CHAMPAIGN COUNTY ZONING BOARD OF APPEALS
NOTICE OF REGULAR MEETING

Date: **June 14, 2012**
Time: **7:00 P.M.**
Place: **Lyle Shields Meeting Room**
Brookens Administrative Center
1776 E. Washington Street
Urbana, IL 61802

Note: NO ENTRANCE TO BUILDING FROM WASHINGTON STREET PARKING LOT AFTER 4:30 PM. Use Northeast parking lot via Lierman Ave. and enter building through Northeast door.

If you require special accommodations please notify the Department of Planning & Zoning at (217) 384-3708

EVERYONE MUST SIGN THE ATTENDANCE SHEET – ANYONE GIVING TESTIMONY MUST SIGN THE WITNESS FORM

AGENDA

1. Call to Order
2. Roll Call and Declaration of Quorum
3. Correspondence
4. Approval of Minutes

Note: The full ZBA packet is now available on-line at: www.co.champaign.il.us.

5. Continued Public Hearings

Case 699-AM-11 Petitioner: **L.A. Gourmet Catering, LLC, with owners Annie Murray, Lauren Murray and landowner John Murray**

Request: **Amend the Zoning Map to change the zoning district designation form the AG-1 Agriculture Zoning District to the AG-2, Agriculture Zoning District in order to operate the proposed Special Use in related zoning case 700-S-11.**

Location: **A 10 acre tract in the Southwest Quarter of the Northwest Quarter of Section 14 of Hensley Township and commonly known as the home at 2150 CR 1000E, Champaign.**

***Case 700-S-11** Petitioner: **L.A. Gourmet Catering, LLC, with owners Annie Murray, Lauren Murray and landowner John Murray**

Request: **Authorize the construction and use of an Event Center as a "Private Indoor Recreational Development" as a Special Use on land that is proposed to be rezoned to the AG-2, Agriculture Zoning District from the current AG-1, Agriculture District in related Case 699-AM-11.**

Location: **A 10 acre tract in the Southwest Quarter of the Northwest Quarter of Section 14 of Hensley Township and commonly known as the home at 2150 CR 1000E, Champaign.**

6. New Public Hearings

Case 710-AT-12 Petitioner: **Zoning Administrator**

Request: **Amend the Champaign County Zoning Ordinance by amending the Champaign County Land Evaluation and Site Assessment (LESA) System that is referred to in Section 3; and Footnote 13 in Section 5.3; and subsection 5.4, as follows:**

Part A. Revise the Land Evaluation (LE) part as follows:

1. **Revise all soil information to match the corresponding information in the *Soil Survey of Champaign County, Illinois* 2003 edition.**
2. **Revise all existing soil productivity information and replace with information from *Bulletin 811 Optimum Crop Productivity Rating for Illinois Soils* published August 2000 by the University of Illinois College of Agricultural, Consumer and Environmental Sciences Office of Research.**
3. **Delete the 9 existing Agriculture Value Groups and existing Relative Values ranging from 100 to 0 and add 18 Agriculture Value Groups with Relative LE ranging from 100 to 0.**

Part B. Revise the Site Assessment (SA) part as follows:

1. **Add definitions for "agriculture"; "agricultural production"; "animal units"; "best prime farmland"; "farm dwelling"; "livestock management facility"; "non-farm dwelling"; "principal use"; and "subject site".**
2. **Delete SA Factors A.2.; A,3; B.2.; B.3; C.2; D.2.; D.3.; E.1.; E.2.; E.3.; E.4.; F.1.; F.2.; F.3.; F.4.; and F.5.**

Case 710-AT-12 cont:

3. Revise SA Factor A.1. to be new Factor 8; Factor B.1. to be new Factor 7.; Factor C.1. to be new Factor 5.; Factor D.1. to be new Factor 1.; and revise scoring guidance for each revised Factor, as described in the legal advertisement.

4. Add new SA Factors 2a; 2b. 2c; 3; 4; 6; 9; 10; and scoring guidance for each new Factor, as described in the legal advertisement.

Part C. Revise the Rating for Protection as described in the legal advertisement.

Part D. Revise the general text and reformat.

Case 711-AT-12 Petitioner: **Zoning Administrator**
Request: **Amend the Champaign County Zoning Ordinance as follows:**

Part A. In Section 3, revise the definition of "best prime farmland" as follows:

a) delete "Relative Value of 85" and "Land Evaluation rating of 85" and replace with "average Land Evaluation rating of 91 or higher"; and

b) add "prime farmland soils that under optimum management have 91% to 100% of the highest soil productivities in Champaign County, on average, as reported in the *Bulletin 811 Optimum Crop Productivity Ratings for Illinois Soils"*; and

c) add "soils identified as Agriculture Value Groups 1, 2, 3 and/or 4 in the Champaign County Land Evaluation and Site Assessment (LESA) System"; and

d) add "Any development site that includes a significant amount (10% or more of the area proposed to be developed) of Agriculture Value Groups 1, 2, 3 and/or 4 soils".

Part B. Revise Footnote 13 of Section 5.3 to strike references to "has a Land Score greater than or equal to 85 on the County's Land Evaluation and Site Assessment System" and replace with "is made up of soils that are BEST PRIME FARMLAND"

Part C. Revise paragraph 5.4.4 to strike references to "has a Land Evaluation score greater than or equal to 85 on the County's Land Evaluation and Site Assessment System" and replace with "is made up of soils that are BEST PRIME FARMLAND"

7. Staff Report

8. Other Business
   A. Review of Docket
   B. May 2012 Monthly Report

9. Audience Participation with respect to matters other than cases pending before the Board

10. Adjournment

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* **Administrative Hearing. Cross Examination allowed.**

CASE NO. 699-AM-11

SUPPLEMENTAL MEMORANDUM
June 8, 2012

Champaign County Department of
PLANNING & ZONING
Brookens Administrative Center
1776 E. Washington Street
Urbana, Illinois 61802
(217) 384-3708

Petitioners: **L.A. Gourmet Catering, LLC**

Site Area: **10 acres**

Time Schedule for Development:

Prepared by: **Andy Kass**
Associate Planner

John Hall
Zoning Administrator

Request: **Amend the Zoning Map to change the zoning district designation from the AG-1 Agriculture Zoning District to the AG-2 Agriculture Zoning District in order to operate the proposed Special Use in related zoning case 700-S-11.**

Location: **A 10 acre tract in the Southwest Quarter of the Northwest Quarter of Section 14 of Hensley Township and commonly known as the home at 2150 CR 1000E, Champaign.**

STATUS

This case was continued from the April 26, 2012, public hearing. Approved minutes from the April 26, 2012, public hearing are attached. New evidence and formatting changes have been added to the Finding of Fact and a revised version has been attached. A special condition has been proposed and is included below.

POLICIES WITH NO RECOMMENDATION

Policies with no staff recommendation are policies 4.2.1. and 4.2.2.

PROPOSED SPECIAL CONDITION

A. **The owners of the subject property hereby recognize and provide for the right of agricultural activities to continue on adjacent land consistent with the Right to Farm Resolution 3425.**

The above special condition is necessary to ensure the following:

Conformance with policy 4.2.3.

ATTACHMENTS

A Approved Minutes from the April 26, 2012, public hearing for Cases 699-AM-11 and 700-S-11 (attached separately)
B Revised Finding of Fact, and Final Determination

REVISED DRAFT

699-AM-11

FINDING OF FACT
AND FINAL DETERMINATION
of
Champaign County Zoning Board of Appeals

Final Determination: *{RECOMMEND ENACTMENT / RECOMMEND DENIAL}*

Date: ~~**April 26, 2012**~~ **June 14, 2012**

Petitioners: **L.A. Gourmet, LLC**

Request: ~~**Amend the Zoning Map to change the zoning district designation from AG-1 Agriculture to AG-2 Agriculture.**~~ **Amend the Zoning Map to change the zoning district designation from the AG-1 Agriculture Zoning District to the AG-2 Agriculture Zoning District in order to operate the proposed Special Use in related zoning case 700-S-11.**

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FINDING OF FACT

From the documents of record and the testimony and exhibits received at the public hearing conducted on **March 29, 2012, ~~and~~ April 26, 2012, and June 14, 2012,** the Zoning Board of Appeals of Champaign County finds that:

*1. The petitioner L.A. Gourmet, LLC is owned by Lauren and Annie Murray, 2607 CR 1000E, Champaign. The petitioner's father, John Murray owns the subject property.

(Note: asterisk indicates items of evidence that are identical to evidence in Case 700-S-11)

*2. Regarding the subject property where the special use is proposed to be located:
A. The subject property is a 10 acre tract in the Southwest Quarter of the Northwest Quarter of Section 14 of Hensley Township and commonly known as the home at 2150 CR 1000E, Champaign. Part of the subject property has an existing home on it and part of the subject property is used for agricultural production and consists of best prime farmland.

*3. The subject property is not located within the one and one-half mile extraterritorial jurisdiction of a municipality with zoning and is 2 miles from the City of Champaign. The subject property is in Hensley Township, which has a planning commission. Townships with a planning commission are notified of all map amendments and they have protest rights on such cases. The Hensley Township Planning Commission has provided the following comments:

A. At the March 29, 2012, public hearing Mr. Ben McCall, speaking on behalf of the Hensley Township Plan Commission objected to the proposed map amendment. Mr. McCall's testimony is summarized as follows:
(1) The Hensley Township Plan Commission is concerned about the impacts the proposed in related Special Use Case 700-S-11 will have on drainage.

(2) Traffic impacts cause by the proposed special use in related Special Use Case 700-S-11 ware understated and vehicles traveling at 55 miles per hour and slowing down to turn into the subject property will lead to more accidents.

(3) There is no justification for rezoning subject property from AG-1 to AG-2 other than the desire of the owner to use the property for a purpose that is not allowed in the AG-1 zoning district.

(4) The rezoning of the subject property is inappropriate considering the general intent of the zoning districts for the following reasons:

(a) Rezoning the parcel from AG-1 would facilitate the mixture of urban and rural uses that the zoning ordinance intends to prevent;

(b) Rezoning the parcel to AG-2 would enable scattered indiscriminate urban development; and

(c) The AG-2 district is generally located in areas near urban areas, but the subject property is not near an urban area or within 1.5 miles of an urban area.

(5) The proposed rezoning is incompatible with the stated purposed of the zoning ordinance for the following reasons:

(a) The proposed use of the subject property is incompatible with the surrounding area because it is not allowed in the AG-1 district;

(b) Rezoning the subject property would enable a haphazard and unplanned intrusion into rural Hensley Township;

(c) Rezoning the subject property would encourage non-contiguous development in a rural area; and

(d) Rezoning the subject property would discourage the preservation of the agricultural belt around the Champaign-Urbana area by encouraging an urban use in an agricultural area.

4. Regarding comments by petitioners, when asked on the petition what error in the present Ordinance is to be corrected by the proposed change, the petitioner has indicated:

"Current ordinance has property desired listed as agriculture use only. We would like to use as business/agricultural area."

5. Regarding comments by the petitioner when asked on the petition what other circumstances justify the rezoning the petitioner has indicated the following:

"There is 330 feet frontage between property and road. Property located on main road (Mattis/Dewey-Fisher RD). There would be no full time employees at facility."

GENERALLY REGARDING LAND USE AND ZONING IN THE IMMEDIATE VICINITY

*6. Land use and zoning on the subject property and in the vicinity are as follows:

A. The subject property is currently zoned AG-1 Agriculture and is in use as a residential property with some of the subject property used for row-crop agricultural production. The purpose of the rezoning is to allow for an event center proposed as a Special Use in related Case 700-S-11.

B. Land on the north, south, east, and west of the subject property is also zoned AG-1 Agriculture and is in use as follows:

(1) Land on the north is in agriculture production except for one single-family dwelling.

(2) Land on the south is in agricultural production and there is one single-family dwelling to the south.

(3) Land east of the subject property is in agricultural production.

(4) Land west of the subject property is in agricultural production.

7. Previous zoning cases in the vicinity are the following:
   A. Case 560-S-06 was a Special Use Permit for a Temple and Cultural Center in the AG-1 District that was approved by the ZBA on May 31, 2007. This is on a property less than one-quarter of a mile immediately south of the subject property.

GENERALLY REGARDING THE EXISTING AND PROPOSED ZONING DISTRICTS

8. Regarding the existing and proposed zoning districts:
   A. Regarding the general intent of zoning districts (capitalized words are defined in the Ordinance) as described in Section 5 of the Ordinance:
      (1) The AG-1, Agriculture DISTRICT is intended to protect the areas of the COUNTY where soil and topographic conditions are best adapted to the pursuit of AGRICULTURAL USES and to prevent the admixture of urban and rural USES which would contribute to the premature termination of AGRICULTURAL pursuits.

      (2) The AG-2, Agriculture DISTRICT is intended to prevent scattered indiscriminate urban development and to preserve the AGRICUTURAL nature within areas which are predominately vacant and which presently do not demonstrate any significant potential for development. This DISTRICT is intended generally for application to areas within one and one-half miles of existing communities in the COUNTY.

   B. Regarding the general locations of the existing and proposed zoning districts:
      (1) The AG-1 District is generally located throughout the county in areas which have not been placed in any other Zoning Districts.

      (2) The AG-2 is generally located in areas close to urban areas although in Somer Township the AG-2 district is as far as 3 miles from the City of Urbana and as far as 1.75 miles from the City of Champaign.

   C. Regarding the different uses that are authorized in the existing and proposed zoning districts by Section 5.2 of the Ordinance:
      (1) There are 10 types of uses authorized by right in the AG-1 District and there are 13 types of uses authorized by right in the AG-2 District:
         (a) The following 11 uses are authorized by right in the AG-1 District:
            - Single family dwelling;

- Subdivisions of three lots or less;
- Agriculture;
- Roadside Stand operated by Farm Operator;
- Minor Rural Specialty Business;
- Plant Nursery;
- Township Highway Maintenance Garage;
- Christmas Tree Sales Lot;
- Off-premises sign within 660 feet of interstate highway;
- Off-premises sign along federal highway except interstate highways; and
- Temporary Uses

(b) The following additional uses are also authorized by right in the AG-2 District:

- Country club or golf course;
- Commercial Breeding Facility;

(2) The uses authorized by right in the AG-2 district should be compatible with adjacent AG-1 uses.

(3) There are 42 types of uses authorized by Special Use Permit (SUP) in the AG-1 District and 76 types of uses authorized by SUP in the AG-2 District:

(a) The following 42 uses may be authorized by SUP in the AG-1 District:

- Hotel with no more than 15 lodging units;
- Residential PLANNED UNIT DEVELOPMENT;
- SUBDIVISION totaling more than three LOTS or with new STREETS or PRIVATE ACCESSWAYS (County Board SUP);
- Major RURAL SPECIALTY BUSINESS;
- Artificial lake of 1 or more acres;
- Mineral extraction, Quarrying, topsoil removal, and allied activities;
- Elementary School, Junior High School, or High School;
- Church, Temple or church related Temporary Uses on church Property;
- Municipal or Government Building;
- Township Highway Maintenance Garage;
- Adaptive Reuse of GOVERNMENT BUILDINGS for any USE Permitted by Right;
- Penal or correctional institution;
- Police station or fire station;
- Library, museum or gallery;
- Public park or recreational facility;
- Sewage disposal plant or lagoon;
- Private or commercial transmission and receiving tower (including antennas) over 100 feet in height;
- Radio or Television Station;

- Electrical Substation;
- Telephone Exchange;
- RESIDENTIAL AIRPORTS;
- RESTRICTED LANDING AREAS;
- HELIPORT-RESTRICTED LANDING AREAS;
- Farm Chemicals and Fertilizer Sales including incidental storage and mixing of blended fertilizer;
- Livestock Sales Facility and Stockyards;
- Slaughter Houses;
- Grain Storage Elevator and Bins;
- Riding Stable;
- Commercial Fishing Lake;
- Cemetery or Crematory;
- Pet Cemetery;
- Kennel;
- Veterinary Hospital;
- Off-premises sign farther than 660 feet from an interstate highway;
- Contractors Facilities with no outdoor operations or storage;
- Contractors Facilities with outdoor operations and/or storage;
- Small Scale Metal Fabricating Shop;
- Gas Turbine Peaker;
- BIG WIND TURBINE TOWER (1-3 turbines);
- WIND FARM (County Board SUP)
- Sawmills Planing Mills, and related activities; and
- Pre-Existing Industrial Uses (existing prior to October 10, 1973)

(b) Except for a WIND FARM the same uses may also be authorized by SUP in the AG-2 District. The following additional uses may also be authorized by SUP in the AG-2 District:

- DWELLING, TWO-FAMILY;
- Home for the aged;
- NURSING HOME;
- TRAVEL TRAILER Camp;
- Commercial greenhouse;
- Greenhouse (not exceeding 1,000 square feet)
- Garden Shop;
- Water Treatment Plant;
- Public Fairgrounds;
- MOTOR BUS station
- Truck Terminal;
- Railroad Yards and Freight Terminals;

- AIRPORT;
- HELIPORT/HELISTOPS;
- Mortuary or Funeral Home;
- Roadside Produce Sales Stand;
- Feed and Grain (sales only);
- Artist Studio;
- Antique Sales and Service;
- Amusement Park;
- Resort or Organized Camp;
- Bait Sales;
- Country Club Clubhouse;
- Lodge or private club;
- Outdoor commercial recreational enterprise (except amusement park);
- Private Indoor Recreational Development;
- Public Camp or picnic area;
- Seasonal hunting or fishing lodge;
- Stadium or coliseum;
- THEATER, OUTDOOR;
- Aviation sales, service or storage;
- Self-Storage Warehouses, not providing heat and utilities to individual units;
- LANDSCAPE WASTE PROCESSING FACILITIES;
- Wood Fabricating Shop and Related Activities;

(4) Any proposed Special Use Permit can be evaluated on a case by case for compatibility with adjacent AG-1 uses.

GENERALLY REGARDING THE LRMP GOALS, OBJECTIVES, AND POLICIES

9. The *Champaign County Land Resource Management Plan* (LRMP) was adopted by the County Board on April 22, 2010. The LRMP Goals, Objectives, and Policies were drafted through an inclusive and public process that produced a set of ten goals, 42 objectives, and 100 policies, which are currently the only guidance for amendments to the *Champaign County Zoning Ordinance*, as follows:

A. The Purpose Statement of the LRMP Goals, Objectives, and Policies is as follows:

> "It is the purpose of this plan to encourage municipalities and the County to protect the land, air, water, natural resources and environment of the County and to encourage the use of such resources in a manner which is socially and economically desirable. The Goals, Objectives and Policies necessary to achieve this purpose are as follows:"

B. The LRMP defines Goals, Objectives, and Polices as follows:

(1) Goal: an ideal future condition to which the community aspires

(2) Objective: a tangible, measurable outcome leading to the achievement of a goal

(3) Policy: a statement of actions or requirements judged to be necessary to achieve goals and objectives

C. The Background given with the LRMP Goals, Objectives, and Policies further states, "Three documents, the *County Land Use Goals and Policies* adopted in 1977, and two sets of *Land Use Regulatory Policies*, dated 2001 and 2005, were built upon, updated, and consolidated into the LRMP Goals, Objectives and Policies."

REGARDING LRMP GOALS & POLICIES

10. LRMP Goal 1 is entitled "Planning and Public Involvement" and states that as follows:

Champaign County will attain a system of land resource management planning built on broad public involvement that supports effective decision making by the County.

~~The proposed amendment is ***NOT RELEVANT*** to Goal 1.~~ Goal 1 is always relevant to the review of the LRMP Goals, Objectives, and Policies in land use decisions but is otherwise ***NOT RELEVANT*** to the proposed rezoning.

(Note: bold italics typeface indicates staff's recommendation to the ZBA)

11. LRMP Goal 2 is entitled "Governmental Coordination" and states as follows:

Champaign County will collaboratively formulate land resource and development policy with other units of government in areas of overlapping land use planning jurisdiction.

Goal 2 has two objectives and three policies. The proposed amendment is ***NOT RELEVANT*** to Goal 2.

12. LRMP Goal 3 is entitled "Prosperity" and states as follows:

Champaign County will encourage economic growth and development to ensure prosperity for its residents and the region.

Goal 3 has three objectives and no policies. ~~The proposed amendment is ***RELEVANT*** to Goal 3 because Objective 3.1 entitled "Business Climate" states:~~ The proposed amendment ***PARTIALLY ACHIEVES*** Goal 3 for the following reason:

~~**Champaign County will seek to ensure that it maintains comparable tax rates and fees, and a favorable business climate relative to similar counties.**~~

A. The three objectives are as follows:

(1) Objective 3.1 is entitled "Business Climate" and states, Champaign County will seek to ensure that it maintains comparable tax rates and fees, and a favorable business climate relative to similar counties.

(2) Objective 3.2 is entitled "Efficient County Administration" and states, "Champaign County will ensure that its regulations are administered efficiently and do not impose undue costs or delays on persons seeking permits or other approvals."

(3) Objective 3.3 is entitled "County Economic Development Policy" and states, "Champaign County will maintain an updated Champaign County Economic Development Policy that is coordinated with and supportive of the LRPM."

B. Although the proposed rezoning is ***NOT DIRECTLY RELEVANT*** to any of these objectives, the proposed rezoning, the Petitioner's are a local business and are proposing a venue that they claim is not available in Champaign County and therefore the proposed rezoning can be said to ***PARTIALLY ACHIEVE*** Goal 3.

~~The Petitioner's are a local business and are proposing a venue that they claim is not available in Champaign County.~~

13. LRMP Goal 4 is entitled "Agriculture" and states as follows:

Champaign County will protect the long term viability of agriculture in Champaign County and its land resource base.

Goal 4 has 9 objectives and 22 policies. The proposed amendment should ***{HELP ACHIEVE / NOT HELP ACHIEVE}*** Goal 4 for the following reasons:

A. Objective 4.2 is entitled "Development Conflicts with Agricultural Operations" and states, "Champaign County will require that each *discretionary review* development will not interfere with agricultural operations."

The proposed rezoning ***{ACHIEVES / DOES NOT ACHIEVE}*** Objective 4.2 because of the following:

(1) **Policy 4.2.1 states, "The county may authorize a proposed business or other non-residential *discretionary review* development in a rural area if the proposed development supports agriculture or involves a product or service that is better provided in a *rural* area than in an urban area."**

The proposed rezoning ***{ACHIEVES / DOES NOT ACHIEVE}*** Policy 4.2.1 for the following reason:

(a) The proposed Event Center will provide an atmosphere that the Petitioner's claim is not available in an urban setting. ~~In addition, the Petitioners cater events for agricultural businesses and organizations.~~

*(b) At the April 26, 2012, public hearing petitioner Lauren Murray-Miller testified, and is summarized as follows:

i. Her family settled on the family farm only a few miles away from the subject property over 130 years ago and it was her grandfather and father that chose to forgo other opportunities to carry on the family farm.

ii. It was at a young age that she and her siblings learned the hard work ethic and entrepreneurial spirit and are proud to be tied tightly to their farming roots. She and her sister Anne opened the company as a career to work on by themselves and give them the opportunity have employees that they can call family and clients that they can call friends and received an award from the University of Illinois College of ACES for Outstanding Young Alumni.

iii. They have not submitted this proposal haphazardly and have done research and taken steps necessary to make sure that this is a feasible project.

*(c) At the April 26, 2012, public hearing the following people spoke in favor of the proposed Special Use and rezoning and their testimony is summarized as follows:

i. Lisa Kesler stated that she lives one-quarter mile away from the subject property and has known Lauren and Anne Murray their entire lives and has watched them work very hard since the day the graduated. Both sides of the girls family have farmed in Hensley and Condit Townships for several generations therefore it comes as no surprise that they have always made the needs and tastes of the rural community a top priority in their business. She has no reservations regarding the proposed project.

ii. Chris Wallace stated that she and her husband live directly north of the L.A. Gourmet kitchen and has lived there prior to the conception of the business. The business has been a good neighbor and there has been no noticeable disruption in their lives and L.A. Gourmet is probably the largest employer in Condit Township. She does not believe that the event center will create problems for local agriculture in the area because the girls grew up on a farm and are fully aware of dust, odors, pesticides, and anhydrous applications.

iii. Catherine Ehler stated that she farms land north and east of the subject property and knowing the history of the Murray family she believes that the girls will be good neighbors because they know the farming business

better that probably most other people understand it and she supports the proposal and looks forward to its completion.

iv. Bernard Hammel stated that he has lived in the area for 79 years and that he is in support of the project.

*(d) At the April 26, 2012, public hearing Eric Bussell, realtor for Keller-Williams Realty, testified and is summarized as follows:

i. Approximately one year ago Anne and Lauren Murray contacted him to assist them in finding a location for their proposed event center and one year later they were unable to accomplish that.

ii. They visited many buildings and properties and another real estate broker was brought in to help in the search.

iii. The argument that there are other buildings out there to suit the needs of the business is not true because the general market does not provide for the needs of L.A. Gourmet and the need in the community for an event center such as this is strong.

iv. The Clearview Subdivision is not appealing for the business because a unique wedding experience would be difficult to achieve there with the other anticipated commercial buildings.

*(e) At the April 26, 2012, public hearing neighbor Peggy Anderson testified that she does have concerns regarding the compatibility of the proposed use with surrounding agriculture.

*(f) At the April 26, 2012, public hearing Gwedoline Wilson testified, and is summarized as follows:

i. She owns and operates Nuptiae Wedding and Event Planning and has been in the business for 9 years and is spoke in favor of the proposed Special Use.

ii. She has worked with many local families to plan events that are special to each individual and more than half of the wedding plans have a budget of over $44,000.

iii. The wedding industry is very important to area businesses and a successful event center can impact the local economy not only through vending but also through hotel rooms, transportation, formal wear, rental companies, and specialty vendors because they employ many people.

iv. There is a need for an event center such as the one proposed because few venues offer such a truly unique and rural setting and it is simply unattainable within the city limits. The event center will be especially appealing to rural families planning for special occasions and the picturesque nature.

*(g) Letters of support regarding Case 699-AM-11 and 700-S-11 have been received from the following:

i. Roger and Marilyn Babb, 2126 CR 1100E, Champaign, received April 23, 2012.

ii. Kevin Babb, 2126 CR 1100E, Champaign, received April 23, 2012.

iii. Gene Warner, 1006 Churchill Downs Drive, Champaign, received April 23, 2012.

iv. Mark J. Kesler, received April 24, 2012.

v. Ron, Rich, Bernie, and Steve Hammond, received April 24, 2012.

vi. Don and Lois Wood, 2283 CR 1100E, Champaign, received April 24, 2012.

vii. Thomas R. Ramage, President, Parkland College, 2400 W. Bradley Ave, Champaign, received April 24, 2012.

viii. Elizabeth Collins, received April 24, 2012.

ix. Terri Kirby, Horizon Hobby, 4105 Fieldstone Road, Champaign, received April 25, 2012.

x. John and Vicky Tedlock, 467 CR 2600N, Mahomet, received April 25, 2012.

xi. Alex Ruggieri, Sperry Van Ness-Ramshaw Real Estate, 505 W. University Ave, Champaign, received April 25, 2012.

(h) Based on the evidence, the proposed event center ***{IS / IS NOT}*** a service better provided in a rural area than in an urban area.

(2) **Policy 4.2.2 states, "The County may authorize *discretionary review* development in a rural area if the proposed development:**

a. is a type that does not negatively affect agricultural activities; or

b. is located and designed to minimize exposure to any negative affect caused by agricultural activities; and

c. will not interfere with agricultural activities or damage or negatively affect the operation of agricultural drainage systems, *rural* roads, or other agriculture-related infrastructure."

The proposed rezoning ***{ACHIEVES / DOES NOT ACHIEVE}*** Policy 4.2.2 for the following reasons:

(a) Trees will be planted on the subject property to screen the parking areas from view of neighboring properties and to provide a buffer between agricultural

activities and the activities of the property, but this screening could shade nearby farmland.

(b) The traffic produced by the proposed use will be an increase in traffic, but its impact will be minimal as reported in the Traffic Impact Analysis received May 16, 2012 from the Champaign-Urbana Urbanized Traffic Study (CUUATS).

(c) Agricultural drainage should not be affected because a special condition has been proposed in related Case 700-S-11 to protect and mitigate any impact this development may have on agricultural drainage tile.

(d) The proposed Event Center ~~will not negatively affect agricultural activities. The proposed building~~ will primarily be sited on land that is not in crop production and the remainder of the development will take a minimal amount of land out of crop production.

*(e) At the April 26, 2012, public hearing neighbor Peggy Anderson testified that she does have concerns regarding the compatibility of the proposed use with surrounding agriculture.

*(f) At the April 26, 2012, public hearing the following people spoke in favor of the proposed Special Use and rezoning and their testimony is summarized as follows:

i. Lisa Kesler stated that she lives one-quarter mile away from the subject property and has known Lauren and Anne Murray their entire lives and has watched them work very hard since the day the graduated. Both sides of the girls family have farmed in Hensley and Condit Townships for several generations therefore it comes as no surprise that they have always made the needs and tastes of the rural community a top priority in their business. She has no reservations regarding the proposed project.

ii. Chris Wallace stated that she and her husband live directly north of the L.A. Gourmet kitchen and has lived there prior to the conception of the business. The business has been a good neighbor and there has been no noticeable disruption in their lives and L.A. Gourmet is probably the largest employer in Condit Township. She does not believe that the event center will create problems for local agriculture in the area because the girls grew up on a farm and are fully aware of dust, odors, pesticides, and anhydrous applications.

iii. Catherine Ehler stated that she farms land north and east of the subject property and knowing the history of the Murray family she believes that the girls will be good neighbors because they know the farming business

better that probably most other people understand it and she supports the proposal and looks forward to its completion.

(g) Based on the evidence, the proposed event center ***{DOES / DOES NOT}*** negatively affect agricultural activities, or ***{IS / IS NOT}*** located and designed to minimize exposure to negative affects of agricultural activities, and ***{WILL / WILL NOT}*** interfere with agricultural activities.

(3) **Policy 4.2.3 states, "The County will require that each proposed *discretionary development* explicitly recognize and provide for the right of agricultural activities to continue on adjacent land."**

The proposed rezoning ***ACHIEVES*** Policy 4.2.3 for the following reason:

(a) The Petitioner's understand that this is a rural area where agricultural activities take place.

(b) A special condition has been proposed to ensure that any subsequent owner recognize the rights of agricultural activities.

(4) **Policy 4.2.4 states, "To reduce the occurrence of agricultural land use and non-agricultural land use nuisance conflicts, the County will require that all *discretionary review* consider whether a buffer between existing agricultural operations and the proposed development is necessary."**

The proposed rezoning ***ACHIEVES*** Policy 4.2.4 for the following reason:

(a) There will be adequate space between the proposed use and adjacent agriculture uses.

B. Objective 4.3 is entitled "Site Suitability for Discretionary Review Development" and states, "Champaign County will require that each discretionary review development is located on a suitable site."

The proposed rezoning ***ACHIEVES*** Objective 4.3 because of the following:

(1) Policy 4.3.1 does not apply because the subject property is best prime farmland.

(2) **Policy 4.3.2 states, "On best prime farmland, the County may authorize a discretionary review development provided the site with proposed improvements is well-suited overall for the proposed land use.**

The proposed rezoning ***ACHIEVES*** Policy 4.3.2 for the following reasons:

(a) The land is best prime farmland and consists of Drummer silty clay soil that has a Land Evaluation score of 98 and Wyanet silt loam that has a Land Evaluation Score of 65, Dana silt loam that has a Land Evaluation Score of 87, and Raub silt

loaf that has a Land Evaluation Score of 87 and the average Land Evaluation score is approximately 88.

(b) While most of the subject property has been in agricultural production, much of the area for the proposed event center has not.

(c) The subject property fronts and has access to County Highway 1/CR 1000E. The Traffic Impact Analysis conducted by CUUATS, received May 16, 2012, indicates that the proposed use will have minimal impact on the road network. CUUATS made suggestions for safety measures and a special condition in related Case 700-S-11 will implement those suggestions.

(d) Agricultural drainage should not be affected because a special condition has been proposed in related Case 700-S-11 to protect and mitigate any impact this development may have on agricultural drainage tile.

(e) The subject property is not served by sanitary sewer, but a new septic system is proposed to be installed in the southeast corner of the subject property to serve the proposed event center. The Petitioner's have received a permit for the septic system from the Champaign County Health Department.

(3) **Policy 4.3.3 states, "The County may authorize a discretionary review development provided that existing public services are adequate to support to the proposed development effectively and safely without undue public expense."**

The proposed rezoning ***ACHIEVES*** Policy 4.3.3 for the following reason:

(a) The subject property is located approximately 8 miles from the Thomasboro Fire Protection District Station. The fire protection district was notified of the case and comments have been received and a special condition has been proposed in related Case 700-S-11 to implement the recommendations of the Thomasboro Fire Protection District.

(b) The subject property is approximately 2 miles from the City of Champaign.

(4) **Policy 4.3.4 states, "The County may authorize a discretionary review development provided that existing public infrastructure, together with proposed improvements, is adequate to support the proposed development effectively and safely without undue public expense."**

The proposed rezoning ***ACHIEVES*** Policy 4.3.4 for the following reason:

(a) The subject property has access to County Highway 1/CR 1000E. County Highway 1/CR 1000E is a two-lane highway that has adequate capacity for the proposed use.

(b) The Traffic Impact Analysis conducted by CUUATS, received May 16, 2012, indicates that the proposed use will have minimal impact on the road network. CUUATS made suggestions for safety measures and a special condition in related Case 700-S-11 will implement those suggestions.

(c) Agricultural drainage should not be affected because a special condition has been proposed in related Case 700-S-11 to protect and mitigate any impact this development may have on agricultural drainage tile.

14. LRMP Goal 5 is entitled "Urban Land Use" and states as follows:

Champaign County will encourage urban development that is compact and contiguous to existing cities, villages, and existing unincorporated settlements.

The proposed amendment is ***NOT RELEVANT*** to Goal 5 because it is not relevant to urban development.

15. LRMP Goal 6 is entitled "Public Health and Safety" and states as follows:

Champaign County will ensure protection of the public health and public safety in land resource management decisions.

Goal 6 has 4 objectives and 7 policies. The proposed amendment ~~***ACHIEVES***~~ should ***HELP ACHIEVE*** Goal 6 for the following reasons:

A. Objective 6.1 is entitled "Protect Public Health and Safety" and states, "Champaign County will seek to ensure that development in unincorporated areas of the County does not endanger public health or safety."

The proposed rezoning ***ACHIEVES*** Objective 6.1 because of the following:

(1) Policy 6.1.2 states, **"The County will ensure that the proposed wastewater disposal and treatment systems of discretionary development will not endanger public health, create nuisance conditions for adjacent uses, or negatively impact surface or groundwater quality."**

The proposed rezoning ***ACHIEVES*** Policy 6.1.2 for the following reasons:

(a) The Petitioner's have received a permit for a wastewater system from the Champaign County Health Department. The design of the system should not create nuisance conditions and should not endanger public health.

B. Objective 6.3 entitled "Development Standards" states, ~~as follows:~~ "Champaign County will seek to ensure that all new non-agricultural construction in the unincorporated area will comply with a building code by 2015."

The proposed rezoning ***ACHIEVES*** Objective 6.3 because of the following:

(1) A special condition of approval has been proposed in related Case 700-S-11 to ensure that the proposed Event Center will comply with applicable building codes.

16. LRMP Goal 7 is entitled "Transportation" and states as follows:

Champaign County will coordinate land use decisions in the unincorporated area with the existing and planned transportation infrastructure and services.

~~The proposed amendment is ***RELEVANT*** to Goal 7 for the following reason:~~

Goal 7 has 2 objectives and 7 policies. The proposed amendment is ***ACHIEVES*** Goal 7 for the following reason:

A. Objective 7.1 is entitled "Traffic Impact Analysis" and states, "Champaign County will consider traffic impact in all land use decisions and coordinate efforts with other agencies when warranted."

The proposed rezoning ***ACHIEVES*** Objective 7.1 because of the following:

(1) Policy 7.1.1 states, "**The County will include traffic impact analyses in discretionary review development proposals with significant traffic generation.**"

The proposed rezoning ***ACHIEVES*** Policy 7.1.1 for the following reasons:

(a) The proposed Event Center will accommodate up to 400 people and the site plan includes 84 parking spaces. Traffic entering and exiting the subject property before and after an event could cause a significant increase in traffic on CR 1000E/County Highway 1. Although this increase may be significant at times, events at maximum capacity will not take place on a daily basis, therefore increases in traffic will likely be sporadic.

(b) The Traffic Impact Analysis (TIA) received May 16, 2012, conducted by the Champaign-Urbana Urbanized Transportation Study made recommendations regarding traffic safety in the area of the subject property, the recommendations are as follows:

i. Because the proposed event center will have minimal impact on traffic flow, no capacity or traffic operational improvements are necessary for the study roadway segment or the four study intersections (Bloomington Road, Olympian Drive, Ford Harris Road, and Hensley Road).

ii. A stop sign on the event center driveway with due consideration for proper sight distance. This is required by a special condition in Case 700-S-11.

iii. Lighting at the entrance to the subject property. This lighting shall only be operated during event times and fully comply with the lighting

requirements of Section 6.1.2. This is required by a special condition in Case 700-S-11.

iv. Way finding signage shall be placed a minimum of 200 feet in advance of the entrance to the subject property. This is required by a special condition in Case 700-S-11.

v. All signage shall be placed in accordance with the latest version of the Manual on Uniform Traffic Control Devices (MUTCD) guidelines.

17. LRMP Goal 8 is entitled "Natural Resources" and states as follows:

Champaign County will strive to conserve and enhance the County's landscape and natural resources and ensure their sustainable use.

The proposed amendment is ***NOT RELEVANT*** Goal 8 because it will not be harmful to natural resources.

18. LRMP Goal 9 is entitled "Energy Conservation" and states as follows:

Champaign County will encourage energy conservation, efficiency, and the use of renewable energy sources.

The proposed amendment is ***NOT RELEVANT*** to Goal 9 because the proposed amendment does not address energy efficiency or the use of renewable energy sources.

19. LRMP Goal 10 is entitled "Cultural Amenities" and states as follows:

Champaign County will promote the development and preservation of cultural amenities that contribute to a high quality of life for its citizens.

Goal 10 is ***NOT RELEVANT*** to the proposed amendment.

GENERALLY REGARDING THE LaSalle Factors

20. In the case of *LaSalle National Bank of Chicago v. County of Cook* the Illinois Supreme Court reviewed previous cases and identified six factors that should be considered in determining the validity of any proposed rezoning. Those six factors are referred to as the *LaSalle* factors. Two other factors were added in later years from the case of *Sinclair Pipe Line Co. v. Village of Richton Park.* The *Champaign County Zoning Ordinance* does not require that map amendment cases be explicitly reviewed using all of the *LaSalle* factors but it is a reasonable consideration in controversial map amendments and any time that conditional zoning is anticipated. The proposed map amendment compares to the *LaSalle* and *Sinclair* factors as follows:

A. ***LaSalle* factor: The existing uses and zoning of nearby property.**

Table 1 below summarizes the land uses and zoning of the subject property and properties nearby.

Table 1: Land Use and Zoning Summary

Direction	Land Use	Zoning
Onsite	Residential --- Agriculture	AG-1 Agriculture
North	Agriculture --- Residential	AG-1 Agriculture
East	Agriculture	AG-1 Agriculture
West	Agriculture	AG-1 Agriculture

B. ***LaSalle* factor: The extent to which property values are diminished by the particular zoning restrictions.**

(1) It is impossible to establish values without a formal real estate appraisal which has not been requested nor provided and so any discussion of values is necessarily general.

(2) In regards to the value of nearby residential properties, it is not clear if the requested map amendment would have any effect.

(3) In regards to the value of the subject property it also is not clear if the requested map amendment would have any effect.

C. ***LaSalle* factor: The extent to which the destruction of property values of the plaintiff promotes the health, safety, morals, and general welfare of the public.**

There has been no evidence submitted regarding property values. The proposed rezoning should not have a negative effect on the public health, safety, and welfare.

D. ***LaSalle* factor: The relative gain to the public as compared to the hardship imposed on the individual property owner.**

The gain to the public of the proposed rezoning is positive because the proposed amendment would allow the Petitioner's to provide a venue that is not available in Champaign County. Currently, the hardship imposed on the Petitioner's is minimal. The Petitioner's understand they could not operate a Private Indoor Recreation Development as a Special Use under its current zoning.

E. ***LaSalle* factor: The suitability of the subject property for the zoned purposes.**

The subject property is suitable for the zoned purposes. Currently, a portion of the property is used for agricultural production and will continue to be used for agricultural production if the proposed rezoning is approved.

F. ***LaSalle* factor: The length of time the property has been vacant as zoned considered in the context of land development in the vicinity of the subject property.**
The AG-1 District was planned in 1973 and thus was intended to protect areas of the County where soil and topographic conditions are best adapted to the pursuit of agricultural uses. Currently, the subject property is not vacant. A single-family home exists on the property with another portion being used a farmland. 1973 and 2008 aerial photos were compared and it appears that the land cover in 1973 exists today on the subject property aside from the home which was constructed on the property in the mid 1980s. In addition, the single family homes to the north and south appear in the 1973 aerial photography.

G. ***Sinclair* factor: The need and demand for the use.**
The proposed use, if rezoned is an Event Center for the Petitioner's catering business. The need and demand for the use is to provide a rural event center in Champaign County.

H. ***Sinclair* factor: The extent to which the use conforms to the municipality's comprehensive planning.**
The proposed use generally conforms to goals and policies of the Champaign County Land Resource Management Plan. The Petitioner's will be taking minimal, if any agricultural land out of production.

REGARDING SPECIAL CONDITIONS OF APPROVAL

21. Proposed Special Conditions of Approval:

A. The owners of the subject property hereby recognize and provide for the right of agricultural activities to continue on adjacent land consistent with the Right to Farm Resolution 3425.

The above special condition is necessary to ensure the following:

Conformance with policy 4.2.3.

DOCUMENTS OF RECORD

1. Special Use Permit Application received on November 10, 2011, with attachments:
   - A Letter of Intent
   - B Sketches of location, existing use, and proposed use

2. Petition for Zoning Map Amendment signed by Lauren and Anne Murray received on November 10, 2011, with attachments:
   - A Letter of Intent
   - B Sketches of location, existing use, and proposed use

3. Site Plan, Building Plan, and Exterior Drawings received on February 9, 2012

4. Letter of Intent received February 9, 2012

5. Septic System Permit and Application received February 9, 2012

6. On-site Soil Evaluation for Septic Filter Field received February 13, 2012

7. Revised Site Plan received February 13, 2012

8. Revised Site Plan received March 2, 2012

9. Preliminary Memorandum for Case 700-S-11 dated March 23, 2012, with attachments:
   - A Case Maps (Location, Land Use, Zoning)
   - B Site Plan (Proposed Development) received March 2, 2012
   - C Building plans and drawings received February 9, 2012
   - D Stormwater Drainage Plan
   - E Septic System Plan
   - F Letter of Intent received February 9, 2012
   - G Draft Summary of Evidence, Finding of Fact, and Final Determination

10. Preliminary Memorandum for Case 699-AM-11 dated March 23, 2012, with attachments:
    - A Case Maps (Location, Land Use, Zoning)
    - B Draft Finding of Fact, and Final Determination

11. Supplemental Memorandum for Case 700-S-11 dated Mach 29, 2012, with attachment:
    - A letter from Don Wauthier received March 27, 2012

12. Special Report from the Hensley Township Plan Commission submitted by Mr. Ben McCall at the March 29, 2012, public hearing.

13. Revised site plan received April 17, 2012

14. Supplemental Memorandum for Case 700-S-11 dated April 20, 2012 with attachments:
    - A Revised site plan received April 17, 2012
    - B County Highway 1 Crash Location and Severity Map 2007-2011
    - C County Highway 1 5-Year Crash Information Map
    - D Revised Summary of Evidence, Finding of Fact, and Final Determination

15. Supplemental Memorandum for Case 699-AM-11 dated April 20, 2012, with attachment:
    - A Revised Finding of Fact and Final Determination

16. Scope of Services from the Champaign County Regional Planning Commission received April 23, 2012

17. Supplemental Memorandum for Case 700-S-11 dated April 26, 2012, with attachments:
    - A Traffic Accident Information for County Highway 1
    - B Scope of Services
    - C Letters of Support from the following:
        1. Roger and Marilyn Babb, 2126 CR 1100E, Champaign
        2. Kevin Babb, 2126 CR 1100E, Champaign
        3. Gene Warner, 1006 Churchill Downs Drive, Champaign
        4. Mark J. Kesler
        5. Ron, Rich, Bernie, and Steve Hammond
        6. Don and Lois Wood, 2283 CR 1100E, Champaign
        7. Thomas R. Ramage, President, Parkland College, 2400 W. Bradley Ave, Champaign
        8. Elizabeth Collins
        9. Terri Kirby, Horizon Hobby, 4105 Fieldstone Road, Champaign
        10. John and Vicky Tedlock, 467 CR 2600N, Mahomet
        11. Alex Ruggieri, Sperry Van Ness-Ramshaw Real Estate, 505 W. University Ave, Champaign

18. Traffic Impact Analysis prepared by the Champaign-Urbana Urbanized Area Transportation Study (CUUATS), received May 16, 2012

19. Supplemental Memorandum for Case 700-S-11 dated June 8, 2012, with attachments:
    - A Approved minutes from the April 26, 2012, public hearing for Case 699-AM-11 and 700-S-11
    - B Traffic Impact Analysis
    - C NRCS Dry Hydrant Information and Standard Details
    - D Site Distance Map
    - E Revised Summary of Evidence, Finding of Fact, and Final Determination

20. Supplemental Memorandum for Case 699-AM-11 dated June 8, 2012, with attachments:
    - A Approved Minutes from the April 26, 2012, public hearing for Cases 699-AM-11 and 700 -S-11
    - B Revised Finding of Fact, and Final Determination

SUMMARY FINDING OF FACT

From the documents of record and the testimony and exhibits received at the public hearing conducted on **March 29, 2012, ~~and~~ April 26, 2012, and June 14, 2012,** the Zoning Board of Appeals of Champaign County finds that:

1. The proposed Zoning Ordinance map amendment ***{WILL/ WILL NOT}*** **HELP ACHIEVE** the Land Resource Management Plan because:

   A. The proposed Zoning Ordinance map amendment ***{WILL / WILL NOT}*** **HELP ACHIEVE** the following LRMP goals:
   - 3, 4, 6, and 7

   B. The proposed Zoning Ordinance map amendment {***WILL / WILL NOT IMPEDE}*** the achievement of the other LRMP goals.

2. The proposed Zoning Ordinance map amendment ***{IS / IS NOT}*** consistent with the *LaSalle* and *Sinclair* factors.

FINAL DETERMINATION

Pursuant to the authority granted by Section 9.2 of the Champaign County Zoning Ordinance, the Zoning Board of Appeals of Champaign County determines that:

> The Zoning Ordinance Amendment requested in **Case 699-AM-11** should ***{BE ENACTED / NOT BE ENACTED}*** by the County Board in the form attached hereto.

The foregoing is an accurate and complete record of the Findings and Determination of the Zoning Board of Appeals of Champaign County.

SIGNED:

Eric Thorsland, Chair
Champaign County Zoning Board of Appeals

ATTEST:

Secretary to the Zoning Board of Appeals

Date

CASE NO. 700-S-11

SUPPLEMENTAL MEMORANDUM

June 8, 2012

Champaign County Department of

PLANNING & ZONING

Brookens Administrative Center
1776 E. Washington Street
Urbana, Illinois 61802

(217) 384-3708

Petitioner: **L.A. Gourmet Catering, LLC**

Site Area: **10 acres**

Time Schedule for Development: **Post Zoning Approval (Approximately 1 year)**

Prepared by: **Andy Kass**
Associate Planner

John Hall
Zoning Administrator

Request: **The construction and use of an Event Center as a "Private Indoor Recreational Development" as a Special Use on land that is proposed to be rezoned to the AG-2 Agriculture Zoning District from the current AG-1 Agriculture Zoning District in related zoning case 699-AM-11**

Location: **A 10 acre tract in the Southwest Quarter of the Northwest Quarter of Section 14 of Hensley Township and commonly known as the home at 2150 CR 1000E, Champaign.**

STATUS

This case was continued from the April 26, 2012, public hearing. Approved minutes for the April 26, 2012, public hearing are attached. The Traffic Impact Analysis has been completed by CUUATS and is attached. New evidence and revisions are proposed to be added to the Summary of Evidence and a Revised Summary of Evidence is included as an attachment. A new special condition of approval has been proposed and is included below.

TRAFFIC IMPACT ANALYSIS

On May 16, 2012, staff received the completed Traffic Impact Analysis conducted by the Champaign-Urbana Urbanized Transportation Study. **The study reports that the proposed event center will not have a significant impact on traffic in the study area (see the attached report).** CUUATS did make some recommendations regarding safety precautions including signage directing traffic to the site, lighting at the entrance to the subject property, and a stop sign at the egress of the subject property. Staff has proposed a new special condition to ensure that the recommendations of CUUATS are implemented.

PROPOSED SPECIAL CONDITIONS

J. The subject property fronts a County Highway. The driveway entrance and exit should be constructed of an all weather surface at a width, elevation, geometry, and materials (including culvert) as approved by the Champaign County Engineer so as to maintain safe entrance and exit conditions. ~~The County Engineer should approve the proposed driveway before it is constructed and also approve the driveway as constructed.~~ The Zoning Ordinance does not require County Engineer approval of driveway access to a county highway even though County Engineer approval is required. The following conditions will ensure that the driveway access to County Highway 1 is approved by the Champaign County Engineer.

The Driveway shall be improved as follows:

(1) The petitioner shall provide the County Engineer with engineering drawings of the proposed driveway entrance. In addition to the actual driveway the driveway drawings shall also include the following:

(a) A stop sign shall be placed on the event center driveway with due consideration for proper sight distance and shall be placed in accordance with the latest version of the Manual on Uniform Traffic Control Devices (MUTCD) guidelines. The location and details of the stop sign shall be included on the engineering drawings submitted to the County Engineer.

(b) Lighting at the entrance to the subject property shall be provided. This lighting shall only be operated during event times and fully comply with the lighting requirements of Section 6.1.2. The location of the lighting shall be included on the engineering drawings submitted to the County Engineer.

(c) Way finding signage shall be placed a minimum of 200 feet in advance of the entrance to the subject property as recommended by the Traffic Impact Analysis conducted by CUUATS and detailed in the driveway drawings. All signage shall be placed in accordance with the latest version of the Manual on Uniform Traffic Control Devices (MUTCD) guidelines.

(2) The Zoning Administrator shall not approve a Zoning Use Permit for the temple building without documentation of the County Engineer's approval of the proposed driveway entrance.

(3) The Zoning Administrator shall not issue a Zoning Compliance Certificate without documentation of the County Engineer's approval of the constructed driveway entrance including any necessary as-built engineering drawings.

The special condition stated above is required to ensure the following:

All parking related to the Special Use Permit can safely enter and exit the subject property safely with adequate visibility and regardless of weather conditions.

K. Chief Paul Cundiff of the Thomasboro Fire Protection District has recommended four special conditions to ensure public safety ~~and those special conditions~~ that are in the following special condition:

(1) The Special Use shall include the following:

(a) A KNOX box shall be installed on the building for fire department access.

(b) A monitored fire alarm system shall be installed within the building.

(c) An all access defibrillator shall be provided in the public space.

(d) A dry hydrant shall be installed at the detention basin in a location that is within 8 feet of a hard surfaced driveway or a no parking area that is built to carry the load of an emergency vehicle and is accessible at all times by a posted fire lane. The location and details of construction shall be approved in writing by the Thomasboro Fire Protection District Chief. The as-built dry hydrant shall also be approved in writing by the Thomasboro Fire Protection District Chief.

(2) The Fire Protection District shall approve the operation of the dry hydrant and all other items requested by the Fire Chief in writing before the Zoning Compliance Certificate authorizing occupancy can be approved by the Zoning Administrator.

(3) The dry hydrant shall be maintained in good working order by the landowner for the life of the special use permit.

The special condition stated above is required to ensure the following:

Adequate public safety.

CONSTRUCTION OF A DRY HYDRANT

Documents are attached providing information regarding dry hydrants as well as drawing depicting properly designed dry hydrants. This information is part of the Natural Resources Conservation Services (NRCS) Engineering Handbook and was provided by the Champaign County Soil and Water Conservation District.

SITE DISTANCE MAP

A site distance map has been attached. This map was created using LIDAR elevation data by the Champaign County GIS Consortium. There is a ten feet difference in elevation between the subject property and the crest of the hill south of the subject property. The crest of the hill is approximately 600 feet from the driveway of the subject property. The driveway is located in a dip, but there appears to be sufficient distance to allow for a vehicle to stop. In addition, a special condition is proposed for the Petitioner's to place signage along County Highway 1 directing traffic to the subject property.

ATTACHMENTS

A Approved minutes from the April 26, 2012, public hearing for Case 699-AM-11 and 700-S-11 (attached separately)
B Traffic Impact Analysis (attached separately)
C NRCS Dry Hydrant Information and Standard Details

D Site Distance Map (attached separately)
E Revised Summary of Evidence, Finding of Fact, and Final Determination (attached separately)

NATURAL RESOURCES CONSERVATION SERVICE

CONSERVATION PRACTICE STANDARD

DRY HYDRANT

(No.)

CODE 432

DEFINITION

A non-pressurized permanent pipe assembly system installed into a water source that permits the withdrawal of water by suction.

PURPOSE

To provide all weather access to an available water source for fire suppression.

CONDITIONS WHERE PRACTICE APPLIES

Where a dependable source of water is available, where transport vehicles can access the site, and where a source of water is needed for fire suppression.

CRITERIA

Utilities and Permits. The landowner shall be responsible for locating all buried utilities in the project area, including drainage tile and other structural measures.

The landowner shall obtain all necessary permissions from regulatory agencies, including the Illinois Department of Agriculture, US Army Corps of Engineers, US Environmental Protection Agency, Illinois Environmental Protection Agency and Illinois Department of Natural Resources – Office of Water Resources, or document that no permits are required.

Site Conditions. Site conditions shall be such that an all weather vehicle access is available to the dry hydrant or can be developed. The dry hydrant shall be reasonably close to the water source to minimize the length of suction line. The location of the hydrant should be determined in conjunction with local fire officials. Special care and maintenance will be required when debris and fine soil particles are part of the stream bed.

Water Requirement. The quantity to be considered available to a dry hydrant is the minimum available (at not over 15 feet total static lift) during a drought. A minimum of 4,000 cubic feet of pumpable impoundment water or a minimum pump flow rate of 250 gpm without interruption for 2 hours is considered a dependable water supply.

Location. A location map showing the exact site of the hydrant and vehicle access shall be furnished to the local fire department with a copy to the landowner. A letter of approval to use the site shall be obtained from the landowner prior to construction. This could be a Water Use Agreement, made with the local Fire Department. Access, topography, and location should be reviewed by fire department personnel prior to installation.

The fire truck connection shall be located within 10 feet of the edge of an all weather access road. The all weather access road and fire truck pumper connection shall be higher than the auxiliary spillway elevation if installed in a constructed impoundment.

Water supply. The adequacy of the water supply from impoundments shall be determined. The volume of water available from ponds and lakes shall be based on the low water drought level, which shall be assumed to be 3 feet below the permanent pool elevation. The adequacy of stream flow source can be determined from regional analysis of stream gage data.

Pipe. The pipe material may be Poly Vinyl Chloride (PVC) pipe and fittings conforming to

ASTM D 1785 and ASTM D 2466 for Schedule 40 pipe. The pipe may also be steel conforming to ASTM A 53, or iron pipe conforming to ANSI/AWWA C151/A21.51 and ANSI/AWWA C115/A21.15.

PVC pipe must be protected from or resistant to ultraviolet rays. No more than two 90-degree elbows shall be used in the entire pipe system. Pipe shall be 6 inches nominal diameter or larger. The pipe shall be fitted with intake screen or strainer and standard fire truck hose adapters for quick connect/release operations acceptable to the local fire department.

If pipe supports are required, they shall be shown on the drawings or as otherwise approved by the engineer.

Always install a brace 2 to 4 feet in front of the hydrant to bear the weight of the hard suction between the pumper and the hydrant head. The weight of the hard suction full of water can crack the standpipe, particularly during extremely cold weather.

The depth at which the pipe is installed shall be below the frost-free depth for the area.

Frost Protection. Prevent water within the pipe from freezing, when the high water level is at or above the average frost-free depth, using methods such as:

- mounding soil in additional height and perimeter to attain adequate thermal protection or
- by adding commercial pipe insulation around the pipe.

Pipe Intake. The intake screen should have a minimum opening of 4 times the pipe cross sectional area. Where the intake is more than 3 feet off the bottom, a trash rack may be used in lieu of a screen.

A dry hydrant installation shall provide for a positive slope toward the water source. In pits or impoundments, the intake screen or strainer shall be supported and secured at least two feet above the pool bottom. The intake shall be at least 4 feet beyond the earth slope.

To avoid a vortex or whirlpool during pumping, the centerline of the inlet pipe shall be at least 2.0 feet below the design low water level unless a special design is prepared to prevent a vortex.

For low profile stream screen intakes, the depth of water cover below the design low water level may be less than 1.0 ft as per manufacturer's recommendations.

Pump Lift. The top of the fire truck pumping connection or centerline of pump (whichever is higher) shall be no more than 15 feet above the design low water level or stream surface during drought conditions.

The total lift (pumping head) shall not exceed 20 feet when all losses are totaled. Pumping head for each site shall include head loss from screen or strainer, elbows, line friction, elevation (static head), and hard rubber or flexible suction hose to the fire truck.

