ON THE SITE DEVELOPMENT PLAN AND SHALL BE IN CONFORMANCE WITH THE CITY OF CHESTERFIELD REGULATIONS.

ALL TRASH ENCLOSURES SHALL BE ENCLOSED BY A SIX FOOT HIGH SIGHT PROOF FENCE AND CONSTRUCTED OF A SIMILAR MATERIAL AS THE MAIN BUILDINGS.

THERE WILL BE NO MONUMENT SIGN FOR THIS SITE.  
 ALL UTILITIES SHALL BE INSTALLED UNDERGROUND.

THE DEVELOPER SHALL BE REQUIRED TO PROVIDE ADEQUATE TEMPORARY OFF-STREET PARKING FOR CONSTRUCTION EMPLOYEES. PARKING ON NON-SURFACED AREAS SHALL BE PROHIBITED IN ORDER IN ORDER TO ELIMINATE THE CONDITION WHEREBY MUD FROM CONSTRUCTION AND EMPLOYEE VEHICLES IS TRACKED ONTO THE PAVEMENT CAUSING HAZARDOUS ROADWAY AND DRIVING CONDITIONS.

THE STREETS SURROUNDING THIS DEVELOPMENT AND ANY STREET USED FOR CONSTRUCTION ACCESS THERETO SHALL BE CLEANED PRIOR TO THE END OF EACH WORK DAY.

EROSION AND SILTATION CONTROL SHALL BE INSTALLED PRIOR TO ANY GRADING AND BE MAINTAINED THROUGHOUT THE PROJECT UNTIL ACCEPTANCE OF THE WORK BY THE OWNER AND/OR CONTROLLING REGULATORY AGENCY AND ADEQUATE VEGETATIVE GROWTH INSURES NO FUTURE EROSION OF THE SOIL.

NOTES:

- ALL SIDEWALKS TO BE CONSTRUCTED TO ST. LOUIS COUNTY ADA AND CITY OF CHESTERFIELD STANDARDS.
- ALL PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED TO ST. LOUIS COUNTY, CITY OF CHESTERFIELD AND MSD STANDARDS.
- ALL GRADING AND DRAINAGE TO BE IN CONFORMANCE WITH ST. LOUIS COUNTY, CITY OF CHESTERFIELD AND MSD STANDARDS.
- NO SLOPES SHALL EXCEED 3 (HORIZONTAL) TO 1 (VERTICAL).
- STORM WATER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE POINT. SINKHOLES ARE NOT ADEQUATE DISCHARGE POINTS.
- NO STEPS AT HANDICAPPED ACCESSIBLE DOORS.
- NO ONSITE LIGHT STANDARD SHALL EXCEED SIXTEEN (16) FEET IN HEIGHT AND BE SO SITUATED THAT LIGHT IS CAST DIRECTLY ON ADJOINING PROPERTIES OR PUBLIC ROADWAYS.
- THE MOUNTING HEIGHT OF ALL POLE LIGHTS SHOWN ON THIS PLAN IS 16 FEET. THE MOUNTING HEIGHT OF ALL BUILDING MOUNTED LIGHTS SHOWN ON THIS PLAN IS 14 FEET.
- ALL DIMENSIONS ARE TO FACE OF CURB, UNLESS OTHERWISE NOTED.

SITE IS SERVED BY:

CHESTERFIELD MONARCH  
 FIRE PROTECTION DISTRICT  
 155 LONG ROAD  
 CHESTERFIELD, MO. 63005

ROCKWOOD R-6 SCHOOL DISTRICT  
 111 EAST NORTH STREET  
 EUREKA, MO. 63025

AMEREN UE  
 1901 CHOUTEAU  
 P.O. BOX. 66149 MAIL CODE 200  
 ST. LOUIS, MO. 63166-6149

SBC  
 14780 MANCHESTER ROAD  
 BALLWIN, MO. 63011  
 TERRY DONAUBAUER (636) 256-1536

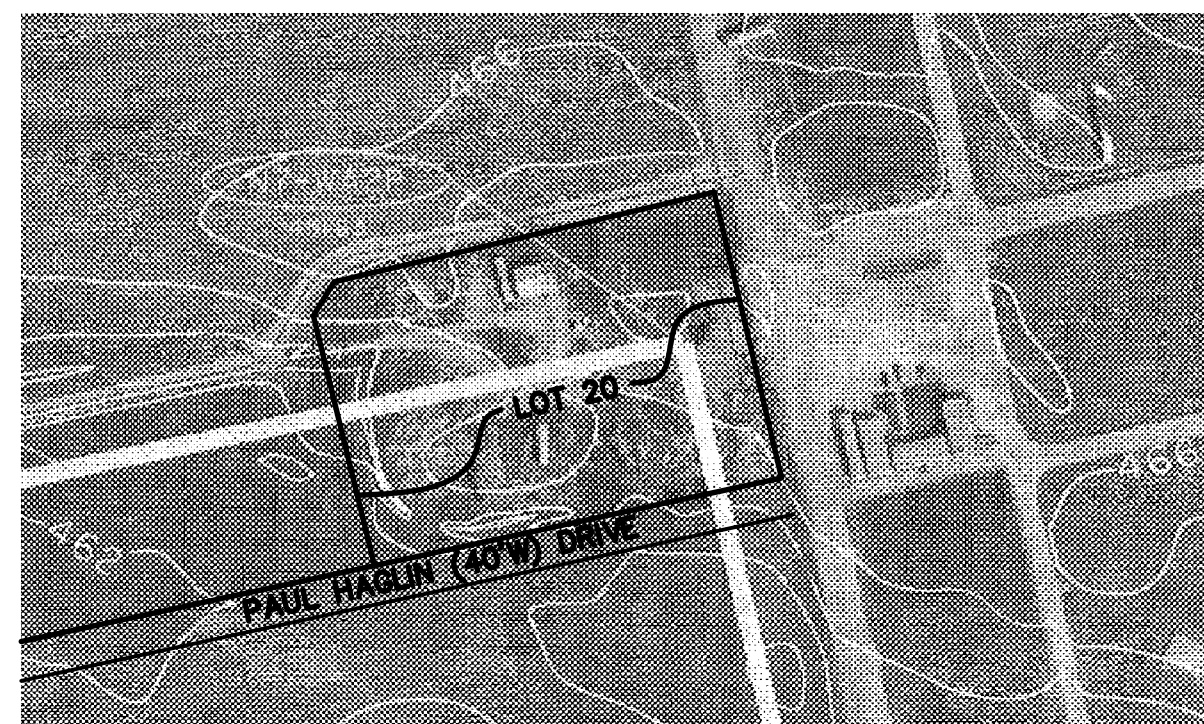
LACLEDE GAS  
 720 OLIVE ST., ROOM 1408  
 ST. LOUIS, MO. 63101  
 KELI KRAMER (314) 342-0678

MISSOURI AMERICAN WATER CO.  
 727 CRAIG ROAD  
 ST. LOUIS, MO. 63141  
 SUE MOYNIHAN (314) 991-3404, x2306

METROPOLITAN ST. LOUIS SEWER DISTRICT  
 2350 MARKET ST.  
 ST. LOUIS, MO. 63103

CHARTER COMMUNICATIONS  
 2275 CASSENS DR. SUITE 138  
 FENTON, MO. 63026  
 (800) 314-7195

CHESTERFIELD MONARCH LEVEE DISTRICT  
 C/O FULLER, MOSSBARGER, SCOTT & MAY  
 ENGINEERS, INC.  
 1856 CRAIG PARK COURT  
 ST. LOUIS, MO. 63146  
 (314) 878-6800



OFFSITE CONTOUR MAP  
 SCALE: 1"=200'

