#2013-61
Martin Chevrolet – Special Use Permit Amendment
Project Review for Planning and Zoning Commission

Meeting Dates:	September 2, 2015
Requests:	Review of the site lighting as a condition of the previously-approved Special Use Permit Amendment and a Variation from the requirements for light levels.
Location:	5220 Northwest Highway
Acreage:	8.8 acres
Existing Zoning:	"B-2" General Commercial
Surrounding Properties:	North: "M" Manufacturing South: "B-2" General Commercial East: "M" Manufacturing and "B-2" General Commercial West: "B-2 PUD" General Commercial PUD
Staff Contact:	James Richter II (815-356-3737)

Background:

- On February 4, 2014, the City Council approved a Special Use Permit Amendment for significant renovations to Martin Chevrolet including: additions to the existing sales building on the south and west sides; a physical building connection between the sales and service buildings; and the addition of a car wash. The following condition of the Special Use Permit (Ord. #7000) required the petitioner to revisit the Planning and Zoning Commission and City Council to review various aspects of the plan:

  6. Discussion of the identification signs along Route 14 (electronic message center, [freestanding] archway, flags and pole heights, and site lighting) will be held when there is more complete information provided to staff.

- The petitioner will be eliminating the previously-discussed freestanding archway and oversized flag poles, and will hold-off on any additional signage at this time. The petitioner has provided photometric details and plans for the site lighting, which are currently proposed.

Land Use Analysis:

- Details: The site layout, architectural plans, and signage would remain unchanged and will be in compliance with the previous approval. Approval of the site lighting is currently being requested.

Site lighting: The overall site lighting is the only item under review. The site is held to overall illumination levels that have been implemented by the UDO for auto dealerships. The proposed lighting standards can be as tall as 35 feet, by Ordinance. The petitioner's light poles do not exceed 25 feet in height, thereby keeping the lighting closer to the ground, which prevents the spread of light pollution. The UDO requirement for lighting intensity is 20 maximum average footcandles (fc) for front row display and 10 maximum average fc for the remaining display areas. The plan shows up to 61 fc for the front row (average 41 fc) and an average of 25-41 fc for the other areas. This correlates almost exactly to what Pauly Toyota and Anderson Motors have on their site.

Findings of Fact:

SPECIAL USE PERMIT AMENDMENT

The petitioner is requesting approval for the site lighting, in conjunction with the previously-approved Special Use Permit. Special Uses require separate review because of their potential to impact surrounding properties and the orderly development of the City.

Section 2-400 of the Unified Development Ordinance establishes the general standard for all Special Uses in Crystal Lake. The criteria are as follows:

1. That the proposed use is necessary or desirable, at the location involved, to provide a service or facility which will further the public convenience and contribute to the general welfare of the neighborhood or community.

   ☐ *Meets* ☐ *Does not meet*

2. That the proposed use will not be detrimental to the value of other properties or improvements in the vicinity.

   ☐ *Meets* ☐ *Does not meet*

3. That the proposed use will comply with the regulations of the zoning district in which it is located and this Ordinance generally, including, but not limited to, all applicable yard and bulk regulations, parking and loading regulations, sign control regulations, watershed, wetlands, and flood plain regulations, Building and Fire Codes and all other applicable City Ordinances.

   ☐ *Meets* ☐ *Does not meet*

4. That the proposed use will not negatively impact the existing off-site traffic circulation; will adequately address on-site traffic circulation; will provide adequate on-site parking facilities; and, if required, will contribute financially, in proportion to its impact, to upgrading roadway and parking systems.

   ☐ *Meets* ☐ *Does not meet*

5. That the proposed use will not negatively impact existing public utilities and municipal service delivery systems and, if required, will contribute financially, in proportion to its impact, to the upgrading of public utility systems and municipal service delivery systems.

   ☐ *Meets* ☐ *Does not meet*

6. That the proposed use will not impact negatively on the environment by creating air, noise, or water pollution; ground contamination; or unsightly views.

   ☐ *Meets* ☐ *Does not meet*

7. That the proposed use will maintain, where possible, existing mature vegetation; provide adequate screening to residential properties; provide landscaping in forms of ground covers, trees and shrubs; and provide architecture, which is aesthetically appealing, compatible or complementary to surrounding properties and acceptable by community standards, as further detailed in Article 4, Development and Design Standards.

   ☐ *Meets* ☐ *Does not meet*

8. That the proposed use will meet standards and requirements established by jurisdictions other than the City such as Federal, State or County statutes requiring licensing procedures or health/safety inspections, and submit written evidence thereof.

   ☐ *Meets* ☐ *Does not meet*

9. That the proposed use shall conform to any stipulations or conditions approved as part of a Special Use Permit issued for such use.

   ☐ *Meets* ☐ *Does not meet*

10. That the proposed use shall conform to the standards established for specific special uses as provided in this section.

    ☐ *Meets* ☐ *Does not meet*

More specifically automobile sales and passenger car rental & leasing must comply with the following standards (criteria in grey does not apply to the current request):

a. Display areas: All vehicle display areas must be paved with an approved surface (Approved surface shall mean asphalt/bituminous, concrete/P.C.C. and any surface that is approved by the City Engineer). Display areas shall be setback a minimum of 5 feet from all adjacent property lines and 10 feet from roadways.

   ☐ *Meets* ☐ *Does not meet*

b. Lighting: All lighting shall be designed and installed to prevent glare or excessive light spillover onto adjacent properties, in accordance with the requirements of Article 4-800, Exterior Lighting Standards.
   The petitioner's site lighting plans do not meet the requirements of the UDO for maximum intensity, average intensity, and pole height, however, they are generally consistent with previously-approved auto dealerships through the City.

   ☐ *Meets* ☐ *Does not meet*

c. Public Address Systems: If outdoor speaker or public address systems are installed, the maximum decibel level at the property line shall not exceed 55 where adjoining residential property and 65 where adjoining non-residential property.

☒ *Meets* ☐ *Does not meet*

d. Repair bays: Repair bays shall not front adjacent major arterial or collector right-of-ways or towards property that is residential property.
Repair bays are designed to front along Northwest Highway. These are being requested through the SUP Amendment.
☒ *Meets* ☐ *Does not meet*

e. Landscaping: Landscaping is not required within or surrounding vehicle display areas. Parking lot landscaping in accordance with Article 4-400, Landscaping and Screening Standards shall be provided for employee and customer parking areas.

☒ *Meets* ☐ *Does not meet*

f. Elevated vehicles: For automobile sales uses, up to 2 new vehicles are permitted on an elevated display, with a maximum height of the structure display being no more than 5 feet.
Elevated displays exceeding the provisions of the UDO are being requested through the SUP Amendment.
☒ *Meets* ☐ *Does not meet*

g. Accessory uses: Accessory uses and structures, such as car wash facilities and their incidental functions (vacuums and air compressors) shall be set back a minimum distance of 50 feet from all rear and side property lines abutting residential property. These facilities shall not be open to the public, unless as Special Use Permit is obtained.
Car wash facilities are being proposed and are included as part of the this SUP Amendment.