Dry Hydrant. Dry barrel (conventional) hydrants may not be used due to excess suction loss and the necessity that they be absolutely airtight.

A recessed hydrant (below ground-level connection) may be specified for use in areas with special needs, such as in a high vandalism area or for low profile and esthetic needs. It is also referred to as a flush mount hydrant and does not require the riser. It may be used with the 45° or straight dry hydrant head assembly.

Dry Hydrant Head. The hydrant sleeve shall be made of bronze, brass, aluminum alloy or other durable, non-corrosive metal. Sleeve must be permanently affixed inside a PVC head using epoxy adhesive and stainless steel bolts.

The hydrant head shall be able to accept a 6 inch NHT (American National Fire Hose Thread) connection to provide maximum supply. Hydrant (6 inch) head shall conform to ASTM 2466, Poly Vinyl Chloride (PVC) Fittings, Schedule 40.

All hydrants shall contain a removable head strainer and stainless steel snap ring that can be removed without special tools. The strainer

shall be conical in shape to maximize straining area. All hydrants shall use a rubber "0" ring between the threaded sleeve and PVC head.

The local Fire Department should decide at what angle they would like the hydrant head to be placed. This will depend on the type of hard suction they will run from the pumper to the hydrant, what angle the pumper sits in reference to the hydrant, and whether the pump is located on the front or side of the truck.

The hydrant head shall not be located higher in elevation than the anticipated fire truck pump intake, in order to prevent a potential air-lock.

Fire truck pump intake height is commonly 3-feet from ground level to the center of the intake.

Dry Hydrant Cap. The cap shall be of snap-on/snap-off design and removable without special tools. It shall be joined with a steel cable or chain and be permanently attached to the dry hydrant head. The cap shall be hard plastic or of same metal as NHT connection for maximum corrosion resistance. A rocker lug may be used if preferred by the Fire Department.

Strainer. The strainer shall be fabricated from PVC material compatible with the pipe. Individual inlet holes shall not exceed 3/8-inch diameter. All components, including pins, shall be non-corrosive. Manufactured well screens shall be corrosion resistant. Screens and strainers shall have a minimum open area of 4 times the pipe cross sectional area.

A strainer may be formed by drilling 1/4 inch to 3/8 inch diameter holes with a minimum of one hole diameter between the holes in PVC pipe. The size and number of holes shall be sufficient enough to pass the rated flow. Drill holes shall be deburred and the pipe cleaned before putting the strainer into service. The screens or strainers shall be capped with a removable end cap.

End Cap. The end cap must be easily removed without special tools. Perforations are recommended in the end cap to improve flow conditions into the strainer and for jetting action for silt cleanout. A flapper hinge can also be used for silt cleanout.

Access. Vehicle access to and from the dry hydrant shall be provided for fire truck and pumper units. Access shall have an all-weather surface, be well drained and be at least 12 feet wide for ease of movement by personnel and equipment during an emergency. When local road traffic may be involved, an all-weather road surface conforming to Conservation Practice Standard 560, Access Road adjacent to the dry hydrant and completely off the public road is recommended for safety of the emergency personnel and the public.

After the dry hydrant installation, the site shall be graded for surface drainage and vegetated or otherwise protected from erosion. Vegetation shall be in accordance with Conservation Practice Standard 342, Critical Area Planting.

CONSIDERATIONS

- Effect of the use of the dry hydrant on upstream and downstream water quantity.
- Sediment production caused by erosion during construction.
- Provide protective barrier around dry hydrant head to prevent damage.
- Intakes placed in streams are typically difficult to maintain due to debris and sediment accumulation and fluctuations in stream depth due to drought conditions. They are not recommended and should be used ONLY as a last resort after all other water supplies in the region have been investigated, evaluated and eliminated as an alternative.
- To minimize the volume of air in the pipe requiring evacuation when priming, place a pipe reducer at or below the anticipated drought pool elevation, thus reducing the time needed to prime the pipe during a fire emergency.
- Possible effects on surface and ground water of spilled fuels and lubricants by fire trucks using the dry hydrant.
- This practice has the potential to negatively affect National Register listed or eligible (significant) cultural resources (archaeological, historical or traditional

cultural properties); it also has the potential to protect listed or eligible historic structures. Consider these factors during planning and also follow the NRCS State policy during construction and maintenance.

- Any work in and/or around streams or water-bodies may require a permit from the Department of Natural Resources – Office of Water Resources, Army Corp of Engineers, Illinois Environmental Protection Agency or local permitting authorities.
- Consider any man-made or natural uses of the water supply that may affect the available water.

PLANS AND SPECIFICATIONS

Plans and specifications for installing dry hydrants shall be in keeping with this standard and shall describe the requirements for applying the practice to achieve its intended purpose. Plans and specifications shall include construction plans, drawings, job sheets or other similar documents. These documents shall specify the requirements for installing the practice, including the kind, amount and quality of materials to be used.

OPERATION AND MAINTENANCE

An Operation and Maintenance (O&M) plan shall be prepared for and reviewed with the landowner or operator. The plan shall specify that the treated areas and associated practices are inspected annually and after significant storm events to identify repair and maintenance needs.

The O&M plan shall detail the level of repairs needed to maintain the effectiveness and useful life of the practice.

Keeping the site clear of obstruction and regular mowing of the dry hydrant access area will be required to keep the area readily available for emergency use.

Pumper testing of the dry hydrant shall be done at least annually to verify site usability. This test shall include back flushing, followed by a pumper test at the maximum designed flow rate. Careful attention should be given to silt, debris, aquatic growth, or other interference that may limit the full operation of the dry hydrant.

Checks of the intake screen should be made once every five years to identify any sediment build up and to provide information for a clean-out operation or for aquatic growth control needs. The hydrant should be back-flushed each spring and fall to remove any silt or debris that may have accumulated on the screen.

NATURAL RESOURCES CONSERVATION SERVICE

CONSTRUCTION SPECIFICATION

DRY HYDRANT

Scope

The work shall consist of excavation and installation of the dry hydrant along with other materials and fixtures as shown on the construction plans.

Location

The installation shall be as shown on the construction plans and as staked in the field.

Site Preparation

All loose rock, sediment, logs, and vegetation that can obstruct the free discharge from the water body shall be removed and disposed of so they will not endanger the dry hydrant.

Installation

Pipe shall be installed at a sufficient depth below the ground surface to provide protection from hazards imposed by traffic crossing, farming operations, freezing temperatures, or soil cracking. The minimum depth of cover shall be 2.5 feet; but in soils subject to deep cracking, the cover shall be a minimum of 3 feet.

At low places on the ground surface, extra fill may be placed over the pipe to provide the minimum depth of cover. The fill material shall be placed and compacted before the trench is excavated. If extra protection is needed at vehicular crossings, encasement pipe or other approved methods may be used.

The trench at any point below the pipe shall be only wide enough to permit the pipe to be easily placed and joined. The width of the trench shall allow the initial backfill material to be uniformly packed around and along the sides of the pipe. The maximum trench width shall be 2.5 feet greater than the diameter of the pipe. If the trench is precision excavated and has a semicircular bottom that closely fits the pipe, the width shall not exceed the outside diameter of the pipe by more than 10 percent.

The trench bottom shall be uniform so that the pipe lies on the bottom without bridging. Clods, rocks, and uneven spots that can damage the pipe or cause non-uniform support shall be removed.

If there are rocks, boulders, or any other material that might damage the pipe, the trench bottom shall be cut a minimum of 1/3 foot below final grade and filled with bedding material consisting of sand or compacted fine-grained soils.

Care shall be taken to prevent permanent distortion and damage when handling the pipe during unusually warm or cold weather. The pipe temperature shall be at or near the soil temperature before backfilling. The pipe shall be uniformly and continuously supported over its entire length on firm, stable material. Blocking or mounding shall not be used to bring the pipe to final grade.

All joints and connections shall be capable of withstanding the design maximum working pressure for the pipeline without leakage. Pipe joints shall leave the inside of the pipeline free of any obstructions that can reduce its capacity below design requirements.

All fittings such as couplings, reducers, and bends shall be installed according to the recommendations of the pipe manufacturer.

All exposed polyvinyl chloride (PVC) or metal surfaces and all underground metal surfaces should be adequately treated to prevent deterioration of the material.

Thrust blocks should be considered at the elbow joint both to resist hydraulic forces and

to steady the installation in unstable soils. When required, thrust blocks must be formed against solid, unexcavated earth, undamaged by mechanical equipment. They shall be constructed of concrete, and the space between the pipe and the trench wall shall be filled with concrete to the height of the outside diameter of the pipe or as specified by the manufacturer.

If it is necessary to partially backfill the line before testing to hold the pipeline in place, backfilling shall be such that all joints and connections shall be left uncovered for inspection; only the body of the pipe sections shall be covered.

It shall be demonstrated by testing that the system will function properly at design capacity. At or below design capacity there shall be no objectionable flow conditions such as water hammer, continuing unsteady delivery of water, damage to the system, or discharge detrimental to the tankers.

The initial backfill material shall be selected soil or sand, free from rocks or stones larger than 1 inch in diameter and earth clods greater than 2 inches in diameter. The material shall be placed so that the pipe will not be displaced, exclusively deformed, or damaged.

Water packing shall be used when possible to consolidate the initial backfill around the pipe. The initial backfill, before wetting, shall be of sufficient depth to ensure complete coverage of the pipe after consolidation occurs. Water packing is accomplished by adding enough water to saturate the initial backfill thoroughly. If conditions do not permit water packing, the initial backfill shall be placed in layers and compacted around and above the pipe to a depth of ½ foot by hand or mechanical methods.

Final backfill material shall be free of large rocks, frozen clods, and other debris greater than 3 inches in diameter. The material shall be placed and spread in uniform lifts so that there will be no unfilled spaces in the backfill. The finished backfill will be level with the natural ground or at the design grade required to provide the minimum depth of cover after settlement takes place.

All special backfilling recommendations of the pipe manufacturer shall be met.

The acceptability of the installation shall be determined by inspections to check compliance with all the provisions of this standard (including the design grades), the pipe and pipe markings, the appurtenances, and the minimum installation requirements.

If requested by the state conservation engineer, the manufacturer shall certify that the material meets the requirements specified in this standard.

All construction shall be performed in a workmanlike manner, and the job site shall have a neat appearance when finished.

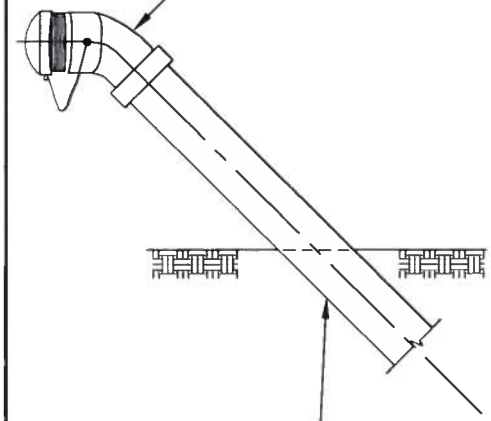
Material
All backfill material, pipe, and fixtures shall conform to the requirements listed on the plans.

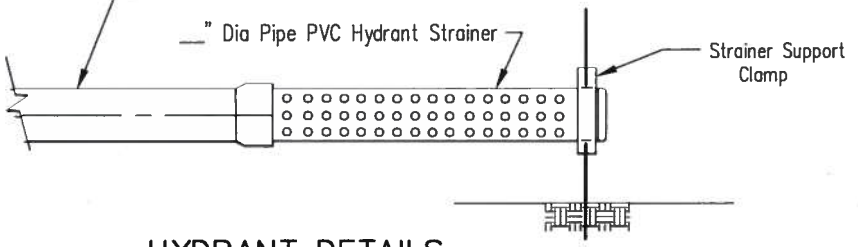
Utilities
The landowner shall be responsible for locating all buried utilities in the project area, including drainage tile and other structural measures.

NOTE:
Check with local Fire Department for approved type of connection.

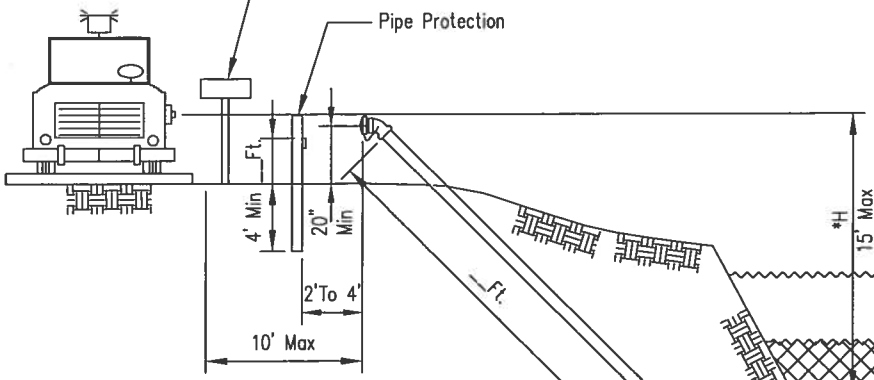
Dry Hydrant Adapter Head Kit ASTM 2466
__" x 45° Elbow

__" Dia. Intake Plastic Pipe (Min. Schedule 40)



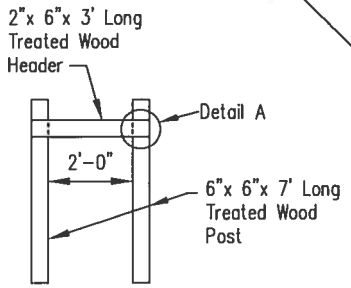


HYDRANT DETAILS

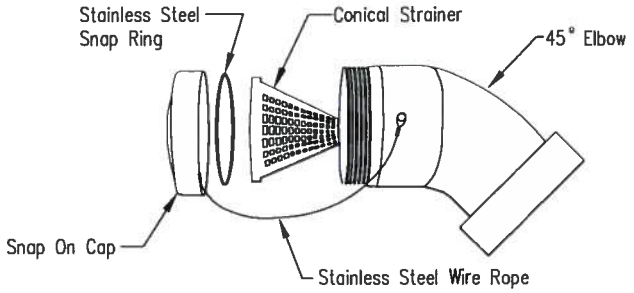


NOTE:
*If pump elevation is higher than steamer nozzle, measure H from pump level.

PROFILE OF INSTALLATION



PIPE PROTECTION



DRY HYDRANT HEAD

Landowner		Location	

Not To Scale

RECEIVED
JUN 05 2012
CchampaignCo. P & Z Department

Date
Designed
Drawn M. QUINONES 3/08
Checked
Approved

45 DEGREE DRY FIRE HYDRANT DETAILS & DESIGN SHEET

NRCS
Natural Resources Conservation Service
United States Department of Agriculture

File No. IL-ENG-82A
Drawing No.
Sheet 1 of 2

Calculating Required Lift

Total Required Lift = Head Loss in Hydrant Fittings And Guard + Head Loss In Intake Pipe (HL) + Static Lift (H)

Using 500 Gallons/Min.
Total Required Lift = 7.6' + L x HL / 100 + H = 7.6' + ____ + ____ = ____

Using 250 Gallons/Min
Total Required Lift = 1.9' + L x HL / 100 + H = 1.9' + ____ + ____ = ____

BILL OF MATERIAL

Material	Qty
Dry Hydrant Head Kit 45° Elbow	1 Each
__ Inch PVC Strainer Kit	1 Each
Strainer Support And Clamp	1 Each
__ Inch Dia PVC Schedule 40 Pipe	Feet
__ Inch Dia PVC 45° Elbow	1 Each
Reflective Sign And Steel Post	1 Each
Pipe Protection	
Treated Wood Post 6"x 6" x 7' Long	2 Each
Treated Wood Header 2"x 6"x 7' Long	1 Each
5/8" Bolt 8" Lg/W Nuts & Washers	8 Each

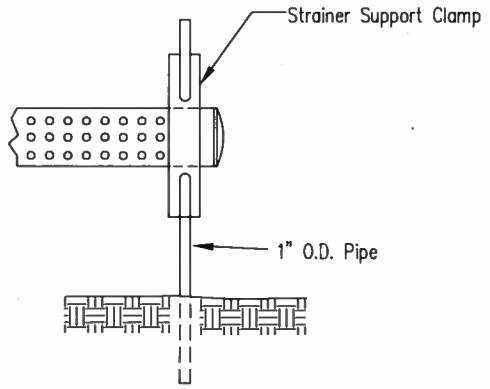
HEAD LOSS IN FEET (HL)

Gallons Per Minute	Plastic Pipe	Smooth Steel Pipe
500	2.3	5.3
250	0.6	1.3

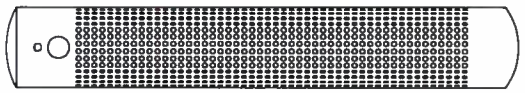
NOTES:
1. Total required lift value not to exceed 20 feet.
2. Static lift (H) from design low water level to top of fire truck pumping connection or centerline of pump (which ever is higher) not to exceed 15 feet.
3. L = total length of PVC pipe
4. Minimum water volume of 4,000 cubic feet represents a flow of 250 gallons per minute for 2 hours. This volume should be available after 50-year frequency, 12-month duration drought.

Assumptions for Volume computation:
a. Runoff during drought: None.
b. Pond Surface Evaporation During Drought: 3 feet.
c. Top Water Surface Elevation For Volume Computation: 3 feet below the permanent pool elevation (generally the crest of the principal spillway) due to evaporation during the drought.
d. Bottom Water Surface Elevation For Volume Computation: 2 feet above the dry hydrant inlet centerline in the pond to prevent vortex during pumping.

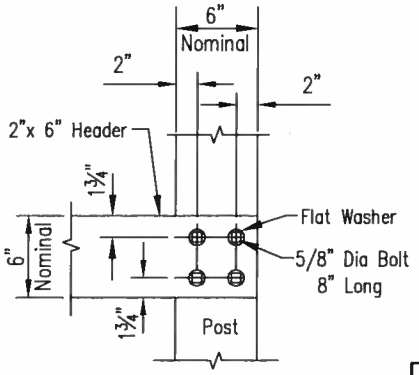
Disclaimer:
This drawing documents volume of water available. It assumes 4,000 cubic feet of water is adequate to provide fire protection for one event. The Natural Resources Conservation Service does not warrant the conditions which represent a 50-year frequency drought nor any local capabilities to deliver water to fire scene.



STRAINER SUPPORT CLAMP



PVC DRY HYDRANT STRAINER



DETAIL A

Total Volume (3 feet below permanent pool) _____ ft^3
− Total Volume (2 feet above dry hydrant inlet centerline) − _____ ft^3
= Volume (fire protection) = _____ ft^3
Minimum Volume (fire protection) 4,000 ft^3

Landowner | Location

Not To Scale

RECEIVED
JUN 05 2012
CHAMPAIGN CO. P & Z DEPARTMENT

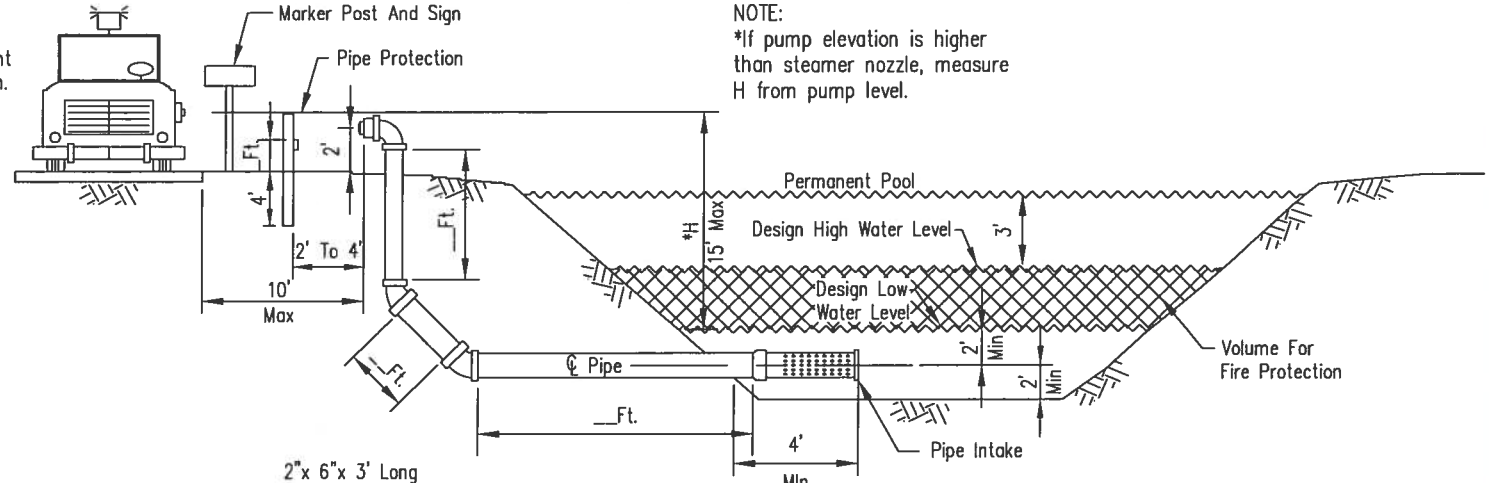
Date 3/08
Designed
Drawn M. QUINONES
Checked
Approved

45 DEGREE DRY FIRE HYDRANT DETAILS & DESIGN SHEET

NRCS Natural Resources Conservation Service United States Department of Agriculture

File No. IL-ENG-82B
Drawing No.
Sheet 2 of 2

NOTE:
Check with local Fire Department for approved type of connection.



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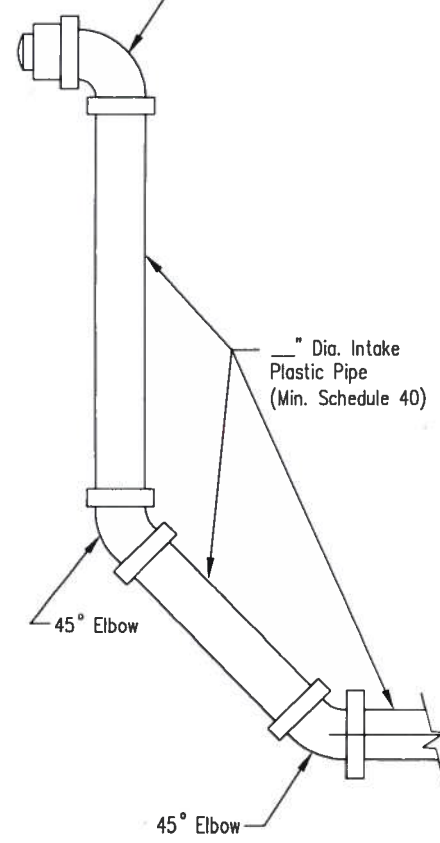
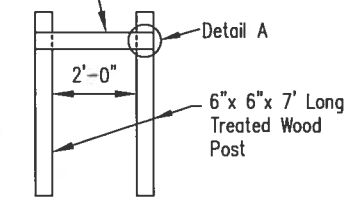
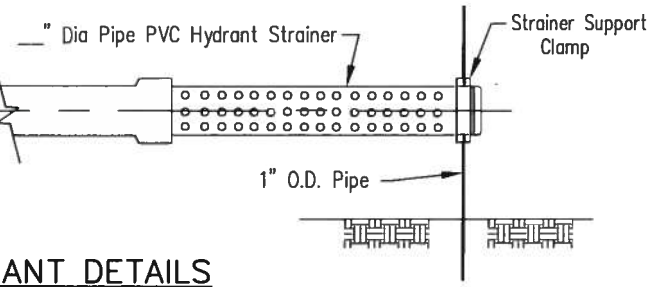




PIPE PROTECTION



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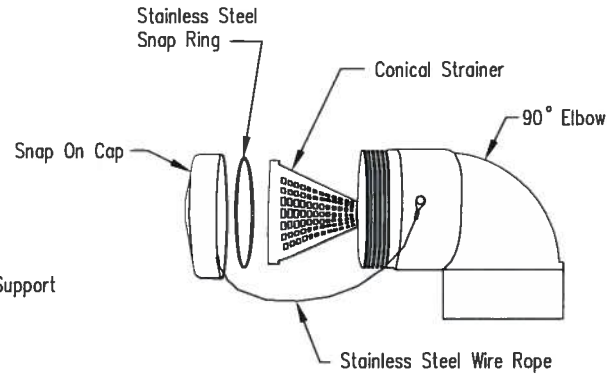

DRY HYDRANT HEAD

Landowner		Location	

Not To Scale

RECEIVED
JUN 05 2012
CHAMPAIGN CO. P & Z DEPARTMENT

Date
Designed — Drawn M. Quinones 3/08
Checked
Approved

DRY FIRE HYDRANT
DETAILS & DESIGN SHEET

NRCS
Natural Resources Conservation Service
United States Department of Agriculture

File No. IL-ENG-186A
Drawing No.
Sheet 1 of 2

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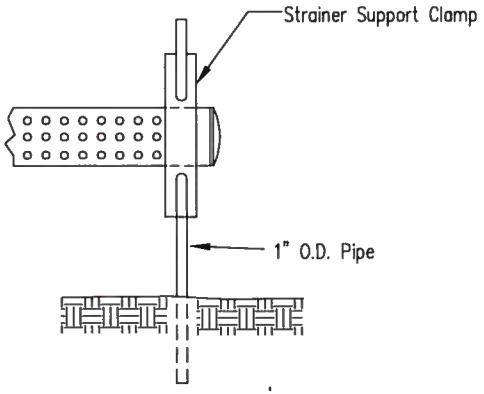

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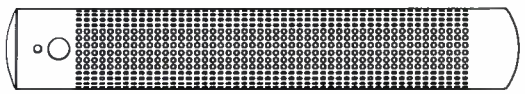
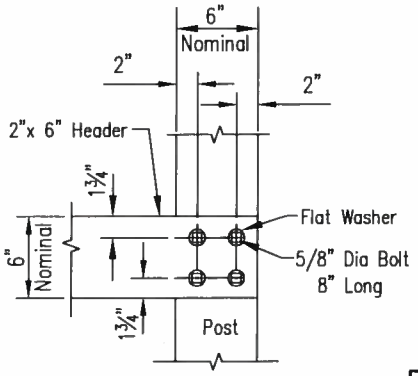


PVC DRY HYDRANT STRAINER



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RECEIVED
JUN 05 2012
CHAMPAIGN CO. P & Z DEPARTMENT

Date
Designed
Drawn M. Quinones 3/08
Checked
Approved

DRY FIRE HYDRANT DETAILS & DESIGN SHEET

NRCS Natural Resources Conservation Service United States Department of Agriculture

File No. IL-ENG-186B
Drawing No.
Sheet 2 of 2

REVISED DRAFT

700-S-11

SUMMARY OF EVIDENCE, FINDING OF FACT
AND FINAL DETERMINATION
of
Champaign County Zoning Board of Appeals

Final Determination: ***{GRANTED/ GRANTED WITH SPECIAL CONDITIONS/ DENIED}***

Date: ~~April 26, 2012~~ June 14, 2012

Petitioners: L.A. Gourmet Catering, LLC

Request: Authorize the following on land in the AG-2 Agriculture Zoning District:

The construction and use of an Event Center as a "Private Indoor Recreational Development" as a Special Use on land that is proposed to be rezoned to the AG-2 Agriculture Zoning District from the current AG-1 Agriculture Zoning District in related zoning case 699-AM-11

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Case 700-S-11 Finding of Fact **38-39**

Case 700-S-11 Final Determination **40**

SUMMARY OF EVIDENCE

From the documents of record and the testimony and exhibits received at the public hearing conducted on **March 29, 2012, ~~and~~ April 26, 2012, and June 14, 2012,** the Zoning Board of Appeals of Champaign County finds that:

*1. The petitioner L.A. Gourmet, LLC is owned by Lauren and Annie Murray, 2607 CR 1000E, Champaign. The petitioner's father, John Murray owns the subject property.

(Note: asterisk indicates items of evidence that are identical to evidence in Case 699-AM-11)

*2. Regarding the subject property where the special use is proposed to be located:
A. The subject property is a 10 acre tract in the Southwest Quarter of the Northwest Quarter of Section 14 of Hensley Township and commonly known as the home at 2150 CR 1000E, Champaign. Part of the subject property has an existing home on it and part of the subject property is used for agricultural production and consists of best prime farmland.

*3. The subject property is not located within the one and one-half mile extraterritorial jurisdiction of a municipality with zoning and is 2 miles from the City of Champaign. The subject property is in Hensley Township, which has a planning commission. Townships with a planning commission are notified of all map amendments and they have protest rights on such cases. The Hensley Township Planning Commission has provided the following comments:

A. At the March 29, 2012, public hearing Mr. Ben McCall, speaking on behalf of the Hensley Township Plan Commission objected to the proposed map amendment. Mr. McCall's testimony is summarized as follows:

(1) The Hensley Township Plan Commission is concerned about the impacts the proposed in related Special Use Case 700-S-11 will have on drainage.

(2) Traffic impacts cause by the proposed special use in related Special Use Case 700-S-11 ware understated and vehicles traveling at 55 miles per hour and slowing down to turn into the subject property will lead to more accidents.

(3) There is no justification for rezoning subject property from AG-1 to AG-2 other than the desire of the owner to use the property for a purpose that is not allowed in the AG-1 zoning district.

(4) The rezoning of the subject property is inappropriate considering the general intent of the zoning districts for the following reasons:

(a) Rezoning the parcel from AG-1 would facilitate the mixture of urban and rural uses that the zoning ordinance intends to prevent;

(b) Rezoning the parcel to AG-2 would enable scattered indiscriminate urban development; and

(c) The AG-2 district is generally located in areas near urban areas, but the subject property is not near an urban area or within 1.5 miles of an urban area.

(5) The proposed rezoning is incompatible with the stated purposed of the zoning ordinance for the following reasons:

(a) The proposed use of the subject property is incompatible with the surrounding area because it is not allowed in the AG-1 district;

(b) Rezoning the subject property would enable a haphazard and unplanned intrusion into rural Hensley Township;

(c) Rezoning the subject property would encourage non-contiguous development in a rural area; and

(d) Rezoning the subject property would discourage the preservation of the agricultural belt around the Champaign-Urbana area by encouraging an urban use in an agricultural area.

GENERALLY REGARDING LAND USE AND ZONING IN THE IMMEDIATE VICINITY

*4. Land use and zoning on the subject property and in the vicinity are as follows:

A. The subject property is currently zoned AG-1 Agriculture and is in use as a residential property with some of the subject property used for row-crop agricultural production.

B. Land on the north, south, east, and west of the subject property is also zoned AG-1 Agriculture and is in use as follows:

(1) Land on the north is in agriculture production except for one single-family dwelling.

(2) Land on the south is in agricultural production and there is one single-family dwelling to the south.

(3) Land east of the subject property is in agricultural production.

(4) Land west of the subject property is in agricultural production.

GENERALLY REGARDING THE PROPOSED SPECIAL USE

5. Regarding site plan and operations of the proposed Event Center:
   A. The site plan received March 2, 2012, and April 17, 2012, shows the entirety of the subject property and includes the following:
      (1) The existing 2,500 square feet home authorized in Zoning Use Permit 178-85-01 and attached garage authorized in Zoning Use Permit 345-87-01.

      (2) A proposed event center which is approximately 11,300 square feet in area including approximately 8,256 square feet in meeting space. (*Note square footage of the building is an approximation based on scale measurements, exact building dimensions have yet to be provided by the petitioner).

      (3) Parking areas to accommodate up to 84 parking spaces.

      (4) A 24' × 50' loading berth.

      (5) The proposed location of the septic field in the southeast corner.

      (6) Screening along the north property line and along the north side of the parking area.

      (7) Various landscaping features including detention ponds, rock retaining walls, and trees.

   B. Information regarding the operations of L.A. Gourmet Catering has been provided by the petitioners and is summarized as follows:

      (1) Lauren and Anne Murray own L.A. Gourmet Catering, LLC.

      (2) The business was established six years ago.

      (3) The existing catering business has provided service to over 1,000 events and is located at 2607 CR 1000E, Champaign.

      (4) In the past year the Petitioners have been forced to move 18 events outside of Champaign County because there is not an event center similar to what the Petitioners are proposing available in Champaign County.

      (5) The catering business will not be operated on the subject property nor will food be prepared on site. The Petitioners will continue to conduct business activities and prepare food at their kitchen and office at 2607 CR 1000E, Champaign.

GENERALLY REGARDING SPECIFIC ORDINANCE REQUIREMENTS

6. Regarding authorization for a Private Indoor Recreational Development as a Special Use in the AG-2 Agriculture Zoning District in the *Zoning Ordinance*:
   A. Section 5.2 authorizes RESIDENTIAL RECOVERY CENTER as a Special Use in the AG-2, R-3, and R-4 Zoning District.

   B. Subsection 6.1 contains standard conditions that apply to all SPECIAL USES, standard conditions that may apply to all SPECIAL USES, and standard conditions for specific types of SPECIAL USES. Relevant requirements from Subsection 6.1 are as follows:
      (1) Paragraph 6.1.2 A. indicates that all Special Use Permits with exterior lighting shall be required to minimize glare on adjacent properties and roadways by the following means:
         (a) All exterior light fixtures shall be full-cutoff type lighting fixtures and shall be located and installed so as to minimize glare and light trespass. Full cutoff means that the lighting fixture emits no light above the horizontal plane.

         (b) No lamp shall be greater than 250 watts and the Board may require smaller lamps when necessary.

         (c) Locations and numbers of fixtures shall be indicated on the site plan (including floor plans and building elevations) approved by the Board.

         (d) The Board may also require conditions regarding the hours of operation and other conditions for outdoor recreational uses and other large outdoor lighting installations.

         (e) The Zoning Administrator shall not approve a Zoning Use Permit without the manufacturer's documentation of the full-cutoff feature for all exterior light fixtures.

      (2) Subsection 6.1.3 does not establish standard conditions for Private Indoor Recreational Developments.

   C. The following definitions from the *Zoning Ordinance* are especially relevant to the requested Special Use Permit (capitalized words are defined in the Ordinance):
      (1) "ACCESS" is the way MOTOR VEHICLES move between a STREET or ALLEY and the principal USE or STRUCTURE on a LOT abutting such STREET or ALLEY.

      (2) "ACCESSORY STRUCTURE" is a STRUCTURE on the same LOT with the MAIN OR PRINCIPAL STRUCTURE, or the main or principal USE, either DETACHED from or ATTACHED to the MAIN OR PRINCIPAL STRUCTURE,

subordinate to and USED for purposes customarily incidental to the MAIN OR PRINCIPAL STRUCTURE or the main or principal USE.

(3) "ACCESSORY USE" is a USE on the same LOT customarily incidental and subordinate to the main or principal USE or MAIN or PRINCIPAL STRUCTURE.

(5) "SPECIAL CONDITION" is a condition for the establishment of a SPECIAL USE.

(6) "SPECIAL USE" is a USE which may be permitted in a DISTRICT pursuant to, and in compliance with, procedures specified herein.

D. Section 9.1.11 requires that a Special Use Permit shall not be granted by the Zoning Board of Appeals unless the public hearing record and written application demonstrate the following:

(1) That the Special Use is necessary for the public convenience at that location;

(2) That the Special Use is so designed, located, and proposed as to be operated so that it will not be injurious to the DISTRICT in which it shall be located or otherwise detrimental to the public welfare;

(3) That the Special Use conforms to the applicable regulations and standards of and preserves the essential character of the DISTRICT in which it shall be located, except where such regulations and standards are modified by Section 6.

(4) That the Special Use is in harmony with the general purpose and intent of this ordinance.

(5) That in the case of an existing NONCONFORMING USE, it will make such USE more compatible with its surroundings.

E. Paragraph 9.1.11.D.1. states that a proposed Special Use that does not conform to the standard conditions requires only a waiver of that particular condition and does not require a variance. Regarding standard conditions:

(1) The Ordinance requires that a waiver of a standard condition requires the following findings:

(a) that the waiver is in accordance with the general purpose and intent of the ordinance; and

(b) that the waiver will not be injurious to the neighborhood or to the public health, safety, and welfare.

(2) However, a waiver of a standard condition is the same thing as a variance and Illinois law (55ILCS/ 5-12009) requires that a variance can only be granted in accordance with general or specific rules contained in the Zoning Ordinance and

the VARIANCE criteria in paragraph 9.1.9 C. include the following in addition to criteria that are identical to those required for a waiver:

(a) Special conditions and circumstances exist which are peculiar to the land or structure involved, which are not applicable to other similarly situated land and structures elsewhere in the same district.

(b) Practical difficulties or hardships created by carrying out the strict letter of the regulations sought to be varied will prevent reasonable or otherwise permitted use of the land or structure or construction

(c) The special conditions, circumstances, hardships, or practical difficulties do not result from actions of the applicant.

F. Paragraph 9.1.11.D.2. states that in granting any SPECIAL USE permit, the BOARD may prescribe SPECIAL CONDITIONS as to appropriate conditions and safeguards in conformity with the Ordinance. Violation of such SPECIAL CONDITIONS when made a party of the terms under which the SPECIAL USE permit is granted, shall be deemed a violation of this Ordinance and punishable under this Ordinance.

GENERALLY REGARDING WHETHER THE SPECIAL USE IS NECESSARY FOR THE PUBLIC CONVENIENCE AT THIS LOCATION

7. Generally regarding the *Zoning Ordinance* requirement that the proposed Special Use is necessary for the public convenience at this location:

A. The Petitioner has testified on the application, **"This atmosphere cannot be obtained in town or even on the edge of town. We have searched in Champaign-Urbana for two years for a facility that would suit our clients' needs. After five years in the catering business and doing extensive market research we see a need for this type of business plan. The outdoor atmosphere and the feel of seclusion on this property would take ten to twenty years to develop on bare ground. Horizon Hobby, Pioneer, Carle, and the U of I are going out of state to hold retreats and conference that we could host in our county. Similar business from outside the area would be attracted to the area."**

B. The subject property is zoned AG-1 Agriculture, but the Petitioners have filed an application to rezone the property from its AG-1 designation to an AG-2 designation in related Case 699-AM-11.

C. The subject property has frontage on and is accessed from a county highway which will provide good access to the property.

D. The subject property is located 2 miles from the City of Champaign

E. At the March 29, 2012, public hearing Mr. Ben McCall in his personal testimony testified that the proposed special use is not necessary on the subject property because there are other options which would be more contiguous to other development.

F. At the April 26, 2012, public hearing petitioner Lauren Murray-Miller testified, and is summarized as follows:

(1) Her family settled on the family farm only a few miles away from the subject property over 130 years ago and their mother's family farm is only a few miles north of the Murray Farm and it was her grandfather and father that chose to forgo other opportunities to carry on the family farm.

(2) It was at a young age that she and her siblings learned the hard work ethic and entrepreneurial spirit and are proud to be tied tightly to their farming roots. She and her sister Anne opened the company as a career to work on by themselves and give them the opportunity have employees that they can call family and clients that they can call friends and received an award from the University of Illinois College of ACES for Outstanding Young Alumni.

(3) They have not submitted this proposal haphazardly and have done research and taken steps necessary to make sure that this is a feasible project.

G. At the April 26, 2012, public hearing Gwedoline Wilson's testimony is summarized as follows:

(1) She owns and operates Nuptiae Wedding and Event Planning and has been in the business for 9 years and is spoke in favor of the proposed Special Use.

(2) She has worked with many local families to plan events that are special to each individual and more than half of the wedding plans have a budget of over $44,000.

(3) The wedding industry is very important to area businesses and a successful event center can impact the local economy not only through vending but also through hotel rooms, transportation, formal wear, rental companies, and specialty vendors because they employ many people.

(4) There is a need for an event center such as the one proposed because few venues offer such a truly unique and rural setting and it is simply unattainable within the city limits. The event center will be especially appealing to rural families planning for special occasions and the picturesque nature.

H. At the April 26, 2012, public hearing Eric Bussell, realtor for Keller-Williams Realty, testified and his testimony is summarized as follows:

(1) Approximately one year ago Anne and Lauren Murray contacted him to assist them in finding a location for their proposed event center and one year later they were unable to accomplish that.

(2) They visited many buildings and properties and another real estate broker was brought in to help in the search.

(3) The argument that there are other buildings out there to suit the needs of the business is not true because the general market does not provide for the needs of L.A. Gourmet and the need in the community for an event center such as this is strong.

(4) The Clearview Subdivision is not appealing for the business because a unique wedding experience would be difficult to achieve there with the other anticipated commercial buildings.

GENERALLY REGARDING WHETHER THE SPECIAL USE WILL BE INJURIOUS TO THE DISTRICT OR OTHERWISE INJURIOUS TO THE PUBLIC WELFARE

8. Generally regarding the *Zoning Ordinance* requirement that the proposed Special Use be designed, located, and operated so that it will not be injurious to the District in which it shall be located, or otherwise detrimental to the public welfare:

A. The Petitioner has testified on the application, **"We are working with an architect that will ensure all regulations are included in the plans."**

B. Regarding surface drainage:

(1) A Drainage Review of New Event Retreat & Parking Lot Expansion by Bryan K. Bradshaw dated February 9, 2012, can be summarized as follows:

(a) The surface flow of the property is generally to the north towards and agricultural waterway which flows easterly outletting at the Saline Branch Drainage Ditch.

(b) The proposed event center and associated parking would create approximately 1.2 acres of impervious area within the development 3 acre watershed area.

(c) Low impact design practices will be utilized such as bioswales and infiltration strips.

(d) A two-tier detention pond is proposed for the site located south, north, and east of the proposed event center.

(2) Berns, Clancy, and Associates, an engineering firm who reviewed the proposed drainage plan for feasibility and evaluated drainage calculations for the County, reported in a letter dated March 26, 2012, as follows: ~~The results of the feasibility study are summarized as follows:~~

(a) The concept drainage plan appears to be feasible to construct in a manner that will comply with the stormwater management ordinance.

(b) The proposed compensatory storage area along the surface waterway should minimize any impacts caused by the placement of a portion of the proposed development site within the informal "flood plain" of the surface waterway.

(c) Storage volumes and discharge rates of the concept stormwater management system appear to comply at the conceptual level with requirements of the stormwater management ordinance.

(d) If the drainage system is properly designed and constructed there should not be any adverse impacts to adjacent property

(e) The proposed development will increase the total volume of runoff from the site, but it would likely result in an increase from the approximate 2.75 square mile watershed of less ~~that~~ than 1%.

(f) The proposed tree screening along the north property line would be located in within the flood flow area of the adjacent surface drainage waterway. The planting of the trees in this location would result in debris collecting and blocking the waterway and would hinder the flow of stormwater runoff (Note: the screening was relocated).

(3) At the March 29, 2012, public hearing Mr. Jack (John) Murray, testified regarding drainage on the subject property. His testimony is summarized as follows:

(a) He and Joe Irle (drainage district commissioner) located and mapped all of the existing drainage tiles.

(b) There are some tiles that will need to be relocated because of the proposed ponds, but the ponds will slow the flow of water.

C. The subject property is accessed from CR 1000E/County Highway 1 on the west side of the property. Regarding the general traffic conditions on CR 1000E/County Highway 1 at this location and the level of existing traffic and the likely increase from the proposed Special Use:

(1) The Illinois Department of Transportation (IDOT) measures traffic on various roads throughout the County and determines the annual average 24-hour traffic

volume for those roads and reports it as Annual Average Daily Traffic (AADT). The AADT of CR 1000E/County Highway 1 is indicated as 3,850 AADT.

(2) CR 1000E/County Highway 1 is a Collector Street as indicated in the Champaign County Zoning Ordinance.

(3) Pavement width in front of the subject property is approximately 30 feet.

(4) The County Engineer has been notified of this case.

(5) Regarding the proposed special uses and the anticipated traffic impacts:

(a) The proposed Event Center includes parking spaces for 84 vehicles.

(b) The proposed Event Center will accommodate up to 400 people.

(c) Although this increase may be significant at times, events at maximum capacity will not take place every day on the subject property, therefore the increase in traffic will likely be sporadic.

~~(d) The County Engineer and officials at the Champaign-Urbana Urbanized Area Transportation Study (CUUATS) have been contacted to determine if the proposed use on the subject property warrants a Traffic Impact Analysis. were contacted to determine if in their professional opinion a Traffic Impact Analysis was necessary and both parties agreed that a TIA was necessary.~~

~~(e)~~(d) In an email dated April 18, 2012, Rita Morocoima-Black, CUUATS Transportation Planning Manager recommended that a Traffic Impact Analysis (TIA) is warranted due to safety concerns. Jeff Blue, County Engineer also agreed that a TIA was warranted. And the ZBA requested a TIA at the April 26, 2012, public hearing.

(6) At the April 26, 2012, public hearing Mr. Ben McCall's testimony regarding traffic can be summarized as follows:

(a) The entrance to the proposed event center is approximately 275 yards from the planned Hindu Temple and Cultural Center and he believes that there is a significant likelihood of an overlapping of highly attended activities at the two properties. Having two very high use properties on a high speed two lane road will create numerous issues with traffic especially since both of the locations have relatively poor visibility for people leaving the properties.

(b) It is likely that most people leaving the subject property will try to return to town by turning left out of the subject property to go south. A right turn will navigate traffic onto alternate routes which are narrow secondary township roads which are low volume and contain slow moving farm equipment, bicycle riders, walkers, runners, and hazardous road conditions during the winter months.

(7) The Traffic Impact Analysis (TIA) received May 16, 2012, conducted by the Champaign-Urbana Urbanized Transportation Study made recommendations regarding traffic safety in the area of the subject property, the recommendations are as follows:

(a) Because the proposed event center will have minimal impact on traffic flow, no capacity or traffic operational improvements are necessary for the study roadway segment or the four study intersections (Bloomington Road, Olympian Drive, Ford Harris Road, and Hensley Road).

(b) A stop sign on the event center driveway with due consideration for proper sight distance.

(c) Lighting at the entrance to the subject property. This lighting shall only be operated during event times and fully comply with the lighting requirements of Section 6.1.2.

(d) Way finding signage shall be placed a minimum of 200 feet in advance of the entrance to the subject property.

(e) All signage shall be placed in accordance with the latest version of the Manual on Uniform Traffic Control Devices (MUTCD) guidelines.

(f) A special condition has been proposed to ensure that the recommendations from CUUATS are implemented.

(8) There is a vertical curve (hill) on CR 1000E/County Highway 1 near the subject property. Regarding visibility concerns related to this vertical curve:

(a) The relevant geometric standards for traffic visibility are found in the *Manual of Administrative Policies of The Bureau of Local Roads and Streets* prepared by the Bureau of Local Roads and Streets of the Illinois Department of Transportation. The "minimum stopping sight distance" is determined by design speed and varies as follows:

- A design speed of 30 miles per hour requires a minimum distance of 200 feet.

- A design speed of 40 miles per hour requires a minimum sight distance of 275 feet.
- A design speed of 50 miles per hour requires a minimum sight distance of 400 feet.
- A design speed of 60 miles per hour requires a minimum sight distance of 525 feet.
- A design speed of 70 miles per hour requires a minimum sight distance of 625 feet.

(b) The speed limit on CR 1000E/County Highway 1 is 55 miles per hour.

(c) The existing driveway entrance appears to be located such that a vehicle entering or exiting the driveway is visible to at a distance of 550-600 feet from an automobile traveling north over the crest of the vertical curve (hill) and may have minimum stopping sight distance for a speed of 55 miles per hour.

(d) Design and construction of the driveway entrance is a critical component of traffic safety. No specific information has been provided about driveway construction other than as indicated on the site plan.

D. Regarding fire protection of the subject property, the subject property is within the protection area of the Thomasboro Fire Protection District and is located approximately 8 road miles from the fire station. In an email dated March 31, 2012, Paul Cundiff, Fire Chief for the Thomasboro Fire Protection District provided comments regarding the proposed use:

(1) The owner install a KNOX box on the building for fire department access.

(2) The owner install a monitored fire alarm system within the building.

(3) Provide an all access defibrillator in the public space.

(4) Install a Dry Hydrant that is accessible at all times within 8 feet of a hard surfaced road or parking area.

(5) A Special Condition of Approval has been proposed to ensure that the Special Use meets the requests of the fire protection district.

E. The subject property is not located within a Special Flood Hazard Area.

F. Regarding outdoor lighting on the subject property, ~~new outdoor lighting has been proposed to light up the proposed event center, landscape features, and trees planted along the access to the property. All proposed lighting will minimize glare onto roads and~~

~~neighboring properties~~ the Petitioner has indicated to Staff that they intend to fully comply with lighting requirements and have scrapped the original lighting plan to provide uplighting on trees and other features.

G. Regarding wastewater treatment and disposal on the subject property:

(1) The Petitioner's have applied for and received a private sewage disposal permit, No 12-008-19 from the Champaign County Public Health Department.

(2) The proposed site plan received March 2, 2012, indicates that the proposed septic field is to be located in the southeast corner of the subject property.

(3) A soil characterization report evaluating the soils for use in a septic system for the proposed Event Center was prepared by Roger Windhorn received February 13, 2012, and can be summarized as follows:

(a) Three holes within the proposed seepage filter field were examined to a depth of 60 inches. Hole 1 was on the south, Hole 2, on the east, and Hole 3 on the north.

(b) All three holes have layers in the upper or middle part of the subsoil that have a moderately slow permeability rate due to clay content greater than 35% or weak soil structure.

(c) The soils on the subject property consist of a Loess parent material, 1 percent slopes.

(d) The natural soils on the subject property have a seasonal high water table, typically in early spring or late fall. The field tile lines in the surrounding farm fields have reduced the depth and length of seasonal water table effect on this site.

(e) Mr. Windhorn suggests that all construction traffic stay off of the proposed septic site to minimize soil compaction.

(f) A special condition is proposed to ensure that the site of the septic system does not become compacted.

(3) The soil characterization report is consistent with the pamphlet *Soil Potential Ratings for Septic Tank Absorption Fields Champaign County, Illinois*, that is a report that indicates the relative potential of the various soils in Champaign County for use with subsurface soil absorption wastewater systems (septic tank leach fields). The pamphlet contains worksheets for 60 different soils that have potential ratings (indices) that range from 103 (very highest suitability) to 3 (the lowest

suitability). Drummer silty loam, (soil map unit 152A) soil is rated as having "low" suitability for subsurface soil absorption wastewater systems (septic tank leach fields) and requiring corrective measures generally of subsurface drainage or fill.

(4) A description of the proposed septic system to serve the proposed Event Center was written by Jeff Jackson and received on February 9, 2012 and can be summarized as follows:

(a) The septic system would be designed to serve the Event Center and would be sized for 2,000 gallons of water per day.

(b) The septic system proposed by Mr. Jackson consists of 2 - 1,500 gallon septic tanks that would discharge into a 4,500 square feet seepage bed.

(c) A curtain drain will surround the seepage bed and a pump chamber will discharge to a detention pond.

(d) A special condition has been proposed to ensure that the septic system is designed and installed as what was approved by the Champaign county Health Department.

I. Regarding parking for the proposed Event Center, the proposed parking complies with the minimum requirements of the Zoning Ordinance as reviewed in Item 9.

~~(1) Paragraph 7.4.1 C.3.b.i. requires that places of public assembly including assembly halls, exhibition halls, convention halls, and other enclosed STRUCTURES shall provide one parking space for each five seats provided for patrons use or at least one parking space for each 200 square feet of floor area, whichever requires the greater number of parking spaces.~~

~~(a) There is a proposed maximum of 400 people in the Event Center by dividing 400 by 5 seats it equals 80 parking spaces which is the greater number compared to 56 which is a result of dividing 11,300 square feet by 200 square feet.~~

~~(b) The site plan received on March 2, 2012, indicates 84 proposed parking spaces. 80 regular spaces and 4 handicap accessible spaces.~~

J. Regarding food sanitation and public health considerations related to the proposed Special Use:

(1) The Event Center Floor Plan received February 9, 2012, indicates a kitchen in the proposed Event Center.

(2) A special condition is proposed to ensure ongoing compliance with Health Code.

K. Regarding life safety considerations related to the proposed Special Use:

(1) Champaign County has not adopted a building code. Life safety considerations are considered to a limited extent in Champaign County land use regulation as follows:

(a) The Office of the State Fire Marshal has adopted the Code for Safety to Life from Fire in Buildings and Structures as published by the National Fire Protection Association (NFPA 101) 2000 edition, Life Safety Code, as the code for Fire Prevention and Safety as modified by the Fire Prevention and Safety Rules, 41 Ill. Adm Code 100, that applies to all localities in the State of Illinois.

(b) The Office of the State Fire Marshal is authorized to enforce the Fire Prevention and Safety Rules and the code for Fire Prevention and Safety and will inspect buildings based upon requests of state and local government, complaints from the public, or other reasons stated in the Fire Prevention and Safety Rules, subject to available resources.

(c) The Office of the State Fire Marshal currently provides a free building plan review process subject to available resources and subject to submission of plans prepared by a licensed architect, professional engineer, or professional designer that are accompanied by the proper Office of State Fire Marshal Plan Submittal Form.

(d) Compliance with the code for Fire Prevention and Safety is mandatory for all relevant structures anywhere in the State of Illinois whether or not the Office of the State Fire Marshal reviews the specific building plans.

(e) Compliance with the Office of the State Fire Marshal's code for Fire Prevention and Safety is not required as part of the review and approval of Zoning Use Permit Applications.

(f) The Illinois Environmental Barriers Act (IEBA) requires the submittal of a set of building plans and certification by a licensed architect that the specific construction complies with the Illinois Accessibility Code for all construction projects worth $50,000 or more and requires that compliance with the Illinois Accessibility Code be verified for all Zoning Use Permit Applications for those aspects of the construction for which the Zoning Use Permit is required. There is no information regarding the cost of the pole barn that is used to house the farm dinners in inclement weather, so it is unclear if that will trigger the requirements of the IEBA.

(g) The Illinois Accessibility Code incorporates building safety provisions very similar to those of the code for Fire Prevention and Safety.

(h) The certification by an Illinois licensed architect that is required for all construction projects worth $50,000 or more should include all aspects of compliance with the Illinois Accessibility Code including building safety provisions very similar to those of the code for Fire Prevention and Safety.

(i) When there is no certification required by an Illinois licensed architect, the only aspects of construction that are reviewed for Zoning Use Permits and which relate to aspects of the Illinois Accessibility Code are the number and general location of required building exits.

(j) Verification of compliance with the Illinois Accessibility Code applies only to exterior areas. With respect to interiors, it means simply checking that the required number of building exits is provided and that they have the required exterior configuration. This means that other aspects of building design and construction necessary to provide a safe means of egress from all parts of the building are not checked.

(2) Illinois Public Act 96-704 requires that in a non-building code jurisdiction no person shall occupy a newly constructed commercial building until a qualified individual certifies that the building meets compliance with the building codes adopted by the Board for non-building code jurisdictions based on the following:

(a) The 2006 or later editions of the following codes developed by the International Code Council:

i. International Building Code;

ii. International Existing Building Code; and

iii. International Property Maintenance Code

(b) The 2008 of later edition of the National Electrical Code NFPA 70.

O. At the March 29, 2012, public hearing neighbor Judy Swartzendruber expressed her concerns regarding the proposed Special Use and they can be summarized as follows:

(1) Water runoff from the subject property could cause problems for neighbors because the swale which runs along the north property line has caused flooding on downstream properties in the past.

(2) The added traffic will add additional traffic to a heavily traveled road and will result in increase traffic noise. Additionally, if there were to be 400 people at the event center and 500 people at the Hindu Temple there would be traffic issues.

(3) The proposed entrance to the property is at a very low point and not visible to oncoming traffic from either direction and is an area where snow drifts in the winter time.

(4) If trucks are delivering items to the Hindu Temple and to the proposed event center it will cause additional deterioration to the Dewey-Fisher Road which may lead to it being widened.

P. At the March 29, 2012, public hearing neighbor Peggy Anderson expressed her concerns regarding the proposed Special Use and they can be summarized as follows:

(1) The subject property slopes down toward her land and her concern is additional water runoff if the proposed use is granted.

(2) Her son currently resides on the property directly north of the subject property and he would like to be able to enjoy the country atmosphere and not be distracted by lighting, noise, and septic issues.

Q. At the April 26, 2012, public hearing the following people spoke in favor of the proposed Special Use and rezoning and their testimony is summarized as follows:

(1) Lisa Kesler stated that she lives one-quarter mile away from the subject property and has known Lauren and Anne Murray their entire lives and has watched them work very hard since the day the graduated. Both sides of the girls family have farmed in Hensley and Condit Townships for several generations therefore it comes as no surprise that they have always made the needs and tastes of the rural community a top priority in their business. She has no reservations regarding the proposed project.

(2) Chris Wallace stated that she and her husband live directly north of the L.A. Gourmet kitchen and has lived there prior to the conception of the business. The business has been a good neighbor and there has been no noticeable disruption in their lives and L.A. Gourmet is probably the largest employer in Condit Township. She does not believe that the event center will create problems for local agriculture in the area because the girls grew up on a farm and are fully aware of dust, odors, pesticides, and anhydrous applications.

(3) Catherine Ehler stated that she farms land north and east of the subject property and knowing the history of the Murray family she believes that the girls will be good neighbors because they know the farming business better that probably most other people understand it and she supports the proposal and looks forward to its completion.

(4) Bernard Hammel stated that he has lived in the area for 79 years and that he is in support of the project.

R. At the April 26, 2012, public hearing neighbor Peggy Anderson testified that she does have concerns regarding the compatibility of the proposed use with surrounding agriculture.

*S. The Department of Planning and Zoning has received letters of support regarding Case 699-AM-11 and 700-S-11 from the following:

(1) Roger and Marilyn Babb, 2126 CR 1100E, Champaign, received April 23, 2012.

(2) Kevin Babb, 2126 CR 1100E, Champaign, received April 23, 2012.

(3) Gene Warner, 1006 Churchill Downs Drive, Champaign, received April 23, 2012.

(4) Mark J. Kesler, received April 24, 2012.