# LOT 20 OF WINGS CORPORATE ESTATES

## SITUATED IN U.S. SURVEY 362 & 133

### TOWNSHIP 45 NORTH, RANGE 3 EAST

#### CITY OF CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI

**Carmelo Natoli**  
 Name of Owner

In connection with a change of zoning for the following described property from

\_\_\_\_\_ to \_\_\_\_\_  
 (prior zoning) (present zoning)

A tract of land as described in a Quitclaim Deed to Carmelo J. Natoli as recorded in Deed Book 16429, Page 2594 of the St. Louis County Records, situated in U.S. Survey 133, Township 45 North, Range 3 East, in the City of Chesterfield, St. Louis County, Missouri, being more particularly described as follows:

Lot 1 of Wardenburg Flats, according to the plat thereof recorded in Plat Book 211, Page 48 of the St. Louis County Records. Tax ID 18W530025

**Carmelo Natoli**, the owner of the property shown on this plan for and in consideration of being granted a permit to develop property under the provisions of Chapter 1003.150 \_\_\_\_\_ (present zoning) \_\_\_\_\_ (applicable subsection) \_\_\_\_\_ of City of Chesterfield Ordinance #624, do hereby agree and declare that said property from the date of recording this plan shall be developed only as shown thereon, unless said plan is amended by the Planning Commission, or voided or vacated by order of ordinance of the City of Chesterfield Council.

(Signature): \_\_\_\_\_

(Name Typed): Carmelo Natoli

STATE OF MISSOURI )  
 ) SS.  
 COUNTY OF ST. LOUIS)

On this \_\_\_\_\_ day of \_\_\_\_\_, A. D., 2009, before me personally appeared **Carmelo Natoli**, to me known to be the person described in, and who executed the foregoing instrument, and acknowledged that he executed the same as his free act and deed.

**IN TESTIMONY WHEREOF**, I have hereunto set my hand and affixed by Notarial Seal at my Office in \_\_\_\_\_, the day and year last above  
 (County and State)  
 written. My term expires \_\_\_\_\_.

(Notary Public)

This (Amended) Site (Development) Plan was approved by the City of Chesterfield Planning Commission and duly verified on the \_\_\_\_\_ day of \_\_\_\_\_, 2009, by the Chairperson of said Commission, authorizing the recording of this Site Plan pursuant to Chesterfield Ordinance Number 200, as attested to by the Director of Planning and the City Clerk.

\_\_\_\_\_  
 Director of Planning

\_\_\_\_\_  
 City Clerk

This Site Development Plan is a correct representation of existing and proposed land divisions. It is a preliminary plan not for construction and represents the proposed site development of this tract.

THE CLAYTON ENGINEERING COMPANY

Mo. LS \_\_\_\_\_

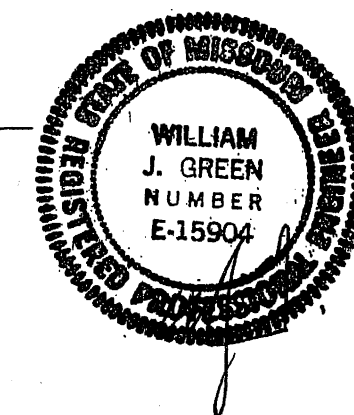
**SOILS ENGINEER NOTES**

SCI Engineering, Inc. and the undersigned engineer have not prepared any part of these plans. The seal of the undersigned professional engineer is a professional opinion to indicate that the undersigned has reviewed Sheet 2, relative to geotechnical considerations only, through the date given below and that improvements as shown on these sheets are compatible with the soil and geologic conditions at the site as described in the geotechnical report for the project dated July 11, 2007. Conditions may vary from those encountered in the explorations or can change due to construction activities or weather conditions. Therefore, SCI Engineering, Inc., must be involved during the construction phase of this project to observe that subsurface conditions are as anticipated from the exploration data and that recommendations relative to construction are implemented. Construction means and methods shall be left to the contractor.

SCI ENGINEERING, INC.

William J. Green  
 WILLIAM J. GREEN, P.E.

7/8/2009  
 DATE



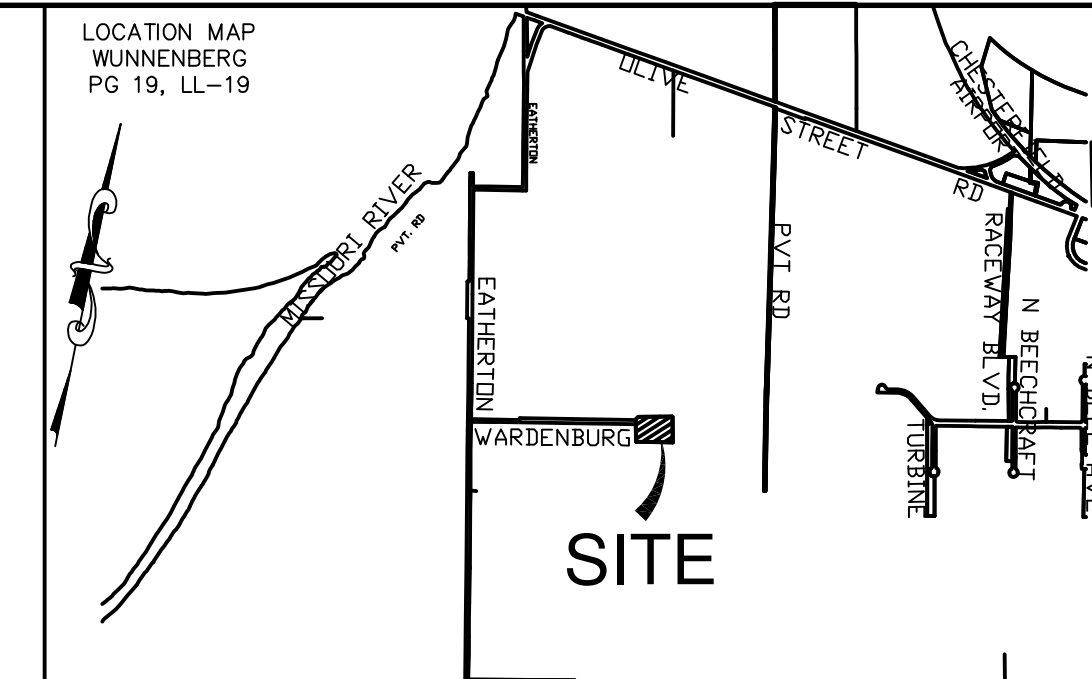
**SHEET INDEX:**

- COVER SHEET
- SITE PLAN
- CROSS SECTIONS
- LANDSCAPE PLAN
- LIGHTING PLAN

**Benchmark Information**

St. Louis County Highway SL-41 (MSD BM #11-109): "Standard Aluminum Disk" stamped SL-41 1990 Disk is set along the East side of Eatherton Road just North of the Shell Pipeline Marker; 19' East of the centerline of Eatherton Road and 60' North of the East pipeline marker. Approximately 1.1 miles South of the intersection of Olive Street Road and Eatherton Road (#330 Eatherton Road). Elev. = 461.36

**Temporary Site Benchmark**  
 Found Iron Pipe, northeast corner Carmelo J. Natoli property.  
 Elev. = 463.07



**ABBREVIATIONS**

- ATG - Adjust To Grade
- B/B - Back to Back
- BW - Bottom of Wall
- CC - Canopy Clearance
- CL - Centerline
- DB - Deed Book
- EP - Edge of Pavement
- FG - Finished Grade
- FF - Face to Face
- FL - Flow line
- HD/CP - Handicap
- NTS - Not To Scale
- OC - On Center
- PB - Plat Book
- R - Radius
- R/W - Right of Way
- TB - Top of Bank
- TBR - To Be Removed
- TBR/ - To Be Removed & Replaced
- TC - Top of Curb
- TP - Top of Pavement
- TS - Top of Slope
- TW - Top of Wall
- WK - Top of Walk
- UIP - Use in Place
- AI - Area Inlet
- CB - Curb Inlet / Catch Basin
- CO - Clean Out
- DS - Down Spout
- FES - Flared End Section
- GI - Grated Inlet
- MH - Manhole
- CMP - Corrugated Metal Pipe
- NP - Non-reinforced Concrete Pipe
- DI - Ductile Iron Pipe
- PVC - Polyvinyl Chloride Pipe
- RCP - Reinforced Concrete Pipe
- VCP - Vitrified Clay Pipe