☒ *Meets* ☐ *Does not meet*

h. Parking on right-of-way: No vehicles offered for sale shall be parked on the public right-of-way.

☒ *Meets* ☐ *Does not meet*

2030 Comprehensive Land Use Plan Review:

The Comprehensive Land Use Plan designates the property in question as Commerce, which is intended for areas of commercial and business activity. The following goals are applicable to this request:

Land Use

Goal: ***Maintain a dynamic and sustainable base of commercial uses that provides a solid tax base, goods, services and jobs to the city as well as the surrounding region through coordination in the Unified Development Ordinance, Comprehensive Land Use Plan and Economic Development Strategic Plan.***

Supporting Action: Promote, retain and attract businesses that provide a diverse tax base.

Economic Development

Goal: ***Establish marketing efforts to attract and retain businesses throughout the City.***

Supporting Action: Continue to solicit the retail businesses which are most likely to succeed in various retail nodes in Crystal Lake.

Recommended Conditions:

If a motion is made to recommend approval of the petitioner's request, the following conditions are suggested:

1. Approved plans, reflecting staff and advisory board recommendations, as approved by the City Council:
   A. Application, Martin Chevrolet, received 1-9-14
   B. Site Lighting Plan, Hansen Palmer and Associates, revised 8-19-15.

2. All lighting fixtures shall be directed downward. During the inspection process, staff reserves the right to require shielding and other intensity adjustments to minimize glare on adjacent properties.

3. The previously-proposed arched entry feature and oversized flagpoles will be eliminated. The petitioner may install flagpoles that meet the height requirements of the Ordinance. Flag pole lighting shall be reviewed administratively and shall not substantially increase the overall lighting intensity for the site.

4. All other conditions and requirements of Ordinance 7000 remain in effect.

City of Crystal Lake
Development Application

Office Use Only
File # 13-61

Project Title: _____

RECEIVED
JAN 09 2014
BY:

Action Requested

__ Annexation
__ Comprehensive Plan Amendment
__ Conceptual PUD Review
__ Final PUD
__ Final PUD Amendment
__ Final Plat of Subdivision
__ Preliminary PUD
__ Preliminary Plat of Subdivision
__ Rezoning
X Special Use Permit
X Variation
__ Other

Petitioner Information

Name: Martin Chevrolet
Address: 5220 Northwest Highway
Phone: 815 459 4000
Fax: _____
E-mail: DHoyland@Martin-Chevy.com

Owner Information (if different)

Name: Martin Chevrolet
Address: 5220 Northwest Highway
Phone: 815 459 4000
Fax: _____
E-mail: DHoyland@Martin-Chevy.com

Property Information

Project Description: Martin Chevrolet

Project Address/Location: 5220 Northwest Highway

PIN Number(s): 10-04-475-009

Development Team

Please include address, phone, fax and e-mail

Developer: Martin Chevrolet

Architect: Simon_Yu@Simon-Design-Group.com
Simon Design Group, Simon Yu 847 572 3002, 500 Lake Cook Road, Deerfield, Ill

Attorney: Kenneth A. Rawson 308 West Erie, Suite 700 312 203 7556 KennethRawson1@GMail.com

Engineer: Manhard, Jim Frayn 847 343 5550, Vernon Hills, JFrayn@Manhard. com

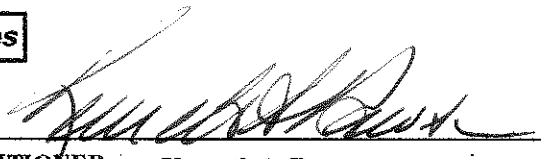
Landscape Architect: Manhard

Planner:

Surveyor: William Vanderstappen

Other:

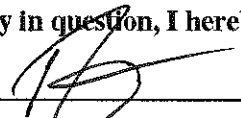
Signatures



4/2/14

PETITIONER: Kenneth A. Rawson Date

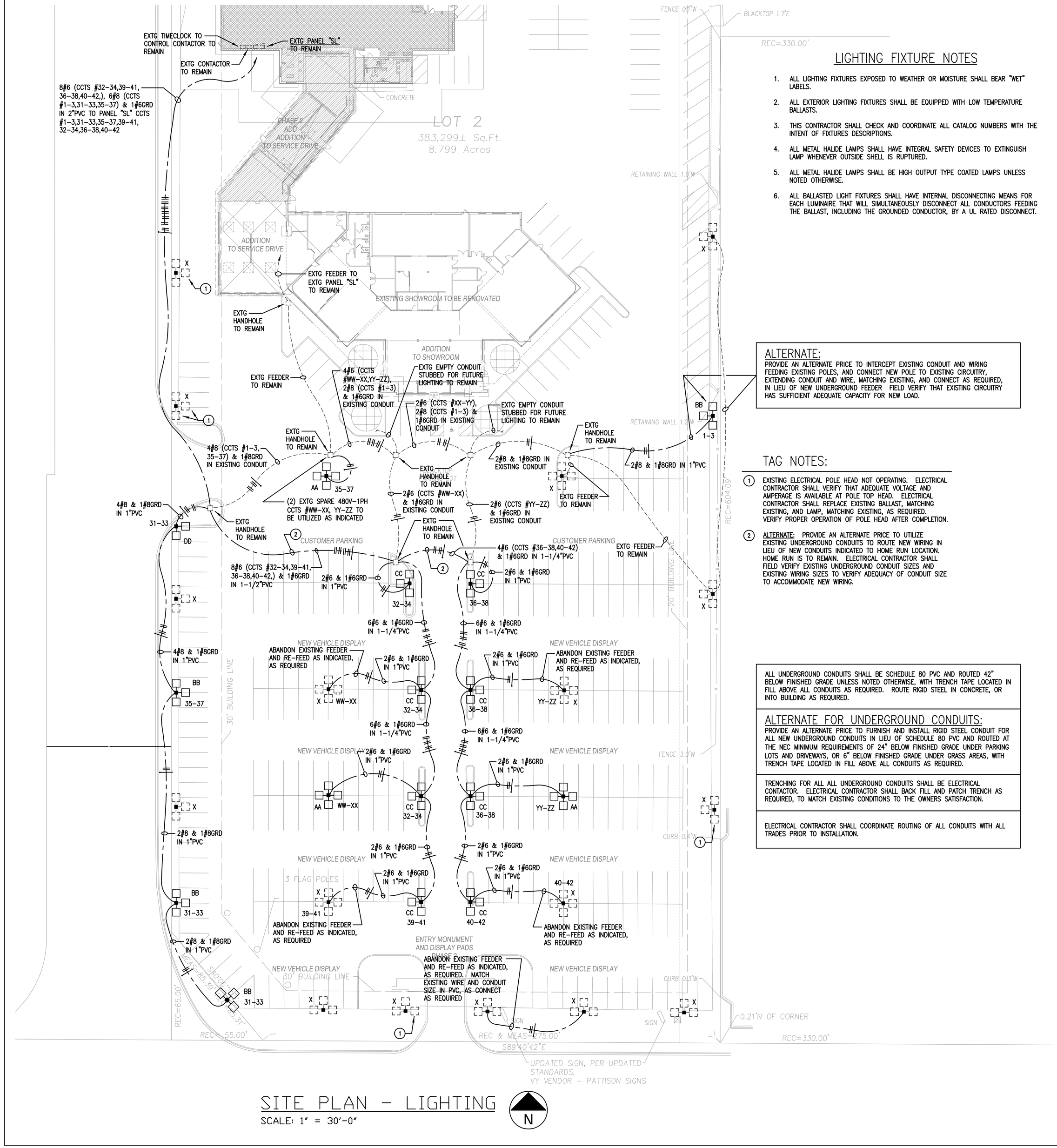
As owner of the property in question, I hereby authorize the seeking of the above requested action.