(5) Ron, Rich, Bernie, and Steve Hammond, received April 24, 2012.

(6) Don and Lois Wood, 2283 CR 1100E, Champaign, received April 24, 2012.

(7) Thomas R. Ramage, President, Parkland College, 2400 W. Bradley Ave, Champaign, received April 24, 2012.

(8) Elizabeth Collins, received April 24, 2012.

(9) Terri Kirby, Horizon Hobby, 4105 Fieldstone Road, Champaign, received April 25, 2012.

(10) John and Vicky Tedlock, 467 CR 2600N, Mahomet, received April 25, 2012.

(11) Alex Ruggieri, Sperry Van Ness-Ramshaw Real Estate, 505 W. University Ave, Champaign, received April 25, 2012.

T. Other than as reviewed elsewhere in this Summary of Evidence, there is no evidence to suggest that the proposed Special Use will generate either nuisance conditions such as odor, noise, vibration, glare, heat, dust, electromagnetic fields or public safety hazards such as fire, explosion, or toxic materials release, that are in excess of those lawfully permitted and customarily associated with other uses permitted in the zoning district.

GENERALLY REGARDING WHETHER THE SPECIAL USE CONFORMS TO APPLICABLE REGULATIONS AND STANDARDS AND PRESERVES THE ESSENTIAL CHARACTER OF THE DISTRICT

9. Generally regarding the *Zoning Ordinance* requirement that the proposed Special Use conform to all applicable regulations and standards and preserve the essential character of the District in

which it shall be located, except where such regulations and standards are modified by Section 6 of the Ordinance:

A. The Petitioner has testified on the application: **The applicant did not indicate a response to this question.**

B. Regarding compliance with the *Zoning Ordinance*:

(1) Regarding the proposed special use:

(2) A Private Indoor Recreational Development is authorized by Special Use Permit in the AG-2 Agriculture, R-3 Residential, and R-4 Residential Zoning District and by right in the B-2, B-3, and B-4 Zoning District.

(3) Regarding parking on the subject property for the proposed Event Center:

(a) Paragraph 7.4.1 C.3.b.i. requires that places of public assembly including assembly halls, exhibition halls, convention halls, and other enclosed STRUCTURES shall provide one parking space for each five seats provided for patrons use or at least one parking space for each 200 square feet of floor area, whichever requires the greater number of parking spaces.

(b) There is a proposed maximum of 400 people in the Event Center and dividing 400 by 5 seats equals 80 parking spaces which is the greater number compared to 56 which is a result of dividing 11,300 square feet by 200 square feet.

(c) The site plan received on March 2, 2012, indicates 84 proposed parking spaces. 80 regular spaces and 4 handicap accessible spaces.

(d) Paragraph 7.4.1 C.4.a. requires SCREENS for parking for commercial ESTABLISHMENTS including a church or school or dormitory.

Parking areas for more than four vehicles of no more than 8,000 pounds gross vehicle weight each, excluding any vehicles used for hauling solid waste except those used for hauling construction debris and other inert materials, located within any YARD abutting any residential DISTRICT or visible from and located within 100 feet from the BUILDING RESTRICTION LINE of a lot containing a DWELLING conforming as to USE shall be screened with a Type A SCREEN except that a Type B SCREEN may be erected along the rear LOT LINE of the business PROPERTY.

Paragraph 4.3.3 H. identifies a Type A SCREEN as a decorative opaque fence, shrubs or other vegetative material or a landscaped berm planted and maintained with a minimum HEIGHT of four feet as measured from the

highest adjacent grade and a Type B SCREEN as an opaque fence or wall with a minimum HEIGHT of four feet as measured from the highest adjacent grade.

The proposed parking on the north side of the subject property is within 100 feet of the building restriction line of a property containing a dwelling. Screening is required and shown on the site plan for any of the proposed new parking spaces located on the north side of the subject property.

(e) At the April 26, 2012, neighbor Peggy Anderson testified that she had spoken to other caterers and that they indicated the proposed 84 parking spaces were insufficient for a facility with a capacity of 400 people.

C. Regarding compliance with the *Stormwater Management Policy*:

(1) Paragraph 4.3A.2. of the Stormwater Management Policy exempts the first 10,000 square feet of impervious area relative to what existed on 2/20/03.

(2) The proposed site plan received on March 2, 2012, indicates three types of increases in impervious area as follows (A special condition has been proposed to ensure compliance with the stormwater management ordinance):

(a) The proposed Event Center will be impervious area and is indicated with an overall building footprint of approximately 11,300 square feet.

(b) The site plan indicates an addition of 84 parking spaces but the increase in the parking of area is not dimensioned. The Zoning Ordinance requires parking spaces to be a minimum of 9 feet wide by 20 feet long. Using a scale approximately 25,317 square feet of parking area is proposed on the subject property.

(c) Sidewalks and detention basins are also proposed on the subject property, but are not dimension on the site plan.

(d) In a letter from Bryan Bradshaw received February 9, 2012 Mr. Bradshaw indicates that the total increase in impervious surface will be approximately 1.2 acres.

(3) Berns, Clancy, and Associates, an engineering firm who reviewed the proposed drainage plan for feasibility and evaluated drainage calculations for the County, reported in a letter dated March 26, 2012, as follows: ~~The results of the feasibility study are summarized as follows:~~

(a) The concept drainage plan appears to be feasible to construct in a manner that will comply with the stormwater management ordinance.

(b) The proposed compensatory storage area along the surface waterway should minimize any impacts caused by the placement of a portion of the proposed development site within the informal "flood plain" of the surface waterway.

(c) Storage volumes and discharge rates of the concept stormwater management system appear to comply at the conceptual level with requirements of the stormwater management ordinance.

(d) If the drainage system is properly designed and constructed there should not be any adverse impacts to adjacent property

(e) The proposed development will increase the total volume of runoff from the site, but it would likely result in an increase from the approximate 2.75 square mile watershed of less ~~that~~ than 1%.

(f) The proposed tree screening along the north property line would be located in within the flood flow area of the adjacent surface drainage waterway. The planting of the trees in this location would result in debris collecting and blocking the waterway and would hinder the flow of stormwater runoff (Note: the screening was relocated).

D. Regarding the Special Flood Hazard Areas Ordinance, no part of the subject property is located in the Special Flood Hazard Area.

E. Regarding the Subdivision Regulations, the subject property is located in the Champaign County subdivision jurisdiction and no subdivision is proposed or required.

F. Regarding the requirement that the Special Use preserve the essential character of the AG-2 Agriculture Zoning District:

(1) Private Indoor Recreational Development is permitted by Special Use Permit in the AG-2 Agriculture Zoning District

(2) The proposed use will not hinder agricultural production and agricultural production will still occur onsite.

(3) The proposed building is clustered with the existing home.

(4) Currently, the subject property is zoned AG-1 Agriculture and the Petitioner's have requested to rezone the subject property to AG-2 Agriculture in related Case 699-AM-11.

(5) As reviewed in Case 699-AM-11 the types of uses authorized by right in the AG-1 District are nearly identical to the by right uses in the AG-2 District and any proposed Special Use on this property should be evaluated for compatibility with the adjacent AG-1 uses.

G. The proposed Special Use must comply with the Illinois Accessibility Code which is not a County ordinance or policy and the County cannot provide any flexibility regarding that Code. A Zoning Use Permit cannot be issued for any part of the proposed Special Use until full compliance with the Illinois Accessibility Code has been indicated in drawings.

H. At the April 26, 2012, public hearing Mr. Ben McCall testified that he does not feel the proposed use is compatible with the surrounding area because there are uses authorized in the AG-1 district such as a concentrated animal feeding operation that would have an apparent conflict with the proposed use.

GENERALLY REGARDING WHETHER THE SPECIAL USE IS IN HARMONY WITH THE GENERAL PURPOSE AND INTENT OF THE ORDINANCE

10. Regarding the *Zoning Ordinance* requirement that the proposed Special Use is in harmony with the general intent and purpose of the Ordinance:

A. A Private Indoor Recreational Development is authorized by Special Use Permit in the AG-2 Agriculture, R-3 Residential, and R-4 Residential Zoning District and by right in the B-2, B-3, and B-4 Zoning District.

B. Regarding whether the proposed Special Use Permit is in harmony with the general intent of the Zoning Ordinance:

(1) Subsection 5.1.14 of the Ordinance states the general intent of the AG-2 District and states as follows (capitalized words are defined in the Ordinance):

The AG-2, Agriculture DISTRICT is intended to prevent scattered indiscriminate urban development and to preserve the AGRICULTURAL nature within areas which are predominately vacant and which presently do not demonstrate any significant potential for development. This DISTRICT is intended generally for application to areas within one and one-half miles of existing communities in the COUNTY.

Currently, the subject property is zoned AG-1 Agriculture and the Petitioner's have requested to rezone the subject property to AG-2 Agriculture in related Case 699-AM-11. The *Zoning Ordinance* states that the AG-2 District is generally for areas within one and one-half miles of existing communities, this is not always the case. The AG-2 District is as far as 3 miles from the City of Urbana and as far as 1.75

miles from the City of Champaign. The subject property is 2 miles from the City of Champaign.

(2) The types of uses authorized in the AG-2 District are in fact the types of uses that have been determined to be acceptable in the AG-2 District. Uses authorized by Special Use Permit are acceptable uses in the district provided that they are determined by the ZBA to meet the criteria for Special Use Permits established in paragraph 9.1.11 B. of the Ordinance.

The uses authorized by Special Use Permit in the AG-1 Agriculture and AG-2 Agriculture Zoning Districts are nearly identical. A Private Indoor Recreational Development is one of the special uses authorized in the AG-2 District and not the AG-1 District.

C. Regarding whether the proposed Special Use Permit is in harmony with the general purpose of the Zoning Ordinance:

(1) Paragraph 2 .0 (a) of the Ordinance states that one purpose of the Ordinance is securing adequate light, pure air, and safety from fire and other dangers.

(a) This purpose is directly related to the limits on building coverage and the minimum yard requirements in the Ordinance and the proposed site plan appears to be in compliance with those requirements.

(b) A Special Condition has been proposed to ensure that the proposed event center will comply with a building code.

(c) Paul Cundiff, Fire Chief for the Thomasboro Fire Protection District provided comments regarding the proposed use:

i. The owner install a KNOX box on the building for fire department access.

ii. The owner install a monitored fire alarm system within the building.

iii. Provide an all access defibrillator in the public space.

iv. Install a Dry Hydrant that is accessible at all times within 8 feet of a hard surfaced road or parking area.

v. A Special Condition of Approval has been proposed to ensure that the Petitioner's provide the proper measures for safety.

(2) Paragraph 2.0 (b) of the Ordinance states that one purpose of the Ordinance is conserving the value of land, BUILDINGS, and STRUCTURES throughout the COUNTY. In regards to the value of nearby properties:

(a) The existing home on the subject property has been used as a single-family home since the mid 1980s. The special use permit for the Event Center should have no affect on property value.

(b) It is not clear whether or not the proposed Event Center will have any impact on the value of nearby properties.

(c) Currently, the subject property is zoned AG-1 Agriculture and the Petitioner's have requested to rezone the subject property to AG-2 Agriculture in related Case 699-AM-11.

(d) As reviewed in Case 699-AM-11 the types of uses authorized by right in the AG-1 District are nearly identical to the by right uses in the AG-2 District and any proposed Special Use on this property should be evaluated for compatibility with the adjacent AG-1 uses.

(3) Paragraph 2.0 (c) of the Ordinance states that one purpose of the Ordinance is lessening and avoiding congestion in the public STREETS. In regards to congestion in the public STREETS:

(a) The proposed Event Center requires 84 new parking spaces and will only be a minor increase to traffic on CR 1000E/ County Highway 1. However, a Traffic Impact Analysis is warranted due to safety concerns.

(4) Paragraph 2.0 (d) of the Ordinance states that one purpose of the Ordinance is lessening and avoiding the hazards to persons and damage to PROPERTY resulting from the accumulation of runoff from storm or flood waters.

(a) The proposed Event Center is not less than 10,000 square feet increase in impervious area and the Champaign County Stormwater Management Policy does require stormwater detention for an increase of more than 10,000 square feet.

(b) Berns, Clancy, and Associates, an engineering firm reviewed the proposed drainage plan for feasibility and evaluated drainage calculations and found that the proposed drainage plan is feasible and should not have any adverse impacts on neighboring properties.

(5) Paragraph 2.0 (e) of the Ordinance states that one purpose of the Ordinance is promoting the public health, safety, comfort, morals, and general welfare.

(a) In regards to public safety, this purpose is similar to the purpose established in paragraph 2.0 (a) and is in harmony to the same degree.

(b) In regards to public comfort and general welfare, this purpose is similar to the purpose of conserving property values established in paragraph 2.0 (b) and is in harmony to the same degree.

(6) Paragraph 2.0 (f) states that one purpose of the Ordinance is regulating and limiting the height and bulk of BUILDINGS and STRUCTURES hereafter to be erected; and paragraph 2.0 (g) states that one purpose is establishing, regulating, and limiting the BUILDING or SETBACK lines on or along any STREET, trafficway, drive or parkway; and paragraph 2.0 (h) states that one purpose is regulating and limiting the intensity of the USE of LOT AREAS, and regulating and determining the area of OPEN SPACES within and surrounding BUILDINGS and STRUCTURES.

These three purposes are directly related to the limits on building height and building coverage and the minimum setback and yard requirements in the Ordinance and the proposed site plan appears to be in compliance with those limits.

(7) Paragraph 2.0 (i) of the Ordinance states that one purpose of the Ordinance is classifying, regulating, and restricting the location of trades and industries and the location of BUILDINGS, STRUCTURES, and land designed for specified industrial, residential, and other land USES; and paragraph 2.0 (j.) states that one purpose is dividing the entire COUNTY into DISTRICTS of such number, shape, area, and such different classes according to the USE of land, BUILDINGS, and STRUCTURES, intensity of the USE of LOT AREA, area of OPEN SPACES, and other classification as may be deemed best suited to carry out the purpose of the ordinance; and paragraph 2.0 (k) states that one purpose is fixing regulations and standards to which BUILDINGS, STRUCTURES, or USES therein shall conform; and paragraph 2.0 (l) states that one purpose is prohibiting USES, BUILDINGS, OR STRUCTURES incompatible with the character of such DISTRICT.

Harmony with these four purposes requires that the special conditions of approval sufficiently mitigate or minimize any incompatibilities between the proposed Special Use Permit and adjacent uses, and that the special conditions adequately mitigate nonconforming conditions.

(8) Paragraph 2.0 (m) of the Ordinance states that one purpose of the Ordinance is preventing additions to and alteration or remodeling of existing BUILDINGS, STRUCTURES, or USES in such a way as to avoid the restrictions and limitations lawfully imposed under this ordinance.

(9) Paragraph 2.0 (n) of the Ordinance states that one purpose of the Ordinance is protecting the most productive AGRICULTURAL lands from haphazard and unplanned intrusions of urban USES.

(a) Currently, the subject property is zoned AG-1 Agriculture and the Petitioner's have requested to rezone the subject property to AG-2 Agriculture in related Case 699-AM-11.

(b) The proposed use will be taking a minimal amount of land out of agricultural production. The subject property is 2 miles from the subject property.

(c) As reviewed in Case 699-AM-11 the types of uses authorized by right in the AG-1 District are nearly identical to the by right uses in the AG-2 District and any proposed Special Use on this property should be evaluated for compatibility with the adjacent AG-1 uses.

(10) Paragraph 2.0 (o) of the Ordinance states that one purpose of the Ordinance is protecting natural features such as forested areas and watercourses.

The subject property does not contain any natural features other than best prime farmland and there are no natural features other than best prime farmland in the vicinity of the subject property.

(11) Paragraph 2.0 (p) of the Ordinance states that one purpose of the Ordinance is encouraging the compact development of urban areas to minimize the cost of development of public utilities and public transportation facilities.

Currently, the subject property is zoned AG-1 Agriculture and the Petitioner's have requested to rezone the subject property to AG-2 Agriculture in related Case 699-AM-11.

(12) Paragraph 2.0 (q) of the Ordinance states that one purpose of the Ordinance is encouraging the preservation of AGRICULTURAL belts surrounding urban areas, to retain the AGRICULTURAL nature of the COUNTY, and the individual character of existing communities.

(a) Currently, the subject property is zoned AG-1 Agriculture and the Petitioner's have requested to rezone the subject property to AG-2 Agriculture in related Case 699-AM-11.

(b) The proposed use will be taking a minimal amount of land out of agricultural production and ~~should not~~ ***{WILL / WILL NOT}*** be a disturbance to agriculture activities (Note: This should be coordinated with evidence in Case 699-AM-11).

(c) As reviewed in Case 699-AM-11 the types of uses authorized by right in the AG-1 District are nearly identical to the by right uses in the AG-2 District and any proposed Special Use on this property should be evaluated for compatibility with the adjacent AG-1 uses.

GENERALLY REGARDING WHETHER THE SPECIAL USE IS AN EXISTING NONCONFORMING USE

11. Regarding the *Zoning Ordinance* requirement that in the case of an existing NONCONFORMING USE the granting of the Special Use Permit will make the use more compatible with its surroundings:

    A. The Petitioner has testified on the application, **"Currently, it is a vacant house. It will be occupied and the new building will be among beautiful landscape to conform to the property."**

    B. The existing home and attached garage are not nonconforming uses. The home was authorized by Zoning Use Permit No. 178-85-01 and the attached garage was authorized by Zoning Use Permit 345-87-01.

GENERALLY REGARDING PROPOSED SPECIAL CONDITIONS OF APPROVAL

12. Regarding proposed special conditions of approval:

    A. A complete Stormwater Drainage Plan that conforms to the requirements of the Stormwater Management Policy shall be submitted and approved as part of the Zoning Use Permit application and all required certifications shall be submitted after construction prior to issuance of the Zoning Compliance Certificate.

    The special condition stated above is required to ensure the following:

    That the drainage improvements conform to the requirements of the Stormwater Management Policy.

    B. Regarding State of Illinois accessibility requirements:

    (1) The Zoning Administrator shall not approve a Zoning Use Permit for the proposed Special Use Permit without certification by an Illinois Licensed Architect or Illinois Professional Engineer that the proposed Event Center will comply with the Illinois Accessibility Code and Illinois Environmental Barriers Act;

    (2) The Zoning Administrator shall not authorize a Zoning Compliance Certificate authorizing operation of the proposed Special Use Permit until the Zoning Administrator has verified that the Special Use as constructed does in fact comply with the Illinois Accessibility Code and Illinois Environmental Barriers Act.

    The special conditions stated above are required to ensure the following:

    That the proposed Special Use meets applicable state codes for handicap accessibility.

C. **The Zoning Administrator shall not authorize a Zoning Compliance Certificate authorizing occupancy of the proposed Event Center until the Zoning Administrator has received a certification of inspection from an Illinois Licensed Architect or other qualified inspector certifying that the new building complies with the following codes: (A) The 2006 or later edition of the International Building Code; (B) The 2008 or later edition of the National Electrical Code NFPA 70; and, (C) the Illinois Plumbing Code.**

The special conditions stated above are required to ensure the following:

That the proposed structure is safe and built to current standards.

D. **All onsite foodservice shall be in compliance at all times with the Champaign County Health Ordinance.**

The special condition stated above is required to ensure the following:

That foodservice for the proposed Residential Recovery Center is consistent with County requirements and the testimony in the public hearing and that compliance is enforceable.

E. **The proposed parking area for the proposed Event Center shall comply with the Champaign County Zoning Ordinance requirements for screening from adjacent residences and Residential Districts.**

The special condition stated above is required to ensure the following:

That all parts of the proposed Residential Recovery Center are consistent with the Ordinance and that compliance is enforceable.

F. **All onsite Special Use activities shall be in compliance at all times with the Champaign County Health Ordinance, the Champaign County Liquor Ordinance, and the Champaign County Recreation and Entertainment Ordinance.**

The special condition stated above is required to ensure the following:

That the proposed Special Use is in on-going compliance with all applicable County requirements.

G. **The following condition will ensure that the recommendation of Roger Windhorn (soil surveyor) regarding compaction of the septic site and that the septic system is built as was approved by the Champaign County Health Department are a requirement for a Zoning Use Permit:**

(1) The area proposed for the septic system shall be identified, marked off, and protected from compaction prior to any construction on the subject property as recommended by the Roger Windhorn.

(2) The Zoning Administrator shall verify that the area proposed for the septic system is identified, marked off, and protected from compaction prior to approval of the Zoning Use Permit for the Event Center.

(3) The Zoning Use Permit Application for the construction and establishment of the proposed SPECIAL USE shall include the following:

(a) A true and correct copy of an approved COUNTY Health Department PERMIT for construction of the private sewage disposal system.

(b) The site plan for the Zoning Use Permit Application shall indicate the identical area for the private sewage disposal system as approved in the COUNTY Health Department PERMIT and only the private sewage disposal system approved by the COUNTY Health Department may occupy that portion of the LOT.

(4) A true and correct copy of the COUNTY Health Department Certificate of Approval for the private sewage disposal system shall be submitted to the Zoning Administrator prior to issuance of a Zoning Compliance Certificate for the proposed SPECIAL USE.

The special condition stated above is required to ensure the following:

The area of the proposed septic system does not become compacted in order to prevent a reduction in permeability of the soil and that the septic system is in compliance with the Champaign County Health Department.

H. Regarding compliance with the Champaign County Stormwater Management Policy:

(1) Paragraph 7.2 B. of the Champaign County Stormwater Management Policy requires that if no easement exists for existing agricultural drainage tile an easement shall be granted for access and maintenance. The following condition will require that an easement be granted if there is no easement for existing agricultural drainage tile n the property:

The Zoning Administrator shall not issue a Zoning Compliance Certificate without documentation that the petitioner has filed with the Recorder of Deeds a tile access and maintenance easement with a width of 40 feet for any underground tile in the developed portion of the property

The special condition stated above is required to ensure the following:

The Special Use Permit is in compliance with the Stormwater Management Policy.

(2) Paragraph 7.2 C. of the Champaign County Stormwater Management Policy requires that all agricultural drainage tile located underneath areas that will be developed shall be replaced with non-perforated conduit to prevent root blockage provided that drainage district tile may remain with the approval of the drainage district. Trees are proposed as a screen near the agricultural drainage tile on the north edge of the property. The following conditions will require documentation of investigations to identify if tile are present and additional safeguards for any tiles encountered during construction on the subject property:

~~(2)~~(1) The Zoning Administrator shall not authorize any Zoning Use Permit on the subject property until the following has occurred:

(a) Subsurface investigations intended to identify underground drain tile are conducted at least 50 feet on either side of the suspected centerline of tiles indicated on the approved site plan and in a manner and to a depth below ground as recommended by the Champaign County soil and Water Conservation District.

(b) Written notice identifying the proposed date for subsurface investigation has been to the Zoning Administrator at least one week prior to the investigation.

(c) If any underground drain tiles are encountered during the subsurface investigation the course of each tile across the subject property shall be established by additional investigation in consultation with the Champaign County soil and Water Conservation District.

(d) Documentation and certification of all subsurface investigations by an Illinois Professional Engineer shall be provided to the Zoning Administrator.

(e) When full and complete excavation of tile clearly indicates that the tile does not serve any upstream areas other than the subject property and certifications to that effect are made in writing by an Illinois Professional Engineer and the excavations are inspected by the Zoning Administrator, such tile may be removed and capped at the point at which the tile enters the developed area.

(f) Any proposed construction on the subject property shall either be located so as to avoid any identified underground drain tile or the identified underground drain tile shall be relocated to avoid the proposed construction.

(g) Any relocation of underground drain tile shall meet the requirements of the Champaign County Stormwater Management Policy and shall be certified by an Illinois Professional Engineer. Relocated tile shall be non-perforated conduit to prevent root blockage provided that the petitioner may install new underground drainage tile to serve the subject property so long as cleanout manholes are provided at the point of connection to the existing underground drain tile.

(h) As-built drawings shall be provided of any relocated underground drain tile and shall be approved by the Zoning Administrator prior to approval of a Zoning Use Permit Application on the subject property. Any relocated drain tile must be inspected by the Zoning Administrator prior to backfilling.

~~(3)~~(2) If any underground drain tile is encountered during construction the applicant must do the following:

(a) Construction shall cease until the course of each tile across the subject property is established by additional investigation and construction shall not recommence until authorized by the Zoning Administrator except that construction that does not implicate the tile may continue.

(b) The Zoning Administrator shall be notified within 48 hours or the next business day.

(c) Any tile that is encountered during construction must be relocated or rerouted in conformance with the Champaign County Stormwater Management Policy unless the proposed construction is modified to avoid the tile. Any modification of the construction to avoid the tile shall be indicated on a revised site plan approved by the Zoning Administrator. Relocated tile shall be non-perforated conduit to prevent root blockage. Conformance of any tile relocation with the Stormwater Management Policy shall be certified by an Illinois Professional Engineer.

(d) As-built drawings shall be provided of any relocated underground drain tile and shall be approved by the Zoning Administrator prior to approval of a Zoning Use Permit Application on the subject property. Any relocated drain tile must be inspected by the Zoning Administrator prior to backfilling.

The special condition stated above is required to ensure the following:

Possible field tiles on the subject property are identified prior to development and adequately protected and that any possible tiles that are discovered during construction are adequately protected.

I. The site plan includes a vegetative screen (including evergreen trees) along the north side of the developed area. The following condition will ensure that the evergreen trees provide at least 50% of the required screen within two years of planting:

The evergreen trees in the screening along the north property line shall be at least 2 feet 8 inches tall at the time of planting and within two years of issuance of a Zoning Compliance Certificate shall provide at least 50% of the required screen or additional plantings shall be required.

The special condition stated above is required to ensure the following:

Adequate screening is provided to the parking areas and as a buffer for the adjacent property.

J. The subject property fronts a County Highway. The driveway entrance and exit should be constructed of an all weather surface at a width, elevation, geometry, and materials (including culvert) as approved by the Champaign County Engineer so as to maintain safe entrance and exit conditions. ~~The County Engineer should approve the proposed driveway before it is constructed and also approve the driveway as constructed.~~ The Zoning Ordinance does not require County Engineer approval of driveway access to a county highway even though County Engineer approval is required. The following conditions will ensure that the driveway access to County Highway 1 is approved by the Champaign County Engineer.

The Driveway shall be improved as follows:

(1) The petitioner shall provide the County Engineer with engineering drawings of the proposed driveway entrance. In addition to the actual driveway the driveway drawings shall also include the following:

(a) A stop sign shall be placed on the event center driveway with due consideration for proper sight distance and shall be placed in

accordance with the latest version of the Manual on Uniform Traffic Control Devices (MUTCD) guidelines. The location and details of the stop sign shall be included on the engineering drawings submitted to the County Engineer.

(b) Lighting at the entrance to the subject property shall be provided. This lighting shall only be operated during event times and fully comply with the lighting requirements of Section 6.1.2. The location of the lighting shall be included on the engineering drawings submitted to the County Engineer.

(c) Way finding signage shall be placed a minimum of 200 feet in advance of the entrance to the subject property as recommended by the Traffic Impact Analysis conducted by CUUATS and detailed in the driveway drawings. All signage shall be placed in accordance with the latest version of the Manual on Uniform Traffic Control Devices (MUTCD) guidelines.

(2) The Zoning Administrator shall not approve a Zoning Use Permit for the temple building without documentation of the County Engineer's approval of the proposed driveway entrance.

(3) The Zoning Administrator shall not issue a Zoning Compliance Certificate without documentation of the County Engineer's approval of the constructed driveway entrance including any necessary as-built engineering drawings.

The special condition stated above is required to ensure the following:

All parking related to the Special Use Permit can safely enter and exit the subject property safely with adequate visibility and regardless of weather conditions.

K. Chief Paul Cundiff of the Thomasboro Fire Protection District has recommended four special conditions to ensure public safety ~~and those special conditions~~ that are in the following special condition:

(1) The Special Use shall include the following:

(a) A KNOX box shall be installed on the building for fire department access.

(b) A monitored fire alarm system shall be installed within the building.

(c) An all access defibrillator shall be provided in the public space.

(d) A dry hydrant shall be installed at the detention basin in a location that is within 8 feet of a hard surfaced driveway or a no parking area that is built to carry the load of an emergency vehicle and is accessible at all times by a posted fire lane. The location and details of construction shall be approved in writing by the Thomasboro Fire Protection District Chief. The as-built dry hydrant shall also be approved in writing by the Thomasboro Fire Protection District Chief.

(2) The Fire Protection District shall approve the operation of the dry hydrant and all other items requested by the Fire Chief in writing before the Zoning Compliance Certificate authorizing occupancy can be approved by the Zoning Administrator.

(3) The dry hydrant shall be maintained in good working order by the landowner for the life of the special use permit.

The special condition stated above is required to ensure the following:

Adequate public safety.

DOCUMENTS OF RECORD

1. Special Use Permit Application received on November 10, 2011, with attachments:
   A Letter of Intent
   B Sketches of location, existing use, and proposed use

2. Petition for Zoning Map Amendment signed by Lauren and Anne Murray received on November 10, 2011, with attachments:
   A Letter of Intent
   B Sketches of location, existing use, and proposed use

3. Site Plan, Building Plan, and Exterior Drawings received on February 9, 2012

4. Letter of Intent received February 9, 2012

5. Septic System Permit and Application received February 9, 2012

6. On-site Soil Evaluation for Septic Filter Field received February 13, 2012

7. Revised Site Plan received February 13, 2012

8. Revised Site Plan received March 2, 2012

9. Preliminary Memorandum for Case 700-S-11 dated March 23, 2012, with attachments:
   A Case Maps (Location, Land Use, Zoning)
   B Site Plan (Proposed Development) received March 2, 2012
   C Building plans and drawings received February 9, 2012
   D Stormwater Drainage Plan
   E Septic System Plan
   F Letter of Intent received February 9, 2012
   G Draft Summary of Evidence, Finding of Fact, and Final Determination

10. Preliminary Memorandum for Case 699-AM-11 dated March 23, 2012, with attachments:
   A Case Maps (Location, Land Use, Zoning)
   B Draft Finding of Fact, and Final Determination

11. Supplemental Memorandum for Case 700-S-11 dated Mach 29, 2012, with attachment:
   A letter from Don Wauthier received March 27, 2012

12. Special Report from the Hensley Township Plan Commission submitted by Mr. Ben McCall at the March 29, 2012, public hearing.

13. Revised site plan received April 17, 2012

14. Supplemental Memorandum for Case 700-S-11 dated April 20, 2012 with attachments:
    A Revised site plan received April 17, 2012
    B County Highway 1 Crash Location and Severity Map 2007-2011
    C County Highway 1 5-Year Crash Information Map
    D Revised Summary of Evidence, Finding of Fact, and Final Determination

15. Supplemental Memorandum for Case 699-AM-11 dated April 20, 2012, with attachment:
    A Revised Finding of Fact and Final Determination

16. Scope of Services from the Champaign County Regional Planning Commission received April 23, 2012

17. Supplemental Memorandum for Case 700-S-11 dated April 26, 2012, with attachments:
    A Traffic Accident Information for County Highway 1
    B Scope of Services
    C Letters of Support from the following:
        1. Roger and Marilyn Babb, 2126 CR 1100E, Champaign
        2. Kevin Babb, 2126 CR 1100E, Champaign
        3. Gene Warner, 1006 Churchill Downs Drive, Champaign
        4. Mark J. Kesler
        5. Ron, Rich, Bernie, and Steve Hammond
        6. Don and Lois Wood, 2283 CR 1100E, Champaign
        7. Thomas R. Ramage, President, Parkland College, 2400 W. Bradley Ave, Champaign
        8. Elizabeth Collins
        9. Terri Kirby, Horizon Hobby, 4105 Fieldstone Road, Champaign
        10. John and Vicky Tedlock, 467 CR 2600N, Mahomet
        11. Alex Ruggieri, Sperry Van Ness-Ramshaw Real Estate, 505 W. University Ave, Champaign

18. Traffic Impact Analysis prepared by the Champaign-Urbana Urbanized Area Transportation Study (CUUATS), received May 16, 2012

19. Supplemental Memorandum for Case 700-S-11 dated June 8, 2012, with attachments:
    A Approved minutes from the April 26, 2012, public hearing for Case 699-AM-11 and 700-S-11
    B Traffic Impact Analysis
    C NRCS Dry Hydrant Information and Standard Details
    D Site Distance Map
    E Revised Summary of Evidence, Finding of Fact, and Final Determination

20. Supplemental Memorandum for Case 699-AM-11 dated June 8, 2012, with attachments:
    A Approved Minutes from the April 26, 2012, public hearing for Cases 699-AM-11 and 700-S-11
    B Revised Finding of Fact, and Final Determination

FINDINGS OF FACT

From the documents of record and the testimony and exhibits received at the public hearing for zoning case **700-S-11** held on **March 29, 2012, ~~and~~ April 26, 2012, and June 14, 2012,** the Zoning Board of Appeals of Champaign County finds that:

1. The requested Special Use Permit ***{SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN {IS / IS NOT}*** necessary for the public convenience at this location because:_____

2. The requested Special Use Permit ***{SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN}*** is so designed, located, and proposed to be operated so that it ***{WILL NOT / WILL}*** be injurious to the district in which it shall be located or otherwise detrimental to the public health, safety, and welfare because:
   a. The street has ***{ADEQUATE / INADEQUATE}*** traffic capacity and the entrance location has ***{ADEQUATE / INADEQUATE}*** visibility.
   b. Emergency services availability is ***{ADEQUATE / INADEQUATE} {because*}***:
   c. The Special Use ***{WILL / WILL NOT}*** be compatible with adjacent uses ***{because*}***:
   d. Surface and subsurface drainage will be ***{ADEQUATE / INADEQUATE} {because*}:***
   e. Public safety will be ***{ADEQUATE / INADEQUATE} {because*}***:
   f. The provisions for parking will be ***{ADEQUATE / INADEQUATE} {because*}***:

   (Note the Board may include other relevant considerations as necessary or desirable in each case.)

*The Board may include additional justification if desired, but it is not required.

3a. The requested Special Use Permit ***{SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN} {DOES / DOES NOT}*** conform to the applicable regulations and standards of the DISTRICT in which it is located.

3b. The requested Special Use Permit ***{SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN} {DOES / DOES NOT}*** preserve the essential character of the DISTRICT in which it is located because:

a. The Special Use will be designed to ***{CONFORM / NOT CONFORM}*** to all relevant County ordinances and codes.

b. The Special Use ***{WILL / WILL NOT}*** be compatible with adjacent uses.

c. Public safety will be ***{ADEQUATE / INADEQUATE}***.

4. The requested Special Use Permit ***{SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN} {IS / IS NOT}*** in harmony with the general purpose and intent of the Ordinance because:

a. The Special Use is authorized in the District.

b. The requested Special Use Permit ***{IS/ IS NOT}*** necessary for the public convenience at this location.

c. The requested Special Use Permit ***{SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN}*** is so designed, located, and proposed to be operated so that it ***{WILL / WILL NOT}*** be injurious to the district in which it shall be located or otherwise detrimental to the public health, safety, and welfare.

d. The requested Special Use Permit ***{SUBJECT TO THE SPECIAL CONDITIONS IMPOSED HEREIN} {DOES / DOES NOT}*** preserve the essential character of the DISTRICT in which it is located.

5. The requested Special Use ***{IS/ IS NOT}*** an existing nonconforming use. ~~and the requested Special Use Permit *{WILL/ WILL NOT}* make the existing use more compatible with its surroundings *{because:*}*~~

6. ***{NO SPECIAL CONDITIONS ARE HEREBY IMPOSED / THE SPECIAL CONDITIONS IMPOSED HEREIN ARE REQUIRED TO ENSURE COMPLIANCE WITH THE CRITERIA FOR SPECIAL USE PERMITS AND FOR THE PARTICULAR PURPOSES DESCRIBED BELOW}***

*The Board may include additional justification if desired, but it is not required.

FINAL DETERMINATION

The Champaign County Zoning Board of Appeals finds that, based upon the application, testimony, and other evidence received in this case, the requirements of Section 9.1.11B. for approval ***{ HAVE/ HAVE NOT }*** been met, and pursuant to the authority granted by Section 9.1.6 B. of the Champaign County Zoning Ordinance, determines that:

> The Special Use requested in Case **700-S-11** is hereby ***{ GRANTED/ GRANTED WITH SPECIAL CONDITIONS/ DENIED }*** to the applicants ~~to~~ **L.A. Gourmet Catering, LLC owned by Anne and Lauren Murray** to authorize **the construction and use of an Event Center as a "Private Indoor Recreational Development" as a Special Use subject to the approval of related rezoning Case 699-AM-11** ***{ SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS: }***

The foregoing is an accurate and complete record of the Findings and Determination of the Zoning Board of Appeals of Champaign County.

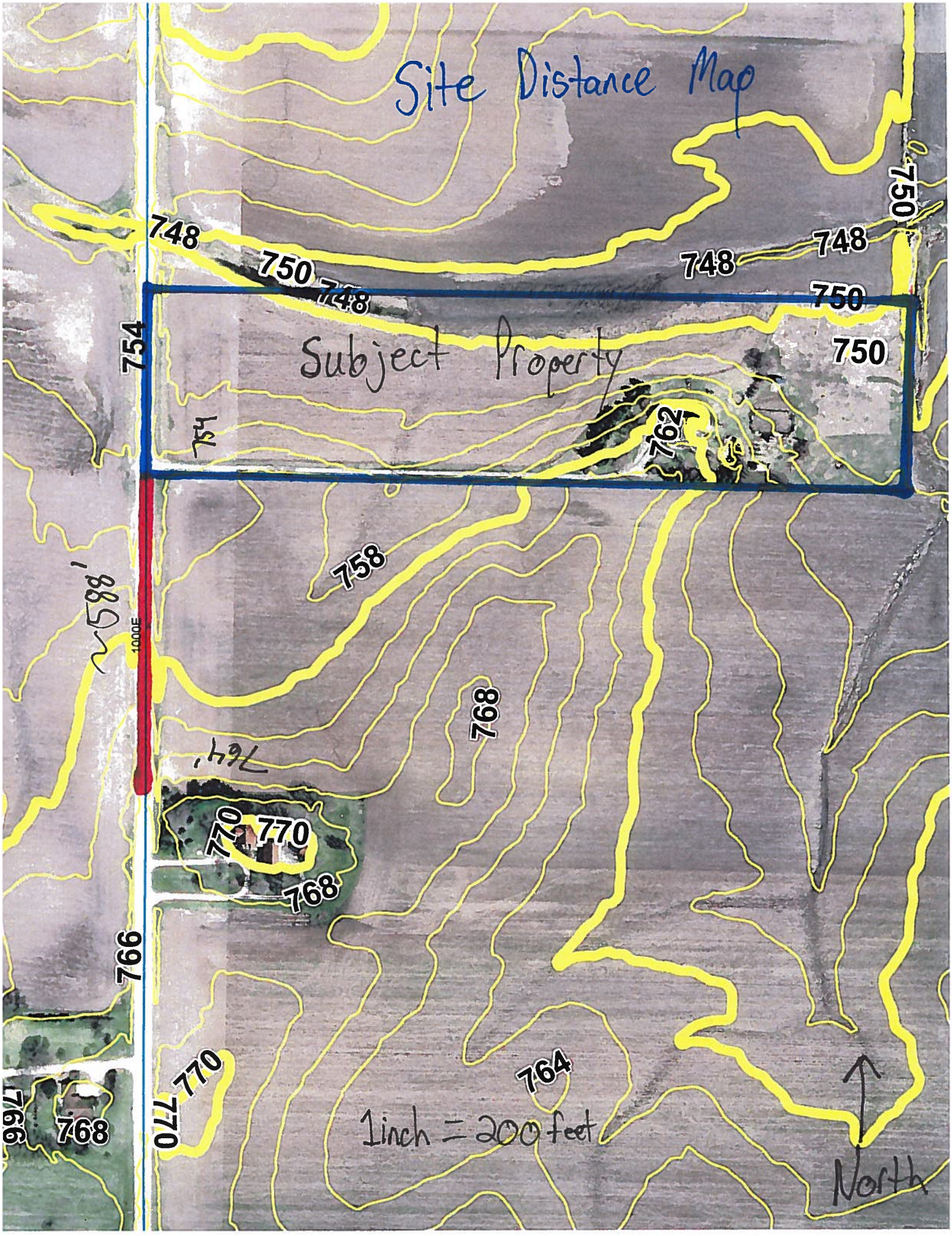
SIGNED:

Eric Thorsland, Chair
Champaign County Zoning Board of Appeals

ATTEST:

Secretary to the Zoning Board of Appeals

Date


Site Distance Map
Subject Property
748
750
748
748
750
748
750
754
750
754
762
758
768
770
770
768
766
770
764
768
766
1inch = 200 feet
North

5. **Continued Public Hearing**

Case 699-AM-11 Petitioner: **L.A. Gourmet Catering, LLC, with owners Annie Murray, Lauren Murray and landowner John Murray Request to amend the Zoning Map to change the zoning district designation from the AG-1 Agriculture Zoning District to the AG-2, Agriculture Zoning District in order to operate the proposed Special Use in related zoning case 700-S-11.** Location: **A 10 acre tract in the Southwest Quarter of the Northwest Quarter of Section 14 of Hensley Township and commonly known as the home at 2150 CR 1000E, Champaign.**

Case 700-S-11 Petitioner: **L.A. Gourmet Catering, LLC, with owners Annie Murray, Lauren Murray and landowner John Murray Request to authorize the construction and use of an Event Center as a "Private Indoor Recreational Development" as a Special Use on land that is proposed to be rezoned to the AG-2, Agriculture Zoning District from the current AG-1, Agriculture District in related Case 699-AM-11.** Location: **A 10 acre tract in the Southwest Quarter of the Northwest Quarter of Section 14 of Hensley Township and commonly known as the home at 2150 CR 1000E, Champaign.**

Mr. Thorsland called Cases 699-AM-11 and 700-S-11 concurrently.

Mr. Thorsland informed the audience that Case 700-S-11 is an Administrative Case and as such the County allows anyone the opportunity to cross examine any witness. He said that at the proper time he will ask for a show of hands for those who would like to cross examine and each person will be called upon. He requested that anyone called to cross examine go to the cross examination microphone to ask any questions. He said that those who desire to cross examine are not required to sign the witness register but are requested to clearly state their name before asking any questions. He noted that no new testimony is to be given during the cross examination. He said that attorneys who have complied with Article 7.6 of the ZBA By-Laws are exempt from cross examination.

Mr. Thorsland informed the audience that anyone wishing to testify for any public hearing tonight must sign the witness register for that public hearing. He reminded the audience that when they sign the witness register they are signing an oath.

Mr. Thorsland asked the petitioners if they desired to make a statement outlining the nature of their request and the petitioners indicated that they did not.

Mr. Hall distributed a Supplemental Memorandum dated April 26, 2012, to the Board for review. He said that the memorandum includes additional information regarding traffic accidents on County Highway 1. He noted that over the five-year period (2007-2011), 68 accidents occurred on County Highway 1 between the intersection with US Highway 150 and US Highway 136, and a total of 30 (44%) of the accidents occurred in January and February. He said that staff consulted with CUUATS staff and they indicated that the 30

accidents were related to the speed of travel and weather conditions. Mr. Hall stated that the petitioners have indicated that they do not plan to have any activities at the subject property during the months of January and February.

Mr. Hall stated that attached to the Supplemental Memorandum dated April 26, 2011, is the proposal from the CUUATS' staff for the Traffic Impact Analysis and CUUATS estimated that the analysis would cost $4,960 and it would take approximately 10 business days to complete. Mr. Hall stated that as soon as the cost estimate was received from CUUATS, staff passed the information on to the petitioners. He said that when he met with the petitioners he was not sure whether the Department of Planning and Zoning could or should pay for any part of the analysis and at this point the Department cannot pay for any part of it. He said that if there is to be an analysis then it would be at the cost of the petitioners. He said that he informed the petitioners that a possible outcome of the traffic impact analysis is that improvements may be necessary to County Highway 1 for this particular development at which point the only way that those improvements would happen is if the petitioner agrees to pay for them. He said that it is not often that the Board has a situation such as this come up with a special use permit but this is the situation and the petitioner has only had this information since mid-morning on Monday. He said that one of the drawbacks of the Ordinance is that there is no requirement included for a traffic impact analysis ahead of time so that the petitioner can be forewarned ahead of time.

Mr. Hall stated that attached to the new memorandum are 11 letters of support that the department has received from various residents of the County.

Mr. Thorsland asked the Board if there were any questions for Mr. Hall.

Mr. Courson asked if any comments have been received from Jeff Blue, County Highway Engineer.

Mr. Hall stated that these are Mr. Blue's comments. He said that he did press for more comments from Mr. Blue and frankly asked him if there was no traffic impact analysis and the case was approved would he approve the driveway construction and Mr. Blue indicated that he did not believe that he would. Mr. Hall stated that Mr. Blue did not indicate a firm no, but his comments more or less guaranteed that a traffic impact analysis is required and to a certain extent Mr. Blue is responsible for public safety on County Highway 1 therefore no driveway work would be approved without an analysis. Mr. Hall stated that it is not his call but this is the impression that he received from Mr. Blue.

Mr. Courson stated that he has thought about the proposed use since the last meeting and he believes that speed reduction signs are required in the subject property area as well. He said that there is a lot of traffic in the area already due to the existing residential and business uses. He said that a new gymnastics center has moved into the area which involves a lot of kids and families creating additional traffic on County Highway 1.

Mr. Hall stated that unfortunately a traffic impact analysis is required to tell us if a speed reduction would make a difference. He said that County Highway 1 already has problems and there has been a grant application to make some improvements that are already warranted. He said that even if the special use permit is not approved there are problems with County Highway 1 and some improvements are already known to be required. He said that there could be a speed limit reduction but enforcement is an issue and if a traffic impact analysis is completed then it would be known whether or not that would help.

Mr. Thorsland asked the Board if there were any further questions for Mr. Hall and there were none.

Mr. Thorsland informed the audience that if they submitted a letter of support the Board requests that they do not read the letter during their testimony because the letters are in the public record.

Mr. Thorsland called Anne Murray to testify.

Ms. Anne Murray requested that Lauren Murray-Miller testify first.

Ms. Lauren Murray-Miller, who resides at 105 Meadow Creek Ct., Lexington, stated that her family appreciates the Board's time in allowing them to share their intentions regarding the subject property. She said that she would like to take a moment to share with the Board an accurate trail of the company, herself and Anne, and their family and express to the Board why the subject property is the perfect place for what they envision.

Ms. Murray-Miller stated that over 130 years ago and many generations their grandparents settled on their parent's current farm which is just a few miles north of the subject property and their mother's family farm is only a few miles north of the Murray farm. Ms. Murray-Miller stated that when their grandfather graduated from high school his father sat him down and stated that he would either send him to college and he will pay for it or he would purchase farmland for him. Ms. Murray-Miller stated that her grandfather decided that he would rather have his father purchase the land than go to college. Ms. Murray-Miller stated that she believes that her grandfather's decision was a brave one and speaks to how much the family appreciates where they have come from and how their grandfather set the standard for the family.

Ms. Murray-Miller stated that after four daughters, on April 6, 1956, Jack Murray, Anne and Lauren's father, was born. She said that after their father received his Agronomy degree in 1978, he married their mom and moved to the family farm to continue the family's farming operation. Ms. Murray-Miller stated that their father has five sisters and they all went on to develop a very prestigious design firm but their father holds the most prestigious place in the family because he stayed behind to take care of the family farm.

Ms. Murray-Miller stated that she and her siblings have been working on the family farm since they were old enough to hold a hoe and walk the fields and it is on that soil that they have learned the hard work ethic and spirit of the original entrepreneur of this state and that was the farmer. She said that she and Anne share all

of this with their dad, brother, parents and cousins and they are so proud to be tied tightly to their farming roots.

Ms. Murray-Miller stated that in May 2006 she and Anne graduated from the University of Illinois College of Agriculture and Consumer Environmental Sciences and on September 1st at the age of 21 and 22 they opened L.A. Gourmet Catering. She said that they have catered thousands of parties and special events and to them the quantity means little compared to quality. She said that she and her sister have never been given anything other than the opportunity to work so that they could succeed. Ms. Murray-Miller stated that she and Anne opened the company up as a career to work on by themselves and give them the opportunity to have employees that they can call family and have clients whom they can call friends. She said that in September 2008 they were recognized by the University Of Illinois College Of Aces as Outstanding Young Alumni. She said that the award is given to any available alumni that is under the age of 40 as distinguished alumni for excellence in their field. Ms. Murray-Miller stated that serving others is not just what they do but is who they are.

Ms. Murray-Miller stated that on October 17, 2009, she rode in her dad's John Deere tractor with her new husband, who is a McLean County farmer, to the tent that they had put up in her parent's front yard, this was her childhood dream to be able to embrace the land that meant so much to her family and celebrate the generations that danced there before them. She said that this is the experience that L.A. Gourmet can provide on the subject property for another farmer's child or anyone else who cares to enjoy it. She said that they are not here to exploit the land or be disrespectful to their neighbors but are asking to share the land and experience that is not obtainable elsewhere. She said that they are not wasting farmland and are rather doing what their ancestors settled upon the land to do which was to go forth and prosper and make the best of it.

Ms. Murray-Miller stated that she and her sister have not submitted the proposal haphazardly because they have done research and taken the steps necessary that have been asked of them to make sure that this is a feasible project. She said that they come from a hardworking and honest family and she and Anne have created jobs in a time when there is recession and despair and they have created a non-for-profit to reduce waste and help feed hungry families. She said that they would appreciate the opportunity to offer this space to the residents of Champaign County. She thanked the Board for their time and consideration.

Mr. Thorsland asked the Board if there were any questions for Ms. Miller and there were none.

Mr. Thorsland asked if staff had any questions for Ms. Miller and there were none.

Mr. Thorsland asked the audience if anyone desired to cross examine Ms. Miller and there was no one.

Mr. Thorsland called Anne Murray to testify.

Ms. Anne Murray stated that she agreed with Ms. Miller-Murray's testimony therefore she declined to testify

at this time.

Mr. Thorsland called Lisa Kesler to testify.

Ms. Lisa Kesler, who resides at 1801 W. Hensley Road, Champaign, stated that her residence is approximately one-quarter mile from the subject property. She said that she has known Anne and Lauren Murray their entire lives and she has watched them work their tails off since the day they graduated. She said that she has watched the girls build their business over the years into something that they can be very proud of and everyone is very proud of them. She said that every step of the way the girls' projects have always been thoroughly researched and well planned and tastefully executed and she is sure that the proposed project will be no different. She said that both sides of the girls' family have farmed in Hensley and Condit townships in Champaign County for several generations therefore it comes as no surprise that they have always made the needs and tastes of the rural community a top priority in their business and she is sure that they will continue to do so. She said that she believes that there is no risk that this building will be anything less than a beautiful addition to the community that everyone can be proud of because it has been designed to blend in with the surrounding landscape and to compliment the area. She has no reservations regarding the proposed project.

Mr. Thorsland asked the Board if there were any questions for Ms. Kesler and there were none.

Mr. Thorsland asked if staff had any questions for Ms. Kesler and there were none.

Mr. Thorsland asked the audience if anyone desired to cross examine Ms. Kesler and there was no one.

Mr. Thorsland called Ben McCall to testify.

Mr. Ben McCall, who resides at 1085 CR 2200N, Champaign, stated that he is a member of the Hensley Township Planning Commission, however his comments tonight are not intended to represent the opinions of the Hensley Township Planning Commission. He noted that the Hensley Township Board of Trustees did meet and considered the recommendation of the Hensley Township Plan Commission and they were in unanimous support of the Hensley Township Plan Commission recommendation and are preparing a protest for this case.

Mr. McCall stated that it is important to mention that no one is questioning the good intentions, hard work of the petitioners, value of their business or the quality of their catering business. He said that he has only heard good things about the petitioners and the letters of support reflect that as well. He said that the question before the Board is not whether this is a worthy business or a great family but whether the location where the project is proposed is consistent with the Ordinance.

Mr. McCall stated that he would like to mention some additional concerns that he has thought of since the

last meeting. He said that one of his concerns was basically traffic which has already been discussed. He said that the entrance to the proposed event center is approximately 275 yards from the planned Hindu Temple and Cultural Center and he believes that there is a significant likelihood of an overlapping of highly attended activities at the two properties. He said that he understands that if the traffic impact analysis is performed it will take such an overlapping of events between the two properties into account. He said that having two very high use properties in close proximity on a high speed two lane road will create numerous issues with traffic especially since both of the locations have relatively poor visibility for people leaving the properties. He said that it is also likely that most people leaving the subject property will try to southbound onto Mattis Avenue to try to return to town which will require a left hand turn out of the property. He said that a right hand turn will navigate traffic onto alternate routes which are narrow secondary township roads which are low volume and contain slow moving farm equipment, bicycle riders, walkers, runners and hazardous road conditions during the winter months. He said that the intersection at Hensley Road a lot of drivers wish to cross Mattis Avenue on Hensley Road which creates a routinely unsafe behavior in trying to squeeze through the narrow traffic gaps on Mattis Avenue at busy times and an increase in concentrated traffic will make it more difficult to safely cross Mattis Avenue at Hensley Road.

Mr. McCall stated that a point of discussion which arose during the Hensley Township Board meeting was that there is a risk of impaired drivers leaving the subject property during an event where alcohol is served.

Mr. McCall stated that the second concern relates to the compatibility of the proposed land use and the surrounding area. He said that one of the Hensley Township Trustees indicated that the use would institutionalize the conflict of agricultural operations. He said that many AG-1 uses are generally considered compatible with more urban uses which is the reason why the County has AG-1 and why most land use plans tend to separate agriculture from other uses. He said that the row cropping that goes on has very little impact on neighborhood properties in general but there are periods of heavy dust production and pesticide drift. He said that there are allowable uses in AG-1 such as a concentrated animal feed operation and if such an operation popped up next door to the event center there would be an apparent conflict.

Mr. McCall stated that his third concern is the necessity for the public convenience at this particular location. He said that the owner of the proposed event center property also owns the property where all of the kitchen and prep work for L.A. Gourmet will continue to be done. He said that this location has several similarities to the proposed property because it is of a similar size, which is approximately 10 acres with an existing home, and is only a few miles north of the subject property and is also in rural setting. He said that the property housing the kitchen for the prep work for the business is in a more rural setting because it is not close to a subdivision and does not have a proposed Hindu Temple and Cultural Center in its line of site. He said that ample farm ground is available for constructing an event center at this location and it seems as if the two properties are very similar and appear to meet the petitioner's desire for a location in the country and both are owned by the same person suggests that the proposed location is not somehow uniquely suited to this event center.

Mr. Thorsland asked the Board if there were any questions for Mr. McCall and there were none.

Mr. Thorsland asked if staff had any questions for Mr. McCall.

Mr. Hall asked Mr. McCall to verify that when he discussed the Hensley Township Board's comments he was referring to those comments because he shared the same concern and was merely passing those concerns along.

Mr. McCall stated that he shares the Hensley Township Board's concerns although he was not relaying those concerns as a representative.

Mr. Thorsland asked the audience if anyone desired to cross examine Mr. McCall.

Ms. Lauren Murray-Miller asked Mr. McCall where he obtained his information regarding the other land owned by the Murray family.

Mr. McCall stated that the information is available through the Champaign County Supervisor of Assessments Office data base.

Ms. Miller asked Mr. McCall if the data base indicated that the two properties that he referred to during his testimony were both owned by John G. Murray.

Mr. McCall stated yes, although he does not have the documentation with him tonight to confirm.

Ms. Miller asked Mr. McCall if without the documents he unsure of his statement.

Mr. McCall stated that the Supplemental Memorandum dated April 26, 2012, stated that the kitchen for L.A. Gourmet Catering is located at 2607 CR 1000 East. He said that the information that he obtained off of the data base is assumed accurate.

Mr. Thorsland asked the audience if anyone else desired to cross examine Mr. McCall and there was no one.

Mr. Thorsland called Gwendoline Wilson to testify.

Ms. Gwendoline Wilson, who resides at 2069 CR 2900N, Rantoul, stated that she owns and operates Nuptiae Wedding and Event Planning, and has been in the business for nine years. She said that she is present tonight to speak in favor of the L.A. Gourmet special use request. She said that as a wedding planner and a member of the Association of Bridal Consultants she has worked with many local families to plan events that are special to each individual and more than half of the wedding plans have a budget of over $44,000. She said that the wedding and event industry is very important to area businesses and a successful

event center can impact the local economy not only through the vending but also through hotel rooms, transportation, formal wear, rental companies, specialty vendors because they all employ many people. She said that there is a need for an event center such as the one which is proposed.

Ms. Wilson stated that Lauren Murray-Miller and Anne Murray are uniquely positioned to own and operate a facility such as the one proposed responsibly and successfully. She said that the beauty of this design is that it will create a secluded experience for the guest and will also create a buffer to minimize any impact on the people that are living in the area. She said that recently she was trying to find a location for an October wedding but after about one dozen calls she had to suggest that the bride and groom select a different date. She said that having a unique option like the proposed event center would offer not only one more place for someone to hold their event but would offer them a completely different type of experience and atmosphere than what is available currently.

Ms. Wilson stated that when families are looking for a location for a reception and find that nothing is available in the County they are very likely to go outside of the County to other counties and communities for the wedding, reception, hotel rooms, etc. She said that what is special about the location that is being considered tonight is the rural setting. She said that Lauren and Anne are from a farming family and their father operates a Champaign County Centennial Farming Operation therefore it is known that the girls have grown up appreciating the land. She said that the event center will not take any prime farmland out of production. She said that everything that she has seen regarding the plan demonstrates the way that they would steward the property. She said that Lauren and Anne completed feasibility studies on several different properties before deciding upon the subject property and they have completed the necessary engineering work to assure that drainage would not be a problem for the surrounding neighbors and farmland. She said that the event center will have over 100 freshly planted trees to create a lush green space that will buffer noise from leaving the property and are installing as few lights as possible to reduce the chance that neighbors will be affected. She said that the parking area will ensure that traffic moves smoothly and without interruption.