**LEGEND**

- - Area Light
- - Area Light w/110v. Recept.
- - Connection (Proposed)
- - Existing Contour
- (405) - Proposed Contour
- - Existing Elevation
- + 500.00 - Proposed Elevation
- (500) - Fire Hydrant
- - Concrete
- - Doorway Entrance
- - Drainage Flow
- - Swale
- - Water Meter Or Valve
- - Gas Meter Or Valve
- - Cable TV
- - Electric Service
- - Underground Electric Service
- - Gas Service
- - Telephone Service
- - Underground Tele. Service
- - Water Service
- - Exist. Sanitary Sewer
- - Exist. Storm Sewer
- - Proposed Sanitary Sewer
- - Proposed Storm Sewer
- - Utility Pole w/ Guy Wires
- - Right Angle
- - Handicap Parking Space
- - Direction of Traffic

CONCRETE BY OTHERS  
 (Road=8"PCC/4"Agg)

ASPHALT BY OTHERS  
 (Shoulders=2"C/7.5"X/4"Agg.,  
 Firelane= 3"C/8"Agg.)

PROP. CONC.  
 (Sidewalk=4"PCC)



Underground facilities, structures & utilities have been plotted from available surveys, records & information, and therefore, do not necessarily reflect the actual existence, nonexistence, size, type, number of, or location of these facilities, structures, & utilities.

The Contractor shall be responsible for verifying the actual location of all underground facilities, structures, & utilities, either shown or not shown on these plans. The underground facilities, structures, & utilities shall be located in the field prior to any grading, excavation or construction of improvements. These provisions shall in no way absolve any party from complying with the Underground Facility Safety and Damage Prevention Act, Chapter 319, RSMO.

The signed and sealed original of this drawing is on file at the offices of The Clayton Engineering Company, Inc. The signed and sealed original is the official document and shall take precedence over any digital version.

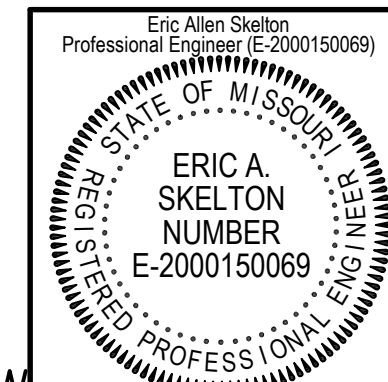
REVISIONS			
3	09/09/09	EAS	City Comments
2	08/04/09	EAS	City Comments
1	06/25/09	EAS	City Comments