4/2/14

OWNER: Todd Martin, Martin Chevrolet Date

NOTE: If the property is held in trust, the trust officer must sign this petition as owner. In addition, the trust officer must provide a letter that names all beneficiaries of the trust.



SITE PLAN - LIGHTING

SCALE: 1" = 30'-0"

N

LIGHTING FIXTURE NOTES

1. ALL LIGHTING FIXTURES EXPOSED TO WEATHER OR MOISTURE SHALL BEAR "WET" LABELS.
2. ALL EXTERIOR LIGHTING FIXTURES SHALL BE EQUIPPED WITH LOW TEMPERATURE BALLASTS.
3. THIS CONTRACTOR SHALL CHECK AND COORDINATE ALL CATALOG NUMBERS WITH THE INTENT OF FIXTURES DESCRIPTIONS.
4. ALL METAL HALIDE LAMPS SHALL HAVE INTEGRAL SAFETY DEVICES TO EXTINGUISH LAMP WHENEVER OUTSIDE SHELL IS RUPTURED.
5. ALL METAL HALIDE LAMPS SHALL BE HIGH OUTPUT TYPE COATED LAMPS UNLESS NOTED OTHERWISE.
6. ALL BALLASTED LIGHT FIXTURES SHALL HAVE INTERNAL DISCONNECTING MEANS FOR EACH LUMINAIRE THAT WILL SIMULTANEOUSLY DISCONNECT ALL CONDUCTORS FEEDING THE BALLAST, INCLUDING THE GROUNDED CONDUCTOR, BY A UL RATED DISCONNECT.

ALTERNATE:

PROVIDE AN ALTERNATE PRICE TO INTERCEPT EXISTING CONDUIT AND WIRING FEEDING EXISTING POLES, AND CONNECT NEW POLE TO EXISTING CIRCUITRY. EXTENDING CONDUIT AND WIRE, MATCHING EXISTING, AND CONNECT AS REQUIRED, IN LIEU OF NEW UNDERGROUND FEEDER FIELD VERIFY THAT EXISTING CIRCUITRY HAS SUFFICIENT ADEQUATE CAPACITY FOR NEW LOAD.

TAG NOTES:

1. EXISTING ELECTRICAL POLE HEAD NOT OPERATING. ELECTRICAL CONTRACTOR SHALL VERIFY THAT ADEQUATE VOLTAGE AND AMPERAGE IS AVAILABLE AT POLE TOP HEAD. ELECTRICAL CONTRACTOR SHALL REPLACE EXISTING BALLAST, MATCHING EXISTING, AND LAMP, MATCHING EXISTING, AS REQUIRED. VERIFY PROPER OPERATION OF POLE HEAD AFTER COMPLETION.
2. ALTERNATE: PROVIDE AN ALTERNATE PRICE TO UTILIZE EXISTING UNDERGROUND CONDUITS TO ROUTE NEW WIRING IN LIEU OF NEW CONDUITS INDICATED TO HOME RUN LOCATION. HOME RUN IS TO REMAIN. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY EXISTING UNDERGROUND CONDUIT SIZES AND EXISTING WIRING SIZES TO VERIFY ADEQUACY OF CONDUIT SIZE TO ACCOMMODATE NEW WIRING.

ALL UNDERGROUND CONDUITS SHALL BE SCHEDULE 80 PVC AND ROUTED 42" BELOW FINISHED GRADE UNLESS NOTED OTHERWISE, WITH TRENCH TAPE LOCATED IN FILL ABOVE ALL CONDUITS AS REQUIRED. ROUTE RIGID STEEL IN CONCRETE, OR INTO BUILDING AS REQUIRED.

ALTERNATE FOR UNDERGROUND CONDUITS:

PROVIDE AN ALTERNATE PRICE TO FURNISH AND INSTALL RIGID STEEL CONDUIT FOR ALL NEW UNDERGROUND CONDUITS IN LIEU OF SCHEDULE 80 PVC AND ROUTED AT THE NEC MINIMUM REQUIREMENTS OF 24" BELOW FINISHED GRADE UNDER PARKING LOTS AND DRIVEWAYS, OR 6" BELOW FINISHED GRADE UNDER GRASS AREAS, WITH TRENCH TAPE LOCATED IN FILL ABOVE ALL CONDUITS AS REQUIRED.

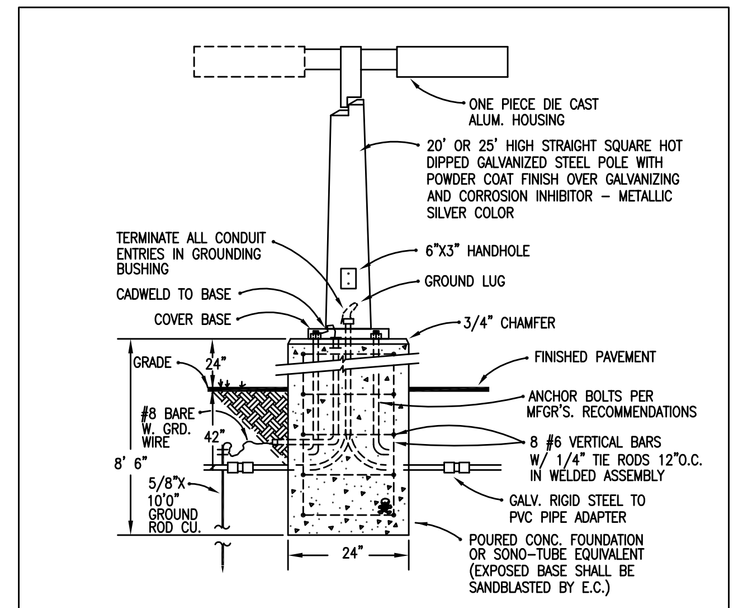
TRENCHING FOR ALL ALL UNDERGROUND CONDUITS SHALL BE ELECTRICAL CONTACTOR. ELECTRICAL CONTRACTOR SHALL BACK FILL AND PATCH TRENCH AS REQUIRED, TO MATCH EXISTING CONDITIONS TO THE OWNERS SATISFACTION.