Ms. Wilson stated that as a Master Gardener she is really excited about the landscaping that is proposed on the property because in addition to the many fruit trees and vegetables that will be planted those products will be served in the meals that are served at the center. She said that wild flowers will grow on the property just as they would have over 100 years ago. She said that very few venues offer such a truly unique and rural setting and it is simply unattainable within the city limits. She said that the retreat will be especially appealing to rural families planning for special occasions and the picturesque nature of the countryside will be a draw for people who share a rural heritage and desire to share their passion for nature with their friends. She said that the fact that the building will blend into the landscape will make it even more beautiful for guests and less noticeable for the neighbors.

Ms. Wilson stated that Lauren and Anne are good business women and even better citizens and they offer a quality experience for each guest and they always go above and beyond to make sure that the events are

memorable and special. She said that in all of the years that she has done business with L.A. Gourmet they have never taken advantage of anyone and are gracious and accommodating and if you have ever dealt with a frantic bride you know that is not an easy task. She said that L.A. Gourmet provides good jobs for many people and they donate their time and talents to several local social service organizations and they operate one of the most upscale businesses in central Illinois. The proposed L.A. Gourmet Event Center will take a property which has been allowed to run down and create a beautiful, sustainable and useful gathering place in Champaign County.

Mr. Thorsland asked the Board if there were any questions for Ms. Wilson.

Mr. Courson stated that he understands the attraction of the rural setting but how would one of the clients feel if after spending $44,000 on an event the neighboring farmer decides to harvest his crops or spray anhydrous on his field. He said that everyone is indicating that the subject property is such a wonderful area but if the wind happens to be blowing out of the east the Woods' feedlot will produce a wonderful aroma which is part of the rural atmosphere and will impact the business. He said that the Board is not just concerned about how the proposed event center will affect the community but how the community will affect the event center.

Ms. Wilson stated that Lauren and Anne are the type of people who are concerned about their clients rather than about themselves and their business therefore she is sure that they will make preparations to assure that people understand these types of issues or possible occurrences when they book an event. She said that the event space is indoors and when occurrences happen the windows on the event center could be closed therefore she does not believe that the surrounding activities will impact the business. She said that she is sure that the clients will be informed that such things could be anticipated in the rural setting and it is the nature of the business to expect that things will happen and it is the business owner's job to make sure that the people that they are serving have the very best service and event that is possible.

Mr. Thorsland asked the Board if there were any further questions for Ms. Wilson and there were none.

Mr. Thorsland asked if staff had any questions for Ms. Wilson and there were none.

Mr. Thorsland asked the audience if anyone desired to cross examine Ms. Wilson and there was no one.

Mr. Thorsland called Chris Wallace to testify.

Ms. Chris Wallace, who resides at 2691 CR 1000E, Champaign, stated that she would like to speak in favor of the request to build and operate an event retreat on the Dewey-Fisher Road. She said that she and her husband live on CR 1000E which is directly north of the L.A. Gourmet kitchen and have lived there before the business' conception. She said that delivery trucks and employees come and go to the business and several large events have been held on the property since it has been there. She said that the business has

been a good neighbor and there has been no noticeable disruption in their lives and she finds it interesting and exciting to watch all of the activities. She said that they have never been bothered by any excessive noise, lights or litter coming from the property. She said that L.A. Gourmet is probably the largest employer in Condit Township and in this day and age of high unemployment she believes that we should encourage the entrepreneurial spirit of young people who are willing to take the risk of starting a business and expanding a business that would employ others. She said that we are not discussing a landfill, a large dog kennel or a huge toxic waste facility but an event retreat which holds fun events and makes people happy. She said that she understands some of the voiced concerns but if those speakers were personally acquainted with Lauren Murray-Miller and Anne Murray, as she is, the fears for the neighborhood would no longer be a concern. She said that she and her husband have known Lauren and Anne since they were babies and they have grown up with their own children. She said that she and her husband have watched the girls grow into lovely and successful young ladies who have vision and an incredible work ethic and a loving family who is willing to help and support them. She said that this is why L.A. Gourmet has grown as fast as it has and why it is known throughout the area as a premier caterer. She said that it doesn't hurt that the girls serve excellent food with style and flair and she would like to point out that their caramel brownies are legendary.

Ms. Wallace stated that many factors are combined to make L.A. Gourmet a success and Anne and Lauren's hard work was probably the most important factor. She said that the girls worked both day and night to get the business off of the ground and during the start up days of L.A. Gourmet they would come home from serving an event, carry in all of the dishes so that they could wash them and begin preparing the food for the next day's event. She said that Lauren and Anne pay several people good wages and they provide benefits. She said that it is important to note that many of the employees are long term and they feel vested in the business. She said that Lauren and Anne are ethical people who will do what they say they will do and everything that they do is done with class and she does not expect the event center to be any different. She said that she hopes that everyone welcomes the girls with their proposed project and she assures everyone that they will be good neighbors.

Mr. Thorsland asked the Board if there were any questions for Ms. Wallace and there were none.

Mr. Thorsland asked if staff had any questions for Ms. Wallace.

Mr. Hall asked Ms. Wallace how long she has lived at her current residence.

Ms. Wallace stated that she has lived at her residence for more than 30 years but practically she has lived there her entire life.

Mr. Hall asked Ms. Wallace that after living at her residence in rural Champaign County for over 30 years does she believe that the event center can exist in that area and not create problems for local agriculture.

Ms. Wallace stated that she does not believe that the event center will create problems for local agriculture in

the area. She said that the girls grew up on a farm and they are fully aware of dust, odors and pesticides and anhydrous applications. She said that it will take a while for the proposed trees for the buffer to grow but she believes that the buffer will provide what it is intended to provide. She said that the girls are wonderful business women and she does believe that they would not even consider the property if they believed that it would be a burden upon the neighbors or if agricultural activities would be a burden to their business.

Mr. Thorsland asked the audience if anyone desired to cross examine Ms. Wallace and there was no one.

Mr. Thorsland called Catharine Ehler to testify.

Ms. Catharine Ehler, who resides at 1078 CR 2200N, Champaign, stated that she is a farmer and she owns 280 acres north and east of the proposed subject property and she lives one mile south of the livestock farm that everyone has been referring to. She said that the livestock farm does produce odors at times but if she goes inside of her home it isn't a problem therefore she does not believe that the livestock farm will be an issue for the proposed event center. She said that knowing the history of the Murray family she believes that the girls will be good neighbors because they know the farming business better than probably most other people understand it. She said that the girls are very aware of the safety factor of the Dewey-Fisher Road because their aunts were instrumental in having the curves reconfigured. She said that she supports the proposal and she looks forward to its completion.

Mr. Thorsland asked the Board if there were any questions for Ms. Ehler and there were none.

Mr. Thorsland asked if staff had any questions for Ms. Ehler and there were none.

Mr. Thorsland asked the audience if anyone desired to cross examine Ms. Ehler and there was no one.

Mr. Thorsland called Bernard Hammel to testify.

Mr. Bernard Hammel, who resides at 105 East Ford Harris Road, Champaign, stated that he has lived in the area for 79 years and he has seen a lot of changes. He said that the area used to have a one lane road and no electricity or telephone was available. He said that the dust and smell that has been discussed is a non-issue because nature takes care of itself. He said that he is very proud of the children that have come from the area and the girls deserve the chance to see what they can do with this project. He said that he has eaten at a lot of restaurants and it doesn't hurt to have some new ideas in the area for the public. He said that it is necessary to allow young people to develop their new ideas and put people back to work.

Mr. Thorsland asked the Board if there were any questions for Mr. Hammel and there were none.

Mr. Thorsland asked if staff had any questions for Mr. Hammel and there were none.

Mr. Thorsland asked the audience if anyone desired to cross examine Mr. Hammel and there was no one.

Mr. Thorsland asked the audience if anyone desired to sign the witness register at this time to present testimony regarding this case and there was no one.

Mr. Thorsland called Mr. Eric Bussell to testify.

Mr. Eric Bussell, realtor for Keller-Williams Realty, stated that he has a major focus in property management and a minor focus on commercial real estate. He said that approximately one year ago Anne and Lauren contacted him to assist them in finding a location for their proposed event center and one year later they were unable to accomplish what they set out to do. He said that they visited many buildings and properties and it got to the point that another real estate broker was contacted to help with the search. He said that the argument that there are other buildings out there to suit the needs of the business is not true because he works on commission and he would have loved to have been paid for finding the girls a property. He said after hearing from the girls as to why each building after building would not work for their needs he discovered that they were indeed particular and desired to satisfy their client's needs. He said that he failed in finding Anne and Lauren the ideal location but at the same time he is excited that they did find a property that can be utilized for their business. He said that the general market does not provide for the needs of L.A. Gourmet and the need in the community for an event center such as this is strong.

Mr. Thorsland asked the Board if there were any questions for Mr. Bussell and there were none.

Mr. Thorsland asked if staff had any questions for Mr. Bussell and there were none.

Mr. Thorsland asked the audience if there were any questions for Mr. Bussell.

Mr. McCall, who resides at 1085 CR 2200N, Champaign, asked Mr. Bussell if he and the Murray's viewed any other properties that were available for development which were in the AG-2 district or perhaps Clearview Subdivision.

Mr. Bussell stated that the Clearview Subdivision is not appealing for Lauren and Anne's business requirements. He said that the vision for Clearview Subdivision was to establish a Mayo Clinic on the prairie and a lot of commercial buildings were anticipated therefore a unique wedding experience would be hard to achieve in Clearview Subdivision. He said that he understands Mr. McCall's point but the area did not fit the need and atmosphere of the business.

Mr. McCall asked Mr. Bussell if he explored any of the vacant properties which are available for development in the AG-2 district.

Mr. Bussell stated that when he requested additional assistance from other brokers they looked at everything

that was for sale but he cannot speak about any of the specifics for each property.

Mr. Thorsland asked the audience if anyone desired to sign the witness register to present testimony regarding this case.

Mr. Thorsland called Peggy Anderson to testify.

Ms. Peggy Anderson, who resides at 2172 CR 1000E, Champaign, stated that her favorite grade school teacher was Anne and Lauren's grandmother. She said that it is good that younger generations with agricultural backgrounds have visions and ideas and she whole heartedly supports them. She said that her property is to the north of the subject property and when clients leave the property she does not believe that it will be a problem but when they arrive at the subject property from town they may well overlook the entrance because it is just down from the crest of the hill. She said that missing the entrance would require the clients to come onto her property to turn around and head back to the subject property therefore she is concerned with the traffic that will be created. She said that the application stated that the event center will have 84 parking spaces available and that the building will have the upper level capacity of 400 people. She said that she spoke to other caterers and they indicated that the proposed parking spaces were insufficient.

Mr. Thorsland asked the Board if there were any questions for Ms. Anderson and there were none.

Mr. Thorsland asked if staff had any questions for Ms. Anderson.

Mr. Hall stated that Ms. Anderson's concerns did not mention the compatibility with surrounding agriculture although she is one of the surrounding property owners. He asked if she had any concerns regarding compatibility.

Ms. Anderson stated that she does have concerns but those concerns have been mentioned by other people therefore she did not repeat them.

Mr. Thorsland asked the audience if anyone desired to cross examine Ms. Anderson and there was no one.

Mr. Thorsland asked the audience if anyone desired to sign the witness register to present testimony regarding this case and there was no one.

Mr. Thorsland closed the witness register.

Mr. Thorsland stated that the Board has been informed that Mr. Blue, Champaign County Highway Engineer, has indicated that he is not comfortable with the proposed driveway entrance to the subject property therefore it is up to the Board to decide whether or not the traffic impact analysis will be required. He said that the cost of the analysis is the petitioner's responsibility but it is up to the Board to decide if it is

necessary before moving forward. He said that after reviewing the proposed lighting plan he does not believe that the plan meets the requirements of the Ordinance.

Mr. Hall stated that it is hard to believe that the dark sky communities do not allow any up-lighting of trees therefore staff will research to see if there is a standard that some folks find acceptable.

Mr. Thorsland stated that he is also concerned about the shade that the trees may produce on crops. He said that the main question before the Board right now is whether or not the traffic impact analysis is required.

Mr. Palmgren stated that the cost of the analysis is unfortunate but if the County Highway Engineer is uncomfortable with the driveway entrance then it is necessary.

Mr. Thorsland stated that the Board should keep in mind that if improvements to County Highway 1 are requested then those costs will also be passed on to the petitioners.

Mr. Courson stated that he believes that the traffic impact analysis is necessary as well.

Mr. Hall stated that up to tonight's meeting he was thinking that the traffic impact analysis is only relevant to Case 700-S-11 given the kinds of land uses that could happen in AG-2, by-right. He said that there are only two uses that are different than what could happen in AG-1 and one of those is a golf course. He said that oddly enough one of the new policies in the new LRMP indicates that a traffic impact analysis should be required and it is really up to the Board. He said that no matter what happens there does need to be some mention of the suggestion of the traffic impact analysis made in the finding of fact for Case 699-AM-11. He said that the traffic impact analysis is most relevant to the special use permit but he would not want the County Board to think that the ZBA completely ignored it in the rezoning either.

Mr. Thorsland stated that the other different use that Mr. Hall was discussing is a commercial breeding facility. He said that he believes that a traffic impact analysis is necessary given the concerns of the neighbors. He said that he travels County Highway 1 himself and the little bit of data that has been presented does indicate that there is a five year history of a significant amount of activity on the road. He said that someone who is unfamiliar with the road will probably indeed overshoot the new driveway entrance and stop at the bottom of the rise. He said that he would like to see the traffic impact analysis completed before taking action on the two cases and the bad part is that the petitioners paid for it and they may not be approved but that is a risk that you take when you propose development.

Mr. Passalacqua stated that the Board appears to agree that a traffic impact analysis is required and that the Board is not questioning the ethic or character of the petitioners. He said that public safety is the foremost concern of the Board.

Mr. Thorsland informed the petitioners that the Board is requesting that a traffic impact analysis be

completed at the cost of the petitioner.

Ms. Anne Murray, who resides at 2150 CR 1000E, Champaign, stated that they have spent a lot of money, which is a risk that you take for development, but if they do spend the $5,000 on the traffic impact analysis is there a way to see if the project is still a feasible project for the Board's consideration.

Mr. Thorsland stated that he would like to know more about the traffic before he is inclined to make a decision regarding the map amendment or the special use permit. He said that if the traffic problems can be resolved then a lot of the other issues can be dealt with but the petitioner has been informed that Hensley Township plans to protest the request therefore a super-majority vote will be required. He said that he is not ready to make a decision until he reviews the traffic impact analysis. He said that the petitioners have made a very good case regarding the perceived need of the event center and it appears that with the petitioner's background it appears that they are a very good fit for such a project in an agricultural area but again the traffic is the big issue.

Mr. Courson stated that proper signage must be addressed. He said that the layout is very beautiful but someone who is not familiar with the area may not be able to see the sign therefore perhaps some rearrangement of trees would be appropriate to make sure that the signage is visible for the northbound traffic.

Mr. Thorsland stated that he is not sure if the Board has jurisdiction over placement of signage.

Mr. Courson stated that he is concerned about the lighting.

Mr. Hall asked that given the concerns about people knowing where to turn into the property the petitioners have indicated that they will revise the driveway. He said that even though it would take best prime farmland out of production does the Board believe that the driveway should be placed as far north on the property as possible.

Mr. Courson stated that the subject property is at the bottom of two hills so moving the driveway entrance to the north may not help.

Ms. Murray stated that moving the driveway entrance to the north would create a lane across the property especially if the ditch was redone correctly. She said that this would give people a lot more space to turn in and it would reduce traffic congestion.

Mr. Courson stated that perhaps a turn lane on County Highway 1 would be necessary.

Mr. Thorsland stated that the traffic impact analysis will determine such information.

Mr. Passalacqua stated that a turn lane could help reduce any possible accidents.

Ms. Murray stated that whatever the Board requires they will comply.

Mr. Passalacqua stated that the building design and the concept of the business does appear wonderful but traffic is a concern.

Ms. Murray stated that the area is their community as well and they do not want accidents to happen.

Mr. Thorsland stated that the petitioners should work with staff to determine how the required traffic impact analysis can be organized.

Mr. Hall asked if the Board is comfortable in regards to compatibility with neighboring agriculture because it has been mentioned that the landscaping should be reviewed to minimize shading on properties to the north and landscaping may help buffer.

Mr. Thorsland stated that the in regards to landscaping the petitioners and the neighbors to the north can work out the shading issue between themselves.

Mr. Palmgren stated that he is concerned about the clients not knowing about agriculture.

Mr. Thorsland stated that personally he believes that this is a great plan but until he receives the traffic impact analysis he cannot indicate which way he will vote.

Mr. Courson stated that this is a rural property with no municipal water supply and the event center has been indicated to have a capacity of 400 people therefore if there is a fire there would be inadequate water available. He said that it would be nice if there was an area in the parking area where the fire truck could back up to the pond for access to water for fire protection.

Mr. Hall stated that a dry hydrant was a request from the Thomasboro Fire Protection District. He said that staff needs to talk to the fire chief to determine if the lanes must be redesigned to gain better access to the dry hydrant location. He said that staff has received no more information other than what Chief Cundiff is requesting which is a dry hydrant that is easily accessible by the fire truck.

Mr. Thorsland requested a continuance date.

Mr. Hall stated that the case should not return to the Board before June 14th. He said that such a continuance date is whether or not the petitioners are ready to move forward with the traffic impact analysis so that CUUATS has at least two weeks to work on it and the petitioners have time to think about those results. He said that June 14th is the earliest date that the cases should return to the Board.

Mr. Thorsland asked the petitioner if they desired to incur the cost of the traffic impact analysis and move forward.

Ms. Anne Murray stated that they will incur the cost of the traffic impact analysis and they would like the Board to move forward.

Mr. Palmgren moved, seconded by Mr. Courson to continue Cases 699-AM-11 and 700-S-11 to the June 14th meeting. The motion carried by voice vote.

CHAMPAIGN COUNTY
rpc
REGIONAL
PLANNING
COMMISSION

Traffic Impact Analysis

LA Gourmet Event Center

Champaign County, Illinois

Prepared by:

Champaign Urbana Urbanized Area Transportation Study (CUUATS)
Urbana, Illinois

Executive Summary

The Champaign County Regional Planning Commission (CCRPC) performed a traffic impact analysis for the proposed LA Gourmet Event Center on County Highway 1 in Champaign County, Illinois. The study took a comprehensive approach through analyzing the existing traffic operational conditions, number of future trips generated due to the event center's operation, trip distribution, and assignment, and the future build-out condition.

Based on the findings of the Traffic Impact Study, the following recommendations were made for the proposed event center on County Highway 1:

- The proposed event center would have minimal impact on traffic flow on the roadways and intersections in its vicinity. Therefore, no capacity or traffic operational improvements are necessary for the study roadway segments and the three major study intersections.

- In order to provide safe egress of project traffic from the site, a stop sign is recommended on the site driveway with due consideration to proper sight distance.

- Lighting should be provided at the entry/exit point to enhance visibility.

- County Highway 1 is a high speed arterial. To avoid potential rear-end or turning crashes, advance information signs should be provided on County Highway 1 to make drivers aware of the location of the event center.

- All the signs should be placed in accordance with the latest version of Manual on Uniform Traffic Control Devices (MUTCD) guidelines.

- Way finding sign should be placed at least 200 ft. in advance of the access to the study site to provide adequate driver reaction time.

1.0 Introduction

This report analyzes the traffic impacts of the proposed "LA Gourmet Event Center" in Champaign County. The proposed development is located two miles north of the City of Champaign municipal boundary along County Highway 1, in Hensley Township. **Figure 1** illustrates the project location. The proposed event center would be approximately 11,300 square feet in Gross Floor Area (GFA) and is expected to accommodate a maximum of 400 people. This study assesses the existing traffic conditions around the project location and the impacts of the traffic generated by the event center on the surrounding area. The study also addresses the crash history around the site and recommends measures to mitigate any potential impacts to the transportation system.

2.0 Existing Conditions

This section of the report analyzes the existing traffic conditions around the project site. The proposed facility is expected to hold events on weekday and weekend evenings. Based on traffic flow patterns on the regional transportation network, the traffic volumes are maximized during the weekday evening peak period. Analyzing the weekday evening (PM) peak hour traffic around the site would represent the worst case scenario to identify any potential impacts of the proposed development on the roadway network. Traffic data was collected along County Highway 1 and at key intersections around the site. The historical crash data on County Highway 1 was also analyzed.

2.1 Data Collection

A study area was defined to assess the impact of the trips generated by the event center on the roadway system. The primary access to the site is via County Highway 1 (CH 1)/Mattis Avenue. The roadway section along CH 1/Mattis Avenue, from Bloomington Road to the project site was selected as the study area. Figure 1 illustrates the proposed study area. Mattis Avenue, from Bloomington Road to Anthony Drive, is a 4-lane urban arterial roadway. The study segment from Anthony Drive to the project site is a 2-lane arterial roadway. The posted speed limit along Mattis Avenue is 45 mph within the City of Champaign municipal boundary and 55 mph along County Highway 1 in Champaign County. **Table 1** shows the 24-hour traffic counts on CH 1/Mattis Avenue, between Bloomington Road and the project site.

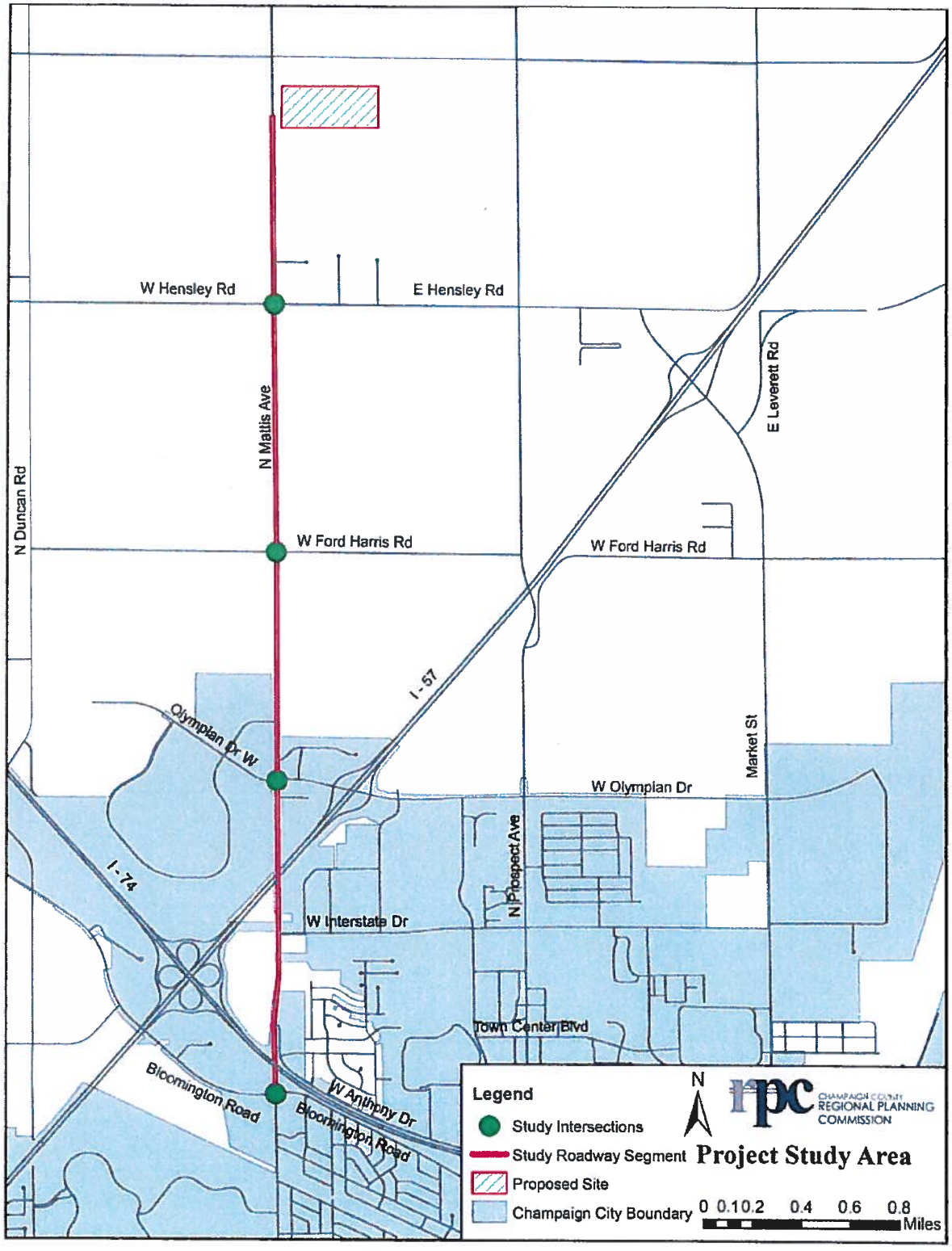


Figure 1: Proposed Site Location and Study Area

Table 1: Roadway Segment Average Daily Traffic (ADT)

Roadway		24-Hour Volume	Count Date
County Highway 1/Mattis Avenue			
	Bloomington Road to Anthony Drive	16,894	06/28/11
	Anthony Drive to Interstate Drive	11,365	06/30/11
	Interstate Drive to Olympian Drive	4,649	06/30/11
	Olympian Drive to Hensley Road	4,238	04/27/11

The following key intersections proximate to the site were selected for analysis:

- Mattis Avenue & Hensley Road
- Mattis Avenue & Ford Harris Road
- Mattis Avenue & Olympian Drive
- Mattis Avenue & Bloomington Road

The study intersections were visited to evaluate the existing conditions. The intersection of Mattis Avenue & Olympian Drive and Mattis Avenue & Bloomington Road are signalized intersections. Mattis Avenue & Hensley Road is a two-way (east-west) stop controlled intersection. Mattis Avenue & Ford Harris Road is a minor intersection with Ford Harris Road being a gravel road on either side of CH 1. Turning movement data was collected at the three major intersections during the typical evening peak period; from 4:30 PM to 6:30 PM. **Table 2** shows the PM peak hour turning movement traffic data at these study intersections.

Table 2: Turning Movement Counts at the Study Intersection for PM peak hour

Intersection	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Mattis Ave. and Hensley Rd.	21	228	29	2	97	10	6	16	3	27	21	14
Mattis Ave. and Olympian Dr.	4	198	144	120	150	2	5	6	1	145	4	116
Mattis Ave. and Bloomington Rd.	116	569	200	75	678	159	76	106	133	368	131	34

2.2 Crash Analysis

County Highway 1/Mattis Avenue historically has a high number of crashes. The traffic crash data from 2006 to 2010 was analyzed along the study intersections and roadway segments. **Table 3** shows the total number of crashes on CH 1 (including intersection crashes) by year.

Table 3: Crashes along Study Roadway Segments by Year

Roadway	Year				
	2006	2007	2008	2009	2010
County Highway 1/Mattis Avenue					
Bloomington Road to Anthony Drive	10	14	13	4	9
Anthony Drive to Interstate Drive	6	7	6	4	4
Interstate Drive to Olympian Drive	8	9	7	2	2
Olympian Drive to Project Site	5	2	8	4	6

The crashes are categorized based on crash severity into fatal crashes, injury crashes and property damage. The Illinois Department of Transportation's (IDOT) Division of Traffic Safety categorizes injury crashes into three severity categories: A-Injury, B-Injury and C-Injury. A-Injury is the most severe and C-Injury is the least severe. **Table 4** and **Table 5** present the crashes severity and the collision type, respectively. **Figure 2** illustrates the crash collision types on CH 1, from Bloomington Road to the project site. No pedestrian or bicycle crashes were recorded on the study roadway segments.

Table 4: Crashes along Study Roadway Segments by Crash Severity

Roadway	Total Crashes	Crash Severity			Injuries	Fatalities
		A - Injury	B - Injury	C - Injury		
County Highway 1/Mattis Avenue						
Bloomington Road to Anthony Dr.	50	2	5	2	10	0
Anthony Drive to Interstate Drive	27	1	2	4	10	0
Interstate Drive to Olympian Drive	28	2	2	4	12	0
Olympian Drive to Project Site	25	3	7	1	19	1

Table 5: Crashes along Study Roadway Segments by Collision Type

Roadway	Angle	Overturned	Fixed Object	Rear-End	Turning	Sideswipe
County Highway 1/Mattis Avenue						
Bloomington Road to Anthony Dr.	5	-	-	35	6	4
Anthony Drive to Interstate Drive	1	-	2	15	6	3
Interstate Drive to Olympian Drive	-	-	4	17	3	1
Olympian Drive to Project Site	6	3	2	3	8	-

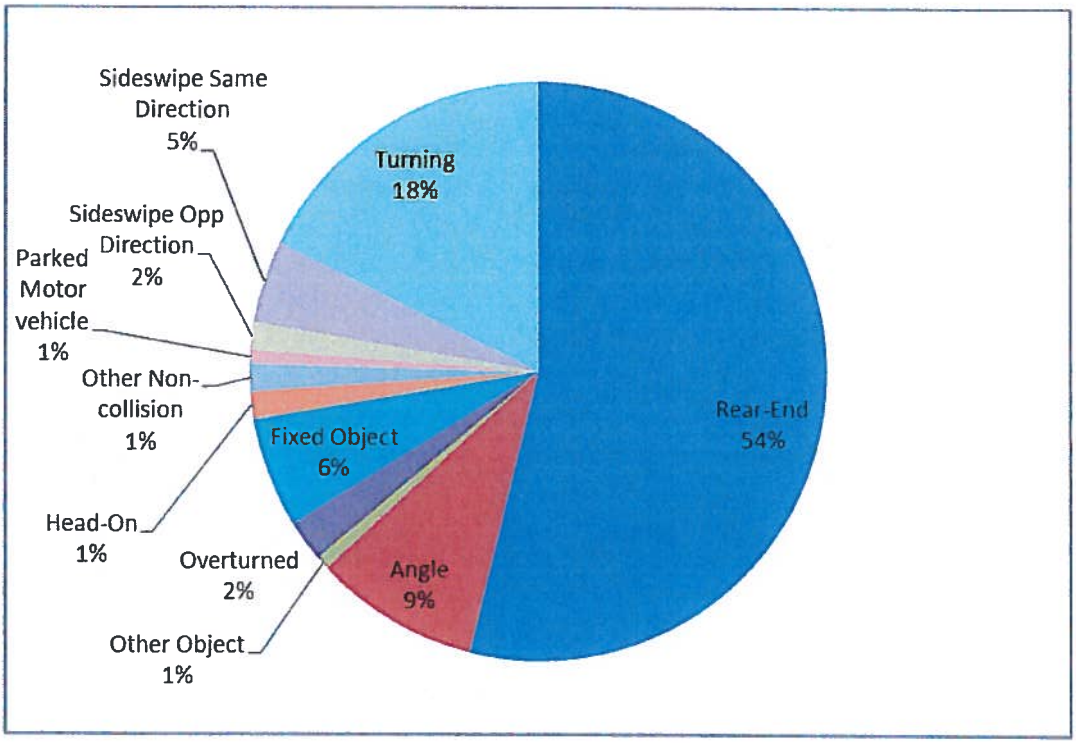


Figure 2: County Highway 1 Crashes by Collision Type

Table 6 and **Table 7** summarize the crash data at the key intersections in the study area.

Table 6: Crashes at Study Intersections by Crash Severity

Intersection	Total Crashes	Crash Severity			Injuries	Fatalities
		A-injury	B - Injury	C- Injury		
Mattis Ave. and Hensley Rd.	7	1	3	1	7	-
Mattis Ave. and Olympian Dr.	5	3	-	-	3	-
Mattis Ave. and Bloomington Rd.	36	-	4	2	7	-

Table 7: Crashes at Study Intersections by Major Crash Types

Intersection	Total Crashes	Major Crash Types		
		Angle	Turning	Rear-End
Mattis Ave. and Hensley Rd.	7	3	2	1
Mattis Ave. and Olympian Dr.	5	-	4	-
Mattis Ave. and Bloomington Rd.	36	5	6	22

The crash analysis for CH 1 shows that the majority (54%) of the crashes are rear-end crashes. The crashes can be partially attributed to the high speed (45mph – 55mph) along the study corridor. Turning and angle crashes make up another 26% of the corridor crashes. One fatal crash was recorded on CH 1 between Olympian Drive and the project site.

3.0 Project Trip Generation and Distribution

A trip generation rate needs to be established in order to estimate the future trip generation potential of the proposed event center. The ITE Trip Generation Handbook, *7th Edition* provides nationwide average trip rates/equations for several land uses. The trip rates/equations are aggregated from multiple studies and published by the Institute of Transportation Engineers (ITE). The "Recreational Community Center" (Land Use Code 495) was found to be appropriate to match the land use on the proposed site, but was not used since the trip rate was based on only one national study. Instead, the trips rates were developed using available project information and engineering judgment. Two approaches were considered to develop the trip generation rates:

Scenario 1 – Maximum capacity: The event center is expected have a maximum capacity of 400 people. Based on the 2003 CUUATS household travel survey, the average auto occupancy rate in the Champaign-Urbana urbanized area is estimated to be 1.7. Auto occupancy is the number of people per auto/vehicle. Assuming the facility operates at full capacity, a total of 235 vehicle trips are expected to be generated.

Scenario 2 – Average attendance: The event center is expected to have an average attendance of 200 people. In the worst case scenario, if an auto occupancy factor of 1 is assumed, a total of 200 vehicles are expected to be generated.

Both scenarios produce about the same number of trips. The trip generation estimates from Scenario 1 are considered more reliable than Scenario 2. **Table 8** summarizes the trip generation of the proposed event center during the evening (PM) peak hour.

Table 8: Trip Generation for the Proposed Development

Land Use	Maximum Capacity	Auto Occupancy	Projected Trips		
			Entering	Exiting	Total
Event Center	400	1.7	235	235	470

The estimated project trips were assigned on the roadway network based on existing turning movement counts, local knowledge of the area and engineering judgment. **Figure 3** shows the estimated percentage distribution of the project trips.

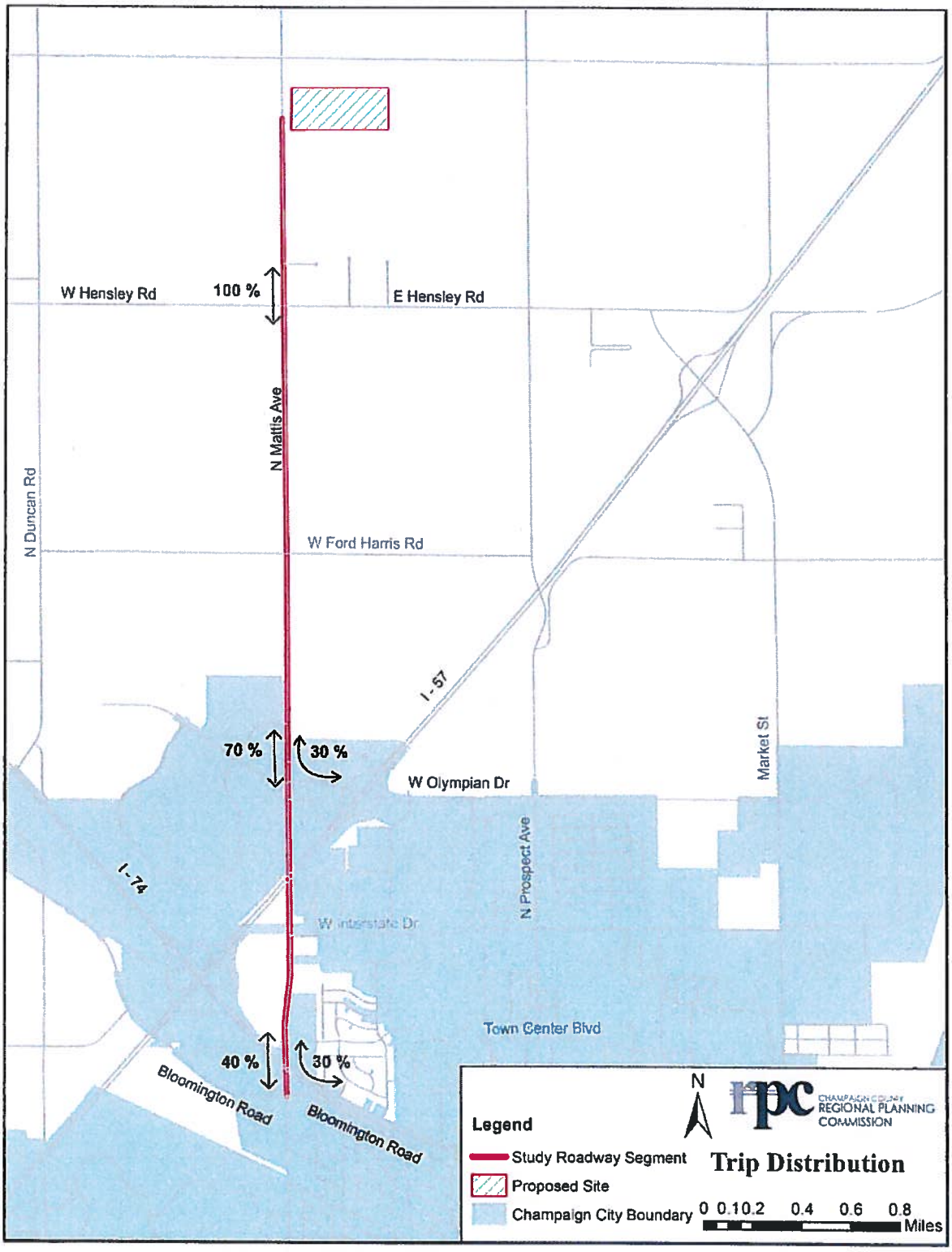


Figure 3: Estimated Trip Distribution of the Project Trips

4.0 Future Build-Out Conditions

The future build-out traffic, including the projected trips, was analyzed to evaluate the impacts of the proposed event center on the study area. The site is in close proximity to the proposed Hindu Temple on County Highway 1. The trips generated to/from the Hindu Temple are also included to determine the maximum impact on study roadway network. The temple is estimated to generate 124 project trips entering and exiting the site during the peak hour.

Table 9 shows the existing peak hour volume and the estimated future build-out peak hour volume. The projected trips are distributed at the study intersections as shown in Figure 3. The Hindu Temple trips are also distributed assuming the same travel pattern.

Table 9: Existing and Build-out Peak Hour Traffic at Study Intersections

Intersection	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Mattis Ave. and Hensley Rd.												
Exiting Peak Hour Traffic	21	228	29	2	97	10	6	16	3	27	21	14
Event Center Project Traffic		235			235							
Hindu Temple Project Traffic		124			124							
Build-out Peak Hour Traffic	21	587	29	2	456	10	6	16	3	27	21	14
Mattis Ave. and Olympian Dr.												
Exiting Peak Hour Traffic	4	198	144	120	150	2	5	6	1	145	4	116
Event Center Project Traffic		165		71	165							71
Hindu Temple Project Traffic		87		37	87							37
Build-out Peak Hour Traffic	4	450	144	228	402	2	5	6	1	145	4	224
Mattis Ave. and Bloomington Rd.												
Exiting Peak Hour Traffic	116	569	200	75	678	159	76	106	133	368	131	34
Event Center Project Traffic		94		71	94							71
Hindu Temple Project Traffic		50		37	50							37
Build-out Peak Hour Traffic	116	713	200	183	822	159	76	106	133	368	131	142

4.1 Intersection Level of Service Analysis

The study intersections were analyzed to evaluate existing and build-out operating conditions. The signal timings for the signalized intersections were obtained from the City of Champaign. The study intersections were analyzed using Synchro 8 software, in accordance with the Highway Capacity Manual (HCM) 2010. Selected intersection criteria such as Level of Service (LOS), approach delay and intersection delay were analyzed to determine the existing operational conditions during the evening peak hour.

Level of Service is a qualitative measurement describing operational conditions, from "A" (best) to "F" (worst), within a traffic stream or at an intersection. Level of Service is quantified for signalized and unsignalized intersections using vehicle control delay. Control delay is the component of delay that results from the type of traffic control at an intersection. It is measured by comparing the controlled condition against the uncontrolled condition. The difference between the travel time that would have occurred in the absence of the intersection control and the travel time that results from the presence of the intersection control is the control delay. Average control delay per vehicle is estimated for each lane group, aggregated for each approach and for the intersection as whole. LOS "D" is considered acceptable for the intersections in the study area. **Table 10** and **Table 11** show the Level of Service criteria for unsignalized intersections.

Table 10: Level-Of-Service Criteria for Signalized Intersections

Level of Service	Average Control Delay per Vehicle	Description
A	Less than 10 seconds	Free flow
B	10.1 to 20 seconds	Stable flow (slight delays)
C	20.1 to 35 seconds	Stable flow (acceptable delays)
D	35.1 to 55 seconds	Approaching unstable flow (tolerable delay-occasionally wait through more than one signal cycle before proceeding)
E	55.1 to 80 seconds	Unstable flow (approaching intolerable delay)
F	Greater than 80.0 seconds	Forced flow (jammed)

Source: HCM 2010

Table 11: Level-Of-Service Criteria for Unsignalized Intersections

Level of Service	Two-Way Stop Control	All-Way Stop Control
	Average Control Delay (seconds/vehicle)	Average Control Delay (seconds/vehicle)
A	Less than 10	Less than 10
B	10.1 to 15	10.1 to 15
C	15.1 to 25	15.1 to 25
D	25.1 to 35	25.1 to 35
E	35.1 to 50	35.1 to 50
F	Greater than 50	Greater than 50

Source: HCM 2010

Table 12 shows the Level of Service and average control delay in seconds at the study intersections. The analysis shows that the level for service for the eastbound and westbound approaches at the Mattis Avenue & Hensley Road drops from LOS B to LOS F. The overall LOS for the intersection changes from A (4.3) to B (12.0). High delays are usually expected on minor roadway approaches when intersecting with an arterial roadway. Moreover, this situation may arise only during the evening (PM) peak hour considering the worst case scenario for trip generation and may last for a short period of time. The peak hour factor of 0.5 on the minor approaches (Hensley Rd.) indicates that high delays are experienced only for a short duration during the peak period. A LOS of "D" is considered acceptable in urban areas. Based on the LOS for build out conditions, it can be inferred that the project trips do not significantly impact the traffic operations at the major signalized intersections.

Table 12: Level-of Service and Control delay (sec) at the Study Intersections

Intersection Leg		Existing Condition	Build-out Condition
Mattis Ave. & Hensley Rd.			
	Eastbound	B (13.5)	F (52.1)
	Westbound	B (14.4)	F (121.4)
Mattis Ave. & Olympian Dr.			
	Northbound	C (25.3)	D (37.8)
	Southbound	C (24.2)	D (35.0)
	Eastbound	C (25.6)	C (28.8)
	Westbound	B (14.1)	B (12.3)
	Overall	**C (21.7)**	**C (30.7)**
Mattis Ave. & Bloomington Rd.			
	Northbound	C (21.2)	C (25.3)
	Southbound	C (30.1)	D (41.2)
	Eastbound	B (18.9)	B (18.5)
	Westbound	D (37.1)	D (37.1)
	Overall	**C (27.2)**	**C (32.9)**

4.2 Roadway Segment Analysis

The impact of the project trips on the study roadway segment was also analyzed. The roadway level-of-service (LOS) criterion is established by HCM 2010. The LOS for the roadway segment from Olympian Drive to the project site was analyzed. As per the HCM guideline based on lane width, shoulder width, and access points per mile, the free flow speed along the corridor is estimated to be 52 mph. The level-of-service for the roadway segment based on the Average Travel Speed (ATS) and the Percent Time Spent Following (PTSF) was calculated to be LOS "B."

Based on the existing traffic volume and free flow speed, the study roadway segments function under acceptable level-of-service. The trips generated by the proposed event center are not expected to significantly impact the level-of-service for the study roadway segments.

5.0 Conclusions and Recommendations

The traffic impact analysis shows that the new additional trips generated by the proposed event center do not significantly affect the traffic conditions in the surrounding area. The project trips have limited impact on the study intersection, and intersection Level of Service (LOS) remains well within acceptable limits. The project traffic is not expecting to have a significant impact on the roadway traffic conditions.

The high number of crashes along the study segment usually warrants the analysis of turn lanes at the site access. Since most of the project traffic is expected to access the site from the south, a southbound left turn lane analysis was not required. Right turn lane requirements were considered and a turn lane was not recommended considering relatively lower through traffic on County Highway 1, smaller number of trips generated by the proposed development, and the lack of conflicting movements (e.g., southbound left turn and eastbound through movements).

In order to provide safe egress of project traffic from the site, a stop sign is recommended on the site driveway with due consideration to proper sight distance. Lighting should be provided at the entry/exit point to enhance visibility. County Highway 1 is a high speed arterial. To avoid potential rear-end or turning crashes, advance information signs should be provided on County Highway 1 to make drivers aware of the location of the event center. All the signs should be place in accordance with the latest version of Manual on Uniform Traffic Control Devices (MUTCD) guidelines. The way finding sign should be placed at least 200 ft. in advance of the access to the study site to provide adequate driver reaction time.

CASE NO. 710-AT-12

PRELIMINARY MEMORANDUM
June 8, 2012

Champaign County Department of

PLANNING & ZONING

Brookens Administrative Center
1776 E. Washington Street
Urbana, Illinois 61802

(217) 384-3708

Petitioner: **Zoning Administrator**

Prepared by: **John Hall,** Zoning Administrator
Andrew Kass, Associate Planner

Request: **Amend the Champaign County Zoning Ordinance by amending the Champaign County Land Evaluation and Site Assessment (LESA) System that is referred to in Section 3; and Footnote 13 in Section 5.3; and subsection 5.4, as follows* :**

Part A. Revise the Land Evaluation (LE) part as follows:

1. **Revise all soil information to match the corresponding information in the *Soil Survey of Champaign County, Illinois* 2003 edition.**

2. **Revise all existing soil productivity information and replace with information from *Bulletin 811 Optimum Crop Productivity Ratings for Illinois Soils* updated January 15, 2011, by the University of Illinois College of Agricultural, Consumer and Environmental Sciences Office of Research.**

3. **Delete the 9 existing Agriculture Value Groups and existing Relative Values ranging from 100 to 0 and add 18 Agriculture Value Groups with Relative LE ranging from 100 to 0.**

Part B. Revise the Site Assessment (SA) part as follows:

1. **Add definitions for "agriculture"; "agricultural production"; "animal units"; "best prime farmland"; "farm dwelling"; "livestock management facility"; "non-farm dwelling"; "principal use"; and "subject site".**

2. **Delete SA Factors A.2.; A.3.; B.2.; B.3.; C.2; D.2.; D.3.; E.1.; E.2.; E.3.; E.4.; F.1.; F.2.; F.3.; F.4.; and F.5.**

3. **Revise SA Factor A.1. to be new Factor 8. ; Factor B.1. to be new Factor 7.; Factor C.1. to be new Factor 5.; Factor D.1. to be new Factor 1.; and revise scoring guidance for each revised Factor, as described in the legal advertisement.**

4. **Add new SA Factors 2a; 2b; 2c; 3; 4; 6; 9; 10; and add scoring guidance for each new Factor, as described in the legal advertisement.**

Part C. Revise the Ratings for Protection, as described in the legal advertisement.

Part D. Revise the general text and reformat.

*** NOTE: the description of the Request has been simplified from the actual legal advertisement. See the attached legal advertisement**

BACKGROUND

The Champaign County Board Committee of the Whole- Environment and Land Use Committee authorized this text amendment at their April 3, 2012, meeting. See the attached memorandum.

RELATED ZONING CASE

This text amendment is related to Case 711-AT-12 which proposes a revised definition of "best prime farmland" based on the Land Evaluation data in the Draft LESA Update. These zoning cases are related and should be decided concurrently.

L.E.S.A. UPDATE COMMITTEE

The LESA Update Committee was an appointed committee who worked from June 2011 to March 2012 on an update to the existing LESA and a recommendation for best prime farmland. All of the meeting minutes, memoranda, and meeting handouts from meetings of the LESA Update Committee are available online at the "Champaign County LESA Update" (www.ccrpc.org/planning/LESA) on the Champaign County Regional Planning Commission (RPC) website. The most important documents will be provided to the ZBA and if ZBA members see other relevant documents on that website those documents should be entered as Documents of Record in these zoning cases.

In these public hearings the ZBA will review the most important memoranda and handouts from the LESA Update Committee and receive public testimony and make their own recommendation on the Draft LESA Update. Memoranda and handouts for the ZBA will be pre-punched for insertion into Case Notebooks that will be available at the meeting.

APPROACH TO THE ZONING CASES

The technical and policy issues in these two zoning cases are inter-related. The schedule of topics for these public hearings is proposed to be in the following order and at a pace suitable for the Board and consistent with the volume of public comment:

1. **Review the proposed changes to the Land Evaluation part of the Draft LESA Update.** This is the most technical part of the zoning cases and involves several different background documents. The methodology used in the proposed LE Factors Update is very similar to that used for the existing LE but with a few critical differences. LESA Update Committee member Kevin Donoho is the Natural Resources Conservation Service District Conservationist and has already provided expert review of the proposed LE Factors.

2. **Review the proposed definition of "best prime farmland".** This was perhaps the most challenging task for the LESA Update Committee but the ZBA's task should be somewhat easier due to their hard work.

3. **Review the proposed changes to the Site Assessment Factors in the Site Assessment part of the Draft LESA Update.** The Site Assessment Factors are not as technical as the LE Factors nor as challenging as the definition of Best Prime Farmland but allowing for a proper breadth of consideration and an adequate level of detail in scoring guidance proved a challenge for both the LESA Update Committee and support staff. And again, the ZBA's task will hopefully be somewhat easier due to the hard work of the LESA Update Committee.

4. **Review the proposed changes to the ratings for protection in the Site Assessment part of the Draft LESA Update.**

5. **Review the general text and format.**

PROPOSED CHANGES TO THE LAND EVALUATION PART

As reviewed above, the proposed LE Update is very similar to the existing LE and has already been reviewed by the NRCS District Conservationist. As with all text amendments, the changes need to be well documented, as follows:

1. **Revise the existing soil map symbols; soil series names; slope; acreage and proportionate extent; land capability classification; and farmland classification to match the corresponding information in the *Soil Survey of Champaign County, Illinois* 2003 edition.** The existing LESA (Attachment C) was adopted in February 1984 and used soil data from the first modern soil survey of Champaign County that was published in March 1982. The soil survey was updated in 2003 (using 2001 map symbols) and is online at www.soildatamart.nrcs.usda.gov/Manuscripts/IL019/0/champaign_IL.

   Some of the soil names (map symbols) changed in the 2003 *Soil Survey.* Attachment D is a conversion legend between the 1975 map symbols that are used in the existing LESA and the 2001 map symbols used in the updated *Soil Survey*. Attachments E, F, and G are relevant tables excerpted from the *Soil Survey of Champaign County, Illinois* 2003 edition.

   Note that the soil acreages in Attachment E are slightly different than the acreages included in the Champaign County GIS Consortium soils layer (which is based on NRCS soils data for Champaign County) which was the source of acreages reported in the Draft LESA. The differences are very slight and not statistically meaningful.

2. **Delete the existing Productivity Index Local and add Adjusted Soil Productivity Index based on the Crop productivity index for optimum management that is published in *Bulletin 811 Optimum Crop Productivity Ratings for Illinois Soils* updated January 15, 2011, by the University of Illinois College of Agricultural, Consumer and Environmental Sciences Office of Research.**
   As explained on page 2 of the existing LESA, the LE part of the existing LESA groups soils into nine "agricultural value groups" based on three criteria which are the following:

   - **Land capability classifications** can be found in the 1984 Soil Survey in the discussion of detailed soil map units for each soil map unit.

   - **Important farmland identification** is indicated in the existing LESA but is not referenced to a specific source.

   - **Soil productivity index** is based on the expected yields of the major grain crops as a percentage of the average yields. The productivity index in the existing LESA is from *Soil Productivity in Illinois*, Circular 1156, published in 1978 by the University of Illinois Cooperative Extension Service. Circular 1156 is no longer in publication and has been replaced by later bulletins (see below).

The *Land Evaluation and Site Assessment: A Guidebook for Rating Agricultural Lands, Second Edition* was one of the documents provided to the LESA Update Committee and is available on the "Champaign County LESA Update" (www.ccrpc.org/planning/LESA) on the RPC website. Chapter 4 of the *Guidebook* reviews the various methodologies for constructing Land Evaluation factors and is included as Attachment H.

The LESA Update Committee considered four options (alternative methodologies) for classifying Land Evaluation factors. Attachments I, J, and K are the principal documentation of those alternatives. The Update Committee selected Option 4 which is identical to the existing LESA except that it uses new soil data (and a more careful grouping of soils into agriculture value groups) which is as follows:

- **Land capability classifications** can be found in the 2003 *Soil Survey* in a general discussion on pages 133 to 134 (Attachment L) and for each soil type in Table 8 (Attachment F) and also Attachment M..

- **Important farmland identification** is only partially in the 2003 *Soil Survey*. Table 9 (Attachment G) indicates prime farmland. The classification "statewide importance" is o reviewed in the USDA Natural Resource Conservation Service (NRCS) National Soil Survey Handbook (Attachment M) but NRCS staff provided the classifications for use by the LESA Update Committee.

- **Soil productivity index** is based on the "crop productivity index for optimum management" from *Optimum Crop Productivity Ratings for Illinois Soils,* Bulletin 811, August 2000 published by the University of Illinois at Urbana-Champaign College of Agricultural, Consumer, and Environmental Sciences Office of Research. Bulletin 811 was also one of the documents provided to the LESA Update Committee on the "Champaign County LESA Update" (www.ccrpc.org/planning/LESA) on the RPC website. Amended Table S2 for Bulletin 811 dated 1/15/2011 was used for the Draft LESA Update. See the brief overview of productivity ratings for Illinois soils on the pages printed from the Soil Productivity Index Ratings for Illinois soils web page included as Attachment N.

3. **Delete the 9 existing Agriculture Value Groups and existing Relative Values ranging from 100 to 0 and add 18 Agriculture Value Groups with Relative LE ranging from 100 to 0.**
The LESA Update Committee selection Option 4 in Attachment K *Comparing the LE Options* (Attachment F to the 10/04/11 LESA Update Committee memorandum) but instead of the 8 Agriculture Value Groups indicated in Attachment K the final recommendation included 18 Agriculture Value Groups as shown in Attachment O. The inclusion of 18 Agriculture Value Groups (AVG) was intended to ensure that there was not too broad of a range in productivity of soils included in any one AVG. Attachment P reviews the existing LESA and illustrates what can happen if AVGs are constructed too broadly.

ATTACHMENTS (*= attachments available on the County website)

A Description of Case from Legal Advertisement

*B Champaign County Board Committee of the Whole Memorandum dated March 26, 2012, with attachments:
- A Champaign County Resolution No. 7642
- B Champaign County Resolution No. 7797
- C Brief Comparison of Existing LESA to Proposed Update Draft LESA
- D Champaign County Land Evaluation and Site Assessment (LESA) Update Draft dated March 7, 2012

*C Resolution No. 2248 Adopting the Champaign County Land Evaluation and Site Assessment (LESA) System, February 1984 (existing LESA)

*D U.S.D.A. N.R.C.S. Champaign County, Illinois Conversion Legend 1975 Map Symbol to 2001 Map Symbol

*E Table 5. Acreages and Proportionate Extent of the Soils from *Soil Survey of Champaign County, Illinois* 2003 edition.

*F Table 8. Land Capability and Yields per Acre of Crops and Pasture from *Soil Survey of Champaign County, Illinois* 2003 edition.

*G Table 9. Prime Farmland from *Soil Survey of Champaign County, Illinois* 2003 edition.

*H Chapter 4. Selecting and scaling Land Evaluation factors excerpted from *Land Evaluation and Site Assessment: A Guidebook for Rating Agricultural Lands, Second Edition*. Soil and Water Conservation Society, 1983

*I *Description of Data Used in Each LE Option.* Attachment D to the 10/04/11 LESA Update Committee memorandum

*J *LE Scores for Each Option Applied to Test Sites*. Attachment E to the 10/04/11 LESA Update Committee memorandum

*K *Comparing the LE Options*. Attachment F to the 10/04/11 LESA Update Committee memorandum

*L Pages 129 to 135 excerpted from *Soil Survey of Champaign County, Illinois* 2003 edition.