**SITE DEVELOPMENT SECTION PLAN**  
**COVER SHEET**

Prepared for: \_\_\_\_\_ Chesterfield, MO 63005

**NATOLI ENGINEERING**  
 28 Research Park Circle  
 St. Charles, MO 63304  
 636-926-8900

Copyright 2009  
 Clayton Engineering Co.  
 All Rights Reserved



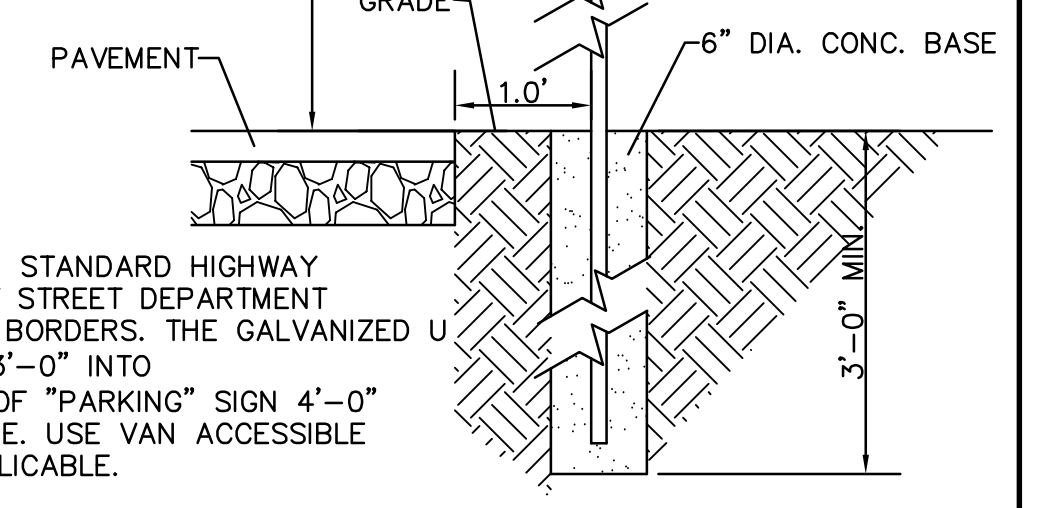
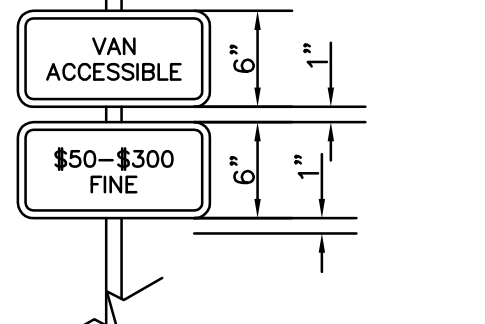
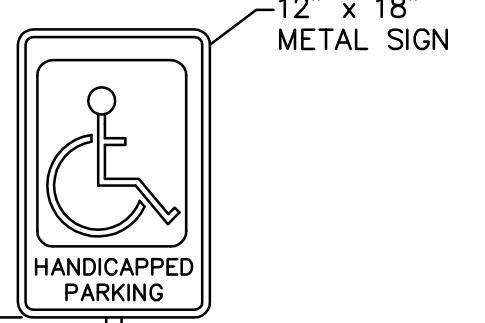
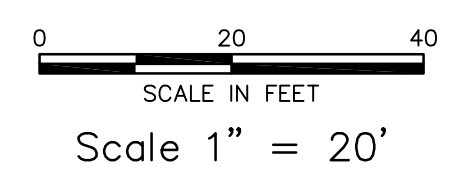
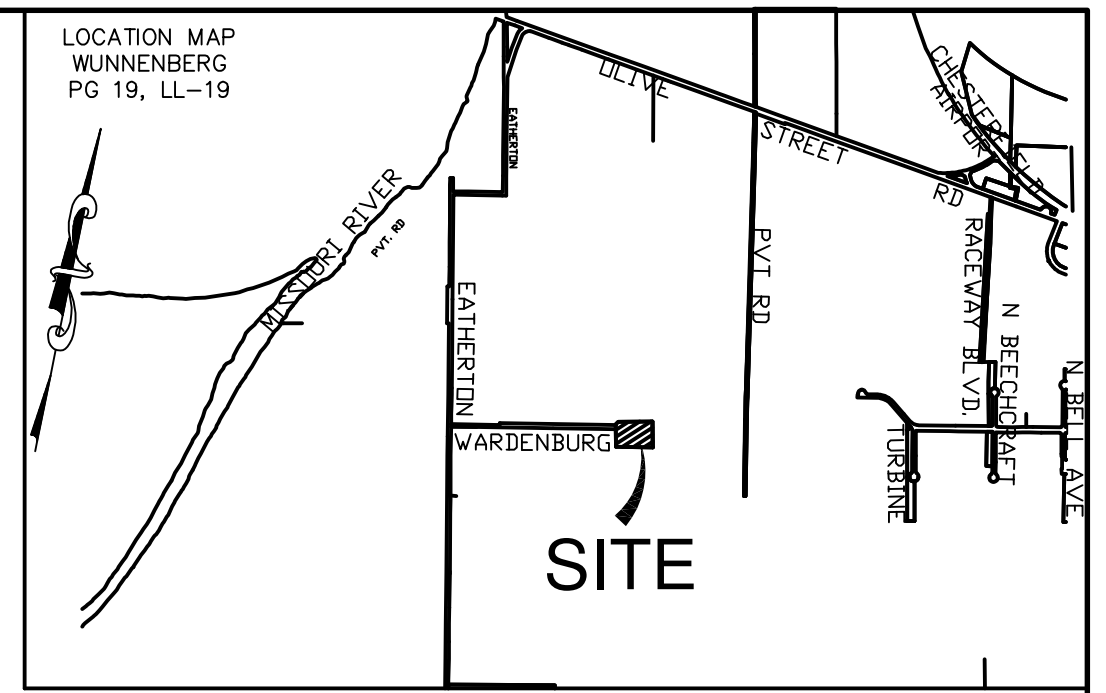
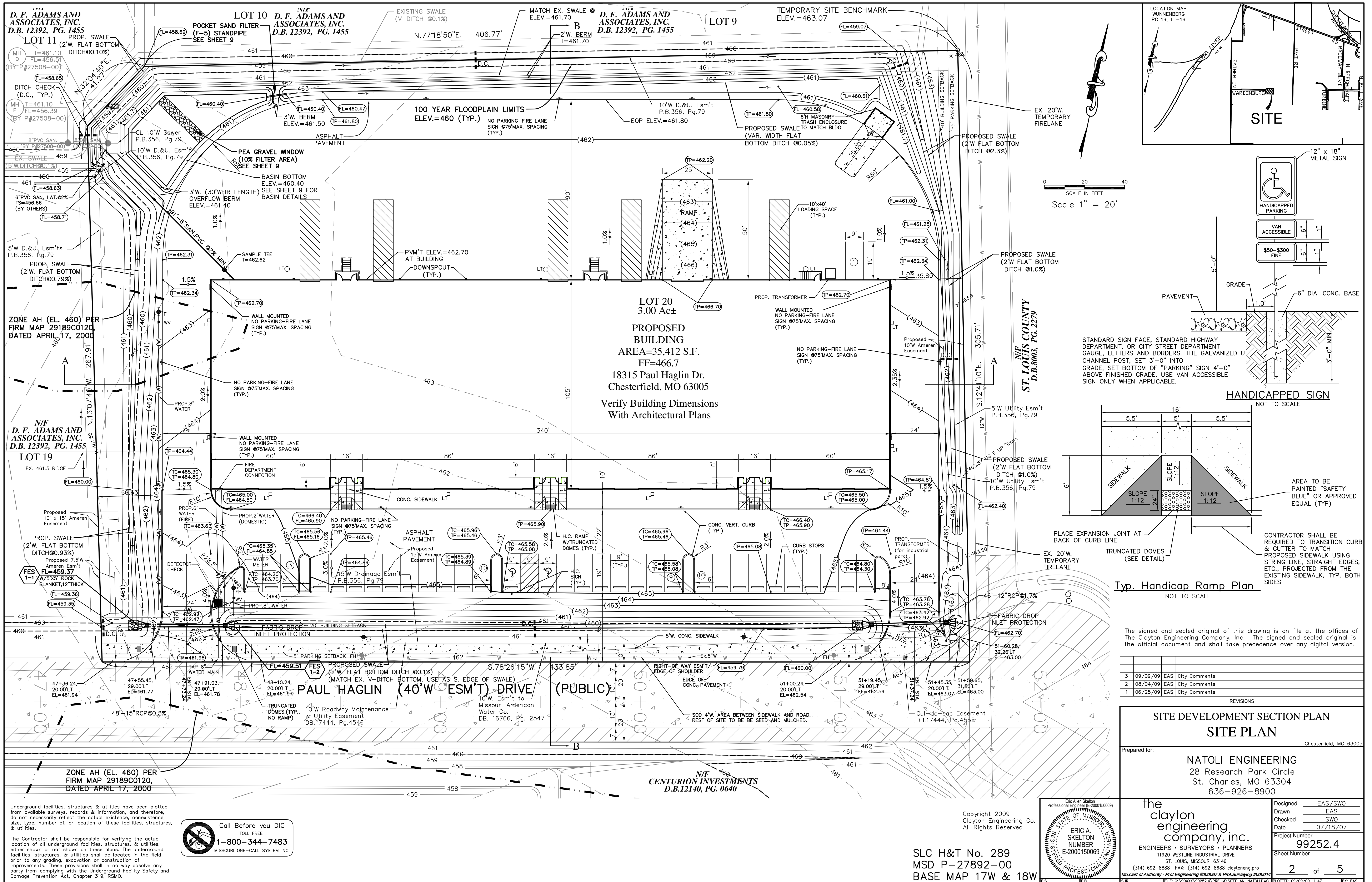
the clayton engineering company, inc.  
 ENGINEERS - SURVEYORS - PLANNERS  
 11920 WESTLINE INDUSTRIAL DRIVE  
 ST. LOUIS, MISSOURI 63146  
 (314) 692-8888 FAX: (314) 692-8688 claytoneng.com

Designed \_\_\_\_\_ EAS/SWQ  
 Drawn \_\_\_\_\_ EAS  
 Checked \_\_\_\_\_ SWQ  
 Date \_\_\_\_\_ 07/18/07

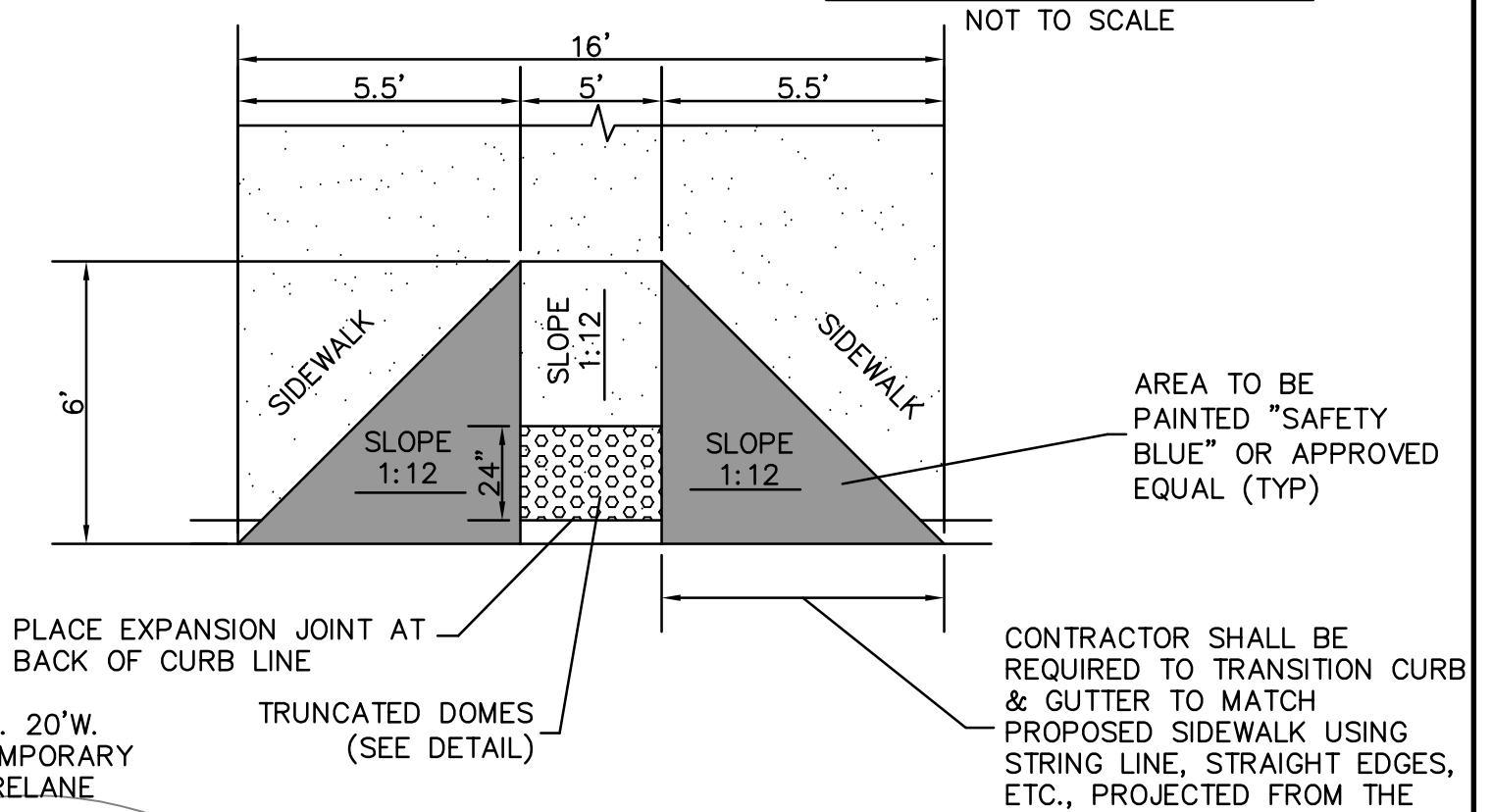
Project Number  
**99252.4**  
 Sheet Number