ELECTRICAL CONTRACTOR SHALL COORDINATE ROUTING OF ALL CONDUITS WITH ALL TRADES PRIOR TO INSTALLATION.

SITE LIGHTING FIXTURE SCHEDULE

TYPE	MFGR. & CAT. NO.	LAMPS	MOUNTING	REMARKS	VOLT
AA	LSI #GFR-FA-775-NMPSMV-F-480-MSV	(4) 775W PS METAL HALIDE	25' POLE SEE DETAIL	FOUR HEAD W/ TYPE AUTOMOTIVE FORWARD THROW - METALLIC SILVER COLOR	480v
BB	LSI #GFR-FA-775-NMPSMV-F-480-MSV	(3) 775W PS METAL HALIDE	25' POLE SEE DETAIL	TRIPLE HEAD AT 90 DEG W/ TYPE AUTOMOTIVE FORWARD THROW - METALLIC SILVER COLOR	480v
CC	LSI #GFR-FA-775-NMPSMV-F-480-MSV	(3) 775W PS METAL HALIDE	20' POLE SEE DETAIL	TRIPLE HEAD AT 90 DEG W/ TYPE AUTOMOTIVE FORWARD THROW - METALLIC SILVER COLOR	480v
DD	LSI #GFR-FA-775-NMPSMV-F-480-MSV	(2) 775W PS METAL HALIDE	25' POLE SEE DETAIL	DOUBLE HEAD W/ TYPE AUTOMOTIVE FORWARD THROW - METALLIC SILVER COLOR	480v

FIXTURES AS SPECIFIED OR APPROVED EQUAL



TYPICAL PARKING LOT POLE BASE DETAIL

NO SCALE

(EXISTING)

PANEL SCHEDULE *NAME PLATE:* 'SL'

SERVES LIGHTING (L) RECEPTACLES (R) OR MISC. (MS)		LOAD (VA) A ø	LOAD (VA) B ø	LOAD (VA) C ø	AMPS/ POLE	CKT. NO.	AMPS/ POLE	LOAD (VA) A ø	LOAD (VA) B ø	LOAD (VA) C ø		SERVES MOTOR (M) HEATING (H) OR SPARE (S)
• SALES LOT	L	1200			20	1 2		·				SPACE
			1200		2	3 4	20 1		·			EXTG
	S			·	20	5 6	/			·		EXTG
EXTG		·			/	7 8	/	·				EXTG
EXTG			·		/	9 10	/		·			EXTG
EXTG				·	/	11 12	/			·		EXTG
EXTG		·			/	13 14	/	·				EXTG
EXTG			·		/	15 16	/		·			EXTG
EXTG				·	/	17 18	/			·		EXTG
EXTG		·			/	19 20	/	·				EXTG
EXTG			·		/	21 22	/		·			EXTG
EXTG				·	/	23 24	/			·		EXTG
EXTG		·			/	25 26	/	·				EXTG
EXTG			·		/	27 28	/		·			EXTG
EXTG	S			·	/	29 30	/			·		EXTG
• SALES LOT	L	3200			20	31 32	20	3600			L	SALES LOT •
			3200		2	33 34	2		3600			
• SALES LOT	L			2800	20	35 36	20			3600	L	SALES LOT •
		2800			2	37 38	2	3600				
• SALES LOT	L	2800			20	39 40	20			2800	L	SALES LOT •
				2800	2	41 42	2			2800		

SUBTOTAL #1 ___.___ ___.___ ___.___ SUBTOTAL #2 ___.___ ___.___ ___.___
SUBTOTAL #2 _____ _____ _____
TOTAL #1+#2 ___.___ ___.___ ___.___

∗ HANDLE LOCK BREAKER

TOTAL PANEL LOAD ___.___ KVA ___.___ AMPS
277/480 VOLTS 3 PHASE 4 WIRE, S.N.
225 AMP. MAIN LUGS _____ AMP.MAIN BRK.
U.L. LISTED INTERRUPTING RATING: _____
E.C. TO NOTE DWGS. FOR CKT. USE IN PANEL :
☐ BKRS. U.L. LISTED AS "SWD" RATED (SWD. LTG. LOADS)
☐ BKRS. U.L. LISTED AS "HACR" RATED
IF UNIT ACCEPTABLE (HTG. AIR COND. REFRIG.)
☐ GROUND FAULT INTERRUPTER BKR. "GFIB"

• REMOVE EXISTING CIRCUIT BREAKERS AND REPLACE WITH NEW CIRCUIT BREAKER TO MATCH EXISTING TYPE

MOUNTING : ■ SURFACE ☐ RECESSED ☐ COPPER BUS
BRANCHES : ■ CKT. BREAKERS ☐ FUSES
CKT. BKRS : ☐ BOLT - ON ☐ PLUG - ON ☐ GROUND BAR ☐ ISO. GRD. BAR ☐ SERVICE EQUIP.USE ∗ HANDLE LOCK BKR.

MARTIN -CHEVROLET-
Martin Chevrolet
5220 Northwest Hwy
Crystal Lake, Illinois 60014
Tel: 815-459-4000

R H P
Hansen Palmer Associates Ltd.
Consulting Engineers
517 W. Main Street West Dundee, Illinois 60118
(847) 836-9818 (847) 836-9821 Fax
Email: r2p@hansenpalmer.com
www.hansenpalmer.com
PROFESSIONAL DESIGN FIRM LICENSE NO. 184.001209