*M Parts 622.00 to 622.04 from the USDA Natural Resource Conservation Service (NRCS) National Soil Survey Handbook

*N Soil Productivity Index Ratings for Illinois soils web page introductory pages

*O Revised Option 4 Proposal 11/15/11 (Handout 1 for the 11/16/11 LESA Update Committee Meeting)

*P Memorandum to LESA Update Committee dated 12/28/11(Handout from John Hall to the LESA Update Committee on 1/4/12)

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3. **Delete the 9 existing Agriculture Value Groups and existing Relative Values ranging from 100 to 0 and add 18 Agriculture Value Groups with Relative LE ranging from 100 to 0.**

Part B. Revise the Site Assessment (SA) part as follows:

1. **Add definitions for "agriculture"; "agricultural production"; "animal units"; "best prime farmland"; "farm dwelling"; "livestock management facility"; "non-farm dwelling"; "principal use"; and "subject site".**

2. **Delete SA Factors A.3.; B.2.; B.3.; D.2.; D.3.; E.1.; E.2.; E.3.; E.4.; F.1.; F.2.; F.3.; F.4.; and F.5.**

3. **Revise SA Factor A.1. by renumbering to SA Factor 8; and changing 1.5 miles to 1.0 mile; and changing "in agricultural uses" to "with a principal use of agriculture"; and for a subject site that is Best Prime Farmland or at least 51% Prime Farmland limit the consideration to parcels and land use that existed on April 12, 2011; and increase the total points from 18 to 20; and change the assignment of points to 2 points for each 10% change from 0 to 100%; and add scoring guidance.**

4. **Delete SA Factor A.2. "Land Use Adjacent to Site" and replace with SA Factor 4. "Amount of the perimeter of a subject site that is adjacent to parcels with a principal use of agriculture"; and for a subject site that is Best Prime Farmland or at least 51% Prime Farmland limit the consideration to parcels and land use that existed on April 12, 2011; and increase the total points from 18 to 20; ; and change the assignment of points to 2 points for each 10% change from 0 to 100%; and add scoring guidance.**

5. **Revise SA Factor B.1. by renumbering to SA Factor 7; and by changing 1.5 miles to 1.0 mile; and change the assignment of points to 1 point for each 10% change from 0 to 100%; and add scoring guidance.**

6. **Revise SA Factor C.1. by renumbering to SA Factor 5; and increase the total points from 10 to 15; and by changing the assignment of points; and add scoring guidance.**

7. **Revise SA Factor D.1. by renumbering to SA Factor 1; and increase the total points from 8 to 10; and reduce the largest site from 100 acres to 25 acres; and change the assignment of points; and add scoring guidance.**

8. **Add SA Factor 2a "Is the subject site Best Prime Farmland?" and assign 30 points if "yes ; and add scoring guidance.**

9. **Add SA Factor 2b to assess for a subject site that is Best Prime Farmland, if the subject site is more than 15% of a larger parcel that existed on January 1, 2004, or if the subject site is 25 acres or more in area; and assign 10 points if "yes" ; and add scoring guidance.**

10. **Add SA Factor 2c to assess if the subject site is not Best Prime Farmland but is at least 51% Prime Farmland; and if the subject site is larger than 25 acres or if the subject site is part of a larger parcel that existed on April 11, 2011, with a total area for the subject site and all other portions of the larger parcel converted to non-agricultural use, of more than 25 acres; and assign 10 points if "yes" ; and add scoring guidance.**

11. **Add SA Factor 3 to assess if the subject site is located within the Contiguous Urban Growth Area identified in the Champaign County Land Resource Management Plan; and assign 40 points if "no" ; and if "yes" skip the remaining SA Factors and indicate a total SA score for only SA Factors 1,2, and 3; and add scoring guidance.**

*12. **Add new SA Factor 6 to assess the highest percentage of the subject site in agricultural production in any of the last 5 years; and assign 15 points for 80% or more and fewer points for a lesser amount; and add scoring guidance.**

*13. **Add new SA Factor 9 to assess the distance from the subject site to the nearest 10 non-farm dwellings and assign 20 points if more than a mile and fewer points if less than a mile; and add scoring guidance.**

*14. **Add new SA Factor 10 to assess the distance from the subject site to the nearest known livestock management facility of 400 or more animal units and assign 10 points if adjacent and fewer points if there is more distance; or, if more than a mile, assess the distance to the nearest known facility with 200 to 399 animal units and assign 7 points if adjacent and fewer points if there is more distance; or, if more than a mile, assess the distance to the nearest known facility of 50 to 199 animal units, and assign 4 points if adjacent and fewer points if there is more distance and 0 points if more than a mile distant; and add scoring guidance.**

*15. **Delete existing SA Factor C.2.**

Part C Revise the Ratings for Protection as follows:

1. **Change the scoring range for a low rating for protection from "179 or below" to "150 or below".**

2. **Change the scoring range for a moderate rating for protection from "180 to 199" to "151 to 225".**

3. **Change the scoring range for a high rating for protection from "200 to 219" to "226 to 250".**

4. **Change the scoring range for a very high rating for protection from "220 to 300" to "251 to 300".**

***Part D. Revise the general text and reformat.**

***These parts were added in a second legal advertisement**

U.S. Department of Agriculture
Natural Resources Conservation Service

5/23/2001

CONVERSION LEGEND — **CHAMPAIGN COUNTY, ILLINOIS**

1975 Map Symbol	2001 Map Symbol
23A	23A
23B	23B2
27B	618B
27C2	618C2
27D2	618D2
27E2	618E2
	618F
56B	56B
	56B2 *
67	67A
73	3473A
91B	91B2
	91A *
	91C2 *
102A	102A
125	125A
131B	131B
134B	134B
	134A *
146B	146B2
	146A *
	146C2 *
148B	663B
	148B2 *
149A	149A
150B	150B
152	152A
153	153A
154A	154A
171B	171B
194B	530B ***
	530C2 ***
194C2	530D2 ***
194D2	530E2 ***
198A	198A
199B	~~697B~~ 679B
206	206A
219	219A
221B	622B
221C2	622C2
221D3	622D3
223B2	223B2
223C3	223D3
	223C2 *
232	232A
233B	233B
234A	234A
235	235A
236A	236A
241D	241D3
	241C3 *
242A	242A
243B	680B
291B	291B
302	3302A
322C2	322C2
330	330A
387B	387B
387C3	387C3
398A	623A
402	3107A
440B	687B
440C2	687C2
448B	448B
481A	481A
490A	490A
533	533
570B	570B
570C2	570C2
570D2	570D2
637	637A+
802	802B
	830 **
865	865
2027C	618C2
	618B ***
2152	152A
2154A	154A
2171B	171B
2198A	198A
2236A	236A
2481A	481A

* These map units were added to achieve an exact join with similar map units in adjacent counties. They mostly occur along the county boundary.

** The 830 Landfills map unit was previously part of the 802 Orthents, loamy map unit. If a landfill was enlarged between 1975 and 2001, the 830 map unit may also contain areas that were part of adjacent named soil consociations.

*** Adjustments were made in the slope classes for these map units. Additional map units were added to cover the range of slope.

Table 5.--Acreage and Proportionate Extent of the Soils

Map symbol	Soil name	Acres	Percent
23A	Blount silt loam, 0 to 2 percent slopes	804	0.1
23B2	Blount silt loam, 2 to 4 percent slopes, eroded	808	0.1
56B	Dana silt loam, 2 to 5 percent slopes	22,846	3.6
56B2	Dana silt loam, 2 to 5 percent slopes, eroded	136	*
67A	Harpster silty clay loam, 0 to 2 percent slopes	2,155	0.3
91A	Swygert silty clay loam, 0 to 2 percent slopes	73	*
91B2	Swygert silty clay loam, 2 to 4 percent slopes, eroded	2,790	0.4
91C2	Swygert silty clay loam, 4 to 6 percent slopes, eroded	411	*
102A	La Hogue loam, 0 to 2 percent slopes	1,424	0.2
125A	Selma loam, 0 to 2 percent slopes	2,906	0.5
131B	Alvin fine sandy loam, 2 to 5 percent slopes	205	*
134A	Camden silt loam, 0 to 2 percent slopes	14	*
134B	Camden silt loam, 2 to 5 percent slopes	1,207	0.2
146A	Elliott silt loam, 0 to 2 percent slopes	761	0.1
146B2	Elliott silty clay loam, 2 to 4 percent slopes, eroded	28,476	4.5
146C2	Elliott silty clay loam, 4 to 6 percent slopes, eroded	1,485	0.2
148B2	Proctor silt loam, 2 to 5 percent slopes, eroded	14	*
149A	Brenton silt loam, 0 to 2 percent slopes	16,473	2.6
150B	Onarga sandy loam, 2 to 5 percent slopes	290	*
152A	Drummer silty clay loam, 0 to 2 percent slopes	254,334	39.8
153A	Pella silty clay loam, 0 to 2 percent slopes	6,422	1.0
154A	Flanagan silt loam, 0 to 2 percent slopes	100,542	15.7
171B	Catlin silt loam, 2 to 5 percent slopes	17,400	2.7
198A	Elburn silt loam, 0 to 2 percent slopes	17,649	2.8
206A	Thorp silt loam, 0 to 2 percent slopes	2,641	0.4
219A	Millbrook silt loam, 0 to 2 percent slopes	1,455	0.2
223B2	Varna silt loam, 2 to 4 percent slopes, eroded	8,041	1.3
223C2	Varna silt loam, 4 to 6 percent slopes, eroded	3,116	0.5
223D3	Varna silty clay loam, 6 to 12 percent slopes, severely eroded	2,828	0.4
232A	Ashkum silty clay loam, 0 to 2 percent slopes	29,161	4.6
233B	Birkbeck silt loam, 2 to 5 percent slopes	2,668	0.4
234A	Sunbury silt loam, 0 to 2 percent slopes	2,013	0.3
235A	Bryce silty clay, 0 to 2 percent slopes	1,621	0.3
236A	Sabina silt loam, 0 to 2 percent slopes	3,010	0.5
241C3	Chatsworth silty clay, 4 to 6 percent slopes, severely eroded	36	*
241D3	Chatsworth silty clay, 6 to 12 percent slopes, severely eroded	286	*
242A	Kendall silt loam, 0 to 2 percent slopes	1,441	0.2
291B	Xenia silt loam, 2 to 5 percent slopes	4,836	0.8
322C2	Russell silt loam, 5 to 10 percent slopes, eroded	1,931	0.3
330A	Peotone silty clay loam, 0 to 2 percent slopes	3,744	0.6
387B	Ockley silt loam, 2 to 5 percent slopes	1,123	0.2
387C3	Ockley clay loam, 5 to 10 percent slopes, severely eroded	301	*
448B	Mona silt loam, 2 to 5 percent slopes	245	*
481A	Raub silt loam, 0 to 2 percent slopes	22,901	3.6
490A	Odell silt loam, 0 to 2 percent slopes	1,269	0.2
530B	Ozaukee silt loam, 2 to 4 percent slopes	509	*
530C2	Ozaukee silt loam, 4 to 6 percent slopes, eroded	411	*
530D2	Ozaukee silt loam, 6 to 12 percent slopes, eroded	542	*
530E2	Ozaukee silt loam, 12 to 20 percent slopes, eroded	381	*
533	Urban land	1,606	0.3
570B	Martinsville silt loam, 2 to 5 percent slopes	708	0.1
570C2	Martinsville loam, 5 to 10 percent slopes, eroded	1,021	0.2
570D2	Martinsville loam, 10 to 18 percent slopes, eroded	360	*
618B	Senachwine silt loam, 2 to 5 percent slopes	270	*
618C2	Senachwine silt loam, 5 to 10 percent slopes, eroded	850	0.1
618D2	Senachwine silt loam, 10 to 18 percent slopes, eroded	632	*
618E2	Senachwine silt loam, 18 to 25 percent slopes, eroded	510	*
618F	Senachwine silt loam, 18 to 35 percent slopes	398	*
622B	Wyanet silt loam, 2 to 5 percent slopes	7,316	1.1
622C2	Wyanet silt loam, 5 to 10 percent slopes, eroded	6,334	1.0
622D3	Wyanet clay loam, 10 to 18 percent slopes, severely eroded	358	*

See footnote at end of table.

Table 5.--Acreage and Proportionate Extent of the Soils--Continued

Map symbol	Soil name	Acres	Percent
623A	Kishwaukee silt loam, 0 to 2 percent slopes	3,105	0.5
637A+	Muskego silty clay loam, 0 to 2 percent slopes, overwash	48	*
663B	Clare silt loam, 2 to 5 percent slopes	8,398	1.3
679B	Blackberry silt loam, 2 to 5 percent slopes	4,990	0.8
680B	Campton silt loam, 2 to 5 percent slopes	1,651	0.3
687B	Penfield loam, 2 to 5 percent slopes	2,329	0.4
687C2	Penfield loam, 5 to 10 percent slopes, eroded	810	0.1
802B	Orthents, loamy, undulating	4,287	0.7
830	Landfills	115	*
865	Pits, gravel	460	*
3107A	Sawmill silty clay loam, 0 to 2 percent slopes, frequently flooded	11,073	1.7
3302A	Ambraw silty clay loam, 0 to 2 percent slopes, frequently flooded	2,791	0.4
3473A	Rossburg silt loam, 0 to 2 percent slopes, frequently flooded	982	0.2
W	Water	1,323	0.2
	Total	638,860	100.0

* Less than 0.1 percent.

Table 8.--Land Capability and Yields per Acre of Crops and Pasture

(Yields are those that can be expected under a high level of management. They are for nonirrigated areas. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil.)

Map symbol and soil name	Land capability	Corn	Soybeans	Winter wheat	Oats	Grass-legume hay	Grass-legume pasture
		Bu	Bu	Bu	Bu	Tons	AUM*
23A:							
Blount	2w	106.00	35.00	48.00	64.00	4.30	7.20
23B2:							
Blount	2e	102.00	34.00	46.00	61.00	4.10	6.90
56B:							
Dana	2e	142.00	45.00	59.00	84.00	5.40	9.10
56B2:							
Dana	2e	137.00	43.00	58.00	82.00	5.30	8.80
67A:							
Harpster	2w	136.00	44.00	52.00	74.00	5.00	8.30
91A:							
Swygert	2w	114.00	39.00	51.00	73.00	4.50	7.50
91B2:							
Swygert	2e	107.00	37.00	48.00	69.00	4.20	7.10
91C2:							
Swygert	3e	106.00	36.00	47.00	68.00	4.20	7.00
102A:							
La Hogue	1	129.00	43.00	56.00	80.00	5.20	8.70
125A:							
Selma	2w	136.00	44.00	53.00	76.00	5.00	8.30
131B:							
Alvin	2e	98.00	37.00	47.00	66.00	4.10	6.80
134A:							
Camden	1	125.00	39.00	55.00	72.00	5.00	8.30
134B:							
Camden	2e	124.00	39.00	54.00	71.00	5.00	8.20
146A:							
Elliott	2w	128.00	45.00	55.00	79.00	5.10	8.50
146B2:							
Elliott	2e	123.00	43.00	53.00	76.00	4.90	8.20
146C2:							
Elliott	2e	122.00	43.00	52.00	75.00	4.80	8.10
148B2:							
Proctor	2e	138.00	42.00	57.00	84.00	5.30	8.80
149A:							
Brenton	1	160.00	47.00	62.00	91.00	5.90	9.80
150B:							
Onarga	2e	109.00	36.00	48.00	73.00	4.20	6.90

See footnote at end of table.

Table 8.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Corn	Soybeans	Winter wheat	Oats	Grass-legume hay	Grass-legume pasture
		Bu	Bu	Bu	Bu	Tons	AUM*
152A:							
Drummer	2w	154.00	51.00	61.00	83.00	5.50	9.20
153A:							
Pella	2w	140.00	48.00	56.00	78.00	5.20	8.70
154A:							
Flanagan	1	162.00	52.00	67.00	92.00	6.10	10.20
171B:							
Catlin	2e	149.00	46.00	60.00	86.00	5.70	9.60
198A:							
Elburn	1	161.00	50.00	63.00	94.00	6.10	10.20
206A:							
Thorp	2w	126.00	42.00	51.00	69.00	4.60	7.70
219A:							
Millbrook	1	144.00	43.00	59.00	81.00	5.40	9.00
223B2:							
Varna	2e	118.00	39.00	51.00	72.00	4.60	7.70
223C2:							
Varna	3e	117.00	39.00	50.00	71.00	4.60	7.60
223D3:							
Varna	4e	106.00	35.00	46.00	65.00	4.10	6.90
232A:							
Ashkum	2w	130.00	47.00	54.00	79.00	5.00	8.30
233B:							
Birkbeck	2e	122.00	41.00	54.00	69.00	5.00	8.20
234A:							
Sunbury	1	147.00	45.00	62.00	84.00	5.60	9.30
235A:							
Bryce	2w	120.00	43.00	48.00	70.00	4.40	7.30
236A:							
Sabina	2w	133.00	42.00	56.00	75.00	5.20	8.70
241C3:							
Chatsworth	6e	---	---	---	---	1.60	2.70
241D3:							
Chatsworth	7e	---	---	---	---	1.60	2.60
242A:							
Kendall	2w	135.00	41.00	55.00	75.00	5.20	8.70
291B:							
Xenia	2e	125.00	41.00	54.00	71.00	4.80	7.90
322C2:							
Russell	3e	118.00	39.00	52.00	65.00	4.50	7.50

See footnote at end of table.

Table 8.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Corn	Soybeans	Winter wheat	Oats	Grass-legume hay	Grass-legume pasture
		Bu	Bu	Bu	Bu	Tons	AUM*
330A: Peotone	2w	123.00	42.00	43.00	58.00	4.20	7.00
387B: Ockley	2e	125.00	42.00	50.00	74.00	5.00	8.20
387C3: Ockley	4e	110.00	37.00	44.00	65.00	4.40	7.20
448B: Mona	2e	114.00	37.00	50.00	73.00	4.50	7.40
481A: Raub	1	155.00	51.00	63.00	92.00	6.10	10.20
490A: Odell	1	143.00	48.00	61.00	87.00	5.60	9.30
530B: Ozaukee	2e	105.00	32.00	47.00	75.00	4.30	7.10
530C2: Ozaukee	2e	101.00	30.00	45.00	72.00	4.10	6.80
530D2: Ozaukee	3e	99.00	30.00	44.00	71.00	4.00	6.70
530E2: Ozaukee	4e	91.00	28.00	40.00	65.00	3.70	6.20
533: Urban land.							
570B: Martinsville	2e	120.00	37.00	50.00	65.00	4.80	7.90
570C2: Martinsville	3e	114.00	35.00	48.00	62.00	4.50	7.50
570D2: Martinsville	4e	108.00	33.00	45.00	59.00	4.30	7.10
618B: Senachwine	2e	120.00	40.00	50.00	67.00	4.80	7.90
618C2: Senachwine	3e	114.00	38.00	48.00	64.00	4.50	7.50
618D2: Senachwine	4e	108.00	36.00	45.00	61.00	4.30	7.10
618E2: Senachwine	6e	---	---	---	---	3.70	6.20
618F: Senachwine	6e	---	---	---	---	3.50	5.80
622B: Wyanet	2e	128.00	44.00	56.00	77.00	5.20	8.70

See footnote at end of table.

Table 8.--Land Capability and Yields per Acre of Crops and Pasture--Continued

Map symbol and soil name	Land capability	Corn	Soybeans	Winter wheat	Oats	Grass-legume hay	Grass-legume pasture
		Bu	Bu	Bu	Bu	Tons	AUM*
622C2:							
Wyanet	3e	121.00	41.00	54.00	73.00	5.00	8.30
622D3:							
Wyanet	4e	104.00	36.00	46.00	63.00	4.30	7.20
623A:							
Kishwaukee	1	144.00	47.00	61.00	80.00	5.50	9.20
637A+:							
Muskego	3w	123.00	42.00	---	---	---	7.30
663B:							
Clare	2e	143.00	44.00	58.00	87.00	5.40	9.10
679B:							
Blackberry	2e	150.00	45.00	59.00	89.00	5.70	9.60
680B:							
Campton	2e	126.00	40.00	55.00	72.00	5.00	8.40
687B:							
Penfield	2e	137.00	42.00	56.00	87.00	5.20	8.70
687C2:							
Penfield	3e	130.00	39.00	54.00	83.00	5.00	8.30
802B:							
Orthents, loamy.							
830:							
Landfills.							
865:							
Pits, gravel.							
3107A:							
Sawmill	3w	132.00	42.00	49.00	68.00	5.00	8.20
3302A:							
Ambraw	3w	119.00	39.00	47.00	63.00	4.10	6.90
3473A:							
Rossburg	3w	117.00	38.00	47.00	64.00	4.50	7.50

* Animal unit month: The amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five sheep, or five goats) for 30 days.

Table 9.--Prime Farmland

(Only the soils considered prime farmland are listed. Urban or built-up areas of the soils listed are not considered prime farmland. If a soil is prime farmland only under certain conditions, the conditions are specified in parentheses after the soil name.)

Map symbol	Soil name
23A	Blount silt loam, 0 to 2 percent slopes (where drained)
23B2	Blount silt loam, 2 to 4 percent slopes, eroded
56B	Dana silt loam, 2 to 5 percent slopes
56B2	Dana silt loam, 2 to 5 percent slopes, eroded
67A	Harpster silty clay loam, 0 to 2 percent slopes (where drained)
91A	Swygert silty clay loam, 0 to 2 percent slopes
91B2	Swygert silty clay loam, 2 to 4 percent slopes, eroded
91C2	Swygert silty clay loam, 4 to 6 percent slopes, eroded
102A	La Hogue loam, 0 to 2 percent slopes
125A	Selma loam, 0 to 2 percent slopes (where drained)
131B	Alvin fine sandy loam, 2 to 5 percent slopes
134A	Camden silt loam, 0 to 2 percent slopes
134B	Camden silt loam, 2 to 5 percent slopes
146A	Elliott silt loam, 0 to 2 percent slopes
146B2	Elliott silty clay loam, 2 to 4 percent slopes, eroded
146C2	Elliott silty clay loam, 4 to 6 percent slopes, eroded
148B2	Proctor silt loam, 2 to 5 percent slopes, eroded
149A	Brenton silt loam, 0 to 2 percent slopes
150B	Onarga sandy loam, 2 to 5 percent slopes
152A	Drummer silty clay loam, 0 to 2 percent slopes (where drained)
153A	Pella silty clay loam, 0 to 2 percent slopes (where drained)
154A	Flanagan silt loam, 0 to 2 percent slopes
171B	Catlin silt loam, 2 to 5 percent slopes
198A	Elburn silt loam, 0 to 2 percent slopes
206A	Thorp silt loam, 0 to 2 percent slopes (where drained)
219A	Millbrook silt loam, 0 to 2 percent slopes (where drained)
223B2	Varna silt loam, 2 to 4 percent slopes, eroded
223C2	Varna silt loam, 4 to 6 percent slopes, eroded
232A	Ashkum silty clay loam, 0 to 2 percent slopes (where drained)
233B	Birkbeck silt loam, 2 to 5 percent slopes
234A	Sunbury silt loam, 0 to 2 percent slopes
235A	Bryce silty clay, 0 to 2 percent slopes (where drained)
236A	Sabina silt loam, 0 to 2 percent slopes (where drained)
242A	Kendall silt loam, 0 to 2 percent slopes (where drained)
291B	Xenia silt loam, 2 to 5 percent slopes
330A	Peotone silty clay loam, 0 to 2 percent slopes (where drained)
387B	Ockley silt loam, 2 to 5 percent slopes
448B	Mona silt loam, 2 to 5 percent slopes
481A	Raub silt loam, 0 to 2 percent slopes
490A	Odell silt loam, 0 to 2 percent slopes
530B	Ozaukee silt loam, 2 to 4 percent slopes
530C2	Ozaukee silt loam, 4 to 6 percent slopes, eroded
570B	Martinsville silt loam, 2 to 5 percent slopes
618B	Senachwine silt loam, 2 to 5 percent slopes
622B	Wyanet silt loam, 2 to 5 percent slopes
623A	Kishwaukee silt loam, 0 to 2 percent slopes
663B	Clare silt loam, 2 to 5 percent slopes
679B	Blackberry silt loam, 2 to 5 percent slopes
680B	Campton silt loam, 2 to 5 percent slopes
687B	Penfield loam, 2 to 5 percent slopes
3107A	Sawmill silty clay loam, 0 to 2 percent slopes, frequently flooded (where drained and either protected from flooding or not frequently flooded during the growing season)
3302A	Ambraw silty clay loam, 0 to 2 percent slopes, frequently flooded (where drained and either protected from flooding or not frequently flooded during the growing season)

Table 9.--Prime Farmland--Continued

Map symbol	Soil name
3473A	Rossburg silt loam, 0 to 2 percent slopes, frequently flooded (where protected from flooding or not frequently flooded during the growing season)

Chapter 4
Selecting and scaling Land Evaluation factors

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The Land Evaluation (LE) component of the Land Evaluation and Site Assessment (LESA) system rates the soil-based qualities of a site for agricultural use. The four most common kinds of classifications used for Land Evaluation are land capability classes, soil productivity ratings, soil potential ratings, and important farmland classes. These classification and rating systems are described in the next section. The Glossary also provides definitions of key terms.

It is important that local people with recognized knowledge of agriculture participate in and understand the LE component in order to provide political acceptability.

In most cases, Natural Resources Conservation Service (NRCS) staff or other soil scientists will play a major role in selecting and scaling LE factors. As discussed in Chapters 2 and 3, the intended applications will affect the composition of the LE committee with whom NRCS will work. Although much of LE formulation is technical in nature, decisions about relative weights of LE factors should be made by the committee. It is important that local people with recognized knowledge of agriculture participate in and understand the LE component in order to provide political acceptability.

The LE component should meet the following objectives:

- LE should be understandable to policy makers and other users.

- LE should establish relative classes of soil-based quality to assist decision makers in setting priorities for sites to be protected for agricultural uses.

- LE should be technically sound, based on the best available data, and in conformance with established NRCS procedures for soil classification systems.

- LE should give consistent results within a given area.

- LE should be appropriate for the level of government at which the Land Evaluation system will be used. For statewide policy planning, the land capability classification system and the important farmlands classes may be most useful since they are available in most states. However, soil potential ratings or soil productivity ratings may have more meaning for county or township planning since they provide finer distinctions in soil-based qualities. At the state level, it may be important to monitor the conversion of prime farmland classes and land in capability classes I

and II to urban uses. At the local level, most lands may be prime or few lands may be prime. Local planners are primarily concerned with the relative differences among local soil-based qualities.

- LE factor selection, scaling, and weighting should be determined within the context of state or local policies. For example, if the prime farmlands definition is part of a state or local program, the important farmlands classification system may be most suitable. If the finer distinctions of land capability classes, soil productivity ratings, or soil potential ratings are desired by the LESA initiator, these systems may be more appropriate. These considerations are discussed in Chapter 2.

Interpreting soil-based qualities

The rating of soil-based qualities is done by applying one or more land classification systems as LE factors. These land classification systems are based upon interpretations of soil survey information, as shown in the example in Figure 4.1. Four different kinds of interpretations are described in this Guidebook for use in farmland evaluations: soil potential ratings, soil productivity ratings, land capability classification, and the important farmlands classification. Specific definitions are given in the Glossary. Each includes different considerations in classifying soils. The LE component may use one or several of them. Other classification systems appropriate for local use, while not described in this Guidebook, may also be used as LE factors.

- *Soil potential ratings* (See Appendix E, Part 1). When they are available or can be developed, soil potentials for specified indicator crops are preferred because they take into account both revenues associated with a soil's productivity and the costs associated with managing soils to achieve desired productivity levels. The use of these ratings enables NRCS staff or local planners to consider the relative economic value of soils to farmers, after soil limitations are overcome.

- *Soil productivity ratings* (See Appendix E, Part 1). The use of estimated yields for specified indicator crops, as reported in soil surveys or other sources, provides a measure for Land Evaluation that considers the local agricultural industry from

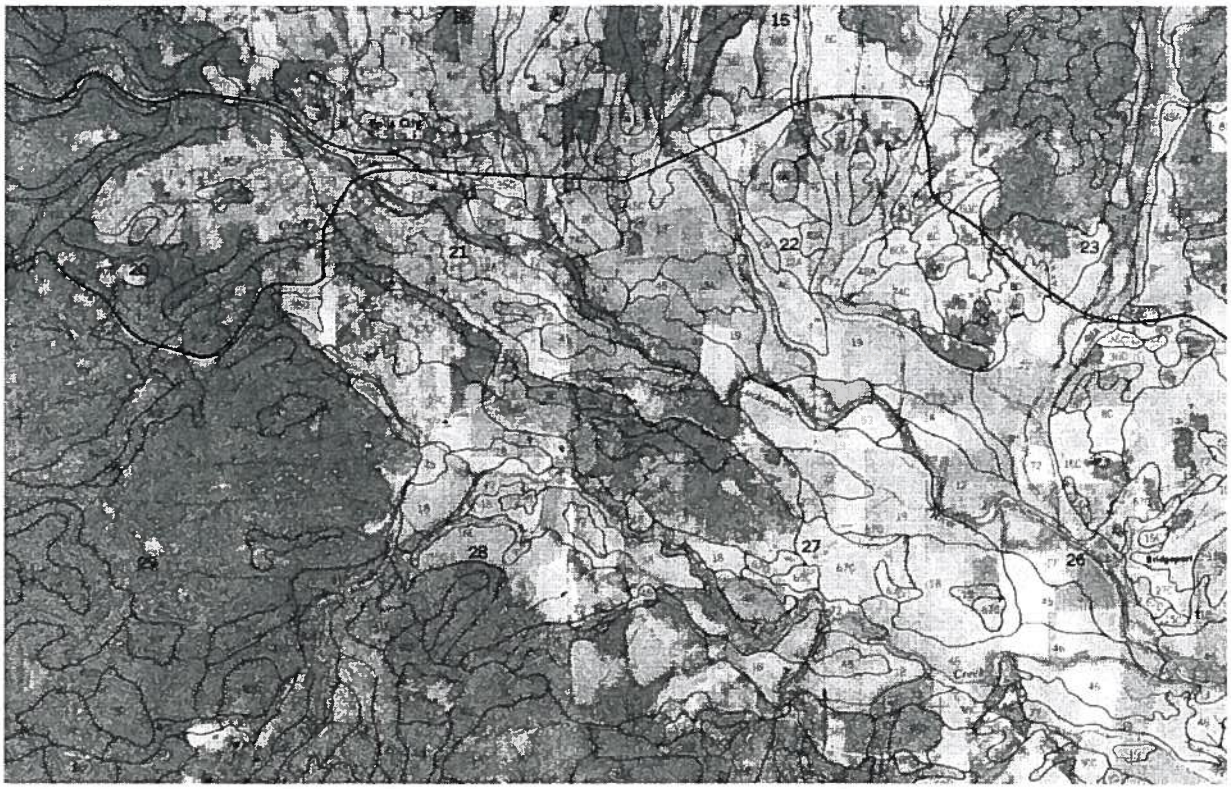


Figure 4.1. Example of a soil survey map, Polk County, Oregon

the standpoint of soil productivity. NRCS staff, local planners, or others could also estimate potential gross sales for each category of soils or each soil type by multiplying yields by current unit prices.

- *Land capability classification* (See Appendix E, Part 1). The USDA land capability classification system identifies the relative degree of limitations for agricultural use inherent in the soils of a given area. Data are usually available at local, regional, and state levels. In general, the fewer the limitations, the more suitable the soil is for agriculture, and the lower the costs of overcoming limitations.

- *Important farmlands classification* (See Appendix E, Part 2). Use of the national criteria for definition of prime farmland and unique farmland provides a consistent basis for comparing state or local farmland with farmland in other areas and for monitoring losses to conversion. Since the categories are broader than land capability classes, some distinctions among soils may be lost.

Soil potential ratings capture the most information, since they include a rating for each soil mapping unit based on its yield potential for certain common indicator crops and the costs of overcoming soil limitations. **Soil productivity ratings** provide the next finest level of detail, but do not consider costs of soil management. **Land capability classes** group soils based on risks of damage to soils by cropping. Soils of different soil potentials or soil productivity may be grouped into the same land capability class. The **important farmlands classes** are the broadest grouping; they also recognize state and local planning designations in the groups.

Indicator crops are used in developing both soil potential and soil productivity ratings. Both soil potential and soil productivity ratings rely on crop yield data, but there are cases where no single crop is grown on all soils in a jurisdiction, or where soils that are highly productive for a particular crop, such as cherries in Lake County, Montana, apples in Adams County, Pennsylvania, peaches in Box Elder County, Utah, wine grapes and ryegrass in Oregon's Willamette Valley, and cranberries in Massachusetts, New Jersey, and Wisconsin, have little value for the crops commonly grown on other soils in the same locality. In such jurisdictions, two or more indicator crops may be needed to accurately reflect the agricultural importance of each soil type.

Locating soil data

Soil maps show locations of mapping units identified through the soil survey.

In many jurisdictions, a published soil survey will be the most important data source. A soil survey is an inventory and evaluation of the soil resources of an area. In the United States, soil surveys are made cooperatively by NRCS, USDA Forest Service, Department of the Interior, state land-grant universities, and state and local officials. Much of the United States has soil survey information available. Information on the availability of soil surveys can be obtained from NRCS state offices, listed in Appendix F.

Published soil surveys contain soil maps, soil descriptions, management information, and interpretations for different uses. The soil maps are published at various scales to fit local needs, mostly 1:20,000, 1:24,000, and 1:15,840. Soil maps show locations of mapping units identified through the soil survey. An example of a soil map is given in Figure 4.1. Each area of soil (mapping unit) is identified by an alphabetic or numeric symbol or a combination of both, i.e., DoB, 18, 20B2, etc. The number of soils in survey areas ranges widely, depending upon the size of the area, the complexity of geology and landscape, climatic differences, and types of vegetation.

Soil descriptions included in soil surveys contain information about soil texture, depth, drainage, structure, color, landscape position, flood hazard, rockiness, stoniness, droughtiness, and other properties useful for planning purposes. Interpretations of soil properties are presented for various uses such as cropland, forest land, rangeland, home sites, recreation, wildlife habitat, and septic tank filter fields.

Soil data for completed soil survey areas of the United States are stored in data bases at state NRCS offices. Using these databases, NRCS staff can help generate land capability classes, estimated soil yields, and important farmland classes for each soil mapping unit in a jurisdiction. Soil potential ratings will have to be prepared by a local committee.

Each state NRCS office generates the data for an individual county or area as requested by the local NRCS district conservationist or by a state or local government official. The NRCS district conservationist, together with the local committee, provides certain information for the state office, such as a list of soil mapping units, indicator crops, available water capacity,

soil moisture regime, "C" factor (for erodibility), and possibly other information. This information is verified by the state NRCS soil survey staff before it is entered into the computer program.

Total acreage and the percent of the total represented by each mapping unit should represent land that is available for agricultural use. A land-use map could, for example, be overlaid on the soil map to delineate agricultural areas within the LESA project area. Procedures to identify the LESA project area are discussed in Chapter 3.

LESA can best be developed where soil surveys are complete. In areas that lack a completed survey, the Land Evaluation part of LESA can be designed by the following methods:

- Utilization of information from soil surveys still in progress. This information is held in the files of the local NRCS office conducting the survey.

- Expansion of National Resource Inventory soil information. Data on land and water use, erosion, extent and condition of cropland and grazing land, and soil types are collected for sample points at the county level. While these data are intended for multiple county interpretation, general information on individual county soil types and conditions can interpreted.

- Expansion of general soil surveys used for major land resource areas (MLRAs). An MLRA is a group of geographically associated land resource units. A land resource unit is an area of several thousand acres that is characterized by particular patterns of soil, climate, vegetation, water resources, land use, and type of farming. For details, see *Land Resource Regions and Major Land Resource Areas* of *the United States* (USDA Soil Conservation Service, 1981).

These options require the assistance of NRCS staff or other soil scientists. The procedures may result in a less precise rating than could be made based on an up-to-date soil survey for the planning area. It is advisable that NRCS soil scientists or their representatives review and approve technical aspects of all Land Evaluations prepared in the development of a LESA system.

Selecting LE factors

About 50 percent of the jurisdictions currently using a LESA system rely upon soil potential ratings for the LE component of LESA.

The key decision in LE formulation is the choice of Land Evaluation factors. Practical considerations in LE (and SA) factor selection include time, budget, and data availability. More readily available factors, such as land capability classes and soil productivity ratings, may be selected if resources and time are serious constraints. The extent and diversity of the planning area is another consideration. For large counties or state-wide systems with diverse soils, simpler LE models might serve the purpose. For smaller areas or areas with more homogeneous soils, the finer distinctions of soil potential ratings may be more appropriate. The policy framework and importance of economic incentives are other considerations. Some state or local applications may require use of a particular land classification system, because of legal mandates. Similarly, economic incentives keyed to certain classification systems may make it necessary to use those classification systems. The LESA committee will need to weigh these considerations in selecting one or more LE factors.

The 1983 LESA *Handbook* (USDA, 1983) recommended using three or four of the classification systems: land capability classification, important farmlands classification, and either soil productivity ratings or soil potential ratings or both. However, these Land Evaluation systems were found to be highly correlated in Hawaii-with that state's diverse soils. Hawaii used five LE factors. Because these measures were closely related, "any two factors taken together can account for at least 95 percent of the overall LE rating" (Ferguson et al. 1990). If more than two LE factors are used, it's useful to do a correlation (interrelationship) analysis on a sample of sites to determine whether fewer factors will yield the same relative site rankings.

The LE committee will need to consider the characteristics of its planning area, the intended applications, and the practical commitment of time and funds to LE formulation. Local NRCS staff can provide significant advice on the selection of LE factors.

If soil potential ratings (SPRs) are available or can be developed by the LE committee, then a soil potential rating for each soil mapping unit in the planning area is recommended as the LE component. Soil potential ratings have the advantage of providing finer distinctions among soils than other classification systems, and they incorporate costs of overcoming soil limitations. The disadvantages are the time and cost of developing the ratings. About 50 percent of the jurisdictions currently using a LESA system rely upon soil potential ratings for the LE component of LESA.

If soil potential ratings are impractical, then a combination of land capability classification and soil productivity ratings may be used. A combination of the two is preferred since it captures both soil limitations and yield potential. For example, if soil productivity were used as the single factor, a class I soil on a O-3 percent slope might rate the same as a class IIe soil on a 3-8 percent slope, without considering the erosion hazard on the IIe soil. By including the land capability classification in the system, the yield is adjusted to account for costs of overcoming the erosion limitation by placing the soil in a lower group, similar to the ranking of a soil potential rating.

Because the land capability classification system is widely available and accessible by NRCS staff, some jurisdictions may wish to use it alone for LE ratings. It should be recognized, however, that land capability classes group some dissimilar soils together, and they do not account for costs of overcoming soil limitations. The land capability classification should be used as the sole LE factor only when time and funds require it.

In most cases, the important farmlands classification will probably not add new information to the rating. However, each jurisdiction should consider how the addition of the important farmlands groups could change a relative ranking. If soils classified as unique would otherwise be ranked lower than desired, then this classification system could be added to the LE component. For example, soils with essential slope and aspect characteristics for vineyards or orchards may be significant for these crops but not be classified as prime. Also, if the prime or unique farmland terminology, as defined in Appendix E, part 2, is used in policy statements, then the jurisdiction should consider using this classification system as part of LE.

For statewide or regional level LESA applications, important farmlands groups may be appropriate in order to recognize and incorporate legal requirements using these groups of soils, or to compare losses of prime farmlands in sub-areas; however, the relative rankings of specific sites may not change from those without using important farmlands groups.

Preparing soil potential ratings. As noted previously, land capability classifications and soil productivity ratings can be developed by NRCS staff. To obtain the soil potential rating, the LE committee prepares a table of yields, gross returns, management costs, and net returns as outlined in the example in Table

Table 4.1. Example of soil potential data for irrigated sweet corn on Amity silt loam, 0-3% slope, Linn County, Oregon

				Management costs*							
	Yield		Gross return	Tile	Field	Land	Cross-slope	Sub-	Cover		Net return
Crop	t/ac	MT/O.4 ha	($)	drain	drain	smoothing	farming	soiling	crop	irrig.	($/ac/yr)
Irrigated Sweet Corn: $65.00/ton ($71.65/MT)	9.0	8.2	585	99	N/A	N/A	N/A	10	25	146	305

* Management Costs-$/acre/year ($/0.4 ha/year)
Source: Adapted from Huddleston et al., 1987.

4.1. Net return is defined by the LESA committee and may include adjustments for production costs, such as fertilizers, lime, and seed, as well as costs of overcoming soil limitations. Production costs are not included in the Table 4.1 example. Management data for this table are obtained from various sources, such as drain installers, irrigation suppliers, and contractors for land smoothing and sub-soiling. Costs are amortized to provide annual costs per acre. Tile drainage costs, for example, are amortized over a 25-year period at current interest rates to obtain annual per acre costs. Yield data are obtained from soil surveys or farm records. Commodity prices can be obtained from the USDA Agricultural Statistical Reporting Service state office or the Extension Service county or state offices. More detailed information on developing the management cost estimates for this example is given in Huddleston et al., 1987. In some states, state or local examples of SPR documentation may be available from the state NRCS office.

In some states, state or local examples of SPR documentation may be available from the state NRCS office.

Scaling LE factors

Scaling refers to assigning points on a 0 to 100 point scale for each unit of the land classification system or systems to be used as LE factors. The 1983 *Handbook* (USDA, 1983) proposed group-

Table 4.2. Land Evaluation for Latah County, Idaho

Ag. group	Capability class	Farmland importance	Productivity index	Percent of ag. soils	Thousands of acres	Factor scale
	IIe	Prime	100-82	2.8	13	100
2	IIIe, IIIw	Prime	82-71	5.4	25	82
3	IIIe	Statewide	82-71	21.3	102	76
4	IIIe,IVe	Other	71-65	8.8	42	62
5	IVe,IVw	Statewide	65-47	8.8	42	52
6	IVe,IVw	Other	71-47	16.3	9	49
7	IVe	Other	53-47	2.0	9	43
8	IIIw,IIIe,IVe	Statewide	39-25	4.0	19	38
9	IVe,VIe	Other	39-25	7.8	37	36
10	VII	Other	No crop	22.8	107	0

Source: Stamm et al., 1984.

ing soils into about 10 subgroups to obtain a relative rating for each group. This approach was originally developed for use by local assessors in New York state to obtain soil groups for property tax assessment. Many existing LESA systems use this approach. An example of this classification is given in Table 4.2. These procedures are given in the 1983 *Handbook* for jurisdictions that wish to use them. In most cases, it will be easier to compile and understand the ratings according to the general model presented in Table 1.1 of Chapter 1 and the Land Evaluation examples given in this chapter.

Soil potential ratings are determined on a 100-point scale by setting the highest net return equal to 100, and then determining the percentage of the highest represented by each soil mapping unit, as illustrated in Table 4.3. In this table, the Chapman soil had the highest net return for all soils in the jurisdiction; its SPR is set equal to 100. Ratings for each soil are then based on the percentage of the highest net return represented by each soil. Net return can be calculated by subtracting production costs, such as fertilizers, pesticides, labor, fuel, and equipment repairs, and the costs of initial and continuing limitations from gross returns. Addison County, Vermont, used annual production cost estimates of $225/acre for corn silage and $176/acre for alfalfa (SCS, 1983). In the SPR examples shown in Tables 4.1 and 4.8, production costs were not included because it was assumed they would be about the same for all soils and would not affect relative values. For clarity, the definition of net returns should be included in the LESA documentation.

With each soil assigned a rating in a table, it is then a simple matter to calculate the LE component for a tract by multiplying the percent of the tract in each soil mapping unit by the SPR, as shown in Table 4.4. The next step is to multiply the SPR by its weight to obtain an LE weighted factor rating, as given in Chapter 6. More detailed instructions and references for calculating SPR ratings are given in Appendix E, Part 1.

To scale land capability classes, the first step is to determine which land capability classes are present in the LESA applica-

Table 4.3. Example of converting net return from Table 4.1 to an SPR, Linn County, Oregon

Soil	Net return	SPR
Amity silt-loam	305	71
Chapman silt-loam	429	100
Dayton silt-loam	240	57

Table 4.4. Example of an SPR rating for a site with three soils

Soil	SPR	x	Proportion of site	=	Partial site SPR
Amity	71	x	0.20	=	14
Chapman	100	x	0.50	=	50
Dayton	57	x	0.30	=	17
			Total site SPR	=	81

tion area. In an area with diverse soils, all eight classes may be present. There is no single, best scale for land capability classes. The example given in Table 4.5 is intended only to illustrate the scale. The assignment of a rating to a class is a judgment made by the LESA committee or LE subcommittee. It will reflect the unique conditions of the LESA application area. For example, the committee may decide that a IIIw soil is locally better than a IIs and rate it accordingly.

A soil productivity rating is scaled by definition. If a O-1.00 scale is used, the rating for each soil mapping unit may be used. If another scale is used, then it is a simple matter to convert the numbers to a O-100 scale by setting the highest equal to 100 and determining the percentage all other soils are of the highest, as shown in Table 4.6.

Important farmlands groups are more difficult to scale in that there are only five groups. The example in Table 4.7 rates prime and unique farmlands as equal. LESA committee members may decide to weight unique soils higher or lower than prime soils. Ratings for soils of statewide or local importance will also reflect the values of these soil groups within the LESA application area.

The examples given in this section are for illustration only. The LESA committee will need to determine the rationale for scaling based on local soil characteristics and policy considerations. This local flexibility allows LE adaptation for conditions unique to each jurisdiction.

Table 4.6. Example of a soil productivity scale

Soil	Soil productivity rating (150-point scale)	(100-point scale)
E		
C	150.0 142.5	100 95
B	135.0	90
A	90.0	60
D	82.5	55
etc.	etc.	etc.

Table 4.7. Example of an important farmlands scale

Group	Factor scale
Prime	100
Unique	100
Statewide	75
Local	50
None of the above	0

NOTE: The rating assigned to Important Farmlands Groups is determined by the local LESA committee.

Table 4.5. Example of a land capability factor scale

Land capability class	Factor scale
I	100
IIw	95
IIe	92
IIs	90
IIc	90
IIIw	85
IIIe	82
IIIs	80
IIIc	80
IVw	65
IVe	62
IVs	60
IVc	60
V	40
VIw	25
VIe	22
VIs	20
VIc	20
VII	10
VIII	0

NOTE: This scale is for illustrative purposes only. The LESA committee assigns a rating to each unit based on local conditions.

The LE committee should begin by determining those groups of crops that produce the most revenue or use the most acreage. An indicator crop for each group can then be chosen on the basis of sensitivity to soil variations.

Choosing indicator crops

Since both soil potential and soil productivity rating systems are based on indicator crops, it is necessary for the LE committee to select the indicator crops it will use in developing the LE component. Considerations for determining the number and type of indicator crops include soil diversity, the local importance of dryland and irrigated cropping systems, sensitivity of crop types to soil variations, pasture use where this is an important part of the local agricultural economy, and certain types of crops which may be uniquely suited to a soil that has few other crop values.

The LE committee should begin by determining those groups of crops that produce the most revenue or use the most acreage. Crop information is available from the Census of Agriculture, USDA Agricultural Statistics Service state offices, county Extension Service offices, or local assessors. Crops that fall below some threshold, such as 10 percent of acreage or gross sales, could be dropped from further consideration. Next, crop groups can be determined, each group consisting of crops that are essentially interchangeable in terms of soil requirements and local cropping patterns. An indicator crop for each group can then be chosen on the basis of sensitivity to soil variations. For example, sweet corn might be used as an indicator for a wide range of vegetable crops or wheat might be used as an indicator crop for a group of cereal grains. Distribution and local concentration of crops within the jurisdiction should also be considered. Commonly grown indicator crops may vary by geographic sub-areas, such as valley bottomlands, river terraces, and foothill slopes, by other sub-areas with different precipitation and temperature regimes, and by irrigation availability.

Several examples of jurisdictions' use of indicator crops follow:

- Kenai Peninsula Borough, Alaska, used potatoes as its indicator crop. While grass hay could have been used, hay production tends to be constant at one to two tons per acre on a wide variety of soils. Potato production was much more sensitive to the various factors that were used to separate the different soils groups (Resource Development Commission, 1987).

- Marion County, Oregon, a diverse county that leads the state in agricultural gross sales, used five indicator crops: fine fescue, irrigated sweet corn, winter wheat, filberts, and non-irrigated permanent pasture. Fine fescue, because of its impor-

tance in terms of acreage and revenue, represents the grass seed crops. It is especially important in the foothill areas. Irrigated sweet corn represents a wide variety of vegetable crops and is grown on bottomland soils. Winter wheat represents cereal grains and other field crops grown without irrigation. Filberts represent a variety of tree fruit and nut crops. Non-irrigated permanent pasture represents a significant agricultural use for some soils not as well suited for other cropping systems (Marion County, 1986).

- Bonneville County, Idaho, used dryland wheat, irrigated barley, and irrigated potatoes as its indicator crops. While barley is a good general indicator for this county, potatoes are an important and more valuable crop on some soils (Nellis, 1989).

- Latah County, Idaho, used winter wheat as its indicator crop. Where this crop cannot be grown because of higher elevations or wet soils, barley and hay were used as indicator crops, and their yields were adjusted to winter wheat yields on the basis of comparable present market values (Stamm et al., 1987). Similarly, in Monroe County, Illinois, corn was used as its indicator crop. Where corn cannot be grown because of steep slopes or shallow soils, an equivalent corn yield was developed using hay, pasture, and woodland (Monroe County, 1988).

- In Hawaii, sugar cane was used for lands historically and currently in that use. Cabbage was used as the typical vegetable crop, and papayas and macadamia nuts were used for orchard lands. In Hawaii's case, these indicator crops were used to reflect current land use for specific land parcels (Hawaii LESA Commission, 1986).

Comparing yields for indicator crops

Once indicator crops are selected, the soils can be scaled to assign ratings. If only one indicator crop is selected, yields, in units such as bushels of corn, tons of grass seed, or AUMs for pasture, may be used in scaling. When several indicator crops are selected, a common scale, such as percentages, gross returns, or net returns, must be calculated. Even when common measurement units are used, such as tons of wheat and tons of grass, the value of the crop may differ substantially, requiring the use of a measurement unit that equalizes this difference.

One method of comparison is to use equivalent yields of a principal indicator crop, such as corn or wheat, for secondary indicator crops. A second method is to average the measurement units A third method is to use the highest indicator crop value for each soil.

One common measurement unit is to express the yield of a given indicator crop on a given soil as a percentage of the maximum yield obtainable from all soils on which that crop can be grown. For example, a soil that rates in the 70th percentile for corn yield might be considered equivalent to another soil that rates in the 70th percentile for wheat yield. This does not account for differences in market value among different crops, however.

Another is to express the yield of each indicator crop in terms of gross return per acre. This method, however, disregards costs of overcoming soil limitations and weights differences in market value very heavily. It may proportionately downgrade soils that are not suitable for the highest value crop but nevertheless are productive soils for other agricultural enterprises that are important in the agricultural economy of a region

A better common measurement unit for comparing yields of indicator crops is to compare net returns. In this way, costs of overcoming soil limitations are subtracted from gross returns, and soil productivity can be expressed in terms of the net returns to management. Those soils that produce high yields and respond well to management are rated higher than soils producing lower yields with the same amount of management or soils requiring extra management to achieve the same yields. This is the principle behind the concept of the soil potential rating system. The net returns should be recalculated periodically, perhaps every three years, to reflect commodity price changes.

If the soil potential rating system is used, net returns for each soil type in the jurisdiction are determined by subtracting production costs and costs of overcoming soil limitations from gross returns per acre. The local LE committee determines the pertinent costs per acre per year for various soils. The computation is shown in the example given in Table 4.8, where four soils (Amity, Bellpine, Dayton, and Willamette) are rated for four indicator crops (wheat, ryegrass, pasture, and sweet corn). Yield per acre is obtained from the soil survey or farm records. Gross return per acre is obtained by multiplying yield by unit price. While adjustments for production costs could be included, they were assumed to be about the

Table 4.8. Example of soil potential data for each of four indicator crops, Linn County, Oregon

Crop and Soil	Yield		Gross Return ($)	Management costs-$/ac/yr ($0.4 ha/yr) Tile drain	Field drain	Land smoothing	Cross-slope farming	Sub-soiling	Cover crop	Irrig.	Net return ($)
Winter wheat—											
$3.85/bu ($10.94/hl)	bu/ac	hl/0.4 ha									
Amity	100	35.2	385	99							286
Bellpine, 3-12%*	70	24.6	270				10				260
Chapman	100	35.2	385								385
Dayton	50	17.6	193	155	2						36
Willamette, 0-3%	110	38.7	424								424
Annual ryegrass—											
$0.14/lb ($0.31/kg)	lb/ac	kg/O.4 ha									
Amity	1800	817.2	252								252
Bellpine, 3-12%*	900	408.6	126				10				116
Chapman	1800	817.2	252								252
Dayton	1800	817.2	252		2	9					241
Willamette, 0-3%	1800	817.2	252								252
Permanent pasture—											
$1 0.00/AUM†	AU M/ac										
Amity	10		100								100
Bellpine, 3-12%*		60								60	
Chapman	12		120							120	
Dayton	8		80		2					78	
Willamette, 0-3%	12		120								120
Irrigated sweet corn—											
$65.00/ton ($71.65/MT)	t/ac	MT/0.4 h a									
Amity	9	8.2	585	99				10	25	146	305
Bellpine, 3-12%*	7	6.4	455				10	10	25	181	229
Chapman	9	8.2	585					10	25	129	427
Dayton	6.5	5.9	423	155	2			10	25	146	85
Willamette, 0-3%	9	8.2	585					10	25	146	404

* Numbers indicate range in slope gradient on which the soil occurs. Soils lacking numbers are nearly level.
† AUM, animal unit month.
Source: Adapted from Huddleston et al., 1987.

same for all soils and were not included in this example. Unit price is obtained from Extension Service commodity estimates, from processors, the USDA Agricultural Statistics Reporting Service state office, or from other state or local sources. To account for price fluctuations, prices per unit can be calculated over a five-year period and adjusted for inflation. In obtaining a unit price, prices can be averaged or, alternatively, the three middle values can be averaged, discarding the highest and lowest values

Management costs are subtracted from gross returns to obtain net return figures. The net return figures, as given in Table 4.9, provide the basis for calculating SPR. At this point, at least two options are available. In the first option, the soil mapping unit with the highest net return among all indicator crops is set equal to 100 points, such as shown in Table 4.10. The highest net return for other soil mapping units are then assigned a point value by calculating their

Table 4.9. Example of net returns for five soils and four indicator crops, Linn County, Oregon

Soil	Winter wheat	Annual ryegrass	Permanent pasture	irrigated sweet corn
Amity	$286	$252	$100	$305
Bellpine, 3-12%	260	116	60	229
Chapman	385	252	120	427
Dayton	36	241	78	85
Willamette, 0-3%	424	252	120	404

Source: Adapted from Huddleston et al., 1987.

Table 4.10. Two methods to calculate soil potential ratings on a 100-point scale for five soils, Linn County, Oregon

Soil	Highest net return for four indicator crops	SPR	Average net return for four indicator crops	SPR
Amity	$305	71	$236	79
Bellpine, 3%-12%	260	61	166	55
Chapman	427	100	296	99
Dayton	241	56	110	37
Willamette	424	99	300	100

Source: Adapted from Huddleston and Pease, 1988; Huddleston et al., 1987

percentage of the highest net return and applying the percentage to a 100-point scale. An alternative approach would be to average the net returns of the four indicator crops for each soil mapping unit and then scale the averages to obtain SPRs, also shown in Table 4.10.

As shown in Table 4.9, a single crop would not work well as an indicator of soil potential in this county because the net values vary considerably by soil mapping unit for different indicator crops. If wheat were chosen as the indicator crop, the Dayton soil would have a very low net return. However, if annual ryegrass were chosen, there would be essentially no difference in net returns between Dayton and Willamette. The truth is somewhere between these two extremes. Willamette is an excellent soil for virtually all crops. Dayton is a valuable soil resource for the grass seed industry, but there is little flexibility for growing crops other than grass seed. Use of techniques that incorporate information from several indicator crops, as shown in Table 4.10, better reflects the true value of the Dayton soil for agricultural use in this county.

In deciding which of the two options given in Table 4.10 is most appropriate, the LE committee should consider several points. Using the highest net return instead of the average recognizes that certain crops, such as ryegrass seed, may be grown successfully on otherwise limited soil. In the example shown in Table 4.9, Dayton

soil, a poorly drained soil with a very slowly permeable clay layer just below the surface, clearly produces a low net return for wheat, pasture, and sweet corn. However, the soil occurs in large blocks in the county and supports a very important ryegrass industry. The use of the highest net return places this soil considerably higher on the SPR scale than would averaging. If each soil type is being used to raise those crops which yield the greatest net return, then highest net return is the best representation of land value.

In specifying yields of indicator crops, a "high" sustainable management regime is usually assumed, since this more closely represents the soil's potential than yields obtained under less intensive manage-

The advantage to averaging net returns is that the SPR would then reflect a soil's capacity to support diverse crops. In jurisdictions without a special circumstance, such as the large blocks of Dayton soils and the ryegrass industry, averaging provides a good reflection of the relative value of soils. If, for example, demand is not reliably sufficient to sustain use of most of the land in each soil type to raise its highest net return crop, then average net return is the best representation of land value.

In specifying yields of indicator crops, a "high" sustainable management regime is usually assumed, since this more closely represents the soil's potential than yields obtained under less intensive management. Soil survey yield figures should be reviewed by the LE committee for each soil mapping unit and adjusted as necessary for environmental gradients such as rainfall, slope, and temperature, for rotation requirements, and for other factors such as drainage improvements. Also, the LE committee should determine whether equivalent dates and levels of technology were used in deriving the soil survey yield figures. In cases where there are missing data, estimates of crop yields must be made.

Another option for combining indicator yields is the use of major and secondary indicator crops. In this option, a major indicator crop is chosen and secondary indicator crops are used to adjust the value of the major crop on soils that do not support the major indicator crop. For example, if wheat were the major crop, wheat yields could be adjusted by comparable market values of the secondary crops (see profile for Latah County, Idaho, in Steiner et al., 1991; Stamm et al., 1987). To illustrate this approach using the data in Table 4.8, the wheat yields could be adjusted by using pasture as a secondary crop. The yield can be adjusted by the percentage of wheat gross returns that pasture can produce on soils that can support both uses. For Amity soils, the pasture gross return is $100/acre/year as compared to $385/acre/year for wheat (26 bushels/acre), which indicates that pasture returns are 26 percent of wheat returns. Let us consider a soil that could not support

wheat, say Dayton, in Table 4.8. Dayton has a gross return of $80/acre/year for pasture, which is 80 percent of the Amity gross return. Applying the 80 percent to the 26 bushels obtained above gives 21 bushels of wheat ($81 gross sales) in a yield adjusted for the secondary crop,

The LE committee should consider carefully both the selection of indicator crops and the method of combining them for a rating scale. Choice of method will depend on the agricultural characteristics of the jurisdiction. Expert opinion of NRCS staff will be valuable in selecting a method. Field tests, as outlined in Chapter 7, will be helpful in refining these procedures.