1 of 5

SLC H&T No. 289  
 MSD P-27892-00  
 BASE MAP 17W & 18W



STANDARD SIGN FACE, STANDARD HIGHWAY DEPARTMENT, OR CITY STREET DEPARTMENT GAUGE, LETTERS AND BORDERS: THE GALVANIZED U CHANNEL POST, SET 3'-0" INTO GRADE. SET BOTTOM OF "PARKING" SIGN 4'-0" ABOVE FINISHED GRADE. USE VAN ACCESSIBLE SIGN ONLY WHEN APPLICABLE.



CONTRACTOR SHALL BE REQUIRED TO TRANSITION CURB & GUTTER TO MATCH PROPOSED SIDEWALK USING STRING LINE, STRAIGHT EDGES, ETC., PROJECTED FROM THE EXISTING SIDEWALK, TYP. BOTH SIDES

The signed and sealed original of this drawing is on file at the offices of the Clayton Engineering Company, Inc. The signed and sealed original is the official document and shall take precedence over any digital version.

NO.	DATE	BY	REVISIONS
3	09/09/09	EAS	City Comments
2	08/04/09	EAS	City Comments
1	06/25/09	EAS	City Comments

**SITE DEVELOPMENT SECTION PLAN**  
**SITE PLAN**

Prepared for: **NATOLI ENGINEERING**  
28 Research Park Circle  
St. Charles, MO 63304  
636-926-8900

Designed	EAS/SWQ
Drawn	EAS
Checked	SWQ
Date	07/18/07
Project Number	99252.4
Sheet Number	2 of 5

SLC H&T No. 289  
MSD P-27892-00  
BASE MAP 17W & 18W



Copyright 2009  
Clayton Engineering Co.  
All Rights Reserved

Underground facilities, structures & utilities have been plotted from available surveys, records & information, and therefore, do not necessarily reflect the actual existence, nonexistence, size, type, number of, or location of these facilities, structures, & utilities.

The Contractor shall be responsible for verifying the actual location of all underground facilities, structures, & utilities, either shown or not shown on these plans. The underground facilities, structures, & utilities shall be located in the field prior to any grading, excavation or construction of improvements. These provisions shall in no way absolve any party from complying with the Underground Facility Safety and Damage Prevention Act, Chapter 319, RSMo.



ZONE AH (EL. 460) PER FIRM MAP 29189C0120, DATED APRIL 17, 2000

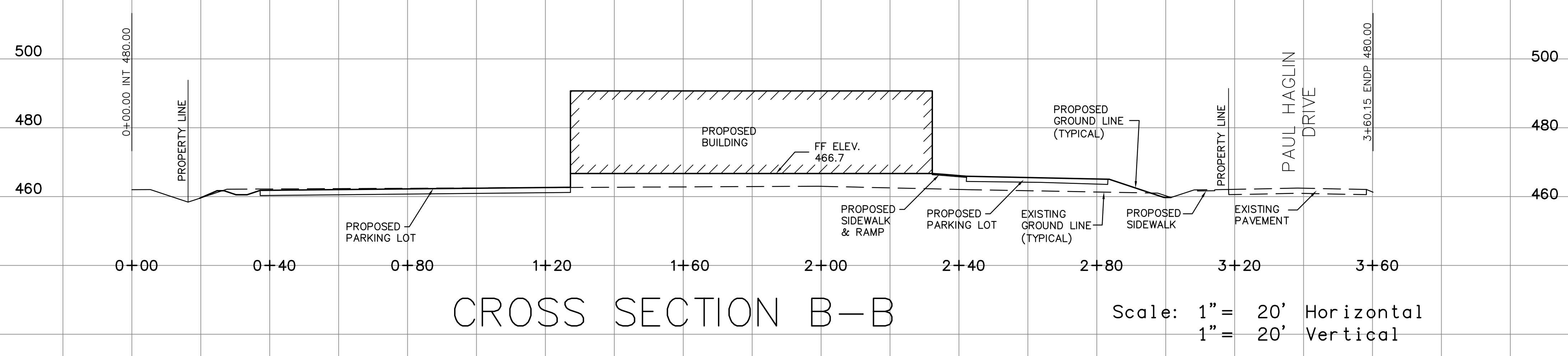
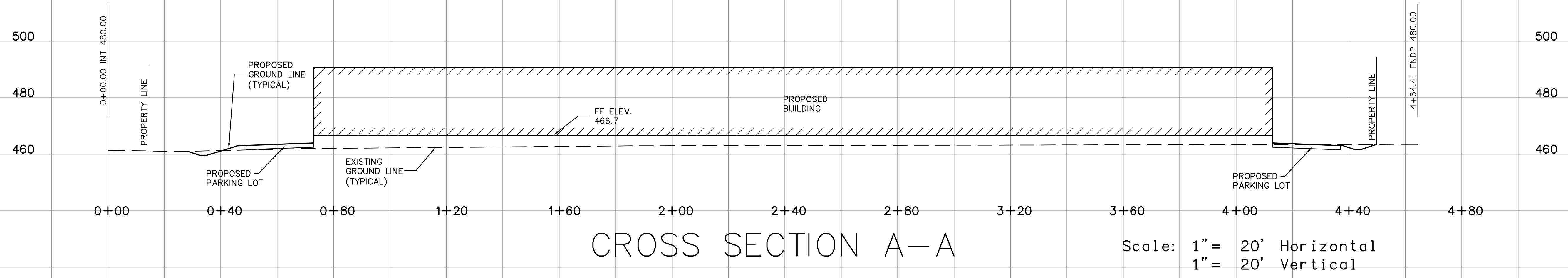
N/F D.F. ADAMS AND ASSOCIATES, INC. D.B. 12392, PG. 1455

N/F D.F. ADAMS AND ASSOCIATES, INC. D.B. 12392, PG. 1455

N/F D.F. ADAMS AND ASSOCIATES, INC. D.B. 12392, PG. 1455

**LOT 20**  
3.00 Ac±  
**PROPOSED BUILDING**  
AREA=35,412 S.F.  
FF=466.7  
18315 Paul Haglin Dr.  
Chesterfield, MO 63005  
Verify Building Dimensions  
With Architectural Plans

ZONE AH (EL. 460) PER FIRM MAP 29189C0120, DATED APRIL 17, 2000



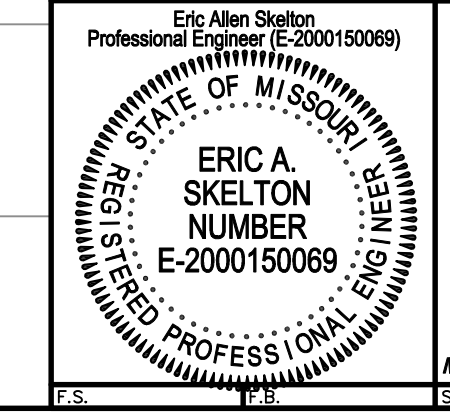
The signed and sealed original of this drawing is on file at the offices of The Clayton Engineering Company, Inc. The signed and sealed original is the official document and shall take precedence over any digital version.

