



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: August 22, 2011

From: Kristian Corbin, Project Planner

Location: Spirit of St. Louis Airpark, 600 & 650 North Bell Avenue

Applicant: Aviation Development Group & Volz Inc. on behalf of St. Louis County

Description: **Spirit of St. Louis Airpark, North Bell Hangars:** A Site Development Section Plan, Landscape Plan, Lighting Plan, and Architectural Elevations for a 1.732 acre tract of land zoned “M3” Planned Industrial District located on the northeast corner of the intersection of Edison Avenue and North Bell Avenue.

PROPOSAL SUMMARY

Aviation Development Group and Volz Inc., on behalf of St. Louis County, have submitted a Site Development Section Plan, Landscape Plan, Lighting Plan and Architectural Elevations for Planning Commission review. The request is for a 9,534 square foot office/hangar facility located within the Spirit of St. Louis Airpark Subdivision. The proposed materials for the office/hangar facility will be comprised of pre-finished metal wall panels and translucent wall panels. The roof will be comprised of pre-finished galvalume metal.

LAND USE AND ZONING HISTORY OF THE SUBJECT SITE

St. Louis County approved a rezoning from an “NU” Non-Urban District to an “M-3” Planned Industrial District for Spirit of St. Louis Airport via Ordinance Number 2212. The ordinance was subsequently amended by St. Louis County Ordinance Numbers 9642, 11,768, 13,838, and 13,935.

On March 2, 1992, the City of Chesterfield adopted Ordinance 656 which amended St. Louis County Ordinance 13,935 to reduce the right-of-way on Edison Avenue from sixty

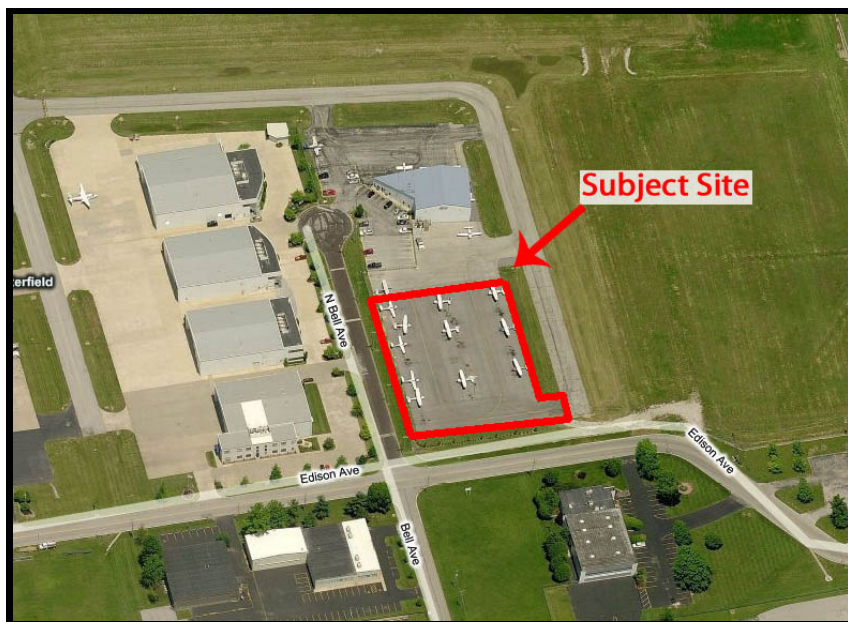
(60) feet to forty (40) feet with a ten (10) foot road easement. On April 3, 1994, the City of Chesterfield adopted Ordinance 870 which amended St. Louis County Ordinances 2212, 9642, 11,768, 13,838, and 13,935 and allowed additional permitted uses.

The boundary of the “M-3” Planned Industrial District was changed via City of Chesterfield Ordinance 1156 on April 15, 1996. Ordinance 1156 amended St. Louis County Ordinance 13,838 and City of Chesterfield Ordinance 656 and repealed City of Chesterfield Ordinance 870. On September 15, 1997, the City of Chesterfield adopted Ordinance 1312 which amended Ordinance 1156 allowing for fraternal organizations within the established District. On July 20, 1998, the City of Chesterfield adopted Ordinance 1430 which reduced the side yard setback for 660 Goddard Avenue. The side yard setback changed from ten (10) feet to three (3) feet from the northern boundary and from ten (10) feet to nine (9) feet on the southern boundary.

In February of 2005, an Amended Site Development Plan was approved to allow for the site to be paved into a parking area for aircrafts. This was done in order to meet FAA and Spirit of St. Louis Airport requirements for aircraft parking areas. Since then, the site has been utilized as aircraft parking.

Land Use and Zoning of Surrounding Properties:

Direction	Subdivision	Zoning
North	Spirit of St. Louis Airpark	“M3” Planned Industrial District
South	Spirit of St. Louis Airpark	“M3” Planned Industrial District
East	Spirit of St. Louis Airpark	“M3” Planned Industrial District
West	Spirit of St. Louis Airpark	“M3” Planned Industrial District



STAFF ANALYSIS

Zoning

The subject site is currently zoned "M-3" Planned Industrial District under the terms and conditions of City of Chesterfield Ordinance 1430. The submittal was reviewed against the requirements of Ordinance 1430 and all applicable Zoning Ordinance requirements. The site adheres to the applicable Zoning Ordinance requirements and the site specific governing ordinance.

Traffic/Access and Circulation

The subject site will be accessed from a new point of ingress and egress along North Bell Avenue. Vehicular and pedestrian circulations are separated from aircraft circulation that is kept to the western portion of the site near the taxi lanes. The applicant is placing a walkway from the parking lot to the office area.

Parking

Parking stalls are allocated to the eastern portion of the site near the office portion of the facility. One (1) parking stall is located within the eastern hangar. The number of parking spaces provided meets the requirements of the Off-Street Parking and Loading Regulations section of the City of Chesterfield Zoning Ordinance.

Landscaping

A Landscape Plan was submitted showing trees along the frontage of North Bell Avenue near the parking stalls of the facility. Low lying shrubs have been used to line the pathway leading to the entrance of the office portion of the facility and to screen the HVAC equipment on the north side of the structure. The Landscape Plan meets all of the requirements of the City of Chesterfield Tree Preservation and Landscape Requirements. Additionally, the City Arborist has reviewed the Landscape Plan and has no additional comments.

Lighting

The Lighting Plan depicts the building and parking lot lighting for the subject site. The proposed light standards and foot candle levels adhere to the City of Chesterfield Lighting Ordinance requirements.

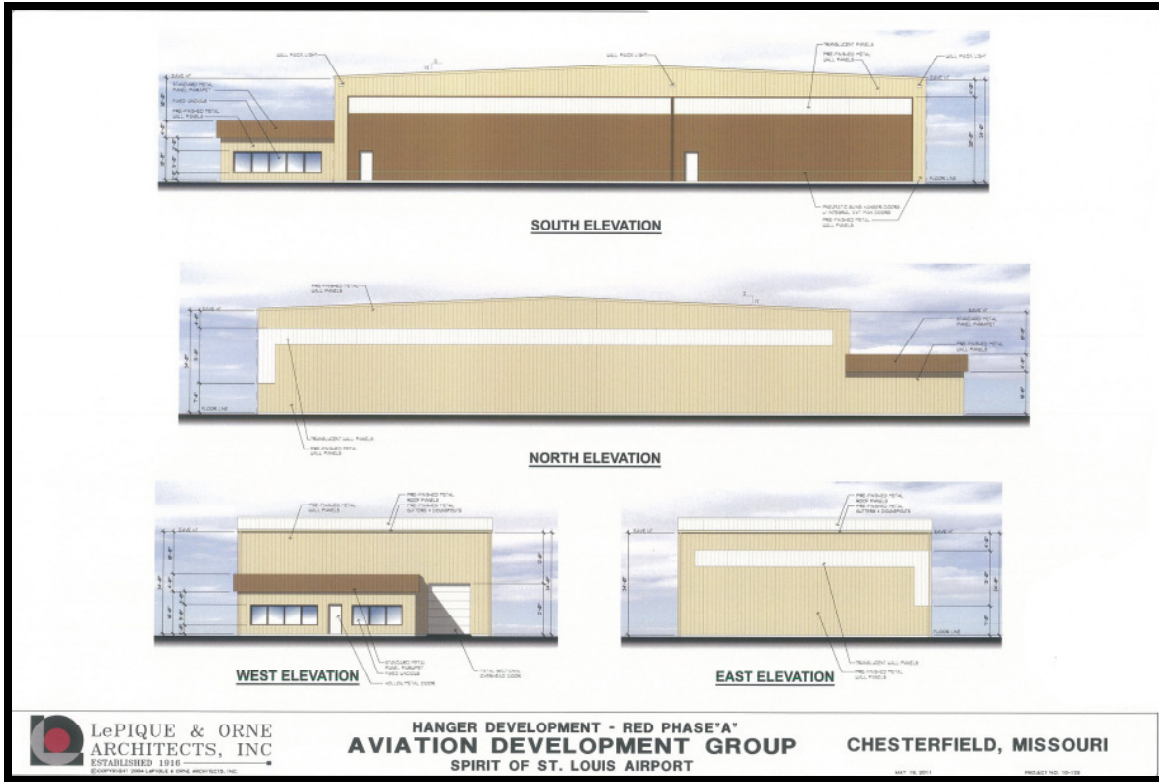
Architectural Elevations

The project was reviewed by the Architectural Review Board on July 14, 2011. During the meeting, the Architectural Review Board generated comments/recommendations for the petitioner to consider and address accordingly. A motion was passed to forward the project to Planning Commission with a recommendation for approval by a vote of 7-0. The following is a list of those recommendations made by the Architectural Review Board along with the Architect's responses to each items.

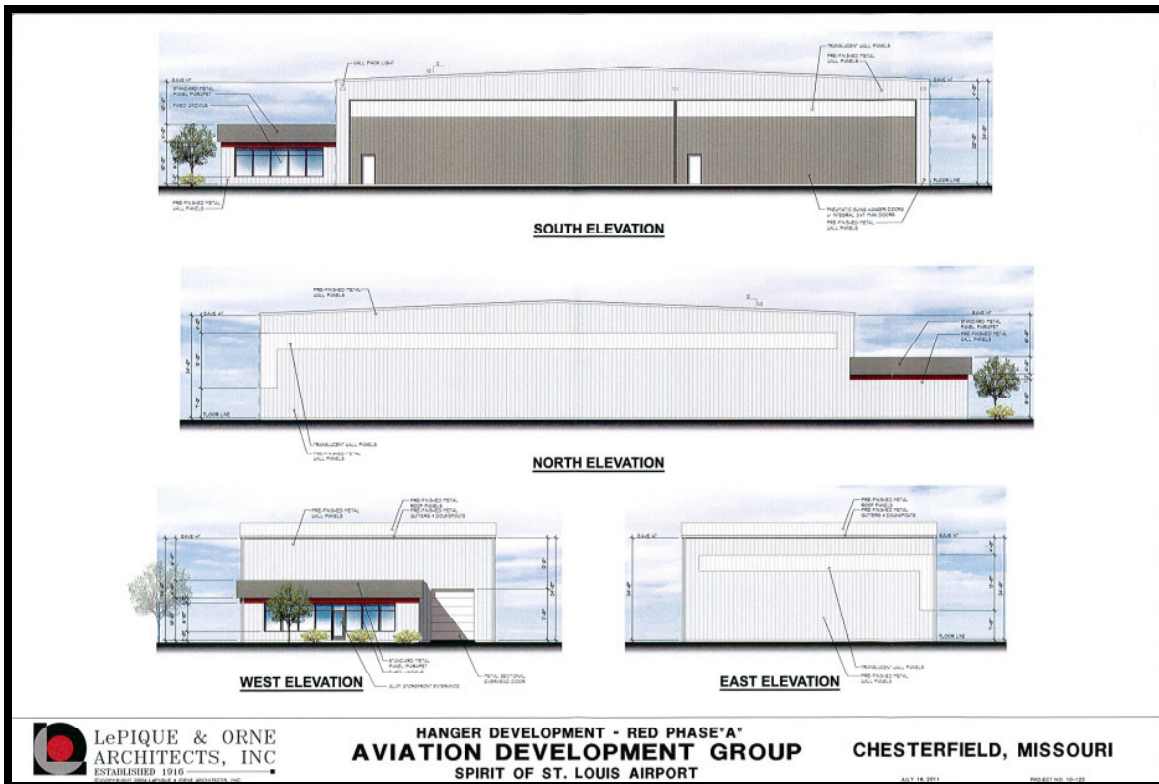
1. The west and south facades of the office portion of the building need to have some additional architectural detailing, delineation, change in materials or an adjustment in the roofline that is consistent with the Architectural Standards.

- The Architect added a red band across the roofline of the office portion of the facility.
2. Recommend adding low level landscaping to enhance and give a sense of entry to the building approach.
 - The Architect added a series of low-lying shrubs along the walkway leading to the office entrance.
 3. Screening of the HVAC equipment is to be addressed.
 - Low-lying shrubs have been utilized to screen the HVAC equipment which is located on the northern side of the office.
 4. Encouraged the petitioner not to use a painted, hollow metal door for the facility.
 - The Architect opted to utilize an aluminum storefront entrance in lieu of the painted, hollow metal door.
 5. Consideration of possibly adding a canopy that will distinguish the entranceway and to provide architectural interest.
 - Canopies are required to meet structure setback requirements. At this location, a canopy would encroach into said setback.

In addition to addressing the comments by the Architectural Review Board, the Architect opted to change the color scheme of the facility to match the color schemes of the surrounding hangars. The original proposal was of an earth tone nature with a combination of light browns, dark browns and whites. The new elevations use a series of gray tones and white with a small red band detailing the office portion of the facility. The following figures display the changes:



Elevations that were presented at the July 14, 2011 Architectural Review Board meeting.



Current proposed elevations



Surrounding Structures



Surrounding Structures

DEPARTMENTAL INPUT

Staff has reviewed the Site Development Section Plan, Landscape Plan, Architectural Elevations and Lighting Plan and found the proposal to be in conformance with site specific ordinance and all other applicable Zoning Ordinance requirements. Staff recommends approval of the proposal as presented.

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 Spirit of St. Louis Airpark, North Bell Hangars.”

- 2) “I move to approve the Site Development Section Plan, Landscape Plan, Lighting Plan and Architectural Elevations for Spirit of St. Louis Airpark, North Bell Hangars, with the following conditions...” (Conditions may be added, eliminated, altered or modified)

Cc: Michael G. Herring, City Administrator
Rob Heggie, City Attorney
Michael O. Geisel, Director of Planning and Public Works
Aimee Nassif, Planning and Development Services Director

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

PROJECT & GENERAL NOTES:

LOCATOR NUMBERS:
 17V 11 0412
 650 N BELL AVENUE
 CHESTERFIELD, MISSOURI 63005

AREA OF SITE: 1.732 ACRES - RED PHASE "A" 0.700 AC - RED PHASE "B" 1.032 AC
 PROPOSED USES: 2 - HANGARS (80'x60' - 4800 SF & 60'x60' - 3600 SF)
 1 - OFFICE (27'x42' - 1134 SF)
 EXISTING ZONING: "M-3" PLANNED INDUSTRIAL DISTRICT
 REQUIRED PARKING: OFFICE - 1134 SF / 1000 SF = 1.134(3.5 SPACES) = 3.96 - 2 SPACES FOR EVERY 3 EMPLOYEES ON THE MAXIMUM SHIFT - 0 EMPLOYEES
 PROPOSED PARKING: 4 SPACES
 OPENSOURCE: BUILDING SF 9,534 SF / 30,492 SF = 31%

OWNER OF RECORD:
 ST. LOUIS COUNTY
 18270 EDISON AVENUE - UNIT 100
 CHESTERFIELD, MISSOURI 63005

PREPARED FOR:



ADG
 Aviation Development Group LLC
 10849 Indian Head Ind'l. Blvd
 St. Louis, Missouri 63132
 314.426.6212 Main
 314.590.1250 Fax
 www.volzinc.com

PREPARED BY:
VOLZ
 Incorporated
 10849 INDIAN HEAD IND'L BLVD
 ST. LOUIS, MISSOURI 63132
 314.426.6212 M
 314.590.1250 F

THIS SITE IS IN THE FOLLOWING UTILITY SERVICE AREAS:
 MISSOURI AMERICAN WATER COMPANY
 AMEREN UE COMPANY
 SOUTHWESTERN BELL TELEPHONE COMPANY
 CHARTER COMMUNICATIONS (CABLE TV)
 LACLEDE GAS COMPANY

THIS SITE IS IN THE FOLLOWING DISTRICTS:
 METROPOLITAN ST. LOUIS SEWER DISTRICT
 MONARCH FIRE PROTECTION DISTRICT
 ROCKWOOD SCHOOL DISTRICTS
 MISSOURI RIVER WATERSHED

SIDEWALKS ALONG THE ACCESSIBLE ROUTE SHALL NOT HAVE A SLOPE EXCEEDING 1:20. SLOPES GREATER THAN 1:20 MUST BE DESIGNED AS A RAMP.
 NO STEP AT ACCESSIBLE ENTRANCE DOORS.