Summary

The selection and scaling of LE factors are important tasks for the LESA committee or LE subcommittee. The choice of factors will depend on policy objectives, the user assessment, and time constraints. Scaling of LE factors should reflect state or local conditions and the purpose of the LESA system.

The choice of one or multiple indicator crops for soil productivity or soil potential ratings is determined by state or local agricultural commodities, soils, and subclimates. If more than one indicator crop is used, they may be combined in several ways. Chapter 6 discusses combining and weighting LE factors.

For each of the four LE Options under review, this attachment describes:

- the data used to arrive at the Soils Productivity Index (PI); and
- the method by which the LE relative values were grouped into Agriculture Value Groups

Option 1 **"Bulletin 810 Soils Productivity Index"**	**Data on which Soils Productivity Index (PI) is based:** • 10-Year Average Crop Yields for Each Soil in Illinois • Slope Class (0-2%; 2-5%; 5-10%; 10-15%; 15-20%; 20-25%; 25-30%; 30-35%; 35-40%; 43+%) • Erosion Condition (Slightly, Moderately, or Severely Eroded) • Subsoils for Rooting (Favorable or Unfavorable) **Agriculture Value Groups** The relative values for each Soils Series PI were grouped into Agriculture Value Groups as follows: 100-96 Agriculture Value Group 1 95-91 Agriculture Value Group 2 90-86 Agriculture Value Group 3 85-81 Agriculture Value Group 4 80-76 Agriculture Value Group 5 75-71 Agriculture Value Group 6 70-66 Agriculture Value Group 7 65 and under Agriculture Value Group 8
Option 2 **"Bulletin 811 Soils Productivity Index"**	**Data on which Soils Productivity Index (PI) is based:** • The top 16% of 10-Year Average Crop Yields for Each Soil in Illinois • Slope Class (0-2%; 2-5%; 5-10%; 10-15%; 15-20%; 20-25%; 25-30%; 30-35%; 35-40%; 43+%) • Erosion Condition (Slightly, Moderately, or Severely Eroded) • Subsoils for Rooting (Favorable or Unfavorable) **Agriculture Value Groups** The relative values for each Soils Series PI were grouped into Agriculture Value Groups as follows: 100-96 Agriculture Value Group 1 95-91 Agriculture Value Group 2 90-86 Agriculture Value Group 3 85-81 Agriculture Value Group 4 80-76 Agriculture Value Group 5 75-71 Agriculture Value Group 6 70-66 Agriculture Value Group 7 65 and under Agriculture Value Group 8

Option 3 **"Version A"** Slope, Farmland Classification, and Bulletin 811 Soils Productivity Index	Data on which Version A is based: **Slope** (from the Soil Series description) • 0-2%; 2-5%; 5-10%; 10-15%; 15-20%; 20-25% **Farmland Classification** • Prime, Prime 1, Prime 2, Prime 3 Statewide Importance, Not Prime USDA NRCS "..classification that identifies the location and extent of most suitable land for producing food, feed, fiber, forage, and oilseed crops" (More detail provided in NRCS definitions at end of Attachment D) **Soils Productivity Index** Data on which Soils Productivity Index (PI) is based: • The top 16% of 10-Year Average Crop Yields for Each Soil in Illinois • Slope Class (0-2%; 2-5%; 5-10%; 10-15%; 15-20%; 20-25%; 25-30%; 30-35%; 35-40%; 43+%) • Erosion Condition (Slightly, Moderately, or Severely Eroded) • Subsoils for Rooting (Favorable or Unfavorable) **Agriculture Value Groups** The relative values for each Soils Series PI were grouped into Agriculture Value Groups as follows: Agriculture Value Group 1 Includes PI 100-98, and 0-2% Slope, and Prime and Prime 1 (Farmland Classification) Agriculture Value Group 2 Includes PI 98-91, and 0-2% and 2-5% slope, and Prime and Prime 1 (Farmland Classification) Agriculture Value Group 3 Includes PI 90-84, and 0-2% and 2-5% slope, and Prime, Prime 1 and Prime 2 (Farmland Classification) Agriculture Value Group 4 Includes PI 83-76, and 0-2% 2-4%, 2-5%, 4-6% slope, and Prime and Prime 3 (Farmland Classification) Agriculture Value Group 5 Includes PI 89-68, and 0-2% 2-4%, 2-5%, 4-6%, 5-10% slope, and Prime, Prime 1, Prime 2, Not Prime, and Statewide Importance (Farmland Classification) Agriculture Value Group 6 Includes PI 69- 37, and 4-6%, 5-10%, 6-12%, 10-18%, 12-20%, 18-25%, 18-35% slope, and Not Prime and Statewide Importance (Farmland Classification)

Option 4 **"Version B"** Land Capability Classification, Farmland Classification, and Bulletin 811 Soils Productivity Index	Data on which Version B is based: **Land Capability Classification** (USDA NRCS classification) • Classes 1, 2, 3, 4, 6, and 7 and Subclasses e, w USDA NRCS "system of grouping soils primarily based on their capability to produce common cultivated crops and pasture plants without deteriorating over a long period of time." (More detail provided in NRCS definitions at end of Attachment D) **Farmland Classification** (USDA NRCS classification) • Prime, Prime 1, Prime 2, Statewide Importance, Not Prime USDA NRCS "..classification that identifies the location and extent of most suitable land for producing food, feed, fiber, forage, and oilseed crops" (More detail provided in NRCS definitions at end of Attachment D) **Soils Productivity Index** Data on which Soils Productivity Index (PI) is based: • The top 16% of 10-Year Average Crop Yields for Each Soil in Illinois • Slope Class (0-2%; 2-5%; 5-10%; 10-15%; 15-20%; 20-25%; 25-30%; 30-35%; 35-40%; 43+%) • Erosion Condition (Slightly, Moderately, or Severely Eroded) • Subsoils for Rooting (Favorable or Unfavorable) **Agriculture Value Groups** The relative values for each Soils Series PI were grouped into Agriculture Value Groups as follows: Agriculture Value Group 1 Includes PI 100-98, and Prime (Farmland Classification), and 1 (Land Capability Class) Agriculture Value Group 2 Includes PI 100, and Prime 1 (Farmland Classification), and 2w (Land Capability Class) Agriculture Value Group 3 Includes PI 98-90, and Prime and Prime 1 (Farmland Classification), and 1, 2e, and 2w (Land Capability Class) Agriculture Value Group 4 Includes PI 89-84, and Prime and Prime 1 (Farmland Classification), and 1, 2e, 2w, and 3w (Land Capability Class) Agriculture Value Group 5 Includes PI 83-78, and Prime and Prime 3 (Farmland Classification), and 1, 2e, 2w, and 3w (Land Capability Class) (continued)

Option 4 (continued) **"Version B"**	**Agriculture Value Groups** (continued) Agriculture Value Group 6 Includes PI 78-68, and Prime, Prime 1, Prime 2, and Statewide Importance (Farmland Classification), and 2e, 2w, 3e, and 3w (Land Capability Class) Agriculture Value Group 7 Includes PI 89-37, and Not Prime and Statewide Importance (Farmland Classification), and 3e, 3w, 4e, 6e, and 7e (Land Capability Class)

Definitions of the 'Farmland Classification' and 'Land Capability Classification' systems are provided on the following pages. The definitions are from an excerpt of USDA Natural Resources Conservation Service Technical Handbook NSSH Part 622, available online at: http://soils.usda.gov/technical/handbook/contents/part622.html

LE Scores for Each Option Applied to Test Sites

To allow for comparison, the LE Relative Value (of the Agriculture Value Group) is provided for each of four test sites. (The test sites are the same four test sites referred to in the previous Meeting 6 September 7 packet.)

	Relative Value (Ag Value Group) LE				
TEST SITE	**Adopted LESA** in current use	**Update Option 1** • Bulletin 810 PI	**Update Option 2** • Bulletin 811 PI	**Update Option 3** "Version A" • Bulletin 811 PI • Slope • Farmland Classification	**Update Option 4** "Version B" • Bulletin 811 PI • Land Capability Classification • Farmland Classification
1	78	94	89	88	88
2	76[1]	80	80	81	82
3	97[2]	98	98	98	98
4	83[3]	86	87	85	86

Notes:

1. Test Site 2 LE is based on the initial approximately 38.7-acre tract for which the previously issued LE score is available.
2. Test Site 3 LE is based on the initial 76-acre tract for which the previously issued LE score is available.
3. Test Site 4 LE is based on the original 81.5-acre tract for which the previously issued LE score is available.

Test Site 1 is a 5.31-acre parcel.

Test Site 1: LE Worksheet - **Option 1**

Soil Series	Ag Value Group	Ag Value Group Relative Value	Acres	Product of Relative Value & Acres
242A Kendall	3	88	0.20	17.60
152A Drummer	1	100	0.83	83
570C2 Martinsville	6	74	0.01	0.74
134B Camden	4	83	1.64	136.12
3107A Sawmill	1	100	2.63	263
Total:			5.31 (a)	500.46 (b)
LE Calculation				b/a = 94.25
LE Score:				94

Test Site 1: LE Worksheet - **Option 2**

Soil Series	Ag Value Group	Ag Value Group Relative Value	Acres	Product of Relative Value & Acres
242A Kendall	3	89	0.20	17.80
152A Drummer	1	100	0.83	83
17.80570C2 Martinsville	6	73	0.01	0.73
134B Camden	4	83	1.64	136.12
3107A Sawmill	3	89	2.63	234.07
Total:			5.31 (a)	471.72 (b)
LE Calculation				b/a = 88.84
LE Score:				89

Test Site 1: LE Worksheet - **Option 3**

Soil Series	Ag Value Group	Ag Value Group Relative Value	Acres	Product of Relative Value & Acres
242A Kendall	3	88	0.20	17.60
152A Drummer	1	100	0.83	83
570C2 Martinsville	5	76	0.01	0.76
134B Camden	4	81	1.64	132.84
3107A Sawmill	3	88	2.63	231.44
Total:			5.31 (a)	465.64 (b)
LE Calculation				b/a = 87.69
LE Score:				88

Test Site 1: LE Worksheet - **Option 4**

Soil Series	Ag Value Group	Ag Value Group Relative Value	Acres	Product of Relative Value & Acres
242A Kendall	4	87	0.20	17.40
152A Drummer	2	100	0.83	83
570C2 Martinsville	6	75	0.01	0.75
134B Camden	5	83	1.64	136.12
3107A Sawmill	4	87	2.63	228.81
Total:			5.31 (a)	466.08 (b)
LE Calculation				b/a = 87.77
LE Score:				88

Test Site 2 is comprised of approximately 38.7 acres.

Test Site 2: LE Worksheet - **Option 1**

Soil Series	Ag Value Group	Ag Value Group Relative Value	Acres	Product of Relative Value & Acres
206A Thorp	3	88	3.5	308
236A Sabina	4	83	0.4	33.2
570B Martinsville	5	77	16.3	1,255.1
570C2 Martinsville	6	74	5.1	377.4
680B Campton	4	83	13.4	1,112.2
Total:			38.7 (a)	3,085.9 (b)
LE Calculation				b/a = 79.74
LE Score:				80

Test Site 2: LE Worksheet - **Option 2**

Soil Series	Ag Value Group	Ag Value Group Relative Value	Acres	Product of Relative Value & Acres
206A Thorp	3	89	3.5	311.5
236A Sabina	4	83	0.4	33.2
570B Martinsville	5	77	16.3	1,255.1
570C2 Martinsville	6	73	5.1	372.3
680B Campton	4	83	13.4	1,112.2
Total:			38.7 (a)	3,084.3(b)
LE Calculation				b/a = 79.69
LE Score:				80

Test Site 2: LE Worksheet - **Option 3**

Soil Series	Ag Value Group	Ag Value Group Relative Value	Acres	Product of Relative Value & Acres
206A Thorp	3	88	3.5	308
236A Sabina	3	88	0.4	35.2
570B Martinsville	4	81	16.3	1,320.3
570C2 Martinsville	5	76	5.1	387.6
680B Campton	4	81	13.4	1,085.4
Total:			38.7 (a)	3,136.5 (b)
LE Calculation				b/a = 81.05
LE Score:				81

Test Site 2: LE Worksheet - **Option 4**

Soil Series	Ag Value Group	Ag Value Group Relative Value	Acres	Product of Relative Value & Acres
206A Thorp	4	87	3.5	304.5
236A Sabina	4	87	0.4	34.8
570B Martinsville	5	83	16.3	1,352.9
570C2 Martinsville	6	75	5.1	382.5
680B Campton	5	83	13.4	1,112.2
Total:			38.7 (a)	3,186.9 (b)
LE Calculation				b/a = 82.35
LE Score:				82

Test Site 3 consists of 75.7 acres (AS400 indicates 73.36 acres)

Test Site 3: LE Worksheet - **Option 1**

Soil Series	Ag Value Group	Ag Value Group Relative Value	Acres	Product of Relative Value & Acres
152A Drummer	1	100	40.47	4,047
154A Flanagan	1	100	25.73	2,573
481A Raub	2	93	0.82	76.26
622B Wyanet	4	83	6.34	526.22
Total:			73.36 (a)	7,222.48 (b)
LE Calculation				b/a = 98.45
LE Score:				98

Test Site 3: LE Worksheet - **Option 2**

Soil Series	Ag Value Group	Ag Value Group Relative Value	Acres	Product of Relative Value & Acres
152A Drummer	1	100	40.47	4,047
154A Flanagan	1	100	25.73	2,573
481A Raub	2	93	0.82	76.26
622B Wyanet	4	83	6.34	526.22
Total:			73.36 (a)	(b) 7,222/48
LE Calculation				b/a = 98.45
LE Score:				98

Test Site 3: LE Worksheet - **Option 3**

Soil Series	Ag Value Group	Ag Value Group Relative Value	Acres	Product of Relative Value & Acres
152A Drummer	1	100	40.47	4,047
154A Flanagan	1	100	25.73	2,573
481A Raub	2	94	0.82	77.08
622B Wyanet	4	81	6.34	513.54
Total:			73.36 (a)	7,210.62 (b)
LE Calculation				b/a = 98.29
LE Score:				98

Test Site 3: LE Worksheet - **Option 4**

Soil Series	Ag Value Group	Ag Value Group Relative Value	Acres	Product of Relative Value & Acres
152A Drummer	1	100	40.47	4,047
154A Flanagan	2	100	25.73	2,573
481A Raub	3	93	0.82	76.26
622B Wyanet	5	83	6.34	526.22
Total:			73.36 (a)	(b) 7,222.48
LE Calculation				b/a = 98.45
LE Score:				98

Test Site 4 consists of an 81.5-acre tract.

Test Site 4: LE Worksheet - **Option 1**

Soil Series	Ag Value Group	Ag Value Group Relative Value	Acres	Product of Relative Value & Acres
152A Drummer	1	100	1.1	110
232A Ashkum	3	88	42.55	3,744.4
146C2 Elliott	4	83	36.01	2,988.83
223C2 Varna	5	77	0.02	1.54
481A Raub	2	93	1.82	169.26
Total:			81.5 (a)	7,014.03 (b)
LE Calculation				b/a = 86.06
LE Score:				86

Test Site 4: LE Worksheet - **Option 2**

Soil Series	Ag Value Group	Ag Value Group Relative Value	Acres	Product of Relative Value & Acres
152A Drummer	1	100	1.1	110
232A Ashkum	3	89	42.55	3,786.95
146C2 Elliott	4	83	36.01	2,988.83
223C2 Varna	5	77	0.02	1.54
481A Raub	2	93	1.82	169.26
Total:			81.5 (a)	7,056.58(b)
LE Calculation				b/a = 86.58
LE Score:				87

Test Site 4: LE Worksheet - **Option 3**

Soil Series	Ag Value Group	Ag Value Group Relative Value	Acres	Product of Relative Value & Acres
152A Drummer	1	100	1.1	110
232A Ashkum	3	88	42.55	3,744.4
146C2 Elliott	4	81	36.01	2,916.81
223C2 Varna	5	76	0.02	1.52
481A Raub	2	94	1.82	171.08
Total:			81.5 (a)	6,943.81 (b)
LE Calculation				b/a = 85.2
LE Score:				85

Test Site 4: LE Worksheet - **Option 4**

Soil Series	Ag Value Group	Ag Value Group Relative Value	Acres	Product of Relative Value & Acres
152A Drummer	1	100	1.1	110
232A Ashkum	4	87	42.55	3,701.85
146C2 Elliott	5	83	36.01	2,988.83
223C2 Varna	6	75	0.02	1.5
481A Raub	3	93	1.82	169.26
Total:			81.5 (a)	6,971.44 (b)
LE Calculation				b/a = 85.5
LE Score:				86

Attachment F provides a means to compare LE data of the present Champaign County LESA with each of the four LE update options.

Details regarding each 'Agriculture Value Group' of the adopted Champaign County LESA is provided in the next column.

Details regarding each 'Agriculture Value Group' for the proposed LE Options begin on the following pages.

Provided immediately below are summary tables that address:

- Soil Productivity Index Source
- Percentage of County Land in Ag Value Group
- Ag Value Group's Average "Relative Value LE"

Soils Productivity Index Source:

	Current LESA	Option 1	Option 2	Option 3	Option 4
Soils Productivity Index:	Circular 1156	Bulletin 810	Bulletin 811	Bulletin 811	Bulletin 811

Percentage of County Land in Ag Value Group

Ag Value Group	Adopted LESA	Option 1	Option 2	Option 3	Option 4
1	21.0	63.4	61.7	60.9	21.1
2	39.8	13.5	9.8	10.5	39.8
3	13.4	6.6	11.9	13.8	15.4
4	7.2	9.2	9.3	9.3	9.0
5	10.1	3.5	3.6	3.1	7.5
6	3.7	1.3	1.2	1.2	5.0
7	2.5	0.9	0.9	1.2	1.0
8	0.2	0.4	0.4	--	1.2
9	1.2	1.2	1.2	--	--
	99.1	100	100	100	100

Ag Value Group's Average "Relative Value LE"

Ag Value Group	Adopted LESA	Option 1	Option 2	Option 3	Option 4
1	100	100	100	100	100
2	98	93	93	94	100
3	87	88	89	88	93
4	85	83	83	81	87
5	79	77	77	76	83
6	70	74	73	64	75
7	65	67	68	0	66
8	41	57	57	--	0
9	0	0	0	--	--

Adopted Champaign County LESA

Map Unit and Soil Series	*Ag Value Group*	*Ag Value Group LE*	*% County Land*
149A Brenton 154A Flanagan 198A Elburn	1	100	21.0
152A Drummer	2	98	39.8
56B Dana 56B2 Dana 102A LaHogue 148B2 Proctor 171B Catlin 219A Millbrook 234A Sunbury 490A Odell 623A Kishwaukee 663B Clare 679B Blackberry	3	87	13.4
125A Selma 153A Pella 232A Ashkum 236A Sabina 242A Kendall 67A Harpster 3473A Rossburg	4	85	7.2
134A Camden 134B Camden 146A Elliott 146B2 Elliott 146C2 Elliott 223B2 Varna 233B Birbeck 235A Bryce 291B Xenia 330A Peotone 570B Martinsville 622B Wyanet 680B Campton 687B Penfield	5	79	10.1
23A Blount 23B2 Blount 91B2 Swygert 131B Alvin 150B Onarga 206A Thorp 387B Ockley 448B Mona 530B Ozaukee 618B Senachwine 3107A Sawmill 3302A Ambraw	6	70	3.7
322C2 Russell 530D2 Ozaukee 560C2 Martinsville 618C2 Senachwine 622C2 Wyanet 687C2 Penfield 637A+ Muskego 223D3 Varna 387C3 Ockley 570D2 Martinsville 618D2 Senachwine 622D3 Wyanet	7	65	2.5
530E2 Ozukee 618E2 Senachwine 241D3 Chatsworth	8	41	0.2
533 Urban Land 802 Orthents 865 Gravel Pits W Water	9	0	1.2

Option 1 (Bulletin 810 Soils PI)

Map Unit and Soil Series	Ag Value Group	Ag Value Group LE %	County Land
149A Brenton 152A Drummer 154A Flanagan 198A Elburn 679B Blackberry 3107A Sawmill	1	100	63.41
56B Dana 67A Harpster 153A Pella 171B Catlin 234A Sunbury 481A Raub 623A Kishwaukee 663B Clare 3473A Rossburg	2	93	13.49
56B2 Dana 125A Selma 146A Elliott 148B2 Proctor 206A Thorp 219A Millbrook 232A Ashkum 242A Kendall 490A Odell 687B Penfield 637A+ Muskego	3	88	6.60
91A Swygert 102A La Hogue 134A Camden 134B Camden 146B2 Elliott 146C2 Elliott 233B Birkbeck 235A Bryce 236A Sabina 291B Xenia 330A Peotone 448B Mona 622B Wyanet 680B Campton 687C2 Penfield	4	83	9.17
131B Alvin 150B Onarga 223B2 Varn 223C2 Varna 387B Ockley 570B Martinsville 622C2 Wyanet 3302A Ambraw	5	77	3.54
23A Blount 91B2 Swygert 91C2 Swygert 322C2 Russell 530B Ozaukee 530C2 Ozaukee 570C2 Martinsville 618B Senachwine	6	74	1.27
23B2 Blount 223D3 Varna 387C3 Ockley 530D2 Ozaukee 570D2 Martinsville 618C2 Senachwine	7	67	0.89
241C3 Chatsworth 241D3 Chatsworth 530E2 Ozaukee 618D2 Senachwine 618E2 Senachwine 618F Senachwine 622D3 Wyanet	8	57	0.41
533 Urban land 802B Orthents 830 Landfills 865 Pits gravel W Water	n/a	0	1.22

Option 2 (Bulletin 811 Soils PI)

Map Unit and Soil Series	Ag Value Group	Ag Value Group LE %	County Land
149A Brenton 152A Drummer 154A Flanagan 198A Elburn 679B Blackberry	1	100	61.68
67A Harpster 153A Pella 171B Catlin 234A Sunbury 481A Raub 623A Kishwaukee 663B Clare	2	93	9.76
56B Dana 56B2 Dana 125A Selma 146A Elliott 148B2 Proctor 206A Thorp 219A Millbrook 232A Ashkum 242A Kendall 490A Odell 637A+ Muskego 687B Penfield 3107A Sawmill	3	89	11.91
91A Swygert 102A La Hogue 134A Camden 134B Camden 146B2 Elliott 146C 2 Elliott 233B Birkbeck 235A Bryce 236A Sabina 291B Xenia 330A Peotone 448B Mona 622B Wyanet 680B Campton 687C2 Penfield 3473A Rossburg	4	83	9.32
91B2 Swygert 91C2 Swygert 131B Alvin 150B Onarga 223B2 Varna 223C2 Varna 387B Ockley 570B Mar tinsville 622C2 Wyanet	5	77	3.60
23A Blount 530B Ozaukee 530C2 Ozaukee 322C2 Russell 570C2 Martinsville 618B Senachwine 3302A Ambraw	6	73	1.21
23B2 Blount 223D3 Varna 387C3 Ockley 530D2 Ozaukee 570D2 Martinsville 618C2 Senachwine	7	68	0.89
241C3 Chatsworth 241D3 Chatsworth 530E2 Ozaukee 618D2 Senachwine 618E2 Senachwine 618F Senachwine 622D3 Wyanet	8	57	0.41
533 Urban land 802B Orthents 830 Landfills 865 Pits gravel W Water	n/a	0	1.22

Option 3 (Version A)

Map Unit and Soil Series	*Ag Value Group*	*Ag Value Group LE*	*% County Land*
149A Brenton 152A Drummer 154A Flanagan 198A Elburn	1	100	60.9
67A Harpster 153A Pella 171B Catlin 234A Sunbury 481A Raub 623A Kishwaukee 663B Clare 679B Blackberry	2	94	10.5
56B Dana 56B2 Dana 102A La Hogue 125A Selma 146A Elliott 148B2 Proctor 206A Thorp 219A Millbrook 232A Ashkum 233B Birkbeck 235A Bryce 236A Sabina 242A Kendall 330A Peotone 490A Odell 687B Penfield 3107A Sawmill	3	88	13.8
91A Swygert 91B2 Swygert 131B Alvin 134A Camden 134B Camden 146B2 Elliott 146C2 Elliott 223B2 Varna 291B Xenia 387B Ockley 448B Mona 570B Martinsville 622B Wyanet 680B Campton 3473A Rossburg	4	81	9.3
23A Blount 23B2 Blount 91C2 Swygert 150B Onarga 223C2 Varna 322C2 Russell 618B Senachwine 530C2 Ozaukee 570C2 Martinsville 637A+ Muskego 687C2 Penfield 622C2 Wyanet 3302A Ambraw	5	76	3.1
223D3 Varna 241C3 Chatsworth 241D3 Chatsworth 387C3 Ockley 530D2 Ozaukee 530E2 Ozaukee 570D2 Martinsville 618C2 Senachwine 618D2 Senachwine 618E2 Senachwine 618F Senachwine 622D3 Wyanet	6	64	1.2
533 Urban land 802B Orthents 830 Landfills 865 Pits gravel W Water	7	0	1.2

Option 4 (Version B)

Map Unit and Soil Series	*Ag Value Group*	*Ag Value Group LE*	*% County Land*
149A Brenton 154A Flanagan 198A Elburn	1	100	21.1
152A Drummer	2	100	39.8
56B Dana 67A Harpster 125A Selma 153A Pella 171B Catlin 219A Millbrook 234A Sunbury 481A Raub 490A Odell 623A Kishwaukee 663B Clare 679B Blackberry 687B Penfield	3	93	15.4
56B2 Dana 102A La Hogue 146A Elliott 148B2 Proctor 206A Thorp 232A Ashkum 233B Birkbeck 235A Bryce 236A Sabina 242A Kendall 330A Peotone 3107A Sawmill	4	87	9.0
91A Swygert 134A Camden 134B Camden 146B2 Elliott 146C2 Elliott 291B Xenia 387B Ockley 448B Mona 570B Martinsville 622B Wyanet 680B Campton 3473A Rossburg	5	83	7.5
23A Blount 23B2 Blount 91B2 Swygert 91C2 Swygert 131B Alvin 150B Onarga 223B2 Varna 223C2 Varna 322C2 Russell 530B Ozaukee 530C2 Ozaukee 530D2 Ozaukee 570C2 Martinsville 618B Senachwine 618C2 Senachwine 622C2 Wyanet 3302A Ambraw	6	75	5.0
223D3 Varna 241C3 Chatsworth 241D3 Chatsworth 387C3 Ockley 530E2 Ozaukee 570D2 Martinsville 618D2 Senachwine 618E2 Senachwine 618F Senachwine 622D3 Wyanet	7	66	1.0
533 Urban land 802B Orthents 830 Landfills 865 Pits gravel W Water	8	0	1.2

Agronomy

Leon W. Wendte, district conservationist, Natural Resources Conservation Service, helped prepare this section.

General management needed for crops and pasture is suggested in this section. The estimated yields of the main crops and pasture plants are listed, the system of land capability classification used by the Natural Resources Conservation Service is explained, and prime farmland is described.

Planners of management systems for individual fields or farms can obtain specific information from the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

In 1997, an estimated 548,908 acres in Champaign County was used as cropland and 6,480 acres was used as pastureland (USDA, 1997). The major row crops are corn and soybeans. Wheat and oats are the major small grain crops grown.

The soils in Champaign County have good potential for continued crop production, particularly if the latest crop production technologies are applied. This soil survey can be used as a guide for applying the latest crop production technologies.

Cropland Limitations and Hazards

The management concerns affecting the use of the detailed soil map units in the survey area for crops are shown in table 6. The main concerns in managing cropland in Champaign County are water erosion, wetness and ponding, flooding, restricted permeability, poor tilth, surface crusting, low available water capacity, and excess lime.

Water erosion is a potential problem on about 23 percent of the cropland and pastureland in the county. Sheet and rill erosion is a hazard on soils that have slopes of more than 2 percent, such as Birkbeck, Dana, Senachwine, and Wyanet soils. Sheet and rill erosion may also occur on soils that have slopes of less than 2 percent if the slope length is very long.

Loss of the surface layer by sheet and rill erosion lowers the productive capacity of the soil. As the surface layer is removed, material from the subsoil is incorporated into the tilled layer. The subsoil generally has lower levels of plant nutrients, a lower content of organic matter, and a higher content of clay than the surface layer. As the content of organic matter in the tilled layer decreases and the clay content increases, soil tilth is reduced. Loss of soil tilth increases the likelihood that a crust will form on the surface and that the rate of water infiltration will be reduced. The higher clay content also increases the likelihood that the surface layer will become cloddy when tilled, especially if tilled when wet. Once this happens, preparing a seedbed becomes very difficult. The soils in eroded areas also tend to puddle after hard rains and to form a crust when they dry out. The surface crusting can increase the runoff rate.

Water erosion can also result in sediments entering streams, rivers, water impoundments, and road ditches. Removing the sediments is expensive. Management measures that lower the amount of water erosion can minimize this pollution and improve the quality of water for rural, municipal, and recreational uses and for fish and wildlife (fig. 4).

Generally, a combination of several practices is needed to control water erosion. Conservation tillage, contour stripcropping, contour farming, conservation cropping systems, crop residue management, diversions, and grassed waterways help to prevent excessive soil loss (fig. 5).

Wetness and *ponding* are concerns in some cropland areas. Drainage systems consist of subsurface tile drains, surface inlets, open drainage ditches, or a combination of these. Drainage systems have been installed in most areas of poorly drained and somewhat poorly drained soils in the county. As a result, these soils are adequately drained for the crops commonly grown in the area. Poorly drained soils, such as Ashkum, Drummer, and Selma soils, have subsurface drainage. In addition, in some areas of poorly drained soils, surface tile inlets or shallow surface ditches are required to remove ponded water. In some areas, somewhat poorly drained soils are wet long enough that productivity is reduced in some years unless the soils are artificially drained. Most areas of somewhat poorly drained soils, such as Brenton, Elburn, and Flanagan soils, have subsurface drainage.

Additional information about erosion-control measures and design of surface and subsurface

Figure 4.—Using filter strips in this area of Drummer silty clay loam, 0 to 2 percent slopes, helps to trap sediments and nutrients before they enter ditches.

drainage systems suitable for each kind of soil is provided in the Field Office Technical Guide, which is available in local offices of the Natural Resources Conservation Service.

Flooding is a hazard on approximately 15,000 acres in Champaign County. Damage to crops, particularly winter small grain crops, occurs in some years. Dikes and floodwater diversions can reduce the extent of crop damage. Reducing runoff from higher ground within the watershed helps to minimize the frequency and severity of flooding. Changing land use from cropland to pasture or forestland can also minimize economic damage. Ambraw, Rossburg, and Sawmill soils are subject to flooding.

Restricted permeability can increase a soil's susceptibility to erosion and limit the effectiveness of drainage systems. Soils that have slowly permeable or very slowly permeable layers, such as Elliott and Swygert soils, have a higher potential for surface runoff than more permeable soils. In addition, in soils with slow or very slow permeability, such as Ashkum and Bryce soils, tile spacing of about 50 to 70 feet is needed to achieve adequate subsurface drainage.

Poor tilth and *surface crusting* inhibit seedling germination and emergence, increase runoff and erosion, and reduce the rate of water infiltration. Soils that have good tilth are granular and porous and have a high content of organic matter in the surface layer. Brenton, Dana, and Penfield soils have good tilth. Soils that have poor tilth generally have more clay, a lower content of organic matter, and weaker soil structure in the surface layer. Ashkum, Drummer, Peotone, and

Swygert soils have a surface layer of silty clay loam. If these soils are plowed while wet, they become cloddy. The cloddiness makes preparing a good seedbed difficult.

Birkbeck, Kendall, Ozaukee, and Senachwine soils have a low content of organic matter in the surface layer. Generally, the structure in the surface layer of these soils is weak, and a crust forms on the surface during periods of intense rainfall. This crust is hard when dry.

Practices that help to prevent surface crusting and improve poor tilth include incorporating green manure crops, manure, or crop residue into the soil and using a system of conservation tillage. Surface cloddiness can be controlled by avoiding tillage when the soil is too wet or by using a no-till system.

Low available water capacity limits the productivity of some of the soils used for crops in Champaign County. The physical composition of these soils limits the amount of water available for plant growth. Bryce and Swygert soils are examples. Conservation of soil moisture is needed where the soils have a low available water capacity. The effects of droughtiness can be minimized by reducing the amount of runoff and increasing the water-holding capacity of the soils. Using conservation tillage and cropping systems, contour farming, contour stripcropping, establishing field windbreaks, and leaving crop residue on the surface after planting conserve soil moisture.

Incorporating green manure crops, manure, or crop residue into the soil increases the content of organic matter and the water-holding capacity of the soils.

Excess lime is a management concern in areas of Harpster soils. These soils have a calcic horizon at or near the surface. This limitation can be overcome by incorporating green manure crops, manure, or crop

Figure 5.—A combination of grassed waterways and narrow-based terraces helps to prevent further erosion in an area of Wyanet silt loam, 5 to 10 percent slopes, eroded.

residue into the soil; applying a system of conservation tillage; and using conservation cropping systems. Also, crops may respond well to additions of phosphate fertilizer.

The management concerns affecting the use of the detailed soil map units in the survey area for crops are shown in table 6. The criteria used to determine the limitations or hazards identified in the table are as follows:

Crusting.—The organic matter content in the surface layer is less than 2 percent, and the clay content is more than 20 percent.

Excess lime.—The calcium carbonate equivalent is 15 percent or more in the surface layer and meets the calcic horizon classification criteria.

Flooding.—The component of the map unit is occasionally flooded or frequently flooded.

Low available water capacity.—The weighted average of the available water capacity from the surface to a depth of 60 inches is 0.1 inch or less.

Ponding.—The water table is above the surface.

Poor tilth.—The component of the map unit has 27 percent or more clay in the surface layer.

Restricted permeability.—Permeability is less than 0.2 inch per hour from the surface to a depth of 40 inches.

Subsidence.—The decrease in surface elevation is more than 0 inches. (Muskego silty clay loam, 0 to 2 percent slopes, overwash, is subject to subsidence because of its high content of organic matter.)

Water erosion.—The surface K factor multiplied by the slope is 0.8 or more, and the slope is 3 percent or more.

Wetness.—The component of the map unit has a water table within a depth of 2 feet.

Pasture Limitations and Hazards

Growing legumes, cool-season grasses, and warm-season grasses that are suited to the soils and climate of the area helps to maintain a productive stand of pasture.

Suitable pasture and hay plants include several legumes, cool-season grasses, and native warm-season grasses. Alfalfa, red clover, alsike clover, and ladino clover are legumes commonly grown in the county. Alfalfa is best suited to well drained and moderately well drained soils and to some of the somewhat poorly drained soils. Examples of suitable soils are Brenton, Flanagan, Russell, Senachwine, and Xenia soils. Other legumes, such as alsike clover, red clover, and ladino clover, are more tolerant of wetter conditions and are grown on very poorly drained and poorly drained soils and some of the somewhat poorly drained soils. Examples are Blount, Drummer, Kendall, and Sabina soils.

Cool-season grasses commonly grown in the county include smooth bromegrass, orchardgrass, reed canarygrass, and tall fescue. These grasses can be used alone or in mixtures with legumes. Native warm-season grasses, such as indiangrass, big bluestem, and switchgrass, grow very well in the summer. They require different management techniques from those used for cool-season grasses.

Proper grazing is essential for the production of high-quality forage, stand survival, and erosion control. Proper grazing helps plants maintain sufficient and generally vigorous top growth during the growing season. Brush control is essential in many areas, and weed control is generally needed. Rotation grazing, deferred grazing when the soil is wet, and applications of lime and fertilizer as needed are also important management practices.

The management concerns affecting the use of the detailed soil map units in the survey area for pasture are shown in table 7. The main concerns in managing pastureland in Champaign County are water erosion, wetness and ponding, flooding, equipment limitations, frost heave, low available water capacity, low fertility, and low pH.

In soils that are susceptible to *water erosion* when used for pasture, the slope is equal to or greater than 3 percent and the value of the K factor multiplied by the percent slope is 0.8 or more. Water erosion reduces the productivity of the soil. It also results in sediments, livestock manure, and added nutrients entering streams, rivers, water impoundments, and road ditches.

Measures that are effective in controlling water erosion include establishing or renovating stands of legumes and grasses. Controlling erosion during seedbed preparation is a major concern. Tilling on the contour or using a no-till method for seeding or pasture renovation helps to establish forage species and helps to control erosion.

Wetness and *ponding* are management concerns in poorly drained and very poorly drained soils, such as Ashkum, Drummer, and Selma soils. Surface and subsurface drainage systems and land grading help to lower the seasonal high water table and reduce the hazard of ponding if suitable outlets are available.

Flooding may damage pasture plants in some years. Dikes and diversions can help to minimize the extent of damage from frequent or occasional flooding. Ambraw, Rossburg, and Sawmill soils are subject to flooding.

The use of farm equipment for seeding or harvesting of hay is more difficult on soils that have

slopes of more than 10 percent. *Equipment limitations* are a problem in moderately steep areas of Ozaukee, Senachwine, Varna, and Wyanet soils because of the slope.

Frost heave is a concern in soils that are subject to moderate or high frost action. Most of the soils in the county are subject to frost action. Leaving stubble 4 to 6 inches high in winter helps to prevent frost heave. Using grass-legume mixtures can also help to prevent frost heave.

Low available water capacity reduces the quality and quantity of the pasture. The available water capacity is considered low when the weighted average between the surface and a depth of 60 inches is 0.1 inch or less. The physical composition of the soils in which the available water capacity is restricted, such as Chatsworth and Swygert soils, limits the amount of water available for plant growth. Measures that conserve soil moisture are needed in areas of these soils. The effects of droughtiness can be minimized by reducing the amount of runoff and increasing the water-holding capacity of the soils. Planting drought-resistant species of grasses and legumes also helps to establish a cover of vegetation.

Low fertility affects the health and vigor of the plants and thus has a direct impact on the quantity and quality of livestock forage produced. Soils with low fertility have an average organic matter content in the surface layer of less than 1 percent, or the cation-exchange capacity is 7 percent or less. Soil fertility is low in severely eroded soils, such as Chatsworth and Ockley soils, that have lost most or all of the nutrient-rich topsoil. Fertility is also low in Alvin soils, which formed in eolian deposits and have a low content of clay and organic matter in the surface layer.

Three cultural practices can be used to maintain or improve soil fertility. First, planting legumes in rotation or as a cover crop adds nitrogen and organic material to the soil. Second, returning crop residue, animal manure, green manure crops, and other organic material to the soil increases the content of organic matter. Increasing the content of organic matter improves the nutrient-holding capacity of the soil and supplies nutrients to growing plants. Third, commercial fertilizers can be used. On most soils in the county, crops respond well to applications of nitrogen, phosphorus, potassium, and certain micronutrients. Applications of lime and fertilizer should be based on the results of soil tests, the needs of the plants, and the expected level of yields. The local office of the Cooperative Extension Service can help in determining the kinds and amounts of nutrients needed.

A *low pH*, 5.5 or less within the root zone, also affects the health and vigor of the plants. Applications of limestone help to raise the pH in the surface layer to a level that is optimum for plant growth. Selecting species that are more tolerant of acidic conditions, such as red clover or alsike clover, can improve the quantity and quality of livestock forage.

Yields per Acre

The average yields per acre that can be expected of the principal crops under a high level of management are shown in table 8. In any given year, yields may be higher or lower than those indicated in the table because of variations in rainfall and other climatic factors. The land capability classification of map units in the survey area also is shown in the table.

The yields are based mainly on the experience and records of farmers, conservationists, and extension agents (Fehrenbacher and others, 1978). Available yield data from nearby counties and results of field trials and demonstrations also are considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Crops other than those shown in table 8 are grown in the survey area, but estimated yields are not listed because the acreage of such crops is small. The local office of the Natural Resources Conservation Service or of the Cooperative Extension Service can provide information about the management and productivity of the soils for those crops.

Land Capability Classification

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for

field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for forestland or for engineering purposes.

In the capability system, soils are generally grouped at three levels—capability class, subclass, and unit (USDA, 1961). Only class and subclass are used in this survey.

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class 1 soils have slight limitations that restrict their use.

Class 2 soils have moderate limitations that restrict the choice of plants or that require moderate conservation practices.

Class 3 soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both.

Class 4 soils have very severe limitations that restrict the choice of plants or that require very careful management, or both.

Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

Capability subclasses are soil groups within one class. They are designated by adding a small letter, *e, w, s,* or *c,* to the class numeral, for example, 2e. The letter *e* shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; *w* shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); *s* shows that the soil is limited mainly because it is shallow, droughty, or stony; and *c,* used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

In class 1 there are no subclasses because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by *w, s,* or *c* because the soils in class 5 are subject to little or no erosion. They have other limitations that restrict their use to pasture, rangeland, forestland, wildlife habitat, or recreation.

The capability classification of the map units in this survey area is given in table 8.

Prime Farmland

Prime farmland is one of several kinds of important farmland defined by the U.S. Department of Agriculture. It is of major importance in meeting the Nation's short- and long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil qualities, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. It is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

About 613,440 acres in the survey area, or nearly 96 percent of the total acreage, meets the soil requirements for prime farmland.

A recent trend in land use in some parts of the survey area has been the loss of some prime farmland

Figure 6.—Urban development in an area of Drummer silty clay loam, 0 to 2 percent slopes, and Elburn silt loam, 0 to 2 percent slopes.

to industrial and urban uses (fig. 6). The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated.

The map units in the survey area that are considered prime farmland are listed in table 9. This list does not constitute a recommendation for a particular land use. On some soils included in the list, measures that overcome a hazard or limitation, such as flooding, wetness, and droughtiness, are needed. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures. The extent of each listed map unit is shown in table 5. The location is shown on the detailed soil maps. The soil qualities that affect use and management are described under the heading "Soil Series and Detailed Soil Map Units" in Part I of this publication and in the tables in Part II.

Windbreaks and Environmental Plantings

Windbreaks protect livestock, buildings, yards, fruit trees, gardens, and cropland from wind and snow; help to keep snow on fields; and provide food and cover for wildlife. Field windbreaks are narrow plantings made at right angles to the prevailing wind and at specific intervals across the field. The interval depends on the erodibility of the soil.

About 6 percent of the soils in the county are

United States Department of Agriculture
NRCS Natural Resources Conservation Service

Soils

NSSH Part 622

Ecological and Interpretative Groups

Definition (622.00)

Ecological and interpretative groups are specified land use and specific management groupings that are assigned to soil areas because combinations of soils have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. They allow users of soil surveys to plan reasonable alternatives for the use and management of soils.

Policy and Responsibilities (622.01)

The soil criteria used to determine the rating is coordinated nationally. Data elements, classes, or groups that are used in national legislation have strict adherence to national procedures. Guides that are developed locally or by states to rate soil survey land classification and groups are reviewed according to the procedure discussed in part 617.05. Prime farmland, hydrologic soil groups, and other interpretative groups important to many different users are published in the soil survey report.

The state soil scientist is responsible for program specific and state interpretative group assignments to soil map units. The state soil scientist ensures that all nationally significant interpretative group assignments to map units are included in the National Soil Information System (NASIS).

Land Capability Classification (622.02)

a. **Definition.** Land capability classification is a system of grouping soils primarily on the basis of their capability to produce common cultivated crops and pasture plants without deteriorating over a long period of time.

b. **Classes.** Land capability classification is subdivided into capability class and capability subclass nationally. Some states also use a capability unit.

c. **Significance.** Land capability classification has value as a grouping of soils. National Resource Inventory information, Farmland Protection Policy Act, and many field office technical guides have been assembled according to these classes. The system has been adopted in many textbooks and has wide public acceptance. Some state legislation has used the system for various applications. Users should reference Agriculture Handbook No. 210 (Exhibit 622-2) for a listing of assumptions and broad wording used to define the capability class and capability subclass.

d. **Application.** All map unit components, including miscellaneous areas, are assigned a capability class and subclass. Agriculture Handbook No. 210 (Exhibit 622-2) provides general guidance, and individual state guides provide assignments of the class and subclass applicable to the state. Land capability units can be used to differentiate subclasses at the discretion of the state. Capability class and subclass are assigned to map unit components in the national soil information system.

e. **Categories.**

1. **Capability Class.**

   I. **Definition.** Capability class is the broadest category in the land capability classification system. Class codes I (1), II (2), III (3), IV (4), V (5), VI (6), VII (7), and VIII (8) are used to represent both irrigated and nonirrigated land capability classes.

   II. **Classes and definitions.**

   Class I (1) soils have slight limitations that restrict their use.

   Class II (2) soils have moderate limitations that reduce the choice of plants or require moderate conservation practices.

   Class III (3) soils have severe limitations that reduce the choice of plants or require special conservation practices, or both.

   Class IV (4) soils have very severe limitations that restrict the choice of plants or require very careful management, or both.

   Class V (5) soils have little or no hazard of erosion but have other limitations, impractical to remove, that limit their use mainly to pasture, range, forestland, or wildlife food and cover.

   Class VI (6) soils have severe limitations that make them generally unsuited to cultivation and that limit their use mainly to pasture, range, forestland, or wildlife food and cover.

   Class VII (7) soils have very severe limitations that make them unsuited to cultivation and that restrict their use mainly to grazing, forestland, or wildlife.

   Class VIII (8) soils and miscellaneous areas have limitations that preclude their use for commercial plant production and limit their use to recreation, wildlife, or water supply or for esthetic purposes.

2. **Capability Subclass.**

   I. **Definition.** Capability subclass is the second category in the land capability classification system. Class codes e, w, s, and c are used for land capability subclasses.

   II. **Subclasses and definitions.**

   Subclass e is made up of soils for which the susceptibility to erosion is the dominant problem or hazard affecting their use. Erosion susceptibility and past erosion damage are the major soil factors that affect soils in this subclass.

   Subclass w is made up of soils for which excess water is the dominant hazard or limitation affecting their use. Poor soil drainage, wetness, a high water table, and overflow are the factors that affect soils in this subclass.

Subclass s is made up of soils that have soil limitations within the rooting zone, such as shallowness of the rooting zone, stones, low moisture-holding capacity, low fertility that is difficult to correct, and salinity or sodium content.

Subclass c is made up of soils for which the climate (the temperature or lack of moisture) is the major hazard or limitation affecting their use.

iii. **Application.** The subclass represents the dominant limitation that determines the capability class. Within a capability class, where the kinds of limitations are essentially equal, the subclasses have the following priority: e, w, s, and c. Subclasses are not assigned to soils in capability class I (1) and subclass "e" is not used in class V (5).

3. **Capability unit.**

   i. **Definition.** Capability unit is the first category listed in the land capability classification system. It is a grouping of one or more individual soil mapping units having similar potentials and continuing limitations or hazards.

   ii. **Application.** Use of this category and definition of codes are state options. Valid entries in NASIS are integers ranging from 1 to 99.

f. **Entries.** Enter the appropriate capability class and subclass code for each map unit component, including miscellaneous areas. Enter the appropriate capability unit code, if one is to be used in the area. Allowable entries for capability class are I (1), II (2), III (3), IV (4), V (5), VI (6), VII (7), or VIII (8). Allowable entries for subclass are e, w, s, or c. Enter subclass for all classes except class I (1) and subclass "e" is not used in class V (5). Valid entries for capability unit are integers ranging from 1 to 99. Nonirrigated land capability classes and subclasses should be entered for all map unit components, including miscellaneous areas. Enter the irrigated land capability class and subclass if the soil component is irrigated or potentially will be irrigated.

Farmland Classification (622.03)

a. **Definition.** The farmland classification identifies map units as prime farmland, farmland of statewide importance, or farmland of local importance.

b. **Significance.** Farmland classification identifies the location and extent of the most suitable land for producing food, feed, fiber, forage, and oilseed crops. This identification is useful in the management and maintenance of the resource base that supports the productive capacity of American agriculture.

c. **Measurement.** NRCS policy and procedures on prime and unique farmlands are published in the Code of Federal Regulations 7CFR657. This regulation is reproduced in Exhibit 622-1 for convenience. The website is: http://www.access.gpo.gov/nara/cfr/waisidx_00/7cfr657_00.html.

d. **Entries.** Enter the numerical code for the classification of each map unit. Soils of unique, statewide, or local importance are not prime farmland. Allowable entries are numerical codes as follows:

   0 - Not prime farmland.
   1 - All areas are prime farmland.
   2 - Prime farmland if drained.
   3 - Prime farmland if protected from flooding or not frequently flooded during the growing season.

4 - Prime farmland if irrigated.
5 - Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season.
6 - Prime farmland if irrigated and drained.
7 - Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season.
8 - Prime farmland if subsoiled, completely removing the root inhibiting soil layer.
9 - Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60.
10- Prime farmland if irrigated and reclaimed of excess salts and sodium.
30- Farmland of statewide importance.
50- Farmland of local importance.
70- Farmland of unique importance.

Prime Farmland Soils (622.04)

a. **Definition.** Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and that is available for these uses. It has the combination of soil properties, growing season, and moisture supply needed to produce sustained high yields of crops in an economic manner if it is treated and managed according to acceptable farming methods. In general, prime farmland has an adequate and dependable water supply from precipitation or irrigation, a favorable temperature and growing season, an acceptable level of acidity or alkalinity, an acceptable content of salt or sodium, and few or no rocks. Its soils are permeable to water and air. Prime farmland is not excessively eroded or saturated with water for long periods of time, and it either does not flood frequently during the growing season or is protected from flooding. Users of the lists of prime farmland map units should recognize that soil properties are only one of several criteria that are necessary. Other considerations include:

   1. **Land use.** Prime farmland is designated independently of current land use, but it cannot be areas of water or urban or built-up land as defined for the National Resource Inventories. Map units that are complexes or associations containing components of urban land or miscellaneous areas as part of the map unit name cannot be designated as prime farmland. The soil survey memorandum of understanding determines the scale of mapping and should reflect local land use interests in designing of map units.

   2. **Frequency of flooding.** Some map units may include both prime farmland and land not prime farmland because of variations in flooding frequency.

   3. **Irrigation.** Some map units include areas that have a developed irrigation water supply that is dependable and of adequate quality and areas that do not have such a supply. In these units, only the irrigated areas meet the prime farmland criteria.

   4. **Water table.** Some map units include both drained and undrained areas. Only the drained areas meet the prime farmland criteria.

   5. **Wind erodibility.** The product of I (soil erodibility) x C (climate factor) cannot exceed 60 to meet prime farmland criteria. A map unit may be considered prime farmland in one part of a survey area but not in another where the climate factor is different.

b. **Purpose.** The Natural Resources Conservation Service (NRCS) is committed to the management and maintenance of the resource base that supports the productive capacity of American agriculture. This management and maintenance includes identifying of the location and extent of the most suitable land

for producing food, feed, fiber, forage, and oilseed crops. Prime farmland information may be supplemented with separate designations of soil map units that have state-wide, local, or unique importance as farmland capable of producing these crops.

c. **Code of Federal Regulations.** NRCS policy and procedures on prime and unique farmlands are published in the Code of Federal Regulations 7CFR657. The content is reproduced in Exhibit 622-1 for convenience. The website is: http://www.access.gpo.gov/nara/cfr/waisidx_00/7cfr657_00.html.

d. **Policy.** State soil scientists prepare and maintain an up-to-date list of soil survey map units that meet the soil criteria for prime farmland. The list given in field office technical guides for users concerned with only a single area is a subset of the state list. The list of prime farmland soils should be kept up-to-date. The state soil scientist ensures that prime farmland soil interpretations are made for all soil mapping units in that state. Mapping units continuing across state lines should be coordinated with the adjoining state. Other policy guidance is given in part 510 of the National Inventory and Monitoring Manual.

e. **List of Prime Farmland Map Units.** Soil survey map units that meet the soil requirements for prime farmland are to be identified, coordinated, and listed. The list or its subset is to be available to users of soil survey information.

f. **Quality Control of Prime Farmland Map Units.**

1. Computer generation of prime farmland map units in each state is based on guidelines provided by the National Soil Survey Center. The guidelines provide checks to identify concerns in the classification of prime farmland based on soil properties. The computer checks can be used for guidance but do not suffice as the sole determinant for prime farmland map units.

2. Each prime farmland map unit must be documented, either by the computer check or by a statement of reasons that explain the decision.

3. Some soil survey map units may meet the soil criteria for prime farmland, but additional investigation is needed before a final determination is made. The measures needed to qualify the soil as prime farmland are indicated by an appropriate footnote or in a parenthetic statement of explanation that follows the map unit name on the list.

Illinois Soil Productivity

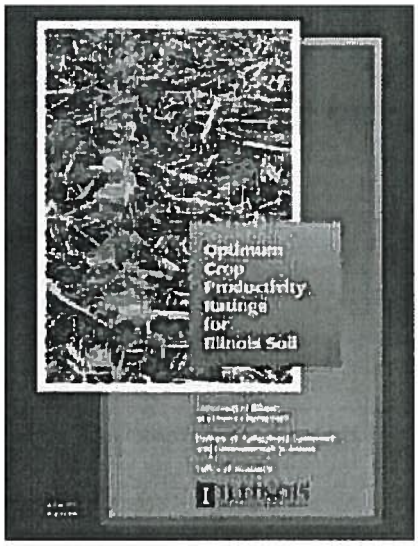
Publications

Soil Productivity Index Ratings for Illinois Soils

You have reached the web page for the Soil Productivity Index Ratings for Illinois soils. This information was published in August of 2000 in two research bulletins by the Office of Research, College of Agricultural, Consumer and Environmental Sciences, University of Illinois at Urbana-Champaign. The Bulletins listed below are linked to files that can be read using an Adobe Acrobat Reader. The table of contents are linked to the specific pages, text, tables or figures. Once selected, the page can be enlarged or printed. The crop, pasture, and forestry yields and productivity index ratings in Bulletin 810 are for the average level of management used by all farmers in Illinois in the 1990s. The crop yields represent a mean annual yield for a 10-year period. Bulletin 811 provides crop yields and productivity indices under an optimum level of management used by the top 16% of farmers in Illinois in the 1990s.

Prime agricultural land classes (Class A, Class B, and Class C) previously provided in Circular 1156 (Soil Productivity in Illinois) were not included in Bulletin 811. The prime agricultural class of any soil type can be determined by using the optimum productivity index (PI) shown in Table S2 of Bulletin 811 and the following author recommended prime agricultural class scale. Soil types with optimum PI's from 133-147 are in Class A, from 117-132 are in Class B, and from 100-116 are in Class C. Soil types in Bulletin 811 with optimum PI's equal to or below 99 are in the other agricultural land class and not considered prime agricultural land. If the soil type is in a soil map unit which is not on A slope or not slightly eroded, the user will need to determine if the soil type has a favorable or unfavorable subsoil for rooting (3rd column in Table S2 of B811) and make an erosion and/or slope adjustment using either Figure S1 (B811) or Table S3 (B811) prior to utilizing the scale and prime agricultural land class limits provided above.