MARTIN CHEVROLET
5220 NORTHWEST HIGHWAY
CRYSTAL LAKE, IL 60014

NO.	DATE	DESCRIPTION
	08/19/15	ISSUED FOR PERMIT
	05/06/15	ISSUED FOR BID

REVISIONS

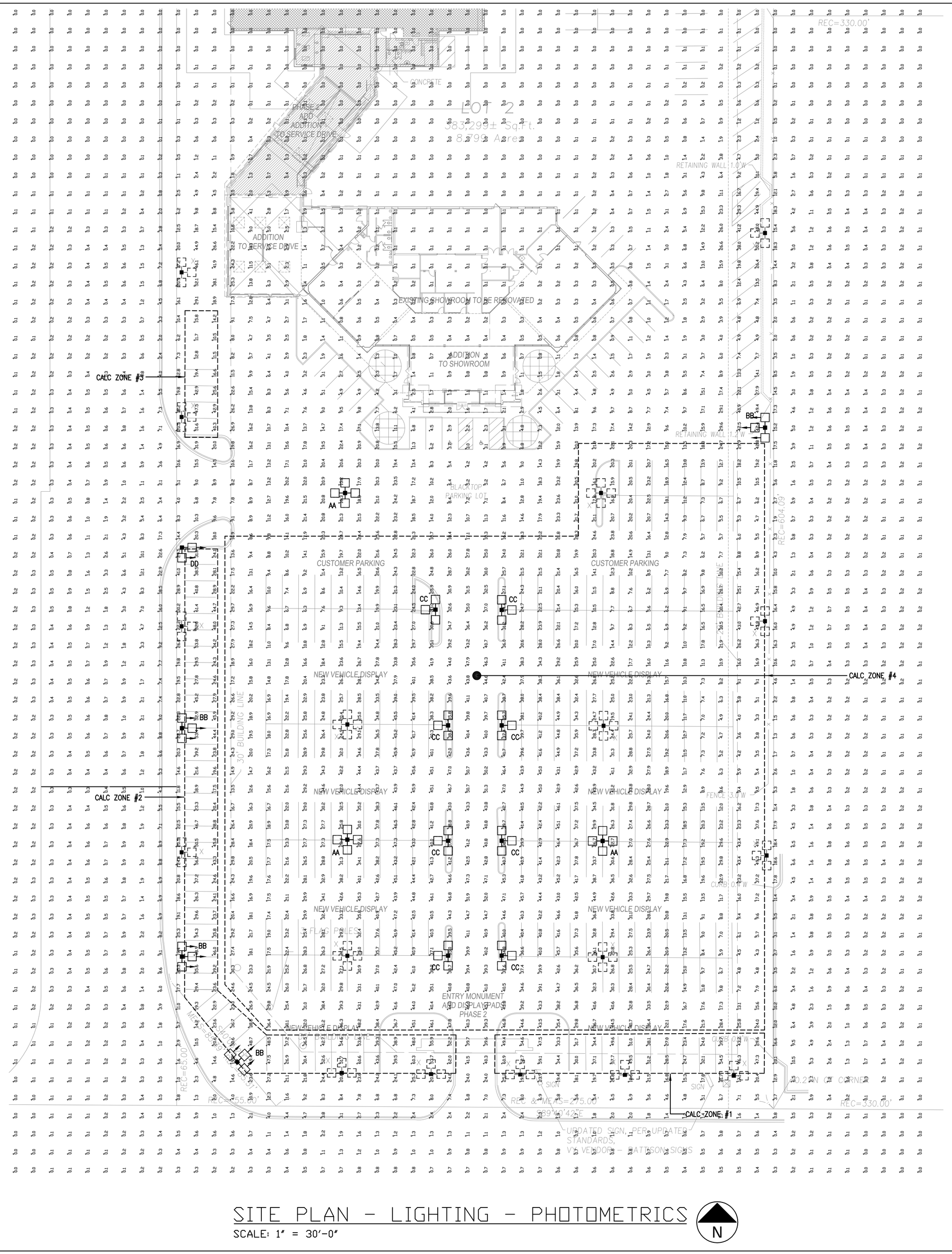
EXP 11/30/15
JOHN L. THOMSON
062-049722
LICENSED PROFESSIONAL ENGINEER
STATE OF ILLINOIS
8/19/15

DRAWING TITLE
SITE PLAN - LIGHTING

PROJECT NO. 21457	PROJECT MANAGER JLT
CAD FILE	DRAWN BY NDA
DATE 05/06/15	CHECKED BY R2P

DRAWING NO.
E-1

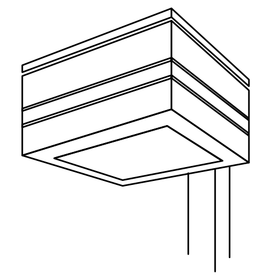
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SITE PLAN - LIGHTING - PHOTOMETRICS

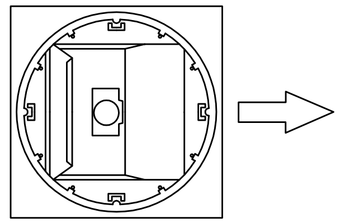
SCALE: 1" = 30'-0"

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
ALL CALCS @ 4' ABOVE GRADE	Illuminance	Fc	7.22	62.0	0.0	N.A.	N.A.
ZONE 1	Illuminance	Fc	41.42	60.9	23.4	1.77	2.60
ZONE 2	Illuminance	Fc	39.31	62.0	17.5	2.25	3.54
ZONE 3	Illuminance	Fc	25.95	51.6	10.5	2.47	4.91
ZONE 4	Illuminance	Fc	26.84	52.0	2.8	9.59	18.57



GREENBRIAR
FLAT LENS
IESNA FULL CUTOFF

IMPORTANT



ROTATED REFLECTOR

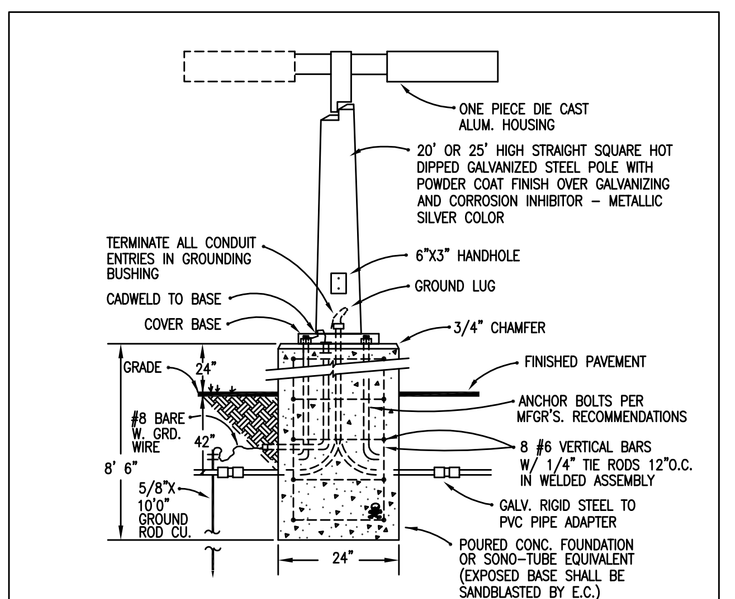
NOTE: Reflector MUST be field rotated by the CONTRACTOR to correspond with the direction indicated by the arrows on this layout.