ANY LAND DISTURBANCE ACTIVITY INVOLVING ONE (1) ACRE OR MORE OF LAND IS A MAJOR LAND DISTURBANCE (MLD) AND A LAND DISTURBANCE PERMIT FOR THE MLD MUST BE OBTAINED FROM THE DEPARTMENT OF PUBLIC WORKS. ANY LAND DISTURBANCE ACTIVITY INVOLVING LESS THAN ONE (1) ACRE OF LAND IS AN ORDINARY LAND DISTURBANCE AND THE APPROPRIATE PERMIT(S) MUST BE OBTAINED FROM THE DEPARTMENT OF PUBLIC WORKS.

SANITARY SEWER CONNECTIONS SHALL BE AS APPROVED BY THE METROPOLITAN ST. LOUIS SEWER DISTRICT AND THE CITY OF CHESTERFIELD

STORMWATER MANAGEMENT SHALL BE DESIGNED PURSUANT TO CITY OF CHESTERFIELD AND METROPOLITAN ST. LOUIS SEWER DISTRICT REQUIREMENTS AND DISCHARGED AT A NATURAL DISCHARGE POINT. SINKHOLES ARE NOT ADEQUATE DISCHARGE POINTS.

THE LOCATION OF STORM AND SANITARY SEWER IMPROVEMENTS ARE APPROXIMATELY ONLY. ACTUAL LOCATION SHALL BE DETERMINED BY FIELD CONDITIONS AND SHALL BE INDICATED ON THE IMPROVEMENT PLANS.

ALL GRADING AND DRAINAGE TO BE IN CONFORMANCE WITH ST. LOUIS COUNTY, CITY OF CHESTERFIELD AND METROPOLITAN ST. LOUIS SEWER DISTRICT STANDARDS.

ALL PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED TO ST. LOUIS COUNTY AND CITY OF CHESTERFIELD STANDARDS.

NO SLOPES WITHIN ST. LOUIS COUNTY RIGHT-OF-WAY SHALL EXCEED 3 (HORIZONTAL) TO 1 (VERTICAL)

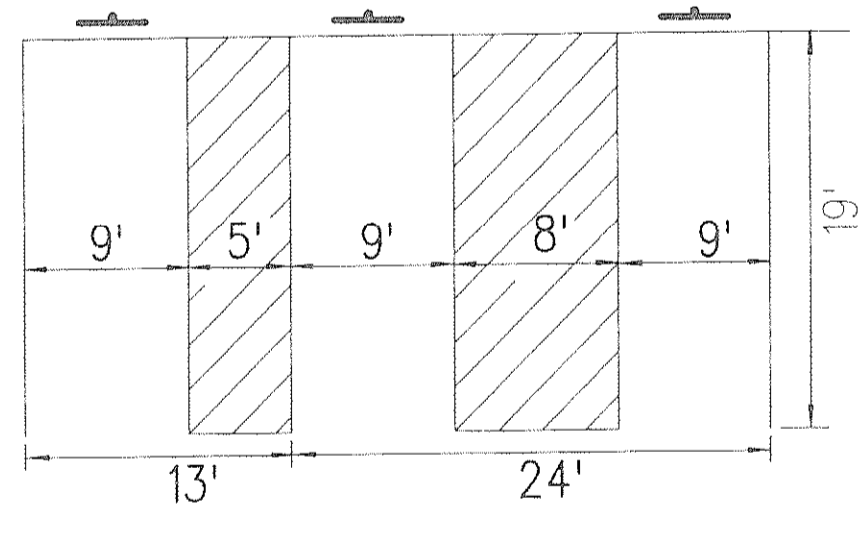
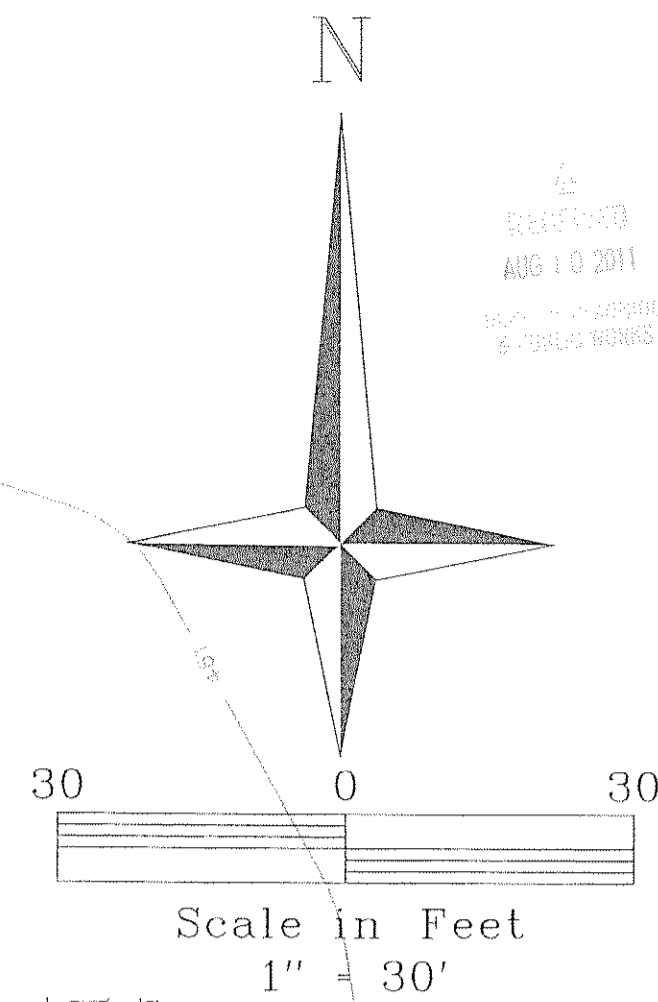
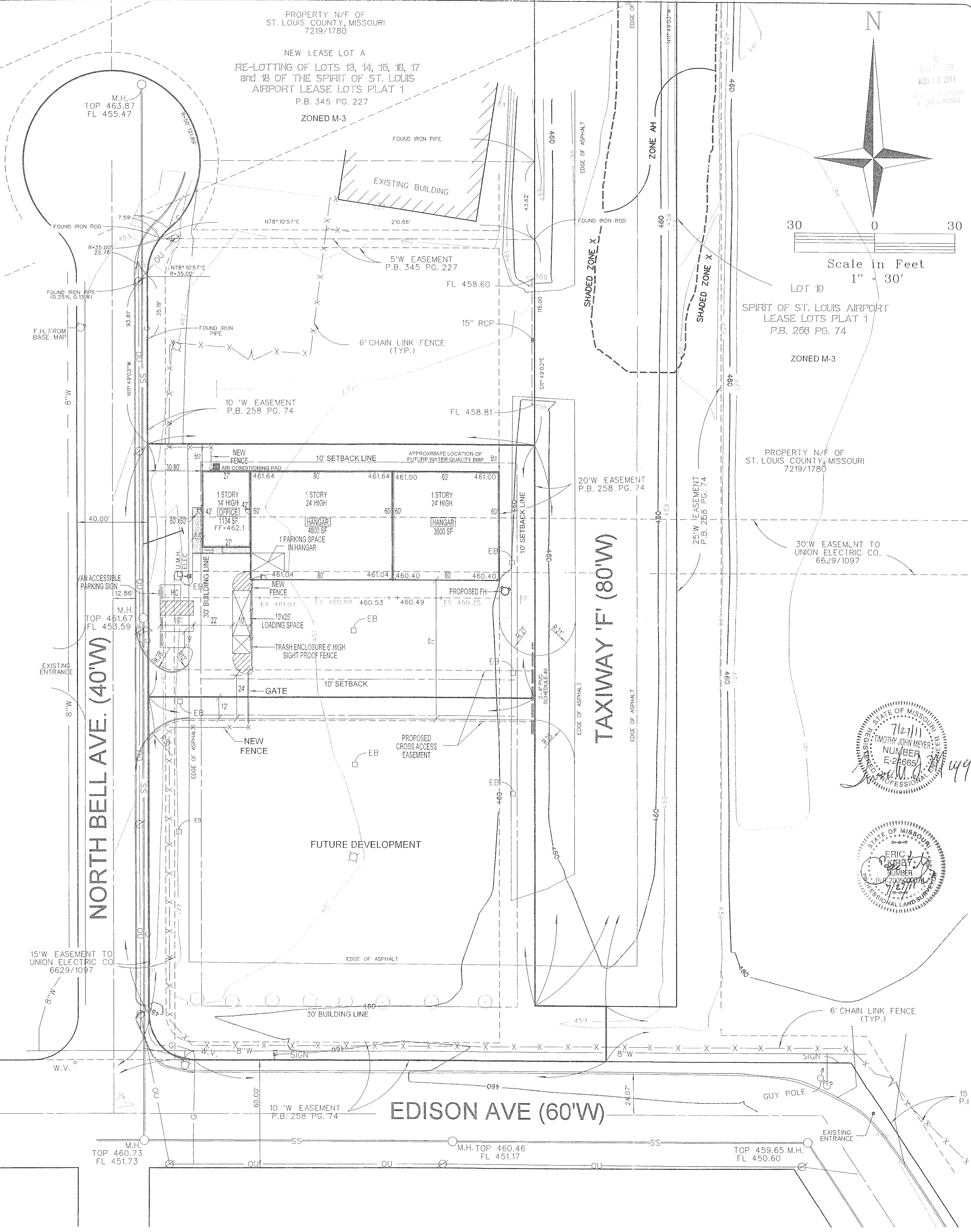
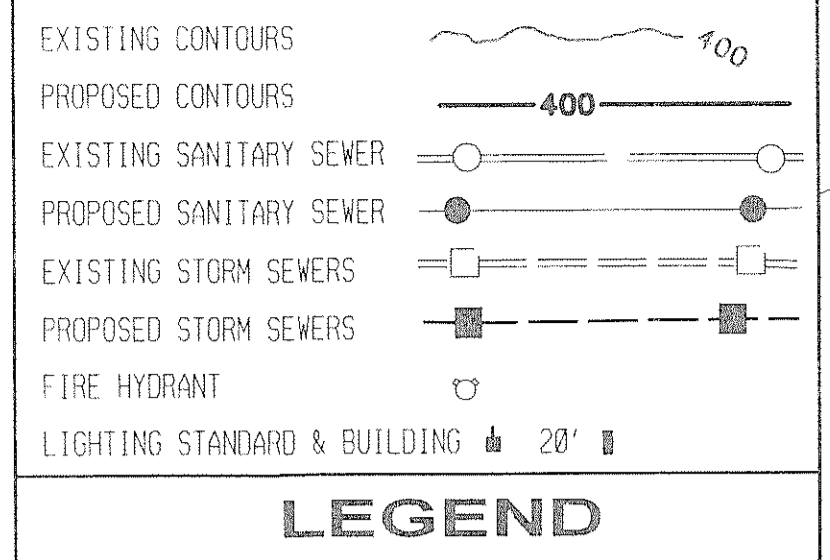
ACCESS TO THIS DEVELOPMENT FROM NORTH BELL AVENUE SHALL BE VIA (1) COMMERCIAL ENTRANCE LOCATED TO PROVIDE REQUIRED SIGHT DISTANCE AND CONSTRUCTED TO ST. LOUIS COUNTY STANDARDS AS DIRECTED BY THE DEPARTMENT OF HIGHWAYS AND TRAFFIC.

ALL PROPOSED ACCESS TO ST. LOUIS COUNTY ROADS FOR NEW DEVELOPMENT SHALL MEET MINIMUM ST. LOUIS COUNTY SIGHT DISTANCE REQUIREMENTS.

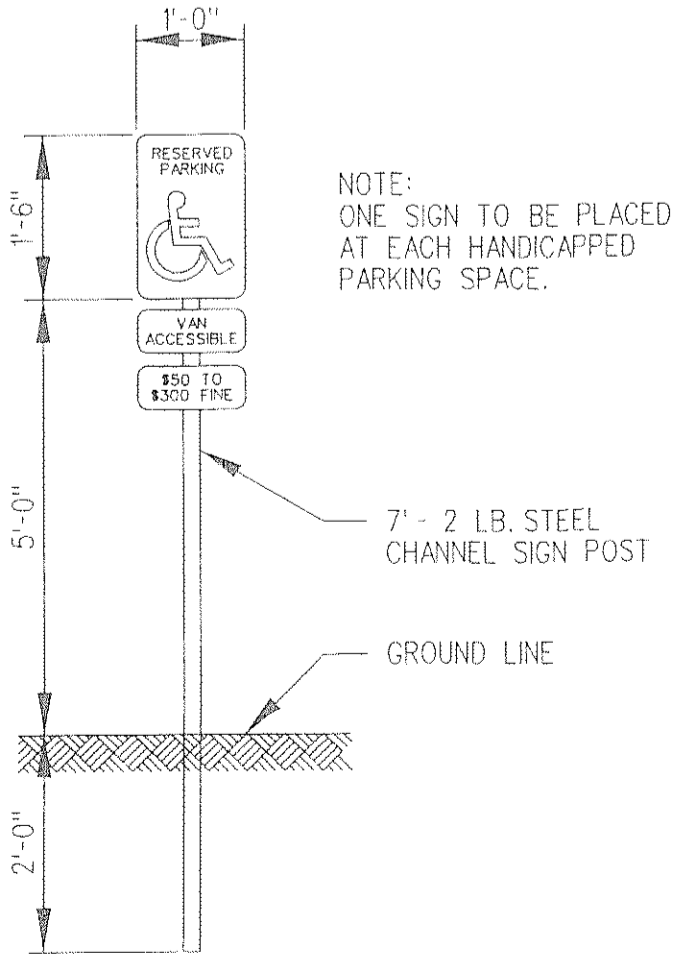
NO ACCESS TO EDISON AVENUE

LANDSCAPING, STREETLIGHTS AND SIDEWALKS SHALL BE PER CITY OF CHESTERFIELD STANDARDS.

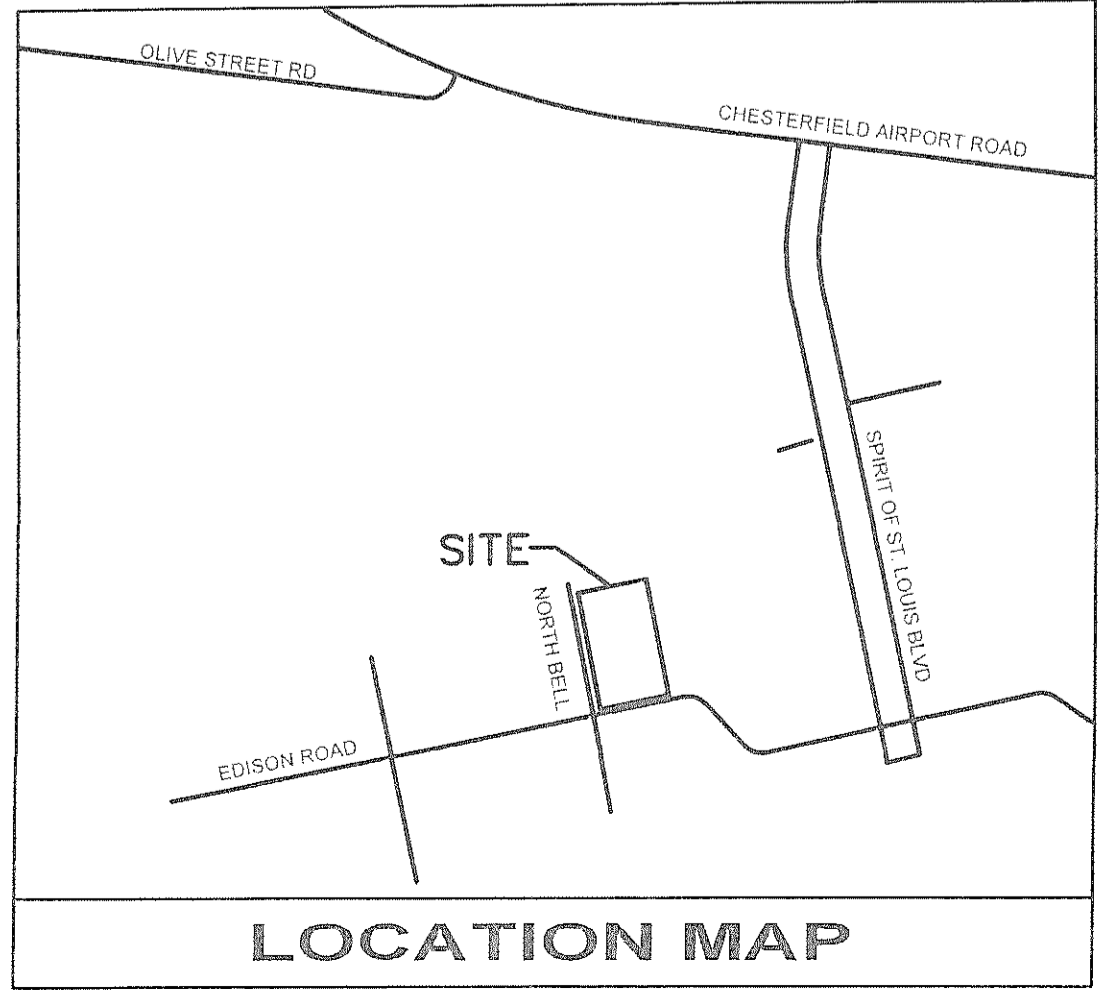
THE UNDERGROUND UTILITIES SHOWN HEREIN WERE PLOTTED FROM AVAILABLE INFORMATION AND DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NONEXISTENCE, SIZE, TYPE, NUMBER OR LOCATION OF THESE OR OTHER UTILITIES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITIES IN THE FIELD, SHOWN OR NOT SHOWN. 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.