Since the year 2000, more than 80 new soil types and soil complexes have been identified on Illinois county soil survey maps. Crop yields and



Bulletin 811: Optimum Crop Productivity Ratings for Illinois Soils

Bulletin 811: Table S2 revised. Productivity of Illinois Soils Under Optimum Management, Slightly Eroded, 0 to 2 Percent Slopes
[revised 1/10/2011]

Revised Option 4 Proposal 11/15/2011

Ag Value Group	Group LE	Land Capability Classification	Farmland Classification	Adjusted Soil Productivity Index (B811)	Map Unit Symbol
1	100	1	Prime	98 - 100	154A, 198A, 149A
2	100	2e, 2w	Prime, Prime1	98 - 100	152A, 679B
3	94	1, 2e, 2w	Prime, Prime1	93 - 95	171B, 153A, 623A, 481A
4	91	1, 2e, 2w	Prime, Prime1	90 - 92	663B, 67A, 234A, 56B, 219A, 490A, 687B, 125A
5	88	2e, 2w	Prime, Prime1	87 - 89	148B2, 232A, 206A, 146A, 242A
6	87	3w	Prime2	87	3107A
7	85	1, 2e, 2w	Prime, Prime1	83 - 86	56B2, 330A, 236A, 102A, 233B, 235B, 134A
8	84	3e, 3w	Not Prime	89 - 84	637A+, 687C2
9	83	2e, 2w, 3w	Prime, Prime3	81 - 83	146B2, 622B, 134B, 680B, 91A, 146C2, 291B, 448B, 3473A
10	79	2e	Prime	78 - 79	387B, 570B
11	78	3e	Statewide Importance	78	622C2
12	76	2e, 3e	Prime	74 - 76	131B, 223B2, 91B2, 150B, 223C2, 91C2,530B, 618B
13	75	3e	Statewide Importance	74 - 75	
14	71	2e, 2w, 3w	Prime, Prime1, Prime2	68 - 73	23A, 530C2, 3302A, 23B2
15	69	3e	Statewide Importance	69	530D2, 618C2
16	66	4e	Statewide Importance, Not Prime	62 - 69	387C3, 570D2, 223D3, 622D3, 618D2, 530E2
17	50	6e, 7e	Not Prime	37 - 57	618E2, 618F, 241C3, 241D3
18	n/a	n/a	Not Prime	n/a	533, 802B, 830, 865, W

Proposal to Revise Option 4

2001 Map Unit Symbol	Soil Series	Land Capability Classification	Farmland Classification	Soil Productivity Index under Optimum Management (OPI)	# Acres Countywide	Proposed Revised Ag Value Group	Ag Value Group # Acres Countywide	Ag Value Group % County Land	Soil Series OPI Relative Value	Soil Series Relative Value multiplied by # acres	Ag Value Group Total	Ag Value Group Total Divided by # Acres in Group	Rounded = Group LE	Ag Value Group
154A	Flanagan silt loam	1	Prime	144	100,553	1			100	10,055,329				
152A	Drummer silty clay loam	2w	Prime 1	144	254,484	2			100	25,448,365				
198A	Elburn silt loam	1	Prime	143	17,641	1			99	1,746,417				
149A	Brenton silt loam	1	Prime	141	16,465	1	134,659	21.1	98	1,613,581	13,415,327	99.62	100	1
679B	Blackberry silt loam	2e	Prime	141	4,985	2	259,468	40.6	98	488,512	25,936,877	99.96	100	2
171B	Catlin silt loam	2e	Prime	137	17,385	3			95	1,651,546				
153A	Pella silty clay loam	2w	Prime 1	136	6,422	3			94	603,640				
623A	Kishwaukee silt loam	1	Prime	135	3,105	3			94	291,896				
481A	Raub silt loam	1	Prime	134	22,903	3	49,815	7.8	93	2,130,013	4,677,094	93.89	94	3
663B	Clare silt loam	2e	Prime	133	8,391	4			92	771,995				
67A	Harpster silty clay loam	2w	Prime 1	133	2,153	4			92	198,068				
234A	Sunbury silt loam	1	Prime	131	2,014	4			91	183,234				
56B	Dana silt loam	2e	Prime	130	22,838	4			90	2,055,440				
219A	Millbrook silt loam	1	Prime	129	1,454	4			90	130,874				
490A	Odell silt loam	1	Prime	129	1,269	4			90	114,192				
687B	Penfield loam	2e	Prime	129	2,327	4			90	209,411				
125A	Selma loam	2w	Prime 1	129	2,908	4	43,354	6.8	90	261,755	3,924,968	90.53	91	4
148B2	Proctor silt loam	2e	Prime	128	15	5			89	1,360				
637A+	Muskego silty clay loam	3w	Not Prime	128	47	8			89	4,226				
232A	Ashkum silty clay loam	2w	Prime 1	127	29,196	5			88	2,569,231				
206A	Thorp silt loam	2w	Prime 1	126	2,641	5			87	229,737				
146A	Elliott silt loam	2w	Prime	125	761	5			87	66,212				
242A	Kendall silt loam	2w	Prime 1	125	1,441	5	34,054	5.3	87	125,382	2,991,922	87.86	88	5
3107A	Sawmill silty clay loam	3w	Prime 2	125	11,080	6	11,080	1.7	87	964,003	964,003	87.00	87	6
56B2	Dana silt loam	2e	Prime	124	136	7			86	11,691				
330A	Peotone silty clay loam	2w	Prime 1	123	3,744	7			85	318,204				
236A	Sabina silt loam	2w	Prime 1	122	3,011	7			85	255,915				
102A	La Hogue loam	1	Prime	121	1,423	7			84	119,567				
233B	Birkbeck silt loam	2e	Prime	121	2,669	7			84	224,167				
235A	Bryce silty clay	2w	Prime 1	121	1,623	7			84	136,309				
687C2	Penfield loam	3e	Not prime	121	809	8	857	0.1	84	67,981	72,208	84.26	84	8
134A	Camden silt loam	1	Prime	119	14	7	12,619	2.0	83	1,155	1,067,007	84.56	85	7
146B2	Elliott silty clay loam	2e	Prime	119	28,484	9			83	2,364,134				
622B	Wyanet silt loam	2e	Prime	119	7,312	9			83	606,912				
3473A	Rossburg silt loam	3w	Prime 3	119	982	9			83	81,508				
134B	Camden silt loam	2e	Prime	118	1,207	9			82	98,934				
680B	Campton silt loam	2e	Prime	118	1,651	9			82	135,372				
91A	Swygert silty clay loam	2w	Prime	118	73	9			82	6,012				
146C2	Elliott silty clay loam	2e	Prime	117	1,485	9			81	120,291				
291B	Xenia silt loam	2e	Prime	117	4,837	9			81	391,815				
448B	Mona silt loam	2e	Prime	117	245	9	46,276	7.2	81	19,844	3,824,822	82.65	83	9

2001 Map Unit Symbol	Soil Series	Land Capability Classification	Farmland Classification	Soil Productivity Index under Optimum Management (OPI)	# Acres Countywide	Proposed Revised Ag Value Group	Ag Value Group # Acres Countywide	Ag Value Group % County Land	Soil Series OPI Relative Value	Soil Series Relative Value multiplied by # acres	Ag Value Group Total	Ag Value Group Total Divided by # Acres in Group	Rounded = Group LE	Ag Value Group
387B	Ockley silt loam	2e	Prime	114	1,125	10			79	88,840				
570B	Martinsville silt loam	2e	Prime	113	708	10	1,833	0.3	78	55,227	144,067	78.60	79	10
622C2	Wyanet silt loam	3e	Statewide Importance	112	6,331	11	6,331	1.0	78	493,786	493,786	77.99	78	11
131B	Alvin fine sandy loam	2e	Prime	110	205	12			76	15,565				
223B2	Varna silt loam	2e	Prime	110	8,040	12			76	611,009				
91B2	Swygert silty clay loam	2e	Prime	110	2,791	12			76	212,118				
150B	Onarga sandy loam	2e	Prime	109	290	12			76	22,044				
223C2	Varna silt loam	3e	Prime	109	3,116	12			76	236,842				
91C2	Swygert silty clay loam	3e	Prime	109	411	12			76	31,231				
530B	Ozaukee silt loam	2e	Prime	108	509	12			75	38,182				
322C2	Russell silt loam	3e	Statewide Importance	108	1,930	13			75	144,769				
618B	Senachwine silt loam	2e	Prime	106	269	12	15,631	2.4	74	19,938	1,186,929	75.93	76	12
570C2	Martinsville loam	3e	Statewide Importance	106	1,021	13	2,952	0.5	74	75,574	220,343	74.64	75	13
23A	Blount silt loam	2w	Prime 1	105	804	14			73	58,679				
530C2	Ozaukee silt loam	2e	Prime	103	411	14			71	29,202				
3302A	Ambraw silty clay loam	3w	Prime 2	103	2,794	14			71	198,341				
530D2	Ozaukee silt loam	3e	Statewide Importance	99	543	15			69	37,444				
618C2	Senachwine silt loam	3e	Statewide Importance	99	850	15	1,393	0.2	69	58,676	96,120	69.00	69	15
387C3	Ockley clay loam	4e	Not prime	99	301	16			69	20,802				
23B2	Blount silt loam	2e	Prime	98	808	14	4,817	0.7	68	54,975	341,197	70.83	71	14
570D2	Martinsville loam	4e	Statewide Importance	97	360	16			67	24,144				
223D3	Varna silty clay loam	4e	Statewide Importance	96	2,826	16			67	189,370				
622D3	Wyanet clay loam	4e	Not prime	94	357	16			65	23,232				
618D2	Senachwine silt loam	4e	Statewide Importance	91	632	16			63	39,786				
530E2	Ozaukee silt loam	4e	Not prime	90	382	16	4,859	0.8	62	23,681	321,015	66.06	66	16
618E2	Senachwine silt loam	6e	Not prime	82	511	17			57	29,114				
618F	Senachwine silt loam	6e	Not prime	72	398	17			50	19,896				
241C3	Chatsworth silty clay	6e	Not prime	59	36	17			41	1,482				
241D3	Chatsworth silty clay	7e	Not prime	54	285	17	1,230	0.2	37	10,559	61,050	49.63	50	17
533	Urban land	n/a	Not prime	n/a	1,607	18			n/a	0				
802B	Orthents loamy undulati	n/a	Not prime	n/a	4,290	18			n/a	0				
830	Landfills	n/a	Not prime	n/a	115	18			n/a	0				
865	Pits gravel	n/a	Not prime	n/a	460	18			n/a	0				
W	Water	n/a	Not prime	n/a	1,319	18	7,791	1.2	n/a	0				
					639,019		639,019	99.9						

639,019

Table Notes:

Prime 1 = Prime, if drained.

Prime 2 = Prime, if drained and either protected from flooding or not frequently flooded during the growing season.

Prime 3 = Prime, if protected from flooding or not frequently flooded during the growing season.

Champaign
County
Department of

PLANNING &
ZONING

**Brookens
Administrative Center**
1776 E. Washington Street
Urbana, Illinois 61802

(217) 384-3708

To: **Champaign County LESA Update Committee**

From: **John Hall**, Director & Zoning Administrator

Date: **December 28, 2011**

RE: **Alternative Agriculture Value Groups in the Existing LESA System and Implications for Best Prime Farmland**

Background

The Committee has been trying to make a recommendation for an updated definition of "best prime farmland" and I think it is important to share with you a simple analysis of the existing LESA Agriculture Value Groups to provide perspective on the current definition of best prime farmland. This is not to say the current LESA is flawed because it is not.

Recall that the current LESA was adopted 16 years before the term "best prime farmland" was proposed. And, just as this Committee has seen in its own work, soils can be sorted into different sets of Agriculture Value Groups using the same data and the LE analysis in the current LESA is not the only grouping of Agriculture Value Groups that could have been done. A few different decisions about which soils to include in the various AVGs could have resulted in much different AVGs with much different relative values and thus could have led to a different definition of best prime farmland.

Alternative Agriculture Value Groups For The Existing LESA System

The attachment illustrates an alternative set of Agriculture Value Groups based on the soil information in the existing LESA. The attachment illustrates the following:

1. Reviewing the productivity indices of soils in Agriculture Value Groups (AVG) III, IV, and V reveals a much wider range of productivity in each AVG than the current Draft LESA (see the attachment). AVG III includes productivity indices ranging from 120 to 145 which is a range of 25 points and is much broader than the three point range that is typically used in the Draft LESA.

2. As illustrated in the attachment, Group III could be divided into two groups with resulting LE's of 90 (highlighted in green in the attachment) and 85 (blue) compared to the LE of 87 for the existing Group III. Some soils from Group III (yellow in the attachment) could also be combined with various soils in Groups IV and V with resulting LE's of 82 (yellow) and 77 (orange) compared to existing LE's of 85 and 79, respectively.

3. Note that the combinations of Land Capability Class and Important Farmland Determination (classification) that results in these new groups is more similar to the groupings in the Draft LESA.

Alternative Agriculture Value Groups in the Existing LESA And Implications For Best Prime Farmland
Zoning Administrator
DECEMBER 28, 2011

4. The Agriculture Value Groups (AVGs) in the current LESA and the alternatives illustrated in the Attachment compare as follows:

Existing Agriculture Value Groups	Existing LE	Alternative Agriculture Value Groups	Alternative LE
AVG 1	100	(no change)	100
AVG 2	98	(no change)	98
		Alt. AVG3A	90 (green)
AVG 3	87		
		Alt AVG 3B	85 (blue)
AVG 4	85		
		Alt. AVG 4	82 (yellow)
AVG 5	79		
		Alt. AVG 5	77 (orange)
AVG 6	70	(no change)	70
AVG 7	65	(no change)	65
AVG 8	41	(no change)	41
AVG 9	0	(no change)	0

Implications For Best Prime Farmland

The current definition of best prime farmland includes existing Agriculture Value Groups (AVGs) 1, 2, 3, & 4 (LE=85). There is no documentation of why LE=85 was selected as the threshold for Best Prime Farmland. In the list of existing AVGs the next lowest group after AVG2 is AVG3 (LE=87) and AVG 4 has an LE that is only two points lower (LE=85).

If the alternative analysis in the attachment had been available at the time that the County Board first adopted best prime farmland it is fair to wonder if the best prime farmland threshold would have been established at LE=90 (Alt. AVG3A) which is the next lowest group after AVG 2 or something lower.

Regardless of why LE=85 was selected as the threshold for best prime farmland the more important questions really are how well has LE=85 worked as the defining threshold for best prime farmland and would a different definition work better. Those questions are not addressed in this memorandum.

ATTACHMENT
A Alternative LE Analysis for Existing LESA

DETERMINING RELATIVE VALUE
CHAMPAIGN COUNTY

1	2	3	4	5
AGRICULTURAL GROUP	ADJUSTED PRODUCTIVITY INDEX FOR THE GROUP DIVIDED BY THE HIGHEST ADJUSTED PRODUCTIVITY INDEX	PRODUCT OF RELATIVE PRODUCTIVITY INDEX	TIMES 100	RELATIVE VALUE
1	158/158	1.00	100	100
2	155/158	0.98	100	98
ALT 3A	142/158	.90		90
~~3~~	~~138/158~~	~~0.87~~	~~100~~	~~87~~
ALT 3B	135/158	.85		85
~~4~~	~~134/158~~	~~0.85~~	~~100~~	~~85~~
ALT 4	129/158	.82		82
~~5~~	~~125/158~~	~~0.79~~	~~100~~	~~79~~
ALT 5	121/158	.77		77
6	110/158	0.70	100	70
7	103/158	0.65	100	65
8	65/158	0.41	100	41
9	0/158	0.00	100	0

WORKSHEETS FOR DETERMINING RELATIVE VALUES

GROUP I

Map Symbol	Productivity Index	X	Acres	=	Product
149A	150		16,183		2,427,450
154A	160		99,607		15,937,120
198A	155		17,048		2,642,440
		Total:	132,838		21,007,010

Total product ÷ total acres = weighted average.
21,007,010 ÷ 132,838 = 158.14 (Round to 158)

Weighted average ÷ highest weighted average of all groups (158) X 100 = Relative Value
158 ÷ 158 X 100 = 100

GROUP II

Map Symbol	Productivity Index	X	Acres	=	Product
152	155		248,094		38,454,570

38,454,570 ÷ 248,094 = 155
155 ÷ 158 X 100 = 98.1 (Round to 98)

GROUP III

Map Symbol	Productivity Index	X	Acres	=	Product
56B	135		23,839		3,218,265
102A	130		1,476		191,880
148B	135		8,881		1,198,935
171B	145		16,069		2,330,005
199B	140		5,330		746,200
219	135		1,426		192,510
234A	140		1,797		251,580
398A	120		3,213		385,560
481A	140		22,269		3,117,660
490A	135		1,319		178,065
		Total:	85,619		11,810,660

6,445,445 ÷ 45,465 = 141.77 ≈ 142 ; 142 ÷ 158 X 100 = 89.9 ≈ 90

~~11,810,660 ÷ 85,619 = 137.94 (Round to 138)~~

~~138 ÷ 158 X 100 = 87.3 (Round to 87)~~

9,274,635 ÷ 68,701 = 134.9 ≈ 135 ; 135 ÷ 158 X 100 = 85.4 ≈ 85

GROUP IV

Map Symbol	Productivity Index	X	Acres	=	Product
67	135		2,252		304,020
73	130		1,001		130,130
125	135		2,703		364,905
153	130		6,368		827,840
232	135		28,281		3,817,935
236A	130		2,760		358,800
242A	130		1,545		200,850
		Total:	44,910		6,004,480

3,744,570 ÷ 47,402 = 129.3 ≈ 129 ; 129 ÷ 158 x 100 = 81.6 ≈ 82

~~6,004,480 ÷ 44,910 = 133.7 (Round to 134)~~

~~134 ÷ 158 X 100 = 84.81 (Round to 84)~~

GROUP V

Map Symbol	Productivity Index	X	Acres	=	Product
134B	120		1,244		149,280
146B	130		31,039		4,035,070
221B	120		7,708		924,960
223B2	120		11,142		1,337,040
233B	120		2,735		328,200
235	125		1,489		186,125
243B	120		1,842		221,040
291B	120		5,299		635,880
330	125		3,678		459,750
440B	125		2,410		301,250
570B	120		778		93,360
		Total:	69,364		8,671,955

4,636,885 ÷ 38,325 = 121.0 ; 121 ÷ 158 x 100 = 76.6 ≈ 77

~~8,671,955 ÷ 69,364 = 125.02 (Round to 125)~~

~~125 ÷ 158 X 100 = 79.11 (Round to 79)~~

GROUP VI

Map Symbol	Productivity Index	X	Acres	=	Product
23A	105		1,005		105,525
23B	105		624		65,520
27B	110		267		29,370
91B	115		3,448		396,520
131B	100		212		21,200
150B	110		268		29,480
194B	105		738		77,490
206	105		2,736		287,280
302	110		2,687		295,570
387B	110		1,174		129,140
402	110		10,643		1,170,730
448B	110		297		32,670
		Total:	24,099		2,640,495

2,640,495 ÷ 24,099 = 109.56 (Round to 110)
110 ÷ 158 X 100 = 69.62 (Round to 70)

GROUP VII

Map Symbol	Productivity Index	X	Acres	=	Product
27C2	95		755		71,725
27D2	80		429		34,320
194C2	100		890		89,000
221C2	105		5,821		611,205
221D3	90 estimated		330		29,700
223C3	105		3,044		319,620
322C2	105		1,867		196,035
387C3	90		278		25,020
440C2	120		778		93,360
570C2	105		1,054		110,670
570D2	90		275		24,750
637	125		44		5,500
		Total:	15,565		1,610,905

1,610,905 ÷ 15,565 = 103.495 (Round to 103)
103 ÷ 158 X 100 = 65.2 (Round to 65)

GROUP VIII

Map Symbol	Productivity Index	X	Acres	=	Product
27E2	60 estimated		406		24,360
194D2	90		251		22,590
241D3	50 estimated		288		14,400
		Total:	945		61,350

61,350 ÷ 945 = 64.92 (Round to 65)
65 ÷ 158 X 100 = 41.14 (Round to 41)

GROUP IX

Map Symbols for Group IX are urban built-up areas or water.

Productivity indices and product would be zero.

Relative Value is 0.

Champaign
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ZONING

Brookens
Administrative Center
1776 E. Washington Street
Urbana, Illinois 61802

(217) 384-3708

To: **Champaign County Board Committee of the Whole**

From: **John Hall**, Director & Zoning Administrator

Date: **March 26, 2012**

RE: **Land Evaluation and Site Assessment (LESA) Update**

Request: **Request Approval from ELUC to Place the Draft LESA on the Zoning Board of Appeals Agenda for a Public Hearing**

BACKGROUND

The County Board authorized an update to the existing Champaign County Land Evaluation and Site Assessment (LESA) in Resolutions No. 7642 (on 2/24/11) and No. 7797 (on 6/23/11). See the attached Resolutions.

At their March 7, 2012, meeting the LESA Update Committee voted 5 to 1 (with one member absent) to recommend the attached Champaign County Land Evaluation and Site Assessment (LESA) Update Draft dated March 7, 2012.

The existing LESA System and other materials from the Update Committee meetings are under "Champaign County LESA Update" on the Champaign County RPC website (www.ccrpc.org/planning/LESA_update).

The Update Committee reviewed the results of testing the Draft Update on 15 actual Champaign County test sites. The overall results were reviewed in Memo #2 (dated 2/14/12) for the 2/22/12 meeting.

Because LESA figures so prominently in rezoning of rural property, the State's Attorney recommends that the LESA Update Draft should go through a public hearing process at the Zoning Board of Appeals prior to County Board action.

BRIEF COMPARISON OF EXISTING LESA TO THE PROPOSED LESA

Attachment C is a brief comparison of the existing LESA System to the proposed Draft Update LESA. In general the Draft Update LESA compares to the existing LESA as follows:

1. Regarding the Land Evaluation part:
   a. The productivity of all soils is greater under current agricultural practices than what the current LESA was based upon.

   b. The Draft Update LESA divides County soils into twice as many Agriculture Value Groups (AVG) as the existing LESA and therefore the differences between the soils in each AVG are much less and the AVGs are more homogenous. This is an important consideration for the definition of Best Prime Farmland.

2. Regarding the Site Assessment part:

a. The number of Site Assessment factors is reduced from 20 to 10 so the Site Assessment is much easier to understand.

b. The Draft Update LESA emphasizes agricultural productivity (including Best Prime Farmland) and agricultural compatibility (including any adjacent livestock management facilities) much more than the existing LESA. Only about 47% of the Site Assessment points in the existing LESA are for productivity and compatibility but about 80% of the Site Assessment points in the Draft Update LESA are for these two important considerations.

c. The Draft Update LESA does not consider other environmental factors that are included in the existing LESA. One Update Committee member did not support this approach in the Draft Update LESA.

d. The Draft Update LESA includes a correction for "creep" in future Site Assessment ratings and penalizes multiple developments from the same tract of land. Most LESA Systems (including the existing LESA) do not address these two common problems.

e. In testing done on 15 actual Champaign County test sites the Draft Update LESA resulted in scores that were approximately 27% higher than the current LESA. Higher LESA scores mean that a greater level of protection is warranted and so the Draft Update LESA appears to be more protective of prime farmland.

f. Field testing on those 15 actual Champaign County test sites also proves that the Draft Update LESA can be applied consistently based on the guidance in the Draft Update LESA.

USDA REVIEW OF UPDATE DRAFT LESA

Both Illinois Department of Agriculture and local USDA Natural Resources Conservation Service staff have had the opportunity to review the proposed Update Draft LESA and all comments have been positive. Nonetheless, the USDA NRCS State Conservationist must formally approve any LESA. That approval is still required and is recommended to occur after the public hearing at the ZBA.

RECOMMENDED CHANGE TO BEST PRIME FARMLAND

The Update Committee also recommended a new definition of Best Prime Farmland. See the other memo included in the Agenda.

ATTACHMENTS

A Champaign County Resolution No. 7642
B Champaign County Resolution No. 7797
C Brief Comparison of Existing LESA to Proposed Update Draft LESA
D Champaign County Land Evaluation and Site Assessment (LESA) Update Draft dated March 7, 2012

RESOLUTION NO. 7642

RESOLUTION ESTABLISHING THE SITE ASSESSMENT UPDATE COMMITTEE

WHEREAS, The Champaign County Land Resource Management Plan includes Objective 4.5, which states: "By the year 2012, Champaign County will review the Site Assessment portion of LESA (Land Evaluation and Site Assessment) for possible updates, thereafter, the County will periodically review the Site Assessment portion of LESA for potential updates at least once every 10 years." ; and

WHEREAS, Champaign County 's LESA system was adopted in 1984 and has not been updated in the 26 years since its adoption; and

WHEREAS, The Champaign County Board desires that the LESA system be updated because significant zoning and land use policy related changes have occurred since the system was adopted; and

WHEREAS, The Champaign County Board desires to create a Site Assessment Update Committee to work with the County Planner to review site assessment factors and the weighing of such factors, to test the proposed site assessment factor weighing in accordance with LESA Guidebook recommendations, and offer related recommendations to the County Board; and

WHEREAS, The Site Assessment Update Committee shall be a committee of seven voting members appointed to represent public and key stakeholder perspectives and technical experts and consist of the following:

1. A resource conservationist from the Champaign County Soil & Water Conversation District,
2. A member from the Champaign County Soil & Water Conversation District Board of Directors,
3. Two members of the Champaign County Board Committee of the Whole/ELUC
4. A member from the Champaign County Farm Bureau Land Use Committee,
5. A representative from the development or real estate community,
6. A past Chair or member of the Champaign County Zoning Board of Appeals; and

WHEREAS, The Director of the Champaign County Planning & Zoning Department shall serve as an advisory, non-voting member of the Site Assessment Update Committee;

NOW, THEREFORE, BE IT RESOLVED that the Champaign County Board establishes a Site Assessment Update Committee with seven voting members and one advisory member to be appointed by the Champaign County Board.

PRESENTED, ADOPTED, APPROVED, AND RECORDED this 24th day of February, A.D. 2011.

C. Pius Weibel, Chair
Champaign County Board

ATTEST:

Gordy Hulten, County Clerk
and ex-officio Clerk of the
Champaign County Board

RESOLUTION NO. 7797

RESOLUTION EXPANDING THE SCOPE OF WORK AND MEMBERSHIP OF THE SITE ASSESSMENT UPDATE COMMITTEE

WHEREAS, The Champaign County Board established the Site Assessment Update Committee with Resolution 7642; and

WHEREAS, Champaign County Board proposes to expand the scope of work of the Site Assessment Update Committee to include land evaluation instead of forming a separate Land Evaluation Committee and to add 1 or 2 members to include the necessary expertise on the expanded committee; and

WHEREAS, The expanded committee will be known as the "LESA Update Committee";

NOW, THEREFORE, BE IT RESOLVED that the Champaign County Board hereby expands the scope of work and membership of the Site Assessment Update Committee to become the LESA Update Committee.

PRESENTED, ADOPTED, APPROVED, AND RECORDED this 23rd day of June, A.D. 2011.

ATTEST: _____
Gordy Hulten, County Clerk
and ex-officio Clerk of the
Champaign County Board

_____
C. Pius Weibel, Chair
Champaign County Board

Attachment C. Brief Comparison of Existing LESA to Proposed Update Draft LESA DRAFT March 26, 2012

	Characteristic or Feature	Existing LESA	Update Draft LESA	Notes
	LAND EVALUATION PART			
1.	Total Land Evaluation points	100 points	SAME	
2.	Source of soil productivity data (and date)	Circular 1156 (April 1978)	Bulletin 811 (January 2011)	
3.	Method of comparing soils	Triple basis	SAME	
4.	Number of relevant Agriculture Value Groups (AVG)	8	17	AVG= Agriculture Value Group
5.	Range of Relative Values for all relevant AVGs	59 points	50 points	
6.	Average points per AVG (Range of relative value divided by number of AVGs)	7.4 points	2.9 points	Fewer points per AVG means less difference in productivity for the soils in that AVG
	SITE ASSESSMENT PART			
1.	Total Site Assessment points	200 points	SAME	
2.	Number of Site Assessment Factors	20	10	Six factors are identical (or nearly) to six exist. factors and one factor incorporates four exist. factors.
3.	Emphasis of Site Assessment based on total possible points per each category:			
	a. Feasibility and productivity of site for agriculture	9%	33%	
	b. Suitability of site and surroundings for agriculture	38%	47%	
	c. Development suitability (infrastructure & services avail.)	34%	20%	
	d. Other environmental factors	19%	0%	One Update Committee member did not agree with this approach
4.	Standard for compatibility with agriculture	Not specific	Agriculture	
5.	Standard for "large" property	More than 100 acres	More than 25 acres	
6.	Relevant radius for adjacent land use & zoning	1.5 miles	1.0 mile	One Update Committee member disagreed with a 1.0 mile radius
7.	Explicit consideration of prime and best prime farmland	NO	YES	
8.	Explicit consideration of environmental factors not related to agriculture feasibility	YES	NO	One Update Committee member did not agree with this approach
9.	Correction for "creep" in future Site Assessment ratings	NO	YES	See the 2/22/12 Update Committee Agenda w/ memo
10.	Penalty for multiple developments from the same tract of land	NO	YES	The penalty only applies to prime and best prime farmland
11.	Explicit consideration of adjacent livestock management facilities	NO	YES	One Update Committee member did not agree with this approach
12.	Equalized protection ratings (ie, the same range of points for "moderate" protection as for "high (including very high)" protection)	NO	YES	See the 3/7/12 Update Committee Agenda w/ memo
13.	Relative score for a typical rural property	Lower	Higher	A higher score is more protective for farmland.

CHAMPAIGN COUNTY
LAND EVALUATION AND SITE ASSESSMENT SYSTEM

UPDATE

Draft dated March 7, 2012

Prepared by the
Champaign County Regional Planning Commission

CHAMPAIGN COUNTY
rpc
REGIONAL
PLANNING
COMMISSION

ACKNOWLEDGEMENTS

LESA Update Committee Members

- Kevin Donoho
- Debra Griest, Committee Chair
- Elizabeth R. Jones
- Kyle Krapf
- W. Steven Moser
- Pattsi Petrie
- Steve Stierwalt
- Bruce Stikkers
- John Hall, Advisory Committee Member

Project Staff

Champaign County Regional Planning Commission (CCRPC)
1776 East Washington Street
Urbana, IL 61802
Phone: 217.328.3313
Website: www.ccrpc.org

- Susan Monte, CCRPC Planner and LESA Update Committee Facilitator

Consultant

Office of Farmland Protection
Bureau of Land and Water Resources
Illinois Department of Agriculture

- Terry Savko, Agricultural Land/Water Resource Specialist

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4 CALCULATING THE TOTAL LESA SCORE 20

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1 Summary of SA Factors
2 Summary of SA Factors and Potential SA Points

A Composition of Agriculture Value Groups (in Appendix A)

Appendices

A Champaign County LESA Agriculture Value Groups
B Defined Terms

INTRODUCTION

The Champaign County Land Evaluation and Site Assessment System (LESA) is a tool designed to provide County officials with a systematic and objective means to numerically rate a site or a parcel in terms of its agricultural importance.

Intended Use of LESA

The LESA is intended for the following applications within Champaign County:

- To assist County officials to evaluate the proposed conversion of farmland on a parcel or site in County rezoning cases that include farmland conversion to a non-agricultural land use.

- To assist in the review state and federal projects for compliance with the Illinois Farmland Preservation Act and the Federal Farmland Protection Policy Act in terms of their impact on important farmland.

The Land Evaluation (LE) portion of LESA is additionally intended as a means to determine the 'Best Prime Farmland' designation of a particular site or parcel.

The LESA is one of several tools intended to assist in making land use decisions; it should be used in conjunction with the *Champaign County Land Resource Management Plan*, and land use regulations including the *Champaign County Zoning Ordinance, Champaign County Subdivision Regulations*, and *Champaign County Stormwater Management Policy.*

LESA Score Overview

The LESA system is a numerical rating system that consists of two separate components: Land Evaluation (LE) and Site Assessment (SA).

The LE portion of LESA is based on the soils properties of a subject site. A single LE score is calculated, with a maximum LE score of 100 points possible.

The SA portion of LESA consists of ten non-soil factors shown in Table 1. Each SA factor identifies a separate and measurable condition. SA Factors 1, 2, and 3 are used to assess the importance of continuing the agricultural use of a site located in any unincorporated area. SA Factors 4 through 10 are additionally used to assess the importance of continuing the agricultural use of a site located outside of the Contiguous Urban Growth Area (CUGA). The maximum SA score possible for a site is 200 points.

Table 1. Summary of SA Factors

Applicable to all subject sites:	
1	size of site
2	Best Prime Farmland designation of site
	if Best Prime Farmland, site size and configuration
	if Prime Farmland, site size and configuration
3	whether site is located within the CUGA[1]
Applicable to sites located outside of the CUGA[1]	
4	percentage of site perimeter adjacent to agriculture principal uses
5	distance from site to nearest municipality
6	largest area of site in agricultural production over past five years
7	area of land zoned rural within one mile
8	area of agriculture principal uses within one mile
9	distance to nearest 10 non-farm dwellings
10	proximity to livestock management facility

Note:
[1] 'CUGA' is an acronym for the 'Contiguous Urban Growth Area'. The CUGA is a feature of the annually updated Land Use Management Area Map of the *Champaign County Land Resource Management Plan.* The CUGA is described in the Site Assessment section of LESA.

The total LESA score is the sum of the LE points and SA points for a particular site. The maximum total LESA score possible for a site is 300 points.

The higher the total LESA score, the more highly rated the site is to be protected for continued agricultural use. The total LESA score of a site signifies a rating for protection of a site as follows:

251 – 300	very high rating for protection
226 – 250	high rating for protection
151 – 225	moderate rating for protection
150 or below	low rating for protection

LAND EVALUATION

The Land Evaluation (LE) portion of LESA is based on the ranking of Champaign County soils according to the following three soils classification systems.

- **Land Capability Classification**
  A system of grouping soils developed by the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS). Soils are grouped primarily on the basis of their capability to produce common cultivated crops and pasture plants without deteriorating over a long period of time. A detailed explanation of the Land Capability Classification system is provided in Part 622.02 of the USDA NRCS National Soil Survey Handbook.

- **Farmland Classification**
  A soils classification system developed by the USDA NRCS to better manage and maintain the soils resource base of land most suitable for producing food, feed, fiber, forage, and oilseed crops. Farmland Classification identifies the soils series map units as: Prime Farmland; Farmland of Statewide Importance; or Farmland of Local Importance. A detailed explanation of the 'Farmland Classification' system, including the definition of Prime Farmland, is provided in Parts 622.03-622.04 of the USDA NRCS National Soil Survey Handbook.

- **Productivity Index of Illinois Soils Under Optimum Management**
  The soils productivity index is based on data published in Table S2 of Bulletin 811, developed by the Office of Research, College of Agricultural, Consumer and Environmental Sciences, University of Illinois at Urbana-Champaign (UIUC). Bulletin 811 provides crop yields and productivity indices under an optimum level of management used by the top 16% of farmers in Illinois. The crop yields were updated in January, 2011 to reflect growing conditions from 2000 to 2009. Bulletin 811 Year 2011 crop yields and productivity indices for optimum management are maintained at the UIUC Department of Natural Resources and Environmental Sciences.

Agriculture Value Group

The LE portion of LESA places the soils of Champaign County into several 'Agriculture Value Groups' ranging from the best to the worst, based on the three soils classifications systems indicated above, which generally gauge a site's suitability for crop production based on soil properties. A relative LE value is determined for each Agriculture Value Group, with the best group assigned a relative value of 100 and all other groups assigned lower relative values. Table A in Appendix A contains details regarding the composition of the Agriculture Value Groups.

Calculating a Land Evaluation Score

The Land Evaluation (LE) score is calculated separately from calculations to determine the Site Assessment (SA) score.

The LE score of a subject site is typically calculated by the Champaign County Champaign County Soil and Water Conservation District office and provided to the Champaign County Zoning Office as part of the Natural Resource Report for a subject site.

LE WORKSHEET

The LE Worksheet provided on the following page can be used to calculate the LE score for a subject site.

The steps below describe how to calculate an LE score, based on the format of the LE Worksheet:

1. Outline the subject site to be rezoned, and overlay with a Champaign County soils map unit layer. Soils data produced by the National Cooperative Soil Survey is available at the NRCS-operated 'Web Soil Survey.'

   Soils data produced by the National Cooperative Soil Survey, and Champaign County parcel data, is available at the Champaign County GIS Consortium website 'GIS Web Map – Public Interface for Champaign County, Illinois.'

2. In Column 1, list both the 'soil map unit' and 'soil series' (e.g., '154A Flanagan') for each soil located on the subject site.

3. From Table A in Appendix A, record the Agriculture Value Group for each soil in Column 2.

4. From Table A in Appendix A, record the LE for each Agriculture Value Group in Column 3.

5. Calculate the acreage of each soil within the subject site. Record the number of acres for each soil in Column 4.

6. For each soil, multiply the LE indicated in Column 3 by the number of acres indicated in Column 4. Record the product in Column 5.

7. Add up the Column 4 acres and record the total. Add up the products shown in Column 5 and record the total.

8. Divide the Column 5 total by the Column 4 total. The result is the LE Score for the subject site.

When calculating an LE score, a score ending in 0.49 or lower should be rounded down to the nearest whole number. A score ending in 0.5 or higher should be rounded up to the next whole number.

The maximum number of LE points possible for any subject site is 100.

LE WORKSHEET

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5
Map Unit Symbol and Soil Series	Agriculture Value Group	Group Relative LE	Acres	Product of Column 3 and Column 4
		Totals:		
			Column 5 total divided by Column 4 total :	
				LE Score:

Example: A 5.3 acre parcel that has five soil types: 134B Camden, 152A Drummer, 242A Kendall, 3107A Sawmill, and 570C2 Martinsville. Following the steps outlined to calculate the LE, the LE score for this parcel equals 88.

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5
Map Unit Symbol and Soil Series	Agriculture Value Group	Group Relative LE	Acres	Product of Column 3 and Column 4
242A Kendall	5	88	0.20	17.60
152A Drummer	2	100	0.83	83
570C2 Martinsville	13	75	0.01	0.75
134B Camden	9	83	1.64	136.12
3107A Sawmill	6	87	2.63	228.81
		Totals:	5.31	466.28
			Column 5 total divided by Column 4 total:	87.81
			LE Score:	88

SITE ASSESSMENT

The Site Assessment (SA) process provides a system for identifying important factors, other than soils, that affect the economic viability of a site for agricultural uses.

SA Factors

The primary criteria used to identify SA factors are that each factor: 1) be relevant to continued agricultural use of a subject site within the rural areas of Champaign County; and 2) be measurable.

There are 10 SA Factors. Table 2 contains a summary of the 10 SA Factors and the point values assigned to each SA Factor.

Table 2. Summary of SA Factors and Potential SA Points

		Potential Points		
SA Factors that apply in all areas:			**Subtotal**	**Total**
1	size of site	10		
2	a) Best Prime Farmland designation of site	30		
	b) if Best Prime Farmland, site size and configuration as of 1/1/2004	10		
	c) if Prime Farmland, site size and configuration as of 4/12/2011			
3	whether site is located within the CUGA[1]	40	90	
SA Factors that apply only outside of the CUGA[1]				
4	percentage of site perimeter adjacent to agriculture principal uses	20		
5	distance from site to nearest municipality	15		
6	highest area of site in agricultural production over past five years	15		
7	area of land zoned rural within one mile	10		
8	area of agriculture principal uses within one mile	20		
9	distance to nearest 10 non-farm dwellings	20		
10	proximity to a livestock management facility	10	110	200

Note:
[1] 'CUGA' is an acronym for the 'Contiguous Urban Growth Area'.

SA Factors 1, 2 and 3 are applied to all subject sites. SA Factors 4 through 10 are additionally applied to subject sites located outside the Contiguous Urbana Growth Area (CUGA). CUGA is identified in the 'Land Use Management Areas Map' of the *Champaign County Land Resource Management Plan* as land designated for non-agricultural land use. The Land Use Management Areas Map is updated annually to reflect accurate municipal boundaries and to reflect any adjustments to the CUGA based on changes to areas served by public sanitary sewer.

The CUGA consists of:

- land designated for urban land use on the future land use map of an adopted municipal comprehensive land use plan, intergovernmental plan or special area plan, and located within the service area of a public sanitary sewer system with existing sewer service or sewer service planned to be available in the near-to mid-term (within approximately five years);

- land to be annexed by a municipality and located within the service area of a public sanitary sewer system with existing sewer service or sewer service planned to be available in the near-to mid-term (within approximately five years); or

- land surrounded by incorporated land or other urban land within the County.

Calculating the SA Score

The SA score of a subject site is calculated by planning staff of the Champaign County Planning and Zoning Department. The SA scoring is based on review of several sources of information which may typically include:

- Champaign County GIS Consortium data regarding parcels, corporate limits, zoning districts, digital orthophoto, etc.
- 'Land Use Management Map' of *Champaign County Land Resource Management Plan*
- field site inspection or windshield survey of site
- landowner interview

Each of the SA factors has point values, ranked on a 'best-to-worst' scale. The point values for each SA Factor are proportionately represented and no interpolation to an intermediate value should occur to obtain an SA Factor score.

The maximum number of possible SA score for a subject site or parcel is 200.

The process of calculating the SA score of a subject site involves: selecting the appropriate point value response for each SA Factor, and then adding the SA Factor points to obtain a total SA score.

The SA Worksheet beginning on the following page contains a description of each SA Factor and scoring instructions for each SA Factor.

SA WORKSHEET

1	What size is the subject site?	More than 25 acres 20.1 to 25 acres 15.1 to 20 acres 10.1 to 15 acres 5.01 to 10 acres 5 acres or less	10 points 8 points 6 points 4 points 2 points 0 points	_____

Factor 1 considers that the size of the subject site has an impact on its long-term viability for agricultural purposes. The factor recognizes that the predominant row crop form of agriculture is generally more efficiently farmed on larger sites.

Scoring Factor 1: Determine the area of the subject site based on current Champaign County Assessor Office tax parcel size data or on a legal description of the subject site.

2a	Is the subject site Best Prime Farmland ?	Yes No	30 points 0 points	_____

Factor 2a assigns value to a subject site if it is designated as Best Prime Farmland, consistent with the *Champaign County Land Resource Management Plan* goals, objectives and policies.

An estimated 96.6% of the County consists of Prime Farmland soils. "Best Prime Farmland" is a subset of Prime Farmland soils identified by Champaign County in order to differentiate among Prime Farmland soils. The definition of 'Best Prime Farmland' is provided in the *Champaign County Zoning Ordinance*.

Scoring Factor 2a: Refer to the LE score of the subject site and to the "Best Prime Farmland" definition in the *Champaign County Zoning Ordinance*.

2b	If the subject site is Best Prime Farmland, which one of the following statements is correct: (1) The subject site is 15% or less of a larger real estate tax parcel (or multiple parcels) that existed on January 1, 2004. (Yes 0 points) (2) The subject site is larger than 15% of a larger real estate tax parcel (or multiple parcels) that existed on January 1, 2004. (Yes 10 points) (3) The subject site was not part of a larger tax parcel or parcels on January 1, 2004, and is 25 acres or less. (Yes 0 points) (4) The subject site was not part of a larger tax parcel or parcels on January 1, 2004, and is larger than 25 acres. (Yes 10 points)	10 points	_____

Factor 2b assigns value to a subject site if it exceeds the lot size and configuration limits noted. The 15% limit and 25-acre lot size limit featured are arbitrary values selected to represent the general

Factor 2b (continued)

concern about the conversion and loss of best prime farmland. The *Champaign County Zoning Ordinance* has included a maximum lot size limit on Best Prime Farmland since July, 2004.

Scoring Factor 2b: Review subject site size and configuration based on Champaign County parcel identification tax maps for the year 2004 (also referred to as the 27th Edition of the Champaign County tax map atlas).

2c	If the subject site is not Best Prime Farmland and is at least 51% Prime Farmland, which one of the following statements is correct: (1) The subject site is larger than 25 acres. (Yes 10 points) (2) All of the following statements are true: i. The subject site is part of a larger parcel that existed on April 12, 2011. ii. Since April 12, 2011, a separate portion or portions of that larger parcel have been converted to a non-agricultural use as the result of a rezoning or special use. iii. In total, the area of the subject site and those areas converted to a non-agricultural use (as identified in item ii. above) is larger than 25 acres. (Yes 10 points) (3) Neither (1) or (2) above apply to the subject site. (Yes 0 points)		

Factor 2c assigns value to a subject site which is not Best Prime Farmland but which consists of at least 51% Prime Farmland and exceeds a 25-acre lot size and configuration as of April 12, 2011. The 25-acre size threshold is an arbitrary value selected to represent the general concern about the conversion and loss of Prime Farmland.

This factor awards 10 points to a subject site if it would result in conversion of more than 25 acres of Prime Farmland, or if the subject site would cumulatively contribute to the conversion of more than 25 acres of Prime Farmland on a larger parcel existing as of April 12, 2011.

Scoring Factor 2c: Assess whether the soils on the subject site are comprised of at least 51% Prime Farmland based on the 'Farmland Classification' column of Table A in Appendix A.

Review the lot size and configuration based on Champaign County parcel identification tax maps and digital orthophotography as of April 12, 2011. (April 12, 2011 is the date of the annual digital orthophotography available for the year 2011.)

3	Is the subject site located within the Contiguous Urban Growth Area?	no yes	40 points 0 points	_____

Factor 3 is a general measure of development pressures which tend to support the conversion of agricultural sites to urban uses.

The 'Land Use Management Areas Map' of the *Champaign County Land Resource Management Plan* specifies the location of the 'Contiguous Urban Growth Area' (CUGA). CUGA is land designated for non-agricultural land use, and consists of:

- land designated for urban land use on the future land use map of an adopted municipal comprehensive land use plan, intergovernmental plan or special area plan, and located within the service area of a public sanitary sewer system with existing sewer service or sewer service planned to be available in the near-to mid-term (within approximately five years);
- land to be annexed by a municipality and located within the service area of a public sanitary sewer system with existing sewer service or sewer service planned to be available in the near-to mid-term (within approximately five years); or
- land surrounded by incorporated land or other urban land within the County.

Scoring Factor 3: Review the CUGA boundaries of the current *Champaign County Land Resource Management Plan* "Land Use Management Map".

If the subject site is located within the CUGA, skip the remaining SA Factor questions and indicate a total SA score for only SA Factors 1, 2 and 3 at the end of the SA Worksheet.

Continue to answer the following SA Factor questions only if the subject site is located <u>outside the CUGA</u> . . .

4	Amount of the perimeter of a subject site that is adjacent to parcels with a principal use of agriculture. a) If the subject site is Best Prime Farmland and/or at least 51% Prime Farmland, the amount of the perimeter of the subject site that is adjacent to parcels with a principal use of agriculture that existed on April 12, 2011. b) If the subject site is less than 51% Prime Farmland, the amount of the perimeter of the subject site that is adjacent to parcels with a principal use of agriculture.	91 to 100% of perimeter 81 to 90% of perimeter 71 to 80% of perimeter 61 to 70% of perimeter 51 to 60% of perimeter 41 to 50% of perimeter 31 to 40% of perimeter 21 to 30% of perimeter 11 to 20% of perimeter 1 to 10% of perimeter none	20 points 18 points 16 points 14 points 12 points 10 points 8 points 6 points 4 points 2 points 0 points	_____

Factor 4 assesses the amount of the perimeter of the subject site that is adjacent to parcels that have the principal use of agriculture. The assessment is made based on principal use of each parcel that is adjacent to the subject site. The principal use of a parcel (as used in the *Champaign County Zoning Ordinance*) represents the main use for which a lot is intended.

Additionally, for a subject site that is Best Prime Farmland and/or at least 51% Prime Farmland, Factor 4 includes the provision to not recognize any adjacent non-agricultural principal use established after a set date of April 12, 2011. (April 12, 2011 is the date of the annual digital orthophotography available for the year 2011.) This measure is intended to partially address the problem referred to as 'creeping effect' whereby case-by-case land use decisions may lower LESA scores on nearby sites, thereby justifying more land conversion decisions.

More points are assigned to a subject site that is surrounded by parcels with the principal use of agriculture.

Scoring Factor 4: Measure the perimeter of the subject site adjacent to parcels with a principal use of agriculture.

Defined terms relevant to the scoring of this factor include:

AGRICULTURE: The growing, harvesting and storing of crops including legumes, hay, grain, fruit and truck or vegetable crops, floriculture, horticulture, mushroom growing, orchards, forestry and the keeping, raising and feeding of livestock or poultry, including dairying, poultry, swine, sheep, beef cattle, pony and horse production, fur farms, and fish and wildlife farms; farm buildings used for growing, harvesting and preparing crop products for market, or for

Scoring Factor 4 (continued)

use on the farm; roadside stands, farm buildings for storing and protecting farm machinery and equipment from the elements, for housing livestock or poultry and for preparing livestock or poultry products for market; farm dwellings occupied by farm owners, operators, tenants or seasonal or year-round hired farm workers. It is intended by this definition to include within the definition of agriculture all types of agricultural operations, but to exclude therefrom industrial operations such as a grain elevator, canning or slaughterhouse, wherein agricultural products produced primarily by others are stored or processed.

FARM DWELLING: A dwelling occupied by a farm owner or operator, tenant farm worker, or hired farm worker. (In Champaign County, it is generally assumed that a dwelling located on a lot that is 35 acres or larger is a farm dwelling, unless information provided as part of the public record to the Zoning Board of Appeals indicates otherwise.)

PRINCIPAL USE: As used in the *Champaign County Zoning Ordinance*, the main purpose for which land is designed, arranged, intended, or for which it is or may be occupied or maintained. (The primary purpose of a lot may not necessarily be the largest use on the lot in terms of the area of the lot that is occupied by that use and it may not necessarily be the use that generates the most income for the person who owns or resides on the lot.)

Guidelines for measuring perimeter of subject site adjacent to parcels with principal use of agriculture:

Adjacent property is property that touches or that is directly across a street, highway or interstate right-of-way or a rail road right-of-way from a subject site.

Measure the perimeter of the subject site that is adjacent to parcels that have a principal use of agriculture. Parcels with a principal use of agriculture are generally as follows:

a. Any parcel that is 35 acres or larger whether or not there is a dwelling, with the exceptions noted below.

b. Parcels that are less than 35 acres in area and that either have a farm dwelling or have no dwelling, with the exceptions noted below.

c. Exceptions to the above are the following:

(1) Any parcel that is inside an incorporated municipality.

(2) Any parcel that is zoned Residential, Business, or Industrial on the Champaign County Zoning Map and contains a non-agricultural principal use.

(3) Any parcel or portion of a parcel on which a Special Use has been approved by the County except for a Rural Specialty Business or greenhouse.

(4) Institutional land that is not specifically used for production agriculture such as land owned by the University of Illinois but not in agricultural production or land owned by the Champaign County Forest Preserve District that is not in agricultural production.

(5) Any parcel or portion of a parcel considered as nonconforming use, as defined in the *Champaign County Zoning Ordinance.*

5	Distance from the subject site to the nearest city or village limits.	more than 3 miles 1.51 to 3 miles within 1.5 miles adjacent	15 points 10 points 5 points 0 points	_____

Factor 5 awards higher points the further a subject site is from a city or village. Factor 5 is based on the general assumption that the further the subject site is from a municipality, the less chance there is of a nearby land use or development that would conflict with the agricultural land use of that subject site.

Scoring Factor 5: Measure outward from the property lines of the subject site to the nearest municipal boundary.

6	The highest percentage of the subject site in agricultural production in any of the last 5 years.	80 to 100% 60 to 79% 40 to 59% 20 to 39% less than 20%	15 points 11 points 7 points 3 points 0 points	_____

Factor 6 is intended to serve as a general indicator of the agricultural viability of a subject site.

Scoring Factor 6: Based on the most recent five years of annual digital orthophotography, estimate the highest percentage of area of the subject site in agricultural production. To obtain accurate information, the scoring of Factor 6 may additionally require a field site inspection, windshield survey of the subject site, or landowner interview.

Defined terms relevant to the scoring of this factor include:

AGRICULTURAL PRODUCTION: The growing, harvesting, and storing of crops and the keeping, raising, and feeding of livestock or poultry and the buildings and land used in those activities, including:

- any farm dwelling,
- land taken out of production for purposes of government-sponsored agricultural programs, or
- land being used productively, such as woodlands for which there is a plan for managing the timber.

FARM DWELLING: A dwelling occupied by a farm owner or operator, tenant farm worker, or hired farm worker. (In Champaign County, it is generally assumed that a dwelling located on a lot that is 35 acres or larger is a farm dwelling, unless information provided as part of the public record to the Zoning Board of Appeals indicates otherwise.)

Guidelines for estimating percentage of subject site in agricultural production in any of the last 5 years

Based on review of digital orthophotography of the subject site for the most recent five years,

a. If there is no structure on the subject site and the subject site appears to be in crop land, then count the entire subject site as in agricultural production.

b. If only a street or road improvement is present on the subject site, and no wooded area is present on the subject site, then count the entire subject site as in agricultural production.

c. Unless information is available to indicate otherwise,

(1) If the subject site is 35 acres or larger and has both a dwelling and what appears to be crop land, then count the entire site as agricultural production.

(2) If the subject site is less than 35 acres and has both a dwelling and what appears to be crop land, then count all of the subject site-- except for one acre, inclusive of the dwelling – as in agricultural production. The one acre will be assumed to contain the well, septic, system, and any non-agricultural outbuildings.

d. A part of the subject site that appears not to be crop land may be counted as in agricultural production only provided the landowner indicates that part of the subject site was or is not in production due to participation in a government-sponsored agricultural program, or due to implementation of a crop management plan.

7	Percentage of land zoned AG-1 Agriculture, AG-2 Agriculture or CR Conservation-Recreation within 1 mile of subject site.	91 to 100% 81 to 90% 71 to 80% 61 to 70% 51 to 60% 41 to 50% 31 to 40% 21 to 30% 11 to 20% 1 to 10% none	10 points 9 points 8 points 7 points 6 points 5 points 4 points 3 points 2 points 1 points 0 points	_____

Factor 7 measures the amount of land in the one-mile area surrounding the subject site zoned AG-1 Agriculture, AG-2 Agriculture, or CR Conservation-Recreation. These are the rural zoning districts within the County.

More points are assigned to a higher percentage of land zoned AG-1, AG-2, or CR within one mile of the subject site because:

- rural zoning districts are intended for agricultural land uses, and
- land within these districts is subject to use restrictions and limits on the density and location of non-agricultural land uses.

Scoring Factor 7: Measure the area zoned AG-1, AG-2, and CR outward one mile from the property lines of the subject site.

8	Percentage of area within 1 mile of a subject site which consists of parcels with a principal use of agriculture. a) If the subject site is Best Prime Farmland and/or at least 51% Prime Farmland, the percentage of area within one mile of the subject site which consists of parcels with a principal use of agriculture that existed on April 12, 2011. b) If the subject site is less than 51% Prime Farmland, the percentage of area within one mile of the subject site which consists of parcels with a principal use of agriculture.	91 to 100% 81 to 90% 71 to 80% 61 to 70% 51 to 60% 41 to 50% 31 to 40% 21 to 30% 11 to 20% 1 to 10% none	20 points 18 points 16 points 14 points 12 points 10 points 8 points 6 points 4 points 2 points 0 points	_____

Factor 8 is a major indicator of the agricultural character of the general area, based on the assumption that areas in the County dominated by agriculture are generally more viable for farm purposes. The assessment is made based on the principal use of parcels located within one mile of the subject site. The principal use of a parcel (as used in the *Champaign County Zoning Ordinance*) represents the main use for which a lot is intended.

Additionally, for a subject site that is Best Prime Farmland and/or at least 51% Prime Farmland, Factor 8 includes the provision to not recognize any non-agricultural principal use established after a set date of April 12, 2011 within one mile of the subject site except for development that has been annexed by a municipality. (April 12, 2011 is the date of the annual digital orthophotography available for the year 2011.) This measure is intended to partially address the problem referred to as 'creeping effect' whereby case-by-case land use decisions may lower LESA scores on nearby sites, thereby justifying more land conversion decisions.

More points are assigned to a subject site with a greater percentage of area within one mile consisting of parcels with the principal use of agriculture.

Scoring Factor 8: Estimate the area of land within a one-mile distance outward from the property lines of the subject site that consists of parcels with the principal use of agriculture.

The defined terms shown below generally form the basis on which this factor is scored:

AGRICULTURE: The growing, harvesting and storing of crops including legumes, hay, grain, fruit and truck or vegetable crops, floriculture, horticulture, mushroom growing, orchards, forestry and the keeping, raising and feeding of livestock or poultry, including dairying, poultry, swine, sheep, beef cattle, pony and horse production, fur farms, and fish and wildlife farms; farm buildings used for growing, harvesting and preparing crop products for market, or for use on the farm; roadside stands, farm buildings for storing and protecting farm machinery and equipment from the elements, for housing livestock or poultry and for preparing livestock or poultry products for market; farm dwellings occupied by farm owners, operators, tenants or seasonal or year-round hired farm workers. It is intended by this definition to include within the definition of agriculture all types of agricultural operations, but to exclude therefrom industrial operations such as a grain elevator, canning or slaughterhouse, wherein agricultural products produced primarily by others are stored or processed.

Scoring Factor 8 (continued)

FARM DWELLING: A dwelling occupied by a farm owner or operator, tenant farm worker, or hired farm worker. (In Champaign County, it is generally assumed that a dwelling located on a lot that is 35 acres or larger is a farm dwelling, unless information provided as part of the public record to the Zoning Board of Appeals indicates otherwise.)

PRINCIPAL USE: As used in the *Champaign County Zoning Ordinance*, the main purpose for which land is designed, arranged, intended, or for which it is or may be occupied or maintained. (The primary purpose of a lot may not necessarily be the largest use on the lot in terms of the area of the lot that is occupied by that use and it may not necessarily be the use that generates the most income for the person who owns or resides on the lot.)

Guidelines for estimating area within one mile of subject site consisting of parcels with principal use of agriculture:

Generally identify parcels with a principal use of agriculture as follows:

a. Any parcel that is 35 acres or larger whether or not there is a dwelling, with the exceptions noted below.

b. Parcels that are less than 35 acres in area and that either have a farm dwelling or have no dwelling, with the exceptions noted below.

c. Exceptions to the above are the following:

(1) Any parcel that is inside an incorporated municipality.

(2) Any parcel that is zoned Residential, Business, or Industrial on the Champaign County Zoning Map and contains a non-agricultural principal use.

(3) Any parcel or portion of a parcel on which a Special Use has been approved by the County, except for a Rural Specialty Business or greenhouse.

(4) Institutional land that is not specifically used for production agriculture such as land owned by the University of Illinois but not in agricultural production, or land owned by the Champaign County Forest Preserve District that is not in agricultural production.

(5) Any parcel or portion of a parcel considered as nonconforming use, as defined in the *Champaign County Zoning Ordinance.*

9	What is the distance from the subject site to the nearest 10 non-farm dwellings?	more than 1 mile 0.76 to 1 mile 0.51 to 0.75 mile 0.26 to 0.50 mile 0.01 to 0.25 mile adjacent	20 points 18 points 16 points 14 points 12 points 0 points	_____

Factor 9 considers the proximity of the nearest 10 non-farm dwellings as a general indicator of an existing land use incompatibility with production agriculture and an incompatibility with livestock facilities vis–a-vis the *Illinois Livestock Management Facilities Act* (510 ILCS 77/ *et seq*.)

In Champaign County, it is generally assumed that a dwelling located on a lot less than 35 acres is a non-farm dwelling, unless information provided as part of the public record to the Zoning Board of Appeals indicates that a dwelling is part of on-site agricultural operations or otherwise qualifying as a farm dwelling.

The defined term for Non-Farm Dwelling is shown below:

NON-FARM DWELLING: A dwelling that is not occupied by a farm owner or operator, tenant farm worker, or hired farm worker.

Scoring Factor 9: Measure the linear distance outward from the closest point on the property line of the subject site to the façade of the tenth nearest non-farm dwelling.