REVISIONS			
3	09/09/09	EAS	City Comments
2	08/04/09	EAS	City Comments
1	06/25/09	EAS	City Comments

**SITE DEVELOPMENT SECTION PLAN  
CROSS-SECTIONS**

Prepared for:  
**NATOLI ENGINEERING**  
28 Research Park Circle  
St. Charles, MO 63304  
636-926-8900

Copyright 2009  
Clayton Engineering Co.  
All Rights Reserved

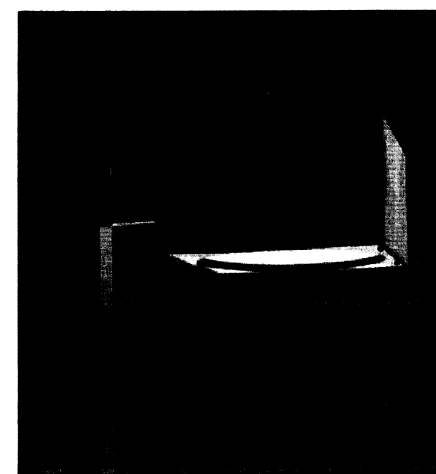


**the clayton engineering company, inc.**  
ENGINEERS • SURVEYORS • PLANNERS  
11920 WESTLINE INDUSTRIAL DRIVE  
ST. LOUIS, MISSOURI 63146  
(314) 692-8888 FAX: (314) 692-8688 claytoneng.pro  
Mo. Cert. of Authority - Prof. Engineering #000067 & Prof. Surveying #000014

Designed	EAS/SWQ
Drawn	EAS
Checked	SWQ
Date	05/21/07
Project Number	99252.4
Sheet Number	3 of 5

Architectural Vertical Cutoff

KVF



**Intended Use**  
For car lots, street lighting or parking areas.

**Features**  
Construction - Heavy-gauge, die-formed aluminum housing, fabricated using robotic continuous seam weld process for weatheright integrity. Integral structural support plate for mounting arm and electrical components. Hinged aluminum door frame with stainless steel hardware. Continuous silicone gasketing surrounds lens.

Finish - Standard finish is dark bronze corrosion-resistant electrostatically applied powder paint. Optional linear embossed accent reveals are available. Dark bronze polyester powder paint is standard. Other architectural colors available.

Optics - Vertical-lamp reflectors are one-piece spun and formed anodized aluminum. Horizontal-lamp reflectors also available. Mogul-base porcelain socket with copper alloy, nickel-plated screw shell and center contact. Horizontal position-oriented for types R2, R3 and R4. Reflectors are rotatable and interchangeable. UL Listed 1500W-600V, 4KV pulse rated, (1000S is 5KV pulse rated.)

**Electrical** - Electrical components mounted to heavy-gauge plate to maximize heat dissipation and structural integrity. Constant-wattage autotransformer ballasts are copper wound and 100% factory tested. Super CWA pulse start ballasts required for 320M, 350M, 450M and 750M (must order SCWA option).

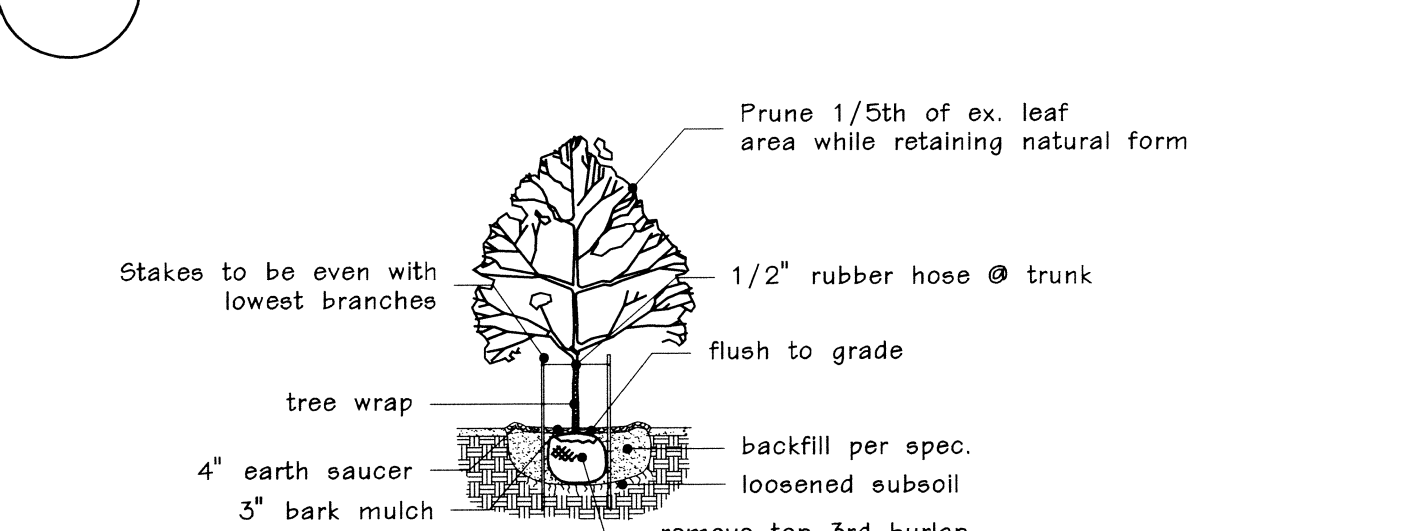
Installation - Extruded aluminum arm with integral splice compartment. Standard arm is 9' in length. (12' arm is required for fixtures mounted at 90°)

**Listings**  
UL Listed (standard). CSA Certified (see Options). UL Listed for wet locations. Optical chamber is IP65 rated for ingress protection per IEC529 international standards.