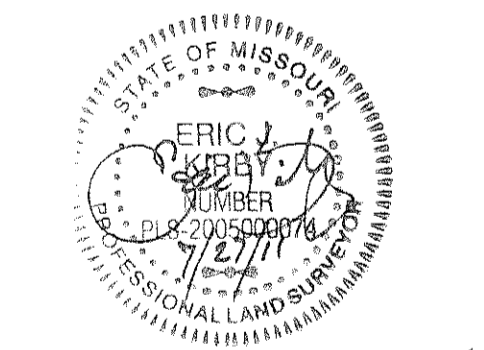
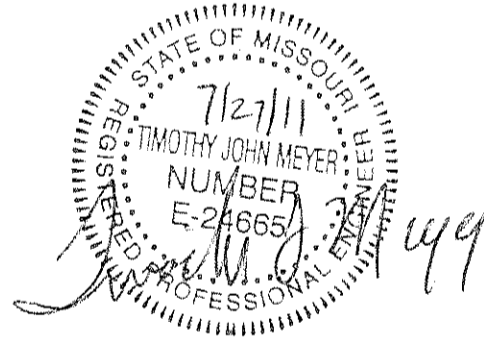
HANICAPPED SPACING DETAIL NTS



VAN ACCESSIBLE HANICAPPED PARKING SIGN DETAIL NTS



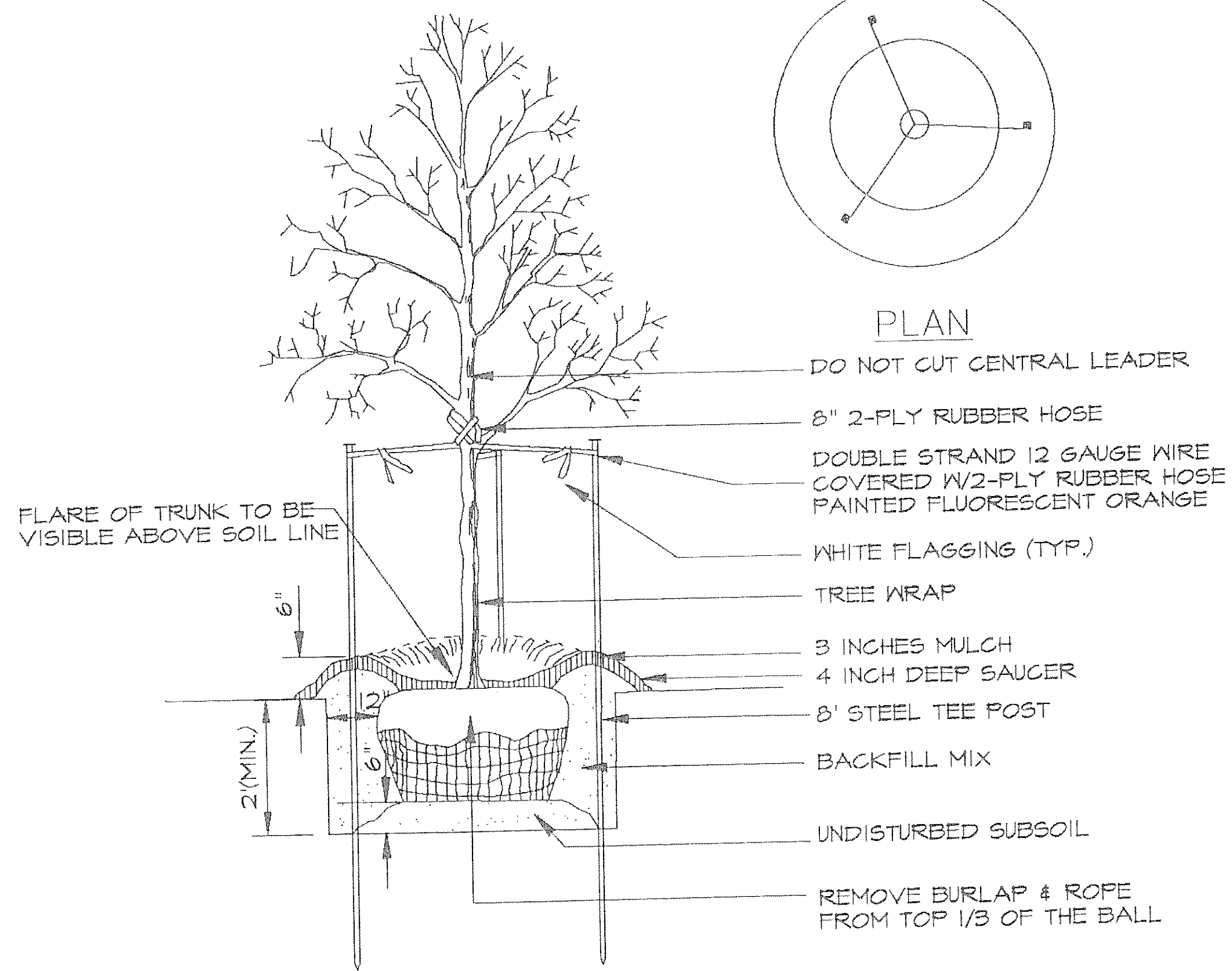
LOCATION MAP



**NORTH BELL HANGARS
 AT SPIRIT OF ST. LOUIS AIRPORT**

SITE DEVELOPMENT SECTION PLAN
 REVISION INFO: 04/20/2011 PROPOSED F.L.
 17V 11 0412
 REVISION 04/20/2011 PER CITY
 REVISION 10/20/2011 PER CITY
 DATE: 08/27/2011
 MAY 27, 2011

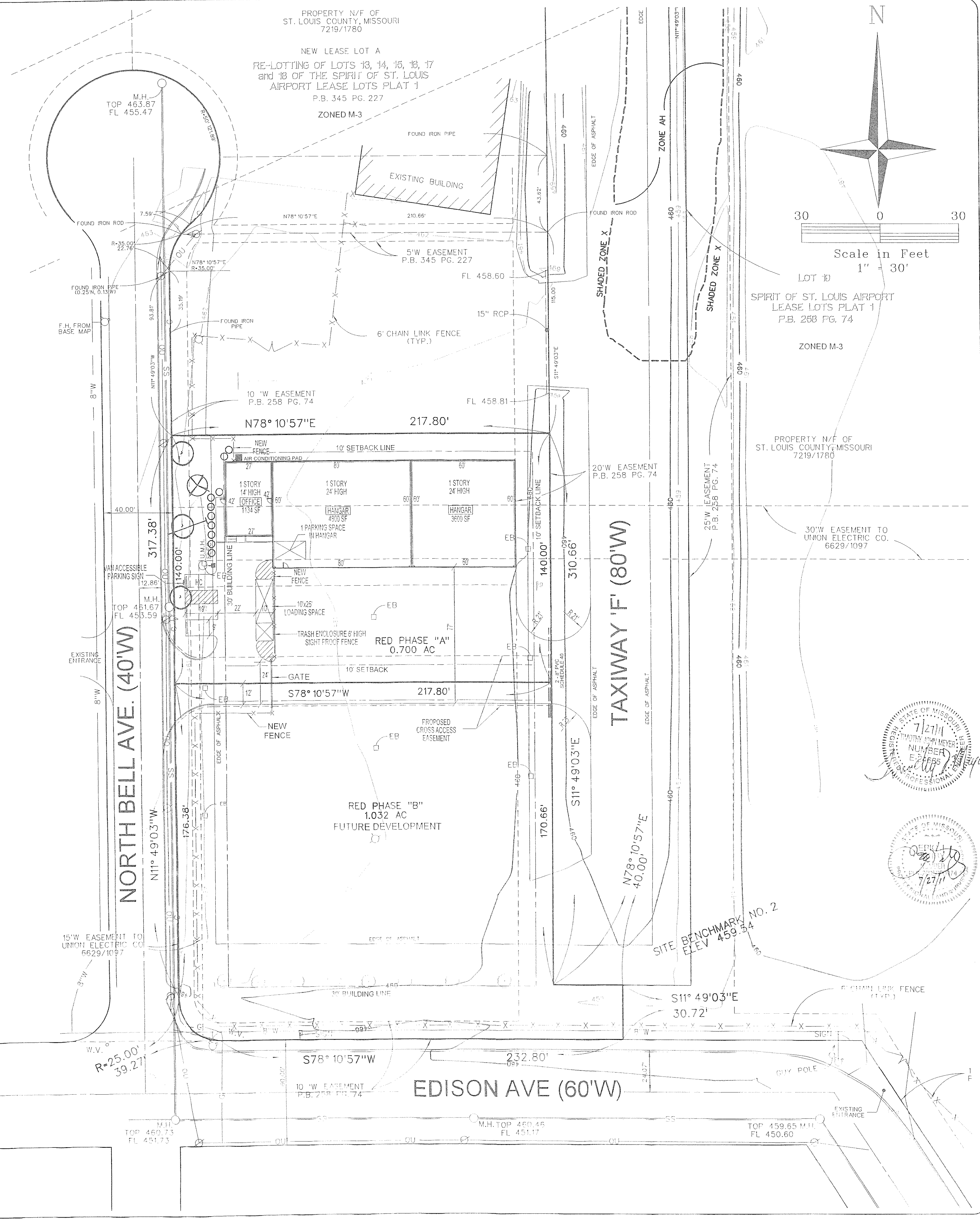
VOLZ
 Incorporated
 ENGINEERS - AND PLANNING - AND SURVEYING - TRANSPORTATION - CONSTRUCTION MANAGEMENT
 10849 Indian Head Ind'l. Blvd
 St. Louis, Missouri 63132
 314.426.6212 Main
 314.590.1250 Fax
 www.volzinc.com



NOTE: USE SHREDDED BARK MULCH ONLY
DECIDUOUS TREE PLANTING

N.T.S.

PLANT SCHEDULE				
QTY.	COMMON NAME BOTANICAL NAME	SIZE	MATURE SIZE GROWTH RATE (SIZE)	EVERGREEN / DECIDUOUS
3	RED MAPLE ACER RUBRUM	2.5" CALIPER	45'+ FAST (LARGE)	DECIDUOUS
1	HAWTHORN COCKSPUR CRATAEGUS CRUGALLI	2.5" CALIPER	15'-20" MEDIUM (SMALL)	DECIDUOUS
10	WINTERBERRY HOLLY ILEX VERTICILLATA	5 GALLON		DECIDUOUS



ADG
 ARCHITECTURAL DESIGN GROUP, LLC
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 St. Louis, Missouri 63132
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 314.890.1250 Fax
 www.volze.com

VOLZ
 Incorporated
 ENGINEERS - LAND PLANNING - SURVEYING - TRANSPORTATION - CONSTRUCTION MANAGEMENT

**NORTH BELL HANGARS
 AT SPIRIT OF ST. LOUIS AIRPORT**

PROPERTY N/F OF ST. LOUIS COUNTY, MISSOURI 7219/1780
 ZONED M-3
 LEASE LOTS PLAT 1
 P.B. 258 PG. 74

PROPERTY N/F OF ST. LOUIS COUNTY, MISSOURI 7219/1780
 ZONED M-3
 LEASE LOTS PLAT 1
 P.B. 258 PG. 74

PROPERTY N/F OF ST. LOUIS COUNTY, MISSOURI 7219/1780
 ZONED M-3
 LEASE LOTS PLAT 1
 P.B. 258 PG. 74

PROPERTY N/F OF ST. LOUIS COUNTY, MISSOURI 7219/1780
 ZONED M-3
 LEASE LOTS PLAT 1
 P.B. 258 PG. 74

LANDSCAPE PLAN

Red Phase "A"
A tract of land being part New Lease Lot B and New Lease Lot C of "Re-Lotting of Lots 13, 14, 15, 16, 17, and 18 of the Spirit of St. Louis Airport Lease Lots Plat 1", a subdivision according to the plat thereof recorded in Plat Book 345 page 227 of the St. Louis County Records, in U.S. Survey 102, Township 45 North - Range 3 East, City of Chesterfield, St. Louis County, MO and being more particularly described as follows:

Beginning at a point in the East line of North Bell Avenue, 40 feet wide, said point being distant South 11 degrees 49 minutes 03 seconds East 25.00 feet from the Southwest corner of said New Lease Lot B; thence Northwardly along said East line, North 11 degrees 49 minutes 03 seconds West 140.00 feet to a point, thence North 78 degrees 10 minutes 57 seconds East 217.80 feet to the West line of Taxiway 'F', 80 feet wide, thence Southwardly along said West line South 11 degrees 49 minutes 03 seconds East 140.00 feet to a point, thence Westwardly South 78 degrees 10 minutes 57 seconds West 217.80 feet to the point of beginning and containing 0.700 acres according to a survey by Volz, Inc. May 2011.

Red Phase "B"
A tract of land being New Lease Lot C of "Re-Lotting of Lots 13, 14, 15, 16, 17, and 18 of the Spirit of St. Louis Airport Lease Lots Plat 1", a subdivision according to the plat thereof recorded in Plat Book 345 page 227 of the St. Louis County Records, in U.S. Survey 102, Township 45 North - Range 3 East, City of Chesterfield, St. Louis County, MO and being more particularly described as follows:

Beginning at the Southeast corner of said New Lease Lot C, said point being on the North line of Edison Avenue, 60 feet wide; thence Westwardly along said North line, South 78 degrees 10 minutes 57 seconds West 232.80 feet to the East line of North Bell Avenue, 40 feet wide; thence Northwardly along said East line along a curve to the right, whose radius point bears North 11 degrees 49 minutes 03 seconds West 25.00 feet from the last mentioned point, a distance of 39.27 feet, and North 11 degrees 49 minutes 03 seconds West 176.38 feet to a point, thence Eastwardly along said North line North 78 degrees 10 minutes 57 seconds East 217.80 feet to the West line of Taxiway 'F', 80 feet wide; thence Southwardly along said West line South 11 degrees 49 minutes 03 seconds East 170.66 feet to the South line of said Taxiway 'F', 80 feet wide; thence Eastwardly along said South line North 78 degrees 10 minutes 57 seconds East 40.00 feet to the East line of said New Lease Lot C; thence Southwardly along said East line, South 11 degrees 49 minutes 03 seconds East 30.72 feet to the point of beginning and containing 1.157 acres according to a survey by Volz, Inc. May 2011.