EXAMPLE OF DIRECTIONAL ARROW

SITE LIGHTING FIXTURE SCHEDULE

TYPE	MFGR. & CAT. NO.	LAMPS	MOUNTING	REMARKS	VOLT
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FIXTURES AS SPECIFIED OR APPROVED EQUAL



TYPICAL PARKING LOT POLE BASE DETAIL

NO SCALE

MARTIN -CHEVROLET-
Martin Chevrolet
5220 Northwest Hwy
Crystal Lake, Illinois 60014
Tel: 815-459-4000

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SITE PLAN - LIGHTING - PHOTOMETRICS
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PROJECT NO. 21457	PROJECT MANAGER JLT
CAD FILE	DRAWN BY NDA
DATE 05/06/15	CHECKED BY R2P

DRAWING NO.
E-1P

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GENERAL NOTES AND SPECIFICATIONS

- Prior to submitting his bid, the Contractor shall visit the project site and thoroughly acquaint himself with all existing conditions and determine how they effectively work. He shall include in his bid any alterations, relocation, rerouting, etc. of existing facilities, wiring, conduit, panelboards required for installation of new work. Under no circumstances will the Contractor be given consideration for additional compensation due to his neglect to comply with the foregoing requirements.

- All work shall be done in accordance with National Electrical Code, Fire Prevention Codes, Local Codes, and any other requirements applicable to this job. Electrical Contractor shall submit any required drawings for approval to any agencies requiring them, and obtain necessary permits at no additional bid costs. All equipment furnished shall be NEMA Standards and shall be U.L. listed.

- These drawings are diagrammatic and do not necessarily indicate every junction box, fitting, etc. required.

- The Electrical Contractor shall include in his bid any variances required by applicable codes.

- Protect existing building structure and grounds from any damage which may occur during installation of new work. Any damage to existing facilities will be replaced or restored to the original condition and satisfaction of the work by the owner.

- All equipment shall be installed complete, furnishing any required disconnects, junction boxes, etc. for a complete and working installation.

- All equipment installed by Electrical Contractor shall be guaranteed for a period of one year from date of final acceptance. Electrical Contractor shall assume liability for any cost.

- All conductors shall be copper type THHN/THWN 600 volt. Minimum size #12 AWG, as manufactured by Hatfield, Collier or Anaconda.

- Provide all labor and material required for completion of the work in Division 16. This includes work not specifically indicated but reasonably inferred for proper completion of the work.

- All local, state, and federal taxes applicable to this project shall be included.

- Remove rubbish as fast as it accumulates.

- All cutting, drilling, and patching shall be done by this Contractor. Under no circumstances shall structural work be cut without the approval of the owner.

- Unless otherwise specified, the Electrical Contractor shall furnish and install conduit, wiring, and disconnects for all electrically operated equipment, including final connections to same.

- All conduits shall be aluminum and/or EMT as required, as noted elsewhere on plans.

- Contractor shall install all equipment, wire and cable. The Contractor shall be responsible for obtaining all installation drawings and wiring diagrams from the equipment manufacturer. All equipment shall be installed according to the manufacturer's specification and recommendations. Contractor shall make final connections and terminations.

- Receive, handle, and store electrical items and materials at the project site as directed by Owner. Materials and electrical items shall be so placed that they are protected from damage and deterioration.

- Protect conduit and wireway openings against the entrance of foreign matter by means of plugs or caps. Cover materials, equipment and devices furnished or installed under this section or otherwise protect against damage from any cause, both before and after installation. Materials, equipment, or device damaged prior to final acceptance of the work shall be restored to their original condition or replaced.

- Contractor shall install entire systems, including conduits, boxes, cabinets, panels, etc. so as to insure proper ground continuity throughout the system.

- Contractor shall test all circuits, equipment, etc. for polarity, ground continuity, ground faults, shorts, etc. prior to operating any electrical item or equipment. Upon installation in operation, test for each proper function, and show systems and equipment to be free of defects. Record and document load amperage and terminal voltage of each panelboard, motor, etc., where applicable. Furnish copies to owner.

- Upon connecting all circuits to panels, the Contractor shall balance the load in spheres to +5% between phases for each panel.

- The base bid shall not contain any substitutions. Where an item of material or equipment is specified to be of a certain manufacturers make, the base bid shall include such material or equipment as specified.

- No substitutions subsequent to the acceptance of the Contractor shall be made, except by the written consent of the Owner. Should the Contractor desire to substitute another material or article for a material or article specified, he shall apply for such permission and state the credit or extra involved by the use of such material or article. He shall also provide samples and data for the Owner's engineers.

- Any variation, modifications or substitutions from the contract documents because of shop practices standard with the supplier must be specifically mentioned by the Contractor when submitting drawings or data for review in order that, if acceptable, suitable action may be taken for proper adjustment of engaging materials; otherwise, the Contractor will not be relieved of the responsibility for executing the work in accordance with the contract, even though the shop drawings, schedules or data have been reviewed by the engineer. Approval of any modifications will be made in the interest of the Owner and to effect an improvement in the work with the understanding that it does not involve any increase in the contract price either directly or indirectly does not involve any increase in the completion time; that it is subject to all contract stipulations and covenants, and that it is without prejudice to any and all rights of the Owner under the contract bond or bonds. The Contractor submitting changes or modifications for review shall assume all responsibility in connection with the engagement of the work in question with that of the Contractor or Subcontractors and shall reimburse them for the cost of any change to their work which may arise therefrom.

- The review of drawings, schedules, or data will be general and will not relieve the Contractor from the responsibility for adherence to the contract, nor shall it relieve him of the responsibility for errors in dimensions or errors of any other sort in shop drawings or schedules. Contractor shall take actual field measurements where possible before submitting shop drawings for work engaging that already is in place before submitting shop drawings for review. It shall be the responsibility of the Contractor to submit shop drawings sufficiently in advance of shop or field requirement to insure engineer's ample time for checking same, including time for correcting, re-submission, and re-check if necessary, so as not to delay the progress of work. No claim for extension of time will be granted the Contractor by reason of his or his Subcontractors or vendors failure in the respect.

- The Contractor shall maintain one master drawing set, on the job site, tagged "contract record drawings". The Contractor shall daily (minimum) review the drawings and mark field required changes or revisions in red, initial and date. All deletions are to be marked in green, initialed and dated. Final payment to the Contractor will not be made of any retainment, until the owner receives and approves the field record drawing set. The Contractor shall have responsibility to accurately record drawing deviations due to field conditions, and approved deviation from the drawing.

- Prior to submittal or proposal, Contractor shall have fulfilled the following requirements:

  A. All Contractors and bidders shall carefully examine the site of the work and the adjacent premises, and each shall conduct the necessary examinations to thoroughly acquaint himself with the facilities for handling of equipment and for the receiving and storage of materials. The Owner shall designate a secure site within the facility for the Contractors tools and materials.

  B. Each Contractor shall acquaint and coordinate himself with the Utility Company, the location of the services, utilities, structures, etc. which may be encountered or be affected by his work, and shall be responsible for any damage caused by neglect to provide proper precautions or protections. The Owner shall not be held responsible or liable for damages, repairs, etc.