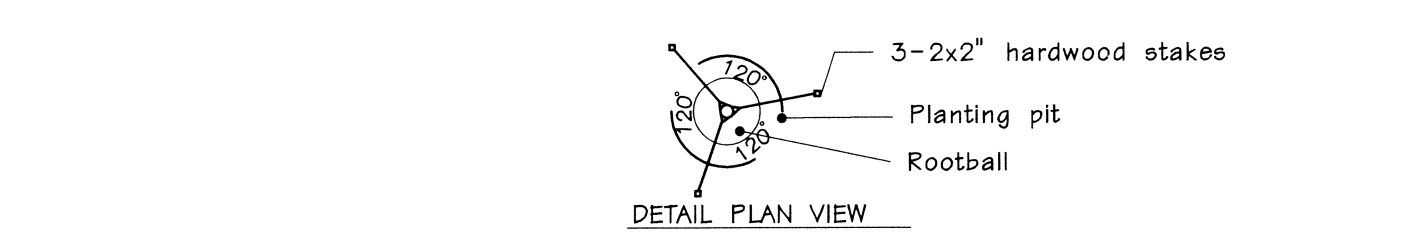
Ordering Information Example: KVF 1000M SYMDL 480 SP09 LPI

Designation	Description	Voltage	Arm mounting	Options/Comments
KVF 2500 <sup>3</sup>	SYMDL Symmetric square, drop lens, semi-cutoff	240 <sup>3</sup>	SP04 4" Square pole arm <sup>3</sup>	LPI Lamp included
KVF 4005 <sup>3</sup>	ASYDL Asymmetric, drop lens, semi-cutoff	240 <sup>3</sup>	RP04 4" Round pole arm <sup>3</sup>	LPI Lens included
KVF 1000S <sup>3</sup>	SYMDL Symmetric square, flat lens, full-cutoff	277	SP06 6" Square pole arm <sup>3</sup>	PER NEMA twist-lock receptacle only (photoshield not included)
KVF 1750 <sup>3</sup>	ADFL Asymmetric, flat lens, full-cutoff	240 <sup>3</sup>	RP06 6" Round pole arm <sup>3</sup>	SE Single foot, 120V, 277V, 347V (via TB)
KVF 1750A <sup>3</sup>	VFAL Vertical forward throw, automatic, drop lens, semi-cutoff	480 <sup>3</sup>	SP09 9" Square pole arm <sup>3</sup>	DF Double foot, 240V, 240V, 480V (via TB)
KVF 2000 <sup>3</sup>	SYMDL Symmetric square, drop lens, semi-cutoff	277	RP09 9" Round pole arm <sup>3</sup>	EC Emergency circuit (150W max, lamp not included)
KVF 2500A <sup>3</sup>	VFAL Vertical forward throw, automatic, flat lens, full-cutoff	480 <sup>3</sup>	SP12 12" Square pole arm <sup>3</sup>	SCN Super CWA pulse start ballast (via HPS)
KVF 3500 <sup>3</sup>	SYMDL Symmetric square, drop lens, full-cutoff	347	RP12 12" Round pole arm <sup>3</sup>	EW1 KickWach 120V control relay <sup>2</sup>
KVF 4000 <sup>3</sup>	ASYDL Asymmetric, drop lens, full-cutoff	347	RP12 12" Round pole arm <sup>3</sup>	EW4 KickWach 277V control relay <sup>2</sup>
KVF 4500 <sup>3</sup>	R2FL Type II roadway, drop lens <sup>2</sup>	277	RP12 12" Round pole arm <sup>3</sup>	EW5 External house-side shield <sup>2</sup>
KVF 4500A <sup>3</sup>	R2FL Type II roadway, drop lens <sup>2</sup>	277	RP12 12" Round pole arm <sup>3</sup>	EW6 External house-side shield <sup>2</sup>
KVF 5500 <sup>3</sup>	R2FL Type II roadway, flat lens <sup>2</sup>	277	RP12 12" Round pole arm <sup>3</sup>	EW7 External house-side shield <sup>2</sup>
KVF 5500A <sup>3</sup>	R2FL Type II roadway, flat lens <sup>2</sup>	277	RP12 12" Round pole arm <sup>3</sup>	EW8 External house-side shield <sup>2</sup>
KVF 1000M <sup>3</sup>	SYMDL Symmetric square, drop lens, full-cutoff	277	SP12 12" Square pole arm <sup>3</sup>	QES Quartz metal-halide system (250W max, lamp not included)
KVF 1000M <sup>3</sup>	SYMDL Symmetric square, drop lens, full-cutoff	277	SP12 12" Square pole arm <sup>3</sup>	ORSTD ORS time delay (150W max, lamp not included)
KVF 1000M <sup>3</sup>	SYMDL Symmetric square, drop lens, full-cutoff	277	SP12 12" Square pole arm <sup>3</sup>	TIS Tool-less access
KVF 1000M <sup>3</sup>	SYMDL Symmetric square, drop lens, full-cutoff	277	SP12 12" Square pole arm <sup>3</sup>	CR Condenser corrosion resistance
KVF 1000M <sup>3</sup>	SYMDL Symmetric square, drop lens, full-cutoff	277	SP12 12" Square pole arm <sup>3</sup>	EA Embossed accents
KVF 1000M <sup>3</sup>	SYMDL Symmetric square, drop lens, full-cutoff	277	SP12 12" Square pole arm <sup>3</sup>	CSA CSA Certified
KVF 1000M <sup>3</sup>	SYMDL Symmetric square, drop lens, full-cutoff	277	SP12 12" Square pole arm <sup>3</sup>	NSM NSM Certified (small factory)
KVF 1000M <sup>3</sup>	SYMDL Symmetric square, drop lens, full-cutoff	277	SP12 12" Square pole arm <sup>3</sup>	SC Shorting cap for PER option
KVF 1000M <sup>3</sup>	SYMDL Symmetric square, drop lens, full-cutoff	277	SP12 12" Square pole arm <sup>3</sup>	KVFMV Kvad guard
KVF 1000M <sup>3</sup>	SYMDL Symmetric square, drop lens, full-cutoff	277	SP12 12" Square pole arm <sup>3</sup>	FORNEM forNEM, see page 140