Overall
A tract of land being part New Lease Lot B and New Lease Lot C of "Re-Lotting of Lots 13, 14, 15, 16, 17, and 18 of the Spirit of St. Louis Airport Lease Lots Plat 1", a subdivision according to the plat thereof recorded in Plat Book 345 page 227 of the St. Louis County Records, in U.S. Survey 102, Township 45 North - Range 3 East, City of Chesterfield, St. Louis County, MO and being more particularly described as follows:

Beginning at the Southeast corner of said New Lease Lot C, said point being on the North line of Edison Avenue, 60 feet wide; thence Westwardly along said North line, South 78 degrees 10 minutes 57 seconds West 232.80 feet to the East line of North Bell Avenue, 40 feet wide; thence Northwardly along said East line along a curve to the right, whose radius point bears North 11 degrees 49 minutes 03 seconds West 25.00 feet from the last mentioned point, a distance of 39.27 feet, and North 11 degrees 49 minutes 03 seconds West 316.66 feet to a point, thence North 78 degrees 10 minutes 57 seconds East 217.80 feet to the West line of Taxiway 'F', 80 feet wide; thence Southwardly along said West line South 11 degrees 49 minutes 03 seconds East 310.66 feet to the South line of said Taxiway 'F', 80 feet wide; thence Eastwardly along said South line North 78 degrees 10 minutes 57 seconds East 40.00 feet to the East line of said New Lease Lot C; thence Southwardly along said East line, South 11 degrees 49 minutes 03 seconds East 30.72 feet to the point of beginning and containing 1.732 acres according to a survey by Volz, Inc. May 2011.

Spirit Hangars LLC, the lease holder 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 155 M-3 of the 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, voided or vacated by order of ordinance of the City of Chesterfield Council.

Michael Dunn
Manager
Spirit Hangars LLC.

State of Missouri)
County of St. Louis)

On this _____ day of _____, A.D., 20____, before me personally appeared Michael Dunn to me known, who, being by me sworn in, did say that he is the Manager of Spirit Hangars LLC, a corporation in the state of Missouri, and the seal affixed to the foregoing instruments is the corporate seal of said corporation and that said instrument was signed on behalf of said corporation by authority of its board of directors and the said Michael Dunn - Manager acknowledged said instrument to be the free act and deed of said corporation.

In testimony whereof, I have hereunto set my hand and affixed my notarial seal at my office in St. Louis County, Missouri the day and year last above written. My term expires: _____

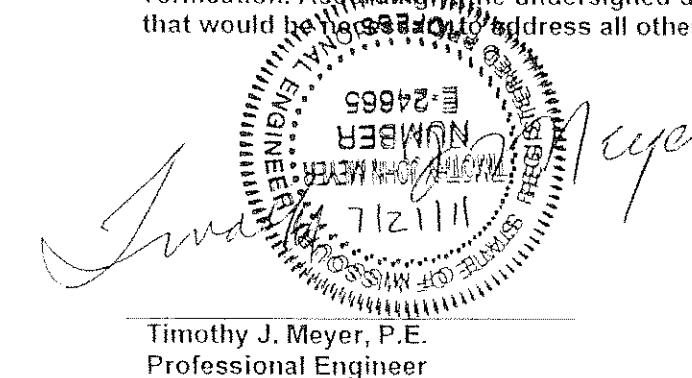
Notary Public

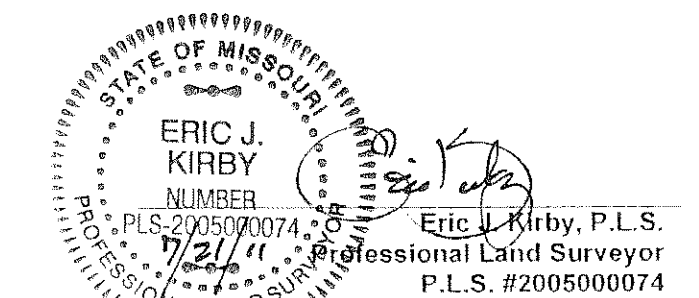
This Site plan was approved by the City of Chesterfield Planning Commission and duly verified on the _____ day of _____, 20____ by the Chairperson of said Commission, authorizing the recording of this Site Plan pursuant to Chesterfield Ordinance Number 200, as attested to by the Planning and Development Services Director.

Aimee Nassif, AICP
Planning and Development Services Director
City of Chesterfield, Missouri

Judith Naggiar, City Clerk
City of Chesterfield, Missouri

This plan is a correct representation of all existing and proposed land divisions. In the preparation of this plan, no grading balances have been done and this Site Development Section Plan is subject to that which a more detailed evaluation may indicate. Soils and subsurface information have not been available and hence not taken into account. Zoning density is assumed. The location, capacity and availability of utilities are taken from available information without verification. Accordingly, the undersigned disclaims responsibility for the accuracy of the aforesaid matters for diligence that would be necessary to address all other issues of development.


Timothy J. Meyer, P.E.
Professional Engineer


Eric J. Kirby, P.L.S.
Professional Land Surveyor
P.L.S. #200500074

SITE DEVELOPMENT SECTION PLAN

REVISED 9-14-2011 PER CITY
2-29-2011 PER CITY
AT 12:11 PM 03/27/11
VOLZ, INC. OFFICE

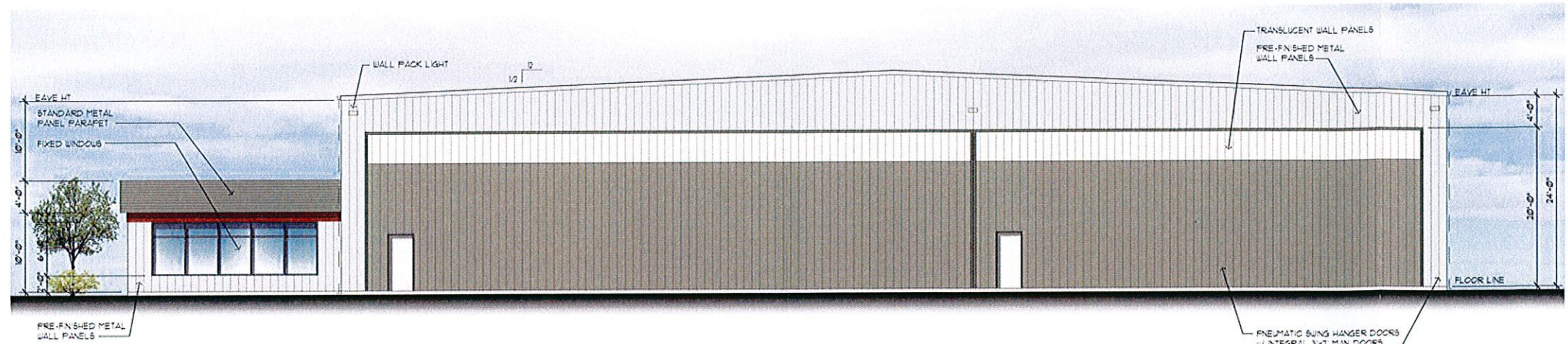
MAY 25 2011
3

NORTH BELL HANGARS
AT SPIRIT OF ST. LOUIS AIRPORT
A TRACT OF LAND BEING PART OF LOT 18 OF "SPIRIT OF ST. LOUIS AIRPORT LEASE LOTS PLAT 1" AND NEW LEASE
LOT B & C OF "RE-LOTTING OF LOTS 13, 14, 15, 16, 17 AND 18 OF THE SPIRIT OF ST. LOUIS AIRPORT LEASE LOTS PLAT 1"
IN U.S. SURVEY 102, TOWNSHIP 45 NORTH - RANGE 3 EAST, CITY OF CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI

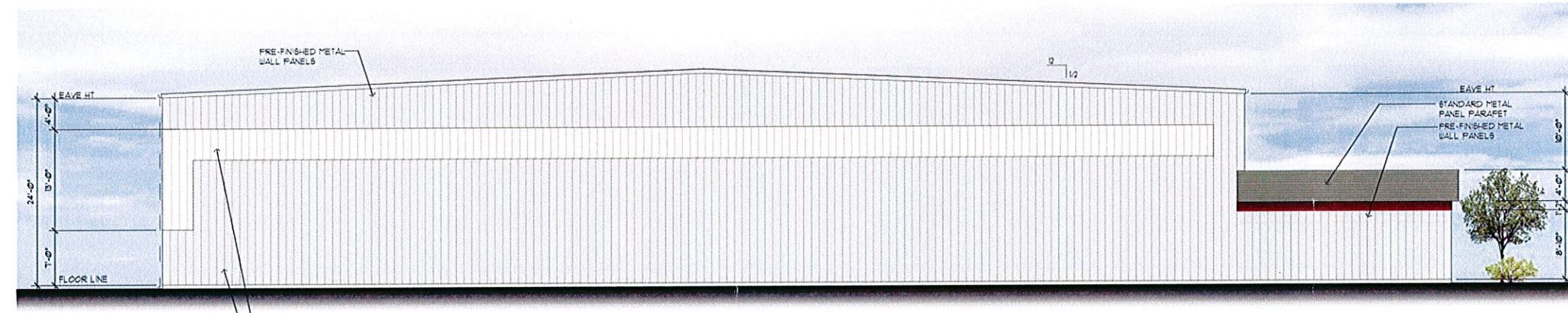
VOLZ
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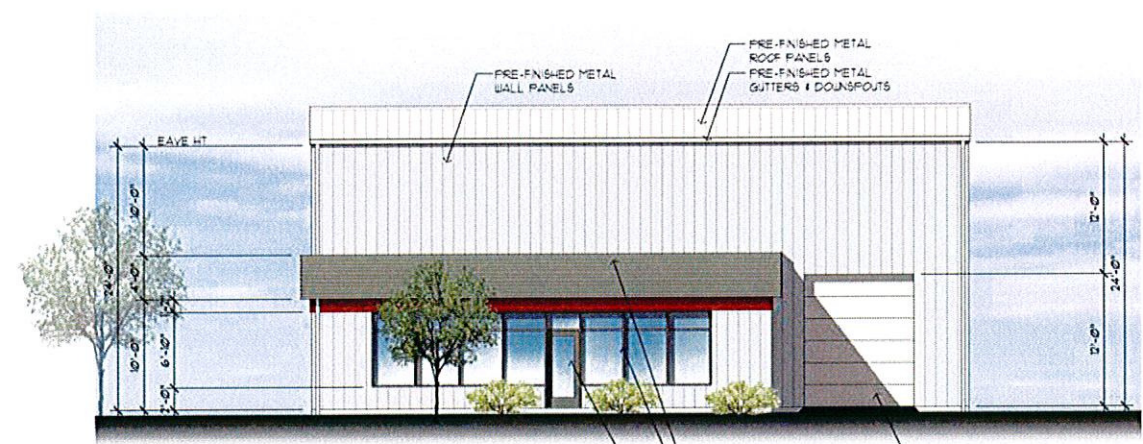
ADG
ADVANCED DEVELOPMENT GROUP LLC
SPIRIT HANGARS LLC
252 S VENTRESS CT
BENNETT, CO. 30102
303-944-2925 M