10	a) How close is the subject site to a known livestock management facility of 400 or more animal units? *Answer Parts b or c) only if the subject site is more than 1 mile from a known livestock management facility of 400 or more animal units.*	adjacent to 0.25 mile 0.26 to 0.5 mile 0.51 to 0.75 mile 0.76 to 1 mile more than 1 mile	10 points 9 points 8 points 7 points *n/a*	
	b) How close is the subject site to a known livestock management facility of 200 - 399 animal units? *Answer Part c) only if the subject site is more than 1 mile from a known livestock management facility of 200-399 animal units.*	adjacent to 0.25 mile 0.26 to 0.5 mile 0.51 to 0.75 mile 0.76 to 1 mile more than 1 mile	7 points 6 points 5 points 4 points *n/a*	_____
	c) How close is the subject site to a known livestock management facility of 50 – 199 animal units?	adjacent to 0.25 mile 0.26 to 0.5 mile 0.51 to 0.75 mile 0.76 to 1 mile more than 1 mile	4 points 3 points 2 points 1 point 0 points	

Factor 10 is a measure of the compatibility of the subject site for continued agricultural use based on its proximity to an existing nearby livestock management facility. More points are assigned to a subject site in closer proximity to a known livestock management facility.

Scoring Factor 10: A response may be based on data available from the Livestock Management Facilities Program, Illinois Department of Agriculture, actual site inspection, and/or landowner interview.

The maximum points possible for this factor is 10 points.

This is a 3-part factor. Part a) measures proximity of a subject site to a livestock management facility of 400 or more animal units. If the subject site is located more than one mile from such facility, then respond to Part b). Part b) measures proximity of a subject site to a livestock management facility of 200-399 animal units. If the subject site is located more than one mile from such facility, then respond to Part c).

SA Total Score	_____

CALCULATING THE TOTAL LESA SCORE

The total LESA score is the sum of the LE points and SA points for a particular site or parcel. The maximum total LESA score possible for a site is 300 points.*

LE Total	____
SA Total	____
Total LESA Score	____

The higher the total LESA score, the more highly rated the subject site or parcel is to be protected for continued agricultural use. The total LESA score of a site signifies a rating for protection of the subject site or parcel as follows:

251 – 300	very high rating for protection
226 – 250	high rating for protection
151 – 225	moderate rating for protection
150 or below	low rating for protection

* The maximum LE score possible for a site is 100 points.
The maximum SA score possible for a site is 200 points.

Table A Composition of Agriculture Value Groups

Agriculture Value Group	Relative LE [1]	Land Capability Classification	Farmland Classification	Adjusted Soil Productivity Index [2]	Map Unit Symbol and Soil Series	# Acres Countywide	Percentage of County Land	
1	100	1	Prime	98 - 100	154A Flanagan silt loam 198A Elburn silt loam 149A Brenton silt loam	100,553 17,641 16,465	15.74 2.76 2.58	21.08
2	100	2e, 2w	Prime, Prime1	98 - 100	152A Drummer silty clay loam 679B Blackberry silt loam	254,484 4,985	39.82 0.78	40.60
3	94	1, 2e, 2w	Prime, Prime1	93 - 95	171B Catlin silt loam 153A Pella silty clay loam 623A Kishwaukee silt loam 481A Raub silt loam	17,385 6,422 3,105 22,903	2.72 1.01 0.49 3.58	7.79
4	91	1, 2e, 2w	Prime, Prime1	90 - 92	663B Clare silt loam 67A Harpster silty clay loam 234A Sunbury silt loam 56B Dana silt loam 219A Millbrook silt loam 490A Odell silt loam 687B Penfield loam 125A Selma loam	8,391 2,153 2,014 22,838 1,454 1,269 2,327 2,908	1.31 0.34 0.32 3.57 0.23 0.20 0.36 0.46	6.77
5	88	2e, 2w	Prime, Prime1	87 - 89	148B2 Proctor silt loam 232A Ashkum silty clay loam 206A Thorp silt loam 146A Elliot silt loam 242A Kendall silt loam	15 29,196 2,641 761 1,441	0.002 4.57 0.41 0.12 0.23	5.33
6	87	3w	Prime2	87	3107A Sawmill silty clay loam	11,080	1.73	1.73
7	85	1, 2e, 2w	Prime, Prime1	83 - 86	56B2 Dana silt loam 330A Peotone silty clay loam 236A Sabina silt loam 102A La Hogue loam 233B Birbeck silt loam 235A Bryce silty clay 134A Camden silt loam	136 3,744 3,011 1,423 2,669 1,623 14	0.02 0.59 0.47 0.22 0.42 0.25 0.002	1.97

continued

Table A Composition of Agriculture Value Groups (AVG) continued

Agriculture Value Group	Relative LE [1]	Land Capability Classification	Farmland Classification	Adjusted Soil Productivity Index [2]	Map Unit Symbol and Soil Series	# Acres Countywide	Percentage of County Land	
8	84	3e, 3w	Not Prime	89 - 84	637A+ Muskego silty clay loam 687C2 Penfield loam	47 809	0.01 0.13	0.14
9	83	2e, 2w, 3w	Prime, Prime3	81 - 83	146B2 Elliott silty clay loam 622B Wyanet silt loam 134B Camdem silt loam 680B Campton silt loam 91A Swygert silty clay loam 146C2 Elliott silty clay loam 291B Xenia silt loam 448B Mona silt loam 3473A Rossburg silt loam	28,484 7,312 1,207 1,651 73 1,485 4,837 245 982	4.46 1.14 0.19 0.26 0.01 0.23 0.76 0.04 0.15	7.24
10	79	2e	Prime	78 - 79	387B Ockley silt loam 570B Martinsville silt loam	1,125 708	0.18 0.11	0.29
11	78	3e	Statewide Importance	78	622C2 Wyanet silt loam	6,331	1.00	1.00
12	76	2e, 3e	Prime	74 - 76	131B Alvin fine sandy loam 223B2 Varna silt loam 91B2 Swygert silty clay loam 150B Onarga sandy loam 223C2 Varna silt loam 91C2 Swygert silty clay loam 530B Ozaukee silt loam 618B Senachwine silt loam	205 8,040 2,791 290 3,116 411 509 269	0.03 1.26 0.44 0.05 0.49 0.06 0.08 0.04	2.44
13	75	3e	Statewide Importance	74 - 75	322C2 Russell silt loam 570C2 Martinsville loam	1,930 1,021	0.30 0.16	0.46
14	71	2e, 2w, 3w	Prime, Prime1, Prime2	68 - 73	23A Blount silt loam 530C2 Ozaukee silt loam 3302A Ambraw silty clay loam 23B2 Blount silt loam	804 411 2,794 808	0.13 0.06 0.44 0.13	0.76

continued

Table A Composition of Agriculture Value Groups (AVG) continued

Agriculture Value Group	Relative LE [1]	Land Capability Classification	Farmland Classification	Adjusted Soil Productivity Index [2]	Map Unit Symbol and Soil Series	# Acres Countywide	Percentage of County Land	
15	69	3e	Statewide Importance	69	530D2 Ozaukee silt loam 618C2 Senachwine silt loam	543 850	0.09 0.13	0.21
16	66	4e	Statewide Importance, Not Prime	62 - 69	387C3 Ockley clay loam 570D2 Martinsville loam 223D3 Varna silty clay loam 622D3 Wyanet clay loam 618D2 Senachwine silt loam 530E2 Ozaukee silt loam	301 360 2,826 357 632 382	0.05 0.06 0.44 0.06 0.10 0.06	0.77
17	50	6e, 7e	Not Prime	37 - 57	618E2 Senachwine silt loam 618F Senachwine silt loam 241C3 Chatsworth silty clay 241D3 Chatsworth silty clay	511 398 36 285	0.08 0.06 0.01 0.05	0.19
18	n/a	n/a	Not Prime	n/a	533 Urban Land 802B Orthents loamy undulating 830 Landfill 865 Gravel Pit W Water	1,607 4,290 115 460 1,319	0.25 0.67 0.02 0.07 0.21	1.22

Table A Notes

1. LE is the weighted, average designated Land Evaluation score assigned to each Agriculture Value Group.

2. The "Adjusted Productivity Index" is derived from Productivity Index data published in Table S2 of Bulletin 811. The Productivity Indices provided in Table S2 are for 0% to 2% slopes and slightly eroded conditions. Productivity indices were adjusted for increasing slope and erosion in accordance with Table S3 of Bulletin 811: "Decimal Adjustments in Crop Yields and Productivity Indices Under an Optimum Level of Management for Various Slope Groups and Erosion Phases."

DEFINED TERMS

AGRICULTURE: The growing, harvesting and storing of crops including legumes, hay, grain, fruit and truck or vegetable crops, floriculture, horticulture, mushroom growing, orchards, forestry and the keeping, raising and feeding of livestock or poultry, including dairying, poultry, swine, sheep, beef cattle, pony and horse production, fur farms, and fish and wildlife farms; farm buildings used for growing, harvesting and preparing crop products for market, or for use on the farm; roadside stands, farm buildings for storing and protecting farm machinery and equipment from the elements, for housing livestock or poultry and for preparing livestock or poultry products for market; farm dwellings occupied by farm owners, operators, tenants or seasonal or year-round hired farm workers. It is intended by this definition to include within the definition of agriculture all types of agricultural operations, but to exclude therefrom industrial operations such as a grain elevator, canning or slaughterhouse, wherein agricultural products produced primarily by others are stored or processed. Source: *Champaign County Zoning Ordinance.*

The principal use of a parcel (as defined in the *Champaign County Zoning Ordinance*) represents the main use for which a lot is intended. Guidelines for estimating whether a parcel has a principal use of agriculture are generally as follows:

a. Any parcel that is 35 acres or larger whether or not there is a dwelling, with the exceptions noted below.

b. Parcels that are less than 35 acres in area and that either have a farm dwelling or have no dwelling, with the exceptions noted below.

c. Exceptions to the above are the following:

1) Any parcel that is inside an incorporated municipality.

2) Any parcel that is zoned Residential, Business, or Industrial on the *Champaign County Zoning Map* and contains a non-agricultural principal use.

3) Any parcel or portion of parcels on which a Special Use has been approved by the County, except for a Rural Specialty Business or greenhouse.

4) Institutional property that is not specifically used for production agriculture such as land owned by the University of Illinois but not in agricultural production or land owned by the Champaign County Forest Preserve District that is not in agricultural production.

5) Any parcel or portion of a parcel considered as nonconforming use, as defined in the *Champaign County Zoning Ordinance.*

AGRICULTURAL PRODUCTION: The growing, harvesting, and storing of crops and the keeping, raising, and feeding of livestock or poultry and the buildings and land used in those activities, including: any farm dwelling; land taken out of production for purposes of government-sponsored agricultural programs; or land being used productively, such as woodlands for which there is a plan for managing the timber.

ANIMAL UNITS: A measure that is based on the number, species and size of an animal. The following table lists for selected species, the size and number of animals multiplied by a specified conversion factor equivalent to 50 animal units:

Species/Size	Conversion Factor	50 Animal Units
Swine over 55 lbs.	0.4	125
Swine under 55 lbs.	0.03	1,667
Dairy	1.4	35
Young dairy stock	0.6	84
Cattle	1.0	50
Sheep, lamb, goals	0.1	500
Horses	2.	25
Turkeys	0.02	2,500
Laying hens or broilers	0.01 – 0.03 *	1,667 -5,000 *
Ducks	0.02	2,500

Source: Livestock Management Facilities Program, Illinois Department of Agriculture
Table Note: * depends on type of livestock waste handling facility provided

BEST PRIME FARMLAND: A subset of Prime Farmland soils identified by the County, and as defined in the *Champaign County Zoning Ordinance*.

FARM DWELLING: A dwelling occupied by a farm owner or operator, tenant farm worker, or hired farm worker. (In Champaign County, it is generally assumed that a dwelling located on a lot that is 35 acres or larger is a farm dwelling, unless information provided as part of the public record to the Zoning Board of Appeals indicates otherwise.)

LIVESTOCK MANAGEMENT FACILITY: A 'livestock management facility' is any animal feeding operation, livestock shelter, or on-farm milking and accompanying milk-handling area. A 'livestock waste handling facility' is an immovable structure or device (except sewers) used for collecting, pumping, treating, or disposing of livestock waste or for the recovery of by-products from the livestock waste. Two or more livestock management facilities under common ownership, within ¼ mile of each other, and that share a common livestock waste handling facility are considered a single livestock management facility. (Illinois Livestock Management Facilities Act (510 ILCS 77/*et seq.*)

NON-FARM DWELLING: A dwelling that is not occupied by a farm owner or operator, tenant farm worker, or hired farm worker.

PRINCIPAL USE: As used in the *Champaign County Zoning Ordinance*, the main purpose for which land is designed, arranged, intended, or for which it is or may be occupied or maintained. (The primary purpose of a lot may not necessarily be the largest use on the lot in terms of the area of the lot that is occupied by that use and it may not necessarily be the use that generates the most income for the person who owns or resides on the lot.)

SUBJECT SITE: The area of a parcel that is proposed for development. As an example, for a zoning case to request a rezoning, the subject site will be the area of the parcel or parcels that is proposed to be rezoned.

RESOLUTION NO. 2248

A RESOLUTION ACCEPTING THE CHAMPAIGN COUNTY
LAND EVALUATION AND SITE ASSESSMENT SYSTEM

WHEREAS, the Environment and Land Use Committee has carefully studied the proposed Champaign County Land Evaluation and Site Assessment System and recommends the County Board accept the system as a tool to assist in making land use decisions; and,

WHEREAS, the Champaign County Board has carefully considered the Land Evaluation and Site Assessment System and finds that this System could provide valuable guidance and assistance to the County Board, the Environment and Land Use Committee, and the Zoning Board of Appeals in making land use decisions affecting the future development of the County's agricultural land; and

WHEREAS, the Champaign County Board further finds the Land Evaluation and Site Assessment System an appropriate tool to be used in conjunction with the County's Land Use Goals and Policies, as a basis for the continued implementation of the County Zoning Ordinance and Ordinance Regulating Development in Special Flood Hazard Areas, and for the overall protection of the public health, safety and welfare of the residents of Champaign County;

WHEREAS, the County Board, Environment and Land Use Committee and Zoning Board of Appeals shall use the Champaign County Land Evaluation and Site Assessment System as a tool for making land use decisions affecting agricultural land;

NOW, THEREFORE, BE IT RESOLVED, that the document entitled Champaign County Land Evaluation and Site Assessment System, dated February, 1984, is hereby adopted as a tool for making land use decisions.

PRESENTED, ADOPTED, APPROVED AND RECORDED this 21st day of February, A.D. 1984.

Gary O. Adams
Chairman, Champaign County Board
Champaign County, Illinois

ATTEST: Donna A. Gunn
County Clerk & Ex-Officio
Clerk of County Board

Champaign County, Illinois

LAND EVALUATION AND SITE ASSESSMENT SYSTEM

The following two Committees prepared this Land Evaluation and Site Assessment System for Champaign County, Illinois.

Land Evaluation Committee

Joe Barkley, Resource Conservationist, Champaign County Soil and Water Conservation District
Tyrone Clapper, Champaign County Zoning Administrator
Ken Kesler, Chairman, Board of Directors, Champaign County Soil and Water Conservation District
Ron Lowery, District Conservationist, Soil Conservation Service, United States Department of Agriculture
Bill McNamara, Senior Extension Adviser, Agriculture Cooperative Extension Service, University of Illinois
Lois Rocker, Associate Planner, Champaign County Regional Planning Commission
Bob Wendt, Manager, Champaign County Farm Bureau

Site Assessment Committee

Joe Barkley, Resource Conversationist, Champaign County Soil and Water Conservation District
Tyrone Clapper, Champaign County Zoning Administrator
Gerald Compton, Land Use Committee Co-Chairman, Champaign County Farm Bureau
Don Flessner, Member, Champaign County Board
Ken Kesler, Chairman, Board of Directors, Champaign County Soil and Water Conservation District
Amy Kummerow, Member, Champaign County Board
Ron Lowery, District Conservationist, Soil Conservation Service, United States Department of Agriculture
Lois Rocker, Associate Planner, Champaign County Regional Planning Commission
Susan Stone, Land Use Chairman, League of Women Voters
Laurel Talkington, Planner II, Planning and Economic Development Department, City of Champaign
Russell Taylor, Member, Champaign County Board
Clarence Thompson, President, Northwood, Inc.

State Resource Consultants

Ronald A. Darden, Superintendent, Division of Natural Resources, Illinois Department of Agriculture
Carolyn M. Sands, Former Staff Member, Bureau of Farmland Protection, Division of Natural Resources, Illinois Department of Agriculture

Typing, Printing and Graphics

Vicki Shingleton, Administrative Secretary, Champaign County Regional Planning Commission
Tom Reed, Graphics Technician, Champaign County Regional Planning Commission

CHAMPAIGN COUNTY
LAND EVALUATION AND SITE ASSESSMENT SYSTEM

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I. Introduction

The Champaign County Land Evaluation and Site Assessment system (LESA), is a program designed to evaluate the viability of a site for agricultural uses. Although the system itself was developed by the Soil Conservation Service of the U.S. Department of Agriculture, the County's LESA system was prepared locally to take into consideration local conditions such as physical characteristics of the land, compatibility of surrounding land uses, and urban growth factors affecting land development.

As its name implies, LESA is divided into two parts. First, in the Land Evaluation portion of the system, soils of a given area are rated and placed into groups ranging from the best to worst based on soil characteristics, capabilities, and productivity. The second part of the system, Site Assessment, identifies important factors other than soils that contribute to the quality of a site for agricultural uses. Application of LESA combines a value for Land Evaluation with a value for Site Assessment to determine the total value of a given site for agricultural uses. The Land Evaluation is assigned a maximum of 100 points, and the Site Assessment is assigned a maximum of 200 points. The total maximum number of points possible for any site is 300. The higher the total value of a site, the higher the agricultural economic viability, and the higher the cost for non-agricultural development.

The Champaign County LESA System will provide a valuable new tool to guide in making land use decisions in Champaign County. Applications of the LESA system will generally fall under two types of requests involving conversion of an agricultural use to a non-agricultural use. The most frequent application of LESA will be when a request is made to rezone a tract of land from the County's AG-1, Agriculture, AG-2, Agriculture, and/or CR, Conservation-Recreation Districts to another zoning district or districts. The LESA system can also be used for site comparison to minimize loss of productive land when it is essential to convert some agricultural land to a non-agricultural use.

In using LESA to help determine the advisability of a requested zoning change, reference should always be made to the Champaign County Zoning Ordinance for the range of permitted uses under the requested zoning designation. Although a request may be for a specific use, once the zoning is changed and the proposed use is not implemented, a number of other uses could be permitted without requiring further approval.

In applying LESA in Champaign County, the user of the system must remember that it is one among several tools to assist in making land use decisions; it should not be used alone. This document, which describes the County's LESA system, should be used in conjunction with the County's Land Use Goals and Policies, as a basis for the continued implementation of the County's Zoning Ordinance and the Ordinance Regulating Development of Special Flood Hazard Areas, and for the overall protection of the public health, safety and welfare of the residents of Champaign County. Since the County's LESA System is designed to be based on existing conditions, this system requires periodic review and possible modification to adjust for changing needs and conditions. Initial review should occur two years from the system's effective date and subsequent reviews should take place at least every five years.

The following sections of this document provide a detailed description of each part of the LESA system and instructions for calculating the total Land Evaluation and Site Assessment Value.

II. Land Evaluation

In the agricultural Land Evaluation part, the soils of Champaign County have been placed into nine groups ranging from the best to the worst, based on their suitability for cropland production (See Table I).

For Champaign County, the soils were ranked according to three criteria: land capability classification, important farmland identification, and soil productivity. A relative value has been determined for each group; the best group was assigned a relative value of 100 with all other groups being assigned lower relative values. Table II shows the breakdown of the soils groups by three criteria and the relative value for each agricultural group.

The Land Evaluation procedure will help responsible planners and decision makers determine the importance of the County's soil resources in terms of their importance to the agricultural base. In addition, the Land Evaluation portion of the LESA System is intended to meet the following objectives:

(1) It will determine land quality for agricultural uses.
(2) It will distinguish between classes of land of differing quality to enable decision makers to select lands to be protected for agricultural uses.
(3) It will be stable and consistently applicable with national land classification systems.
(4) It will be technically sound and compatible with national land classification systems.
(5) It will be flexible to accommodate differences among areas.

TABLE I
List of Soil Series and Evaluations
Champaign County, Illinois

1	2	3	4	5	6	7	8	9
Map Symbol	Soil Series	Slope	Land Capability Class & Subclass	Important Farmland Determination	Productivity Index Local	Acres No	%	Agricultural Value Group
23A	Blount	0-2	IIw	Prime	105	1,005	.2	6
23B	Blount	2-5	IIe	Prime	105	624	.1	6
27B	Miami	2-5	IIe	Prime	110	267	*	6
27C2	Miami	5-10	IIIe	Statewide Importance	95	755	.1	7
27D2	Miami	10-15	IVe	Statewide Importance	80	429	.1	7
27E2	Miami	15-20	VIe	Non-Prime	60**	406	.1	8
56B	Dana	2-5	IIe	Prime	135	23,839	3.7	3
67	Harpster	0-2	IIw	Prime	135	2,252	.4	4
73	Ross	0-2	IIw	Prime	130	1,001	.2	4
91B	Swygert	1-5	IIe	Prime	115	3,448	.5	6
102A	La Hogue	0-3	I	Prime	130	1,476	.2	3
125	Selma	0-2	IIw	Prime	135	2,703	.4	4
131B	Alvin	1-5	IIe	Prime	100	212	*	6
134B	Camden	1-5	IIe	Prime	120	1,244	.2	5
146B	Elliott	1-5	IIe	Prime	130	31,039	4.8	5
148B	Proctor	1-5	IIe	Prime	135	8,881	1.4	3
149A	Brenton	0-3	I	Prime	150	16,183	2.5	1
150B	Onarga	1-5	IIe	Prime	110	268	*	6
152	Drummer	0-2	IIw	Prime	155	248,094	38.8	2
153	Pella	0-2	IIw	Prime	130	6,368	1.0	4
154A	Flanagan	0-3	I	Prime	160	99,607	15.6	1

*Less than .1%
**Best Estimate

1	2	3	4	5	6	7	8	9
Map Symbol	Soil Series	Slope	Land Capability Class & Subclass	Important Farmland Determination	Productivity Index Local	Acres No	%	Agricultural Value Group
171B	Catlin	2-7	IIe	Prime	145	16,069	2.5	3
194B	Morley	2-5	IIe	Prime	105	738	.1	6
194C2	Morley	5-12	IIIe	Statewide Importance	100	890	.1	7
194D2	Morley	12-20	IVe	Non-Prime	90**	251	*	8
198A	Elburn	0-3	I	Prime	155	17,048	2.7	1
199B	Plano	1-5	IIe	Prime	140	5,330	.8	3
206	Thorp	0-2	IIw	Prime	105	2,736	.4	6
219	Millbrook	0-2	I	Prime	135	1,426	.2	3
221B	Parr	2-5	IIe	Prime	120	7,708	1.2	5
221C2	Parr	5-10	IIIe	Statewide Importance	105	5,821	.9	7
221D3	Parr	10-15	IVe	Statewide Importance	90**	330	.1	7
223B2	Varna	2-5	IIe	Prime	120	11,142	1.7	5
223C3	Varna	5-12	IVe	Statewide Importance	105	3,044	.5	7
232	Ashkum	0-2	IIw	Prime	135	28,281	4.4	4
233B	Birkbeck	1-5	IIe	Prime	120	2,735	.4	5
234A	Sunbury	0-3	I	Prime	140	1,797	.3	3
235	Bryce	0-2	IIw	Prime	125	1,489	.2	5
236A	Sabina	0-3	IIw	Prime	130	2,760	.4	4
241D3	Chatsworth	7-15	VIIe	Non-Prime	50**	288	*	8
242A	Kendall	0-3	IIw	Prime	130	1,545	.2	4
243B	St. Charles	1-5	IIe	Prime	120	1,842	.3	5
291B	Xenia	2-5	IIe	Prime	120	5,299	.8	5
302	Ambraw	0-2	IIw	Prime	110	2,687	.4	6
322C2	Russell	4-11	IIIe	Statewide Importance	105	1,867	.3	7

*Less than .1%
**Best Estimate.

1	2	3	4	5	6	7	8	9
Map Symbol	Soil Series	Slope	Land Capability Class & Subclass	Important Farmland Determination	Productivity Index Local	Acres No	%	Agricultural Value Group
330	Peotone	0-2	IIw	Prime	125	3,678	.6	5
387B	Ockley	1-5	IIe	Prime	110	1,174	.2	6
387C3	Ockley	5-12	IVe	Statewide Importance	90	278	*	7
398A	Wea	0-3	I	Prime	120	3,213	.5	3
402	Colo	0-2	IIw	Prime	110**	10,643	1.7	6
440B	Jasper	1-5	IIe	Prime	125	2,410	.4	5
440C2	Jasper	5-10	IIIe	Statewide Importance	120	778	.1	7
448B	Mona	2-7	IIe	Prime	110	297	*	6
481A	Raub	0-3	I	Prime	140	22,269	3.5	3
490A	Odell	0-3	I	Prime	135	1,319	.2	3
570B	Martinsville	2-5	IIe	Prime	120	778	.1	5
570C2	Martinsville	5-10	IIIe	Statewide Importance	105	1,054	.2	7
570D2	Martinsville	10-18	IVe	Statewide Importance	90	275	*	7
637	Muskego	0-2	IIIw	Statewide Importance	125**	44	*	7
533	Urban land	--	None	Non-Prime	0	1,235	.2	9
802	Orthents, Loam	--	None	Non-Prime	0	3,554	.6	9
865	Pits, gravel	--	None	Non-Prime	0	313	*	9
2027C	Miami-Urban land complex	2-10	None	Non-Prime	0	384	.1	9
2152	Drummer-Urban land complex	0-2	None	Non-Prime	0	4,300	.7	9
2154A	Flanagan-Urban land complex	0-3	None	Non-Prime	0	3,695	.6	9

*Less than .1%
**Best Estimate.

1	2	3	4	5	6	7	8	9
Map Symbol	Soil Series	Slope	Land Capability Class & Subclass	Important Farmland Determination	Productivity Index Local	Acres No	%	Agricultural Value Group
2171B	Catlin-Urban land complex	2-7	None	Non-Prime	0	1,662	.3	9
2198A	Elburn-Urban land complex	0-3	None	Non-Prime	0	766	.1	9
2236A	Sabina-Urban land complex	0-3	None	Non-Prime	0	232	*	9
2481A	Raub-Urban land complex	0-3	None	Non-Prime	0	1,163	.2	9
W	Water	--	None	Non-Prime	0	1,262	.2	9

*Less than .1%
**Best Estimate

SOURCE: Soil Survey of Champaign County, Illinois, prepared by U.S. Department of Agriculture, Soil Conservation Service in cooperation with Illinois Agricultural Experiment Station.

TABLE 2
SOIL GROUPS FOR
CHAMPAIGN COUNTY, Illinois

1	2	3	4	5	6	7
Agricultural Group	Land Capability Class & Subclass	Important Farmland Classification	Productivity Index	Acres	Percent	Relative Value[1]
1	I	Prime	150-160	132,838	20.8	100
2	IIw	Prime	155	248,094	38.8	98
3	I, IIe	Prime	120-145	85,619	13.4	87
4	IIw	Prime	130-135	44,910	7.0	85
5	IIe, IIw	Prime	120-130	69,364	10.8	79
6	IIe, IIw	Prime	100-115	24,099	3.8	70
7	IIIe,IIIw, IVe	Statewide Importance	80-125	15,565	2.4	65
8	IVe,VIe, VIIe	Non-Prime	Below 90	945	.1	41
9	None	Non-Prime	0	18,566	2.9	0

[1] Appendix shows how Relative Value is determined.

III. Site Assessment

Agricultural economic viability of a site cannot be measured in isolation from existing and impending land use needs of Champaign County. The Site Assessment process provides a system for identifying important factors, other than soils, that affect the economic viability of a site for agricultural uses.

This section describes each of 21 Site Assessment factors to be considered when a change to another land use is proposed in an area zoned AG-1, Agriculture, AG-2, Agriculture, or CR, Conservation-Recreation. The 21 Site Assessment factors are grouped into th following six major areas of consideration:

A. Agricultural Land Uses
B. Zoning and Prior Governmental Actions
C. Compatibility and Impact of Uses
D. Land Use Feasibility
E. Existence of Infrastructure
F. Environmental Impact

Based upon current land use data, land use regulations, site inspection and other pertinent information, a point value is determined by analyzing each site assessment factor and selecting a number value that best reflects the quality of the property in question.

SITE ASSESSMENT FACTORS, VALUES, AND DESCRIPTIONS OF FACTORS

A. Agricultural Land Uses

1. Percentage of Area in Agricultural Uses within one and one-half ($1\frac{1}{2}$) miles of Site.

90% or more	18
75% to 89%	16
50% to 74%	12
25% to 49%	8
Less than 25%	0

This factor is a major indicator of the agricultural character of an area. Areas in the County that are dominated by agricultural uses are generally more viable for farm purposes. The definition of "agricultural land uses" should be interpreted to mean all agricultural and related uses that can be considered to be part of the farm operation. This would include farmland (cropland), pasture lands, or timberlands whether or not in current production and farm residences, barns, and out-buildings. For a more extensive definition of "agriculture" see Section V Definitions.

The 1.5 mile area of consideration for this factor was selected for two reasons: First, in Champaign County, a 1.5 mile radius is a reasonable and manageable area when analyzing the land use and overall characteristics of the area. Second, the State of Illinois has set one and one-half miles as the jurisdictional boundary for municipal planning.

Since this factor is a major indicator of the agricultural character of an area, it has a maximum value of 18.

2. Land Use Adjacent to Site.

All Sides in Agricultural Uses	18
1 Side in Non-Agricultural Uses	16
2 Sides in Non-Agricultural Uses	12
3 Sides in Non-Agricultural Uses	8
All Sides in Non-Agricultural Uses	0

In order to limit potential nuisance complaints and other forms of conflict, pre-existing adjacent land uses shall be evaluated in all cases.

The term "agricultural uses" is defined as all uses related to the farm operation, as in Factor 1 above.

Since this factor is again a major indicator of the agricultural character of an area, it therefore has a maximum value of 18.

3. Percentage of Site in or Suitable for Agricultural Uses.

75% to 100%	10
50% to 74%	8
25% to 49%	6
10% to 24%	4
0 to 9%	0

This factor is to be utilized to assess the site's current use. Additionally, this factor may indicate the potential viability of the site for agricultural purposes.

Again, the term "agricultural uses" will mean the same as in Factors 1 and 2 above.

B. Zoning and Prior Governmental Actions

1. Percentage of land zoned AG-1, Agriculture, AG-2, Agriculture and/or CR, Conservation-Recreation within 1.5 miles of the Site.

90% or more	10
75% to 89%	8
50% to 74%	6
25% to 49%	4
Less than 25%	0

This factor is important since zoning regulations derive from police power. When land is zoned other than AG-1, AG-2 or CR, the potential exists for non-agricultural uses which may be incompatible with agriculture.

The 1.5 mile area of consideration was selected for the same reason as in Factor A.1.

2. Percentage of Site zoned AG-1, Agriculture, AG-2, Agriculture or CR, Conservation-Recreation.

90% to 100%	10
75% to 89%	8
50% to 74%	6
25% to 49%	4
24% or less	0

This factor is to be utilized to assess the site's current zoning. If the site is to be zoned other than AG-1, AG-2, or CR, the potential for non-agricultural uses which may not be compatible exists.

3. Have prior governmental actions committed site to development?

No	10
Partially	6
Yes	0

Frequently, actions by local government can commit a site for development. The major consideration under this factor is the existence of a comprehensive plan. This factor also recognizes that some communities do not have an adopted comprehensive plan. In addition, this factor recognizes that an adopted comprehensive plan does not necessarily mean the public infrastructure, such as utilities, streets, and other public services, is in place to support a particular development. Therefore, other governmental actions (such as the public infrastructure, the provisions of a capital improvements program and/or adopted resolution by a governmental body scheduling public improvements on or near the site) should be considered in conjunction with what a comprehensive plan shows land use to be.

If no comprehensive plan exists or the comprehensive plan shows land use as agriculture and no other governmental actions have committed the site for development, assign a high point value. If a comprehensive plan exists and shows land use other than for agriculture, but no other public governmental actions have committed the site for development, assign a partial value. Also, if no comprehensive plan has been adopted, but other governmental actions have committed the site for development, assign a partial value. Finally, if a comprehensive plan exists showing land use other than for agricultural uses and public improvements and services are available and support the development, assign a low value.

Prior Federal, State or local governmental financial support for conservation practices is an action by a government body which would commit a site to continue in agriculture, and therefore, the land should receive a high value.

C. Compatibility/Impact of Uses.

1. Distance from City or Village Corporate Limits.

More than 1.5 miles	10
1 to 1.49 miles	8
.5 to .99 miles	6
.25 to .49 miles	4
0 to .24 miles	2
Adjacent	0

A site adjacent to a city or village is more viable for urban development than a site located many miles from the nearest urban areas. Because urban uses are generally considered to be incompatible with agricultural pursuits, the impact on agricultural and rural areas will be minimized when development occurs close to established urban areas.

2. Compatibility of proposed use and zoning change with surrounding Agricultural Uses.

Incompatible	10
Somewhat Incompatible	6
Compatible	0

As in any land use change, compatibility with surrounding land uses must be determined. This factor more than any other deals with the problems encountered when agricultural and non-agricultural uses are permitted to mix. It becomes difficult to determine whether some uses are totally compatible. Also the density or intensity of similar uses become a gray area in terms of compatibility. Clearly a subdivision next to an animal confinement operation is incompatible and can be predicted to result in conflict. However, a large lot residential development located adjacent to row crop farming might result in less conflict. An agricultural supplier (seed dealer, fertilizer dealer, farm implement sales) could be considered compatible with agriculture. For these reasons, a point value for "somewhat incompatible" is included in this factor.

The term "surrounding" area in this instance will depend on the size of the parcel for which a land use change is proposed. The area that would be directly influenced by the proposed land use change will be considered "surrounding" area. Each land use change will have a different area of influence based on the size and intensity of the proposed use.

The Champaign County Zoning Ordinance provides for a range of uses permitted in each zoning district. Refer to the Champaign County Zoning Ordinance for the range of uses in the proposed zoning district.

D. Land Use Feasibility

1. Size of Site Feasible for Farming.

100 Acres or More	8
40 to 99 acres	6
20 to 39 acres	4
5 to 19 acres	2
under 5 acres	0

This factor recognizes that the size of a parcel of land has an impact on a site's viability for agricultural purposes. Also, it is a recognition that modern agriculture may require large tracts of land for efficiency purposes. A truck farm or animal confinement operation would be an exception.

2. Soil Limitations for Proposed Use and Proposed Zoning Change.

Severe	10
Moderate to Severe	8
Moderate	6
Slight to Moderate	4
Slight	0

Frequently, projects are proposed for sites where the soils present limitations for development. These limitations can and usually do increase the cost of the proposed development. This factor recognizes the need to select alternative sites which do not possess severe limitations for the proposed use. Refer to the Champaign County Zoning Ordinance for the range of permitted uses in the proposed zoning district.

Sources of information for this factor can be obtained from the Natural Resource Report prepared by the Champaign County Soil and Water Conservation District and Soil Survey of Champaign County, Illinois issued March 1982.

3. Depending on the proposed use or project, either factor 3.a. or factor 3.b., but not both, will be used. Factor 3.a. recognizes efforts to select sites on the least productive farmland when it is necessary to convert some agricultural land to a non-agricultural use. Factor 3.b. considers whether there is a need to rezone additional agricultural land for urban uses.

a. Alternative Sites proposed on less productive land.

Yes	8
No	0

This factor can be used for site comparison where it is essential to convert some agricultural land to a non-agricultural use. Many times with a little investigation, sites for development on less productive agricultural land can be proposed as alternatives. The total points assigned to one site can be compared with the total points determined for any number of other sites. All other things being equal, converting the site with the lowest total point value would have the least adverse impact on the agricultural base. The site with the highest value should receive more protection than those with the lowest values. Any proposed conversion should consider the impact on adjacent agricultural areas and the local agricultural base.

b. Need for additional land.

Vacant buildable land available	8
Little buildable land remaining	0

If large amounts of appropriately zoned land within the area are vacant and available for urban use, assign a high value. If there is little or no appropriately zoned land vacant, assign a low value. Availability of vacant land depends on a number of factors including but not limited to: zoning, available land on the market, size of parcel, location, access to transportation modes. Vacant land refers to both land with no structures or buildings or land with structures or buildings which could be utilized or removed by the proposed user. This factor promotes the concept of infilling, an objective specified in Champaign County's Land Use Goals and Policies.

E. Existence of Infrastructure

1. Availability of Central Sewage System.

More than 1.5 miles	10
.75 to 1.49 miles	8
.5 to .74	6
.25 to .49 miles	4
200 feet to .24 miles	2
200 feet or less or on-site	0

The availability to a site of a central sewer system with sufficient capacity encourages growth and reduces the long-term viability of a site for agriculture. The term "on site" is intended to include a sewer system which exists on the site with no extension necessary. According to the Illinois Private Sewage Disposal Act and Code, "new or renovated private sewage disposal systems shall not be approved where a public sanitary sewer is located within 200 feet of the property and is available for connection".

2. Availability of Central Water System.

More than 1.5 miles	10
.75 to 1.49 miles	8
.5 to .74 miles	6
.25 to .49 miles	4
200 feet to .24 miles	2
200 feet or less or on-site	0

This factor recognizes that the existence of a central water system encourages growth and reduces the long-term viability of a site for agriculture. As a central water system is extended into an agricultural area, the character of the area may change and more non-agricultural development occur. The term "on site" is intended to include water systems which currently exist or which will be constructed on the site with no need for extension.

3. Transportation.

Inadequate for Planned Use and Proposed Rezoning - site beyond 1.5 miles from City or Village Corporate Limits[1]	10
Inadequate for Planned Use and Proposed Rezoning, Some minor improvements required - site beyond 1.5 miles from City or Village Corporate Limits[1]	8
Adequate for Planned Use and Proposed Rezoning - site beyond 1.5 miles of City or Village Corporate Limits[1]	6
Inadequate for Planned Use and Proposed Rezoning - site within 1.5 miles of City or Village Corporate Limits[1]	4
Inadequate for Planned Use and Proposed Rezoning, Some minor improvements required - site within 1.5 miles of City or Village Corporate Limits[1]	2
Adequate for Planned Use and Proposed Rezoning - site within 1.5 miles of City or Village Corporate Limits[1]	0

[1]Use actual road miles to nearest corporate limits.

Access to transportation is a consideration in the location of all types of uses. The location of industrial, commercial, and residential uses within 1.5 miles of existing municipalities results in a more efficient movement of goods and people. The location of non-agricultural uses along rural roads may necessitate the upgrading and widening of rural roads, which results in a further loss of farmland. High volume/high speed traffic may not be compatible with agricultural uses.

The type of road providing access to a site whether existing or to be provided by a developer, and the availability of transportation modes are major factors in determining suitability of the planned use or proposed rezoning. Determining adequacy of the transportation infrastructure to the site depends on a number of factors such as loading (weight of vehicles and number of vehicles), roadway capacity to handle traffic volumes, traffic control devices (traffic signals, regulatory and guide signs, pavement markings, etc.), and availability of transportation modes (bus, rail, major highway). Since the type of transportation infrastructure to support the planned use or proposed rezoning may vary among governmental jurisdictions there may be a need to determine adequacy for a specific transportation component (pavement structure, intersection geometrics, number of lanes, etc). Sources for determining adequacy of the existing transportation infrastructure would be the appropriate government body having jurisdiction. This factor recognizes plans by the developer to provide transportation improvements as well as any existing plans for improvements by a government body.

4. Distance of site from fire protection service.

Not in fire protection district (FPD)	10
In a FPD, but more than 5 miles from fire protection service	8
2½ to 5 miles - volunteer	6
0 to 2.49 miles - volunteer	4
2½ to 5 miles - paid	2
0 to 2.49 miles - paid	0

Fire protection requires a combination of equipment, manpower, and availability and supply of water. This factor is also related to distance between fire station and proposed development. Distance should be calculated by actual road miles from fire protection service to the site.

F. Environmental Impact of Proposed Use and Zoning Change

1. Impact on Flooding/Drainage

Negative Impact	6
Some Impact	4
Little or none with special design or protective measures provided or required	2
None	0

This factor addresses whether the proposed use or zoning change will have impact on neighboring properties from surface runoff; this factor is also concerned with environmentally sensitive areas such as floodplains and wetlands. This factor takes into account whether reasonable provisions have been made to collect and divert surface runoff in order to reduce the likelihood of damage to adjoining properties. The selection and design of measures will depend on

varying local conditions such as soils, topography, physical features and the extent of impervious surface. Refer to Champaign County Zoning Ordinance for the range of permitted uses in the proposed zoning district.

2. Impact on historic, cultural, unique or important vegetation areas, or other areas of ecological importance.

Negative impact	6
Some impact	4
No impact	0

Situations may arise when a land use change will adversely affect unique historical, cultural or vegetation areas. These include unusual or locally important wildlife or vegetation, and areas of historic significance such as (1) a site or structure where an important historic event occurred (landmark), (2) a building or an area or district which is either architecturally unique or significant in local or broader traditions, and, (3) an area or site which may yield significant archeologic data or evidence. Refer to Champaign County Zoning Ordinance for the range of uses in the proposed zoning district.

3. Impact on recreation and open spaces.

Negative impact	6
Some impact	4
No impact	0

Limiting development in environmentally sensitive areas may provide opportunity for recreational open space and protect natural areas. Also, a land use change may result in conflicting uses and prevent or reduce public access for recreational purposes. This factor includes the physical space, services and facilities. Refer to the Champaign County Zoning Ordinance for the range of uses in the proposed zoning district.

4. Impact on Water Quality

Severe	10
Moderate to Severe	8
Moderate	6
Slight to Moderate	4
Slight	0

This factor reflects impacts on the quality of surface water and ground water. Surface water refers to streams or surface depressions such as lakes and reservoirs (natural or man-made). Groundwater begins as precipitation seeps downward into the ground through the soils, some serving the important needs of vegetation as soil moisture and some percolating deeper into the ground becoming our groundwater resources. Residential, commercial and industrial developments will have varying degrees of impact on surface and ground water quality. Design features may compensate for impacts on water quality. Refer to Champaign County Zoning Ordinance for the range of uses in the proposed zoning district.

5. Impact on Water Supply

Severe	10
Moderate to Severe	8
Moderate	6
Slight to Moderate	4
Slight	0

Although water use as a domestic supply may have first priority, it is only one of the multiple uses. Much water must be available for agricultural crops and animals, commercial and industrial development, waste treatment, fire protection, recreation, and fish and wildlife. This factor also reflects impacts on both ground and surface water. However, most of the water use for residential, commercial and industrial developments in the County comes from ground water. While Champaign County is blessed with abundant ground water resources, these water resources are finite and are not distributed uniformly. The term water supply or water use implies water withdrawals. The principal requisite for withdrawal use is that water must be taken from a groundwater or surface water source and conveyed to the place of use. Residential, commercial and industrial developments will have varying degrees of water withdrawals. Refer to the Champaign County Zoning Ordinance for the range of permitted uses in the proposed zoning district. Also refer to Water Use Act of 1983 when withdrawals can reasonably be expected to occur in excess of 100,000 gallons on any day from any new point at which underground water is diverted from its natural state.

IV. Instructions for Calculating the Total Land Evaluation and Site Assessment Value for a Site.

The following are instructions to determine the total Land Evaluation and Site Assessment value for the parcel in question. The Land Evaluation part and Site Assessment part each require separate calculations.

A. Land Evaluation Value

The Land Evaluation value will be provided by the Champaign Soil and Water Conservation District office to the Champaign County Zoning office when a petition is filed for a map amendment (rezoning). Otherwise, the Land Evaluation value can be calculated by working through the following steps:

1. Outline tract of land to be rezoned on a soils map. Soil maps can be found in the Soil Survey of Champaign County and are also available at the Champaign County Soil and Water Conservation District office.
2. Acreage of individual soil types within area of concern can be obtained by using a planimeter or other appropriate method or can be obtained from the Champaign County Soil and Water Conservation District.
3. From Column 9 of Table 1, select the appropriate Agricultural Value Group for each soil type and list them in a column to the right of the soil type.
4. From Column 7 of Table 2, select the relative value for each corresponding agricultural group.
5. Multiply the number of acres by the relative value for each soil type.
6. Total the product (acre x relative value) of each soil type and divide this number by the total number of acres in area of concern. This figure is the value of the Land Evaluation part of the LESA system. The maximum number of points possible for any given parcel is 100.
7. Example: an 80 acre tract of land has three soil types: 154A - Flanagan, 152 - Drummer and 56B - Dana. Based on the following calculations, the Value for the Land Evaluation part would be 93.

Soils	AG Group[1]	Relative Value[2]	Acres[3]	Product (Relative Value X Acres)
154A	1	100	20	2,000
152	2	98	20	1,960
56B	3	87	40	3,480
			80	7,440

[1]Agricultural Group - Obtained from Table 1.
[2]Relative Value - Obtained from Table 2.
[3]Acres - use a planimeter or can be obtained from the Champaign County Soil and Water Conservation District.

Land Evaluation = Total of Product ÷ Total number of acres in parcel.
= 7440 ÷ 80
= 93

B. Site Assessment Value

To establish the Site Assessment point value of the given parcel, work through the following steps:

1. Based upon local land use information, site inspection, and other pertinent data, assess the site for each factor shown in Section III.

2. A point value for each factor is determined by analyzing each Site Assessment factor and choosing the category that best suits the property in question.

3. Add all factor values to arrive at a Site Assessment subtotal. The maximum number of possible points for any given parcel is 200.

C. Assessing a Site for its Agricultural Viability

Once the value for the Land Evaluation part and Site Assessment part are obtained, add both values for the total points for each site.

The total maximum points possible for any site are 300. The Land Evaluation may be assigned a maximum of 100 points, and the Site Assessment may be assigned a maximum of 200 points.

The following breakdown should be used in evaluating a rezoning from AG-1, Agriculture , AG-2, Agriculture, and/or CR, Conservation-Recreation to another zoning district for protection of Agriculture:

220 - 300	-	Very High Rating for Protection
200 - 219	-	High Rating for Protection
180 - 199	-	Moderate Rating for Protection
179 or below	-	Low Rating for Protection

The higher the total points accrued for a site, the more agriculturally viable the given site will be. When considering a number of sites for a non-agricultural use, selection of the site with the lowest point score will usually result in protection of the best agricultural land in the most viable locations.

V. Glossary

AGRICULTURE: The growing, harvesting and storing of crops including legumes, hay, grain, fruit and truck or vegetable crops, floriculture, horticulture, mushroom growing, orchards, forestry and the keeping, raising and feeding of livestock or poultry, including dairying, poultry, swine, sheep, beef cattle, pony and horse production, fur farms, and fish and wildlife farms; farm buildings used for growing, harvesting and preparing crop products for market, or for use on the farm; roadside stands, farm buildings for storing and protecting farm machinery and equipment from the elements, for housing livestock or poultry and for preparing livestock or poultry products for market; farm dwellings occupied by farm owners, operators, tenants or seasonal or year-round hired farm workers. It is intended by this definition to include within the definition of agriculture all types of agricultural operations, but to exclude therefrom industrial operations such as a grain elevator, canning or slaughterhouse, wherein agricultural products produced primarily by others are stored or processed. Source: Champaign County Zoning Ordinance.

AG-1, AGRICULTURE: The AG-1, Agriculture District is intended to protect the areas of the County where soil and topographic conditions are best adapted to the pursuit of agricultural uses and to prevent the admixture of urban and rural uses which would contribute to the premature termination of agricultural pursuits. Source: Champaign County Zoning Ordinance.

AG-2, AGRICULTURE: The AG-2, Agriculture District is intended to prevent scattered indiscriminate urban development and to preserve the agricultural nature within areas which are predominantly vacant and which presently do not demonstrate any significant potential for development. This district is intended generally for application to areas within one and one-half (1½) miles of existing communities in the County. Source: Champaign County Zoning Ordinance.

AGRICULTURAL LAND: Land in farms regularly used for agricultural production. The term includes all land devoted to crop or livestock enterprises, for example, the farmstead lands, drainage ditches, water supply, cropland, pasture land, or timberland (whether or not in current production), and grazing land of every kind in farms.

CAPABILITY CLASS: Capability classes are broad groupings of soil mapping units that have similar potentials and/or limitations and hazards. These classes are useful as a means of introducing the map users to more detailed information on a soils map. The classes show the location, amount and general suitability of the soils for agricultural use.

The national capability classification shows soils groupings in eight classes:

CLASS I - soils have few limitations that restrict their use.
CLASS II - soils have some limitations that reduce the choice of plants or require moderate conservation practices.
CLASS III - soils have severe limitations that reduce the choice of plants or require special conservation practices, or both.
CLASS IV - soils have very severe limitations that reduce the choice of plants, require very careful management, or both.
CLASS V - soils have little or no erosion hazard but have other limitations impractical to remove that limit their use largely to pasture, range, woodland, or wildlife food and cover.
CLASS VI - soils have severe limitations that make them generally unsuited to cultivation and limit their use largely to pasture, range, woodland, or wildlife food and cover.

CLASS VII - soils have very severe limitations that make them unsuited to cultivation and that restrict their use largely to grazing, woodland, or wildlife.

CLASS VIII - soils and landforms have limitations that preclude their use for commercial plant production and restrict their use to recreation, wildlife, or water supply, or to aesthetic purposes.

The soils in Champaign County fall into capability classes I thru IV, VI, and VII.

CAPABILITY SUBCLASS: Subclasses are groups of capability units within classes that have the same kinds of dominant limitations for agricultural use as a result of soil and climate. The subclass provides information about both the degree and kind of limitation. There are two subclasses that are used with the soils in Champaign County:

Subclass (e) erosion - applies to soils where the susceptibility to erosion is the dominant problem or hazard in their use. Erosion susceptibility and past erosion damage are the major soil factors for placing soils in this subclass.

Subclass (w) excess water - applies to soils where excess water is the dominant hazard or limitation in their use. Poor soil drainage, wetness, high water table, and overflow are the criteria for determining which soils belong in this subclass.

Capability CLASS I has no subclass.

CAPITAL IMPROVEMENTS PROGRAM: A proposed timetable or schedule of all future capital improvements to be carried out during a specific period and listed in order of priority, together with cost estimates and the anticipated means of financing each project.

COMPREHENSIVE PLAN: A plan intended to guide the growth and development of a community or region and one that includes analysis, recommendations and proposals for the community's land use, population, economy, housing transportation, and community facilities.

CONSERVATION: The preservation, protection, and restoration of natural resources and ecosystems.

CR, CONSERVATION-RECREATION: The CR, Conservation-Recreation District is intended to protect the public health by restricting development in areas subject to frequent or periodic floods and to conserve the natural and scenic areas generally along the major stream networks of the County. Source: Champaign County Zoning Ordinance.

DISTRICT: A section of the County/City/Village in which zoning regulations and standards are uniform. Source: Champaign County Zoning Ordinance. See Champaign County Zoning Ordinance for General Intent of all Zoning Districts.

FARMLAND OF STATEWIDE IMPORTANCE: This land is of statewide importance for the production of food, feed, fiber, forage and oilseed crops. Generally, additional farmlands of statewide importance include those that are nearly prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some may produce as high a yield as prime farmlands if conditions are favorable.

INFRASTRUCTURE: The basic installations and facilities on which the continuance and growth of a community depends such as: roads, schools, utilities, transportation and communication systems.

LOT: A designated parcel, tract or area of land established by plat, subdivision or as otherwise permitted by law, to be used, developed or built upon as a unit. SOURCE: Champaign County Zoning Ordinance.

PRIME FARMLAND: Prime farmland is land that is best suited to food, feed, forage, fiber and oilseed crops. It may be cropland, pasture, woodland, or other land, but it is not urban and built up land or water areas. It either is used for food or fiber or is available for those uses. The soil qualities, growing season, and moisture supply are those needed for a well managed soil economically to produce a sustained high yield of crops. Prime farmland produces the highest yields with minimum inputs of energy and economic resources, and farming it results in the least damage to the environment.

Prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation. The temperature and growing season are favorable. The level of acidity or alkalinity is acceptable. Prime farmland has few or no rocks and is permeable to water and air. It is not excessively erodible or saturated with water for long periods and is not frequently flooded during the growing season. The slope ranges mainly from 0 to 5 percent.

PRODUCTIVITY INDEX: Productivity indexes for grain crops express the estimated yields of the major grain crops as a percentage of the average yields obtained under basic management. Soil productivity is strongly influenced by the capacity of a soil to supply the nutrient and soil-stored water needs of a growing crop in a given climate. "Source:' Soil Productivity in Illinois, Circular 1156, University of Illinois, College of Agriculture, Cooperative Extension Office.

VI. APPENDIX

DETERMINING RELATIVE VALUE
CHAMPAIGN COUNTY

1	2	3	4	5
AGRICULTURAL GROUP	ADJUSTED PRODUCTIVITY INDEX FOR THE GROUP DIVIDED BY THE HIGHEST ADJUSTED PRODUCTIVITY INDEX	PRODUCT OF RELATIVE PRODUCTIVITY INDEX	TIMES 100	RELATIVE VALUE
1	158/158	1.00	100	100
2	155/158	0.98	100	98
3	138/158	0.87	100	87
4	134/158	0.85	100	85
5	125/158	0.79	100	79
6	110/158	0.70	100	70
7	103/158	0.65	100	65
8	65/158	0.41	100	41
9	0/158	0.00	100	0

WORKSHEETS FOR DETERMINING RELATIVE VALUES

GROUP I

Map Symbol	Productivity Index	X	Acres	=	Product
149A	150		16,183		2,427,450
154A	160		99,607		15,937,120
198A	155		17,048		2,642,440
		Total:	132,838		21,007,010

Total product ÷ total acres = weighted average.
21,007,010 ÷ 132,838 = 158.14 (Round to 158)

Weighted average ÷ highest weighted average of all groups (158) X 100 = Relative Value
158 ÷ 158 X 100 = 100

GROUP II

Map Symbol	Productivity Index	X	Acres	=	Product
152	155		248,094		38,454,570

38,454,570 ÷ 248,094 = 155
155 ÷ 158 X 100 = 98.1 (Round to 98)

GROUP III

Map Symbol	Productivity Index	X	Acres	=	Product
568	135		23,839		3,218,265
102A	130		1,476		191,880
148B	135		8,881		1,198,935
171B	145		16,069		2,330,005
199B	140		5,330		746,200
219	135		1,426		192,510
234A	140		1,797		251,580
398A	120		3,213		385,560
481A	140		22,269		3,117,660
490A	135		1,319		178,065
		Total:	85,619		11,810,660

11,810,660 ÷ 85,619 = 137.94 (Round to 138)
138 ÷ 158 X 100 = 87.3 (Round to 87)

GROUP IV

Map Symbol	Productivity Index	X	Acres	=	Product
67	135		2,252		304,020
73	130		1,001		130,130
125	135		2,703		364,905
153	130		6,368		827,840
232	135		28,281		3,817,935
236A	130		2,760		358,800
242A	130		1,545		200,850
		Total:	44,910		6,004,480

6,004,480 ÷ 44,910 = 133.7 (Round to 134)
134 ÷ 158 X 100 = 84.81 (Round to 84)

GROUP V

Map Symbol	Productivity Index	X	Acres	=	Product
1348	120		1,244		149,280
146B	130		31,039		4,035,070
2218	120		7,708		924,960
22382	120		11,142		1,337,040
2338	120		2,735		328,200
235	125		1,489		186,125
2438	120		1,842		221,040
2918	120		5,299		635,880
330	125		3,678		459,750
4408	125		2,410		301,250
5708	120		778		93,360
		Total:	69,364		8,671,955

8,671,955 ÷ 69,364 = 125.02 (Round to 125)
125 ÷ 158 X 100 = 79.11 (Round to 79)

GROUP VI

Map Symbol	Productivity Index	X	Acres	=	Product
23A	105		1,005		105,525
23B	105		624		65,520
27B	110		267		29,370
91B	115		3,448		396,520
131B	100		212		21,200
150B	110		268		29,480
194B	105		738		77,490
206	105		2,736		287,280
302	110		2,687		295,570
387B	110		1,174		129,140
402	110		10,643		1,170,730
448B	110		297		32,670
		Total:	24,099		2,640,495

2,640,495 ÷ 24,099 = 109.56 (Round to 110)
110 ÷ 158 X 100 = 69.62 (Round to 70)

GROUP VII

Map Symbol	Productivity Index	X	Acres	=	Product
27C2	95		755		71,725
27D2	80		429		34,320
194C2	100		890		89,000
221C2	105		5,821		611,205
221D3	90 estimated		330		29,700
223C3	105		3,044		319,620
322C2	105		1,867		196,035
387C3	90		278		25,020
440C2	120		778		93,360
570C2	105		1,054		110,670
570D2	90		275		24,750
637	125		44		5,500
		Total:	15,565		1,610,905

1,610,905 ÷ 15,565 = 103.495 (Round to 103)
103 ÷ 158 X 100 = 65.2 (Round to 65)

GROUP VIII

Map Symbol	Productivity Index	X	Acres	=	Product
27E2	60 estimated		406		24,360
194D2	90		251		22,590
241D3	50 estimated		288		14,400
		Total:	945		61,350

61,350 ÷ 945 = 64.92 (Round to 65)
65 ÷ 158 X 100 = 41.14 (Round to 41)

GROUP IX

Map Symbols for Group IX are urban built-up areas or water.

Productivity indices and product would be zero.

Relative Value is 0.