  C. Pleas of ignorance of existing conditions and foreseeable conditions which would create difficulties in the execution of the work will not be accepted as an excuse for any failure on the part of the Contractor to fulfill in every detail all of the requirements of the specifi-cations and/or drawings. Furthermore, a pleas of ignorance will not be acceptable as a basis for any claim whatsoever for additional compensation.

- The Contractor agrees to indemnify and save harmless the Owner, the engineer, their agents and employees, from and against all loss or expense not otherwise insured against (including costs and attorney's fees) by reason of liability imposed by law upon the Owner or engineer in connection with the contract work for damages because of bodily injury, including death at any time resulting therefrom, sustained by any person or persons or on account to damage of property, including loss of use thereof, weather said liability is caused by or contributed to (i) by said Owner, Engineer, their agents or employees. (ii) by said Contractor or a Subcon-tractor or their agents or employees or (iii) by others.

- This indemnity agreement shall impose liability on Contractor only to the extend permitted by the laws of the state governing performance thereof, and any provision hereof not permitted by such laws is expressly deleted from said Contract.

- Said indemnification shall be insured by the Contractor's carrier or carriers, primary and excess, if applicable. Certificates of insurance shall identify specifically the agreements covered. Limits of liability for this coverage shall be no less than those required for the comprehensive general liability policy. However, any such limits on liability for this coverage shall not limit the Contractor's indemnification obligation under the sub-paragraph above.

- The Contractor shall provide the Owner with a detailed report on each and every accident to either his workmen or to others, in order that information may be available to the Owner in case of a third party suit filed at a later date.

- Costs of service and facilities: The Contractor shall obtain all necessary permits, licenses, etc. and shall pay all costs incident to the furnishing, installation, and maintenance of services and facilities required for the duration of the work. Owner shall obtain the general building permit, if required.

- All power conductors are to be terminated, spliced, or connected utilizing "Hy-press" or equal mechanically compressed lugs, splices or taps. Only the correct die is to be used for the compression.

  A. EXCEPTION – No. AWG and smaller terminated on circuit breakers, switches, devices or cable terminated directly on circuit breaker lugs provided, lighting and receptacle branch circuits may use "wing nuts" or "wire nuts" installed in an approved manner.

- Electrical Contractor shall furnish to Architect (6) sets of Shop Drawings for all electrical switchgear, panelboards, lighting fixtures, wiring devices, fire alarm system, etc. for review prior to any and all purchase/installation.

- All circuit breakers for panelboards shall be of the bolt-on type, rated for switching duty and rated for the available fault current (Minimum 10,000 AIC).

- All directories shall be typed with proper designation of equipment served.

- Circuit breakers sizes and quantities are for the convenience of the bidders only. The E.C. shall be responsible for verifying and supplying all required branch circuits.

- Branch circuit breakers of 2P. and 3P. Configuration and shall have a common trip.

- This contractor shall review Entire Set of Contract Documents; including but not necessarily limited to all architectural, all structural, all mechanical, all electrical, all plumbing, and all pool drawings, and Entire project manual. This contractor shall acknowledge and include in his scope of work (contract) all conditions pertinent to the completion of his work. He shall Fully coordinate his work with the installation of work by other trades and make necessary field adjustments as required to accommodate his work. All of the above shall be included in the scope of work at no additional charge to owner.

- This contractor shall carefully examine the drawings and specifications, visit the site of work, and fully inform himself as to the conditions and matters that can in any way affect the work or the cost thereof. Should this contractor find discrepancies in, or omissions from the drawings, specifications, or other documents, or should he be in doubt as to their meaning, he should notify the architect at once and obtain clarification prior to submitting any bid.

- This contractor shall receive tailgate delivery, store, provide protection from weather and vandalism, and install all items furnished by owner as indicated on the drawings and specifications.

- Provide 'As-Built' cadd diskettes and hard copy reproducible drawings and submit to architect and engineer. As-built should indicate exact: circuit numbers, locations of all devices, ceiling fixtures, conduit raceway for telecommunications and power distribution systems as installed.

- Electrical metallic tubing (EMT) shall be used for all wall outlets & telephone outlets running in partitions, below raised floor or above ceilings. EMT fittings shall be of the steel compression type. Conduits larger than 2" diameter or conduits of any size routed outdoors shall be heavy metal conduit (HWC).

- Minimum conduit size shall be 3/4" for general lighting and power circuitry unless otherwise indicated and/or required by code.

- Wire no. 8 and smaller for use in interior dry locations shall be type thwn thermoplastic 600 volt insulated copper conductors. Feeders and power wiring no. 6 or larger shall be type thw 600 volt insulated copper. Wire which is installed in raceway in moist or damp locations shall be thw, 600 volt insulated copper conductors. No wire smaller than no. 12 awg shall be used for lighting or power wiring. Wire no. 10 and smaller may be solid, wire no. 8 and larger shall be stranded, all wire and cable shall be copper.

- Branch Circuit Wiring shall be sized to maintain less than 3 percent voltage drop from the overcurrent protection device in the panel to the furthest load on the branch circuit.

- E.C. shall provide '3M' fireseal systems for all cores and raceway penetrations in fire rated walls and floors. Fire rate wall and ceiling penetrations, etc. using 'CP-25' caulk, '303' putty and/or 'flameseal' putty as per manufacturer instructions to maintain existing, and new fire ratings. Verify fire rating conditions and locations prior to final bids. All open conduit sleeve penetrations shall be fireseated inside by E.C. after cable(s) are completely installed. Sealing methods shall be provided by E.C. subject to approval of cable contractor.

- Numbered circuits shown on plan are for the conveyance of design only. Actual field conditions will affect circuitry. Indicate the actual circuit numbers installed on the 'As-Built' drawings.

- All hanger and/or rod support systems shall be supported to the bottom rib of the metal deck, where applicable.

- Provide a written guarantee that the electrical installation is free from mechanical and electrical defects. Contractor at his cost shall replace and/or repair to the satisfaction of the tenant and/or manufacturer installation instructions any parts of the installation which may fail within a period of 12 months from construction acceptance in accordance with the contract documents, provided that such failure is due to defects in material, workmanship or failure to follow the specifications and drawings.

- E.C. shall coordinate all exact core locations with architectural, structural, mechanical and furniture panel drawings prior to marking core locations on floor slab for architect's review. Provide unit cost for complete repair to existing embedded conduit feeders in floor slab or underfloor cell systems accidentally cored.