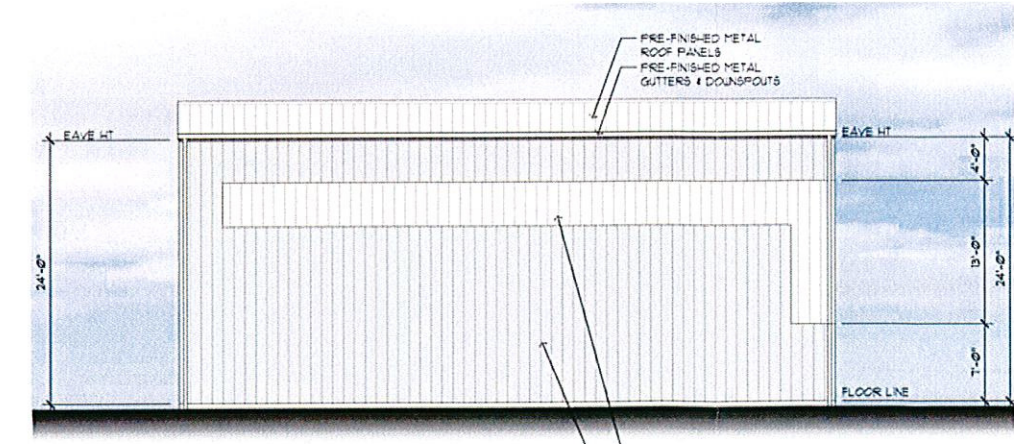
SOUTH ELEVATION



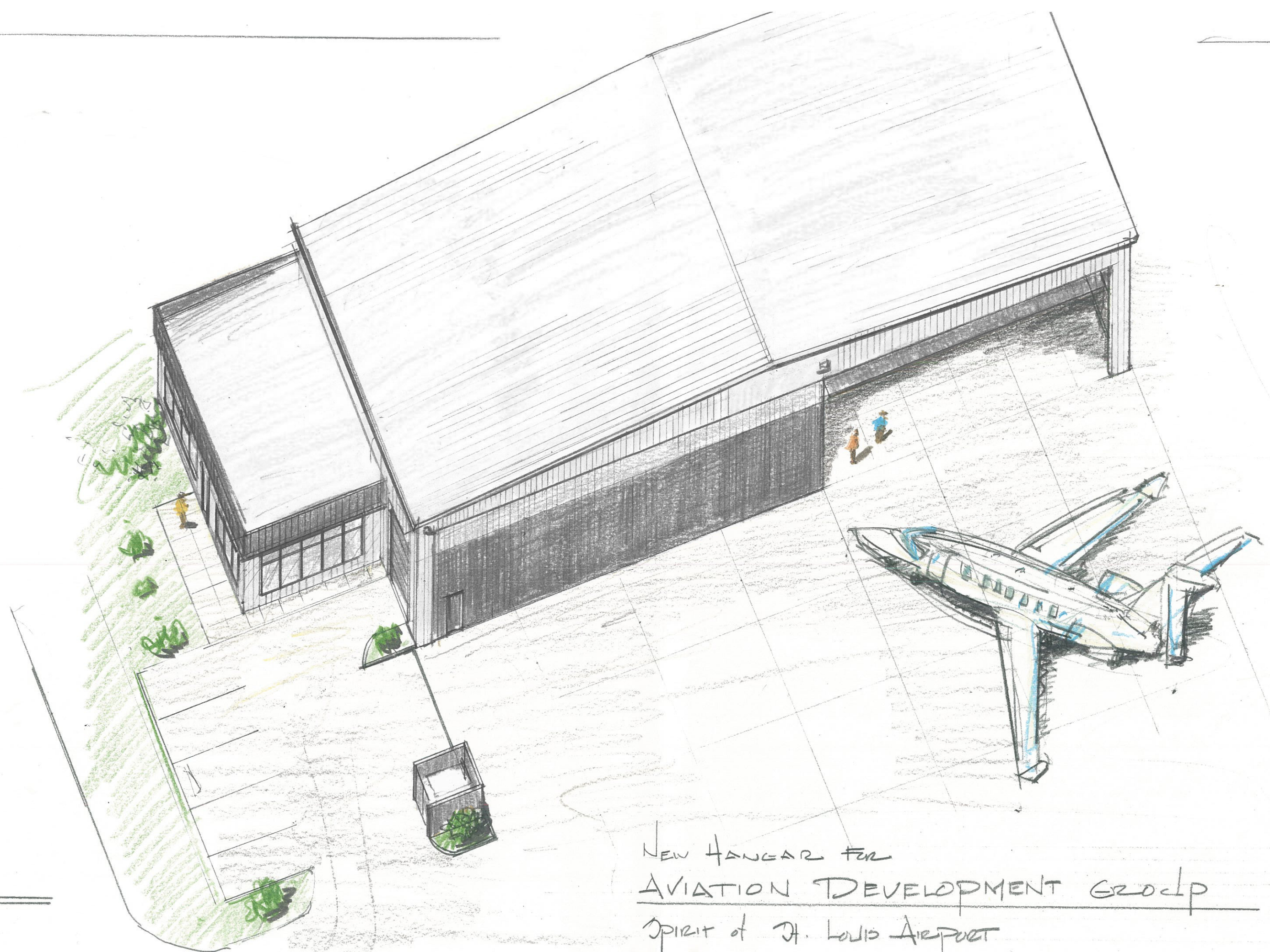
NORTH ELEVATION



WEST ELEVATION



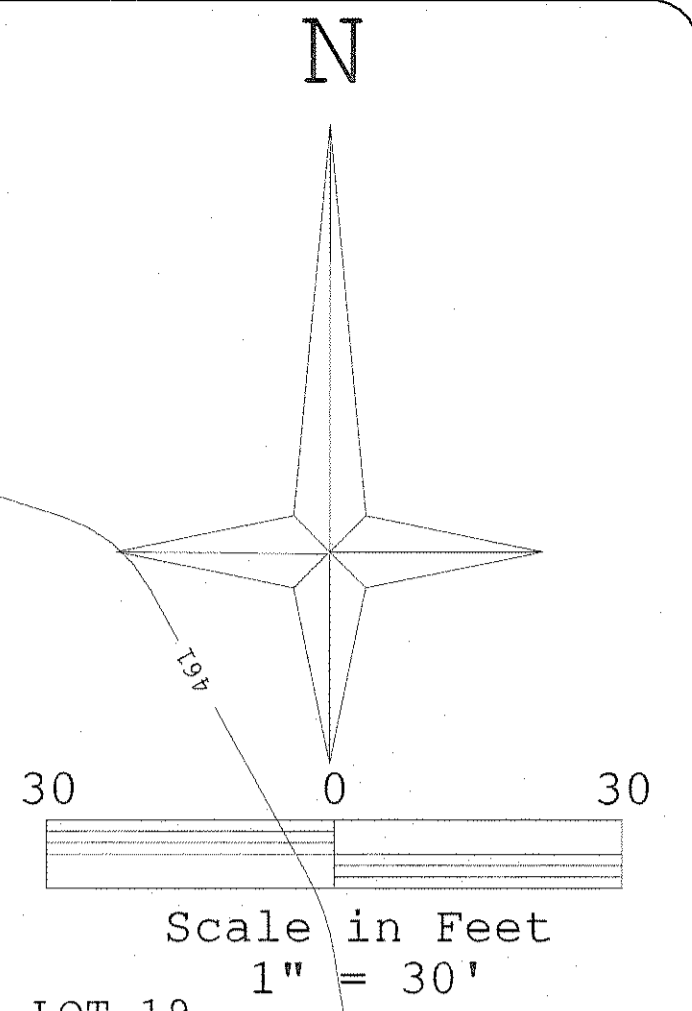
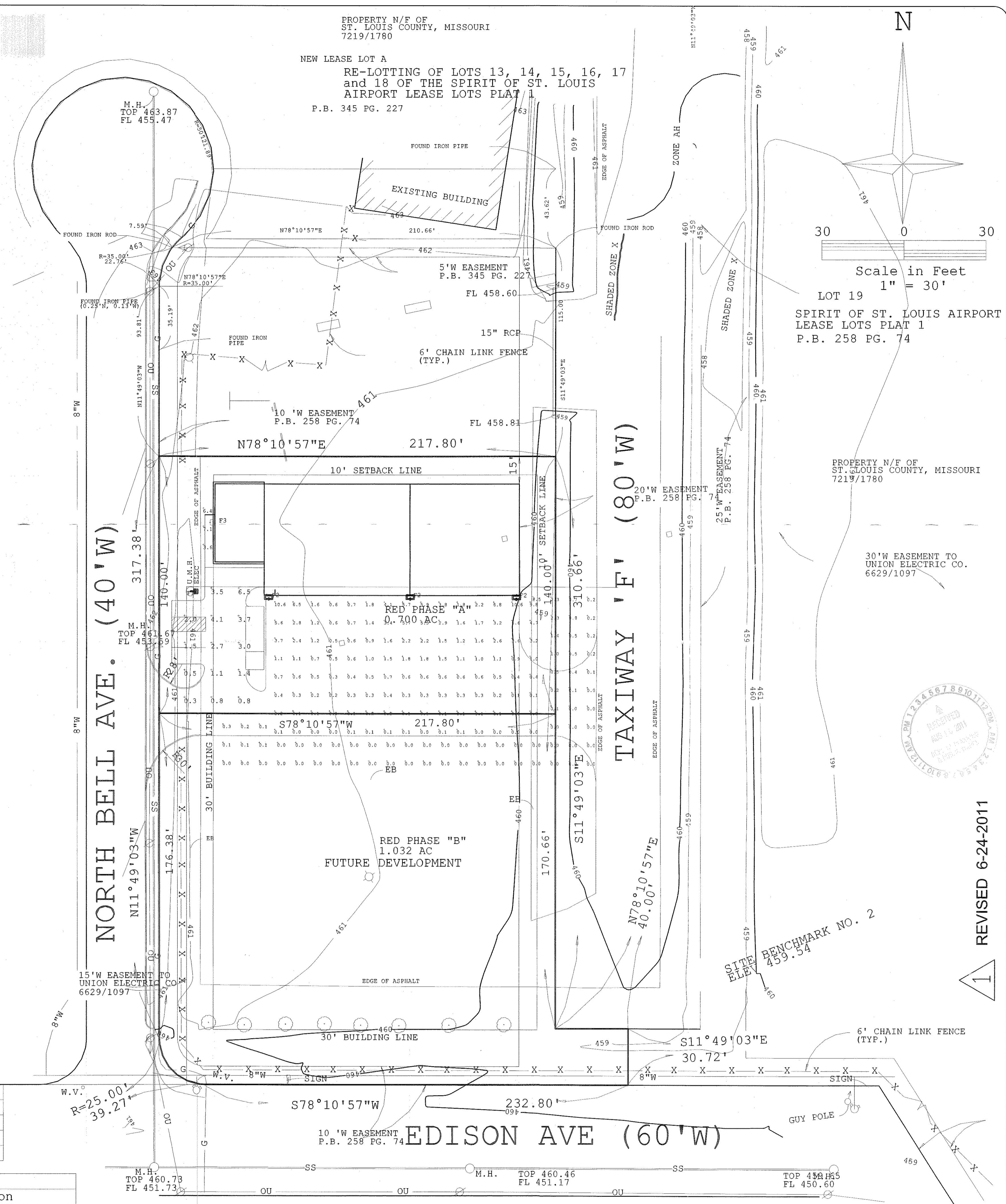
EAST ELEVATION



NEW HANGAR FOR
AVIATION DEVELOPMENT GROUP
SPIRIT OF ST. LOUIS AIRPORT

Existing Contours	
Proposed Contours	
Existing Sanitary Sewer	
Proposed Sanitary Sewer	
Existing Storm Sewers	
Proposed Storm Sewers	
FIRE HYDRANT	
LEGEND	

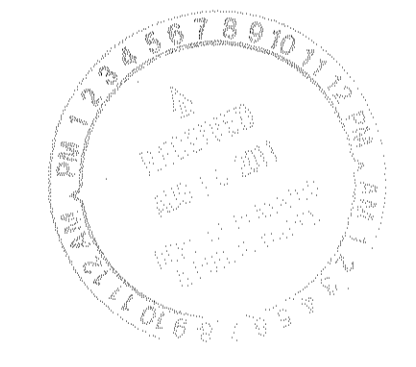
PROPERTY N/F OF
ST. LOUIS COUNTY, MISSOURI
7219/1780
NEW LEASE LOT A
RE-LOTTING OF LOTS 13, 14, 15, 16, 17
and 18 OF THE SPIRIT OF ST. LOUIS
AIRPORT LEASE LOTS PLAT 1
P.B. 345 PG. 227



LOT 19
SPIRIT OF ST. LOUIS AIRPORT
LEASE LOTS PLAT 1
P.B. 258 PG. 74

PROPERTY N/F OF
ST. LOUIS COUNTY, MISSOURI
7219/1780

30' W EASEMENT TO
UNION ELECTRIC CO.
6629/1097



DESIGN IS BASED ON CURRENT INFORMATION PROVIDED AT THE TIME OF REQUEST. ANY CHANGES IN MOUNTING HEIGHT OR LOCATION, LAMP WATTAGE, LAMP TYPE, AND EXISTING FIELD CONDITIONS, THAT EFFECT ANY OF THE PREVIOUSLY MENTIONED, WILL VOID CURRENT LAYOUT AND REQUIRE A CHANGE REQUEST AND RECALCULATION.

- 1 FIXTURE MOUNTED ON 20' POLE & 2.5' BASE (PROVIDED BY OTHERS)
- POLE MOUNTED FIXTURES AT 22.5FT A.F.G.
- BUILDING MOUNTED FIXTURES AT 24FT A.F.G.
- LIGHT LEVEL CALCULATED AT GRADE

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PARKING LOT	Illuminance	Fc	2.59	10.2	0.3	8.63	34.00
SPELL LIGHT	Illuminance	Fc	0.30	8.5	0.0	N.A.	N.A.
TARMACK	Illuminance	Fc	1.49	10.6	0.0	N.A.	N.A.

Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
	1	F1	SINGLE	30000	0.650	MPTR-3S-320-XX-HS
	3	F2	SINGLE	44000	0.700	MPWP-FC-400-XX
	1	F3	SINGLE	3600	0.900	IST-52-CF-E1-2S

REVISED 6-24-2011

VOLZ
Incorporated

NORTH BELL HANGARS
AT SPIRIT OF ST. LOUIS AIRPORT

SITE LIGHTING PLAN

JUNE 3, 2011
20

COOPER LIGHTING - LUMARK®



DESCRIPTION

The Lumark Tribute is the most versatile, functionally designed, universally adaptable outdoor luminaire available. The Tribute brings outstanding performance to walkways, parking lots, roadways, loading docks, building areas, and any security lighting application. U.L. listed and CSA certified for wet locations.

Catalog #	MPTR-3S-320-MT-LL-HS	Type
Project	AVIATION DEVELOPMENT GROUP	
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

Rugged one-piece die-cast aluminum housing and door frame. One-piece silicone gasket protects the optical chamber from performance degrading contaminants. One (1) stainless spring latch and two (2) stainless hinges allow toolless opening and removal of door frame.

Reflector

Choice of nine (9) high efficiency optical distributions, including five (5) segmented optical systems constructed of premium 95% reflective anodized aluminum sheet. Optical segments are rigidly mounted inside a thick gauge aluminum housing for superior protection. All segment faces are clean of rivet heads, tabs or other means of attachment which may cause streaking in the light distribution. Optical modules are

field rotatable in 90° increments and offered standard with mogul-base lampholders for 200-400W assemblies or medium-base lampholders for 150W and below.

Electrical

Ballast and related electrical componentry are hard mounted to die-cast housing for optimal heat transfer and operating efficiency. Optional swing-down galvanized steel power tray with integral handle and quick disconnects allows tray to be completely removed from housing providing ample room for fixture installation and maintenance.

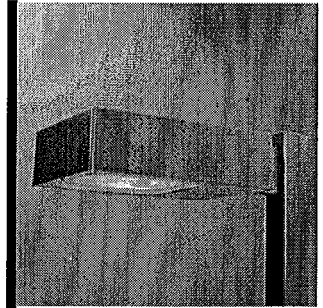
Mounting

Extruded 8" aluminum arm features internal bolt guides for easy positioning of fixture during installation to pole or wall surface.

Standard single carton packaging of housing, square pole arm and round pole adapter allow for consolidated product arrival to site. Optional internal mast arm mount accepts a 1 1/4" to 2 3/8" O.D. horizontal tenon, while a 4-bolt clamping mechanism secures fixture. Cast-in leveling guides provide +/-5° vertical leveling adjustment.

Finish

Housing and arm finished in a 5 stage premium TGIC bronze polyester powder coat paint. Optional colors include black, grey, white, dark platinum and graphite metallic. RAL and custom color matches available.



TR TRIBUTE

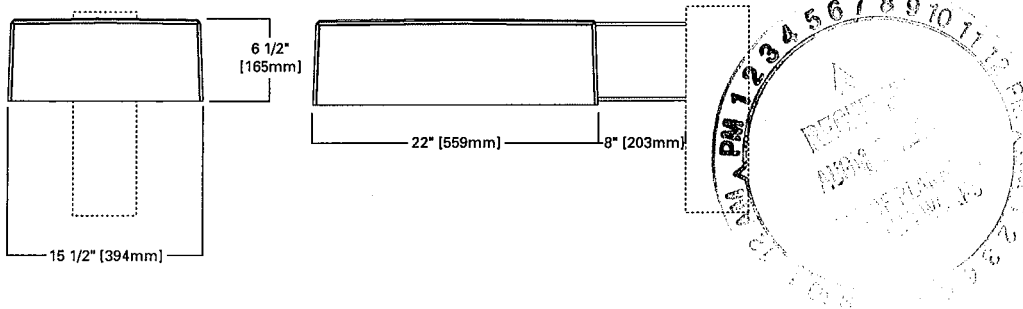
70 - 400W

High Pressure Sodium
Pulse Start Metal Halide
Metal Halide

AREA LUMINAIRE

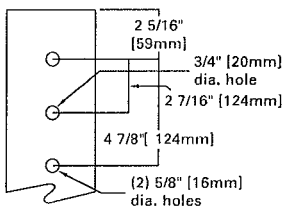


DIMENSIONS

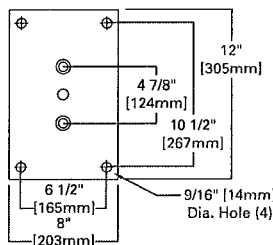


DRILLING PATTERNS

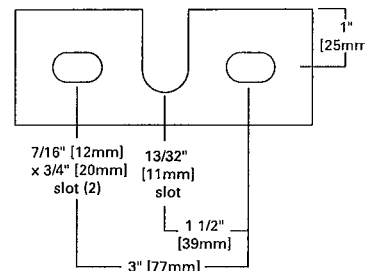
TYPE "M"



WALL MOUNT



TRUNNION MOUNT



TECHNICAL DATA

UL Wet Locations Listed
CSA Certified
EISA Compliant ©

ENERGY DATA

Hi-Reactance Ballast Input Watts

70W HPS HPF (95 Watts)
100W HPS HPF (130 Watts)
150W HPS HPF (190 Watts)
150W MP HPF (185 Watts)

CWI Ballast Input Watts

250W HPS HPF (300 Watts)

CWA Ballast Input Watts

175W MH HPF (210 Watts)
200W MP HPF (227 Watts) ©
200W HPS HPF (250 Watts)
250W MH HPF (295 Watts)
250W MP HPF (283 Watts) ©
320W MP HPF (365 Watts) ©
350W MP HPF (397 Watts) ©
400W MP HPF (452 Watts) ©
400W MH HPF (455 Watts)
400W HPS HPF (465 Watts)

EPA

Effective Projected Area: (Sq. Ft.)
Without Arm: 1.19

SHIPPING DATA

Approximate Net Weight:
39 lbs. (17.73 kgs.)



ORDERING INFORMATION

Sample Number: MHTR-SL-400-MT-LL

Lamp Type MP: Pulse Start Metal Halide MH: Metal Halide HP: High Pressure Sodium	Distribution 2F: Type II Formed 2S: Type II Segmented 3F: Type III Formed 3S: Type III Segmented 4F: Type IV Formed 4S: Type IV Segmented 5F: Type V Formed 5S: Type V Segmented SL: Spill Light Eliminator	Lamp Wattage ² MP 70: 70W 100: 100W 150: 150W 200: 200W 250: 250W 320: 320W 350: 350W 400: 400W ³ MH 175: 175W ⁴ 250: 250W ⁴ 400: 400W ^{3, 4} HPS 70: 70W 100: 100W 150: 150W 250: 250W 400: 400W ³ Voltage ⁵ 120V: 120V 208V: 208V 240V: 240V 277V: 277V 347V: 347V ⁶ 480V: 480V DT: Dual-Tap MT: Multi-Tap, ⁶ wired 277V TT: Triple-Tap, ⁶ wired 347V 5T: 5 Tap Wired ⁵ 480V	Options ^{7, 8} F1: Single Fuse (120, 277 or 347V ⁹ only) F2: Double Fuse (208, 240 or 480V ⁹ only) Q: Quartz Restrike (Hot Strike ¹⁰ Only) EM: Quartz Restrike with "Delay Relay" (Quartz lamp strikes at both hot and cold starts) EM/SC: Emergency Separate ¹⁰ Circuit LL: Lamp Included S: 1 1/4" - 2 3/8" Internal Mast Arm Mount TM: Trunnion Mount PT: Electrical Power Tray HS: House Side Cutoff ¹¹ LA: Less Arm (Order Mounting Separately) PER: NEMA Twistlock Photocontrol Receptacle PC: Button Type Photocontrol ¹² WH: White BK: Black AP: AP Grey DP: Dark Platinum GM: Graphite Metallic	Accessories ¹³ MA1201-XX: Direct Wall Mount Kit1 MA1218-XX: Direct Mount for Pole1 MA1219-XX: Wall Mounting Plate OA1090-XX: Adjustable slipfitter Arm for Tenon Mount 2 3/8" O.D.1 MA1221-XX: External House Side Shield Kit (EPA= 0.38) MA1222: Internal House Side Shield Kit for 2S/3S MA1223: Internal House Side Shield Kit 4S MA1224: Internal House Side Shield Kit for 2F/3F MA1225: Internal House Side Shield Kit for 4F MA1010-XX: Single Tenon Adapter for 3 1/2" O.D. Tenon MA1011-XX: 2 @ 180 degrees Tenon Adapter for 3 1/2" O.D. Tenon MA1012-XX: 3 @ 120 degrees Tenon Adapter for 3 1/2" O.D. Tenon MA1013-XX: 4 @ 90 degrees Tenon Adapter for 3 1/2" O.D. Tenon MA1014-XX: 2 @ 90 degrees Tenon Adapter for 3 1/2" O.D. Tenon MA1015-XX: 2 @ 120 degrees Tenon Adapter for 3 1/2" O.D. Tenon MA1016-XX: 3 @ 90 degrees Tenon Adapter for 3 1/2" O.D. Tenon MA1017-XX: Single Tenon Adapter for 2 3/8" O.D. Tenon MA1018-XX: 2 @ 180 degrees Tenon Adapter for 2 3/8" O.D. Tenon MA1019-XX: 3 @ 120 degrees Tenon Adapter for 2 3/8" O.D. Tenon MA1045-XX: 4 @ 90 degrees Tenon Adapter for 2 3/8" O.D. Tenon MA1048-XX: 2 @ 90 degrees Tenon Adapter for 2 3/8" O.D. Tenon MA1049-XX: 3 @ 90 degrees Tenon Adapter for 2 3/8" O.D. Tenon OARA1016: Photoelectric Control 105-285V NEMA Type OARA1027: Photoelectric Control 480V NEMA Type OARA1021: Photoelectric Control 347V NEMA Type OARA1013: Shorting Cap TRVS: Field Installed Vandal Shield ¹⁴
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Notes: 1 8 Inch Arm and pole adapter included with fixture. Specify Less Arm "LA" option when mounting accessory is ordered separately. 2 150W and below in Metal Halide are medium base sockets. All other wattages are mogul base. 3 Requires reduced envelope lamp. 4 175W, 250W, and 400W MH available in non-U.S. markets only. 5 Products also available in non-US voltages and 50HZ for international markets. Consult your Cooper Representative for availability and ordering information. 5T only available in 400W MH. 6 88% efficient EISA Compliant MP fixtures not available in 347V or TT Voltages. 7 Custom and RAL color matching available upon request. Consult Cooper Lighting Representative for further information. 8 Add as a suffix. 9 Must specify voltage. 10 Quartz options not available with SL optics. 11 House side shield not available on 5S, 5F, or SL optics. 12 PC not available in 480V. 13 Order separately/replace XX with color specification. 14 Not available with SLE or House Side Shield.