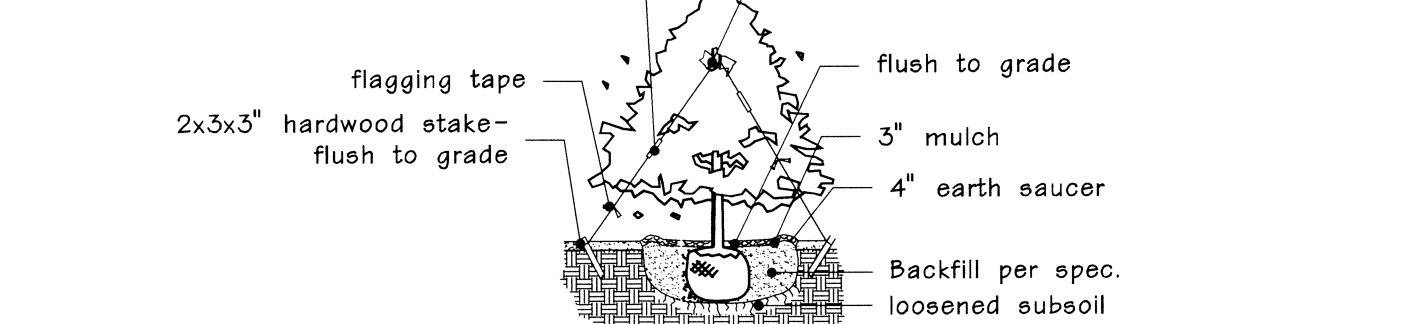
LIGHT FIXTURE CUT SHEET



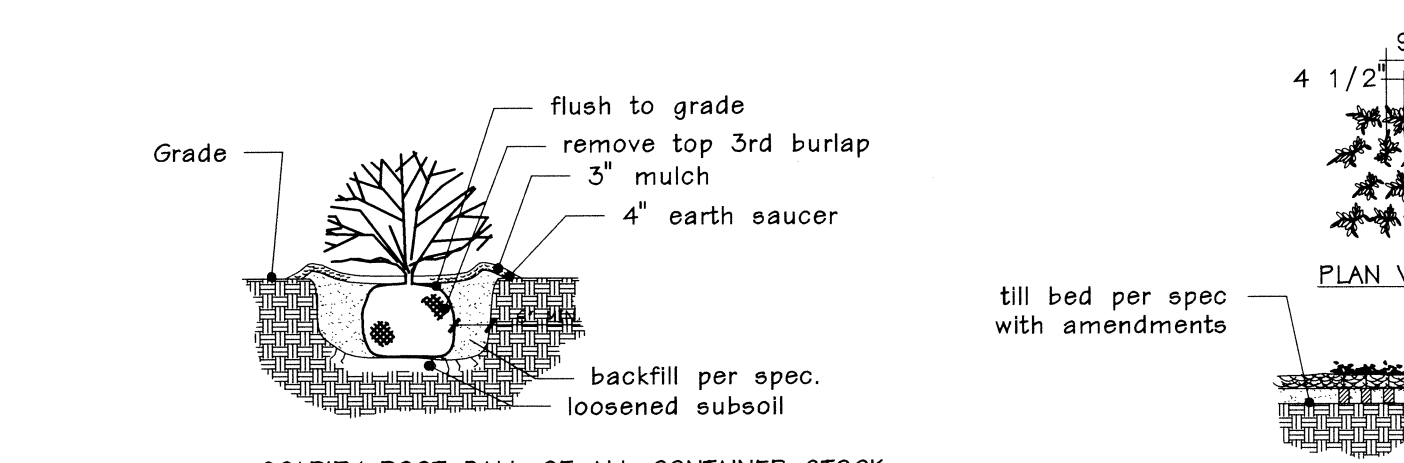
CANOPY TREE PLANTING



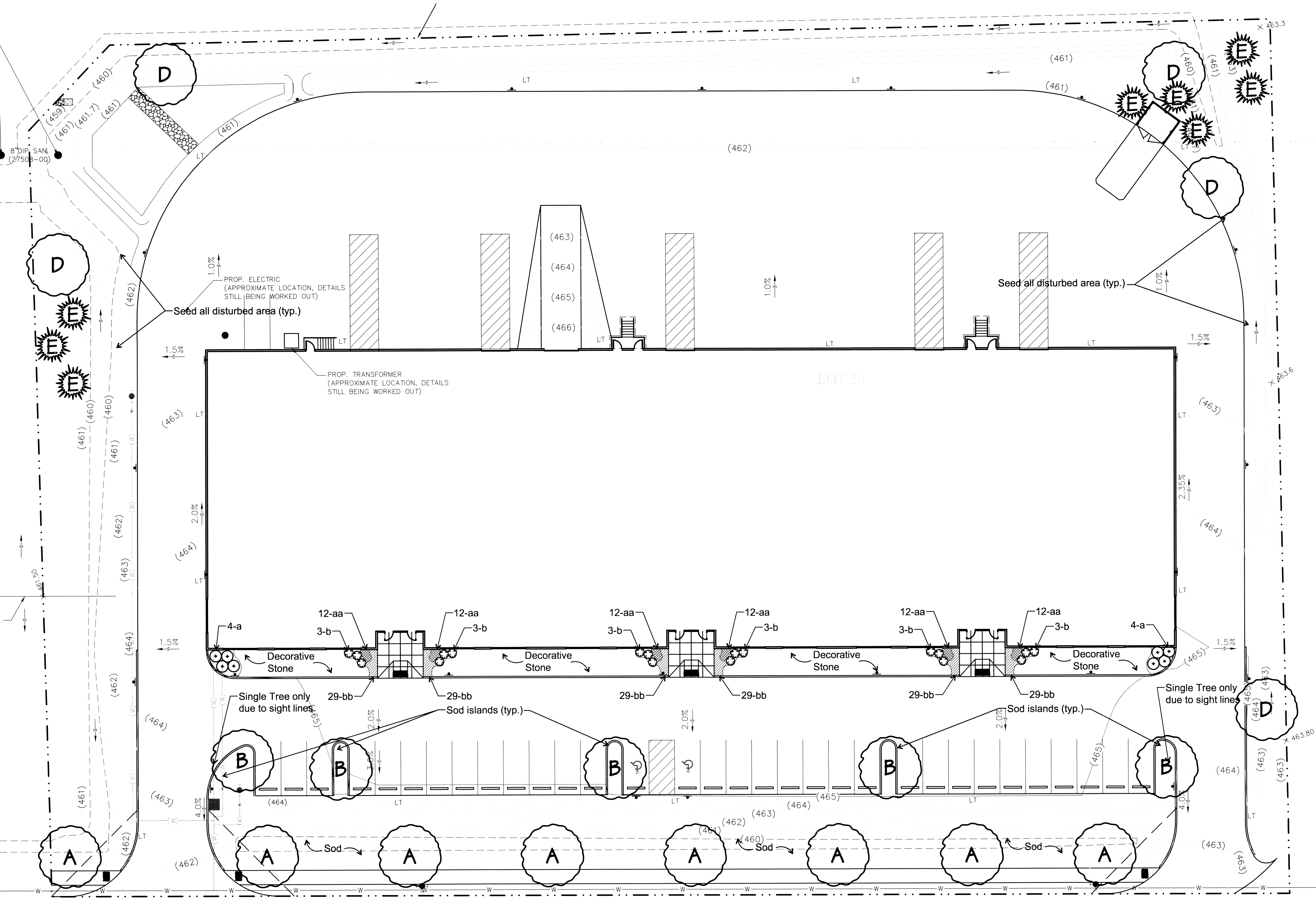
TYPICAL EVERGREEN PLANTING



TYPICAL SHRUB PLANTING



TYPICAL PERENNIAL PLANTING



LANDSCAPE CALCULATIONS

**Street Tree Requirements**

1 Street tree (min. 2.5") for every (50) feet of lot frontage

380' of frontage = 380 / 50 = 7.6 or 8 street trees

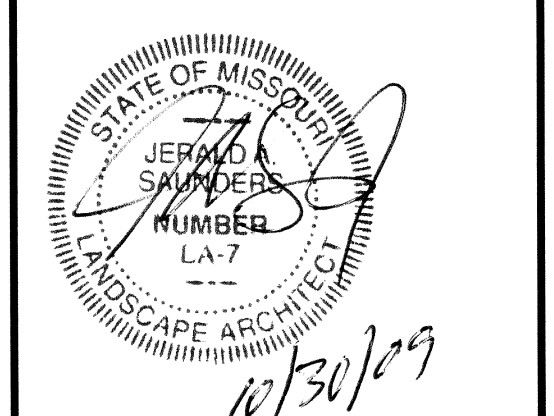
**Parking Lot Requirements**

1 deciduous tree (min. 2.5") per every single island

5 single islands = 5 deciduous trees

PLANTING SCHEDULE				
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	REMARKS
A	8	Acer rubrum 'Red Sunset'	Red Sunset Maple	2.5" B&B
B	5	Zelkova serrata	Village Green Zelkova	2.5" B&B
D	5	Taxodium distichum	Bald Cypress	2.5" B&B
E	8	Pinus strobus	White Pine	6" B&B
a	8	Miscanthus sinensis	Maiden Grass	3 gal.
b	18	Pennisetum alopecuroides	Fountain Grass	3 gal.
aa	72	Hemerocallis 'Stella D'Ore'	Stella D'Ore Daylily	2qt. 12" o.c.
bb	174	Liriope muscari	Lilyturf	2qt. 12" o.c.

General Notes:  
1) All disturbed areas will be seeded.  
2) In ground automatic irrigation system to be provided for landscape areas



Consultants:

Natoli Office/ Warehouse  
MTH Architect Inc.  
Lot 20 Wings Corporate Estates  
Chesterfield, Missouri

Revisions:

Date	Description	No.
7/6/07	City Comments	1
8/22/07	City Comments	2
6/26/09	Revised Landscape	3

Drawn: R5  
Checked: JJ

**loomisAssociates**

landscapeArchitects/planners

707 Spirit-40 Park Drive, Suite 135  
Chesterfield, Missouri 63005-1194  
(636) 519-3668 Fax: (636) 519-0797  
e-mail: info@loomisassociates.com

Sheet Title: Landscape Plan

Sheet No: L-1

Date: 5/25/07  
Job #: 195.008