SPECIAL SYMBOLS

SYMBOL	DESCRIPTION
X	EXISTING ELECTRICAL OUTLET OR EQUIPMENT TO REMAIN
XC	EXISTING ELECTRICAL OUTLET OR EQUIPMENT TO BE REMOVED & JUNCTION BOX CAPPED AS REQUIRED
XO	NEW EQUIPMENT INSTALLED OVER EXISTING OUTLET
XRR	EXISTING ELECTRICAL OUTLET OR EQUIPMENT TO BE REMOVED RELOCATED & JUNCTION BOX REMOVED OR CAPPED AS REQUIRED
XR	EXISTING ELECTRICAL OUTLET OR EQUIPMENT RELOCATED (NEW LOCATION) EXTEND CONDUIT AND / OR WIRING TO NEW LOCATION AND RECONNECT AS REQUIRED
X	EXISTING CONDUIT RUN TO REMAIN
XA	EXISTING CONDUIT RUN TO BE ABANDONED
XA	EXISTING ELECTRICAL OUTLET OR EQUIPMENT TO BE ABANDONED
R	EXISTING ELECTRICAL OUTLET OR EQUIPMENT TO BE REMOVED
N	NEW DEVICE OR EQUIPMENT
RR	REMOVED & REPLACED EXISTING EQUIPMENT WITH NEW EQUIPMENT AS SPECIFIED
XE	EXISTING ELECTRICAL OUTLET OR EQUIPMENT TO BE REMOVED WITH NEW EXTENSION WIREMOLD BOX ADDED TO EXISTING RECESSED JUNCTION BOX
XRC	EXISTING ELECTRICAL OUTLET OR EQUIPMENT TO BE DISCONNECTED FROM EXISTING CIRCUITING AND BE RECIRCUITED
XRN	EXISTING ELECTRICAL OUTLET OR EQUIPMENT TO BE DISCONNECTED AND REPLACED WITH NEW ELECTRICAL OUTLET OR EQUIPMENT TO BE RECONNECT TO EXISTING CIRCUIT AS REQUIRED.

DEMOLITION NOTES

1. Prior to submitting his bid, the Contractor shall visit the project site and thoroughly acquaint himself with all existing conditions. He shall include in his bid any alterations, relocations, rerouting, etc. of existing facilities, wiring and conduit, required for installation of new work. Under no circumstances will the Contractor be given consideration for additional compensation due to his neglect to comply with the foregoing requirements.
2. These drawings are diagramatic and do not indicate every junction box, fitting, etc. required.
3. Protect existing building structure and grounds from any damage which may occur during installation of new work.
4. Remove existing raceways and equipment, etc. not being re-used. Provide new conduit and conductors for new work and tie existing systems to new as required for a complete and operable electrical system.
5. Verify use of conduits in existing areas being remodeled. Reroute, extend and/or replace as required.
6. Remove, reroute, relocate or extend all electrical work as directed and as required for construction and operation of all existing and new systems.
7. All interior cutting and patching required for electrical work shall be by Electrical Contractor, unless otherwise specified by Owner.
8. Remove rubbish as fast as it accumulates.
9. All cutting, drilling, and patching shall be done by this Contractor. Under no circumstances shall structural work be cut without the approval of the Architect.
10. Unless otherwise specified, the Electrical Contractor shall furnish and install conduit, wiring, and disconnects for all electrically operated equipment, including final connection to same.
11. Where existing electrical equipment is designated to be removed, it shall be completely removed with all associated boxes, supports and appurtenances. Wiring and conduit shall be removed completely back to the first item left unaffected by the removal. Conduit which is buried or otherwise unacceptable shall be plugged and abandoned. Junction boxes and conduits that are recessed in existing walls shall have the wiring removed and be abandoned, with new blank coverplate furnished to match existing junction box size and installed over existing opening as required.
12. Electrical Contractor shall trace existing branch circuits being removed to determine if disconnection or removal of same will de-energize other power outlets or equipment in areas not scheduled for remodeling. He shall rewire and or bridge raceways/devices as to maintain power where required.
13. Existing building electrical systems shall be removed as noted as part of the demolition work, except in areas where indicated to remain and reconnect to new panels as required on these drawings. Electrical Contractor shall reuse as required existing raceways where applicable for installation of new work.
14. Existing electrical devices not indicated are to remain, unless noted otherwise. Electrical Contractor shall coordinate with all trades if such devices require relocation. Electrical Contractor shall relocate such devices as required, extending all conduit and wire, and reconnect.
15. Remove, protect and reinstall existing acoustical ceilings as required for installation of all new work. Include repair and or replacement of any acoustical ceilings that are damaged due to the installation of all new work.

SYMBOL LIST

SYMBOL	DESCRIPTION
	CONDUIT RUN CONCEALED IN CEILING OR WALL
	CONDUIT RUN IN OR BELOW FLOOR
	CONDUIT RUN BELOW GRADE 2'-6"
	CONDUIT RUN EXPOSED
	FLEXIBLE CONNECTION
	DENOTES GREEN GROUND WIRE
S	SINGLE POLE SWITCH
ST	SINGLE POLE SWITCH WITH THERMAL OVERLOAD
SP	SINGLE POLE SWITCH WITH PILOT LIGHT
SK	SINGLE POLE LOCKING KEY SWITCH (NOT TWIST TYPE KEYED)
SD	DIMMER CONTROL SWITCH
SVS	VOLUME CONTROL SWITCH
S3	THREE-WAY SWITCH
S4	FOUR-WAY SWITCH
	20A*125v*1P DUPLEX GRD. RECEPTACLE 16" A.F.F TO BOTTOM
	DOUBLE DUPLEX RECEPTACLE IN TWO GANG OUTLET BOX
	20A*125v*1P SINGLE RECEPTACLE
	DUPLEX RECEPTACLE MTD. 6" ABV. COUNTERTOP
	SPECIAL PURPOSE RECEPTACLE
	FLOOR MOUNTED RECEPTACLE
J	JUNCTION BOX
PB	PUSHBUTTON CONTROL
EC	ELECTRICAL CONTRACTOR
A.F.F	ABOVE FINISHED FLOOR
GFI	GROUND FAULT INTERUPTER DEVICE
WP	WEATHER PROOF DEVICE
IUWP	IN-USE WEATHER PROOF COVER
WG	WIRE GUARD

NOTE: 1. ELECTRICAL CONTRACTOR SHALL FURNISH & INSTALL BLANK COVER PLATES ON ALL EMPTY JUNCTION BOXES.

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NO.	DATE	DESCRIPTION
	08/19/15	ISSUED FOR PERMIT
	05/06/15	ISSUED FOR BID

REVISIONS

EXP 11/30/15
JOHN L. THOMSON
062-049722
LICENSED PROFESSIONAL ENGINEER
STATE OF ILLINOIS
8/19/15

DRAWING TITLE
SYMBOL LIST, NOTES AND SPECIFICATIONS

PROJECT NO. 21457	PROJECT MANAGER JLT
CAD FILE	DRAWN BY NDA
DATE 05/06/15	CHECKED BY R2P

DRAWING NO.
E-2

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