STOCK SAMPLE NUMBER (Lamp Included)

SAMPLE NUMBER: MPTR2340

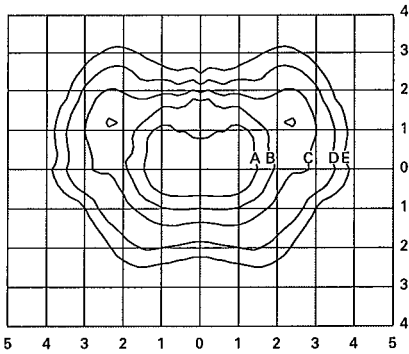
MP	TR	23	
Lamp Type MP=Pulse Start Metal Halide HP=High Pressure Sodium ²	Series ¹ TR=Tribute	Distribution 23=Type II/III Formed	Lamp Wattage 15=150W 25=250W 32=320W 40=400W

NOTES:

¹ Short logic fixtures are finished bronze include multi-tap ballast, lamp, arm and round pole adapter. Other options not available. Refer to standard ordering logic. ² Available in 150, 250 and 400 Watt. Refer to In Stock Guide for availability.

VOLTAGE CHART	
DT=Dual-Tap	120/277 (wired 277V)
MT=Multi-Tap	120/208/240/277 (wired 277V)
TT=Triple-Tap	120/277/347 (wired 347V)
5T=5-Tap	120/208/240/277/480 (wired 480V)

LAMP TYPE	WATTAGE
Pulse Start Metal Halide	70, 100, 150, 250, 320, 350, 400W
Metal Halide	175, 250, 400W
High Pressure Sodium	70, 100, 150, 250, 400W

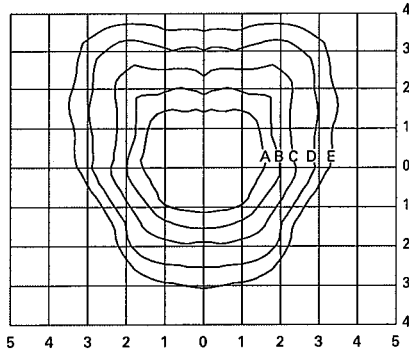


MPTR-3S-320
320—Watt MP
30,000—Lumen Clear Lamp
Type III Segmented

Footcandle Table

Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
20'	3.00	1.50	0.75	0.30	0.15
25'	2.00	1.00	0.50	0.20	0.10
30'	1.38	0.69	0.34	0.13	0.06

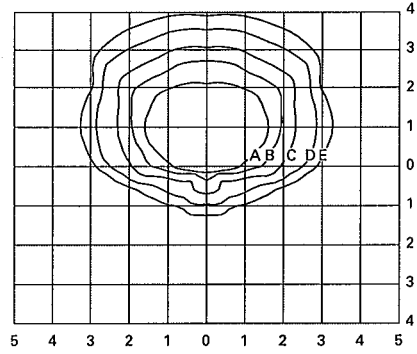


MPTR-4S-400
400—Watt MP
40,000—Lumen Clear Lamp
Type IV Segmented

Footcandle Table

Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
20'	3.00	1.50	0.75	0.30	0.15
25'	2.00	1.00	0.50	0.20	0.10
30'	1.38	0.69	0.34	0.13	0.06



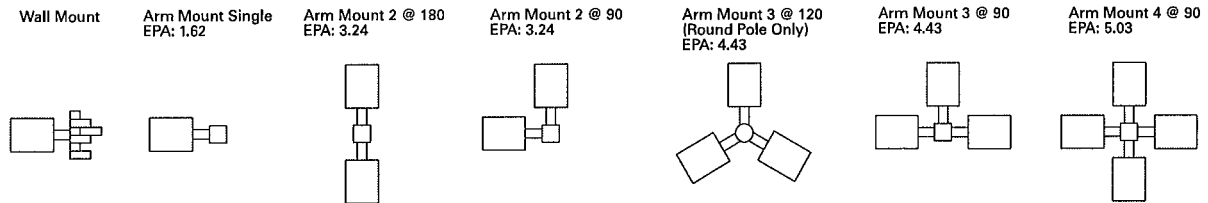
MPTR-SL-400
400—Watt MP
40,000—Lumen Clear Lamp
Spill Light Eliminator

Footcandle Table

Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
20'	3.00	1.50	0.75	0.30	0.15
25'	2.00	1.00	0.50	0.20	0.10
30'	1.38	0.69	0.34	0.13	0.06

MOUNTING CONFIGURATIONS



COOPER LIGHTING

SSS SQUARE STRAIGHT STEEL

10'-39' Mounting Height
4-Bolt Anchor Base

Catalog #	SSS4A20SFM1	Type
Project	AVIATION DEVELOPMENT	
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Fixture Mounting

Drilled or Tenon (Must specify. See fixture mounting).

Shaft

ASTM A500 grade "B" steel shaft. Shot blasted and painted with polyester powder coat.

Handhole

Handhole assembly 3" x 5" on 5" and 6" poles; and 2" x 4" on 4" pole.

Base

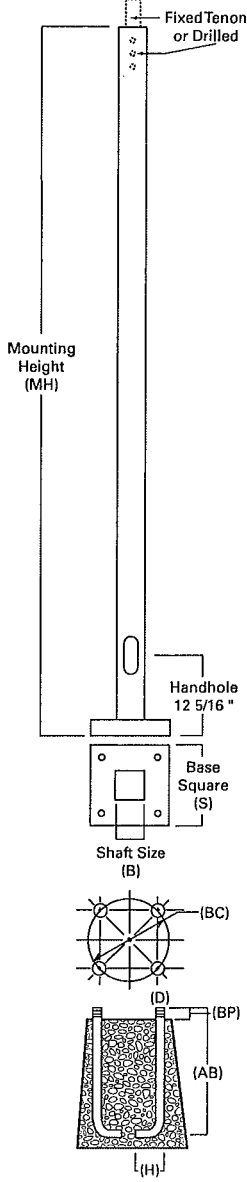
ASTM Grade steel base plate with ASTM A366 base cover.

Anchorage (Four Bolt)

Anchor bolt per ASTM A576 with (2) nuts, (2) flat washer, and (1) lock washer. Nuts, washers and threaded portion of bolt are hot dip galvanized 3" hook for 3/4" bolt, 4" hook for 1" bolt.

POLE COMPATIBILITY MATRIX	DRILL PATTERN	EPA + MOUNTING CONFIGURATIONS					
		Single	2 @ 180°	2 @ 90°	3 @ 90°	3 @ 120°	4 @ 90°
		w/Arm [1]	[2]	[5]	[3]	[6]	[4]
TALON MEDIUM (Recessed Door)	M	1.22	2.44	2.44	3.23	3.23	3.63
TALON MEDIUM (Deep Door)	M	1.45	2.90	2.90	3.92	3.92	4.43
TALON LARGE	M	2.51	5.02	5.02	6.85	6.85	7.77
GALLERIA SQUARE SMALL ARM MOUNT ¹	M	1.7	3.4	3.4	4.6	4.6	5.2
GALLERIA SQUARE SMALL SPIDER MOUNT	2 3/8"	1.04	--	--	--	--	--
GALLERIA SQUARE MEDIUM ARM MOUNT ²	M	2.9	5.8	6.8	9.2	9.2	10.4
GALLERIA SQUARE MEDIUM SPIDER MOUNT	3" or 3 1/2"	2.22	--	--	--	--	--
GALLERIA SQUARE LARGE ARM MOUNT ²	M	4.4	8.8	9.8	13.7	13.7	15.65
GALLERIA SQUARE LARGE SPIDER MOUNT	3" or 3 1/2"	3.7	--	--	--	--	--
GALLERIA ROUND MEDIUM ARM MOUNT ²	M	2.2	4.4	5.4	7.1	7.1	7.95
GALLERIA ROUND MEDIUM SPIDER MOUNT	3"	2	--	--	--	--	--
GALLERIA ROUND LARGE ARM MOUNT ²	M	3	6	7	9.5	9.5	10.75
GALLERIA ROUND LARGE SPIDER MOUNT	3"	2.8	--	--	--	--	--
TRIBUTE	M	1.62	3.24	3.24	4.43	4.43	5.03
CLM/CML SQUARE ²	M	3.1	6.2	7.2	9.8	9.8	11.1
LANDAU ³	M	2.7	5.4	6	8.5	8.5	9.75
CIRRUS SMALL ARM MOUNT	Z	1.19	2.38	2.38	3.57	3.57	4.17
CIRRUS SMALL YOKE/SPIDER MOUNT	4" (CIS), 5" (CIG)	1.13	--	--	--	--	--
CIRRUS MEDIUM ARM MOUNT	Z	1.7	3.4	3.4	5.1	5.1	5.95
CIRRUS MEDIUM YOKE/SPIDER MOUNT	5"	1.52	--	--	--	--	--
CIRRUS LARGE ARM MOUNT	Z	2.36	4.72	4.72	7.08	7.08	8.26
CIRRUS LARGE YOKE/SPIDER MOUNT	6"	2.1	--	--	--	--	--
CREDENZA SMALL ARM MOUNT	Z	1.19	2.38	2.38	3.57	3.57	4.17
CREDENZA SMALL YOKE/SPIDER MOUNT	4" (ZDS), 5" (ZDG)	1.13	--	--	--	--	--
CREDENZA MEDIUM ARM MOUNT	Z	1.7	3.4	3.4	5.1	5.1	5.95
CREDENZA MEDIUM YOKE/SPIDER MOUNT	5"	1.52	--	--	--	--	--
CREDENZA LARGE ARM MOUNT	Z	2.36	4.72	4.72	7.08	7.08	8.26
CREDENZA LARGE YOKE/SPIDER MOUNT	6"	2.1	--	--	--	--	--

NOTE: 1 Assumes 9" arm for 90° and 120° mounting configurations, 6" for all else. 2 Assumes 14" arm for 90° and 120° mounting configurations, 6" for all else. 3 Assumes 12" arm for 90° and 120° mounting configurations, 6" for all else. See Fixture Mounting Options.



FOUR BOLT ANCHORAGE (see ordering information)

- BC=Bolt Circle
- BP=Bolt Projection
- AB=Anchor Bolt
- D=Bolt Diameter
- H=Bolt Dimensions

WARNING: THE USE OF UNAUTHORIZED ACCESSORIES SUCH AS BANNERS, SIGNS, CAMERAS OR PENNANTS FOR WHICH THE POLE WAS NOT DESIGNED VOIDS THE COOPER LIGHTING POLE WARRANTY AND MAY RESULT IN POLE FAILURE CAUSING SERIOUS INJURY OR PROPERTY DAMAGE. UPON REQUEST, COOPER LIGHTING WILL SUPPLY INFORMATION REGARDING TOTAL LOADING CAPACITY. COOPER LIGHTING'S POLE WARRANTY IS VOID UNLESS POLES ARE USED AND INSTALLED AS A COMPLETE POLE/LUMINAIRE COMBINATION. THIS WARRANTY SPECIFICALLY EXCLUDES FAILURE AS THE RESULT OF A THIRD PARTY ACT OR OMISSION, MISUSE, UNANTICIPATED USES, FATIGUE FAILURE OR SIMILAR PHENOMENA RESULTING FROM INDUCED VIBRATION, HARMONIC OSCILLATION OR RESONANCE ASSOCIATED WITH MOVEMENT OF AIR CURRENTS AROUND THE PRODUCT.



ORDERING INFORMATION

SAMPLE NUMBER: SSS5A20SFM1XG

SSS				S				X	
Series SSS=Square S=Steel Straight Steel	Shaft Size 4=4" 5=5" 6=6"	Wall Thickness A=.120" M=.188" X=.250"	Mounting Height 10=10' 15=15' 20=20' 25=25' 30=30' 35=35' 39=39'	Base Type S=Steel Square Base Plate	Finish F=Dark Bronze L=Dark Platinum T=Graphite Metallic V=Grey W=White Y=Black X=Custom Color	Fixture Mounting 2=2 3/8" O.D. Tenon 3=3 1/2" O.D. Tenon 9=3" O.D. Tenon M=Type M Z=Type Z	Number & Location of Arms 1=Single 2=2 @ 180° 3=Triple 4=4 @ 90° 5=2 @ 90° X=None	Length of Arm X=None	Accessories (order separately) A=1/2" Tapped Hub B=3/4" Tapped Hub C=Convenience Outlet G=Grounding Lug (Max. wire #8 AWG) E=GFI Convenience Outlet H=Additional Handhole and Cover V=Vibration Damper

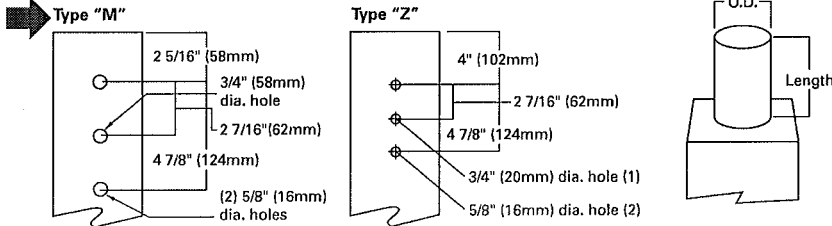
NOTES: 1 All shaft sizes nominal. See EPA chart for shaft size and wall thickness. 2 3 @ 90°. 3 Specify when selecting a fixed tenon mounting configuration. 4 Location is 3' above base and 90° from handhole. Specify if desire otherwise. 5 Outlet is located 4' above base and on same side of pole as handhole, unless specified otherwise. 6 Receptacle not included, provision only. 7 Additional handhole is located 12' below pole top and 90° from standard handhole location, unless otherwise specified.

Mtg. Height	Catalog Number	Wall Thickness (In.)	Base Square (In.)	Bolt Circle Dia. (In.)	Bolt Proj. (In.)	Shaft Size (In.)	Anchor Bolt Dia. & Length (In.)	Net. Wt. (Lbs.)	EPA (Sq. Ft.) ⁴ At Pole Top				EPA (Sq. Ft.) ⁴ 2' Above Pole Top				Maximum Load (Lbs.) ⁵
									70	80	90	100	70	80	90	100	
8	SSS4A08SF	.120	10 1/2	11.0	4 1/2	4	3/4 x 25 x 3	70	55.2	41.8	32.6	26.0	43.9	33.2	25.9	20.7	150
10	SSS4A10SF	.120	10 1/2	11.0	4 1/2	4	3/4 x 25 x 3	96	39.8	29.9	23.2	18.4	33.0	24.8	19.3	15.3	150
12	SSS4A12SF	.120	10 1/2	11.0	4 1/2	4	3/4 x 25 x 3	106	34.7	25.9	19.8	15.4	29.6	22.1	16.9	13.2	150
14	SSS4A14SF	.120	10 1/2	11.0	4 1/2	4	3/4 x 25 x 3	123	28.7	21.1	15.9	12.2	20.0	14.7	11.1	8.5	150
15	SSS4A15SF ⁶	.120	10 1/2	11.0	4 1/2	4	3/4 x 25 x 3	133	19.6	14.4	10.8	8.2	17.2	12.7	9.5	7.3	150
16	SSS4A16SF	.120	10 1/2	11.0	4 1/2	4	3/4 x 25 x 3	137	19.1	13.9	10.3	7.7	16.9	12.3	9.1	6.8	150
18	SSS4A18SF	.120	10 1/2	11.0	4 1/2	4	3/4 x 25 x 3	142	16.2	11.5	8.3	6.0	14.4	10.3	7.4	5.4	150
20	SSS4A20SF ⁶	.120	10 1/2	11.0	4 1/2	4	3/4 x 25 x 3	152	12.9	9.1	6.5	4.6	11.7	8.2	5.9	4.2	200
20	SSS5A20SF	.120	10 1/2	11.0	4 1/2	5	3/4 x 25 x 3	202	21.9	15.7	11.6	8.5	19.9	14.3	10.5	7.7	200
22	SSS4A22SF	.120	10 1/2	11.0	4 1/2	4	3/4 x 25 x 3	174	11.6	7.8	5.3	3.4	10.5	7.1	4.8	3.1	200
24	SSS4A24SF	.120	10 1/2	11.0	4 1/2	4	3/4 x 25 x 3	190	9.8	6.4	4.0	2.3	9.0	5.8	3.7	2.1	200
25	SSS4A25SF ⁶	.120	10 1/2	11.0	4 1/2	4	3/4 x 25 x 3	208	8.7	5.6	3.6	2.1	8.0	5.2	3.3	2.0	200
25	SSS5A25SF	.120	10 1/2	11.0	4 1/2	5	3/4 x 25 x 3	248	15.5	10.5	7.2	4.8	14.3	9.8	6.6	4.4	200
25	SSS6A25SF	.120	12 1/2	12.5	5	6	1 x 36 x 4	295	24.1	16.8	12.0	8.5	22.2	15.6	11.1	7.8	200
30	SSS5A30SF ⁶	.120	10 1/2	11.0	4 1/2	5	3/4 x 25 x 3	293	8.2	4.6	2.1	--	7.7	4.3	2.0	--	300
30	SSS5M30SF	.188	10 1/2	11.0	4 1/2	5	3/4 x 25 x 3	369	15.2	9.5	5.8	3.1	14.2	9.0	5.4	2.9	300
30	SSS6A30SF	.120	12 1/2	12.5	5	6	1 x 36 x 4	347	14.0	8.7	5.0	2.5	13.1	8.2	4.7	2.3	300
30	SSS6M30SF	.188	12 1/2	12.5	5	6	1 x 36 x 4	505	26.4	18.1	12.5	8.4	24.7	16.9	11.6	7.9	300
35	SSS5M35SF	.188	10 1/2	11.0	4 1/2	5	3/4 x 25 x 3	480	11.8	7.1	3.8	1.5	11.1	6.6	3.6	1.4	300
35	SSS6M35SF	.188	12 1/2	12.5	5	6	1 x 36 x 4	584	19.7	12.7	7.9	4.4	18.6	12.0	7.5	4.2	300
35	SSS6X35SF	.250	12 1/2	12.5	5	6	1 x 36 x 4	696	28.9	19.7	13.4	8.9	24.7	16.9	11.6	7.9	300
39	SSS6M39SF	.188	12 1/2	12.5	5	6	1 x 36 x 4	647	15.4	9.1	4.8	1.8	14.6	8.7	4.6	1.7	300
39	SSS6X39SF	.250	12 1/2	12.5	5	6	1 x 36 x 4	822	23.5	15.4	9.8	5.7	22.4	14.6	9.3	5.4	300

NOTES: 1 Catalog number does not include anchor bolts (BEFORE INSTALLING ANCHOR BOLTS MAKE SURE PROPER ANCHOR BOLT TEMPLATE IS OBTAINED FROM COOPER LIGHTING). 2 Tenon size or machining for rectangular arms must be specified, handhole is located 180° from single arm. 3 Shaft size, base plate, anchor bolts and projections may vary slightly—all dimensions nominal. 4 EPA's based on shaft properties with wind normal to flat. EPA's calculated using base wind velocity as indicated plus 30% gust factor. 5 Maximum pole load including fixtures and brackets. 6 In-stock SSS pole logic ships a hardware kit including plugs and a bronze painted pole cut to length and drilled on 4 sides with the M drill pattern from a regional distribution center—SSS4A15SFM4, SSS4A20SFM4, SSS4A25SFM4 and SSS5A30SFM4 available.

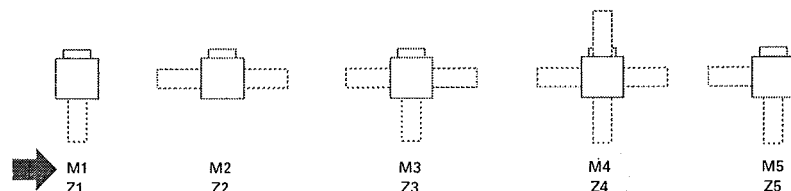
FIXTURE MOUNTING

DRILL PATTERN



Designation Number	O.D. (In.)	Length (In.)
2	2 3/8	4
3	3 1/2	5
9	3	4

NUMBER AND LOCATION OF ARMS (Note handhole position relative to drill locations)



NOTE: Specifications and dimensions subject to change without notice.

E COOPER LIGHTING - LUMARK®



DESCRIPTION

The Lumark Wal-Pak Series of wall luminaires provides traditional architectural style with high performance energy efficient illumination. Rugged die-cast aluminum construction, stainless steel hardware along with a sealed and gasketed optical compartment make the Wal-Pak virtually impenetrable to contaminants. IP65 Rated. Six available lamp sources including patent pending energy efficient LED, pulse start metal halide, compact fluorescent, ceramic metal halide, standard metal halide and high pressure sodium. UL and cUL wet location listed. The Wal-Pak wall luminaire is ideal for pathway illumination, building entrances, vehicle ramps, schools, tunnels, stairways and loading docks.

SPECIFICATION FEATURES

Housing

Rugged one-piece die-cast aluminum housing and hinged, removable die-cast aluminum door. One-piece silicone gasket seals the optical chamber. UL 1598 wet location listed and IP65 ingress protection rated. Not recommended for car wash applications.

Electrical

Ballasts, LED driver and related electrical components are hard mounted to the die-cast housing for optimal heat sinking and operating efficiency. Wiring is extended through a silicone gasket at the back of the housing. Three 1/2" threaded conduit entry points allow for thru-branch wiring. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from LED source. Integral LED electronic driver incorporates internal fusing designed to withstand a 3kV surge test and is Class 2 rated for 120-277V with an operating temperature of -30° to 60°C. Wal-

Pak LED systems maintain greater than 70% of the initial light output after 50,000 hours of operation. UL listed HID high power factor ballasts are Class H insulation rated (metal halide: 150, 175, 200, 250, 320, 350, 400W [-30°C / -20°F]), (high pressure sodium: 50, 70, 100, 150, 250, 400W [-40°C / -40°F]). High efficiency HID ballasts are available in 120V, 208V, 240V, 277V, 347V and 480V. Compact fluorescent high power factor ballasts are Class P insulation rated for 120-277V and have a starting temperature of -18°C / 0°F.

Optical

Highly reflective anodized aluminum reflectors provide high efficiency illumination. Optical assemblies include impact resistant borosilicate refractive glass, Solite™ flat diamond patterned glass and full cutoff IESNA compliant configurations. Patent pending, solid state LED luminaires are thermally optimized with 2400 or 4000 lumen package modules. HID models are offered in horizontal medium or mogul-based

Catalog #	WPP40C	Type
Project	AVIATION DEVELOPMENT GROUP	
Comments		Date
Prepared by		

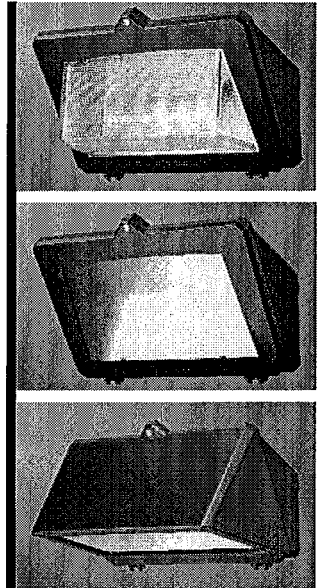
metal halide [MH / MP] or high pressure sodium [HP] lamps. T6 ceramic metal halide [CM] and 4-pin compact fluorescent [CF] lamp models offer high efficiency energy saving illumination.

Door Assembly

Single point, captive stainless steel hardware secures the removable hinged door allowing for ease of installation and maintenance. Door assembly is hinged at the bottom for easy removal, installation and re-lamping.

Finish

Housing and door are protected with 5-stage TGIC dark bronze polyester powder coat paint. Premium TGIC power coat finishes withstand extreme climate changes while providing optimal color and gloss retention. Optional premium colors are available.



WP WAL-PAK

2400 - 4000 Lumen LED
39 - 400W

High Pressure Sodium
Pulse Start Metal Halide
Metal Halide

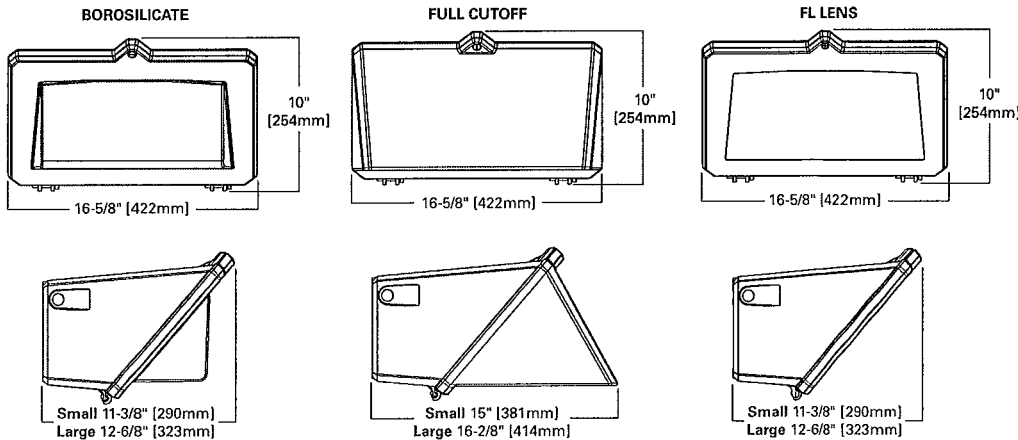
Ceramic Metal Halide
32 - 140W

Compact Fluorescent



WALL MOUNT LUMINAIRE

DIMENSIONS



TECHNICAL DATA

UL and cUL Wet Location Listed
IP65 Rated
40°C Maximum Ambient Temperature
External Supply Wiring 90°C Minimum
EISA @, ARRA, Title 20 Compliant
LM79 / LM80 Compliant

ENERGY DATA

Reactor Ballast Input Watts
50W HPS NPF (58 Watts)
70W HPS NPF (82 Watts)
100W HPS NPF (118 Watts)
150W HPS NPF (175 Watts)
High Reactance Ballast Input Watts
50W MP HPF (69 Watts)
70W MP HPF (94 Watts)
100W MP HPF (129 Watts)
150W MP HPF (185 Watts)
CWA Ballast Input Watts
200W HPS HPF (250 Watts)
200W MP HPF (227 Watts) @
250W MP HPF (283 Watts) @
320W MP HPF (365 Watts) @
350W MP HPF (400 Watts) @
400W HPS HPF (465 Watts)
400W MP HPF (452 Watts) @

SHIPPING DATA

Approximate Net Weight:
32-42 lbs. (15-19 kgs.) ADH092103 pc
2010-11-03 17:10:12

ORDERING INFORMATION

Sample Number: MPWP-GL-250-MT-2EM/SC/MR

Lamp Type MP=Pulse Start Metal Halide HP=High Pressure Sodium LD=Solid State Light Emitting Diodes (LED) CF=Compact Fluorescent ¹ CM=Ceramic Metal Halide ² MH= Metal Halide ³	Series WP=Wal-Pak	Door Type ⁴ GL=Borosilicate Glass Door FC= Full Cutoff Door FL= Flat Solite Glass Door PL=Polycarb Refractor Door	Lamp Wattage ⁵ LED 2A=(2400 Initial Lumens) 4A=(4000 Initial Lumens) MP 50=50W 70=70W 100=100W 150=150W 200=200W 250=250W 320=320W 350=350W 400=400W MH 175=175W 250=250W 400=400W HP 50=50W 70=70W 100=100W 150=150W 250=250W 400=400W CM 39=39W 70=70W 100=100W 150=150W CF 32=32W 42=42W 57=57W 70=70W 64=(2-32) 84=(2-42) 114=(2-57) 140=(2-70)	Voltage ⁶ 120V=120V 208V=208V 240V=240V 277V=277V 347V=347V ⁷ 480V=480V DT=Dual-Tap MT=Multi-Tap TT=Tri-Tap 5T=5-Tap E=Electronic Ballast ⁸ ED=Electronic LED Driver	Options ⁹ F1=Single fuse ¹⁰ F2=Double fuse ¹⁰ PE=Photocontrol button ¹⁰ LL=Includes lamp ² BK=Black housing WH=White housing GM=Graphite Metallic housing AP=Grey housing DP=Dark Platinum housing DIMA=CF Dimming Ballast ¹¹ DIMB=CF Dimming Ballast ¹¹ SGL=Solite Glass Lens ¹² Q=Quartz Restrike T4 Lamp ¹³ EM=Emergency Quartz Restrike T4 Lamp with Time Delay Relay ¹³ EM/SC=Emergency Separate Circuit T4 Lamp ¹³ QMR=Emergency Back-Up 1-MR16 Lamp ^{14,15} 2QMR=Emergency Back-Up 2-MR16 Lamps ^{14,15} 2QMR/SC=Emergency Back-Up MR16 and EM separate circuit 2-MR16 Lamp ^{14,15} EMMR=Emergency Back-Up 1-MR16 Lamp with Time Delay Relay ^{14,15} 2EMMR=Emergency Back-Up 2-MR16 Lamps with Time Delay Relay ^{14,15} 2EMMR/SC=Emergency Back-Up 1-MR16 Lamp with Time Delay Relay and EM Separate Circuit ^{14,15,16} EM/SC/MR=Emergency Back-Up Separate Circuit 1-MR16 Lamp ^{14,15,16} 2EM/SC/MR=Emergency Back-Up Separate Circuit 2-MR16 Lamps ^{14,15,16} EM/SC/12V=Emergency Separate Circuit 12V 1-MR16 Lamp ^{14,15,17} 2EM/SC/12V=Emergency Separate Circuit 12V 2-MR16 Lamps ^{14,15,17} EMI40=Emergency Cold Temperature UL 924 CF Power Pack 1 Lamp ¹⁸ EMI40/2L=Emergency Cold Temperature UL 924 CF Power Pack 2 Lamp ¹⁸ CF-EM=Emergency UL924 CF Power Pack 1 Lamp ¹⁹ CF-EM/2L=Emergency UL924 CF Power Pack 2 Lamp ¹⁹ EMLED-CD=LED Battery Back-Up Cold Temperature ²⁰	Accessories ²¹ WG/WPGL=Wire Guard Borosilicate Glass Lens Door WG/WPFC=Wire Guard Full Cutoff Door WG/WPFL=Wire Guard FL Lens Door TR/WP=Tamper Resistant Screw and Bit VS/WPGL=Polycarbonate Vandal Shield for Borosilicate Glass Lens Door
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STOCK SAMPLE NUMBER - LAMP INCLUDED

SAMPLE NUMBER: WPP40C

Series WP=Wal-Pak	Lamp Type L=LED P=Pulse Start Metal Halide S=High Pressure Sodium	Lamp Wattage 2A=28W 4A=40W 10=100W 15=150W 25=250W 32=320W 40=400W	Door/Glass Type Blank=Standard C=Full Cutoff Door
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NOTES: Options not available with stock products. Refer to standard order information to add options. MT is standard. Lamp Type: MP not available in 100W. HPS not available in 320W. Borosilicate glass door is standard. 2A and 4A models available in LED only. LED models are 120/277V.

BUG RATING	B	U	G	B	U	G
Borosilicate Glass Door (GL)						
LDWP-GL-2A-ED	0	3	2			
LDWP-GL-4A-ED	1	3	2			
Polycarbonate Lens (PL)						
LDWP-PL-2A-ED	0	3	2			
LDWP-PL-4A-ED	1	3	2			
Flat Lens Door (FL)						
LDWP-FL-2A-ED		0	2	1		
LDWP-FL-4A-ED		0	3	1		
Full Cutoff Door (FC)						
LDWP-FC-2A-ED		0	1	1		
LDWP-FC-4A-ED		0	1	1		

For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit www.iesna.org/PDF/Errata/TM-15-07BugRatingsAddendum.pdf

- NOTES: 1 CF Single lamp offered in all door configurations. CF dual lamp models not offered with FL door type. 70W models not available with EM40-2L, CF-EM, CF-EM-2L. CF not available in 347V.
 2 All CM models offered with T6 envelope G12 lamp base. T6 Lamp included with CM models. Order LL with CM models. Ceramic Metal Halide (CM) is available with (MP) pulse start metal halide or E - Electronic Ballast.
 3 400W MP must be ordered with LL option to be Title 20 Compliant.
 4 MH products available for non-US markets only.
 5 Small housing offered for 175W and below, CF and LD models. Large housing for 200W-400W. FL door not available with CF or 200-400W models. Polycarbonate lens available in models up to 175W max including LD. Polycarbonate lens not available with full cutoff door or FL models. Solite stipple glass is standard for FL lens. Clear glass is standard for full cutoff door types except for LD. LD full cutoff door is standard with solite glass.
 6 LD nominal initial lumens prior to optical and configuration losses based on 67 CRI/5000K package at 25°C ambient. MH and MP 175W and below are medium base all others are mogul base. CF 64, 84, 114 and 140 models are offered in borosilicate glass and full cutoff doors only. In cold temperatures, compact fluorescent lamps produce lower illumination levels. CF 140 models and 400W HPS rated for 25°C.
 7 See Voltage Chart for descriptions. 5T available in 400W MH models only. 90°C Rated wire required for thru-branch wiring for units 175W and lower. 105°C Rated wire required for thru-branch wiring for units 200W and higher. Thru-branch wiring is rated for 40°C for LD and 175W and below. Higher wattage thru-branch wiring is rated for use in 25°C ambient operating environments.
 8 347V not available with thru-branch wiring. For 347 or 480V LD specify voltage. ED will be supplied with integral step down transformer. 347V not available with CF lamps.
 9 Available with 70-150W MP or CM lamps. E is standard for all CF models. All electronic ballasts are universal 120-277V.
 10 Not all options can be combined. Only one emergency or battery back-up option available within the fixture. CF Models utilize EMI40, EMI40/2L, CF-EM or CF-EM/2L option for emergency egress. LD Models utilize EM-LED or EMLED-CD options only for battery back-up.
 11 Must specify voltage. F1=120, 277 or 347V. F2=208, 240 or 480V. PE=120, 208, 240 or 277V.
 12 DIMA dimming ballast, specify number of lamps, available for 1 or 2-26W or 1-32W, 1-42W. DIMB available for 2-42W, 1-57W or 1-70W.
 13 SGL optional on HID and CF models only. See note number 4.
 14 Q or EM not available with LD or E electronic ballast. Q or EM Minimum HID wattage is 70 watts. EM/SC available in 120V only. EM/SC not available with LD. Maximum 100W 120V T4 DC Bayonet Quartz lamp. Lamp supplied by others.
 15 EMI-LED or EMLED-CD options only for battery back-up.
 16 1 or 2 GU10 base 50W max - 120V Halogen. Lamps supplied by others. EM/SC/MR, 2EM/SC/MR, EM/SC/12V, 2EM/SC/12V not available with LD.
 17 Emergency lamp leads out of the back of the unit to auxiliary power. Lamps independently wired to separate circuits.
 18 Low Voltage 1 or 2 GU5.3 MR16 base, 12V DC, 35W max. Lamps supplied by others.
 19 For use in 25°C ambient operating temperature environments. EMI40, EMI40/2L used for CF lamps. Specify 120 or 277V. EMI40 supports 1-70W CF max, EMI40/2L supports 2-32W CF max. Minimum -18°C/-4°F.
 20 For use in 25°C ambient operating temperature environments. Specify 120 or 277V. CF-EM supports up to 1-57W CF. CF-EM/2L supports 2-18W CF. 18W lamps supplied by others. Minimum temperature is 0°F/32°C.
 21 EMLED-CD available with 4A models only. For use in 25°C ambient operating temperature environments. Specify 120 or 277V. EMLED-CD minimum -20°C/-4°F. Battery pack is a UL recognized component.
 22 Order separately.

VOLTAGE CHART	
DT=Dual-Tap	120/277 (wired 277V)
MT=Multi-Tap	120/208/240/277 (wired 277V)
TT=Tri-Tap	120/277/347 (wired 347V)
5T=5 Tap	120/208/240/277/480 (wired 480V)
E=Electronic Ballast	120-277V (Universal) (50/60 HZ)
ED=Electronic LED Driver	120-277V (Universal) (50/60 HZ)

LAMP TYPE	WATTAGE
Pulse Start Metal Halide	50, 70, 100, 150, 200, 250, 320, 350, 400W
Metal Halide	175, 250, 400W
High Pressure Sodium	50, 70, 100, 150, 250, 400W
T6 Ceramic Metal Halide	39, 70, 100, 150W
Compact Fluorescent	(1) 32, (1) 42, (1) 57, (1) 70, (2) 32, (2) 42, (2) 57, (2) 70
LED	2A (2400 Initial Lumens), 4A (4000 Initial Lumens)

DESCRIPTION

The IMPACT Elite Trapezoid cutoff wall luminaire makes an ideal complement to site design. Rugged construction and full cutoff classified optics provide facade and security lighting for light restricted zones surrounding schools, office complexes, apartments, and recreational facilities. U.L. and cUL Listed for wet locations in down mount applications and damp locations in up mounted applications.

McGRAW-EDISON®

Catalog #	IST-52-CF-E1-2S	Type	
Project	Aviation Development	Date	
Comments			
Prepared by			

SPECIFICATION FEATURES

Construction

Two-piece die-cast aluminum housing and removable hinged door frame nests securely for precise tolerance control and repeatability. Hinged door frame inset for clean mating with housing surface and secured via two (2) captive stainless steel fasteners. Optional tamper resistant torx head fasteners [TR] offer vandal resistant access to the electrical compartment. 1/8" clear, heat and impact resistant tempered flat glass lens combined with molded silicone gasket to seal the integrated optical assembly while ensuring peak optical performance.

Electrical

Integral hard mount electrical components are secured and grounded within the die-cast aluminum housing for optimal heat sinking and extended component life. Minimum starting temperatures are -40°C (-40°F) for

HPS and -30°C (-22°F) for MP.

Compact fluorescent luminaires feature electronic universal 120-277V high efficiency 50/60Hz ballast with -18°C (-0°F) minimum starting. Available in 50-175W HID or 26-84W CF.

Optical

Premium anodized 95% reflective aluminum optical assemblies provide high efficiency Type II distribution. Optional silk screened house side flat glass shield provides decreased wall brightness. All Impact Elite Wall Series luminaires classify as IESNA full cutoff in downlight applications. Available with 10% or 50% uplight options for architectural highlighting of building details.

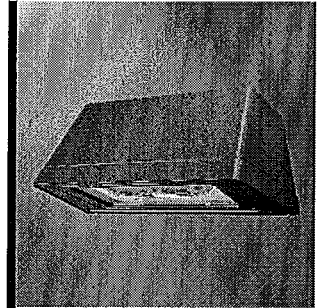
Mounting

Gasketed and zinc plated rigid steel mounting attachment fits directly to 4" j-box or wall with the Impact

Elite "Hook-N-Lock" system for fast installation and mounting in both traditional downlighting [wet location] or inverted uplighting [damp location] mounting positions. Secured via two (2) captive corrosion resistant allen head set screws concealed from view, but accessible from bottom of fixture.

Finish

Housing and door are protected with 5-stage premium TGIC polyester powder coat paint. Premium TGIC powder coat finishes withstand extreme climate changes while providing optimal color and gloss retention over the fixture's installed life. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult McGraw-Edison Architectural Colors Brochure for complete selection.



**IST
IMPACT ELITE
TRAPEZOID**

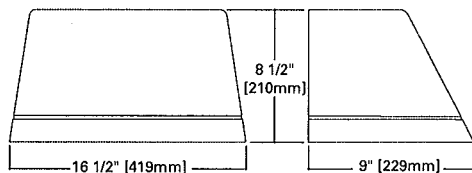
- 50 - 175W**
- Pulse Start Metal Halide
- Metal Halide
- High Pressure Sodium
- 26 - 84W**
- Compact Fluorescent

**FULL CUTOFF
WALL MOUNT LUMINAIRE**



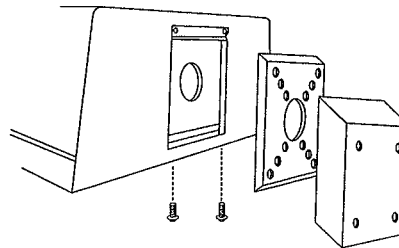
NOTE: In downlight applications only.

DIMENSIONS



HOOK-N-LOCK MOUNTING

(Mounting attachment included. J-Box not included.)



TECHNICAL DATA

UL1598 Listed, cUL Listed
25°C Maximum Ambient Temperature
External Supply Wiring 90°C Minimum
Down Mounted—Wet Location
Up Mounted—Damp Location

ENERGY DATA

High Reactance Ballast Input Watts

- 50W HPS HPF (66 Watts)
- 50W MP HPF (72 Watts)
- 70W HPS HPF (91 Watts)
- 70W MP HPF (90 Watts)
- 100W HPS HPF (130 Watts)
- 100W MP HPF (129 Watts)
- 150W HPS HPF (190 Watts)
- 150W MP HPF (185 Watts)

Electronic Ballast Input Watts

- 26W CF HPF (29 Watts)
- 32W CF HPF (36 Watts)
- 42W CF HPF (46 Watts)
- 52W CF HPF (55 Watts)

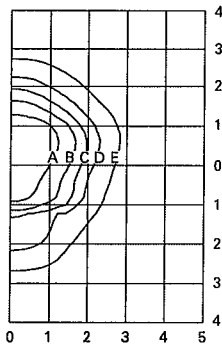
SHIPPING DATA

Approximate Net Weight:
18 lbs. (8 kgs.)

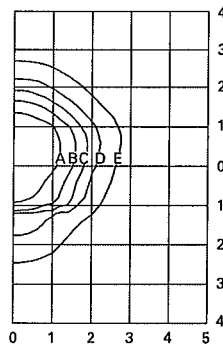
IMPACT™



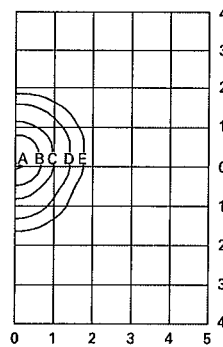
PHOTOMETRICS (Complete IES files available at www.cooperlighting.com)



IST-150-MP-XX-2S
150—Watt MP
14,000—Lumen Clear Lamp



IST-150-HPS-XX-2S
150—Watt HP
16,000—Lumen Clear Lamp



IST-42-CF-XX-2S
42—Watt CF
3,200—Lumen Lamp

Footcandle Table

Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
150-MP / 150-HPS					
10'	7.20	2.88	1.44	0.72	0.29
12'	5.00	2.00	1.00	0.50	0.20
14'	3.65	1.46	0.73	0.37	0.07
42-CF					
18'	2.46	1.23	0.62	0.25	0.12
20'	2.00	1.00	0.50	0.20	0.10
25'	1.28	0.64	0.32	0.13	0.06

ORDERING INFORMATION

Sample Number: IST-100-MP-120-2S-GM

Product Family IST=Impact Elite Small Trapezoid	Lamp Wattage ¹ MP 50=50W ² 70=70W ² 100=100W 150=150W HPS 50=50W ² 70=70W ² 100=100W 150=150W MH 175=175W ¹ CF 26=(1)26W 32=(1)32W 42=(1)42W 52=(2)26W 64=(2)32W 84=(2)42W	Lamp Type MP= Pulse Start Metal Halide HPS= High Pressure Sodium MH= Metal Halide ¹ CF= Compact Fluorescent	Voltage ³ 120=120V 208=208V 240=240V 277=277V 347=347V 480=480V DT= Dual-Tap ⁴ MT= Multi-Tap ⁴ TT= Triple-Tap ⁴ E1= Electronic (120-277V) ⁵	Distribution 2S= Type II Segmented	Colors (add as suffix) AP= Grey BZ= Bronze BK= Black DP= Dark Platinum GM= Graphite Metallic WH= White	Options F= Single Fuse, Specify Voltage (120, 277, or 347V) ⁶ FF= Double Fuse, Specify Voltage (208, 240 or 480V) ⁶ P= Button Photocontrol (120, 208, 240 or 277V) ⁶ L= Lamp Included TR= Tamper Resistant Fasteners UPL10= 10% Uplight HS= House Side Shield Glass ⁵ PL= Polycarbonate Lens ^{5,7} Q= Quartz Restrike (1) T4 Lamp ⁸ EM= Emergency Quartz Restrike (1) T4 Lamp with Time Delay Relay ⁹ EM/SC= Emergency Separate Circuit (1) T4 Lamp ^{9,8} QMR= Quartz Restrike (1) MR16 Lamp ^{10,11} 2QMR= Quartz Restrike (2) MR16 Lamps ^{10,11} 2QMR/SC= Quartz Restrike (1) MR16 Lamp and (1) Emergency Separate Circuit MR16 Lamp ^{9,10,11} EMMR= Emergency Quartz Restrike (1) MR16 Lamp with Time Delay Relay ^{10,11} 2EMMR= Emergency Quartz Restrike (2) MR16 Lamps with Time Delay Relay ^{10,11} EM/SC/MR= Emergency Separate Circuit (1) MR16 Lamp ^{9,11,12} 2EM/SC/MR= Emergency Separate Circuit (2) MR16 Lamps ^{9,11,12} 2EMMR/SC= Emergency Quartz Restrike with Time Delay Relay (1) MR16 and (1) MR16 Emergency Separate Circuit Lamp ^{9,10,11} EM/SC/12V= Emergency Separate Circuit 12V Low Voltage (1) MR16 Lamp ^{9,13} 2EM/SC/12V= Emergency Separate Circuit 12V Low Voltage (2) MR16 Lamps ^{9,13} EM40-XXX= Emergency Cold Temperature (UL924 Listed) Power Pack -18 degrees C/0 degrees F, (1) CF Lamp ^{9,14} CFEM-XXX= Emergency CF Power Pack (UL924 Listed) (1) CF Lamp, 0 degrees C/32 degrees F ^{9,15}
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- Notes: 1 HID lamps are medium base. 175W MH is available for non-U.S. markets only.
2 Not available with 480V.
3 Products also available in non-US voltages and 50HZ for international markets. Consult your Cooper Representative for availability and ordering information.
4 Dual-tap ballast is 120/277V wired 277V. Multi-tap is 120/208/240/277V wired 277V. Triple-tap ballast is 120/277/347V wired 347V.
5 Available with CF Option only. In cold temperatures, compact fluorescent lamps produce lower illumination levels.
6 Must specify voltage.
7 Down lighting position only.
8 (1) 120V Lamp, 100W maximum quartz lamp. Utility power may need to cycle to allow HID lamp to cool in warm climates. Not available with CF Option. Lamp supplied by others.
9 Leads out of the back of the unit for auxiliary power.
10 Not available with CF lamps.
11 (1) or (2) 120V Lamps, GU10 base, 50W maximum each. Lamps supplied by others.
12 Not Available with 52, 64, 84 CF wattages.
13 (1) or (2) 12V bi-pin lamp, socket GU5.3 base, 35W maximum. Power supplied by low voltage DC source (supplied by others). Lamps supplied by others.
14 Specify 120 or 277V, (-18°C) minimum temperature. Not available with UPL10.
15 Specify 120 or 277V, (0°C) minimum temperature. Not available with UPL10.